

Newsroom & Archives

History & Statistics

[Virginia's Weather History](#) • [Virginia Weather and Disaster Statistics](#) • [Presidentially Declared Disasters](#)

Virginia's Weather History

Virginia Storms and Lightning

Virginia averages 35 to 45 thunderstorm days per year. Thunderstorms can occur any day of the year and at any time of the day, but are most common in the late afternoon and evening during the summer months. Though thunderstorms provide needed rain for crops, plants and reservoirs, about five percent of thunderstorms become severe and can produce tornadoes, large hail, damaging downbursts and heavy rains that cause flash floods. The National Weather Service does not issue warnings for thunderstorms or for lightning unless it is severe, but the NWS does highlight the potential for thunderstorms in daily forecasts. Be alert to the signs of changing weather, such as darkening skies, a sudden wind shift or drop in temperature, and have a warning device such as NOAA Weather Radio. Staying alert can mean the difference between life and death when a thunderstorm approaches.

Basic lightning facts and information

A thunderstorm's most striking feature is lightning, which kills more than 60 people and injures more than 400 people a year in the United States. Some recent studies suggest that only 10 percent of all actual lightning injuries is represented in these statistics, because most go unreported. Most lightning deaths and injuries are preventable with proper safety precautions such as moving inside at the first sign of a storm and staying away from tall trees and poles.

Thunder occurs when the air around a lightning bolt rapidly expands from the intense heat of a lightning bolt (about 50,000 F). This expansion produces a shock wave that we hear as thunder. Sound travels about one mile every five seconds. By counting the seconds between the flash of lightning and the rumble of thunder, you can estimate how many miles away the strike was. Hence, 10 seconds is two miles. Wait 30 minutes after the last lightning strike to resume your outdoor activities.

When the electrical charge begins to build, preceding a lightning strike, it feels very similar to a build up of charge prior to a static electricity charge. You may feel or see your hair standing up, though perhaps not as pronounced as in the picture shown here taken on Pike's Peak in Colorado. This sensation is one indication that lightning is about to strike. If you can't take immediate cover in an enclosed vehicle or building with the windows and doors shut, then you need to crouch down, covering your ears with your hands. Make yourself as small a target as possible. Stay low and maintain minimal contact with the ground.

Lightning can strike 10 to 15 miles from a storm's center. It can emanate from the top of the storm cloud, which can extend for miles from the storm. If a storm hasn't yet hit your area, or if a storm just passed, you are still in danger of a lightning strike. If the sound of thunder can reach you, so can a lightning strike. Move indoors.

Lightning Statistics

Between 1959 and 2003, lightning has killed 62 people in Virginia and injured at least 252 people. Many additional injuries unreported. Nationally, from 1959 through 1994, lightning injured 13,057 people and killed 3,239, mostly men between the ages of 20 and 40. Nationally, most strikes occurred between 1 p.m. and 5 p.m. during weekends. The National Lightning Detection System identified an average of seven million cloud-to-ground lightning strikes per year, resulting in one lightning casualty once every 86,000 strikes.

Virginia Lightning Statistics by Location for years 1959 through 2000		
Location	Deaths	Injuries
Open space	14	35
Under trees	17	46
On or near water	6	14
Golf course	3	9
On the phone	0	7
On/near heavy equipment	3	8
Near Door/Window	0	14
Other/Unknown	15	105

Virginia Lightning History

August 10, 1943: Six soldiers were struck and killed on the drill field at Fort Belvoir.

June 6, 1950: Lightning hit a signal tower in Alexandria causing two trains to crash a short distance from Alexandria Station. Eleven people were taken to the hospital.

July 22, 1972: One person killed by lightning while playing softball.

July 10, 1975: Manassas a nine-year-old girl playing under a tree is struck and killed by lightning. Two of her friends were hospitalized and two men near-by playing croquet were also injured.

July 20, 1975: Annadale, Fairfax County, 16 people were struck and injured while picnicking.

June 26, 1977: Roy was struck by lightning for the seventh time earning him the title of "the human lightning conductor." The first time was in 1942 when he worked in a lookout tower. The strike caused him to lose his big toe nail. In 1969, he was driving along a mountain road with his window open when the bolt struck. He lost his eye brows. In 1970, he was walking across his yard to get the mail when lightning struck. His shoulder was seared. In 1972, he was standing in the office at the ranger station when lightning set his hair on fire. In 1973, after his hair had grown back, he was struck again. His hair was again set on fire and his legs were seared. In 1976, while checking on a campsite he was struck, injuring his ankle. His last and seventh encounter was while fishing. Lightning caused chest and stomach burns. It is not only amazing that Roy was injured seven times by lightning, but it is astounding that he was not killed!

September 3, 1977: A 19-year-old hitch-hiker was struck and killed by lightning while leaning against a metal road sign on the southbound ramp of I-81 in Staunton.

July 13, 1982: Lightning struck a woman in Chesterfield County. She was sitting on a metal swing set in her back yard, and though she could hear thunder, she did not go indoors. She heard a loud noise and felt pain. Lightning struck the swing set and traveled through her body to the ground. Her shoes were blown off her feet and she received burns on her back and legs.

May 9, 1993: Roanoke, a young child was injured at a window when lightning struck a nearby tree.

August 3, 1993: Chesterfield County, lightning struck and killed a 30-year-old man as he mowed his lawn.

August 25, 1993: In Augusta County, people took refuge from a thunderstorm under a solitary tree. Lightning struck the tree and injured four people.

May 25, 1994: Henrico County: a 26-year-old male died when he took refuge from a thunderstorm under a tree on a golf course.

June 14, 1994: Norfolk: a bolt of lightning struck and critically injured a 50-year-old woman and a 38-year-old man playing in a golf tournament at Greenbrier Country Club in . Both suffered severe burns.

June 16 , 1994: A family was enjoying the afternoon on Lake Moomaw in Bath County when a sudden thunderstorm approached. They took refuge on a small island only 300 by 100 yards wide, which provided little protection. They sought shelter under some tall pines, the tallest objects around for some distance. Lightning struck the pines killing the entire family of five instantly.

July 20, 1994: Several separate lightning bolts struck Camp Pickett, injuring seven officers. Two suffered serious injuries and had to be resuscitated several times. Most of the men were injured while inside tents with metal poles.

During the period 1995 through 2000, there were seven lightning fatalities, 54 injuries and \$6.5 million in damage, according to Storm Data.

May 25, 1995: A woman carrying an umbrella was struck outside a high school in Winchester while walking to her car. She suffered first degree burns on her left hand where the lightning came down the umbrella and entered her body and on her right foot where the lightning left her body and entered the ground.

June 3, 1995: Nottoway County, a man suffered second degree burns when lightning struck him as he stood near an outside basement entrance.

July 17, 1995: A 15-year-old boy was injured by lightning while touching an outdoor light switch at a swim and tennis club just outside Charlottesville. He had been playing tennis and was leaving the courts due to the storm when he was struck.

July 21, 1995: A camper at Colonial Beach in Westmoreland County took refuge under a tree during a thunderstorm. The tree was struck by lightning, which in turn caused second degree burns over 20 percent of the camper's body.

July 27, 1995: Powhatan County, a woman received minor injuries when lightning struck her near the front door of her house.

July 28, 1995: A 15-year-old girl was struck and killed in Northampton County as she walked along Smith Beach. Also on this day, in Danville a woman was slightly injured by lightning while standing near a window in her house.

August 23, 1995: Several members of a marine training battalion were struck as they attempted to leave the rifle range for shelter at Quantico Marine Base. One recruit was killed

and four were injured and treated for minor burns. Two people were injured in another lightning strike on the base.

May 4, 1996: Partlow, Spotsylvania County, a man was injured when lightning struck a tree near the porch where he was standing. He went into shock but remained conscious. Another lightning strike started a fire in an abandoned trailer.

June 24, 1996: A woman was checking the circuit breaker box in her garage when lightning struck. The ensuing power surge slammed the woman against a vehicle, knocking her unconscious for a short period of time.

July 14, 1996: Rockingham County a 20-year-old male soccer player was struck and killed at the Rockingham County Fairgrounds. The soccer match had been called due to the storm, but the player had not yet sought shelter.

August 26, 1996: Norfolk lightning seriously injured two boys who were sitting at a picnic table beneath a tree.

June 2, 1997: Rocky Mt in Franklin County a lightning strike slightly injured a person in a parking lot.

June 13, 1997: Newington, Fairfax County, lightning struck and injured a man causing minor burns on his chest. Lightning caused fires in two nearby homes.

July 16, 1997: Henry County, a 42-year-old man in his yard was struck and killed by lightning. Lightning also killed 19 cattle at a farm.

July 25, 1997: Campbell County: a lightning strike injured a man at Timberlake.

July 28, 1997: Arlington: a man and woman were struck by lightning in the Pentagon's parking lot; the man was listed in serious condition.

August 17, 1997: Loudoun County: lightning struck a concourse at Washington-Dulles International Airport and injured three airline food service personnel.

March 20, 1998: At 8:45 pm, a man outside in Chatham, Pittsylvania County, was injured by a lightning strike.

May 8, 1998: Hopewell: a 12-year-old boy was injured when he was struck by lightning at the Carter G. Woodson School.

June 13, 1998: Two tubers on the James River just south of Scottsville were swimming to shore as a thunderstorm moved in. They were struck and treated at the University of Virginia Medical Center.

June 16, 1998: Fort Belvoir: a security guard was shocked while opening a metal door; he was treated and released from the Army community hospital after slight numbness ensued.

June 24, 1998: In Grayson County about 3.5 miles northeast of Whitetop, at 5:15 pm, Three youths were injured by lightning.

April 4, 1999: On a golf course in Culpeper County, around 4 pm, 37 year old man was struck and killed under a tree. The rest of his group had already safely retreated to the club house when the incident occurred.

August 1, 1999: Suffolk, several homes were struck by lightning and at least two people were injured.

March 31, 2000: Farmville (Prince Edward County), lightning injured a baseball player and a spectator at a baseball game.

June 13, 2000: East Highland Park (Henrico County), lightning struck near the Classic Amphitheatre and affected a person with a pacemaker. Subject was taken to hospital by ambulance .

June 14, 2000: Rockingham County, three dispatchers were shocked through their headsets by a lightning strike..

June 21, 2000: Nottoway County around 6 pm, two national guardsmen were injured by lightning at Camp Pickett..

July 30, 2000: Virginia beach, a 39-year-old man was killed while doing yard work under a tree. Another person was injured. Witnesses said that there was no rain falling at the time and described the lightning bolt as having come "out of clear skies". In actuality, it came from a nearby thunderstorm. Also on this day in Poquosan around 6:20 pm, a man was struck and injured outside his home.

August 7, 2000: A 33-year-old man was struck and killed under a tree at the West Falls Church Metro Station as a severe thunderstorm swept through the area.

June 20, 2001: A man talking on a cordless telephone in a basement was struck by lightning. Event occurred four miles southeast of Crozet in Albemarle County.

July 1, 2001: A Fredericksburg man was injured by a bolt of lightning that struck his home.

July 26, 2001: Two Boy Scouts were injured by lightning while at a campsite during the National Scout Jamboree at Fort A.P. Hill in Caroline County.

August 11, 2001: A woman was struck and killed by lightning while on a boat in the Chesapeake Bay near the Oceanview section of Norfolk.

August 11, 2001: An Amherst woman was struck by lightning and received minor injuries.

August 12, 2001: An Amelia County man was struck and injured by lightning in his home after lightning hit a porch railing and jumped to the door he had been holding.

August 20, 2001: Two farmhands in a three-sided, metal, calf-feeding pen were killed by lightning on a farm near Remington in Fauquier County.

May 2, 2002: A Roanoke woman was injured by lightning while talking on the phone.

June 4, 2002: An individual in Fancy Gap was injured slightly by lightning.

August 3, 2002: Two campers at Natural Chimneys Regional Park in Augusta County were struck and injured by lightning.

March 21, 2003: A Culpeper County deputy sheriff was struck by lightning while walking to his car, about three miles northwest of Culpeper.

May 9, 2003: A Roanoke woman was struck and injured by lightning.

August 28, 2003: Two men were struck and injured by a nearby lightning strike at the Albemarle County Fair in the North Garden area of the county.

August 30, 2003: Lightning struck and killed a man at Busch Gardens near Williamsburg.

July 1, 2004: A roofer, working at Providence Road Elementary School in Virginia Beach, was struck by lightning and later died.

July 4, 2004: Lightning struck and injured four individuals at Alton Pool along Harmony Road in Turbeville (Halifax County).

June 30, 2005: Lightning injured five campers at Loft Mountain Campsite in the Shenandoah National Park (Albemarle County).

August 6, 2005: A camper was slightly injured when a lightning struck a nearby tree at a campground at Lake Robertson, near Collierstown in Rockbridge County.

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