



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 12th 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 11th costliest (\$7 billion-not adjusted for inflation) mainland U.S. tropical cyclone since 1900 and 7th 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 (5th deadliest mainland U.S. tropical cyclone on record)
- ❖ The August 1881 hurricane (Cat 2), which made landfall south of Savannah, ranks as the 6th 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>