

2D sonic azimuth at base

Gordon, Oct 5

The Gill windsonic at base was installed with no concern about its orientation.

Today Tom calibrated the data scope, then measured the sonic boom azimuth (with declination=0), getting the following readings:

38.2	37.5	37.1	36.6	35.1	35.8	36.4	35.4	mean=36.5
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The magnetic declination here is 10.5 degrees. So the boom azimuth is $36.5 + 10.5 + 180 = 227.0$ degrees wrt true north.

Then we removed the sonic and boom from the tower to figure out the orientation of the sonic relative to the boom.

By putting a ruler along the transducers and some advanced trig we estimated that the north arrow on the sonic is 2 degrees clockwise from the boom.

So N on the sonic is at 229 degrees true.

Entered this as the offset angle in \$ISFF/projects/METCRAXII/ISFF/cal_files/noQC/dir_base_10m.dat.