ONCE UPON A FRONT... HISTORICAL RECORD KEEPING

Conventional instrumental records of weather exist for South Carolina back to around 1890. However, South Carolinians have been conducting detailed weather observations for almost 300 years, following Mark Twain's popular comment that "everybody talks about the weather." Instrumental observations were conducted by the U.S. military, Signal Service, the medical community, and volunteer observers. Detailed weather observations were recorded in diaries by wealthy plantation owners, newspapers, and ship logbooks. Among the noted observers were Samuel Porcher Gaillard from Sumter, James Kershaw from Camden, Henry Ravenel from Aiken and St. John's, William and Jasper Bartell from Marion County, Evan Pugh of the Pee Dee, Daniel Cannon Webb and Dr. John Lining from Charleston, Reverend Alexander Glennie from Pawley's Island, various doctors from the Charleston Board of Health, and soldiers at Ft. Moultrie. All of these observations reveal interesting weather extremes not always apparent in events within our records of the past 100 years.

Some records indicate extreme flooding that ended periods of severe drought. During late August 1852, rain from the Great Mobile Hurricane swept through the Palmetto State from Alabama, causing a huge flood of the Congaree River. This event followed a persistent drought that lasted about a decade. The August 1852 event ranks within the top five floods for that river. Another huge freshet (freshet is an old term for flood) occurred in August 1824 in the Upstate of South Carolina, which was a remnant of a hurricane from Georgia. A severe, but cold-season, flood occurred in January 1796 known as the Great Yazoo Freshet. Camden experienced 16 days of rain, and persistently wet conditions and severe flooding were reported along the Savannah River Valley.

South Carolinians have also written about great historical snowstorms. A snowstorm in mid-January 1800 dumped more than 8 inches of snow in Charleston, yet Charles Drayton wrote that an alligator found time between storms to bask in the sun near his plantation. A huge spring snowstorm in mid-April 1849 dumped more than six inches of snow in Columbia, and this total ranks near the top of all-time snowstorm totals for the capital city. The back-to-back Januarys of 1856 and 1857 were characterized by record-cold temperatures down to the teens in the Midlands, accompanied by snow depth accumulations of nearly a foot at times. Another strong cold wave and coastal snowstorm occurred in mid-February 1864, coinciding with the event in which the *CSS Hunley* became the first submarine to sink an enemy warship. This cold wave ranks among the top 15 percent in South Carolina's strongest cold fronts, and was likely a factor in the *Hunley* crew's fate.

Severe killing frosts captured the attention of many South Carolinians, as such events significantly affected plantation activity in the Colonial and antebellum periods. Prominent late-spring killing frosts of April 1828 and 1849 were characterized by vast areas of cotton that were destroyed. The 1828 frost followed an extremely warm winter of False Spring, in which peach and orange trees, strawberries, and watermelons blossomed in 80 degree heat during January. An extremely severe early February frost in 1935 brought temperatures near zero in Georgetown and Charleston and below zero in Columbia, killing orange trees. An early fall killing frost in October 1789 caused serious impacts to the Lowcountry, including Charleston.

Many South Carolinians were fearful of yellow fever epidemics in the nineteenth century. The 1878 epidemic in Charleston was particularly severe. This epidemic followed a warm winter that was caused by an El Nino that rivaled in magnitude the extreme El Nino of 1997-1998. It brought warm conditions and ample moisture, which were very conducive to higher mosquito populations.

Hurricanes and South Carolinians have shared a love/hate relationship over the past several centuries. The great hurricane of 1752 was likely the strongest in the state's history, with a storm surge above 16 feet. Other prominent early nineteenth-century major (Category 3) hurricanes were recorded by South Carolinians in 1804, 1813, and 1822. These three hurricanes occurred within an 18-year period, which today is considered unprecedented. The earliest tropical cyclone at hurricane strength to affect South Carolina occurred in June 1867, causing severe damage in Charleston. Also, South Carolina was affected by no fewer than eight tropical cyclones during a two-year period from 1837-1838.

The weather extremes noted here are a sample of a much larger number that were luckily preserved in South Carolina's historical archives. These weather surprises remain to be revealed by climatologists and historians as they share their work and resources.

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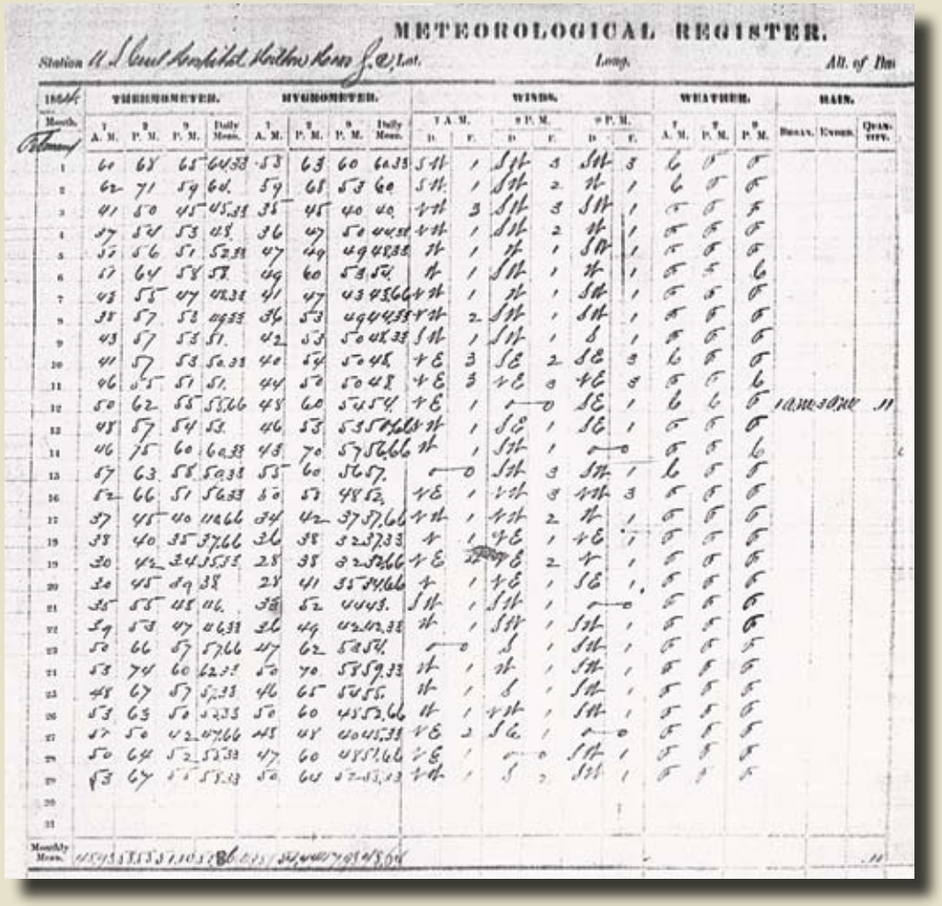
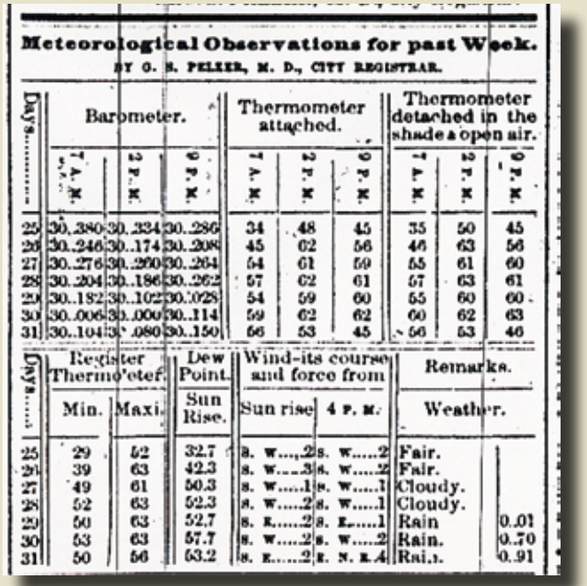


METEOROLOGICAL REGISTER.

Record for Hilton Head in Feb. 1864 taken by a Union soldier.



Meteorological Observations for past Week.

BY O. H. PELZER, M. D., CITY REGISTRAR.

Days.	Barometer. 7 A. M.	Barometer. 2 P. M.	Barometer. 9 P. M.	Thermometer attached. 7 A. M.	Thermometer attached. 2 P. M.	Thermometer attached. 9 P. M.	Thermometer detached in the shade & open air. 7 A. M.	Thermometer detached in the shade & open air. 2 P. M.	Thermometer detached in the shade & open air. 9 P. M.
25	30..380	30..334	30..286	34	48	45	35	50	45
26	30..246	30..174	30..208	45	62	56	46	63	56
27	30..276	30..290	30..264	54	61	59	55	61	60
28	30..204	30..186	30..262	57	62	61	57	63	61
29	30..182	30..102	30..028	54	59	60	55	60	60
30	30..006	30..000	30..114	59	62	62	60	62	63
31	30..104	30..080	30..150	56	53	45	56	53	46

Days.	Register Thermometer. Min.	Register Thermometer. Maxi.	Dew Point. Sun Rise.	Wind-its course and force from Sun rise	Wind-its course and force from 4 P. M.	Remarks. Weather.	
25	29	52	32.7	s. w.....2	s. w.....2	Fair.	
26	39	63	42.3	s. w.....3	s. w.....2	Fair.	
27	49	61	50.3	s. w.....1	s. w.....1	Cloudy.	
28	52	63	52.3	s. w.....2	s. w.....1	Cloudy.	
29	50	63	52.7	s. e.....2	s. e.....1	Rain	0.01
30	53	63	57.7	s. w.....2	s. w.....2	Rain.	0.70
31	50	56	53.2	s. e.....2	e. n. e.4	Rain.	0.91

Record of Charleston from **Charleston Daily Courier***, Dec. 25-31, 1859. It was taken by the Charleston Board of Health.*