

EARLY SEASON SOUTH CAROLINA HURRICANES

Tropical cyclones have been a commonly recurring natural hazard for South Carolina, U.S.A., since early colonization by the Spaniards and British in the sixteenth and seventeenth centuries. Most tropical cyclones that affect South Carolina, including those at hurricane strength, occur in September and October, with the possibility of cyclones at mostly tropical storm strength (equal or greater than 39 mph) as early as late May. During the early hurricane season, most of these tropical systems tend to develop from remnants of mid-latitude cyclones, although sometimes they take a number of days to acquire tropical characteristics. Occasionally, some develop into subtropical storms, which have a mixture of tropical and non-tropical characteristics, but these are still counted as storms in the official tropical cyclone databases.

Hurricane records over the last 250 years reveal that 23 storms have impacted South Carolina in late May and June. Two of these are subtropical in character, having occurred in 1976 and 1982. Only one tropical storm occurred in May, which hit near Beaufort on May 27, 1934. Out of the 21 tropical cyclones, eight of them (1886, 1893, 1902, 1912, 1957, 1965, 1966, and 1995) formed in the Gulf of Mexico and crossed over South Carolina from the west, mostly impacting the state in terms of heavy rainfall. The other 13 tropical cyclones (1761, 1770, 1799, 1825, two in 1838, 1867, 1868, 1934, 1945, 1968, 1975, 1996) traversed along or made landfall on the South Carolina coast.

remained offshore around June 3, 1825, but it still impacted the state with strong tropical-storm-force winds, likely approaching hurricane-force. Daniel Cannon Webb, who resided in Charleston, described this storm as “*Very heavy N.E. & North blow - like a Sept. Gale - Sufficiently violent to blow down many trees & fences, & rain the whole Day - a great fall of water indeed - The old Corn thrown very much & some broken off - The Cotton worried very much & twisted about & undoubtedly injured ... upon the whole, such a Day in Sept. would have been a Serious evil to the Crops indeed.*” This storm eventually impacted Virginia as a strong Category 2 storm.



The only June storm to impact South Carolina officially at hurricane status occurred on June 22, 1867. Weather stations and ship reports along the southeast Atlantic Coast reveal that the storm likely formed off the south Florida coast several days earlier and moved northward. Reverend Alexander Glennie’s weather diary revealed strong northeasterly winds and a drop in barometric pressure at Georgetown early on June 22, indicating the approach of the hurricane’s counterclockwise circulation. Planter Elias Horry, also living in the Georgetown area, wrote of “gale” conditions. The center

and strongest winds were apparently located between Georgetown and Hilton Head, most likely centered near Charleston. The remarks written by the weather observer at Hilton Head for June 22 read, “Very Stormy during the day – with rain,” but he added that by 6 p.m. there was only a “slight shower.” The *Charleston Mercury* recorded its impact as follows:

THE GREAT STORM. – DAMAGE DONE THE TREES, WHARVES, THE BUILDINGS, AND THE CITY CROPS. –

The storm of rain which has been passing over the city for more than four days reached its height on Saturday, and was then accompanied by a storm of wind which might fully be termed a hurricane. Such a storm at this season has not been known in the memory of citizens who have resided here for nearly a century... Trees were blown down in every direction... The tin roof of the new Custom House was rolled up by the wind ...Yet, whatever the damage done in the city, it will be nothing in comparison with that done in the country districts

Wind data indicate that the center of the storm had well passed most of the South Carolina coast by 9 p.m. The effects of the storm were also evident farther inland, causing heavy flooding. Its center was still over eastern South Carolina, as indicated by predominately northerly winds reported at Gowdysville in the northwestern portion of the state. David Golightly Harris, a planter based near Spartanburg, wrote in his diary on June 23, “*All last night there was a constant gentle rain. It has been raining incessantly to day (11 o'clock) and no prospect of its ceasing. Much fear is entertained that wheat will be injured in the shock. None has been threshed yet & no prospect of suitable weather for the business. This is a gloomy Sunday.*”

No doubt, South Carolina will continue to experience occasional early season tropical cyclones in the future. Although history reveals that such events occur less than ten percent of the years on record, such storms can play prominent effects on flooding and coastal erosion. Storms can occur in repeated Junes such as in 1867 and 1868, as well as twice within a season such as in 1838. The remote possibility also exists of early-season storms near major hurricane status, which can create substantial widespread damage and impacts.

—Cary Mock, University of South Carolina Department of Geology

State of the Thermometer for the week past.									
9 o'clock.			12 o'clock.			3 o'clock.			
Days	Thermomet.	Wind	Weather	Thermomet.	Wind	Weather	Thermomet.	Wind	Weather
Su. 31	81	s. e.	clear	87	s. w.	clear	89	s. w.	clear
Mo. 1	80	s. w.	clear	85	s. w.	clear	88	s. e.	clear
Tu. 2	85	s. w.	clear	86	s. w.	clear	87	s. w.	clear
W. 3	83	s.	clear	84	s. e.	clear	86	s. e.	clear
Th. 4	81	e.	clear	85	s. e.	clear	84	e.	clear
Fr. 5	74	s.	rain	75	s. e.	rain	77	s. e.	cloudy
Sa. 6	74	s. e.	rain	76	s. e.	rain	76	s. e.	rain

A table of old weather data from the Charleston Courier during the storm of early June 1825. The storm passed offshore around June 5.

Several early season tropical cyclones were unusually strong. The storm of June 24, 1945 was a hurricane off the coast of Savannah, but weakened to a tropical storm by the time it traversed along the South Carolina coast. An unusually strong Category 2 hurricane

