

Storm Data and Unusual Weather Phenomena

September 2006

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

ANZ534 Crisfield to St Marys City			Chesapeake Bay Drum Pt To Smith Pt Va						
	01	1500EST 2000EST			0	0	25K		Marine High Wind

ANZ533 Chesapeake Beach to Plum Pt			Chesapeake Bay N Beach To Drum Pt Md						
	01	1500EST 2000EST			0	0	25K		Marine High Wind

ANZ537 Coles Point to Point Lookout			Tidal Potomac Cobb Is Md To Smith Pt Va						
	01	1500EST 2000EST			0	0	25K		Marine High Wind

A very tight pressure gradient developed Friday afternoon in response to the remnants of Tropical Storm Ernesto moving through the Mid Atlantic. Wind gusts around 50 knots occurred on the Lower Tidal Potomac and Middle Chesapeake Bay. A tug boat captain in the Lower Tidal Potomac reported wind gusts up to 65 knots, although these values could not be substantiated with official NWS observations. Significant property damage was reported near and along the coastline of the Lower Potomac and Middle Chesapeake. The most extensive damages occurred in St. Mary's County, such as along Murray Road in the town of Ridge, which is right along the shore of the Chesapeake. The damages to trees and powerlines were explained by local residents as more extensive than during Hurricane Isabel in 2003.

ANZ534 Smith Island			Chesapeake Bay Drum Pt To Smith Pt Va						
	10	1432EST 1449EST			0	0			Waterspout

A waterspout occurred near Smith Island due to a strong shower moving through the Chesapeake Bay.

ANZ535 Rnld Reagan Natl Arpt to Woodbridge			Tidal Potomac Key Bridge To Indian Hd Md						
	28	1648EST 1727EST			0	0			Marine Tstm Wind (MG41)

Peak wind of 41 kt was measured at Ronald Reagan Airport, although gusts between 34 to 40 knots also occurred at Andrews Air Force Base and Mason Neck.

ANZ536 Quantico to Dahlgren			Tidal Potomac Indian Hd To Cobb Is Md						
	28	1729EST 1825EST			0	0			Marine Tstm Wind (EG34)

ANZ531 Millers Island to Tolchester Beach			Chesapeake Bay Pooler Is To Sandy Pt Md						
	28	1730EST 1818EST			0	0			Marine Tstm Wind (EG60)

Peak winds were up to 60 knots at Hart-Miller Island, with gusts between 34 to 45 knots at Baltimore/Washington International Airport, Baltimore Approaches Buoy, and Tolchester Beach.

ANZ532 Annapolis to Tilghman Island			Chesapeake Bay Sandy Pt To N Beach Md						
	28	1732EST 1744EST			0	0			Marine Tstm Wind (EG34)

ANZ534 Patuxent River Nas			Chesapeake Bay Drum Pt To Smith Pt Va						
	28	1922EST			0	0			Marine Tstm Wind (MG35)

ANZ534 Crisfield to Point Lookout			Chesapeake Bay Drum Pt To Smith Pt Va						
	28	2010EST 2050EST			0	0			Marine Tstm Wind (MG51)

Highest gusts measured at Crisfield, with gusts between 35 to 40 knots at Bishops Head, Point Lookout, and Smith Island.

ANZ537 Lewisetta to Point Lookout			Tidal Potomac Cobb Is Md To Smith Pt Va						
	28	2015EST 2025EST			0	0			Marine Tstm Wind (MG38)

Peak gust measured at Point Lookout.

Significant severe thunderstorms occurred on September 28 across the region. A strong cold front moved from the Appalachian Mountains to the Mid Atlantic during the afternoon. The cold front reached to along the Chesapeake Bay around midnight. The most intense thunderstorms occurred along the Interstate 95 corridor, with one confirmed F1 tornado in Anne Arundel County, Maryland. Intense thunderstorm winds also occurred across the tidal waters of the Potomac and Chesapeake.

DISTRICT OF COLUMBIA

DCZ001			District Of Columbia						
	01	1200EST 1600EST			0	0	25K		Strong Wind (EG40)

The remnants of Tropical Storm Ernesto brought strong winds and heavy rain to the District of Columbia. There were isolated

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DISTRICT OF COLUMBIA

reports of downed branches and powerlines in Washington due to the heavy rain and winds gusting as high as 45 mph.

MARYLAND, Central

Calvert County

Countywide

01	1100EST 2000EST				0	0			Heavy Rain
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Heavy rainfall between 7 to 10 inches occurred in St. Mary's, Charles, and Calvert counties. The heaviest rain totals of near 10 inches were reported in southeast St. Mary's County. The heavy rains contributed to the extensive downed trees and powerlines across Lower Southern Maryland.

Charles County

Countywide

01	1100EST 2000EST				0	0			Heavy Rain
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Heavy rainfall between 7 to 10 inches occurred in St. Mary's, Charles, and Calvert counties. The heaviest rain totals of near 10 inches were reported in southeast St. Mary's County. The heavy rains contributed to the extensive downed trees and powerlines across Lower Southern Maryland.

MDZ014-016

Anne Arundel - Charles

01	1100EST 2200EST				0	0	140K		Strong Wind (EG40)
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The remnants of Tropical Storm Ernesto did not affect Charles County quite as severely as neighboring Calvert and St. Mary's Counties. However, gusty winds up to 50 mph still caused a few downed trees and powerlines, and isolated power outages. The reason for the downed trees was due to a combination of heavy rainfall, which acts to weaken the roots of the trees, combined with the strong winds up to 45 mph. 32 houses received damages from falling trees. In Anne Arundel County, a few trees were downed due to strong winds gusting as high as 45 mph.

MDZ017>018

St. Mary'S - Calvert

01	1100EST 2100EST				0	0	3.5M		High Wind (EG55)
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Catastrophic damages were sustained in extreme Lower Southern Maryland from the remnants of Tropical Storm Ernesto. Most of the damages were caused by the high winds, although damages were also sustained due to extensive storm surge flooding of coastal areas.

High winds persisted for much of the day and evening in Lower Southern Maryland due to the remnants of Tropical Storm Ernesto moving through the Mid Atlantic. Wind gusts as high as 60 mph were reported in St. Mary's County. Wind gusts as high as 70 mph were reported from the public, however these winds were not able to be substantiated. These winds, coupled with heavy rains, caused extensive tree and powerline damage around the county. The most extensive damages occurred along Murray Road in the town of Ridge. The damages to trees and powerlines were explained by local residents as more extensive than during Hurricane Isabel in 2003. St. Mary's County Government reported total cost of direct weather related damages, including the added cost of manpower to respond to damages and debris removal, at \$4.4 million. The damage cost reported in Storm Data is estimated at \$3.30 million for St. Mary's County for damages to private and public property and restoring power systems. The Storm Data estimate does not include the costs of manpower and debris removal.

High winds also occurred in Calvert County, with downed trees, powerlines, and subsequent power outages. The most extensive damages in Calvert County occurred close to the Chesapeake Bay, in the communities of Cove Point and Solomons Island.

St. Mary'S County

Countywide

01	1100EST 2000EST				0	0			Heavy Rain
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Heavy rainfall between 7 to 10 inches occurred in St. Mary's, Charles, and Calvert counties. The heaviest rain totals of near 10 inches were reported in southeast St. Mary's County. The heavy rains contributed to the extensive downed trees and powerlines across Lower Southern Maryland.

MDZ014-016>018

Anne Arundel - Charles - St. Mary'S - Calvert

01	1400EST				0	0	50K		Storm Surge/Tide
02	0100EST								

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MARYLAND, Central



This home experienced overflow from coastal flooding conditions from the remnants of Tropical Storm Ernesto. Many other local areas also experienced flooding along the western shore of the Chesapeake. Image courtesy St. Mary's County Emergency Management.

The Tide crest at Annapolis was 3.56 MLLW late Friday. Moderate coastal flooding occurred due to the storm surge from the remnants of Tropical Storm Ernesto. In Charles County, mandatory evacuations were ordered due to the flooding, with many roads flooded. Piers and bulkheads were also damaged along the western shore of the Chesapeake. Tide crest was 4.45 MLLW in the upper Tidal Patuxent River late Friday.

MDZ003>004

Washington - Frederick

09	0500EST								
	0830EST				0	0			Dense Fog

Dense fog affected Western Maryland with visibilities reduced to between one-quarter and one-half mile in many areas. Visibilities were reported below one-quarter mile in localized areas.

Carroll County

Hampstead

28	1530EST								
					0	0	15K		Thunderstorm Wind (EG50)

Powerlines down.

Baltimore County

9 NNE Boring

28	1535EST								
					0	0	22K		Thunderstorm Wind (EG50)

Trees and powerlines down in Northern Baltimore County.

Howard County

Lisbon

28	1642EST								
					0	0	35K		Thunderstorm Wind (EG50)

Several trees down.

Prince George'S County

Bowie

28	1709EST								
					0	0			Hail(0.75)

Penny sized hail reported near the intersection of John Hanson Highway and Maryland Route 197.

Prince George'S County

Bowie

28	1709EST								
	1730EST				0	0	70K		Thunderstorm Wind (MG60)

Measured wind gust by a trained SKYWARN spotter. Significant roof damage also occurred to a home in Bowie. No injuries were reported.

Anne Arundel County

Severna Park to Pasadena

28	1734EST		2	250					
	1744EST				0	0	6M		Tornado (F1)

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MARYLAND, Central



F1 Tornado damage at Severna Park, MD, September 28, 2006. Image courtesy Anne Arundel County Police, Officer Rich Herard.

The National Weather Service conducted a storm survey in Severna Park and Pasadena Maryland, rating the tornado an F1 on the Fujita scale of tornado intensity. It was determined that the tornado touched down in the area of Severna Park about 6:34 pm, and traveled two miles before lifting in Pasadena around 6:44 pm. At its maximum the storm was 250 yards wide with winds of 90 mph. 34 homes were severely damaged by falling trees with 13 of those homes rendered uninhabitable. Initial minor damage was located near the intersection of Ritchie Highway and McKinsey Avenue. A hardware store had its sign blown down and a small tree was downed near the Severna Park Marketplace Shopping Center. A few trees were also downed immediately behind the shopping center along Leelynn Road. The tornado gathered strength as it progressed through West Ridge and towards Cattail Creek off of the Magothy River. Five large hardwood trees of one to two feet in diameter were uprooted, and several others were snapped off along Whittier Parkway. Two of the large trees had fallen through houses. These trees, as most of the trees were in the survey, were blown down nearly perpendicular to the path of the tornado (knocked down towards the west). The tornado then reached its most intense and widest extent as it passed through the community of Lower Magothy Beach. Many of these trees knocked down in this area were large two foot diameter hardwood trees that were 60 to 80 feet tall. Leaf spatter was noted on the sides of homes and vehicles. Slight siding damage was noted on one home. Many wires and telephone poles were knocked down in this area. The width of the tornado at this point was 250 yards. Damage became much more limited as the tornado continued north across Norwich Road and Inverness Road in Riverdale. By the time the storm crossed the Magothy for the final time and traveled over the community of Beachwood Park, only leaf litter and small downed branches were noted.

Harford County

**Street to
Whiteford**

28 1830EST 0 0 25K Thunderstorm Wind (EG50)

Trees downed in several locations.

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VIRGINIA, North

VAZ057

King George

**01 1700EST
2100EST**

0 0 80K High Surf

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VIRGINIA, North

Storm surge tidal flooding occurred along the Tidal Potomac River from the remnants of Tropical Storm Ernesto, causing extensive flooding and heavy surf action in King George County. Flooding was observed at Fairview Beach. Heavy surf caused extensive beach erosion and subsequent damages to beach areas at Fairview Beach, such as to piers, docks, and bulkheads. The boardwalk was also damaged at Colonial Beach. A tide crest was measured of 5.54 ft. (NAVD88-MSL) on the Tidal Potomac at Alexandria, which was well above the flood stage of 4.0 ft.

VAZ052>056

Prince William - Fairfax - Arlington - Stafford - Spotsylvania

01	1900EST								
02	0100EST					30K			Storm Surge/Tide

Storm surge tidal flooding occurred along the Tidal Potomac River from the remnants of Tropical Storm Ernesto, causing extensive flooding in Alexandria and isolated spots along the shores of the Tidal Potomac River. Flooding was observed near the intersection of King and Union Streets in Old Town Alexandria. Some stores located near the waterfront in Old Town Alexandria sustained minor damages due to the tidal overflows. Heavy surf caused extensive beach erosion and subsequent damages to beach areas and the boardwalk at Colonial Beach. A tide crest was measured of 5.54 ft. (NAVD88-MSL) on the Tidal Potomac at Alexandria, which was well above the flood stage of 4.0 ft. The Neabsco Creek, in southeast Prince William County, flooded and closed a roadway due to the storm surge.

VAZ025>028-031-

Augusta - Rockingham - Shenandoah - Frederick - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock -

036>042-050>052-055>057 Fauquier - Loudoun - Orange - Culpeper - Prince William - Stafford - Spotsylvania - King George

09	0500EST								
	0830EST								Dense Fog

Dense fog affected the Central Shenandoah Valley and Northern Piedmont with visibilities reduced to between one-quarter and one-half mile in many areas. Visibilities were reported below one-quarter mile in localized areas.

Fauquier County

**Marshall to
Warrenton**

28	1630EST								
	1635EST					18K			Thunderstorm Wind (EG50)

Trees down.

Prince William County

**2 SE Manassas Afs to
Woodbridge**

28	1630EST								
	1640EST					23K			Thunderstorm Wind (EG50)

Trees down at intersection of Davis Ford and Mockingbird Roads. Trees also down on Hoadley Road.

Fairfax County

**Franconia to
Burke**

28	1700EST								
	1708EST					150K			Thunderstorm Wind (EG50)

Trees down in Franconia, Burke, and Annandale, with some property damage to homes.

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WEST VIRGINIA, East

WVZ049>053

Mineral - Hampshire - Morgan - Berkeley - Jefferson

09	0500EST								
	0830EST								Dense Fog

Dense fog affected the Eastern Panhandle of West Virginia with visibilities reduced to between one-quarter and one-half mile in many areas. Visibilities were reported below one-quarter mile in localized areas.

Hampshire County

**Springfield to
Augusta**

28	1420EST								
						20K			Thunderstorm Wind (EG50)

Tree down in Springfield and powerlines down in Augusta.

Morgan County

Berkeley Spgs

28	1500EST								
	1515EST					85K			Thunderstorm Wind (EG60)

Trees down in and around Berkeley Springs. A large pole barn on a farm in Eastern Morgan County was shifted from its foundation and subsequently collapsed. Trees also down on Pooles Road.

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