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

INTEGRAL
Mission Report

INT-MOC-SYS-RP-1001-TOS-OF

No. 039
Week 25

24.06.03

Routine Phase

Prepared by: M. Schmidt (TOS-OFI)

LIST OF CONTENTS

DISTRIBUTION LIST

Addressees	Copy	Addressees	Copy
D/TOS		ESA HQ	
G. Winters D/TOS	1	D. Southwood D/SCI	1
W. Frank TOS-O	1		
A. Smith TOS-OF	1	ESTEC	
J. F. Kaufeler TOS-G	1	J. Louet SCI-P	1
N. Bobrinsky TOS-ON	1	A. Gimenez-Canete SCI-S	1
R. Münch TOS-GF	1		
		ESTEC / PG	
M. Schmidt	1	K. Clausen	1
J. Pineiro	1	P. Jensen	1
R. Southworth	1	P. Strada	1
F. Di Marco	1	G. Sarri	1
F. Cordero	1	R. Carli	
M. Walker	1		
M. Rezazad	1	ESTEC/RSSD	
J. Houser	1	M. Kessler SCI-SD	1
P. Lippi	1	C. Winkler	1
SPACONs	1	A. Parmar	1
S. Fahmy	1	R. Much	1
I. Bayliss	1	L. Hansson	1
G. Di Girolamo	1	R. Kuulkers	1
F. Dreger	1	Nicola Rando	1
G. Gienger	1		
S. Pallaschke	1	ISDC	
W. Hell	1	T. Courvoisier	1
K. Capelle	1	R. Walter	1
M. Butkovic	1	N. Mowlavi	1
D. Heinzer	1	ISDC Shift Team	1
A. Pena	1	D. Texier	1
Shift - Coord	1		
Scheduling Office	1	ALENIA	
T. Beck	1	C. Cassi	1
B. Smeds		F. Ravera	1
S. Scaglioni	1		
J. Wardill	1	PI / Instrument Teams	
		C. Larigauderie – SPI	1
		G. La Rosa – IBIS	1
		S. Brandt – JEM X	1
		E. De Miguel - OMC	1
		W. Hajdas – IREM	1
		JPL / Goldstone	
		D. Holmes	1
		T. Horton	1
		Redu	
		J. Mac Lauchlan	1

1 General

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

It addresses the activities from 14.06.03 until 20.06.03 (both dates inclusive) and covers the revolutions 82 to 83.

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 galactic plane, 3C 273 (RA 12:29:6.70; DEC +02:03:09.0), the OMC Flat Field attitude (RA 13:01:12.00; DEC +06:48:00.0) and the Vela region (RA 08:52:45.57; DEC -44:35:07.2). Activities performed included GPS, staring and raster dithering observations as well as OMC Flat Field and Dark Current calibrations.

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.

3.1.1 AOCS

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

On 20/06/2003 and prior to the upcoming eclipse season, a complete IMU Health-Check and Calibration was performed on all the IMU analogue and digital channels. During this activity, RMU-B was also powered On and its overall status was monitored. Everything looked nominal on RMU-B.

The fuel consumption over the period between 13/06/2003 and 20/06/2003 was 0.148 Kg. The remaining propellant is in the order of 176.41 Kg on the 20th of June.

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.

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.

The problem concerning the ratio of VC0 and VC7 CLCW data that occurred after the load of the S/W patch regarding the TM data rate increase has not been solved. For the time being commanding is performed using VC 0 commands only.

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 status is nominal.
The instrument is operating in photon by photon mode with Spectra telemetry disabled. The TM bandwidth assigned to SPI was 98 pkts/cycle for the reported period.
The Cryocooler is working nominally maintaining 85K temperature in the detector cold plate.

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.
The new IBIS configuration is working as expected with the integration time for the spectral timing set to 1.95 msec, four channels assigned to the spectral timing and the new energy thresholds. The averaged TM utilisation of IBIS is 107 pkts/8sec, with saturation of the allocated TM whenthe unit is Standard slew (PICsIT PPM On). When pointing to active region (like VELA in rev 82) or in presence of solar activity, the averaged value raised to 120 pkts/8sec (see also IREM report for details).

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.

On 17/06/2003, JEM-X2 went to SAFE mode when the RMC#3 from IREM exceeded the JEM-X Safe threshold. The unit was recovered a few hours later after the radiation level had subsided within the limits. Also near the end of revolution 82, JEM-X2 went to SAFE mode due to high Software Trigger Rates.

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

3.2.4 OMC

During this period, OMC operations were executed smoothly from the timeline. 140 OMC image acquisitions were performed by the timeline and a set of Flat Field and Dark Current calibrations were performed on the 16th of June (DoY 167) from 12:49 to 15:57.

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

3.2.5 IREM

Status Nominal.

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

4 Ground Facilities

The overall performance of the ground segment was good in the reporting period. The performance of the overall Ground Segment (OGS) was within the specifications during the reporting period.

4.1 Mission Operations Centre

The performance of the IMCS was good in the reporting period. There was no problem that impacted the execution of the Timeline. However, the performance of the control system regarding real-time TM processing, archiving of data, data consolidation, offline data retrieval, data distribution, etc., was marginal under the load caused by the increased data rate. This impacted for example the data flow to the ISDC.

4.2 Ground Stations & Network

The overall performance of the Ground Stations and Network was well within the specification.

The link budget has been assessed. Interferences (RFI) were observed during Redu passes for several revolutions. These events seem to occur at special azimuth (about 358 deg) and elevation angles (about 12 deg). The source of the RFI is not yet determined. The investigation is ongoing.

4.3 Science Ground Segment

4.3.1 ISOC

No ISOC Input has been provided

4.3.2 ISDC

No ISDC Input has been provided

5 Special Events

Nothing to report.

6 Anomalies

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

There were no anomalies on the space segment. A summary of the pending anomaly reports is provided in the appendix.

The list of the new anomalies is as follows:

ARid	Date Occurrence	Subject	Segment	Element	Status
INT - 002352	14/06/2003	Late handover to DSS-16, DR G102878 and G102879	Ground	NASA Sta.	Pending
INT - 002353	14/06/2003	Telemetry drop from Redu	Ground	ESA Sta.	Pending
INT - 002354	15/06/2003	Error sending data to ISDC	Ground	IMCS	Pending
INT - 002355	17/06/2003	VC7 Frames received with a wrong order by ISDC	Ground	ESA Sta.	Pending

7 Future Milestones

The next Eclipse Season will start on 24 June.

8 Appendix

The appendix includes various detailed information.

8.1 Overview of Revolutions

Revolution 82
The observations in revolution 82 began with 13 pointings of a GPS lasting about 9 hours, followed by a 5hr30min staring observation of 3C 273 (RA 12:29:6.70; DEC +02:03:09.0). A staring observation was then performed at the OMC Flat Field attitude (RA 13:01:12.00; DEC +06:48:00.0) for about 3 hours, during which time OMC Flat Field and Dark Current Calibrations were performed. Finally, a raster dithering observation of the Vela region (RA 08:52:45.57; DEC -44:35:07.2) was performed for the remaining ~40 hours of observation time.
During the OMC Calibration, OMC was in FF and then DC Calibration mode and the TM allocation was 90 IBIS, 87 SPI, 1 JEM-X1, 8 JEM-X2, 60 OMC. Other than this, all instruments were in their nominal science modes throughout the observations,

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.

Revolution 83
The observations in revolution 83 consisted of 13 pointings of a GPS lasting ~9 hours followed by a raster dithering observation of the Vela region (RA 08:52:45.57; DEC -44:35:07.2), which was performed for the remaining ~52 hours of observation time. Throughout these observations, all instruments were in their nominal science modes, except for JEM-X1 which was 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

```
2003-06-03T18:05:03.000Z     176.8824
2003-06-05T14:21:49.000Z     176.8319
2003-06-05T21:57:34.000Z     176.8005
2003-06-06T00:25:26.000Z     176.7640
2003-06-06T17:50:16.000Z     176.7218
2003-06-09T11:11:42.000Z     176.7009
2003-06-09T17:33:51.000Z     176.6749
2003-06-12T10:24:38.000Z     176.6200
2003-06-12T17:24:38.000Z     176.5880
2003-06-13T06:07:04.000Z     176.5619
2003-06-13T10:15:04.000Z     176.5344
2003-06-15T17:07:49.000Z     176.5173
2003-06-16T04:58:55.000Z     176.4508
2003-06-18T16:51:56.000Z     176.4350
2003-06-19T02:08:13.000Z     176.4140

This report was generated  Fri Jun 20 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 SUMMARY OPERATIONS REPORT 14/06/2003-20/06/2003

AOCS operations were executed from the Automatic Timeline.

During this period, 112 Open Loop Slews, 44 Closed Loop Slews and 4 Momentum Bias were executed. No slews were lost.

14/06/03 (Day of Year 165, Revolution 81)

Nothing to report.

15/06/03 (Day of Year 166, Revolution 81-82)

Nothing to report.

16/06/03 (Day of Year 167, Revolution 82)

Nothing to Report.

17/06/03 (Day of Year 168, Revolution 82)

Nothing to report.

18/06/03 (Day of Year 169, Revolution 82-83)

Nothing to Report.

19/06/03 (Day of Year 170, Revolution 83)

Nothing to report.

20/06/03 (Day of Year 171, Revolution 83)

Complete IMU Health-Check and Calibration: Prior to the upcoming eclipse season, a complete IMU health check and calibration was performed on all IMU analogue and digital channels. The manual operation started at 06:36 and was completed by 13:59. This activity was done in parallel to the normal timeline driven activities and was completely transparent to scientific observations. More details regarding the execution of these calibrations can be found in the following table:

Complete IMU Health-Check and Calibration performed on 20/06/2003 (DoY 171)		
06:36:00	Disable ACC Autonomous IMU Switch OFF	
06:39:00	IMU1 Switch On	
06:56:00	IMU3 Switch On	
	Allow 30 minutes warm-up time	
07:00:00	Set IMU Selection ACC: IMU1 on Roll, IMU1 on Yaw FDE: IMU1-X on Roll, IMU3-Y on Pitch, IMU3-Z on Yaw	Step 1
07:27:49	Reset IAAD Accumulators	
	50 minutes of data collection IMU1 Noise Roll = 0.1822 as/s IMU1 Drift Roll = 0.1730 as/s IMU1 Noise Yaw = 0.0644 as/s IMU1 Drift Yaw = 0.1766 as/s	Stable pointing, PID: 00830042 08:18:00 Start of slew 00830043
08:32:00	Set IMU Selection ACC: IMU1 on Roll, IMU3 on Yaw FDE: IMU1-X on Roll, IMU3-Y on Pitch, IMU1-Z on Yaw	Step 2
08:35:32	Reset IAAD Accumulators	

	42 minutes of data collection. IMU1 Noise Roll = 0.2151 as/s IMU1 Drift Roll = 0.1821 as/s IMU3 Noise Yaw = 0.0558 as/s IMU3 Drift Yaw = 0.0952 as/s	Stable pointing, PID: 00830043 09:17:00 Start of slew 00830044
09:25:00	Deselect IMU1 and IMU3 on ACC	
09:28:00	Switch Off IMU1 and IMU3	
	Allow at least 2 hours for cool-down and thermal stability	
11:35:00	IMU2 Switch On	
11:40:00	IMU4 Switch On	
11:46:00	Set IMU Selection ACC: IMU2 on Roll, IMU2 on Yaw FDE: IMU2-X on Roll, IMU4-Y on Pitch, IMU2-Z on Yaw	Step 3
	Allow 30 minutes for warm-up	
12:21:26	Reset IAAD Accumulators	
	50 minutes of data collection. IMU2 Noise Roll = 0.2168 as/s IMU2 Drift Roll = 0.2781 as/s IMU2 Noise Yaw = 0.0198 as/s IMU2 Drift Yaw = 0.0262 as/s	Stable pointing, PID: 00830047
13:11:00	Set IMU Selection ACC: IMU4 on Roll, IMU2 on Yaw FDE: IMU4-X on Roll, IMU4-Y on Pitch, IMU2-Z on Yaw	Step 4
13:17:39	Reset IAAD Accumulators	
	30 minutes of data collection. IMU4 Noise Roll = 0.2144 as/s IMU4 Drift Roll = 0.0783 as/s IMU2 Noise Yaw = 0.0417 as/s IMU2 Drift Yaw = 0.0698 as/s	Stable pointing, PID: 00830047
13:47:00	Deselect IMU2 and IMU4 from ACC	
13:50:00	Deselect IMU2 and IMU4 from FDE	
13:53:00	Switch Off IMU2 and IMU4	
13:59:00	Re-enable ACC Autonomous IMU Switch OFF	

RMU-B Health Check: In preparation for the upcoming eclipse season, the RMU-B was powered On at 07:47 in order to have its overall status/health checked. The unit was kept On until 10:29 and during this time its current, voltage temperatures and rates were monitored. From the real-time telemetry everything looked nominal on RMU-B and all the readings matched very well the corresponding TM values of RMU-A. A more detailed analysis of the data will be performed offline.

8.3.2 SPI Operations

Cryocooler:
The performance of the 4 compressors is nominal and the cold plate temperature is maintained at around 85.85K with a drift of about 0.009K/day. It is foreseen to adjust the stroke of the compressors A&B (increment by 1 LSB) within the next few days, when the temperature is going out of limit.

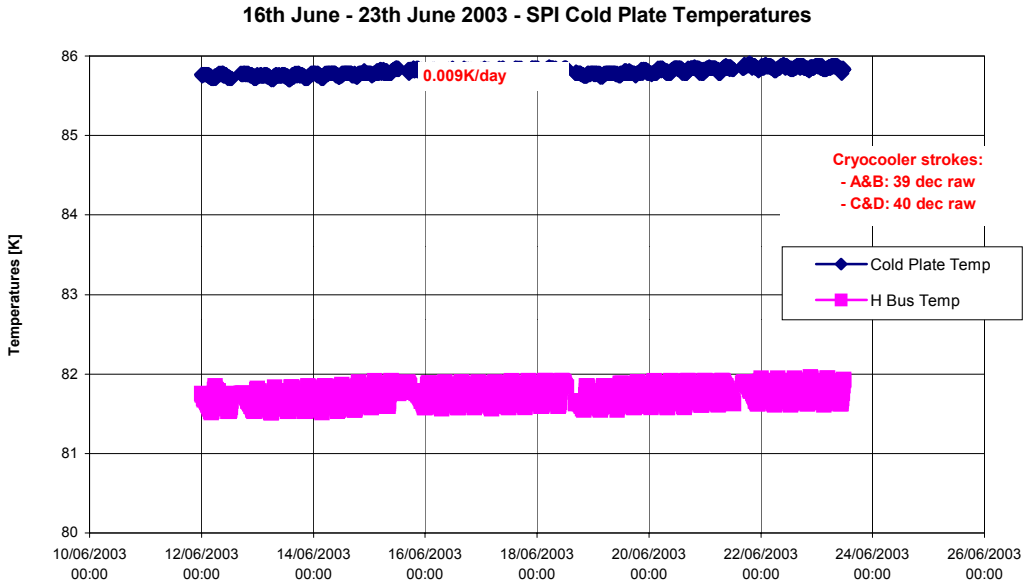

Figure 1 Cold Plate Temperature

IASW/DPE, ACS, DFEE, PSD, AFEE : Nothing to report.

8.3.3 IBIS Operations

Reported (few) during Belt passage the OEM ID 167 Class 2<<IBIS1 PICsIT NOISY SEMIMODULE>> due to the fact that the PICsIT detectors are ON without the VETO anticoincidence system, as it required by PIs.

DOY 2003.168

At 07.16Z reported the TM parameters G6062-63 (VETO counters) in OOLs.
Similar problems were observed, in coincidence, also for the JEM-X unit.
The event likely is in relation with an announced strong solar activity for DoY 167, culminated with a maior solar flare X-class but with tail also in the following days.
The NOAA web site reported on DoY 168 an extension of the solar activity with a minor solar flare C-class. Herafter follow the plots of x-ray flux and the electron flux for DoY 168, as reported in the NOAA web site by GOES satellites.

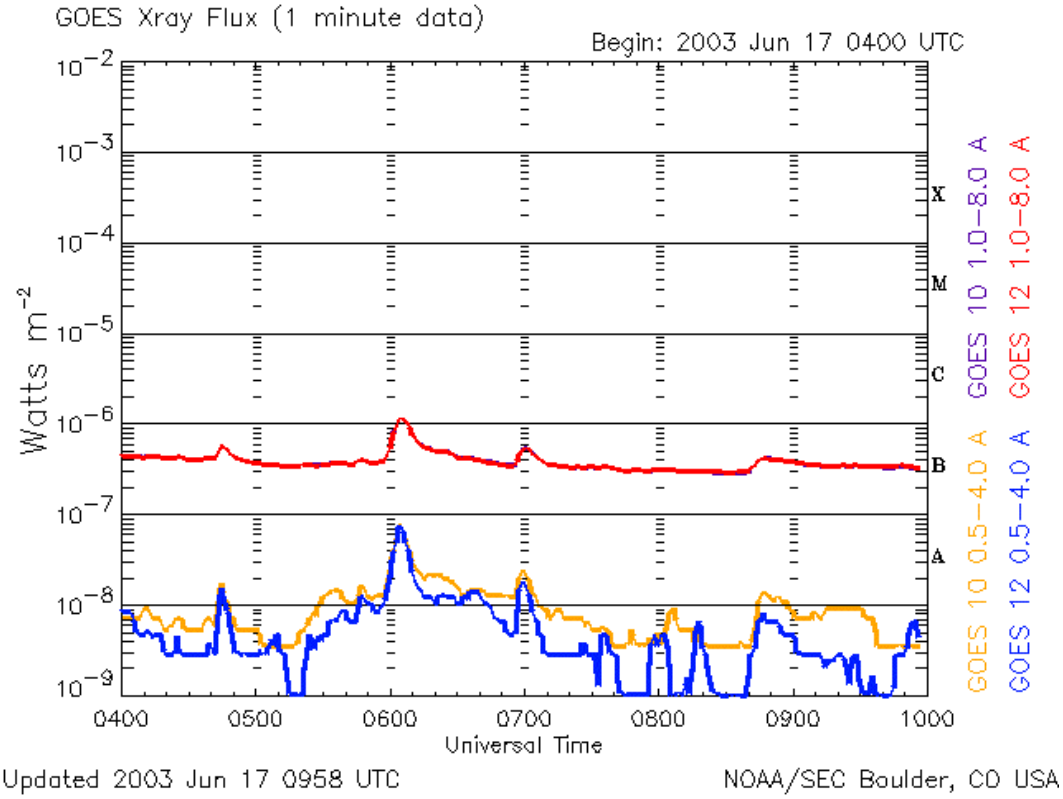

Figure 2 NOAA X-ray flux on doy 168

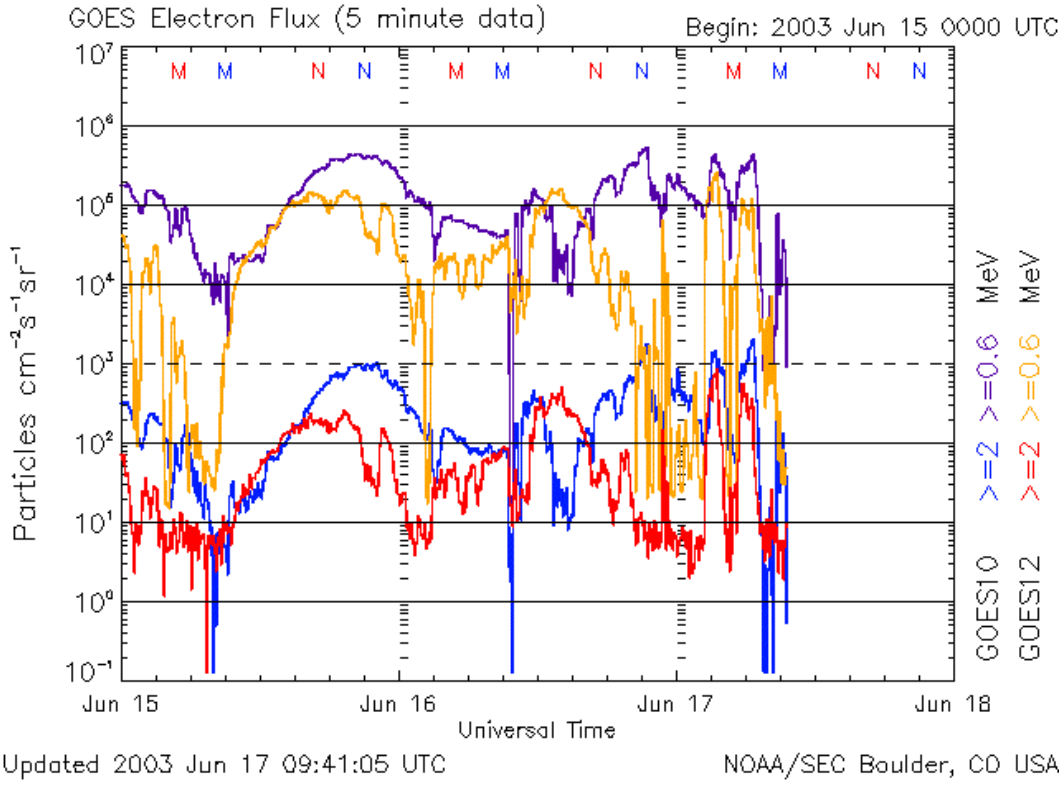

Figure 3 NOAA Electron flux on doy 168

Below is reported the plot of the VETO counters together with the recorded IREM counters.

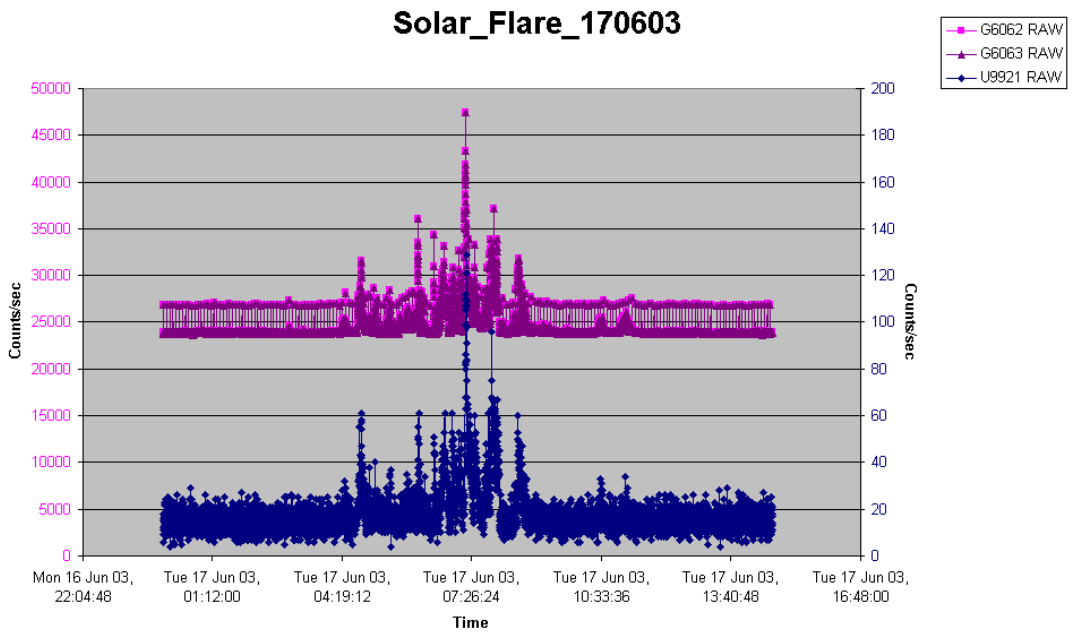

Figure 4 Veto and IREM counters during Solar Flare

Being the VETO counters in OOLs not continously, but sometime just for few minutes, no action was taken. It must be considered that even if the VETO limits were exceeded many times, on the opposite the IREM counters were far away to exceed the IBIS thresholds. Therefore an eventual additional tuning of the IREM thresholds is under discussion in order to set in a more efficient way the level of intervention of the internal radiation automatism.

DOY 2003. 169

Reported at 08.46Z
the OEM ID 179 Class 2 <<IBIS1 VETO COUNTER BOTTOM EXCEEDS ALERT VALUE>>. The relevant TM_para G6062 reported values inside limits after few TM cycles and therefore the problem has been disregarded, as suggested by the nominal reaction to this OEM.

DOY 2003. 170

Reported at 02.16-03.19Z
the OEM ID 180 Class 2 <<IBIS1 VETO COUNTER LATERAL EXCEEDS ALERT VALUE>>. The relevant TM_para G6063 reported values inside limits after few TM cycles and therefore the problem has been disregarded, as suggested by the nominal reaction to this OEM.

Reported at 10.42Z the following TM parameters G50-84-5100-5120-5136-5148-5152-5164-5168 in OOLs (SCC fail).
As reported in the FDIR doc, the s/s SOE was informed and the parameters monitored for few minutes until they were back in limits. No further action was taken.

Reported at 13.36Z
the OEM ID 179 Class 2 <<IBIS1 VETO COUNTER BOTTOM EXCEEDS ALERT VALUE>>. The relevant TM_para G6062 reported values inside limits after few TM cycles and therefore the problem has been disregarded, as suggested by the nominal reaction to this OEM.

8.3.4 JEM-X SUMMARY OPERATIONS REPORT 14/06/2003-20/06/2003

14/06/2003, DOY 165, Revolution 81
Nothing to report

15/06/2003, DOY 166, Revolution 81-82
Nothing to report

16/06/2003, DOY 167, Revolution 82
Nothing to report

17/06/2003, DOY 168, Revolution 82

- **JEM-X2 to SAFE mode due to RMCR #3 threshold:** At 07:16, JEM-X2 went to SAFE mode when the RMC#3 from IREM exceeded the JEM-X Safe threshold. A Solar Flare Alert had been issued on the 16th of June. The radiation environment was monitored for a few hours and no attempt for recovery was made until the radiation levels subsided within the normal values and remained stable. The re-activation of the high voltage started at 11:04 and at 11:35 the unit was commanded to DATA TAKING mode.

18/06/2003, DOY 169, Revolution 82-83

- **JEM_X2 to SAFE due to S/W Trigger Rate threshold:** at 07:38:10, JEM-X2 went to SAFE mode when the S/W trigger rate exceeded the Safe threshold of 20000. The altitude was 76200 km descending and it was 1 hour before the planned LESAFE ED. Therefore, no recovery action was taken and the unit was left in SAFE mode.

19/06/2003, DOY 170, Revolution 83
Nothing to report

20/06/2003, DOY 171, Revolution 83
Nothing to report

8.3.5 OMC SUMMARY OPERATIONS REPORT 14/06/2003-20/06/2003

Nothing to report

8.3.6 IREM Operations

Hereafter are reported the plots of the IREM count rates for the radiation belts passages in rev 81 and 82, plus the count rates during the solar flare on DoY 168.

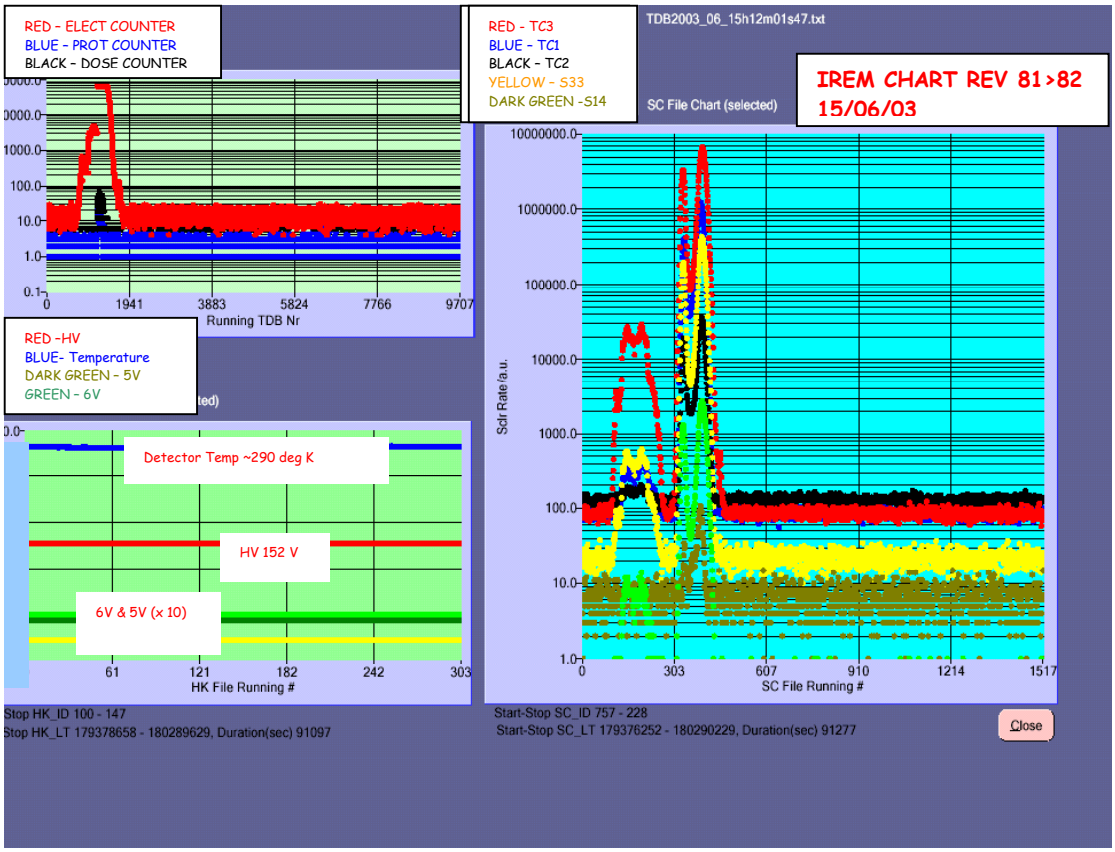

Figure 5 Count Rates for Revolution 81

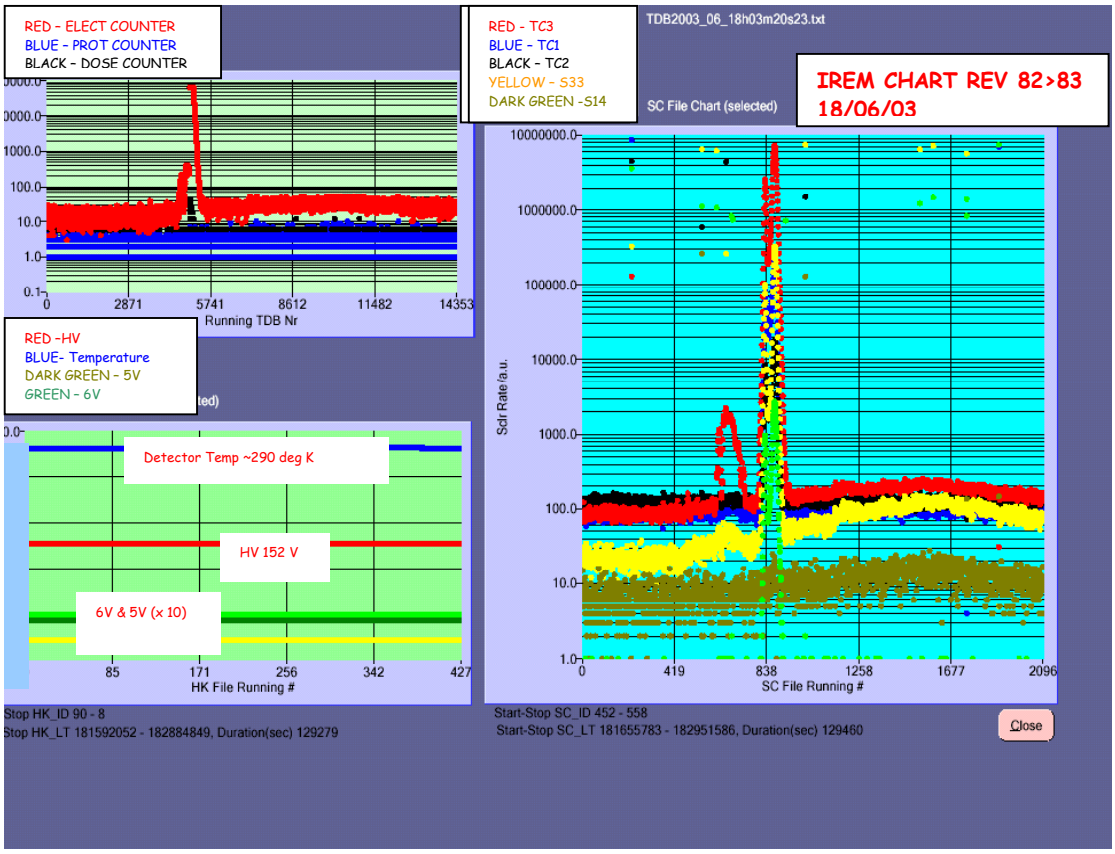

Figure 6 Count Rates for Revolution 82

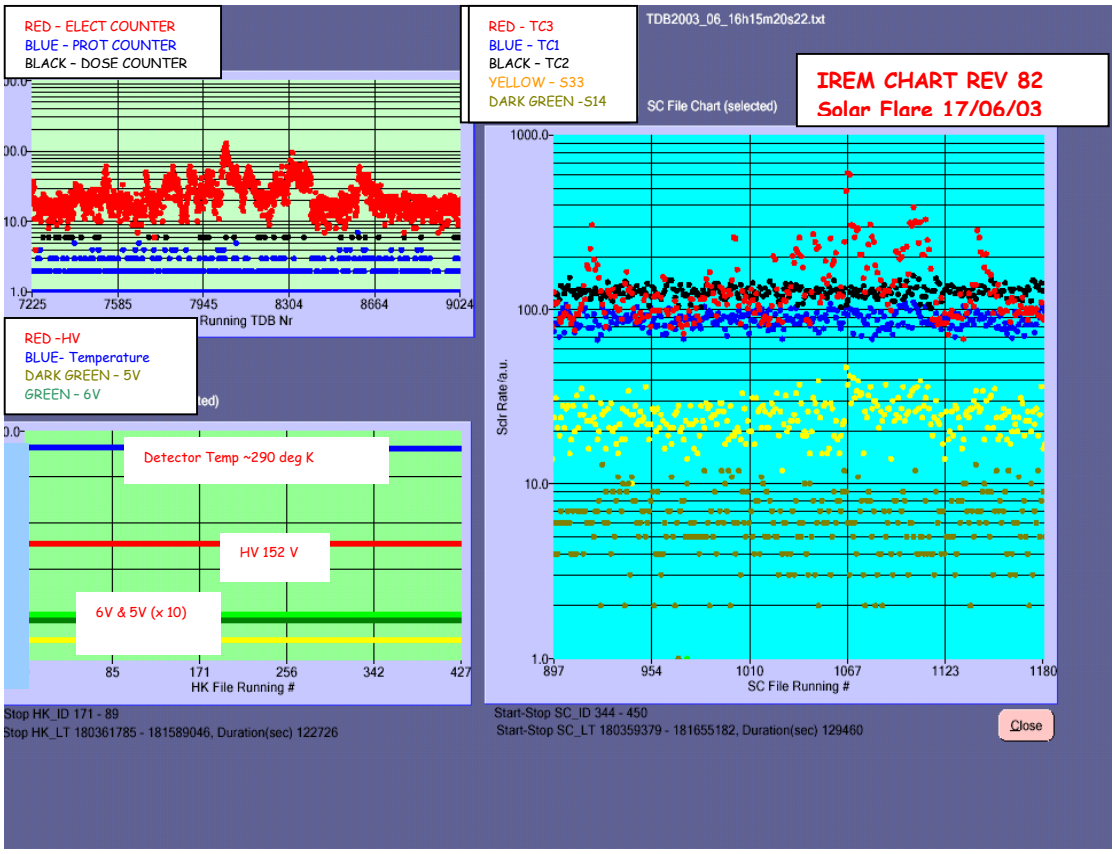

Figure 7 Count Rates during Solar Flare

Here below is reported the beginning of rev 83: considering the plot together with the end of rev 82 is possible to notice an increasing of the radiation background (also proton). The event should not be considered as a part of the radiation belt passage, it is quite different form a nominal belts passage, and neither due to a special pointing like the active region of VELA (the increasing of the background was noticed also when not pointing VELA). It is likely an event due to the intense solar activity of the days before. The result of the high background was observed also in the TM utilisation of the payloads, where IBIS reached an averaged value of > 120 pkts/8sec and SPI passed in average the 90 pkts/8sec.

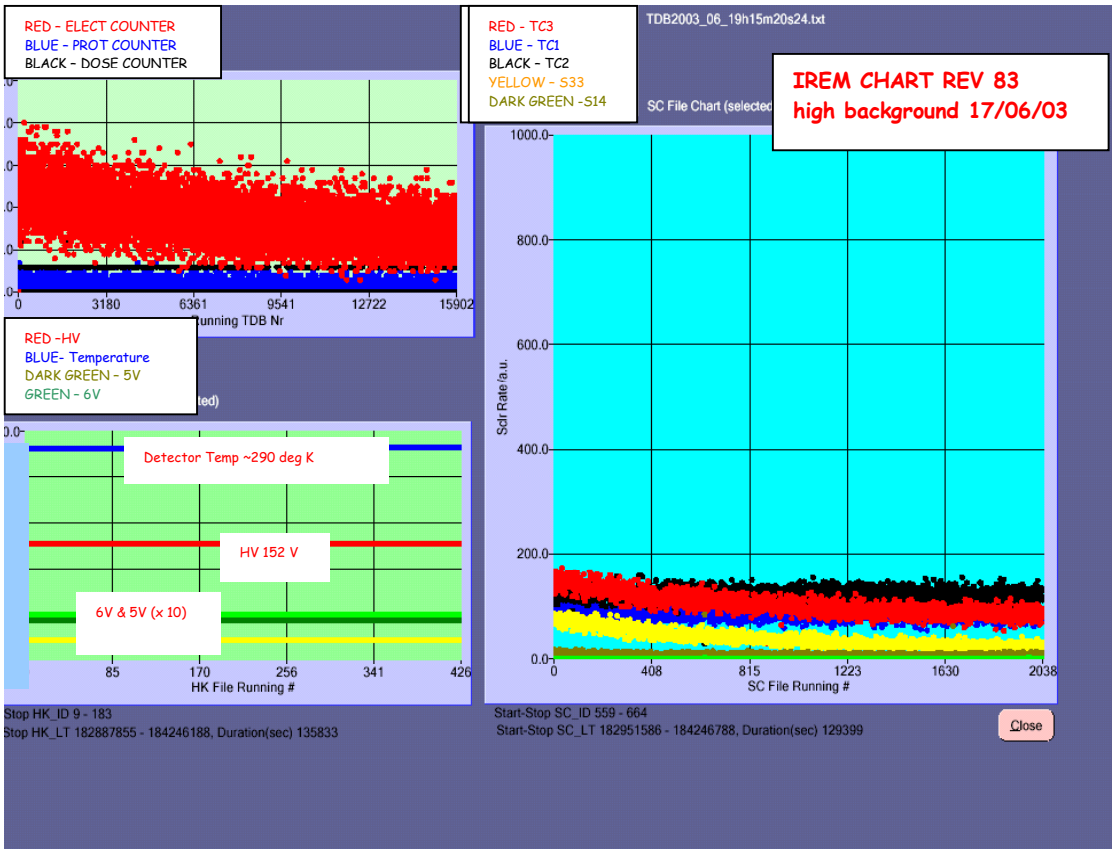

Figure 8 High Background during Revolution 83

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 (AR) still have a pending status it does not mean that they still cause a problem. Most of the problems have already been analysed and the relevant system improvements are in place.

ARid	Date Occurrence	Subject	Segment	Element	Status
INT - 002308	05/05/2003	Loss of TM/TC link due to hit on line	Ground	COMMS	Pending
INT - 002010	22/10/2002	Time correlation not applied correctly to time parameters in TM type 8 reports.	Ground	IMCS	Pending
INT - 002024	28/10/2002	OEM: SPI1 Fixed print overflow	Space	SPI	Pending
INT - 002061	12/11/2002	TM Desktop perfomance collapses when de-selecting supercommutated procesing.	Ground	IMCS	Pending
INT - 002066	13/11/2002	Data routing to ISDS	Ground	I/F to SGS	Pending
INT - 002082	13/11/2002	TM packet production lower than allocation.	Space	SPI	Pending
INT - 002070	14/11/2002	TDRS: data Rerievals cancelled	Ground	IMCS	Pending
INT - 002094	19/11/2002	TDRS does not work with supercommutated 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 - 002199	17/01/2003	Incorrect handling of CLCW wrapparound in CLTU mode	Ground	ESA Sta.	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 - 002214	29/01/2003	Drop in telemetry from REDU	Ground	ESA Sta.	Pending
INT - 002217	06/02/2003	TC link drop	Ground	NASA Sta.	Pending
INT - 002219	10/02/2003	IBIS: PICsIT PDMs counters SET to 0 (twice) during nominal operation	Space	IBIS	Pending
INT - 002220	10/02/2003	Wrong Scrolling Display definitions on IMCS following Import	Ground	IMCS	Pending
INT - 002233	24/02/2003	Time Calibration not Coherent among Ground Stations	Ground		Pending
INT - 002234	24/02/2003	S2K unable to access READ ONLY disk in IDDA.	Ground	IMCS	Pending
INT - 002235	25/02/2003	Too narrow window for RMU cal in PSF of rev 49	Ground	I/F to SGS	Pending
INT - 002242	02/03/2003	TM &TC Drop on DSS 16	Ground	NASA Sta.	Pending
INT - 002246	05/03/2003	Loss of Telemetry from DSS16	Ground	NASA Sta.	Pending
INT - 002252	10/03/2003	CDS out of Lock at Redu - TM&TC Loss	Ground	ESA Sta.	Pending
INT - 002253	10/03/2003	RX1 and RX2 Locked at the same time	Ground	NASA Sta.	Pending
INT - 002255	10/03/2003	Late AOS at DSS-24	Ground	NASA Sta.	Pending
INT - 002256	14/03/2003	Late AOS at DSS-16	Ground	NASA Sta.	Pending
INT - 002257	17/03/2003	Late AOS at DSS-24	Ground	NASA Sta.	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 - 002267	25/03/2003	Drop in link from ISDS to ISDC	Ground	I/F to SGS	Pending
INT - 002273	27/03/2003	Drop in VC7 via REDU	Ground	ESA Sta.	Pending
INT - 002279	29/03/2003	Telemetry lost from DSS-16. DR N109197	Ground	NASA Sta.	Pending
INT - 002283	01/04/2003	ISDS-A and IDDA services stopped	Ground	IMCS	Pending
INT - 002286	02/04/2003	Reboot of ESOC Firewall	Ground	I/F to SGS	Pending

INT - 002291	08/04/2003	Archiving lost on A chain	Ground	IMCS	Pending
INT - 002293	13/04/2003	Science data CDs produced with no TM inside.	Ground	IMCS	Pending
INT - 002295	15/04/2003	Telemetry Drops from GoldStone	Ground	NASA Sta.	Pending
INT - 002298	20/04/2003	ISDS - ISDC link outage	Ground	I/F to SGS	Pending
INT - 002299	21/04/2003	Telemetry loss from DSS-24	Ground	NASA Sta.	Pending
INT - 002302	24/04/2003	Telemetry loss via DSS-16 due to RFI	Ground	NASA Sta.	Pending
INT - 002305	04/05/2003	Telemetry Drops from GoldStone. DR GI02720	Ground	NASA Sta.	Pending
INT - 002308	05/05/2003	Loss of TM/TC link due to hit on line	Ground	COMMS	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 - 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
INT - 002324	19/05/2003	Command A3084 not verified	Ground	IMCS	Pending
INT - 002326	21/05/2003	Hardware failue at DSS-16 during handover DR: GI02772	Ground	NASA Sta.	Pending
INT - 002329	24/05/2003	Late handover to DSS-16. DR: G102803	Ground	NASA Sta.	Pending
INT - 002327	26/05/2003	CLCW: change in ratio of the number of VC-0 / VC-7 CLCWs in VC-0 TM Frames	Space	Platform	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 - 002333	03/06/2003	TM acquisition from MRU-B no longer possible.	Ground	Simulator	Pending
INT - 002337	03/06/2003	Late handover to DSS-16 due to uplink bind problem	Ground	NCTRS	Pending
INT - 002338	03/06/2003	Error sending data to consolidator (VC-7)	Ground	IMCS	Pending
INT - 002339	05/06/2003	IREM anomaly: SEU (#3)	Space	IREM	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 - 002344	08/06/2003	Telemetry drops from REDU	Ground	ESA Sta.	Pending
INT - 002345	09/06/2003	Telemetry drop from Redu	Ground	ESA Sta.	Pending
INT - 002350	12/06/2003	Telemetry Drop from GoldStone DR: G102867	Ground	NASA Sta.	Pending
INT - 002351	12/06/2003	Telemetry drop from Redu	Ground	ESA Sta.	Pending
INT - 002352	14/06/2003	Late handover to DSS-16, DR G102878 and G102879	Ground	NASA Sta.	Pending
INT - 002353	14/06/2003	Telemetry drop from Redu	Ground	ESA Sta.	Pending
INT - 002354	15/06/2003	Error sending data to ISDC	Ground	IMCS	Pending
INT - 002355	17/06/2003	VC7 Frames received with a wrong order by ISDC	Ground	ESA Sta.	Pending