V&V Summary Report
L2 ASCDS Version : 8.4.5

Observation 169 - L2 Version 7
Chandra X-Ray Center

L2 Processing Date : Aug 29 2012

See axaff00169N003_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.9

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 the secondary exposure piled up. 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=4086.3, y=4129.16) 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 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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Charge time: Used ontime5 sum of P and S. The high count rate resulted

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in telemetry saturation and a large number of dropped exposures. The ONTIME value reflects the lost exposure time for each chip. This is an extended source and will require custom processing with parameters dependent upon the analysis goals. Standard processing used the position of the zeroth order and extraction regions smaller than the nebular extent. The bad-events image (of Secondary exposure frames) shows the grating arms, indicating that there is pileup in the dispersed spectrum.

seq_num	590037	Sequence number
obs_id	169	Observation id
title	CALIBRATION OF HETGS USING THE CRAB PULSAR AND NEBULA	Proposal tit
observer	Dr. CXC Calibration	Principal investigator
object	CRAB PULSAR	Source name
dtycycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	83.633333	Observer's specified target RA [deg]
dec_targ	22.014472	Observer's specified target Dec [deg]
ra_nom	83.631596563644	Nominal RA [deg]
dec_nom	22.010003740729	Nominal Dec [deg]
roll_nom	273.05381435582	Nominal Roll [deg]
revision	7	Processing version of data
ontime	462.41419695318	Sum of GTIs [s]
livetime	39.507273274729	Livetime [s]
ontime4	1547.4244337529	Sum of GTIs [s]
ontime5	2351.5258713812	Sum of GTIs [s]
ontime6	955.41254615784	Sum of GTIs [s]
ontime7	462.41419695318	Sum of GTIs [s]
ontime8	1069.8794751614	Sum of GTIs [s]
ontime9	1684.367473349	Sum of GTIs [s]
l2events	106186	Number of level 2 events