

**MAY 2002:** The final month of Spring was highlighted by subnormal temperatures and varying amounts of rainfall. Monthly temperature departures between -0.5°F and -1.0°F were observed at the three major airports, marking the first cooler than normal month since last Autumn at most locations. From the 18<sup>th</sup>-22<sup>nd</sup>, abnormally cool conditions (highs in the fifties and sixties) enveloped the area, producing daily temperature departures between -9°F and -20°F at the three major airports. Many record daily lows were recorded at DCA, BWI and IAD during this period including a low of 31°F at IAD on the 22<sup>nd</sup>, the latest 32°F or lower reading ever observed. On a few days, large daily temperature rises were observed, especially at locations away from the city. On the 16<sup>th</sup>, IAD warmed from a low of 39°F to a high of 81°F and on the 24<sup>th</sup> the temperature rose from a low of 44°F to a high 85°F. Unlike April, there were no extended periods of heat across the local area. In fact, there was only one day (31<sup>st</sup>) with 90°F+ readings at both DCA & BWI.

Thunderstorms provided a typical pattern of large variations in rainfall across the local area. Monthly precipitation totals ranged from less than two inches in portions of southern Maryland to over eight inches in parts of Montgomery County. The airports followed a similar pattern with only 2.17" at DCA and up to 4.75" at IAD. In fact, it was the wettest month since June 2001 at IAD. On the 26<sup>th</sup> & 27<sup>th</sup>, strong thunderstorms dumped 1.59" and 1.24", respectively, at IAD. Some locations reported thunderstorms from the early evening (26<sup>th</sup>) until dawn (27<sup>th</sup>). In contrast, both DCA and BWI recorded very little precipitation (less than 0.25") during this same period. While some severe weather was observed during the month, it was fortunately more isolated and less intense than that observed in April. On the 2<sup>nd</sup>, thunderstorms spawned a tornado in Cecil County, Maryland causing some property damage, according to press reports. Ten days later, thunderstorms generated strong winds that toppled a tree onto the Olney Theater Center resulting in \$50,000 damage, according to press reports. On the following day, funnel clouds were reported in the Montgomery and Howard counties in Maryland. Elsewhere, strong wind gusts (43 mph at IAD and 40 mph at DCA) accompanied the evening passage of a cold front. On the 14<sup>th</sup>, strong winds (gusts up to 60 mph) toppled dozens of trees in the District of Columbia and in Montgomery & Prince Georges Counties in Maryland, damaging houses & cars, blocking streets and downing power lines and poles, according to press reports. On the 18<sup>th</sup>, an F0 tornado (winds < 72 mph) touched down in Charles County, Maryland damaging some trees and sheds. While recent rains have improved local drought conditions, groundwater levels remain far below normal.

### MAY 2002 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

Station Location	Temperatures (°F)					Extreme/Day		Precipitation (In)			
	AvMx	AvMn	AvgT	NmIT	DepNml	MaxT	MinT	Total	Norm	DepNml	Yr to Date
National (DCA)	75.4	54.8	65.1	65.6	-0.5	91/31	42/20*	2.17	3.82	-1.65	10.80
Baltimore (BWI)	73.8	50.4	62.1	62.9	-0.8	90/31	34/21	2.99	3.89	-0.80	13.27
Dulles (IAD)	74.3	49.4	61.8	62.3	-0.5	89/21	31/22	4.75	4.22	+0.53	13.37
Andrews AFB (ADW)	74.3	51.7	63.0	N/A	N/A	90/31	37/21	3.45	4.0	-0.5	12.67

Other Occurrences: \* May 22nd;

**SPRING (MARCH-MAY) 2002:** Spring was highlighted by above-normal temperatures and near-normal precipitation. Seasonal temperature departures between +1°F and +2°F were common across most of the area. The season began above-normal temperatures in March with monthly temperature departures between +1°F and +2°F at the three major airports. A period of unseasonably warm weather prevailed from March 6<sup>th</sup>-10<sup>th</sup> and again from the 14<sup>th</sup>-16<sup>th</sup>. On these days, daily temperatures averaged 6°F to 20°F above normal. The warm weather was often quickly replaced by much colder conditions. There were two brief blasts of Arctic air, yielding highs only in the thirties (readings more typical of January) across the Washington/Baltimore area on the 4<sup>th</sup> and 22<sup>nd</sup>. There were six days with subfreezing lows, including the 5<sup>th</sup> when temperatures plummeted to 11°F at IAD and 19°F at DCA (the lowest temperature in Washington since December 26, 2000). In April, temperatures averaged more than 3°F above normal across the Washington/Baltimore area. In fact, it was the warmest April at the three major airports since 1994. The warmer than normal conditions were largely the result of a four-day heat wave, as daily readings soared to summerlike levels from the 16<sup>th</sup>-19<sup>th</sup> across the local area. Daily record highs were established on the 16<sup>th</sup> & 17<sup>th</sup> at both DCA (92°F & 95°F) & BWI (90°F & 93°F) and on the 16<sup>th</sup>, 17<sup>th</sup> and 19<sup>th</sup> at IAD (91°F, 93°F & 91°F). The high of 95°F on April 17<sup>th</sup> tied the all-time highest reading ever observed in April and was also the earliest 95°F+ reading ever recorded at DCA. In sharp contrast, readings more typical of February were observed on April 6<sup>th</sup> (highs in the forties) and were accompanied by windy conditions. On the 7<sup>th</sup>, lows dipped below freezing across most of the local area, including IAD where the mercury plunged to 22°F. Slightly cooler than normal weather prevailed during the final month of Spring.

The season commenced with slightly drier than normal conditions across the local area during March despite frequent periods of rainfall. Monthly precipitation totals between 3 and 4 inches were common at many locations. On the 2<sup>nd</sup>-3<sup>rd</sup>, nearly an inch of rain was observed at all three major airports (1.00" at BWI, 0.83" at IAD and 0.80" at DCA). DCA recorded 0.77" of rain on the 2<sup>nd</sup>, yielding the largest daily rainfall since August 23, 2001. Despite the increase in precipitation, the rainfall did little to alleviate ongoing drought conditions in March. According to press reports, the U.S. Geological Survey data indicated that groundwater levels in Maryland set record lows for March while water levels on the Potomac River were lower in March than had ever been recorded since monitoring began in 1931. April was highlighted by a devastating bout of severe weather and the first wetter than normal month since last summer. One of the strongest tornadoes (F4 -207-260 mph winds) ever observed in the local area left a path of destruction across parts of southern Maryland on the 28<sup>th</sup>. Damage was so severe in parts of Charles, Calvert and Dorchester counties that they were declared federal disaster areas. According to the National Weather Service Baltimore/Washington Forecast Office in Sterling, VA, the twister touched down between Risen and Marbury, in Charles County. The tornado strengthened to an F4 (207-260 mph winds) level as it moved through parts of La Plata. The tornado eventually weakened as it moved into Calvert County. The twister reportedly traveled 24 miles in Charles County and at least 6 miles into Calvert County and had a width of about 400 yards. To the east, a tornado also touched down on the Eastern Shore (Dorchester County), causing extensive damage. According to press reports, the twister claimed five lives, injured more than 100 people and caused over \$100 million in damage. This was the second F3 (158-206 mph winds) or higher tornado in less than a year in Maryland. Rainfall from these storms combined with frequent precipitation throughout April produced the first wetter than normal month since July 2001 at DCA (since August 2001 at both BWI and IAD). April precipitation totals between 3.50" and 4.00" were common at many locations. The April rains were beneficial for short-term moisture, but did not alleviate long-term drought conditions across much of the local area. Monthly precipitation totals varied considerably during the final month of Spring, due in large part to thunderstorms. Both DCA and BWI recorded monthly deficits while IAD recorded a monthly surplus of about half an inch.

### SPRING 2002 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

Station Location	Temperatures (°F)					Extreme/Month-Day		Precipitation (In)		
	AvMx	AvMn	AvgT	NmIT	DepNml	MaxT	MinT	Total	Norm	DepNml
National (DCA)	67.7	47.5	57.6	56.1	+1.5	95/4-17	19/3-5	9.01	10.19	-1.18
Baltimore (BWI)	65.9	43.3	54.6	53.3	+1.3	93/4-17	16/3-5	10.82	10.82	0.00
Dulles (IAD)	66.8	42.5	54.7	53.0	+1.7	93/4-17	11/3-5	11.68	10.99	+0.69
Andrews AFB (ADW)	66.9	44.3	55.6	N/A	N/A	93/4-17	14/3-5	10.14	10.6	-0.5

**LOOKING AHEAD TO SUMMER:** Some noteworthy seasonal statistics.

With Spring behind us, we now look ahead to the meteorological Summer (June-August). Below is a list of some of the summer extremes that have occurred in Washington since records began in 1871.

#### Temperature Extremes

**Coldest:** 1907 (Avg. Temp: 71.4°F; Dep. Nml.: -6.7°F)  
**Warmest:** 1980 (Avg. Temp: 80.0°F; Dep. Nml.: +1.9°F)  
**Extreme Minimum Temp.:** 43°F (Jun. 2, 1897)  
**Extreme Maximum Temp.:** 106°F (Jul. 20, 1930 & Aug. 6, 1917)  
**Most days with:** highs ≥ 90°F: 67 (1980)

#### Precipitation Extremes

**Wettest:** 1906 (Tot. Prec.: 27.05; Dep. Nml.: +15.96)  
**Driest:** 1962 & 1966 (Tot. Prec.: 4.62; Dep. Nml.: -6.47)  
**Most precipitation in one day (liquid):** 6.39" (Aug. 23, 1933)

