**LOCAL CLIMATOLOGICAL DATA**

**READING 4 SW, PENNSYLVANIA 2022 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 61 6 36.6 20.3 28.5 1125 3.21 0.72 1.32 9.0 3.3 3.5 JAN**

 **FEB 69 11 42.6 25.1 36.3 797 3.75 1.48 1.86 5.2 4.7 4.7 FEB**

 **MAR 76 18 55.5 33.9 44.7 620 126 3.48 1.00 1.08 3.9 3.6 3.6 MAR**

 **APR 85 28 62.2 40.8 51.7 391 2 200 4.81 1.57 1.60 T T T APR**

 **MAY 95 36 77.0 54.6 65.8 74 108 506 5.33 1.14 1.69 MAY**

 **JUN 94 47 83.3 60.2 71.7 210 641 3.95 1.29 1.73 JUN**

 **JUL 96 57 88.8 68.1 78.5 426 831 5.79 1.17 2.09 JUL**

 **AUG 96 55 89.8 67.7 78.4 418 821 0.45 0.15 0.60 AUG**

 **SEP 93 44 78.9 57.3 68.2 46 147 555 3.85 1.53 2.14 SEP**

 **OCT 77 31 64.7 43.0 53.9 336 252 4.90 1.59 1.70 OCT**

 **NOV 78 22 58.0 37.7 47.8 518 9 105 3.13 0.76 0.94 T T T NOV**

 **DEC 60 5 44.4 26.8 35.6 888 5.29 1.26 1.57 0.5 0.3 0.3 DEC**

 **YEAR 96 5 65.2 44.7 55.2 4810 1320 4086 47.94 1.59 2.14 18.6 4.7 4.7 YEAR**

 **DEP -2 -0 +1.1 +0.1 +0.9 -131 +189 +228 -4.85 -9.7 DEP**

 ANNUAL TEMPERATURE EXTREMES AND FREEZE DATA. . .

 HIGHEST MAXIMUM TEMPERATURE, DATE(S) .....: 96, 7/23 7/24 8/09

 LOWEST MAXIMUM TEMPERATURE, DATE(S) ......: 16, 12/24

 HIGHEST MINIMUM TEMPERATURE, DATE(S) .....: 77, 8/08 8/09

 LOWEST MINIMUM TEMPERATURE, DATE(S) ......: 5, 12/24

 HIGHEST AVERAGE TEMPERATURE, DATE(S) .....: 87, 8/09

 LOWEST AVERAGE TEMPERATURE, DATE(S) ......: 11, 12/24

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

 NO. OF DAYS WITH MAXIMUM OF 32 OR BELOW ..: 14

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

 NO. OF DAYS WITH MAXIMUM OF 90 OR ABOVE ..: 42

 TEMPERATURE & DATE OF LAST SPRING FREEZE .: 28, 4/18

 TEMPERATURE & DATE OF FIRST FALL FREEZE ..: 31, 10/29

 NO. OF DAYS BETWEEN (GROWING SEASON) .....: 193 (non-inclusive)

 ANNUAL PRECIPITATION EXTREMES. . .

 NO. OF DAYS WITH A TRACE OF PRECIPITATION : 31

 NO. OF DAYS WITH 0.01 TO 0.09 IN. OF PCPN : 42

 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 : 24

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

 NO. OF DAYS WITH 2.00 OR MORE IN. OF PCPN : 0

 MAXIMUM ONE-DAY PRECIPITATION, DATE(S) ...: 1.59, 10/04

 MAXIMUM FLOATING 24-HOUR PCPN, DATE(S) ...: 2.14, 9/05-06

 NO. OF DAYS WITH A TRACE OF SNOWFALL .....: 16

 NO. OF DAYS WITH 0.1 TO 0.9 IN. OF SNOW ..: 10

 NO. OF DAYS WITH 1.0 TO 3.9 IN. OF SNOW ..: 4

 NO. OF DAYS WITH 4.0 TO 7.9 IN. OF SNOW ..: 1

 NO. OF DAYS WITH 8.0 OR MORE IN. OF SNOW .: 0

 MAXIMUM ONE-DAY SNOWFALL, DATE(S) ........: 4.7, 2/13

 MAXIMUM FLOATING 24-HOUR SNOW, DATE(S) ...: 4.7, 2/13-13

 NO. OF DAYS WITH 1 IN. OR MORE SNOW COVER : 12

 MAXIMUM DEPTH (IN.) OF SNOW & ICE, DATE ..: 5, 2/13

 THUNDER DAYS .............................: 33

**HIGHLIGHTS**

Year 2022 at Reading 4 SW ended slightly warmer than normal with an average temperature of 55.2°F (+0.9), not as warm as 2020 and 2021 which both averaged 56.1. The average of the daily maximums (65.2/+1.1) and minimums (44.7/+0.1) reflected the dominance of anticyclones (high-pressure systems), which favor wider ranges in temperature during many days. This overall pattern favored also subnormal precipitation, 47.94” (-4.85), which marked the first year since 2016 whose annual total was less than 50 inches. Snowfall was correspondingly low with total of 18.6” (-9.7) which included a few moderate amounts but mostly minor amounts. Really major amounts of rain and snow were both absent with greatest 24-hour amounts of 2.14 and 4.7 inches respectively.

As of mid-December, the observer in charge could not think of a really outstanding weather event during the year. Then came a sudden, but well forecast, severe cold wave just before Christmas. Forecasters warned of a flash freeze. A complex storm system began as a coating of sleet/snow morning of 22 December, brought a warmup to 56 degrees with over 1 inch of rain by the next morning, and then an arctic front which caught the back edge of rain with a re-coating of snow when a temperature plunge was just beginning. Temperature crashed from the early high of 56 to 6 by midnight, a new record date temperature range of 50 degrees, previously 48 (56 to 8) on 6 January 2014. This set up a Christmas Eve Day with low/high of 5/16 despite sunshine and with strong winds at times. The 16 tied for coldest date high during December, and the date mean of 11 slightly bettered the December record of 12. Cold eased significantly for Christmas Day with low/high of 14/29, but was still coldest Christmas Day since 2000. Additionally, this storm system brought a low barometer of 29.13 in\*Hg on the 23rd.

Other highlights:

\* Year 2022 began wet, mild, and foggy with 0.78” of rain into early 2 January. A low temperature of 50 New Year’s Day was a new record warm low for 1 Jan and was followed by a high of 61 on the 2nd. The rest of January was seasonably cold or colder and resulted in a final average of 28.5 (-3.1) and was keyed by a low of 6 on the 16th, which was the coldest of winter 2021-22 and year until 5 on 24 December. A few minor to moderate snows amounted to 9.0” which is near normal for January. Year’s lowest barometer of 29.07 in\*hg occurred on the 17th during a storm which brought snow to rain.

\* February brought more mildness than cold with five highs in the 60s, keyed by 69 on the 23rd. But it contained the year’s greatest snowfall of 4.7” on the 13th, all of which all melted in three days. Several cold days were keyed by low of 11 on the 15th.

Year’s highest barometer of 30.70 occurred around the midnight of 15th/16th.

\* March was topsy-turvy with abrupt changes between come-back cold and spring warmth, keyed by record highs of 74, 75 in 6th, 7th and record cold high of 35 on 28th. The year’s first occurrence of thunder came evening of the 7th as a light thundershower. A strong thunderstorm rumbled around dusk of the 31st. March brought 3.9” more snow.

\* Spring was mostly cool until 9 May when a record long streak of 137 consecutive days which warmed to at least 70 began. Embedded in that streak was a record long consecutive streak of 74 days which warmed to at least 80, from 23 June to 5 Sept inclusive, and also 42 scattered days which heated to at least 90. To have every day during both July and August warm to at least 80 was a first this year, even for the 125-year period of official record of Reading PA. The hottest of the year was a modest 96 on three different days. Although severe heat was absent, seasonably warm or warmer was consistent with only few brief interruptions, especially during August which averaged new warmest on average at 78.4. Three daily lows of 77, warmest date lows of year, were significant contributors to the warmth of August.

\* August also was very dry with a paltry 0.45”, second to 0.22” of 1995. Thunderstorms were in vicinity on six different days, but all downpours bypassed Reading 4 SW. That was the character of most thunderstorms this year, which occurred on 33 different days.

\* One exception occurred early afternoon of 1 July when a severe thunderstorm developed to nearby SW then moved directly over Reading 4 SW with a pelting of hail to quarter size and with 0.49” of rain within 10 minutes which was blown by strong gusts of wind.

\* Impacts by named tropical systems were minor. Although moisture from a largely dissipated Hurricane Ian contributed slightly to the soaking rains of early October which totaled 3.39” and attributed mainly to an extratropical cyclone.

\* After a moderately cool October, which contained no 80-degree temperature, November began with warmth, which included nine of the first twelve days warming to at least 70, seven consecutive and highest of 78 on the 5th. Most impressive was a date low of 67 on the 6th which became a new record warmest low in November (previously 64), even besting the historical official Reading record of 65.

\* The year ended with significantly moderated temperatures following the severe cold wave a week earlier, and included a high of 60 on 30 December.