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# ***European Space Agency***

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

**XMM-INT-WOPS-12\_09**

**Issue 1**

**Date: 09 March 2012**

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HSO-OAX

**XMM-Newton and INTEGRAL weekly  
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## **1. Weekly report**

	<b>XMM</b>	<b>Integral</b>
Main activities	<ul style="list-style-type: none"> <li>▪ Nominal operations</li> <li>▪ Slew inertia calibration</li> </ul>	<ul style="list-style-type: none"> <li>▪ Nominal Science Operations</li> </ul>
Status and performance of S/C	<ul style="list-style-type: none"> <li>▪ Nominal for platform and all instruments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Nominal for platform and payload</li> </ul>
Status and performance of Ground segment	<ul style="list-style-type: none"> <li>▪ Nominal</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ongoing occasional downlink RFI at REDU, some sources identified, filter installed for testing</li> </ul>
S/C Anomalies	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	<ul style="list-style-type: none"> <li>▪ INT_SC-374 IREM Reset #127, 27/02/2012</li> <li>▪ INT_SC-375 IREM Reset #128, 28/02/2012</li> </ul>
G/S Anomalies	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	<ul style="list-style-type: none"> <li>▪ INT 3244 OBQD does not create a DELETE TC stack using right-click menu</li> <li>▪ INT 3245 LCTF - Problems identified during test</li> </ul>
Future activities planned	<ul style="list-style-type: none"> <li>▪ Thermal model for re-lubrication of wheels</li> <li>▪ DB release for caging parameters</li> </ul>	<ul style="list-style-type: none"> <li>▪ E3.5 Testing</li> <li>▪ Virtualised Solaris environments</li> <li>▪ MCS development</li> </ul>

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

note: all times are Zulu

### **2.1. XMM**

- 2012-02-28 01:32:27 (059): CMD A3189(START GUIDE STAR) failed release due to Stat. PTV (No guide star found) Timeline stopped
  - o 2012-02-28 01:36:00 (059): FCP\_AOC\_0106 STR-A Mapping XMM\_SPA\_0010 XMM-Newton SPACON recover-schedule tool
- 2012-02-28 10:40:00 (59): Lost TM from PER, few secs. OBTVAL OOL few secs. Network report nothing on station, no hits on line.
- 2012-02-28 15:16:00 (59): Estrack are having problems stopping the uplink at PER, we may have to wait for the Rf mute to force disconnection. (S/W restart needed)
- 2012-03-01 12:30:00 (61): Notice that although there is no drop in lock, the onboard AGC (R2000) is -120db. Estrack reduce attenuation. Uplink is now 45W
  - o 2012-03-01 13:00:00 (61) FS in discussion with Estrack. Perth uplink changed again to 75W. Onboard AGC is -111dB onbaord AGC is -116db.
- 2012-03-01 18:51:00 (61): OR 2941 Slew Inertia Cal
- 2012-03-02 03:59:00 (62): On X2KMCA the following tasks were stopped and re started: MULTI, OBQM, VERIFIER, RELEASER. The TC link was also reapplied as this had also dropped out.
  - o 2012-03-02 03:59:00 (062): When attempting to restart the stks the multi task on x2kmca died?
  - o 2012-03-02 04:23:00 (62): The following tasks were also restarted as part of Multiplexer disconnection: ACHmanager,ACH,ACI ( on x2kmca )
- 2012-03-02 14:00:00 (62): Lost TM from KRU. Few secs. Hit on prime line
- 2012-03-04 01:52:00 (64): CSL update failed.
  - o 2012-03-04 01:53:00 (64): FCP\_AOC\_0106 STR-A Mapping + recover tool
  - o 2012-03-04 01:55:00 (64): Recover tool stops. Errors: Fortran Runtime System. Error 1084: unexpected character in real value. CGS generation failed with code 8. The slew cannot be done with current wheel speeds.
  - o 2012-03-04 02:00:00 (64): Disable AOCS. Call FD. Give info over phone:  
Wheel 2 error= -80.  
Wheel 3 error= 100.  
Wheel 4 error= -100.  
Wheel 3 = 3347rpm
  - o 2012-03-04 02:36:00 (64): FD run recover tool and get same errors
  - o 2012-03-04 03:19:00 (64): FD authorise RWB without preceding CSL. Re-enable s/s1
  - o 2012-03-04 03:50:19 (64): FCP\_AOC\_0106 STR-A Mapping + recover tool. FD
  - o 2012-03-04 04:03:00 (64): Uplink 2240\_56\_M.CSL and SSTs ok. To bring spacecraft back on target. FD

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## **2.1 INTEGRAL**

- 2012-02-27 (58)
  - o 04:41:31 IREM SEU, OMC. IBIS to safe
  - o 05:01:00 S/S OMC enabled on the A/S
  - o 05:16:00 S/S IBIS enabled on the A/S
  - o 07:14:00 CCCF is enabled and RM s/s is also enabled.
  - o 13:38:00 OEM: ANOMALY "IBIS1 IASW LSL TRANSFER FAILED (LOW LEVEL)", OEM: ANOMALY "IBIS1 IASW LSL TRANSFER FAIL REPORT FOR HIGH LEVEL MODULE", OEM: TC REJECT "IBIS1 MCE7 TIME OUT" - repeated occurrences throughout the reporting period.
  
- 2012-02-28 (59)
  - o 09:36:00 IREM SEU, OMC. IBIS to safe
  - o 10:02:00 S/S OMC enabled on the A/S
  - o 10:16:00 S/S IBIS enabled on the A/S
  - o 12:09:00 RM s/s is enabled and CCCF is also enabled.
  
- 2012-02-29 (60)
  - o 01:28:00 IMU1 ON + OEM: "ACC AIMU ON", PID #114500034 lost
  - o 01:38:00 OEM: "ACC AIMU OFF"
  - o 01:44:00 FDS: TPF 1145\_0500\_A.OSL applied on A/S to update slew 11450035
  - o 04:09:00 SYS: Error sending data to isds
  - o 17:19:25 FCP\_SPI1\_2504 SPI STROKE INCREASE all 4 compressors one LSB to value 40
  
- 2012-03-02 (62)
  - o 04:46:00 OMCH task on IMCB dies and is restarted at AOS
  - o 07:53:00 TM: K5317 / L5317 RAD MONITOR 3 H/H-OOL (value= 66)
  - o 08:12:00 TM: E3500 P\_DF\_CNVT-BW-L,1 H/H-OOL (value= 187804) AF
  - o 08:24:00 JEM-X1/2 High Voltage Activation failed due to radiation at belts exit
  - o 08:33:00 JEM1+2 To Safe, then set up, then data taking manually
  
- 2012-03-03 (63)
  - o 04:04:00 Bad frames from Redu, RFI on both chains
  
- 2012-03-04
  - o 08:12:00 OEM: "ACC AIMU ON", OSL #11460092 missed from timeline
  - o 08:29:00 Manual slew 1146\_0500\_M.OSL from PID #11460091 to #11460092
  - o 08:42:00 FDS: TPF 1146\_0501\_A.CSL applied on A/S to update slew 11460093
  - o 15:14:48 SYS: Error sending data to isds on a-chain, duration: 1 sec
  - o 15:55:06 OEM: "ACC AIMU ON", PID #11460106 lost interrupted
  - o 16:10:00 FDS: TPF 1146\_0502\_A.OSL applied on A/S to update slew 11460107
  - o 16:22:00 FDS: TPF update failed for SlewID #11460108. Recovery tool reports that there are not enough guide stars to perform a CSL, next slew is a CSL from the T/L. The slew from the current attitude to the target of 11460108 must be an OSL
  - o 16:50:00 PID #11460108 lost
  - o 17:07:00 Manual slew 1146\_0504\_M.OSL from PID #11460107 to #11460108
  - o 17:18:11 TPF 1146\_0505\_A.OSL (next slew update) failed validation (expired), PID #11460109 lost
  - o 17:29:20 Manual slew 1146\_0507\_M.OSL from PID #11460108 to #11460109
  - o 17:41:46 FDS: TPF 1146\_0508\_A.OSL applied on A/S to update slew 11460110
  
- 2012-03-05 (65)
  - o 02:51:30 IMU on during perigee (Stored OEM), Guidestar changed
  - o 04:32:00 X category solar flare notification
  - o 04:44:00 CGS uplinked 1147\_0500\_M.CGS

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