

File description and task list for 1999-00 LTER Met Files:

o1=omit from level 1,

ok= no changes to get to level 1,

rclow= reverse temperatures to mV and apply clow subroutine to mV values using
Steinhart-Hart equation,

bad= normally would be included in level 1 but number is bogus,

flag= reasonable number but needs a note attached concerning its collection:

Array I.D. meaning:

First and Second Digit

01 = Hoare

02 = Fryxell

03 = Bonney

04 = Commonwealth

05 = Howard

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 East Submerged

15 = Canada Gl. (with Eddy Sensors)

16 = Bonney West Submerged

Hardware Notes:

1) Continued service schedule.

Filename: boy99001.dat
Station: Lake Bonney met station
Date of Establishment: November 24, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Jan 18/99 (18) @ 1615 to Jan 23/99 @ 1400
Sampling Frequency: wind speed every 4 sec, other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: boy978-3 (63208)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming up (W/m2)
ok
7. mean solar flux going down (W/m2)
ok
8. mean P.A.R. (micromols/s/m2)
divide by 200, multiply by 306.03
9. mean horizontal wind speed (m/s)
ok
10. resultant mean wind speed (m/s)
o1
11. resultant mean wind direction (degrees from north)
ok
12. standard deviation of wind direction (degrees)
ok
13. maximum wind speed (m/s)
ok
14. minimum wind speed (m/s)
ok
15. mean up-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 243.31
16. mean up-facing pyrgeometer hemisphere temp
Eppley
17. mean up-facing pyrgeometer thermopile (W/m2)
Eppley, most values are -6999
18. mean up-facing pyrgeometer case temp
Eppley
19. mean down-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 248.76
20. mean down-facing pyrgeometer hemisphere temp
Eppley
21. mean down-facing pyrgeometer thermopile (W/m2)
Eppley, most values are -6999
22. mean down-facing pyrgeometer case temp

Eppley

- 23. mean soil temperature @ 5 cm in soil (C)
rclow
- 24. mean soil temperature @ 10 cm in soil (C)
rclow
- 25. mean soil temperature @ 0 cm in soil (C)
rclow
- 26. sample of battery voltage
o1
- 27. sample precipitation (mm)
ok

Note:

- 1. Multiply SwRadIn and SwRadOut by two. Wrong multiplier used in program

Filename: boy99002.dat
Station: Lake Bonney met station
Date of Establishment: November 24, 1993 by Peter Doran
Author of this report: Thomas Nylén
File Period: Jan 23/99 @ 1415 to June 5/99 @ 1000
Sampling Frequency: wind speed every 4 sec, other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: boy978-3 (63208)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming up (W/m²)
ok
7. mean solar flux going down (W/m²)
ok
8. mean P.A.R. (micromols/s/m²)
divide by 200, multiply by 306.03
9. mean horizontal wind speed (m/s)
ok
10. resultant mean wind speed (m/s)
o1
11. resultant mean wind direction (degrees from north)
ok
12. standard deviation of wind direction (degrees)
ok
13. maximum wind speed (m/s)
ok
14. minimum wind speed (m/s)
ok
15. mean up-facing pyrgeometer, rad. comp. (W/m²)
divide by 250; multiple by 243.31
16. mean up-facing pyrgeometer hemisphere temp
Eppley
17. mean up-facing pyrgeometer thermopile (W/m²)
Eppley, most values are -6999
18. mean up-facing pyrgeometer case temp
Eppley
19. mean down-facing pyrgeometer, rad. comp. (W/m²)
divide by 250; multiple by 248.76
20. mean down-facing pyrgeometer hemisphere temp
Eppley
21. mean down-facing pyrgeometer thermopile (W/m²)
Eppley, most values are -6999
22. mean down-facing pyrgeometer case temp

Eppley

- 23. mean soil temperature @ 5 cm in soil (C)
rclow
- 24. mean soil temperature @ 10 cm in soil (C)
rclow
- 25. mean soil temperature @ 0 cm in soil (C)
rclow
- 26. sample of battery voltage
o1
- 27. sample precipitation (mm)
ok

Note:

- 1. Multiply SwRadIn and SwRadOut by two. Wrong multiplier used in program

Filename: boy99003.dat
Station: Lake Bonney met station
Date of Establishment: November 24, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: June 5/99 @ 1015 to Oct 21/99 @ 1500
Sampling Frequency: wind speed every 4 sec, other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: boy978-3 (63208)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming up (W/m2)
ok
7. mean solar flux going down (W/m2)
ok
8. mean P.A.R. (micromols/s/m2)
divide by 200, multiply by 306.03
9. mean horizontal wind speed (m/s)
ok
10. resultant mean wind speed (m/s)
o1
11. resultant mean wind direction (degrees from north)
ok
12. standard deviation of wind direction (degrees)
ok
13. maximum wind speed (m/s)
ok
14. minimum wind speed (m/s)
ok
15. mean up-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 243.31
16. mean up-facing pyrgeometer hemisphere temp
Eppley
17. mean up-facing pyrgeometer thermopile (W/m2)
Eppley, most values are -6999
18. mean up-facing pyrgeometer case temp
Eppley
19. mean down-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 248.76
20. mean down-facing pyrgeometer hemisphere temp
Eppley
21. mean down-facing pyrgeometer thermopile (W/m2)
Eppley, most values are -6999
22. mean down-facing pyrgeometer case temp

Eppley

- 23. mean soil temperature @ 5 cm in soil (C)
rclw
- 24. mean soil temperature @ 10 cm in soil (C)
rclw
- 25. mean soil temperature @ 0 cm in soil (C)
rclw
- 26. sample of battery voltage
o1
- 27. sample precipitation (mm)
ok

Note:

- 1. Multiply SwRadIn and SwRadOut by two. Wrong multiplier used in program

Filename: boy99004.dat
Station: Lake Bonney met station
Date of Establishment: November 24, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Oct 21/99 (294) @ 1515 to Dec 9, 1999 (343) @ 1700
Sampling Frequency: wind speed every 4 sec, other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: boy978-3 (63208)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming up (W/m2)
ok
7. mean solar flux going down (W/m2)
ok
8. mean P.A.R. (micromols/s/m2)
divide by 200, multiply by 306.03 (except last lines from 14:30 to 17:00, constant not known)
9. mean horizontal wind speed (m/s)
ok
10. resultant mean wind speed (m/s)
o1
11. resultant mean wind direction (degrees from north)
ok
12. standard deviation of wind direction (degrees)
ok
13. maximum wind speed (m/s)
ok
14. minimum wind speed (m/s)
ok
15. mean up-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 243.31
16. mean up-facing pyrgeometer hemisphere temp
Eppley
17. mean up-facing pyrgeometer thermopile (W/m2)
Eppley, many values are -6999
18. mean up-facing pyrgeometer case temp
Eppley
19. mean down-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 248.76
20. mean down-facing pyrgeometer hemisphere temp
Eppley
21. mean down-facing pyrgeometer thermopile (W/m2)
Eppley, many values are -6999
22. mean down-facing pyrgeometer case temp

Eppley

- 23. mean soil temperature @ 5 cm in soil (C)
rclow
- 24. mean soil temperature @ 10 cm in soil (C)
rclow
- 25. mean soil temperature @ 0 cm in soil (C)
rclow
- 26. sample of battery voltage
o1
- 27. sample precipitation (mm)
ok

Note:

1. The Quantum sensor was replaced at 14:15 (343). Values afterwards need to be multiplied by a different factor. Old sensor number is Q23201 and new is Q20266.
2. Upward pyranometer was replaced at 15:00 (343). Old sensor number is PY28347 and new number is PY20565.
3. New 107 Temperature probe loaded at 15:45 (343).
4. New HMP45C RH probe installed right after 17:00 (343). Need to check following 15 minutes in next module
5. New program Hoe990v1 installed immediately after 17:00. Program called Boy990v1 and the signature is 52522.
6. Switch soils 10cm to 0cm, 0cm to 5cm and 5cm to 10cm at 16:30 (343). Values are bad at 16:30 and 16:45. Last line of values is good.
7. Up and down pyranometers were switched during first 15 minutes of new module.
8. Changed wiring for Eppley Pyrgeometers on 12/13/99 at ~15:15. Placed a blue jumper wire from 3L1 to 1L1 and 7L1 to 5L1, and removed jumper from 3L1 to shield and 7L1 to shield. Check sensor values on data next time to see if there is a change in values.
9. Multiply SwRadIn and SwRadOut by two. Wrong multiplier used in program.

Filename: boy99005.dat
Station: Lake Bonney met station
Date of Establishment: November 24, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Dec 9, 1999 (343) @ 1715 to January 25, 2000 @ 1600
Sampling Frequency: wind speed every 4 sec, other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: boy990v1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming up (W/m2)
ok
7. mean solar flux going down (W/m2)
ok
8. mean P.A.R. (micromols/s/m2)
divide by 200, multiply by ???
9. mean horizontal wind speed (m/s)
ok
10. resultant mean wind speed (m/s)
o1
11. resultant mean wind direction (degrees from north)
ok
12. standard deviation of wind direction (degrees)
ok
13. maximum wind speed (m/s)
ok
14. minimum wind speed (m/s)
ok
15. mean up-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 243.31
16. mean up-facing pyrgeometer hemisphere temp
Eppley
17. mean up-facing pyrgeometer thermopile (W/m2)
Eppley
18. mean up-facing pyrgeometer case temp
Eppley
19. mean down-facing pyrgeometer, rad. comp. (W/m2)
divide by 250; multiple by 248.76
20. mean down-facing pyrgeometer hemisphere temp
Eppley
21. mean down-facing pyrgeometer thermopile (W/m2)
Eppley
22. mean down-facing pyrgeometer case temp

Eppley

- 23. mean soil temperature @ 0 cm in soil (C)
rclw
- 24. mean soil temperature @ 5 cm in soil (C)
rclw
- 25. mean soil temperature @ 10 cm in soil (C)
rclw
- 26. sample precipitation (mm)
ok
- 27. sample of battery voltage
o1

Note:

1. Up and down pyranometers were switched during first 15 minutes of new module.
2. Changed wiring for Eppley Pyrgeometers on 12/13/99 at ~15:15. Placed a blue jumper wire from 3L1 to 1L1 and 7L1 to 5L1, and removed jumper from 3L1 to shield and 7L1 to shield. Values do change, so flag all previous data for LwRadIn2 and LwRadOut2 as bad since sensors were installed.
3. Just before and after 1/2/2000 @ 1300, changed water and oil in Belfort. Place appropriate flag on data to show when switched. Values between 1/2/2000 @ 1300 and 1345 are bad. Values afterwards are lower than the values were before the water was changed because of the different volume. Check water next year.

Filename: brh99001.dat
Station: Lake Brownworth met station
Date of Establishment: November 13, 1996 by Peter Doran and D.J. Osborne
Author of this report: Thomas Nylen
File Period: Jan 21/99 (21) @ 1330 to August 16, 1999 (228) @ 1300
Sampling Frequency: wind speed every 4 sec; other every 30 sec
Averaging and Output Interval: every 15 min
Program Name: brh967-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 328.50
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 5 cm in soil (C)
Rclow
17. mean soil temperature @ 10 cm in soil (C)
rclow
18. sample of battery voltage
o1

Notes:

1. Upward and downward pyranometers might be switched, since serial numbers written down in the field did not match LAWN sheet. Does not matter for processing data, since there are no specific factors used.

Filename: brh99002.dat
Station: Lake Brownworth met station
Date of Establishment: November 13, 1996 by Peter Doran and D.J. Osborne
Author of this report: Thomas Nylen
File Period: August 16, 1999 (228) @ 1315 to Oct 30, 1999 (303) @ 1630
Sampling Frequency: wind speed every 4 sec; other every 30 sec
Averaging and Output Interval: every 15 min
Program Name: brh967-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 328.50
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 5 cm in soil (C)
rclow
17. mean soil temperature @ 10 cm in soil (C)
rclow
18. sample of battery voltage
o1

Notes:

1. Upward and downward pyranometers might be switched, since serial numbers written down in the field did not match LAWN sheet. Does not matter for processing data, since there are no specific factors used.

Filename: brh99003.dat
Station: Lake Brownworth met station
Date of Establishment: November 13, 1996 by Peter Doran and D.J. Osborne
Author of this report: Thomas Nylen
File Period: Oct 30, 1999 (303) @ 1645 to January 26, 2000 (26) @ 1545
Sampling Frequency: wind speed every 4 sec; other every 30 sec
Averaging and Output Interval: every 15 min
Program Name: brh967-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 328.50
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 5 cm in soil (C)
rclow
17. mean soil temperature @ 10 cm in soil (C)
rclow
18. sample of battery voltage
o1

Notes:

Filename: caa99001.dat
Station: Canada Glacier met station
Date of Establishment: Nov 20, 1995 by Karen Lewis
Reinstalled on glacier: Jan 13, 1998 by Karen Lewis
Author of this report: Thomas Nysten
File Period: Jan 27/99 (27) @ 11:45 to September 3, 1999 (246) @ 14:00
Sampling Frequency: wind speed every 4 sec; other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: caa989-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 2 meters (C)
rclow
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)
o1
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 barometric pressure (mbar)
ok
15. mean net radiation (W/m2)
ok
16. mean surface temperature from IRT (C)
rclow
17. sample battery voltage
o1

*Notes:

Filename: caa99002.dat
Station: Canada Glacier met station
Date of Establishment: Nov 20, 1995 by Karen Lewis
Reinstalled on glacier: Jan 13, 1998 by Karen Lewis
Author of this report: Thomas Nysten
File Period: September 3, 1999 (246) @ 14:15 to November 2, 1999 (306) @ 12:45
Sampling Frequency: wind speed every 4 sec; other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: caa989-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 2 meters (C)
rclow
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)
o1
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 barometric pressure (mbar)
ok
15. mean net radiation (W/m2)
ok
16. mean surface temperature from IRT (C)
rclow
17. sample battery voltage
o1

*Notes:

Filename: caa99003.dat
Station: Canada Glacier met station
Date of Establishment: Nov 20, 1995 by Karen Lewis
Reinstalled on glacier: Jan 13, 1998 by Karen Lewis
Author of this report: Thomas Nysten
File Period: November 2, 1999 (306) @ 13:00 to January 16, 2000 (16) @ 1600
Sampling Frequency: wind speed every 4 sec; other every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: caa989-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 2 meters (C)
rclow
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)
o1
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 barometric pressure (mbar)
ok
15. mean net radiation (W/m2)
ok
16. mean surface temperature from IRT (C)
rclow
17. sample battery voltage
o1

*Notes:

Filename: coh99001.dat
Station: Commonwealth Glacier Station
Date of Establishment: Nov 22, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Jan 22 /99 (22) @1030 to June 14, 1999 (165) @1430
Sampling Frequency: wind every 1 secs.; other every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: coh978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rClow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 108.70
7. mean solar flux going up (W/m2)
divide by 100; multiply by 109.29
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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)
divide by 250; multiply by 229.36
15. mean incoming IR hemisphere temp. (pins A-C) (mv)
Eppley
16. mean incoming IR thermopile output (pins F-G)(W/m2)
bad
17. mean incoming IR case temp. (pins E-D)(mv)
Eppley
- * 18. mean thermal infrared-skin temperature (C)
bad
- * 19. mean ice temp. @ 20 cm (C)
flag; rclow
- * 20. mean ice temp. @ 1 m (C)
flag; rclow
- * 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 253.61

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

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

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

26. sample of battery voltage
o1

*Notes:

1. Exact depth position of ice thermistors unknown (#19 and #20).
2. Thermocouple not wired; ignore #21
3. Everest thermal infrared sensor not wired ? There are values in the data sheet (FS #18).
4. Note wind speed has been sampled ever 1 second, not four as it has been previously stated. Need to change on web page

Filename: coh99002.dat
Station: Commonwealth Glacier Station
Date of Establishment: Nov 22, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: June 14, 1999 (165) @1445 to Oct 30, 1999 (303) @1030
Sampling Frequency: wind every 1 secs.; other every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: coh978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rClow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 108.70
7. mean solar flux going up (W/m2)
divide by 100; multiply by 109.29
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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)
divide by 250; multiply by 229.36
15. mean incoming IR hemisphere temp. (pins A-C) (mv)
Eppley
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)
Eppley
- * 19. mean ice temp. @ 20 cm (C)
flag; rclow
- * 20. mean ice temp. @ 1 m (C)
flag; rclow
- * 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 253.61

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. Exact depth position of ice thermistors unknown (#19 and #20).
2. Thermocouple not wired; ignore #21
3. Everest thermal infrared sensor not wired ? There are values in the data sheet (FS #18).
4. Note wind speed has been sampled ever 1 second, not four as it has been previously stated. Need to change on web page

Filename: coh99003.dat
Station: Commonwealth Glacier Station
Date of Establishment: Nov 22, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Oct 30, 1999 (303) @1030 to December 18, 1999 (352) @1200
Sampling Frequency: wind every 4 secs.; other every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: coh989-1 (?)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rClow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 108.70
7. mean solar flux going up (W/m2)
divide by 100; multiply by 109.29
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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)
divide by 250; multiply by 229.36
15. mean incoming IR hemisphere temp. (pins A-C) (mv)
Eppley
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)
Eppley
- * 19. mean ice temp. @ 20 cm (C)
flag; rclow
- * 20. mean ice temp. @ 1 m (C)
flag; rclow
- * 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 253.61
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. Exact depth position of ice thermistors unknown (#19 and #20).
2. Thermocouple not wired; ignore #21
3. Everest thermal infrared sensor not wired ? There are values in the data sheet (FS #18).
4. Note wind speed has been sampled ever 1 second, not four as it has been previously stated. Need to change on web page.
5. SwRadIn on 352 (December 18, 1999) from 1030 to 1100 is bad
6. SwRadOut on 352 (December 18, 1999) from 1030 to 1100 is bad
7. LwRadIn Sensor switched on December 18, 1999 (352) just after 10:15. Rad Comp on old sensor was not working properly. Serial number of old sensor was 32311F3 and the new sensor number is 31512F3. Value at 10:15 is bad. At 1030 the hemiT, thermopile, and CaseT are bad.
8. New 107 Temperature probe loaded after 12:00. Check first row of data on next storage module
9. New HMP45C RH probe installed right after 12:00. Need to check following 15 minutes in next module
10. New program coh990v1 installed immediately after 12:00. The signature is 64113.
11. Switch pyranometers after 12:00 mark values during first line as bad of next module. Upward pyranometers wire was disconnected for a brief period after new modules were put on.
12. Wires on E2 (both thermocouples) were disconnected briefly after new modules were put on

Filename: coh99004.dat
Station: Commonwealth Glacier Station
Date of Establishment: Nov 22, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: December 18, 1999 (352) @1215 to January 22, 2000 (22) @ 1515
Sampling Frequency: wind every 4 secs.; other every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: coh990v1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rClow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 108.70
7. mean solar flux going up (W/m2)
divide by 100; multiply by 109.29
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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)
divide by 250; multiply by 289.02
15. mean incoming IR hemisphere temp. (pins A-C) (mv)
Eppley
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 outgoing IR pyrgeometer output (pins A-B)(W/m2)
divide by 250; multiply by 253.81
19. mean outgoing IR hemisphere temp. (pins F-G) (mv)
Eppley
20. mean outgoing IR thermopile (pins A-C) (W/m2)
Eppley
21. mean outgoing IR case temp. (pins E-D) (mv)
Eppley
- * 22. mean ice temp. @ 20 cm (C)

- * flag; rclow
23. mean ice temp. @ 1 m (C)
 flag; rclow
- 24. sample of battery voltage
 o1

*Notes:

1. Exact depth position of ice thermistors unknown (#19 and #20).
2. New program coh990v1 installed immediately after 12:00. The signature is 64113.

Filename: exe99001.dat
Station: Explorer's Cove Station
Date of Establishment: Nov 21, 1997 by Peter Doran, D.J. Osborne and Keith Sauter
Author of this report: Thomas Nylén
File Period: Jan 22/99 (22) @ 1030 to August 17, 1999 (229) @ 630
Sampling Frequency: wind every 4 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: exe978-1

Output Array Definition:

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean RH @ 3 meters
ok
6. mean solar flux coming up (~W/m²)
ok but switched with up
7. mean solar flux going down (~W/m²)
ok
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
10. resultant mean wind direction (degrees from north)
ok
11. standard deviation of wind direction (degrees)
o1
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, multiple by 324.0
15. mean soil temperature @ 0 cm (C)
rclow
16. mean dTemp 1-3 meters (from t.c. wire) (C)
Multiple by -1
17. sample precipitation (mm)
bad
18. sample battery voltage

notes:

Filename: exe99002.dat
Station: Explorer's Cove Station
Date of Establishment: Nov 21, 1997 by Peter Doran, D.J. Osborne and Keith Sauter
Author of this report: Thomas Nylen
File Period: August 17, 1999 (229) @ 645 to October 30, 1999 (303) 1100
Sampling Frequency: wind every 4 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: exe978-1

Output Array Definition:

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean RH @ 3 meters
ok
6. mean solar flux coming up (~W/m2)
ok but switched with up
7. mean solar flux going down (~W/m2)
ok
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
10. resultant mean wind direction (degrees from north)
ok
11. standard deviation of wind direction (degrees)
o1
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, multiple by 324.0
15. mean soil temperature @ 0 cm (C)
rclow
16. mean dTemp 1-3 meters (from t.c. wire) (C)
Multiple by -1
17. sample precipitation (mm)
bad
18. sample battery voltage

notes:

Filename: exe99003.dat
Station: Explorer's Cove Station
Date of Establishment: Nov 21, 1997 by Peter Doran, D.J. Osborne and Keith Sauter
Author of this report: Thomas Nylén
File Period: October 30, 1999 (303) @ 1115 to December 28, 1999 (362) @ 1300
Sampling Frequency: wind every 4 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: exe978-1

Output Array Definition:

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean RH @ 3 meters
ok
6. mean solar flux coming up (~W/m²)
ok but switched with up
7. mean solar flux going down (~W/m²)
ok
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
10. resultant mean wind direction (degrees from north)
ok
11. standard deviation of wind direction (degrees)
o1
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, multiple by 324.0
15. mean soil temperature @ 0 cm (C)
rclow
16. mean dTemp 1-3 meters (from t.c. wire) (C)
Multiple by -1
17. sample precipitation (mm)
not hooked up
18. sample battery voltage

notes:

1. On December 28, 1999 @ 1115, the upward (SwRadIn) and downward (SwRadOut) pyranometers were swapped out and switched between differential channels 3 and 4 (they were reversed). Errors were returned during this time interval. One of the wires on the downward pyranometer broke shortly after installation and the sensor returned errors between 1130 to 1245 on December 28, 1999. A new sensor was installed to replace the one with a broken wire.

2. On December 28, 1999 @ 1115, the quantum sensor was swapped out with a new one. An error was return during this interval.
3. On December 28, 1999 @ 1230, a new 107 temperature probe was installed to replace the thermistor for air temperature at 3m.
4. Just after the data was recorded at 1300 on December 28, 1999, a new program, exe990v1, was loaded and compiled. Check data during the first 15 minutes on next module.
5. The Vaisala HMP45C RH probe was installed just after the new program was installed and compiled.
6. The thermocouple was moved from old 207 Temp/RH probe to new 107 probe after new program was loaded.

Filename: exe99004.dat
Station: Explorer's Cove Station
Date of Establishment: Nov 21, 1997 by Peter Doran, D.J. Osborne and Keith Sauter
Author of this report: Thomas Nylén
File Period: December 28, 1999 (362) @ 1315 to January 25, 2000 (25) @ 1145
Sampling Frequency: wind every 4 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: exe990v1

Output Array Definition:

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean RH @ 3 meters
ok
6. mean solar flux coming up (~W/m²)
ok
7. mean solar flux going down (~W/m²)
ok
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
10. resultant mean wind direction (degrees from north)
ok
11. standard deviation of wind direction (degrees)
o1
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, multiple by 288.44
15. mean soil temperature @ 0 cm (C)
rclow
16. mean dTemp 1-3 meters (from t.c. wire) (C)
Multiple by -1
17. sample precipitation (mm)
not hooked up
18. sample battery voltage

notes:

1. The thermocouple was moved from old 207 Temp/RH probe to new 107 probe after new program was loaded. The difference in air temperature decreases after the thermocouple was installed with new Temp/RH probes. The differences in air temperature changes from a maximum daily difference of a little less than 2 to a slightly more than 1. This change coincides with the installation of the new probes and is probably related to it, and is not a real shift in the difference in air temperature. Check next time in field.

2. Just after the data was recorded at 1300 on December 28, 1999, a new program, exe990v1, was loaded and compiled. Check data during the first 15 minutes on next module.
3. The Vaisala HMP45C RH probe was installed just after the new program was installed and compiled.
4. The precipitation gage (Bubba) was installed and the bucket filled at the end of this time period. Data will show up on next year's data

Filename: frl99001.dat
Station: Lake Fryxell met station
Date of Establishment: Jan 6, 1994 by Peter Doran
Author of this report: Thomas Nylén
File Period: Jan 22/98 (22) @ 945 to August 17, 1999 (229) @ 930
Sampling Frequency: wind every 4 sec; 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 (C)
rClow
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)
o1
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 285.45
15. mean soil temperature @ 0 cm in soil (C)
rClow
16. mean soil temperature @ 5 cm in soil (C)
rClow
17. mean soil temperature @ 10 cm in soil (C)
rClow
18. sample of battery voltage
o1

notes:

Filename: fr199002.dat
Station: Lake Fryxell met station
Date of Establishment: Jan 6, 1994 by Peter Doran
Author of this report: Thomas Nylén
File Period: August 17, 1999 (229) @ 945 to October 30, 1999 (303) @1130
Sampling Frequency: wind every 4 sec; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: fr1956-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rClow
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)
o1
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 285.45
15. mean soil temperature @ 0 cm in soil (C)
rClow
16. mean soil temperature @ 5 cm in soil (C)
rClow
17. mean soil temperature @ 10 cm in soil (C)
rClow
18. sample of battery voltage
o1

notes:

Filename: fr199003.dat
Station: Lake Fryxell met station
Date of Establishment: Jan 6, 1994 by Peter Doran
Author of this report: Thomas Nylén
File Period: October 30, 1999 (303) @1145 to January 5, 2000 (005) @ 1400
Sampling Frequency: wind every 4 sec; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: fr1956-1 (????)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rClow
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)
o1
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 285.45
15. mean soil temperature @ 0 cm in soil (C)
rClow
16. mean soil temperature @ 5 cm in soil (C)
rClow
17. mean soil temperature @ 10 cm in soil (C)
rClow
18. sample of battery voltage
o1

notes:

1. On January 5, 2000 between 12:45 and 1300, replaced up and down pyranometers. The old serial number for the upward pyranometer is PY28349 and the new serial number is PY23276. The old serial number for the downward pyranometer is PY28348 and the new serial number is PY28169. The 15 minute average interval for upward pyranometer was bad, since I could not get the wire in fast enough.
1. Right after 1300 (within the first 30 seconds) on January 5, 2000 the Quantum sensor was swapped out. The old sensor number is Q23199 and the new number is Q17984.

2. Right after 1330 on January 5, 2000, the air temperature probe (207 for a 107) was swapped out. The shield was raised about 30cm, which is as high as the shield could go. The shield was at approximately 2.6 cm from the soil surface.
3. Right after 1400 on January 5, 2000, a new program, frl990v1, was loaded and compiled within 30 seconds (I think).
4. After 1400 on January 5, 2000, the new RH probe was installed, but it was not initially working. The sensor had come apart and was not working. It was reconnected at around 1500. Check values in next file.

Filename: fr199004.dat
Station: Lake Fryxell met station
Date of Establishment: Jan 6, 1994 by Peter Doran
Author of this report: Thomas Nylén
File Period: January 5, 2000 (005) @ 1415 to January 25, 2000 (25) @ 1315
Sampling Frequency: wind every 4 sec; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: fr1990v1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rClow
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)
o1
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 ?????
15. mean soil temperature @ 0 cm in soil (C)
rClow
16. mean soil temperature @ 5 cm in soil (C)
rClow
17. mean soil temperature @ 10 cm in soil (C)
rClow
18. sample of battery voltage
o1

notes:

1. Right after 1400 on January 5, 2000, a new program, fr1990v1, was loaded and compiled within 30 seconds
2. After 1400 on January 5, 2000, the new RH probe was installed, but it was not initially working. The sensor had come apart and was not working. It was reconnected at around 1500. Error values returned.

3. Filename: hod99001.dat
Station: Howard Glacier Station
Date of Establishment: Nov 20, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Jan 21/99 (1415) @ 1430 to August 11, 1999 (223) @ 1600
Sampling Frequency: wind every 4 sec others: every 30 sec
Averaging and Output Interval: every 15 minutes
Program name: hod978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 123.61
7. mean solar flux going up (W/m2)
divide by 100; multiply by 121.65
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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; rclow
- * 15. mean ice temp. @ ~1 m (C)
flag; rclow
- * 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 (%)
ok
19. sample of battery voltage
o1

*Notes:

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

Filename: hod99002.dat

Station: Howard Glacier Station

Date of Establishment: Nov 20, 1993 by Peter Doran

Author of this report: Thomas Nylen

File Period: August 11, 1999 (223) @ 1600 to October 30, 1999 (303) @ 1145

Sampling Frequency: wind every 4 sec others: every 30 sec

Averaging and Output Interval: every 15 minutes

Program name: hod978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 123.61
7. mean solar flux going up (W/m2)
divide by 100; multiply by 121.65
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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; rclow
- * 15. mean ice temp. @ ~1 m (C)
flag; rclow
- * 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 (%)
ok
19. sample of battery voltage
o1

*Notes:

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

Filename: hod99003.dat

Station: Howard Glacier Station

Date of Establishment: Nov 20, 1993 by Peter Doran

Author of this report: Thomas Nylen

File Period: October 30, 1999 (303) @ 1200 to January 4, 2000 (4) @ 1200

Sampling Frequency: wind every 4 sec others: every 30 sec

Averaging and Output Interval: every 15 minutes

Program name: hod978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 123.61
7. mean solar flux going up (W/m2)
divide by 100; multiply by 121.65
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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; rclow
- * 15. mean ice temp. @ ~1 m (C)
flag; rclow
- * 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 (%)
ok
19. sample of battery voltage
o1

*Notes:

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

3. On January 4, 2000 @ 1145, two new 107 temperature probes were installed to replace the thermistor for air temperature at 3m and 1m. The air temperature and RH shield at 3m and 1m were lowered 20cm and 5cm, to compensate for the ablation of the ice surface. The shield at 1m was lowered as far as possible, but the sensors are still approximately 1.25 meters above the ice surface. Need an extension bar on the bottom so the shield can be lowered further.

Filename: hod99004dat

Station: Howard Glacier Station

Date of Establishment: Nov 20, 1993 by Peter Doran

Author of this report: Thomas Nylén

File Period: January 4, 2000 (4) @ 1215 to January 21, 2000 (21) @ 1700

Sampling Frequency: wind every 4 sec others: every 30 sec

Averaging and Output Interval: every 15 minutes

Program name: hod990v1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m²)
divide by 100; multiply by 123.61
7. mean solar flux going up (W/m²)
divide by 100; multiply by 121.65
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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; rclow
- * 15. mean ice temp. @ ~1 m (C)
flag; rclow
16. mean air temp @ 1 meter m (C)
convert to mV, then clow
17. mean rh @ 1 meter (%)
ok
18. sample of battery voltage
o1

*Notes:

1. Exact depth position of ice thermistors unknown (#14 & 15).
2. On January 4, 2000 @ 1200, the air temperature and RH shield at 3m and 1m were lowered 20cm and 5cm, to compensate for the ablation of the ice surface. The shield at 1m was lowered as far as possible, but the sensors are still approximately 1.25 meters above the ice surface. Need an extension bar on the bottom so the shield can be lowered further.

3. On January 4, 2000 @ 1200, a new program, HOD990v1 was loaded, but not compiled within 30 seconds. The first line of this file contained several values of -6999 because the program was not compiled in the first 30 seconds
4. On January 4, 2000 just after 1215, two new Vaisala HMP45C RH probes were installed to replace the existing sensors at 3m and 1m. The sensors were hooked up by 1150.
5. An error is occasionally returned for SwRadIn, when the value exceeds the range of the datalogger. Check the wiring when at the station next.

Filename: hoe99001.dat
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Jan 20/99 (20) @ 1745 to Jan 26/99 (26) 1245
Sampling Frequency: wind every 4 sec; other every 30 sec
Averaging and Output Interval: every 15 minutes
Program Name: hoe956-1 (52522)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 294.07
15. sample precipitation (mm)
ok
16. sample station barometric pressure (mbar)
ok
17. mean temperature difference 1-3 m (C)
Multiply by -1
18. sample of battery voltage
o1

*Notes:

1. The Modules were removed on 10/25/99 @ 1600. Only one storage module replaced.

Filename: hoe99002.dat
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Thomas Nylen
File Period: Jan 26/99 (26) @ 1245 to August 15/99 (227) @ 1330
Sampling Frequency: wind every 4 secs.; other every 30 secs.
Averaging and Output Interval: every 15 minutes
Program Name: hoe956-1 (52522)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 294.07
15. sample precipitation (mm)
ok
16. sample station barometric pressure (mbar)
ok
17. mean temperature difference 1-3 m (C)
Multiply by -1
18. sample of battery voltage
o1

*Notes:

1. The Modules were removed on 10/25/99 @ 1600. Only one storage module replaced.

Filename: hoe99003.dat
Station: Lake Hoare met station
Date of Establishment: Dec 1, 1993 by Peter Doran
Author of this report: Thomas Nylén
File Period: August 15/99 (227) @ 1345 to October 25/99 1600
Sampling Frequency: wind every 4 secs.; other every 30 secs.
Averaging and Output Interval: every 15 minutes
Program Name: hoe956-1 (52522)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 294.07
15. sample precipitation (mm)
ok
16. sample station barometric pressure (mbar)
ok
17. mean temperature difference 1-3 m (C)
Multiply by -1
18. sample of battery voltage
o1

*Notes:

1. The Modules were removed on 10/25/99 @ 1600. Only one storage module replaced.

Filename: hoe99004.dat

Station: Lake Hoare met station

Date of Establishment: Dec 1, 1993 by Peter Doran

Author of this report: Thomas Nylén

File Period: October 25/99 1615 to December 17, 1999 (351) @ 1545

Sampling Frequency: wind every 4 secs.; other every 30 secs.

Averaging and Output Interval: every 15 minutes

Program Name: hoe978-1 (?) (52522)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 294.07 (Except last three data values, multiplier not known)
15. sample precipitation (mm)
ok
16. sample station barometric pressure (mbar)
ok
17. mean temperature difference 1-3 m (C)
Multiply by -1
18. sample of battery voltage
o1

*Notes:

4. The Quantum sensor was replaced between 15:00 – 15:15 (351). Mark value between 1445-1500 (351) as questionable. Old sensor number is Q23204 and new is Q22174. The constant is not known at this moment. Need to contact Crary Lab.
5. Upward pyranometer was replaced between 14:45 – 15:00 (351).). Old sensor number is PY28370 and new number is PY18657. The constant is not known at this moment. Need to contact Crary Lab.

6. Downward pyranometer was replaced between 14:15 – 14:15 (351). Mark value between 1400-1415 (351) as questionable. Old sensor number is PY28371 and new number is PY18656. The constant is not known at this moment. Need to contact Crary Lab.
7. New 107 Temperature probe loaded between 15:30 and 15:45 (351).
8. New HMP45C RH probe installed right before 15:45 (351).
9. New program Hoe990v1 installed immediately after 15:45. Program signature is 52522.
10. The 107 shield at 1m was replaced with 207 shield at 1m. Thermocouple wire placed in 207 shield.

Filename: hoe99005.dat

Station: Lake Hoare met station

Date of Establishment: Dec 1, 1993 by Peter Doran

Author of this report: Thomas Nylén

File Period: December 17, 1999 (351) @ 1600 to January 24, 2000 (24) @

Sampling Frequency: wind every 4 secs.; other every 30 secs.

Averaging and Output Interval: every 15 minutes

Program Name: hoe990v1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 294.07 (Except last three data values, multiplier not known)
15. sample precipitation (mm)
ok
16. sample station barometric pressure (mbar)
ok
17. mean temperature difference 1-3 m (C)
Multiply by -1
18. sample of battery voltage
o1

*Notes:

1. The Quantum sensor was replaced between 15:00 – 15:15 (351). Mark value between 1445-1500 (351) as questionable. Old sensor number is Q23204 and new is Q22174.
2. Upward pyranometer was replaced between 14:45 – 15:00 (351).). Old sensor number is PY28370 and new number is PY18657.

3. Downward pyranometer was replaced between 14:15 – 14:15 (351). Mark value between 1400-1415 (351) as questionable. Old sensor number is PY28371 and new number is PY18656. New 107 Temperature probe loaded between 15:30 and 15:45 (351).
4. New HMP45C RH probe installed right before 15:45 (351).
5. New program Hoe990v1 installed immediately after 15:45. Program signature is 52522.
6. The 107 shield at 1m was replaced with 207 shield at 1m. Thermocouple wire placed in 207 shield.

Filename: tar99001.dat
Station: Taylor Glacier Station
Date of Establishment: 1994 by Peter Doran
Author of this report: Thomas Nylén
File Period: Jan 25/99 (25) @ 1000 to August 9, 1999 (11:30) @ 11:30
Sampling Frequency: wind every 4 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: tar978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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. ice temperature (C)
Depth of probe not known
15. ice temperature (C)
Depth of probe not known
16. dTemp (C)
bad
17. mean air temp @1m (C)
rclow
18. RH at 1m (%)
ok
19. sample of battery voltage
o1

*Notes:

1. DTemp not working
2. Exact depth position of ice thermistors unknown (#14 & 15). Needs Flag

Filename: tar99002.dat

Station: Taylor Glacier Station

Date of Establishment: 1994 by Peter Doran

Author of this report: Thomas Nylén

File Period: August 9, 1999 (11:30) @ 11:45 to October 30, 1999 @ 1300

Sampling Frequency: wind every 4 secs.; others: every 30 secs.

Averaging and Output Interval: every 15 minutes

Program name: tar978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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. ice temperature (C)
Depth of probe not known
15. ice temperature (C)
Depth of probe not known
16. dTemp (C)
bad
17. mean air temp @1m (C)
rclow
18. RH at 1m (%)
ok
19. sample of battery voltage
o1

*Notes:

1. DTemp not working.
2. Exact depth position of ice thermistors unknown (#14 & 15).

Filename: tar99003.dat
Station: Taylor Glacier Station
Date of Establishment: 1994 by Peter Doran
Author of this report: Thomas Nylen
File Period: October 30, 1999 @ 1300 to January 3, 2000 @ 1230
Sampling Frequency: wind every 4 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: tar978-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by 116.01, except last 8 lines of data, which is multiplied by ????
7. mean solar flux going up (W/m2)
divide by 100; multiply by 116.96, except last 4 lines of data, which is multiplied by ????
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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. ice temperature (C)
Depth of probe not known
15. ice temperature (C)
Depth of probe not known
16. dTemp (C)
bad
17. mean air temp @1m (C)
rclow
18. RH at 1m (%)
ok
19. sample of battery voltage
o1

*Notes:

1. DTemp not installed.
2. Exact depth position of ice thermistors unknown (#14 & 15).

3. Upward Pyranometer switched on 1/3/2000 right after 1030. Use different constants to calculate value (will get constant for the new sensor from Crary Lab.
4. Downward Pyranometer switched on 1/3/2000 right after 1115. Could not get plug back in by 30 seconds and following 15 minute average (1/1/2000 @ 1130) is bad. Use different constants to calculate value (will get constant for new sensor from Crary Lab.
5. Switched by mistake temperature and RH at 3m at on 1/1/2000
6. Installed 107 temperature probe at 1/1/2000 @ 1215, but was not used until new program was loaded and compile. Note, temperature probe is on channel not previously used.
7. Downloaded a new program, tar990v1, just after last dump of data on this module.
8. An error of -6999 was occasionally returned because the ground wire was pulled out by accident. Upon visiting the station the wire was wrapped around the ground of the downward pyranometer.

Filename: tar99004.dat
Station: Taylor Glacier Station
Date of Establishment: 1994 by Peter Doran
Author of this report: Thomas Nylen
File Period: January 3, 2000 @ 1245 to January 18, 2000 @ 1600
Sampling Frequency: wind every 4 secs.; others: every 30 secs.
Averaging and Output Interval: every 15 minutes
Program name: tar990v1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
5. mean R.H. @ 3 meters (%)
ok
6. mean solar flux coming down (W/m2)
divide by 100; multiply by
7. mean solar flux going up (W/m2)
divide by 100; multiply by ?????
8. mean horizontal wind speed (m/s)
ok
9. resultant mean wind speed (m/s)
o1
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. ice temperature (C)
Depth of probe not known
15. ice temperature (C)
Depth of probe not known
16. mean air temp @ 1m (C) from 107 Temp. Probe
rclow, o1
17. mean air temp @ 1m (C) from Vaisala HMP45C Probe
rclow
18. mean RH at 1m (%) from Vaisala HMP45C Probe
ok
19. sample of battery voltage
o1

*Notes:

1. Installed Vaisala HMP45C Temperature and RH probe at 1m after program was loaded and compiled, but sensor was not working. All RH data until a new probe was installed on 1/4/00 @ 1045 are bad. The temp from probe is also bad until probe was swapped out, but the measurements from the 107 probe is good.

Filename: vaa99001.dat
Station: Lake Vanda met station
Date of Establishment: November 24, 1994 by Peter Doran, rebuilt
Author of this report: Thomas Nylen
File Period: Jan 21/99 (21)@ 1200 to August 16, 1999 (228) @ 1130
Sampling Frequency: wind every 4 secs.; other 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 (C)
rclow
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)
ok
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 309.46
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 10 cm in soil (C)
convert to mV, then clow
17. mean Onyx River temperature (C)
bad
18. sample of battery voltage
o1

notes:

1. Onyx temperature #17 not working. Flagged "B"

Filename: vaa99002.dat

Station: Lake Vanda met station

Date of Establishment: November 24, 1994 by Peter Doran, rebuilt

Author of this report: Thomas Nylen

File Period: August 16, 1999 (228) @ 1145 to Oct 30, 1999 (303) @ 1500

Sampling Frequency: wind every 4 secs.; other 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 (C)
rclow
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)
ok
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 309.46
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 10 cm in soil (C)
convert to mV, then clow
17. mean Onyx River temperature (C)
bad
18. sample of battery voltage
o1

notes:

1. Onyx temperature #17 not working. Flagged "B"

Filename: vaa99003.dat

Station: Lake Vanda met station

Date of Establishment: November 24, 1994 by Peter Doran, rebuilt

Author of this report: Thomas Nylen

File Period: Oct 30, 1999 (303) @ 1515 to January 26, 2000 (26) @ 1115

Sampling Frequency: wind every 4 secs.; other every 30 secs.

Averaging and Output Interval: every 15 min

Program Name: vaa989-1 (???)

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
ok
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 309.46
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 10 cm in soil (C)
rclow
17. mean Onyx River temperature (C)
bad
18. sample of battery voltage
o1

notes:

1. Onyx temperature #17 not working. Flagged "B"
2. On January 26, 2000 (26) @ 942, replaced upward pyranometer. Old sensor is PY27929 and new sensor number is PY25306.
3. On January 26, 2000 (26) @ 1000, replaced Quantum. Old sensor number is Q23210 and new sensor number is Q17248.

4. On January 26, 2000 (26) @ 1021, replaced 207 air temperature probe with 107 temperature probe. Air temperature went from 0.56, measured with 207, to 0.47 C, measured with 107. The shield was raised from 2.7 meters to 2.8 meters above the ground. It is the highest the shield can go without interfering with wind monitor. The bar holding the pyranometer and wind monitor was also raised 10cm. The wind monitor is now 3m from the ground surface. The roughness of the surface is 20cm.
5. The soil temperatures and Onyx temperature wires were switched around to match the specifications in the new program. Flag intervals with logger errors.
6. On January 26, 2000 (26) @ 1100, downloaded file, vaa20001. At 1124, downloaded file, vaa20002.
7. On January 26, 2000 (26) @ 1130, uploaded and compiled new program, vaa990v1 was loaded.

Filename: via99001.dat

Station: Lake Vida met station

Date of Establishment: November 24, 1995 by Peter Doran

Author of this report: Thomas Nylen

File Period: Jan 21/99 (21) @ 1630

Sampling Frequency: wind every 4 secs.; others: every 30 secs.

Averaging and Output Interval: every 30 min

Program Name: via956-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 298.85
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 5 cm in soil (C)
rclow
17. mean soil temperature @ 10 cm in soil (C)
rclow
18. sample of battery voltage
o1

notes:

1. Quantum sensor S/N is Q20525, records say Q20525. Check in the field

Filename: via99002.dat

Station: Lake Vida met station

Date of Establishment: November 24, 1995 by Peter Doran

Author of this report: Thomas Nylen

File Period: Jan 21/99 (21) @ 1700 to October 30, 1999 @ 1600

Sampling Frequency: wind every 4 secs.; others: every 30 secs.

Averaging and Output Interval: every 30 min

Program Name: via956-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 298.85
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 5 cm in soil (C)
rclow
17. mean soil temperature @ 10 cm in soil (C)
rclow
18. sample of battery voltage
o1

notes:

1. Quantum sensor S/N is Q20525, records say Q20525. Check in the field

Filename: via99003.dat

Station: Lake Vida met station

Date of Establishment: November 24, 1995 by Peter Doran

Author of this report: Thomas Nylen

File Period: October 30, 1999 @ 1600 to January 26, 2000 (26) @ 1430

Sampling Frequency: wind every 4 secs.; others: every 30 secs.

Averaging and Output Interval: every 30 min

Program Name: via956-1

1. array I.D.
o1
2. day
ok
3. time
ok
4. mean air temp. @ 3 meters (C)
rclow
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)
o1
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 298.85
15. mean soil temperature @ 0 cm in soil (C)
rclow
16. mean soil temperature @ 5 cm in soil (C)
rclow
17. mean soil temperature @ 10 cm in soil (C)
rclow
18. sample of battery voltage
o1

notes:

1. On January 26, 2000 (26) @ 1309, replaced upward pyranometer. Old sensor is PY23250 and new sensor number is PY23271.
2. On January 26, 2000 (26) @ 1325, replaced downward pyranometer. Old sensor is PY23275 and new sensor number is PY20523.

3. On January 26, 2000 (26) @ 1345, replaced Quantum. Old sensor number is Q20526 and new sensor number is Q9916.
4. On January 26, 2000 (26) @ 1445, uploaded and compiled new program, via990v1 was loaded. The new RH probe started with the new program
5. The power plug was pulled out by accident around 1500 on January 26, 2000. Check data in next file.