

V&V Summary Report

L2 ASCDS Version : 8.4.3

Observation 13010 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Feb 2 2012

See [axaff13010N003_VV001_vvref2.pdf](#) for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9598640969992

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 = 0` 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 = 0 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:
(161.37676,39.01892),(161.37291,39.01728),(161.37909,39.00856),(161.38396,39.00877)

seq_num	600974	Sequence number
obs_id	13010	Observation id
title	The brightest ultraluminous X-ray sources across the sky	Proposal
observer	Dr Jifeng Liu	Principal investigator
object	J104439.4+384541	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.164167	Observer's specified target RA [deg]
dec_targ	38.761389	Observer's specified target Dec [deg]
ra_nom	161.15882642521	Nominal RA [deg]
dec_nom	38.763751561307	Nominal Dec [deg]
roll_nom	119.00594823325	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4959.8640964031	Sum of GTIs [s]
livetime	4897.0593107429	Livetime [s]
ontime0	4959.9051364064	Sum of GTIs [s]
ontime1	4959.6999363899	Sum of GTIs [s]
ontime2	4959.7409763932	Sum of GTIs [s]
ontime3	4959.7820163965	Sum of GTIs [s]
ontime6	4959.8230563998	Sum of GTIs [s]
ontime7	4959.8640964031	Sum of GTIs [s]
l2events	36819	Number of level 2 events

