

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 6217 - L2 Version 4
Chandra X-Ray Center

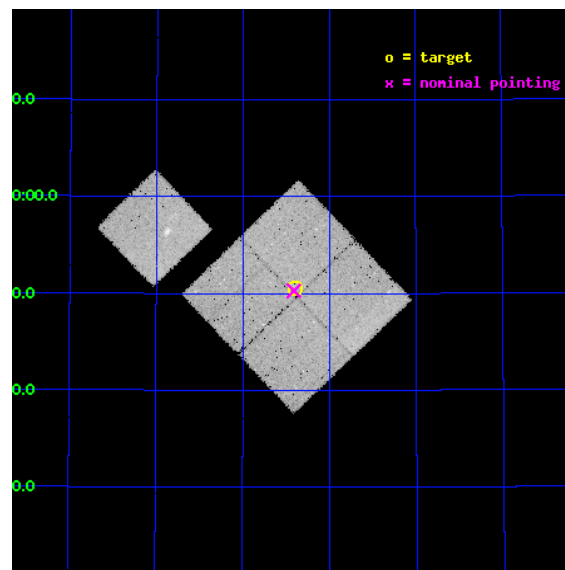
L2 Processing Date : Mar 5 2013

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1 Front

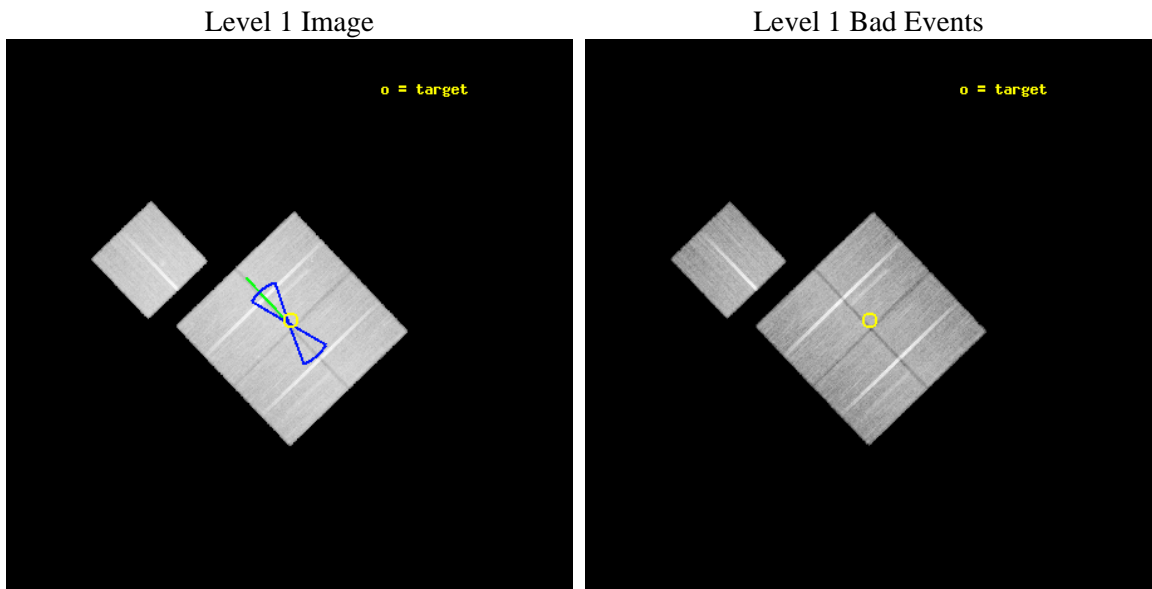
seq_num	900351	Sequence number
obs_id	6217	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	EGS-4	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.849579	Observer's specified target RA [deg]
dec_targ	52.842415	Observer's specified target Dec [deg]
ra_nom	214.85262490689	Nominal RA [deg]
dec_nom	52.838145295164	Nominal Dec [deg]
roll_nom	316.20625883126	Nominal Roll [deg]
revision	4	Processing version of data
ontime	50154.7769728	Sum of GTIs [s]
livetime	49499.467888241	Livetime [s]
ontime0	50164.199903518	Sum of GTIs [s]
ontime1	50161.058943272	Sum of GTIs [s]
ontime2	50164.199903518	Sum of GTIs [s]
ontime3	50154.7769728	Sum of GTIs [s]
ontime6	50164.199903518	Sum of GTIs [s]
l2events	123411	Number of level 2 events



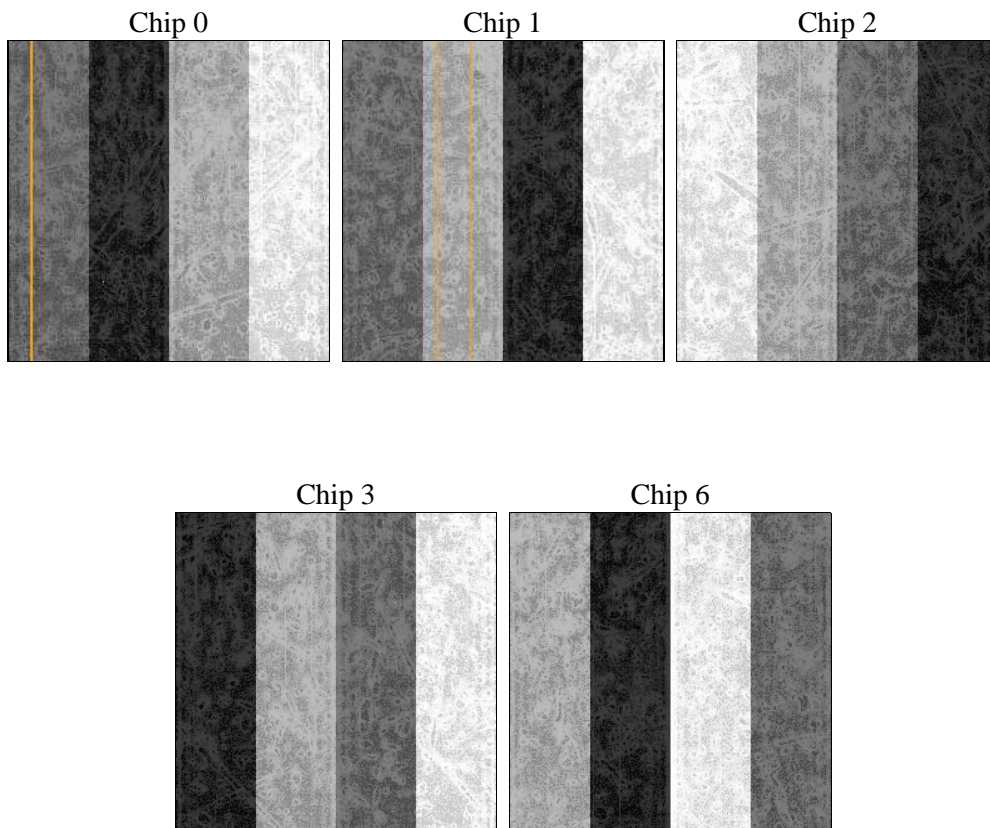
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	50000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	50154.7769728	Sum of GTIs [s]
caldsver	4.5.6	 	ontime0	50164.199903518	Sum of GTIs [s]
date	2013-03-05T23:35:45	Date and time of file creation	ontime1	50161.058943272	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	50164.199903518	Sum of GTIs [s]
			ontime3	50154.7769728	Sum of GTIs [s]
			ontime6	50164.199903518	Sum of GTIs [s]
			l1events	1411788	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	268632	267755	295870	287037	292494
rejected events	239592	235170	267248	259516	261478
rejected %	89%	87%	90%	90%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	10028	11661	10393	9474	11240
	3%	4%	3%	3%	3%
grade 1 events	128	135	169	160	134
	0%	0%	0%	0%	0%
grade 2 events	7138	7157	6757	6159	6718
	2%	2%	2%	2%	2%
grade 3 events	3405	3616	3114	3126	3445
	1%	1%	1%	1%	1%
grade 4 events	3030	3611	3154	3270	3308
	1%	1%	1%	1%	1%
grade 5 events	10201	11274	9775	11984	11950
	3%	4%	3%	4%	4%
grade 6 events	5669	6782	5467	5697	6569
	2%	2%	1%	1%	2%
grade 7 events	229033	223519	257041	247167	249130
	85%	83%	86%	86%	85%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	214.808533	214.8526249068923	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.844568	52.83814529516359	Alternating exposures requested	N	N
[deg] Pointing Roll	316.032711	316.2062588312641	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	50.756000	50.756000			
[deg] Roll tolerance	20.000000	20.000000			
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	243827693.184000	243826499.14246			
Observation start date	2005-09-23T01:53:49	2005-09-23T01:34:59			
[s] Observation end time (MET)	243877693.184000	243878496.88235			
Observation end date	2005-09-23T15:47:09	2005-09-23T16:01:36			
Read mode	TIMED	TIMED			

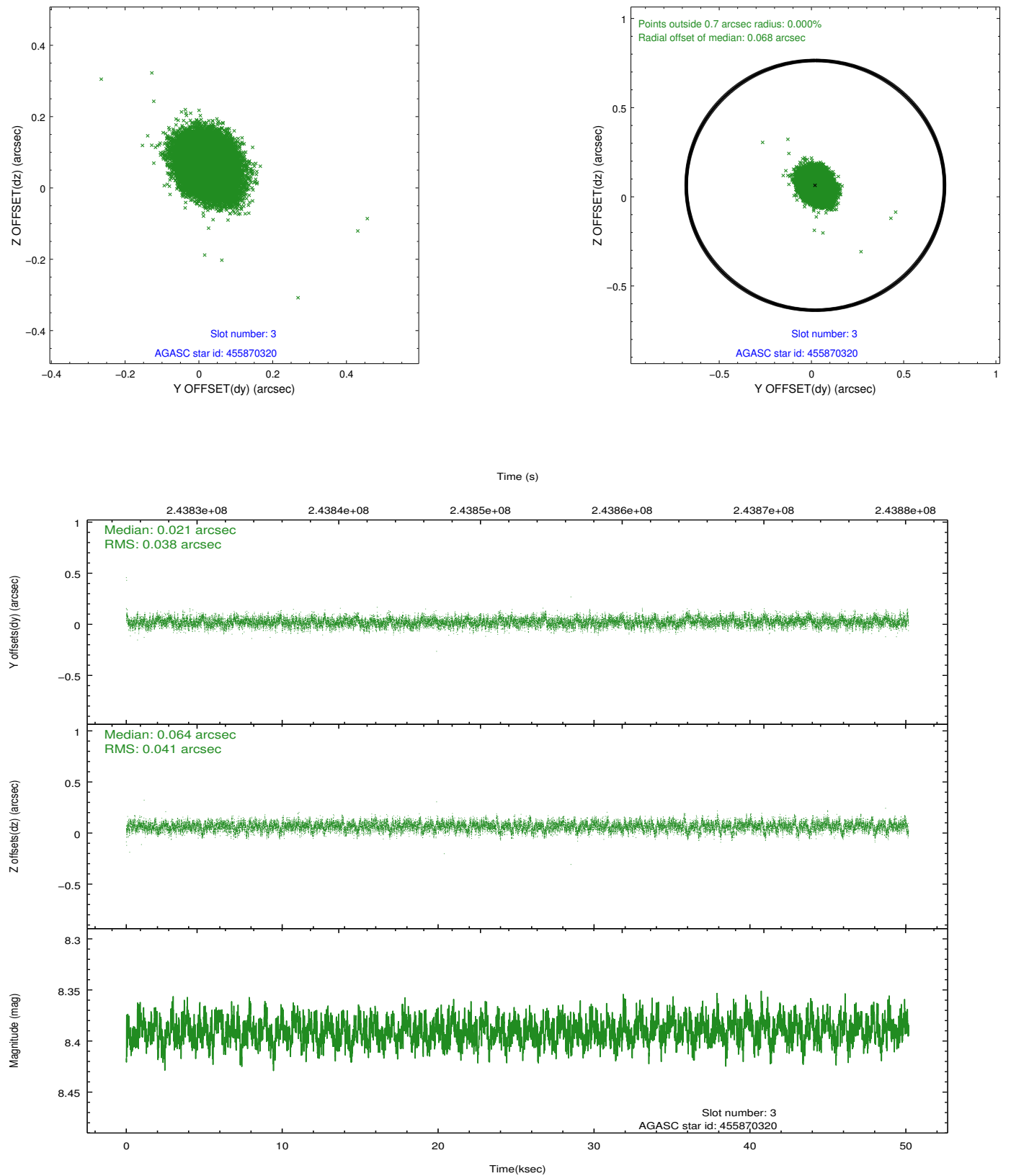
2.3 Aspect

Slot Statistics

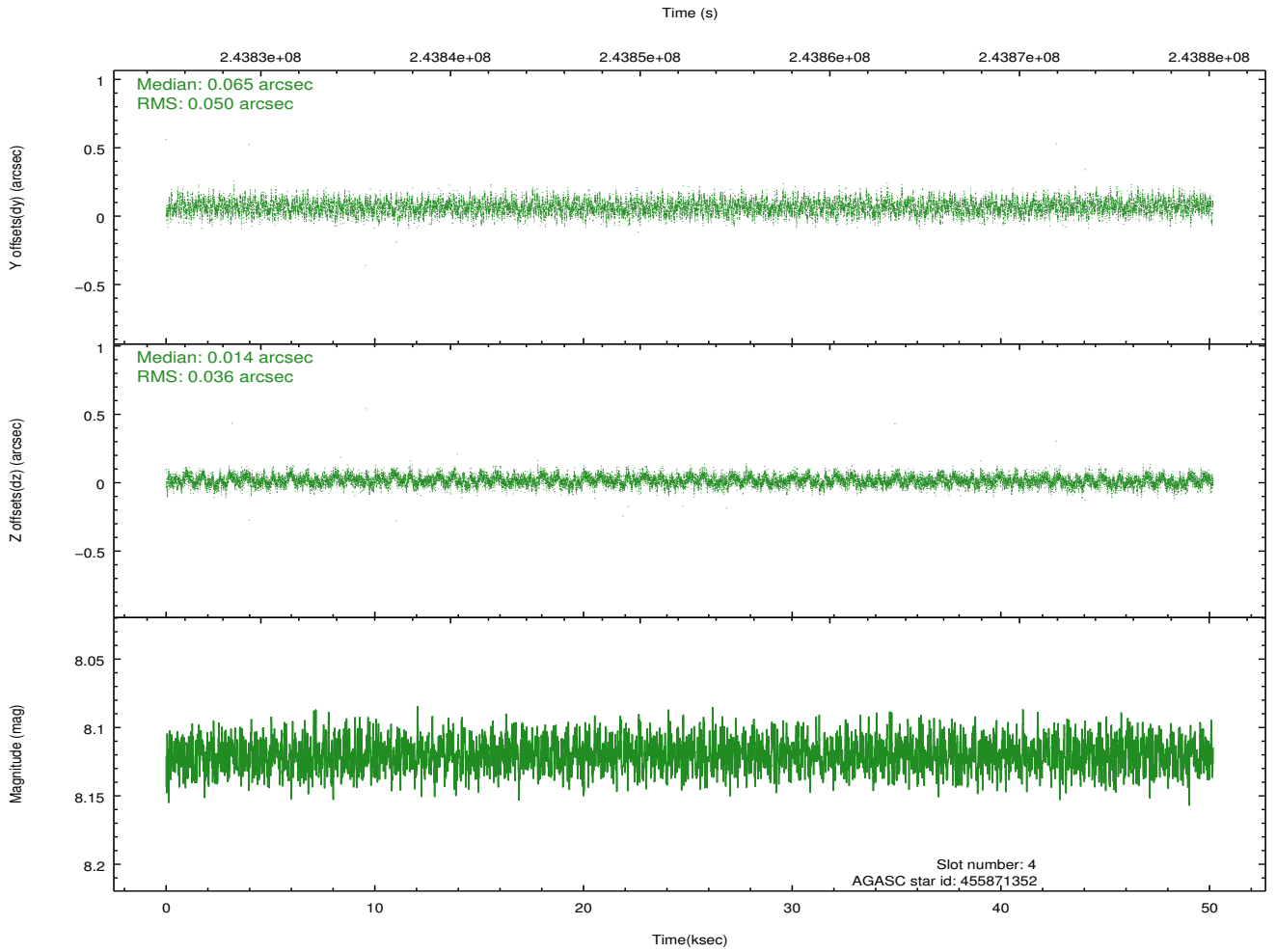
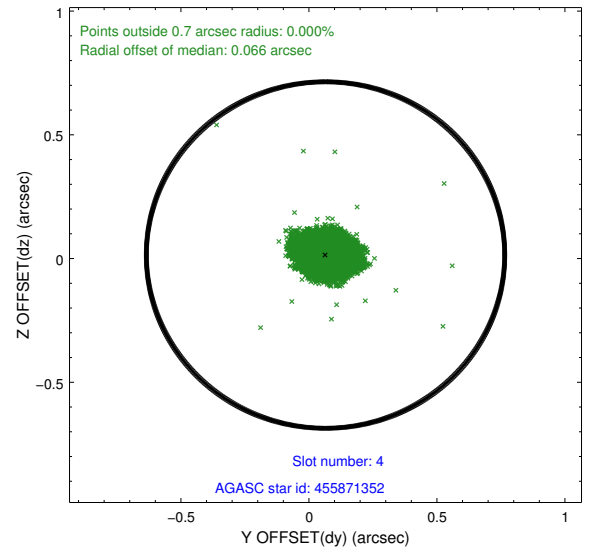
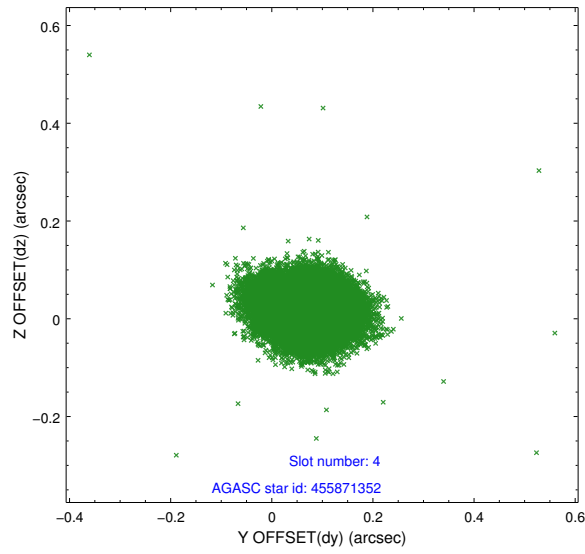
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.14	12235	-0.067	-0.113	0.016	0.038	0.000000	0.000000	-760.36	-841.29
1	FID	ACIS-I-4	7.18	12237	0.088	0.074	0.009	0.022	0.000000	0.000000	2153.86	1065.07
2	FID	ACIS-I-5	7.22	12237	-0.121	0.108	0.014	0.035	0.000000	0.000000	-1814.27	1062.94
3	GUIDE	455870320	8.39	24473	0.021	0.064	0.059	0.097	214.874440	52.401638	1211.74	-1046.73
4	GUIDE	455871352	8.12	24471	0.065	0.014	0.065	0.105	215.099961	52.172669	2142.09	-1292.95
5	GUIDE	505812088	8.14	24470	0.079	-0.050	0.066	0.102	214.186617	53.263562	-2014.53	160.09
6	GUIDE	505812376	7.67	24471	-0.183	0.042	0.059	0.092	214.039537	52.937930	-1440.19	-909.80
7	GUIDE	455870296	7.34	24472	0.017	-0.069	0.073	0.117	214.629779	52.033323	1742.85	-2376.26

2.4 Star Slots

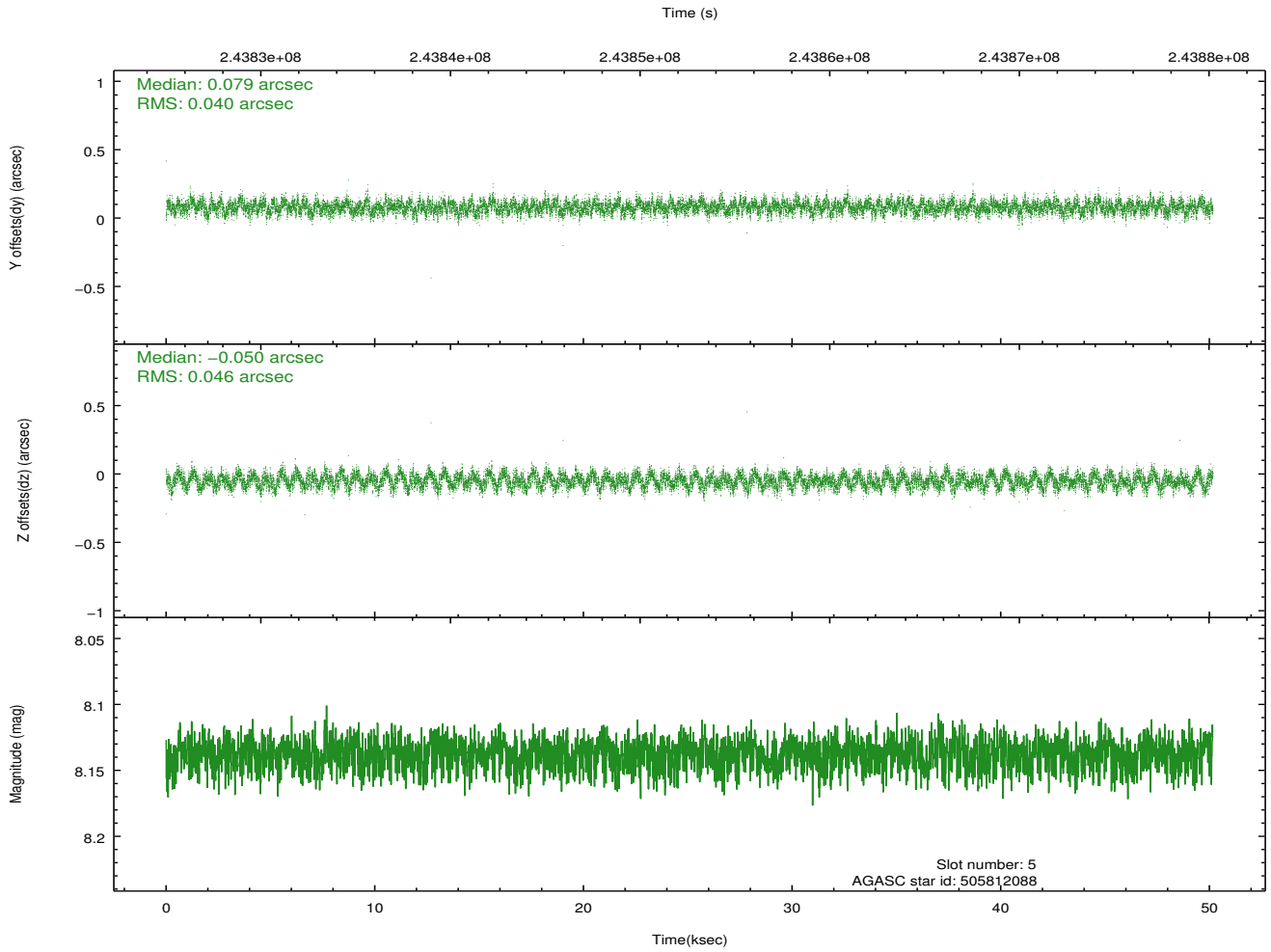
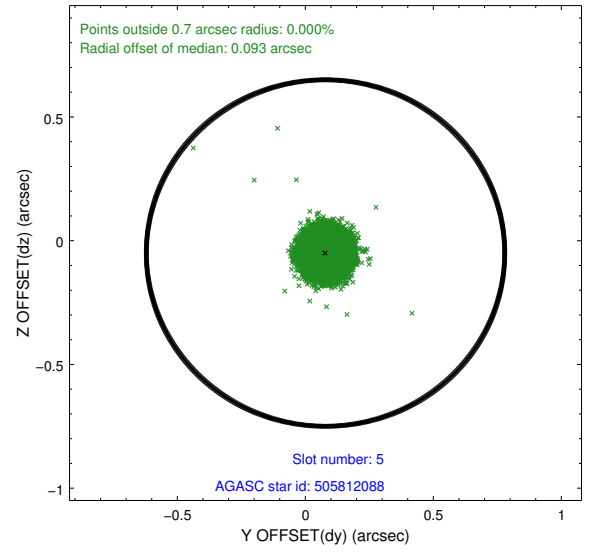
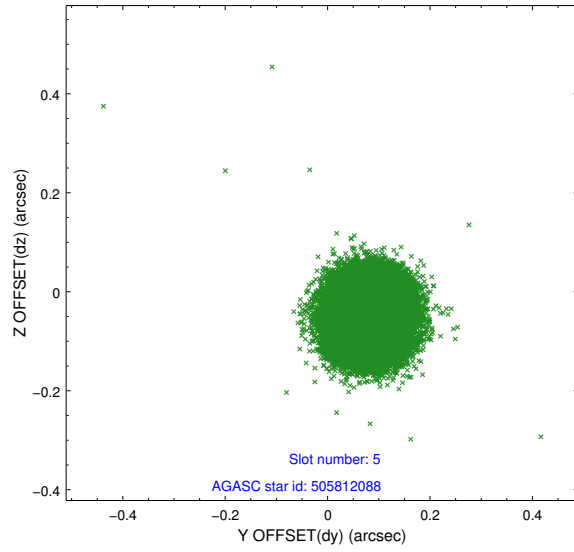
2.4.1 Slot 3



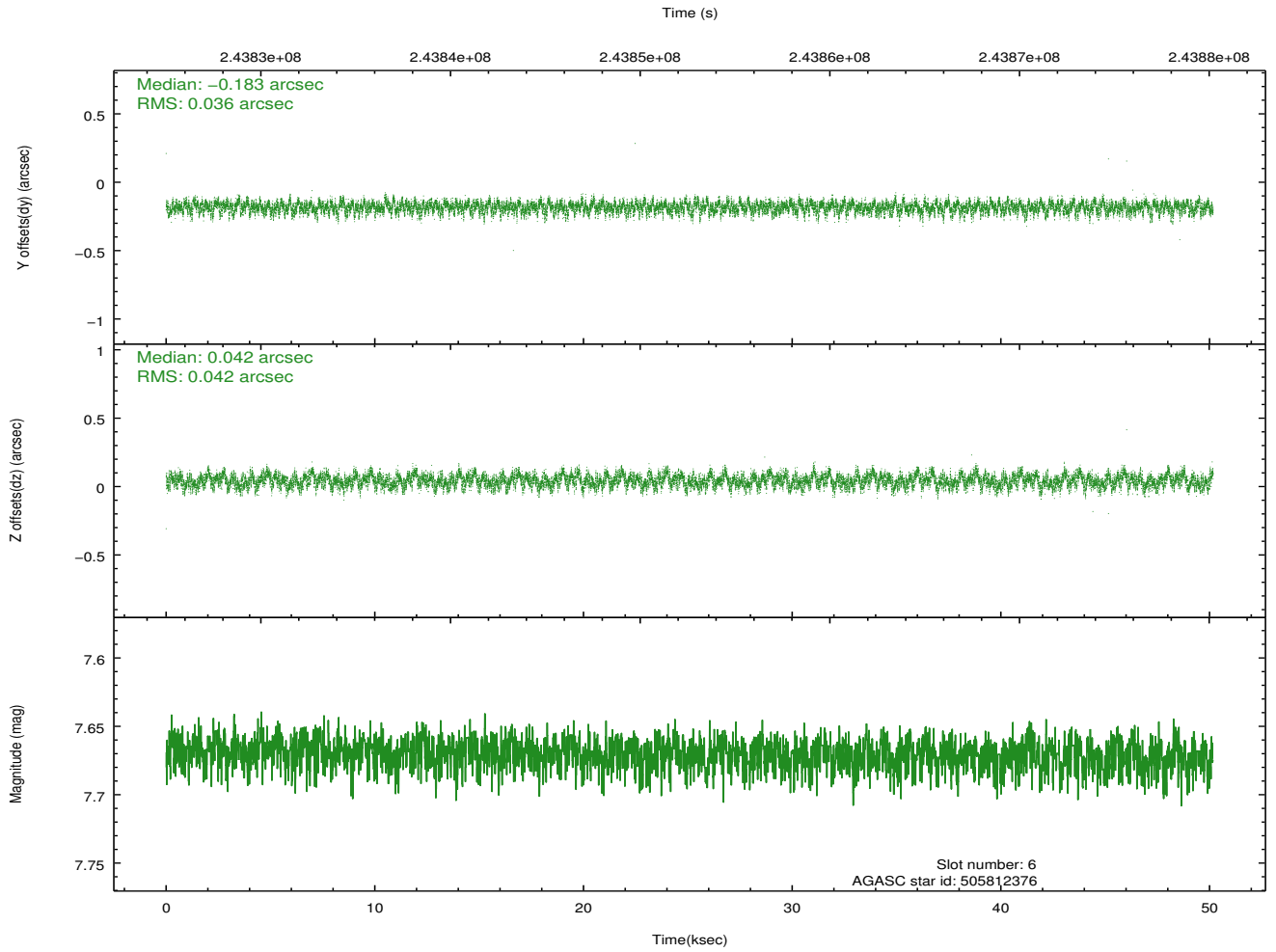
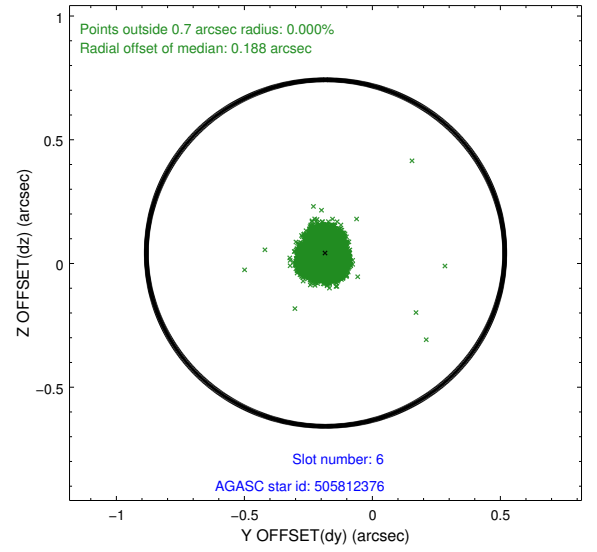
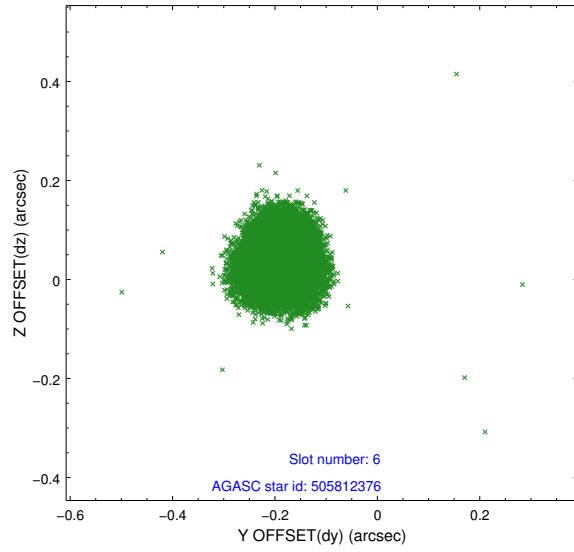
2.4.2 Slot 4



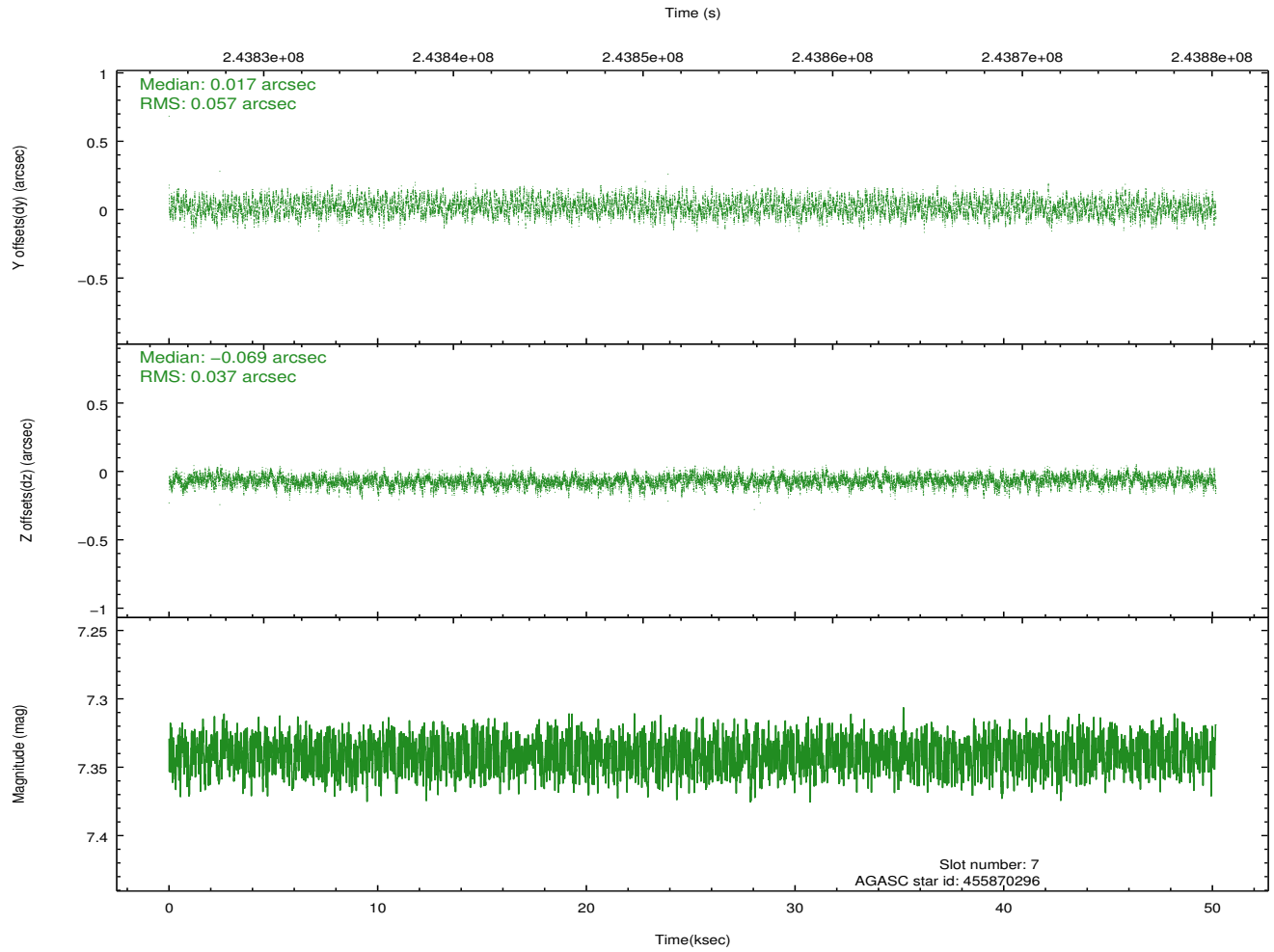
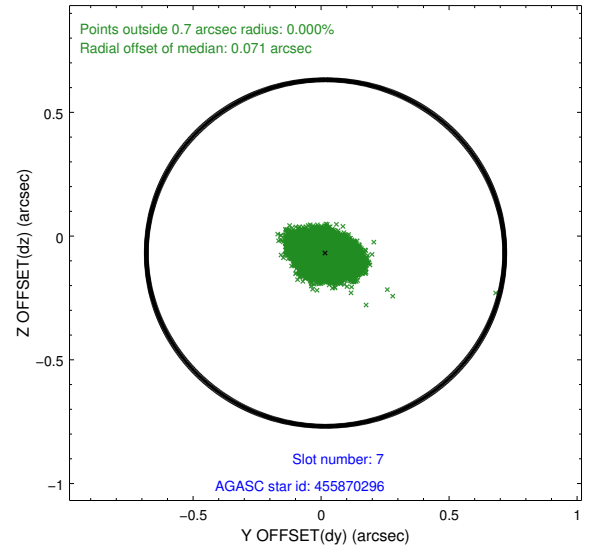
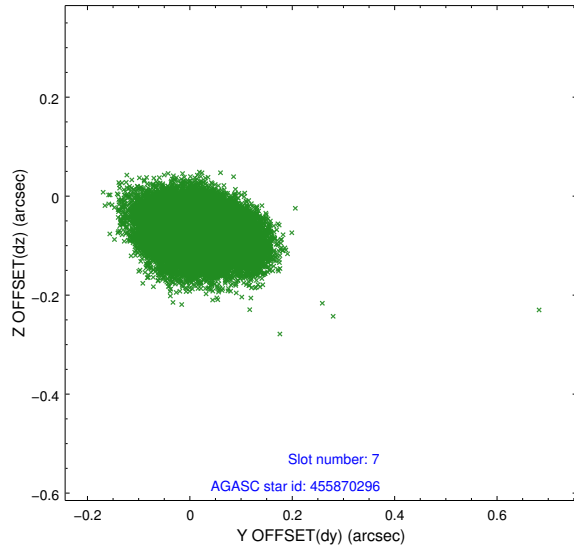
2.4.3 Slot 5



2.4.4 Slot 6

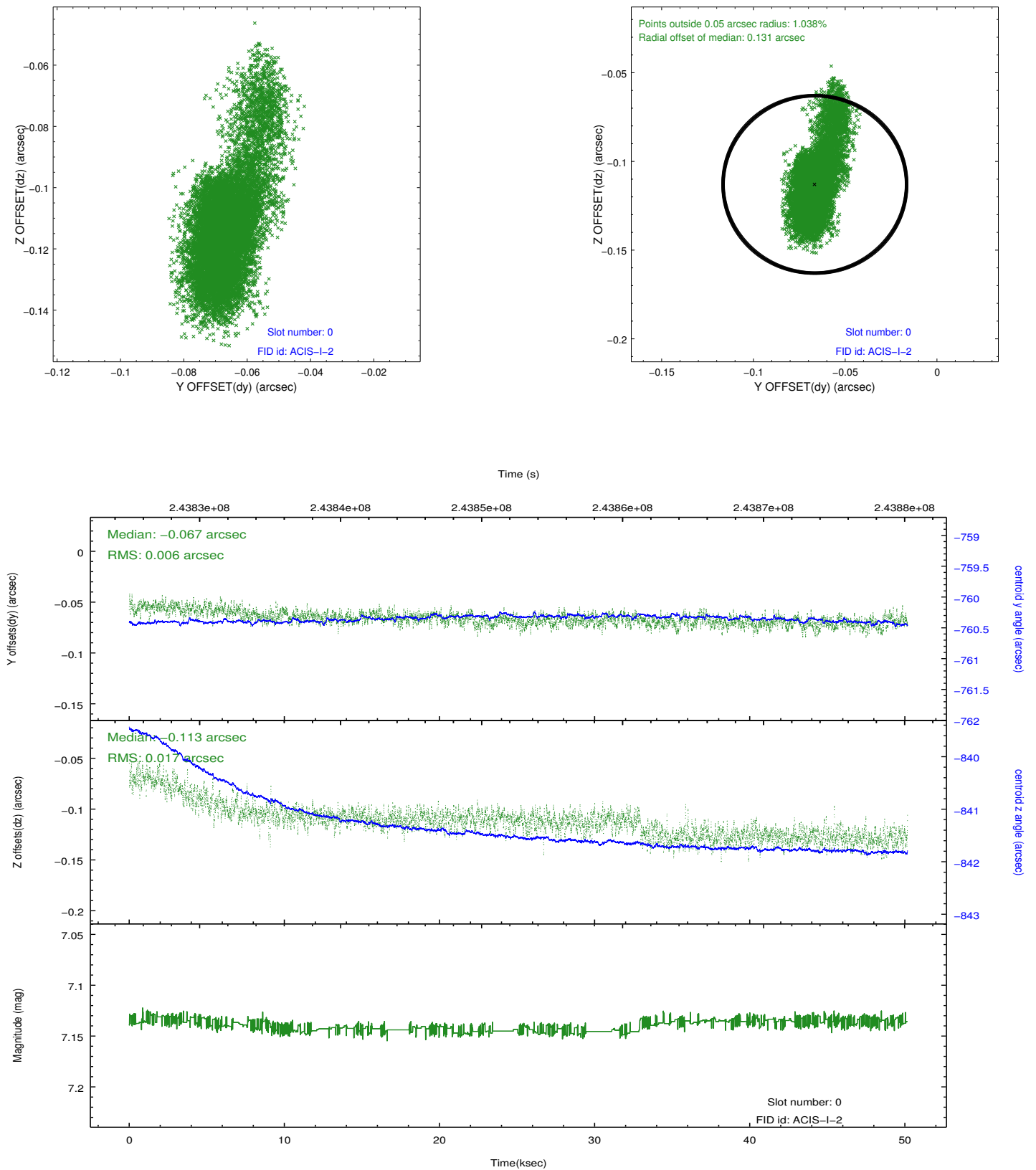


2.4.5 Slot 7

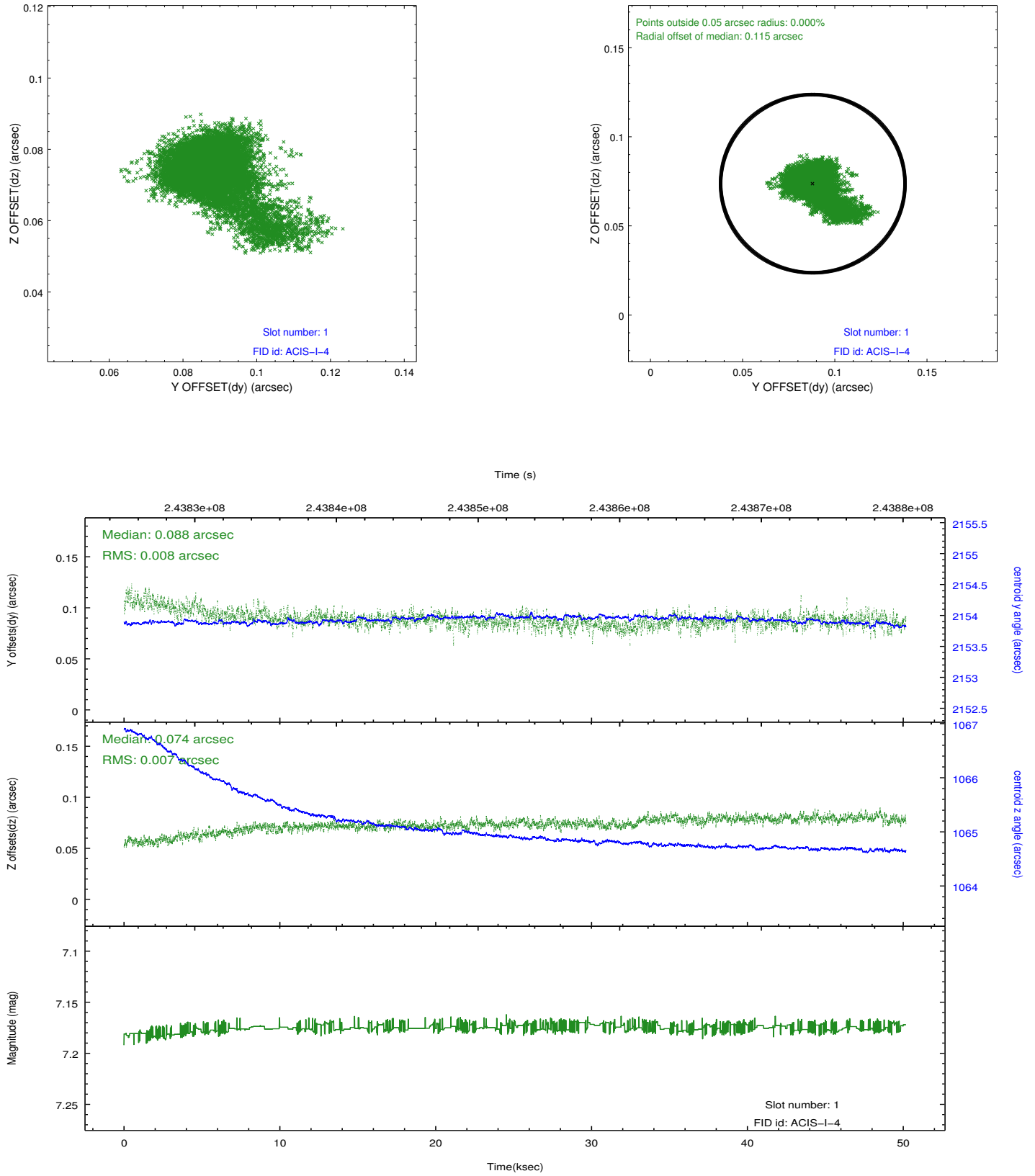


2.5 FID Slots

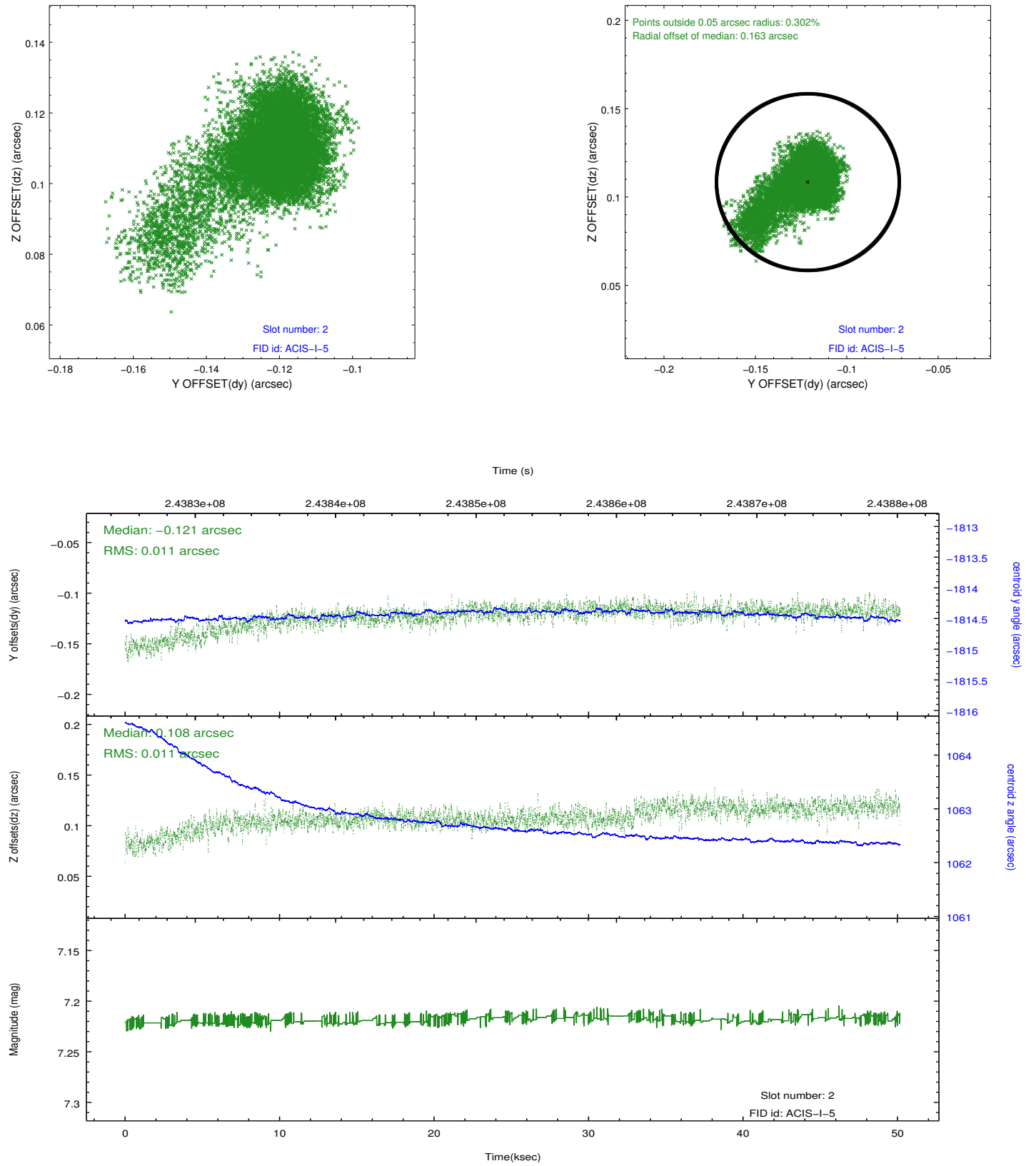
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.03.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.15477

A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. The value for FP temperature reported in the headers of the Level 2 event file and the Mission Timeline files are incorrect by this amount for this processing. However, the temperature is corrected in the processing in order to obtain the correct temperature for the CTI correction. So the calibrated data are correct. If using the FP temp values in the headers of data files (some CIAO tools require this information), investigators should subtract 1.3 degrees from the reported temperature to determine the true temperature.

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Roll constraint met.

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A spatial region of the original bias map for CCD = 6 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 = 6 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 sky coords:
(215.32446,52.97173),(215.32006,52.97430),(215.23277,52.91999),(215.23716,52.91742)