V&V Reference Report
L2 ASCDS Version : 10.2.4

Observation 52517 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Sep 8 2014

Contents

1 Front

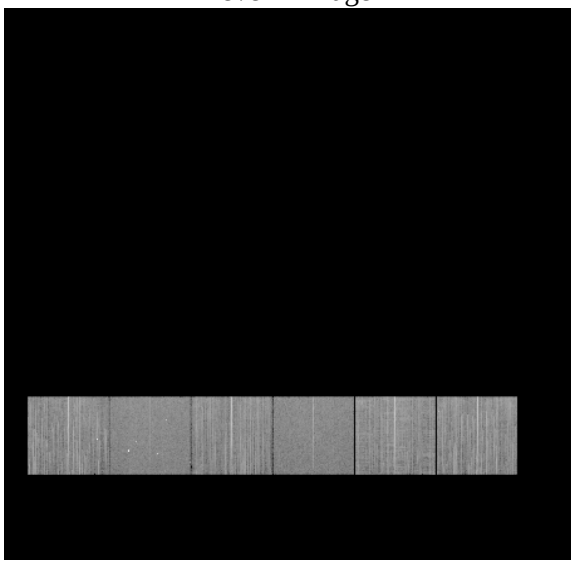
seq_num		Sequence number
obs_id	52517	Observation id
title	ACIS-456789 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object		Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	0.0	Observer's specified target RA [deg]
dec_targ	0.0	Observer's specified target Dec [deg]
ra_nom	312.20644169914	Nominal RA [deg]
dec_nom	-2.3281578046953	Nominal Dec [deg]
roll_nom	250.08881234842	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8278.3999692202	Sum of GTIs [s]
livetime	8173.5738841559	Livetime [s]
ontime4	8278.3206458688	Sum of GTIs [s]
ontime5	8278.3999692202	Sum of GTIs [s]
ontime6	8278.3616858721	Sum of GTIs [s]
ontime7	8278.3999692202	Sum of GTIs [s]
ontime8	8275.0385050774	Sum of GTIs [s]
ontime9	8278.3999692202	Sum of GTIs [s]
l2events	200968	Number of level 2 events

2 OBI

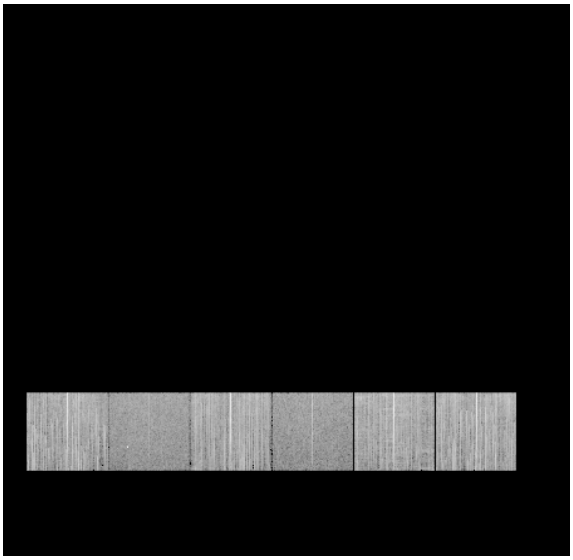
2.1 OBI

2.1.1 Images

Level 1 Image

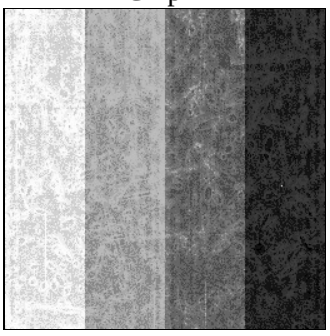


Level 1 Bad Events

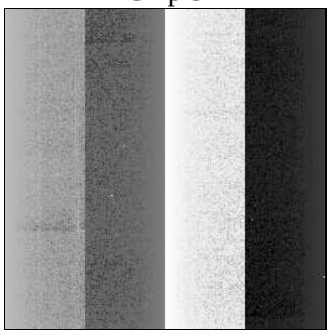


2.1.2 Bias

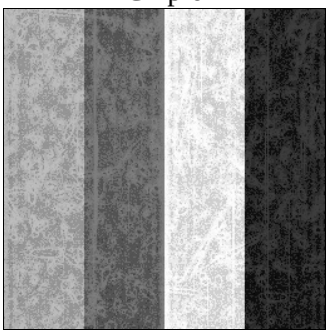
Chip 4



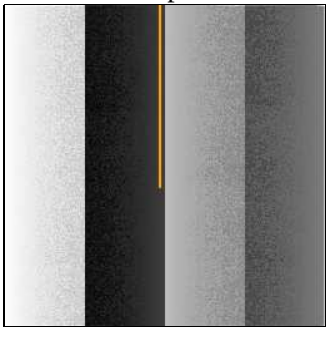
Chip 5



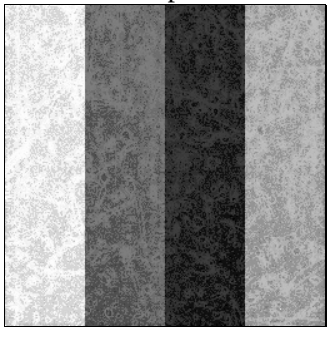
Chip 6



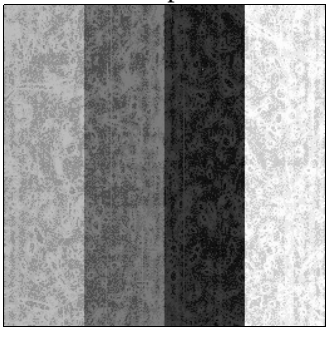
Chip 7



Chip 8



Chip 9



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	10.2.4	Processing system revision
caldbver	4.6.3	
date	2014-09-08T20:26:14	Date and time of file creation
revision	2	Processing version of data

sched_exp_time	0.0	[s] Scheduled observation exposure time
ontime	8278.3999692202	Sum of GTIs [s]
ontime4	8278.3206458688	Sum of GTIs [s]
ontime5	8278.3999692202	Sum of GTIs [s]
ontime6	8278.3616858721	Sum of GTIs [s]
ontime7	8278.3999692202	Sum of GTIs [s]
ontime8	8275.0385050774	Sum of GTIs [s]
ontime9	8278.3999692202	Sum of GTIs [s]
l1events	895554	Number of level 1 events

2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	157076	132819	155172	122972	162085	165430
rejected events	129727	74969	128624	70732	126443	139128
rejected %	82%	56%	82%	57%	78%	84%

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	15232	5838	12717	6855	15416	12797
	9%	4%	8%	5%	9%	7%
grade 1 events	109	242	59	88	82	79
	0%	0%	0%	0%	0%	0%
grade 2 events	4894	21598	5544	12952	7630	5322
	3%	16%	3%	10%	4%	3%
grade 3 events	1870	1800	1711	4155	2827	1898
	1%	1%	1%	3%	1%	1%
grade 4 events	1869	1697	1779	4006	2688	1768
	1%	1%	1%	3%	1%	1%
grade 5 events	3363	5882	3230	7679	4365	3591
	2%	4%	2%	6%	2%	2%
grade 6 events	3499	26935	4806	24292	7089	4529
	2%	20%	3%	19%	4%	2%
grade 7 events	126240	68827	125326	62945	121988	135446
	80%	51%	80%	51%	75%	81%

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	312.2064416991352
[deg] Pointing Dec	0	-2.328157804695345
[deg] Pointing Roll	0.0	250.0888123484176
[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)	525484928.079168	525484927.05417
Observation start date	2014-08-27T00:02:08	2014-08-27T00:02:07
[s] Observation end time (MET)	525498060.379897	525498059.3549
Observation end date	2014-08-27T03:41:00	2014-08-27T03:40:59
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	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.09.09
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 = 9 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 = 9 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation.