

**MONTHLY WEATHER DATA AND OBS - WESTMONT 1.1W PA  
OCTOBER 2012**

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Special Observations: F=fog, T=thunder, H=hail,  
S=sleet, G=glaze, DW=damaging winds  
Observation time for this station is midnight.

Date	Temperature, °F			Precipitation, In.			Special Obs.
	24-hour Max	Min	At Obs	Liquid Rain Equiv	Solid Snow/ Ice	7am Snow Depth	
1	63	38	55	0.01			F
2	65	54	<b>62</b>	0.33			
3	70	<b>61</b>	<b>62</b>				
4	68	57	58				
5	71	55	57				
6	58	42	42	0.07			
7	49	37	37	0.11			
8	45	32	39				1st freeze (no frost)
9	60	38	43				
10	54	39	41	0.06			
11	54	33	43				1st frost (scattered)
12	48	34	34	T			
13	58	<b>27</b>	48				
14	73	47	61				
15	63	45	45	0.27			
16	50	39	39				
17	67	33	49				F
18	62	45	47	0.53			F
19	65	45	49	0.13			F
20	50	43	44	0.03			
21	54	42	46				
22	68	35	54				F
23	73	51	59	0.11			
24	71	56	58				
25	<b>80</b>	50	59				
26	70	55	58				F
27	61	46	46	0.01			
28	46	42	42	0.15			F
29	42	33	35	<b>3.13</b>	0.2		F,S,T,DW (Sandy)
30	42	32	<b>32</b>	1.24	1.2		Record low barometer 28.83" (2am)
31	<b>37</b>	32	35	0.45	<b>1.8</b>	<b>3</b>	
<b>AVG/SUM</b>	<b>59.3</b>	<b>42.5</b>	<b>47.7</b>	<b>6.63</b>	<b>3.2</b>	<b>0.1 (avg)</b>	
EXT	80	27	62/32	3.13	1.8	3	
Date	25	13	3*/30	29	31	31	

\*=-Also occurred on earlier dates

**Miscellaneous Stats**

**Mean Monthly Temperature: 50.9°F (-0.1°F)**

Year precipitation to date: 47.48" (+6.77"); Monthly Precipitation Departure: +3.36"

Season snowfall to date: 3.2"

Number of days with: Fog 8, Sleet 1, Glaze 0, Thunder 1, Hail 0, Damaging Winds 1

## DETAILED OBSERVATION NOTES

- 1: Cool with early AM fog then clearing. Becoming cloudy by 4pm with sprinkles/light rain around 5pm.
  - 2: A period of rain this morning (0.33"), mostly cloudy with decreasing clouds by late PM.
  - 3: Partly cloudy and mild with light SW winds.
  - 4: Sunny, breezy & pleasant. SW winds gusting 15-20 mph shifted to west.
  - 5: Sunny & mild through 3:30pm, becoming mostly cloudy by 4:30pm.
  - 6: A period of light rain this morning ended by 9:30am .07" fell. Decreasing clouds by early afternoon with breezy and cooler conditions.
  - 7: Cool and overcast with a period of light rain from about 3:30-6pm .11" fell.
  - 8: Partly cloudy and chilly. 1st freeze of season.
  - 9: Sunny and much milder with light S winds.
  - 10: Mostly cloudy and breezy with some light afternoon rain .06". Temperatures dropped into the mid 40s.
  - 11: Scattered AM frost with a low of 33. Sunny and pleasant with light W winds.
  - 12: Overcast AM with some light drizzle and breezy NW winds. Chilly only 40 F @ noon, PM clearing.
  - 13: Chilly and frosty low 27 F. Sunny and a bit breezy.
  - 14: Partly cloudy and mild high 73 F. Breezy S winds.
  - 15: Mostly cloudy with some rain early and again in the evening .27" fell. NW winds gusting 15-18 mph.
  - 16: Overcast early AM through mid-PM. Partial clearing by 4pm.
  - 17: Early fog, then sunny, mild & very pleasant.
  - 18: Overcast early AM then partial clearing. Cloudy again by mid-afternoon. A steady moderate rain fell from 6pm-9:30pm .53" fell.
  - 19: Early AM fog, then clear and breezy. Increasing clouds by 4pm. A rain shower with lightning, no thunder heard, from 8-8:30pm.
  - 20: A mix of clouds and sun with seasonal temps and a couple of passing rain showers.
  - 21: Overcast most of AM, early afternoon clearing, light W winds.
- INDIAN SUMMER MOVES IN
- 22: Light early AM fog, then sunny and mild high 68 F, light SW winds.
  - 23: A period of predawn rain (0.11") then variably cloudy and very mild high 73 F.
  - 24: Clear AM. Overcast around midday then becoming clear again by early afternoon. Continued mild.
  - 25: Sunny, very warm high 80 F with moderate SW breezes. Unusually warm for so late in October.
  - 26: Fog early with overcast skies most of AM. Becoming partly cloudy during the PM hours, still mild.
- SANDY APPROACHES
- 27: Overcast all day with drizzle this evening beginning around 10pm.
  - 28: Heavy overcast with periods of light rain and drizzle on and off all day. Chilly with temperatures steady in the mid 40s, very slowly falling throughout the day.
- \*\*\*SUPERSTORM SANDY'S WRATH\*\*\*
- 29: Cold steady rain overnight .29" by 7am. Rain continued steadily and gradually increased in intensity, becoming heavy during the afternoon and evening. N to NW winds increased dramatically through the day, with sustained winds by evening in the 25-35 mph range and frequent gusts 45 to 50 mph. A wild evening with thunderstorms, roaring winds and heavy rain changing to driving snow with thunder-snow and sleet also observed. Snow was wet and had barely begun to accumulate before changing back to rain and tapering off slightly by late evening. A record 3.13" of rain fell today, along with 0.2" of snow. Extremely low barometer readings dropping to 29.04" by 10:15pm. A good bit of minor flooding and wind damage with some scattered power outages in the area, though this was minor compared to what parts of the east coast got. Also, extreme blizzard conditions occurred from the Laurel Highlands to Tennessee, with parts of West Virginia to our SW recording as much as 3 FEET of snow! A widespread and absolutely unreal storm!
  - 30: A dramatic but temporary increase in temperatures overnight with steady moderate cold rain continuing and another .76" falling by 7am. RECORD LOW barometer reading 28.83" recorded at 2am. This is even lower than the seemingly unbeatable 28.88" measured during the March 13, 1993 Superstorm. Winds became dramatically lighter - almost calm - much of the day. Rain changed to snow by mid-afternoon, mostly melting but then accumulating about 1 1/4" by 11pm. Another 1.24" of precipitation fell today, storm total rose to 4.53".

However, it was very apparent that we dodged the bullet, as pictures and videos of extreme devastation to much of the east coast emerged through the day. The NJ/NYC area was hardest hit, leaving millions without power, many thousands without homes and over 70 deaths, in addition to the Caribbean deaths. The storm is projected to cost many tens of billions of \$ in damage - on the same scale as Hurricane Katrina in 2005.

31: Light but steady snow continued overnight with temperatures hovering right at freezing. Snow depth by 7am reached 2.5", with an additional half-inch falling from intermittent snow showers throughout the day. The snow changed back to a cold rain again by mid-afternoon. Another .45" of precipitation fell today, which brings the storm total to 4.98" (4.83" fell from Oct. 29-31) and the month's total to 6.63". This was a dramatic ending to an otherwise tranquil weather month. This was also our 2nd straight White Halloween.

#### MONTHLY SUMMARY

October seemed to be rolling along with smooth weather - mild, calm and dry. But it turns out this was the calm before the storm. "Superstorm Sandy" rocked 24 states in the eastern U.S. during the final few days of October 2012 and caused incredible damage up and down the east coast. Hurricane Sandy first ravaged parts of the Caribbean, particularly Haiti, Cuba and the Bahamas, then moved nearly parallel to the east coast, bringing damaging waves and storm surge to the southeast coast.

While most hurricanes get picked up by the jet stream and ejected into the northern Atlantic, where they dissipate, flow around a strong high pressure area northeast of Sandy steered her back to the northwest and directly towards the Mid-Atlantic coast. A stalled cold front over the Appalachians, an unusual amount of cold air drawn southward towards Sandy and several other atmospheric factors led to explosive cyclogenesis of a Nor' Easter simultaneously to Sandy's arrival. Consequently, a "perfect storm" blossomed, in a strikingly similar manner to 1991's Perfect Storm over northwest Atlantic at almost exactly the same time of year.

The storm literally devastated parts of the eastern U.S. coast, particularly in the NJ/NYC area. A massive, unprecedented storm surge - far worse than Irene late in August 2011 - flooded the entire city of New York and left millions of people homeless and/or without power for days. The catastrophic damage was comparable to that of Hurricane Katrina in 2005.

Further west, flooding rains and heavy mountain snows fell. Eastern parts of the Mid-Atlantic had excessive amounts of rain, coupled with severe wind damage similar to that caused by June 29th's super derecho. Up to 3 feet of wind-driven snow fell on the mountains of West Virginia and western Virginia, causing more major damage. Heavy snows also fell on much of Garrett Co., MD and PA's Laurel Highlands. A total of 3.2" fell at this location during and following the storm. The heavy snow and high wind created blizzard conditions.

Locally, the worst of the storm hit us the evening of the 29th - exactly a year after a Nor'Easter dropped record October snows - 11 inches at this location. The 29th was absolutely wild, as a cluster of imbedded thunderstorms pounded the area, along with vicious winds and heavy rain, snow and sleet. Thundersnow or thunder-sleet was widespread from Cambria County southwest into western MD and northeast WV. A total of 3.13" of precipitation fell on the 29th, the highest daily amount since station records commenced in August 2004. Nearly 5 inches - 4.98" to be exact - of precipitation fell in the final four days of October, accounting for 75% of the month's precipitation total of 6.63" - the wettest of 9 Octobers since 2004. The storm's intensity led to widespread record or near-record low barometric pressure readings that were similar to those observed during the March 1993 Superstorm.

Temperatures were seasonably mild, with a lack of extremes in either direction until the final week. There were a number of chilly nights during the 2nd week, when the month's first freeze (8th), frost (11th) and lowest temperature (27 on the 13th) all occurred. On the other hand, shortly prior to Sandy's mayhem, an Indian Summer engulfed the area with four consecutive days 70 or higher from the 23rd-26th. The 25th felt like true summer, with temperatures soaring to 80 F. However, the month still finished almost exactly average - just 0.1 F below normal, as the final four days when Sandy hit were all very chilly and skewed the month's mean maximum temperature below normal, just offsetting above normal mean minimum temperatures.

Superstorm Sandy will be well remembered by many for years to come. The storm affected areas as far west as Wisconsin and literally changed parts of the Atlantic coast landscape, due to excessive beach erosion. Its devastation was surreal in many areas. This incredible storm was remarkably well forecasted, and while many lives were severely affected, prompt warnings and actions minimized casualties from one of the most costly and destructive storms to hit the eastern U.S.