## V&V Summary Report L2 ASCDS Version : 10.5

## Observation 17901 - L2 Version 3 Chandra X-Ray Center

L2 Processing Date : Feb 14 2018

See axaff17901N003\_VV001\_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.02.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	149.54090115023

## Comments

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 knot on the northwest rim 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 not point-like, 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. ===

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. ===

To compensate for a few bad pixels not marked as bad that were not removed in the Level 2 processing, a custom bad pixel file with additional bad pixels at (chipx, chipy) = (232:234,322:339) in S1 was added in this processing. As a result, the user will NOT find a relatively bright square of pixels on the S1 chip for level 2 data caused by the application of the dither algorithm to the bad pixels in question, as opposed to previous processing(s).

seq_num	502520	Sequence number
obs_id	17901	Observation id
title	A Chandra HETGS Observation of Kepler's Supernova Remnant	Proposa
observer	SANGWOOK PARK	Principal investigator
object	Kepler Supernova Remnant	Source name
dtycycle	0	
cycle	Р	events from which exps? Prim/Second/Both
ra_targ	262.672083	Observer's specified target RA [deg]
dec_targ	-21.491361	Observer's specified target Dec [deg]
ra_nom	262.67472271591	Nominal RA [deg]
dec_nom	-21.491930673645	Nominal Dec [deg]
roll_nom	264.75214127046	Nominal Roll [deg]
revision	3	Processing version of data
ontime	149540.90115023	Sum of GTIs [s]
livetime	147587.03918629	Livetime [s]
ontime5	149540.90115023	Sum of GTIs [s]
ontime6	149537.76007998	Sum of GTIs [s]
ontime7	149540.90115023	Sum of GTIs [s]
ontime8	149534.61893952	Sum of GTIs [s]
ontime9	149540.90115023	Sum of GTIs [s]
12events	2161877	Number of level 2 events

