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#### TRMM Tropical Rainfall Measuring Mission



### **Mission Status**





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12-The Flywheel counter incremented to #496 at 12:57:33z (2005:350).

18-2005

10-2005

2005

12-A PREXTCALA command request was done at 04:47:53z bin #70 (2005:344).

12-A PREXTCALA command request was done at 05:43:11z bin #66 (2005:343). 09-

12-08-

Two PREXTCALA command requests were done at 05:00:52z bin #39 and 06:38:31z bin #45 (2005:342). 2005

12-The Monthly Status Review (MSR) was cancelled for the month of December. 03-

2005 12-The UTCF was adjusted by -885.0 µs at 22:56:20z. The new UTCF value is 31535996. 741413

seconds. The current drift value is -46.0 µs. The Frequency Standard is x'856' with a drift rate of -2005 1.84 μs/hr (2005:337).

- 11-A 180 degree yaw maneuver (#127) was performed at 19:36:24z. TRMM is flying in the -X
- Forward direction as of (2005:331). The next Yaw maneuver to +X Forward direction is currently 2005 scheduled for December 30, 2005 (05-364).
- Two VIRS solar calibrations were performed at 06:16:58z 06:18:58z and 09:21:58z 09:23:58z. 11-27-

- 11-A 180 degree yaw maneuver (#126) was performed at 06:29:24z.. TRMM is flying in the +X
- Forward direction as of (2005:316). The next Yaw maneuver to -X Forward direction is currently 12-

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2005 scheduled for November 27, 2005 (05-331). The UTCF was adjusted by -898.0 µs at 23:40:49z. The new UTCF value is 31535996.742298 11seconds (2005:315). 2005 11-The Monthly Status Review (MSR) was cancelled for the month of November. 09-2005 11-The next TRMM Configuration Control Board (CCB) is scheduled for January 10, 2006 (2006:010). 09-2005 11-The Flywheel counter incremented to #495 at 20:23:16z. (2005:308). 04-2005 10-The next TRMM Configuration Control Board (CCB) is scheduled for November 09, 2005 02-(2005:313).2005 10-The Flywheel counter incremented to #494 at 11:36:15z. (2005:304). 31-2005 10-The Flywheel counter incremented to #493 at 18:53:24z. (2005:299). 26-2005 10-A PR LNA ANAYLIS was performed at 04:14:00z. (2005:294). 21-2005 10-A 180 degree yaw maneuver (#125) was performed at 10:08:24z. TRMM is flying in the -X 14-Forward direction as of (2005:287). The next Yaw maneuver to +X Forward direction is currently 2005 scheduled for November 12, 2005 (05-316). 10-The Monthly Status Review (MSR) was cancelled for the month of October. 02-2005 09-The Science Mission Directorate has accepted the Tropical Rainfall Measuring Mission (TRMM) 28-Mission Extension Plan submitted by the Earth Science Mission Operations Project on July 29, 2005 2005. Approval is thereby granted to extend TRMM science operations through FY 2009. Further extension may be considered at the end of that period by the Earth Science Senior Review process with even the potential of overlap with the forthcoming (2010) Global Precipitation Measurement (GPM) mission. 09-The next TRMM Configuration Control Board (CCB) is scheduled for November 02, 2005 28-(05:306).2005 09-The UTCF was adjusted by -841.0 µs 23:19:52z. The new UTCF value is 31535996.744105 23seconds. (2005:256). 2005 09-A 180 degree yaw maneuver (#124) was performed at 01:34:52. TRMM is flying in the +X Forward direction as of (2005:265). The next Yaw maneuver to -X Forward direction is currently scheduled 2005 for October 14, 2005 (05-287). 09-The UTCF was adjusted by -864.0 µs 23:02:55z. The new UTCF value is 31535996.744946 13seconds (2005:256). 2005 09-The Monthly Status Review (MSR) was cancelled for the month of September. 07-2005 09-TRMM had a scheduled clock adjust of -894.0 µsec. The operator commanded a positive adjust of 02-894.0 µsec (2005:245). 2005 09-Two VIRS solar calibrations were performed at 05:02:58z - 05:04:58z and 08:07:52z - 08:09:52z.

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```
02-
      (2005:245).
2005
09-
      The Flywheel counter incremented to #489 at 22:45:37z. (2005:244).
01-
2005
08-
      The Flywheel counter incremented to #488 at 15:27:45z. (2005:243).
31-
2005
08-
      The new data storage filter table reallocating recorder space to VR1 was loaded to the S/C. This
31-
      filter table was generated for 'Lights Out' operations and is partitioned to give 10 hours of recorder
2005 space on VR1 with an equally distributed loss of 10 minutes to each of the remaining VRs
      (2005:243).
08-
      A 180 degree yaw maneuver (#123) was performed at 20:06:27. TRMM is flying in the -X Forward
30-
      direction as of (2005:242). The next Yaw maneuver to +X Forward direction is currently scheduled
2005 for September 22, 2005 (2005:265).
08-
     The UTCF was adjusted by -874.0 µs 23:44:10z. The new UTCF value is 31535996. 747614
22-
      seconds. The current drift value is -295.0 µs. The Frequency Standard is x'84A' with a drift rate of
2005 –2.36 µs/hr (2005:234).
08-
     A PR LNA ANAYLIS was performed at 13:53:00z (2005:227).
15-
2005
08-
      The UTCF was adjusted by -861.0 µs at 23:11:49z. The new UTCF value is 31535996.747594
10-
      seconds. The current drift value is -287.0 us. The Frequency Standard is x'84A' with a drift rate of
2005 –2.87 μs/hr (2005:222).
08-
      The Monthly Status Review (MSR) was cancelled for the month of August.
10-
2005
08-
      The next TRMM Configuration Control Board (CCB) is scheduled for September 28, 2005
10-
      (05:222).
2005
-80
      The Flywheel counter incremented to #487 at 12:36:42z. (2005:216).
04-
2005
08-
      Two VIRS solar calibrations were performed at 07:06:24z - 07:06:24z and 10:11:22z - 10:13:22z.
03-
      (2005:215).
2005
08-
      A 180 degree yaw maneuver (#122) was performed at 14:29:00. TRMM is flying in the +X Forward
      direction as of (2005:213). The next Yaw maneuver to -X Forward direction is currently scheduled
2005 for August 31, 2005 (2005:243).
      The Flywheel counter incremented to #486 at 03:10:30z. (2005:213).
08-
01-
2005
07-
      The UTCF was adjusted by -823.0 µs at 22:44:09z. The new UTCF value is 31535996.748455
29-
      seconds. The current drift value is -212.0 µs. The Frequency Standard is x'84A' with a drift rate of
2005 -3.09 \,\mu s/hr (2005:210).
07-
      The Flywheel counter incremented to #485 at 13:28:35z. (2005:208).
27-
2005
07-
      The VIRS instrument reset itself at 03:21:07z, the VIRS reset procedure was run and the instrument
25-
      was back to nominal (2005:206).
2005
07-
      A PR command request was preformed at 01:25:00 (2005:205).
24-
2005
07-
      The Monthly Status Review (MSR) was cancelled for the month of July.
20-
```

http://trmm.gsfc.nasa.gov/overview\_dir/mission\_status.html

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```
2005
07-
     Two VIRS solar calibrations were performed at 05:43:20z and 10:20:48z. (2005:200).
19-
2005
07-
      The UTCF was adjusted by -913.0 µs at 23:42:39z. The new UTCF value is 31535996.749278
      seconds. The Frequency Standard is x'84A'. Since the clock adjust was done at the end of this
17-
2005 weekly period, there is no current drift value or drift rate (2005:198).
07-
      The next TRMM Configuration Control Board (CCB) is scheduled for August 10, 2005 (05:222).
17-
2005
07-
      A 180 degree yaw maneuver (#121) was performed at 01:23:37. TRMM is flying in the -X Forward
15-
      direction as of (2005:196). The next Yaw maneuver to +X Forward direction is currently scheduled
2005 for August 01, 2005 (2005:213).
      The Flywheel counter incremented to #484 at 12:35:00z. (2005:186).
05-
2005
06-
      The Flywheel counter incremented to #482 at 17:21:00z. (2005:175).
24-
2005
06-
     A PR LNA Analysis was performed at 18:15:00z. (2005:171).
20-
2005
06-
      The UTCF was adjusted by -821.0 µs at 22:46z. The new UTCF value is 31535996.750191
15-
      seconds. The current drift value is -94.0µs. The Frequency Standard is x'84A' with a drift rate of -
2005 0.9991 μs/hr (2005:166).
06-
     A 180 degree yaw maneuver (#120) was performed. TRMM is flying in the +X Forward direction
14-
      as of (2005:165). The next Yaw maneuver to -X Forward direction is currently scheduled for July
2005 17, 2005 (2005:198).
06-
      The Monthly Status Review (MSR) was cancelled for the month of June.
08-
2005
06-
      The next TRMM Configuration Control Board (CCB) is scheduled for July 26, 2005 (05:207).
08-
2005
06-
      The UTCF was adjusted by -867.0 µs at 23:43:58z. The new UTCF value is 31535996.75012
      seconds. The current drift value is -519.0µs. The Frequency Standard is x'84A' with a drift rate of -
01-
2005 2.45 µs/hr (2005:152).
05-
      A 180 degree yaw maneuver (#119) was performed. TRMM is flying in the -X Forward direction as
31-
      of (2005:151). The next Yaw maneuver is currently scheduled for June 14, 2005 (2005:165).
2005
05-
      Two VIRS solar calibrations were performed at 06:05:16z - 06:07:56z and 10:42:40z - 10:45:20z.
29-
      (2005:149).
2005
05-
      The Flywheel counter incremented to #479 at 07:26:00z. (2005:143).
23-
2005
05-
     The UTCF was adjusted by -858.0 µs at 23:58:31z. The new UTCF value is 31535996.751879
16-
      seconds. The current drift value is -293.0µs. The Frequency Standard is x'84A' with a drift rate of -
2005 2.15 μs/hr (2005:136).
05-
     The Flywheel counter incremented to #478 at 14:31:00z. (2005:136).
16-
2005
05-
     The Flywheel counter incremented to #477 at 01:12:00z. (2005:132).
12-
2005
05-
      The Flywheel counter incremented to #476 at 15:33:00z. (2005:131).
```

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```
11-
2005
05-
      The TRMM Monthly Status Review (MSR) was cancelled for the month of May.
09-
2005
05-
      The VIRS instrument reset itself at 17:01:12z, the VIRS reset procedure was run and at 17:03:20z
      the VIRS instrument was back to nominal (2005:123).
03-
2005
04-
      A 180 degree yaw maneuver (#118) was performed. TRMM is flying in the +X Forward direction
      as of (2005:120). The next Yaw maneuver is currently scheduled for May 31, 2005 (2005:151).
30-
2005
04-
      The UTCF was adjusted by -728.0 µs at 23:02:45z. The new UTCF value is 31535996.752737
28-
      seconds. The current drift value is -166.0µs. The Frequency Standard is x'84A' with a drift rate of -
2005 2.35 μs/hr (2005:118).
04-
     A PR LNA Analysis was performed at 00:41:00z. (2005:112).
22-
2005
04-
      The Flywheel counter incremented to #475 at 14:31:00z. (2005:111).
21-
2005
04-
      The Flywheel counter incremented to #474 at 13:43:00z. (2005:105).
15-
2005
04-
      The Flywheel counter incremented to #473 at 03:31:00z. (2005:103).
13-
2005
04-
     The next TRMM Configuration Control Board (CCB) is scheduled for June 8th (05:159).
13-
2005
04-
     Two VIRS solar calibrations were performed at 06:16:32-06:19:12z and 09:21:34-09:24:14z
      (2005:103).
13-
2005
04-
     The UTCF was adjusted by -891.6 µs at 23:12:34z. The new UTCF value is 31535996.753465
12-
      seconds. The current drift value is -251.6 µs. The Frequency Standard is x'84A' with a drift rate of
2005 -1.80 \,\mu s/hr (2005:102).
04-
     The TRMM Monthly Status Review (MSR) was cancelled for the month of April.
11-
2005
04-
      A 180 degree yaw maneuver (#117) was performed. TRMM is flying in the -X Forward direction as
      of (2005:100). The next Yaw maneuver is scheduled for April 30, 2005 (2005:120).
10-
2005
03-
      The Flywheel counter incremented to #471 at 12:16:00z. (2005:086).
27-
2005
03-
      The UTCF was adjusted by -838.0 µs at 23:55:13z. The new UTCF value is 31535996.754357
      seconds. The current drift value is -220.0 us. The Frequency Standard is x'84A' with a drift rate of -
2005 1.59 μs/hr (2005:080).
03-
      A PR LNAANALYSIS command request performed at 17:30:00z (2005:078).
19-
2005
03-
      Two VIRS solar calibrations were performed at 06:27:08-06:29:08z and 09:32:04-09:34:04z
      (2005:076).
17-
2005
03-
     A 180 degree yaw maneuver (#116) was performed. TRMM is flying in the +X Forward direction
16-
      as of 09:51:04z (2005:075). The next Yaw maneuver is scheduled for April 10, 2005 (2005:100).
2005
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```
03-
     The TRMM Monthly Status Review (MSR) was cancelled for the month of March.
14-
2005
03-
     TDE was relocated and a new TDRS was moved into the TDE spot. Before uplinking a new vector
03-
     for TDE, the onboard continuity check was disabled. After successful propagation, the continuity
2005 check was re-enabled.
03-
     The next TRMM Configuration Control Board (CCB) is scheduled for April 13th (05:103).
01-
2005
02-
      At 22:43:13z a UTCF Adjustment was performed and the UCTF was adjusted by -896.0
24-
      (2005:054).
2005
02-
     A PR LNAANALYSIS command request was performed at 07:05:00z (2004:052).
21-
2005
02-
      A 180 degree yaw maneuver (#115) was performed. TRMM is flying in the -X Forward direction as
17-
      of 00:23:32z (2005:048). The next Yaw maneuver is scheduled for March 16, 2005 (2005:075).
2005
02-
     The next TRMM Configuration Control Board (CCB) is scheduled for March 01, 2005 (2005:060).
16-
2005
02-
     The Flywheel counter incremented to #470 at 12:16:00z. (2005:043).
12-
2005
02-
     The Flywheel counter incremented to #469 at 06:52:00z. (2005:042).
11-
2005
02-
     The Flywheel counter incremented to #468 at 15:45:00z. (2005:041).
10-
2005
02-
     The Flywheel counter incremented to #467 at 06:03:00z. (2005:033).
02-
2005
01-
     A 180 degree yaw maneuver (#114) was performed. TRMM is flying in the +X Forward direction
      as of 00:23:32z (2005:031). The next Yaw maneuver is scheduled for February 17, 2005
2005 (2005:048).
     The TRMM Monthly Status Review (MSR) is cancelled for the month of February.
01-
29-
2005
     The Flywheel counter incremented to #465 at 07:24:00z and to #466 at 18:33:00z (2005:029).
01-
29-
2005
01-
      Two VIRS solar calibrations were performed at 06:40:40-06:43:20z and 09:45:44-09:48:24z
29-
      respectively (2005:029).
2005
01-
     At 23:12:59z a UTCF Adjustment was performed and the UCTF was adjusted by -933 (2005:027).
27-
2005
01-
     The Flywheel counter incremented to #464 at 05:03:00z. (2005:027).
27-
2005
01-
      The next TRMM Configuration Control Board (CCB) is scheduled for February 16, 2005
      (2005:047).
27-
2005
01-
     A PR LNAANALYSIS command request was performed at 21:50:00z (2005:022).
22-
```

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2005	
01-	The Flywheel counter incremented to #462 at 20:06:00z. (2005:016).
16-	
2005	
01-	The TRMM Monthly Status Review (MSR) is cancelled for the month of January.
03-	
2005	
01-	The Flywheel counter incremented to #460 at 20:06:00z. (2005:002).
02-	
2005	

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### 2004

12- A 180 degree yaw maneuver (#113) was performed. TRMM is flying in the -X Forward direction as of 05:05:28z (2004:365). The next Yaw maneuver is scheduled for January 31, 2005 (2005:031). 2004

11- The Flywheel counter incremented to #459 at 07:10:00z. (2004:364).

29-2004

11- The Flywheel counter incremented to #458 at 19:35:00z. (2004:362).

27-

2004

12- A PR LNAANALYSIS command request was performed at 12:35:00z (2004:359).

24-

2004

- 12- Two VIRS solar calibrations were performed at 08:24:44z-08:26:44z and 11:29:44z-11:31:44z
- 18- respectively (2004:353).

2004

- 12- A 180 degree yaw maneuver (#112) was performed. TRMM is flying in the +X Forward direction
- 16- as of 15:50:02z (2004:351). The next Yaw maneuver is scheduled for December 30, 2004 2004 (2004:365).
- 12- The Flywheel counter incremented to #457 at 07:59:00z (2004:350).

15-

2004

- 12- ECLIPSE ground system front ends, work stations, and GMSEC equipment have been installed in
- 13- the MOC. Procedure and page development is well underway. Eclipse Build 1.01 was delivered and
- 2004 installed in the MOC the week of November 15th. DRs are being written as they occur. During weekdays, Eclipse is used to command the S/C for approximately four passes. Noops, manual playbacks of data, and data releases are performed. Eclipse is used to shadow events on nights and weekends.
- 12- At 23:51:52z a UTCF Adjustment was performed and the UCTF was adjusted by -972.6
- 06- (2004:341).

2004

- 12- The next TRMM Configuration Control Board (CCB) is scheduled for January 27, 2005 (2005:027).
- 02-

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```
The TRMM Monthly Status Review (MSR) is cancelled for the month of December.
11-
28-
2004
11-
     The Flywheel counter incremented to #456 at 21:43:00z. (2004:331).
26-
2004
     A PR LNAANALYSIS command request was performed at 03:19:00z (2004:330).
11-
25-
2004
11-
      At 22:45:51z a UTCF Adjustment was performed and the UCTF was adjusted by -930.4
23-
      (2004:328).
2004
11-
     The Flywheel counter incremented to #455 at 09:30:00z (2004:327).
22-
2004
11-
      A 180 degree yaw maneuver (#111) was performed. TRMM is flying in the -X Forward direction as
14-
      of 15:50:02z (2004:319). The next Yaw maneuver is scheduled for December 16, 2004 (2004:351).
2004
11-
     The Flywheel counter incremented to #454 at 12:08:00z (2004:317).
12-
2004
11-
      At 23:15:50z a UTCF Adjustment was performed and the UCTF was adjusted by -924.0
      (2004:312).
07-
2004
11-
      The Flywheel counter incremented to #453 at 22:30:00z. (2004:310).
06-
2004
     The Flywheel counter incremented to #452 at 07:21:05z (2004:310).
11-
05-
2004
10-
     The TRMM Monthly Status Review (MSR) is cancelled for the month of November.
30-
2004
10-
     Two VIRS solar calibrations were performed at 04:49:32z-04:51:32z and 09:27:04z-09:29:04z
30-
      respectively (2004:304).
2004
10-
     A 180 degree yaw maneuver (#110) was performed. TRMM is flying in the +X Forward direction
      as of 09:06:34z. (2004:302). The next Yaw maneuver is scheduled for November 14, 2004
2004 (2004:319).
10-
      The Flywheel counter incremented to #451 at 13:36:00z. (2004:289).
15-
2004
10-
      The next TRMM Configuration Control Board (CCB) is scheduled for December 02, 2004
06-
      (2004:307).
2004
10-
      A 180 degree yaw maneuver (#109) was performed. TRMM is flying in the -X Forward direction as
01-
      of 06:24:06z. (2004:275). The next Yaw maneuver is scheduled for October 28, 2004 (2004:302).
2004
09-
     The Flywheel counter incremented to #450 at 09:34:00z. (2004:274).
30-
2004
09-
     The TRMM Monthly Status Review (MSR) is cancelled for the month of October.
27-
2004
09-
      The next TRMM Configuration Control Board (CCB) is scheduled for October 06, 2004
26-
      (2004:280).
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```
2004
09-
      A PR External Calibration [Beam=43] was performed at 15:35:50z.(2004:263).
19-
2004
09-
      PR External Calibrations [Beam=56 & 67] were performed at 14:53:39 & 16:31:38z respectively
      (2004:262).
18-
2004
09-
      A PR External Calibration [Beam=37] was performed at 15:49:05z(2004:261).
17-
2004
09-
      The Flywheel counter incremented to #449 at 20:45:00z (2004:254).
10-
2004
09-
      Two VIRS solar calibrations were performed (#1) at 05:24:08z and (#2) at 10:01:36z respectively
08-
      (2004:252).
2004
09-
      The TRMM Monthly Status Review (MSR) is cancelled for the month of September.
06-
2004
09-
      The next TRMM Configuration Control Board (CCB) is scheduled for September 29, 2004
      (04:273).
06-
2004
09-
      A 180 degree yaw maneuver (#108) was performed. TRMM is flying in the +X Forward direction
06-
      as of 18:56:31z (2004:250). The next Yaw maneuver is scheduled for October 01, 2004 (2004:275).
2004
08-
      The Flywheel counter incremented to #448 at 10:45:26z (2004:240).
27-
2004
08-
      The Flywheel counter incremented to #447 at 17:46:46z (2004:240).
27-
2004
-80
      The Flywheel counter incremented to #446 at 06:40:36z (2004:240).
27-
2004
-80
      The Flywheel counter incremented to #445 at 19:58:23z (2004:237).
24-
2004
08-
      The Flywheel counter incremented to #444 at 00:12:03z (2004:237).
24-
2004
08-
      At 23:16:55z a UTCF Adjustment was performed and the UCTF was adjusted by -949.0
17-
      (2004:230).
2004
08-
      A 180 degree yaw maneuver (#107) was performed. TRMM is flying in the -X Forward direction as
17-
      of 14:48:12z (2004:230). The next Yaw maneuver is scheduled for September 06, 2004 (2004:250).
2004
08-
      The TRMM Monthly Status Review (MSR) is cancelled for the month of August.
17-
2004
08-
      Two VIRS solar calibrations were performed (#1) at 05:26:44z and (#2) at 08:31:40z respectively
      (2004:229).
16-
2004
     The next TRMM Configuration Control Board (CCB) is scheduled for August 25, 2004 (2004:238).
08-
11-
2004
08-
      The Flywheel counter incremented to #443 at 05:41:00z (2004:224).
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```
11-
2004
08-
     The Flywheel counter incremented to #442 at 01:10:36z. (2004:221).
07-
2004
08-
      At 22:58:58z a UTCF Adjustment was performed and the UCTF was adjusted by -915.1 ms
      (2004:220).
07-
2004
08-
     The Flywheel counter incremented to #441 at 20:06:26z (2004:220).
07-
2004
07-
      The next TRMM Configuration Control Board (CCB) has not been scheduled.
26-
2004
07-
     The Flywheel counter incremented to #437 at 05:14:00z (2004:202).
20-
2004
      A 180 degree yaw maneuver (#106) was performed. TRMM is flying in the +X Forward direction.
07-
17-
      The next Yaw maneuver is scheduled for August 17, 2004 (2004:230).
2004
07-
     At 23:53:47z a UTCF Adjustment was performed and the UCTF was adjusted by -900.0 ms.
17-
2004
07-
      A 180 degree yaw maneuver (#105) was performed at 12:49:46. TRMM is flying in the -X Forward
03-
      direction. The next Yaw maneuver is scheduled for July 18, 2004 (2004:200).
2004
07-
     Two VIRS solar calibrations were performed (#1) at 06:33:16Z and (#2) at 09:38:12Z respectively.
02-
2004
06-
     The Flywheel counter incremented to #435 at 04:25:00z (2004:182).
30-
2004
06-
     A PR LNAANALYSIS was performed at 07:38:00z (2004:179).
27-
2004
06-
      At 23:05:47z a UTCF Adjustment was performed and the UCTF was adjusted by -880.5 ms.
24-
2004
     The Flywheel counter incremented to #434 at 14:11:00z (2004:174).
06-
22-
2004
06-
     The Flywheel counter incremented to #433 at 10:58:55z (2004:163).
11-
2004
      At 23:42:50z a UTCF Adjustment was performed and the UCTF was adjusted by -904.4 ms.
06-
09-
2004
06-
     A TRMM Monthly Status Review (MSR) is cancelled for the month of July.
02-
2004
     The next TRMM Configuration Control Board (CCB) is scheduled for July 26th (04-154).
06-
02-
2004
05-
     A 180 degree yaw maneuver (#104) was performed at 18:05:38z. TRMM is flying in the +X
31-
      Forward direction. The next Yaw maneuver is scheduled for July 03, 2004 (2004:185).
2004
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At 22:48:29z a UTCF Adjustment was performed and the UCTF was adjusted by -849.0 ms.
05-
11-
2004
05-
     The Flywheel counter incremented to #430 at 02:40z (2004:140).
19-
2004
05-
     A VIRS solar calibration was performed at 09:39:06z-09:41:06z (2004:139).
18-
2004
05-
      A PR LNAANALYSIS was performed at 01:02z (2004:138).
17-
2004
05-
      A 180 degree yaw maneuver (#103) was performed at 18:01:38z. TRMM is flying in the -X
      Forward direction. The next Yaw maneuver is scheduled for May 31, 2004 (2004:152).
16-
2004
05-
      At 23:22:27z a UTCF Adjustment was performed and the UCTF was adjusted by -906.0 ms.
11-
2004
     At 23:10:41z a UTCF Adjustment was performed and the UCTF was adjusted by -917.0 ms.
04-
30-
2004
04-
     The next TRMM Configuration Control Board (CCB) is scheduled for June 02, 2004 (2004:154).
27-
2004
04-
     A PREXTCALA was performed at 17:50:14z (bin #36) (2004:116).
25-
2004
04-
     Two PREXTCALA were performed at 17:07:56z (bin #71) and 18:45:35z (bin #53) (2004:115).
24-
2004
04-
      A PREXTCALA was performed at 18:03:21z (bin #45) (2004:114).
23-
2004
04-
     A TRMM Monthly Status Review (MSR) is canceled for the month of May.
18-
2004
04-
      At 23:00:17z a UTCF Adjustment was performed and the UCTF was adjusted by -855.5 ms.
18-
2004
04-
     The Flywheel counter incremented to #429 at 21:08:54z (2004:109).
18-
2004
04-
     Two VIRS solar calibrations were performed (#1) at 05:32:38z and (#2) at 08:37:36z respectively.
18-
2004
04-
      A 180 degree yaw maneuver (#102) was performed at 19:05:14z. TRMM is flying in the +X
      Forward direction. The next Yaw maneuver is scheduled for May 16, 2004 (04-137).
16-
2004
04-
      At 22:27:19z a UTCF Adjustment was performed and the UCTF was adjusted by -860.0 ms.
07-
2004
04-
     A TRMM Monthly Status Review (MSR) is scheduled for May 03, 2004 (2004:124).
03-
2004
03-
      The next Configuration Control Board (CCB) is scheduled for April 27, 2004 (2004:118).
26-
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2004
03-
      A 180 degree yaw maneuver (#101) was performed at 09:39:25z. TRMM is flying in the -X
26-
      Forward direction. The next Yaw maneuver is scheduled for April 16, 2004 (04-107).
2004
03-
     At 23:09:25z a UTCF Adjustment was performed and the UCTF was adjusted by -889.5 ms.
24-
2004
03-
     Two VIRS Solar Calibrations were performed at 05:47:22z and 08:52:20z respectively (2004:084).
24-
2004
03-
      The next TRMM Monthly Status Review (MSR) for March is scheduled for April 05, 2004
15-
      (2004:096).
2004
03-
     The Flywheel counter incremented to #428 at 10:11:00z (2004:072).
12-
2004
03-
      A Monthly Status Review (MSR) for March is currently not scheduled.
04-
2004
03-
     The Flywheel counter incremented to #427 at 14:08:00z (2004:064).
04-
2004
      A 180 degree yaw maneuver (#100) was performed at 08:16:13. TRMM is flying in the +X Forward
03-
03-
      direction. The next Yaw maneuver is scheduled for March 26, 2004 (04-086).
2004
03-
     The next TRMM Monthly Status Review (MSR) for March is scheduled for March 08, 2004
      (2004:068).
01-
2004
02-
     PR External Calibration [Beam=67] was performed at 22:10:40z. (2004:060).
29-
2004
02-
      PR External Calibration [Beam=38 & 47] was performed at 21:28:47 & 23:04:24z respectively.
      (2004:059).
28-
2004
02-
     PR External Calibration [Beam=62] was performed at 22:24:28z. (2004:058).
27-
2004
02-
     The next TRMM Configuration Control Board (CCB) is scheduled for March 23, 2003 (2004:083).
23-
2004
02-
     At 23:11:45z a UTCF Adjustment was performed and the UCTF was adjusted by -861.0 ms.
14-
2004
02-
     The Flywheel counter incremented to #426 at 11:16:00z.
13-
2004
02-
     The next TRMM Monthly Status Review (MSR) for March is scheduled for March 01, 2004
09-
      (2004:061).
2004
02-
     The Flywheel counter incremented to #425 at 17:41:53z.
08-
2004
     A 180 degree yaw maneuver (#99) was performed at 00:06:11. TRMM is flying in the -X Forward
02-
04-
      direction. The next Yaw maneuver is scheduled for March 03, 2004 (04-063).
2004
02-
     The Flywheel counter incremented to #424 at 21:04:00z.
```

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01-2004 01-The Flywheel counter incremented to #423 at 09:20:00z. 27-2004 01-The Flywheel counter incremented to #422 at 01:56:00z. 27-2004 01-Two VIRS solar calibrations were performed (#1) at 04:30:16z - 04:32:56z and (#2) at 06:02:46z -20-06:05:26z. 2004 01-A 180 degree yaw maneuver (#98) was performed at 22:40:00. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for February 04, 2004 (04-035). 18-2004 01-A PR LNAANALYSIS was performed at 14:05:00z. 16-2004 01-The Flywheel counter incremented to #421 at 03:49:00z. 16-2004 01-The next TRMM Configuration Control Board (CCB) is scheduled for February 23, 2004 (2004-13-2004 01-The next TRMM Monthly Status Review (MSR) for February is scheduled for February 09, 2004 12-(2004:040).2004 01-At 22:32:37z a UTCF Adjustment was performed and the UCTF was adjusted by -869.0 ms. 12-2004 01-The Flywheel counter incremented to 420 at 17:42:00z. 09-2004 01-The Flywheel counter incremented to 419 at 09:59:00z. 07-2004 01-AutoFDS was made operational on January 05, 2004 and will generate all scheduling, maneuver, 05and attitude products. AutoFDS will replace the current Flight Dynamics System (FDS) located in 2004 Building 28. FDF in Building 28 has stopped generating scheduling, maneuver, and attitude products for TRMM. 01-At 23:35:40z a UTCF Adjustment was performed and the UCTF was adjusted by -924.0 ms. 02-

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### 2003

2004

12- The Flywheel counter incremented to 418 at 16:37:00z.

30-

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2003	
12- 22- 2003	The next TRMM Monthly Status Review (MSR) for January is scheduled for January 12, 2004 (2004:012).
12- 21- 2003	At 23:29:18z a UTCF Adjustment was performed and the UCTF was adjusted by -916.0 ms.
12- 21- 2003	The Flywheel counter incremented to 417 at 04:59:00z.
12- 17- 2003	A 180 degree yaw maneuver (#97) was performed at 10:23:32. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for January 18, 2004 (04-018).
12- 15- 2003	A PR LNAANALYSIS was performed at 05:55:00z - 06:00:00z.
12- 09- 2003	At 23:03:16z a UTCF Adjustment was performed and the UCTF was adjusted by -962.0 ms.
12- 07- 2003	The Flywheel counter incremented to 416 at 07:21:00z.
12- 05- 2003	Two VIRS solar calibrations were performed (#1) at $18:19:38z - 18:22:18z$ and (#2) at $21:24:36z - 21:26:12z$ .
12- 05- 2003	The Flywheel counter incremented to 415 at 09:31:00z.
12- 04- 2003	The Flywheel counter incremented to 414 at 19:21:00z.
12- 03- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for January 13, 2003 (04-013).
12- 03- 2003	A 180 degree yaw maneuver (#96) was performed at 14:54:46. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for December 17, 2003 (03-351).
12- 01- 2003	The next TRMM Monthly Status Review (MSR) for January is not currently scheduled.
10- 26- 2003	The Flywheel counter incremented to 413 at 23:22:00z.
11- 25- 2003	At 23:43:44z a UTCF Adjustment was performed and the UCTF was adjusted by -863.0 ms.
11- 24- 2003	A PR External Calibration (bin #31) was performed at 00:26:10z.
11- 23- 2003	A PR External Calibration (bin #52) was performed at 22:48:28z.
11- 22- 2003	A PR External Calibration (bin #69) was performed at 00:39:44z and a second one (bin #68) was performed at 23:44:05z.
11-	At 23:28:49z a LITCE Adjustment was performed and the LICTE was adjusted by -888.4 ms

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10- 2003	
11- 10- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for December 01, 2003 (03-335).
11- 08- 2003	VIRS reset itself at 04:42:26z. The instrument was re-configured on the 05:24z event.
11- 04- 2003	Two VIRS Solar Calibrations were performed: (#1) at $06:06:26z$ - $06:09:06z$ , and (#2) at $09:11:26z$ - $09:14:06z$ .
11- 03- 2003	On Monday November 3, 2003 AutoFDS successfully generated daily products and the MOC system was able to successfully process them. Weekly products from AutoFDS were successful during the week of 03-307 (November 3rd). AutoFDS also successfully generated its first Delta-V (#448). FDF remains as backup and a failover can be performed without problem.
11- 03- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for November 10, 2003 (03-314).
11- 03- 2003	LIS powered ON starting at 17:02:00z.
11- 02- 2003	A 180 degree yaw maneuver (#95) was performed at 15:39:20. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for December 03, 2003 (03-337).
10- 29- 2003	Due to the Proton Storm, MSFC requested that LIS be powered OFF. The LIS power relay was opened at 13:44:35z.
10- 29- 2003	AutoFDS successfully generated daily products and the MOC system was able to successfully process them. Weekly products from AutoFDS will be used the week of 03-307 (November 2nd). AutoFDS also generated successfully its first Delta-V (#448). FDF will remain as backup and a failover can be performed without any problem.
10- 27- 2003	The Flywheel counter incremented to 412 at 09:15:00z.
10- 23- 2003	A PRLNAANALYSIS was performed at 09:05:00z - 09:10:00z.
10- 23- 2003	Auto FDS will go prime with daily products on Wednesday October 29, 2003. Weekly products scheduled to be prime next week. FDF will remain as backup and a failover can be performed without any problem.
10- 22- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for December 03, 2003 (03-337).
10- 14- 2003	A 180 degree yaw maneuver (#94) was performed at 07:34:50. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for November 02, 2003 (03-306).
10- 13- 2003	At 23:11:01z a UTCF Adjustment was performed and the UCTF was adjusted by -926.0 ms.
10- 13- 2003	The Flywheel counter incremented to 411 at 21:37:00z.
10- 11- 2003	The Flywheel counter incremented to 410 at 23:12:00z.
10-	The Flywheel counter incremented to 409 at 12:35:00z.

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09- 2003	
10- 06- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for November 03, 2003 (03-307).
09- 23- 2003	At 23:57:03z a UTCF Adjustment was performed and the UCTF was adjusted by -878.5 ms.
09- 23- 2003	The Flywheel counter incremented to 408 at 05:32:49z.
09- 21- 2003	Two VIRS Solar Calibrations were performed: (#1) at at $04:22:32z$ - $04:25:12z$ , and (#2) at $05:54:58z$ - $05:57:38z$ .
09- 19- 2003	A 180 degree yaw maneuver (#93) was performed at 03:08:38. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for October 14, 2003 (03-287).
09- 19- 2003	A PRLNAANALYSIS was performed at 02:50:00z - 02:55:00z.
09- 19- 2003	The Flywheel counter incremented to 407 at 00:55:34z.
09- 17- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for October 22, 2003 (03-295).
09- 08- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for October 06, 2003 (03-279).
08- 29- 2003	At 23:58:30z a UTCF Adjustment was performed and the UCTF was adjusted by -902.0 ms.
08- 23- 2003	A 180 degree yaw maneuver (#92) was performed at 15:51:29. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for September 19, 2003 (03-262).
08- 19- 2003	The Flywheel counter incremented to 406 at 15:43:00z.
08- 16- 2003	The Flywheel counter incremented to 405 at 15:05:00z.
08- 07- 2003	The Flywheel counter incremented to 404 at 23:13:00z.
08- 07- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for September 17, 2003 (03-260).
08- 05- 2003	A 180 degree yaw maneuver (#91) was performed at 11:31:33. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for August 23, 2003 (03-235).
08- 04- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for September 08, 2003 (03-251).
08- 04- 2003	Two VIRS Solar Calibrations were performed: #1 at $06:47:30z$ - $06:50:10z$ , and #2 at $08:20:00z$ - $08:22:40z$ .

http://trmm.gsfc.nasa.gov/overview\_dir/mission\_status.html

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08- 03- 2002	A PR External Calibration was performed at 08:25:48z.
08- 02- 2002	A PR External Calibration was performed at 09:21:30z.
08- 01- 2002	A PR External Calibration was performed at 10:17:08z.
07- 30- 2003	The Flywheel counter incremented to 403 at 07:11:00z.
07- 22- 2003	The +Y Solar Array offset test was performed. The +Y SA was set to track with a 55° offset while the -Y remained parked for about two orbits. Following the testing, the SA was returned to nominal $\pm 50^{\circ}$ tracking.
07- 19- 2003	At 23:05:55z a Frequency Standard Adjustment was also performed, and the FS was adjusted by 12 counts. The new Frequency Standard is x'81A' with a drift rate of -0.33 ms/hr.
07- 19- 2003	At 23:04:40z a UTCF Adjustment was performed and the UCTF was adjusted by -890.0 ms.
07- 18- 2003	A PRLNAANALYSIS was performed at 10:25:00z.
07- 15- 2003	The Flywheel counter incremented to 402 at 12:03:00z.
07- 09- 2003	At 23:34:56z a UTCF Adjustment was performed and the UCTF was adjusted by -913.0 ms.
07- 07- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for August 04, 2003 (03-216).
07- 04- 2003	A 180 degree yaw maneuver (#90) was performed at 11:36:13. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for August 05, 2003 (03-217).
07- 02- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for August 07, 2003 (03-219).
06- 29- 2003	At 23:08:36z a UTCF Adjustment was performed and the UCTF was adjusted by -910.0 ms.
06- 20- 2003	A 180 degree yaw maneuver (#89) was performed at 19:13:41. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for July 04, 2003 (03-185).
06- 19- 2003	Two VIRS Solar Calibrations were performed; #1 at 05:14:08z, and #2 at 08:19:08z.
06- 18- 2003	At 23:19:45z a UTCF Adjustment was performed and the UCTF was adjusted by -927.0 ms.
06- 16- 2003	A PRLNAANALYSIS was performed at 02:20:00z.
2003 06- 10-	The Flywheel counter incremented to 400 at 11:45:00z and 401 at 22:30:00z.

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2003	
06- 04- 2003	The Flywheel counter incremented to 399 at 05:00:29z.
06- 02- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for July 07, 2003 (03-188).
05- 31- 2003	The Flywheel counter incremented to 398 at 06:19:00z.
05- 28- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for July 02, 2003 (03-183).
05- 25- 2003	A PR External Calibration was performed at 19:13:34z with a Bin 45.
05- 24- 2003	A PR External Calibration was performed at 20:09:00z with a Bin 34.
05- 23- 2003	A PR External Calibration was performed at 21:04:25z with a Bin 37.
05- 19- 2003	A 180 degree yaw maneuver (#88) was performed at 05:24:38. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for June 20, 2003 (03-171).
05- 17- 2003	At 23:57:00z a UTCF Adjustment was performed and the UCTF was adjusted by -909.0 ms.
05- 10- 2003	The Flywheel counter incremented to 397 at 07:43:00z.
05- 05- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for June 02, 2003 (03-153).
05- 04- 2003	Two VIRS Solar Calibrations were performed; #1 at 07:38:00z, and #2 at 09:10:30z
05- 02- 2003	A 180 degree yaw maneuver (#87) was performed at 15:38:34. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for May 19, 2003 (03-139).
04- 26- 2003	At 23:14:00z a UTCF Adjustment was performed and the UCTF was adjusted by -887.0 ms.
04- 23- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for May 28, 2003 (03-148).
04- 23- 2003	The Flywheel counter incremented to 396 at 01:14:33z.
04- 19- 2003	A PRLNAANALYSIS was performed at 08:30:00z.
04- 07- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for May 05, 2003 (03-125).
04	The Flywheel counter incremented to 305 at 22:12:147

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05- 2003	
04- 04- 2003	A 180 degree yaw maneuver (#86) was performed at 15:20:49. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for May 02, 2003 (03-122).
03- 26- 2003	The Flywheel counter incremented to 394 at 10:03:33z.
03- 23- 2003	The Flywheel counter incremented to 393 at 02:15:01z.
03- 21- 2003	A PRLNAANALYSIS was performed at 22:25:00z.
03- 19- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for April 23, 2003 (03-113).
03- 14- 2003	At 22:35:03z a UTCF Adjustment was performed and the UCTF was adjusted by -845.0 ms.
03- 12- 2003	The Flywheel counter incremented to 392 at 21:10z.
03- 12- 2003	A 180 degree yaw maneuver (#85) was performed at 04:33:09. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for April 04, 2003 (03-094).
03- 12- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for March 31, 2003 (03-090).
03- 12- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for March 19, 2003 (03-078).
03- 09- 2002	A PR External Calibration was performed at 10:10:41z with a Bin 59 and another PR External Calibration was performed at 11:48:19z with a Bin 64.
03- 08- 2002	A PR External Calibration was performed at 11:06:13z with a Bin 38.
03- 05- 2003	At 22:25:15z a UTCF Adjustment was performed and the UCTF was adjusted by -941.0 ms.
03- 05- 2003	The Flywheel counter incremented to 391 at 06:42z.
03- 04- 2003	A new ACS System Table 51 was loaded to the spacecraft to adjust the DSS Residual Tolerance from $0.2^{\circ}$ to $0.1^{\circ}$ .
03- 03- 2003	The Flywheel counter incremented to 390 at 13:06z.
03- 02- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for April 07, 2003 (03-097).
03- 02- 2003	The Flywheel counter incremented to 389 at 22:13z.

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02- 27- 2003	The Flywheel counter incremented to 388 at 10:24z.
02- 24- 2003	The Flywheel counter incremented to 387 at 14:52z.
02- 21- 2003	A PRLNAANALYSIS was performed at 12:10:00z.
02- 19- 2003	At 23:32:56z a UTCF Adjustment was performed and the UCTF was adjusted by -970.0 ms.
02- 19- 2003	The Flywheel counter incremented to 386 at 11:14z.
02- 19- 2003	A 180 degree yaw maneuver (#84) was performed at 04:22:01. TRMM is flying in the +X Forward direction. The next Yaw maneuver is scheduled for March 12, 2003 (03-071).
02- 15- 2003	The Flywheel counter incremented to 385 at 19:22z.
02- 14- 2003	The Flywheel counter incremented to 384 at 12:32z.
02- 11- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for March 03, 2003 (03-062).
02- 10- 2003	The Flywheel counter incremented to 383 at 22:43z.
02- 08- 2003	At 23:01:10z a UTCF Adjustment was performed and the UCTF was adjusted by -909.0 ms.
02- 02- 2003	The next TRMM Monthly Status Review (MSR) is scheduled for February 11, 2003 (03-042).
01- 29- 2003	The TRMM Controlled Re-Entry Plan Review was conducted (03-029).
01- 24- 2003	At 23:40:00z a UTCF Adjustment was performed and the UCTF was adjusted by -934.0 ms.
01- 23- 2003	The Flywheel counter incremented to 380 at 01:16z.
01- 20- 2003	A 180 degree yaw maneuver was performed at 04:15:34. TRMM is flying in the -X Forward direction. The next Yaw maneuver is scheduled for February 19, 2003 (03-050).
01- 20- 2003	The next TRMM Configuration Control Board (CCB) is scheduled for March 12, 2003 (03-071).
01- 18- 2003	A PRLNAANALYSIS was performed at 02:45z.
01-	At 23:05:21z a UTCF Adjustment was performed at 23:23:22z, and the UCTF was adjusted by -907 0 ms

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2003

01- A 180 degree yaw maneuver was performed at 15:50:12. TRMM is flying in the +X Forward

05- direction. The next Yaw maneuver is scheduled for January 20, 2003 (03-020).

2003

01- Two VIRS Solar Calibrations were performed; #1 at 05:50:10z, and #2 at 08:55:10z.

04-

2003

2001	2000	1999	1998	1997	Top of
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- 12-18- At 23:05:21z a UTCF Adjustment was performed, and the UCTF was adjusted by -888.0 ms. 2002
- 12-16- The next TRMM Configuration Control Board (CCB) is scheduled for January 21st (03-021). 2002
- 12-15- A PR External Calibration was performed at 05:58:55z with a Bin 66. 2002
- 12-14- A PR External Calibration was performed at 05:16:58z with a Bin 41 and at 06:54:36 with a Bin 2002 44.
- 12-10- The next TRMM Configuration Control Board (CCB) is scheduled for December 16th (02-350). 2002
- 12-10- Monthly Status Reviews (MSRs) are suspended indefinitely. 2002
- 12-08- The Flywheel counter incremented to 378 at 03:57z. 2002
- 12-06- Two VIRS Solar Calibrations were performed; #1 at 06:20:24z, and #2 at 09:25:18z 2002
- 12-03- A 180 degree yaw maneuver was performed at 22:56:10. TRMM is flying in the -X Forward
- 2002 direction. The next Yaw maneuver is scheduled for January 06, 2002 (03-006).
- 11-29- The Flywheel counter incremented to 377 at  $10{:}10z$  .  $2002\,$
- 11-21- A PR PRLOGAMPCHECK command request was performed at 325/23:00z. 2002
- 11-19- The LIS, PR, TMI, and VIRS instruments were powered off for the peak of the Leonid Storm. The 2002 Instrument Shut Down and Activation activities are shown below:
  - LIS was powered-off 11-19-02 at 00:37:18; power-on procedure completed on 11-19-00 at 14:39:34
  - PR was powered-off 11-19-02 at 00:38:03; power-on procedure completed on 11-19-01 at 14:17:21
  - TMI was powered-off 11-19-02 at 00:36:22; power-on procedure completed on 11-19-02 at 14:34:38
  - VIRS was powered-off 11-19-02 at 00:42:14; power-on procedure completed on 11-19-02 at 15:56:46.
- 11-18- A 180 degree yaw maneuver was performed at 23:42:35. TRMM is flying in the +X Forward 2002 direction. The next Yaw maneuver is scheduled for December 04, 2002 (02-338).
- 11-16- Two VIRS Solar Calibrations were performed; #1 at 06:52:06z, and #2 at 09:57:14z 2002

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11-09- The Flywheel counter incremented to 374 at 21:32z and 375 at 23:06z.

2002

11-07- The Flywheel counter incremented to 372 at 09:16z and 373 at 21:38z..

2002

11-05- The Flywheel counter incremented to 370 at 02:17z and 371 at 03:53z.

2002

- 11-02- The next TRMM Configuration Control Board (CCB) is scheduled for December 10th (02-344). 2002
- 11-02- The TC Mode Flywheel Dwell counter incremented to 369 at 21:32z.

2002

11-01- The November Monthly Status Review (MSR) is scheduled for December 6th (02-340).

2002

- 10-25- The TRMM Monthly Status Review (MSR) for October has been scheduled for Friday November 2002 1st (02-305).
- 10-25- At 23:56:00z a UTCF Adjustment was performed, and the UCTF was adjusted by -957.6 ms.
- 10-23- Two VIRS Solar Calibrations were performed; #1 at 06:06:04z, and #2 at 09:11:32z 2002
- 10-20- A 180 degree yaw maneuver was performed at 13:28:52. TRMM is flying in the -X Forward
- 2002 direction. The next Yaw maneuver is scheduled for November 18, 2002 (02-322).
- 10-18- The TC Mode Flywheel Dwell counter incremented to 368 at 11:18z. 2002
- $10\mbox{-}14\mbox{-}$  At 22:24:44z a UTCF Adjustment was performed, and the UCTF was adjusted by -903.5 ms. 2002
- 10-13- The TC Mode Flywheel Dwell counter incremented to 367 at TDE/ 22:25z.
- $10\mbox{-}08\mbox{-}$  The TC Mode Flywheel Dwell counter incremented to 366 at TDW/  $09\mbox{:}56z.$  2002
- 10-07- The TC Mode Flywheel Dwell counter incremented to 365 at TDE/  $14\!:\!42z.$  2002
- 10-04- The TC Mode Flywheel Dwell counter incremented to 364 at TDS/ 20:51z.
- $10\mbox{-}02\mbox{-}$  At 22:24:52z a UTCF Adjustment was performed, and the UCTF was adjusted by -904.5 ms. 2002
- 09-29- The TRMM Monthly Status Review (MSR) for October has not been scheduled.  $2002\,$
- 09-29- A 180 degree yaw maneuver was performed at 02:30:48. TRMM is flying in the +X Forward
- 2002 direction. The next Yaw maneuver is scheduled for October 20, 2002 (02-293).
- 09-27- The TC Mode Flywheel Dwell counter incremented to 363 at 171/06:16z.

- 09-24- The next TRMM Configuration Control Board (CCB) is scheduled for October 29th (02-302).
- 09-19- At 23:00:22z a UTCF Adjustment was performed, and the UCTF was adjusted by -833.0 ms. 2002
- 09-19- The TC Mode Flywheel Dwell counter incremented to 362 at TDE 20:11z.  $2002\,$
- 09-16- The TRMM Monthly Status Review (MSR) for September has been cancelled.
- 09-13- A PR External Calibration was performed at 08:40:56z with a Bin 61.2002
- 09-12- A PR External Calibration was performed at 04:33:12z with a Bin 50 and at 06:10:50 with a Bin 2002 35.
- 09-06- The TRMM Monthly Status Review (MSR) for September has not been scheduled.
- 09-06- A 180 degree vaw maneuver was performed at 00:58:27. TRMM is flying in the -X Forward

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- 2002 direction. The next Yaw maneuver is scheduled for September 29, 2002 (02-272).
- 09-05- At 23:47:16z a UTCF Adjustment was performed, and the UCTF was adjusted by -880.0 ms.
- 09-02- The TC Mode Flywheel Dwell counter incremented to 361 at 06:30z.

2002

09-02- The TC Mode Flywheel Dwell counter incremented to 360 at 00:42z.

2002

08-30- The TC Mode Flywheel Dwell counter incremented to 359 at 17:13z.

2002

08-28- The TC Mode Flywheel Dwell counter incremented to 358 at 10:52z.

2002

- 08-26- The next TRMM Configuration Control Board (CCB) is scheduled for September 24th (02-267).
- 08-19- The TRMM Monthly Status Review (MSR) scheduled for August has been cancelled. 2002
- 08-16- At 23:47:16z a UTCF Adjustment was performed, and the UCTF was adjusted by -927.0 ms. 2002
- 08-16- The TC Mode Flywheel Dwell counter incremented to 357 at 00:39z. 2002
- 08-08- A 180 degree yaw maneuver was performed at 13:53:32. TRMM is flying in the +X Forward
- 2002 direction. The next Yaw maneuver is scheduled for September 06 (02-249).
- 08-07- The TC Mode Flywheel Dwell counter incremented to 356 at 12:15z.

2002

08-02- The TC Mode Flywheel Dwell counter incremented to 355 at 11:27z.

2002

07-31- The August TRMM Monthly Status Review (MSR) has not been scheduled yet. (02-212).

2002

07-25- The next Configuration Control Board (CCB) is scheduled for August 29th (02-241).

2002

2002

- 07-25- The TRMM Monthly Status Review (MSR) scheduled for July 31st (02-212) has been cancelled. 2002
- 07-23- A 180 degree yaw maneuver was performed at 04:44:54. TRMM is flying in the -X Forward
- 2002 direction. The next Yaw maneuver is scheduled for August 08 (02-220).
- 07-20- Two VIRS Solar Calibrations were performed; one at 07:56:30z through 07:59:10z, and the other 2002 at 09:28:54z through 09:31:34z.
- 07-20- A PR External Calibration was performed at 07:46:00z with a Bin 36.  $2002\,$

07-20- A PR External Calibration was performed at 08:40:56z with a Bin 34.

- 07-02- The Magnetic Field model has been updated from an Epoch 1995 model to an Epoch 2000 model. 2002
- 07-02- At 23:03:27z a UTCF Adjustment was performed, and the UCTF was adjusted by -846.0 ms. 2002
- 06-26- The next TRMM Monthly Status Review (MSR) is scheduled for July 31st (02-212).
- 2002 06-22- At 23:25:56z a UTCF Adjustment was performed, and the UCTF was adjusted by -913.0 ms.
- 06-20- A 180 degree yaw maneuver was performed at 10:18:51. TRMM is flying in the +X Forward
- 2002 direction. The next Yaw maneuver is scheduled for July 23rd (02-204).
- 06-16- The TC Mode Flywheel Dwell counter incremented to 350 at 20:45z. 2002
- 06-11- At 23:41:26z a UTCF Adjustment was performed, and the UCTF was adjusted by -879.0 ms.
- 06-10- The next Configuration Control Board (CCB) is scheduled for July 25th (02-206). 2002

1 ... //4

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- 06-06- A 180 degree yaw maneuver was performed at 00:11:54. TRMM is flying in the -X Forward
- 2002 direction. The next Yaw maneuver is scheduled for June 20th (02-171).
- 06-05- The TC Mode Flywheel Dwell counter incremented to 349 at 02:50z.

2002

- 06-04- Two VIRS Solar Calibrations were performed; one at 18:42:50z through 18:45:30z, and the other at 21:47:46z through 21:50:26.
- 05-30- At 23:58:47z a UTCF Adjustment was performed, and the UCTF was adjusted by -882.0 ms. 2002
- 05-30- The TC Mode Flywheel Dwell counter incremented to 348 at 05:07z.
- 05-29- The next TRMM Monthly Status Review (MSR) is scheduled for June 26th (02-177). 2002
- 05-25- The TC Mode Flywheel Dwell counter incremented to 347 at 18:06z.

2002

- 05-14- At 23:20:51z a UTCF Adjustment was performed, and the UCTF was adjusted by -885.0 ms. 2002
- 05-08- Two routine Solar Calibrations were performed at 17:29:34z and 20:34:40z 2002
- 05-06- A 180 degree yaw maneuver was performed at 00:11:54. TRMM is flying in the +X Forward
- 2002 direction. The next Yaw maneuver is scheduled for June 6th (02-157).
- 05-02- The next Configuration Control Board (CCB) is scheduled for June 10th (02-161).
- 04-26- The first event with the new TDRS 171 satellite was taken at 16:56:30z without incident 2002
- 04-25- A USCCS clock adjustment was performed, and the clock was adjusted by is -887.0 ms at 2002 22:33:56.
- 04-24- A new LOS RTS has been loaded to the spacecraft to offset Transponder 2. Trending will be done 2002 to determine the performance of this new RTS.
- 04-24- The next Monthly Status Review (MSR) is scheduled for May 29th (02-149).
- 04-19- A PR External Calibration was performed at 07:02:30 with a Bin 70 2002
- 04-17- A 180 degree yaw maneuver was performed at 13:42:07. TRMM is flying in the -X Forward
- 2002 direction. The next Yaw maneuver is scheduled for May 6th (02-126).
- 04-16- Two routine Solar Calibrations were performed at 05:52:34 and 10:30:00. 2002
- 03-28- The next Configuration Control Board (CCB) is scheduled for May 2nd (02-122).
- 03-27- The next Monthly Status Review (MSR) is scheduled for April 24th (02-114).

- 03-22- A 180 degree yaw maneuver was performed at 11:41:14. TRMM is flying in the +X Forward
- 2002 direction. The next Yaw maneuver is scheduled for April 17th (02-107).
- 03-21- Two routine VIRS Solar Calibrations were performed at 07:50:28 and 10:55:28 2002
- 03-12- A USCCS clock adjustment was performed, and the clock was adjusted by -846.0 ms at 22:47:11z.
- 2002 A Frequency Standard Adjustment was also performed, and the FS was adjusted by 12 counts at 22:48:37.
- 03-02- At 23:05:17z, a UTCF Adjustment was performed and the UTCF was adjusted by -901.0 ms. The
- 2002 new UTCF value is 31535996.809196 seconds. The current drift value is -85.0 ms. The Frequency Standard remains at x'7DE' with a drift rate of -3.57 ms/hr.
- 02-27- The next Monthly Status Review (MSR) is scheduled for March 27th (02-086).
- 02-24- A 180 degree yaw maneuver was performed at 23:31:52. TRMM is flying in the -X Forward
- 2002 direction. The next Yaw maneuver is scheduled for March 22nd (02-081).
- 02-19- At 23:02:08z a UTCF Adjustment was performed, and the UCTF was adjusted by -837.0 ms.

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2002

02-13- The next Configuration Control Board (CCB) is scheduled for March 28th (02-087).

2002

02-07- Two sets of VIRS Solar Calibrations were performed

2002

02-07- At 23:41:51 a UTCF Adjustment was performed, and the UCTF was adjusted by -871.0 ms.  $2002\,$ 

- 02-06- A 180 degree vaw maneuver was performed at 02:14:15. TRMM is flying in the +X Forward
- 2002 direction. The next Yaw maneuver is scheduled for February 24th (02-055).
- 02-03- The next Configuration Control Board (CCB) is scheduled for February 13th (02-044). 2002
- 01-29- The next Monthly Status Review (MSR) is scheduled for February 27th (02-058). 2002
- 01-25- The PSIB B-side AUTOSPRU was enabled on Friday, January 18th and disabled on Friday,
- 2002 January 25th to prevent overcharging during high beta angles.
- 01-23- The UTCF was adjusted by -829.5 ms on 02-023. The current UTCF value is 31535996.811805
- seconds. The current drift value is -203.0 ms. The Frequency Standard remains x'7DE' with a current drift rate of -2.219 ms/hr.
- 01-11- The next Monthly Status Review (MSR) is scheduled for January 29th (02-011).
- 01-08- Two routine Solar Calibrations were performed at 07:17:04 and 10:22:00  $2002\,$
- 01-05- A 180 degree yaw maneuver was performed at 19:15:40. TRMM is flying in the -X Forward
- 2002 direction. The next Yaw maneuver is scheduled for February 6th (02-037).
- 01-03- The next Configuration Control Board (CCB) is scheduled for February 3rd (02-034). 2001
- 01-02- The UTCF was adjusted by -873.661ms on 02-002. The current UTCF value is 31535996.812634
- 2002 seconds. The current drift value is -90.0 ms.

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- 12-23- A 180 degree yaw maneuver was performed at 02:52:01. TRMM is flying in the +X Forward 2001 direction. The next Yaw maneuver is scheduled for January 5th (02-005).
- 11-29-The next Configuration Control Board (CCB) is scheduled for January 3rd (02-003). 2001
- 11-28-The next Monthly Status Review (MSR) is scheduled for January 9th (02-009). 2001
- 11-27-TRMM celebrated 4 successful years in-orbit on Tuesday November 27th (01-331). 2001
- 11-18-The LIS, PR, TMI, and VIRS instruments were powered off for the peak of the Leonid Storm. The 2001 Instrument Shut Down and Activation activities are shown below:
  - LIS was powered-off 11-18-01 at 07:48:24; power-on procedure completed on 11-18-00 at 22:07:16
  - PR was powered-off 11-18-01 at 07:45:18; power-on procedure completed on 11-18-01 at  $22{:}04{:}00\,$

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- TMI was powered-off 11-18-01 at 06:47:39; power-on procedure completed on 11-18-01 at 22:37:00
- VIRS was powered-off 11-18-01 at 07:49:10; power-on procedure completed on 11-18-01 at 22:37:00.
- 11-20- A 180 degree yaw maneuver was performed at 14:40:58. TRMM is flying in the -X Forward 2001 direction. The next Yaw maneuver is scheduled for December 23rd (01-357).
- 11-18-The UTCF was adjusted by -907 ms on 01-322. The new UTCF value is now 31535996.813508 2001 seconds. The current drift value is -2.6 ms. The Frequency Standard was adjusted by 12 counts to x'7DE' on 01-322. The current drift rate is -0.1 ms/hr.
- 11-08-The next Monthly Status Review (MSR) is scheduled for November 28th (01-333).
- 11-08-The UTCF was adjusted by -937 ms on 01-312 at 23:43z. The current UTCF value is now
- 2001 31535996.814415 seconds. The current drift value is -267.0 ms. The Frequency Standard remains at x'7D2' with a current drift rate of -3.8 ms/hr.
- 11-07-Two routine Solar Calibrations were performed at 06:26:58z and 09:32:00z. 2001
- 11-04- A 180 degree yaw maneuver was performed at 06:58:54. TRMM is flying in the +X Forward 2001 direction. The next Yaw maneuver is scheduled for November 20th (01-324).
- 10-31-The next Monthly Status Review (MSR) is scheduled for November 8th (01-312).
- 10-27-The next Configuration Control Board (CCB) is scheduled for November 29th (01-331).
- 10-22-The UTCF was adjusted by -920.0 ms on October 28th (01-301). The current value is
- 2001 31535996.815352 seconds. The current drift value is -3.0 ms. The Frequency Standard remains at x'7D2' with a current drift rate of -3.18 ms/hr.
- 10-22-The next Configuration Control Board (CCB) is scheduled for October 27th (01-331).
- 10-15-The UTCF was adjusted by -914.5 ms on October 15th (01-288). The new value is
- 2001 31535996.816272 seconds. The current drift value is -409.0 ms. The Frequency Standard remains at x'7D2' with a current drift rate of -2.99 ms/hr.
- 10-07- A 180 degree yaw maneuver was performed at 09:45:23. TRMM is flying in the -X Forward
- 2001 direction. The next Yaw maneuver is scheduled for November 4th (01-308).
- 10-02- The next Monthly Status Review (MSR) is scheduled for October 31st (01-304). 2001
- 10-01-The UTCF was adjusted by -948 ms. The new value is 3135996.817187 seconds. The current drift
- 2001 value is -380.0 ms. The Frequency Standard remains at x'7D2' with a current drift rate of -2.7
- 09-13- A 180 degree yaw maneuver was performed at 19:52:18. TRMM is flying in the +X Forward
- 2001 direction. The next Yaw maneuver is scheduled for October 7th (01-280).
- 08-30-The next Configuration Control Board (CCB) meeting is scheduled for October 2nd (01-275).
- 08-29-The next Monthly Status Review (MSR) is scheduled for September 26th (01-269). 2001
- 08-24-The sixth Burn Pair (Fine Adjust) of the TRMM Satellite Boost was performed on August 24th (01-
- 2001 236) at 13:41:48 and 14:12:30. The Final altitude is 402.5 km. See the News on TRMM Boost for additional details.
- 08-23- A 180 degree yaw maneuver was performed at 19:42:03 TRMM is flying in the -X Forward
- 2001 direction. The next Yaw maneuver is scheduled for September 13th (01-256).
- 08-22-The fifth Burn Pair of the TRMM Satellite Boost was performed on August 22nd (01-234) at
- 2001 18:03:00 and 18.49:00. The Mean Altitude is 402 km.
- 08-21- The fourth Burn Pair of the TRMM Satellite Boost was performed on August 21st (01-233) at
- 2001 14:24:00 and 15:10:00. The Mean Altitude is 393 km.
- 08-16-The UTCF was adjusted by 897.0 ms, and the current UTCF value is 3135996.818135 seconds. The
- 2001 current drift value is +782.0 ms. The Frequency Standard remains at x'7D2' with a current drift rate of -0.67 ms/hr.

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08-13-The LIS, PR, TMI, and VIRS instruments were powered off as part of the Loadshed procedures 2001 when the spacecraft transitioned to Sun Acquisition mode.

- LIS was powered-off on 08-13-2001; power-on procedure completed on 08-17-01 at 21:34:47z.
- PR was powered-off on 08-13-2001; power-on procedure completed on 08-17-01 at 20:29:53z.
- TMI was powered-off on 08-13-2001; power-on procedure completed on 08-17-01 at 20:22:40z.
- VIRS was powered-off on 08-13-2001; power-on procedure completed on 08-17-01 at 21:28:51z; VIRS completed Outgassing on 8/19/2001 at 17:47:53z
- 08-09- The third Burn Pair of the TRMM Satellite Boost was performed on August 9th (01-221) at
- 2001 15:47:00 and 16:33:00. The Mean Altitude is 383 km.
- 08-08- The second Burn Pair of the TRMM Satellite Boost was performed on August 8th (01-220) at
- 2001 16:50:00 and 17:36:00. The Mean Altitude is 372 km.
- 08-07- The first Burn Pair of the TRMM Satellite Boost was performed on August 7th (01-219) at
- 2001 14:54:00 and 15:40:00. The Mean Altitude is 360 km.
- 08-03- The UTCF was adjusted by -829.0 ms on August 3 rd (01-215) at 22:53:32z. The new value is
- 2001 31535996.819310 seconds and the current drift value is -185.5 ms. The Frequency Standard remains at x'7C6' with a current drift rate of -3.82 ms/hr.
- 07-25-The next Monthly Status Review (MSR) is scheduled for August 29th (01-241). 2001
- 07-25-The UTCF was adjusted by -903.3 ms (01-206) at 23:28:05z. The new value is 31535996.820139
- seconds and the current drift value is -373.0 ms. The Frequency Standard remains at x'7C6' with a current drift rate of -3.84 ms/hr.
- 07-25-The 402.5 km Boost Command Authorization Meeting was held on July 25th (01-206). 2001
- 07-25- A 180 degree yaw maneuver was performed at 04:14:33 TRMM is flying in the +X Forward 2001 direction. The next Yaw maneuver is scheduled for August 23rd (01-235).
- 07-10-The next Configuration Control Board (CCB) meeting is scheduled for August 30th (01-242). 2001
- 07-10- A 180 degree yaw maneuver was performed at 13:45:38 TRMM is flying in the -X Forward
- 2001 direction. The next Yaw maneuver is scheduled for July 25th (01-206).
- 07-05- A successful 55° Solar Array Off-pointing test was conducted on July 5th, 2001 (01-186) to
- 2001 characterize the power system in this configuration near a 26° beta angle.
- 07-04-The UTCF was adjusted by -951.545 ms (01-185). The new value is 31535996.821955 seconds and
- 2001 the current drift value is -351.0 ms. The Frequency Standard remains at x'7C6' with a current drift rate of 3.5594 ms/hr.
- 06-29-The 400 km Boost Technical ORR was conducted and the panel recommended that boost
- 2001 operations can begin as planned as long as all programmatic issues are resolved
- 06-25-The next Monthly Status Review (MSR) is scheduled for July 25th (01-206).
- 06-08- A 180 degree yaw maneuver was performed at 07:30:30; The TRMM spacecraft is now flying in
- 2001 the +X Forward direction. The next Yaw maneuver is scheduled for July 10th (01-191).
- 06-07-The next Configuration Control Board (CCB) meeting is scheduled for July 12, 2001 (01-163). 2001
- 05-30-PACOR-A parallel operations continue. The PACOR-A ORR is still scheduled for June 13, 2001 2001 (01-164).
- 05-30-The first 400 km Boost planning meeting is scheduled for June 20, 2001 (01-171).
- 05-30-The next Monthly Status Review (MSR) is scheduled for June 28, 2001 (01-179). 2001
- 05-29- A final elevation gimbal test was performed, then CERES was powered off on May 29, 2001 (01-2001 149)
- 05-25- A 180 degree yaw maneuver was performed at 06:43:59; The TRMM spacecraft is now flying in 2001 the -X Forward direction. The next Yaw maneuver is scheduled for June 08th (01-159).
- 05-24-Final gimbal testing to the Ceres instrument prior to permanent shutdown will occur next week, so 2001 the instrument can be powered off prior to solar array off-pointing tests. Currently, the command
- The state of the s

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sequence for the gimbal test is being reviewed and finalized. 05-23- The Next End of Life Meeting is scheduled for May 30, 2001 (01-150). 05-19-TRMM surpassed the 20,000 orbit mark on May 19, 2001 (01-139). 2001 05-16-The Next End of Life Meeting is scheduled for May 23, 2001 (01-143). 05-07-The next Configuration Control Board (CCB) meeting is scheduled for June 7, 2001 (01-158). 05-09-The Next End of Life Meeting is scheduled for May 16, 2001 (01-136). 2001 05-02-The next Monthly Status Review (MSR) is scheduled for May 30, 2001 (01-150). 05-02- The Next End of Life Meeting is scheduled for May 9, 2001 (01-129). 2001 04-25- A 180 degree yaw maneuver was performed at 08:52:22; The TRMM spacecraft is now flying in the 2001 +X Forward direction. The next Yaw maneuver is scheduled for May 25th (01-145). 04-23- The next Monthly Status Review (MSR) is scheduled for May 2, 2001 (01-122). 2001 04-23-The Next End of Life Meeting is scheduled for May 2, 2001 (01-122). 04-19-The TRMM Preliminary End of Life Review was held on April 19 2001 (01-109). 2001 04-11-LIS Real-time commands to reset thresholds were sent on April 11, 2001 (01-101). 2001 04-05- A 180 degree vaw maneuver was performed at 19:28:36; The TRMM spacecraft is now flying in the 2001 -X forward direction. The next yaw maneuver is scheduled for April 25th (01-115). 04-01- The next Configuration Control Board (CCB) meeting is scheduled for April 26th (01-116). 2001 04-01- The next Monthly Status Review (MSR) is scheduled for April 25th (01-115). 03-18-The End of Life Preliminary Review has been re-scheduled for April 19th (01-109). 03-18-The UTCF was adjusted by -882 ms on 01/077 at 23:13z and is now 31535996.828272 seconds. 2001 The current drift value is -2 ms. The Frequency Standard remains at x'7BA' with a current drift rate of -2.59 ms/hr. 03-13-Testing is now complete with the TRMM TPOCC System Software Release 9.0 on String 2, with 2001 no problems encountered. The FOT will continue testing for one more week as the realtime backup Once it has been verified by the FOT, Release 9.0 will then be installed on the remaining two strings, and made operational one string at a time 03-12- A 180 degree yaw maneuver was performed at 19:23:40; The TRMM spacecraft is now flying in the 2001 +X forward direction. The next yaw maneuver is scheduled for April 5th (01-095). 03-12-The next Configuration Control Board (CCB) meeting is scheduled for March 29th (01-088). 2001 03-06-The TC Mode Flywheel Dwell counter incremented to 315 at 04:58. 02-27-Ground System: The TRMM TPOCC System Software Release 9.0 has been installed on String-2. 2001 and continues to be evaluated. The FOT is currently using this String in operations as the backup string. 02-26-CERES: No change in status. 02-16-The next End of Life Planning meeting is scheduled for March 28th (01-087). 2001 02-16-The next Monthly Status Review (MSR) is scheduled for March 28th (01-087).

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02-14- A 180 degree yaw maneuver was performed at 12:23:46; The TRMM spacecraft is now flying in the

2001 -X forward direction. The next yaw maneuver is scheduled for March 12th (01-071)

02-05-The next Monthly Status Review (MSR) meeting is scheduled for March 7th (01-060).

01-28- A 180 degree yaw maneuver was performed at 10:29:28; The TRMM spacecraft is now flying in the

2001 +X forward direction. The next yaw maneuver is scheduled for February 14th (01-045)

01-25-The next Flight Software CCB meeting is scheduled for March 1st (01-060).

2001

01-25-The next End of Life Planning meeting is scheduled for February 28th (01-059).

2001

01-02-The next Monthly Status Review (MSR) is scheduled for January 31st (01-031).

2001

01-01- The Extended Mission Science Operations began on January 1st (01-001).

2001

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#### 2000

- 12- A 180 degree yaw maneuver was performed at 04:36:47; The TRMM spacecraft is now flying in the
- 28- -X forward direction. The next yaw maneuver is scheduled for January 28th (01-028) 2000

12- The next Flight Software CCB meeting is scheduled for January 23th (01-023).

14-

2000

- 12- A 180 degree yaw maneuver was performed at 01:09:03; The TRMM spacecraft is now flying in the
- 15- +X forward direction. The next yaw maneuver is scheduled for December 28th (00-363) 2000
- 12- CERES was powered ON. It remains in the same condition as it was following the PSIB anomaly. A
- 14- decision has yet to be made as to whether or not to permanently power off the instrument (00-349). 2000
- 12- The next End of Life Planning meeting is scheduled for January 24th (01-027).

14-

2000

- 12- The next Monthly Status Review (MSR) is scheduled for January 3rd (01-003).
- 14-

- 11- The LIS, PR, TMI, and VIRS instruments were powered off for the peak of the Leonid Storm. The
- 17- Instrument Shut Down and Activation activities are shown below:
- 2000
- LIS was powered-off 11-17-00 at 23:59:27; power-on procedure completed on 11-18-00 at 1:05:18
- PR was powered-off 11-17-00 at 01:12:31; power-on procedure completed on 11-18-00 at 11:13:31
- TMI was powered-off 11-17-00 at 00:06:15; power-on procedure completed on 11-18-00 at 12:17:03
- VIRS was powered-off 11-17-00 at 01:07:27; power-on procedure completed on 11-18-00 at 11:28:31.
- 11- A 180 degree yaw maneuver was performed at 19:17:00; The TRMM spacecraft is now flying in the
- 13- -X forward direction. The next yaw maneuver is scheduled for December 15th (00-350). 2000

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CERES remains powered OFF, following the original PSIB anomaly on September 16th (00-261).
08-
2000
11- The next Monthly Status Review (MSR) is scheduled for December 6th (00-341).
-80
2000
11- The PR instrument performed nominally during this period. PR external calibrations were
     performed on 00-308 November 3, 2000 at 15:45:16z and 00-309 (November 4th, 2000) at
2000 14:33:02z and 16:09:29.
11- CERES remains powered OFF, following the original PSIB anomaly on September 16th (00-261).
02-
2000
10- The next End of Life Planning meeting is scheduled for November 29th (00-334).
27-
2000
10-
     A 180 degree yaw maneuver was performed at 18:52:39; The TRMM spacecraft is now flying in the
27-
     +X forward direction. The next yaw maneuver is scheduled for November 13th.
2000
10-
     The LIS instrument performed nominally during this period. A standard LIS reset command request
     was performed on October 24th (00-298) to reduce the usual accumulation of packet sequence
24-
2000 errors.
10-
     The next Monthly Status Review (MSR) is scheduled for November 1 (00-306).
04-
2000
10-
     The next End of Life Planning meeting is scheduled for October 25th (00-299).
04-
2000
     A 180 degree yaw maneuver was performed at 08:51:45; The TRMM spacecraft is now flying in the
10-
01-
     -X forward direction. The next yaw maneuver is scheduled for October 30, 2000.
2000
09- The next TRMM End-Of-Life and Controlled Reentry Planning Meeting is scheduled for September
14-
     27th 2000.
2000
09-
    The next Monthly Status Review (MSR) is scheduled for October 4th 2000.
14-
2000
09- The CERES Instrument remains in Diagnostic Mode; assessment continues for the instrument state
10-
     of health.
2000
09- A 180 degree yaw maneuver was performed at 13:38:12; The TRMM spacecraft is now flying in the
07-
     +X forward direction. The next yaw maneuver is scheduled for October 1st 2000.
2000
08-
     The next Configuration Control Board (CCB) meeting is scheduled for August 28th (00-241).
23-
2000
08-
     Mission Day 1000 will occur on August 23 (00-236).
18-
2000
08-
     A 180 degree yaw maneuver was performed at 19:24:26z; The TRMM spacecraft is now flying in
     the -X forward direction. (The next yaw maneuver is scheduled for September 7,2000.)
18-
2000
08-
     The next Monthly Status Review is scheduled for September 6th (00-250).
02-
2000
08-
     The next EOL Planning meeting is scheduled for August 30th (00-243)
02-
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2000

07- The first TRMM End-Of-Life and Controlled Reentry Planning Meeting was held. 151 days remain

27- until the Extended Mission science operations begin (1/1/2000).

2000

07- The CERES Instrument remains in Diagnostic Mode.

23-2000

07- A 180 degree yaw maneuver was performed at 18:30:41; The TRMM spacecraft is now flying in the

19- +X forward direction. (The next yaw maneuver is scheduled for August 18, 2000.)

2000

07- 176 days remain until the Extended Mission science operations begin (1/1/2001).

09-

2000

07- A 180 degree yaw maneuver was performed at 14:41:36; The TRMM spacecraft is now flying in the

05- -X forward direction. (The next yaw maneuver is scheduled for July 19, 2000.)

2000

06- The significant milestone of 200 orbital adjustment maneuvers since launch was achieved this week.

11- The VIRS Instrument lost 24 minutes of science data due to an event that was inadvertently

2000 scheduled out of view.

06- The CERES Instrument remains in Safe Mode.

01-

2000

06- A 180 degree yaw maneuver was performed at 08:26:19; The TRMM spacecraft is now flying in the

03- +X forward direction. (The next yaw maneuver is scheduled for July 5, 2000.)

2000

05- This week marked the major milestone of 900 days since TRMM's launch into orbit.

21-2000

05- A 180 degree yaw maneuver was performed at 22:31:41; The TRMM spacecraft is now flying in the

9- -X forward direction. (The next yaw maneuver is scheduled for June 3, 2000.)

2000

05- The LIS Instrument overflowed at 17:14:27z for 1 minute and 3 seconds, which was due to DS1 not

14- being released.

2000

05- The LIS Instrument performed a standard command request to reset the instrument and reconfigure

11- to nominal was performed at 12:32z.

2000

The CERES Instrument testing continued this week with a new microprocessor load which was

2000 uplinked at 17:45z.

05- No testing was performed on the CERES Instrument. An Internal calibration is scheduled for

07- 05/10/2000.

2000

05- TRMM Satellite Used to Improve Tropical Forecasting -

04- The TRMM Microwave Imager (TMI) represents the first microwave spacecraft sensor capable of

2000 accurately measuring sea-surface temperatures through clouds. Science team members have found that data from the TMI sensor onboard the spacecraft has great potential to increase the accuracy of tropical storm and climate forecasts. Microwave radiation penetrates clouds with little loss of signal thereby providing an uninterrupted view of the ocean surface whereas much of the infrared radiation, typically used for measuring sea-surface temperatures from satellites, are blocked by cloud cover. See the <a href="Press Release">Press Release</a> for additional details.

04- Testing continued on the CERES Instrument to analyze the effect of the noise/bias on data.

24-

2000

04- There was a recorder overflow on the TRMM Spacecraft.

22- The VR 2, 3, 4, 5 and 6 TRMM recorders overflowed April 22, 2000 (113) and were not collecting

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2000 science data as follows: CERES (VR2) 2000:113:01:04:35 - 01:32:41 LIS (VR3) 2000:113:01:06:15 - 01:32:41 PR (VR4) 2000:113:01:06:15 - 01:32:37 TMI (VR5) 2000:113:01:06:18 - 01:32:41 VIRS (VR6) 2000:113:01:06:20 - 01:32:41

- 04- A 180 degree yaw maneuver was performed at 12:52:13; The TRMM spacecraft is now flying in the
- 20- +X forward direction. (The next yaw maneuver is scheduled for May 19, 2000.) 2000
- 04- The CERES Instrument Total Channel Sensor Temperature Control was disabled at 17:09:01, which
- 10- reduced the number of bridge balance resets to a normal amount. There have been periodic spikes in
- 2000 analog telemetry, which have lasted for only one packet update, and are believed to be caused by the noise that the instrument is experiencing.
- 04- The LaRC team has recently documented noise in the instrument science data (began 3/17 but the
- 09- LaRC team did not notice the noise until March 23rd, when it was large enough to be flagged in the
- 2000 ground processing of the science data). The noise has been gradually increasing since then and has started to cause bridge balance resets (total, longwave, and shortwave). These resets appear to occur most frequently at orbit sunset (sunlight going to eclipse), and there also appears to be a diurnal pattern to the frequency of the resets.
  - Because the science data is replaced with fill data during these resets and is therefore invalid, the LaRC team has begun to research ways to reduce the frequency, and therefore the impact, of these resets. As a first step to help reduce the frequency of the bridge balance resets, the LaRC team has asked TRW to build a special microprocessor load to redefine the Normal scan range. The new special microprocessor load was tested with the simulator on 4/7/00 and uplinked to the spacecraft later that day, at 20:37z. The LaRC team has reported that the load has reduced the frequency of the resets, but further analysis is required to determine to what extent the new load has helped.
- 03- A 180 degree yaw maneuver was performed at 05:12:21; The TRMM spacecraft is now flying in the
- 31- -X forward direction. (The next yaw maneuver is scheduled for April 20, 2000.)
- 03- A 180 degree yaw maneuver was performed at 23:25:17; The TRMM spacecraft is now flying in the 07- +X forward direction. (The next yaw maneuver is scheduled for March 31, 2000.)
- O3- A VIRS Self-Reset #11 occurred at 12:36:36z. The instrument was manually placed back in the nominal configuration during the next real-time event.
- 03- The CERES packets were commanded to gimbal type and AB asynchronous rotation operations
- 02- were performed on 02-28-00 (170 190 degrees) and 02-29-00 (160 200 degree) in an attempt to 2000 lubricate the bearings and characterize their performance. On 03-01-00 the AB async operations continued using 150 210 degree. The instrument stalled twice at 179.7 and 179.8 degree being commanded to Standby. Nominal CT operations were then continued at the 179.8 degree position, which is essentially the nominal CT azimuth position.
  - The AB async testing was resumed on 03-02-00 (170 185 degree), with stalls occurring again at 19:48z and 19:51z. The range was then changed to 175 185 degree and the instrument successfully moved to 175 degree on command. The AB async testing was resumed (160 200 degree) with no further stalls and the instrument mode was commanded back to CT at 22:26:35z.
- 02- The CERES instrument Contamination Safe Mode azimuth angle was permanently redefined from
- 27- 165 degree to 180 degree to match the CT azimuth position and avoid the need to rotate in azimuth 2000 for each maneuver.
- 02- The CERES azimuth gimbal stalled following the execution of the stored command to send it from
- 26- Contamination Safe to Crosstrack mode (AR #79) after burn #1 of Delta-V #165. CERES was
- 2000 placed in Safe mode during the event following burn #2 (18:29z). LaRC personnel concluded the azimuth stalled due to the length of time CERES was off and not moving and is not expected to be a permanent problem. CERES was placed back in Crosstrack on 02-27-00 at 20:21:56z
- 02- The CERES instrument was turned on to coincide with the eruption of a volcano in the Philippines
- 24- at 21:26:00z. CERES will now remain on permanently unless there is a low power condition. The
- 2000 instrument will be placed in Safe mode during an ACS anomaly (Sun Acquisition and Safehold).
- 02- A 180 degree yaw maneuver was performed at 23:40:51; The TRMM spacecraft is now flying in the
- 09- -X forward direction. (The next yaw maneuver is scheduled for March 7, 2000.)

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- 01- A 180 degree yaw maneuver was performed at 14:30:51; The TRMM spacecraft is now flying in the
- 24- +X forward direction. (The next yaw maneuver is scheduled for February 10, 2000.)

2000

- 01- The CERES instrument is now targeted to be powered-on mid-February, to begin concurrent with
- 23- TERRA operations. The CERES modifications to the load-shed scenarios and the new CERES

2000 current monitors were uplinked January 20.

- 01- A command request from MSFC was performed to reset the LIS instrument, reconfigure it to
- 18- nominal, and then disable the heater auto-select.

2000

- 01- TRMM Satellite Used to Improve Rainfall Forecasting Accuracy -
- 12- New research shows that the accuracy of three-day rainfall forecasts in the tropics can be improved
- 2000 by as much as 100% percent by combining existing forecast models with satellite rainfall data. Researchers at Florida State University have found that by adding rainfall observations collected by NASA's TRMM satellite and other meteorological satellites to forecast models, they can more than triple the accuracy of rainfall forecasts for the first 12 hours of the forecast. See the <a href="Press Release">Press Release</a> for additional details.
- 01- The CERES instrument is now targeted to be powered-on January 27th, concurrent with TERRA
- 09- operations. (The CCR which involves creating and testing TSMs to monitor the CERES current is
- 2000 expected to be closed out by the end of next week.)

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### 1999

- 12- A special Delta-V maneuver wasperformed to place TRMM above the nominal orbit box for the year
- 29- rollover (to allow more time to establish communication with the spacecraft if difficulties arose with
- 99 the ground system). As a result of this extended burn, the next Delta-V is not needed until 01-10-00. A command request from MSFC was performed at 20:46z to reset the LIS instrument, configure it back to nominal, and disable the heater auto-select.
- 12- A 180 degree yaw maneuver was performed at 19:58:16; The TRMM spacecraft is now flying in the -
- 24- X forward direction. (The next yaw maneuver is scheduled for January 24, 2000.)

99

- 12- A special Delta-V maneuver on December 29th (99-363) will place TRMM above the nominal orbit
- 19- box for the year rollover. This will help prevent TRMM from falling below the box in the event
- ommunication with the spacecraft or the ground system is lost for an extended period due to Y2K. A special RTS is being built for the year rollover that will place the Observatory in Sun Acquisition mode if communication is lost for more than 24 hours (testing still needs to be completed).
- 12- It has been confirmed that the TRMM satellite will be left on and running during the century change.
- 16- TSDIS should be receiving both IP and Realtime data during the period (if the networks remain up).

99

- 12- A walk-through was performed on the CERES instrument for the removal of CERES from load-shed
- 15- plan. The CERES instrument will be powered on in mid-February 2000; currently there are no plans
- 99 to manually remove power from the instrument once operations have resumed.
- 12- A 180 degree yaw maneuver was performed at 19:58:16; The TRMM spacecraft is now flying in the
- 10- +X forward direction. (The next yaw maneuver is scheduled for December 24.)

99

12- VIRS performed solar calibration operations at 05:47:48z and 08:50:38z.

09-99

12- VIRS outgassing was performed 12-07 14:33 through 12-08 at 16:59z.

08-

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99 12- TRMM Kwajalein Field Experiment information available: 01- • Kwajex Ope rations Center 99 • Research Veseel Ron Brown reports • Kwajex Logistics • A personal diary from Kwajex 11- The TRMM spacecraft has successfully completed its second year of continuous data-27- gathering. TRMM has produced continuous data since 12-08-97. 11- Three PR external Calibrations were performed: 11-24 at 11:30 using beam #25; 11-25 at 02:59:01 26- using Beam #70; and 11-26 at 01:46:32 using beam #67. 11- The LIS, PR, TMI, and VIRS instruments were powered off for the peak of the Leonid Storm. The 17- Instrument Shut Down and Activation activities are shown below: 99 - LIS was powered-off 11-17-99 at 21:25:10; power-on procedure completed on 11-18-99 at 06:53:18 - PR was powered-off 11-17-99 at 19:58:39; power-on and procedure completed on 11-18-99 at 08:34:36 - TMI was powered-off 11-17-99 at 19:57:10; power-on procedure completed on 11-18-99 at 06:43:59 - VIRS was powered-off 11-17-99 at 21:27:56; power-on procedure completed on 11-18-99 at 06:50:58 11- Exciting images of Hurricane Lenny are available at the "Latest Images" page. 16-99 11- A 180 degree yaw maneuver was performed at 21:42:52; The TRMM spacecraft is now flying in the -09- X forward direction. (The next yaw maneuver is scheduled for December 10.) 11- The CERES instrument personnel are developing a plan for operating the system; expected to be 01- closed out by the end of the year. A walk-through is planned in December for the removel of CERES 99 from load-shed plan and the results. 10- TRMM Leonid strategy for the upcoming storm is the same as the one used for the 1998 Leonid 31- storm. The instruments will be powered off approximately six hours prior to the peak (peak is 99 currently estimated at 99-322 at 02:53:00z) and will be powered on at the Mission Director's discretion after the peak occurs. 10- Images of Biomass Buring are available at the "Latest Images" page. 29-99 10- A 180 degree yaw maneuver was performed at 06:04:12; The TRMM spacecraft is now flying in the 23- +X forward direction. (The next yaw maneuver is scheduled for November 9.) 10- VIRS performed solar calibration operations at 05:12:54z and 08:16:48z. 21-99 10- An image of Hurricane Irene is available at the "Latest Images" page. 14-99 10- Press release: Smoke inhibits Rainfall: 05- For the first time, smoke from forest fires has been proven to inhibit rainfall, according to an 99 extensive analysis of data taken from the TRMM spacecraft. 10- The recorders overflowed and were not collecting science data due to the TRMM MOC experiencing 04- severe degradation of the Q-channel science data during the 277/02:44 event which resulted in 99 significant downlinked data gaps. The cause of the degradation is being investigated. LIS 03:50:01z - 04:53:53z PR 03:52:15z - 04:53:48z TMI 03:52:16z - 04:53:53z VIRS 03:52:21z - 04:53:53z

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- 09- A 180 degree yaw maneuver was performed at 11:18:39; The TRMM spacecraft is now flying in the -
- 27- X forward direction. (The next yaw maneuver is scheduled for October 23.)
- 99 Two PR external Calibrations were performed at 18:00:42z using beam #44 and 09-28 at 08:28:28 using beam #73.
- 09- The CERES instrument personnel are developing a plan for operating the system; expected to be
- 19- closed out by end of October.

99

09- An image of Hurricane Floyd is available at the "Latest Images" page.

13-99

- 09- A 180 degree yaw maneuver was performed at 21:30:58; the TRMM spacecraft is now flying in the
- 02- +X forward direction. (The next yaw maneuver is scheduled for September 27.)

99

08- The next CERES instrument power-on events for calibrations are now expected near the end of

29- September.

99

- 08- Orbit #10,000 occurred.
- 24- Due to Ground System problems, the recorders overflowed and were not collecting science data for
- 99 the following:

LIS 01:45:06z - 02:35:39z

PR 01:47:14z - 03:26:08z

TMI 01:47:19z - 03:26:08z

VIRS 01:47:20z - 03:57:31z

- 08- The International Earth Rotation Service (IERS) has announced that there will not be a time step
- 11- occurring at the end of December 1999.
- 99 The difference between UTC and International Atomic Time (TAI) will remain: TAI-UTC= +32s until further notice.
- 08- A series of CERES instrument power-on events and calibrations is expected near the end of August.

08-99

- 07- PR performed External calibration operations on 07-26 at 18:00:42z using beam #36 and 07-27 at
- 27- 16:48:00z using beam #35.

99

- 07- TheCERES instrument work continues in creating and testing the new Tables. RTS testing has been
- 25- completed.

99

07- Two VIRS Solar Calibration requests were performed at 07:03:06z and 10:05:58z.

17-99

- 07- The final Test Review of the TRMM Solar Array FDC Limit change was conducted by Flight
- 16- Software Maintenance.

99

- 07- A 180 degree yaw maneuver was performed at 10:18:07; the TRMM spacecraft is now flying in the
- 15- +X forward direction. (The next yaw maneuver is scheduled for August 15.)

99

- 07- Preparations are in full swing for TRMM (KWAJEX, the major over-ocean field campaign) to be
- 12- conducted in the vicinity of Kwajalein Atoll in the Marshall Islands during the months of July,
- August, and September 1999. KWAJEX will provide the detailed observations of the physical parameters associated with tropical rainfall that are needed to validate TRMM satellite algorithms including the microphysical parameters required for cloud and precipitation models.
- 07- The CERES instrument was powered for continued Australia testing, and then paused. The testing
- 05- will resume 07-13-99.

- 07- The CERES instrument was powered for Australia testing seven times this period.
- 04- CERES SWICS testing was performed every ten minutes 06-30-99 19:50 through 07-01-99 02:00.
- 99 Ten minutes of gimbal data was collected in A-B Synchronous mode on 07-01-99 21:20.

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07- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the -X forward

01- direction. (The next yaw maneuver is scheduled for July 15.)

06- The CERES instrument was powered for Australia testing six times during this period. The Australia

28- field campaign (instrument Power ON, Crosstrack, and Power OFF) will continue through mid-July.

99

06- A command request from MSFC was performed to reset the LIS instrument and configure it back to

22- nominal.

99

- 05- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the +X forward
- 30- direction. (The next yaw maneuver is scheduled for July 1.)

99

- 05- The CERES instrument was powered ON at 18:39:17 for a ground test with Hawaii and a Solar
- 18- Calibration was also performed at 22:59:54.
- 99 A CERES Internal Calibration was performed at 00:55:00 and the instrument was Power OFF at 02:50:42.

The next power on for CERES is scheduled for June to coincide with an Australia ground test.

- 05- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the -X forward
- 15- direction. (The next yaw maneuver is scheduled for May 30.)

99

05- The PR instrument performed an External calibration request at 09:34:39.

12-99

- 05- A command request from MSFC was performed to reset the LIS instrument and configure it back to

99

- 04- The FOT proposal which describes the new method for leaving CERES powered on for
- 18- SunAcq/Safehold events has been approved. Simulator testing and validation will begin in upcoming
- 99 weeks, including the use of new tables and RTSs.
  - The next instrument power on and science collection period is planned for May.
- 04- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the +X forward
- 16- direction. (The next yaw maneuver is scheduled for May 15.)
- A command request from MSFC to reset the LIS instrument and configure it back to nominal was performed at 14:01.
- 04- The VIRS instrument performed Solar Calibrations at 06:50:00 and 09:52:56 for 120 seconds each.
- 14- The VIRS instrument performed a self-reset between 22:45:35 and 22:45:56; the instrument was
- 99 reconfigured back to nominal mode 4/15/99.
- 03- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the -X forward
- 26- direction. (The next yaw maneuver is scheduled for 04-16-99.)

99

- 03- During this time period (3/22/99 3/25/99) the CERES instrument was powered on for science
- 25- collection. . Instrument activities included Power ON, Power OFF, and 180 degree scans.
- 99 The next test period is planned for May.
- 03- During this time period (3/3/99 3/9/99) the CERES instrument was powered on for science
- 09- collection. The +15 V DAA converter voltage has remained below the 20 V saturation threshold
- 99 throughout the test.
  - The next test period is planned for March 16th.
- 03- The VIRs Instrument performed Solar calibration at 04:39:42 and 09:14:00.

07-99

- 03- The CERES Instrument performed Solar calibration at 00:43:10z.
- 06- The CERES Instrument also performed a special Internal calibration at 02:44:12z.

03- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the +X forward 04- direction. (The next yaw maneuver is scheduled for 03-26-99.)

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- 02- CERES is currently powered off and CERES personnel are developing a plan for operating the
- 21- instrument with the +15 V DAA anomaly. The FOT proposal which describes the new method for
- 99 leaving CERES powered on for SunAcq/Safehold events is awaiting final review, approval, and testing.
  - Plans are being arranged to power CERES on again in March (approximately the 3rd-5th) for a limited duration.
- 02- The CERES instrument is currently powered off, and will remain powered off while personnel
- 14- develop a plan for the DAA anomaly. Plans are being arranged to power it on in March.

99

02- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the -X forward 04- direction. (The next yaw maneuver is scheduled for 03-04-99.)

99

- 01- The CERES instrument was manually powered off at 02:53:40, and will remain powered off while
- 22- personnel develop a plan for the DAA anomaly.

99

- 01- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the +X forward
- 19- direction. (The next yaw maneuver is scheduled for 02-04-99.)
- 99 The CERES instrument was powered on for 53 hours to gather science data in conjunction with the French SCARAB instrument on the RESURS-01 spacecraft at 21:14.
- 01- The Australian regions were re-enabled for the PR instrument until further notice; the weekly
- 07- Wednesday calibration has been halted.

99

01- The LIS, PR, and TMI instruments were powered on and returned to Science mode.

06-99

- 01- The VIRS instrument was powered on and returned to Science mode. VIRS outgassing operations
- 05- were successful.

03. 99

- 01- The LIS, PR, TMI, and VIRS instruments were powered off due to ACS Sun Acquisition mode;
- 03- temperatures were monitored for out of limit violations.
- 99 CERES is currently powered off. Plans are being discussed for a possible power-on scenario which would occur in mid-January.

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- 12-19- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the -X forward direction. (The next yaw maneuver is scheduled for 01-19-99.)
- 12-5-98 A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the +X forward direction. (The next yaw maneuver is scheduled for 12-18-98.)
- 12-2-98 The PR instrument performed an internal calibration at 01:13:00.
- 11-24- The TRMM spacecraft has successfully completed its first year of continuous datagathering. TRMM has produced continuous data since 12-08-97.
- 11-22- The VIRS instrument performed outgassing in an effort to return the cooler to the state prior to the Deep Space Calibration on 98-245, upon power up of VIRS after the Leonid Storm. Outgas operations went well and the Cold Stage temperature is now operating at a temperature of about 107 degrees K.
- 11-17- The LIS, PR, TMI, and VIRS instruments were powered off for the peak of the Leonid Storm.
- The <u>Timeline of Events</u> for the Instrument Shut Down and Activation activities as driven by the Leonid Meteor Storm.
- 11-08- The VIRS instrument will perform Outgas operations during the peak Leonid meteor storm time

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period which will serve to protect the Earth Shield door while simultaneously reducing the Cold Stage temperature to the most desirable levels. Outgas operations of this nature typically last for 24 hours.

- 11-05- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the -X forward direction.
- 11-04- The PR instrument performed its first Internal Calibration at the first -35 degree latitude approach November 4 (1998:308:00:31:00).
- 11-02- PR will no longer be placed in Internal Calibration mode over Australia except upon the NCC request from the tracking station. PR will perform an Internal Calibration once every Wednesday at the first -35 degree latitude approach to replace the Internal Calibrations starting November 4.
- 11-01- As a precaution it has been coordinated with FDF that no maneuvers will be performed on the day of peak of the Leonid storm activities, November 17 (321).

  The LIS and TMI instruments will remain powered on and collecting science during the Leonid storm time period. The PR instrument will be powered off for a six hour duration during the peak of the Leonid storm activity, as a precaution to possible ESD or plasma discharge occurrences.
- 10-30- Exciting images of Hurricane Mitch are available at the "Latest Images" page.

10-25- CERES is currently powered off while personnel develop a plan for the DAA anomaly. 98

- 10-18- CERES was powered ON and tested during the period. An abbreviated internal calibration was performed 10-17-98 (00:26:30z) during eclipse, then a full internal calibration was performed (22:27:30z) during the daylight portion of the orbit.
- 10-17- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the +X forward direction.
- 10-13- CERES will be powered and tested for a period of six days.
- 10-11- The PR instrument performed three External Calibrations. 98
- 10-04- CERES operations are on hold until further notice. 98

98

- 10-02- TRMM began using the IP telemetry lines full-time in order to comply with the mandated 98-280 1500z transition time for GSFC SN missions.
- 09-28- A LIS watchdog reset and nominal reconfiguration command sequence was completed per MSFC request.
- 09-22- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the -X forward direction.
- 09-14- TRMM observed fascinating chimney clouds in Hurricane Bonnie; the image is available at the "Latest Images" page.
- 09-13- All CERES operations are on hold until further notice. 98
- 09-06- CERES internal calibration, solar calibration and Alongtrack operations are indefinitely on hold.
- O9-02- The TRMM spacecraft performed a Deep Space Calibration (ACS Mode 8 Inertially Fixed)
  Maneuver which began at 11:33:41 and ended at 13:06:08 (orbits 4393 and 4394).

PR Radiation began at 12:18:00 and ended at 12:19:00.

- 09-01- TRMM data has been approved for release for public research and applications on September 1, 1998. Data may be obtained from the Goddard DAAC beginning on September 15, 1998.
- 08-28- A 180 degree yaw maneuver was performed; the TRMM spacecraft is now flying in the +X forward direction.
- 08-26- The VIRS instrument performed a Solar Calibrations.
- The PR instrument performed Internal Calibrations.
- 08-24- The CERES instrument special commanding to Crosstrack mode on Biaxial and Along Track operation days for the ARM site occurred.
- 08/21/98 The CERES instrument operated in unrestricted Biaxial scan mode on August 18; and restricted Along Track operations on August 21. CERES was place in Contamination Safe prior to each of

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- the Delta-V burns.
- The CERES instrument special commanding to Crosstrack mode on Biaxial and Along Track operation days for the ARM site occurred on August 18 through and August 21.
- 08/20/98 The LIS instrument performed a command request to perform a Watchdog reset, re-adjustment to normal operational thresholds, and a set to 8 Kbps background send mode.
- 08-16- The ESA experienced Moon interference in quandrant 2 and 4 during this week. 98
- 08-15- The CERES instrument operated in restricted Biaxial scan mode on August 12 and August 15.
- 98 CERES was place in Contamination Safe on August 12 prior to each of the Delta-V burns. The CERES instrument special commanding to Crosstrack mode on Biaxial operation days for the ARM site occurred on August 12 and August 15.
- 08-12- The PR instrument performed an internal calibration and an LNA Analysis on August 12.
- 08-11- A UTCF Adjustment was performed at 23:10 (duration -845.5 microseconds); the current UTCF is 3535997.880443 seconds.
- 08-09- A 180 degree yaw maneuver was performed on August 9; the spacecraft is now flying in the -X forward direction.
- 08-08- The first set of CERES crosstrack operations, coordinated with the Department of Energy's ARM site in Oklahoma, was successfully conducted; results should become available soon.
- 08-07- All four TDRS vectors for this month were successfully loaded and passed continuity.
- 07-28- The CERES instrument operated in unrestricted Biaxial scan mode on July 28 and July 31.
   98 CERES was place in Contamination Safe on 8/1 prior to each of the Delta-V burns.
- 07-10- A 180 degree yaw maneuver was performed; the spacecraft is now flying in the +X forward direction. The PR instrument performed external calibrations on July 8 and 9.
- 07-09- Cross sections from the North Carolina storm are available at the "<u>Latest Images</u>" page. 98
- O6-28- A 180 degree yaw maneuver was performed on June 26; the spacecraft is now flying in the -X forward direction. VIRS Solar Calibrations were performed on June 23, 24, and 25.
- On June 21, a problem in uplinking the command load led to a loss of up to 57 minutes of science data for each instrument. Over the life of the mission, over 99.97% of available science data has been recovered. The weekly Delta-V burns and PR internal calibrations were performed.
- O6-14- A few minutes of science data was lost on June 9 when TDRS Spare became unavailable to collect recorded data. The weekly Delta-V burns and PR internal calibrations were performed.
- 06-07- The PR instrument performed an internal calibration, and a pair of Delta-V burns was performed on June 3.
- 06-01- TRMM instrument data is released to the community on an interim basis. See "DAAC" for further details on obtaining data.
- 05-31- A 180 degree yaw maneuver was successfully completed on May 25; the spacecraft is now flying in the +X forward direction.
- The PR instrument performed an internal calibration on May 20, and external calibrations on May 22 and 23. The CERES instrument performed Internal and Solar Calibrations on May 23. A pair of Delta-V burns was performed on May 23.
- 05-19- First official release of TRMM data and data animations are now available in the "Image/Movie 98 Archive."
- O5-17- A pair of Delta-V burns was performed on May 15. The CERES instrument operated in restricted biaxial scan mode on May 11, 14, and 17. The VIRS instrument performed a solar calibration on May 12.
- O5-10- A 180 degree yaw maneuver was successfully completed on May 10; the spacecraft is now flying in the -X forward direction. A pair of Delta-V burns was performed on May 7. The CERES instrument operated in unrestricted biaxial scan mode on May 5.
- 05-03- A pair of Delta-V burns was performed on May 1. The Precipitation Radar instrument performed an internal calibration on April 29, and will do so every Wednesday.
- On April 25 a combination of sun and moon sensor interference placed TRMM into Sun Acquisition Control mode, and then into Low Power mode. Spacecraft analysts were able to

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determine the cause of the event, re-enable attitude control, and power on all instruments within 10 hours. VIRS outgassing was performed after the spacecraft and instrument power up was complete. A pair of Delta-V burns was performed on April 23. About 15 minutes of Precipitation Radar data was lost on April 26 due to a recorder overflow.

- O4-19- The VIRS instrument performed a Solar Calibration on April 14, and the PR instrument
   performed an internal calibration on April 15. A pair of Delta-V burns was performed on April 16
- 04-12- A 180 degree yaw maneuver was successfully completed on April 8; the spacecraft is now flying in the +X forward direction. A pair of Delta-V burns was performed on Apr. 10. The VIRS instrument was set to operate full-time in Day mode on April 7, and performed two Solar Calibrations on April 8.
- O4-05- The CERES instrument operated in unrestricted biaxial scan mode on March 30 and April 2 and
   5. The PR instrument performed an internal calibration on April 1, and external calibrations on April 3. A pair of Delta-V burns was performed on April 4.
- O3-29- A pair of Delta-V burns was performed on Mar 28. The CERES instrument performed Internal and Solar Calibrations on March 25. The PR instrument performed an internal calibration on Mar. 25. The VIRS instrument underwent a spontaneous reset on March 27, and was recovered quickly.
- O3-22- A pair of Delta-V burns was performed on Mar 21. A 180 deg yaw maneuver was performed on Mar 21; the spacecraft is now flying in the -X direction. CERES operated in restricted biaxial scan mode on Mar. 18 and 21. The PR instrument performed an internal calibration on Mar. 18. All instruments and spacecraft systems are operating well.
- O3-15- A pair of Delta-V burns was performed on Mar. 15. CERES performed internal and solar calibrations on Mar. 11, and operated in unrestricted biaxial scan mode on Mar. 9, 12 and 15. The PR instrument performed an internal calibration on Mar. 11.
- O3-08- An unexpected low-power condition occurred on March 3, 21:29 GMT. Recovery went well; all science instruments were operational 4 hr 15 min from the start of the event. A pair of Delta-V burns was performed on Mar. 6. Also on that day, 17 seconds of PR data were lost in two events. CERES operated in unrestricted biaxial scan mode on March 3 and 6.
- 03-06- New TRMM images have been <u>posted</u>. They include a 31-day average of global rainfall, a 31-day total for global lightning strikes, and more. Also TMI images are available on a daily basis at the new <u>Quick Look</u> page.
- 03-03- More TRMM images have been posted. They include a 31-day average of global rainfall, a 31-day total for global lightning strikes, and more.
- O3-01- A pair of Delta-V burns was performed on Feb. 25. A 180 deg yaw maneuver was performed on Feb. 27; the spacecraft is now flying in the +X direction. Science instruments performed well. CERES performed internal and solar calibrations on Feb. 25.
- O2-22- A pair of Delta-V burns was performed on Feb. 16. Transponder lock with TDRS Spare was occasionally dropped, and was difficult to establish on one occasion. VIRS underwent a spontaneous reset on Feb. 19, and was commanded to operate in day mode for an entire orbit on Feb. 20. The other science instruments performed nominally.
- O2-15- CERES performed internal and solar calibrations on Feb. 11. LIS was commanded to reset and change thresholds on Feb. 11. PR performed external calibrations on Feb. 13. VIRS underwent a spontaneous reset on Feb. 13. TMI performed nominally.
- O2-08- The TRMM spacecraft performed nominally. A pair of Delta-V burns was performed on Feb. 4. The PR instrument receiver attenuation was set to 9 dB on Feb. 3.
- 01-13- TRMM images and animations of rainfall amounts, Super Typhoon Paka, and lightning, among others are available.

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## 1997

12- Operations are continuing to go well. CERES and PR checkout activities are continuing as scheduled.

- 22- The CERES covers are scheduled to be opened on 12-27-97. VIRS outgassing is complete and the
- 97 VIRS safehold shutter was opened on 12-16-97. VIRS has completed cooling and science data is being returned on all 5 channels. A Delta-V maneuver was performed on 12-19-97 at 18:08 and 18:59 GMT. The next orbit adjust burn is scheduled for 12-31-97.
- 12- Operations are continuing to go well. CERES and PR checkout activities are continuing as scheduled.
- 14- A 180 degree yaw maneuver was successfully completed on Saturday. And this morning, a 90 degree
- 97 yaw maneuver to calibrate the Precipitation Radar was successfully completed. Tomorrow's activities consist of completing VIRS outgassing and the final activation of VIRS instrument.
- 12- Operations continue to go well. The CERES instrument checkout continues with internal calibrations.
- 09- The Precipitation Radar instrument is operating in observation mode and is producing rainfall data.
- 97 All observatory subsystems are performing nominally. The next orbit adjust maneuver is scheduled for December 18th.
- 12- The final descent maneuver was completed on Sunday and the observatory is in its operational orbit -
- 08- nominally 350 kilometers. The Precipitation Radar was turned on in observation mode and
- 97 preliminary science data gathered.
- 12- The day started with the Observatory ACS continuing in the Normal Mode and the Observatory
- 05- having no anomalies. The major events of the day were the CERES checkout activities and the Delta-
- 97 V descent maneuver. The descent maneuvers were executed as two 3-minute thruster burns at 19:05:00 and 20:37:00. Both burns were judged nominal by the ACS and RCS engineers.
- 12- CERES instrument testing continued. Internal calibration in both biaxial and cross-track modes were
- 04- accomplished. All gimbal motions performed so far have been nominal. The second descent
- 97 maneuver was successfully completed today. The propulsion thrusters were fired for 3 minutes to accomplish the maneuver. Performance of the propulsion system and attitude control subsystems were nominal during the maneuver.
- 12- All spacecraft systems continue to perform nominally. The checkout and calibration of the
- 03- Precipitation Radar and the Clouds and Earth Radiant Energy System instruments continued today.
- 97 Both instruments are performing well. These checkouts will continue over the next few weeks. The first maneuver to lower the spacecraft to its operational orbit of 350 km was successfully accomplished today. Additional maneuvers will continue through Sunday.
- 12- TRMM in-orbit checkout operations continued to go very well. At this time, all five TRMM
- 02- instruments are powered on. The CERES instrument was turned on today, and most of the TDRS
- passes were dedicated to operations of the CERES instrument. The azimuth cross-track mode was tested and performed nominally. Other modes were also successfully tested. Tomorrow we will continue CERES testing, and perform the first of several propulsion thruster firings to reduce the orbit from 380 km to the nominal orbit of 350 km. The orbit descents will be accomplished over the next 5 days.
- 12- The TRMM Observatory checkout continues to progress according to plan. The last of the reaction
- 01- control system thruster calibration burns was completed today. Delta-V burns to achieve the nominal
- 97 350 km orbit will begin on Wednesday. The activation and calibration of the Precipitation Radar continues to go well. The telemetry and command functions were checked out today. Phase codes for each of the 128 channels were uploaded and verified in telemetry. Tomorrow's activities will include power-on of the CERES instrument and CERES will begin its checkout period, which should last through the night.
- 11- TRMM Observatory operations continued to go well. Another calibration burn of the propulsion
- 30- thrusters was performed in preparation for the orbit adjustments later in the week. All thrusters are
- 97 performing nominally. The VIRS instrument was also turned on today, and the cooler was set into the outgassing mode. Outgassing of the VIRS instrument is expected to take up to 14 days. The Precipitation Radar instrument was also turned on, and checkout has begun. Checkout of the PR will continue through prime shift tomorrow.
- 11- NASA's TRMM satellite was successfully launched from the Tanegashima Space Center at
- 27- 4:27 PM EST.

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11-	A new launch date of Nov. 27, 3:40 PM EST has been announced.
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11-	Progress continues to be made on the clock anomaly issue. A target launch date has been set for Nov
	27th, 3:40 PM EST.
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11-	Launch delayed due to a Data Subsystem anomaly. Please check this site for updates and new launch
	date information.
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11-	Launch has been delayed. Launch set for November 19th, 1540 Eastern Std. Time.
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11-	Launch set for November 19th, 0540 Japan Std. Time.
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