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# “Knowing Which Way the Wind was Blowing during Reconstruction”

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# Feature Essay

# Fall 2023

# Rasmussen, Hans

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The summer of 2023 was hot here in Baton Rouge, the hottest ever in fact. The average temperature of 87.5° broke the previous record by almost three whole degrees. Furthermore, last summer set records for hottest highs, hottest lows, days with highs at or above 100° or lows at or above 80°, lowest precipitation, and other phenomena that made us all feel generally miserable for about three months.[1] This extraordinary streak of exceptionally hot weather understandably might compel readers of *Civil War Book Review* to reflect on the recent scholarship examining the environmental history of the Civil War, which has emerged as a particularly fashionable field of study over the past two decades. These studies variably consider the war's effects on flora and fauna, the spread of disease, and the destruction of cities, towns, farms, and forests. They also examine the effects of the environment (including the weather) on the outcomes of battles, the success or failure of campaigns, opportunities for emancipation, agricultural output, and each side's overall ability to prosecute the war.[2] This past summer's seemingly unending heat wave

[1] "Summer of 2023 rewrites Capital Area record books," WBRZ-TV website, September 11, 2023, https://www.wbrz.com/news/summer-of-2023-rewrites-capital-area-record-books

[2] Robert K. Krick, *Civil War Weather in Virginia* (Tuscaloosa: University of Alabama Press, 2007); Kelby Ouchley, *Flora and Fauna of the Civil War: An Environmental Reference Guide* (Baton Rouge: Louisiana State University Press, 2010); Amy Murrell Taylor, "How a Cold Snap in Kentucky Led to Freedom for Thousands: An Environmental Story of Emancipation," in *Weirding the War: Stories from the Civil War's Ragged Edges*, ed. Stephen Berry (Athens: University of Georgia Press, 2011); Lisa M. Brady, *War upon the Land: Military Strategy and the Transformation of Southern Landscapes during the American Civil War* (Athens: University of Georgia Press, 2012); Kathryn Shively Meier, *Nature's Civil War: Common Soldiers and the Environment in 1862 Virginia* (Chapel Hill: University of North Carolina Press, 2013); Brian Allen Drake, ed., *The Blue, the Gray, and the Green: Toward an Environmental History of the Civil War* (Athens: University of Georgia Press, 2015); Paul D. Escott, "Environmental Approaches to the Civil War," in *Rethinking the Civil War Era: Directions for Research* (Lexington: University Press of Kentucky, 2018); Erin Stewart Mauldin, *Unredeemed Land: An Environmental*

has given particular relevance and interest to Kenneth Noe's *The Howling Storm: Weather, Climate, and the American Civil War* (2020), an examination of the unusual weather conditions of the war years that ultimately disfavored the Confederacy and contributed to its defeat. Complementing such an expansive study is the hyper-focused scholarship of Jon Nese, a professor of meteorology at Pennsylvania State University, and Jeffrey Harding, a guide at the Gettysburg National Military Park, to nail down the precise weather conditions (including estimating the heat index) at the Battle of Gettysburg.[3]

Kenneth Noe acknowledges how reliable weather data from the Civil War period vanishes as one looks westward. Virginia, with its proximity to multiple mid-Atlantic weather stations, is overrepresented, while southwestern states offer much less data and the trans-Mississippi region practically nothing. The LSU Libraries' holdings of records for US Weather Bureau stations in Louisiana similarly contain little for the Civil War period (with one exception to be discussed below), but they do offer much for any historian contemplating the role of the weather on southern history during Reconstruction. Reliable weather data collection in Louisiana began with the opening of the weather observation station in New Orleans on November 1, 1870.[4] Functioning under the auspices of the US Army Signal Service Division of Telegrams and Reports for the Benefit of Commerce, the office's first home was at 281 Carondelet Street, but it moved to 222 Customhouse Street a couple of weeks later. After a year, it relocated to the

*History of Civil War and Emancipation in the Cotton South* (New York: Oxford University Press, 2018); Scott Hippensteel, *Rocks and Rifles: The Influence of Geology on Combat and Tactics during the American Civil War* (Switzerland: Springer, 2019); Judkin Browning and Timothy Silver, *An Environmental History of the Civil War* (Chapel Hill: University of North Carolina Press, 2020)

[3] Kenneth W. Noe, *The Howling Storm: Weather, Climate, and the American Civil War* (Baton Rouge: Louisiana State University Press, 2020); Jon M. Nese and Jeff Harding, "Pickett's Charge—'A Perfect Storm of Heat:' Never before Used Data Allows for Heat Index Estimate during Fateful Attack," *Gettysburg Magazine* 67 (July 2022): 35-46; "Weather and the 1863 Battle of Gettysburg," American History TV (C-SPAN2) website, June 10, 2023, https://www.c-span.org/video/?528650-6/weather-1863-battle-gettysburg

[4] United States Weather Bureau, Louisiana Records, Mss. 3694, Louisiana and Lower Mississippi Valley Collections, LSU Libraries, Baton Rouge, La.

United States Custom House on Canal Street, home to other offices of the federal government, on November 1, 1871.[5]

Three men conducted observations and kept records at the station during the Reconstruction years. The first two were C. Dwyer and F. Mansfield, rather shadowy figures who so far are hard to identify with certainty. Sgt. Nelson Gorom (1849-1937) of Albany, New York, began to appear in the record in place of Mansfield in mid-March 1873. He had enlisted in his home state on December 16, 1869, and went on to spend thirty years in the army.[6] These men collectively compiled the various series of records for the station, beginning with the **daily meteorological record** containing the raw data of weather observation. Here observers entered measurements of atmospheric pressure, temperature, humidity, direction and velocity of the wind, amount of cloud cover, and duration and amount of rainfall. Extant recordings date back to the opening of the weather observation station in New Orleans on November 1, 1870.

The **daily weather journals** for New Orleans also began on that same opening day. Like the daily meteorological record, its entries consisted mostly of rather mundane observations of weather data, but observers related these details in a narrative format not nearly as precise as the numbers inscribed on the official forms of the meteorological record. Nevertheless, their sketchiness is forgivable when considering the charm of their occasional descriptions of the inner workings of the observation station from the very day when the office was first set up. Barely three weeks after its opening, the observer literally fell asleep on the job and failed to reach the telegraph office before it closed. He had to send his report to headquarters the next day. He nodded off again two weeks later with the same result.[7] A storm with 60 mph gale force winds

[5] US Department. of Agriculture, Weather Bureau, *Climatological Record for New Orleans, La., 1871-1890*, 3.
[6] Texas Department of Health, Bureau of Vital Statistics, Standard Certificate of Death for Nelson Gorom, certificate no. 34675; US Army Register of Enlistments, 1798-1914, page 322.
[7] Daily weather journal, November 20, 1870 and December 5, 1870.

hit New Orleans the day after the presidential election of 1872 ("It was probably a tornado") sending Mansfield on a harrowing trip to the telegraph office.[8] It took a while before New Orleanians came to appreciate the station's weather bulletins posted outside the Western Union telegraph office, but Mansfield puffed proudly when he realized how much the business community appreciated them, so he badgered newspaper editors to print his reports.[9] None of this notoriety could help the weather station's facilities in the Custom House, when 1.21" of rain over a day soaked the observatory: "This rain storm developed the fact that this office is about uninhabitable since that portion of the roof directly above us has been removed. Water was dropping all about us and the carpet was soaked with water which up to this time (9:30 p.m.) is not dry and in fact the water is not yet all dripped off of the roof as occasional drops coming down on our heads and on desks, tables, &c will certify. When oh when shall I get out of this place?"[10]

The volatility of New Orleans during Reconstruction finally reached the city's weather observers on the day when the White League defeated the Metropolitan Police and the state militia in the famous Battle of Liberty Place on September 14, 1874, briefly removing Governor William Pitt Kellogg in favor of the Democratic claimant, John McEnery. Kellogg and James Longstreet, the former Confederate general who commanded the state militia, both sought refuge in the Custom House behind the protection of federal arms, right below the feet of Sgt. Nelson Gorom, who could not help but notice the ruckus on the streets, which he recorded in the daily weather journal.

> September 14, 1874: "Rain began and ended during night. Slight decrease of pressure to-day with increasing temperature. Easterly winds veering to southeast and then backing to northerly. The latter since 3 PM. Light rain from 9 AM till 9:15 AM and at intervals from

[8] Daily weather journal, November 6, 1872.
[9] Daily weather journal, December 5, 1872-February 28, 1873.
[10] Daily weather journal, March 10, 1873.

> 1:15 until 2:20 PM. Weather clear since 8:30 PM. Unable to get into the building on account of the mob from 4 PM till 8 PM but as bulletins are made out at the telegraph office no duty was neglected. Had some difficulty in reaching the telegraph office with midnight signals but report filed on time."
>
> September 15, 1874: "Morning opened with clear weather. Barometer steady except the usual oscillation. Temperature increasing. Gentle winds backing from Northeast to southwest. Weather fair from 9 AM till 7 PM and clear since. No probabilities issued this AM.[11] Bob Latchford (printer) prevented by the White League patriots from going to the office. Commenced receiving reports from Corsicana this AM."

Tensions had calmed by the next day when the daily journal returned to its usual mundane observations.

"Started the Self Register of Anemometer at 12 noon today and it works admirably," remarked observer Mansfield in his daily weather journal on September 5, 1872. Researchers may see the printouts from this self-registering anemometer in the bound **anemometer readings**, each measuring 3 ½" high and 13 ½" long and providing raw data on measuring wind speed. ***Signals Data at New Orleans Station, November 1871-August 1875*** documented occasions when gale force winds prompted Mansfield and Gorom to hoist warning signals. The process did not always work, as Mansfield explained on November 4, 1872: "The order to hoist signals should have been received an hour earlier. It was sent to this office, but the messenger boy was evidently afraid of the dark passage leading to the office and not seeing any light (the door was closed) concluded that no one was here and carried the message back to the Tel. Office. We were both in the office. I rec'd the order on my way home. Called at the Tel. Office and got it in that way."

Other weather data in the United States Weather Bureau, Louisiana Records comes in the form of data accumulated over several decades presented collectively to examine long-term trends. ***Meteorological Summary for New Orleans, La., 1871-1890*** records atmospheric

[11] *Probabilities* was the term used at the time for a weather forecast.

pressure, temperature, dew point, relative humidity, wind velocity, precipitation, clouds, and weather for each month. ***Climatological Record for New Orleans, La., 1871-1890*** is a ledger containing annual, monthly, and daily statistics on atmospheric pressure, temperature, relative humidity, precipitation, wind, weather, and visibility. The volume of ***Miscellaneous Temperature, Precipitation, Sunshine, Frost and Ice Data, 1871-1898*** includes a single, nearly complete chart giving the total precipitation in New Orleans for each month between 1836 and 1894, apparently the only antebellum and Civil War-era weather data in the records, although the source for this information is unknown.[12] Notice how in 1862 the city received over twenty-two inches of rain (nearly half that year's total) between only January and April. Did that make it easier for Admiral Farragut's gunboats to sail up the river to seize the city at the end of April? Maybe.

Naturally, this all begs the question of the value of weather data in studying Reconstruction. Unlike the war, the events that characterized the dozen years that followed it, while certainly chaotic, were not of a nature especially susceptible to variations in the weather. Large armies did not march and camp for months through cold, heat, wind, rain, and snow. Single-day clashes of arms were comparatively fewer, and Reconstruction's skirmishes tended to be urban street fights or rural riots and massacres that arose and ended within the span of a day. The constitutional quarrels that epitomized Reconstruction mostly took place indoors enveloped in whatever passed for climate control back then. Nevertheless, the events of Reconstruction played out within the context of an agrarian society where most people lived in rural areas, close to nature and susceptible to the fickle whims of weather and climate. A dry summer, a wet

[12] The United States Weather Bureau, Louisiana Records were still unprocessed at the time of writing this article, so I cannot be absolutely certain that this chart is the only antebellum and Civil War-era weather data in the records, but a cursory examination of the records suggests it to be so. The data from the table appears in the spreadsheet accompanying this article.

spring, a sudden flood, or an early killing frost may have put a locality’s agricultural economy out of joint for a while and spun off other political or social reverberations. Understanding how these various political, economic, social, and climactic factors played off each other to produce the volatile events of the Reconstruction era will present a challenging puzzle for historians to unravel. Such an effort to bring weather and climate into the historiography of Reconstruction will be possible only by consulting the standardized forms and consistently kept journals of government weather observers that tell us how hot was the air, how many clouds filled the sky, and which way the wind was blowing.

# Appendix

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total from Ledger | Total from Excel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1836 | 6.14 | 3.07 | 1.60 | 8.86 | 5.12 | 2.90 | 7.27 | 3.83 | 6.21 | 1.05 | 2.90 | 3.30 | 52.25 | 52.25 |
| 1839 | 8.10 | 3.40 | 2.19 | 2.10 | 2.02 | 3.11 | 9.86 | 4.80 | 0.12 | 2.40 | 3.92 | 4.40 | 46.42 | 46.42 |
| 1840 | 0.11 | 2.01 | 1.09 | 3.10 | 4.80 | 7.10 | 5.60 | 3.10 | 1.80 | 7.80 | 5.55 | 2.22 | 44.28 | 44.28 |
| 1841 | 9.27 | 3.66 | 6.65 | 5.04 | 1.70 | 2.67 | 1.79 | 3.58 | 2.83 | 3.26 | 0.90 | 8.57 | 49.92 | 49.92 |
| 1842 | 3.47 | 5.63 | 2.80 | 4.13 | 0.87 | 1.50 | 6.53 | 6.64 | 5.45 | 1.46 | 3.51 | 1.56 | 43.55 | 43.55 |
| 1843 | 4.00 | 3.80 | 5.31 | 2.67 | 0.45 | 14.57 | 8.70 | 3.37 | 8.35 | 2.30 | 2.26 | 6.18 | 61.96 | 61.96 |
| 1844 | 3.88 | 0.73 | 3.90 | 1.16 | 3.12 | 4.42 | 9.80 | 5.25 | 4.11 | 3.25 | 7.78 | 1.35 | 48.75 | 48.75 |
| 1845 | 6.24 | 1.19 | 5.16 | 1.99 | 8.06 | 3.20 | 2.70 | 4.53 | 4.29 | 6.25 | 4.62 | 6.20 | 54.43 | 54.43 |
| 1846 | 9.19 | 6.65 | 7.88 | 10.70 | 5.38 | 1.85 | 8.86 | 6.89 | 6.31 | 1.14 | 1.64 | 0.80 | 67.29 | 67.29 |
| 1847 | 7.71 | 3.77 | 3.40 | 4.63 | 4.80 | 3.43 | 5.06 | 6.81 | 2.83 | 0.75 | 2.59 | 7.73 | 53.51 | 53.51 |
| 1848 | 5.42 | 1.28 | 1.97 | 3.92 | 4.75 | 9.36 | 6.86 | 7.01 | 1.03 | 2.88 | 6.26 | 2.66 | 53.40 | 53.40 |
| 1849 | 3.63 | 2.76 | 2.27 | 2.69 | 6.14 | 4.52 | 12.92 | 2.23 | 2.60 | 6.45 | 3.94 | 2.37 | 52.52 | 52.52 |
| 1850 | 6.55 | 4.17 | 2.13 | 4.11 | 6.28 | 6.83 | 6.20 | 7.11 | 0.95 | 1.07 | 1.47 | 4.26 | 51.13 | 51.13 |
| 1851 | 4.26 | 3.75 | 1.57 | 4.55 | 2.73 | 1.42 | 4.23 | 8.39 | 3.90 | 3.86 | 8.30 | 3.15 | 50.11 | 50.11 |
| 1852 | 0.88 | 1.53 | 4.47 | 4.96 | 6.39 | 1.58 | 5.52 | 2.46 | 0.64 | 3.51 | 6.84 | 5.10 | 43.88 | 43.88 |
| 1854 | 3.20 | 4.40 | 7.12 | 1.85 | 3.32 | 1.78 | 11.51 | 6.28 | 4.95 | 5.84 | 7.03 | 4.56 | 61.84 | 61.84 |
| 1855 | 1.89 | 9.84 | 4.18 | 3.81 | 6.15 | 4.08 | 2.94 | 3.48 | 8.92 | 4.84 | 1.55 | 1.16 | 52.84 | 52.84 |
| 1856 | 0.86 | 1.89 | 0.86 | 1.90 | 1.93 | 3.72 | 7.48 | 4.14 | 4.73 | 1.97 | 5.66 | 6.78 | 41.92 | 41.92 |
| 1857 | 8.90 | 3.68 | 3.73 | 2.85 | 2.53 | 5.79 | 8.63 | 16.12 | 3.20 | 2.29 | 4.65 | 4.75 | 67.72 | 67.12 |
| 1858 | 2.91 | 1.90 | 4.45 | 1.41 | 7.33 | 2.90 | 5.86 | 5.08 | 2.55 | 5.01 | 3.05 | 5.10 | 47.55 | 47.55 |
| 1859 | 4.42 | 5.24 | 5.44 | 2.66 | 3.20 | 5.91 | 7.97 | 9.51 | 4.31 | 4.47 | 3.61 | 3.96 | 60.70 | 60.70 |
| 1860 | 6.40 | 3.77 | 7.84 | 3.99 | 1.94 | 7.12 | 0.93 | 6.17 | 1.19 | 2.17 | 2.79 | 5.09 | 49.40 | 49.40 |
| 1861 | 0.62 | 8.61 | 0.76 | 2.42 | 1.26 | 5.07 | 1.50 | 4.50 | 1.80 | 5.66 | 4.28 | 2.74 | 39.22 | 39.22 |
| 1862 | 5.45 | 5.35 | 4.14 | 7.58 | 0.01 | 4.40 | 3.62 | 8.71 | 6.14 | 3.95 | 0.25 | 0.76 | 50.36 | 50.36 |
| 1863 | 3.79 | 2.75 | 2.83 | 4.10 | 0.65 | 0.58 | 4.53 | 2.15 | 4.68 | 1.03 | 0.36 | 1.85 | 29.30 | 29.30 |
| 1864 | 2.10 | 3.55 | 3.72 | 1.31 | 3.02 | 2.62 | 3.29 | 4.44 | 1.74 | 1.66 | 0.26 | 4.11 | 31.82 | 31.82 |
| 1865 | 3.41 | 0.30 | 3.05 | 0.97 | 0.67 | 2.80 | 1.91 | 7.98 | 2.14 | 2.22 | 2.77 | 0.46 | 28.68 | 28.68 |
| 1869 | 3.97 | 3.93 | 5.30 | 0.23 | 3.28 | | | | | | | | | |
| 1870 | 4.75 | 3.72 | 2.19 | 3.95 | 2.50 | 2.30 | 6.00 | 5.70 | 1.30 | 1.30 | 6.80 | 7.85 | 48.36 | 48.36 |
| 1871 | 6.75 | 1.59 | 4.47 | 2.29 | 5.08 | 8.61 | 4.43 | 7.23 | 6.59 | 9.09 | 6.81 | 1.79 | 64.73 | 64.73 |
| 1872 | 5.10 | 4.77 | 9.18 | 5.01 | 3.14 | 5.34 | 6.43 | 2.86 | 2.10 | 3.18 | 7.43 | 5.25 | 59.79 | 59.79 |
| 1873 | 5.06 | 1.93 | 5.10 | 1.74 | 18.68 | 6.68 | 5.27 | 8.30 | 3.19 | 1.89 | 5.95 | 1.79 | 66.58 | 65.58 |
| 1874 | 1.68 | 3.68 | 7.57 | 13.62 | 0.22 | 9.62 | 12.93 | 4.82 | 4.21 | Trace | 1.12 | 3.27 | 62.74 | 62.74 |
| 1875 | 8.44 | 13.85 | 10.84 | 8.05 | 2.53 | 4.92 | 6.57 | 8.61 | 7.89 | 2.09 | 6.79 | 5.15 | 85.73 | 85.73 |
| 1876 | 4.43 | 8.20 | 11.32 | 6.41 | 7.10 | 6.20 | 4.73 | 4.44 | 0.26 | 0.24 | 4.35 | 9.57 | 67.25 | 67.25 |
| 1877 | 5.30 | 0.98 | 4.94 | 4.79 | 1.48 | 2.75 | 6.41 | 2.54 | 13.21 | 9.15 | 6.58 | 4.96 | 63.09 | 63.09 |
| 1878 | 5.36 | 3.50 | 4.63 | 1.51 | 8.11 | 7.35 | 6.21 | 5.31 | 2.64 | 5.07 | 7.78 | 8.69 | 66.16 | 66.16 |
| 1879 | 2.34 | 2.13 | 1.36 | 9.17 | 4.63 | 2.96 | 7.04 | 10.44 | 3.15 | 1.36 | 3.79 | 2.90 | 51.27 | 51.27 |
| 1880 | 1.02 | 4.62 | 6.66 | 6.88 | 6.55 | 6.43 | 11.22 | 4.60 | 7.48 | 1.88 | 6.04 | 6.45 | 69.83 | 69.83 |
| 1881 | 11.15 | 5.80 | 2.75 | 3.92 | 3.20 | 2.84 | 6.97 | 4.21 | 4.47 | 4.84 | 7.24 | 6.62 | 64.01 | 64.01 |
| 1882 | 4.54 | 4.04 | 0.92 | 4.83 | 6.83 | 2.71 | 6.84 | 9.47 | 1.59 | 2.16 | 1.98 | 4.27 | 50.18 | 50.18 |
| 1883 | 10.63 | 1.59 | 5.01 | 14.20 | 5.41 | 12.05 | 3.33 | 4.12 | 0.25 | 3.43 | 6.36 | 3.47 | 69.85 | 69.85 |
| 1884 | 4.35 | 3.16 | 8.24 | 6.48 | 4.33 | 8.60 | 4.12 | 0.87 | 3.12 | 5.60 | 3.13 | 8.01 | 60.01 | 60.01 |
| 1885 | 9.70 | 2.39 | 6.99 | 3.67 | 5.77 | 3.30 | 6.15 | 4.25 | 13.55 | 0.56 | 3.47 | 4.38 | 64.18 | 64.18 |
| 1886 | 7.53 | 1.96 | 8.41 | 5.60 | 3.07 | 9.30 | 4.35 | 2.40 | 4.09 | 0.22 | 5.33 | 2.57 | 54.83 | 54.83 |
| 1887 | 4.26 | 5.58 | 3.37 | 1.87 | 3.99 | 11.33 | 7.85 | 7.42 | 6.51 | 4.71 | 0.52 | 7.56 | 64.97 | 64.97 |
| 1888 | 3.29 | 11.21 | 6.45 | 1.89 | 9.75 | 9.09 | 2.02 | 22.74 | 4.15 | 7.36 | 1.50 | 3.68 | 83.13 | 83.13 |
| 1889 | 6.51 | 2.78 | 3.86 | 2.28 | 1.17 | 7.62 | 9.13 | 5.59 | 6.40 | 0.26 | 2.18 | 0.67 | 48.45 | 48.45 |
| 1890 | 0.66 | 2.77 | 1.45 | 3.46 | 5.32 | 7.71 | 6.59 | 3.62 | 2.85 | 5.24 | 0.42 | 2.58 | 42.17 | 42.67 |
| 1891 | 3.75 | 7.42 | 2.67 | 0.26 | 0.76 | 4.45 | 4.57 | 1.69 | 3.43 | 2.38 | 3.31 | 3.93 | 38.62 | 38.62 |
| 1892 | 5.87 | 0.04 | 2.82 | 10.44 | 2.62 | 5.46 | 7.46 | 6.96 | 6.33 | 2.14 | 3.55 | 3.22 | 56.91 | 56.91 |
| 1893 | 2.50 | 4.92 | 3.49 | 3.70 | 2.66 | 5.30 | 3.72 | 4.56 | 4.38 | 4.24 | 6.24 | 2.31 | 48.02 | 48.02 |

**Source: Miscellaneous Temperature, Precipitation, Sunshine, Frost and Ice Data, 1871-1898 in United States Weather Bureau, Louisiana Records, Mss. 3694, Louisiana and Lower**