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Mauna Loa Solar Observatory Observer's Log  
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Mon Jul 31 16:50:25 GMT 2006

Year: 06 Doy: 212

Observer: stueben

WEATHER COMMENT: Mon Jul 31 17:07:10 GMT 2006

Clear, wind south 5-10 mph, temp 40F.

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

Mon Jul 31 17:08:27 GMT 2006 CHIP Start Patrol

Mon Jul 31 17:08:45 GMT 2006 PICS Start Patrol

SBM COMMENT: Mon Jul 31 17:14:59 GMT 2006

Observing.

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

PSPT COMMENT: Mon Jul 31 17:26:22 GMT 2006

Observing.

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

Mon Jul 31 18:00:18 GMT 2006 PICS Flat  
Mon Jul 31 18:02:45 GMT 2006 PICS End Flat  
Mon Jul 31 18:02:50 GMT 2006 PICS ReStart Patrol  
Mon Jul 31 18:02:55 GMT 2006 CHIP LSD  
Mon Jul 31 18:04:21 GMT 2006 MKIV Start Patrol  
Mon Jul 31 18:04:41 GMT 2006 CHIP End LSD  
Mon Jul 31 18:04:48 GMT 2006 CHIP BiasLSD  
Mon Jul 31 18:05:27 GMT 2006 CHIP End BiasLSD  
Mon Jul 31 18:05:33 GMT 2006 CHIP Bias  
Mon Jul 31 18:06:12 GMT 2006 CHIP End Bias  
Mon Jul 31 18:06:17 GMT 2006 CHIP ReStart Patrol  
Mon Jul 31 18:45:59 GMT 2006 MKIV End Patrol

**\*\*MKIV PROBLEM\*\***: Mon Jul 31 18:13:15 GMT 2006

Conditions at startup -

- Barrel trapezoid box is on east side (stow position) before power up.
- Barrel begins moving CW during or just after VxWorks startup, and moves to CW limit, barrel angle readout is static at 359 while barrel is moving.
- STB power supply voltages look OK, +5v is +4.94v, +20V is 19.75v and neither voltage changes after Mk4 starts working.
- CW barrel pulses were present when barrel moved to CW limit and both CW and CCW pulses were present when control screen was used to move the barrel but barrel angle readout did not show movement though barrel actually was moving.
- Barrel angle LSB did not change when barrel initially moved to CW limit though there was as 1v p-p 25% duty cycle pulse on the LSB that was not large enough/did not go low enough to be a valid digital signal. When the barrel began to operate normally the LSB changed and was a 3v p-p digital signal. After the barrel started working the 1v p-p signal was no longer present when barrel was static.

Possible Conclusions -

It looks like the barrel angle probably isn't being displayed correctly or read by KCC correctly for the first 30-60 min after powerup but then mysteriously begins to work - today it started working at 1755UT. The next probable areas for investigation at startup are the synchro, synchro to digital conversion, and any power supplies specific to these areas.

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

Mon Jul 31 19:05:36 GMT 2006 MKIV End Cal

Mon Jul 31 19:05:42 GMT 2006 MKIV Start Patrol

WEATHER COMMENT: Mon Jul 31 19:14:44 GMT 2006

Orographic clouds are beginning to degrade images.

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

Mon Jul 31 19:44:40 GMT 2006 CHIP End Patrol

Mon Jul 31 19:45:34 GMT 2006 PICS End Patrol

Mon Jul 31 19:47:08 GMT 2006 MKIV End Patrol

WEATHER COMMENT: Mon Jul 31 19:47:25 GMT 2006

Clouds have become dense, instruments idled.

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

COMMENT: Mon Jul 31 20:08:36 GMT 2006

Reconfigured dome shutter.

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

WEATHER COMMENT: Mon Jul 31 20:09:21 GMT 2006

Clouds have cleared fo awhile, restarting instruments.

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

Mon Jul 31 20:12:24 GMT 2006 MKIV Start Patrol

Mon Jul 31 20:12:43 GMT 2006 CHIP Start Patrol

Mon Jul 31 20:12:59 GMT 2006 PICS Start Patrol

Mon Jul 31 20:24:24 GMT 2006 MKIV End Patrol

Mon Jul 31 21:02:03 GMT 2006 CHIP End Patrol

Mon Jul 31 21:03:07 GMT 2006 PICS End Patrol

WEATHER COMMENT: Mon Jul 31 22:07:29 GMT 2006

Dense clouds, some blowing mist, domes closed.

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

GONG COMMENT: Mon Jul 31 22:08:11 GMT 2006

Performed weekly PM.

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

WEATHER COMMENT: Tue Aug 1 00:42:16 GMT 2006

Rain.

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

NICE CHIP IMAGE: 1812

NICE PICSDISC IMAGE: 1808

NICE PICSLIMB IMAGE: 1808

NICE MK4 IMAGE: 1810

Tue Aug 1 00:53:37 GMT 2006

MkIV

18_04.rawmk4	18_27.rawmk4	19_02.rawmk4	19_26.rawmk4	20_15.rawmk4
18_07.rawmk4	18_30.rawmk4	19_05.rawmk4	19_29.rawmk4	20_18.rawmk4
18_10.rawmk4	18_33.rawmk4	19_08.rawmk4	19_32.rawmk4	20_21.rawmk4
18_13.rawmk4	18_36.rawmk4	19_11.rawmk4	19_35.rawmk4	c18_46.rawmk4
18_16.rawmk4	18_39.rawmk4	19_14.rawmk4	19_38.rawmk4	c18_53.rawmk4
18_19.rawmk4	18_42.rawmk4	19_17.rawmk4	19_41.rawmk4	c18_59.rawmk4
18_22.rawmk4	18_49.rawmk4	19_20.rawmk4	19_43.rawmk4	
18_24.rawmk4	18_56.rawmk4	19_23.rawmk4	20_12.rawmk4	