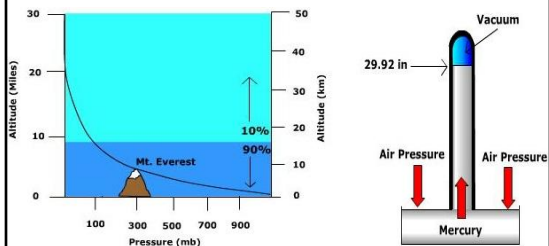


Unit 7 - Chapter 19.1-19.3

# Understanding Air Pressure

## Air Pressure

- **Air Pressure** – **Force** exerted by **weight** of air above in **ALL** directions



## Air Pressure on Wind

- **Wind** – Horizontal **differences** in **air pressure** due to **UNEQUAL** heating of Earth



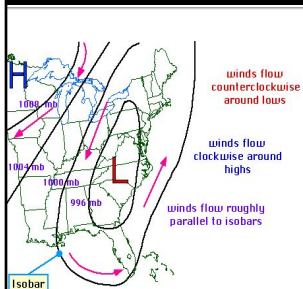
- Flows from **high** to **low pressure** areas
- Greater air pressure **difference** = **greater** wind **speed**

## ISOBARS

- **Isobars** – Lines connecting **EQUAL** air pressure creating a **pressure gradient**



## ISOBARS



- **Closely** spaced = **Steep** (p.g.) & **high** winds
- **Widely** spaced = **Weak** (p.g.) & **light** winds

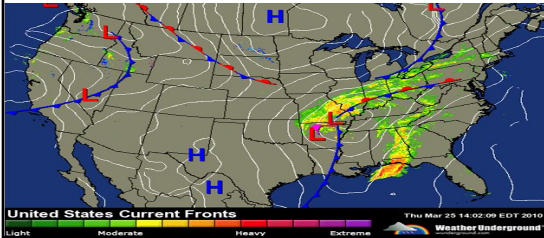
## Pressure Centers

- **Low Pressure Centers** = **Cloudy** and **precipitation** → **< 1010 millibars (mb)**



# Pressure Centers

- **High Pressure Centers** = **Clear** skies and **fair** weather → > 1010 millibars (mb)



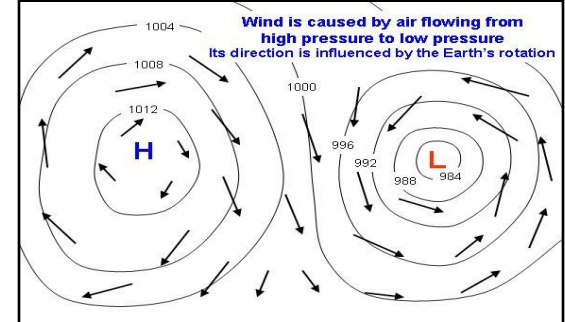
# Cyclones & Anticyclones

NORTHERN HEMI

SOUTHERN HEMI

- **LOW Pressure System:**
  - Winds blow **inward** and **counterclockwise**
- **HIGH Pressure System:**
  - Winds blow **outward** and **clockwise**

# Pressure Centers



# Cyclones & Anticyclones

