



# The Mid-South Chronicle

National Weather Service  
Memphis, TN  
Proudly serving the Mid-South!  
Visit us on the web @  
www.weather.gov  
Inside this issue:

Mid-South Drought	2
Fall Severe Weather	2
HazCollect	3
Hydrologist Retires	3
Winter Weather Safety	4
4/7/06 Severe Storms	4
Forecaster Farewell	5
Timmy the Twister	6-7

## Winter Weather Tips

### For your vehicle...

- Cell phone with some way of recharging the battery
- Blankets
- Flashlight with extra batteries
- First Aid kit
- Knife
- Non Perishable food
- Spare, dry clothing
- Large empty container to use as a toilet, Kleenex and toilet paper for sanitary purposes
- Extra water
- Shovel
- Bag of sand or kitty litter to use as traction
- Windshield scraper and brush
- Tow rope
- Battery jumper cables
- Compass and road maps



Volume VI, Issue 2

Winter 2006-2007 Edition

## The Killer Tornado Outbreak of April 2, 2006

By Jody Aaron  
Intern Meteorologist

On the afternoon of Sunday, April 2nd, a violent and deadly storm system moved across the Mid South. This storm system forever changed the lives of persons living in the effected communities.

Several distinct supercell thunderstorms developed Sunday afternoon and evening and tracked over northern and central Arkansas and portions of west Tennessee. These supercells tracked along pre-existing boundaries that were left over from morning convection.

The first tornadic supercell to develop moved into northeast Arkansas during the late afternoon. This storm produced tornadoes, up to F3 intensity, over a four hour period as it moved east across the Missouri Bootheel and northwest Tennessee. This storm finally weakened in Carroll County, Tennessee. Severe damage occurred in the towns of Marmaduke, Braggadocio, and Caruthersville. Additional tornado damage was observed across Dyer, Gibson, Weakley, and Carroll counties in Tennessee in association with this storm.



F3 Tornado Approaching Caruthersville, MO  
Photo by: Scott McCord

A second tornadic supercell storm developed around 8:30 pm and moved across northern Gibson County and produced F3 damage. Twenty six fatalities and hundreds of injuries resulted from the first two supercell thunderstorms.

A third supercell developed and moved from central Arkansas into Cross County in eastern Arkansas around 7:00 pm. This supercell produced strong F3 tornado damage, but luckily no fatalities and only a few injuries.

Continued on Page 5...

## The NWS Celebrates a StormReady Community Hero

By Rich Okulski  
Warning Coordination Meteorologist

On August 29<sup>th</sup>, the National Weather Service Office in Memphis, TN hosted a NOAA StormReady Community Hero Award ceremony for Caruthersville Emergency Manager and Fire Chief Charlie Jones. Charlie's heroic actions safeguarded 2000 lives when a F3 damage tornado moved directly through his city on April 2, 2006. Only sixty five people were injured, including Chief Jones and no one died! Caruthersville became a StormReady community in June 2005. Charlie's action plan was cited as the primary reason for no loss

of life that evening.

Seventy five people attended the ceremony to pay tribute to Charlie and to rally as a community while Caruthersville rebuilds in the aftermath of the tornado. Several notable public officials participated in the ceremony and praised Charlie for his heroism.

Continued on Page 5...

## The Mid-South Drought Impacts Farmers

By Buzz Merchlewitz  
Service Hydrologist

By the time you read this, the summer of 2006 drought across the Mid-South may be only a distant memory. But it is a fact that most of the rainfall reporting stations in the area received below normal rain amounts from February up to mid August 2006. According to the U.S. Drought Monitor (<http://www.drought.unl.edu/dm/monitor.html>), portions of the Memphis service area have been experiencing abnormally dry to moderate, and even severe, drought conditions since April. It wasn't as dry as in Texas and Oklahoma, or the northern Rockies, but it was dry enough to cause some significant problems and challenges for area farmers. Our driest period was from June to mid August, just when the crops need the water. Memphis saw the fifth driest June-July period on record with only 2.93

inches of rain, and in addition it was the driest June-July since 1966. In Tupelo, June and July was the fourth driest on record with only 2.69 inches. Crop land that was irrigated throughout the summer fared well, albeit at a cost, but non-irrigated crops suffered. It appears that non-irrigated crops in northern Mississippi were hit the hardest by the lack of rain, but the crops were showing signs of stress all across the Mid South region. To make the drought situation somewhat deceiving is the spotty nature of the rain we get during the summer with the "scattered to isolated showers and thunderstorms". Some places seemed to get that 30% chance of rain while other places were always missed!

Another significant drought impact the Mid South has had to deal with is

the low Mississippi River levels. On August 30<sup>th</sup>, the stage on the Mississippi River at Memphis got down to -8.6 feet, the fourth lowest on record since 1871. It's bad enough that the dry conditions reduce the yields on corn, soybeans, and cotton, but the low river stages affect the transportation system that farmers and factories across the central part of America rely on. The low river levels force barge operators to reduce the size and draft depths of their giant barge flotillas, increasing the costs to get the grain to market. This results in a double "whammy" to farmers.

## Secondary Severe Weather Season

By Andy Sniezak  
Journeyman Forecaster

The outbreak of severe weather that occurred on September 22<sup>nd</sup> should have reminded us that severe thunderstorms can take place any time of the year in the Mid South. While many of the tornadoes, damaging wind, and hail events that occur across the region take place from March through May, there is a secondary severe weather season. The months of November, December, and January can have their share of severe thunderstorms as well. Here are some examples of severe weather events that have occurred in the Mid South during the secondary severe weather season.

**December 7, 2004** – A F2 tornado moved through parts of Chickasaw county in north Mississippi and a F1 tornado moved through parts of Monroe County in north Mississippi.

**November 9, 2002** – Three tornadoes

formed over parts of the Mid . One tornado tracked for 51 miles across parts of Cross, Crittenden, and Mississippi counties in Arkansas as well as Tipton County in Tennessee. One person was injured in Covington, Tennessee. A F2 tornado moved through parts of Carroll County in West Tennessee killing one person and injuring several others. Separate tornadoes were also reported in Crockett and Madison counties in West Tennessee.

**November 24 & 26, 2001** – Three persons were killed and 28 others were injured when a F2 tornado tore through parts of Quitman, Panola and DeSoto counties in north Mississippi on November 24. Two days later, a F3 tornado moved through eastern parts of Henry County in west Tennessee killing one person and injuring 13 others.

**January 3, 2000** – A F3 tornado

ripped through portions of Yalobusha, Lafayette and Union counties in north Mississippi.

During the months of November through January there are some signs that might let you know that there may be severe thunderstorms possible.

1. Unseasonably warm temperatures with readings of 70 degrees or higher.
2. Temperatures holding steady or slowly rising during the overnight hours.
3. South winds blowing at 10-15 mph or greater during these warm spells.

While these conditions do not guarantee the formation of severe thunderstorms, these conditions would help increase the risk of severe thunderstorms.

## HazCollect and NOAA All-Hazards Radio

By Corey Chaskelson  
Journeyman Forecaster

The All-Hazards Emergency Message Collection System known as HazCollect was developed jointly by the National Weather Service and the Department of Homeland Security to allow local, state and federal emergency managers to send non weather emergency related messages through National Weather Service dissemination systems. These non-weather related messages in the past took several minutes to disseminate as many different agencies and communication systems handled these messages. Hazcollect provides a single application for these emergency officials to communicate with each other and efficiently warn the public of a non-weather related emergency. These messages pass seamlessly through the National Weather Service's dissemination systems, including NOAA All-Hazards Weather Radio.

Your radio is capable of receiving these messages if it has the Specific Area Message Encoding capability (SAME) technology. The following are a list of messages applicable to the Mid South that will be passed through Hazcollect and into NOAA Weather Radio:

Administrative Message (ADR)

Child Abduction Emergency (CAE)

Civil Danger Warning (CDW)

Civil Emergency Message (CEM)

Earthquake Warning (EQW)

Evacuation Immediate (EVI)

Fire Warning (FRW)

Hazardous Materials Warning (HMW)

Law Enforcement Warning (LEW)

Local Area Emergency (LAE)

Network Message Notification (NMN)

Nuclear Power Plant Warning (NUW)

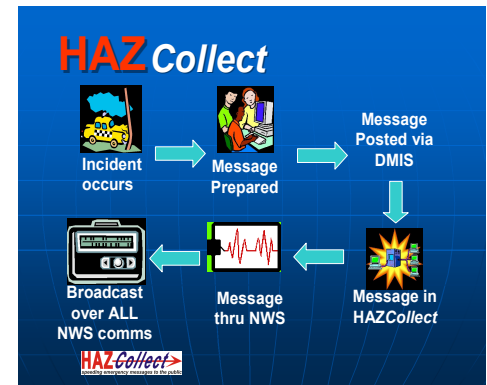
Radiological Hazard Warning (RHW)

Shelter in Place Warning (SPW)

911 Telephone Outage Emergencies (TOE)

Check out additional information about NOAA All-Hazards Weather Radio on the internet at:

<http://www.weather.gov/nwr>



Here are some websites that provide additional resources for information on HAZ-Collect:

NWS [weather.gov/os/hazcollect](http://weather.gov/os/hazcollect)

DMIS [www.dmi-services.org](http://www.dmi-services.org)

FEMA [www.fema.gov](http://www.fema.gov)

## Daredevil Service Hydrologist Buzz Merchlewitz Retires From WFO Memphis

By Jim Belles  
Meteorologist In Charge

Whether it's flying supersonic jet fighters at 700 miles per hour for the United States Navy or driving vintage race cars to a track record at the speedway in Talladega, Alabama, Buzz Merchlewitz has never been afraid of a challenge. Buzz's next challenge is retirement and we're confident that in his cool and calm way he'll rise to the occasion with great success.

Since 1995 Buzz has been our Service Hydrologist. The perfect gentlemen,

Buzz has always served the public with a soft smile and friendly demeanor. A real go to person in hydrology, Buzz will be greatly missed by our staff, and by his friends in emergency management and other state and federal agencies.

Buzz plans to retire to his five acre estate in Fayette County, Tennessee. There, he can work on his vintage race cars and farm tractors, visit with friends and relatives, and take on all new challenges that come his way.



Buzz working on a rain gauge



## Winter Weather Safety

By Dan Valle  
Journeyman Forecaster

The past couple of winters have been very eventful across the Mid South. A couple of years ago, a major winter storm occurred just before Christmas which paralyzed the region. Last year, there was a significant snowfall event on February 10<sup>th</sup>. One week later a sleet and ice storm struck the region. The potential is certainly there for another busy winter. So, here are some tips to keep you safe.

If you are plan on traveling this winter, make sure that you are aware of the latest weather conditions. Over 70% of injuries that occur during a snow or ice storm are due to vehicle accidents. If the forecast does not recommend travel, then don't travel unless it's a life or death situation. The National Weather Service updates its forecast often and we encourage you to check the forecast on our web site at [www.weather.gov](http://www.weather.gov). NOAA

weather radio is also an excellent way to receive weather information along with television and radio broadcasts.

Here's a few numbers and web sites to check for road conditions. I especially recommend the web site because they have maps that show you exactly where those bad spots are.

In Arkansas...1-569-2374 or  
[www.arkansashighways.com](http://www.arkansashighways.com)

In Missouri...1-800-222-6400 or  
[www.modot.org/road\\_conditions](http://www.modot.org/road_conditions)

In Tennessee...1-800-342-3258 or  
[www.tdot.state.tn.us](http://www.tdot.state.tn.us)

In Mississippi...1-888-728-4218 or  
[www.dps.state.ms.us](http://www.dps.state.ms.us)

In Kentucky...1-800-459-7623 or  
<http://511.ky.gov>

Here are some things to keep in the home in case the power goes out.

- Flashlight with extra batteries.
- Candles and either matches or lighters.
- Battery powered radio.
- Extra water and food that does not require heating or refrigeration.
- First aid supplies.
- Emergency heat source such as fireplace, wood stove or space heater. Make sure these are ventilated properly! Many deaths occur because there is no way for fumes to escape.
- Fire extinguisher and smoke alarm. Test your smoke alarm once a month.
- Make sure your pets have plenty of unfrozen water, food, and a warm place to stay.

## April 7th Severe Weather Event

By Jody Aaron  
Intern Meteorologist

On the afternoon of April 7th, the second of three tornadic events roared across the Mid South.

Persistent moist, southerly flow moved into the region on the night of April 6th. An area of convection moved across the northern sections of the Mid South by early April 7th. Meanwhile, a vigorous upper level low was beginning to move into the Southern Plains. This system then punched into the region later on the morning of April 7th. This feature touched off the first round of supercells from 8:00 am until 1:00 pm from extreme northwest Mississippi, through the Memphis Metropolitan area, and across much of west Tennessee.

These supercells started off elevated with very large hail across northwest Mississippi and the Memphis Metropolitan area and eventually became more surface based east of Jackson as surface based instability increased.

Extremely steep mid level lapse rates of up to 8 c/km were in place across the Mid South and this helped in very large hail production. A supercell produced a F2 tornado across northern Henderson, just northwest of the Parker Crossroads Community. It traveled northeast into southern Carroll County to near Yuma where at least 25 homes were damaged, 15 destroyed. The tornado also caused 5 injuries.

By later on the afternoon of April 7th, numerous long lived supercells redeveloped over southern west Tennessee and north Mississippi. A few weak tornadoes were reported across north Mississippi with no injuries and tree damage. Very large hail was also reported across north Mississippi causing substantial damage.



Damage Pictures from the F2 Tornado that struck Yuma, TN

## StormReady Hero (from Page 1)...

These officials included U.S. Congresswoman Jo Ann Emerson, State of Missouri Emergency Management Director Ronald Reynolds, Caruthersville Mayor Diane Sayre, National Weather Service Director DL Johnson, and National Weather Service Southern Region Director Bill Proenza.

Charlie thanked everyone for their praise and support after accepting the award from National Weather Service Director Johnson. He spoke about the Cooter, Missouri tornado in October 2004 and how this event provided him

with the impetus for making his city StormReady.

There are 1,088 StormReady communities across the United States. The National Weather Service created the StormReady program in 1999 to improve the timeliness and effectiveness of hazardous weather warnings for the public and to assist local emergency managers in either establishing or improving effective hazardous weather operations in their jurisdictions.



Charlie Jones (center) receives the StormReady Hero award from the NWS Director, DL Johnson (left) and the NWS Southern Region Director, Bill Proenza (right).

## April 2nd Continued (from Page 1)...

The tornado weakened as it moved into Crittenden County, Arkansas.

A fourth supercell thunderstorm moved across Haywood County, Tennessee around 10:30 pm and produced another tornado. This tornado resulted in F2 damage, but again no injuries.

As the initial powerful upper level disturbance moved east of the area by early on the morning of Monday, April 3rd, the tornado threat diminished. Additional thunderstorms continued across southern west Tennessee and northern Mississippi producing more large hail and damaging winds.

### FUJITA TORNADIC DAMAGE SCALE

**F0....60-73 MPH...LIGHT DAMAGE**

**F1....73-112 MPH...MODERATE DAMAGE**

**F2...113-157 MPH...CONSIDERABLE DAMAGE**

**F3...158-206 MPH...SEVERE DAMAGE**

**F4...207-260 MPH...DEVASTATING DAMAGE**

**F5...261-318 MPH...INCREDIBLE DAMAGE**



## Long Time Lead Forecaster Bob Wagner Says Goodbye to the Mid-South

By Jim Belles

**Meteorologist In Charge**

Remember the old mailman's motto: "neither rain, nor wind, nor dead of night shall deter us from delivering the mail." Well, for Bob Wagner that mentality was true in his service as Senior Meteorologist for the National Weather Service. Bob began his career with the National Weather Ser-

vice in 1985, moving to Memphis in 1990.

As a Senior Meteorologist, Bob has worked a number of significant weather events ranging from ice storms to killer tornado outbreaks. His unflappable and professional way of dealing with the most challenging weather events provided a calming

influence on others. Bob's twenty-one years of federal service resulted in lives and property saved. So, as Bob Wagner moves on to a new chapter in his life we all wish him many thanks and best wishes.



# Timmy can help you learn how to be safe during severe weather!



## Weather Terms

**SEVERE THUNDERSTORM WATCH** - A severe thunderstorm (damaging winds of 58 miles per hour or more, or hail three-fourths of an inch in diameter or greater) is likely to develop in your area.

**SEVERE THUNDERSTORM WARNING** - A severe thunderstorm is taking place in your area.

**TORNADO WATCH** - means tornadoes are possible in your area. Stay tuned to the radio or television news.

**TORNADO WARNING** - means a tornado is either on the ground or has been detected by Doppler radar. Seek shelter immediately!

**FLASH FLOOD WATCH** - means that flash flooding (floods from heavy rain and/or melting snow causing a river to go over its bank) is possible in or close to the watch area.

**FLASH FLOOD WARNING** - means that flash flooding is actually occurring in the warning area. A warning can also be issued as a result of torrential rains, a dam failure or snow thaw.

## Tornado Safety

### DURING A TORNADO:

Go to a basement. If you don't have a basement, go to an interior room without windows on the lowest floor such as a bathroom or closet. If you can, get under a sturdy piece of furniture, like a table. If you live in a mobile home get out. They offer little protection against tornadoes. Get out of automobiles. Do not try to outrun a tornado in your car, leave it immediately. If you are outside, go to a ditch or low lying area and lie flat in it. Stay away from fallen power lines and stay out of damaged areas.

### IF YOU'RE AT SCHOOL DURING A TORNADO:

Basements offer the best protection. Schools without basements should use interior rooms and hallways on the lowest floor away from windows. Crouch down on your knees and protect your head with your arms.



## Lightning Safety

**IF YOU'RE OUTDOORS:** If you hear the sound of thunder, go to a safe place immediately. The best place to go is a sturdy building or a car, but make sure the windows in the car are shut. Avoid sheds, picnic areas, baseball dugouts and bleachers. If there is no shelter around you, stay away from trees. Crouch down in the open area, keeping twice as far away from a tree as it is tall. Put your feet together and place your hands over your ears. If you're with a group of people stay about 15 feet from each other. Stay out of water, because it's a great conductor of electricity. Stay away from metal, clotheslines, fences, and drop your backpacks because they often have metal on them. If you're playing an outdoor activity, wait at least 30 minutes after the last observed lightning strike or thunder before continuing.

**IF YOU'RE INDOORS:** Avoid water. It's a great conductor of electricity, so do not take a shower, wash your hands, wash dishes or do laundry. Do not use a corded telephone. Lightning may strike exterior phone lines. Do not use electric equipment like computers and appliances during a storm. Stay away from windows and doors and stay off porches.

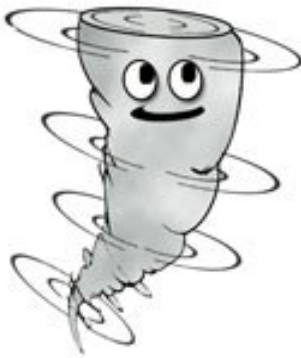
**IF SOMEONE IS STRUCK BY LIGHTNING:** Call for help. Call 9-1-1 or send for help immediately. The injured person does not carry an electrical charge, so it is okay to touch them.

## Flood Safety

During a flood, move to higher ground quickly, like the highest floor of your home. Avoid low spots, canyons and already flooded areas. Don't attempt to drive through a flooded road. The depth of the water is not obvious and the road may be washed away. Kids should never play around high water, storm drains or viaducts. Be cautious at night, because it is harder to see flood dangers. If told to evacuate, do so immediately.



## Let's see what Timmy and the National Weather Service have taught us!



Fill in the blanks in the sentences below using these words:

<i>Severe Thunderstorm</i>	<i>Flash Flood</i>	<i>Basement</i>
<i>Tornado Warning</i>	<i>Metal</i>	<i>Evacuate</i>
<i>Tornado Watch</i>	<i>Water</i>	<i>Windows</i>

1. A \_\_\_\_\_ offers the best protection during a tornado.
2. Stay away from \_\_\_\_\_ during a tornado.
3. Avoid \_\_\_\_\_ and \_\_\_\_\_ when it is lightning.
4. A \_\_\_\_\_ occurs when there are damaging winds of 58 miles per hour or more, and/or hail three fourths of an inch in diameter or greater.
5. The National Weather Service issues a \_\_\_\_\_ when a tornado is possible in your area.
6. If you are asked to \_\_\_\_\_, then do so immediately!
7. A \_\_\_\_\_ occurs when floods from heavy rain and/or melting snow causes a river to go over its bank quickly.
8. The National Weather Service issues a \_\_\_\_\_ when a tornado is on the ground or has been detected by Doppler radar.

**Good job, kids! Now, you can teach others to be safe!**

Does your town have a Timmy the Twister sign like this one to give you daily information about severe weather? If not, have your parents or city officials contact the National Weather Service in Memphis, TN (Jim Belles) at 901-544-0399



**National Weather  
Service**

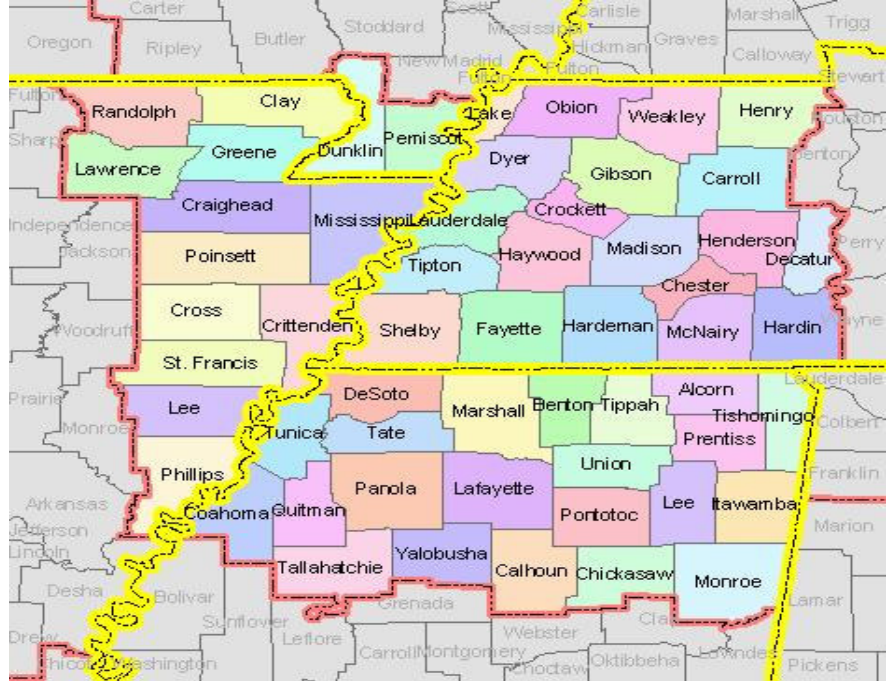
7777 Walnut Grove Rd OM-1  
Memphis, TN 38120

Phone: 901-544-0399  
Fax: 901-544-0414  
River Line: 901-544-0415

**Working Together To Save Lives!**

Visit us on the  
web!  
[www.weather.gov](http://www.weather.gov)

The National Weather Service office in Memphis, TN proudly serves 56 counties in 4 states.



**Are you a weather enthusiast who has a personal weather station?**

**Are you interested in sharing the data from your weather station through the internet?**

**If so, the NWS Memphis is looking for you!**

Through the Citizen Weather Observer Program, persons with private weather stations and access to the internet can send their data to NOAA. This data will be utilized by the National Weather Service and other organizations for scientific ventures. If you are interested, please send an e-mail to [Zwemer.Ingram@noaa.gov](mailto:Zwemer.Ingram@noaa.gov), [Jason.Beamen@noaa.gov](mailto:Jason.Beamen@noaa.gov), or [Jonathan.Howell@noaa.gov](mailto:Jonathan.Howell@noaa.gov) or call 901-544-0400. Also, stay tuned to our webpage at [www.weather.gov](http://www.weather.gov) for additional information regarding this program.