



		Time	Path	Path	Numb		Estimated	November 2003
Location	Date	Local/ Standard	Length (Miles)	Width (Yards)	Pers Killed	sons Injured	Damage Property Crops	Character of Storm
ATLANTIC NORTH								
ATEANTIC NORTH								
ANZ532	Chesa	peake Bay Sand	y Pt To N Bea	ach Md				
4 SE Annapolis	13	0750EST			0	0		Marine Tstm Wind (MG42)
ANZ531		peake Bay Poole	s Is To Sandy	Pt Md				M . T. W. 10500
Millers Island	19	1430EST	:a	II J M J	0	0		Marine Tstm Wind (MG36)
ANZ535 Washington Dc	110ai i	Potomac Key Br 1430EST	iage 10 mais	ili Ha Ma	0	0		Marine Tstm Wind (MG35)
ANZ532 North Beach	Chesa _]	peake Bay Sand 1436EST	y Pt To N Bea	ach Md	0	0		Marine Tstm Wind (MG40)
North Beach			ere thundersto	rms moved a	cross the Po		d the Bay on the 19t	h. These storms were ahead of a strong
	cold fr	ont. The storms p	produced gust	y winds and j	periods of h	eavy down	pours.	
ANZ531	Chesa	peake Bay Poole	s Is To Sandy	Pt Md				
Tolchester Beach	24	1959EST			0	0		Marine Tstm Wind (MG40)
ANZ532		peake Bay Sand	y Pt To N Bea	ach Md				
North Beach	24	2000EST			0	0		Marine Tstm Wind (MG36)
ANZ534 Solomons Island	Chesa ₁	peake Bay Drun 2027EST	1 Pt To Smith	Pt Va	0	0		Marine Tstm Wind (MG35)
ANZ534		peake Bay Drun	ı Pt To Smith	Pt Va	v	v		Marine 13th White (1965)
Patuxent River Nas	24	2030EST	110 10 51110		0	0		Marine Tstm Wind (MG39)
ANZ533	Chesa	peake Bay N Bea	ach To Drum	Pt Md				
12 E Plum Pt to Plum Pt	24	2030EST			0	0		Marine Tstm Wind (MG38)
ANZ537	Tidal l	Potomac Cobb I	s Md To Smit	th Pt Va				
Lewisetta	24	2042EST			0	0		Marine Tstm Wind (MG39)
	A stro	ng cold front mo	ved through th	ne region on	the 24th. A	few thund	lerstorms preceded t	he front with stronger winds behind the
ANZ534	Chesa	peake Bay Drun	ı Pt To Smith	Pt Va				
Patuxent River Nas	24	2030EST			0	0		Marine Tstm Wind (MG39)
ANZ531		peake Bay Poole	s Is To Sandy	Pt Md				
Millers Island	28	1745EST			0	0		Marine Tstm Wind (MG36)
ANZ534 10 NE Point Lookout	Chesa ₁ 28	peake Bay Drun 1930EST	1 Pt To Smith	Pt Va	0	0		Marine Tstm Wind (MG48)
ANZ534		peake Bay Drun	n Pt To Smith	Pt Va	v	v		Marine 1stin Wind (MO40)
11 N Crisfield	28	2000EST	i i i i o omini		0	0		Marine Tstm Wind (MG36)
							_	gh the region on the 28th.
	Some	of the storms pro	duced some st	rong winds a	is the front a	accelerated	across the Potomac	River and the Chesapeake Bay.
ANZ534		peake Bay Drun	n Pt To Smith	Pt Va				M : T : W 105040
Point Lookout	28	1915EST			0	0		Marine Tstm Wind (MG43)
DISTRICT OF COLU	MBIA							
DCZ001	Dietric	t Of Columbia						
DCZUUI	13	0400EST			0	2	5K	Strong Wind (MG43)
	A etro	1700EST	ved through th	ne region ear	ly on the 13		frioid temperatures	and strong winds. Widespread damage

A strong cold front moved through the region early on the 13th, leaving frigid temperatures and strong winds. Widespread damage due to downed trees and power lines were reported throughout the District of Columbia. Two men were injured when debris from a torn roof fell on them.



Montgomery County

05

Germantown

National Weather Service Storm Data and Unusual Weather Phenomena



November 2003 Time Local Path Length Path Number of Estimated Width Persons Damage DISTRICT OF COLUMBIA **District Of Columbia** Countywide 1800EST Flash Flood 2000EST Some streets were closed due to high, standing water. A line of strong to severe thunderstorms moved across the region on the 19th. These storms preceded a cold front and produced gusty, damaging winds and heavy rainfall. Rainfall amounts averaged 2 to 4 inches. Some streets in and around the District were closed due to high water. MARYLAND, Central **MDZ009** Montgomery 0 Dense Fog Dense fog caused a 19 car pile up on Interstate-70 near Woodbine Road **Montgomery County** 1500EST Poolesville 0 0 Lightning Four people were affected by lightning while on a golf course in Poolesville. Only the caddy was hospitalized for being struck by lightning. The others were checked on the site because they felt a tingling sensation. **Montgomery County** Poolesville 75 0.50KTornado (F0) 05 A weak tornado entered Montgomery County, Maryland from Loudoun County, Virginia. The tornado tracked across mostly rural areas near Turtle Run Campgrounds, just southwest of Poolesville. **Montgomery County Boyds** 75 200K Tornado (F1) A tornado moved from just west of Poolesville to the Rickman Horse Farm Complex to near Boyds. **Montgomery County Poolesville** 1515EST 0 0 10K Thunderstorm Wind (EG52) The roof was blown off a house.

A tornado moved into western Germantown and caused widespread damage.

7

100

0

A tornadic thunderstorm produced a pair of weak tornadoes across Northern Virginia before crossing into Maryland on the 5th. Once in Maryland the tornadoes cycled across a 14 mile path from just southwest of Poolesville to Germantown. Substantial damage was done to permanent structures and dozens of trees at the Rickman Horse Farm Complex near Bucklodge and Moore Roads. Homes were also damaged near Boyds, with the storm finally moving into Western Germantown where it produce widespread tree damage and major damage to several town homes in the Kingsville Ridge, North Germantown, and Germantown Estates subdivisions.

1M

Tornado (F1)





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)		ber of sons Injured		nated nage Crops	November 2003 Character of Storm
MARYLAND, Centra	<u>l</u>								
Howard County									
2 E Columbia	05 A ver	1555EST ry large tree was know	cked down.		0	0	0.25K		Thunderstorm Wind (MG50)
Baltimore City (C)									
Baltimore	05 Large	1615EST tree downed.			0	0	0.25K		Thunderstorm Wind (MG50)
Anne Arundel County									
Countywide	05 Trees	1620EST downed across the c	ounty.		0	0	2K		Thunderstorm Wind (EG50)
Montgomery County									
Bethesda	05	1730EST 1930EST			0	0			Flash Flood

Sections of roads flooded.

A line of strong to severe thunderstorms developed ahead of an approaching cold front on the 5th and caused widespread wind damage and some flash flooding from Northern Virginia to Eastern Maryland. Flash flooding was reported on Beech Drive in Bethesda. Over 2 inches of rain fell in some locations.

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

A strong cold front moved through the region early on the 13th, leaving frigid temperatures and strong winds. Widespread damage due to downed trees and power lines resulted. In Prince Georges County, one fatality was reported in Hyattsville when a wall at a construction site collapsed and pinned a worker underneath it. A second wall collapsed in Bowie at a department store. The strong winds also overturned an empty trailer truck in Anne Arundel County. The driver had minor injuries. Another truck was also overturned in Frederick County on US Highway 15. A large recreational/housing tent (26,000 sq ft) was destroyed at Fort Meade. The tent was valued at 150,00 dollars. Later a crane was blown off the Woodrow Wilson Bridge and onto a barge in the Potomac River. No injuries were reported from the crane incident and the damage was superficial. At the height of the storm about 150,000 homes and business in Maryland were without power.

MDZ013	Prince 13 M340	e Georges 0400EST 1700EST	1	0	70K	Strong Wind (EG43)
Allegany County Westernport	19	1130EST 1330EST roads closed due to high water	0	0		Flash Flood
Carroll County Uniontown	19 A tree	1245EST efell on a portable classroom at	0 Carroll High School.	0	7K	Thunderstorm Wind (EG50)
Carroll County Eldersburg	19 Large	1320EST tree downed.	0	0	0.25K	Thunderstorm Wind (EG50)
Harford County Fallston	19 Down	1425EST ed trees.	0	0	0.50K	Thunderstorm Wind (MG50)





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numbe Perso Killed	ons	Estimated Damage Property Crops	November 2003 Character of Storm
MARYLAND, Central								
Harford County Fallston	19 A funn	1500EST el cloud was sp	ootted by an off	duty law enf	0 orcement of	0 ficer.		Funnel Cloud
Montgomery County Germantown	19 Parking	1600EST 2100EST g lots and garag	ges flooded.		0	0		Flash Flood
Montgomery County Poolesville	19 Severa	1600EST 2000EST l vehicles were	trapped in water	er.	0	0		Flash Flood
Frederick County Countywide	19 Numer	1700EST 2000EST ous roads close	d due to high w	vater.	0	0		Flash Flood
Howard County Columbia	19 Numer	1800EST 2100EST ous roads close	d due to high w	vater.	0	0		Flash Flood
Harford County Bel Air	A few and A line gusty, of downed Maryla three w	1820EST 2100EST side roads flood of strong to se damaging wind d trees and povend. Four death- workers were w	ded. vere thundersto s and heavy rai wer lines. The s were attribute ashed away wh	orms moved nfall. Rainfal heavy rainfal ed to flooding nile working i	l amounts av l led to flasi g in Baltimo in a storm d	veraged 2 to h flooding re City. A rain. Emerg	4 inches. Widesprea across the Potomac student drowned after	Flash Flood s preceded a cold front and produced d power outages were reported due to Highlands and Northeast and Central r falling into Herring Run Creek and cials also had to perform swift water nantown area.
Baltimore City (C) Baltimore		1417EST 1900EST and roads were U, M22OU, M3		ſ	4	0		Flash Flood
VIRGINIA, North								
Fauquier County Upperville	05 A tree	1448EST and power lines	s down at Route	e 50 and Gree	0 en Garden Ro	0 oad.	0.50K	Thunderstorm Wind (MG52)
Fairfax County Vienna	05 Floode	1700EST 1930EST d streams and r	oads lead to wa	ater rescues.	0	0		Flash Flood
Loudoun County Arcola	05	1700EST 1930EST	ooding		0	0		Flash Flood

Roads closed due to flooding.





November 2003 Time Local/ Path Length Path Number of Estimated Width Persons Damage VIRGINIA, North **Loudoun County** Leesburg 05 1700EST 1930EST 0 0 Flash Flood Sporadic road closures due to flooding. A line of strong to severe thunderstorms developed ahead of an approaching cold front on the 5th and caused widespread wind damage and some flash flooding from Northern Virginia to Eastern Maryland. Sporadic road closures were reported in Loudoun County and flash flooding led to water rescues in Fairfax County. Some areas received over 2 inches of rain. A new daily record rainfall was reported at Dulles International Airport in Loudoun County for the 5th. **Loudoun County** Purcellville 05 1450EST 100K Thunderstorm Wind (MG52) Siding on a home was damaged and a shed was blown off its foundation. **Loudoun County** Leesburg 05 1500EST 5 75 200K Tornado (F0) 1504EST A weak tornado touched down near Dry Mill Road, west of Leesburg and moved east into downtown Leesburg. **Loudoun County** Leesburg 05 1504EST 75 200K Tornado (F0) 1508EST A weak tornado touched down near Route 7 west of Leesburg. A tornadic thunderstorm moved through Loudoun County during the afternoon of the 5th. Two tornadoes were produced in Northern Virginia. The first tornado touched down just west of Leesburg and moved east into downtown Leesburg. A second path was detected about a quarter mile north of the first. The damage with this storm began near Route 7 west of Leesburg and continued east-northeast for another 50 yards. Several homes were damaged. The storms also produced straight-line wind damage on the south side of Purceville. A shed was blown off its foundation and a person was injured when a glass table slammed against a deck and shattered. A couple of other minor injuries were reported from flying debris associated with the thunderstorm winds. VAZ021-025>031-Highland - Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene -036>042-050>051-053>057 Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Fairfax - Arlington - Stafford - Spotsylvania - King George 13 0400EST 1700EST 1.1M Strong Wind (EG43) A strong cold front moved through the region early on the 13th, leaving behind frigid temperatures and strong winds. Widespread damage due to downed trees and power lines resulted. In Northern Virginia at least two people were injured. In Loudoun county, a student in Sterling was hit by a falling tree while waiting for the school bus, and a Leesburg man was struck by a large falling tree limb. A tractor trailer truck was overturned on Highway 81 in Shenandoah county. The driver was not injured. A poultry house was completely destroyed in Harrisonburg, and a bill board was blown down at the Winchester Regional Airport. At the height of the storm about 150,000 homes and business in Northern Virginia were without power. VAZ021 Highland 13 0 3K Strong Wind (EG43)

1700EST





		Time Local/	Path Length	Path Width		ber of	Estimated Damage	November 2003
Location	Date	Standard	(Miles)	(Yards)	Killed	Injured	Property Crops	Character of Storm
VIRGINIA, North								
Augusta County								
Craigsville	19 Nume	1100EST 1400EST erous roads closed	l.		0	0		Flash Flood
Augusta County								
4 S Hermitage	19	1100EST 1500EST			0	0		Flash Flood
	Roads	s closed on the ea	st side of town					
Albemarle County Northwest Portion	19	1200EST 1500EST			0	0		Flash Flood
	Few r	oads closed due to	o standing wat	er.				
Charlottesville (C) Charlottesville	19	1200EST 1500EST			0	0		Flash Flood
	Sever	al roads across the	e city were flo	oded				
Nelson County								
Afton	19	1200EST 1600EST			0	0		Flash Flood
	Sever	al roads impassab	le due to high	water, include	ding Route	6.		
Rockingham County								
Clover Hill	19 Boods	1200EST 1500EST	ah matan		0	0		Flash Flood
	Koaus	s closed due to hig	gii water.					
Highland County Monterey	19	1210EST			0	0		Flash Flood
1120110101		1210EST 1600EST s flooded and som	a bridges weel	and out	v	Ü		1 11001
	Koaus	s Hooded and son	ie bridges wasi	ieu out.				
Winchester (C) Winchester	19	1245EST			0	0		Flash Flood
vv menester		1245EST 1600EST as closed due to flo	ooding.		v	v		Tiush Tioou
Greene County			Č					
Standardsville	19	1530EST 1930EST			0	0		Flash Flood
	Water	r covered roadway	ys and a couple	e of small bri	dges.			
Loudoun County								
Ashburn	19	1630EST 1930EST			0	0		Flash Flood
	Nume	erous roads closed	due to standir	ng water.				
Fairfax County								
1 NE Franconia	19	1800EST 2000EST			0	0		Flash Flood
	A few	streets closed du	e to high water	r.				
Prince William County								
Gainesville	19	1840EST 2000EST			0	0		Flash Flood
	Water	r covered several	roads in the so	uthern part o	f the count	v		

Water covered several roads in the southern part of the county.

A line of strong to severe thunderstorms moved across the region on the 19th. These storms preceded a cold front and produced gusty, damaging winds and heavy rainfall. Rainfall amounts averaged 2 to 4 inches. Widespread power outages were reported due to downed trees and power lines. The heavy rainfall led to flash flooding through much of Northern Virginia



Upper Track

Mineral County Keyser

19

1015EST 1300EST

1110EST

Numerous roads closed due to high water.

A trained spotter measured a 59kt wind gust.

National Weather Service Storm Data and Unusual Weather Phenomena



Flash Flood

Thunderstorm Wind (MG59)

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed	oer of sons Injured	Estin Dai Property	nated nage Crops	November 2003 Character of Storm
VIRGINIA, North									
Shenandoah County 7 SE Hawkinstown to Hawkinstown	19 Trees	1130EST			0	0	0.50K		Thunderstorm Wind (EG50)
Winchester (C) Winchester	19 Roof o	1130EST lamaged on drugs	store.		0	0	5K		Thunderstorm Wind (EG50)
Page County Stanley	19 Trees	1140EST and power lines of	lowned.		0	0	1K		Thunderstorm Wind (EG50)
Clarke County 5 E Berryville to Berryville	19 Trees	1145EST	ines.		0	0	2K		Thunderstorm Wind (EG50)
Warren County 3 NE Front Royal	19 Severa	1200EST al trees downed in	n the Shenando	oah Farms ar	0 rea.	0	1K		Thunderstorm Wind (EG50)
Rockingham County Grottoes	19 Trees	1236EST and power lines of	lowned.		0	0	1K		Thunderstorm Wind (MG50)
Staunton (C) Staunton	19 The pr	1237EST ress box on the R	iverhead High	School Stad	0 lium was tor	0 n off.	8K		Thunderstorm Wind (MG50)
Fairfax County Mc Lean	19 Down	1300EST ed trees and power	er lines.		0	2	3K		Thunderstorm Wind (MG50)
Alexandria (C) Alexandria		1315EST downed across ro	•	• •	-	0	2K		Thunderstorm Wind (MG50)
									ns preceded a cold front and produced lowned trees and power lines
WEST VIRGINIA, Ea	<u>st</u>								
WVZ048>055	13 A stro	- Mineral - Han 0400EST 1700EST ng cold front mo pread damage du	ved through th	e region earl	0 y on the 13t	0 th , leaving	30K g frigid tem	peratures a	Strong Wind (MG50) nd strong winds. nhandle of West Virginia
Pendleton County	10	1015ECE			•				n., n.,





Flash Flood

Variation	Dete	Time Local/	Path Length	Path Width		sons		nage	November 2003
Location	Date	Standard	(Miles)	(Yards)	Killed	Injured	Property	Crops	Character of Storm
WEST VIRGINIA, E	<u>Last</u>								
Berkeley County									
Hedgesville	19 Trees	1230EST were downed.			0	0	0.50K		Thunderstorm Wind (EG50)
Grant County									
Masonville	19	1230EST 1600EST			0	0			Flash Flood
	Many	side roads were cl	osed due to sta	anding water	·.				
Mineral County									

1330EST 1600EST Side roads were flooded.

19

A line of strong to severe thunderstorms moved across the region on the 19th. These storms preceded a cold front and produced gusty, damaging winds and heavy rainfall. Rainfall amounts averaged 2 to 4 inches. Widespread power outages were reported due to downed trees and power lines. The heavy rainfall led to flash flooding and river flooding

0

WVZ048-050-052>054

Short Gap

Grant - Hampshire - Berkeley - Jefferson - Pendleton

1300EST 1000EST 19 21 Flood

Heavy rainfall from the line of thunderstorms that moved through the region on the 19th caused some minor to moderate river flooding along the Potomac River from the 19th through the 21st. The South Branch of the Potomac at Franklin rose 5 feet above bankful. A large portion of Route 220 flooded as well as Snow Mountain Road. Several other roads were also flooded. The South Branch of the Potomac at Petersburg rose 2.5 feet above flood stage. Water inundated a good portion of the south end of town along Route 220. The South Branch of the Potomac at Springfield rose 3 feet above flood stage. Water inundated the meadow land. Opequon Creek rose to bankful stage during this event, and water overflowed the low lying portions of Sulpry Spring Road. The Potomac River at Shepherdstown rose a little above flood stage. The river overflowed low lying areas just down stream of Shepherdstown.