

MODIS IOT Weekly Report
 Mission Operations Days: 2000/274 to 2000/280
 September 29, 2000 20:00:00 GMT to October 6, 2000 20:00:00 GMT

 New Gain Values For Bands 24, 25, and 27

Terra Spacecraft and MODIS Instrument Status:

Terra (AM-1) is in Normal Mode
 MODIS is in Science Mode

Blackbody	A On; B Off	Nominal
Calibration Electronics	A On; B Off	Nominal
Control Processor	A On; B Off	Nominal
Door: Nadir	Unlatched, open	Nominal
Space View	Unlatched, open	Nominal
Solar Diffuser	Unlatched, closed	Nominal
FDDI Formatter	A On; B off	Nominal
FIFO Memory	1 & 2 On; 3 & 4 Off	Nominal
Format Processor	A On; B off	Nominal
PC FPA	A On	Nominal
Power Supply:1	On	Nominal
2	Off	Nominal
PV FPAs: VIS	A On	Nominal
NIR	A On	Nominal
SMIR	A On	Nominal
LWIR	A On	Nominal
Radiative Cooler:		
Outgas Heaters	Off	Nominal
LWIR FPA Heater	On	Nominal
SMIR FPA Heater	Off	Nominal
Scan Assembly	A On; B off	Nominal
SDSM	Off	Nominal
SRCA	Off	Nominal
Survival Heaters: PS1	Enabled	Nominal
PS2	Enabled	Nominal
Timing Generator	A On; B Off	Nominal
Flight Software	Rev BD + 2 patches	Nominal
Inhibit Ids Set	None	Nominal
TMONs enabled	66, 67, 68	Nominal

This Week's Completed MODIS Activities:

Friday, September 29, 2000

273/20:19:27 ATC Load OA-15: SD/SDSM Open

273/21:58:20 ATC Load OA-16: SD/SDSM Screened

Saturday, September 30, 2000

None

Sunday, October 1, 2000

None

Monday, October 2, 2000

None

Tuesday, October 3, 2000

277/17:29 Real-Time Gain Changes (Band, Channel, New Value):

24, 1, 98

24, 2, 91

24, 3, 88

24, 4, 89

24, 5, 93

24, 6, 92

24, 7, 85

277/18:45 Real-Time Gain Changes (Band, Channel, New Value):

24, 8, 84

24, 9, 90

24, 10, 85

25, 2, 116

25, 3, 110

25, 4, 105

25, 5, 109

277/18:48 Real-Time Gain Changes (Band, Channel, New Value):

25, 6, 105

25, 7, 109

25, 8, 99

25, 9, 99

25, 10, 105

27, 1, 238

27, 2, 219

277/19:14 Real-Time Gain Changes (Band, Channel, New Value):

27, 3, 231

27, 4, 238

27, 5, 238

27, 6, 238

27, 7, 238

27, 8, 238

27, 9, 238

27, 10, 238

Wednesday, October 4, 2000

278/07:27:08 ATC Load OA-15: SD/SDSM Open

278/09:06:01 ATC Load OA-16: SD/SDSM Screened

278/13:38 Real-Time Memory Dump (6,16,45312,0,1,1)

278/13:39 Real-Time Memory Dump (6,16,45568,0,1,1)

Formatter registers of current count and addresses for each of the formatter errors that have occurred since formatter restart with new software patch on 230/19:57.

278/19:26 Real-Time MOD_MEM_DUMP(36,550,0,0,1,18)

Verification of the Formatter Gain Changes (Formatter Memory Table 4)

Successful collection of all 18 dumped partitions.

Thursday, October 5, 2000

None

Friday, October 6, 2000

None

This Week's Scheduled MODIS Activities Not Completed:

277/19:17 Real-Time MOD_MEM_DUMP(36,550,0,0,1,18)

Verification of the Formatter Gain Changes (Formatter Memory Table 4).

Problems with Online Software resulted in loss of 2 of the 18 dumped partitions.

Upcoming MODIS Events:

Saturday, October 7, 2000

None

Sunday, October 8, 2000

None

Monday, October 9, 2000

None

Tuesday, October 10, 2000

None

Wednesday, October 11, 2000

None

Thursday, October 12, 2000

None

Friday, October 13, 2000

None

Maneuvers:

The next MODIS Lunar Roll Maneuver is planned for October 17th.

MODIS Anomalies:

Continued monitoring for formatter errors and loss of cooler margin.

Attached to this report is a spreadsheet (FR_anomaly_log.xls) listing the times, addresses, formatter temperature, geolocation, and space craft day/night position for each of the formatter events that have occurred since DOY 256. [The most recent events are still under analysis and therefore only partial data is present in the spreadsheet.]

General Instrument Comments:

MODIS is in Science Mode on the A-side with the SVD and NAD open, operating with the Formatter Resolution Flight Software Patches.

MODIS Telemetry Trends:

The Radiative Cooler intermediate stage temperature has slowly been increasing since approximately day 240. During this time the LWIR focal plane heater margin has been decreasing. The IOT is continuing to trend these telemetry mnemonics.

Non-MODIS Significant Events:

The Drag Makeup Maneuver on 2000-278 (10/04/2000) went nominally.

Limited Life Item Status:

SRCA 10W Lamp #1: 173.5 of 500 hours

SRCA 10W Lamp #2: 135.9 of 500 hours

SRCA 10W Lamp #3: 145.1 of 500 hours

SRCA 10W Lamp #4: 61.5 of 500 hours

SRCA 1W Lamp #1: 556.1 of 4000 hours

SRCA 1W Lamp #2: 276.3 of 4000 hours

Solar Diffuser Door: 1429 of 3022 Movements

Nadir Aperture Door: 532 of 1316 Movements

Space View Door: 437 of 1316 Movements