

**JULY 1999:** Extremely hot conditions along with very little rainfall exacerbated the drought across the Washington/Baltimore area. In fact, it was the second hottest month ever recorded in Washington with an average temperature of 82.9°F and a monthly temperature departure of +2.9°F. There were 26 days with warmer than normal conditions at DCA, including two periods of excessive heat and humidity. The initial period of heat enveloped the Washington/Baltimore area on the 3rd and lasted for about a week. Highs at or above 90°F were reported on each day during July 3rd-10th, with the most intense heat occurring on the 5<sup>th</sup> and 6<sup>th</sup> as readings soared above 100°F at many locations. DCA established daily record highs on both days (5<sup>th</sup> & 6<sup>th</sup>) with readings of 102°F and 103°F, respectively. In addition, abnormally hot conditions prevailed on Independence Day with the high topping out at 99°F at DCA, the hottest "Fourth of July" since 1919 in Washington. The heat often combined with humidity to produce oppressive conditions and apparent temperatures between 105°F and 115°F. The initial blast of heat broke on the 11<sup>th</sup> and was followed by a few days of comfortable conditions. Around mid-month the heat returned and remained entrenched across the area until month's end. Highs topped 90°F on 14 of the last 16 days and hit the century mark on the 31<sup>st</sup> (100°F) at DCA. In addition, the mercury reached or exceeded 95°F on 10 days during this period. Overall, there were 22 July days with 90°F+ highs, the most (tied w/ 1994) since July 1993 (the hottest month ever recorded in Washington).

Very dry conditions continued to plague the area as drought conditions reached extreme levels, resulting in mandatory water restrictions in some areas. It was the fourth consecutive month with subnormal rainfall at the three major airports (driest April-July period on record in Washington) and the eleventh month of the last 13 with below normal precipitation at DCA. In fact, DCA observed the driest July-July period (13 months) on record in Washington with a precipitation deficit of 16.51" during this time. The lack of significant rainfall worsened drought conditions throughout the area as many lawns, vegetation and local crops were stressed by the hot, dry weather. At DCA, measurable precipitation ( $\geq 0.01$ " ) fell on 8 days, but there was no single rain event that produced more than 0.28". IAD recorded 16 days with measurable precipitation, producing a monthly precipitation total of 2.53", but there was no single rain event that generated more than 3/4 of an inch. Scattered showers and thunderstorms occasionally provided some areas with brief, intense rainfall. At BWI, a thunderstorm on the 22<sup>nd</sup>, generated more than an inch of rain at the airport, and over three inches in some parts of northern and eastern Maryland. Unfortunately, most of these heavy rains occurred in a very short period of time, leading to rapid runoff that did very little to alleviate the severe drought. By month's end, the dry conditions were so bad that according to press reports, many jurisdictions were contemplating water restrictions and the federal government was considering providing federal assistance for farmers throughout much of the region.

**JULY 1999 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:**

Station Location	Temperatures (°F)					Extreme/Day		Precipitation (In)			
	AvMx	AvMn	AvgT	NmlT	DepNml	MaxT	MinT	Total	Norm	DepNml	Yr to Date
National (DCA)	92.8	73.1	82.9	80.0	+2.9	103/6	63/13	1.01	3.80	-2.79	18.47
Baltimore (BWI)	91.4	68.5	80.0	77.0	+3.0	102/5	57/12*	2.06	3.69	-1.63	18.90
Dulles (IAD)	90.9	66.0	78.4	75.6	+2.8	99/5	54/12	2.53	3.49	-0.96	21.88
Ft. Belvoir (DAA)	94.7	70.7	82.7	N/A	N/A	104/5#	61/12	1.46	3.8	-2.3	23.09
Andrews AFB (ADW)	91.1	68.4	79.8	N/A	N/A	100/5#	55/11@	0.93	4.3	-3.4	17.64

Other Occurrences: \* July 15<sup>th</sup>; # July 6<sup>th</sup> & 31<sup>st</sup>; @ July 12<sup>th</sup>.

**LOOKING AHEAD TO AUGUST: A fifth consecutive month with subnormal precipitation?**

As mentioned earlier, all three of the local airports have observed subnormal precipitation for four consecutive months, resulting in the driest April-July ever recorded in Washington. With this in mind, the question arises as to whether August (normally the wettest month of the year at both DCA and BWI) will provide above-normal rainfall, or will the local area endure a fifth consecutive month with drier than normal conditions. Below is a list of the monthly total precipitation and corresponding departures from normal for the April-July 1999 period at DCA, BWI & IAD.

Location	April Tot. Prec. (In.)	April Dep. Nml. (In.)	May Tot. Prec. (In.)	May Dep. Nml. (In.)	June Tot. Prec. (In.)	June Dep. Nml. (In.)	July Tot. Prec. (In.)	July Dep. Nml. (In.)
DCA	2.09	-0.62	1.28	-2.38	2.26	-1.12	1.01	-2.79
BWI	2.27	-0.82	1.72	-2.00	2.04	-1.63	2.06	-1.63
IAD	2.68	-0.43	2.22	-1.80	3.00	-0.92	2.53	-0.96