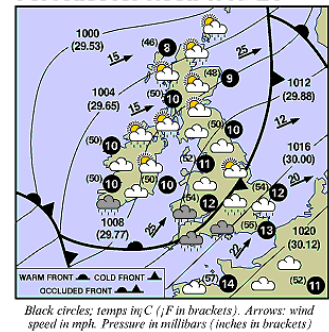
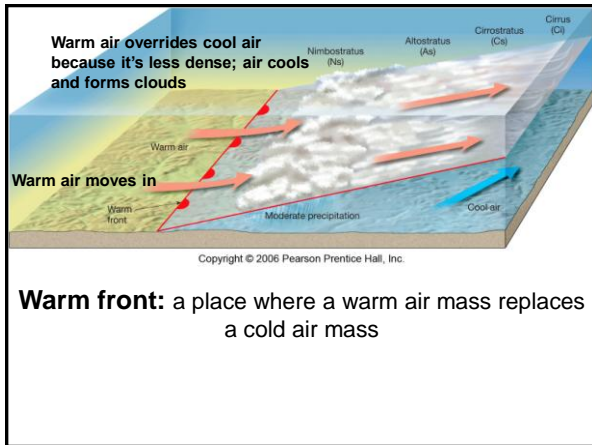


How does the temperature change in front of and behind a cold front?

How do weather conditions change in front of and behind a cold front?

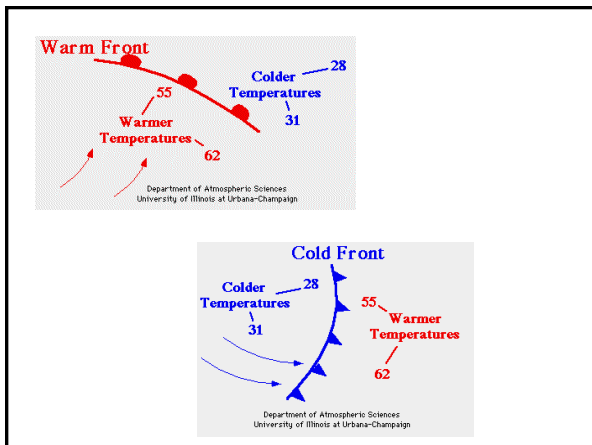
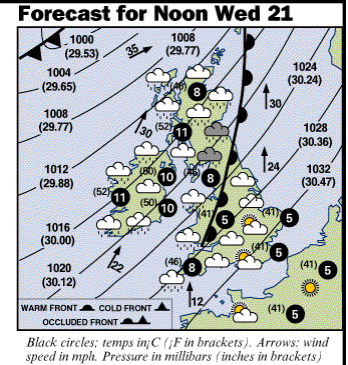
Forecast for Noon Wed 24





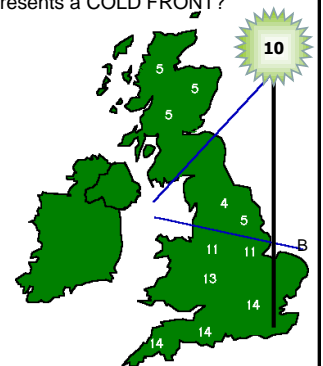
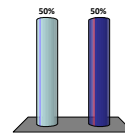
How does the temperature change in front of and behind a warm front?

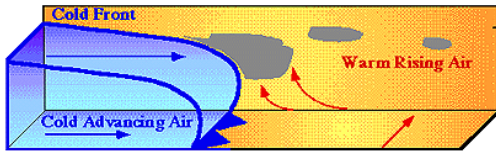
How do weather conditions change in front of and behind a warm front?



The white numbers represent air temperature (degrees C). Which line best represents a COLD FRONT?

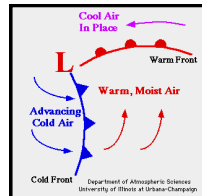
1. A
- ✓ 2. B





This is how a low pressure system forms:

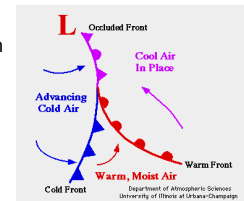
- 1) An advancing cold front (dense air) displaces warm air
- 2) Warm air rises, causing a region of low pressure to form



Low pressure system usually has a warm and cold front

As the low pressure intensifies, the cold front overtakes the warm front (or vice versa).

Where they meet is an **occluded front**.



Weather changes with the passage of fronts....

Some fronts are accompanied by a rapid or violent change in the weather called **storms**.

- Thunderstorms
- Tornadoes
- Hurricanes



Thunderstorms develop in warm, moist air that is quickly uplifted

This air is uplifted by:

- 1) Differential heating
- 2) Mountains
- 3) Passage of cold front

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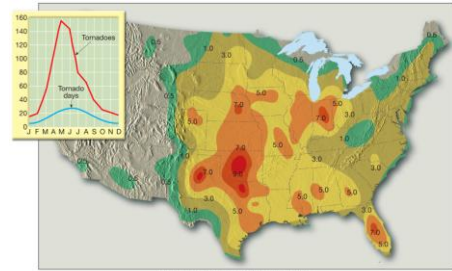
Tornadoes

- Violent, local windstorms associated with severe thunderstorms

- Rotating column of air extending downward from a cumulonimbus cloud

“Tornado Alley”:

Spring, early summer, **warm, moist air** from Gulf of Mexico collides with **dry cold air** from Rocky Mountains



The greatest storms on Earth are **hurricanes**. (This is hurricane Ivan)

Hurricanes are **tropical cyclones** with winds greater than 120 km/h (75 mph)



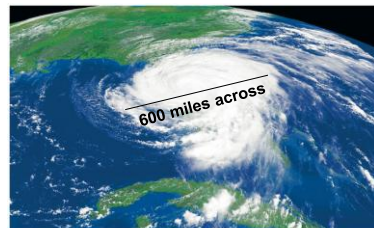
Hurricanes occur in tropical oceans all over the world and go by these names:

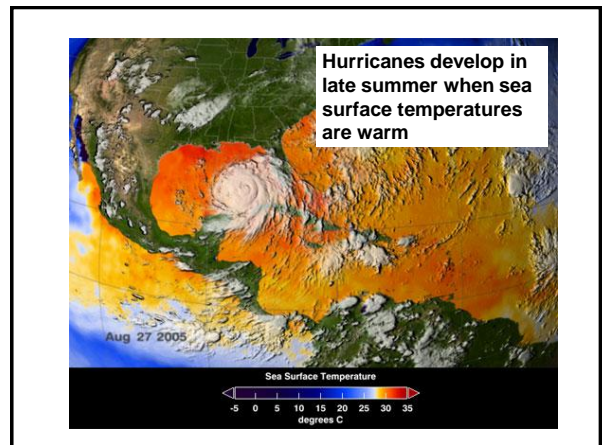
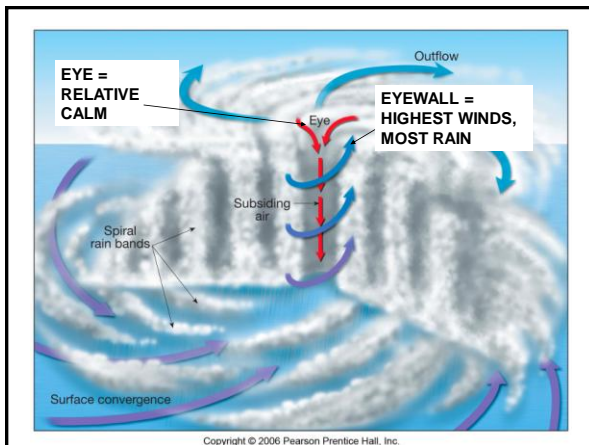
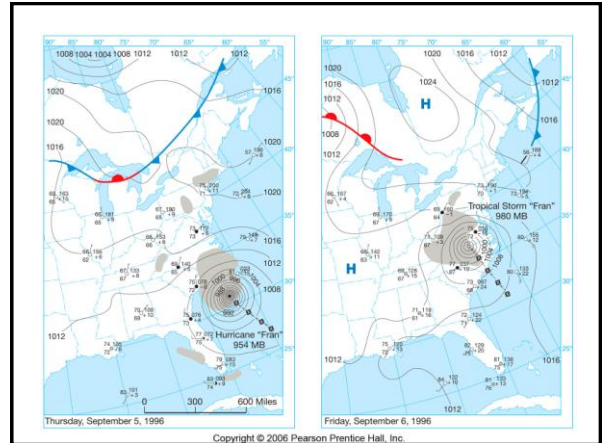
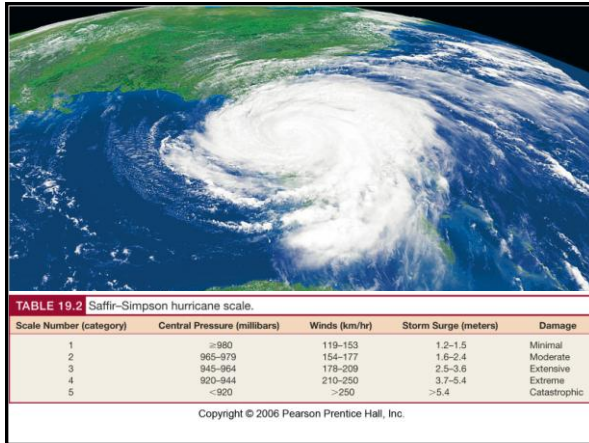
Pacific Ocean: **Typhoons**

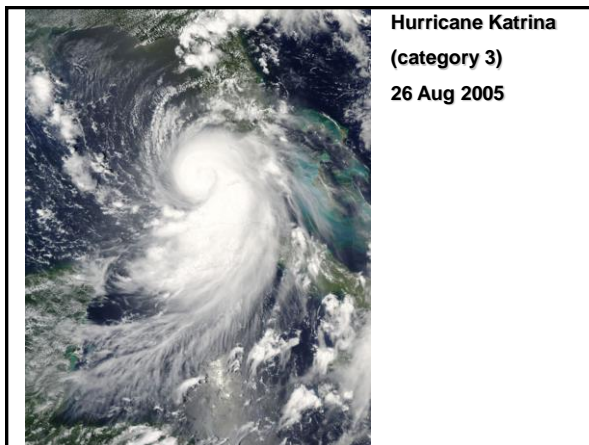
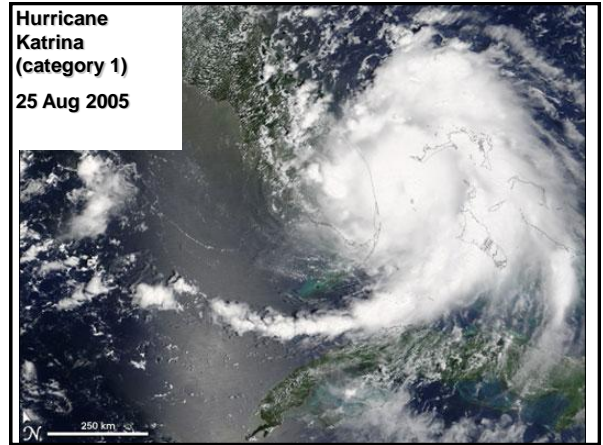
Indian Ocean: **Cyclones**

Atlantic Ocean: **Hurricanes**

Around Australia: **Willy Willy**









Hurricane Katrina
(category 4)
28 Aug 2005

Most devastating damage: the *storm surge*

