

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4459 - L2 Version 6  
Chandra X-Ray Center

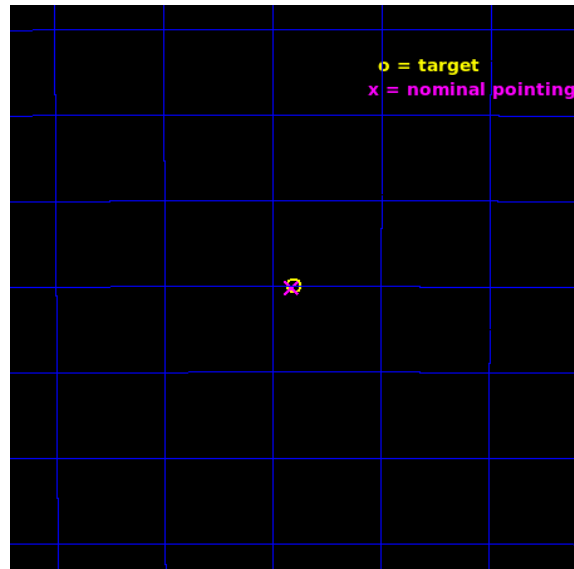
L2 Processing Date : Sep 23 2020

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# 1 Front

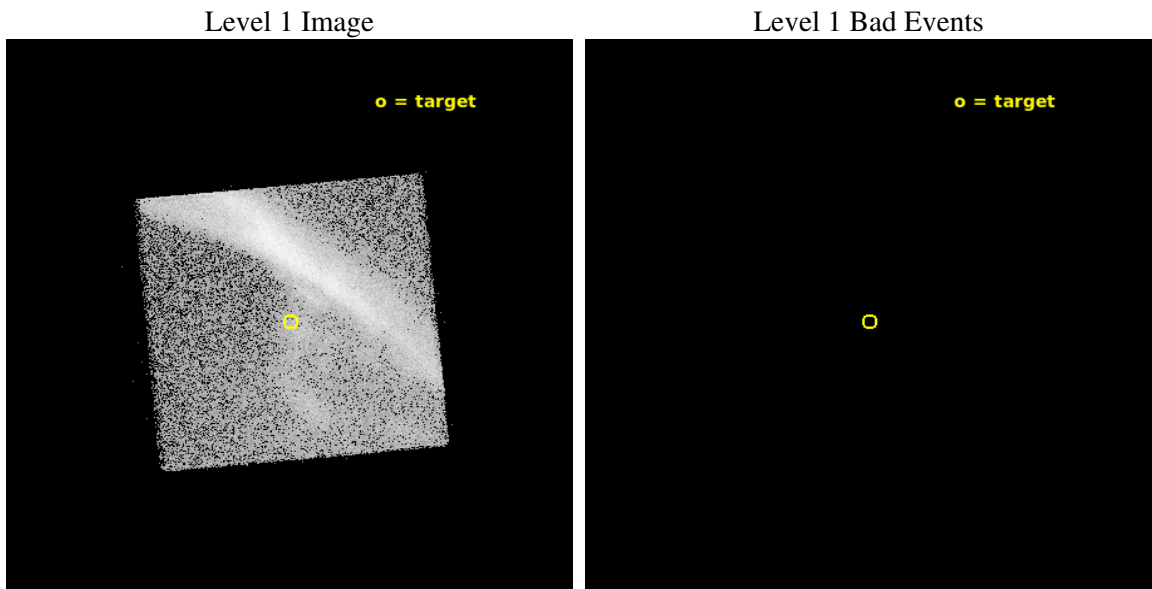
seq_num	100042	Sequence number
obs_id	4459	Observation id
title	A Search for Soft X-Ray Auroras on Earth	Proposal title
observer	Dr. Ronald Elsner	Principal investigator
object	EARTH	Source name
ra_targ	74.7	Observer's specified target RA [deg]
dec_targ	-36.0	Observer's specified target Dec [deg]
ra_nom	74.70546738996	Nominal RA [deg]
dec_nom	-36.002927663174	Nominal Dec [deg]
roll_nom	309.34955145828	Nominal Roll [deg]
revision	6	Processing version of data
ontime	0.0	[s]
livetime	0.0	Ontime multiplied by DTCOR
l2events	0	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	1200.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	0.0	[s]
caldsver	4.9.2	&#160	l1events	177581	Number of level 1 events
date	2020-09-23T18:39:36	Date and time of file creation			
revision	6	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

	<b>segment 0</b>
level 1 events	177581
rejected events	0
rejected %	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	8	8
Detector	HRC-I	HRC-I	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	OVERRIDE	OVERRIDE
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	74.70544557469591	74.70546738995962			
[deg] Pointing Dec	-36.00290621222052	-36.00292766317434			
[deg] Pointing Roll	309.3495386278776	309.3495514582753			
[s] Window start time (MET)	191361664.184000	191361664.184000			
[s] Window stop time (MET)	191364364.184000	191364364.184000			
[mm] SIM focus pos	-1.0388663562	-1.0388663562			
[mm] SIM defocus	0.00142623215544524	0.00142623215544524			
[mm] SIM translation stage pos	126.98297999	126.98297999			
[mm] SIM translation stage offset	0.002514315287797331	0.002514315287797331			
[s] Observation start time (MET)	191361685.749885	191361685.749885			
Observation start date	2004-01-24T20:00:00	2004-01-24T20:01:25			
[s] Observation end time (MET)	191362939.32494	191362939.32494			
Observation end date	2004-01-24T20:20:00	2004-01-24T20:22:19			

**2.3 Star Slots**

**2.4 FID Slots**

# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.18

## A.2 Comments

On-Board-Computer aspect solution used. Due to violation of the earth angle constraint, there are no L2 events, and therefore no ontime or GTI. Charge time is set to the L1 time.

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Spacecraft attitude control was maintained at a single fixed attitude using gyros only, without any reference stars or any other external attitude references. This is an observation of a moving target. Event positions are in the reference frame of Chandra, not of the Earth. Users should run a software tool such as `sso_freeze` to reposition the events in the reference frame of the Earth, then run normal data analysis tools.