

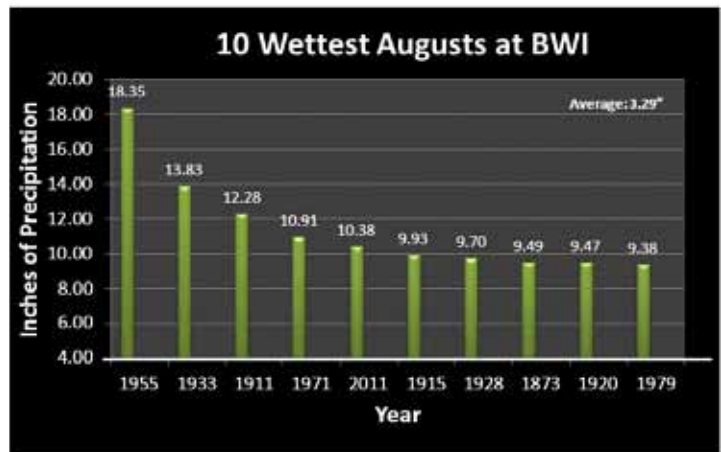
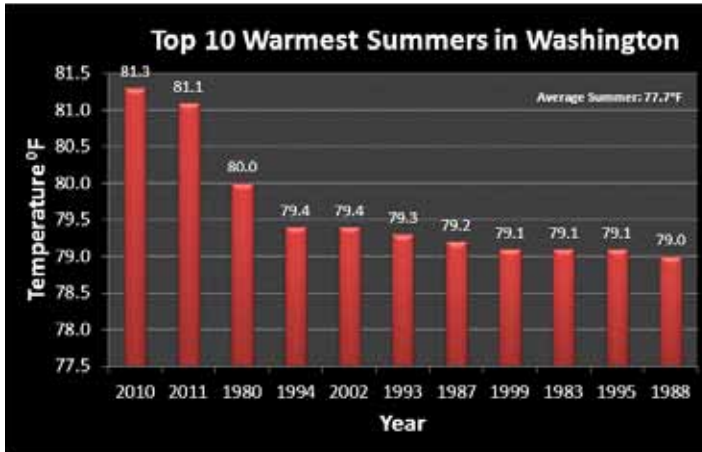


PRESTO

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



AUGUST 2011: Excessively Wet and Warmer than Normal SUMMER: Second Hottest on Record at DCA and IAD; Frequent Severe Weather and Hurricane Irene



August Highlights

- Above average temperatures at three major airports using new normals: DCA, 79.9 (+1.8); BWI, 75.9 (+0.8); IAD, 75.4 (+0.9)
- DCA logged record maximum temperature of 100°F on 1st
- Highs at or above 90°F at DCA on 11 days; 50 such days at DCA for year
- Above normal temperatures for 7th consecutive month at BWI & IAD; 5th consecutive month at DCA
- Wet August across the immediate metro area and eastern suburbs; 8.92" at DCA, 10.38" at BWI
- Tenth wettest August on record at DCA, wettest since 1967; BWI, wettest August since 1971
- Record daily maximum rainfall at BWI on August 19 1.72"
- Across area 2"-6" of rain fell from 18th-21st, resulting in flooded roads and closures
- Hurricane Irene lashed the area on the 27th-28th with strong winds, heavy rain, flooding and widespread power outages; significant damage occurred across Southern Maryland with rainfall totals over 11"; metro area totaled 3"-5"; near hurricane force wind gusts reached 74 mph near Cobb Island and 72 mph at Chesapeake Beach, (Calvert County); metro area gusts were reported at 62 mph in Dundalk (Baltimore County), 59 mph near Chevy Chase in northwest D.C. and 60 mph at DCA

Seasonal Highlights

- Second hottest summer on record at DCA and IAD, next to 2010; 8th hottest at BWI
- DCA and BWI recorded 5 days with highs at or above 100°F; IAD, 3; highs at or above 95°F: DCA, 24; BWI, 18; IAD, 15
- BWI recorded 17 consecutive days at or above 90°F, July 17- August 2; DCA and IAD, 16 days, July 18- August 2
- DCA set 18 record maximum or minimum temperatures over the summer; IAD, 16; and BWI, 10; BWI, 2 record rainfall events
- June tied for third hottest on record in Washington and at IAD
- Numerous record highs in June: 1st, DCA and BWI, 98°F and IAD at 95°F; 8th: DCA, BWI, 99°F; 9th: BWI 100°F and IAD 97°F; DCA's 102°F on 9th equals hottest June temp. on record; Washington and Baltimore had 2nd earliest 100°F or greater reading in calendar year
- On June 14, two EF-0 tornadoes were confirmed in Harford County, MD: the first was at Belcamp, winds to 80 mph, and the second at Street, winds to 70 mph, resulting in tree damage; widespread tree damage across area from powerful thunderstorms
- Hottest average monthly temperatures on record at all three major airports in July: 84.5°F at DCA (+5.3°F); 81.7°F at BWI (+5.2°F); and 81.0°F (+5.3°F) at IAD
- On July 22, BWI's high of 106°F was second highest temperature on record; IAD's record maximum of 105°F was hottest temperature on record; DCA's 104°F on 30th tied for the 5th highest reading in Washington; Heat Index values reached 121°F at DCA, 118°F at BWI, and 117°F at IAD due to oppressive humidity
- DCA recorded 7 days in July with minimums at or above 80°F, including a record 4 consecutive days from July 21-25
- On July 3, a cyclist was killed near Belmont, VA (Loudoun County) when high winds blew down a tree; 63 mph wind gusts measured near Sterling Park; hail to 1.50" near Delaplane, VA (Fauquier County); and winds gusts to 58 mph in Washington, D.C., resulting in downed trees on the Capitol's West Lawn

August 2011

Temperatures: Above normal temperatures were recorded across the area with positive departures of +1.8°F at DCA, +0.8°F at BWI and +0.9°F at IAD. The month began on a sizzling note with a record 100°F at DCA and 99°F at BWI and IAD; highs were in the mid-to-high 90s on August 2. DCA recorded 7 days at or above 90°F in the first 10 days of August while BWI and IAD observed 6 such days. IAD equaled three high minimum temperatures in this period: 73°F, 4th; 72°F, 6th; 74°F, 7th. The last 3 weeks featured cooler readings. DCA recorded only 4 days at or above 90°F; BWI and IAD, 2 such days. On the 27th, highs failed to reach 80°F at the three airports as a result of Hurricane Irene.

Precipitation/Severe Weather: While the western suburbs received near normal rainfall, well above normal amounts were recorded in the immediate metro areas and to the east. Monthly totals were 8.92" (+5.99") at DCA, 10.38" (+7.09") at BWI, and 3.74" (+0.21") at IAD. DCA recorded its 10th wettest August on record, its rainiest since 1967 and its wettest month since May 2008. At BWI, it was the 5th wettest August on record (see cover), the rainiest August since 1971, and the wettest month since September 1999. The region also was impacted by severe weather and Hurricane Irene. On the 1st, 1 inch hail struck Hughesville, VA (Loudoun County) and near College Park, MD (Prince Georges County). On the 6th, torrential rainfall (4.58") caused flooding in Culpepper County, VA. Strong thunderstorms deluged portions of Montgomery County, MD, on the 14th, with White Oak recording 2.77". The following day, flash flooding closed numerous roads in Baltimore City (3.21") and in Annapolis. On the 18th, 1.75" hail was measured near Harford Furnace, MD (Harford County) and near IAD. Strong thunderstorms rolled through the metro area the next day resulting in two injuries from lightning near Cherrydale, VA (Arlington County); 1 inch hail pelted Charney, MD (Baltimore County), and BWI recorded a daily rainfall record of 1.72". On the 21st, more large hail (1.75") was observed near Upperville, VA (Fauquier County) and winds gusts to 60 mph near Huntingtown, MD (Calvert County). Torrential rainfall was recorded in many areas from the 18th-21st. Totals included 5.75" in Largo (Prince Georges County), 4.42" in Baltimore City, MD; 2.72" at BWI; and 2.69" at Fairview Lake, VA (Fairfax County). Strong thunderstorms hit the southern suburbs on the 25th. Winds gusted to 65 mph near Dahlgren and to 60 mph near Fredericksburg, VA. Hurricane Irene then moved up the coastline just east of Ocean City, MD, early on the 28th. The region was lashed by strong winds, heavy rainfall, flooding and significant power outages from downed trees and wires. The most significant damage occurred across Southern Maryland where rainfall and winds were strongest. Rainfall totals included 11.52" near Leonardtown (St. Mary's County); 8.33" near Prince Frederick (Calvert County), and 6.20" near Odenton (Ann Arundel County). In the immediate metro area, totals included 4.85" near Savage (Howard County) and 4.47" near Bailey's Crossroads, VA (Arlington County). Near hurricane force wind gusts reached 74 mph on Cobb Island, 72 mph at Chesapeake Beach (Calvert County) and 64 mph near North Beach, MD (Ann Arundel County). Across the metro area, gusts were reported at 62 mph in Dundalk (Baltimore County), 59 mph near Chevy Chase in northwest D.C. and 60 mph at DCA.

August 2011 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (Inches)			
	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Norm	DepNml	Yr to Date
National (DCA)	88.6	71.3	79.9	78.1	+1.8	100/1	63/23,30	8.92	2.93	+5.99	27.30
Baltimore (BWI)	85.8	66.0	75.9	75.1	+0.8	99/1	55/23	10.38	3.29	+7.09	32.94
Dulles (IAD)	87.3	65.3	76.3	75.4	+0.9	99/1	52/23	3.74	3.53	+0.21	25.36

Summer (June-August) Temperatures: Intense heat resulted in the 2nd hottest summer on record at DCA (see cover) and IAD and 8th hottest at BWI. Average temperatures were 81.1°F at DCA, and 77.8 at BWI and 77.4°F at IAD, second only to 2010 at DCA and IAD. June started the season with record heat on the 1st: DCA and BWI, 98°F, IAD, 95°F. The season's first major heat wave ran from June 7-12, including 102°F on the 9th at Washington, equaling its hottest recorded June maximum, at BWI, 100°F, and at IAD, 97°F. Additional records were set on the 8th: 99°F at DCA and BWI. It was the hottest July on record at all three major airports. DCA recorded 25 days with highs at or above 90°F, BWI and IAD, 24, setting records at all three locations. Numerous record maximum and minimum temperature records were set including DCA's 102°F on the 23rd and 104°F on the 30th, which tied for its 5th highest reading. BWI soared to 106°F on the 22nd, its 2nd highest temperature on record, reached 101°F on the 29th, and equaled a record at 102°F on the 23rd. IAD's record maximum of 105°F on the 22nd was its hottest temperature ever. IAD also reached a record 103°F on the 29th and tied a peak high of 99°F on the 23rd. Numerous additional records were set at the three major airports including the hottest monthly average maximum temperatures: 93.6°F at DCA; 92.9°F at BWI and 92.8°F at IAD. August was cooler (see monthly summary.)

Summer Precipitation/Severe Weather: Heavy localized rain resulted in above normal seasonal rainfall at DCA and BWI, but subnormal at IAD. Seasonal totals at DCA, 13.63" (+3.19"), BWI, 16.66 (+5.84) and IAD 7.72" (-3.46"). The season started with the driest June since 2007 at DCA but frequent severe weather, including hail up to 1.75" near Partlow, VA, and wind gusts to 62 mph, at South River, MD. On June 14, two EF-O tornadoes were confirmed in Harford County, MD. Severe weather continued in July. On July 3, a cyclist was killed near Belmont, VA, when a tree was blown down; 63 mph wind gusts were measured near Sterling Heights, hail to 1.50" near Delaplane, VA, and wind gusts to 58 mph were measured in Washington, D.C., where trees fell on the Capitol grounds. On July 13, strong thunderstorms resulting in wind gusts and heavy rainfall especially across Northern Virginia and Southern Maryland. Vienna, VA, reported 3.23", resulting in flooding and closure of Route 123. An 18 wheeler was blown over on the Nice Bridge (Route 301) near Newburg in Charles County, MD. August rainfall was excessive in many areas (see monthly summary).

Summer 2011 Weather Statistics for the Washington/Baltimore Area

Location	Station Temperatures (°F)					Extreme/Day		Precipitation (Inches)		
	AvMx	AvMn	AvgT	NmIT	DepNml	Max	MinT	Total	Norm	DepNml
National (DCA)	90.0	72.1	81.1	76.9	+4.2	104/7-29	59/6-15	13.63	10.44	+3.19
Baltimore (BWI)	88.4	67.1	77.8	75.4	+2.4	106/7-22	50/6-3,4	16.66	10.82	+5.84
Dulles (IAD)	88.6	66.1	77.4	73.7	+3.7	105/7-22	48/6-4	7.72	11.18	-3.46

Looking Ahead: After experiencing the second hottest summer on record across the area, what will autumn bring? Below are statistics for DCA.

Temperature Extremes

Coldest: 1917 (Average Temperature: 52.9°F; Dep. Nml.: -6.5°F)
Warmest: 1973 and 1931 (Average Temperature: 63.1°F; Dep. Nml. +3.7°F)
Extreme Minimum Temperature: 11°F (Nov. 30, 1929)
Extreme Maximum Temperature: 104°F (Sep. 7, 1881)
Most Days With Lows < 32°F, 19 (1901); **Highs > 90°F,** 14 (1980)

Precipitation Extremes

Wettest: 1934 (Total Precipitation: 21.78"; Dep. Nml.: +11.74")
Driest: 1930 (Total Precipitation: 1.83"; Dep. Nml. -8.21")
Snowiest: 1987 (Total Snowfall: 11.5")
Most 1 Day Precipitation: 5.16" (Sep. 2, 1922)
Most Snowfall in 1 Day: 11.5" (Nov. 11, 1987)