

Late Nineteenth Century

August 24-25, 1851 (Apalachicola Storm): A hurricane moved across the Greater Antilles past western Cuba on the 22nd, then moved north to strike Apalachicola with a high storm surge on the 23rd. Thereafter, the storm tracked through Georgia and the Carolinas, moving into northern Chesapeake Bay on the night of the 24th.

High southeast gales made it the worst storm in thirty years for the region. The wheelhouse of the *Osceola* was torn away and blown overboard. Crops and small buildings were leveled. The system continued moving northeast offshore Nantucket, before making its final landfall in Nova Scotia.

September 7-9, 1854: A very destructive hurricane swept the East Coast from Florida to New York. Norfolk experienced the force of the storm on the 9th.

August 19, 1856 (Charter Oak Storm): This weather disturbance was first noted in Virginia. Washington D.C. had east and southeast winds throughout the day, accompanied by heavy rain.

September 1, 1856: This storm went through the interior of the Southeast before affecting Virginia. At Norfolk, the gale was considered an equal of the 1846 hurricane. It began at 4 a.m. and raged throughout the day. The spire of the Baptist church was blown off. A twenty year old tree met an untimely fate at Portsmouth. Much damage occurred at the Navy Yard.

October 28 & November 2, 1861 (Expedition Hurricane): Occurring during the first year of the Civil War, an expedition by "the largest fleet of war ships and transports ever assembled" started at Fortress Monroe, inside the entrance of the Chesapeake Bay. As the ships were assembling, high winds and gales played havoc with their coordination, just prior to setting sail. The fleet was hit by another storm on November 2nd. Two vessels were sunk off the Carolina Capes. This second system continued northeast to Boston by late that day.

October 25, 1872: A storm from the Gulf of Mexico moved across North Florida, before striking Charleston and moving up the Appalachians. Very heavy rains of four to eight inches drenched areas around Norfolk, with the 6.29" on the 24th at Norfolk setting a daily rainfall record.

September 28-29, 1874: This hurricane struck southern North Carolina. It entered Virginia west of Norfolk. It was the first hurricane ever represented on a weather map (Barnes II).

September 18-19, 1875 (Indianola Hurricane): The first of a series of hurricanes to end Indianola, Texas' reign as one of the leading ports in Texas, this system tracked

through the Caribbean and Gulf of Mexico before striking the unlucky port on the 16th. The storm made a sharp right-hand turn through the Southeast, re-emerging into the Atlantic on the morning of the 19th in the vicinity of Chesapeake Bay.

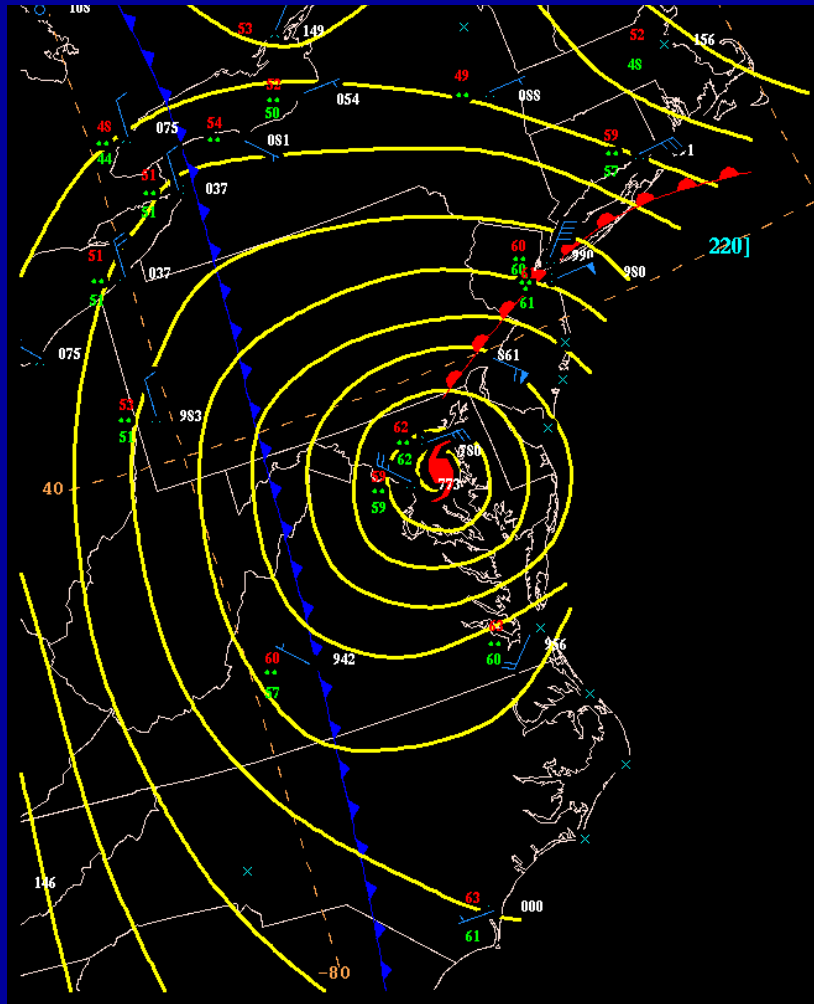
September 16-17, 1876: This hurricane moved over the Greater Antilles, and recurved just off the coast of West Palm Beach, before finally coming ashore near Cape Fear. As the system tracked through Interior Virginia, it brought a five minute sustained wind of 78 mph to Cape Henry and dumped 8.32" of rain. The 7.18" that fell on the 16th set a 24-hour rainfall record for September. High tides were seen at Washington D.C., when the level rose to 7.9 feet above low water datum.

October 3-4, 1877: A storm was first seen near St. Vincent and Grenada in the eastern Caribbean Sea...the island of Curacao was devastated. The hurricane then moved through the Caribbean Sea and the Gulf of Mexico before making landfall at Panama City Beach, Florida. It then moved north and northeast across the Carolinas, before moving out to sea near Norfolk. During the year 1877, tropical storms accounted for eleven inches of rain in the Norfolk/ Hampton Roads area.

After causing extensive flooding across North Carolina, heavy rains established floods of record. Along the James river, Lick Run (33 feet), Buchanan (34.9 feet) and Cartersville (30.4 feet) ran well above flood stage. Washington, D.C. set a 24-hour rainfall record for the month of October when 3.98" fell on the 4th. Many ships were wrecked all along the Atlantic coast, Chesapeake, and Delaware Bays. The cyclone continued northeast towards Newfoundland.

September 12, 1878: As this tropical cyclone moved through the Caribbean, hundreds of lives met an untimely end. It tracked west, then northwest, moving due north from the Florida Keys to Lake Erie thereafter. Five significant tornadoes were recorded (Watson). At 1 p.m., the first tornado touched down southeast of Petersburg. The second tornado in Dinwiddie county was more destructive as it moved through Ford's Depot. Trees were leveled, while small homes and a barn were destroyed. Other tornadoes wrought havoc in Henrico county, Nottoway, and Goochland. The Goochland tornado tracked 28 miles after it descended around 4 p.m. (Watson). A great many ships were disabled and wrecked.

October 23, 1878 (Gale of '78): One of the most severe hurricanes to affect eastern Virginia in the latter half of the 19th century struck on October 23, 1878. This hurricane moved rapidly northward from the Bahamas on October 22nd and struck the North Carolina coast late that same day moving at a forward speed of 40 to 50 mph. The storm continued northward passing through east central Virginia... Maryland and eastern Pennsylvania. To find out what it did to the Eastern Seaboard, check out the [Gale of '78](#) website.



Winds began to freshen at midnight, reaching gale force at 2 a.m.. Immense waves broke over the upper deck of the steamer *Express*. Winds reached hurricane force at 4 a.m.. The ship then wandered through the middle of Chesapeake Bay. The barometric pressure fell to 28.78". The five minute sustained wind reached 84 mph at Cape Henry. At 5 a.m., waves tore away the saloon deck and flipped the ship on her side. After rolling completely over, survivors gathered timber to make a tiny escape craft. It sank immediately. The Quartermaster was rescued at noon that day, twenty miles from the scene of the wreck. The weather map above is from just after the time of the shipwreck, reconstructed from the original U.S. Signal Service data, obtained from the Library of Congress.

The steamboat *Shirley* was driven ashore Barren Island. A schooner in Chesapeake Bay was reported to have drifted into the woods. Cobb and Smith Islands were completely submerged during this storm. The *A.S. Davis* went ashore at Virginia Beach, killing 19. At least 22 ships met their demise in this hurricane.

Damage from this hurricane was widespread along the East Coast. Many of Virginia's life saving stations were damaged, with one lifted from its foundation and moved half a mile. An account of the storm's effects in the Norfolk area was provided by the Norfolk

Landmark.

"...Only strong willed people could sleep while dwellings so violently oscillated with the ravings of the tempest Tuesday night (22nd). At an early hour a severe gale sprung up from the northeast and by 9 o'clock old Boreas was knocking things around town in a lively style. The rain came down in torrents and the streets at times were a driving sheet of water. Yesterday morning (23rd), after the abatement of the storm it was found that considerable damage and loss was involved in the destruction of various sorts of property around the city and vicinity. The maddening fury of the elements will long be remembered as making one of the most severe storms in the annals of our city's experience...."

There is another first hand account of the storm from Mr. Bolton, an employee of the U.S. Signal Service, an early version of the National Weather Service. Mr. Bolton was a repairman of the telegraph line between Cape Henry and Kitty Hawk and was stationed at the Life Saving Station No. 3 in False Cape.

"...I was at the station when the gale, which proved so disastrous to human to human life commenced. A severe rain storm has prevailed all day Tuesday (22nd) but the gale did not reach the station until 9 p.m. It rapidly increased in velocity until it almost became a hurricane. The members of the crew at this station, whose duty it is to patrol the beach that night, performed their duties with the upmost difficulty, as they could scarcely make any headway against it, and often had to cling to some stationary object like a telephone pole to prevent themselves from being carried away at the mercy of the fearful tempest..."

Mr. Bolton described the wreckage of the ship *A.S. Davis*, which had sunk off of present day Virginia Beach.

"...The debris was thickly scattered along the beach for a distance of fully 4 miles....I proceeded to Cape Henry, Virginia to assist the Signal Officer there. The body of one of the crew was there. About 1 ½ miles south of Cape Henry the bodies of eleven of the crew had been washed ashore.....During the heaviest part of the gale, the wind at Kitty Hawk, North Carolina registered 100 mph. The instrument itself was finally blown away and therefore no further record was made. It was the severest gale that had occurred on this coast for sometime."

August 18, 1879: An extreme hurricane moved north and went on the rampage from the Bahamas to Eastport, Maine (track to the right). In the immediate Mid-Atlantic region, the track of this storm ran very close to a Wilmington - Elizabeth City, N.C. axis to just southeast of Norfolk. It was considered one of the most severe to strike coastal Virginia in the last half century and was probably as severe as the June 1825 storm.

The passage of this storm was accompanied by a rapid pressure fall from 29.58 inches at 9:00 am to 29.12 inches at 11:15 am on the 18th, which was the lowest pressure observed in the storm. Five-minute sustained winds rose to 76 mph with gusts toward 100 mph at Cape Henry, before the anemometer was destroyed. The tide at Norfolk rose to 7.8 feet above mean lower low water. Dozens of ships were damaged from the Carolinas northward to Cape Cod. The rainfall from this storm was one of the heaviest in the history of Norfolk, 6.17 inches, with 6.03 inches falling on the 18th...of which 5.13 inches fell in just over 9 hours. On the next page is a chronology of Observations taken at Norfolk, Virginia during the August 1879 hurricane.

The Norfolk Virginian described the "red-letter" storm in the following account.

"...Yesterday (18th) was one of the red letter days in Norfolk's history. It was the occasion of one of the severest storms which have ever visited this section. The severity of the wind and the extent of the rains were such as have never been experienced in Virginia, and we doubt if the hurricanes of countries subject to such inflictions as visited Norfolk yesterday, have ever suffered to a greater extent from the ravings of the storm than did our city for a number of hours.....

....In the early morning the wind blew from the northeast with a strength which betokened a settled rain storm and gave everyone acquainted with our climate to understand that a bad day and heavy blow was to be expected. As the day wore on the wind became more boisterous....

....At about ten o'clock the wind had gained such strength that it was dangerous to appear on the streets, while the rain fell in such torrents that it was most disagreeable to do so.....the wind swept along with prodigious strength while the rain fell in torrents, which inundated wharves, streets and the lower floors of a number of buildings. About eleven o'clock it had reached its height, and dealt destruction on every hand. Roofs were blown off houses, trees were up-rooted, wharves destroyed and other injuries to properties inflicted....

....Water street was inundated and boats were to be seen on the water from the western terminus to Market Square. It is almost impossible to describe the appearance of the city at that time, with its frightened inhabitants running to and fro, the debris scattered along the streets and the wind playing havoc with the signs, trees, roofs, etc.

Several ships had run aground in the harbor between Norfolk and Portsmouth. The steamer *N.P. Banks* was run aground not on the flats of the Norfolk Naval Hospital (in Portsmouth) but on the very grounds of the hospital itself due to the excessive tides. The ferry boat *Berkeley* filled and sank in her dock on the Berkeley side of the river. The schooner *John C. Henry* foundered off Gwynn's Island.

The storm was described in Portsmouth as the most terrific storm to have visited the area in many years. From the Norfolk-Portsmouth Herald:

"...As early as 3 a.m. the rain began to fall in torrents, and the wind rising about the same time, increased in violence until it reached its height between 10 o'clock and noon. To those on shore and in a safe place, if such a place can be found, it was indeed a terrifically grand sight, one not often seen in this harbor, and seen once suffices a life time. The high wind brought in the waters of old ocean, wave piled upon wave until our wharves were submerged, our streets flooded and converted to many places to temporary canals, the tide being the highest ever known. On the waterfront exposed to the full play of the wind and wave, the sight was best seen. At the northward of North Street the waves dashed against the breakwaters, throwing the spray as high as the neighboring houses, while in the harbor and river the wind striking the caps of the waves filled the atmosphere with a fine mist like spray, so that at times it was impossible to see Norfolk, Berkeley or the ships in the harbor...."

October 19-22, 1879: At Cobb's Island, a steady rain began on the 19th. Offshore, high winds and seas had already led to the destruction of the *Ellie Bodine*, a schooner, 4 ½ miles south of Smith Island. North winds shifted to the southeast late on the 21st at Cobb's Island. By 9 p.m., hurricane force winds overspread the islands and "shrieked in its mad glee". Tides rose past the high water mark around midnight. Bath houses were swept away. The coast guard's house began drifting inland with the storm surge.

At 4 a.m., the New York House was destroyed. By 5 a.m., water briefly invaded the Cobb Island Hotel, then the waters began to recede. Several cottages were no longer on the island. Sand dunes rose where none stood before. It took several years before the island recovered from the hurricane (Barnes & Truitt).

September 9, 1881: For the first time in 33 days, rain fell at Washington D.C.. Wires from Wilmington, North Carolina south were downed by this "tropical hurricane".

September 10-11, 1882: A tropical cyclone moved across Cuba and the Gulf of Mexico before striking the Florida panhandle. It crossed Georgia, the Carolinas, and went offshore near the lower end of Chesapeake Bay. On the Washington and Western railroad, a portion of the trestle work was washed out by heavy rains. At Amherst, a landslide delayed rail traffic for 5 ½ hours. Several bridges on the Alexandria and Fredericksburg railroad were "injured" by the deluge. The gale caused mischief to shipping off the Northeast and Nova Scotia.

September 21-23, 1882: This tropical storm formed near the northern Bahamas and moved north into North Carolina near Cape Lookout. Along the Lower Rappahannock, the "protracted and destructive rain storm" swept away four mills near Ware's Wharf. The brunt of the cyclone only extended fifty miles inland. Heavy rains were also seen at Washington, D.C.. It then moved into Chesapeake Bay before moving out to sea on the 23rd. Eleven inches of rain were measured at Philadelphia. Extensive flooding was reported from North Carolina northward to Massachusetts.

September 12, 1883: A "protracted drought" was ended across Virginia on the 11th, as the rains from this tropical cyclone reached the Old Dominion. Unfortunately, it came too late for the peanut crop, which had already failed. A train wreck which occurred on the Norfolk and Western railroad near Nottoway Court House Station may be attributed to this cyclone. Ten freight cars were derailed. The schooner *E.C. Knight Jr.* wrecked near Cape Henry.

August 25, 1885: Floods accompanied this storm as it passed by the area. Copious rains fell in Baltimore, dropping the temperature 24 degrees in two hours. Flooding rains were seen across Maryland. In Maryland, lightning set fire to a residence in Ellicott City (\$16,000 damage). On the steamer *Arrowsmith*, just offshore Cedar Point, high seas and a strong gale burst the bulkhead of the wheelhouse. For twenty minutes, the crew worked feverishly to fix the ship, which made it to Washington, D.C. only an hour late.

October 12, 1885: A tropical system moved from southwest of Florida northward into the panhandle, reaching southwestern Virginia around midnight on the 12th. A large sea lion escaped its pen during the cyclone, and was last seen swimming down the Chesapeake.

June 22, 1886: At Lynchburg, a "terrific rain" led to street flooding, setting a new record for the wettest June at the site (5.44"). In Washington, D.C., 4.16" of rain fell on the 22nd alone, setting a 24-hour rainfall record for June.

July 1-2, 1886: Two days of heavy rain led to flooding in southeast Virginia. The James at Richmond was ten feet above the high water mark, submerging all wharves, and leading to evacuations. Several trestles on the Richmond and Allegheny railroad were washed away, hampering travel. Washouts on the Richmond and Danville railroad led to a further stoppage in travel.

August 24, 1886: This hurricane was first noted in the eastern Caribbean Sea in the middle of August. It tracked westward, before turning on a more northwest rack southeast of Jamaica. The beginning of a destructive week, it was followed by the strong Charleston Earthquake on the 31st (Vojtech).

August 21, 1887: The British steamer *Propitious* encountered the storm sixty miles below Cape Henry. The captain of the vessel was swept overboard as heavy seas crashed over the decks. It was the worst weather system the ship had encountered in sixteen years.

October 31-November 1, 1887: On the 29th, this storm moved northeast from Florida some distance off the Atlantic coast. Heavy gales were seen along the coasts of North Carolina and Virginia. The "furious northeasterly gale" caused telegraph lines to go down between Norfolk and Cape Henry. Winds were sustained at 78 mph for five minutes at Cape Henry

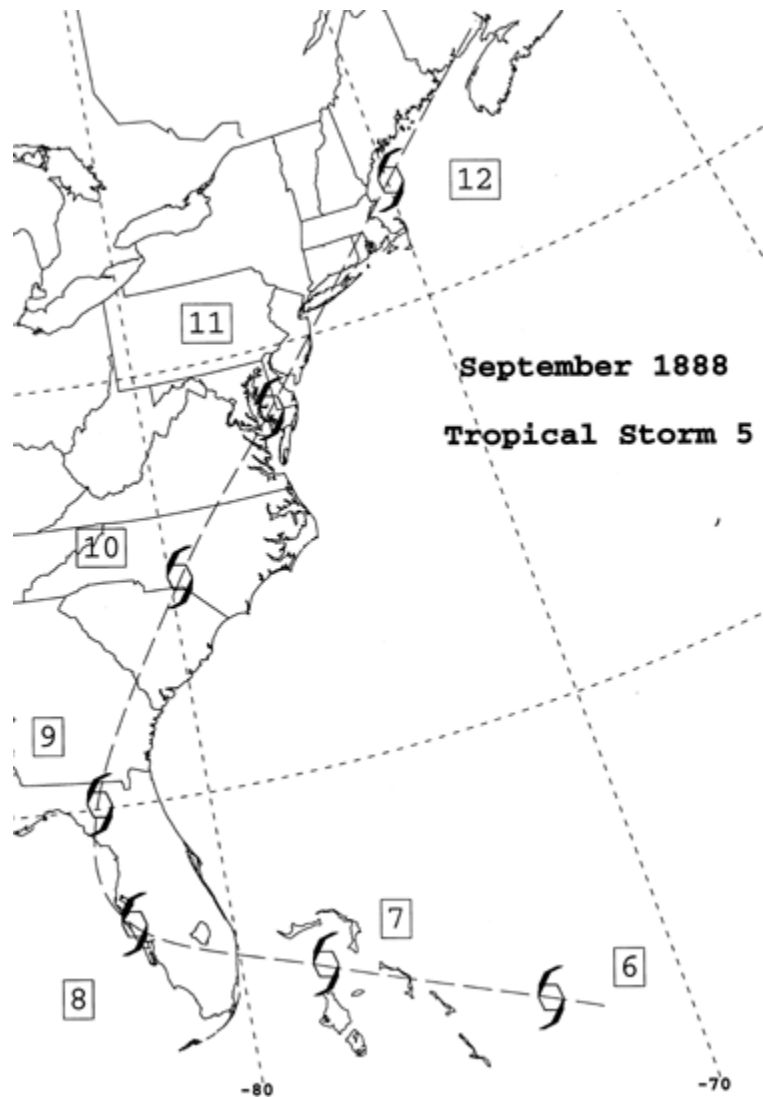
A record number of maritime mishaps were caused by the storm. Four ships, the *Mary D. Cranmer*, *Carrie Holmes*, *Manantico*, and *Harriet Thomas* were lost. Two lives were claimed offshore (Pouliot). The *Carrie Holmes* was driven so high into the beach that its crew jumped off the schooner and waded safely to shore; it proved a \$7000 loss.

August 21-22, 1888: This hurricane initially devastated southeast Louisiana before recurving northeast through the Ohio Valley. At Wheeling, West Virginia, heavy rains led to a two to six foot submersion of area roads. Bridges were washed out. A piece of the Baltimore and Ohio wooden bridge from Pittsburg collided with one of their other bridges at Main and 16th streets, leading to its second destruction in six weeks. A quarter million in damages were reported.

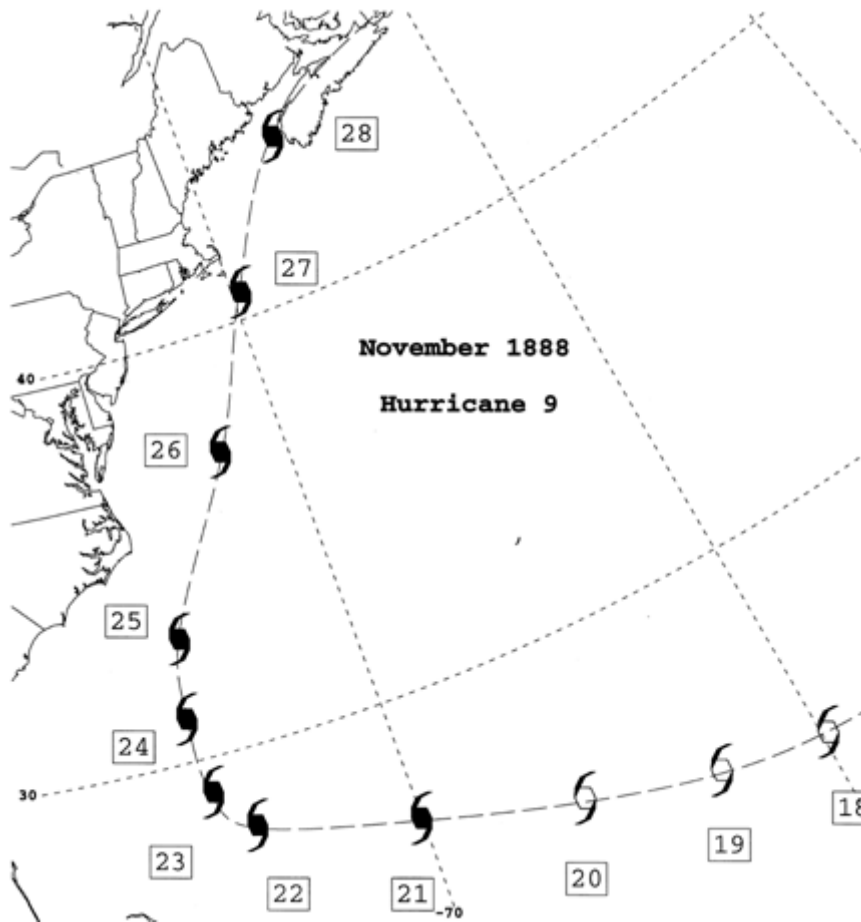
In Petersburg, a "terrific wind storm" blew through town, uprooting trees. At Carter's Wharf, lightning struck during a baptism ceremony, killing three and stunning all that were present. The storm was severe around southern Chesapeake Bay, demolishing numerous wood-frame houses, barns, and two schooners. An immense waterspout swept out of Chesapeake Bay onto Poole's Island.

Heavy showers and high winds were experienced in Washington, D.C.. Winds were sustained between 40 and 50 mph, with gusts above sixty. These gales led to the destruction of the tower of the Church of the Covenant around 4:40 a.m. on the 22nd (\$30,000 in damage). . At least two tornadoes were spawned in Delaware. Another tornado moved from Springfield across Glendale and Bowie, destroying homes, trees, and a chapel along the way. Nine perished in Maryland. Floods inundated Ohio, West Virginia, Pennsylvania, Maryland, Delaware, and Massachusetts.

September 10, 1888: A tropical storm moved through the Bahamas on the morning of the 7th, before moving across the Sunshine State. The cyclone re then curved northeast around the Bermuda High, reaching Virginia by the afternoon of the 10th (track to the right). Four months of drought abruptly ended at Southside. Heavy rains completely submerged corn and tobacco crops. The Appomatox flooded wharves; the river reached its highest level since 1877. It was considered a "terrific gale" at Onacock. The British schooner *Elk* was driven ashore and stranded at Parramore Beach. All aboard were rescued.



October 11, 1888: A hurricane moved northeastward from the Eastern Gulf of Mexico through North Carolina and crossed just west of Norfolk.



November 25, 1888: A tropical system which moved about 150 miles off of Cape Hatteras produced high winds along the Mid Atlantic coast as it was becoming extratropical. Cape Henry saw sustained winds reach 72 mph for five minutes. Norfolk experienced winds howling at 50 mph for five minutes which knocked down telegraph lines and high tides flooded lower parts of the city; their pressure fell to 29.50".

Vessels were blown from their moorings. The sloop *Lizzie Jane* wrecked 1/4 mile north of Cobb Island.

Cold air rapidly enveloped the storm, as the surfman at the False Cape Life-Saving Station reported blinding snow (Pouliot). Fortress Monroe, Winchester, and Richmond also went through a snow storm. Flurries in Washington, D.C. were accompanied by blustery north winds. Wires in the District were downed, and a telegraph pole broke off 25 feet from its base.

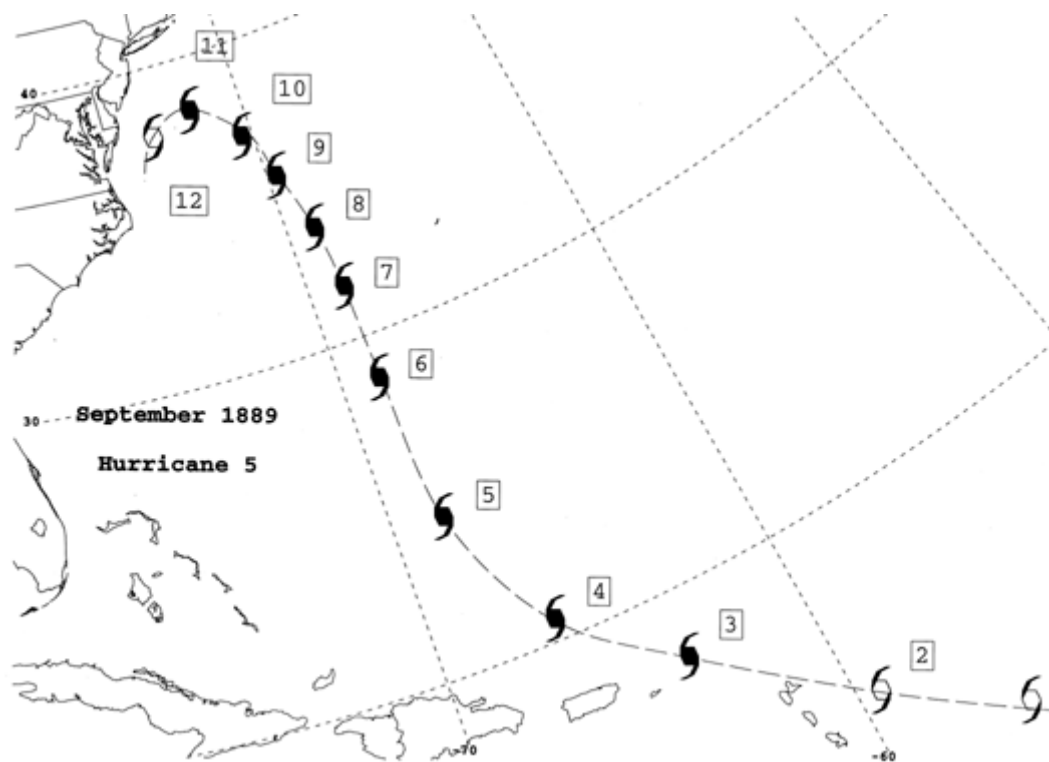
April 6-7, 1889: Although this cyclone was not likely to have been a true hurricane, it showed all the telltale signs to those in Virginia Beach at the time. Winds were blowing at a "hurricane rate" from the north-northwest. Gusts exceeded 100 mph at the Signal Service station in Cape Henry. Trees were uprooted and sand dunes quickly transformed into quicksand during the heavy rain. The Cape Charles lighthouse saw its south end protection wall undermined as it was pounded by high waves. High tides totally surrounded the station (Vojtech).

Lower portions of Norfolk flooded as tides rose to 8.4 feet. A fire on Water Street raged out of control, consuming the entire block. Roofs of the Opera House, Masonic Temple, and many dwellings were blown away. The Virginia Beach railroad depot saw damage, as well as hundreds of yards of its track. A fire at Portsmouth destroyed a lime and lumber yard. The U.S. vessel *Pensacola* sank while in dry dock. High tides flooded its dock, and as the ship filled with salt water, its keel sank.

Richmond experienced its worst storm of the winter and spring. Heavy winds, rain, sleet, and snow pelted the state capital. Charlottesville's snow storm led to downed wires and delayed rail traffic. Petersburg experienced a horrible blizzard, as trees were uprooted, and houses "rocked" with the wind. Winchester measured fourteen inches of snowfall while at its height, with thunder startling their citizens. Telegraph wires were strewn across the countryside.

In Washington, D.C., rain turned to snow by 8:30 a.m. on the 7th. By 10:30, lightning and thunder were observed, leaving residents in awe. The Weather Bureau could not explain the occurrence of snow and thunder, but mentioned it would be known within a "few years". The blizzard caused thousands of dollars in damage, as telegraph and telephone lines were downed in great numbers. The White House had its communications cut off by the storm between 1 and 2 p.m., as the weight of the wet snow downed area lines. A tornado actually touched down amidst the chaos along the waterfront, as five telegraph poles were snapped at the base.

Three schooners stranded on Virginia Beach near the Seatack Life-Saving Station. The four-masted vessel *Benjamin F. Poole* was left high and dry on the beach after the severe cyclone. Blowing rain and sand almost blinded the surf men trying to rescue the *Emma F. Hart*. At 7 a.m. on the 7th, the Cobb Island Life-Saving Station keeper observed the sloop *J.O. Fitzgerald* race towards Bone Island, running aground 3/4 of a mile away. All offshore survived the tempest.



September 9-12, 1889: This hurricane moved from Puerto Rico on the 5th to just offshore the Virginia capes on the 10th before stalling. The steamer *El Mar*, on its maiden voyage, encountered the hurricane on the night of the 9th just north of Cape

Hatteras. The vessel fought seas higher than 45 feet and strong winds for the next couple days. Destructive gales and unusually high tides were felt from Virginia northward to New York. Winds increased to 30 mph at Cape Henry on the 11th, temporarily knocking down telegraph lines to Norfolk. By the 12th, the lower coast experienced 40 mph winds. Along the Eastern Shore, bridges were swept away, telegraph lines were downed, lowlands inundated, and crops ruined. The wind "blew a hurricane" at Onancock, with high tides completely submerging its wharves.

Vessels at Hampton Roads dragged anchor. A brigantine-rigged steamer went ashore Cape Henry at 7 p.m.. The British steamship *Godrevy* grounded 3/4 of a mile northeast of the Cape Henry Life-Saving Station, just before 8 p.m. on the 12th, which proved a \$11,900 loss. The crew of 23 were saved. Winds and seas moderated by midnight.

September 24, 1889: President Harrison was visiting Elkins, West Virginia at the time, and noted that it rained considerably.

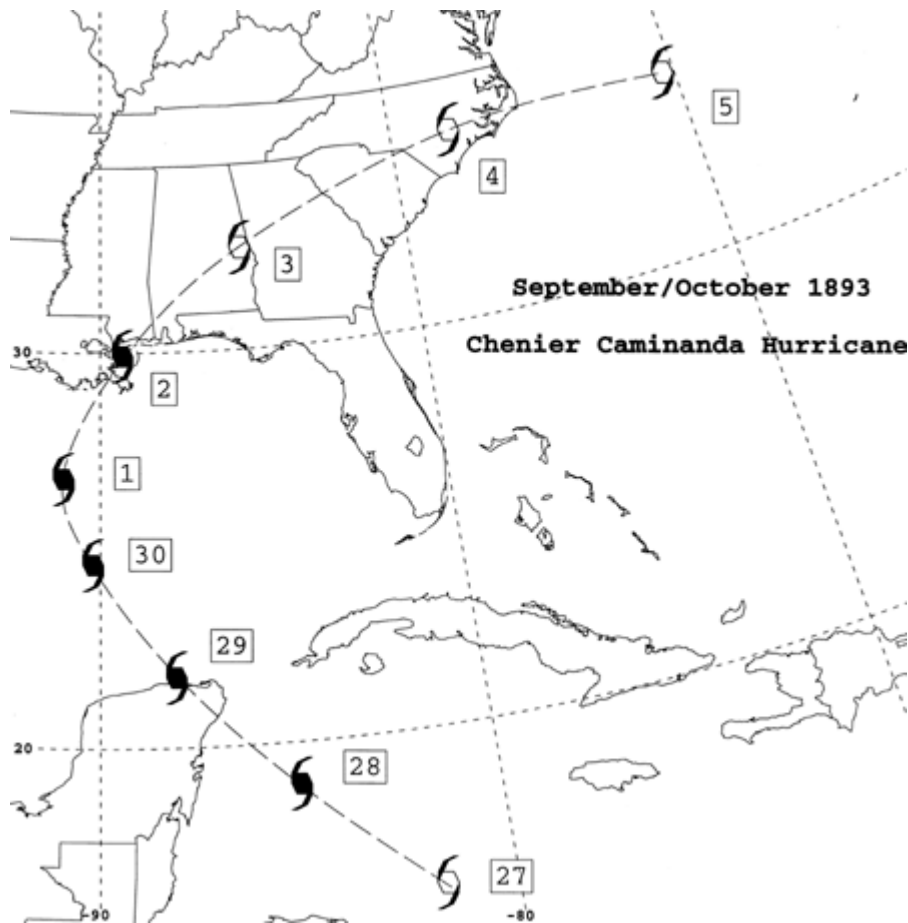
October 10-12, 1891: A system born in the Western Caribbean moved northward to just off the North Carolina coast. The U.S.S. *Despatch*, the President's ship, foundered 2 ½ miles north of Assateague Beach on its way to pick up the Commander-in-Chief. The sailing ship *Challenge* fell victim ½ mile southwest of Wachapreague (Pouliot).

June 15-16, 1893: A hurricane hit Cedar Key, Florida and moved northward across coastal sections of the Carolinas before moving out to sea near Norfolk. Birdnest, in Northampton County, recorded 4.8" of rain on the 16th.

August 28, 1893 (Sea Islands Hurricane): A hurricane passed just east of Cape Hatteras. Five minute sustained winds rose to 88 mph at Cape Henry. Cape Henry (3.97"), Hampton (3.92"), Langley Field (3.92"), and Norfolk (5.97") set 24 hour rainfall records for the month of August in this storm. Petersburg experienced a "perfect gale" between 4 and 5 p.m.. Trees and fences were leveled. Area orchards were greatly damaged. Corn, fodder, and tobacco were seriously injured. At Harper's Ferry, a damaging wind and rainstorm began at 7 p.m.. The District Militia's camp was demolished. A large number of trees were uprooted.

Alexandria plunged into darkness at 9 p.m., as power was cut off by the cyclone. Trees fell in by the score. Considerable damage was done to trees and the corn crop in Alexandria and Loudon counties. Small craft at the wharves sank. The river overflowed wharves, as the water from the river extended into Union Street. At the waterfront, the steamer *W.W. Colt* was badly damaged. The hull of the schooner *Franconia* was in serious disrepair. Fifty tons of coal were claimed by floods at Anacostia. A washout occurred at Cherry Hill Station, along the Washington and Southern railroad, rerouting train traffic.

In Washington, D.C., telegraph and telephone lines were "laid prostrate" on the night of the 28th as five-minute sustained winds reached 42 mph. For the first time in weeks, a good rain fell across the area. By 10 p.m., a smokestack was blown off a locomotive. The Pension Bureau roof was torn away by the high winds. Windows were shattered throughout the Federal City. Tides at Washington, D.C. peaked at 6.5 feet above low water datum. One man near Raleigh Springs, in northern Virginia, perished while trying to ford a stream.



October 4, 1893 (Chenier Caminanda Hurricane): In Louisiana, 2000 lives were lost when the hurricane crashed into the region around Grand Isle (track to the left). As the system was exiting the Mid-Atlantic coast, the schooner *Colter C. Davidson* sank south of Cape Henry. Two three-masted schooners were stranded on the beach near the Seatack Life-Saving Station. The northeast gale battered the schooners *W.M. Applegarth* and *C.C. Davidson* that evening.

In Washington, D.C., a "perfect deluge" led to the flooding of the Patent Office. All the examiners, clerks, messengers, and laborers began to rescue valuable records and property from the rising waters. Many cellars along the south side of Pennsylvania Avenue from Third to Thirteenth Street were flooded. The depot of the Baltimore and Potomac railroad looked like a "light-house, standing as it did in the centre of an immense lake" near the intersection of B and Sixth Street.

October 13-14, 1893: While the previous system was moving across North Carolina, another hurricane lurked east of the Leeward Islands. This hurricane of large size tracked east of Florida to the Carolinas. High winds and tides were seen from Florida northward to New England (Barnes II).

At Richmond, winds became a "perfect gale" as rain fell in torrents. Homes were partially unroofed, and trees fell in the capital squares. Between Richmond and Danville, a passenger train struck a fallen tree while a freight train struck another tree. Many lines fell across Petersburg. Dwellings in town rocked to the wind gusts. Barns and outhouses were razed to the ground. Roanoke watched as their river rose to

levels unseen since 1853. Washouts occurred along the Norfolk & Western railroad, delaying traffic from twelve to fourteen hours. The town of Elliston was submerged by the Roanoke river, sweeping away houses. During this storm, 2.98" of rain fell at Stone Gap, setting a 24 hour rainfall record for the month of October.

Alexandria saw its wharves crumble before the high waters (\$25,000). The James river eclipsed the level attained during the Johnstown Flood of 1889 by twelve inches. A fire in Baltimore burned down its electric light plant, giving the city more of the look of a "country town." Hyattsville saw a terrific gale by 5 p.m., putting its windmills briefly out of commission. Bladensburg saw winds level fences and partially unroof homes.

In Washington, D.C., the Calvary Baptist church's side wall blew down (\$3000). Associate justice of the Supreme Court Henry B. Brown was seriously injured when a plate glass window shattered at his new home at the northwest corner of 16th street and Riggs at 7:30 p.m.. Trees and their limbs were strewn throughout the city. Rainfall began in the morning and increased throughout the afternoon. Sewers were flooded by this downpour. By 6 p.m., gale force winds swept through the Federal City. Damage to police and fire wires was "greater than ever before been experienced." Waters on the Potomac rose six feet above the high tide, which was three feet below the high water mark. The Anacostia bridge became submerged.

Mariners experienced the wrath of this hurricane as well. The schooner *Edward Ewing* sank at Store Point, south of the Piankatank river. In the District of Columbia, the steam launch *Katherine Holbrook* sank. The *Nellie Marr* saw its bottom smashed by the high seas. The freight vessel *Mount Vernon* sank at her wharf. The *W.W. Colt* went on a rampage, injuring two other vessels before crashing against the ferry slip, smashing her port side.

September 29, 1894: This hurricane passed just west of Hatteras. Winds sustained for five minutes at Cape Henry peaked at 80 mph with gusts to 90 mph. Vessels were wrecked along the coast from North Carolina northward to New England.

October 9, 1894: A hurricane which formed just offshore Panama and Colombia moved north to hit Apalachicola, Florida and moved across coastal sections of the Carolinas before heading out to sea near Norfolk, restriking the coast at New England. The storm was severe in the Chesapeake Bay. The steamer *Eastern Shore* was nearly buried by high seas. The *Henry Lippet* was severely damaged after a collision 3/4 of a mile below Fort Monroe. A steam barge ran aground near Baltimore Harbor.

At Newport News, a terrific rain and wind storm raged. Northeast winds reached up to 60 mph. Many maritime disasters were witnessed. Among the wrecks were the schooners *Lorena Reen*, *John H. Cross*, and the bark *Ogin*.

July 8-9, 1896: This hurricane struck the Florida panhandle just east of Pensacola on the morning of the 7th. The decaying tropical storm moved north into the Ohio Valley. On the favorable eastern side of the system, tornadoes touched down across North Carolina and Virginia, leading to isolated pockets of destruction. A tornado swept through Dinwiddie and Prince Georges counties. Dwellings were leveled, along with trees and outhouses. Buildings were lifted up and moved fifty yards. Six perished.

Torrents of rain along the Atlantic & Danville railroad led to the Dan river overflowing its banks, flooding thousands of acres of low lands. Several bridges were swept away. Damage to crops, particularly corn, occurred with the flooding. Many cattle were drowned in swamps around Norfolk.

September 28-October 2, 1896: A hurricane developed in the breeding grounds of the tropical Atlantic before moving through the Caribbean Sea and the Gulf of Mexico. The system then tracked inland through the Southeast to the west of Washington D.C..

Richmond suffered severely from the cyclone. Communication was gone early on during the storm... the only line that remained open belonged to Western Union, the wire than ran to Wilmington, N.C.. A "perfect wilderness" of uprooted trees and downed limbs lay everywhere. The steeple of the Second Baptist church yielded to the storm, falling across main street. The Governor's Mansion survived the cyclone reasonably well. Damage totaled \$150,000 at the state capital.

Petersburg witnessed a "perfect hurricane" between 7:30 and 10:30 p.m.. The Imperial Hotel was unroofed. Smaller buildings experienced great damage. The Western Union office took fire, but the blaze was quickly extinguished. All lines were downed. "Needed rains" fell at Leesburg, but high winds at that locale led to high timber losses. Fredericksburg saw its St. George's church steeple injured by the cyclone.

In Alexandria, damage was widespread. The Third Baptist Colored church was razed to the ground (\$5000). Over forty windmills were wrecked at Falls Church. Travel was virtually impossible due to the volume of downed trees which blocked the roadways. Hyattsville and Bladensburg experienced injury, as windmills fell, and numerous windows and skylights were shattered. Wood-frame buildings were blown from their foundations. Manassas saw its Evangelical Lutheran church blown six inches off its foundation.

At the nation's capital, a rapidly moving deck of low clouds streamed in from the Atlantic on the heels of brisk southeast winds. After the wind shifted to southwest, thunderstorms caused continuous lightning to light up the night sky. It was one of the worst storms on record in the District of Columbia as five-minute sustained winds peaked at 66 mph and gusts reached 80 mph; the pressures fell to 29.14" around 11 p.m.. At 10:30 p.m., the steeple to the New York Avenue Presbyterian Church crashed to the ground. A five story brick building was demolished, injuring the adjoining buildings, trapping five men under debris. The tower of the Grand Opera House was "hurled to the sidewalk."

Uprooted trees blockaded several streets in the District. A horse perished after stepping on a live wire. Many buildings were unroofed. The Metropolitan Railroad Power House in South Washington caved in, causing all buildings within one-half block to shake; its crash was audible a mile away. Capitol Hill saw even greater damage. Georgetown experienced its worst storm ever. The Baseball Park saw \$500 in damage. A few panes of glass at the White House were shattered as well. Winds began to subside by 12:55 a.m.. In all, a \$390,000 in damage was incurred.

Heavy rains fell as well...see the chart to the left for 24-hour rainfall records set for September during this cyclone. A flash flood at Staunton, along Lewis Creek, overran

its banks, killing five. Seven inches of rain on the 30th swelled a large lake near the town, bursting its dam at 10 p.m.. Alarms were sounded as torrents of water rushed down Central Avenue, submerging everything in its path. As it invaded the Water Works and electric plant, fires in their furnaces were quickly extinguished, plunging the city into darkness. The gas works was swept away by the raging flood. Twenty-five houses were moved from their foundations before crumbling in the angry waters (\$500,000). Great washouts occurred along the Norfolk & Western railroad from Roanoke to Hagerstown. Streets in Roanoke became rivers. On the 1st, the Potomac and Chesapeake & Ohio Canal merged into one as flood waters increased their height and breadth. At Buena Vista, the fire department wall called in to save those in peril from their floods.

Tides rose to 7.0 feet above low water datum at Washington, D.C.. The scene at the waterfront was "one of indescribable confusion." Power was out, and mud had invaded surrounding land areas. Most everything, including vessels in and around the wharf was destroyed. The steamer *George Leary* ran amok when her wharf succumbed to the storm. Careening with the current, she crashed against the *Sylvester*, when then took part in the joyride. They crashed into four other vessels before coming to rest against the Norfolk steamer *Washington*. From Cedar Point to Sandy Point, fourteen vessels went ashore. The schooner *Capital* foundered at anchor, taking the lives of here crew (three in all).

Cobb's Island was submerged. Its hotel was demolished, along with any remaining cottages and private dwellings that weren't destroyed during the powerful nor'easter of 1895. This storm led to the abandoning of the island by Fall of 1897 (Barnes & Truitt). Damaging winds spread northward through northern Virginia, Maryland, and Pennsylvania. Its gale force winds extended from New York to Chicago. Sixteen perished across the region: three in D.C., seven in Virginia, and six in Maryland. Total losses exceeded \$1.5 million in Virginia and the District of Columbia.

October 11-13, 1896: Serious damage occurred at Virginia Beach, amounting to several thousand dollars from this cyclone. Winds of 40 mph blew through Norfolk while 70 mph lashed the Capes. The Cape Henry lighthouse keeper's residence was submerged by the system's storm surge. High tides reached the life-saving station. Water was blown up to the boardwalk of the Princess Anne hotel. All telegraph wires and poles were carried away by the tide. Around Norfolk, the Dismal Swamp canal was badly flooded; its banks "honey-combed and caving in many places." Two perished.

A northeast wind arose at Cobb's Island on the morning of the 5th and increased as the day wore on. It became a gale, then a hurricane, which moved the islanders into action. All furniture was moved into the upper floors of structures to escape the rising waters. Soon the island was completely submerged. As people watched from their second stories, stock and cattle were swimming around their homes, expressing their distress. Among the animals in the surging waters were horses, cows, goats, and dogs. The highest points went underwater before the lifeguard went from house to house, saving people's lives.

The Baltimore cottage was a total wreck, battered by the waves. Several cottages were found half buried in the sand. The island shrunk to a size of only fifty acres after this storm (Barnes & Truitt). At False Cape, eight fishermen took refuge at the life-saving station. Two women on Cobb Island were rescued by surfmen, as heavy swells

were sweeping them out to sea. It was two days before the weather improved, and the coastal flooding receded (Pouliot). The bark *Henry A. Litchfield*, with a cargo of lumber, went ashore Pleasure House Beach between 4 and 5 a.m. on the 12th, twenty four days out of Brunswick, Georgia. It braved the previous storm at the end of September, before succumbing to this cyclone.

October 20, 1897: A rapidly moving storm of tropical origin passed northeastward off Cape Hatteras. Maximum winds of 60 mph blew through Cape Henry.

October 24-26, 1897: On the 24th, this misbehaved tropical cyclone went from a northeast course to a more dangerous northwest course towards the Mid Atlantic region. It completed a small loop off the Virginia capes before heading westward into extreme northern North Carolina. A number of small craft had already washed ashore on the 24th. At Cape Henry, winds reached 64 mph on the 24th. Low streets of Norfolk were flooded. Two fatalities occurred when one person came in contact with a live wire and another was on the telephone. On the 25th, the James river rose to five feet above high tide. The catboat *Louise* was blown ashore Newport News, proving a total loss. Winds at Cape Henry rose to 70 mph. Increasing tides cut a break through Willoughby Spit, washing away the Old Point Comfort railroad tracks.

Trees were leveled at Hampton. Cobb's Island went totally underwater, forcing the crew of the life-saving station to abandon the isle. The 26th brought continued northeast gales to the coast. A Norwegian sailing ship was being destroyed while in tow fifty miles southeast of Cape Henry, and was abandoned. All aboard survived. Four fatalities were reported at Newport News. In all, this storm lasted for 60 hours and produced tides of 8.1 feet above mean lower low water. Winds and high water inundated the business section of Chincoteague. The hotel on Metompkin Beach was wrecked. Cedar Island was "leveled to a mere flat breath of sand" (Barnes & Truitt). The schooner *L.A. Rose* went down one mile southeast of Assateague Beach while the steamer *Polaria* wrecked one mile northwest of Cape Henry.

August 17-18, 1899 (San Ciriaco Hurricane): The damage produced by this storm in North Carolina is considered unparalleled. It left its mark in Virginia as well. On the 16th, wind at Cape Henry reached 52 mph. By the 17th, Cape Henry saw winds peak at 68 mph for five minutes, and gales expanded westward past Norfolk...low lying areas were inundated. Norfolk's pressure fell to 29.62" as five-minute sustained winds reached 42 mph.

The storm was quite severe along the James,. At Suffolk, livestock drowned in the flood waters. At Petersburg, a "heavy northeastern storm" began the night of the 17th. Corn and tobacco experienced considerable damage as crops were leveled by the wind.

October 30-31, 1899: This storm took a similar path to Hazel. It was becoming a nontropical low while passing through North Carolina, but that didn't weaken the system at all. Cape Henry saw winds of 74 mph over a five minute period. Norfolk tides reached 8.9 feet above mean lower low water. Norfolk experienced 50 mph winds level trees and signs...windows in the area shattered. Brighton experienced the leveling of several homes. Tides again created a break in Willoughby Spit, damaging railroad tracks. In Danville, the gale reached its height between 7 and 8 p.m. on the

30th, unroofing several houses and damaging shade and fruit trees. Winds died down by noon on the 31st. The Cape Charles lightship was under significant strain; the starboard chain broke and carried away all the castings and connections. The three-masted schooner *Kate Darlington* wrecked on Ocean View Beach at 1 p.m. on the 30th, after being struck by a steamer on the Virginia Capes. The schooner *W.S. Rowley* beached at Nix's Wharf in Suffolk...two wharfs there were badly damaged. The 1000-ton, four-masted schooner *Bayard Barnes*, after springing a leak, became stranded on Willoughby Spit. Damage from the cyclone spread northward into Ontario and Newfoundland, in Canada.