
Mauna Loa Solar Observatory Observer's Log

Wed Mar 19 16:52:43 GMT 2003

Year: 03 Doy: 078

Observer: yasukawa

Wed Mar 19 16:58:23 GMT 2003 PICS Start Patrol

Wed Mar 19 16:59:17 GMT 2003 CHIP Start Patrol

WEATHER COMMENT: Wed Mar 19 16:59:16 GMT 2003

Cool, clear, southeast wind. Some scattered cirrus.

**** EVENT COMMENT ****: Wed Mar 19 17:11:12 GMT 2003

Active region on solar disk near west limb/equator.

PSPT COMMENT: Wed Mar 19 17:12:29 GMT 2003

Observing.

Wed Mar 19 17:19:14 GMT 2003 MKIV Start Patrol

MKIV COMMENT: Wed Mar 19 17:19:19 GMT 2003

O1 centering preset.

A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Wed Mar 19 17:19:47 GMT 2003

MKIV COMMENT: Wed Mar 19 17:22:18 GMT 2003

Centered O1.

MKIV COMMENT: Wed Mar 19 17:35:59 GMT 2003

Experiencing barrel problems. Have not seen what is happening except that akamai messaging barrel glitches and displays have no data.

MKIV PROBLEM: Wed Mar 19 17:37:42 GMT 2003

Barrel behaving last scan.

Wed Mar 19 18:02:57 GMT 2003 CHIP LSD

Wed Mar 19 18:04:04 GMT 2003 PICS Flat

Wed Mar 19 18:04:40 GMT 2003 CHIP End LSD

Wed Mar 19 18:04:55 GMT 2003 CHIP BiasLSD

Wed Mar 19 18:05:55 GMT 2003 CHIP End BiasLSD

Wed Mar 19 18:06:05 GMT 2003 CHIP Bias

Wed Mar 19 18:06:35 GMT 2003 PICS End Flat

Wed Mar 19 18:07:05 GMT 2003 CHIP End Bias

MKIV COMMENT: Wed Mar 19 18:29:49 GMT 2003

Centered O1.

MKIV PROBLEM: Wed Mar 19 19:09:26 GMT 2003

Experienced more barrle glitching.

Wed Mar 19 19:12:05 GMT 2003 MKIV Start Cal

Wed Mar 19 19:30:52 GMT 2003 MKIV End Cal

MKIV COMMENT: Wed Mar 19 19:46:43 GMT 2003

Centered O1.

MKIV COMMENT: Wed Mar 19 20:30:48 GMT 2003

Centered O1.

Wed Mar 19 20:34:26 GMT 2003 PICS End Patrol

COMMENT: Wed Mar 19 20:34:38 GMT 2003

Stopping to reconfigure dome shutter.

Wed Mar 19 20:34:51 GMT 2003 CHIP End Patrol

Wed Mar 19 20:37:39 GMT 2003 MKIV End Patrol

Wed Mar 19 20:40:46 GMT 2003 MKIV Start Patrol
Wed Mar 19 20:41:03 GMT 2003 CHIP Start Patrol
Wed Mar 19 20:41:13 GMT 2003 PICS Start Patrol

MKIV COMMENT: Wed Mar 19 21:44:24 GMT 2003
Centered O1.

MKIV COMMENT: Wed Mar 19 22:51:47 GMT 2003
Centered O1.

MKIV COMMENT: Wed Mar 19 23:44:50 GMT 2003
Centered O1.

****PSPT PROBLEM****: Thu Mar 20 00:14:08 GMT 2003
Crashed at 0010 UT making jpg images. killed/restarted.

Thu Mar 20 00:18:43 GMT 2003 CHIP End Patrol

Thu Mar 20 00:18:42 GMT 2003 PICS End Patrol

COMMENT: Thu Mar 20 00:18:49 GMT 2003

Stopping to reconfigure dome shutter.

Thu Mar 20 00:23:15 GMT 2003 MKIV End Patrol

Thu Mar 20 00:26:42 GMT 2003 MKIV Start Patrol

Thu Mar 20 00:26:59 GMT 2003 CHIP Start Patrol

Thu Mar 20 00:27:11 GMT 2003 PICS Start Patrol

MKIV COMMENT: Thu Mar 20 00:44:19 GMT 2003

Centered O1.

MKIV COMMENT: Thu Mar 20 01:39:09 GMT 2003

Centered O1.

****MKIV PROBLEM****: Thu Mar 20 01:39:30 GMT 2003

While watching cables inside wrapup for binding, I observed the barrel stutter. I watched as the drive stepper motor ran forward, stop, then run backward for two or three rotations

(stepper motor makes many rotations for each rotation of the barrel) and then resume going forward again thru the course of a barrel rotation (the stutter) and

could feel the increase in vibration before the motor backed up each time indicating possible binding somewhere. I'm not really aware if the

drive circuit has logic that causes the stepper to back off and try again if it encounters binding before it reaches the programmed limits.

This is what it appears to be doing. It doesn't appear to be a slipping clutch. I inspected the bearings near the drive gears and did not see

any broken bearings (occurred once in 1990) but there was a curious accumulation of "stuff" (grease and grit?) against one of the ball bearings on bearing #3. Maybe Darryl can further inspect the bearings.

Motor drive logic just sends pulses to the STM101 card to run the motor until the barrel angle matches the set turnaround points. The pulses

stop and then the logic tells the barrel to go in the other direction.

One possible cause of the stutter is if the barrel angle information somehow gets corrupted, telling the barrel to go the other way, but

then, what tells the logic to go back in the correct direction again??

Thu Mar 20 02:33:55 GMT 2003 CHIP End Patrol

Thu Mar 20 02:34:34 GMT 2003 PICS End Patrol

PSPT COMMENT: Thu Mar 20 02:34:43 GMT 2003

Shut down PSPT. PC crashed during shutdown so I rebooted it and repeated shutdown.

Thu Mar 20 02:38:16 GMT 2003 MKIV End Patrol

MKIV PROBLEM : Thu Mar 20 02:37:59 GMT 2003

Spar went off in declination during last quarter rotation of the last scan.

COMMENT: Thu Mar 20 02:42:44 GMT 2003

Looks like there was a normal declination reset at the end of the observations.

Thu Mar 20 02:43:32 GMT 2003

MkIV

00_02.rawmk4	01_56.rawmk4	18_26.rawmk4	20_27.rawmk4	22_32.rawmk4
00_05.rawmk4	01_59.rawmk4	18_29.rawmk4	20_33.rawmk4	22_37.rawmk4
00_08.rawmk4	02_02.rawmk4	18_32.rawmk4	20_40.rawmk4	22_40.rawmk4
00_11.rawmk4	02_05.rawmk4	18_35.rawmk4	20_46.rawmk4	22_42.rawmk4
00_14.rawmk4	02_08.rawmk4	18_38.rawmk4	20_53.rawmk4	22_45.rawmk4
00_17.rawmk4	02_11.rawmk4	18_41.rawmk4	20_57.rawmk4	22_48.rawmk4
00_20.rawmk4	02_14.rawmk4	18_44.rawmk4	21_00.rawmk4	22_51.rawmk4
00_26.rawmk4	02_17.rawmk4	18_47.rawmk4	21_03.rawmk4	22_54.rawmk4
00_29.rawmk4	02_20.rawmk4	18_50.rawmk4	21_06.rawmk4	22_57.rawmk4
00_32.rawmk4	02_23.rawmk4	18_53.rawmk4	21_09.rawmk4	23_00.rawmk4
00_35.rawmk4	02_26.rawmk4	18_56.rawmk4	21_11.rawmk4	23_03.rawmk4
00_38.rawmk4	02_29.rawmk4	18_58.rawmk4	21_14.rawmk4	23_06.rawmk4
00_41.rawmk4	02_32.rawmk4	19_02.rawmk4	21_17.rawmk4	23_09.rawmk4
00_44.rawmk4	02_34.rawmk4	19_05.rawmk4	21_20.rawmk4	23_12.rawmk4
00_47.rawmk4	17_19.rawmk4	19_08.rawmk4	21_23.rawmk4	23_15.rawmk4
00_50.rawmk4	17_22.rawmk4	19_15.rawmk4	21_26.rawmk4	23_18.rawmk4
00_53.rawmk4	17_25.rawmk4	19_21.rawmk4	21_29.rawmk4	23_21.rawmk4
00_56.rawmk4	17_28.rawmk4	19_27.rawmk4	21_32.rawmk4	23_24.rawmk4
00_59.rawmk4	17_29.rawmk4	19_31.rawmk4	21_35.rawmk4	23_27.rawmk4
01_01.rawmk4	17_33.rawmk4	19_34.rawmk4	21_38.rawmk4	23_30.rawmk4
01_04.rawmk4	17_36.rawmk4	19_37.rawmk4	21_41.rawmk4	23_33.rawmk4
01_07.rawmk4	17_39.rawmk4	19_40.rawmk4	21_44.rawmk4	23_35.rawmk4
01_10.rawmk4	17_42.rawmk4	19_43.rawmk4	21_47.rawmk4	23_38.rawmk4
01_13.rawmk4	17_45.rawmk4	19_46.rawmk4	21_50.rawmk4	23_41.rawmk4
01_16.rawmk4	17_48.rawmk4	19_49.rawmk4	21_53.rawmk4	23_44.rawmk4
01_19.rawmk4	17_51.rawmk4	19_52.rawmk4	21_56.rawmk4	23_47.rawmk4
01_22.rawmk4	17_54.rawmk4	19_55.rawmk4	21_59.rawmk4	23_50.rawmk4
01_25.rawmk4	17_57.rawmk4	19_58.rawmk4	22_02.rawmk4	23_53.rawmk4
01_28.rawmk4	18_00.rawmk4	20_01.rawmk4	22_05.rawmk4	23_56.rawmk4
01_31.rawmk4	18_03.rawmk4	20_04.rawmk4	22_08.rawmk4	23_59.rawmk4
01_34.rawmk4	18_06.rawmk4	20_07.rawmk4	22_10.rawmk4	c19_12.rawmk4
01_39.rawmk4	18_09.rawmk4	20_10.rawmk4	22_13.rawmk4	c19_18.rawmk4
01_42.rawmk4	18_12.rawmk4	20_13.rawmk4	22_16.rawmk4	c19_24.rawmk4
01_44.rawmk4	18_15.rawmk4	20_15.rawmk4	22_19.rawmk4	
01_47.rawmk4	18_18.rawmk4	20_18.rawmk4	22_22.rawmk4	
01_50.rawmk4	18_20.rawmk4	20_21.rawmk4	22_25.rawmk4	
01_53.rawmk4	18_23.rawmk4	20_24.rawmk4	22_28.rawmk4	