



# The Co-Op Contributor

Serving the Co-Op Observer Network of the National Weather Service – Fort Worth Office

## Autumn 2009

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### Co-Op Contributor

#### Editor

Jennifer Dunn

jennifer.dunn@noaa.gov

#### Program Manager

Gerald Shultz

gerald.shultz@noaa.gov

## Adventures in Storm Chasing

by: *Jennifer Dunn*

Since 2001, chasing storms has been an exhilarating hobby of mine. Every spring I take off for 7-10 days and head north across the Plains in pursuit of Mother Nature's best looking storms and the elusive tornado. I spend most of my time in Tornado Alley; the portion of the United States where the highest number of tornadoes has historically occurred. This is also the area where I typically find the strongest and most picturesque storms. My storm chasing trips usually take me through several states and several hundred miles, and this year was no exception. In 7 days I drove into 6 states and logged 550 miles. Each morning of my chase vacation I wake up by 9 or 10 am, look at the newest meteorological data and decide where I want to be that afternoon. After reaching my target area, I sit and wait for storm formation to begin. This usually begins in the late afternoon hours so having a good book with me is a must to pass the time! After a full afternoon and evening of chasing, I take another look at the data for the next day and try to find a convenient place to stay. Most of my storm chasing days are 10-14 hour long days.

Of course some days are better than others. Some days nothing happens and sometimes I'm in the wrong location trying to play catch-up. But that's part of the chase and every chaser has experienced this. On days when there are no storms, I enjoy visiting places I've never seen before. You can find lots of quirky, fun things and places to visit on the Plains! This year I visited the Cathedral on the Plains and the World's Biggest Ball of Twine!

Most people think I am crazy or out of my mind to storm chase, but I love it and hope I can chase for decades to come. The real enjoyment for me is taking what I learned in a class and what I forecast for on a daily basis, and seeing it unfold before my eyes. Being able to watch a storm from start to finish and observe the mechanics

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**Above:** Supercell thunderstorm with lowering near the ground. No tornado was reported with this storm.



## Adventures in Storm Chasing (continued)

and behavior of a storm is the best lesson learned. Over the past few years I have been studying how to photograph these incredible storms. I get better every year, and this year I had a new DSLR camera to help. Here are some of the highlights from my trip:



## Measuring Winter Precipitation

by: *Gerald Shultz*

Now that Autumn is here and Winter is around the corner ... It's time to start thinking about freezing/frozen precipitation and how to go about measuring it. I hope the following points will be useful when you go about preparing for and measuring snow and ice.

### When freezing/frozen precipitation is expected to occur:

- ▶ Remove the funnel from the top of the rain gauge
- ▶ Remove the plastic or metal tube
- ▶ Take the funnel and tube inside

### Measuring Frozen Precipitation (Method 1):

- ▶ Remove the canister and take it to a warm location
- ▶ Allow the frozen precipitation to melt
- ▶ Pour the melted liquid into the plastic or metal tube (using the funnel)
- ▶ Measure as you normally would

### Measuring Frozen Precipitation (Method 2-preferred when precipitation is occurring at time of observation):

- ▶ Pour a pre-measured small amount of HOT water into the canister. The hot water should be pre-measured in the plastic tube.
- ▶ Allow the frozen precipitation to melt
- ▶ Pour the melted liquid into the plastic or metal tube
- ▶ Measure as you normally would
- ▶ Subtract the pre measured amount of hot water used
- ▶ The result is your reportable precipitation



The amount of melted frozen precipitation that you measure is reported in the "Rain, Melted Snow, etc." Column on your B-91 (not the "Snow, Ice Pellets, Hail" column!). After the freezing/frozen precip event is over, return the tube and funnel top to the rain gauge.



## Summer Climate Summary

For most north Texans, the summer months of June, July, and August 2009 were not as grueling as this same time last year. However, for a small portion of north Texans (mainly those who live around and south of Waco), this summer was one of the hottest on record. Both climate sites (Dallas/Fort Worth International Airport and Waco Regional Airport) reported average temperatures above normal during these the three month period of June-July-August, but the precipitation varied. Here are some interesting facts from both climate sites regarding the summer months:

### Dallas/Fort Worth International Airport (DFW)

- ▶ The first 100 degree day was on June 23. The average first 100 degree day is July 1.
- ▶ There were fourteen 100 degree days in the month of July which tied for 12th place for the number of 100 degree days in July.
- ▶ The minimum temperature on July 13th was 84° which tied the all-time record high minimum for DFW.

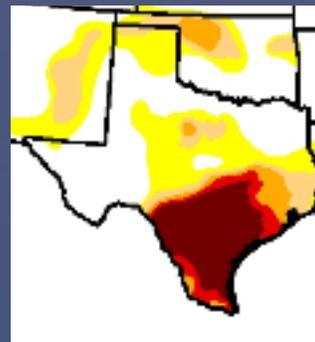
### Waco Regional Airport (ACT)

- ▶ From the end of May through June, ACT reported 33 consecutive days without rainfall. August only reported 0.01" of rainfall.
- ▶ The first 100 degree day was on June 13th. The average first 100 degree day is July 5th.
- ▶ There were fourteen 100 degree days in June. This tied for 3rd place for the number of 100 degree days for June. Ten of these fourteen days occurred consecutively and five of the days reported temperatures at or above 105 degrees.
- ▶ On June 24th, the temperature at 12 pm at ACT was 101° which was the warmest noon time temperature since September 4th, 2000.
- ▶ July saw nineteen 100 degree days and August reported twenty-one 100 degree days.
- ▶ The yearly total of 100 degree days at ACT so far is 55 days which falls into 4th place for the annual total of 100 degree days ever recorded.

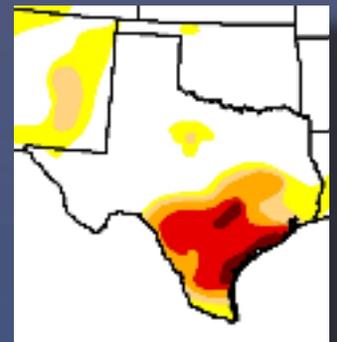
## The Worst Drought in Texas History for Some

Up until mid September, the land across south and central Texas was more than parched due to numerous months of below normal rainfall dating back as far as the end of 2007. Drought conditions had continued to worsen over the summer months, and the drought was being called the worst drought in the history of Texas in some parts of south and central Texas. Ranchers and farmers were suffering from the lack of rain and its ability to water crops and land and fill stock tanks. Cattle prices were down, supplemental feeding was required to feed livestock, and certain crops were producing their lowest yield in years. According to the U.S. Drought Monitor, at the worst part of the summer, Exceptional Drought covered 32 million acres of Texas or roughly 1/5 of the state. The monetary value of losses in Texas due to the drought was estimated to be over \$3 billion. In north Texas, the hardest hit areas were Milam, Bell, and parts of Robertson County.

July 28



September 15

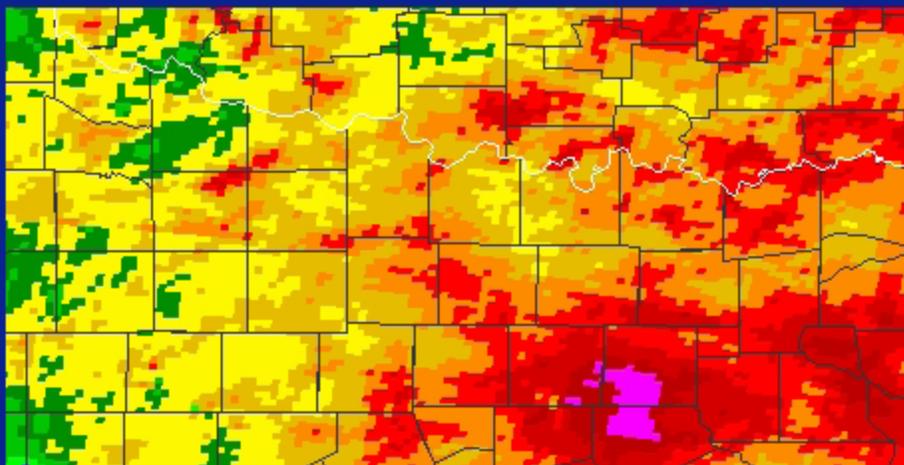


**Above Left:** U.S. Drought Monitor for July 28, 2009. The very dark red conditions represent extreme drought conditions. **Above Right:** Same as left image but for September 15, 2009. Notice the improvement in drought conditions across the southern part of the state.



## Texas Drought (continued)

North Texas  
7-Day Observed Precipitation - Valid 9/17/2009 1200 UTC



**Above:** 7 day image of observed precipitation across North Texas. The red areas indicate more than 6 inches of rainfall.

However, much of that changed in mid September, when a slow moving low pressure system resulted in a prolonged heavy rainfall event across central and north Texas. Periods of heavy rainfall continued into October causing additional flooding and helping to break the drought in some places. North Texas received the majority of the heavy rainfall and several areas of flash flooding resulted. Some of the areas that were hardest hit by the drought picked up over 10" of rain in just 4 days. The steady rain began falling on Friday, September 11th and finally ended on Monday, September 15th as the low pressure system moved into Arkansas. However, the low pressure system returned to north Texas on the 17th bringing more scattered light to moderate rain with it. Thankfully this was not enough to cause additional flooding in north Texas.

## Co-Op Corner Recipe - Banana Nut Bread (Yield 1 Loaf)

### Ingredients

1/2 Cup of shortening

1 Cup of sugar

2 eggs lightly beaten

1 1/2 TSP of baking powder

1 Cup of ripe mashed bananas

2 TBL of milk

1/4 TSP of salt

1/2 TSP soda

1 Cup of nuts

2 Cups of flour

### Directions

Cream shortening and sugar until light.

Add eggs and blend well.

Sift dry ingredients together.

Add alternately with milk and mashed bananas.

Add nuts and mix.

Pour in a greased loaf pan.

Bake for 1 hour in a cool oven at 325 degrees for first 15 minutes, then raise heat to 350 degrees.

