

## Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>ATLANTIC NORTH</b>				
<b>CHESAPEAKE BAY N OF POOLES IS MD COUNTY --- 1.8 ENE SUSQUEHANNA [39.55, -76.04]</b>				
	08/02/09 09:20 EST		0	Marine Thunderstorm Wind (EG 40 kt)
	08/02/09 09:20 EST		0	Source: Trained Spotter
A wind gust of 40 knots was estimated just southeast of Perryville.				
<b>TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 5.6 ESE PINEY POINT [38.11, -76.43]</b>				
	08/02/09 11:18 EST		0	Marine Thunderstorm Wind (MG 40 kt)
	08/02/09 11:18 EST		0	Source: Mesonet
A wind gust was estimated around 40 knots.				
<b>CHESAPEAKE BAY DRUM PT TO SMITH PT VA COUNTY --- 0.2 SSE LOWER HOOPERS ISLAND [38.26, -76.18]</b>				
	08/02/09 11:46 EST		0	Marine Thunderstorm Wind (EG 34 kt)
	08/02/09 11:46 EST		0	Source: Mesonet
A wind gust in excess of 30 knots was measured at Lower Hooper Island.				
<b>TANGIER SOUND AND THE INLAND WATERS SURROUNDING BLOODSWORTH ISLAND COUNTY --- 0.3 SSE CRISFIELD [37.97, -75.88]</b>				
	08/02/09 19:24 EST		0	Marine Thunderstorm Wind (EG 34 kt)
	08/02/09 19:24 EST		0	Source: Mesonet
A wind gust in excess of 30 knots was measured at Crisfield.				
<b>TANGIER SOUND AND THE INLAND WATERS SURROUNDING BLOODSWORTH ISLAND COUNTY --- 0.1 NE BISHOPS HEAD [38.22, -76.04]</b>				
	08/02/09 21:59 EST		0	Marine Thunderstorm Wind (MG 34 kt)
	08/02/09 21:59 EST		0	Source: Mesonet
A wind gust of 34 knots was measured at Bishops Head.				
<b>A cold front passed through the waters on the 2nd of August. A southwest flow ahead of the front provided an unstable atmosphere. Scattered showers and thunderstorms developed over the waters, and isolated thunderstorms did produce gusty winds over the Chesapeake Bay.</b>				
<b>CHESAPEAKE BAY N OF POOLES IS MD COUNTY --- 0.5 W SUSQUEHANNA [39.54, -76.08]</b>				
	08/09/09 17:44 EST		0	Marine Thunderstorm Wind (EG 40 kt)
	08/09/09 17:44 EST		0	Source: Fire Department/Rescue
A wind gust of 40 knots was estimated just southeast of Havre De Grace.				
<b>CHESAPEAKE BAY N OF POOLES IS MD COUNTY --- HAVRE DE GRACE [39.55, -76.10]</b>				
	08/09/09 17:44 EST		0	Marine Thunderstorm Wind (MG 40 kt)
	08/09/09 17:44 EST		0	Source: Mesonet
A wind gust of 40 knots was measured at Havre de Grace.				
<b>CHESAPEAKE BAY POOLES IS TO SANDY PT MD COUNTY --- 0.2 NNW MILLER ISLAND [39.25, -76.37]</b>				
	08/09/09 18:17 EST		0	Marine Thunderstorm Wind (MG 36 kt)
	08/09/09 18:17 EST		0	Source: Mesonet
A wind gust of 36 knots was measured at Miller Island.				
<b>Strong surface heating triggered an unstable atmosphere on the 9th. Despite a lack of strong forcing aloft, scattered showers and thunderstorms developed due to the instability. Isolated thunderstorms did produce gusty winds.</b>				
<b>CHESAPEAKE BAY POOLES IS TO SANDY PT MD COUNTY --- BALTIMORE KEY BRIDGE [39.22, -76.53]</b>				
	08/10/09 20:12 EST		0	Marine Thunderstorm Wind (MG 48 kt)
	08/10/09 20:35 EST		0	Source: Buoy
Wind gusts ranged between 36 and 48 knots at the Baltimore Key Bridge.				

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<b>CHESAPEAKE BAY POOLES IS TO SANDY PT MD COUNTY --- 0.2 NNW MILLER ISLAND [39.25, -76.37]</b>	08/10/09 20:28 EST		0	Marine Thunderstorm Wind (MG 46 kt)
	08/10/09 20:50 EST		0	Source: Mesonet
Wind gusts of 45 to 46 knots were measured at Miller Island.				
<b>Strong surface heating triggered an unstable atmosphere on the 10th. Despite a lack of strong forcing aloft, scattered showers and thunderstorms developed due to the instability. Isolated thunderstorms did produce gusty winds over the Chesapeake Bay.</b>				
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<b>CHESAPEAKE BAY SANDY PT TO N BEACH MD COUNTY --- 10.4 S KENT ISLAND [38.77, -76.34]</b>	08/11/09 19:15 EST		0	Marine Thunderstorm Wind (EG 40 kt)
	08/11/09 19:15 EST		0	Source: Mariner
A wind gust of 40 knots was estimated near McDaniel.				
<b>Strong surface heating triggered an unstable atmosphere on the 11th. Despite a lack of strong forcing aloft, scattered showers and thunderstorms developed due to the instability. An isolated thunderstorm did produce gusty winds.</b>				
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<b>TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- PINEY POINT [38.13, -76.53]</b>	08/19/09 16:06 EST		0	Marine Thunderstorm Wind (EG 34 kt)
	08/19/09 16:06 EST		0	Source: Buoy
A wind gust in excess of 30 knots was measured at Piney Point.				
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<b>TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 0.2 WNW POINT LOOKOUT [38.04, -76.32]</b>	08/19/09 16:45 EST		0	Marine Thunderstorm Wind (EG 34 kt)
	08/19/09 16:45 EST		0	Source: Mesonet
A wind gust in excess of 30 knots was measured at Point Lookout.				
<b>A southwest flow around high pressure over the western Atlantic ushered in plenty of low-level moisture across the waters. The moisture combined with strong surface heating for an unstable atmosphere. Showers and thunderstorms developed due to the instability, and some of the thunderstorms gusty winds.</b>				
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<b>TIDAL POTOMAC KEY BRIDGE TO INDIAN HD MD COUNTY --- 0.2 NE (DCA)REAGAN NATIONAL AIRPORT [38.85, -77.04]</b>	08/21/09 13:39 EST		0	Marine Thunderstorm Wind (EG 34 kt)
	08/21/09 13:39 EST		0	Source: ASOS
A wind gust in excess of 30 knots was measured at Reagan National Airport.				
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<b>CHESAPEAKE BAY N BEACH TO DRUM PT MD COUNTY --- COVE POINT [38.43, -76.39]</b>	08/21/09 14:30 EST		0	Marine Thunderstorm Wind (EG 34 kt)
	08/21/09 14:30 EST		0	Source: Buoy
A wind gust in excess of 30 knots was measured at Cove Point.				
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<b>CHESAPEAKE BAY POOLES IS TO SANDY PT MD COUNTY --- 0.2 NNW MILLER ISLAND [39.25, -76.37]</b>	08/21/09 20:46 EST		0	Marine Thunderstorm Wind (EG 34 kt)
	08/21/09 20:46 EST		0	Source: Mesonet
A wind gust in excess of 30 knots was measured at Miller Island.				
<b>A southwest flow between an upper-level low over the Great Lakes and high pressure over the western Atlantic ushered in plenty of moisture from the Gulf of Mexico. The moisture combined with strong surface heating to produce an unstable atmosphere. Showers and thunderstorms developed due to the unstable atmosphere and a few thunderstorms produced gusty winds over the Chesapeake Bay and the Potomac River.</b>				
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<b>TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 0.4 SE LEWISSETTA [37.99, -76.47]</b>	08/24/09 04:00 EST		0	Marine Thunderstorm Wind (MG 41 kt)
	08/24/09 04:00 EST		0	Source: Buoy
A wind gust of 41 knots was measured at Lewissetta.				

## Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 3.7 ESE PINEY POINT [38.11, -76.47]</b>				
	08/24/09 04:12 EST	0		Marine Thunderstorm Wind (EG 52 kt)
	08/24/09 04:12 EST	0		Source: Trained Spotter

A wind gust was estimated around 60 mph near Piney Point.

<b>TANGIER SOUND AND THE INLAND WATERS SURROUNDING BLOODSWORTH ISLAND COUNTY --- 0.3 SSE CRISFIELD [37.97, -75.88]</b>				
	08/24/09 05:51 EST	0		Marine Thunderstorm Wind (MG 35 kt)
	08/24/09 05:51 EST	0		Source: Mesonet

A wind gust of 35 knots was measured at Crisfield.

**A trough of low pressure provided cooler air aloft. The cooler air aloft combined with strong surface heating to develop an unstable atmosphere. Scattered showers and thunderstorms did develop, and isolated thunderstorms did produce gusty winds over the Chesapeake Bay and Potomac River.**

### MARYLAND, Central

<b>FREDERICK COUNTY --- 0.7 S WOLFSVILLE [39.57, -77.55]</b>				
	08/02/09 06:12 EST	0		Thunderstorm Wind (EG 61 kt)
	08/02/09 06:12 EST	0		Source: Emergency Manager

Numerous trees and power lines were down from thunderstorm winds in Wolfsville.

<b>FREDERICK COUNTY --- 0.5 E THURMONT [39.62, -77.41]</b>				
	08/02/09 06:23 EST	0		Thunderstorm Wind (EG 61 kt)
	08/02/09 06:23 EST	0		Source: Emergency Manager

Numerous reports of trees down were received across northern Frederick County. Most of the reports came from the Thurmont area.

<b>CARROLL COUNTY --- 0.3 WNW BRIDGEPORT [39.68, -77.23]</b>				
	08/02/09 06:36 EST	0		Thunderstorm Wind (EG 50 kt)
	08/02/09 06:36 EST	0		Source: Emergency Manager

A tree was down at Bull Frog Road and McMullen Road.

<b>CARROLL COUNTY --- 1.1 E KEYSVILLE [39.63, -77.25]</b>				
	08/02/09 06:46 EST	0		Hail (0.75 in)
	08/02/09 06:46 EST	0		Source: Trained Spotter

Hail up to the size of pennies was reported near Keysville.

**A cold front passed through the region on the 2nd of August. A southwest flow ahead of the front provided an unstable atmosphere. Some thunderstorms associated with the cold front did become severe due to the instability and strong winds aloft.**

<b>HARFORD COUNTY --- 0.7 N HAVRE DE GRACE [39.56, -76.10]</b>				
	08/09/09 17:40 EST	0		Thunderstorm Wind (EG 50 kt)
	08/09/09 17:40 EST	0		Source: Fire Department/Rescue

Tree damage was reported around Havre De Grace.

**Strong surface heating triggered an unstable atmosphere on the 9th. Despite a lack of strong forcing aloft, scattered showers and thunderstorms developed due to the instability. An isolated thunderstorm did produce damaging winds.**

<b>ANNE ARUNDEL COUNTY --- 0.5 W PASADENA [39.10, -76.58]</b>				
	08/18/09 16:15 EST	0		Thunderstorm Wind (EG 50 kt)
	08/18/09 16:15 EST	0		Source: COOP Observer

A tree was down near Severna Park.

## Storm Data and Unusual Weather Phenomena - August 2009

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<b>ANNE ARUNDEL COUNTY --- 0.9 SE EARLEIGH HGTS [39.09, -76.54]</b>				
	08/18/09 16:18 EST	0		Hail (0.75 in)
	08/18/09 16:18 EST	0		Source: Trained Spotter
Penny size hail was reported near Riverdale.				
<b>BALTIMORE COUNTY --- 0.9 SW CARNEY [39.39, -76.53]</b>				
	08/18/09 16:33 EST	0		Thunderstorm Wind (EG 50 kt)
	08/18/09 16:33 EST	0		Source: Fire Department/Rescue
A tree was down near the intersection of Harford Road and Putty Hill Avenue.				
<b>BALTIMORE COUNTY --- 0.8 SSE CUB HILL [39.41, -76.51]</b>				
	08/18/09 16:42 EST	0		Thunderstorm Wind (EG 50 kt)
	08/18/09 16:42 EST	0		Source: Fire Department/Rescue
A tree was down on Harford Road and Cub Hill Road.				
<b>HARFORD COUNTY --- 0.4 WSW GLENWOOD [39.52, -76.34]</b>				
	08/18/09 16:56 EST	0		Thunderstorm Wind (EG 50 kt)
	08/18/09 16:56 EST	0		Source: Emergency Manager
A tree was down on Forest Drive.				
<b>HARFORD COUNTY --- 1.5 NNW FOREST HILL [39.60, -76.39]</b>				
	08/18/09 17:22 EST	0		Thunderstorm Wind (EG 50 kt)
	08/18/09 17:22 EST	0		Source: Emergency Manager
A tree was down near the intersection of Walters Mill Road and Grier Nursery Road. This resulted in a vehicular collision.				
<b>HARFORD COUNTY --- 1.3 WSW LAPIDUM [39.59, -76.15]</b>				
	08/18/09 17:23 EST	0		Thunderstorm Wind (EG 50 kt)
	08/18/09 17:23 EST	0		Source: Emergency Manager
Trees were down in the Lapidum area.				
<b>HARFORD COUNTY --- 1.1 E WHITEFORD [39.70, -76.33]</b>				
	08/18/09 17:33 EST	0		Thunderstorm Wind (EG 50 kt)
	08/18/09 17:33 EST	0		Source: Emergency Manager
A tree was down on Ridge Road near Whiteford Road.				
<b>A southwest flow around high pressure over the western Atlantic ushered in plenty of low-level moisture across Maryland. The moisture combined with strong surface heating for an unstable atmosphere. Showers and thunderstorms developed due to the instability, and some of the thunderstorms were severe.</b>				
<b>ST. MARY'S COUNTY --- 0.9 NE COMPTON [38.28, -76.69]</b>				
	08/19/09 15:39 EST	0		Hail (1.00 in)
	08/19/09 15:39 EST	0		Source: Trained Spotter
Quarter size hail was reported near Compton.				
<b>ST. MARY'S COUNTY --- 0.5 W ABELLS WHARF [38.27, -76.66]</b>				
	08/19/09 15:42 EST	0		Hail (2.75 in)
	08/19/09 15:42 EST	0		Source: Trained Spotter
Ping pong to baseball size hail was reported near Society Hill.				
<b>ST. MARY'S COUNTY --- 0.9 NW ABELLS WHARF [38.28, -76.66]</b>				
	08/19/09 15:42 EST	0		Hail (1.75 in)
	08/19/09 15:42 EST	0		Source: Trained Spotter

## Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Golf ball size hail was reported near Leonardtown.				
<b>A southwest flow around high pressure over the western Atlantic ushered in plenty of low-level moisture across Maryland. The moisture combined with strong surface heating for an unstable atmosphere. Showers and thunderstorms developed due to the instability, and some of the thunderstorms produced large hail.</b>				
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<b>CALVERT COUNTY --- 1.5 NNW ISLAND CREEK [38.47, -76.58]</b>	08/21/09 14:00 EST	0		Thunderstorm Wind (EG 56 kt)
	08/21/09 14:00 EST	0		Source: Trained Spotter
Numerous limbs were down and several large branches struck a boathouse causing significant damage.				
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<b>ST. MARY'S COUNTY --- 0.2 E MECHANICSVILLE [38.43, -76.73]</b>	08/21/09 17:44 EST	0		Thunderstorm Wind (EG 61 kt)
	08/21/09 17:44 EST	0		Source: Fire Department/Rescue
Two trees were down over Old Village Road. A chimney was also blown off a roof.				
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<b>FREDERICK COUNTY --- 1.1 SSW DOUBS [39.29, -77.53]</b>	08/21/09 17:45 EST	0		Thunderstorm Wind (EG 52 kt)
	08/21/09 17:45 EST	0		Source: Fire Department/Rescue
A tree was down at Route 464 and Route 15.				
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<b>FREDERICK COUNTY --- 0.5 SSE PLEASANT VIEW [39.27, -77.50]</b>	08/21/09 17:50 EST	0		Thunderstorm Wind (EG 52 kt)
	08/21/09 17:50 EST	0		Source: NWS Employee
Several one to two inch branches were down along Tuscarora Road.				
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<b>FREDERICK COUNTY --- 1.9 ENE TUSCARORA [39.26, -77.44]</b>	08/21/09 17:56 EST	0		Thunderstorm Wind (EG 52 kt)
	08/21/09 17:56 EST	0		Source: NWS Employee
Several six to eight inch trees were down over Park Mills Road and numerous one to two inch branches were snapped as well.				
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<b>MONTGOMERY COUNTY --- 1.2 NE DICKERSON [39.23, -77.41]</b>	08/21/09 18:00 EST	0		Thunderstorm Wind (EG 56 kt)
	08/21/09 18:00 EST	0		Source: NWS Employee
One eight inch tree was snapped off about 30 feet above the ground along Mount Ephraim Road. Twig and leaf debris were also along the road.				
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<b>FREDERICK COUNTY --- 1.9 SSW URBANA [39.31, -77.37]</b>	08/21/09 18:02 EST	0		Thunderstorm Wind (EG 52 kt)
	08/21/09 18:02 EST	0		Source: NWS Employee
Trees and power lines were down along Thurston Road from Dixon Road to Burnt Hickory Circle.				
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<b>FREDERICK COUNTY --- 3.8 SSE PARK MILLS [39.25, -77.39]</b>	08/21/09 18:02 EST	0		Thunderstorm Wind (EG 61 kt)
	08/21/09 18:02 EST	0		Source: NWS Employee
A six to eight inch diameter tree was snapped at the base. Several four to six inch branches were also down near Barnesville.				
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<b>FREDERICK COUNTY --- 0.7 N FOUNTAIN MILLS [39.34, -77.25]</b>	08/21/09 18:20 EST	0		Hail (0.75 in)
	08/21/09 18:20 EST	0		Source: NWS Employee
Penny size hail was reported in Green Valley.				
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<b>HOWARD COUNTY --- 1.3 ENE DAISY [39.31, -77.05]</b>				

## Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	08/21/09 18:30 EST		0	Thunderstorm Wind (EG 50 kt)
	08/21/09 18:30 EST		0	Source: Fire Department/Rescue

A tree was down near Daisy.

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### HOWARD COUNTY --- 0.9 ESE WATERSVILLE JCT [39.37, -77.10]

08/21/09 18:32 EST	0	Thunderstorm Wind (EG 50 kt)
08/21/09 18:32 EST	0	Source: Fire Department/Rescue

A tree was down along Watersville Road.

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### HOWARD COUNTY --- 1.4 ENE DAISY [39.31, -77.05]

08/21/09 18:35 EST	0	Thunderstorm Wind (EG 50 kt)
08/21/09 18:35 EST	0	Source: Fire Department/Rescue

A tree was down along Cars Mill Road.

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### BALTIMORE COUNTY --- 0.9 SE GLYNDON [39.46, -76.81]

08/21/09 19:13 EST	0	Hail (0.75 in)
08/21/09 19:13 EST	0	Source: Amateur Radio

Penny size hail was reported in Reisterstown.

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### BALTIMORE COUNTY --- 0.8 WSW BOWLEYS QUARTERS [39.33, -76.38]

08/21/09 20:45 EST	0	Hail (0.75 in)
08/21/09 20:45 EST	0	Source: Storm Chaser

Penny size hail was reported near Bowleys Quarters.

**A southwest flow between an upper-level low over the Great Lakes and high pressure over the western Atlantic ushered in plenty of moisture from the Gulf of Mexico. The moisture combined with strong surface heating to produce an unstable atmosphere. Showers and thunderstorms developed due to the unstable atmosphere and some thunderstorms were severe.**

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### CHARLES COUNTY --- 2.2 W WHITE PLAINS [38.58, -76.99], 2.0 W WHITE PLAINS [38.59, -76.99], 1.8 W WHITE PLAINS [38.59, -76.98], 1.9 W WHITE PLAINS [38.58, -76.98]

08/22/09 16:15 EST	0	Flash Flood (due to Heavy Rain)
08/22/09 18:15 EST	0	Source: Emergency Manager

Turkey Hill Road was closed due to water flowing over the roadway. Spotter in the area reported rainfall total of 3.74 inches.

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### ANNE ARUNDEL COUNTY --- 1.1 ENE SUDLEY [38.83, -76.56], 1.0 ENE SUDLEY [38.83, -76.56], 1.3 SW CUMBERSTONE [38.84, -76.56], 1.2 SSW CUMBERSTONE [38.84, -76.56]

08/22/09 17:00 EST	0	Flash Flood (due to Heavy Rain)
08/22/09 20:15 EST	0	Source: Emergency Manager

The intersection of Muddy Creek Road and Holly Landing was closed due to flash flooding. Rainfall measurement of 4.25 inches near the event reported by COCORAHS network.

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### CALVERT COUNTY --- 0.7 SW NORTH BEACH [38.69, -76.54], 0.5 SSW NORTH BEACH [38.69, -76.53], 0.2 WNW CHESAPEAKE BEACH [38.68, -76.53], 0.6 W CHESAPEAKE BEACH [38.68, -76.54]

08/22/09 17:00 EST	0	Flash Flood (due to Heavy Rain)
08/22/09 20:15 EST	0	Source: Emergency Manager

Numerous roads closed in Chesapeake Beach due to flash flooding. Rainfall amount of 4.75 inches reported by COCORAHS observer.

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### CALVERT COUNTY --- 0.9 WSW OWINGS [38.71, -76.61], 0.4 SSE OWINGS [38.71, -76.60], MT HARMONY [38.70, -76.60], 0.9 W MT HARMONY [38.70, -76.62]

08/22/09 17:00 EST	0	Flash Flood (due to Heavy Rain)
08/22/09 20:15 EST	0	Source: Emergency Manager

Numerous roads south of Owings closed due to flash flooding. Spotter report of 4.32 inches of rain just to the west of the event.

## Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>CALVERT COUNTY --- 1.0 NW NORTH BEACH [38.71, -76.55], 0.5 NNW NORTH BEACH [38.71, -76.53], 0.5 NNW NORTH BEACH [38.71, -76.53], 0.9 WNW NORTH BEACH [38.71, -76.55]</b>				
	08/22/09 17:00 EST		0	Flash Flood (due to Heavy Rain)
	08/22/09 20:15 EST		0	Source: Emergency Manager
Several roads between 3rd Street and 6th Street were closed in North Beach. Spotter reported 6.35 inches of rain in North Beach.				

<b>ANNE ARUNDEL COUNTY --- 1.5 SSE CROWNSVILLE [39.01, -76.59], 1.8 SE CROWNSVILLE [39.01, -76.58], 1.8 NNE LUSBY XRDS [39.00, -76.58], 1.6 NNE LUSBY XRDS [39.00, -76.59]</b>				
	08/22/09 17:18 EST		0	Flash Flood (due to Heavy Rain)
	08/22/09 19:00 EST		0	Source: Emergency Manager
The intersection of Crownsville Road and Honeysuckle Lane was closed due to flash flooding.				

<b>ANNE ARUNDEL COUNTY --- 0.5 N PAROLE [38.99, -76.53], 0.5 N PAROLE [38.99, -76.53], 0.3 NW PAROLE [38.98, -76.53], 0.4 NW PAROLE [38.98, -76.53]</b>				
	08/22/09 17:45 EST		0	Flash Flood (due to Heavy Rain)
	08/22/09 20:15 EST		0	Source: Law Enforcement
Flash flooding reported on Hudson Street. Spotter reported 5.25 inches of rain just east of event.				

<b>ANNE ARUNDEL COUNTY --- 1.2 WNW LUSBY XRDS [38.99, -76.62], 0.7 NNE LUSBY XRDS [38.99, -76.60], 0.3 NNE LUSBY XRDS [38.98, -76.60], 0.9 NNE RUTLAND [38.98, -76.62]</b>				
	08/22/09 17:45 EST		0	Flash Flood (due to Heavy Rain)
	08/22/09 20:15 EST		0	Source: Law Enforcement
Road closed due to flash flooding near the intersection of Defense Highway and the Ridges. Rainfall report of 3.25 inches from COCORAHS observer just southeast of event area.				

<b>ANNE ARUNDEL COUNTY --- 1.7 ENE DAVIDSONVILLE [38.93, -76.60], 1.5 SSW RIVA [38.93, -76.59], 1.7 NNE SOUTH RIVER [38.92, -76.59], 1.4 N SOUTH RIVER [38.92, -76.60]</b>				
	08/22/09 17:45 EST		0	Flash Flood (due to Heavy Rain)
	08/22/09 20:15 EST		0	Source: Law Enforcement
Road near the intersection of Route 214 and Beard's Point was closed due to flash flooding. Spotter reported 2.96 inches of rain near the event.				

**With the Mid-Atlantic States sandwiched between a cold front approaching from the west and Hurricane Bill several hundred miles offshore, an extremely moist atmosphere in place. A mesoscale area of low pressure formed over central Virginia and worked east-northeastward toward lower southern Maryland during the late afternoon and evening of the 22nd, produce a wide area of rain and thunderstorms that produced heavy rain and flash flooding. Numerous rainfall reports of 3 to 5 inches were received, with one report of 6.35 inches in North Beach.**

<b>ST. MARY'S COUNTY --- 1.0 SE ST GEORGE IS [38.11, -76.47]</b>				
	08/24/09 04:12 EST		0	Thunderstorm Wind (EG 52 kt)
	08/24/09 04:12 EST		0	Source: Trained Spotter
A wind gust was estimated around 60 mph.				

**A trough of low pressure provided cooler air aloft. The cooler air aloft combined with strong surface heating to develop an unstable atmosphere. Scattered showers and thunderstorms did develop, and an isolated thunderstorm did produce gusty winds due to the unstable atmosphere.**

<b>CARROLL COUNTY --- 1.0 E BARRETT [39.40, -77.00], 0.8 SW FLOHRVILLE [39.41, -76.99], 0.7 SW FLOHRVILLE [39.41, -76.99], 1.1 E BARRETT [39.40, -77.00]</b>				
	08/27/09 23:45 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 00:45 EST		0	Source: Emergency Manager
Flash flooding reported on White Rock Road as well as report of flooded basement. Piney Run IFLOWS gauge measured 2.72 inches of rainfall.				

<b>BALTIMORE COUNTY --- 0.2 NNE ST GEORGES [39.45, -76.80], 0.5 NNE ST GEORGES [39.46, -76.80], 0.6 NNE ST GEORGES [39.46, -76.80], 0.3 NE ST GEORGES [39.45, -76.80]</b>				
	08/28/09 00:05 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 01:30 EST		0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Flash flooding reported at Timber Grove Road near Owings Mills Blvd. Spotter reported 2.71 inches of rain near the event.				
<b>BALTIMORE COUNTY --- 1.0 N DELIGHT [39.44, -76.82], 0.9 WSW ST GEORGES [39.45, -76.82], 0.9 WSW ST GEORGES [39.45, -76.81], 0.8 N DELIGHT [39.44, -76.82]</b>				
	08/28/09 00:05 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 01:30 EST		0	Source: Emergency Manager

A vehicle was stranded in 4 feet of water on Franklin Road near Reisterstown Road.

<b>HARFORD COUNTY --- 0.5 ENE ABERDEEN ARPT [39.50, -76.17], 0.6 E ABERDEEN ARPT [39.50, -76.17], 0.6 E ABERDEEN ARPT [39.50, -76.17], 0.4 E ABERDEEN ARPT [39.50, -76.17]</b>				
	08/28/09 00:30 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 04:30 EST		0	Source: Law Enforcement

Three people rescued and two cars pulled from flood waters flowing over the intersection of U.S. Hwy. 40 and Route 7. Rainfall total of 7.25 inches reported on Aberdeen Proving Ground.

<b>HARFORD COUNTY --- 0.2 SSW STEPNEY [39.48, -76.20], 0.7 NE STEPNEY [39.49, -76.19], 0.8 NE STEPNEY [39.49, -76.19], 0.3 SSE STEPNEY [39.48, -76.20]</b>				
	08/28/09 00:35 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 04:30 EST		0	Source: Emergency Manager

Route 159 near Cranberry Road closed due to swift water over the roadway.

<b>HARFORD COUNTY --- BELCAMP [39.47, -76.23], 0.4 WSW BELCAMP [39.47, -76.24], 0.4 W BELCAMP [39.47, -76.24], 0.3 NNW BELCAMP [39.47, -76.23]</b>				
	08/28/09 00:45 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 04:30 EST		0	Source: Law Enforcement

Water was flowing over the roadway at the intersection of U.S. Hwy. 40 and Route 543.

<b>HARFORD COUNTY --- 0.7 SW ABINGDON [39.46, -76.28], 0.6 SW ABINGDON [39.46, -76.28], 0.9 SW ABINGDON [39.46, -76.28], 0.9 SW ABINGDON [39.46, -76.28]</b>				
	08/28/09 01:15 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 04:30 EST		0	Source: Emergency Manager

Route 7 near Abingdon Road closed due to high water.

<b>CARROLL COUNTY --- 1.8 SE GUNPOWDER [39.70, -76.81], 1.9 SE GUNPOWDER [39.70, -76.80], 1.7 ENE ALESIA [39.69, -76.80], 1.4 NE ALESIA [39.69, -76.81]</b>				
	08/28/09 20:40 EST		0.20M	Flash Flood (due to Heavy Rain)
	08/28/09 23:30 EST		0	Source: COOP Observer

Gunpowder River out of it banks onto Grave Run Road around River Road Ranch. River Road Ranch inundated, with damage to buildings. Vehicles washed into and down the river from flash flooding. Spotter reported rainfall total of 6.46.

<b>CARROLL COUNTY --- 2.3 W GUNPOWDER [39.72, -76.87], 1.8 W GUNPOWDER [39.72, -76.86], 1.6 WSW GUNPOWDER [39.71, -76.86], 2.0 WSW GUNPOWDER [39.71, -76.86]</b>				
	08/28/09 21:05 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 23:30 EST		0	Source: Trained Spotter

Water up to 40 inches high on Black Rock Road.

<b>CARROLL COUNTY --- 1.4 SW GUNPOWDER [39.71, -76.85], 0.7 SSW GUNPOWDER [39.71, -76.84], 0.8 SSW GUNPOWDER [39.71, -76.83], 1.4 SSW GUNPOWDER [39.70, -76.84]</b>				
	08/28/09 21:20 EST		0	Flash Flood (due to Heavy Rain)
	08/28/09 23:30 EST		0	Source: Emergency Manager

Swiftwater rescue performed at Alesia Lineboro Road and York Road Number 1.

**Moisture streaming northeastward from an upper low over the Deep South with additional moisture from Tropical Storm Danny off the North Carolina coast pooled up against a stationary boundary near the Mason-Dixon Line. Several Rounds of heavy rain-producing showers and thunderstorms pushed eastward along this boundary from the early morning hours through the evening of the 28th. This**



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produced flash flooding over northeast Maryland. Numerous reports of rainfall totals of 3 to 5 inches, with isolated reports of over 7 inches in southeastern Harford and north central Carroll counties.				

### VIRGINIA, North

**SHENANDOAH COUNTY --- 1.5 SSE CALVARY [38.85, -78.54], 1.8 SW SAUMSVILLE [38.91, -78.52], 2.2 S MAURERTOWN [38.90, -78.45], 3.0 ESE WOODSTOCK [38.86, -78.47]**

08/17/09 20:25 EST	0	Flash Flood (due to Heavy Rain)
08/17/09 23:55 EST	0	Source: Law Enforcement

Many roads were closed in Woodstock as a result of high water or debris from flash flooding. At least 6 basements were flooded and had to be pumped. IFLOWS gauge at Burnshire Dam reported 5.24 inches of rain in 3 hour period.

**Daytime heating combined with a typical summertime moist and unstable air mass to allow for isolated late afternoon convection to develop over the higher elevations of northwest Virginia. Easterly flow at the low levels helped raised precipitable water values and lower storm motion enough to produce isolated flash flooding over the central Shenandoah Valley during the evening as the thunderstorms drifted eastward over lower elevations.**

**FREDERICK COUNTY --- 0.5 W BURNING KNOLLS [39.17, -78.14]**

08/21/09 16:28 EST	0	Hail (0.88 in)
08/21/09 16:28 EST	0	Source: Amateur Radio

Nickel size hail was reported near Winchester.

**LOUDOUN COUNTY --- 0.7 SSW NEERSVILLE [39.26, -77.73]**

08/21/09 17:20 EST	0	Thunderstorm Wind (EG 50 kt)
08/21/09 17:20 EST	0	Source: Fire Department/Rescue

Power lines were down along Harpers Ferry Road in Neersville.

**LOUDOUN COUNTY --- 1.5 WNW LINCOLN [39.13, -77.70]**

08/21/09 17:26 EST	0	Thunderstorm Wind (EG 50 kt)
08/21/09 17:26 EST	0	Source: NWS Employee

A large tree was down at the intersection of 9th Street and Maple Avenue.

**LOUDOUN COUNTY --- 0.2 WSW LUCKETTS [39.22, -77.53]**

08/21/09 17:47 EST	0	Thunderstorm Wind (EG 52 kt)
08/21/09 17:47 EST	0	Source: NWS Employee

A tree was down just north of Lucketts along US Highway 15.

**A southwest flow between an upper-level low over the Great Lakes and high pressure over the western Atlantic ushered in plenty of moisture from the Gulf of Mexico. The moisture combined with strong surface heating to produce an unstable atmosphere. Showers and thunderstorms developed due to the unstable atmosphere and a few thunderstorms were severe.**

### WEST VIRGINIA, East

**BERKELEY COUNTY --- 0.5 W JONES SPGS [39.48, -78.11]**

08/02/09 05:11 EST	0	Thunderstorm Wind (EG 61 kt)
08/02/09 05:11 EST	0	Source: Trained Spotter

Several trees were uprooted from thunderstorm winds in the Jones Springs area.

**A cold front passed through the region on the morning of the 2nd. A southwest flow ahead of the front provided an unstable atmosphere. An isolated thunderstorm associated with the cold front did become severe due to the instability and strong winds aloft.**

**JEFFERSON COUNTY --- 0.5 E KABLETOWN [39.22, -77.84]**

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	08/21/09 17:00 EST		0	Thunderstorm Wind (EG 52 kt)
	08/21/09 17:00 EST		0	Source: Trained Spotter

A wind gust was estimated around 60 mph.

**A southwest flow between an upper-level low over the Great Lakes and high pressure over the western Atlantic ushered in plenty of moisture from the Gulf of Mexico. The moisture combined with strong surface heating to produce an unstable atmosphere. Showers and thunderstorms developed due to the unstable atmosphere and an isolated thunderstorm did produce damaging winds.**