

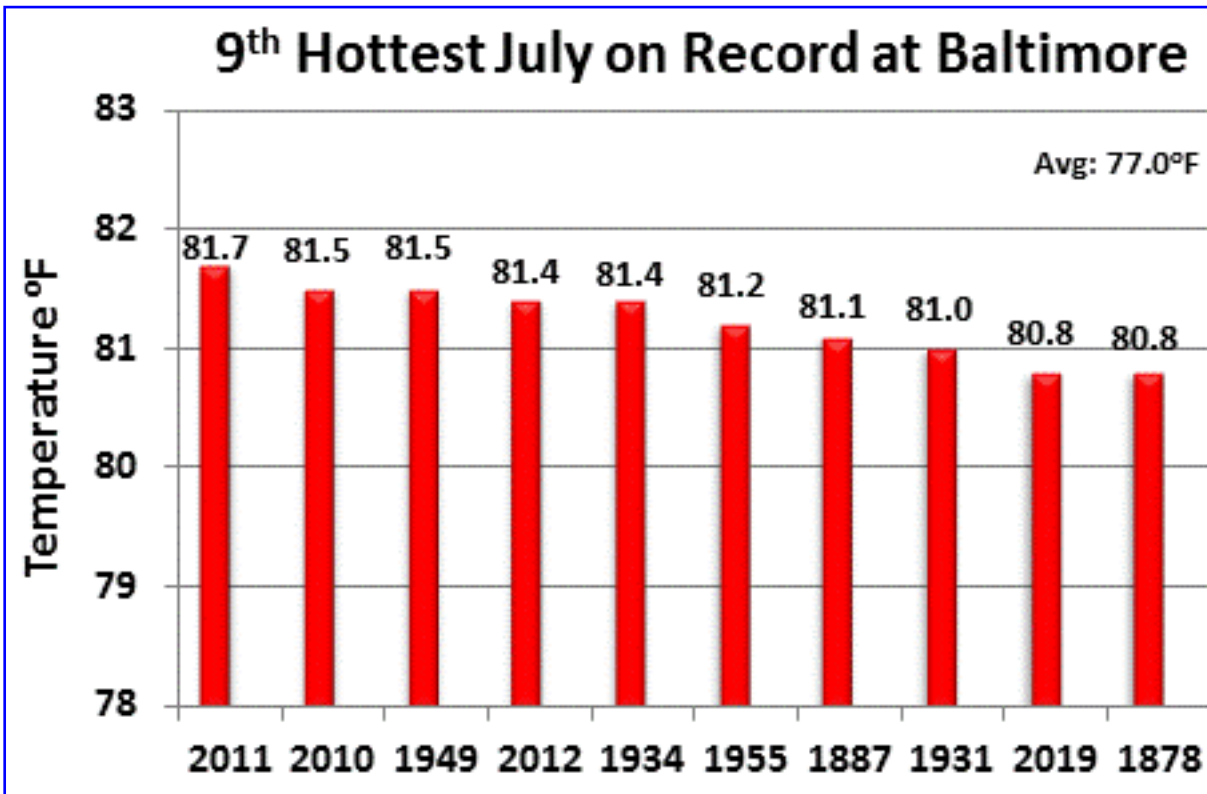


# PRESTO

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



## JULY 2019: Hot with Numerous Severe Events including Memorable Thunderstorm



### July Highlights

- Well above normal readings: DCA, +2.3°F; BWI, +3.8°F; IAD +2.5°F.
- Baltimore equaled its 9<sup>th</sup> hottest month on record (graphic) and its hottest July since 2012.
- Heat wave from the 11<sup>th</sup>-22<sup>nd</sup> with readings at or above 90°F at DCA and IAD on all 12 days and for 11 days at BWI (12<sup>th</sup>-22<sup>nd</sup>). The most intense heat occurred from the 19<sup>th</sup>-22<sup>nd</sup> with high temperatures at or above 95°F at DCA and BWI. Readings reached the century mark at BWI on the 20<sup>th</sup>-21<sup>st</sup> and at IAD on the 21<sup>st</sup>.
- Washington's July rainfall from 2017-2019 is the greatest 3-year amount in July on record: 25.37".
- During morning rush hour on 8<sup>th</sup>, a large thunderstorm complex with copious rainfall impacted much of the Washington area, causing flash flooding, water rescues, flooding homes and businesses and closing portions of the Capital Beltway with water seeping into the White House, according to press reports. Drivers were stranded on vehicle rooftops on Canal Road, NW, in DC, while standing water was reported up to parked car windshields in Reston (Fairfax County), VA. DCA measured a calendar day record 3.44", including 3.30" in 57 minutes. Highest Maryland totals include 6.30" in Frederick (Frederick County), and 5.55" in North Potomac (Montgomery County); In Virginia, 5.01" near Merrifield (Fairfax County) and 4.50" near Westover (Arlington County).
- On the 22<sup>nd</sup>, a fatality occurred in Finksburg (Carroll County), MD, when damaging thunderstorm winds caused a tree to fall on a man. Multiple trees were uprooted and knocked down near Friendship (Montgomery County) and winds gusted to 58 mph near Adams Morgan, DC, and near Green Valley (Frederick County), MD. Rainfall totaled 2.68" in Norrisville (Harford County), MD, and 1.77" in Hillsboro (Loudoun County), VA.

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## July 2019

**Temperatures:** July featured well above normal readings: DCA, +2.3°F; BWI, +3.8°F; IAD +2.5°F. The Baltimore area equaled its 9<sup>th</sup> hottest month on record (graphic) and its hottest July since 2012. It was the 5<sup>th</sup> consecutive July with above normal temperatures at DCA. Heat was persistent throughout the month. DCA recorded 22 days with maximum readings at or above 90°F; BWI and IAD 21 days. The longest heat wave was 12 days temperatures at or above 90°F from the 11<sup>th</sup>-22<sup>nd</sup> at DCA and IAD and 11 days at BWI (12<sup>th</sup>-22<sup>nd</sup>). The most intense heat occurred from the 19<sup>th</sup>-22<sup>nd</sup> with high temperatures at or above 95°F at DCA and BWI. Readings reached the century mark at BWI on the 20<sup>th</sup> and 21<sup>st</sup> and at IAD on the 21<sup>st</sup>. BWI equaled a calendar day record with 98°F on the 30<sup>th</sup>. Minimum readings were at or above 80°F at DCA on the 20<sup>th</sup> and 21<sup>st</sup>. IAD equaled a record warm minimum at 74°F on the 18<sup>th</sup>.

**Precipitation:** Monthly totals at the three major airports were highly variable due to the intensity and location of showers and thunderstorms: DCA, 6.49" (+2.76"); BWI 3.85" (-0.22"); and IAD 2.73" (-0.94"). DCA's rainfall marks the 3<sup>rd</sup> consecutive July with well above normal rainfall. Washington's rainfall in July from 2017-2019 is the greatest 3-year amount in July on record at 25.37" (exceeding 1904-1906, 23.00"). In sharp contrast, IAD reported its driest July since 2014.

The month featured seven noteworthy severe weather events. On the 2<sup>nd</sup>, damaging thunderstorm winds brought a tree down onto wires and caused a fire in Brentwood (Prince Georges County), MD, while a tree also fell onto wires at Lake Barcroft (Fairfax County). Rainfall was locally heavy: 1.71" in Falls Church (Fairfax County), VA, and 1.64" in West Laurel (Prince Georges County), MD. On the 6<sup>th</sup>, damaging thunderstorm winds downed numerous trees throughout DC, with some falling on cars and houses. Additionally, two lanes on I-295 were blocked by downed trees. Winds gusted to 58 mph in Sterling Park (Loudoun County), VA, downing numerous trees. Rainfall totaled 2.03" in Port Tobacco Village (Charles County), MD and 1.24" in McLean (Fairfax County).

The month's most damaging storm occurred during the morning rush hour on Monday, July 8<sup>th</sup> when a large thunderstorm complex with extreme rainfall rates impacted much of the Washington area, causing flash flooding, water rescues, flooded homes and businesses, and closing parts of the Beltway; water seeped into the White House, according to press reports. Drivers were stranded on vehicle rooftops while some swam to safety on Canal Road, NW, in DC. Standing water was reported up to parked car windshields in Reston (Fairfax County). DCA measured a calendar day record 3.44", including 3.30" in 57 minutes. Highest totals in Maryland included 6.30" in Frederick (Frederick County) and 5.55 in North Potomac (Montgomery County); in Virginia, 5.01" fell near Merrifield (Fairfax County) and 4.50" near Westover (Arlington County).

On the 11<sup>th</sup>, thunderstorm winds in Maryland took down power lines which ignited near Pleasant Furnace (Harford County) and a vehicle was stranded in floodwaters near McDonogh (Baltimore County). Rainfall was extremely heavy, resulting in additional areas of flash flooding. Totals included 4.75" near Kingsville (Baltimore County), 3.57" in Abingdon (Harford County); in Virginia, 3.25" fell in Gainesville (Prince William County). On the 17<sup>th</sup>, strong to damaging thunderstorm winds were widespread across the area. Up to four dozen trees and numerous power lines were down in the Dundalk/Essex/Middle River area of Baltimore County with one injury when a tree branch fell, hitting a person near Somerset (Montgomery County); additionally, there were multiple reports of trees down throughout McLean (Fairfax County). Winds peaked at 53 mph at IAD, 50 mph at DCA and 47 mph at BWI.

On the 22<sup>nd</sup>, a fatality occurred in Finksburg (Carroll County) when damaging thunderstorm winds caused a tree to fall onto a man. Multiple trees were uprooted near Friendship (Montgomery County) and winds gusted to 58 mph near both Adams Morgan in DC and Green Valley (Frederick County). Rainfall totaled 2.68" in Norrisville (Harford County) and 1.77" in Hillsboro (Loudoun County). The following day a waterspout was observed near Highland Beach, off the shore of Anne Arundel County, MD. Finally on the 30<sup>th</sup>, thunderstorm wind gusts downed a tree onto wires causing a fire near Hollymead and 3.71" deluged Keswick (Albemarle County), VA.

### July 2019 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 |
| <b>National (DCA)</b>  | 90.9                      | 73.3  | 82.1 | 79.8 | +2.3   | 99/21       | 65/25 | 6.49                   | 3.73 | +2.76  | 28.79        |
| <b>Baltimore (BWI)</b> | 91.7                      | 69.9  | 80.8 | 77.0 | +3.8   | 100/20,21   | 61/25 | 3.85                   | 4.07 | -0.22  | 24.70        |
| <b>Dulles (IAD)</b>    | 90.9                      | 67.4  | 79.2 | 76.7 | +2.5   | 100/21      | 58/1  | 2.73                   | 3.67 | -0.94  | 25.05        |

**A Hot August?** June and July recorded above normal average temperatures in Washington. Will DCA continue the trend in the final month of climatological summer? Below is a look back below at the most recent 10 years when both June and July featured above normal readings at DCA and the corresponding August monthly departures.

| Last 10 Years with Above Normal Average June and July Temperatures at DCA |      |      |      |      |      |      |      |      |      |      |
|---|------|------|------|------|------|------|------|------|------|------|
| Year/Avg Temp   | 2019 | 2018 | 2017 | 2016 | 2015 | 2013 | 2012 | 2011 | 2010 | 2008 |
| <b>June/75.2°F</b>  | 76.4 | 76.2 | 77.3 | 76.2 | 78.1 | 76.5 | 76.3 | 78.8 | 80.6 | 80.6 |
| <b>July/79.8°F</b>  | 82.1 | 80.7 | 81.7 | 82.7 | 81.5 | 81.2 | 84.0 | 84.3 | 83.1 | 83.1 |
| <b>August/78.1°F</b>  | ?    | 81.0 | 77.4 | 79.4 | 79.3 | 77.1 | 81.0 | 80.0 | 80.2 | 80.2 |