

V&V Summary Report

L2 ASCDS Version : 8.4.5

Observation 717 - L2 Version 8
Chandra X-Ray Center

L2 Processing Date : Nov 8 2012

See axaff00717N003_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.11.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.093

Comments

This is an interleaved-mode observation. The primary exposure (e1) is shorter than the secondary exposure (e2). Therefore the longer exposure was used to determine the zeroth order position, then that position was applied to both exposures.

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Zeroth order in both e1 and e2 piled up and cratered. Standard data processing software did not correctly locate the zeroth order due to pileup. Manual intervention was used to input the correct sky coordinates (x=4075.45, y=4118.57) into the *src1a.fits file table. These corrected coordinates were determined for the secondary e2 exposure using a software tool developed by CXC called findzero, which is expected to be released in CIAO as tg_findzo (currently in ISIS as findzo). The tool calculates the point of intersection of the readout streak and the meg 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.

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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.

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The livetime for each chip in the primary exposure e1 is about 213 s instead of 1460.75 s for each chip because the use of a 0.3 s frame time for the selection of chips and rows used during the observation is shorter than the time it takes to read out one frame of data. The frame time must be at least 0.7 s to avoid 'flushing' the detector before each frame of data is collected. The secondary exposure e2 has a frame time of 1.7 s so the livetime is similar to the ontime. Charge time for this ObsId remains at previous value of 10.093 ks.

seq_num	400084	Sequence number
obs_id	717	Observation id
title	AXAF GRATING SPECTRA AND PRECISE POSITIONS OF BRIGHT GALACTIC-CENTER X-RAY SOURCES	Proposal title
observer	Dr. Alan Levine	Principal investigator
object	GX 9+1	Source name
dtcycle	0	
cycle	P	events are from which exps? P[primary] S[econdar
ra_targ	270.38375	Observer's specified target RA [deg]
dec_targ	-20.528889	Observer's specified target Dec [deg]
ra_nom	270.38134813353	Nominal RA [deg]
dec_nom	-20.532996489838	Nominal Dec [deg]
roll_nom	264.26352194645	Nominal Roll [deg]
revision	8	Processing version of data
ontime	1460.751705125	Sum of GTIs [s]
livetime	212.97275134741	Livetime [s]
ontime5	1460.7106651217	Sum of GTIs [s]
ontime6	1460.6696251184	Sum of GTIs [s]
ontime7	1460.751705125	Sum of GTIs [s]
ontime8	1460.62858513	Sum of GTIs [s]
l2events	43756	Number of level 2 events

