

Fri. JUNE 1, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-----------|-------|-------------|-------------|----------------------------------|-------|-------|
| Max. | 72 °F | Dir. | Temp. | Ci OVHD AND SW MANY CONTRAILS | | |
| | | — | 78 | | | |
| Min. | 44 °F | Vel. | Read. | | | |
| | | 0 m.p.h. | 29.11 | | | |
| Set | 51 °F | Char. | Corr. | 0700 | 1300 | 1900 |
| | | CALM | 28.97 | | | |
| R. H. | 63 % | 24 hr. Mov. | Sea L. | Clds. | Clds. | Clds. |
| | | 50.4 mi | 30.31 | 5/10 | | |
| Ppn. Liq. | 0 in. | Prev. Dir. | 3 hr. Tend. | Wx | Wx | Wx |
| | | WSW | +2.0 mb | PTLY CLOY | | |
| Ppn. Sol. | 0 in. | Snow Depth | Observer | Vis. | Vis. | Vis. |
| | | 0 in. | JHM | 20 mi. | | |

$$T_{\text{roof}} = 55 \quad T_w = 48.5 \quad T_d = 42.5$$

$$T_{\text{drains}} = 41$$

$$T_{\text{air}} = 44$$

$$\bar{T} = 58$$

$$H_{\text{DO}} = 7$$

SAT., JUNE 2, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|-------|-------------|----------|-------------|--------|--|-------|-------|
| Max. | 79 °F | Dir. | — | Temp. | 80 °F | - sun almly visible thru thick haze | | |
| Min. | 51 °F | Vel. | — m.p.h. | Read. | 29.03" | | | |
| Set | 61 °F | Char. | calm | Corr. | 28.88" | | | |
| R. H. | 60 % | 24 hr. Mov. | 46.8 mi | Sea L. | 30.17" | 0700 | 1300 | 1900 |
| Ppn. | 0 in. | Prev. Dir. | S | 3 hr. Tend. | 0— | Clds. | Clds. | Clds. |
| Ppn. | 0 in. | Snow Depth | — in. | Observer | MSS | Wx | Wx | Wx |
| | | | | | | Wx | Wx | Wx |
| | | | | | | Vis. | Vis. | Vis. |
| | | | | | | 5 mi. | | |

ranges OVRNT LO = 56

Wx fog & haze

$$T_{\text{roof}} = 64^{\circ}\text{F}$$

$$T_{\text{d,roof}} = 50^{\circ}\text{F}$$

$$T_{\text{max}} = 60^{\circ}\text{F}$$

$$T_{\text{d,max}} = 53^{\circ}\text{F}$$

$$T_{\text{w}} = 59^{\circ}\text{F}$$

$$\bar{T} = 65^{\circ}\text{F}$$

$$\text{HDD} = 0$$

$$\text{CDD} = 0$$

$$\Sigma\text{HDD} = 7$$

$$\Sigma\text{CDD} = 0$$

$$\Sigma\text{PCN}_e = 0$$

$$\Sigma\text{PCN}_s = 0$$

SUN. JUNE 3, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | General Obs. | | | |
|-------|---------|-------------|---------------------|-------------|--|-------|--------|-------|
| Max. | 81 °F | Dir. | SW | Temp. | SUN VISIBLE THRU CIRRUS VEIL PARTIAL 22° HALO NO ALTO CUMULUS TOP of TUSNEY RIDGE FROM PINE CRANE MILLS → S obscured by clouds VERY BREEZY AT OBS PRECIP. DATA IN BACK → | | | |
| Min. | 61 °F | Vel. | 15 m.p.h. | Read. | | | | 28.71 |
| Set | 67 °F | Char. | VARYING 8-20 mph | Corr. | | | | 28.56 |
| R. H. | 77 % | 24 hr. Mov. | 139 mi. | Sea L. | 29.86 | 0700 | 1300 | 1900 |
| Ppn. | .18 in. | Prev. Dir. | S | 3 hr. Tend. | -1.0 mb | Clds. | 10/10 | Clds. |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | JHM | Wx | -OVC | Wx |
| | | | | | | Vis. | 10 mi. | Vis. |

$T_{wet} = 70$ $T_w = 65$ $T_d = 62.5$
 $T_{d_{rms}} = 61$
 $T_{d_{unw}} = 62$

$\bar{T} = 71$
 $C_{DD} = 6$ $\Sigma C_{DD} = 6$
 $\Sigma H_{DD} = 7$

$\Sigma PCW = 0.18''$

RAMPUS EVENT LO = 65
RW: 1800-1805, 2ND
TRW: 2010-2045, 2ND
(LT&CC)
TRW: 0535-0625, 3RD



MONDAY, JUNE 4, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|------------------|---------------------------|-------------------------|-------------------------------------|-------|-------|
| Max. | 82 °F | Dir. WNW | Temp. 82 °F | • quite windy yesterday, and at obs | | |
| Min. | 51 °F | Vel. 14 m.p.h. | Read. 28.64" | • altostratus north & west | | |
| Set | 51 °F | Char. gusting to 22mph | Corr. 28.49" | • nimbostratus south & east | | |
| R. H. | 74 % | 24 hr. Mov. 201 mi | Sea L. 29.75" | 0700 | 1300 | 1900 |
| Ppn. | Liq. 0.05 in. | Prev. Dir. SW | 3 hr. Tend. +2½ mb ✓ | Clds. 10/10 | Clds. | Clds. |
| Ppn. | Sol. 0 in. | Snow Depth 0 in. | Observer MSS | Wx OVC | Wx | Wx |
| | | | | Vis. 10 miles | Vis. | Vis. |

• quite windy yesterday, and at obs

• altostratus north & west

• nimbostratus south & east

• scattered stratocumulus alofts

- min occurred at obs

$$T_{\text{roof}} = 50^{\circ}\text{F}$$

$$T_{\text{chref}} = 42^{\circ}\text{F}$$

$$T_{\text{unv}} = 52^{\circ}\text{F}$$

$$T_{\text{d,unv}} = 44^{\circ}\text{F}$$

$$T_w = 48^{\circ}\text{F}$$

$$T = 67^{\circ}\text{F}$$

$$\text{HDD} = 0 \quad \text{CDD} = 2$$

$$\Sigma \text{HDD} = 7 \quad \Sigma \text{CDD} = 8$$

$$\Sigma \text{PCN}_e = 0.23''$$

- PRSJMP 2000LT, 3rd
0030LT, 4th

- TRW - 0045 - 0130LT, 4th

- PK WND 40mph 0100LT, 4th (est.)

Tues. June 5 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|-------|-------------|----------|-------------|----------|--|-------|-------|
| Max. | 56 °F | Dir. | WSW | Temp. | 75° | * SPARKLES AT 11:52 AM. (1100) * MAMMETS VISIBLE W-N ~ 1300 LT - ? * RAIN: 55, MA, | | |
| Min. | 40 °F | Vel. | 4 m.p.h. | Read. | 28.94 | | | |
| Set | 44 °F | Char. | light | Corr. | 28.81 | | | |
| R. H. | 65 % | 24 hr. Mov. | 100 mi. | Sea L. | 30.18 | 0700 | 1300 | 1900 |
| | | | | | | Clds. | Clds. | Clds. |
| Ppn. | T in. | Prev. Dir. | W | 3 hr. Tend. | +2 1/2 ✓ | Wx | Wx | Wx |
| | | | | | | * on sunny | | |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | JKK | Vis. | Vis. | Vis. |
| | | | | | | 35 mi. | | |

$$T_{\text{avg}} = 46$$

$$T_w = 41$$

$$T_d = 35$$

$$\bar{T} = 48$$

$$HDD = 17$$

$$\Sigma HDD = 24$$

$$CDD = 0$$

$$\Sigma CDD = 8$$

$$\Sigma P_{cdd} = .23''$$

WEDNESDAY, JUNE 6, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|---------------|-----------------------------|--------------------|---|---------------|---------------|
| Max. | 71 °F | Dir. WSW | Temp. 73°F | • BKNVC ALQDS • Stratocumulus gives way to AltoCumulus and Altostratus to the NW ramos evnt 10 = 55 (@ obs) | | |
| Min. | 44 °F | Vel. 5 m.p.h. | Read. 28.82" | | | |
| Set | 56 °F | Char. Generally light | Corr. 28.69" | | | |
| R. H. | 62 % | 24 hr. Mov. 53 miles | Sea L. 29.98" | 0700 Clds. 10/10 | 1300 Clds. | 1900 Clds. |
| Ppn. | Liq. 0 in. | Prev. Dir. SW | 3 hr. Tend. 0 ✓ | Wx OVC | Wx | Wx |
| Ppn. | Sol. — in. | Snow Depth — in. | Observer MSS | Vis. 18 miles | Vis. | Vis. |

$$T_{\text{roof}} = 55^{\circ}\text{F}$$

$$T_{\text{dwel}} = 42^{\circ}\text{F}$$

$$\text{HDD} = 7$$

$$\Sigma\text{HDD} = 31$$

$$\Sigma\text{CDD} = 8$$

$$T_{\text{unv}} = 55^{\circ}\text{F}$$

$$T_{\text{dwel}} = 44^{\circ}\text{F}$$

$$\Sigma\text{PCN}_{\text{e}} = 0.23''$$

$$T_{\text{wet}} = 52^{\circ}\text{F}$$

$$\bar{T} = 58^{\circ}\text{F}$$

THURS., JUNE 7, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | General Obs. | | | |
|-------|----------|-------------|----------|-------------|---|---------|-------|--------|
| Max. | 78 °F | Dir. | W | Temp. | • Few Ci 0440 • Nimbostrat to N and NW • TRW 2300-2330 LT, 6 th • RW - 2330, 6 th - 0130, 7 th (cont heavy) • RW - 0340 - 0345, 7 th • Ramos cont 6 = 61°F | | | |
| Min. | 56 °F | Vel. | 8 m.p.h. | Read. | | | | 28.81" |
| Set | 65 °F | Char. | steady | Corr. | | | | 28.69" |
| R. H. | 84 % | 24 hr. Mov. | 98 miles | Sea L. | 29.97" | 0700 | 1300 | 1900 |
| Ppn. | 0.39 in. | Prev. Dir. | S | 3 hr. Tend. | +2mb / | Clds. | Clds. | Clds. |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | MSS | Wx | Wx | Wx |
| | | | | Observer | MSS | Vis. | Vis. | Vis. |
| | | | | | | 3 miles | | |

$$T_{\text{roof}} = 64^{\circ}\text{F}$$

$$T_d = 59^{\circ}\text{F}$$

$$\Sigma\text{HDD} = 31$$

$$\text{CDD} = 2$$

$$\Sigma\text{CPD} = 10$$

$$T_{\text{unv}} = 65^{\circ}\text{F}$$

$$T_{\text{dun}} = 60^{\circ}\text{F}$$

$$\Sigma\text{PCN}_e = 0.62''$$

$$T_w = 63^{\circ}\text{F}$$

$$\bar{T} = 67^{\circ}\text{F}$$

Fri. JUNE 8, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|-------|-------------|-------------|--------------------|-------|-------|
| Max. | 78 °F | Dir. | Temp. | Sky BRIGHT SE | | |
| | | — | 77 | | | |
| Mln. | 55 °F | Vel. | Read. | | | |
| | | 0 m.p.h. | 28.94 | | | |
| Set | 58 °F | Char. | Corr. | | | |
| | | CALM | 28.80 | 0700 | 1300 | 1900 |
| R. H. | 78 % | 24 hr. Mov. | Sea L. | Clds. | Clds. | Clds. |
| | | 93 mi. | 30.13 | 10/10 | | |
| Ppn. | Liq. | Prev. Dir. | 3 hr. Tend. | Wx | Wx | Wx |
| 0 | in. | W | +0.5 mb/ | OVC | | |
| Ppn. | Sol. | Snow Depth | Observer | Vis. | Vis. | Vis. |
| 0 | in. | 0 in. | JHM | 15 WEST 25 EAST | | |

$$T_{roof} = 59 \quad T_w = 35 \quad T_d = 52$$

$$T_{d, rms} = 50$$

$$T_{d, unv} = 52$$

$$\bar{T} = 67$$

$$DD_c = 2$$

$$\sum H_{DD} = 31$$

$$\sum C_{DD} = 12$$

$$\sum p_{c,w} = 0.62''$$

SAT. JUNE 9 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | General Obs. | | | | |
|-------|----------|-------------|---------------------------|-------------|--|-------|-------|-----|-------|
| Max. | 74 °F | Dir. | WSW | Temp. | <ul style="list-style-type: none"> • What a Night! • RW 1000-1035 • TRW 1510-1600 • TRW 2110-2115 • ONCL LIGHTNING CC CG 2030-2230 THEN AT 2230 IT BECAME FREQUENT | | | | |
| Min. | 58 °F | Vel. | 6-26 m.p.h. | Read. | | | | 76° | 28.81 |
| Set | 67 °F | Char. | Variable + CONSTANT | Corr. | | | | | 28.67 |
| R. H. | 75 % | 24 hr. Mdv. | | Sea L. | 0700 | 1300 | 1900 | | |
| Ppn. | 0.94 in. | Prev. Dir. | | 3 hr. Tend. | Clds. SOME 10/ AMAZING 110 STRATUM. | Clds. | Clds. | | |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | Wx -OIL -WINDY | Wx | Wx | | |
| | | | | | Vis. | Vis. | Vis. | | |
| | | | | | 20 mi. | | | | |

$T_{maj} = 69$ $\bar{T} = 66$ $\sum PLN_i = 1.56^m$
 $T_w = 64$ $HDD = 0$
 $T_d = 61$ $\sum HDD = 31$
 $CDD = 1$
 $\sum CDD = 13$

- TRW + 2315-2325
- TRW - 2325-0015
- FREQUENT LIGHTNING CC CG OVERD, W, N, E 2300-2330
- TRW + 0110-0145
- STILL LIGHTNING TO EAST AFTER 0145
- POWER OUT 0125

ALL STATE COLLEGE STUCK
 THEY ONLY A FEW
 LIGHTS
 • CAR STALLED ON FLOODED
 ATHERTON 0140
 • FIRE ON SW HORIZON
 (TRANSFORMER?) 0125-
 0150

- THREE VERY BRIGHT GREEN FLASHES THAT LIT THE ENTIRE SW HORIZON IN COLOR. @ 0125

SUNDAY, JUNE 10, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-----------|----------|----------------------------|---------------------------|--------------------------------------|---------------|---------------|
| Max. | 75 °F | Dir. SW | Temp. 75° | OB 2140 | | |
| Min. | 59 °F | Vel. 5 m.p.h. | Read. 28.75" | RW 0840-0900 TRW 1135-1150 | | |
| Set | 59 °F | Char. varying intensity | Corr. 28.62" | ramps ovnt to - 58°F | | |
| R. H. | 79 % | 24 hr. Mov. 86 mi. | Sea L. 29.91" | 0700 Clds. - 5/10 - cumulus | 1300 Clds. | 1900 Clds. |
| Ppn. Liq. | 0.18 in. | Prev. Dir. WSW | 3 hr. Tend. + 1/2 mb ✓ | Wx breezy; ptly sunny | Wx | Wx |
| Ppn. Sol. | 0 in. | Snow Depth 0 in. | Observer MSS | Vis. 20 miles | Vis. | Vis. |

$$T_{\text{cool}} = 59^{\circ}\text{F}$$

$$T_d = 53^{\circ}\text{F}$$

$$\text{CDD} = 2$$

$$\Sigma \text{CDD} = 15$$

$$\Sigma \text{HDD} = 31$$

$$\Sigma \text{PCN}_e = 1.74''$$

$$\bar{T} = 67^{\circ}\text{F}$$

MONDAY, JUNE 11, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|-------|-------------|--------------------|-------------|-------------|---|-------|-------|
| Max. | 70 °F | Dir. | NNW | Temp. | 78 °F | <ul style="list-style-type: none"> • FRT WND GSTS to 30mph yesterday • Darkest clouds N & E • Mostly bright & blue to SW • Clouds moving rapidly SWRD | | |
| Min. | 58 °F | Vel. | 7 m.p.h. | Read. | 28.84" | | | |
| Set | 60 °F | Char. | varying 4-15mph | Corr. | 28.70" | | | |
| R. H. | 67 % | 24 hr. Mov. | 137 mi. | Sea L. | 29.98" | 0700 | 1300 | 1900 |
| Ppn. | T in. | Prev. Dir. | W | 3 hr. Tend. | +1 1/2 mb ✓ | Clds. 8/10 stratocumulus | Clds. | Clds. |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | MSS | Wx breezy • pthy sunny | Wx | Wx |
| | | | | | | Vis. 15 miles | Vis. | Vis. |

$$T_{roof} = 59^{\circ}\text{F}$$

$$T_d = 48^{\circ}\text{F}$$

$$T_{unv} = 61^{\circ}\text{F}$$

$$T_{d_{unv}} = 49^{\circ}\text{F}$$

$$F = 64^{\circ}\text{F}$$

$$T_w = 55^{\circ}\text{F}$$

$$\text{HDD} = 1$$

$$\sum \text{HDD} = 32 \quad \sum \text{CDD} = 15$$

$$\sum \text{PCN}_d = 1.74''$$

TUESDAY, JUNE 12, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|---------------|---------------------|-----------------------------|---|---------------|---------------|
| Max. | 71 °F | Dir. SW | Temp. 75 °F | • brief RW— ~ 1100 LT, 11th • few lonely Ci north & west • some valley fog & haze along east end of Tussey Ridge. | | |
| Min. | 46 °F | Vel. 3 m.p.h. | Read. 29.05 ^h | | | |
| Set | 53 °F | Char. very light | Corr. 28.91" | | | |
| R. H. | 69 % | 24 hr. Mov. NA | Sea L. 30.21" | 0700 Clds. CLR | 1300 Clds. | 1900 Clds. |
| Ppn. | Liq. T in. | Prev. Dir. NA | 3 hr. Tend. +2mb ✓ | Wx Sunny | Wx | Wx |
| Ppn. | Sol. 0 in. | Snow Depth 0 in. | Observer MSS | Vis. 20 miles | Vis. | Vis. |

$$T_{\text{roof}} = 52^{\circ}\text{F}$$

$$T_d = 42^{\circ}\text{F}$$

$$T_{\text{unw}} = 52^{\circ}\text{F}$$

$$T_{d,\text{unw}} = 45^{\circ}\text{F}$$

$$\bar{T} = 59^{\circ}\text{F}$$

$$T_w = 49^{\circ}\text{F}$$

$$\text{HDD} = 6$$

$$\sum \text{HDD} = 38$$

$$\sum \text{CDD} = 15$$

$$\sum \text{PCD}_d = 1.74''$$

Wed. JUNE 13 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|-------|-------------|----------|-------------|---------|-------------------------|------|-------|
| Max. | 75 °F | Dir. | — | Temp. | 73 | • OVNT low ~ 55 | | |
| Min. | 53 °F | Vel. | 0 m.p.h. | Read. | 29.01 | | | |
| Set | 59 °F | Char. | Calm | Corr. | 28.87 | - Ramos: 77.53 OVNT: 55 | | |
| R. H. | 75 % | 24 hr. Mov. | 30 mi. | Sea L. | 30.20 | Clds. | 1300 | 1900 |
| Ppn. | 0 in. | Prev. Dir. | SW | 3 hr. Tend. | + 1/2 ✓ | Clds. | | Clds. |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | JCK | Wx | | Wx |
| | | | | Vis. | 25 mi. | Wx | | Wx |
| | | | | Vis. | | Vis. | | Vis. |

0700 1300 1900

Clds.
10 ALTOCUM.
10 FEW BARS
EAST

Wx
• OVC
• CALM

$$T_{\text{roof}} = 61 \quad \bar{T} = 64 \quad \sum p_{\text{conv}} = 1.74''$$

$$T_w = 56 \quad \text{HDD} = 1$$

$$T_A = 53 \quad \sum \text{HDD} = 39$$

$$\text{CDD} = 0$$

$$\sum \text{CDD} = 15$$

THURS. JUNE 14, 1990 0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | General Obs. | | |
|-------|-------|-------------|----------|-------------|---------------------------|-------|-------|
| Max. | 80 °F | Dir. | SW | Temp. | PATCHY CIRRUS OVAHD AND W | | |
| Min. | 59 °F | Vel. | 5 m.p.h. | Read. | 28.83 | | |
| Set | 66 °F | Char. | STOY | Corr. | RAMMS OVERT LO = 59 | | |
| R. H. | 75 % | 24 hr. Mov. | 67 mi. | Sea L. | 0700 | 1300 | 1900 |
| Ppn. | 0 in. | Prev. Dir. | S | 3 hr. Tend. | Clds. | Clds. | Clds. |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | Wx | Wx | Wx |
| | | | | JHM | Vis. | Vis. | Vis. |
| | | | | | 2 V 6 mi. | | |

$$T_{\text{roof}} = 69.5 \quad T_w = 64 \quad T_d = 61$$

$$T_{\text{drains}} = 58.5$$

$$T_{\text{unv}} = 60$$

$$\bar{T} = 70$$

$$CDD = 5 \quad \sum CDD = 20$$

$$\sum HDD = 39$$

$$\sum PEN = 1.74''$$

FRI. JUNE 15, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | General Obs. | | |
|-------|---------|-------------|----------|-------------|---------------------|-------|-------|
| Max. | 87 °F | Dir. | ENE | Temp. | RW-- 1520-1525 LT | | |
| Min. | 66 °F | Vel. | 5 m.p.h. | Read. | TRW C. 2150-2230 LT | | |
| Set | 66 °F | Char. | STDY | Corr. | RW LT&IC | | |
| R. H. | 87 % | 24 hr. Mov. | NA | Sea L. | 0700 | 1300 | 1900 |
| Ppn. | .92 in. | Prev. Dir. | SSW | 3 hr. Tend. | Clds. | Clds. | Clds. |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | 10/10 | | |
| | | | | | Wx | Wx | Wx |
| | | | | | FOG | | |
| | | | | | BINOVC | | |
| | | | | | Vis. | Vis. | Vis. |
| | | | | | 3/4 mi. | | |

TRW C. 0215-0400 LT
LT&ICCC&C
RW - 0400 - 0600 (OVER)

1990-06-15 07:00 EST

$$T_{\text{roof}} = 67 \quad T_w = 64.5 \quad T_d = 63$$

$$T_{d \text{ unv}} = 62$$

$$\bar{T} = 77$$

$$C_{00} = 12$$

$$\sum C_{00} = 32$$

$$\sum H_{00} = 39$$

$$\sum PCN = 2.66''$$

* TRW + CEH
C. 2000 LT OVER
MT. NITTANY
PLEASANT GAP AND
CENTRE HALL. HAD
HEAVY RAIN

SAT. JUNE 16 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|-------|-------------|----------|-------------|-------|--------------------------|-------|-------|
| Max. | 80 °F | Dir. | SW | Temp. | 80 | | | |
| Min. | 65 °F | Vel. | 5 m.p.h. | Read. | 28.96 | | | |
| Set | 67 °F | Char. | Steady | Corr. | 28.81 | Ramos: 79, 64 | | |
| R. H. | 76 % | 24 hr. Mov. | 63 mi. | Sea L. | 30.12 | 0700 | 1300 | 1900 |
| | | | | | | Clds. | Clds. | Clds. |
| | | | | | | 7/ CIRANS 110 FEW CUM | | |
| Ppn. | 0 in. | Prev. Dir. | S | 3 hr. Tend. | +2 ✓ | Wx | Wx | Wx |
| | | | | | | - Hazy - Mostly Sunny | | |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | JEK | Vis. | Vis. | Vis. |
| | | | | | | 3 1/2 mi. | | |

$$T_{roof} = 69 \quad \overline{T} = 73 \quad \sum PCW_L = 2.66''$$

$$T_w = 64 \quad HAD = 0$$

$$T_d = 61 \quad \sum HAD = 7$$

$$CDD = 8$$

$$\sum CDD = 40$$

SUN. JUNE 17 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|---------------|-----------------------|---------------------|--|---------------|---------------|
| Max. | 85 °F | Dir. SSW | Temp. 81 | | | |
| Min. | 66 °F | Vel. 3 m.p.h. | Read. 29.00 | | | |
| Set | 69 °F | Char. light | Corr. 28.85 | | | |
| R. H. | 73 % | 24 hr. Mov. 53 mi. | Sea L. 30.15 | 0700 Clds. 7/ cirrus 10/ cirrocum | 1300 Clds. | 1900 Clds. |
| Ppn. | Liq. 0 in. | Prev. Dir. S | 3 hr. Tend. +1 ✓ | Wx • HAZE • Partly Sunny | Wx | Wx |
| Ppn. | Sol. 0 in. | Snow Depth 0 in. | Observer JCK | Vis. 7 mi. | Vis. | Vis. |

Baros: 82.66

$$T_{\text{no.}} = 71 \quad F = 76 \quad \sum PCN_e = 2.66''$$

$$T_w = 65 \quad HDO = 0$$

$$T_d = 62 \quad \sum HDO = 7$$

$$CDD = 11$$

$$\sum CDD = 51$$

MONDAY, JUNE 18, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|-------|-------------|-----------------|-------------|---------|-----------------------------|-------|-------|
| Max. | 86 °F | Dir. | SSW | Temp. | 82 °F | - few stratocumulus visible | | |
| Min. | 68 °F | Vel. | 7 m.p.h. | Read. | 28.76" | | | |
| Set | 72 °F | Char. | varying 6-12 | Corr. | 28.61" | | | |
| R. H. | 69 % | 24 hr. Mov. | 103 mi. | Sea L. | 29.88" | 0700 | 1300 | 1900 |
| Ppn. | 0 in. | Prev. Dir. | S | 3 hr. Tend. | -1/2 mb | Clds. | Clds. | Clds. |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | MSS | Wx | Wx | Wx |
| | | | | | | Wx | Wx | Wx |
| | | | | | | Vis. | Vis. | Vis. |
| | | | | | | 4 miles | | |

- rams 82/67

-X

hazy

4 miles

$$T_{\text{ref}} = 73^{\circ}\text{F}$$

$$T_d = 62^{\circ}\text{F}$$

$$\sum \text{HDD} = 39$$

$$\text{CDD} = 12$$

$$\sum \text{CDD} = 63$$

$$T_{\text{sum}} = 71^{\circ}\text{F}$$

$$T_{\text{down}} = 63^{\circ}\text{F}$$

$$\sum \text{PCN}_e = 2.66''$$

$$T_w = 69^{\circ}\text{F}$$

$$\bar{T} = 77^{\circ}\text{F}$$

TUE. JUNE 19, 1990 0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|-----------------|----------------------|------------------------|--|-------|-------|
| Max. | 86 °F | Dir. SW | Temp. 76 | OB DLAD CLR EARLY BUT RAPIDLY "SELF-DESTRUCTING" TRWT @ 1500LT @ 1525LT LT 612CG PK WIND 34 mph @ PEA-SIZED MIL 1510LT 1505LT | | |
| Min. | 62 °F | Vel. 6 m.p.h. | Read. 28.62 | | | |
| Set | 67 °F | Char. STDY | Corr. 28.58 | | | |
| R. H. | 73 % | 24 hr Mov. 63 mi. | Sea L. 29.87 | 0700 | 1300 | 1900 |
| Ppn. | Liq. .42 in. | Prev. Dir. SW | 3 hr. Tend. +.5 mb/ | Clds. 5/10 | Clds. | Clds. |
| Ppn. | Sol. 0 in. | Snow Depth 0 in. | Observer JHM | Wx PTLY CLOY | Wx | Wx |
| | | | | Vis. 20 mi. | Vis. | Vis. |

$T_{\text{ROOF}} = 66$ $T_d = 57$

$\bar{T} = 74$

$CDD = 9$ $\sum CDD = 72$

$\sum HOD = 39$

$\sum PCN = 3.08''$

2ND CELL B 1535 LT
E 1555 LT

MORE MAIL
PEA → MARBLE SIZED

FRT LTGCG

3RD CELL B C. 0000 LT 19TH MAINLY NORTH
ONLY .01" IN GAGE OF TOWN

WED., JUNE 20, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|---------------|-------------|--------------------------|---------------------------|---|-------|-------|
| Max. 75 °F | | Dir. SW | Temp. 75 °F | <ul style="list-style-type: none"> • Altostratus moving in from west & northwest • Some Cirrostratus east • RW - 0915 - • RW - 1100 - 1130 LT | | |
| Min. 53 °F | | Vel. 3 m.p.h. | Read. 28.75" | | | |
| Set 56 °F | | Char. generally light | Corr. 28.62" | | | |
| | | | | 0700 | 1300 | 1900 |
| R. H. 74 % | | 24 hr. Mov. 101 mi | Sea L. 29.89" | Clds. • 6/10 • cirrus | Clds. | Clds. |
| Ppn. T in. | Liq. in. | Prev. Dir. W | 3 hr. Tend. + 1/2 mb ~ | Wx lingering fog | Wx | Wx |
| Ppn. 0 in. | Sol. in. | Snow Depth 0 in. | Observer MSS | Vis. 6 miles | Vis. | Vis. |

$$T_{\text{roof}} = 56^{\circ}\text{F}$$

$$T_{\text{air}} = 48^{\circ}\text{F}$$

$$T_{\text{int}} = 57^{\circ}\text{F}$$

$$T_{\text{ext}} = 48^{\circ}\text{F}$$

$$\bar{T} = 64^{\circ}\text{F}$$

$$T_w = 54^{\circ}\text{F}$$

$$\text{HDD} = 1$$

$$\sum \text{HDD} = 40$$

$$\sum \text{CDD} = 72$$

$$\sum \text{PCN}_2 = 3.08''$$

THURSDAY, JUNE 21, 1990 0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | General Obs. | | | | | |
|-------|-------|-------------|-------------|---------|---|-------|------|--------|------|------|
| Max. | 78 °F | Dir. | SW | Temp. | • min occrd at obs, 20 th • sky mostly obscured, but some stratus visible • RW - ~ 2000LT Range: 75/61 | | | | | |
| Min. | 56 °F | Vel. | 4 m.p.h. | Read. | | | | 28.72" | | |
| Set | 64 °F | Char. | steady | Corr. | | | | 28.58" | | |
| R. H. | 87 % | 24 hr. Mov. | 48 miles | Sea L. | 29.84" | Clds. | -X | 0700 | 1300 | 1900 |
| Ppn. | Liq. | Prev. Dir. | 3 hr. Tend. | Wx | | | | | | |
| T | in. | SW | +1mb ✓ | Fog | Wx | Wx | Wx | | | |
| Ppn. | Sol. | Snow Depth | Observer | Vis. | | | | | | |
| 0 | in. | 0 in. | MSS | 3 miles | Vis. | Vis. | Vis. | | | |

$$\bar{T}_{\text{max}} = 62^{\circ}\text{F}$$

$$\bar{T}_{\text{d}} = 58^{\circ}\text{F}$$

$$\Sigma \text{HDD} = 40 \quad \text{CDD} = 2$$

$$\Sigma \text{CDD} = 74$$

$$T_{\text{unw}} = 63^{\circ}\text{F}$$

$$T_{\text{dunw}} = 59^{\circ}\text{F}$$

$$\Sigma \text{PCN}_e = 3.08''$$

$$T_{\text{psy}} = 65^{\circ}\text{F}$$

$$T_{\text{wet}} = 62^{\circ}\text{F}$$

$$\bar{T} = 67^{\circ}\text{C}$$

FRIDAY, JUNE 22, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|---------------|--------------------------|--------------------|--|---------------|---------------|
| Max. | 80 °F | Dir. SW | Temp. 81 °F | <ul style="list-style-type: none"> • some valley fog & haze • few ci to S • few altostrat to N & W • RW-- ~ 1200LT | | |
| Min. | 61 °F | Vel. 5 m.p.h. | Read. 28.80" | | | |
| Set | 67 °F | Char. light | Corr. 28.65" | | | |
| R. H. | 61 % | 24 hr. Mov. 112 miles | Sea L. 29.92" | 0700 Clds. 1/10 | 1300 Clds. | 1900 Clds. |
| Ppn. | Liq. T in. | Prev. Dir. W | 3 hr. Tend. 0 ✓ | Wx mostly Sunny | Wx | Wx |
| Ppn. | Sol. 0 in. | Snow Depth 0 in. | Observer MSS | Vis. 15 mi. | Vis. | Vis. |

$$T_{\text{roof}} = 68^{\circ}\text{F}$$

$$T_{\text{d}} = 54^{\circ}\text{F}$$

$$T_{\text{sum}} = 67^{\circ}\text{F}$$

$$T_{\text{down}} = 54^{\circ}\text{F}$$

$$T_{\text{dry}} = 71^{\circ}\text{F}$$

$$t_w = 64^{\circ}\text{F}$$

$$\bar{T} = 70^{\circ}\text{F}$$

$$\Sigma \text{HDD} = 40 \quad \text{CDD} = 5$$

$$\Sigma \text{CDD} = 79$$

$$\Sigma \text{PCN}_e = 3.08''$$

SAT. JUNE 23 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | General Obs. | | | |
|-------|---------|-------------|-----------------|-------------|---|---|------|-------|
| Max. | 82 °F | Dir. | WSW | Temp. | *RS SOMETIME AFTER 0130 LT. (maybe considerably after) ~ 0230 - 0630 LT • Over 10: 62 • Ramos: 80, 61 | | | |
| Min. | 62 °F | Vel. | 13-20 m.p.h. | Read. | | | | 28.54 |
| Set | 62 °F | Char. | Vacuolls | Corr. | | | | 28.40 |
| R. H. | 75 % | 24 hr. Mov. | 140 mi. | Sea L. | 29.70 | Clds. 0700 1300 1900 7/10 means 10 means 25 mb | | |
| Ppn. | .20 in. | Prev. Dir. | S | 3 hr. Tend. | +1 / | Wx | Wx | |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | JCK | Vis. | Vis. | |
| | | | | | | 25 mi. | | |

$$T_{\text{roj}} = 63 \quad \bar{T} = 72 \quad \sum p_{\text{en}_i} = 3.28$$

$$T_w = 58 \quad \text{MAD} = 0$$

$$T_d = 55 \quad \sum \text{MAD} = 40$$

$$\text{COD} = 7$$

$$\sum \text{COD} = 86$$

SUNDAY, JUNE 24, 1990

0700 EST

Meteorological Observatory
University Park, Pa.

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|----------|-------------|------------------|-------------|-----------------------|--|-----------------|-------|
| Max. | 77 °F | Dir. | WSW | Temp. | 81 °F | • BKNOC to extreme E • STRATOCUMULUS ALGDS • RN- ~1730LT <i>Pressure: 74/57</i> | | |
| Min. | 58 °F | Vel. | 8 m.p.h. | Read. | 28.60" | | | |
| Set | 60 °F | Char. | variable 6-12 | Corr. | 28.45" | | | |
| R. H. | 75 % | 24 hr. Mov. | 166 miles | Sea L. | 29.71" | 0700 | 1300 | 1900 |
| Ppn. | 0.01 in. | Prev. Dir. | SW | 3 hr. Tend. | +1 $\frac{3}{4}$ mb / | Clds. | 10/10 | Clds. |
| Ppn. | - in. | Snow Depth | - in. | Observer | MSS | Wx | cloudy & breezy | Wx |
| | | | | | | Vis. | 15 miles | Vis. |

$$T_{\text{roof}} = 58^{\circ}\text{F}$$

$$T_d = 50^{\circ}\text{F}$$

$$T_{\text{unr}} = 59^{\circ}\text{F}$$

$$T_{\text{dew}} = 51^{\circ}\text{F}$$

$$T_{\text{psy}} = 61^{\circ}\text{F}$$

$$T_w = 56^{\circ}\text{F}$$

$$\bar{T} = 68^{\circ}\text{F}$$

$$\Sigma \text{HDD} = 40$$

$$\text{CDD} = 3$$

$$\Sigma \text{CDD} = 89$$

$$\Sigma \text{PCN}_2 = 3.29$$

MONDAY, JUNE 25, 1990 0700 EST

Meteorological Observatory
University Park, PA

| Temp. | | Wind | Barom. | General Obs. | | |
|-------|---------------|---------------------|--------------------|-----------------------|-------|-------|
| Max. | 65 °F | Dir. WNW | Temp. 79 °F | • RW 1350 - 1405 LT | | |
| Min. | 53 °F | Vel. 4 m.p.h. | Read. 28.87 in. | • RW - 2330 - 0000 LT | | |
| Set | 55 °F | Char. very unsteady | Corr. 28.73 in. | • RW 0100 - 0130 LT | | |
| R.H. | 83 % | 24 hr. Mov. 129 mi. | Sea L. 30.01 in. | • BINOVIC to N & E | | |
| Ppn. | Liq. 0.14 in. | Prev. Dir. SW | 3 hr. Tend. +2 /mb | • rames: 62/53 | | |
| Ppn. | Sol. - in. | Snow Depth - in. | Observer MSS | 0700 | 1300 | 1900 |
| | | | | Clds. 10/10 | Clds. | Clds. |
| | | | | • stratocumulus | | |
| | | | | • nimbostratus | | |
| | | | | Wx light fog | Wx | Wx |
| | | | | Vis. 2 mi E | Vis. | Vis. |
| | | | | 5 mi W mi. | mi. | mi. |

$$T_{\text{roof}} = 54^{\circ}\text{F}$$

$$T_d = 49^{\circ}\text{F}$$

$$T_{\text{unv}} = 55^{\circ}\text{F}$$

$$T_{\text{dw}} = 49^{\circ}\text{F}$$

$$\bar{T} = 59^{\circ}\text{F}$$

$$T_{\text{psy}} = 58^{\circ}\text{F}$$

$$T_{\text{wet}} = 54^{\circ}\text{F}$$

$$\text{HDD} = 6$$

$$\Sigma \text{HDD} = 46$$

$$\Sigma \text{CDD} = 89$$

$$\Sigma \text{PCN}_e = 3.43''$$

TUES. JUNE 26, 1990 0700 EST

Meteorological Observatory
University Park, PA

| Temp. | | Wind | | Barom. | General Obs. | | | |
|-------|-------|-------------|----------|-------------|---|-------|---------|-----------|
| Max. | 73 °F | Dir. | SSW | Temp. | HAZE + DISSIPATING GF EAST (LEWIS, PENN VALLEY) PATCHY ANOCU WEST | | | |
| | | | | 80 °F | | | | |
| Min. | 55 °F | Vel. | 2 m.p.h. | Read. | | | | 29.01 in. |
| Set | 60 °F | Char. | light | Corr. | 28.86 in. | 0700 | 1300 | 1900 |
| R.H. | 78 % | 24 hr. Mov. | 48 mi. | Sea L. | 30.19 in. | Clds. | 0/10 | Clds. |
| Ppn. | 0 in. | Prev. Dir. | W | 3 hr. Tend. | 1+.5 mb | Wx | CLR | Wx |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | JHM | Vis. | 4V9 mi. | Vis. |
| | | | | | | | mi. | mi. |

$$T_{\text{roof}} = 63 \quad T_w = 58.5 \quad T_d = 56$$

$$T_{\text{RAMMS}} = 54$$

$$T_{\text{UNV}} = 55$$

$$\bar{T} = 64$$

$$DD_H = 1 \quad \sum DD_H = 47$$

$$\sum DD_C = 89$$

$$\sum PCN = 3.43''$$

DALED., JUNE 27, 1990

0700 EST

Meteorological Observatory
University Park, PA

| Temp. | | Wind | | Barom. | | General Obs. | | |
|-------|-------|-------------|----------|-------------|-----------|--|-------|-------|
| Max. | 82 °F | Dir. | — | Temp. | 77 °F | • lots of haze along ridges • sun dimly visible through cirrostratus area | | |
| Min. | 57 °F | Vel. | — m.p.h. | Read. | 28.87 in. | | | |
| Set | 64 °F | Char. | calm | Corr. | 28.73 in. | | | |
| R.H. | 70 % | 24 hr. Mov. | 80 mi. | Sea L. | 30.02 in. | 0700 | 1300 | 1900 |
| Ppn. | 0 in. | Prev. Dir. | S | 3 hr. Tend. | — 0 mb | Clds. 6/10 • Ci. • Cs. • Acu. | Clds. | Clds. |
| Ppn. | 0 in. | Snow Depth | — in. | Observer | MSS | Wx somewhat hazy | Wx | Wx |
| | | | | | | Vis. | Vis. | Vis. |
| | | | | | | 4 mi. | mi. | mi. |

$$T_{roof} = 64^{\circ}\text{F}$$

$$T_d = 54^{\circ}\text{F}$$

$$T_{wet} = 64^{\circ}\text{F}$$

$$T_{dew} = 56^{\circ}\text{F}$$

$$T_{ps1} = 67^{\circ}\text{F}$$

$$T_{wet} = 60^{\circ}\text{F}$$

$$\bar{T} = 71^{\circ}\text{F}$$

$$\Sigma\text{HDD} = 47$$

$$\text{CDD} = 6$$

$$\Sigma\text{CDD} = 95$$

$$\Sigma\text{PCN}_k = 3.43''$$

THURSDAY, JUNE 28, 1990

0700 EST

Meteorological Observatory
University Park, PA

| Temp. | | Wind | | Barom. | | General Obs. | | | |
|-------|-------|-------------|----------|-------------|-----------|--|---------|------|------|
| Max | 82 °F | Dir. | - | Temp. | 76 °F | • a few BINOVC • ridges hazy • a morning much like yesterday | | | |
| Min. | 59 °F | Vel. | 0 m.p.h. | Read. | 28.96 in. | | | | |
| Set | 62 °F | Char. | calm | Corr. | 28.82 in. | | | | |
| R.H. | 80 % | 24 hr. Mov. | 85 mi. | Sea L. | 30.11 in. | Clds. 10/10 - stratocu. - few altostrat | 0700 | 1300 | 1900 |
| Ppn. | 0 in. | Prev. Dir. | W | 3 hr. Tend. | +1 mb | Wx | Wx | Wx | Wx |
| Ppn. | 0 in. | Snow Depth | - in. | Observer | MSS | Vis. | 347 mi. | Vis. | mi. |

$$T_{\text{ref}} = 61^{\circ}\text{F}$$

$$\bar{d} = 55^{\circ}\text{F}$$

$$\Sigma\text{HDD} = 47 \quad \text{CDD} = 6$$

$$\Sigma\text{CDD} = 101$$

$$T_{\text{unv}} = 61^{\circ}\text{F}$$

$$T_{\text{down}} = 56^{\circ}\text{F}$$

$$\Sigma\text{PCN}_e = 3.43''$$

$$\bar{T} = 71^{\circ}\text{F}$$

FRIDAY, JUNE 29, 1990

0700 EST

Meteorological Observatory
University Park, PA

| Temp. | | Wind | | Barom. | | General Obs. | | | |
|-------|-------|-------------|----------------|-------------|-----------|---|------------|------|------|
| Max. | 84 °F | Dir. | WSW | Temp. | 76 °F | <i>few cirrocumulus & altostratus visible</i> <i>raines cont to: 67 (no other)</i> | | | |
| Min. | 62 °F | Vel. | 5 m.p.h. | Read. | 28.87 in. | | | | |
| Set | 69 °F | Char. | varying 3-8mph | Corr. | 28.73 in. | | | | |
| R.H. | 79 % | 24 hr. Mov. | 64 mi. | Sea L. | 30.02 in. | Clds. | 0700 | 1300 | 1900 |
| Ppn. | 0 in. | Prev. Dir. | SW | 3 hr. Tend. | - 0 mb | Wx | -X | | |
| Ppn. | 0 in. | Snow Depth | 0 in. | Observer | MSS | Wx | quite hazy | Wx | Wx |
| | | | | Observer | MSS | Vis. | 1V3 mi. | Vis. | Vis. |
| | | | | | | | | mi. | mi. |

$$T_{roof} = 69^{\circ}\text{F}$$

$$T_d = 62^{\circ}\text{F}$$

$$T_{sum} = 69^{\circ}\text{F}$$

$$T_{dsum} = 62^{\circ}\text{F}$$

$$\bar{T} = 73^{\circ}\text{F}$$

$$\Sigma \text{HDD} = 47$$

$$\text{CDD} = 8$$

$$\Sigma \text{CDD} = 109$$

$$\Sigma \text{PCN}_e = 3.43''$$

SAT. JUNE 30 1990

0700 EST

Meteorological Observatory
University Park, PA

| Temp. | | Wind | Barom. | General Obs. | | |
|-----------------|-----------------------|---------------------|------------------------|--|-------------|-------------|
| Max. 86 °F | Dir. W | Temp. 78 °F | | *TRW + 1800-1810 BT RW 52 *TRW 1825-1835 *TRW - 1905-1910 *LT66 1900 *RW 1930-1935, 1955 2015 *RW - 2034-2045 *WARM GREEN GLOW 2020 → | | |
| Min. 65 °F | Vel. 8-14 m.p.h. | Read. 28.78 in. | | | | |
| Set 69 °F | Char. variable | Corr. 28.64 in. | | 0700 | 1300 | 1900 |
| R.H. 81 % | 24 hr. Mov. 47 mi. | Sea L. 29.94 in. | | Clds. 10/STRATUS 10 | Clds. | Clds. |
| Ppn. .67 in. | Liq. in. | Prev. Dir. WSW | 3 hr. Tend. +1/2 mb | Wx •OVC •GRODY | Wx | Wx |
| Ppn. 0 in. | Sol. in. | Snow Depth 0 in. | Observer JCK | Vis. 3 mi. | Vis. mi. | Vis. mi. |

$$T_{\text{surf}} = 70 \quad \bar{T} = 76 \quad \sum P_{\text{en}} = 4.10''$$

$$T_w = 66 \quad HAD = 0$$

$$T_d = 64 \quad \sum HAD = 47$$

$$CDD = 11$$

$$\sum CDD = 120$$

• Peak flow 2045
• Rainfall: NA