



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

DISTRICT OF COLUMBIA

DCZ001	District Of Columbia								
	09	0500EST 2359EST			0	0			Winter Storm
<p>An area of low pressure moved from the Ohio Valley to North Carolina from late on the 8th through the evening of the 9th. The storm produced an unusual band of heavy snow that fell directly over the nation's capital and the western suburbs. Snowfall rates were occasionally in excess of 1 1/2 inches per hour during the morning and afternoon of the 9th. By evening, the snow depth reached 11.5 inches on North Capitol Street downtown. Washington Reagan National Airport reported 8.4 inches. The rapid accumulation of snow made travelling treacherous. The Federal Government was forced to shut down at midday. The House of Representatives had to postpone voting because many representatives were unable to get to work. Hundreds of accidents and a handful of injuries occurred on area roads as commuters struggled to get home from work and school. Virginia State Police responded to 250 accidents and towed 200 vehicles in the western suburbs alone. Adding to the travel nightmare, numerous flights were cancelled at Washington Reagan National Airport between 7:00 am and midnight. This storm produced more snow in one 24 hour period than had fallen in Washington D.C. over the last two years.</p>									

MARYLAND, Central

Frederick County									
Frederick	03	1845EST			0	0	2K		Thunderstorm Wind
Power lines downed									
Washington County									
Hagerstown	03	1855EST			0	0	5K		Thunderstorm Wind
Trees and power lines downed									
MDZ002>005	Allegany - Washington - Frederick - Carroll								
	03	1900EST			0	0			Winter Storm
	04	1200EST							
Washington County									
Hancock	03	1900EST			0	0	1K		Lightning
Horse struck by lightning									
Carroll County									
Taneytown	03	1940EST			0	0	8K		Thunderstorm Wind
Trees and power lines downed, roof of barn damaged									
Baltimore County									
Owings Mills	03	1945EST			0	0	2K		Thunderstorm Wind
Power lines downed on Route 140									
Anne Arundel County									
Arnold	03	2000EST			0	0	7K		Thunderstorm Wind
Church facing and shingles blown off, trees and power lines downed									
MDZ006>007-009	Northern Baltimore - Harford - Montgomery								
	04	0300EST 1200EST			0	0			Winter Weather
<p>A low pressure system moved from West Virginia to Pennsylvania on the evening of the 3rd. This system produced sustained winds of 25 to 40 mph from the afternoon of the 3rd through the morning of the 4th. The strong wind forced the closure of the Bowie Freeway Airport and required officials to post high wind warning signs on Chesapeake Bay bridges. A cold front associated with the system moved through during the early evening and produced a line of thunderstorms that brought heavy rain, small hail, and wind gusts in excess of 55 mph. Washington County reported downed trees and power lines, and 2,000 power outages. In addition, a horse was struck by lightning near Hancock. Frederick County reported downed power lines and 1,600 power outages. Carroll County reported numerous branches and some trees down near Taneytown. Loose lumber was blown off a deck, sheet metal roof panels on a barn were torn off, and a chimney cap was blown off near Owings Mills in Southern Baltimore County. A church near Glen Burnie in Anne Arundel County reported shingles and facing blown off and a few trees and power lines downed, disrupting power for nearly 1,000 residents. After the cold front passed, temperatures dropped rapidly and rain turned to snow across Western and North Central Maryland. Allegany County received between 2 and 9 inches of snow, Washington County received 5 to 6 inches, Frederick County received 2 to 6 inches, Carroll County received 5 to 6 inches, Northern Baltimore County received 2 to 5 inches, Harford County received 2 to 3 inches, and Montgomery County recorded 1 to 4 inches. The combination of winds and snowfall in excess of one inch per hour across Western Maryland led to nearly blizzard conditions. Several road had to be closed temporarily, including Interstate 68 from Frostburg to the West Virginia border and</p>									



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

MARYLAND, Central

Interstate 81 near Hagerstown. The significant snowfall also led to several traffic accidents during the morning of the 4th, including two collisions that closed Route 15 north of Thurmont, a 20 vehicle collision at the intersection of U.S. Route 340 and Maryland Route 17 near Brunswick which closed the road for 2 hours, and an overturned tractor trailer on Interstate 70 near the State Police barracks. In addition, several tractor trailers became disabled on Interstate 68 and 81, and several cars became disabled on Braddock Mountain along Interstate 70.

MDZ002>003

Allegany - Washington

06	0200EST				0	0			Winter Weather
	1400EST								

A fast moving storm system travelled across the Appalachian Mountains and tracked along the Mason-Dixon line on the morning of the 6th. This disturbance produced snow across Western Maryland from early morning to midday. The snow came down at a rate of 1 to 1 1/2 inch an hour around 9:00 am in Western Washington County, and the town of Hancock ended up with almost 5 inches of accumulation. Frostburg and Cumberland reported 3 inches.

MDZ002>004-009>010-013>014-016>018

Allegany - Washington - Frederick - Montgomery - Howard - Prince Georges - Anne Arundel - Charles - St. Mary's - Calvert

09	0200EST				0	0			Winter Storm
	2359EST								

MDZ005>006-011

Carroll - Northern Baltimore - Southern Baltimore

09	0600EST				0	0			Winter Weather
	2359EST								

An area of low pressure moved from the Ohio Valley to North Carolina from late on the 8th through the evening of the 9th. Heavy snow fell across Western and Central Maryland as the storm system moved through. Snowfall rates were in excess of 1 1/2 inches per hour in some locations during the storm. By the evening of the 9th, 6 to 10 inches had fallen in Prince Georges, Montgomery, and Allegany County; 4 to 8 inches had fallen across Washington, Southern Frederick, Howard, Anne Arundel, Charles and Calvert County; 2 to 5 inches had fallen across St. Mary's, Northern Frederick, Carroll, and Southern Baltimore County, including Baltimore City; and 2 inches or less had fallen across Northern Baltimore County. Travel was treacherous across the region on the 9th. The Maryland State Police received 70 accident reports between 11:00 am and 3:00 pm. Over 275 accidents occurred in Anne Arundel County during the storm, resulting in 16 injuries. Whiteout conditions were reported on Route 27 in Carroll County. Two buses were in accidents in Frederick County. A motorist was killed in a car accident on Route 107 in Montgomery County. Another motorist was killed on Branch Avenue in Prince Georges County when she was hit by a car while inspecting damage to her car from a separate collision. Charles County reported 120 accidents in 6 hours, including one crash involving a school bus. Calvert County reported 91 crashes with 9 injuries, including a 6 car pileup near Lusby. After the snow ended, one man died from a heart attack in Prince Georges County after shovelling snow, and two others were admitted to hospitals suffering from chest pains.

MDZ002>007-009-011

Allegany - Washington - Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Southern Baltimore

14	0500EST				0	0			Winter Storm
	1400EST								

MDZ010-013>014-016

Howard - Prince Georges - Anne Arundel - Charles

14	0800EST				0	0			Winter Weather
	1400EST								

An area of low pressure over the Southeast U.S. produced snow across Western and Central Maryland on the 14th. Snowfall amounts were heaviest near the Pennsylvania border. Rain mixed with snow southeast of a line from Baltimore to Washington, D. C. The low pressure system redeveloped off the coast of North Carolina and moved up the Eastern Seaboard on the morning of the 15th, resulting in another period of snowfall. Total accumulations included 10 to 12 inches in Allegany County, 6 to 15 inches in Washington County, 6 to 12 inches in Frederick County, 5 to 10 inches in Carroll County, 4 inches in Howard County, and 2 to 3 inches in Southern Baltimore County, Northern Anne Arundel County, Prince Georges, and Northern Charles County. The snow was very wet and heavy and accumulations resulted in over 30,000 power outages across North Central Maryland; 15,000 in Baltimore County, 6,300 in Harford County, and 1,600 in Anne Arundel County. Driving was also difficult, especially in Western Maryland. Over 200 travellers were stranded in Washington County on the 14th after a 36 car pileup occurred around 2:00 pm on Interstate 70 near Clear Spring. 18 people were hurt in the accident, and 5 received serious injuries. The westbound lanes of I-70 were closed for 3 1/2 hours and the eastbound lanes were closed for 6 hours. There were several accidents reported on Interstate 68 as well during the storm. The heavy snowfall also closed the airport in Hagerstown.

VIRGINIA, North

**Prince William County
Haymarket**

03	1700EST				0	0	1K		Thunderstorm Wind
-----------	----------------	--	--	--	----------	----------	-----------	--	--------------------------

Winshield blown out by wind

**Prince William County
Dale City**

03	1710EST				0	0	1K		Thunderstorm Wind
-----------	----------------	--	--	--	----------	----------	-----------	--	--------------------------



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------	---------------------------------	-------	--------------------

VIRGINIA, North

	Pine trees downed								
Greene County									
Countywide	03	1720EST 1730EST			0	0	4K		Thunderstorm Wind

Trees and power lines downed

Rappahannock County									
Countywide	03	1755EST 1810EST			0	0	2K		Thunderstorm Wind

Trees downed

Shenandoah County									
Countywide	03	1800EST			0	0	5K		Thunderstorm Wind

Trees and power lines downed

Shenandoah County									
Woodstock	03	1800EST			0	0	0.50K		Thunderstorm Wind

Roof blown off outbuilding

Frederick County									
Winchester Arpt	03	1810EST			0	0	20K		Thunderstorm Wind

Large wall damaged at warehouse

Frederick County									
Winchester Arpt	03	1810EST			0	0	2K		Thunderstorm Wind

Trees and signs downed

Shenandoah County									
Strasburg	03	1810EST			0	0	1K		Thunderstorm Wind

Top of automated teller machine blown off

VAZ028									
Frederick	04	0000EST 1000EST			0	0			Winter Storm

VAZ031-042									
Clarke - Loudoun	04	0000EST 1000EST			0	0			Winter Weather

A low pressure system moved from West Virginia to Pennsylvania on the evening of the 3rd. This system produced sustained winds of 25 to 40 mph from the afternoon of the 3rd through the morning of the 4th. A cold front associated with the system moved through during the early evening and produced a line of thunderstorms that brought heavy rain, small hail, and wind gusts in excess of 55 mph. In Shenandoah County, downed trees and power lines were reported across the county. 1,375 customers reported power outages. A roof was blown off an outbuilding in Fairview near Woodstock, and the top of an automated teller machine at the Strasburg Shopping Center was also blown off. Frederick County reported substantial damage to a large wall at the Rubbermaid Commercial Products Receiving Warehouse in Winchester. The wind also levelled several trees and signs. 6,000 customers reported power outages. The peak gust at the Winchester Airport was 42 mph. Greene County reported trees down across the county and downed electric poles near Eheart. Albemarle County reported power outages and small creeks and streams reaching bankful around 6:00 pm. Rappahannock County also reported trees down. Prince William County reported the windshield of a vehicle on Interstate 66 was blown out by high wind. In Dale City, several pine trees were also downed. After the cold front passed, temperatures dropped rapidly and rain turned to snow across Northern Virginia. Most locations received an inch or less of snow overnight, however Frederick County received 2 to 5 inches and a location on the Clark and Loudoun County line received 3 inches.

VAZ026>031-038>042-050>057									
Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George	09	0300EST 2359EST			0	0			Winter Storm

VAZ036>037									
Nelson - Albemarle	09	0400EST 2359EST			0	0			Winter Weather

An area of low pressure moved from the Ohio Valley to North Carolina from late on the 8th through the evening of the 9th. Heavy snow fell across the Appalachian Mountains and the eastern foothills as the storm system moved through. In addition, the storm produced an unusual band of heavy snow that stretched in a west to east line from Frederick County to Fairfax County. This band was about 50 miles wide from north to south, and storm total snowfall was as high as one foot in this area. Snowfall rates were in excess of 1 1/2 inches per hour in many locations during the storm. By evening on the 9th Frederick, Clarke, Loudoun,



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------	----------	------------------------------	--------------------

VIRGINIA, North

Shenandoah, and Fairfax County received between 8 and 12 inches. Warren, Page, Northern Rockingham, Rappahannock, Prince William, and northern Fauquier County received between 6 and 10 inches. Southern Rockingham, Greene, Madison, Culpeper, Southern Fauquier, and Stafford County received between 4 to 8 inches. Highland, Augusta, Albemarle, Spotsylvania, and King George County received between 2 and 6 inches. Travel became treacherous across Northern Virginia on the 9th. Washington Reagan National Airport and Dulles International Airport reported numerous flight cancellations between 7:00 am and midnight. Hundreds of car accidents occurred on area roads. Loudoun County reported 53 vehicle collisions and 18 injuries. 24 school buses became stuck on rural routes. Route 7 near Highway 601 was closed. A fallen tree and power line also closed U.S. Highway 15 north of Leesburg. In Warren County, one person was killed in a car accident on Strasburg Road. The Winchester Airport in Frederick County was closed. In Shenandoah County, an early afternoon accident involving four tractor trailers closed part of Interstate 81 for four hours. Highland County reported several cars slipping off snow covered roads. Greene County reported several accidents on Route 29, including one jackknifed tractor trailer. Fauquier County reported an accident near Midland Road where 5 students and a bus driver were injured. At least 200 cars had to be towed off Interstate 95 and 66 during the storm. King George County reported two school buses in accidents and six others slipping off roadways. The city of Fredericksburg reported over 100 accidents. On Interstate 95 in Spotsylvania County, a woman was killed in a morning car accident. Another man was killed in an accident near Fort Belvoir in Fairfax County. Over 500 disabled vehicles and 30 injuries occurred across the county from 7:00 am to 1:00 pm. Hunter Mill Road was closed after 40 vehicles became disabled in the snow. Virginia State Police responded to 250 accidents and towed 200 vehicles during the storm in the Washington D.C. suburbs.

VAZ021-025>031-036-042-053

Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Loudoun - Fairfax

14	0500EST								
15	1200EST			0	0				Winter Storm

VAZ037>041-050>052

Albemarle - Greene - Madison - Rappahannock - Fauquier - Orange - Culpeper - Prince William

14	0500EST								
15	1200EST			0	0				Winter Weather

An area of low pressure over the Southeast U.S. produced snow across much of Northern Virginia on the 14th. Snowfall amounts were heaviest near the West Virginia border. Rain mixed with snow southeast of a line from Fairfax to Orange County. The low pressure system redeveloped off the coast of North Carolina and moved up the Eastern Seaboard on the morning of the 15th, resulting in another period of snowfall. Total accumulations included 8 inches in Highland County, 5 to 10 inches in Augusta County, 4 to 10 inches across Nelson County, 9.5 inches in Rockingham County, 7 to 12 inches in Page County, 5 to 10 inches in Shenandoah County, 5 inches in Warren and Clarke County, 5 to 8 inches in Frederick County, 3 to 9 inches in Loudoun County, 2 to 6 inches in Western Fairfax County, 3 to 5 inches in Northern Fauquier County, 2 to 3 inches in Rappahannock County, 2 inches in Madison and Greene County, and less than 2 inches elsewhere. The snowfall led to several car accidents and three deaths in the Washington D.C. suburbs. Two people were killed in a car accident on Route 28 near Dulles Airport in Loudoun County and a motorist was hit by a car while clearing snow from his vehicle in Arlington. Several wrecks were reported on Interstate 81 in Shenandoah County. Over 40 accidents occurred in Augusta County during the storm.

WEST VIRGINIA, East

**Berkeley County
Martinsburg**

03	1741EST								
				0	0	10K			Lightning

Lightning strike disabled Berkeley County 911 Communication Tower

**Berkeley County
Tablers**

03	1831EST								
				0	0	5K			Thunderstorm Wind

Power lines downed on U.S. 11 South near Tablers Station Road

**Berkeley County
Martinsburg**

03	1835EST								
				0	0	10K			Thunderstorm Wind

Power lines and transformers downed

**Berkeley County
Falling Waters**

03	1842EST								
				0	0				Thunderstorm Wind (G51)

**Jefferson County
Charles Town**

03	1850EST								
				0	0	3K			Thunderstorm Wind

Power lines downed and chimney on house blown over

WVZ048>049-051>052

Grant - Mineral - Morgan - Berkeley

03	1900EST								
04	0800EST			0	0				Winter Storm



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property
							Crops

WEST VIRGINIA, East

WVZ050-053>055	Hampshire - Jefferson - Pendleton - Hardy						
	03 1900EST				0	0	Winter Weather
	04 0800EST						

Berkeley County Martinsburg							
	03 1947EST				0	0	5K Lightning

Lightning strike ruptured gas line and exposed electrical wires at a home

A low pressure system moved from West Virginia to Pennsylvania on the evening of the 3rd. This system produced sustained winds of 25 to 40 MPH from the afternoon of the 3rd through the morning of the 4th. A cold front associated with the system moved through during the early evening and produced a line of thunderstorms that brought heavy rain, small hail, and wind gusts in excess of 55 mph to the Eastern Panhandle. In Berkeley County, lightning struck the 911 Central Dispatch communication tower in Martinsburg, resulting in a service disruption. A lightning strike also ruptured a gas line and exposed electrical wires at a home east of Martinsburg. Power lines were downed on U.S. Highway 11 South near Tabler Station Road, and 1,200 customers lost power as a result. A wind gust of 59 MPH was recorded in Falling Waters. Jefferson County reported downed power lines and the chimney of a home blown over on South Childs Road. After the cold front passed, temperatures dropped rapidly and rain turned to snow. Pendleton and Jefferson County reported 2 inches of accumulation, Grant County reported 15 inches in the highest elevations to only 1 inch near the Hardy County border, Hardy County reported 1 to 3 inches, Mineral and Morgan County reported 5 inches, and Hampshire County reported 1 inch. The combination of winds and snowfall made travel difficult during the early morning of the 4th.

WVZ048	Grant						
	06 0200EST				0	0	Winter Weather
	1200EST						

A fast moving storm system travelled across the Appalachian Mountains and tracked along the Mason-Dixon line on the morning of the 6th. This disturbance produced light to moderate snow across the Eastern Panhandle from early morning through midday. The town of Bayard received 3.5 inches of accumulation, and Keyser received 2.2 inches.

WVZ048>055	Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy						
	09 0200EST				0	0	Winter Storm
	2359EST						

An area of low pressure moved from the Ohio Valley to North Carolina from late on the 8th through the evening of the 9th. Heavy snow fell across much of the Eastern Panhandle as the storm system moved through. Snowfall rates were occasionally in excess of 1 1/2 inch per hour. By the evening of the 9th, between 8 and 12 inches of snow had accumulated in Mineral, Hampshire, Grant, and Hardy County; 6 to 10 inches fell across Jefferson and Southern Berkeley County; and 4 to 8 inches fell across Morgan, Northern Berkeley, and Pendleton County. Travel was treacherous across the region. Several accidents occurred on Interstate 81 in Berkeley County, including one fatal crash near Falling Waters around noon. Jefferson County reported 5 accidents and difficult driving conditions on Blue Ridge Mountain.

WVZ048>055	Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy						
	14 0500EST				0	0	Winter Storm
	15 1200EST						

An area of low pressure over the Southeast U.S. produced snow across the Eastern Panhandle on the 14th. The low pressure system redeveloped off the coast of North Carolina and moved up the Eastern Seaboard on the morning of the 15th, resulting in another period of snowfall. Total accumulations included 12 to 14 inches in Mineral County, 9 to 15 inches in Berkeley County, 9 to 11 inches in Hampshire County, 8 to 11 inches in Grant County, around 8 to 10 inches in Morgan County, 5 to 7 inches in Hardy County, 6 to 8 inches in Pendleton County, and around 6 inches in Jefferson County. The heavy snow made travelling difficult. Seven accidents were reported in rapid succession on Interstate 81 in Berkeley County during a 30 minute period on the 14th. Another accident in Berkeley County on West Virginia Route 9 and Rock Cliff Drive involved six cars and left two injured.