

Daily status, July 22

AHATS daily status 7/22/08

Staff: Semmer, Oncley, Knguyen, Tudor with ISS
Temps: 92F/57F yesterday

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

Good wind direction: Now have almost 26 hours of data (10 unstable, 16 stable) in this configuration. We're already half way!

Local data storage: (all now quite low)

upwind:/dev/sda1 57685532 3898500 53787032 7% /var/tmp/usbdisk
downwind1:/dev/sda1 57685532 4346968 53338564 8% /var/tmp/usbdisk
downwind2:/dev/sda1 57685532 5086676 52598856 9% /var/tmp/usbdisk
profile:/dev/sda1 57685532 3163852 54521680 5% /var/tmp/usbdisk
pressure1:/dev/sda1 3940812 651032 3289780 17% /var/tmp/usbdisk
pressure2:/dev/sda1 3940812 645516 3295296 16% /var/tmp/usbdisk

aster:/dev/sdb1 721075720 248687612 472388108 35% /media/isff2
isff:/dev/sdb1 961432072 374897584 586534488 39% /media/isff3

replacement for isff3 should be at Hanford by now.

Pressure:

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

The spectra I looked at yesterday were strange. I have to look at more examples to figure out what is wrong. It could simply be turbulent wakes in this configuration.

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 during day, others +/- 1.5 degC

(may be orientation of sun shields?)

Pref: still steadily drifting low, though a bit of a diurnal cycle now.

(might be cooling of the reservoir)

now 14mb below ambient.

Profile: [,select.p]

T: ok

RH: 4m RH swapped, but left cap on! Now ok?

P: okay

diag: ok

samples.sonic: ok

spd: ok?, 8m generally lower than 7m (sensors are in correct position)

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: ok?, 2 g/m³ offset from dat("Q"), except in afternoon. (Does a light leak help??)

w'h2o': ok, 0.03 m/s g/m³ at midday

co2: ok, 15 mmol/m³

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

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

diag: ok

samples.sonic: ok

spd: ok, +/- 10 cm/s

dir: ok, mean offsets of up to 13deg -- need to enter new Vazimuths??

w: ok, +/- 5 cm/s

tc: ok, +/- 0.2 deg,

w'w': ok, +/- 0.005 m²/s² (30 min avg for second moments)

u*: ok, +/- 3 cm/s, imaginary during light winds this afternoon

sigma_w/u*: ok (1.3 at night)

w'tc': ok, +/- 0.01 m/s degC

tc'tc': ok, +/- 0.05 degC²

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

diag: ok
samples.sonic: ok
spd: ok, +/- 30 cm/s
dir: ok, +/- 3 deg
w: ok, +/- 15 cm/s [need to check tilt angles]
tc: ok, +/- 0.2 deg
w'w': ok, +/- 0.01 m²/s² (30 min avg for second moments)
u*: ok, +/- 2 cm/s, some imaginary mid-day
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]

diag: ok
samples.sonic: ok
spd: ok, +/- 10 cm/s, 3t lower by 20cm/s
dir: ok, +/- 2 deg, 3t now outlier
w: ok, +/- 5 cm/s, 5t&6t outliers
tc: ok, +/- 0.2 degC, offsets up to 0.6 degC
w'w': ok, +/- 0.01 m²/s² (30 min avg for second moments)
u*: ok, +/- 2 cm/s, again imaginaries
sigma_w/u*: ok (1.3 at night)
w'tc': ok, +/- 0.005 m/s degC
tc'tc': ok, +/- 0.05 degC²
