Explanation of Record Sheet According to Number

Observational records have been kept continuously since August 31, 1979
Moved to Barcroft Hills 6515 Oakwood Dr. on Feb. 8, 1986

1.DAY OF THE MONTH-

2. MAX. - MAXIMUM

Maximum temperature in degrees F for a 24 hour period from midnight until midnight at 5 feet 4 inches above ground level.

3. HR. - HOUR

Time of maximum temperature in 24hr. time. Time taken from the digital Computemp II and/or the thermograph.

4. MIN. -MINIMUM

Minimum temperature in degrees F for a 24 hour period from midnight until midnight at 5 feet 4 inches above ground level.

5. HR.-HOUR

Time of minimum temperature in 24hr. time. Time taken from the digital Computemp II and/or the thermograph.

6. RAN.-RANGE

Temperature range in degrees F obtained by subtracting the minimum temperature from the maximum temperature for the day.

7. MEAN - MEAN TEMPERATURE IN DEGREES F

Mean temperature equals the maximum temperature plus the minimum temperature and divide the sum by two.

8. GROUND TEMPERATUREat depth of one foot reading taken at sunset.

9. AMOUNT OF AVERAGE CLOUD SKY COVERAGE

Cloud cover in A.M. is taken from sunrise until noon. 0 = clear equals 0 to 33% sky coverage, 1 = partly cloudy equals 34% to 66% sky coverage, 2 = cloudy equals 67% to 100% sky coverage.

10. THE NUMBER OF SUN DOTS- indicates the number of sun dots (see equipment for explanation) A.M. sun rise to noon. This number will vary also during seasons because of hours of daylight. Sunlight on snow surface increases the number of sun dots as well as high thin clouds cirrostratus. Heat on days above 90 degrees may cause a reduction in sun dots because heat reduces solar cell output.

11. AMOUNT OF AVERAGE CLOUD SKY COVERAGE SEEN FROM NOON TO SUNSET

See #9 above as explanation is the same except for time.

12. THE NUMBER OF SUN DOTS-above indicates the number of sun dots. P.M. from noon to sunset. This number will vary also during seasons according to hours of daylight.

13. DATE FOR EASY REFERENCE

14. MEL - MELTED PRECIPITATION

Starting Jan. 1, 1983 the melted precipitation for 24 hour period will be recorded from midnight to midnight measured in .01 of an inch. Tr. means Trace, less than .01 inches of precipitation. From Aug. 31, 1979 to Dec. 31, 1982 precipitation was recorded sunset to sunset. In the event a measurement could not be made at midnight then it will be noted under remarks.

15. START OF PRECIPITATION

The time precipitation started in 24 hour time. Time of 1 means midnight or continued precipitation through time midnight. Time may not be given if less than .01 precip. fell. Time listed would be when enough rain had fallen to wet the pavement or approximately .01 inches. With snowfall time recorded when first snow flakes were observed during daylight hours and not later than .01 hundreds snow fall when melted when falling during late hours of night or early hours of morning when readings are recorded on a precipitation recorder not directly observed. The following only applies to obs. between Aug. 1979 to Dec. 1982. If a time is listed for the date but no precipitation is recorded then the precipitation started between sunset and midnight and the amount would be recorded in the following day.

16. END OF PRECIPITATION

Time precipitation ended - see #15 for additional information. End of precipitation is most often determined from the precipitation recorder when the last precipitation dot has been recorded. One dot equals about .0033 rain.

17-18 PRECIP. START AND END TIME - If more than one time is given for a date then two distinct periods (interval of 1 or 2 hours separating periods of precipitation) of precipitation occurred. If more than two periods of precipitation occurred a note should be found under remarks #47, example (period of off and on showers from 1400-2000 hours.) Often a time will not be given when only a tr. of precipitation has been recorded.

19. NEW SNOW

Amount of new snow or frozen precipitation recorded for a 24 hour period from midnight until midnight starting Jan. 1, 1983, from 1979 to Dec., 1982 it was sunset to sunset. Measurement will be taken when the snowfall has just stopped before melting caused by sun light etc. In deep snows the new snow #19 and snow on the ground measurements #20 will differ because of packing of new snow by the weight of overlaying snow. If the precipitation is other than snow it should be noted under remarks #47. The amount is measured in tenths of an inch. This represents the max. new snow depth on the ground at any one time. If a measurement cannot be made or determined at midnight a measurement will be made as near to midnight as possible and recorded as to time under remarks.

20. SNOW TOT. - SNOW TOTAL

Snow total is a measure of the average amount of snow or frozen precipitation on the ground at sunset measured in inches. Example of what is meant by average: if 3 inches of snow is recorded in shadows and one inch in sunny areas 2 inches would be recorded. When Tr or trace is used it means it is only some patches of snow left in shadowed or colder areas. Trace or Tr. will be recorded until all snow patches have melted in the lot where the station is located. Numbers 19 and 20 should be the same if it is a very cold day if no previous snow was on the ground. Numbers 19 and 20 could be different if some of the new snow melted before the sunset observations. Also the decrease in snow on the ground #20 may decrease on a day when the maximum temperature is less than 32° due to melting or settling due to the heat of the sun in the open areas. In very deep snows 19 and 20 could be different because of packing with temperatures even much below freezing.

21. AVE. WIND SPEED - The number of wind dots from midnight until midnight. One dot represents 309 turns of the wind cups.

22. DATE FOR EASY REFERENCE

23-26-WIND OBSERVATIONS

Information on wind direction taken from a wind direction recorder. If directions N, NE, E are recorded it means a 90° change in direction has occurred in the 6 hour period first N followed by NE then E in a veering direction. If directions E, NE, N are recorded it means a 90° change in direction has occurred in the 6 hour period first E followed by NE then N in a backing direction. If more then 3 or 4 wind shifts not in a veering or backing sequence are recorded in a six hour period then VAR. will be recorded to mean variable wind direction. When sudden wind shifts occur wind directions between shifts are not recorded. If the following winds are recorded, SW, NW, NNW, it means there was a sudden change in direction thus the west direction would not be recorded.

23. Mt to 6 A.M.

Wind directions recorded between midnight and 6 A.M

24. 6 A.M. to NOON

Wind directions recorded between 0600 and noon.

25. NOON TO 6 P.M.

Wind directions recorded between noon and 1800 hours.

26. MT. - MIDNIGHT

Wind directions recorded between 1800 and 2400 hours.

27. MAX. S.R. - MAXIMUM WIND UNTIL SUNRISE

The maximum wind recorded from sunset to sunrise as recorded by a maximum wind gust recorder. Recorded by the Vigilant wind gust recorder.

28. MAX. S.S. - MAXIMUM WIND UNTIL SUNSET

The maximum wind recorded for the 12 hour period from sunrise to sunset as recorded by a maximum wind gust recorder. If a morning observation is not recorded for #27 then the maximum wind gust for 28 represents the maximum wind gust to occur in a 24 hour period from sunset to sunset. Recorded by the Vigilant wind gust recorder.

29. MAX. - MAXIMUM HUMIDITY

The maximum relative humidity reading taken from a hydrothermograph for the 24 hour period of midnight until midnight. At higher readings (80% or more) errors of plus or minus 8% may occur.

30. MIN. - MINIMUM HUMIDITY

The minimum relative humidity reading taken from a hydrothermograph for the 24 hour period of midnight until midnight. At lower readings (20% or less) errors of plus or minus 8% may occur.

31. DATE FOR EASY REFERENCE

32. R.H.% SUN S. - THE SUNSET HUMIDITY

The sunset relative humidity taken from the wet and dry bulb with air flow provided over the bulbs. This will only be recorded during the months of May, June, July, August and Sept.

33. DEW POINT -Dew Point taken at sunset during period of May to Sept.

34. MAP FEATURE-Code for map features through the use of the following numbers. The feature listed is the one most effecting the day's weather. The position of the low may be given that is associated with the front that will or has effected our weather.

Systems
8 Low pressure
9 High Pressure
9R High pressure ridge
23 Upper air trough

Fronts
11 for Cold fronts
21 for Warm fronts
24 Stationary front
26 Occuluded front

35. FEATURE LOCATION #- See Attached map page # ____ for map location code. The prefix direction gives the section of the area code as to location . The time of the feature location is given for a time between 5 and 7 A.M.

36. HIGH AND LOW PRESSURE TRACKS- Only for L.P. or H.P. as to the direction they passed by the D.C. area. No listing given for fronts unless a low on a front is responsible for precip. Then it will be still the direction the L.P. passed D. C. but on the associated front.

37. MAX. BAROMETER-reading from Mt. to Mt.

38. MIN. BAROMETER-reading from Mt. to Mt.

39. RANGE -of barometric pressure for 24 hour period.

40. AVE. BAROMETRIC PRESSURE - for 24 hour period obtained by adding the max. and min. pressure and dividing by two.

41. BAROMETER CHANGE- Change in the average barometric pressure from yesterday to today. The sign indicates the direction of pressure deviation.

42. DATE FOR EASY REFERENCE.

43. BAROMETER READING WHEN THE PRECIP. STARTED- If more than one period of precip. then the pressure is recorded when the main period of precip. started.

44. DIRECTION OF FRONTAL APPROACH - Directions indicate the direction of frontal approach if more than one front then two directions will be given.

45. FRONTAL STRENGTH - S means strong [greater than 10 degrees temp difference on either side of the front]. AVE. means average front [approximately 5 to 10° of temp. change on opposite sides of the front].

W means a weak front[less than 5° temp. change across front].

46. THE TIME OF FRONTAL PASSAGE - if two fronts in 24 hours then two times will be given.

47. REMARKS- Remarks will include other observations of interest. Example: Snow to water ratio = snow depth/melted snow fall

Symbols commonly used in remarks column are as follows:
L.P. = Low Pressure
L.P.T. = Low Pressure Trough
H.P. = High Pressure
H.P.R. = High Pressure Ridge
C.F. = Cold Front
W.F. = Warm Front
O.F. = Occuluded Front
S.F. = Stationary Front
T = Thunder but no storm here
L. = Lightning but no storm here
Ts. = Thunderstorm
TSH = Thundershower
D.C.F. = Double Cold Front or 2 Fronts in 24 hours
T.P. = Triple Point Low- The point where the occuluded front separates into a warm front and a cold front