

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 59655 - L2 Version 4  
Chandra X-Ray Center

L2 Processing Date : Apr 18 2013

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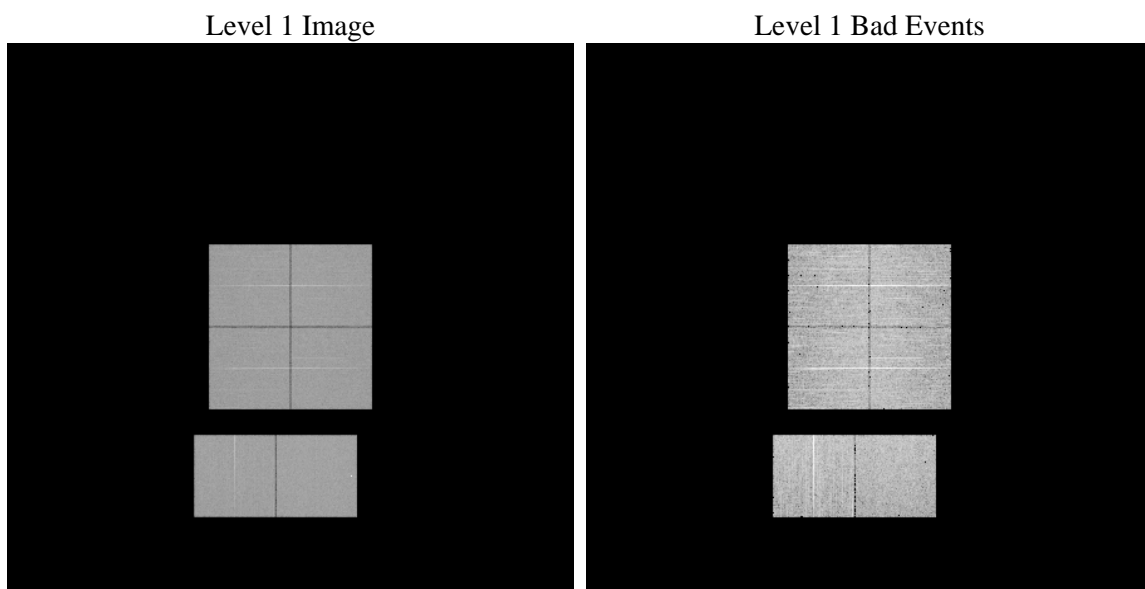
# 1 Front

seq_num	&#160	Sequence number
obs_id	59655	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	230.03751021587	Nominal RA [deg]
dec_nom	-44.290079732233	Nominal Dec [deg]
roll_nom	347.47847280072	Nominal Roll [deg]
revision	4	Processing version of data
ontime	8092.799969852	Sum of GTIs [s]
livetime	7990.3240637346	Livetime [s]
ontime0	7758.9791895449	Sum of GTIs [s]
ontime1	7914.5461933911	Sum of GTIs [s]
ontime2	7434.8812005222	Sum of GTIs [s]
ontime3	7639.062918961	Sum of GTIs [s]
ontime6	7940.4740158617	Sum of GTIs [s]
ontime7	8092.799969852	Sum of GTIs [s]
l2events	1095294	Number of level 2 events

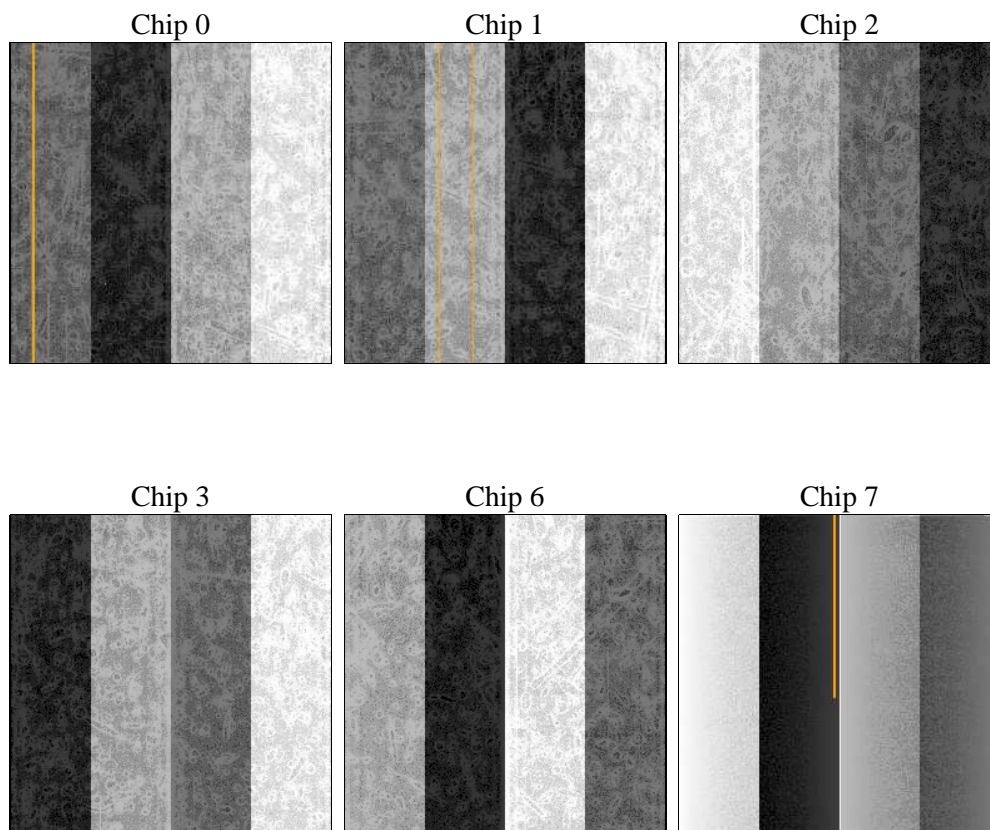
## 2 OBI

### 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	8.5.1.1	Processing system revision	ontime	8092.799969852	Sum of GTIs [s]
caldbver	4.5.6	&#160	ontime0	7758.9791895449	Sum of GTIs [s]
date	2013-04-18T14:06:27	Date and time of file creation	ontime1	7914.5461933911	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	7434.8812005222	Sum of GTIs [s]
			ontime3	7639.062918961	Sum of GTIs [s]
			ontime6	7940.4740158617	Sum of GTIs [s]
			ontime7	8092.799969852	Sum of GTIs [s]
			l1events	1456399	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	234095	240569	230812	234945	252346	263632	grade 0 events	101698	103861	101162	103544	107374	52498
rejected events	49492	50744	51060	50559	54535	46248		43%	43%	43%	44%	42%	19%
rejected %	21%	21%	22%	21%	21%	17%	grade 1 events	532	496	602	627	522	175
								0%	0%	0%	0%	0%	0%
							grade 2 events	32315	34245	30001	31362	33925	47269
								13%	14%	12%	13%	13%	17%
							grade 3 events	11995	11989	11687	12185	12395	21336
								5%	4%	5%	5%	4%	8%
							grade 4 events	12008	12169	11688	11970	12295	21035
								5%	5%	5%	5%	4%	7%
							grade 5 events	3133	3176	2882	3177	3424	8050
								1%	1%	1%	1%	1%	3%
							grade 6 events	26826	27822	25454	25558	32049	75495
								11%	11%	11%	10%	12%	28%
							grade 7 events	45588	46811	47336	46522	50362	37774
								19%	19%	20%	19%	19%	14%

## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	SECONDARY	SECONDARY
[deg] Pointing RA	0	230.037510215865
[deg] Pointing Dec	0	-44.29007973223275
[deg] Pointing Roll	0.0	347.4784728007226
[mm] SIM focus pos	-0.782348	-0.6828225247311905
[mm] SIM defocus	0	0.8505141146731063
[mm] SIM translation stage pos	-233.592463	250.466033080201
[mm] SIM translation stage offset	0	-0.01005468664627074
[s] Observation start time (MET)	232832214.87667	232832213.8517
Observation start date	2005-05-18T19:36:55	2005-05-18T19:36:53
[s] Observation end time (MET)	232855090.82771	232855089.80274
Observation end date	2005-05-19T01:58:11	2005-05-19T01:58:09
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	3.2	3.2

## 2.3 Star Slots

## 2.4 FID Slots

# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.04.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.092799969852

## A.2 Comments

A spatial region 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:  
(175,1),(199,1),(199,1024),(175,1024)