

MAY 1998: The final month of the meteorological Spring was marked by above normal temperatures and precipitation across most of the Washington/Baltimore area. Like both March and April, most of the monthly precipitation fell during the first part of the month (96% at DCA) and was followed by an extended period of dry weather. In fact, 11 of the first 12 days featured measurable precipitation ($\geq 0.01"$) at both DCA and IAD (12 of 12 days at BWI). During this period, 3-4 inches of precipitation were recorded at many locations, including the three major airports. While no severe weather was reported, strong thunderstorms on the 5th generated small hail in some areas. The last 19 days of May produced less than 0.25" of precipitation at both DCA and BWI.

Monthly temperatures averaged between 1°F and 4°F above normal across the Washington/Baltimore area due in large part to milder than normal nights. In fact, average maximum temperatures were slightly below normal at DCA while average minimum temperatures were 2.5°F warmer than normal and more than 5°F above normal at IAD. There were 19 days with at or above normal temperatures at DCA. In addition, the first 90°F+ reading of the year was observed at DCA (90°F on the 19th), BWI (92°F on the 16th) and IAD (90°F on the 16th). It was the third consecutive year that the first 90°F+ reading at DCA occurred on the 19th of May. Similar to March, summerlike warmth enveloped the local area during the last week of the month with highs at or above 90°F at many locations during the final weekend. In addition, the heat was accompanied by relatively high humidity and poor air quality.

MAY 1998 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

| Station Location | Temperatures (°F) | | | | | Extreme/Day | | Precipitation (In) | | | |
|---------------------|-------------------|------|------|------|--------|-------------|--------|--------------------|------|--------|------------|
| | AvMx | AvMn | AvgT | NmlT | DepNml | MaxT | MinT | Total | Norm | DepNml | Yr to Date |
| National (DCA) | 75.8 | 59.1 | 67.5 | 66.4 | +1.1 | 91/19 | 50/14 | 4.06 | 3.66 | +0.40 | 24.06 |
| Baltimore (BWI) | 77.2 | 55.7 | 66.5 | 63.4 | +3.1 | 92/16 | 43/14 | 3.46 | 3.72 | -0.26 | 24.10 |
| Dulles (IAD) | 76.7 | 55.2 | 65.9 | 62.2 | +3.7 | 91/19 | 45/14* | 4.52 | 4.02 | +0.50 | 24.28 |
| Ft. Belvoir (DAA) | 80.7 | 59.0 | 69.9 | N/A | N/A | 97/30 | 46/14 | 4.73 | 3.8 | +0.9 | 27.55 |
| Andrews AFB (ADW) | 76.1 | 56.6 | 66.3 | N/A | N/A | 93/30 | 46/15* | 5.03 | 4.0 | +1.0 | 25.84 |

Other Occurrences: * May 24th; * May 15th & 16th.

SPRING (MARCH-MAY) 1998: Spring was highlighted by warmer and wetter than normal conditions across the local area. In fact, it was the warmest Spring since 1991 at DCA, BWI and IAD. The season began with subnormal temperatures during most of March, including the most prolonged period of cold weather since late December 1997 as a blast of frigid Arctic air gripped the area around mid-month. The cold air outbreak produced three consecutive days with average temperatures at or below 32°F (the first such occurrence since January 1997) across the local area. DCA recorded highs of 34°F and 37°F on the 11th and 12th, and a high of only 41°F on the 13th. Lows dipped into the teens and twenties during this period. There were 19 March days with subnormal temperatures and 10 days with at or below freezing lows (more than both January (7) and February (8)). Exceptional warmth during the last week of the month erased almost all of the temperature deficit incurred during the first 25 days of the month. Temperatures more typical of June and July were observed from March 26th-31st as highs soared above 80°F on the last five days of the month. During this period, a new all-time record March high was established at BWI and tied at IAD on the 30th (89°F at both locations). The summerlike warmth was short-lived, but slightly above normal temperatures prevailed during April. This was due in part to numerous cloudy days (and nights) that limited daily variations in temperature. Temperature departures between +1°F and +2°F were common across most of the area. Unlike past years, there was no widespread hard freeze during the month, although several scattered frosts were observed mainly in suburban locations. One noteworthy monthly temperature event occurred during the evening of April 26th when a strong cold front ushered in much cooler conditions, producing a rapid temperature drop in a very short period of time. At DCA, the mercury plunged from 80°F to 50°F in a just a few hours. May was highlighted by a cooler than normal first half and a warmer than normal second half. In fact, temperature were about 1.5°F below normal during the first 14 days and about 3.5°F above normal over the final 17 days at DCA, due in part to very warm conditions at month's end. During the first half of the month cloud cover and rainy conditions dominated. On the 11th and 12th, a persistent northeast wind accompanied by rain kept highs in the fifties (about 20°F below normal). A few days later, warm weather enveloped the local region and dominated the remainder of the month.

Abundant seasonal precipitation fell across the Washington/Baltimore area with totals topping 1 foot at all 5 airports. Seasonal precipitation surpluses of 2-4 inches were common. The most noteworthy seasonal precipitation highlight was that most of each month's precipitation fell during the first part of the month and was followed by a prolonged period with little or no precipitation. In fact, DCA recorded 100% of the March precipitation total within the first 3 weeks and only a trace thereafter. In April and May, 96% of the monthly precipitation fell within the first 20 and 12 days, respectively. A very active subtropical jet, so prevalent during the last half of Winter, provided abundant moisture and energy for storm systems during the first three weeks of March. Monthly precipitation totals at many locations topped 5 inches for the third consecutive month. A storm system on the 2nd and 3rd produced more than 0.50" of rain across most of the area before changing over to wet snow across central and northern parts of the region. This storm system generated up to 6" of snow in Cecil County, Maryland, and 1.5" fell at BWI (the largest snowfall of the season and more than the 1997-98 Winter). A slow moving storm system drenched the area with up to three inches of rain from the 17th-21st and generated thunderstorms on the 20th. While April rainfall amounts were somewhat lower than in March, totals were significant enough to push January-April 1998 totals to 20.00" at DCA, 20.64" at BWI & 19.76" at IAD, the wettest on record at all three airports. Nearly an inch of rain was observed at DCA on April 1st and again on the 4th while more than an inch soaked most of the area on the 9th. Additional rainfall between the 17th and 20th produced another inch of rain at many locations. May began with an extended period of wetness as measurable precipitation ($\geq 0.01"$) fell on 11 of the first 12 days at DCA. Enough precipitation fell during this period to exceed monthly normals at both DCA and IAD. The most significant rains fell on the 1st, 2nd, 3rd, 7th and 12th at DCA with at least 0.30" reported on each of these days.

SPRING 1998 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

| Station Location | Temperatures (°F) | | | | | Extreme/Month-Day | | Precipitation (In) | | | |
|---------------------|-------------------|------|------|------|--------|-------------------|---------|--------------------|-------|--------|------|
| | AvMx | AvMn | AvgT | NmlT | DepNml | MaxT | MinT | Total | Norm | DepNml | Snow |
| National (DCA) | 65.9 | 48.6 | 57.3 | 56.8 | +0.5 | 91/5-19 | 20/3-12 | 13.42 | 9.54 | +3.88 | T |
| Baltimore (BWI) | 66.6 | 45.0 | 55.8 | 53.7 | +2.1 | 92/5-16 | 17/3-17 | 12.05 | 10.19 | +1.86 | 2.1 |
| Dulles (IAD) | 66.6 | 44.3 | 55.4 | 52.7 | +2.7 | 91/5-19 | 16/3-16 | 13.04 | 10.30 | +2.74 | T |
| Ft. Belvoir (DAA) | 70.4 | 47.9 | 59.2 | N/A | N/A | 97/5-30 | 19/3-13 | 13.91 | 10.7 | +3.2 | T |
| Andrews AFB (ADW) | 66.1 | 46.3 | 56.2 | N/A | N/A | 93/3-30 | 18/3-13 | 13.55 | 10.6 | +3.0 | T |

LOOKING AHEAD TO JUNE: Will the string of drier than normal June's at DCA end in 1998?

Through 1997, every June this decade has been marked by subnormal precipitation at DCA. In contrast, every month of 1998 has yielded wetter than normal conditions at DCA. With this in mind, the question arises whether 1998 will yield a ninth consecutive dry June or a sixth consecutive month with wetter than normal conditions? Below is a list of June total precipitation at DCA since 1990 along with corresponding departure from normal. [June Normal Precipitation at DCA: 3.38"]

| Year | Total Precipitation (In.) | Departure From Normal |
|------|---------------------------|-----------------------|
| 1990 | 3.14 | -0.24 |
| 1991 | 1.27 | -2.11 |
| 1992 | 2.35 | -1.03 |
| 1993 | 1.73 | -1.65 |
| 1994 | 1.59 | -1.79 |
| 1995 | 2.42 | -0.96 |
| 1996 | 3.14 | -0.24 |
| 1997 | 2.94 | -0.44 |