Storms notes: Chapter 2.2

**Air masses** – large blobs of air that are similar throughout

* Named for where they come from

maritime Tropical (mT) wet – warm

continental Tropical (cT) dry – warm

maritime Polar (mP) – wet – cold

continental Polar – dry – cold

**Fronts** – storms form only on the line between two air masses

All the fighting (storms) happen on the boundary line (the front) behind the boundary weather is calm

**Cold Front** pushes warm air out – creates strong quick storms (thunderstorms) pointy arrows

Warm Front – warm air rises as it pushes cold out – brings warm weather and days of precipitation – rounded arrows

**Stationary Front** – warm front and cold front collide – but neither strong enough to push the other out – days of precipitation – both pointy and rounded arrows

**Cyclone** – a low pressure system that rotates counter clockwise

Storms notes: Chapter 2.3

**Thunderstorms**

* small storms caused by very hot land and a cooler atmosphere
* arrives ahead of a cold front with cumulonimbus clouds
* Heavy rain – lightning and maybe hail or tornadoes
  + Lightning – warm air rubs cooler air as it rises – causes static
  + Thunder – sonic boom as air moves faster than the speed of sound
* Supercell thunderstorm – major storm

**Cyclones** (tornadoes)

* Almost all tornadoes occur in the US or Australia
* Caused by powerful thunderstorms with cumulonimbus clouds
* Begin when funnel touches the ground
* Impossible to predict
* Very small path
* Occur most in Tornado alley because of dry polar air meeting wet tropical air
* Rated on the Fujita Scale – F0 to F6
  + F1 – small – roof damage – trees down
  + F2 – roofs removed – trees pulled out of ground
  + F3 – trains knocked over – cars lifted houses badly damaged
  + F4 – serious – houses blown into tiny pieces
  + F5 – houses gone cars picked up and carried for miles
  + F6 – has never occurred

**Hurricanes** the most powerful storms on earth

* Massive
* Begin as thunderstorms over the ocean
* Get energy from the water – once they move over land they fizzle out
* Storm surge causes massive flooding
* Also called Typhoon - Cyclone