

**DECEMBER 2001:** The unseasonably warm and dry conditions which prevailed during October and November continued throughout most of the final month of 2001. In fact, it was the third warmest (tied w/ 1982 & 1971) December on record at DCA, fourth warmest at IAD and sixth at BWI. Monthly temperatures averaged more than 6°F above normal at DCA and more than 5°F above normal at both BWI and IAD. At or above-normal temperatures were observed during the first 24 days of the month at DCA and included record daily highs on the 1<sup>st</sup> and 5<sup>th</sup> at all three major airports. DCA finally recorded its first 32°F or lower reading of the season on the 22<sup>nd</sup>, the latest such reading ever recorded. Much colder air infiltrated the region during the last week with subnormal temperatures reported on 5 of the last 7 days. In addition, highs in the thirties were observed on 4 days and lows dipped into the twenties each night. On the 30<sup>th</sup>, the maximum temperature of 32°F was the first 32°F or lower high at DCA since February 22<sup>nd</sup>.

Dry conditions continued across most of the Washington/Baltimore area. Monthly precipitation totals were between 1.50" and 1.75" (about 50% of normal) at the three major airports. Two storms systems accounted for about most of the monthly precipitation totals. On the 8<sup>th</sup>, about half an inch of rain fell on most locations. DCA recorded 0.57" on this day, marking the first daily precipitation total above 0.50" since August 23<sup>rd</sup>. On the 10<sup>th</sup>-11<sup>th</sup>, just under 0.50" was observed at many locations. Rainfall was also observed 12<sup>th</sup>-14<sup>th</sup>, 17<sup>th</sup>-18<sup>th</sup>, and 23<sup>rd</sup>-24<sup>th</sup> but amounts from each event were generally less than 0.25". It was the fourth consecutive drier than normal month at DCA, resulting in the driest year since 1991 (29.99" total) at the airport. No snowfall was reported at any of the major airports during the month. In fact, it was the 12<sup>th</sup> consecutive December with subnormal snowfall in Washington.

### DECEMBER 2001 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
National (DCA)	53.2	37.7	45.5	39.4	+6.1	75/5*	22/31	1.53	3.12	-1.59
Baltimore (BWI)	51.7	32.5	42.1	36.7	+5.4	75/5	15/31	1.73	3.41	-1.68
Dulles (IAD)	51.9	30.8	41.3	35.4	+5.9	77/5	15/28#	1.56	3.22	-1.66
Ft. Belvoir (DAA)	M	M	M	N/A	N/A	M	M	M	3.3	M
Andrews AFB (ADW)	53.0	32.7	42.9	N/A	N/A	79/5	12/31	1.62	3.4	-1.8

Other Occurrences: \* December 6<sup>th</sup>; # December 31<sup>st</sup>.

**ANNUAL 2001:** Above-normal annual temperatures prevailed across most of the Washington/Baltimore area with departures between +0.5°F and +1.5°F above normal at the three major airports. The year started with slightly warmer than normal conditions across the Washington/Baltimore area although persistent cold prevailed early in the month. January temperature departures between +0.9°F and +1.4°F were observed at the three major airports. There were 18 January days with at or above-normal temperatures and no days with subfreezing highs at DCA. The final month of meteorological winter was highlighted by much above-normal conditions, with monthly temperature departures exceeding +3°F at the three major airports. It was the 5<sup>th</sup> consecutive warmer than normal February. Meteorological spring began with a persistent pattern of colder than normal weather across the Washington/Baltimore area, yielding the coldest March in five years at the three major airports and monthly temperature departures between -2°F and -4°F. There were 11 days with lows at or below freezing (the most such March days since 1993), only 4 days when highs topped 60°F at DCA and no days with highs at or above 70°F (the first such occurrence in March since 1993). April was highlighted by above-normal temperatures across the Washington/Baltimore area and monthly temperatures between +1°F and +2.5°F at the three major airports. There were several days that featured some significant daily temperature variations. On April 9<sup>th</sup>, highs soared close to 90°F at many locations, but the most prolonged period of warmth occurred from the 22<sup>nd</sup>-24<sup>th</sup> as highs topped 80°F each day. The final month of Spring featured near-normal temperatures across the Washington/Baltimore area. Summer commenced with near-normal temperatures in June. There were 18 days with at or below normal temperatures at DCA, marking the fifth consecutive cooler than normal June at the airport. DCA recorded its first 90°F+ reading of the year on June 13<sup>th</sup>, the last of the three major airports to reach this mark. A brief period of hot and humid weather prevailed at the end of the month with highs at or above 90°F. A persistent pattern of cool weather prevailed across the local area during July, yielding the fifth coolest back-to-back Julys (2000 and 2001) ever recorded in Washington and the second coolest July on record at BWI (July 2000 was coolest). Monthly temperatures averaged more than 4°F below normal at both DCA and BWI. There were no prolonged periods of heat and/or humidity. In addition, there were only 7 July days when the mercury exceeded 90°F at DCA. August featured the warmest weather of the summer and the longest period of heat and humidity of the season. On the 6<sup>th</sup>-10<sup>th</sup> highs soared well into the nineties across the local area and combined with high levels of humidity produced uncomfortable conditions and occasionally heat indices above 105°F. Subnormal temperatures prevailed during September with monthly temperature departures between -1.7°F and -3.3°F at the three major airports. It was the 11<sup>th</sup> September out of the last 12 with subnormal temperatures and the coolest back-to-back (2000 & 2001) Septembers since 1962 & 1963 at DCA. Near-normal temperatures prevailed across the Washington/Baltimore area during October. In November and December, abnormal warmth enveloped the Washington area with monthly departures, yielding the warmest November ever recorded and the third warmest December on record in Washington.

Subnormal annual precipitation was observed across most of the local area with yearly precipitation deficits between 3 and 9 reported at the three major airports. The year began with slightly below normal January precipitation with monthly totals between two and three inches. It was the driest January since 1985 at DCA. Monthly snowfall between 2 and 6 inches was observed at the major airports with a few higher amounts (up to 10") reported well north and west of Washington/Baltimore area. Subnormal precipitation also occurred during February across much of the local area with monthly precipitation totals under two inches recorded at both DCA and IAD. Snowfall totals also fell short of monthly averages with only 2.8" measured at DCA and 3.7" at both BWI and IAD. It was the 13<sup>th</sup> February out of the last 14 with subnormal snowfall and the 5<sup>th</sup> consecutive winter with less than normal snow totals at DCA. Meteorological spring began with above-normal March precipitation at most locations. March was the first wetter than normal month at most locations since September 2000. Despite the chilly March conditions, snowfall was sparse with monthly totals of an inch or less recorded at the three major airports. Much drier conditions prevailed across the region during April with monthly precipitation totals generally under two inches at most locations. Both BWI and DAA recorded their driest April since 1985, with 1.32" and 1.17", respectively. No measurable rainfall occurred across much of the local area from the 19<sup>th</sup> through month's end. The dry weather along with rapid spring growth resulted in some of the highest pollen readings (1500+ pollen grains per cubic meter) in a decade across the Washington/Baltimore area. Most of the May precipitation fell during a 10-day period (18<sup>th</sup>-27<sup>th</sup>). Many locations recorded over 5 inches of rain during this period and monthly surpluses of an inch or more. The summer began with more than four inches of rain in June at many locations, including portions of Loudoun County, VA and Montgomery County, MD where monthly rainfall totals topped 5 inches. IAD recorded its wettest June since 1996. On June 15<sup>th</sup> - 16<sup>th</sup>, the remnants of Tropical Storm Allison generated showers and thunderstorms across the region and nearly 2 inches of rain at DCA (1.84") and about an inch at IAD (0.96"). Above normal July rainfall was reported at 4 of the 5 local airports (DCA, BWI, IAD and ADW) with monthly precipitation totals exceeding four inches across most of the area. Precipitation totals topping six inches were reported across portions of southern Maryland and at ADW (6.18"). Once again, wetter than normal conditions prevailed across most of the local area during August, with monthly precipitation above 4 inches common at many locations. The autumn season commenced with subnormal September precipitation across most of the local area. In fact, less than a 1.50" of rain fell at both DCA and BWI. DCA reported its driest September since 1990. Of the three major airports, only IAD observed above-normal September precipitation due in large part to a daily record rainfall (2.17") on the September 24<sup>th</sup>. On this same day, some of the strongest tornadoes to hit the region in more than 70 years caused extensive damage across parts of the Washington/Baltimore area. The strongest tornado (F3; winds up to 206 mph) battered College Park and Laurel, MD during the late afternoon. According to press reports, the tornado claimed the lives of two people, injured dozens more and caused tens of million dollars in damage, including more than \$10 million to the campus of the University of Maryland. It was the deadliest September tornado outbreak in Prince Georges County since 1880. Very dry conditions prevailed during October. Measurable precipitation fell on only four October days at both DCA & BWI and 3 days at IAD, yielding less than an inch of rainfall at both DCA & BWI and about 1.50" at IAD. Very dry weather continued into final month of Autumn with most locations recording less than an inch of rain. In fact, it was the driest November in 20 years at the three major airports. During the first 19 November days, only 0.01" was recorded at DCA, BWI and IAD. It was the third consecutive month without a daily precipitation total at or above 0.50" at DCA. Drier than normal conditions persisted in December with less than 2 inches of rain at the three major airports and no snowfall.

### ANNUAL 2001 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	Snow
National (DCA)	67.4	49.6	58.5	58.0	+0.5	97/8-8	20/1-3	29.99	38.63	-8.64	5.4
Baltimore (BWI)	66.5	45.1	55.8	55.1	+0.7	98/8-9*	14/1-3	34.63	40.76	-6.13	6.4
Dulles (IAD)	66.7	43.9	55.3	53.8	+1.5	97/8-9	11/1-22#	36.94	40.24	-3.30	9.8
Ft. Belvoir (DAA)	M	M	M	N/A	N/A	M	M	M	41.7	M	M
Andrews AFB (ADW)	65.1	44.5	54.8	N/A	N/A	95/8-10	14/1-5@	36.65	42.5	-5.9	5.9

Other Occurrences: \* August 10<sup>th</sup>; # January 23<sup>rd</sup>; @ January 22<sup>nd</sup>.

#### LOOKING AHEAD TO JANUARY: No December snowfall = Subnormal Winter Snowfall?

December 2001 marked only the sixth December since records began that no snowfall (0.0") was observed in Washington. With that in mind, the question arises whether Decembers with no snowfall were followed subnormal winter (December-February) snowfall. Below is a list of the Decembers with no snowfall along with the corresponding winter snowfall totals. [Normal December- February snowfall based on 1971-2000 normals is: 15.6"]

December	December Snowfall Total	Winter Snowfall Total	December	December Snowfall Total	Winter Snowfall Total
1888	0.0"	8.5"	1991	0.0"	6.6"
1889	0.0"	1.5"	1994	0.0	9.7"
1972	0.0"	0.1"	2001	0.0	?