

Daily status, July 7

AHATS daily status 7/07/08

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Summary: Yesterday we deployed pressure-1 after lunch and pressure-2 around 20:30 PDT. Pressure-1 serves 3b-6b and 5t-7t, but pressure-2 had only 5 new filter boards, serving 7b-9b and 8t-9t. Unfortunately the temperature channel on 9b is noisy. Gordon finished the final two filter boards this morning and installed them in pressure-2. The bad filter board was removed, leaving 11b currently not connected.

We will count July 7 12:30 PDT as the new start of (good) operations.

A tentative revised configuration schedule would be:

Config	z (m)	S (m)	Dates	Length
1	3-4	4	7/7-15	8 days
2	3-4	1.3	7/18-25	7 days
3	7-8	1.3	7/25-31	7 days
4	7-8	0.43	8/3-9	7 days

Gordon replaced the serial board in the upwind adam, which should eliminate the outages we have been experiencing there.

For more details, see the ahats logbook at <https://wiki.ucar.edu/display/ahatslogbook>

Good wind direction: For the period 6/25 17:00 through 7/7 13:00, we have 121.17 hours of data periods of length 20 minutes or longer with wind directions from 295-355 degrees. This includes 92.67 hours of periods longer than one hour and equates to good wind direction periods 43% of the time. Sorted by stability, there are 61.08 hours of stable stratification ($\langle w'tc' \rangle < 0$) and 58.67 hours of unstable stratification.

Profiles:

diag: ok
samples.sonic: ok
spd: ok
dir: ok
w: ok
tc: ok
sigma_w/u*: ok (1.3 at night)
u*: ok
w'tc': ok
T: ok
RH: 4m may be low by less than 1% RH
P: okay

Upwind (hts=3.5):

(+/- = ~1 std deviation)
missing sonics 5u-11u 1:10 - 09:00, July 6
missing sonics 5u-11u 20:10 July 6 - 07:40 July 7

diag: ok
samples.sonic: ok
spd: ok, +/- 17 cm/s (6u has +15 cm/s offset in u)
dir: ok, +/- 5 deg
w: ok, +/- 6 cm/s
tc: ok, +/- 0.2 deg
w'w': ok, +/- 0.01 m²/s² (30 min avg for second moments)
u*: ok, +/- 5 cm/s
sigma_w/u*: ok (1.3 at night)
w'tc': ok, +/- 0.02 m/s degC
tc'tc': ok, +/- 0.06 degC²

Lower (hts=3):

upwind2 stopped 9:10-11:30, July 6; missing sonics 9b-13b

diag: ok
samples.sonic: ok
spd: ok, +/- 20 cm/s
dir: ok, +/- 6 deg
w: ok, +/- 5 cm/s
tc: ok, +/- 0.27 deg
w'w': ok, +/- 0.01 m²/s² (30 min avg for second moments)
u*: ok, +/- 4 cm/s
sigma_w/u*: ok (1.3 at night)
w'tc': ok, +/- 0.02 m/s degC
tc'tc': ok, +/- 0.1 degC²

Upper (hts=4):

upwind2 stopped 9:10-11:30, July 6; missing sonics 7t-11t

diag: ok
samples.sonic: ok
spd: ok, +/- 17 cm/s
dir: ok, +/- 5 deg; 6t is about 6.5 degrees off from profile sonic
w: ok, +/- 6 cm/s
tc: ok, +/- 0.2 deg
w'w': ok, +/- 0.01 m²/s² (30 min avg for second moments)
u*: ok, +/- 4 cm/s
sigma_w/u*: ok (1.3 at night)
w'tc': ok, +/- 0.02 m/s degC
tc'tc': ok, +/- 0.05 degC²