

MONTHLY WEATHER DATA AND OBS - WESTMONT 1.1W PA

SEPTEMBER 2010

OBSERVER NATE MULLINS

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	90	60	69				F
2	91	60	66				
3	88	59	64	0.10			
4	65	54	55				
5	68	47	50				
6	81	42	60				
7	88	53	77				
8	77	54	54				
9	64	53	54				
10	67	49	52				
11	73	41	58	0.02			
12	68	57	57	0.19			F
13	79	47	58				
14	74	53	60				
15	76	52	59				
16	63	51	62	0.98			F
17	63	49	49	0.04			F
18	75	44	57				F
19	80	53	62	T			
20	73	52	52				
21	81	43	62				
22	84	57	61	0.32			T,DW
23	82	59	65				F
24	84	61	77				
25	77	52	52	0.02			
26	62	46	54	0.05			
27	63	53	62	0.44			F
28	63	53	53	0.25			
29	63	51	57				
30	61	54	55	2.72			F
AVG/SUM	74.1	52.0	59.1	5.13			
EXT	91	41	77/49	2.72	0.0	-	
Date	2	11	24*/17	30	-	-	

*=-Also occurred on earlier dates

Miscellaneous Stats

Mean Monthly Temperature: 63.0 °F (+0.6°F)

Year precipitation to date: 44.77" (+7.33"); Monthly precipitation departure +0.98"

Season snowfall to date: 0.0"

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

DETAILED OBSERVATION NOTES

FAIR & HOT

- 1: Light fog around daybreak. Sunny hot and dry high 90 F with very light WNW winds.
- 2: Again sunny & hot high 91 F heat index 97, light WNW winds. Summer doesn't want to end!
- 3: Partly cloudy, hot & humid high 88 F. Line of rain showers with gusty west winds moved through about 5pm dropping temperatures into the upper 60s. Breezy and cool all evening.

MUCH COOLER - BREEZY

- 4: Breezy and much cooler with variably cloudy skies, west winds gusting 25+ mph. High only 65.
- 5: Partly cloudy and continued cool with crisp blue skies and low humidity. Light W winds.

WARM & DRY

- 6: Clear and cool overnight low 42 F. Sunny, warm & dry high 81 with a low humidity of 29%, high clouds increased with skies becoming overcast by mid-afternoon, cleared late. Light SW winds.
- 7: Sunny, very warm & dry with a high of 88 and a low humidity of 31%. Again an increase in high clouds during the late afternoon & early evening. Occasional breezes from WSW. Warm evening, lightning to the NW late this evening but no thunder, storms evaporated as they approached.
- 8: Variably cloudy & breezy overnight with falling temperatures. Becoming mostly sunny, breezy, dry. High of 77 was set at midnight and again at 2:30pm. Cooling off quickly in the evening.
- 9: Became mostly cloudy & breezy overnight with temperatures in the 50s and gusty NW winds that made today actually feel like fall. Temps nudged into the 60s when the sun finally came out.
- 10: Continued somewhat cool & breezy with gusts from the NNW. Variably cloudy, skies cleared after sunset.
- 11: Clear & chilly overnight low 41 F. Mostly sunny through the day and mild with gusty SW wind. Became cloudy during the evening with light rain showers late.
- 12: Light rain showers overnight, drizzle & fog this morning, skies cleared to partly cloudy by mid-afternoon, light WSW winds.
- 13: Variable clouds early, then clearing, breezy, mild high 79, west winds gusting 25+ mph
- 14: Sunny with a few passing clouds, gusty W winds 10-20 mph, mild. Lots of color on trees now.
- 15: Sunny, mild & dry with light W winds, very nice early fall day.

RAIN - FINALLY

- 16: Fair overnight becoming cloudy around daybreak with sprinkles, light rain began ~ 10:30 am, became moderate to heavy at times during the early-mid afternoon. Cool & breezy @ times from the south. A few more showers this evening .98" of total rainfall, this was badly needed.
- 17: Drizzle and light showers overnight ended by 8am another .04", storm total 1.02". Remained mostly cloudy and cool all day with occasional W breezes. Clearing & cool after sunset.
- 18: Cool overnight and this morning with dense fog. Lifted by 10 am and became sunny with passing high clouds, light NW winds. Not as cool this evening with high clouds.
- 19: Variably cloudy overnight, not as cool. Mostly cloudy and warm high 80 F with a few sprinkles around midday. Winds very light from WNW.
- 20: Mostly cloudy early, becoming sunny & clear, pleasant, variable winds from NNW.

VERY WARM

- 21: Clear & cool early, then sunny & warm with light SW winds.

STRONG THUNDERSTORM - SOME WIND DAMAGE - LARGE HAIL NEARBY

- 22: Mostly sunny & very warm high 84 F. Fast-moving thunderstorm just after 5pm with gusty winds and brief heavy downpours. Rain, lightning & thunder continued for about an hour .32" of rain fell. No hail was observed here but quarter-sized hail was reported 4 miles to the southwest. A lot of wind damage and scattered power outages were reported throughout town.
- 23: Mostly cloudy and foggy this morning. Became partly to mostly sunny and warm with steady west breezes. First day of fall felt more like summer.
- 24: Mostly sunny & very warm with gusty SW winds 20-30 mph at times. High 84 F. An unusually warm evening still 77 F at midnight with some mid level clouds beginning to move in.

BECOMING COOLER

25: Very warm early AM with a couple of brief showers, then temperatures dropping, rising to mid 70s, then quickly dropping again to 52 by midnight. Moderate W breezes 20+ mph at times.

26: Not as cold as expected overnight due to clouds moving in earlier than expected but a cool and cloudy day with only some weak sun early, very light N winds. Light rain late this evening.

SOME RAIN

27: Occasional drizzle overnight. Showery through mid-afternoon with rain moderate at times .44" fell by 3:30pm then ending along with foggy conditions, winds were light and shifted to SSE.

28: A brief heavy shower around 2am with strong S wind gusts. Cool steady temps with occasional brief showers ending around 8:30am. Not nearly as much rain as expected as this system split and dumped most of its rain just east and just west of the mountains, with most higher terrain receiving more modest amounts. Falling PM temps with gusty W winds and occasional drizzle.

29: Mostly cloudy & cool with light variable winds shifting from W to S.

HEAVIEST RAIN IN OVER 2 YEARS - SOME FLOODING

30: Light to moderate rain developed overnight, then became heavy and steady with rainfall rates averaging nearly a half-inch per hour for 6 hours from about 8am-2pm and many times averaging over 1"/hr especially early afternoon. Rain quickly tapered to drizzle about 2:30pm. Fog was dense at times and persisted most of the day. Winds NE shifted to NW, occasionally gusty.

The 2.72" of rain that fell today was the heaviest since Sep. 12-13 2008 when 3.65" fell in a 24 hour period. The heavy rain was due to a very large plume of moisture that streamed north from Tropical Storm Nicole just off the FL coast. Some minor local flooding - some areas, especially far eastern PA, were really hammered by extreme flooding and severe thunderstorms.

MONTHLY SUMMARY

The trend of above average temperatures continued into September, the 7th consecutive month with above normal temperatures. Again, this remarkable warm stretch followed one of the coldest, snowiest winters ever. The meteorological fall began with unusually hot temperatures, with the first two days in the 90s. Due to frequent frontal passages, high temperatures fluctuated a bit, with somewhat of a bimodal distribution - 12 days in the 60s (there were no particularly cool readings in either max or min temperatures - the low for the month was a modest 41 on the 11th), only 8 days in the 70s yet 10 days 80 or higher (2 of these days reached the low 90s - a sizzling 91 was recorded on the 2nd). Low temperatures were relatively consistent, with no particularly warm or cold mins, and in contrast to the max temperature distribution, were strongly modal near the mean of low 50s. 18 lows were in the 50s. 9 lows were in the 40s, while only 3 lows remained in the low 60s. In general, temperatures were unremarkable, aside from the unusually warm weather at the beginning of the month, and again around the official calendar beginning of fall. Temperatures averaged 63.0°F, only 0.6°F above normal but skewed down by some cooler readings, especially late.

For the third time in 2010, drought conditions began to develop. Very little rain fell during the final week of August and the entire first half of September. A meager .31" of rain fell through the 15th. While frontal passages were frequent, many were dry or nearly dry passages, primarily accompanied by a brief period of gusty winds and a slight lowering of humidities. The second half of the month was a different story, and September ended very wet, as the remnants of Tropical Storm Nicole raced up the east coast on the final day of the month (30th) and dumped 2.72" of rain, pushing precipitation above normal for the 5th consecutive month. The first significant rain event since August 22nd (nearly a month) brought over an inch of rain on the 16th and early on the 17th. The only thunderstorm of the month was recorded on the 22nd, but it was a feisty one, bringing damaging winds and some nearby large hail. Rainfall was modest because the storm moved very quickly east. This storm developed suddenly in a warm, summer-like air mass that persisted through the 24th. Two major systems brought beneficial rains to the area from the 27th-30th. The first storm occurred on the 27th-28th, and while bringing some needed rain, did not nearly live up to expectations, as 2+ inches of rain were expected and only .69" fell. On the other hand, the deluge on the 30th was unexpected. A large storm was originally forecast to slide off the east coast but instead tracked further west and dumped widespread heavy rains from the mountains to the east coast. At this location, nearly 2.5" of rain fell in only 6 hours, and 2.72" total, causing minor flooding throughout the area. Some far eastern parts of the state had 10+ inches of rain! Overall, September had a warm, very dry first half and a cooler, notably wetter second half.