

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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### ATLANTIC NORTH

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#### CHOPTANK RIVER TO CAMBRIDGE MD AND THE LITTLE CHOPTANK RIVER COUNTY --- 12.5 WNW HORN POINT [38.68, -76.34]

	09/06/11 12:25 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	09/06/11 12:25 EST	0		Source: Mesonet

Wind gusts in excess of 30 knots were measured at Blackwalnut Harbor.

**Deep tropical moisture associated with the remnants of Tropical Depression Lee interacted with a slow-moving cold front to produce widespread showers and isolated thunderstorms. An isolated thunderstorm produced gusty winds.**

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#### TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 18.2 WNW PINEY POINT [38.25, -76.83]

	09/07/11 11:05 EST	0		Marine Thunderstorm Wind (MG 44 kt)
	09/07/11 11:15 EST	0		Source: Mesonet

Wind gusts up to 44 knots were reported at Cobb Point.

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#### CHESAPEAKE BAY POOLES IS TO SANDY PT MD COUNTY --- 0.1 NNW PATAPSCO BUOY [39.15, -76.39]

	09/07/11 12:50 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	09/07/11 12:50 EST	0		Source: Buoy

Wind gusts in excess of 30 knots were measured at Patapsco Buoy.

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#### CHESAPEAKE BAY SANDY PT TO N BEACH MD COUNTY --- THOMAS POINT LIGHT [38.90, -76.44]

	09/07/11 12:56 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	09/07/11 12:56 EST	0		Source: Buoy

Wind gusts in excess of 30 knots were measured at the Thomas Point Lighthouse.

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#### TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 2.4 W PINEY POINT [38.13, -76.57], 2.4 NW PINEY POINT [38.15, -76.56]

	09/07/11 18:17 EST	0		Waterspout
	09/07/11 18:23 EST	0		Source: Public

Photographic and radar evidence confirm a water spout on the Potomac River near Tall Timbers, Maryland.

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#### CHESAPEAKE BAY N BEACH TO DRUM PT MD COUNTY --- 0.3 E CHESAPEAKE BEACH [38.69, -76.53]

	09/07/11 19:52 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	09/07/11 19:52 EST	0		Source: Mesonet

Wind gusts in excess of 30 knots were measured at the Chesapeake Rod and Reel.

**Low pressure developed over the Ohio Valley while high pressure remained off the East Coast. A southerly flow between these two systems pumped in plenty of moisture across the region. A warm front combined with the deep moisture to produce showers and thunderstorms. Moderate instability behind the warm front caused some thunderstorms to produce gusty winds. Low-level winds caused enough rotation for an isolated thunderstorm to produce a water spout.**

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#### TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 0.2 WNW POINT LOOKOUT [38.04, -76.32]

	09/08/11 04:10 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	09/08/11 04:10 EST	0		Source: Mesonet

A wind gust in excess of 30 knots was reported at Point Lookout.

**Deep tropical moisture associated with the remnants of Tropical Depression Lee interacted with a slow-moving cold front to produce widespread showers and isolated thunderstorms. An isolated thunderstorm produced gusty winds.**

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#### CHESAPEAKE BAY DRUM PT TO SMITH PT VA COUNTY --- 0.4 SSW SMITH ISLAND [37.98, -76.04]

	09/11/11 18:37 EST	0		Marine Thunderstorm Wind (MG 43 kt)
	09/11/11 18:37 EST	0		Source: Mesonet

A wind gust of 43 knots was reported at Smith Island.

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#### TANGIER SOUND AND THE INLAND WATERS SURROUNDING BLOODSWORTH ISLAND COUNTY --- 0.3 SSE CRISFIELD [37.97, -75.88]

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	09/11/11 19:04 EST		0	Marine Thunderstorm Wind (MG 36 kt)
	09/11/11 19:10 EST		0	Source: Mesonet

Wind gusts up to 36 knots were reported at Crisfield.

Upper-level low pressure triggered showers and thunderstorms on the 11th. A few thunderstorms produced gusty winds due to the upper-level low.

### TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- 17.9 WNW PINEY POINT [38.24, -76.83]

09/23/11 17:30 EST	0	Marine Thunderstorm Wind (EG 34 kt)
09/23/11 17:30 EST	0	Source: Mesonet

Wind gusts in excess of 30 knots were reported at Cobb Point.

Rich tropical moisture streamed northward up the eastern seaboard combining with an upper-level disturbance to trigger showers and isolated thunderstorms. An isolated thunderstorm produced gusty winds.

### TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- 7.9 W ROUTE 301 BRIDGE [38.38, -77.16]

09/27/11 15:00 EST	0	Marine Thunderstorm Wind (EG 56 kt)
09/27/11 15:00 EST	0	Source: Unknown

Wind gusts in excess of 60 mph were estimated due to thunderstorm wind damage nearby.

### TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- 8.8 W ROUTE 301 BRIDGE [38.37, -77.18]

09/27/11 15:00 EST	0	Marine Thunderstorm Wind (EG 52 kt)
09/27/11 15:00 EST	0	Source: Unknown

Wind gusts around 60 mph were estimated due to thunderstorm wind damage nearby.

### TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- 7.3 WNW ROUTE 301 BRIDGE [38.38, -77.15]

09/27/11 15:03 EST	0	Marine Thunderstorm Wind (EG 52 kt)
09/27/11 15:03 EST	0	Source: Unknown

Wind gusts around 60 mph were estimated due to thunderstorm wind damage nearby.

Upper level low pressure remained over the Ohio Valley while high pressure was located over the Atlantic Ocean. A southerly flow between these two systems pumped in plenty of moisture across the area. The deep moisture provided moderate amounts of instability while a cold front was moving in from the west. These two features combined to trigger showers and thunderstorms. A few thunderstorms were able to produce gusty winds.

### TIDAL POTOMAC KEY BRIDGE TO INDIAN HD MD COUNTY --- 0.7 SW WASHINGTON NATIONALS PARK [38.86, -77.02]

09/28/11 19:24 EST	0	Marine Thunderstorm Wind (EG 34 kt)
09/28/11 19:24 EST	0	Source: Mesonet

A wind gust in excess of 30 knots was reported at the Washington Nationals Park.

An upper-level low triggered a few showers and thunderstorms on the 28th. An isolated thunderstorm produced gusty winds in the upper Tidal Potomac River.

## DISTRICT OF COLUMBIA

### DISTRICT OF COLUMBIA COUNTY --- 0.4 NNW US CAPITOL [38.88, -77.02], 0.8 N US CAPITOL [38.89, -77.02], 0.8 NNW US CAPITOL [38.89, -77.02], 0.4 NW US CAPITOL [38.88, -77.02]

09/07/11 11:35 EST	0	Flash Flood (due to Heavy Rain)
09/07/11 15:15 EST	0	Source: State Official

The Ninth Street Tunnel was closed due to flash flooding.

### DISTRICT OF COLUMBIA COUNTY --- 0.7 NW US CAPITOL [38.89, -77.03], 0.6 WNW US CAPITOL [38.88, -77.03], 0.8 WNW US CAPITOL [38.88, -77.03], 0.8 WNW US CAPITOL [38.89, -77.03]

09/07/11 11:35 EST	0	Flash Flood (due to Heavy Rain)
09/07/11 15:15 EST	0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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The inbound section of the 14th Street Bridge was closed due to flash flooding.

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**DISTRICT OF COLUMBIA COUNTY --- 0.9 NNW US CAPITOL [38.89, -77.03], 0.8 N US CAPITOL [38.89, -77.02], 0.9 N US CAPITOL [38.89, -77.02], 0.9 NNW US CAPITOL [38.89, -77.02]**

09/07/11 11:35 EST	0	Flash Flood (due to Heavy Rain)
09/07/11 15:15 EST	0	Source: State Official

Ninth Street at Constitution Avenue was closed due to flash flooding.

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**DISTRICT OF COLUMBIA COUNTY --- 1.3 SSW WALTER REED [38.96, -77.04], 1.3 SSW WALTER REED [38.96, -77.04], 1.2 SSW WALTER REED [38.96, -77.04], 1.2 SSW WALTER REED [38.96, -77.04]**

09/07/11 11:35 EST	0	Flash Flood (due to Heavy Rain)
09/07/11 15:15 EST	0	Source: State Official

The ramp to 16th Street from Military Road Northwest was closed due to flash flooding.

**Abnormally moist atmosphere across the Mid-Atlantic allowed showers and thunderstorms to produce exceptional rainfall rates across portions of the District of Columbia as the remnants of Tropical Depression Lee interacted with a nearly stationary boundary near the Mason-Dixon line. A number of reports of flash flooding were received through the city.**

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**(DC-Z001) DISTRICT OF COLUMBIA**

09/08/11 18:48 EST	0	Coastal Flood
09/08/11 20:49 EST	0	

The remnants of Tropical Storm Lee caused locally heavy rainfall upstream along the Potomac River during the 7th into the 8th. A rush of freshwater from the Potomac River caused water levels to reach thresholds for moderate coastal flooding along the Tidal Potomac River in Washington D.C.

### MARYLAND, Central

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**(MD-Z502) CENTRAL AND EASTERN ALLEGANY**

09/02/11 02:44 EST	0	Dense Fog
09/02/11 06:20 EST	0	

High pressure centered overhead caused light winds. Light winds along with high amounts of low-level moisture allowed for areas of fog to develop during the early morning hours of the 2nd.

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**MONTGOMERY COUNTY --- 0.9 NE RANDOLPH HILLS [39.09, -77.12], 1.3 NE RANDOLPH HILLS [39.09, -77.11], 1.4 NE RANDOLPH HILLS [39.10, -77.11], 1.1 NNE RANDOLPH HILLS [39.09, -77.12]**

09/05/11 22:00 EST	0	Flash Flood (due to Heavy Rain)
09/05/11 23:30 EST	0	Source: Department of Highways

Route 28 was closed near Avery Drive due to flash flooding on Rock Creek. A nearby rain gauge tallied 2.21 inches.

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**ANNE ARUNDEL COUNTY --- 1.4 S RIVA [38.93, -76.58], 1.3 W LONDONTOWNE [38.93, -76.57], 0.9 WNW LONDONTOWNE [38.93, -76.57], 1.1 WNW LONDONTOWNE [38.93, -76.57]**

09/06/11 00:45 EST	0	Flood (due to Heavy Rain)
09/06/11 05:00 EST	0	Source: Department of Highways

Standing water forced the closure of Pike Ridge Road. A rain gauge near the event recorded 2.29 inches.

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**ST. MARY'S COUNTY --- 0.6 SW CHAPTICO [38.36, -76.79], 0.9 S CHAPTICO [38.36, -76.78], 1.1 ENE CHAPTICO [38.38, -76.76], 0.9 NE CHAPTICO [38.38, -76.77]**

09/06/11 16:18 EST	0	Flash Flood (due to Heavy Rain)
09/06/11 21:15 EST	0	Source: Trained Spotter

One foot of water flowing over Hurry Road, with 3 to 4 inches running over Baptist Church Road. A nearby rain gauge measured 2.90 inches.

**Deep tropical moisture associated with the remnants of Tropical Depression Lee interacted with a slow-moving cold front to produce widespread showers across the area. High rainfall amounts associated with some of this activity prompted flooding and flash flooding in a few locations. Rainfall totals were a high as 3 inches in Montgomery County.**

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>BALTIMORE CITY (C) COUNTY --- 0.1 WSW WESTPORT [39.27, -76.63], 0.3 W WESTPORT [39.27, -76.64], 0.4 WSW WESTPORT [39.27, -76.64], 0.3 SW WESTPORT [39.27, -76.63]</b>				
	09/07/11 09:22 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 13:15 EST		0	Source: Department of Highways
The ramp from Route 295 northbound to Interstate 95 was closed due to flash flooding. A nearby rain gauge measured 4.33 inches.				
<b>HOWARD COUNTY --- BRINKLEIGH MANOR [39.28, -76.83], 0.4 SSE BRINKLEIGH MANOR [39.28, -76.83], 0.4 SW BRINKLEIGH MANOR [39.28, -76.83], 0.3 WSW BRINKLEIGH MANOR [39.28, -76.84]</b>				
	09/07/11 11:09 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways
All westbound lanes of Route 40 west of Saint Johns Lane were closed due to flash flooding. A rain gauge near the event totalled 10.29 inches.				
<b>PRINCE GEORGE'S COUNTY --- 0.9 SE LANHAM [38.94, -76.86], 1.0 ESE LANHAM [38.94, -76.85], 0.9 E LANHAM [38.95, -76.85], 0.2 SE LANHAM [38.95, -76.87]</b>				
	09/07/11 11:13 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways
A portion of the outer loop of the Capital Beltway was flooded near Exit 19. A nearby rain gauge measured 4.76 inches.				
<b>HOWARD COUNTY --- 0.5 W NORMANDY HGTS [39.28, -76.81], 0.3 NNW NORMANDY HGTS [39.28, -76.80], 0.6 N NORMANDY HGTS [39.29, -76.80], 0.7 NNW NORMANDY HGTS [39.29, -76.80], 0.7 WNW NORMANDY HGTS [39.29, -76.81]</b>				
	09/07/11 11:30 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: State Official
Route 40 was closed at Normandy due to flash flooding. A nearby spotter observed 8.49 inches of rain.				
<b>HOWARD COUNTY --- 0.8 WNW DORSEY [39.18, -76.76], 0.8 WNW DORSEY [39.18, -76.76], 0.9 WNW DORSEY [39.18, -76.77], 0.9 WNW DORSEY [39.19, -76.76]</b>				
	09/07/11 11:30 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: State Official
Intersection of Roosevelt and Meadowridge Roads closed due to flash flooding. A nearby rain gauge reported 7.70 inches.				
<b>HOWARD COUNTY --- 0.9 NW JONESTOWN [39.23, -76.83], 1.0 NNW JONESTOWN [39.23, -76.83], 1.0 S MC ALPINE [39.24, -76.83], 1.0 S MC ALPINE [39.24, -76.83]</b>				
	09/07/11 11:30 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: State Official
Route 108 was closed near Thunder Hill due to flash flooding. A nearby rain gauge measured 6.78 inches.				
<b>HOWARD COUNTY --- 1.1 WSW JESSUP [39.15, -76.80], 1.6 W JESSUP [39.15, -76.81], 1.2 WSW WATERLOO [39.16, -76.80], 0.8 NW JESSUP [39.16, -76.79]</b>				
	09/07/11 11:30 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: State Official
Route 1 is closed at Patuxent Ridge due to flash flood. A trained spotter measured 7.93 inches of rain near this event.				
<b>HOWARD COUNTY --- 1.5 SSE OAKLAND MILLS [39.20, -76.84], 1.5 E CLARKSVILLE [39.20, -76.85], 1.2 E CLARKSVILLE [39.20, -76.86], 1.3 E CLARKSVILLE [39.20, -76.86]</b>				
	09/07/11 11:30 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: State Official
Stevens Forest Road was closed near Broken Land due to flash flooding. A rain gauge recorded 6.54 inches.				
<b>BALTIMORE COUNTY --- 0.9 SW WOODLAWN [39.31, -76.74], 0.6 SW WOODLAWN [39.31, -76.74], 1.2 WSW WOODLAWN [39.31, -76.75], 1.2 NE BELMONT [39.31, -76.75]</b>				
	09/07/11 11:46 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways

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State Route 122 ramps were closed at Interstate 695 due to flash flooding. A nearby rain gauge totalled 7.87 inches.				
<b>PRINCE GEORGE'S COUNTY --- 0.9 SW MUIRKIRK [39.06, -76.89], 0.8 SSW MUIRKIRK [39.06, -76.89], 0.7 NE AMMENDALE [39.06, -76.89], 0.6 NE AMMENDALE [39.06, -76.89]</b>				
	09/07/11 11:50 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways

Route 1 was completely closed at Ritz Way. A nearby rain gauge measured 7.09 inches.

<b>PRINCE GEORGE'S COUNTY --- 1.1 E SURRATS GARDENS [38.75, -76.88], 1.2 E SURRATS GARDENS [38.75, -76.88], 1.2 E SURRATS GARDENS [38.75, -76.88], 1.1 ENE SURRATS GARDENS [38.75, -76.88]</b>				
	09/07/11 12:14 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways

The turn lane on Route 5 onto Surratts Road was closed due to flash flooding. A nearby rain gauge recorded 4.57 inches.

<b>BALTIMORE COUNTY --- 1.5 SSE CATONSVILLE MANOR [39.28, -76.71], 1.7 SSE CATONSVILLE MANOR [39.28, -76.71], 1.3 ESE OELLA [39.27, -76.76], 1.2 E OELLA [39.27, -76.76]</b>				
	09/07/11 12:30 EST		0	Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Trained Spotter

Three inches of water were flowing across Frederick Avenue at its intersection with Rolling and Overbrook Roads. A rain gauge in the vicinity measured 7.67 inches.

<b>HOWARD COUNTY --- 0.7 S BRINKLEIGH MANOR [39.27, -76.83], 0.7 W ELLICOTT CITY [39.27, -76.81], 0.3 W ELLICOTT CITY [39.27, -76.81], 0.7 SE BRINKLEIGH MANOR [39.27, -76.82]</b>				
	09/07/11 12:50 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Emergency Manager

Portions of Main Street in Ellicott City was evacuated due to high water. A spotter nearby measured 6.33 inches of rain.

<b>HOWARD COUNTY --- 0.8 W BRINKLEIGH MANOR [39.28, -76.85], 0.6 W BRINKLEIGH MANOR [39.28, -76.84], 0.9 WNW BRINKLEIGH MANOR [39.28, -76.84], 1.0 E PINE ORCHARD [39.28, -76.85]</b>				
	09/07/11 12:50 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Emergency Manager

Valley Mede neighbor was evacuated due to high water. A nearby spotter recorded a storm total of 6.20 inches near the time of this event.

<b>MONTGOMERY COUNTY --- 0.5 W PARKSIDE [39.03, -77.09], 0.6 NW PARKSIDE [39.04, -77.09], 0.4 NNW PARKSIDE [39.04, -77.08], 0.5 WSW PARKSIDE [39.03, -77.09], 1.0 WSW PARKSIDE [39.03, -77.10]</b>				
	09/07/11 12:50 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 15:15 EST		0	Source: Fire Department/Rescue

Beach Drive was closed due to flash flooding. A nearby spotter observed 8.50 inches of rain.

<b>ANNE ARUNDEL COUNTY --- 1.3 WSW RUTLAND [38.96, -76.65], 1.2 WSW RUTLAND [38.96, -76.65], 1.7 WSW RUTLAND [38.96, -76.66], 1.7 WSW RUTLAND [38.96, -76.66]</b>				
	09/07/11 12:57 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 15:15 EST		0	Source: Department of Highways

Route 50 Westbound was closed at Davidsonville Road due to flash flooding. A rain gauge near the event received a total of 7 inches.

<b>BALTIMORE COUNTY --- 0.5 E OELLA [39.27, -76.77], 0.5 S OELLA [39.26, -76.78], 0.7 SSW OELLA [39.26, -76.79], 0.8 WSW OELLA [39.27, -76.79], 0.6 W OELLA [39.27, -76.79]</b>				
	09/07/11 13:00 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Trained Spotter

Frederick road leading into the east side of Ellicott City is closed due to flash flooding. Water was at a depth above the bumpers of cars. A nearby spotter observed 9.40 inches of rain for a storm total.

<b>ST. MARY'S COUNTY --- 1.0 NE BEAUVUE [38.26, -76.62], 1.0 NE BEAUVUE [38.26, -76.62], 0.8 NE BEAUVUE [38.26, -76.62], 0.8 NE BEAUVUE [38.26, -76.62]</b>				
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	09/07/11 13:00 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 15:15 EST		0	Source: Department of Highways

Route 244 was closed due to flash flooding at Abell Creek. A spotter near the event observed 4.5 inches of rain.

**CHARLES COUNTY --- MASON SPGS [38.58, -77.12], 0.4 ENE MASON SPGS [38.58, -77.11], 0.8 NNE MASON SPGS [38.59, -77.12], 0.7 NNW MASON SPGS [38.59, -77.12]**

	09/07/11 13:01 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 15:15 EST		0	Source: Department of Highways

Route 225 was flooded and closed near Route 224. A nearby rain gauge tallied 6.13 inches.

**ANNE ARUNDEL COUNTY --- 0.5 E NORTH LINTHICUM [39.22, -76.64], 0.4 SE NORTH LINTHICUM [39.22, -76.64], 0.3 SSE NORTH LINTHICUM [39.22, -76.65], 0.3 ENE NORTH LINTHICUM [39.22, -76.64]**

	09/07/11 13:08 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 18:00 EST		0	Source: Department of Highways

Route 648 was flooded and closed between Lake Front Drive and Nursery Road. Storm total precipitation at Baltimore-Washington International Airport, nearby, was 7.97 inches.

**HOWARD COUNTY --- 0.5 W WATERLOO [39.17, -76.79], 0.4 WNW WATERLOO [39.17, -76.79], 0.3 W WATERLOO [39.17, -76.79], 0.4 WSW WATERLOO [39.17, -76.79]**

	09/07/11 13:14 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways

Route 1 was closed in both directions at Assateague Drive. A nearby rain gauge tallied 5.24 inches during the day.

**PRINCE GEORGE'S COUNTY --- UPPER MARLBORO [38.82, -76.75], 0.6 WSW UPPER MARLBORO [38.82, -76.76], 1.0 W UPPER MARLBORO [38.82, -76.77], 0.7 WNW UPPER MARLBORO [38.82, -76.76]**

	09/07/11 13:35 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways

Maryland Route 725 was flooded and closed at John Rogers Boulevard due to floodwaters at the confluence of Western Branch and Collington Branch. A nearby rain gauge reportedly measured 4.58 inches.

**BALTIMORE COUNTY --- 0.5 E PIKESVILLE [39.37, -76.71], 0.3 ENE PIKESVILLE [39.37, -76.71], 0.5 ENE PIKESVILLE [39.37, -76.71], 0.6 E PIKESVILLE [39.37, -76.71]**

	09/07/11 13:42 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways

The intersection of Slade Avenue and Park Heights Avenue was closed at the Baltimore County and Baltimore City border. A nearby rain gauge had 7.21 inches in it.

**BALTIMORE COUNTY --- 0.7 S HUNT VLY [39.49, -76.65], 0.7 SSE HUNT VLY [39.49, -76.65], 0.6 NE COCKEYSVILLE [39.49, -76.64], 0.3 NE COCKEYSVILLE [39.48, -76.65]**

	09/07/11 13:44 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 18:00 EST		0	Source: Department of Highways

Route 45 was closed at Beaver Run Lane due to flash flooding. The nearest rain gauge to the event measured 10.09 inches.

**HOWARD COUNTY --- 1.1 E CLARKSVILLE [39.20, -76.86], 0.6 ENE SIMPSONVILLE [39.18, -76.87], 0.4 NNE SIMPSONVILLE [39.19, -76.88], 0.1 WNW OAKLAND MILLS [39.22, -76.85], 0.3 E OAKLAND MILLS [39.22, -76.85]**

	09/07/11 13:52 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Emergency Manager

High water was blocking the northbound lanes of Route 29 between Routes 32 and 175. A spotter in Columbia measured 5.18 inches of rain.

**PRINCE GEORGE'S COUNTY --- KENT VLG [38.92, -76.93], 0.4 SSE KENT VLG [38.91, -76.93], 0.5 SW KENT VLG [38.92, -76.94], 0.4 NW KENT VLG [38.92, -76.94]**

	09/07/11 13:52 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 15:15 EST		0	Source: County Official

High water was blocking lanes of the Route 50, 201, and 295 interchange. A nearby spotter observed 4.64 inches of rain.

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<b>CHARLES COUNTY --- 1.3 WSW MATTAWOMAN [38.64, -76.90], 1.6 WSW BERRY [38.64, -76.98], 1.8 NE POMFRET [38.60, -77.01], 2.1 E INDIAN HEAD JCT [38.58, -76.89]</b>				
	09/07/11 14:00 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 16:00 EST		0	Source: Fire Department/Rescue
Numerous roadways were closed due to flash flooding in Waldorf and across Charles County. A spotter in Waldorf measured 8.71 inches of rain.				
<b>HARFORD COUNTY --- 1.3 WNW TAYLOR [39.59, -76.54], 1.1 WNW TAYLOR [39.59, -76.54], 0.9 NW TAYLOR [39.59, -76.53], 1.3 NW TAYLOR [39.59, -76.54]</b>				
	09/07/11 14:30 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 19:30 EST		0	Source: Fire Department/Rescue
The intersection of Houkes Mill and Turner roads was closed due to flash floodin. A nearby rain gauge recorded 3.84 inches.				
<b>BALTIMORE COUNTY --- 0.9 NE GREEN SPG JCT [39.41, -76.76], 0.6 NW MC DONOGH [39.41, -76.76], 0.6 ENE GREEN SPG JCT [39.40, -76.76], 0.6 NNE GREEN SPG JCT [39.41, -76.77]</b>				
	09/07/11 14:35 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Department of Highways
Route 140 was closed at Kenmar Avenue due to flash flooding. A rain gauge near the event tallied 5.74 inches.				
<b>ANNE ARUNDEL COUNTY --- 1.3 WNW LUSBY XRDS [38.99, -76.62], 1.1 NNE RUTLAND [38.98, -76.62], 1.3 N RUTLAND [38.99, -76.63], 1.5 ESE CROFTON [38.99, -76.63]</b>				
	09/07/11 14:54 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 16:00 EST		0	Source: Department of Highways
Route 450 was closed at Saint Stephens Church Road due to flash flooding. A nearby rain gauge at 6.76 inches.				
<b>HOWARD COUNTY --- 0.5 W DORSEY [39.18, -76.76], 0.7 WNW DORSEY [39.19, -76.76], 1.0 WNW DORSEY [39.19, -76.77], 1.0 WNW DORSEY [39.19, -76.77]</b>				
	09/07/11 15:02 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 18:00 EST		0	Source: Department of Highways
Route 103 was closed at Roosevelt Boulevard due to flash flooding.				
<b>ANNE ARUNDEL COUNTY --- 1.1 E MARYLAND CITY [39.10, -76.80], 1.5 E MARYLAND CITY [39.10, -76.79], 1.4 ESE MARYLAND CITY [39.09, -76.80], 0.8 ESE MARYLAND CITY [39.09, -76.81]</b>				
	09/07/11 16:00 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 19:00 EST		0	Source: Department of Highways
Route 198 was closed at the Baltimore-Washington Parkway. A rain gauge near the event recorded 5.98 inches.				
<b>PRINCE GEORGE'S COUNTY --- 0.9 NW NAYLOR [38.73, -76.76], 1.0 NNW NAYLOR [38.73, -76.76], 0.7 N NAYLOR [38.73, -76.75], 0.5 NNW NAYLOR [38.73, -76.75]</b>				
	09/07/11 16:00 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 17:00 EST		0	Source: Trained Spotter
Mattaponi Creek flash flood forced the closure of Croom Road at Mattaponi Road. The spotter that observed the event recorded 6.20 inches.				
<b>CHARLES COUNTY --- 1.3 WNW TOMPKINSVILLE [38.33, -76.92], 1.1 S WAYSIDE [38.33, -76.93], 1.1 SSE WAYSIDE [38.34, -76.92], 1.3 NW TOMPKINSVILLE [38.33, -76.92]</b>				
	09/07/11 16:55 EST		0	Flood (due to Heavy Rain)
	09/07/11 21:55 EST		0	Source: Department of Highways
Route 257 was flooded and closed at Banks O Dee Road. A nearby spotter observed 4.52 inches of rain.				
<b>BALTIMORE COUNTY --- 0.7 S HUNT VLY [39.49, -76.65], 0.6 WSW ASHLAND [39.50, -76.64], 0.4 ESE HUNT VLY [39.50, -76.64], 0.5 S HUNT VLY [39.49, -76.65]</b>				
	09/07/11 17:42 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 19:00 EST		0	Source: Department of Highways

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Route 145 was closed at Ashland Road due to flash flooding. A nearby rain gauge tallied 6.64 inches.				
<b>HOWARD COUNTY --- 1.1 N SAVAGE [39.15, -76.83], 1.4 N SAVAGE [39.15, -76.83], 1.2 S GUILFORD [39.15, -76.83], 1.4 NNW SAVAGE [39.15, -76.84]</b>				
	09/07/11 18:00 EST		0	Flood (due to Heavy Rain)
	09/07/11 23:00 EST		0	Source: Trained Spotter
The Little Patuxent River at Volmerhausen Road topped the bridge and flooded it.				
<b>PRINCE GEORGE'S COUNTY --- 0.5 S UPPER MARLBORO [38.81, -76.75], 0.4 SSE UPPER MARLBORO [38.81, -76.75], 0.3 S UPPER MARLBORO [38.82, -76.75], 0.4 SSW UPPER MARLBORO [38.82, -76.75]</b>				
	09/07/11 19:00 EST		0	Flood (due to Heavy Rain)
	09/07/11 23:00 EST		0	Source: Department of Highways
Water Street was closed north of Route 4 due to flooding. A nearby rain gauge totalled 4.63 inches.				
<b>HARFORD COUNTY --- 2.1 W STREET [39.67, -76.42], 3.1 NNW ROCKS [39.67, -76.45], 2.5 NNW ROCKS [39.66, -76.44], 1.6 W STREET [39.67, -76.41]</b>				
	09/07/11 19:23 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 21:00 EST		0	Source: Department of Highways
Route 165 was closed due to flash flooding near Route 24. A nearby rain gauge recorded 3.85 inches.				
<b>BALTIMORE COUNTY --- 0.9 SE PHOENIX [39.51, -76.61], 1.2 ENE ASHLAND [39.50, -76.61], 0.8 E ASHLAND [39.50, -76.62], 0.5 NE ASHLAND [39.51, -76.62]</b>				
	09/07/11 19:35 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 21:00 EST		0	Source: Department of Highways
Paper Mill Road was closed at Poplar Hill Road due to flash flooding. Rainfall in the area was measured at 4.80 inches.				
<b>HARFORD COUNTY --- 0.9 NE ABINGDON [39.48, -76.26], 0.8 N SEWELL [39.48, -76.25], 0.7 N SEWELL [39.48, -76.25], 0.5 ENE ABINGDON [39.47, -76.26], 0.6 NE ABINGDON [39.48, -76.26]</b>				
	09/07/11 20:03 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 22:00 EST		0	Source: Department of Highways
Route 7 was closed from Route 136 to Route 543 due to flash flooding. Rainfall near the event was measured at 3.12 inches.				
<b>ANNE ARUNDEL COUNTY --- 1.1 E EARLEIGH HGTS [39.10, -76.53], 1.2 E EARLEIGH HGTS [39.10, -76.53], 1.2 ESE EARLEIGH HGTS [39.10, -76.53], 1.1 ESE EARLEIGH HGTS [39.10, -76.53]</b>				
	09/07/11 20:15 EST	1	0	Flood (due to Heavy Rain)
	09/07/11 20:45 EST		0	Source: Department of Highways
A 49 year old male drowned in floodwaters of the Magothy River on Riverside Drive.				
Direct Fatalities: M49OU				
<b>CHARLES COUNTY --- PORT TOBACCO [38.52, -77.02], 0.1 N LA PLATA [38.53, -76.98], 0.3 S LA PLATA [38.53, -76.98], 0.7 SW LA PLATA [38.52, -76.99]</b>				
	09/07/11 21:08 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 23:00 EST		0	Source: Department of Highways
Route 301 was closed at Route 6 due to flash flooding. A nearby rain gauge tallied a storm total of 7.83 inches.				
<b>CHARLES COUNTY --- 0.9 SW BEL ALTON [38.46, -76.99], 1.0 SSW BEL ALTON [38.46, -76.99], 1.1 SW BEL ALTON [38.46, -76.99], 1.1 SW BEL ALTON [38.46, -76.99]</b>				
	09/07/11 21:18 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 23:00 EST		0	Source: Department of Highways
Route 301 was closed at Chapel Point Road due to flash flooding. A rain gauge in the area recorded 6.91 inches.				
<b>CHARLES COUNTY --- 0.5 E INDIAN HD MRYLND ARP [38.60, -77.06], 0.2 ENE INDIAN HD MRYLND ARP [38.60, -77.07], 0.4 NE INDIAN HD MRYLND ARP [38.60, -77.06], 0.6 ENE INDIAN HD MRYLND ARP [38.60, -77.06]</b>				
	09/07/11 21:33 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 23:00 EST		0	Source: Department of Highways



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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Route 227 West was closed at Ray Drive due to flash flooding. A nearby spotter reported 5.84 inches of rain.				
<b>CHARLES COUNTY --- PORT TOBACCO [38.52, -77.02], 0.5 SSW PORT TOBACCO [38.51, -77.02], 0.4 SSE PORT TOBACCO [38.51, -77.02], 0.5 E PORT TOBACCO [38.52, -77.01], 0.3 NE PORT TOBACCO [38.52, -77.01]</b>				
	09/07/11 21:46 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 23:00 EST		0	Source: Department of Highways

Port Tobacco Road was closed between Rose Hill and Valley Roads.

<b>PRINCE GEORGE'S COUNTY --- 1.4 S WESTPHALIA [38.81, -76.82], 1.1 ESE MEADOWS [38.81, -76.83], 1.0 E MEADOWS [38.82, -76.83], 0.9 S WESTPHALIA [38.82, -76.82]</b>				
	09/07/11 22:19 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 23:30 EST		0	Source: Department of Highways

Route 4 at Woodyard Road was closed due to flash flooding. A nearby rain gauge tallied 6.72 inches.

<b>PRINCE GEORGE'S COUNTY --- 0.7 N BOWIE [39.01, -76.78], 0.9 NE BOWIE [39.01, -76.77], 0.4 E BOWIE [39.00, -76.77], 0.3 ENE SPRINGFIELD [39.00, -76.80]</b>				
	09/07/11 22:30 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 23:30 EST		0	Source: State Official

Multiple roadways were closed in and around Bowie due to flash flooding. A nearby rain gauge totalled 4.53 inches.

<b>CARROLL COUNTY --- 0.6 N SILVER RUN [39.69, -77.05], 0.6 N SILVER RUN [39.69, -77.05], 1.0 N SILVER RUN [39.69, -77.05], 1.0 N SILVER RUN [39.69, -77.05]</b>				
	09/07/11 23:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 01:00 EST		0	Source: Department of Highways

Route 97 was closed due to flash flooding on Big Silver Run. A spotter near this event recorded 8.07 inches of rain.

<b>MONTGOMERY COUNTY --- 0.7 S GOSHEN [39.19, -77.18], 0.9 SSW GOSHEN [39.19, -77.19], 0.8 SSW GOSHEN [39.19, -77.19], 0.5 SW GOSHEN [39.19, -77.19]</b>				
	09/07/11 23:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 01:00 EST		0	Source: Emergency Manager

Goshen Road was closed between East Village and Warbuild Road due to flash flooding. Storm total precipitation from near this event was 3.09 inches, according to rain gauge measurement.

<b>CHARLES COUNTY --- 0.7 SW BERRY [38.64, -76.96], 0.8 S MATTAWOMAN [38.64, -76.88], 1.3 WSW BEANTOWN [38.61, -76.90], 1.9 WNW ST CHARLES [38.61, -76.95]</b>				
	09/07/11 23:25 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 01:00 EST		0	Source: Department of Highways

Numerous high water rescues were ongoing across Waldorf and surrounding areas.

<b>BALTIMORE COUNTY --- 0.7 S DUNDALK [39.26, -76.52], 0.9 S DUNDALK [39.26, -76.52], 0.9 SSE DUNDALK [39.26, -76.52], 0.7 SSE DUNDALK [39.26, -76.52]</b>				
	09/08/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 02:00 EST		0	Source: Trained Spotter

Intersection of Liberty Parkway and Dunman Way was closed due to flash flooding. A nearby rain gauge measured 4.60 inches.

<b>BALTIMORE COUNTY --- 0.9 NE DUNDALK [39.28, -76.51], 1.3 NE DUNDALK [39.28, -76.50], 1.4 NE DUNDALK [39.29, -76.50], 1.2 NNE DUNDALK [39.29, -76.51]</b>				
	09/08/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 02:00 EST		0	Source: Trained Spotter

Meritt Boulevard at Rabon Avenue was closed due to flash flooding.

<b>BALTIMORE COUNTY --- 1.8 ENE DUNDALK [39.28, -76.49], 1.6 ENE DUNDALK [39.28, -76.49], 1.5 ENE DUNDALK [39.28, -76.50], 1.7 ENE DUNDALK [39.28, -76.49]</b>				
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## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/08/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 02:00 EST		0	Source: Trained Spotter

North Point Road was closed at German Hill Road due to flash flooding.

**ANNE ARUNDEL COUNTY --- 1.8 SW RIVA [38.93, -76.60], 1.6 SSW RIVA [38.93, -76.60], 1.8 N SOUTH RIVER [38.93, -76.60], 1.7 ENE DAVIDSONVILLE [38.93, -76.60]**

	09/08/11 00:30 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 02:00 EST		0	Source: Department of Highways

Route 214 was closed near Beards Point Road due to flash flooding. A nearby rain gauge had a measurement of 5.30 inches.

**CALVERT COUNTY --- 0.4 S RANDLE CLIFF BEACH [38.66, -76.53], 0.4 SSW RANDLE CLIFF BEACH [38.66, -76.53], 0.2 WSW RANDLE CLIFF BEACH [38.67, -76.53], 0.1 WNW RANDLE CLIFF BEACH [38.67, -76.53]**

	09/08/11 00:30 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 02:00 EST		0	Source: State Official

Route 261 was closed at Summer City Boulevard due to flash flooding. A rain gauge near the event observed 4.67 inches.

**CALVERT COUNTY --- 0.7 N NORTH BEACH [38.71, -76.53], 0.4 NNW NORTH BEACH [38.70, -76.53], 0.4 NNW NORTH BEACH [38.71, -76.53], 0.6 NNW NORTH BEACH [38.71, -76.53]**

	09/08/11 00:30 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 02:00 EST		0	Source: State Official

Chesapeake Avenue was closed between 3rd and 4th Streets due to flash flooding. A nearby spotter measured 4.68 inches of rain.

**HOWARD COUNTY --- 0.3 SSE ELLICOTT CITY [39.27, -76.80], 0.3 SE ELLICOTT CITY [39.27, -76.80], 0.3 SE ELLICOTT CITY [39.27, -76.80], 0.3 SE ELLICOTT CITY [39.27, -76.80]**

	09/08/11 01:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 03:00 EST		0	Source: Emergency Manager

Flash flooding caused landslide on Saint Paul Street. A tree was downed and landslide affected automobiles in the area.

**ANNE ARUNDEL COUNTY --- GLEN BURNIE [39.17, -76.63], 0.2 SSW GLEN BURNIE [39.17, -76.63], 0.2 W GLEN BURNIE [39.17, -76.63], 0.1 NW GLEN BURNIE [39.17, -76.63]**

	09/08/11 03:15 EST		0	Flood (due to Heavy Rain)
	09/08/11 08:00 EST		0	Source: Department of Highways

Route 176 was closed between Route 648 and Central Avenue due to flooding. A nearby rain gauge had a measurement of 5.16 inches.

**ANNE ARUNDEL COUNTY --- 0.5 E LYONS CREEK [38.77, -76.66], 0.8 SE LYONS CREEK [38.76, -76.66], 0.9 ESE LYONS CREEK [38.76, -76.66], 0.7 ENE LYONS CREEK [38.77, -76.66]**

	09/08/11 03:45 EST		0	Flood (due to Heavy Rain)
	09/08/11 09:00 EST		0	Source: Department of Highways

Fishers Station Road was closed due to flooding at Route 4.

**PRINCE GEORGE'S COUNTY --- 2.1 N BROWN [38.88, -76.80], 1.6 N BROWN [38.87, -76.79], 1.8 NNW BROWN [38.88, -76.81], 1.8 SE LARGO [38.88, -76.81]**

	09/08/11 05:25 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 07:00 EST		0	Source: Department of Highways

Route 202 was closed at White House Road due to flash flooding. A rainfall amount of 4.30 inches was reported near the event.

**HARFORD COUNTY --- 0.7 S DUBLIN [39.64, -76.27], 0.8 WNW POOLE [39.64, -76.26], 0.7 E SCARBORO [39.63, -76.27], 0.4 NNE SCARBORO [39.63, -76.28]**

	09/08/11 07:05 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 09:00 EST		0	Source: Department of Highways

Route 1 southbound was flooded and closed at Priestford Road. A nearby spotter observed 2.92 inches of rain.

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>FREDERICK COUNTY --- 1.8 SW MONROVIA [39.35, -77.29], 1.5 SSW MONROVIA [39.35, -77.28], 1.7 SSW MONROVIA [39.35, -77.28], 2.0 SW MONROVIA [39.35, -77.29]</b>				
	09/08/11 11:13 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 15:00 EST		0	Source: Department of Highways
Route 80 was flooded and closed west of Ed McClain Road.				
<b>MONTGOMERY COUNTY --- DAMASCUS [39.28, -77.20], 0.9 NNE DAMASCUS [39.29, -77.19], 0.8 N HYATTSTOWN [39.29, -77.32], 0.5 SSE HYATTSTOWN [39.27, -77.32]</b>				
	09/08/11 12:25 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 18:00 EST		0	Source: Department of Highways
Routes 108 and 109 near Damascus were closed due to flash flooding. A nearby rain gauge tallied 3.10 inches.				
<b>MONTGOMERY COUNTY --- 0.7 S PURDUM [39.27, -77.23], 0.8 ENE PURDUM [39.29, -77.22], 0.6 NNE PURDUM [39.29, -77.23], 0.9 SW PURDUM [39.27, -77.24]</b>				
	09/08/11 17:25 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 19:00 EST		0	Source: COOP Observer
Kings Valley Road closed and under 2 feet of flowing water.				
<b>MONTGOMERY COUNTY --- 1.3 WSW GAITHERSBURG [39.12, -77.22], 1.2 N HUNTING HILL [39.12, -77.22], 1.1 NNE HUNTING HILL [39.12, -77.21], 0.9 SW GAITHERSBURG [39.12, -77.21], 0.9 WSW GAITHERSBURG [39.13, -77.22]</b>				
	09/08/11 17:40 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 19:00 EST		0	Source: Trained Spotter
Muddy Branch Road closed due to flash flooding.				
<b>MONTGOMERY COUNTY --- 1.3 WNW SENECA [39.09, -77.35], 0.8 WNW SENECA [39.08, -77.34], 1.4 NNW SENECA [39.10, -77.34], 1.9 NW SENECA [39.10, -77.35]</b>				
	09/08/11 17:45 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 19:00 EST		0	Source: State Official
Flash flooding caused structural damage on the bridge over Dry Seneca Creek on Montevideo Road.				
<b>CHARLES COUNTY --- 1.1 W HILL TOP [38.48, -77.14], 0.5 WNW HILL TOP [38.48, -77.13], 0.6 NNW HILL TOP [38.49, -77.13], 0.9 SSE IRONSIDES [38.49, -77.14]</b>				
	09/08/11 19:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 21:00 EST		0	Source: Department of Highways
Port Tobacco Road was closed at Wards Run due to flash flooding.				
<b>CHARLES COUNTY --- 2.1 SE NANJEMOY ARPT [38.45, -77.22], 1.1 WSW DONCASTER [38.49, -77.24], 1.6 W IRONSIDES [38.50, -77.18], 1.8 NE GRAYTON [38.44, -77.18]</b>				
	09/08/11 19:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 21:00 EST		0	Source: Emergency Manager
Many roads were closed throughout the county due to flash flooding. A number of sinkholes were also reported.				
<b>MONTGOMERY COUNTY --- 0.9 SE SENECA [39.07, -77.32], 0.6 SE SENECA [39.07, -77.32], 0.3 SE SENECA [39.08, -77.33], 0.3 SSE SENECA [39.08, -77.33], 0.5 SSE SENECA [39.07, -77.33]</b>				
	09/08/11 22:20 EST		0	Flood (due to Heavy Rain)
	09/08/11 23:45 EST		0	Source: Department of Highways
Route 190 was closed between Violetters Lock Road and Manor Stone Drive.				
<b>Abnormally moist atmosphere across the mid-Atlantic allowed showers and thunderstorms to produce exceptional rainfall rates across portions of Maryland as the remnants of Tropical Depression Lee interacted with a nearly stationary boundary near the Mason-Dixon line. Major flooding and flash flooding occurred in numerous areas. The highest rainfall and worst flooding happened in a band from Charles County northeastward into Baltimore County. The highest measured rainfall report during this period was 10.70 inches in Anne Arundel County.</b>				
<b>ST. MARY'S COUNTY --- 1.1 SSE CHINGVILLE [38.22, -76.54], 1.2 SSW CHINGVILLE [38.22, -76.56]</b>				

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/07/11 18:33 EST		0	Tornado (EF0, L: 0.98 mi , W: 50 yd)
	09/07/11 18:40 EST		0	Source: Trained Spotter

A storm spotter witnessed the snapping of several trees along with roaring wind. The damage was in the woods just north of Route 5 near the intersection with Lightfoot Way.

### CHARLES COUNTY --- 1.1 ESE WICOMICO [38.41, -76.86]

	09/07/11 20:31 EST		5K	Thunderstorm Wind (EG 52 kt)
	09/07/11 20:31 EST		0	Source: Broadcast Media

Trees were uprooted due to thunderstorm winds.

### CHARLES COUNTY --- 0.9 SE WICOMICO [38.41, -76.87], 1.2 W RYCEVILLE [38.43, -76.85]

	09/07/11 20:34 EST		5K	Tornado (EF0, L: 1.40 mi , W: 50 yd)
	09/07/11 20:36 EST		0	Source: Trained Spotter

A tornado downed trees at the intersection of Route 34 and Trinity Church Road. Shingle and siding damage occurred to a home and a chimney was blown off. A shed was also destroyed.

Low pressure developed over the Ohio Valley while high pressure remained off the East Coast. A southerly flow between these two systems pumped in plenty of moisture across the region. A warm front combined with the deep moisture to produce showers and thunderstorms. Moderate instability behind the warm front caused a few thunderstorms to produce damaging winds. Low-level winds caused enough rotation for a couple off the stronger thunderstorms to produce tornadoes.

### ANNE ARUNDEL COUNTY --- ANNAPOLIS [38.97, -76.50], 1.5 ESE CROWNSVILLE [39.02, -76.58], 0.2 N CROFTON [39.00, -76.65], 0.8 ENE DAVIDSONVILLE [38.92, -76.62]

	09/08/11 23:35 EST		0	Flood (due to Heavy Rain)
	09/09/11 04:30 EST		0	Source: State Official

Numerous roadways were closed across Anne Arundel County due to flooding. Baltimore-Washington International Airport received a storm total of 8.11 inches.

### CALVERT COUNTY --- 0.7 N LOWER MARLBORO [38.66, -76.68], 0.7 N LOWER MARLBORO [38.66, -76.68], 0.9 N LOWER MARLBORO [38.66, -76.68], 1.1 NNE LOWER MARLBORO [38.66, -76.68]

	09/09/11 01:00 EST		0	Flood (due to Heavy Rain)
	09/09/11 06:00 EST		0	Source: State Official

Chaneyville Road was closed due to flooding. A nearby spotter measured a storm total of 6.84 inches.

### CALVERT COUNTY --- 1.3 WSW OWINGS [38.71, -76.62], 1.3 WNW MT HARMONY [38.71, -76.62], 1.9 NNE CHANEYVILLE [38.71, -76.64], 1.9 ESE DUNKIRK [38.71, -76.64]

	09/09/11 01:00 EST		0	Flood (due to Heavy Rain)
	09/09/11 06:00 EST		0	Source: State Official

Mount Harmony Road was closed near Mount Harmony Elementary School due to flooding.

### ST. MARY'S COUNTY --- 1.8 SW CHAPTICO [38.35, -76.80], 1.1 NE MADDOX [38.34, -76.81], 1.0 NNE MADDOX [38.34, -76.81], 0.5 W CHAPTICO [38.37, -76.79], 0.6 S CHAPTICO [38.36, -76.78]

	09/09/11 01:00 EST		0	Flood (due to Heavy Rain)
	09/09/11 06:00 EST		0	Source: State Official

Route 238 was closed due to flooding between Manor Road and Route 234.

### BALTIMORE COUNTY --- 0.9 SW CHASE [39.34, -76.39], 0.5 WSW CHASE [39.35, -76.39], 1.2 NE BALTIMORE MARTIN ST [39.34, -76.40], 1.2 ENE BALTIMORE MARTIN ST [39.34, -76.40]

	09/09/11 07:12 EST		0	Flash Flood (due to Heavy Rain)
	09/09/11 08:00 EST		0	Source: Department of Highways

Route 150 was flooded and closed at Earls Road. A nearby spotter had a storm total rainfall amount of 11.65 inches.

### PRINCE GEORGE'S COUNTY --- 1.7 NNE BROWN [38.87, -76.79], 2.4 E HALL [38.90, -76.69], 2.0 E WELLS CORNER [38.82, -76.69], 2.3 SE MEADOWS [38.80, -76.82]

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/09/11 14:00 EST		0	Flood (due to Heavy Rain)
	09/09/11 19:00 EST		0	Source: Fire Department/Rescue
<p>Numerous roadways were still closed from earlier rainfall and streams were out of their banks. Andrews Air Force Base recorded a storm total rainfall of 9.06 inches.</p> <p>Ground across Maryland was saturated from record-setting rainfall on the 7th and 8th. Rich tropical moisture continued to funnel northward into the mid-Atlantic and daytime heating aided in steep enough lapse rates to produced additional showers and thunderstorms. Where rain wasn't particularly heavy, ongoing aeral flooding continues, though in areas of heavy rain, additional flash flooding resulted. Storm total precipitation in Anne Arundel County was as high as 12.10 inches, as measured by a trained spotter.</p>				
<hr/>				
<b>ANNE ARUNDEL COUNTY --- 0.7 N (BWI)BALTMOR-WSHNGTN [39.18, -76.67]</b>				
	09/11/11 14:11 EST		0	Hail (1.00 in)
	09/11/11 14:11 EST		0	Source: ASOS
<p>Quarter sized hail was reported at BWI Airport.</p>				
<hr/>				
<b>ANNE ARUNDEL COUNTY --- 0.7 N (BWI)BALTMOR-WSHNGTN [39.18, -76.67]</b>				
	09/11/11 14:12 EST		0	Hail (1.00 in)
	09/11/11 14:12 EST		0	Source: NWS Employee
<p>Quarter sized hail was reported at the BWI Airport.</p>				
<hr/>				
<b>CARROLL COUNTY --- 0.9 NW DAY [39.39, -77.06]</b>				
	09/11/11 21:04 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/11/11 21:04 EST		0	Source: State Official
<p>Two trees were down near the intersection of Woodbine Road and Hoods Mill Road.</p> <p>Upper-level low pressure triggered showers and thunderstorms on the 11th. A few thunderstorms produced damaging wind gusts and large hail due to colder air aloft associated with the upper-level low.</p>				
<hr/>				
<b>WASHINGTON COUNTY --- 0.1 SW HIGH FIELD [39.72, -77.48]</b>				
	09/14/11 17:23 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 17:23 EST		0	Source: State Official
<p>A tree was blown down along Highfield Road near the town of Highfield.</p>				
<hr/>				
<b>WASHINGTON COUNTY --- 0.4 SE HIGH FIELD [39.72, -77.48]</b>				
	09/14/11 17:23 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 17:23 EST		0	Source: State Official
<p>A tree was blown down along Water Company Road near the town of Highfield.</p>				
<hr/>				
<b>FREDERICK COUNTY --- 2.5 ENE SABILLASVILLE [39.71, -77.43]</b>				
	09/14/11 17:37 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 17:37 EST		0	Source: State Official
<p>Trees were down along Sunshine Trail.</p>				
<hr/>				
<b>FREDERICK COUNTY --- 3.4 ENE SABILLASVILLE [39.71, -77.41]</b>				
	09/14/11 17:37 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 17:37 EST		0	Source: State Official
<p>A tree was down along Friends Creek Road.</p>				
<hr/>				
<b>FREDERICK COUNTY --- 2.6 ESE EMMITSBURG [39.69, -77.28]</b>				
	09/14/11 17:44 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 17:44 EST		0	Source: State Official
<p>A tree was down along Toms Creek Church Road.</p> <p>A cold front passed through the region during the afternoon and evening hours of the 14th. A southwest flow ahead of the front caused a warm and humid air mass which led to moderate amounts of instability. The moderate instability combined with forcing from the front</p>				

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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to trigger showers and thunderstorms. A few thunderstorms produced damaging winds and large hail.

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**HARFORD COUNTY --- 1.2 ESE MADONNA [39.61, -76.50], 1.1 ESE MADONNA [39.61, -76.50], 1.3 ESE MADONNA [39.62, -76.50], 1.2 NW JARRETTSVILLE [39.61, -76.49], 1.2 WNW JARRETTSVILLE [39.61, -76.50]**

	09/19/11 19:30 EST		0	Flash Flood (due to Heavy Rain)
	09/19/11 20:00 EST		0	Source: Department of Highways

High water over the road in a few spots around Route 23 and Salem Church Road. An observer nearby recorded 1.12 inches of rain.

Slow moving showers passed across northeast Maryland. With saturated ground in place, heavy downpours were enough to produce an isolated flash flood in Harford County. An observer in Bel Air recorded 1.45 inches of rain.

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**(MD-Z009) MONTGOMERY**

	09/23/11 01:35 EST		0	Dense Fog
	09/23/11 06:30 EST		0	

High pressure just off the Mid-Atlantic Coast caused a southerly flow to usher in plenty of low-level moisture across the area. Winds were light enough during the early morning hours for areas of dense fog to develop.

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**FREDERICK COUNTY --- 0.7 S ST ANTHONY [39.67, -77.35], 0.4 SSE ST ANTHONY [39.68, -77.35], 0.4 W ST ANTHONY [39.68, -77.36], 1.0 WSW ST ANTHONY [39.67, -77.37]**

	09/23/11 10:22 EST		0	Flash Flood (due to Heavy Rain)
	09/23/11 12:00 EST		0	Source: Department of Highways

A portion of Route 76 is flooded and closed near Route 15 just south of Mount Saint Mary's College. A nearby spotter observed 2.00 inches of rain.

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**FREDERICK COUNTY --- 0.9 NW LOYS [39.61, -77.36], 0.8 ESE GRACEHAM [39.62, -77.37], 1.0 N LOYS [39.61, -77.35], 0.8 NNE LOYS [39.61, -77.34]**

	09/23/11 10:39 EST		0	Flash Flood (due to Heavy Rain)
	09/23/11 12:00 EST		0	Source: Department of Highways

Route 77 was flooded and closed near Owens Creek. A nearby spotter recorded 1.16 inches.

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**FREDERICK COUNTY --- CREAGERSTOWN [39.58, -77.37], 0.7 NNW TROUTVILLE [39.56, -77.35], 0.9 NNE TROUTVILLE [39.56, -77.34], 0.9 ESE CREAGERSTOWN [39.57, -77.36]**

	09/23/11 10:39 EST		0	Flash Flood (due to Heavy Rain)
	09/23/11 12:00 EST		0	Source: Department of Highways

Route 550 was flooded and closed near Creagerstown. A nearby spotter observed 1.31 inches.

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**FREDERICK COUNTY --- EMMITSBURG [39.70, -77.33], 0.6 NE EMMITSBURG [39.71, -77.32], 1.2 NE EMMITSBURG [39.71, -77.31], 1.3 NE EMMITSBURG [39.71, -77.31], 0.6 N EMMITSBURG [39.71, -77.33]**

	09/23/11 11:15 EST		0	Flash Flood (due to Heavy Rain)
	09/23/11 12:30 EST		0	Source: Department of Highways

Seton Avenue was flooded and closed in Emmitsburg. A nearby rain gauge recorded 1.10 inches.

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**FREDERICK COUNTY --- 0.7 S NEW MIDWAY [39.56, -77.30], 0.7 SSE NEW MIDWAY [39.56, -77.30], 0.5 SE NEW MIDWAY [39.56, -77.29], 0.3 SE NEW MIDWAY [39.57, -77.30]**

	09/23/11 11:27 EST		0	Flash Flood (due to Heavy Rain)
	09/23/11 12:30 EST		0	Source: Department of Highways

Northbound Woodsboro Pike was flooded and closed near New Midway.

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**FREDERICK COUNTY --- 0.7 SW EMMITSBURG [39.69, -77.34], 0.7 SSE EMMITSBURG [39.69, -77.33], 0.6 ESE EMMITSBURG [39.70, -77.32], 0.2 NNW EMMITSBURG [39.70, -77.33]**

	09/23/11 13:00 EST		0	Flood (due to Heavy Rain)
	09/23/11 18:00 EST		0	Source: Department of Highways

Roads remain closed in Emmitsburg due to flooding.

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**BALTIMORE COUNTY --- 1.5 NNE LINHIGH [39.39, -76.49], 1.4 NNE LINHIGH [39.39, -76.49], 1.4 NNE LINHIGH [39.39, -76.49], 1.3 NNE LINHIGH [39.39, -76.49]**

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/23/11 14:50 EST		0	Flash Flood (due to Heavy Rain)
	09/23/11 16:30 EST		0	Source: Department of Highways

Route 1 was flooded and closed at Ridgely's Choice Drive. A nearby observed recorded 4.13 inches.

### BALTIMORE COUNTY --- 0.5 W GLEN ARM [39.45, -76.51], 0.8 WSW GLEN ARM [39.44, -76.51], 0.8 NNE NOTCH CLIFF [39.44, -76.51], 0.2 WSW GLEN ARM [39.45, -76.50]

09/23/11 14:53 EST	0	Flash Flood (due to Heavy Rain)
09/23/11 16:30 EST	0	Source: Department of Highways

Route 147 was flooded and closed near Cowen Run north of Notch Cliff. An observed nearby measured a total of 2.92 inches.

### ANNE ARUNDEL COUNTY --- GLEN BURNIE [39.17, -76.63], 0.2 SW GLEN BURNIE [39.17, -76.63], 0.2 W GLEN BURNIE [39.17, -76.63], 0.1 NW GLEN BURNIE [39.17, -76.63]

09/23/11 15:13 EST	0	Flash Flood (due to Heavy Rain)
09/23/11 16:30 EST	0	Source: Department of Highways

Route 176 was closed at Route 648 at Sawmill Creek due to flash flooding. A nearby spotter measured 3.57 inches of rain.

### BALTIMORE COUNTY --- 2.1 NNW FRANKLINVILLE [39.48, -76.41], 1.4 NNE KINGSVILLE [39.47, -76.41], 1.3 NNW FRANKLINVILLE [39.47, -76.41], 2.1 N FRANKLINVILLE [39.48, -76.40]

09/23/11 15:38 EST	0	Flash Flood (due to Heavy Rain)
09/23/11 16:30 EST	0	Source: Department of Highways

Route 1 was closed north of New Cut Road due to flash flooding on Little Gunpowder Falls. A nearby spotter observed 2.80 inches of rain.

Rich tropical moisture streamed northward up the eastern seaboard, while a shortwave trough pivoted across the Mid-Atlantic as it rotated around a stationary closed upper low pressure over the Great Lakes. A band of moderate to heavy rain set up across much of Maryland, and flood and flash flooding occurred across portions of northern Maryland. Rainfall totals reached as high as 4.48 inches in Baltimore County.

### (MD-Z005) CARROLL

09/23/11 23:37 EST	0	Dense Fog
09/24/11 03:01 EST	0	

Light winds combined with an abundant amount of low-level moisture to produce areas of dense fog. The dense fog occurred during the late evening hours of the 23rd and it lasted into the morning hours of the 24th.

### CHARLES COUNTY --- 0.9 E MARYLAND PT [38.37, -77.18]

09/27/11 15:00 EST	1K	Thunderstorm Wind (EG 52 kt)
09/27/11 15:00 EST	0	Source: Public

Tree limbs up to two inches in diameter were down.

### CHARLES COUNTY --- 1.4 WNW RIVERSIDE [38.39, -77.17]

09/27/11 15:00 EST	1K	Thunderstorm Wind (EG 56 kt)
09/27/11 15:00 EST	0	Source: Public

A tree was blown down across MD-224 between Woodbury Road and Holly Springs.

### CHARLES COUNTY --- 1.0 NNW RIVERSIDE [38.39, -77.16]

09/27/11 15:03 EST	1K	Thunderstorm Wind (EG 52 kt)
09/27/11 15:03 EST	0	Source: Public

Two small trees were blown down near MD-224 and MD-6.

Upper level low pressure remained over the Ohio Valley while high pressure was located over the Atlantic Ocean. A southerly flow between these two systems pumped in plenty of moisture across the area. The deep moisture provided moderate amounts of instability while a cold front was moving in from the west. These two features combined to trigger showers and thunderstorms. Some thunderstorms produced damaging wind gusts.

### (MD-Z003) WASHINGTON, (MD-Z004) FREDERICK, (MD-Z005) CARROLL

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/29/11 02:03 EST		0	Dense Fog
	09/29/11 07:00 EST		0	

High pressure just off to the east produced a light southeasterly flow. The southeast flow caused an abundant amount of low-level moisture to move overhead. Light winds along with high moisture caused areas of dense fog to develop during the early morning hours of the 29th.

### VIRGINIA, North

CULPEPER COUNTY --- 2.1 SSE REVA [38.47, -78.12], 2.2 SSE REVA [38.47, -78.12], 2.3 SSE REVA [38.47, -78.12], 2.0 S REVA [38.47, -78.12]				
	09/05/11 22:00 EST		0	Flash Flood (due to Heavy Rain)
	09/05/11 23:30 EST		0	Source: State Official

Reva Road closed due to flash flooding. A nearby rain gauge tallied 2.66 inches.

NELSON COUNTY --- LOVINGSTON [37.77, -78.88], 2.3 NNW ELMA [37.78, -78.81], 1.2 W ELMA [37.75, -78.82], 0.9 S LOVINGSTON [37.76, -78.88]				
	09/05/11 22:40 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 03:00 EST		0	Source: State Official

Numerous roads closed due to high water in Lovingston and the southern half of Nelson County. A rain gauge in the area totalled 6.32 inches.

GREENE COUNTY --- 4.1 ESE KINDERHOOK [38.35, -78.36], 4.6 NE QUINQUE [38.29, -78.34], 1.3 NNW QUINQUE [38.27, -78.41], 1.0 SSE GEER [38.29, -78.49]				
	09/05/11 23:50 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:00 EST		0	Source: State Official

Numerous low-lying roads and bridges were flooded countywide. A rain gage in Standardsville measured 1.51 inches.

ALBEMARLE COUNTY --- 0.7 S SHADWELL [38.01, -78.40], 1.3 SSE SHADWELL [38.00, -78.39], 1.4 S SHADWELL [38.00, -78.40], 1.1 SSW SHADWELL [38.00, -78.41]				
	09/06/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways

Milton Road was closed due to flash flooding. The highest measured rainfall amount near the event was 5.50 inches.

CULPEPER COUNTY --- 2.1 NW RAPIDAN [38.34, -78.10], 2.6 NW RAPIDAN [38.35, -78.11], 1.9 NW RAPIDAN [38.34, -78.09], 1.8 NW RAPIDAN [38.34, -78.09]				
	09/06/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways

Route 721 was closed along the Robinson River due to flash flooding. A nearby rain gauge tallied 2.39 inches.

ORANGE COUNTY --- 1.3 WNW THORNHILL [38.16, -78.00], 1.0 WNW THORNHILL [38.16, -78.00], 1.0 NW THORNHILL [38.16, -77.99], 1.3 NW THORNHILL [38.16, -78.00]				
	09/06/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways

Marquis Road was closed due to flash flooding.

ORANGE COUNTY --- 1.3 WSW ORANGE [38.24, -78.14], 1.5 SW ORANGE [38.23, -78.14], 1.7 SW ORANGE [38.23, -78.14], 1.4 WSW ORANGE [38.24, -78.14]				
	09/06/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways

Greenwood Road was closed due to flash flooding. A total of 2.72 inches of rain was measured from a gauge in Barboursville.

ORANGE COUNTY --- 1.5 SSE MADISON RUN [38.18, -78.12], 0.6 SSW MADISON RUN [38.19, -78.14], 0.4 SW MADISON RUN [38.20, -78.13], 1.5 SE MADISON RUN [38.18, -78.11]				
	09/06/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways



## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Route 639 was closed due to flash flooding on Madison Run.				
<b>ORANGE COUNTY --- 1.8 ENE THORNHILL [38.16, -77.95], 1.9 SSW DANTON [38.16, -77.94], 1.2 E THORNHILL [38.15, -77.96], 1.0 ENE THORNHILL [38.15, -77.96]</b>				
	09/06/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways
Route 651 was closed due to flash flooding along the North Anna River.				
<b>ORANGE COUNTY --- 2.3 WSW PIERCES SHOP [38.22, -78.09], 2.3 ENE MADISON RUN [38.21, -78.09], 1.9 ENE MADISON RUN [38.21, -78.10], 1.9 ENE MADISON RUN [38.21, -78.10]</b>				
	09/06/11 00:00 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways
Route 637 closed due to flash flooding on Tomahawk Creek. A nearby rain gauge measured 2.36 inches.				
<b>FAUQUIER COUNTY --- 0.5 E BEALETON [38.57, -77.76], 0.5 ENE BEALETON [38.57, -77.76], 0.3 ENE BEALETON [38.57, -77.77], 0.5 E BEALETON [38.57, -77.76]</b>				
	09/06/11 00:30 EST		0	Flood (due to Heavy Rain)
	09/06/11 05:00 EST		0	Source: Department of Highways
Standing water forced the closure of Route 656 at the Route 17 overpass. Rainfall amounts of 3.75 were measured nearby.				
<b>STAFFORD COUNTY --- 0.9 NW FERRY FARMS [38.33, -77.44], 0.8 WNW FERRY FARMS [38.33, -77.44], 1.1 ENE FALMOUTH [38.33, -77.45], 1.3 ENE FALMOUTH [38.33, -77.45]</b>				
	09/06/11 00:30 EST		0	Flash Flood (due to Heavy Rain)
	09/06/11 01:30 EST		0	Source: Department of Highways
Harrell Road was closed at Deacon Road due to flash flooding. A nearby rain gauge measured 2.10 inches.				
<b>ORANGE COUNTY --- 0.9 SW EVERONA [38.29, -77.98], 0.7 SW EVERONA [38.29, -77.98], 0.9 WSW EVERONA [38.29, -77.98], 1.0 SW EVERONA [38.29, -77.98]</b>				
	09/06/11 04:00 EST		0	Flood (due to Heavy Rain)
	09/06/11 08:00 EST		0	Source: Department of Highways
Hawfield Road was closed due to flooding.				
<b>ALBEMARLE COUNTY --- 0.9 NW STONY PT [38.13, -78.39], 1.2 WNW GILBERT [38.14, -78.39], 1.4 NW STONY PT [38.14, -78.39], 1.1 NW STONY PT [38.13, -78.39]</b>				
	09/06/11 04:30 EST		0	Flood (due to Heavy Rain)
	09/06/11 09:30 EST		0	Source: Department of Highways
County Road 600 was closed at Preddy Creek due to flooding. A nearby rain gauge tallied 4.63 inches before the event.				
<b>CULPEPER COUNTY --- 2.1 SW WHITE SHOP [38.41, -78.10], 2.4 SW WHITE SHOP [38.41, -78.10], 2.5 SW WHITE SHOP [38.41, -78.11], 2.2 SW WHITE SHOP [38.41, -78.10]</b>				
	09/06/11 07:30 EST		0	Flood (due to Heavy Rain)
	09/06/11 12:30 EST		0	Source: Department of Highways
Route 657 was closed due to flooding. A nearby rain gauge reported 1.68 inches.				
<b>MADISON COUNTY --- 1.3 ENE OAKPARK [38.38, -78.15], 1.4 NE OAKPARK [38.38, -78.15], 1.6 ENE OAKPARK [38.38, -78.14], 1.4 ENE OAKPARK [38.38, -78.15]</b>				
	09/06/11 07:30 EST		0	Flood (due to Heavy Rain)
	09/06/11 12:30 EST		0	Source: Department of Highways
Route 618 was closed due to flooding. A nearby rain gauge recorded 4.09 inches.				
<b>ORANGE COUNTY --- 0.9 SE BURR HILL [38.34, -77.86], 0.7 SE BURR HILL [38.34, -77.86], 1.0 ESE BURR HILL [38.34, -77.85], 1.1 SE BURR HILL [38.34, -77.85]</b>				
	09/06/11 07:30 EST		0	Flood (due to Heavy Rain)
	09/06/11 12:30 EST		0	Source: Department of Highways

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Route 611 was closed due to flooding.				
<b>ALBEMARLE COUNTY --- 2.1 SE KEENE [37.85, -78.54], 2.4 SE KEENE [37.84, -78.54], 2.4 ESE KEENE [37.85, -78.53], 2.1 ESE KEENE [37.86, -78.53]</b>				
	09/06/11 16:00 EST		0	Flood (due to Heavy Rain)
	09/06/11 21:00 EST		0	Source: Department of Highways

Glendower Road was closed at Miller Creek due to flooding.

<b>ALBEMARLE COUNTY --- 3.1 ESE KEENE [37.85, -78.52], 2.4 N SCOTTSVILLE [37.83, -78.50], 2.8 N SCOTTSVILLE [37.84, -78.50], 3.1 ESE KEENE [37.85, -78.52]</b>				
	09/06/11 16:00 EST		0	Flood (due to Heavy Rain)
	09/06/11 21:00 EST		0	Source: Department of Highways

Route 712 was closed between Routes 713 and 795 due to flooding.

<b>ALBEMARLE COUNTY --- 3.5 NE SCOTTSVILLE [37.84, -78.46], 2.2 NE SCOTTSVILLE [37.82, -78.47], 2.3 NE SCOTTSVILLE [37.82, -78.47], 3.0 NE SCOTTSVILLE [37.83, -78.46], 3.5 NE SCOTTSVILLE [37.84, -78.46]</b>				
	09/06/11 16:00 EST		0	Flood (due to Heavy Rain)
	09/06/11 21:00 EST		0	Source: Department of Highways

Albevanna Spring Road was closed due to flooding. A nearby spotter reported 2.05 inches of rain.

<b>CHARLOTTESVILLE (C) COUNTY --- 6.7 SE CHARLOTTESVILLE [37.97, -78.40], 3.1 SSW CHARLOTTESVILLE [37.99, -78.52], 2.7 NW CHARLOTTESVILLE [38.06, -78.54], 3.0 ENE CHARLOTTESVILLE [38.04, -78.45]</b>				
	09/06/11 17:00 EST		0	Flood (due to Heavy Rain)
	09/06/11 22:00 EST		0	Source: Fire Department/Rescue

Heavy rain and subsequent flooding caused sink hole on Avon Street. The street was closed for prolonged period. A spotter in Charlottesville reported 2.80 inches of rain.

**Deep tropical moisture associated with the remnants of Tropical Depression Lee interacted with a slow-moving cold front to produce widespread showers across the area. High rainfall amounts associated with some of this activity prompted flooding and flash flooding in a few locations. Rainfall totals were a high as 8.90 inches in Nelson County.**

<b>KING GEORGE COUNTY --- 0.7 NNW OWENS [38.34, -77.08]</b>				
	09/07/11 19:55 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/07/11 19:55 EST		0	Source: Trained Spotter

A tree that was sixty to seventy inches tall was blocking Dahlgren Road.

**Low pressure developed over the Ohio Valley while high pressure remained off the East Coast. A southerly flow between these two systems pumped in plenty of moisture across the region. A warm front combined with the deep moisture to produce showers and thunderstorms. Moderate instability behind the warm front caused an isolated thunderstorm to produce damaging winds.**

<b>KING GEORGE COUNTY --- 1.2 ENE HOES [38.35, -77.05], 1.6 ENE HOES [38.36, -77.04], 1.7 NNE DAHLGREN [38.35, -77.04], 1.2 N DAHLGREN [38.35, -77.05]</b>				
	09/07/11 20:45 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 22:00 EST		0	Source: Fire Department/Rescue

Owens Drive at Potomac Drive was closed due to flash flooding. A nearby spotter recorded 8.35 inches of rain.

<b>KING GEORGE COUNTY --- 1.4 S ALLNUT [38.28, -77.10], 1.8 SSE ALLNUT [38.28, -77.09], 1.2 SE ALLNUT [38.29, -77.09], 0.6 SE ALLNUT [38.29, -77.09], 1.1 SSW ALLNUT [38.29, -77.11]</b>				
	09/07/11 20:45 EST		0	Flash Flood (due to Heavy Rain)
	09/07/11 22:00 EST		0	Source: State Official

Poplar Neck Road was closed due to flash flooding. A trained spotter near the event recorded a storm total of 12.30 inches of rain.

<b>ARLINGTON COUNTY --- 0.9 NE ROSSLYN [38.89, -77.07], 1.1 NE ROSSLYN [38.89, -77.07], 1.3 NNE ROSSLYN [38.90, -77.07], 1.3 NNE ROSSLYN [38.90, -77.07]</b>				
	09/08/11 03:00 EST		0	Flood (due to Heavy Rain)
	09/08/11 08:00 EST		0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Route 110 and Interstate 66 Exit Ramp closed at their intersection due to high water. A trained spotter in Arlington recorded 9.90 inches of rainfall.				
<b>FAIRFAX COUNTY --- CULMORE [38.87, -77.17], 0.4 SW CULMORE [38.87, -77.17], 0.0 SSW RAVENWOOD [38.87, -77.18], 0.2 WNW CULMORE [38.87, -77.17]</b>				
	09/08/11 12:15 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 14:00 EST		0	Source: Trained Spotter
A high water rescue was performed at Route 50 and Annandale Road. A nearby spotter observed 6.00 inches of rain.				
<b>FAIRFAX COUNTY --- LEWINSVILLE [38.93, -77.20], 0.2 NW LEWINSVILLE [38.93, -77.20], 0.7 WSW LEWINSVILLE [38.93, -77.21], 0.7 SW LEWINSVILLE [38.92, -77.21]</b>				
	09/08/11 12:20 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 15:00 EST		0	Source: Trained Spotter
Swift water rescue at Route 123 at the Dulles Toll Road. A storm total rainfall amount near this event was 11.45 inches.				
<b>FAIRFAX COUNTY --- 0.5 E PENDER [38.87, -77.36], 0.8 ESE PENDER [38.87, -77.36], 0.8 ESE PENDER [38.86, -77.36], 0.6 ESE PENDER [38.87, -77.36]</b>				
	09/08/11 13:45 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 16:00 EST		0	Source: Trained Spotter
The retention pond at Fair Oaks Mall overtopped its banks and flooded Route 50. A spotter near this location recorded 10.18 inches.				
<b>FAIRFAX COUNTY --- 1.5 SSW OAKTON [38.86, -77.31], 1.4 SSW OAKTON [38.86, -77.31], 1.3 SSW OAKTON [38.86, -77.31], 1.3 SSW OAKTON [38.86, -77.31]</b>				
	09/08/11 13:45 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 17:00 EST		0	Source: Trained Spotter
Route 123 near Assembly Drive was closed due to flash flooding.				
<b>FAIRFAX COUNTY --- 0.5 W CLARKS CROSSING [38.92, -77.31], 0.3 SW CLARKS CROSSING [38.92, -77.30], 0.1 WNW CLARKS CROSSING [38.92, -77.30], 0.9 WNW CLARKS CROSSING [38.93, -77.32]</b>				
	09/08/11 13:50 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 17:00 EST		0	Source: Trained Spotter
A swift water boat rescue was performed at Hunter Mill Road and Lawyers Road as a result of flash flooding. A nearby spotter measured 5.39 inches of rain.				
<b>FAIRFAX COUNTY --- 2.8 S OAKTON [38.84, -77.31], 2.6 S OAKTON [38.84, -77.31], 1.8 S OAKTON [38.85, -77.30], 2.0 S OAKTON [38.85, -77.31]</b>				
	09/08/11 13:50 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 17:00 EST		0	Source: Trained Spotter
University Drive near George Mason University was closed due to flash flooding.				
<b>FAIRFAX COUNTY --- 1.5 SSW OAKTON [38.86, -77.31], 1.7 SSW OAKTON [38.86, -77.31], 1.6 S OAKTON [38.86, -77.31], 1.5 SSW OAKTON [38.86, -77.31]</b>				
	09/08/11 14:10 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 17:00 EST		0	Source: Trained Spotter
High water rescued being performed on stranded vehicles at the intersection of Routes 123 and 50. A nearby spotter recorded 7.59 inches of rain.				
<b>FAIRFAX COUNTY --- 0.5 W CROWELLS CORNER [38.95, -77.31], 0.7 SW CROWELLS CORNER [38.94, -77.31], 0.9 WSW CROWELLS CORNER [38.94, -77.31], 0.8 W CROWELLS CORNER [38.95, -77.31]</b>				
	09/08/11 14:20 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 17:00 EST		0	Source: Trained Spotter
Hunter Mill Road underpass beneath the Dulles Toll Road was closed due to flash flooding. A nearby spotter recorded 6.84 inches of rain during the event.				
<b>FAIRFAX COUNTY --- 1.3 ENE SUNSET HILLS [38.96, -77.33], 1.1 ENE SUNSET HILLS [38.96, -77.33], 0.8 ENE SUNSET HILLS [38.95, -77.34], 1.2 NE SUNSET HILLS [38.96, -77.34]</b>				
	09/08/11 14:35 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 17:00 EST		0	Source: Trained Spotter

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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Wiehle Avenue was closed at North Shore Drive due to flash flooding.

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**FAIRFAX COUNTY --- 0.9 NE RESTON [38.98, -77.29], 1.0 NNE RESTON [38.98, -77.29], 1.0 WNW ELKINS [38.98, -77.29], 0.8 WNW ELKINS [38.98, -77.28]**

09/08/11 14:40 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 17:00 EST	0	Source: Trained Spotter

A swift water rescue was performed near the intersection of Walker Road and Windswept Drive due to flash flooding.

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**FAIRFAX COUNTY --- 0.9 SE VALE [38.87, -77.34], 1.1 SE VALE [38.87, -77.33], 0.9 ESE VALE [38.88, -77.34], 0.6 ESE VALE [38.88, -77.34]**

09/08/11 14:40 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 17:00 EST	0	Source: Trained Spotter

Waples Mill Road was closed at Oakton Road due to flash flooding.

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**FAIRFAX (C) COUNTY --- FAIRFAX [38.85, -77.30], 0.8 NNW FAIRFAX [38.86, -77.31], 1.1 SE OAKTON [38.87, -77.29], 1.6 SE OAKTON [38.87, -77.28], 1.9 ENE FAIRFAX [38.86, -77.27], 1.7 ENE FAIRFAX [38.86, -77.27]**

09/08/11 15:05 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 17:00 EST	0	Source: Trained Spotter

Flash flooding of Accotink Creek forced the closure of numerous roadways, including Route 50 at Rebel Run, Eaton Place, and Draper Drive. Also, Pickett Road was closed at Old Pickett Road and Old Lee Highway was closed at Ridge Drive.

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**FAIRFAX COUNTY --- 2.0 SSW OAKTON [38.85, -77.32], 1.8 SSW OAKTON [38.86, -77.31], 1.9 SSW OAKTON [38.85, -77.31], 2.0 SSW OAKTON [38.85, -77.32]**

09/08/11 15:05 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 17:00 EST	0	Source: Trained Spotter

Route 50 closed at Oak Street due to flash flooding.

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**FAIRFAX COUNTY --- 2.1 S OAKTON [38.85, -77.30], 1.9 S OAKTON [38.85, -77.30], 2.0 SSW OAKTON [38.85, -77.31], 2.1 SSW OAKTON [38.85, -77.31]**

09/08/11 15:10 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 17:00 EST	0	Source: Trained Spotter

Intersection of University and Kenmore Drives closed due to flash flooding.

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**FAIRFAX COUNTY --- 1.8 SE CHANTILLY [38.88, -77.41], 1.9 SE CHANTILLY [38.88, -77.41], 1.8 SE CHANTILLY [38.88, -77.40], 1.5 SE CHANTILLY [38.89, -77.41]**

09/08/11 15:20 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 17:00 EST	0	Source: Trained Spotter

Intersection of Stringfellow Road and Route 50 was closed due to flash flooding.

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**FAIRFAX (C) COUNTY --- 4.2 N FAIRFAX [38.91, -77.29], 4.1 N FAIRFAX [38.91, -77.29], 4.1 N FAIRFAX [38.91, -77.29], 4.2 N FAIRFAX [38.91, -77.29]**

09/08/11 17:00 EST	1	Flash Flood (due to Heavy Rain)
09/08/11 18:00 EST	0	Source: Trained Spotter

Flash flooding on Piney Branch Creek near Marcliff Court swept away and drowned a 12 year old male.

Direct Fatalities: M12OU

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**FAIRFAX COUNTY --- 1.7 NNW GREAT FALLS [39.02, -77.28], 1.8 NNW GREAT FALLS [39.02, -77.28], 1.8 NNW GREAT FALLS [39.02, -77.28], 1.8 NNW GREAT FALLS [39.02, -77.28]**

09/08/11 17:00 EST	1	Flash Flood (due to Heavy Rain)
09/08/11 18:30 EST	0	Source: Trained Spotter

Flash flooding on Charles Branch submerged vehicle on Beach Mill Road near Club View Drive. One person was swept away and drowned.

Direct Fatalities: M67VE

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**FAIRFAX COUNTY --- 0.4 NW FT BELVOIR [38.70, -77.16], 0.2 NE AECOTINK [38.70, -77.17], 0.6 SSW DAVISON AAF [38.71, -77.17], 0.2 SE POHICK ESTATES [38.72, -77.20], 0.4 SW NEWINGTON [38.73, -77.19], 0.3 SE DAVISON AAF [38.72, -77.17]**

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/08/11 17:10 EST	1	0	Flash Flood (due to Heavy Rain)
	09/08/11 19:00 EST		0	Source: Trained Spotter

Flash flooding of Accotink Creek stranded cars on Route 1, Fairfax County Parkway, and Telegraph Road. On Accotink Creek Bridge on Telegraph Road, one person was swept away and drowned.

Direct Fatalities: M25VE

**FAIRFAX COUNTY --- 0.7 S LINCOLNIA [38.81, -77.15], 0.8 WNW FRANCONIA [38.80, -77.14], 0.9 W FRANCONIA [38.80, -77.15], 0.8 S LINCOLNIA [38.81, -77.15]**

09/08/11 17:30 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 19:00 EST	0	Source: Trained Spotter

Flash Flooding on Turkey Cock Run closed Edsall Road and submerged a car. A nearby spotter observed 12.56 inches of rain.

**KING GEORGE COUNTY --- DAHLGREN [38.33, -77.05], 2.7 NE HOODES [38.38, -77.04], 1.7 NW BERTHAVILLE [38.35, -77.14], 0.4 E ALLNUT [38.30, -77.09]**

09/08/11 18:00 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 21:00 EST	0	Source: State Official

Numerous roadways were closed throughout the county, with the most concentrated and significant flash flooding occurring around Dahlgren.

**FALLS CHURCH (C) COUNTY --- 0.8 NW FALLS CHURCH [38.89, -77.19], 0.8 NW FALLS CHURCH [38.89, -77.19], 0.9 NW FALLS CHURCH [38.89, -77.19], 0.8 NW FALLS CHURCH [38.89, -77.19]**

09/08/11 18:10 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 20:00 EST	0	Source: State Official

South West Street closed between Poplar Drive and Kennedy Street due to flash flooding.

**ALEXANDRIA (C) COUNTY --- 1.6 SSE ALEXANDRIA [38.80, -77.07], 1.6 SSE ALEXANDRIA [38.80, -77.07], 1.2 SSW ALEXANDRIA [38.80, -77.09], 1.5 SSW ALEXANDRIA [38.80, -77.09], 1.5 S ALEXANDRIA [38.80, -77.08]**

09/08/11 18:15 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 21:00 EST	0	Source: Department of Highways

Southbound Interstate 95 was closed between Telegraph Road and the Eisenhower Road Exit due to flash flooding on Cameron Run.

**FALLS CHURCH (C) COUNTY --- 0.1 N FALLS CHURCH [38.88, -77.18], 0.2 N FALLS CHURCH [38.88, -77.18], 0.3 NNW FALLS CHURCH [38.88, -77.18], 0.3 NNW FALLS CHURCH [38.88, -77.18]**

09/08/11 18:15 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 20:00 EST	0	Source: State Official

Sherrow Road was closed due to flash flooding.

**FALLS CHURCH (C) COUNTY --- 0.4 NNW FALLS CHURCH [38.89, -77.18], 0.4 NNW FALLS CHURCH [38.89, -77.18], 0.4 NNW FALLS CHURCH [38.88, -77.18], 0.4 NNW FALLS CHURCH [38.89, -77.18]**

09/08/11 18:15 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 20:00 EST	0	Source: Trained Spotter

South Oak Street was closed due to flash flooding.

**FAIRFAX COUNTY --- 1.3 ESE PENDER [38.86, -77.35], 1.4 SSE VALE [38.86, -77.34], 1.2 SE VALE [38.87, -77.34], 0.8 SE PENDER [38.86, -77.36]**

09/08/11 19:15 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 21:00 EST	0	Source: Newspaper

Westbound Interstate 66 was closed due to flash flooding at Exit 57.

**MANASSAS (C) COUNTY --- 0.5 W MANASSAS [38.75, -77.49], 0.8 ENE MANASSAS [38.75, -77.47], 1.1 E MANASSAS [38.75, -77.46], 0.6 WSW MANASSAS [38.75, -77.49]**

09/08/11 19:30 EST	0	Flash Flood (due to Heavy Rain)
09/08/11 21:00 EST	0	Source: Newspaper

Virginia Railway Express Trains shut down due to flash flooding on the tracks.

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>FAIRFAX COUNTY --- 0.5 W NEWINGTON [38.73, -77.19], 0.5 NE POHICK ESTATES [38.72, -77.19], 0.4 SW NEWINGTON [38.73, -77.19], 1.1 N NEWINGTON [38.75, -77.18], 1.2 N NEWINGTON [38.75, -77.18]</b>				
	09/08/11 19:55 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 22:00 EST		0	Source: Newspaper
Numerous high water rescues were performed on Cinder Bed Road. A nearby observer recorded 9.94 inches of rain.				
<b>STAFFORD COUNTY --- FALMOUTH [38.32, -77.47], 1.3 SE FALMOUTH [38.31, -77.46], 1.3 SE FALMOUTH [38.31, -77.45], 0.4 E FALMOUTH [38.32, -77.46]</b>				
	09/08/11 20:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 22:00 EST		0	Source: State Official
River Road was closed due to flash flooding.				
<b>SPOTSYLVANIA COUNTY --- 1.4 S FIVE MILE [38.26, -77.55], 1.5 SSE FIVE MILE [38.26, -77.54], 1.4 SSE FIVE MILE [38.26, -77.54], 1.3 S FIVE MILE [38.26, -77.55]</b>				
	09/08/11 21:00 EST		0	Flash Flood (due to Heavy Rain)
	09/08/11 23:00 EST		0	Source: State Official
Numerous roadways were closed in eastern Spotsylvania County. A sinkhole occurred near the intersection of Windsor Drive and Abbey Lane.				
<b>Abnormally moist atmosphere across the mid-Atlantic allowed showers and thunderstorms to produce exceptional rainfall rates across portions of northern Virginia as the remnants of Tropical Depression Lee interacted with a nearly stationary boundary near the Mason-Dixon line. Major flooding and flash flooding occurred in numerous areas. The highest rainfall and worst flooding happened in a band from King George County northward into Fairfax County. An AWOS site in Fairfax County measured 13.48 inches of rain.</b>				
<b>FAIRFAX COUNTY --- 0.7 N BURKE [38.81, -77.27], 0.8 NNE BURKE [38.81, -77.27], 0.8 NNE BURKE [38.81, -77.27], 0.8 NNW BURKE [38.81, -77.27]</b>				
	09/09/11 02:15 EST		0	Flood (due to Heavy Rain)
	09/09/11 08:00 EST		0	Source: Department of Highways
Guinea Road was closed due to flooding. A nearby spotter had a storm total of 11.97 inches.				
<b>FAIRFAX COUNTY --- 0.7 S EDSALL PARK [38.81, -77.17], 1.0 S LINCOLNIA [38.81, -77.15], 1.0 E WEYANOKE [38.80, -77.15], 0.6 E WEYANOKE [38.80, -77.16]</b>				
	09/09/11 02:15 EST		0	Flood (due to Heavy Rain)
	09/09/11 08:00 EST		0	Source: Department of Highways
Portions of Edsall Road remained closed due to flooding. A nearby spotter had a storm total of 9.60 inches of rain.				
<b>FAIRFAX COUNTY --- 0.5 W CLARKS CROSSING [38.92, -77.31], 0.4 S CLARKS CROSSING [38.91, -77.30], 0.1 NNW CLARKS CROSSING [38.92, -77.30], 1.0 WNW CLARKS CROSSING [38.93, -77.32], 1.0 W CLARKS CROSSING [38.92, -77.32]</b>				
	09/09/11 10:00 EST		0	Flood (due to Heavy Rain)
	09/09/11 16:00 EST		0	Source: Trained Spotter
Water remained over the road at Lawyers Road and Hunter Mill Road and the intersection was flooded and closed. A nearby spotter observed 9.49 inches of rain for a storm total.				
<b>Scattered showers continued through northern Virginia on the 9th, after record breaking precipitation on the 8th. Flooding was ongoing in Fairfax County through much of the day, with a number of roadways closed and streams out of their banks. A trained spotter in Franconia measured a storm total rainfall of 12.56 inches.</b>				
<b>GREENE COUNTY --- 2.1 ENE STANDARDSVILLE [38.31, -78.40]</b>				
	09/12/11 15:47 EST		5K	Thunderstorm Wind (EG 56 kt)
	09/12/11 15:47 EST		0	Source: Public
Nine trees were down along Skirmish Road.				
<b>CHARLOTTESVILLE (C) COUNTY --- 0.6 WSW CHARLOTTESVILLE [38.03, -78.51]</b>				
	09/12/11 16:10 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/12/11 16:10 EST		0	Source: Fire Department/Rescue

A tree fell down on a vehicle at Jefferson Park Avenue and Shamrock Road.

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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A trough of low pressure triggered showers and thunderstorms on the 12th. Moderate instability caused a couple thunderstorms to produce damaging winds in central Virginia.

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**SHENANDOAH COUNTY --- 0.7 W SAUMSVILLE [38.93, -78.51]**

	09/14/11 16:57 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 16:57 EST		0	Source: State Official

A tree was blown down by thunderstorm winds along Jadwyn Road near the town of Woodstock.

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**SHENANDOAH COUNTY --- 0.6 ESE SAUMSVILLE [38.93, -78.49]**

	09/14/11 17:00 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 17:00 EST		0	Source: State Official

A tree was blown down by a thunderstorm wind gust along Swartz Road near Woodstock.

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**SHENANDOAH COUNTY --- 1.2 SSW SAUMSVILLE [38.91, -78.51]**

	09/14/11 17:00 EST		2K	Thunderstorm Wind (EG 56 kt)
	09/14/11 17:00 EST		0	Source: State Official

A Metal and wooden shed was damaged by strong thunderstorm wind gusts along Wetzel Road near the town of Woodstock.

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**ROCKINGHAM COUNTY --- 3.2 SSE MELROSE [38.46, -78.77]**

	09/14/11 18:12 EST		0	Hail (1.00 in)
	09/14/11 18:12 EST		0	Source: Public

Hail up to quarters in size was reported near Keezletown.

A cold front passed through the region during the afternoon and evening hours of the 14th. A southwest flow ahead of the front caused a warm and humid air mass which led to moderate amounts of instability. The moderate instability combined with forcing from the front to trigger showers and thunderstorms. A few thunderstorms produced damaging winds and large hail.

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**SHENANDOAH COUNTY --- 1.5 SSW SAUMSVILLE [38.91, -78.51], 1.4 SSW SAUMSVILLE [38.91, -78.51], 1.2 SSW SAUMSVILLE [38.91, -78.51], 1.1 SSW SAUMSVILLE [38.91, -78.51]**

	09/14/11 17:30 EST		0	Flash Flood (due to Heavy Rain)
	09/14/11 18:00 EST		0	Source: State Official

Pughs Run was out of its banks onto Wetzel Road. The road was impassable and closed. A nearby observer measured 1.46 inches of rain.

A cold front crossed the Appalachians during the the afternoon and moved through northern Virginia during the evening. Instability and moisture helped produce scattered showers and thunderstorms along this front. Heavy rain associated with one of these cells produced an isolated flash flood in Shenandoah County. A trained spotter in Dilbeck measured 1.50 inches of rain.

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**(VA-Z031) CLARKE, (VA-Z042) LOUDOUN, (VA-Z051) CULPEPER, (VA-Z052) PRINCE WILLIAM, (VA-Z053) FAIRFAX, (VA-Z501) NORTHERN FAUQUIER, (VA-Z502) SOUTHERN FAUQUIER**

	09/22/11 21:15 EST		0	Dense Fog
	09/23/11 09:30 EST		0	

High pressure just off the Mid-Atlantic Coast caused a southerly flow to usher in plenty of low-level moisture across the area. Winds were light enough during the early morning hours for areas of dense fog to develop.

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**(VA-Z027) SHENANDOAH, (VA-Z029) PAGE, (VA-Z036) NELSON, (VA-Z037) ALBEMARLE, (VA-Z038) GREENE, (VA-Z042) LOUDOUN, (VA-Z050) ORANGE, (VA-Z051) CULPEPER**

	09/23/11 17:15 EST		0	Dense Fog
	09/24/11 06:55 EST		0	

Light winds combined with an abundant amount of low-level moisture to produce areas of dense fog. The dense fog occurred during the late evening hours of the 23rd and it lasted into the morning hours of the 24th.

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**KING GEORGE COUNTY --- 1.8 WNW GOBY [38.33, -77.30], 2.1 WNW GOBY [38.33, -77.31], 2.2 WNW GOBY [38.33, -77.31], 1.9 WNW GOBY [38.33, -77.30]**

	09/27/11 15:00 EST		0	Flash Flood (due to Heavy Rain)
	09/27/11 16:00 EST		0	Source: State Official

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
A mudslide was caused by flash flooding near Belvedere Drive and Waugh Point Road.				
<b>KING GEORGE COUNTY --- 0.9 NW SEALSTON [38.28, -77.34], 0.9 NNW SEALSTON [38.28, -77.33], 1.3 NNW SEALSTON [38.29, -77.34], 1.3 NW SEALSTON [38.28, -77.35]</b>				
	09/27/11 15:15 EST		0	Flash Flood (due to Heavy Rain)
	09/27/11 16:00 EST		0	Source: State Official

A road was washed out due to heavy rain near Bully Hill Drive and Chapel Green Road.

Upper level low pressure remained over the Ohio Valley while high pressure was located over the Atlantic Ocean. A southerly flow between these two systems pumped in plenty of moisture across the area. The deep moisture provided moderate amounts of instability while a cold front was moving in from the west. These two features combined to trigger showers and thunderstorms. Excessive rainfall rates from these thunderstorms caused flash flooding in King George County.

<b>(VA-Z042) LOUDOUN, (VA-Z050) ORANGE, (VA-Z051) CULPEPER, (VA-Z052) PRINCE WILLIAM, (VA-Z501) NORTHERN FAUQUIER, (VA-Z502) SOUTHERN FAUQUIER</b>				
	09/28/11 20:15 EST		0	Dense Fog
	09/29/11 07:57 EST		0	

High pressure just off to the east produced a light southeasterly flow. The southeast flow caused an abundant amount of low-level moisture to move overhead. Light winds along with high moisture caused areas of dense fog to develop during the late evening hours of the 28th lasting into the morning hours of the 29th.

### WEST VIRGINIA, East

<b>(WV-Z504) EASTERN MINERAL</b>				
	09/02/11 02:44 EST		0	Dense Fog
	09/02/11 06:20 EST		0	

High pressure centered overhead caused light winds. Light winds along with high amounts of low-level moisture allowed for areas of fog to develop during the early morning hours of the 2nd.

<b>PENDLETON COUNTY --- 2.3 W DAHMER [38.58, -79.37]</b>				
	09/03/11 13:56 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/03/11 13:56 EST		0	Source: State Official

A tree was down along Sandy Ridge Road.

A pressure trough remained over the region on the 3rd. Moderate instability combined with the trough for scattered showers and thunderstorms. An isolated thunderstorm produced damaging winds.

<b>GRANT COUNTY --- 0.6 S SCHERR [39.19, -79.17], 0.5 SW SCHERR [39.19, -79.18], 0.2 SSE SCHERR [39.20, -79.17], 0.5 SSE SCHERR [39.19, -79.17]</b>				
	09/04/11 19:30 EST		0	Flood (due to Heavy Rain)
	09/04/11 23:30 EST		0	Source: Fire Department/Rescue

Standing water was hindering traffic flow near the intersection of Routes 42 and 93.

<b>HARDY COUNTY --- 1.4 W WARDENSVILLE [39.08, -78.63], 0.9 WSW WARDENSVILLE [39.07, -78.61], 0.6 SSE WARDENSVILLE [39.07, -78.60], 0.5 E WARDENSVILLE [39.08, -78.59], 1.7 NNE WARDENSVILLE [39.10, -78.59]</b>				
	09/04/11 21:32 EST		0	Flash Flood (due to Heavy Rain)
	09/04/11 23:00 EST		0	Source: State Official

Deep water was flowing across Route 55, forcing its closure.

Rich tropical moisture streamed northward from the Gulf of Mexico in advance of a slow-moving cold front across the Ohio Valley. Isolated showers and thunderstorms developed in areas of terrain-enhanced lift across the Potomac Highlands. A couple of reports of flooding and flash flooding were received after the heavy rainfall amounts from this activity. The highest rainfall total in the region was observed in Grant County, where 2.05 inches was recorded.

<b>GRANT COUNTY --- 0.9 NE BISMARCK [39.23, -79.22], 1.1 NE BISMARCK [39.23, -79.22], 1.1 NE BISMARCK [39.23, -79.22], 0.9 NE BISMARCK [39.23, -79.22]</b>				
	09/06/11 17:10 EST		0	Flood (due to Heavy Rain)
	09/06/11 22:00 EST		0	Source: State Official



## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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High water was observed over Route 42. The water was too deep for cars to pass.

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<b>GRANT COUNTY --- 0.5 W BAYARD [39.27, -79.26], 0.5 WSW BAYARD [39.27, -79.26], 0.8 W BAYARD [39.27, -79.26], 0.7 W BAYARD [39.27, -79.26]</b>	09/06/11 17:20 EST		0	Flood (due to Heavy Rain)
	09/06/11 22:20 EST		0	Source: State Official

Route 50 was flooded near Bismarck Road.

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<b>GRANT COUNTY --- 1.1 E BISMARK [39.22, -79.21], 1.8 E BISMARK [39.22, -79.20], 1.6 ESE BISMARK [39.21, -79.20], 1.1 ESE BISMARK [39.21, -79.21]</b>	09/06/11 20:00 EST		0	Flood (due to Heavy Rain)
	09/06/11 23:45 EST		0	Source: Trained Spotter

High water was reported on Sheer Road near Route 42.

**Gulf of Mexico and Atlantic moisture associated with the remnants of Tropical Depress Lee continued to interacted with a nearly stationary boundary across West Virginia. Widespread rain falling across already saturated ground in eastern West Virginia resulted in flooding in Grant County. A storm spotter in Kline Gap measured a storm total of 4.35 inches of rain.**

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**(WV-Z502) EASTERN GRANT**

	09/13/11 04:15 EST		0	Dense Fog
	09/13/11 08:10 EST		0	

**High pressure overhead caused mainly clear skies and light winds. Radiational cooling allowed for areas of dense fog to develop during the early morning hours.**

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**HARDY COUNTY --- 3.5 ESE ROCKOAK [39.13, -78.67]**

	09/14/11 15:12 EST		0	Hail (1.00 in)
	09/14/11 15:12 EST		0	Source: Post Office

Quarter sized hail was reported.

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**HARDY COUNTY --- 2.9 ESE ROCKOAK [39.13, -78.68]**

	09/14/11 15:14 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 15:14 EST		0	Source: Post Office

Tree damage was along Lower Arkansas Road.

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**BERKELEY COUNTY --- 0.8 SE JONES SPGS [39.47, -78.09]**

	09/14/11 15:32 EST		0	Hail (1.75 in)
	09/14/11 15:32 EST		0	Source: Public

Golf ball sized hail was reported along Tallyho Lane.

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**BERKELEY COUNTY --- 0.6 SE ARDEN [39.41, -78.04]**

	09/14/11 15:50 EST		0	Hail (1.00 in)
	09/14/11 15:50 EST		0	Source: Public

Quarter sized hail was reported at Arden.

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**BERKELEY COUNTY --- 2.7 NW JOHNSTOWN [39.60, -78.07]**

	09/14/11 16:30 EST		1K	Thunderstorm Wind (EG 56 kt)
	09/14/11 16:30 EST		0	Source: State Official

A large tree was down across the road near the intersection of Martinsburg Road and River Road.

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**BERKELEY COUNTY --- 1.1 NW JOHNSTOWN [39.59, -78.04]**

	09/14/11 16:32 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 16:32 EST		0	Source: Public

A tree branch that was three to four inches in diameter was knocked down from thunderstorm winds.

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>HARDY COUNTY --- 5.6 S LOST CITY [38.85, -78.83]</b>				
	09/14/11 16:32 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/14/11 16:32 EST		0	Source: State Official
A tree was down near Lost City along Upper Cove Road.				
<b>JEFFERSON COUNTY --- 0.4 SSW LEETOWN [39.34, -77.93]</b>				
	09/14/11 16:36 EST		0	Hail (1.00 in)
	09/14/11 16:36 EST		0	Source: Public
Quarter sized hail was reported along Dallas Lane.				
<b>BERKELEY COUNTY --- 1.0 W JOHNSTOWN [39.58, -78.05]</b>				
	09/14/11 16:38 EST		0	Hail (1.00 in)
	09/14/11 16:38 EST		0	Source: Public
Hail up to quarters in size was reported along Baxter Road.				
<b>BERKELEY COUNTY --- 1.2 NW JOHNSTOWN [39.59, -78.04]</b>				
	09/14/11 16:38 EST		5K	Hail (1.75 in)
	09/14/11 16:38 EST		0	Source: Public
Golf ball sized hail was reported near Johnstontown. Hail caused dents in a vehicle.				
<b>BERKELEY COUNTY --- 1.1 SE GANOTOWN [39.41, -78.13]</b>				
	09/14/11 17:02 EST		0	Hail (1.00 in)
	09/14/11 17:02 EST		0	Source: Public
Quarter sized hail was reported along Hallows Way.				
<b>BERKELEY COUNTY --- 1.3 S SHANGHAI [39.41, -78.13]</b>				
	09/14/11 17:03 EST		0	Hail (1.50 in)
	09/14/11 17:03 EST		0	Source: Public
Hail up to the size of ping pong balls was reported along Canton Court.				
<b>BERKELEY COUNTY --- 1.3 E SHANGHAI [39.43, -78.11]</b>				
	09/14/11 17:06 EST		0	Hail (1.00 in)
	09/14/11 17:06 EST		0	Source: Public
Hail up to quarters in size was reported along Passage Way Terrace.				
<b>BERKELEY COUNTY --- 1.7 NW UNION CORNER [39.42, -78.10]</b>				
	09/14/11 17:08 EST		0	Hail (1.00 in)
	09/14/11 17:08 EST		0	Source: Public
Quarter sized hail was reported along Setting sun Ridge.				
<b>BERKELEY COUNTY --- 1.5 SE GERRARDSTOWN [39.35, -78.08]</b>				
	09/14/11 17:17 EST		0	Hail (1.00 in)
	09/14/11 17:17 EST		0	Source: Public
Hail up to quarters in size was reported along Chaucer Lane.				
<b>JEFFERSON COUNTY --- 1.2 NNE KABLETOWN [39.24, -77.84]</b>				
	09/14/11 17:40 EST		0	Thunderstorm Wind (EG 52 kt)
	09/14/11 17:40 EST		0	Source: Public
Wind gusts were estimated to be around 60 mph.				

A cold front passed through the region during the afternoon and evening hours of the 14th. A southwest flow ahead of the front caused a warm and humid air mass which led to moderate amounts of instability. The moderate instability combined with forcing from the front

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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to trigger showers and thunderstorms. Some thunderstorms produced damaging winds and large hail.

**(WV-Z052) BERKELEY, (WV-Z053) JEFFERSON**

	09/23/11 03:36 EST		0	Dense Fog
	09/23/11 07:00 EST		0	

High pressure just off the Mid-Atlantic Coast caused a southerly flow to usher in plenty of low-level moisture across the area. Winds were light enough during the early morning hours for areas of dense fog to develop.

**HAMPSHIRE COUNTY --- 0.4 SW ROMNEY [39.35, -78.76]**

	09/27/11 16:15 EST		0	Hail (1.50 in)
	09/27/11 16:15 EST		0	Source: Emergency Manager

Hail up to the size of ping pong balls was measured in Romney.

**HAMPSHIRE COUNTY --- 0.4 SW ROMNEY [39.35, -78.76]**

	09/27/11 16:18 EST		0	Hail (1.25 in)
	09/27/11 16:18 EST		0	Source: Public

Hail up to the size of half dollars was reported in Hampshire.

**HAMPSHIRE COUNTY --- 1.2 WNW SHANKS [39.32, -78.70]**

	09/27/11 16:20 EST		1K	Thunderstorm Wind (EG 52 kt)
	09/27/11 16:20 EST		0	Source: Emergency Manager

A tree was down along Ridge Loop Road.

**HAMPSHIRE COUNTY --- 2.1 ESE ROMNEY [39.34, -78.71]**

	09/27/11 16:20 EST		0	Hail (1.50 in)
	09/27/11 16:20 EST		0	Source: State Official

Hail up to the size of ping pong balls was measured near Shanks.

Upper level low pressure remained over the Ohio Valley while high pressure was located over the Atlantic Ocean. A southerly flow between these two systems pumped in plenty of moisture across the area. The deep moisture provided moderate amounts of instability at the same time a cold front was moving in from the west. These two features combined to trigger showers and thunderstorms. Some thunderstorms produced damaging wind gusts.

**(WV-Z052) BERKELEY**

	09/29/11 04:11 EST		0	Dense Fog
	09/29/11 07:51 EST		0	

High pressure just off to the east produced a light southeasterly flow. The southeast flow caused an abundant amount of low-level moisture to move overhead. Light winds along with high moisture caused areas of dense fog to develop during the early morning hours of the 29th.