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Mauna Loa Solar Observatory Observer's Log  
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Tue Jul 10 16:38:24 GMT 2007

Year: 07 Doy: 191

Observer: koon

Tue Jul 10 16:45:26 GMT 2007 CHIP Start Patrol

Tue Jul 10 16:45:40 GMT 2007 PICS Start Patrol

WEATHER COMMENT: Tue Jul 10 16:38:30 GMT 2007

Hazy sky, wind=20 mph from the South, temp=43F.

\_\_\_\_end\_\_\_\_

PSPT COMMENT: Tue Jul 10 16:54:48 GMT 2007

Obs.

\_\_\_\_end\_\_\_\_

\*\*MKIV PROBLEM\*\* : Tue Jul 10 16:54:55 GMT 2007

Barrel at limit, not starting correctly.

\_\_\_\_end\_\_\_\_

\*\*MKIV PROBLEM\*\* : Tue Jul 10 17:31:52 GMT 2007

Tried cycling main power to KCC several times, each time the barrel goes from one limit around to the other and stops. The red barrel angle LED readout seems to show the correct barrel position and direction of movement as the barrel rotates, but the GUI radar-like display shows the barrel staying still at the CCW or CW limit (varies every time back and forth). The barrel is indeed turning both ways and stopping. The Drive, Request, CW limit, and CCW limit green LEDs are all working properly. I can't get the GUI to change to the display that allows me to manually control the barrel, and I can't "Begin Day" or "Patrol" on the other default GUI display. The akamai window shows repeated messages about the CW or CCW limit that the barrel starts out at, I'll show the last lines in the akamai window below:

CCW Limit

CCW Limit

value = 0 = 0x0

flcStart

value = 0 = 0x0

vsync

dqSetTimingSwitch( 0x00000000(INVALID OBJECT), ??\_?00005615?, 1 )

dqSetTimingSwitch(): Not an IP device handle

dqSetTimingSwitch(): Fatal error

Done executing startup script /opt/alakai/mech

\_\_\_\_end\_\_\_\_

Tue Jul 10 17:52:54 GMT 2007 CHIP End Patrol

Tue Jul 10 17:53:15 GMT 2007 PICS End Patrol

\*\*MKIV PROBLEM\*\* : Tue Jul 10 19:09:32 GMT 2007

I tried several more attempts to get Nahenahe to communicate with akamai without success, I even rebooted Nahenahe. I don't get a reply when I try to "ping" akamai.

\_\_\_\_end\_\_\_\_

Tue Jul 10 19:37:10 GMT 2007 CHIP Start Patrol

Tue Jul 10 19:37:37 GMT 2007 PICS Start Patrol

\*\*MKIV PROBLEM\*\*:  
Tue Jul 10 19:41:33 GMT 2007

After the last attempt at starting the barrel was left at the CW limit, I had typed in "run" while the barrel was running but that didn't seem to help. The startup script didn't run. I checked Ethernet connections and all appeared OK between akamai and the router, but I couldn't ping akamai from Nahenahe or Nene or Kii. I tried the reset button on KCC and that got the startup script running, I tried pinging akamai and it worked, for a while, after the barrel started moving I couldn't ping akamai again, and the GUI display didn't show rotation - same symptoms as before. Are communications between Nahenahe and Akamai flaky?

\_\_\_\_end\_\_\_\_

\*\*MKIV PROBLEM\*\*:  
Tue Jul 10 19:52:40 GMT 2007

Tried resetting the KCC via reset button again, this time while the barrel was rotating instead of sitting on a limit switch, same things happened the startup script ran, I could ping akamai for a while until the startup script ended with the same message I recorded in the log earlier, only difference this time was the lack of "CW limit" or "CCW limit" messages on the akamai window. I noticed other error messages while the script ran, one line ended with "IP device probe failed", then the next line was:  
dqCreateSys(): Fatal error

\_\_\_\_end\_\_\_\_

A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Tue Jul 10 20:32:45 GMT 2007

WEATHER COMMENT: Tue Jul 10 20:56:49 GMT 2007

Low clouds coming in from the SE.

\_\_\_\_end\_\_\_\_

Tue Jul 10 21:02:02 GMT 2007 CHIP End Patrol

WEATHER COMMENT: Tue Jul 10 21:02:59 GMT 2007

It looks like it may get foggy, pausing instruments and closing domes.

\_\_\_\_end\_\_\_\_

Tue Jul 10 21:03:45 GMT 2007 PICS End Patrol

\*\*MKIV PROBLEM\*\*:  
Tue Jul 10 22:25:47 GMT 2007

Although similar this problem doesn't appear to be the same "bad power supply" problem we had one year ago and 5 years before that. I checked the MP35-070 power supply several time before and during several scans and it appears to put out the proper 5vdc and +/-15vdc. I think the keys to this problem are the error messages I put in this log earlier and the fact that Nahenahe can't communicate with Akamai via the ethernet after the startup script is done. I believe Nahenahe tells Akamai what to do via the ethernet normally at that point. The akamai window is a terminal window for the RS-232 connection that is also shared between Nahenahe and Akamai. What makes the ethernet connection go away? Why can't I get the Virtual Control Panel to appear on the GUI screen?

\_\_\_\_end\_\_\_\_

\*\*MKIV PROBLEM\*\*:  
Tue Jul 10 22:41:41 GMT 2007

I did another test of the ethernet connection while running the startup script, as noted before, the ethernet connection goes away right at the end of the

startup script, so just before the end but after I saw the GUI appear with the familiar radar-like scan circles I was able to get to the VCP screen by right clicking on the mouse like usual. So the inability to get the VCP screen happens when the ethernet connection goes away. That answers one question but doesn't solve the problem. I've also noticed that I can see the starts of the scans on the regular GUI screen, like a few degrees of sweep before the ethernet connection goes away and the position indicator freezes.

\_\_\_end\_\_\_

Tue Jul 10 23:19:11 GMT 2007 CHIP Start Patrol

Tue Jul 10 23:19:26 GMT 2007 PICS Start Patrol

WEATHER COMMENT: Tue Jul 10 23:19:10 GMT 2007

Clouds have mostly cleared, opened the domes, restarting instruments.

\_\_\_end\_\_\_

\*\*MKIV PROBLEM\*\*: Tue Jul 10 23:55:26 GMT 2007

I tried swapping the ethernet transceiver at the Akamai side and that didn't change anything, problem still exists. Will swap back old transceiver.

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\_\_\_end\_\_\_

\*\*PSPT PROBLEM\*\*: Wed Jul 11 00:41:14 GMT 2007

Crashed, restarted.

\_\_\_end\_\_\_

Wed Jul 11 01:13:48 GMT 2007 CHIP End Patrol

WEATHER COMMENT: Wed Jul 11 01:13:53 GMT 2007

Clouds got thick again, paused and closed domes.

\_\_\_end\_\_\_

Wed Jul 11 01:14:11 GMT 2007 PICS End Patrol

NICE PICSLIMB IMAGE: 1719

NICE PICSDISC IMAGE: 1715

NICE CHIP IMAGE: 1715

Wed Jul 11 01:58:13 GMT 2007

MkIV