

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

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**XMM-INT-WOPS-23\_48-49**

**Issue 1**

**Date: 18 December 2023**

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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>▪ Phase in of new service contract for SOEs (October-December)</li> <li>▪ Tolhuin station in operational test</li> <li>▪ Lela final migration to MCS</li> <li>▪ Manual spacecraft recovery without propellant procedures</li> <li>▪ CDMU recovery automation</li> <li>▪ NSM on board</li> <li>▪ Low speed wheel test successfully performed</li> <li>▪ MOC/SOC link validated successfully</li> <li>▪ New MCS SW Release 13.0.0</li> </ul>	<ul style="list-style-type: none"> <li>▪ Routine science operations</li> <li>▪ Eclipse Season</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, apart from some issues with AGO due to degraded performance of the SSPA</li> </ul>	<ul style="list-style-type: none"> <li>▪ Nominal</li> </ul>
<b>S/C Anomalies</b>	<ul style="list-style-type: none"> <li>▪ None</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-1553: EVFM failure after chain swap</li> <li>▪ XMM-1554: NIS admin link stays connected after MCS is disconnected from NIS</li> <li>▪ XMM-1555: Santiago SSPA Degraded Performance</li> </ul>	<ul style="list-style-type: none"> <li>▪ None</li> </ul>
<b>Future activities planned</b>	<ul style="list-style-type: none"> <li>▪ DABYS D/B implementation kick off Feb. 7</li> <li>▪ NSM via MOIS</li> <li>▪ Webserver and NRT Analysis/Monitoring migration</li> </ul>	<ul style="list-style-type: none"> <li>▪ Automation of Transponder swap operations</li> <li>▪ Automation of ground station operations (EVFM)</li> </ul>

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

note: all times are Zulu (in brackets DOY)

### **2.1. XMM**

- 29/11/2023 (333) 19:33:57: MOC/SOC link validated successfully with the new SW Release 13.0.0 on B-Chain (*Ops instruction #4624*).
- 30/11/2023 (334) 13:06:14: EVFM failure after chain swap (*see AR XMM-1553*)
- 02/12/2023 (336) 05:08:16: MOIS could not handle the specific case of RM crash at a bad timing combined with ongoing recovery (*CCRs in place*)
- 05/12/2023 (339) 12:18:27: Spacon closed accidentally the NIS, commands for RGS (Q-dumps) and OM missed from the timeline (*see AR XMM-1554 :: NIS admin link stays connected after MCS is disconnected from NIS*)
- 05/12/2023 (339) 20:25:14: New MCS SW Release 13.0.0 now operational (*Ops instruction #4624*)
- 06/12/2023 (340) In recent weeks there has been a high incidence of failed automated G/S handovers to Santiago due to low AGC power. This has now been tracked down to a degraded performance of the SSPA (*see AR XMM-1555 :: Santiago SSPA Degraded Performance*)
- 09/12/2023 (343) 12:53: Divergence between actual wheel plot and prediction after NSX at 12.53 and before NSO at 13.16 (300rpm on wheel 2). FD explains that the wheel profile during NSX the is not modelled and illustrated as a simple step function. The NSO part of the NSX will correct it.
- 10/12/2023 (344) 13:00:32: Alarm tone is not working on both xclas1 and xclas2 but on xclas3. At 19:58:10, the Spacon managed to enable the alarm sound on xclas1 again by muting and unmuting it by means of the keyboard (Fn + F7)

### **2.2. INTEGRAL**

- 02/12/2023 (336) 16:45:24: 2\* OBEs EvID: 5. Type: EXCEPTION. "OMC EXC IACS INT" 2\* OBEs EvID: 6. Type: EXCEPTION. "OMC EXC IACS INT" Occured when OMC transitioned to STANDBY for OSL. No other OOL/OBEs.
- 08/12/2023 (342) 03:05:45: OOLs, K5317, L5317 & E3500. Checked x-refs. While checking, JEM-X OOLs cleared. For E3500 action is log only as belt entry expected ~04:32 today.
  - o 03:11:31 OOLs K & L 5317, RAD MON3 for JEM-X1 & 2.
  - o 03:18:09 JEM-X1 & 2 OOLs K & L 5317 remain. IREM electron count (TM para U9921) ~110. As per x-ref, commanded JEM-Xs to safe using FCP\_JEMX1(& 2)\_0040