



The ArkLaMiss Observer



Fall 2007 Edition

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Retired Longtime NWS Staffer Passes Away

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By: Alan Gerard, Meteorologist-in-Charge

Our recently retired Warning Coordinator Meteorologist, Jim Butch, passed away on Sunday, August 5, 2007 after a short courageous battle with cancer. He was 55 years old at the time of his death. Jim retired from our office in September 2006 after nearly 15 years as the WCM here in Jackson. Prior to that, he had served as both a lead and a journey forecaster, as well as a WPM, here in Jackson. He had also served as a meteorological technician in Jackson in the late '70s and early '80s. In between his stints in Jackson, he had a several year stay at WSO Athens, GA before going to WFO Tulsa as a forecaster for a short time. Prior to coming to the NWS, Jim served in the U.S. Air Force.

Jim was well known in the Jackson area and throughout the ArkLamiss region as the face and voice of the National Weather Service, and he

served in that role for many high profile weather events, including Hurricane Katrina and a number of tornado outbreaks. His expertise was utilized by regional and national teams, including his serving on the service assessments for Hurricane Floyd and the Hall-White County, GA tornado event. An accomplishment that Jim was particularly proud of was the role he played in the development of a 1996 state law mandating NOAA Weather Radios in all schools in Mississippi. He won several awards during his career, most notably a Mississippi Emergency Management Agency Director's Award for Excellence and a NWS Director's Coin for his work during Hurricane Katrina.

For myself personally, Jim was not only a longtime colleague, he was a friend. We shared a lot of good times, and a few that were not so good, but either way we nearly always shared laughs. Jim was a person who lived life to its fullest

everyday, and I will miss that spirit not being a part of my life.

Jim is survived by his son John, his daughter Julie Butch Gardner, his mother, two brothers and a sister,

and one granddaughter. He will be deeply missed by all of us here at WFO Jackson.

In appreciation of Jim's dedication and friendship, several of his friends and colleagues have a few words to say in Jim's memory:

"Jim and I worked for two offices that served similar states (Arkansas and Mississippi). We would often see each other at emergency management meetings and conferences. Jim was the master at coordination. He was a wonderful example to me and I often took notice at how he related to a very important National Weather Service partner." – Jim Belles, MIC, NWS WFO Memphis, TN

"I was the first SOO at JAN from 1993-1998 as well as a GS-5,7,9,11 intern and GS-12 Service Hydrologist from 1978-1985. I worked with Jim at JAN in both tours of duty. He was the first WCM at JAN (he was WPM and forecaster before that) and he had the perfect personality for WCM type work – warm, friendly and outgoing. I was impressed with his great camaraderie with the Mississippi emergency managers at the state and local levels. He was outstanding with his Skywarn talks and outreach activities also. I know he was especially proud that every public school in Mississippi had a NOAA Weather Radio primarily due to his efforts working with the state. Jim also was appreciated here in Miami at the National Hurricane Center as a regular member of the Hurricane Liaison Team (HLT). We will miss him terribly." – Rusty Pfof, MIC, NWS WFO Miami, FL

"First of all, I grew up in the Madison Ridgeland area and before I knew Jim as an NWS employee, I knew him as the weather guy that the local news stations would occasionally interview during severe weather events. So when I started working at NWS JAN I was a bit intimidated by him. I guess he was kind of a local celebrity to a certain degree (at-least to weather enthusiasts). However, the intimidation soon wore off when I figured out that Jim enjoyed playing golf and watching it on TV (especially Tiger Woods). He always had time to give me tips on how to improve my golf swing. Of course he was always quick to give me points on making better NowCasts." – Jim Fairly, Meteorologist Intern, NWS WFO Jackson, MS

"Jim Butch was one of the people directly responsible for hiring me into the National Weather Service back in 2002. I have come to greatly appreciate this area, and especially fellow co-workers, over the past 5 years of my government service. Commitment to protecting and preserving lives and property from the hazards of weather has been extremely high here in my experience, and long-time NWS Jackson employees such as Jim Butch helped foster that commitment. Protecting the safety of those in our 'Arklamiss' service area was not just a job to Jim, but a passion. More personally, Jim was a good friend of mine and the strong dose of humanity he brought into our scientific field will never be forgotten." – Brad Bryant, Journeyman Forecaster, NWS WFO Jackson, MS

"I had known Jim for the past 21 years. He was deeply respected by all his fellow workers over the years, especially by the EMAs and the Mississippi State Government...FEMA and MEMA. He made me feel quite welcome when I first entered the weather service in 1986, working at the Tupelo office. He was always there to lend a helping hand to his fellow workers. His dedication helped to supply the schools in Mississippi with NOAA Weather Radios. His personality made him a very personable individual...which would make everyone feel quite at home with him. I have always had a deep respect for Jim personally and for the way he conducted his duties around the office. One could always come to Jim when any issues arrived whether it be personal or work related. He had the uncanny gift of sizing up a situation and giving good advice to anyone who needed it. He will be sorely missed by all who have known him." – Marc McAllister, Journeyman Forecaster, NWS WFO Jackson, MS

"I started working at the Jackson office in January of 2005. During my time here, I came to really appreciate and respect Jim's relationships with the local and state emergency managers. His friendly, outgoing personality not only created contacts between the emergency management agency and our office, but in many cases he created friendships as well. I will also always remember how he helped me when I was bidding for a journeyman forecaster from an intern in JAN. After a long discussion with him, he gave me the encouragement I needed to feel that I was ready enough to bid on the job. And more personally, I will always remember how he used to joke around, as it reminded me of my own father's personality at times. He will definitely be missed by all around the office and the Arklamiss region." – Ashley Wester, Journeyman Forecaster, NWS WFO Jackson, MS

"First, I would like to pass on my condolences to Jim's family. I was saddened to hear of his passing. A lot of people will remember Jim for his many professional accomplishments. However, I will remember the passion Jim possessed for everything in which he was involved. It didn't matter if it was being a Georgia Bulldog fan, meeting our customers' needs, or, most importantly, spending time with his family. Jim approached everything in a caring and passionate way that will forever be etched in the memory of everyone's life he touched, including my own. We're going to miss you Jim" – Doug Butts, Senior Forecaster, NWS WFO Shreveport, LA

Lora Mueller, Journeyman Forecaster at NWS WFO Midland, TX, decorated a luminaria in memory of Jim at the Leadership Summit for the High Plains division of the Relay for Life late this October. Lora also plans to 'relay' in Jim's memory at the April 25-26 Relay for Life.

We Will Miss You Jim!



Storm Based Warnings Are Here!

By: Ed Agre, Senior Forecaster

For many years, the National Weather Service has issued severe weather warnings on a county by county basis. Since the advent of Doppler radar and improved technologies, more specific warnings for portions of a particular county have become possible. The increased use of the

internet and graphical systems nationwide has led to the decision to utilize **Storm-Based Warnings** as of October 1, 2007.

By focusing on true threat locations, warning polygons will improve NWS warning accuracy and quality. **Storm-Based Warnings (threat-based polygon warnings)**, are now essential to

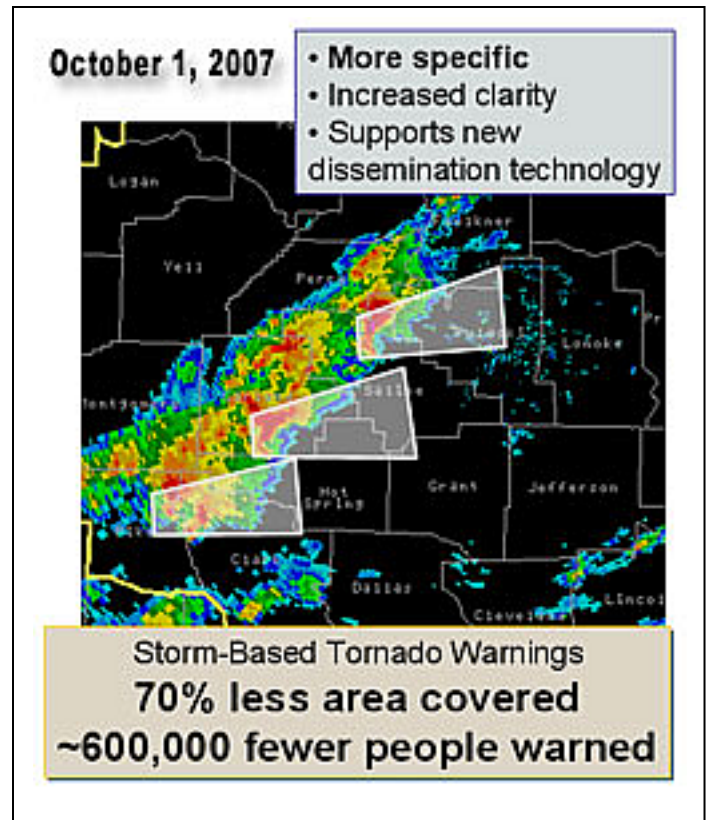
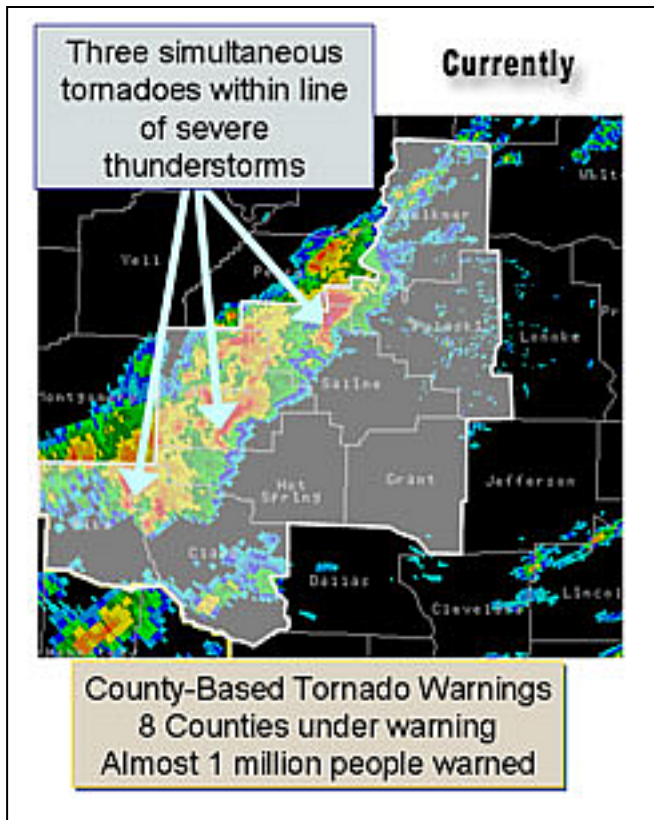
effectively warn for severe weather. **Storm-Based Warnings** show the specific meteorological or hydrological threat area and are not restricted to geopolitical boundaries. **Storm-Based Warnings** will promote and utilize improved graphical warning displays, and in partnership with the private sector, support a wider warning distribution through cell phone alerts, pagers, web-enabled

Personal Data Assistants (PDA), and other developing technologies.

The next time you prepare for severe weather in your area, be on the lookout for those polygon shaped warnings and determine if you are located inside that immediate threat area. The

National Weather Service will be posting these type of warnings on our website and distributing them through our media partners when warnings for tornado, severe thunderstorm, flood and marine hazards arise. Our mission of providing weather forecasts and warnings for the protection of your

life and property has made another stride forward and you should benefit from these advances in the provision of weather information for the Nation's economic well-being. For more information please visit either www.weather.gov/sbwarnings or our office site at www.srh.noaa.gov/jan.



Fall - Secondary Severe Weather Season

By: Chad Entremont, Senior Forecaster

Many people consider Spring, Mar-May, the prime time for

severe weather across the South. Well, they are correct, but are overlooking a time of year that produces some of the worst severe weather. That time of year would

be fall, specifically late Oct through early Dec for the Lower Mississippi River Valley Region. This time defines our **secondary** peak in severe weather with the

primary time being from late Feb to early May.

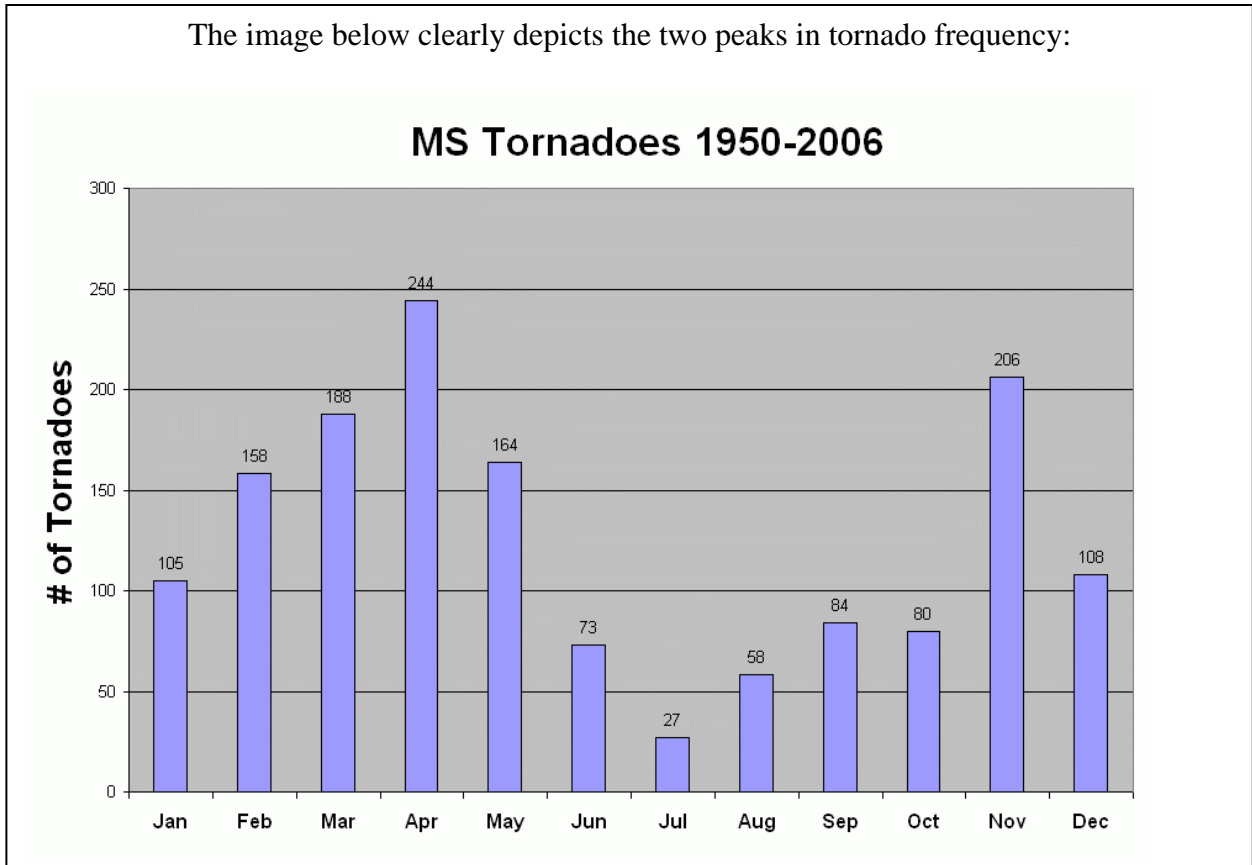
During the fall, our region begins to see the return of the “westerlies” as the jet stream makes its journey south. This feature helps to generate areas of low pressure, or

cyclones, which intensify and help to drag cold fronts deep into the South. Ahead of these fronts, the same areas of low pressure draw northward moisture from the Gulf of Mexico. Along the cold fronts, the air masses clash and sometimes violent storms are born.

Over the past two decades, the fall season has been particularly prone to tornado outbreaks, especially during the overnight hours. Below is a list of some tornado events which have occurred in the recent past:

- **November 21-22, 1992** – Large tornado outbreak, 14 total tornadoes with one long track F4 (128 miles), 5th longest. This tornado is more widely known as the Brandon Tornado. A total of 12 fatalities occurred during that horrific night.
- **November 27, 1994** – Tornado event across Central MS, 1 F3, 2 fatalities
- **November 24, 2001** – Large tornado outbreak, 14 total tornadoes, 2 F4s and 2 F3s. One of the F4s was the Fairfield Tornado, in Madison County. A total of 7 fatalities occurred across the region that early morning.
- **November 10-11, 2002** – Veterans Day Outbreak; MS was on the southern end of the event but still had 7 total tornadoes
- **November 24, 2004** – Large tornado outbreak, 21 total tornadoes, 1 fatality

The image below clearly depicts the two peaks in tornado frequency:



This article is just a reminder that the weather can get quite nasty across our region during the Fall,

especially late at night. We would like everyone to remain weather conscious and review their severe

weather preparedness plan as we head into our **secondary** season for severe weather.

“La Nina” Conditions Gaining Strength in the Pacific Ocean

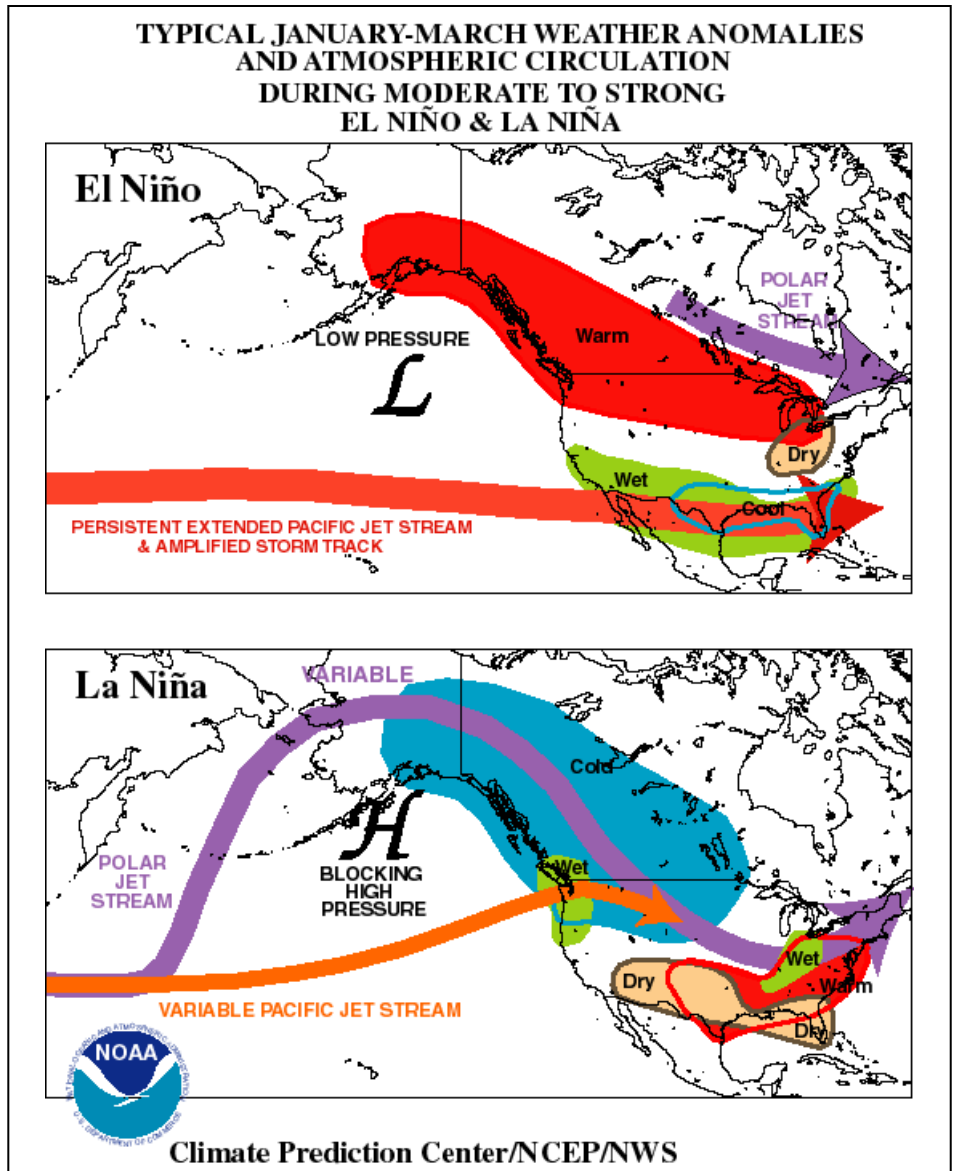
By: Brad Bryant, Journeyman Forecaster

Meteorological discussions among those tasked with the long range prediction of weather across North America usually include mention of the El Nino Southern Oscillation (ENSO). This oscillation revolves around the balance of pressure fields across the entire Pacific Ocean Basin and the corresponding variations in sea surface temperature near the equator across the whole Pacific. During El Nino, conditions across the equatorial waters of the eastern Pacific are warmer than normal and this fosters generally cooler and damper-than-average winter and early spring weather for residents of the Lower Mississippi River Valley. La Nina conditions mark periods where eastern Pacific equatorial waters are cooler-than-normal (due to enhanced Trade Winds) and this scenario usually brings about warmer and somewhat drier-than-normal winter and early spring weather for the “Arklamiss”.

Last fall the ENSO was trending toward El Nino conditions which subsequently peaked during the winter and quickly ebbed early spring. Going into this fall the

sea surface temperature situation has reversed and now La Nina conditions are building in with forecasters and dedicated climate

models agreeing that it should persist into at least early next year. This provides some clues for expected weather over extreme



southeast Arkansas, northeast Louisiana and central and southern Mississippi for the coming winter.

As stated above, La Nina conditions can generally be associated with warmer and drier-than-normal winters for our neck of the woods. But that is a very simplistic way of interpreting climate data since the strength of the expected La Nina generally has implications on the expected accuracy of predicted temperature and precipitation trends. There is still a chance that the current strengthening La Nina will remain categorized as “weak” through the winter and then the confidence of warm and dry overall conditions would be reduced. In addition, the

amplified Polar Jet Stream that characterizes a La Nina over North America can still help deliver shots of frigid air down into the Lower Mississippi Valley at times, although odds are that warm spells over the course of such a winter will outweigh cold spells.

A “dry” forecast for a La Nina winter can also be a little misleading because major cold frontal passages and impacts from full-latitude amplifying trough can result in bouts of heavy precipitation and severe weather for the Arklamiss region. In fact, climatological records show that potential for very wet conditions during a La Nina increases sharply over portions of the Lower

Mississippi Valley and Tennessee River Valley by spring. Severe weather and tornado outbreaks are generally more common during La Nina winter and early spring months because deep and powerful upper level systems are more likely to slam into unusually warm and unstable atmospheric conditions near the Gulf Coast states. Many of the historical tornado outbreaks across our region have occurred during La Nina phases of ENSO, with one prime example being the Delta Outbreak in late February of 1971 in which over 100 residents of northwest Mississippi were killed when a rare combination of upper level energy, warmth and moisture took shape over the Lower Mississippi River Valley.

WEATHER AND ASTRONOMICAL CALENDARS: THEY DON'T MATCH

By: Eric Carpenter, Senior Forecaster

So when exactly does fall end and winter begin? While we typically follow the *astronomical* calendar to distinguish the seasons, the *meteorological* (weather) calendar actually differs from it by several weeks. The start of astronomical winter is defined by the winter solstice (Dec 22 in 2007), which marks the lowest angle of the sun in the northern hemisphere. However, meteorological winter actually starts earlier and ends earlier, being recognized by the

National Weather Service as the three month period from the first of December through the end of February.

Let's consider the normal high and low temperatures in the Arklamiss region shown in the table below. This example helps to explain the distinction between *meteorological* winter and *astronomical* winter. It is significantly cooler in early December than it is in mid March; hence, December 1st is considered to be in meteorological winter while March 15th is *not* considered to be in meteorological winter.

In more subjective terms, some of our biggest “winter” weather events have occurred in what is otherwise known as fall. On December 14, 1997, a snowstorm dropped a heavy blanket of wet snow on central Mississippi with up to eight inches of snowfall observed. In Jackson, MS, the earliest measurable snowfall on record (0.2 inches) fell on November 2nd, 1938. This was seven weeks before the start of astronomical winter! So in terms of the weather, once the calendar says December, you know that winter has arrived.

Normal High and Low Temperatures at Jackson, MS

December 1 st	(astronomical fall, meteorological winter)	High 62	Low 42
March 15 th	(astronomical fall, meteorological spring)	High 68	Low 45

!!! Fun Stuff for the Kids !!!

Tornado Quiz:

funnel	radio	ditch	train
windows	bathroom	watch	sky
warning	hail	mobile home	tornado
black clouds	basement	top	

- 1 A _____ can flatten homes and buildings.
- 2 A tornado looks like a _____ with the fat part at the _____.
- 3 Before a tornado, you will probably see _____.
- 4 A tornado _____ is issued by the National Weather Service when a tornado may develop later.
- 5 A tornado _____ is issued by the National Weather Service when a tornado has actually been seen.
- 6 A tornado can sound like the roar of a _____.
- 7 If you are outside when you see a tornado, go to a low spot or a _____.
- 8 The best place to be if there is a tornado is in a _____.
- 9 There may be thunder, lightning, rain or _____ along with the tornado.
- 10 If you don't have a basement, the next best place to be is in a _____ or other small room in the center of the house.
- 11 Stay away from _____ during a tornado.
- 12 If you live in a _____, get out. It can be shattered by a tornado.
- 13 When you hear a Tornado Watch, keep your eyes on the _____.
- 14 You can hear a Tornado Watch by listening to NOAA Weather _____.

Answers: 1. tornado, 2. funnel and top, 3. black clouds, 4. watch, 5. warning, 6. train, 7. ditch, 8. basement, 9. hail, 10. bathroom, 11. windows, 12. mobile home, 13. sky, 14. radio

Reaching Out to You!

By: Ashley Wester, Journeyman Forecaster/Editor, and Alan Campbell, Journeyman Forecaster

Our goal here at the National Weather Service in Jackson, MS is to protect life and property. In an

attempt to do this, we issue various types of watches, warnings, and advisories to alert you, the public, of impending hazardous weather that is either occurring or could possibly occur in your area. Knowing that hazardous weather is

possible is one thing, but what should you do if hazardous weather is threatening you and/or your family?

When hazardous weather occurs, seconds can literally mean the

difference between life and death. Staying calm and knowing the correct instructions to follow could save your life. This is why the National Weather Service in Jackson, MS believes it is important to educate people about severe weather safety and preparedness. In our efforts to accomplish this task, we offer various forms of outreach, such as talks and setting up booths at area

events, just to name a few. We provide these services for any community, school, public/private group, or business that is interested in learning about severe weather safety and how to prepare for it. We also offer office tours that allow you to see what the National Weather Service is and what we do.

If you would like to schedule to

have someone come and talk to your community, school, group, business, or if you would like for us to set up a booth at your next event, please contact Steve Wilkinson, Alan Campbell, or Ashley Wester. If you would like to schedule an office tour, please contact Marty Pope or Karen Dungan. All can be reached at the National Weather Service in Jackson, MS at (601) 936-2189.

Events in which we have recently participated:

July 19: Warning Coordinator Meteorologist spoke to the South Ranking County Rotary Club on severe weather safety.

August 28: Meteorologists Alan Campbell, Chris Bannan, and Joanne Culin went to the Flowood Chick-fil-A to hand out weather activity books to kids and display the tornado machine.

September 12 and 13, and October 22-24: Meteorologist Alan Campbell and Ashley Wester spoke on severe weather safety to classes in the Starbase Atlantis Program in Philadelphia, MS.

September 20: Meteorologist Alan Campbell spoke to around 120 students at Florence Elementary School on severe weather safety and a bit of basic meteorology.

September 20: Meteorologist Ashley Wester spoke to around 100 5th grade students at Madison Avenue Upper Elementary on severe weather safety and a bit of basic meteorology.

October 17: Meteorologists Mike Edmonston and Brad Bryant attended the annual Farm Safety Day in Marion County to speak with 5th grade students on severe weather safety.

October 25: Meteorologist Alan Campbell spoke to around 100 3rd grade students at Richland Upper Elementary School about severe weather safety.



Cream: Jackson, MS service area
Blue: Memphis, TN service area
Purple: New Orleans, LA service area
Green: Mobile, AL service area

Thank You!

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