1896

September

"When morning came 'the abomination of desolation' was on every side. Every hour brought some fresh revelation of destruction, and the apparent hopelessness of ever setting the face of Nature to rights again was enough to paralyze efforts in that direction."

— Annals of Sandy Spring
Sandy Spring, Md.
September 30, 1896

The summer and early fall of 1896 brought the Middle Atlantic states wild extremes: tornadoes in July, a deadly heat wave in August and a stubborn drought by September. Then came a devastating hurricane.

Farmers took delight in fitful rain and refreshing gusts on the morning of September 29. They had no idea that a menace approached with the speed of an express train.

Even as areas further north savored relief from the drought, Cedar Key, Fla., reeled from an assault by a Category 4 hurricane, complete with a mighty storm surge or "tidal wave," as residents described the onslaught of water. The town was nearly destroyed.

So began a trail of devastation lasting nearly a thousand miles, through interior sections of the East Coast to Canada. The storm retained a 50 to 75-mile-wide band of violent winds, which inflicted extensive Category 2 - Category 3 damage, and a smattering of Category 4-level losses. The whirl raced north, blasting land and buildings increasingly susceptible to windstorm ravages.

The hurricane killed at least 114 people, including 30 in the Middle Atlantic region. An estimated $7 million in property losses made it among the costliest hurricanes in U.S. history to that time.

A bulletin by the Weather Bureau summarized the hurricane's malevolent nature:

"The path of the storm across the Caribbean sea and the Gulf was not near enough to any of our stations to give any information of its violent character, only light to fresh winds being reported from that region during its passage. After it struck inland on the west Florida coast, however, and during its movement northward through the south and Middle Atlantic states it contracted in area and developed almost tornadic force, causing great destruction along its path."

At Gainesville and Jacksonville, Fla., at Brunswick and Savannah, Ga., winds caused enormous destruction. In Beaufort, S.C., the blow equaled the

Sea Islands Hurricane of 1893 but without the deadly storm surge. The Weather Bureau told of its passage through South Carolina:

"On the 29th a severe storm crossed the state from south to north, the path of the storm was from Hampton due north to Lancaster County. The wind reached velocities estimated at 75 to 100 miles per hour. The storm had a rapid progressive movement, traveling across the state in not quite 4 hours, or at the rate of about 53 miles per hour."

The blow struck savagely in the vicinity of Raleigh-Durham, N.C. The wind at Chapel Hill was "the most violent in the memory of the oldest inhabitant of the village," according to the *Raleigh News and Observer*.

A mostly rural track through North Carolina hid the storm's destructive potential, but it couldn't hide in Virginia. Richmond, the state capital, and other towns lay directly in its path.

VIRGINIA 1896

The following headline in the *Richmond Dispatch* was indicative of the hurricane's effects along its route through the Old Dominion:

THE STORM'S DAMAGE

Havoc Wrought by the Cyclone in All Parts of the City

HOUSES UNROOFED AND WRECKED

Hardly a Block on Which There Was Not Property Injured

CUT OFF FROM THE WORLD

Telegraph Wires Nearly All Down and Railroad Trains Delayed

The hurricane is Richmond's worst windstorm. Broken windows, damaged roofs and toppled chimneys were legion. Church steeples crashed into adjacent streets and buildings. The East End suffered greatest harm.

"The East End came in as a whole for a pretty good share of the damage done," reported the *Richmond Dispatch*. "Its exposed position was in part responsible for this, but the wind seemed to play peculiar pranks, toppling over things where least expected and leaving exposed objects unharmed."

Hours of huge winds carved a path about 60 miles wide from the North Carolina border to Maryland. Nearly everywhere, it was "the worst storm in the memory of the oldest inhabitant." The following excerpts from the *Richmond Dispatch* provide a sampling of effects in Southside Virginia:

"Boydton. A tornado struck this town and vicinity with terrific force at an early hour last night, sweeping everything before it. The oldest inhabitants here say they never before experienced such a storm of wind and rain. It raged for two hours as furiously as a western cyclone. Houses were wrecked and blown down, fences were swept away, and trees were uprooted. Stables and barns were demolished, and many horses and cattle were killed or injured."

"Chase City. Last night, about 8:30 o'clock, the most furious and destructive storm ever known in this section passed through this town. The wind was from the south and west, and terrific in force and velocity. It was preceded by a heavy downpour of rain, which diminished as the windstorm increased in severity. Heavy clouds and intense darkness prevailed. There was no lightning or thunder. Around the horizon in the south was seen a long stretch of hazy brightness, which moved in an easterly direction. The appearance was like the reflected brilliancy in the sky of an immense fire. The phenomenon finally disappeared in the north about 10 o'clock."

The Weather Bureau's *Virginia Climate Report* cited the hurricane's work in central and northern sections of the Old Dominion:

BARBOURSVILLE. Terrific windstorm from the southwest, beginning at 9:30 P.M. of the 29th, became a fearful gale at 10 P.M., increasing in severity until 10:25, moderating gradually, and was almost

From the collection of Richard M. Hamrick, Jr.

Water swept through Staunton, Va., after the failure of this dam on the edge of town. The torrent wrecked part of the business district.

calm from 10:45 to 11:15 P.M., when it began again, and blew briskly all night and all day of the 30th. Great destruction was done to timber and houses.

BUCKINGHAM. Terrible windstorm on the night of the 29th. Trees and houses blown away.

GUINEA. Hurricane of 29th lasted 3 hours, and the damage to the forest was very great.

STEPHENS CITY. Storm of the 29th washed away bridges and corn crop. Many birds killed in the trees.

FREDERICKSBURG. Gale of the 29th did much damage, unroofing houses, blowing in brick walls, and destroying about 500 shade trees.

MANASSAS. From 10:45 to 11:30 of the night of the 29th wind from the southeast, thence suddenly from the southwest, played more havoc than any storm that has ever visited this section within the memory of its oldest inhabitants. Much damage to trees and houses.

QUANTICO. Continued high winds 14 hours on the 29th, recording highest about 10:30 P.M. Several houses and trees blown down.

ALEXANDRIA. At 10 P.M. of the 29th, a hurricane struck this city, and blew with increasing velocity for about two hours. Great loss of property and several lives (four wind-related deaths).

The hurricane charged through Northern Virginia. Houses and shops were unroofed at Falls Church. Windmills littered the countryside. Nearly every farm in Fairfax and Arlington counties, just outside Washington, D.C., sustained damage. Fallen trees blocked most roads.

Roofs were easy prey. The *Alexandria Gazette and Virginia Advertiser*:

"The rolling up of tin roofs from buildings alone would furnish food for vivid descriptions. It is said by those who witnessed these scenes that the huge sheets of tin sailed through the air in a manner suggestive of gigantic vampires. They would be apparently about to alight on one side of a street when they would sail upward again and fall in the opposite direction. The clatter of the tin in parting from the roofs and its fall into the streets with the roar of the wind produced a pandemonium long to be remembered. The occasional topple of a chimney and the rolling of thousands of bricks on a roof made an appalling noise."

The western sector of the hurricane had less wind but heavier rain. According to the Weather Bureau, "The rainfall in a strip of country extending from North Carolina to the southern border of Pennsylvania, probably 100 miles wide and about the same distance west of the storm center, was exceedingly heavy, 5 and 6 inches being recorded at some stations, and 3 to 4 at others."

A dam break at Staunton, Va., caused a spectacular tragedy, a calamity that made national news.

Rainfall totaling 6.73 inches fell on the night of September 29. It filled two streams that converged on Staunton's wharf district, a commercial area. Shortly after 9 p.m., men rushed through the neighborhood sounding an alarm. Shortly thereafter, a lake on the edge of town burst through an earthen dam. Within minutes, wreckage carpeted downtown Staunton and beyond. Five people died. *The Annals of Augusta*

County, Virginia, described the catastrophe this way:

"Rain fell at intervals in torrents all day; but late in the afternoon the storm seemed to have ceased. Almost half past 8 o'clock, however, it began again, and for several hours rain came down in almost solid sheets. The lower parts of the town were deluged. On the former occasions the main branch of Lewis Creek contributed little to the overflow, but on this the flood appeared to come chiefly from that quarter. Moreover, the dam at the Fair Ground and an embankment on Brew's farm, Middlebrook road, broke, and the water which had accumulated, being discharged, carried destruction in its course.

"A family of four negroes living near the stone railroad bridge on the Middlebrook road were drowned, their house having been washed away. From that bridge to the depot of the Valley Railroad was, next morning, a scene of desolation. Many buildings fell or were swept off, and from 30 to 40 horses and mules were drowned. In the midst of the storm, the electric and gaslights were extinguished, and the town was left in pitch darkness. The fire bell was rung to call people to the rescue of others who were in peril, but in the darkness and flood little could be done. As never before our people realized the meaning of the words 'the terror by night.'"

Farmers who welcomed the first drops of rain rued the last. The James, Potomac and Shenandoah rivers and many of their tributaries flooded. *The Rockingham Register:*

"The climax of high water records in the Valley of Virginia dates from the famous floods of 1870 and 1877. Strange to say, Tuesday was the 26th anniversary to the day of the flood of '70 and the appalling record of destruction by the high water of 1870 seems at this writing to have been surpassed by that of September 29, 1896.

"At the government weather station at Dale Enterprise the phenomenal fall of 6.30 inches of water in eighteen hours was recorded, and that seems to have been a fair average for this section of the Valley. For two hours Tuesday night, with the wind blowing a howling gale, the rain fell not in drops but in sheets. By midnight the smaller streams were far out of their banks, and by the middle of the day Wednesday they had swollen the rivers traversing the county to proportions hitherto unknown."

WASHINGTON, D.C.

Fury reached Washington about 10 p.m., its approach signaled by brilliant flashes of lightning against a backdrop of Egyptian darkness. The city turned shambles. Streets became a blizzard of shingles, bricks and glass. In the aftermath, newspapers struggled to report the magnitude of the event. The *Evening Star* gave up:

"At about 10 o'clock the clouds seemed to grow more dense, and there was a play of lightning that before had been absent from the disturbance. Then the wind, that had been blowing previously at the comparatively slow pace of about 30 to 35 miles an hour, began to freshen suddenly, and within a few minutes reached hurricane speed and was coming in terrific gusts that lifted tin roofs from their frames, shattered brick work, wrenched signs and awnings from their fastenings, smashed heavy plate glass windows, broke and uprooted trees, and, in short, did damage to almost every object exposed to the fury of the storm.

"Probably no detailed description of the damage done to the city and the surrounding country will ever be told, for the very greatness of it all. Summer storms of enormous violence have visited Washington and have caused great damage, and it has been possible to give in words a nearly complete record of the wreck. But today the city bears the mark of the storm in so many quarters, and the ruins are so numerous, that to enumerate them (would be) an endless task."

The Weather Bureau office recorded a five-minute average wind velocity of 68 mph, and an estimated one-minute reading of 80 mph. Gusts flirted with 100 mph. The anemometer at the Naval Observatory was lost when part of the roof bounded away.

Professor Henry A. Hazen, tasked by the Weather Bureau to investigate hurricane damage, wrote:

"On the night of September 29 there occurred the most destructive storm that ever visited Washington, and it merits special study. The weather map at 8 p.m. shows a general storm with lowest pressure, 29.30 inches, at Lynchburg, Va. The lowest pressure at Washington, 29.14 inches, occurred at 10:50 p.m. The wind velocity continued very high from 10:55 to 11:48, and at times reached 70 miles per hour. The destructive wind had a general southerly direction, but came a little from the east on the east side of the

city, and from the west on the west side. In Alexandria the wind was nearly southeast."

And in Washington, "The most remarkable fact noted was that the destruction was in well-marked streaks and not universal. In hundreds of instances a well constructed roof, rafters and all, was blown off, while close by very frail structures at the same height were uninjured."

The wind could be whimsical in its power to destroy. Hazen observed, "The steeple of the New York Avenue Presbyterian Church was blown down and appeared almost as if it had been picked up, turned upside down, and dashed down on its point."

Gusts toppled a five-story brick building under construction on Pennsylvania Avenue. The wind twisted and dropped the massive roof of a streetcar garage. The roofs of the State Department and Pension Office partially peeled away. The Patent Office lost its cover entirely. The roof of President Grover Cleveland's private home in Woodley Park took flight, crashing 500 yards away.

A dormitory building under construction at Catholic University blew down. The Brookland town hall, a short distance away, was partially destroyed.

The White House grounds were defaced, a tangle of uprooted elms, sycamores, walnuts and magnolias. In an era of relaxed security, souvenir hunters chipped away—an elm planted by President Lincoln being a crowd favorite.

OBSERVERS' NOTES.

ASHLAND.—On the 15th, heavy storm from northeast, with wind and heavy thunder and lightning. Thermometer fell 12° in a short while. A very heavy storm on 19th; lightning struck near the station. Wind-storm of 22d lasted all night. High wind all day of the 29th. A heavy gale set in at 8:15 P. M., and lasted until 11 P. M. The wind blew about 70 miles an hour; much damage done to crops generally.

BIRDSNEST.—Average temperature for September for 23 years, 70.8; for this Septembr, 71.2; excess over average, .4 degrees. Highest, 79.8, in 1881; lowest, 61.2, in 1877. Average rainfall for September for 23 years, 3.57 inches; for this September, 3.30 inches; deficiency from the average, 0.27 of an inch. Greatest rainfall, 9.25 inches, in 1880; least, 0.06 of an inch, in 1884.

DOSWELL.—Commencing about 9 P. M. of the 29th, a destructive wind began to develop, and continued in its fury until about 11:30 P. M. Many light buildings were demolished in this vicinity. Trees uprooted and forage scattered.

PETERSBURG.—Rain storm, accompanied by a very high wind, on the 29th, did considerable damage.

RICHMOND.—A violent windstorm did great damage here on the 29th.

SPOTTSVILLE.—Whippoorwill heard 10th, 11th, 12th, 13th and 18th. Month pleasant and very favorable. Rainfall above normal.

SUNBEAM.—No damage from light frost on the 24th. Cotton crop being picked, and coming in very poor. Peanuts being dug, and reported as a small crop.

ALEXANDRIA.—At 10 P. M. of the 29th, a hurricane struck this city, and blew with increasing velocity for about two hours. Great loss of property and several lives.

BARBOURSVILLE.—Terrific windstorm from southwest, beginning at 9:30 P. M. of the 29th, became a fearful gale at 10 P. M., increasing in severity until 10:25, moderating gradually, and was almost calm from 10:45 to 11:15 P. M., when it began again, and blew briskly all night and all day of the 30th. Great destruction was done to timber and houses.

BUCKINGHAM.—Terrible windstorm on the night of the 29th. Trees and houses blown away.

CALLAVILLE.—A very severe windstorm with dashes of rain from 8 to 10 P. M. on 29th, destroying buildings and blowing down fences and trees.

FREDERICKSBURG.—Gale of the 29th did much damage, unroofing houses, blowing in brick walls, and destroying about 500 shade trees.

GUINEA.—Thunder and hailstorm commenced 6:10 P. M. of 18th, and lasted 20 minutes; specimens fell measuring some inches in circumference; a great many measured 3 inches in diameter. Hurricane of 29th lasted 3 hours, and the damage to the forest was very great.

GORDONSVILLE.—Storm of 29th did much damage, blowing house tops and many trees away. Storm lasted about 15 minutes.

MANASSAS.—From 10:45 to 11:30 of the night of 29th wind from the southeast, thence suddenly from the southwest, played more havoc than any storm that has ever visited this section within the recollection of its oldest inhabitants. Much damage to trees and houses done.

NOTTOWAY C. H.—Great storm of the 29th blew hardest 8 to 9:30 P. M., uprooting trees and blowing house tops over.

QUANTICO.—Continued high wind 14 hours on the 29th, recording highest about 10:30 P. M. Several houses and trees blown down.

BIG STONE GAP.—The 29th was remarkable for high winds. Fogs almost every morning during the entire month.

BLACKSBURG.—Very heavy and washing rain on the 29th. First frost on 24th.

BRISTOL.—First frost on 23d.

CLIFTON FORGE.—First frost on 23d.

DALE ENTERPRISE.—Rainfall of the 29th 6.30 inches—fell inside of 18 hours. Greatest flood since 1877. Great damage to farm lands in general.

HOT SPRINGS.—The rain of the 29th was a perfect deluge, doing much damage, and was followed by very high winds.

LEXINGTON.—Between 8 and 9 P. M. of the 29th the wind blew from the southwest and west, uprooting some trees. North river was higher on the 30th than since 1889. The freshet caused much damage to the railroad tracks and county roads.

SALEM.—Heavy rainfall on the 28th, but not much wind.

STAUNTON.—Heaviest rainfall which has ever been recorded from this station occurred on the 29th, with most disastrous results to property and loss of life. The damage to the city and county is hard to estimate.

STEPHENS CITY.—Hail storm reported by 'phone from Strausbrg, 10 miles south of this station, on the 18th; says hail-stones large as a hen egg fell; considerable damage done. Storm of 29th washed away bridges and corn crop. Many birds killed in the trees.

MISCELLANEOUS PHENOMENA.

AURORAS.—Staunton, 18th.

DISTANT LIGHTNING.—Dale Enterprise, 18th; Staunton, 17th.

FOGS.—Bon Air, 17th; Birdsnest, 11th; Fredericksburg, 14th; Hot Springs, 15th.

FROST—LIGHT.—Birdsnest, 24th; Petersburg, 22d, 23d, 25th; Richmond, 24th; Spottsville, 24–25th; Sunbeam, 24th; Alexandria, 23d; Barboursville, 24th; Gordonsville, 23d. Staunardsville, 28th; Bristol, 23d; Burke's Garden, 7–25th; Big Stone Gap, 24th; Christiansburg, 24th; Clifton Forge, 23d; Manassas, 24th, 25th; Dale Enterprise, 25th; Hot Springs, 25th; Lexington, 24th; Monterey, 7th; Staunton, 24th, 25th; Stephens City, 21st; Woodstock. 24th.

FROSTS—KILLING.—Ashland, 3d; Buckingham, 23d, Blacksburg, 24th; Burke's Garden, 24th; Dale Enterprise, 24th; Hot Springs. 24th; Marion, 24th.

GALES.—Ashland, 3d–15th, 19th, 22d, 29th; Doswell, 29th; Petersburg, 29th; Richmond, 29th; Spottsville, 3d and 29th; Alexandria, 39th; Barboursville, 29th; Buckingham, 29th; Callaville, 29th; Fredericksburg, 29th; Gordonsville, 29th; Manassas, 29th. Nottoway C. H., 29th; Big Stone Gap, 29th; Hot Springs, 29th; Lexington, 3d and 29th; Salem, 19th; Staunton, 29th; Stephens City, 29th.

HAIL.—Ashland, 3d; Guinea, 18th; Stephens City, 18th.

PRECIPITATION.

TIDEWATER VIRGINIA.—Average total precipitation, 4.28 inches; greatest monthly, 6.31 inches, at Sunbeam; least monthly, 2.99 inches, at Sunbeam; greatest amount in any twenty-four consecutive hours, 2.08 inches, at Warsaw, on the 5th; least amount in any twenty-four consecutive hours, 0.89 of an inch, at Norfolk, on the 20th.

MIDDLE VIRGINIA.—Average total precipitation, 4.82 inches; greatest monthly, 7.08 inches, at Lynchburg; least monthly, 2.67 inches, at Manassas; greatest amount in any twenty-four consecutive hours, 4.25 inches, at Rocky Mount, on the 29–30th; least amount in any twenty-four consecutive hours, 0.70 of an inch at Guinea, on the 29th.

THE GREAT VALLEY.—Average total precipitation, 5.72 inches; greatest monthly, 8.47 inches, at Woodstock; least monthly, 3.17 inches, at Bristol; greatest amount in any twenty-four consecutive hours, 6.73 inches, at Staunton, on the 28–29th; least amount in any twenty-four consecutive hours, 1.00. of an inch, at Bristol, on the 29th.

FOR THE STATE.—Average total precipitation, 4.94 inches.

The mean total rainfall for the month, 4.94 inches, corresponds to within 0.57 of an inch to the 11-year normal, which is 4.47 inches. It was least in the Tidewater districts and greatest in

the Great Valley. The dates upon which rains occurred generally were the 3d, 4th, 5th, 6th, 15th, 16th, 19th, 20th, 22d, 28th, 29th, and 30th. Notwithstanding the fact that the mean monthly rainfall is in excess of the normal, the month was droughty and deficient in this respect until the last two days (when the heavy rains attendant upon the West India hurricane fell) and crop conditions and fall work were at an unfavorable stage, except in some few localities. Fortunately the season was unusually advanced, and most of the crops had been secured some time previous to the arrival of storm of the 29–30th, or the damage arising therefrom would have been incalculably greater.

The average number of days on which 0.01 of an inch, or more, of rain or snow fell, was 8 in Tidewater Virginia, 7 in Middle Virginia, and 8 in The Great Valley. Average for the State, 8.

WIND.—The prevailing directions of the wind in the different sections, were as follows: Tidewater Virginia, SW.; Middle Virginia, W.; The Great Valley, W. Prevailing direction for the State, W.

WEATHER.—Tidewater Virginia, average number of clear days, 12; partly cloudy, 9; cloudy, 9. Middle Virginia, average number of clear days, 14; partly cloudy, 9; cloudy, 7. The Great Valley, average number of clear days, 15; partly cloudy, 8; cloudy, 7. For the State, average number of clear days, 14; partly cloudy, 8; cloudy, 8.