

MONTHLY WEATHER DATA AND OBS - WESTMONT 1W PA

JULY 2012

OBSERVER NATE MULLINS

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

Date	Temperature, °F			Precipitation, In.			Special Obs.
	24-hour Max	Min	At Obs	Liquid Rain Equiv	Solid Snow/ Ice	7am Snow Depth	
1	89	68	69	0.10			
2	85	61	69				T
3	85	59	65	1.25			F,T
4	87	62	68	0.67			T
5	87	67	74				
6	91	67	76				
7	93	67	74	0.10			T
8	84	70	72				
9	85	63	66				
10	84	55	69				
11	85	57	66				
12	85	61	68				
13	73	63	64	0.03			
14	78	62	68	0.15			
15	82	67	67	0.85			T
16	86	67	68	T			
17	89	61	77				
18	84	66	66	0.43			F,T
19	83	65	68	0.74			F,T
20	70	62	62	1.18			F,T
21	68	59	64	0.10			F
22	82	63	67				
23	81	63	75	T			
24	83	67	67	T			T
25	83	56	65				
26	88	64	68	2.30			F,T,DW
27	81	65	66	0.45			F,T
28	78	63	63	0.40			F,T
29	81	62	63	T			
30	83	55	69				
31	74	62	64	0.94			F,T,H
AVG/SUM	82.8	62.9	68.0	9.69	0.0	-	
EXT	93	55	77/62	2.30	-	-	
Date	7	30*	17/20	26	-	-	

* = Also occurred on earlier dates

Miscellaneous Stats

Mean Monthly Temperature: 72.8 °F (+2.1 °F)

Year precipitation to date: 33.18" (+3.99"); Monthly Precipitation Departure: +4.58" (normal July 5.11")

Season snowfall to date: 0.0"

Number of days with: Fog 9, Sleet 0, Glaze 0, Thunder 13, Hail 1, Damaging Wind 1

DETAILED OBSERVATION NOTES

1: Mild overnight, hot high 89 F with mostly sunny skies and light W winds, becoming mostly cloudy during the evening with a brief hard shower @ 11:50pm .10" of rain fell in 5 minutes.

2: Some lightning & distant thunder from the isolated rain/storm cell just before midnight. A warm day with modest humidity and partly cloudy skies. Winds were light & variable.

STRONG THUNDERSTORMS - WELCOME RAIN

3: Slightly cooler low 59, then a warm, variably cloudy, fairly humid day with a drenching, gusty thunderstorm from 3:30-4:30pm. 1.25" rain fell within the hour and N winds gusted to 30 mph. The rain was badly needed. Temps dropped into the 60s after the storm with fog briefly forming. Partial clearing during the evening, becoming cloudy with more lightning & thunder very late.

4: More rain and thunderstorms overnight from midnight-4:15am another .67" rain fell. Mostly sunny until late afternoon when severe thunderstorms suddenly blew up all around us. Some very close lightning but no rain. The most severe storms were to the SW where golf ball hail was reported.

VERY HOT & HUMID

5: Mostly sunny and continued hot & fairly humid high 87 F with light W winds. Warm evening.

6: Mostly sunny, hot & humid, high reached 91 with a peak heat index of 103. Very light winds.

7: Mostly sunny, again very hot & humid high 93 F with a brutal heat index of 108. An isolated thunderstorm with a very brief downpour just before 7pm .10" fell in 3 minutes.

WARM/DRY

8: Mostly cloudy early, becoming mostly sunny and warm. Mild overnight low of 70.

9: Mostly sunny, warm high 85. Low humidity and light winds.

10: Partly cloudy, pleasant AM, warm PM but again low humidity and light winds. Nice day.

11: Sunny, pleasant AM, variably cloudy, warm PM but again with low humidity, light S winds.

12: Variable cloudiness, similar temps and humidity as the past few days, light S winds.

MORE HUMID - VARIABLE TEMPS - SCATTERED SHOWERS/STORMS

13: Overcast all day which held temps in the low 70s for a change. On and off sprinkles and very light rain showers all afternoon and evening only .01" of rain.

14: Some very light showers overnight, a brief morning shower, and more rain showers just to the east this evening. Mostly cloudy skies with light SW winds.

15: Warm and humid high 82 F. A very brief downpour this morning, variable clouds with light west winds. A brief but intense thunderstorm this evening around 7:30pm with gusty W winds and a torrential downpour with .75" of rain falling in only 20 minutes. Some patchy fog late.

16: Very warm and humid high 86 heat index 93 with light variable winds. Partly cloudy skies.

17: Partly cloudy, hot & humid high 89 with a heat index of 96. Light to occasionally moderate W winds. A very warm evening with temperatures remaining in the upper 70s through midnight.

THUNDERSTORMS & HEAVY RAINS

18: Mild overnight with a low of 71. Warm and humid high 84 F. Thunderstorm 1pm with some briefly intense lightning & rain, kept us from getting as hot as most surrounding locations. 0.40" of rain fell. Severe storms and some very heavy rains narrowly passed south & west of here again between 3-5pm. Only an additional .03" of rain here with a few more rumbles of thunder.

19: Variably cloudy, warm and quite humid. Thunderstorm between 4-5pm with some heavy downpours & gusty winds. Lighter rain with some thunder continued until about 5:30pm 0.74" total rain.

20: Some fog overnight. Rain commenced about 6:45 am and lasted through mid-morning, heavy @ times with some thunder and patchy dense fog. Temperatures barely struggled to 70. More rain and showers of varying intensity through mid-evening with another 1.18" of rainfall today.

21: Cloudy overnight and through mid-afternoon with periods of light rain & drizzle just another .10" of rain. Skies cleared during the evening, nearly calm winds. High today only 68.

22: Partly cloudy and much warmer but with low humidity. Light variable winds.

23: Variably cloudy through early afternoon with a few sprinkles, not measurable. Skies cleared by late afternoon. A warm evening with strong SW breezes.

24: Continued breezy and warm overnight, AM low of 72. Warm and very humid with variable clouds. Countless storm cells, some severe, very narrowly missed us to the north & especially south all morning through mid-afternoon. Unbelievably, only a trace of rain. Winds were gusty from NW.

25: Clear overnight and a warm but much less humid and rare 100% sunny day with light SW winds.

SEVERE THUNDERSTORMS - MAJOR WIND DAMAGE - FLASH FLOODS

- 26: Jolting thunderstorms from about 4:30 to 6:30 am. Very intense, close & frequent lightning at times. A couple of brief downpours .24" rain fell. The worst of the storm was 2-3 miles to our south. Skies cleared rapidly by mid-morning, became mostly sunny with strong SW breezes, hot & very humid high 88 with a peak heat index of 98. TREMENDOUS thunderstorms this evening between 5:30-10pm. Torrential downpours, wicked frequent lightning and very strong winds with gusts to 51 mph here and 60+ in some places. Some areas also had hail. 1.75" of rain fell in 1 hour from 5:30-6:30pm. Houses and trees were struck by lightning. Numerous roads were closed due to flooding and/or downed trees/power lines, which were EVERYWHERE. A 2' diameter 70' tall Silver Maple on our property was snapped at the base, with other trees heavily damaged. Widespread power outages, some areas projected to be without for days. Rain and thunder finally ended by 10 pm 2.30" rain today. This was the most vicious thunderstorm to hit Westmont in a long time.
- 27: Fog and a few showers with a bit of thunder overnight. Skies cleared by late morning, mostly sunny this afternoon. A few evening showers & thunderstorms but nothing like yesterday. Saint Claire Rd still closed within a block of Windan Ln. due to major tree debris.
- 28: A couple of early AM thunderstorms with brief heavy rain, some AM fog, then partly cloudy with pleasant temps & light W winds. More storms were moving this way from the NW but dissipated as they passed through only yielding another .02" of rain.
- 29: A few sprinkles overnight, otherwise partly cloudy. Mostly sunny skies, a very nice day with low humidity and very light, variable winds.
- 30: A bit cooler overnight low 55 with clear skies, sunny all day with passing high clouds & light SW winds, low humidity.

MORE STRONG STORMS

- 31: An isolated intense thunderstorm about 7:30am with brief but very heavy rain and >4 minutes of pea to dime sized hail. Also some very close lightning. A peak rain rate of 13.40"/hr. 0.74" in 20 minutes, about a half-inch in 5 minutes. Several more storms in the area from 11:30am to 1:30pm and again during the mid-afternoon with only glancing blows. Total rain today .94". Occasional SW breezes and cooler temperatures with little sun and a high of only 74.

MONTHLY SUMMARY

Highlights of July 2012 included near-record heat at times and many thunderstorms, some of which were severe. The most severe storm hit the area on the 26th, causing widespread wind damage and flash flooding. A number of quasi-stationary fronts wavered back and forth across the area, which put us in the "ring of fire" zone - hot, humid air clashing with cooler, drier air. This set off many rounds of thunderstorms, some of which merely missed the station, but some of which hit hard. There were 5 major rain events, all from thunderstorms - the 3rd-4th, 14th-15th, 18th-20th, 26th-28th and the 31st. Nearly 2" of rain from intense storms from the afternoon of the 3rd to early on the 4th. A heavy thunderstorm dropped about .75" of rain in 20 minutes on the 15th. Heavy rain-producing thunderstorms plowed through the area again on the 18th, 19th & 20th. 2.30" of rain was recorded from the deluge on the evening 26th, with nearly another inch of rain from thunderstorms on the 27th-28th. Nearly an inch of rain fell again, most of it in 20 minutes, from a another big thunderstorm that brought dime-sized hail on the morning of the 31st. There were 13 days with thunder in July, the most in a month here since the June 2008, which had 17 days with thunder. A whopping 9.69" of rain fell, making it 1) the wettest July here since 1980, when 11.89" fell, 2) the wettest month since August 2007, when an August record 10.48" of rain fell and 3) the 3rd wettest month I have officially observed. 2nd to August 2007 was September 1996 in La Vale, MD (9.87"). 12.28" of rain did fall at a nearby CoCoRaHS station (Belmont 0.1NE) last September 2011.

Besides the hefty rain total, July was hot, though not nearly as hot as 2010 or especially 2011, the hottest July and month on record. The most hottest week was the 1st, with 91 on the 6th and 93 on the 7th. However, the majority of July had high temperatures in the 80s and lows in the 60s, with a few brief breaks from the heat after the 12th. There were no particularly cool nights, as the lowest temperature was 55 on the 10th & 30th. Temperatures were consistent, with 23 days in the 80s, trending slightly downward as the month progressed. All of the 1st 12 days were 84 or higher, whereas all of the last 14 days (2 weeks) were 84 or lower. To sum it up, July was fairly hot and very wet and stormy.