

NOVEMBER 2002: Subnormal temperatures with above normal rainfall highlighted weather conditions across the local area. Temperatures averaged between -1°F and -2°F at the three major airports, marking the first consecutive months with subnormal readings in Washington since November and December 2000. There were 21 days with at or below normal temperatures at DCA, resulting in only the third month in 2002 with subnormal temperatures. Warm weather was limited to the 10th & 11th when highs reached into the seventies at most locations. The unusually cool weather was due primarily to two intrusions of cold, Canadian air, at the beginning and end of the month, along with numerous days with clouds and rain between the cold air outbreaks. Abnormally cold air early in the month (1st-3rd) resulted in the first freeze of the season at BWI on the 1st while many suburban locations observed subfreezing temperatures each morning. A late-month blast of cold air produced the first freezing temperature of the season at DCA on the 27th. On the following day, Thanksgiving, highs struggled to reach the lower forties and along with a gusty wind, resulted in at or below freezing wind chill readings.

November precipitation totals were above-normal for the first time since 1997 at most locations, including DCA where nearly 4.50" of rain was recorded. Similar to October, four significant storms provided the majority of the monthly precipitation total. The first storm occurred from the 5th-6th when an overnight rainfall produced about 3/4 of an inch of rain at most locations. On Veteran's Day (11th), morning showers and thunderstorms generated downpours and more than 0.50" of rain at many locations, including at DCA (0.60"). The unsettled weather pattern continued the following day as an all-day, steady rain again produced more than a half an inch of precipitation at most locations. The month's final significant rainfall occurred during the weekend of the 16th and 17th, when a two-day steady and at times moderate to heavy rainfall produced precipitation totals exceeding two inches throughout the area. DCA recorded the most rainfall of the three major airports with a total of 2.17" during this two-day event. The above-normal rainfall helped replenish ground water and reservoir levels across much of the local area. January-November 2002 precipitation deficits still exceed 6 inches at DCA and more than 4 inches at both BWI & IAD.

NOVEMBER 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)	54.7	39.5	47.1	48.7	-1.6	73/10	27/28*	4.34	3.03	+1.31	29.88
Baltimore (BWI)	53.8	34.9	44.4	45.5	-1.1	73/10	22/28	3.78	3.12	+0.66	34.34
Dulles (IAD)	53.5	34.7	44.1	45.2	-1.1	72/10	21/28	4.14	3.31	+0.83	34.57
Andrews AFB (ADW)	54.5	37.5	46.0	N/A	N/A	73/10	21/28	4.35	3.3	+1.1	34.35

Other Occurrences: * November 29th.

AUTUMN (SEPTEMBER-NOVEMBER) 2002: Slightly above-normal temperatures and wetter than normal conditions prevailed across the Washington/Baltimore area. Seasonal temperature departures were about 0.5°F above-normal at most locations. The season commenced with above-normal temperatures and subnormal rainfall across most of the Washington/Baltimore area during September. The warm, dry conditions resulted in the worsening of long term drought conditions. Temperatures averaged about 2°F above-normal at most locations. It was the eighth month of 2002 with above-normal temperatures at DCA and the second warmest January-September ever recorded in Washington. October temperatures averaged near-normal at most locations with a sharp contrast occurring between the first and second halves of the month. The month began with abnormally warm weather from the 1st-5th as highs routinely soared into the eighties at many locations. On October 5th, DCA recorded a high of 90°F, the first such October reading and the latest such reading since 1997. It marked the 56th day of 2002 with a 90°F+ high at DCA, the most such readings in a calendar year since 1991. In sharp contrast, much cooler conditions commenced around mid-month as frequent storminess and cold Canadian air infiltrated the local area. Subnormal temperatures prevailed on 16 of the last 18 days at DCA, including the 29th, 30th and 31st when lows dipped into the thirties across the Washington/Baltimore area. On the 30th, maximum temperatures held in the 30's and low 40s resulting in the lowest maximum temperatures ever observed in October across the region*. IAD recorded its first freezing temperature of the season on the 18th (32°F). October marked only the second month of 2002 with subnormal temperatures at DCA. Cooler than normal conditions continued into November with monthly departures between -1°F and -2°F common at most locations. Most locations, including DCA, observed their first freeze of the season during the final month of meteorological Autumn.

Wetter than normal seasonal conditions prevailed across the Washington/Baltimore area. It was the first Autumn with above-normal precipitation since 1998. Seasonal precipitation totals were between 11 and 13 inches, yielding seasonal precipitation surpluses of 1 to 3 inches at the three major airports. In September, precipitation totals between 2.00" and 3.25" were reported at the three major airports, marking the seventh month of 2002 with subnormal precipitation at DCA and yielding the fourth driest January through September period (20.54"; Dep. Nml: -9.89") in Washington. The local area did receive beneficial rains on the 1st and 26th. Both storm systems provided a steady, soaking rain although amounts varied considerably across the local area. On September 1st, IAD (on the western edge of the rainfall) recorded only 0.39" while just to the northeast, portions of Montgomery County, MD received over two inches of rain. Farther east, more than 8 inches of rain soaked portions of Maryland's Eastern Shore, generating localized flooding. On the 26th, up to 1.62" of rain was observed at IAD. Showers associated with the remnants of Tropical Storm Isadore the next day, yielded nearly another 0.50" of precipitation at IAD while to the east, a two-day (26th & 27th) combined total of less than an inch was recorded at DCA. In sharp contrast to the previous four October's, much above-normal rainfall highlighted weather conditions across the local area. Monthly precipitation totals between five and seven inches were common throughout the Washington/Baltimore area, yielding monthly precipitation surpluses between 1 and 3 inches at the three major airports. It was the wettest October since 1995 and the wettest month since July 2000 at DCA. At ADW, 6.64" of rain was recorded. The excessive rainfall was due in large part to an active storm track across the southern U.S. that provided copious amounts of moisture from the Gulf of Mexico and Atlantic Ocean, resulting in significant rainfall even with fast moving storms. The month actually started off with no measurable rainfall until the 9th. On the 10th-11th, the first major storm system of the month moved through the local area, generating more than an inch of rain at DCA and nearly 2 inches at BWI. Five days later a second storm impacted the area, producing 1.65" of rain at BWI and 1.38" at DCA. A quick moving storm during the overnight hours of the 25th-26th produced heavy rain across much of the local area. BWI again received the most rain (1.13") of the three major airports. The last significant rainfall of the month occurred from the 29th-30th. More than an inch of rain soaked much of the local area, including all three major airports. The much needed rainfall provided beneficial water to local streams and reservoirs and trimmed long-term precipitation deficits plaguing much of the local area. The wet weather pattern continued through the first 3 weeks of November as four significant precipitation events generated more than 4 inches of rain at many locations, yielding the wettest November since 1997 at both DCA and IAD and the wettest such month since 1995 at BWI. [* Courtesy of observer: S. Rossen]

AUTUMN 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)	67.3	51.8	59.6	59.4	+0.2	92/9-4	27/11-28*	11.44	10.04	+1.40
Baltimore (BWI)	66.0	47.2	56.6	56.1	+0.5	90/9-10	22/11-28	12.96	10.26	+2.70
Dulles (IAD)	66.1	46.0	56.1	55.9	+0.2	91/9-10	21/11-28	12.02	10.50	+1.52
Andrews AFB (ADW)	66.2	48.8	57.5	N/A	N/A	90/9-4	21/11-28	13.46	10.2	+3.3

Other Occurrences: * November 29th.

LOOKING AHEAD TO DECEMBER: Another Winter month (December-February) with warmer than normal temperatures?

Since the winter of 1996-97, there has only been one winter month (December 2000) with subnormal temperatures at DCA. The question arises whether December 2002 will mark the 18th winter month out of the last 19 with warmer than normal weather. Below is a list of winter month's since the winter of 1996-97 at DCA. [At DCA: Normal Dec. Avg. Temp.: 39.5°F; Normal Jan. Avg. Temp.: 34.9°F; Normal Feb. Avg. Temp.: 38.1°F].

Winter	Dec. Avg. T.(°F)	Dec. Dep. Nml.(°F)	Jan. Avg. T.(°F)	Jan. Dep. Nml.(°F)	Feb. Dep. Nml.(°F)	Feb. Avg. T.(°F)
1996-97	43.0	+3.5	37.0	+2.1	44.7	+6.6
1997-98	41.0	+1.5	43.0	+8.1	43.4	+5.3
1998-99	44.4	+4.9	38.1	+3.2	40.9	+2.8
1999-2000	42.0	+2.5	35.8	+0.9	42.4	+4.3
2000-01	31.8	-7.7	35.5	+0.6	40.9	+2.8
2001-02	45.5	+6.0	41.6	+6.7	42.6	+4.5

