



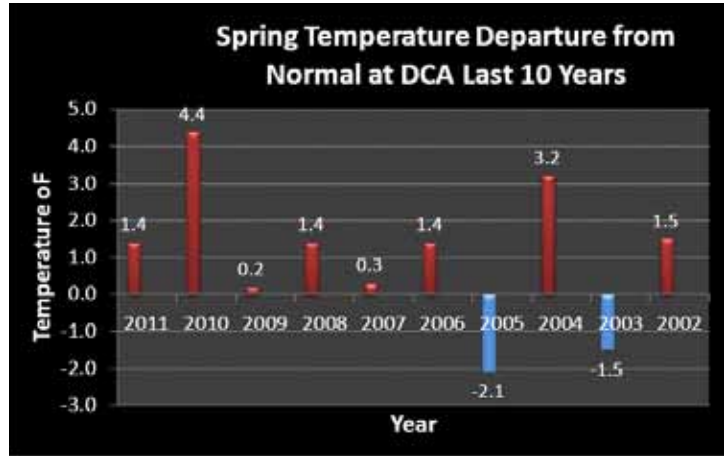
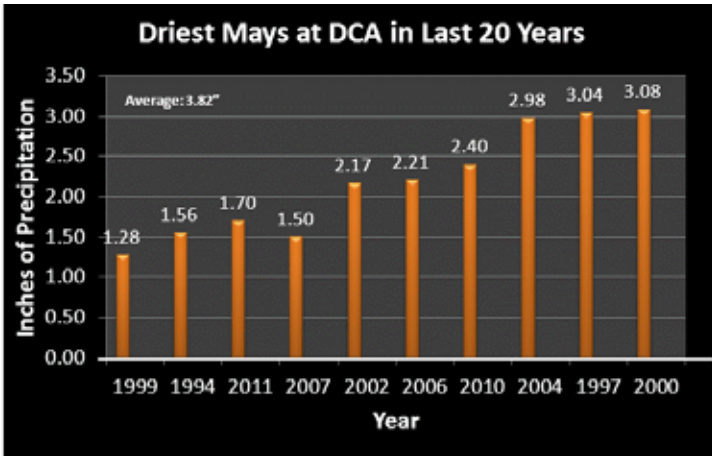
PRESTO

PREcipitation Summary and Temperature Observations
For the Washington, DC and Baltimore, MD Area



MAY 2011: Hot Finish to Warm Month

SPRING: Warm with Numerous Severe Weather Events



May Highlights

- Well above normal temperatures at the three major airports: +2.7°F at DCA; +4.3°F at BWI, and +4.0°F at IAD
- First 90°F or greater day of 2011 on 26th: 92°F at DCA, 91°F at BWI, and 90°F at IAD
- Scorchingly hot on 30th and 31st: DCA, 96°F on 30th, 98°F on 31st; tied for 2nd warmest May reading; BWI, 97°F on 30th, 98°F on 31st, tied record for at least 2 days in month with readings at or above 97°F
- IAD recorded 6th warmest May on record
- Two tornadoes on 17th: EF-1 (estimated wind speeds between 90-100 mph) near Maugansville (Washington County); EF-0 (estimated wind speeds to 75 mph) and near Wolfsville (Frederick County). Both storms caused some tree and property damage. Rainfall from the 13th-19th totalled 3" to more than 6" in parts of the Shenandoah Valley, Northern Virginia, Baltimore and Harford Counties and in Western Maryland
- Measurable rainfall on 7 consecutive days at IAD (13th-19th); third longest period on record

Spring Highlights

- Above normal spring temperatures across area: DCA +1.4°F; BWI +2.1°F, and IAD +2.9°F
- Second consecutive spring with well above normal temperatures at the three major airports
- Coldest period on record (March 23-31) at BWI and IAD, tied with 1883 in Washington; 8 days with highs in 40s at BWI; 7 such days at DCA and IAD
- Five consecutive subfreezing minimum temperatures at BWI from March 25-30
- On March 10, two tornadoes struck Northern Virginia: EF-1 (winds estimated at 90 mph) in Bealeton, (Fauquier County), EF-0 (winds estimated at 65 mph) in Chantilly (Fairfax County); property and tree damage but no fatalities or injuries
- Soaking rainfall across area on March 6 and 10 caused flooding and some road closures. On 6th, close to 3" fell in Fauquier and Nelson Counties in Virginia; IAD set a daily rainfall record of 2.30". On the 10th, rainfall totals of over 4.5" were measured in parts of Baltimore and Harford Counties in Maryland, resulting in a daily record of 2.61" at BWI
- Highs at or above 80°F on 7 days in April at all three major airports; most such hot days at BWI since 1985
- Region impacted by 18 tornadoes from April 27-28, including long track EF-2 (winds to 130 mph) that traveled more than 30 miles in the Shenandoah Valley, resulting in two injuries; 5 EF-1 tornadoes (wind speeds to 100 mph) with the strongest near Churchville, VA (Augusta County) and 12 EF-0 tornadoes (wind speeds to 80 mph) with the strongest in Reston, VA (Fairfax County) and near Town Creek and Green Ridge, MD (Allegany County). Widespread property and tree damage but no deaths or injuries.
- On April 16, the area was struck by severe weather and heavy rainfall. Four tornadoes, causing property damage, were reported, including two EF-1 tornadoes, one near Winfield, MD (Frederick/Carroll County, winds to 100 mph) and one near Stuarts Draft, VA (Augusta County, winds to 95 mph) as well as two EF-0 tornadoes, one near Union Mills, MD, (Carroll County, winds to 80 mph) and one near Leesburg, VA (Loudoun County, winds to 70 mph). Winds gusted to 58 mph at DCA. Flash flooding caused one fatality in Waynesboro, VA, when a child was swept into high waters. BWI reported 1.29" of rain and IAD, 1.24"

May 2011

Temperatures: The final month of meteorological spring featured well above normal temperatures throughout the area. Positive departures were +2.7°F at DCA, +4.3°F at BWI and +4.0°F at IAD. The first half of the month featured cool temperatures with both BWI and IAD recording 5 days with highs in the 60s and DCA, 3 such days. BWI equaled a record low of 40°F on the 6th. Summer-like readings were prevalent from the 21st through the end of the month with highs above 80°F at all three major airports. Hot conditions prevailed on the 26th when all three major airports reached 90°F or greater for the first time in 2011. The month ended with record high temperatures. On the 30th, BWI and IAD tied all-time highs for the date at 98°F and 94°F, respectively. The following day, BWI broke a record with a maximum reading of 97°F, while IAD again equaled a record at 94°F. IAD equaled a record high minimum of 67°F on the 29th; On the 30th, IAD broke it record high minimum with a 70°F reading.

Precipitation: Below normal rainfall was observed at many locations including the three major airports. Monthly totals were 1.70" (-2.12") at DCA, 2.42" (-1.47") at BWI and 3.28" (+0.94") at IAD. None of the airports recorded an inch or greater on any one day. The majority of the rainfall occurred from the 14th-19th when showers and thunderstorms, with some severe weather, impacted the area. The most significant outbreak occurred on the 17th with multiple tornadoes in Maryland. An EF-1 (estimated wind speeds between 90 mph-100 mph) near Maugansville (Washington County) had a path length of 2.1 miles with a maximum width of 200 yards; a second tornado near Wolfsville (Frederick County), rated EF-0 (estimated wind speeds to 75 mph) tracked 1.1 miles with a path width of 50 yards. Both storms caused some tree and property damage. Large hail was observed in portions of Virginia on the 18th including 1.5" near Passapatanzy (King George) and 1.0" near Fredericksburg (Spotsylvania County). Rainfall totals during this extended period in Virginia totaled 6.39" in Burtonville (Madison County), 3.66" in Mount Weather (Loudoun County) and in Maryland 4.68" in Jacksonville (Baltimore County) and 2.85" in Columbia (Howard County). Strong to severe thunderstorms also occurred in some areas on the 27th, including wind gusts to 60 mph in Gaithersburg, MD (Montgomery County) and 0.75" hail in the Adams Morgan area of D.C.

May 2011 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (Inches)			
	AvMx	AvMn	AvgT	NmlT	DepNml	Max	MinT	Total	Norm	DepNml	Yr to Date
National (DCA)	77.4	59.3	68.3	65.6	+2.7	98/31	46/5,6	1.70	3.82	-2.12	13.67
Baltimore (BWI)	77.4	57.0	67.2	62.9	+4.3	98/30	40/6	2.42	3.89	-1.47	16.28
Dulles (IAD)	76.5	56.1	66.3	62.3	+4.0	94/31	40/6	3.28	4.22	+0.94	17.64

SPRING 2011 (March-May) Temperatures: For the 6th consecutive spring at all three major airports, the region recorded above normal temperatures with positive departures of +1.4°F at DCA, +2.7°F at BWI and +2.9°F at IAD. March featured near normal temperatures despite large fluctuations throughout the month, including a record 81°F on the 18th at BWI. In sharp contrast, much below normal readings were observed from the 23rd through month's end, with highs in the 40s and low 50s. BWI reported 8 days during this period with maximum temperatures below 50°F, while DCA and IAD observed 7 such days. It was the first time since 1883 Washington recorded that many maximum March readings in the 40s and the first such occurrence at BWI and IAD during this time frame. April temperatures were well above normal. It was the warmest April at BWI since 1994. Maximum temperatures reached 80°F or greater on 7 days at the three major airports, the most since 2002 at DCA, and since 1985 at BWI, including 4 consecutive days: 24th-27th. On the 4th, BWI set a daily record high of 86°F; the 85°F reading at IAD set a new record and equaled the record at DCA. On the 27th, a record high minimum reading of 66°F occurred at DCA, while BWI's record high minimum occurred on the 26th (68°F). IAD set new record minimum on both days, 67°F on the 26th and 68°F on the 27th. May temperatures were above normal across the area (see monthly summary).

Spring Precipitation: Rainfall varied across the area with numerous episodes of severe weather. Seasonal departures were -0.89" at DCA, +0.09" at BWI and +3.57" at IAD. March was the first month with above normal rainfall at DCA since October 2010 and at BWI and IAD since September 2010. A storm system on March 6 produced well over an inch to nearly 3" across the region and some road closures, ending as wet snow in some suburbs. A second system on March 9-10, resulted in an EF-1 and EF-0 tornado in Northern Virginia. Flash flooding was prevalent throughout the region from the heavy rainfall, resulting in numerous road closures. Rainfall totals included 4.61" near Long Green, MD, and a daily record of 1.41" at IAD. April also saw above normal rainfall. On April 2, a cold pool of air aloft caused thunderstorms and up to 1.0" hail near Dale City, VA. On April 5, early morning thunderstorms spawned a EF-0 tornado near Northwood, VA, with winds to 65 mph, causing some property damage. On the 12th, 0.75" to 1.0" hail struck many locations in the Shenandoah Valley as well as flash flooding, while well over an inch rainfall soaked much of the metro area. The heaviest rain fell near Thurmont, MD, 4.08". On the 16th, four tornadoes, causing property damage, were reported, including two EF-1 tornadoes and two EF-0 tornadoes. Flash flooding caused one fatality in Waynesboro, VA, when a child was swept into high waters. April's largest severe weather event occurred on the 27th-28th when the storm system that ravaged much of the South spawned 18 tornadoes in the area. The strongest was a long track EF-2 tornado (winds to 130 mph) that traveled more than 30 miles in the Shenandoah Valley, resulting in a two injuries and property damage, according to reports. The tornadoes only resulted in property and tree damage; no injuries or deaths were reported. May was dry (see above).

Spring 2011 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (Inches)			
	AvMx	AvMn	AvgT	NmlT	DepNml	Max	MinT	Total	Norm	DepNml	Snow
National (DCA)	66.6	48.5	57.5	56.1	+1.4	98/5-31	27/3-3	9.30	10.19	+0.89	0.2
Baltimore (BWI)	66.4	46.4	56.4	53.3	+2.1	98/5-30	25/3-3	10.93	10.82	+0.09	T
Dulles (IAD)	66.4	45.4	55.9	53.0	+2.9	94/5-31	25/3-3,8	13.56	10.99	+3.57	0.1

Looking Ahead to May: Does a hot spring equal a hot summer? Below is a listing of the top 10 warmest springs and the subsequent summer temperatures at DCA.

Average Spring Temperatures at DCA and Subsequent Average Summer Temperatures										
Year	2011	2010	1991	2004	1945	1985	1921	1976	1979	1980
Spring	+1.4°F	+4.4°F	+3.9°F	+3.2°F	+3.2°F	3.0°F	+2.9°F	+2.6°F	+2.5°F	+2.5°F
Summer	?	+4.0°F	+2.4°F	-1.0°F	-1.8°F	-1.0°F	-1.6°F	+0.6°F	+3.0°F	+1.6°F