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Mauna Loa Solar Observatory Observer's Log  
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Fri Feb 20 17:03:58 GMT 2004

Year: 04 Doy: 051

Observer: yasukawa

WEATHER COMMENT: Fri Feb 20 17:05:56 GMT 2004

Clear, 49-degrees, 12 mph SSE wind.

ECHO COMMENT: Fri Feb 20 17:13:23 GMT 2004

Time OK.

Fri Feb 20 17:16:30 GMT 2004 CHIP Start Patrol

Fri Feb 20 17:16:40 GMT 2004 PICS Start Patrol

PSPT COMMENT: Fri Feb 20 17:16:50 GMT 2004

Starting up.

A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Fri Feb 20 17:19:31 GMT 2004

**\*\*PSPT PROBLEM\*\***: Fri Feb 20 17:24:15 GMT 2004

Discovered a high-pitched hum in the PSPT dome. Turned off PSPT power.

GUI indicated homing filter wheel. Checked it and found CaK filter semi-popped out of its station and the ND filter hanging out of its holder. This situation was hanging up the wheel. Will troubleshoot as soon as mk4 clears dome cylinder and I can start observations.

MKIV COMMENT: Fri Feb 20 17:43:02 GMT 2004

Centering O1 as mk4 clears dome cylinder.

Fri Feb 20 17:43:26 GMT 2004 MKIV Start Patrol

Fri Feb 20 18:01:47 GMT 2004 CHIP LSD

Fri Feb 20 18:03:40 GMT 2004 CHIP End LSD

Fri Feb 20 18:03:53 GMT 2004 CHIP BiasLSD

Fri Feb 20 18:04:25 GMT 2004 PICS Flat

Fri Feb 20 18:04:48 GMT 2004 CHIP End BiasLSD

Fri Feb 20 18:05:00 GMT 2004 CHIP Bias

Fri Feb 20 18:06:00 GMT 2004 CHIP End Bias

Fri Feb 20 18:06:59 GMT 2004 PICS End Flat

MKIV COMMENT: Fri Feb 20 19:01:03 GMT 2004

Centered O1.

**\*\*MKIV PROBLEM\*\***: Fri Feb 20 19:40:20 GMT 2004

Getting lots of sparc prompt timeouts between scans. Will attempt to resolve this after calibration.

**\*\*PSPT PROBLEM\*\***: Fri Feb 20 19:41:14 GMT 2004

Two of the ND filter hold-down screws on the CaK filter had come off and the ND filter was hanging out of the assembly. The filter assembly itself was popped out of the bay and was jammed against the heater rod preventing the filter wheel from rotating. The ND holder was pretty dinged up by the long screw on the rotating shutter wheel. With things turned off, I managed to remove the loose ND filter, which was thankfully intact.

I retrieved the two wayward screws and four spacer-washers from inside the housing using a magnetic retrieval tool. If there were 6, washers, I could not see the other two. I also checked - with much difficulty - down inside the focusing lens tube. Just checked notes and there should be two more

washers on the stack -- 3 large and 3 small. Need to look at data to determine if we need to add the 2 washers to the current stack -- any secondary reflections from the ND? We also need to look at data to determine if the missing washers are down in the focusing tube where I could not see them and if they are messing up the image. It'll take a major tear-down to get down in there. Nothing fell out when I turned PSPT upside down and tapped the assembly and shook the spar lightly. The wheel did not know where it was after all the power ups/downs so I reset everything and moved the wheel in 200 step increments until I got the CaK filter to the hatch for removal. (Duct-tape held the ND holder away from the rotating screw) Cleaned and reassembled the CaK assembly and reinserted it into the wheel.

Tried shutting down but none of the mechanisms knew where they were. Rebooted and reinitialized everything to stow position (manually in some cases). Re-started and got observations going.

\*\*MKIV PROBLEM\*\*  
Fri Feb 20 20:11:19 GMT 2004

Reset KCC to see if that fixes the spar prompt timeouts.

MKIV COMMENT: Fri Feb 20 20:11:52 GMT 2004

Centering O1.

\*\*MKIV PROBLEM\*\*  
Fri Feb 20 20:24:49 GMT 2004

KCC reset did not resolve spar prompt timeouts. Restarting "Run".

Fri Feb 20 20:28:44 GMT 2004

MkIV

17\_43.rawmk4 17\_55.rawmk4 18\_07.rawmk4 18\_19.rawmk4 18\_30.rawmk4  
17\_46.rawmk4 17\_58.rawmk4 18\_10.rawmk4 18\_22.rawmk4 18\_33.rawmk4  
17\_49.rawmk4 18\_01.rawmk4 18\_13.rawmk4 18\_24.rawmk4  
17\_52.rawmk4 18\_04.rawmk4 18\_16.rawmk4 18\_27.rawmk4

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Mauna Loa Solar Observatory Observer's Log

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Fri Feb 20 20:29:03 GMT 2004

Year: 04 Doy: 051

Observer: yasukawa

Fri Feb 20 20:29:27 GMT 2004 MKIV Start Patrol

\*\*MKIV PROBLEM\*\*  
Fri Feb 20 20:34:17 GMT 2004

I also notice that images were not going to the hoike animations after 1833, probably when the timeouts began occurring. Images not going to scanlog either.

Stopping and restarting Run resolved the timeouts and I see where the current images are getting to the animations-probably to the scan-log, too. Will re-do calibration since they didn't get on the scan-log and may ultimately be lost for the day so far.

Fri Feb 20 20:41:32 GMT 2004 MKIV End Patrol

Fri Feb 20 20:41:42 GMT 2004 MKIV Start Cal

Fri Feb 20 21:00:27 GMT 2004 MKIV End Cal

Fri Feb 20 21:00:38 GMT 2004 MKIV Start Patrol

MKIV COMMENT: Fri Feb 20 21:15:28 GMT 2004  
Centered O1.

MKIV COMMENT: Fri Feb 20 22:11:37 GMT 2004  
Centered O1.

MKIV COMMENT: Fri Feb 20 23:16:40 GMT 2004  
Centered O1.

COMMENT: Fri Feb 20 23:43:15 GMT 2004  
Bumped into ladder. Repointed spar.

MKIV COMMENT: Sat Feb 21 00:18:32 GMT 2004  
Centered O1.

COMMENT: Sat Feb 21 00:29:38 GMT 2004  
Declination reset. Repointed and reset guider.

COMMENT: Sat Feb 21 01:16:47 GMT 2004  
PICS and CHIP domed out. adjusted dome azimuth.

MKIV COMMENT: Sat Feb 21 01:18:17 GMT 2004  
Centered O1.

Sat Feb 21 02:21:49 GMT 2004 CHIP End Patrol

Sat Feb 21 02:21:54 GMT 2004 PICS End Patrol

\*\*PSPT PROBLEM\*\* Sat Feb 21 02:25:06 GMT 2004

I found the other two missing spacer washers for the CaK filter holder on the platform. I will install them before I leave today. ND filter will have the "correct tilt".

Sat Feb 21 02:41:16 GMT 2004

MkIV

00_00.rawmk4	01_30.rawmk4	18_01.rawmk4	21_30.rawmk4	22_55.rawmk4
00_03.rawmk4	01_33.rawmk4	18_04.rawmk4	21_33.rawmk4	22_58.rawmk4
00_06.rawmk4	01_36.rawmk4	18_07.rawmk4	21_36.rawmk4	23_01.rawmk4
00_09.rawmk4	01_39.rawmk4	18_10.rawmk4	21_39.rawmk4	23_04.rawmk4
00_12.rawmk4	01_42.rawmk4	18_13.rawmk4	21_41.rawmk4	23_07.rawmk4
00_15.rawmk4	01_44.rawmk4	18_16.rawmk4	21_44.rawmk4	23_10.rawmk4
00_18.rawmk4	01_47.rawmk4	18_19.rawmk4	21_47.rawmk4	23_13.rawmk4
00_21.rawmk4	01_50.rawmk4	18_22.rawmk4	21_50.rawmk4	23_16.rawmk4
00_24.rawmk4	01_53.rawmk4	18_24.rawmk4	21_53.rawmk4	23_19.rawmk4
00_27.rawmk4	01_56.rawmk4	18_27.rawmk4	21_56.rawmk4	23_22.rawmk4
00_30.rawmk4	01_59.rawmk4	18_30.rawmk4	21_59.rawmk4	23_25.rawmk4
00_33.rawmk4	02_02.rawmk4	18_33.rawmk4	22_02.rawmk4	23_28.rawmk4
00_36.rawmk4	02_05.rawmk4	20_29.rawmk4	22_05.rawmk4	23_31.rawmk4
00_39.rawmk4	02_08.rawmk4	20_32.rawmk4	22_08.rawmk4	23_34.rawmk4
00_42.rawmk4	02_11.rawmk4	20_35.rawmk4	22_11.rawmk4	23_37.rawmk4
00_45.rawmk4	02_14.rawmk4	20_38.rawmk4	22_14.rawmk4	23_40.rawmk4
00_48.rawmk4	02_17.rawmk4	20_44.rawmk4	22_17.rawmk4	23_43.rawmk4
00_50.rawmk4	02_20.rawmk4	20_50.rawmk4	22_20.rawmk4	23_46.rawmk4
00_53.rawmk4	02_23.rawmk4	20_57.rawmk4	22_23.rawmk4	23_48.rawmk4
00_59.rawmk4	02_26.rawmk4	21_00.rawmk4	22_26.rawmk4	23_51.rawmk4
01_03.rawmk4	02_29.rawmk4	21_03.rawmk4	22_29.rawmk4	23_54.rawmk4
01_06.rawmk4	02_32.rawmk4	21_06.rawmk4	22_32.rawmk4	23_57.rawmk4
01_09.rawmk4	02_34.rawmk4	21_09.rawmk4	22_35.rawmk4	c20_41.rawmk4

01_12.rawmk4	17_43.rawmk4	21_12.rawmk4	22_38.rawmk4	c20_47.rawmk4
01_15.rawmk4	17_46.rawmk4	21_15.rawmk4	22_41.rawmk4	c20_53.rawmk4
01_18.rawmk4	17_49.rawmk4	21_18.rawmk4	22_44.rawmk4	
01_21.rawmk4	17_52.rawmk4	21_21.rawmk4	22_47.rawmk4	
01_24.rawmk4	17_55.rawmk4	21_24.rawmk4	22_50.rawmk4	
01_27.rawmk4	17_58.rawmk4	21_27.rawmk4	22_53.rawmk4	