

Air Masses & Weather Fronts

Unit 7 – Ch 20.1 - 20.2



Air Masses

- **Definition:** Air with similar temps and moisture at any altitude
- **Source Region** – Area where air masses originally FORM

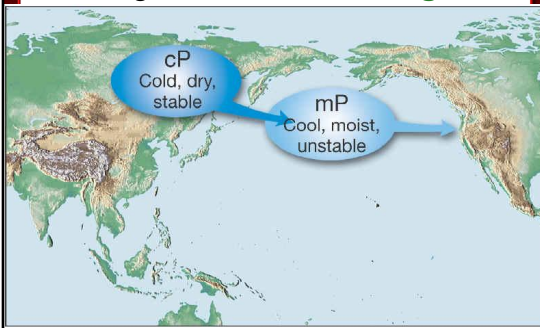


Classifying Air Masses

- **Continental (c)** - Forms over **LAND** and generally dry
- **Maritime (m)** – Forms over **WATER** and generally moist

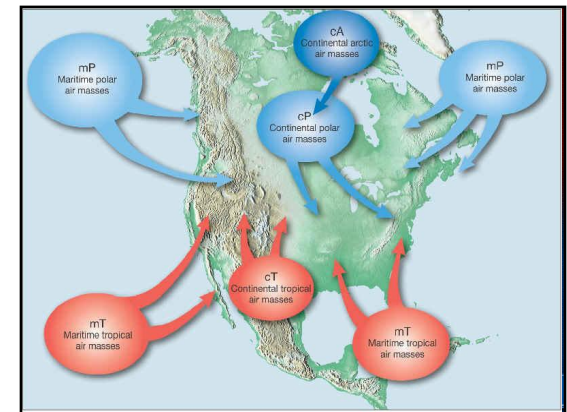


- Moving OUT of source region...



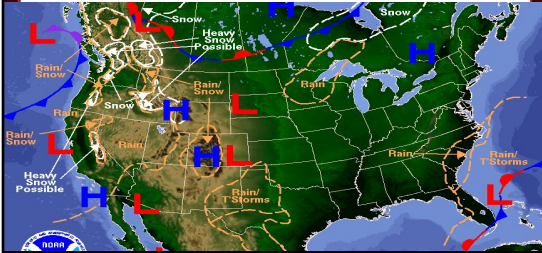
Classifying Air Masses

- **Continental Polar (cP)** → cold ; dry
- **Maritime Polar (mP)** → cold ; moist
- **Continental Tropical (cT)** → warm ; dry
- **Maritime Tropical (mT)** → warm ; moist



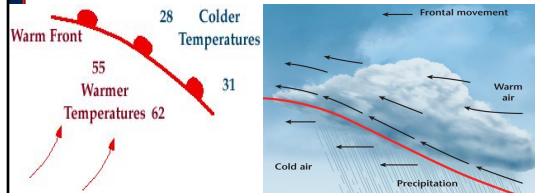
Weather Fronts

- **Definition:** Narrow region **separating** two **air masses** that have **collided**



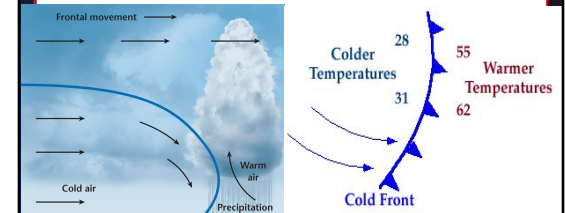
Warm Front

- Advancing **warm** air **replaces** cold air
- **Light cloudiness** and **precipitation**, but clear skies **BEHIND** front



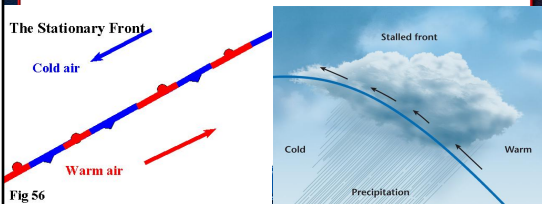
Cold Front

- Dense **cold** air **replaces** warm air forcing it **up**
- **Winds, showers, and t-storms** over **short** period of time



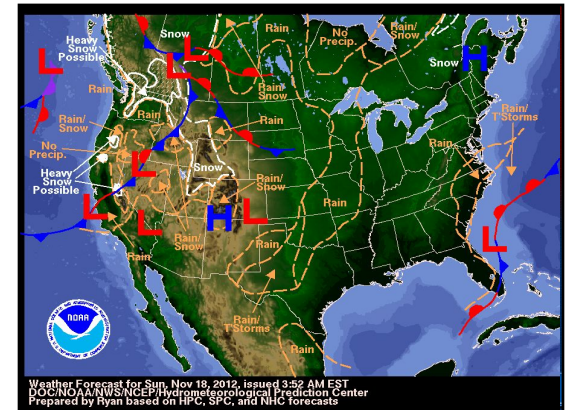
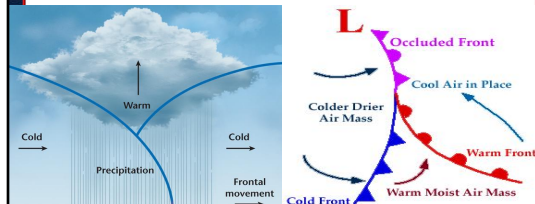
Stationary Front

- Air masses **collide** and **neither** advances
- **Several days** with **clouds & rain**



Occluded Front

- **Cold front overtakes** warm front, wedging **warm** air **upward**
- **Precipitation** on **BOTH** sides of front



Weather Forecast for Sun, Nov 18, 2012, issued 3:52 AM EST
 DOC/NOAA/NWS/NCEP/Hydro-meteorological Prediction Center
 Prepared by Ryan based on HPC, SFC, and NHC forecasts

