

# MONTHLY WEATHER DATA AND OBS - WESTMONT 1W PA

JANUARY 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	32	16	16	0.26	3.0	9	S
2	16	6	6	0.11	3.0	11	
3	11	2	10	0.18	3.0	12	
4	18	10	14	0.15	6.5	15	
5	19	14	17	0.21	8.0	17	
6	21	17	19	0.23	3.1	21	
7	22	17	19	0.18	2.1	20	
8	20	8	14	0.15	4.5	21	
9	23	10	10	0.04	1.7	22	
10	16	5	11	0.01	0.6	20	
11	22	10	16	0.05	2.0	18	
12	22	15	19	0.05	1.6	19	
13	27	18	24	T	T	18	
14	41	24	35			16	
15	38	32	34			13	
16	44	33	34			11	
17	36	31	31	0.79	T	9	F,S
18	38	31	35	T		7	F
19	36	27	27	0.01	T	6	F,G
20	30	21	21	T	0.1	6	
21	34	18	28	0.04	0.1	6	S,G
22	32	28	30	0.02	T	6	F,S,G
23	39	27	32			6	
24	42	29	41	0.82		5	F
25	47	28	28	1.11	0.8	3	F
26	28	20	20	0.07	1.1	3	
27	28	19	26	0.03	0.4	4	
28	31	7	7	0.10	1.5	5	DW
29	12	4	7	T	T	4	
30	18	7	9			4	
31	24	3	20			4	
<b>AVG/SUM</b>	<b>28.0</b>	<b>17.3</b>	<b>21.3</b>	<b>4.61</b>	<b>43.1</b>	<b>11.0</b>	<b>&lt;--Mean</b>
EXT	47	2	41/6	1.11	8.0	22	
Date	25	3	24/2	25	5	9	

\*=Also occurred on earlier dates

### Miscellaneous Stats

**Mean Monthly Temperature: 22.6 °F (-3.0 °F)**

Year precipitation to date: 4.61" (+0.80")

Season snowfall to date: 76.2"

Number of days with: Fog 6, Sleet 4, Glaze 3, Thunder 0, Hail 0, Damaging Wind 1

## DETAILED OBSERVATION NOTES

- 1: 32 F @ midnight w/ temperatures falling steadily through the 24-hour period. Light snow/ice pellets mixed becoming all snow and relatively steady through the day with strong W winds gusting 35-45 mph.
- 2: Very windy with 2.5" of snow overnight. Occasional breaks in the clouds with a few brief heavy snow squalls - an additional 0.5" of snow late this afternoon & evening. Windy & blustery - 43 mph wind gust.
- 3: Light snow overnight (1"). Mostly overcast - a lull in the action but continued windy & very cold with a low of 2 F this morning and a high of only 11 F. NW winds continued gusting 30-40 mph. Light to moderate and steady snow resumed late this evening with an additional 2" falling by midnight.
- 4: Moderate to occasionally heavy snow overnight (4" fell by 7am). Steady light to moderate snow during the afternoon & evening with a daily total of 6.5" (very dry/fluffy - only 0.15" water from core sample). Continued windy, blustery & quite cold.
- 5: Steady light snow overnight, becoming moderate to heavy at times this evening. Continued cold, windy & blustery. 8.0" of additional snow accumulated by midnight. Again, very dry & fluffy, melted down core sample yielded only 0.21" water. The unexpected dump of snow this evening prompted winter storm warnings.
- 6: Snow continued overnight, gradually tapering off, another 2" fell by 7am. Cold, windy, blustery. Light snow continued through most of the day with an additional 1.1" of fall by midnight. 0.23" water - this snow was much finer and denser than the fluffy snows that have fallen the past several days.
- 7: Cold with somewhat less wind & light snow ending around mid-day, then moderate, steady snow resuming by mid-evening. 2.1" of snowfall for the day - again much denser than previous snows (0.18" water).
- 8: Steady snow overnight another 2.5" fell. Light snow, cold temperatures & blustery conditions during the day, snow was occasionally moderate. 4.5" total by midnight - much lighter/fluffier again only .15" of melted precip.
- 9: Light snow overnight and through midday another 1.7" by noon, then clearing skies for once to partly cloudy conditions. A few flurries after sunset. Still breezy & blustery. 22" of snow on ground at 7am.
- 10: Variable clouds with flurries and occasional light snow showers. Another 0.6" of snowfall.
- 11: Overcast with occasional light snow showers, becoming moderate and steady at times during the evening with 2.0" by midnight (only 0.05" of water).
- 12: Light snow overnight, another 1.2" fell. Some breaks in the clouds, then light snow resuming this evening with another 0.4" for a daily total of 1.6". A total of 39.1" of snow has fallen already this month in the first 12 days, one of the snowiest starts to any year ever.
- 13: Snow ended overnight with gradual clearing through the day, clear overnight. First day without any measurable snow or precip (only a trace).
- 14: Fair skies with slight warming overnight. Milder today with a high of 41 F and near 100% sunshine.
- 15: Overcast through the day with light SW to W winds, occasional brief gusts.
- 16: Overcast this morning, first above-freezing min since Dec. 14th and only the 2nd since Nov. 26th (Thanksgiving day). Low was 33 F. Partial clearing and mild today with a high of 44 F.
- 17: Overcast with a cold rain commencing at 8:30 am. Moderate to heavy at times during the morning tapering to drizzle this afternoon, foggy, a period of light snow and sleet from 9-11pm (no measurable snow/ice). A total of .79" precip fell today.
- 18: Overcast and foggy with steady temperatures slightly above freezing most of the day.
- 19: Overcast with fog, gradually falling temperatures, and light AM freezing drizzle. Only 0.01" of precip but this was enough to put a very thin coat of glaze on all surfaces and make walking outside difficult.
- 20: Mostly overcast with a brief period of fine, light snow at midday (0.1" - trace of precip). Clearing skies after sunset with temperatures finally falling.
- 21: Fair to mostly sunny skies through the day, gusty winds from the SW shifting to SE, rapid increase in clouds around sunset. Freezing drizzle with some ice pellets mixed in beginning around 10pm. About 1/8" of ice (sleet & glaze) on all surfaces.
- 22: Occasional freezing drizzle & light freezing rain overnight, only 0.02" precip (trace of ice). Foggy conditions with fog lifting during the evening and a few brief spits of sleet and occasional wind gusts.
- 23: Clearing skies during the pre-dawn hours. Light to moderate SW breezes and 100% sunshine - a rarity.
- 24: Overcast with rain commencing at 11:30 am. Temperatures steady in the mid 30s before rising into the

low 40s late this evening. Steady rain during the afternoon & evening with patchy fog, 0.82" rain by midnight.

25: Rain overnight heavy at times, with some brief downpours around 4am. Another .93" of rain by 7am (1.75" since 11:30am yesterday). Occasional rain showers throughout the day, changing to snow showers this evening and becoming very windy with W winds gusting to 25-35 mph. 0.8" of snow accumulation by midnight and 1.11" of precipitation today, 1.93" total in 36 hours. The heavy rains combined with a dense snow-pack meltdown caused quite a bit of flooding in the area.

26: Light snow showers through the day, strong W winds, cold & blustery. 1.1" of snowfall.

27: Light snow ending overnight, another 0.4" by 7am. Skies gradually cleared during the afternoon then became cloudy after sunset - radar showed moderate snow for several hours but none reached the ground.

28: Overnight snow (1.5") with flurries through the day. High temperature of 31 F was set late this morning before a cold front plowed through, bringing fierce W to NW winds that gusted up to 42 mph and brought down some moderate sized limbs in the yard. Temperatures dropped rapidly to 6.8 (7 F) by midnight.

29: Very cold overnight with a low of 4 F and winds diminishing but still dangerously cold wind chills around -10 to -15 F. Variably cloudy with a few flurries, cold high only 12 F.

30: Cloudy and cold again but no snow as a large system just barely passed south of the area today. Clouds began to break around sunset and became clear during the evening hours.

31: Clear & cold overnight with calm winds and a chilly low of 3 F. Sunny skies with 100% sunshine. Partly to mostly cloudy skies moved in after sunset with strong winds shifting to NW and gusting to 30 mph.

#### MONTHLY SUMMARY

January brought one of the snowiest starts to any year ever on record. In the first 12 days, 39.1" of snow fell. Much of this snow was attributed to a slow-moving Nor' Easter off the New England coast, which brought a persistent N to NE wind off Lake Ontario and a strong NW wind off Lake Erie. Combined with orographic lift, this abundant lake-enhanced moisture resulted in persistent fluffy snows that fell heavily at times. While over 90% of the month's snow fell in the first 12 days, over 2/3 of the month's precipitation fell during the second half, from the 17th on. There were two significant rain events, on the 17th (0.79") and most notably the 24th-25th, when 1.93" of rain fell, causing quite a bit of flooding in the area, in light of a rapid warm-up and the meltdown of a dense, heavy snowpack. On the 28th, a strong cold front passed through, dropping the month's final snow of 1.5" and producing locally damaging wind gusts up to 42 mph. Despite missing a system that brought moderate to heavy amounts of snow south of the area on the 30th, January's precipitation and snowfall both finished above normal. There were a couple of minor ice storms during the 3rd week of January.

The month began and ended quite cold. Temperatures did not even climb above freezing until the 14th, when a significant moderating trend took over. However, the cold front on the 28th that brought snow squalls and wind that brought down limbs in the yard, ushered in another wave of very cold temperatures and wind chills.

The persistent cold, snowy pattern of the first 12 days was nearly offset by the relative warmth of the following two weeks, but temperatures tumbled at the end of the month and finished 3 degrees below normal.

Despite the persistent cold at times, there was a lack of extremes in either direction. The month's extremes were modest, ranging from 47 (25th) to 2 (3rd). The final four days all had lows in the single figures.

This January's temperature pattern was markedly different from many previous Januarys. We had many Januarys that had an unusually mild start and a mild first half, then a much colder second half. This trend was quite notable in January 1992, 1995, 1997, 2000, 2005 and 2007. The snow, temperature and precipitation trend this month was nearly a mirror image of those and a few other recent Januarys. In the end, January 2010 definitely felt like a true winter month, with persistent cold, wind, snow, ice and precipitation.