**LOCAL CLIMATOLOGICAL DATA**

**READING 4 SW, PENNSYLVANIA 2021 ANNUAL SUMMARY**

ELEVATION 320 FEET ASL LATITUDE 40.316251° LONGITUDE -75.988661°

OBSERVATION TIME (LMT): 24:00

**----- TEMPERATURES (°F) ----- PRECIPITATION (IN.) - SNOWFALL (IN.) -**

**EXTREME ---- AVERAGE ---- TOTAL DEGREE DAYS MONTH MAX MAX MONTH MAX MAX**

**MONTH MAX MIN MAX MIN AVG HEATNG COOLNG GROWNG TOTAL 1-DAY 24-HR TOTAL 1-DAY 24-HR MONTH**

**JAN 52 19 40.8 27.5 34.2 945 2.32 0.79 0.86 4.9 4.7 11.5 JAN**

**FEB 55 13 38.8 26.0 32.4 906 5.62 1.64 1.65 28.1 12.4 13.1 FEB**

**MAR 80 19 56.9 34.4 45.6 594 2 152 3.15 1.24 1.24 T T T MAR**

**APR 87 25 65.5 42.3 53.9 336 12 243 2.44 1.57 1.64 T T T APR**

**MAY 93 37 74.5 49.7 62.1 164 80 425 3.42 1.19 1.67 MAY**

**JUN 99 47 85.0 62.2 73.6 8 273 672 3.37 0.98 1.09 JUN**

**JUL 96 55 87.0 66.4 76.7 369 788 6.95 1.66 2.08 JUL**

**AUG 96 56 87.0 67.7 77.4 392 814 8.35 2.13 2.13 AUG**

**SEP 89 48 79.4 58.7 69.0 16 142 573 9.09 5.56 5.56 SEP**

**OCT 83 40 71.0 51.6 61.3 141 32 395 3.26 1.33 1.46 OCT**

**NOV 72 25 53.1 31.7 42.4 670 81 1.82 1.24 1.24 T T T NOV**

**DEC 66 20 50.1 33.9 42.0 706 1.01 0.20 0.20 T T T DEC**

**YEAR 99 13 65.9 46.2 56.1 4486 1302 4141 50.80 5.56 5.56 33.0 12.4 13.1 YEAR**

**DEP +1 +6 +1.8 +1.6 +1.7 -485 +171 +283 -1.99 +4.7 DEP**

ANNUAL TEMPERATURE EXTREMES AND FREEZE DATA. . .

HIGHEST MAXIMUM TEMPERATURE, DATE(S) .....: 99, 6/30

LOWEST MAXIMUM TEMPERATURE, DATE(S) ......: 27, 1/31

HIGHEST MINIMUM TEMPERATURE, DATE(S) .....: 75, 6/28 6/29 8/19

LOWEST MINIMUM TEMPERATURE, DATE(S) ......: 13, 2/08

HIGHEST AVERAGE TEMPERATURE, DATE(S) .....: 86, 6/28 6/29

LOWEST AVERAGE TEMPERATURE, DATE(S) ......: 22, 2/08

NO. OF DAYS WITH MINIMUM OF 32 OR BELOW ..: 104

NO. OF DAYS WITH MAXIMUM OF 32 OR BELOW ..: 7

NO. OF DAYS WITH MINIMUM OF 0 OR BELOW ...: 0

NO. OF DAYS WITH MAXIMUM OF 90 OR ABOVE ..: 36

TEMPERATURE & DATE OF LAST SPRING FREEZE .: 25, 4/03

TEMPERATURE & DATE OF FIRST FALL FREEZE ..: 30, 11/03

NO. OF DAYS BETWEEN (GROWING SEASON) .....: 213 (non-inclusive)

ANNUAL PRECIPITATION EXTREMES. . .

NO. OF DAYS WITH A TRACE OF PRECIPITATION : 36

NO. OF DAYS WITH 0.01 TO 0.09 IN. OF PCPN : 58

NO. OF DAYS WITH 0.10 TO 0.49 IN. OF PCPN : 50

NO. OF DAYS WITH 0.50 TO 0.99 IN. OF PCPN : 17

NO. OF DAYS WITH 1.00 TO 1.99 IN. OF PCPN : 12

NO. OF DAYS WITH 2.00 OR MORE IN. OF PCPN : 2

MAXIMUM ONE-DAY PRECIPITATION, DATE(S) ...: 5.56, 9/01

MAXIMUM FLOATING 24-HOUR PCPN, DATE(S) ...: 5.56, 9/01-01

NO. OF DAYS WITH A TRACE OF SNOWFALL .....: 19

NO. OF DAYS WITH 0.1 TO 0.9 IN. OF SNOW ..: 6

NO. OF DAYS WITH 1.0 TO 3.9 IN. OF SNOW ..: 2

NO. OF DAYS WITH 4.0 TO 7.9 IN. OF SNOW ..: 3

NO. OF DAYS WITH 8.0 OR MORE IN. OF SNOW .: 1

MAXIMUM ONE-DAY SNOWFALL, DATE(S) ........: 12.4, 2/01

MAXIMUM FLOATING 24-HOUR SNOW, DATE(S) ...: 13.1, 2/01-02

NO. OF DAYS WITH 1 IN. OR MORE SNOW COVER : 29

MAXIMUM DEPTH (IN.) OF SNOW & ICE, DATE ..: 16, 2/01

THUNDER DAYS .............................: 43

**HIGHLIGHTS**

Year 2021 at Reading 4 SW ended significantly warmer than normal with an average temperature of 56.1°F (+1.8), the same as the 2020 average annual average temperature. The average of the daily maximums (65.9/+1.8) and minimums (46.2/+1.6) also were the same as 2020. Total precipitation of 50.80” during 2021 was considerably less than the previous four years and 1.99 below normal. But it was still the fifth consecutive year to total above 50.00 inches. Snowfall during 2021 amounted to 33.0” (+4.7), 32.8 of which accumulated during the 28-day period from 31 January through 27 February. Therefore, 2021 featured a snow blitz followed by a snow dearth.

Two key events stand out this year, in the opinion of the observer in charge. The first is the drawn-out nor’easter type winter storm which brought 18.6” of snow/sleet spanning four days, more than half of the whole year’s snowfall. Snow got underway at midday of Sunday 31 January and continued to late evening when it changed to sleet after 4.7” of accumulation. Then wintry mix overnight into mid-afternoon 1 February brought little accumulation, after which all snow, heavy at times, brought the great majority of the 12.4” accumulation for the day. Days three and four of the nor’easter brought much lighter and intermittent snow of only 1.5” additional accumulation.

The other key event is heavy rainfall from tropical system Ida, all on Wednesday 1 September. The 5.56” of rain at Reading 4 SW, while substantial, was modest when compared to the 6 to 10 inches that inundated many areas of south-central and southeastern Pennsylvania. Moderate flooding occurred locally. But flooding was severe to extreme, especially in a swath between Reading and Philadelphia. The “remnant” low still had enough momentum to spin up a swarm of tornadoes within the same swath. The 5.56” of rain became the fifth greatest calendar day rainfall at Reading 4 SW.

Other highlights:

\* January was nearly snowless with only 0.2” until the PM of the 31st when 4.7” accumulated. This fateful timing allowed January 2006 to survive with least snow, 0.3.

\* The year’s minimum temperature of 13 occurred on 8 February, which was coldest day overall when paired with a max of only 31 for a date average of 22. Only four other days failed to climb above 32, the lowest maximum of which was 27 on 31 January.

\* The final measurable snow of the winter (and year) was 0.4” on 27 February. Therefore, 32.8 of the year’s 33.0” of snow accumulated during the 28-day period from 31 January to 27 February.

\* Early spring warmth was keyed by maximums of 77 on 11 March and 80 on 26 March.

\* Year 2021 brought no out-of-season thunder occurrences. The first thunderstorm tarried until 11 April, and the last thunder occurred on 25 October. In between, thunder was rather frequent and ran the gamut from only distant thunder to strong. Of the 43 days with thunder, 32 of them occurred during June, July, or August.

\* The first hot day (max GE 90) occurred on 22 May with a max of 92. This was the first of 36 hot days, seven of which heated to at least 95. The highest was 99 on 30 June (also 99 at RDG). The last hot day came rather early with 90 on 30 August.

\* A mostly warm mid-May to mid-September period brought some appalling chill. Daily maxes of 51 and 54 on 30 and 31 May were historically cool for so late in spring. And a min of 47 on 23 June was second coolest for late June to 44 on the same date in 1992.

\* August with an average of 77.4 surpassed July’s 76.7 for the year’s warmest month. RDG, with 77.8, tied 1955 for warmest August since 1898. For Reading 4 SW, the warmest August still is 2016 with 77.9.

\* The year’s third quarter (JAS) was quite rainy, keyed by Ida but also included contributions from tropical systems Fred and Henri, and contributed 24.29” of the entire year’s 50.80”. The fourth quarter turned increasingly dry.

\* October was a significantly warmer-than-normal autumn month. Although unusual warmth was absent, moderate warmth was frequent, and truly chilly temperatures were absent as well. It failed to dip below 40 (at RDG too) for the first time on record in October. Further, the coolest daily max temperature was 58. The month average of 61.3 was inferior to only 61.6 of October 1984 and 62.5 of October 2007.

\* The trend reversed during November which contained 18 days with mins 32 or below, lowest 25. The slide from October’s 61.3 to November’s 42.4 (18.9 degrees) was nearly twice the normal October-to-November slide

\* The trend reversed again for December, which finished with a mild average of 42.0. Though a distant second to the phenomenally warm December of 2015, it was only 0.4 degree cooler than November and contained only 16 days with freezing minimums, two less than November’s 18. Four days warmed to at least 60, highest 66.