

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 10th in Washington and 97°F on the 11th 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 10th. There was a pleasant, though brief break in the heat on the 24th 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 4th, 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 12th, 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 18th, 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 24th 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 24th at all three airports, at DCA and BWI on the 27th, and at BWI on the 28th. 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 7th and 24th; at BWI on the 6th, 7th, 24th and 25th; and at IAD on the 24th and 25th. 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 7th, 8th; and at IAD on the 8th and 24th. 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 3rd and hail to 1.75" on 22nd. Downpours caused flooded roads on the 16th, winds to 80 mph on the June 6th, and property damage on numerous dates including the 28th. 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)