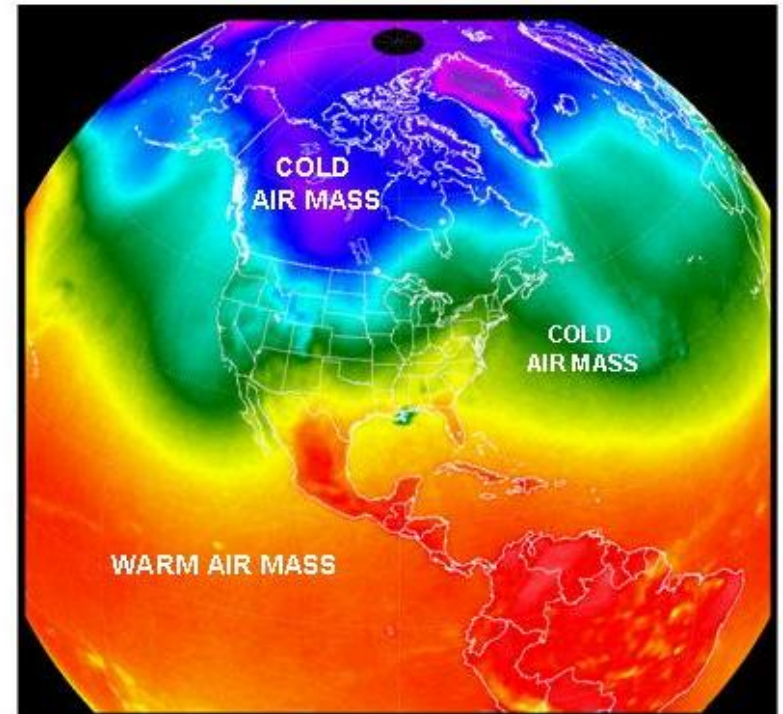


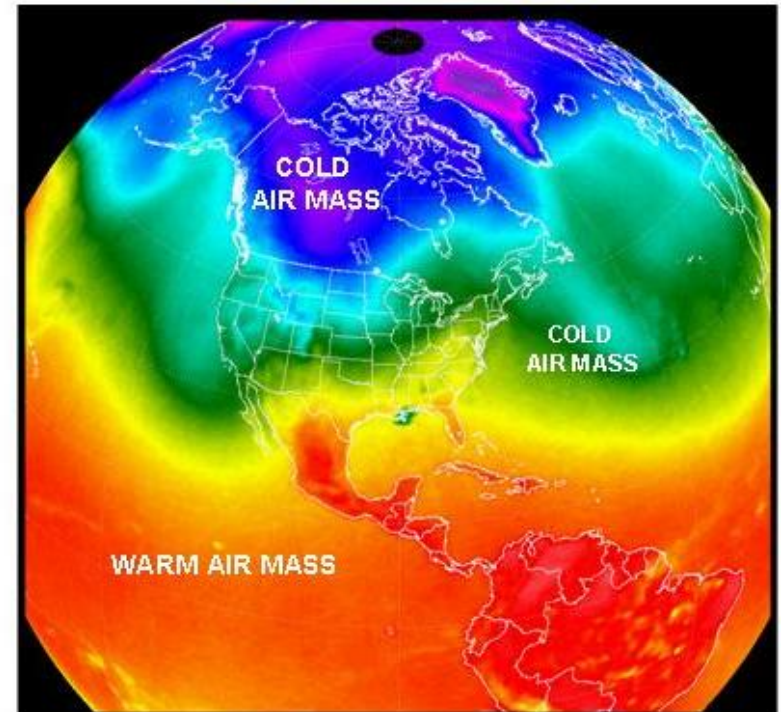
What is an Air Mass?

- Air that stays in one place for days, weeks, or longer becomes an **air mass**.
- An **Air mass** is a huge section of the lower troposphere that has the same kind of weather.



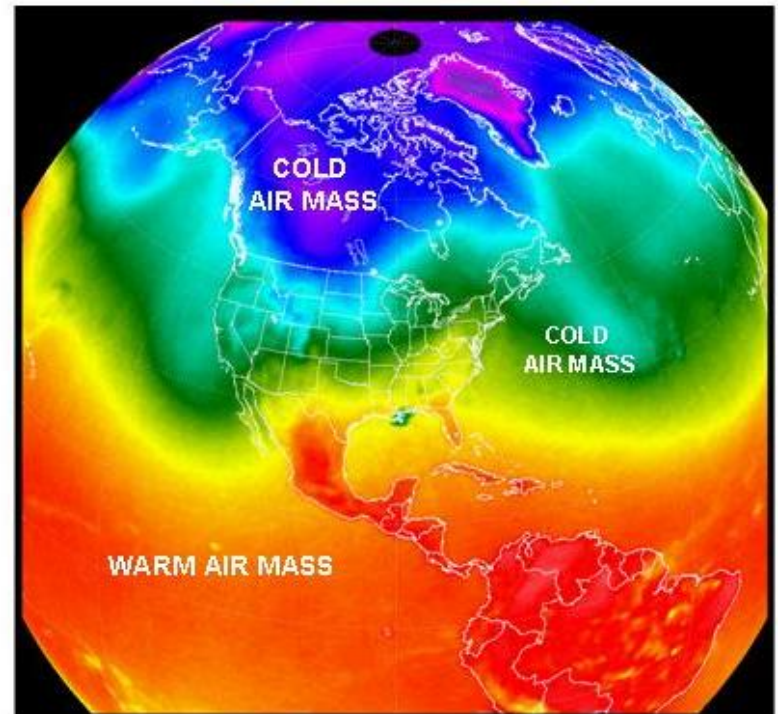
How big is an Air Mass?

- 2 to 3 air masses can cover the entire United States.
 - *Ex. An air mass over the gulf of Mexico will become warm and humid.*



Temperature of Air Masses

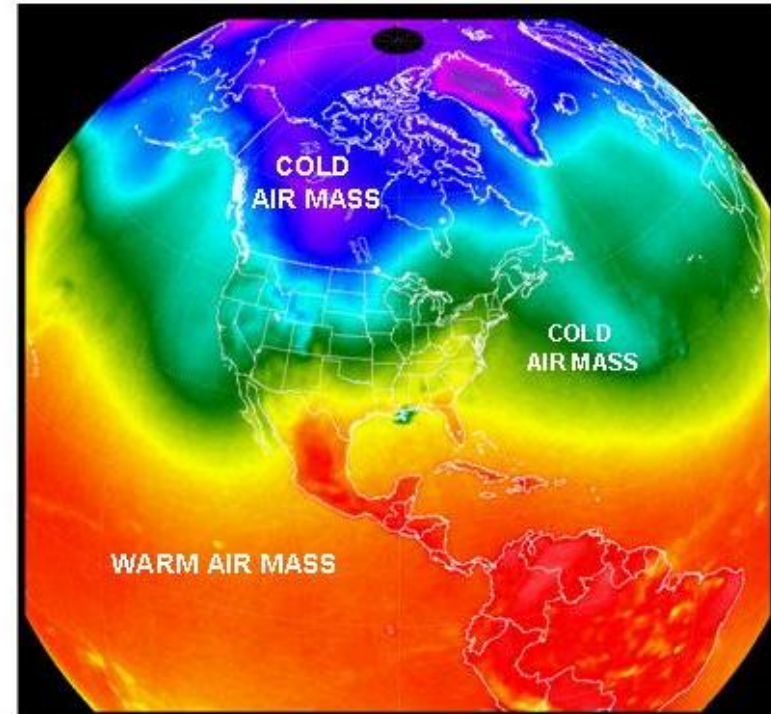
- Temperature of an air mass depends on where it comes from:
 - **Tropics = Warm**
 - **Polar = Cold**





Moisture of Air Masses

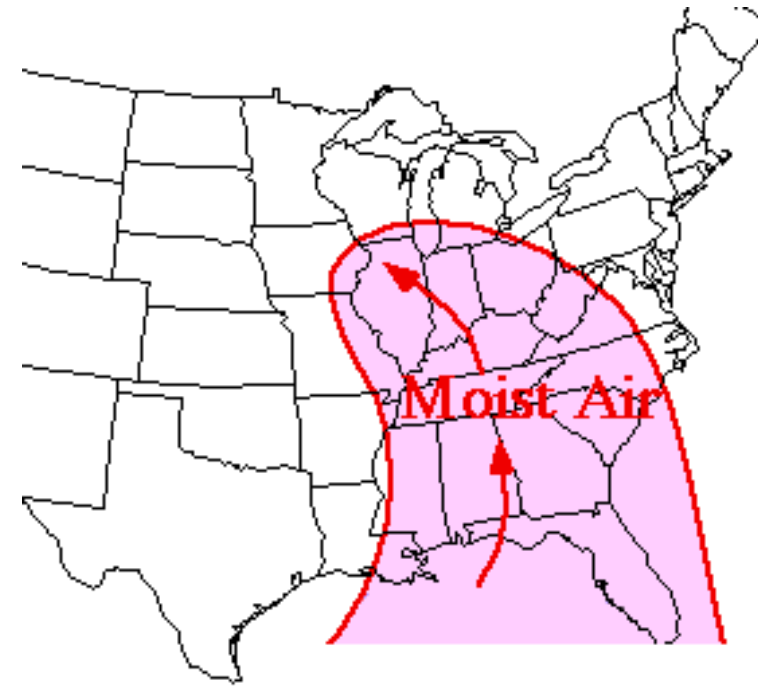
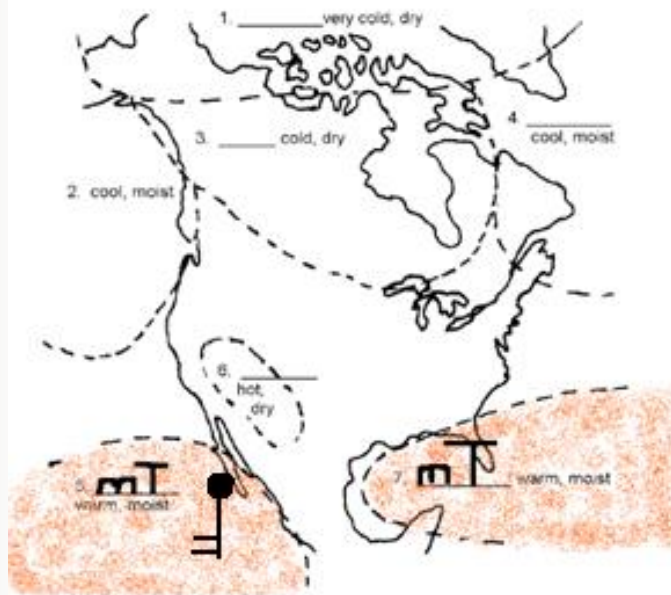
- The humidity of an air mass depends on if it came from:
 - **Sea (maritime) = moist**
 - **Land (continental) = Dry**
- Air masses are named for their source regions, or places of origin.



Air Masses

■ Maritime Tropical (mT)

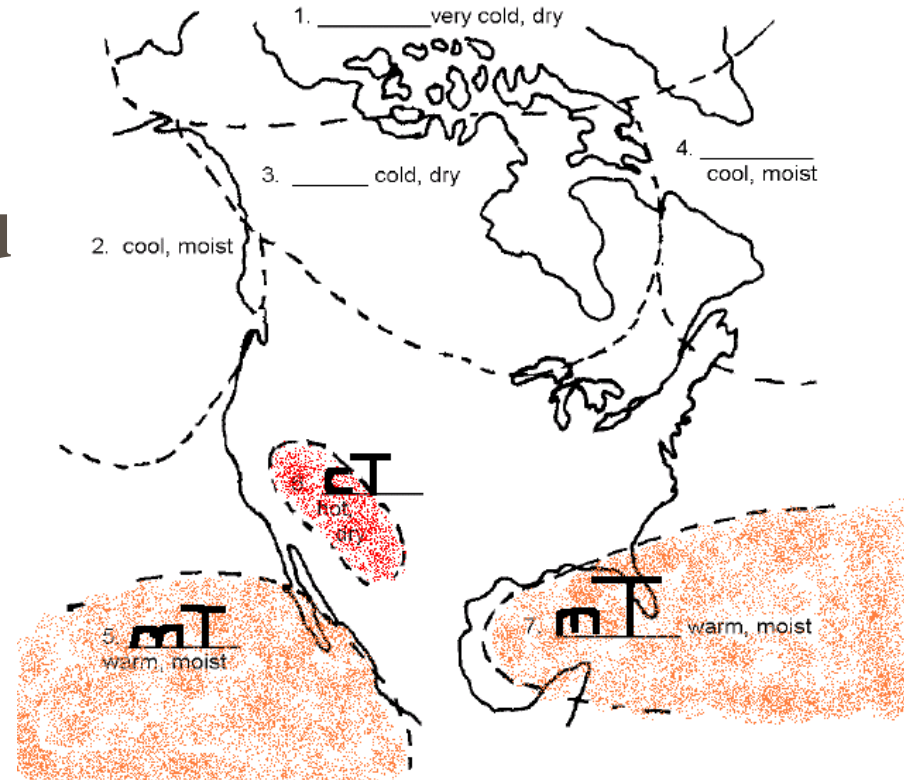
- Warm and Humid
- (origin or forms) tropical oceans
- South Winds



Air Masses

■ Continental Tropical (cT)

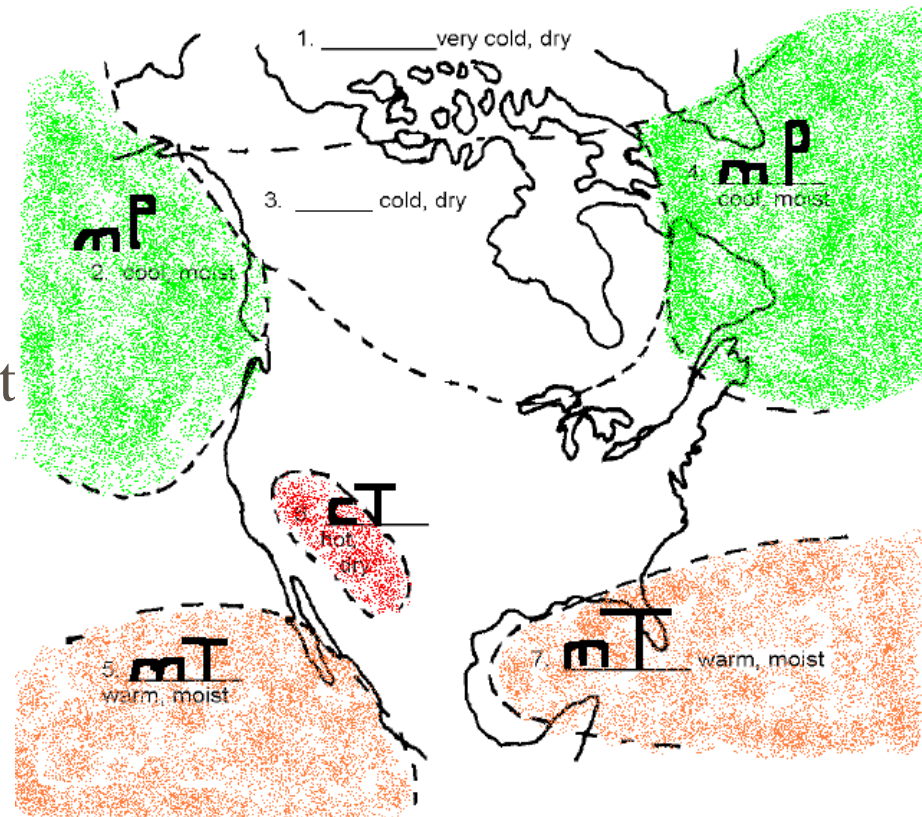
- Hot & Dry air
- (origin or forms) – tropical land
- South Winds



Air Masses

Maritime Polar (mP)

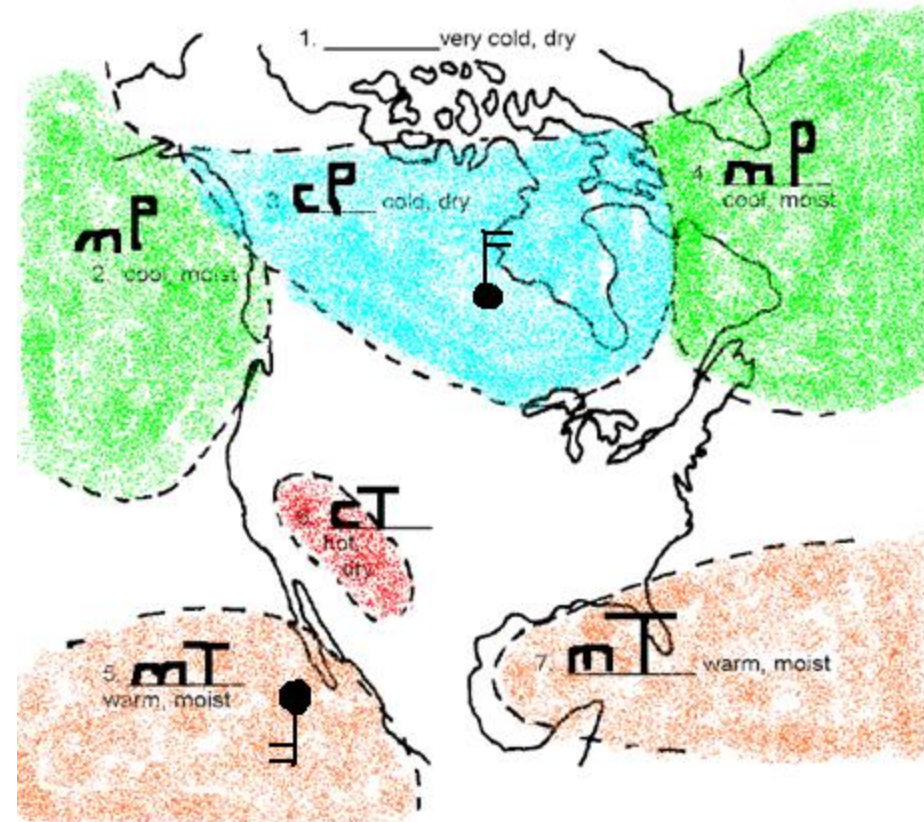
- Cool & humid
- (origin or forms) – cool ocean waters
- Usually only moves over east & west coast areas.



Air Masses

Continental Polar (cP)

- Cold and Dry
- (origin or forms) Polar lands
- North Winds



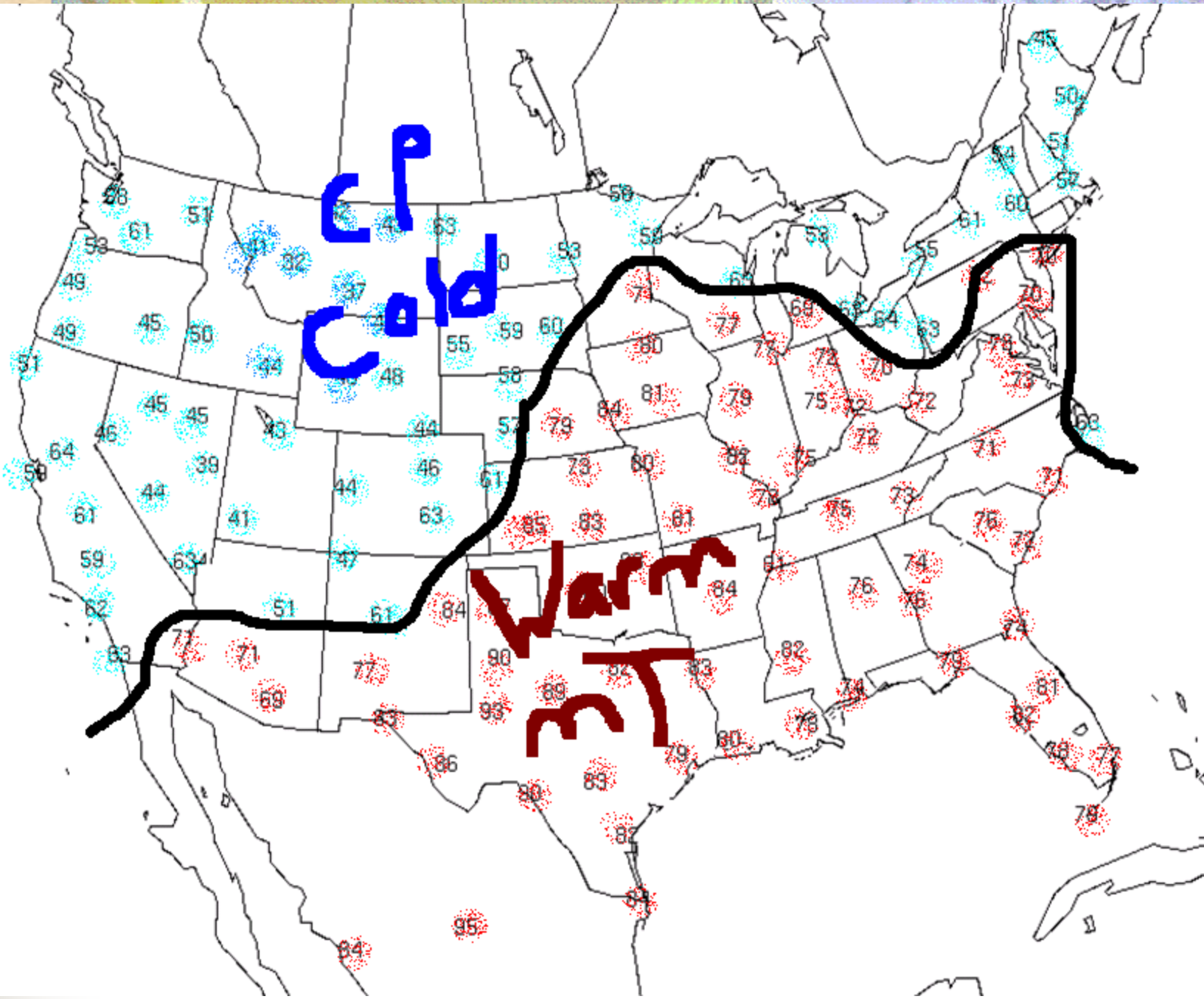
Movement of Air Masses

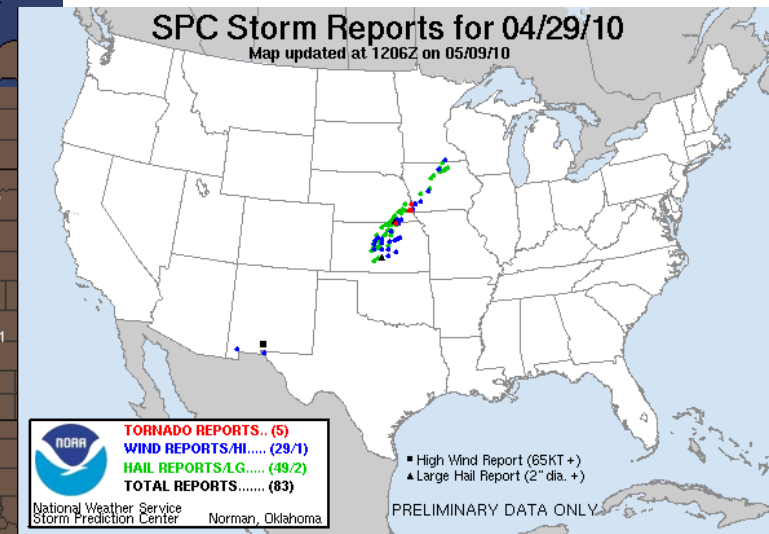
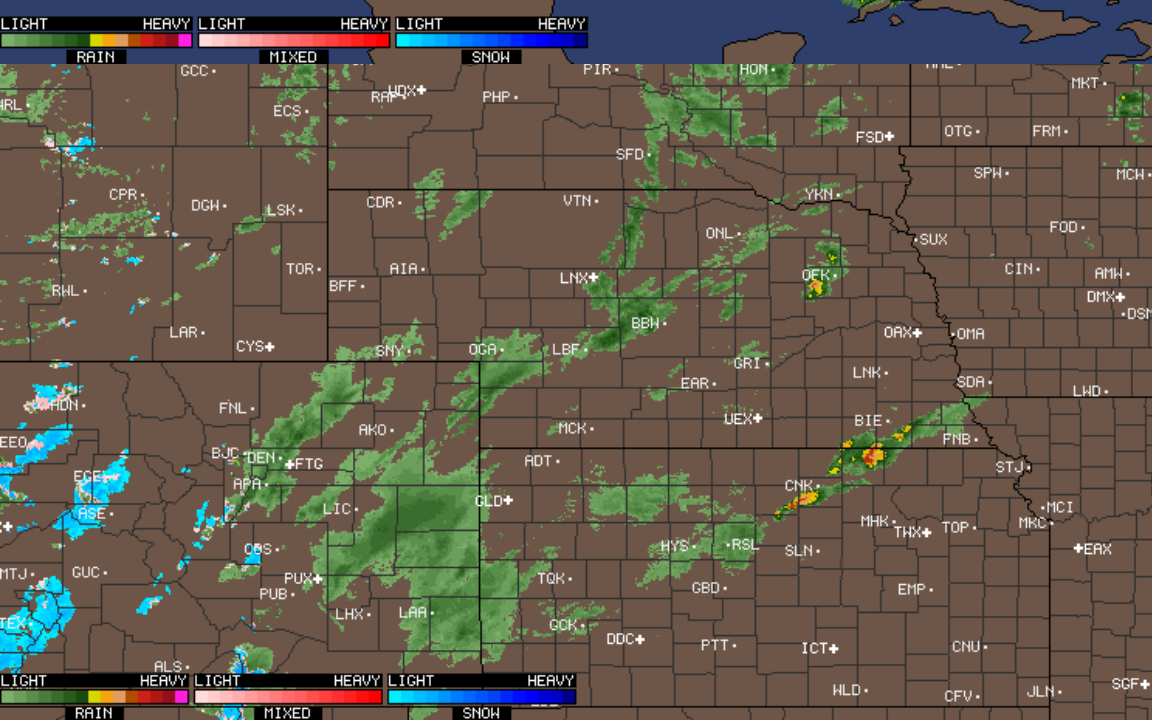
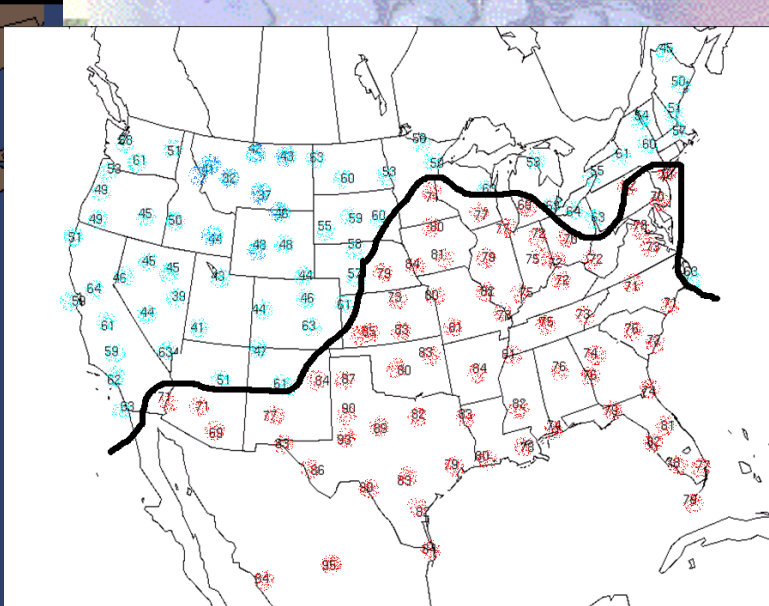
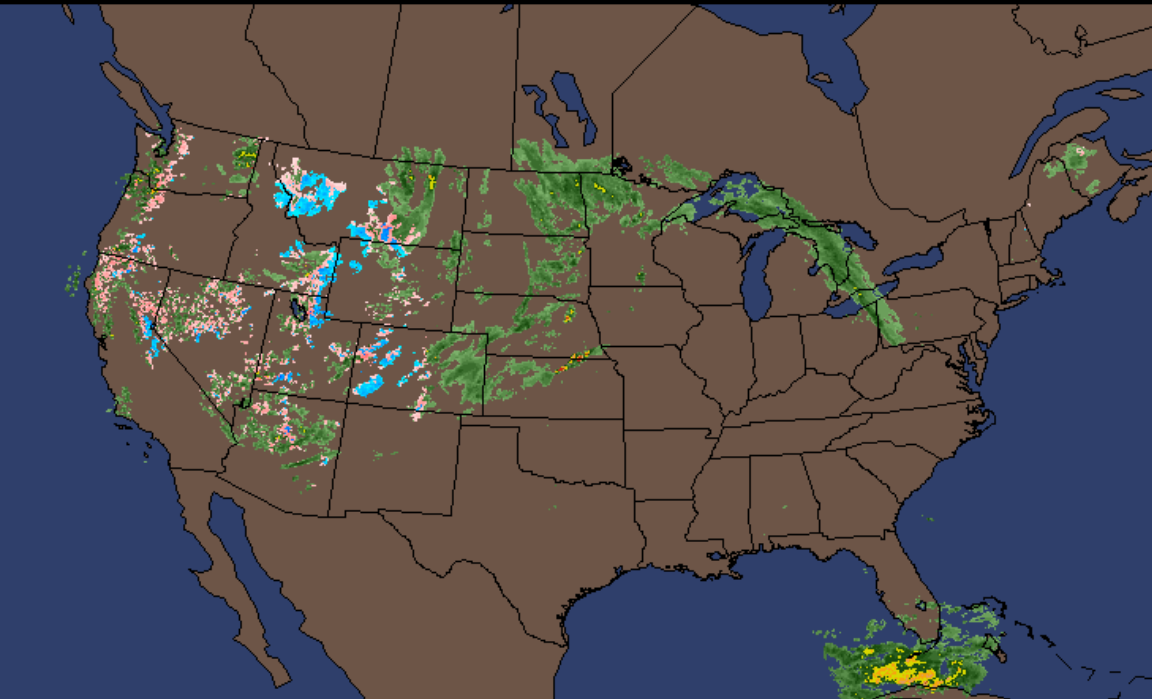
- Air masses change as they move away from their source areas.
 - *Ex. Polar air masses get warmer as they move southward.*
- Faster moving air masses change less and bring more extreme weather changes.



Cold

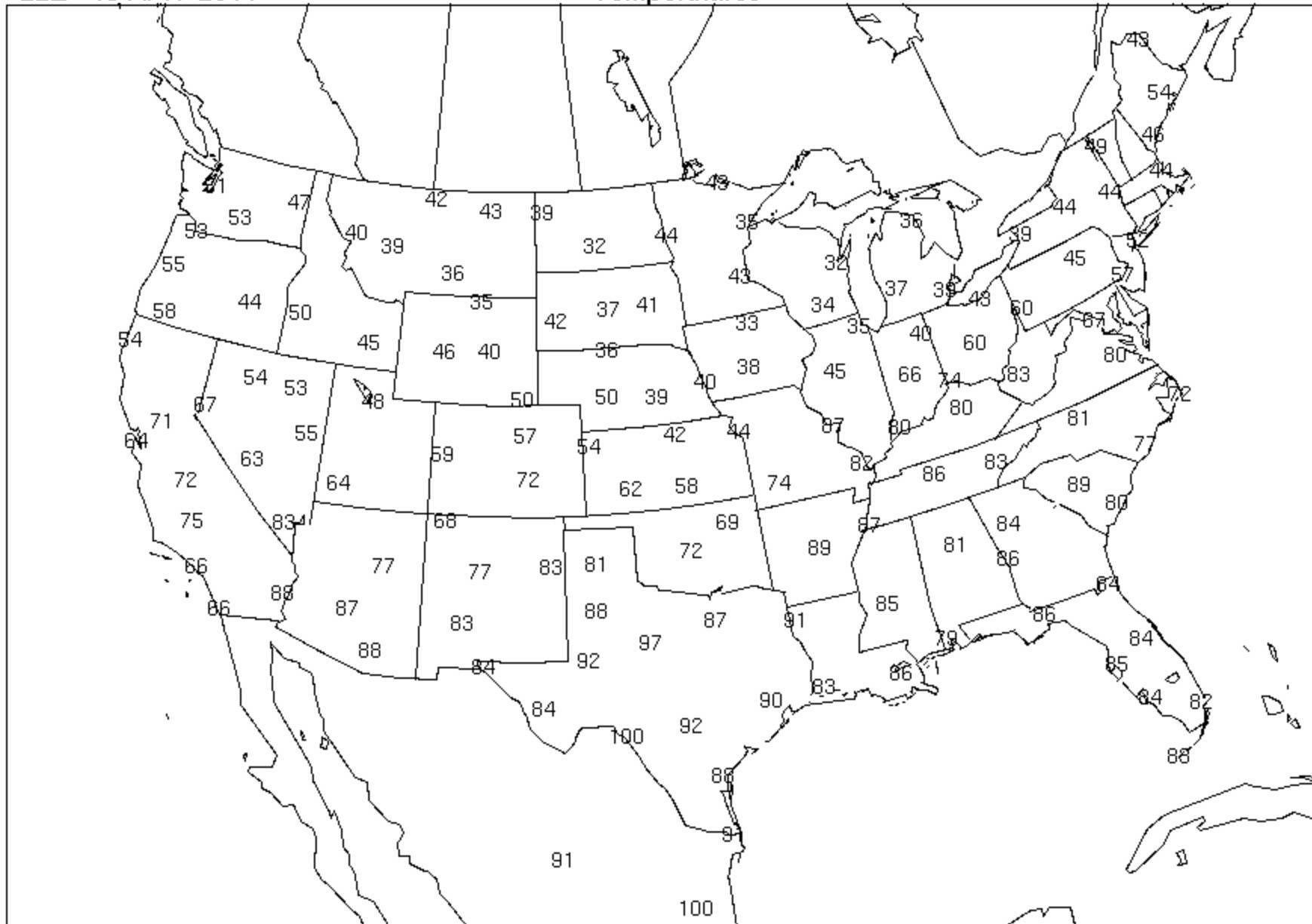
Warm





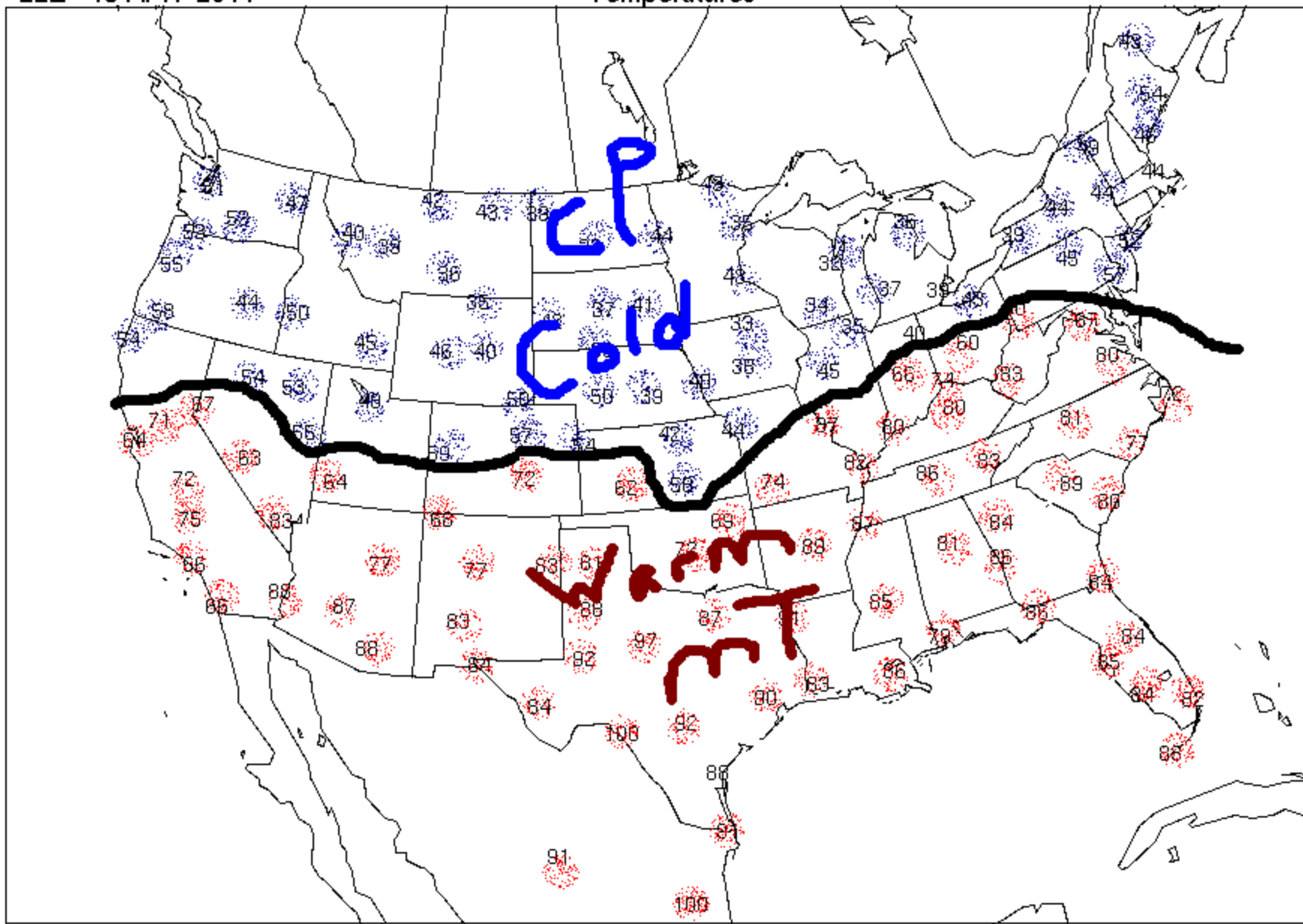
22Z 19 APR 2011

Temperatures



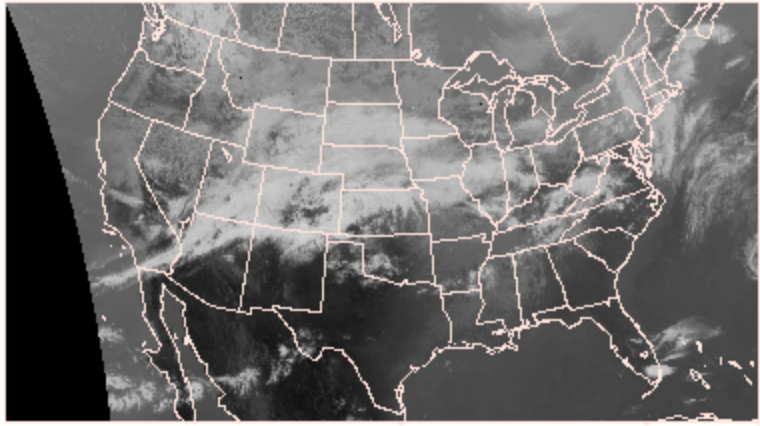
22Z 19 APR 2011

Temperatures

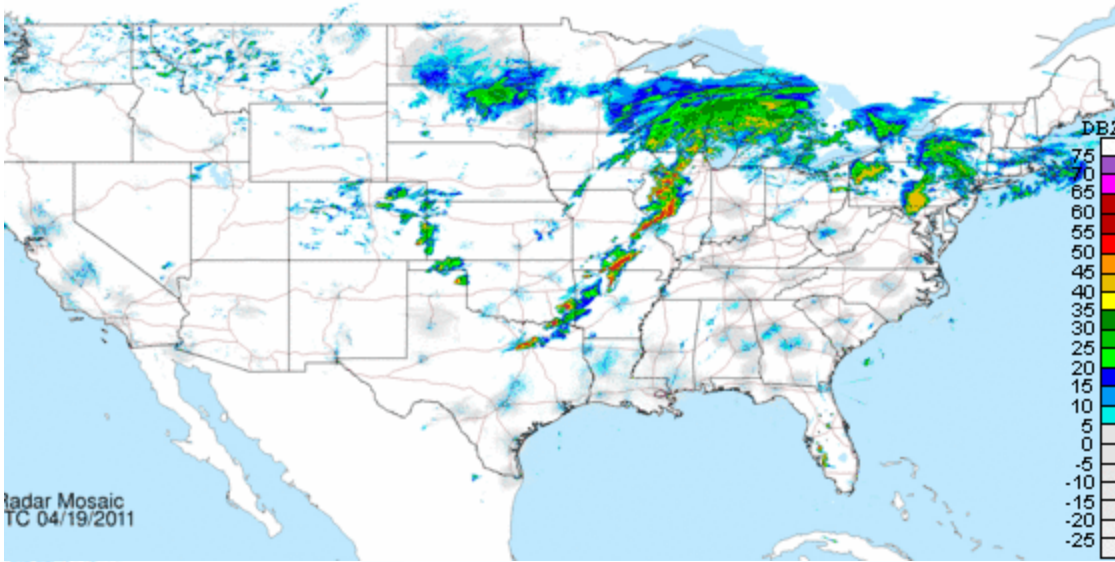


Infrared Image

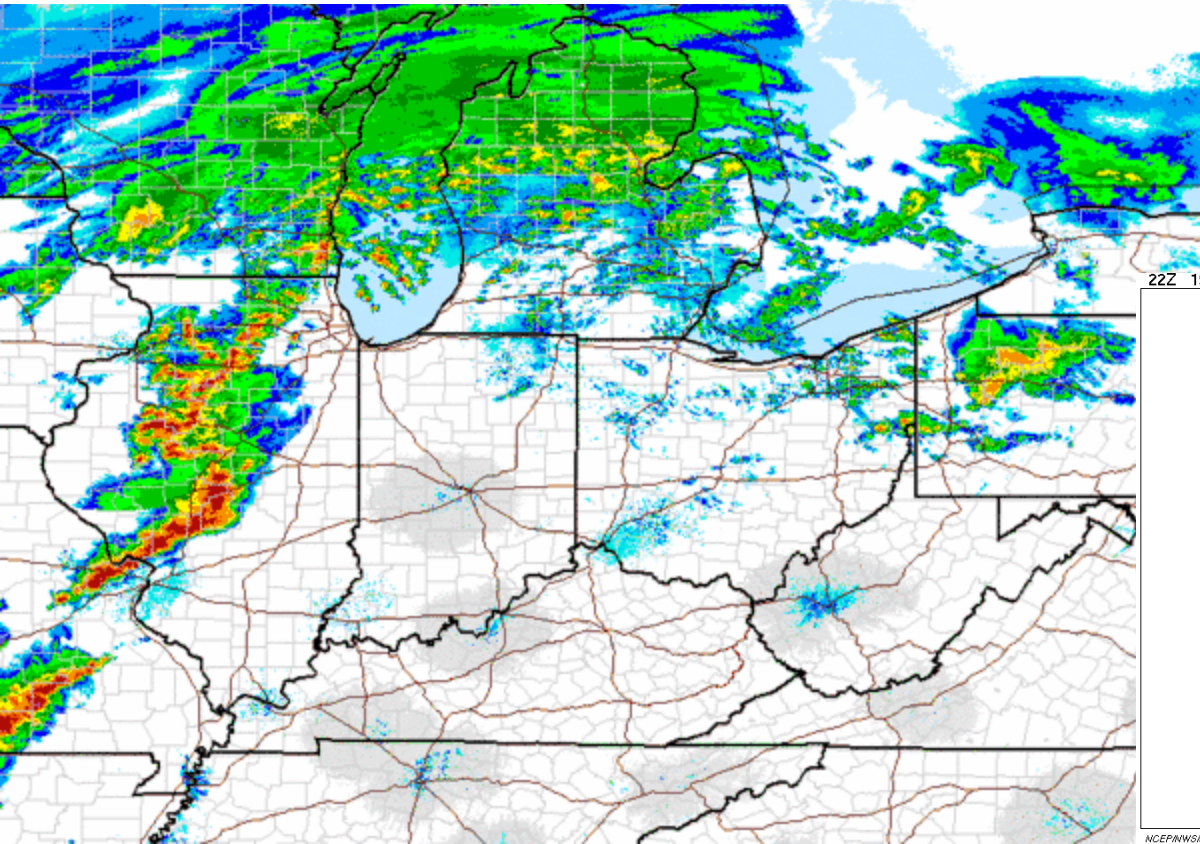
2115Z 18 APR 2011



NCEP/NWS/NOAA

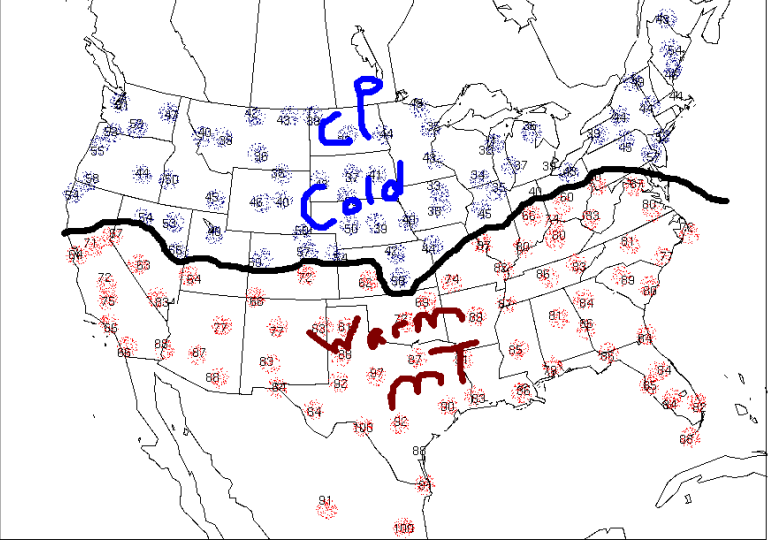


Radar Mosaic TC 04/19/2011



22Z 19 APR 2011

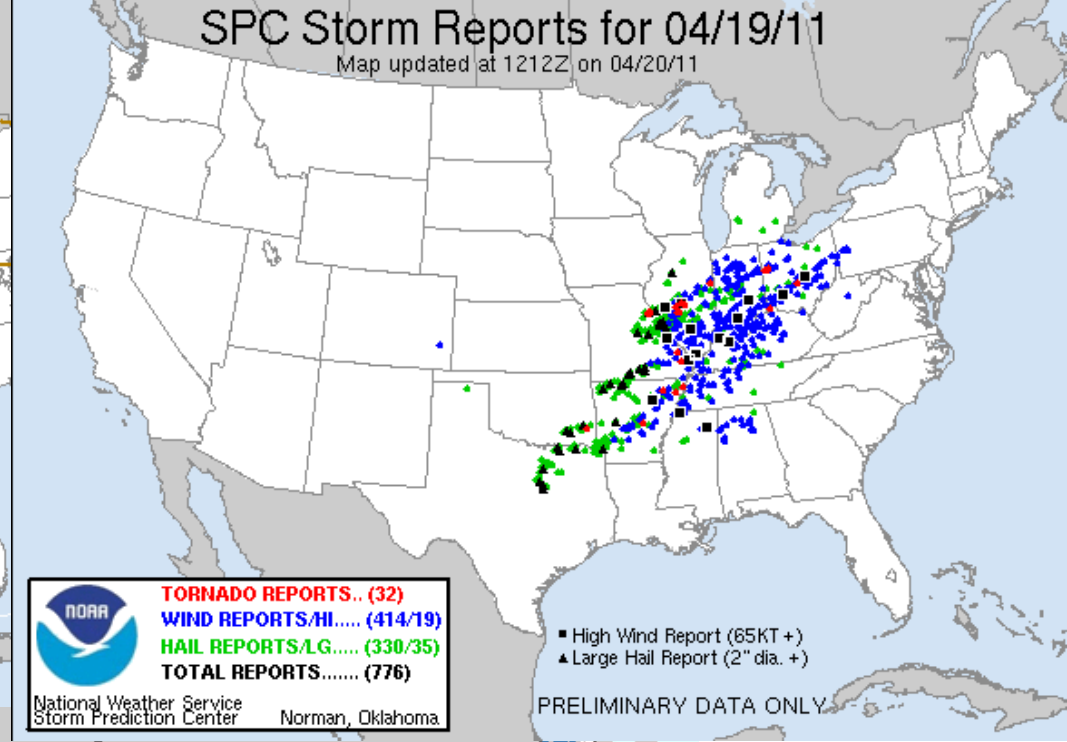
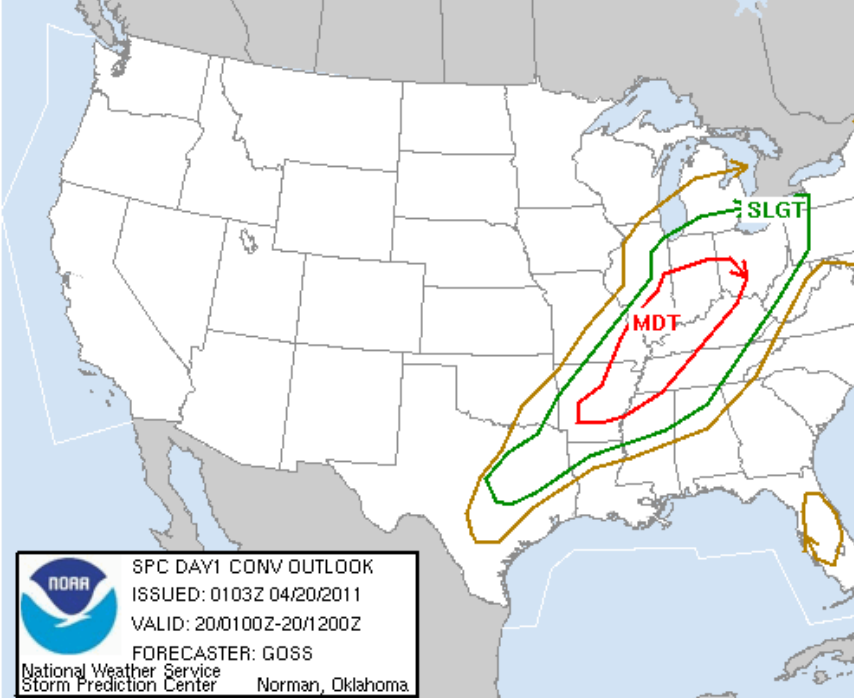
Temperatures




NCEP/NWS/NOAA

SPC Storm Reports for 04/19/11

Map updated at 1212Z on 04/20/11



 SPC DAY1 CONV OUTLOOK
ISSUED: 0103Z 04/20/2011
VALID: 20/0100Z-20/1200Z
FORECASTER: GOSS
National Weather Service
Storm Prediction Center Norman, Oklahoma

 **TORNADO REPORTS.. (32)**
WIND REPORTS/HI..... (414/19)
HAIL REPORTS/LG..... (330/35)
TOTAL REPORTS..... (776)
National Weather Service
Storm Prediction Center Norman, Oklahoma

■ High Wind Report (65Kt +)
▲ Large Hail Report (2" dia. +)

PRELIMINARY DATA ONLY

