

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 54982 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Feb 28 2012

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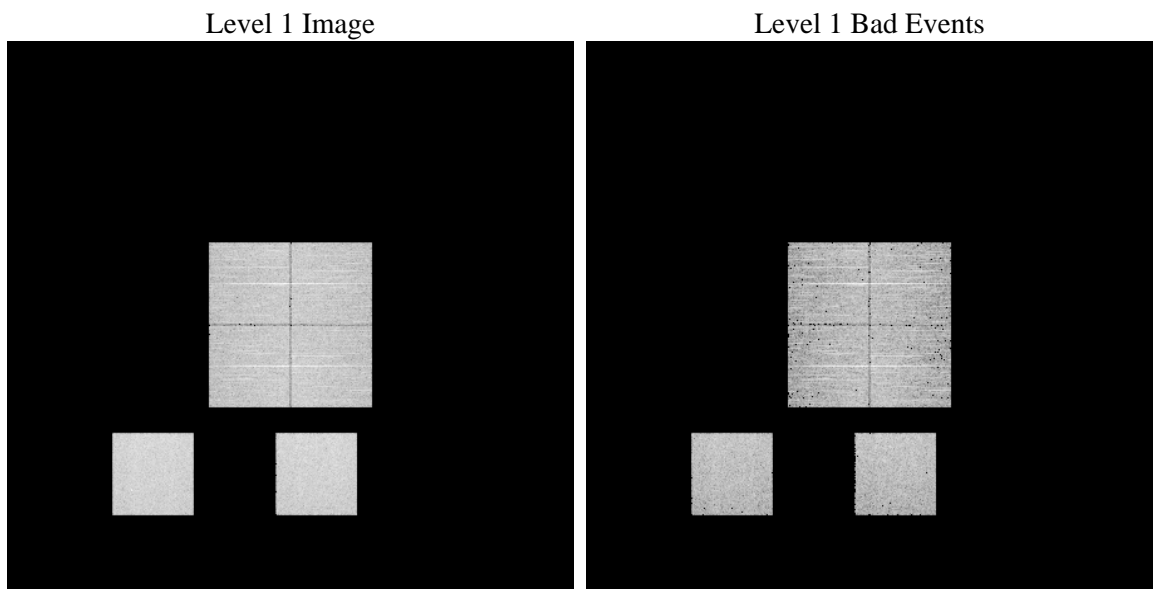
# 1 Front

seq_num	&#160	Sequence number
obs_id	54982	Observation id
title	ACIS-012357 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	101.45815093352	Nominal RA [deg]
dec_nom	47.003803534454	Nominal Dec [deg]
roll_nom	139.52233432892	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5512.7249744534	Sum of GTIs [s]
livetime	5442.9195314625	Livetime [s]
ontime0	5512.6839344501	Sum of GTIs [s]
ontime1	5512.6428944468	Sum of GTIs [s]
ontime2	5512.6018544436	Sum of GTIs [s]
ontime3	5512.7660144567	Sum of GTIs [s]
ontime5	5512.5608144403	Sum of GTIs [s]
ontime7	5512.7249744534	Sum of GTIs [s]
l2events	208520	Number of level 2 events

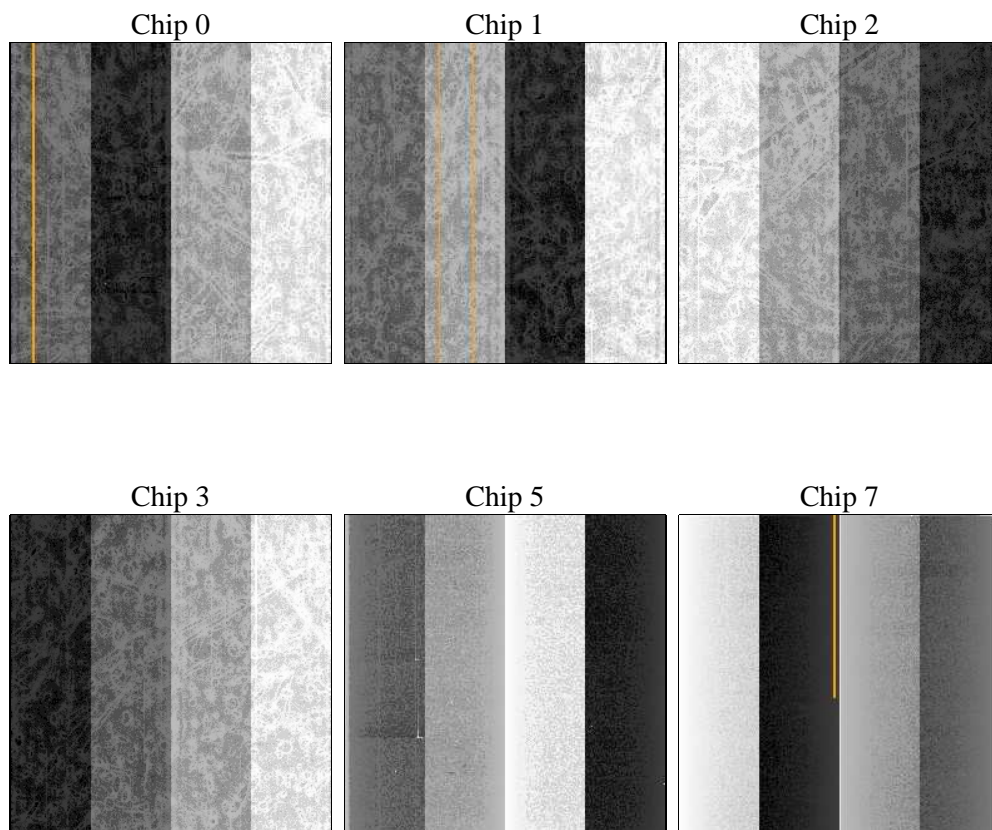
## 2 OBI

### 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	8.4.3	Processing system revision	ontime	5512.7249744534	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	5512.6839344501	Sum of GTIs [s]
date	2012-02-28T17:58:22	Date and time of file creation	ontime1	5512.6428944468	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	5512.6018544436	Sum of GTIs [s]
			ontime3	5512.7660144567	Sum of GTIs [s]
			ontime5	5512.5608144403	Sum of GTIs [s]
			ontime7	5512.7249744534	Sum of GTIs [s]
			l1events	448806	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7
level 1 events	65664	66039	66480	67969	92837	89817	grade 0 events	15480	14803	15942	15751	4824	7677
rejected events	36198	36443	36804	38586	41578	40503		23%	22%	23%	23%	5%	8%
rejected %	55%	55%	55%	56%	44%	45%	grade 1 events	74	76	101	99	115	74
								0%	0%	0%	0%	0%	0%
							grade 2 events	5626	6090	5065	5172	18968	10706
								8%	9%	7%	7%	20%	11%
							grade 3 events	1936	2006	2034	2071	1828	4208
								2%	3%	3%	3%	1%	4%
							grade 4 events	1907	1928	2049	2091	1656	4135
								2%	2%	3%	3%	1%	4%
							grade 5 events	2271	2225	2194	2591	4830	6051
								3%	3%	3%	3%	5%	6%
							grade 6 events	4517	4769	4586	4298	23983	22588
								6%	7%	6%	6%	25%	25%
							grade 7 events	33853	34142	34509	35896	36633	34378
								51%	51%	51%	52%	39%	38%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012357	ACIS-012357	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	101.4581509335241	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	47.00380353445351	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	139.5223343289192	[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)	440286532.942825	440286531.91783			
Observation start date	2011-12-14T21:48:53	2011-12-14T21:48:51			
[s] Observation end time (MET)	440294452.093243	440294451.06825			
Observation end date	2011-12-15T00:00:52	2011-12-15T00:00:51			
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)	2012.02.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.5127249744534

## A.2 Comments

Three spatial regions of the original bias map for CCD = 3 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 = 3 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:

Region 1: (155,1),(179,1),(179,1024),(155,1024)

Region 2: (393,1),(425,1),(425,647),(393,630)

Region 3: (538,1),(548,1),(548,619),(538,599)