

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

Document No :XMM-INT-WOPS-23\_22-23  
Issue/Rev. No : 1  
Date 19/06/2023  
Page : 1

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**XMM-INT-WOPS-23\_22-23**

**Issue 1**

**Date: 19 June 2023**

Marcus Kirsch  
OPS-OAX

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Document No :XMM-INT-WOPS-23\_22-23  
Issue/Rev. No : 1  
Date 19/06/2023  
Page : 2

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

Document No :XMM-INT-WOPS-23\_22-23  
 Issue/Rev. No : 1  
 Date 19/06/2023  
 Page : 3

## **1. Weekly report**

	<b>XMM</b>	<b>Integral</b>
<b>Main activities</b>	<ul style="list-style-type: none"> <li>▪ Nominal Operations</li> <li>▪ Full end to end instrument radiation protection and rejoin</li> <li>▪ OA OPS tools servers S/W and H/W migration</li> <li>▪ MCS migration</li> <li>▪ DABYS D/B prototype</li> <li>▪ Tolhuin station consolidation</li> <li>▪ G/S ops automation (part2/ NIS)</li> <li>▪ Lela final migration to MCS</li> </ul>	<ul style="list-style-type: none"> <li>▪ Routine science operations</li> <li>▪ Eclipse season finished</li> </ul>
<b>Status and performance of S/C</b>	<ul style="list-style-type: none"> <li>▪ Nominal for platform and all instruments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Manual transponder swaps following RF switch anomaly</li> </ul>
<b>Status and performance of Ground segment</b>	<ul style="list-style-type: none"> <li>▪ Nominal</li> </ul>	<ul style="list-style-type: none"> <li>▪ Nominal but see anomaly report below</li> </ul>
<b>S/C Anomalies</b>	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	<ul style="list-style-type: none"> <li>▪ INT_SC-735 IBIS PICSIT PDM08 LATCH UP</li> <li>▪ INT_SC-732 SPI DPE1 CPU reset</li> </ul>
<b>G/S Anomalies</b>	<ul style="list-style-type: none"> <li>▪ XMM-1532 MUST Database corrupted after Halley Data Center Problem</li> </ul>	<ul style="list-style-type: none"> <li>▪ INT-3906 Transponder Swap Performed Late</li> <li>▪ INT-3907 Wrong Command Sent for TRSP Swap</li> <li>▪ INT-3908 Kiruna Stops Track</li> </ul>
<b>Future activities planned</b>	<ul style="list-style-type: none"> <li>▪ Manual spacecraft recovery without propellant procedures</li> <li>▪ CDMU recovery automation</li> <li>▪ Webserver migration</li> </ul>	<ul style="list-style-type: none"> <li>▪ Automation of Transponder swap operations</li> <li>▪ Automation of ground station operations (EVFM)</li> <li>▪ Disposal optimisation manoeuvre preparation</li> </ul>

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

Document No :XMM-INT-WOPS-23\_22-23  
Issue/Rev. No : 1  
Date 19/06/2023  
Page : 4

---

## **2. Detailed weekly operational events**

note: all times are Zulu (in brackets DOY)

### **2.1. XMM**

- 08/06/2023 (159) 12:52:07: Complete loss of TM from AGO
  - o 13:02:07 Requested a different GS. Configuring YTH now
  - o 13:02:27 Called FD on-call due to missed/interrupted OSL
  - o 13:05:41 SOE on-call informed of situation
  - o 13:08:24 YTH is configured. I have requested they move carrier from AGO to YTH.
  - o 13:22:34 FD are generating the slew recovery now
  - o 14:02:07 Begin PN recovery with X\_CRP\_EPN\_1500
- 
- 08/06/2023 (159) 14:06:42: Frames out-of-sync from YTH. Spoke with our RF SOE and we decided to return to AGO. This has been communicated to SSC via ESTRACK
  - o 14:06:43 X\_CRP\_EPN\_1500 failed at step #74 due to unstable TM/TC from YTH
  - o 15:09:06 X\_CRP\_EPN\_1500 is complete. S/S has been re-enabled
- 
- 10/06/2023 (161) 07:32:19: MCCM: xmca, xlta, xcla1, xcla2, xcla3 red, discrepancy found GMMS: xnisA yellow, Mois grey, FD grey, xgamma blue, gmms opsh1 blue root time 9.6.23 18:24, xgmmb yellow
  - o 07:37:34 Speak to Estrack who said there was an airconditioning problem in Halley Server room several servers affected yesterday 9-6-23. They do not have a list of servers that were hit. This might be why xgamma is blue. MOIS is working ok. Cockpit 250011
  - o **See AR XMM-1532 MUST Database corrupted after Halley Data Center Problem**

### **2.2. INTEGRAL**

30/05/2023 (150)

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31/05/2023 (151)

06:17:17 TPF update failed for SlewID #2640008. FD go ahead for slew without update

08:08:02 OCR#2364 RCS: OPEN LV-A

08:27:00 OCR#2365 RCS: Thermal test T1033 TSW STA PROPB is now CLOSE.

14:53:04 OCR#2366: AOCS reconfig after the last eclipse of the season

01/06/2023 (152)

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02/06/2023 (153)

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

Document No :XMM-INT-WOPS-23\_22-23  
Issue/Rev. No : 1  
Date 19/06/2023  
Page : 5

---

-  
03/06/2023 (154)  
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04/06/2023 (155)

03:22:03 Complete loss of TM, AR INT-3906  
03:41:53 Transponder swop blind.  
04:15:23 Slews #26470049, 26470050 and 26470051 missed from timeline.  
05:04:41 Manual slew 2647\_0501\_M.OSL from PID #264700048 to #264700050  
05:33:58 Manual slew 2647\_0502\_M.OSL from PID #264700050 to #264700052  
06:18:55 Manual slew 2647\_0503\_M.OSL from PID #264700052 to #264700053  
06:48:17 FDS: TPF 2647\_0504\_A.0504 applied on A/S to update slew 264700054  
16:49:17 SPI DPE crash, AR INT\_SC-732, CRP\_SPI1\_3090 (SPI DPE1 RESET).

05/06/2023 (156)

09:38:47 SPI in PHOTON -> end of SPI DPE reset recovery  
10:35:03 OI#2368 Characterisation of Tank Heaters

06/06/2023 (157)

15:58:44 TPF update failed for Slew #26480047 FDS: Failed to determine attitude  
16:06:29 FDS: TPF 2648\_0500\_A.OSL applied on A/S to update slew 264800047  
17:42:39 OSL #26480050 failed, TC A3086 "SUN STEERING INI" Failed release  
PTV  
17:55:00 Manual slew 2648\_0501\_M.OSL from PID #264800049 to #264800050  
18:10:36 FDS: TPF 2648\_0502\_A.OSL applied on A/S to update slew 264800051

07/06/2023 (158)

02:44:32 OOL AD5230H: "OTF Toggle Alert". PID 26480066. OEMs: "YAW  
ERROR".  
02:47:00 FDS: TPF update failed for SlewID #26480067. Guidestar lost after slew.  
02:47:09 FDS: TPF 2648\_0503\_A.OSL applied on A/S to update slew 26480067.

08/06/2023 (159)

01:45:01 TRSP Swaps. TX2 --> TX1. Test TCs not reaching SC. CORTEX2 TC binds  
but in "configured" state. Estrack re-run TRSP swap job. Test Cmd OK. No impact.

09/06/2023 (160)  
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10/06/2023 (161)  
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11/06/2023 (162)

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Document No :XMM-INT-WOPS-23\_22-23  
Issue/Rev. No : 1  
Date 19/06/2023  
Page : 6

---

16:00:58 IBIS PICSIT PDM08 LATCH UP. IBIS to STDBY, reset PDM08.  
FCP\_IBIS1\_0313 / 0329. AR INT\_SC-735  
17:27:11 Problems acquiring TM on either chain.  
17:44:56 Blind Transponder swop executed.  
17:51:25 Slew #26500029 failed  
18:03:22 Manual slew 2560\_0500\_M.CSL. Some commands failed during uplink.  
18:39:28 Manual slew 2560\_0501\_M.OSL from PID #26500029 to #26500031  
19:05:03 FDS: TPF 2650\_0502\_A.OSL applied on A/S to update slew 26500032

12/06/2023 (163)

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