

# Daily status aug 10

AHATS status 8/10/08

Staff: Militzer, Oncley, Nguyen, Verstraete with ISS.

Temps: 94F/57F yesterday

Activity highlights:

- now in array4!!!

For more details, see the ahats logbook at <https://wiki.ucar.edu/display/ahatslogbook> ...but [wiki.ucar.edu](https://wiki.ucar.edu) has been down this weekend...

Good wind direction:

array#3 (jul 29 12:30 - aug 8 06:00) had 66 hours (13 unstable, 53 stable).  
array#4 (aug 9 18:00 - present) has 8 hours (0 unstable, 8 stable).

Local data storage: (we downloaded everything on 30 July)

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upwind: [DOWN -- we'll reset today \(WiFi data okay\)](#)  
downwind1:/dev/sda1 57685532 7813940 49871592 14% /var/tmp/usbdisk  
downwind2:/dev/sda1 57685532 7655580 50029952 13% /var/tmp/usbdisk  
profile:/dev/sda1 57685532 6183912 51501620 11% /var/tmp/usbdisk  
pressure1:/dev/sda1 3940812 1666816 2273996 42% /var/tmp/usbdisk  
pressure2:/dev/sda1 3897204 1397804 2499400 36% /var/tmp/usbdisk

aster:/dev/sdb1 721075720 447126872 273948848 63% /media/isff2  
isff:/dev/sdb1 1922890480 627207052 1198006224 35% /media/isff15

Pressure:

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(+/- = ~1 std deviation among variables at the same height)

11.b now measuring p with the 202BG connected between the Bedard port and CHATS reference. P.0m [poor name](#) now is the portable Paroscientific standard with reasonable resolution, but low sampling rate.

p: ok, +/- 0.03 mb [plot scale too large to tell](#)  
p'p': ok, +/- 0.0001 mb^2 [small but perhaps okay -- only stable data to look at](#)  
w'p': ok, +/- 0.001 m/s mb  
t: ok, 1 degC  
Pref: ok, reconnected to volume at start of this config.  
P: ok

Profile: [.select.p](#)

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Was kept on during reconfig. Heights of sensors are the same.

T: ok  
RH: sensor that is at 5.8m is up to 2% off. Didn't change throughout array #3 period, now is not important in array #4.

h2o: normal, 2 g/m^3 offset from dat("Q"), except in afternoon.  
w'h2o': ok, 0.025 m/s g/m^3 at midday  
co2: ok, 14-17 mmol/m^3 (some nights have large values, some don't)  
w'co2': ok, -0.01 m/s mmo/m^3 at midday

diag: ok? spikes in 4.8m.  
samples.sonic: ok  
spd: ok?, 8m now mostly higher than 7m, but could mean 8m is too high (after swap)  
We proved that the WiFi antenna was not bothering it...  
dir: ok  
w: ok  
tc: ok, still strange 7m/8m ordering.  
w'w': ok  
u\*: ok, some imaginary values with light winds  
sigma\_w/u\*:  
w'tc': ok (lowest near the ground?)  
tc'tc': ok

Upwind: [.select.u](#)

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diag: ok, 6u spikes  
samples.sonic: ok  
spd: ok, +/- 20 cm/s  
dir: ok, obviously need new angles  
w: ok, +/- 5 cm/s, 11u differs a bit  
tc: ok, +/- 0.2 deg, biases somewhat larger  
w'w': ok, +/- 0.005 m<sup>2</sup>/s<sup>2</sup> (30 min avg for second moments)  
u\*: ok, +/- 2 cm/s, some imaginary  
sigma\_w/u\*:  
w'tc': ok, +/- 0.01 m/s degC  
tc'tc': ok, +/- 0.05 degC<sup>2</sup>

Downwind Lower: [.select.b](#)

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Relatively large differences with east winds.

diag: ok  
samples.sonic: ok  
spd: ok, +/- 20 cm/s, 13b outlier early this morning  
dir: ok, need new boom angles  
w: ok, +/- 5 cm/s, pitched up a bit (we tightened it a bit too much)  
tc: ok, +/- 0.2 deg, biases up to +/-0.8  
w'w': ok, +/- 0.01 m<sup>2</sup>/s<sup>2</sup> (30 min avg for second moments)  
u\*: ok, +/- 2 cm/s, some imaginary  
sigma\_w/u\*:  
w'tc': ok, +/- 0.01 m/s degC  
tc'tc': ok, +/- 0.05 degC<sup>2</sup>

Downwind Upper: [.select.t](#)

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diag: ok  
samples.sonic: ok  
spd: ok, +/- 10 cm/s, 11t/10t differences (like 13b/12b above)  
dir: ok, +/- 2 deg, need boom angles  
w: ok, +/- 5 cm/s, a bit pitched up as well  
tc: ok, +/- 0.2 degC, offsets up to 0.6 degC  
w'w': ok, +/- 0.01 m<sup>2</sup>/s<sup>2</sup> (30 min avg for second moments)  
u\*: ok, +/- 2 cm/s, som imaginary  
sigma\_w/u\*:  
w'tc': ok, +/- 0.01 m/s degC  
tc'tc': ok, +/- 0.05 degC<sup>2</sup>

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