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Mauna Loa Solar Observatory Observer's Log  
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Thu Dec 30 17:40:29 GMT 1999

Year: 99 Doy: 364

Observer: koon

WEATHER COMMENT: Thu Dec 30 17:40:38 GMT 1999

Clear sky, wind=5 mph from the SW, temp=38 F.

itializing new tape

Thu Dec 30 17:45:40 GMT 1999	MKIV	Start Patrol
Thu Dec 30 17:46:01 GMT 1999	PICS	Start Patrol
Thu Dec 30 17:46:01 GMT 1999	PICS	Start Patrol
Thu Dec 30 18:02:05 GMT 1999	CHIP	Bias
Thu Dec 30 18:03:08 GMT 1999	CHIP	End Bias
Thu Dec 30 18:03:23 GMT 1999	CHIP	Water
Thu Dec 30 18:03:48 GMT 1999	PICS	Flat
Thu Dec 30 18:04:12 GMT 1999	CHIP	End Water
Thu Dec 30 18:06:26 GMT 1999	PICS	End Flat

\*\*PICS PROBLEM\*\* Thu Dec 30 18:55:52 GMT 1999

The occulting wheel wasn't being moved despite Request and Drive LEDs indicating CW movement. I checked the wheel, it wasn't turning, I removed the motor connector and verified 22 vdc coming through at right time, I reconnected the motor and it started turning. Possible loose connector, I'll try that again when it stalls again.

Thu Dec 30 19:02:18 GMT 1999	CHIP	Bias
Thu Dec 30 19:03:28 GMT 1999	CHIP	End Bias
Thu Dec 30 19:03:43 GMT 1999	CHIP	Water
Thu Dec 30 19:04:30 GMT 1999	CHIP	End Water

\*\*PICS PROBLEM\*\* Thu Dec 30 19:22:08 GMT 1999

Stalled again, connector not at fault, tapping gearbox frees the stall. Will continue with problem after the MKIV finishes the cal, I've been bumping the Spar a lot while working on this.

Thu Dec 30 19:58:56 GMT 1999	PICS	End Patrol
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\*\*PICS PROBLEM\*\* Thu Dec 30 20:00:03 GMT 1999

Pausing to work on gearbox.

Thu Dec 30 20:02:14 GMT 1999	CHIP	Gain
Thu Dec 30 20:08:03 GMT 1999	CHIP	End Gain
Thu Dec 30 20:08:23 GMT 1999	CHIP	Bias
Thu Dec 30 20:09:27 GMT 1999	CHIP	End Bias
Thu Dec 30 20:09:40 GMT 1999	CHIP	Water
Thu Dec 30 20:10:25 GMT 1999	CHIP	End Water
Thu Dec 30 21:02:10 GMT 1999	CHIP	Bias
Thu Dec 30 21:03:20 GMT 1999	CHIP	End Bias
Thu Dec 30 21:03:30 GMT 1999	CHIP	Water
Thu Dec 30 21:04:20 GMT 1999	CHIP	End Water
Thu Dec 30 22:02:10 GMT 1999	CHIP	Bias
Thu Dec 30 22:03:19 GMT 1999	CHIP	End Bias
Thu Dec 30 22:03:30 GMT 1999	CHIP	Water

Thu Dec 30 22:04:15 GMT 1999 CHIP End Water  
Thu Dec 30 22:49:40 GMT 1999 PICS Start Patrol  
\*\*PICS PROBLEM\*\*:  
Thu Dec 30 22:49:56 GMT 1999  
Took apart the gearboxes and checked the gearing, all looked OK, regreased and reinstalled, unfortunately I'm still seeing timeouts (stalls).  
Thu Dec 30 22:56:57 GMT 1999 PICS End Patrol  
Thu Dec 30 23:02:11 GMT 1999 CHIP Bias  
Thu Dec 30 23:03:38 GMT 1999 CHIP End Bias  
Thu Dec 30 23:03:50 GMT 1999 CHIP Water  
Thu Dec 30 23:04:44 GMT 1999 CHIP End Water  
Thu Dec 30 23:05:17 GMT 1999 CHIP ending tape  
Thu Dec 30 23:11:19 GMT 1999 CHIP CHIP End Patrol

\*\*PICS PROBLEM\*\*:  
Thu Dec 30 23:58:46 GMT 1999  
After installing the occulting wheel drive motor I started Patrol and noticed that the wheel didn't appear to be turning, I saw a timeout on the Optics field which was a symptom we noticed earlier. So I went up into the dome to see if tapping the gearbox would make the wheel start turning, it didn't, the wheel didn't turn at all. Then I noticed a burnt smell so I looked around and couldn't find anything wrong upstairs so I went downstairs and found smoke coming out of the MCC cabinet and the terrible stench of burnt electronics. I turned off the main power to the cabinet and later found that the occulting wheel drive board was very toasted. No other apparent damage to nearby boards. Maybe that board was going bad and causing the stall problem. I cleaned up then used the PICS Objective Wheel Drive board in place of the toasted Occulting wheel drive board. I was then able to move the occulting wheel via computer. Everything else seems to work OK too, I tested with the Video program. The only oddity is that the Optics field still shows "Timeout". But I can see the LEDS showing that the occulting wheel moves correctly and the Home and Bit LEDs are working correctly. So we need a new PICS Occulting Wheel Drive board, and the control room stinks.  
COMMENT: Fri Dec 31 00:37:18 GMT 1999

TAPES:  
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MKIV: 99364  
CHIP: C01002  
PICS: P01627  
LOWL: L00655 in drive #1

Fri Dec 31 00:42:13 GMT 1999  
MkIV

17_45.rawmk4	18_51.rawmk4	20_06.rawmk4	21_12.rawmk4	22_18.rawmk4
17_48.rawmk4	18_54.rawmk4	20_10.rawmk4	21_15.rawmk4	22_22.rawmk4
17_51.rawmk4	18_57.rawmk4	20_12.rawmk4	21_18.rawmk4	22_24.rawmk4
17_54.rawmk4	19_00.rawmk4	20_15.rawmk4	21_21.rawmk4	22_28.rawmk4
17_57.rawmk4	19_03.rawmk4	20_18.rawmk4	21_24.rawmk4	22_31.rawmk4

18_00.rawmk4	19_06.rawmk4	20_21.rawmk4	21_27.rawmk4	22_34.rawmk4
18_03.rawmk4	19_09.rawmk4	20_24.rawmk4	21_30.rawmk4	22_37.rawmk4
18_06.rawmk4	19_12.rawmk4	20_27.rawmk4	21_33.rawmk4	22_40.rawmk4
18_09.rawmk4	19_15.rawmk4	20_30.rawmk4	21_36.rawmk4	22_43.rawmk4
18_12.rawmk4	19_18.rawmk4	20_33.rawmk4	21_39.rawmk4	22_46.rawmk4
18_15.rawmk4	19_24.rawmk4	20_36.rawmk4	21_42.rawmk4	22_49.rawmk4
18_18.rawmk4	19_30.rawmk4	20_39.rawmk4	21_45.rawmk4	22_52.rawmk4
18_21.rawmk4	19_37.rawmk4	20_42.rawmk4	21_48.rawmk4	22_55.rawmk4
18_24.rawmk4	19_40.rawmk4	20_45.rawmk4	21_51.rawmk4	22_58.rawmk4
18_27.rawmk4	19_43.rawmk4	20_48.rawmk4	21_54.rawmk4	23_01.rawmk4
18_30.rawmk4	19_46.rawmk4	20_51.rawmk4	21_57.rawmk4	c19_21.rawmk4
18_33.rawmk4	19_49.rawmk4	20_54.rawmk4	22_00.rawmk4	c19_27.rawmk4
18_36.rawmk4	19_52.rawmk4	20_57.rawmk4	22_03.rawmk4	c19_34.rawmk4
18_39.rawmk4	19_55.rawmk4	21_00.rawmk4	22_06.rawmk4	
18_42.rawmk4	19_58.rawmk4	21_03.rawmk4	22_09.rawmk4	
18_45.rawmk4	20_01.rawmk4	21_06.rawmk4	22_12.rawmk4	
18_48.rawmk4	20_03.rawmk4	21_09.rawmk4	22_15.rawmk4	