

V&V Summary Report

L2 ASCDS Version : 10.6.4.1

Observation 21842 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Sep 26 2018

See [axaff21842N002_VV001_vvref2.pdf](#) for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2020.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	57.263200440526

Comments

The bias map for CCD=1 was corrupted during the bias map construction process due to an assumed cosmic ray grazing incident hit. The result of this corruption is a bright diagonal artifact in the Level 1 event image on CCD=1. The artifact is completely removed in the Level 2 event data, so there is no adverse effect on the science value of the data.

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If the user would like to use the level 1 event file for further processing, the feature can be removed with the following filter process. Filter out events with the center pixel <40 ADU. This needs to be done with the original PHAS values, not after `acis_process_events` applies `tgain` and the `cti` corrections. Extracted the central pixel PHAS values and the `detx,dety` with the `dmlist` command below, and then filter them.

```
dmlist "acism21842_000N000_evt1.fits[cols detx,dety,phas]" cells=5:5  
opt=data > acism21842_000N000_evt1.list
```

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seq_num	201156	Sequence number
obs_id	21842	Observation id
title	Probing the X-ray Emission from the Massive Star Cluster Westerlund 2	Proposal title
observer	Laura Lopez	Principal investigator
object	Westerlund 2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	155.992083	Observer's specified target RA [deg]
dec_targ	-57.763611	Observer's specified target Dec [deg]
ra_nom	155.97739380221	Nominal RA [deg]
dec_nom	-57.763845359484	Nominal Dec [deg]
roll_nom	154.19625732662	Nominal Roll [deg]
revision	2	Processing version of data
ontime	57263.200440526	Sum of GTIs [s]
livetime	56515.014570216	Livetime [s]
ontime0	57263.200440526	Sum of GTIs [s]
ontime1	57260.059450388	Sum of GTIs [s]
ontime2	57260.059470177	Sum of GTIs [s]
ontime3	57263.200440526	Sum of GTIs [s]
l2events	188190	Number of level 2 events

