XMM-Newton CCF Release Note

XMM-CCF-REL-49

EPIC Bad Pixels

D Lumb

November 21, 2000

1 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
EPN_BADPIX_0009	2000-06-21T00:00:00	BADPIX		YES (post facto)
EPN_BADPIX_0010	2000-08-19T20:00:00	BADPIX		YES (post facto)
EPN_BADPIX_0011	2000-10-15T00:00:00	BADPIX		YES (post facto)
EPN_BADPIX_0012	2000-10-21T00:00:00	BADPIX		YES (post facto)
EPN_BADPIX_0013	2000-10-23T00:00:00	BADPIX		YES (post facto)
EPN_BADPIX_0014	2000-10-25T00:00:00	BADPIX		YES (post facto)
EPN_BADPIX_0015	2000-10-31T23:00:00	BADPIX ADUOFF		YES (post facto)
EPN_BADPIX_0016	2000-11-03T21:38:00	BADPIX ADUOFF		YES (post facto)
EPN_BADPIX_0017	2000-11-05T16:00:00	BADPIX ADUOFF		YES (post facto)
EPN_BADPIX_0018	2000-11-05T21:31:00	BADPIX ADUOFF		YES (post facto)
EPN_BADPIX_0019	2000-11-07T16:00:00	BADPIX ADUOFF		YES (post facto)
EPN_BADPIX_0020	2000-11-07T21:22:00	BADPIX ADUOFF		YES (post facto)

2 Changes

Version 0.9 Modified CCD 7 to contain a not-uplinked pair of bad pixels which add many events into the PN processing chain and creates some file size problems as a result
Version 0.10 Modified CCD 7 further because by about Rev 128, most observations are affected by a large part of column 34
Version 0.11 On rev 156 we started to see many bad pixels in CCDs 10 and 11 In this and subsequent
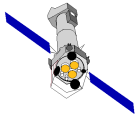
file versions we try to track bad but not up-linked pixels, and also manula changes to blank out some bad pixels before a data base update was made in Rev 171

Version 0.12 Rev 159 manual commanding to blank out CCD 11 col 64

Version 0.13 Reverted to previous setting for Rev 160

Version 0.14 For Rev 161 to 164.5 CCD11/col 64 and CCD10/col61 were blanked out

Version 0.15 For rev 164.5 to 166.1 ccd 10 col56,62 & ccd11 col62 had an offset of 30 applied . CCD11 col 64 had offset 50 applied

Version 0.16 Now for the non calclosed filter positions of rev 166,167 and 168 the CCD11 column 64 is removed rather than given an offset. We now get in following versions an oscillation between these 2 configurations!

Version 0.17 Reverts to v 0.15 for one observation

Version 0.18 Reverts to v 0.16 for two observations

Version 0.19 Reverts to v 0.15 for one observation

Version 0.20 Reverts to v 0.16 for succeeding observations and is placed into the databse for all future automatic uploads

3   Scientific Impact of this Update

Necessary to track changes in bad pixel settings

Note that from the database update that occurred at Rev 171, the CAL CLOSED exposures actually have an offset of 50 applied to CCD11 Column64 which is not consistent with the CCF. This is left in as we have no tracking mechanism at this level of detail, and science analysis of CLOSED CAL data will not be materially affected.

4   Estimated Scientific Quality