XMM-Newton CCF Release Note

XMM-CCF-REL-295

Modifications to EMOS Bad Pixel Table

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1 CCF Components

Name of CCF	VALDATE	EVALDATE	Blocks Changed	CAL Version	XSCS Flag
EMOS1_BADPIX_0036	2013-01-21T06:31:40	–	BADPIX		NO

2 Changes

Following the suspected MOS1 impact event of revolution 2382, in which CCD3 sustained extensive damage, several hot pixels developed in other MOS1 CCDs. Most affected of these was CCD4, with several saturated column and row segments, while other CCDs showed individual hot pixels.

New Offset Tables and Bad Pixel Tables were uploaded to flag and veto the newly developed hot pixels. This CCF reflects the currently uploaded MOS1 Bad Pixel Table.

3 Scientific Impact of this Update

The CCF identifies the flagged detector areas, thus allowing SAS tasks correctly to calculate the effective area. Especially in extended dead areas, in the form of flagged column or row segments, the correction to the effective area will be substantial.

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.
```