

# Daily status, July 13

AHATS daily status 7/13/08

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Summary: Max temperature yesterday at  $z=1.5\text{m}$ , 98 degF; seems even cooler today.

$\langle w'p' \rangle$  is max around 14:00 PDT at about  $-0.015\text{ m/s mb}$ ; much smaller at night.  
 $\langle u'p' \rangle$  and  $\langle v'p' \rangle$  (in sonic coordinates) have comparable magnitudes.  
 $d\langle w'p' \rangle/dz$  max is about  $-0.005\text{ mb/s}$

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

Good wind direction: From July 11, 12:00, until July 13, 12:00, we have had 25.17 hours or 52% good wind directions with continuous periods of at least 25 minutes. This includes 18.75 hours stable data and 6.08 hours unstable. The past 24 hours has had a good run of proper wind directions.

Local data storage:

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Swapped all local data storage media yesterday.

Pressure:

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Note that  $\text{dat}("p") + \text{dat}("Pref") - \text{dat}("P") \sim 0.1\text{ mb}$ .

This is on the order of the absolute accuracy of the Vaisala barometers. I would have expected this difference to be negative and correlated with  $\text{wind speed}^2$  to reflect the residual dynamic pressure errors of the PAM pressure port. However the difference is the wrong sign and is not correlated with wind speed. Apparently this is the combined offset errors in the two Vaisala barometers.

( $\pm$  =  $\sim 1$  std deviation relative to others)

p: ok,  $\pm 0.02\text{ mb}$

$p'p'$ : ok,  $\pm 0.002\text{ mb}^2$

$w'p'$ : ok,  $\pm 0.003\text{ m/s mb}$

t: ok,  $\pm 0.3\text{ degC}$

Pref: ok, range =  $\pm 2\text{ mb}$