Sat. Dec. 1, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 40 °F	Dir. W	Temp. 72 °F			
Min. 24 °F	Vel. 4 m.p.h.	Read. 29.09 in.			
Set 24 °F	Char. Steady	Corr. 28.96 in.	0700	1300	1900
R.H. 51 %	24 hr. Mov. 85.2 mi.	Sea L. 30.40 in.	Clds. Cs 4/10 St	Clds.	Clds.
Ppn. Liq. 0 in.	Prev. Dir. WSW	3 hr. Tend. ✓+0.1 mb	Wx SCT	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer ESP	Vis. 25 mi.	Vis. mi.	Vis. mi.

T_{out}: 30

T_{db}: 25

T_d: 14

$\bar{T}$: 32

h_{bo}: 33

Σh_{bo}: 33

$E_{pen}(L)$: 0

$E_{pen}(S)$: 0

Sunday, December 2, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 57 °F	Dir. WSW	Temp. 72 °F	· cont 6: 39 @ 2315 LT, 1/4		
Min. 24 °F	Vel. 9 m.p.h.	Read. 29.11 in.			
Set 46 °F	Char. Steady	Corr. 28.98 in.	0700	1300	1900
R.H. 40 %	24 hr. Mov. 99 mi.	Sea L. 30.29 in.	Clds. 10/10 altostratus	Clds.	Clds.
Ppn. Liq. 0 in.	Prev. Dir. S	3 hr. Tend. /+1.5 mb	Wx OVC	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer MSS	Vis. 15 mi.	Vis. mi.	Vis. mi.

$T_{roof} = 44$

$T_{wet} = 35.5$

$T_d = 21$

$\bar{T} = 38$

$HDD = 27$

$\Sigma HDD = 60$

$\Sigma CDD = 0$

$\Sigma PCN_L = 0$

$\Sigma PCN_S = 0$

MON. DEC 3, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 48 °F	Dir. E	Temp. 73 °F	IP-B ~ 0350 LT S-B ~ 0430 LT E ~ 0600 LT PRESFR (ZR- OBSERVD IN STORMTOWN)		
Min. 32 °F	Vel. 9 m.p.h.	Read. 29.14 in.			
Set 32 °F	Char. GUSTS TO 18	Corr. 29.01 in.	0700	1300	1900
R.H. 78 %	24 hr. Mov. 72 mi.	Sea L. 30.36 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. .02 in.	Prev. Dir. NE	3 hr. Tend. \-2.5 mb	Wx IP-/R-	Wx	Wx
Ppn. Sol. T in.	Snow Depth T in.	Observer JHM	Vis. 8 mi.	Vis. mi.	Vis. mi.

$T_{roof} = 31$ $T_{d\ rain} = 22.5$

$T_{d\ UNV} = 26$

$\bar{T} = 40$

$H_{DD} = 25$

$\Sigma_{H_{DD}} = 85$

$\Sigma_{PPN(L)} = .02''$

$(S) = T$

Tues. Dec 4, 1990 — 0700 EST — Meteorological Observatory, University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 52 °F	Dir. W	Temp. 72 °F	* New record precip. (old record 1.46 in 1900)		
Min. 32 °F	Vel. 15 m.p.h.	Read. 28.60 in.	Wmfropa: 2100 LT Gust to 50 mph ≈ 0030 LT Cdfropa: 0130 LT		
Set 41 °F	Char. Gusting to 25	Corr. 28.97 in.	Gust Hi: occurred ≈ 0130 LT (over)		
			0700	1300	1900
R.H. 76 %	24 hr. Mov. 84.0 mi.	Sea L. 29.85 in.	Clds. 10/10 Sc	Clds.	Clds.
Ppn. Liq. + 1.67 in.	Prev. Dir. E → SW	3 hr. Tend. ✓ +2.0 mb	Wx Fog	Wx	Wx
Ppn. Sol. 1.1 in.	Snow Depth 0 in.	Observer ESP	Vis. 5 mi.	Vis. mi.	Vis. mi.

Troof: 40

Twet: 37

Td: 23

$\bar{T}$: 42

H_{RD}: 23

ΣH_{RA}: 11 3

Σ pcn(L): 1.69"

Σ pcn(S): 1.1"

Precip history: (all times Local)

ZR- 0700-0745
1200-1300

IP- 0700-1300 (Local IP)

S- 0745-1245 (Local S, Wet Snow)

R- 1200-2000 (Local R)

L- 1600-1830
2000-0630

RW 0215-0415 (Local RW-)

Wed. December 5 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 41 °F	Dir. W	Temp. 71 °F	• a few flakes at obs time. • SW- 1145-1200 • Gusts to mid 40s 1450-1500 later am/early pm 1530-1545 • bulk of accum. 1800-1820 occurred ovnt • S- 2000-		
Min. 23 °F	Vel. 17-24 m.p.h.	Read. 28.83 in.			
Set 24 °F	Char. variable	Corr. 28.71 in.	0700	1300	1900
R.H. Assm 54 %	24 hr. Mov. 302 mi.	Sea L. 30.15 in.	Clds. 10/10 stratocumulus	Clds.	Clds.
Ppn. Liq. .03 in.	Prev. Dir. W	3 hr. Tend. +2½ / mb	Wx • ovc ; SW-- • windy	Wx	Wx
Ppn. Sol. .6 in.	Snow Depth T in.	Observer JCK	Vis. 25 mi.	Vis. mi.	Vis. mi.

$T_{Avg} = 22$ $\bar{T} = 32$ $\Sigma Rain_A = 1.72"$

$T_w = —$ $HDD = 33$ $\Sigma Rain_B = 1.7"$

$T_d = 8$ $\Sigma HDD = 146$

$CDD = 0$

$\Sigma CDD = 0$

"Flurry" (Less H_2O content)
SNOW

THURS., DECEMBER 6, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 34 °F	Dir. WSW	Temp. 70 °F	• yesterday's max = 29 • overnite low = 24 • temps began to rise during early morning • SW- 0820-1000 LT 1405-1500 LT		
Min. 24 °F	Vel. 8 m.p.h.	Read. 28.73 in.			
Set 34 °F	Char. gusts to 18	Corr. 28.61 in.	0700	1300	1900
R.H. 47 %	24 hr. Mov. 186 mi.	Sea L. 29.91 in.	Clds. 5/10 - cirrus - altostratus	Clds.	Clds.
Ppn. Liq. T in.	Prev. Dir. W	3 hr. Tend. \ -1 mb	Wx partly cloudy	Wx	Wx
Ppn. Sol. T in.	Snow Depth T in.	Observer MSS	Vis. 25 mi.	Vis. mi.	Vis. mi.

$T_{roof} = 32$

$T_d = 14$

$F = 29$

$HDD = 36$

$\Sigma HDD = 182$

$\Sigma CDD = 0$

$\Sigma PCN_L = 1.72"$

$\Sigma PCN_S = 1.7"$

Fri: December 7 1979 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.
Max. 41 °F	Dir. —	Temp. 70 °F	* Snow still covered in the form of patches.
Min. 33 °F	Vel. 0 m.p.h.	Read. 28.91 in.	
Set 34 °F	Char. Calm	Corr. 28.79 in.	
R.H. R 78 %	24 hr. Mov. 82 mi.	Sea L. 30.20 in.	
Ppn. 0 Liq. in.	Prev. Dir. WSW	3 hr. Tend. +1½ — mb	
Ppn. 0 Sol. in.	Snow Depth T in.	Observer JCK	

	0700	1300	1900
Clds.	10/10 STRATOCUMULUS	Clds.	Clds.
Wx	OVC	Wx	Wx
Vis.	12 mi.	Vis. mi.	Vis. mi.

$T_{Avg} = 32$

$T_m = —$

$T_d = 25$

$\bar{T} = 37$

$MDI = 28$

$\Sigma_{MDI} = 210$

$CDI = 0$

$\Sigma_{CDI} = 0$

$\Sigma_{Rain_L} = 1.72"$

$\Sigma_{Rain_S} = 1.7"$

Sat. Dec. 8, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.
Max. 41 °F	Dir. 0	Temp. 72 °F	Vcby SW 3/4 Thr Vcby 3
Min. 24 °F	Vel. — m.p.h.	Read. 28.90 in.	
Set 25 °F	Char. Calm	Corr. 28.77 in.	
R.H. 100 %	24 hr. Mov. 19.5 mi.	Sea L. 30.19 in.	
Ppn. Liq. 0 in.	Prev. Dir. S	3 hr. Tend. V+0.1 mb	
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer ESP	

0700	1300	1900
Clds. 2/10 Fog ST	Clds.	Clds.
Wx Fog	Wx	Wx
Vis. 1 mi.	Vis. mi.	Vis. mi.

T_{roof}: 26

T_w: 24

T_{rd}: 26

$\bar{T}$: 33

H_{Q_0}: 32

ΣH_{Q_0}: 242

$\Sigma_{pen(L)}$: 1.72"

$\Sigma_{pen(S)}$: 1.7"

Sunday, December 9, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.
Max. 45 °F	Dir. WNW	Temp. 71 °F	• min accrd just after obs, 8th • overnite low = 34
Min. 24 °F	Vel. 4 m.p.h.	Read. 28.97 in.	
Set 34 °F	Char. light	Corr. 28.85 in.	
R.H. 72 %	24 hr. Mov. 89 mi.	Sea L. 30.16 in.	
Ppn. 0 Liq. in.	Prev. Dir. W	3 hr. Tend. ✓ +1 3/4 mb	
Ppn. 0 Sol. in.	Snow Depth 0 in.	Observer MSS	

0700	1300	1900
Clds. 4/10 stratus	Clds.	Clds.
Wx partly cloudy	Wx	Wx
Vis. 15 mi.	Vis. mi.	Vis. mi.

$T_{roof} = 32$ $T_{d\ room} = 22$

$T_w = 29$

$T_d = 24$

HDD = 30

$\sum HDD = 272$ $\sum CDD = 0$

$\sum PCN_L = 1.72"$

$\sum PCN_S = 1.7"$

$\bar{T} = 35$

Mon. Dec. 10. 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 45 °F	Dir. W	Temp. 71 °F			
Min. 33 °F	Vel. 15 m.p.h.	Read. 28.74 in.	MIN T OCRD ~ 0800 LT, 9th		
Set 42 °F	Char. Steady	Corr. 28.62 in.	(35) Gust 40 occurred: ≈ 2000 LT		
R.H. 62 %	24 hr. Mov. 178.2 mi.	Sea L. 30.00 in.	0700 Clds. 7/10 St	1300 Clds.	1900 Clds.
Ppn. 0 Liq. in.	Prev. Dir. WSW	3 hr. Tend. \ -0.2 mb	Wx BKN	Wx	Wx
Ppn. 0 Sol. in.	Snow Depth 0 in.	Observer ESP	Vis. 10 mi.	Vis. mi.	Vis. mi.

T_{roof}: 43

T_{wall}: 38

T_d: 31

$\bar{T}$: 39

H_{dd}: 26

εH_{dd}: 298

$\varepsilon_{pcm(4)}$: 1.72

$\varepsilon_{pcm(3)}$: 1.7

TUES. DEC. 11, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 46 °F	Dir. WSW	Temp. 71 °F	BINOVC E (CIST, CICU)		
Min. 25 °F	Vel. 3 m.p.h.	Read. 29.06 in.			
Set 27 °F	Char. light	Corr. 28.93 in.	0700	1300	1900
R.H. 63 %	24 hr. Mov. 164 mi.	Sea L. 30.34 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0 in.	Prev. Dir. NW	3 hr. Tend. √+1.2 mb	Wx CLOY	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer JHM	Vis. 25 mi.	Vis. mi.	Vis. mi.

$T_{max} = 25$ $T_{d\ max} = 10.5$

$T_{d\ min} = 17$

$\overline{T} = 36$

$H_{DD} = 29$

$\Sigma H_{DD} = 327$

$\Sigma_{PPN.(L)} = 1.72"$

$(S) = 1.7"$

Wed. December 12 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 37 °F	Dir. —	Temp. 72 °F	• SW - - 1315 - 25 aT (Few Flakes)		
Min. 22 °F	Vel. 0 m.p.h.	Read. 28.88 in.			
Set 26 °F	Char. Calm	Corr. 28.75 in.	0700	1300	1900
R.H. 67 %	24 hr. Mov. 15 mi.	Sea L. 30.18 in.	Clds. 0/10	Clds.	Clds.
Ppn. T Liq. in.	Prev. Dir. S	3 hr. Tend. ±0 — mb	Wx • Clear • Patchy Ridge Glaze =	Wx	Wx
Ppn. T Sol. in.	Snow Depth 0 in.	Observer JCK	Vis. 25 mi.	Vis. mi.	Vis. mi.

$T_{RoofR} = 24$ $\bar{T} = 30$ $\Sigma PCN_2 = 1.72"$

$T_w = —$ $HDD = 35$ $\Sigma PCN_3 = 1.7"$

$T_R = 13$ $\Sigma_{HDD} = 362$

$CDD = 0$

$\Sigma_{CDD} = 0$

THURS., DECEMBER 13, 1990

0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 53 °F	Dir. SW	Temp. 74 °F	• min occd ~0800 LT, 12th • max occd @ obs, 13th • diurnal: 45 ~1400 LT 33 ~2200 LT		
Min. 24 °F	Vel. 12 m.p.h.	Read. 28.60 in.			
Set 53 °F	Char. gusts to 18	Corr. 28.47 in.	0700	1300	1900
R.H. 52 %	24 hr. Mov. 45 mi.	Sea L. 29.75 in.	Clds. 10/10 stratus	Clds.	Clds.
Ppn. Liq. 0 in.	Prev. Dir. SW	3 hr. Tend. -0.8 mb	Wx overcast	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer MSS	Vis. 20 mi.	Vis. mi.	Vis. mi.

$T_{roof} = 50$ $T_{d_{ramos}} = 32$

$T_{wet} = 42.5$

$T_d = 33$

$\bar{T} = 39$

HDD = 26

$\sum HDD = 386$

$\sum CDD = 0$

$\sum PCN_L = 1.72"$

$\sum PCN_S = 1.7"$

Fri. December 14 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.
Max. 54 °F	Dir. N	Temp. 72 °F	• Rw-- 1020-1115 (RAIN Rw) • Rainbow north 1020-1030
Min. 25 °F	Vel. 4 m.p.h.	Read. 29.20 in.	
Set 25 °F	Char. Steady	Corr. 28.90 in.	
R.H. 63 %	24 hr. Mov. 230 mi.	Sea L. 30.34 in.	
Ppn. Liq. .03 in.	Prev. Dir. W	3 hr. Tend. +3 / mb	
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer Jck	

	0700	1300	1900
Clds.	0/10	Clds.	Clds.
Wx	• Clear	Wx	Wx
Vis.	30 mi.	Vis. mi.	Vis. mi.

$T_{Adj} = 24$ $\quad \bar{T} = 40$ $\quad \Sigma PCW_L = 1.75"$

$T_w = —$ $\quad HDD = 25$ $\quad \Sigma PCW_S = 1.7"$

$T_d = 11$ $\quad \Sigma HDD = 411$

Sat. December 15 1990

0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 35 °F	Dir. S	Temp. 75 °F	PRSFR ZR - 0555 - 0635 LT ZL - IP - 0635 - 0640 PCPN Unkn ZR - 0640 - OBC LT MinT OCRY ~ 0800 LT, 14° OVRNT LO ~ 29		
Min. 23 °F	Vel. 10 m.p.h.	Read. 28.97 in.			
Set 31 °F	Char. G15	Corr. 28.83 in.	0700	1300	1900
R.H. 68 %	24 hr. Mov. 63.9 mi.	Sea L. 30.24 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. T in.	Prev. Dir. S	3 hr. Tend. \ -3.0 mb	Wx ZR-	Wx	Wx
Ppn. Sol. T in.	Snow Depth 0 in.	Observer JGM	Vis. 7-15 mi. (W E)	Vis. mi.	Vis. mi.

$T_{roof} = 28$

$T_{dRamos} = 18.7$

$T_{dUNV} = 25$

$T_w = —$

$\bar{T} = 29$

$HDD = 36$

$\Sigma_{HDD} = 447$

$\Sigma PCN_L = 1.75''$

$\Sigma PCN_S = 1.7''$

Sun. December 16 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 41 °F	Dir. W	Temp. 72 °F	• ZR – 0835 – 1130 LT (local ZR) • IP – 0920 – 1015 LT (local IP) subtotal — .1" solid		
Min. 31 °F	Vel. 6-42 m.p.h.	Read. 28.74 in.	RW 2330-0000 LT = .04" (.39" liq. total) (WCR) FROPA (PRSJMP) · MAX T OCRD POST-FROPA ~ 0100 LT.		
Set 39 °F	Char. Gusty and highly var.	Corr. 28.61 in.	0700	1300	1900
R.H. 65 %	24 hr. Mov. 109 mi.	Sea L. 29.99 in.	Clds. 9/10 stratocum (bldg + darkening)	Clds.	Clds.
Ppn. Liq. .43 in.	Prev. Dir. WSW	3 hr. Tend. +2 mb	Wx • BKN • Windy	Wx	Wx
Ppn. Sol. .1 in.	Snow Depth 0 in.	Observer JCK	Vis. 20 mi.	Vis. mi.	Vis. mi.

$T_{max} = 38$ $\bar{T} = 36$ $\Sigma PCN_L = 2.18"$

$T_w = —$ $HDD = 29$ $\Sigma PCN_S = 1.8"$

$T_d = 26$ $\Sigma_{HDD} = 476$

SEVERAL REPORTS OF THUNDER HEARD LOCALLY ~ 0000 LT

Mon. December 17, 1990

0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 39 °F	Dir. Calm	Temp. 73 °F	L - 1555 - 1615 LT		
Min. 33 °F	Vel. 0 m.p.h.	Read. 29.00 in.			
Set 34 °F	Char. Calm	Corr. 28.87 in.	0700	1300	1900
R.H. 72 %	24 hr. Mov. 160.4 mi.	Sea L. 30.27 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. Tr in.	Prev. Dir. W	3 hr. Tend. ^+.5 mb	Wx Overcast	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer JGH	Vis. 5 mi.	Vis. mi.	Vis. mi.

$T_{d\ Nov} = 25.4 > 27$

$T_{d\ Nov} = 29$

$\bar{T} = 36$

$HDD = 29$

$\Sigma_{HDD} = 505$

$\Sigma_{PCN_2} = 0.18$"

$\Sigma_{PCN_1} = 1.8$"

TUES, DEC 18, 1990

0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 40 °F	Dir. SW	Temp. 74 °F	R- ~~1850~~ 1815 - 1915, 0000 - OBS (LT) MIN T 0620 ~0800 LT, 17th		
Min. 32 °F	Vel. 5 m.p.h.	Read. 28.44 in.			
Set 39 °F	Char. STEADY	Corr. 28.31 in.	0700	1300	1900
R.H. 96 %	24 hr. Mov. 55 mi.	Sea L. 29.69 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0.46 in.	Prev. Dir. S	3 hr. Tend. V -2.5 mb	Wx R-	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer MLH	Vis. 3 mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 37$, $T_{D_{RAMOS}} = 34$, $T_{DUNV} = 37$

$\bar{T} = 36$

$HDD = 29$

$\Sigma_{HDD} = 534$

$\Sigma_{PEN\ LIQ} = 2.64''$

$\Sigma_{PEN\ SOL} = 1.8''$

Wed. December 19 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.
Max. 45 °F	Dir. WNW	Temp. 72 °F	• R- 085 - 0830 LT 1045 - 1230 1330 - 2145 LT FROPA ~ 2130 LT MAX T OCRD AFTER FROPA
Min. 37 °F	Vel. 7-12 m.p.h.	Read. 28.76 in.	
Set 38 °F	Char. Variable	Corr. 28.63 in.	
R.H. 69 %	24 hr. Mov. 55 mi.	Sea L. 30.02 in.	
Ppn. Liq. .63 in.	Prev. Dir. W	3 hr. Tend. +4 / mb	
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer JCK	

0700	1300	1900
Clds. 10/ OVERCAST 10	Clds.	Clds.
Wx • OVC • RAINY	Wx	Wx
Vis. 20 mi.	Vis. mi.	Vis. mi.

$T_{min-jan} = 36$ $\bar{T} = 41$ $\Sigma PCN_L = 3.27"$

$T_w = —$ $HDD = 24$ $\Sigma PCN_S = 1.8"$

$T_d = 27$ $\Sigma_{HDD} = 558$

Thurs December 20 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 39 °F	Dir. —	Temp. 74 °F			
Min. 22 °F	Vel. 0 m.p.h.	Read. 29.38 in.			
Set 24 °F	Char. Calm	Corr. 29.20 in.	0700	1300	1900
R.H. R 84 %	24 hr. Mov. 52 mi.	Sea L. 30.06 in.	Clds. 2/10 cirrus	Clds.	Clds.
Ppn. Liq. 0 in.	Prev. Dir. W	3 hr. Tend. +1½ / mb	Wx · Mostly cle · LT Fog	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer JCK	Vis. 15 mi.	Vis. mi.	Vis. mi.

$T_{Maj\,\Delta} = 23$ $\quad \overline{T} = 31$ $\quad \Sigma P_{CN_c} = 3.27''$

$T_w = \text{---}$ $\quad HDD = 34$ $\quad \Sigma P_{CN_s} = 1.8''$

$T_\Delta = 18$ $\quad \Sigma HDD = 592$

FRI. DEC. 21, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 39 °F	Dir. —	Temp. 74 °F	PCPN VRY LT R-B ~ 0415 LT RIDGETOPS OBSCURED (A SOGGY SOLSTICE!)		
Min. 24 °F	Vel. 0 m.p.h.	Read. 29.15 in.			
Set 39 °F	Char. CALM	Corr. 29.02 in.	0700	1300	1900
R.H. 96 %	24 hr. Mov. 99 mi.	Sea L. 30.42 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. .06 in.	Prev. Dir. S	3 hr. Tend. \-1.5 mb	Wx R-F	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer JHM	Vis. 2½ mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 37$ $T_{d\ RANGE} = 34$ $T_{d\ MIN} = 37$

$\bar{T} = 32$

$H_{DD} = 33$

$\Sigma_{H_{DD}} = 625$

$\Sigma_{PEPN(L)} = 3.33''$

$\Sigma_{PEPN(S)} = 1.8''$

Sat Dec 22, 1990 — 0700 EST — Meteorological Observatory, University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 48 °F	Dir. SW	Temp. 73 °F	Low occured at 0700 est Dec 21. Fog on Ridges R-, OCNL. R OBS – 1100 LT TMPS rose STDily over 24 hr PERIOD		
Min. 39 °F	Vel. 8 m.p.h.	Read. 28.87 in.			
Set 48 °F	Char. Gusty 12-yd	Corr. 28.74 in.	0700	1300	1900
R.H. 60 %	24 hr. Mov. 57.7 mi.	Sea L. 30.22 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. .25 in.	Prev. Dir. SW	3 hr. Tend. \ – 2 mb	Wx overcast	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer JGM	Vis. 7 mi.	Vis. mi.	Vis. mi.

$T_w = 45$

$T_{d\ Ramos} = 41.8 > 43$

$T_{d\ Ang} = 44$

$\bar{T} = 44$

$H_{DD} = 2$

$\Sigma_{HDD} = 648$

$\Sigma_{prop(L)} = 3.58''$

$\Sigma_{prop(S)} = 1.8''$

SUNDAY, DEC 23 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 60 °F	Dir. SSW	Temp. 74 °F	FOG ON Ridges -Lights of Tusey Mtn just visible RW - ocnl RW 0000 LT - OBS MIN T OCURD ~ 1000 LT 22 ND		
Min. 47 °F	Vel. 15 m.p.h.	Read. 28.54 in.			
Set 60 °F	Char. Gusty	Corr. 28.41 in.	0700	1300	1900
R.H. 84 %	24 hr. Mov. 62 mi.	Sea L. 29.72 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0.37 in.	Prev. Dir. SSW	3 hr. Tend. -1.5 \ mb	Wx L, R-	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer MLH	Vis. 4 mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 58°$, $T_{TRANOS} = 51$, $T_{dUNIV} = 57$

$\overline{T} = 54$

$HDD = 11$

$\sum HDD = 658$

$\sum PCN_{(LIQ)} = 3.95''$

$\sum PCN_{(SOL)} = 1.8''$

MONDAY, DECEMBER 24, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 60 °F	Dir. W	Temp. 72 °F	R- obs - 0740, RW 0740-0840 Gust to 50~0750 LT, 23RD FROPA ~ 0755 High occurred before FROPA R-, R 2150 LT (23RD) - 0310 LT (24TH)		
Min. 32 °F	Vel. 20 m.p.h.	Read. 28.55 in.			
Set 33 °F	Char. GUSTY	Corr. 28.43 in.	0700	1300	1900
R.H. 63 %	24 hr. Mov. 126 mi.	Sea L. 29.82 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0.56 in.	Prev. Dir. W	3 hr. Tend. +45 / mb	Wx OVC, WINDY	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer MLH	Vis. 10 mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 32$ $T_{d_{RAMUS}} = 21$, $T_{d_{UNIV}} = 25$

$\bar{T} = 47$

$HDD = 18$

$\Sigma HDD = 675$

$\Sigma PCN_{LIQ} = 4.51$

$\Sigma PCN_{SOL} = 1.8''$

Tuesday, December 25, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.		Wind	Barom.	General Obs.		
Max. 33 °F		Dir. W	Temp. 74 °F	MAX OCCURRED AT OBS, 24th (0700 LT) SW-, OCNLSW 1310LT ~ 1900LT [illegible]		
Min. 11 °F		Vel. 9 m.p.h.	Read. 29.14 in.	[illegible]		
Set 11 °F		Char. Steady	Corr. 29.01 in.	0700	1300	1900
R.H. 63 %		24 hr. Mov. 190 mi.	Sea L. 30.50 in.	Clds. CLR	Clds.	Clds.
Ppn. T	Liq. in.	Prev. Dir. W	3 hr. Tend. mb	Wx CLR	Wx	Wx
Ppn. T	Sol. in.	Snow Depth T in.	Observer MLH	Vis. 20 mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 8$ $T_{d\,TRANS} = 0$ $T_{d\,UNV} = 4$

$\bar{T} = 22$

$HDD = 43$

$\sum HDD = 718$

$\sum PCN_{LIQ} = 4.51''$

$\sum PCN_{SOL} = 1.8''$

Wednesday, December 26 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 26 °F	Dir. WSW	Temp. 74 °F	Low occurred at OBS, 25th (~0920 LT)		
Min. 10 °F	Vel. 5 m.p.h.	Read. 29.21 in.			
Set 24 °F	Char. VARIABLE	Corr. 29.07 in.	0700	1300	1900
R.H. 55 %	24 hr. Mov. 114 mi.	Sea L. 30.52 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0 in.	Prev. Dir. SW	3 hr. Tend. +2.4 / mb	Wx BINOVC	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer MLH	Vis. 10 mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 22$ $T_{d\ RANGOS} = 9$ $T_{d\ UNV} = 15^{\circ}$

$\overline{T} = 19$

$HD = 46$

$\sum HDD = 769$

$\sum PCN_{(LIQ)} = 4.51''$

$\sum PCN_{(SOL)} = 1.8''$

Thursday December 27, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 28 °F	Dir. NE	Temp. 74 °F			
Min. 14 °F	Vel. 6 m.p.h.	Read. 29.59 in.			
Set 14 °F	Char. Steady	Corr. 29.37 in.	0700	1300	1900
R.H. 64 %	24 hr. Mov. 98 mi.	Sea L. 30.87 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0 in.	Prev. Dir. W	3 hr. Tend. +2 mb	Wx OVC-	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 0 in.	Observer JGM	Vis. 15 mi.	Vis. mi.	Vis. mi.

$T_{0\,farads}$ 2.9 > 6

$T_{0\,UNV}$ 8

$\bar{T} = 21$

$HU = 44$

$\Sigma_{HDD} = 808$

$\Sigma_{FCN(Liq)} = 4.51''$

$\Sigma_{FCN(Sol.)} = 1.8''$

FRI. DEC. 28, 1990 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.
Max. 24 °F	Dir. —	Temp. 72 °F	OVRNT LO ~ 19 PCPN VRY LT @ OBS S-(OCNL S) 1610 LT 27th @ 2000 LT OBS 28th * REC LIQ. + SOLID FOR DATE
Min. 14 °F	Vel. 0 m.p.h.	Read. 29.24 in.	
Set 22 °F	Char. calm	Corr. 29.11 in.	
R.H. 94 %	24 hr. Mov. 37.3 mi.	Sea L. 30.54 in.	
Ppn. Liq. 0.90* in.	Prev. Dir. E	3 hr. Tend. \-.5 mb	
Ppn. Sol. 9.0* in.	Snow Depth 7 in.	Observer JHM	

	0700	1300	1900
Clds.	10/10		
Wx	S-F		
Vis.	1 mi.	mi.	mi.

$T_{root} = 19$ $T_d \simeq 17.5$

$\overline{T} = 19$

$H_{DD} = 46$

$\Sigma_{HDD} = 854$

Σ_{PCPN} (L) = 5.41"

(S) = 10.8"

Solid mass @ 2300 LT = 32"

@ 0100 LT = 6.0"

Saturday, December 29 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 33 °F	Dir. SW	Temp. 72 °F	Intermittent S-- and ZL -- obs ⇒ AFTERNOON ZL- becoming ZR- ~1900 LT, 28th ~ 0530 LT, 29th MIN T OCURD ~ 0730 LT, 28th		
Min. 21 °F	Vel. 3 m.p.h.	Read. 29.17 in.			
Set 33 °F	Char. Variable	Corr. 29.04 in.	0700	1300	1900
R.H. 81% %	24 hr. Mov. 27.5 mi.	Sea L. 30.46 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0.13 in.	Prev. Dir. SW	3 hr. Tend. V:.01 mb	Wx OVC	Wx	Wx
Ppn. Sol. T in.	Snow Depth 6 in.	Observer MLH	Vis. 3 mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 30$ $T_{PLAINS} = 25$ $T_{d\ UNIV} = 31$

$\bar{T} = 27$

$HDD = 38$

$\Sigma HDD = 908$

$\Sigma PCN_{LIQ} = 5.54''$

$\Sigma PCN_{SOL} = 10.8''$

SIGNIFICANT GLAZE ON ALL SURFACES
VERY ICY ROAD SURFACES OUTSIDE OF BOURBOUGH OVERNITE

Sunday December 30, 1990 / 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 53 °F	Dir. SW	Temp. 72 °F	Thermograph shows 14° rise in temperature from 5AM - 6AM (WARM FRONT!)		
Min. 33 °F	Vel. 18 m.p.h.	Read. 28.73 in.			
Set 53 °F	Char. G 24	Corr. 28.61 in.	0700	1300	1900
R.H. 71 %	24 hr. Mov. 59.9 mi.	Sea L. 30.01 in.	Clds. OVC	Clds.	Clds.
Ppn. Liq. T in.	Prev. Dir. SW	3 hr. Tend. -2 mb	Wx RW-	Wx	Wx
Ppn. Sol. 0 in.	Snow Depth 3 in.	Observer JGM	Vis. 5 mi.	Vis. mi.	Vis. mi.

$T_{1\,roof} = 43.4 > 44$

$T_{1\,INV} = 45$

$\overline{T} = 41$

~~Σ~~ $HDD = 24$ $\Sigma_{HDD} = 932$

$\Sigma_{PCN_{Liq}} = 5.54''$

$\Sigma_{PCN_{Sol}} = 10.8''$

Monday, December 31, 19[illegible] 0700 EST

Meteorological Observatory
University Park, PA

Temp.	Wind	Barom.	General Obs.		
Max. 55 °F	Dir. NW	Temp. 71 °F	R-1350LT → 2245 LT (ocnl L-) INSTABILITY LINE N 1940LT (presfrp) GUST TO 40 ~1945 BRIEF RW+ FROPA ~ 2245 LT (over)		
Min. 31 °F	Vel. 17 m.p.h.	Read. 29.05 in.			
Set 31 °F	Char. gusty	Corr. 28.92 in.	0700	1300	1900
R.H. 69 %	24 hr. Mov. 116 mi.	Sea L. 30.34 in.	Clds. 10/10	Clds.	Clds.
Ppn. Liq. 0.39 in.	Prev. Dir. SW	3 hr. Tend. +49/ mb	Wx SW-	Wx	Wx
Ppn. Sol. 0.1 in.	Snow Depth T in.	Observer MLH	Vis. 3 mi.	Vis. mi.	Vis. mi.

$T_{ROOF} = 29$ $T_{d\,RAMOS} = 19$ $T_{d\,UNV} = 25$

$\overline{T} = 43$

$HDD = 22$

$\sum HDD = 954$

$\sum PCN_{LIQ} = 5.93$

$\sum PCN_{SOL} = 10.9''$

SW - began ~ 0500 LT, 31 JT