



JANUARY 1999

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

MADISON, WI

DANE COUNTY REGIONAL AIRPORT (MSN)

Lat: 43°08' N Long: 89°20' W Elev (Ground): 858 Feet

Time Zone: CENTRAL WBAN: 14837 ISSN #:0198-5736

| DATE | TEMPERATURE °F | | | | | | DEG DAYS BASE 65 ° | | WEATHER | SNOW/ICE ON GND(IN) | | PRECIPITATION (INCHES) | | PRESSURE (INCHES OF HG) | | WIND SPEED = MPH DIR = TENS OF DEGREES | | | | | | | | DATE |
|-----------------------------|----------------|---------|---------|--------------------|-------------------------------------|---------------------|-----------------------|---------|---|------------------------|-------------|---------------------------|--|----------------------------|-------------------------|---|-------------------------------|------------------|----------------------|-----|--------------------------------|-----|----|------|
| | MAXIMUM | MINIMUM | AVERAGE | DEP FROM NORMAL | AVERAGE DEW PT | AVERAGE WET BULB | HEATING | COOLING | | 0600 LST | 1200 LST | 2400 LST | 2400 LST | AVERAGE STATION | AVERAGE SEA LEVEL | RESULTANT SPEED | RES DIR | AVERAGE SPEED | MAXIMUM | | | | | |
| | | | | | | | | | | | | | | | | | | | 5-SEC | | 2-MIN | | | |
| | | | | | | | | | | | | | | | | | | | SPEED | DIR | SPEED | DIR | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | |
| 01 | 20 | -1 | 10 | -7 | -1 | 6 | 55 | 0 | SN BR | T | | 0.2 | 0.01 | 29.43 | 30.43 | 7.4 | 07 | 9.1 | 25 | 10 | 21 | 10 | 01 | |
| 02 | 19 | 11 | 15 | -2 | 14 | 17 | 50 | 0 | SN BR BLSN | 1 | | 10.2 | 0.50 | 29.00 | 29.97 | 19.0 | 05 | 21.4 | 45* | 07 | 34* | 06 | 02 | |
| 03 | 15 | 5 | 10 | -7 | 5 | 10 | 55 | 0 | SN BLSN | 10 | | 0.5 | 0.02 | 28.81 | 29.78 | 11.2 | 30 | 11.9 | 30 | 30 | 20 | 29 | 03 | |
| 04 | 6 | -11 | -2 | -18 | -10 | -2 | 67 | 0 | | 10 | | 0.0 | 0.00 | 29.25 | 30.24 | 5.8 | 29 | 6.6 | 18 | 32 | 15 | 32 | 04 | |
| 05 | 9 | -20* | -5* | -21 | -11 | -6 | 70 | 0 | SN BR HZ | 10 | | 0.8 | 0.02 | 29.19 | 30.19 | 7.0 | 18 | 7.8 | 18 | 20 | 16 | 19 | 05 | |
| 06 | 11 | -7 | 2 | -14 | -1 | 6 | 63 | 0 | SN BR | 12 | | 0.3 | 0.02 | 29.09 | 30.08 | 6.7 | 30 | 8.1 | 21 | 29 | 16 | 33 | 06 | |
| 07 | 5 | -13 | -4 | -20 | -13 | -4 | 69 | 0 | | 11 | | 0.0 | 0.00 | 29.41 | 30.42 | 2.7 | 24 | 4.4 | 13 | 27 | 10 | 17 | 07 | |
| 08 | 10 | 2 | 6 | -10 | 0 | 5 | 59 | 0 | SN | 11 | | 3.4 | 0.07 | 29.19 | 30.18 | 4.0 | 36 | 5.5 | 15 | 32 | 11 | 32 | 08 | |
| 09 | 7 | -8 | 0 | -16 | -10 | -3 | 65 | 0 | SN | 14 | | T | T | 29.23 | 30.23 | 4.7 | 27 | 6.4 | 18 | 32 | 14 | 18 | 09 | |
| 10 | 6 | -7 | 0 | -16 | -8 | 0 | 65 | 0 | SN HZ | 14 | | 1.2 | 0.02 | 29.11 | 30.10 | 7.8 | 27 | 9.2 | 23 | 28 | 18 | 30 | 10 | |
| 11 | 7 | -8 | 0 | -16 | -5 | 0 | 65 | 0 | SN | 14 | | 0.6 | 0.01 | 28.97 | 29.96 | 4.0 | 17 | 6.6 | 16 | 15 | 14 | 14 | 11 | |
| 12 | 9 | 5 | 7 | -9 | 2 | 6 | 58 | 0 | SN BR BLSN | 14 | | 2.9 | 0.09 | 29.03 | 30.01 | 12.0 | 02 | 12.4 | 26 | 02 | 23 | 01 | 12 | |
| 13 | 11 | -1 | 5 | -11 | 0 | 5 | 60 | 0 | SN HZ BLSN | 14 | | T | T | 29.41 | 30.41 | 13.5 | 03 | 13.6 | 29 | 02 | 23 | 02 | 13 | |
| 14 | 17 | 6 | 12 | -3 | 9 | 12 | 53 | 0 | SN | 14 | | 1.4 | 0.03 | 29.30 | 30.29 | 5.3 | 08 | 6.4 | 15 | 09 | 13 | 09 | 14 | |
| 15 | 27 | 12 | 20 | 5 | 17 | 19 | 45 | 0 | FZDZ SN BR HZ | 14 | | T | T | 28.94 | 29.91 | 8.7 | 17 | 9.4 | 21 | 17 | 18 | 16 | 15 | |
| 16 | 44* | 19 | 32 | 17 | 24 | 29 | 33 | 0 | BR | 14 | | 0.0 | 0.00 | 28.83 | 29.78 | 5.8 | 24 | 7.0 | 21 | 30 | 14 | 27 | 16 | |
| 17 | 36 | 11 | 24 | 9 | 23 | 26 | 41 | 0 | RA FG+ FZFG BCFG BR HZ | 11 | | 0.0 | 0.40 | 28.76 | 29.71 | 3.8 | 16 | 6.3 | 18 | 23 | 15 | 11 | 17 | |
| 18 | 36 | 18 | 27 | 12 | 23 | 27 | 38 | 0 | SN BR HZ | 6 | | 0.1 | 0.01 | 28.62 | 29.56 | 11.4 | 26 | 12.0 | 30 | 26 | 21 | 27 | 18 | |
| 19 | 32 | 13 | 23 | 7 | 7 | 17 | 42 | 0 | | 5 | | 0.0 | 0.00 | 29.05 | 30.02 | 2.2 | 26 | 4.0 | 23 | 26 | 17 | 27 | 19 | |
| 20 | 33 | 10 | 22 | 6 | 22 | 24 | 43 | 0 | SN FZFG BR | 5 | | T | T | 29.04 | 30.01 | 3.8 | 20 | 4.5 | 16 | 19 | 14 | 19 | 20 | |
| 21 | 34 | 23 | 29 | 13 | 29 | 30 | 36 | 0 | RA FG+ FZFG BR | 5 | | 0.0 | 0.27 | 28.96 | 29.92 | 13.2 | 06 | 13.7 | 29 | 05 | 24 | 04 | 21 | |
| 22 | 36 | 32 | 34 | 18 | 33 | 34 | 31 | 0 | RA DZ BR | 4 | | 0.0 | 0.21 | 28.79 | 29.73 | 12.6 | 04 | 13.3 | 34 | 06 | 29 | 06 | 22 | |
| 23 | 33 | 29 | 31 | 15 | 29 | 31 | 34 | 0 | RA FZRA SN BR | 3 | | 0.6 | 0.30 | 28.73 | 29.67 | 7.3 | 33 | 8.8 | 20 | 01 | 17 | 01 | 23 | |
| 24 | 32 | 24 | 28 | 12 | 27 | 28 | 37 | 0 | RA FZRA SN BR HZ | 4 | | 1.7 | 0.11 | 29.12 | 30.08 | 3.8 | 27 | 3.7 | 10 | 28 | 10 | 28 | 24 | |
| 25 | 29 | 10 | 20 | 4 | 15 | 19 | 45 | 0 | SN BR | 6 | | T | T | 29.38 | 30.36 | 5.0 | 26 | 6.3 | 13 | 22 | 11 | 29 | 25 | |
| 26 | 34 | 11 | 23 | 7 | 16 | 21 | 42 | 0 | BR | 6 | | 0.0 | 0.00 | 29.29 | 30.26 | 6.3 | 14 | 7.5 | 16 | 12 | 15 | 11 | 26 | |
| 27 | 41 | 31 | 36* | 20 | 32 | 34 | 29 | 0 | RA BR | 5 | | 0.0 | 0.01 | 28.89 | 29.84 | 6.0 | 23 | 8.8 | 20 | 25 | 14 | 26 | 27 | |
| 28 | 32 | 28 | 30 | 14 | 24 | 28 | 35 | 0 | BR HZ | 3 | | 0.0 | 0.00 | 29.24 | 30.20 | 6.0 | 29 | 6.9 | 20 | 31 | 14 | 31 | 28 | |
| 29 | 31 | 19 | 25 | 9 | 21 | 24 | 40 | 0 | BR | 3 | | 0.0 | 0.00 | 29.49 | 30.47 | 2.5 | 24 | 3.5 | 15 | 22 | 11 | 22 | 29 | |
| 30 | 39 | 14 | 27 | 10 | 21 | 24 | 38 | 0 | BR HZ | 2 | | 0.0 | 0.00 | 29.60 | 30.58 | 4.3 | 05 | 4.9 | 18 | 09 | 15 | 09 | 30 | |
| 31 | 36 | 25 | 31 | 14 | 26 | 30 | 34 | 0 | DZ BR | 2 | | 0.0 | T | 29.45 | 30.42 | 10.1 | 08 | 10.3 | 23 | 07 | 21 | 07 | 31 | |
| 23.8 | | 9.1 | 16.5 | ■ ■ ■ | 11.6 | 16.0 | 48.3 | 0.0 | < MONTHLY AVERAGES | TOTALS--> | | 23.9 | 2.10 | 29.12 | 30.09 | 1.2 | 36 | 8.4 | <-- MONTHLY AVERAGES | | | | | |
| -1.0 | | 1.9 | 0.5 | ■ ■ ■ | <----- DEPARTURE FROM NORMAL -----> | | | | | | | 1.03 | SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3 | | | | | | | | | | | |
| DEGREE DAYS | | | | | | | | | GREATEST 24-HR PRECIPITATION: 0.50 DATE: 02 | | | | GREATEST 24-HR SNOWFALL: 10.2 DATE: 02 | | | | SEA LEVEL PRESSURE DATE TIME | | | | | | | |
| MONTHLY TOTAL DEPARTURE | | | | | | | | | GREATEST SNOW DEPTH: 14 DATE: 16+ | | | | MAXIMUM : 30.63 30 1117 | | | | MINIMUM : 29.37 18 0341 | | | | | | | |
| HEATING: 1497 -22 3749 -717 | | | | | | | | | NUMBER OF DAYS WITH → | | | | MAXIMUM TEMP ≥ 90: 0 | | | | MINIMUM TEMP ≤ 32: 31 | | | | PRECIPITATION ≥ 0.01 INCH : 17 | | | |
| COOLING: 0 0 0 0 | | | | | | | | | MAXIMUM TEMP ≤ 32 : 20 | | | | MINIMUM TEMP ≤ 0 : 9 | | | | PRECIPITATION ≥ 0.10 INCH : 6 | | | | SNOWFALL ≥ 1.0 INCH : 6 | | | |
| | | | | | | | | | THUNDERSTORMS : 0 | | | | HEAVY FOG : 2 | | | | | | | | | | | |

JANUARY 1999
MADISON, WI

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

MADISON, WI

JANUARY 1999

MSN

WBAN # 14837

| DATE | FOR HOUR (LST) ENDING AT | | | | | | | | | | | | DATE | FOR HOUR (LST) ENDING AT | | | | | | | | | | | | DATE | Sum if Different (See Note 2) | 2400 LST | |
|------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------------------------|-----------------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | Water Equiv. | |
| 01 | | | | | | | | | | | | | 01 | | | | | | | | | | | | 01 | T | | 0.01 | |
| 02 | T | T | 0.01 | 0.01 | T | 0.01 | T | 0.01 | 0.04 | 0.01 | 0.01 | 0.04 | 02 | 0.01 | 0.02 | 0.04 | 0.01 | 0.01 | 0.02 | T | T | | T | T | 0.02 | 02 | T | 0.27 | 0.50 |
| 03 | T | T | 0.01 | T | T | T | T | T | T | T | T | T | 03 | T | T | T | 0.01 | T | T | T | T | | | | 03 | | | 0.02 | |
| 04 | | | | | | | | | | | | | 04 | | | | T | T | 0.01 | T | T | 0.01 | T | T | 04 | | | 0.00 | |
| 05 | | | | | | | | | | | | | 05 | | | | T | T | 0.01 | T | T | | T | T | 05 | | | 0.02 | |
| 06 | T | T | T | 0.01 | 0.01 | T | T | T | T | T | | | 06 | | | | | | | | | | | | 06 | | | 0.02 | |
| 07 | | | | | | | | | | | | | 07 | | | | | | | | | | | | 07 | | | 0.00 | |
| 08 | | | | | | | | T | 0.01 | 0.02 | T | T | 08 | 0.01 | T | T | T | T | T | T | T | | | | 08 | 0.04 | | 0.07 | |
| 09 | | | | | | | | | | | | | 09 | | | | | | | | | | | | 09 | | | T | |
| 10 | T | T | 0.01 | T | T | T | T | T | | | | | 10 | | | | | | | | | | | T | 10 | 0.01 | | 0.02 | |
| 11 | | | | | | | | | | | | | 11 | T | T | T | | T | T | | | T | | | 11 | | | 0.01 | |
| 12 | | | | | | | | | 0.01 | T | T | T | 12 | T | 0.01 | 0.01 | T | T | 0.01 | T | T | 0.01 | T | T | 12 | 0.04 | | 0.09 | |
| 13 | T | | | | | | | | T | T | T | T | 13 | T | T | T | T | T | T | T | T | T | T | T | 13 | | | T | |
| 14 | T | T | | | | | | | T | T | T | T | 14 | T | T | T | T | T | 0.01 | T | T | 0.01 | T | 0.01 | 14 | | | 0.03 | |
| 15 | T | T | T | T | T | T | T | T | T | T | T | | 15 | T | | | | | | | | | | | 15 | | | T | |
| 16 | | | | | | | | | | | | | 16 | | | | | | | | | | | | 16 | | | 0.00 | |
| 17 | | | | | | | | | | | | | 17 | 0.04 | | | 0.07 | 0.03 | 0.03 | 0.01 | | | | | 17 | 0.18 | | 0.40 | |
| 18 | | | | | | | | | | | | | 18 | T | T | | | | | | | | | | 18 | T | | 0.01 | |
| 19 | | | | | | | | | | | | | 19 | | | | | | | | | | | | 19 | | | 0.00 | |
| 20 | | | | | | T | T | T | T | T | | | 20 | | | | | | | | | | | | 20 | | | T | |
| 21 | | | | | | | | | | | | | 21 | | | | | | | | | 0.03 | 0.08 | 0.09 | 0.07 | 21 | | | 0.27 |
| 22 | 0.03 | 0.01 | 0.01 | 0.01 | 0.04 | 0.06 | 0.03 | T | T | T | T | T | 22 | T | T | T | T | T | T | T | T | T | 0.01 | 0.01 | T | 22 | | | 0.21 |
| 23 | 0.01 | 0.01 | 0.01 | T | | 0.01 | T | 0.03 | 0.01 | 0.03 | 0.05 | 0.05 | 23 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | T | T | T | | | | 23 | | | 0.30 | |
| 24 | | | | | | | | | | | | | 24 | | T | 0.01 | 0.01 | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | T | 24 | | | 0.11 |
| 25 | T | T | | | | | | T | T | T | | | 25 | | | | | | | | | | | | | 25 | | | T |
| 26 | | | | | | | | | | | | | 26 | | | | | | | | | | | | | 26 | | | 0.00 |
| 27 | | | 0.01 | T | | | | | | | | | 27 | | | | | | | | | | | | | 27 | | | 0.01 |
| 28 | | | | | | | | | | | | | 28 | | | | | | | | | | | | | 28 | | | 0.00 |
| 29 | | | | | | | | | | | | | 29 | | | | | | | | | | | | | 29 | | | 0.00 |
| 30 | | | | | | | | | | | | | 30 | | | | | | | | | | | | | 30 | | | 0.00 |
| 31 | | | | | | | | | | | | | 31 | | | | | | | | | | | T | T | 31 | | | T |

MAXIMUM SHORT DURATION PRECIPITATION (See Note 1)

| Time Period (Minutes) | 5 | 10 | 15 | 20 | 30 | 45 | 60 | 80 | 100 | 120 | 150 | 180 |
|------------------------|---|----|----|----|----|----|----|----|-----|-----|-----|-----|
| Precipitation (Inches) | | | | | | | | | | | | |
| Ending Date | | | | | | | | | | | | |
| Ending Time (Hour/Min) | | | | | | | | | | | | |

Date and time are not entered for TRACE amounts.

Note 1: NCDC derives these data from one-minute ASOS values. The table is not printed when inconsistent with ASOS hourly totals.

Note 2: The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

* = Extreme for the month (last occurrence if more than one)
T = Trace precipitation amount
+ = also occurs on earlier date
FG+ = Heavy fog, visibility .25 miles or less
BLANK entries denote missing or unreported data

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

WEATHER NOTATIONS

MADISON, WI
JANUARY 1999

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas, Cloudy = 7–8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled at constant pressure by evaporation of moisture into it, to 100% relative humidity.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

| DATE | SUNSHINE | | CLOUDINESS (OKTAS) | | | | VISIBILITY (MILES) | | RESERVED |
|--------------|------------------|---------------------|-----------------------|-----------|------------|-----------|-----------------------|---------|----------|
| | TOTAL MINUTES | PERCENT POSSIBLE | SR-SS | | MN-MN | | MINIMUM | MAXIMUM | |
| | | | CEILOMETER | SATELLITE | CEILOMETER | SATELLITE | | | |
| 01 | | | | | | | 1.75 | 10.00 | |
| 02 | | | | | | | .25 | 2.50 | |
| 03 | | | | | | | .75 | 10.00 | |
| 04 | | | | | | | 10.00 | 10.00 | |
| 05 | | | | | | | 1.50 | 10.00 | |
| 06 | | | | | | | 1.00 | 10.00 | |
| 07 | | | | | | | 10.00 | 10.00 | |
| 08 | | | | | | | .75 | 10.00 | |
| 09 | | | | | | | 7.00 | 10.00 | |
| 10 | | | | | | | 1.00 | 10.00 | |
| 11 | | | | | | | 1.25 | 10.00 | |
| 12 | | | | | | | .75 | 10.00 | |
| 13 | | | | | | | 2.00 | 10.00 | |
| 14 | | | | | | | 2.00 | 10.00 | |
| 15 | | | | | | | 1.00 | 10.00 | |
| 16 | | | | | | | 2.50 | 10.00 | |
| 17 | | | | | | | <.25 | 9.00 | |
| 18 | | | | | | | 3.00 | 10.00 | |
| 19 | | | | | | | 10.00 | 10.00 | |
| 20 | | | | | | | .50 | 10.00 | |
| 21 | | | | | | | <.25 | 4.00 | |
| 22 | | | | | | | .75 | 7.00 | |
| 23 | | | | | | | .50 | 10.00 | |
| 24 | | | | | | | .75 | 10.00 | |
| 25 | | | | | | | 2.50 | 10.00 | |
| 26 | | | | | | | 5.00 | 10.00 | |
| 27 | | | | | | | 2.50 | 9.00 | |
| 28 | | | | | | | 3.00 | 10.00 | |
| 29 | | | | | | | 3.00 | 10.00 | |
| 30 | | | | | | | 3.00 | 10.00 | |
| 31 | | | | | | | 4.00 | 10.00 | |
| MONTHLY AVGS | | | | | | | 2.65 | 9.40 | |

SUNSHINE (MINUTES)

Total:

Possible:

Percent Possible:

NUMBER OF DAYS WITH:

SKY CONDITION

CLR PTLY CLDY CLOUDY MISSING

31

MINIMUM VISIBILITY (MILES)

<=0.25 <=3.0 >=7.0

3 25 4

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JANUARY 1999

MSN

WBAN # 14837

| HOUR (LST) | | | SATELLITE | | WEATHER | TEMPERATURE ° F | | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | HOUR (LST) | | | SATELLITE | | WEATHER | TEMPERATURE ° F | | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | |
|----------------------|-----------|---------------------|------------------------|-------------------|---------|--------------------|----------|-----------|----------|-------------------------|-------------|-----------------------|-----------------------|-----------|------------|-----------|---------------------|------------------------|-------------------|---------|--------------------|----------|-----------|----------|-------------------------|-------------|-----------------------|-----------------------|-----------|-------|
| | SKY COVER | CEILING 100'S OF FT | OBSERVATION TIME (LST) | EFF CLD AMT Oktas | | VISIBILITY (MILES) | DRY BULB | DEW POINT | WET BULB | | SPEED (MPH) | DIRECTION TENS OF DEG | STATION | SEA LEVEL | | SKY COVER | CEILING 100'S OF FT | OBSERVATION TIME (LST) | EFF CLD AMT Oktas | | VISIBILITY (MILES) | DRY BULB | DEW POINT | WET BULB | | SPEED (MPH) | DIRECTION TENS OF DEG | STATION | SEA LEVEL | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUNRISE: 0729 JAN 01 | | | | | | SUNSET: 1633 | | | | | | SUNRISE: 0729 JAN 07 | | | | | | SUNSET: 1639 | | | | | | | | | | | | |
| 03 | CLR | NC | | | 10.00 | 1 | -7 | 0 | 68 | 6 | 34 | 29.39 | 30.39 | 03 | CLR | NC | | | 10.00 | -8 | -14 | -9 | 74 | 7 | 29 | 29.39 | 30.40 | | | |
| 06 | CLR | NC | | | 10.00 | -1 | -8 | -2 | 72 | 0 | 00 | 29.46 | 30.46 | 06 | CLR | NC | | | 10.00 | -11 | -17 | -12 | 74 | 0 | 00 | 29.41 | 30.42 | | | |
| 09 | OVC | 110 | | | 10.00 | 2 | -7 | 1 | 66 | 6 | 06 | 29.50 | 30.51 | 09 | CLR | NC | | | 10.00 | -10 | -18 | -11 | 67 | 5 | 27 | 29.46 | 30.48 | | | |
| 12 | BKN | 110 | | | 10.00 | 8 | -5 | 6 | 55 | 13 | 05 | 29.48 | 30.48 | 12 | CLR | NC | | | 10.00 | -1 | -16 | -2 | 48 | 5 | 28 | 29.45 | 30.47 | | | |
| 15 | SCT | NC | | | 10.00 | 12 | 0 | 10 | 58 | 13 | 08 | 29.44 | 30.44 | 15 | CLR | NC | | | 10.00 | 4 | -10 | 2 | 52 | 6 | 17 | 29.40 | 30.42 | | | |
| 18 | BKN | 080 | | | 10.00 | 11 | 3 | 9 | 70 | 15 | 05 | 29.43 | 30.43 | 18 | CLR | NC | | | 10.00 | 2 | -10 | 0 | 57 | 7 | 17 | 29.38 | 30.40 | | | |
| 21 | OVC | 070 | | | 10.00 | 16 | 10 | 14 | 77 | 9 | 06 | 29.38 | 30.38 | 21 | OVC | 070 | | | 10.00 | 1 | -11 | -1 | 56 | 0 | 00 | 29.37 | 30.38 | | | |
| 24 | OVC | 022 | | | 1.75 | -SN | BR | | | 19 | 15 | 18 | 85 | 15 | 10 | 29.36 | 30.34 | 24 | OVC | 080 | | | 0 | 63 | 0 | 00 | 29.32 | 30.32 | | |
| SUNRISE: 0729 JAN 02 | | | | | | SUNSET: 1634 | | | | | | SUNRISE: 0729 JAN 08 | | | | | | SUNSET: 1640 | | | | | | | | | | | | |
| 03 | OVC | 012 | | | 1.25 | -SN | BR | | | 18 | 14 | 17 | 84 | 16 | 08 | 29.29 | 30.27 | 03 | OVC | 065 | | | 4 | -7 | 2 | 60 | 3 | 09 | 29.29 | 30.29 |
| 06 | OVC | 006 | | | 1.00 | -SN | BR | | | 18 | 15 | 17 | 88 | 18 | 06 | 29.18 | 30.16 | 06 | OVC | 036 | | | 4 | -5 | 2 | 66 | 3 | 04 | 29.24 | 30.24 |
| 09 | OVC | 006 | | | 0.50 | SN | BLSN | | | 19 | 16 | 18 | 88 | 26 | 07 | 29.09 | 30.07 | 09 | VV | 008 | | | 4 | 1 | 3 | 88 | 7 | 07 | 29.21 | 30.20 |
| 12 | VV | 003 | | | 0.50 | SN | BLSN | | | 19 | 16 | 18 | 88 | 20 | 06 | 28.99 | 29.97 | 12 | OVC | 011 | | | 8 | 3 | 7 | 80 | 6 | 01 | 29.15 | 30.14 |
| 15 | VV | 003 | | | 0.25 | SN | BLSN | | | 19 | 16 | 18 | 88 | 29 | 06 | 28.88 | 29.85 | 15 | OVC | 020 | | | 10 | 5 | 9 | 80 | 9 | 36 | 29.11 | 30.10 |
| 18 | VV | 010 | | | 1.00 | -SN | BLSN | | | 19 | 15 | 18 | 85 | 21 | 04 | 28.83 | 29.79 | 18 | OVC | 075 | | | 9 | 5 | 8 | 84 | 7 | 32 | 29.14 | 30.13 |
| 21 | VV | 004 | | | 0.75 | -SN | BLSN | | | 13 | 10 | 12 | 88 | 15 | 36 | 28.77 | 29.74 | 21 | OVC | 080 | | | 5 | 1 | 4 | 83 | 6 | 30 | 29.16 | 30.15 |
| 24 | OVC | 070 | | | 1.25 | -SN | BLSN | | | 11 | 7 | 10 | 84 | 17 | 35 | 28.71 | 29.68 | 24 | OVC | 080 | | | 7 | 1 | 6 | 76 | 12 | 31 | 29.17 | 30.16 |
| SUNRISE: 0729 JAN 03 | | | | | | SUNSET: 1635 | | | | | | SUNRISE: 0728 JAN 09 | | | | | | SUNSET: 1641 | | | | | | | | | | | | |
| 03 | OVC | 045 | | | 2.50 | -SN | BLSN | | | 12 | 7 | 11 | 80 | 12 | 33 | 28.68 | 29.65 | 03 | CLR | NC | | | 0 | -6 | -1 | 76 | 6 | 31 | 29.20 | 30.20 |
| 06 | OVC | 060 | | | 4.00 | -SN | | | | 13 | 8 | 12 | 81 | 12 | 30 | 28.69 | 29.65 | 06 | CLR | NC | | | -5 | -10 | -6 | 79 | 7 | 30 | 29.25 | 30.24 |
| 09 | OVC | 029 | | | 2.50 | -SN | BLSN | | | 13 | 7 | 11 | 77 | 13 | 29 | 28.72 | 29.69 | 09 | CLR | NC | | | -4 | -11 | -5 | 71 | 7 | 27 | 29.30 | 30.30 |
| 12 | OVC | 014 | | | 1.00 | -SN | BLSN | | | 14 | 7 | 12 | 73 | 17 | 28 | 28.75 | 29.72 | 12 | CLR | NC | | | 0 | -11 | -1 | 59 | 8 | 29 | 29.29 | 30.28 |
| 15 | OVC | 016 | | | 1.25 | -SN | BLSN | | | 14 | 6 | 12 | 71 | 15 | 30 | 28.83 | 29.79 | 15 | CLR | NC | | | 3 | -11 | 1 | 51 | 3 | VR | 29.25 | 30.24 |
| 18 | OVC | 060 | | | 6.00 | -SN | | | | 10 | 3 | 9 | 73 | 12 | 29 | 28.91 | 29.88 | 18 | CLR | NC | | | -3 | -12 | -4 | 65 | 5 | 22 | 29.24 | 30.24 |
| 21 | FEW | NC | | | 10.00 | | | | | 7 | 0 | 6 | 73 | 9 | 29 | 28.97 | 29.95 | 21 | OVC | 090 | | | -3 | -12 | -4 | 65 | 0 | 00 | 29.18 | 30.19 |
| 24 | CLR | NC | | | 10.00 | | | | | 6 | -3 | 4 | 66 | 8 | 30 | 29.04 | 30.02 | 24 | OVC | 060 | | | -4 | -9 | -5 | 79 | 10 | 19 | 29.08 | 30.08 |
| SUNRISE: 0729 JAN 04 | | | | | | SUNSET: 1636 | | | | | | SUNRISE: 0728 JAN 10 | | | | | | SUNSET: 1642 | | | | | | | | | | | | |
| 03 | CLR | NC | | | 10.00 | 4 | -7 | 2 | 60 | 8 | 29 | 29.11 | 30.10 | 03 | OVC | 025 | | | 1.25 | -SN | | | 1 | -4 | 0 | 79 | 8 | 21 | 28.99 | 29.99 |
| 06 | CLR | NC | | | 10.00 | 0 | -8 | -1 | 69 | 5 | 28 | 29.17 | 30.17 | 06 | OVC | 026 | | | 8.00 | | | | 4 | -1 | 3 | 80 | 3 | VR | 28.99 | 29.97 |
| 09 | CLR | NC | | | 10.00 | 0 | -10 | -1 | 62 | 8 | 29 | 29.25 | 30.24 | 09 | BKN | 012 | | | 4.00 | HZ | | | 3 | -4 | 2 | 72 | 9 | 29 | 29.06 | 30.06 |
| 12 | CLR | NC | | | 10.00 | 2 | -8 | 0 | 63 | 8 | 29 | 29.27 | 30.27 | 12 | FEW | NC | | | 10.00 | | | | 5 | -5 | 3 | 63 | 12 | 28 | 29.10 | 30.10 |
| 15 | CLR | NC | | | 10.00 | 4 | -8 | 2 | 57 | 7 | 28 | 29.28 | 30.28 | 15 | FEW | NC | | | 9.00 | | | | 4 | -10 | 2 | 52 | 14 | 29 | 29.11 | 30.10 |
| 18 | CLR | NC | | | 10.00 | -1 | -10 | -2 | 65 | 6 | VR | 29.32 | 30.33 | 18 | CLR | NC | | | 10.00 | | | | -1 | -14 | -2 | 53 | 7 | 29 | 29.19 | 30.18 |
| 21 | CLR | NC | | | 10.00 | -8 | -14 | -9 | 74 | 3 | 27 | 29.32 | 30.33 | 21 | CLR | NC | | | 10.00 | | | | -6 | -16 | -7 | 61 | 7 | 28 | 29.24 | 30.24 |
| 24 | CLR | NC | | | 10.00 | -11 | -17 | -12 | 74 | 3 | 27 | 29.34 | 30.35 | 24 | CLR | NC | | | 10.00 | | | | -7 | -15 | -8 | 68 | 5 | 27 | 29.25 | 30.25 |
| SUNRISE: 0729 JAN 05 | | | | | | SUNSET: 1637 | | | | | | SUNRISE: 0728 JAN 11 | | | | | | SUNSET: 1643 | | | | | | | | | | | | |
| 03 | CLR | NC | | | 10.00 | -14 | -18 | -14 | 82 | 0 | 00 | 29.33 | 30.34 | 03 | OVC | 070 | | | 10.00 | | | | -6 | -14 | -7 | 67 | 5 | 24 | 29.22 | 30.22 |
| 06 | CLR | NC | | | 9.00 | -17 | -23 | -17 | 73 | 0 | 00 | 29.31 | 30.32 | 06 | OVC | 028 | | | 2.00 | -SN | | | -4 | -10 | -5 | 75 | 7 | 18 | 29.15 | 30.16 |
| 09 | BKN | 110 | | | 3.00 | HZ | | | | -11 | -16 | -12 | 78 | 9 | 16 | 29.29 | 30.30 | 09 | OVC | 018 | | | -3 | -9 | -4 | 75 | 10 | 16 | 29.09 | 30.10 |
| 12 | OVC | 095 | | | 10.00 | -5 | -12 | -6 | 72 | 14 | 17 | 29.24 | 30.25 | 12 | OVC | 032 | | | 4.00 | -SN | | | 1 | -5 | 0 | 75 | 12 | 13 | 28.95 | 29.94 |
| 15 | OVC | 060 | | | 10.00 | -2 | -11 | -3 | 65 | 13 | 17 | 29.13 | 30.14 | 15 | OVC | 080 | | | 9.00 | | | | 5 | -1 | 4 | 76 | 10 | 15 | 28.79 | 29.78 |
| 18 | OVC | 048 | | | 3.00 | -SN | | | | 1 | -4 | 0 | 79 | 10 | 19 | 29.07 | 30.08 | 18 | OVC | 032 | | | 6 | 0 | 5 | 76 | 5 | 14 | 28.75 | 29.74 |
| 21 | OVC | 030 | | | 5.00 | -SN | | | | 5 | 0 | 4 | 79 | 12 | 19 | 29.01 | 30.01 | 21 | OVC | 016 | | | 6 | 1 | 5 | 80 | 0 | 00 | 28.79 | 29.77 |
| 24 | OVC | 046 | | | 10.00 | -SN | | | | 9 | 4 | 8 | 80 | 7 | VR | 28.96 | 29.94 | 24 | OVC | 027 | | | 6 | 0 | 5 | 76 | 7 | 32 | 28.86 | 29.84 |
| SUNRISE: 0729 JAN 06 | | | | | | SUNSET: 1638 | | | | | | SUNRISE: 0727 JAN 12 | | | | | | SUNSET: 1644 | | | | | | | | | | | | |
| 03 | OVC | 013 | | | 10.00 | -SN | | | | 11 | 7 | 10 | 84 | 6 | VR | 28.93 | 29.91 | 03 | OVC | 022 | | | 6 | -1 | 5 | 73 | 7 | 35 | 28.93 | 29.91 |
| 06 | OVC | 050 | | | 7.00 | | | | | 11 | 8 | 10 | 88 | 6 | 26 | 28.93 | 29.91 | 06 | OVC | 075 | | | 5 | -2 | 4 | 72 | 10 | 03 | 28.97 | 29.94 |
| 09 | OVC | 070 | | | 4.00 | -SN | | | | 11 | 8 | 10 | 88 | 9 | 29 | 28.98 | 29.96 | 09 | BKN | 050 | | | 6 | 1 | 5 | 80 | 9 | 04 | 29.01 | 30.00 |
| 12 | FEW | NC | | | 10.00 | | | | | 10 | 0 | 8 | 63 | 12 | 32 | 29.06 | 30.04 | 12 | OVC | 023 | | | 8 | 2 | 7 | 76 | 13 | 04 | 28.99 | 29.98 |
| 15 | CLR | NC | | | 10.00 | | | | | 11 | 1 | 9 | 64 | 12 | 30 | 29.12 | 30.10 | 15 | OVC | 027 | | | 9 | 4 | 8 | 80 | 13 | 01 | 29.01 | 30.00 |
| 18 | CLR | NC | | | 10.00 | | | | | 7 | -8 | 5 | 50 | 6 | 32 | 29.21 | 30.19 | 18 | VV | 009 | | | 7 | 3 | 6 | 84 | 18 | 03 | 29.08 | 30.07 |
| 21 | CLR | NC | | | 10.00 | | | | | 1 | -11 | -1 | 56 | 7 | 30 | 29.29 | 30.28 | 21 | OVC | 013 | | | 8 | 4 | 7 | 83 | 17 | 03 | 29.14 | 30.13 |
| 24 | CLR | NC | | | 10.00 | | | | | -5 | -12 | -6 | 72 | 6 | 26 | 29.36 | 30.36 | 24 | OVC | 055 | | | 8 | 3 | 7 | 80 | 22 | 03 | 29.21 | 30.20 |

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JANUARY 1999

MSN

WBAN # 14837

| HOUR (LST) | | | SATELLITE | | WEATHER | TEMPERATURE ° F | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | HOUR (LST) | | | SATELLITE | | WEATHER | TEMPERATURE ° F | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | | |
|----------------------|-----------|---------------------|------------------------|-------------------|---------|--------------------|----------|-----------|-------------------------|----------|-------------|-----------------------|---------|------------|-----------|-----------|---------------------|------------------------|---------|-------------------|--------------------|----------|-------------------------|-----------|----------|-----------------------|-----------------------|---------|-----------|
| | SKY COVER | CEILING 100'S OF FT | OBSERVATION TIME (LST) | EFF CLD AMT Oktas | | VISIBILITY (MILES) | DRY BULB | DEW POINT | | WET BULB | SPEED (MPH) | DIRECTION TENS OF DEG | STATION | | SEA LEVEL | SKY COVER | CEILING 100'S OF FT | OBSERVATION TIME (LST) | | EFF CLD AMT Oktas | VISIBILITY (MILES) | DRY BULB | | DEW POINT | WET BULB | SPEED (MPH) | DIRECTION TENS OF DEG | STATION | SEA LEVEL |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUNRISE: 0727 JAN 13 | | | | | | SUNSET: 1645 | | | | | | SUNRISE: 0724 JAN 19 | | | | | | SUNSET: 1652 | | | | | | | | | | | |
| 03 | OVC | 050 | | | 10.00 | | 4 | -4 | 3 | 69 | 15 | 03 | 29.26 | 30.25 | 03 | CLR | NC | | | 10.00 | 15 | 7 | 13 | 70 | 7 | VR | 28.99 | 29.95 | |
| 06 | FEW | NC | | | 10.00 | | 0 | -7 | -1 | 72 | 10 | 01 | 29.34 | 30.34 | 06 | FEW | NC | | | 10.00 | 16 | 7 | 14 | 67 | 9 | 27 | 29.03 | 30.00 | |
| 09 | OVC | 037 | | | 10.00 | -SN | 3 | -2 | 2 | 79 | 15 | 04 | 29.39 | 30.39 | 09 | CLR | NC | | | 10.00 | 17 | 7 | 15 | 64 | 6 | 24 | 29.08 | 30.05 | |
| 12 | BKN | 033 | | | 10.00 | | 9 | 2 | 8 | 73 | 15 | 02 | 29.45 | 30.45 | 12 | CLR | NC | | | 10.00 | 25 | 5 | 20 | 42 | 5 | 25 | 29.07 | 30.04 | |
| 15 | SCT | NC | | | 10.00 | | 10 | 4 | 9 | 76 | 13 | 03 | 29.45 | 30.45 | 15 | CLR | NC | | | 10.00 | 32 | 4 | 24 | 30 | 6 | 30 | 29.05 | 30.02 | |
| 18 | OVC | 024 | | | 5.00 | -SN | 6 | 1 | 5 | 80 | 15 | 03 | 29.48 | 30.49 | 18 | CLR | NC | | | 10.00 | 24 | 9 | 20 | 52 | 0 | 00 | 29.06 | 30.03 | |
| 21 | OVC | 012 | | | 7.00 | -SN | 5 | 0 | 4 | 79 | 12 | 04 | 29.48 | 30.48 | 21 | CLR | NC | | | 10.00 | 17 | 8 | 15 | 68 | 0 | 00 | 29.08 | 30.06 | |
| 24 | OVC | 100 | | | 8.00 | | 6 | 2 | 5 | 83 | 10 | 04 | 29.48 | 30.48 | 24 | FEW | NC | | | 10.00 | 19 | 12 | 17 | 74 | 5 | VR | 29.06 | 30.03 | |
| SUNRISE: 0727 JAN 14 | | | | | | SUNSET: 1646 | | | | | | SUNRISE: 0723 JAN 20 | | | | | | SUNSET: 1654 | | | | | | | | | | | |
| 03 | OVC | 085 | | | 10.00 | | 8 | 4 | 7 | 83 | 6 | 03 | 29.42 | 30.42 | 03 | CLR | NC | | | 10.00 | 11 | 7 | 10 | 84 | 0 | 00 | 29.09 | 30.06 | |
| 06 | OVC | 050 | | | 6.00 | -SN | 11 | 8 | 10 | 88 | 5 | 06 | 29.38 | 30.38 | 06 | OVC | 001 | | | 0.50 | 21 | 19 | 20 | 92 | 9 | 18 | 29.05 | 30.02 | |
| 09 | OVC | 024 | | | 2.00 | -SN | 14 | 9 | 13 | 80 | 9 | 09 | 29.36 | 30.35 | 09 | OVC | 003 | | | 0.50 | 24 | 23 | 24 | 96 | 8 | 18 | 29.07 | 30.04 | |
| 12 | BKN | 017 | | | 10.00 | -SN | 15 | 9 | 14 | 77 | 9 | 12 | 29.29 | 30.28 | 12 | OVC | 005 | | | 2.00 | 30 | 28 | 29 | 92 | 8 | 19 | 29.05 | 30.01 | |
| 15 | OVC | 041 | | | 3.00 | -SN | 17 | 10 | 15 | 74 | 6 | 11 | 29.24 | 30.22 | 15 | SCT | NC | | | 7.00 | 33 | 28 | 31 | 82 | 9 | 21 | 29.01 | 29.98 | |
| 18 | OVC | 012 | | | 2.00 | -SN | 16 | 12 | 15 | 84 | 6 | 09 | 29.21 | 30.19 | 18 | BKN | 110 | | | 4.00 | 29 | 26 | 28 | 89 | 0 | 00 | 29.01 | 29.98 | |
| 21 | OVC | 060 | | | 6.00 | -SN | 14 | 11 | 13 | 88 | 3 | 06 | 29.19 | 30.17 | 21 | BKN | 100 | | | 5.00 | 26 | 25 | 26 | 96 | 0 | 00 | 28.99 | 29.95 | |
| 24 | OVC | 009 | | | 4.00 | -SN | 14 | 11 | 13 | 88 | 3 | 09 | 29.17 | 30.15 | 24 | SCT | NC | | | 2.50 | 25 | 23 | 24 | 92 | 0 | 00 | 29.00 | 29.96 | |
| SUNRISE: 0726 JAN 15 | | | | | | SUNSET: 1647 | | | | | | SUNRISE: 0723 JAN 21 | | | | | | SUNSET: 1655 | | | | | | | | | | | |
| 03 | OVC | 044 | | | 10.00 | -SN | 13 | 10 | 12 | 88 | 3 | 08 | 29.12 | 30.09 | 03 | CLR | NC | | | 1.00 | 24 | 23 | 24 | 96 | 6 | 04 | 29.00 | 29.96 | |
| 06 | OVC | 016 | | | 8.00 | -SN | 14 | 11 | 13 | 88 | 5 | 12 | 29.08 | 30.05 | 06 | VV | 001 | | | <.25 | 27 | 27 | 27 | 100 | 7 | 05 | 28.98 | 29.93 | |
| 09 | OVC | 018 | | | 1.50 | -SN BR | 16 | 14 | 15 | 92 | 8 | 17 | 29.03 | 30.01 | 09 | OVC | 001 | | | 0.25 | 29 | 28 | 29 | 96 | 16 | 07 | 28.99 | 29.95 | |
| 12 | OVC | 012 | | | 2.00 | BR | 20 | 17 | 19 | 89 | 13 | 17 | 28.96 | 29.93 | 12 | OVC | 003 | | | 1.50 | 32 | 30 | 31 | 92 | 9 | 09 | 29.00 | 29.96 | |
| 15 | OVC | 010 | | | 4.00 | BR | 24 | 20 | 23 | 84 | 14 | 18 | 28.87 | 29.83 | 15 | OVC | 005 | | | 3.00 | 33 | 30 | 32 | 89 | 13 | 08 | 28.98 | 29.93 | |
| 18 | OVC | 008 | | | 6.00 | BR | 23 | 20 | 22 | 88 | 14 | 17 | 28.81 | 29.78 | 18 | OVC | 003 | | | 1.00 | 33 | 32 | 33 | 96 | 17 | 06 | 28.96 | 29.91 | |
| 21 | OVC | 004 | | | 1.25 | -SN BR | 24 | 23 | 24 | 96 | 13 | 18 | 28.75 | 29.71 | 21 | OVC | 009 | | | 3.00 | 33 | 31 | 32 | 92 | 18 | 05 | 28.95 | 29.90 | |
| 24 | OVC | 004 | | | 3.00 | BR | 27 | 26 | 27 | 96 | 9 | 19 | 28.71 | 29.67 | 24 | OVC | 009 | | | 4.00 | 34 | 32 | 33 | 92 | 23 | 04 | 28.85 | 29.80 | |
| SUNRISE: 0726 JAN 16 | | | | | | SUNSET: 1649 | | | | | | SUNRISE: 0722 JAN 22 | | | | | | SUNSET: 1656 | | | | | | | | | | | |
| 03 | OVC | 012 | | | 4.00 | BR | 30 | 28 | 29 | 92 | 10 | 22 | 28.67 | 29.62 | 03 | OVC | 007 | | | 6.00 | 35 | 33 | 34 | 93 | 21 | 06 | 28.79 | 29.73 | |
| 06 | CLR | NC | | | 3.00 | BR | 27 | 25 | 26 | 92 | 8 | 23 | 28.68 | 29.63 | 06 | OVC | 007 | | | 4.00 | 36 | 34 | 35 | 93 | 17 | 06 | 28.77 | 29.71 | |
| 09 | CLR | NC | | | 3.00 | BR | 32 | 27 | 30 | 82 | 12 | 27 | 28.76 | 29.72 | 09 | OVC | 007 | | | 1.50 | 35 | 33 | 34 | 93 | 13 | 05 | 28.79 | 29.73 | |
| 12 | CLR | NC | | | 10.00 | | 39 | 25 | 34 | 57 | 9 | 26 | 28.82 | 29.76 | 12 | OVC | 005 | | | 3.00 | 35 | 33 | 34 | 93 | 13 | 03 | 28.78 | 29.72 | |
| 15 | CLR | NC | | | 10.00 | | 44 | 19 | 35 | 37 | 7 | 25 | 28.87 | 29.81 | 15 | OVC | 003 | | | 1.00 | 34 | 33 | 34 | 97 | 12 | 02 | 28.79 | 29.73 | |
| 18 | CLR | NC | | | 10.00 | | 35 | 20 | 30 | 54 | 7 | 22 | 28.94 | 29.89 | 18 | OVC | 003 | | | 1.00 | 34 | 33 | 34 | 97 | 8 | 01 | 28.82 | 29.76 | |
| 21 | CLR | NC | | | 10.00 | | 26 | 21 | 24 | 81 | 0 | 00 | 28.99 | 29.94 | 21 | OVC | 003 | | | 1.50 | 32 | 32 | 32 | 100 | 13 | 01 | 28.80 | 29.74 | |
| 24 | CLR | NC | | | 10.00 | | 22 | 20 | 21 | 92 | 3 | 13 | 29.03 | 29.99 | 24 | OVC | 003 | | | 5.00 | 33 | 32 | 33 | 96 | 8 | 36 | 28.78 | 29.72 | |
| SUNRISE: 0725 JAN 17 | | | | | | SUNSET: 1650 | | | | | | SUNRISE: 0721 JAN 23 | | | | | | SUNSET: 1657 | | | | | | | | | | | |
| 03 | CLR | NC | | | 4.00 | BR BCFG | 16 | 14 | 15 | 92 | 0 | 00 | 29.03 | 29.98 | 03 | OVC | 003 | | | 5.00 | 32 | 31 | 32 | 96 | 10 | 35 | 28.75 | 29.69 | |
| 06 | VV | 001 | | | 1.00 | BR | 14 | 11 | 13 | 88 | 0 | 00 | 28.99 | 29.95 | 06 | OVC | 003 | | | 2.00 | 32 | 31 | 32 | 96 | 12 | 36 | 28.70 | 29.64 | |
| 09 | CLR | NC | | | 2.50 | BR | 18 | 16 | 17 | 92 | 3 | 02 | 28.94 | 29.89 | 09 | OVC | 007 | | | 6.00 | 32 | 30 | 31 | 92 | 9 | 36 | 28.66 | 29.61 | |
| 12 | FEW | NC | | | 7.00 | | 33 | 27 | 31 | 78 | 12 | 13 | 28.79 | 29.74 | 12 | OVC | 010 | | | 6.00 | 32 | 30 | 31 | 92 | 8 | 35 | 28.62 | 29.57 | |
| 15 | OVC | 005 | | | 1.50 | -RA | 34 | 29 | 32 | 82 | 8 | 11 | 28.61 | 29.57 | 15 | OVC | 008 | | | 1.00 | 32 | 30 | 31 | 92 | 12 | 30 | 28.65 | 29.59 | |
| 18 | OVC | 005 | | | 1.50 | -RA | 36 | 29 | 33 | 76 | 10 | 19 | 28.56 | 29.50 | 18 | OVC | 020 | | | 10.00 | 32 | 28 | 30 | 85 | 5 | 28 | 28.74 | 29.68 | |
| 21 | OVC | 005 | | | 5.00 | HZ | 35 | 29 | 33 | 78 | 9 | 22 | 28.51 | 29.45 | 21 | OVC | 021 | | | 10.00 | 31 | 27 | 29 | 85 | 6 | 28 | 28.83 | 29.78 | |
| 24 | OVC | 009 | | | 5.00 | BR | 34 | 31 | 33 | 89 | 8 | 24 | 28.49 | 29.42 | 24 | OVC | 019 | | | 9.00 | 31 | 28 | 30 | 89 | 6 | 28 | 28.92 | 29.87 | |
| SUNRISE: 0725 JAN 18 | | | | | | SUNSET: 1651 | | | | | | SUNRISE: 0720 JAN 24 | | | | | | SUNSET: 1659 | | | | | | | | | | | |
| 03 | OVC | 027 | | | 10.00 | | 34 | 25 | 31 | 70 | 12 | 25 | 28.47 | 29.40 | 03 | OVC | 018 | | | 10.00 | 31 | 26 | 29 | 82 | 8 | 28 | 29.00 | 29.96 | |
| 06 | OVC | 018 | | | 10.00 | | 32 | 25 | 29 | 75 | 14 | 23 | 28.45 | 29.38 | 06 | OVC | 014 | | | 7.00 | 28 | 24 | 27 | 85 | 6 | 28 | 29.10 | 30.06 | |
| 09 | OVC | 009 | | | 10.00 | | 30 | 27 | 29 | 88 | 12 | 24 | 28.49 | 29.43 | 09 | FEW | NC | | | 5.00 | 27 | 22 | 25 | 81 | 6 | 28 | 29.15 | 30.11 | |
| 12 | OVC | 018 | | | 4.00 | -SN BR | 33 | 29 | 31 | 85 | 10 | 27 | 28.55 | 29.48 | 12 | BKN | 010 | | | 7.00 | 29 | 25 | 28 | 85 | 3 | 23 | 29.17 | 30.14 | |
| 15 | OVC | 024 | | | 10.00 | | 34 | 27 | 31 | 76 | 16 | 27 | 28.63 | 29.57 | 15 | OVC | 014 | | | 1.50 | 31 | 28 | 30 | 89 | 0 | 00 | 29.15 | 30.11 | |
| 18 | OVC | 018 | | | 10.00 | | 27 | 21 | 25 | 78 | 13 | 27 | 28.77 | 29.72 | 18 | OVC | 011 | | | 1.00 | 31 | 29 | 30 | 92 | 0 | 00 | 29.17 | 30.13 | |
| 21 | FEW | NC | | | 10.00 | | 21 | 13 | 19 | 71 | 15 | 27 | 28.84 | 29.80 | 21 | OVC | 008 | | | 1.50 | 30 | 29 | 30 | 96 | 6 | 26 | 29.18 | 30.14 | |
| 24 | CLR | NC | | | 10.00 | | 18 | 8 | 15 | 65 | 10 | 27 | 28.93 | 29.89 | 24 | OVC | 015 | | | 6.00 | 29 | 26 | 28 | 89 | 6 | 28 | 29.17 | 30.13 | |

OBSERVATIONS AT 3-HOURLY INTERVALS

MADISON, WI

JANUARY 1999

MSN

WBAN # 14837

| HOUR (LST) | | | SATELLITE | | WEATHER | TEMPERATURE ° F | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | HOUR (LST) | | | SATELLITE | | WEATHER | TEMPERATURE ° F | | | RELATIVE HUMIDITY (PCT) | WIND | | PRESSURE (INCHES, HG) | | | |
|------------|-----------|---------------------|------------------------|-------------------|---------------|--------------------|----------|--------------|-------------------------|----------|-------------|-----------------------|---------|------------|-----------|-----------|---------------------|------------------------|---------------|-------------------|--------------------|--------------|-------------------------|-----------|----------|-----------------------|-----------------------|---------|-----------|
| | SKY COVER | CEILING 100'S OF FT | OBSERVATION TIME (LST) | EFF CLD AMT Oktas | | VISIBILITY (MILES) | DRY BULB | DEW POINT | | WET BULB | SPEED (MPH) | DIRECTION TENS OF DEG | STATION | | SEA LEVEL | SKY COVER | CEILING 100'S OF FT | OBSERVATION TIME (LST) | | EFF CLD AMT Oktas | VISIBILITY (MILES) | DRY BULB | | DEW POINT | WET BULB | SPEED (MPH) | DIRECTION TENS OF DEG | STATION | SEA LEVEL |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03 | OVC | 015 | | | SUNRISE: 0720 | JAN 25 | | SUNSET: 1700 | | | | | | 03 | BKN | 012 | | | SUNRISE: 0714 | JAN 31 | | SUNSET: 1708 | | | | | | | |
| 06 | OVC | 011 | | | | | 26 | 22 | 25 | 84 | 10 | 29 | 29.22 | 30.19 | 06 | OVC | 010 | | | | 29 | 27 | 28 | 92 | 7 | 08 | 29.57 | 30.54 | |
| 09 | OVC | 018 | | | -SN | | 23 | 19 | 22 | 85 | 7 | 31 | 29.29 | 30.26 | 09 | OVC | 010 | | | | 30 | 27 | 29 | 88 | 13 | 09 | 29.55 | 30.53 | |
| 12 | SCT | NC | | | | | 22 | 19 | 21 | 89 | 6 | 26 | 29.38 | 30.35 | 12 | CLR | NC | | | | 31 | 27 | 29 | 85 | 15 | 07 | 29.53 | 30.50 | |
| 15 | SCT | NC | | | | | 22 | 16 | 20 | 78 | 9 | 25 | 29.41 | 30.39 | 15 | CLR | NC | | | | 34 | 28 | 32 | 79 | 14 | 06 | 29.47 | 30.44 | |
| 18 | CLR | NC | | | | | 23 | 17 | 21 | 78 | 9 | 23 | 29.42 | 30.40 | 18 | FEW | NC | | | | 35 | 26 | 32 | 70 | 13 | 08 | 29.39 | 30.36 | |
| 21 | CLR | NC | | | | | 17 | 13 | 16 | 84 | 7 | 21 | 29.46 | 30.44 | 21 | OVC | 022 | | | | 32 | 25 | 29 | 75 | 9 | 09 | 29.38 | 30.35 | |
| 24 | CLR | NC | | | | | 12 | 7 | 11 | 80 | 3 | VR | 29.47 | 30.46 | 24 | OVC | 016 | | | | 32 | 26 | 30 | 79 | 7 | 08 | 29.34 | 30.29 | |
| | | | | | | | 12 | 6 | 11 | 77 | 3 | VR | 29.47 | 30.46 | | | | | DZ BR | | 33 | 31 | 32 | 92 | 6 | 10 | 29.28 | 30.23 | |
| | | | | | SUNRISE: 0719 | JAN 26 | | SUNSET: 1701 | | | | | | | | | | | | | | | | | | | | | |
| 03 | CLR | NC | | | | | 13 | 7 | 12 | 77 | 5 | 15 | 29.43 | 30.42 | | | | | | | | | | | | | | | |
| 06 | CLR | NC | | | | | 15 | 9 | 14 | 77 | 5 | 18 | 29.42 | 30.41 | | | | | | | | | | | | | | | |
| 09 | CLR | NC | | | | | 16 | 11 | 15 | 80 | 9 | 18 | 29.42 | 30.41 | | | | | | | | | | | | | | | |
| 12 | CLR | NC | | | | | 23 | 15 | 21 | 72 | 7 | 17 | 29.36 | 30.34 | | | | | | | | | | | | | | | |
| 15 | CLR | NC | | | | | 29 | 18 | 25 | 64 | 12 | 16 | 29.26 | 30.24 | | | | | | | | | | | | | | | |
| 18 | OVC | 038 | | | | | 30 | 22 | 27 | 72 | 9 | 12 | 29.16 | 30.13 | | | | | | | | | | | | | | | |
| 21 | BKN | 042 | | | | | 31 | 23 | 28 | 72 | 9 | 10 | 29.07 | 30.03 | | | | | | | | | | | | | | | |
| 24 | OVC | 020 | | | | | 34 | 28 | 32 | 79 | 12 | 12 | 28.99 | 29.95 | | | | | | | | | | | | | | | |
| | | | | | SUNRISE: 0718 | JAN 27 | | SUNSET: 1703 | | | | | | | | | | | | | | | | | | | | | |
| 03 | OVC | 048 | | | -RA | | 36 | 30 | 34 | 79 | 9 | 15 | 28.84 | 29.79 | | | | | | | | | | | | | | | |
| 06 | BKN | 046 | | | BR | | 36 | 34 | 35 | 93 | 9 | 18 | 28.76 | 29.70 | | | | | | | | | | | | | | | |
| 09 | OVC | 013 | | | BR | | 40 | 36 | 38 | 86 | 7 | 23 | 28.77 | 29.72 | | | | | | | | | | | | | | | |
| 12 | OVC | 007 | | | BR | | 38 | 35 | 37 | 89 | 9 | 24 | 28.82 | 29.76 | | | | | | | | | | | | | | | |
| 15 | OVC | 011 | | | BR | | 37 | 33 | 35 | 86 | 9 | 26 | 28.89 | 29.83 | | | | | | | | | | | | | | | |
| 18 | OVC | 013 | | | | | 36 | 31 | 34 | 82 | 8 | 27 | 28.99 | 29.93 | | | | | | | | | | | | | | | |
| 21 | OVC | 013 | | | | | 33 | 28 | 31 | 82 | 9 | 26 | 29.03 | 29.98 | | | | | | | | | | | | | | | |
| 24 | OVC | 013 | | | | | 31 | 26 | 29 | 82 | 10 | 26 | 29.06 | 30.01 | | | | | | | | | | | | | | | |
| | | | | | SUNRISE: 0717 | JAN 28 | | SUNSET: 1704 | | | | | | | | | | | | | | | | | | | | | |
| 03 | OVC | 013 | | | 5.00 HZ | | 30 | 25 | 28 | 82 | 7 | 28 | 29.09 | 30.04 | | | | | | | | | | | | | | | |
| 06 | OVC | 013 | | | 4.00 BR | | 30 | 26 | 29 | 85 | 7 | 26 | 29.11 | 30.07 | | | | | | | | | | | | | | | |
| 09 | OVC | 014 | | | 4.00 HZ | | 31 | 26 | 29 | 82 | 6 | 28 | 29.17 | 30.13 | | | | | | | | | | | | | | | |
| 12 | OVC | 019 | | | 10.00 | | 32 | 25 | 29 | 75 | 10 | 28 | 29.22 | 30.18 | | | | | | | | | | | | | | | |
| 15 | OVC | 023 | | | 10.00 | | 32 | 23 | 29 | 69 | 8 | 30 | 29.27 | 30.23 | | | | | | | | | | | | | | | |
| 18 | OVC | 023 | | | 10.00 | | 30 | 22 | 27 | 72 | 6 | 33 | 29.34 | 30.30 | | | | | | | | | | | | | | | |
| 21 | OVC | 023 | | | 10.00 | | 29 | 22 | 27 | 75 | 0 | 00 | 29.38 | 30.35 | | | | | | | | | | | | | | | |
| 24 | OVC | 023 | | | 10.00 | | 29 | 21 | 26 | 72 | 3 | 21 | 29.43 | 30.41 | | | | | | | | | | | | | | | |
| | | | | | SUNRISE: 0716 | JAN 29 | | SUNSET: 1705 | | | | | | | | | | | | | | | | | | | | | |
| 03 | FEW | NC | | | 10.00 | | 23 | 20 | 22 | 88 | 0 | 00 | 29.45 | 30.42 | | | | | | | | | | | | | | | |
| 06 | OVC | 020 | | | 10.00 | | 25 | 20 | 23 | 81 | 5 | 25 | 29.45 | 30.43 | | | | | | | | | | | | | | | |
| 09 | FEW | NC | | | 10.00 | | 26 | 20 | 24 | 78 | 6 | 22 | 29.49 | 30.47 | | | | | | | | | | | | | | | |
| 12 | FEW | NC | | | 10.00 | | 29 | 22 | 27 | 75 | 6 | 25 | 29.49 | 30.46 | | | | | | | | | | | | | | | |
| 15 | CLR | NC | | | 10.00 | | 31 | 23 | 28 | 72 | 6 | VR | 29.48 | 30.45 | | | | | | | | | | | | | | | |
| 18 | CLR | NC | | | 10.00 | | 27 | 23 | 26 | 85 | 5 | 29 | 29.51 | 30.49 | | | | | | | | | | | | | | | |
| 21 | CLR | NC | | | 3.00 BR | | 22 | 21 | 22 | 96 | 0 | 00 | 29.53 | 30.51 | | | | | | | | | | | | | | | |
| 24 | CLR | NC | | | 3.00 BR | | 20 | 18 | 19 | 92 | 0 | 00 | 29.53 | 30.51 | | | | | | | | | | | | | | | |
| | | | | | SUNRISE: 0715 | JAN 30 | | SUNSET: 1707 | | | | | | | | | | | | | | | | | | | | | |
| 03 | CLR | NC | | | 3.00 BR | | 16 | 14 | 15 | 92 | 0 | 00 | 29.56 | 30.54 | | | | | | | | | | | | | | | |
| 06 | CLR | NC | | | 3.00 BR | | 14 | 12 | 13 | 92 | 3 | 35 | 29.60 | 30.58 | | | | | | | | | | | | | | | |
| 09 | CLR | NC | | | 4.00 BR | | 22 | 18 | 21 | 85 | 6 | 01 | 29.63 | 30.61 | | | | | | | | | | | | | | | |
| 12 | CLR | NC | | | 10.00 | | 35 | 24 | 31 | 64 | 5 | 07 | 29.63 | 30.60 | | | | | | | | | | | | | | | |
| 15 | CLR | NC | | | 10.00 | | 39 | 28 | 35 | 65 | 12 | 08 | 29.59 | 30.56 | | | | | | | | | | | | | | | |
| 18 | CLR | NC | | | 10.00 | | 32 | 25 | 29 | 75 | 9 | 06 | 29.61 | 30.59 | | | | | | | | | | | | | | | |
| 21 | CLR | NC | | | 10.00 | | 29 | 24 | 27 | 82 | 7 | 03 | 29.58 | 30.56 | | | | | | | | | | | | | | | |
| 24 | CLR | NC | | | 10.00 | | 26 | 23 | 25 | 88 | 3 | VR | 29.58 | 30.55 | | | | | | | | | | | | | | | |

3—HOURLY OBSERVATION NOTES

Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8–2/8, SCT = 3/8–4/8, BKN = 5/8–7/8, OVC = 8/8, VV = Vertical Visibility = 8/8. Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC= No ceiling detected. & = Original observation contained additional weather elements. See page 3 for additional notes.

SUMMARY BY HOUR

| HOUR (LST) | AVERAGES | | | | | | | | | RESULTANT WIND (MPH) | | |
|------------|------------|-------------|----------|-----------|----------|-------------------|-----------------------|-----------|--------------------|----------------------|-----------|----|
| | CEILOMETER | EFF CLD AMT | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY | PRESSURE (INCHES, HG) | | VISIBILITY (MILES) | WIND SPEED (MPH) | DIRECTION | |
| | | | | | | | STATION | SEA LEVEL | | | | |
| 01 | | | 15 | 10 | 14 | 81 | 29.11 | 30.08 | 7.52 | 8 | 2 | 32 |
| 02 | | | 15 | 10 | 14 | 81 | 29.11 | 30.08 | 7.41 | 7 | 2 | 36 |
| 03 | | | 15 | 10 | 14 | 81 | 29.11 | 30.09 | 7.52 | 7 | 2 | 35 |
| 04 | | | 15 | 9 | 13 | 79 | 29.11 | 30.08 | 6.54 | 7 | 1 | 33 |
| 05 | | | 14 | 10 | 13 | 82 | 29.11 | 30.08 | 6.26 | 6 | 1 | 34 |
| 06 | | | 14 | 10 | 13 | 82 | 29.11 | 30.09 | 6.28 | 7 | 1 | 34 |
| 07 | | | 15 | 10 | 14 | 83 | 29.12 | 30.10 | 5.65 | 7 | 2 | 1 |
| 08 | | | 15 | 11 | 14 | 83 | 29.12 | 30.10 | 4.73 | 7 | 2 | 5 |
| 09 | | | 16 | 11 | 15 | 82 | 29.13 | 30.11 | 4.97 | 9 | 1 | 2 |
| 10 | | | 17 | 12 | 16 | 80 | 29.14 | 30.12 | 5.96 | 9 | 1 | 2 |
| 11 | | | 19 | 12 | 17 | 77 | 29.14 | 30.12 | 6.70 | 10 | 1 | 36 |
| 12 | | | 20 | 13 | 18 | 74 | 29.12 | 30.09 | 7.10 | 10 | 1 | 33 |
| 13 | | | 21 | 13 | 19 | 73 | 29.10 | 30.08 | 7.00 | 10 | 0 | 0 |
| 14 | | | 21 | 13 | 19 | 72 | 29.09 | 30.06 | 6.65 | 10 | 1 | 36 |
| 15 | | | 22 | 13 | 20 | 71 | 29.10 | 30.07 | 6.78 | 10 | 1 | 1 |
| 16 | | | 21 | 13 | 19 | 73 | 29.10 | 30.08 | 6.65 | 10 | 1 | 1 |
| 17 | | | 20 | 13 | 18 | 74 | 29.11 | 30.08 | 6.87 | 9 | 2 | 2 |
| 18 | | | 19 | 13 | 18 | 76 | 29.11 | 30.09 | 6.98 | 8 | 1 | 3 |
| 19 | | | 18 | 13 | 17 | 78 | 29.12 | 30.09 | 7.43 | 8 | 1 | 36 |
| 20 | | | 18 | 12 | 16 | 78 | 29.12 | 30.09 | 7.40 | 8 | 1 | 34 |
| 21 | | | 17 | 12 | 16 | 80 | 29.12 | 30.09 | 7.35 | 7 | 2 | 35 |
| 22 | | | 17 | 12 | 16 | 80 | 29.12 | 30.09 | 7.42 | 7 | 2 | 35 |
| 23 | | | 17 | 11 | 15 | 80 | 29.12 | 30.09 | 7.01 | 8 | 1 | 34 |
| 24 | | | 17 | 12 | 15 | 82 | 29.12 | 30.09 | 7.31 | 7 | 2 | 35 |

3-HOURLY OBSERVATION NOTES

Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8,

SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibility = 8/8.

Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.

NC = No ceiling detected.

& = Original observation contained additional weather elements.

See page 3 for additional notes.

SUMMARY BY HOUR

| HOUR (LST) | AVERAGES | | | | | | | | | | RESULTANT WIND (MPH) | |
|------------|------------|-------------|----------|-----------|----------|-------------------|-----------------------|-----------|--------------------|------------------|----------------------|-----------|
| | CEILOMETER | EFF CLD AMT | DRY BULB | DEW POINT | WET BULB | RELATIVE HUMIDITY | PRESSURE (INCHES, HG) | | VISIBILITY (MILES) | WIND SPEED (MPH) | SPEED | DIRECTION |
| | | | | | | | STATION | SEA LEVEL | | | | |
| 01 | | | 15 | 10 | 14 | 81 | 29.11 | 30.08 | 7.52 | 8 | 2 | 32 |
| 02 | | | 15 | 10 | 14 | 81 | 29.11 | 30.08 | 7.41 | 7 | 2 | 36 |
| 03 | | | 15 | 10 | 14 | 81 | 29.11 | 30.09 | 7.52 | 7 | 2 | 35 |
| 04 | | | 15 | 9 | 13 | 79 | 29.11 | 30.08 | 6.54 | 7 | 1 | 33 |
| 05 | | | 14 | 10 | 13 | 82 | 29.11 | 30.08 | 6.26 | 6 | 1 | 34 |
| 06 | | | 14 | 10 | 13 | 82 | 29.11 | 30.09 | 6.28 | 7 | 1 | 34 |
| 07 | | | 15 | 10 | 14 | 83 | 29.12 | 30.10 | 5.65 | 7 | 2 | 1 |
| 08 | | | 15 | 11 | 14 | 83 | 29.12 | 30.10 | 4.73 | 7 | 2 | 5 |
| 09 | | | 16 | 11 | 15 | 82 | 29.13 | 30.11 | 4.97 | 9 | 1 | 2 |
| 10 | | | 17 | 12 | 16 | 80 | 29.14 | 30.12 | 5.96 | 9 | 1 | 2 |
| 11 | | | 19 | 12 | 17 | 77 | 29.14 | 30.12 | 6.70 | 10 | 1 | 36 |
| 12 | | | 20 | 13 | 18 | 74 | 29.12 | 30.09 | 7.10 | 10 | 1 | 33 |
| 13 | | | 21 | 13 | 19 | 73 | 29.10 | 30.08 | 7.00 | 10 | 0 | 0 |
| 14 | | | 21 | 13 | 19 | 72 | 29.09 | 30.06 | 6.65 | 10 | 1 | 36 |
| 15 | | | 22 | 13 | 20 | 71 | 29.10 | 30.07 | 6.78 | 10 | 1 | 1 |
| 16 | | | 21 | 13 | 19 | 73 | 29.10 | 30.08 | 6.65 | 10 | 1 | 1 |
| 17 | | | 20 | 13 | 18 | 74 | 29.11 | 30.08 | 6.87 | 9 | 2 | 2 |
| 18 | | | 19 | 13 | 18 | 76 | 29.11 | 30.09 | 6.98 | 8 | 1 | 3 |
| 19 | | | 18 | 13 | 17 | 78 | 29.12 | 30.09 | 7.43 | 8 | 1 | 36 |
| 20 | | | 18 | 12 | 16 | 78 | 29.12 | 30.09 | 7.40 | 8 | 1 | 34 |
| 21 | | | 17 | 12 | 16 | 80 | 29.12 | 30.09 | 7.35 | 7 | 2 | 35 |
| 22 | | | 17 | 12 | 16 | 80 | 29.12 | 30.09 | 7.42 | 7 | 2 | 35 |
| 23 | | | 17 | 11 | 15 | 80 | 29.12 | 30.09 | 7.01 | 8 | 1 | 34 |
| 24 | | | 17 | 12 | 15 | 82 | 29.12 | 30.09 | 7.31 | 7 | 2 | 33 |

SUPPLEMENTARY HOURLY PRECIPITATION

UNIVERSAL RAIN GAUGE (WATER EQUIVALENT IN INCHES)

JANUARY 1999
MADISON, WI

LATITUDE 43° 8'N
LONGITUDE 89° 20'

| DATE | A.M. HOUR (L.S.T.) ENDING AT | | | | | | | | | | | | DATE | P.M. HOUR (L.S.T.) ENDING AT | | | | | | | | | | | | DATE | DAILY TOTAL |
|------------------------------------|------------------------------|---|------|---|------|------|------|------|------|----|------|------|------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | |
| 01 | | | | | | | | | | | | | 01 | | | | | | | | | | | | 01 | 0.00 | |
| 02 | | | | | 0.01 | 0.05 | T | 0.01 | 0.04 | T | 0.04 | 0.05 | 02 | 0.06 | 0.08 | 0.10 | 0.10 | 0.15 | 0.10 | T | T | 0.04 | 0.05 | 0.07 | 0.06 | 02 | 1.01 |
| 03 | 0.04 | T | | | | | | | T | | | T | 03 | T | | | | | | | | | | | 03 | 0.04 | |
| 04 | | | | | | | | | | | | | 04 | | | | | | | | | | | | 04 | 0.00 | |
| 05 | | | | | | | | | | | | | 05 | | | | | T | T | | | | | | 05 | T | |
| 06 | | | | | | | | | | | | | 06 | | | | | | | | | | | | 06 | 0.00 | |
| 07 | | | | | | | | | | | | | 07 | | | | | | | | | | | | 07 | 0.00 | |
| 08 | | | | | | | | | | | | | 08 | T | | 0.03 | | | | | | | | | 08 | 0.10 | |
| 09 | | | | | | | | | | | | | 09 | | | | | | | | | | | | 09 | 0.00 | |
| 10 | | | | | | | | | | | | | 10 | | | | | | | | | | | | 10 | T | |
| 11 | | | | | | | | | | | | | 11 | | | | | | | | | | | | 11 | T | |
| 12 | | | | | | | | | | | | | 12 | T | 0.01 | T | T | 0.05 | 0.05 | 0.07 | 0.04 | 0.04 | 0.03 | T | T | 12 | 0.29 |
| 13 | | | | | | | | | | | | | 13 | | | | | | | | | | | | 13 | 0.00 | |
| 14 | | | | | | | | | | | | | 14 | | | | | | | | | | | | 14 | 0.00 | |
| 15 | | | | | | | | | | | | | 15 | | | | | | | | | | | | 15 | 0.00 | |
| 16 | | | | | | | | | | | | | 16 | | | | | | | | | | | | 16 | 0.00 | |
| 17 | | | | | | | | | | | | | 17 | 0.09 | 0.10 | 0.05 | 0.05 | 0.05 | T | | | | | | 17 | 0.34 | |
| 18 | | | | | | | | | | | | | 18 | | | | | | | | | | | | 18 | 0.00 | |
| 19 | | | | | | | | | | | | | 19 | | | | | | | | | | | | 19 | 0.00 | |
| 20 | | | | | | | | | | | | | 20 | | | | | | | | | | | | 20 | 0.00 | |
| 21 | | | | | | | | | | | | | 21 | | | | | | | | | | | | 21 | 0.37 | |
| 22 | T | T | 0.02 | T | 0.06 | 0.10 | T | T | | | | | 22 | | | | | | | | 0.07 | 0.15 | 0.08 | 0.07 | 22 | 0.19 | |
| 23 | T | T | 0.01 | | | | 0.01 | 0.02 | T | T | 0.10 | 0.07 | 23 | 0.02 | 0.02 | 0.02 | 0.02 | | | | | | | | 23 | 0.29 | |
| 24 | | | | | | | | | | | 0.04 | 0.01 | 24 | | | | | | | | | | | | 24 | 0.05 | |
| 25 | | | | | | | | | | | | | 25 | | | | | | | | | | | | 25 | 0.00 | |
| 26 | | | | | | | | | | | | | 26 | | | | | | | | | | | | 26 | 0.00 | |
| 27 | | | | | | | | | | | | | 27 | | | | | | | | | | | | 27 | 0.00 | |
| 28 | | | | | | | | | | | | | 28 | | | | | | | | | | | | 28 | 0.00 | |
| 29 | | | | | | | | | | | | | 29 | | | | | | | | | | | | 29 | 0.00 | |
| 30 | | | | | | | | | | | | | 30 | | | | | | | | | | | | 30 | 0.00 | |
| 31 | | | | | | | | | | | | | 31 | | | | | | | | | | | | 31 | 0.00 | |
| PUBLISHED BY: NCDC, ASHEVILLE, NC. | | | | | | | | | | | | | | MONTHLY TOTAL | | | | | | | | | | | | 2.68 | |

SUPPLEMENTARY MAXIMUM SHORT DURATION PRECIPITATION (MSDP)

| TIME PERIOD (MINUTES) | 5 | 10 | 15 | 20 | 30 | 45 | 60 | 80 | 100 | 120 | 150 | 180 |
|------------------------|---|----|----|----|------|------|------|------|------|------|------|------|
| PRECIPITATION (INCHES) | | | | | 0.10 | 0.15 | 0.18 | 0.20 | 0.25 | 0.25 | 0.30 | 0.35 |
| ENDED: DATE | | | | | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 |
| ENDED: TIME | | | | | 1745 | 1745 | 1745 | 1745 | 1745 | 1745 | 1745 | 1745 |

The time indicated is the ending time of the interval.
Date and time are not entered for trace amounts.

The National Weather Service has determined that the ASOS Heated Tipping-Bucket (HTB) rain gauge may not measure water equivalent precipitation accurately during frozen precipitation events. Precipitation data from a nearby site is provided on this page to supplement the ASOS HTB data. M = Missing Data.

* = Data distribution unknown.
First HPD value that follows is the total accumulated amount.



**JANUARY 1999
MADISON, WI**

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA—National Weather Service / Department Of Transportation—Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

DIRECTOR

NOTICE

Effective July 1, 1996, the National Weather Service & Federal Aviation Administration began using the METAR format for Hourly Observations.

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