V&V Reference Report
L2 ASCDS Version : 8.4.5

Observation 56103 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Jul 2 2012

Contents

1 Front

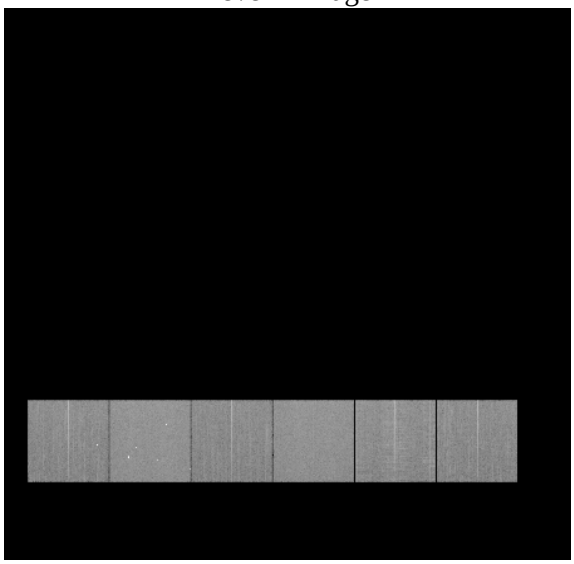
seq_num		Sequence number
obs_id	56103	Observation id
title	ACIS-456789 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object		Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	0.0	Observer's specified target RA [deg]
dec_targ	0.0	Observer's specified target Dec [deg]
ra_nom	82.971796091338	Nominal RA [deg]
dec_nom	-15.990513963929	Nominal Dec [deg]
roll_nom	127.9005074154	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8278.3999692202	Sum of GTIs [s]
livetime	8173.5738841559	Livetime [s]
ontime4	8278.372615099	Sum of GTIs [s]
ontime5	8278.3999692202	Sum of GTIs [s]
ontime6	8278.3999692202	Sum of GTIs [s]
ontime7	8278.3999692202	Sum of GTIs [s]
ontime8	8278.3315750957	Sum of GTIs [s]
ontime9	8278.3999692202	Sum of GTIs [s]
l2events	418566	Number of level 2 events

2 OBI

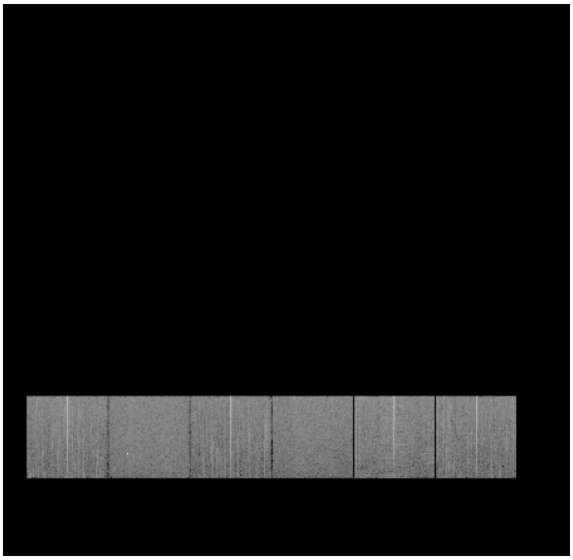
2.1 OBI

2.1.1 Images

Level 1 Image

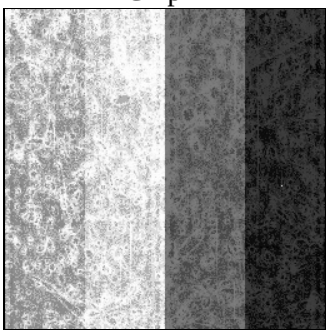


Level 1 Bad Events

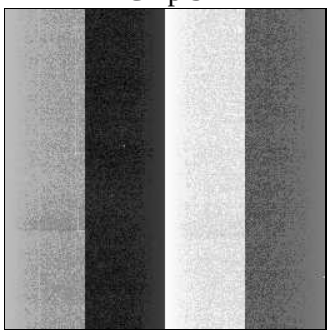


2.1.2 Bias

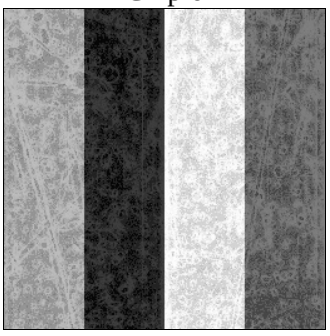
Chip 4



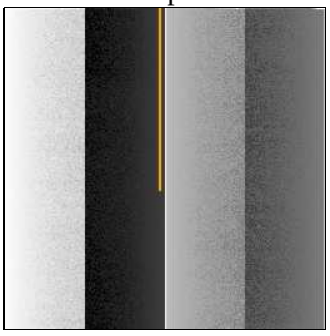
Chip 5



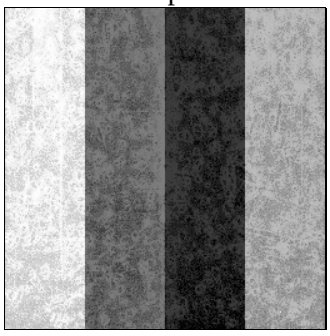
Chip 6



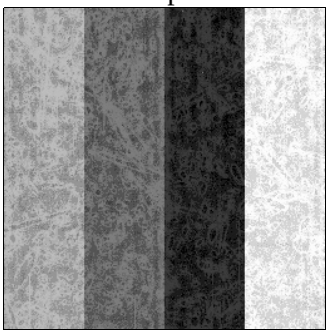
Chip 7



Chip 8



Chip 9



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	8.4.5	Processing system revision
caldbver	4.5.0	
date	2012-07-02T12:25:41	Date and time of file creation
revision	3	Processing version of data

sched_exp_time	0.0	[s] Scheduled observation exposure time
ontime	8278.3999692202	Sum of GTIs [s]
ontime4	8278.372615099	Sum of GTIs [s]
ontime5	8278.3999692202	Sum of GTIs [s]
ontime6	8278.3999692202	Sum of GTIs [s]
ontime7	8278.3999692202	Sum of GTIs [s]
ontime8	8278.3315750957	Sum of GTIs [s]
ontime9	8278.3999692202	Sum of GTIs [s]
l1events	878756	Number of level 1 events

2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	135008	170616	130499	161163	149898	131572
rejected events	73090	70520	67173	65315	74068	69624
rejected %	54%	41%	51%	40%	49%	52%

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	35592	14322	32903	16598	36365	32578
	26%	8%	25%	10%	24%	24%
grade 1 events	326	203	194	124	222	196
	0%	0%	0%	0%	0%	0%
grade 2 events	9908	35392	11615	20630	14400	10994
	7%	20%	8%	12%	9%	8%
grade 3 events	4241	4331	4212	8734	5720	4304
	3%	2%	3%	5%	3%	3%
grade 4 events	4233	4305	4177	8788	5593	4181
	3%	2%	3%	5%	3%	3%
grade 5 events	3960	9118	4025	10452	5583	4564
	2%	5%	3%	6%	3%	3%
grade 6 events	7969	41789	10439	41140	13772	9921
	5%	24%	7%	25%	9%	7%
grade 7 events	68779	61156	62934	54697	68243	64834
	50%	35%	48%	33%	45%	49%

2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	SECONDARY	SECONDARY
[deg] Pointing RA	0	82.97179609133821
[deg] Pointing Dec	0	-15.99051396392923
[deg] Pointing Roll	0.0	127.9005074153971
[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)	396652578.512279	396652577.48728
Observation start date	2010-07-27T21:16:19	2010-07-27T21:16:17
[s] Observation end time (MET)	396662758.8128	396662757.7878
Observation end date	2010-07-28T00:05:59	2010-07-28T00:05:57
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
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)	2012.07.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.2783999692202

A.2 Comments

A spatial region of the original bias map for CCD = 8 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 = 8 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:
(92,1),(144,1),(144,100),(92,50)