North Carolina has a very appealing climate, and the weather here is a large reason why so many people are moving to live in this area. But we also have our fair share of severe weather, and it is critical to understand patterns in severe weather to protect the lives and property of our citizens. For this reason, the State Climate Office studies the history of severe weather in North Carolina. We not only study tropical cyclones, tornadoes, and winter storm climatologies, but we make this information available to everyone for planning, decision-making, and general education. Our website has a history of tropical storms that have passed through North Carolina, and we regularly give presentations on the threats of flooding and wind damage due to tropical cyclones. Such research and outreach help to inform the public and improve severe weather management and mitigation in North Carolina.

Tropical cyclones are some of the most powerful systems known to man. Each year, these storms threaten destruction to those who live in the southeastern United States. Hurricane Fran, shown here, caused billions of dollars in damage in North Carolina alone.

North Carolina: Direct Hits by Hurricanes

Hurricanes with Tracks Through North Carolina

1930-1999

North Carolina: Hurricanes that made Landfall Elsewhere

1930-1999

North Carolina Hurricane Occurrences by Month (1886-1999)

Hurricanes affect North Carolina most often in the late summer and early fall. Ocean temperatures are warmest during this time of the year in the North Atlantic Basin.

North Carolina Hurricane Strikes by Decade

The 1940s and 1950s were active periods for tropical storms in North Carolina. Other research has shown a 20-30 year cycle in tropical storm development, suggesting we will see more storms in the next 20 years than we saw in the last 20 years.