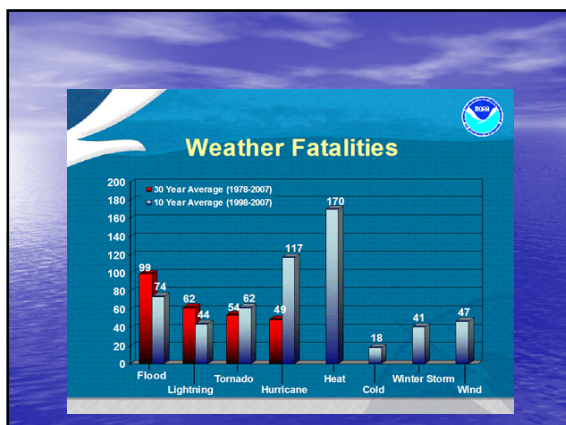


**An Introduction
To
Severe Weather**

Presented by:
Leonard Vaughan
NWS Columbia, SC

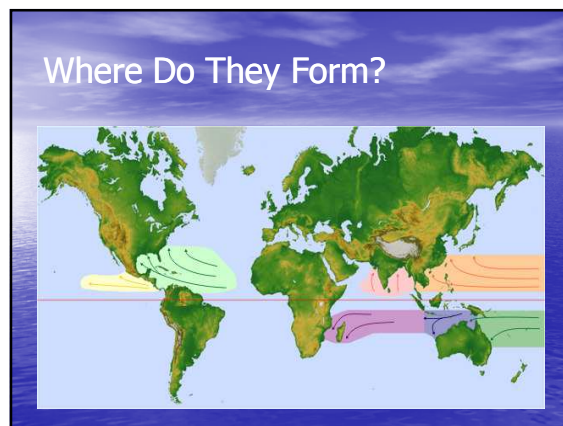
Overview

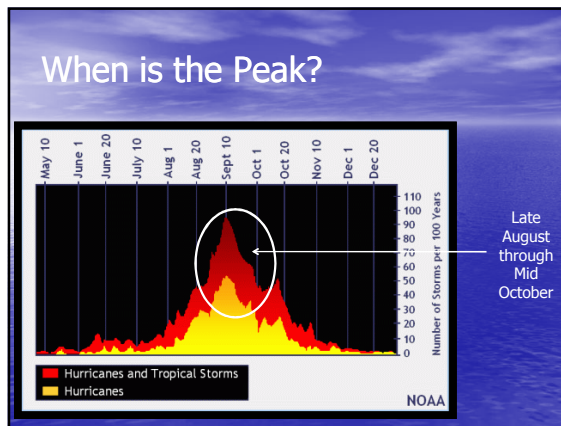
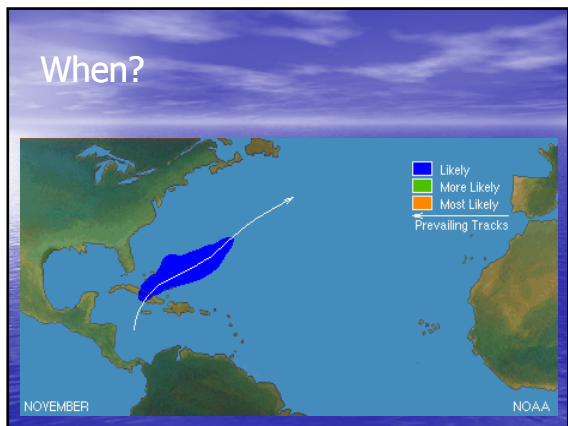
- Hurricanes
- Thunderstorms
- Flooding
- Tornadoes



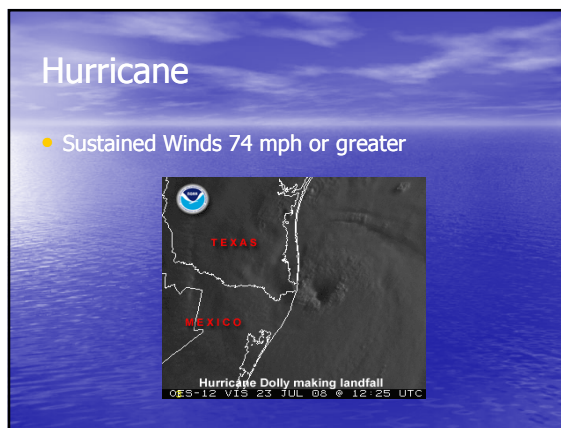
Hurricane Season

- Atlantic, Caribbean and Gulf of Mexico Basin
June 1st – November 30th
- Eastern Pacific Basin
May 15th – November 30th
- Central Pacific Basin
June 1st – November 30th



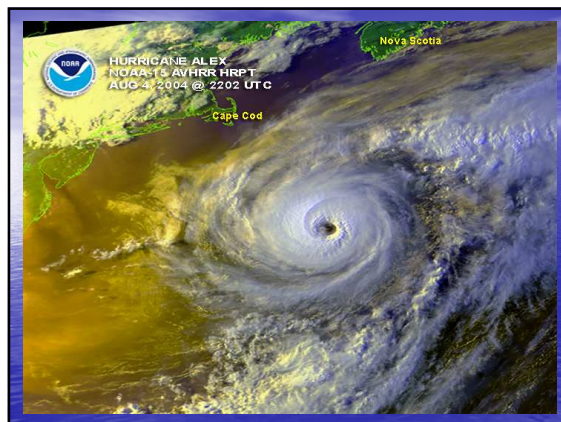


- ### Different Names/Different Regions
- Hurricanes – Atlantic/Eastern Pacific Ocean
 - Typhoons – Western Pacific Ocean
 - Cyclones – Indian Ocean



Saffir-Simpson Hurricane Wind Scale

- Category 1 – Winds 74-95 mph "Danny" 1997
- Category 2 – Winds 96-110 mph "Bonnie" 1998
- Category 3 – Winds 111-130 mph "Jeanne" 2004
- Category 4 – Winds 131-155 mph "Frances" 2004
- Category 5 - Winds >155 mph "Ivan" 2004



Hazards

- Storm Surge
- Damaging Winds
- Inland Flooding



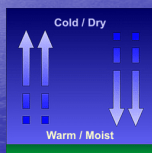
Additional Hazards

- Debris Flows
- Tornadoes

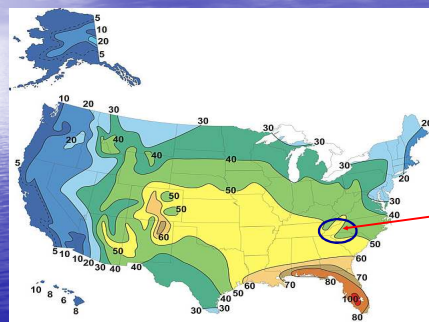


Thunderstorms

- Moisture
- Instability
- Lift



Thunderstorm Day/Year



Warning Criteria

- Strong/Damaging Winds – Wind gusts of **58 mph or greater**
- Hail – Diameter of **1 inch or larger**
- Tornadoes – **Any Tornado**

Hail Criteria



Hail \geq 1.00 inch
"quarter size or larger"

Strong/Damaging Winds

Winds of 58 mph or greater

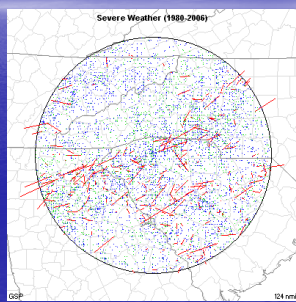


Tornado

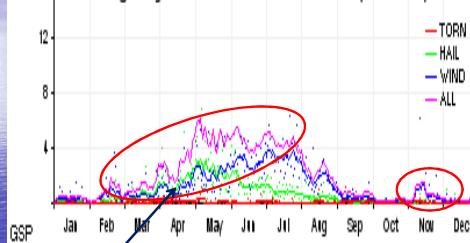


Severe Weather Reports (GSP Radar Area)

- > 11,000 Wind Reports
- > 6,000 Hail Reports
- > 600 Tornado Reports

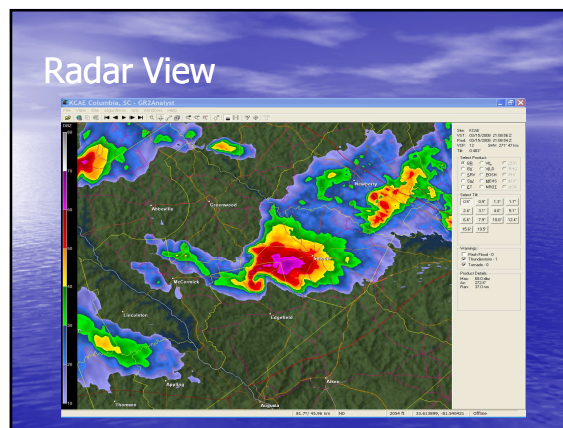
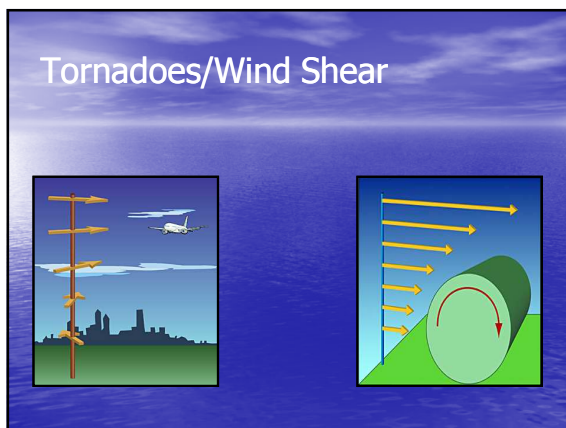
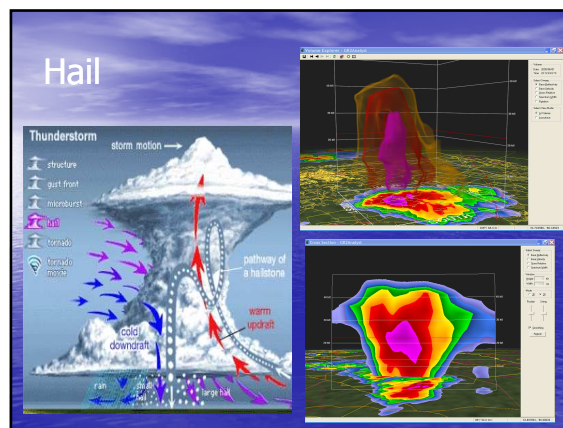
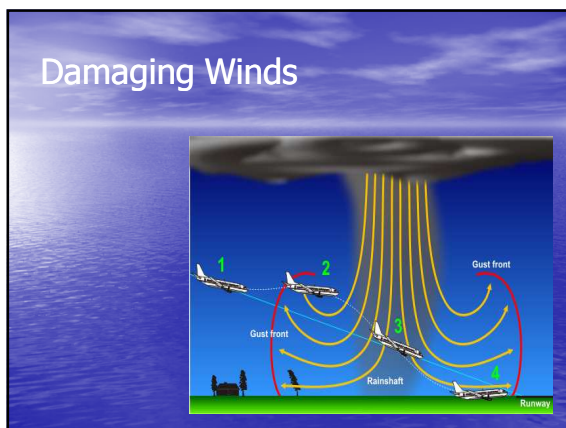
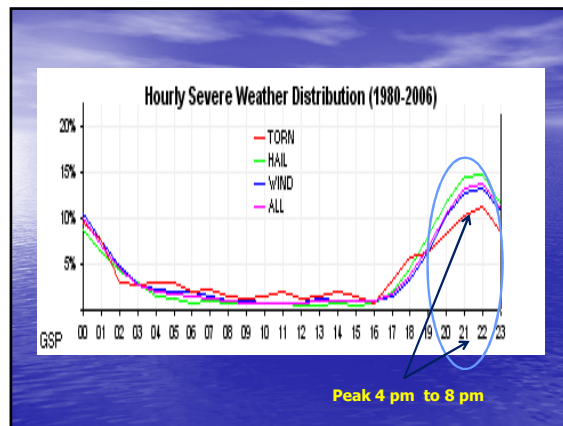


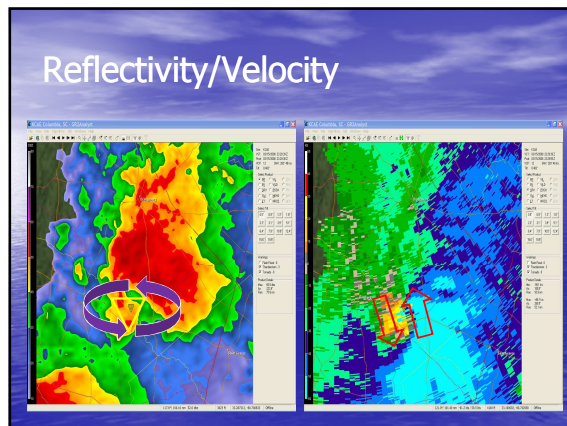
Avg. Daily Severe Weather Occurrences (1980-2006)



Threat increases
March through May


Month	Hail	Wind	Torn	Total
Jan	3	8	1	12
Feb	5	14	1	21
Mar	15	16	3	34
Apr	43	32	3	78
May	73	68	4	145
Jun	43	84	2	130
Jul	28	105	2	135
Aug	13	53	2	69
Sep	4	12	3	19
Oct	1	2	1	3
Nov	2	17	2	21
Dec	3	4	0	8





Enhanced Fujita Scale

- EF0 – 65 to 85 MPH
- EF1 – 86 to 110 MPH
- EF2 – 111 to 135 MPH
- EF3 – 136 to 165 MPH
- EF4 – 166 to 200 MPH
- EF5 – Over 200 MPH



Flooding



Conclusion

- Hazardous Weather can occur almost any time of the year
- Weather can be beautiful, but it can also be deadly
- **Be Weather Aware**