
EUROPEAN SPACE AGENCY
DIRECTORATE OF TECHNICAL & OPERATIONAL SUPPORT
MISSION OPERATIONS DEPARTMENT

INTEGRAL
Mission Report
INT-MOC-SYS-RP-1001-TOS-OF
No. 048
Week 34
25.08.03
Routine Phase

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1 General

The Flight Control Team at MOC has compiled this report with some input provided by the Flight Dynamics Team.

It addresses the activities from 16.08.03 until 22.08.03 (both dates inclusive) and covers the revolutions 103 & 104.

2 Summary of Activities

The operations were performed according to the planning inputs from ISOC combined with some manual commanding by MOC.

The targets of these revolutions were the Crab Nebula (RA 05:34:31.90; DEC +22:00:52.0), the Galactic Center (RA 17:45:40.00; DEC -29:00:28.0) and IC 4329A (RA 13:49:19.29; DEC -30:18:34.4). The activities performed consisted of raster dithering, staring and GCDE observations.

Note: Some further information concerning the activities is provided in the Appendix.

3 Satellite Status

3.1 Platform

The performance of the platform was good. No unexpected behaviour / malfunction was identified.

3.1.1 AOCS

The AOCS operations were performed from the timeline during this period.

There were flickers in the On-Target Flag and losses of Guide Star during perigee passages due to False Events on the Star Tracker. The OTF flickers had no impact on science, since they happened below the science operation altitude. After each release of the Guide Star a new Guide was picked by the ACC.

The last update of the Sun-Steering Law parameters during the long staring observation of pointing 01020038 was missed due to loss of TM from Goldstone. This, however, had no impact on the pointing itself and on the execution of the next slew.

A few slews were missed in revolution 103 because of a drop in telemetry and a problem in the Timeline Recovery tool, which would fail to update/generate slews.

The fuel consumption over the period between 15/08/2003 and 22/08/2003 was 0.13Kg. The remaining propellant is in the order of 175.348 Kg on the 22nd of August.

Note: Some more information concerning the AOCS operations and the fuel budget is provided in the Appendix.

3.1.2 Power

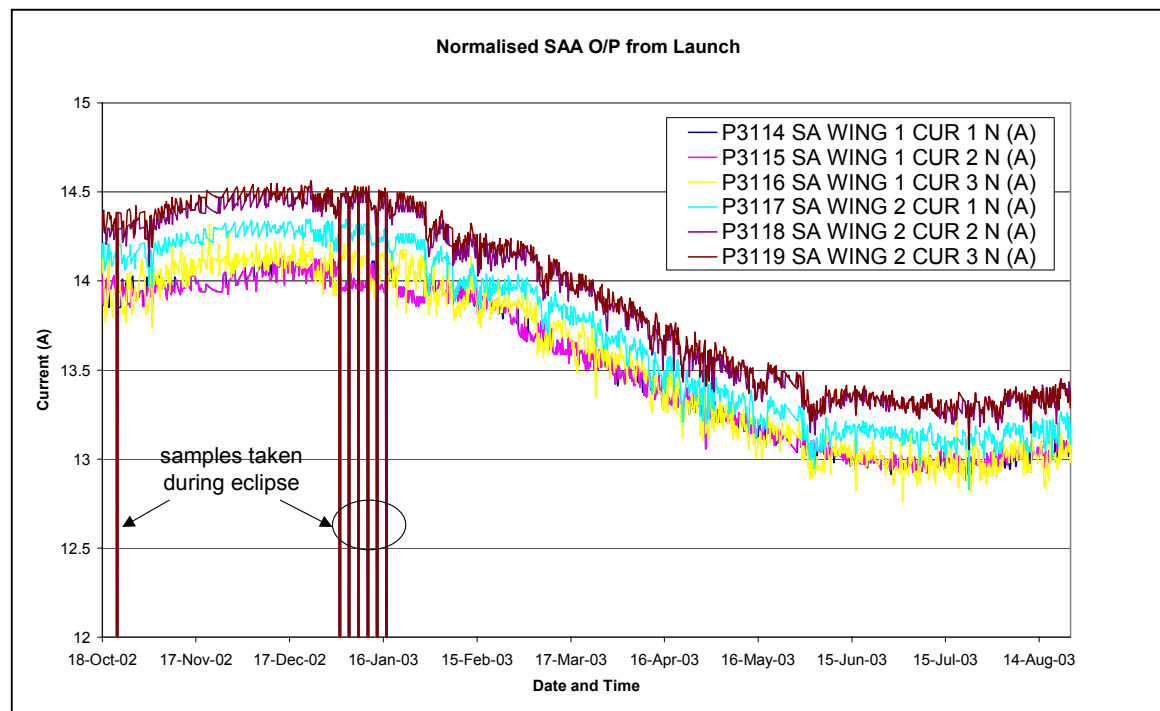
The power subsystem is working as specified. The available power from the arrays is in the order of **2230W**. This means that there is no noticeable degradation of the solar arrays since launch.

The attached plot shows the evolution of the Solar Array Output since launch. The values are normalised to a solar Aspect Angle of 0 degrees, no correction has been made for temperature or the shunted / connected status of sections.

The seasonal variation in Solar array output caused by the variation in the earth sun distance can be clearly seen.

It is expected that in the next 2 months as the earth approaches the sun again, the array outputs will return to a value close to their launch values.

Following the anniversary of the launch on October 17th 2003, it should become possible to make an estimate of any array degradation during the past year in orbit.



Currently the Solar array generates approximately 2250W, at a Solar aspect angle of 0 degrees

3.1.3 Thermal

The thermal control of the satellite is working well. The temperatures are currently all within the specified operational limits.

3.1.4 OBDH

The OBDH subsystem is working flawlessly. No on-board communications problem identified.

3.1.5 RF

The RF subsystem is working properly. The link margin is sufficient to ensure proper TM reception and execution of commands with the ranging channel enabled.

3.2 Payload

3.2.1 SPI

The anomaly, which occurred on 05/08/2003 at 15.30Z in FEE57 of the ACS sub-assembly is under investigation.

Apart from that, the instrument is performing well.

During the reporting period the instrument was in photon-by-photon mode with spectra TM enabled and an assigned TM bandwidth in the science windows of 98 pkts/cycle.

Note: Some more information concerning the SPI operations is provided in the Appendix.

3.2.2 IBIS

The Status of the unit is Nominal. The TM bandwidth assigned to IBIS is 134 pkts/8sec.

During part of the reporting period has been completed the second Crab Calibration (from 14->17 August).

Several off axis pointings were performed to obtain the detector background map in the area close to the Spectrometer.

Note: Some more information concerning the IBIS operations is provided in the Appendix.

3.2.3 JEM-X

During the reporting period, JEM-X2 operations were executed from the Automatic Timeline and JEM-X1 was dormant.

Note: Some more information concerning the JEM-X operations is provided in the Appendix

3.2.4 OMC

During this period 171 OMC images were acquired with four missed due to a TM drop.

Note: Some more information concerning the OMC operations is provided in the Appendix.

3.2.5 IREM

The status of the unit is Nominal.

Note: Some more information concerning the IREM operations is provided in the Appendix.

4 Ground Facilities

A busy week for the ground segment, with problems reported with ground stations links, the IMCS, consolidator, ISDC connections.

4.1 Mission Operations Centre

The upgrade to the IMCS prime chain S/W to cope with the increased load due to the higher bit-rate was performed successfully as planned on the 20th August.

There were several problems noted this week, particularly with the consolidator on the IDDA. These problems mainly impacted the archiving of data. Some retrieval operations were needed in order to consolidate the archive. The execution of the Timeline was not impacted.

The details are as follows:

- On DoY 228 at 04:45:33Z the TM-DDS-VC7RT link disconnected itself, 17 seconds later it magically reconnected itself! The MCS link on the NCTRS-A was red (down).
- Later, at 09:07, the NCTRS-A application was restarted, to clear a ghost link.
- On DoY 229 at 06:27, the Auto-stack on SUN122 crashed, it was re-started at 03:30, without further impact.

- On DoY 233 from 09:54Z to 09:56Z there was a drop in the TM-DDS-VC7RT link on NCTRS-A due to computer maintenance connected with the bit-rate increase.
- There were several reports this week concerning the consolidator on DoY 230 at 12:16, the IDDA displayed RED on the MMI processes, The Analyst restarted the TMAR task, restoring the IDDA to GREEN. On DoY 231 at 20:51, again on DoY 232 at 00:00, and at 21:58 there were further problems. On the last occurrence OSC reported that a back-up task was running, at 00:03 the errors stopped. On DoY 233 at 13:00 there were problems again with the IDDA. Computer stopped and started the applications, and at 13:22 the system was back. Later at 21:00, there were further errors, OSC was requested to stop the sniffer on IDDA, and at 21:25 the errors stopped. On DoY 234 at 12:52 the IDDA was again rebooted, and at 13:05 it was returned to nominal. Later at 19:49 there were more errors every 21 – 37 seconds, sending data to the consolidator, however, there were no backups or CD production running this time. At 20:52, the consolidator was re-started, and at 20:56, the IDDA machine was re-booted, the errors finally stopped at 21:26.

4.2 Ground Stations & Network

During this week, there were a few problems relating to the ground stations. The main impact concerned the distribution of the TM data.

The details are as follows:

- On DoY 228 at 03:31, a late handover between Redu and Goldstone caused the DEBPG200 sequence to fail, at 03:37 it was re-sent without further impact.
- On DoY 229 at 03:24, the TM from Goldstone dropped, after investigation, it was found that a switch from using an ISDN line, back to the 'Normal' line caused the drop, at 04:21, the line was switched back to ISDN, and the TM returned. The Goldstone DR number is N101291.
- On DoY 230 at 12:43 there was a five second drop in VC7 TLM, there was a TM-DDS disconnect/reconnect message in the event logger, no impact was observed
- On DoY 231 at 02:57:26Z, the TLM from DSS-16 dropped for 35 seconds. This caused pointing 01030059 to be lost, subsequent problems executing the recovery procedure caused pointings 01030060 to 01030062 to be lost. The Timeline was eventually recovered at 05:04Z.
- On DoY 233 at 01:16 there were two drops in VC0 TLM for about 1 second. GFCC reported control module alarms on all nodes.
- On DoY 234 at 04:14 there was a brief drop in VC7 TLM from DSS-24 for about 1 second, later at 08:35, near the end of the pass, the TM dropped from DSS-24, it was recovered 5 minutes later from Redu.

4.3 Science Ground Segment

4.3.1 ISOC

No ISOC Input has been provided

4.3.2 ISDC

There were several items concerning the link to the ISDC reported this week:

- On DoY 228 at 07:43Z ISDC reported the reception of multiple THF files.
- Later, between 09:41 and 09:44 there was a drop in VC7 TM caused by the Analyst performing maintenance on the consolidator.
- On DoY 231 at 03:45Z ISDC reported they were receiving TM at double the rate, network tried stopping and restarting the playback with no effect. At 05:18Z the problem ceased. Investigations were inconclusive, but it is suspected that there was a NCTRS configuration error.
- On DoY 232 at 15:28 there were errors sending data to ISDC for 31 secs.

5 Special Events

The upgrade of the IMCS regarding the increased TM data rate has been implemented on the A-chain. The performance of the system has improved as expected.

6 Anomalies

The problems related to the ground segment are already mentioned in chapter 4.

A list of the pending anomalies since Launch is presented in the Appendix. New anomalies raised during the past week are listed below:

AR ID	Date Occurrence	Subject	Segment	Element	Status
INT - 002429	21/08/2003	Telemetry loss to IMCS	Ground	NCTRS	Pending

7 Future Milestones

The upgrade to the IMCS redundant chain is currently planned for the 26th August.

8 Appendix

The appendix includes various detailed information.

8.1 Overview of Revolutions

Revolution 103

The observations in revolution 103 consisted of an on-axis staring observation of the Crab Nebula (RA 05:34:31.90; DEC +22:00:52.0) lasting $\sim 5\frac{1}{2}$ hours, followed by a series of GCDE observations which were performed for the remaining ~ 53 hours of observation time.

During the Crab observation all instruments, including JEM-X1, were in their nominal science modes and the TM allocation was 134 IBIS, 98 SPI, 4 JEM-X1, 5 JEM-X2, 5 OMC. For the GCDE observations JEM-X1 was in Safe mode while the other instruments remained in their nominal science modes, with a TM allocation of 134 IBIS, 98 SPI, 1 JEM-X1, 8 JEM-X2, 5 OMC.

Revolution 104

The observations in revolution 104 consisted of a raster dithering observation of IC 4329A (RA 13:49:19.29; DEC -30:18:34.4) lasting about 60 hours followed by a raster dithering observation of the Galactic Center (RA 17:45:40.00; DEC -29:00:28.0), performed for the remaining ~ 1 hour of observation time.

During both observations all instruments were in their nominal science modes, except for JEM-X1 which remained in Safe mode, and the TM allocation was 134 IBIS, 98 SPI, 1 JEM-X1, 8 JEM-X2, 5 OMC.

8.2 Consumables

8.2.1 Detailed Fuel Book-keeping

2003-08-01T00:51:34.000Z	175.6575	F	Automatic TM processing.
2003-08-02T13:28:18.000Z	175.6279	F	Automatic TM processing.
2003-08-04T00:33:42.000Z	175.6208	F	Automatic TM processing.
2003-08-05T13:11:53.000Z	175.6087	F	Automatic TM processing.
2003-08-07T00:06:29.000Z	175.5861	F	Automatic TM processing.
2003-08-08T12:56:57.000Z	175.5673	F	Automatic TM processing.
2003-08-09T23:13:33.000Z	175.5512	F	Automatic TM processing.
2003-08-11T12:39:29.000Z	175.5395	F	Automatic TM processing.
2003-08-12T23:54:05.000Z	175.4991	F	Automatic TM processing.
2003-08-14T12:26:16.000Z	175.4772	F	Automatic TM processing.
2003-08-17T12:16:39.000Z	175.4594	F	Automatic TM processing.
2003-08-17T22:19:28.000Z	175.4286	F	Automatic TM processing.
2003-08-18T22:43:31.000Z	175.3969	F	Automatic TM processing.
2003-08-20T12:02:23.000Z	175.3712	F	Automatic TM processing.
2003-08-21T22:30:18.000Z	175.3476	F	Automatic TM processing.

This report was generated Fri Aug 22 08:00:12 GMT 2003

8.3 Detailed Satellite Information

This section contains some detailed information concerning the various subsystems of the satellite and instruments.

8.3.1 AOCS Operations

AOCS operations were executed from the Automatic Timeline.

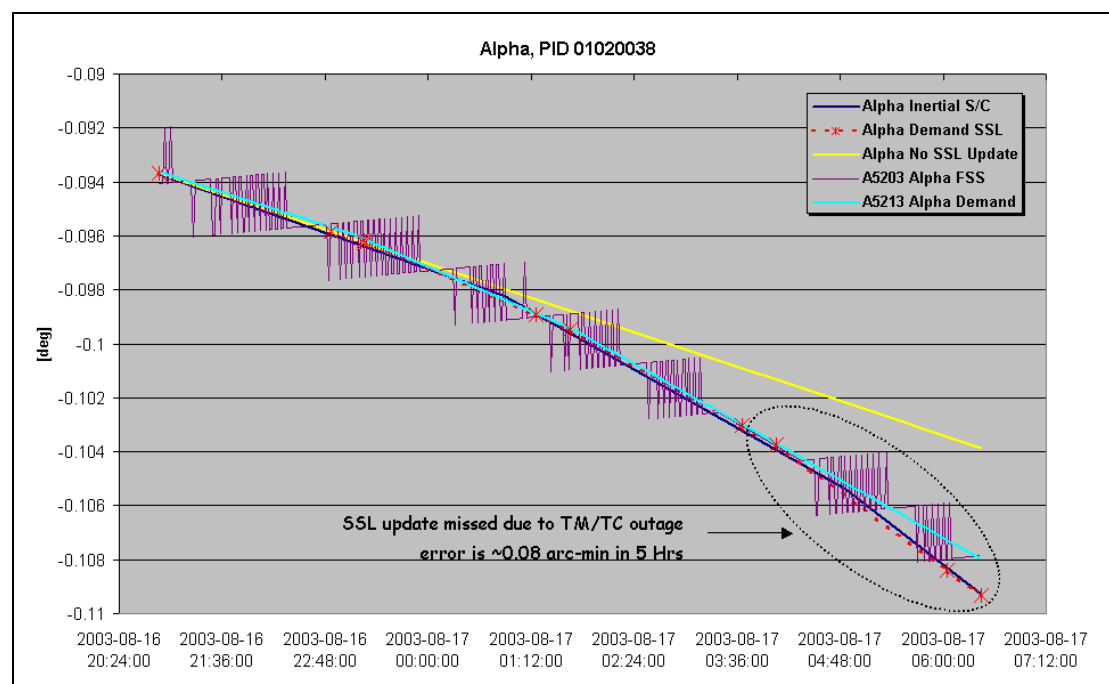
During this period, 69 Open Loop Slews, 116 Closed Loop Slews and 5 Momentum Bias were executed. 4 slews were missed or executed manually. This is equivalent to about 2% of the total.

16/08/03 (Day of Year 228, Revolution 102)

Nothing to report.

17/08/03 (Day of Year 229, Revolution 102-103)

Update of SSL missed due to ground station problem (Goldstone DSS-16): At 03:24, the Telemetry line from Goldstone was lost due to an unscheduled line switch (from ISDN to Normal) at JPL. The problem was not resolved until 04:35, when the line was switched back to ISDN. This resulted in the missing of the last update of the Sun-Steering Law parameters during the long staring observation of pointing 01020038, which had started at 2003-08-16T21:01:56z. The roll angle had perfectly followed the predicted path throughout the pointing, and as can be seen in the following plot, the effect of losing this last SSL update was minimal by the end of this pointing at 2003-08-17T06:26:55z. The next slew was performed from the timeline and without any problems.



Where:

- Alpha Inertial S/C: Predicted roll angle for the inertially fixed S/C
- Alpha Demand SSL: Time evolution of the Roll angle from the loaded SSL parameters
- A5203 Alpha FSS: FSS Alpha reading from TM
- A5213 Alpha Demand: Controller Alpha Demand from TM
- Alpha No SSL Update: Time evolution of the Roll angle if SSL was not updated during the observation

Pitch Error due to undetected False Event during perigee passage: At 10:52:22 a Pitch Error OEM was generated onboard. This was during the no-coverage part of the perigee passage. The reason was most likely an undetected False Event in the Star Tracker.

18/08/03 (Day of Year 230, Revolution 103)

Nothing to report.

19/08/03 (Day of Year 231, Revolution 103)

Slews missed due to a drop in TM and a failure in the Timeline Recovery tool: At 02:57, after station handover from Redu to Goldstone (DSS-16), a drop in TM caused slew 01030059 to fail execution from the timeline. After re-establishment of the TM link, the Flight Dynamics timeline recovery tool was used to manually perform the missed slew. The tool, however, failed to update the next slew. The FD responsible was called in to trouble shoot the problem. Slews 01030060 and 01030061 were missed and after fixing the problem, a manual slew was performed to the attitude of pointing 01030062 and the next slew was updated manually. In summary, pointings 59 to and including 62 were lost. The Flight Dynamics team is working on locating and removing the cause of this failure in the system.

20/08/03 (Day of Year 232, Revolution 103-104)

Attitude error and loss of Guide star due to False Events: At 11:27:52 the ACC generated Yaw Error OOL message when an undetected False Event caused a jump of (27.4, -44.8) arc-seconds in the location of the Guide Star, as seen by the STR. The OTF threshold is 36" on both Pitch and Yaw. The Guide, which had CCD Coordinates (-21666, 5830) and magnitude 7.8, was released at 11:27:57 when the number of detected False Events exceeded the STR SEU Filter threshold of the ACC. A mapping was then commanded by the ACC and a new Guide was picked: (11445, 9595) 6.5 Mi. This star was released again at 11:35:34 by the STR SEU Filter. Another mapping was done and a new guide was picked, CCD (15499, 501) and 6 Mi. The altitude was about 15000 km ascending.

21/08/03 (Day of Year 233, Revolution 104)

Nothing to report.

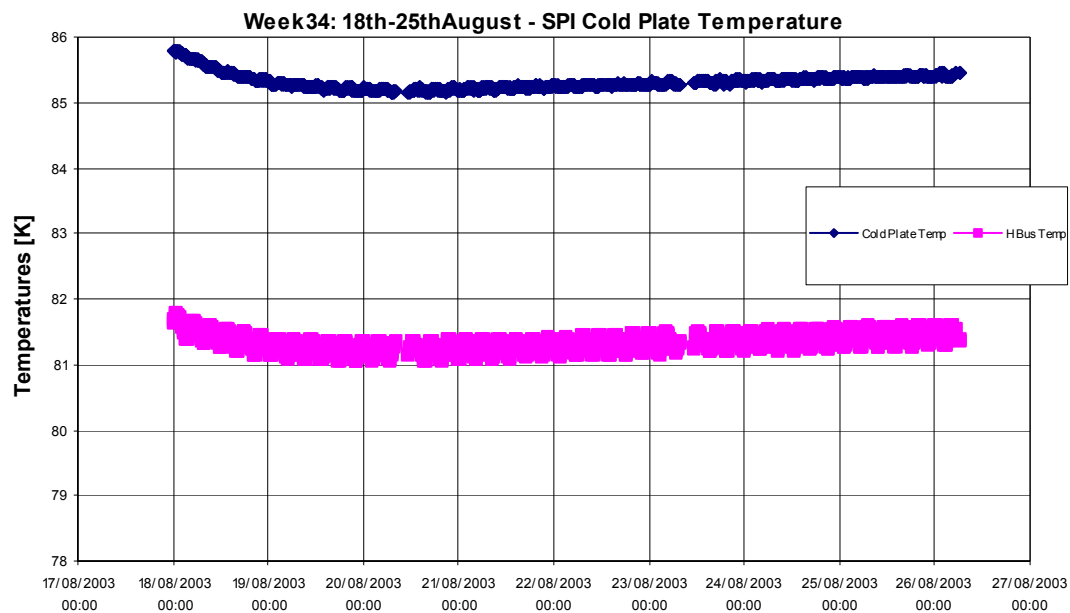
22/08/03 (Day of Year 234, Revolution 104)

Nothing to report.

8.3.2 SPI Operations

Cryocooler:

After the stroke adjustments in week 33 the cold plate temperature went back into the operational limits, stabilized and then started again drifting high.



IASW/DPE:

Duplicated packets in VC7 TM : As reported in week 30, an AR was opened (INT-002390). The problem is very likely due to a ground segment problem.

ACS:

The FEE57 is in watch dog reset state since rad belt exit of rev.99 (05/08/2003 at 15.30Z) in week 32.

Further tests are under discussion and preparation in cooperation with the SPI team in CNES/CSER Toulouse and ACS specialists in MPE Garching, with the purpose to isolate the fault inside the FEE57.

AFEE :

Nothing to report.

DFEE, PSD:

Nothing to report

8.3.3 IBIS Operations

There were a few reports during Belt passage the OEM ID 167 Class 2 <<IBIS1 PICsIT NOISY SEMIMODULE>> due to the PICsIT detectors being ON without the VETO anticoincidence system, as required by PIs.

On DOY 233 (21/08) at 11.08Z, the OEM ID 179 Class 2 <<IBIS1 VETO COUNTER BOTTOM EXCEEDS ALERT VALUE>> was reported. The relevant TM_para G6062 showed values inside limits therefore the problem was disregarded, as suggested by the nominal reaction to this OEM.

On DOY 233 (21/08) at 06.52Z, 12.11Z and 18.43Z, the OEM ID 180 Class 2 <<IBIS1 VETO COUNTER LATERAL EXCEEDS ALERT VALUE >> was reported. The relevant TM_para G6063 showed values inside limits therefore the problem was disregarded, as suggested by the nominal reaction to this OEM.

On DOY 233 (21/08) at 16.30Z, the OEM ID 183 Class 2 <<IBIS1 VETO +5V VECU VOLTAGE OUT OF RANGE >> was reported. The relevant TM_para G6106 showed values inside limits therefore the problem was disregarded, as suggested by the nominal reaction to this OEM.

On DOY 232 (20/08) at 06.33Z, and DoY 234 at 11.20Z, the OEM ID 184 Class 2 <<IBIS1 VETO +28V VDM/CDM VOLTAGE OUT OF RANGE >> was reported. The relevant TM_para G6107 showed values inside limits and therefore the problem was disregarded, as suggested by the nominal reaction to this OEM.

On DOY 234 (22/08) at 11.50Z IBIS Histograms downloading stopped. This was noted from the HK monitoring, and later confirmed by ISDC, the operator recovered the situation following the OR-92. At 12.02Z the downloading of the IBIS PICsIT Histograms was restarted. The anomaly is likely to be due to the coincidence of GSHF setting with the starting of the S5 (PICsIT Calibration Histogram) process. Investigations are on-going.

8.3.4 JEM-X Operations

Nothing to report

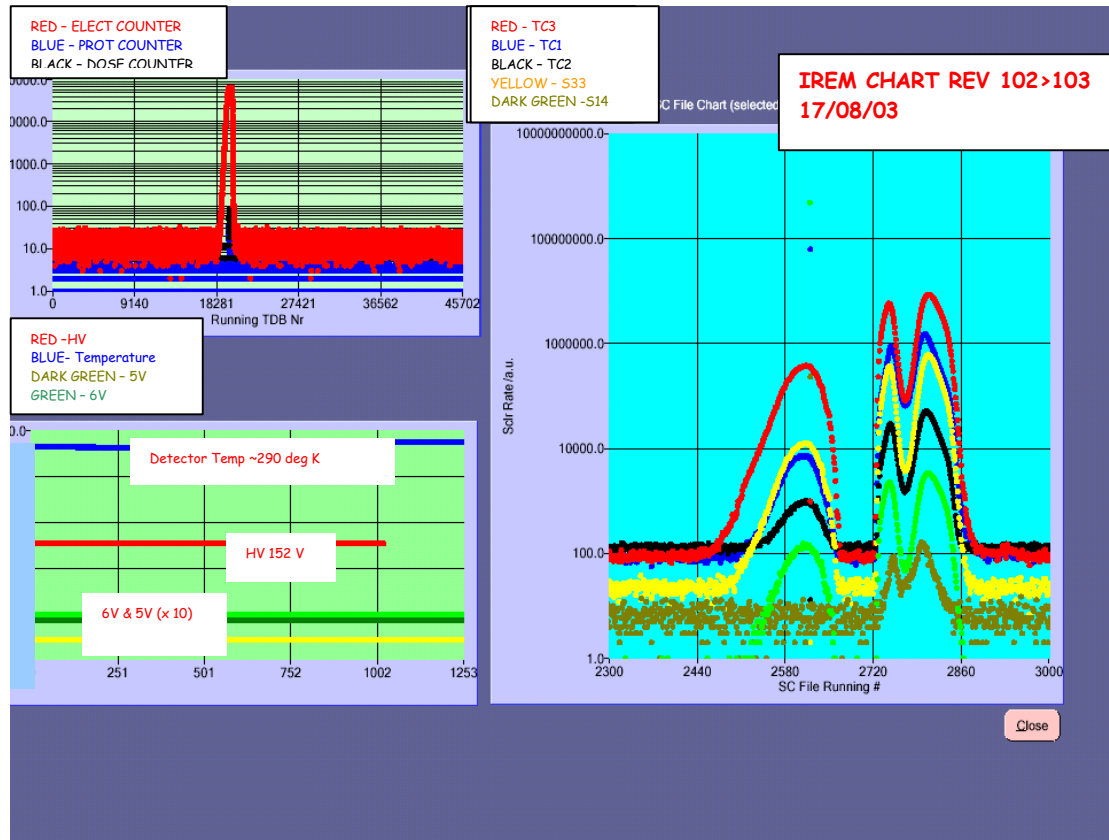
8.3.5 OMC Operations

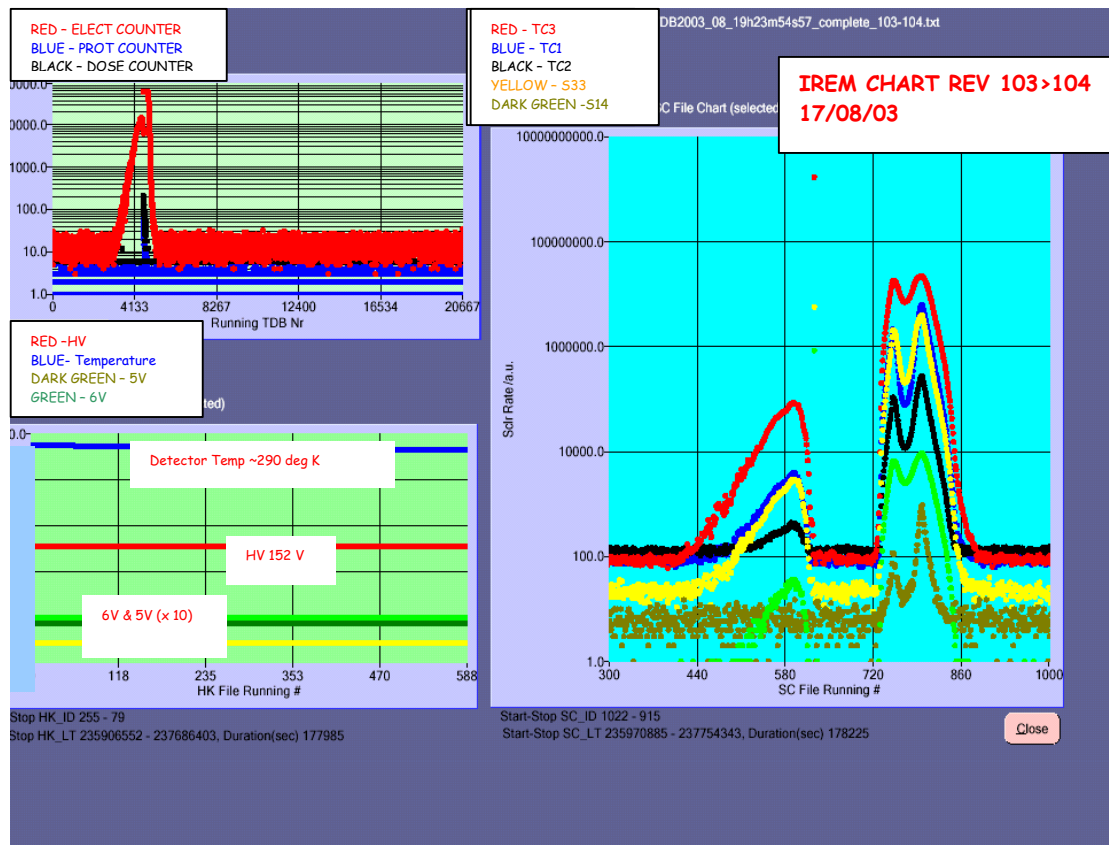
On DoY 231 from 03.40Z to 04:13Z, there were 36 SCI WINDOW REJECTED OEMs, there were 49 more of these between 04.35Z until 05.07. They were all consequences of the TM drop, which started at 02:57. Pointings 01030059 to 01030062 were lost.

8.3.6 IREM Operations

On DOY 229 (17/08) at 12.10Z the TC U4921 failed the command execution verification due a late update of the relevant TM_para. No action was taken as the TM confirmed the successful execution of the TC.

The figures below show the IREM count rates for the Belts passage in rev 103 and 104.





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8.4 List of Anomalies since Launch

The following table presents the list of all identified anomalies that have been registered since Launch and that are still pending. Though these Anomaly Reports still have a pending status most of the problems have been analysed and solutions or at least workarounds are already in place.

ARid	Date Occurrence	Subject	Segment	Element	Status
INT - 002010	22/10/2002	Time correlation not applied correctly to time parameters in TM type 8 reports.	Ground	IMCS	Pending
INT - 002082	13/11/2002	TM packet production lower than allocation.	Space	SPI	Pending
INT - 002094	19/11/2002	TDRS does not work with super-commutated parameters	Ground	IMCS	Pending
INT - 002142	11/12/2002	TDRS Time Interval Setting	Ground	IMCS	Pending
INT - 002145	15/12/2002	Commands failing PTV for no reason	Ground	IMCS	Pending
INT - 002212	29/01/2003	TDRS Interval-by-Interval TM Retrieval Problem	Ground	IMCS	Pending
INT - 002213	29/01/2003	SCOS 2000 Interval-by-Interval TM Retrieval Problem	Ground	IMCS	Pending
INT - 002234	24/02/2003	S2K unable to access READ ONLY disk in IDDA.	Ground	IMCS	Pending
INT - 002259	21/03/2003	TDRS: Retrieval log is Meaningless.	Ground	IMCS	Pending
INT - 002260	21/03/2003	Monitoring task Printout, sample time	Ground	IMCS	Pending
INT - 002262	21/03/2003	TDRS: FEN Retrievals containing status parameters always fail.	Ground	IMCS	Pending
INT - 002304	26/04/2003	IFTS MCS instance not working	Ground	IMCS	Pending
INT - 002307	06/05/2003	Wrong sign applied in the S/C delay in the correlator.	Ground	IMCS	Pending
INT - 002309	06/05/2003	Command release delayed	Ground	ESA Sta.	Pending
INT - 002311	06/05/2003	Drop in TM on MADDS-ISDSA link	Ground	ESA Sta.	Pending
INT - 002312	06/05/2003	Static PTV in "No Go" State for command A3189	Ground	IMCS	Pending
INT - 002318	09/05/2003	SUN workstation 128 rebooted itself.	Ground	IMCS	Pending
INT - 002314	12/05/2003	Wrong file displayed for Timeline Summary File	Ground	IMCS	Pending
INT - 002323	19/05/2003	Telemetry Drops from Goldstone (DR 109346)	Ground	NASA Sta.	Pending

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ARid	Date Occurrence	Subject	Segment	Element	Status
INT - 002324	19/05/2003	Command A3084 not verified	Ground	IMCS	Pending
INT - 002328	27/05/2003	TDRS queries for some SPI parameters fail before DOY 2003.034	Ground	IMCS	Pending
INT - 002330	27/05/2003	NCTRS CPU goes to 85% for a problem related with tracking data	Ground	NCTRS	Pending
INT - 002331	27/05/2003	Monitoring Task ASCII Printout, not in ASCII format	Ground	IMCS	Pending
INT - 002334	30/05/2003	Bad telemetry from Goldstone - DSS-16	Ground	NASA Sta.	Pending
INT - 002336	02/06/2003	VC-0 telemetry not being received from Goldstone	Ground	NASA Sta.	Pending
INT - 002338	03/06/2003	Error sending data to consolidator (VC-7)	Ground	IMCS	Pending
INT - 002340	05/06/2003	IBIS anomaly: Histogram production stopped due to coincidence of GSHF=1 with the start of S5 process	Space	IBIS	Pending
INT - 002341	05/06/2003	IBIS anomaly: Histogram production stopped due to the combination of PDUR setting with IASW observation duration calculation during long staring	Space	IBIS	Pending
INT - 002342	05/06/2003	Telemetry Drops from Goldstone DR: AR109393	Ground	NASA Sta.	Pending
INT - 002343	07/06/2003	Error sending data to ISDC	Ground	IMCS	Pending
INT - 002350	12/06/2003	Telemetry Drop from Goldstone DR: G102867	Ground	NASA Sta.	Pending
INT - 002357	20/06/2003	Error sending data to ISDS	Ground	IMCS	Pending
INT - 002358	22/06/2003	Error sending data to ISDC	Ground	IMCS	Pending
INT - 002359	22/06/2003	NCTRSA application restart	Ground	NCTRS	Pending
INT - 002363	23/06/2003	Error sending data to ISDC	Ground	IMCS	Pending
INT - 002367	25/06/2003	SPI: Spikes in GeD count rates after HV switch on following 1st annealing	Space	SPI	Pending
INT - 002368	25/06/2003	IFTS Transfer on IMCS-A Failed	Ground	IMCS	Pending
INT - 002370	01/07/2003	Static PTV conditions handled incorrectly.	Ground	IMCS	Pending
INT - 002375	02/07/2003	Error sending data to ISDS	Ground	IMCS	Pending
INT - 002376	03/07/2003	Unexpected behaviour of IMCA	Ground	IMCS	Pending
INT - 002379	03/07/2003	ISDS to ISDC link drop messages	Ground	IMCS	Pending
INT - 002388	16/07/2003	FDS failed to create TPF	Ground	FDS	Pending
INT - 002389	16/07/2003	IBIS: PICsIT PDMs counters SET to 0 during nominal operation (#3-4)	Space	IBIS	Pending
INT - 002391	18/07/2003	TC problems following the TMP swap on DOY 197	Ground	ESA Sta.	Pending
INT - 002392	18/07/2003	Broadcast Packet Eclipse Entry/Exit Times Incorrect	Ground	FDS	Pending
INT - 002393	23/07/2003	Auto-stack crash on sun128	Ground	IMCS	Pending

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ARid	Date Occurrence	Subject	Segment	Element	Status
INT - 002399	25/07/2003	IFRD: the CSM-IFRD task crashed on isdsa after new IMCS SW release (8.8).	Ground	IMCS	Pending
INT - 002401	31/07/2003	Link MADDS - ISDS toggled between connected and TM flow.	Ground	IMCS	Pending
INT - 002406	31/07/2003	Link MADDS/ISDS Disconnected	Ground	IMCS	Pending
INT - 002408	31/07/2003	Late TC Link from DSS-16	Ground	NASA Sta.	Pending
INT - 002410	31/07/2003	Strange Disconnection Messages.	Ground	NCTRS	Pending
INT - 002412	31/07/2003	OMC (OMCAS) IASW Crashed	Space	OMC	Pending
INT - 002413	01/08/2003	CMD failure caused slew to be missed.	Ground	FDS	Pending
INT - 002414	06/08/2003	B-Chain not operational after OPSLAN work.	Ground	IMCS	Pending
INT - 002415	06/08/2003	TC Fails release - Spurious PTV Failure.	Ground	IMCS	Pending
INT - 002416	06/08/2003	TC fails release	Ground	IMCS	Pending
INT - 002417	06/08/2003	TCP Crash at DSS-16	Ground	NASA Sta.	Pending
INT - 002418	06/08/2003	Possible Hardware fault on INTRB	Ground	NCTRS	Pending
INT - 002419	06/08/2003	Drop in VC7	Ground	NASA Sta.	Pending
INT - 002420	07/08/2003	SPI -ACS anomaly on FEE 57	Space	SPI	Pending
INT - 002421	12/08/2003	IREM anomaly : SEU #6	Space	IREM	Pending
INT - 002422	18/08/2003	IMCS OOL display frozen	Ground	IMCS	Pending
INT - 002423	18/08/2003	Drop in VC-7 from DSS-16	Ground	NASA Sta.	Pending
INT - 002424	18/08/2003	NCTRS-A restart	Ground	NCTRS	Pending
INT - 002426	18/08/2003	TM drop due to non-scheduled line switch at JPL - DR:101291	Ground	NASA Sta.	Pending
INT - 002427	18/08/2003	Auto-stack crashed on SUN-122	Ground	IMCS	Pending
INT - 002429	21/08/2003	Telemetry loss to IMCS	Ground	NCTRS	Pending