

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 54474 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jul 25 2012

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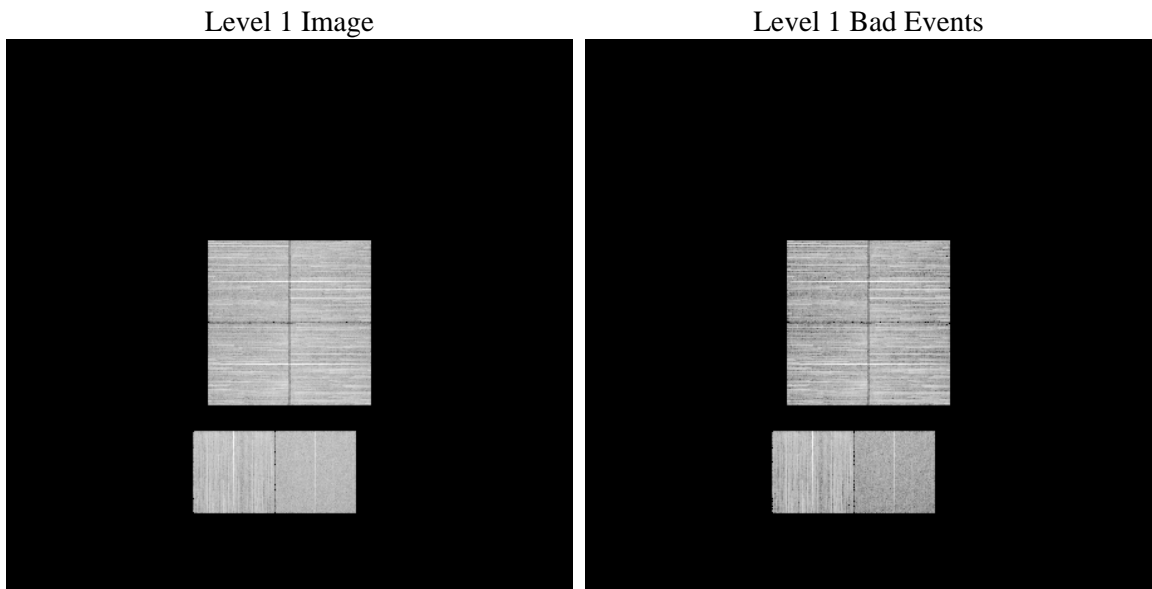
# 1 Front

seq_num	&#160	Sequence number
obs_id	54474	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	266.02242480403	Nominal RA [deg]
dec_nom	-30.021140235543	Nominal Dec [deg]
roll_nom	279.84450509003	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7454.8193855882	Sum of GTIs [s]
livetime	7360.4219737745	Livetime [s]
ontime0	7454.7783455849	Sum of GTIs [s]
ontime1	7454.7373055816	Sum of GTIs [s]
ontime2	7454.6962655783	Sum of GTIs [s]
ontime3	7454.8604255915	Sum of GTIs [s]
ontime6	7454.655225575	Sum of GTIs [s]
ontime7	7454.8193855882	Sum of GTIs [s]
l2events	226389	Number of level 2 events

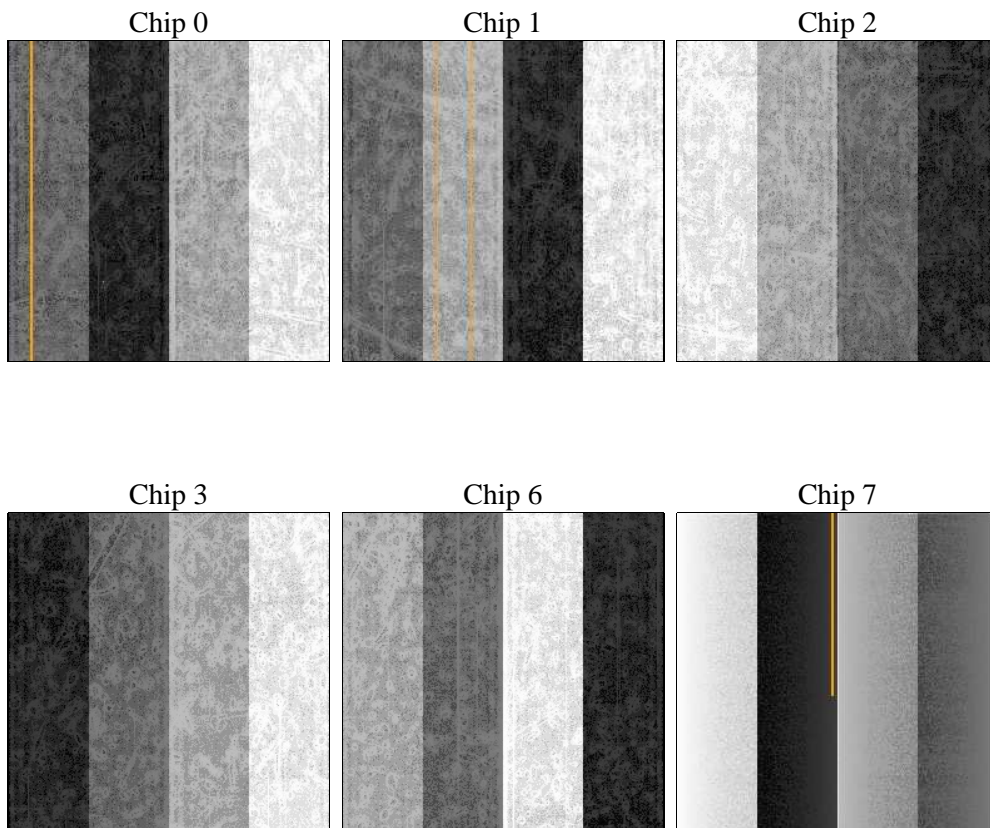
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	0.0	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7454.8193855882	Sum of GTIs [s]
caldsver	4.5.1	&#160	ontime0	7454.7783455849	Sum of GTIs [s]
date	2012-07-25T16:42:40	Date and time of file creation	ontime1	7454.7373055816	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	7454.6962655783	Sum of GTIs [s]
			ontime3	7454.8604255915	Sum of GTIs [s]
			ontime6	7454.655225575	Sum of GTIs [s]
			ontime7	7454.8193855882	Sum of GTIs [s]
			l1events	860808	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	131482	147142	145692	158075	153581	124836	grade 0 events	18254	17667	19072	18902	18724	9464
rejected events	96115	112031	109711	122401	116618	64399		13%	12%	13%	11%	12%	7%
rejected %	73%	76%	75%	77%	75%	51%	grade 1 events	114	77	93	108	102	79
								0%	0%	0%	0%	0%	0%
							grade 2 events	6875	7190	6753	6602	7253	15166
								5%	4%	4%	4%	4%	12%
							grade 3 events	2413	2202	2490	2427	2418	5053
								1%	1%	1%	1%	1%	4%
							grade 4 events	2278	2422	2410	2526	2315	4936
								1%	1%	1%	1%	1%	3%
							grade 5 events	2774	2734	2578	2933	2880	7318
								2%	1%	1%	1%	1%	5%
							grade 6 events	5626	5736	5300	5316	6359	26702
								4%	3%	3%	3%	4%	21%
							grade 7 events	93148	109114	106996	119261	113530	56118
								70%	74%	73%	75%	73%	44%

## 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	266.0224248040296	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	-30.02114023554318	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	279.8445050900326	[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	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	459024924.85834	459024923.83334			
Observation start date	2012-07-18T18:55:25	2012-07-18T18:55:23			
[s] Observation end time (MET)	459034158.058832	459034157.03383			
Observation end date	2012-07-18T21:29:18	2012-07-18T21:29:17			
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)	2012.07.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.4548193855882

## A.2 Comments

A spatial region of the original bias map for CCD = 2 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 = 2 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:  
(711,555),(768,555),(768,681),(711,738)