

Daily status, July 21

AHATS daily status 7/21/08

Staff: Semmer, Oncley, Knguyen, Tudor with ISS

Horst has just left for a well-deserved break...

Max temp: only 89F and min 59F yesterday! (with broken clouds)

- An extension of AHATS operations for 6 additional days has been approved.

- As of 16:00 yesterday afternoon, we are now in configuration #2.

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

Good wind direction: Winds turned perfect at 10pm last night, so we now are in a 13-hour period of good data (obviously both stable and unstable).

Local data storage: (all now quite low)

```
-----
root@upwind root# df | grep usb
/dev/sda1      57685532 2453532 55232000 4% /var/tmp/usbdisk
root@downwind1 root# df | grep usb
/dev/sda1      57685532 2745012 54940520 5% /var/tmp/usbdisk
root@downwind2 root# df | grep usb
/dev/sda1      57685532 3164908 54520624 5% /var/tmp/usbdisk
root@profile root# df | grep usb
/dev/sda1      57685532 2109752 55575780 4% /var/tmp/usbdisk
root@pressure1 root# df | grep usb
/dev/sda1      3940812 317660 3623152 8% /var/tmp/usbdisk
root@pressure2 root# df | grep usb
/dev/sda1      3940812 312264 3628548 8% /var/tmp/usbdisk
aster: df | grep isff2
/dev/sdb1      721075720 242010508 479065212 34% /media/isff2
isff: df | grep isff3
/dev/sdb1      961432072 367926356 593505716 39% /media/isff3
```

Pressure:

Has been running since late 19 Jul. when set into configuration #2
(+/- = ~1 std deviation among variables at the same height)

9t connector in box loosened -- fixed yesterday afternoon,

p: ok, +/- 0.03 mb

p'p': ok, +/- 0.001 mb²

w'p': ok, +/- 0.002 m/s mb

t: 6b&6t are outliers by 5degC now, others +/- 1.5 degC

Pref: now steadily drifting low -- might be cooling of the reservoir
(which was reburied Sat morning -- 2 days ago), but looks strange.
now 11mb below ambient.

Profile: [,select.p]

Has been running since late 18 Jul. when set into configuration #2

diag: ok, recent spikes on 13b when Y-cable added to 3m profile

samples.sonic: ok

T: ok

RH: 4m is low by up to 2% RH -- we'll swap in a spare

P: okay

spd: ok?, 8m generally lower than 7m

dir: ok

w: ok

tc: ok, 8m low by ~0.3 degC?

w'w': ok

u*: ok

sigma_w/u*: ok (1.3 at night)

w'tc': ok

h2o: now okay after swapping Li7500s, offset of ~1.3 from dat("Q")

w'h2o': ok, 0.02 m/s g/m³ at midday

co2: ok, 15 mmol/m³

w'co2': ok, -0.01 m/s mmo/m³ at midday

Upwind (hts=3.3): [,select.u]

Has been running since late 18 Jul. when set into configuration #2

Sonics were moved in height yesterday morning.
diag: ok, spikes during move
samples.sonic: ok, drops during move
spd: ok, +/- 10 cm/s, suggestion of systematic differences
dir: ok, mean offsets of up to 13deg -- need to enter new Vazimuths??
w: ok, +/- 5 cm/s
tc: ok, +/- 0.2 deg, 4u changed offset by -0.3degC since move -- perhaps it got bumped?
w'w': ok, +/- 0.005 m²/s² (30 min avg for second moments)
u*: ok, +/- 3 cm/s
sigma_w/u*: ok (1.3 at night)
w'tc': ok, +/- 0.01 m/s degC, again systematic??
tc'tc': ok, +/- 0.05 degC², again systematic??

Downwind Lower (hts=3.3): [,select.b]

Has been running since mid 20 Jul. when set into configuration #2

diag: ok
samples.sonic: ok
spd: ok, +/- 30 cm/s
dir: ok, +/- 3 deg, offsets now smaller than config #1??
w: ok, +/- 15 cm/s, now larger deviations and systematic negative bias, consistent with being on horizontal array now, droop ~2 deg
tc: ok, +/- 0.2 deg
w'w': ok, +/- 0.01 m²/s² (30 min avg for second moments)
u*: ok, +/- 2 cm/s
sigma_w/u*: ok (1.3 at night)
w'tc': ok, +/- 0.02 m/s degC
tc'tc': ok, +/- 0.05 degC²

Downwind Upper (hts=4.3): [,select.t]

Has been running since mid 19 Jul. when set into configuration #2

diag: ok
samples.sonic: ok
spd: ok, +/- 10 cm/s
dir: ok, +/- 2 deg; more consistent now that on the horiz array, 6t at one extreme
w: ok, +/- 5 cm/s
tc: ok, +/- 0.2 deg
w'w': ok, +/- 0.01 m²/s² (30 min avg for second moments)
u*: ok, +/- 2 cm/s
sigma_w/u*: ok (1.3 at night)
w'tc': ok, +/- 0.005 m/s degC
tc'tc': ok, +/- 0.05 degC²
