

**NOVEMBER 1993:** The month was highlighted by a couple of extreme weather events. First, a short-lived, yet slow-moving band of torrential rains began during the late afternoon of the 27th and ended with strong thunderstorms before daybreak on the 28th, producing the greatest 24-hour rainfall totals ever recorded in November at both DCA and IAD and the wettest 24-hour period since September, 1976 at DCA. The tremendous intensity of the rainfall, accompanied by strong southeasterly winds, flooded numerous roads, forced streams out of their banks, and flooded basements. Some notable 24-hour rainfall amounts from this storm included: 4.03" at DCA, 4.80" at IAD, 7.84" in Frederick, MD (State Police barracks), and 8+ inches across parts of Cumberland and Appomattox counties in Virginia (River Forecast Center reports). Fortunately, relatively dry weather prevailed during the first three weeks of the month, preventing extensive flooding and damage across the local area. Three minor storm systems generated less than an inch of rain across much of the Washington/Baltimore area during the first 26 days of November; however, the heavy rains of the 27th and 28th pushed monthly totals above normal at most locations. The first winterlike weather was observed at DCA when snow mixed with rain during the early morning hours of the 1st.

Another monthly weather extreme included mid-month record warmth across the local area. On the 15th, temperatures across the Washington/Baltimore area soared into the eighties, producing record daily highs at the three major airports (DCA, BWI, and IAD). The 83°F reading at DCA was also the highest temperature ever recorded so late in a year. Despite the mid-month warm spell, temperatures for the month were below normal at all five airports, due mainly to a very cold start to the month (10 of the first 11 days below normal) and unseasonably cool conditions at month's end. The first freeze of the season occurred at DCA on the 2nd when the mercury fell to 31°F, and there were four November days with readings at or below freezing.

**NOVEMBER 1993 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:**

Station Location	Temperatures (°F)					Extreme/Day		Precipitation (In)		
	AvMx	AvMn	AvgT	NmlT	DepNm	MaxT	MinT	Total	Norm	DepNm
National (DCA)	57.8	39.7	48.8	49.8	-1.0	83/15	30/21*	4.76	3.12	+1.64
Baltimore (BWI)	56.8	36.1	46.4	46.8	-0.4	79/15	25/21	3.09	3.32	-0.23
Dulles (IAD)	57.2	33.4	45.3	45.4	-0.1	81/15	21/21	6.28	3.30	+2.98
Ft. Belvoir (DAA)	57.7	34.5	46.1	47	-1	84/15	22/21	5.68	3.00	+2.7
Andrews AFB (ADW)	56.5	35.8	46.2	48	-2	79/15	24/21	4.36	3.30	+1.1

Other dates of occurrence: \* November 26th.

**AUTUMN (SEPTEMBER-NOVEMBER) 1993:** The Fall of 1993 was characterized by cool and wet conditions across most of the Washington/Baltimore area. While warmer than last autumn (the 2nd coolest since 1976), seasonal temperatures averaged 1°F below normal, with each month recording subnormal temperatures at DCA. The cool weather began in earnest in mid-September when the final 15 days averaged 4.0°F below normal. The month began with numerous hot and humid days, including 4 with readings at or above 90°F. Cool weather continued into October, with 19 days (61%) of at or below normal temperatures at DCA. The cool pattern continued through November, with numerous days failing to reach the normal daily maximum, and many lows dropping to near or below freezing. November commenced with unusually cold weather during the first week; however a mid-month warm spell provided a summerlike day on the 15th when the high hit 83°F at DCA, establishing a daily record high which was also the highest reading for so late in a year.

Seasonal rainfall was above normal at all five airports, but was most notable for two significant events. First, slow-moving torrential rains in late November dumped more than four inches of rain across much of the local area, with some reports of up to 8 inches in central Virginia and south-central Maryland. Secondly, severe thunderstorms battered portions of the Washington/Baltimore area in late September, generating heavy rains, damaging wind gusts, and two confirmed tornadoes in northern Virginia (Page and Fauquier counties).

**AUTUMN 1993 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:**

Station Location	Temperatures (°F)					Extreme/Mth-Day		Precipitation (In)		
	AvMx	AvMn	AvgT	NmlT	DepNm	MaxT	MinT	Total	Norm	DepNm
National (DCA)	67.9	50.6	59.3	60.3	-1.0	96/9-3	30/11-21*	11.06	9.45	+1.61
Baltimore (BWI)	66.8	47.0	56.9	57.3	-0.4	95/9-3	25/11-21	10.20	9.71	+0.49
Dulles (IAD)	67.6	44.5	56.1	55.9	+0.2	96/9-3	21/11-21	13.09	9.86	+3.23
Ft. Belvoir (DAA)	67.5	45.2	56.4	58	-2	95/9-1	22/11-21	14.23	10.0	+4.2
Andrew AFB (ADW)	66.4	46.3	56.4	58	-2	95/9-2	24/11-21	10.76	10.2	+0.6

Other dates of occurrence: \* November 26th.

**LOOKING AHEAD TO DECEMBER: Subnormal December Snowfall Again?**

Since 1974, there have only been two Decembers (1982 & 1989) with above normal snowfall at DCA. In 1991, there was no recorded snowfall at DCA, the first such occurrence since 1972. Below is a list of December snowfall from 1974-1992 at DCA [Normal December Snowfall at DCA: 3.4"]:

Year	Snowfall (In.)	Year	Snowfall (In.)	Year	Snowfall (In.)	Year	Snowfall (In.)
1992	1.0	1987	Trace	1982	6.6	1977	0.2
1991	0	1986	Trace	1981	1.7	1976	0.6
1990	3.0	1985	0.7	1980	0.3	1975	0.4
1989	9.0	1984	0.3	1979	Trace	1974	0.1
1988	1.2	1983	Trace	1978	Trace		