

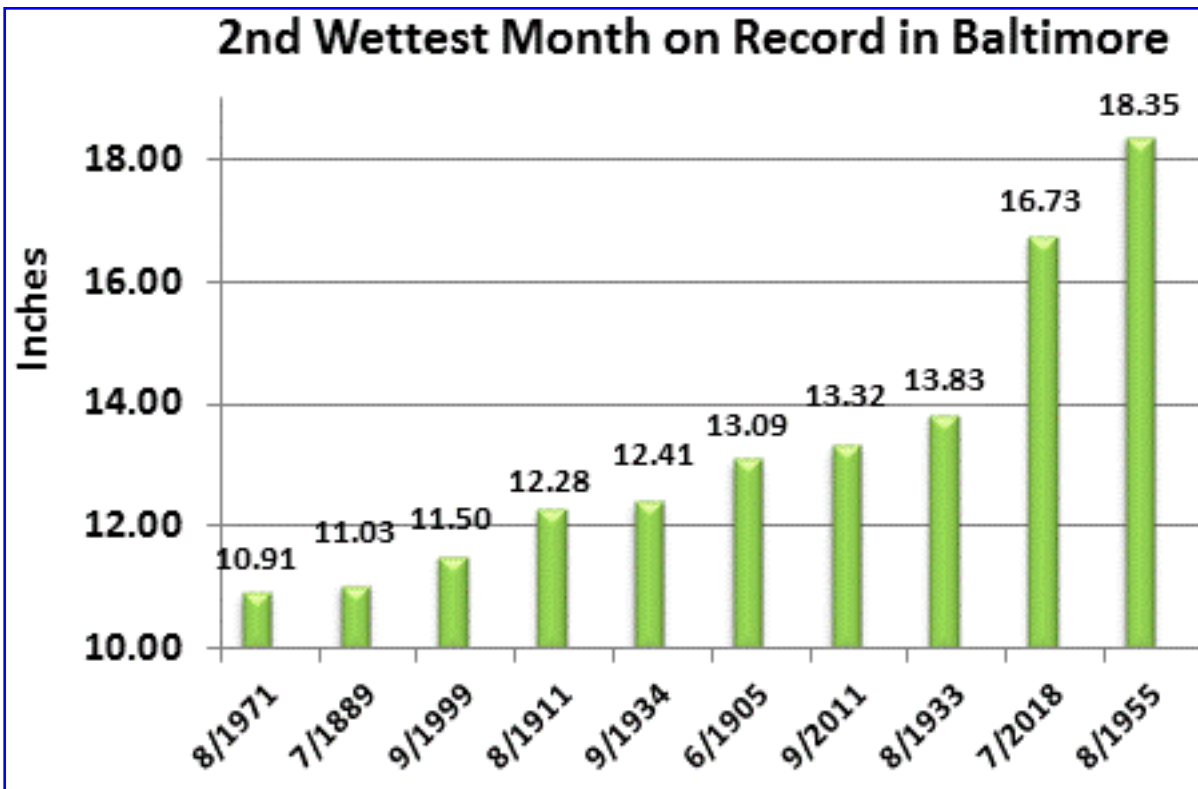


# PRESTO

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



## JULY 2018: Month of Rainfall Extremes: Excessively Dry then Record Rainfall



### July Highlights

- ✦ Near normal temperatures: +0.9°F at DCA, +0.8°F at BWI and -0.2°F at IAD
- ✦ The season's longest heat wave: June 29<sup>th</sup> thru July 5<sup>th</sup> with maximum readings daily at or above 90°F at each of the three airports. The heat peaked on the 3<sup>rd</sup> with 99°F at BWI, 97°F at DCA and 96°F at IAD
- ✦ No measurable rainfall during the first 16 days in July, a first in Washington
- ✦ From the 17<sup>th</sup>-31<sup>st</sup>, region was deluged with 7" to more than 16" of rain. BWI's monthly total 16.73" was second wettest month, trailing only August 1955 (18.35"). IAD's total of 11.21" was its wettest July and 4<sup>th</sup> wettest month ever. DCA's monthly amount of 9.73" was its 5<sup>th</sup> wettest July and wettest since 1945
- ✦ Calendar day record rainfall on 17<sup>th</sup>: 3.35" at BWI, 2.79" at DCA and 1.11" at IAD
- ✦ On 21<sup>st</sup>, summer nor'easter with 3" to more than 7" of rain. Beach Drive near Kensington Parkway in Montgomery County, MD, and Woodburn Road in Fairfax, VA, flooded requiring water rescues. Highest amounts included 7.43" in Clarksburg (Montgomery County) and 6.04" in Fairfax. Calendar day records were again set at the three airports: 5.02" at IAD, which also was its wettest July day ever and 5<sup>th</sup> wettest day on record; 4.00" at DCA and first instance of two July events greater than 2.75"; and 4.79" at BWI
- ✦ On 24<sup>th</sup>, an EF-0 tornado caused minor damage at Thomas Jefferson High School in Lincolnia (Fairfax County) near dawn, estimated wind speed was 70 mph, with a path width of 100 yards and path length of 0.25 miles. A daily record 4.07" fell at BWI, its 3<sup>rd</sup> event of the month greater than 3 inches and 2<sup>nd</sup> greater than four inches

## July 2018

**Temperatures:** Near normal readings at the three major airports: DCA, +0.9°F; BWI, +0.8°F; IAD, -0.2°F. The season's longest heat wave ran June 29<sup>th</sup> thru the 5<sup>th</sup>, with maximum readings daily at or above 90°F at the three airports. The heat peaked on the 3<sup>rd</sup> with 99°F at BWI, 97°F at DCA and 96°F at IAD. Minimum temperatures were especially uncomfortable; DCA's minimum was 80°F on 3 consecutive days (3<sup>rd</sup>-5<sup>th</sup>), setting a record on the 3<sup>rd</sup> and equalling a record the following day. While minimum readings were cooler at IAD, calendar day records were tied on the 3<sup>rd</sup> (73°F) and 5<sup>th</sup> (74°F) and broken on the 4<sup>th</sup> (75°F). High heat returned on the 16<sup>th</sup> when DCA's recorded its monthly maximum, 98°F, and BWI reporting 96°F. In sharp contrast, temperatures held in the 60s on the 21<sup>st</sup> although maximum readings in the 70s occurred in the early morning hours.

**Precipitation:** July was a month of extremes with unprecedented dryness followed by extreme rainfall. For the first time ever in Washington, there was no measurable rainfall during the first 16 days and scant amounts in many areas. Then beginning the following day through month's end, the region was deluged with 7" to more than 16" of rain. BWI's monthly total of 16.73" (+12.66") was its second wettest month ever (see cover) trailing only August 1955 (18.35"). IAD's total of 11.21" (+7.54") was its wettest July on record and 4<sup>th</sup> wettest month ever. DCA's monthly amount of 9.73" (+6.00") was its 5<sup>th</sup> wettest July and wettest since 1945. Extreme weather caused two deaths according to press reports: one on the 23<sup>rd</sup> when a tree fell onto a house as a result of saturated ground in Fairfax County and a second in Howard County, MD, when a firefighter fell through the floor of a home struck by lightning.

The month featured four significant rain events. On the 17<sup>th</sup>, strong thunderstorms unleashed torrents of rain, causing flash flooding in Glen Burnie (Ann Arundel County) and near White Marsh (Baltimore County) in Maryland and flooded the George Washington Parkway near I-395, making the roadway impassable. Flooding also was reported in Alexandria, VA. All three airports reported a calendar day record: 3.35" at BWI, 2.79" at DCA and 1.11" at IAD.

On the 21<sup>st</sup>, the entire region was deluged by a summer nor'easter with 3" to more than 7" of rain. Flooding on Beach Drive near Kensington Parkway in Montgomery County, MD, and on Woodburn Road in Fairfax, VA, resulted in water rescues. Highest amounts included 7.43" in Clarksburg (Montgomery County) and 6.04" in Fairfax. Calendar day records were again set at the airports: 5.02" at IAD which also was its wettest July day ever and 5<sup>th</sup> wettest day on record; 4.00" at DCA and first instance of two July events greater than 2.75"; and 4.79" at BWI.

On the 24<sup>th</sup>, an EF-0 tornado struck Thomas Jefferson High School in Lincolnia (Fairfax County) about dawn, estimated wind speed were 70 mph, with a path width of 100 yards and path length of 0.25 miles, resulting in minor damage. Thunderstorms again resulted in a water rescue of 2-3 people trapped in a building surrounded by rising water in Leonardtown (St. Mary's County); 3 people also were rescued from a school bus stuck in rising waters near Cockeysville (Baltimore County), MD. BWI marked a daily record 4.07", its 3<sup>rd</sup> event of the month greater than 3" and 2<sup>nd</sup> greater than 4" inches. On the following day, flash flooding caused a mail truck to overturn in rushing water near the National Zoo in Washington and a funnel cloud was observed near Culpeper, VA. Rainfall totaled 5.09" near Garrisonville (Stafford County), VA; 2.75" near Four Corners (Montgomery County) and 1.36" at IAD. IAD also set a calendar day record 1.29" on the 30<sup>th</sup> and DCA measured 1.35" on the 22<sup>nd</sup> in a historic month.

### July 2018 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	Yr to Date
National (DCA)	88.5	72.8	80.7	79.8	+0.9	98/16	64/8,9	9.73	3.73	+6.00	34.91
Baltimore (BWI)	87.7	67.9	77.8	77.0	+0.8	99/3	56/8,9	16.73	4.07	+12.66	41.42
Dulles (IAD)	86.6	66.5	76.5	76.7	-0.2	96/3	54/8,9	11.21	3.67	+7.54	36.03

**Looking Ahead to August:** Does a wetter than average June and July result in a wetter August? Below are the last 10 wetter than normal June and July and the resulting August Precipitation at DCA. Average august precipitation at DCA is 2.93".

	2018	2015	2014	2013	2004	2003	2001	2000	1989	1961
Jun	5.21	11.94	4.68	9.97	4.60	7.87	4.69	4.93	6.02	4.84
Jul	9.73	5.01	4.68	4.43	6.98	5.76	4.78	5.51	5.66	3.95
Aug	?	1.16	3.39	1.34	5.09	4.65	2.98	3.77	1.15	6.31