



The Co-Op Contributor

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

Fall/Winter 2007 Issue

- ▶ Page 2
**Itasca Observer
Receives 50 Year
Service Award**
- ▶ Page 2
**Welcome from
the Program
Manager**
- ▶ Page 3
**Preparing Your
Rain Gauge for
Winter Weather**
- ▶ Pages 5-6
**Your COOP
Rainfall Totals**
- ▶ Pages 8
**Cooking Corner
Recipe**

New COOP Webpage Launches!



**Visit the new cooperative observer page at:
www.srh.noaa.gov/fwd/coopcorner.htm**

The National Weather Service in Fort Worth has launched a new and improved webpage just for our COOP observers! This new webpage features information about the COOP program, helpful information and resources regarding taking your observations and reporting procedures, the history of the program, links to local and national newsletters, plus lots more!! We hope our observers will be able to make frequent use of this webpage to answer questions and for use as refresher training. If you have any suggestions of other items you would like to see on the webpage or come across any questions that cannot be answered by the information on the webpage, please contact Jennifer Dunn via email at: Jennifer.Dunn@noaa.gov or by phone at (817) 429-2631.

Co-Op Contributor

Editor

Jennifer Dunn
jennifer.dunn@noaa.gov

Program Manager

Gerry Shultz
gerald.shultz@noaa.gov

Preparing Rain Gauges for Winter Weather

During the winter months it is important that COOP observers keep an eye on the weather in anticipation and preparation for winter weather events. This means watching the weather for winter storms that may produce frozen precipitation. In north Texas, frozen precipitation consists of freezing rain, sleet, ice pellets, and snow grains. However, this can also include snow which can be collected in your rain gauge.

preparing rain gauges is concluded on Page 3



Itasca Observer Receives Stoll Award



Above: Meteorologist-in-Charge, Bill Bunting, presents Itasca observer Carl Sweeney Jr. with the Edward H. Stoll Award for 50 years of COOP service.

This past September, Carl Sweeney Jr, the COOP Observer in Itasca, was presented with the Edward H. Stoll Award for 50 years of service as a National Weather Service COOP Observer. Itasca is located approximately 10 miles north-northwest of Hillsboro. Mr. Sweeney began his term in January of 1957 and continues to provide excellent weather data to this day. NWS Fort Worth’s Meteorologist-In-Charge, Bill Bunting, along with the COOP Program Manager, Gerald Shultz, presented the award to Mr. Sweeney. This award is named after Edward H. Stoll who was the first COOP observer to ever receive an award for 50 years of service. President Jimmy Carter presented the award to Mr. Stoll and consequently named the award after him. Mr. Stoll was an observer in Elwood, Nebraska for over 76 years.

Mr. Sweeney was also awarded the John Campanius Holm Award in 1987. The Holm Award is presented to 25 COOP observers each year for their outstanding accomplishments as a COOP Observer. The recipients are nominated by their local NWS offices. Each nomination is required to have served a minimum of 20 years of dedicated service and shown outstanding dedication to fulfilling the mission and requirements of being a COOP observer.

Congratulations, Carl Sweeney Jr, and we look forward to you continuing your long run as a COOP observer!

Welcome From the Program Manager

I would like to take a moment and extend an invitation to our COOP family to please submit comments and suggestions so we might improve the content of our newsletter. We want this to be as informative and useful as possible and something that will grow with each issue. Your feedback is our only means of assuring us that the newsletter is accomplishing that task.

We also invite you to submit weather related stories or just plain “tall tales” for future issues. For those of you who would like to contribute to the “Cooking Corner” segment, send us your favorite recipes that you think others might enjoy.

Please help us in making this the best newsletter it can be by joining in. Send us your comments, stories, and recipes by email or you can drop a note in with your next paper form that you send in.

Wishing everyone the very best for the holidays!

Gerry Shultz - COOP Program Manager





Rain Gauges and Reporting Winter Weather (continued)

When a winter weather event is forecast, it is important to prepare your rain gauge (stainless steel 8" rain gauges only; not Fischer-Porter rain gauges) to collect all types of frozen precipitation. Preparing your rain gauge is simple and only requires removing the funnel and inner tube. This will allow freezing precipitation of all sizes to catch in the outer can without getting clogged in the funnel. Measuring and recording frozen precipitation takes a few more minutes than measuring rain/liquid precipitation, but it is important to follow all steps in order to accurately measure the amount of frozen precipitation. What you are actually measuring is the total water equivalent of freezing precipitation. There are two ways to melt the frozen precipitation and measure the total water equivalent. Note: both methods require the use of the funnel and inner tube.

Method #1 -- When it IS NOT raining/snowing at your time of observation



1. Bring the outer can inside and let the frozen precipitation melt.
2. Put the funnel back over the inner tube and pour the contents of the outer can into the inner tube.
3. Measure this total as you would a rainfall event with the measuring stick. This is your *total water equivalent* of frozen precipitation.

Method #2 -- When it IS raining/snowing at your time of observation



1. Bring the outer can inside.
2. Fill part of the inner tube with hot water and measure that amount using the measuring stick.
3. Pour the hot water into the outer can and slosh around to melt the frozen precipitation. Be careful not to slosh any of the water out.
4. Put the funnel back over the inner tube and pour the contents of the outer can into the inner tube.
5. Measure the total amount of water in the inner tube with the measuring stick.
6. Subtract the amount of hot water that you poured in (Step 2) from the total amount of water (Step 5) to get the total water equivalent .



Heavy Rainfall Hammers North Texas in June and July

Record setting rain fell across north Texas this past summer causing widespread flash flooding along with river and lake flooding. The impacts area wide were detrimental in several ways whether it was cars being stranded in rapidly rising waters or homes being destroyed by flooding. The majority of rain this past summer fell during the time span of mid June through the first week of July. Here are some statistics from our 2 official climate sites, DFW International and Waco Regional Airport:

DFW

- ▶ Recorded 16.99” of rainfall this past summer making it the 5th wettest summer on record.
- ▶ 12.88” of the total 16.99” fell from June 15th-July 8th (just 24 days!).
- ▶ The highest daily rainfall total at DFW was 2.54” on June 26th (a new daily record rainfall).

Waco

- ▶ Recorded 11.48” inches of rainfall making it the 16th wettest summer on record.
- ▶ 9.73” of the total 11.43” fell from June 15th-July 8th.
- ▶ The highest daily rainfall total at Waco Airport was 3.37” on June 17th (surprisingly not a record for this day).

The tremendous rainfall episode was caused by a persistent mid and upper level low pressure system that remained nearly stationary over north Texas for several days. These systems can allow deep tropical moisture to spread north from the Gulf of Mexico resulting in several days of showers and thunderstorms. Many areas received more than 6 inches of rain in just two days. These systems are not completely unknown to north Texas. Several heavy rainfall events have occurred as a result of slow moving upper level low pressure systems.



Above: Aerial photo of flooding near Gainesville, TX on June 18.

Below: Flooding in Gainesville, TX on June 18.



Above: Aerial photo of flooding near Gainesville, TX on June 18.

These photos are courtesy of: Ray Fletcher, Cooke County EM





Heavy Rainfall (continued)

There were three main heavy rain episodes during this time frame that resulted in the most flooding:

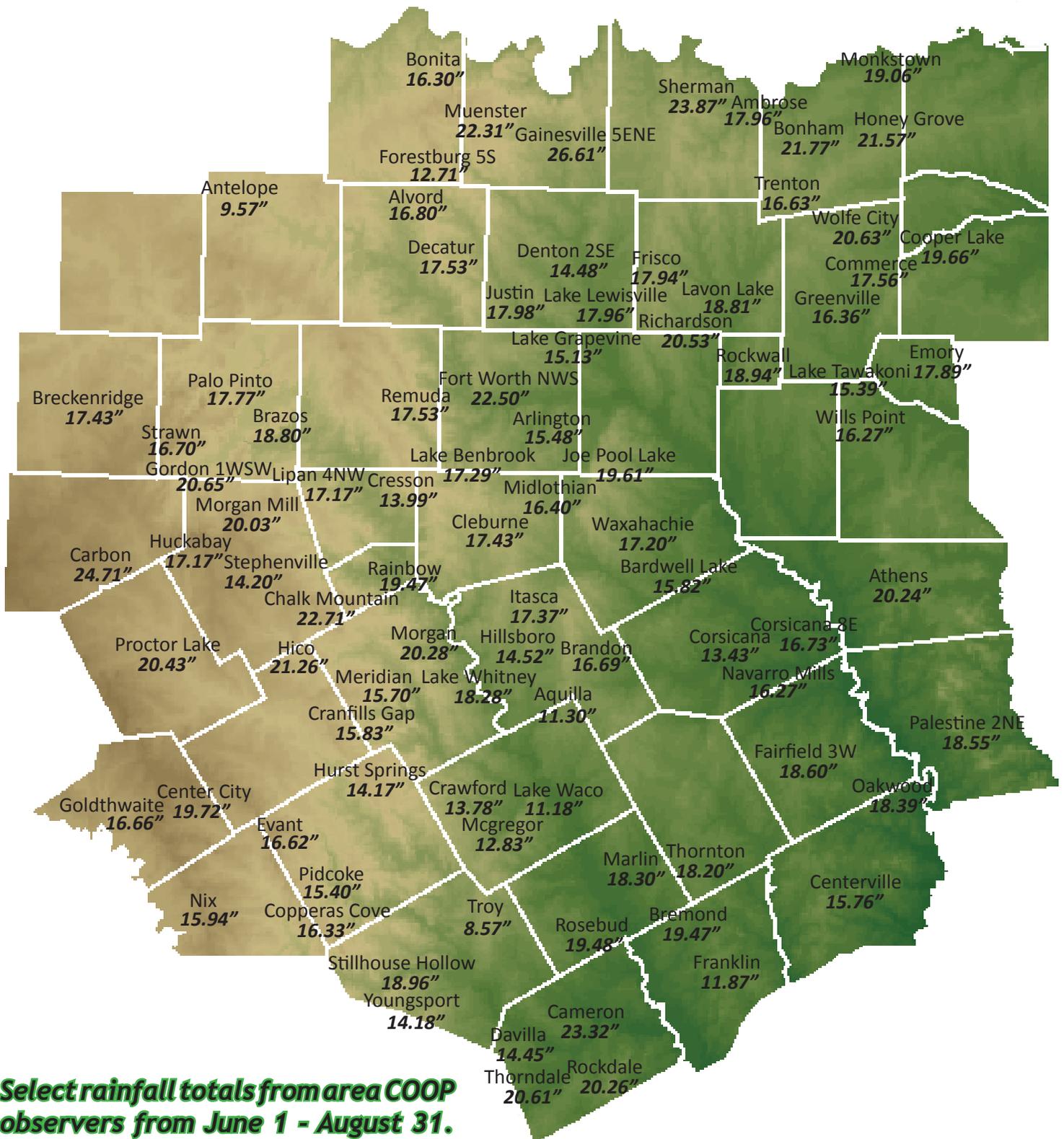
- ▶ **June 18th:** Heavy rain caused significant flash flooding in Haltom City (a suburb of Fort Worth), Gainesville and Sherman. In Haltom City, a mobile home community was hard hit when a nearby creek overflowed, and several feet of water flooded parts of Gainesville and Sherman. All of Interstate 35 from Gainesville to the Red River had to be closed and portions of Highway 75 in Sherman were also shut down.
- ▶ **June 26th-27th:** Heavy rain caused flooding across much of north Texas but the areas that were impacted the most were in Hood and northern Erath counties. This was also the same day that Marble Falls was severely flooded when over 10 inches of rain fell in less than 6 hours.
- ▶ **July 3rd:** Another heavy rain event hit Haltom City and surrounding suburbs during afternoon rush hour. Cars were stranded on Loop 820 and the same mobile home community that was flooded on June 18th was hit again. 3-4 inches of rain fell in less than 2 hours over parts of northeast Tarrant County.

The June 26th-27th rain event seemed to have the biggest impact on north Texas COOP Observers. Here are some of the larger rainfall totals that were reported on these days:

June 26		June 27	
Alvord	2.30	Alvarado	3.30
Bonita	3.95	Aquilla	2.93
Carbon	3.75	Brazos	3.36
Chalk Mountain	4.95	Bremond	3.63
Decatur	3.30	Carbon	3.14
Ferris	3.86	Center City	3.14
Fort Worth NWS	3.24	Cleburne	2.89
Gainesville	3.05	Copperas Cove	3.30
Gordon	2.35	Cranfills Gap	3.61
Hico	2.29	Crawford	3.48
Kaufman 13 ENE	2.37	Cresson	3.23
Muenster	2.30	Dublin	2.33
Remuda	2.57	Fairfield 3W	2.60
Richardson	2.80	Ft. Worth Nature Ctr.	2.71
Strawn	3.05	Frisco	3.96
		Goldthwaite	2.38
		Gordon	4.29
		Graham	2.37
		Granbury 5N	3.15
		Hico	3.00
		Huckabay	4.75
		Hurst Springs	2.61
		Itasca	2.25
		Justin	3.21
		Marlin	3.80
		Meridian	2.95
		Midlothian	2.50
		Morgan	2.80
		Olney	2.21
		Rainbow	2.88
		Rockwall	2.75
		Rosebud	3.92
		Rosser	2.88
		Terrell	2.24
		Waxahachie	2.60



Area COOP Rainfall Totals (June-August)



Select rainfall totals from area COOP observers from June 1 - August 31. Only complete data was used.



A Guide to Winter Weather Products Issued by the NWS

Winter time in north Texas can mean a wide variety of winter precipitation. The following list will help explain the different types of winter weather forecast products issued by the National Weather Service in Fort Worth. These products can be accessed on the internet as well as heard on NOAA weather radio.

Advisories

Freezing Rain Advisory: Light ice accumulation (freezing rain or drizzle) of less than 1/4 inch.

Sleet Advisory: Sleet accumulation of less than 1/2 inch.

Snow Advisory: Snow accumulation of 3 inches or less.

Blowing Snow Advisory: Blowing snow that reduces visibilities to less than 1/4 mile with wind speeds of 35 mph or less.

Winter Weather Advisory: Any combination of the above precipitation events can be expected.

Wind Chill Advisory: Wind chill readings of 0° F or less.

Warnings

Ice Storm Warning: Ice accumulations of 1/4 inch or more.

Heavy Sleet Warning: Sleet accumulation of 1/2 inch or more.

Heavy Snow Warning: Snow accumulation of 4 inches or more in 12 hours or 6 inches or more in 24 hours.

Blizzard Warning: Blowing snow that reduces visibilities to 1/4 mile or less for 3 hours with winds in excess of 35 mph.

Winter Storm Warning: Any combination of the above precipitation events can be expected.

Miscellaneous

Winter Storm Outlook: Hazardous winter weather event expected in the next 3 to 7 days.

Winter Storm Watch: Hazardous winter weather event expected in the next 24 to 36 hours.

Winter Storm Warning: Hazardous winter weather is occurring, imminent, or expected in the next 24 hours.

Freeze Watch and Warning: Temperatures are expected to be 32° F or less for the first time during the freeze season. The freeze season is defined as late fall through early spring.



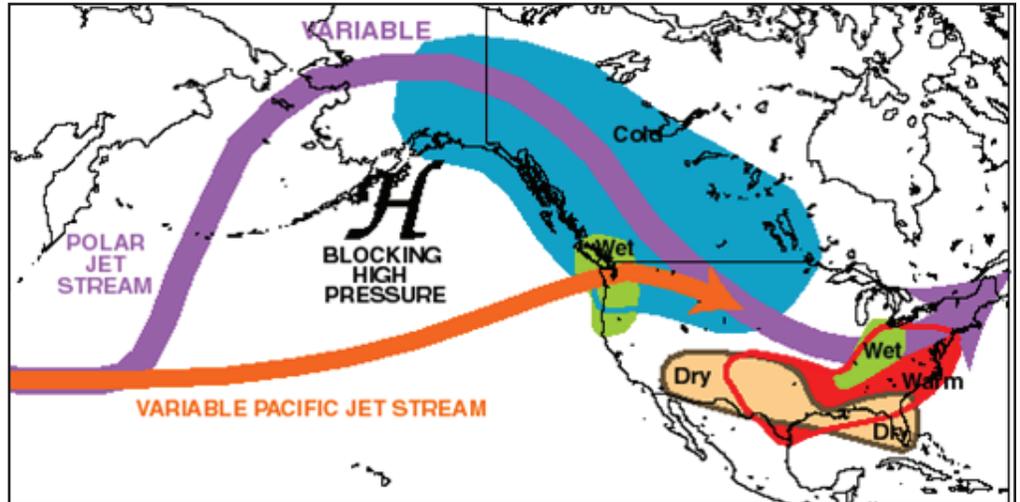
La Niña and North Texas

Recent discussion and forecasts about the upcoming winter months are mentioning the development of La Niña in the Pacific Ocean and the impacts this weather phenomenon will have on the United States. La Niña conditions and signatures became strong in August and are forecast to continue through early 2008.

What is La Niña and what are its impacts on north Texas? La Niña refers to the cooling of ocean

surface temperatures in the central and east-central Pacific Ocean. This is the opposite from El Niño which is the warming of ocean surface temperatures in the central and east-central Pacific Ocean. This cooling or warming of sea surface temperatures takes place very near the Equator. The change in ocean surface temperatures has an effect on the overall atmospheric circulation that in turn affects winters in the United States. The relationship between the ocean temperatures and the atmospheric circulation is very complex.

La Niña conditions usually result in warmer and drier winters in north Texas. The Climate Prediction Center is already forecasting above normal temperatures and below normal precipitation for the three month period of December, January, and February. However, this does not necessary signify that north Texas is about to enter into another drought, and the presence of La Niña does not indicate that we will not see any winter weather events. But temperatures can be expected to be above normal through the winter months and periods of dry weather are most likely to occur. One problem that may arise from warmer temperatures and periods of dry weather is an increased fire threat.



Above: Typical La Niña pattern.

This Edition's *Cooking Corner* Recipe -- Cheesecake Brownies

Ingredients

- ▶ 3/4 cup (1 1/2 sticks) of butter or margarine
- ▶ 2 bars Nestle Toll House Unsweetened Chocolate Baking Bars (2 ounces each)
- ▶ 2 1/4 cups granulated sugar, divided
- ▶ 4 eggs
- ▶ 1 3/4 cup all-purpose flour
- ▶ 1 package (8 ounces) cream cheese, softened
- ▶ 1 teaspoon vanilla extract

Directions

- ▶ Preheat oven to 350°.
- ▶ Melt butter and chocolate bars in medium saucepan over low heat. Stir until smooth.
- ▶ Cool mixture to room temperature.
- ▶ Stir in 1 3/4 cup sugar. Beat in 3 eggs. Stir in flour.
- ▶ Spread in greased 9x13 inch baking pan.
- ▶ Beat cream cheese and remaining 1/2 cup sugar in a bowl.
- ▶ Beat in last egg and vanilla.
- ▶ Pour over mixture in baking pan and swirl batters with knife.
- ▶ Bake for 30-35 minutes or until toothpick comes out slightly sticky. Let them cool completely in pan.