# European Space Agency

## XMM-Newton and INTEGRAL weekly Mission Operations Report

**XMM-INT-WOPS-13_33**

**Issue 1**

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## 1. Weekly report

| | **XMM** | **Integral** |
|---|---|---|
| Main activities | ▪ Nominal operations<br>▪ MCS migration ongoing<br>▪ 4WD implementation (final phase) | ▪ Nominal Science Operations<br>▪ SPI annealing #21 with all instruments off in Revs 1319-1324 (1-18/08/2013)<br>▪ STR Blemish Pixel Survey<br>▪ CLCW ratio adjustment |
| Status and performance of S/C | ▪ Nominal for platform and all instruments | ▪ Nominal for platform and payload.<br>▪ All Instruments OFF<br>▪ SPI Annealing |
| Status and performance of Ground segment | ▪ On DOY 224 at 12:30, during Kourou support, the Spacon reported a glitch in telemetry. This was due to a comms hit. There were further occurrences at 22:25 on DOY 224 and at 00:29 on DOY 225.<br>▪ On DOY 227 at 06:11, during Santiago support, the Spacon reported bad frames. There were recurrences at 06:27, 06:48 and 10:35. Awaiting feedback from SSC / Santiago on these incidents.<br>▪ On DOY 230 at 03:15, during Kourou support, the Spacon reported a glitch in telemetry. This was due to a comms hit. | ▪ Ongoing occasional RFI at all stations, some sources identified |
| S/C Anomalies | ▪ None | ▪ INT_SC-438 IREM Anomaly: Reset of IREM_CSCI S/W #142, 15/08/2013 |
| G/S Anomalies | ▪ None | ▪ none |
| Future activities planned | ▪ 4WD ESOC end to end test 04/09<br>▪ 4WD FAR 12/09<br>▪ 4WD ORR 20/09<br>▪ 4WD upload 23-27/09 | ▪ Virtualised Solaris environment MCS development |

## 2. Detailed weekly operational events

note: all times are Zulu

### 2.1. XMM

- 2013-08-12 12:30:00 (224): TM glitch / drop from G/S KRU, reason: hit on prime line, duration: 30s, impacts: lost commanding for both MOSes
- 2013-08-12 22:25:34 (224): TM drop from G/S KRU, reason: hit on the line, duration: 1 sec, impacts: none
- 2013-08-13 00:29:37 (225): TM drop from G/S KRU, reason: hit on the line, duration: 1 sec, impacts: none
- 2013-08-15 06:11:00 (227): Bad Frames from G/S AGO, reason: Unknown, duration: few sec, impacts: None
- 2013-08-15 06:48:00 (227): Fad Frames from G/S AGO, reason: Unknown, duration: few sec, impacts: None
- 2013-08-15 10:35:00 (227): Bad Frames from G/S AGO, reason: Unknown, duration: few sec, impacts: None
- 2013-08-18 03:15:00 (230): TM glitch / drop from G/S KRU, duration: few seconds, impacts: none
- 2013-08-18 16:33:00 (230): Failure of TC SEQ. RE0152 due to no TRSP lock. Impacts and recovery actions: TRSP swap missed from timeline , Recovery will be performed once TRSP1 is locked
    - AGC level of TRSP1 Remained below -101 dBm from 15.47z to 16.17z except for few seconds(minimum went to -116 < ~2 secs). ECC operator swept couple of times and found it difficult to re-sweep back to TRSP 1 due the Temp difference 2 TRSP's were ~ 3 DegC. TRSP swap were also missed from timeline due to the delay in locking TRSP1. TRSP Swaps at 15.47z & 16.17 should have skipped and remained on TRSP1 !.

### 2.2. INTEGRAL

- 2013-08-12 (224)
    - 07:40:00 Start STR blemish pixel survey
    - 07:45:55 SPI annealing #21: start ACS calibration

- 2013-08-13 (225)
    - 11:10:00 imca shutdown early by mistake by CCC (DENEB Maintenance) --> move to imcb
    - 22:22:00 SPI annealing: start active cooling

- 2013-08-15 (227)
    - 09:45:00 Started operations for CLCW ratio adjustment
    - 20:47:00 AOS TM Redu, IREM Crash
- 2013-08-17 (229)
    - 07:40:00 SYS: Performed restart of ISDS-B due to link broken for unknown duration
    - 08:32:08 SPI annealing #21: Select cryogenic Temp. narrow range, Restore PSD thresholds
- 2013-08-18 (230)
    - 04:45:22 SPI annealing #21: Start Switch on of camera

- 06:00:00 G/S: Drop VC-0 / 7 from RED, duration: 3 min., RFI, source: unknown, both chains
- 07:41:24 SPI annealing #21: Set nominal ACS configuration and AFEE HV
- 07:44:08 SPI annealing #21: go to Photon mode
- 07:58:16 SPI annealing #21: reduce cryocooler stroke to 80K target (TT)
- 19:55:46 SPI PSD Reset: OOL H/L (value 0) on TM parameter E3840 to 3858 (P PD CHL-RTE L0 to L18), Spacon did not take any action and did not log it. Saw it in the morning.

- 2013-08-19 (231)
  - 00:28:0 Ongoing reduction of SPI Compressor Stroke settings via TT TC
  - 03:56:00 SYS: Performed restart of ISDS + IFRD (isdsa) due to error messages
  - 07:10:51 G/S: Drop VC-0 / 7 from RED, duration: 2 min., RFI, source: unknown, both chains
  - 07:54:40 Start recovery of PSD Reset from DoY 230