

## w'w'.30m.tse10 bad

As far as I can see, the Metek at 30.tse10 never reported good w variances. spd, dir, w, u'u', and v'v' all look okay, but w'w' is always bad. It appears that, fairly regularly, the reported (parsed?) w from this sonic has a bad sample with a large + or - value. Should be fixable using min/max ranges in the .xml. Might want to look at the message though, to see if this could possibly be a parsing error, though this is unlikely since all the other Meteks were just fine.

u, v, and tc do not seem to have this issue, which makes me think that it is not an actual malfunctioning of the acoustic part of this instrument. It is non-orthogonal, so any path problem would show up on a horizontal velocity in addition to the vertical. We should call this to the attention of whomever owns it.

A data example, unparsed from the sensor:

```
2017 05 19 00:00:43.6530 0.04999 44 M:x = 392 y = 65 z = 87 t = 1154\r\n
2017 05 19 00:00:43.7030 0.05 44 M:x = 364 y = 57 z = 94 t = 1176\r\n
2017 05 19 00:00:43.7531 0.05008 44 M:x = 339 y = -33 z = 13593 t = 1169\r\n
2017 05 19 00:00:43.8030 0.04991 44 M:x = 359 y = 55 z = 32 t = 1161\r\n
2017 05 19 00:00:43.8525 0.04949 44 M:x = 387 y = 68 z = 26 t = 1151\r\n
```

Clearly, the bad value of 13593 came straight from the sonic.