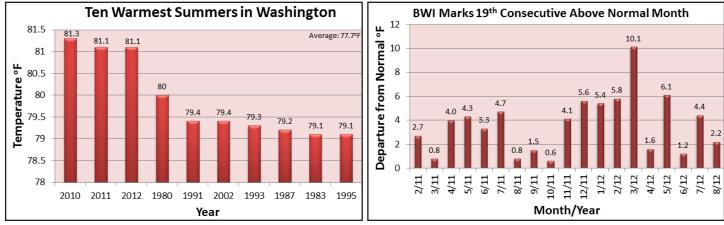






PREcipitation Summary and Temperature Observations For the Washington, DC and Baltimore, MD Area

# AUGUST 2012: 5<sup>™</sup> Hottest In Washington SUMMER: Excessive Heat; Severe Weather Including Derecho



# August Highlights

- Above normal temperatures: + 2.9°F at DCA, +2.2°F at BWI and +1.7°F at IAD
- ✤ BWI recorded 19<sup>th</sup> consecutive month with above normal readings, DCA, 10<sup>th</sup>
- Fifth warmest August on record in Washington with average temp of 81.0°F
- Minimums at or above 75°F at DCA from 2<sup>nd</sup>-9<sup>th</sup>; first such occurrence since August 2007
- Subnormal precipitation at DCA for 8<sup>th</sup> consecutive month
- Waterspouts observed on the 7<sup>th</sup> near Benedict, MD (Calvert County) and on the 26th near Cobb Island (Charles County); No injuries reported flooding rains totaled 4.85" in Leonardtown (St. Mary's County)
- On the 14<sup>th</sup>, 1.50" hail struck Parkville, (Baltimore County), MD, and torrential rains flooded many Baltimore area roads. Towson recorded 3.18". In Virginia, 1.0" hail measured near Bergton and flash flooding occurred near Harrisonburg (Rockingham County)
- \* On the 22<sup>nd</sup>, 3.5" rainfall deluged Children's Hospital and flooded roads near Rhode Island Ave in Washington, D.C.
- On the 26<sup>th</sup>, Baltimore area again was deluged; 4.41" was measured near Riviera Beach; in Ann Arundel County, 4.38" was observed near Lochearn (Baltimore County); BWI recorded a daily record rainfall of 3.36".

## Seasonal Highlights

- ★ Above normal temperatures at the three major airports: +3.5°F at DCA, +2.0°F at BWI and +2.8°F at IAD
- CA recorded 8 days with highs at or above 100°F; BWI, 6; IAD, 4; DCA recorded 48 days with highs at or above 90°F; BWI, 40; IAD 35
- Hottest June day on record: 104°F in Washington and 102°F at IAD on the 29<sup>th</sup>
- Record 99°F at DCA on June 21; 100°F at BWI ties record for date
- On June 1, 12 tornadoes confirmed across Maryland: 4 EF-1 (estimated wind speeds up to 100 mph) and eight EF-0 (estimated wind speeds up to 85 mph). Two injuries were reported in the EF-1 tornado near Bel Air (Harford County), MD; Property and tree damage were the main impacts; damaging thunderstorm winds, including gusts to 60 mph in Falls Church (Arlington County), VA, and torrential rainfall in some areas, including 4.56" near Long Green (Baltimore County), MD, and 3.06" near McLean (Fairfax County), VA; over an inch soaked BWI (1.55") and DCA (1.22")
- On June 22, thunderstorm downburst winds reach 90-100 mph in Bladensburg (Prince Georges County), MD, resulting in structural damage to 15 buildings and a home and displacing at least 70 residents according to press reports. The storm uprooted 40 foot trees, causing significant property damage, and taking down power lines. In Jonesville (Frederick County), MD, winds peaked at 80 mph damaging a dairy barn and uprooting trees. Near Langley Park (Prince Georges County), some property damage and 20 trees ripped out of the ground by the intense winds
- On the June 29, a derecho, a fast moving, long lasting line of intense thunderstorms, blew through the metro area late evening. The event featured widespread wind gusts from 60-90 mph, frequent lightning and heavy rain. The storms resulted in five fatalities: two elderly women were crushed by trees that fell through their roofs; two drivers were killed in their cars by fallen trees, and one person drowned in the Chesapeake Bay when a boat capsized. There was also extensive property damage and loss of power to 1.3 million residents, according to press reports. PEPCO, the utility for DC and its Maryland suburbs, noted the largest amount of outages for any weather event outside of a tropical storm: winds gusted to 71 mph at IAD, 70 mph at DCA, and 68 mph at BWI.
- July was second hottest month on record at DCA (avg. 84.5°F), IAD (avg. 80.6°F); tied for 5<sup>th</sup> hottest at BWI (avg. 81.4°F)
- Record 7 days in July at or above 100°F at DCA, 4 such days at BWI (2<sup>nd</sup> most on record), 3 such days at IAD (tying record)
- On July 7, DCA records 105°F, 1 degree short of all-time high; 104°F at BWI on July 7 and 18, only July 2 such occurrence
- ✤ DCA measured 4 consecutive days at or above 100°F (July 5-8), all-time record
- Washington equaled record of 16 days with highs at or above 95°F, Baltimore set record at 13 such days
- On the July 8, seven people were injured near Fredericksburg, (Spotsylvania County), VA, when a microburst tore a roof off a gym and a wall collapsed. Torrential rainfall was recorded across northern Maryland including 3.58" Torrential rainfall occurred in some locations on 18<sup>th</sup>-21<sup>st</sup>; in Maryland, 4.67" near Jacksonville (Baltimore

#### August 2012

**Temperatures:** Although the extreme heat from July and late June waned, temperatures were consistently above normal: + 2.9°F at DCA, +2.2°F at BWI and +1.7°F at IAD. August marked the 10<sup>th</sup> consecutive month with above normal temperatures at DCA, 19<sup>th</sup> at BWI. The monthly average temperature of 81.0°F equaled the 5<sup>th</sup> warmest on record. DCA recorded 15 days with highs at or above 90°F and 6 days at or above 95°F. Minimums were exceptionally high between the 2<sup>nd</sup>-9<sup>th</sup>, at or above 75°F. At IAD, minimums were at or above 70°F from the 3<sup>rd</sup>-8<sup>th</sup>, the first such occurrence at both locations since August, 2007. Record high minimums were set on the 4<sup>th</sup> at DCA, 79°F, and at IAD, 75°F, while high minimums were equaled on the 6<sup>th</sup>, 78°F at DCA and 72°F at IAD. BWI recorded 13 days at or above 90°F, IAD, 8 such days.

Precipitation: Rainfall was highly variable due to localized showers and thunderstorms. DCA recorded slightly below normal rainfall 2.78" (-0.15") and IAD 3.02" (-0.51"); BWI was well above normal: 5.82" (+2.53"). Strong to severe thunderstorms impacted the area throughout the month. On the 3rd, 1.0" hail struck Shiloh, (Stafford County), VA, 1.22" soaked Columbia, (Howard County), MD. Two days later, a line of thunderstorms moved across the area causing wind damage near Uniontown, (Carroll County), MD, quarter size hail near Boston, (Culpeper), VA, and 1.33" rain in Wheaton/Glenmont, (Montgomery County), MD. On the 7th a waterspout moved over land near Benedict, (Calvert County), MD, while 4.85" of rain was measured in Leonardtown (St. Mary's County), MD. On the 9th, 1.0" hail struck near Norbeck, MD, 2.84" of rain was reported in Gaithersburg (Montgomery County), MD, and 2.02" in Rixeyville, (Culpeper County), VA. The following day, 3.52" deluged Havre De Grace, (Harford County), MD; a 59 mph wind gust was measured near Flordon, (Albemarle County), VA. On the 11th, several water rescues occurred in the Chesapeake Bay off Southern Maryland as a result of strong winds, according to press reports. Heavy rainfall impacted some locations including 1.97" in Brandywine, (Prince Georges County), MD. On the 14th, 1.50" hail struck Parkville, (Baltimore County), MD, and torrential rains flooded Baltimore area roads; Towson recorded 3.18" rainfall. In Virginia, 1.0" hail was observed near Bergton and flash flooding occurred near Harrisonburg (Rockingham County). Isolated heavy rainfall occurred from the 20th-22nd. On the 20th, 2.04" soaked D.C., 1.19" was reported in New Market, (Frederick County), MD. The following day, 1.65" was measured in Poolesville (Montgomery County), MD. On the 22<sup>nd</sup>, 3.5" deluged Children's Hospital and flooded roads near Rhode Island Ave in D.C. while 1.28" was reported in Rockville, (Montgomery County), MD. The month's final event occurred on the 26th, a waterspout near Cobb Island (Charles County); areas around Baltimore as well as in Ann Arundel County, MD, recorded torrential rain and flash flooding: 4.41" near Riviera Beach (Ann Arundel County), 4.38" near Lochearn (Baltimore County) while BWI recorded a daily record rainfall of 3.36".

### August 2012 Weather Statistics for the Washington/Baltimore Area

	Station Temperatures (°F)					Extrem	e/Day	Precipitation (Inches)			
Location	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Nml	DepNml	Yr to Date
National (DCA)	89.5	72.4	81.0	78.1	+2.9	98/5	66/21	2.78	2.93	-0.15	18.71
Baltimore (BWI)	87.0	67.6	77.3	75.1	+2.2	96/5	61/21,22	5.82	3.29	+2.53	22.47
Dulles (IAD)	87.4	66.8	77.1	75.4	+1.7	95/31	60/21	3.02	3.53	-0.51	20.05

**Summer (June, July, August) Temperatures:** For the third consecutive summer, the area marked well above normal temperatures at all three major airports. Average temperatures were 80.4°F at DCA, and 77.4°F at BWI and 76.5°F at IAD. It was the second warmest summer on record at Washington, tied for 5<sup>th</sup> warmest at IAD and 14<sup>th</sup> warmest at BWI. June started the hot summer with DCA and BWI recording 11 days with highs at or above 90°F and IAD, 9. The hottest day of the month was the 29<sup>th</sup> when DCA sizzled to 104°F, a record for the date and the highest June reading on record. IAD also set a record 102°F, also warmest on record at 100°F. In sharp contrast, IAD's maximum of 68°F on the 18<sup>th</sup> was the coolest maximum reading on record for the date. For the third consecutive July, excessively hot conditions prevailed across the area. DCA recorded its warmest average daily temperature on July 7, 94°F. BWI peaked at 104°F twice during the month (7<sup>th</sup>, 18<sup>th</sup>), only the second such occurrence in Baltimore on record. The heat was persistent: DCA set a record with 11 consecutive days at or above 95°F (June 28-July 8) and 16 days at or above 95°F, equaling August 1980 for most on record. August continued the warm readings (see monthly summary).

**Summer Precipitation:** Heavy, localized rain resulted in slightly above normal seasonal rainfall at BWI, +0.95", but subnormal readings at DCA, -2.47", and IAD, -3.94", marking 8 consecutive months below normal at DCA and 7 out of 8 at IAD and BWI. The season featured frequent severe weather including a destructive derecho on June 29. The derecho, a fast moving, long lived line of intense thunderstorms, blew through the metro area during the late evening. The thunderstorm complex, which started in Iowa, raced east at speeds up to 60 mph, reaching the metro area between 10 pm-11 pm. Widespread wind gusts reached 60-90 mph, along with frequent lightning and heavy rain. The event resulted in five deaths and widespread power outages to a reported 1.3 million residents. PEPCO, the utility for DC and its Maryland suburbs, noted the largest amount of outages for any weather event outside of a tropical storm. This was the first derecho to impact the metro area since June 4, 2008. Earlier, on June 1, Maryland recorded 12 confirmed tornadoes, resulting in one injury and damages. More severe weather on June 18 included hail to 1.50" in parts of the Shenandoah in Virginia. On June 22, western Virginia again was impacted by severe thunderstorms with hail to 1" and tree damage. The second line of storms included straight line downburst winds in Maryland with gusts of 90-100 mph in Bladensburg (Prince Georges County), displacing at least 70 residents, according to press reports. On July 8, seven people were injured near Fredericksburg, (Spotsylvania County), VA, when a microburst tore a roof off a gym and a wall collapsed. Torrential rainfall was recorded across northern Maryland including 3.58" in Mt. Airy (Carroll County), MD. A storm on July 10 brought much needed rain, including 2.76" in D.C. On July 15, a waterspout moved onshore along Windy Lane near Coltons Point (St. Mary's County), MD. Property damage was reported consistent with EF-0 tornado winds up to 75 mph. A stormy period from July 18-21 brought hail and heavy

### Summer 2012 Weather Statistics for the Washington/Baltimore Area

	Statio	n Tempe	eratures	; (°F)		Extreme/Da	ay	Precipitati	on (Inches)	
Location	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Nml	DepNml
National (DCA)	89.5	71.3	80.4	76.9	+3.5	105/7-7	58/6-6.7	7.97	10.44	-2.47
Baltimore (BWI)	88.0	66.9	77.4	75.4	+2.0	104/7-7,18	50/6-6	11.77	10.82	+0.95
Dulles (IAD)	87.5	65.5	76.5	73.7	+2.8	101/7-8,18	50/6-3	7.24	11.18	-3.94

Looking Ahead to September: After experiencing another scorching summer across the area, what will autumn bring? Below are statistics for DCA.

#### Seasonal 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)

#### **Seasonal 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)