

***XMM-Newton and INTEGRAL weekly
Mission Operations Report***

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Issue 1

Date: 18 May 2022

Marcus Kirsch
OPS-OAX

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1. Weekly report

	XMM	Integral
Main activities	<ul style="list-style-type: none"> ▪ Nominal Operations ▪ Preparation for Replenishment CW 20 ▪ MOIS automation migration ▪ MUST to ARES migration ▪ MCS migration ▪ DCR reconfiguration to welcome Euclid after its launch ▪ DABYS D/B prototype ▪ Tolhuin station consolidation ▪ Webserver migration 	<ul style="list-style-type: none"> ▪ Routine science operations ▪ Eclipse season
Status and performance of S/C	<ul style="list-style-type: none"> ▪ Nominal for platform and all instruments 	<ul style="list-style-type: none"> ▪ Manual transponder swaps following RF switch anomaly
Status and performance of Ground segment	<ul style="list-style-type: none"> ▪ Nominal 	<ul style="list-style-type: none"> ▪ Nominal
S/C Anomalies	<ul style="list-style-type: none"> ▪ None 	<ul style="list-style-type: none"> ▪ INT_SC-706 IBIS VETO VDM16 HV Breakdown ▪ INT_SC-707 IBIS VETO VDM12 HV Breakdown
G/S Anomalies	<ul style="list-style-type: none"> ▪ AR XMM-1480 XNIS-A lost connection during scheduled Halley network switch maintenance 	<ul style="list-style-type: none"> ▪ INT-3846 Goonhilly Cable Unwrap
Future activities planned	<ul style="list-style-type: none"> ▪ G/S ops automation (part2/ NIS) ▪ Lela final migration to MCS installation at MOC planned for mid June ▪ Cebreros check out 7-9 June ▪ OICM meeting 9 June ESAC 	<ul style="list-style-type: none"> ▪ Design and deployment of an alternative wheel based safe mode on ground and on-board ▪ Health Check ACC-B ▪ Automation of Transponder swap operations

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2. Detailed weekly operational events

note: all times are Zulu (in brackets DOY)

2.1. XMM

- 05/05/2022 (125) 12:54:00 OI #2199: Timeline moved from DTU-E41-14/A to DTU-E41-13/A
 - o 13:50:00 NSO missed from A/S due to problems with NIS-A
 - o 13:57:00 Commands for OM failing on A/S due to problems with NIS-A
 - o 14:13:00 NIS-A seems to be not working correctly, switching to NIS-B
 - o **See AR XMM-1480** XNIS-A lost connection during scheduled Halley network switch maintenance

- 06/05/2022 (126) 06:40:00 Execution of OI#4455 to open LV2
 - o 13:17:00 Execution of OI#4455 to close LV2

- 07/05/2022 (127) 17:06:00 Spacon calls medical emergency on shift, ambulance called. Analyst on way to ESOC to take over operational control of missions. On call SOE is calling the Spacons for a replacement.
 - o 07:00:00 Analyst (IB) is now on console, system checks are underway as both missions were left unmanned for about 20min
 - o 07:05:00 On call(GDM) informs that Elliott will take over the rest of the morning shift
 - o **Meeting 23/05/2022 09:00 to discuss possible changes to procedure**

- 10/05/2022 (130) 10:05:00 OI4455 XMM_XMC_0004 Transfer TM & TC from Backup to Prime XMCS XMM_XMC_0005 XMCS Configuration procedure FD connected to XMCA

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2.2. INTEGRAL

02/05/2022 (122)

04:59:52 AOS TM GHY but it drops out 1 min later, back at 05.01 (INT-3844)
05:16:53 Goonhilly unable to lock RX2, request Weilheim
05:27:29 gebent02 fails (no rf no tc)
06:07:14 Weilheim unable to lock RX2 or acquire TM, (INT-3845)
06:40:15 Move to VIL1 TM / TC OK
06:52:00 Recovery IREM ground link on, & ISGRI CTX Tables uplinked
07:11:20 Manual slew 2498_0500_M.INT from PID #24980000 to #24980001
07:38:19 Manual slew 2498_0501_M.OSL from PID #24980001 to #24980003
07:47:36 Recovery GEBENT02 TT's uplinked
08:07:08 FDS: TPF 2498_0502_A.OSL applied on A/S to update slew 24980004
08:35:55 Recovery re-uplink jedmp100

03/05/2022 (123)

13:00:00 Deployment of MOIS Automation 3.2 (OI 1647), improved safe mode.

04/05/2022 (124)

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05/05/2022 (125)

12:49:00 OCR#2197: IMU1+3 calibration prior to the eclipse season

06/05/2022 (126)

10:38:31 Multiple IBIS OEM EvID186 and OOL G6050 (AR INT_SC-706).
10:51:48 I_CRP_IBIS1_0201 (IBIS MODE CYCLE) executed IBIS back to nominal

07/05/2022 (127)

06:40:32 Spacon calls medical emergency on shift, ambulance called. Analyst comes to ESOC to take over control of missions, arrives at 07:00. Replacement SPACON identified

08/05/2022 (128)

20:10:30 Multiple IBIS OEM EvID186 and OOL G6046 (AR INT_SC-706),
I_CRP_IBIS1_0201 VETO Mode cycle executed. IBIS back to nominal ops

09/05/2022 (129)

13:05:35 OI 2197: IMU1+3 calibration - Uplink of the calibration.
13:18:39 OI 2202: Preparation for the pre-perigee eclipse season
22:10:54 OI:2201 IBIS OEM EvID184 at belt entry (eclipse season). Multiple instances.
FCP_IBIS1_0355 (IBIS VETO Deactivation).

10/05/2022 (130)

01:46:40 Eclipse START
01:56:13 Eclipse END
04:03:27 TM: K5583 "CPU MODE" = 8 MHz WAIT OOL, I_CRP_JEM1_5011

11/05/2022 (131)

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18:05:00 VC7 drops from GHY (18:05 - 18:08). MCS-A/NIS-A only, reason unknown
23:38:47 IREM Crash, CRP_SYS_2570 - IREM SEU Recovery
23:51:21 S/S OMC enabled on the A/S

12/05/2022 (132)

00:07:30 S/S IBIS enabled on the A/S
00:59:25 S/S RM enabled on the A/S
01:35:27 Seq LEDATA02, GESTAN02, DEBPG200 failed release (Dyn PTV flags = fcf)
01:43:35 re-uplinked missed sequences
17:25:01 Eclipse START
17:55:21 Eclipse END

13/05/2022 (133)

10:02:51 TM Drop Vil2, VC0,7, chain 1 and 2. 37 sec, no impact. Station investigating.

14/05/2022 (134)

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15/05/2022 (135)

05:57:10 SPI CDE Stroke increase to 39
09:08:58 Eclipse START
09:48:14 Eclipse END

16/05/2022 (136)

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