```
        Mon Nov 3 16:55:21 GMT 2003
Year: 03 Doy: 307
Observer: stueben
WEATHER COMMENT: MON Nov 3 16:56:33 GMT 2003
Clear, cool, light southeast wind.
Mon Nov 3 16:58:56 GMT 2003 CHIP Start Patrol
Mon Nov 3 16:59:18 GMT 2003 PICS Start Patrol
ECHO COMMENT: Mon Nov 3 16:59:22 GMT 2003
ECHO time OK.
PSPT COMMENT: Mon Nov 3 17:00:19 GMT 2003
Starting up.
Mon Nov 3 17:02:43 GMT 2003 CHIP End Patrol
**PICS PROBLEM**: Mon Nov 3 17:02:55 GMT 2003
Stopping PICS and CHIP, MCC needs a reboot, MCC monitor not communicating
with CPU.
Mon Nov 3 17:03:48 GMT 2003 PICS End Patrol
Mon Nov 3 17:05:15 GMT 2003 CHIP Start Patrol
Mon Nov 3 17:05:19 GMT 2003 PICS Start Patrol
PSPT COMMENT: Mon Nov 3 17:07:57 GMT 2003
Observing.
MKIV COMMENT: Mon Nov 3 17:16:10 GMT 2003
Mk4 is clearing dome cylinder, centering O1.
Mon Nov 3 17:17:27 GMT 2003 MKIV Start Patrol
Mon Nov 3 18:01:41 GMT 2003 PICS Flat
Mon Nov 3 18:04:13 GMT 2003 PICS End Flat
Mon Nov 3 18:16:41 GMT 2003 MKIV End Patrol
**** EVENT COMMENT ****: Mon Nov 3 18:34:42 GMT 2003
Limb very active between PA 255-282.
Mon Nov 3 18:36:28 GMT 2003 MKIV End Cal
Mon Nov 3 18:36:39 GMT 2003 MKIV Start Patrol
MKIV COMMENT: Mon Nov 3 18:42:37 GMT 2003
Centered O1.
**CHIP PROBLEM**: Mon Nov 3 20:08:07 GMT 2003
Bunny alerted us that CHIP was not shipping data to kaiee and over to
Boulder. A check of hoike revealed that CHIP had crashed after the
Restart after rebooting the MCC this morning. Canceled WaitOptics
got CHIP going again.
**CHIP PROBLEM**: Mon Nov 3 20:10:45 GMT 2003
Program stalled at Exposures. Killing and restarting Patrol.
Mon Nov 3 20:15:03 GMT 2003 CHIP Start Patrol
COMMENT: Mon Nov 3 20:57:53 GMT 2003
Dec axis reset. Repointed spar and reset dec.
MKIV COMMENT: Mon Nov 3 21:24:11 GMT 2003
Centered 01 guider.
MKIV COMMENT: Mon Nov 3 22:25:55 GMT 2003
```


## Centered 01.

**PSPT PROBLEM**: Mon Nov 3 22:35:32 GMT 2003
Stopping PSPT to investigate errant reflections.
**PSPT PROBLEM**: Tue Nov 4 00:54:49 GMT 2003
Did not find any obvious broken optics. There were some strange reflections inside the main optics box but they appeared to be due to reflections off the rear of the mirrored shutter leaves bouncing off the surface of the partially reflecting lens that steers the beam up to the CCD and down to the guider lens. That lens' holder feels tight in its mount. I did find a couple of remnants of black RTV down on the focusing lens or the collimator, whichever is toward the CCD. I had to remove the cover plate to the optics box housing the filters (many screws!) and remove the filters to see down inside the lens tube with a mirror. Tried reaching down there with various makeshift probes and tools to snag the RTV pieces (~ 1/8-inch square) but could not reach the debris. Working with a mirror and an oblique
flashlight beam and tight quarters made the task even more difficult. Using the chimpanzee's sticky twig method of gathering termites did not work. Risking my knuckles, $I$ stuck my finger down in the tube and felt the lens surface (was wearing a optical wipe condom) and eventually felt the RTV pieces. Swapping the optical wiper for a piece of tape with sticky side out and with the deft of a proctologist, I probed the optics tube until the debris stuck to the tape. Put the optical wipe back on my finger
and cleaned the lens' front surface. When the lens looked clean enough, I reassembled the PSPT and we restarted observations.
WEATHER COMMENT: Tue Nov 4 01:38:10 GMT 2003
In very thin cirrostratus.

| Tue Nov 4 | $02: 27: 47$ | GMT 2003 | PICS | End Patrol |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Tue Nov 4 | $02: 30: 50$ | GMT 2003 | CHIP | End Patrol |

Tue Nov 4 02:35:33 GMT 2003
Mk IV


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| $22 \_22 . r a w m k 4$$22-25 . r a w m k 4$ |  |
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| 22_43.rawmk 4 |  |
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| 22_58.rawmk 4 |  |
| 23_01.rawmk 4 |  |
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| 00_50.rawmk 4 | 17_26.rawmk 4 | 19_29.rawmk 4 | 21_21.rawmk 4 | 23_12.rawmk 4 |
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| 00_53.rawmk 4 | 17_29.rawmk 4 | 19_32.rawmk 4 | 21_24.rawmk 4 | 23_15.rawmk 4 |
| 00_56.rawmk 4 | 17_32.rawmk 4 | 19_35.rawmk 4 | 21_27.rawmk 4 | 23_18.rawmk 4 |
| 00_59.rawmk 4 | 17_35.rawmk 4 | 19_38.rawmk 4 | 21_29.rawmk 4 | 23_21.rawmk 4 |
| 01_02.rawmk 4 | 17_38.rawmk 4 | 19_41.rawmk 4 | 21_32.rawmk 4 | 23_24.rawmk 4 |
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| 01_17.rawmk 4 | 17_52.rawmk 4 | 19_56.rawmk 4 | 21_47.rawmk 4 | 23_39.rawmk 4 |
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| 01_23.rawmk 4 | 17_58.rawmk 4 | 20_01.rawmk 4 | 21_53.rawmk 4 | 23_45.rawmk 4 |
| 01_25.rawmk 4 | 18_01. rawmk 4 | 20_04.rawmk 4 | 21_56.rawmk 4 | 23_48.rawmk 4 |
| 01_28.rawmk 4 | 18_04.rawmk 4 | 20_07.rawmk 4 | 21_59.rawmk 4 | 23_51.rawmk 4 |
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| 01_34.rawmk 4 | 18_10.rawmk 4 | 20_13.rawmk 4 | 22_05.rawmk 4 | c18_16.rawmk 4 |
| 01_37.rawmk 4 | 18_13.rawmk 4 | 20_16.rawmk 4 | 22_08.rawmk 4 | c18_23.rawmk 4 |
| 01_40.rawmk 4 | 18_20.rawmk 4 | 20_19.rawmk 4 | 22_11.rawmk 4 | c18_30.rawmk 4 |
| 01_43.rawmk 4 | 18_26.rawmk 4 | 20_22.rawmk 4 | 22_14.rawmk 4 |  |
| 01_46.rawmk 4 | 18_33.rawmk 4 | 20_25.rawmk 4 | 22_17.rawmk 4 |  |
| 01_49.rawmk 4 | 18_36.rawmk 4 | 20_28.rawmk 4 | 22_19.rawmk 4 |  |

