

**AUGUST 2004:** The final month of meteorological summer continued the cooler than normal temperatures and lack of prolonged heat waves. The most noteworthy highlight was the relatively few days with 90°F+ highs across the area. August 4<sup>th</sup> was the only day with a 90°F+ reading reported at DCA, tying with 6 other cool August years for the least 90°F days since 1927. DCA recorded more days with 90°F+ highs in May (2) than August (1). BWI and IAD observed only 2 days with highs at or above 90°F. Monthly temperature departures were -1.5°F at DCA, -0.3°F at BWI, and -0.8°F at IAD. The negative monthly temperature departures would have been more significant if not for the many warm nights, primarily due to oppressive humidity. DCA recorded 15 days with minimum temperatures at or above 70°F, including lows at or above 74°F during the first 4 days of August. In contrast, highs topped out in the 70's on 6 days at BWI and IAD and on 4 days at DCA, including a daily high of only 71°F at DCA and BWI on the 14<sup>th</sup>.

As in July, rainfall was variable during August but not as extreme. Many areas received between 3"-6", most of which fell in the first half of the month. Strong to severe thunderstorms on the 4<sup>th</sup> and the 11<sup>th</sup> brought power outages and downed trees to parts of the area, primarily the result of strong winds and hail. The 12<sup>th</sup> brought the month's heaviest rainfall for many locations (2.43" at DCA) as thunderstorms deluged portions of the area with more than 2" of rain, resulting in some localized flooding. The area escaped any significant effects from the remnants of two tropical systems (Charley and Gaston). DCA recorded 0.62" from the remnants of Charley, while more than 2" soaked portions of Southern Maryland. Nevertheless, these totals paled in comparison with the devastating effects that the remnants of Tropical Storm Gaston caused in Richmond, VA, on the 30<sup>th</sup>. More than a foot of rain generated severe flooding, killing 7 people and causing a reported \$62 million in damage. At least 40 people were rescued from rapidly rising flood waters, and 89,000 customers lost power as a result of the torrential rains, according to press reports. After Charley's passage on the 14<sup>th</sup>, the month took a turn towards drier weather. Some locations observed only a tenth of an inch of rain during remainder of the month. BWI recorded no measurable rainfall from the 20<sup>th</sup>-31<sup>st</sup> and IAD recorded none from the 22<sup>nd</sup> through the end of the month.

### AUGUST 2004 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

Station	Temperatures (°F)				Extreme/Day			Precipitation (In.)			
Location	AvMx	AvMn	AvgT	NmlT	DepNml	MaxT	MinT	Total	Norm	Dep Nml	Yr to Date
National (DCA)	82.9	68.8	75.9	77.4	-1.5	91/4	58/7	5.09	3.44	+1.65	29.21
Baltimore BWI)	83.0	65.3	74.2	74.5	-0.3	91/20	53/7	2.71	3.78	-1.07	32.34
Dulles (IAD)	83.5	63.7	73.6	74.4	-0.8	91/20 <sup>1</sup>	51/7	3.79	3.74	+0.05	26.23
Andrews (ADW)	82.0	66.0	74.0	N/A	N/A	91/4 <sup>2</sup>	55/8	2.55	4.40	-1.85	28.79

\*Additional occurrences: 28<sup>th</sup>, 20<sup>th</sup>

**SUMMER (JUNE-AUGUST) 2004:** Subnormal temperatures and generally above normal rainfall highlighted weather conditions across the Washington/Baltimore area. Similar to last summer, there were no heat waves and no days with highs at or above 95°F. In fact, the high temperature for the summer was only 92°F at both DCA and BWI and 91°F at IAD. In addition, there were only 8 days with 90°F+ at both DCA and BWI, the fewest such days since 1906 and second fewest since 1917, respectively. Summer temperatures averaged around 0.5°F below normal at BWI, 0.3°F below at IAD and more than 1.0°F degree below normal at DCA. Seasonal temperature departures would have been more significant if not for the numerous warm nights (DCA recorded 46 days with lows at or above 70°F). The summer began with a cooler than normal June with monthly departures around -1°F at both DCA and BWI. There were only 3 days with 90°F+ highs at DCA and just one at BWI. In July, subnormal temperatures once again prevailed with a monthly temperature departure of -0.7°F observed at DCA. There were only 4 days with 90°F+ highs and 24 days with at or below normal highs at DCA. Subnormal temperatures continued into August. There was only one day with a 90°F+ high at DCA and 22 days with at or below normal maximum temperatures. Monthly temperature departures ranged from -0.3°F at BWI to -1.5°F at DCA.

Seasonal precipitation totals were below those of last summer, but were still quite significant with above normal amounts recorded all 3 months at DCA. Summer rainfall totals exceeded 16" at DCA and 15" at BWI. The summer featured numerous drenching thunderstorms yielding flash floods, hail and power outages from downed trees and power lines. The summer began with slightly wetter than normal conditions for most locations. DCA and BWI both recorded June precipitation totals between 4 and 5 inches. It was the 5th consecutive wetter than normal June at DCA. In July, frequent thunderstorms occasionally produced torrential rains at some locations, yielding much above normal monthly precipitation totals at some locations. At BWI 8.69" of rain fell in July while DCA reported 6.98" that month. In fact, it was the wettest July ever recorded at BWI and the wettest in nearly 30 years at DCA. Widely varying monthly precipitation totals were observed across the local area in August. Once again DCA recorded wetter than normal conditions with more than 5" of rain; however, just to the north, August ended on a drier than normal note with BWI logging only 2.71" of rain, slightly more than an inch below normal.

### SUMMER 2004 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

Station	Temperatures (°F)				Extreme/Day			Precipitation (In.)			
Location	AvMx	AvMn	AvgT	NmlT	DepNml	MaxT	MinT	Total	Norm	Dep Nml	
National (DCA)	83.3	68.5	75.9	77.0	-1.1	92/6-17 <sup>1</sup>	57/6-6	16.67	10.23	+6.44	
Baltimore (BWI)	82.8	64.6	73.8	74.3	-0.5	92/7-5	52/6-27	15.57	11.02	+4.55	
Dulles (IAD)	83.0	63.9	73.4	73.7	-0.3	91/6-17 <sup>2</sup>	51/6-21 <sup>3</sup>	11.25	11.42	-0.17	
Andrews (ADW)	82.3	65.3	73.8	N/A	N/A	91/6-9 <sup>4</sup>	54/6-12	16.72	12.40	+4.32	

Additional occurrences: 7/5<sup>1</sup>, 8-7<sup>2</sup>, 7-5 and 8-20<sup>3</sup>, 8-4, 8-20<sup>4</sup>

**LOOKING AHEAD TO AUTUMN:** After a cooler and wetter than normal summer, at most locations, behind us, what does meteorological Autumn hold in store for the local area? The season often produces some of the finest weather in this area. Below is a list of some of the autumn extremes that have occurred in Washington since records began in 1871.

#### Temperature Extremes

**Coldest:** 1917 (Avg. Temperature: 52.9°F; Dep. Nml.: -6.5°F)  
**Warmest:** 1973 & 1931 (Avg. 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 (Tot. Prec.: 21.78; Dep. Nml.: +11.74)  
**Driest:** 1930 (Tot. Prec.: 1.83; Dep. Nml.: -8.21)  
**Snowiest:** 1987 (Tot. Snowfall: 11.5 ")  
**Most one day precipitation (liquid):** 5.16" (Sep. 2, 1922)  
**Most snowfall in one day:** 11.5" (Nov. 11, 1987)