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Mauna Loa Solar Observatory Observer's Log  
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Wed May 6 16:42:38 GMT 2009

Year: 09 Doy: 126

Observer: koon

WEATHER COMMENT: Wed May 6 16:42:41 GMT 2009

Clear sky, wind=5mph from the South, temp=42F.

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

\*\*MKIV PROBLEM\*\*: Wed May 6 16:51:38 GMT 2009

The old MV200 board has the 2 small interface boards from the spare MV200 installed, upon startup there wasn't a stall with the intro words coming inward from the corners of the GUI monitor like I see when I try to restart the KCC after the initial startup with this board configuration. The only difference in startup procedure is that the akamai window with the VXWorks messages doesn't come up upon initial startup until after I type in "Run" in the console window. So after the GUI screen starts up normally I type in Run and the 2nd akamai window appears and shows a message like "t-barrel glitch", the barrel turns all the way CW and stops at the CW limit, the GUI cursor gets increasingly slower to react to mouse movement and then the cursor won't move at all when the barrel is at the CW limit. I cycled the main KCC power but that takes me to the other mode of stalling with this board configuration, the GUI monitor is frozen with those words coming in diagonally and last akamai window message is hello from t\_barrel.

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

Wed May 6 17:03:25 GMT 2009

MkIV

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Mauna Loa Solar Observatory Observer's Log  
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Wed May 6 17:07:05 GMT 2009

Year: 09 Doy: 126

Observer: koon

\*\*MKIV PROBLEM\*\*: Wed May 6 17:08:17 GMT 2009

I tried shutting down mk4 completely like at the end of the day, then I started up again like at the beginning of the day, but this time the GUI froze with those words an inch from the corners of the monitor and I didn't get as far as the first startup today, I don't understand why. After typing in the "run" command I got the 2nd akamai window but it didn't startup VXWorks like usual. I cycled the lower KCC power switch and VXWorks starts up in the akamai window but still stops at "hello from t\_barrel" like usual with this MV200 board configuration (lately).

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

PSPT COMMENT: Wed May 6 17:13:56 GMT 2009

obs

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

Wed May 6 17:14:58 GMT 2009	CHIP	Start Patrol
Wed May 6 17:15:38 GMT 2009	PICS	Start Patrol
Wed May 6 18:00:28 GMT 2009	CHIP	LSD
Wed May 6 18:01:30 GMT 2009	PICS	Flat
Wed May 6 18:01:48 GMT 2009	CHIP	End LSD
Wed May 6 18:01:56 GMT 2009	CHIP	BiasLSD
Wed May 6 18:02:42 GMT 2009	CHIP	End BiasLSD
Wed May 6 18:02:48 GMT 2009	CHIP	Bias
Wed May 6 18:03:28 GMT 2009	CHIP	End Bias
Wed May 6 18:03:33 GMT 2009	CHIP	ReStart Patrol
Wed May 6 18:04:00 GMT 2009	PICS	End Flat
Wed May 6 18:04:05 GMT 2009	PICS	ReStart Patrol
Wed May 6 21:36:50 GMT 2009	MKIV	Start Patrol
Wed May 6 22:09:18 GMT 2009	MKIV	Start Patrol
Wed May 6 22:18:47 GMT 2009	CHIP	End Patrol

\*\*MKIV PROBLEM\*\*: Wed May 6 21:41:50 GMT 2009

Alice changed the t\_barrel routine, she enabled debug\_barrel. I cycled KCC lower power with the old MV200 board in place containing the IO boards from the spare MV200 board, no change, stalls in same place as mentioned above. I put the old IO boards back in the old MV200 board and cycled lower KCC

power switch, the VXWorks startup program got to "hello from t\_barrel" and stalled a while, that's new for this configuration, then it continued with this new output:

```
value = 3835732 = 0x3a8754
taskDelay(100)
setBarrell -184.000000
setBarrel 12463
angle and old angle -184.000000 273.849518 dir and sign 9 -1.000000
then when I ran Patrol it went CCW to the limit like usual for this board
configuration. That's when the VXWorks startup program started and the
barrel was at the CCW limit of 274, but when I tried the same thing with
the barrel starting around 180 degrees then there were hundreds of messages
like setBarrel 3500
scrolling down the akamai window until the barrel drove CW to the limit at
back to about 180. So I drove the barrel to the normal daily startup
location of 0 degrees and cycled KCC lower power switch again, it displayed:
value = 3835732 = 0x3a8754
TaskDelay(100)
setBarrel -184.000000
setBarrel 31
angle and old angle -184.000000 0.681163 dir and sign 9 -1.000000
Again running Patrol moved the barrel to the CCW limit and stalled without
any data going to realtime display, it may have displayed this new message
in the akamai window:
setBarrel -184.000000
```

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

WEATHER COMMENT: Wed May 6 22:19:36 GMT 2009

Low clouds are moving in, spar not tracking, paused instruments.

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

Wed May 6 22:20:22 GMT 2009 PICS End Patrol

NICE PICSLIMB IMAGE: 1736

NICE PICSDISC IMAGE: 1736

NICE CHIP IMAGE: 1733

Wed May 6 22:33:24 GMT 2009 MKIV Start Patrol

Thu May 7 00:30:14 GMT 2009 MKIV Start Patrol

\*\*MKIV PROBLEM\*\*: Thu May 7 00:17:21 GMT 2009

Had a long talk with David about how to look for data with VXWorks and a few other things, will try that later, right now continuing with testing related to Alice's program change, this time with the spare MV200 board setup with its IO module boards. Upon startup got these messages near the end of the startup script on akamai:

```
setBarrel -184.000000
```

```
setBarrel 2
```

```
angle and old angle -184.000000 0.043946 dir and sign 9 -1.000000
```

Started with barrel at normal start of day position around 0 degrees, results look similar to other MV200 results except the 2nd setBarrel is 2 instead of a larger number like 31, when I asked David why there were 2 setBarrel commands shown he said that seemed strange, so there is a place to investigate later.

On to data signals, when testing using commands "printfetch" and "balance 0" and "balance 1" in the akamai window with the old MV200 board the printed and plotted numbers looked noisy, they should look like lines or be more consistent and relatively low values instead of 65000 and 0, etc.

Use CTRL-C to exit the balance command. With the spare MV200 board in place the printfetch values varied from 54 to 151, that is better; but the Balance related plots still looked like noise with plotted dots all over the place. I'll continue with this on Friday.

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

Thu May 7 00:55:22 GMT 2009 MKIV Start Patrol

Thu May 7 01:19:44 GMT 2009

MkIV

00\_30.rawmk4 00\_34.rawmk4 00\_39.rawmk4 00\_44.rawmk4 00\_55.rawmk4

00\_31.rawmk4 00\_36.rawmk4 00\_41.rawmk4 00\_46.rawmk4 00\_56.rawmk4

00\_33.rawmk4 00\_38.rawmk4 00\_43.rawmk4 00\_48.rawmk4