# V&V Summary Report
# L2 ASCDS Version : 8.4.3

Observation 13717 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Feb 2 2012

See axaff13717N002_VV001_vvref2.pdf for the full report

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|---|---|
| V&V Scientist | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2012.02.03 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 30.190400449872 |

## Comments

Standard data processing software did not correctly locate the zeroth
order because a spatial exclusion window was used to limit the zeroth
order image to 1 in 10 events. Manual intervention was used to input the
correct sky coordinates (x=4076.74, y=4086.98) into the *src1a.fits file
table. These corrected coordinates were determined using a software tool
developed by CXC called findzero, which is expected to be released in
CIAO (currently in ISIS). The tool calculates the point of intersection
of the readout streak and the meg arm (preferred position), or the
readout streak and the heg arm. The zeroth order source position
determined by the standard pipeline processing using the tool tgdetect
was not used in this processing. The newly determined zeroth order
coordinates have been placed in the *src1a.fits file, replacing the
coordinates determined by tgdetect. Note that these corrected
coordinates of the zeroth order cannot be reproduced by running tgdetect
on the data. === Faint grating spectra can be seen in an image of bad
events. This is probably due to pileup in the spectrum, causing
migration to bad grades. This should be considered in analysis. 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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|---|---|---|---|
| seq_num | 401403 | Sequence number | |
| obs_id | 13717 | Observation id | |
| title | Testing the Wind-Jet Connection in a Black Hole Transient | Proposal | |
| observer | Dr Joey Neilsen | Principal investigator | |
| object | 4U 1630-47 | Source name | |
| dtycycle | 0 | &#160 | |
| cycle | P | events from which exps? Prim/Second/Both | |
| ra_targ | 248.506708 | Observer's specified target RA [deg] | |
| dec_targ | -47.393 | Observer's specified target Dec [deg] | |
| ra_nom | 248.50266261051 | Nominal RA [deg] | |
| dec_nom | -47.391705628788 | Nominal Dec [deg] | |
| roll_nom | 97.093807891159 | Nominal Roll [deg] | |
| revision | 2 | Processing version of data | |
| ontime | 30190.400449872 | Sum of GTIs [s] | |
| livetime | 29435.382879025 | Livetime [s] | |
| ontime5 | 30190.397865474 | Sum of GTIs [s] | |
| ontime6 | 30190.356825471 | Sum of GTIs [s] | |
| ontime7 | 30190.400449872 | Sum of GTIs [s] | |
| ontime8 | 30190.315785468 | Sum of GTIs [s] | |
| l2events | 2047579 | Number of level 2 events | |