



Connecticut State Climate Center

[Climate Overview](#)[Climatic Statistics](#)[UConn Data](#)[Special Request](#)[About CSCC](#)

Overview of Climate in Connecticut

Narrated from Weather America 2001, Grey House Publishing, Lakeville, CT

PHYSICAL FEATURES. Connecticut is located at the southwestern corner of New England, with Long Island Sound to the south, New York to the west, Massachusetts to the north, and Rhode Island to the east. The total area of Connecticut is about 5,009 square miles, extending for 90 miles in an east-west direction and 75 miles from north to south. The topography of Connecticut is predominantly hilly. The highest terrain is found in the northwest portion of the State, with elevations of 1,000 to 2,000 feet. The southwestern quarter and most of the eastern half have elevations of 300 to 1,000 feet. The State of Connecticut is bisected by the Connecticut River which rises in Canada.

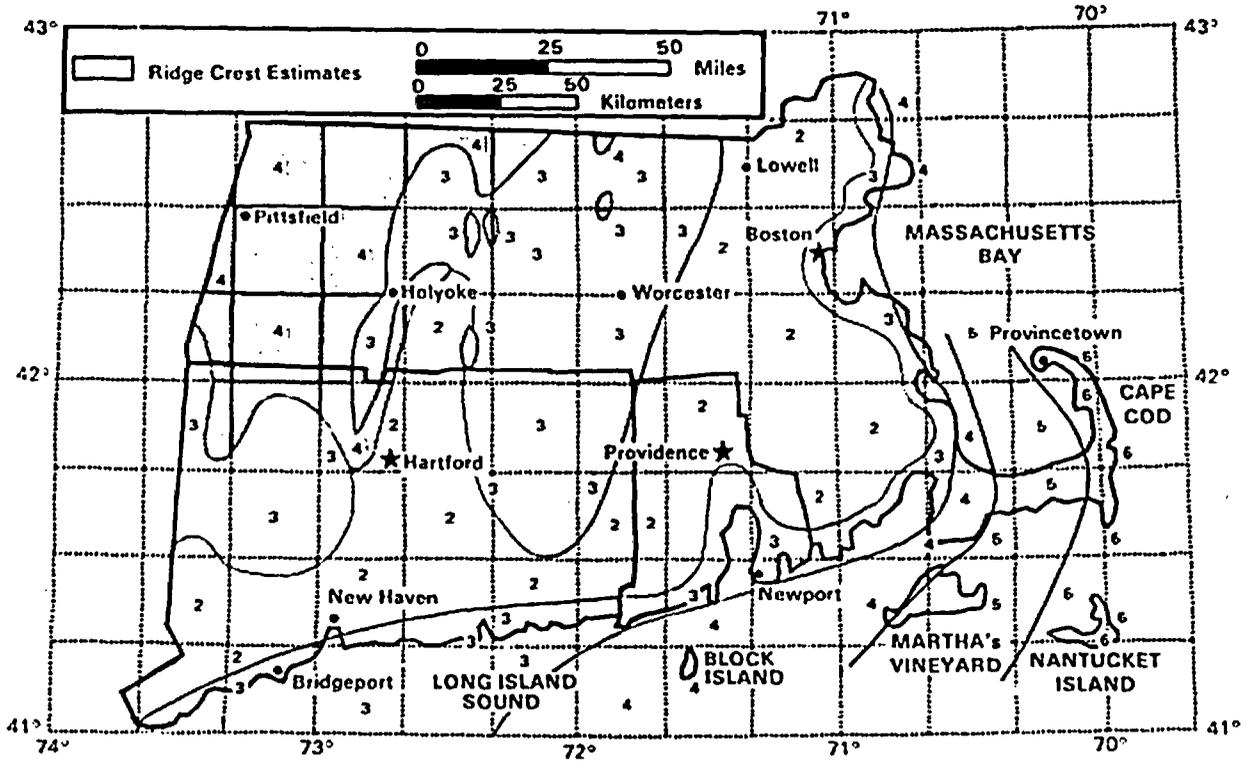
GENERAL CLIMATE. The pertinent characteristics of Connecticut's climate are: (1) equable distribution of precipitation among the four seasons, (2) large ranges of temperature both daily and annually, (3) great differences in the same season or month of different years, and (4) considerable diversity of the weather over short periods of time. Connecticut lies in the "prevailing westerly," the belt of generally eastward air movement which encircles the globe in middle latitudes. A large number of storm centers and air-mass fronts pass near or over Connecticut during a year. Three types of air affect this State: (1) cold, dry air pouring down from sub arctic North America, (2) warm, moist air streaming up on a long overland journey from the Gulf of Mexico and subtropical waters of the Atlantic, and (3) cool, damp air moving in from the North Atlantic. Because the flow of air is usually from continental areas, Connecticut is more influenced by the first two types than it is by the third. The third type of air is often associated with severe winter storms popularly known as "northeasters".

TEMPERATURE. There is a difference of about 6 °F. in mean annual temperature from north to south in the State. The greater contrast of temperature occurs during the winter season. The number of days with minimum temperatures of zero or below average about 10 per year at the higher elevations, about five in the lower uplands and central valley, and two or less along the shore of Long Island Sound. Summer temperatures are comparatively uniform over the State. Over most of the State the average July minimum temperature is within a degree or two of 60 °F.

PRECIPITATION. Precipitation tends to become evenly distributed throughout the year in all parts of Connecticut. Variations in precipitation from month to month are sometimes extreme. Prolonged droug and widespread floods are infrequent. Measurable precipitation falls on an average of one day in three, w the yearly total approximating 120 days. Periods of five days or more of successive daily precipitation o a few times during most years. The average annual snowfall increases from the coast to the northwestern corner of the State. Most of the snow falls in January and February, but in the majority of winters substai amounts fall in December or March storms as well.

OTHER CLIMATIC ELEMENTS. During the colder months the prevailing wind is northwest to nor over Connecticut, while from April through September southwest or south winds predominate. Thunderstorms occur on an average of 20 to 30 days per year, with the greatest frequency during the sun months and in the afternoon or evening hours. Aside from infrequent tornadoes and hurricanes, coastal storms or ?northeasters? are the most serious weather hazard in Connecticut. They generate very strong winds and heavy rain and produce the greatest snowstorms in the winter. The percentage of possible sunshine averages 55 to 60 percent. An average of about 140 cloudy days occur per year. Heavy or den fog is observed on an average of about 25 days per year in both coastal and inland sections. In the forme section, heavy fog is most common during the late winter and spring seasons, while inland the late summ and fall is the period of maximum occurrence. The humidity tends to be lowest in the spring and highest the late summer and early fall.

[Back to CSCC Main Page](#)



3-21 Connecticut, Massachusetts, and Rhode Island annual average wind power

<http://rredc.nrel.gov>

Table 9. Hurricane direct hits on the mainland U.S. coastline and for individual states 1900-2000 by Saffir/Simpson category. Updated from Hebert et al. (1997).

AREA	CATEGORY NUMBER					ALL	MAJOR HURRICANES
	1	2	3	4	5		
U.S. (Texas to Maine)	61	39	48	15	2	165	65
Texas	12	9	10	6	0	37	16
(North)	7	3	3	4	0	17	7
(Central)	2	2	1	1	0	6	2
(South)	3	4	6	1	0	14	7
Louisiana	9	5	8	3	1	26	12
Mississippi	1	2	5	0	1	9	6
Alabama	5	2	5	0	0	12	5
Florida	19	17	17	6	1	60	24
(Northwest)	10	8	7	0	0	25	7
(Northeast)	2	7	0	0	0	9	0
(Southwest)	7	3	6	2	1	19	9
(Southeast)	6	11	7	4	0	28	11
Georgia	1	4	0	0	0	5	0
South Carolina	6	4	2	2	0	14	4
North Carolina	10	6	10	1	0	27	11
Virginia	2	1	1	0	0	4	1
Maryland	0	1	0	0	0	1	0
Delaware	0	0	0	0	0	0	0
New Jersey	1	0	0	0	0	1	0
New York	3	1	5	0	0	9	5
Connecticut	2	3	3	0	0	8	3
Rhode Island	0	2	3	0	0	5	3
Massachusetts	2	2	2	0	0	6	2
New Hampshire	1	1	0	0	0	2	0
Maine	5	0	0	0	0	5	0

Notes:

- Indicates all hurricanes in this group were moving faster than 30 mph. State totals will not equal U.S. totals, and Texas or Florida totals will not necessarily equal sum of sectional totals.



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[Back to CSCC Main Page](#)