



# NWS Charleston, SC

## Tropical Quick Facts

Last Updated: 7/9/22

Local Tropical History Webpage:  
<https://www.weather.gov/chs/TChistory>

### Landfalls

- ❖ From 1851 (when official records begin) through 2021, 43 tropical cyclones (TC) made landfall in the Charleston CWA, including:
  - 25 Hurricanes:
    - 5 of which were Major Hurricanes (Cat 3+):
      - Hugo (Sep 1989)
      - Gracie (Sep 1959)
      - Unnamed (Oct 1893)
      - "Great Sea Islands Hurricane" (Aug 1893)
      - Unnamed (Sep 1854)
  - 11 Tropical Storms
  - 7 Tropical Depressions
- ❖ Most Recent Landfalls:
  - Hurricane: Matthew (2016)
    - Multiple hurricane landfalls in the same year (2004):
      - Charley (Cat 1) and Gaston (Cat 1)
  - Major Hurricane: Hugo (1989)
  - Tropical Storm: Danny (2021)
  - Tropical Depression: Bonnie (2016)
- ❖ Earliest Landfalls (by calendar day):
  - Hurricane: Jun 22, 1867 (Cat 1)
  - Major Hurricane: Aug 28, 1893 (Cat 3)
  - Tropical Storm: May 16, 1916 \***Earliest landfalling TC on record**
  - Tropical Depression: May 29, 2016 (associated w/ TS Bonnie)
- ❖ Landfalls by County (1851-2021): 43 total
  - Charleston: 18
  - Beaufort: 10

- Chatham: 6
- McIntosh: 4
- Liberty: 3
- Colleton: 2
- ❖ Landfalls by Month (1851-2021): 43 total
  - Sep: 13
  - Aug: 11
  - Oct: 7
  - Jul: 6
  - May: 3
  - Jun: 3
- ❖ Landfalls by Climate Regime (1950-2018):
  - Warm ENSO (El Nino): 5
  - Cold ENSO (La Nina): 4
  - Neutral ENSO: 9
  - Positive North Atlantic Oscillation (+NAO): 12
  - Negative North Atlantic Oscillation (-NAO): 6
  - Positive Arctic Oscillation (+AO): 9
  - Negative Arctic Oscillation (-AO): 9

### **Strikes (passing within 50 nm)**

- ❖ The last "strike" (within 50 nm) of a hurricane and major hurricane, respectively, in certain areas:
  - Charleston:
    - Hurricane: Dorian (2019)
    - Major Hurricane: Hugo (1989)
  - Hilton Head:
    - Hurricane: Matthew (2016)
    - Major Hurricane: Gracie (1959)
  - Savannah:
    - Hurricane: Matthew (2016)
    - Major Hurricane: "Great Sea Islands" (Aug 1893)
- ❖ References:
  - <https://www.nhc.noaa.gov/dcmi.shtml>
  - <https://www.nhc.noaa.gov/climo/#uss>

### **Return Periods (passing within 50 nm)**

- ❖ Charleston:
  - Hurricane: 8 years

- Major Hurricane: 22 years
- ❖ Savannah:
  - Hurricane: 10 years
  - Major Hurricane: 36 years
- ❖ References:
  - <https://www.nhc.noaa.gov/climo/#returns>

### **Strongest**

- ❖ Hurricane Hugo (1989) is the strongest TC to impact the Charleston CWA (120 knots; 934 mb)
- ❖ Hugo is also tied for the 12<sup>th</sup> most intense mainland U.S. hurricane based on pressure (934 mb=27.58 inches)
- ❖ References:
  - <https://www.nhc.noaa.gov/dcmi.shtml>

### **Costliest**

- ❖ Hurricane Hugo (1989) is the 11<sup>th</sup> costliest (\$7 billion-not adjusted for inflation) mainland U.S. tropical cyclone since 1900 and 7<sup>th</sup> costliest mainland U.S. tropical cyclone since 1900 (\$12.775 billion-based on 2010 U.S. Census Bureau Price Deflator for Construction).
- ❖ References:
  - <https://www.nhc.noaa.gov/dcmi.shtml>

### **Deadliest**

- ❖ Most likely was the “Great Sea Islands” hurricane in late August of 1893, which came ashore just south of Savannah as a Category 3 hurricane, causing 1000-2000 deaths (5<sup>th</sup> deadliest mainland U.S. tropical cyclone on record)
- ❖ The August 1881 hurricane (Cat 2), which made landfall south of Savannah, ranks as the 6<sup>th</sup> deadliest (700 deaths).
- ❖ References:
  - <https://www.nhc.noaa.gov/dcmi.shtml>

### **Wettest**

- ❖ NWS Charleston County Warning Area (CWA):
  - Hurricane Matthew (2016) - 17.49” at Hunter AAF (KSVN)
- ❖ SC:
  - Hurricane Florence (2018) - 23.63” at Loris 2.9 WSW
- ❖ GA:

- TS Alberto (1994) - 27.85" at Americus
- ❖ References:
  - <https://www.wpc.ncep.noaa.gov/tropical/rain/tcstatemaxima.gif>
  - <https://www.wpc.ncep.noaa.gov/tropical/rain/tcsoutheast.html>