

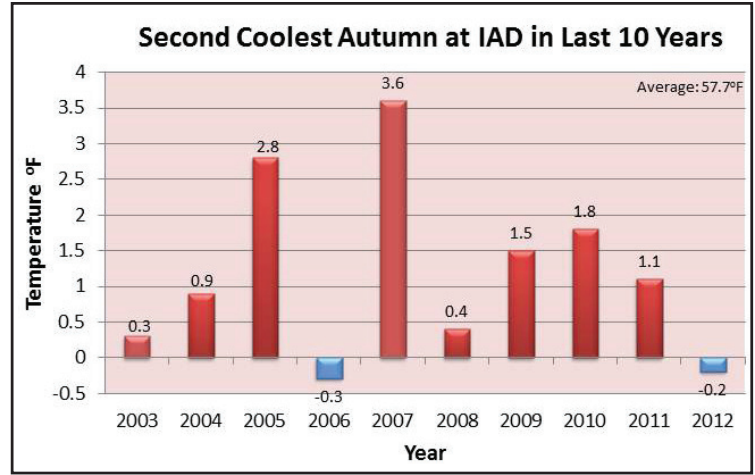
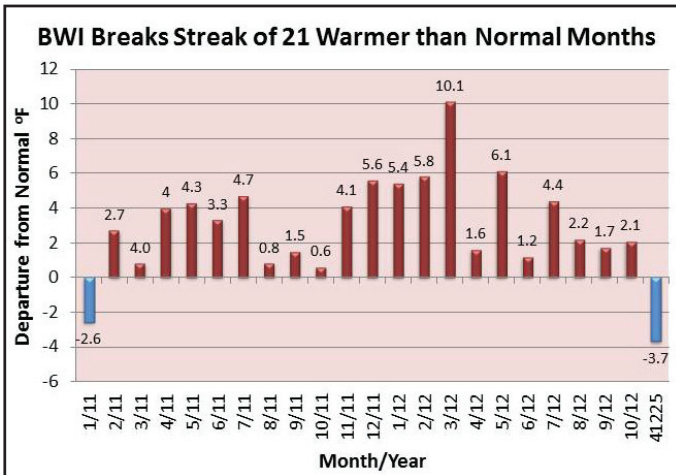


PRESTO

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



NOVEMBER 2012: Very Dry, Subnormal Temperatures AUTUMN: Near Normal Temps, Super Storm Sandy



November Highlights

- Well below normal temperatures at the three major airports: -3.0°F at DCA, -3.7°F at BWI and -3.9°F at IAD
- Below normal temperatures at BWI for first month since January 2011 and at DCA since October 2011
- DCA's first freeze of the season on the 26th; BWI records 15 days at or below 32°F and IAD 14 such days
- Well below normal rainfall with monthly totals 0.60" at DCA, 0.71" at BWI and 1.12" at IAD
- Driest November since 1981 at BWI and 6th driest on record at DCA and IAD

Seasonal Highlights

- Seasonal temperatures were near normal at DCA and BWI, just below at IAD: DCA, 59.9°F (-0.1°F); BWI, 56.9°F (+0.1°F), IAD, 56.5°F (-0.8°F)
- Seasonal precipitation was slightly above normal: 10.71" (+0.42") at DCA, 11.84" (+1.18") at BWI, and 12.70" (+2.12") at IAD
- On Sep. 1, DCA marked its 29th calendar day with temps at or above 95°F, all-time record
- On the Sep. 8, strong to severe thunderstorms with damaging winds cut power to 188,000 customers, according to press reports. Winds gusted to 63 mph near IAD in Loudoun County, VA, and to 58 mph at DCA. Wind damage caused windows to blow out on 29 vehicles at the Lorton, VA, train station parking lot. A waterspout was observed near Cape St. Claire, MD. Rainfall was heavy in some areas: 1.27" in Pasadena, MD (Anne Arundel County) and 1.18" in McLean, VA (Fairfax County)
- On the Sep. 18, strong to severe thunderstorms were again accompanied by damaging winds and torrential rainfall. Winds gusted to 61 mph at DCA, 60 mph in Columbia, MD (Howard County) and to 47 mph at BWI. A funnel cloud was observed near Reva, VA (Culpeper County), where numerous roads were flooded; in Frederick, MD, rainfall totalled 4.54" near Thurmont. In Virginia, torrential rainfall was observed in Loudoun County with 4.22" measured near Round Hill
- Post Tropical Hurricane Sandy resulted in major impacts to metro area from 28th-30th and especially on the 29th. Many businesses, as well as Federal Government and schools closed, up to 200,000 lost power according to press reports; area deluged with 4"-7" rainfall and tropical storm force winds to 60 mph.
- Locations closer to Chesapeake Bay in Maryland measured greater rainfall and stronger wind gusts including 9.50" near Churchton, (Anne Arundel County), 8.51" near Bryans Road (Charles County) and 8.40" near Dundalk (Baltimore County)
- In Virginia, highest totals included Purcellville 7.89" (Loudoun County) and 6.25" near city of Fairfax (Fairfax County)
- Moderate flooding occurred on the Potomac and coastal flooding occurred near the Bay; numerous roads were flooded forcing road closures
- All three major airports broke rainfall records on the 29th: DCA, 3.85"; BWI, 5.51" (wettest October day on record) and IAD, 4.25"
- Baltimore's sea level pressure dropped to 964 millibars, lowest on record, while both DCA and IAD recorded its second lowest value and lowest since the March 13, 1993 "Storm of the Century"
- Strongest wind gusts were near the Bay including 79 mph near Highland Beach and 75 mph near Piney Point, MD. DCA measured 61 mph and BWI 60 mph
- Heavy snowfall across portions of West Virginia including 24.0" near Kitzmiller (Mineral County) and 22.3" in Bayard (Grant County)

November 2012

Temperatures: At long last, subnormal temperatures were recorded across the region during the final month of meteorological Autumn, ending a streak of 21 consecutive months with above normal temperatures at BWI and 12 consecutive month streak at DCA. Negative departures were -3.0°F at DCA, -3.7°F at BWI and -3.9°F at IAD. DCA recorded only 6 days with highs at or above 60°F, 5 such days at BWI and 4 at IAD. BWI and IAD recorded 11 days with highs only in the 40s, while DCA reported 5 such days. Minimum readings were also chilly. DCA recorded its first freeze of the season on the 26th; BWI recorded 15 days at or below 32°F and IAD 14 such days. IAD's maximum reading on the 7th of 43°F equalled a low maximum temperature for the date. BWI monthly average temperature of 42.8°F ranked as its coldest November since 1996; IAD monthly average temp of 42.5°F was its coldest November since 2000.

Precipitation: It was a dry month with monthly totals well below normal. Less than an inch of rain was measured at DCA (0.60") and at BWI (0.71"); IAD had a slightly higher total of 1.12". Negative departures from normal were significant: DCA (-2.57"), BWI (-2.59") and IAD (-2.29"). The sole significant precipitation event occurred from the evening of the 12th into the morning of the 13th. Rainfall totals were heaviest in Virginia with 1.29" in Washington (Rappahannock County) and 1.28" at Round Hill (Loudoun County). The event set a daily record 0.87" (13th) at IAD. The rain ended as sleet in some locations. November was tied for the 6th driest in Washington and at IAD and driest November since 2001 at both locations. It was the 7th driest in Baltimore and the least precipitation observed in November since 1981. No measurable snowfall was reported during the month across the metro area.

November 2012 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (Inches)				
	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Nml	DepNml	Yr to Date	Snow
National (DCA)	54.9	38.3	46.6	49.6	-3.0	72/12	31/29	0.60	3.17	-2.57	29.42	T
Baltimore (BWI)	52.5	33.2	42.8	46.5	-3.7	69/12	25/26,30	0.71	3.30	-2.59	34.31	T
Dulles (IAD)	52.8	32.2	42.5	46.4	-3.9	70/11,12	23/29,30	1.12	3.41	-2.29	32.75	T

Autumn: (September-November) Seasonal temperatures were near normal at DCA and BWI and just below normal at IAD: DCA, 59.9°F (-0.1); BWI, 56.9°F (+0.1), IAD, 56.5 (-0.8)°F. September kicked off Autumn with summer-like heat the first 8 days including 95°F on the Sep 1, marking a record 29 calendar days in 2012 at or above 95°F. All three airports equaled or broke a record high minimum on the Sep. 4: 76°F at DCA, tied; 75°F at BWI, tied; and 71°F at IAD, new record. DCA also set a record high minimum the following day: 78°F. October continued the warm readings. DCA's 84°F on the Oct. 24 equaled an all-time maximum for the date. November was the first cooler than normal month of the year (see monthly summary above).

Autumn Precipitation: The area recorded slightly above normal precipitation for the season, due largely to rainfall from Post Tropical Storm Sandy in late October: 10.71" (+0.42") at DCA, 11.84" (+1.18") at BWI, and 12.70" (+2.12") at IAD. September started the season with highly variable rainfall across the area. On Sep. 1, DCA's measured 1.64" of rain, its greatest calendar day total since Dec. 7, 2011. The following day, a waterspout was observed near Edgemere, MD. D.C. was again struck by torrential rainfall near Adams Morgan, 2.17", causing several roads to close due to flooding. On Sep. 3, another waterspout was observed near Deal Island, VA. A widespread line of strong to severe thunderstorms on Sep. 8 crossed the metro area cutting power to more than 188,000 customers, according to press reports. Winds gusted to 63 mph near IAD and to 58 mph at DCA. Wind damage caused windows to blow out on 29 vehicles at the Lorton, VA, train station parking lot. A waterspout was observed near Cape St. Claire, MD and rainfall was heavy in some areas including 1.27" in Pasadena, MD (Anne Arundel County). On Sep. 18, strong to severe thunderstorms included winds gusting to 61 mph at DCA. A funnel cloud was observed near Reva, VA (Culpeper County), and numerous roads were flooded in Frederick, MD, where rainfall totaled 4.54" near Thurmont. In Virginia, torrential rainfall was observed in Loudoun County with 4.22" measured near Round Hill. The month's final severe weather occurred on the 27th in the Shenandoah Valley with large hail up to 2.00" in Culpeper county. Flash flooding resulted in a swift water rescue near Ada (Fauquier County) and 2.43" was reported in Rixeyville (Culpeper County).

The season's most notable event began on Oct. 29 when Post Tropical Hurricane Sandy made landfall near Atlantic City, NJ. Most of the area was deluged with 4"-7" of rain and tropical storm force winds to 60 mph. Total rainfall reached 9.50" near Churchton, (Anne Arundel County), MD, and 6.25" near Fairfax (Fairfax County), VA. Numerous roads were closed to flooding. All three major airports broke rainfall records on Oct. 29: DCA 3.85", BWI 5.51" (wettest October day on record) and 4.25" at IAD. Baltimore's sea level pressure dropped to 964 millibars, lowest on record; both DCA and IAD recorded their second lowest values: 969.5 mb at DCA, 971.5 mb at IAD, and their lowest pressure since the March 13, 1993, "Storm of the Century." The strongest wind gusts were near the Bay, including 79 mph near Highland Beach, MD. DCA measured 61 mph, BWI 60 mph. Meanwhile, temperatures were cold enough to result in heavy snowfall across portions of West Virginia, including 24.0" near Kitzmiller. Earlier in the month, a significant storm impacted the area on Oct. 2, flooding some roads in Maryland. Rainfall totals included 2.55" in Reisterstown; In Virginia, IAD set a daily rainfall record of 2.35". On Oct 18th, 1.0" hail struck Wolfsville, MD and Kings Crossing, VA. On Oct. 22, an EF-0 tornado was sited near Jarrettsville with winds to 80 mph resulting in tree minor damage. November was very dry (see monthly summary above).

Autumn 2012 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (Inches)				
	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Nml	DepNml	Snow	
National (DCA)	68.2	51.7	59.9	60.0	-0.1	95/9-1	31/11-29	10.71	10.29	+0.42	T	
Baltimore (BWI)	66.4	47.3	56.9	56.8	+0.1	93/9-1	25/11-25,30	11.84	10.66	+1.18	T	
Dulles (IAD)	66.4	45.1	55.7	56.5	-0.8	92/9-1	23/11-26,30	12.70	10.58	+2.12	T	

Looking Ahead to December: No measurable snowfall occurred in December 2011. Will December 2012 be different? Shown below are the most recent 10 years of December snowfall in Washington. Normal DCA December snowfall is 2.3".

Year	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
December Snowfall	T	2.1"	16.6"	Trace	2.6"	Trace	4.8"	0.1"	6.2"	7.1"