

***Interactive comment on “Using sonic anemometer temperature to measure sensible heat flux in strong winds” by S. P. Burns et al.***

**Additional Plots Requested by Referee #3**

**S. P. Burns et al.**

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Referee #3 asked that the following two figures be posted to the discussion page. The scatter plots are from a 30-min nighttime period shown in Fig. 1 of the manuscript when the heat flux from the CSAT was positive and the thermocouple heat flux was negative. As expected,  $T'_{tc}$  and  $w'$  (Fig. R1) has dominance in the second and fourth quadrants (producing a negative heat flux) whereas  $T'_s$  and  $w'$  (Fig. R2) is dominated by the first and third quadrants (producing a positive heat flux).

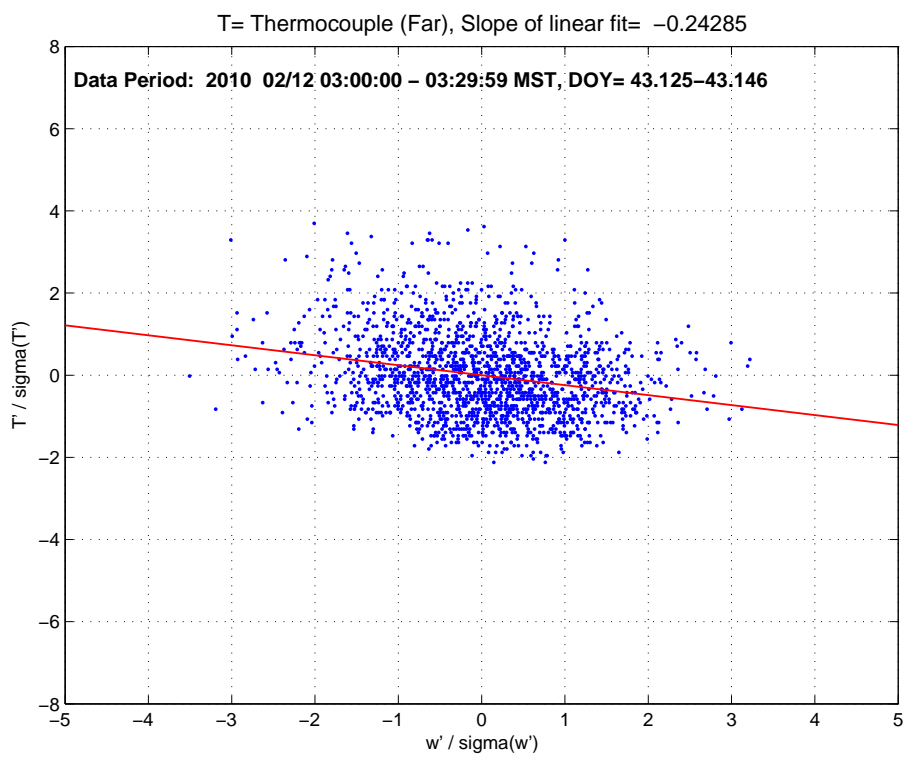


Figure R1:  $T'/\sigma_T$  versus  $w'/\sigma_w$  where  $T$  is the (far) thermocouple temperature. Note that the far thermocouple sample rate is 1-Hz so 10-Hz  $w'$  is down-sampled to 1-Hz by picking-off the nearest 10-Hz  $w'$  samples. The red line is a linear fit of these data.

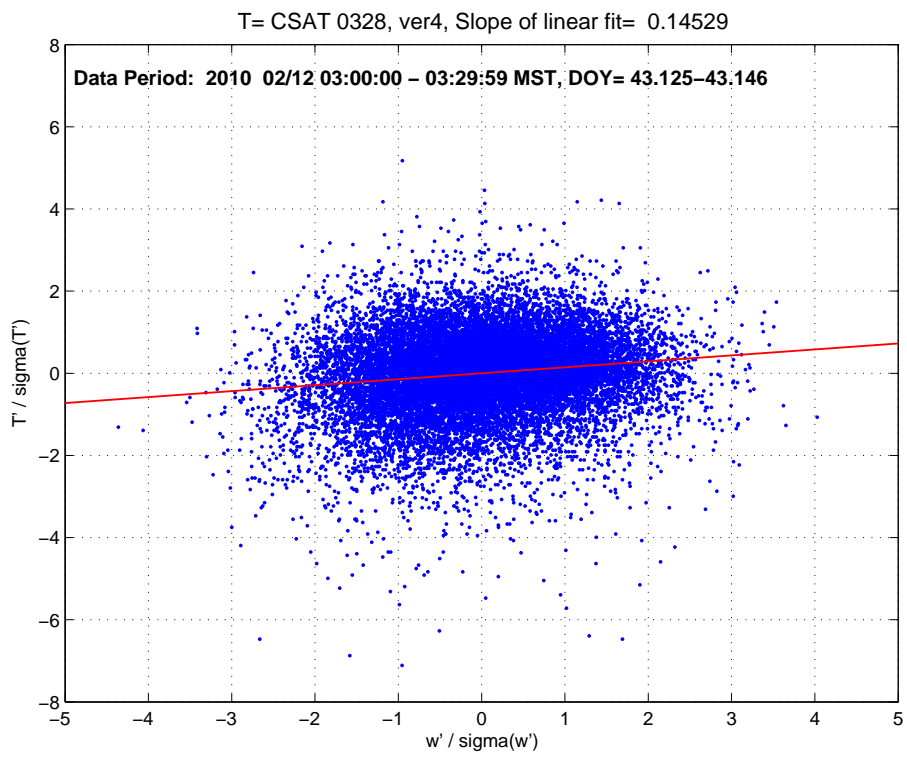


Figure R2:  $T'/\sigma_T$  versus  $w'/\sigma_w$  where  $T$  is the sonic temperature. The red line is a linear fit of these data.