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Mauna Loa Solar Observatory Observer's Log  
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Thu May 14 16:31:50 GMT 2009

Year: 09 Doy: 134

Observer: koon

WEATHER COMMENT: Thu May 14 16:32:33 GMT 2009

Clear sky, wind=3mph from the SE, temp=48F.

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

COMMENT: Thu May 14 16:33:19 GMT 2009

No regular obs while we work on the mk4, we'll need the dome closed and we'll need to move the spar around a lot. Darryl and Allen are both at MLSO today.

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

PSPT COMMENT: Thu May 14 16:44:06 GMT 2009

obs

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

Thu May 14 18:51:42 GMT 2009 MKIV Start Patrol

Thu May 14 18:57:32 GMT 2009 MKIV Start Patrol

Thu May 14 19:27:27 GMT 2009 CHIP Start Patrol

Thu May 14 19:28:10 GMT 2009 PICS Start Patrol

\*\*MKIV PROBLEM\*\* : Thu May 14 21:50:48 GMT 2009

Today we made great progress. On Tuesday I noticed that the LVAL signal at the transformation board looked weaker than the signal coming out of the camera, I wasn't sure if it was a bad receiver chip at U35 or a bad cable or both. Today we checked the signals and found them to be the same frequency but the LVAL at the camera is about 4 vdc and it is about 0.4 vdc downstairs, disconnecting the jumpers at P281 on the trans board isolated the LVAL signals from the receiver chip at U35 and the LVAL voltage went up to normal. The output on pin 11 on the receiver chip at U35 was stuck high and showed no CLVAL signal which should have been similar to LVAL, so that chip is defective and pulling down the voltage of LVAL as measured at pins 39 and 40 on J29 on the trans board. We reset the BIN jumpers which I had previously left changed so the barrel would behave, so those are now back to normal, then we removed the jumpers at P281 and started up KCC without any stalls, we tried Patrol and Viola! we got semi-normal scans, the corona is very faint and only visible on the processed images not on the realtime scan display, and the barrel is behaving as are all the code as far as we can tell. Allen traced the CLVAL output that went from the receiver chip to the 1X LED on the trans board (which is lit by the way) and down to one of the 1160A boards in the KCC to be available as an error indication signal, he's not sure it that is being used for anything so we are currently leaving the jumpers at P281 off to disable that circuit and allow data gathering and barrel movement. Back on Tuesday I asked Andy if there were any of these receiver chips available at Boulder to be sent to us (DS26C32ATN) and he said there weren't any there, so today I ordered some from Digikey and they should be here by early next week, until then we'll operate this way. Allen will removed the bad chip and solder in a socket for a new chip on Saturday, I'll re-align the camera and continue with the camera installation process. When the new chips come

in we'll install a new one at U35 and replace the jumpers at P281.

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

WEATHER COMMENT: Thu May 14 22:27:07 GMT 2009

High clouds, low clouds, and vog are converging on us.

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

MKIV COMMENT: Thu May 14 22:28:41 GMT 2009

We have the 4 boxes of manuals and boards that Andy sent, they are here at MLSO

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

Thu May 14 23:00:34 GMT 2009 CHIP LSD  
Thu May 14 23:02:07 GMT 2009 CHIP End LSD  
Thu May 14 23:02:18 GMT 2009 CHIP BiasLSD  
Thu May 14 23:02:57 GMT 2009 CHIP End BiasLSD  
Thu May 14 23:03:05 GMT 2009 CHIP Bias  
Thu May 14 23:03:36 GMT 2009 CHIP End Bias  
Thu May 14 23:03:43 GMT 2009 CHIP ReStart Patrol

NICE CHIP IMAGE: 1933

NICE PICSDISC IMAGE: 1934

NICE PICSLIMB IMAGE: 1934

NICE MK4 IMAGE: 1915

Fri May 15 00:13:11 GMT 2009 CHIP End Patrol  
Fri May 15 00:14:22 GMT 2009 PICS End Patrol  
Fri May 15 00:15:05 GMT 2009 PICS Start Fast Monitor  
Fri May 15 00:17:42 GMT 2009 PICS End Monitor  
Fri May 15 00:25:37 GMT 2009

MkIV

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