

V&V Summary Report

L2 ASCDS Version : 8.4.3

Observation 12739 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Feb 7 2012

See [axaff12739N003_VV001_vvref2.pdf](#) for the full report

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|----------------------------|-----------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.02.13 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 8.0536933003664 |

Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.

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A spatial region of the original bias map for CCD = 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been

fully explored for this bias anomaly. The bias map for CCD = 2 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(276.96361,74.50428), (276.90748,74.50229), (276.94235,74.43078), (277.00181,74.42533)

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|----------|---|---|
| seq_num | 702375 | Sequence number |
| obs_id | 12739 | Observation id |
| title | Completing the Chandra 3C Snapshot Survey: Extragalactic Radio Sources with $z < 0.3$ | Proposal title |
| observer | Dr. Daniel Harris | Principal investigator |
| object | 3C 379.1 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 276.133333 | Observer's specified target RA [deg] |
| dec_targ | 74.348333 | Observer's specified target Dec [deg] |
| ra_nom | 276.12164661575 | Nominal RA [deg] |
| dec_nom | 74.35212170296 | Nominal Dec [deg] |
| roll_nom | 98.222895140813 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 8053.6932981014 | Sum of GTIs [s] |
| livetime | 7948.465866119 | Livetime [s] |
| ontime2 | 8053.5701780915 | Sum of GTIs [s] |
| ontime3 | 8050.4702478051 | Sum of GTIs [s] |
| ontime6 | 8053.6522580981 | Sum of GTIs [s] |
| ontime7 | 8053.6932981014 | Sum of GTIs [s] |
| l2events | 41763 | Number of level 2 events |

