

1997

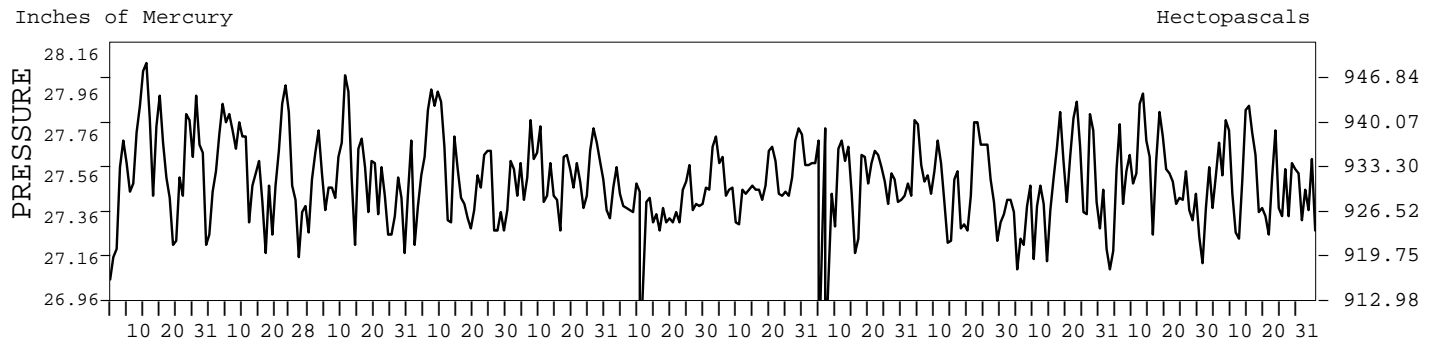
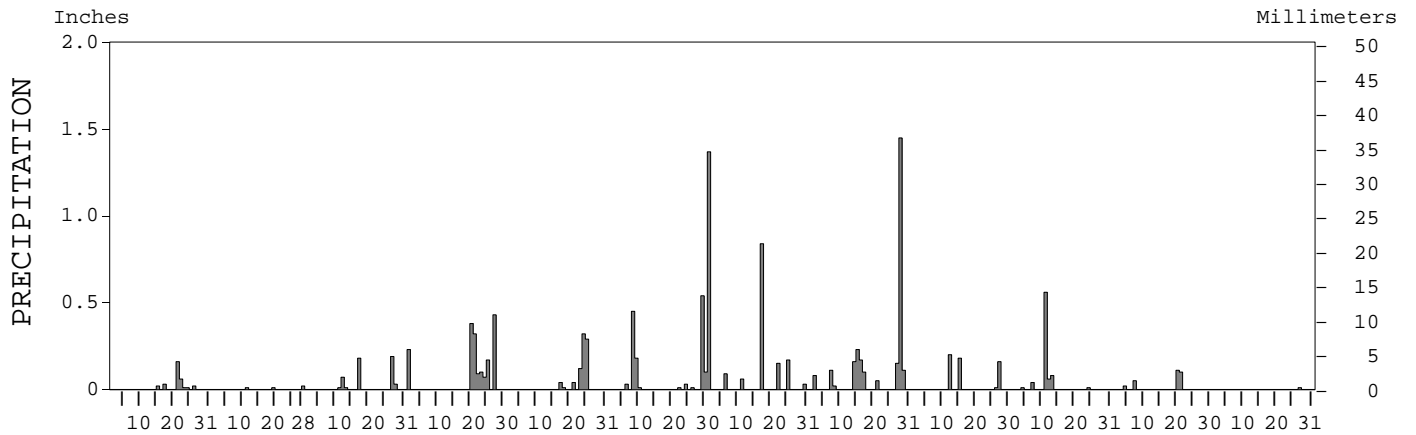
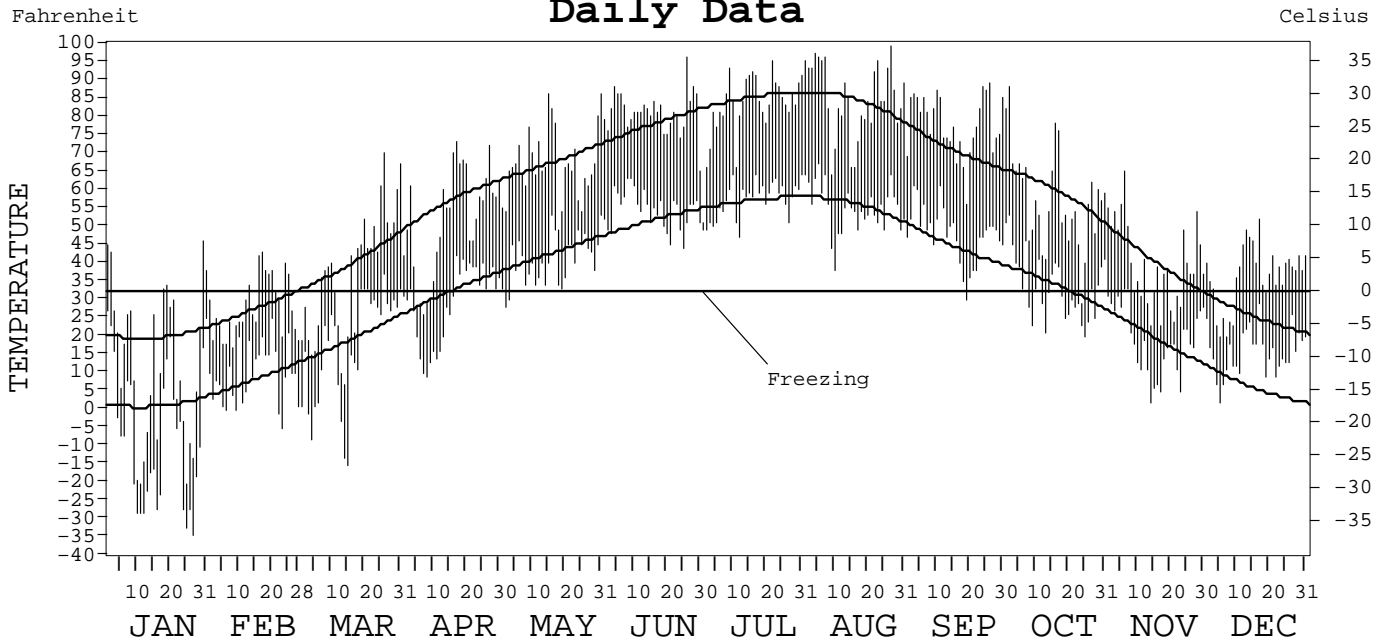
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-2974

GLASGOW,
MONTANA (GGW)

Daily Data



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NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

James H. ...
ACTING DIRECTOR

NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 1997

GLASGOW, MT (GGW)

LATITUDE: 48° 12' 50" N LONGITUDE: 106° 37' 17" W ELEVATION (FT): GRND: 2284 BARO: 2279 TIME ZONE: MOUNTAIN (UTC+ 7) WBAN: 94008

| | ELEMENT | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | |
|----------------------|-------------------------------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|--------|-----------|----|
| TEMPERATURE °F | MEAN DAILY MAXIMUM | 12.8 | 28.0 | 37.4 | 51.5 | 66.7 | 81.0 | 82.6 | 84.7 | 77.7 | 57.1 | 39.6 | 36.4 | 54.6 | |
| | HIGHEST DAILY MAXIMUM | 46 | 43 | 70 | 73 | 86 | 96 | 95 | 99 | 89 | 88 | 65 | 52 | 99 | |
| | DATE OF OCCURRENCE | 30 | 17 | 26 | 17 | 31+ | 26 | 22 | 27 | 26 | 02 | 06 | 17 | AUG 27 | |
| | MEAN DAILY MINIMUM | -6.9 | 9.5 | 16.9 | 28.9 | 40.5 | 54.4 | 57.0 | 55.0 | 47.8 | 33.5 | 18.9 | 15.7 | 30.9 | |
| | LOWEST DAILY MINIMUM | -34 | -5 | -15 | 9 | 28 | 44 | 47 | 38 | 30 | 20 | 2 | 2 | -34 | |
| | DATE OF OCCURRENCE | 27 | 23 | 15 | 08 | 02 | 25 | 12 | 10 | 19 | 25 | 14 | 05 | JAN 27 | |
| | AVERAGE DRY BULB | 3.0 | 18.8 | 27.2 | 40.2 | 53.6 | 67.7 | 69.8 | 69.9 | 62.8 | 45.3 | 29.3 | 26.1 | 42.8 | |
| | MEAN WET BULB | | 18.5 | 24.4 | 34.4 | 45.4 | | 58.9 | | 50.8 | 39.2 | 26.3 | 22.7 | | |
| | MEAN DEW POINT | | 16.1 | 19.9 | 25.3 | 35.2 | | 50.9 | | 40.1 | 31.5 | 21.8 | 16.8 | | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | MAXIMUM ≥ 90° | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 11 | 0 | 0 | 0 | 0 | 0 | 19 |
| | MAXIMUM ≤ 32° | 25 | 20 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 7 | 80 | |
| | MINIMUM ≤ 32° | 31 | 28 | 26 | 15 | 2 | 0 | 0 | 0 | 1 | 15 | 28 | 31 | 177 | |
| MINIMUM ≤ 0° | 20 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | | |
| H/C | HEATING DEGREE DAYS | 1917 | 1288 | 1165 | 735 | 351 | 24 | 34 | 35 | 110 | 615 | 1066 | 1198 | 8538 | |
| | COOLING DEGREE DAYS | 0 | 0 | 0 | 0 | 8 | 114 | 189 | 193 | 52 | 8 | 0 | 0 | 564 | |
| RH | MEAN (PERCENT) | 79 | 86 | 76 | 60 | 52 | 52 | 55 | 52 | 48 | 62 | 76 | 71 | 64 | |
| | HOUR 05 LST | 82 | 88 | 82 | 80 | 73 | 74 | 77 | 75 | 68 | 76 | 85 | 79 | 78 | |
| | HOUR 11 LST | 81 | 86 | 73 | 49 | 42 | 39 | 42 | 40 | 38 | 52 | 72 | 73 | 57 | |
| | HOUR 17 LST | 78 | 85 | 72 | 42 | 38 | 36 | 36 | 33 | 29 | 53 | 69 | 64 | 53 | |
| | HOUR 23 LST | 80 | 86 | 81 | 69 | 58 | 59 | 65 | 61 | 53 | 68 | 81 | 74 | 70 | |
| S | PERCENT POSSIBLE SUNSHINE | | | | | | | | | | | | | | |
| W/O | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | HEAVY FOG (VISBY ≤ 1/4 MI) | 1 | 10 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 23 | |
| | THUNDERSTORMS | 0 | 0 | 0 | 0 | 2 | 8 | 8 | 8 | 2 | 0 | 0 | 0 | 28 | |
| CLOUDINESS | SUNRISE-SUNSET: (OKTAS) | | | | | | | | | | | | | | |
| | CEILOMETER (≤ 12,000 FT.) | | | | | | | | | | | | | | |
| | SATELLITE (> 12,000 FT.) | | | | | | | | | | | | | | |
| | MIDNIGHT-MIDNIGHT: (OKTAS) | | | | | | | | | | | | | | |
| | CEILOMETER (≤ 12,000 FT.) | | | | | | | | | | | | | | |
| | SATELLITE (> 12,000 FT.) | | | | | | | | | | | | | | |
| NUMBER OF DAYS WITH: | | | | | | | | | | | | | | | |
| CLEAR | | | | | | | | | | | | | | | |
| PARTLY CLOUDY | | | | | | | | | | | | | | | |
| CLOUDY | | | | | | | | | | | | | | | |
| PR | MEAN STATION PRESS. (IN.) | 27.61 | 27.62 | 27.54 | 27.56 | 27.57 | | 27.56 | | 27.53 | 27.47 | 27.56 | 27.55 | | |
| | MEAN SEA-LEVEL PRESS. (IN.) | 30.20 | 30.15 | | 30.03 | 30.00 | | 29.94 | | | 29.91 | 30.05 | 30.05 | | |
| WINDS | RESULTANT SPEED (MPH) | 2.3 | 1.6 | 2.6 | 4.0 | 2.4 | | 1.3 | | 0.6 | 1.8 | 1.2 | 2.4 | | |
| | RES. DIR. (TENS OF DEGS.) | 34 | 36 | 07 | 32 | 07 | | 11 | | 10 | 31 | 05 | 29 | | |
| | MEAN SPEED (MPH) | 10.3 | 8.2 | 12.3 | 12.0 | 12.8 | 11.5 | 10.1 | 10.0 | 11.5 | 10.8 | 7.9 | 8.4 | 10.5 | |
| | PREVAIL. DIR. (TENS OF DEGS.) | 11 | 11 | 10 | 28 | 11 | 28 | 11 | 10 | 10 | 11 | 11 | 30 | 11 | |
| | MAXIMUM 2-MINUTE WIND: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 38 | 29 | 40 | 36 | 41 | 45 | 44 | 66 | 46 | 37 | 40 | 33 | 66 | |
| | DIR. (TENS OF DEGS.) | 35 | 34 | 09 | 29 | 09 | 28 | 07 | 23 | 29 | 28 | 31 | 28 | 23 | |
| | DATE OF OCCURRENCE | 15 | 22 | 12 | 14+ | 25 | 29 | 01 | 28 | 15 | 03 | 01 | 27 | AUG 28 | |
| | MAXIMUM 5-SECOND WIND: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 43 | 33 | 46 | 47 | 52 | 53 | 59 | 76 | 53 | 45 | 45 | 41 | 76 | |
| DIR. (TENS OF DEGS.) | 34 | 34 | 09 | 30 | 09 | 27 | 02 | 23 | 29 | 28 | 31 | 28 | 23 | | |
| DATE OF OCCURRENCE | 15 | 22 | 12 | 14 | 25 | 29 | 17 | 28 | 15 | 03 | 01 | 27 | AUG 28 | | |
| PRECIPITATION | WATER EQUIVALENT: | | | | | | | | | | | | | | |
| | TOTAL (IN.) | 0.31 | 0.04 | 0.49 | 1.79 | 0.82 | 1.36 | 2.71 | 2.63 | 0.55 | 0.76 | 0.28 | 0.01 | 11.75 | |
| | GREATEST 24-HOUR (IN.) | 0.16 | 0.02 | 0.19 | 0.52 | 0.52 | 0.54 | 1.37 | 1.56 | 0.20 | 0.62 | 0.18 | 0.01 | 1.56 | |
| | DATE OF OCCURRENCE | 21 | 28 | 27 | 20-21 | 24-25 | 29 | 01 | 28-29 | 12 | 11-12 | 20-21 | 27 | AUG 28-29 | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | PRECIPITATION ≥ 0.01 | 7 | 3 | 6 | 8 | 6 | 9 | 7 | 11 | 4 | 6 | 4 | 1 | 72 | |
| PRECIPITATION ≥ 0.10 | 1 | 0 | 2 | 6 | 3 | 4 | 4 | 8 | 3 | 1 | 2 | 0 | 34 | | |
| PRECIPITATION ≥ 1.00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | | |
| SNOWFALL | SNOW, ICE PELLETS, HAIL: | | | | | | | | | | | | | | |
| | TOTAL (IN.) | 5.5 | 1.3 | 6.7 | 2.3 | 0.0 | 0.0 | 0.0 | T | T | 1.6 | 3.3 | 0.1 | 20.8 | |
| | GREATEST 24-HOUR (IN.) | 1.9 | 0.4 | 3.4 | 2.3 | 0.0 | 0.0 | 0.0 | T | T | 0.8 | 2.5 | 0.1 | 3.4 | |
| | DATE OF OCCURRENCE | 21 | 28 | 17 | 01 | | | | 28 | 15 | 13 | 20-21 | 27 | MAR 17 | |
| | MAXIMUM SNOW DEPTH (IN.) | 13 | 6 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | T | 13 | |
| | DATE OF OCCURRENCE | 01 | 12+ | 18 | | | | | | | 13 | 22 | 28+ | JAN 01 | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| SNOWFALL ≥ 1.0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 7 | | |

NORMALS, MEANS, AND EXTREMES

GLASGOW, MT (GW)

LATITUDE: 48° 12' 50" N LONGITUDE: 106° 37' 17" W ELEVATION (FT): GRND: 2284 BARO: 2279 TIME ZONE: MOUNTAIN (UTC+ 7) WBAN: 94008

| ELEMENT | | POR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR |
|-----------------------|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| TEMPERATURE °F | NORMAL DAILY MAXIMUM | 30 | 19.9 | 27.1 | 39.8 | 56.5 | 67.3 | 77.5 | 84.7 | 83.5 | 70.4 | 58.7 | 39.6 | 24.9 | 54.2 |
| | MEAN DAILY MAXIMUM | 42 | 19.6 | 26.9 | 40.0 | 55.8 | 67.8 | 77.3 | 84.2 | 83.4 | 70.8 | 58.1 | 38.5 | 25.8 | 54.0 |
| | HIGHEST DAILY MAXIMUM | 42 | 57 | 71 | 79 | 91 | 102 | 108 | 104 | 108 | 103 | 90 | 75 | 59 | 108 |
| | YEAR OF OCCURRENCE | | 1992 | 1992 | 1993 | 1980 | 1988 | 1988 | 1983 | 1983 | 1983 | 1992 | 1975 | 1979 | JUN 1988 |
| | MEAN OF EXTREME MAXS. | 43 | 43.8 | 49.0 | 63.6 | 77.7 | 87.4 | 93.8 | 98.3 | 98.5 | 90.9 | 81.0 | 61.8 | 48.4 | 74.5 |
| | NORMAL DAILY MINIMUM | 30 | 1.2 | 7.9 | 19.0 | 32.0 | 42.5 | 51.3 | 56.7 | 55.3 | 44.1 | 33.3 | 18.8 | 5.5 | 30.6 |
| | MEAN DAILY MINIMUM | 42 | .7 | 7.4 | 19.0 | 31.5 | 42.6 | 51.7 | 56.7 | 55.5 | 44.2 | 33.2 | 18.2 | 6.7 | 30.6 |
| | LOWEST DAILY MINIMUM | 42 | -47 | -38 | -27 | -3 | 20 | 33 | 41 | 37 | 15 | -6 | -26 | -38 | -47 |
| | YEAR OF OCCURRENCE | | 1969 | 1996 | 1996 | 1975 | 1976 | 1979 | 1977 | 1994 | 1995 | 1991 | 1985 | 1989 | JAN 1969 |
| | MEAN OF EXTREME MINS. | 43 | -23.5 | -17.6 | -4.9 | 15.7 | 29.8 | 40.9 | 46.9 | 43.1 | 29.6 | 16.8 | -4.5 | -19.9 | 12.7 |
| | NORMAL DRY BULB | 30 | 10.6 | 17.5 | 29.4 | 44.3 | 55.0 | 64.4 | 70.8 | 69.4 | 57.3 | 46.1 | 29.2 | 15.2 | 42.4 |
| | MEAN DRY BULB | 43 | 10.2 | 16.9 | 29.3 | 43.7 | 55.2 | 64.4 | 70.5 | 69.6 | 57.5 | 45.7 | 28.3 | 16.2 | 42.3 |
| | MEAN WET BULB | 38 | 10.1 | 16.0 | 26.1 | 36.8 | 46.7 | 54.3 | 58.1 | 56.3 | 47.7 | 38.1 | 24.9 | 14.5 | 35.8 |
| | MEAN DEW POINT | 38 | 4.3 | 10.8 | 20.3 | 27.2 | 37.4 | 45.9 | 48.9 | 46.2 | 38.4 | 29.6 | 19.3 | 9.1 | 28.1 |
| | NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | |
| MAXIMUM ≥ 90° | 30 | 0.0 | 0.0 | 0.0 | * | 0.7 | 3.5 | 9.1 | 8.9 | 1.5 | * | 0.0 | 0.0 | 23.7 | |
| MAXIMUM ≤ 32° | 30 | 21.8 | 15.7 | 8.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 8.2 | 19.8 | 75.3 | |
| MINIMUM ≤ 32° | 30 | 30.9 | 27.4 | 27.9 | 15.5 | 2.4 | 0.0 | 0.0 | 0.0 | 1.9 | 12.4 | 27.0 | 30.8 | 176.2 | |
| MINIMUM ≤ 0° | 30 | 14.5 | 9.2 | 2.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 2.5 | 10.6 | 39.9 | |
| H/C | NORMAL HEATING DEG. DAYS | 30 | 1686 | 1330 | 1104 | 621 | 322 | 121 | 19 | 71 | 267 | 586 | 1074 | 1544 | 8745 |
| | NORMAL COOLING DEG. DAYS | 30 | 0 | 0 | 0 | 0 | 12 | 103 | 199 | 208 | 36 | 0 | 0 | 0 | 558 |
| RH | NORMAL (PERCENT) | 30 | 74 | 75 | 71 | 56 | 56 | 55 | 50 | 49 | 55 | 60 | 71 | 75 | 62 |
| | HOUR 05 LST | 30 | 75 | 79 | 80 | 74 | 74 | 75 | 72 | 68 | 72 | 73 | 78 | 78 | 75 |
| | HOUR 11 LST | 30 | 72 | 72 | 65 | 49 | 46 | 46 | 42 | 41 | 48 | 52 | 66 | 73 | 56 |
| | HOUR 17 LST | 30 | 72 | 71 | 58 | 42 | 40 | 39 | 33 | 31 | 38 | 46 | 63 | 73 | 50 |
| | HOUR 23 LST | 30 | 75 | 78 | 76 | 64 | 63 | 64 | 57 | 53 | 61 | 65 | 74 | 76 | 67 |
| S | PERCENT POSSIBLE SUNSHINE | | | | | | | | | | | | | | |
| W/O | MEAN NO. DAYS WITH: | | | | | | | | | | | | | | |
| | HEAVY FOG(VISBY≤1/4 MI) | 38 | 2.3 | 2.3 | 2.1 | 0.6 | 0.3 | 0.3 | 0.1 | 0.1 | 0.2 | 0.6 | 1.8 | 2.7 | 13.4 |
| | THUNDERSTORMS | 38 | 0.0 | 0.0 | 0.1 | 0.5 | 3.7 | 7.7 | 8.0 | 6.1 | 1.5 | 0.1 | 0.0 | 0.0 | 27.7 |
| CLOUDINESS | MEAN: | | | | | | | | | | | | | | |
| | SUNRISE-SUNSET (OKTAS) | 1 | | | | | | | | 2.4 | | | | | |
| | MIDNIGHT-MIDNIGHT (OKTAS) | | | | | | | | | | | | | | |
| | MEAN NO. DAYS WITH: | | | | | | | | | | | | | | |
| CLEAR | 1 | | | | | | | | | 1.0 | | | | | |
| PARTLY CLOUDY | 1 | | | | | | | | | | | 3.0 | | | |
| CLOUDY | 1 | | | | | | | | | | | 1.0 | | | |
| PR | MEAN STATION PRESSURE(IN) | 25 | 27.59 | 27.59 | 27.53 | 27.53 | 27.49 | 27.50 | 27.55 | 27.56 | 27.58 | 27.58 | 27.56 | 27.57 | 27.55 |
| | MEAN SEA-LEVEL PRES. (IN) | 39 | 30.14 | 30.11 | 30.02 | 29.97 | 29.91 | 29.88 | 29.93 | 29.92 | 29.98 | 30.01 | 30.05 | 30.10 | 30.00 |
| WINDS | MEAN SPEED (MPH) | 19 | 9.6 | 9.8 | 11.2 | 11.8 | 12.0 | 11.0 | 10.4 | 10.7 | 10.8 | 10.5 | 9.8 | 9.5 | 10.6 |
| | PREVAIL.DIR(TENS OF DEGS) | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| | FASTEST MILE: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 3 | 38 | 44 | 41 | 54 | 41 | 45 | 44 | 66 | 46 | 38 | 40 | 54 | 66 |
| | DIR. (TENS OF DEGS) | | 35 | 31 | 10 | 30 | 90 | 30 | 34 | 23 | 29 | 31 | 27 | 29 | 23 |
| | YEAR OF OCCURRENCE | | 1997 | 1996 | 1995 | 1996 | 1997 | 1996 | 1996 | 1997 | 1997 | 1995 | 1995 | 1995 | AUG 1997 |
| MAXIMUM 5-SECOND: | | | | | | | | | | | | | | | |
| SPEED (MPH) | 3 | 43 | 51 | 53 | 67 | 52 | 53 | 59 | 76 | 53 | 46 | 49 | 62 | 76 | |
| DIR. (TENS OF DEGS) | | 34 | 30 | 28 | 29 | 90 | 34 | 22 | 23 | 29 | 30 | 27 | 28 | 23 | |
| YEAR OF OCCURRENCE | | 1997 | 1996 | 1996 | 1996 | 1997 | 1996 | 1997 | 1997 | 1997 | 1995 | 1995 | 1995 | AUG 1997 | |
| PRECIPITATION | NORMAL (IN) | 30 | 0.37 | 0.27 | 0.41 | 0.69 | 1.77 | 2.11 | 1.72 | 1.35 | 1.00 | 0.61 | 0.28 | 0.38 | 10.96 |
| | MAXIMUM MONTHLY (IN) | 42 | 1.24 | 0.74 | 1.27 | 1.99 | 3.74 | 5.36 | 5.93 | 5.74 | 4.14 | 1.80 | 1.53 | 1.03 | 5.93 |
| | YEAR OF OCCURRENCE | | 1969 | 1979 | 1987 | 1969 | 1982 | 1963 | 1993 | 1985 | 1978 | 1994 | 1996 | 1982 | JUL 1993 |
| | MINIMUM MONTHLY (IN) | 42 | T | 0.04 | 0.05 | 0.07 | 0.03 | 0.09 | 0.01 | 0.03 | 0.04 | T | T | 0.01 | T |
| | YEAR OF OCCURRENCE | | 1973 | 1992 | 1957 | 1956 | 1958 | 1985 | 1984 | 1983 | 1960 | 1965 | 1969 | 1997 | JAN 1973 |
| | MAXIMUM IN 24 HOURS (IN) | 42 | 0.37 | 0.27 | 0.94 | 1.16 | 2.07 | 2.47 | 3.98 | 4.99 | 1.98 | 1.21 | 0.42 | 0.36 | 4.99 |
| | YEAR OF OCCURRENCE | | 1969 | 1982 | 1987 | 1969 | 1974 | 1972 | 1962 | 1985 | 1978 | 1981 | 1996 | 1982 | AUG 1985 |
| | NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | |
| PRECIPITATION ≥ 0.01 | 30 | 8.7 | 6.6 | 7.8 | 7.1 | 10.2 | 9.9 | 7.8 | 7.0 | 6.5 | 4.9 | 5.8 | 8.7 | 91.0 | |
| PRECIPITATION ≥ 1.00 | 30 | 0.0 | 0.0 | 0.0 | * | 0.3 | 0.3 | 0.4 | 0.3 | 0.1 | * | 0.0 | 0.0 | 1.4 | |
| SNOWFALL | NORMAL (IN) | 30 | 6.7 | 3.9 | 4.2 | 2.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.2 | 1.3 | 2.8 | 6.0 | 28.3 |
| | MAXIMUM MONTHLY (IN) | 42 | 24.2 | 15.9 | 14.9 | 13.7 | 10.7 | T | T | T | 2.2 | 7.0 | 23.3 | 14.5 | 24.2 |
| | YEAR OF OCCURRENCE | | 1971 | 1979 | 1987 | 1970 | 1983 | 1994 | 1989 | 1994 | 1983 | 1975 | 1996 | 1996 | JAN 1971 |
| | MAXIMUM IN 24 HOURS (IN) | 42 | 8.8 | 4.7 | 10.9 | 10.8 | 10.1 | T | T | T | 2.1 | 5.3 | 10.5 | 7.0 | 10.9 |
| | YEAR OF OCCURRENCE | | 1971 | 1979 | 1987 | 1995 | 1983 | 1994 | 1989 | 1994 | 1983 | 1975 | 1993 | 1972 | MAR 1987 |
| | MAXIMUM SNOW DEPTH (IN) | 39 | 21 | 20 | 20 | 9 | 10 | 0 | 0 | 0 | 2 | 2 | 13 | 15 | 21 |
| | YEAR OF OCCURRENCE | | 1969 | 1971 | 1979 | 1965 | 1983 | | | | 1984 | 1985 | 1996 | 1996 | JAN 1969 |
| NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | | |
| SNOWFALL ≥ 1.0 | 30 | 2.1 | 1.4 | 1.3 | 0.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 1.0 | 1.7 | 8.9 | |

PRECIPITATION (inches) 1997 GLASGOW, MT (GGW)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1968 | 0.13 | 0.15 | 0.10 | 0.67 | 0.23 | 2.24 | 0.82 | 2.00 | 0.75 | 0.10 | 0.07 | 0.39 | 7.65 |
| 1969 | 1.24 | 0.14 | 0.17 | 1.99 | 0.25 | 1.23 | 3.45 | 0.05 | 0.27 | 1.33 | T | 0.36 | 10.48 |
| 1970 | 0.49 | 0.05 | 0.27 | 1.51 | 1.88 | 2.43 | 1.07 | 0.04 | 1.32 | 0.44 | 0.49 | 0.26 | 10.25 |
| 1971 | 0.99 | 0.21 | 0.27 | 0.42 | 0.91 | 1.26 | 0.20 | 0.78 | 0.48 | 1.08 | 0.04 | 0.26 | 6.90 |
| 1972 | 0.55 | 0.59 | 0.50 | 0.84 | 2.73 | 3.77 | 2.30 | 2.40 | 0.69 | 0.22 | 0.02 | 0.61 | 15.22 |
| 1973 | T | 0.09 | 0.27 | 1.24 | 0.54 | 4.35 | 0.59 | 1.21 | 1.43 | 0.24 | 0.46 | 0.78 | 11.20 |
| 1974 | 0.18 | 0.25 | 0.93 | 0.49 | 3.27 | 2.00 | 2.31 | 2.69 | 0.07 | 0.42 | 0.26 | 0.25 | 13.12 |
| 1975 | 0.11 | 0.23 | 0.61 | 1.30 | 1.93 | 1.20 | 4.18 | 1.37 | 0.42 | 1.77 | 0.40 | 0.38 | 13.90 |
| 1976 | 0.27 | 0.13 | 0.30 | 0.60 | 0.64 | 4.27 | 5.00 | 1.16 | 0.41 | 0.21 | 0.26 | 0.28 | 13.53 |
| 1977 | 0.42 | 0.12 | 0.11 | 0.17 | 1.83 | 1.16 | 0.78 | 0.58 | 2.62 | 0.40 | 0.24 | 0.86 | 9.29 |
| 1978 | 0.19 | 0.40 | 0.25 | 0.51 | 3.65 | 2.72 | 2.63 | 0.16 | 4.14 | 0.28 | 0.48 | 0.45 | 15.86 |
| 1979 | 0.15 | 0.74 | 0.43 | 1.27 | 2.46 | 0.48 | 0.75 | 0.76 | 0.27 | 0.57 | 0.18 | 0.05 | 8.11 |
| 1980 | 0.50 | 0.14 | 0.36 | 0.22 | 0.46 | 2.55 | 0.44 | 1.36 | 0.87 | 1.35 | 0.20 | 0.50 | 8.95 |
| 1981 | 0.06 | 0.10 | 0.31 | 0.19 | 2.13 | 1.83 | 1.72 | 0.23 | 0.08 | 1.40 | 0.55 | 0.19 | 8.79 |
| 1982 | 0.75 | 0.43 | 0.72 | 0.22 | 3.74 | 1.03 | 0.97 | 1.19 | 0.98 | 1.09 | 0.06 | 1.03 | 12.21 |
| 1983 | 0.18 | 0.24 | 0.39 | 0.10 | 1.59 | 0.77 | 2.62 | 0.03 | 0.97 | 0.24 | 0.16 | 0.27 | 7.56 |
| 1984 | 0.43 | 0.20 | 0.68 | 0.10 | 0.78 | 1.99 | 0.01 | 0.43 | 0.81 | 0.57 | 0.18 | 0.56 | 6.74 |
| 1985 | 0.05 | 0.05 | 0.27 | 0.91 | 2.34 | 0.09 | 0.69 | 5.74 | 0.83 | 0.64 | 0.74 | 0.50 | 12.85 |
| 1986 | 0.31 | 0.55 | 0.32 | 0.41 | 2.49 | 1.60 | 1.55 | 0.83 | 3.81 | 0.86 | 0.57 | 0.10 | 13.40 |
| 1987 | 0.08 | 0.11 | 1.27 | 0.45 | 1.73 | 1.07 | 2.90 | 0.88 | 0.66 | 0.03 | 0.03 | 0.03 | 9.24 |
| 1988 | 0.45 | 0.24 | 0.22 | 0.33 | 1.33 | 1.54 | 1.28 | 0.47 | 0.95 | 0.14 | 0.11 | 0.42 | 7.48 |
| 1989 | 0.63 | 0.60 | 0.36 | 1.62 | 2.09 | 0.95 | 0.95 | 1.48 | 0.20 | 0.61 | 0.47 | 0.35 | 10.31 |
| 1990 | 0.32 | 0.09 | 0.29 | 0.71 | 0.94 | 1.13 | 0.64 | 1.45 | 0.12 | 0.14 | 0.48 | 0.53 | 6.84 |
| 1991 | 0.21 | 0.32 | 0.62 | 1.29 | 1.29 | 4.13 | 1.32 | 0.49 | 0.61 | 0.13 | 0.42 | 0.15 | 10.98 |
| 1992 | 0.25 | 0.04 | 0.45 | 0.39 | 0.67 | 3.15 | 1.35 | 0.90 | 0.41 | 0.74 | 0.65 | 0.24 | 9.24 |
| 1993 | 0.20 | 0.34 | 0.82 | 0.43 | 0.50 | 1.96 | 5.93 | 4.31 | 0.60 | 0.47 | 0.58 | 0.13 | 16.27 |
| 1994 | 0.72 | 0.33 | 0.16 | 0.60 | 1.92 | 2.58 | 0.36 | 0.86 | 0.26 | 1.80 | 0.11 | 0.15 | 9.85 |
| 1995 | 0.23 | 0.06 | 0.84 | 1.44 | 0.79 | 4.79 | 2.11 | 0.95 | 0.16 | 1.02 | 0.37 | 0.41 | 13.17 |
| 1996 | 0.50 | 0.11 | 0.33 | 0.38 | 1.29 | 2.03 | 0.63 | 0.09 | 2.94 | 0.06 | 1.53 | 0.51 | 10.40 |
| 1997 | 0.31 | 0.04 | 0.49 | 1.79 | 0.82 | 1.36 | 2.71 | 2.63 | 0.55 | 0.76 | 0.28 | 0.01 | 11.75 |
| POR= 54 YRS | 0.42 | 0.34 | 0.47 | 0.80 | 1.62 | 2.40 | 1.62 | 1.45 | 0.94 | 0.56 | 0.38 | 0.39 | 11.39 |

WBAN : 94008

AVERAGE TEMPERATURE (°F) 1997 GLASGOW, MT (GGW)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1968 | 11.2 | 18.5 | 38.1 | 42.0 | 52.1 | 60.4 | 69.0 | 65.0 | 57.6 | 45.8 | 32.9 | 9.9 | 41.9 |
| 1969 | -7.0 | 8.2 | 18.3 | 47.6 | 53.8 | 58.3 | 66.1 | 73.4 | 61.9 | 38.7 | 34.5 | 22.8 | 39.7 |
| 1970 | 7.0 | 18.4 | 24.4 | 39.5 | 54.1 | 67.4 | 72.6 | 72.2 | 56.1 | 42.8 | 26.8 | 12.0 | 41.1 |
| 1971 | 5.1 | 14.3 | 24.6 | 44.9 | 55.8 | 65.0 | 68.8 | 77.2 | 56.5 | 44.3 | 32.3 | 10.8 | 41.6 |
| 1972 | 4.3 | 10.5 | 30.3 | 44.3 | 55.6 | 65.6 | 64.7 | 71.1 | 53.6 | 42.1 | 32.8 | 6.4 | 40.1 |
| 1973 | 18.1 | 23.6 | 39.0 | 41.6 | 56.2 | 65.6 | 69.8 | 72.9 | 56.6 | 49.3 | 21.3 | 15.7 | 44.1 |
| 1974 | 10.4 | 25.5 | 29.6 | 47.5 | 50.7 | 66.2 | 73.3 | 64.0 | 55.4 | 49.2 | 33.2 | 25.1 | 44.2 |
| 1975 | 18.5 | 12.6 | 24.7 | 35.9 | 52.8 | 62.4 | 73.1 | 64.9 | 56.3 | 45.0 | 30.1 | 18.5 | 41.2 |
| 1976 | 13.8 | 29.5 | 29.3 | 47.8 | 58.2 | 62.5 | 70.3 | 70.0 | 59.8 | 42.2 | 26.4 | 18.9 | 44.1 |
| 1977 | 3.1 | 26.5 | 33.6 | 48.2 | 58.3 | 65.7 | 69.1 | 61.2 | 55.2 | 46.0 | 24.5 | 8.3 | 41.6 |
| 1978 | -2.1 | 7.4 | 24.5 | 43.8 | 54.8 | 62.7 | 67.1 | 65.9 | 58.5 | 45.4 | 21.3 | 9.2 | 38.2 |
| 1979 | -4.3 | 1.5 | 23.4 | 36.3 | 50.4 | 64.3 | 72.2 | 69.7 | 62.5 | 49.0 | 26.9 | 26.5 | 39.9 |
| 1980 | 7.3 | 16.4 | 27.9 | 51.9 | 61.1 | 66.1 | 72.3 | 64.7 | 57.8 | 47.7 | 36.3 | 18.2 | 44.0 |
| 1981 | 25.3 | 25.8 | 38.9 | 48.2 | 56.8 | 60.6 | 71.7 | 73.1 | 60.8 | 44.1 | 37.1 | 17.7 | 46.7 |
| 1982 | -5.1 | 9.8 | 24.6 | 40.6 | 51.2 | 62.3 | 69.7 | 69.3 | 56.8 | 45.2 | 25.7 | 19.0 | 39.1 |
| 1983 | 20.6 | 27.1 | 33.6 | 43.1 | 51.7 | 63.4 | 71.8 | 76.5 | 55.3 | 47.7 | 32.9 | -3.2 | 43.4 |
| 1984 | 18.6 | 34.3 | 31.9 | 47.6 | 55.5 | 64.6 | 74.6 | 74.4 | 51.8 | 42.0 | 30.0 | 6.9 | 44.4 |
| 1985 | 8.5 | 14.9 | 33.6 | 48.6 | 58.9 | 60.6 | 72.3 | 64.6 | 50.5 | 43.1 | 9.7 | 12.8 | 39.8 |
| 1986 | 22.1 | 10.5 | 40.4 | 43.6 | 55.9 | 69.0 | 69.1 | 69.4 | 52.2 | 48.3 | 25.1 | 24.9 | 44.2 |
| 1987 | 24.0 | 31.0 | 33.3 | 52.1 | 59.8 | 68.1 | 70.3 | 64.6 | 60.5 | 44.9 | 36.9 | 25.2 | 47.6 |
| 1988 | 10.2 | 18.3 | 35.6 | 47.0 | 62.5 | 76.8 | 73.6 | 70.5 | 57.6 | 46.8 | 29.1 | 19.0 | 45.6 |
| 1989 | 14.3 | 3.7 | 22.9 | 43.5 | 55.4 | 63.9 | 75.1 | 70.2 | 58.4 | 45.5 | 31.9 | 14.3 | 41.6 |
| 1990 | 23.2 | 22.5 | 35.3 | 43.9 | 55.3 | 66.1 | 70.6 | 72.0 | 64.0 | 45.3 | 30.9 | 10.0 | 44.9 |
| 1991 | 8.0 | 31.9 | 33.8 | 45.7 | 56.3 | 65.5 | 71.3 | 75.0 | 58.9 | 41.9 | 27.7 | 24.9 | 45.1 |
| 1992 | 26.6 | 30.5 | 39.3 | 46.1 | 57.8 | 65.2 | 64.1 | 66.2 | 56.8 | 45.9 | 31.7 | 13.0 | 45.3 |
| 1993 | 4.9 | 7.5 | 34.4 | 45.8 | 57.8 | 61.2 | 62.7 | 64.5 | 54.4 | 44.8 | 25.1 | 23.3 | 40.5 |
| 1994 | 7.6 | 5.1 | 36.3 | 44.6 | 57.7 | 63.0 | 70.1 | 70.7 | 62.6 | 45.2 | 29.6 | 20.4 | 42.7 |
| 1995 | 13.2 | 25.0 | 29.5 | 38.6 | 52.5 | 64.7 | 68.2 | 69.8 | 57.1 | 44.3 | 27.0 | 11.5 | 41.8 |
| 1996 | -5 | 17.7 | 18.9 | 42.6 | 50.0 | 65.3 | 70.3 | 72.6 | 55.6 | 43.2 | 16.5 | 6.1 | 38.2 |
| 1997 | 3.0 | 18.8 | 27.2 | 40.2 | 53.6 | 67.7 | 69.8 | 69.9 | 62.8 | 45.3 | 29.3 | 26.1 | 42.8 |
| POR= 54 YRS | 10.4 | 16.8 | 28.3 | 43.8 | 55.2 | 64.1 | 70.8 | 69.6 | 57.6 | 46.1 | 28.9 | 16.4 | 42.3 |

HEATING DEGREE DAYS (base 65°F) 1997 GLASGOW, MT (GGW)

| YEAR | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|------|------|------|------|------|-----|-----|-----|-------|
| 1968-69 | 38 | 78 | 235 | 589 | 956 | 1706 | 2236 | 1584 | 1440 | 515 | 361 | 219 | 9957 |
| 1969-70 | 39 | 7 | 150 | 807 | 908 | 1301 | 1798 | 1297 | 1251 | 758 | 334 | 46 | 8696 |
| 1970-71 | 5 | 7 | 296 | 680 | 1142 | 1638 | 1856 | 1416 | 1245 | 595 | 285 | 59 | 9224 |
| 1971-72 | 27 | 0 | 267 | 635 | 973 | 1676 | 1883 | 1579 | 1067 | 614 | 305 | 55 | 9081 |
| 1972-73 | 71 | 11 | 338 | 703 | 958 | 1814 | 1452 | 1152 | 802 | 691 | 277 | 68 | 8337 |
| 1973-74 | 8 | 7 | 255 | 480 | 1306 | 1522 | 1692 | 1103 | 1089 | 526 | 436 | 70 | 8494 |
| 1974-75 | 3 | 88 | 283 | 481 | 945 | 1229 | 1437 | 1463 | 1244 | 867 | 373 | 102 | 8515 |
| 1975-76 | 5 | 68 | 260 | 613 | 1042 | 1437 | 1583 | 1022 | 1099 | 510 | 215 | 109 | 7963 |
| 1976-77 | 9 | 10 | 185 | 698 | 1151 | 1421 | 1917 | 1074 | 967 | 497 | 233 | 59 | 8221 |
| 1977-78 | 32 | 140 | 292 | 583 | 1208 | 1752 | 2081 | 1610 | 1252 | 628 | 319 | 111 | 10008 |
| 1978-79 | 42 | 70 | 233 | 601 | 1306 | 1725 | 2145 | 1780 | 1283 | 853 | 455 | 86 | 10579 |
| 1979-80 | 6 | 17 | 114 | 489 | 1139 | 1187 | 1788 | 1404 | 1145 | 398 | 175 | 49 | 7911 |
| 1980-81 | 2 | 63 | 232 | 536 | 854 | 1446 | 1225 | 1091 | 799 | 499 | 250 | 145 | 7142 |
| 1981-82 | 10 | 6 | 169 | 639 | 834 | 1459 | 2171 | 1546 | 1246 | 728 | 418 | 121 | 9347 |
| 1982-83 | 16 | 39 | 271 | 607 | 1171 | 1417 | 1369 | 1055 | 969 | 649 | 412 | 97 | 8072 |
| 1983-84 | 16 | 5 | 322 | 528 | 956 | 2113 | 1431 | 885 | 1018 | 515 | 318 | 85 | 8192 |
| 1984-85 | 0 | 20 | 406 | 705 | 1042 | 1797 | 1754 | 1400 | 967 | 485 | 218 | 156 | 8950 |
| 1985-86 | 11 | 84 | 429 | 673 | 1657 | 1617 | 1324 | 1524 | 754 | 638 | 320 | 18 | 9049 |
| 1986-87 | 15 | 15 | 379 | 513 | 1192 | 1237 | 1262 | 948 | 975 | 397 | 185 | 40 | 7158 |
| 1987-88 | 26 | 71 | 160 | 619 | 833 | 1227 | 1698 | 1353 | 903 | 535 | 143 | 13 | 7581 |
| 1988-89 | 0 | 10 | 244 | 557 | 1072 | 1422 | 1568 | 1712 | 1299 | 641 | 297 | 99 | 8921 |
| 1989-90 | 0 | 24 | 209 | 596 | 982 | 1569 | 1287 | 1186 | 912 | 626 | 316 | 99 | 7806 |
| 1990-91 | 10 | 5 | 119 | 605 | 1017 | 1704 | 1767 | 921 | 962 | 572 | 273 | 29 | 7984 |
| 1991-92 | 3 | 11 | 215 | 709 | 1114 | 1237 | 1185 | 995 | 788 | 564 | 254 | 94 | 7169 |
| 1992-93 | 65 | 94 | 256 | 594 | 990 | 1612 | 1861 | 1610 | 940 | 570 | 240 | 143 | 8975 |
| 1993-94 | 91 | 82 | 322 | 617 | 1194 | 1286 | 1777 | 1674 | 884 | 605 | 226 | 102 | 8860 |
| 1994-95 | 13 | 36 | 106 | 606 | 1056 | 1376 | 1598 | 1116 | 1095 | 785 | 389 | 99 | 8275 |
| 1995-96 | 23 | 22 | 260 | 632 | 1136 | 1654 | 2031 | 1366 | 1423 | 669 | 459 | 70 | 9745 |
| 1996-97 | 6 | 3 | 289 | 668 | 1450 | 1817 | 1917 | 1288 | 1165 | 735 | 351 | 24 | 9713 |
| 1997- | 34 | 35 | 110 | 615 | 1066 | 1198 | | | | | | | |

WBAN : 94008

COOLING DEGREE DAYS (base 65°F) 1997 GLASGOW, MT (GGW)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| 1969 | 0 | 0 | 0 | 0 | 20 | 26 | 79 | 276 | 62 | 0 | 0 | 0 | 463 |
| 1970 | 0 | 0 | 0 | 0 | 3 | 128 | 250 | 236 | 38 | 0 | 0 | 0 | 655 |
| 1971 | 0 | 0 | 0 | 0 | 9 | 67 | 153 | 383 | 22 | 0 | 0 | 0 | 634 |
| 1972 | 0 | 0 | 0 | 0 | 20 | 80 | 69 | 205 | 4 | 0 | 0 | 0 | 378 |
| 1973 | 0 | 0 | 0 | 0 | 13 | 91 | 165 | 259 | 10 | 0 | 0 | 0 | 538 |
| 1974 | 0 | 0 | 0 | 5 | 0 | 113 | 268 | 62 | 3 | 0 | 0 | 0 | 451 |
| 1975 | 0 | 0 | 0 | 0 | 1 | 33 | 263 | 75 | 6 | 0 | 0 | 0 | 378 |
| 1976 | 0 | 0 | 0 | 0 | 9 | 41 | 180 | 172 | 35 | 0 | 0 | 0 | 437 |
| 1977 | 0 | 0 | 0 | 1 | 34 | 85 | 166 | 29 | 6 | 0 | 0 | 0 | 321 |
| 1978 | 0 | 0 | 0 | 0 | 7 | 47 | 114 | 107 | 45 | 0 | 0 | 0 | 320 |
| 1979 | 0 | 0 | 0 | 0 | 8 | 70 | 236 | 170 | 48 | 1 | 0 | 0 | 533 |
| 1980 | 0 | 0 | 0 | 12 | 60 | 88 | 234 | 59 | 23 | 7 | 0 | 0 | 483 |
| 1981 | 0 | 0 | 0 | 0 | 2 | 22 | 227 | 265 | 48 | 0 | 0 | 0 | 564 |
| 1982 | 0 | 0 | 0 | 0 | 0 | 44 | 168 | 180 | 32 | 0 | 0 | 0 | 424 |
| 1983 | 0 | 0 | 0 | 0 | 7 | 54 | 234 | 369 | 40 | 0 | 0 | 0 | 704 |
| 1984 | 0 | 0 | 0 | 0 | 30 | 78 | 303 | 318 | 15 | 0 | 0 | 0 | 744 |
| 1985 | 0 | 0 | 0 | 0 | 33 | 29 | 242 | 78 | 3 | 0 | 0 | 0 | 385 |
| 1986 | 0 | 0 | 0 | 0 | 44 | 142 | 150 | 161 | 0 | 0 | 0 | 0 | 497 |
| 1987 | 0 | 0 | 0 | 15 | 29 | 139 | 198 | 63 | 29 | 4 | 0 | 0 | 477 |
| 1988 | 0 | 0 | 0 | 0 | 73 | 374 | 273 | 187 | 27 | 0 | 0 | 0 | 934 |
| 1989 | 0 | 0 | 0 | 1 | 4 | 74 | 318 | 193 | 17 | 0 | 0 | 0 | 607 |
| 1990 | 0 | 0 | 0 | 2 | 22 | 138 | 192 | 231 | 96 | 0 | 0 | 0 | 681 |
| 1991 | 0 | 0 | 0 | 0 | 11 | 54 | 205 | 329 | 36 | 1 | 0 | 0 | 636 |
| 1992 | 0 | 0 | 0 | 5 | 38 | 107 | 44 | 138 | 17 | 8 | 0 | 0 | 357 |
| 1993 | 0 | 0 | 0 | 0 | 21 | 37 | 27 | 75 | 7 | 0 | 0 | 0 | 167 |
| 1994 | 0 | 0 | 0 | 0 | 5 | 51 | 178 | 218 | 42 | 0 | 0 | 0 | 494 |
| 1995 | 0 | 0 | 0 | 0 | 8 | 100 | 128 | 179 | 31 | 1 | 0 | 0 | 447 |
| 1996 | 0 | 0 | 0 | 0 | 0 | 86 | 177 | 245 | 9 | 0 | 0 | 0 | 517 |
| 1997 | 0 | 0 | 0 | 0 | 8 | 114 | 189 | 193 | 52 | 8 | 0 | 0 | 564 |

SNOWFALL (inches) 1997 GLASGOW, MT (GGW)

| YEAR | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|----------------|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|-------|
| 1968-69 | 0.0 | 0.0 | 0.0 | T | 0.7 | 5.7 | 24.1 | 2.7 | 3.3 | 0.6 | 0.0 | 0.0 | 37.1 |
| 1969-70 | 0.0 | 0.0 | 0.0 | 1.0 | T | 4.1 | 5.5 | 0.6 | 2.6 | 13.7 | T | 0.0 | 27.5 |
| 1970-71 | 0.0 | 0.0 | 0.1 | 1.1 | 6.7 | 3.4 | 24.2 | 4.3 | 1.1 | T | 0.4 | 0.0 | 41.3 |
| 1971-72 | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 | 6.3 | 12.7 | 10.6 | 3.3 | 0.7 | T | 0.0 | 34.3 |
| 1972-73 | 0.0 | 0.0 | 0.2 | 2.2 | 0.3 | 13.9 | T | 1.2 | 0.1 | 4.0 | T | 0.0 | 21.9 |
| 1973-74 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 10.6 | 2.1 | 2.6 | 6.1 | 0.6 | T | 0.0 | 27.1 |
| 1974-75 | 0.0 | 0.0 | 0.0 | 0.2 | 1.0 | 2.3 | 1.5 | 3.5 | 7.4 | 4.0 | T | 0.0 | 19.9 |
| 1975-76 | 0.0 | 0.0 | 0.0 | 7.0 | 5.5 | 4.7 | 3.9 | 0.5 | 4.9 | 0.2 | 0.0 | 0.0 | 26.7 |
| 1976-77 | 0.0 | 0.0 | 0.0 | 1.6 | 2.3 | 4.0 | 7.7 | 0.3 | 0.7 | 0.4 | 0.0 | 0.0 | 17.0 |
| 1977-78 | 0.0 | 0.0 | 0.0 | 0.2 | 4.3 | 13.2 | 3.8 | 8.4 | 3.0 | 0.5 | 0.0 | 0.0 | 33.4 |
| 1978-79 | 0.0 | 0.0 | T | T | 7.6 | 6.5 | 2.4 | 15.9 | 7.1 | 7.8 | 0.5 | 0.0 | 47.8 |
| 1979-80 | 0.0 | 0.0 | 0.0 | T | 2.7 | 0.4 | 9.4 | 1.3 | 2.6 | 0.7 | 0.0 | 0.0 | 17.1 |
| 1980-81 | 0.0 | 0.0 | 0.0 | 3.1 | 1.0 | 11.0 | 1.1 | 0.8 | 0.1 | T | 0.0 | 0.0 | 17.1 |
| 1981-82 | 0.0 | 0.0 | 0.0 | 4.4 | 1.8 | 2.9 | 16.4 | 7.3 | 7.5 | 1.7 | T | 0.0 | 42.0 |
| 1982-83 | 0.0 | 0.0 | 1.5 | 0.6 | 0.4 | 11.2 | 1.1 | 1.3 | 3.5 | 0.1 | 10.7 | 0.0 | 30.4 |
| 1983-84 | 0.0 | 0.0 | 2.2 | T | 1.8 | 4.7 | 4.2 | 1.6 | 4.3 | 1.1 | 0.2 | 0.0 | 20.1 |
| 1984-85 | 0.0 | 0.0 | 2.0 | 4.2 | 1.7 | 12.7 | 1.0 | 0.7 | 4.6 | 1.7 | 0.0 | 0.0 | 28.6 |
| 1985-86 | 0.0 | 0.0 | 0.2 | 2.2 | 13.0 | 9.1 | 3.5 | 9.8 | 2.3 | 4.9 | T | 0.0 | 45.0 |
| 1986-87 | 0.0 | 0.0 | 0.0 | T | 6.3 | 0.1 | 1.8 | 1.5 | 14.9 | 1.2 | T | 0.0 | 25.8 |
| 1987-88 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.4 | 8.6 | 3.6 | 0.2 | 0.1 | 0.0 | 0.0 | 13.3 |
| 1988-89 | 0.0 | 0.0 | 0.0 | T | 1.2 | 10.2 | 14.8 | 9.4 | 4.4 | 0.7 | T | T | 40.7 |
| 1989-90 | T | T | T | T | 2.8 | 9.2 | 5.7 | 1.6 | 3.6 | 1.4 | T | T | 24.3 |
| 1990-91 | 0.0 | 0.0 | 0.0 | 0.1 | 3.7 | 8.4 | 3.8 | 3.4 | 9.0 | 4.1 | 1.7 | 0.0 | 34.2 |
| 1991-92 | 0.0 | 0.0 | 0.0 | 1.2 | 0.9 | 2.0 | 1.0 | 1.3 | 0.2 | 2.3 | T | T | 8.9 |
| 1992-93 | 0.0 | 0.0 | T | 0.6 | 2.5 | 5.4 | 5.5 | 7.8 | 1.1 | T | 0.0 | T | 22.9 |
| 1993-94 | 0.0 | T | 0.0 | 0.1 | 13.9 | 1.2 | 18.0 | 8.6 | 1.2 | 1.4 | T | T | 44.4 |
| 1994-95 | 0.0 | T | 0.0 | T | 0.6 | 2.1 | 4.5 | 1.4 | 6.3 | 0.0 | 0.0 | 0.0 | 14.9 |
| 1995-96 | 0.0 | 0.0 | | 0.2 | 2.1 | 6.7 | 11.8 | 3.3 | 12.2 | 0.7 | | | |
| 1996-97 | T | 0.0 | 0.0 | 0.1 | 23.3 | 14.5 | 5.5 | 1.3 | 6.7 | 2.3 | 0.0 | 0.0 | 53.7 |
| 1997- | 0.0 | T | T | 1.6 | 3.3 | 0.1 | | | | | | | |
| POR= 42 YRS | T | T | 0.2 | 1.2 | 3.7 | 5.4 | 6.6 | 4.2 | 4.0 | 2.7 | 0.6 | T | 28.6 |

WBAN : 94008

REFERENCE NOTES:

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| <p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p> | <p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p> |
|---|---|

1997
GLASGOW,
MONTANA (GGW)

Founded in the days of national expansion as a railroad shop town, Glasgow is situated in the valley of the Milk River, about 20 miles upstream from where the Milk River joins the Missouri. It lies on the natural route from the plains to Marias Pass in the northern Rockies. The city is located on the valley floor at an average elevation of about 2,100 feet above sea level. Hills rise sharply from the northern edge of the city to flat tableland about 200 feet higher than the valley. The Weather Service Office is located on this flat land about 1 mile north-northeast of the city. A gradual incline commences 3 to 4 miles to the south and southwest of the city and reaches to the rolling hills which separate the Milk River drainage from the Fort Peck Reservoir on the Missouri. The northern shore of Fort Peck Reservoir lies about 15 miles south of Glasgow. This is a body of water impounded by Fort Peck Dam which was completed in 1939. The dam, at full capacity, backs water up the Missouri Valley for over 180 miles. The shape of the reservoir is very irregular, but its average width south of Glasgow is about 10 miles.

The climate in the Glasgow area is continental with a large annual range in temperature and limited precipitation. Fort Peck Reservoir, to the south, seems to have little climatic effect as far north as Glasgow, except for brief periods of morning fog in the late fall which occasionally drift northward from the lake before it freezes. Seventy-eight percent of the annual precipitation falls from April through September, with May and June accounting for about 38 percent of the annual total. This distribution of precipitation helps to make the climate quite favorable for the growing of small grains. Winter precipitation nearly always falls as snow, but as a rule, although snow seldom accumulates to any great depth, it usually is formed into drifts in the open, unprotected areas. Blizzards during the winter months occur occasionally, but usually are of short duration. However, it is wise for travelers and stockmen to be on the alert for this danger during the winter months. Glasgow itself is well protected from most strong winds and blizzard conditions by hills to the north of the city, but occasionally the unprotected surrounding areas feel the full brunt of these winter storms.

Glasgow has a wide range of temperature. Winters are quite cold, but mild winter weather occasionally does occur, sometimes caused when the chinook or foehn wind, which descends the eastern slopes of the Rocky Mountains, reaches as far east as Glasgow. Very cold spells also occur, at least once each winter, but as a rule, these last only a few days. Summers are characterized by warm, sunny weather which can last for several weeks at a time. Sunny weather predominates during the warmer season, but interruptions in the form of clouds and showers do occur, usually in the afternoons and evenings. A few days of hot weather in July and August occur at times, but hot days are seldom oppressive because they are usually accompanied by low humidity.

As is usually the case with a continental climate in northern latitudes, the transitional fall and spring seasons at Glasgow are quite rapid.

STATION LOCATION

GLASGOW, MONTANA

| LOCATION | OCCUPIED FROM | OCCUPIED TO | AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION | LATITUDE NORTH | LONGITUDE WEST | ELEVATION ABOVE | | | | | | | | | | | REMARKS | |
|--|---------------|-------------|---|----------------|----------------|-----------------|-----------|----|----|----|----|----------------|---------|----------|----|---|---------|--|
| | | | | | | SEA LEVEL | GROUND | | | | | | | | | | | |
| | | | | | | | WIND | W | E | S | T | R | W | 8 | H | A | | E |
| <u>COOPERATIVE</u> | | | | | | | | | | | | | | | | | | |
| Valley along Milk River | 7/1893 | 3/1905 | NA | 48° 15' | 106°40' | | | | | | | | | | | | | |
| Bend of Milk River | 7/1905 | 4/1907 | Unknown | 48° 10' | 106°38' | 2092 | | 5 | | | | | | | | | | |
| 401 First Avenue South | 5/1907 | 3/1908 | Unknown | 48° 11' | 106°38' | 2090 | | 5 | | | | | | | | | | |
| 341 First Avenue South | 2/1909 | 3/1909 | 50' ESE | 48° 11' | 106°38' | 2090 | | 5 | | | | | | | | | | |
| 441 First Avenue South | 11/1910 | 3/1911 | 350' WNW | 48° 11' | 106°38' | 2090 | | 5 | | | | | | | | | | |
| 710 Second Avenue South | 5/1911 | 4/1916 | 970' WNW | 48° 11' | 106°38' | 2090 | | 5 | | | | | | | | | | |
| 604 Second Avenue North | 5/1916 | 3/1927 | 1660' NE | 48° 11' | 106°38' | 2092 | | 5 | | | | | | | | | | |
| Hall Residence 305 Fifth Avenue South | 3/1927 | 12/01/40 | 2420' SSE | 48° 11' | 106°38' | 2088 | | 5 | | | | | | | | | | |
| <u>CITY</u> | | | | | | | | | | | | | | | | | | |
| 305 Fifth Avenue South | 12/01/40 | 7/01/43 | No Change | 48° 11' | 106°38' | 2088 | 42 | 5 | 5 | | | | | | | | | |
| Bank Building 501 First Avenue South | 6/06/43 | 10/25/55 | 1500' NW | 48° 11' | 106°38' | 2090 | 53 | 34 | 34 | | | | | | | | | |
| <u>AIRPORT</u> | | | | | | | | | | | | | | | | | | |
| Utility Building Municipal Airport+ | 10/25/55 | 5/5/69 | 1 mile NE | 48° 13' | 106°37' | 2277 e2284 | 30 c20 | 5 | 5 | NA | NA | NA a3 b5 | 3 b5 | NA d6 | NA | | | a - Installed 5/25/57. b - Moved 75' NNW 6/9/59. c - Effective 8/6/62. d - Commissioned 1650' NNE of thermometer site 5/12/64. e - Effective 5/12/64. |
| +International Airport (effective 6/1966) | | | | | | | | | | | | | | | | | | |
| Administration Building International Airport | 5/5/69 | 8/1/95 | 385' SSW | 48° 13' | 106°37' | 2284 | f20 | 5 | 5 | NA | NA | 5 | 5 | f6 | NA | | | f - Not moved 5/5/69. |
| 101 Airport Road | 8/1/95 | Present | | | | | | | | | | | | | S | | | ASOS commisstion 4/1/94. |

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801. INQUIRIES/COMMENTS CALL: (704) 271-4800

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