



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1996

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
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MARYLAND, Central

St. Mary'S County California

13	0045EST 0047EST	1.2	100	0	0	100K	Tornado (F1)
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Tropical storm Bertha spawned three tornadoes along the western shore of the Chesapeake Bay during the early morning hours of the 13th. The tornadoes were associated with the strongest feeder bands due north or northeast of the center of circulation, which was located in southeast Virginia at the time.

The first event occurred in subdivisions behind the Sans Souci shopping center in California, where 30 homes sustained minor to moderate damage - mainly siding, shutters, and shingles. A few cyclone fences were blown down, with a portion of one residence's fence blown through another home's bedroom window. A roof was partially torn from a home, with some ceiling and deck damage. A shed reportedly was flipped onto an unoccupied automobile. Other cars were slightly damaged by fallen limbs. Approximately 20 trees were snapped, with at least one large tree uprooted.

Charles County 2 SW Hughesville

13	0105EST	0.3	35	0	0	150K	Tornado (F1)
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Tropical storm Bertha spawned three tornadoes along the western shore of the Chesapeake Bay during the early morning hours of the 13th. The tornadoes were associated with the strongest feeder bands due north or northeast of the center of circulation, which was located in southeast Virginia at the time.

The second twister touched down briefly in the Charlotte Hall community of Charles Co, stripping off a large portion of a barn's sheet metal roof. A garage containing auto repair machinery collapsed, and an adjacent home's brick chimney was also toppled. Several trees were felled in the vicinity. The tornado may have spun out of a nearby microburst, which snapped or uprooted over a dozen trees immediately southeast of the tornado track. In all, eight homes sustained minor damage; three others had moderate to major damage.

MDZ018

Calvert

13	0130EST 0300EST			0	0	60K	High Wind
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High winds associated with the remnants of Tropical Storm Bertha caused scattered (but widespread) damage along the western shore of the Chesapeake Bay in Calvert Co. A total of 5 homes sustained damage from fallen trees/large limbs: two in Drum Point, and three more in Chesapeake Beach. Most of the fallen trees were in the eastern half of the county.

The combination of rain, gusty winds, and isolated severe weather left approximately 45,000 Baltimore Gas and Electric customers without electricity on the western shore (including the Baltimore metropolitan area and Anne Arundel Co) during the height of the storm.

St. Mary'S County Patuxent River Nas

13	0203EST			0	0	25K	Thunderstorm Wind
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A microburst, associated with a feeder band from Tropical Storm Bertha, caused substantial damage to the front of a home on Patuxent River NAS. The home was located on the shoreline.

Calvert County 2 NW Dunkirk to 3.2 NW Dunkirk

13	0235EST 0237EST	1.2	50	0	0	120K	Tornado (F1)
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Tropical storm Bertha spawned three tornadoes along the western shore of the Chesapeake Bay during the early morning hours of the 13th. The tornadoes were associated with the strongest feeder bands due north or northeast of the center of circulation, which was located in southeast Virginia at the time.

The third tornado struck extreme northwest Calvert Co, causing the roof and a chimney of a predominantly wood-constructed farm house to collapse. The home was temporarily uninhabitable. At least one wall was near failure. A second chimney collapsed at a nearby home, just missing a resident. Numerous trees were snapped or uprooted along the path, and one home in the Calvert Estates subdivision sustained minor damage to its gutters.

Charles County Bel Alton

15	1430EST	0.3	25	0	0	4K	10K	Tornado (F0)
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Several trees were knocked down, and two cornfields partially damaged, when a pulse-severe thunderstorm struck Bel Alton in south central Charles Co. A 50 x 70 foot cornfield was flattened, with downed stalks in a cyclical pattern. A few shingles were lifted from a home on Mud Road; no other damage was reported.

Charles County 1 NW Benedict to Benedict

15	1458EST 1500EST			0	0	20K	Thunderstorm Wind
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A right-moving pulse severe thunderstorm produced a downburst which knocked down approximately 30 trees along Teagues Point Road to Maxwell Drive just west of Benedict. The damage area varied from 100 to 300 yards wide and lasted approximately 1.25 miles.



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MARYLAND, Central

Calvert County

Prince Frederick	15	1507EST			0	0	2K		Hail (2.00)
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Two reports of large hail were received by local television stations: one report noted 1 inch hail (WUSA-TV 9); another 2-inch diameter hail (WRC-TV 4).

Calvert County

Prince Frederick	15	1507EST			0	0	3K		Thunderstorm Wind
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The same storm that dumped 2 inch hail also produced damaging winds which knocked down several power lines.

Washington County

South Portion	19	1140EST			0	0	8K	5K	Thunderstorm Wind
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An isolated thunderstorm developed in the early afternoon and moved east across southern Washington Co. Thunderstorm winds caused scattered tree damage among Antietam, Sharpsburg, Trego, and Boonsboro. In Keedysville, residents reported a large amount of 3/4 inch diameter hail.

Washington County

1 N Ringgold to 2 E Ringgold	19	1402EST 1406EST	2	75	0	0	15K		Tornado (F0)
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A small tornado, crossing into Maryland from Pennsylvania, knocked down dozens of trees, many of them large, in the vicinity of Ringgold.

Frederick County

S Portion	19	1410EST 1420EST			0	0	20K		Lightning
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Lightning struck two homes, causing small fires at each one.

Washington County

Yarrowsburg to 2 S Yarrowsburg	19	1412EST 1415EST	2	125	0	0	400K	75K	Tornado (F2)
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A moderate tornado (F2) tracked between two mountain ridges in extreme southern Washington Co, knocking down hundreds of trees, including several onto homes which caused substantial damage. At least one barn was completely destroyed in Yarrowsburg. The storm attained maximum strength just south of town (where the trees, including numerous hardwoods, were flattened). The tornado weakened considerably before dissipating along the eastern ridge.

Structural and vehicle damage, though not as prevalent as the tree damage, included the following: Portions of roofs from two barns were blown off; minor residential damage, including shattered windows, unhinged shingles, and torn off trim/gutters. Some gravestones were overturned by the winds, and several power lines were knocked down. Several vehicles and vehicle windows were damaged.

Frederick County

Rosemont to Brunswick	19	1420EST 1424EST	2.2	200	0	0	80K	50K	Tornado (F1)
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The same supercell thunderstorm which produced the F2 tornado in Yarrowsburg (Washington Co) dropped a second tornado in Rosemont. This tornado would track through Brunswick, cross the Potomac River, then continue an additional 4 miles through extreme northern Loudoun Co before dissipating.

The tornado first touched down in Rosemont, damaging numerous trees as it crossed state route 17 and moved into Brunswick. A service station's roof was partially damaged by a fallen tree. Many of the homes in Brunswick were protected by the trees and the steep sloping terrain towards the Potomac. At the bottom of this hill, just east of the Maryland state route 17/Virginia route 287 bridge, is a train station, the C&O Canal, and a campground. The tornado maximized at this location, flattening numerous large hardwood trees. Considering the number of trees that fell in this area it was amazing that none of the campers or C&O Canal visitors were injured or killed. The tornado was witnessed crossing the Potomac into northern Loudoun Co.

The twister tracked over mainly rural property in Loudoun Co, maintaining F1 strength while crossing Quarter Branch Road. Most of the damage was to trees which were snapped, uprooted, or had large branches blown off. Siding, shingles, and some insulation were blown off a home in its path. A resident's automobile window was shattered. The tornado weakened at this point, producing F0 damage (mostly large limbs/small trees) for the next 2 miles before dissipating in Taylorstown.

Frederick County

1 W Rosemont to 1 W Brunswick	19	1420EST 1430EST			0	0	25K	50K	Thunderstorm Wind
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The supercell which was producing weak to moderate tornadoes across southern Washington and Frederick Counties had an associated rear-flank downburst which struck immediately west of the tornado track. Numerous trees were uprooted or snapped over a wide area from just west of Rosemont to the banks of the Potomac River. Wind speeds maximized along the shoreline, likely a result of a channeling effect through the mountain gap just east of Harpers Ferry, WV. Power outages were substantial in



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MARYLAND, Central

these areas; 10,000 customers in Loudoun Co Virginia and Frederick Co Maryland were briefly without electricity.

Montgomery County 2 N Whites Ferry

19 1436EST 0.5 150 0 0 30K Tornado (F1)

A short-lived weak tornado briefly touched down approximately 2 miles north of Whites Ferry. Numerous trees were knocked down on a small island (in the Maryland portion) of the Potomac River. More trees were knocked down along the C&O Canal and along Whites Ferry Road. This tornado was associated with the parent thunderstorm that produced earlier damage in southern Washington and Frederick Counties.

Montgomery County Poolesville to Dickerson

19 1440EST 1450EST 0 0 25K 10K Thunderstorm Wind

Downburst winds associated with a tornadic thunderstorm knocked down scattered trees and wires across extreme western Montgomery Co, mainly from Poolesville to Dickerson.

Carroll County 3 NW Gamber to 1.5 N Gamber

19 1442EST 1445EST 2.2 350 0 3 5M 20K Tornado (F3)

One of the most potent tornadoes in recorded history in the state of Maryland tracked for 2 and 1/4 miles through the Mystic Kane and Four Seasons subdivisions just off state route 32 northwest of Gamber. The tornado was a strong F3 (180 mph estimated winds) with multiple vortices. Homes and trees struck by individual vortices sustained the worst damage. There were several eyewitness accounts of the tornado/funnel cloud shortly before touchdown.

In all, 66 structures sustained damage. Twelve single-family homes were destroyed, five which lost most of the second story and garages. Three persons were injured. Two children were injured when the tornado blew them out of the second level of one of the homes. Their father suffered cuts and bruises when a wall partially collapsed on him while he was trying the rescue the children. Another dozen homes were deemed temporarily uninhabitable with substantial roof and siding damage. An additional 37 homes, a couple of apartments, and another barn received some damage. Many material items were sucked out of the homes, from bicycles to jewelry. Several automobiles were damaged by fallen and/or flying debris. Debris littered the ground for miles. A barn along route 32 was completely destroyed, and pieces of it were found as far away as 3.5 miles to the southeast of the barn's original location.

Dozens of trees were snapped, shredded, debarked, and uprooted. Corn stalks were sucked up leaving six inch stubs as the tornado crossed a field west of route 32. A corn stalk was embedded into the wall of a house 1/2 mile away from the stalk's original location. Numerous airborne missiles (large and small) were generated, puncturing holes into homes and becoming embedded into the ground. A refrigerator was found wrapped around a mailbox. A van was dragged 50 feet, then flipped over two times. Other vehicles were also damaged.

Montgomery County 4 S Dawsonville to 5 S Dawsonville

19 1448EST 1450EST 1 30 0 0 5K Tornado (F0)

A weak tornado, captured on videotape along the Potomac River, and assumed to originate in Seneca Creek State Park (Montgomery Co MD) 4 miles south of Dawsonville, crossed the Potomac River into extreme eastern Loudoun Co before dissipating just southeast of the Lowes Island Golf Club. One tree was uprooted, and several others damaged, along the short track.

Baltimore County Tyler

19 1455EST 1456EST 1.2 50 0 0 75K 5K Tornado (F1)

The rapidly moving supercell which spawned the earlier F3 tornado in southeastern Carroll Co dropped a short-track twister 3 miles southwest of Reisterstown at the intersection of Deer Park road and Berrymans Lane. Six homes had minor exterior damage. Most of the damage was to trees.

Baltimore City (C) Ne Portion

19 1530EST 1535EST 0.1 25 0 0 Tornado (F0)

The parent thunderstorm that dropped tornadoes northwest of the Baltimore metropolitan region put down brief twisters in the north and east portions of the city of Baltimore. People watched as a funnel snaked to the ground for no more than 10 seconds over the north central portion of town. A few minutes later, a second funnel touched down over the eastern portion of town. Some debris was seen being sucked up into the funnel, which also lasted 10 seconds, before it retreated into the wall cloud.

Both funnels were captured on film.

Prince George'S County 2 S Suitland

19 1545EST 1555EST 0 0 Flash Flood

Torrential rains estimated at 2 inches per hour caused the rapid onset of flash flooding along the Capital Beltway near Camp Springs. Two lanes were closed due to high standing water which was up to guardrail height in some spots.



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MARYLAND, Central

Charles County

Charles Co Gardens	19	1610EST			0	0	30K		Thunderstorm Wind
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Continuation of severe thunderstorms through the Washington DC suburbs produced more isolated wind damage in Charles Co, where a large tree caused substantial damage to a home in the Charles County Gardens subdivision.

Washington County

Se Portion	30	1615EST			0	0	15K		Flash Flood
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Slow-moving thunderstorms flooded numerous basements in the southeastern portion of the county.

Frederick County

Middletown to Frederick	30	1630EST			0	0			Flash Flood
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A slow-moving thunderstorm, containing tropical downpours, dumped an estimated 2 to 3 inches of rain in an hour, causing localized street flooding in Middletown. Street flooding was reported around the same time in Frederick.

Frederick County

5 SW Frederick	30	1820EST			0	0			Hail (0.88)
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Nickel-sized hail was reported by an NWS Skywarn spotter at the intersection of Mount Zion Road and federal highway 340 just southwest of Frederick.

Howard County

Lisbon	30	2010EST			0	0	10K		Thunderstorm Wind
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Merging thunderstorms in western Howard Co produced severe wind gusts which knocked down numerous trees in Lisbon.

Montgomery County

Germantown	30	2045EST 2100EST			0	0			Flash Flood
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State route 118 was covered by high standing water in Germantown.

Howard County

Countywide	30	2115EST 2120EST			0	0	15K	2K	Thunderstorm Wind
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A severe thunderstorm moved through central and eastern Howard Co about one hour after another storm knocked down trees in Lisbon. This storm damaged trees, and some power lines fell.

Howard County

Elkridge	30	2200EST			0	0	10K		Flash Flood
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Torrential rains flooded highway 1 near Elkridge. The flooding was intense enough to wash away portions of the shoulders.

VIRGINIA, North

Albemarle County

Coveville	03	1206EST			0	0			Hail (1.25)
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King George County

2 NE Dahlgren	03	1328EST			0	0			Hail (1.00)
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One-inch hail was reported near the Governor Nice (U.S. 301) Bridge.

King George County

King George	03	1340EST			0	0	10K		Thunderstorm Wind
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Numerous trees and large limbs were blown down in King George.

Albemarle County

Charlottesville	08	1655EST 1700EST			0	0	5K		Thunderstorm Wind
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A few large limbs fell onto power lines, leaving 3400 Charlottesville residents temporarily without electricity.

King George County

3 SW King George	13	0130EST			0	0	30K		Thunderstorm Wind
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Spotsylvania County

Fredericksburg	13	0145EST			0	0	15K		Thunderstorm Wind (G70)
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Stafford County

5 E Fredericksburg	13	0203EST			0	0	30K		Thunderstorm Wind
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Tropical Storm Bertha, moving through southeastern Virginia and the lower Delmarva, spawned severe wind gusts in strong feeder bands rotating northwest from the center. In King George Co, a roof was blown onto a tree, a garage was missing from a home, and a metal shed was demolished. In southeast Stafford Co, near Butzner Corner, siding was ripped from a few homes, and one



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VIRGINIA, North

sustained skylight damage, in the River Bend subdivision. In northeastern Spotsylvania Co, estimated winds to 80 mph knocked down trees in and near Fredericksburg.

Page County
Comertown

14	1415EST 1430EST				0	0	10K		Thunderstorm Wind
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A microburst destroyed a 1300 square-foot barn at a farm. A nearby 800 pound loader was moved 15 to 20 feet by the winds, but was not damaged.

Rockingham County
Harrisonburg

14	1415EST				1	0			Lightning
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A soccer player was struck by lightning at the Rockingham Co fairgrounds. The match had been called due to the storm, but the athlete had not sought shelter before the lightning struck. He perished approximately 12 hours later. M20BF

Albemarle County
Crozet

14	1745EST				0	0	15K		Thunderstorm Wind
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Power lines were knocked down in Crozet, causing widespread loss of electricity.

Stafford County
Falmouth

14	1830EST				0	0	20K		Thunderstorm Wind (G88)
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A severe thunderstorm blew down the walls of an under-construction McDonalds restaurant in Falmouth. Several area roads were closed due to downed trees or large limbs. Nickel-sized hail also fell nearby, at the intersection of federal highway 17 and interstate 95.

Stafford County
Falmouth

14	1830EST 1900EST				0	0			Flash Flood
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A severe thunderstorm in the area also produced copious rainfall, flooding several roads including portions of federal highway 1, Plantation Drive, and some side streets.

Loudoun County
**2 N Lovettsville to
1 E Lovettsville**

19	1420EST 1430EST				0	0	50K	75K	Thunderstorm Wind (G75)
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A tornadic thunderstorm's associated vigorous rear-flank downburst caused heavy damage over a 2-mile wide by 3 mile long area north of Lovettsville. Numerous trees were uprooted or snapped. A nearly completed home sustained gable damage and had its roof torn off. A small shed was destroyed. Highest winds (estimated around 90 mph) were along the banks of the Potomac River, funneling through the mountain gap just east of Harpers Ferry (WV). Hundreds of trees were flattened.

Loudoun County
**2 NE Lovettsville to
Taylorstown**

19	1424EST 1432EST	4	50		0	0	50K	10K	Tornado (F1)
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The same supercell thunderstorm which produced the F2 tornado in Yarrowsburg (Washington Co) dropped a second tornado in Rosemont. This tornado would track through Brunswick, cross the Potomac River, then continue an additional 4 miles through extreme northern Loudoun Co before dissipating.

The tornado first touched down in Rosemont, damaging numerous trees as it crossed state route 17 and moved into Brunswick. A service station's roof was partially damaged by a fallen tree. Many of the homes in Brunswick were protected by the trees and the steep sloping terrain towards the Potomac. At the bottom of this hill, just east of the Maryland state route 17/Virginia route 287 bridge, is a train station, the C&O Canal, and a campground. The tornado maximized at this location, flattening numerous large hardwood trees. Considering the number of trees that fell in this area it was amazing that none of the campers or C&O Canal visitors were injured or killed. The tornado was witnessed crossing the Potomac into northern Loudoun Co.

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Loudoun County
**2 N Lovettsville to
1 E Lovettsville**

19	1420EST 1430EST				0	0	50K	75K	Thunderstorm Wind (G75)
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The parent thunderstorm simultaneously dropping an F1 tornado northeast of Lovettsville was producing a powerful rear-flank downburst immediately to the south and southwest. Damage occurred roughly over a 2-mile wide by 3-mile long area. Numerous trees were uprooted or snapped. A nearly completed home (still under construction) had gables torn off and the roof collapse. A small shed was destroyed. The hardest hit area was along the banks of the Potomac River, where hundreds of trees were flattened. Winds were likely at peak speed (estimated 90 mph) at this location, likely a result of channeling flow through the mountain gap just east of Harpers Ferry WV.

