XMM-Newton CCF Release Note

XMM-CCF-REL-291

Modifications to EMOS Bad Pixel Table

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August 8, 2012

1 CCF Components

Name of CCF	VALDATE	EVALDATE	Blocks Changed	CAL Version	XSCS Flag
EMOS1_BADPIX_0034	2012-07-21T18:55:33	–	BADPIX		NO
EMOS2_BADPIX_0026	2012-07-21T18:55:33	–	BADPIX		NO

2 Changes

These CCFs reflect the currently uploaded MOS Bright Pixel Table.

Since the cooling of the MOS detectors in rev 533, there has been a slow but steady increase in the number of noisy pixels. Noisy pixels do not provide scientifically useful data, and will be recognised and removed appropriately by the SAS. Nevertheless, persistent noisy pixels are flagged on board through the Bright Pixel Table so as to reduce the MOS downlink telemetry load.

Some recently identified persistent noisy pixels have been included in the latest MOS Bright Pixel Table which is in use from revolution 2311 onwards. In all, 18 new pixels (3 for MOS1, 15 for MOS2) have been added to the BPT, reducing count rates by 2% up to 24%, depending on the CCD.

3 Scientific Impact of this Update

Minor, as in any case noisy pixels are recognised and flagged in the SAS data reduction (e.g. the `badpixfind` task).

4   Estimated Scientific Quality

The CCFs correctly reflect the current status of uploaded bright pixels.

5   Expected Updates

Depending on further development of hot, noisy or dead pixels.

6   Test Procedures and Summary of the Test Results

- Verification of content with `calview`;

- Testing of correct functionality with `emproc` (SAS 12.0.1).

Results as expected. In particular, no warnings issued of the type:
```
embadpixfind:  warning (getCalBadpix10), Bright pixel at [...]  [...]
is declared uplinked in the CCF but is present in the data.
```