

# V&V Summary Report

## L2 ASCDS Version : 8.4.3

Observation 13248 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Feb 7 2012

See [axaff13248N003\\_VV001\\_vvref2.pdf](#) for the full report

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	55.048843593895

## 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 = 8 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 = 8 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:  
(204.09321,-29.91312), (204.08721,-29.91613), (204.14436,-30.00148), (204.15036,-29.99847)

seq_num	600960	Sequence number
obs_id	13248	Observation id
title	REMNANTS, BINARIES, AND DIFFUSE EMISSION IN THE NEARBY GRAND DESIGN SPIRAL M83	Proposal title
observer	Dr. Knox Long	Principal investigator
object	M83	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	204.253333	Observer's specified target RA [deg]
dec_targ	-29.866278	Observer's specified target Dec [deg]
ra_nom	204.28925407586	Nominal RA [deg]
dec_nom	-29.845328016565	Nominal Dec [deg]
roll_nom	30.174511405436	Nominal Roll [deg]
revision	3	Processing version of data
ontime	55048.843595207	Sum of GTIs [s]
livetime	54329.589927266	Livetime [s]
ontime5	55048.802555203	Sum of GTIs [s]
ontime6	55042.479504645	Sum of GTIs [s]
ontime7	55048.843595207	Sum of GTIs [s]
ontime8	55042.438444555	Sum of GTIs [s]
l2events	515292	Number of level 2 events

