



C. Air Masses are large regions of air with fairly uniform characteristics like temperature, humidity, winds, and air pressure.

- Air masses are identified by the Temperature and the moisture content:
 - Polar - over Cold areas Maritime over water, Wet
 - Tropical - over warm areas / Continental - over land, dry
 - Arctic - over very frigid areas
 - MP = moist and cold CP = dry and cold
 - CT = dry and warm CA = dry and frigid MT = moist and warm
- The boundaries between air masses are called frontal boundaries (fronts).
- Are masses are moved by Planetary winds. global

D. Weather Fronts

- There are usually several different air masses moving across the United States.
- When different air masses meet, very little Mixing of air takes place and a sharp transition zone (weather front) forms between them.
- When the different air masses meet there is a rapid change and the weather is unsettled and rainy.
- There are four main types of frontal boundaries:

1. Cold Fronts occur when cold air moves in on warmer air.
 The cold air is more dense and stays near the ground as it pushes up the warmer air in its way.

2. Warm Fronts occur when a warm air mass runs into a cold air mass.
 The warmer air is forced up and it cools. It can no longer hold as much water vapor and heavy precipitation occurs.

3. Stationary occur along the boundary between a warm air mass and a cold air mass when neither move.
 The warm air will eventually move on top of the cold and there will be precipitation for days until a new front moves in.

4. Occluded front occur when a cold air mass runs into another cold air mass (a warm air mass might be stuck between them).
 Since cold air masses are more dense they travel faster. Large scale precipitation occur.

cold on bottom
warm on top