Task list for 1994-95 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:

Filename: boy94001.dat

1. array I.D.
    omit from level 1 (o1)
2. date
    ok
3. time
    ok
4. mean P.A.R. (see note)
    divide by 19.008 then multiply by 312.97
5. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation (C)
    o1
6. mean 207 probe temp. using Campbell command 11 (C)
    o1
7. mean R.H. (%)
    ok
8. mean solar flux coming down (kW/m2)*10
    mulitply by 100 for W/m2
9. mean water vapor density (g/m3)*100
    divide by 100 for g/m3
10. mean mV reading from thermistor in 207 probe
    clow
11. sample of battery voltage
    o1
12. mean horizontal wind speed (m/s)
    ok
13. resultant mean wind speed (m/s)
    o1
14. resultant mean wind direction (degrees from north)
    ok
15. standard deviation of wind direction (degrees)
    ok
16. maximum wind speed (m/s)
    ok
17. maximum mV from thermistor in 207 probe
    clow
18. minimum mV from thermistor in 207 probe.
    clow

Notes: 1) Multiplier for P.A.R. is 19.008 which is wrong
2) At time of arrival my watch read 15:40, and CR10 time was 15:37
3) Station shut down for servicing at 16:16

Filename: boy94501.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    bad
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
18. mean liquid in Belfort precip gauge (mm)
    see notes, needs adjustment
19. mean horizontal wind speed (m/s)
    ok, flag
20. resultant mean wind speed (m/s)
    o1
21. resultant mean wind direction (degrees from north)
    ok
22. standard deviation of wind direction (degrees)
    ok, flag
23. maximum wind speed (m/s)
    ok, flag
24. minimum wind speed (m/s)
    ok, flag
25. maximum mV from thermistor in 207 probe
    clow

26. minimum mV from thermistor in 207 probe.
clow

*Notes: 1) New Belfort precip gage. Started without antifreeze. Two litres of antifreeze added ~midnight night of Nov 13 (317). Initial value around 50 mm
2) New soil thermistors at 0, 5 and 10 cm
3) Station started at 17:19, Nov 12
4) Downward pointing pyranometer not installed yet.
5) Bulk Richardson programmed, but no sensors. Ignore
6) P.A.R. multiplier is now correct
7) Standard deviation of wind direction (#22) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Data should be flagged.
8) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged

Filename: boy94502.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    bad until evening 332
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
18. mean liquid in Belfort precip gauge (mm)
    see notes, needs adjustment
19. mean horizontal wind speed (m/s)
    ok, flag
20. resultant mean wind speed (m/s)
    o1
21. resultant mean wind direction (degrees from north)
    ok
22. standard deviation of wind direction (degrees)
    ok, flag
23. maximum wind speed (m/s)
    ok, flag
24. minimum wind speed (m/s)
    ok, flag
25. maximum mV from thermistor in 207 probe
    clow

26. minimum mV from thermistor in 207 probe.
clow

*Notes: 1) Added more CaCl and oil to precip gage at start

2) Downward pointing pyranometer wired, but not mounted until evening of Nov 28 (332). Programmed wrong, ignore.

3) Bulk Richardson programmed, but no sensors. Ignore

4) Standard deviation of wind direction (#22) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

5) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged

Filename: boy94503.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    ok
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
18. mean liquid in Belfort precip gauge (mm)
    ok
19. mean horizontal wind speed (m/s)
    ok, flag
20. resultant mean wind speed (m/s)
    o1
21. resultant mean wind direction (degrees from north)
    ok
22. standard deviation of wind direction (degrees)
    ok, flag
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) Bulk Richardson programmed, but no sensors. Ignore
2) Downward pointing pyranometer now wired and programmed properly.
3) Wind speed claus that zeroed speeds below quoted threshold value, 0.9 m/s, removed.
4) Standard deviation of wind direction (#22) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

Filename: boy94504.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    ok
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
18. mean liquid in Belfort precip gauge (mm)
    ok
19. mean horizontal wind speed (m/s)
    ok
20. resultant mean wind speed (m/s)
    o1
21. resultant mean wind direction (degrees from north)
    ok
22. standard deviation of wind direction (degrees)
    ok, flag
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) Bulk Richardson programmed, but no sensors. Ignore
2) Standard deviation of wind direction (#22) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.
3) Program boy945-4 loaded at end of this interval to run for winter (new program changes p69 samples per sub-interval from 30 to 10)

Filename: caa94501.dat
File Period: Dec 1/94 (335) @ 15:40 to Dec 3/94 (337) @ 12:40
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   some bad; multiply good values by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   some bad
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    bad
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * mean sensible heat flux (W/m^2)
    bad for last timestep; remaining ok
17. mean latent heat flux (W/m^2)
    bad for last timestep; remaining ok
18. mean vertical wind speed (W)
    bad for last timestep; remaining ok
19. mean vertical temperature flux (T)
    bad for last timestep; remaining ok
20. mean vertical vapor flux (Vk)
    bad for last timestep; remaining ok
21. variance (W)
    bad for last timestep; remaining ok
22. variance (T)
    bad for last timestep; remaining ok

23. variance (Vk)
    bad for last timestep; remaining ok
24. covariance W-T
    bad for last timestep; remaining ok
25. covariance W-Vk
    bad for last timestep; remaining ok
26. evaporation rate (mm/20min)
    bad for last timestep; remaining ok
27. sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data available - process 16 on.

Filename: caa94502.dat
File Period: Dec 3/94 (337) @ 13:20 to Dec 7/94 (341) @ 16:40
Station: Canada Glacier met station Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   bad
7. mean air temp. @ 2 meters (C)
   bad
8. mean vapor pressure (kPa)
   bad
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    bad
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data not available - omit 16 on.

Filename: caa94503.dat
File Period: Dec 7/94 (341) @ 17:00 to Dec 12/94 (346) @ 11:20
Station: Canada Glacier met station Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec3

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean solar flux coming down (W/m^2)
    ok
11. mean solar flux going up (W/m^2)
    ok
12. mean net radiation (W/m^2)
    ok
13. mean saturation vapor pressure over ice (kPa)
    o1
14. mean saturation vapor pressure over water (kPa)
    o1
15. minimum wind speed (m/s)
    ok
16. maximum wind speed (m/s)
    ok
17. minimum air temperature (C)
    ok
18. maximum air temperature (C)
    ok
19. sample battery voltage
    o1

Notes

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. The program for this file is altered from that used for the rest of the files.
3. Eddy correlation data not available.

Filename: caa94503a.dat
File Period: Dec 12/94 (346) @ 11:40 to Dec 12/94 (346) @ 12:00
Station: Canada Glacier met station Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    bad
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data not available - omit 16 on.

Filename: caa94504.dat
File Period: Dec 12/94 (346) @ 12:40 to Dec 13/94 (347) @ 21:00
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    bad
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * mean sensible heat flux (W/m^2)
    bad for first and last timestep; remaining ok
17. mean latent heat flux (W/m^2)
    bad for first and last timestep; remaining ok
18. mean vertical wind speed (W)
    bad for first and last timestep; remaining ok
19. mean vertical temperature flux (T)
    bad for first and last timestep; remaining ok
20. mean vertical vapor flux (Vk)
    bad for first and last timestep; remaining ok
21. variance (W)
    bad for first and last timestep; remaining ok
22. variance (T)
    bad for first and last timestep; remaining ok

23. variance (Vk)
bad for first and last timestep; remaining ok
24. covariance W-T
bad for first and last timestep; remaining ok
25. covariance W-Vk
bad for first and last timestep; remaining ok
26. evaporation rate (mm/20min)
bad for first and last timestep; remaining ok
27. sample battery voltage
o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data available - process 16 on.

Filename: caa94505.dat
File Period: Dec 13/94 (347) @ 21:20 to Dec 19/94 (353) @ 15:00
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    bad
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data not available - omit 16 on.

Filename: caa94506.dat
File Period: Dec 19/94 (353) @ 15:20 to Dec 21/94 (355) @ 17:20
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2
(Note: this station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard)

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    bad
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * mean sensible heat flux (W/m^2)
    bad for first and last timesteps; remaining ok
17. mean latent heat flux (W/m^2)
    bad for first and last timesteps; remaining ok
18. mean vertical wind speed (W)
    bad for first and last timesteps; remaining ok
19. mean vertical temperature flux (T)
    bad for first and last timesteps; remaining ok
20. mean vertical vapor flux (Vk)
    bad for first and last timesteps; remaining ok
21. variance (W)
    bad for first and last timesteps; remaining ok

22. variance (T)
bad for first and last timesteps; remaining ok
23. variance (Vk)
bad for first and last timesteps; remaining ok
24. covariance W-T
bad for first and last timesteps; remaining ok
25. covariance W-Vk
bad for first and last timesteps; remaining ok
26. evaporation rate (mm/20min)
bad for first and last timesteps; remaining ok
27. sample battery voltage
o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data available - process 16 on.

Filename: caa94507.dat
File Period: Dec 21/94 (355) @ 17:40 to Jan 1/95 (1) @ 14:20
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    ok
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data not available - omit 16 on.

Filename: caa94508.dat
File Period: Jan 1/95 (1) @ 14:40 to Jan 3/95 (3) @ 9:00
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    ok
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. mean sensible heat flux (W/m^2)
    bad for first and last timesteps; remaining ok
17. mean latent heat flux (W/m^2)
    bad for first and last timesteps; remaining ok
18. mean vertical wind speed (W)
    bad for first and last timesteps; remaining ok
19. mean vertical temperature flux (T)
    bad for first and last timesteps; remaining ok
20. mean vertical vapor flux (Vk)
    bad for first and last timesteps; remaining ok
21. variance (W)
    bad for first and last timesteps; remaining ok
22. variance (T)
    bad for first and last timesteps; remaining ok

23. variance (Vk)
bad for first and last timesteps; remaining ok
24. covariance W-T
bad for first and last timesteps; remaining ok
25. covariance W-Vk
bad for first and last timesteps; remaining ok
26. evaporation rate (mm/20min)
bad for first and last timesteps; remaining ok
27. sample battery voltage
o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data available - process 16 on.

Filename: caa94509.dat
File Period: Jan 3/95 (3) @ 9:20 to Jan 7/95 (7) @ 13:20
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    ok
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data not available - omit 16 on.

Filename: caa94510.dat
File Period: Jan 7/95 (7) @ 13:40 to Jan 11/95 (11) @ 17:20
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    ok
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * mean sensible heat flux (W/m^2)
    bad for first timestep; remaining ok
17. mean latent heat flux (W/m^2)
    bad for first timestep; remaining ok
18. mean vertical wind speed (W)
    bad for first timestep; remaining ok
19. mean vertical temperature flux (T)
    bad for first timestep; remaining ok
20. mean vertical vapor flux (Vk)
    bad for first timestep; remaining ok
21. variance (W)
    bad for first timestep; remaining ok
22. variance (T)
    bad for first timestep; remaining ok

23. variance (Vk)
bad for first timestep; remaining ok
24. covariance W-T
bad for first timestep; remaining ok
25. covariance W-Vk
bad for first timestep; remaining ok
26. evaporation rate (mm/20min)
bad for first timestep; remaining ok
27. sample battery voltage
o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data available - process 16 on.

Filename: caa94511.dat
File Period: Jan 11/95 (11) @ 17:20 to Jan 18/95 (18) @ 13:20
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    ok
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data not available - omit 16 on.

Filename: caa94512.dat
File Period: Jan 18/95 (18) @ 13:40 to Jan 21/95 (21) @ 14:40
Station: Canada Glacier met station
Date of Establishment: Dec 1, 1994 by Gayle Dana
Author of this report: Karen Lewis
Sampling Frequency: every 1 seconds
Averaging and Output Interval: every 20 minutes
Program name: canec2

1. array I.D.
   o1
2. day
   ok
3. time
   ok
4. mean horizontal wind speed (m/s)
   ok
5. resultant mean wind direction (degrees from north)
   ok
6. mean rh @ 2 meters (%/100)
   multiply by 100 to standardize with LTER measurements
7. mean air temp. @ 2 meters (C)
   convert to mV, then clow
8. mean vapor pressure (kPa)
   ok
9. mean barometric pressure (mbar)
   ok
10. mean surface temperature (C)
    ok
11. mean solar flux coming down (W/m^2)
    ok
12. mean solar flux going up (W/m^2)
    ok
13. mean soil temperature (TCAV)
    bad
14. mean net radiation (W/m^2)
    ok
15. mean soil heat flux (W/m^2)
    bad
16. * sample battery voltage
    o1

*Notes:

1. This station and program both belong to Scott Tyler at DRI so they are slightly different than the LTER standard.
2. Eddy correlation data not available - omit 16 on.

Filename: coh94001.dat ** BIG PROBLEMS, SEE NOTES **

1. array I.D.
    o1
2. date
    ok
3. time
    ok
4. mean I.R. (kW/m2)*10
    multiply by 100 for W/m2
5. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation (C)
    o1
6. mean 207 probe temp. using Campbell command 11 (C)
    o1
7. mean R.H. (%)
    ok
8. mean solar flux coming down (kW/m2)*10
    mulitiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10
    mulitiply by 100 for W/m2
10. mean thermal infrared (C)
    ok?
11. mean water vapor density (g/m3)*100
    divide by 100 for g/m3
12. mean difference between up and down solar flux (kW/m2)*10
    multiply by 100 for W/m2
13. mean mV reading from thermistor in 207 probe
    clow
14. mean mV reading from shallow ice thermistor
    clow
15. mean mV reading from deep ice thermistor
    clow
16. sample of battery voltage
    o1
17. mean horizontal wind speed (m/s)
    ok
18. resultant mean wind speed (m/s)
    o1
19. resultant mean wind direction (degrees from north)
    ok
20. standard deviation of wind direction (degrees)
    ok
21. maximum wind speed (m/s)
    o1
22. maximum mV from thermistor in 207 probe
    clow
23. minimum mV from thermistor in 207 probe
    clow
24. sample of thermal infrared (C)
    ok?
25. maximum thermal infrared (C)
    ok?

26. minimum thermal infrared (C).
    ok?

Array Definition (141, every 24 hours):
1. array I.D.
    o1
2. daily thermal infrared maximum (C)
    o1
3. daily thermal infrared minimum (C).
    o1

*notes: 1) Big problems in this file. Thermal infra-red sensor was playing havoc with power, causing many out of range values (6999) by program's end. First -6999 appears in array for day 126 (May 6) @ 12:00. Bad arrays begin appearing daily soon after this, always at mid-day. By end of file the bad stuff has spread to cover the entire day.
2) Took CR10 away at end of this file. Replaced with new CR10 for start of next file.

Filename: coh94501.dat

1. array I.D.
    o1
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)
    o1
7. mean 207 probe temp. using Campbell command 11 (C)
    o1
8. mean R.H. (%)
    o1
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux coming up (W/m2)
    divide by 116.41 then multiply by 120.19
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
    o1
16. mean horizontal wind speed (m/s)
    ok, flag
17. resultant mean wind speed (m/s)
    o1
18. resultant mean wind direction (degrees from north)
    ok
19. standard deviation of wind direction (degrees)
    ok, flag
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) New CR10

2) Thermal infrared sensor disconnected. Disregard 24.

3) Downward pointing pyranometer multiplier is 116.41, should be 120.19

4) Standard deviation of wind direction (#19) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

5) Wind speeds < threshold (0.9 m/s) zeoed. Data should be flagged.

Filename: coh94502.dat

1. array I.D.
    o1
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)
    o1
7. mean 207 probe temp. using Campbell command 11 (C)
    o1
8. mean R.H. (%)
    o1
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux coming up (W/m2)
    ok
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
    o1
16. mean horizontal wind speed (m/s)
    ok, flag
17. resultant mean wind speed (m/s)
    o1
18. resultant mean wind direction (degrees from north)
    ok
19. standard deviation of wind direction (degrees)
    ok, flag
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) Thermal infrared sensor disconnected. Disregard 24.

2) Downward pointing pyranometer multiplier fixed

3) Standard deviation of wind direction (#19) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

4) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged

Filename: coh94503.dat

1. array I.D.
    o1
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)
    o1
7. mean 207 probe temp. using Campbell command 11 (C)
    o1
8. mean R.H. (%)
    o1
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux coming up (W/m2)
    ok
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
    o1
16. mean horizontal wind speed (m/s)
    o1
17. resultant mean wind speed (m/s)
    ok
18. resultant mean wind direction (degrees from north)
    ok
19. standard deviation of wind direction (degrees)
    ok, flag
20. maximum wind speed (m/s)
    ok
21. minimum wind speed (m/s)
    ok

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.

2) Wind speed claus that zeroed speeds below quoted threshold value, 0.9 m/s, removed.

3) New program loaded at 13:31

4) Standard deviation of wind direction (#19) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

5) Program coh945-4 loaded at end of this interval to run for winter (new program changes p69 samples per sub-interval from 30 to 10)

Filename: frl94001.dat

1. array I.D.
   o1
2. date
   ok
3. time
   ok
4. mean P.A.R. (see note)
   divide by 1.9008 then mulitply by 290.97
5. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation (C)
   o1
6. mean 207 probe temp. using Campbell command 11 (C)
   o1
7. mean R.H. (%)
   ok
8. mean solar flux coming down (kW/m2)*10
   multiply by 100 for W/m2
9. mean solar flux going up (kW/m2)*10
   multiply by 100 for W/m2
10. mean mast dT 1-3 m (C)
    ok
11. mean water vapor density (g/m3)*100
    divide by 100 for g/m3
12. bulk Richardson number * 1000
    ok
13. mean difference between up and down solar flux (kW/m2)*10
    mulitply by 100 for W/m2
14. mean mV reading from thermistor in 207 probe
    clow
15. sample of battery voltage
    o1
16. mean horizontal wind speed (m/s)
    ok
17. resultant mean wind speed (m/s)
    o1
18. resultant mean wind direction (degrees from north)
    ok
19. standard deviation of wind direction (degrees)
    ok
20. maximum wind speed (m/s)
    o1
21. maximum mV from thermistor in 207 probe
    clow
22. minimum mV from thermistor in 207 probe.
    clow

*Notes: 1) On arrival to station on Nov 28, my watch = 13:47, CR10 = 13:47.
2) Station shut down for upgrade and move at 13:48 on day 332
3) Multiplier for P.A.R. is 1.9008 & should be 290.97 for W/m2

Filename: frl94501.dat

1. array I.D.
    o1
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    ok
11. mean mV reading from thermistor 5 cm in soil
    bad
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
    bad
16. mean mV reading from thermistor in 207 probe
    clow
17. mean mV reading from thermistor 10 cm in soil
    bad
18. sample of battery voltage
    o1
19. mean horizontal wind speed (m/s)
    ok
20. resultant mean wind speed (m/s)
    o1
21. resultant mean wind direction (degrees from north)
    ok
22. standard deviation of wind direction (degrees)
    ok, flag
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) Soil thermistors not wired yet
2) New program (frl945-1) started at 16:30 on Nov 28 (332).
3) Wind threshold claus never programmed here
4) Standard deviation of wind direction (#22) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.
5) Multiplier for P.A.R. is 1.9008 & should be 290.97 for W/m2

Filename: frl94502.dat

1. array I.D.
    o1
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    ok
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
    clow
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
    o1
19. mean horizontal wind speed (m/s)
    ok
20. resultant mean wind speed (m/s)
    o1
21. resultant mean wind direction (degrees from north)
    ok
22. standard deviation of wind direction (degrees)
    ok, flag
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) Soil thermistors wired at approx 15:40 on Nov 30 (334)

2) Standard deviation of wind direction (#22) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

3) New program loaded (v.2) to run for winter (~10:20). Program changes p69 samples per sub-interval from 30 to 10.

4) Multiplier for P.A.R. is 1.9008 & should be 290.97 for W/m2

Filename: hod94001.dat

1. array I.D.
    o1
2. date
    ok
3. time
    ok
4. mean I.R. (kW/m2)*10
    mulitply by 100 for W/m2
5. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation (C)
    o1
6. mean 207 probe temp. using Campbell command 11 (C)
    o1
7. mean R.H. (%)
    ok
8. mean solar flux coming down (kW/m2)*10
    mulitply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10
    mulitply by 100 for W/m2
10. mean thermal infrared (C)
    bad
11. mean water vapor density (g/m3)*100
    divide by 100 for g/m3
12. mean difference between up and down solar flux (kW/m2)*10
    mulitply by 100 for W/m2
13. mean mV reading from thermistor in 207 probe
    clow
14. mean mV reading from shallow ice thermistor
    clow
15. mean mV reading from deep ice thermistor
    clow
16. sample of battery voltage
    o1
17. mean horizontal wind speed (m/s)
    ok
18. resultant mean wind speed (m/s)
    o1
19. resultant mean wind direction (degrees from north)
    ok
20. standard deviation of wind direction (degrees)
    ok
21. maximum wind speed (m/s)
    o1
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
25. maximum thermal infrared (C)
    bad

26. minimum thermal infrared (C).
    bad

Array Definition (141, every 24 hours):

1. array I.D.
    o1
2. daily thermal infrared maximum (C)
    o1
3. daily thermal infrared minimum (C).
    o1

*notes:
    1) Thermal infrared sensor not working, ignore #24, 25, 26, and 24 hour array

Filename: hod94501.dat

1. array I.D.
    o1
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)
    o1
7. mean 207 probe temp. using Campbell command 11 (C)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux coming up (W/m2)
    ok
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
    o1
16. mean horizontal wind speed (m/s)
    ok, flag
17. resultant mean wind speed (m/s)
    o1
18. resultant mean wind direction (degrees from north)
    ok
19. standard deviation of wind direction (degrees)
    ok, flag
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) New program loaded at 11:11

2) Standard deviation of wind direction (#19) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

3) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged

4) Thermal infrared sensor not working, ignore #24

Filename: hod94502.dat

1. array I.D.
    o1
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)
    o1
7. mean 207 probe temp. using Campbell command 11 (C)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux coming up (W/m2)
    ok
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
    o1
16. mean horizontal wind speed (m/s)
    ok, flag
17. resultant mean wind speed (m/s)
    o1
18. resultant mean wind direction (degrees from north)
    ok
19. standard deviation of wind direction (degrees)
    ok, flag
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) Standard deviation of wind direction (#19) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

2) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged

3) Program hod945-2 loaded at end of this interval to run for winter (new program changes p69 samples per sub-interval from 30 to 10 and eliminates zeroing of wind speeds less than instrument threshold of 0.9 m/s)

4) Thermal infrared sensor not working, ignore #24

Filename: hoe94001.dat

1. array I.D.
    o1
2. date
    ok
3. time
    ok
4. mean P.A.R. ((mMoles/s/m2))*10
    multiply by 100 for micromoles/s/m2
5. mean 207 probe temp calculated from mV output using Steinhart-Hart equation and used in R.H. calculation (C)
    o1
6. mean 207 probe temp. using Campbell command 11 (C)
    o1
7. mean R.H. (%)
    ok
8. mean solar flux coming down (kW/m2)*10
    multiply by 100 for W/m2
9. mean solar flux going up (kW/m2)*10
    multiply by 100 for W/m2
10. dTemp 1-3m (C)
    ok
11. mean water vapor density (g/m3)*100
    divide by 100 for g/m3
12. bulk Richardson number * 1000
    ok
13. mean difference between up and down solar flux (kW/m2)*10
    multiply by 100 for W/m2
14. mean mV reading from surface soil thermistor
    clow
15. mean mV reading from thermistor in 207 probe
    clow
16. mean mV reading from soil thermistor at 5 cm depth
    clow
17. mean mV reading from soil thermistor at 10 cm depth
    clow
18. sample of battery voltage
    o1
19. mean horizontal wind speed (m/s)
    ok
20. resultant mean wind speed (m/s)
    o1
21. resultant mean wind direction (degrees from north)
    ok
22. standard deviation of wind direction (degrees)
    ok
23. maximum wind speed (m/s)
    ok, flag
24. maximum mV from thermistor in 207 probe
    clow
25. minimum mV from thermistor in 207 probe.
    clow

*Notes: 1) Ladder under (to the side of) downward-pointing pyranometer most of Nov 17
2) Station shut down for upgrade 21:20 on Nov 18

Filename: hoe94501.dat

1. array I.D.
    o1
2. year
    ok
3. day
    add 321
4. time
    ok
5. mean P.A.R. ((mMoles/s/m2))*10
    multiply by 100 for micromoles/s/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)
    o1
8. mean R.H. (%)
    ok
9. mean wind speed
    bad
10. mean wind direction
    bad
11. mean solar flux coming down (kW/m2)*10
    ok
12. mean solar flux going up (kW/m2)*10
    ok
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
    clow
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
    o1
21. mean liquid in Belfort precip gage (mm)
    needs adjustment, see note
22. mean horizontal wind speed (m/s)
    ok, flag
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, flag

26. maximum wind speed (m/s)
    ok, flag
27. minimum wind speed (m/s)
    ok, flag
28. maximum mV from thermistor in 207 probe
    clow
29. minimum mV from thermistor in 207 probe.
    clow

*Notes: 1) Year and time set correctly, day was set to 1 because Julian calendar was not available. Needs to be adjusted (i.e. day 1 = day 322).
2) Station restarted at 23:19 on Nov 18
3) Removed 5 cm soil thermistor to make room for barometer
4) Precip gage started without antifreeze or being set to proper zero point. Nevertheless is operational.
5) Standard deviation of wind direction (#25) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.
6) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged
7) Wind speed and direction (#9 and #10) should be disregarded. They are not supposed to appear in those positions (programming error)

Filename: hoe94502.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. ((mMoles/s/m2))*10
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean wind speed
    bad
10. mean wind direction
    bad
11. mean solar flux coming down (kW/m2)*10
    ok
12. mean solar flux going up (kW/m2)*10
    ok
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
    clow
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
    o1
21. mean liquid in Belfort precip gage (mm)
    needs adjustment, see note
22. mean horizontal wind speed (m/s)
    ok
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, flag

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) Day set correctly.
2) Precip gage set to 30 mm empty and then antifreeze added @ 22:30 Dec 2/94
3) Claus zeroing wind speeds less than threshold removed
4) Wind speed and direction (#9 and #10) should be disregarded. They are not supposed to appear in those positions (programming error)
5) Wind speed claus that zeroed speeds below quoted threshold value, 0.9 m/s, removed.
6) Standard deviation of wind direction (#25) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

Filename: hoe94503.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. ((mMoles/s/m2))*10
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean wind speed
    bad
10. mean wind direction
    bad
11. mean solar flux coming down (kW/m2)*10
    ok
12. mean solar flux going up (kW/m2)*10
    ok
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
    clow
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
    o1
21. mean liquid in Belfort precip gage (mm)
    ok
22. mean horizontal wind speed (m/s)
    ok
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, flag

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)

2) Standard deviation of wind direction (#25) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

Filename: hoe94504.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. ((mMoles/s/m2))*10
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean wind speed
    bad
10. mean wind direction
    bad
11. mean solar flux coming down (kW/m2)*10
    ok
12. mean solar flux going up (kW/m2)*10
    ok
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
    clow
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
    o1
21. mean liquid in Belfort precip gage (mm)
    ok
22. mean horizontal wind speed (m/s)
    ok
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, flag

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)

2) Standard deviation of wind direction (#25) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.

Filename: hoe94505.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. ((mMoles/s/m2))*10
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean wind speed
    bad
10. mean wind direction
    bad
11. mean solar flux coming down (kW/m2)*10
    ok
12. mean solar flux going up (kW/m2)*10
    ok
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
    clow
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
    o1
21. mean liquid in Belfort precip gage (mm)
    ok
22. mean horizontal wind speed (m/s)
    ok
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)
2) Program v.3 loaded @ 13:44
3) New program changes p69 samples per sub-interval from 30 to 10.

Filename: tar94501.dat

1. array I.D.
    o1
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux coming up (W/m2)
    ok
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
    o1
16. mean horizontal wind speed (m/s)
    ok, flag
17. resultant mean wind speed (m/s)
    o1
18. resultant mean wind direction (degrees from north)
    ok
19. standard deviation of wind direction (degrees)
    ok, flag
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
3) Standard deviation of wind direction (#19) is calculated from 30 samples per sub-interval in a 30 sec/20 min sampling/output configuration. Should be flagged.
4) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged
5) Program tar945-2 loaded at end of this interval to run for winter (new program changes p69 samples per sub-interval from 30 to 10 and eliminates zeroing of wind speeds less than instrument threshold of 0.9 m/s)

Filename: vaa94501.dat

1. array I.D.
    o1
2. year
    ok
3. day
    subtract 1
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    bad
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
17. mean horizontal wind speed (m/s)
    ok, flag
18. resultant mean wind speed (m/s)
    o1
19. resultant mean wind direction (degrees from north)
    ok
20. standard deviation of wind direction (degrees)
    ok
21. maximum wind speed (m/s)
    ok, flag
22. minimum wind speed (m/s)

    ok, flag
23. maximum mV from thermistor in 207 probe
    clow
24. minimum mV from thermistor in 207 probe.
    clow

*notes: 1) Day of year is one day greater than it should be (i.e. first day should be 328)

2) Downward-pointing pyranometer is wired and running but not mounted properly, ignore.

3) Wind speeds < threshold (0.9 m/s) zeroed. Data should be flagged

Filename: vaa94502.dat

1. array I.D.
    o1
2. year
    ok
3. day
    subtract 1
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    bad
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
17. mean horizontal wind speed (m/s)
    ok
18. resultant mean wind speed (m/s)
    o1
19. resultant mean wind direction (degrees from north)
    ok
20. standard deviation of wind direction (degrees)
    ok
21. maximum wind speed (m/s)
    ok
22. minimum wind speed (m/s)

    ok
23. maximum mV from thermistor in 207 probe
    clow
24. minimum mV from thermistor in 207 probe.
    clow

*notes: 1) Day of year is one day greater than it should be (i.e. first day should be 328)

2) Downward-pointing pyranometer is wired and running but not mounted properly, ignore.

3) Wind speed claus that zeroed speeds below quoted threshold value, 0.9 m/s, removed. Program changed by keypad.

Filename: vaa94503.dat

1. array I.D.
    o1
2. year
    ok
3. day
    subtract 1
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    bad
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
17. mean horizontal wind speed (m/s)
    ok
18. resultant mean wind speed (m/s)
    o1
19. resultant mean wind direction (degrees from north)
    ok
20. standard deviation of wind direction (degrees)
    ok
21. maximum wind speed (m/s)
    ok
22. minimum wind speed (m/s)

    ok
23. maximum mV from thermistor in 207 probe
    clow
24. minimum mV from thermistor in 207 probe.
    clow

*notes: 1) Day of year is one day greater than it should be (i.e. first day should be 329)
2) Downward-pointing pyranometer is wired and running but not mounted properly, ignore.

Filename: vaa94504.dat

1. array I.D.
    o1
2. year
    ok
3. day
    ok
4. time
    ok
5. mean P.A.R. (micromols/s/m2)
    ok
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)
    o1
8. mean R.H. (%)
    ok
9. mean solar flux coming down (W/m2)
    ok
10. mean solar flux going up (W/m2)
    ok
11. mean mV reading from thermistor 5 cm in soil
    clow
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
    o1
17. mean horizontal wind speed (m/s)
    ok, flag
18. resultant mean wind speed (m/s)
    o1
19. resultant mean wind direction (degrees from north)
    ok
20. standard deviation of wind direction (degrees)
    ok
21. maximum wind speed (m/s)
    ok, flag
22. minimum wind speed (m/s)

    ok, flag
23. maximum mV from thermistor in 207 probe
    clow
24. minimum mV from thermistor in 207 probe.
    clow

*notes: 1) Day of year fixed

2) Downward-pointing pyranometer running okay.

3) Collected data at 16:08

4) Moved position of river thermistor to closer location on Jan 20.

5) 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.