

V&V Summary Report

L2 ASCDS Version : 10.9.1

Observation 5560 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Oct 9 2020

See [axaff05560N004_VV001_vvref2.pdf](#) for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.413

Comments

An ACIS Threshold-Plane Anomaly occurred for CCD chips I1 and S2. The flight s/w is intended to delay 'start events' until after 'end bias dump'. For some unknown reason, it occasionally fails to do so, and if the overlap lasts for more than a minute or so, one or more FEPs experience a firmware latch-up that renders them useless until they are power cycled. No event data were recorded for these chips; the bright pixels on these chips are due to previously known hot pixels with the applied dither correction. When a T plane latchup occurs, the effect is that events will be reported from the same pixel on the CCD frame after frame even if there is no event in that pixel in that frame. CCD S2 and CCD I1 were latched up from the beginning of the observation. So CCD S2 and CCD I1 were reporting events from the same pixels even though there were no events. In addition to this, CCD S2 and CCD I1 were reporting a large number of events, more than 1,000 events per frame. This caused massive telemetry saturation. The other CCDs that were reporting normally, I0, I1 and I3, suffered from telemetry saturation resulting in a large number of dropped exposures. The ONTIME value for these chips reflects the lost exposure time. Analysis of these data will require great care.

seq_num	500549	Sequence number
obs_id	5560	Observation id
title	Searching for spectral and morphological changes of X-ray structures in SNR RX J1713.7-3946	Proposal title
observer	Dr. Yasunobu Uchiyama	Principal investigator
object	RX J1713.7-3946 NW	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	257.939583	Observer's specified target RA [deg]
dec_targ	-39.556444	Observer's specified target Dec [deg]
ra_nom	257.93514893532	Nominal RA [deg]
dec_nom	-39.560474965426	Nominal Dec [deg]
roll_nom	294.63476334135	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29412.717972994	Sum of GTIs [s]
livetime	29028.419159349	Livetime [s]
ontime0	29418.999943405	Sum of GTIs [s]
ontime1	29418.999943405	Sum of GTIs [s]
ontime2	29415.858953148	Sum of GTIs [s]
ontime3	29412.717972994	Sum of GTIs [s]
ontime6	29418.999943405	Sum of GTIs [s]
l2events	242640	Number of level 2 events

