Task list for files retrieved from Dry Valley met stations, 1993/94 field season. 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: bonsum1.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean P.A.R. (see note),
   divide by 19.008 and multiply by 312.97 to get μmols/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 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),
    o1
17. maximum mV from thermistor in 207 probe,
    clow
18. minimum mV from thermistor in 207 probe.
    clow

Notes: This station was initially built on the ice cover and over the period of this file listed to the point that we decided to move it to shore. Some attempt was made to right the station during this period. The move of the station was done using the ATV with the station still running. The move began at 14:50 and ended at 15:06. Data collected after 15:06 were done so with the station in it's final position. Clock synchronized with Priscu's logger measuring light on Nov 26 in afternoon.

PAR multiplier wrong. Is 19.008 & should be 312.97 for umols/s/m2

Filename: bonsum2.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean P.A.R. (see note),
   divide by 19.008 and multiply by 312.97 to get μmols/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 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),
    o1
17. maximum mV from thermistor in 207 probe,
    clow
18. minimum mV from thermistor in 207 probe.
    clow

*Notes: PAR multiplier wrong. Is 19.008 & should be 312.97 for umols/s/m2

Filename: cwlthsm1.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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, flag
8. mean solar flux coming down (kW/m2)*10,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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,
    multiply by 100 for W/m2
13. mean mV reading from thermistor in 207 probe,
    clow
14. sample of battery voltage,
    o1
15. mean horizontal wind speed (m/s),
    ok
16. resultant mean wind speed (m/s),
    o1
17. resultant mean wind direction (degrees from north),
    ok
18. standard deviation of wind direction (degrees),
    ok
19. maximum wind speed (m/s),
    o1
20. maximum mV from thermistor in 207 probe,
    clow
21. minimum mV from thermistor in 207 probe,
    clow
22. sample of thermal infrared (C),
    bad
23. maximum thermal infrared (C),
    bad
24. minimum thermal infrared (C).
    bad

Notes: Relative Humidity (point 7) may be marginally off since it is using the temperature from the previous 30 second interval. Thermal infrared sensor not powered up, therefore do not use data points 10, 22, 23, or 24.

Filename: cwlthsm2.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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. sample of battery voltage,
    o1
15. mean horizontal wind speed (m/s),
    ok
16. resultant mean wind speed (m/s),
    o1
17. resultant mean wind direction (degrees from north),
    ok
18. standard deviation of wind direction (degrees),
    ok
19. maximum wind speed (m/s),
    o1
20. maximum mV from thermistor in 207 probe,
    clow
21. minimum mV from thermistor in 207 probe,
    clow
22. sample of thermal infrared (C),
    ok?
23. maximum thermal infrared (C),
    ok?
24. minimum thermal infrared (C).
    ok?

Filename: cwlthsm3.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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. sample of battery voltage,
   o1
15. mean horizontal wind speed (m/s),
   ok
16. resultant mean wind speed (m/s),
   o1
17. resultant mean wind direction (degrees from north),
   ok
18. standard deviation of wind direction (degrees),
   ok
19. maximum wind speed (m/s),
   o1
20. maximum mV from thermistor in 207 probe,
   clow
21. minimum mV from thermistor in 207 probe,
   clow
22. sample of thermal infrared (C),
   ok?
23. maximum thermal infrared (C),
   ok?
24. minimum thermal infrared (C).
   ok?

Filename: cwlthsm4.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for w/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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

Filename: cwlthsm5.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for w/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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

Filename: fryicesm.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean P.A.R. (see note),
   divide by 19.008 and multiply by 290.97 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 water vapor density (g/m3)*100,
   divide by 100 for g/m3
9. mean mV reading from thermistor in 207 probe,
   clow
10. sample of battery voltage,
    o1
11. mean horizontal wind speed (m/s),
    ok
12. resultant mean wind speed (m/s),
    o1
13. resultant mean wind direction (degrees from north),
    ok
14. standard deviation of wind direction (degrees),
    ok
15. maximum wind speed (m/s),
    o1
16. maximum mV from thermistor in 207 probe,
    clow
17. minimum mV from thermistor in 207 probe.
    clow

Notes: This station was a 6 foot tower built by Rich Harnish in 1989? It hadn't collected data for at least a year when rebuilt. When I arrived it was severely listing and no program was running. The problem was undoubtedly power related since the battery was under water and the voltage was less than 5. I righted the station, and rebuilt with new power supply, new wind monitor, new CR10, new solar panel, and added a quantum sensor. The under water light sensors were not hooked up again nor was the barometric pressure sensor.

PAR multiplier is wrong. Is 19.008 & should be 290.97

Filename: fryldsm1.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean P.A.R. (see note),
   divide by 1.9008 and multiply by 290.97 for μmols/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,
    divide by 1000
13. mean difference between up and down solar flux (kW/m2)*10,
    multiply 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: This station was the one on the lake ice. It was decided that the maintenance of the record at Gary Clow's site was more important than the ice station so the ice station was simply moved to shore at the site of the old Fryxell land station that had been destroyed by the wind over winter. The station is the same as the ice station, except an up & downward pointing pyranometer and a differential

temperature setup was added. The station is still based on a 6 foot tripod which sets it apart from the other Taylor Valley stations (a 10 foot tower will be installed in year 2).

PAR multiplier is wrong. Is 1.9008 & should be 290.97 for umols/s/m2

Filename: fryldsm2.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean P.A.R. (see note),
   divide by 1.9008 and multiply by 290.97 for μmols/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,
    divide by 1000
13. mean difference between up and down solar flux (kW/m2)*10,
    multiply 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: This station was the one on the lake ice. It was decided that the maintenance of the record at Gary Clow's site was more important than the ice station so the ice station was simply moved to shore at the site of the old Fryxell land station that had been destroyed by the wind over winter. The station is the same as the ice station, except an up & downward pointing pyranometer and a differential

temperature setup was added. The station is still based on a 6 foot tripod which sets it apart from the other Taylor Valley stations (a 10 foot tower will be installed in year 2).

PAR multiplier is wrong. Is 1.9008 & should be 290.97

Filename: horsum.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean P.A.R. (mE/s/m2)*10,
   multiply by 100 to get µmols/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,
    divide by 1000
13. mean difference between up and down solar flux (kW/m2)*10,
    multiply by 100 for W/m2
14. mean mV reading from thermistor in 207 probe,
    clow
15. mean mV reading from soil thermistor at 10 cm depth
    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

Notes: The shift to 10 minute averages caught me by surprise and
unfortunately the data collected between Dec 1 and Dec 18 was overwritten. This station relaces the old one

at Lake Hoare. The new station is approximately 20 feet away from the old station, uphill. Some of the old equipment was used in the new station with the exception of: 1) new power system (battery, regulator, solar panel), 2) new R.M. Young wind monitor replaces met one equipment, 3) new humidity transducer, 4) added downward-pointing pyranometer, 5) added soil probe at 10 cm depth, 6) replace differential temperature setup so that it is measuring dt between 1 and 3 meters. This station was started at exactly 1:21 on Dec 1, the early data was overwritten as stated above.

Filename: howrdsm1.raw

1. array I.D.,
   o1
2. date,
   see note
3. time,
   see note
4. mean I.R. (purgeometer output)(kW/m2)*10,
   bad
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. (%),
   bad
8. mean solar flux coming down (kW/m2)*10,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply by 100 for W/m2
10. mean thermal infrared (C),
    bad
11. mean water vapor density (g/m3)*100,
    bad
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. sample of battery voltage,
    o1
15. mean horizontal wind speed (m/s),
    ok
16. resultant mean wind speed (m/s),
    o1
17. resultant mean wind direction (degrees from north),
    ok
18. standard deviation of wind direction (degrees),
    ok
19. maximum wind speed (m/s),
    o1
20. maximum mV from thermistor in 207 probe,
    clow
21. minimum mV from thermistor in 207 probe,
    clow
22. sample of thermal infrared (C),
    bad
23. maximum thermal infrared (C),
    bad
24. minimum thermal infrared (C).
    bad

Notes: Clock was not set at the beginning of this file so time
starts at zero. Based on my field notes I can guess that time zero is 16:30 on November 20 plus or minus 15 minutes. Purgeometer was not working during the creation of this file (data point 4). Also temperature subroutine not working which calculates temperature using Steinhart-Hart equation. This affects the relative humidity value (because it is this temperature that is used to calculate R.H). Therefore data points 5,7 and 11 are not useable (although it would be possible to back recalculate R.H. using data point 6 as an approximation of temperature).
Summary: points 4,5,7, and 11 are flawed. TIR sensor not working therefore points 10, 22, 23, and 24 to be ignored

Filename: howrdsm2.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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,
    multiply by 100 for W/m2
13. mean mV reading from thermistor in 207 probe,
    clow
14. sample of battery voltage,
    o1
15. mean horizontal wind speed (m/s),
    ok
16. resultant mean wind speed (m/s),
    o1
17. resultant mean wind direction (degrees from north),
    ok
18. standard deviation of wind direction (degrees),
    ok
19. maximum wind speed (m/s),
    o1
20. maximum mV from thermistor in 207 probe,
    clow
21. minimum mV from thermistor in 207 probe,
    clow
22. sample of thermal infrared (C),
    bad
23. maximum thermal infrared (C),
    bad
24. minimum thermal infrared (C).
    bad

Notes: TIR sensor not working therefore points 10, 22, 23, and 24 to be ignored

Filename: howrdsm3.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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,
    multiply by 100 for W/m2
13. mean mV reading from thermistor in 207 probe,
    clow
14. sample of battery voltage,
    o1
15. mean horizontal wind speed (m/s),
    ok
16. resultant mean wind speed (m/s),
    o1
17. resultant mean wind direction (degrees from north),
    ok
18. standard deviation of wind direction (degrees),
    ok
19. maximum wind speed (m/s),
    o1
20. maximum mV from thermistor in 207 probe,
    clow
21. minimum mV from thermistor in 207 probe,
    clow
22. sample of thermal infrared (C),
    bad
23. maximum thermal infrared (C),
    bad
24. minimum thermal infrared (C).
    bad

Notes: TIR sensor not working therefore points 10, 22, 23, and 24 to be ignored.

Filename: howrdsm4.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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,
    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),
    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: TIR sensor not working therefore points 10, 22, 23, and 24 to be ignored.

Filename: howrdsm5.raw

1. array I.D.,
   o1
2. date,
   ok
3. time,
   ok
4. mean I.R. (purgeometer output)(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,
   multiply by 100 for W/m2
9. mean solar flux coming up (kW/m2)*10,
   multiply 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,
    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),
    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: TIR sensor not working therefore points 10, 22, 23, and 24 to be ignored.