

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

Document No :XMM-INT-WOPS-23_10-11
Issue/Rev. No : 1
Date 24/03/2023
Page : 1

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Issue 1

Date: 24 March 2023

Marcus Kirsch
OPS-OAX

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Document No :XMM-INT-WOPS-23_10-11
Issue/Rev. No : 1
Date 24/03/2023
Page : 2

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 Date : 24/03/2023
 Page : 3

1. Weekly report

	XMM	Integral
Main activities	<ul style="list-style-type: none"> ▪ Nominal Operations ▪ DCR refurbishment ▪ Full end to end instrument radiation protection and rejoin ▪ MCS 12.7.0 testing ▪ OA OPS tools servers S/W and H/W migration ▪ MCS migration ▪ DABYS D/B prototype ▪ Tolhuin station consolidation ▪ G/S ops automation (part2/ NIS) ▪ Lela final migration to MCS ▪ Replenishment automation 	<ul style="list-style-type: none"> ▪ Routine science operations ▪ Start of SPI Annealing
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 ▪ Operations from back-up DCA / PISA for NSM Commissioning
S/C Anomalies	<ul style="list-style-type: none"> ▪ None 	<ul style="list-style-type: none"> ▪ INT_SC-725 OMC Affected by High Radiation ▪ INT_SC-726 AOCS: FCE spurious LCL A (PDU-A) switch OFF ▪ INT SC-727 Leakage through LV-A
G/S Anomalies	<ul style="list-style-type: none"> ▪ None 	<ul style="list-style-type: none"> ▪
Future activities planned	<ul style="list-style-type: none"> ▪ Manual spacecraft recovery without propellant procedures ▪ CDMU recovery automation ▪ Webserver migration 	<ul style="list-style-type: none"> ▪ Automation of Transponder swap operations ▪ Science Mission extension until 2024

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Document No :XMM-INT-WOPS-23_10-11
Issue/Rev. No : 1
Date 24/03/2023
Page : 4

2. Detailed weekly operational events

note: all times are Zulu (in brackets DOY)

2.1. XMM

- 09/03/2023 (068) 05:42:43: TC failed from autostack. Failed due to (source 200) static PTV failure, NO GO. TC PU200 (LCL TRSPTX A OFF (S/52). Last command in seq. RS0151., RF s/s auto-disabled, all stacks. No apparent cause for failure found (No TM glitch or other events in log at time). Enabled RF s/s in M/S & loaded command pending re-send. While making further checks, static PTV state changed to GO. Command sent OK. Re-enabled RF s/s on other stacks.
- 19/03/2023 (078) 10:00:24: OOL R1004 TRSP1 RX LOCSTAT went to UNLOCKED. MCS TC flag shows NO RF (but TM flag is GREEN). NIS links green, but noticed VC0 ddat unit count no longer increasing.
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2.2. INTEGRAL

05/03/2023 (064)

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06/03/2023 (065)

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07/03/2023 (066)

-

08/03/2023 (067)

09:21:25 RPOS file RPOS_SACMOC_DREvolution2614_00003.INT received.
ToO

10:00:56 Timeline: TL__2614_04_20230308095405.INT (RPOS) loaded

18:08:07 DD0003D TCO packet loss, High High few secs

09/03/2023 (068)

14:55:47 TM Drop KR11 VC0+7. Repulse of KR11 receiver fixes the problem.

10/03/2023 (069)

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11/03/2023 (070)

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12/03/2023 (071)

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Date : 24/03/2023
Page : 5

13/03/2023 (072)

12:11:40 OMC to safe, triggered by radiation AR INT_SC-725

14/03/2023 (073)

05:03:14 P1018 (LCL CUR FCE A) OOL LOW (0 A) and P1039 (LCL CUR FCE B) OOL HIGH (0.147 A). FCE-A LCL has opened (SEU). AR INT_SC-726.

07:09:00 Sent TC P3181 LCL FCE A ON (FCP_AOC_1251

07:19:00 Radiation levels have decreased. Executed CRP_OMC_5120 Recover OMC.

13:50:54 G/S: TM drop from G/S DSS-26 asked NOC to investigate.

14:07:08 G/S: TM back from DSS-26

15/03/2023 (074)

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16/03/2023 (075)

19:54:24 FDS: TPF update failed for SlewID #26170046.

20:06:00 Two attempts to update slew using recover schedule failed..

20:29:00 FD support gave go for slew without update

17/03/2023 (076)

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18/03/2023 (077)

18:28:05 FDS: TPF update failed for SlewID #261800047

18:34:04 FDS: TPF 2618_0500_A.OSL applied on A/S to update slew 261800047

19/03/2023 (078)

08:36:45 TC A2549 failed release due to PTV failure. OSL 26180062 failed.

08:53:20 Manual slew 2618_0501_M.CSL from PID #26180061 to #26180062

08:58:42 FDS: TPF update failed for SlewID #26180063

09:09:10 FDS: TPF 2618_0502_A.OSL applied on A/S to update slew 26180063

17:20:00 Start SPI Annealing

21:53:29 OSL 26180074 failed from timeline.

22:10:23 OSL #26180075 missed from timeline (recovery of pervious slew)

22:18:56 Manual slew 2618_0503_M.OSL from PID #26180073 to #26180074

22:37:33 No time for OSL 26180075 & CGS before LOS. Skip OSL and execute CGS.

22:43:13 Manual CGS 2618_0504_M.CGS. FD confirms attitude is OK.

20/03/2023 (079)

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