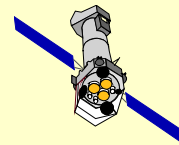# Status of EPICs Operations

Stéphane RIVES
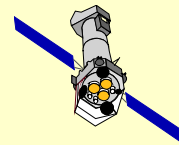
4th of May 2006

XMM-Newton

Introduction

1) MOS/PN related issue

2) MOS specific

3) SCOS2000

MOS-PN Bit Rate reallocation

Experience showed that some bandwidth could be reallocated from MOS to PN

- Improve PN science production without affecting MOS science quality
- The following table is now used by default:
  - OM = 1000 kb/s
  - RGS1 = 1500 kb/s
  - RGS2 = 1500 kb/s
  - MOS1 = 12000 kb/s (16000 before)
  - MOS2 = 12000 kb/s (16000 before)
  - PN = 23888 kb/s (15888 before)

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- Rev. 1114, 7th of January 2006, spurious switch-on of the nominal substitution heater, within one exposure:
  - PN: -92.46 degC < T < -86.24 degC
  - MOS1: -118.04 degC < T < -120.04 degC
  - MOS2: -117.69 degC < T < -120.37 degC
- Recovered by the corresponding contingency procedure
- Explanation: SEU
  - 14th LCL trip off/on since the BOL
  - 11 occurrences in the last 2 years

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- One document per instrument has been produced to analyze the redundancy cases:
  - Electronic boxes

  - Filter wheel

  - Thermal subsystem

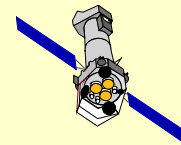- Baseline in case of future failures, and possible further tests

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- In order to compensate the long term drift in the MOS background, the overall fixed offsets has been lowered by 1 ADU for:
  - MOS1 CCDs 2, 4 and 7
  - MOS2 CCDs 3, 4, 5 and 7

- Change available with the new database release as of the 27th of April, rev. 1169 for manual commanding, ~ 1 month later for timeline commanding

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In rev. 1140, on the 28th of February:

- @ 20:46z, MOS1 stopped sending Telemetry
- Instrument in IDLE mode, FW closed
- SW cold reset did not work
- A hard reset was finally executed @22:23z
- After the reset, the functioning of the instrument was fully nominal

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Explanations

- EMDH crash followed by a failure of the RBI
- RBI stuck in INIT mode after the EMDH crash
- No explanation other than the SEU one proposed so far
- NCR#118 raised to trace the problem

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SCOS 2000

- ## SCOS 2000 is now validated and used as our new control system

- ## Still one release to come to be in line with the "maintainable" version for the infrastructure

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