XMM-Newton CCF Release Note

XMM-CCF-REL-30

EPIC Energy Scale

D Lumb

October 31, 2000

1 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
EMOS1_DARKFRAME_0005.CCF	1998-01-01T00:00:00	DARKFAME_CCDn OFFSET_CCDn	-	NO
EMOS2_DARKFRAME_0005.CCF	1998-01-01T00:00:00	DARKFAME_CCDn OFFSET_CCDn	-	NO

2 Changes

The energy scale of MOS data also depends of the offset in ADU's for zero X-ray energy input. It has been found that calculating these offsets for each observation is a very lengthy process, reducing observation efficiency. Detailed analysis showed, that except for localised areas around bright stars, the offset values were very stable. The bright star locations are in any case not correctly calculated due to the row/column averaging algorithm. Therefore we now adopt FIXED offset tables, and these have been included in the CCF data set for reference.

3 Scientific Impact of this Update

First release

4 Estimated Scientific Quality

The offset data files were averaged over MANY observations, and provide our best knowledge of CCD bias frame values. Individual observations may have incorrect local offsets around bright stars.