File description and task list for 1995-96 LTER Met Files: o1=omit from level 1, ok= no changes to get to level 1, clow= apply clow subroutine to mV values, bad= normally would be included in level 1 but number is bogus, flag= reasonable number but needs a note attached concerning its collection:

General Changes for all programs loaded at beginning of 1995-96 season:

- 1. Wind speeds all shifted to 1 second sampling interval for better estimates of max's and min's (overall sampling remains at 30 seconds).
- 2. Employed new subroutine written for Colour Lake to get real instantaneous max and min wind speed. Over-winter data (i.e. 95 files) are still 30 second max and mins.
- 3. In order to get all dataloggers in the valleys going on the same interval, or at least the same mulitple, output arrays were stripped of stuff that could be calculated with a high degree of accuracy in the post-processing. Got rid of i) Bulk Richardson Number, ii) Water Vapor Density, iii) Max and Min temperature, iv) year. Base output interval is now 15 minutes.
- 4. Array I.D. meaning has changed:

First and Second Digit Third Digit

01 = Hoare Stations 1-14: program

02 = Fryxell version # for season

03 = Bonney Station 15: 1 = time and const

04 = Commonwealth 2 = surface flux

05 = Howard 3 = met and energy

06 = Taylor

07 = Vanda

08 = Brownsworth

09 = Explorer's Cove

10 = Canada Gl. (without Eddy Sensors)

11 = Vida

12 = Hoare Submerged

13 = Fryxell Submerged

14 = Bonney Submerged

15 = Canada Gl. (with Eddy Sensors)

Hardware Notes:

- 1) Implemented service schedule to remove and calibrate certain sensors (e.g. pyranometers).
- 2) Added 1 meter 207 probe to glacier stations
- 3) Added multiplexers to glacier stations
- 4) Moved HOD pyrgeometer to downward COH

General Notes for processing:

- 1) Need to flag all unflagged max and min wind speeds up to the new 95/96 data generated with new 95/96 programs
- 2) Max and Min temperature starting in the sumemr of 95/96 is calculated in post-processing of 15 minute numbers.
 - 3) Are dTemps standard?

```
Filename:
                 boy95001.prn
Station: Lake Bonney met station
Date of Establishment: November 24, 1993 by Peter Doran
Author of this report: Peter Doran
                 Jan 20/95 (20) @ 10:20 to Jul 29/95 (210) @ 21:00*
File Period:
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: boy945-4
         1. array I.D.
                 01
        2. year
                 ok
         3. day
                 ok
        4. time
                 ok
         5. mean P.A.R. (micromols/s/m2)
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux going up (W/m2)
         11. mean mV reading from thermistor 5 cm in soil
         12. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         13. mean Bulk Richardson number (*1000)
                 bad
         14. mean mV reading from surface soil thermistor
                 clow
         15. mean mV reading from thermistor in 207 probe
                 clow
         16. mean mV reading from thermistor 10 cm in soil
                 clow
         17. sample of battery voltage
         18. mean liquid in Belfort precip gauge (mm)
         19. mean horizontal wind speed (m/s)
         20. resultant mean wind speed (m/s)
         21. resultant mean wind direction (degrees from north)
```

22. standard deviation of wind direction (degrees)

οk

23. maximum wind speed (m/s)

ok

24. minimum wind speed (m/s)

ok

25. maximum mV from thermistor in 207 probe

clow

 $26.\ minimum\ mV$ from thermistor in $207\ probe.$

clow

notes: 1) no thermocouple wire for making dtemp measurements

2) storage module error...loss of data between this file and next one.

```
Filename:
                 boy95002.prn
Station: Lake Bonney met station
Date of Establishment: November 24, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Nov 9/95 (313) @ 19:20 to Nov 22/95 (326) @ 16:20*
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: boy945-4
         1. array I.D.
                 01
        2. year
                 ok
         3. day
                 ok
        4. time
                 ok
         5. mean P.A.R. (micromols/s/m2)
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux going up (W/m2)
         11. mean mV reading from thermistor 5 cm in soil
         12. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         13. mean Bulk Richardson number (*1000)
                 bad
         14. mean mV reading from surface soil thermistor
                 clow
         15. mean mV reading from thermistor in 207 probe
                 clow
         16. mean mV reading from thermistor 10 cm in soil
                 clow
         17. sample of battery voltage
         18. mean liquid in Belfort precip gauge (mm)
         19. mean horizontal wind speed (m/s)
         20. resultant mean wind speed (m/s)
         21. resultant mean wind direction (degrees from north)
```

22. standard deviation of wind direction (degrees)

οk

23. maximum wind speed (m/s)

ok

24. minimum wind speed (m/s)

ok

25. maximum mV from thermistor in 207 probe

clow

26. minimum mV from thermistor in 207 probe.

clow

notes: 1) no thermocouple wire for making dtemp measurements,

2) storage module error...loss of data between this file and previous one.

Filename: boy95601.dat Station: Lake Bonney met station

Date of Establishment: November 24, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 22/95 (326) @ 16:45 to Jan 25/96 (25) @ 12:15

Sampling Frequency: wind: every 1 sec; precip: every one hour; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: boy956-1

1. array I.D.

o1

- 2. day
 - ok
- 3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

οk

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

οk

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 331.13

15. mean soil temperature @ 0 cm in soil (C)

convert to mV, then Clow

16. mean soil temperature @ 5 cm in soil (C)

convert to mV, then clow

17. mean soil temperature @ 10 cm in soil (C)

convert to mV, then clow

18. sample precipitation (mm)

ok

19. sample of battery voltage

01

Notes:

- 1) 2nd battery and diode wiring installed at end of file period.
- 2) Heads up for overwinter data: station powered down between 12:45 and 14:20 hours on 1/25/96 to install diodes
- 3) RH Campbell: 48%; RH Sling Pyschrometer: 54% on 1/25/96

```
Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes
Author of this report: Peter Doran
File Period:
                 Dec 30/94 (364) @ 22:00 to Jan 9/95 (9) @ 11:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour
Program name: brh945-2
        1. array I.D.
                 o1
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean mV reading from surface soil thermistor
        6. mean mV reading from thermistor in 207 probe
                 clow
        7. mean R.H. (%)
                 ok
        8. mean net radiometer output (W/m2)
        9. mean solar flux coming down (W/m2)
                 ok
        10. mean wind direction
                 bad
        11. mean wind speed (m/s)
                 ok
        12. mean UVA (w/m2)
                 ok
        13. mean UVB (w/m2)
                 ok
        14. mean battery volts
        15. mean soil temp. @ 5 cm (mV)
                 clow
        16. mean soil temp. @ 10 cm (mV)
                 clow
        17. mean water vapor density (g/m3)*100
        18. max wind speed (m/s)
                 ok
        19. min wind speed (m/s)
                 ok
        20. max 207 temperature (mV)
                 clow
        21. min 207 temperature (mV)
                 clow
```

Filename:

brh95001.dat

Station: Lake Brownsworth met station

*notes: 1) 207 probe not wired properly, generating erroneous data in positions 6,7, and 17.
2) Wind direction wrong for entire winter...@avg(dir)

```
Filename:
                 brh95002.dat
Station: Lake Brownsworth met station
Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes
Author of this report: Peter Doran
File Period:
                 Jan 9/95 (9) @ 12:00 to Aug 3/95 (215) @ 2:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour
Program name: brh945-2
        1. array I.D.
                 o1
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean mV reading from surface soil thermistor
        6. mean mV reading from thermistor in 207 probe
                 clow
        7. mean R.H. (%)
                 ok
        8. mean net radiometer output (W/m2)
        9. mean solar flux coming down (W/m2)
                 ok
        10. mean wind direction
                 bad
        11. mean wind speed (m/s)
                 ok
        12. mean UVA (w/m2)
                 ok
        13. mean UVB (w/m2)
                 ok
        14. mean battery volts
        15. mean soil temp. @ 5 cm (mV)
                 clow
        16. mean soil temp. @ 10 cm (mV)
                 clow
        17. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        18. max wind speed (m/s)
                 ok
        19. min wind speed (m/s)
                 ok
        20. max 207 temperature (mV)
```

clow 21. min 207 temperature (mV) clow

*notes: 1) Wind direction wrong for entire winter...@avg(dir)
2) Battery voltage drops to mid 9's towards end of file beginning period of broken data collection.

```
Filename:
                 brh95003.dat
Station: Lake Brownsworth met station
Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes
Author of this report: Peter Doran
File Period:
                 Aug 3/95 (215) @ 3:00 to Aug 9/95 (221) @ 3:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour
Program name: brh945-2
        1. array I.D.
                 o1
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean mV reading from surface soil thermistor
        6. mean mV reading from thermistor in 207 probe
                 clow
        7. mean R.H. (%)
                 ok
        8. mean net radiometer output (W/m2)
        9. mean solar flux coming down (W/m2)
                 ok
        10. mean wind direction
                 bad
        11. mean wind speed (m/s)
                 ok
        12. mean UVA (w/m2)
                 ok
        13. mean UVB (w/m2)
                 ok
        14. mean battery volts
        15. mean soil temp. @ 5 cm (mV)
                 clow
        16. mean soil temp. @ 10 cm (mV)
                 clow
        17. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        18. max wind speed (m/s)
                 ok
        19. min wind speed (m/s)
                 ok
        20. max 207 temperature (mV)
```

clow 21. min 207 temperature (mV) clow

*notes: 1) Wind direction wrong for entire winter...@avg(dir)
2) Battery voltage drops to high 8's. This machine was struggling to stay afloat.

```
Filename:
                 brh95004.dat
Station: Lake Brownsworth met station
Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes
Author of this report: Peter Doran
File Period:
                 Aug 9/95 (221) @ 4:00 to Aug 11/95 (223) @ 3:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour
Program name: brh945-2
        1. array I.D.
                 o1
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean mV reading from surface soil thermistor
        6. mean mV reading from thermistor in 207 probe
                 clow
        7. mean R.H. (%)
                 ok
        8. mean net radiometer output (W/m2)
        9. mean solar flux coming down (W/m2)
                 ok
        10. mean wind direction
                 bad
        11. mean wind speed (m/s)
                 ok
        12. mean UVA (w/m2)
                 ok
        13. mean UVB (w/m2)
                 ok
        14. mean battery volts
        15. mean soil temp. @ 5 cm (mV)
                 clow
        16. mean soil temp. @ 10 cm (mV)
                 clow
        17. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        18. max wind speed (m/s)
                 ok
        19. min wind speed (m/s)
                 ok
        20. max 207 temperature (mV)
```

clow 21. min 207 temperature (mV) clow

*notes: 1) Wind direction wrong for entire winter...@avg(dir)
2) Almost all data (except wind speed and dir) out of range (6999) by end of file (i.e. only speed).

```
Filename:
                 brh95005.dat
Station: Lake Brownsworth met station
Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes
Author of this report: Peter Doran
File Period:
                 Aug 11/95 (223) @ 4:00 to Aug 11/95 (223) @ 900
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour
Program name: brh945-2
        1. array I.D.
                 o1
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean mV reading from surface soil thermistor
        6. mean mV reading from thermistor in 207 probe
                 clow
        7. mean R.H. (%)
                 ok
        8. mean net radiometer output (W/m2)
        9. mean solar flux coming down (W/m2)
                 ok
        10. mean wind direction
                 bad
        11. mean wind speed (m/s)
                 ok
        12. mean UVA (w/m2)
                 ok
        13. mean UVB (w/m2)
                 ok
        14. mean battery volts
        15. mean soil temp. @ 5 cm (mV)
                 clow
        16. mean soil temp. @ 10 cm (mV)
                 clow
        17. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        18. max wind speed (m/s)
                 ok
        19. min wind speed (m/s)
                 ok
        20. max 207 temperature (mV)
```

clow 21. min 207 temperature (mV) clow

*notes: 1) Wind direction wrong for entire winter...@avg(dir)
2) Almost all data (except wind speed and dir) out of range (6999) (i.e. only speed is usable).

```
Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes
Author of this report: Peter Doran
File Period:
                 Aug 11/95 (223) @ 1000 to Aug 11/95 (223) @1100
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour
Program name: brh945-2
        1. array I.D.
                 o1
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean mV reading from surface soil thermistor
        6. mean mV reading from thermistor in 207 probe
                 clow
        7. mean R.H. (%)
                 ok
        8. mean net radiometer output (W/m2)
        9. mean solar flux coming down (W/m2)
                 ok
        10. mean wind direction
                 bad
        11. mean wind speed (m/s)
                 ok
        12. mean UVA (w/m2)
                 ok
        13. mean UVB (w/m2)
                 ok
        14. mean battery volts
        15. mean soil temp. @ 5 cm (mV)
                 clow
        16. mean soil temp. @ 10 cm (mV)
                 clow
        17. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        18. max wind speed (m/s)
                 ok
        19. min wind speed (m/s)
                 ok
        20. max 207 temperature (mV)
                 clow
        21. min 207 temperature (mV)
                 clow
```

Filename:

brh95006.dat

Station: Lake Brownsworth met station

*notes: 1) Wind direction wrong for entire winter...@avg(dir)

- 2) Almost all data (except wind speed and dir) out of range (6999) (i.e. only speed is usable).3) Total of 4 arrays in this file. Only first 2 have a proper time stamp.

Filename: brh95007.dat

Station: Lake Brownsworth met station

Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes

Author of this report: Peter Doran
File Period: ???????????????
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour

Program name: brh945-2

GARBAGE

Filename: brh95008.dat

Station: Lake Brownsworth met station

Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes

Author of this report: Peter Doran
File Period: ???????????????
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour

Program name: brh945-2

GARBAGE

```
brh95601.dat
Filename:
Station: Lake Brownsworth met station
```

Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes

Author of this report: Gayle Dana

File Period: Nov 20/95 (324) @ 16:00 to Nov 24/95 (328) @ 13:00

Sampling Frequency: wind: every 2 secs.; others: every 30 secs.

Averaging and Output Interval: wind: every hour

Program name: brh945-2

- 1. array I.D. o1 2. year ok
- 3. day ok
- 4. time ok
- 5. mean mV reading from surface soil thermistor
- 6. mean mV reading from thermistor in 207 probe clow
- 7. mean R.H. (%) ok
- 8. mean net radiometer output (W/m2)

9. mean solar flux coming down (W/m2)

ok

10. mean wind direction

11. mean wind speed (m/s)

ok

12. mean UVA (w/m2)

ok

13. mean UVB (w/m2)

ok

14. mean battery volts

15. mean soil temp. @ 5 cm (mV)

clow

16. mean soil temp. @ 10 cm (mV)

clow

17. mean water vapor density (g/m3)*100

divide by 100 for g/3

18. max wind speed (m/s)

ok

19. min wind speed (m/s)

ok

20. max 207 temperature (mV)

clow

21. min 207 temperature (mV)

clow

```
Station: Lake Brownsworth met station
Date of Establishment: Dec 30, 1994 by Peter Doran and Ian Hawes
Author of this report: Gayle Dana
*File Period:
                 Nov 24/95 (328) @ 16:45 to Jan 23/96 (23) @ 11:00
Sampling Frequency: every 2 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 min.
Program name: brh956-1
        1. array I.D.
                 o1
        2. day
                 ok
        3. time
        4. mean air temp. @ 3 meters calculated using Campbell instruction P11 (C)
                 convert to mV, then Clow
        5. mean R.H. @ 3 m (%)
                 ok
        6. mean solar flux coming down (W/m2)
        7. mean horizontal wind speed (m/s)
        8. resultant mean wind speed (m/s)
        9. resultant mean wind direction (degrees from north)
        10. standard deviation of wind direction (degrees)
        11. maximum wind speed (m/s)
        12. minimum wind speed (m/s)
                 ok
        13. mean soil temperature @ 0 cm in soil (C)
                 convert to mV, then clow
        14. mean soil temperature @ 5 cm in soil (C)
                 convert to mV, then clow
        15. mean soil temperature @ 10 cm in soil (C)
                 convert to mV, then clow
        16. sample of battery voltage
        17. mean net radiation (W/m2)
        18. mean UVA (W/m2)
                 ok
        19. mean UVB (W/m2)
                 ok
```

Notes:

Filename:

brh95602.dat

- 1) Gap in data between 13:00 and 16:45 on Nov 24/95.
- 2) Diode wiring installed at end of file period
- 3) There is only one battery (new) at this station; diode wiring can accomodate 2nd battery.

```
Station: Commonwealth Glacier Station
Date of Establishment: Nov 22, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Jan 23/95 (23) @ 14:20 to Aug 17/95 (230) @ 120
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: coh945-4
         1. array I.D.
                 01
        2. year
                 ok
         3. date
                 ok
        4. time
                 ok
         5. mean I.R. (W/m2)
                 ok
         6. mean 207 probe temp calculated from mV output using
                                                                      Steinhart-Hart equation and used in R.H.
                 calculation (C)
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 01
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
        21. minimum wind speed (m/s)
```

Filename:

coh95001.prn

- 22. maximum mV from thermistor in 207 probe clow
- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

*notes: 1) Thermal infrared sensor disconnected. Disregard 24.

```
Station: Commonwealth Glacier Station
Date of Establishment: Nov 22, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Aug 17/95 (230) @ 140 to Nov 27/95 (331) @ 1020
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: coh945-4
         1. array I.D.
                 01
        2. year
                 ok
         3. date
                 ok
        4. time
                 ok
         5. mean I.R. (W/m2)
                 ok
         6. mean 207 probe temp calculated from mV output using
                                                                      Steinhart-Hart equation and used in R.H.
                 calculation (C)
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 01
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
        21. minimum wind speed (m/s)
```

Filename:

coh95002.prn

- 22. maximum mV from thermistor in 207 probe clow
- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

*notes: 1) Thermal infrared sensor disconnected. Disregard 24.

Filename: caa95601.dat Station: Canada Glacier met station

Date of Establishment: Nov 20, 1995 by Karen Lewis

Author of this report: Gayle Dana

File Period: Nov 20/95 (324) @ 16:30 to Nov 22(326) @ 14:30

Sampling Frequency: every 2 secs.

Averaging and Output Interval: every 15 minutes

Program name: caa956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 2 meters (C)

convert to mV, then clow

5. mean rh @ 2 meters (%)

ok

* 6. mean solar flux coming down (W/m2)

bad

* 7. mean solar flux going up (W/m2)

bad

8. mean horizontal wind speed (m/s)

٥k

9. resultant mean wind speed (m/s)

01

* 10. resultant mean wind direction (degrees from north)

correct wind directions by 180°

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean air temp. @ 1 meter (C)

convert to mV, then clow

15. mean rh @ 1 m (%)

ok

16. mean thermal infrared-skin temp. (C)

ok

17. mean barometric pressure (mbar)

ok

18. mean net radiation (W/m2)

ok

19. mean vapor pressure @ 2 m (kPa)

ok

20. mean vapor pressure @ 1 m (kPa)

ok

21. sample battery voltage

o1

*Notes

- Process only arrays with ID # 153
 Solar up and down sensors not installed
 Wind monitor was oriented 180° from where it should have been.

Filename: caa95602.dat Station: Canada Glacier met station

Date of Establishment: Nov 20, 1995 by Karen Lewis

Author of this report: Gayle Dana

*File Period: Nov 22/95 (326) @ 14:30 to Nov 25(329) @ 18:45

Sampling Frequency: every 2 secs.

Averaging and Output Interval: every 15 minutes

Program name: caa956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 2 meters (C)

convert to mV, then clow

5. mean rh @ 2 meters (%)

ok

* 6. mean solar flux coming down (W/m2)

bad

* 7. mean solar flux going up (W/m2)

bad

8. mean horizontal wind speed (m/s)

οk

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

oĸ

14. mean air temp. @ 1 meter (C)

convert to mV, then clow

15. mean rh @ 1 m (%)

ok

16. mean thermal infrared-skin temp.(C)

ok

17. mean barometric pressure (mbar)

ok

18. mean net radiation (W/m2)

ok

19. mean vapor pressure @ 2 m (kPa)

ok

20. mean vapor pressure @ 1 m (kPa)

ok

21. sample battery voltage

01

*Notes

- Process only arrays with ID # 153
 Drop data on day 326 @ 14:30; duplicates last data line in caa95601.dat. Start processing data on day 326 @ 14:45.
- 3. Solar up and down sensors not installed

Filename: caa95603.dat Station: Canada Glacier met station

Date of Establishment: Nov 20, 1995 by Karen Lewis

Author of this report: Gayle Dana

File Period: Nov 25/95 (329) @ 19:00 to Nov 30(334) @ 18:15

Sampling Frequency: every 2 secs.

Averaging and Output Interval: every 15 minutes

Program name: caa956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 2 meters (C)

convert to mV, then clow

5. mean rh @ 2 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

οk

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

οk

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean air temp. @ 1 meter (C)

convert to mV, then clow

15. mean rh @ 1 m (%)

ok

16. mean thermal infrared-skin temp. (C)

ok

17. mean barometric pressure (mbar)

٥k

18. mean net radiation (W/m2)

ok

19. mean vapor pressure @ 2 m (kPa)

ok

20. mean vapor pressure @ 1 m (kPa)

ok

21. sample battery voltage

0]

*Notes:. Process only arrays with ID # 153

Filename: caa95604.dat Station: Canada Glacier met station

Date of Establishment: Nov 20, 1995 by Karen Lewis

Author of this report: Gayle Dana

*File Period: Nov 30/95 (334) @ 18:15 to Dec 4/95(338) @ 16:30

Sampling Frequency: every 2 secs.

Averaging and Output Interval: every 15 minutes

Program name: caa956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 2 meters (C)

convert to mV, then clow

5. mean rh @ 2 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

οk

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

οk

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean air temp. @ 1 meter (C)

convert to mV, then clow

15. mean rh @ 1 m (%)

ok

16. mean thermal infrared-skin temp. (C)

ok

17. mean barometric pressure (mbar)

ok

18. mean net radiation (W/m2)

ok

19. mean vapor pressure @ 2 m (kPa)

ok

20. mean vapor pressure @ 1 m (kPa)

ok

21. sample battery voltage

0]

- 1. Process only arrays with ID # 153
 2. Drop data on day 334 @ 18:15; duplicates last data line in caa95603.dat. Start processing data on day 334 @ 18:30.

Filename: caa95605.dat Station: Canada Glacier met station

Date of Establishment: Nov 20, 1995 by Karen Lewis

Author of this report: Gayle Dana

File Period: Dec 4/95 (338) @ 16:45 to Dec 12/95(346) @ 19:00

Sampling Frequency: every 2 secs.

Averaging and Output Interval: every 15 minutes

Program name: caa956-1

* 1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 2 meters (C)

convert to mV, then clow

5. mean rh @ 2 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean air temp. @ 1 meter (C)

convert to mV, then clow

15. mean rh @ 1 m (%)

ok

16. mean thermal infrared-skin temp. (C)

ok

17. mean barometric pressure (mbar)

٥k

18. mean net radiation (W/m2)

ok

19. mean vapor pressure @ 2 m (kPa)

ok

20. mean vapor pressure @ 1 m (kPa)

ok

21. sample battery voltage

*Notes:

- Process only arrays with ID # 153
 Data collection changed to high resolution mode, day 342,@ 14:30

Filename: caa95606.dat Station: Canada Glacier met station

Date of Establishment: Nov 20, 1995 by Karen Lewis

Author of this report: Gayle Dana

File Period: Dec 12/95 (346) @ 19:15 to Dec 13/95(347) @ 19:45

Sampling Frequency: every 2 secs.

Averaging and Output Interval: every 15 minutes

Program name: caa956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 2 meters (C)

convert to mV, then clow

5. mean rh @ 2 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

οk

9. resultant mean wind speed (m/s)

<u>م</u>1

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean air temp. @ 1 meter (C)

convert to mV, then clow

15. mean rh @ 1 m (%)

ok

16. mean thermal infrared-skin temp. (C)

ok

17. mean barometric pressure (mbar)

ok

18. mean net radiation (W/m2)

ok

19. mean vapor pressure @ 2 m (kPa)

ok

20. mean vapor pressure @ 1 m (kPa)

ok

21. sample battery voltage

0]

*Notes

1. Process only arrays with ID # 153

Filename: caa95607.dat Station: Canada Glacier met station

Date of Establishment: Nov 20, 1995 by Karen Lewis

Author of this report: Gayle Dana

File Period: Dec 13/95 (347) @ 20:00 to Dec 16/95(350) @ 20:00

Sampling Frequency: every 2 secs.

Averaging and Output Interval: every 15 minutes

Program name: caa956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 2 meters (C)

convert to mV, then clow

5. mean rh @ 2 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

٥k

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

οk

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean air temp. @ 1 meter (C)

convert to mV, then clow

15. mean rh @ 1 m (%)

ok

16. mean thermal infrared-skin temp. (C)

ok

17. mean barometric pressure (mbar)

٥k

18. mean net radiation (W/m2)

ok

19. mean vapor pressure @ 2 m (kPa)

ok

20. mean vapor pressure @ 1 m (kPa)

ok

21. sample battery voltage

0]

```
*Notes
1. Process only arrays with ID # 153
                 caa95608.dat
Filename:
Station: Canada Glacier met station
Date of Establishment:
                         Nov 20, 1995 by Karen Lewis
Author of this report: Gayle Dana
                 Dec 16/95 (350) @ 20:15 to Dec 26/95(360) @ 14:00
File Period:
Sampling Frequency: every 2 secs.
Averaging and Output Interval: every 15 minutes
Program name: caa956-1
        1. array I.D.
                 o1
        2. day
                 ok
        3. time
                 ok
        4. mean air temp. @ 2 meters (C)
                 convert to mV, then clow
        5. mean rh @ 2 meters (%)
        6. mean solar flux coming down (W/m2)
        7. mean solar flux going up (W/m2)
        8. mean horizontal wind speed (m/s)
        9. resultant mean wind speed (m/s)
        10. resultant mean wind direction (degrees from north)
        11. standard deviation of wind direction (degrees)
        12. maximum wind speed (m/s)
        13. minimum wind speed (m/s)
        14. mean air temp. @ 1 meter (C)
                 convert to mV, then clow
        15. mean rh @ 1 m (%)
                 ok
        16. mean thermal infrared-skin temp. (C)
        17. mean barometric pressure (mbar)
        18. mean net radiation (W/m2)
                 ok
        19. mean vapor pressure @ 2 m (kPa)
```

20. mean vapor pressure @ 1 m (kPa)

```
ok
        21. sample battery voltage
                 o1
1. Process only arrays with ID # 153
                caa95609.dat
Filename:
Station: Canada Glacier met station
Date of Establishment:
                         Nov 20, 1995 by Karen Lewis
Author of this report: Gayle Dana
File Period:
                 Dec 26/95 (360) @ 14:15 to Jan 10/95(10) @ 21:00
Sampling Frequency: every 2 secs.
Averaging and Output Interval: every 15 minutes
Program name: caa956-1
        1. array I.D.
                 o1
        2. day
                 ok
        3. time
                 ok
        4. mean air temp. @ 2 meters (C)
                 convert to mV, then clow
        5. mean rh @ 2 meters (%)
                 ok
        6. mean solar flux coming down (W/m2)
        7. mean solar flux going up (W/m2)
        8. mean horizontal wind speed (m/s)
        9. resultant mean wind speed (m/s)
        10. resultant mean wind direction (degrees from north)
        11. standard deviation of wind direction (degrees)
        12. maximum wind speed (m/s)
                 ok
        13. minimum wind speed (m/s)
                 ok
        14. mean air temp. @ 1 meter (C)
                 convert to mV, then clow
        15. mean rh @ 1 m (%)
                 ok
        16. mean thermal infrared-skin temp (C)
        17. mean barometric pressure (mbar)
```

18. mean net radiation (W/m2)

*Notes

19. mean vapor pressure @ 2 m (kPa)
ok
20. mean vapor pressure @ 1 m (kPa)
ok
21. sample battery voltage
o1

*Notes

1. Process only arrays with ID # 153

Filename: caa95610.dat Station: Canada Glacier met station

Nov 20, 1995 by Karen Lewis Date of Establishment:

Author of this report: Gayle Dana

Day 190 @ 24:00 to Day 190 @ 24:00 (Jan 10/96) File Period:

Sampling Frequency: every 2 secs.
Averaging and Output Interval: every 15 minutes

Program name: caa956-1

Garbage; do not process.

Data logger was powered down 2 times between 21:05 and 21:10. This file was the result of this.

```
Filename:
                 caa95611.dat
Station: Canada Glacier met station
Date of Establishment:
                         Nov 20, 1995 by Karen Lewis
Author of this report: Gayle Dana
                 Day 190 @ 24:00 to Day 25 @ 16:15
*File Period:
                         [Jan 10/96 (10) @ 21:15 to Jan 25/96 (25) @ 16:15]
Sampling Frequency: every 2 sec.
Averaging and Output Interval: every 15 minutes
Program name: caa956-1
        1. array I.D.
                 01
        2. day
                 flag
        3. time
                 flag
        4. mean air temp. @ 2 meters (C)
                 convert to mV, then clow
        5. mean rh @ 2 meters (%)
        6. mean solar flux coming down (W/m2)
        7. mean solar flux going up (W/m2)
        8. mean horizontal wind speed (m/s)
        9. resultant mean wind speed (m/s)
        10. resultant mean wind direction (degrees from north)
        11. standard deviation of wind direction (degrees)
        12. maximum wind speed (m/s)
                 ok
        13. minimum wind speed (m/s)
        14. mean air temp. @ 1 meter (C)
                 convert to mV, then clow
        15. mean rh @ 1 m (%)
                 ok
        16. mean thermal infrare-skin temp (C)
        17. mean barometric pressure (mbar)
        18. mean net radiation (W/m2)
        19. mean vapor pressure @ 2 m (kPa)
```

20. mean vapor pressure @ 1 m (kPa)

21. sample battery voltage

*Notes

- 1. Process only arrays with ID # 153
- 2. Day and time incorrect for first part of data file (~half a day of data). Day and time in brackets is correct timestamp as inferred from when CR10 clock was reset. Day and time reset on Jan 11/96 (11) @ 10:15. Change day and time as follows:
- -day 190 @ 24:00 to day 191 @ 1245 in file corresponds to correct day 10 @ 21:15 to day 11 @ 10:00.
- -line after day 191 @ 12:45 in file reads day 111 @ 1015 and should be changed to day 11 @ 1015.
- -day and time for remainder of data file is ok:
 - day 11 @ 10:30 to day 25 @ 1615.
- 3. Thermal infrared (IRT) sensor removed from station to be used elsewhere.
- 4. Battery diode wiring installed (two batteries present).

Heads up for 1996 Canada Met station overwinter data:

- 1. Station powered down on day 25 between 16:34 and 17:21 to install diodes.
- 2. Between day 25 @ 17:30 to day 26 @ 17:15, 207 probe @ 1 m was moved up to 205.5 cm to compare with 207 probe at 2 m. It was returned to 1m on day 26 @ 17:15.
- 3. During power-down mentioned in 1) above removed both uplooking (SN 20568) and downlooking (SN PY20561) licor 200X pyranometers to send in for calibration. Installed up looking Licor 200X pyranometer (SN 20567).
- 4. On day 26 @ ~1630, installed downlooking Licor 200X pyranometer (SN 20222).
- 5. Krypton hygrometer power source and wiring was removed to ship back with sensor for calibration.

Filename: coh95601.dat

Station: Commonwealth Glacier Station

Date of Establishment: Nov 22, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 27/95 @ 12:15 (331) to Dec 13/95 (347) @ 14:00

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: coh956-1

1. array I.D.

o1

2. day

ok

3. time

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 115.47

7. mean solar flux going up (W/m2)

divide by 100; multiply by 120.19

8. mean horizontal wind speed (m/s)

9. resultant mean wind speed (m/s)

10. resultant mean wind direction (degrees from north)

11. standard deviation of wind direction (degrees)

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

14. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

15. mean incoming IR hemisphere temp. (pins A-C) (mv)

bad

16. mean incoming IR thermopile output (pins F-G)(W/m2)

bad

17. mean incoming IR case temp. (pins E-D)(mv)

18. mean thermal infrared-skin temperature(C)

19. mean ice temp. @ 20 cm (C)

flag; convert to mv, then clow

20. mean ice temp. @ 1 m (C)

flag; convert to mv, then clow

21. mean dTemp 1-3 meters (from t.c. wire) (C)

22. mean outgoing IR(pyrgeo output) (W/m2)

bad 23. sample of battery voltage o1

*Notes:

- 1.
- Up-looking Pyrgeometer not wired; ignore # 14-17 Exact depth position of ice thermistors unknown (#18 & 19). Thermocouple not wired; ignore #21 2.
- 3.
- Down-looking pyrgeometer not wired; ignore # 22 4.

Filename: coh95602.dat

Station: Commonwealth Glacier Station

Date of Establishment: Nov 22, 1993 by Peter Doran

Author of this report: Gayle Dana

*File Period: Dec 13/95 (347) @ 16:30 to Dec 19/95 @ 13:00

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: coh956-1

1. array I.D.

o1

2. day

ok

3. time

_

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 115.47

7. mean solar flux going up (W/m2)

divide by 100; multiply by 120.19

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

had

* 15. mean incoming IR hemisphere temp. (pins A-C) (mv)

bad

* 16. mean incoming IR thermopile output (pins F-G)(W/m2)

bad

* 17. mean incoming IR case temp. (pins E-D)(mv)

bad

18. mean thermal infrared-skin temperature(C)

٥k

* 19. mean ice temp. @ 20 cm (C)

flag; convert to mv, then clow

* 20. mean ice temp. @ 1 m (C)

flag; convert to mv, then clow

21. mean dTemp 1-3 meters (from t.c. wire) (C)

bad

* 22. mean outgoing infrared (pyrgeo output) (W/m2)

bad 23. sample of battery voltage o1

*Notes:

- Gap in data between coh95601.dat and coh95602.dat at 14:00 and 16:30 on Dec 13/95 (347) Up-looking Pyrgeometer not wired; ignore # 14-17 Exact depth position of ice thermistors unknown (#18 & 19). 1.
- 2.
- 3.
- Thermocouple not wired; ignore #21 4.
- Down-looking pyrgeometer not wired; ignore # 22 5.

Filename: coh95603.dat

Station: Commonwealth Glacier Station

Date of Establishment: Nov 22, 1993 by Peter Doran

Author of this report: Gayle Dana

*File Period: Dec 19/95 @ 13:30 (353) to Dec 19/95 (353) @ 14:30

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: coh956-2

1. array I.D.

01

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 115.47

7. mean solar flux going up (W/m2)

divide by 100; multiply by 120.19

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

^k 14. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

bad

* 15. mean incoming IR hemisphere temp. (pins A-C) (mv)

bad

* 16. mean incoming IR thermopile output (pins F-G)(W/m2)

bad

* 17. mean incoming IR case temp. (pins E-D)(mv)

bad

18. mean thermal infrared-skin temperature(C)

٥k

* 19. mean ice temp. @ 20 cm (C)

flag; convert to mv, then clow

* 20. mean ice temp. @ 1 m (C)

flag; convert to mv, then clow

* 21. mean dTemp 1-3 meters (from t.c. wire) (C)

bad

* 22. mean outgoing IR pyrgeometer output (pins A-B)(W/m2)

bad

* 23. mean outgoing IR hemisphere temp. (pins F-G) (mv)

bad

* 24. mean outgoing IR thermopile (pins A-C) (W/m2)

bad

* 25. mean outgoing IR case temp. (pins E-D) (mv)

bad

26. sample of battery voltage

o1

*Notes:

- 1. Gap in data between coh95602.dat and coh95602.dat 13:00 and 13:30 on Dec 19/95 (353)
- 2. Up-looking Pyrgeometer not wired; ignore # 14-17
- 3. Exact depth position of ice thermistors unknown (#18 & 19).
- 4. Thermocouple not wired; ignore #21
- 5. Down-looking pyrgeometer not wired; ignore # 22-25

coh95604.dat Filename: Station: Commonwealth Glacier Station Date of Establishment: Nov 22, 1993 by Peter Doran Author of this report: Gayle Dana File Period: Dec 19/95 @ 14:45 (353) to Dec 19/95 (353) @ 15:00 Sampling Frequency: every 1 secs.; others: every 30 secs. Averaging and Output Interval: every 15 minutes Program name: coh956-2 1. array I.D. o1 2. day ok 3. time ok 4. mean air temp. @ 3 meters convert to mV, then Clow 5. mean R.H. @ 3 meters (%) ok 6. mean solar flux coming down (W/m2) divide by 100; multiply by 115.47 7. mean solar flux going up (W/m2) divide by 100; multiply by 120.19 8. mean horizontal wind speed (m/s) 9. resultant mean wind speed (m/s) 10. resultant mean wind direction (degrees from north) 11. standard deviation of wind direction (degrees) 12. maximum wind speed (m/s) ok 13. minimum wind speed (m/s) 14. mean incoming IR pyrgeometer output (pins A-B) (W/m2) bad 15. mean incoming IR hemisphere temp. (pins A-C) (mv) 16. mean incoming IR thermopile output (pins F-G)(W/m2) bad 17. mean incoming IR case temp. (pins E-D)(mv) 18. mean thermal infrared-skin temperature(C) ok 19. mean ice temp. @ 20 cm (C) flag; convert to mv, then clow 20. mean ice temp. @ 1 m (C) flag; convert to my, then clow

21. mean dTemp 1-3 meters (from t.c. wire) (C)

bad

- * 22. mean outgoing IR pyrgeometer output (pins A-B)(W/m2) bad
- * 23. mean outgoing IR hemisphere temp. (pins F-G) (mv) bad
- * 24. mean outgoing IR thermopile (pins A-C) (W/m2)
- * 25. mean outgoing IR case temp. (pins E-D) (mv) bad
 - 26. sample of battery voltage

*Notes:

- 1. Up-looking Pyrgeometer not wired; ignore # 14-17
- 2. Exact depth position of ice thermistors unknown (#18 & 19).
- 3. Thermocouple not wired; ignore #21
- 4. Down-looking pyrgeometer not wired; ignore # 22-25

Filename: coh95605.dat

Station: Commonwealth Glacier Station

Date of Establishment: Nov 22, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 19/95 @ 15:15 (353) to Jan 24/96 (24) @ 10:15

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: coh956-2

1. array I.D.

01

- 2. day
 - ok
- 3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 115.47

7. mean solar flux going up (W/m2)

divide by 100; multiply by 120.19

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

* 10. resultant mean wind direction (degrees from north)

flac

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

divide by 250; multiply by 256.41

15. mean incoming IR hemisphere temp. (pins A-C) (mv)

Ennley

16. mean incoming IR thermopile output (pins F-G)(W/m2)

Eppley

17. mean incoming IR case temp. (pins E-D)(mv)

Eppley

18. mean thermal infrared-skin temperature(C)

٥k

* 19. mean ice temp. @ 20 cm (C)

flag; convert to mv, then clow

* 20. mean ice temp. @ 1 m (C)

flag; convert to mv, then clow

* 21. mean dTemp 1-3 meters (from t.c. wire) (C)

bad

22. mean outgoing IR pyrgeometer output (pins A-B)(W/m2)

divide by 250; multiply by 249.38

23. mean outgoing IR hemisphere temp. (pins F-G) (mv)

Eppley

24. mean outgoing IR thermopile (pins A-C) (W/m2)

Eppley

25. mean outgoing IR case temp. (pins E-D) (mv)

Eppley

26. sample of battery voltage

o1

*Notes:

- 1. X arm loose; wind direction adjusted 13° counterclockwise
- 2. Exact depth position of ice thermistors unknown (#18 & 19).
- 3. Thermocouple not wired; ignore #21
- 4. 2nd battery and diode wiring installed at end of file period.

Heads up for Winter 1996 Commonwealth data

- 1. Station powered down between 10:36 and 11:10 on Jan 24/96 to install battery diode wiring.
- 2. Everest thermal infrared sensor not wired (FS #18) during winter.

Filename: exe95601.dat Station: Explorer's Cove met station

Date of Establishment: Jan 10 1995 by Peter Doran

Author of this report: Gayle Dana

*File Period: Nov 24/95 (328) @ 11:00 to Nov24/95 (328) @ 11:00

Sampling Frequency: every 1 hour

Averaging and Output Interval: every 1 hour

Program name: exe956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. sample precipitation (mm)

ok

5. sample battery voltage

01

*Notes: this file has only one line of data

Filename: exe95602.dat Station: Explorer's Cove met station

Date of Establishment: Jan 10 1995 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 24/95 (328) @ 12:00 to Jan 24/96 (24) @ 09:00

Sampling Frequency: every 1 hour

Averaging and Output Interval: every 1 hour

Program name: exe956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. sample precipitation (mm)

ok

5. sample battery voltage

o1

Filename: exe95603.dat Station: Explorer's Cove met station

Date of Establishment: Jan 10 1995 by Peter Doran

Author of this report: Gayle Dana

File Period: Jan 24/96 (24) @ 10:00 to Jan 26/96 (25) @ 14:00

Sampling Frequency: every 1 hour

Averaging and Output Interval: every 1 hour

*Program name: exe956-2

1. array I.D.

o1

2. day

ok

3. time

ok

4. sample precipitation (mm)

ok

5. sample battery voltage

o1

^{*}Notes: exe956-2 program and output essentially the same as exe956-1

```
Station: Lake Fryxell met station
Date of Establishment: Jan 6, 1994 by Peter Doran
Author of this report: Peter Doran
                 Jan 11/95 (11) @10:20 to Jul 20/95 (201) @ 4:20
File Period:
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: frl945-2
         1. array I.D.
                 01
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
         5. mean P.A.R. (see note)
                 divide by 1.9008 and then multiply by 290.97 for W/m2
        6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 (C)
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux going up (W/m2)
         11. mean mV reading from thermistor 5 cm in soil
                 clow
         12. mean mast dT 1-3 m (C)
                 ok
         13. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         14. bulk Richardson number * 1000
                 ok
         15. mean mV reading from surface soil thermistor
         16. mean mV reading from thermistor in 207 probe
                 clow
         17. mean mV reading from thermistor 10 cm in soil
                 clow
         18. sample of battery voltage
         19. mean horizontal wind speed (m/s)
         20. resultant mean wind speed (m/s)
         21. resultant mean wind direction (degrees from north)
```

Filename:

frl9501.prn

22. standard deviation of wind direction (degrees)

οk

23. maximum wind speed (m/s)

ok

24. minimum wind speed (m/s)

ok

25. maximum mV from thermistor in 207 probe

26. minimum mV from thermistor in 207 probe.

*Notes: 1) Multiplier for P.A.R. is 1.9008 & should be 290.97 for W/m2

```
Station: Lake Fryxell met station
Date of Establishment: Jan 6, 1994 by Peter Doran
Author of this report: Peter Doran
                 Jul 20/95 (201) @ 4:40 to Nov 21/95 (325) @ 12:40
File Period:
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: frl945-2
         1. array I.D.
                 01
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
         5. mean P.A.R. (see note)
                 divide by 1.9008 and then multiply by 290.97 for W/m2
        6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 (C)
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux going up (W/m2)
         11. mean mV reading from thermistor 5 cm in soil
                 clow
         12. mean mast dT 1-3 m (C)
                 ok
         13. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         14. bulk Richardson number * 1000
                 ok
         15. mean mV reading from surface soil thermistor
         16. mean mV reading from thermistor in 207 probe
                 clow
         17. mean mV reading from thermistor 10 cm in soil
                 clow
         18. sample of battery voltage
         19. mean horizontal wind speed (m/s)
         20. resultant mean wind speed (m/s)
         21. resultant mean wind direction (degrees from north)
```

Filename:

frl9502.prn

22. standard deviation of wind direction (degrees)

οk

23. maximum wind speed (m/s)

ok

24. minimum wind speed (m/s)

ok

25. maximum mV from thermistor in 207 probe

26. minimum mV from thermistor in 207 probe.

*Notes: 1) Multiplier for P.A.R. is 1.9008 & should be 290.97 for W/m2

Filename: frl95601.dat Station: Lake Fryxell met station

Date of Establishment: Jan 6, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 21/95 (325) @14:30 to Nov 30/95 (334) @ 11:45

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: frl956-1

1. array I.D.

o1

- 2. day
 - ok
- 3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

οk

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 277.32

15. mean soil temperature @ 0 cm in soil (C)

convert to mV, then Clow

16. mean soil temperature @ 5 cm in soil (C)

convert to mV, then clow

17. mean soil temperature @ 10 cm in soil (C)

convert to mV, then clow

18. sample of battery voltage

o1

Filename: frl95602.dat Station: Lake Fryxell met station

Date of Establishment: Jan 6, 1994 by Peter Doran

Author of this report: Gayle Dana

*File Period: Nov 30/95 (334) @12:00 to Nov 30/95 (334) @ 12:00

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: frl956-1

1. array I.D.

o1

2. day

ok

3. time

οk

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

οk

8. mean horizontal wind speed (m/s)

οk

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

UK

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 277.32

15. mean soil temperature @ 0 cm in soil (C)

convert to mV, then Clow

16. mean soil temperature @ 5 cm in soil (C)

convert to mV, then clow

17. mean soil temperature @ 10 cm in soil (C)

convert to mV, then clow

18. sample of battery voltage

o1

*Notes: there is only one line of data in this file

Filename: frl95603.dat Station: Lake Fryxell met station

Date of Establishment: Jan 6, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 30/95 (325) @12:15 to Jan 24/96 (24) @ 12:15

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: frl956-1

- 1. array I.D.
 - o1
- 2. day
 - ok
- 3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

οk

8. mean horizontal wind speed (m/s)

ωk

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

οk

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 277.32

15. mean soil temperature @ 0 cm in soil (C)

convert to mV, then Clow

16. mean soil temperature @ 5 cm in soil (C)

convert to mV, then clow

17. mean soil temperature @ 10 cm in soil (C)

convert to mV, then clow

18. sample of battery voltage

o1

*Notes:

- 1) 2nd battery and diode wiring installed at end of file period.
- 2) Wind vane adjusted 13° clockwise at ~12:30 on 1/24/96
- 3) Heads up for overwinter data: station powered down between 12:48 and 13:10 hours on 1/24/96 to install diodes

```
Filename:
                 hoe95001.prn
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Jan 23 (23) @ 01:00 to Jan 27/95 (27) @ 16:40
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program Name: hoe945-3
        1. array I.D.
                 01
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean P.A.R. ((mMoles/s/m2))*10
        6. mean 207 probe temp calculated from mV output using
                                                                      Steinhart-Hart equation and used in R.H.
                 calculation (C)
        7. mean 207 probe temp. using Campbell command 11 (C)
        8. mean R.H. (%)
                 ok
        9. mean wind speed
                 bad
        10. mean wind direction
        11. mean solar flux coming down (kW/m2)*10
        12. mean solar flux going up (kW/m2)*10
        13. station barometric pressure (mbars)
                 ok
        14. dTemp 1-3m (C)
                 ok
        15. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        16. bulk Richardson number * 1000
                 ok
        17. mean mV reading from surface soil thermistor
        18. mean mV reading from thermistor in 207 probe
                 clow
        19. mean mV reading from soil thermistor at 10 cm depth
                 clow
        20. sample of battery voltage
        21. mean liquid in Belfort precip gage (mm)
```

22. mean horizontal wind speed (m/s)

οk

23. resultant mean wind speed (m/s)

ი1

24. resultant mean wind direction (degrees from north)

ok

25. standard deviation of wind direction (degrees)

ok

26. maximum wind speed (m/s)

οk

27. minimum wind speed (m/s)

ok

28. maximum mV from thermistor in 207 probe

clow

29. minimum mV from thermistor in 207 probe.

clow

*Notes: 1) Wind speed and direction (#9 and #10) should be disregarded. They are not supposed to appear in those positions (programming error)

```
Filename:
                 hoe95002.prn
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Jan 27/95 (27) @ 17:20 to Jul 12/95 (193) @ 19:00*
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program Name: hoe945-3
        1. array I.D.
                 01
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean P.A.R. ((mMoles/s/m2))*10
        6. mean 207 probe temp calculated from mV output using
                                                                      Steinhart-Hart equation and used in R.H.
                 calculation (C)
        7. mean 207 probe temp. using Campbell command 11 (C)
        8. mean R.H. (%)
                 ok
        9. mean wind speed
                 bad
        10. mean wind direction
        11. mean solar flux coming down (kW/m2)*10
        12. mean solar flux going up (kW/m2)*10
        13. station barometric pressure (mbars)
                 ok
        14. dTemp 1-3m (C)
                 ok
        15. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        16. bulk Richardson number * 1000
                 ok
        17. mean mV reading from surface soil thermistor
        18. mean mV reading from thermistor in 207 probe
                 clow
        19. mean mV reading from soil thermistor at 10 cm depth
                 clow
        20. sample of battery voltage
        21. mean liquid in Belfort precip gage (mm)
```

22. mean horizontal wind speed (m/s)

οk

23. resultant mean wind speed (m/s)

ი1

24. resultant mean wind direction (degrees from north)

οk

25. standard deviation of wind direction (degrees)

ok

26. maximum wind speed (m/s)

οk

27. minimum wind speed (m/s)

ok

28. maximum mV from thermistor in 207 probe

clow

29. minimum mV from thermistor in 207 probe.

clow

*Notes: 1) Wind speed and direction (#9 and #10) should be disregarded. They are not supposed to appear in those positions (programming error)

2) For some reason day 27 @ 1700 appears as the first line in hoe95003.prn

```
Filename:
                 hoe95003.prn
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Jul 12/95 (193) @ 19:20* to (330) Nov 26/95 @ 18:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program Name: hoe945-3
        1. array I.D.
                 01
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
        5. mean P.A.R. ((mMoles/s/m2))*10
        6. mean 207 probe temp calculated from mV output using
                                                                      Steinhart-Hart equation and used in R.H.
                 calculation (C)
        7. mean 207 probe temp. using Campbell command 11 (C)
        8. mean R.H. (%)
                 ok
        9. mean wind speed
                 bad
        10. mean wind direction
        11. mean solar flux coming down (kW/m2)*10
        12. mean solar flux going up (kW/m2)*10
        13. station barometric pressure (mbars)
                 ok
        14. dTemp 1-3m (C)
                 ok
        15. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
        16. bulk Richardson number * 1000
                 ok
        17. mean mV reading from surface soil thermistor
        18. mean mV reading from thermistor in 207 probe
                 clow
        19. mean mV reading from soil thermistor at 10 cm depth
                 clow
        20. sample of battery voltage
        21. mean liquid in Belfort precip gage (mm)
```

22. mean horizontal wind speed (m/s)

οk

23. resultant mean wind speed (m/s)

ი1

24. resultant mean wind direction (degrees from north)

ok

25. standard deviation of wind direction (degrees)

ok

26. maximum wind speed (m/s)

οk

27. minimum wind speed (m/s)

ok

28. maximum mV from thermistor in 207 probe

clow

29. minimum mV from thermistor in 207 probe.

clow

*Notes: 1) Wind speed and direction (#9 and #10) should be disregarded. They are not supposed to appear in those positions (programming error)

2) First line of data belongs in hoe95002.prn

```
Filename:
                hoe95601.dat
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Gayle Dana
File Period:
                Nov 26/95 (330) @ 18:20 to Nov 28/95 (332) @ 15:20
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program Name: hoe945-3
        1. array I.D.
                o1
        2. year
                ok
        3. day
                ok
        4. time
                ok
        5. mean P.A.R. ((mMoles/s/m2))*10
        6. mean 207 probe temp calculated from mV output using
                                                                    Steinhart-Hart equation and used in R.H.
                calculation (C)
        7. mean 207 probe temp. using Campbell command 11 (C)
        8. mean R.H. (%)
                ok
        9. mean wind speed
                bad
        10. mean wind direction
        11. mean solar flux coming down (kW/m2)*10
        12. mean solar flux going up (kW/m2)*10
        13. station barometric pressure (mbars)
                ok
        14. dTemp 1-3m (C)
                ok
        15. mean water vapor density (g/m3)*100
                divide by 100 for g/m3
        16. bulk Richardson number * 1000
                ok
        17. mean mV reading from surface soil thermistor
        18. mean mV reading from thermistor in 207 probe
        19. mean mV reading from soil thermistor at 10 cm depth
                clow
        20. sample of battery voltage
        21. mean liquid in Belfort precip gage (mm)
```

22. mean horizontal wind speed (m/s)

οk

23. resultant mean wind speed (m/s)

o1

24. resultant mean wind direction (degrees from north)

ok

25. standard deviation of wind direction (degrees)

ok

26. maximum wind speed (m/s)

ok]

27. minimum wind speed (m/s)

ok

 $28.\ maximum\ mV\ from\ thermistor\ in\ 207\ probe$

clow

29. minimum mV from thermistor in 207 probe.

clow

*Notes: 1) Wind speed and direction (#9 and #10) should be disregarded. They are not supposed to appear in those positions (programming error)

```
Filename:
                 hoe95602.dat
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Gayle Dana
                 Day 0 @ 00:05 to Day 10 @ 23:15*
*File Period:
                          [Nov 28/95 (332) 16:02 to Dec 9/95 (343) 15:02]
Sampling Frequency: every 1 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program Name: hoe956-1
        1. array I.D.
                 o1
        2. day
                 flag
        3. time
                 flag
        4. mean air temp. @ 3 meters
                 convert to mV, then Clow
        5. mean R.H. @ 3 meters (%)
                 ok
        6. mean solar flux coming down (W/m2)
        7. mean solar flux going up (W/m2)
        8. mean horizontal wind speed (m/s)
        9. resultant mean wind speed (m/s)
        10. resultant mean wind direction (degrees from north)
        11. standard deviation of wind direction (degrees)
        12. maximum wind speed (m/s)
                 ok
        13. minimum wind speed (m/s)
                 ok
        14. mean P.A.R. (micromols/s/m2)
                 divide by 200, multiply by 290.97
```

ol

16. sample station barometric pressure (mbar)

ok

17. mean temperature difference 1-3 m (C)

convert to mV, then clow

18. sample of battery voltage

15. sample precipitation (mm)

o1

*Notes:

1. Time and date were not reset after downloading new program. Date and time are as listed in data file; time and date in brackets are thought to be the correct values as inferred from known date and time when clock was reset on 12/10/95 (see notes under hoe95605.dat).

2. There is a between hoe95601.dat and hoe95602.da	at, 15:20-16:00.	

```
Filename:
                 hoe95603.dat
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Gayle Dana
                 Day 10 @ 23:30 to Day 10 @ 24:00
*File Period:
                          (Dec 9/95 (343) @ 15:17 to Dec 9/95 (343) @ 15:47]
Sampling Frequency: every 1 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program Name: hoe956-1
        1. array I.D.
                 o1
        2. day
                 flag
        3. time
                 flag
        4. mean air temp. @ 3 meters
                 convert to mV, then Clow
        5. mean R.H. @ 3 meters (%)
                 ok
        6. mean solar flux coming down (W/m2)
        7. mean solar flux going up (W/m2)
        8. mean horizontal wind speed (m/s)
        9. resultant mean wind speed (m/s)
        10. resultant mean wind direction (degrees from north)
        11. standard deviation of wind direction (degrees)
        12. maximum wind speed (m/s)
                 ok
        13. minimum wind speed (m/s)
                 ok
        14. mean P.A.R. (micromols/s/m2)
                 divide by 200, multiply by 290.97
        15. sample precipitation (mm)
        16. sample station barometric pressure (mbar)
        17. mean temperature difference 1-3 m (C)
                 convert to mV, then clow
        18. sample of battery voltage
                 o1
```

Notes:

*1. Time and date were not reset after downloading new program. Date and time are as listed in data file; time and date in brackets are thought to be the correct values as inferred from known date and time when clock was reset on 12/10/95 (see notes under hoe95605.dat).

```
Filename: hoe95604.dat
Station: Lake Hoare met station
```

Date of Establishment: Dec 1, 1993 by Peter Doran

Author of this report: Gayle Dana

*File Period: Day 11 @ 00:15 to Day 11 @ 19:00

[Dec 9/95 (343) @ 16:02 to Dec 10/95 (343) @ 10:47]

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program Name: hoe956-1

1. array I.D.

o1

* 2. day

flag

3. time

flag

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

οk

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 290.97

15. sample precipitation (mm)

ok

16. sample station barometric pressure (mbar)

ok

17. mean temperature difference 1-3 m (C)

convert to mV, then clow

18. sample of battery voltage

01

*Notes:

1. Time and date were not reset after downloading new program. Date and time are as listed in data file; time and date in brackets are thought to be the correct values as inferred from known date and time when clock was reset on 12/10/95 (see notes under hoe95605.dat).

```
*Filename:
                 hoe95606.dat
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Gayle Dana
*File Period:
                 Day 11 @ 19:15 to Day 11 @ 19:15
                          [Dec 10/95 (344) @ 11:02 to Dec 10/95 (344) @ 11:02]
Sampling Frequency: every 1 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program Name: hoe956-1
        1. array I.D.
                 o1
        2. day
                 flag
        3. time
                 flag
        4. mean air temp. @ 3 meters
                 convert to mV, then Clow
        5. mean R.H. @ 3 meters (%)
        6. mean solar flux coming down (W/m2)
        7. mean solar flux going up (W/m2)
        8. mean horizontal wind speed (m/s)
        9. resultant mean wind speed (m/s)
        10. resultant mean wind direction (degrees from north)
        11. standard deviation of wind direction (degrees)
        12. maximum wind speed (m/s)
        13. minimum wind speed (m/s)
        14. mean P.A.R. (micromols/s/m2)
                 divide by 200, multiply by 290.97
        15. sample precipitation (mm)
        16. sample station barometric pressure (mbar)
        17. mean temperature difference 1-3 m (C)
                 convert to mV, then clow
        18. sample of battery voltage
                 o1
```

- 1. Note that file number is out of sequence; the proper sequence is hoe95604.dat, hoe95606.dat, hoe95605.dat, hoe95607.dat.
- 2. Time and date were not reset after downloading new program. Date and time are as listed in data file; time and date in brackets are thought to be the correct values as inferred from known date and time when clock was reset on

12/10/95 (see notes under hoe95605.dat).

Filename: hoe95605.dat Station: Lake Hoare met station

Date of Establishment: Dec 1, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 10/95 (344) @ 11:15 to Jan 22/96 (22) @19:45

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program Name: hoe956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

οk

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

οk

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 290.97

15. sample precipitation (mm)

ok

16. sample station barometric pressure (mbar)

ok

17. mean temperature difference 1-3 m (C)

convert to mV, then clow

18. sample of battery voltage

o1

*Notes:

1. Year, day and time on CR10 reset to local time: year changed from 00 to 95; day changed from 11 to 344; time changed from 19:19 to 11:06 (local time).

Filename: hoe95607.dat Station: Lake Hoare met station

Date of Establishment: Dec 1, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Jan 22/96 (344) @ 20:00 to Jan 24/96 (24) @ 18:00

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program Name: hoe956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

flag

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 290.97

15. sample precipitation (mm)

ok

16. sample station barometric pressure (mbar)

ok

17. mean temperature difference 1-3 m (C)

convert to mV, then clow

18. sample of battery voltage

01

- 1. 2nd battery and diode wiring added at end of file period.
- 2. Crossarm easily pivoting; tightened down. After tightening, wind vane required a 20° clockwise adjustment.

Lake Hoare Station: Heads-up Notes for 1996 Overwinter data

- 1. Station powered down between ~18:15 to 18:45 on Jan 24/96 (24) to install battery diode wiring.
- 2. No program running between \sim 18:45 and 23:00 on Jan 24/96 (24).
- 3. Day and time improperly set at 23:00 on Jan24/96. Proper time and day reset on Jan 27/96. At time of reset these values were noted:

	CR10	(not correct)	Reset to Local	time
Day	26		27	
Time	21:37		09:37	

```
Filename:
                 hod95001.prn
Station: Howard Glacier Station
Date of Establishment: Nov 20, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Jan 23/95 (23) @ 13:20 to Aug 18/95 (230) @ 00:20
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: hod945-2
         1. array I.D.
                 01
        2. year
                 ok
         3. date
                 ok
        4. time
                 ok
         5. mean I.R. (W/m2)
                 ok
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
        21. minimum wind speed (m/s)
```

22. maximum mV from thermistor in 207 probe

clow

- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

*Notes: 1) Thermal infrared sensor not working, ignore #24

```
Filename:
                 hod95002.prn
Station: Howard Glacier Station
Date of Establishment: Nov 20, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Aug 18/95 (230) @ 00:40 to Nov 27/95 (331) @ 13:40
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: hod945-2
         1. array I.D.
                 01
        2. year
                 ok
        3. date
                 ok
        4. time
                 ok
         5. mean I.R. (W/m2)
                 ok
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
        21. minimum wind speed (m/s)
```

22. maximum mV from thermistor in 207 probe

clow

- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

*Notes: 1) Thermal infrared sensor not working, ignore #24

```
Filename:
                 hod95003.prn
Station: Howard Glacier Station
Date of Establishment: Nov 20, 1993 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Nov 27/95 (331) @ 14:00 to Nov 27/95 (331) @ 15:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: hod945-2
         1. array I.D.
                 01
        2. year
                 ok
         3. date
                 ok
        4. time
                 ok
         5. mean I.R. (W/m2)
                 ok
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
        21. minimum wind speed (m/s)
```

22. maximum mV from thermistor in 207 probe

clow

- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

*Notes: 1) Thermal infrared sensor not working, ignore #24

Filename: hod95601.dat Station: Howard Glacier Station

Date of Establishment: Nov 20, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 27/95 (331) @ 15:30 to Dec 15/95 (349) @ 10:15

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: hod956-1

1. array I.D.

o1

- 2. day
 - ok
- 3. time

οk

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 115.61

7. mean solar flux going up (W/m2)

divide by 100; multiply by 116.41

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

* 14. mean ice temp. near surface (C)

flag; convert to mv, then clow

* 15. mean ice temp. @ ~1 m (C)

flag; convert to my, then clow

* 16. mean dTemp 1-3 meters (C)

bad

17. mean air temp @ 1 meter m (C)

convert to mV, then clow

18. mean rh @ 1 meter (c)

ok

19. sample of battery voltage

o1

- 1. Exact depth position of ice thermistors unknown (#14 & 15).
- 2) Thermocouple not installed, ignore #16

Filename: hod95602.dat Station: Howard Glacier Station

Date of Establishment: Nov 20, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 15/95 (349) @ 10:30 to Dec 15/95 (349) @ 10:45

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: hod956-2

- 1. array I.D.
 - 01
- 2. day
 - ok
- 3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

οk

6. mean solar flux coming down (W/m2)

bad

* 7. mean solar flux going up (W/m2)

had

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

UK

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

* 14. mean ice temp. near surface (C)

flag; convert to mv, then clow

* 15. mean ice temp. @ ~1 m (C)

flag; convert to mv, then clow

* 16. mean dTemp 1-3 meters (C)

bad

17. mean air temp @ 1 meter m (C)

convert to mV, then clow

18. mean rh @ 1 meter (c)

٥k

19. sample of battery voltage

o1

- 2. Solar up and down sensors in process of being moved from multiplexor to CR10 wiring panel, ignore # 6 & 7
- 3. Exact depth position of ice thermistors unknown (#14 & 15).
- 4. Thermocouple not installed, ignore #16

^{*}Notes: 1. There are only two lines of data in this file

5. Multiplexor removed for diagnostic purposes; does not affect final storage output

Filename: hod95603.dat Station: Howard Glacier Station

Date of Establishment: Nov 20, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 15/95 (349) @ 11:15 to Dec 15/95 (349) @ 11:15

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: hod956-2

- 1. array I.D.
 - o1
- 2. day
 - ok
- 3. time

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 115.61

7. mean solar flux going up (W/m2)

divide by 100; multiply by 116.41

8. mean horizontal wind speed (m/s)

9. resultant mean wind speed (m/s)

10. resultant mean wind direction (degrees from north)

11. standard deviation of wind direction (degrees)

12. maximum wind speed (m/s) ok

13. minimum wind speed (m/s)

14. mean ice temp. near surface (C)

flag; convert to mv, then clow

15. mean ice temp. @ ~1 m (C)

flag; convert to mv, then clow

16. mean dTemp 1-3 meters (C)

bad

17. mean air temp @ 1 meter m (C)

convert to mV, then clow

18. mean rh @ 1 meter (c)

ok

19. sample of battery voltage

o1

- 1. There is only one line of data in this file
- 2. Exact depth position of ice thermistors unknown (#14 & 15).

3. Thermocouple not installed, ignore #16

Filename: hod95604.dat Station: Howard Glacier Station

Date of Establishment: Nov 20, 1993 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 15/95 (349) @ 11:30 to Jan 24/95 (24) @ 14:30

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: hod956-2

- 1. array I.D.
 - o1
- 2. day ok
- .
- 3. time
- ok
- 4. mean air temp. @ 3 meters

convert to mV, then Clow

- 5. mean R.H. @ 3 meters (%)
 - ok
- 6. mean solar flux coming down (W/m2)

divide by 100; multiply by 115.61

7. mean solar flux going up (W/m2)

divide by 100; multiply by 116.41

- 8. mean horizontal wind speed (m/s)
 - ok
- 9. resultant mean wind speed (m/s)
 - 0
- 10. resultant mean wind direction (degrees from north)
- 11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

- * 14. mean ice temp. near surface (C)
 - flag; convert to mv, then clow
- * 15. mean ice temp. @ ~1 m (C)

flag; convert to mv, then clow

- 16. mean dTemp 1-3 meters (C)
 - bad
 - 17. mean air temp @ 1 meter m (C)

convert to mV, then clow

- 18. mean rh @ 1 meter (c)
 - ok
- 19. sample of battery voltage

o1

- 1. Exact depth position of ice thermistors unknown (#14 & 15).
- 1. Thermocouple not installed, ignore #16

- 3. 2nd battery and diode wiring added at end of file period.4. Heads up for 1996 overwinter data: station powered down between @ 15:00 and 15:38 to install battery diodes.

```
Filename:
                 tar95001.prn
Station: Taylor Glacier Station
Date of Establishment: Nov 21, 1994 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Jan 23/95 (23) @ 11:00 to Aug 17/95 (229) @ 22:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: tar945-2
         1. array I.D.
                 01
        2. year
                 ok
        3. date
                 ok
        4. time
                 ok
        5. mean I.R. (W/m2)
                 bad
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 (C)
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
                 ok, flag
         21. minimum wind speed (m/s)
```

ok, flag

- 22. maximum mV from thermistor in 207 probe clow
- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

Notes: :1) No thermal infrared sensor wired. Ignore # 24 2) No purgeometer wired. Ignore # 5

```
Filename:
                 tar95002.prn
Station: Taylor Glacier Station
Date of Establishment: Nov 21, 1994 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Aug 17/95 (229) @ 22:20 to Nov 17/95 (321) @ 12:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: tar945-2
         1. array I.D.
                 01
        2. year
                 ok
        3. date
                 ok
        4. time
                 ok
        5. mean I.R. (W/m2)
                 bad
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 (C)
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
                 ok, flag
         21. minimum wind speed (m/s)
                 ok, flag
```

- 22. maximum mV from thermistor in 207 probe clow
- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

Notes: :1) No thermal infrared sensor wired. Ignore # 24 2) No purgeometer wired. Ignore # 5

```
Filename:
                 tar95003.prn
Station: Taylor Glacier Station
Date of Establishment: Nov 21, 1994 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Nov 17/95 (321) @ 12:20
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every 20 minutes
Program name: tar945-2
         1. array I.D.
                 01
        2. year
                 ok
        3. date
                 ok
        4. time
                 ok
        5. mean I.R. (W/m2)
                 bad
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 (C)
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux coming up (W/m2)
         11. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         12. mean mV reading from thermistor in 207 probe
                 clow
         13. mean mV reading from shallow ice thermistor
                 clow
         14. mean mV reading from deep ice thermistor
                 clow
         15. sample of battery voltage
         16. mean horizontal wind speed (m/s)
         17. resultant mean wind speed (m/s)
         18. resultant mean wind direction (degrees from north)
         19. standard deviation of wind direction (degrees)
         20. maximum wind speed (m/s)
                 ok, flag
         21. minimum wind speed (m/s)
```

ok, flag

- 22. maximum mV from thermistor in 207 probe clow
- 23. minimum mV from thermistor in 207 probe clow
- * 24. sample of thermal infrared (C) bad

Notes: :1) No thermal infrared sensor wired. Ignore # 24 2) No purgeometer wired. Ignore # 5

```
tar95601.dat
Station: Taylor Glacier Station
Date of Establishment: Nov 21, 1994 by Peter Doran
Author of this report: Gayle Dana
*File Period:
                Nov 17/95 (321) @ 14:00 to Nov 28/95 (332) @ 10:30
Sampling Frequency: every 1 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: tar956-1
        1. array I.D.
                o1
        2. day
                ok
        3. time
                ok
        4. mean air temp. @ 3 meters
                convert to mV, then Clow
        5. mean R.H. @ 3 meters (%)
        6. mean solar flux coming down (W/m2)
                multiply by 2
        7. mean solar flux going up (W/m2)
                multiply by 2
        8. mean horizontal wind speed (m/s)
        9. resultant mean wind speed (m/s)
        10. resultant mean wind direction (degrees from north)
        11. standard deviation of wind direction (degrees)
        12. maximum wind speed (m/s)
                ok
        13. minimum wind speed (m/s)
        14. mean air temp. @ 1 m (C)
                convert to my, then clow
        15. mean RH @ 1 m (%)
                convert to mv, then clow
        16. mean incoming IR pyrgeometer output (pins A-B) (W/m2)
        17. mean incoming IR hemisphere temp. (pins A-C) (mv)
        18. mean incoming IR thermopile output (pins F-G)(W/m2)
        19. mean incoming IR case temp. (pins E-D)(mv)
        20. mean thermal infrared-skin temperature(C)
```

21. mean ice temp. @ 20 cm (C)

* 22. mean ice temp. @ 1 m (C)

bad

* 23. mean dTemp 1-3 meters (from t.c. wire) (C)

had

24. sample of battery voltage

o1

- 1. Station powered down b/t 12:40 and 13:49 on Nov 17/95; results in data gap.
- 2. Pyrgeometer not wired; ignore # 16, 17, 18, 19
- 3. Thermal Infrared not wired; ignore # 20
- 4. Exact depth position of ice thermistors unknown (#21 & 22).
- 5. Ice temp. @ 1 meter: improper input channel specified in program: ignore #22
- 6. Thermocouple not wired; ignore #23

Filename: tar95602.dat Station: Taylor Glacier Station

Date of Establishment: Nov 21, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 28/95 (332) @ 10:45 to Dec 1/95 (335) @ 09:45

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: tar956-2

1. array I.D.

o1

2. day

ok

3. time

.

ok

4. mean air temp. @ 3 meters convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

multiply by 2

* 7. mean solar flux going up (W/m2)

multiply by 2

8. mean horizontal wind speed (m/s)

٥k

9. resultant mean wind speed (m/s)

οl

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

οk

14. mean air temp. @ 1 m (C)

convert to my, then clow

15. mean RH @ 1 m (%)

convert to mv, then clow

* 16. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

bad

* 17. mean incoming IR hemisphere temp. (pins A-C) (mv)

bad

* 18. mean incoming IR thermopile output (pins F-G)(W/m2)

bad

* 19. mean incoming IR case temp. (pins E-D)(mv)

bad

* 20. mean thermal infrared-skin temperature(C)

bad

22. mean ice temp. @ 1 m (C)
flag; convert to mv, then clow
23. mean dTemp 1-3 meters (from t.c. wire) (C)

24. sample of battery voltage

o1

- Pyrgeometer not wired; ignore # 16, 17, 18, 19 Thermal Infrared not wired; ignore # 20 1.
- 2.
- Exact depth position of ice thermistors unknown (#21 & 22). 3.
- Thermocouple not wired; ignore #23 4.

Filename: tar95603.dat Station: Taylor Glacier Station

Date of Establishment: Nov 21, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 1/95 (335) @ 10:00 to Dec 1/95 (335) @ 10:30

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: tar956-2

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

* 6. mean solar flux coming down (W/m2)

bad

* 7. mean solar flux going up (W/m2)

had

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

ol

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

οk

14. mean air temp. @ 1 m (C)

convert to my, then clow

15. mean RH @ 1 m (%)

convert to mv, then clow

* 16. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

bad

* 17. mean incoming IR hemisphere temp. (pins A-C) (mv)

bad

* 18. mean incoming IR thermopile output (pins F-G)(W/m2)

bad

* 19. mean incoming IR case temp. (pins E-D)(mv)

bad

* 20. mean thermal infrared-skin temperature(C)

bad

* 22. mean ice temp. @ 1 m (C)

flag; convert to mv, then clow

* 23. mean dTemp 1-3 meters (from t.c. wire) (C)

had

24. sample of battery voltage

o1

- 1. Pyranometers (up and down) not wired; Eppleys pyranometers being installed; ignore # 6 & 7
- 2. Pyrgeometer not wired; ignore # 16, 17, 18, 19
- 3. Thermal Infrared not wired; ignore # 20
- 4. Exact depth position of ice thermistors unknown (#21 & 22).
- 5. Thermocouple not wired; ignore #23

Filename: tar95604.dat Station: Taylor Glacier Station

Date of Establishment: Nov 21, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 1/95 (335) @ 10:45 to Dec 19/95 (353) @ 16:15

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: tar956-2

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 116.01

7. mean solar flux going up (W/m2)

divide by 100; multiply by 116.96

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

ol

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

οk

14. mean air temp. @ 1 m (C)

convert to my, then clow

15. mean RH @ 1 m (%)

convert to my, then clow

* 16. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

bad

* 17. mean incoming IR hemisphere temp. (pins A-C) (mv)

bad

* 18. mean incoming IR thermopile output (pins F-G)(W/m2)

bad

* 19. mean incoming IR case temp. (pins E-D)(mv)

bad

* 20. mean thermal infrared-skin temperature(C)

bad

22. mean ice temp. @ 1 m (C)
flag; convert to mv, then clow
23. mean dTemp 1-3 meters (from t.c. wire) (C)

24. sample of battery voltage

o1

- Pyrgeometer not wired; ignore # 16, 17, 18, 19 1.
- Thermal Infrared not wired; ignore # 20 2.
- Exact depth position of ice thermistors unknown (#21 & 22). 3.
- Thermocouple not wired; ignore #23 4.

Filename: tar95605.dat Station: Taylor Glacier Station

Date of Establishment: Nov 21, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 19/95 (353) @ 16:30 to Dec 19/95 (353) @ 17:45

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: tar956-2

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 116.01

7. mean solar flux going up (W/m2)

divide by 100; multiply by 116.96

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

o l

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

οk

14. mean air temp. @ 1 m (C)

convert to my, then clow

15. mean RH @ 1 m (%)

convert to my, then clow

* 16. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

bad

* 17. mean incoming IR hemisphere temp. (pins A-C) (mv)

bad

* 18. mean incoming IR thermopile output (pins F-G)(W/m2)

bad

* 19. mean incoming IR case temp. (pins E-D)(mv)

bad

* 20. mean thermal infrared-skin temperature(C)

bad

22. mean ice temp. @ 1 m (C)
flag; convert to mv, then clow
23. mean dTemp 1-3 meters (from t.c. wire) (C)

24. sample of battery voltage

o1

- Pyrgeometer not wired; ignore # 16, 17, 18, 19 Thermal Infrared not wired; ignore # 20 1.
- 2.
- Exact depth position of ice thermistors unknown (#21 & 22). 3.
- Thermocouple not wired; ignore #23 4.

Filename: tar95606.dat Station: Taylor Glacier Station

Date of Establishment: Nov 21, 1994 by Peter Doran

Author of this report: Gayle Dana

*File Period: Dec 19/95 (353) @ 19:00 (one line of data only)

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: tar956-3

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 116.01

7. mean solar flux going up (W/m2)

divide by 100; multiply by 116.96

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

ი1

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean air temp. @ 1 m (C)

convert to mv, then clow

15. mean RH @ 1 m (%)

convert to my, then clow

16. mean infrared pyrgeometer output (pins A-B)) (W/m2)

divide by 250; multiply by 248.76

17. mean incoming IR hemisphere temp. (pins A-C) (mv)

Eppley

18. mean incoming IR thermopile output (pins F-G)(W/m2)

Ennley

19. mean incoming IR case temp. (pins E-D)(mv)

Eppley

20. mean thermal infrared-skin temperature(C)

Eppley

* 22. mean ice temp. @ 1 m (C)

flag; convert to mv, then clow

* 23. mean dTemp 1-3 meters (from t.c. wire) (C)

had

24. sample of battery voltage

o1

- 1. Station powered down b/t \sim 17:50 and 18:50 on Dec 19/95; results in data gap
- 2. Thermal Infrared not wired; ignore # 20
- 3. Exact depth position of ice thermistors unknown (#21 & 22).
- 4. Thermocouple not wired; ignore #23

Filename: tar95607.dat Station: Taylor Glacier Station

Date of Establishment: Nov 21, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Dec 19/95 (353) @ 19:15 to Jan 25/96 (25) @ 0930

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: tar956-3

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

divide by 100; multiply by 116.01

7. mean solar flux going up (W/m2)

divide by 100; multiply by 116.96

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

ი1

10. resultant mean wind direction (degrees from north)

flag

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

οk

14. mean air temp. @ 1 m (C)

convert to my, then clow

15. mean RH @ 1 m (%)

convert to my, then clow

16. mean incoming IR pyrgeometer output (pins A-B) (W/m2)

divide by 250; multiply by 248.76

17. mean incoming IR hemisphere temp. (pins A-C) (mv)

Eppley

18. mean incoming IR thermopile output (pins F-G)(W/m2)

Enpley

19. mean incoming IR case temp. (pins E-D)(mv)

Eppley

20. mean thermal infrared-skin temperature(C)

bad

* 22. mean ice temp. @ 1 m (C)

flag; convert to mv, then clow

* 23. mean dTemp 1-3 meters (from t.c. wire) (C)

bad

24. sample of battery voltage

o1

- 1. Thermal Infrared not wired; ignore # 20
- 2. Exact depth position of ice thermistors unknown (#21 & 22).
- 3. Thermocouple not wired; ignore #23
- 4. Diode wiring and 2nd battery installed.
- 5. Heads up for 1996 winter data: station powered down between 09:55 and 10:20 on Jan 25/96 to install battery diodes.

```
Filename:
                 vaa95001.prn
Station: Lake Vanda met station
Date of Establishment: November 24, 1994 by Peter Doran
Author of this report: Peter Doran
File Period:
                 Jan 20/95 (20) @ 17:00 to Nov 21/95 (325) @ 11:00
Sampling Frequency: every 30 secs.
Averaging and Output Interval: every hour
Program Name: vaa945-2
         1. array I.D.
                 01
        2. year
                 ok
        3. day
                 ok
        4. time
                 ok
         5. mean P.A.R. (micromols/s/m2)
         6. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation
                 o1
         7. mean 207 probe temp. using Campbell command 11 (C)
         8. mean R.H. (%)
                 ok
         9. mean solar flux coming down (W/m2)
         10. mean solar flux going up (W/m2)
         11. mean mV reading from thermistor 5 cm in soil
         12. mean water vapor density (g/m3)*100
                 divide by 100 for g/m3
         13. mean mV reading from surface soil thermistor
                 clow
         14. mean mV reading from thermistor in 207 probe
                 clow
         15. mean mV reading from thermistor 10 cm in soil
                 clow
         16. sample of battery voltage
         17. mean horizontal wind speed (m/s)
                 ok, flag
         18. resultant mean wind speed (m/s)
         19. resultant mean wind direction (degrees from north)
         20. standard deviation of wind direction (degrees)
        21. maximum wind speed (m/s)
                 ok, flag
```

22. minimum wind speed (m/s)

ok, flag

23. maximum mV from thermistor in 207 probe

24. minimum mV from thermistor in 207 probe.

clow

- *notes: 1) Moved position of river thermistor to closer location on Jan 20.
 - 2) Keypad changes made to vaa945-1 did not get transfered to .doc file. Therefore, new file loaded with claus that zeros wind speeds < 0.9 m/s. Data should be flagged. This will continue through winters data.

Filename: vaa95601.dat Station: Lake Vanda met station

Date of Establishment: November 24, 1994 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 21/95 (325) @ 11:30 to Jan 23/96 (23) @ 13:00

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 min

Program Name: vaa956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

ok

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

01

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

ok

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 282.53

15. mean soil temperature @ 0 cm in soil (C)

convert to mV, then Clow

16. mean soil temperature @ 10 cm in soil (C)

convert to mV, then clow

17. mean Onyx River temperature (C)

convert to my, then clow

18. sample of battery voltage

01

- 1) 2nd battery and diode wiring installed at end of file period.
- 2) Heads up for overwinter data: station powered down between 13:25 and 14:10 hours on 1/23/96 to install diodes.
- 3) RH Campbell: 21%; RH Sling Pyschrometer: 28% on 1/23/96

Filename: via95601.dat Station: Lake Vida met station

Date of Establishment: November 24, 1995 by Peter Doran

Author of this report: Gayle Dana

File Period: Nov 24/95 (328) @ 15:00 to Jan 23/96 (23) @ 15:00

Sampling Frequency: every 1 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 min

Program Name: via956-1

1. array I.D.

o1

2. day

ok

3. time

ok

4. mean air temp. @ 3 meters

convert to mV, then Clow

5. mean R.H. @ 3 meters (%)

ok

6. mean solar flux coming down (W/m2)

ok

7. mean solar flux going up (W/m2)

οk

8. mean horizontal wind speed (m/s)

ok

9. resultant mean wind speed (m/s)

0

10. resultant mean wind direction (degrees from north)

ok

11. standard deviation of wind direction (degrees)

οk

12. maximum wind speed (m/s)

ok

13. minimum wind speed (m/s)

ok

14. mean P.A.R. (micromols/s/m2)

divide by 200, multiply by 291.00

15. mean soil temperature @ 0 cm in soil (C)

convert to mV, then Clow

16. mean soil temperature @ 5 cm in soil (C)

convert to mV, then clow

17. mean soil temperature @ 10 cm in soil (C)

convert to mV, then clow

18. sample of battery voltage

01

- 1) 2nd battery and diode wiring installed at end of file period.
- 2) Solar panel was not connected when we arrived on 1/23/96 visit; it is now connected.