MIT Kavli Institute **Chandra X-Ray Center**

MEMORANDUM
September 5, 2006

To: Jonathan McDowell, SDS Group Leader
From: Glenn E. Allen, SDS
Subject: The computation of the values of STARTROW and ROWCNT in ACIS bias files
Revision: 1.0
URL: http://space.mit.edu/CXC/docs/docs.html#bias_keys
File: /nfs/cxc/h2/gea/sds/docs/memos/memo_bias_keys_1.0.tex

The values of the keywords STARTROW and ROWCNT in the header of an ACIS bias file represent the first row of the CCD to be read less one and the number of rows to be read less one, respectively. For example, if an entire CCD is active, then STARTROW = 0 and ROWCNT = 1023. In some cases, the values of these keywords were inaccurate. This spec describes how to obtain accurate values for these keywords.

1 Processing

The values of the keywords STARTROW and ROWCNT in Level 0 ACIS bias files are given by

$$\text{STARTROW} = \text{loadTeBlock.subarrayStartRow} \tag{1}$$

and

$$\text{ROWCNT} = \text{loadTeBlock.subarrayRowCount}, \tag{2}$$

where loadTeBlock.subarrayStartRow and loadTeBlock.subarrayRowCount are part of the telemetry associated with the parameter block. These definitions ensure that the values of STARTROW and ROWCNT are identical in the parameter-block and bias files and are insensitive to the loss of data during the telemetry of the bias files.