

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 53031 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Feb 10 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Star Slots	6
2.4	FID Slots	6
A	Summary	7
A.1	Status	7
A.2	Comments	7

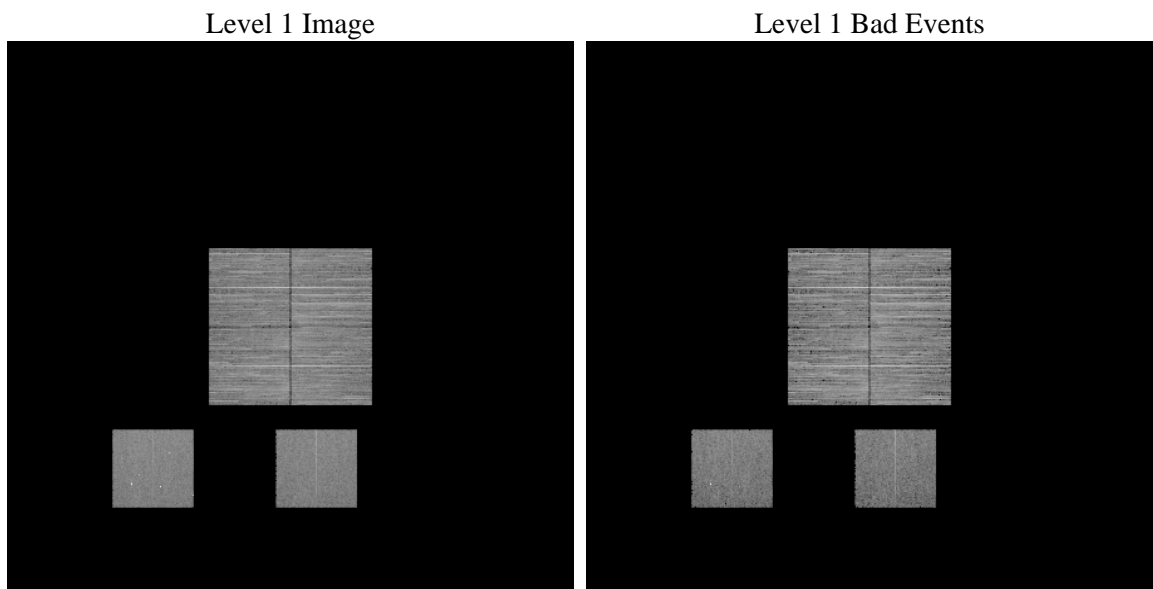
1 Front

seq_num	 	Sequence number
obs_id	53031	Observation id
title	ACIS-012357 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object	 	Source name
dtcycle	0	
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	151.45350716332	Nominal RA [deg]
dec_nom	1.2185982268123	Nominal Dec [deg]
roll_nom	33.513818340078	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6996.9863202572	Sum of GTIs [s]
livetime	6908.3862663907	Livetime [s]
ontime0	6996.9452802539	Sum of GTIs [s]
ontime1	6996.9042402506	Sum of GTIs [s]
ontime2	6996.8632002473	Sum of GTIs [s]
ontime3	6997.0273602605	Sum of GTIs [s]
ontime5	6996.822160244	Sum of GTIs [s]
ontime7	6996.9863202572	Sum of GTIs [s]
l2events	175182	Number of level 2 events

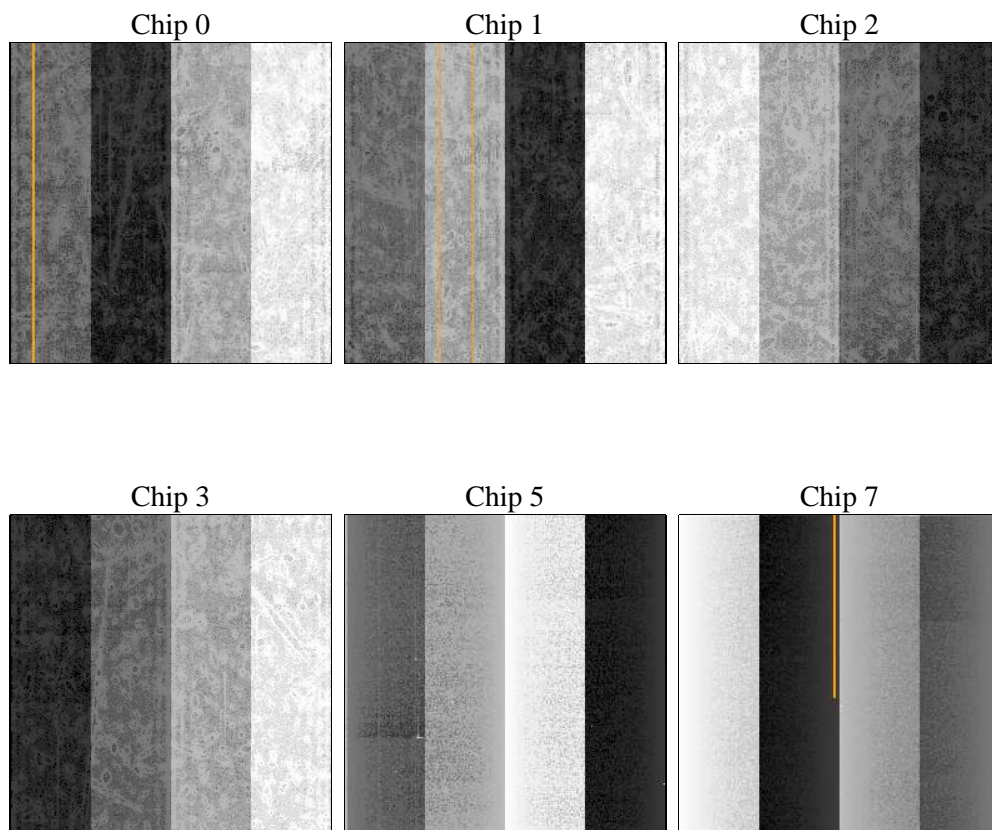
2 OBI

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	6996.9863202572	Sum of GTIs [s]
caldsver	4.6.0	 	ontime0	6996.9452802539	Sum of GTIs [s]
date	2014-02-10T17:09:32	Date and time of file creation	ontime1	6996.9042402506	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	6996.8632002473	Sum of GTIs [s]
			ontime3	6997.0273602605	Sum of GTIs [s]
			ontime5	6996.822160244	Sum of GTIs [s]
			ontime7	6996.9863202572	Sum of GTIs [s]
			l1events	681690	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	112272	122258	119957	118855	109241	99107	grade 0 events	12078	11825	12438	12553	7279	6537
rejected events	88893	98812	96448	95425	59999	54996		10%	9%	10%	10%	6%	6%
rejected %	79%	80%	80%	80%	54%	55%	grade 1 events	69	54	73	70	126	76
								0%	0%	0%	0%	0%	0%
							grade 2 events	4823	4991	4645	4475	17883	11045
								4%	4%	3%	3%	16%	11%
							grade 3 events	1717	1658	1729	1626	1705	3878
								1%	1%	1%	1%	1%	3%
							grade 4 events	1568	1634	1674	1719	1711	3749
								1%	1%	1%	1%	1%	3%
							grade 5 events	2322	2354	2324	2631	5260	6308
								2%	1%	1%	2%	4%	6%
							grade 6 events	3741	3999	3614	3667	21908	20027
								3%	3%	3%	3%	20%	20%
							grade 7 events	85954	95743	93460	92114	53369	47487
								76%	78%	77%	77%	48%	47%

2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012357	ACIS-012357
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	SECONDARY	SECONDARY
[deg] Pointing RA	0	151.4535071633225
[deg] Pointing Dec	0	1.218598226812293
[deg] Pointing Roll	0.0	33.51381834007785
SIM focus pos (mm)	-1.4281808131	-1.4281808131
[mm] SIM defocus	0.1051557500557434	0.1051557500557434
SIM translation stage pos (mm)	250.4660330802	250.4660330802
[mm] SIM translation stage offset	-0.01005726120527584	-0.01005726120527584
[s] Observation start time (MET)	508124249.970032	508124249.970032
Observation start date	2014-02-07T01:37:30	2014-02-07T01:37:29
[s] Observation end time (MET)	508132682.969995	508132682.969995
Observation end date	2014-02-07T03:58:03	2014-02-07T03:58:02
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	OVERRIDE	OVERRIDE
Number of optional ACIS chips dropped	0	0
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)	2014.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.9969863202572

A.2 Comments

A spatial region of the original bias map for CCD = 1 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 (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 1 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:
(257,1),(295,1),(295,674),(257,636)