

HISTORICAL SOCIETY OF OLD YARMOUTH

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WEATHER: HURRICANES THROUGH HISTORY



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Are We Due?

Having watched the terrible destruction caused by hurricanes Katrina and Rita in the Gulf states, and the near miss of Ophelia this past September, have you ever wondered what are the odds that Cape Cod could really get whacked by a damaging storm? During our years of doing research together, Jack Braginton-Smith and I collected information about weather, especially storms, that threatened Cape Cod. We never did find a definitive list of all of the hurricanes that affected our peninsula. Perhaps one does exist, but it eluded us. So, we created our own from the recorded information that we found, and used the list to help us understand why things happened. Discovering that there was a hurricane on June 4, 1825 helped explain why Isaiah Bray suddenly left Elisha Doane's shipyard on June 5th, not to return until September of that year.

The list pointed out certain obvious facts. There were more hurricanes in the 20th century affecting Cape Cod than in the previous three centuries combined. Was this the result of better reporting in the 20th century, or global warming? The two decades of the 1950s through the 1960s were the 20 year period with the most hurricanes affecting Cape Cod in our entire recorded history.

August, September, and October are the three months most likely to have hurricanes hit Cape Cod. This is, of course, due to the fact that the Gulf Stream is warmer in those months. The Gulf Stream seems to get warmer and cooler in 20-30 year cycles. The years from 1938 to 1965 were a warm cycle. A new warm cycle started again in 1995.

There are few hurricanes from December through May. But that is the season for the dreaded "northeasters," storms which can cause incredible damage and can last two or three days. True Cape Codders pronounced them "nautheasters" (pronounced almost nasally), never "noreasters." Noreaster is a term made popular by TV weathermen.

Many of us have recently been told by insurance companies that they are no longer insuring homes on the Cape. Part of their reasoning is that during the 20th century, hurricanes affected our peninsula more than once in every four years, and we're once again in a warm water cycle. According to their statistics, we're overdue! You can look at our list and draw your own conclusions.

1635 Aug 15 (?) – Great hurricane with the same power as the 1938 hurricane. 14 foot tide; this was the storm in which Anthony Thacher and his family were shipwrecked off of Gloucester and all but he and his wife drowned. Thacher later became one of the first settlers of Yarmouth.

1641 Nov 22 – Great windstorm as fierce as a hurricane – John Winthrop wrote this.

1675 Sep 7 – 2nd colonial hurricane.

1683 Aug 23 – Hurricane came up Connecticut River valley.

1713 Aug 30 – Hurricane hit New London.

1723 Nov 10 – Hurricane.

1727 Sep 27 – Hurricane; shipping losses.

1743 Nov 3 – Hurricane causes great damage – tides within 4” of 1723 level.

1749 Oct 19 – Hurricane; 7 vessels ashore at Martha’s Vineyard.

1761 Oct 23 - Hurricane – severest in 30 years; great shipping losses.

1770 Oct 20 - A late season hurricane - A furious gale of wind was accompanied by a tidal wave which changed the whole east and south shores of the Cape. Sand hills as high as 60 feet were deposited in some lowlands and salt marshes. It washed away a sand point off of Nauset and boats could no longer use the Boatmeadow Creek as a canal across the Cape at Orleans. In 1804, town residents dug it out and called it Jeremiah's Gutter.

1778 Aug 12 – Hurricane; prevented battle between French and British fleets off Rhode Island; heavy coastal shipping damage.

1782 – Hurricane – Sparrowhawk’s wreck is uncovered on Orleans Beach, about a mile north of Chatham line.

1804 Oct 10 - Snow hurricane with very destructive winds.

1806 Aug 23 - Great hurricane struck Cape Cod - deluges ruined crops; shipping losses

1821 Sep 3 - Hurricane with big storm tide.

1825 June 4 –An early hurricane which did great damage to shipping in New England harbors. Elisha Doane’s shipyard at Bass Hole suffered serious damage.

1849 Oct 7 - Offshore hurricane brushed Cape Cod. Henry Thoreau described scene in his book, "Cape Cod."

1873 Aug 24 – Grand Banks hurricane; 1123 vessels wrecked.

1879 Aug 18-19 – Hurricane – landfall at Buzzards Bay – extensive shore damage.

1879 Oct 28 – Offshore hurricane – minor damage.

1880 – date unknown – hurricane within 60 miles of coast.

1885 Sep 22 – Offshore hurricane – 35 miles E of Nantucket.

1888 Nov 25-27 – Late season hurricane.

1893 Aug 21 – Hurricane to east; moderate gales and heavy rain; followed by 3 more hurricanes in western New England between August and October.

1896 Sep 10 – Hurricane crossed Martha’s Vineyard.

1916 July 21 – Category 1 hurricane – moved forward at 18 mph. Ex-hurricane crossed Martha’s Vineyard – heavy rain for three days.

1924, Aug 26 – Offshore hurricane centered 50 miles from Nantucket; much rain; reported cyclone on Main Street, So. Yarmouth – uprooted trees.

1926 Feb 4 – Hurricane signals posted at Nantucket for heavy storm

1928 – Date unknown – a hurricane tore the tower, turret, and widow’s walk off of Crelthhome, Zadok Crowell’s home at 155 South Sea Ave.

1933 Sep 17 – Hurricane passed 75 miles SE of Nantucket – heavy rain.

1936 Sep 19 – Hurricane 40 miles E of Cape Cod; Provincetown had 7 ¾ in of rain.

1938, Sep 21 – Hurricane with 121 mph winds (winds on Cape Cod 75-90 mph). 588 lives lost overall; almost everyone unprepared – almost a century since a really big storm had hit area; direct wind damage was not the greatest threat, store surge and accompanying waves were – high tide and storm surge coincided in Buzzard’s Bay. This hurricane was a category 3 storm – moved forward at 51 mph – caused high storm surge – 18-25 foot tides – most damage of any 20th Century storm.

1944, Sep 14 & 15 – Hurricane with 100 mph winds, 31 deaths high tide had passed 3 hours before storm struck; Elms ripped out in Yarmouth Port. Cape suffered severely. This hurricane was a category 3 storm – moved forward at 30 mph.

1950 Sep 11 & 12 – Hurricane Dog 85 miles from Nantucket; surf damage.

1954, Aug 31- Hurricane Carol - almost a twin to 1938 hurricane – high tide and storm surge coincided. It was a category 3 storm – moved forward at 40 mph.

1954 Sep 11 - Hurricane Edna, also a category 3 storm; 100 mph winds, crossed Cape Cod; her surge would have been 10 or more feet but arrived at low tide so no significant flooding – These two hurricanes caused the second most amount of damage in Massachusetts for 20th Century storms.

1954 Oct 15 – Hurricane Hazel – mostly NY.

1955 Aug 12&13 – Hurricane Connie; heavy rains.

1955 Aug 17-19 – Hurricane Diane; more heavy rain.

NOTE – the 1950s hurricanes destroyed what was left of the original Gray’s Beach at Bass Hole. The town was forced to dig a new beach in the marsh as a result.

1960 Sep – Hurricane Donna; 100 mph winds; tide did most damage.

1961 Sep 21-26 – Hurricane Esther off Block Island; rain but minimal damage.

1962 Aug 29 – Hurricane Alma 50 miles SE of Nantucket; some boat damage.

1963 Oct 29 – Hurricane Ginny 125 miles SE of Cape Cod, winds 65 mph on Nantucket.

1964 Sep 14 – Hurricane Dora well east of Cape Cod; heavy rain on Cape.

1964 Sep 23-4 – Hurricane Gladys; heavy rain on 24th.

1966 Jun 14 – Hurricane Alma moved over Cape Cod as a light to moderate rain-storm – no longer a hurricane.

1969 Sep 9 – Hurricane Gerda – passed over Nantucket Lightship 75 miles SE of Nantucket; Nantucket 40 mph, some rain.

1971 Mar 4 – Winter hurricane – 100 mph winds; 28.5 barometric pressure on Cape.

1971 Sep 14 – Hurricane Heidi 60 miles east of Cape Cod.

1972 Sep 3 – Hurricane Carrie passed short distance east of Cape Cod; 100 mph winds; heavy rains; disrupted Labor Day travel. While Carrie was over the Gulf of Maine, the annual red tide bloom there was at its peak. There had been no recorded evidence of red tide on Cape Cod up to this time. The storm winds intensified the Gulf currents, and carried the red tide to Cape Cod. The algae survived and the bloom has recurred here annually ever since.

1976 August 10 – Hurricane Belle – Belle died out in mid-Atlantic (only a category 1 storm) and only gale force winds reached Cape Cod. There was no tidal surge; the threat of the storm created one of the larger mass evacuations in the history of the northeast, including Cape Cod.

1985 – September 27– Hurricane Gloria – a category 2 storm with forward motion of 45 mph.

1987 Jan 2 – Chatham North Beach breached in storm (breach in same area shows on 1858 map and 1880 map). This was not a hurricane, but you just can't ignore this storm in any article about Cape Cod storms!

1991 – August 19 – Hurricane Bob a category 2 storm – Caused 3rd most damage of storms in 20th Century in Massachusetts – storm surge up to 15 feet.

1991, Oct 31 – No name storm (also called the Perfect Storm) absorbed the dying Hurricane Grace; Winds from the storm blew across the Cape for four days before the brunt of the northeaster hit on the fifth day. The storm backed in; it came from the north. The full fury arrived with an incoming tide. It came on the Cape in the late afternoon and into the evening. Many felt that this storm was worse than the Blizzard of 1978. The Blizzard of 78 arrived during the day so there were more graphic images of its fury. The no name storm washed away the boardwalk at Gray's Beach.

1996 Sep 2 - Hurricane Edouard – a few trees toppled on Cape; gridlock because of Labor Day weekend. Passed 75 miles SE of Nantucket. Only 70 mph at that time.

1999 Sep 16 – former hurricane Floyd passes to west with 60 mph winds – minimal damage.

2005 Sep 17 – former hurricane Ophelia (category 1) passes east of Nantucket. 50 mph forecast for Cape Cod, but hardly any wind or damage.

OTHER INTERESTING FACTS ABOUT HURRICANES – Hurricanes generally are worse on the east (right) side of eye. The maximum level of storm surge usually occurs 40 to 100 miles to the east (right) of the storm's path. Hurricanes which arrive during high tides have an increased storm surge. During new moons and full moons the tides are even higher.

The five most intense hurricanes for New England were 1635, 1638, 1815, 1869, and 1938. Hurricanes were named after women starting in 1953, replacing an earlier plan to use names from the phonetic alphabet (Alpha, Bravo, etc.). Since 1979, men's names have been added. There are no names for the letters Q, U, X, Y, and Z. Six lists of names are used in a rotation of every six years. When a storm is especially serious, the name is retired and a new name chosen. In 2004, the names Charley, Frances, Ivan, and Jeanne were removed from the list. For 2006, the first 11 named storms will be Alberto, Beryl, Chris, Debby, Ernesto, Florence, Gordon, Helene, Isaac, Joyce, and Kirk.