

V&V Summary Report

L2 ASCDS Version : 8.4.3

Observation 12266 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Feb 5 2012

See axaff12266N003_VV001_vvref2.pdf for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.129459467828

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:
(39.29666,-49.84224),(39.30536,-49.84338),(39.32756,-49.77380),(39.31534,-49.78374)

seq_num	800985	Sequence number
obs_id	12266	Observation id
title	Chandra Observations of the ACT Sample of SZE-Selected Galaxy Clusters	Proposal title
observer	Prof John Hughes	Principal investigator
object	ACT J0237-4939	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	39.257083	Observer's specified target RA [deg]
dec_targ	-49.636111	Observer's specified target Dec [deg]
ra_nom	39.237125645431	Nominal RA [deg]
dec_nom	-49.688965230334	Nominal Dec [deg]
roll_nom	258.29924847043	Nominal Roll [deg]
revision	3	Processing version of data
ontime	40129.459467828	Sum of GTIs [s]
livetime	39605.138537003	Livetime [s]
ontime0	40123.177347958	Sum of GTIs [s]
ontime1	40132.600308657	Sum of GTIs [s]
ontime2	40123.177357793	Sum of GTIs [s]
ontime3	40129.459467828	Sum of GTIs [s]
ontime6	40126.318358064	Sum of GTIs [s]
l2events	134002	Number of level 2 events

