



Fall 2007

THE TEXAS THUNDERBOLT

National Weather Service -- Fort Worth, TX
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IN THIS ISSUE

- 2 **WGRFC?**
- 3 **Staff Spotlight**
- 4 **DR. WEATHER'S WISDOM**
- 4 **What an Active 2007!**

Deadly Late Spring and Early Summer Flooding

Torrential rains in the late spring and early summer ended the drought across North Texas, which had persisted for over two years. Although the rainfall was welcomed by farmers and outdoor recreational interests, the continuous heavy rain resulted in record-breaking flooding across the region.

The early morning of June 18 changed many lives forever. A slow moving thunderstorm, producing heavy rainfall, dropped 2 to 3 inches of rain in portions of Haltom City, near Fossil Creek. This caused the creek to come out of its banks, flooding a nearby mobile home park. The storm then proceeded northward, causing wind damage at the Denton airport before moving into Cooke and Grayson counties. The storm produced 10 to 12 inches of rainfall near Gainesville, causing Pecan Creek to overflow. Portions of I-35 had to be shut down for several hours. Much of the city was under 2 to 3 feet of water, resulting in millions of dollars in property damage. The storm also caused major flooding near Sherman, resulting in several high water rescues. Overall, the June 18 event claimed 6 lives.

From May through July, heavy rains also affected many rivers in North Texas. Record flooding occurred on the Elm Fork of the Trinity near Gainesville. Flooding of the Brazos River caused extensive damage in Hood County, near Granbury, and in Parker County near Dennis.



Above: Water rushing down the streets of Gainesville on June 18. Courtesy Ray Fletcher, Cooke County EM.



Above: Destruction left by flood waters in Haltom City on June 18. Courtesy Fort Worth Star-Telegram.

Meteorologist-In-Charge
Bill Bunting

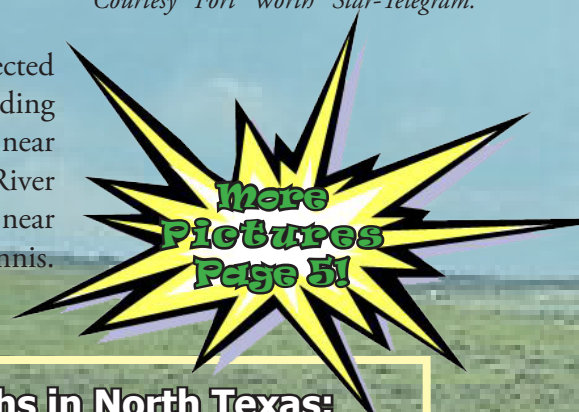
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The Human Toll...

Flash Flood Deaths in North Texas:

Jan - Jul 2007 : 21
Jan - Dec 2006 : 2

Background image is courtesy of Stacie Hanes.
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WGRFC? The West Gulf River Forecast Center

By Greg Waller

Flooding continues to be one of the leading causes of weather-related deaths each year in the U.S. The NWS uses a “shared” approach to flood forecasting. Local Weather Forecast Offices (WFOs) are responsible for issuing warnings and statements, including but not limited to Flash Flood Warnings (short duration) and Flood Warnings (long duration and flooding related to rivers). River Forecast Centers (RFCs) provide guidance and other related critical information in support of the flood warning program. The West Gulf River Forecast Center (WGRFC) is responsible for issuing river forecasts for much of the state of Texas, as well as portions of Louisiana, New Mexico, and Colorado, which includes the Sabine River to the Rio Grande. The WGRFC serves 15 WFOs in southern Colorado, New Mexico, Texas, Oklahoma, and western Louisiana.

River forecasts are generated by RFCs when points along the river approach or exceed “criteria” levels. The RFC hydrologists pay close attention to information such as soil moisture, precipitation estimates from radar and satellite, and rain gauge observations. The hydrologists then blend that information with model output and forecaster skill and expertise to generate a river forecast. Coordination between WFO and RFC personnel, along with staff at river authorities and state and local agencies, is critical to producing the best river forecast.

The NWS Fort Worth Weather Forecast Office is co-located with the West Gulf River Forecast Center. Our meteorologists have easy access to the West Gulf’s expertise to keep you updated with the latest river forecasts across North Texas!



Above: WGRFC forecasters Alana McCants and Alex Orr work on their river forecast products.

Quick Stats!

The chart to the right depicts rainfall observed at DFW Airport and Waco Regional Airport from January 1 to July 31 of this year. Normal values and observations from last year, for the same time period, illustrate how wet 2007 has been so far!

Location	Jan 1 - July 31 2007	Normal	Jan 1 - July 31 2006
DFW	37.62	21.08	16.38
Waco	40.44	19.57	14.64



Staff Spotlight: Gary Woodall

Warning Coordination Meteorologist



Meet Gary Woodall, the Warning Coordination Meteorologist (WCM) at your National Weather Service in Fort Worth.

Gary, what got you interested in weather?

As far back as I can remember, I was interested not only in weather, but in violent weather. When I was about 7, my parents got me a weather forecasting set for Christmas, which really set the stage. Growing up in central Florida, hurricanes were an annual possibility that we faced. Each June, my grandparents (who lived in the Miami and Tampa areas) would send me the big hurricane tracking charts. I'd tack them on my bedroom wall and track the storms as best I could (no Internet in those days!). I remember Agnes in 1972 and David in 1979. I was also always fascinated with tornadoes. Their destructive power along with their almost graceful appearance really impressed me. In elementary school, I'd always try to draw pictures of hurricanes and tornadoes in art class, no matter the activity.



Above: Gary Woodall, WCM

Where did you go to school?

In 1977, my Dad took me to the Tangerine Bowl in Orlando, which featured Florida State and Texas Tech. The Seminoles put a whipping on, the score was 40 to 17 if I remember (sorry Red Raiders!). That got me hooked into being an FSU fan. I found that FSU had a good meteorology program, so from 10th grade on, I knew where I was going to college. In my junior year at FSU, I stumbled across some University of Oklahoma/National Severe Storms Lab tornado projects of the early 1980s. That really intrigued me, and I wanted to go to OU for my graduate work. I was honored to be accepted as a student under Dr. Howard Bluestein, an internationally-renowned severe storms expert.

What jobs have you had in the NWS?

Preparedness and Outreach have been a focus of my NWS career, right from the beginning. I started at NWS Midland, TX as an intern in January 1988. At that time, the Meteorologist in Charge (MIC) was handling all of the spotter training and most of the outreach. In February, 3 days into the "Skywarn Tour", the MIC came down with laryngitis. I was able to stand in for him and delivered the next several programs. I took over spotter training duties in 1989 and 1990. I moved to NWS Lubbock in 1990, and was the Warning Preparedness Meteorologist from 1990 to 1993. In 1993, I moved to the Regional Headquarters in Fort Worth and served as the Regional Warning Coordination and External Affairs Meteorologist from 1993 to July 2000. I have been at the Fort Worth Forecast Office since then.

For more about Gary Woodall and the role of the WCM, see page 5.

DR. WEATHER'S WISDOM



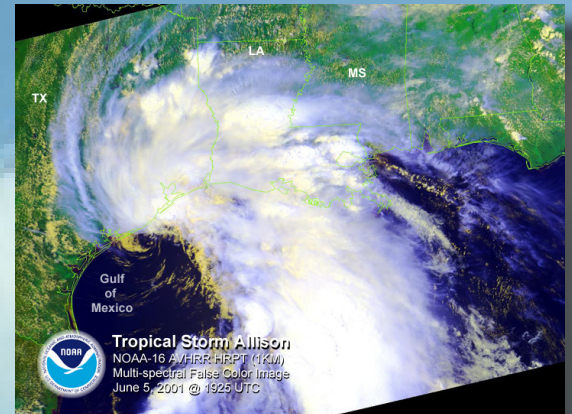
HEAVY RAIN AND HURRICANES

BY: TED RYAN

While it may seem that hurricanes and tropical storms are only a threat to coastal areas, it is interesting to note that since 1970, over half of all fatalities and hundreds of billions of dollars in damage from tropical systems have occurred inland. Although hurricane winds and hurricane-spawned tornadoes can spread inland and often receive the most attention, it is the massive flooding associated with these systems that produce the most damage and greatest loss of life. Even the most powerful hurricanes rapidly lose their strong winds as they move ashore, but slow moving remnant tropical systems can produce flooding for several days as they wander inland.

In fact, Texas holds the distinction of having the top 3 most prolific rainfall-producing tropical systems, all of which never reached hurricane strength. In 1978, Tropical Storm Amelia produced 26 inches of rain in just 12 hours in Abilene! Tropical storm Claudette produced 42 inches of rain in Alvin, Texas in 1979, which is the record one-day rainfall for the entire United States. Flooding from Tropical Storm Allison in 2001 caused over \$6 billion in damage and killed 41 people. The majority of the damage occurred in Texas, where upwards of 40 inches of rain fell in the Houston area.

Here in North Texas we need to keep an eye on the tropics, too. While we may not ever have to evacuate for a tropical storm or hurricane, we are certainly not immune to the havoc they can bring.



Above: Tropical Storm Allison making landfall near Houston on June 5, 2001. Satellite NOAA.

Atlantic Hurricane Season runs through November 30!

Visit the National Hurricane Center at www.nhc.noaa.gov

What an active first half of 2007!

The first half of 2007 brought a plethora of weather, from snow and tornadoes in April to record-breaking heavy rains and flash flooding in May, June, and July. Here are some statistics on the number of warnings issued by NWS Fort Worth from Jan 1 to July 31, 2007 versus previous years.

Warning	2007	2006	2005	2004	2003
Tornado	52	27	8	31	25
Flash Flood	531	98	31	242	11
Severe	464	347	341	439	393

June Flooding



Above: Impacts from flooding in Haltom City on June 18. Courtesy Fort Worth Star-Telegram.



Above: Aerial view of Gainesville under water on June 18. Courtesy Ray Fletcher, Cooke County EM.

More details and pictures on the June 18 flooding can be found at

www.srh.noaa.gov/fwd/flood2007.htm

More about Gary Woodall

Continued from page 3

Gary, what is the role of the WCM?



Above: Gary communicating with our partners during severe weather.

The WCM is the customer service program manager for the office. I don't believe that position title, "Warning Coordination Meteorologist", is completely accurate. While a WCM does a lot of severe weather-related activities, we also collaborate with our customers on other aspects of our services. These include web-based products, routine forecast products, and meteorological support for non-weather-related responses.

What do you love about your job?

As someone with a life-long interest in storms, having a job where my main duty is to talk to people about storms is a dream come true. I enjoy helping people get better prepared to take on weather hazards that face us in North Texas. I enjoy working with all of our customers, and visiting with all of the terrific emergency managers, media members, and storm spotters in our area. I enjoy traveling around and seeing the wide geographic variation across our region, from the thickly-wooded areas of our eastern counties to the wide-open spaces in the west.

For questions about NWS Fort Worth services or to schedule a tour, contact Gary at Gary.Woodall@noaa.gov