

V&V Summary Report

L2 ASCDS Version : 8.4.3

Observation 55705 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Feb 2 2012

See [axaff55705N003_VV001_vvref2.pdf](#) for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.2767999878526

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 = 3` 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 = 3 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 chip coordinates:
 (422,113) , (437,113) , (437,715) , (422,708)

seq_num	 	Sequence number
obs_id	55705	Observation id
title	ACIS-012367 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object	 	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	0.0	Observer's specified target RA [deg]
dec_targ	0.0	Observer's specified target Dec [deg]
ra_nom	135.01356877444	Nominal RA [deg]
dec_nom	-1.474710940095	Nominal Dec [deg]
roll_nom	28.966647269762	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3276.7999878526	Sum of GTIs [s]
livetime	3235.3071733543	Livetime [s]
ontime0	3276.7999878526	Sum of GTIs [s]
ontime1	3276.7999878526	Sum of GTIs [s]
ontime2	3276.7999878526	Sum of GTIs [s]
ontime3	3276.7999878526	Sum of GTIs [s]
ontime6	3276.7999878526	Sum of GTIs [s]
ontime7	3276.7999878526	Sum of GTIs [s]
l2events	130133	Number of level 2 events