XMM-Newton CCF Release Note

XMM-CCF-REL-310

EPIC MOS HK GTI selection

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1 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
EMOS1_HKPARMINT_0010	2014-01-27T18:00:00	HKPARMINT E1410-E1413		NO

2 Changes

Add a second value (25 or 0) as accepted values for EPIC-MOS1 parameters E1410-1413 (EMOS1 EDU 6/7 NODE 0/1 THRES corresponding to CCD3+6) starting from VALDATE 2014-01-27T18:00:00.

In rev. 2589 (2014-01-27T17:43:55) the annual test of the inactive EMOS1 CCDs3+6 was performed, therefore EDU6+7 were switched off (=set to zero) for taking diagnostics of EMOS1 CCDs3+6. After the test, a "fast EDU setup" was done which did not set EDU6+7 back to value 25. As CCDs3+6 are not used any more, this fast EDU setup is also used in other activities, especially in the setup of the usual observation modes (FF, LW, SW, etc.). Therefore the values of EDU6+7 stay zero until commanded manually to 25 again.

The XMM-Newton SOC standard processing pipeline stopped processing EPIC-MOS1 data because hkgtigen returned empty GTI tables (as all EDU thresholds must be equal 25 according to EMOS1_HK_PARMINT_0009.CCF). As EMOS1 CCDs3+6 are not used any more due to micrometeorite impact damages we surround this problem until these EDU6+7 parameters are set to 25 again, by also accepting value zero starting from just after the diagnostic exposures ObsID 2589_9999993571 and before observation ObsID 2589_0724940101.

3 Scientific Impact of this Update

None.

4 Estimated Scientific Quality

5 Test procedures & results

This CCF was tested on the observation for which the pipeline stopped the first time (ObsID 2590_0720700301) and the HK GTI file contained entries for all parameters including E1410-E1413.

6 Expected Updates

No further update is expected.