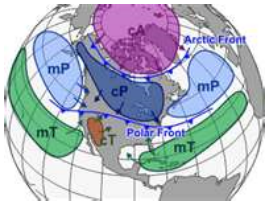
	Air Masses and Fronts
Air mass	• a body of air • temperature, humidity and air pressure determine the type of air mass • moved by the jet stream and prevailing westerlies 

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Maritime tropical air mass	• warm, humid air mass that forms over tropical oceans • can bring hot, humid weather in the summer • can bring heavy rain or snow in the winter

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Maritime polar air mass	• cool, humid air mass that forms over icy cold oceans • bring cool, humid air with fog and rain in the summer and heavy snow in the winter

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Continental tropical air mass	• hot, dry air mass form in dry areas • cover a small area • bring hot, dry weather

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Continental polar air mass	• cold, dry air mass that form near the Arctic circle • bring clear, cold, dry air in the summer • can combine with a maritime tropical air mass in summer to create storms

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Fronts	• a boundary between 2 air masses due to the different temperature and humidity in each air mass

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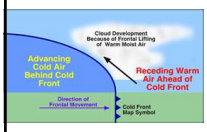
Cold front



- cold air mass runs into warm air mas
- cold air slides under warmer air
- warm air pushed up
- clouds form- if a lot of water vapor in the air, precipitation forms; no water vapor, cloudy skies occur
- fast moving front leads to storms
- when passed, clear skies, shift in wind and colder temperatures occur

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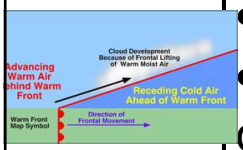
Warm front



- fast moving warm air overtakes slow moving cold air
- warm air moves over cold air
- if warm air is humid, precipitation can occur
- move slowly once formed
- clouds and precipitation can last for days
- after it passes, warm temperatures and humidity

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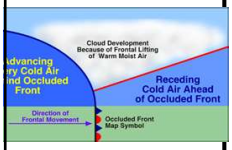
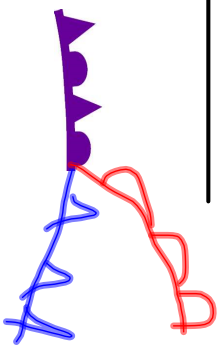
Occluded front





- warm air is caught between 2 cooler air masses
- cool air mass moves under warm air pushing it upward
- 2 cool air masses meet in middle and may mix
- temperature near the ground become cooler
- warm air mass is cut off
- warm air cools and the water vapor condenses- clouds and precipitation occur

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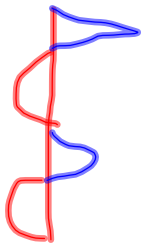
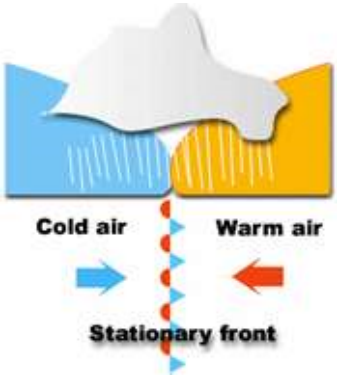
Stationary front



- cold and warm air mass meet
- neither one moves
- water vapor in the warm air condenses leading to precipitation
- can stall for several days and bring clouds



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