

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

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**XMM-INT-WOPS-23\_26-27**

**Issue 1**

**Date: 11 July 2023**

Marcus Kirsch  
OPS-OAX

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## **1. Weekly report**

	<b>XMM</b>	<b>Integral</b>
<b>Main activities</b>	<ul style="list-style-type: none"> <li>▪ Nominal Operations</li> <li>▪ MUST recovery</li> <li>▪ Eclipse OPS 03-17 July</li> <li>▪ Full end to end instrument radiation protection and rejoin finished</li> <li>▪ OA OPS tools servers S/W and H/W migration</li> <li>▪ MCS migration finished</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> </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>▪ Occasional data buffering on the MCS, otherwise nominal</li> </ul>
<b>S/C Anomalies</b>	<ul style="list-style-type: none"> <li>▪ XMM_SC-153: Tank2 temperature going low in eclipse season</li> </ul>	<ul style="list-style-type: none"> <li>▪ none</li> </ul>
<b>G/S Anomalies</b>	<ul style="list-style-type: none"> <li>▪ XMM-1533: MOSes not re-joined at revolution start</li> <li>▪ XMM-1534: Kouoru Comms Line Unreliable</li> <li>▪ XMM-1535: X_CRP_RG1_1500 recovery incomplete</li> </ul>	<ul style="list-style-type: none"> <li>▪ none</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>▪ NSM on board</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>

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

note: all times are Zulu (in brackets DOY)

### **2.1. XMM**

- 28/06/2023 (179) 10:23:26: Inadvertent stop of LELA caused VC7 (NISA) to go into drop. Restarting LELA did not clear the condition. On-call SOE contacted. From LELA start-up options, Spacon could not determine which options to use to connect LELA for XMCSA.
- 03/07/2023 (184) 19:12:06: OOL. T6074. TH L TANK2 TOP. HARD LOW (limit 25.5c, val, 25.5c). Parameter has been toggling approx every 60-90secs for more than 10 mins. X-ref action inform on-call SOE. Called SOE. Also checked s/c attitude & Uberlog. Attitude is; Pitch -12, Roll +6. Most prior log entries seem to be around eclipse season. Current action, continue to monitor.
  - o 04/07/2023 (185) 10:29:25: OOL. T6074. TH L TANK2 TOP. HARD LOW (limit 25.5c, val, 25.5c) checked s/c attitude & Uberlog. Attitude is; Pitch +7.07 Deg, Roll -11.8 Deg. (eclipse season). Current action, continue to monitor and Inform on call SOE

### **2.2. INTEGRAL**

26/06/2023 (177)

18:33:06 OSL #26560005 and OMC Sequence(s) failed from Timeline. OMC recovery Per ED guidelines.

18:47:29 Manual slew 2656\_0500\_M.OSL from PID #26560004 to #26560005

19:02:03 FDS: TPF 2656\_0501\_A.OSL applied on A/S to update slew 26560006.

27/06/2023 (178)

08:00:00 OI 2373: RCS: Open LV-B

28/06/2023 (179)

29/06/2023 (180)

18:36:03 Repeated TM drops on VC7 causing TM backlogs

30/06/2023 (181)

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01/07/2023 (182)

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02/07/2023 (183)

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03/07/2023 (184)

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04/07/2023 (185)

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05/07/2023 (186)

06/07/2023 (187)

18:18:02 TM delay, OSL #26590075 missed. Recover schedule failed - not enough stars.

18:50:26 CSL #26590076 missed from timeline

18:54:58 CGS 2659\_0502\_M.CGS uplinked (FD)

19:09:22 Manual slew 2659\_0500\_M.OSL from PID #26590074 to #26590077

19:26:53 FDS: TPF 2659\_0503\_A.OSL applied on A/S to update slew 26590078

07/07/2023 (188)

18:05:02 TM delay shortly before slew. OSL #26600023 missed from timeline

18:37:56 Manual slew 2660\_0500\_M.OSL from PID #266022 to #26600024

18:38:55 CSL #26600024 missed from timeline

18:54:26 FDS: TPF 2660\_0501\_A.OSL applied on A/S to update slew 26600025

08/07/2023 (189)

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09/07/2023 (190)

08:32:51 ~2s TM drop. Caused TC failure for OSL 26600084.

08:41:46 Manual slew 2660\_0502\_M.CSL from PID #26600083 to #26600084

08:57:48 FDS: TPF 2660\_0503\_A.OSL applied on A/S to update slew 26600085

10/07/2023 (192)

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