Visit rsw05

We visited rsw05 yesterday to get the DSM on the network. This is a viper v1. I logged in on the console, verified still could not ping radio or anything else.

The config says the METEK is in port 5, but actually found it in port 1, even though port 5 still had the cap with the leash. The mote was correct in port 2. USB at 54%.

`vio` reports ports are off, even though they clearly are on...?

```
daq@rsw05:/media/usbdisk/projects/Perdigao/raw_data$ vio 5
0
daq@rsw05:/media/usbdisk/projects/Perdigao/raw_data$ vio 2
0
```

After Dan climbed the tower to replace the bulgin ethernet cable with a straight ethernet cable, and came down dressing the cables, we finally realized that the ethernet and metek cables had been swapped from the beginning. That makes a lot of sense, since it explains why there was no signal at all on ethernet rather than just bad signal, and why Dan could hear the Metek at the beginning, very loud, but couldn't after I disconnected what I assumed was the ethernet bulgin.

The Setra pressure sensor was not plugged into power, now the a2d pressure measurements look much better.

We plugged the METEK into port 5 and verified that the messages looked good. The Viper-radio link now works over the new ethernet cable, but probably it would have worked over the bulgin ethernet also. Later, from ustar, I ran update, rsync, tinyproxy, and clean-usb playbooks successfully on rsw05. rsw05 has been up since 2017-04-12, probably the last power outage.

Today, there is no METEK data. Looking back for data on port 5 at rsw05, this is the first data file where messages appear and look good, at least at first:

```
[daq@ustar raw_data]$ data_stats rsw05_20170415_150215.dat
2017-04-16,11:47:44|NOTICE|parsing: /home/daq/isfs/projects/Perdigao/ISFS/config/perdigao.xml
Exception: EOFException: rsw05_20170415_150215.dat: open: EOF
sensor                          dsm  sampid    nsamps |------- start -------|  |------ end -----|    rate
minMaxDT(sec) minMaxLen
  rsw05:/dev/gps_pty0              36     10      6986 2017 04 15 15:02:15.645  04 15 15:59:59.645    2.02
0.135  1.148    51    73
  rsw05:/var/log/chrony/tracking.log  36   15       237 2017 04 15 15:02:26.327  04 15 15:59:52.910    0.07
0.000 16.199   100   100
  rsw05:/dev/ttyS5                 36    100    174737 2017 04 15 15:02:15.771  04 15 15:55:16.049   54.94
-0.005  0.359     2    89
  rsw05:/dev/dmmat_a2d0            36    208     69288 2017 04 15 15:02:15.597  04 15 15:59:59.999   20.00
0.048  0.052     4     4
  rsw05:/dev/ttyS2                 36  32768       693 2017 04 15 15:02:20.421  04 15 15:59:55.402    0.20
0.195  5.695    11    52
```

But a few minutes later in this file problems appear:

```
[daq@ustar raw_data]$ data_dump -i 36,100 rsw05_20170415_150215.dat
|--- date time --------|   deltaT      len data...
2017 04 15 15:02:15.7711       0     44 M:x =   124 y =    519 z =   -38 t =   2218\r\n
2017 04 15 15:02:15.9941   0.223     44 M:x =   125 y =    523 z =    -4 t =   2257\r\n
2017 04 15 15:02:16.0165  0.0224     44 M:x =    87 y =    514 z =    -2 t =   2248\r\n
2017 04 15 15:02:16.0389  0.0224     44 M:x =    68 y =    535 z =   -11 t =   2236\r\n
2017 04 15 15:02:16.0613  0.0224     44 M:x =   122 y =    528 z =    -8 t =   2203\r\n
2017 04 15 15:02:16.0837  0.0224     44 M:x =   158 y =    520 z =    -7 t =   2191\r\n
2017 04 15 15:02:16.1061  0.0224     44 M:x =   112 y =    511 z =    -3 t =   2195\r\n
...
2017 04 15 15:05:47.0883 0.05001     44 M:x =   170 y =    141 z =   -46 t =   2119\r\n
2017 04 15 15:05:47.1386 0.05031     44 D:x = 32767 y =-32768 z = 32767 t =     0\r\n
2017 04 15 15:05:47.1611 0.02245     18 E:quality < 10%\r\n
2017 04 15 15:05:47.1698 0.008694    20 E:data lost 40403\r\n
2017 04 15 15:05:47.1883 0.01849     44 M:x =   167 y =    150 z =   -43 t =   2114\r\n
2017 04 15 15:05:47.2384 0.05013     44 M:x =   176 y =    154 z =   -50 t =   2121\r\n
2017 04 15 15:05:47.2884 0.04997     44 M:x =   170 y =    154 z =   -51 t =   2126\r\n
2017 04 15 15:05:47.3450 0.05668     44 M:x =   171 y =    149 z =   -48 t =   2116\r\n
...
```

Then finally it goes berzerk:

```
2017 04 15 15:06:26.2324     0.05     44 M:x =    55 y =    175 z =    15 t =   2126\r\n
2017 04 15 15:06:26.2823 0.04994     44 M:x =    60 y =    177 z =    14 t =   2129\r\n
2017 04 15 15:06:26.3391 0.05681     44 M:x =    64 y =    181 z =    16 t =   2132\r\n
2017 04 15 15:06:26.3547 0.01561     89 C:
\xbf\xa5\xbf\xb7\xbf\x9d\x95\x95\xbfK\xbf\xa5\xbf\xbf\xbf\xbf\xbf\x95\xbf\x17\xbf\xc5\xbf\xbf\x9b\x9d\xd9\x9f\xe5k
~\xc0~\xee\xee8+\xfb\xfb\xfb\xfb~\xfb~\xa5\xbf\xbb\xbf\xbf\xbf\x9f\xbfK\xbf\xa5\xbf\xbf\xbf\xbf\xbf\x9f\xbfW\xb
f\xa5\xbf\xbf\xbf\xbf\xdb\xe5\xebu\xcb]\x95\xbd\xb7-\x97M\xbf\xa7\r\n
2017 04 15 15:06:26.4005 0.04579     19 E:unknown symbol\r\n
2017 04 15 15:06:26.4099 0.009346    44 D:x =    67 y =   182 z =    19 t =   2133\r\n
2017 04 15 15:06:26.4323 0.02237     89 C:
\xbf\xa5\xbf\xbf\xbf\x95\xaf\x9d\xbf\x0b\xbf\xa5\xbf\xbf\xbf\xbf\x9d\x91\xbf\x17\xbf\xa5\xbf\xbf\x9b\x9d\xd9\xdb\x
e5\xeby\x8b~ 155 Z"-    5 t!\x1d !\xb210MJ\xa2~~~($"0 Z"-    0 T"-      \r\n
2017 04 15 15:06:26.4786 0.04634     19 E:unknown symbol\r\n
2017 04 15 15:06:26.4880 0.009367    44 M:x =    68 y =   183 z =    19 t =   2126\r\n
```

Occasionally there are still good messages. It stops entirely at 15:55:16. Given the theory that the Metek was plugged into the 24V ethernet port for a few weeks, maybe it burned up? I have no other explanation for this behavior.

I suppose we could try a different port.