

AUGUST 2002: Prolonged periods of intense heat and humidity prevailed across the Washington/Baltimore area during August, yielding the fourth hottest August on record in Washington (5th at BWI, 2nd at IAD). There were 19 days with 90°F highs at DCA (17 at BWI, 19 at IAD) and 13 days with at or above 95°F readings (9 at BWI, 13 at IAD). In fact, there was a period of 8 consecutive days (12th-19th) with highs at or above 95°F at DCA, the most such consecutive days ever observed in August and only the third such occurrence, along with July 1987 & July 1993, in Washington. Highs peaked at 100°F on the 2nd and 13th, the first triple-digit readings and the most such 100°F+ readings in a single month since July 1999 at DCA. In sharp contrast, much cooler conditions (highs in the 60's and 70's) prevailed during the final week due in large part to clouds and rainfall that moved into the local area during the final four days of the month.

Subnormal precipitation prevailed across much of the local area, including the three major airports. This coupled with the abnormally hot weather exacerbated drought conditions across the local region. Most locations received little or no measurable rainfall from the 6th-27th. In fact, DCA recorded only 0.16" through the first 27 days. Some areas were more fortunate to receive rainfall early in the month, especially across Montgomery County, as thunderstorms on the 3rd provided over two inches of rain (some locations in the county recorded over 5 inches of rain for the month). Frequent lightning accompanied these storms as they passed through portions of Washington, DC and Frederick County, MD, claiming 2 lives according to press reports. In addition, damaging winds struck portions of northern Virginia as wind gusts up to 65 mph blew over two small planes and damaged a blimp at the airport in Manassas. A soaking rain towards the end of the month (the first since July 13th-14th) provided generous precipitation totals of more than two inches at many locations, including BWI (2.35"). Despite the beneficial late-month rains, the January-August 2002 precipitation deficits reached nearly six inches at both DCA & IAD and exceeded seven inches at BWI. A noteworthy event occurred on the 26th when four tornadoes (waterspouts) were spotted on the Potomac River and Chesapeake Bay near southern Charles County, MD. No damage was reported from these twisters, according to press reports.

AUGUST 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) | 90.4 | 71.8 | 81.1 | 77.4 | +3.7 | 100/2* | 61/28@ | 1.63 | 3.44 | -1.81 | 18.44 |
| Baltimore (BWI) | 88.9 | 67.9 | 78.4 | 74.5 | +3.9 | 99/13 | 56/8 | 3.36 | 3.74 | -0.38 | 21.28 |
| Dulles (IAD) | 89.5 | 66.5 | 78.0 | 74.4 | +3.6 | 99/2# | 52/8 | 2.92 | 3.78 | -0.86 | 22.55 |
| Andrews AFB (ADW) | 88.9 | 67.7 | 78.3 | N/A | N/A | 99/1^ | 57/7 | 2.81 | 4.4 | -1.6 | 20.89 |

Other Occurrences: * August 13th; @ August 29th; # August 4th; ^ August 2nd, 13th, 14th.

SUMMER (MARCH-MAY) 2002: Exceptionally hot and dry conditions prevailed across the Washington/ Baltimore area as Washington experienced its second hottest (tied with 1991) summer (fifth at both BWI and IAD) and subnormal seasonal rainfall worsened long-term drought conditions across the local region. Temperatures were well above-normal each of the summer months, yielding seasonal temperature departures of more than +2°F at the three major airports. There were 48 days with readings at or above 90°F at DCA, the most such summer days since 1988 and the fifth largest summer total ever recorded in Washington. Summer commenced with above-normal temperatures in June and monthly temperature departures between +1.5°F and +2.0°F at the three major airports. There were 17 days with at or above-normal temperatures and ten days with 90°F+ highs at DCA. It was the warmest June at DCA since 1996. From the 23rd- 27th, hot weather enveloped the local area, producing highs in the nineties at most locations. During most of this period, the combination of heat and high humidity produced heat indices above 100°F. Hot and humid conditions prevailed across the Washington/Baltimore region during July. Monthly temperature departures between +1.5°F and +2.5°F were reported at the three major airports, yielding the hottest July since 1999 at the three major airports. There were 19 days with 90°F+ highs, including eight days with readings at or above 95°F at DCA. The most prolonged period of heat occurred from the 15th-23rd with 90°F+ highs recorded each day at DCA. The intense heat was often accompanied by oppressive humidity, resulting in numerous days with excessive heat advisories or warnings as heat indices soared to 110°F. There were also several July days with poor air quality. Hot weather prevailed again during the final month of meteorological summer, yielding August temperature departures between +3.0°F and +4.0°F at DCA, BWI and IAD. Highs reached or exceeded the 90°F mark on 19 days and hit the century mark on two days.

Seasonal rainfall was below-normal across much of the local area. At DCA, only 7.64 inches of rain was recorded (about 75% of normal). The subnormal rainfall led to a worsening of long-term drought conditions across much of the Washington/Baltimore area. The summer began with variable amounts of rain across the local area during June. Monthly precipitation totals between 2" and 4" were common at most locations. At DCA, it was the wettest month since July 2001 as nearly four inches of rain (3.81"; Dep Nml.: +0.68") fell at the airport. In contrast, subnormal precipitation was observed at both BWI (2.39") and IAD (3.61"). Adequate topsoil moisture levels during the first half of the month, started to vanish toward month's end as less than 0.50" of rain fell at most locations during the final 10 June days. At BWI, only 0.08" of precipitation was observed after the 15th. Subnormal precipitation was observed at most locations during July with monthly precipitation totals of just over 2 inches common. There were only 6 days with measurable precipitation (≥0.01") at DCA. Two precipitation events (13th and 14th) accounted for the bulk of the July precipitation totals. Intense heat following both events quickly evaporated much of the moisture from the ground. The subnormal monthly rainfall contributed to the loss of more than 50% of Maryland's corn crop, according to press reports. August precipitation was also below-normal at the three major airports and for most of the local area. Very little rain fell during the first 27 days at most locations (only 0.16" of rain at DCA). In contrast, beneficial, soaking rains fell across the local area on August 28th and 29th, with many locations recording more than 2 inches of rain, yet monthly totals fell short of normal.

SUMMER 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) | 88.6 | 70.1 | 79.4 | 77.0 | +2.4 | 100/8-2* | 57/6-9 | 7.64 | 10.23 | -2.59 |
| Baltimore (BWI) | 87.7 | 66.1 | 76.9 | 74.3 | +2.6 | 100/7-4 | 53/7-12 | 8.01 | 11.02 | -3.01 |
| Dulles (IAD) | 87.1 | 64.7 | 75.9 | 73.7 | +2.2 | 99/8-2# | 47/7-12 | 9.18 | 11.42 | -2.24 |
| Andrews AFB (ADW) | 87.4 | 65.6 | 76.5 | N/A | N/A | 100/7-4 | 52/7-12 | 8.22 | 12.4 | -4.2 |

Other Occurrences: * August 13th; # August 4th.

LOOKING AHEAD TO AUTUMN: Some noteworthy seasonal statistics.

With a hot, dry summer behind us, we now look ahead to meteorological Autumn (September-November), the season that often produces some of the finest weather in Washington. Below is a list of some of the autumn extremes that have occurred in Washington since records began in 1871.

Temperature Extremes

Coldest: 1917 (Avg. Temp: 52.9°F; Dep. Nml.: -6.5°F)
Warmest: 1973 & 1931 (Avg. Temp: 63.1°F; Dep. Nml.: +3.7°F)
Extreme Minimum Temp.: 11°F (Nov. 30, 1929)
Extreme Maximum Temp.: 104°F (Sep. 7, 1881)
Most days with: lows < 32°F: 19 (1901); highs > 90°F: 14 (1980)

Precipitation Extremes

Wettest: 1934 (Tot. Prec.: 21.78; Dep. Nml.: +11.74)
Driest: 1930 (Tot. Prec.: 1.83; Dep. Nml.: -8.21)
Snowiest: 1987 (Tot. Snowfall: 11.5")
Most precipitation in one day (liquid): 5.16" (Sep. 2, 1922)
Most snowfall in one day: 11.5" (Nov. 11, 1987)

