

Checked sonic 8b, sn 0364, for cycle slip

Laboratory checks of sonic S/N 0364 found "cycle slip" at temperatures below 20 C, in particular a temperature jump of about 1 deg C in path a around 16-18 deg C. (Other jumps occurred below 10 deg C, and thus at temperatures not attained during AHATS.) The temperature jump was an increase of about 1.8 deg C as temperature decreased and thus the sonic temperature would change by 0.6 deg C, since all three paths are averaged to give the output temperature.

I plotted the sonic temperature difference (sonic 8b - sonic 7b) versus sonic 7b temperature (5-minute covars) for the four AHATS configurations. Between 15 and 20 deg C, the temperature difference between the two sonics ranged from 0.2 to 0.4 deg C and I could not detect any systematic discontinuity in the plots, much less a temperature discontinuity of 0.6 deg C.