



Your National Weather Service Leading the Nation

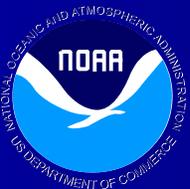
Bill Proenza

Regional Director

National Weather Service - Southern Region

History of the NWS

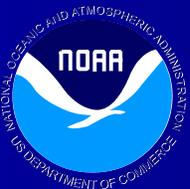
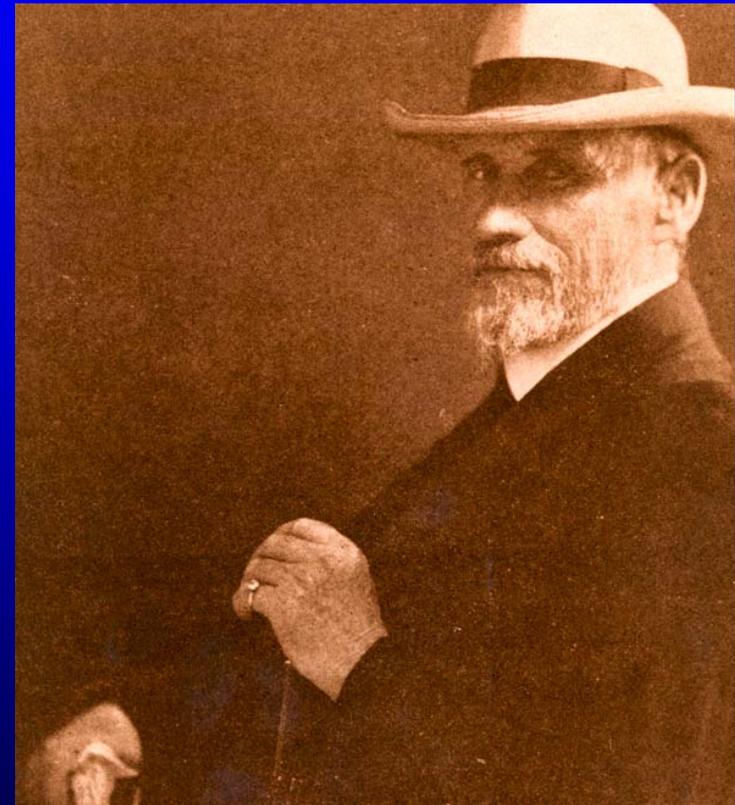
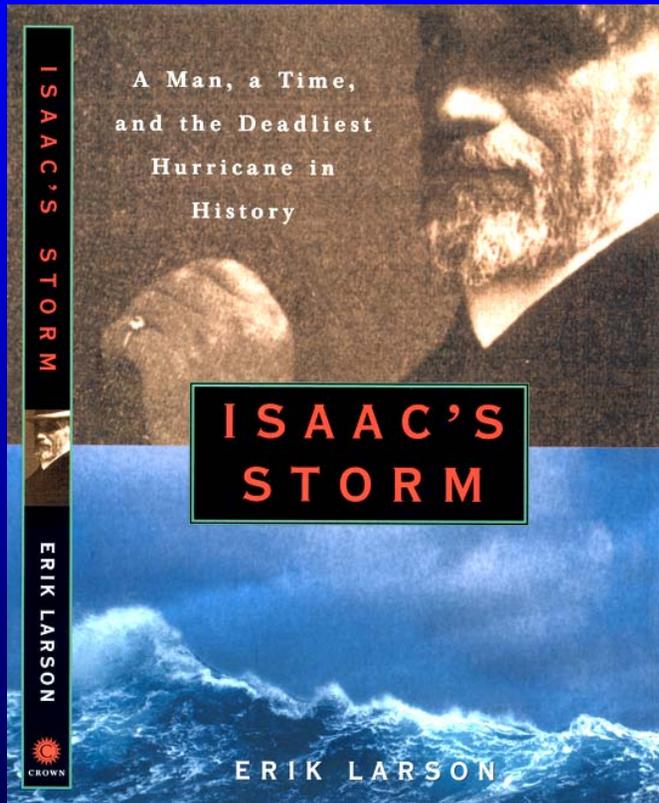
- Established in 1870 under the direction of the Signal Corps
- Transferred to the Department of Agriculture in 1890 and called the Weather Bureau.
- Transferred to the Department of Commerce in 1940
- Renamed the *National Weather Service* in 1970 under National Oceanic and Atmospheric Administration (NOAA)



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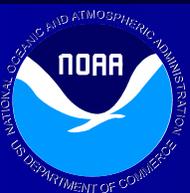
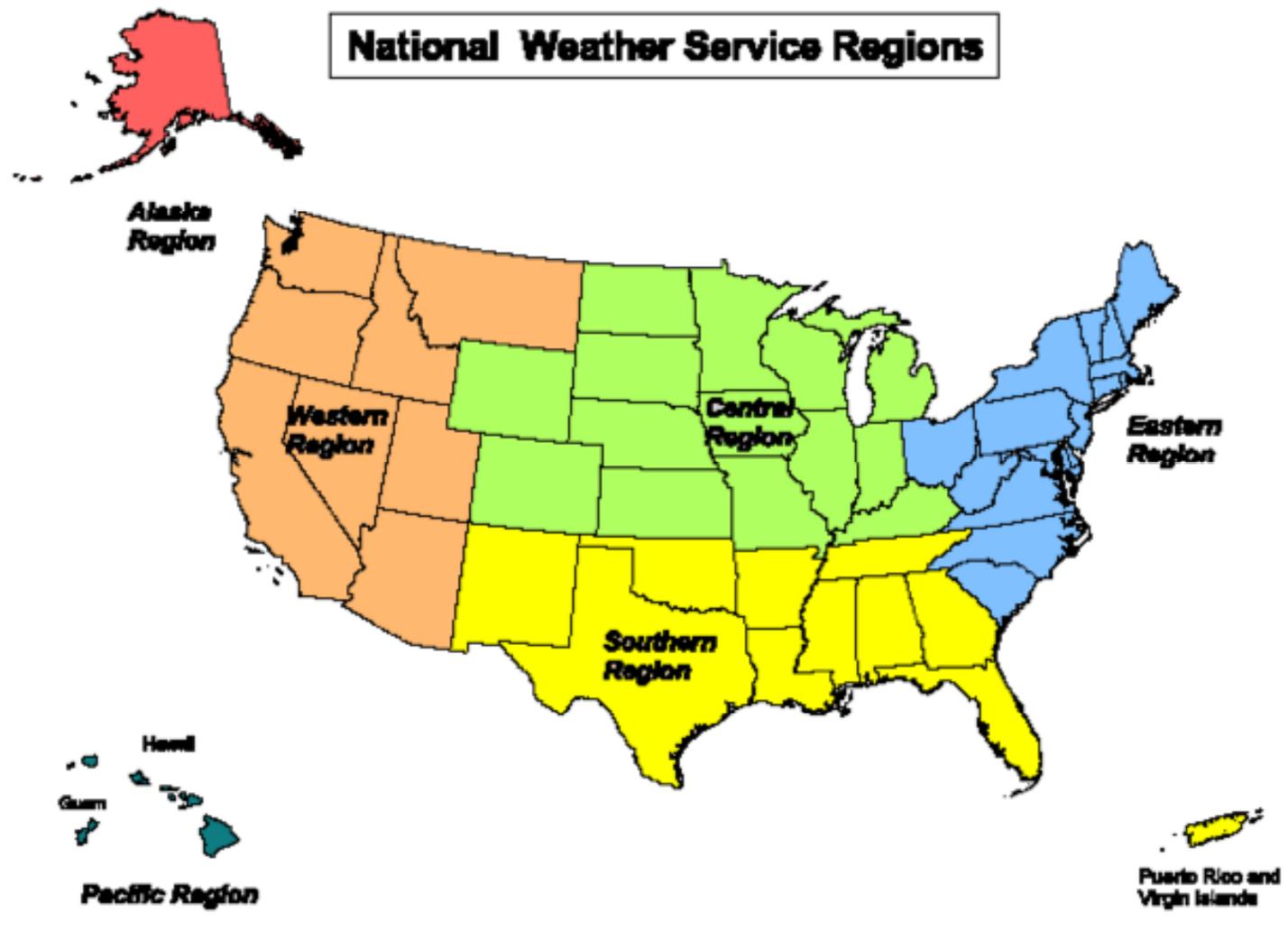
History Rewritten?



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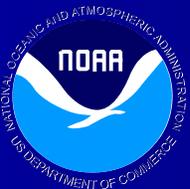
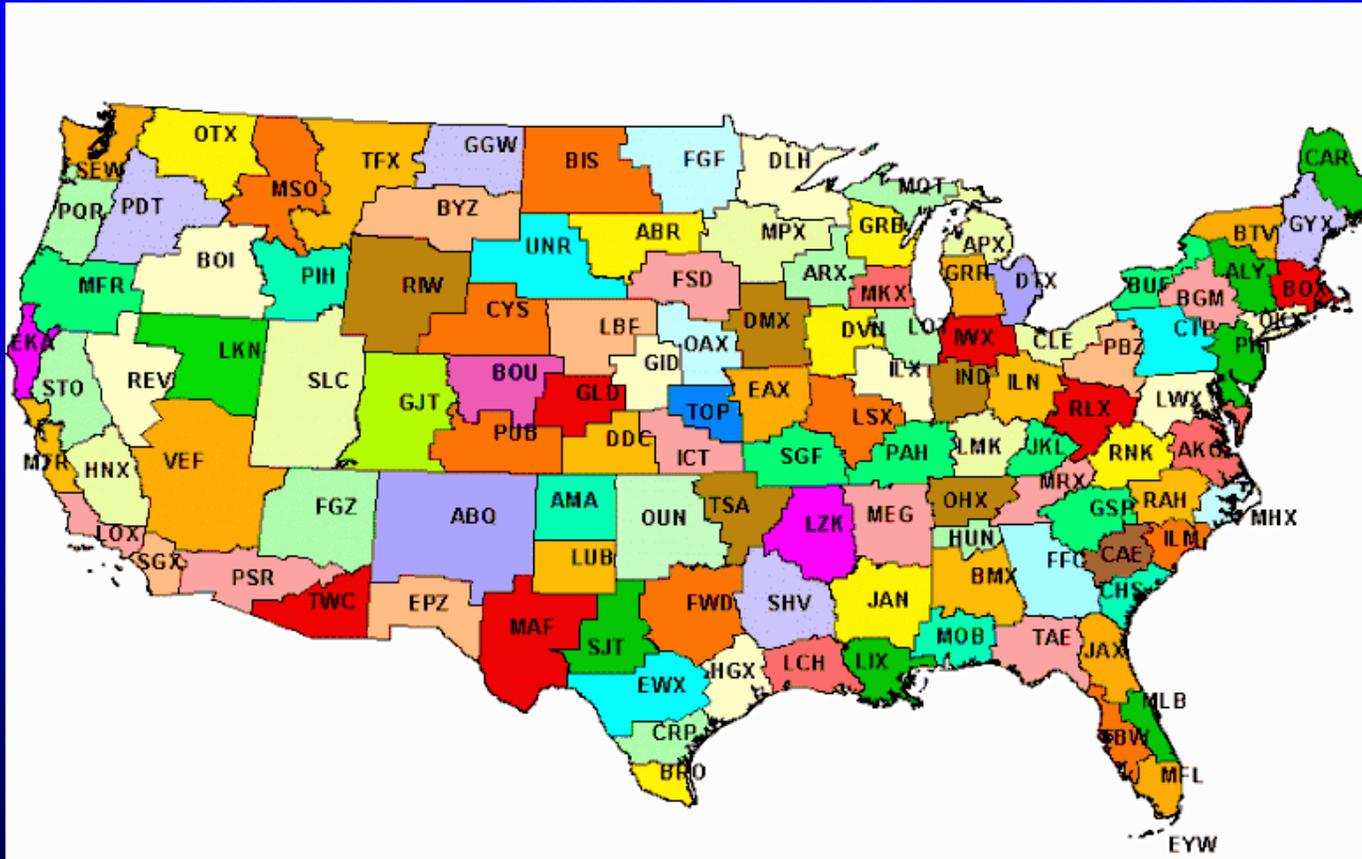
National Weather Service Regions



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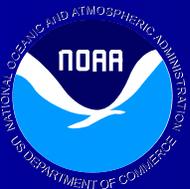
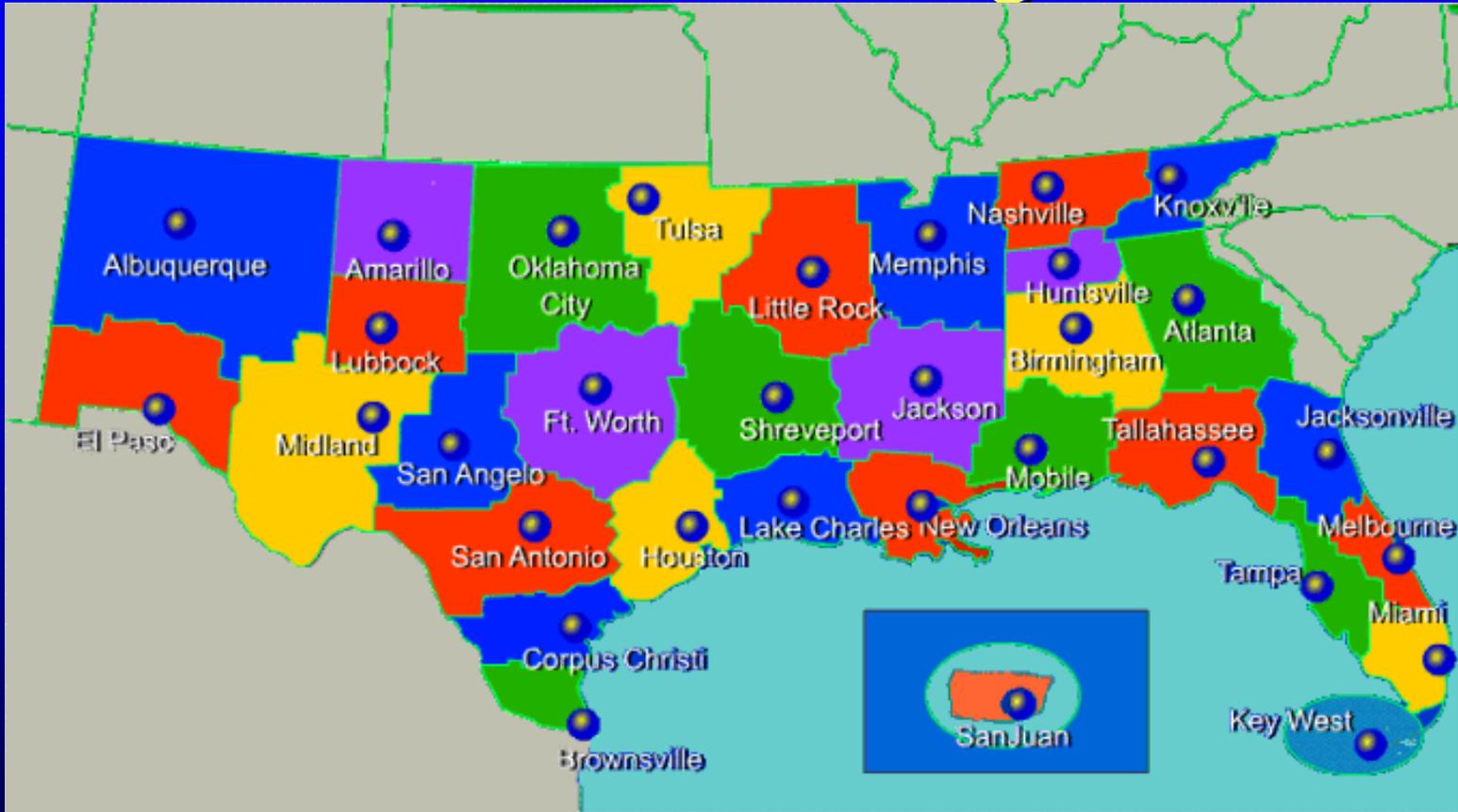
122 National Weather Service Forecast Offices Cover the USA



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32 NWS Forecast Offices in the Southern Region



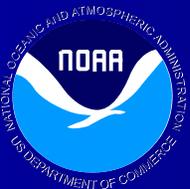
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Benefits of Your Local WFO

Local Area Expertise For:

- More Accurate Forecasts and Warnings
- Outreach
 - Public awareness supports our mission delivery
- Greater Service to Public and Partners
- Better Climate Services
- Homeland Security – Provide mesoscale support during incidents



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Local WFO Operations

- Delivers the major part of the NWS mission
- Issue all weather warnings, watches and advisories for their local area
- 122 offices in U.S.A.
- Station comprised of 20 to 25 staff members

The best weather expertise for your local area



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Regional Operations Center

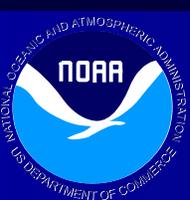
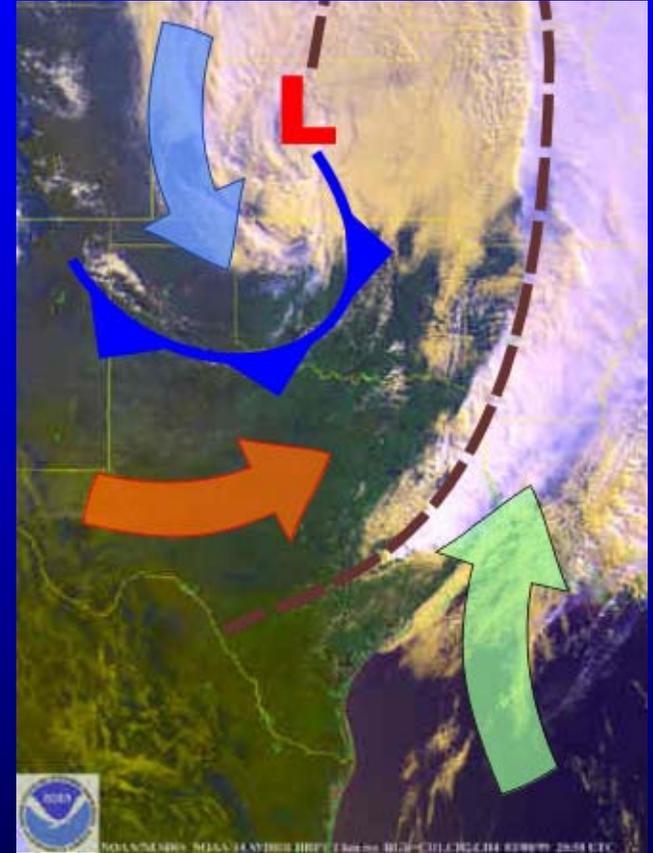
- Shifts regional resources to events
- Conducts briefings with NWS offices and EM community
- Source for NWS interviews in support of WFOs



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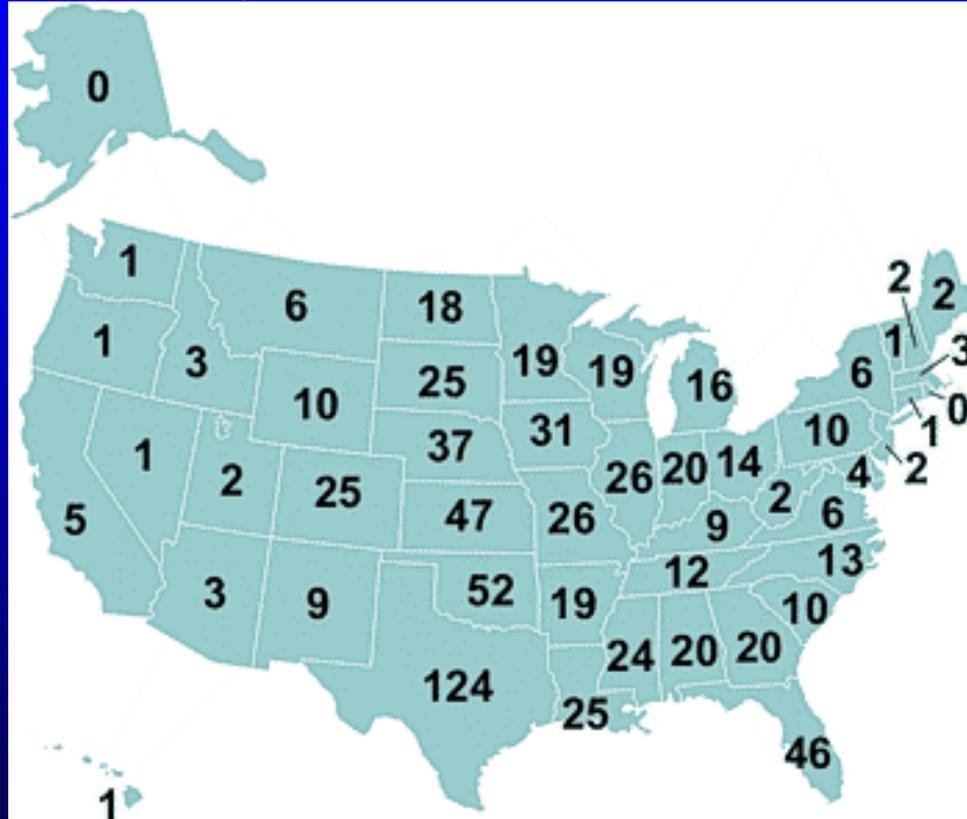
Origin of Texas Weather



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Texas has more tornados than any state in the Union



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The Waco Tornado - May 11, 1953

- F-5 tornado moved through downtown
- 114 killed
- More than 600 injured
- Roughly 200 businesses were destroyed.



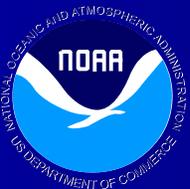
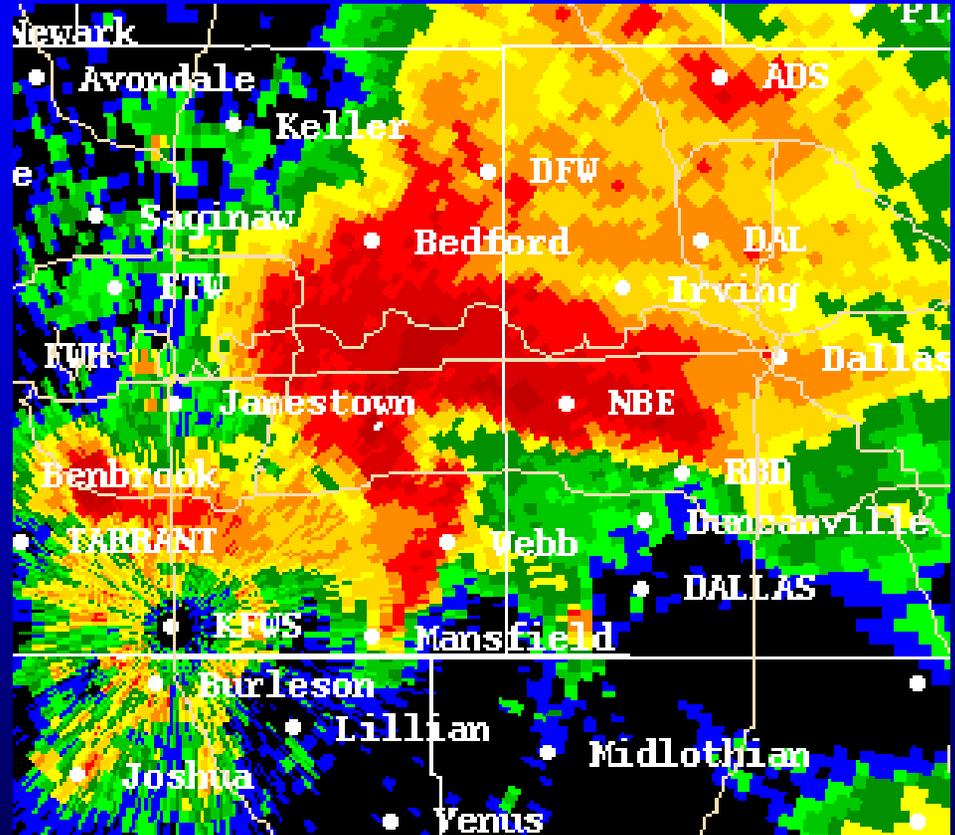
The Jarrell Tornado – May 27, 1997

- Multiple vortex F-5 tornado moved through Jarrell
- 27 killed
- Few injuries
- $\frac{3}{4}$ mile wide tornado
- Complete destruction down to the foundation of Double Creek Estates subdivision



People and Science make the difference

Fort Worth/Arlington
F3 Tornado
March 28, 2000

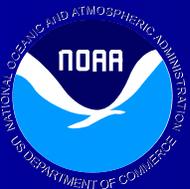
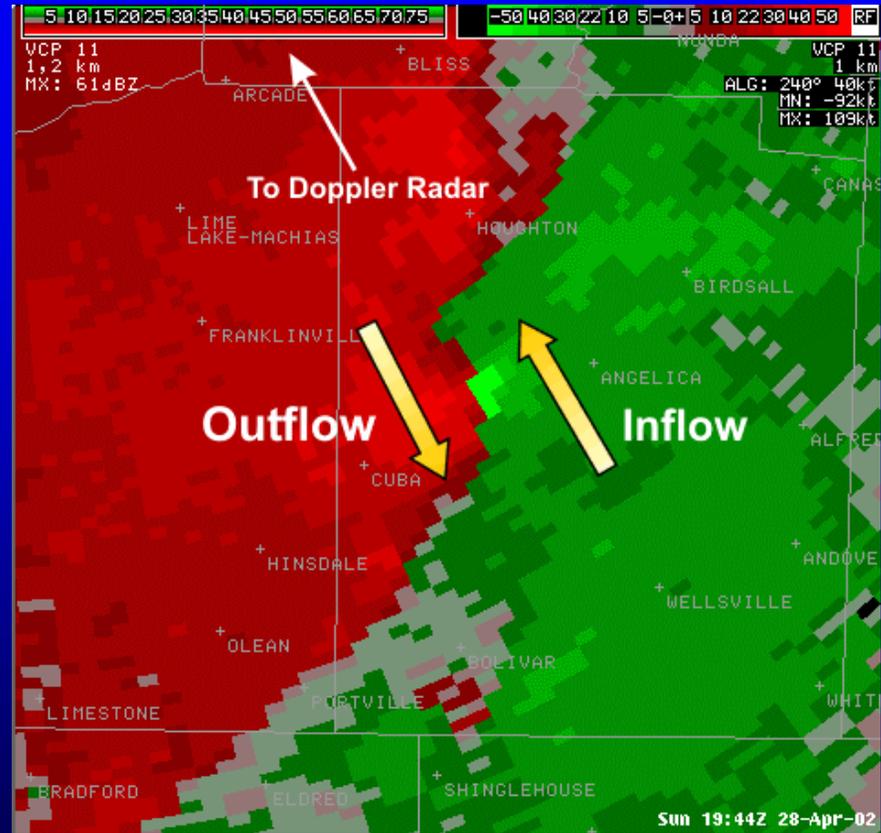


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People and Science make the difference

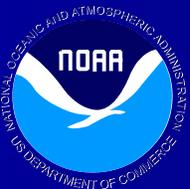
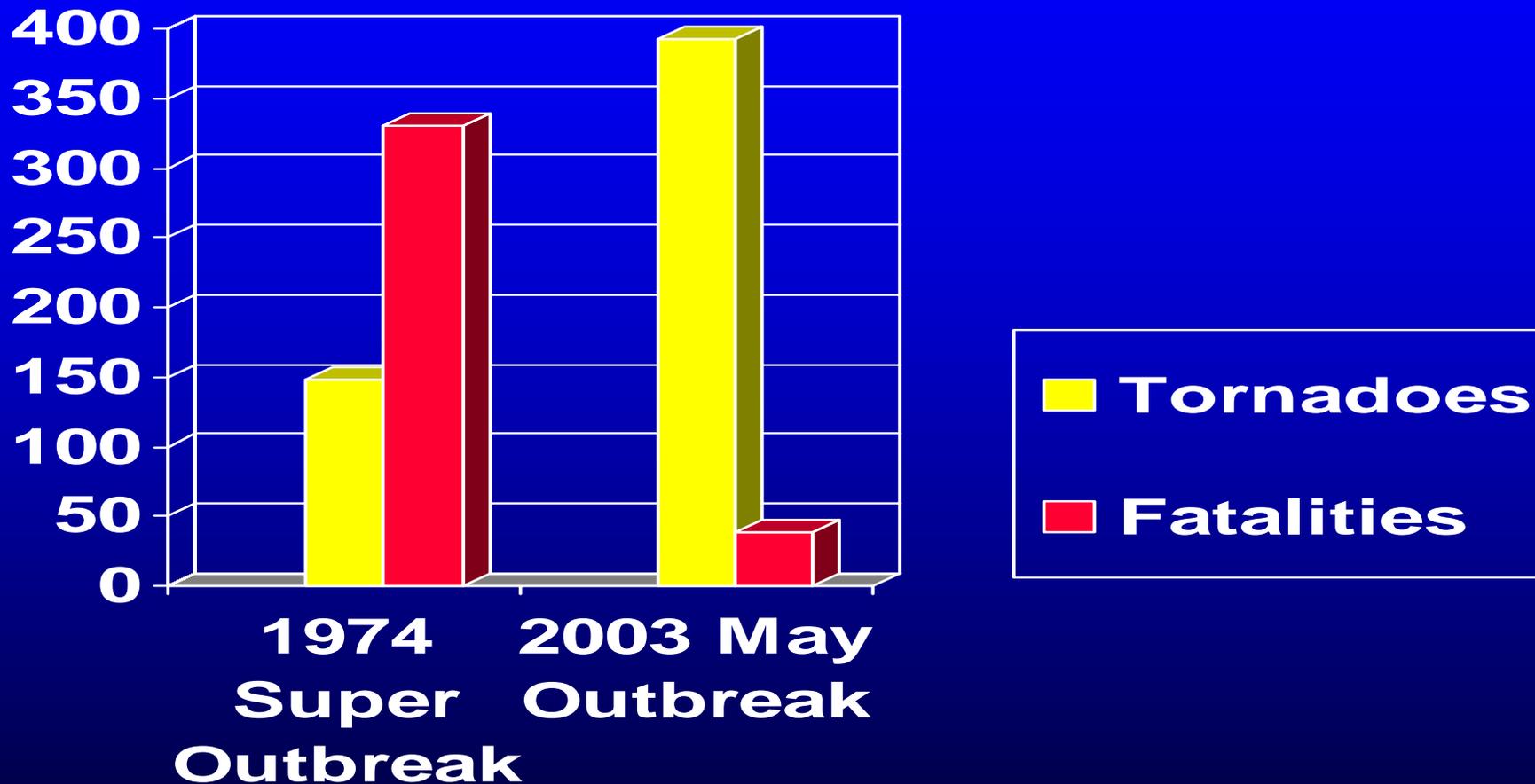
We can see the wind field in thunderstorms



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WFO Performance Saves Lives

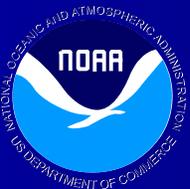
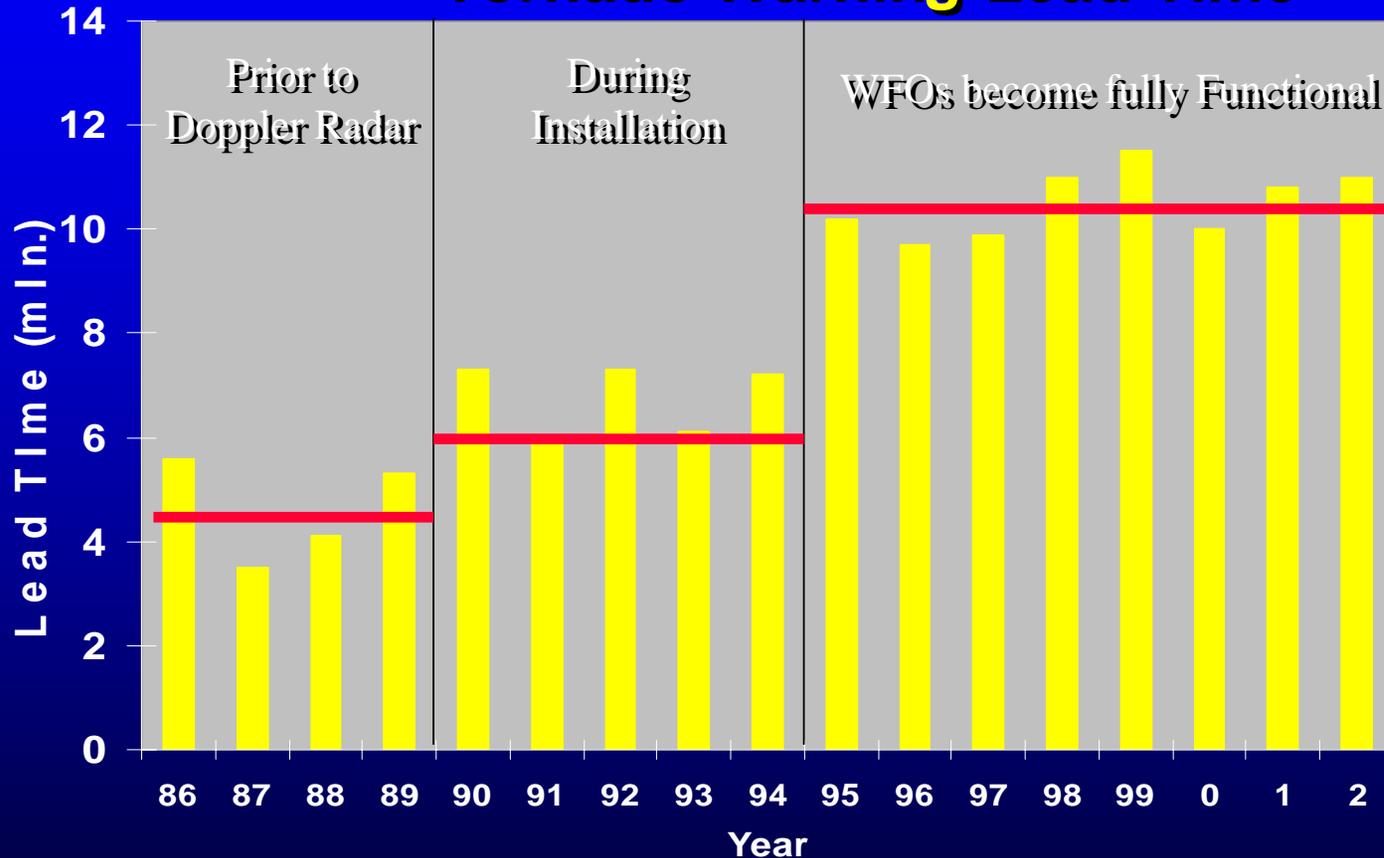


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The Doppler difference

Tornado Warning Lead Time



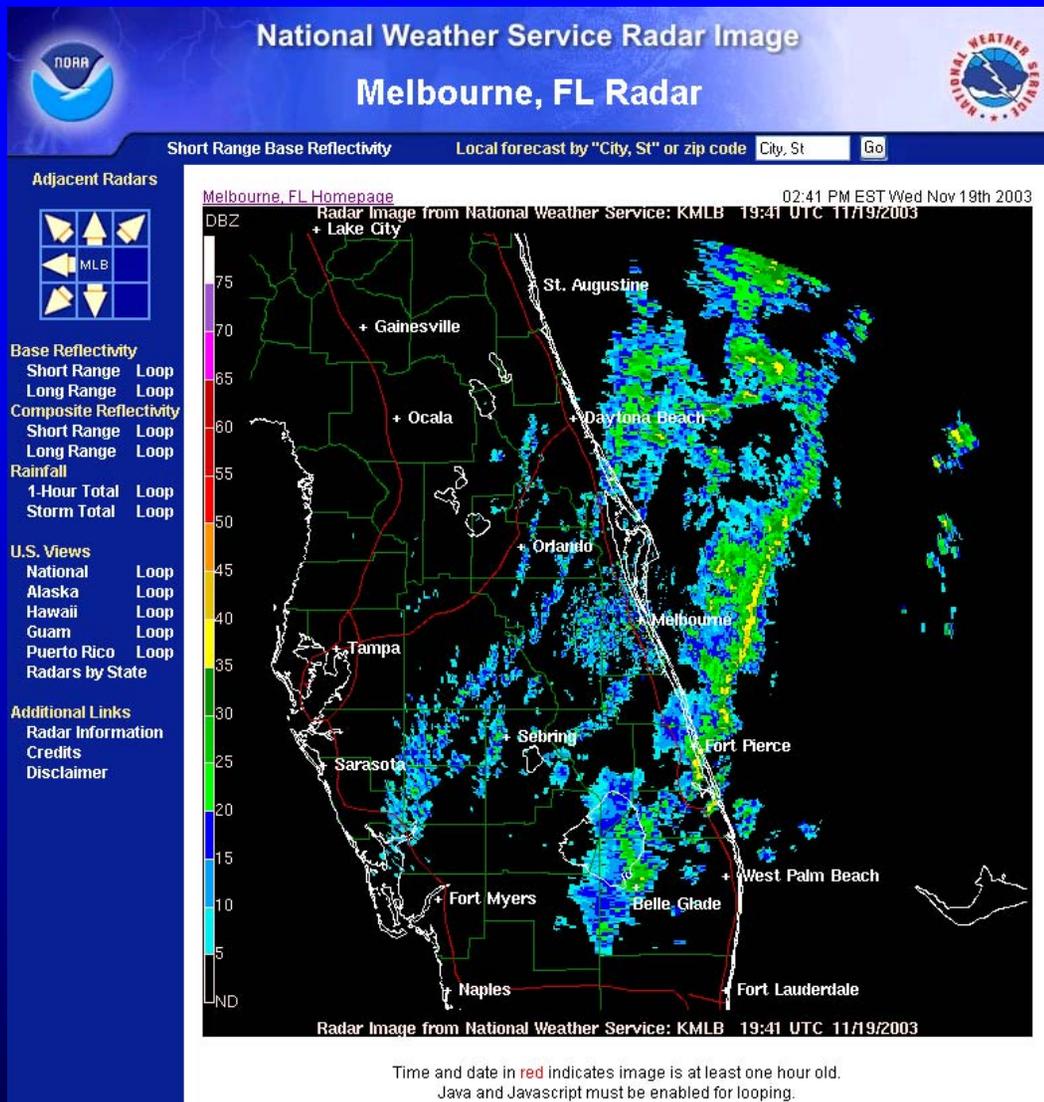
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Weather on the Web

- NWS Doppler Radar images are available for every radar from

www.srh.weather.gov



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NWS SR Internet Site

www.srh.weather.gov

- Serves as a one-stop source of weather information.
- Developed with the both - partners and general users - in mind
 - Easy navigation
 - Data given in the manner *you* need it.
- Increases public visibility of NWS mission and services



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NWS SR Internet Site

- Forecasts obtained by either postal zip code, city/state search, or by point and click maps
- Weather Information in clear, concise format
- Emphasizes local weather expertise

National Weather Service
Southern Region Headquarters

www.srh.weather.gov

Site Map News Organization Search Enter Search Here Go

You are at: NWS Home » SRH Home

Local weather forecast by "City, St" or zip code
City, St Go

Welcome from the Director

Southern Region Organization

Weather Hazards Nationwide

Doppler Radars Nationwide

Weather Links

Partners

Contact Us
susan.beckwith@noaa.gov

Tropical Weather Update
Click Here

Turn Around Don't Drown
Click Here

JETSTREAM Online Weather school
Click Here

National Weather Service Homepages River Forecast Center Homepages Center Weather Service Units Homepages

Click city for local weather information.

Additional SR pages: Spaceflight Meteorology | Riverwatch | NWS/FAA Academy

RIP currents
Click Here for Safety

ARE YOU StormReady?
Click to discover!

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NWS

Internet Forecasts

Quick Forecast information →

Latest Weather Advisories →

Current Weather Conditions →

Quick Forecast Text →

Radar and Satellite →

Your National Weather Service forecast
Clay County, TX

Enter Your "City, ST" or zip code

NWS Norman, OK Homepage Forecast as of: 430 AM CST WED NOV 19 2003

Forecast at a Glance

TODAY	TONIGHT	THURSDAY	THURSDAY NIGHT	FRIDAY	FRIDAY NIGHT	SATURDAY	SATURDAY NIGHT	SUNDAY
Sunny	Clear	Mostly Sunny	Mostly Clear	Windy	Windy	T-storms Possible	T-storms Possible	Windy
Hi 72°F Lo 45°F	Lo 45°F	Hi 78°F Lo 50°F	Hi 68°F Lo 45°F	Hi 75°F Lo 52°F	Hi 75°F Lo 52°F	Hi 75°F Lo 45°F	Lo 45°F	Hi 50°F

Detailed 7-day Forecast

Hazardous weather condition(s):

- [Special Weather Statement](#)

Today. Sunny. Highs in the lower 70s. West winds around 10 mph.

Tonight. Clear. Lows in the mid 40s. Southwesterly winds around 10 mph. In the evening becoming light.

Thursday. Mostly sunny. Highs in the upper 70s. South winds 10 to 15 mph.

Thursday night. Mostly clear. Lows in the lower 50s. South winds 10 to 15 mph.

Friday. Partly cloudy. Windy. Highs in the mid 70s. South winds 15 to 25 mph.

Friday night. Partly cloudy. Windy. Lows in the lower 50s.

Saturday. Partly cloudy with a slight chance of showers and thunderstorms. Windy. Highs in the mid 70s.

Saturday night. Partly cloudy with a 20 percent chance of showers and thunderstorms. Windy. Lows in the mid 40s.

Sunday. Partly cloudy. Windy. Cooler. Highs around 50.

Sunday night. Partly cloudy. Windy. Lows in the mid 30s.

Monday. Partly cloudy. Highs around 50.

Monday night. Partly cloudy. Lows in the mid 30s.

Current Conditions

Wixom Falls, Sheppard Air Force Base
Last Update on Nov 19, 1:52 pm CST

Fair
70°F (21°C)

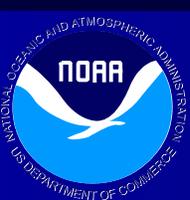
Humidity:	25 %
Wind Speed:	Vrbl 3 MPH
Barometer:	30.19" (1021.9 mF)
Dewpoint:	32°F (0°C)
Heat Index:	72°F (24°C)
Visibility:	10.00 mi.

[More Local Wx:](#) [2 Day History:](#)

Radar and Satellite Images

Additional Forecasts & Information

Forecast Discussion	Local Climatology
Hazardous Weather Outlook	Hazardous Weather Graphic
Detailed Forecast	Quick 7-day Forecast
Fire Weather Forecast	Regional Observations



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JetStream An Online Weather School

Designed to help
anyone interested
in learning
about weather

Click on the JetStream logo

www.srh.weather.gov

JETSTREAM

NWS SOUTHERN REGION WEATHER SCHOOL

Your local weather forecast by "City, St" or zip code

Jetstream Contents

1. Why JetStream?
2. Weather on the Web
3. The Atmosphere
4. Global Weather
5. Synoptic Meteorology
6. Thunderstorms
7. Tropical Weather
8. Remote Sensing
9. The National Weather Service
10. Appendix

Additional Links
What's New
NWS Southern Region

Welcome to JetStream, the National Weather Service Southern Region Weather School. This site is designed to help educators, emergency managers, or anyone interested in learning about weather.

The information contained in JetStream is arranged by subject; beginning with global and large scale weather patterns followed by lessons on air masses, wind patterns, cloud formations, thunderstorms, lightning, hail, damaging winds, tornados, tropical storms, cyclones and flooding. Interspersed in JetStream are "Learning Lessons" which can be used to enhance the educational experience.

You are free to use the materials in any manner you wish. We welcome your feedback on this project. Your input will greatly assist others in teaching the "hows" and "whys" of weather.



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Thunderstorms

- 1. Introduction
 - 2. Ingredients for a Thunderstorm
 - 3. Life Cycle
 - 4. Thunderstorm Types
 - 5. Thunderstorm Hazards
 - Lightning
 - Hail
 - Damaging wind
 - Tornadoes
 - Flash Floods
 - 6. Review Questions
- JetStream Home

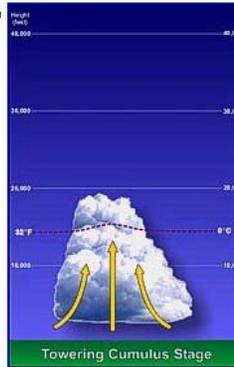
Life Cycle of a Thunderstorm

The building block of all thunderstorms is the thunderstorm cell. The thunderstorm cell has a distinct life-cycle that lasts about 30 minutes.

The first stage is the **towering cumulus stage**. A cumulus cloud begins to grow vertically, perhaps to a height of 20,000 feet. Air within the cloud is dominated by updraft with some turbulent eddies around the edges.



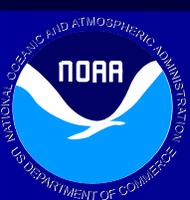
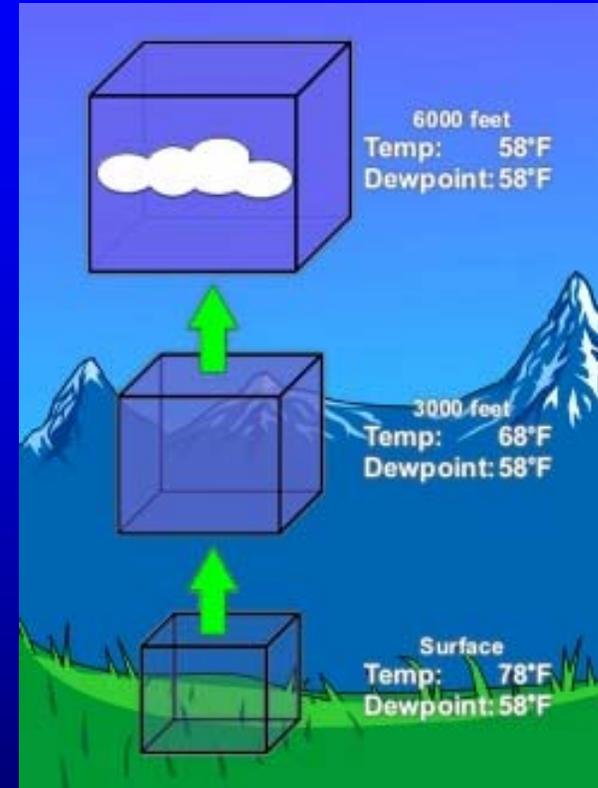
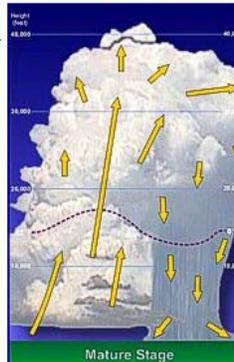
© 2001 Roger Edwards



The second stage is the **mature stage**. The storm has considerable depth, often reaching 40,000 to 60,000 feet. Strong updrafts and downdrafts coexist. This is the most dangerous stage when large hail, damaging winds, and flash flooding may occur.



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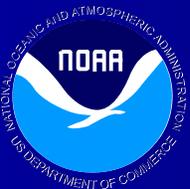


Turn Around Don't Drown™

- Flood and Flash Flood Safety Campaign
- Over 30 partners representing local, regional, and national organizations
- Launched in May 2003 by NWS Southern Region for the Nation



Click on this logo



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The Future of the NWS

“Forecast improvement will be through mesoscale (*local scale*) decision making.”

- With use of local models and expertise, we will be able to meet increasing public and private partner needs for accuracy
- Warning Decision Support System 2 (3-5 Yrs)
- Phased Array Radar (long term)



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National Weather Service

**“...government closest to the people,
governs best.”**

- President George W. Bush

Applied to the NWS:

**Government closest to the people,
serves best**



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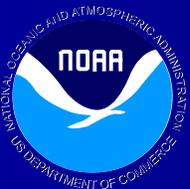
Questions?
Bill.Proenza@noaa.gov

(817) 978-1000

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Would you like copies of the slides?

At Left Margin Click on: **Welcome from the Director**
At Left Margin Click on: **“Texas Weather”**



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GO Frogs
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Southern Miss