

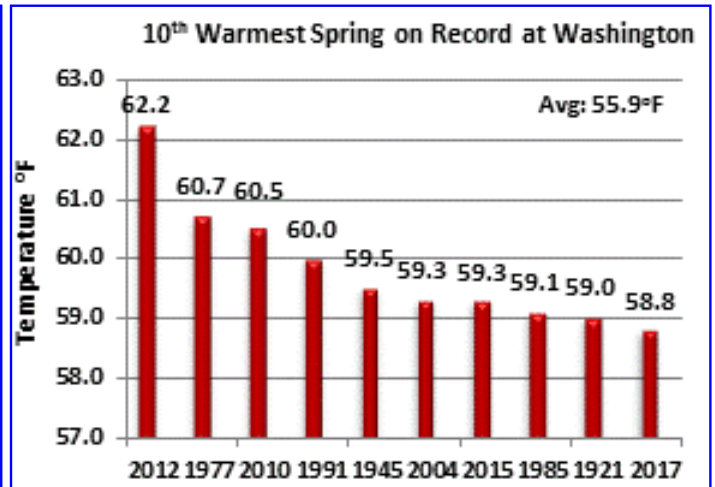
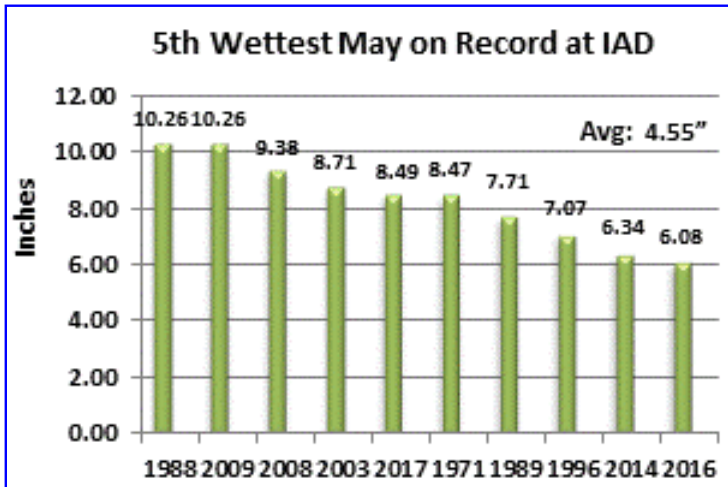


PRESTO

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



MAY 2017: Wet and Cool; SPRING: Warm with Numerous Severe Weather Episodes



May Highlights

- Subnormal monthly temperatures for the first time since May 2016: DCA, -0.5°F; BWI, -0.6°F; IAD, -0.8°F
- First heat wave of year 17th-19th when maximum temperatures soared to 90°F or greater at BWI and IAD.
- DCA's 93°F on the 19th was its hottest May day since May 31, 2011; BWI's 3 consecutive days at or above 90°F was its first such occurrence in May since 2000; BWI's 93°F on the 17th tied a calendar day record; at IAD, the 3 consecutive days at or above 90°F was its first such occurrence in May since 1996
- Well above normal precipitation at all three major airports: DCA, 5.55" (+1.56"); BWI, 5.64" (+1.65"); IAD 8.49" (+3.49"). 5th wettest May on record at IAD and wettest since 2009
- On the 5th, an EF-1 tornado was confirmed near Dahlgren in King George County, VA, with wind speeds of 90 mph, maximum path width 10 yards and length, 0.6 miles, flipping four cars in a parking lot. A second tornado was confirmed at Bledsoe Corner in Orange County, VA, also with wind speeds of 90 mph, maximum path width, 100 yards, and length, 0.9 miles. Dozens of trees were uprooted and some property damage was reported. Heavy rainfall closed a road near the White House and near Montpelier (Ann Arundel County), MD. Rainfall exceed 1" and in many locations 2"; Highest totals were 4.95" near Madison and 4.97" in Sperryville (Rappahannock County), VA.
- On the 30th, the 3rd tornado of the month was confirmed in Virginia near Berryville in Clarke County with maximum wind speed of 65 mph, maximum path width, 25 yards and path length, 0.4 miles, causing tree damage; golf ball size hail (1.75") was measured near Roseville (Stafford County), VA, and 1" hail at BWI

Spring Highlights

- Third consecutive spring with above normal temperatures: DCA, 58.8°F (+4.2°F), BWI, 55.5°F (+2.1°F), IAD, 55.9°F, (+2.0)
- Colder March than February at DCA and BWI; first such occurrence since 1984
- Record tying 80°F at DCA on March 1; on March 25, 80°F at BWI and record 78°F at IAD
- On March 13-14, a winter storm brought snowfall; In Maryland, totals included 11.0" near Sabillasville (Frederick County) and 8.0" near Westminster and Lineboro (Carroll County). Closer to the cities, snow changed to sleet; totals included 4.5" near Damascus (Montgomery County) and 4.0" near Pimlico (Baltimore County). In Virginia, totals included 8.0" near Lovettsville (Loudoun County), 4.5" near Lincolnia (Fairfax County); IAD recorded a calendar day record 4.1"
- Powerful wind gusts swept through the region during the afternoon of the March 2 accompanied by brief showers and thunderstorms. Peak winds gusts included 78 mph at Quantico (Prince William County), VA, 66 mph at Germantown (Montgomery County), MD, 62 mph at Andrew AFB (Prince Georges County), MD, and 61 mph in King George, VA. The strong winds caused tree and property damage, stripping roof shingles and siding on four buildings in an apartment complex in White Marsh (Baltimore County), MD
- Warmest April average temperature on record at DCA: 63.8°F; and at IAD, 61.0°F; 2nd warmest at BWI, 60.3°F.
- Low of 70°F at DCA on the 29th, the airport's first 70°F or greater minimum reading in April and earliest on record
- On the April 6, an intense line of showers and thunderstorms spawned seven EF-0 (wind speeds 70-85 mph) tornadoes across Virginia and D.C., causing tree and property damage. Two injuries were reported. The longest path length was 5.9 miles measured in the tornado north of Airlie in Fauquier County, VA. The widest path width was 175 yards, measured from the tornado north of Unionville in Orange County, VA.
- On April 21, a severe thunderstorm produced large hail in parts of the area. In Maryland, hail measured 1.25" near Takoma Park and up to 1.0" in Chevy Chase and at NWS Headquarters in Silver Spring (Montgomery County), and near the National Arboretum in the District. Damaging thunderstorm winds toppled 20 tall trees, one of which landed on a minivan near Weedonville (King George County), VA.

May 2017

Temperature: Slightly below normal temperatures were reported at all three major airports for the first time since May 2016: DCA, -0.5°F; BWI, -0.6°F; IAD, -0.8°F. Maximum temperatures remained below 70°F at DCA and IAD on 12 days and at BWI on 14 days. On the 8th and 9th, minimum temperatures dropped into the 30s in many suburban locations including BWI and IAD. BWI equaled a calendar day record minimum of 36°F on the 9th. In contrast, high minimum readings were set at BWI with a low of 70°F on the 18th and at IAD, 70°F on the 1st and on the 19th, 66°F equaled a record.

In contrast, the season's first heat wave occurred from the 17th-19th when maximum temperatures soared to 90°F or greater (2 days at DCA, 3 days at BWI and IAD), the first 90°F+ days of 2017 at BWI and IAD. DCA's 93°F on the 19th was its hottest May day since May 31, 2011. BWI's 3 consecutive days at or above 90°F was its first occurrence in May since 2000. BWI's 93°F on the 17th tied a calendar day record. At IAD, the 3 consecutive days at or above 90°F was its first occurrence in May since 1996.

Precipitation: The month featured well above normal precipitation: DCA, 5.55" (+1.56"); BWI, 5.64" (+1.65"); IAD 8.49" (+3.49"). It was the 5th wettest May on record at IAD (see cover graphic). It was the wettest May at IAD and BWI since 2009 and first month with above normal precipitation since May 2016 at DCA. The first major event occurred on the 5th when torrential showers and thunderstorms spawned two tornadoes: An EF-1 tornado was confirmed near Dahlgren (King George County), VA, with wind speeds of 90 mph, maximum path width of 10 yards and path length, 0.6 miles, flipping four cars in a parking lot. A second tornado was confirmed at Bledsoe Corner (Orange County), VA also with wind speeds of 90 mph, maximum path width, 100 yards, and path length, 0.9 miles. Dozens of trees were uprooted and some property damage was reported. Thunderstorm wind damage downed a tree near Colmar Manor in DC and blew down wires in Alexandria, VA. Heavy rainfall closed a road near the White House and near Montpelier (Ann Arundel County), MD. Rainfall exceed 1" and in many locations 2" with highest totals 4.95" near Madison and 4.97" in Sperryville (Rappahannock County), VA. On the 11th, over an inch of rain fell across much of the area. Highest amounts included 2.59" at Mount Weather (Loudoun County), VA, and 2.24" near Ridge (St. Mary's County), MD. IAD's 1.73" was its greatest daily amount of the month. The next day continued heavy rainfall with highest totals 1.80" in Annapolis, (Anne Arundel County), MD, and 1.37" in Crozet, (Albemarle), VA.

On the 14th, strong gusts exceeded 40 mph across the area with 48 mph near Sterling Park (Loudoun County), VA, and 47 mph at Andrews AFB (Prince Georges County), MD. Isolated severe weather was reported on the 18th-19th with 1" hail struck near Arcola (Loudoun County) and near Haymarket (Prince William County), VA, accompanied by heavy rainfall 1.45". The following day, 1" hail was measured in Richardsville (Culpeper County) and in Fredericksburg (Spotsylvania), VA, while in Maryland hail measured 0.88" in Calverton (Prince Georges County) and 2.08" soaked Odenton (Ann Arundel County). On the 25th, thunderstorms brought 1" hail to King George, VA, while heavy rainfall trapped a car in 3'-4' of water in Brookville (Montgomery County), MD. Highest rainfall totals include 1.88" in Madison, VA, and 1.56" in Bowie (Prince Georges County), VA. The month ended with a third tornado on the 30th near Berryville (Clarke County), VA. Maximum wind speed was 65 mph, maximum path width, 25 yards, length of 0.4 miles, causing tree damage. Golf ball size hail (1.75") was measured near Roseville (Stafford County), VA, and 1" hail at BWI.

May 2017 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (inches)			
	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml	Year to Date
National (DCA)	73.9	57.1	65.5	66.0	-0.5	93/19	46/7,9	5.55	3.99	+1.56	14.79
Baltimore (BWI)	72.2	52.2	62.3	62.9	-0.6	93/17	36/9	5.64	3.99	+1.65	17.13
Dulles (IAD)	72.5	52.3	62.4	63.2	-0.8	92/17	36/9	8.49	4.55	+3.94	19.09

Spring (Mar-May) Temperatures: The three major airports recorded above normal seasonal temperatures: DCA, 58.8°F (+4.2°F), BWI, 55.5°F (+2.1°F), IAD, 55.9°F, (+2.0). March started the season near to above normal but cooler than the record breaking warmth of February at both DCA and BWI. On March 1, DCA equaled a record high 80°F and BWI set a record warm minimum reading of 55°F. IAD recorded a record high temperature of 78°F on March 25. In sharp contrast, BWI tied a record minimum high temperature of 31°F on March 15. For the second time in 2017, DCA and IAD each reported their warmest month on record. April's monthly average of 63.8°F at DCA easily shattered the airport's previous warmest record of 62.0°F, set in 1981 and 1994. IAD's average of 61.0°F also easily surpassed its previous warmest April, 60.1°F, set in 1994. At BWI, the monthly average temperature of 60.3°F was a close second to the record set in 1941: 60.5°F. Readings were summer like for about a third of the month. DCA's 91°F on April 29 equaled a record for the date and marked its first 90°F of the season, 17 days earlier than normal, while IAD broke a calendar day record at 89°F. IAD also equaled a record high of 86°F on the 30th. BWI set a new daily maximum temperature record of 87°F on the 11th. May was near normal (see monthly summary above).

Spring Precipitation: All three major airports recorded above normal seasonal precipitation: DCA, 11.36" (+0.83"); BWI, 12.98" (+1.90), IAD, 15.65" (+4.25) but again the season saw a swing. March started the season slightly below normal but with two significant events. On March 13-14, a winter storm resulted in hazardous road conditions and closures or delays. In northern Maryland, snowfall totals included 11.0" near Sabillasville (Frederick County) while IAD recorded a calendar day record 4.1". Wintry precipitation changed to freezing rain closer to Chesapeake Bay in Maryland with 0.25" ice accumulation near Georgetown (Anne Arundel County) and near Columbia (Howard County). Following the storm on the 15th, strong winds buffeted the area. Peak gusts included 59 mph near Sabillasville and 58 mph near Burke (Fairfax County), VA. March ended with an inch of rainfall in many locations. Greatest amounts in Virginia included 1.76" near Remington (Fauquier County), a daily record 1.55" at IAD. In Maryland, highest totals were 1.52" near Damascus. April rainfall was near normal but included severe weather. On April 6, an intense line of showers and thunderstorms spawned seven EF-0 (wind speeds 70-85 mph) tornadoes across Virginia and the District. Two injuries were reported. The storm resulted in more than 1" of rain across most of the area and more than 2" in some places. The second major event occurred April 21 when a severe thunderstorm produced large hail measured to measured 1.25" across part of the area. May ended the season wetter than average (see monthly summary above).

Spring 2017 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (inches)			
	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml	Snow
National (DCA)	67.8	49.9	58.8	54.6	+4.2	93/5-19	22/3-15	11.36	10.53	+0.83	2.0
Baltimore (BWI)	65.5	45.5	55.5	53.4	+2.1	93/5-17	18/3-5	12.98	11.08	+1.90	2.3
Dulles (IAD)	66.5	45.3	55.9	53.9	+2.0	92/5-17	17/3-13	15.65	11.40	+4.25	5.7

Looking Ahead to Summer: Does a warm spring lead to a hot summer? Below is a listing of the last 10 warmer than normal springs and the subsequent summer temperatures at DCA.

Average Spring Temperatures at DCA and Subsequent Average Summer Temperatures										
Year	2017	2016	2015	2012	2011	2010	2008	2006	2004	2002
Spring	+2.3	+1.6	+2.8	+5.7	=1.1	+4.0	+1.0	+1.0	+2.8	+1.1
Summer	?	+2.8	+1.9	+2.7	+3.4	+3.6	+1.2	+0.8	-1.7	+1.7