

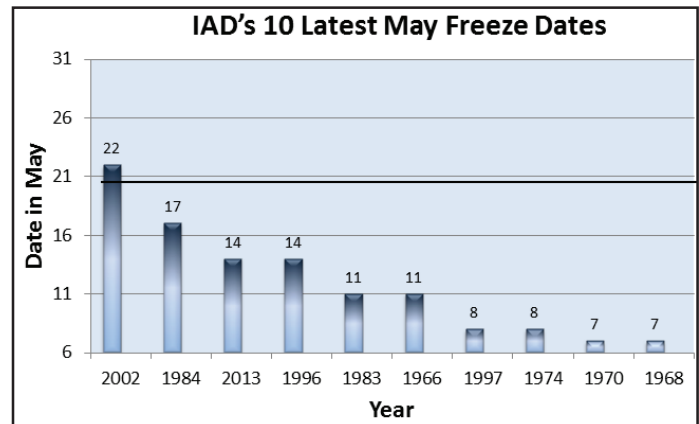
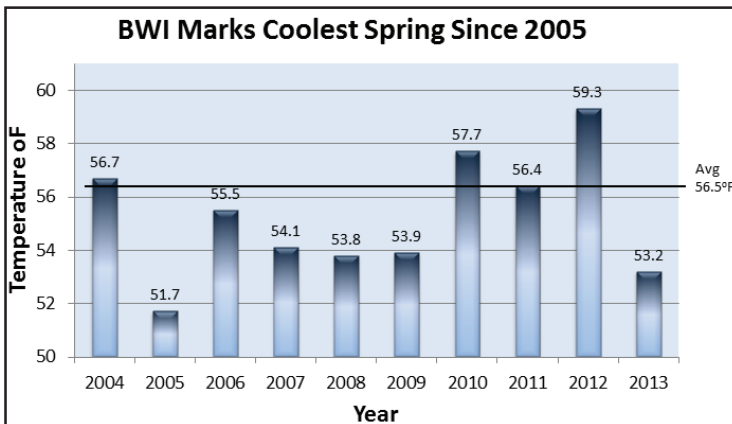


PRESTO

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



MAY 2013: Late Freeze at IAD; Some Severe Weather SPRING: Near Normal Temperatures, Drier than Normal



May Highlights

- ☛ Slightly above normal temperatures with positive departures of +0.7°F at DCA, +0.8°F at BWI and 0.3°F at IAD
- ☛ On 14th, IAD reported 32°F, equaling a record for the date and tying 1996 as the 3rd latest freeze on record
- ☛ First heat wave of the season (3 or more days with highs at or above 90°F) at DCA, 29th-31st
- ☛ On the 7th, torrential rainfall resulted in numerous flooded roads from swollen creeks in the Shenandoah Valley in VA; rainfall totals included 6.32" at Big Meadows (Madison County), 5.02" near Stanardsville (Greene County), and 4.93" near Fredericksburg (Spotsylvania County)
- ☛ On the 11th, a thunderstorm generated a downburst with wind gusts estimated at 85 mph near Churchville (Harford County), MD
- ☛ On the 23rd, torrential downpours from thunderstorms resulted in flash flooding near Damascus, (Montgomery County), MD; rainfall totals included 3.20" in Woodbine (Howard County) and 2.57" in Germantown (Montgomery County); 0.88" hail struck near Haneytown (Greene County) and a funnel cloud was observed near Winchester (Frederick County), VA

Spring Highlights

- ☛ Normal to near normal spring temperatures: DCA, 56.5°F (0.0°F), BWI, 53.4, (-0.2°F) and IAD 53.3 (-0.6°F)
- ☛ Subnormal spring precipitation: DCA, 8.38" (-2.15"), BWI 8.27" (-2.81") and IAD 8.66 (-2.74")
- ☛ DCA did not record a 65°F or greater maximum reading in March (63°F); first such occurrence since 1958
- ☛ On March 6th-7th, a coastal storm brought heavy snowfall across the Potomac Highlands: Totals in Virginia included 20.3" in Fisherville (Augusta County), 20.1" near Singers Glen (Rockingham County), and 20.0" near Linden (Warren County); in metro area, heaviest snowfall totals included 12.0" at Mt. Weather (Loudoun County), VA, 6.7" near Chantilly (Fairfax County), VA, and 5.8" near Manchester, (Carroll County), MD
- ☛ The season's largest snowfall fell on March 25th-26th: high snowfall totals included 5.5" near Long Green, MD, (Baltimore County) and 5.4" near Columbia (Howard County). In Virginia, totals included 6.9" in Marshall (Fauquier County) and 4.5" near Dunn Loring (Fairfax County). BWI and IAD set a daily snowfall record of 3.2" and 3.3" respectively. DCA's 1.4" was its first 1 inch or greater snow event since the Commuteageddon Storm on January 26, 2011, a record 788 days
- ☛ Very cold minimum readings on April 2nd-4th with subfreezing temperatures at many locations. BWI observed its first occurrence in April of 3 consecutive days with minimums in the 20s since April 5-8, 1982. IAD minimums of 24°F on the 3rd and 22°F on the 4th were its first occurrence of 2 consecutive days with minimum readings below 25°F in April since April 9-10, 1977
- ☛ Two tornadoes confirmed on April 19: EF-1 with estimated wind speeds of 90 mph struck Fredericksburg, VA, and EF-0 tornado struck Largo, MD, in Prince Georges County, with estimated wind speeds of 85 mph; in Spotsylvania County, VA, straight-line thunderstorm wind gusts were estimated to 80 mph. The severe weather caused property damage, uprooted trees and resulted in heaviest rainfall of month: 1.88" in Sykesville (Howard County) and 1.82" in Eldersburg, (Carroll County), MD. IAD's total of 1.20" broke a daily record, while DCA recorded wind gusts to 53 mph during a thunderstorm.

May 2013

Temperatures: The three major airports recorded slightly above normal temperatures: +0.7°F at DCA, +0.8°F at BWI and 0.3°F at IAD. The month featured a number of cool days. Maximum readings were below 70°F on 12 days at DCA, 13 at BWI and 14 at IAD. A late freeze occurred in some locations. IAD reported 32°F on the 14th, equaling a record for the date and tying 1996 as the 3rd latest freeze on record (see cover graphic). Meanwhile BWI also equaled a record low for the date at 34°F. In sharp contrast, the month ended with the first heat wave of the season (3 or more days with highs at or above 90°F) at DCA, 29th-31st. On the 30th, BWI peaked at 92°F while IAD reached 90°F. Maximum reading reached the 80s on 11 days at IAD, 10 days at DCA and 8 days at BWI.

Precipitation: Subnormal rainfall occurred at the three major airports. Monthly totals were 2.82" (-1.17") at DCA, 3.43" (-0.56") at BWI and 3.20" (-1.35") at IAD. Despite the relatively dry conditions, the region was impacted by a number of strong storms and some severe weather. On the 7th, torrential rainfall resulted in numerous flooded roads from swollen creeks in Virginia's Shenandoah Valley. Rainfall totals included 6.32" at Big Meadows (Madison County), 5.02" near Stanardsville (Greene County), and 4.93" near Fredericksburg (Spotsylvania County). In addition, 1.0" hail struck near Buffalo Springs (Nelson County). The following day, isolated severe storms occurred with 1.0" hail reported near Potomac (Montgomery County), and near Morrell Park (Baltimore City), MD; hail to 0.88" struck Middleburg (Loudoun County), VA.

A few days later, on the 11th, a thunderstorm downburst generated wind gusts estimated at 85 mph near Churchville (Harford County), MD. The Potomac Highlands and Northern Maryland were impacted by severe weather on the 22nd with 1.0" hail reported near Hancock (Washington County), MD; a 58 mph wind gust at Staunton Airport (Augusta County), VA, and thunderstorm wind damage near Emmitsburg (Frederick County), MD. The following day torrential downpours from thunderstorms resulted in flash flooding near Damascus, (Montgomery County), MD. Rainfall totals included 3.20" in Woodbine (Howard County) and 2.57" in Germantown (Montgomery County) while 0.88" hail struck near Haneytown (Greene County) and a funnel cloud was observed near Winchester (Frederick County), VA. The month's last widespread event occurred on the 28th when strong thunderstorm winds caused significant tree damage near Baden and Brandywine, (Prince Georges County), MD. Marlton in Calvert County reported 1.06" rainfall from the event.

May 2013 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)				DepNml	Extreme/Day		Precipitation (Inches)			
	AvMx	AvMn	AvgT	NmlT		Max	MinT	Total	Nml	DepNml	YTD
National (DCA)	75.8	57.5	66.7	66.0	+0.7	91/31	42/14	2.82	3.99	-1.17	12.58
Baltimore (BWI)	73.6	53.8	63.7	62.9	+0.8	92/30	34/14	3.43	3.99	-0.56	13.86
Dulles (IAD)	74.4	52.5	63.5	63.2	+0.3	90/30	32/14	3.20	4.55	-1.35	13.99

Spring (March-May) Temperatures: Readings were normal to slightly below normal at the three major airports, marking the first normal to cool spring since 2005 at BWI and IAD, since 2009 at DCA. Departures were +0.0°F at DCA, -2°F at BWI and -0.6°F at IAD. March struggled to shrug off winter readings. DCA and BWI average temperatures were their coolest since 2005, while IAD's average temperature (40.2°F) was its coldest since 1996. BWI's average maximum temperature of 48.9°F and IAD's 49.2°F were their coldest since 1993. In addition, IAD recorded 5 days with maximum readings in the 30s, resulting in daily readings 15°F-20°F degrees below normal. April brought a return to above normal readings. Summer like warmth prevailed from April 8-11 with highs at or above 80°F at DCA and IAD and from the 9th-11th at BWI. The month's hottest day was the 10th when the mercury soared to a record 91°F at DCA and BWI, marking the first 90°F or greater day of the season. IAD reached 89°F. April also brought some cold days. BWI observed its first April occurrence of 3 consecutive days with minimums in the 20s since April 5-8, 1982. BWI's minimum of 25°F was its lowest April temperature since April 4, 1992. IAD minimums of 24°F on the 3rd and 22°F on the 4th were its first occurrence of 2 consecutive days with minimum readings below 25°F in April since April 9-10, 1977. May brought slightly above normal readings.

Spring Precipitation: Precipitation also was below normal for the season: 8.39" at DCA (-2.15"), 8.27" at BWI (-2.81"), and 8.66" at IAD (-2.74"). Despite below normal precip amounts, IAD recorded its snowiest March since 1999; DCA and BWI recorded their snowiest month since January 2011. The month included three wintry events resulting in 1.6" of snow at DCA, 3.2" at BWI and 7.4" at IAD. Areas further west recorded more than 2 feet of snow. On March 25-26, a steady wet snowfall brought many locations their largest snowfall of the season. The 3.2" and 3.3" totals measured at BWI and IAD broke daily snowfall records; DCA's 1.4" was its first 1 inch or greater of snow since the Commuteageddon Storm on January 26, 2011, a record 788 days. April continued drier than normal but included severe weather. The most notable storm occurred April 19-20, when two tornadoes struck resulting in tree and property damage but no injuries: an EF-1 tornado with estimated wind speed of 90 mph, struck Fredericksburg, VA. The tornado was on the ground for a minute with a path length of 0.75 miles and a maximum width of 150 yards. The second tornado was an EF-0 in Largo, MD, (Prince Georges County). Estimated wind speeds were 85 mph with a path length of 0.5 miles and maximum width of 75 yards. In Spotsylvania County, VA, straight-line thunderstorm wind gusts, estimated to 80 mph, also caused damage. Rainfall was heavy in some locations. IAD's total of 1.20" broke a daily record; DCA recorded wind gusts to 53 mph during the thunderstorm. Two other events also brought localized heavy rainfall. May recorded subnormal precipitation at the three major airports.

Spring 2013 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)				DepNml	Extreme/Day		Precipitation (Inches)			
	AvMx	AvMn	AvgT	NmlT		Max	MinT	Total	Nml	DepNml	Snow
National (DCA)	65.3	47.5	56.5	56.5	0.0	91/4-10,5-31	28/3-22	8.38	10.53	-2.15	T
Baltimore (BWI)	62.9	43.6	53.2	53.4	-0.2	92/5-30	25/3-15,4-4	8.27	11.08	-2.81	T
Dulles (IAD)	63.8	42.8	53.3	53.9	-0.6	90/5-30	22/3-23,4-4	8.66	11.40	-2.74	T

Looking Ahead to Summer: Does a dry spring equal a dry summer? Below are of the last 10 drier than normal springs at DCA and the subsequent summer precipitation. Average Spring precipitation at DCA: 10.53", average summer precipitation: 10.44"

Average Spring Precipitation in Inches at DCA and Subsequent Average Summer Precipitation										
Year	2013	2012	2011	2010	2007	2006	2004	2002	2001	1999
Spring	8.38"	6.22"	9.30"	7.45"	9.11"	5.36"	8.91"	9.01"	9.27"	7.24"
Summer	?	7.97"	13.63"	9.63"	7.25"	18.61"	16.67"	7.64"	12.45"	8.29"