Georgia's Record Tornado Outbreak

August 29, 2005

BY: J.Robby Westbrook, CEM® James D. Westbrook



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I. Introduction

A record outbreak of 18 tornadoes over an 8-hour period occurred across Georgia on August 29, 2005 as catastrophic Hurricane Katrina made landfall along the Mississippi Gulf Coast. These tornadoes caused multiple injuries, millions of dollars in damage, and at least one death. At least 16 tornadoes occurred in North and Central Georgia inside the National Weather Service Peachtree City forecast area while two tornadoes were reported in South Georgia, one in the National Weather Service Tallahassee forecast area and one in the National Weather Service Jacksonville Florida forecast area. This report deals with August tornado climatology in Georgia and the impacts of this outbreak, not the meteorological conditions that were in place on the afternoon of the 29th.

II. August Tornado Climatology

August is typically a slow month for tornadoes across Georgia. In fact, prior to the 2005 outbreak, the authors could only find creditable reports of 36 August tornadoes. No reports of August tornadoes were noted prior to 1954. It should be explained that reports of short-lived or weak tornadoes are hard to come by prior to the 1950's in Georgia.

Prior to this outbreak, the greatest number of tornadoes to occur in a single day in August was two. There had also never been a tornado fatality reported during the month of August in Georgia prior to this outbreak.

While this outbreak of tornadoes was associated with a strong tropical cyclone, we were only able to associate a few past August tornadoes with land-falling tropical systems. Another interesting fact is that Hurricane Katrina made landfall in nearly the same location as category 5 Hurricane Camille in 1969. However, we found no reports of tornadoes in Georgia after Camille made landfall while Katrina produced 18 tornadoes across the state.

All tornadoes that have occurred in August across Georgia were rated F-2 or lower with wind speeds between 73 MPH and 157 MPH. The majority of August tornadoes are short lived with the average tracks prior to this outbreak being less than 2 miles. The longest documented tornado track in August occurred on August 17, 1985 in Jackson County. This track was 10 miles in length and the tornado was rated F-1. The Jackson County Tornado was associated with Hurricane Danny, which had made landfall along the northern Gulf Coast.

AUGUST TORNADOES IN GEORGIA 1875 – 2004

DATE	County	F-Scale	Deaths	Injuries
8/16/1954	Monroe	F-1	0	0
8/17/1954	Richmond	F-1	0	0
8/17/1954	Appling	F-1	0	0
8/22/1955	Dougherty	F-0	0	0
8/22/1955	Spalding	F-0	0	0
8/12/1956	Hancock	F-1	0	0
8/31/1956	Laurens	F-0	0	0
8/31/1956	Laurens	F-1	0	0
8/17/1958	Grady	F-1	0	0
8/24/1960	Lowndes	F-0	0	0
8/31/1961	Carroll	F-1	0	1
8/1/1965	Houston	F-1	0	0
8/9/1965	Dougherty	F-2	0	0
8/4/1966	Lee	F-2	0	0
8/12/1966	Chattahoochee	F-0	0	0
8/10/1967	Houston	F-0	0	0
8/19/1967	Clayton	F-2	0	0
8/6/1968	Screven	F-2	0	0
8/24/1968	Turner	F-2	0	12
8/12/1969	Dekalb	F-1	0	0
8/7/1972	Cobb	F-0	0	0
8/20/1973	Cherokee	F-1	0	0
8/1/1974	Worth	F-1	0	0
8/13/1976	Colquitt	F-1	0	0
8/2/1977	Henry	F-1	0	1
8/1/1978	Chatham	F-1	0	1
8/21/1980	Bryan	F-1	0	0
8/24/1983	Habersham	F-1	0	0
8/17/1985	Jackson	F-1	0	0
8/17/1985	Oconee	F-1	0	0
8/17/1989	Douglas	F-1	0	0
8/19/1992	Dougherty	F-0	0	0
8/27/1992	Floyd	F-1	0	0
8/16/1994	Hart	F-1	0	1
8/16/1994	Oglethorpe	F-2	0	0
8/15/2004	Camden	F-0	0	0

Table 1: August Tornadoes 1875-2004

III. Outbreak of August 29, 2005

The first tornado of the outbreak was also the only killer tornado of the day and began in Heard County near the Carroll County line at 4:25 PM. The tornado moved quickly into Carroll County severely injuring one person who would die the next day in an area trauma center. This tornado was rated F-2 by the National Weather Service survey team. The outbreak ended when the 18th tornado of the day touched down in White County just after midnight.

Tornado Intensities

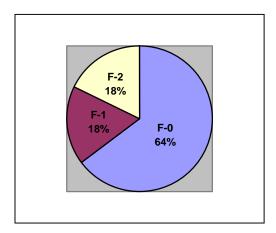


Figure: 1 – Intensity ratings for this outbreak

The average track length for this outbreak was 2.07 miles with the longest track being 10 miles, which began in Hall County and ended in White County.

Three, F-2 tornadoes were documented by National Weather Service survey teams. The strongest of these tornadoes may have been the Heard-Carroll tornado, which caused extensive damage along a 5.5-mile track and as noted earlier, was the only killer tornado of the outbreak. This was the first documented tornado fatality during the month of August in Georgia.

Along with the fatality in Carroll County, six injuries were reported statewide. The poultry industry was also heavily affected by this outbreak. More than 250,000 chickens were killed and many farm buildings were destroyed including 10 large poultry houses. Other livestock, including cattle and horses, were reported killed as well.

In White County, the popular tourist town of Helen received F-2 tornado damage. Newspaper reports and observations by the authors noted that the clock tower located in downtown Helen was stopped at 12:37, which is around the time the tornado was reported. The City of Helen is one of Georgia's most visited tourist spots and is vital to the economy of surrounding communities.

Fort Valley in Peach County also received extensive F-2 damage during this outbreak. National Weather Service survey team members reported that many large oak and pecan trees were "plucked up and moved".

Counties Affected by the Outbreak

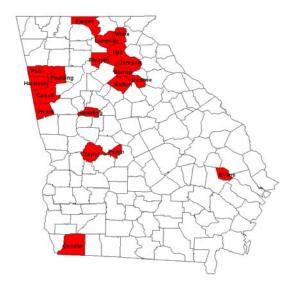


Figure: 2

This outbreak established several new tornado records for the month of August in Georgia including the first tornado fatality ever documented during the month of August, the most tornadoes ever reported in a single day in August, and the greatest dollar loss from tornadoes ever recorded during the month of August.

The historical disaster along the Gulf Coast caused by Hurricane Katrina may have overshadowed this outbreak, however many Georgians will never forget the damage and loss of life that occurred during the afternoon of August 29, 2005.



Figure 3: Damage to a Carroll County farm where one fatality occurred.



Figure 4: Three people were injured in this Heard County home.

Outbreak Details

County	Intensity	Fatalities	Injuries	Length
Heard & Carroll	F-2	1	3	5.5 miles
Haralson	F-0	0	0	1 mile
Paulding	F-0	0	0	1 mile
Polk	F-1	0	0	2.8 miles
Oconee	F-0	0	0	0.1 mile
Taylor	F-1	0	0	4 miles
Lumpkin	F-0	0	0	0.9 miles
Peach	F-2	0	1	4 miles
Spalding	F-1	0	2	1 mile
Fannin	F-0	0	0	0.25 mile
Walton	F-0	0	0	0.25 mile
Barrow	F-0	0	0	1.5 miles
Jackson	F-0	0	0	40 Yards
Forsyth	F-0	0	0	0.5 miles
Hall & White	F-0	0	0	10 miles
White	F-2	0	0	5 miles
Evans	F-0	0	0	?
Decatur	F-0	0	0	.2 Miles

Table 2: Outbreak of August 29, 2005

IV. References

Katrina Spawns Tornadoes in Georgia, National Weather Service Peachtree City, Georgia.

Storm slams Lula, Helen, Gainesville Times

Post Hurricane Reports, 1958-2004, National Hurricane Center

Preliminary Report Hurricane Danny, National Hurricane Center

White County Emergency Management Agency

Carroll County Emergency Management Agency

National Weather Service Forecast Office, Tallahassee, FL

Forsyth County Government