Status of EPICs Operations

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4th of May 2006
Introduction

1) MOS/PN related issue

2) MOS specific

3) SCOS2000
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)
Substitution heater LCL Trip-on

- Rev. 1114, 7\textsuperscript{th} 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
  - 14\textsuperscript{th} LCL trip off/on since the BOL
  - 11 occurrences in the last 2 years
Redundancies documents

• 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
MOS specific – new fixed offset tables

- 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 27\textsuperscript{th} of April, rev. 1169 for manual commanding, ~ 1 month later for timeline commanding
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
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
• 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