

Great Atlantic Coastal Snowstorms

Capt. John Smith in his general history referred to the extreme cold of the winter of 1607-1608. Details as to the occurrence of snowfall and the duration of cold are missing from the records. But the severity of the first winter is responsible for the deaths of more than half the colony. However, the following winter was warmer than average. During the first years of the New England colonies the winter of 1632 – 1633 stood out for its deep January snows and cold freezing up ponds and rivers in the Boston area. The next winter of note was 1637 – 1638 which also ranked as being severe with snow in Boston area standing 18 inches deep. Beyond the Merrimac River it was said that the snow was 36 inches deep on the level with even greater depths occurring in southern Maine. Early American Winters 1604-1820 by David M. Ludlum p. 32.

Josiah Meigs, former Yale and Georgia Professor noted a quadrigesimal cycle of severe winters in the East Coast. See page 3, Early American Winters, I 1604-1820 by David M. Ludlum.

- 1697 – 1698 Early American Winters I 1604-1820 by David M. Ludlum p. 16-17
- 1740 – 1741 Early American Winters I 1604-1820 by David M. Ludlum p. 48-51
- 1779 – 1780 <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>
- 1820 – 1821 Early American Winters, II 1821-1870 by David M. Ludlum p. 3
- 1860 – 1861 <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>
- 1898 – 1899 The lowest temperature recorded in DC and the second greatest snow
- 1939 – 1940 The lowest temperature recorded in Richmond and the greatest snow
- 1978 – 1979 Boston received a record 27.1 inches of snow
3rd greatest snow in DC in 1979 the President's Day Storm
- 2019- 2020 WILL THIS ALSO BE A ROUGH WINTER?
They say history repeats itself.

Winthrop's Severe Winter 1641 – 1642

The cold was so great and continued so long that the Bay was frozen over. The cold continued from January 28, 1642 to March 3, so horses and carts went over many places where ships had sailed before. In Virginia much of the Chesapeake Bay was frozen over and all the rivers. Many cattle were lost due to the lack of hay and most of the swine were killed by starvation. Early American Winters I 1604-1820 by David M. Ludlum p. 15

The Great Virginia Hurricane of 1667

Thomas Glover wrote describing the Great Virginia hurricane on August 27, 1667. It was the Virginia colony's first experience with a hurricane. It flattened all of their corn and tore up all of the tobacco leaves and even tore down tobacco sheds where the tobacco had been stored. It was estimated that at least 10,000 homes were destroyed by this storm. Rick Schwartz in his book Hurricanes and the Middle Atlantic States on page 32 estimates it was between a Category 2 and Category 3 unless it came ashore in NC then it could have been as high as a Category 4. In the early 1680's organized by the Royal Society, one the ships carried scientific equipment to take meteorological to take observations of the colony in Virginia. But the ship that had the thermometer and barometer that was dispatched to Virginia unfortunately was caught in a severe storm that sunk the ship. Thus the weather prevented Virginia from getting some quantitative meteorological data in its early history.

Mather's Severe Winter 1680–1681

Rev. Mather reported this as the coldest weather known in the past 40 years. Samuel Sewall a Boston diarist recorded this on January 20th. The Charles River is frozen over to Noodle's Island. March 10 a South wind breaks up the ice between Boston and Dorchester neck. It has been a very severe winter with continuous cold weather and snow that hasn't been seen for many years. Early American Winters 1604-1820 I by David M. Ludlum p. 16

1697–1698 The Terrible Winter

This is thought to be the worst winter of the 1600's. It served as a comparison piece for the next 40 years and was considered to be the most severe winter until the winter of 1740-1741. It was a long winter and John Pike's diary indicated the first snow of the season came on 20th of November and the last occurred April 9 of 1698. The first heavy snow occurred on Christmas Eve (the Julian calendar). These are the snow days of this hard winter for New England taken from John Pike's diary of Dover, NH. **November had one snow day, December had 5, January had 9, February had 9 and March had 3, and April had 4 or total of 31 days with snowfall. The ground was covered with snow from December to middle of March. Many snows fell upon one another in the month of February; it was judged to be approximately 3 feet in depth on the level.** Early American Winters 1604-1820 I by David M. Ludlum p. 16-17

The Great Snow of February- March 1717

The winter of 1716 – 1717 had been fairly severe with snow and ice at an early date. But an earlier than normal January thaw introduced three weeks of spring like weather. It looked as though there would be an early spring. Some even hopeful planted beans and peas. But winter

was not over for the New Englanders. From 27 February into 7 March, this nine day period had four storms two of them being severe storms. A newsletter reported after this period that the snow lies in some parts of the street about 6 feet deep. These remarks no doubt were referring to drifts and piled snow which had fallen from roofs. Another much quoted account told of snow 15 to 20 feet deep piled up against buildings and over the second floor window. These reports indicated the severe drifting and high winds accompanying the NE coastal storms. The Blanchard manuscripts describe the snow as four feet deep and very packed and hard at Andover, MA some 15 miles north of Boston. An account from Dorchester, MA community to the south of Boston told of drifts 25 feet high but also stated in the woods the snow was generally a yard deep on the level. The latter figure would seem reasonable with what is known to be meteorologically possible in the Boston area for a series of storms concentrated in a like nine date period. But such a depth hasn't been achieved in the long history of the Boston Weather Service unless it was January of 1996 when 32 inches of snow fell in just one day (January 10th). In a brief section on the climate by Dr. William Douglas made the following statement: "1716-1717, February 20- 22, March 3-5, with winds the northeasterly direction fell a very deep snow up to 3 feet upon the level." Rev. William Holmes stated the storm did much damage in the country. The snow was said to be in the woods where did it not drift to be about 3 ½ feet deep generally on the mainland. The total accumulation in the Boston area for storms might reasonably be placed at a minimum of 36 inches and maximum perhaps as much as 42 inches. Eastern New England was paralyzed for many days and weeks by the great depth of snow. The "Post" took nine days to accomplish 40 miles from Salem to Portsmouth, New Hampshire, even then employing the use of snow shoes. It was reported that the snow depths were as much as 5 feet in the woods and drifting to as much as 14 feet in the roads. John Winthrop told of one farm losing 1100 sheep. Deer were unable to move during the deep snow cover and fell victims to bears and wolves. Estimates were made 95% of the deer population perished. Early American Winters 1604-1820 by David M. Ludlum p. 42-45

The Hard Winter of 1740 – 1741

The winter started an early cold spell on November 15 when 6 inches of snow fell in central CT. This was followed by another noteworthy storm on the 24th and 25th bringing a foot of snow to Eastern Massachusetts. The first of December started with a warm spell and a 14 day period of rain giving the Connecticut Valley the worst flood in 50 years, or since the memorable spring floods in 1692. Then on the Dec. 28th a severe northeaster gave a deep snow and more than 50 boats just along the Massachusetts Bay alone were driven ashore by the storm. The storm was one of the major storms of the century but there is little knowledge of the storm's details. This was followed by a series of devastating nor'easters pounding the Northeast Atlantic Coast. Those born after the memorable winter of 1697-1698 assumed the winter of 1740 -1741 as the most talked about old-fashioned winter. The next winter to assume this role was the hard winter of 1779-1780. Early American Winters 1604-1820 by David M. Ludlum p. 48-51

The Very Deep Snow of January 28, 1772

This storm was named the "Washington and Jefferson Snow Storm" since it was recorded in both of their diaries. The storm left 3 feet of snow from Charlottesville to Winchester to Washington. It was the greatest snow anyone could remember at that time and remains the unofficial record to present day (official records begin in 1872). See the following (Jefferson Returns Home from His Honeymoon in This Great Storm) ---

<http://glenallenweather.com/alink/01articles/01read.htm>

May 4, 1774

Snow was reported in the Williamsburg Gazette to have fallen in Dumfries, Virginia. George Washington's weather diary logged at Mount Vernon, that it was a cold day with spits of snow and a hard wind from the northwest. Thomas Jefferson near Charlottesville logged that the Blue Ridge Mountains were covered with snow. The late snow and frost killed most of the fruit crop in the northern part of the state. It also snowed north across Maryland, Pennsylvania, New Jersey and New York. (Williamsburg Gazette) also see the link of the (Sterling Office of the NWS) Look under Virginia Winters with the following address -

<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

December 25, Christmas, 1776

Thomas Jefferson, at his home in Monticello, noted that the first winter snow fell on December 20 but did not last on the ground a day. Then on Christmas Eve, the temperature dropped and on Christmas Day remained at 30 °F or colder. On Christmas night, 22 inches of snow fell. In Frederick County, two feet of snow was recorded. He wrote that from that night until the 7th of March was the coldest winter he remembered. From the 20th of December until March 6, ten snows covered the ground and some of them were deep. The first rain came on the 9th of March. (Sterling Office of the NWS link is the source of this information) Look under Virginia Winters with the following address -

<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

"The Hard Winter of 1779-1780"

This winter was so cold that ice was said to have been piled 20 feet high along the Virginia Coast and stayed there until spring! The upper portion of the Chesapeake Bay was frozen allowing people to walk from Annapolis to Kent Island, Maryland. The Virginia portion of the Bay was frozen to near the mouth. All waterways (rivers) in Virginia were reported firm enough to support crossing of soldiers and in some cases, loaded wagons. America was in its War of Independence. In March, a regiment of the Virginia Infantry marched from Falmouth to

Fredericksburg. They were able to cross the Rappahannock River which had been frozen since the previous November. (Sterling Office of the NWS link is the source of this information) Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

January 1784

The Chesapeake Bay once again froze almost all the way to the mouth. Snow occurred between the 10th and the 19th. James Madison in Orange County, VA wrote in a letter to Thomas Jefferson "We had a severer season and particularly a greater quantity of snow than is remembered to have distinguished any preceding winter. "The cold and snow was followed by a thaw and flood waters on the rivers. An ice jam formed on the James River at Richmond. It gave way on the 24th causing a flash flood of ice and water that swept away an important bridge on a nearby Creek and sank boats that were tied up below the falls. Ice on the Potomac did not break until March 15th. (Sterling Office of the NWS link is the source of this information) Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf> also see

[Early American Winters 1604-1820](#) by David M. Ludlum p. 64-66

January 1792

The Elizabeth River at Norfolk froze for the first time since 1784. (Sterling Office of the NWS link is the source of this information) Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf> (and additional Information) [Early American Winters 1604-1820](#) by David M. Ludlum p. 73-74

February 14, 1798

Reports in the Norfolk Herald on February 17 and the New York Spectator on March 3 indicated that the greatest snowfall ever experienced had occurred in Norfolk with snow "in many places up to six feet deep" (may have been drifts). **Some accounts claim that 40 inches of snow fell in just one night in Norfolk and along the coast but just 25 miles inland there was none.** Over Northeast North Carolina, 16 inches of snow was reported. The wind was off the Chesapeake Bay (blowing from the north to northwest) and hence this may have enhanced the snowfall in the Norfolk coastal area much like the winds blowing across Lake Erie produce large snowfalls under the right conditions in Buffalo, NY. (Sterling Office of the NWS link is the source of this information) Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf> (and additional Information) [Early American Winters 1604-1820 I](#) by David M. Ludlum p. 74-76

NEW ENGLAND'S SNOW HURRICANE OF OCT. 9th 1804

The major meteorological event in the opening years of the Nineteenth Century developed when a severe coastal disturbance, probably of hurricane origin, reached full fury over southern New England during the daylight hours of 9 October 1804.¹ It struck massive blows at Connecticut and Massachusetts points resulting in extensive structural damage. The intense circulation caused gale force winds to sweep the area from the Hudson Valley in New York eastward to the Maine and Massachusetts coasts and beyond. The great atmospheric currents involved brought down a bitterly cold air stream from Canada of record frigid severity for the early season as the intense disturbance, supplied with copious amounts of moisture and meeting below-freezing temperatures, produced an exceptionable early season snowstorm. "Such an event is very remarkable—the only one I have found recorded," confided meteorological historian, Noah Webster.² (This sounds a little like Hurricane Sandy in 2012 except earlier in the season.) The early fall season of 1804 had been cold. A September snow spread over the highlands of New York and western New England as early as the autumnal equinox. Timothy Dwight, the peripatetic Yale president, had noticed a snowstorm in the vicinity of Marcellus, Onondaga County, New York, on 20 September.³ Again late on the 8th of October another cold rain set in when Dwight tarried at Bemis, near Rochester, in New York, and on the 9th he witnessed "a considerable flight of snow, which, however, dissolved as it fell."⁴ This appeared to be the western fringe of the severe storm then raging along the southern New England coastline. The coastal disturbance passed very close to New York City, south of Poughkeepsie, north of New Haven, and probably right over Boston; between 12 noon to late afternoon of the 9th.⁵ Earlier weather systems had already triggered a vast amount of precipitation over all of New England area except for central and northern Maine. In Vermont the storm commenced as snow. In the upper Connecticut Valley at Lunenburg the day received long remembrance as Dr. Hiram A. Cutting related in his interesting "Natural History of Essex County": October 9, 1804 brought with its dawn a great snow storm. The weather had been cloudy and extremely cold for the season for a number of days; and on the morning of this day it commenced snowing, and continued until full 20 inches of snow had fallen. The *Vermont Journal* told of snow depths of three to four feet on the heights of land along the crest of the Green Mountains; and at Goffstown, in the highlands of central New Hampshire, the town historian mentioned snow falling two feet deep at this usually snowy spot where northeast winds, meeting the highlands, were forced to rise and intensify the precipitation process.⁸ At Hanover in the Connecticut Valley the snow on the evening of the 9th measured six inches, and great damage to orchard trees still in leaf resulted.⁹ The *Political Observatory* at Walpole, in southwestern NH stated on Tuesday the 9th at about the middle of the forenoon, the weather suddenly changed from rain, to a storm of snow, attended with thunder and violent wind. In the highlands the storm continued with some intermissions till Wednesday morning giving mean depth of 15 to 18 inches. Contiguous to the river, it dissolved rapidly, yet repeated measurements from 4 to 5 inches, covered the ground for more than 30 hours. On the hills it was blown considerably into drifts, which in places covered the fences and blocked up the roads. Great damage was done to fruit trees and timber than was ever known to be sustained in one year since the settlement of the country. Their foliage found a lodgment for the adhesive snow, which

broke many branches by its weight, and the wind lending its aid leveled many a trunk with the earth.— *Political Observatory* (Walpole, H.), 13

The destruction was so wide and severe it has never before observed in this part of the county. We have seen the devastation in some of the orchards nearly equal to that of a tornado; scarcely a tree remains uninjured; many have left but here and there a solitary branch, and some are rent through the length of their trunks and prostrated each way on the earth. The damage to one individual's orchard in this town is estimated at 300 dollars. On the height of land in Vermont, the snow was 3 feet in depth: and on less elevated parts in that and this state it was from 2 to 2¹/₂ feet, of which a considerable portion has since continued, covering potatoes in the earth and a part of the corn so that it is impossible to gather those crops. *Political Observatory* (Walpole, N. H.), 20 October 1804. In western Massachusetts press reports mentioned depths from 24 to 30 inches on the western slopes of the Berkshires. Snow fell on both sides of the Hudson River on the highlands, though apparently none stuck in the valley floor." In the Catskills some of the towns to the westward experienced 12 to 18 inches of snowfall, and the mountain tops continued white six days later.¹¹ there was sleighing at New Lebanon, New York, in the Berkshires on the Massachusetts border.¹² As to the southern extent of the snowfall in New England, we are indebted to Noah Webster in relating that the hills around Woodbridge, near New Haven, Connecticut, just north of the Yale Bowl where the Wilbur Cross Parkway tunnels through West Rock, were whitened by the snow." Inland at Litchfield three inches were reported, and at the higher elevation of Goshen just to the north 12 inches fell." As in the north, elevation proved the determining factor in temperature conditions and therefore in the depth of snow. The thermometer at New Haven read 38° on the evening of the 9th and 3.66 inches of rain had fallen during the storm period."

1 'Violent Storm (Broadside). Boston, 15 Oct 1804?

2. N. Webster. Notes, 1, 563.

3. T. Dwight. Travels, 4, 33.

4. Ibid., 94.

5. New England's Snow Hurricane of 1804. David M. Ludlum. *Early American Hurricanes*, 35-38.

6. H. A. Cutting. *Natural History of Essex CO. VT* A. Hemenway. *Vermont Historical Gazetteer*, 1-10, (Oct 1868), 1052.

7. *VT Journal* (Windsor), 16 Oct 1804.

8. George P. Hadley. *Hist. of Goffstown*, 1, 554.

9. *Dartmouth Gazette* (Hanover, NH), 12 Oct 1804.

10. *Boston Weekly Magazine*, 27 Oct 1804.

11. Catskill, 15 Oct, in *N. Y. Post*, 19 Oct 1804.

12. *Hudson Balance*, 16 Oct 1804.

13. N. Webster. Notes, 1, 563.

14. J. Day. Ms. Met. Obs. (Yale).

15. Idem.

16. D. Ludlum. 38.

[Early American Winters 1604-1820](#) by David M. Ludlum p. 169-170

THE SEVERE WINTER OF 1805

The first severely cold winter in the Nineteenth Century occurred in 1804-05 when a cold December was followed by an icy and snowy January, and these conditions continued through the first ten days of February. A continuing thaw then routed the hold of winter, ending the excellent sledding of six weeks duration. The season at Philadelphia had been described as "variable and peculiar" ¹ The month contained everything possible in a winter season. **January 1805 won the title of being the snowiest month of early record in the New York City and lower Connecticut area. At Haven a total of 57 inches of snowfall was measured by Jeremiah Ailing who maintained a meteorological register from 1785 to 1810 and published his observations in an interesting booklet.**² The snowy January also appeared in the records of Professor Day with 43 inches of January snowfall measured on the campus of Yale College.³ In the New York City area there were seven distinct snowstorms in December and January with a total of 60 inches, according to a later press notice quoting an unknown contemporary weather observer.⁴ The climactic storm of the month came on the 27th and 28th of January when a forty-eight hour snow brought from 20 to 24 inches to the city already under a massive blanket from previous falls, especially one a week before on the 20-21st. **At New Haven took** on January 1805 winter commenced about the middle of December & was severe from the 20th with good sleighing. It continued with severe & steady cold through January and most of February. . . . The snow of January 1805 was about three feet deep. This was the severest winter since 1780. But the snow left the earth in March in good season and spring was early. Temperatures in January ran well below normal throughout the Northeast: New Haven -3.1 degrees following a December with a -2.3 degree deficits yet there were no severely cold polar outbreaks. The lowest mark reached at New Haven was -6°, at Salem -3°, and at New York City -3°. ² There were reports from interior western Connecticut of -19°, but these marks are normal for a colder than usual January. ⁸ The first three weeks of the month did exhibit some steadiness in the cold that prepared the way for the grand freeze-up of the mighty Hudson River at New York just at the time of the month when the January thaw should be expected. Henry Laight's records show +40° as the maximum during the period 1-23 with only four days of noontime mercury above freezing. The final week was relatively warm with thawing weather except for the period of the big snowstorm on the 27th and 28th. The monthly maximum at New York reached 45° on the 30th, at New Haven 47.5°, and at Salem, Mass. 44 °F. Henry Laight, New York's weatherman since 1788, made full notes of the winter's events:

December 1804

Dec.15. Snow about 6 inches.

January 1805

1. Deep snow.
3. Excellent sleighing.
4. The coldest night since 23 Dec. 1796 at which time the mercury was 1°-next morning 0°F. It was -2° at 11 P.M.--+8° next morning at 8.
6. A cake of ice lodged in East River between this city and Brooklyn-by which many persons crossed the river.

10. Early in the day it began to snow & continued so to do till sunset from which time it hailed until the next morning -Snow and hail about 8 inches.

18. Sleighing continued fine until this time.

20. Violent snow storm & heavy gale from NE-The streets are almost impassable from the great fall of snow.

21. Extremely cold-wood \$8.00 per load.

22. Today & yesterday several persons crossed the Hudson from the State Prison to Hoboken.

26. It began to snow in the evening of this day and continued until the evening of the 28th without any interruption '18 hours. So much snow has not fallen at one time for a great number of years. Pine St., Cedar St., Liberty St., and many narrow streets are altogether impassable for sleighs on account of the great depth of the snow.

31. Excellent sleighing during the whole of this month.

February 1805

Feb. 14. Heavy rain almost all day-a sensible impression is made on the snow."

A weather observer who contributed a regular column to the Boston *Monthly Anthology*, probably located near the Harvard campus at Cambridge, also left some notes on the major events.

THE FORTY-EIGHT-HOUR-SNOW AT NEW YORK IN 1805

The climatic event of the wintry season of 1804-05, generally agreed to have been unequaled in severity since the Hard Winter of 1780, enveloped the New York area on the evening of January 26th when the first flakes of one of the city's greatest snowstorms commenced to filter down. A deep blanket of undetermined depth already covered the ground, and rivers and harbors were so choked with ice that navigation was at a stand. New York's longtime weatherman, Henry Laight, described the storm scene in his notes:

Jan. 26, 1805—it started to snow in the evening of this day and continued until the evening of the 28th without interruption 48 hours. So much snow has not fallen at one time for a great number of years. Pine St., Cedar St., Liberty St. and many narrow streets are altogether impassable for sleighs on account of the great depth of the snow.'

The *New York Post* on the 28th noticed the continuing storm: "It is now nearly forty-eight hours since the snow storm which yet rages with undiminished violence and with increasing severity has been begun." ² And next day followed: "The present fall of snow is probably greater than ever known in the latitude of New York. It began to snow at 8 o'clock Saturday evening and continued without intermission till Monday 5 in the afternoon—held up a little—then recommenced and continued till about 8 in the evening. It can be said that it snowed forty-eight hours, a continuance not to be paralleled in the memory of any man living." ² A day-by-day snow depth record for New York City for this season does not exist. In later years a writer in summarizing the high points of this winter stated: "In December and January there were seven distinct falls of snow, one of which lasted 48 hours, and during which the snow fell two feet on a level. The whole quantity of snow this winter exceeded 60 inches on a level, but there were occasional rains and thaws, its average depth was never more than between 2 and 3 feet." ⁴ At a nearby point in New Jersey the Scudder family's diary contained the following passage for their residence at Springfield, a snow pocket against Watchung Mountain, only a dozen miles from New York City: "Jan. 28—At night the Snow fell about 3 feet deep which make about 4 feet on a level with the old Snow and Crust." On February 5th an entry again referred to snow on the ground: "about 4 feet deep." ⁵ As the storm moved into New England, it continued to produce intense precipitation and strong gales. From the New

Haven area there were three reports to document the impact of the storm. The month of January proved a record-breaker for the area—Jeremiah Ailing at suburban Hamden, some 12 miles inland from the Sound, measured a total fall of 57 inches during this month—this unprecedented sum consisted of numerous light falls of four inches or less until a heavy storm dropped 15 inches on the 20th and 21st. Then the major storm of the season occurred on the 27th and 28th deposited 18 inches more. These figures were in the same range as President Day measured on the Yale campus nearer the tidewater: 14 inches on the 19-21st and 16 inches on the 27-28th.⁷ Thomas Beers, the bookseller on Chapel Street across from the village Green, recorded the following data during the big storm:

27 January 1805

0700	32°	NNE 1	Snows
1300	34°	NNE 2	Very damp snow a little at a time
1500	32°	NNE 2	Snows fast
1700	31°	NNE 2	Snows fast

28 January 1805

0700	27°	NNE 3	Hail & snow all night, wind almost a gale
1300	32°	N 3	Storm continues all A.M., very heavy, abates
1400	32°	N &	Shuts in again, snows fast
		NNW 3	
1600	3		Snows fast & thick. Can hardly see across the Green
1700	29°	NNW 2	Storm abates

There were two contemporary estimates of the snow cover in Connecticut after the storms of January. Noah Webster at New Haven stated: "The snow of January 1805 was about three feet deep. This was the severest winter since 1780." And the Hartford *Connecticut Courant* was of the opinion that the snow "is greater than the 3 to 4 feet depth mentioned in Winthrop's journal," probably a reference to the legendary deep snow of 1640-41 in the Massachusetts Bay region." Editors usually dug out this reference along with Cotton Mather's account of the Great Snow of 1717 to conclude an article on a contemporary snowstorm of great stature when reminiscing about 'old fashioned' snowstorms. The wind was from the NE strong enough to cause several shipwrecks. Sleighing was good from Virginia to Boston.

Early American Winters 1604-1820 by David M. Ludlum p. 170-174

December 23rd to 24th 1811

The day before Christmas of 1811 along the shores of Long Island Sound elements came together to form an Eastern blizzard with near zero temperatures, gale force winds, and driving snow. The same combination struck on December 26, 1778, and in the Hessian Storm, on 18th and 19th of January 1857 in the Cold Storm, and March 12 and 13th of 1888 Great Blizzard. In southern New England the temperature was +6° at noon and near zero at sunset with the driving snow. Noah Webster then residing in New Haven Connecticut describes the 24th as very cold with wind in the North near hurricane force and about a foot of snow. One of the lowest barometer readings reported was 28.50 inches at sunset on December 24th. The winter continued cold into January 1912 with a late spring season. There was a snowstorm on

April 30 and even into May the temperatures much below average as another coastal low moved up the coast in 1812 giving a snow cover of 12 inches to the interior highlands.

Early American Winters 1604-1820 by David M. Ludlum p. 182-183

June Snows in New England in 1816

David M. Ludlum in his book Early American Winters 1604 – 1820 on pages 190-194 has much documentation about the snows of early June and the year 1816. 1816 became known as the year without a summer. It is interesting that the lowest temperatures recorded at Monticello in the growing season of 1816 were: April 30 °F, May 43 °F, June 51 °F, July 51 °F, August 51 °F, September 54 °F, October 37 °F. The lowest temperatures in Richmond for these months since 1880 are as follows:

19	31	40	50	46	35	21
APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.

One would expect minimum temperatures in Charlottesville to be lower than in Richmond, VA. The point being that the summer of 1816 in Richmond wasn't all that different than other years.

January 14th – 16th 1831

This storm was declared 'The Great Snowstorm' because of the wide extent of deep snow from Georgia to Maine and west into Ohio. David Ludlum in Early American Winters II describes that east of the crest of the Appalachian Mountains, the snow amounts go from heavy to excessive. He quotes from the Winchester Republican "Never was such a storm known here, nor does any person whom we have seen, remember to have witnessed one more severe elsewhere." An observer in Alexandria stated that nothing since 1809 even approached the fury of this storm. A weather observer in Gettysburg measured 30 inches of snow. Snowfall amounts increased to the north with 13 inches in Washington and Baltimore had 18 inches of snow. Pittsburgh received 22 inches of snow and Lancaster received 2.0-2.5 feet with drifts 5 to 6 feet deep. At Petersburg Virginia the snow started before daybreak Friday the 14th and continued for some 50 hours into the midmorning on Sunday the 16th. The snow accumulated 8 inches on a hard frozen ground. In the northern Shenandoah Valley the storm was much worse. Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf> and also The Early American Winters, II 1821-1870 by David M. Ludlum pp. 11-16

January 4-5. 1835

Alexandria recorded -15 °F and the Potomac River was frozen over. The cold was so extreme that all Virginia Rivers were frozen over. The Chesapeake Bay was solid ice a mile and a half out from its coast and all the way down to the Virginia Capes for the first time since the famous freeze in 1784. Skating from Baltimore to Annapolis made the season memorable for a few adventurous souls. At Cape Henry, one could walk out 100 yards from the lighthouse on the frozen ocean. The Early American Winters, II 1821-1870 by David M. Ludlum pp. 18-21. Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

March 16-18, 1841

A heavy snowstorm dropped up to 30 inches of snow in the Tidewater area. Measurements were taken in areas unaffected by wind as reported in the local Beacon in Norfolk, Virginia. (Sterling Office of the NWS link is the source of this information) Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

June 1842 Snow

On the morning of June 11, 1842 at Burlington Vermont it was snowing at sunrise with the temperature of 34° and also at the early afternoon reading of 40°. Snow during the forenoon whitened boards in the mountains as white as winter. The snow started at Vergennes near Lake Champlain at 0500 and snow continued until early afternoon; depths of five and 6 inches were reported. Berlin in Coos County, New Hampshire had snow accumulating 11 inches during the day. In summarizing the snowstorm and the four earlier June frosts the "New Hampshire Patriot" stated this beats the year 1816 and all others within our memories. The Early American Winters, II 1821-1870 by David M. Ludlum pp. 89-90.

March 16th - 17th 1843

Natchez, Mississippi had 4 inches of snow, Little Rock Arkansas at 8 inches Memphis 10 inches Nashville 13 inch in Washington and Baltimore received 12 inches. . The Early American Winters, II 1821-1870 by David M. Ludlum p. 43.

Feb. 27th – March 2nd 1846

"Friday, February 27, 1846. A snow storm of almost unprecedented severity commenced on this day, the wind blowing a gale from the northeast" A severe coastal storm known as The Great Gust" hit Virginia and the Northeast. Norfolk recorded tides up to five feet above normal. The storm did half million dollars damage on the East Coast. Fifty families drowned in North Carolina. The reference is "Historical and Destructive Sketches of Norfolk and Vicinity' by William S. Forrest in 1853. . Look under Virginia Winters with the following address: <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

Saturday, February 28, 1846.

The snow was several inches deep, and rain began to fall during the day, which continued until noon on Monday, March 2nd, when the rain gave place to hail [sleet] which fell rapidly, the wind continued with unabated violence 'til midnight when it increased to a terrific hurricane, which tore off roofs of buildings, uprooted trees and demolished fences. The tide rose to an extraordinary height. Never since 1825 had it risen so high. Wide Water Street and the streets, lanes, and wharves below were completely inundated and very large quantities of merchandise were destroyed." Look under Virginia Winters with the following address: <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

“The American Beacon” on March 4, 1846

"The wind continued from the NNE, accompanied by snow and hail until nearly 12 o'clock Monday night. Damage was confined to removing roofing of residences blowing down of (some buildings) and damage to shipping (was) immense." Look under Virginia Winters with the following address - <http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

January 18-19 1857 "The Great Blizzard and Freeze".

The fury of the storm has been unequaled for many years. Never since the establishment of railroads has there been such an interruption of travel or hindrance to the rails. This was the judgment of Lt. Matthew Fontaine Maury, Pioneer and hydrographer of America. In Virginia it was called the great storm of 1857 and has been known by that title since. A Petersburg newspaper included a journal of observations from 5:30 to 9:30 am on Friday, January 23, when the temperature in the city dropped from -15 °F to -22 °F and rose back to -13 °F. In Halifax, about 16 inches of snow fell with drifts to 5 feet. In New Jersey it was named the Cold Storm because of the heavy snow and zero temperatures associated with whole Gale winds. The 1857 storm would be a worthy companion of the great storm of January 1831 and the

February blizzard of 1899. By the morning of Sunday, January 18, 1857 the mercury had plunged well below zero in an enormous area of the United States. It was 30 below at Muscatine, Iowa, 16 below in Chicago, 40 below in Watertown New York, 30 below at Woodstock Vermont, and 20 below in Portland Maine. The zero line ran through New York City then southward along the Piedmont Virginia and North Carolina. In Washington DC depths were estimated by the press to be 18 to 24 inches with drifts up to 4 feet. Baltimore reported on the 19th the snow on the level was approximately 2 feet deep with drifts 6 to 10 feet deep. The Bergen Cut through the palisades between New Jersey leading to Newark was filled with a solid bank of snow 12 feet deep. After being snow bound all day Monday a set of three locomotives were attached and attacked the snow barricade and broke through to Newark on Tuesday at 1400 hours and drifts on the tracks of the Cape Cod room were said to been 18 feet deep and some of the stress were 100 feet in length. At Providencetown it was the greatest windstorm in many years probably the strongest since October Gale of 1841. All but three of a fleet of 20 ships were driven high onto the beaches. More than a foot of snow fell with temperatures in the single digits and teens across the state. Strong winds caused structural damage on land and wrecked ships at sea. Great drifts blocked transportation through the state. One account states that Norfolk was buried under 20 foot drifts of snow! Snowfall in Washington was between 14 and 24 inches with drifts four feet deep. . The Early American Winters, II 1821-1870 by David M. Ludlum p 58. Portsmouth measured 16 inches. Brunswick County reported 18 inches and Prince George County 15 inches. Christiansburg measured 14 inches and Winchester 8 inches. Winds drifted the snow in Richmond as high as 8 feet; on the average it was estimated to be 2 feet deep. Richmond was cut off from Washington for seven days. Temperatures below zero followed the storm. Christiansburg reported -8 °F. The Early American Winters, II 1821-1870 by David M. Ludlum p 113. A Petersburg newspaper included a journal of observations from 5:30 to 9:30 am on Friday, January 23, when the temperature in the city dropped from -15 °F to -22 °F and rose back to -13 °F. In Halifax, about 16 inches of snow fell with drifts to 5 feet. The Early American Winters, II 1821-1870 by David M. Ludlum p 114. . Look under Virginia Winters with the following address:
<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

January 21, 1863

A severe coastal storm dropped heavy rains on the Fredericksburg area. It rained for 30 hours dropping upwards of two inches. The mud was deep. So deep that mules and horses died in the attempt to move equipment. The rivers became too high and swift to cross. It disrupted the Union Army offensive operation in the ill-famed "Mud March". . Look under Virginia Winters with the following address:

<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

March 1-2, 1872

Known as the "The Great Storm of 1872." During the evening of March 1, winds increased from the northeast to gale force (over 40 mph) on the coast and snow began blowing and drifting. It was very cold and the snow accumulated several inches. The wind drove water up into the Tidewater area and up the rivers. Water rose rapidly flooding wharves and the lower part of Norfolk. . Look under Virginia Winters with the following address:
<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

November 17, 1873

Severe storm and gale brought high tides to tidewater area flooding wharves and the lower portion of Norfolk. . Look under Virginia Winters with the following address:

<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

The Norfolk Landmark on August 19, 1879

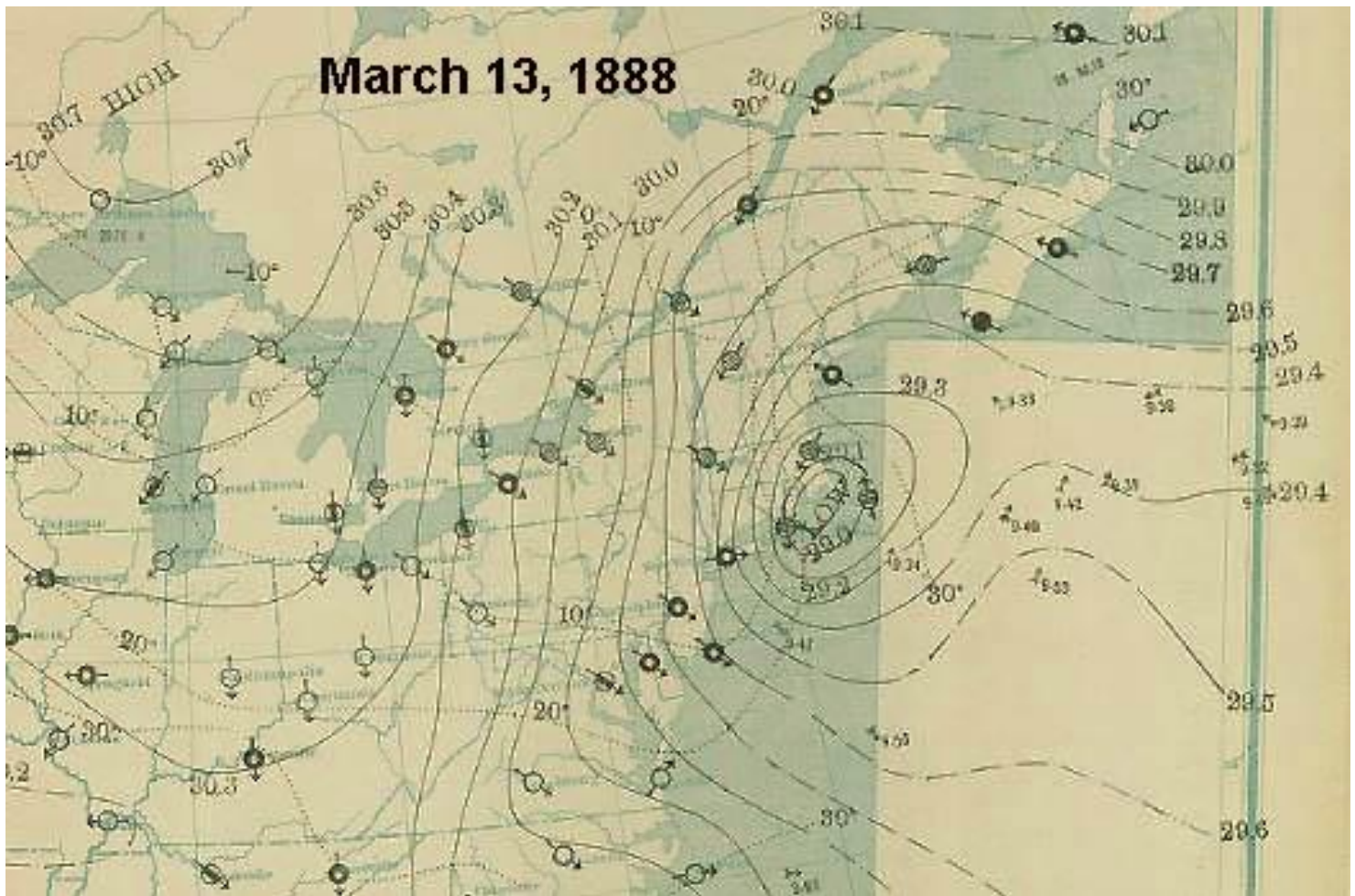
"The great storm of 1846, known in all this section as "The Great Gust" commenced at 8 o'clock on the night of Sunday, March 1st of that year, and the rain and sleet were terrible. It continued all day Monday and terminated Monday night with heavy fall of snow. The tide rose 12 inches higher than it had for 45 years, inundating the wharves and coming beyond the north side of Water Street half way up to the market house.... The storm was equally severe at Portsmouth, Old Point and Hampton, and great loss of property resulted."

December 3-6. 1886

A southern storm dumped heavy snow up into far southwest Virginia. The storm dumped 11 inches in Montgomery, Alabama and 22.5 inches in Knoxville, TN. It dropped 26 inches in Ashville, NC and 16 inches in Wytheville, VA causing some roofs to collapse. . Look under Virginia Winters with the following address:

<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

March 12-13th 1888

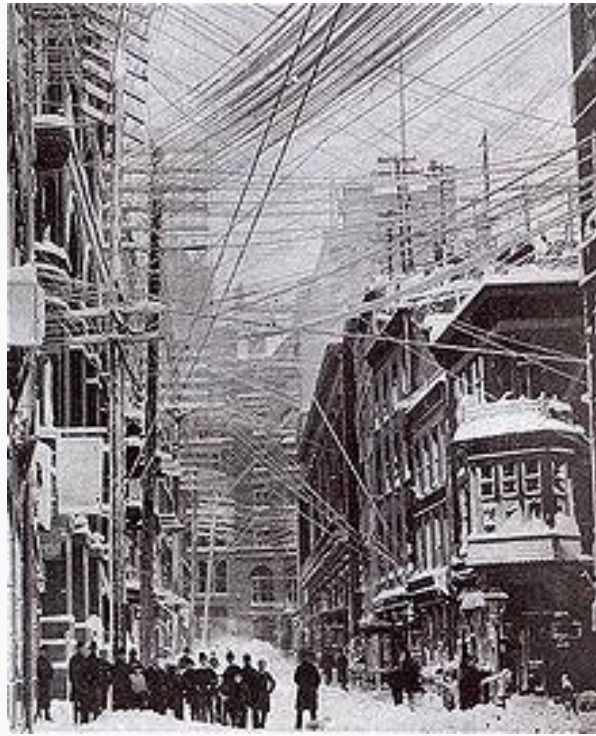


400 People were killed

Maximum snowfall was 58 Inches

Damage was 25,000,000.00 in 1888 Dollars

Great Blizzard of '88 (March 11 – March 14, 1888) was one of the most severe recorded blizzards in the history of the United States of America. Snowfalls of 20–60 inches fell in parts of Jersey, New, Massachusetts, and Connecticut, and sustained winds of more than 45 miles per hour (72 km/h) produced snowdrifts in excess of 50 feet. Railroads were shut down and people were confined to their houses for up to a week.



Streets in New York City as the storm hit.

Many overhead wires broke and presented a hazard to city dwellers.

The weather preceding the blizzard was unseasonably mild with heavy rains that turned to snow as temperatures dropped rapidly.^[1] The storm began in earnest shortly after midnight on March 12, and continued unabated for a full day and a half. The National Weather Service estimated this Nor'easter dumped as much as 50 inches (130 cm) of snow in parts of Connecticut and Massachusetts, while parts of New Jersey and New York had up to 40 inches (100 cm).^[3] Most of northern Vermont received from 20 inches (51 cm) to 30 inches (76 cm) in this storm.^[4]

Drifts were reported to average 30–40 feet (9.1–12 m), over the tops of houses from New York to New England, with reports of drifts covering 3-story houses. The highest drift (52 feet) was recorded in Gravesend, New York. It was reported that 58 inches (150 cm) of snow fell in Saratoga Springs, New York; 48 inches in Albany, New York; 45 inches (110 cm) of snow in New Haven, Connecticut; and 22 inches of snow in New York City. The storm also produced severe winds; 80 miles per hour wind gusts were reported, although the highest official report in New York City was 40 miles per hour with 54 miles per hour (87 km/h) gust reported at Block Island. New York's Central Park Observatory reported a minimum temperature of 6 °F and a daytime average of 9 °F on March 13, the coldest ever for March.

The storm, referred to as the Great White Hurricane, paralyzed the East Coast from the Chesapeake Bay to Maine, as well as the Atlantic provinces of Canada.^[1] Telegraph infrastructure was disabled, isolating Montreal and most of the large northeastern U.S. cities from Washington, D.C. to Boston for days. Following the storm, New

York began placing its telegraph and telephone infrastructure underground to prevent their destruction. From Chesapeake Bay through the New England area, more than 200 ships were either grounded or wrecked, resulting in the deaths of at least 100 seamen.

In New York, neither rain nor road transport was possible anywhere for days, and drifts across the New York–New Haven rail line at Westport, Connecticut took eight days to clear; transportation gridlock as a result of the storm was partially responsible for the creation of the first underground subway system in the United States, which opened nine years later in Boston.^[7] The New York Stock Exchange was closed for two days.

Fire stations were immobilized, and property loss from fire alone was estimated at \$25 million.^[6] Severe flooding occurred after the storm due to melting snow, especially in the Brooklyn area, which was more susceptible to serious flooding due to its topography.^[5] Efforts were made to push the snow into the Atlantic Ocean. More than 400 people died from the storm and the ensuing cold, including 200 in New York City alone.^{[5][9]} Among them was former U.S. Senator Roscoe Conkling.



New Britain, Connecticut, March 13



PLATE 9-1b. Church Street, New Haven, CT, Mar 1888 (New Haven Colony Historical Society; from Caplovich 1987, p. 204).

April 6, 1889

Nor'easter: Hampton Roads recorded a sustained wind of 75 mph from the north and Cape Henry 105 mph. Virginia Winters with the following address
<http://www.glenallenweather.com/historylinks/history2/vawxhistory.pdf>

February 11-14th 1899

From Wikipedia, the free encyclopedia

The Great Blizzard of 1899 was an unprecedented winter weather event that affected the southern United States. What made it historic was both the severity of winter weather and the extent of the U.S. it affected, especially in the South. The first reports indicated record-high barometric pressure over Assiniboia (now Saskatchewan) due to the weight of the extremely cold and dense air. Later reports of the impending freeze were relayed down through Florida by the Florida East Coast Railway.

The event started out on February 11 as a severe cold wave in which every part of the East Coast from Florida to Maine received sub-zero Fahrenheit temperatures. The following record low temperatures for February were achieved:

- [Cape May, New Jersey](#): 0 °F (−17 °C) (coldest temperature ever recorded in Cape May county)
- [Gainesville, Florida](#): 6 °F (−14 °C) (coldest temperature ever recorded in Gainesville FL)
- [Tallahassee, Florida](#): −2 °F (−19 °C) (only recorded instance of a sub-zero Fahrenheit temperature in Florida)
- [Diamond, Georgia](#): −12 °F (−24 °C)
- [Atlanta, Georgia](#): −9 °F (−23 °C) (coldest ever in Atlanta history since at least 1878)
- [Sandy Hook, Kentucky](#): −33 °F (−36 °C)
- [Minden, Louisiana](#): −16 °F (−27 °C) (still the all-time record low for Louisiana)
- [Fort Logan, Montana](#): −61 °F (−51 °C)
- [Camp Clark, Nebraska](#): −47 °F (−44 °C) (still tied for Nebraska's lowest recorded temperature on record)
- [Milligan, Ohio](#): −39 °F (−39 °C) (still the all-time record low for Ohio)
- [Lawrenceville, Pennsylvania](#): −39 °F (−39 °C)
- [Marienville, Pennsylvania](#): −40 °F (−53 °C)
- [Pittsburgh, Pennsylvania](#): −20 °F (−30 °C)
- [Santuc, South Carolina](#): −11 °F (−24 °C)
- [Erasmus, Tennessee](#): −20 °F (−23 °C)
- [Austin, Texas](#): −1 °F (−18 °C)
- [Dallas, Texas](#): −8 °F (−22 °C)(Feb 12 1899 was the coldest temperature reading in Dallas history by six degrees in more than 115 years of weather records)
- [San Antonio, Texas](#): +4 °F (−15°C)
- [Monterey, Virginia](#): −29 °F (−34 °C) (all-time state low until 1985)
- [Dayton, West Virginia](#): −35 °F (−37 °C)
- [Washington, D.C.](#): −15 °F (−26 °C) (still the all-time low temperature within the District of Columbia)
- [Altoona, Pennsylvania](#): −22 °F (−30 °C) (was the coldest temperature recorded in Altoona until reaching -25 in 1994)

The port of New Orleans was completely iced over by February 13, with ice floes reportedly floating out of the Mississippi River into the Gulf of Mexico. On February 14 the city experienced its coldest ever Mardi Gras reading of 7 °F (−14 °C). The Crewe of Rex Parade was delayed while snow was removed from the route.^{[1][2]}

Also on February 14, the low temperature in Miami was 29 °F (−2 °C), the second-coldest (and the first sub-30) temperature that the city has ever recorded.

North of the Mid-Atlantic region, the storm weakened somewhat, but it was still a very powerful blizzard. New York's Central Park recorded 16 inches (41 cm), which at the time was its third-biggest snowfall, but many surrounding areas recorded 2–3 feet (60 to 90 cm), as did most of New England.

There are even Cuban reports (made by the U.S. Weather Bureau, as Cuba was a U.S. territory at the time) that the country experienced hard frost which killed or damaged many crops. This was despite the cold air first having to cross the Florida Strait and its warm Gulf Stream waters. The blizzard of 1899 is referred to as "The Snow King".

The only other cold wave of such severity in the Southeast was the 1985 Florida freeze, which destroyed the citrus groves in central Florida, and forced the industry into south Florida.