```
--------------------------------------------------------------------------------
                Mauna Loa Solar Observatory Observer's Log
--------------------------------------------------------------------------------
          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

00_03.rawmk4   19_50.rawmk4   20_55.rawmk4   21_59.rawmk4   23_04.rawmk4
00_07.rawmk4   19_53.rawmk4   20_58.rawmk4   22_02.rawmk4   23_07.rawmk4
00_10.rawmk4   19_56.rawmk4   21_01.rawmk4   22_05.rawmk4   23_10.rawmk4
00_13.rawmk4   19_59.rawmk4   21_04.rawmk4   22_08.rawmk4   23_13.rawmk4
18_57.rawmk4   20_02.rawmk4   21_06.rawmk4   22_11.rawmk4   23_16.rawmk4
19_00.rawmk4   20_05.rawmk4   21_09.rawmk4   22_14.rawmk4   23_19.rawmk4
19_03.rawmk4   20_08.rawmk4   21_12.rawmk4   22_17.rawmk4   23_22.rawmk4
19_06.rawmk4   20_11.rawmk4   21_15.rawmk4   22_20.rawmk4   23_25.rawmk4
19_09.rawmk4   20_14.rawmk4   21_18.rawmk4   22_23.rawmk4   23_28.rawmk4
19_12.rawmk4   20_17.rawmk4   21_21.rawmk4   22_26.rawmk4   23_31.rawmk4
19_15.rawmk4   20_20.rawmk4   21_24.rawmk4   22_29.rawmk4   23_34.rawmk4
19_18.rawmk4   20_22.rawmk4   21_27.rawmk4   22_32.rawmk4   23_37.rawmk4
19_21.rawmk4   20_25.rawmk4   21_30.rawmk4   22_35.rawmk4   23_39.rawmk4
19_24.rawmk4   20_28.rawmk4   21_33.rawmk4   22_38.rawmk4   23_42.rawmk4
19_27.rawmk4   20_31.rawmk4   21_36.rawmk4   22_41.rawmk4   23_45.rawmk4
19_30.rawmk4   20_34.rawmk4   21_39.rawmk4   22_44.rawmk4   23_48.rawmk4
19_32.rawmk4   20_37.rawmk4   21_42.rawmk4   22_46.rawmk4   23_51.rawmk4
19_35.rawmk4   20_40.rawmk4   21_45.rawmk4   22_49.rawmk4   23_54.rawmk4
19_38.rawmk4   20_43.rawmk4   21_48.rawmk4   22_52.rawmk4   23_57.rawmk4
19_41.rawmk4   20_46.rawmk4   21_51.rawmk4   22_55.rawmk4
19_44.rawmk4   20_49.rawmk4   21_54.rawmk4   22_58.rawmk4
19_47.rawmk4   20_52.rawmk4   21_56.rawmk4   23_01.rawmk4