

Meteorological Studies at Maitri during Thirteenth Indian Antarctic Expedition (1994)

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Abstract

Meteorological studies conducted at Maitri during 1994 are discussed in brief. August was the coldest month with lowest monthly mean air temperature -26.0 Deg C and extreme lowest air temperature -29.1 Deg C of the year. The occurrence of maximum and minimum pressure are having a clear tendency. Strongest wind of 65 knots gusting to about 80 kts was recorded during August. Cloud, precipitation, Aurora global solar radiation and net terrestrial radiation are also discussed in brief.

Introduction

Meteorological programme of Thirteenth Antarctic Expedition was mainly the continuation of the long term programme of IMD introduced in earlier expeditions to enable the collection of surface and upper air observations for preparing the climatology of the area and to study the inter annual and inter seasonal variations of the weather over Antarctica and also their relationships with the Indian weather; radiation observations with surface based and balloon borne instruments for estimating the radiation budget; measurements of vertical profiles of ozone as part of an international programme for the investigation of ozone-hole occurrence over Antarctica during the spring alongwith atmospheric turbidity measurements; the reception of cloud imageries from the polar orbiting weather satellites and radio facsimile weather charts broadcast by the forecasting offices in the region as part of the weather services for logistic and scientific programmes of the expedition.

Objectives of the meteorological programme for the expedition and studies during summer part and ozone studies during the expedition are included in separate articles. Here only the weather studies at Maitri during 1994 based on available data are being discussed.

IMD activities at Maitri during 1994 in brief

- (i) **Routine weather observations:** Recording 3 hourly synoptic observations, passing 6 hourly main synops to IMD headquarters, New Delhi on real time basis.
- (ii) **Facsimile weather charts:** Reception of weather charts from Pretoria.
- (iii) **Cloud pictures:** Reception of cloud pictures from NOAA satellites.
- (iv) **Continuous recording:**
 - (a) **Surface weather elements, viz., air pressure, air temperature, wind speed and direction.**
 - (b) **Global solar radiation**
 - (c) **Surface ozone**
 - (d) **Data Collection Platform:** Automatic sampling and transmission of hourly surface weather data to M.D.U.C., New Delhi through INSAT.
 - (e) **Atmospheric turbidity observations by Voltz sun-photometer during clear sun on 440 and 640 nm wavelengths.**
- (vii) **Upper air observations:**
 - (a) **Low level radiosonde:** Measuring for pressure, temperature and humidity profiles upto about 700 hPa (twice in a month - total 22 nos.)
 - (b) **Radiometersondes:** For longwave radiation profiles during nights along with air pressure, temperature and humidity profiles (about twice in a month- total 19 nos.)
 - (c) **Ozonesondes:** For ozone profile along with pressure, temperature and humidity profiles (normally once in a week and more frequent during ozone depletion period - total 34 nos.)
 - (d) **Weather service:** Weather advice was provided from time to time for planning the activities of the expedition and maintenance of the station.

Results and Discussion

General weather summary at Maitri during 1994

Monthly Weather data of Maitri (Lat. 70°45'53"S, Long. 11°44'03"E, Elevation: 117 meters) for the period 01.01.94 to 31.12.94 given in Table 1 [Means are based on three hourly synoptic observations]:

Table 1: Monthly Weather data of Maitri for the period 01.01.94 to 31.12.94
 [Means are based on three hourly synoptic observations]

| Month | Air Temperature(°C) | | MS.L.Pressure (hPa) | | Wind Speed (Knots) | | Mean Cloud (Octa) | No. of days with Precipitation | significant phenomena | | | |
|--------|---------------------|--------|---------------------|---------|--------------------|--------|-------------------|--------------------------------|-----------------------|----------|--------|----|
| | Highest | Lowest | Mean | Highest | Lowest | Mean | | | | Blizzard | Aurora | |
| Jan'94 | +06.6 | -06.2 | -00.1 | 0995.6 | 0979.0 | 0987.7 | 30 | 13.5 | 4.4 | 07 | 00 | 00 |
| Feb'94 | +04.8 | -09.7 | -03.9 | 0995.9 | 0973.1 | 0985.0 | 35 | 14.3 | 4.5 | 01 | 00 | 00 |
| Mar'94 | -01.0 | -17.1 | -08.1 | 0993.3 | 0965.1 | 0980.7 | 45 | 15.4 | 5.1 | 03 | 01 | 10 |
| Apr'94 | -02.0 | -23.5 | -11.3 | 1003.0 | 0945.1 | 0985.7 | 45 | 17.9 | 5.0 | 03 | 13 | 11 |
| May'94 | -04.9 | -25.6 | -13.7 | 1004.1 | 0967.9 | 0987.1 | 45 | 17.4 | 3.9 | 03 | 05 | 12 |
| Jun'94 | -05.4 | -22.4 | -11.7 | 1007.9 | 0984.9 | 0997.8 | 40 | 20.8 | 4.7 | 00 | 01 | 08 |
| Jul'94 | -06.2 | -26.2 | -15.2 | 1005.5 | 0965.3 | 0984.9 | 40 | 22.0 | 5.0 | 02 | 05 | 07 |
| Aug'94 | -07.9 | -29.1 | -18.2 | 0999.8 | 0962.3 | 0983.5 | 65 | 15.9 | 5.4 | 04 | 12 | 01 |
| Sep'94 | -00.8 | -27.8 | -16.2 | 1024.2 | 0960.8 | 0988.9 | 50 | 14.5 | 3.0 | 02 | 02 | 14 |
| Oct'94 | -02.4 | -19.8 | -10.4 | 0995.6 | 0966.3 | 0982.4 | 50 | 18.5 | 5.1 | 03 | 09 | 02 |
| Nov'94 | +00.7 | -12.5 | -04.6 | 1006.1 | 0970.8 | 0990.7 | 40 | 15.4 | 4.2 | 05 | 00 | 00 |
| Dec'94 | +06.8 | -06.0 | -00.3 | 0996.0 | 0966.6 | 0982.0 | 45 | 15.0 | 4.3 | 05 | 00 | 00 |

Note: There were only two fog days in Dec(18,19th) during the year 1994 at Maitri.

(i) Surface air temperature: Annual variation of surface air temperature at Maitri during 1994 is shown in Fig. 1. Monthly mean air temperature during 1994 decreased gradually from -00.1 Deg.C in January to -13.7 Deg.C in May. It increased to -11.7 Deg C in June and then decreased reaching lowest value -18.2 Deg.C in August which is the coldest month of the year; and then increased until December and reached -00.3 Deg.C. The unexpected warmer mean temperature in June may be due to the effect of sub- polar lows. When low pressure systems pass closer to the station along sub-polar trough, the station experiences strong easterly winds, warmer air temperatures due to the incursion of low latitude air mass towards polar regions and obstruction to outgoing radiation due to overcast skies.

Highest temperature, during the year 1994, +6.8 Deg.C was recorded in December and next higher value of +06.2 was in January. August recorded extreme lowest temperature of the year - 29.1 Deg.C. The trend of temperatures are almost similar to Dakshin Gangotri recordings as discussed separately, though the magnitudes are different.

(ii) Mean Sea Level Pressure: Highest maximum pressure of the year 1994 was 1024.2 hPa and it was recorded in September. Lowest minimum pressure of the year 960,8 hPa was also recorded in the same month. There was no systematic variation in monthly mean pressure around the year: Highest mean monthly pressure of the year 997.8 hPa was in the month of June. Station

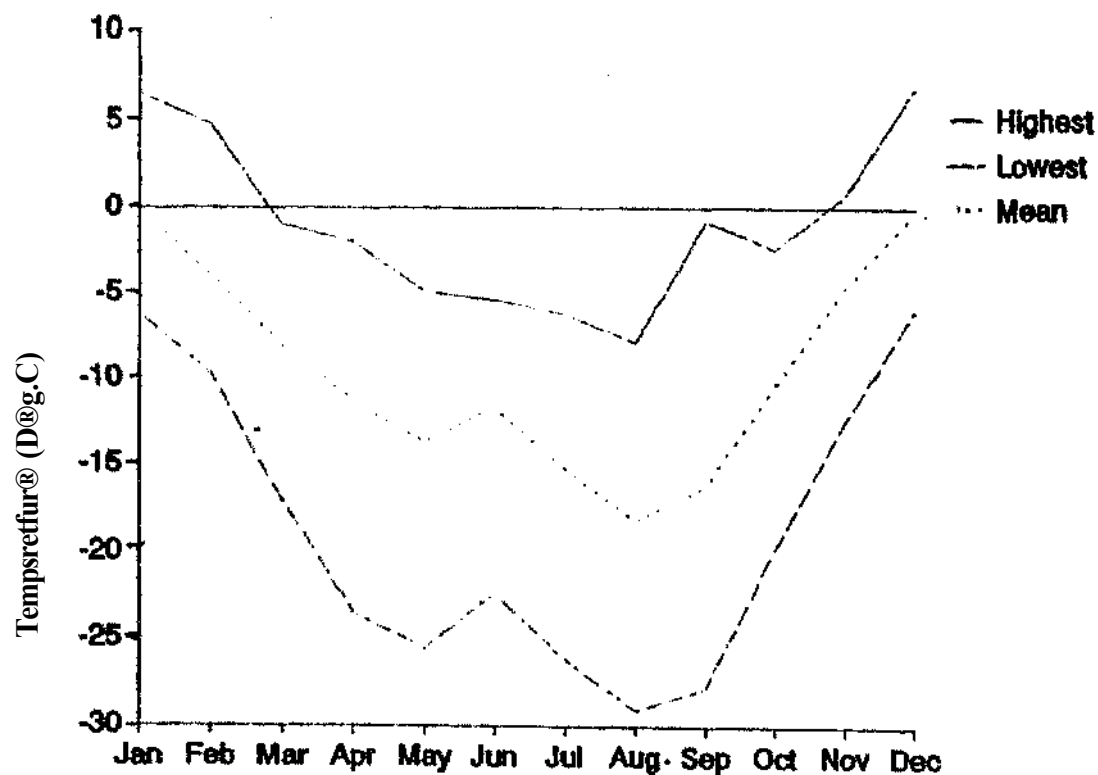


Fig. 1: Variation of surface air temperature at Maitri during 1994

experienced highest number of blizzard days in the month of April. As per the experience, pressure is not a good indicator for predicting day to day weather at Maitri as it was same at Dakshin Gangotri.

Based on the hourly tabulated values microbarograph charts, percentages of occurrence of both maximum and minimum station level pressure values in different three hourly time intervals during a day at Maitri(1994) were computed and tabulated in Tables 2 & 3. It is interesting to note from them that both maximum and minimum pressures are occurring between 21 to 03 GMT. Annual mean percentages for maximum pressure values are 40.8 and 28.6 between 2100-2400 hrs and 2400-0300 hrs respectively. The corresponding figures for minimum pressure values are 35.6 and 29.8. The corresponding percentages are least for maximum pressure values in 0900-1200 time interval(01.9) and for minimum pressure values in 1200-1500 hrs GMT time interval(02.4).

(iii) Surface Wind: Highest wind speed recorded during 1994 was 65 knots gusting to about 80 knots in August. Highest mean monthly wind speed was 22.0 knots in July followed by 20.8 knots in June.

Wind speed is a very important weather element for Antarctic stations, which controls the day to day activities and the safety of men and materials. As

Table 2: Percentage of occurrence of maximum pressure in different three hourly time intervals during a day at Maitri(1994)

| Period-> Month | 00-03 | 03-06 | 06-09 | 09-12 | 12-15 | 15-18 | 18-21 | 21-24 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| JAN | 35.5 | 06.5 | 16.1 | 09.7 | 06.5 | 00.0 | 03.2 | 22.6 |
| FEB | 39.3 | 07.1 | 10.7 | 10.7 | 00.0 | 00.0 | 10.7 | 21.4 |
| MAR | 35.5 | 03.2 | 03.2 | 06.5 | 03.2 | 03.2 | 03.2 | 41.9 |
| APR | 40.0 | 03.3 | 13.3 | 03.3 | 00.0 | 06.7 | 00.0 | 33.3 |
| MAY | 29.0 | 09.7 | 09.7 | 00.0 | 06.5 | 09.7 | 09.7 | 25.8 |
| JUN | 36.7 | 06.7 | 03.3 | 03.3 | 00.0 | 03.3 | 13.3 | 33.3 |
| JUL | 41.9 | 03.2 | 03.2 | 03.2 | 03.2 | 00.0 | 16.1 | 29.0 |
| AUG | 38.7 | 00.0 | 09.7 | 00.0 | 06.5 | 06.5 | 12.9 | 25.8 |
| SEP | 33.3 | 06.7 | 03.3 | 10.0 | 00.0 | 03.3 | 10.0 | 33.3 |
| OCT | 29.0 | 06.5 | 12.9 | 09.7 | 00.0 | 03.2 | 06.5 | 32.3 |
| NOV | 30.0 | 10.0 | 06.7 | 13.3 | 03.3 | 00.0 | 03.3 | 33.3 |
| DEC | 38.7 | 06.5 | 12.9 | 03.2 | 00.0 | 00.0 | 12.9 | 25.8 |
| Annual mean | 40.8 | 06.6 | 03.0 | 01.9 | 05.7 | 06.8 | 06.6 | 28.6 |

Table 3: Percentage of occurrence of minimum pressure in different three hourly time intervals during a day at Maitri(1994)

| Period-> Month | 00-03 | 03-06 | 06-09 | 09-12 | 12-15 | 15-18 | 18-21 | 21-24 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| JAN | 38.7 | 03.2 | 00.0 | 03.2 | 03.2 | 19.4 | 09.7 | 22.6 |
| FEB | 42.9 | 07.1 | 00.0 | 03.6 | 07.1 | 00.0 | 03.6 | 35.7 |
| MAR | 48.4 | 06.5 | 00.0 | 00.0 | 12.9 | 06.5 | 03.2 | 22.6 |
| APR | 30.0 | 10.0 | 03.3 | 00.0 | 06.7 | 10.0 | 13.3 | 26.7 |
| MAY | 48.4 | 03.2 | 03.2 | 03.2 | 03.2 | 06.5 | 09.7 | 22.6 |
| JUN | 56.7 | 00.0 | 03.3 | 06.7 | 00.0 | 03.3 | 03.3 | 26.7 |
| JUL | 35.5 | 09.7 | 03.2 | 03.2 | 06.5 | 03.2 | 03.2 | 35.5 |
| AUG | 38.7 | 09.7 | 03.2 | 00.0 | 06.5 | 06.5 | 03.2 | 32.3 |
| SEP | 36.7 | 06.7 | 06.7 | 00.0 | 03.3 | 03.3 | 03.3 | 40.0 |
| OCT | 38.7 | 12.9 | 03.2 | 00.0 | 09.7 | 09.7 | 03.2 | 22.6 |
| NOV | 36.7 | 06.7 | 06.7 | 00.0 | 03.3 | 06.7 | 13.3 | 26.7 |
| DEC | 38.7 | 03.2 | 03.2 | 03.2 | 06.5 | 06.5 | 09.7 | 29.0 |
| Annual mean | 35.6 | 05.8 | 08.7 | 06.1 | 02.4 | 03.0 | 08.5 | 29.8 |

wind speed increases not only effective cooling temperature decreases due to wind chill factor but also visibility decreases drastically due to drifting and blowing snow especially on ice-shelf. Occurrence of drifting/blowing snow is much lesser at Maitri compared to Dakshin Gangotri, since, Maitri is in a valley and on rocky terrain. Hence, when winds are stronger and no blizzardic weather at Maitri, convoy movements should take special care about hazardous weather on ice-shelf on which most of the convoy movement is involved. Wind direction is mostly from east-south-east at Maitri.

(iv) Cloud: Cloud amounts at Maitri are highly variable from day to day. Generally increases in cloud amount and rise in wind speed are seen when the sub-polar lows approach closer to the station and decrease in cloud amount when the systems pass away. Generally only stratus, stratocumulus, altostratus, altocumulus, cirrus, cirrostratus, cirrocumulus clouds are seen at Dakshin Gangotri. Cumulus with little vertical development are sometimes seen at the northern horizon. Annual mean cloud amount during 1994 was 4.6 octa.

(v) Precipitation: During 1994, precipitation only in the form of snowfall was experienced at Maitri. Highest number of precipitation in a month was in January and there was no precipitation in June.

(vi) **Blizzard:** Occurrence of blizzards is rare at Maitri compared to Dakshin Gangotri because of rocky terrain, the station being in a valley and comparatively lighter winds.

(vii) **Aurora:** Auroral activity was observed on 65 days during 1994 at Maitri the highest number of 14 days in September followed by 12 and 11 days in May and April respectively.

Tables 5 to 16 give the daily weather summary and monthly mean weather values at Maitri from January 1994 to December 1994. The abbreviations used in the tables are explained below:

- (i) YY - Date
- (ii) N - Mean cloud amount of the day in octa(based on three hourly synoptic weather observations from 00 GMT to 21 GMT. Obscured sky is indicated with '*')
- (iii) FF - Surface wind speed in knots.
MAX - Maximum wind speed of the day, based on 3 hourly synoptic observations from 00 GMT to 24 GMT. Wind speed for synoptic weather observations is recorded as the mean value of the speeds at the time of observation. In general gustiness increases with the increase of wind speed.
MEAN - Mean wind speed of the day based on 3 hourly synoptic observations from 00 GMT to 21 GMT
- (iv) TTT - Surface air temperature in Deg.C
MAX - Maximum temperature of the day (from 00 to 24 GMT)
MIN - Minimum temperature of the day (from 00 to 24 GMT)
MEAN - Mean temperature of the day based on 3 hourly synoptic observations from 00 GMT to 21 GMT
- (v) PPPP - Mean sea level atmospheric pressure in hecta-Pascal(hPa)
@P - Daily range of the surface pressure based on 3 hourly surface weather observations from 00to21GMT.
MEAN - Daily mean seal level pressure based on 3 hourly synoptic observations from 00 GMT to 21 GMT
- (vi) WW - Significant weather experienced during the day indicated with the following abbreviations:
F - Fog
SD - Slight drifting snow

| | |
|-----------|--------------------------|
| MD | - Moderate drifting snow |
| HD | - Heavy drifting snow |
| SB | - Slight blowing snow |
| MB | - Moderate blowing snow |
| HB | - Heavy blowing snow |
| | - no significant weather |
| SS | - Sun Set |
| SR | - Sun Rise |

Table 4: Mean monthly net terrestrial radiation (Wm^{-2}) for selected isobaric surfaces at Maitri during 1994

| HPa | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Surface | 19.8 | 44.6 | 100.7 | 28.7 | 17.9 | 18.8 | 36.5 | 55.2 | 36.3 |
| 950 | 19.5 | 44.1 | 77.6 | 19.8 | - | 19.7 | 58.5 | 60.0 | 23.6 |
| 900 | 28.4 | 53.7 | 94.2 | 51.5 | 41.9 | 31.6 | 40.3 | 62.1 | 20.5 |
| 850 | 63.3 | 68.3 | 107.3 | 45.9 | 51.3 | 37.3 | 56.5 | 76.9 | 21.5 |
| 800 | 27.1 | 70.3 | 104.4 | 60.5 | 75.1 | 41.0 | 57.3 | 78.4 | 20.6 |
| 750 | 47.6 | 76.7 | 107.3 | 71.7 | 74.1 | 47.0 | 64.0 | 77.2 | 26.8 |
| 700 | 32.9 | 81.0 | 125.5 | 70.3 | 85.0 | 50.3 | 82.0 | 78.4 | 17.1 |
| 650 | 48.8 | 101.3 | 124.4 | 87.2 | 89.5 | 62.4 | 76.3 | 81.5 | 19.2 |
| 600 | 46.2 | 108.7 | 119.2 | 117.1 | 93.5 | 67.7 | 98.4 | 104.8 | 22.1 |
| 550 | 75.9 | 113.3 | 133.1 | 131.0 | 106.1 | 73.3 | 94.6 | 111.6 | 33.0 |
| 500 | 77.0 | 112.5 | 132.1 | 123.9 | 107.8 | 82.3 | 115.7 | 131.3 | 12.5 |
| 450 | 102.4 | 117.7 | 147.7 | 139.9 | 126.8 | 87.5 | 113.5 | 127.0 | 31.8 |
| 400 | 89.3 | 129.8 | 130.1 | 147.8 | 113.1 | 82.1 | 113.1 | 131.9 | 23.4 |
| 350 | 104.9 | 145.7 | 151.2 | 146.2 | 134.2 | 79.4 | 119.3 | 142.9 | 25.9 |
| 300 | 95.9 | 140.7 | 158.2 | 152.3 | 94.8 | 93.8 | 109.3 | 127.6 | 22.6 |
| 250 | 140.4 | 140.3 | 126.9 | 124.5 | 107.3 | 80.4 | 114.2 | 110.6 | 49.6 |
| 200 | 158.2 | 154.1 | 130.2 | 99.7 | 97.0 | 79.1 | 87.1 | 108.4 | 14.2 |
| 175 | 152.9 | 132.3 | - | 122.1 | 111.9 | 85.5 | 94.1 | 115.3 | 21.5 |
| 150 | 152.3 | 107.6 | - | 137.6 | 103.9 | 86.3 | 89.2 | 106.2 | 17.8 |
| 125 | 159.8 | - | - | 142.8 | 112.5 | 82.0 | 91.5 | 116.7 | 39.4 |
| 100 | 155.8 | - | - | 163.4 | 126.7 | 88.3 | 74.5 | 125.5 | 41.4 |
| 75 | 166.0 | - | - | 81.9 | - | - | 113.9 | - | 61.2 |
| 50 | - | - | - | 59.2 | - | - | 94.4 | - | - |

Table 5: Daily Weather Summary - January,1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 4.4 | 26 | 12.3 | +04.6 | -02.4 | +01.2 | 06.1 | 0993.3 | - |
| 02 | 0.6 | 24 | 13.6 | +04.2 | -02.2 | +00.9 | 04.7 | 0987.8 | - |
| 03 | 1.3 | 20 | 09.1 | +02.0 | -02.6 | -00.4 | 01.7 | 0988.3 | - |
| 04 | 4.1 | 14 | 08.5 | +01.4 | -03.2 | -01.0 | 03.2 | 0989.2 | - |
| 05 | 3.5 | 26 | 14.5 | +05.2 | -03.2 | +01.7 | 02.3 | 0986.4 | - |
| 06 | 7.6 | 25 | 21.5 | +04.2 | -00.5 | +02.1 | 01.4 | 0986.0 | - |
| 07 | 7.7 | 24 | 20.5 | +02.6 | -00.9 | +01.0 | 04.5 | 0987.2 | - |
| 08 | 6.9 | 20 | 15.4 | +04.2 | -01.3 | +01.1 | 02.9 | 0988.9 | P |
| 09 | 1.9 | 26 | 12.0 | +04.2 | -02.0 | +01.5 | 00.9 | 0987.4 | - |
| 10 | 4.9 | 14 | 06.1 | +02.8 | -01.8 | +01.1 | 03.5 | 0990.3 | - |
| 11 | 4.6 | 14 | 09.4 | +05.0 | -00.6 | +02.2 | 01.7 | 0992.3 | - |
| 12 | 5.1 | 22 | 11.5 | +03.6 | -03.0 | +01.0 | 02.8 | 0990.8 | - |
| 13 | 5.7 | 17 | 09.3 | +01.6 | -03.5 | -00.8 | 04.6 | 0992.6 | - |
| 14 | 6.6 | 13 | 09.7 | +00.2 | -03.6 | -01.8 | 04.1 | 0993.6 | P |
| 15 | 3.9 | 14 | 07.4 | +02.2 | -05.5 | -01.3 | 07.8 | 0988.0 | P |
| 16 | 1.4 | 16 | 12.4 | -00.2 | -05.5 | -02.6 | 06.4 | 0989.6 | - |
| 17 | 6.0 | 26 | 20.1 | -00.3 | -04.6 | -02.3 | 09.1 | 0987.8 | - |
| 18 | 6.5 | 30 | 25.3 | +00.3 | -04.0 | -02.0 | 01.1 | 0982.4 | - |
| 19 | 3.5 | 26 | 15.0 | +03.6 | -04.5 | -00.9 | 01.1 | 0982.7 | - |
| 20 | 7.9 | 23 | 19.5 | +03.4 | -02.0 | +01.0 | 02.2 | 0984.3 | P |
| 21 | 6.4 | 23 | 16.3 | +04.2 | -00.6 | +01.6 | 02.3 | 0987.2 | - |
| 22 | 2.9 | 20 | 09.9 | +04.7 | -01.6 | +01.6 | 04.0 | 0987.5 | - |
| 23 | 0.5 | 20 | 09.5 | +05.0 | -02.4 | -02.0 | 06.2 | 0985.3 | - |
| 24 | 0.5 | 20 | 06.7 | +04.4 | -02.4 | +01.3 | 01.4 | 0988.9 | - |
| 25 | 1.7 | 24 | 11.1 | +06.6 | -01.4 | +02.5 | 01.8 | 0988.9 | - |
| 26 | 3.0 | 22 | 04.6 | +02.2 | -03.7 | -01.3 | 03.4 | 0986.1 | - |
| 27 | 0.7 | 22 | 13.6 | +02.4 | -04.1 | -00.1 | 05.7 | 0981.9 | - |
| 28 | 5.6 | 26 | 21.7 | +01.6 | -05.0 | -01.4 | 03.6 | 0980.1 | P |
| 29 | 8.0 | 28 | 20.2 | -01.8 | -03.4 | -02.4 | 06.4 | 0986.6 | PP |
| 30 | 7.1 | 28 | 18.4 | -00.2 | -05.3 | -02.1 | 00.7 | 0988.6 | P |
| 31 | 6.5 | 20 | 12.4 | -00.6 | -06.2 | -03.5 | 01.4 | 0987.8 | - |
| Mean | 4.4 | 21.7 | 13.5 | +02.7 | -03.0 | -00.1 | 03.5 | 0987.7 | |

Table 6: Daily Weather Summary - February,1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 4.6 | 22 | 11.8 | 00.0 | -06.5 | -02.9 | 02.0 | 0987.6 | - |
| 02 | 1.6 | 26 | 22.0 | -00.8 | -06.7 | -03.6 | 08.3 | 0983.9 | - |
| 03 | 5.4 | 26 | 17.5 | +03.6 | -07.0 | -00.7 | 03.3 | 0976.3 | - |
| 04 | 6.9 | 30 | 20.5 | +04.6 | -01.9 | -02.1 | 06.8 | 0983.8 | - |
| 05 | 5.0 | 30 | 17.6 | +04.8 | -03.1 | +02.2 | 03.6 | 0984.0 | - |
| 06 | 1.6 | 26 | 11.4 | +01.0 | -04.5 | -01.3 | 03.6 | 0983.7 | - |
| 07 | 7.6 | 20 | 15.3 | -00.4 | -0.45 | -02.6 | 03.7 | 0983.4 | P |
| 08 | 4.9 | 19 | 13.9 | +01.0 | -06.3 | -01.6 | 00.5 | 0981.5 | - |
| 09 | 1.1 | 14 | 07.6 | +00.0 | -07.5 | -03.5 | 01.7 | 0982.6 | - |
| 10 | 1.4 | 10 | 02.5 | -01.4 | -09.0 | -05.2 | 09.2 | 0985.9 | - |
| 11 | 4.3 | 18 | 06.4 | -01.6 | -06.8 | -03.9 | 04.2 | 0994.1 | - |
| 12 | 6.5 | 10 | 03.1 | -01.4 | -07.4 | -04.5 | 08.7 | 0987.5 | - |
| 13 | 6.5 | 16 | 08.1 | -00.3 | -06.8 | -02.4 | 03.6 | 0981.7 | - |
| 14 | 3.7 | 16 | 08.0 | -03.0 | -08.0 | -05.1 | 04.4 | 0984.8 | - |
| 15 | 1.5 | 14 | 08.0 | -03.0 | -09.0 | -05.9 | 02.4 | 0989.1 | - |
| 16 | 2.1 | 20 | 07.0 | -03.8 | -09.7 | -06.7 | 04.2 | 0985.7 | - |
| 17 | 5.0 | 26 | 17.3 | -02.0 | -08.6 | -04.8 | 01.4 | 0984.8 | - |
| 18 | 4.3 | 22 | 13.1 | -03.7 | -09.0 | -05.8 | 01.9 | 0983.1 | - |
| 19 | 1.1 | 22 | 12.0 | -05.0 | -08.6 | -06.5 | 08.5 | 0978.0 | - |
| 20 | 5.6 | 34 | 26.2 | -05.0 | -07.6 | -05.7 | 09.2 | 0977.2 | - |
| 21 | 4.5 | 30 | 23.4 | -02.0 | -06.5 | -04.3 | 06.7 | 0987.7 | - |
| 22 | 5.9 | 28 | 22.5 | -01.2 | -05.0 | -02.9 | 02.8 | 0988.7 | - |
| 23 | 4.8 | 22 | 14.5 | -01.2 | -07.0 | -03.8 | 03.9 | 0991.4 | - |
| 24 | 3.7 | 12 | 02.7 | -03.8 | -09.6 | -06.4 | 01.3 | 0994.0 | - |
| 25 | 5.4 | 22 | 13.0 | -02.8 | -09.6 | -06.3 | 08.6 | 0992.3 | - |
| 26 | 8.0 | 35 | 28.7 | -03.4 | -05.4 | -04.1 | 03.7 | 0983.4 | - |
| 27 | 7.7 | 35 | 27.4 | -02.0 | -05.0 | -03.9 | 01.4 | 0981.7 | - |
| 28 | 6.5 | 24 | 19.7 | -02.0 | -05.5 | -03.8 | 04.3 | 0981.9 | - |
| Mean | 4.5 | 22.5 | 14.3 | -01.2 | -06.9 | -03.9 | 04.4 | 0985.0 | |

Table 7; Daily Weather Summary - March,1994

| YY | N | FF | | TTT | | | PPP | | WW |
|------|------|------|------|-------|-------|-------|------|--------|------|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 6.9 | 28 | 23.8 | -02.0 | -06.0 | -03.3 | 01.4 | 0984.8 | P |
| 02 | 7.5 | 25 | 08.7 | -01.0 | -09.5 | -03.3 | 03.8 | 0982.3 | - |
| 03 | 3.7 | 18 | 05.3 | -06.0 | -12.6 | -09.1 | 04.0 | 0980.3 | - |
| 04 | 3.1 | 24 | 16.0 | -06.6 | -13.0 | -09.4 | 03.5 | 0977.1 | - |
| 05 | 7.6 | 14 | 06.6 | -04.8 | -08.5 | -06.7 | 04.4 | 0981.4 | - |
| 06 | 1.9 | 20 | 02.8 | -05.0 | -11.8 | -08.6 | 04.9 | 0985.7 | - |
| 07 | 0.9 | 22 | 10.3 | -05.0 | -13.0 | -08.7 | 01.7 | 0988.4 | - |
| 08 | 3.4 | 30 | 14.9 | -03.2 | -11.2 | -06.5 | 04.7 | 0985.6 | - |
| 09 | 1.4 | 16 | 02.3 | -07.6 | -13.6 | -10.6 | 07.9 | 0980.9 | - |
| 10 | 6.0 | 36 | 24.5 | -06.8 | -12.2 | -09.9 | 03.1 | 0983.1 | - |
| 11 | 8.0 | 45 | 38.5 | -05.2 | -09.1 | -07.4 | 05.7 | 0977.5 | P,MB |
| 12 | 7.0 | 30 | 15.9 | -02.6 | -07.9 | -04.6 | 02.6 | 0975.5 | - |
| 13 | 1.5 | 25 | 16.6 | -06.2 | -11.6 | -07.9 | 08.7 | 0982.7 | - |
| 14 | 6.5 | 35 | 26.6 | -05.4 | -10.3 | -07.8 | 05.0 | 0982.3 | - |
| 15 | 5.6 | 25 | 16.9 | -06.8 | -14.4 | -09.2 | 06.1 | 0982.2 | - |
| 16 | 1.4 | 12 | 05.0 | -11.8 | -15.8 | -13.4 | 06.4 | 0990.5 | - |
| 17 | 6.8 | 35 | 23.5 | -05.2 | -12.1 | -08.4 | 16.0 | 0987.6 | - |
| 18 | 8.0 | 35 | 33.8 | -02.8 | -06.4 | -05.0 | 12.2 | 0968.9 | - |
| 19 | 8.0 | 30 | 25.6 | -03.3 | -07.1 | -05.4 | 04.3 | 0968.3 | - |
| 20 | 7.1 | 25 | 17.7 | -04.1 | -07.4 | -05.5 | 14.1 | 0978.5 | - |
| 21 | 7.6 | 20 | 17.1 | -04.5 | -07.2 | -05.9 | 03.7 | 0987.7 | - |
| 22 | 6.6 | 20 | 08.1 | -04.2 | -11.8 | -07.1 | 09.2 | 0979.6 | - |
| 23 | 2.8 | 05 | 01.0 | -09.8 | -15.3 | -12.2 | 07.2 | 0979.0 | - |
| 24 | 2.8 | 22 | 07.9 | -08.6 | -16.7 | -12.6 | 03.1 | 0985.7 | - |
| 25 | 8.0 | 22 | 15.0 | -07.5 | -10.9 | -09.3 | 16.7 | 0977.5 | P |
| 26 | 5.4 | 25 | 18.7 | -05.2 | -11.4 | -08.9 | 08.3 | 0970.2 | - |
| 27 | 2.8 | 25 | 15.8 | -03.1 | -09.5 | -05.4 | 04.5 | 0978.8 | - |
| 28 | 3.7 | 30 | 21.6 | -04.0 | -11.7 | -07.7 | 01.3 | 0977.7 | - |
| 29 | 7.3, | 22 | 19.4 | -02.8 | -08.9 | -05.0 | 06.7 | 0980.6 | - |
| 30 | 1.1 | 18 | 03.3 | -08.2 | -16.8 | -11.7 | 05.4 | 0982.8 | - |
| 31 | 7.0 | 22 | 15.4 | -12.6 | -17.1 | -14.9 | 04.3 | 0980.0 | - |
| Mean | 5.1 | 24.5 | 15.4 | -05.5 | -11.3 | -08.1 | 06.2 | 0980.7 | |

Table 8: Daily Weather Summary - April,1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----------|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 3.4 | 28 | 24.4 | -05.2 | -16.4 | -12.2 | 01.9 | 0982.7 | - |
| 02 | 6.6 | 30 | 28.4 | -02.0 | -06.8 | -04.3 | 03.8 | 0979.8 | P |
| 03 | 8.0 | 30 | 24.5 | -04.3 | -06.8 | -05.4 | 04.7 | 0982.3 | P,MB |
| 04 | 8.0 | 35 | 27.6 | -06.2 | -07.8 | -06.9 | 01.7 | 0982.4 | MB,SD |
| 05 | 7.5 | 26 | 22.6 | -05.9 | -10.0 | -07.0 | 04.1 | 0984.4 | SD |
| 06 | 2.6 | 20 | 10.0 | -09.5 | -15.1 | -11.3 | 07.5 | 0991.8 | - |
| 07 | 0.9 | 15 | 05.2 | -10.6 | -19.9 | -15.5 | 02.8 | 0992.9 | - |
| 08 | 2.6 | 20 | 13.5 | -14.0 | -20.0 | -17.3 | 08.8 | 0999.0 | - |
| 09 | 6.0 | 35 | 30.6 | -06.4 | -14.8 | -11.2 | 23.3 | 0991.6 | MB,HD,MD |
| 10 | 8.0 | 45 | 34.4 | -05.5 | -08.0 | -06.8 | 29.5 | 0956.3 | HB,MB |
| 11 | 8.0 | 30 | 25.6 | -06.5 | -08.5 | -07.4 | 09.1 | 0959.6 | SB,SD |
| 12 | 6.8 | 25 | 21.9 | -04.5 | -08.9 | -06.4 | 16.0 | 0972.5 | SD |
| 13 | 3.5 | 20 | 16.3 | -06.0 | -14.5 | -10.1 | 07.5 | 0985.4 | - |
| 14 | 1.5 | 25 | 19.1 | -10.0 | -13.5 | -11.9 | 06.1 | 0991.1 | - |
| 15 | 0.0 | 05 | 01.0 | -12.2 | -22.5 | -15.7 | 05.1 | 0993.7 | - |
| 16 | 0.0 | 20 | 03.5 | -15.0 | -23.5 | -19.2 | 05.0 | 0990.6 | - |
| 17 | 0.3 | 20 | 14.8 | -15.6 | -19.4 | -18.0 | 08.7 | 0998.0 | - |
| 18 | 5.1 | 20 | 13.9 | -10.5 | -17.5 | -13.4 | 02.6 | 1002.5 | SD |
| 19 | 8.0 | 40 | 31.9 | -07.3 | -10.5 | -09.3 | 08.1 | 0997.1 | MB,HD,SD |
| 20 | 8.0 | 35 | 24.4 | -05.1 | -07.4 | -06.6 | 03.7 | 0992.4 | MB,SD |
| 21 | 8.0 | 25 | 21.5 | -05.1 | -08.0 | -06.6 | 04.7 | 0989.9 | - |
| 22 | 7.1 | 10 | 06.1 | -05.5 | -13.9 | -10.0 | 03.3 | 0994.6 | - |
| 23 | 1.8 | 15 | 08.6 | -10.0 | -14.5 | -11.9 | 03.5 | 0992.6 | - |
| 24 | 3.3 | 16 | 10.4 | -11.2 | -14.9 | -12.9 | 03.2 | 0989.9 | - |
| 25 | 6.4 | 18 | 16.6 | -09.9 | -12.0 | -10.6 | 02.5 | 0987.4 | - |
| 26 | 8.0 | 15 | 06.4 | -08.2 | -15.2 | -11.8 | 04.4 | 0983.1 | - |
| 27 | 8.0 | 15 | 01.0 | -14.6 | -17.4 | -16.5 | 02.4 | 0979.7 | P,SD |
| 28 | 5.0 | 25 | 18.4 | -14.2 | -17.8 | -15.9 | 03.6 | 0980.5 | SD |
| 29 | 6.0 | 35 | 30.0 | -08.9 | -15.4 | -11.7 | 06.1 | 0974.9 | SD |
| 30 | 1.1 | 25 | 24.0 | -12.0 | -17.0 | -14.4 | 03.4 | 0971.1 | - |
| Mean | 5.0 | 24.1 | 17.9 | -08.7 | -13.9 | -11.3 | 06.6 | 0985.7 | |

Table 9: Daily Weather Summary - May ,1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|---------|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 3.8 | 25 | 23.4 | -08.0 | -16.5 | -11.7 | 06.6 | 0977.6 | - |
| 02 | 6.9 | 28 | 22.5 | -07.8 | -13.3 | -09.8 | 02.7 | 0981.5 | - |
| 03 | 2.1 | 15 | 03.1 | -12.6 | -22.8 | -16.7 | 04.3 | 0977.5 | - |
| 04 | 0.0 | 02 | 00.0 | -19.6 | -25.6 | -23.7 | 07.6 | 0981.3 | - |
| 05 | 3.5 | 25 | 09.4 | -15.0 | -22.0 | -19.1 | 01.2 | 0984.9 | - |
| 06 | 3.1 | 28 | 25.0 | -12.3 | -15.0 | -13.5 | 02.8 | 0984.6 | - |
| 07 | 2.3 | 25 | 22.8 | -10.8 | -14.0 | -12.7 | 02.6 | 0987.6 | - |
| 08 | 7.1 | 30 | 26.0 | -08.4 | -11.0 | -10.0 | 13.2 | 0980.2 | - |
| 09 | 6.7 | 30 | 27.3 | -06.5 | -12.2 | -08.5 | 04.5 | 0970.1 | - |
| 10 | 0.9 | 30 | 16.3 | -11.3 | -16.3 | -13.9 | 04.2 | 0972.9 | - |
| 11 | 3.3 | 20 | 15.8 | -09.6 | -16.0 | -13.1 | 01.4 | 0974.1 | - |
| 12 | 6.1 | 20 | 07.4 | -11.8 | -18.7 | -14.4 | 03.8 | 0977.1 | P |
| 13 | 7.7 | 25 | 14.1 | -13.3 | -18.6 | -16.5 | 01.8 | 0977.0 | P,SD |
| 14 | 6.0 | 35 | 21.9 | -13.0 | -18.8 | -15.6 | 04.9 | 0977.3 | SD |
| 15 | 8.0 | 33 | 17.5 | -09.6 | -19.1 | -13.8 | 05.5 | 0974.6 | P,SD,SB |
| 16 | 7.1 | 35 | 28.1 | -06.5 | -10.0 | -08.5 | 05.9 | 0970.3 | SB,SD |
| 17 | 6.3 | 45 | 28.8 | -04.9 | -06.8 | -05.7 | 14.2 | 0977.7 | - |
| 18 | 6.9 | 45 | 33.8 | -05.8 | -11.8 | -07.3 | 17.5 | 0995.7 | - |
| 19 | 1.8 | 20 | 06.3 | -09.8 | -19.2 | -14.2 | 06.7 | 0995.5 | - |
| 20 | 0.0 | 10 | 03.6 | -14.8 | -20.5 | -18.1 | 03.3 | 0991.4 | - |
| 21 | 0.0 | 03 | 00.4 | -16.8 | -25.0 | -21.5 | 02.1 | 0990.1 | - |
| 22 | 1.5 | 17 | 03.1 | -17.2 | -25.0 | -20.2 | 07.5 | 0995.5 | - |
| 23 | 0.5 | 25 | 16.6 | -13.2 | -19.8 | -17.0 | 01.5 | 0999.6 | Last SS |
| 24 | 1.0 | 30 | 23.3 | -11.8 | -14.8 | -13.2 | 02.6 | 1001.7 | - |
| 25 | 4.0 | 40 | 32.5 | -08.0 | -14.6 | -10.9 | 04.4 | 1001.9 | - |
| 26 | 8.0 | 45 | 30.2 | -06.8 | -08.8 | -07.8 | 03.7 | 0997.9 | MB,HB |
| 27 | 6.9 | 25 | 14.1 | -05.9 | -14.6 | -08.4 | 03.4 | 1000.7 | - |
| 28 | 1.7 | 10 | 02.1 | -11.0 | -16.7 | -14.4 | 00.4 | 1003.3 | - |
| 29 | 0.5 | 15 | 06.4 | -12.0 | -17.6 | -15.2 | 02.3 | 1001.9 | - |
| 30 | 0.4 | 30 | 23.2 | -12.0 | -17.0 | -13.9 | 04.0 | 0999.1 | - |
| 31 | 7.3 | 35 | 27.6 | -11.8 | -16.5 | -14.7 | 02.0 | 1000.1 | - |
| Mean | 3.9 | 25.8 | 17.4 | -10.9 | -16.7 | -13.7 | 04.8 | 0987.1 | |

Table 10: Daily Weather Summary - June,1994

| YY | N | FF | | TIT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 8.0 | 40 | 29.4 | -08.8 | -11.8 | -10.4 | 06.8 | 0994.2 | SD |
| 02 | 7.3 | 30 | 23.1 | -09.6 | -12.8 | -10.9 | 04.7 | 0991.7 | - |
| 03 | 6.5 | 30 | 15.4 | -08.0 | -17.6 | -11.9 | 07.2 | 0991.5 | - |
| 04 | 0.0 | 15 | 04.1 | -16.8 | -20.0 | -19.0 | 02.0 | 0996.8 | - |
| 05 | 0.0 | 15 | 03.1 | -16.5 | -22.4 | -20.4 | 03.0 | 0994.6 | - |
| 06 | 0.5 | 28 | 19.7 | -13.2 | -18.0 | -15.5 | 05.2 | 0994.7 | - |
| 07 | 3.5 | 20 | 08.4 | -13.0 | -17.0 | -15.3 | 09.3 | 1001.9 | - |
| 08 | 3.9 | 35 | 26.3 | -12.6 | -17.2 | -16.0 | 16.6 | 1003.3 | - |
| 09 | 8.0 | 35 | 29.4 | -11.0 | -13.6 | -12.1 | 05.4 | 0988.6 | - |
| 10 | 8.0 | 35 | 34.4 | -09.5 | -12.3 | -11.3 | 05.6 | 0989.2 | - |
| 11 | 7.6 | 35 | 29.4 | -09.2 | -12.8 | -10.9 | 02.6 | 0991.1 | - |
| 12 | 3.4 | 25 | 22.0 | -12.2 | -14.6 | -13.9 | 02.7 | 0989.6 | - |
| 13 | 5.0 | 28 | 22.1 | -10.6 | -15.5 | -12.5 | 06.5 | 0989.1 | - |
| 14 | 7.9 | 35 | 25.8 | -06.5 | -12.4 | -09.4 | 06.0 | 0988.3 | - |
| 15 | 8.0 | 35 | 33.5 | -06.3 | -08.1 | -07.6 | 07.4 | 0994.4 | - |
| 16 | 7.4 | 30 | 22.0 | -05.4 | -09.8 | -07.3 | 05.3 | 0999.6 | - |
| 17 | 3.8 | 35 | 26.3 | -08.8 | -13.6 | -07.4 | 06.1 | 1002.9 | - |
| 18 | 3.3 | 25 | 22.5 | -10.8 | -15.7 | -14.1 | 07.4 | 1004.0 | - |
| 19 | 5.4 | 30 | 21.9 | -07.0 | -13.8 | -08.7 | 03.2 | 1000.3 | - |
| 20 | 8.0 | 30 | 28.9 | -07.8 | -11.0 | -09.9 | 03.1 | 1000.7 | - |
| 21 | 8.0 | 35 | 27.5 | -06.8 | -09.8 | -08.4 | 06.0 | 1004.6 | - |
| 22 | 7.4 | 28 | 18.1 | -06.2 | -09.8 | -07.8 | 05.9 | 1006.5 | - |
| 23 | 1.4 | 25 | 18.1 | -06.2 | -11.0 | -08.9 | 04.9 | 1001.2 | - |
| 24 | 2.0 | 25 | 20.8 | -10.2 | -16.0 | -12.8 | 04.8 | 1003.9 | - |
| 25 | 1.0 | 25 | 16.5 | -09.2 | -16.6 | -13.8 | 01.1 | 0999.6 | - |
| 26 | 3.4 | 25 | 15.3 | -07.2 | -15.5 | -09.9 | 07.0 | 1003.5 | - |
| 27 | 0.8 | 25 | 13.4 | -08.4 | -15.8 | -11.4 | 05.2 | 1005.2 | - |
| 28 | 4.6 | 25 | 14.1 | -09.2 | -14.0 | -10.7 | 03.9 | 0999.5 | - |
| 29 | 0.8 | 20 | 08.6 | 40.5 | -15.2 | -10.9 | 05.4 | 0999.8 | - |
| 30 | 5.5 | 30 | 24.6 | -11.5 | -13.2 | -12.5 | 02.9 | 1004.3 | - |
| Mean | 4.7 | 28.5 | 20.8 | -09.6 | -14.2 | -11.7 | 05.4 | 0997.8 | |

Table 11: Daily Weather Summary - July, 1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----------|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 8.0 | 30 | 22.5 | -12.0 | -13.2 | -12.6 | 11.4 | 1000.8 | - |
| 02 | 8.0 | 40 | 33.8 | -08.2 | -13.1 | -11.2 | 14.8 | 0987.3 | MB,SD |
| 03 | 7.9 | 40 | 36.3 | -07.2 | -09.6 | -08.6 | 04.1 | 0979.1 | - |
| 04 | 6.8 | 35 | 22.9 | -06.2 | -14.6 | -08.5 | 03.4 | 0982.9 | - |
| 05 | 0.5 | 20 | 09.5 | -12.8 | -17.5 | -15.0 | 03.8 | 0986.7 | - |
| 06 | 0.0 | 22 | 13.9 | -14.2 | -18.5 | -15.9 | 02.5 | 0987.8 | - |
| 07 | 1.0 | 20 | 13.3 | -14.2 | -21.8 | -18.2 | 17.4 | 0977.3 | - |
| 08 | 8.0 | 26 | 17.1 | -14.1 | -18.5 | -16.2 | 10.1 | 0979.4 | P |
| 09 | 8.0 | 30 | 17.5 | -14.1 | -20.0 | -18.1 | 07.9 | 0980.4 | P |
| 10 | 8.0 | 35 | 30.6 | -13.8 | -15.5 | -14.8 | 10.1 | 0976.1 | HB,MB,HD |
| 11 | 8.0 | 35 | 28.6 | -07.0 | -15.1 | -12.7 | 02.4 | 0985.4 | MB,SD |
| 12 | 6.9 | 18 | 15.0 | -07.0 | -14.1 | -11.5 | 01.8 | 0983.7 | - |
| 13 | 3.3 | 20 | 17.8 | -12.7 | -16.9 | -15.1 | 04.6 | 0985.1 | - |
| 14 | 5.3 | 20 | 16.0 | -13.6 | -16.2 | -15.0 | 06.1 | 0990.3 | - |
| 15 | 8.0 | 30 | 22.3 | -14.1 | -15.8 | -15.1 | 04.0 | 0996.8 | - |
| 16 | 4.6 | 25 | 20.0 | -14.1 | -19.1 | -15.6 | 04.8 | 0993.8 | - |
| 17 | 4.5 | 25 | 16.1 | -14.5 | -17.2 | -16.0 | 01.3 | 0991.2 | - |
| 18 | 8.0 | 35 | 27.0 | -14.0 | -16.2 | -15.7 | 07.7 | 0988.3 | - |
| 19 | 8.0 | 40 | 36.3 | -11.5 | -14.0 | -12.7 | 05.7 | 0981.3 | - |
| 20 | 8.0 | 40 | 35.0 | -10.7 | -13.4 | -12.1 | 13.0 | 0971.8 | MB |
| 21 | 8.0 | 40 | 30.5 | -09.0 | -12.1 | -10.4 | 03.3 | 0978.4 | MB |
| 22 | 6.9 | 35 | 29.4 | -10.2 | -12.7 | -11.1 | 10.4 | 0979.4 | - |
| 23 | 6.8 | 30 | 16.1 | -11.5 | -19.2 | -14.6 | 07.4 | 0991.1 | - |
| 24 | 0.8 | 30 | 09.3 | -17.6 | -23.6 | -19.8 | 08.9 | 0989.5 | First SR |
| 25 | 0.9 | 30 | 22.0 | -18.5 | -21.0 | 49.7 | 08.8 | 0985.8 | - |
| 26 | 0.5 | 25 | 16.9 | -20.2 | -25.5 | -22.4 | 05.1 | 0995.1 | - |
| 27 | 0.0 | 25 | 14.6 | -19.5 | -26.2 | -22.5 | 11.3 | 0991.9 | - |
| 28 | 0.0 | 30 | 23.8 | -18.8 | -21.7 | -20.2 | 03.5 | 0983.3 | - |
| 29 | 0.0 | 25 | 18.1 | -16.8 | -24.5 | -21.2 | 10.0 | 0979.1 | - |
| 30 | 4.6 | 28 | 24.8 | -11.9 | -16.8 | -14.7 | 04.4 | 0971.2 | - |
| 31 | 6.1 | 35 | 25.8 | -11.8 | -16.3 | -14.2 | 15.4 | 0982.1 | - |
| Mean | 5.0 | 29.6 | 22.0 | -13.0 | -17.4 | -15.2 | 07.3 | 0984.9 | |

Table 12: Daily Weather Summary - August,1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|---------|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 3.1 | 25 | 22.8 | -14.9 | -16.8 | -16.0 | 04.4 | 0989.2 | - |
| 02 | 6.8 | 35 | 29.8 | -16.0 | -19.9 | -18.1 | 10.0 | 0979.4 | - |
| 03 | 1.9 | 25 | 12.5 | -18.7 | -24.8 | -20.8 | 01.5 | 0976.4 | - |
| 04 | 2.0 | 28 | 16.5 | -16.2 | -25.2 | -20.9 | 06.8 | 0980.3 | - |
| 05 | 8.0 | 35 | 30.4 | -11.2 | -16.8 | -14.6 | 03.2 | 0981.8 | SD |
| 06 | 8.0 | 25 | 05.6 | -10.8 | -19.4 | -15.7 | 04.8 | 0982.2 | - |
| 07 | 4.4 | 15 | 05.4 | -18.6 | -25.2 | -21.2 | 03.3 | 0976.9 | P |
| 08 | 0.5 | 20 | 08.6 | -22.2 | -28.8 | -24.3 | 07.3 | 0979.0 | - |
| 09 | 0.5 | 15 | 01.9 | -21.5 | -29.1 | -27.8 | 01.9 | 0982.4 | - |
| 10 | 3.6 | 20 | 04.1 | -12.6 | -25.6 | -22.3 | 10.6 | 0988.3 | - |
| 11 | 7.8 | 35 | 01.5 | -11.2 | -23.7 | -16.3 | 18.0 | 0980.3 | SB |
| 12 | 6.6 | 40 | 21.8 | -10.6 | -16.5 | -13.8 | 22.5 | 0981.5 | MB |
| 13 | 4.4 | 08 | 01.0 | -12.0 | -21.5 | -17.6 | 05.3 | 0993.3 | - |
| 14 | 8.0 | 30 | 12.6 | -12.6 | -19.2 | -15.8 | 17.5 | 0982.2 | P,SD,SB |
| 15 | 8.0 | 40 | 38.1 | -13.0 | -14.7 | -13.9 | 10.0 | 0966.4 | MB,HB |
| 16 | 8.0 | 35 | 20.4 | -14.5 | -22.8 | -18.5 | 07.5 | 0967.7 | P,MB,SD |
| 17 | 8.0 | 40 | 27.6 | -15.3 | -21.4 | -19.7 | 05.3 | 0979.9 | SB |
| 18 | 5.9 | 22 | 05.4 | -15.5 | -21.8 | -18.4 | 11.5 | 0973.1 | - |
| 19 | 4.4 | 25 | 17.0 | -14.2 | -21.8 | -16.4 | 15.5 | 0979.0 | - |
| 20 | 6.4 | 25 | 17.5 | -14.8 | -24.3 | -16.6 | 03.2 | 0988.9 | - |
| 21 | 3.0 | 10 | 01.6 | -21.2 | -26.1 | -24.0 | 03.9 | 0987.8 | - |
| 22 | 6.8 | 03 | 00.4 | -20.6 | -25.6 | -23.6 | 05.2 | 0989.3 | - |
| 23 | 8.0 | 25 | 11.5 | -14.5 | -23.6 | -20.4 | 07.8 | 0993.3 | P,SB |
| 24 | 7.1 | 40 | 26.3 | -11.2 | -19.7 | -15.7 | 12.5 | 0996.6 | SB |
| 25 | 8.0 | 65 | 51.3 | -07.9 | -11.5 | -09.5 | 15.0 | 0978.1 | HB,MB |
| 26 | 8.0 | 50 | 38.1 | -09.0 | -13.1 | -11.1 | 11.0 | 0978.9 | MB,SB |
| 27 | 8.0 | 35 | 31.0 | -11.8 | -15.3 | -13.1 | 05.9 | 0987.3 | SB |
| 28 | 6.3 | 15 | 07.0 | -14.9 | -20.5 | -17.0 | 02.0 | 0989.9 | - |
| 29 | 0.6 | 15 | 06.8 | -15.5 | -21.4 | -18.1 | 03.9 | 0988.7 | - |
| 30 | 1.8 | 20 | 13.1 | -19.3 | -25.8 | -21.8 | 06.6 | 0995.9 | - |
| 31 | 2.5 | 10 | 05.6 | -18.4 | -26.0 | -22.2 | 07.1 | 0993.7 | - |
| Mean | 5.4 | 26.8 | 15.9 | -14.9 | -21.5 | -18.2 | 08.1 | 0983.5 | |

Table 13: Daily Weather Summary - September, 1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 0.1 | 30 | 12.7 | -12.5 | -25.6 | -20.2 | 02.5 | 0991.7 | - |
| 02 | 4.3 | 30 | 23.6 | -12.0 | -15.2 | -13.6 | 07.6 | 0989.1 | - |
| 03 | 1.0 | 16 | 07.5 | -13.6 | -22.8 | -16.7 | 07.0 | 0979.4 | - |
| 04 | 0.0 | 20 | 00.5 | -17.3 | -23.8 | -21.2 | 09.9 | 0980.6 | - |
| 05 | 5.3 | 40 | 26.3 | -13.8 | -17.9 | -15.8 | 14.2 | 0977.5 | - |
| 06 | 3.9 | 40 | 33.7 | -14.9 | -17.8 | -15.7 | 03.9 | 0976.3 | - |
| 07 | 2.6 | 28 | 11.9 | -16.5 | -20.6 | -18.7 | 06.2 | 0968.4 | - |
| 08 | 5.1 | 20 | 19.1 | -15.8 | -20.9 | -17.3 | 02.1 | 0962.6 | P |
| 09 | 6.1 | 18 | 10.8 | -16.8 | -27.8 | -22.4 | 05.1 | 0965.2 | P |
| 10 | 0.6 | 25 | 08.3 | -17.0 | -27.6 | -22.9 | 04.3 | 0968.6 | SD |
| 11 | 0.0 | 25 | 11.4 | -17.5 | -26.1 | -21.9 | 08.3 | 0963.7 | - |
| 12 | 0.0 | 25 | 14.4 | -16.9 | -23.1 | -20.5 | 05.7 | 0978.4 | - |
| 13 | 0.5 | 30 | 14.5 | -15.3 | -24.6 | -19.1 | 06.7 | 0986.3 | SD |
| 14 | 0.8 | 10 | 02.3 | -18.1 | -26.1 | -21.8 | 04.7 | 0990.4 | - |
| 15 | 5.4 | 10 | 03.3 | -17.2 | -26.6 | -20.0 | 04.6 | 0995.8 | - |
| 16 | 6.5 | 10 | 04.3 | -15.0 | -21.5 | -17.5 | 05.0 | 1000.1 | - |
| 17 | 6.5 | 20 | 07.5 | -10.9 | -22.5 | -15.2 | 01.1 | 1002.4 | - |
| 18 | 6.4 | 35 | 20.1 | -08.0 | -12.8 | -09.9 | 07.7 | 1000.1 | - |
| 19 | 1.0 | 50 | 33.1 | -07.6 | -14.3 | -10.1 | 06.7 | 0991.3 | - |
| 20 | 7.3 | 50 | 43.7 | -08.1 | -12.2 | -10.1 | 03.5 | 0988.9 | - |
| 21 | 8.0 | 35 | 27.9 | -07.0 | -09.1 | -08.0 | 04.0 | 0991.8 | - |
| 22 | 7.0 | 25 | 20.1 | -08.8 | -12.3 | -10.1 | 02.6 | 0995.2 | - |
| 23 | 1.6 | 25 | 18.1 | -10.5 | -16.8 | -12.8 | 01.6 | 0994.1 | - |
| 24 | 0.0 | 16 | 05.1 | -15.0 | -22.9 | -17.7 | 11.4 | 1000.5 | - |
| 25 | 1.9 | 05 | 00.6 | -18.5 | -24.8 | -21.8 | 05.6 | 1006.2 | - |
| 26 | 0.0 | 04 | 01.0 | -18.1 | -24.9 | -22.0 | 11.4 | 1005.3 | - |
| 27 | 4.1 | 20 | 02.8 | -09.0 | -23.8 | -16.6 | 10.4 | 1019.1 | - |
| 28 | 1.6 | 25 | 08.6 | -04.2 | -18.4 | -09.2 | 18.6 | 1016.1 | - |
| 29 | 0.5 | 30 | 22.3 | -00.8 | -10.9 | -05.7 | 18.3 | 0997.5 | - |
| 30 | 0.5 | 30 | 19.4 | -06.0 | -16.4 | -12.2 | 06.3 | 0984.1 | - |
| Mean | 3.0 | 24.9 | 14.5 | -12.8 | -20.3 | -16.2 | 06.9 | 0988.9 | |

Table 14: Daily Weather Summary - October,1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----------|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 2.5 | 25 | 19.1 | -13.5 | -16.4 | -15.3 | 03.8 | 0979.2 | - |
| 02 | 8.0 | 30 | 22.7 | -07.0 | -15.0 | -10.2 | 05.9 | 0975.7 | P,MD |
| 03 | 8.0 | 35 | 27.5 | -09.3 | -12.4 | -10.4 | 07.4 | 0980.7 | - |
| 04 | 7.3 | 25 | 22.8 | -11.5 | -13.4 | -12.1 | 01.3 | 0983.6 | - |
| 05 | 4.9 | 25 | 19.1 | -09.1 | -13.1 | -11.2 | 01.8 | 0984.8 | - |
| 06 | 0.6 | 20 | 07.4 | -10.0 | -19.2 | -13.5 | 04.1 | 0983.9 | - |
| 07 | 3.6 | 50 | 20.3 | -15.0 | -19.6 | -16.5 | 00.1 | 0987.3 | HB |
| 08 | * | 50 | 45.0 | -10.4 | -15.8 | -13.6 | 13.0 | 0972.2 | HB |
| 09 | 8.0 | 40 | 31.4 | -08.8 | -11.6 | -10.1 | 09.8 | 0976.0 | HB,MB,SD |
| 10 | 8.0 | 30 | 27.9 | -06.5 | -10.0 | -07.8 | 06.8 | 0977.2 | MB |
| 11 | 5.1 | 25 | 23.3 | -08.2 | -12.6 | -09.9 | 09.5 | 0986.4 | - |
| 12 | 6.1 | 25 | 20.4 | -08.8 | -13.0 | -10.6 | 07.4 | 0990.0 | - |
| 13 | 6.8 | 22 | 14.9 | -08.3 | -10.7 | -09.2 | 04.5 | 0984.9 | - |
| 14 | 7.0 | 22 | 19.0 | -08.0 | -11.5 | -09.7 | 08.6 | 0976.2 | - |
| 15 | 7.3 | 06 | 01.1 | -07.0 | -11.9 | -09.6 | 04.6 | 0974.3 | - |
| 16 | 2.3 | 00 | 00.0 | -10.1 | -18.2 | -13.4 | 09.5 | 0982.0 | - |
| 17 | 0.8 | 28 | 06.6 | -08.2 | -19.8 | -12.2 | 03.7 | 0987.9 | - |
| 18 | 1.1 | 35 | 21.3 | -08.0 | -17.4 | -13.1 | 03.0 | 0988.3 | - |
| 19 | 0.6 | 30 | 21.9 | -07.8 | -13.8 | -10.7 | 01.6 | 0988.2 | - |
| 20 | 0.0 | 30 | 17.4 | -06.2 | -14.4 | -10.5 | 06.5 | 0978.9 | - |
| 21 | 8.0 | 30 | 28.4 | -06.0 | -11.0 | -07.8 | 04.2 | 0968.0 | SD |
| 22 | 8.0 | 20 | 02.5 | -08.5 | -13.3 | -11.1 | 08.7 | 0974.3 | P |
| 23 | 8.0 | 20 | 13.1 | -09.0 | -13.0 | -10.8 | 03.2 | 0979.4 | P,SD |
| 24 | 6.4 | 20 | 09.6 | -08.8 | -15.0 | -10.3 | 01.5 | 0979.8 | - |
| 25 | 2.0 | 30 | 18.8 | -07.4 | -15.3 | -10.5 | 05.7 | 0982.2 | SD |
| 26 | 8.0 | 30 | 23.8 | -07.4 | -12.6 | -09.4 | 01.2 | 0986.5 | SD |
| 27 | 7.3 | 30 | 24.5 | -04.8 | -08.9 | -06.8 | 02.3 | 0987.5 | - |
| 28 | 8.0 | 30 | 26.0 | -04.0 | -06.5 | -05.3 | 01.6 | 0990.1 | - |
| 29 | 4.1 | 28 | 15.3 | -02.4 | -09.8 | -05.8 | 04.6 | 0991.3 | - |
| 30 | 0.0 | 25 | 08.3 | -05.0 | -10.9 | -07.0 | 08.0 | 0992.3 | - |
| 31 | 0.0 | 30 | 12.9 | -04.0 | -11.1 | -08.4 | 04.2 | 0986.2 | - |
| Mean | 5.1 | 27.3 | 18.5 | -08.0 | -13.5 | -10.4 | 05.1 | 0982.4 | - |

Table 15: Daily Weather Summary - November,1994

| YY | N | FF | | TTT | | PPPP | | WW | |
|------|-----|------|------|-------|-------|-------|------|--------|------|
| | | max | Mean | Max | Mm | Mean | @P | | Mean |
| 01 | 0.0 | 40 | 27.0 | -06.0 | -11.5 | -09.1 | 05.9 | 0986.1 | - |
| 02 | 6.6 | 26 | 21.0 | -06.4 | -11.4 | -08.2 | 02.4 | 0991.3 | - |
| 03 | 4.7 | 25 | 16.9 | -07.6 | -10.5 | -08.8 | 08.8 | 0988.8 | - |
| 04 | 5.0 | 30 | 23.1 | -03.9 | -12.5 | -07.1 | 13.1 | 0976.6 | - |
| 05 | 7.9 | 30 | 28.3 | -05.1 | -07.4 | -06.1 | 11.2 | 0976.7 | - |
| 06 | 4.6 | 30 | 25.6 | -02.4 | -05.4 | -03.7 | 06.2 | 0987.3 | - |
| 07 | 7.8 | 30 | 19.1 | -02.2 | -06.5 | -03.9 | 10.5 | 0994.1 | - |
| 08 | 3.8 | 25 | 12.4 | -03.0 | -09.0 | -05.1 | 05.7 | 1003.6 | - |
| 09 | 7.3 | 20 | 11.3 | -03.0 | -06.9 | -05.1 | 07.2 | 1003.6 | - |
| 10 | 6.8 | 22 | 08.9 | -00.9 | -08.9 | -03.9 | 02.9 | 0998.2 | P |
| 11 | 7.9 | 28 | 20.8 | -02.2 | -06.1 | -04.6 | 07.2 | 0998.0 | P |
| 12 | 5.5 | 32 | 21.7 | -01.6 | -06.9 | -03.7 | 11.9 | 0987.8 | - |
| 13 | 0.4 | 28 | 16.9 | -01.9 | -10.1 | -04.8 | 11.7 | 0984.9 | - |
| 14 | 4.3 | 20 | 06.4 | -02.3 | -10.7 | -06.3 | 02.1 | 0993.3 | P |
| 15 | 8.0 | 25 | 15.8 | -03.4 | -06.0 | -04.8 | 02.1 | 0991.8 | P |
| 16 | 7.5 | 25 | 20.9 | -02.8 | -05.6 | -04.2 | 04.7 | 0994.7 | P |
| 17 | 3.5 | 15 | 11.3 | -01.0 | -07.5 | -03.4 | 03.3 | 0995.8 | - |
| 18 | 0.5 | 20 | 08.0 | -01.2 | -08.5 | -04.0 | 03.1 | 1000.6 | - |
| 19 | 0.0 | 15 | 05.9 | +00.3 | -08.6 | -03.1 | 06.7 | 0997.9 | - |
| 20 | 1.5 | 12 | 06.3 | -01.6 | -09.1 | -05.0 | 04.9 | 0993.9 | - |
| 21 | 3.1 | 15 | 06.9 | +00.7 | -08.5 | -03.5 | 05.0 | 0998.6 | - |
| 22 | 6.8 | 20 | 10.9 | -02.2 | -06.6 | -04.1 | 08.8 | 0989.5 | - |
| 23 | 1.4 | 20 | 11.4 | -01.0 | -06.5 | -03.5 | 03.1 | 0985.6 | - |
| 24 | 0.1 | 30 | 16.1 | -00.1 | -06.0 | -02.6 | 01.2 | 0982.5 | - |
| 25 | 0.4 | 20 | 09.6 | 00.0 | -06.8 | -03.0 | 03.5 | 0984.8 | - |
| 26 | 1.5 | 12 | 08.5 | -01.2 | -06.5 | -03.5 | 06.2 | 0989.5 | - |
| 27 | 6.4 | 20 | 15.3 | -00.6 | -06.5 | -03.5 | 05.3 | 0991.3 | - |
| 28 | 6.9 | 36 | 27.9 | -02.8 | -06.7 | -04.5 | 04.3 | 0984.8 | - |
| 29 | 4.8 | 22 | 15.3 | +00.2 | -05.5 | -01.8 | 01.6 | 0985.7 | - |
| 30 | 1.9 | 20 | 11.6 | +00.4 | -05.5 | -02.0 | 01.5 | 0984.8 | - |
| Mean | 4.2 | 23.8 | 15.4 | -02.2 | -07.8 | -04.6 | 05.7 | 0990.7 | |

Table 16: Daily Weather Summary - December,1994

| YY | N | FF | | TTT | | | PPPP | | WW |
|------|-----|------|------|-------|-------|-------|------|--------|----|
| | | Max | Mean | Max | Min | Mean | @P | Mean | |
| 01 | 4.7 | 20 | 12.8 | -00.2 | -05.9 | -02.2 | 04.0 | 0986.5 | - |
| 02 | 5.0 | 20 | 12.6 | +00.1 | -05.4 | -02.5 | 05.3 | 0991.7 | - |
| 03 | 7.1 | 25 | 21.5 | +00.2 | -03.5 | -01.7 | 01.7 | 0995.3 | - |
| 04 | 1.9 | 28 | 15.1 | +02.2 | -03.5 | -00.6 | 03.2 | 0989.4 | - |
| 05 | 2.8 | 25 | 17.4 | +02.0 | -04.4 | -00.1 | 04.9 | 0985.2 | - |
| 06 | 1.5 | 25 | 18.1 | +03.4 | -03.3 | +01.0 | 04.6 | 0986.5 | - |
| 07 | 6.5 | 26 | 19.6 | +03.0 | -01.5 | +01.7 | 10.8 | 0980.4 | - |
| 08 | 5.3 | 30 | 23.7 | +03.7 | -02.3 | +01.3 | 04.1 | 0970.2 | - |
| 09 | 3.4 | 30 | 17.3 | +04.2 | -00.4 | +02.3 | 07.8 | 0974.0 | - |
| 10 | 2.7 | 20 | 13.5 | +05.2 | -01.0 | +02.6 | 05.7 | 0982.4 | - |
| 11 | 2.8 | 20 | 09.4 | +06.8 | -02.0 | +01.9 | 01.8 | 0984.1 | - |
| 12 | 2.1 | 15 | 08.3 | +03.9 | -04.2 | +01.6 | 03.6 | 0985.7 | F |
| 13 | 3.9 | 12 | 04.6 | +02.6 | -05.0 | -01.5 | 03.1 | 0982.1 | F |
| 14 | 0.3 | 25 | 13.4 | +04.4 | -02.5 | +00.9 | 03.8 | 0981.1 | - |
| 15 | 0.4 | 22 | 12.9 | +03.7 | -02.7 | +00.7 | 01.0 | 0983.6 | - |
| 16 | 2.4 | 10 | 05.5 | +03.3 | -03.3 | +00.1 | 03.5 | 0983.5 | - |
| 17 | 5.0 | 12 | 08.1 | -00.2 | -05.0 | -02.3 | 01.9 | 0980.7 | - |
| 18 | 7.3 | 10 | 06.0 | -01.2 | -05.7 | -03.3 | 03.1 | 0977.5 | P |
| 19 | 4.8 | 15 | 08.5 | 00.0 | -05.0 | -02.3 | 07.7 | 0979.7 | P |
| 20 | 3.3 | 10 | 05.8 | +01.9 | -06.0 | -00.9 | 03.3 | 0986.2 | - |
| 21 | 0.5 | 10 | 07.1 | +01.8 | -03.5 | -00.8 | 01.2 | 0988.1 | - |
| 22 | 0.8 | 10 | 06.0 | +03.2 | -04.0 | 00.0 | 03.7 | 0985.5 | - |
| 23 | 1.9 | 10 | 03.8 | +01.2 | -04.6 | -01.3 | 01.3 | 0983.5 | - |
| 24 | 6.9 | 15 | 11.1 | +03.2 | -03.5 | -00.2 | 04.5 | 0981.5 | - |
| 25 | 5.7 | 22 | 15.0 | +02.6 | -02.5 | +00.2 | 04.1 | 0977.0 | - |
| 26 | 7.5 | 45 | 28.4 | +00.1 | -02.5 | -00.8 | 07.7 | 0972.2 | - |
| 27 | 7.9 | 45 | 41.8 | -00.8 | -02.7 | -01.9 | 03.7 | 0968.1 | - |
| 28 | 8.0 | 40 | 33.5 | -01.0 | -02.2 | -01.6 | 13.7 | 0976.7 | P |
| 29 | 7.4 | 25 | 20.5 | +02.1 | -03.1 | -00.5 | 03.8 | 0984.9 | P |
| 30 | 7.3 | 22 | 18.1 | +01.0 | -02.0 | -00.5 | 03.0 | 0981.1 | P |
| 31 | 7.5 | 30 | 25.1 | +03.0 | -02.0 | +00.9 | 02.5 | 0978.7 | - |
| Mean | 4.3 | 21.7 | 15.0 | +02.1 | -03.4 | -00.3 | 04.3 | 0982.0 | |

Global Solar Radiation

During 1994 annual sunset occurred on May 23 and sun returned on July 24. Mean hourly global solar radiation in different months are given in Figs 2 and 3. As expected mean hourly global solar radiation is maximum in January with peak around 1300 hrs local time(255 MJ/m²) and it was zero in June. The values for corresponding hours decreased gradually from January to June and then increased from July to December.

Net Terrestrial Radiation in the Atmosphere

Based on the Radiometersondes at Maitri during 1994, mean monthly net terrestrial radiation values are computed and presented in Table 4 for different isobaric levels. The net terrestrial radiation generally increases with height in troposphere and then decreases above. There is no systematic variation from

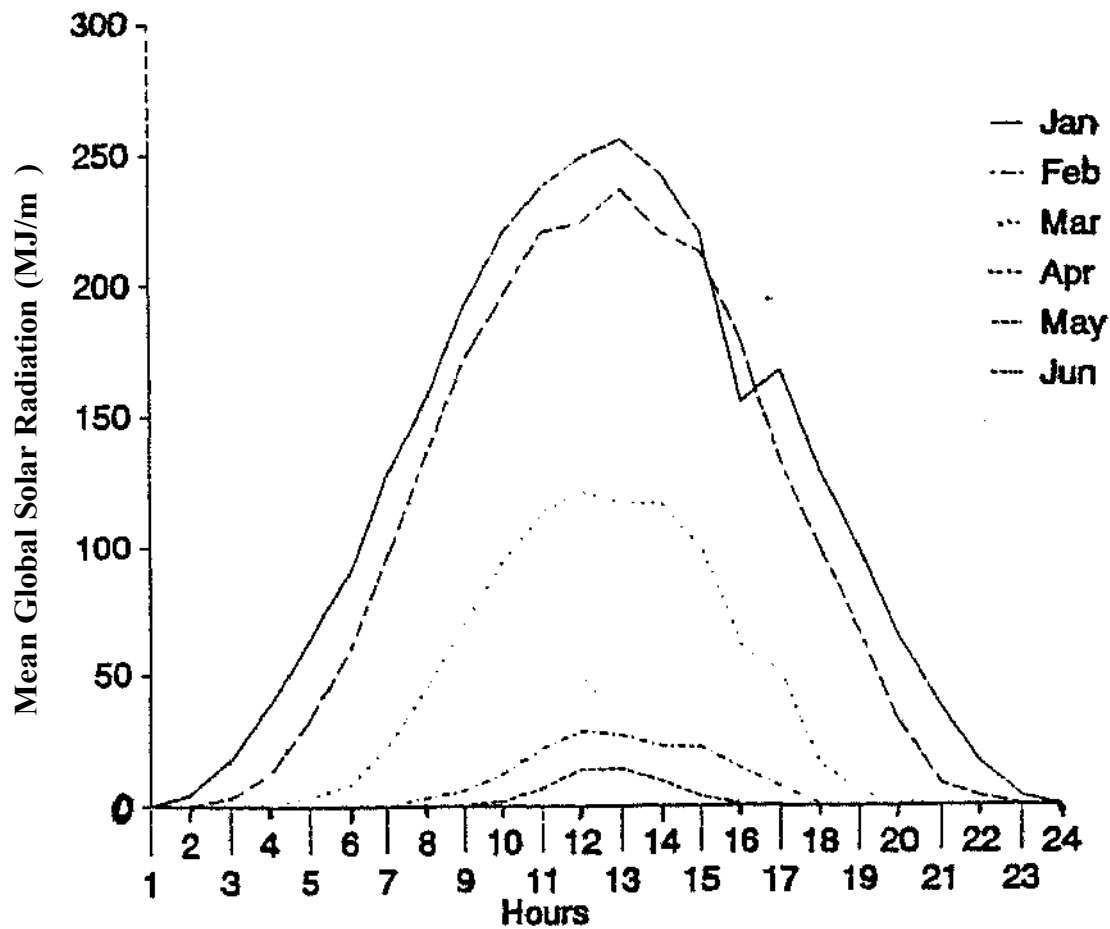


Fig. 2: Mean hourly global solar radiation (Mega Joule m⁻²) from January to June at Maitri during 1994

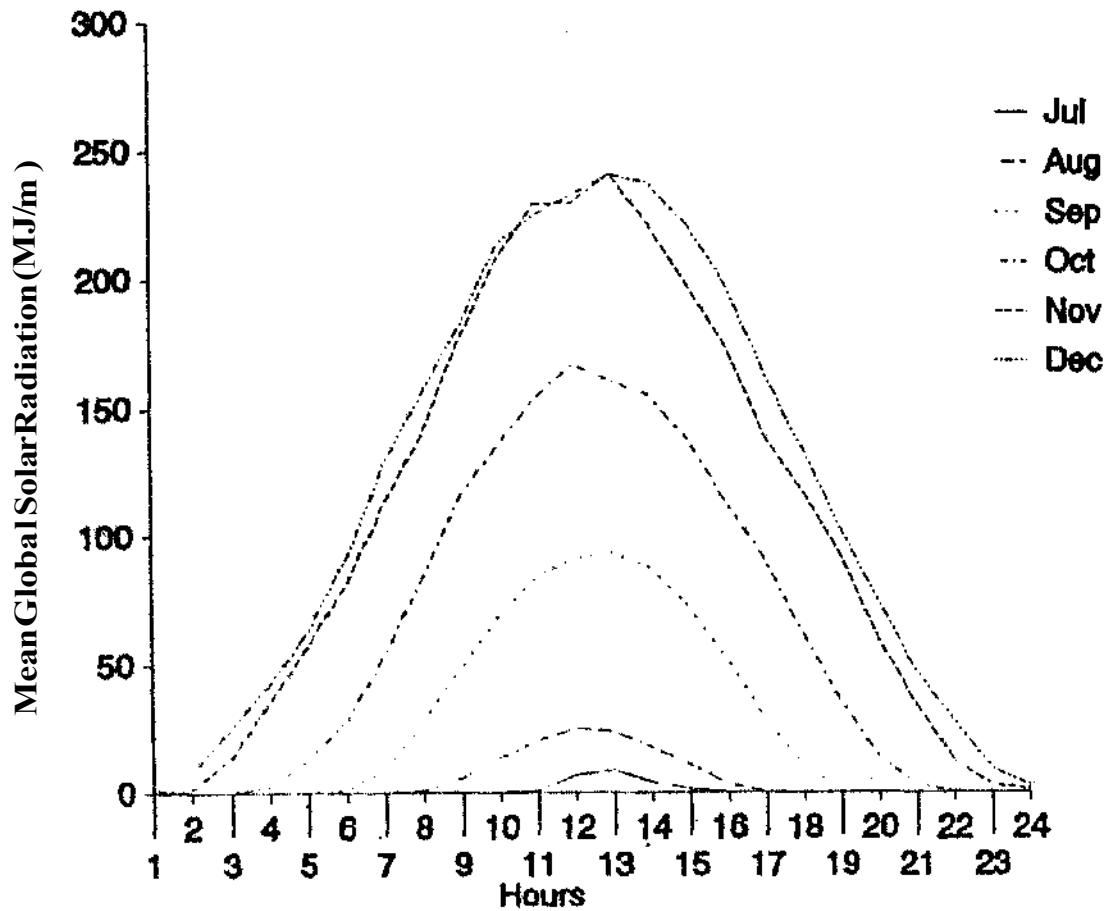


Fig. 3: Mean hourly global solar radiation (Mega Joule m^{-2}) from July to December at Maitri during 1994

month to month but generally higher in summer and lower in winter in almost at all levels.

Conclusions

- (a) At Maitri, August was the coldest month during the year 1994. Both lowest monthly mean air temperature -18.2 Deg.C and extreme lowest air temperature of the year -29.1 Deg.C were recorded in August. During blizzards warmer air temperatures were experienced.
- (b) Highest mean sea level pressure of the year recorded in 1994 was 1024.2 hPa in September and the lowest 960.8 hPa was also in same month. Experience shows that pressure tendency alone is not a good indicator for predicting wind speeds.
- (c) Interestingly both maximum and minimum pressures are occurring between 21 to 03 GMT more frequently. Annual mean percentages for maximum pressure values are 40.8 and 28.6 between 2100-2400 hrs and

2400-0300 hrs respectively. The corresponding figures for minimum pressure values are 35.6 and 29.8. The corresponding percentages are least for maximum pressure values in 0900-1200 time interval and for minimum pressure values in 1200-1500 hrs GMT time interval.

- (d) Highest maximum wind speed of the year, 65 knots gusting to about 80 knots was recorded in August. April had the maximum number of blizzard days and there were no blizzard First two and last two months.
- (e) Cloud amounts at Maitri are highly variable from day to day. Annual mean cloud amount during 1994 was 4.6 octa. Highest number of precipitation in a month was in January and there was no precipitation in June.
- (f) Auroral activity was observed on 65 days during 1994 at Maitri the highest number of 14 days in September followed by 12 and 11 days in May and April respectively.
- (g) Mean hourly Global solar radiation is maximum in January with peak around 1300 hrs local time(255 MJ/m²) and it was zero in June. The values for corresponding hours decreased gradually from January to June and then increased from July to December.
- (h) The net terrestrial radiation generally increases with height in troposphere and then decreases above.

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