SOUTH CAROLINA WINTER WEATHER HAZARDS

Unfortunately for the children of South Carolina hoping for a snow-day from school, the odds aren't in their favor for most of the State. Measurable snowfall occurs from one to three times a year. The chance each year in the midlands for one measurable snow event is 30-45%. For example, Columbia Airport has received snow on only 56 days since 1948. Only six of the daily totals were over four inches, with the majority (34 daily snowfall totals) less than one inch. The likelihood of measurable snow each year for many Upstate locations is higher, ranging from 60-75%. Walhalla has reported 80 days of snow since1948 with 22 daily event totals greater than four inches. Our most extreme mountainous locations, such as Caesars Head, reported 154 days of snow since 1948 with 49 daily event totals greater than four inches. Caesars Head has received six days with snowfall totals greater than 10 inches.

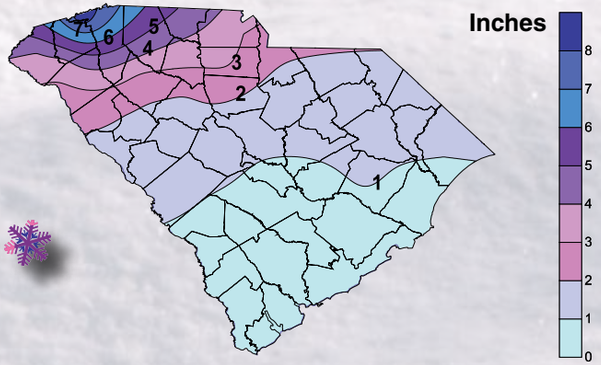
Freezing rain or sleet events such as the ice storm that occurred on December 15-16, 2005, are more common than snow events for South Carolina. Ice storms create treacherous travel and often cause widespread power outages. Power outages were reported for over one week following the December 2005 ice event.

South Carolina frequently experiences what many call a "mixed bag of wintry precipitation," which includes precipitation in the form of snow, sleet, freezing rain, and rain. Snow and sleet are considered frozen precipitation while freezing rain is, of course, freezing precipitation. Temperature change with height in the atmosphere ultimately determines the observed surface weather conditions. Snow indicates a very deep and cold air mass is over your location. If sleet reaches the ground, the snowflake partially melts on its way down as it passes through a layer of above-freezing temperatures aloft. Near the surface, temperatures were below freezing over a deep enough layer to refreeze the melted snowflake into an ice pellet or sleet. In the case of freezing rain, the cold air at the surface is not deep enough to freeze the water droplet before it reaches the ground. Instead, the water freezes on contact with surfaces such as cars, trees, and power lines and forms a glaze. Rain occurs when the temperatures below the cloud are above freezing all the way to the earth's surface.

References:

Winter Storms: The Deceptive Killers, ARC 4467 December 2001 NOAA/PA 200160, http://www.weather.gov/om/winterstorm/winterstorms.pdf

South Carolina Average Annual Snowfall
(1948-2003)



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Injuries Due to Ice and Snow

- About 70% result from vehicle accidents
- About 25% occur when people are caught out in a storm

Injuries Related to Cold

- 50% happen to people over 60 years old
- About 20% occur in the home

White Christmas at the Beach

"Dreaming of a White Christmas" was a reality during December 1989 along the SC coast. A winter storm brought heavy snow to coastal SC on the 22-24. Snowfall totaled 4 inches at Yemassee, 5 inches at Beaufort, 8 inches at Charleston, and 14 inches at Myrtle Beach.