

FRI. DEC. 1, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max. 33 °F		Dir. NE	Temp. 72°	SW- 0800-0900LT SW-- 1100-1115LT - GUST TO 52 1140LT FQT PERIODS OF SW-, SW-- AFTERNOON, EVE, + OVNT. S- 0500-0620LT (OVER) RAMOS OVNT LD: 28 c. 0700LT		
Min. 27 °F		Vel. 3 m.p.h.	Read. 28.83			
Set 29 °F		Char. STEADY	Corr. 28.70			
R. H. ^{UNV} 81 %		24 hr. Mov. 275.0 mi	Sea L. 30.11	Clds. Ns 10/10	Clds.	Clds.
Ppn. Liq. .02 in.		Prev. Dir. W	3 hr. Tend. +2.0 /	Wx S	Wx	Wx
Ppn. Sol. .5 in.		Snow Depth T in.	Observer MJL	Vis. 1/4 mi	Vis.	Vis.

$$T_{\text{ROOF}} = 28 \quad T_{\text{DOWN}} = 23 \quad T_{\text{RAMOS}} = \phi'$$

$$\bar{T} = 30$$

$$HDD = 35$$

$$\sum_{HDD} = 35$$

$$\sum_{PCN(L)} : .02''$$

$$\sum_{PCN(S)} : .5''$$

S 0620-0790LT
- GROUND COVER
OF AT LEAST A TRACE

SAT Dec 2 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max. 34 °F	Dir. SSW	Temp. 75°	.S ~ 0700 - 0720 LT .S - ~ 0720 - 1130 LT .SW - 1530 - 1700 LT - Ramos: 32, 22			
Min. 24 °F	Vel. 4-10 m.p.h.	Read. 28.76				
Set 28 °F	Char. • Light • variable	Corr. 28.63				
R. H. <i>44V</i> 74 %	24 hr. Mov. NA	Sea L. 30.06	Clds. 100% <i>stratus</i>	Clds.	Clds.	
Ppn. Liq. .01" in.	Prev. Dir. W	3 hr. Tend. -3	Wx -OVC	Wx	Wx	
Ppn. Sol. -2" in.	Snow Depth T in.	Observer JCK	Vis. 4 mi.	Vis.	Vis.	

$$\begin{array}{lll} T_{\text{def}} = 28 & \bar{T} = 29 & \sum \text{pen}_s = .03'' \\ T_w = \text{---} & \text{HDD} = 36 & \sum \text{pen}_s = .7'' \\ T_L = \text{---} & \sum \text{HDD} = 71 & \\ & \text{CDD} = 0 & \\ T_{\text{min}} = 27 & \sum \text{CDD} = 0 & \\ T_{\text{dmin}} = 20 & & \end{array}$$

Sun. Dec 3 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max. 39 °F		Dir. NW	Temp. 74°	• SW - BEGAN 2140 LT • STEADY FURROWS AT OBS TIME - Baroms 37, 22 0700 1300 1900		
Min. 23 °F		Vel. 16-20 m.p.h.	Read. 28.42			
Set 23 °F		Char. variable	Corr. 28.29			
R. H. UNV 54 %		24 hr. Mov. 192	Sea L. 29.70	Clds. 10/10 10/10 10/10	Clds.	Clds.
Ppn. Liq. T in.		Prev. Dir. WSW	3 hr. Tend. +1 ✓	Wx - Overcast windy + snow + FURROWS	Wx	Wx
Ppn. Sol. .1 in.		Snow Depth T in.	Observer JCK	Vis. 17 mi.	Vis.	Vis.

$$\begin{array}{lll} T_{\text{roof snow}} = 22 & \bar{T} = 31 & \sum PCN_L = .03'' \\ T_w = \text{---} & HDD = 34 & \sum PCN_s = .8'' \\ T_d = \text{---} & \sum HDD = 105 & \\ & CDD = 0 & \\ T_{\text{max}} = 22 & \sum CDD = 0 & \\ T_{\text{min}} = 8 & & \end{array}$$

MON. DEC 4, 1989

0700 EST
Barom.

Meteorological Observations
University Park, Pa.
General Obs.

Temp.	Wind	Temp.
Max. 24 °F	Dir. W	74°
Min. 13 °F	Vel. 11 m.p.h.	Read. 28.62
Set 15 °F	Char. STEADY	Corr. 28.49
R. H. (UNV) 70 %	24 hr. Mov. 317.3 mi	Sea L. 29.94
Ppn. T in.	Prev. Dir. W	3 hr. Tend. +.7 ✓
Ppn. T in.	Snow Depth — in.	Observer MJL

BINOVC S AND SE
- AN EXTREMELY CHILDY DAY
OCNL SW -- THRU PERIOD
FRT HIGH GUSTS
- MAX GUST ~ 55MPH. ^{1000 FT}
BAMOS QVNT 20:10 C. 0500 LT

Clds. 0700	1300	1900
St, 10 Sc 10		
Wx	Wx	Wx
OVC		
Vis. 13 mi	Vis.	Vis.

$$T_{\text{RAMOS}} = 13 \quad T_{\text{D RAMOS}} = -17 \quad T_{\text{D UNY}} = 5$$

$$\bar{T} = 19$$

$$HDD = 46$$

$$\sum_{HDD} = 151$$

$$\sum_{PCN(2)} : .03''$$

$$\sum_{PCN(5)} : .8''$$

Tues. Dec. 5, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max.	25 °F	Dir. NE	Temp. 76	S- 1535-2200 LT SW+ 540-1550 LT SW 450-1600 LT Ocnl SW-- over Fog all quads		
Min.	15 °F	Vel. 6 m.p.h.	Read. 28.50	Rains: 22/20		
Set	22 °F	Char. Steady	Corr. 28.36	0700	1300	1900
R. H.	84 %	24 hr. Mov. 35.0	Sea L. 29.78	Clds. X	Clds.	Clds.
Ppn.	.02 in.	Prev. Dir. WSW	3 hr. Tend. +0.8 in.	Wx SW--F	Wx	Wx
Ppn.	.3 in.	Snow Depth T in.	Observer ESP	Vis. 1 1/4 mi	Vis.	Vis.

Troof: 22

Twer: 20

Ta: 18

F: 20

Hoo: 45

ΣHoo : 196

$\Sigma pcn (L)$: .05"

$\Sigma pcn (s)$: 1.1"

Wed. DEC 6 1989

0700 EST

Meteorological Observatory
University Park, Pa.

General Obs.

Temp.		Wind	Barom.	- TAMES yesterday A.M. Post obs - TAMES Rose. low ~ obs - Rains: 32, 20 yesterday		
Max.	Dir.	Temp.	Read.			
33 °F	—	74°	28.44			
Min.	Vel.	Corr.				
21 °F	0 m.p.h.	28.31		0700	1300	1900
Set	Char.	Sea L.	Clds.	Clds.	Clds.	
30 °F	CALM	29.70	9/10 - clouds			
R. H.	24 hr. Mov.	3 hr. Tend.	Wx	Wx	Wx	
85 %	28 mi	±0 —	- cloudy			
Ppn. Liq.	Prev. Dir.	Observer	Vis.	Vis.	Vis.	
T in.	SW	JCK	12 mi.			
Ppn. Sol.	Snow Depth					
T in.	T in.					

DEC 6 1989

$$\begin{array}{lll} T_{\text{roof Rains}} = 29 & \bar{T} = 27 & \sum PCN_1 = .05'' \\ T_w = \text{---} & HDD = 38 & \sum PCN_2 = 1.1'' \\ T_d = \text{---} & \sum HDD = 234 & \end{array}$$

$$\begin{array}{ll} T_{\text{unw}} = 28 & CDD = 0 \\ T_{d_{\text{unw}}} = 24 & \sum CDD = 0 \end{array}$$

Thurs. Dec. 7, 1909

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.			
Max.	45 °F	Dir. NW	Temp. 78	R- 1415-2100 LT (ocal L-) SWU NE, W Mung SE Presrr			
Min.	25 °F	Vel. 14 m.p.h.	Read. 28.96				
Set	25 °F	Char. Gusts to 20	Corr. 28.82				
R. H.	44 %	24 hr. Mov. 123.2 mi	Sea L. 30.26	Rain:	0700	1300	1900
Ppn. Liq.	.06 in.	Prev. Dir. W	3 hr. Tend. +5.0 mb	Clds. 8/10 Sc	Clds.		
Ppn. Sol.	T in.	Snow Depth 0 in.	Observer ESP	Wx SW--	Wx		
				Vis. 15 mi	Vis.		Vis.

Source: NOAA Historical Data

$T_{\text{root}}: 25$

$T_{\text{surf}}: 20$

$T_d: 6$

$\bar{T}: 25$

$H_{\text{dd}}: 30$

$E_{\text{H}_2\text{O}}: 264$

$E_{\text{K}_\alpha(\text{C})}: .11''$

$E_{\text{K}_\alpha(\text{S})}: 1.1''$

FRI. DEC. 8, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.	General Obs.		
Max.	30 °F	Dir.	NE	Temp.	75° SW -- 0700 ~ 0800LT		
Min.	19 °F	Vel.	7 m.p.h.	Read.	29.07		
Set	20 °F	Char.	STEADY	Corr.	28.94 RAMOS OVNT LO: 17 C. QWOLT		
R. H.	UNV 71 %	24 hr. Mov.	103.7 mi	Sea L.	0700	1300	1900
Ppn.	Liq.	Prev. Dir.	3 hr. Tend.	Wx	Clds.	Clds.	Clds.
T	in.	W	-7 \	OVC	19/10		
Ppn.	Sol.	Snow Depth	Observer	Vis.	Vis.	Vis.	Vis.
T	in.	— in.	MJL	17mi			

$$T_{\text{RAMOS}} = 18 \quad T_0 = -13 \quad T_{0_{\text{CMM}}} = 10$$

$$\bar{T} = 25$$

$$HDD = 40$$

$$\sum_{HDD} = 304$$

$$\sum_{PCN(4)} : .11''$$

$$\sum_{PCN(5)} : 1.1''$$

Sat. Dec 9 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	21 °F	Dir.	—	Temp.	75°	<ul style="list-style-type: none"> • Fog around Ridges • S - ~ 1045 LT - 1630 LT • FEW FLAKES 1630 - ~ 1730 LT 		
Min.	6 °F	Vel.	0 m.p.h.	Read.	28.90			
Set	8 °F	Char.	CALM	Corr.	28.77			
R. H.	96 %	24 hr. Mov.	15 mi.	Sea L.	30.24	0700	1300	1900
Ppn.	.03 in.	Prev. Dir.	NE	3 hr. Tend.	± 0 ~	Clds.	Clds.	Clds.
Ppn.	.4 in.	Snow Depth	T in.	Observer	JEK	Wx	Wx	Wx
						Wx	Wx	Wx
						Vis.	Vis.	Vis.
						3 1/2 mi.		

$$T_{\text{upflow}} = 8 \quad \bar{T} = 14 \quad \Sigma PCN_s = .14''$$

$$T_w = \text{---} \quad MOD = 51 \quad \Sigma PCN_s = 1.5''$$

$$T_d = \text{---} \quad \Sigma MOD = 355$$

$$T_{\text{up}} = 8 \quad CDA = 0$$

$$\Sigma CDA = 0$$

$$T_{\text{down}} = 7$$

SUN. DEC 10, 1989 10700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.	General Obs.		
Max.	28 °F	Dir.	WSW	Temp.	BINOVIC NNE HORIZON, VIS GREATER		
				75°			
Min.	8 °F	Vel.	5 m.p.h.	Read.			
				28.65			
Set	12 °F	Char.	STEADY	Corr.	RAMOS QVNT LO: 12 C. 010° ET		
				28.52	0700	1300	1900
R. H.	70 %	24 hr. Mov.	20.5 mi	Sea L.	Clds.	Clds.	Clds.
				29.98	ST 10/10		
Ppn.	Liq.	Prev. Dir.	3 hr. Tend.	Wx	Wx	Wx	Wx
	— in.	SSW	+01 ✓	OVC			
Ppn.	Sol.	Snow Depth	Observer	Vis.	Vis.	Vis.	Vis.
	— in.	T in.	MJL	12 v 20			

$$T_{\text{RAMOS}} = 15 \quad T_{D_{\text{RAMOS}}} = -17 \quad T_{D_{\text{UNV}}} = 7$$

$$\bar{T} = 18$$

$$HDD = 47$$

$$\sum_{HDD} = 402$$

$$\sum_{PCW(L)} : .14''$$

$$\sum_{PCW(S)} : 1.5''$$

MON. DEC. 11, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max. 32 °F		Dir. N	Temp. 75°	ZL-- 2300LT - ? S- ~ 0000LT ~ 0300LT		
Min. 12 °F		Vel. — m.p.h.	Read. 28.66			
Set 26 °F		Char. CALM	Corr. 28.53	RAMOS QVNT LO: 24c.06000		
R. H. 92 %		24 hr. Mov. 76.6 mi	Sea L. 29.96	0700 Clds. ST 10/10	1300 Clds.	1900 Clds.
Ppn. Liq. .02 in.		Prev. Dir. SW	3 hr. Tend. +0 -	Wx OVC	Wx	Wx
Ppn. Sol. .20 in.		Snow Depth T in.	Observer MJL	Vis. 2 1/2 F	Vis.	Vis.

$$T_{\text{RAMOS}} = 25 \quad T_{\text{D}_{\text{RAMOS}}} = -3 \quad T_{\text{D}_{\text{UNV}}} = 23$$

$$\bar{T} = 22$$

$$\text{HDD} = 43$$

$$\sum_{\text{HDD}} = 445$$

$$\sum_{\text{PCN}(L)} : .16''$$

$$\sum_{\text{PCN}(S)} : 1.7''$$

Tues. Dec. 12, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	33 °F	Dir.	—	Temp.	76	S- 0720-1430 LT (local SP.) SS-2L- 1600-1700 LT		
Min.	26 °F	Vel.	Calm m.p.h.	Read.	28.93	Fog all quads / Vis, higher SW Ramas: 30/27		
Set	28 °F	Char.	Occasional NE	Corr.	28.69			
R. H.	84 %	24 hr. Mov.	35.8	Sea L.	30.11	0700	1300	1900
Ppn.	.02 in.	Prev. Dir.	WSW	3 hr. Tend.	-0.5mb	Clds. 10/10 MS	Clds.	Clds.
Ppn.	.2 in.	Snow Depth	T in.	Observer	ESP	Wx Fog -X OVC	Wx	Wx
						Vis.	Vis.	Vis.
						3 mi		

$T_{roof} : 29$

$T_{air} : 27$

$T_d : 23$

$\bar{T} : 29$

$H_{oa} : \infty$

$\Sigma H_{oa} : 481$

$E_{pca}(L) : .12''$

$E_{pca}(S) : 1.9''$

WED. Dec 13 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	32 °F	Dir.	—	Temp.	77°	• ON + OFF SW ^S Wind ³⁻ stuff ~ 1000 LT - 1200 LT • <i>Ratios: 31, 21</i>		
Min.	23 °F	Vel.	0 m.p.h.	Read.	29.63			
Set	23 °F	Char.	CALM	Corr.	28.49			
R. H. ^{40V}	74 %	24 hr. Mov.	32 mi	Sea L.	29.90	0700	1300	1900
						Clds.	Clds.	Clds.
						10/10 = ^{STRAATOCUM} Few ^{GENUS}		
Ppn.	T in.	Prev. Dir.	NW	3 hr. Tend.	± 0 —	Wx	Wx	Wx
						- OVC		
Ppn.	T in.	Snow Depth	T in.	Observer	JKK	Vis.	Vis.	Vis.
						15 mi.		

$$\begin{array}{lll}
 T_{\text{avg lanes}} = 21 & \bar{T} = 28 & \sum \text{PEN}_v = .18'' \\
 T_w = - & \text{MOD} = 37 & \sum \text{PEN}_s = 1.9'' \\
 T_L = - & \sum \text{MOD} = 518 & \\
 & \text{MOD} = 0 & \\
 T_{\text{avg}} = 22 & \sum \text{MOD} = 0 & \\
 T_{\text{avg}} = 15 & &
 \end{array}$$

Thurs. Dec 14, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	30 °F	Dir.	SW	Temp.	76	SW - 1030-1130 LT 1700-1400 LT		
Min.	18 °F	Vel.	3 m.p.h.	Read.	28.81			
Set	18 °F	Char.	ocnl calm	Corr.	28.67			
R. H.	80 %	24 hr. Mov.	65.9	Sea L.	30.12	Range: 31/16		
Ppn.	T in.	Prev. Dir.	W	3 hr. Tend.	- +0.0mb	0700	1300	1900
Ppn.	T in.	Snow Depth	T in.	Observer	ESP	Clds.	Clds.	Clds.
						AS 7/10 AC		
						Wx	Wx	Wx
						BKN		
						Vis.	Vis.	Vis.
						7		

T_{roof} : 19

T_w : 17

T_d : 14

\bar{T} : 24

H_{00} : 41

ΣH_{00} : 559

$\Sigma p_{ca}(L)$: .18"

$\Sigma p_{ca}(S)$: 1.9"

FRI DEC 15, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	26 °F	Dir.	SW	Temp.	76°	MOON DIMLY VISIBLE S- 1230-1600LT		
Min.	7 °F	Vel.	3 m.p.h.	Read.	28.82	• SW 1250-1315LT • SW 1345-1415LT • SW 1525-1535LT		
Set	9 °F	Char.	STEADY	Corr.	28.68	SW 1745-1800LT (OVER) RAMOS QVNT LO: 7c.050LT		
R. H.	87 %	24 hr. Mov.	81.9 mi	Sea L.	30.16	Clds. 0700	Clds. 1300	Clds. 1900
Ppn.	.04 in.	Prev. Dir.	SW	3 hr. Tend.	+0-	Clds. 1900 Cds 10	Wx	Wx
Ppn.	.6 in.	Snow Depth	1 in.	Observer	MJL	Wx	Wx	Wx
						Vis.	Vis.	Vis.
						8 mi		

$$T_{RAMOS} = 8 \quad T_{D_{RAMOS}} = -21 \quad T_{O_{UNV}} = 5$$

$$\bar{T} = 17$$

$$HDD = 48$$

$$\sum_{HDD} : 607$$

$$\sum_{PCN(L)} : .22''$$

$$\sum_{PCN(S)} : 2.5''$$

SW-1830-1900LT

SAT. DEC 16, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max.	20 °F	Dir. W	Temp. 74°	S- 1005LT - 2100LT		
Min.	8 °F	Vel. 20 m.p.h.	Read. 28.63	- S 1400-1500LT		
Set	9 °F	Char. GUSTY	Corr. 28.50	- SW + 1730-1830LT		
				- FGT GUSTS TO ~35MPH		
				- BLOWING + DFTG SNOW WIND		
				RANGS OVNT LG: 6 c. 0700LT		
				0700	1300	1900
R. H.	76 %	24 hr. Mov. 229.4 mi	Sea L. 29.97	Clds. 2/10 St. 2/10 Sc 1/10	Clds.	Clds.
Ppn. Liq.	.30 in.	Prev. Dir. W	3 hr. Tend. +2.5/	Wx PTLY CLOY	Wx	Wx
Ppn. Sol.	4.0 in.	Snow Depth 3 in.	Observer MJL	Vis. 8 mi	Vis.	Vis.

$$T_{\text{RAMOS}} = 6 \quad T_{0_{\text{RAMOS}}} = -25 \quad T_{0_{\text{UNV}}} = \emptyset$$

$$\bar{T} = 14$$

$$HDD = 51$$

$$\Sigma_{HDD} = 658$$

$$\Sigma_{PCN(LL)} : .52''$$

$$\Sigma_{PCN(S)} : 6.5''$$

LTG observed at
FROPA

~ 1930 LT

NO THUNDER HEARD

$$T_{unv} = 3 \quad T_{dunv} = -4 \quad T_{trans} = 1$$

$$\bar{T} = 9$$

$$DD = 56$$

$$\Sigma DD = 714$$

$$\Sigma PCN(L) = 0.52^{\text{M}}$$

$$\Sigma PCN(S) = 6.5^{\text{M}}$$

Mon. December 18, 1989 0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max.	17 °F	Dir. SSW	Temp. 78			
Min.	2 °F	Vel. 2 m.p.h.	Read. 28.98			
Set	2 °F	Char. light	Corr. 28.84			
R. H.	72 %	24 hr. Mov. 846mi	Sea L. 29.35	0700 Clds. 1/10	1300 Clds.	1900 Clds.
Ppn.	Liq. 0 in.	Prev. Dir. W	3 hr. Tend. +1mb	Wx Sc +	Wx	Wx
Ppn.	Sol. 0 in.	Snow Depth 3 in.	Observer CAS	Vis. 15 miles	Vis.	Vis.

$$T_{\text{unv}} = 2$$

$$T_{\text{new}} = \frac{1}{6} - 5 \quad T_{\text{engus}} = 0$$

$$\bar{T} = 10$$

$$D_0 = 55$$

$$\sum D_0 = 769$$

$$\sum PCN(L) = 0.52''$$

$$\sum PCN(S) = 6.5''$$

Tues. Dec 19 1989

0700 EST

Meteorological Observatory
University Park, Pa.
General Obs.

Temp.		Wind		Barom.		<i>• low was possibly achieved snowy after obs on the 18th.</i> <i>Ramos: NA (Penny overcast ~ 0500)</i>					
Max.	21 °F	Dir.	—	Temp.	73						
Min.	2 °F	Vel.	0 m.p.h.	Read.	28.96						
Set	9 °F	Char.	CALM	Corr.	28.83						
R. H.	79 %	24 hr. Mov.	NA	Sea L.	30.33	Clds. 0700	Clds. 1300	Clds. 1900			
Ppn.	0 in.	Prev. Dir.	NA	3 hr. Tend.	-2 ✓	<i>10% snow from 11% clouds?</i>					
Ppn.	0 in.	Snow Depth	2 in.	Observer	JCK	Wx	Wx	Wx			
						<i>- over CALM</i>					
						Vis.	Vis.	Vis.			
						12 mi.					

$$\begin{aligned} T_{\text{avg}} \text{ Planes NA } \bar{T} &= 12 & \sum \text{PLAN}_1 &= 52'' \\ T_w &= \text{---} & \text{MOD} &= 53 & \sum \text{PLAN}_2 &= 6.5'' \\ T_L &= \text{---} & \sum \text{MOD} &= 822 \\ & & \text{CDD} &= 0 \\ T_{\text{inv}} &= 5 & \sum \text{CDD} &= 0 \\ T_{\text{dev}} &= 0 \end{aligned}$$

Wed. Dec 20 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max.	17 °F	Dir. W	Temp. 74°	• S - ~1120 LT = AT LEAST 2230 LT MIN T OCCURD AFTER OBS ON 19TH • Rains: 15, 12		
Min.	8 °F	Vel. 9 m.p.h.	Read. 28.78			
Set	15 °F	Char. Snowy	Corr. 28.65			
R. H. <i>ANNV</i>	76 %	24 hr. Mov. 32 mi.	Sea L. 30.12	0700 Clds. 7/10	1300 Clds.	1900 Clds.
Ppn.	.04 in.	Prev. Dir. WSW	3 hr. Tend. +1 /	Wx - Snowy - Snowy	Wx	Wx
Ppn.	.8 in.	Sol. 3 in.	Snow Depth 3 in.	Observer JCK	Vis. 5 mi.	Vis.

$$T_{\text{ref}}/R_{\text{ref}} = 12 \quad \bar{T} = 13 \quad \sum PCN_v = .56''$$

$$T_w = \text{---} \quad HDD = 52 \quad \sum PCN_s = 7.3''$$

$$T_A = \text{---} \quad \sum HDD = 874$$

$$T_{\text{sum}} = 13 \quad CBA = 0$$

$$T_{\text{den}} = 7 \quad \sum CBA = 0$$

Ths Dec 21, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max. 20 °F	Dir. 270	Temp. 74	↓ began in early hours			
Min. 8 °F	Vel. 6 m.p.h.	Read. 28.77				
Set 10 °F	Char. STAY	Corr. 28.64				
R. H. 79 %	24 hr. Mov. 168.8 mb	Sea L. 30.11	0700 Clds. 10/10	1300 Clds.	1900 Clds.	
Ppn. Liq. .01 in.	Prev. Dir. W	3 hr. Tend. -2mb	Wx OVC	Wx	Wx	
Ppn. Sol. .3 in.	Snow Depth 3 in.	Observer CAS	Vis. 1.5	Vis.	Vis.	

$$T_{uv} = 8 \quad T_{dew} = 3 \quad T_{rains} = 7$$

$$\bar{T} = 14$$

$$H_{00} = 51$$

$$\sum H_{00} = 925$$

$$\sum PCW_i = .57''$$

$$\sum PCN_s = 7.6''$$

Friday 22 Dec. 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.	General Obs.				
Max.	** 13 °F	Dir.	245	Temp.	* New Record MIN ** REC MIN MAX RAMOS: 10/-3				
Min.	* -4 °F	Vel.	8 m.p.h.	Read.				77	
Set	-3 °F	Char.	Gusty	Corr.				29.11	
R. H.	74 %	24 hr. Mov.	211.2	Sea L.	30.46	0700		1300	1900
Ppn.	Liq. T in.	Prev. Dir.	W	3 hr. Tend.	*1.5mb/	Clds.	1/10	Clds.	
Ppn.	Sol. T in.	Snow Depth	3 in.	Observer	CAS	Wx	Sct	Wx	
						Vis.	2.5 miles	Vis.	

$$T_{ANV} = -4 \quad T_{REW} = -10 \quad T_{RAMOS} = -2$$

$$\bar{T} = 5$$

$$H_{00} = 60$$

$$\sum H_{00} = 985$$

$$\sum PCW_L = .57''$$

$$\sum PCW_S = 7.6''$$

SAT DEC 23, 1989 0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max. ** 10 °F		Dir. NW	Temp.	OCCASIONAL SW - EVENING HOURS - precip VERY LIGHT - * RECORD Low ** REC MIN MAX Rains over Low 0		
Min. -3* °F		Vel. 6 m.p.h.	Read.			
Set 3 °F		Char. STEADY	Corr.			
R. H.	24 hr. Mov.	Sea L.	Clds.	0700	1300	1900
64 %	111 MI	30.55	0/10			
Ppn. Liq.	Prev. Dir.	3 hr. Tend.	Wx	Wx	Wx	
T in.	W	+/mb	CIR			
Ppn. Sol.	Snow Depth	Observer	Vis.	Vis.	Vis.	
T in.	3 in.	JEB	15 mi			

$$\bar{T} = 4$$

$$HDD = 61$$

$$\sum HDD = 1047$$

$$\sum PCN_1 = .57''$$

$$\sum PCN_5 = 7.6''$$

SUN DEC 24, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max. 16 °F	Dir. WSW	Temp. 73	* -6 = REC MIN T FOR DATE			
Min. -6* °F	Vel. 3 m.p.h.	Read. 29.11				
Set -2 °F	Char. light	Corr. 28.98	RAMOS 18/0			
R. H. 68 %	24 hr. Mov. 28.7 mi.	Sea L. 30.51	0700 Clds. 8/10	1300 Clds.	1900 Clds.	
Ppn. 0	Liq. in.	Prev. Dir. N	3 hr. Tend. -0.5 mb	Wx MISTY CLOUDY	Wx	Wx
Ppn. 0	Sol. in.	Snow Depth 3 in.	Observer JHM	Vis. 30 mi.	Vis.	Vis.

$$T_{unv} = -5 \quad T_{dunv} = -10 \quad T_{trans} = 0$$

$$\bar{T} = 5$$

$$DD = 60$$

$$\Sigma DD = 1107$$

$$\Sigma PCN(L) = 0.57''$$

$$\Sigma PCN(G) = 7.6''$$

MON. DEC 25, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max.	20 °F	Dir. SW	Temp. 74	BINOV MIN T occurd C. 0800 LT, 24th RAMOS ONT LO = 7 C 2200-2300 LT, 24th RAMOS: 19/0		
Min.	-3 °F	Vel. 10 m.p.h.	Read. 28.68			
Set	15 °F	Char. V8-12	Corr. 28.55			
R. H.	53 %	24 hr. Mov. 552 mi.	Sea L. 3001	0700 Clds. 10/10 ✓	1300 Clds.	1900 Clds.
Ppn.	0 in.	Prev. Dir. W	3 hr. Tend. -1.0 mb L	Wx OVC	Wx	Wx
Ppn.	0 in.	Snow Depth 2 in.	Observer JHM	Vis. 20 mi.	Vis.	Vis.

$$T_{unv} = 14 \quad T_{dunv} = 0 \quad T_{trans} = 12$$

$$\bar{T} = 9$$

$$DD = 56$$

$$\Sigma DD = 1163$$

$$\Sigma PCW(L) = 0.57''$$

$$\Sigma PCW(S) = 7.6''$$

Tues. Dec 26, 1989

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	23 °F	Dir.	SW	Temp.	74	a few snow flakes during afternoon, 25th S- began ~ 1930 LT continued into early AM Temp. rising unstably since OBS, 25th 0830-0915 LT Ramos 2/1/12		
Min.	15 °F	Vel.	11 m.p.h.	Read.	28.28			
Set	23 °F	Char.	quoty to 16	Corr.	28.15			
R. H.	81 %	24 hr. Mov.	132.3 in	Sea L.	29.56	0700	1300	1900
Ppn.	T in.	Prev. Dir.	SSW	3 hr. Tend.	2mb	Clds.	Clds.	Clds.
Ppn.	.3 in.	Snow Depth	2 in.	Observer	CAS	Wx	Wx	Wx
						Vis.	Vis.	Vis.
						1 miles		

$$T_{UNV} = 21\frac{1}{2}$$

$$T_{OEW} = 46$$

$$T_{RAMOS} = 21$$

$$\bar{T} = 19$$

$$HDD = 46$$

$$\sum HDD = 1209$$

$$\sum PCN(4) = .57''$$

$$\sum PCN(5) = 7.8'$$

Wed 27 Dec 89

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	25 °F	Dir.	N	Temp.	74	SW - occasionally after 1330 LT MAX T OLRD SHADY AFTER OBS ON 26th		
Min.	1 °F	Vel.	0 m.p.h.	Read.	28.83			
Set	3 °F	Char.	Vry. calm	Corr.	28.70			
R. H.	83 %	24 hr. Mov.	209.7	Sea L.	30.15	Pages 1/1		
Ppn.	⊗ T in.	Prev. Dir.	W	3 hr. Tend.	+lmb ✓	0700	1300	1900
Ppn.	⊗T in.	Snow Depth	2 in.	Observer	CAS	Clds.	Clds.	Clds.
						2/10		
						Wx	Wx	Wx
						Sct		
						Vis.	Vis.	Vis.
						20 miles		

$$T_{uv} = 1 \quad T_{ocw} = -3 \quad T_{eams} = 1$$

$$\bar{T} = 13$$

$$H_{00} = 52$$

$$\sum H_{00} = 1261$$

$$\sum PCW(t) = .97''$$

$$\sum PCW(s) = 7.9''$$

Ths 28 Dec 89

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind	Barom.	General Obs.		
Max.	24 °F	Dir. W	Temp. 74	MIN T OCURD AFTER OBS ON 27th MAX T OCURD AT OBS TMPs ROSE UNSTEDLY DURING 24 HR PERIOD		
Min.	-1 °F	Vel. 16 m.p.h.	Read. 28.73			
Set	24 °F	Char. gusts to 32 mph	Corr. 28.60			
R. H.	71 %	24 hr. Mov. 8 miles	Sea L. 30.01	Clds. 8/10	Clds.	Clds.
Ppn.	Liq. .02 in.	Prev. Dir. S	3 hr. Tend. +2.5mb /	Wx OVC	Wx	Wx
Ppn.	Sol. .4 in.	Snow Depth 3 in.	Observer CAS	Vis. 5 miles	Vis.	Vis.

Ranios 23/0
0700 1300 1900

$$T_{UNU} = 24 \quad T_{OFW} = 16 \quad T_{RINGS} = 23$$

$$\bar{T} = 12$$

$$H_{00} = 53$$

$$\sum_{i=0}^n n_i = 1314$$

$$\sum_{i=0}^n PCN(i) = .59''$$

$$\sum_{i=0}^n PCN(s) = 8.3''$$

29 Dec 89

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.	General Obs.					
Max.	28 °F	Dir.	W	Temp.	Fog Oct 127 FURRIES A.M 28TH Ramos 26/22					
Min.	23 °F	Vel.	0 m.p.h.	Read.				28.96		
Set	26 °F	Char.	calm	Corr.				28.82		
R. H.	81 %	24 hr. Mov.	122.6 mi	Sea L.	30.25	Clds.	10/10	0700	1300	1900
Ppn.	T in.	Prev. Dir.	W	3 hr. Tend.	+1mb ✓	Wx	Fog/OVC	Clds.	Wx	Wx
Ppn.	T in.	Snow Depth	3 in.	Observer	CAS	Vis.	1 mile	Vis.	Vis.	Vis.

$$T_{\text{uno}} = 23 \quad T_{\text{ocw}} = 17 \quad T_{\text{rango}} = 24$$

$$\bar{T} = 26$$

$$HOD = 39$$

$$\sum HOD = 1353$$

$$\sum p(NW) = .59''$$

$$\sum K(NW) = 8.3''$$

Sat. 30 Dec 89

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	33 °F	Dir.	S	Temp.	76	Snow began 2030 LT		
Min.	25 °F	Vel.	2 m.p.h.	Read.	28.86			
Set	27 °F	Char.	calm	Corr.	28.72	Rains 30/24		
R. H.	88 %	24 hr. Mov.	34.3 mi	Sea L.	30.14	0700	1300	1900
Ppn.	.39 in.	Prev. Dir.	S	3 hr. Tend.	+1mb ✓	Clds.	Clds.	Clds.
						Wx	Wx	Wx
Ppn.	3.9 in.	Snow Depth	6 in.	Observer	CAS	Wx	Wx	Wx
						Vis.	Vis.	Vis.
						Vis. fog		
						1/2 mile		

$$T_{uv} = 25 \quad T_{acw} = 22 \quad \sigma_{ranos} = 25$$

$$\bar{T} = 29$$

$$H_{00} = 36$$

$$\sum H_{00} = 1389$$

$$\sum pcw(s) = .98''$$

$$\sum pcw(s) = 12.2''$$

Sun 31 Dec 89

0700 EST

Meteorological Observatory
University Park, Pa.

Temp.		Wind		Barom.		General Obs.		
Max.	32 °F	Dir.	N	Temp.	74	drizzle began 10Z + turned to freezing rain by 12Z coldest December Ever ends Ramos 30/29		
Min.	26 °F	Vel.	8 m.p.h.	Read.	28.77			
Set	32 °F	Char.	light	Corr.	28.64			
R. H.	96 %	24 hr. Mov.	29.5	Sea L.	30.06	0700	1300	1900
Ppn.	Liq.	Prev. Dir.	S	3 hr. Tend.	3mb	Clds.	Clds.	Clds.
	.02 in.					10/10		
Ppn.	Sol.	Snow Depth	4 in.	Observer	CAS	Wx	Wx	Wx
	∅ in.					OK		
						Vis.	Vis.	Vis.
						1/4 mile Fog		

$$T_{UNV} = 31 \quad T_{DEW} = 30 \quad T_{RAMES} = 29$$

$$\bar{T} = 29$$

$$H_{100} = 36$$

$$\sum H_{100} = 1425$$

$$\sum \rho_{ENC(S)} = 1.00''$$

$$\sum \rho_{CN(S)} = 12.2''$$