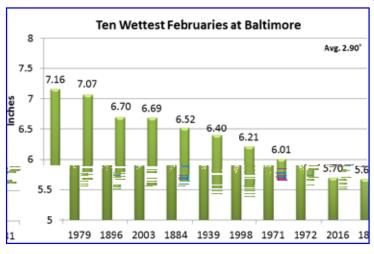


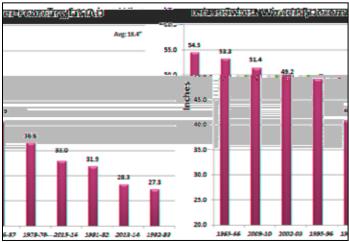




PREcipitation Summary and Temperature Observations For the Washington, DC and Baltimore, MD Area

# FEBRUARY: First Outbreak of Severe Weather WINTER: Above Normal Temperatures; Blizzard of 2016





## February Highlights

- Slightly above normal temperatures: +0.9°F at DCA, +1.6°F at BWI and +0.7°F at IAD
- Cold wave from the 11th-15th when maximum readings stayed below freezing: highs of 24°F at BWI and IAD and 26°F at DCA on the 14th
- Highs 60°F or greater on 6 days at DCA and BWI
- no the 15th, 3"-6" snowfall across the metro area with more than 8" across Southern Maryland. Highest totals included 9.0" near Dowell (Calvert County), MD, and 8.7" in Abell (St. Mary's County), MD, and 8.9", in Virginia, 8.5" in Chancellorsville, (Spotsylvania County), VA. Freezing rain totals greater than ¼ inch were measured near Germantown (0.31"), Montgomery County, MD, and near Freeland (.28"), Baltimore County, MD, and .30" near Ada (Fauquier County), VA. Storm ended as a soaking rain on the 16th
- On the 24th, first widespread severe weather event of the season with damaging thunderstorm winds along with torrential rainfall and some hail. Additionally, an EF-0 tornado (winds estimated at 65 mph) touched down near Beauvue (St. Mary's County) MD. A funnel cloud was spotted near Roseville (Stafford County), VA, and near Fredericksburg, VA. Wind gusts peaked at 70 mph near Germantown. Hail was measured at 0.88" near American University in Washington and near Fairfax Station (Fairfax County), VA. Downpours flooded numerous roads across the region resulting in a water rescue on Massachusetts Avenue and Goldsboro Road in Montgomery County, MD. Rainfall amounts were over an inch across the region and more than 2" in some locations including 2.73" in Timonium (Baltimore County) and 2.10" near Lorton (Fairfax County), VA. BWI established a calendar day record of 2.61".

#### Winter Seasonal Highlights

- Above normal temperatures: +3.0°F at DCA, +3.6°F at BWI and 2.8°F at IAD, warmest since 2012 and second warmest in last 10 years
- Third consecutive winter season with above normal snowfall
- Warmest December on record at DCA, BWI and IAD: +11.5°F at DCA, +12.3°F at BWI and +12.1°F at IAD
- Persistent warmth throughout December: DCA reported a record 14 days at or above 60°F and 26 days at or above 50°F; BWI recorded 11 days at or above 60°F and 29 days at or above 50°F; IAD, 12 days at or above 60 and 25 days at or above 50°F.
- Area observed its first significant cold wave of the season with maximum readings at DCA at or below freezing on 4 January days (19<sup>th</sup>-20<sup>th</sup>, 22<sup>nd</sup>-23<sup>rd</sup>), on 5 days at BWI (18<sup>th</sup>-20<sup>rd</sup>, 22<sup>nd</sup>-23<sup>rd</sup>) and 6 consecutive days at IAD (18<sup>th</sup>-23<sup>rd</sup>). Minimum readings on the 25<sup>th</sup> at IAD, 4°F, and at BWI, 8°F
- The Blizzard of 2016 started the afternoon of the 22<sup>nd</sup> with snow heavy at times overnight and at varying intensity on the 23<sup>rd</sup> before ending about midnight. Many locations reported thundersnow about dawn on the 23<sup>rd</sup>. Winds gusted to 55 mph at Patuxent River (St. Mary's County), MD, and to 45 mph at Quantico Marine Base (Prince William County), VA, resulting in considerable blowing and drifting snow and causing near whiteout conditions at times. Transportation was nearly impossible at the height of the storm. Airports, government and businesses closed. Many school systems remained closed through the following week. There were 9 fatalities locally; initial economic loss to the region was estimated at \$570 million, according to press reports. Snowfall amounts across the region ranged from about 1.5' to over 3'. Greatest totals in Maryland include 38.5" near Potomac and 35.2" near Gaithersburg (Montgomery County) and Point of Rocks (Frederick County); BWI measured a record 29.2", and a all-time single daily record of 25.5" on the 23<sup>rd</sup>. In DC, 26.0" was measured at the Dalecarlia Reservoir, 22.4" at the National Zoo and 17.8" at DCA, equalling DCA's 4<sup>th</sup> greatest total on record. In Virginia, 36.6" was measured near Bluemont (Loudoun County) and 32.1" near Bull Run (Prince William County); IAD reported 29.3", 2<sup>nd</sup> only to "Snowmageddon" on Feb. 5-6, 2010. IAD also set a single calendar day January record of 22.1" on the 23<sup>rd</sup> and set an all-time record, 28", for snow depth on the 24<sup>th</sup>. The snowfall jackpot occurred near Johnsontown (Berkeley County), WV, with 43.0".

## February 2016

Temperatures: The final month of meteorological winter featured slightly above normal temperatures: +0.9°F at DCA, +1.6°F at BWI and +0.7°F at IAD. While no record temperatures were recorded, the month featured a cold wave from the 11<sup>th</sup>-15<sup>th</sup> when maximum readings were below freezing; on the 14<sup>th</sup> highs reached only 24°F at BWI and IAD and 26°F at DCA; minimums dipped to the single digit: IAD (7°F) and BWI (8°F). In sharp contrast, the areas enjoyed some springlike warmth when maximum readings soared to 60°F or greater on 6 days at DCA and BWI and 3 days at IAD, including the month's final 2 days.

Precipitation: The month featured well above normal totals: DCA 3.79" (+1.17"); BWI 5.70" (+2.80") and IAD, 3.79" (+1.05"). It was the 9<sup>th</sup> wettest February on record in Baltimore and wettest February since 2003 (see graphic). The month featured several storm systems. A soaking rain on the 2<sup>nd</sup> lead to numerous road closures from flooded roads including 11 roads across Frederick County, Brookeville Road in Montgomery County, MD, and Allder School Road near Purcellville, (Loudoun County), VA. Greatest totals included 1.28" near Walkersville (Frederick County), MD, and 1.15" in Mt. Airy (Carroll County), MD. On the 8<sup>th</sup>, rain changed to wet snow overnight into the 9<sup>th</sup>. The highest totals were across northern Maryland: 5.5" near Manchester (Carroll County), 4.5" near New Market (Frederick County), 4.1" near Damascus (Montgomery County).

The next major storm system occurred late evening on the 14<sup>th</sup> when snow continued onto Washington's Birthday, 15<sup>th</sup>, before changing to freezing rain and then to a soaking rain overnight into the 16<sup>th</sup>. Snowfall amounts were generally in the 3"-6" range in the metro area with more than 8" across Southern Maryland. Highest totals included 9.0" near Dowell (Calvert County), and in Virginia, 8.9" in Chancellorsville (Spotsylvania County), VA. Some locations measured freezing rain totals greater than ¼ inch including .31" near Germantown (Montgomery County), MD, and .30" near Ada (Fauquier County), VA.

The month's final event was a 2-day storm that brought about ½ inch of rain on the 23<sup>rd</sup> followed by the first widespread severe weather event of the season, which included damaging thunderstorm winds, torrential rainfall and hail on the 24<sup>th</sup>. Additionally, an EF-0 tornado (winds estimated at 65 mph) touched down near Beauvue (St. Mary's County) MD, with maximum path width 75 yards, path length, 6.5 miles, causing tree damage. A funnel cloud was spotted near Roseville (Stafford County), VA, and near Fredericksburg; wind gusts peaked at 70 mph near Germantown. Hail was measured at 0.88" near American University in D.C. and near Fairfax Station (Fairfax County), VA. Downpours flooded numerous roads across the region resulting in a water rescue on Massachusetts Avenue and Goldsboro Road in Montgomery County, MD. Rainfall amounts were over an inch across the region and more than 2" in some locations on the 24<sup>th</sup> including 2.73" in Timonium (Baltimore County), MD, and 2.10" near Lorton (Fairfax County), VA. BWI established a calendar day record of 2.61".

## February 2016 Weather Statistics for the Washington/Baltimore Area

		Station	Temperatu	res (°F)		Extreme/Day		Precipitation (inches)				
Location	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml	Snow	Yr. to Date
National (DCA)	47.6	32.2	39.9	39.0	+0.9	65/28,29	13/14	3.79	2.62	+1.17	3.1	6.64
Baltimore (BWI)	46.0	28.7	37.4	35.8	+1.6	67/20	8/14	5.70	2.90	+2.80	2.6	9.64
Dulles (IAD)	45.6	28.2	36.9	36.2	+0.7	67/20	7/14	3.79	2.74	+1.05	3.1	8.39

Winter (Dec-Feb) Temperatures: The winter of 2015-16 featured above normal temperatures at the three major airports fueled by a record warm December. Positive seasonal departures were +3.0°F at DCA, +3.6°F at BWI and 2.8°F at IAD. The season started with DCA recording only 2 days with minimum temperatures at or below freezing, least ever in December, including an all-time record for the warmest monthly minimum in December at 30°F. At all three airports, average monthly temperatures were shattered: DCA, 51.2°F, previous record 45.6°F; BWI 49.0°F, previous record 46.0°F, and at IAD 48.7°F, previous record 43.3°F. January temperatures were near normal. The month brought the season's first significant cold wave when maximum readings were at or below freezing on four January days at DCA (19<sup>th</sup>-20<sup>th</sup>, 22<sup>nd</sup>-23<sup>rd</sup>), on 5 days at BWI (18<sup>th</sup>-20<sup>th</sup>, 22<sup>nd</sup>-23<sup>rd</sup>) and 6 consecutive days at IAD (18<sup>th</sup>-23<sup>rd</sup>). February was slightly above normal (see monthly summary above).

Winter Precipitation: Seasonal precipation, including snowfall, were well above normal, largely due to the "Blizzard of 2016," January 22-23. Seasonal precipations totals were 11.31" (+2.83") at DCA; 15.05" (+5.73") at BWI, and 12.02" (+3.64") at IAD. Winter snowfall at DCA was 21.9" (+8.3"); BWI, 32.6" (+14.8); and IAD, 33.0" (+14.6). December started the season wet but with no snowfall. January featured near to record monthly January snowfall amounts at BWI (30.0") and at IAD (29.8") from the Blizzard of 2016; DCA's monthly snowfall (18.8") was also well above normal. Monthly precipitation was above normal at BWI, 3.50" (+0.45") and IAD 4.47' (+1.79") while DCA was near normal 2.68" (-0.13"). The Blizzard of 2016 occurred January 22-23. Snowfall amounts across the region ranged from about 1.5' to 3'. Greatest totals in Maryland were 38.5" near Potomac and 35.2" near Gaithersburg (Montgomery County) and Point of Rocks (Frederick County); BWI measured an all-time record 29.2" and on the 23<sup>rd</sup>, an all-time single daily record of 25.5". IAD reported 29.3", second only to "Snowmageddon" on Feb. 5-6, 2010. IAD also set a single calendar day January record of 22.1" on the 23<sup>rd</sup> and set an all-time record 28" for snow depth on the 24<sup>th</sup>. The snowfall jackpot occurred near Johnsontown (Berkeley County), WV, with 43.0". February continued wet with severe weather (see monthlty summary above).

#### Winter 2015-16 Weather Statistics for the Washington/Baltimore Area

	Station Temperatures (°F)					Extrem	ne/Day	Precipitation (inches)			
Location	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml	Snow
National (DCA)	49.6	34.3	42.0	39.0	+3.0	71/2-13,24	13/2-14	11.31	8.48	-2.83	21.9
Baltimore (BWI)	48.6	30.2	39.4	35.8	+3.6	73/2-13	8/1-25,2-15	15.05	9.32	-5.73	32.6
Dulles (IAD)	48.3	29.7	39.0	36.2	+2.8	73/2-13	4/1-25	12.02	8.38	-3.64	33.0

Looking Ahead to March—a month of extremes. Below is a list of some notable March statistics for Washington since 1871.

	Temperature Extremes		Precipitation Extremes				
Coldest: 1885	Avg. Temp.: 34°F	Dep. Nml.: -12°F	Wettest: 1891	Tot. Prec.: 8.84"	Dep. Nml.: +5.24"		
Warmest: 2012	Avg. Temp.: 56.8°F	Dep. Nml.: +9°F	Driest: 2006	Tot. Prec.: 0.05"	Dep. Nml.: -3.03"		
Extreme Minimum: 4°F (M	arch 4, 1873)		Snowiest: 1914	Tot. Snowfall: 19.3"	Dep. Nml.: +17.7"		
Extreme Maximum: 93°F (1	March 23, 1907)		Most precipitation in one day (liquid): 2.79" (March 9, 1881)				
Most days with: lows < 32°	F: <b>24</b> (1960); highs > 90°F: 3	3 (1907)	Most snowfall in one day: 11.3" (March 29, 1942)				