

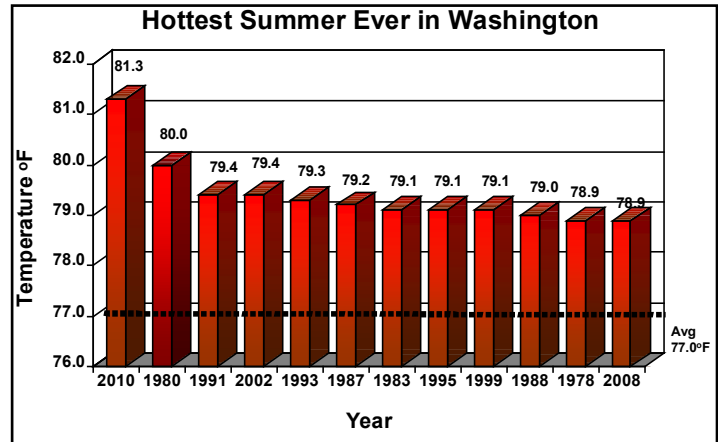
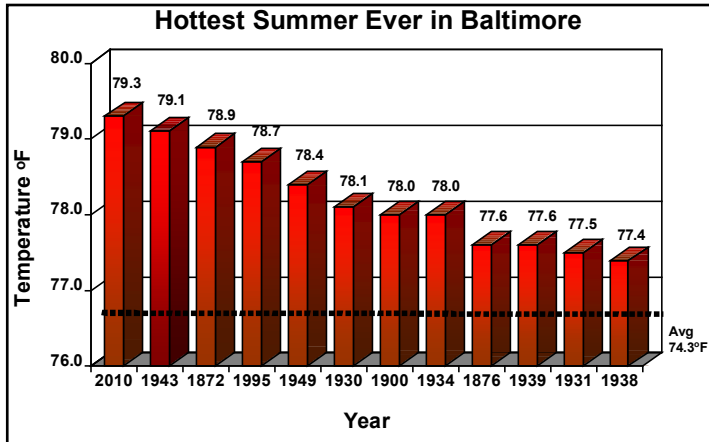


# PRESTO

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



## Summer: Hottest on Record Across Region August: Hot, Severe Weather Impacts Area



### August Highlights

- Well above normal temperatures at the three major airports: +2.7°F at DCA, +2.9°F at BWI and +2.6°F at IAD
- Above normal temperatures for sixth consecutive month at DCA, BWI and IAD
- Highs at or above 95°F on 5 days at DCA, 4 days at IAD and 3 days at BWI
- DCA's reading of 66°F was its warmest minimum on record for August
- On the 4<sup>th</sup>, thunderstorm winds resulted in more than a dozen reports of downed trees across northern Fauquier County, VA
- On the 6<sup>th</sup>, in Oxon Hill, MD, and Alexandria, VA, widespread wind gusts of 60-70 mph and localized gusts of 70-80 mph downed many large limbs and caused some trees to be uprooted, resulting in snapped power lines and loss of power to 96,000 customers, according to press reports
- On the 12<sup>th</sup>, a rapidly moving line of severe thunderstorms struck Frederick, Carroll and Montgomery Counties, MD. An EF-0 tornado (winds to 80 mph) was confirmed south of Unionville (Frederick County) causing tree damage. The winds resulted in major tree damage in parts of Silver Spring and Gaithersburg with gusts of 80-90 mph. Stafford County, VA, sustained property and tree damage with winds estimated at 70 mph
- On the 18<sup>th</sup>, torrential downpours flooded the area, resulting in numerous water rescues. Rainfall totals included 4.58" near McLean, (Fairfax County), VA, 4.54" near College Park (Prince Georges County), MD, and 4.47" near Hillandale (Montgomery County), MD.
- On the 24<sup>th</sup>, heavy rainfall impacted parts of Virginia. Rainfall totals included 5.51" near Afton (Augusta County) and 5.30" near Arrington (Nelson County).

### Seasonal Highlight

- Warmest on record at the three major airports with average temperature of 81.3°F at DCA; 79.3°F at BWI and 77.8°F at IAD
- First time on record average maximum temperature greater than 90°F at DCA (90.2°F)
- Average minimum temperature at DCA warmest on record (72.4°F)
- Highs at or above 90°F on 57 days at DCA; tied with 1988 for most in summer; 52 days with highs at or above 90°F at BWI, 2<sup>nd</sup> greatest total
- Hottest June on record at DCA and IAD, 2<sup>nd</sup> hottest at BWI
- Positive departures at all three major airports: DCA +4.0°F; IAD, 4.1°F; BWI, 3.8°F
- In June, readings at or above 90°F at DCA and BWI on 11 consecutive days (19<sup>th</sup>-29<sup>th</sup>); 2<sup>nd</sup> longest streak
- Highs at or above 95°F at DCA on 7 days; tied with 1991 for most ever in June
- Record high at BWI of 100°F on 24<sup>th</sup> and 27<sup>th</sup>; first such occurrence at BWI of two 100°F days in June.
- Record 100°F at DCA on 24<sup>th</sup> and 99°F on 27<sup>th</sup>; first occurrence of 100°F or greater since August 8, 2007, and in June since 1997
- Three record high minimum readings set at IAD, two at DCA in June
- Widespread severe weather impacted metro area on June 22: hail to 1.75" struck near Bel Air, MD, and to 1.0" near Belmont County; MD; wind gusts to 58 mph near North Potomac, MD, and to 55 mph at DCA
- Severe weather impacted Fairfax County, VA, on June 28; numerous trees knocked down near Centerville, Vienna, Fairfax Station and Great Falls, VA, with 60 mph gust measured near Merrifield, VA. Event resulted in more than an inch of rainfall in some areas.
- June tied for hottest month of all time in Washington (83.1°F) and at BWI (81.5°F)
- On July 7, DCA soared to a record 102°F and 101°F on July 24. BWI recorded record high temperatures on 4 July days: 6<sup>th</sup> (105°F), 7<sup>th</sup> (101°F), 24<sup>th</sup> (101°F) and 25<sup>th</sup> (100°F)
- On July 6, BWI soared to 105°F; 2<sup>nd</sup> hottest day ever in Baltimore (107°F, 7/10/36); at or above 100°F at BWI on 5 days, most on record
- On July 25, damaging straight line thunderstorm winds with gusts 60-75 mph and isolated gusts to 90 mph across Fairfax and Loudoun Counties in Virginia and Montgomery, northern Prince Georges, Ann Arundel and Charles counties in Maryland and in D.C. The storm resulted in three deaths from wind and one from lightning, widespread damage from downed trees and power lines, and loss of power to more than 300,000 customers
- Severe thunderstorms on July 25 caused more damage on July 29 as strong winds and lightning knock down trees and wires

## August 2010

**Temperature:** The area measured well above normal temperatures, with positive departures of +2.7°F at DCA, +2.9°F at BWI and +2.6°F at IAD, resulting in the hottest summer of all time in Washington with an average reading of 81.3F (see graphic). DCA recorded 13 days with highs at or above 90°F, BWI 11 days and IAD 12 days. The month's highest readings were record breakers at DCA and IAD: 98°F on the 10<sup>th</sup> in Washington and 97°F on the 11<sup>th</sup> at Dulles. Nighttime minimum temperatures were uncomfortably warm with DCA observing 22 days with readings at or above 70°F, including a record 80°F on the 10<sup>th</sup>. There was a pleasant, though brief break in the heat on the 24<sup>th</sup> when readings held in the mid 70s across the area, the coolest high temperatures since May 23 at DCA, and since May 19 at BWI and IAD.

**Precipitation:** Rainfall was highly variable due to localized showers and thunderstorms. DCA recorded subnormal precipitation with 2.59" (-0.85") while above normal totals were recorded at BWI, 4.74" (+1.00") and at IAD, 4.42" (+0.64"). Five significant events highlighted the month, the first three a result of severe weather. On the 4<sup>th</sup>, thunderstorm winds resulted in more than a dozen reports of trees down across northern Fauquier County, VA. Wind damage was also reported in Loudoun, Culpeper and Spotsylvania Counties, VA, and in Carroll and Baltimore Counties, MD. The storm brought 1.54" of rain to Gaithersburg, (Montgomery County), MD, and 1.50" in Fredericksburg, (Spotsylvania County). Two days later, a line of severe thunderstorms swept through the southern and eastern metro suburbs of Washington. Oxon Hill (Prince Georges County), MD, and the Fairlington area of Alexandria, VA, observed wind gusts of up to 70-80 mph. The strong winds downed tree limbs and uprooted trees resulting in loss of power to 96,000 customers, according to press reports. DCA reported a wind gust to 59 mph. Trees were also damaged in Calvert County, MD, with gusts to 65 mph near Dunkirk. On the morning of the 12<sup>th</sup>, a rapidly moving line of severe thunderstorms struck Frederick, Carroll and Montgomery Counties, MD. An EF-0 tornado (winds to 80 mph), causing only tree damage, was confirmed south of Unionville (Frederick County). The tornado's maximum width was 50 yards and path length was 0.25 miles. The thunderstorms heavily damaged portions of Silver Spring and Gaithersburg, MD. Widespread tree damage in Silver Spring was consistent with wind gusts of 80-90 mph. Similar wind speeds in Gaithersburg caused some property damage and displaced a 2.5 ton food service trailer. Thousand of homes and businesses lost power. During the afternoon, a new line of severe thunderstorms struck Stafford County, VA, resulting in property and tree damage east of Fredericksburg; winds were estimated at 70 mph. On the morning of the 18<sup>th</sup>, torrential downpours caused flooding across the area with water rescues on Beach Drive in northwest D.C.; near Tysons Corner (Fairfax County), VA; and near Belvedere Heights (Ann Arundel County), MD. Rainfall totals included 4.58" near McLean, (Fairfax County), VA, and 4.54" near College Park (Prince Georges County). The final significant event of the month occurred on the 24<sup>th</sup> when tropical downpours impacted southern and western counties in Virginia. Rainfall totals included 5.51" near Afton (Augusta County) and 5.30" near Arrington (Nelson County).

### AUGUST 2010 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA

Location	Station Temperatures (°F)			Extreme/Day			Precipitation (Inches)				
	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Norm	DepNml	Yr to Date
National (DCA)	88.4	71.9	80.1	77.4	+2.7	98/10	66/25,27	2.59	3.44	-0.85	21.36
Baltimore (BWI)	86.8	68.0	77.4	74.5	+2.9	97/10	59/27	4.74	3.74	+1.00	28.26
Dulles (IAD)	86.8	67.2	77.0	74.4	+2.6	97/11	59/7	4.42	3.78	+0.64	26.59

**Summer (June-August) Temperature:** The area experienced its hottest summer on record. All three major airports broke average high temperature records: DCA 81.3°F; BWI 79.2°F at IAD 77.8°F. In addition, the average high temperature for summer was above 90°F (90.2°F) in Washington for the first time ever. The average low temperature of 72.4°F also set a new record. Temperatures were consistently hot; DCA recorded 57 days with highs at or above 90°F for the calendar year, tied with 1988. BWI's total of 52 was just one shy of the record set in 1988 through the end of August. The summer started with the warmest June ever with records set in Washington and at IAD. DCA's average temperature of 80.6°F was its first June average ever above 80°F. BWI's average temperature of 78.8°F was its warmest June since 1943 and more than 2 degrees warmer than the average July temperature. IAD set a new record monthly average temperature of 76.8°F. Record highs were set on June 24<sup>th</sup> at all three airports, at DCA and BWI on the 27<sup>th</sup>, and at BWI on the 28<sup>th</sup>. Nighttime low temperatures were uncomfortably warm and also set numerous records.

July continued the unrelenting heat. The average monthly temperature in Washington equaled July 1993 as its hottest month ever (83.1°F); BWI also tied for the hottest July ever, 81.5°F, equaling 1972 and 1995. IAD tied for 2nd hottest July: 79.5°F, just 0.2°F cooler than July 1993. BWI recorded 21 days with highs at or above 90°F, while DCA and IAD observed 20 such days. Record highs were set at DCA on the 7<sup>th</sup> and 24<sup>th</sup>; at BWI on the 6<sup>th</sup>, 7<sup>th</sup>, 24<sup>th</sup> and 25<sup>th</sup>; and at IAD on the 24<sup>th</sup> and 25<sup>th</sup>. BWI reached or exceeded the 100 degree mark on 5 days in July, the most ever observed. The 105°F on July 6 was BWI's second hottest reading ever recorded. DCA was 100°F or higher on 3 days and IAD on 2 days. Daily high minimum temperatures were also set at DCA on the 7<sup>th</sup>, 8<sup>th</sup>; and at IAD on the 8<sup>th</sup> and 24<sup>th</sup>. The only break, occurred in the first few days of the month when chilly overnight lows dipped into the 50s. August continued the heat (see August summary).

**Summer Precipitation:** Seasonal rainfall was slightly below normal in the Baltimore/Washington area, with some areas benefiting from localized thunderstorms. Departures from normal were -0.60" at DCA, -0.37" at BWI and -1.54 at IAD". The summer will be remembered for the numerous severe weather events which significantly impacted the area. June started the season with dry conditions but frequent severe weather, including hail to 1" on June 3<sup>rd</sup> and hail to 1.75" on 22<sup>nd</sup>. Downpours caused flooded roads on the 16<sup>th</sup>, winds to 80 mph on the June 6<sup>th</sup>, and property damage on numerous dates including the 28<sup>th</sup>. July brought relief from the dry conditions with above normal rainfall. The month also featured more severe thunderstorms. An event on July 25 brought hurricane force gusts, with gusts up to 80-90 mph in spots, and 60-75 mph in widespread locations, resulting in four fatalities, widespread damage from downed trees and power lines, and loss of power to a reported 300,000 area residents. Wind damage was widespread. For most of the area, the month's heaviest rainfall occurred on July 12-14, with totals more than 2.5" in places. Two other severe storms again observed strong wind gusts; BWI recorded wind gusts to 72 mph on July 18. A storm on the July 29 resulted in some flash flooding and a downed tree onto power wires caused major train delays. August continued the stretch of severe weather incidents (see August summary).

### SUMMER 2010 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA

Location	Station Temperatures (°F)			Extreme/Day			Precipitation (Inches)			
	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Norm	DepNml
National (DCA)	90.0	72.4	81.2	76.9	+4.0	102/7-6,7	60/6-8	9.63	10.23	-0.60
Baltimore (BWI)	89.6	68.9	79.2	75.4	+3.8	105/7-5	56/6-7,8; 7-2	10.65	11.02	-0.37
Dulles (IAD)	88.3	67.1	77.8	73.7	+4.1	101/7-7	50/6-8	9.88	11.42	-1.54

**Looking Ahead:** After experiencing the hottest summer on record across the area, what will Autumn bring? Below are some statistics.

#### Temperature Extremes

**Coldest:** 1917 (Average Temperature: 52.9°F; Dep. Nml.: -6.5°F)  
**Warmest:** 1973 and 1931 (Average Temperature: 63.1°F; Dep. Nml.: +3.7°F)  
**Extreme Minimum Temperature:** 11°F (Nov. 30,1929)  
**Extreme Maximum Temperature:** 104°F (Sep. 7, 1881)  
**Most Days With Lows < 32°F:** 19 (1901); **Highs > 90°F:** 14 (1980)

#### Precipitation Extremes

**Wettest:** 1934 (Total Precipitation: 21.78"; Dep. Nml.: +11.74")  
**Driest:** 1930 (Total Precipitation: 1.83"; Dep. Nml.: -8.21")  
**Snowiest:** 1987 (Total Snowfall: 11.5")  
**Most 1 Day Precipitation:** 5.16" (Sep. 2, 1922)  
**Most Snowfall in 1 Day:** 11.5" (Nov. 11, 1987)