42m TRH on tower

As a hack earlier today I tried to power cycle the 42m TRH on tower, in the (small) hope that it might resolve the temperatures that are too high there.

But "eio 8 0" had no effect, data was still coming in on the port. "eio 8" always reported 0 even after an "eio 8 1".

So it seems that the emerald was not responding to commands at address 0x200, even though the serial ports, at 0x100 to 0x147 were working.

Copied over a new emerald.ko driver module, which has a fix for the EEPROM accesses in the hope that may help the emerald respond. The old one is saved at /lib/modules/3.16.0-titan2/nidas/emerald_save.ko.

After ddn, a "/etc/init.d/emerald start", failed because the emerald would not respond at 0x200. So just did a remote software reboot. All came back.

From kern.log:

Oct 21 18:04:12 localhost kernel: emerald: NOTICE: version: v1.2-435
Oct 21 18:04:12 localhost kernel: emerald: INFO: /dev/emerald0 at ioport 0x200 is an EMM-8P
Oct 21 18:04:12 localhost kernel: emerald: INFO: /dev/emerald0: port 0=RS232,1=RS232,2=RS232,3=RS232,4=RS232,5=RS232,6=RS232,7=RS232

So it is running the new v1.2-435 of emerald.ko. Controlling power with eio then worked.

The power cycle of 42m didn't help though:

daq@tower: rs 8
connecting to inet:localhost:30002
connected to inet:localhost:30002
sent:"/dev/ttyS8
"
line="OK"
parameters: 9600 none 8 1 "\n" 1 0 prompted=false
TRH59 25.59 73.30 51 0 1633 131 159\r\n
TRH59 25.59 73.85 51 0 1633 132 159\r\n
TRH59 25.63 73.86 51 0 1634 132 160\r\n
TRH59 25.63 73.86 52 0 1634 132 163\r\n
^D
daq@tower:~$ eio 8 0
daq@tower:~$ rs 8
connecting to inet:localhost:30002
connected to inet:localhost:30002
sent:"/dev/ttyS8
"
line="OK"
parameters: 9600 none 8 1 "\n" 1 0 prompted=false
^D
daq@tower:~$ eio 8 1
daq@tower:~$ rs 8
connecting to inet:localhost:30002
connected to inet:localhost:30002
sent:"/dev/ttyS8
"
line="OK"
parameters: 9600 none 8 1 "\n" 1 0 prompted=false
\n
\r Sensor ID59 I2C ADD: 12 data rate: 1 (secs) fan(0) max current: 100 (ma)\n
\rCalibration Dates: T - 041416, RH - 060116\r\n
resolution: 12 bits 1 sec MOTE: off\r\n
calibration coefficients:\r\n
Ta0 = -4.045476E+1\r\n
Ta1 = 4.098870E-2\r\n
Ta2 = -3.310120E-7\r\n
Ha0 = -1.474009E+1\r\n
Ha1 = 7.527249E-1\r\n
Ha2 = -8.074811E-4\r\n
Ha3 = 6.441682E-2\r\n
Ha4 = 4.907825E-4\r\n
Fa0 = 3.222650E-1\r\n
TRH59 25.63 72.75 52 0 1634 130 163\r\n
TRH59 25.63 72.75 51 0 1634 130 161\r\n
TRH59 25.63 72.75 52 0 1634 130 162\r\n
TRH59 25.63 72.75 51 0 1634 130 160\r\n