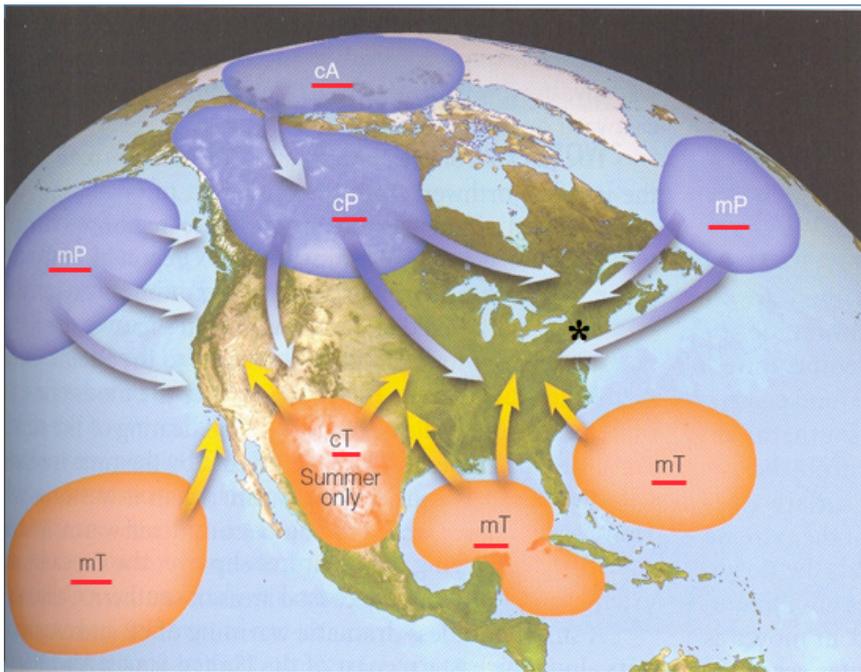


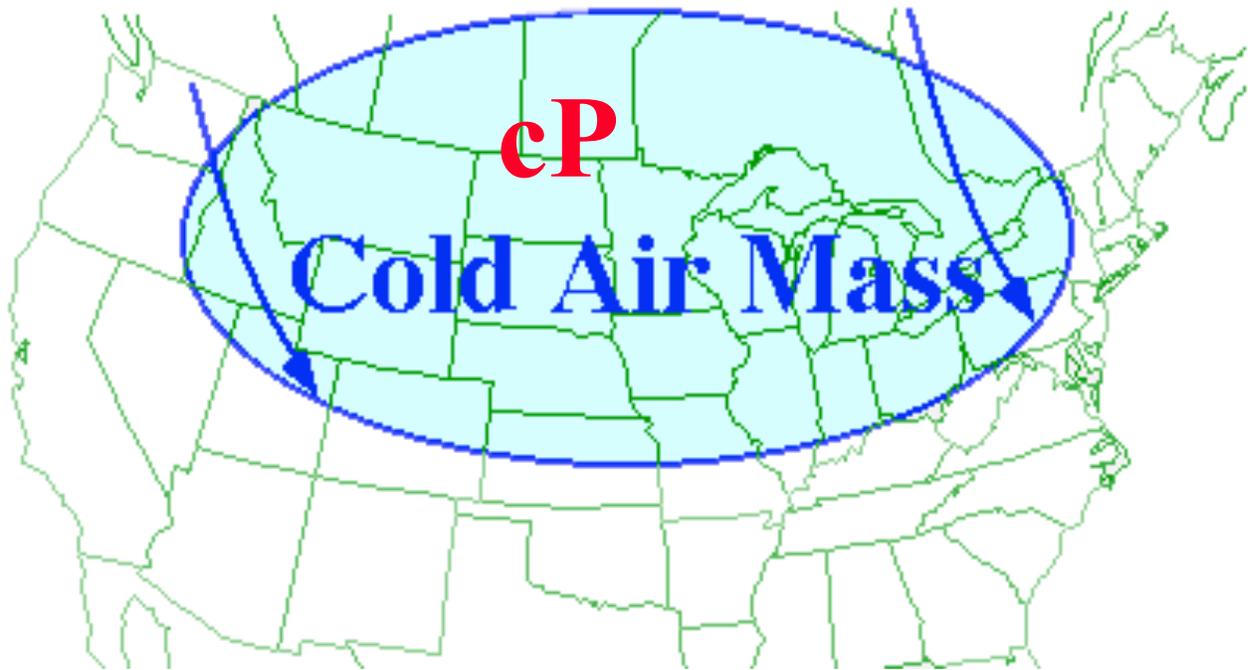
AIR MASS - A HUGE CHUNK OF AIR W/
CHARACTERISTICS OF THE SURFACE BELOW (COLD,
WARM, MOIST, OR DRY.)

TYPES OF AIR MASSES

SYMBOL	NAME	CHARACTERISTICS
CP	CONTINENTAL POLAR	DRY & COLD
MP	MARITIME POLAR	MOIST & COLD
MT	MARITIME TROPICAL	MOIST & WARM
CT	CONTINENTAL TROPICAL	DRY & WARM
CA	CONTINENTAL ARCTIC	DRY & VERY COLD

- CONTINENTAL MEANS LAND.
- MARITIME MEANS IN THE OCEAN.
- POLAR MEANS IT IS COLD.
- ARTIC MEANS IT IS VERY COLD.
- TROPICS MEANS IT IS HOT.





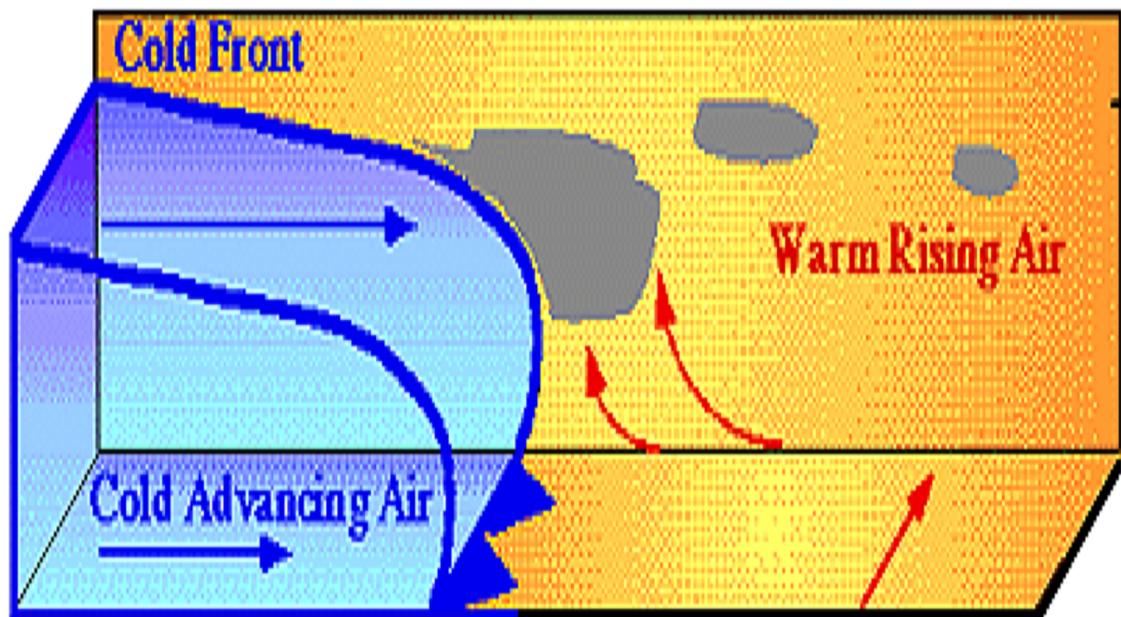
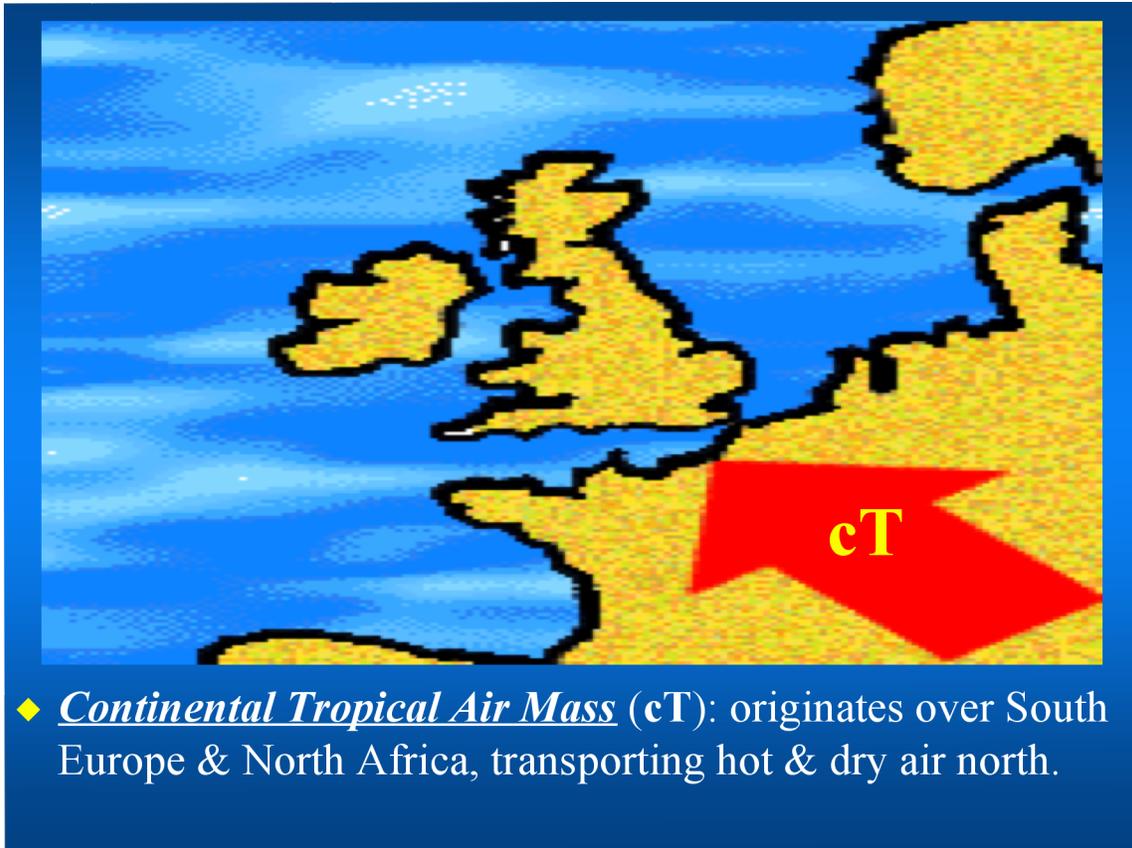
CONTINENTAL POLAR AIR MASS (CP): ORIGINATES OVER NORTH PLAINS OF CANADA, TRANSPORTS COLDER & DRIER AIR SOUTH.



- ◆ Maritime Tropical Air Mass (mT): develops over the subtropical oceans & transports heat & moisture north.



- ◆ Maritime Polar Air Mass (mP): originates over the Canadian Arctic, transporting cold and moist air southward.



- ◆ A front is defined as the boundary between two air masses of different T & Td characteristics.

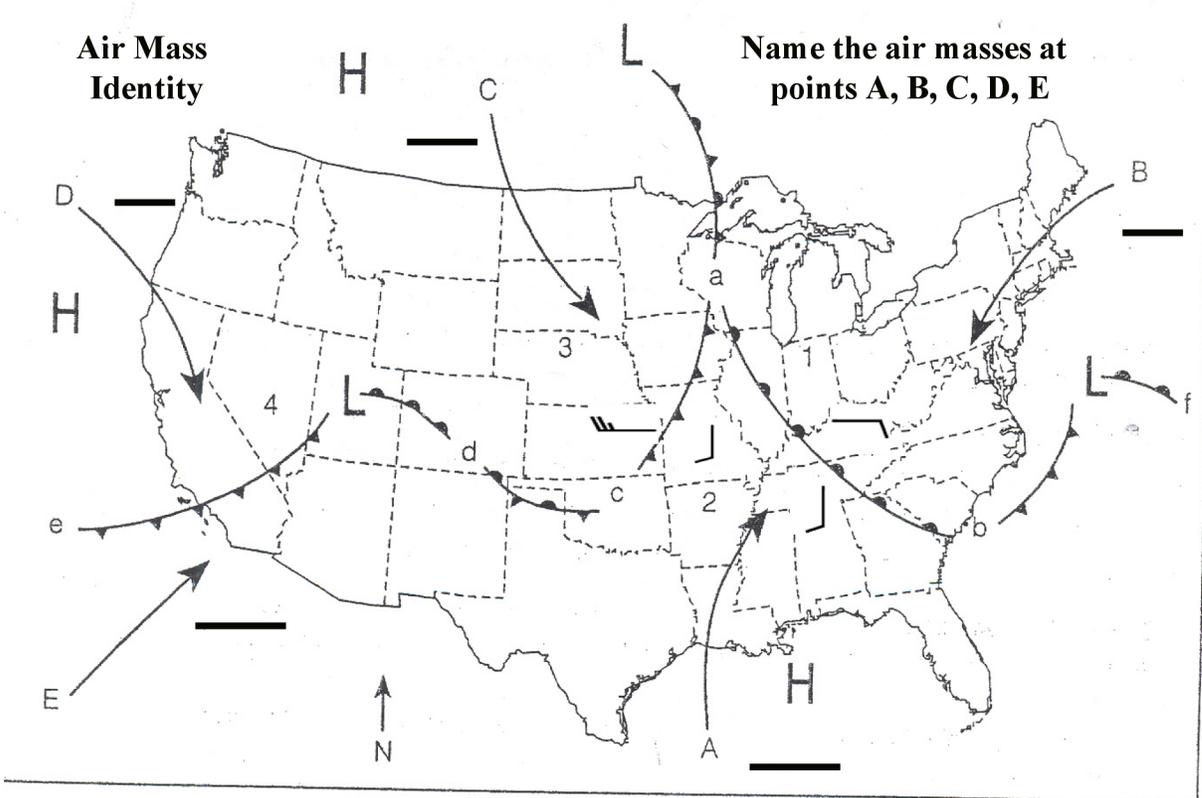
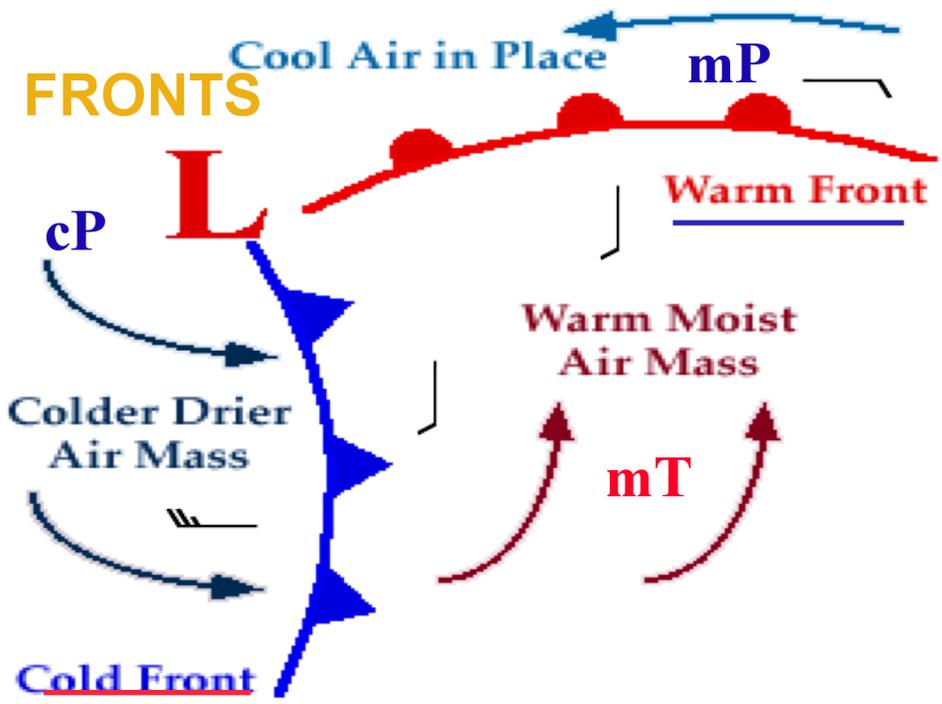
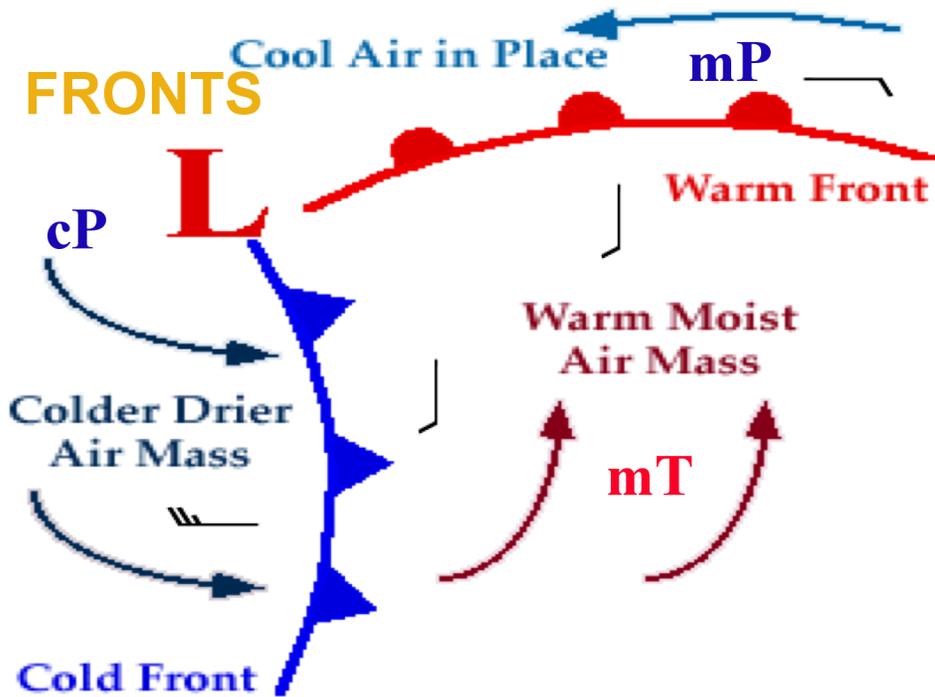


FIGURE 2

FRONTS



Types of Fronts

Cold Front:



Cold & showery

Warm Front:



Warm & rainy

Stationary Front:



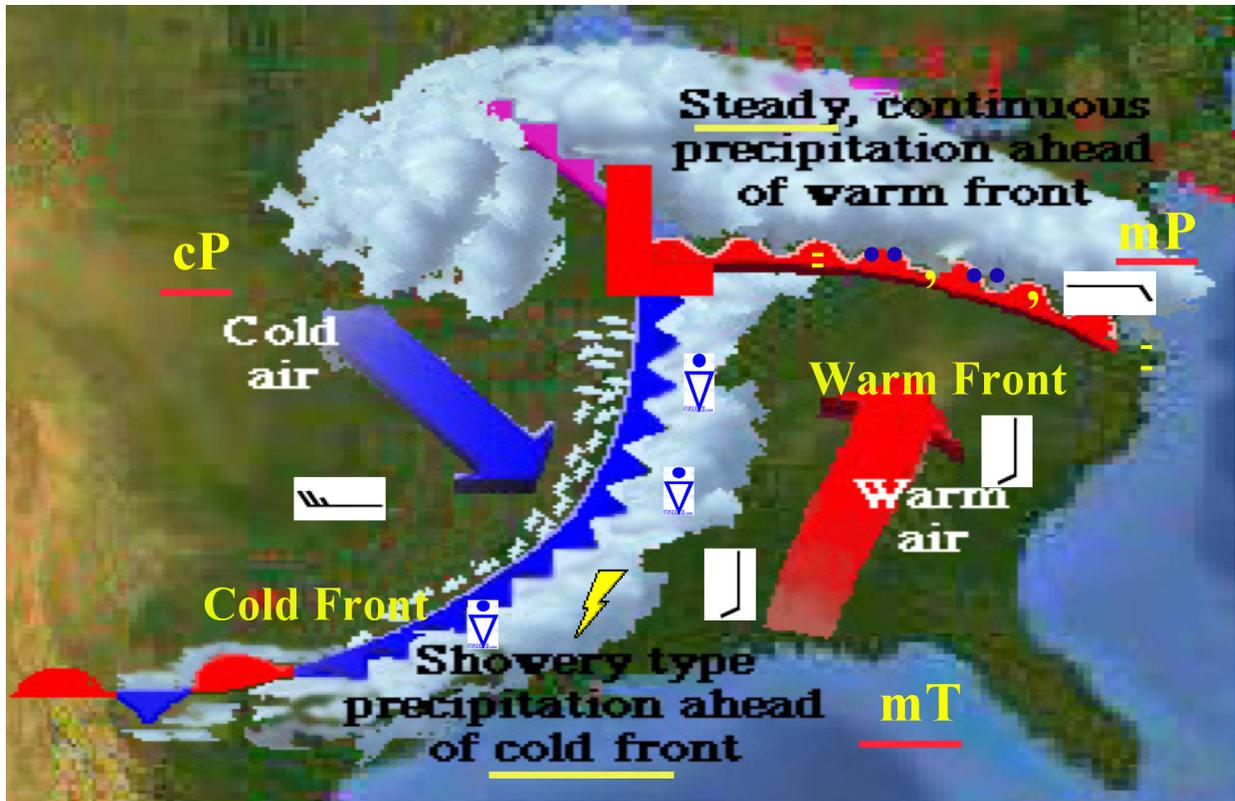
Mix cold & warm & moist air for several days;

A cold or warm front stopped moving.

Occluded Front:



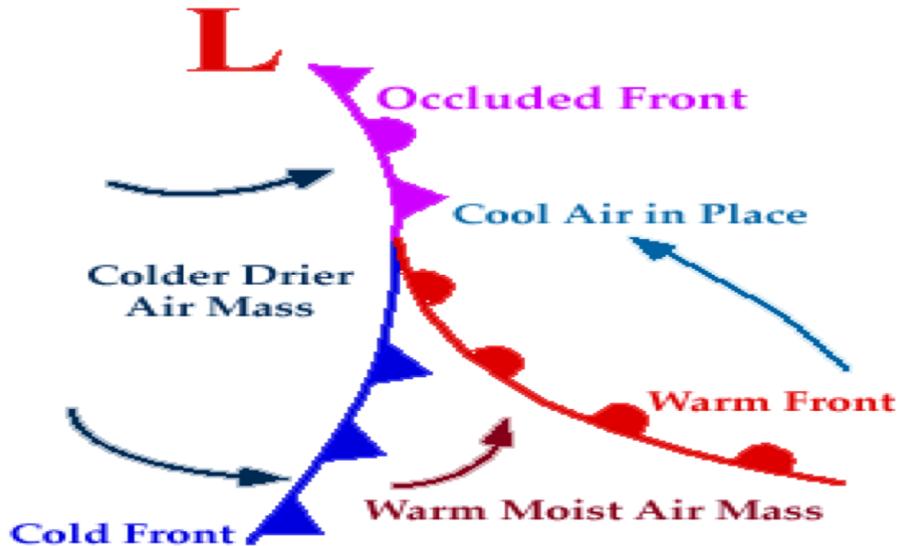
Cold & moist with lots of rain or snow, cold front catches the warm front.



◆ A front is defined as the boundary between two air masses of different T & Td characteristics.

<u>Cold Front</u>	<u>Before Passing</u>	<u>After Passing</u>
Wind	S - SW	W - NW
Temp	Warm	Steady Dropping
Press	Falling	Rising Steady
Clouds	Increase (Cloudy)	Clearing (Cu)
Precip	Showers	Slight Showers quickly becoming None
Vsby	Fair	Very Good
Dew Pt	High	Sharp Drop to Low

<u>Warm Front</u>	Before Passing	After Passing
Wind	E - ESE	S - SSW
Temp	Cool	Much Warmer
Press	Falling	Slight rising
Clouds	Cloudy (Ci, Cs, As, Ns, Fog)	Clearing
Precip	Steady Rain, Fog, Drizzle	Usually None, Sometimes Light Rain
Vsby	Poor	Fair to Good (Sometimes Haze)
Dew Pt	High (Steady Rise)	(Slight Drop)



◆ **Occluded Front:** A cold front overtakes a warm front.

AIR MASSES
IDENTIFY FRONTS ACTIVITY

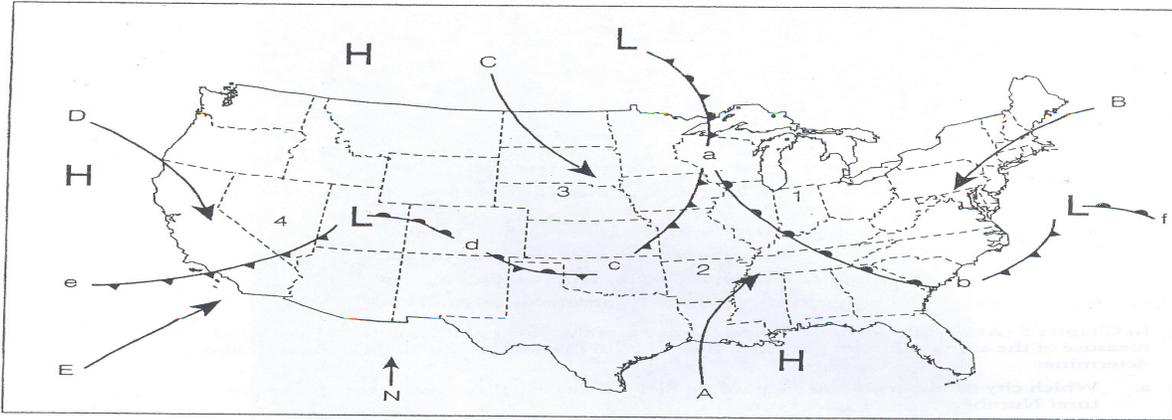


FIGURE 2

1. Figure 2 is a surface weather map. In the space below, label the fronts that fall between the letters on the map.

Front between letters	Name of front
L and a	_____
L and b	_____
L and f	_____
L and e	_____
L and d	_____
a and b	_____
a and c	_____
c and d	_____

2. Figure 2 represents a winter weather map with the large arrows showing the movement of air masses. The letters below correspond to the letters on the map. Next to each letter place the type of air mass that is present on the map and its temperature and moisture characteristic.

Air Mass	Characteristics
A _____	_____
B _____	_____
C _____	_____
D _____	_____
E _____	_____

3. Look closely at Figure 2 and match the weather conditions listed below with the number that appears on the map.

- a. Overcast, cold, sleet, southeasterly winds, falling air pressure. Number _____
- b. Partly cloudy, windy, very cold, northwesterly winds, rising air pressure. Number _____
- c. Partly cloudy, mild, southwesterly winds, falling air pressure. Number _____
- d. Rainshowers, cool, northwesterly winds, rising air pressure. Number _____

4. In Chapter 5 (Atmospheric Moisture) we learned that the dew-point temperature is a good measure of the amount of water vapor in the air. With this information look at Figure 2 and determine:

- a. Which city (number) on the map would most likely have the *lowest* dew-point temperature? Number _____ Explain why.
- b. Which city (number) on the map would most likely have the *highest* dew-point temperature? Number _____ Explain why.