FEBRUARY 1998: The final month of the meteorological winter followed in January's footsteps as warmer and wetter than normal conditions continued across the Washington/Baltimore area. Monthly temperature departures exceeding +5.5°F were reported at the three major airports. Milder than normal conditions persisted throughout the month as highs topped 40°F every day at DCA and lows of 32°F or lower were reported on only 7 days (the fewest such days ever recorded in February). Despite the abnormal mildness, there were no record highs reported at any of the three major airports. At or above normal temperatures were recorded on all but 2 days at DCA, including the last three days of the month when 60°F+ highs were observed across the local area. With no intrusions of Arctic air during February, temperatures rarely fell below freezing at DCA. In fact, average minimum temperatures averaged more than 7°F above normal at DCA, BWI and IAD. The lowest readings of the month occurred on the 15th as the mercury dipped into the upper teens in the northern and western suburbs and the upper twenties in Washington.

Although wetter than normal conditions were observed across the local area, there was no significant snowfall. Monthly precipitation totals exceeded five inches at all five airports, with both BWI and DAA recording more than six inches, but monthly snowfall at 4 of the 5 airports was less than 0.1". IAD reported the wettest February (5.81") on record while both DCA and BWI observed the wettest such month in nearly 20 years with 5.21" and 6.40", respectively. A strong and slow moving Nor'easter generated soaking rains, more than two inches of rain was observed at DCA, BWI and IAD, strong wind gusts and some urban flooding on the 4th & 5th across the local area. Farther east, coastal areas received another battering from this storm, with more beach erosion, flooding and some property damage. On the 17th, strong thunderstorms moved through the region, generating heavy rains, frequent lightning, downed trees & power lines and a rare (6th such occurrence since 1950) winter tornado (F1) near Fredericksburg, VA. Another storm system on the 23rd and 24th produced another inch of rain across most of the local area.

FEBRUARY 1998 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

Station	Temperatures (°F)					Extreme/Day		Precipitation (In)			
Location	AvMx	AvMn	AvgT	NmlT	DepNml	MaxT	MinT	Total	Norm	DepNml	Snow
National (DCA)	50.1	36.6	43.4	37.5	+5.9	62/28	27/15	5.21	2.71	+2.43	T
Baltimore (BWI)	50.3	33.0	41.7	34.8	+6.9	61/18*	20/15	6.40	3.12	+3.35	T
Dulles (IAD)	49.9	32.0	41.0	33.6	+7.4	62/19	19/15	5.81	2.81	+3.00	0.7
Ft. Belvoir (DAA)	54.3	36.3	45.3	N/A	N/A	64/26#	25/15	6.97	3.0	+4.0	T
Andrews AFB (ADW)	49.1	33.6	41.3	N/A	N/A	64/26	21/15	5.01	3.3	+1.7	T

Other Occurrences: * February 27th; # February 27th & 28th.

WINTER (DECEMBER-FEBRUARY) 1997-98: The Winter of 1997-98 will be remembered as one of the mildest, wettest and least snowy in the Washington/Baltimore area, due in part to the strong El Nino episode. A very active subtropical jet stream provided abundant moisture and energy for numerous storm systems that moved through the local area. In addition, the polar jet was displaced well to the north (across Canada) most of the Winter, so outbreaks of cold Arctic air in our area were non-existent. The result: mild weather & abundant moisture that fell as rain. Seasonal temperature departures were more than +5°F at all three major airports, producing the warmest Winter on record at both BWI and IAD and the second warmest at DCA (fourth overall in Washington). There were 75 days (83%) with at or above normal temperatures at DCA, including 13 days with 60°F+ highs and no days with highs of 32°F or lower. In sharp contrast, there were only 26 days with lows of 32°F or lower at DCA (the fewest such winter days ever recorded), with most of these occurring in December. In fact, December was the coldest of the three months, with monthly temperature departures between +1°F and +2°F common across the local area. There were 20 days with warmer than normal conditions and 2 days with 60°F+ highs at DCA. In addition, there were only 11 days with lows of 32°F or less. December ended and January began in the Washington/Baltimore area with the coldest air of the winter. Highs both days remained in the thirties. After that, there were no extended periods of abnormally cold weather. Instead, an unusual January mild spell commenced on the second and continued through the 9th. DCA observed a record eight consecutive January days with 60°F+ highs and at or above normal temperatures on 29 of the last 30 days. Record daily highs were reported at IAD on four consecutive days (6th-9th), tied or established on three days (4th, 8th & 9th) at BWI and once at DCA (8th). The abnormal warmth even prevailed at night as lows only dropped into the forties and fifties from the 6th-9th, including a low of 57°F at DCA on the 8th. In addition, lows on the 7th and 8th at IAD (61°F & 62°F, respectively), broke the previous record highs for that location. Somewhat cooler weather prevailed the rest of the month, but when January (climatologically the coldest month of the year) ended, monthly temperature departures were more than +8°F at DCA and just above +9°F at both BWI and IAD (second warmest such month on record at both locations). February was similar to January, with abnormally warm mild conditions (26 of 28 days with at or above normal temperatures at DCA). There were 3 days with 60°F+ highs, but none with record daily highs. Monthly temperature departures were between +5.9°F at DCA and +7.4°F at IAD, producing the 3rd warmest February on record at both BWI and IAD.

Very wet conditions, with only negligible amounts of snow, were observed across the Washington/Baltimore area this winter. Seasonal precipitation totals over 1 foot (about 150% of normal) were observed at the three major airports, producing the second wettest winter on record at both BWI and IAD. Oddly enough, most of the seasonal total fell during the last half of Winter [only 2.16" (17% of seasonal total) was measured between December 1st 1997 and January 14th, 1998at DCA]. Despite the abundant winter moisture, there was very little snowfall in the Washington/Baltimore area. In fact, it was the least snowiest meteorological winter ever observed in Washington (0.1" - tied with 1972-73) and at BWI (1.1"). Some of the northern and western suburbs did record somewhat higher amounts (5.9" at IAD), but seasonal snowfall totals were still well below normal. During December, only 1.74" of precipitation fell at DCA (the lowest December total since 1988), and IAD reported its 10th driest such month (1.92") on record. Less than 0.50" fell during the first 3 weeks at both DCA and BWI. However, December provided most of the season's snowfall across the local area. In fact, the 0.1" at DCA on the 9th turned out to be the only measurable snowfall in Washington this winter. The most significant December snowfall for many areas came on the 29th and 30th as a strong storm system moved through the mid-Atlantic region. This storm blanketed most of the northern and western suburbs with 1-3 inches and up to 2 feet in the Shenandoah Valley and central Appalachians. The monthly total of 0.1" at DCA, marked the eighth consecutive December with subnormal snowfall. January commenced with rather dry conditions as less than 0.50" was observed at both DCA and BWI through the first two weeks. However, a series of coastal storms moved through the region during the latter half of the month and continued through February, bringing unusually wet weather. On January 15th, about an inch of rain fell locally, after briefly starting as mixed precipitation. About a week later, heavy rains deluged the area, producing nearly two inches of rain and daily rainfall records at DCA, BWI, and IAD. Quick on its heels, a powerful Nor'easter on the 27th-28th generated about two inches of rain locally, over three feet of snow in portions of the central and southern Appalachians, gale force winds, beach erosion, and property damage along the mid-Atlantic coast. A storm system with similar intensity during the first week of February, generated another two inches of rainfall locally, strong winds (causing some property damage and beach erosion along coastal areas) and heavy snows in the Appalachians. Around mid-month, a slight westward shift in the storm track yielded springlike weather across the local area. On the 17th, strong thunderstorms developed along and ahead of a cold front as it pushed through the local area. The storms were accompanied by intense cloud-to-ground lightning, and heavy rains, which resulted in scattered power outages and spawned an (F1 - winds near 100 mph) tornado near Fredericksburg, VA. The final week of Winter featured another soaking rainfall with precipitation totals over an inch recorded across most of the local area, pushing seasonal totals over 12 inches at DCA.

ANNUAL 1997 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

Station	Temperatures (°F)					Extreme/Month-Day		Precipitation (In)			
Location	AvMx	AvMn	AvgT	NmlT	DepNml	MaxT	MinT	Total	Norm	DepNml	Snow
National (DCA)	49.4	35.5	42.5	37.2	+5.3	69/1-8	18/1-1	13.28	8.55	+3.83	0.1
Baltimore (BWI)	48.9	31.6	40.3	34.5	+5.8	68/1-4	17/1-1	14.10	9.58	+4.52	1.1
Dulles (IAD)	48.2	30.6	39.4	33.2	+6.2	69/1-8	10/1-1	13.16	8.73	+4.43	5.9
Ft. Belvoir (DAA)	52.3	34.4	43.3	N/A	N/A	72/1-5	16/1-1	15.32	9.1	+6.2	T
Andrews AFB (ADW)	48.3	32.6	40.4	N/A	N/A	68/1-4*	18/1-1	14.09	9.3	+4.7	T

Other Occurrences: January 8th.

LOOKING AHEAD TO 1998: ***Warmer than normal Winter = Cooler than normal Spring'***

After the fourth warmest winter on record in Washington, our thoughts turn to Spring and whether the warmer than normal conditions will continue. Below is a list of the ten warmest winters and the corresponding Spring average temperature and seasonal departure. [Normal Spring Average temperature at DCA: 56.8°F].

Winter	Avg. Temp. (°F)	Spring	Avg. Temp. (°F)	Dep. Nml (°F)
1931-32	44.6	1932	52.3	-4.5
1889-90	44.3	1890	52.9	-3.9
1949-50	42.9	1950	52.9	-3.9
1997-98	42.5	?	?	?
1948-49	42.2	1949	55.9	-0.9
1990-91	42.0	1991	60.0	+3.2
1996-97	41.6	1997	55.2	-1.6
1974-75	41.5	1975	56.2	-0.6
1879-80	41.3	1880	55.9	-0.9
1973-74	41.3	1974	57.5	+0.7