V&V Summary Report
L2 ASCDS Version : 8.4.3

Observation 12147 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Feb 5 2012

See axaff12147N002_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	150.79359943831

Comments

Zeroth order has been identified on the outer ring in the southeast region of the supernova remnant. This position has the brightest filament in the SNR.==== WARNING: there are no standard ciao tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle. WARNING::Zeroth order selected by pipeline tools is on a bright outer filament southeast of the center of the supernova remnant. The user will need to select a region or source of interest, then use software tools such as CIAO to specify the coordinates of the zeroth order source of interest before running the tools to resolve the dispersed events. The spectral data supplied in this processing are only energy-calibrated for the particular emission knot selected. However, it should be noted that the emission knot that has been selected as the zeroth order source is filamentary and curved, so the energy assignments to the events should take the spatial information into account. The zeroth order used for extracting the spectral data in this processing is not located at the position of the brightest X-ray emission in the filament. ==== Roll angle constraint met. ====

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.

seq_num	501362	Sequence number
obs_id	12147	Observation id
title	SNR E0102 with HETG: A trilogy of roll angles	Proposal title
observer	Prof. Claude Canizares	Principal investigator
object	1E0102.2-7219	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.0	Observer's specified target RA [deg]
dec_targ	-72.0322	Observer's specified target Dec [deg]
ra_nom	15.999499552407	Nominal RA [deg]
dec_nom	-72.037044952505	Nominal Dec [deg]
roll_nom	236.51966348983	Nominal Roll [deg]
revision	2	Processing version of data
ontime	150793.59943831	Sum of GTIs [s]
livetime	148884.16008522	Livetime [s]
ontime4	150793.59943831	Sum of GTIs [s]
ontime5	150793.59943831	Sum of GTIs [s]
ontime6	150790.35844809	Sum of GTIs [s]
ontime7	150793.59943831	Sum of GTIs [s]
ontime8	150790.35846794	Sum of GTIs [s]
ontime9	150793.59943831	Sum of GTIs [s]
l2events	1921296	Number of level 2 events