

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 52963 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Mar 3 2014

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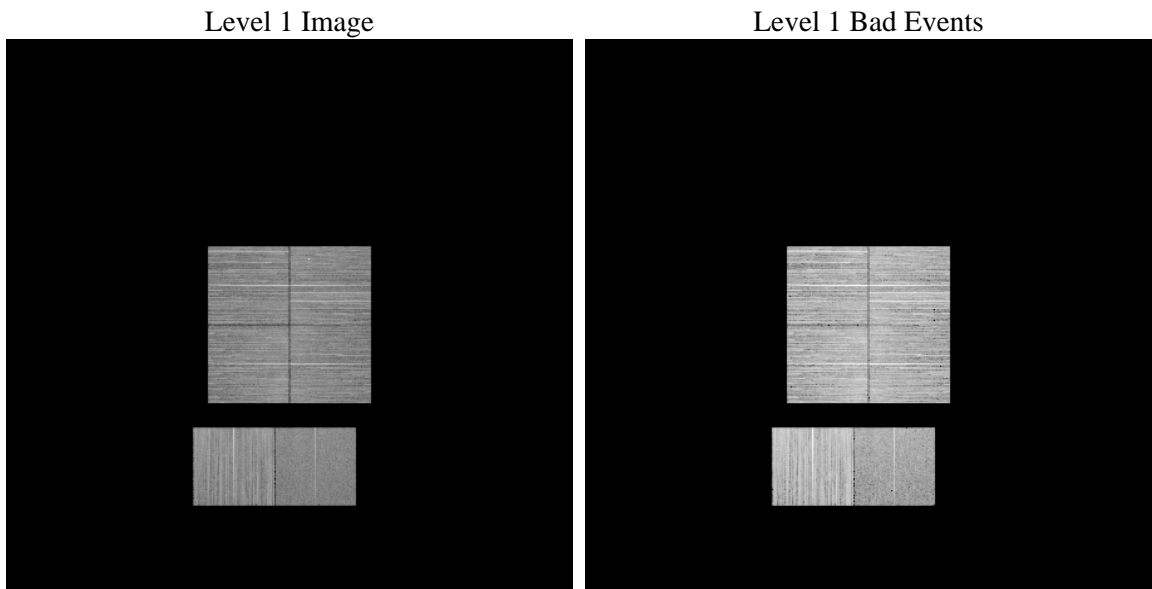
# 1 Front

seq_num	&#160	Sequence number
obs_id	52963	Observation id
title	ACIS-012367 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object	&#160	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	0.0	Observer's specified target RA [deg]
dec_targ	0.0	Observer's specified target Dec [deg]
ra_nom	271.08865575584	Nominal RA [deg]
dec_nom	3.3263923521531	Nominal Dec [deg]
roll_nom	80.285337300713	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8290.3747091889	Sum of GTIs [s]
livetime	8185.3969927568	Livetime [s]
ontime0	8290.4157392979	Sum of GTIs [s]
ontime1	8291.1999691725	Sum of GTIs [s]
ontime2	8287.9589290023	Sum of GTIs [s]
ontime3	8290.3336592913	Sum of GTIs [s]
ontime6	8291.1999691725	Sum of GTIs [s]
ontime7	8290.3747091889	Sum of GTIs [s]
l2events	185529	Number of level 2 events

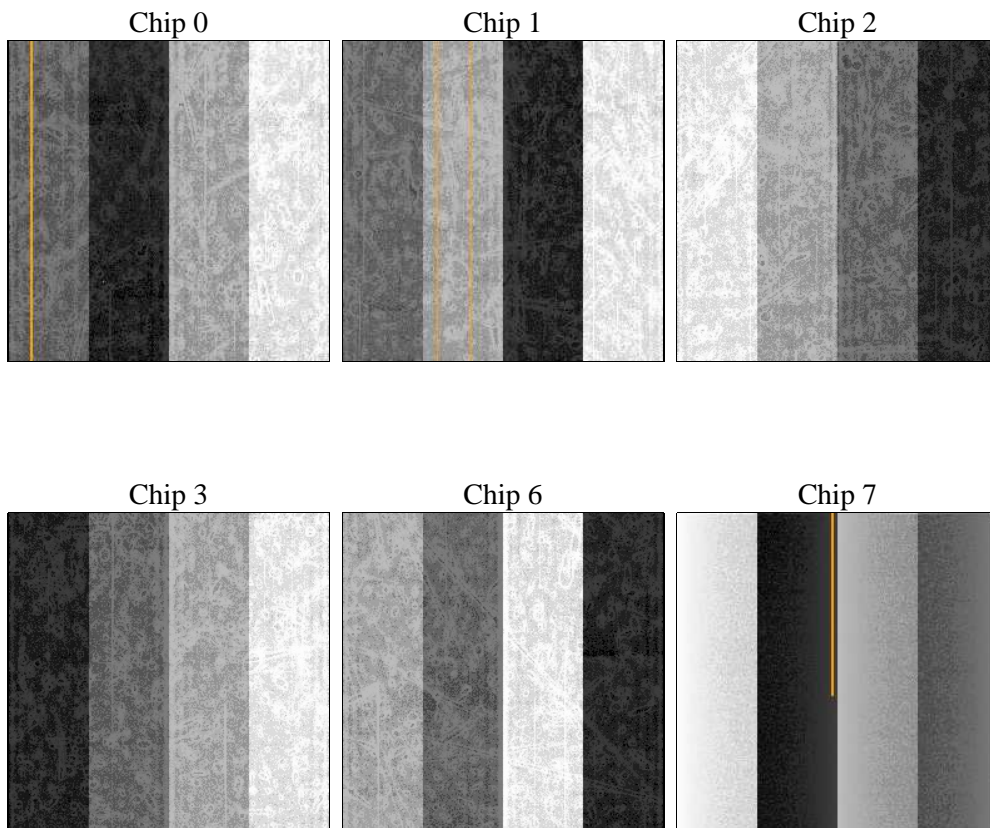
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	0.0	[s] Scheduled observation exposure time
ascdsver	10.2.1	Processing system revision	ontime	8290.3747091889	Sum of GTIs [s]
caldsver	4.6.0	&#160	ontime0	8290.4157392979	Sum of GTIs [s]
date	2014-03-03T17:51:21	Date and time of file creation	ontime1	8291.1999691725	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	8287.9589290023	Sum of GTIs [s]
			ontime3	8290.3336592913	Sum of GTIs [s]
			ontime6	8291.1999691725	Sum of GTIs [s]
			ontime7	8290.3747091889	Sum of GTIs [s]
			l1events	862230	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	141623	154143	146616	136182	167372	116294	grade 0 events	14307	16138	15095	14938	14513	7515
rejected events	113374	123250	117835	107425	137395	64077		10%	10%	10%	10%	8%	6%
rejected %	80%	79%	80%	78%	82%	55%	grade 1 events	76	71	78	92	68	96
								0%	0%	0%	0%	0%	0%
							grade 2 events	5815	6233	5515	5536	6274	12844
								4%	4%	3%	4%	3%	11%
							grade 3 events	1903	1846	1939	1894	1987	4225
								1%	1%	1%	1%	1%	3%
							grade 4 events	1841	1911	1906	2035	1959	4109
								1%	1%	1%	1%	1%	3%
							grade 5 events	2776	2737	2570	2991	2813	7080
								1%	1%	1%	2%	1%	6%
							grade 6 events	4383	4779	4335	4354	5254	23524
								3%	3%	2%	3%	3%	20%
							grade 7 events	110522	120428	115178	104342	134504	56901
								78%	78%	78%	76%	80%	48%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	SECONDARY	SECONDARY	On-chip summing requested	N	N
[deg] Pointing RA	0	271.088655755844	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	3.326392352153113	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	80.28533730071307	[s] Primary exposure time	3.2	3.2
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	250.455976	250.4635187648994			
[mm] SIM translation stage offset	0	-0.007540371344731511			
[s] Observation start time (MET)	509950443.370589	509950442.34559			
Observation start date	2014-02-28T04:54:03	2014-02-28T04:54:02			
[s] Observation end time (MET)	509961824.971215	509961823.94622			
Observation end date	2014-02-28T08:03:45	2014-02-28T08:03:43			
Read mode	TIMED	TIMED			

## 2.3 Star Slots

## 2.4 FID Slots

# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.03.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.2903747091889

## A.2 Comments

A spatial region of the original bias map for CCD = 0 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 0 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by chip coords:  
(786,1),(841,1),(841,286),(786,341)