

# XMM-Newton CCF Release Note

XMM-CCF-REL-36

## EPIC ASTROMETRY

D Lumb

November 1, 2000

### 1 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
XMM_BORESIGHT_0014	2000-01-01T00:00:00	BORESIGHT		YES

### 2 Changes

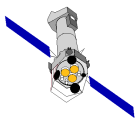
The EULER angles for the PN camera have been modified, to account for a rotation of the focal plane by about  $1.5^\circ$ , and small shifts of 2 - 3 arcsecs in the spacecraft Z / Y plane. This was measured with a number of fields with ROSAT / Optical IDs, including (Lockman Hole, NGC2516, M31 and NGC253)

### 3 Estimated Scientific Quality

Based on an analysis of Lockman Hole Rev 70 data, the mean displacement of about 25 central field of view sources is of order 2 arcseconds, with a dispersion of about 1.5 arcseconds r.m.s..

### 4 Expected Updates

This level of accuracy is now below the specification of the measurement accuracy of the Star Tracker system. Therefore the dominant pointing uncertainty will be *ad interim* set by this 4 arcsecs (half cone  $2\sigma$ ) limit until longer term AOCS errors' analysis is made.



An additional term for EPIC MOS comes from the CCD-to-CCD rotations in the outer field. Again longer term trend analysis is required to reduce this further

## **5 Acknowledgements**

Thanks to Andy read for updates on PN rotation measurements