EPIC Cal-Ops meeting VILSPA

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Feedback on EPIC calibration

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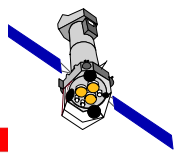

Calibration Targets (not only EPIC)

Based on Routine Calibration document (available on Calibration Page: XMM-SOC-CAL-PL-0001):

- **a skeleton plan with future routine cal. obs. is issued every half a year, taking into account target visibility**
- **routine cal. obs. are inserted into USG advanced schedule plan and revolutions optimised for short slews (neighbouring targets)**
- **other constraints on mission planning: science observations which bad visibility, coordinated & repeated observations**

⇒ only use cal. targets which are always visible, NRCOs should be issued well in advance (at least 6 weeks!), also here check for good visibility, no duplications with GT, AO targets!

MOS cooling

If MOS finally will be operated at a lower temperature:

- **make sure that all necessary calibration observations (NRCOs) are performed and analysed**
- **SOC can permanently switch to new temperature only if calibration is well studied and CCFs are up-to-date**
- **USG received many complains about non-existing calibration of e.g. pn burst and timing mode in the past**

⇒ **provide the investigators with a complete calibration (within SAS) before cooler MOS is used for science observations!**

Helpdesk questions on EPIC cal

Guest observers are worried about:

- **EPIC cross-calibration:**
  - significant discrepancy (about 20-30 eV) between MOS and pn PI value for Fe-K line & pn instrumental Cu-K line
  - 10% flux differences at low and high energies (inconsistent spectral fits).

- **Calibration down to 0.1-0.2 keV:** we always said that EPIC would be sensitive down to 0.15 keV (e.g. in the UHB), but even in 0.2-0.3 keV band there exist significant residuals!

- **Residuals close to CCD Si absorption edge and just above mirror Au-edge**

⇒ GOs have reached a stage now where they compare EPIC results, look in details at the spectra ... & spot the problems