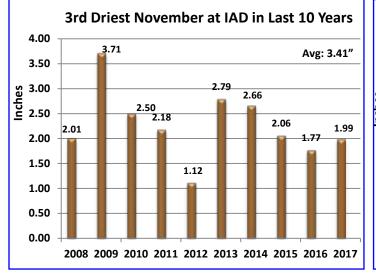
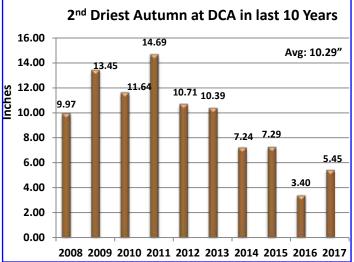


# NOVEMBER 2017: Near Normal Temperatures; Very Dry Last Three Weeks AUTUMN: Warm and Dry





### **November Highlights**

- The three major airports recorded near normal monthly readings: DCA, +0.2°F; BWI, -0.3°F; IAD, -0.7°F
- CA and BWI tied record lows on Veterans Day with 26°F at DCA and 21°F at BWI; the reading at DCA was the first minimum readings either tying or breaking a record in November since 1976
- CCA, BWI and IAD all recorded their first freeze of the season during the evening of the 10<sup>th</sup>
- Well below normal rainfall for the month: DCA, 2.00"; BWI, 2.15" and IAD, 1.99"
- On the 7th, a soaking rain brought over an in many locations; greatest totals included 1.36" in Pasadena (Anne Arundel County), MD, and 1.23" in Vienna, (Fairfax County), VA; BWI measured 1.11" and DCA, 1.07"

## Autumn Seasonal Highlights

- Despite a cool November, autumn featured above normal temperatures at the major airports: DCA, +2.4°F; BWI, +2.2°F; and IAD, +1.7°F
- Second driest autumn in last 10 years at DCA, -4.84", and BWI, -3.57", and 3rd driest in last 10 years at IAD, -3.69"
- Chilly start to September with maximum temperatures in 60s on 2 days at BWI and IAD and across entire area on September 2, including record low maximum readings at BWI and IAD
- Dry September with monthly totals less than 2 inches at the three major airports: DCA, 1.43"; BWI, 1.95"; and IAD: 1.75"; nearly the entire month's rainfall occurred during the first 6 days
- Third warmest October on record at DCA, fourth at IAD and warmest since 2007 at BWI
- Six consecutive days in October with highs at or above 80°F at all three major airports from the 5<sup>th</sup>-10<sup>th</sup>; IAD maximum reading of 87°F on the October 10 set calendar day record
- Extended dry spell with no measurable rainfall ended on October 8; first measurable rainfall since September 14 at DCA and IAD (24 days) and at BWI since September 18 (19 days)
- On October 29-30, heavy rainfall of 1"-2" soaked the area: highest amounts included 3.00" in Charlottesville, (Albemarle County) VA;
  2.35" near Bel Air (Harford County), MD, and 1.25" at the National Arboretum in Washington. Strong winds behind the system downed a tree closing P Street NW in Rock Creek (D.C.) and Beach Drive near the Maryland/D.C. state line; wires were downed near Arcola (Loudoun County), VA, and a tree downed in Upper Marlboro (Prince Georges County), MD.

#### November 2017

**Temperatures:** Near normal readings were prevalent at the three major airports for the final month of meteorological winter. Departures were +0.2°F at DCA, -0.3°F at BWI and -0.7°F at IAD. Maximum readings were at or above 70°F on 4 days at DCA and 3 days at BWI and IAD. The month's highest temperature occurred on the 3<sup>rd</sup> with a balmy 78°F at DCA and 77°F at BWI and IAD.

In sharp contrast, a brief blast of Arctic air on the 10<sup>th</sup> and 11<sup>th</sup> brought record cold. DCA and BWI tied record lows on Veterans Day when 26°F was recorded at DCA and 21°F at BWI; IAD was also 21°F but did not set record. The reading at DCA was the first minimum readings either tying or breaking a record in November since 1976. As the cold air swept into the area the previous evening, as three airports recorded their first freeze of the season. For the month, DCA reported 5 low temperatures at or below freezing, BWI, 13 and IAD, 14.

**Precipitation:** Rainfall was well below normal for the month. Monthly totals were 2.00" (-1.17") at DCA, 2.15' (-1.15") at BWI, and 1.99" (-1.42") at IAD. The majority of the rainfall occurred on the 4<sup>th</sup> and 7<sup>th</sup>. The first event began during the evening and continued into the overnight with about 0.50" in most locations. A few locations measured heavier amounts including Fredericksburg (1.07") and Keswick (Albemarle County), VA, (1.07"). In the event on the 7<sup>th</sup>, over an inch was reported at most locations with a soaking rain from mid-morning until evening. Greatest totals included 1.36" in Pasadena (Anne Arundel County), MD, and 1.23" in Vienna, (Fairfax County), VA; BWI recorded 1.11" and DCA, 1.07".

For the rest of the month, less than 0.50" was reported across the area. A frontal system provided strong, gusty winds during morning hours on the 19<sup>th</sup>. The strongest gusts included 58 mph in Upper Marlboro (Prince Georges County), MD, and 52 mph in Lovettsville (Loudoun County), VA. DCA, BWI and IAD measured 49 mph gusts.

	Station Temperatures (°F)					Extrem	ne/Day	Precipitation (inches)			
Location	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml	Year to Date
National (DCA)	58.5	41.1	49.8	50.0	+0.2	78/3	26/11	2.00	3.17	-1.17	35.10
Baltimore (BWI)	56.8	35.5	46.2	46.5	-0.3	77/3	21/11	2.15	3.30	-1.15	37.33
Dulles (IAD)	56.5	34.8	45.7	46.4	-0.7	77/3	21/11	1.99	3.41	-1.42	35.10

#### November 2017 Weather Statistics for the Washington/Baltimore Area

**Autumn (Sep-Nov) Temperatures:** Autumn featured above normal temperatures at the major airports: DCA, +2.4°F; BWI, +2.2°F; and IAD, +1.7°F. The season started with cool days in early September. On the 2<sup>nd</sup>, maximum readings held in the chilly 60s across the region, including a record low high temperature of 63°F at BWI and 61°F at IAD. On the 11<sup>th</sup>, IAD's maximum temperature of 71°F equaled a record for the coolest calendar day high temperature. The pattern shifted September 19–27 when the area marked late season warmth with maximum readings soaring into the 80s. DCA observed 3 days at or above 90°F including a monthly maximum of 92°F on the 24<sup>th</sup>; BWI recorded 90° on the 27<sup>th</sup>.

October was exceptionally warm with temperatures more than 5 degrees above normal throughout the area, resulting in the 3<sup>rd</sup> warmest October on record in Washington, 4<sup>th</sup> warmest on record at IAD and warmest since 2007 at BWI. IAD's maximum reading of 87°F on the 10<sup>th</sup> set a calendar day record. DCA recorded 17 days with maximum temperatures at or above 70°F, while BWI and IAD reported 15 such days. DCA's minimum of 75°F on the 8<sup>th</sup> was its warmest minimum October reading on record. BWI recorded minimum readings of 74°F on the 8<sup>th</sup> and 72°F on the 9<sup>th</sup> were both records; IAD's reading of 73°F on the 8<sup>th</sup> also set a record. November was cooler than normal (see monthly summary above).

**Autumn Precipitation**: Autumn was dry across the region: DCA, 5.45" (-4.84"); BWI, 7.09", (-3.57"); and IAD, 6.89" (-3.69"). September was the driest month with monthly totals below 2" at all three airport. Nearly the entire month's rainfall occurred during the month's first 6 days when the remnants from Hurricane Harvey (then a Tropical Depression) dropped about 0.75" of rain across much of the area on the 2<sup>nd</sup>. The month's lone severe weather event occurred the afternoon of the 5<sup>th</sup> when thunderstorms brought numerous strong to severe storms outside the I-95 corridor. Thunderstorm wind damage knocked down a tree near New Market (Frederick County), MD, and near Philomont (Loudoun County), VA. The following day, rainfall totaled between 0.50"-0.75" across much of region with isolated higher amounts including 1.04" in Keswick (Albemarle County), VA, and 1.00" in Jefferson in Frederick County, MD.

October continued dry but closer to normal. The month's first measurable rainfall occurred on the 8<sup>th</sup>, the first such rain since September 14 at DCA and IAD (24 days) and at BWI since September 18 (19 days). On the 9<sup>th</sup>, more substantial rainfall was measured when the remnants of Tropical Depression Nate brought 0.50" to 0.75" rainfall across much of the region, with highest amounts near Sabillasville (Frederick County), MD, 1.66" and at Mount Weather (Loudoun County), VA, 1.10". The month's final event occurred on the 29<sup>th</sup>-30<sup>th</sup>, bringing 1"-2" of rain to most of the area. Highest amounts included 3.00" in Charlottesville, (Albemarle County), VA, and 2.35" near Bel Air (Harford County), MD. BWI reported 1.31" on the 29<sup>th</sup>, its first calendar day measurement of 1" or greater in exactly 3 months, while IAD's total of 1.03" on the 29<sup>th</sup> was its first calendar day of 1" or greater since August 11. Strong winds behind the system downed a tree closing P Street NW in Rock Creek (D.C.) and Beach Drive near the MD/DC state line. Wires were downed near Arcola (Loudoun County), VA, and a tree downed in Upper Marlboro (Prince Georges County), MD. November continued dry (see monthly summary above).

#### Autumn 2017 Weather Statistics for the Washington/Baltimore Area

		Station	Temperatur	es (°F)		Extrem	Precipitation (inches)			
Location	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml
National (DCA)	71.0	53.8	62.4	60.0	+2.4	92/9-24	26/11-11	5.45	10.29	-4.84
Baltimore (BWI)	69.5	48.4	59.0	56.8	+2.2	90/9-24,27	22/11-11	7.09	10.66	-3.57
Dulles (IAD)	69.4	47.4	58.4	56.7	+1.7	89/9-25,27	22/11-11	6.89	10.58	-3.69

Looking Ahead to December: For the last 6 years, DCA has recorded subnormal snowfall in December. Will December 2017 bring more snow? Shown below are the most recent 10 years of December snowfall in Washington. Normal DCA December snowfall is 2.3".

Year	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
December Snowfall	0.0	0.0	Trace	1.5	0.2	Trace	2.1"	16.6"	Trace	2.6"