

The ArkLaMiss Observer



Winter 2008/2009 Edition

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Tornado Record Set in Mississippi in 2008 – What does it mean?

By: Steve Wilkinson, Warning Coordination Meteorologist

Did it seem like 2008 was a very active year for tornadoes across Mississippi? In fact, a new record was set with 109 tornadoes confirmed across the state. This breaks the previous record, which was 99 set in 2005. Ninety-five of the tornadoes were rated EF0 or EF1 on the Enhanced Fujita Scale and are considered to be weak tornadoes. Nine of the tornadoes were rated EF2 and 5 were rated EF3, giving a total of 14 strong tornadoes this year. There were no EF4 and EF5 tornadoes, which are considered to be violent, across the state in 2008.

The tornadoes were spread throughout the year with 68 occurring from January to May, 24 occurring during Hurricane Gustav, and an additional 16 occurring from a severe weather event in December. Despite the very active year, there were no tornadoes in the month of

November, typically a very active month in Mississippi.

Of particular note, there were zero tornado-related fatalities in Mississippi in 2008. The warnings system worked particularly well for some of the strong tornado events, including the Caledonia EF3 tornado of January 10th. Jackson forecast office Meteorologist-in-Charge Alan Gerard says, "Much of the credit goes to our partners in the **Emergency Management** community and the media for their outstanding support and participation in warning the general public.

But was 2008 really the most active tornado year in Mississippi history? First of all, tornado records are only kept since 1950. Second, the National Weather Service did not have the tools (such as Doppler Radar) to track possible tornadoes until the last 15 years. Also, the National Weather Service has a much more

aggressive philosophy on finding tornado tracks than in past years. The assumption is that weaker tornadoes in the past may have gone unreported, especially in rural areas. Based on the number of stronger tornadoes that occurred in the 1960s and 1970s, it is certainly possible that in some year during those decades, there was a more active year than 2008. However, the 2008 tornado season was certainly a reminder of how serious we should take tornado preparedness in Mississippi.



Caledonia High School after an EF3 tornado hit on January 10, 2008

Tales from the ArkLaMiss

By: Jim Fairly, Meteorologist Intern

Extreme weather affects everyone. Whether it's tornadoes, hurricanes, severe thunderstorms, flash flooding or even a freak southern snow/ice storm, we've all experienced some type of unusual weather in our lives. Here's your chance to tell your story.

Our first story comes from Henry McNeese, who is a volunteer Cooperative Observer for the National Weather Service in Jackson. Mr. McNeese has been an observer in Pickens, Mississippi since May of 1996. After visiting with Mr. McNeese several times during the past two years, I have learned that he enjoys telling folks about his service in the military. He enlisted into the Navy in March of 1951, went inactive in November of 1955 and retired in

September of 1991 at the rank of Commander. He especially takes pleasure in reminiscing about the years he spent in Jacksonville, Florida where he flew a plane called the P2V5F. What's so special about the P2V5F? Well, the P2V5F series was mostly used for harbor mining and antisubmarine warfare, as well as search and rescue duties. However, Mr. McNeese flew the P2V5F into hurricanes from 1954 to 1955. This was back when hurricanes only had feminine names. Mr. McNeese then jokingly says, "There's no such thing as a Himacane."

As a 1st Lieutenant (during his hurricane days), he and his crew would fly into the lower levels of the hurricanes and take altitude, pressure and wind velocity and direction readings. The task of taking these readings would fall on

the shoulders of the Aerologist who sat in the bottom of the nose of the plane. The Aerologist would guide the pilot into the storm, keeping the nose of the plane in the wind as they flew into the hurricane.

The P2V5F was only flown at low altitudes, just above the surface of the water and up to 750 feet. Mr. McNeese remembers how turbulent the ocean water was at those low altitudes. He remarked that the water would actually pile up below the storm and whenever the winds reached over 100 knots nothing but foam would be on the surface.

There were two storms that he recalls more readily than others. The first was Hurricane Janet. Hurricane Janet formed in late September of 1955. This powerful storm first formed east of the

Lesser Antilles. It continued on a northwest path until it made landfall near the city of Chetumal, Mexico as a category 5 Hurricane with 175 mph winds. As the storm was making its way across the Caribbean, Mr. McNeese's crew was scheduled to go on a survey mission into Hurricane Janet. Fortunately for Henry, he got into an argument with another pilot and ended up not going on that mission. Why did I say fortunately? The plane crashed, killing everyone on board including three reporters from the Toronto Star who happened to be along for the ride. Mr. McNeese told me that he went on the search and rescue mission following that fateful night and nothing was ever recovered from the crash. Not one piece of the plane or any of the victims was found. He also remembers how hard it was to be the one to bring the bad news to the families of the crew members.

The second storm that he told me about was a storm that he and his crew were not aware of at the time of their reconnaissance mission. Of course, since this was during the mid 1950's, the implementation of satellite imagery hadn't occurred yet, and

wouldn't until the 1960's, so there was no long range forecast for hurricanes. So you could imagine the surprise of the crew when they found themselves in 125 knot winds. Although he doesn't recall the name of the storm, he does remember being south of Puerto Rico. At this point of the story he recollected an interesting note about flying into hurricanes. He reflects, "As we flew towards the eve of the storm, it felt like the plane was flying backwards because of the 100+ knot winds that we were flying through. It was almost as if we were being sucked into the storm." When his plane finally punched the eye wall, he recalls seeing two things: blue skies and a lot of confused sea gulls. He said that the sea gulls had somehow gotten trapped inside the eye of the storm and were trying to ride out the storm there. Of course, when you're flying a plane with propellers you have to be extremely careful about every move you make. With luck on their side, Mr. McNeese and his crew managed to maneuver around the sea gulls and return safely to the base. The warnings that his crew sent out regarding the storm were the first alert the public would receive for this storm.

This is the first entry of what I hope will be a reoccurring part of the ArkLaMiss Observer. The objective of this section of the newspaper is simply to give everyone an opportunity to share their own real-life weather related story(s). (If any of you are interested in participating you can either send me an e-mail at jim.fairly@noaa.gov or call me at 601-936-2189). Lastly, we would like to thank Mr. McNeese for sharing his intriguing weather stories and especially for his service to our country.



Mr. McNeese holding a picture of the P2V5F

Unusual Early Season Winter Storm

By: David Hamrick, Meteorologist Intern

An unusual early season winter storm affected parts of southern

Mississippi and southeast Louisiana on December 11th. Just two days after a tornado outbreak over the area, an upper level low pressure system tracked along the Northern Gulf Coast and caused widespread rain and snow to fall over the entire region. The event started on the evening of the 10th as rain everywhere, and continued

until the evening of the 11th. One of the interesting facets of this storm system is that the snowfall was confined to the southern half of Mississippi, and mainly between Natchez and Hattiesburg. This was where the center of the upper low pressure center tracked, and where the low level temperatures were coldest through the depth of the boundary layer. As temperatures dropped in this area, rain changed to sleet and then snow shortly after sunrise, and the snow became heavy at times through the rest of the morning and into the early afternoon hours. Despite surface temperatures of 32 to 35 degrees, the rate of snowfall allowed for significant accumulations from southern Rankin County southward into southeastern Louisiana. Some of

the highest amounts from this event included 9 inches near New Hebron in Jefferson Davis County, 8 inches at Bogue Chitto in Lincoln County, and 7 inches at Martinville in Simpson County.

There was a very sharp demarcation line between the heavy snow and just rain over the Jackson metro area. It is interesting to note that parts of southern Ranking County had close to 5 inches of snow, whereas most of Madison and northwestern Hinds had no snow at all from this event. A dusting to a half an inch fell over most of the city of Jackson, and nine tenths of an inch fell at the National Weather Service office in Flowood. This led to many disappointed kids to the north and west of Jackson who

missed out on this snowfall!
Temperatures were just a few
degrees too warm to support
significant wintry precipitation in
that area.

Another thing that made this event significant was the amount of total precipitation that fell. About 5 inches of rainfall fell at the Jackson International Airport over a 24-hour period, including the water equivalent of the snow and sleet that fell. Much of central Mississippi had 2 to 5 inches of rainfall, and this was enough to cause many rivers and creeks to rise out of their banks. One of the rivers that rose above flood stage was the Pearl River at Jackson, which crested at about 32 feet, or 4 feet above flood stage, a few days after this event was over.

COOP CORNER

By: Ed Tarver, Meteorologist Intern

Several of our Cooperative Observers have reached milestones in their observing duties. Pictured are those receiving awards since June. Congratulations and a big "Thank You" to all of you!



Junior Craft (left) of Mize, MS has been observing precipitation for 10 years.



Mason Pope (left) of Collins, MS has been taking observations for 10 years. Mr. Pope's family has been taking observations since August of 1935!

Evans Johnson, Jr. (right) of Clayton, LA has been observing precipitation for 10





Louisville, MS Southern Natural Gas Co. (left) has been taking observations for 50 years.

Fred Rose (right) of Eupora, MS has been taking observations for 10 years.



!!Fun Stuff for the Kids!!

How Are Thunderstorms Made?

There are three things needed to make a thunderstorm:

- 1. Thunderstorms need moist air. Even the driest spots on earth have tiny invisible drops of water in the air, called water vapor. Humid days, which mean that air has lots of these invisible water drops floating around, are best for thunderstorms.
- 2. Thunderstorms need the temperature high in the air (thousands of feet above the ground) to be a lot cooler than the temperature of the air around us on the ground.
- 3. Thunderstorms need something to lift the moist air from near the ground up to where the cooler air is. When a front pushes through a place, air ahead of the front will be pushed up from the ground up into the sky. Heating from sunshine is another way that air is lifted. When the ground gets heated by sunshine, like a hot parking lot on a summer day, then the air near the ground is warmer than the air above it. Warmer air is lighter than cool air so the warm air will start to rise, even though you can't see it. Just think of a helium balloon lifting through air when you let it go (that happens because helium is lighter than air).

The blanket of air that covers the Earth is called the atmosphere. Currents of air move through the atmosphere like water currents in a river. Currents of air, called wind, can move across the earth, such as to the east or to the west. They can also be pushed up or down through the air, moving toward the sky or down from high in the air toward the ground.

When blobs of warm air from near the ground flow toward the sky and move into colder temperatures high in the atmosphere, they will be warmer than the air around them. This means that the blob of warm air will be lighter than the air around it and it will start to rise on its own, the same way that a hot air balloon lifts into the air. As the air rises, it will cool very slowly. The tiny invisible drops of water, called water vapor, will start to clump together when it gets cold and soon you have enough water droplets to make a cloud.

You can see the same sort of thing at home when you leave a cold drink on the table on a warm day. Drops of water will pop up on the outside of the glass. That water didn't leak through the glass. It actually came from the air. Water vapor in the warm air turns into bigger water drops when the air is cooled. If the air is lifted high enough and long enough, a huge thunderstorm cloud, or cumulonimbus cloud, will form.

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. All can be reached at the National Weather Service in Jackson, MS at (601) 936-2189.



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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