

Storm Data and Unusual Weather Phenomena - May 2020

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
ATLANTIC NORTH				
TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- BABER POINT (BAB) [38.31, -77.03]				
	05/03/20 22:31 EST	0		Marine Thunderstorm Wind (MG 36 kt)
	05/03/20 22:31 EST	0		Source: Buoy
TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- 1.5 E BABER POINT (BAB) [38.31, -77.00]				
	05/03/20 22:32 EST	0		Marine Thunderstorm Wind (MG 37 kt)
	05/03/20 22:32 EST	0		Source: Buoy
TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- POTOMAC LIGHT 33 (LT3) [38.34, -76.99]				
	05/03/20 22:32 EST	0		Marine Thunderstorm Wind (MG 36 kt)
	05/03/20 22:32 EST	0		Source: Buoy
TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- MONROE CREEK (MON) [38.23, -76.95]				
	05/03/20 22:36 EST	0		Marine Thunderstorm Wind (MG 41 kt)
	05/03/20 22:46 EST	0		Source: Buoy
TIDAL POTOMAC INDIAN HD TO COBB IS MD COUNTY --- CUCKOLD CREEK (CCK) [38.31, -76.93]				
	05/03/20 22:38 EST	0		Marine Thunderstorm Wind (MG 41 kt)
	05/03/20 22:38 EST	0		Source: Buoy
TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- COBB POINT (COB) [38.24, -76.83]				
	05/03/20 22:45 EST	0		Marine Thunderstorm Wind (MG 42 kt)
	05/03/20 22:55 EST	0		Source: Buoy
TIDAL POTOMAC COBB IS MD TO SMITH PT VA COUNTY --- PINEY POINT (PPTM2) [38.13, -76.53]				
	05/03/20 23:06 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	05/03/20 23:06 EST	0		Source: Mesonet
Wind gusts in excess of 30 knots were observed at Piney Point.				
CHESAPEAKE BAY N BEACH TO DRUM PT MD COUNTY --- 4.6 S MID BAY BUOY [38.40, -76.39]				
	05/03/20 23:12 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	05/03/20 23:18 EST	0		Source: Buoy
Wind gusts in excess of 30 knots were observed at Cove Point.				
TANGIER SOUND AND THE INLAND WATERS SURROUNDING BLOODSWORTH ISLAND COUNTY --- BISHOPS HEAD (BISM2) [38.22, -76.04]				
	05/03/20 23:42 EST	0		Marine Thunderstorm Wind (EG 34 kt)
	05/03/20 23:42 EST	0		Source: Mesonet
Wind gusts in excess of 30 knots were observed at Bishop's Head.				
Thunderstorms formed ahead of a southward surging boundary. These storms produced wind gusts in excess of 34 knots over the waters.				
MARYLAND, Central				
FREDERICK COUNTY --- 0.6 SSE HARMONY GROVE [39.44, -77.40], 0.7 SE FREDERICK ARPT [39.41, -77.37], 0.6 ENE LIME KILN [39.35, -77.42], 1.4 E LIME KILN [39.35, -77.40], 0.4 E PEARL [39.40, -77.36], 1.2 ENE FREDERICK ARPT [39.43, -77.36], 1.0 SSW CERESVILLE [39.44, -77.38], 0.6 WSW CERESVILLE [39.45, -77.38]				
	05/01/20 05:19 EST	0		Flood (due to Heavy Rain)
	05/01/20 15:30 EST	0		Source: River/Stream Gage

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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The river gage on the Monocacy River at Frederick exceeded the 15 foot flood stage during the indicated period, leading to flooding of portions of Pinecliff Park, as well as many of the low-lying fields at Monocacy National Battlefield. Flooding was also observed at FRMM2. The peak level of 15.83 feet occurred at 12:00 PM on the 1st.

A period of heavy rainfall occurred downstream of a highly amplified trough April 30th into May 1st. A strong low-level jet transported a moisture rich airmass into the area, and strong synoptic scale ascent downstream of the closed upper low produced a soaking rainfall. Rainfall totals ranged from 1-2 inches across the area, producing river flooding in Maryland on May 1st and 2nd.

(MD-Z003) WASHINGTON, (MD-Z004) FREDERICK, (MD-Z005) CARROLL, (MD-Z006) NORTHERN BALTIMORE, (MD-Z501) EXTREME WESTERN ALLEGANY, (MD-Z502) CENTRAL AND EASTERN ALLEGANY, (MD-Z503) NORTHWEST MONTGOMERY, (MD-Z505) NORTHWEST HOWARD, (MD-Z507) NORTHWEST HARFORD

05/08/20 23:00 EST	0	Frost/Freeze
05/09/20 09:00 EST	0	

Strong cold advection behind an unseasonably strong cold front ushered near record cold into the region. A widespread freeze occurred across portions of central and western Maryland.

(MD-Z003) WASHINGTON, (MD-Z004) FREDERICK, (MD-Z005) CARROLL, (MD-Z006) NORTHERN BALTIMORE, (MD-Z013) PRINCE GEORGES, (MD-Z501) EXTREME WESTERN ALLEGANY, (MD-Z502) CENTRAL AND EASTERN ALLEGANY, (MD-Z503) NORTHWEST MONTGOMERY, (MD-Z504) CENTRAL AND SOUTHEAST MONTGOMERY, (MD-Z505) NORTHWEST HOWARD, (MD-Z506) CENTRAL AND SOUTHEAST HOWARD, (MD-Z507) NORTHWEST HARFORD

05/09/20 23:00 EST	0	Frost/Freeze
05/10/20 09:00 EST	0	

High pressure settled over Virginia, allowing winds to go calm across the region within what was an already very cold ambient environment for May. This led to a widespread freeze across central and western portions of Maryland.

(MD-Z003) WASHINGTON, (MD-Z004) FREDERICK, (MD-Z005) CARROLL, (MD-Z501) EXTREME WESTERN ALLEGANY, (MD-Z502) CENTRAL AND EASTERN ALLEGANY, (MD-Z503) NORTHWEST MONTGOMERY, (MD-Z504) CENTRAL AND SOUTHEAST MONTGOMERY

05/23/20 03:09 EST	0	Dense Fog
05/23/20 07:00 EST	0	

Areas of dense fog formed within a calm lower troposphere beneath an upper low across portions of central and western Maryland.

(MD-Z011) SOUTHERN BALTIMORE, (MD-Z013) PRINCE GEORGES, (MD-Z014) ANNE ARUNDEL, (MD-Z018) CALVERT, (MD-Z508) SOUTHEAST HARFORD

05/26/20 07:03 EST	0	Dense Fog
05/26/20 10:00 EST	0	

An influx of low level moisture off the Atlantic and Chesapeake Bay became trapped underneath a subsidence inversion. When coupled with calm winds in a weak surface ridge, widespread dense fog formed across portions of southern and eastern Maryland to the east of Interstate 95.

(MD-Z016) CHARLES, (MD-Z017) ST. MARY'S, (MD-Z018) CALVERT

05/27/20 06:40 EST	0	Dense Fog
05/27/20 09:00 EST	0	

An influx of low level moisture off the Atlantic and Chesapeake Bay became trapped underneath a subsidence inversion. When coupled with calm winds in a weak surface ridge and cool water temp on Chesapeake Bay, widespread dense fog formed across portions of southern Maryland.

WASHINGTON COUNTY --- 1.1 NE EDMONT [39.69, -77.53]

05/29/20 13:25 EST	1K	Thunderstorm Wind (EG 50 kt)
05/29/20 13:25 EST	0	Source: 911 Call Center

A tree was blown down on Edgemont Road.

WASHINGTON COUNTY --- 1.2 W MT BRIAR [39.45, -77.70]

05/29/20 13:29 EST	1K	Thunderstorm Wind (EG 50 kt)
05/29/20 13:29 EST	0	Source: 911 Call Center

Wires were blown down on Porterstown Road.

Storm Data and Unusual Weather Phenomena - May 2020

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WASHINGTON COUNTY --- 1.7 ENE ANTIETAM [39.43, -77.72]				
	05/29/20 13:33 EST		1K	Thunderstorm Wind (EG 50 kt)
	05/29/20 13:33 EST		0	Source: 911 Call Center
A tree blew down bringing down wires on Mills Road.				

WASHINGTON COUNTY --- 0.5 NW SANDY HOOK [39.34, -77.73]				
	05/29/20 13:55 EST		1K	Thunderstorm Wind (EG 50 kt)
	05/29/20 13:55 EST		0	Source: 911 Call Center
A tree was blown down on Sandy Hook Road.				

Thunderstorms formed along a pre-frontal trough in the I-81 corridor as a shortwave disturbance embedded within a larger scale trough tracked northeastward from WV to PA. An environment characterized by 1500-2500 J/kg and 30-50 knots of 0-6 km shear enabled these storms to turn severe, leading to damaging wind gusts in Washington County.

VIRGINIA, North

KING GEORGE COUNTY --- 0.4 NW BERTHAVILLE [38.33, -77.13]				
	05/03/20 22:20 EST		0.50K	Thunderstorm Wind (EG 50 kt)
	05/03/20 22:20 EST		0	Source: 911 Call Center
Large tree branches down near the intersection of VA-218 Caledon Road and VA-206 Dahlgren Road.				

KING GEORGE COUNTY --- 1.2 SW ALLNUT [38.29, -77.12]				
	05/03/20 22:23 EST		0.50K	Thunderstorm Wind (EG 50 kt)
	05/03/20 22:23 EST		0	Source: 911 Call Center
Large tree branches down near the intersection of US-301 James Madison Parkway and VA-617 Poplar Neck Road.				

KING GEORGE COUNTY --- 2.0 W NINDE [38.27, -77.09]				
	05/03/20 22:25 EST		0.50K	Thunderstorm Wind (EG 50 kt)
	05/03/20 22:25 EST		0	Source: 911 Call Center
Large tree branches down near the intersection of VA-205 Ridge Road and VA-718 Shiloh Drive.				

Thunderstorms formed ahead of a southward surging boundary. These thunderstorms produced wind damage in King George County.

FAIRFAX COUNTY --- 1.1 WSW TREMONT [38.85, -77.24], 1.0 WSW TREMONT [38.85, -77.24], 0.9 WSW TREMONT [38.85, -77.24], 1.0 WSW TREMONT [38.85, -77.24]				
	05/03/20 23:13 EST		0	Flood (due to Heavy Rain)
	05/04/20 01:37 EST		0	Source: River/Stream Gage

The stream gage on Accotink Creek at Strathmeade Springs exceeded the 251.5 foot flood stage during the indicated period. Woodburn Road was covered by approximately one foot of water, and portions of the Cross County Trail were also flooded. The peak level of 252.24 feet occurred at 1:40 AM on the 4th.

A shortwave trough progressing through in westerly flow aloft, coupled with a southward surging surface boundary, intensifying low-level jet, and precipitable water values around 1.5 inches resulted in heavy rainfall across Northern Virginia. Between 1 and 2 inches of rainfall was observed, leading to isolated instances of flooding.

(VA-Z503) WESTERN HIGHLAND, (VA-Z504) EASTERN HIGHLAND				
	05/06/20 23:00 EST		0	Frost/Freeze
	05/07/20 08:00 EST		0	

A weak ridge of high pressure allowed winds to go calm in Highland County, which when coupled with clearing skies, allowed temperatures to drop below freezing.

(VA-Z025) AUGUSTA, (VA-Z026) ROCKINGHAM, (VA-Z027) SHENANDOAH, (VA-Z028) FREDERICK, (VA-Z029) PAGE, (VA-Z030) WARREN, (VA-Z031) CLARKE, (VA-Z501) NORTHERN FAUQUIER, (VA-Z503) WESTERN HIGHLAND, (VA-Z504) EASTERN HIGHLAND, (VA-Z507) NORTHERN VIRGINIA BLUE RIDGE, (VA-Z508) CENTRAL VIRGINIA BLUE RIDGE

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	05/08/20 23:00 EST		0	Frost/Freeze
	05/09/20 09:00 EST		0	

Strong cold advection behind an unseasonably strong cold front ushered near record cold into the region. A widespread freeze occurred across portions of the Shenandoah Valley and along the Blue Ridge.

(VA-Z025) AUGUSTA, (VA-Z026) ROCKINGHAM, (VA-Z027) SHENANDOAH, (VA-Z028) FREDERICK, (VA-Z029) PAGE, (VA-Z030) WARREN, (VA-Z031) CLARKE, (VA-Z036) NELSON, (VA-Z037) ALBEMARLE, (VA-Z038) GREENE, (VA-Z039) MADISON, (VA-Z040) RAPPAHANNOCK, (VA-Z050) ORANGE, (VA-Z051) CULPEPER, (VA-Z052) PRINCE WILLIAM, (VA-Z053) FAIRFAX, (VA-Z055) STAFFORD, (VA-Z056) SPOTSYLVANIA, (VA-Z501) NORTHERN FAUQUIER, (VA-Z502) SOUTHERN FAUQUIER, (VA-Z503) WESTERN HIGHLAND, (VA-Z504) EASTERN HIGHLAND, (VA-Z505) WESTERN LOUDOUN, (VA-Z506) EASTERN LOUDOUN, (VA-Z507) NORTHERN VIRGINIA BLUE RIDGE, (VA-Z508) CENTRAL VIRGINIA BLUE RIDGE				
	05/09/20 23:00 EST		0	Frost/Freeze
	05/10/20 09:00 EST		0	

High pressure settled over Virginia, allowing winds to go calm across the region within what was an already very cold ambient environment for May. This led to a widespread freeze across much of northern and central Virginia, as well as the Shenandoah Valley.

(VA-Z503) WESTERN HIGHLAND				
	05/11/20 23:00 EST		0	Frost/Freeze
	05/12/20 08:00 EST		0	

A sprawling area of high pressure settled over the Tennessee Valley, allowing winds to go calm and skies to stay clear. Strong radiational cooling led to a freeze in Western Highland County.

(VA-Z027) SHENANDOAH, (VA-Z050) ORANGE, (VA-Z503) WESTERN HIGHLAND, (VA-Z504) EASTERN HIGHLAND				
	05/13/20 01:00 EST		0	Frost/Freeze
	05/13/20 08:00 EST		0	

High pressure settled directly overhead, allowing winds to go calm and skies to stay clear. Strong radiational cooling led to a freeze across portions Highland, Shenandoah and Orange Counties.

(VA-Z025) AUGUSTA, (VA-Z026) ROCKINGHAM, (VA-Z027) SHENANDOAH, (VA-Z028) FREDERICK, (VA-Z029) PAGE, (VA-Z036) NELSON, (VA-Z037) ALBEMARLE, (VA-Z038) GREENE, (VA-Z039) MADISON, (VA-Z503) WESTERN HIGHLAND, (VA-Z504) EASTERN HIGHLAND, (VA-Z507) NORTHERN VIRGINIA BLUE RIDGE, (VA-Z508) CENTRAL VIRGINIA BLUE RIDGE				
	05/23/20 04:15 EST		0	Dense Fog
	05/23/20 07:00 EST		0	

Areas of dense fog formed within a calm lower troposphere beneath an upper low across portions of central Virginia.

WEST VIRGINIA, East

MORGAN COUNTY --- 1.3 SSW GREAT CACAPON [39.60, -78.29], 3.2 S WOODMONT [39.58, -78.32], 1.3 WNW LARGENT [39.48, -78.40], 0.2 S LARGENT [39.48, -78.38], 2.5 WNW ROCK GAP [39.54, -78.33], 2.4 SSW GREAT CACAPON [39.59, -78.29]				
	05/01/20 00:00 EST		0	Flood (due to Heavy Rain)
	05/01/20 14:45 EST		0	Source: River/Stream Gage

The stream gage on the Cacapon River at Great Cacapon exceeded the 9 foot flood stage during the indicated period. Rock Ford Road flooded in multiple locations, including flowing completely over the low water bridge. Flooding was also observed along Constant Run Road. The peak level of 10.29 feet occurred at 6:00 AM on the 1st.

JEFFERSON COUNTY --- 5.7 NNW SHEPHERDSTOWN [39.50, -77.85], 0.5 NW SHEPHERDSTOWN [39.44, -77.81], 1.3 NW BOLIVAR [39.33, -77.76], 0.7 N BOLIVAR [39.33, -77.75], 2.5 E MOLER XRDS [39.39, -77.72], 2.2 NNE MOLER XRDS [39.43, -77.75], 5.2 NNE SHEPHERDSTOWN [39.50, -77.76], 7.5 NNW SHEPHERDSTOWN [39.54, -77.83]				
	05/01/20 16:51 EST		0	Flood (due to Heavy Rain)
	05/02/20 00:30 EST		0	Source: River/Stream Gage

The river gage on the Potomac River at Shepherdstown exceeded the 15 foot flood stage during the indicated period. River Road was completely flooded in low spots between Shepherdstown and Harpers Ferry. Significant portions of the C&O canal were flooded. The peak level of 15.25 feet occurred at 9:00 PM on May 1st.

A period of heavy rainfall occurred downstream of a highly amplified trough April 30th into May 1st. A strong low-level jet transported a

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moisture rich airmass into the area, and strong synoptic scale ascent downstream of the closed upper low produced a soaking rainfall. Rainfall totals ranged from 1-2 inches across the area, producing river flooding in eastern West Virginia on May 1st and 2nd.

(WV-Z501) WESTERN GRANT, (WV-Z505) WESTERN PENDLETON, (WV-Z506) EASTERN PENDLETON

05/06/20 23:00 EST	0	Frost/Freeze
05/07/20 08:00 EST	0	

A weak ridge of high pressure allowed winds to go calm across portions of the WV Panhandle, which when coupled with clearing skies, allowed temperatures to drop below freezing.

(WV-Z050) HAMPSHIRE, (WV-Z053) JEFFERSON, (WV-Z055) HARDY, (WV-Z501) WESTERN GRANT, (WV-Z502) EASTERN GRANT, (WV-Z503) WESTERN MINERAL, (WV-Z504) EASTERN MINERAL, (WV-Z505) WESTERN PENDLETON, (WV-Z506) EASTERN PENDLETON

05/08/20 23:00 EST	0	Frost/Freeze
05/09/20 09:00 EST	0	

Strong cold advection behind an unseasonably strong cold front allowed a widespread freeze to occur across portions of the WV Panhandle.

(WV-Z050) HAMPSHIRE, (WV-Z051) MORGAN, (WV-Z052) BERKELEY, (WV-Z053) JEFFERSON, (WV-Z055) HARDY, (WV-Z501) WESTERN GRANT, (WV-Z502) EASTERN GRANT, (WV-Z503) WESTERN MINERAL, (WV-Z504) EASTERN MINERAL, (WV-Z505) WESTERN PENDLETON, (WV-Z506) EASTERN PENDLETON

05/09/20 23:00 EST	0	Frost/Freeze
05/10/20 09:00 EST	0	

High pressure settled over Virginia, allowing winds to go calm across the region within what was an already very cold ambient environment for May. This led to a widespread freeze across the WV Panhandle.

(WV-Z505) WESTERN PENDLETON

05/11/20 23:00 EST	0	Frost/Freeze
05/12/20 08:00 EST	0	

A sprawling area of high pressure settled over the Tennessee Valley, allowing winds to go calm and skies to stay clear. Strong radiational cooling led to a freeze in Western Pendleton County.

(WV-Z055) HARDY, (WV-Z501) WESTERN GRANT, (WV-Z502) EASTERN GRANT, (WV-Z505) WESTERN PENDLETON, (WV-Z506) EASTERN PENDLETON

05/13/20 01:00 EST	0	Frost/Freeze
05/13/20 08:00 EST	0	

High pressure settled directly overhead, allowing winds to go calm and skies to stay clear. Strong radiational cooling led to a freeze across portions of the West Virginia Panhandle.

(WV-Z050) HAMPSHIRE, (WV-Z051) MORGAN, (WV-Z052) BERKELEY, (WV-Z053) JEFFERSON, (WV-Z055) HARDY, (WV-Z505) WESTERN PENDLETON, (WV-Z506) EASTERN PENDLETON

05/23/20 03:09 EST	0	Dense Fog
05/23/20 07:00 EST	0	

Areas of dense fog formed within a calm lower troposphere beneath an upper low across portions of the West Virginia Panhandle.

JEFFERSON COUNTY --- 1.3 N HALLTOWN [39.34, -77.80]

05/29/20 13:53 EST	10K	Thunderstorm Wind (EG 55 kt)
05/29/20 13:53 EST	0	Source: 911 Call Center

Numerous trees were reported blown down in Jefferson County (particularly the eastern part near Harpers Ferry).

Thunderstorms formed along a pre-frontal trough in the I-81 corridor as a shortwave disturbance embedded within a larger scale trough tracked northeastward from WV to PA. An environment characterized by 1500-2500 J/kg and 30-50 knots of 0-6 km shear enabled these storms to turn severe, leading to damaging wind gusts in Jefferson County.