

EPIC Calibration and Operation Meeting

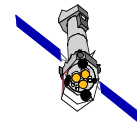
PN Open Points EPIC NCR Status

7th February 2001

Fabio Giannini



ESA-HQ : 7th February 2001



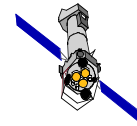
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Summary

- **PN Open Points**
- **EPIC Status**
 - MOS
 - p-n
 - RAD MON



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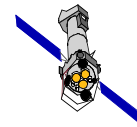
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PN Open points

- **OFFSET/NOISE Transmission current status**
 - not possible to transmit them interleaved per exposure due to EPEA too busy
 - currently in CAL CLOSED exposure the OFFSET and NOISE are sent for CCD0s (more than 1h overhead)
 - SuperED contains OFFSET dump for all CCDs, but success rate very low (2-4 successful)



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PN Open points

- **Proposal for more systematic download (medium term)**
 - transmit all OFFSET at the beginning of every revolution in the Activation Window (it will be the OFFSET calculated in the last observation of previous revolution).
 - every TBD revolution calculate OFFSET and NOISE in FF and send the NOISE of all CCDs instead of the CAL CLOSED exposure (~2.5h). We may reduce this time to ~2.1h if we systematically perform FF Setup at the end of the Activation Window and remove thermal stabilization (FW always in close or cal close position).
 - Remove OFFSET/Noise dump from all other activities.



PN Open points

- **Proposal for more systematic download (long term)**
 - transmit OFFSET and NOISE tables through the HBR interface
 - Requires EPDH SW change
 - Depending on the EPDH SW change the ground SW may also need to be changed



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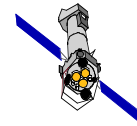


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EPIC Status

- **MOS OPEN Non Conformances**

- FIFO overflow causes data corruption
- TM Headers and trailers do not match
- MOS buffer manager / counting mode failure
 - the above 3 NCR are to be closed with the REL-J of EMDH SW (to be delivered later this year)
- MOS2 timing mode exposure with regular noise pattern
 - Investigation still ongoing; Offset instability (fixed offset?), reset voltage change



EPIC Status

- **p-n OPEN Non Conformances**

- Command rejected
 - Closed with REL-I of EPDH SW
- PN EPEA quadrants do not always respond to TC
 - possible procedural work-around to be tested on spare, but interleaved offset dump not possible
- PN discarded lines packets wrong segmentation flag (minor)
 - Fixed by on-ground SW
- Failure to reset EPEA on-board time counter
 - New, under investigation; impact on science in long observation. Until now only found once.

- **RAD MON OPEN Non Conformances**

- All closed by desperation



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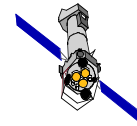
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EPIC Status

- **MOS Major recent problems**
 - Bright pixels in MOS2 (July 2000). Single event, not dramatic. Corrected and regular monitoring being performed (3x3 diagnostics and FF exp no BP and HBR threshold = 32767)
- **p-n Major recent problems**
 - Bright pixels/columns. Single event, dramatic effect due to fast readout. Corrected on-board, but some columns still degraded.
- **RAD Major recent problems**
 - Same as usual



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