

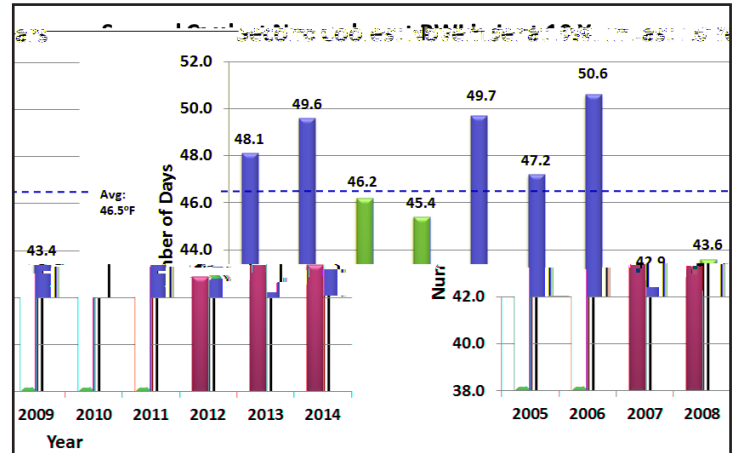
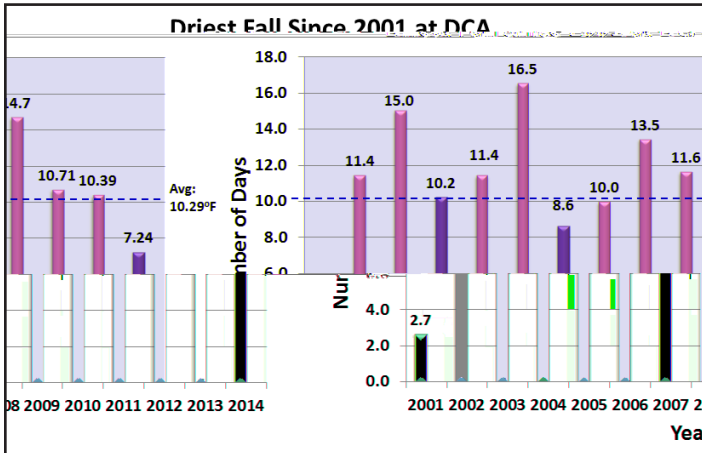


# PRESTO

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



## November 2014: Subnormal Temps, Season's First Snowfall Autumn: Near Normal Temperatures, Drier than Normal



### November Highlights

- Subnormal temperatures were recorded at DCA, BWI and IAD. Negative departures were -1.6°F at DCA, -3.1°F at BWI and -4.6°F at IAD
- November was the 5<sup>th</sup> coldest on record at IAD and coldest since 1996
- The first freeze of the season occurred on the 8<sup>th</sup> at BWI (30°F) and at IAD (26°F); at DCA a week later (32°F)
- Midwinter cold on 18<sup>th</sup>-19<sup>th</sup>: max readings held in the 30s on the 18<sup>th</sup> and 19<sup>th</sup>, establishing new low maximums at IAD (36°F and 35°F)
- Minimum temperature records were also broken for the same days at IAD (18°F and 13°F). BWI min of 19°F on the 19<sup>th</sup> was also a new record;
- Subnormal precipitation were recorded at DCA 2.64" (-0.53") and IAD 2.66" (-0.75") while slightly above normal amounts were measured at BWI 3.36" (+0.06");
- Pre-Thanksgiving Storm on 26<sup>th</sup> impacts area with soaking rains, and wet snow resulting in the first accumulation of season in many areas. Road surfaces were relatively warm resulting in melting snow on most roadways in the metro area. Elevations played a key role in accumulations. Greatest totals in MD included 5.0" near Manchesters and near Marston (Frederick County). In the Shenandoah, amounts were considerably greater including 14.0" near Monterey (Highland County) and 12.0" in Bergton (Rockingham County). The greatest totals were across the Potomac Highlands in West Virginia where 20.0" was measured near Petersburg (Hardy County) and near Paw Paw (Morgan County). In sharp contrast, totals were 1.6" at IAD, 0.3" at BWI and a trace at DCA. Total precipitation was copious with totals 1.26" in New Market (Frederick County) and Clarksburg, MD (Montgomery County) while 1.08" was reported in Manassas (Prince William), VA.

### Autumn Seasonal Highlights

- DCA, BWI and IAD recorded normal to slightly below normal seasonal temperatures: DCA, -1.6°F; BWI, 0°F; IAD, -1.1°F
- All three airports record subnormal seasonal precipitation: DCA, 7.24" (-3.05"), BWI, 10.83" (+0.17"); and IAD, 6.60" (-3.98")
- The year's most intense period of heat and humidity occurred not in July or August but at the beginning of September when DCA exceeded 90°F on 5 of the first 6 days, including maximum temperatures of 95°F on 3 days (Sep. 1, 2, 6)
- Damaging thunderstorm winds at some locations on the Sep. 2 caused at least 25 trees to fall near Colesville (Montgomery County); two trees landed on houses causing significant property damage near Columbia, MD (Howard County); Paeonian Springs, VA, (Loudoun County) also reported tree damage.
- On Sep. 6, sudden downpours lead to flooded roads and a water rescue in Potomac, (Montgomery County), MD Rainfall totals included 1.98" in Silver Spring (Montgomery County) and 1.46" at Round Hill, (Loudoun County), VA
- It was the 5<sup>th</sup> consecutive October with above normal temperatures at BWI and the third consecutive at DCA and IAD.
- On Oct 15, severe thunderstorms in the early afternoon spawned two small EF-0 tornadoes (wind speeds estimated at 55-65 mph). One tornado confirmed in the Belle Haven section of Alexandria, (Fairfax County), VA. The path length was 1.5 miles and path width was 75 yards with tree damage. The second tornado occurred near Savage, (Howard County), MD. The path length was 0.4 miles and path width was 75 yards. Tree and property damage was observed. Torrential downpours accompanied the thunderstorms with the highest totals in Maryland: 3.85" in Bel Air (Harford County) and 3.35" in Kingsville (Baltimore County); In Virginia, 2.50" in Gainesboro, (Frederick County); 1.44" at DCA. IAD observed a daily record 1.30"
- On Oct. 21-22, the area received a soaking rainfall with the greatest totals in Maryland: 1.98" in Catonsville (Baltimore County), and 1.72" in Laurel (Ann Arundel County); in Virginia, high totals included 1.79" in Mclean and 1.19" in Vienna (Fairfax County); 1.39" in Washington.

## November 2014

**Temperatures:** Subnormal temperatures were recorded at DCA, BWI and IAD. Negative departures were -1.6°F at DCA, -3.1°F at BWI and -4.6°F at IAD. November was the 5<sup>th</sup> coldest on record and coldest since 1996 at IAD; BWI reported its second coldest November in the past 10 years (cover graphic). BWI and IAD recorded their first freeze of the season on the 8<sup>th</sup>: (30°F) and (26°F); DCA's first freeze was a week later (32°F). Mid-winter cold enveloped the region from the 13<sup>th</sup>-19<sup>th</sup>. Maximum readings held in the 30s on the 18<sup>th</sup>-19<sup>th</sup>, setting new low maximums at IAD (36°F and 35°F). Minimum temperature records were also broken for the same days at IAD (18°F and 13°F). BWI minimum of 19°F on the 19<sup>th</sup> was also a new record. IAD equaled a record low on the 22<sup>nd</sup> and, 14°F. BWI recorded another minimum in the teens, 18°F, also on the 22<sup>nd</sup>. In sharp contrast, maximum temperatures soared to 70°F or higher on the 24<sup>th</sup>, including 74°F at DCA, equaling a record.

**Precipitation:** Monthly totals at the three major airports were near normal falling in the 2"-3" range: DCA, 2.64" (-0.53"); BWI, 3.36" (+0.06"); and IAD 2.66", (-0.75"). Several systems of note impacted the area during the month. On the 5<sup>th</sup>-6<sup>th</sup>, rainfall totals were generally 0.50"-0.75" across Maryland and 0.25"-0.50" in Northern Virginia.

The first snowflakes of the season fell on the 13<sup>th</sup>-14<sup>th</sup>; parts of Maryland recorded measurable snowfall including 1.4" near Manchester (Carroll County) and 0.8" in Parkton (Baltimore County). Then on the 16<sup>th</sup>-17<sup>th</sup>, parts of Maryland measured about 0.75" and Northern Virginia, about 0.50". A few Maryland locations reported higher totals including 1.15" in Great Mills (St. Mary's County) and 1.04" in Jessup (Howard County). Isolated strong winds were reported including a gust to 39 mph at St. Inigoes (St. Mary's County).

The month's storm with the greatest impact occurred on Wednesday before Thanksgiving when a cold soaking rain changed to wet snow. Road surfaces were relatively warm, resulting in melting snow on most roadways in the metro area. Despite warm ground temperatures, two of the major airports measured their first accumulation of the season and their first measurable snow in November since 1996 at IAD, and since 2005 at BWI. Elevation played a key role in accumulations. Greatest totals in Maryland included 5.0" near Manchester and Marston (Frederick County). In the Shenandoahs, amounts were considerably greater including 14.0" near Monterey (Highland County) and 12.0" in Bergton (Rockingham County). The greatest totals were across the Potomac Highlands in West Virginia with 20.0" near Petersburg (Hardy County) and Paw Paw (Morgan County). In sharp contrast, totals were just 1.6" at IAD, 0.3" at BWI and a trace at DCA. Total precipitation was copious with totals 1.26" in New Market (Frederick County) and Clarksburg, (Montgomery County), MD, while 1.08" was reported in Manassas (Prince William), VA.

### November 2014 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (inches)				
	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml	Snow	YTD
National (DCA)	56.0	39.9	48.0	49.6	-1.6	74/24	22/19	2.64	3.17	-0.53	T	40.91
Baltimore (BWI)	52.9	33.8	43.4	46.5	-3.1	72/24	18/22	3.36	3.30	+0.06	0.3	49.00
Dulles (IAD)	51.8	31.9	41.8	46.4	-4.6	70/11,24	13/19	2.66	3.41	-0.75	1.6	42.81

**Autumn (Sep-Nov) Temperatures:** The major airports observed normal to below normal seasonal readings: -1.6°F at DCA, normal at BWI and -1.1°F at IAD. September started warm with DCA recording the year's most intense period of heat and humidity: temperatures exceeded 90°F on 5 of the first 6 days of September, including maximum temperatures of 95°F on 3 days. It was the fifth consecutive October with above normal temperatures at BWI and the third consecutive at DCA and IAD. The month ended cooler with many suburban readings dipping into the 40s, including 42°F at IAD on the 23<sup>rd</sup>. In a switch, October's warmest reading were toward the end of the month when BWI and IAD recorded 80°F and 82°F respectively on the 28<sup>th</sup>. November was cooler than normal (see monthly summary above).

**Autumn Precipitation:** DCA and IAD were well below normal and BWI just slightly below normal: DCA, 7.24" (-3.05"), IAD, 6.60" (-3.98"); and BWI, 10.83" (+0.17"). It was the fourth driest September on record at IAD with just a few rainy days throughout the area. The month did bring some severe weather. On Sep. 2, damaging thunderstorm winds caused at least 25 trees to fall near Colesville (Montgomery County), MD; while two trees landed on houses near Columbia (Howard County), MD, causing significant property damage. Trees were also down from strong winds near Paeonian Springs (Loudoun County), VA. On Sep 6, torrential rainfall caused flooding near Garrett Park (Montgomery County) and resulted in a reported water rescue in Potomac (Montgomery County). October brought near normal precipitation and more severe weather. The month's major event occurred on the 15<sup>th</sup> when a line of strong to severe thunderstorms in the early afternoon spawned two small EF-0 tornadoes (wind speeds estimated at 55-65 mph). One tornado was confirmed in the Belle Haven section of Alexandria (Fairfax County), VA. The path length was 1.5 miles and path width was 75 yards. Tree damage was observed. The second tornado occurred near Savage (Howard County), MD. The path length was 0.4 miles and path width was 75 yards. Tree and property damage was observed. Torrential downpours accompanied the thunderstorms. Greatest amounts in Maryland included 3.85" in Bel Air (Harford County) and 3.35" in Kingsville (Baltimore County); In Virginia, 2.50" was recorded in Gainesboro (Frederick County); and DCA measured 1.44". IAD noted a daily record 1.30". November continued drier than normal (see monthly summary above).

### Autumn 2014 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (inches)			
	AvMx	AvMin	AvgT	NmlT	DepNml	Max	Min	Total	Nml	DepNml	Snow
National (DCA)	69.6	53.5	61.6	60.0	-1.6	95/9-1,2,6	22/11-19	7.24	10.29	-3.05	T
Baltimore (BWI)	66.3	47.2	56.8	56.8	0.0	93/9-6	18/11-22	10.83	10.66	+0.17	0.3
Dulles (IAD)	65.4	45.3	55.4	56.5	-1.1	91/9-6	13/11-19	6.60	10.58	-3.98	1.6

**Looking Ahead to December:** For the last 4 years, DCA has recorded subnormal snowfall in December. Will December 2014 bring more snow? Shown below are the most recent 10 years of December snowfall in Washington. Normal DCA December snowfall is 2.3".

Year	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
December Snowfall	1.5	0.2	Trace	2.1"	16.6"	Trace	2.6"	Trace	4.8"	0.1"