

V&V Summary Report

L2 ASCDS Version : 10.2.1

Observation 16473 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Dec 10 2014

See axaff16473N003_VV001_vvref2.pdf for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2015.11.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	60.651801314592

Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.

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The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.

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Zeroth order piled up. The zeroth order sky position was determined using a software tool developed by CXC called findzero, which is available in CIAO as part of the tgdetect2 tool. The tool calculates the point of intersection of the readout streak on the ACIS CCD and the LEG dispersed spectral arm, rather than using a centroid position of the source. The findzero results are more accurate than source centroid in this case.

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Gain and CTI correction are not well calibrated on CCD_ID 5 (ACIS-S1). Default order sorting can clip some regions, particularly longward of

30A (first order). User-specified custom processing parameters may be required in tg_resolve_events (osipfile=None, osort_lo, osort_hi ~0.5) though this can allow more zeroth order background at short wavelengths.

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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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Window constraint met.

seq_num	790272	Sequence number
obs_id	16473	Observation id
title	AO-15 Calibration Observations of Mkn421	Proposal title
observer	Dr. Chandra Calibration	Principal investigator
object	MKN421	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.113333	Observer's specified target RA [deg]
dec_targ	38.208806	Observer's specified target Dec [deg]
ra_nom	166.13976807225	Nominal RA [deg]
dec_nom	38.205585677625	Nominal Dec [deg]
roll_nom	178.16203006187	Nominal Roll [deg]
revision	3	Processing version of data
ontime	60651.801314592	Sum of GTIs [s]
livetime	58470.326584564	Livetime [s]
ontime5	60651.801314592	Sum of GTIs [s]
ontime6	60651.801314592	Sum of GTIs [s]
ontime7	60651.801314592	Sum of GTIs [s]
ontime8	60651.801314592	Sum of GTIs [s]
ontime9	60651.801314592	Sum of GTIs [s]
l2events	1161172	Number of level 2 events

