

XMM-Newton CCF Release Note

XMM-CCF-REL-97

EPIC PN TIMING

D LUMB

December 4, 2001

1 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
EPN_TIMECORR_0054	2000-01-01T00:00:00	FRAMETIME TIMECORR		YES

2 Changes

The time between detection of a photon in a CCD, and the time which is written into a time stamp datum associated with a readout frame is partially indeterminate, but the mean time of the frame is generally assigned to this detection. The TIMECORR files provide a means of correcting for the mode-dependent readout delay.

This update is based on a technical note provided by M Kuster and B Kretschmar of the Tubingen group. It is entitled *Correction of Photon Arrival Times for the Readout Modes of the EPIC-pn Camera*, dated Nov 21 2001.

3 Scientific Impact of this Update

4 Estimated Scientific Quality

Timing analysis also depends upon the quality of time correlation files in the ODFs. These are being checked against radio ephemeris of Crab and other pulsars