

10 SW Mt Airy

04

1900EST

National Weather Service Storm Data and Unusual Weather Phenomena



June 1996 Time Local/ Path Width Number of Persons Estimated Damage tv Crop Date Injured Standar DISTRICT OF COLUMBIA **District Of Columbia** 0030EST N Portion 0 Flash Flood 18 0 Intense thunderstorms moved through the northeast half of Washington, causing a few road closures when low-lying areas flooded. Most notably, flooding was reported on 16th street N.W. at 0030EST, and a bit later on South Capitol St. **District Of Columbia** 0 Northwest 1 A 22 year-old man was reported in critical condition after being struck by lightning during the early evening of the 19th. **District Of Columbia Northwest Portion** 20 2155EST 2200EST 50K Thunderstorm Wind **District Of Columbia** Northwest A 30K Flash Flood 20 2300EST A rapidly developing thunderstorm knocked down numerous trees and large limbs in upper Northwest. Some of the trees fell onto automobiles. The associated torrential rains flooded Rock Creek and other low-lying areas in Northwest. Portions of the adjacent parkway were closed for up to 24 hours following the storm, snarling the next morning's and evening's rush. Potomac Electric Power Co. reported 4500 residents in the District and adjacent Maryland suburbs without power. **District Of Columbia** Northwest 25K Lightning Lightning reportedly struck several homes in Northwest, sparking small fires. **District Of Columbia** Citywide 24 150K Thunderstorm Wind (G51) An accelerating heavy-precipitation supercell caused damage over both Southeast and upper Northwest Washington. Trees and wires were down in the Anacostia section, as well as a few downtown, in association with the core of the mesocyclone. Several trees and wires were knocked down in upper Northwest, a continuation of the downburst which earlier affected the Potomac-Bethesda area of Montgomery Co Maryland. Across the entire metropolitan region, this storm was the hardest hitting since June 14th, 1989. At least 270,000 Virginia Power and Potomac Electric Power Co customers were without power immediately after the storm. Some residents didn't receive power until 3 days after the storm. One person perished indirectly from the storm. A 38 year old female utility worker, attempting to restore power in Northwest, was electrocuted by a live wire and died moments later. MARYLAND, Central **Washington County** Hail (1.00) Smithsburg 1425EST One-inch diameter hail was reported in Smithsburg. **Washington County** 1 E Hancock Hail (1.00) Another pulse-severe thunderstorm dropped one-inch diameter hail near Hancock. **Harford County** 1805EST **East Portion** 04 3K Hail (0.88) Estimated penny- to nickel-sized hail fell in Bel Air, Churchville, Abingdon, and Port Deposit. A few vehicles in Port Deposit sustained minor damage from hail dents. **Montgomery County** Dickerson 25K Thunderstorm Wind Thunderstorm winds blew 3/8 inch hail stones into the siding of a residence in Dickerson, peeling much of it off. Damage from the wind-blown hail was estimated at \$9,000. A barn nearby had a sheet metal roof blown off, and damage was sustained to it's **Montgomery County Damascus** 10K Thunderstorm Wind Thunderstorm winds knocked down several trees and large limbs along Clarksburg Road. Frederick County

0

0

50K

Thunderstorm Wind



Montgomery County

11

Central Portion

National Weather Service Storm Data and Unusual Weather Phenomena



4.5% A. 210		Data a	na Ur	iusua	I ME	atn	er Phe	nomena	2,60
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed		Estimated Damage Property Cr	ops Character of Storm	June 1996
MARYLAND, Central									
Carroll County Mt Airy	04	1905EST			0	0	5K	Thunderstorm '	Wind
Frederick County 4 W Mt Airy to 3 W Mt Airy	04	1905EST 1907EST	1	65	0	0	150K	Tornado (F1)	
·	Down near O towar others Approduma	nburst wind damag Green Hills. An eyeds Mt Airy, scatter is sustained fence d oximately 4 miles age to trees, modera	e, in the form yewitness in the red tree damage amage. southwest of Matte damage to	of 100 snapp ne area observ ge and damag Mt Airy a gus five homes, a	ed or blow yed hail be ge to trim of tnado touc and minor of	on down to tween 1 are on homes we whed down damage to	rees, was noted and 1 1/2 inches was also noted. in the Moleswo about 10 other	derick Co into extreme so along Green Valley Road in diameter. As the storm One home had it's carport orth Hills subdivision, cau residences. One home ha	(state route 75) moved northeast blown off, and 3 sing extensive d a garage wall
	sheds		d. Three hom	nes sustained	roof dama	ge from fa	llen trees, whic	y, and a picture window b h also damaged two auton	
		vewitness noted the scaped unharmed.	e gustnado, "b	etween 100 a	nd 200 fee	t in width	," heading towa	rds him. He took cover in	a nearby ditch
		a. Airy (Carroll Co) et away. A few mo				e large ma	ple trees (1-2 fe	et in diameter), parts of w	hich landed up to
Carroll County									
Manchester	04 Light	1925EST ning struck and inj	ured a womar	n in Manchest	er.	1		Lightning	
Montgomery County									
Comus to Dickerson	10	1930EST 2100EST			0	0	40K	Flash Flood	
Frederick County									
Brunswick to Point Of Rocks	10	1930EST 2100EST	aantainina ta	antiol mains	0 dummed a	0	30K	Flash Flood	an a couth am
	Frede (state report feet o	rick Co and northy route 28) and Nicl ted 4 inches of flow	western Montg holson Farm F wing water "or Minor flooding	gomery Co. I Road. A porti n the level" or	n Dickerso on of Dick f his prope	on, 2 feet of kerson Roarty. In Co	of water was no ad shifted due to omus, a creek fl	in a thin swath over extrement at the intersection of E of the severe erosion. In adooded a bridge of state roue everal residences' basement.	dition, a resident tte 109, with 2 1/2
Montgomery County									
Comus	10 Light	2000EST ning struck and kil	led two cows	at a farm in C	0 Comus.	0	2K	Lightning	
Allegany County									
W Portion	11	1600EST 1700EST			0	0	50K	Flash Flood	
	thund Frostl	erstorms across the	e Potomac Hig and. Substant	ghlands. One	of these s	torms rav	aged western A	produced scattered torrent legany Co, flooding roads and slides closed roads and	in and near
Allegany County									
Frostburg	11 Penny	1605EST y-sized hail fell in	western Alleg	any Co.	0	0		Hail (0.75)	

A concentrated area of thunderstorms dumped copious rainfall on southern and central Montgomery Co, producing scattered flash flooding. High standing water was noted at the intersection of state route 355 and Montrose Road in Rockville. In Norbeck (6 E Rockville), the Northwest Branch came out of it's banks, causing minor flooding and temporary road closures of state route 28 and Layhill Road.

0

2K

Flash Flood





June 1996 Path Length (Miles) Number of Persons Time Local/ Path Width Estimated Damage tv Crop Date Character of Storm Injured Standar MARYLAND, Central **Harford County** 0 2KFlash Flood **Upper Crossroads** 11 Street flooding was reported at the intersection of state routes 165 and 152 in Upper Crossroads. A small mud slide was also reported along route 165, and another along Morse Road in Jarrettsville. **Montgomery County** 5K Derwood 1935EST 1940EST Thunderstorm Wind A small microburst knocked down several small to medium sized trees and limbs in a Derwood subdivision. Frederick County **S** Portion 17 2030EST 2200EST 10K Flash Flood Intense thunderstorms dumped an estimated 2 1/2 inches of rain in about two hours onto rather saturated soil in southern Frederick Co, flooding some areas. In the city of Frederick, portions of the town center were flooded. Farther south, along state route 28 near the Monocacy River, minor flooding was reported. **Baltimore County** S Portion **17** 2100EST 50K Flash Flood 2300EST Intense thunderstorms dumped torrential rainfall over the northern and eastern suburbs of Baltimore City. Storm totals were estimated between 3.5 and 4 inches in less than 2 hours in the hardest hit areas. In Randallstown, the parking lot of a strip mall was under water. Numerous basements and underpasses were flooded from Pikesville to Essex. The combination of high water, gusty winds, and copious lightning knocked out power to at least 6000 county residents. A freight train derailed in Reisterstown when the track was partially washed out. Baltimore City (C) 100K Ne Portion 17 Flash Flood Intense thunderstorms, dumping between 3 1/2 and 4 inches of rain within 2 hours, produced widespread flash flooding in the eastern portion of Baltimore City. At last 20 persons were rescued from stranded automobiles. Many of the trapped motorists were on Loch Raven Blvd. and along federal highway 40. No injuries or deaths were reported. Hundreds of low-lying intersections and underpasses were flooded, including one on the Jones Falls Expressway. Numerous basements and ground floors were flooded by a combination of the heavy rainfall and clogged storm drains. The combination of high water, gusty winds, and prodigious lightning knocked out power to nearly 14 thousand city residents. **Montgomery County** 2300EST 10K **Extreme Nw Portion** Flash Flood Thunderstorms, containing torrential rains, produced flash flooding and a few road closures in extreme northwest Montgomery Co. For the second time in 8 days, state route 109 was closed between Barnesville and Comus when a creek overflowed it's banks. **Montgomery County** 30K Central Portion 18 Flash Flood Intense "training" thunderstorms dumped rainfall of 3 to 4 inches within 3 hours in the Darnestown-Germantown-N. Gaithersburg area, causing Seneca Creek to overflow it's banks. The flooding closed numerous thoroughfares, including state route 28 just north of Darnestown and Riffle Ford Road. An automobile was trapped in the flood waters along route 28 around 0230EST, and one occupant had to be rescued. These and other roadways remained closed into the morning rush on the 18th. On state route 109 west of Interstate 270, a 50 x 24 section of pavement was eroded by a swollen brach of Little Bennett Creek. **Washington County E** Portion 1MFlash Flood 0830EST Frederick County 0000EST **5M** Flash Flood N Portion 19 0900EST F36OU **Carroll County** W Portion 19 0030EST **1M** Flash Flood

Torrential convective rainfall moved across the northern tier of central Maryland during the early morning hours on the 19th, producing widespread and in some cases catastrophic flooding across the area. Rainfall of over 5.5 inches fell in Emmitsburg, with up to 13 inches in nearby Gettysburg, Pennsylvania, during the late night hours. The worst damage was in Emmitsburg, where numerous residences, businesses, and farms were flooded. Nearly all roads leading into town, including the main





MARYLAND, Central

thoroughfare (state route 140), were flooded and/or damaged. Fifty evacuations occurred in Frederick Co, and 21 in Washington Co. Several persons were rescued, including three volunteer fire fighters and four local women (Frederick Co). An 18-foot mobile camper was destroyed near Emmitsburg after it was swept away by flood waters.

There was one fatality approximately 3 miles southwest of Emmitsburg. At 0000EST, a woman exited her van along Little Owens Creek and was promptly swept away by the floodwaters, which at the time were 3 feet over top of Eylers Valley Road. The woman was found at noon the following day, approximately 1/4 mile downstream.

In Washington Co, an overflowed creek near downtown Hagerstown punched a large hole into a cinder block wall at the municipal stadium, causing an estimated \$100,000 in damage and cancelling an eight-game baseball home stand. A home in Hagerstown was swept off it's foundation. Numerous roads were submerged overnight through the following morning. In Carroll Co, many roads were also flooded, including state route 140 at the Monocacy River bridge. Damage along route 140 closed the highway for more than one week. The Monocacy, which traverses Carroll and Frederick Cos, has a rapid flood response; in this event, flood stage was quickly surpassed on the 19th. In fact, the crest of 25.5 feet was a flood of record.

Montgomery County Nw Portion	19	0500EST 0900EST	0	0	30K	Flash Flood
Howard County Nw Portion	19	0600EST 0900EST	0	0	20K	Flash Flood

Areas which received flash flooding on the 18th were inundated with additional heavy rainfall during the morning of the 19th, causing a repeat performance. Once again, several creeks and streams overflowed their banks, including Seneca Creek. Closed state highways included route 28 near Dawsonville, route 109 near Barnesville, and route 121. High standing water snarled traffic along interstate 270 in a construction zone between routes 118 and 121. Other flooding was noted along Bennett Creek near the northern tip of Montgomery Co. High standing water temporarily closed Wightman/Brink Road near the state route 27/355 interchange in Germantown.

In Howard Co, some creeks overflowed their banks near the Montgomery/Frederick line, flooding area roads.

Howard County						
Ne Portion	19	1115EST 1500EST	0	0	10K	Flash Flood
Baltimore County						
S Portion	19	1115EST 1500EST	2	0	25K	Flash Flood
	M29I	W, F29IW				
Baltimore City (C)						
Citywide	19	1200EST 1500EST	0	0	100K	Flash Flood
Anne Arundel County						
N Portion	19	1300EST 1600EST	0	0	25K	Flash Flood

More storms continued to develop during the mid and late morning hours in east-central Maryland. Heavy rains from these storms, combined with runoff from earlier events upstream, pushed the Patapsco River out of it's banks along the Howard/Baltimore Co line shortly after noon. For the second time in three days, portions of Baltimore City were flooded, including up to 15 businesses in the Canton district, a low-lying area in the eastern portion of town. Much of the flooding was exacerbated by a poorly filtered storm drainage system. Dozens of people were evacuated. Jones Falls rose 12 feet, but no damage was reported to the Mt. Washington bridge.

The most notable problems were along the Patapsco River, where 2 fatalities occurred. The deceased, a young man and woman, were rafting on the river (despite the fact that the area was under a flash flood watch and warning) at approximately 1545EST when the fast current washed them over an earthen dam which catapulted them out of the raft. Other evacuations/rescues were necessary in the Gwynns Falls area along the river between 1200 and 1300EST. Six occupants in a van became trapped in flood waters near the Baltimore Beltway (interstate 695), requiring another rescue.

Other roads closed in southern Baltimore Co included the intersection of River and Frederick Road (state route 144), and Cromwell Bridge Road and Manor Road. In Anne Arundel Co, Defense Highway (near Annapolis) was closed due to high standing water. Numerous basements were flooded, as were low-lying neighborhoods especially in Arnold near the Magothy River. Five other county roads were closed as well.

Baltimore City (C)					
Downtown	19	1630EST	1	0	Lightning





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numbe Perso Killed		Estimated Damage Property Crops	Character of Storm	June 1996
MARYLAND, Central									
	Lightn M280		ed a construc	ction worker	on a roof in	downtow	n Baltimore. The w	orker died from cardia	arrest.
Baltimore County S Portion	19 20	2245EST 0100EST			0	0	25K	Flash Flood	
Baltimore City (C) Citywide	19 20	2245EST 0100EST			0	0	25K	Flash Flood	
Carroll County S Portion	19 20	2245EST 0100EST			0	0	40K	Flash Flood	
Howard County Nw Portion	19 20	2245EST 0100EST			0	0	30K	Flash Flood	
Frederick County Countywide	19 20	2300EST 0100EST			0	0	75K	Flash Flood	
Montgomery County N Portion	Additio	onal rainfall totals g	generally be	tween 1 and	2 inches ren	newed flas	sh flooding, closing	Flash Flood and during the late evening thundreds of roads once	
	Dozens		erick Co had	l flooded bas			additional evacuation ut flood waters were	e slowly receding on cou	ınty farms.
St. Mary'S County Lexington Park	20 High s	1130EST 1230EST tanding water was a	reported on	several road	0 ways in the	0 area. Ove	5K er three inches of rai	Flash Flood n fell in less than 2 hou	rs just over the
Prince George'S County Bowie	line in	neighboring Calve	rt Co.		0	0	10K	Flash Flood	
	Road,	tanding water was a and state route 193.	. A foot of	water floode	d the highwa	ay near th	e Free State and Ma	of Martha's Choice Cirrket Place shopping cere height of the storm.	
Calvert County Prince Frederick	20 High s	1250EST 1330EST tanding water flood	led the inter	section of Sa	0 andy Point a	0 nd Norwo	ood Road in Prince F	Flash Flood Frederick. A postal van	became
Washington County	trapped	d, and a local reside	ent had to re	scue the driv	er.				
4 W Hagerstown	20 Federa	1815EST 1845EST l highway 40 was c	closed due to	o high water	0 from earlier	torrentia	l rains.	Flash Flood	
Montgomery County Glen Echo	20 A rapid	2150EST dly developing thur	nderstorm ki	nocked dowr	0 n several tree	0 es and lar	5K ge limbs in Glen Ech	Thunderstorm W	ind
Montgomery County Glen Echo	20 Associ	2200EST 2245EST ated torrential rains	s with a rapi	dly developi	0 ng thunders	0 torm floo	15K ded the intersection	Flash Flood of Goldsboro Road and	Massachusetts
Allegany County		ashing out a portio			-				
Countywide	24 Thunde	1145EST 1200EST erstorm winds blew	down trees	s and limbs a	0	0 unty	20K	Thunderstorm W	ind

Thunderstorm winds blew down trees and limbs across the county.



North Portion

24

National Weather Service Storm Data and Unusual Weather Phenomena



June 1996 Path Length (Miles) Time Path Width Number of Persons Estimated Damage ty <u>Crop</u> ocal/ Date (Yards Character of Storm Injured Standar MARYLAND, Central **Carroll County** 1315EST 0 **Tanevtown** 24 0 5K Thunderstorm Wind A localized severe thunderstorm blew down scattered trees and large limbs in and north of Taneytown. **Montgomery County** 1555EST 1610EST 0 350K Potomac to 24 0 Thunderstorm Wind Along the northeastern portion of a heavy precipitation supercell which as simultaneously producing a tornado in Fairfax Co Virginia, downburst winds knocked down hundreds of trees, limbs, and power lines from Potomac through Bethesda. Dozens of tree-lined streets in Bethesda were closed for removal of downed large limbs and snapped trees, some which fell onto homes and vehicles. An automobile dealership in Bethesda had a portion of it's roof ripped off. **Washington County** Hancock to Clear Spg 1605EST 1615EST 24 20K Thunderstorm Wind A second line of strong to severe thunderstorms formed along a surface trough. In western Washington Co, thunderstorm winds blew down trees from Hancock to Clear Spring. **Montgomery County** Bethesda to 150K Thunderstorm Wind Silver Spg The downburst which ripped Bethesda moments earlier continued through the southeastern quarter of the county. The damage lessened as the storm moved through Kensington and near the Silver Spring business district. County officials estimated a total of \$250 thousand damage to trees and power lines alone during the event from Potomac to Silver Spring. Prince George'S County Oxon Hill to 1620EST 1625EST 1.3M 24 Thunderstorm Wind (G66) Andrews Afb A rapidly moving bow-echo produced widespread tree, power line, and minor structural damage from Oxon Hill through Andrews AFB. A wind gust of 79 mph struck the base at 1622EST. Several trees fell onto homes and vehicles; at least one home was split in half by fallen large oaks. Other homes had roof damage from fallen trees, and a few cyclone fences were damaged or destroyed. The winds also caused minor structural damage, mainly to shingles, gutters, and siding. Prince George'S County 2 E Andrews Afb to 3 E Andrews Afb 1623EST 50 0 200K 24 Tornado (F0) The same bow-echo that struck Oxon Hll moments earlier spawned a gustnado in a residential area just east of Andrews AFB. Damage included 30 uprooted or snapped trees, including two onto homes and two others onto automobiles. Prince George'S County 1631EST 1636EST **Bowie** 40K Thunderstorm Wind Downburst damage also occurred in Bowie, where several trees and power lines were knocked down, with at least one onto a vehicle and one onto a home. Passengers in the vehicle were taken to the hospital for evaluation, but no injuries were reported. Lightning also struck several trees in the area. Prince George'S County 1 NW Upper Marlboro | 24 2 SE Upper Marlboro 1634EST 1639EST 200 500K Tornado (F1) **Anne Arundel County** 2 SE Upper Marlboro to 24 Waysons Corner 100K 1639EST 1640EST 100 Tornado (F1) Another tornado touched down in the Fox Chase subdivision, one mile northwest of Upper Marlboro, and tracked east-southeast across federal highway 301 before exiting the county near state route 4. The tornado continued into Waysons Corner in extreme southwestern Anne Arundel Co. Along its track, dozens of trees were uprooted. Damage in the residential areas included ripped siding and blown down chimneys. The storm tore the roof from the Triangle Tobacco Whse. in Waysons Corner, forcing condemnation of the building. A large tree fell onto a mobile home there as well. **Washington County** Hagerstown 24 120K Thunderstorm Wind Thunderstorm winds associated with a second line of thunderstorms knocked down numerous trees and wires throughout Hagerstown. Several trees fell onto automobiles, residences, and yards. Two empty truck cargo trailers were flipped over downtown. **Calvert County**

The severe thunderstorm which produced a swath of damage over southern Anne Arundel Co and eastern Prince Georges Co

20K

Thunderstorm Wind



Independent Hill

National Weather Service Storm Data and Unusual Weather Phenomena



June 1996 Estimated
Damage
erty Crops Path Length (Miles) Number of Persons Time Local/ Path Width Date (Yards Injured Standard MARYLAND, Central knocked down several trees and power lines in northern Calvert Co. **Anne Arundel County** Arnold 40K Lightning Lightning struck a residence in Arnold, igniting a two-alarm blaze which produced substantial damage to the tune of \$40 thousand. **Anne Arundel County** 20K Glen Burnie Several lightning strikes ignited fires in the Glen Burnie area. One small fire caused \$15 thousand in damage to a home whose roof was burned. **Anne Arundel County** Edgewater 15K Thunderstorm Wind The northern edge of the bow-echo produced peripheral damage in the northern half of Anne Arundel Co. In the Glen Burnie/Edgewater area, a 100-foot tall snapped tree fell into a home, destroying the kitchen. Baltimore Gas and Electric reported 38,000 customers without power immediately after the storm. **Charles County** 0 50K 2 W La Plata 24 1700EST Thunderstorm Wind Continuation of a severe thunderstorm through Charles Co knocked down numerous trees and power lines in the La Plata area. **Charles County** S Portion 20K 24 Lightning Lightning struck 5 homes near the Cobb Island/Governor Nice Bridge area. **Carroll County North Portion** 24 5K Thunderstorm Wind The same line of thunderstorms which had caused damage in Washington Co less than an hour earlier knocked down several trees in northern Carroll Co near the Pennsylvania line. St. Mary'S County Hollywood to Patuxent River Nas 0 0 85K Thunderstorm Wind (G70) Three buildings sustained considerable damage as a severe thunderstorm raced towards the central Chesapeake Bay. **Calvert County** S Portion 10K Lightning 24 Two homes reported minimal damage to internal electrical systems after lightning strikes in the extreme southern portion of the county. St. Mary'S County Oraville 24 1815EST 1830EST 0 20K Lightning Lightning struck a barn and a home in Oraville. **Calvert County Drum Point** 25K Thunderstorm Wind Straight-line winds from a severe thunderstorm knocked down numerous trees and power lines near Drum Point. VIRGINIA, North Rappahannock County Washington 04 1450EST 0 Hail (0.88) **Clarke County** 15K Hail (1.00) Countywide 04 Several areas received three-quarter to one inch diamter hail across the county. **Prince William County**

Three-quarter to one inch diameter hail fell in the town of Independent Hill.

Hail (1.00)



Stafford Oaks

National Weather Service Storm Data and Unusual Weather Phenomena



June 1996 Path Length (Miles) Number of Persons Time Local/ Path Width Estimated Damage tv Crop Date (Yards Injured Standar VIRGINIA, North **Fairfax County** Springfield to Ft Belvoir 0 0 2KHail (1.50) 04 A pulse-severe thunderstorm dropped nickel-sized hail at the Springfield Mall. The same storm produced ping-pong sized hail at Fort Belvoir 15 minutes later. **Fairfax County** 1705EST 1710EST 0 15K Alexandria 04 Thunderstorm Wind The same severe storm which earlier struck southeast Fairfax Co rolled through the city of Alexandria, producing three quarter inch diameter hail and knocking a large maple tree onto a vehicle. **Loudoun County** Leesburg 04 1825EST 1830EST Hail (1.00) One-inch diameter hail covered the ground in a portion of Leesburg **Loudoun County** West Portion 1620EST 3K Thunderstorm Wind Thunderstorm winds knocked down a large tree near Unison, blocking a main thoroughfare. Fallen tree limbs also blocked a road near Waterford. Frederick County Flash Flood 2 S Winchester 09 0 Warren County Countywide 0 Flash Flood Rappahannock County Countywide 09 A Flash Flood Training thunderstorms dropped between 2 and 3 inches of rain onto saturated ground in portions of the Shenandoah Valley, causing scattered flash flooding. In Rappahannock Co, at least three local roads were closed due to high water near Washington; in Warren Co, three local roads were also closed in different parts of the county. In Frederick Co, just south of Winchester, over 2 inches of rain flooded roads including U.S. 522. **Loudoun County** 1900EST 2030EST Leesburg 10 10K Flash Flood Training thunderstorms dumped at least 3.3 inches of rain in a four-hour period, causing several instances of flash flooding. Several drivers were trapped in their vehicles near Leesburg. A main thoroughfare in eastern Loudoun Co was partially eroded by heavy rainfall. Numerous other thoroughfares which cross state route 7 were closed between Ashburn and Leesburg. Several basements flooded in and around Leesburg. **Loudoun County** Leesburg Lightning Lightning struck a transformer causing 500 homes to lose power in eastern Loudoun Co. Rappahannock County Sperryville Lightning Lightning struck two homes, causing small electrical fires at both locations. Rappahannock County Sperryville 1130EST 0 0 Flash Flood 11 1230EST A thunderstorm containing torrential rains dumped 1.25 inches onto saturated ground in central Rappahannock Co, causing several instances of high standing water on area roadways. Several roads were temporarily closed. **Prince William County** 2 N Haymarket 18K Thunderstorm Wind (G65) 11 A severe thunderstorm produced wind gusts to 75 mph, blowing down numerous trees and some power lines in the area. Three automobiles were crushed by fallen trees. **Stafford County**

Lightning struck a doghouse in the Stafford Oaks subdivision, killing the pet inside.

Lightning



W Portion

19

2100EST

National Weather Service Storm Data and Unusual Weather Phenomena



June 1996 Path Length (Miles) Number of Persons Estimated Time Local/ Path Width Damage ty <u>Crop</u> Date Character of Storm (Yards Injured Standar VIRGINIA, North **Prince William County** 0 50K **Manassas City** 14 Thunderstorm Wind Thunderstorm winds estimated at around 80 mph knocked down 18 trees, large limbs, and power lines in and around Manassas City. Downed trees were up to 1 foot in diameter. One tree crushed a fence, and two picnic tables were crushed. One fallen tree pushed a natural gas line into a house, and minor damage to other buildings was reported. In addition, traffic lights were blown off their lines, and trees fell onto power lines causing one-third of the city to lose electricity. **Prince William County** 2 E Aden A 2140EST 2145EST 40K Thunderstorm Wind 14 The same microburst which struck Manassas City moments earlier destroyed between 50 and 75 trees in a relatively large area of southern Prince William Co near Aden. The trees were a mixture of hard and soft wood deciduous and evergreen. No other property was reported damaged. **Shenandoah County** 3 N Woodstock 16 2030EST An intense thunderstorm dumped 3.44 inches of rain at Fetzer's Gap along North Mountain. The runoff caused Pugh's Run to overflow it's banks, as it rose 2 feet in less than an hour. The flash flood washed away sheds and claimed 3 automobiles. Eight individuals had to be rescued from homes along the creek. A restaurant in Woodstock had minor flooding when a small stream spilled over its banks, and a farmer had a fence washed away by high waters. The level of water in one basement rose to 4 feet. A large section of asphalt washed away from local route 642 underneath interstate 81. Several low-water bridges were damaged by flood waters; total cost of highway damage alone was \$90,000. **Rockingham County** Harrisonburg A strong thunderstorm produced a lightning strike which damaged an air conditioning unit at a chain restaurant on Carlton St. Elsewhere in town, a well pump and relay system were destroyed by lightning. **Rockingham County E** Portion 18 1400EST 1515EST Flash Flood A slow-moving thunderstorm, dumping rain at the rate of 1 inch per hour, flooded several roads in eastern Rockingham Co. **Shenandoah County** New Market A small but intense thunderstorm dumped nearly 2 inches of rain in two hours along Smith Creek. In nearby New Market, the heavy rains flooded some roads, with one in particular having standing water 1.5 feet deep. **Orange County** 6 SE Somerset 1545EST 1700EST Flash Flood A nearly stationary thunderstorm dumped between 2.5 and 3.5 inches of rain in a 2-hour period onto extreme western Orange Co, producing localized flash flooding. At the Sleepy Hollow Inn, an overflowing creek flooded a bridge. A nearby farm field had 2 inches of water nearly covering the grass. Several trees were knocked down by the raging flood waters along Blue Run. Spotsylvania County 10K 2 SE Spotsylvania Merging thunderstorms in Spotsylvania Co produced residential and small stream flooding in the central portion of the county. In the Spots Lee subdivision, water was reported at least 2 feet high. Some small streams were out of their banks a bit farther west. **Rockingham County** 19 0 1430EST 1800EST 15K Flash Flood W Portion **Augusta County** Countywide 19 1630EST 1800EST 10K Flash Flood **Albemarle County** 1800EST 2100EST Sw Portion 19 0 10K Flash Flood **Orange County**

5K

Flash Flood





June 1996 Path Length (Miles) Number of Persons Time Local/ Path Width Estimated Damage tv Crop Date (Yards Character of Storm Injured Standar VIRGINIA, North **Highland County** 1900EST 0 20K Flash Flood Monterey 19 Redeveloping thunderstorms produced several hours of moderate to heavy rainfall in the central Shenandoah Valley, flooding and/or closing numerous roads in the area during the afternoon and evening of the 19th. In Rockingham Co, rains flooded and closed state route 33 west of Harrisonburg. Portions of other nearby roads were washed out. Later that evening, other state and local roads flooded. In Augusta Co, state route 254 was flooded between Waynesboro and Staunton. Two local routes (691 and 692) near Batesville (Albemarle Co) were under high standing water. Other flooding was reported near Charlottesville. Similar conditions were found in portions of Orange Co, and creeks spilled out of their banks near Monterey (Highland Co). Frederick County Winchester 1430EST 1500EST Flash Flood 20 An afternoon thunderstorm produced over an inch of rain, causing Cameron and Kent streets to flood in the city of Winchester, with over a foot of water on the road. **Fauquier County** Warrenton 20 1645EST Thunderstorm Wind (G52) An off-duty NWS employee recorded thunderstorm winds of 60 mph. Frederick County Stephens City to Winchester 53K 25K Thunderstorm Wind 24 1325EST 1330EST Thunderstorm winds knocked down numerous trees in and around the city of Winchester. Just south of town, a tractor-trailer was blown onto an autombile along federal highway 522. In Stephens City, golfball-sized (1.75 inch diameter) hail fell. Frederick County Winchester 24 Lightning Several damaging lightning strikes occurred in Winchester. One damaged a home in the Greenwood area. Three homes were damaged by lightning in the south end of town. A tree was struck as well, falling into the rear window of an automobile. **Clarke County South Portion** 1341EST Thunderstorm Wind Thunderstorm winds blew down several trees and power lines in the town of Boyce, as well as in the towns of White Post, Millwood, and Waterloo. One inch diameter hail fell in White Post. **Shenandoah County** Woodstock to 1400EST 1630EST 130K Flash Flood 24 Strasburg Training thunderstorms, aided by an impressive rapid return of tropical moisture ahead of a surface pressure trough, produced a deluge of an estimated 3 to 4 inches of rain in northern Shenandoah Co, causing localized dangerous flash flooding. In one instance, an NWS employee traveling along federal highway 522 and interstate 81 between Woodstock and Strasburg noted very high water flowing across the road. In Toms Brook, over nine roads were closed, and 20 secondary roads sustained significant damage. In Strasburg, a house's rear wall was moved. Large areas of Ash street were eroded by the raging waters; guard rails were also washed away. **Warren County Front Royal** 10K 5K Thunderstorm Wind 24 1430EST Thunderstorm winds blew down trees and power lines in and around Front Royal. Hail the size of quarters also fell. Warren County N Portion 1430EST 1500EST 10K Lightning struck three buildings and a utility pole just north of interstate 66 in northern Warren Co. Warren County N Portion Flash Flood Training thunderstorms caused a short-duration flash flood just north of Front Royal where a spotter reported high flowing water in his front yard. **Warren County** Front Royal

The storm that would become a heavy precipitation supercell farther east initially produced scattered tree damage near Front Royal.





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associated with a heavy precipitation supercell (and embedded tornado) raced through. The damaging winds were associated with the rear-flank downdraft portion of the storm.

Hundreds of trees and power lines were knocked down, and numerous structures incurred minor damage, as downburst winds





June 1996 Path Length (Miles) Number of Persons Time Local/ Path Width Estimated Damage tv Crop Date (Yards Injured Standar VIRGINIA, North **Prince William County** 0 50K **Manassas City** Thunderstorm Wind 24 A microburst associated with the rear flank downdraft of the same heavy precipitation supercell which was simultaneously producing a tornado in central Fairfax Co knocked down tens of trees, limbs, and power lines in northern Prince William Co. One thousand customers were without power. **Fairfax County Great Falls** 24 10K Thunderstorm Wind Several trees were uprooted and snapped, and power lines were knocked down along Walker Road and Beach Mill Road in Great Falls. **Fairfax County Fairfax City** 24 1548EST 2K Hail (1.75) Hail the size of golfballs fell along the track of a heavy-precipitation supercell, mainly in and near Fairfax City. **Fairfax County** 1.5 W Annandale to 1555EST 1610EST 0 500K Thunderstorm Wind 24 Alexandria The tornado which had moved through western and central Fairfax Co became absorbed into the downburst portion of the accelerating supercell, which showed classic bow-echo characteristics as it entered the southeastern quarter of the county. The downburst affected a larger area, including Franconia, as it raced into Alexandria. Substantial damage, in the form of dozens more felled trees and power lines and structural damage (especially in Alexandria) was reported. Debris had to be removed from the above ground portion of Metro between the King Street and Van Dorn stations. **Culpeper County** Countywide Lightning 1615EST The flanking line of storms southwest of the main supercell produced gusty winds enough to knock down numerous trees and limbs across much of Culpeper Co. **Prince William County** Lake Ridge 3K Lightning Lightning damaged a chimney on Manchester Lane in Lake Ridge. **Fairfax County** 100K Thunderstorm Wind Alexandria 24 Thunderstorm wind gusts caused excessive roof damage to an apartment complex. Nine families were forced to temporarily relocate. **Arlington County** 50K Thunderstorm Wind (G51) **National Airport** 24 A downburst struck extreme southeastern Arlington Co, producing sustained winds of 46 mph with a measured gust to 59 mph at Washington/National Airport (DCA). A USAir shuttle inexplicably departed from the airport at approximately 1615EST, just as the downburst was nearing full strength. One of the plane's wings struck a runway light, causing minor damage. No injuries were reported on the flight. Additional tree and power line damage was noted in the Shirlington/Crystal City area. **Stafford County** 1630EST 1645EST **Thunderstorm Wind** Countywide 24 5K Thunderstorm winds knocked down scattered trees and limbs throughout the county. Spotsylvania County Wilderness 24 1650EST Lightning 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. Spotsylvania County Spotsylvania to Lake Anna 1650EST 1700EST 0 24 90K Thunderstorm Wind Thunderstorm winds knocked down trees and power lines across southern Spotsylvania Co. Several trees fell onto homes. At

12

house near Lake Anna.

Robert E. Lee Elementary school near Spotsylvania, the wind ripped four 12-ton air conditioning units from their bases and tossed them across the roof. The winds also damaged a wall and blew three trash dumpsters through a fence. A roof was blown off a





		Time Local/	Path	Path Width	Numb Pers		Estimated Damage	June 1996
Location	Date	Standard	Length (Miles)	(Yards)	Killed	Injured		ops Character of Storm
VIRGINIA, North								
Rockingham County Timberville to	24	1800EST			0	0	30K	Thunderstorm Wind
2 S New Market	Wash Rocki the size	ington Co Maryla ingham Co. In Tir	nd through Aumberville, gus	ugusta Co V sty winds ca	irginia. A foused damage	ew of the se to at leas	storms became s t one home and	ough during the evening, stretching from severe, including one in northeastern dozens of trees. One resident reported hail , an eighteen-wheeler and its two empty
Rockingham County								
Broadway	24	1803EST 1805EST	0.5	100	0	0	40K	Tornado (F1)
WEST VIRGINIA, E	chimr house	neys were blown o	off homes, and	l wrought-ir	on furniture	was tossed	d into a swimmi	in a small area near Broadway. Several ng pool. Two homes and two poultry just south of New Market.
Jefferson County								
Shepherdstown	04 Light	1837EST ning struck a home	e in Shepherd	stown, settii	0 ng it ablaze.	0	30K	Lightning
Pendleton County								
W Portion	19	1230EST 1330EST			0	0	45K	Flash Flood
	and M	ntial thunderstorm	rea. A bridge					eton Co, particularly in the Cherry Grove an overflowed it's banks. State route 33
Hampshire County								
Green Spring	19	1550EST 1600EST			0	0	75K	Thunderstorm Wind
		ere thunderstorm ged a trailer. Part				1 0	_	which blocked area roadways. One tree
Hampshire County								
Sw Portion	19	1630EST 1730EST			0	0	15K	Flash Flood
Hardy County								
2 SE Moorfield	19	1630EST 1730EST			0	0	25K	Flash Flood

Torrential thunderstorm rains produced scattered flash flooding in the Potomac Highlands during the late afternoon and evening of the 19th. Some roads were closed in southwestern Hampshire Co, and basement flooding was prevalent in the Moorfield area.