

# McMurdo Station Daily Observation Worksheet

Date: 01

| Time          | Winds |     | 3 hr Temp |          | Visibility (hrs) |                  |       | Wx and Duration (Note 2) |                |          |                 |          | Pcpn Amt | Max Wind (Note 3) |          |           | Max Gust (Note 3) |          |           | Avg Sky Cover   | Low-est CIG     | Ceiling (hrs) |               |        | Alt (in) |       |       |
|---------------|-------|-----|-----------|----------|------------------|------------------|-------|--------------------------|----------------|----------|-----------------|----------|----------|-------------------|----------|-----------|-------------------|----------|-----------|-----------------|-----------------|---------------|---------------|--------|----------|-------|-------|
|               | Zulu  | Dir | Spd       | Temp     | Max              | Min              | <1600 | <4800                    | <9999          | sn/sg/ic | hrs             | fg/br    |          | hrs               | bs       | hrs       | Spd               | Dir      | Time      |                 |                 | Spd           | Dir           | Time   |          | <500  | <1000 |
| 12-15Z        |       |     |           |          | -34.1            | -37.0            |       |                          |                |          |                 |          |          |                   | 28       | 30        | 1212              | 32       | 30        | 1237            |                 |               |               |        |          |       |       |
| 15-18Z        | 320   |     | 12        | -32.3    | -31.2            | -36.7            |       |                          |                |          |                 |          |          |                   | 12       | 320       | 1750              | 16       | 330       | 1639            | 0               |               |               |        | 28.75    |       |       |
| 18-21Z        |       |     |           |          | -32.3            | -39.2            |       |                          |                |          |                 |          |          |                   | 11       | 300       | 1824              | 14       | 300       | 1823            |                 |               |               |        |          |       |       |
| 21-24Z        |       |     | 0         | -38.1    | -34.1            | -38.9            |       |                          |                |          |                 |          |          |                   | 9        | 310       | 2104              | 12       | 300       | 2127            | 4               |               |               |        | 28.66    |       |       |
| 12 hr Max/Min |       |     |           |          | -31.2            | -39.2            |       |                          |                |          |                 |          |          |                   |          |           |                   |          |           |                 |                 |               |               |        |          |       |       |
| 00-03Z        |       |     |           |          | -35.4            | -38.0            |       |                          |                |          |                 |          |          |                   | 3        | 170       | 250               | 4        | 180       | 250             |                 |               |               |        |          |       |       |
| 03-06Z        |       |     | 0         | -36.4    | -34.4            | -36.5            |       |                          |                |          |                 |          |          |                   | 3        | 310       | 519               | 4        | 230       | 523             | 0               |               |               |        | 28.61    |       |       |
| 06-09Z        |       |     |           |          | -32.0            | -37.7            |       |                          |                |          |                 |          |          |                   | 19       | 30        | 722               | 25       | 30        | 721             |                 |               |               |        |          |       |       |
| 09-12Z        |       |     | 0         | -34.2    | -28.4            | -40.8            |       |                          |                |          |                 |          |          |                   | 18       | 60        | 908               | 21       | 60        | 908             | 0               |               |               |        | 28.72    |       |       |
| 12 hr Max/Min |       |     |           |          | -28.4            | -40.8            |       |                          |                |          |                 |          |          |                   |          |           |                   |          |           |                 |                 |               |               |        |          |       |       |
| Avg Wind      | Dir   | Spd | Max Temp  | Min Temp | Avg Temp         | Visibility (hrs) |       |                          | Min Wind Chill |          | WX and Duration |          |          | Pcpn Total        | Max Wind |           |                   | Max Gust |           |                 | Avg Sky Cover   | Low-est CIG   | Ceiling (hrs) |        |          |       |       |
|               |       |     |           |          |                  | Time             | <1600 | <4800                    | <9999          | C        | F               | sn/sg/ic | fg/br    |                   | bs       | Dir       | Spd               | Time     | Dir       | Spd             |                 |               | Time          | Time   | <500     | <1000 | <3000 |
| 320           |       | 3   | -28.4     | -40.8    | -34.6            | 00-06L           | 0     | 0                        | 0              | -70.0    | -95.0           | 0        | 0        | 0                 | 0.00     | 30        | 28                | 1212     | 30        | 32              | 1237            |               |               | 00-06L | 0        | 0     | 0     |
|               |       |     |           |          |                  | 06-12L           | 0     | 0                        | 0              |          |                 |          |          |                   |          | Altimeter |                   |          | Total Obs | Daily Pres Diff | Daily Temp Diff | 1             |               | 06-12L | 0        | 0     | 0     |
|               |       |     |           |          |                  | 12-18L           | 0     | 0                        | 0              |          |                 |          |          |                   |          | Max       | Min               | Avg      |           |                 |                 |               |               | 12-18L | 0        | 0     | 0     |
|               |       |     |           |          |                  | 18-24L           | 0     | 0                        | 0              |          |                 |          |          |                   |          | 28.75     | 28.61             | 28.69    | Taken     |                 |                 |               |               | 18-24L | 0        | 0     | 0     |
|               |       |     |           |          |                  |                  |       |                          |                |          |                 |          |          |                   |          |           |                   |          |           |                 |                 |               |               |        |          |       |       |
|               |       |     |           |          |                  |                  |       |                          |                |          |                 |          |          |                   |          |           |                   |          |           |                 |                 |               |               |        |          |       |       |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

## McMurdo Station Daily Observation Worksheet

Date: 02

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |     |       | -31.2     | -39.7 |                  |       |       |                          |     |       |     |    |          | 7                 | 340 | 1350 | 10                | 320 | 1237 |               |             |               |      |       |          |
| 15-18Z        |       | 0   | -34.5 | -34.1     | -39.0 |                  |       |       |                          |     |       |     |    |          | 2                 | 60  | 1717 | 3                 | 30  | 1713 | 0             |             |               |      | 28.70 |          |
| 18-21Z        |       |     |       | -33.7     | -35.3 |                  |       |       |                          |     |       |     |    |          | 3                 | 150 | 2040 | 4                 | 150 | 2040 |               |             |               |      |       |          |
| 21-24Z        |       | 0   | -27.8 | -27.4     | -35.3 |                  |       |       |                          |     |       |     |    |          | 9                 | 30  | 2339 | 10                | 40  | 2340 | 0             |             |               |      | 28.67 |          |
| 12 hr Max/Min |       |     |       | -27.4     | -39.7 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z        |       |     |       | -28.1     | -35.5 |                  |       |       |                          |     |       |     |    |          | 13                | 30  | 245  | 16                | 50  | 243  |               |             |               |      |       |          |
| 03-06Z        | 70    | 18  | -32.8 | -28.0     | -35.5 |                  |       |       |                          |     |       |     |    |          | 19                | 60  | 546  | 26                | 60  | 546  | 0             |             |               |      | 28.73 |          |
| 06-09Z        |       |     |       | -30.1     | -33.7 |                  |       |       |                          |     |       |     |    |          | 21                | 60  | 614  | 25                | 60  | 611  |               |             |               |      |       |          |
| 09-12Z        |       | 3   | -36.7 | -28.6     | -38.5 |                  |       |       |                          |     |       |     |    |          | 9                 | 70  | 857  | 9                 | 60  | 857  | 0             |             |               |      | 28.84 |          |
| 12 hr Max/Min |       |     |       | -28.0     | -38.5 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Avg Wind Dir | Max Spd | Min Temp | Avg Temp | Visibility (hrs) |        |       | Min Wind Chill |   | WX and Duration |          |       | Pcpn Total | Max Wind |      |           | Max Gust |       |                 | Avg Sky Cover   | Low-est CIG     | Ceiling (hrs) |      |        |       |       |   |
|--------------|---------|----------|----------|------------------|--------|-------|----------------|---|-----------------|----------|-------|------------|----------|------|-----------|----------|-------|-----------------|-----------------|-----------------|---------------|------|--------|-------|-------|---|
|              |         |          |          | Time             | <1600  | <4800 | <9999          | C | F               | sn/sg/ic | fg/br |            | bs       | Dir  | Spd       | Time     | Dir   | Spd             |                 |                 | Time          | Time | <500   | <1000 | <3000 |   |
| 70           | 5       | -27.4    | -39.7    | -33.6            | 00-06L | 0     | 0              | 0 | -66.0           | -87.0    | 0     | 0          | 0        | 0.00 | 60        | 21       | 614   | 60              | 26              | 546             | 0             |      | 00-06L | 0     | 0     | 0 |
|              |         |          |          |                  | 06-12L | 0     | 0              | 0 |                 |          |       |            |          |      | Altimeter |          |       |                 |                 |                 | 0             |      | 06-12L | 0     | 0     | 0 |
|              |         |          |          |                  | 12-18L | 0     | 0              | 0 |                 |          |       |            |          |      | Max       | Min      | Avg   | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |               |      | 12-18L | 0     | 0     | 0 |
|              |         |          |          |                  | 18-24L | 0     | 0              | 0 |                 |          |       |            |          |      | 28.84     | 28.67    | 28.74 | 1               | 0.17            | 12.3            |               |      | 18-24L | 0     | 0     | 0 |



## McMurdo Station Daily Observation Worksheet

Date: 03

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |         | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|---------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000   |          |
| 12-15Z        |       |     |       | -33.6     | -39.4 |                  |       |       |                          |     |       |     |    |          | 7                 | 300 | 1431 | 10                | 200 | 1336 |               |             |               |      |         |          |
| 15-18Z        |       | 0   | -32.4 | -29.0     | -34.2 |                  |       |       |                          |     |       |     |    |          | 11                | 330 | 1520 | 15                | 330 | 1520 | 0             |             |               |      | 28.87   |          |
| 18-21Z        |       |     |       | -31.0     | -33.0 |                  |       |       |                          |     |       |     |    |          | 6                 | 50  | 1850 | 6                 | 50  | 1850 |               |             |               |      |         |          |
| 21-24Z        |       | 0   | -33.0 | -32.1     | -33.1 |                  |       |       |                          |     |       |     |    |          | 4                 | 360 | 2211 | 4                 | 350 | 2331 | 0             |             |               |      | 28.91   |          |
| 12 hr Max/Min |       |     |       | -29.0     | -39.4 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |         |          |
| 00-03Z        |       |     |       | -32.1     | -38.7 |                  |       |       |                          |     |       |     |    |          | 7                 | 160 | 231  | 15                | 160 | 229  |               |             |               |      |         |          |
| 03-06Z        |       | 0   | -33.0 | -32.5     | -36.7 |                  |       |       |                          |     |       |     |    |          | 6                 | 160 | 504  | 11                | 160 | 5    | 0             |             |               |      | 28.93   |          |
| 06-09Z        |       |     |       | -31.7     | -36.9 |                  |       |       |                          |     |       |     |    |          | 7                 | 310 | 846  | 9                 | 300 | 845  |               |             |               |      |         |          |
| 09-12Z        | 340   | 11  | -26.0 | -26.0     | -31.8 |                  |       |       |                          |     |       |     |    |          | 15                | 330 | 1139 | 18                | 340 | 1138 | 5             | 30          |               |      | 3 28.91 |          |
| 12 hr Max/Min |       |     |       | -26.0     | -38.7 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |         |          |

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Avg Wind Dir | Max Spd | Min Temp | Avg Temp | Visibility (hrs) |        |       | Min Wind Chill |   | WX and Duration |          |       | Pcpn Total | Max Wind |      |           | Max Gust |       |                 | Avg Sky Cover   | Low-est CIG     | Ceiling (hrs) |      |        |       |       |   |
|--------------|---------|----------|----------|------------------|--------|-------|----------------|---|-----------------|----------|-------|------------|----------|------|-----------|----------|-------|-----------------|-----------------|-----------------|---------------|------|--------|-------|-------|---|
|              |         |          |          | Time             | <1600  | <4800 | <9999          | C | F               | sn/sg/ic | fg/br |            | bs       | Dir  | Spd       | Time     | Dir   | Spd             |                 |                 | Time          | Time | <500   | <1000 | <3000 |   |
| 340          | 3       | -26.0    | -39.4    | -32.7            | 00-06L | 0     | 0              | 0 | -51.0           | -60.0    | 0     | 0          | 0        | 0.00 | 330       | 15       | 1139  | 340             | 18              | 1138            | 1             | 30   | 00-06L | 0     | 0     | 0 |
|              |         |          |          |                  | 06-12L | 0     | 0              | 0 |                 |          |       |            |          |      | Altimeter |          |       |                 |                 |                 |               |      | 06-12L | 0     | 0     | 0 |
|              |         |          |          |                  | 12-18L | 0     | 0              | 0 |                 |          |       |            |          |      | Max       | Min      | Avg   | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |               |      | 12-18L | 0     | 0     | 0 |
|              |         |          |          |                  | 18-24L | 0     | 0              | 0 |                 |          |       |            |          |      | 28.93     | 28.87    | 28.91 | 1               | 0.06            | 13.4            |               |      | 18-24L | 0     | 0     | 3 |



## McMurdo Station Daily Observation Worksheet

Date: 04

| Time          | Winds |       |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |          |       |      | Pcpn Amt  | Max Wind (Note 3) |       |          | Max Gust (Note 3) |       |      | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |        |       | Alt (in) |       |
|---------------|-------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|----------|-------|------|-----------|-------------------|-------|----------|-------------------|-------|------|---------------|---------------|---------------|--------|-------|----------|-------|
|               | Dir   | Spd   | Temp  | Max       | Min              | <1600            | <4800 | <9999          | sn/sg/ic                 | hrs             | fg/br    | hrs   | bs   |           | hrs               | Spd   | Dir      | Time              | Spd   | Dir  |               |               | Time          | <500   | <1000 |          | <3000 |
| 12-15Z        |       |       |       | -24.6     | -26.1            |                  |       |                |                          |                 |          |       |      |           | 22                | 340   | 1411     | 27                | 340   | 1410 |               |               |               |        |       |          |       |
| 15-18Z        |       | 0     | -24.6 | -22.7     | -24.7            |                  |       |                |                          |                 |          |       |      |           | 20                | 340   | 1529     | 25                | 340   | 1528 | 5             | 30            |               |        | 6     | 28.89    |       |
| 18-21Z        |       |       |       | -22.5     | -26.3            |                  |       |                |                          |                 |          |       |      |           | 5                 | 140   | 1833     | 8                 | 340   | 1816 |               |               |               |        |       |          |       |
| 21-24Z        | 40    | 11    | -20.6 | -20.5     | -26.2            |                  |       |                |                          |                 |          |       |      |           | 15                | 60    | 2307     | 19                | 90    | 2225 | 4             |               |               |        | 28.89 |          |       |
| 12 hr Max/Min |       |       |       | -20.5     | -26.3            |                  |       |                |                          |                 |          |       |      |           |                   |       |          |                   |       |      |               |               |               |        |       |          |       |
| 00-03Z        |       |       |       | -20.2     | -27.7            |                  |       |                |                          |                 |          |       |      |           | 27                | 30    | 248      | 33                | 30    | 248  |               |               |               |        |       |          |       |
| 03-06Z        | 40    | 23    | -26.9 | -24.5     | -27.6            |                  |       | 3              |                          |                 |          | bs    |      | 3         | 27                | 30    | 324      | 34                | 30    | 308  | 0             |               |               |        | 28.90 |          |       |
| 06-09Z        |       |       |       | -25.5     | -28.1            |                  |       |                |                          |                 |          |       |      |           | 28                | 50    | 717      | 35                | 50    | 709  |               |               |               |        |       |          |       |
| 09-12Z        | 30    | 12    | -28.7 | -26.3     | -29.6            |                  |       |                |                          |                 |          |       |      |           | 21                | 30    | 1109     | 26                | 30    | 1109 | 0             |               |               |        | 29.01 |          |       |
| 12 hr Max/Min |       |       |       | -20.2     | -29.6            |                  |       |                |                          |                 |          |       |      |           |                   |       |          |                   |       |      |               |               |               |        |       |          |       |
| Avg Wind      |       | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |          |       | Pcpn | Max Wind  |                   |       | Max Gust |                   |       | Avg  | Low-est       | Ceiling (hrs) |               |        |       |          |       |
| Dir           | Spd   | Temp  | Temp  | Temp      | Time             | <1600            | <4800 | <9999          | C                        | F               | sn/sg/ic | fg/br | bs   | Total     | Dir               | Spd   | Time     | Dir               | Spd   | Time | Sky Cover     | CIG           | Time          | <500   | <1000 | <3000    |       |
| 37            | 12    | -20.2 | -29.6 | -24.9     | 00-06L           | 0                | 0     | 0              | -61.0                    | -78.0           | 0        | 0     |      | 3         | 0.00              | 50    | 28       | 717               | 50    | 35   | 709           | 2             | 30            | 00-06L | 0     | 0        | 6     |
|               |       |       |       |           | 06-12L           | 0                | 0     | 0              |                          |                 |          |       |      | Altimeter |                   |       | Total    | Daily             | Daily |      |               |               |               |        |       |          |       |
|               |       |       |       |           | 12-18L           | 0                | 0     | 3              |                          |                 |          |       |      | Obs       | Pres              | Temp  |          |                   |       |      |               |               |               |        |       |          |       |
|               |       |       |       |           | 18-24L           | 0                | 0     | 0              |                          |                 |          |       |      | Taken     | Diff              | Diff  |          |                   |       |      |               |               |               |        |       |          |       |
|               |       |       |       |           |                  |                  |       |                |                          |                 |          |       |      | 29.01     | 28.89             | 28.92 | 3        | 0.12              | 9.4   |      |               |               |               |        |       |          |       |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

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## McMurdo Station Daily Observation Worksheet

Date: 05

| Time          | Winds |       |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |          |       |      | Pcpn Amt | Max Wind (Note 3) |       |          | Max Gust (Note 3) |       |       | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|----------|-------|------|----------|-------------------|-------|----------|-------------------|-------|-------|---------------|---------------|---------------|------|-------|----------|
|               | Dir   | Spd   | Temp  | Max       | Min              | <1600            | <4800 | <9999          | sn/sg/ic                 | hrs             | fg/br    | hrs   | bs   |          | hrs               | Spd   | Dir      | Time              | Spd   | Dir   |               |               | Time          | <500 | <1000 |          |
| 12-15Z        |       |       |       | -27.6     | -31.2            |                  |       |                |                          |                 |          |       |      |          | 18                | 30    | 1336     | 23                | 30    | 1329  |               |               |               |      |       |          |
| 15-18Z        |       | 0     | -31.8 | -30.5     | -32.4            |                  |       |                |                          |                 |          |       |      |          | 4                 | 350   | 1715     | 5                 | 350   | 1714  | 0             |               |               |      | 29.10 |          |
| 18-21Z        |       |       |       | -30.1     | -36.7            |                  |       |                |                          |                 |          |       |      |          | 7                 | 320   | 2048     | 10                | 330   | 2050  |               |               |               |      |       |          |
| 21-24Z        | 330   | 11    | -26.8 | -26.7     | -30.1            |                  |       |                |                          |                 |          |       |      |          | 18                | 330   | 2058     | 25                | 340   | 2250  | 0             |               |               |      | 29.14 |          |
| 12 hr Max/Min |       |       |       | -26.7     | -36.7            |                  |       |                |                          |                 |          |       |      |          |                   |       |          |                   |       |       |               |               |               |      |       |          |
| 00-03Z        |       |       |       | -26.3     | -33.4            |                  |       |                |                          |                 |          |       |      |          | 16                | 330   | 15       | 22                | 330   | 26    |               |               |               |      |       |          |
| 03-06Z        | 60    | 22    | -33.1 | -28.9     | -34.8            |                  |       |                |                          |                 |          |       |      |          | 23                | 60    | 548      | 26                | 70    | 538   | 0             |               |               |      | 29.25 |          |
| 06-09Z        |       |       |       | -28.7     | -33.3            |                  |       |                |                          |                 |          |       |      |          | 24                | 50    | 726      | 30                | 60    | 717   |               |               |               |      |       |          |
| 09-12Z        | 70    | 11    | -28.7 | -28.0     | -32.1            |                  |       |                |                          |                 |          |       |      |          | 14                | 40    | 857      | 17                | 90    | 911   | 0             |               |               |      | 29.44 |          |
| 12 hr Max/Min |       |       |       | -26.3     | -34.8            |                  |       |                |                          |                 |          |       |      |          |                   |       |          |                   |       |       |               |               |               |      |       |          |
| Avg Wind      |       | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |          |       | Pcpn | Max Wind |                   |       | Max Gust |                   |       | Avg   | Low-est       | Ceiling (hrs) |               |      |       |          |
| Dir           | Spd   | Temp  | Temp  | Temp      | Time             | <1600            | <4800 | <9999          | C                        | F               | sn/sg/ic | fg/br | bs   | Total    | Dir               | Spd   | Time     | Dir               | Spd   | Time  | Sky Cover     | CIG           | Time          | <500 | <1000 | <3000    |
| 45            | 11    | -26.3 | -36.7 | -31.5     | 00-06L           | 0                | 0     | 0              | -64.0                    | -83.0           | 0        | 0     | 0    | 0.00     | 50                | 24    | 726      | 60                | 30    | 717   | 0             |               | 00-06L        | 0    | 0     | 0        |
|               |       |       |       |           | 06-12L           | 0                | 0     | 0              |                          |                 |          |       |      |          | Altimeter         |       |          | Total             | Daily | Daily |               |               | 06-12L        | 0    | 0     | 0        |
|               |       |       |       |           | 12-18L           | 0                | 0     | 0              |                          |                 |          |       |      |          | Max               | Min   | Avg      | Obs               | Pres  | Temp  |               |               | 12-18L        | 0    | 0     | 0        |
|               |       |       |       |           | 18-24L           | 0                | 0     | 0              |                          |                 |          |       |      |          | 29.44             | 29.10 | 29.23    | 3                 | 0.34  | 10.4  |               |               | 18-24L        | 0    | 0     | 0        |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 06

| Time          | Winds |       |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |          |       |      | Pcpn Amt  | Max Wind (Note 3) |     |          | Max Gust (Note 3) |       |               | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|----------|-------|------|-----------|-------------------|-----|----------|-------------------|-------|---------------|---------------|---------------|---------------|------|-------|----------|
|               | Zulu  | Dir   | Spd   | Temp      | Max              | Min              | <1600 | <4800          | <9999                    | sn/sg/ic        | hrs      | fg/br | hrs  |           | bs                | hrs | Spd      | Dir               | Time  | Spd           |               |               | Dir           | Time | <500  |          |
| 12-15Z        |       |       |       |           | -28.2            | -31.6            |       |                |                          |                 |          |       |      |           |                   | 19  | 30       | 1450              |       | 22            | 20            | 1450          |               |      |       |          |
| 15-18Z        |       | 40    | 10    | -32.2     | -30.6            | -34.3            |       |                |                          |                 |          |       |      |           |                   | 21  | 30       | 1535              |       | 27            | 30            | 1534          | 0             |      |       | 29.56    |
| 18-21Z        |       |       |       |           | -27.6            | -34.2            |       |                |                          |                 |          |       |      |           |                   | 21  | 30       | 1929              |       | 24            | 30            | 1935          |               |      |       |          |
| 21-24Z        |       | 340   | 12    | -31.7     | -28.7            | -34.3            |       |                |                          |                 |          |       |      |           |                   | 11  | 340      | 2350              |       | 17            | 330           | 2349          | 0             |      |       | 29.61    |
| 12 hr Max/Min |       |       |       |           | -27.6            | -34.3            |       |                |                          |                 |          |       |      |           |                   |     |          |                   |       |               |               |               |               |      |       |          |
| 00-03Z        |       |       |       |           | -31.6            | -37.3            |       |                |                          |                 |          |       |      |           |                   | 18  | 340      | 1                 |       | 21            | 340           | 1             |               |      |       |          |
| 03-06Z        |       |       | 0     | -35.4     | -31.5            | -39.4            |       |                |                          |                 |          |       |      |           |                   | 5   | 20       | 533               |       | 7             | 290           | 319           | 0             |      |       | 29.68    |
| 06-09Z        |       |       |       |           | -30.8            | -36.3            |       |                |                          |                 |          |       |      |           |                   | 6   | 20       | 937               |       | 7             | 30            | 837           |               |      |       |          |
| 09-12Z        |       | 330   | 17    | -29.4     | -28.1            | -37.8            |       |                |                          |                 |          |       |      |           |                   | 18  | 330      | 1147              |       | 24            | 340           | 1147          | 0             |      |       | 29.64    |
| 12 hr Max/Min |       |       |       |           | -28.1            | -39.4            |       |                |                          |                 |          |       |      |           |                   |     |          |                   |       |               |               |               |               |      |       |          |
| Avg Wind      |       | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |          |       | Pcpn | Max Wind  |                   |     | Max Gust |                   |       | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |               |      |       |          |
| Dir           | Spd   | Temp  | Temp  | Temp      | Time             | <1600            | <4800 | <9999          | C                        | F               | sn/sg/ic | fg/br | bs   | Total     | Dir               | Spd | Time     | Dir               | Spd   |               |               | Time          | Time          | <500 | <1000 | <3000    |
| 350           | 10    | -27.6 | -39.4 | -33.5     | 00-06L           | 0                | 0     | 0              | -63.0                    | -81.0           | 0        | 0     | 0    | 0.00      | 30                | 21  | 1535     | 30                | 27    | 1534          | 0             | 00-06L        | 0             | 0    | 0     |          |
|               |       |       |       |           | 06-12L           | 0                | 0     | 0              |                          |                 |          |       |      | Altimeter |                   |     | Total    | Daily             | Daily |               |               |               |               |      |       |          |
|               |       |       |       |           | 12-18L           | 0                | 0     | 0              |                          |                 |          |       |      |           |                   |     | Obs      | Pres              | Temp  |               |               |               |               |      |       |          |
|               |       |       |       |           | 18-24L           | 0                | 0     | 0              |                          |                 |          |       |      |           |                   |     | Taken    | Diff              | Diff  |               |               |               |               |      |       |          |
|               |       |       |       |           |                  |                  |       |                |                          |                 |          |       |      |           |                   |     | 3        | 0.12              | 11.8  |               |               |               |               |      |       |          |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 07

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |     |       | -27.3     | -35.4 |                  |       |       |                          |     |       |     |    |          | 21                | 340 | 1213 | 26                | 340 | 1229 |               |             |               |      |       |          |
| 15-18Z        | 310   | 4   | -34.6 | -34.4     | -35.8 |                  |       |       |                          |     |       |     |    |          | 8                 | 270 | 1501 | 9                 | 300 | 1534 | 0             |             |               |      | 29.54 |          |
| 18-21Z        |       |     |       | -32.5     | -34.8 |                  |       |       |                          |     |       |     |    |          | 7                 | 310 | 1902 | 10                | 320 | 1823 |               |             |               |      |       |          |
| 21-24Z        |       | 0   | -34.1 | -30.2     | -34.7 |                  |       |       |                          |     |       |     |    |          | 7                 | 300 | 2306 | 10                | 290 | 2305 | 3             |             |               |      | 29.29 |          |
| 12 hr Max/Min |       |     |       | -27.3     | -35.8 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z        |       |     |       | -31.7     | -34.6 |                  |       |       |                          |     |       |     |    |          | 7                 | 70  | 201  | 9                 | 90  | 144  |               |             |               |      |       |          |
| 03-06Z        | 60    | 5   | -30.7 | -28.8     | -32.2 |                  |       |       |                          |     |       |     |    |          | 8                 | 50  | 541  | 9                 | 50  | 545  | 0             |             |               |      | 29.18 |          |
| 06-09Z        |       |     |       | -24.7     | -29.2 |                  |       |       |                          |     |       |     |    |          | 24                | 60  | 843  | 30                | 60  | 840  |               |             |               |      |       |          |
| 09-12Z        | 50    | 21  | -24.5 | -24.3     | -28.0 |                  |       |       |                          |     |       |     |    |          | 30                | 60  | 1012 | 38                | 60  | 1011 | 4             |             |               |      | 29.35 |          |
| 12 hr Max/Min |       |     |       | -24.3     | -34.6 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

| Avg Wind Dir | Max Spd | Min Temp | Avg Temp | Visibility (hrs) |        |       | Min Wind Chill |   | WX and Duration |          |       | Pcpn Total | Max Wind |      |           | Max Gust |       |                 | Avg Sky Cover   | Low-est CIG     | Ceiling (hrs) |      |        |       |       |   |
|--------------|---------|----------|----------|------------------|--------|-------|----------------|---|-----------------|----------|-------|------------|----------|------|-----------|----------|-------|-----------------|-----------------|-----------------|---------------|------|--------|-------|-------|---|
|              |         |          |          | Time             | <1600  | <4800 | <9999          | C | F               | sn/sg/ic | fg/br |            | bs       | Dir  | Spd       | Time     | Dir   | Spd             |                 |                 | Time          | Time | <500   | <1000 | <3000 |   |
| 43           | 8       | -24.3    | -35.8    | -30.1            | 00-06L | 0     | 0              | 0 | -62.0           | -80.0    | 0     | 0          | 0        | 0.00 | 60        | 30       | 1012  | 60              | 38              | 1011            | 2             |      | 00-06L | 0     | 0     | 0 |
|              |         |          |          |                  | 06-12L | 0     | 0              | 0 |                 |          |       |            |          |      | Altimeter |          |       |                 |                 |                 |               |      | 06-12L | 0     | 0     | 0 |
|              |         |          |          |                  | 12-18L | 0     | 0              | 0 |                 |          |       |            |          |      | Max       | Min      | Avg   | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |               |      | 12-18L | 0     | 0     | 0 |
|              |         |          |          |                  | 18-24L | 0     | 0              | 0 |                 |          |       |            |          |      | 29.54     | 29.18    | 29.34 | 3               | 0.36            | 11.5            |               |      | 18-24L | 0     | 0     | 0 |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 08

| Time          | Winds |       |       | 3 hr Temp        |        | Visibility (hrs) |                |       | Wx and Duration (Note 2) |       |          |            |          | Pcpn Amt | Max Wind (Note 3) |          |       | Max Gust (Note 3) |               |             | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-------|-------|------------------|--------|------------------|----------------|-------|--------------------------|-------|----------|------------|----------|----------|-------------------|----------|-------|-------------------|---------------|-------------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd   | Temp  | Max              | Min    | <1600            | <4800          | <9999 | sn/sg/ic                 | hrs   | fg/br    | hrs        | bs       |          | hrs               | Spd      | Dir   | Time              | Spd           | Dir         |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |       |       | -23.8            | -27.5  |                  |                |       |                          |       |          |            |          |          | 21                | 100      | 1450  | 26                | 120           | 1449        |               |             |               |      |       |          |
| 15-18Z        | 50    | 18    | -28.7 | -26.1            | -29.4  |                  |                |       |                          |       |          |            |          |          | 23                | 50       | 1747  | 28                | 50            | 1746        | 4             |             |               |      | 29.52 |          |
| 18-21Z        |       |       |       | -27.0            | -29.2  |                  |                |       |                          |       |          |            |          |          | 22                | 50       | 1844  | 28                | 50            | 1801        |               |             |               |      |       |          |
| 21-24Z        | 40    | 15    | -27.1 | -26.7            | -29.3  |                  |                |       |                          |       |          |            |          |          | 18                | 50       | 2115  | 24                | 110           | 2259        | 4             |             |               |      | 29.67 |          |
| 12 hr Max/Min |       |       |       | -23.8            | -29.4  |                  |                |       |                          |       |          |            |          |          |                   |          |       |                   |               |             |               |             |               |      |       |          |
| 00-03Z        |       |       |       | -26.2            | -27.2  |                  |                |       |                          |       |          |            |          |          | 19                | 40       | 19    | 23                | 60            | 134         |               |             |               |      |       |          |
| 03-06Z        | 50    | 6     | -27.9 | -26.5            | -31.4  |                  |                |       |                          |       |          |            |          |          | 14                | 50       | 319   | 17                | 50            | 319         | 4             |             |               |      | 29.73 |          |
| 06-09Z        |       |       |       | -27.3            | -31.0  |                  |                |       |                          |       |          |            |          |          | 9                 | -30      | 644   | 10                | 30            | 645         |               |             |               |      |       |          |
| 09-12Z        |       | 0     | -34.5 | -27.5            | -36.1  |                  |                |       |                          |       |          |            |          |          | 7                 | 320      | 1011  | 8                 | 320           | 1011        | 0             |             |               |      | 29.80 |          |
| 12 hr Max/Min |       |       |       | -26.2            | -36.1  |                  |                |       |                          |       |          |            |          |          |                   |          |       |                   |               |             |               |             |               |      |       |          |
| Avg Wind      | Max   | Min   | Avg   | Visibility (hrs) |        |                  | Min Wind Chill |       | WX and Duration          |       |          | Pcpn Total | Max Wind |          |                   | Max Gust |       |                   | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |             |               |      |       |          |
| Dir           | Spd   | Temp  | Temp  | Temp             | Time   | <1600            | <4800          | <9999 | C                        | F     | sn/sg/ic |            | fg/br    | bs       | Dir               | Spd      | Time  | Dir               |               |             | Spd           | Time        | Time          |      | <500  | <1000    |
| 46            | 10    | -23.8 | -36.1 | -30.0            | 00-06L | 0                | 0              | 0     | -60.0                    | -76.0 | 0        | 0          | 0        | 0.00     | 50                | 23       | 1747  | 50                | 28            | 1746        | 3             |             | 00-06L        | 0    | 0     | 0        |
|               |       |       |       |                  | 06-12L | 0                | 0              | 0     |                          |       |          |            |          |          | Altimeter         |          |       | Total Obs         | Daily Pres    | Daily Temp  |               |             | 06-12L        | 0    | 0     | 0        |
|               |       |       |       |                  | 12-18L | 0                | 0              | 0     |                          |       |          |            |          |          | Max               | Min      | Avg   | 3                 | 0.28          | 12.3        |               |             | 12-18L        | 0    | 0     | 0        |
|               |       |       |       |                  | 18-24L | 0                | 0              | 0     |                          |       |          |            |          |          | 29.80             | 29.52    | 29.68 | Taken             | Diff          | Diff        |               |             | 18-24L        | 0    | 0     | 0        |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 09

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |     |       | -27.1     | -34.8 |                  |       |       |                          |     |       |     |    |          | 6                 | 340 | 1411 | 10                | 340 | 1410 |               |             |               |      |       |          |
| 15-18Z        |       | 0   | -31.9 | -27.6     | -32.5 |                  |       |       |                          |     |       |     |    |          | 7                 | 340 | 1619 | 12                | 330 | 1617 | 0             |             |               |      | 29.77 |          |
| 18-21Z        |       |     |       | -28.5     | -32.8 |                  |       |       |                          |     |       |     |    |          | 11                | 320 | 1931 | 17                | 340 | 2011 |               |             |               |      |       |          |
| 21-24Z        |       | 0   | -32.6 | -27.7     | -33.0 |                  |       |       |                          |     |       |     |    |          | 10                | 320 | 2131 | 14                | 330 | 2130 | 0             |             |               |      | 29.73 |          |
| 12 hr Max/Min |       |     |       | -27.1     | -34.8 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z        |       |     |       | -31.6     | -32.7 |                  |       |       |                          |     |       |     |    |          | 4                 | 30  | 210  | 5                 | 80  | 40   |               |             |               |      |       |          |
| 03-06Z        |       | 0   | -32.8 | -32.0     | -33.2 |                  |       |       |                          |     |       |     |    |          | 4                 | 30  | 329  | 4                 | 170 | 529  | 0             |             |               |      | 29.57 |          |
| 06-09Z        |       |     |       | -30.0     | -33.7 |                  |       |       |                          |     |       |     |    |          | 12                | 320 | 845  | 17                | 310 | 839  |               |             |               |      |       |          |
| 09-12Z        | 310   | 11  | -29.8 | -26.6     | -34.9 |                  |       |       |                          |     |       |     |    |          | 18                | 330 | 927  | 24                | 330 | 923  | 0             |             |               |      | 29.33 |          |
| 12 hr Max/Min |       |     |       | -26.6     | -34.9 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

| Avg Wind Dir | Max Spd | Min Temp | Avg Temp | Visibility (hrs) |        |       | Min Wind Chill |   | WX and Duration |          |       | Pcpn Total | Max Wind |      |           | Max Gust |       |                 | Avg Sky Cover   | Low-est CIG     | Ceiling (hrs) |      |        |       |       |   |
|--------------|---------|----------|----------|------------------|--------|-------|----------------|---|-----------------|----------|-------|------------|----------|------|-----------|----------|-------|-----------------|-----------------|-----------------|---------------|------|--------|-------|-------|---|
|              |         |          |          | Time             | <1600  | <4800 | <9999          | C | F               | sn/sg/ic | fg/br |            | bs       | Dir  | Spd       | Time     | Dir   | Spd             |                 |                 | Time          | Time | <500   | <1000 | <3000 |   |
| 310          | 3       | -26.6    | -34.9    | -30.8            | 00-06L | 0     | 0              | 0 | -57.0           | -71.0    | 0     | 0          | 0        | 0.00 | 330       | 18       | 927   | 330             | 24              | 923             | 0             |      | 00-06L | 0     | 0     | 0 |
|              |         |          |          |                  | 06-12L | 0     | 0              | 0 |                 |          |       |            |          |      | Altimeter |          |       |                 |                 |                 | 0             |      | 06-12L | 0     | 0     | 0 |
|              |         |          |          |                  | 12-18L | 0     | 0              | 0 |                 |          |       |            |          |      | Max       | Min      | Avg   | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |               |      | 12-18L | 0     | 0     | 0 |
|              |         |          |          |                  | 18-24L | 0     | 0              | 0 |                 |          |       |            |          |      | 29.77     | 29.33    | 29.60 | 1               | 0.44            | 8.3             |               |      | 18-24L | 0     | 0     | 0 |

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 10

| Time          | Winds |       |       | 3 hr Temp        |        | Visibility (hrs) |                |       | Wx and Duration (Note 2) |          |       |            |          | Pcpn Amt | Max Wind (Note 3) |          |      | Max Gust (Note 3) |               |             | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |       |       | Alt (in) |
|---------------|-------|-------|-------|------------------|--------|------------------|----------------|-------|--------------------------|----------|-------|------------|----------|----------|-------------------|----------|------|-------------------|---------------|-------------|---------------|-------------|---------------|-------|-------|----------|
|               | Dir   | Spd   | Temp  | Max              | Min    | <1600            | <4800          | <9999 | sn/sg/ic                 | hrs      | fg/br | hrs        | bs       |          | hrs               | Spd      | Dir  | Time              | Spd           | Dir         |               |             | Time          | <500  | <1000 |          |
| 12-15Z        |       |       |       | -29.5            | -36.2  |                  |                |       |                          |          |       |            |          |          | 13                | 300      | 1200 | 17                | 310           | 1320        |               |             |               |       |       |          |
| 15-18Z        |       | 0     | -33.3 | -33.2            | -36.2  |                  |                |       |                          |          |       |            |          |          | 5                 | 260      | 1536 | 7                 | 260           | 1536        | 0             |             |               |       | 29.15 |          |
| 18-21Z        |       |       |       | -31.6            | -33.2  |                  |                |       |                          |          |       |            |          |          | 6                 | 80       | 2044 | 7                 | 90            | 2044        |               |             |               |       |       |          |
| 21-24Z        |       | 0     | -30.9 | -30.7            | -32.1  |                  |                |       |                          |          |       |            |          |          | 6                 | 70       | 2200 | 8                 | 80            | 2149        | 0             |             |               |       | 29.02 |          |
| 12 hr Max/Min |       |       |       | -29.5            | -36.2  |                  |                |       |                          |          |       |            |          |          |                   |          |      |                   |               |             |               |             |               |       |       |          |
| 00-03Z        |       |       |       | -26.8            | -31.1  |                  |                |       |                          |          |       |            |          |          | 15                | 80       | 240  | 19                | 100           | 210         |               |             |               |       |       |          |
| 03-06Z        | 60    | 25    | -32.9 | -22.8            | 26.7   | 1                |                |       |                          |          |       |            | bs       | 1        | 27                | 60       | 503  | 35                | 60            | 502         | 6             | 0           | 1             |       | 28.94 |          |
| 06-09Z        |       |       |       | -23.9            | -26.0  |                  |                |       |                          |          |       |            |          |          | 28                | 50       | 729  | 35                | 60            | 700         |               |             |               |       |       |          |
| 09-12Z        | 50    | 14    | -23.7 | -22.2            | -27.4  |                  | 2              |       |                          |          |       |            | bs       | 2        | 23                | 60       | 959  | 28                | 60            | 949         | 4             |             |               |       | 29.06 |          |
| 12 hr Max/Min |       |       |       | -22.2            | -31.1  |                  |                |       |                          |          |       |            |          |          |                   |          |      |                   |               |             |               |             |               |       |       |          |
| Avg Wind      | Max   | Min   | Avg   | Visibility (hrs) |        |                  | Min Wind Chill |       | WX and Duration          |          |       | Pcpn Total | Max Wind |          |                   | Max Gust |      |                   | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |             |               |       |       |          |
| Dir           | Spd   | Temp  | Temp  | Time             | <1600  | <4800            | <9999          | C     | F                        | sn/sg/ic | fg/br |            | bs       | Dir      | Spd               | Time     | Dir  | Spd               |               |             | Time          | Time        | <500          | <1000 | <3000 |          |
| 56            | 10    | -22.2 | -36.2 | -29.2            | 00-06L | 0                | 0              | 0     | -58.0                    | -72.0    | 0     | 0          | 3        | 0.00     | 50                | 28       | 729  | 60                | 35            | 502         | 3             |             | 00-06L        | 0     | 0     | 0        |
|               |       |       |       |                  | 06-12L | 0                | 0              | 0     |                          |          |       |            |          |          | Altimeter         |          |      | Total Obs         | Daily Pres    | Daily Temp  |               |             | 06-12L        | 0     | 0     | 0        |
|               |       |       |       |                  | 12-18L | 1                | 0              | 0     |                          |          |       |            |          |          | Max               | Min      | Avg  | 29.15             | 28.94         | 29.04       |               |             | 12-18L        | 1     | 0     | 0        |
|               |       |       |       |                  | 18-24L | 0                | 2              | 0     |                          |          |       |            |          |          |                   |          |      | 2                 | 0.21          | 14.0        |               |             | 18-24L        | 0     | 0     | 0        |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 11

| Time          | Winds |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |          |       | Pcpn Amt   | Max Wind (Note 3) |      |           | Max Gust (Note 3) |       |           | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |        | Alt (in) |       |       |       |
|---------------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|----------|-------|------------|-------------------|------|-----------|-------------------|-------|-----------|---------------|-------------|---------------|------|--------|----------|-------|-------|-------|
|               | Dir   | Spd   | Temp      | Max              | Min              | <1600 | <4800          | <9999                    | sn/sg/ic        | hrs      | fg/br |            | hrs               | bs   | hrs       | Spd               | Dir   | Time      |               |             | Spd           | Dir  | Time   |          | <500  | <1000 | <3000 |
| 12-15Z        |       |       |           | -23.1            | -34.2            |       |                |                          |                 |          |       |            |                   | 19   | 40        | 1241              | 23    | 50        | 1232          |             |               |      |        |          |       |       |       |
| 15-18Z        | 40    | 16    | -26.1     | -23.9            | -33.5            |       |                |                          |                 |          |       |            |                   | 20   | 30        | 1738              | 23    | 40        | 1741          | 4           |               |      |        | 29.08    |       |       |       |
| 18-21Z        |       |       |           | -24.2            | -27.9            |       |                |                          |                 |          |       |            |                   | 23   | 30        | 1815              | 28    | 30        | 1817          |             |               |      |        |          |       |       |       |
| 21-24Z        |       | 0     | -27.3     | -24.7            | -27.7            |       |                |                          |                 |          |       |            |                   | 8    | 40        | 2116              | 10    | 40        | 2115          | 3           |               |      |        | 29.18    |       |       |       |
| 12 hr Max/Min |       |       |           | -23.1            | -34.2            |       |                |                          |                 |          |       |            |                   |      |           |                   |       |           |               |             |               |      |        |          |       |       |       |
| 00-03Z        |       |       |           | -27.4            | -30.7            |       |                |                          |                 |          |       |            |                   | 6    | 310       | 59                | 8     | 300       | 58            |             |               |      |        |          |       |       |       |
| 03-06Z        |       | 0     | -30.8     | -28.3            | -31.8            |       |                |                          |                 |          |       |            |                   | 10   | 170       | 506               | 14    | 180       | 505           | 3           |               |      |        | 29.24    |       |       |       |
| 06-09Z        |       |       |           | -28.1            | -31.3            |       |                |                          |                 |          |       |            |                   | 11   | 100       | 808               | 15    | 100       | 807           |             |               |      |        |          |       |       |       |
| 09-12Z        |       | 0     | -28.3     | -28.0            | -29.9            | 3     | 2              | sn                       | 5               |          |       |            |                   | 9    | 80        | 935               | 12    | 100       | 936           | 8           | 20            |      |        | 5 29.28  |       |       |       |
| 12 hr Max/Min |       |       |           | -27.4            | -31.8            |       |                |                          |                 |          |       |            |                   |      |           |                   |       |           |               |             |               |      |        |          |       |       |       |
| Avg Wind      | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |          |       | Pcpn Total | Max Wind          |      |           | Max Gust          |       |           | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |        |          |       |       |       |
| Dir           | Spd   | Temp  | Temp      | Time             | <1600            | <4800 | <9999          | C                        | F               | sn/sg/ic | fg/br |            | bs                | Dir  | Spd       | Time              | Dir   | Spd       |               |             | Time          | Time | <500   | <1000    | <3000 |       |       |
| 40            | 4     | -23.1 | -34.2     | -28.7            | 00-06L           | 0     | 0              | 0                        | -58.0           | -72.0    | 5     | 0          | 0                 | 0.00 | 30        | 23                | 1815  | 30        | 28            | 1817        | 5             | 20   | 00-06L | 0        | 0     | 0     |       |
|               |       |       |           |                  | 06-12L           | 0     | 0              | 0                        |                 |          |       |            |                   |      | Altimeter |                   |       | Total Obs | Daily Pres    | Daily Temp  |               |      |        | 06-12L   | 0     | 0     | 0     |
|               |       |       |           |                  | 12-18L           | 0     | 0              | 0                        |                 |          |       |            |                   |      | Max       | Min               | Avg   | 1         | 0.20          | 11.1        |               |      |        | 12-18L   | 0     | 0     | 0     |
|               |       |       |           |                  | 18-24L           | 3     | 2              | 0                        |                 |          |       |            |                   |      | 29.28     | 29.08             | 29.20 | Taken     | Diff          | Diff        |               |      |        | 18-24L   | 0     | 0     | 5     |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 12

| Time          | Winds |       |       | 3 hr Temp        |        | Visibility (hrs) |                |       | Wx and Duration (Note 2) |          |       |            |          | Pcpn Amt | Max Wind (Note 3) |          |       | Max Gust (Note 3) |                 |                 | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |        |       | Alt (in) |       |
|---------------|-------|-------|-------|------------------|--------|------------------|----------------|-------|--------------------------|----------|-------|------------|----------|----------|-------------------|----------|-------|-------------------|-----------------|-----------------|---------------|-------------|---------------|--------|-------|----------|-------|
|               | Dir   | Spd   | Temp  | Max              | Min    | <1600            | <4800          | <9999 | sn/sg/ic                 | hrs      | fg/br | hrs        | bs       |          | hrs               | Spd      | Dir   | Time              | Spd             | Dir             |               |             | Time          | <500   | <1000 |          | <3000 |
| 12-15Z        |       |       |       | -27.1            | -28.3  |                  |                |       |                          |          |       |            |          |          | 7                 | 320      | 1450  | 11                | 310             | 1403            |               |             |               |        |       |          |       |
| 15-18Z        |       | 0     | -28.4 | -27.7            | -30.2  | 1                | 5              | sn    | 6                        |          |       |            |          |          | 8                 | 180      | 1533  | 12                | 170             | 1533            | 8             | 20          |               | 6      | 29.30 |          |       |
| 18-21Z        |       |       |       | -21.3            | -29.3  |                  |                |       |                          |          |       |            |          |          | 9                 | 160      | 2036  | 13                | 180             | 2035            |               |             |               |        |       |          |       |
| 21-24Z        | 50    | 17    | -26.3 | -22.4            | -26.7  | 3                | 3              | sn    | 4                        |          |       | bs         | 3        |          | 21                | 50       | 2339  | 23                | 50              | 2338            | 8             | 10          | 5             | 1      | 29.35 |          |       |
| 12 hr Max/Min |       |       |       | -21.3            | -30.2  |                  |                |       |                          |          |       |            |          |          |                   |          |       |                   |                 |                 |               |             |               |        |       |          |       |
| 00-03Z        |       |       |       | -26.4            | -31.4  |                  |                |       |                          |          |       |            |          |          | 29                | 50       | 246   | 36                | 50              | 211             |               |             |               |        |       |          |       |
| 03-06Z        | 80    | 13    | -26.7 | -26.4            | -31.8  | 6                |                |       |                          |          |       | bs         | 6        |          | 26                | 50       | 420   | 33                | 50              | 309             | 8             | 10          | 6             |        | 29.45 |          |       |
| 06-09Z        |       |       |       | -25.9            | -27.7  |                  |                |       |                          |          |       |            |          |          | 18                | 70       | 814   | 24                | 90              | 845             |               |             |               |        |       |          |       |
| 09-12Z        | 50    | 22    | -30.6 | -24.8            | -31.7  | 6                |                |       |                          |          |       | bs         | 6        |          | 27                | 50       | 1123  | 36                | 50              | 1138            | 7             | 20          | 1             | 5      | 29.58 |          |       |
| 12 hr Max/Min |       |       |       | -24.8            | -31.8  |                  |                |       |                          |          |       |            |          |          |                   |          |       |                   |                 |                 |               |             |               |        |       |          |       |
| Avg Wind      | Max   | Min   | Avg   | Visibility (hrs) |        |                  | Min Wind Chill |       | WX and Duration          |          |       | Pcpn Total | Max Wind |          |                   | Max Gust |       |                   | Avg Sky Cover   | Low-est CIG     | Ceiling (hrs) |             |               |        |       |          |       |
| Dir           | Spd   | Temp  | Temp  | Time             | <1600  | <4800            | <9999          | C     | F                        | sn/sg/ic | fg/br |            | bs       | Dir      | Spd               | Time     | Dir   | Spd               |                 |                 | Time          | Time        | <500          | <1000  | <3000 |          |       |
| 57            | 13    | -21.3 | -31.8 | -26.6            | 00-06L | 0                | 1              | 5     | -65.0                    | -85.0    | 10    | 0          | 15       | 0.00     | 50                | 29       | 246   | 50                | 36              | 211             | 8             | 10          | 00-06L        | 0      | 0     | 6        |       |
|               |       |       |       |                  | 06-12L | 3                | 3              | 0     |                          |          |       |            |          |          | Altimeter         |          |       | Total Obs Taken   | Daily Pres Diff | Daily Temp Diff |               |             |               | 06-12L | 0     | 5        | 1     |
|               |       |       |       |                  | 12-18L | 6                | 0              | 0     |                          |          |       |            |          |          | Max               | Min      | Avg   |                   |                 |                 |               |             | 12-18L        | 0      | 6     | 0        |       |
|               |       |       |       |                  | 18-24L | 6                | 0              | 0     |                          |          |       |            |          |          | 29.58             | 29.30    | 29.42 | 3                 | 0.28            | 10.5            |               |             | 18-24L        | 0      | 1     | 5        |       |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 13

| Time          | Winds |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |       |          |            | Pcpn Amt | Max Wind (Note 3) |           |          | Max Gust (Note 3) |           |               | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |        |      | Alt (in) |       |
|---------------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|-------|----------|------------|----------|-------------------|-----------|----------|-------------------|-----------|---------------|---------------|---------------|---------------|--------|------|----------|-------|
|               | Dir   | Spd   | Temp      | Max              | Min              | <1600 | <4800          | <9999                    | sn/sg/ic        | hrs   | fg/br    | hrs        |          | bs                | hrs       | Spd      | Dir               | Time      | Spd           |               |               | Dir           | Time   | <500 |          | <1000 |
| 12-15Z        |       |       |           | -30.5            | -32.7            |       |                |                          |                 |       |          |            |          |                   | 32        | 50       | 1438              | 41        | 50            | 1420          |               |               |        |      |          |       |
| 15-18Z        | 50    | 20    | -26.5     | -26.0            | -31.6            | 5     | 1              |                          |                 |       |          | bs         | 6        |                   | 30        | 50       | 1529              | 38        | 50            | 1606          | 6             | 150           |        | 3    | 29.68    |       |
| 18-21Z        |       |       |           | -23.9            | -26.4            |       |                |                          |                 |       |          |            |          |                   | 28        | 50       | 1946              | 32        | 50            | 1935          |               |               |        |      |          |       |
| 21-24Z        | 50    | 18    | -25.1     | -24.0            | -27.6            | 6     |                |                          |                 |       |          | bs         | 6        |                   | 23        | 50       | 2225              | 30        | 40            | 2201          | 6             | 150           |        | 3    | 29.73    |       |
| 12 hr Max/Min |       |       |           | -23.9            | -32.7            |       |                |                          |                 |       |          |            |          |                   |           |          |                   |           |               |               |               |               |        |      |          |       |
| 00-03Z        |       |       |           | -22.1            | -26.4            |       |                |                          |                 |       |          |            |          |                   | 23        | 50       | 49                | 32        | 60            | 48            |               |               |        |      |          |       |
| 03-06Z        | 60    | 23    | -22.7     | -18.0            | -23.6            | 3     | 3              |                          |                 |       |          | bs         | 6        |                   | 23        | 60       | 546               | 29        | 60            | 543           | 0             |               |        |      | 29.70    |       |
| 06-09Z        |       |       |           | -23.0            | -28.5            |       |                |                          |                 |       |          |            |          |                   | 24        | 70       | 706               | 28        | 80            | 701           |               |               |        |      |          |       |
| 09-12Z        | 80    | 10    | -23.0     | -21.4            | -24.5            |       |                |                          |                 |       |          |            |          |                   | 15        | 80       | 1117              | 21        | 70            | 1041          | 0             |               |        |      | 29.65    |       |
| 12 hr Max/Min |       |       |           | -18.0            | -28.5            |       |                |                          |                 |       |          |            |          |                   |           |          |                   |           |               |               |               |               |        |      |          |       |
| Avg Wind      | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |       |          | Pcpn Total | Max Wind |                   |           | Max Gust |                   |           | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |               |        |      |          |       |
| Dir           | Spd   | Temp  | Temp      | Temp             | Time             | <1600 | <4800          | <9999                    | C               | F     | sn/sg/ic |            | fg/br    | bs                | Dir       | Spd      | Time              | Dir       |               |               | Spd           | Time          | Time   | <500 | <1000    | <3000 |
| 57            | 18    | -18.0 | -32.7     | -25.4            | 00-06L           | 0     | 5              | 1                        | -67.0           | -89.0 | 0        | 0          | 18       | 0.00              | 50        | 32       | 1438              | 50        | 41            | 1420          | 3             | 150           | 00-06L | 0    | 0        | 3     |
|               |       |       |           |                  | 06-12L           | 0     | 6              | 0                        |                 |       |          |            |          |                   | Altimeter |          |                   | Total Obs | Daily Pres    | Daily Temp    |               |               | 06-12L | 0    | 0        | 3     |
|               |       |       |           |                  | 12-18L           | 0     | 3              | 3                        |                 |       |          |            |          |                   | Max       | Min      | Avg               | Taken     | Diff          | Diff          |               |               | 12-18L | 0    | 0        | 0     |
|               |       |       |           |                  | 18-24L           | 0     | 0              | 0                        |                 |       |          |            |          |                   | 29.73     | 29.65    | 29.69             | 4         | 0.08          | 14.7          |               |               | 18-24L | 0    | 0        | 0     |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 14

| Time                 | Winds |     |       | 3 hr Temp    |              | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|----------------------|-------|-----|-------|--------------|--------------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|                      | Dir   | Spd | Temp  | Max          | Min          | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z               |       |     |       | -21.2        | -23.7        |                  |       |       |                          |     |       |     |    |          | 20                | 70  | 1257 | 23                | 80  | 1221 |               |             |               |      |       |          |
| 15-18Z               |       | 0   | -30.1 | -21.3        | -31.7        |                  |       |       |                          |     |       |     |    |          | 8                 | 40  | 1526 | 12                | 70  | 1501 | 0             |             |               |      | 29.54 |          |
| 18-21Z               |       |     |       | -25.8        | -30.0        |                  |       |       |                          |     |       |     |    |          | 9                 | 310 | 1927 | 11                | 310 | 1948 |               |             |               |      |       |          |
| 21-24Z               |       | 0   | -29.9 | -25.6        | -30.0        |                  |       |       |                          |     |       |     |    |          | 8                 | 320 | 2206 | 11                | 330 | 2212 | 0             |             |               |      | 29.40 |          |
| <b>12 hr Max/Min</b> |       |     |       | <b>-21.2</b> | <b>-31.7</b> |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z               |       |     |       | -24.9        | -29.6        |                  |       |       |                          |     |       |     |    |          | 13                | 330 | 240  | 20                | 320 | 215  |               |             |               |      |       |          |
| 03-06Z               |       | 0   | -30.0 | -25.5        | -31.7        |                  |       |       |                          |     |       |     |    |          | 11                | 320 | 317  | 15                | 320 | 317  | 0             |             |               |      | 29.26 |          |
| 06-09Z               |       |     |       | -21.7        | -29.5        |                  |       |       |                          |     |       |     |    |          | 11                | 70  | 810  | 15                | 70  | 810  |               |             |               |      |       |          |
| 09-12Z               | 40    | 13  | -22.0 | -20.8        | -22.3        |                  |       |       |                          |     |       |     |    |          | 17                | 30  | 1108 | 23                | 50  | 1144 | 0             |             |               |      | 29.14 |          |
| <b>12 hr Max/Min</b> |       |     |       | <b>-20.8</b> | <b>-31.7</b> |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

| Avg Wind Dir | Max Spd | Min Temp | Avg Temp | Visibility (hrs) |        |       | Min Wind Chill |   | WX and Duration |          |       | Pcpn Total | Max Wind |       |                 | Max Gust        |                 |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |        |        |       |       |   |
|--------------|---------|----------|----------|------------------|--------|-------|----------------|---|-----------------|----------|-------|------------|----------|-------|-----------------|-----------------|-----------------|------|---------------|-------------|---------------|--------|--------|-------|-------|---|
|              |         |          |          | Time             | <1600  | <4800 | <9999          | C | F               | sn/sg/ic | fg/br |            | bs       | Dir   | Spd             | Time            | Dir             | Spd  |               |             | Time          | Time   | <500   | <1000 | <3000 |   |
| 40           | 3       | -20.8    | -31.7    | -26.3            | 00-06L | 0     | 0              | 0 | -51.0           | -60.0    | 0     | 0          | 0        | 0.00  | 70              | 20              | 1257            | 80   | 23            | 1221        | 0             |        | 00-06L | 0     | 0     | 0 |
|              |         |          |          | 06-12L           | 0      | 0     | 0              |   |                 |          |       | Altimeter  |          |       | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |      |               |             | 06-12L        | 0      | 0      | 0     |       |   |
|              |         |          |          | 12-18L           | 0      | 0     | 0              |   |                 |          |       | Max        | Min      | Avg   |                 |                 |                 |      |               |             |               | 12-18L | 0      | 0     | 0     |   |
|              |         |          |          | 18-24L           | 0      | 0     | 0              |   |                 |          |       | 29.54      | 29.14    | 29.34 |                 |                 |                 |      |               |             |               | 18-24L | 0      | 0     | 0     |   |
|              |         |          |          |                  |        |       |                |   |                 |          |       |            |          |       |                 | 1               | 0.40            | 10.9 |               |             |               |        |        |       |       |   |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 15

| Time                 | Winds |     |       | 3 hr Temp    |              | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|----------------------|-------|-----|-------|--------------|--------------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|                      | Dir   | Spd | Temp  | Max          | Min          | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z               |       |     |       | -21.8        | -23.7        |                  |       |       |                          |     |       |     |    |          | 17                | 40  | 1420 | 22                | 50  | 1445 |               |             |               |      |       |          |
| 15-18Z               |       | 0   | -32.3 | -23.7        | -32.3        |                  |       |       |                          |     |       |     |    |          | 8                 | 130 | 1458 | 13                | 70  | 1458 |               |             |               |      | 29.14 |          |
| 18-21Z               |       |     |       | -26.4        | -33.8        |                  |       |       |                          |     |       |     |    |          | 7                 | 160 | 1850 | 8                 | 160 | 1850 |               |             |               |      |       |          |
| 21-24Z               | 80    | 11  | -23.9 | -23.4        | -32.2        |                  |       |       |                          |     |       |     |    |          | 11                | 70  | 2349 | 15                | 70  | 2340 |               |             |               |      | 29.10 |          |
| <b>12 hr Max/Min</b> |       |     |       | <b>-21.8</b> | <b>-33.8</b> |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z               |       |     |       | -24.0        | -26.3        |                  |       |       |                          |     |       |     |    |          | 14                | 70  | 37   | 17                | 70  | 35   |               |             |               |      |       |          |
| 03-06Z               | 40    | 21  | -28.9 | -23.6        | -29.8        |                  |       |       |                          |     |       |     |    |          | 23                | 50  | 550  | 31                | 40  | 524  |               |             |               |      | 29.05 |          |
| 06-09Z               |       |     |       | -26.0        | -30.0        |                  |       |       |                          |     |       |     |    |          | 23                | 30  | 647  | 29                | 30  | 650  |               |             |               |      |       |          |
| 09-12Z               |       | 0   | -32.8 | -30.4        | -33.8        |                  |       |       |                          |     |       |     |    |          | 5                 | 180 | 938  | 7                 | 180 | 936  |               |             |               |      | 29.03 |          |
| <b>12 hr Max/Min</b> |       |     |       | <b>-23.6</b> | <b>-33.8</b> |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

| Avg Wind | Dir | Spd   | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |       | WX and Duration |          |       | Pcpn Total | Max Wind  |       |       | Max Gust  |            |            | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |      |       |
|----------|-----|-------|----------|----------|----------|------------------|-------|-------|----------------|-------|-----------------|----------|-------|------------|-----------|-------|-------|-----------|------------|------------|---------------|-------------|---------------|------|------|-------|
|          |     |       |          |          |          | Time             | <1600 | <4800 | <9999          | C     | F               | sn/sg/ic | fg/br |            | bs        | Dir   | Spd   | Time      | Dir        | Spd        |               |             | Time          | Time | <500 | <1000 |
| 54       | 8   | -21.8 | -33.8    | -27.8    | 00-06L   | 0                | 0     | 0     | -61.0          | -78.0 | 0               | 0        | 0     | 0.00       | 50        | 23    | 550   | 40        | 31         | 524        | 0             |             | 00-06L        | 0    | 0    | 0     |
|          |     |       |          |          | 06-12L   | 0                | 0     | 0     |                |       |                 |          |       |            | Altimeter |       |       | Total Obs | Daily Pres | Daily Temp |               |             | 06-12L        | 0    | 0    | 0     |
|          |     |       |          |          | 12-18L   | 0                | 0     | 0     |                |       |                 |          |       |            | Max       | Min   | Avg   | Taken     | Diff       | Diff       |               |             | 12-18L        | 0    | 0    | 0     |
|          |     |       |          |          | 18-24L   | 0                | 0     | 0     |                |       |                 |          |       |            | 29.14     | 29.03 | 29.08 |           |            |            |               |             | 18-24L        | 0    | 0    | 0     |
|          |     |       |          |          |          |                  |       |       |                |       |                 |          |       |            | 2         | 0.11  | 12.0  |           |            |            |               |             |               |      |      |       |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 16

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |     |       | -29.9     | -33.3 |                  |       |       |                          |     |       |     |    |          | 6                 | 340 | 1440 | 8                 | 330 | 1440 |               |             |               |      |       |          |
| 15-18Z        |       | 0   | -29.3 | -28.9     | -30.2 |                  |       |       |                          |     |       |     |    |          | 8                 | 350 | 1731 | 13                | 340 | 1730 |               |             |               |      | 28.96 |          |
| 18-21Z        |       |     |       | -26.7     | -30.9 |                  |       |       |                          |     |       |     |    |          | 15                | 330 | 2033 | 20                | 330 | 2033 |               |             |               |      |       |          |
| 21-24Z        | 320   | 8   | -31.6 | -27.4     | -36.4 |                  |       |       |                          |     |       |     |    |          | 9                 | 300 | 2348 | 15                | 310 | 2348 |               |             |               |      | 28.92 |          |
| 12 hr Max/Min |       |     |       | -26.7     | -36.4 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z        |       |     |       | -27.7     | -34.7 |                  |       |       |                          |     |       |     |    |          | 18                | 330 | 40   | 26                | 320 | 40   |               |             |               |      |       |          |
| 03-06Z        |       | 0   | -32.3 | -27.6     | -34.8 |                  |       |       |                          |     |       |     |    |          | 14                | 330 | 441  | 19                | 330 | 327  |               |             |               |      | 28.84 |          |
| 06-09Z        |       |     |       | -31.4     | -33.9 |                  |       |       |                          |     |       |     |    |          | 4                 | 170 | 723  | 5                 | 170 | 722  |               |             |               |      |       |          |
| 09-12Z        | 60    | 3   | -30.8 | -30.7     | -31.6 |                  |       |       |                          |     |       |     |    |          | 4                 | 30  | 1001 | 4                 | 40  | 1142 |               |             |               |      | 28.79 |          |
| 12 hr Max/Min |       |     |       | -27.6     | -34.8 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Avg Wind | Dir | Spd | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |       | WX and Duration |          |       | Pcpn Total | Max Wind |           |     | Max Gust |           |            | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |        |      |       |       |
|----------|-----|-----|----------|----------|----------|------------------|-------|-------|----------------|-------|-----------------|----------|-------|------------|----------|-----------|-----|----------|-----------|------------|---------------|-------------|---------------|--------|------|-------|-------|
|          |     |     |          |          |          | Time             | <1600 | <4800 | <9999          | C     | F               | sn/sg/ic | fg/br |            | bs       | Dir       | Spd | Time     | Dir       | Spd        |               |             | Time          | Time   | <500 | <1000 | <3000 |
| 342      |     | 3   | -26.7    | -36.4    | -31.6    | 00-06L           | 0     | 0     | 0              | -55.0 | -71.0           | 0        | 0     | 0          | 0.00     | 330       | 18  | 40       | 320       | 26         | 40            | 0           |               | 00-06L | 0    | 0     | 0     |
|          |     |     |          |          |          | 06-12L           | 0     | 0     | 0              |       |                 |          |       |            |          | Altimeter |     |          | Total Obs | Daily Pres | Daily Temp    | 0           |               | 06-12L | 0    | 0     | 0     |
|          |     |     |          |          |          | 12-18L           | 0     | 0     | 0              |       |                 |          |       |            |          | Max       | Min | Avg      | 28.96     | 28.79      | 28.88         |             |               | 12-18L | 0    | 0     | 0     |
|          |     |     |          |          |          | 18-24L           | 0     | 0     | 0              |       |                 |          |       |            |          |           |     |          | 2         | 0.17       | 9.7           |             |               | 18-24L | 0    | 0     | 0     |



McMurdo Station Daily Observation Worksheet

Date: 17

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |     |       | -30.7     | -31.6 |                  |       |       |                          |     |       |     |    |          | 4                 | 30  | 1001 | 4                 | 40  | 1142 |               |             |               |      |       |          |
| 15-18Z        | 100   | 6   | -30.2 | -28.4     | -31.0 |                  |       |       |                          |     |       |     |    |          | 5                 | 80  | 1450 | 7                 | 90  | 1434 | 6             | 30          |               |      |       | 28.84    |
| 18-21Z        |       |     |       | -29.5     | -32.6 |                  |       |       |                          |     |       |     |    |          | 18                | 80  | 2036 | 25                | 80  | 2025 |               |             |               |      |       |          |
| 21-24Z        | 70    | 17  | -30.8 | -29.5     | -31.2 |                  |       |       |                          |     |       |     |    |          | 22                | 60  | 2237 | 27                | 60  | 2234 | 3             |             |               |      |       | 28.94    |
| 12 hr Max/Min |       |     |       | -28.4     | -32.6 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z        |       |     |       | -27.9     | -30.6 |                  |       |       |                          |     |       |     |    |          | 23                | 60  | 134  | 27                | 50  | 224  |               |             |               |      |       |          |
| 03-06Z        | 90    | 4   | -29.3 | -28.1     | -32.3 |                  |       |       |                          |     |       |     |    |          | 19                | 60  | 408  | 25                | 70  | 327  | 0             |             |               |      |       | 28.99    |
| 06-09Z        |       |     |       | -30.6     | -33.4 |                  |       |       |                          |     |       |     |    |          | 4                 | 70  | 732  | 6                 | 50  | 731  |               |             |               |      |       |          |
| 09-12Z        |       | 0   | -30.8 | -29.8     | -32.8 |                  |       |       |                          |     |       |     |    |          | 5                 | 40  | 1115 | 6                 | 40  | 1113 | 0             |             |               |      |       | 29.05    |
| 12 hr Max/Min |       |     |       | -27.9     | -33.4 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Time   | Avg Wind |     | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |       | WX and Duration |          |       | Pcpn Total | Max Wind  |       |       | Max Gust  |            |            | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |      |       |
|--------|----------|-----|----------|----------|----------|------------------|-------|-------|----------------|-------|-----------------|----------|-------|------------|-----------|-------|-------|-----------|------------|------------|---------------|-------------|---------------|------|------|-------|
|        | Dir      | Spd |          |          |          | Time             | <1600 | <4800 | <9999          | C     | F               | sn/sg/ic | fg/br |            | bs        | Dir   | Spd   | Time      | Dir        | Spd        |               |             | Time          | Time | <500 | <1000 |
| 00-06L | 80       | 7   | -27.9    | -33.4    | -30.7    | 0                | 0     | 0     | -62.0          | -80.0 | 0               | 0        | 0     | 0.00       | 60        | 23    | 134   | 60        | 27         | 2234       | 2             | 30          | 00-06L        | 0    | 0    | 0     |
| 06-12L |          |     |          |          |          | 0                | 0     | 0     |                |       |                 |          |       |            | Altimeter |       |       | Total Obs | Daily Pres | Daily Temp |               |             | 06-12L        | 0    | 0    | 0     |
| 12-18L |          |     |          |          |          | 0                | 0     | 0     |                |       |                 |          |       |            | Max       | Min   | Avg   | Taken     | Diff       | Diff       |               |             | 12-18L        | 0    | 0    | 0     |
| 18-24L |          |     |          |          |          | 0                | 0     | 0     |                |       |                 |          |       |            | 29.05     | 28.84 | 28.96 |           |            |            |               |             | 18-24L        | 0    | 0    | 0     |
|        |          |     |          |          |          |                  |       |       |                |       |                 |          |       |            | 3         | 0.21  | 5.5   |           |            |            |               |             |               |      |      |       |





## McMurdo Station Daily Observation Worksheet

Date: 18

| Time          | Winds |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |       |          |       | Pcpn Amt | Max Wind (Note 3) |       |          | Max Gust (Note 3) |                 |                 | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |        |       | Alt (in) |       |
|---------------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|-------|----------|-------|----------|-------------------|-------|----------|-------------------|-----------------|-----------------|---------------|---------------|---------------|--------|-------|----------|-------|
|               | Dir   | Spd   | Temp      | Max              | Min              | <1600 | <4800          | <9999                    | sn/sg/ic        | hrs   | fg/br    | hrs   |          | bs                | hrs   | Spd      | Dir               | Time            | Spd             |               |               | Dir           | Time   | <500  |          | <1000 |
| 12-15Z        |       |       |           | -29.8            | -32.8            |       |                |                          |                 |       |          |       |          |                   | 5     | 40       | 1115              | 6               | 40              | 1113          |               |               |        |       |          |       |
| 15-18Z        | 320   | 5     | -30.9     | -30.0            | -37.6            |       |                |                          |                 |       |          |       |          |                   | 5     | 240      | 1403              | 10              | 160             | 1402          | 3             |               |        | 29.04 |          |       |
| 18-21Z        |       |       |           | -29.3            | -34.6            |       |                |                          |                 |       |          |       |          |                   | 8     | 310      | 2024              | 9               | 310             | 2028          |               |               |        |       |          |       |
| 21-24Z        | 0     | 0     | -33.7     | -29.6            | -33.8            |       |                |                          |                 |       |          |       |          |                   | 8     | 340      | 2135              | 10              | 340             | 2134          | 3             |               |        | 28.97 |          |       |
| 12 hr Max/Min |       |       |           | -29.3            | -37.6            |       |                |                          |                 |       |          |       |          |                   |       |          |                   |                 |                 |               |               |               |        |       |          |       |
| 00-03Z        |       |       |           | -30.6            | -36.5            |       |                |                          |                 |       |          |       |          |                   | 3     | 30       | 221               | 4               | 320             | 31            |               |               |        |       |          |       |
| 03-06Z        | 0     | 0     | -31.1     | -27.6            | -35.9            |       |                |                          |                 |       |          |       |          |                   | 9     | 80       | 312               | 11              | 90              | 311           | 0             |               |        | 28.87 |          |       |
| 06-09Z        |       |       |           | -32.7            | -38.7            |       |                |                          |                 |       |          |       |          |                   | 5     | 30       | 639               | 6               | 210             | 842           |               |               |        |       |          |       |
| 09-12Z        | 50    | 17    | -30.4     | -30.2            | -37.2            |       |                |                          |                 |       |          |       |          |                   | 19    | 50       | 1150              | 23              | 50              | 1137          | 0             |               |        | 28.78 |          |       |
| 12 hr Max/Min |       |       |           | -27.6            | -38.7            |       |                |                          |                 |       |          |       |          |                   |       |          |                   |                 |                 |               |               |               |        |       |          |       |
| Avg Wind      | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |       |          | Pcpn  | Max Wind |                   |       | Max Gust |                   |                 | Avg             | Low-          | Ceiling (hrs) |               |        |       |          |       |
| Dir           | Spd   | Temp  | Temp      | Temp             | Time             | <1600 | <4800          | <9999                    | C               | F     | sn/sg/ic | fg/br | bs       | Total             | Dir   | Spd      | Time              | Dir             | Spd             | Time          | Sky Cover     | est CIG       | Time   | <500  | <1000    | <3000 |
| 34            | 6     | -27.6 | -38.7     | -33.2            | 00-06L           | 0     | 0              | 0                        | -60.0           | -76.0 | 0        | 0     | 0        | 0.00              | 50    | 19       | 1150              | 50              | 23              | 1137          | 2             |               | 00-06L | 0     | 0        | 0     |
|               |       |       |           |                  | 06-12L           | 0     | 0              | 0                        |                 |       |          |       |          | Altimeter         |       |          |                   |                 |                 |               |               |               |        |       |          |       |
|               |       |       |           |                  | 12-18L           | 0     | 0              | 0                        |                 |       |          |       |          | Max               | Min   | Avg      | Total Obs Taken   | Daily Pres Diff | Daily Temp Diff |               |               |               | 06-12L | 0     | 0        | 0     |
|               |       |       |           |                  | 18-24L           | 0     | 0              | 0                        |                 |       |          |       |          | 29.04             | 28.78 | 28.92    | 4                 | 0.26            | 11.1            |               |               |               | 12-18L | 0     | 0        | 0     |
|               |       |       |           |                  |                  |       |                |                          |                 |       |          |       |          |                   |       |          |                   |                 |                 |               | 18-24L        | 0             | 0      | 0     |          |       |

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 19

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |     |       | -29.5     | -32.4 |                  |       |       |                          |     |       |     |    |          | 20                | 70  | 1325 | 25                | 50  | 1159 |               |             |               |      |       |          |
| 15-18Z        | 100   | 9   | -33.8 | -29.7     | -34.5 |                  |       |       |                          |     |       |     |    |          | 15                | 60  | 1528 | 18                | 60  | 1604 | 4             |             |               |      | 28.77 |          |
| 18-21Z        |       |     |       | -30.8     | -34.2 |                  |       |       |                          |     |       |     |    |          | 17                | 60  | 2035 | 21                | 70  | 1937 |               |             |               |      |       |          |
| 21-24Z        | 0     | 0   | -32.3 | -30.0     | -33.5 |                  |       |       |                          |     |       |     |    |          | 15                | 50  | 2200 | 18                | 50  | 2159 | 0             |             |               |      | 28.80 |          |
| 12 hr Max/Min |       |     |       | -29.5     | -34.5 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z        |       |     |       | -31.9     | -34.8 |                  |       |       |                          |     |       |     |    |          | 9                 | 330 | 247  | 13                | 340 | 219  |               |             |               |      |       |          |
| 03-06Z        | 0     | 0   | -33.9 | -31.9     | -34.8 |                  |       |       |                          |     |       |     |    |          | 11                | 340 | 307  | 16                | 340 | 304  | 0             |             |               |      | 28.82 |          |
| 06-09Z        |       |     |       | -33.0     | -35.8 |                  |       |       |                          |     |       |     |    |          | 3                 | 50  | 844  | 5                 | 350 | 750  |               |             |               |      |       |          |
| 09-12Z        | 0     | 0   | -37.9 | -32.7     | -38.7 | 1                |       |       |                          | fg  |       |     | 1  |          | 5                 | 60  | 920  | 5                 | 170 | 1149 | 2             |             |               |      | 28.90 |          |
| 12 hr Max/Min |       |     |       | -31.9     | -38.7 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Avg Wind | Dir | Spd | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |       | WX and Duration |          |       | Pcpn Total | Max Wind |           |       | Max Gust |                 |                 | Avg Sky Cover   | Low-est CIG | Ceiling (hrs) |        |      |       |       |
|----------|-----|-----|----------|----------|----------|------------------|-------|-------|----------------|-------|-----------------|----------|-------|------------|----------|-----------|-------|----------|-----------------|-----------------|-----------------|-------------|---------------|--------|------|-------|-------|
|          |     |     |          |          |          | Time             | <1600 | <4800 | <9999          | C     | F               | sn/sg/ic | fg/br |            | bs       | Dir       | Spd   | Time     | Dir             | Spd             |                 |             | Time          | Time   | <500 | <1000 | <3000 |
| 100      |     | 2   | -29.5    | -38.7    | -34.1    | 00-06L           | 0     | 0     | 0              | -59.0 | -74.0           | 0        | 0     | 1          | 0.00     | 70        | 20    | 1325     | 50              | 25              | 1159            | 2           |               | 00-06L | 0    | 0     | 0     |
|          |     |     |          |          |          | 06-12L           | 0     | 0     | 0              |       |                 |          |       |            |          | Altimeter |       |          |                 |                 |                 |             |               | 06-12L | 0    | 0     | 0     |
|          |     |     |          |          |          | 12-18L           | 0     | 0     | 0              |       |                 |          |       |            |          | Max       | Min   | Avg      | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |             |               | 12-18L | 0    | 0     | 0     |
|          |     |     |          |          |          | 18-24L           | 1     | 0     | 0              |       |                 |          |       |            |          | 28.90     | 28.77 | 28.82    | 4               | 0.13            | 9.2             |             |               | 18-24L | 0    | 0     | 0     |



## McMurdo Station Daily Observation Worksheet

Date: 20

| Time          | Winds |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |       |          |       | Pcpn Amt | Max Wind (Note 3) |       |          | Max Gust (Note 3) |       |         | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |        |       | Alt (in) |       |
|---------------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|-------|----------|-------|----------|-------------------|-------|----------|-------------------|-------|---------|---------------|---------------|---------------|--------|-------|----------|-------|
|               | Dir   | Spd   | Temp      | Max              | Min              | <1600 | <4800          | <9999                    | sn/sg/ic        | hrs   | fg/br    | hrs   |          | bs                | hrs   | Spd      | Dir               | Time  | Spd     |               |               | Dir           | Time   | <500  |          | <1000 |
| 12-15Z        |       |       |           | -33.6            | -39.3            |       |                |                          |                 |       |          |       |          |                   | 3     | 20       | 1450              | 4     | 30      | 1450          |               |               |        |       |          |       |
| 15-18Z        | 340   | 4     | -32.5     | -32.4            | -36.6            |       |                |                          |                 |       |          |       |          | 5                 | 320   | 1748     | 5                 | 340   | 1750    | 0             |               |               |        | 28.98 |          |       |
| 18-21Z        |       |       |           | -32.1            | -34.8            |       |                |                          |                 |       |          |       |          | 5                 | 330   | 1813     | 7                 | 310   | 1810    |               |               |               |        |       |          |       |
| 21-24Z        | 320   | 5     | -33.1     | -32.0            | -38.3            |       |                |                          |                 |       |          |       |          | 5                 | 320   | 2350     | 8                 | 320   | 2349    | 4             |               |               |        | 29.02 |          |       |
| 12 hr Max/Min |       |       |           | -32.0            | -39.3            |       |                |                          |                 |       |          |       |          |                   |       |          |                   |       |         |               |               |               |        |       |          |       |
| 00-03Z        |       |       |           | -30.1            | -31.7            |       |                |                          |                 |       |          |       |          | 10                | 340   | 243      | 15                | 330   | 242     |               |               |               |        |       |          |       |
| 03-06Z        | 0     | 0     | -36.2     | -28.8            | -36.2            |       |                |                          |                 |       |          |       |          | 12                | 340   | 405      | 17                | 330   | 405     | 7             | 100           |               |        | 28.98 |          |       |
| 06-09Z        |       |       |           | -31.6            | -36.3            |       |                |                          |                 |       |          |       |          | 7                 | 320   | 714      | 9                 | 310   | 714     |               |               |               |        |       |          |       |
| 09-12Z        | 70    | 7     | -23.8     | -23.7            | -34.0            |       |                |                          |                 |       |          |       |          | 10                | 90    | 1031     | 13                | 110   | 1030    | 8             | 100           |               |        | 28.90 |          |       |
| 12 hr Max/Min |       |       |           | -23.7            | -36.3            |       |                |                          |                 |       |          |       |          |                   |       |          |                   |       |         |               |               |               |        |       |          |       |
| Avg Wind      | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |       |          | Pcpn  | Max Wind |                   |       | Max Gust |                   |       | Avg Sky | Low-est       | Ceiling (hrs) |               |        |       |          |       |
| Dir           | Spd   | Temp  | Temp      | Temp             | Time             | <1600 | <4800          | <9999                    | C               | F     | sn/sg/ic | fg/br | bs       | Total             | Dir   | Spd      | Time              | Dir   | Spd     | Time          | Cover         | CIG           | Time   | <500  | <1000    | <3000 |
| 11            | 4     | -23.7 | -39.3     | -31.5            | 00-06L           | 0     | 0              | 0                        | -58.0           | -74.0 | 0        | 0     | 0        | 0.00              | 340   | 12       | 405               | 330   | 17      | 405           | 5             | 100           | 00-06L | 0     | 0        | 0     |
|               |       |       |           |                  | 06-12L           | 0     | 0              | 0                        |                 |       |          |       |          | Altimeter         |       |          | Total             | Daily | Daily   |               |               |               |        |       |          |       |
|               |       |       |           |                  | 12-18L           | 0     | 0              | 0                        |                 |       |          |       |          | Max               | Min   | Avg      | Obs               | Pres  | Temp    |               |               |               |        |       |          |       |
|               |       |       |           |                  | 18-24L           | 0     | 0              | 0                        |                 |       |          |       |          | 29.02             | 28.90 | 28.97    | Taken             | Diff  | Diff    |               |               |               |        |       |          |       |
|               |       |       |           |                  |                  |       |                |                          |                 |       |          |       |          |                   |       | 4        | 0.12              | 15.6  |         |               |               |               |        |       |          |       |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 21

| Time          | Winds |       | 3 hr Temp |                  | Visibility (hrs) |       |                | Wx and Duration (Note 2) |                 |       |          |            | Pcpn Amt | Max Wind (Note 3) |           |          | Max Gust (Note 3) |           |               | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |        |       | Alt (in) |       |
|---------------|-------|-------|-----------|------------------|------------------|-------|----------------|--------------------------|-----------------|-------|----------|------------|----------|-------------------|-----------|----------|-------------------|-----------|---------------|---------------|---------------|---------------|--------|-------|----------|-------|
|               | Dir   | Spd   | Temp      | Max              | Min              | <1600 | <4800          | <9999                    | sn/sg/ic        | hrs   | fg/br    | hrs        |          | bs                | hrs       | Spd      | Dir               | Time      | Spd           |               |               | Dir           | Time   | <500  |          | <1000 |
| 12-15Z        |       |       |           | -22.4            | -24.7            |       |                |                          |                 |       |          |            |          | 14                | 70        | 1335     | 14                | 70        | 1335          |               |               |               |        |       |          |       |
| 15-18Z        | 110   | 6     | -24.3     | -22.4            | -24.5            |       |                |                          |                 |       |          |            |          | 12                | 120       | 1700     | 12                | 120       | 1700          | 5             | 100           |               |        | 28.91 |          |       |
| 18-21Z        |       |       |           | -23.6            | -26.7            |       |                |                          |                 |       |          |            |          | 16                | 70        | 2050     | 22                | 90        | 2049          |               |               |               |        |       |          |       |
| 21-24Z        | 50    | 12    | -28.9     | -26.5            | -30.8            |       |                |                          |                 |       |          |            |          | 21                | 40        | 2219     | 25                | 40        | 2320          | 7             | 100           |               |        | 28.95 |          |       |
| 12 hr Max/Min |       |       |           | -22.4            | -30.8            |       |                |                          |                 |       |          |            |          |                   |           |          |                   |           |               |               |               |               |        |       |          |       |
| 00-03Z        |       |       |           | -25.9            | -31.4            |       |                |                          |                 |       |          |            |          | 19                | 30        | 59       | 22                | 30        | 59            |               |               |               |        |       |          |       |
| 03-06Z        | 120   | 15    | -26.6     | -26.4            | -28.4            |       |                |                          |                 |       |          |            |          | 20                | 130       | 545      | 27                | 120       | 545           | 7             | 100           |               |        | 28.98 |          |       |
| 06-09Z        |       |       |           | -26.8            | -30.3            |       |                |                          |                 |       |          |            |          | 16                | 50        | 837      | 20                | 50        | 836           |               |               |               |        |       |          |       |
| 09-12Z        | 0     | 0     | -30.8     | -28.9            | -31.6            |       |                |                          |                 |       |          |            |          | 22                | 30        | 912      | 25                | 20        | 921           | 3             |               |               |        | 29.08 |          |       |
| 12 hr Max/Min |       |       |           | -25.9            | -31.6            |       |                |                          |                 |       |          |            |          |                   |           |          |                   |           |               |               |               |               |        |       |          |       |
| Avg Wind      | Max   | Min   | Avg       | Visibility (hrs) |                  |       | Min Wind Chill |                          | WX and Duration |       |          | Pcpn Total | Max Wind |                   |           | Max Gust |                   |           | Avg Sky Cover | Low-est CIG   | Ceiling (hrs) |               |        |       |          |       |
| Dir           | Spd   | Temp  | Temp      | Temp             | Time             | <1600 | <4800          | <9999                    | C               | F     | sn/sg/ic |            | fg/br    | bs                | Dir       | Spd      | Time              | Dir       |               |               | Spd           | Time          | Time   | <500  | <1000    | <3000 |
| 94            | 8     | -22.4 | -31.6     | -27.0            | 00-06L           | 0     | 0              | 0                        | -61.0           | -78.0 | 0        | 0          | 0        | 0.00              | 30        | 22       | 912               | 120       | 27            | 545           | 6             | 100           | 00-06L | 0     | 0        | 0     |
|               |       |       |           |                  | 06-12L           | 0     | 0              | 0                        |                 |       |          |            |          |                   | Altimeter |          |                   | Total Obs | Daily Pres    | Daily Temp    |               |               | 06-12L | 0     | 0        | 0     |
|               |       |       |           |                  | 12-18L           | 0     | 0              | 0                        |                 |       |          |            |          |                   | Max       | Min      | Avg               | Diff      | Diff          | Diff          |               |               | 12-18L | 0     | 0        | 0     |
|               |       |       |           |                  | 18-24L           | 0     | 0              | 0                        |                 |       |          |            |          |                   | 29.08     | 28.91    | 28.98             | 4         | 0.17          | 9.2           |               |               | 18-24L | 0     | 0        | 0     |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 22

| Time          | Winds |     | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |          |     |       |     | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |      |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-----------|-------|------------------|-------|-------|--------------------------|----------|-----|-------|-----|----------|-------------------|-----|------|-------------------|------|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp      | Max   | Min              | <1600 | <4800 | <9999                    | sn/sg/ic | hrs | fg/br | hrs |          | bs                | hrs | Spd  | Dir               | Time | Spd  |               |             | Dir           | Time | <500  |          |
| 12-15Z        |       |     |           | -29.8 | -31.4            |       |       |                          |          |     |       |     |          | 5                 | 40  | 1424 | 6                 | 30   | 1422 |               |             |               |      |       |          |
| 15-18Z        | 50    | 11  | -29.9     | -28.1 | -31.6            |       |       |                          |          |     |       |     |          | 14                | 30  | 1727 | 17                | 30   | 1726 | 0             |             |               |      | 29.17 |          |
| 18-21Z        |       |     |           | -28.0 | -32.0            |       |       |                          |          |     |       |     |          | 21                | 30  | 1922 | 25                | 30   | 1914 |               |             |               |      |       |          |
| 21-24Z        | 100   | 6   | -28.9     | -27.8 | -29.1            |       |       |                          |          |     |       |     |          | 11                | 50  | 2102 | 14                | 120  | 2220 | 0             |             |               |      | 29.28 |          |
| 12 hr Max/Min |       |     |           | -27.8 | -32.0            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |
| 00-03Z        |       |     |           | -26.7 | -28.8            |       |       |                          |          |     |       |     |          | 13                | 50  | 221  | 17                | 50   | 220  |               |             |               |      |       |          |
| 03-06Z        | 100   | 10  | -27.2     | -25.8 | -27.6            |       |       |                          |          |     |       |     |          | 15                | 130 | 502  | 28                | 140  | 501  | 1             |             |               |      | 29.40 |          |
| 06-09Z        |       |     |           | -25.6 | -27.7            |       |       |                          |          |     |       |     |          | 13                | 130 | 639  | 20                | 110  | 746  |               |             |               |      |       |          |
| 09-12Z        | 110   | 8   | -26.0     | -25.3 | -27.7            |       |       |                          |          |     |       |     |          | 15                | 110 | 1038 | 24                | 130  | 1006 | 0             |             |               |      | 29.49 |          |
| 12 hr Max/Min |       |     |           | -25.3 | -28.8            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |

| Avg Wind | Dir | Spd | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |       | WX and Duration |          |       | Pcpn Total | Max Wind |           |       | Max Gust |                 |                 | Avg Sky Cover   | Low-est CIG | Ceiling (hrs) |        |      |       |       |
|----------|-----|-----|----------|----------|----------|------------------|-------|-------|----------------|-------|-----------------|----------|-------|------------|----------|-----------|-------|----------|-----------------|-----------------|-----------------|-------------|---------------|--------|------|-------|-------|
|          |     |     |          |          |          | Time             | <1600 | <4800 | <9999          | C     | F               | sn/sg/ic | fg/br |            | bs       | Dir       | Spd   | Time     | Dir             | Spd             |                 |             | Time          | Time   | <500 | <1000 | <3000 |
| 87       |     | 9   | -25.3    | -32.0    | -28.7    | 00-06L           | 0     | 0     | 0              | -57.0 | -71.0           | 0        | 0     | 0          | 0.00     | 30        | 21    | 1922     | 140             | 28              | 501             | 0           |               | 00-06L | 0    | 0     | 0     |
|          |     |     |          |          |          | 06-12L           | 0     | 0     | 0              |       |                 |          |       |            |          | Altimeter |       |          |                 |                 |                 | 0           |               | 06-12L | 0    | 0     | 0     |
|          |     |     |          |          |          | 12-18L           | 0     | 0     | 0              |       |                 |          |       |            |          | Max       | Min   | Avg      | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |             |               | 12-18L | 0    | 0     | 0     |
|          |     |     |          |          |          | 18-24L           | 0     | 0     | 0              |       |                 |          |       |            |          | 29.49     | 29.17 | 29.34    | 4               | 0.32            | 6.7             |             |               | 18-24L | 0    | 0     | 0     |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 23

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |      |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |       |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|------|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|-------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs  | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500  | <1000 |          |
| 12-15Z        |       |     |       | -25.5     | -28.9 |                  |       |       |                          |     |       |      |    |          | 20                | 120 | 1411 | 32                | 140 | 1408 |               |             |               |       |       |          |
| 15-18Z        | 90    | 14  | -29.6 | -28.6     | -31.1 |                  |       | 1     |                          |     |       | blsn | 1  |          | 25                | 110 | 1710 | 36                | 120 | 1710 | 3             |             |               | 29.56 |       |          |
| 18-21Z        |       |     |       | -27.6     | -29.7 |                  |       |       |                          |     |       |      |    |          | 18                | 120 | 1810 | 25                | 140 | 1809 |               |             |               |       |       |          |
| 21-24Z        | 80    | 16  | -29.9 | -27.3     | -31.0 |                  |       |       |                          |     |       |      |    |          | 20                | 140 | 2104 | 26                | 50  | 2319 | 2             |             |               | 29.48 |       |          |
| 12 hr Max/Min |       |     |       | -25.5     | -31.1 |                  |       |       |                          |     |       |      |    |          |                   |     |      |                   |     |      |               |             |               |       |       |          |
| 00-03Z        |       |     |       | -27.9     | -30.6 |                  |       |       |                          |     |       |      |    |          | 20                | 80  | 230  | 29                | 150 | 233  |               |             |               |       |       |          |
| 03-06Z        | 90    | 13  | -30.0 | -25.1     | -28.2 |                  |       |       |                          |     |       |      |    |          | 26                | 110 | 427  | 38                | 140 | 447  | 5             | 150         |               | 29.46 |       |          |
| 06-09Z        |       |     |       | -24.0     | -28.1 |                  |       |       |                          |     |       |      |    |          | 26                | 50  | 722  | 33                | 50  | 743  |               |             |               |       |       |          |
| 09-12Z        | 90    | 12  | -25.0 | -22.8     | -25.5 |                  |       |       |                          |     |       |      |    |          | 13                | 70  | 924  | 18                | 70  | 923  | 3             |             |               | 29.32 |       |          |
| 12 hr Max/Min |       |     |       | -22.8     | -30.6 |                  |       |       |                          |     |       |      |    |          |                   |     |      |                   |     |      |               |             |               |       |       |          |

| Avg Wind | Dir | Spd | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |       | WX and Duration |          |       | Pcpn Total | Max Wind |           |       | Max Gust |                 |                 | Avg Sky Cover   | Low-est CIG | Ceiling (hrs) |        |        |       |       |   |
|----------|-----|-----|----------|----------|----------|------------------|-------|-------|----------------|-------|-----------------|----------|-------|------------|----------|-----------|-------|----------|-----------------|-----------------|-----------------|-------------|---------------|--------|--------|-------|-------|---|
|          |     |     |          |          |          | Time             | <1600 | <4800 | <9999          | C     | F               | sn/sg/ic | fg/br |            | bs       | Dir       | Spd   | Time     | Dir             | Spd             |                 |             | Time          | Time   | <500   | <1000 | <3000 |   |
| 87       |     | 14  | -22.8    | -31.1    | -27.0    | 00-06L           | 0     | 0     | 1              | -63.0 | -81.0           | 0        | 0     | 1          | 0.00     | 110       | 26    | 427      | 140             | 38              | 447             | 3           | 150           | 00-06L | 0      | 0     | 0     |   |
|          |     |     |          |          |          | 06-12L           | 0     | 0     | 0              |       |                 |          |       |            |          | Altimeter |       |          |                 |                 |                 | 06-12L      | 0             | 0      | 0      |       |       |   |
|          |     |     |          |          |          | 12-18L           | 0     | 0     | 0              |       |                 |          |       |            |          | Max       | Min   | Avg      | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |             |               |        | 12-18L | 0     | 0     | 0 |
|          |     |     |          |          |          | 18-24L           | 0     | 0     | 0              |       |                 |          |       |            |          | 29.56     | 29.32 | 29.46    | 4               | 0.24            | 8.3             |             |               |        | 18-24L | 0     | 0     | 0 |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 24

| Time                 | Winds |     | 3 hr Temp |              | Visibility (hrs) |       |       | Wx and Duration (Note 2) |          |     |       |     | Pcpn Amt | Max Wind (Note 3) |     |     | Max Gust (Note 3) |      |     | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |      | Alt (in) |
|----------------------|-------|-----|-----------|--------------|------------------|-------|-------|--------------------------|----------|-----|-------|-----|----------|-------------------|-----|-----|-------------------|------|-----|---------------|-------------|---------------|------|------|----------|
|                      | Dir   | Spd | Temp      | Max          | Min              | <1600 | <4800 | <9999                    | sn/sg/ic | hrs | fg/br | hrs |          | bs                | hrs | Spd | Dir               | Time | Spd |               |             | Dir           | Time | <500 |          |
| 12-15Z               |       |     |           | -22.3        | -25.0            |       |       |                          |          |     |       |     |          |                   | 14  | 50  | 1314              | 18   | 50  | 1313          |             |               |      |      |          |
| 15-18Z               | 320   | 10  | -27.5     | -22.6        | -31.9            |       |       |                          |          |     |       |     |          |                   | 10  | 80  | 1546              | 12   | 80  | 1545          |             |               |      |      | 29.14    |
| 18-21Z               |       |     |           | -27.4        | -30.2            |       |       |                          |          |     |       |     |          |                   | 12  | 310 | 1827              | 16   | 310 | 1817          |             |               |      |      |          |
| 21-24Z               | 0     | 0   | -26.4     | -25.9        | -29.6            |       |       |                          |          |     |       |     |          |                   | 6   | 80  | 2150              | 6    | 80  | 2150          | 1           |               |      |      | 28.98    |
| <b>12 hr Max/Min</b> |       |     |           | <b>-22.3</b> | <b>-31.9</b>     |       |       |                          |          |     |       |     |          |                   |     |     |                   |      |     |               |             |               |      |      |          |
| 00-03Z               |       |     |           | -23.9        | -28.0            |       |       |                          |          |     |       |     |          |                   | 7   | 330 | 129               | 8    | 320 | 130           |             |               |      |      |          |
| 03-06Z               | 160   | 6   | -21.1     | -19.9        | -33.4            |       |       |                          |          |     |       |     |          |                   | 12  | 150 | 535               | 14   | 150 | 535           | 2           |               |      |      | 28.97    |
| 06-09Z               |       |     |           | -18.8        | -26.7            |       |       |                          |          |     |       |     |          |                   | 18  | 250 | 737               | 27   | 250 | 736           |             |               |      |      |          |
| 09-12Z               | 80    | 18  | -22.8     | -20.2        | -26.3            |       |       |                          |          |     |       |     |          |                   | 26  | 50  | 1040              | 29   | 40  | 1039          | 1           |               |      |      | 29.21    |
| <b>12 hr Max/Min</b> |       |     |           | <b>-18.8</b> | <b>-33.4</b>     |       |       |                          |          |     |       |     |          |                   |     |     |                   |      |     |               |             |               |      |      |          |

| Avg Wind | Max | Min   | Avg   | Visibility (hrs) |        |      | Min Wind Chill |      | WX and Duration |       |       | Pcpn Total | Max Wind |      |           | Max Gust |       |           | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |     |        |     |     |      |
|----------|-----|-------|-------|------------------|--------|------|----------------|------|-----------------|-------|-------|------------|----------|------|-----------|----------|-------|-----------|---------------|-------------|---------------|-----|--------|-----|-----|------|
|          |     |       |       | Dir              | Spd    | Temp | Temp           | Temp | Time            | <1600 | <4800 |            | <9999    | C    | F         | sn/sg/ic | fg/br | bs        |               |             | Dir           | Spd | Time   | Dir | Spd | Time |
| 69       | 9   | -18.8 | -33.4 | -26.1            | 00-06L | 0    | 0              | 0    | -46.0           | -51.0 | 0     | 0          | 0        | 0.00 | 50        | 26       | 1040  | 40        | 29            | 1039        | 1             |     | 00-06L | 0   | 0   | 0    |
|          |     |       |       |                  | 06-12L | 0    | 0              | 0    |                 |       |       |            |          |      | Altimeter |          |       | Total Obs | Daily Pres    | Daily Temp  |               |     | 06-12L | 0   | 0   | 0    |
|          |     |       |       |                  | 12-18L | 0    | 0              | 0    |                 |       |       |            |          |      | Max       | Min      | Avg   | Taken     | Diff          | Diff        |               |     | 12-18L | 0   | 0   | 0    |
|          |     |       |       |                  | 18-24L | 0    | 0              | 0    |                 |       |       |            |          |      | 29.21     | 28.97    | 29.08 |           |               |             |               |     | 18-24L | 0   | 0   | 0    |
|          |     |       |       |                  |        |      |                |      |                 |       |       |            |          |      |           |          | 4     | 0.24      | 14.6          |             |               |     |        |     |     |      |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 25

| Time          | Winds |     | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |          |     |       |     | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |      |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-----------|-------|------------------|-------|-------|--------------------------|----------|-----|-------|-----|----------|-------------------|-----|------|-------------------|------|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp      | Max   | Min              | <1600 | <4800 | <9999                    | sn/sg/ic | hrs | fg/br | hrs |          | bs                | hrs | Spd  | Dir               | Time | Spd  |               |             | Dir           | Time | <500  |          |
| 12-15Z        |       |     |           | -17.9 | -22.6            |       |       |                          |          |     |       |     |          | 21                | 70  | 1203 | 25                | 70   | 1159 |               |             |               |      |       |          |
| 15-18Z        | 50    | 10  | -21.8     | -18.3 | -24.4            |       |       |                          |          |     |       |     |          | 15                | 170 | 1534 | 20                | 170  | 1533 |               |             |               |      | 29.32 |          |
| 18-21Z        |       |     |           | -17.4 | -24.6            |       |       |                          |          |     |       |     |          | 16                | 50  | 2031 | 20                | 80   | 1813 |               |             |               |      |       |          |
| 21-24Z        | 70    | 7   | -26.7     | -25.9 | -29.6            |       |       |                          |          |     |       |     |          | 6                 | 80  | 2150 | 6                 | 80   | 2150 | 6             | 150         |               |      | 29.37 |          |
| 12 hr Max/Min |       |     |           | -17.4 | -29.6            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |
| 00-03Z        |       |     |           | -22.6 | -29.3            |       |       |                          |          |     |       |     |          | 15                | 100 | 138  | 19                | 90   | 136  |               |             |               |      |       |          |
| 03-06Z        | 90    | 14  | -27.9     | -23.4 | -29.3            |       |       |                          |          |     |       |     |          | 16                | 80  | 526  | 19                | 100  | 539  | 5             | 150         |               |      | 29.36 |          |
| 06-09Z        |       |     |           | -22.5 | -28.0            |       |       |                          |          |     |       |     |          | 17                | 80  | 827  | 22                | 90   | 826  |               |             |               |      |       |          |
| 09-12Z        | 80    | 15  | -24.6     | -22.5 | -26.1            |       |       |                          |          |     |       |     |          | 22                | 70  | 1016 | 25                | 70   | 1019 | 1             |             |               |      | 29.33 |          |
| 12 hr Max/Min |       |     |           | -22.5 | -29.3            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Avg Wind | Max | Min   | Avg   | Visibility (hrs) |        |      | Min Wind Chill |      | WX and Duration |       |       | Pcpn Total | Max Wind |      |           | Max Gust |       |                 | Avg Sky Cover   | Low-est CIG     | Ceiling (hrs) |     |        |     |     |      |
|----------|-----|-------|-------|------------------|--------|------|----------------|------|-----------------|-------|-------|------------|----------|------|-----------|----------|-------|-----------------|-----------------|-----------------|---------------|-----|--------|-----|-----|------|
|          |     |       |       | Dir              | Spd    | Temp | Temp           | Temp | Time            | <1600 | <4800 |            | <9999    | C    | F         | sn/sg/ic | fg/br | bs              |                 |                 | Dir           | Spd | Time   | Dir | Spd | Time |
| 75       | 12  | -17.4 | -29.6 | -23.5            | 00-06L | 0    | 0              | 0    | -57.0           | -71.0 | 0     | 0          | 0        | 0.00 | 70        | 22       | 1016  | 70              | 25              | 1159            | 4             | 150 | 00-06L | 0   | 0   | 0    |
|          |     |       |       |                  | 06-12L | 0    | 0              | 0    |                 |       |       |            |          |      | Altimeter |          |       |                 |                 |                 |               |     | 06-12L | 0   | 0   | 0    |
|          |     |       |       |                  | 12-18L | 0    | 0              | 0    |                 |       |       |            |          |      | Max       | Min      | Avg   | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |               |     | 12-18L | 0   | 0   | 0    |
|          |     |       |       |                  | 18-24L | 0    | 0              | 0    |                 |       |       |            |          |      | 29.37     | 29.32    | 29.35 | 4               | 0.05            | 12.2            |               |     | 18-24L | 0   | 0   | 0    |





## McMurdo Station Daily Observation Worksheet

Date: 26

| Time          | Winds |     |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |     |       |     |    | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |     |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-------|-----------|-------|------------------|-------|-------|--------------------------|-----|-------|-----|----|----------|-------------------|-----|------|-------------------|-----|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp  | Max       | Min   | <1600            | <4800 | <9999 | sn/sg/ic                 | hrs | fg/br | hrs | bs |          | hrs               | Spd | Dir  | Time              | Spd | Dir  |               |             | Time          | <500 | <1000 |          |
| 12-15Z        |       |     |       | -23.1     | -29.7 |                  |       |       |                          |     |       |     |    |          | 20                | 80  | 1439 | 26                | 70  | 1412 |               |             |               |      |       |          |
| 15-18Z        | 80    | 16  | -25.7 | -23.7     | -26.0 |                  |       |       |                          |     |       |     |    |          | 22                | 70  | 1533 | 28                | 80  | 1533 |               |             |               |      | 29.36 |          |
| 18-21Z        |       |     |       | -25.7     | -27.0 |                  |       |       |                          |     |       |     |    |          | 19                | 80  | 1902 | 24                | 60  | 1944 |               |             |               |      |       |          |
| 21-24Z        | 40    | 16  | -26.6 | -25.7     | -27.1 |                  |       |       |                          |     |       |     |    |          | 19                | 60  | 2259 | 24                | 60  | 2150 |               |             |               |      | 29.43 |          |
| 12 hr Max/Min |       |     |       | -23.1     | -29.7 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |
| 00-03Z        |       |     |       | -23.9     | -26.7 |                  |       |       |                          |     |       |     |    |          | 17                | 40  | 45   | 23                | 50  | 15   |               |             |               |      |       |          |
| 03-06Z        | 0     | 0   | -25.4 | -23.2     | -27.9 |                  |       |       |                          |     |       |     |    |          | 16                | 30  | 305  | 19                | 30  | 411  |               |             |               |      | 29.50 |          |
| 06-09Z        |       |     |       | -25.0     | -28.4 |                  |       |       |                          |     |       |     |    |          | 7                 | 310 | 600  | 9                 | 310 | 559  |               |             |               |      |       |          |
| 09-12Z        | 40    | 3   | -27.2 | -26.3     | -29.5 |                  |       |       | 1 IC                     | 6   |       |     |    |          | 8                 | 340 | 1119 | 10                | 330 | 1121 |               | 50          |               |      | 29.54 |          |
| 12 hr Max/Min |       |     |       | -23.2     | -29.5 |                  |       |       |                          |     |       |     |    |          |                   |     |      |                   |     |      |               |             |               |      |       |          |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Avg Wind | Dir | Spd | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |   | WX and Duration |          |       | Pcpn Total | Max Wind |           |       | Max Gust |                 |                 | Avg Sky Cover   | Low-est CIG | Ceiling (hrs) |        |      |       |       |
|----------|-----|-----|----------|----------|----------|------------------|-------|-------|----------------|---|-----------------|----------|-------|------------|----------|-----------|-------|----------|-----------------|-----------------|-----------------|-------------|---------------|--------|------|-------|-------|
|          |     |     |          |          |          | Time             | <1600 | <4800 | <9999          | C | F               | sn/sg/ic | fg/br |            | bs       | Dir       | Spd   | Time     | Dir             | Spd             |                 |             | Time          | Time   | <500 | <1000 | <3000 |
| 58       |     | 9   | -23.1    | -29.7    | -26.4    | 00-06L           | 0     | 0     | 0              |   |                 | 6        | 0     | 0          | 0.00     | 70        | 22    | 1533     | 80              | 28              | 1533            | 4           | 50            | 00-06L | 0    | 0     | 0     |
|          |     |     |          |          |          | 06-12L           | 0     | 0     | 0              |   |                 |          |       |            |          | Altimeter |       |          |                 |                 |                 |             |               | 06-12L | 0    | 0     | 0     |
|          |     |     |          |          |          | 12-18L           | 0     | 0     | 0              |   |                 |          |       |            |          | Max       | Min   | Avg      | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |             |               | 12-18L | 0    | 0     | 0     |
|          |     |     |          |          |          | 18-24L           | 0     | 0     | 1              |   |                 |          |       |            |          | 29.54     | 29.36 | 29.46    | 4               | 0.18            | 6.6             |             |               | 18-24L | 0    | 0     | 0     |



## McMurdo Station Daily Observation Worksheet

Date: 27

| Time          | Winds |     | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |          |     |       |     | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |      |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-----------|-------|------------------|-------|-------|--------------------------|----------|-----|-------|-----|----------|-------------------|-----|------|-------------------|------|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp      | Max   | Min              | <1600 | <4800 | <9999                    | sn/sg/ic | hrs | fg/br | hrs |          | bs                | hrs | Spd  | Dir               | Time | Spd  |               |             | Dir           | Time | <500  |          |
| 12-15Z        |       |     |           | -26.9 | -28.3            |       |       |                          |          |     |       |     |          |                   | 14  | 60   | 1450              | 18   | 40   | 1433          |             |               |      |       |          |
| 15-18Z        | 60    | 14  | -28.2     | -27.3 | -28.4            |       |       |                          |          |     |       |     |          | 18                | 60  | 1701 | 21                | 60   | 1734 | 4             |             |               |      | 29.58 |          |
| 18-21Z        |       |     |           | -28.5 | -31.5            |       |       |                          |          |     |       |     |          | 19                | 50  | 1942 | 26                | 60   | 1935 |               |             |               |      |       |          |
| 21-24Z        | 50    | 20  | -31.2     | -30.0 | -31.4            |       |       |                          |          |     |       |     |          | 22                | 50  | 2342 | 28                | 40   | 2342 | 8             |             |               |      | 29.60 |          |
| 12 hr Max/Min |       |     |           | -26.9 | -31.5            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |
| 00-03Z        |       |     |           | -29.9 | -31.2            |       |       |                          |          |     |       |     |          | 22                | 50  | 158  | 28                | 70   | 7    |               |             |               |      |       |          |
| 03-06Z        | 50    | 16  | -32.4     | -31.1 | -32.4            |       |       |                          | 1        |     |       |     | BLSN     | 1                 |     |      | 21                | 50   | 548  | 29            | 50          | 528           | 8    | 29.59 |          |
| 06-09Z        |       |     |           | -31.7 | -32.6            |       |       |                          | 3        |     |       |     | BLSN     | 3                 |     |      | 22                | 60   | 623  | 28            | 50          | 636           |      |       |          |
| 09-12Z        | 50    | 10  | -32.0     | -31.8 | -33.5            |       |       |                          | 1        |     |       |     | BLSN     | 1                 |     |      | 19                | 50   | 1005 | 25            | 40          | 933           | 6    | 29.55 |          |
| 12 hr Max/Min |       |     |           | -29.9 | -33.5            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |

| Avg Wind | Dir | Spd | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |       | WX and Duration |          |       | Pcpn Total | Max Wind |           |       | Max Gust |                 |                 | Avg Sky Cover   | Low-est CIG | Ceiling (hrs) |        |      |       |       |
|----------|-----|-----|----------|----------|----------|------------------|-------|-------|----------------|-------|-----------------|----------|-------|------------|----------|-----------|-------|----------|-----------------|-----------------|-----------------|-------------|---------------|--------|------|-------|-------|
|          |     |     |          |          |          | Time             | <1600 | <4800 | <9999          | C     | F               | sn/sg/ic | fg/br |            | bs       | Dir       | Spd   | Time     | Dir             | Spd             |                 |             | Time          | Time   | <500 | <1000 | <3000 |
| 52       |     | 15  | -26.9    | -33.5    | -30.2    | 00-06L           | 0     | 0     | 0              | -63.0 | -81.0           | 0        | 0     | 5          | 0.00     | 50        | 22    | 2342     | 50              | 29              | 528             | 7           |               | 00-06L | 0    | 0     | 0     |
|          |     |     |          |          |          | 06-12L           | 0     | 0     | 0              |       |                 |          |       |            |          | Altimeter |       |          |                 |                 |                 |             |               | 06-12L | 0    | 0     | 0     |
|          |     |     |          |          |          | 12-18L           | 0     | 0     | 1              |       |                 |          |       |            |          | Max       | Min   | Avg      | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |             |               | 12-18L | 0    | 0     | 0     |
|          |     |     |          |          |          | 18-24L           | 0     | 0     | 4              |       |                 |          |       |            |          | 29.60     | 29.55 | 29.58    | 4               | 0.05            | 6.6             |             |               | 18-24L | 0    | 0     | 0     |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 28

| Time          | Winds |     | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |          |     |       |     | Pcpn Amt | Max Wind (Note 3) |     |      | Max Gust (Note 3) |      |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |       | Alt (in) |
|---------------|-------|-----|-----------|-------|------------------|-------|-------|--------------------------|----------|-----|-------|-----|----------|-------------------|-----|------|-------------------|------|------|---------------|-------------|---------------|------|-------|----------|
|               | Dir   | Spd | Temp      | Max   | Min              | <1600 | <4800 | <9999                    | sn/sg/ic | hrs | fg/br | hrs |          | bs                | hrs | Spd  | Dir               | Time | Spd  |               |             | Dir           | Time | <500  |          |
| 12-15Z        |       |     |           | -31.4 | -32.8            |       |       |                          |          |     |       |     |          | 18                | 60  | 1240 | 23                | 40   | 1227 |               |             |               |      |       |          |
| 15-18Z        | 50    | 13  | -29.4     | -28.8 | -33.1            |       |       |                          |          |     |       |     |          | 14                | 50  | 1734 | 17                | 50   | 1734 | 2             |             |               |      | 29.50 |          |
| 18-21Z        |       |     |           | -27.6 | -31.3            |       |       |                          |          |     |       |     |          | 14                | 50  | 1948 | 19                | 50   | 1944 |               |             |               |      |       |          |
| 21-24Z        | 0     | 0   | -32.1     | -27.4 | -32.7            |       |       |                          |          |     |       |     |          | 14                | 90  | 2124 | 17                | 90   | 2123 | 1             |             |               |      | 29.49 |          |
| 12 hr Max/Min |       |     |           | -27.4 | -33.1            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |
| 00-03Z        |       |     |           | -30.0 | -38.7            |       |       |                          |          |     |       |     |          | 9                 | 90  | 120  | 13                | 90   | 118  |               |             |               |      |       |          |
| 03-06Z        | 0     | 0   | -32.1     | -31.2 | -36.3            |       |       |                          |          |     |       |     |          | 5                 | 340 | 506  | 8                 | 310  | 506  | 1             |             |               |      | 29.48 |          |
| 06-09Z        |       |     |           | -31.7 | -35.1            |       |       |                          |          |     |       |     |          | 3                 | 310 | 842  | 5                 | 310  | 836  |               |             |               |      |       |          |
| 09-12Z        | 320   | 8   | -32.7     | -32.7 | -34.3            |       |       |                          |          |     |       |     |          | 9                 | 320 | 1102 | 12                | 310  | 1106 | 1             |             |               |      | 29.43 |          |
| 12 hr Max/Min |       |     |           | -30.0 | -38.7            |       |       |                          |          |     |       |     |          |                   |     |      |                   |      |      |               |             |               |      |       |          |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

| Time   | Avg Wind |     | Max Temp | Min Temp | Avg Temp | Visibility (hrs) |       |       | Min Wind Chill |   | WX and Duration |          |       | Pcpn Total | Max Wind  |       |      | Max Gust        |                 |                 | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |      |      |       |
|--------|----------|-----|----------|----------|----------|------------------|-------|-------|----------------|---|-----------------|----------|-------|------------|-----------|-------|------|-----------------|-----------------|-----------------|---------------|-------------|---------------|------|------|-------|
|        | Dir      | Spd |          |          |          | Time             | <1600 | <4800 | <9999          | C | F               | sn/sg/ic | fg/br |            | bs        | Dir   | Spd  | Time            | Dir             | Spd             |               |             | Time          | Time | <500 | <1000 |
| 00-06L | 18       | 5   | -27.4    | -38.7    | -33.1    | 0                | 0     | 0     |                |   | 0               | 0        | 0     | 0.00       | 60        | 18    | 1240 | 40              | 23              | 1227            | 1             |             | 00-06L        | 0    | 0    | 0     |
| 06-12L |          |     |          |          |          | 0                | 0     | 0     |                |   |                 |          |       |            | Altimeter |       |      |                 |                 |                 |               |             | 06-12L        | 0    | 0    | 0     |
| 12-18L |          |     |          |          |          | 0                | 0     | 0     |                |   |                 |          |       |            | Max       | Min   | Avg  | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |               |             | 12-18L        | 0    | 0    | 0     |
| 18-24L |          |     |          |          |          | 0                | 0     | 0     |                |   |                 |          |       | 29.50      | 29.43     | 29.48 |      | 4               | 0.07            | 11.3            |               |             | 18-24L        | 0    | 0    | 0     |



## McMurdo Station Daily Observation Worksheet

Date: 29

| Time                 | Winds |       |       | 3 hr Temp        |              | Visibility (hrs) |                |       | Wx and Duration (Note 2) |     |          |       |          | Pcpn Amt | Max Wind (Note 3) |          |      | Max Gust (Note 3) |           |         | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |       |       | Alt (in) |       |
|----------------------|-------|-------|-------|------------------|--------------|------------------|----------------|-------|--------------------------|-----|----------|-------|----------|----------|-------------------|----------|------|-------------------|-----------|---------|---------------|-------------|---------------|-------|-------|----------|-------|
|                      | Dir   | Spd   | Temp  | Max              | Min          | <1600            | <4800          | <9999 | sn/sg/ic                 | hrs | fg/br    | hrs   | bs       |          | hrs               | Spd      | Dir  | Time              | Spd       | Dir     |               |             | Time          | <500  | <1000 |          | <3000 |
| 12-15Z               |       |       |       | -29.3            | -23.9        |                  |                |       |                          |     |          |       |          |          | 15                | 330      | 1359 | 22                | 340       | 1348    |               |             |               |       |       |          |       |
| 15-18Z               | 300   | 8     | -29.9 | -29.5            | -32.5        |                  |                |       |                          |     |          |       |          |          | 13                | 300      | 1724 | 17                | 300       | 1724    | 1             |             |               |       | 29.27 |          |       |
| 18-21Z               |       |       |       | -27.9            | -33.8        |                  |                |       |                          |     |          |       |          |          | 9                 | 270      | 1806 | 13                | 270       | 1806    |               |             |               |       |       |          |       |
| 21-24Z               | 30    | 3     | -33.9 | -30.1            | -33.9        |                  |                |       |                          |     |          |       |          |          | 7                 | 150      | 2336 | 8                 | 140       | 2336    | 3             |             |               |       | 29.15 |          |       |
| <b>12 hr Max/Min</b> |       |       |       | <b>-27.9</b>     | <b>-33.9</b> |                  |                |       |                          |     |          |       |          |          |                   |          |      |                   |           |         |               |             |               |       |       |          |       |
| 00-03Z               |       |       |       | -26.4            | -33.5        |                  |                |       |                          |     |          |       |          |          | 16                | 60       | 248  | 20                | 80        | 226     |               |             |               |       |       |          |       |
| 03-06Z               | 70    | 21    | -26.4 | -26.2            | -28.1        |                  |                |       |                          |     |          |       |          |          | 25                | 60       | 526  | 31                | 70        | 521     | 3             |             |               |       | 29.12 |          |       |
| 06-09Z               |       |       |       | -26.0            | -27.3        |                  |                |       |                          |     |          |       |          |          | 26                | 80       | 708  | 32                | 60        | 610     |               |             |               |       |       |          |       |
| 09-12Z               | 30    | 21    | -26.7 | -26.0            | -27.5        |                  |                |       |                          |     |          |       |          |          | 24                | 30       | 1044 | 32                | 30        | 1043    | 6             |             |               |       | 29.27 |          |       |
| <b>12 hr Max/Min</b> |       |       |       | <b>-26.0</b>     | <b>-33.5</b> |                  |                |       |                          |     |          |       |          |          |                   |          |      |                   |           |         |               |             |               |       |       |          |       |
| Avg Wind             | Max   | Min   | Avg   | Visibility (hrs) |              |                  | Min Wind Chill |       | WX and Duration          |     |          | Pcpn  | Max Wind |          |                   | Max Gust |      |                   | Avg Sky   | Low-est | Ceiling (hrs) |             |               |       |       |          |       |
| Dir                  | Spd   | Temp  | Temp  | Temp             | Time         | <1600            | <4800          | <9999 | C                        | F   | sn/sg/ic | fg/br | bs       | Total    | Dir               | Spd      | Time | Dir               | Spd       | Time    | Cover         | CIG         | Time          | <500  | <1000 | <3000    |       |
| 38                   | 13    | -26.0 | -33.9 | -30.0            | 00-06L       | 0                | 0              | 0     |                          |     | 0        | 0     | 0        | 0.00     | 80                | 26       | 708  | 60                | 32        | 610     | 3             |             | 00-06L        | 0     | 0     | 0        |       |
|                      |       |       |       |                  | 06-12L       | 0                | 0              | 0     |                          |     |          |       |          |          |                   |          |      |                   | Altimeter |         |               |             |               |       |       |          |       |
|                      |       |       |       |                  | 12-18L       | 0                | 0              | 0     |                          |     |          |       |          |          |                   |          |      |                   | Max       | Min     | Avg           | Total       | Daily         | Daily |       |          |       |
|                      |       |       |       |                  | 18-24L       | 0                | 0              | 0     |                          |     |          |       |          |          |                   |          |      |                   | 29.27     | 29.12   | 29.20         | Obs         | Pres          | Temp  |       |          |       |
|                      |       |       |       |                  |              |                  |                |       |                          |     |          |       |          |          |                   |          |      | 4                 | 0.15      | 7.9     |               |             |               |       |       |          |       |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 30

| Time          | Winds |       | 3 hr Temp |       | Visibility (hrs) |       |       | Wx and Duration (Note 2) |          |                 |          |           | Pcpn Amt | Max Wind (Note 3) |           |            | Max Gust (Note 3) |       |      | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |        |      | Alt (in) |       |       |  |
|---------------|-------|-------|-----------|-------|------------------|-------|-------|--------------------------|----------|-----------------|----------|-----------|----------|-------------------|-----------|------------|-------------------|-------|------|---------------|-------------|---------------|--------|------|----------|-------|-------|--|
|               | Dir   | Spd   | Temp      | Max   | Min              | <1600 | <4800 | <9999                    | sn/sg/ic | hrs             | fg/br    | hrs       |          | bs                | hrs       | Spd        | Dir               | Time  | Spd  |               |             | Dir           | Time   | <500 |          | <1000 | <3000 |  |
| 12-15Z        |       |       |           | -26.0 | -28.2            |       |       |                          |          |                 |          |           |          |                   | 22        | 30         | 1218              | 28    | 40   | 1212          |             |               |        |      |          |       |       |  |
| 15-18Z        | 80    | 9     | -27.1     | -27.0 | -29.2            |       |       |                          |          |                 |          |           |          | 18                | 30        | 1505       | 23                | 30    | 1504 | 1             |             |               |        |      | 29.43    |       |       |  |
| 18-21Z        |       |       |           | -26.5 | -29.2            |       |       |                          |          |                 |          |           |          | 16                | 50        | 1839       | 18                | 30    | 2000 |               |             |               |        |      |          |       |       |  |
| 21-24Z        | 30    | 13    | -30.6     | -28.3 | -33.3            |       |       |                          |          |                 |          |           |          | 25                | 30        | 2157       | 30                | 30    | 2259 | 8             | 150         |               |        |      | 29.46    |       |       |  |
| 12 hr Max/Min |       |       |           | -26.0 | -33.3            |       |       |                          |          |                 |          |           |          |                   |           |            |                   |       |      |               |             |               |        |      |          |       |       |  |
| 00-03Z        |       |       |           | -29.3 | -30.6            |       |       |                          |          |                 |          |           |          |                   | 21        | 30         | 115               | 24    | 30   | 115           |             |               |        |      |          |       |       |  |
| 03-06Z        | 330   | 6     | -30.8     | -29.6 | -33.9            |       |       |                          |          |                 |          |           |          | 13                | 20        | 257        | 16                | 20    | 311  | 8             | 30          |               |        |      | 29.32    |       |       |  |
| 06-09Z        |       |       |           | -30.5 | -33.9            |       |       |                          |          |                 |          |           |          | 8                 | 310       | 658        | 12                | 320   | 641  |               |             |               |        |      |          |       |       |  |
| 09-12Z        | 0     | 0     | -30.9     | -30.5 | -33.4            |       |       |                          | IC       | 5               |          |           |          | 7                 | 70        | 858        | 8                 | 70    | 858  | 8             | 35          |               |        |      | 29.06    |       |       |  |
| 12 hr Max/Min |       |       |           | -29.3 | -33.9            |       |       |                          |          |                 |          |           |          |                   |           |            |                   |       |      |               |             |               |        |      |          |       |       |  |
| Avg Wind      |       | Max   | Min       | Avg   | Visibility (hrs) |       |       | Min Wind Chill           |          | WX and Duration |          |           | Pcpn     | Max Wind          |           |            | Max Gust          |       |      | Avg Sky       | Low-est     | Ceiling (hrs) |        |      |          |       |       |  |
| Dir           | Spd   | Temp  | Temp      | Temp  | Time             | <1600 | <4800 | <9999                    | C        | F               | sn/sg/ic | fg/br     | bs       | Total             | Dir       | Spd        | Time              | Dir   | Spd  | Time          | Cover       | CIG           | Time   | <500 | <1000    | <3000 |       |  |
| 34            | 7     | -26.0 | -33.9     | -30.0 | 00-06L           | 0     | 0     | 0                        |          |                 | 5        | 0         | 0        | 0.00              | 30        | 25         | 2157              | 30    | 30   | 2259          | 6           | 30            | 00-06L | 0    | 0        | 0     |       |  |
|               |       |       |           |       | 06-12L           | 0     | 0     | 0                        |          |                 |          |           |          |                   |           |            |                   |       |      |               |             |               |        |      |          |       |       |  |
|               |       |       |           |       | 12-18L           | 0     | 0     | 0                        |          |                 |          |           |          |                   |           |            |                   |       |      |               |             |               |        |      |          |       |       |  |
|               |       |       |           |       | 18-24L           | 0     | 0     | 0                        |          |                 |          |           |          |                   |           |            |                   |       |      |               |             |               |        |      |          |       |       |  |
|               |       |       |           |       |                  |       |       |                          |          |                 |          | Altimeter |          |                   | Total Obs | Daily Pres | Daily Temp        |       |      |               |             |               |        |      |          |       |       |  |
|               |       |       |           |       |                  |       |       |                          |          |                 |          |           |          |                   | 29.46     | 29.06      | 29.32             | Taken | Diff | Diff          |             |               |        |      |          |       |       |  |
|               |       |       |           |       |                  |       |       |                          |          |                 |          |           |          |                   | 4         | 0.40       | 7.9               |       |      |               |             |               |        |      |          |       |       |  |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 31

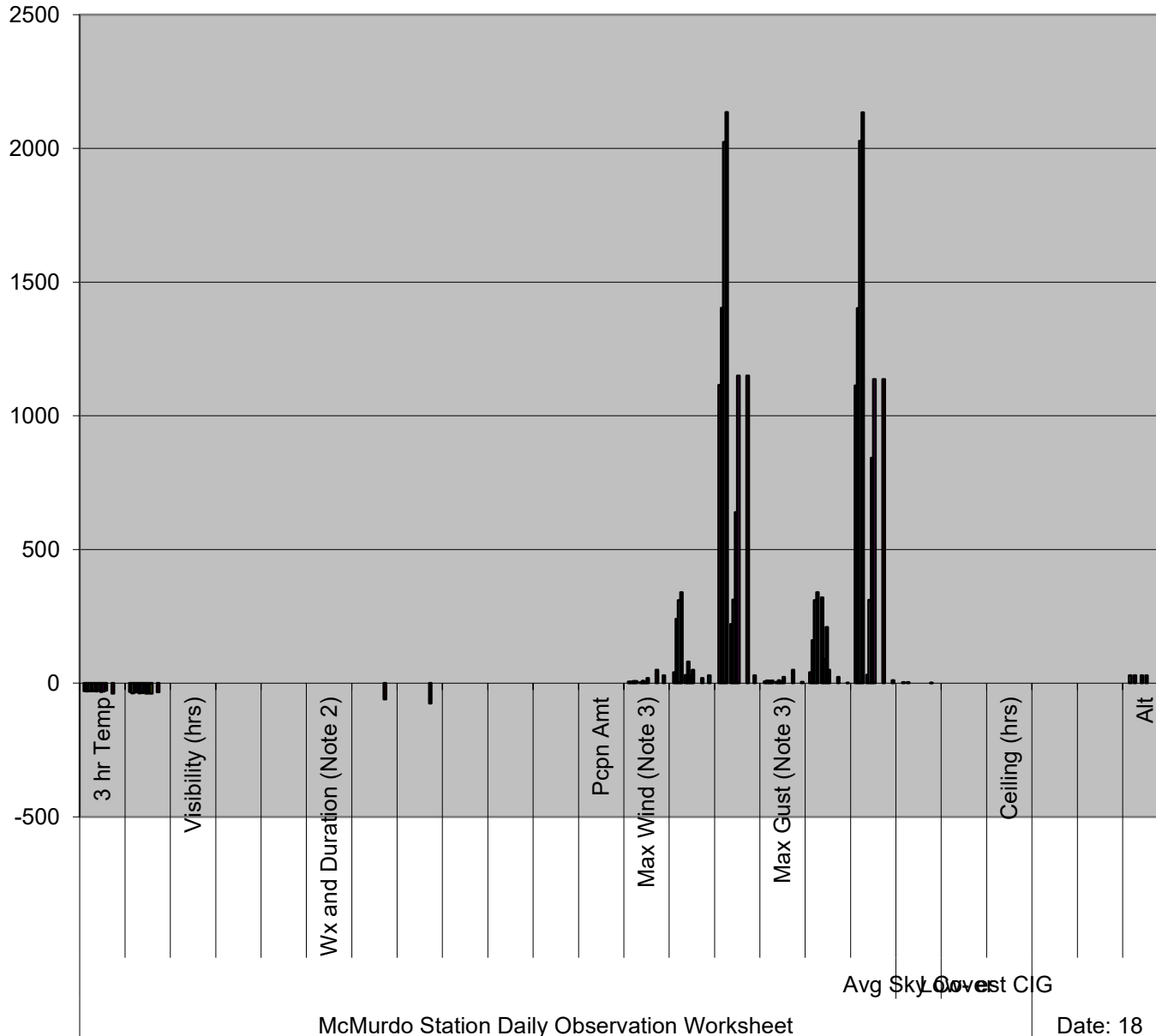
| Time          | Winds |       | 3 hr Temp |       | Visibility (hrs) |                  |       | Wx and Duration (Note 2) |                |     |                 |       | Pcpn Amt | Max Wind (Note 3) |          |      | Max Gust (Note 3) |          |           | Avg Sky Cover | Low-est CIG   | Ceiling (hrs)   |                 |                 | Alt (in) |       |       |
|---------------|-------|-------|-----------|-------|------------------|------------------|-------|--------------------------|----------------|-----|-----------------|-------|----------|-------------------|----------|------|-------------------|----------|-----------|---------------|---------------|-----------------|-----------------|-----------------|----------|-------|-------|
|               | Dir   | Spd   | Temp      | Max   | Min              | <1600            | <4800 | <9999                    | sn/sg/ic       | hrs | fg/br           | hrs   |          | bs                | hrs      | Spd  | Dir               | Time     | Spd       |               |               | Dir             | Time            | <500            |          | <1000 | <3000 |
| 12-15Z        |       |       |           | -30.1 | -35.0            |                  |       |                          | -SN            | 2   |                 |       |          |                   | 17       | 100  | 1435              | 19       | 100       | 1434          |               |                 |                 |                 |          |       |       |
| 15-18Z        | 70    | 5     | -32.4     | -32.0 | -34.9            | 3200             |       |                          | -SN            | 3   | BR              | 1     |          | 15                | 80       | 1523 | 18                | 80       | 1509      | 8             | 20            |                 | 20              | 28.92           |          |       |       |
| 18-21Z        |       |       |           | -31.4 | -35.5            |                  |       |                          | -SN            | 3   | BR              | 3     |          | 21                | 50       | 2047 | 25                | 40       | 2047      |               |               |                 |                 |                 |          |       |       |
| 21-24Z        | 50    | 13    | -35.3     | -35.1 | -36.7            | 1600             |       |                          |                |     |                 | BLSN  | 3        | 27                | 40       | 2123 | 31                | 50       | 2105      | 8             | 50            |                 |                 | 28.96           |          |       |       |
| 12 hr Max/Min |       |       |           | -30.1 | -36.7            |                  |       |                          |                |     |                 |       |          |                   |          |      |                   |          |           |               |               |                 |                 |                 |          |       |       |
| 00-03Z        |       |       |           | -33.3 | -35.1            |                  |       |                          |                |     |                 |       |          | 17                | 50       | 28   | 23                | 60       | 127       |               |               |                 |                 |                 |          |       |       |
| 03-06Z        | 110   | 19    | -34.6     | -34.3 | -35.8            | 1600             |       |                          | IC             | 2   |                 |       | BLSN     | 1                 | TR       |      | 19                | 110      | 546       | 27            | 90            | 550             | 6               | 150             | 29.03    |       |       |
| 06-09Z        |       |       |           | -33.1 | -34.6            |                  |       |                          |                |     |                 |       |          | 27                | 130      | 644  | 39                | 120      | 647       |               |               |                 |                 |                 |          |       |       |
| 09-12Z        | 60    | 10    | -31.3     | -31.0 | -33.5            | 8000             |       |                          | IC             | 6   |                 |       |          | TR                | 13       | 80   | 947               | 19       | 60        | 943           | 8             | 150             |                 | 29.15           |          |       |       |
| 12 hr Max/Min |       |       |           | -31.0 | -35.8            |                  |       |                          |                |     |                 |       |          |                   |          |      |                   |          |           |               |               |                 |                 |                 |          |       |       |
| Avg Wind      |       | Max   | Min       | Avg   |                  | Visibility (hrs) |       |                          | Min Wind Chill |     | WX and Duration |       |          | Pcpn              | Max Wind |      |                   | Max Gust |           |               | Avg Sky Cover | Low-est CIG     | Ceiling (hrs)   |                 |          |       |       |
| Dir           | Spd   | Temp  | Temp      | Temp  | Time             | <1600            | <4800 | <9999                    | C              | F   | sn/sg/ic        | fg/br | bs       | Total             | Dir      | Spd  | Time              | Dir      | Spd       | Time          |               |                 | Time            | <500            | <1000    | <3000 |       |
| 78            | 12    | -30.1 | -36.7     | -33.4 | 00-06L           | 0                | 3200  | 0                        |                |     | 16              | 4     | 4        | 0.00              | 40       | 27   | 2123              | 120      | 39        | 647           | 8             | 20              | 00-06L          | 0               | 0        | 20    |       |
|               |       |       |           |       | 06-12L           | 1600             | 0     | 0                        |                |     |                 |       |          |                   |          |      |                   |          | Altimeter |               |               |                 |                 |                 |          |       |       |
|               |       |       |           |       | 12-18L           | 1600             | 0     | 0                        |                |     |                 |       |          |                   |          |      |                   |          | Max       | Min           | Avg           | Total Obs Taken | Daily Pres Diff | Daily Temp Diff |          |       |       |
|               |       |       |           |       | 18-24L           | 0                | 0     | 8000                     |                |     |                 |       |          |                   |          |      |                   |          | 29.15     | 28.92         | 29.02         | 4               | 0.23            | 6.6             |          |       |       |

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





- Zulu Dir Spd Temp
- 12-15Z
- 15-18Z 320 5 -30.9
- 18-21Z
- 21-24Z 0 0 -33.7
- 21-24Z 12 hr Max/Min 0 -33.7
- 00-03Z
- 03-06Z 0 0 -31.1
- 06-09Z
- 09-12Z 50 17 -30.4
- 09-12Z 12 hr Max/Min 17 -30.4
- 09-12Z Avg Wind 17 Max Temp
- 09-12Z Dir Spd Max Temp
- 09-12Z 34 6 -27.6
- 09-12Z 34 6 -27.6
- 09-12Z 34 6 -27.6
- 09-12Z 34 6 -27.6

|                  | Day 1       | Day 2       | Day 3       | Day 4       | Day 5       | Day 6       | Day 7       | Day 8       | Day 9       | Day 10      | Day 11      | Day 12      | Day 13      | Day 14      | Day 15     |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| 12-15Z           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |            |
| 15-18Z           | 320 12      |             | 0 0         | 0 0         | 0 0         | 40 10       | 310 4       | 50 18       | 0 0         | 0 0         | 40 16       | 0 0         | 50 20       | 0 0         | 0 0        |
| 18-21Z           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |            |
| 21-24Z           | 0 0         | 0 0         | 0 0         | 40 11       | 330 11      | 340 12      | 0 0         | 40 15       | 0 0         | 0 0         | 0 0         | 50 17       | 50 18       | 0 0         | 80 11      |
| 00-03Z           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |            |
| 03-06Z           | 0 0         | 70 18       | 0 0         | 40 23       | 60 22       | 0 0         | 60 5        | 50 6        | 0 0         | 60 25       | 0 0         | 80 13       | 60 23       | 0 0         | 40 21      |
| 06-09Z           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |            |
| 09-12Z           | 0 0         | 3 340       | 11 30       | 12 70       | 11 330      | 17 50       | 21 310      | 0 11        | 50 14       | 0 0         | 50 22       | 80 10       | 40 13       | 0 0         | 0 0        |
| X*u / X*v        |             |             |             |             |             |             |             |             |             |             |             |             |             |             |            |
| X*u / X*v        | -7.71 9.193 |             |             |             |             | 6.428 7.66  | -3.06 2.571 | 13.79 11.57 |             |             | 10.28 12.26 |             | 15.32 12.86 |             |            |
| X*u / X*v        |             |             |             | 7.071 8.426 | -5.5 9.526  | -4.1 11.28  |             | 9.642 11.49 |             |             |             | 13.02 10.93 | 13.79 11.57 |             | 10.83 1.91 |
| X*u / X*v        |             | 16.91 6.156 |             | 14.78 17.62 | 19.05 11    |             | 4.33 2.5    | 4.596 3.857 |             | 21.65 12.5  |             | 12.8 2.257  | 19.92 11.5  |             | 13.5 16.09 |
| X*u / X*v        |             |             | -3.76 10.34 | 6 10.39     | 10.34 3.762 | -8.5 14.72  | 16.09 13.5  |             | -8.43 7.071 | 10.72 8.999 |             | 16.85 14.14 | 9.848 1.736 | 8.356 9.959 |            |
| Sum u/Sum v      | -7.71 9.193 | 16.91 6.156 | -3.76 10.34 | 27.85 36.44 | 23.89 24.29 | -6.18 33.66 | 17.35 18.57 | 28.03 26.92 | -8.43 7.071 | 32.38 21.5  | 10.28 12.26 | 42.68 27.33 | 58.88 37.66 | 8.356 9.959 | 24.33 18   |
| Arctan           | -40         | 70          | -20         | 37.4        | 44.53       | -10.4       | 43.06       | 46.16       | -50         | 56.41       | 40          | 57.37       | 57.39       | 40          | 53.51      |
| <b>Direction</b> | 320         | 70          | 340         | 37.4        | 44.53       | 349.6       | 43.06       | 46.16       | 310         | 56.41       | 40          | 57.37       | 57.39       | 40          | 53.51      |
| <b>Magnitude</b> | 3           | 5           | 3           | 12          | 11          | 10          | 8           | 10          | 3           | 10          | 0:00        | 13          | 18          | 3           | 8          |

## Avg Wind

|                  | <b>sin</b> | <b>cos</b> |
|------------------|------------|------------|
| 1 X*u / X*v      | -1.928     | 2.298      |
| 2 X*u / X*v      | 4.933      | 1.796      |
| 3 X*u / X*v      | -0.941     | 2.584      |
| 4 X*u / X*v      | 6.984      | 9.136      |
| 5 X*u / X*v      | 7.713      | 7.842      |
| 6 X*u / X*v      | -1.760     | 9.590      |
| 7 X*u / X*v      | 5.121      | 5.480      |
| 8 X*u / X*v      | 7.032      | 6.754      |
| 9 X*u / X*v      | -2.107     | 1.768      |
| 10 X*u / X*v     | 8.122      | 5.394      |
| 11 X*u / X*v     | 2.571      | 3.064      |
| 12 X*u / X*v     | 10.948     | 7.010      |
| 13 X*u / X*v     | 14.952     | 9.565      |
| 14 X*u / X*v     | 2.089      | 2.490      |
| 15 X*u / X*v     | 6.432      | 4.757      |
| 16 X*u / X*v     | -0.870     | 2.609      |
| 17 X*u / X*v     | 6.638      | 1.224      |
| 18 X*u / X*v     | 3.044      | 4.581      |
| 19 X*u / X*v     | 2.216      | -0.391     |
| 20 X*u / X*v     | 0.784      | 3.922      |
| 21 X*u / X*v     | 8.232      | -0.544     |
| 22 X*u / X*v     | 8.739      | 0.429      |
| 23 X*u / X*v     | 13.732     | 0.697      |
| 24 X*u / X*v     | 7.931      | 3.058      |
| 25 X*u / X*v     | 11.114     | 2.953      |
| 26 X*u / X*v     | 7.438      | 4.609      |
| 27 X*u / X*v     | 11.873     | 9.167      |
| 28 X*u / X*v     | 1.657      | 4.982      |
| 29 X*u / X*v     | 8.123      | 10.468     |
| 30 X*u / X*v     | 3.961      | 5.772      |
| 31 X*u / X*v     | 11.504     | 2.394      |
| Sum u/Sum v      | 176.279    | 135.457    |
| Arctan           | 52.461     |            |
| <b>Direction</b> | 52.5       |            |
| <b>Magnitude</b> | 8.129032   |            |



Station:  
NZCM

Monthly Climatology / Page 1

Month:  
AUG 2004

| Date | Temp (C) |        |        | Visibility (hrs) |       |        |        |        |        |       |        |        |        |        |       |      |       |       | WX and Duration |       |       |       | Pcpn Amt | Avg Wind |     | Max Wind |     | Max Gust |    |
|------|----------|--------|--------|------------------|-------|--------|--------|--------|--------|-------|--------|--------|--------|--------|-------|------|-------|-------|-----------------|-------|-------|-------|----------|----------|-----|----------|-----|----------|----|
|      | Max      | Min    | Avg    | < 1600           |       |        |        |        | < 4800 |       |        |        |        | < 9999 |       |      |       |       | sn/sg/ic        | fg/br | bs    | Total |          | Spd      | Dir | Spd      | Dir |          |    |
|      | 00-06L   | 06-12L | 12-18L | 18-24L           | Total | 00-06L | 06-12L | 12-18L | 18-24L | Total | 00-06L | 06-12L | 12-18L | 18-24L | Total |      |       |       |                 |       |       |       |          |          |     |          |     |          |    |
| 1    | -28.4    | -40.8  | -34.6  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 3        | 320 | 28       | 30  | 32       |    |
| 2    | -27.4    | -39.7  | -33.6  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 5        | 70  | 21       | 60  | 26       |    |
| 3    | -26.0    | -39.4  | -32.7  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 3        | 340 | 15       | 330 | 18       |    |
| 4    | -20.2    | -29.6  | -24.9  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 3.00 | 0.00  | 3.00  | 0.00            | 0.00  | 3.00  | 3.00  | 0.00     | 12       | 37  | 28       | 50  | 35       |    |
| 5    | -26.3    | -36.7  | -31.5  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 11       | 45  | 24       | 50  | 30       |    |
| 6    | -27.6    | -39.4  | -33.5  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 10       | 350 | 21       | 30  | 27       |    |
| 7    | -24.3    | -35.8  | -30.1  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 8        | 43  | 30       | 60  | 38       |    |
| 8    | -23.8    | -36.1  | -30.0  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 10       | 46  | 23       | 50  | 28       |    |
| 9    | -26.6    | -34.9  | -30.8  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 3        | 310 | 18       | 330 | 24       |    |
| 10   | -22.2    | -36.2  | -29.2  | 0.00             | 0.00  | 1.00   | 0.00   | 1.00   | 0.00   | 0.00  | 0.00   | 2.00   | 2.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 3.00  | 3.00  | 0.00     | 10       | 56  | 28       | 50  | 35       |    |
| 11   | -23.1    | -34.2  | -28.7  | 0.00             | 0.00  | 0.00   | 3.00   | 3.00   | 0.00   | 0.00  | 0.00   | 2.00   | 2.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 5.00  | 0.00  | 0.00  | 5.00     | 0.00     | 4   | 40       | 23  | 30       | 28 |
| 12   | -21.3    | -31.8  | -26.6  | 0.00             | 3.00  | 6.00   | 6.00   | 15.00  | 1.00   | 3.00  | 0.00   | 0.00   | 4.00   | 5.00   | 0.00  | 0.00 | 0.00  | 5.00  | 10.00           | 0.00  | 15.00 | 25.00 | 0.00     | 13       | 57  | 29       | 50  | 36       |    |
| 13   | -18.0    | -32.7  | -25.4  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 5.00   | 6.00  | 3.00   | 0.00   | 14.00  | 1.00   | 0.00  | 3.00 | 0.00  | 4.00  | 0.00            | 0.00  | 18.00 | 18.00 | 0.00     | 18       | 57  | 32       | 50  | 41       |    |
| 14   | -20.8    | -31.7  | -26.3  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 3        | 40  | 20       | 70  | 23       |    |
| 15   | -21.8    | -33.8  | -27.8  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 8        | 54  | 23       | 50  | 31       |    |
| 16   | -26.7    | -36.4  | -31.6  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 3        | 342 | 18       | 330 | 26       |    |
| 17   | -27.9    | -33.4  | -30.7  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 7        | 80  | 23       | 60  | 27       |    |
| 18   | -27.6    | -38.7  | -33.2  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 6        | 34  | 19       | 50  | 23       |    |
| 19   | -29.5    | -38.7  | -34.1  | 0.00             | 0.00  | 0.00   | 1.00   | 1.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 1.00  | 1.00  | 0.00  | 0.00     | 2        | 100 | 20       | 70  | 25       |    |
| 20   | -23.7    | -39.3  | -31.5  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 4        | 11  | 12       | 340 | 17       |    |
| 21   | -22.4    | -31.6  | -27.0  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 8        | 94  | 22       | 30  | 27       |    |
| 22   | -25.3    | -32.0  | -28.7  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 9        | 87  | 21       | 30  | 28       |    |
| 23   | -22.8    | -31.1  | -27.0  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 1.00   | 0.00  | 0.00 | 0.00  | 1.00  | 0.00            | 0.00  | 1.00  | 1.00  | 0.00     | 14       | 87  | 26       | 110 | 38       |    |
| 24   | -18.8    | -33.4  | -26.1  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 9        | 69  | 26       | 50  | 29       |    |
| 25   | -17.4    | -29.6  | -23.5  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 12       | 75  | 22       | 70  | 25       |    |
| 26   | -23.1    | -29.7  | -26.4  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 1.00  | 1.00  | 6.00            | 0.00  | 0.00  | 6.00  | 0.00     | 9        | 58  | 22       | 70  | 28       |    |
| 27   | -26.9    | -33.5  | -30.2  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 1.00 | 4.00  | 5.00  | 0.00            | 0.00  | 5.00  | 5.00  | 0.00     | 15       | 52  | 22       | 50  | 29       |    |
| 28   | -27.4    | -38.7  | -33.1  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 5        | 18  | 18       | 60  | 23       |    |
| 29   | -26.0    | -33.9  | -30.0  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 0.00            | 0.00  | 0.00  | 0.00  | 0.00     | 13       | 38  | 26       | 80  | 32       |    |
| 30   | -26.0    | -33.9  | -30.0  | 0.00             | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00  | 0.00  | 5.00            | 0.00  | 0.00  | 5.00  | 0.00     | 7        | 34  | 25       | 30  | 30       |    |
| 31   | -30.1    | -36.7  | -33.4  | 0.00             | ##### | #####  | 0.00   | #####  | #####  | 0.00  | 0.00   | 0.00   | #####  | 0.00   | 0.00  | 0.00 | ##### | ##### | 16.00           | 4.00  | 4.00  | 24.00 | 0.00     | 12       | 78  | 27       | 40  | 39       |    |

Monthly Statistics

| Temp (C) | Visibility (hrs) |       |     |        |        |      |        |     |        |     |     |     |     |        |      | WX and Duration |      |      |          | Pcpn Total | Avg Wind |    | Max Wind |     | Max Gust |
|----------|------------------|-------|-----|--------|--------|------|--------|-----|--------|-----|-----|-----|-----|--------|------|-----------------|------|------|----------|------------|----------|----|----------|-----|----------|
|          | Max              | Min   | Avg | < 1600 |        |      |        |     | < 4800 |     |     |     |     | < 9999 |      |                 |      |      | sn/sg/ic |            | fg/br    | bs | Total    | Dir |          |
| -17.4    | -40.8            | -29.7 | 0.0 | 1603.0 | 1607.0 | 10.0 | 3206.0 | 9.0 | 3.0    | 4.0 | 7.0 | 0.0 | 7.0 | 8005.0 | 42.0 | 4.0             | 50.0 | 96.0 |          | 0.00       |          |    |          |     | 52       |

|                       |        |                       |        |                    |        |
|-----------------------|--------|-----------------------|--------|--------------------|--------|
| Total Hrs =or< 1600:  | 3220.0 | Total Hrs =or< 4800:  | 3222.0 | Total Hrs < 9999:  | 8019.0 |
| Total Days =or< 1600: | 5      | Total Days =or< 4800: | 5      | Total Days < 9999: | 7      |
| % Hrs =or< 1600:      | 4.3    | % Hrs =or< 4800:      | 4.3    | % Hrs < 9999:      | 10.8   |
| % Days =or< 1600:     | 0.2    | % Days =or< 4800:     | 0.2    | % Days < 9999:     | 0.2    |

|            |           |      |
|------------|-----------|------|
| Total Hrs  | sn/sg/ic: | 42.0 |
|            | fg/br:    | 4.0  |
|            | fg:       | 50.0 |
| Total Days | sn/sg/ic: | 5    |
|            | fg/br:    | 1    |
|            | fg:       | 8    |

- N
- NE
- E
- SE
- S
- SW
- W
- NW

Station:  
NZCM

Monthly Climatology / Page 2

Month:  
AUG 2004

| Date | Avg Sky Cover | Low-est CIG | Ceiling (hrs) |        |        |        |       |        |        |        |        |       |        |        |        |        |       | Altimeter (in) |       |       | Total Obs Taken | Daily Pres Diff | Daily Temp Diff | Min Wind Chill | Remarks |
|------|---------------|-------------|---------------|--------|--------|--------|-------|--------|--------|--------|--------|-------|--------|--------|--------|--------|-------|----------------|-------|-------|-----------------|-----------------|-----------------|----------------|---------|
|      |               |             | < 500         |        |        |        |       | < 1000 |        |        |        |       | < 3000 |        |        |        |       | Max            | Min   | Avg   |                 |                 |                 |                |         |
|      |               |             | 00-06L        | 06-12L | 12-18L | 18-24L | Total | 00-06L | 06-12L | 12-18L | 18-24L | Total | 00-06L | 06-12L | 12-18L | 18-24L | Total |                |       |       |                 |                 |                 |                |         |
| 1    | 1             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 28.75          | 28.61 | 28.69 | 1               | 0.14            | 12.4            | -70.0          |         |
| 2    | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 28.84          | 28.67 | 28.74 | 1               | 0.17            | 12.3            | -66.0          |         |
| 3    | 1             | 30          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 3.00   | 3.00  | 28.93          | 28.87 | 28.91 | 1               | 0.06            | 13.4            | -51.0          |         |
| 4    | 2             | 30          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 6.00   | 6.00   | 29.01 | 28.89          | 28.92 | 3     | 0.12            | 9.4             | -61.0           |                |         |
| 5    | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.44          | 29.10 | 29.23 | 3               | 0.34            | 10.4            | -64.0          |         |
| 6    | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.68          | 29.56 | 29.62 | 3               | 0.12            | 11.8            | -63.0          |         |
| 7    | 2             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.54          | 29.18 | 29.34 | 3               | 0.36            | 11.5            | -62.0          |         |
| 8    | 3             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.80          | 29.52 | 29.68 | 3               | 0.28            | 12.3            | -60.0          |         |
| 9    | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.77          | 29.33 | 29.60 | 1               | 0.44            | 8.3             | -57.0          |         |
| 10   | 3             | 0           | 0.00          | 0.00   | 1.00   | 0.00   | 1.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.15          | 28.94 | 29.04 | 2               | 0.21            | 14.0            | -58.0          |         |
| 11   | 5             | 20          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 5.00   | 5.00   | 29.28 | 29.08          | 29.20 | 1     | 0.20            | 11.1            | -58.0           |                |         |
| 12   | 8             | 10          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 5.00   | 6.00   | 1.00  | 12.00  | 6.00   | 1.00   | 0.00   | 5.00  | 29.58          | 29.30 | 29.42 | 3               | 0.28            | 10.5            | -65.0          |         |
| 13   | 3             | 150         | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 3.00   | 3.00   | 0.00   | 0.00  | 29.73          | 29.65 | 29.69 | 4               | 0.08            | 14.7            | -67.0          |         |
| 14   | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.54          | 29.14 | 29.34 | 1               | 0.40            | 10.9            | -51.0          |         |
| 15   | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.14          | 29.03 | 29.08 | 2               | 0.11            | 12.0            | -61.0          |         |
| 16   | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 28.96          | 28.79 | 28.88 | 2               | 0.17            | 9.7             | -55.0          |         |
| 17   | 2             | 30          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.05          | 28.84 | 28.96 | 3               | 0.21            | 5.5             | -62.0          |         |
| 18   | 2             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.04          | 28.78 | 28.92 | 4               | 0.26            | 11.1            | -60.0          |         |
| 19   | 2             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 28.90          | 28.77 | 28.82 | 4               | 0.13            | 9.2             | -59.0          |         |
| 20   | 5             | 100         | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.02          | 28.90 | 28.97 | 4               | 0.12            | 15.6            | -58.0          |         |
| 21   | 6             | 100         | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.08          | 28.91 | 28.98 | 4               | 0.17            | 9.2             | -61.0          |         |
| 22   | 0             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.49          | 29.17 | 29.34 | 4               | 0.32            | 6.7             | -57.0          |         |
| 23   | 3             | 150         | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.56          | 29.32 | 29.46 | 4               | 0.24            | 8.3             | -63.0          |         |
| 24   | 1             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.21          | 28.97 | 29.08 | 4               | 0.24            | 14.6            | -46.0          |         |
| 25   | 4             | 150         | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.37          | 29.32 | 29.35 | 4               | 0.05            | 12.2            | -57.0          |         |
| 26   | 4             | 50          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.54          | 29.36 | 29.46 | 4               | 0.18            | 6.6             |                |         |
| 27   | 7             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.60          | 29.55 | 29.58 | 4               | 0.05            | 6.6             | -63.0          |         |
| 28   | 1             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.50          | 29.43 | 29.48 | 4               | 0.07            | 11.3            |                |         |
| 29   | 3             |             | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.27          | 29.12 | 29.20 | 4               | 0.15            | 7.9             |                |         |
| 30   | 6             | 30          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 29.46          | 29.06 | 29.32 | 4               | 0.40            | 7.9             |                |         |
| 31   | 8             | 20          | 0.00          | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 20.00  | 0.00   | 0.00   | 0.00  | 29.15          | 28.92 | 29.02 | 4               | 0.23            | 6.6             |                |         |

Monthly Statistics

| Avg Sky Cover           | Ceiling (hrs) |        |        |        |                           |        |        |        |        |                           |        |        |        |        |            | Total Obs Taken | Min Wind Chill |           |     |     |
|-------------------------|---------------|--------|--------|--------|---------------------------|--------|--------|--------|--------|---------------------------|--------|--------|--------|--------|------------|-----------------|----------------|-----------|-----|-----|
|                         | < 500         |        |        |        |                           | < 1000 |        |        |        |                           | < 3000 |        |        |        |            |                 |                | Altimeter |     |     |
|                         | 00-06L        | 06-12L | 12-18L | 18-24L | Total                     | 00-06L | 06-12L | 12-18L | 18-24L | Total                     | 00-06L | 06-12L | 12-18L | 18-24L | Total      |                 |                | Max       | Min | Avg |
| 3                       | 0.0           | 0.0    | 1.0    | 0.0    | 0.0                       | 5.0    | 6.0    | 1.0    | 35.0   | 4.0                       | 0.0    | 13.0   | 29.80  | 28.61  | 29.20      | 93              | -70.0          |           |     |     |
| Total Hrs =or< 500: 1.0 |               |        |        |        | Total Hrs =or< 1000: 12.0 |        |        |        |        | Total Hrs =or< 3000: 52.0 |        |        |        |        | Total Days |                 |                |           |     |     |
| Total Days =or< 500: 1  |               |        |        |        | Total Days =or< 1000: 1   |        |        |        |        | Total Days =or< 3000: 6   |        |        |        |        | 31         |                 |                |           |     |     |
| % Hrs =or< 500: 0.0     |               |        |        |        | % Hrs =or< 1000: 0.0      |        |        |        |        | % Hrs =or< 3000: 0.1      |        |        |        |        |            |                 |                |           |     |     |
| % Days =or< 500: 0.0    |               |        |        |        | % Days =or< 1000: 0.0     |        |        |        |        | % Days =or< 3000: 0.2     |        |        |        |        |            |                 |                |           |     |     |