National Weather Service
Storm Data and Unusual Weather Phenomena

February 1998

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

DISTRICT OF COLUMBIA

DCZ001 — **District Of Columbia**

04 0800EST / 2000EST — 0 — 0 — **Gusty Winds**

District Of Columbia
Northwest Portion

04 1200EST
05 1200EST — 0 — 0 — **Flood**

A powerful nor'easter, laden with abundant tropical moisture from the Gulf of Mexico and the Caribbean, dumped between 2 and 4 inches of rain across the Washington DC metropolitan region from early morning of the 4th through late evening on the 5th. In the city itself, storm totals ranged from 2 to 3 inches, with Reagan National Airport (DCA) recording 2.47 inches. The 2.01 inches that fell on the 4th shattered the 66 year old record of 1.61 inches for the date. Accompanying the rain were north to northeast winds which reached sustained values of 25 to 35 mph and gusted to 45 mph.

Routine flooding, especially given the already saturated soil, caused portions of Rock Creek to exceed bankful and closed the adjacent Rock Creek Parkway for various lengths of time on the 4th and 5th. The gusty winds may have uprooted a few trees and knocked some limbs down. Power outages were scattered around the metropolitan region.

DCZ001 — **District Of Columbia**

17 1300EST / 1700EST — 0 — 0 — **Gusty Winds**

The gradient between developing low pressure over the southeast U.S. and departing strong high pressure over New England produced east winds which increased to 25 to 35 mph, with gusts to 40 mph, during the afternoon. The winds resulted in scattered tree and power line damage, causing some customers to lose electricity. No substantial property damage was reported.

DCZ001 — **District Of Columbia**

24 1200EST / 1700EST — 0 — 0 — **Gusty Winds**

An intensifying storm off the middle Atlantic coast produced sustained winds of 25 to 35 mph with frequent gusts between 40 and 45 mph over the Washington DC metropolitan region during the afternoon. Winds gradually diminished after sunset; a combination of the departing storm and the loss of daytime heating. Scattered tree, limb, and power line damage may have occurred as well.

MARYLAND, Central

MDZ002>003 — **Allegany - Washington**

04 0600EST
05 1800EST — 0 — 0 — **5K** — **Winter Storm**

A powerful nor'easter, laden with deep moisture from the Gulf of Mexico and the Caribbean, produced a prolonged period of mixed snow, sleet, freezing rain, and rain across northwestern Maryland. As had been the case with previous events, snow totals varied greatly with elevation. For example, barely an inch of snow fell in Hagerstown (MDZ003) before precipitation changed to rain. However, immediately west, between 3 and 5 inches fell from Clear Spring to Hancock. Accumulation increased dramatically with elevation in Allegany Co. In the Cumberland area, 6 to 8 inches fell, but accumulations increased to 12 inches in Frostburg with an estimated 16 to 20 inches along nearby ridge tops.

Calvert County
Countywide

04 0800EST
05 1400EST — 0 — 0 — **30K** — **Flood**

Charles County
Countywide

04 0800EST
05 1400EST — 0 — 0 — **25K** — **Flood**

MDZ004>007-009>011-013>014-016>018 — **Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore - Prince Georges - Anne Arundel - Charles - St. Mary'S - Calvert**

04 0800EST / 2000EST — 0 — 0 — **145K** — **200K** — **Gusty Winds**

MDZ014-016>018 — **Anne Arundel - Charles - St. Mary'S - Calvert**

04 0800EST
05 1400EST — 0 — 0 — **650K** — **Coastal Flooding**

St. Mary'S County
Countywide

04 0800EST
05 1400EST — 0 — 0 — **50K** — **Flood**

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									
Anne Arundel County									
Countywide	**04** **05**	**1000EST** **1400EST**			**0**	**0**	**10K**		**Flood**
Prince George'S County									
Countywide	**04** **05**	**1000EST** **1400EST**			**0**	**0**	**5K**		**Flood**
Washington County									
East Portion	**04** **05**	**1400EST** **1400EST**			**0**	**0**	**5K**		**Flood**

A powerful nor'easter, carrying copious moisture from the Gulf of Mexico and Caribbean region, dumped between 2 and 4 inches of rain across much of Maryland between the foothills and the Chesapeake Bay. Highest totals, ranging from 3 to 5 inches, fell in lower southern Maryland, causing widespread flooding of low lying areas and small streams and creeks. The nor'easter, coming on the heels of one just a week earlier, caused tides of 3 to 4 feet above normal from the Calvert Co/Anne Arundel Co line south to Point Lookout in extreme southeastern St Mary's Co; and along the lower tidal Potomac River along the Charles and St Mary's shoreline, including Cobb Island and St George Island. A daily rainfall record was broken at Baltimore/Washington International Airport (BWI); the 1.65 inches that fell on the 4th broke the 78 year-old Baltimore area mark of 1.48 inches.

Flooding was most pronounced in St Mary's Co. During the peak of the storm, 26 roads were closed due the combination of wind and rain. Nine roads were closed due to flooding alone. State thoroughfares affected included routes 5, 237, 238, 243, and 271.

Evacuations were initiated in Great Mills and on St George Island due to rapid increases in tide levels. At least 200 residents were evacuated, including one 3 year-old boy who required a water rescue. Four fire fighters were treated for hypothermia at St Mary's hospital. Some cars were nearly submerged in low-lying areas. In the Golden Beach neighborhood, Lake White overspilled its banks, and poor drainage contributed to the misery. The dam at St Mary's Lake held; overflow problems were minimal.

The sewage system serving Lexington Park failed due to the abnormally heavy flow of water which caused manholes to flood. For example, the treatment plant, which normally has a flow of 3.5 million gallons in a two-day period, had a flow of nearly six times that much (18 million gallons) on the 4th and 5th. Schools closed at noon on the 4th and didn't reopen until the 6th.

Other minor sewage backups were reported farther north in Frederick and Carroll Cos.

Inland flooding was less extensive in Charles and Calvert Cos, but a problem nonetheless. In Charles Co, 25 roads were closed at the peak of the flooding; numerous vehicles were reportedly stranded throughout the county. Hydrologic observers recorded up to 4 1/2 inches of rain. Coastal flooding forced evacuations of Cobb Island; the island was cutoff from the mainland at around 0700EST on the 5th, with conditions returning to normal by 1600EST.

Other coastal flooding affected Calvert Co, from Solomons Point to North Beach. The moderate flooding extended into extreme southern Anne Arundel Co just north of North Beach. Local officials in North Beach noted that up to one-half of the beach was pushed southward by the pounding waves; an outfall was trapped open by the action of the shifting sand, causing Bay water to inundate local roads and some establishments. The degree of erosion was greater than that associated with the remnants of hurricane Fran in 1996.

Minor flooding affected the Annapolis City Dock (MDZ014), but sandbags protected most establishments. Around 1 foot of water covered the dock area.

Other flooding across the state closed seven roads in Anne Arundel Co. Across Washington Co, especially in and near Hagerstown, early snow quickly changed to heavy rain. Minor flooding closed at least a dozen secondary and tertiary roads, and numerous basements were flooded. Only minor flooding was observed in the remaining counties east of the mountains.

The heavy rains may have contributed to an automobile accident in Westminster (Carroll Co) where three persons were killed in the two vehicles involved.

The storm was accompanied by gusty winds, especially over and east of the piedmont. In general, sustained winds averaged 25 to 35 mph, except 30 to 40 mph along the coastal plain. Wind gusts likely exceeded 50 mph along the coastal plain, especially on the immediate shoreline of the Bay and tidal Potomac River. Dozens of trees fell, many onto local roadways. In Charles Co alone, eighty trees and large limbs were reported down, thirty on Cobb Island. Other road closures in St Mary's, Calvert, Anne Arundel, and southeastern Prince George's Co were due to fallen trees or limbs. The combination of BG&E, PEPCO, and SMECO reported nearly 15,000 customers without power at the height of the storm. Four thousand customers were affected in St Mary's, 5000 in Anne Arundel, 1793 in Calvert, and 1550 in southeastern Prince George's and Charles Cos. Two homes in the Severna Park (MDZ014) area received minor structural damage from fallen trees. In Montgomery Co, a new football scoreboard was blown down at a Germantown high school. A tractor-trailer flipped over along interstate 70 in western Frederick Co (MDZ004) near the Myersville exit (S.R. 17).

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

MDZ005>007-009>011-013>014 — **Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore - Prince Georges - Anne Arundel**

17	1300EST	0	0	25K			Gusty Winds
	1700EST						

The gradient between developing low pressure over the southeast U.S. and departing strong high pressure over New England produced east winds which increased to 25 to 35 mph with frequent gusts to 45 mph during the afternoon. The winds produced scattered tree and power line damage, causing an estimated 5000 customers in the Baltimore/Washington metropolitan region to be without electricity. An individual feeder line in northeastern Howard Co (MDZ010) was struck by a tree, knocking out power to an additional 10,000 customers. No substantial property damage was reported.

Charles County

La Plata

17	2310EST	0	0				Hail (1.00)

A line of strong to severe thunderstorms moved through lower southern Maryland in association with the passage of a warm front followed by an occluded front. Nickel to quarter sized hail fell just north of La Plata.

MDZ002 — **Allegany**

23	1500EST	0	0				Snow
24	0400EST						

Low pressure over the southeast U.S. combined with just enough cold air along and just east of the Appalachian Mountains to produce light to moderate snow across Allegany Co during the afternoon and overnight hours spanning the 23rd and 24th. As with previous events, elevation made a large difference in total accumulation. For example, while nearly 4 inches fell at Sideling Hill just west of Hancock, only 1 to 3 inches fell in Barton, LaVale, and Cumberland. Highest totals (4 inches or more) fell in Frostburg and nearby higher terrain.

MDZ004 — **Frederick**

24	0700EST	0	0	50K			High Wind

Channelling high winds slammed into west central Frederick Co along Jefferson Pike, causing substantial damage to an established home. Damage included half a roof ripped off of a 20 by 40 foot garage; concrete blocks were zipped off of one garage wall. Siding was stripped from one wall of the house; two parked automobiles sustained minor damage from wind-driven debris.

MDZ002>007-009>011-013>014-016>018 — **Allegany - Washington - Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore - Prince Georges - Anne Arundel - Charles - St. Mary'S - Calvert**

24	1200EST	0	1	70K			Gusty Winds
	1700EST						

An intensifying storm off the middle Atlantic coast produced sustained northwest winds of 25 to 32 mph with frequent gusts in excess of 40 mph over all of Maryland west of the Bay during the afternoon. Winds gradually diminished after sunset; a combination of the departing storm and the loss of daytime heating. There was one instance of substantial property damage. In Owings Mills (MDZ006), an unfinished townhouse collapsed as the walls were being constructed. One worker suffered facial abrasions; he had just walked out of the building but was briefly trapped underneath fallen walls. Another carpenter escaped unharmed. Scattered tree, limb, and power line damage likely occurred as well.

VIRGINIA, North

VAZ021-025>031 — **Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke**

04	0400EST	0	0	3K			Winter Storm
05	2000EST						

VAZ025>031-036>042 — **Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun**

04	2200EST	0	0	125K	1.2M		Ice Storm
05	2200EST						

A powerful nor'easter, laden with deep moisture from the Gulf of Mexico and the Caribbean, produced a prolonged period of mixed snow, sleet, freezing rain, and rain across the northwest corner of Virginia. As had been the case with previous events, snow totals varied greatly with elevation. In most of the lower terrain, between 4 and 6 inches accumulated. Local high spots, such as Harrisonburg (VAZ026) and Waynesboro (VAZ025) received between 6 and 8 inches. Elevations above 2000 feet in the Shenandoah Mountains received between 8 and 16 inches of snow.

One person perished from a heart attack while shoveling snow in Harrisonburg (VAZ026). The combination of heavy wet snow, and rain falling on top of it, caused a 50 by 80 foot area of roof to collapse at a food storage and distribution center in Lynnhurst (VAZ025). Considerable damage was sustained at a home in Waynesboro when a tree, weighed down by snow and ice, fell onto the roof causing a partial collapse. In Highland Co (VAZ021), 50 roads were closed due to blowing and drifting snow; some of the drifts were as high as 6 feet. The weight of the snow caused isolated power outages.

The snow changed to a cold rain in lower elevations after noon on the 4th. The combination of wet snow, an old snow pack, and moderate rains produced local street flooding in Waynesboro and Staunton (VAZ025). There were scattered power outages as

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

VIRGINIA, North

well - in Augusta Co (VAZ025), a reported 6000 customers were without power; 3000 were due to a failed substation in Dayton.

Substantial ice accretion occurred at elevations above 2000 feet as surface temperatures remained just below freezing during moderate to heavy rains. The ice was 5 inches thick in some spots. The amount of ice accretion rivaled some of the fiercest storms in the past ten years, including those of the winter of 1993/94. Shenandoah National Park officials closed Skyline Drive for at least one week after the storm. In fact, park officials, employees, and volunteers spent the remainder of February clearing trees and debris. Damage was estimated to be $607 thousand in the Park alone. As of mid-April, there were still hundreds of trees to remove. Tens of thousands of trees and large limbs succumbed to the weight of the ice; the road itself was under at least 10 inches of ice and sleet. Power outages, though affecting relatively few customers in the high terrain, were widespread in those areas.

Other problems were noted farther north, in Clarke, Frederick, and Loudoun Cos (VAZ028-031-042). In northwestern Loudoun Co, over one hundred trees needed to be removed from local roadways; school buses were delayed in the same areas. Between 150 and 175 customers were without power in higher terrain areas of northwest Loudoun Co. In Nelson Co (VAZ036), the Wintergreen ski and recreational resort area was closed on the 5th due to ice accretion.

VAZ036>042-050>057 **Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George**

04 0800EST 2000EST **0** **0** **20K** **Gusty Winds**

Gradient flow between a large high pressure system over the Great Lakes region and the powerful nor'easter developing along the southeast U.S. coast produced sustained winds of 25 to 35 mph with frequent gusts in excess of 40 mph. Some gusts exceeded 50 mph, especially at higher elevations and along the coastal plain. Dozens of medium to large limbs and some whole trees were knocked down, most common across the upper northern neck region. Power outages were scattered but common throughout portions of the Commonwealth.

Though damage was not widespread, a barn was blown down along state route 151 in Roseland (VAZ036).

Albemarle County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**				**Flood**
Greene County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**		**5K**		**Flood**
King George County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**		**5K**		**Flood**
Madison County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**		**15K**		**Flood**
Nelson County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**		**10K**		**Flood**
Orange County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**				**Flood**
Spotsylvania County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**		**5K**		**Flood**
Stafford County								
Countywide	**04** **05**	**0900EST** **1400EST**	**0**	**0**		**10K**		**Flood**
Arlington County								
Countywide	**04** **05**	**1000EST** **1400EST**	**0**	**0**				**Flood**
Culpeper County								
Countywide	**04** **05**	**1000EST** **1400EST**	**0**	**0**		**10K**		**Flood**

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

VIRGINIA, North

Fairfax County
Countywide — **04 1000EST; 05 1400EST** — **0** — **0** — **2K** — **Flood**

Prince William County
Countywide — **04 1000EST; 05 1400EST** — **0** — **0** — **7K** — **Flood**

Rappahannock County
Countywide — **04 1000EST; 05 1400EST** — **0** — **0** — **5K** — **Flood**

Fauquier County
Countywide — **04 1100EST; 05 1400EST** — **0** — **0** — **15K** — **Flood**

Loudoun County
Countywide — **04 1100EST; 05 1400EST** — **0** — **0** — **20K** — **Flood**

Clarke County
Countywide — **05 0800EST; 1400EST** — **0** — **0** — **10K** — **Flood**

Frederick County
Countywide — **05 0800EST; 1400EST** — **0** — **0** — **10K** — **Flood**

Page County
Countywide — **05 0800EST; 1400EST** — **0** — **0** — **5K** — **Flood**

Shenandoah County
Countywide — **05 0800EST; 1400EST** — **0** — **0** — **15K** — **Flood**

Warren County
Countywide — **05 0800EST; 1400EST** — **0** — **0** — **5K** — **Flood**

A powerful nor'easter, carrying copious moisture from the Gulf of Mexico and the Caribbean, dumped between 2 and 4 inches of rain, with up to 5 1/2 inches at some higher elevations in the Blue Ridge, onto already saturated soil from previous events. Widespread minor to moderate flooding was the result. The flooding began later west of the Blue Ridge, since the precipitation began initially as snow. Hundreds of roads were closed mainly due to overflowing small streams and creeks, as well as high standing water. Some counties with high total road closures included Fauquier (36), Culpeper (29), Prince William (27), Loudoun (25), and Shenandoah (20).

Numerous roads were also closed farther east; in the Stafford/Spotsylvania/southern Prince William area, the dam at Lake Jackson was reported to be 6.85 feet above flood stage. Measured storm total rainfall at the Quantico Marine Corps station was 4.22 inches. Daily rainfall records were broken at Dulles International Airport (IAD - Loudoun Co) on the 4th and 5th. On the 4th, 2.16 inches fell; on the 5th, an additional 0.46 inches fell.

Several water rescues were required on the 4th when vehicles stalled or began to float away. A woman drowned in Clarke Co after being driven into flood waters along the Shenandoah River. The reason for her death was under investigation. A vehicle driven into Page Brook (Clarke Co) became stranded, forcing a water rescue. In parts of Augusta Co, where moderate rains fell onto 4 to 6 inches of wet snow, numerous roads became clogged and flooded; 75 National Guard troops were called in for assistance. Clogged drainage systems also became a problem, leading to sewage backups and waste water dumping into the Shenandoah River.

Several school districts closed for all or a portion of the 4th and 5th due to the widespread minor flooding and continued threat of heavy rain.

Alexandria (C)
Alexandria — **04 1400EST; 05 1400EST** — **0** — **0** — **1K** — **Tidal Flooding**

The nor'easter which pummeled the middle Atlantic coastline for nearly 48 hours caused water to back up in the Chesapeake Bay and tidal Potomac River. That, in combination with continued wave action, produced tides at least 2 feet above normal near Alexandria. Minor flooding was noted along the waterfront, including Prince Street, lower King Street, and Union Street. Damage was minimal since advance warning allowed business owners to cover flood-prone areas with sand bags.

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

VIRGINIA, North

VAZ021-025>026 **Highland - Augusta - Rockingham**

06 **0700EST** **0** **0** **Snow**
1100EST

Residual low- and mid-level atmospheric forcing associated with a disturbance moving out of the Ohio Valley produced a stripe of moderate snow across the central Shenandoah Valley during the morning of the 6th. Accumulations ranged from 2 to 3 inches, with local high spots receiving up to 4 inches.

Augusta County
East Portion **17** **1000EST** **0** **0** **10K** **Flood**
1600EST

Greene County
Countywide **17** **1000EST** **0** **0** **2K** **Flood**
1700EST

Madison County
Countywide **17** **1000EST** **0** **0** **10K** **Flood**
1700EST

Page County
South Portion **17** **1000EST** **0** **0** **2K** **Flood**
1600EST

Rockingham County
East Portion **17** **1000EST** **0** **0** **5K** **Flood**
1600EST

Culpeper County
Countywide **17** **1100EST** **0** **0** **10K** **Flood**
2100EST

Fauquier County
Countywide **17** **1100EST** **0** **0** **Flood**
2100EST

Orange County
West Portion **17** **1100EST** **0** **0** **5K** **Flood**
2100EST

Rappahannock County
Countywide **17** **1100EST** **0** **0** **2K** **Flood**
1700EST

VAZ042-052>054 **Loudoun - Prince William - Fairfax - Arlington**

17 **1300EST** **0** **0** **2K** **Gusty Winds**
1700EST

Alexandria (C)
Alexandria **17** **2000EST** **0** **0** **2K** **Tidal Flooding**
2300EST

Intensifying low pressure, containing abundant moisture from the Gulf of Mexico, moved along the Appalachian Mountains during the late morning and afternoon of the 17th. The system, which entrained tropical air, dumped between 1 and 2 inches of rain in valleys and between 3 and 3 1/2 inches in the mountains. The rain, falling onto saturated soil from previous storms, caused minor flooding of creeks and streams in portions of the western Virginia piedmont and the Shenandoah Valley. There was at least one confirmed water rescue, occurring on Christians Creek (Augusta Co) near the town of Verona. A daily rainfall record was broken at IAD (Loudoun Co); 1.36 inches fell.

As the storm system moved north of the region, most of the rain ended. However, a thin line of showers and thunderstorms developed after 1600EST along and just east of the Blue Ridge and remained nearly stationary for several more hours, dumping additional rains of nearly an inch across portions of Orange and Culpeper Cos. The additional rainfall maintained flooding conditions in these areas. One Orange Co location reported a storm total of 3.5 inches.

Flooding in Culpeper Co closed 20 roads, though some were along the Rapidan River along the southern border. In Waynesboro (Augusta Co), eight streets were flooded due to high standing water.

The gradient between the low and a fairly strong high pressure area over New England caused east winds to increase to 30 to 35 mph with brief gusts in excess of 45 mph over a small area of northern Virginia encompassing the suburbs of Washington, DC. Damage was relatively minor, consisting of fallen wires, and a few small trees and limbs. The same easterly flow sloshed the tidal Potomac River up its slim channel near Washington, DC, and caused a brief period of minor flooding in Old Town Alexandria during the evening high tide.

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

VIRGINIA, North

Spotsylvania County

2.5 S Snell to Massaponax	**17**	**2113EST 2127EST**			**0**	**0**	**2K**		**Hail (2.00)**

Spotsylvania County

2.5 S Snell to Massaponax	**17**	**2115EST 2129EST**	**8**	**300**	**0**	**0**	**75K**	**30K**	**Tornado (F1)**

A tornadic thunderstorm raced through Spotsylvania Co during the evening of the 17th, knocking down dozens of trees and causing minor property damage along its path. The tornado touched down one mile south of Blades Corner, then tracked northeast, passing by the town of Snell before curving to the north as it roughly paralleled federal highway 1 before dissipating in the Brentwood area.

Numerous trees were uprooted and snapped along the twister's path. Soft ground from copious winter rainfall likely aided in knocking down more trees than would normally have fallen. Some roofs were partially torn off homes, outbuildings, and barns. Some outbuildings and barns were levelled. One unfastened trailer was picked up, driven 150 feet, and smashed against some trees. Peripheral property damage included antennas, fences, signs, as well as roof trim, sidings, and gutters. Thankfully, major property damage did not occur and there were no injuries or fatalities.

The storm, a mini-supercell, exhibited characteristics of larger midwestern supercells; residents recalled increasing rain followed by large hail, ranging in diameter from 1 to 2 inches, then culminating with the roar of the wind from the approaching tornado.

VAZ021 **Highland**

	23	**1500EST**			**0**	**0**			**Winter Storm**
	24	**0400EST**							

VAZ025>028 **Augusta - Rockingham - Shenandoah - Frederick**

	23	**2000EST**			**0**	**0**			**Snow**
	24	**0200EST**							

An area of low pressure moving along the middle Atlantic coastline produced a swath of snow across much of northern Virginia west of the Blue Ridge. Similar to previous episodes, accumulation was highly dependent on elevation. In general, 2 to 4 inches accumulated in Rockingham and Augusta Cos (VAZ025>026), with the highest totals over the mountains to the west and east. One to three inches accumulated across Shenandoah and Frederick Cos (VAZ027>028), though 4 to 8 inches fell across the higher mountains over the east and west portions of Frederick Co and the west portion of Shenandoah Co. A report of 9 inches was received from Blue Ridge Mountain on the Clarke-Frederick Co line. Four inches accumulated along the higher elevations of Skyline Drive; about an inch fell in the valleys just west of Skyline Drive. Farther west, in Highland Co, an average of 6 inches fell.

VAZ021-025>031-036>042-050>057 **Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George**

	24	**1200EST 1700EST**			**0**	**0**	**10K**		**Gusty Winds**

An intensifying storm off the middle Atlantic coast produced sustained northwest winds of 25 to 32 mph with frequent gusts in excess of 40 mph over all of northern Virginia during the afternoon. Winds gradually diminished after sunset; a result of the departing storm and the loss of daytime heating. According to news accounts, property damage was minimal, likely consisting of isolated fallen power lines (need final stuff from Virginia Power). The combination of wind and saturated soil caused scattered trees and limbs to fall. Minor shingle damage was reported in western Fairfax Co (VAZ053).

WEST VIRGINIA, East

WVZ048>055 **Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Pendleton - Hardy**

	04	**0600EST**			**0**	**0**	**12K**		**Winter Storm**
	05	**1400EST**							

A powerful nor'easter, laden with tropical moisture from the Gulf of Mexico and Caribbean, dumped moderate to heavy snow across all of eastern West Virginia beginning early on the 4th. In the eastern Panhandle (VAZ051>053), the snow changed to rain by midday over most areas, with the exceptions being locations above 1500 feet, where a mix of snow and freezing rain continued well into the 5th. In the Potomac Highlands, precipitation remained a mix of rain, sleet, and snow at lower elevations throughout the event. However, above 1500 feet in the Highlands, mainly snow fell.

Accumulations were highly dependent on elevation. For example, elevations in and near the town of Petersburg (WVZ048) range roughly from 500 to 1000 feet (not including surrounding mountains). One resident, living at an elevation of around 600 feet, reported 6 inches early on the 5th; a nearby neighbor whose elevation was closer to 1000 feet reported 10 inches. In general, 4 to 8 inches fell below 1000 feet; 8 to 12 inches fell from 1000 to 1500 feet, and 12 to 20 inches fell above 1500 feet.

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

WEST VIRGINIA, East

Scattered power outages and fallen trees likely occurred throughout the Potomac Highlands, with problems most prevalent in the higher mountains.

Berkeley County

Countywide	**04** **05**	**1400EST** **1400EST**		**0**	**0**	**5K**		**Flood**

Jefferson County

Countywide	**04** **05**	**1400EST** **1400EST**		**0**	**0**			**Flood**

Moderate rain, falling on top of 3 to 6 inches of snow, produced areas of flooding across the eastern panhandle late on the 4th and continuing through the afternoon of the 5th. In Berkeley Co, 4 secondary roads closed; 9 closed in Jefferson Co. A Berkeley Co resident was stranded in his pickup truck while attempting to cross a bridge; a mobile home shifted on the mud in Cascade.

WVZ051	**Morgan**							
	23 **24**	**1400EST** **0200EST**		**0**	**0**			**Snow**
WVZ048>050-054>055	**Grant - Mineral - Hampshire - Pendleton - Hardy**							
	23 **24**	**1500EST** **0400EST**		**0**	**0**			**Winter Storm**

An area of low pressure moving along the middle Atlantic coastline produced a swath of moderate to heavy snow across the Potomac Highlands of West Virginia. Similar to previous episodes, accumulation was highly dependent on elevation. In general, around 4 inches fell in valleys. However, along the east-facing slopes of the Allegheny Divide, between 8 and 12 inches fell. A small area of less than four inches fell in western Hampshire and extreme northeastern Mineral Cos (WVZ049>050).

WVZ050>053-055	**Hampshire - Morgan - Berkeley - Jefferson - Hardy**							
	24	**1200EST** **1700EST**		**0**	**0**			**Gusty Winds**

An intensifying storm off the middle Atlantic coast produced sustained winds between 25 and 32 mph with brief gusts in excess of 40 mph over portions of eastern West Virginia during the afternoon. Highest winds were likely at elevations above 2000 feet where gusts to near 50 mph may have occurred. Winds gradually diminished after sunset; a combination of the departing storm and the loss of daytime heating. Scattered tree and limb damage most likely occurred at higher elevations.