

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5760 - L2 Version 5
Chandra X-Ray Center

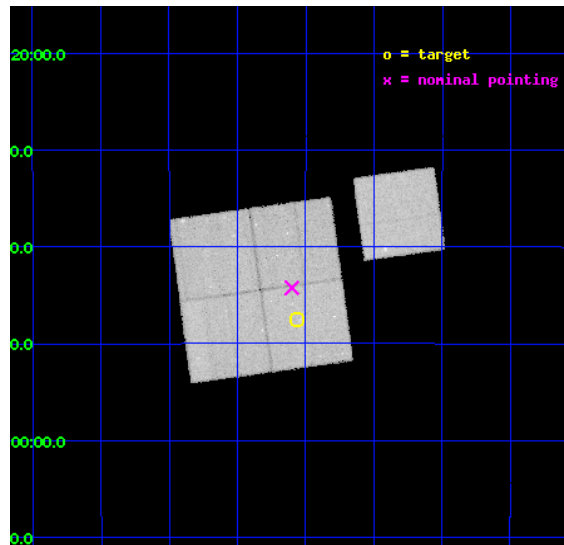
L2 Processing Date : Feb 15 2013

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1 Front

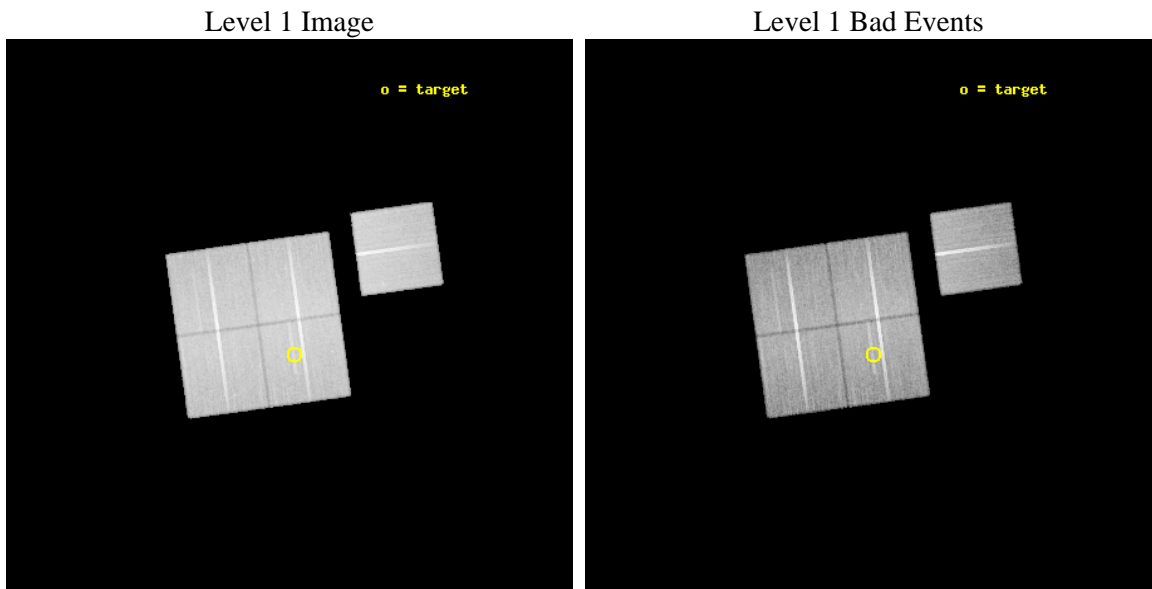
seq_num	800473	Sequence number
obs_id	5760	Observation id
title	DARK ENERGY WITH X-RAY CLUSTERS: CHANDRA OBSERVATIONS OF 41 HIGH-REDSHIFT CLUSTERS FROM THE 400 deg^2 ROSAT PSPC SURVEY	Proposal titl
observer	Dr. Alexey Vikhlinin	Principal investigator
object	cl0216-1747	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	34.140417	Observer's specified target RA [deg]
dec_targ	-17.790833	Observer's specified target Dec [deg]
ra_nom	34.150302548545	Nominal RA [deg]
dec_nom	-17.737339589216	Nominal Dec [deg]
roll_nom	82.113778180787	Nominal Roll [deg]
revision	5	Processing version of data
ontime	40542.847203165	Sum of GTIs [s]
livetime	40013.125057246	Livetime [s]
ontime0	40580.416085273	Sum of GTIs [s]
ontime1	40574.17519471	Sum of GTIs [s]
ontime2	40486.267661721	Sum of GTIs [s]
ontime3	40542.847203165	Sum of GTIs [s]
ontime6	40586.656936437	Sum of GTIs [s]
l2events	276566	Number of level 2 events



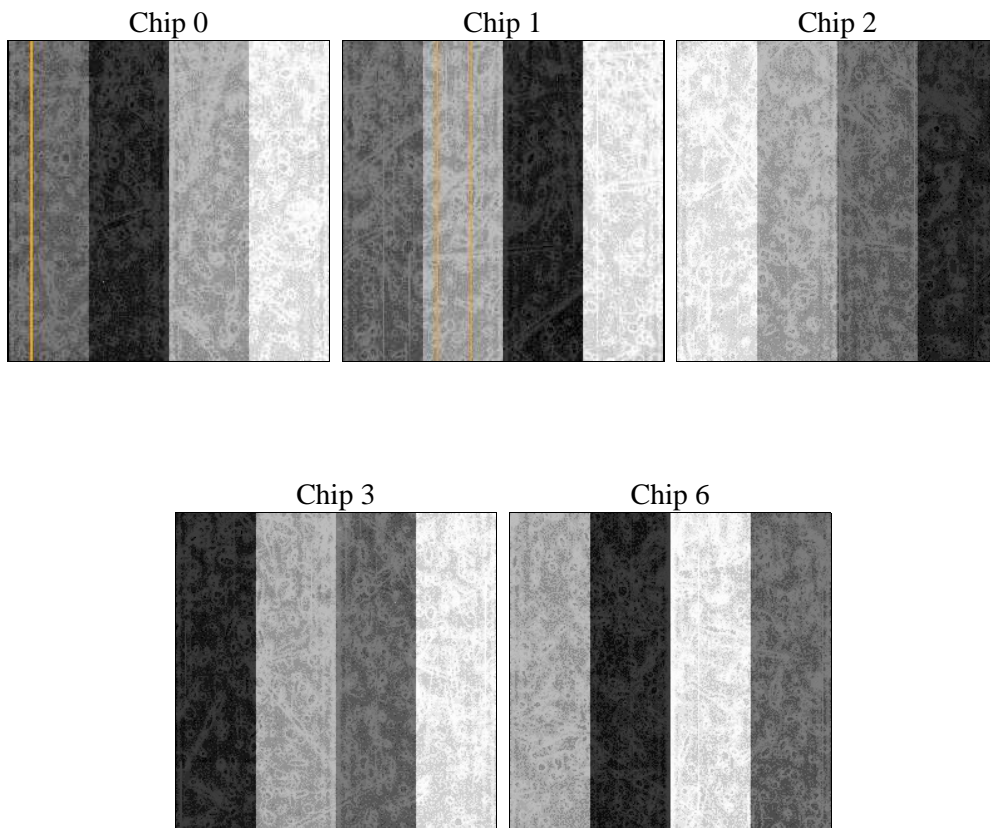
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	62000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	40542.847203165	Sum of GTIs [s]
caldbver	4.5.5	 	ontime0	40580.416085273	Sum of GTIs [s]
date	2013-02-15T09:07:56	Date and time of file creation	ontime1	40574.17519471	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	40486.267661721	Sum of GTIs [s]
			ontime3	40542.847203165	Sum of GTIs [s]
			ontime6	40586.656936437	Sum of GTIs [s]
			l1events	1639902	Number of level 1 events

2.1.4 Events

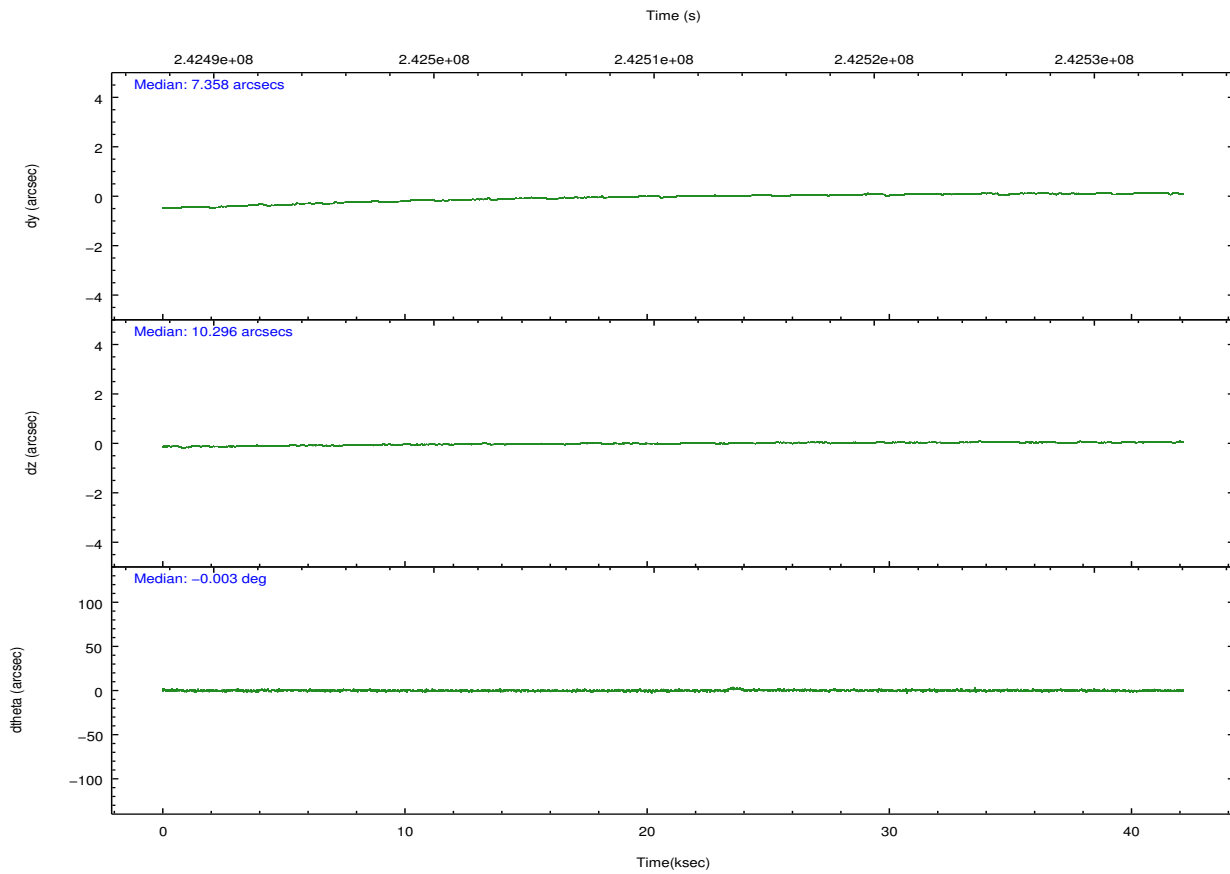
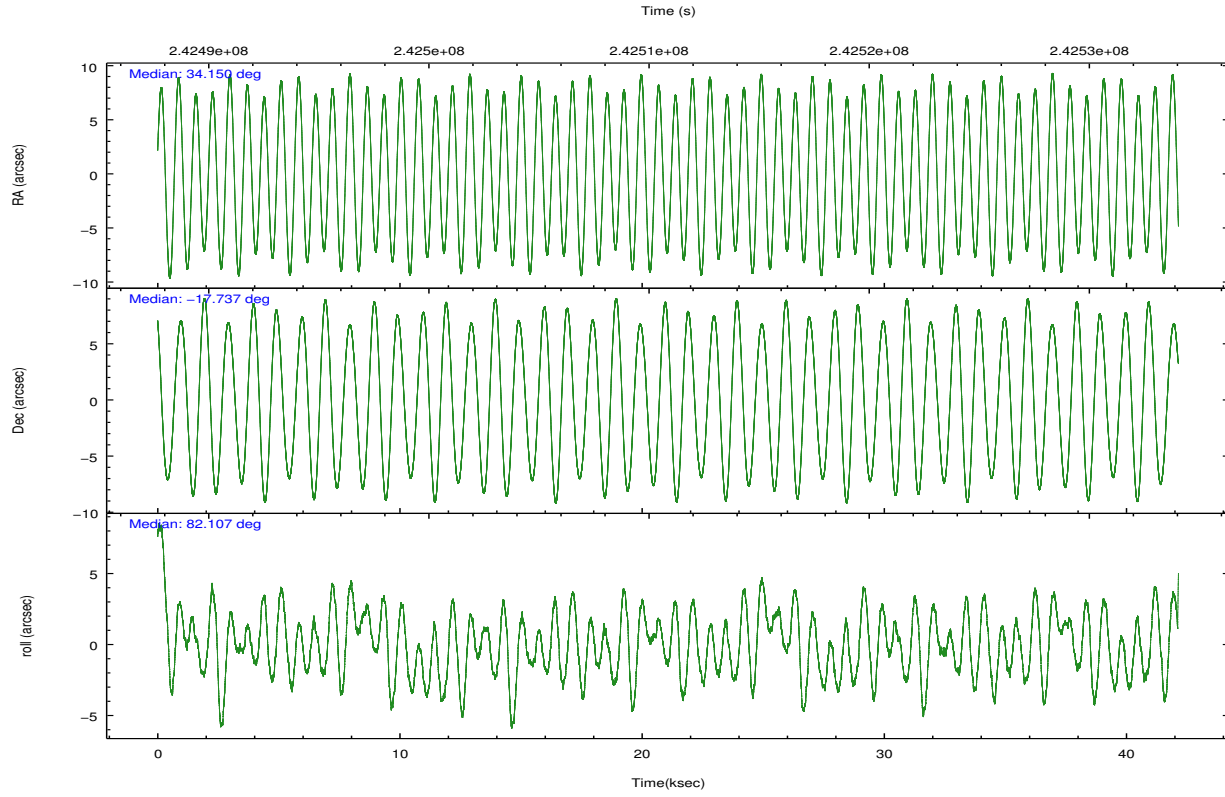
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	313860	312800	346958	328090	338194
rejected events	253917	248426	287544	267039	270663
rejected %	80%	79%	82%	81%	80%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	21391	23375	22321	22463	23312
	6%	7%	6%	6%	6%
grade 1 events	247	199	279	256	231
	0%	0%	0%	0%	0%
grade 2 events	12300	12862	11430	11625	12413
	3%	4%	3%	3%	3%
grade 3 events	5430	5603	5279	5537	5596
	1%	1%	1%	1%	1%
grade 4 events	5235	5598	5379	5435	5702
	1%	1%	1%	1%	1%
grade 5 events	8915	10245	8523	10432	10698
	2%	3%	2%	3%	3%
grade 6 events	15631	17003	15057	16024	20570
	4%	5%	4%	4%	6%
grade 7 events	244711	237915	278690	256318	259672
	77%	76%	80%	78%	76%

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	OVERRIDE	OVERRIDE
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	34.161237	34.15030254854528	Subarray requested	NONE	NONE
[deg] Pointing Dec	-17.762676	-17.73733958921639	Alternating exposures requested	N	N
[deg] Pointing Roll	81.911653	82.11377818078725	[s] Primary exposure time	3.1	3.1
[mm] SIM focus pos	-0.7809083437167272	-0.7809083437167272			
[mm] SIM defocus	0.001439854621705816	0.001439854621705816			
[mm] SIM translation stage pos	-225.8458576473255	-225.8458576473255			
[mm] SIM translation stage offset	-7.746605444106308	-7.746605444106308			
[s] Observation start time (MET)	242489787.184000	242489787.184			
Observation start date	2005-09-07T14:15:23	2005-09-07T14:16:27			
[s] Observation end time (MET)	242531939.000000	242531939			
Observation end date	2005-09-08T01:58:59	2005-09-08T01:58:58			
Read mode	TIMED	TIMED			

2.3 Aspect

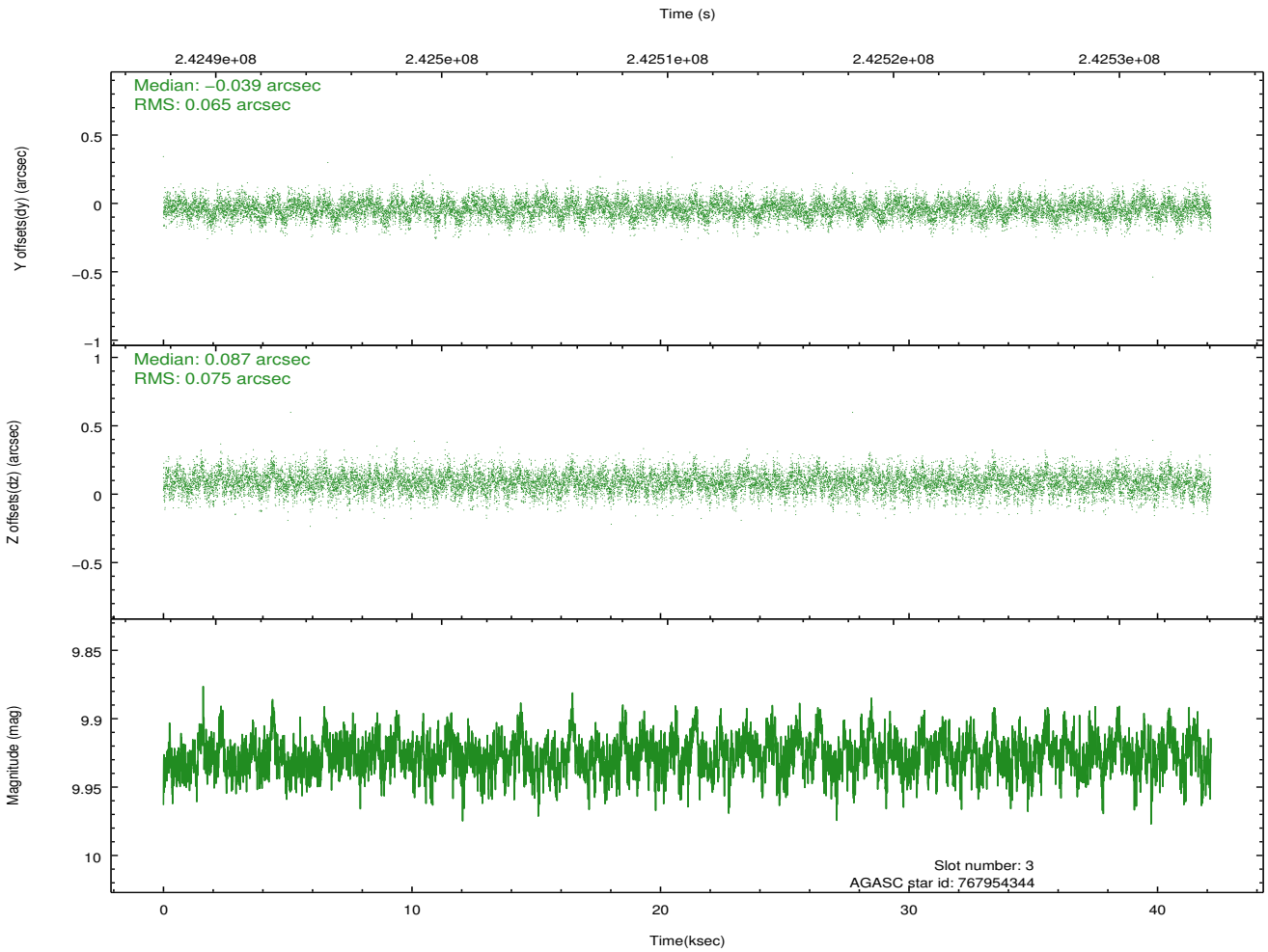
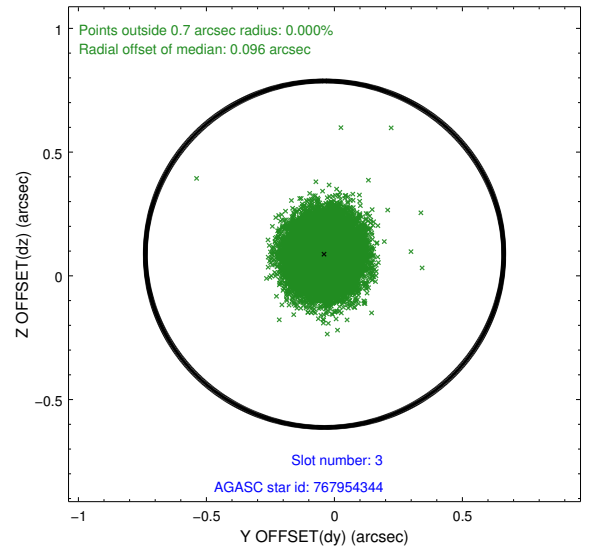
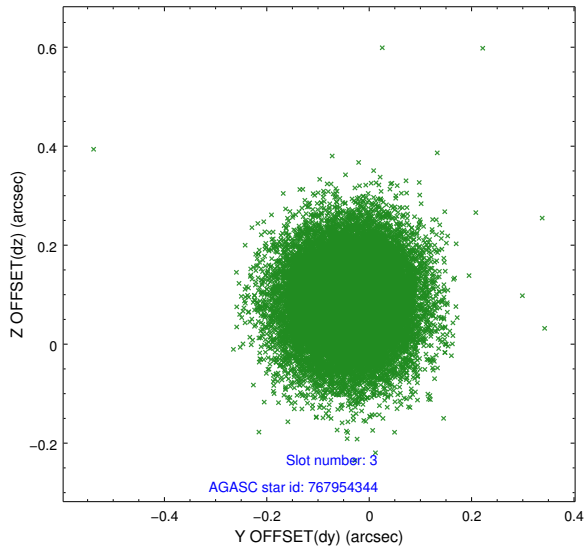


Slot Statistics

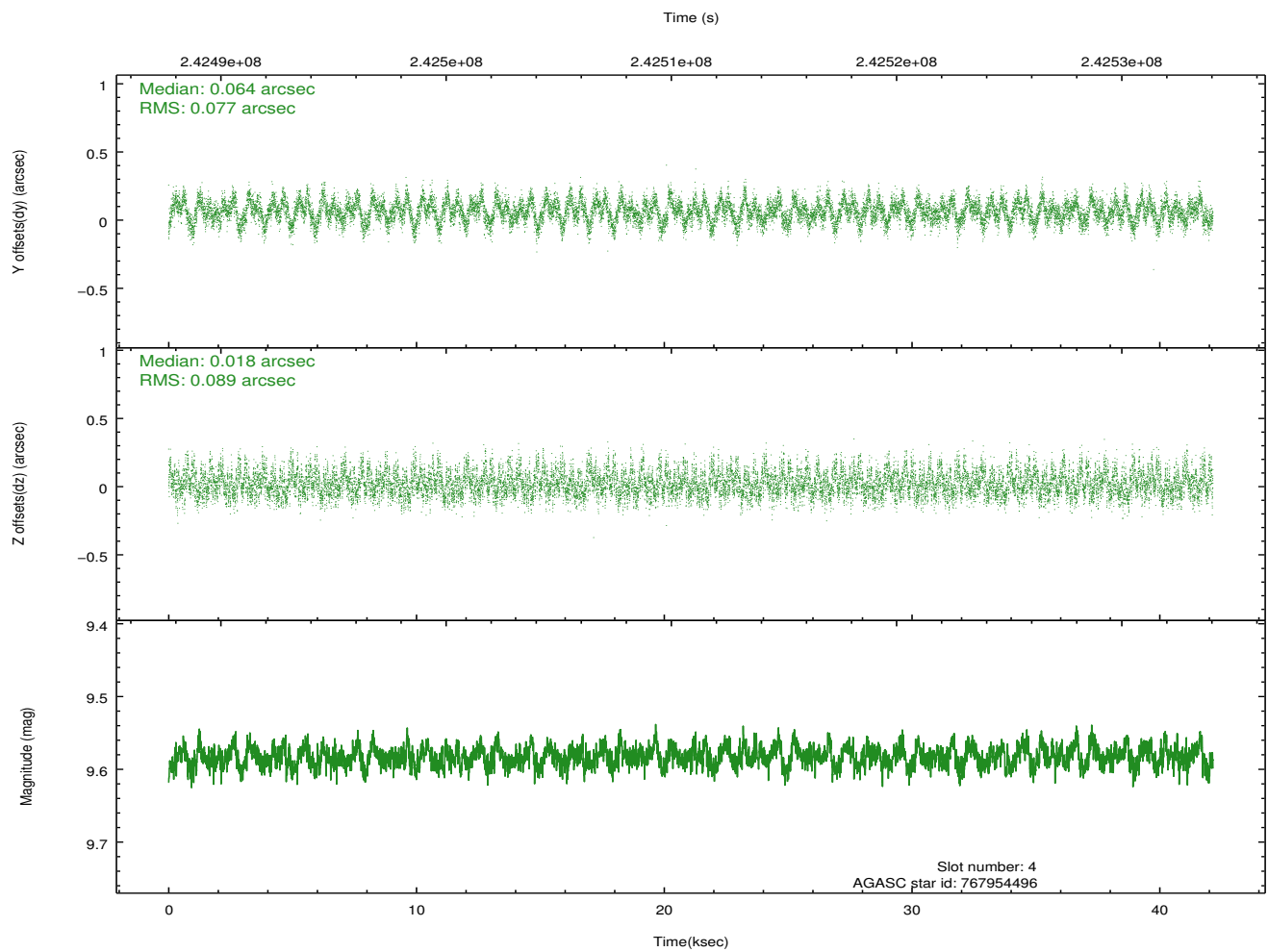
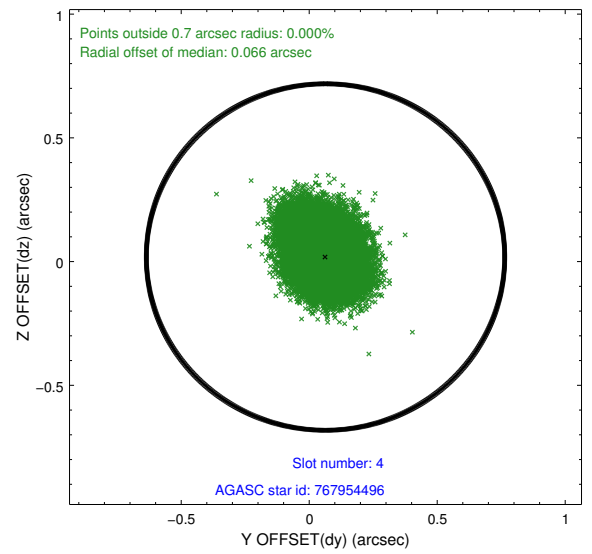
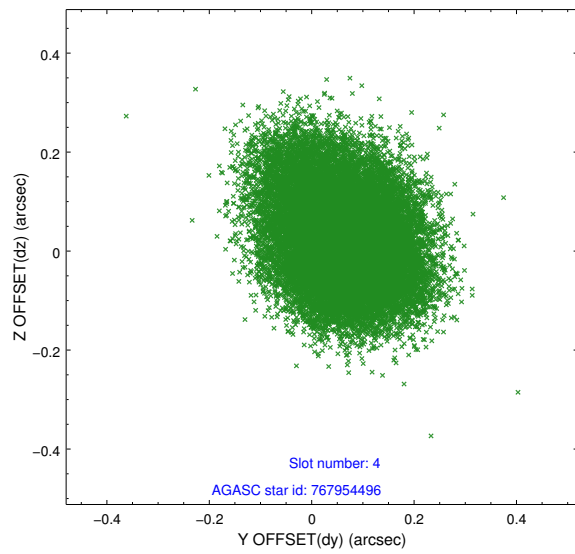
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.18	10278	-0.067	-0.052	0.011	0.020	0.000000	0.000000	-762.40	-998.18
1	FID	ACIS-I-4	7.14	10278	0.091	0.058	0.012	0.025	0.000000	0.000000	2151.76	908.05
2	FID	ACIS-I-5	7.22	10281	-0.123	0.063	0.013	0.021	0.000000	0.000000	-1815.88	904.91
3	GUIDE	767954344	9.93	20528	-0.039	0.087	0.106	0.171	34.586205	-18.281873	-1647.40	-1701.23
4	GUIDE	767954496	9.58	20535	0.064	0.018	0.126	0.203	34.611505	-18.207511	-1370.47	-1749.85
5	GUIDE	767955344	10.18	20460	0.071	0.054	0.148	0.240	34.625163	-17.912842	-313.37	-1649.13
6	GUIDE	767955440	9.87	20516	-0.071	0.017	0.109	0.176	34.470038	-17.879304	-267.44	-1106.32
7	GUIDE	767957440	9.16	20546	-0.026	-0.181	0.081	0.131	33.627958	-17.789270	-354.78	1795.81

2.4 Star Slots

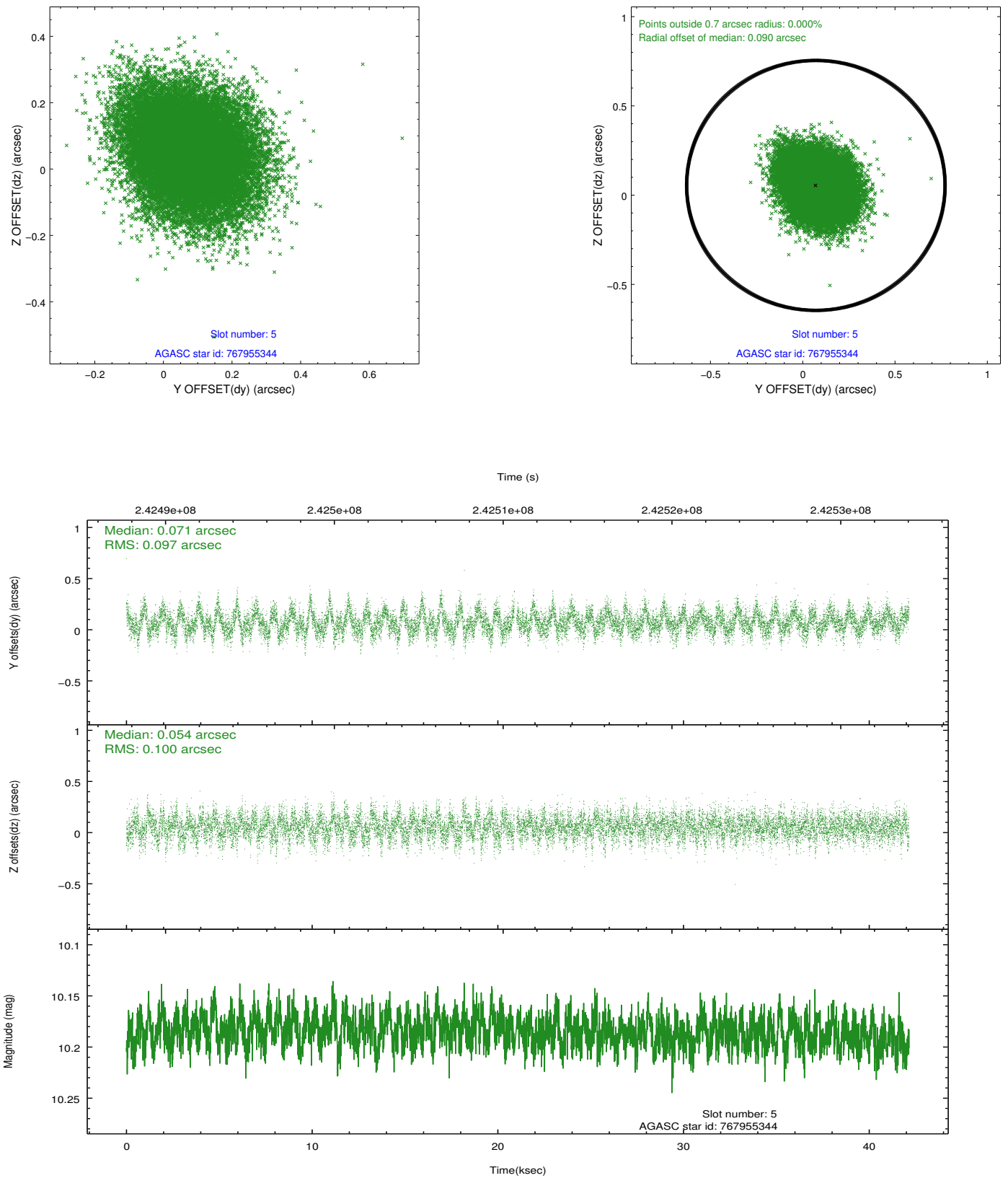
2.4.1 Slot 3



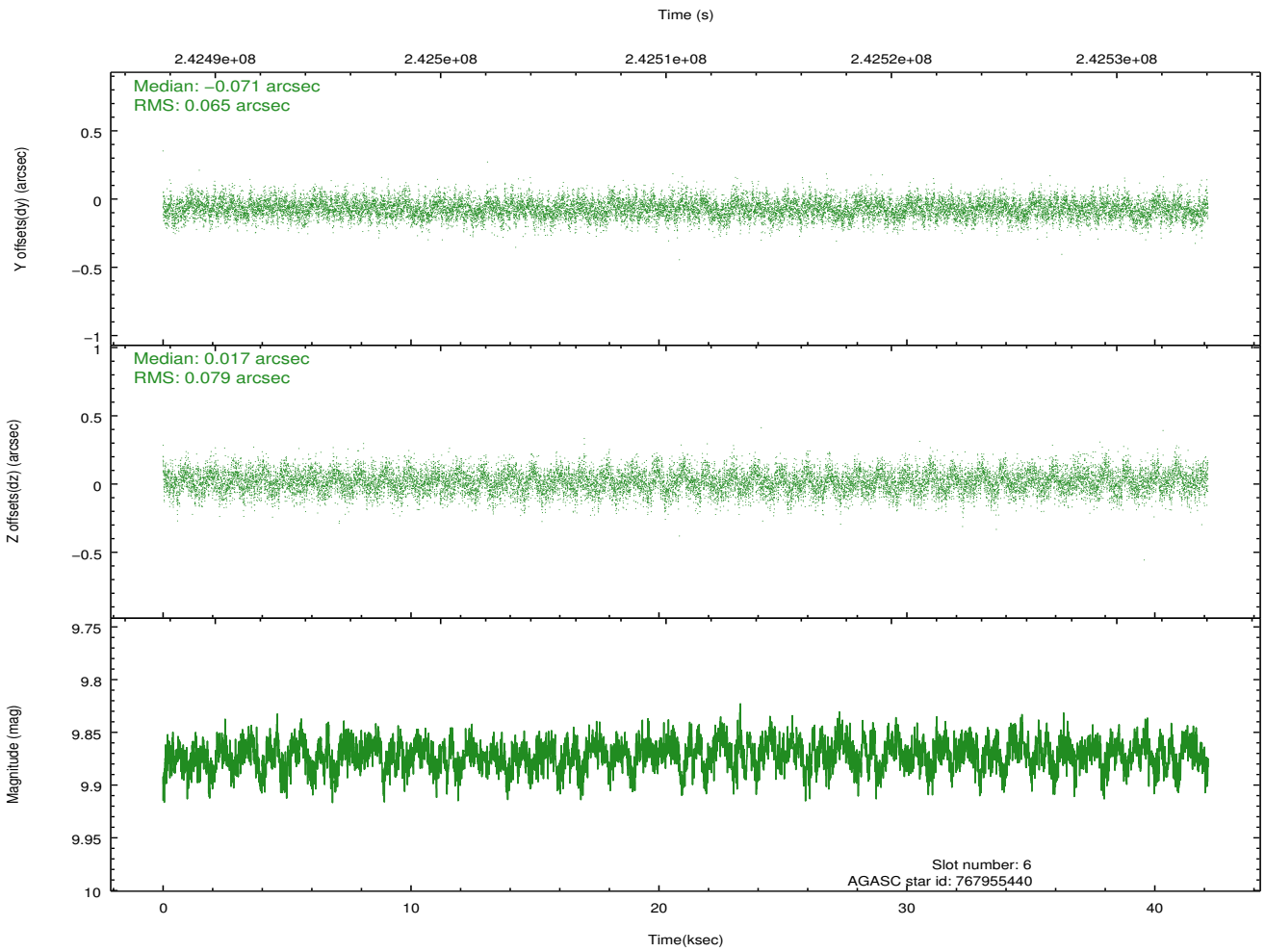
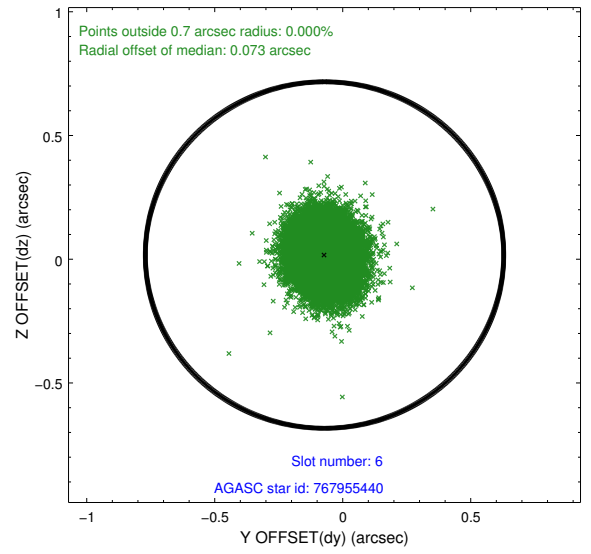
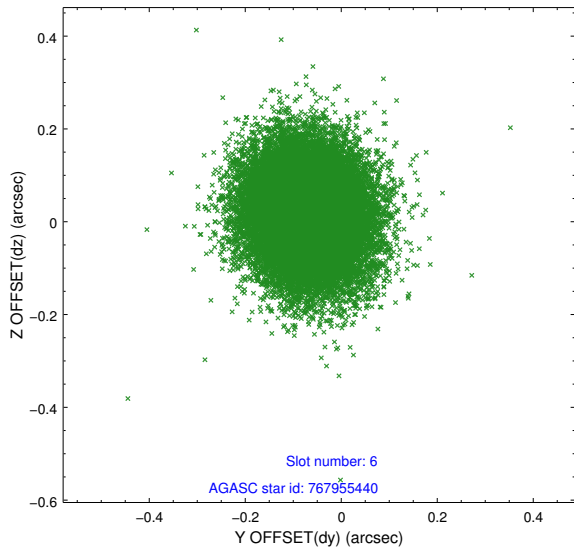
2.4.2 Slot 4



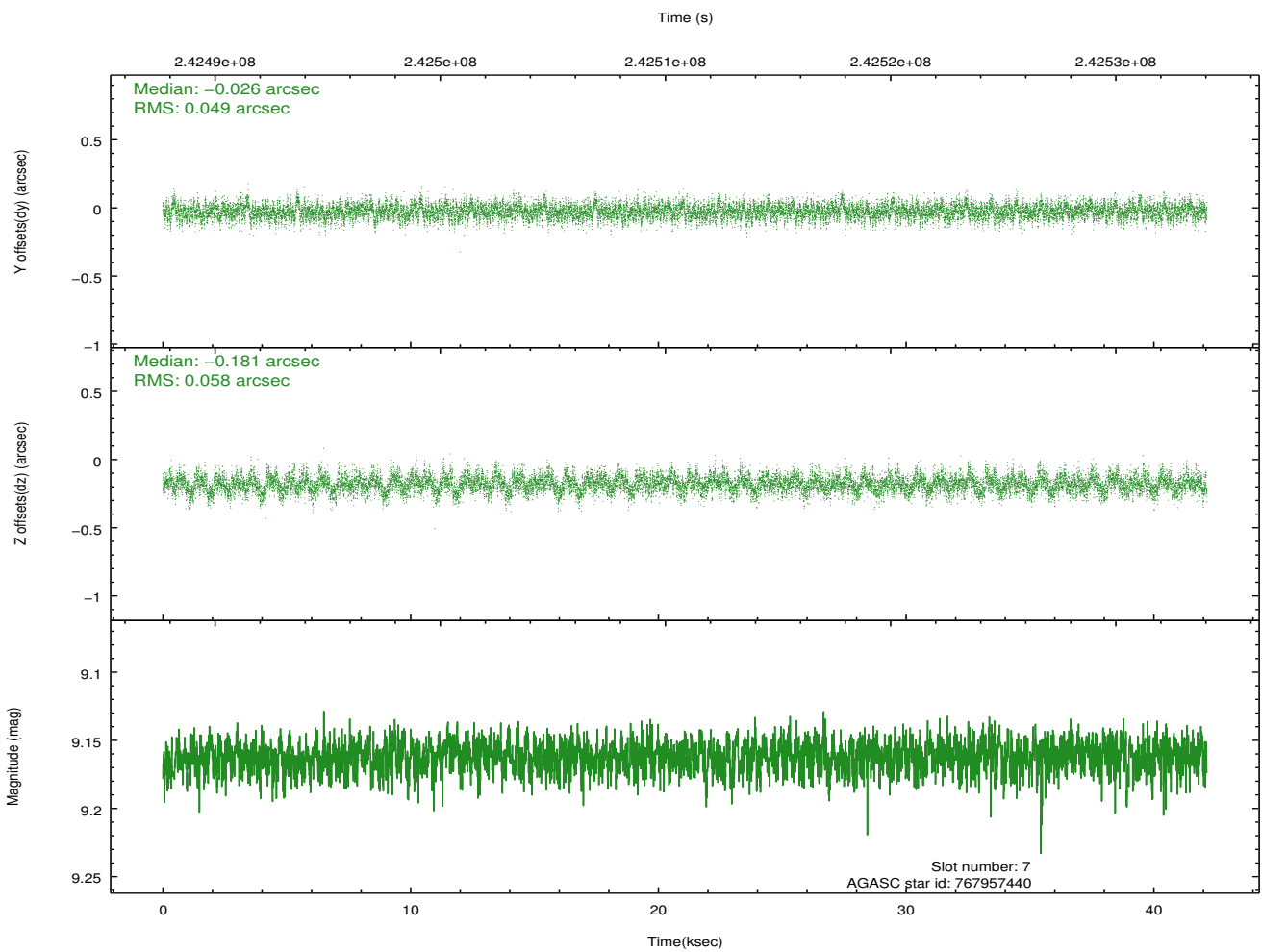
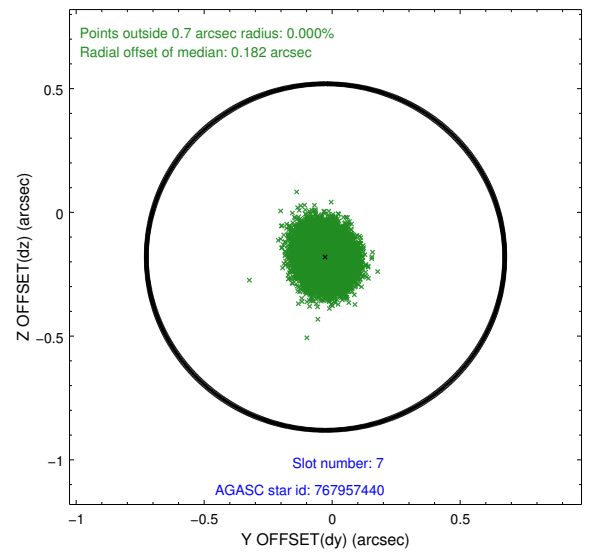
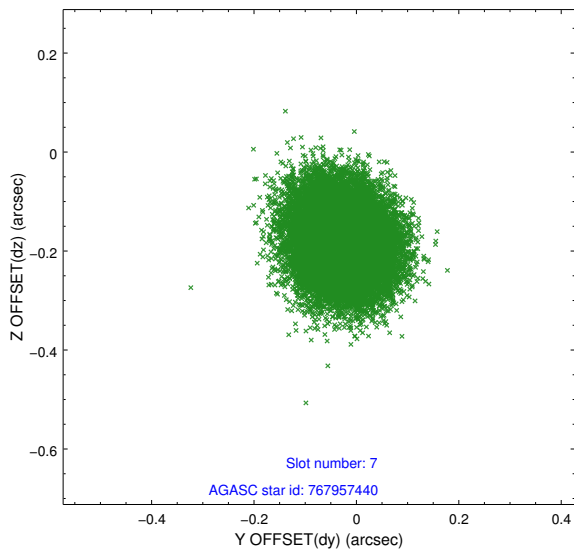
2.4.3 Slot 5



2.4.4 Slot 6

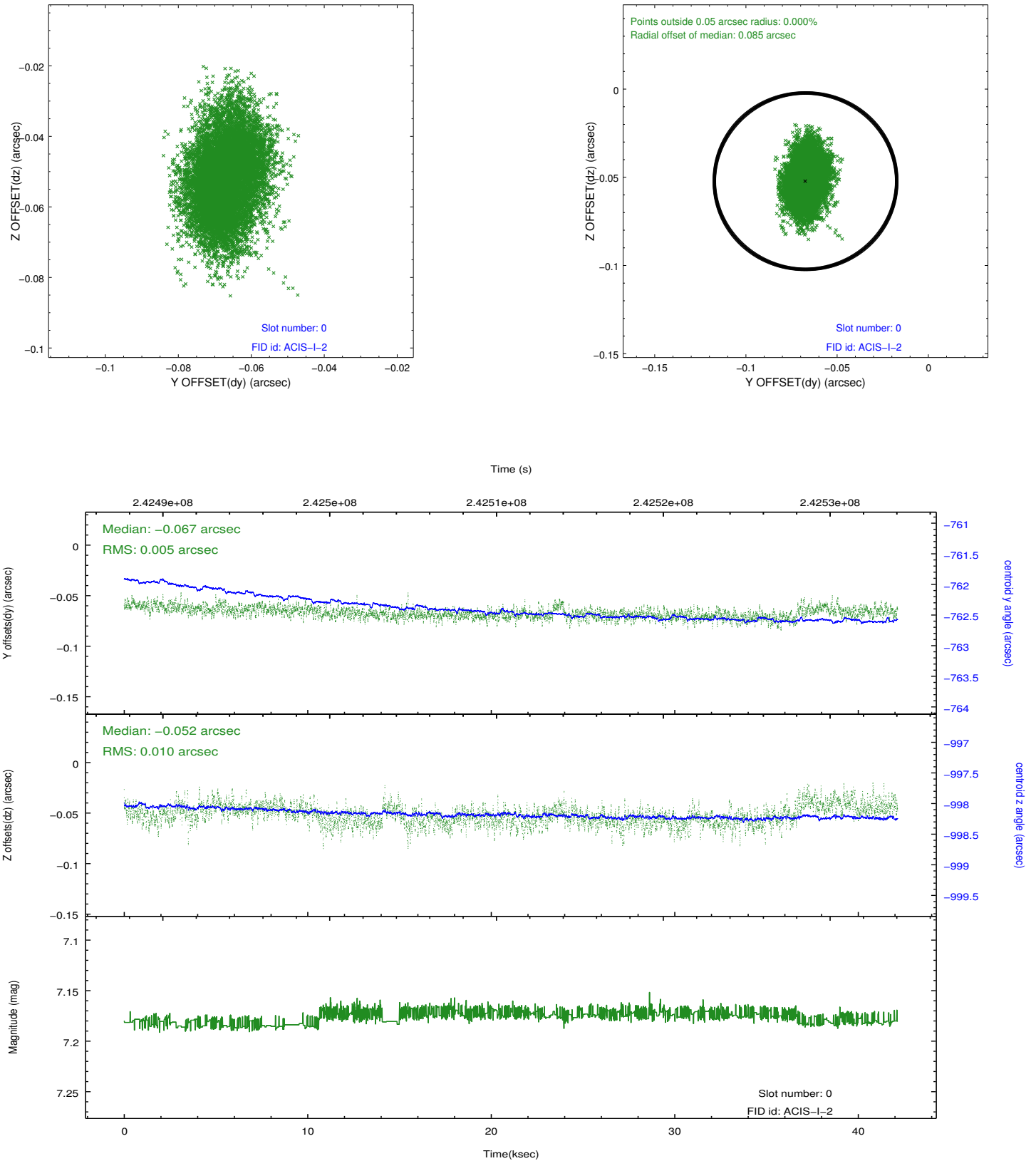


2.4.5 Slot 7

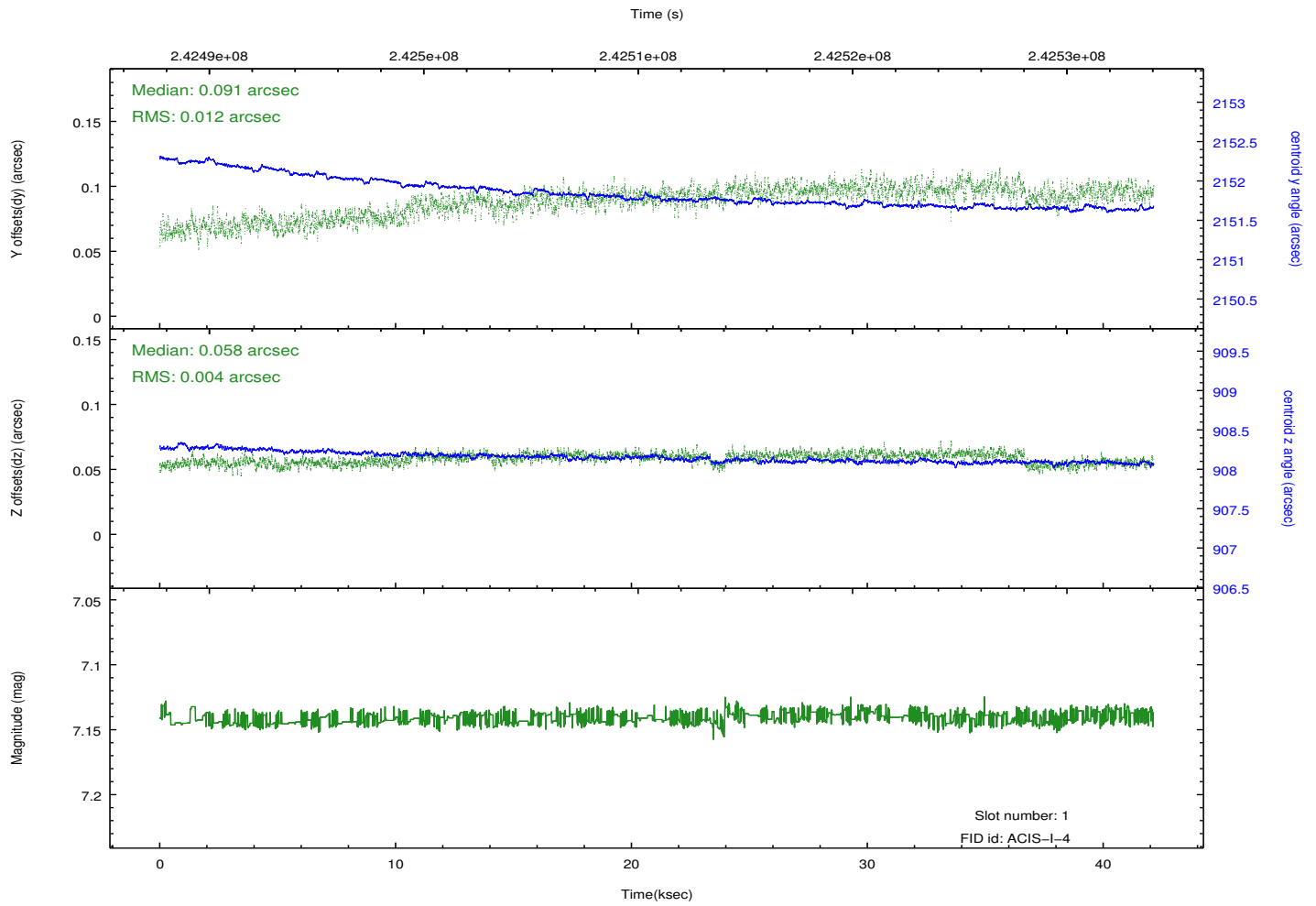
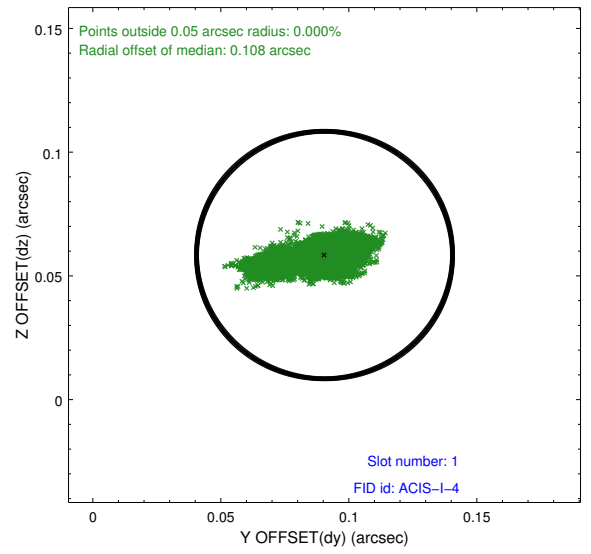
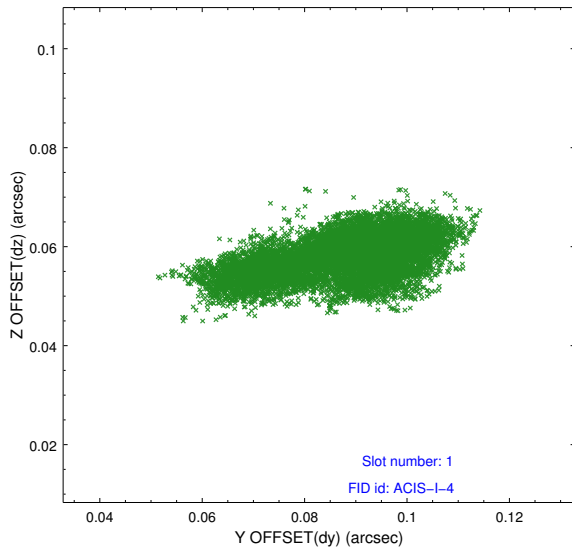


2.5 FID Slots

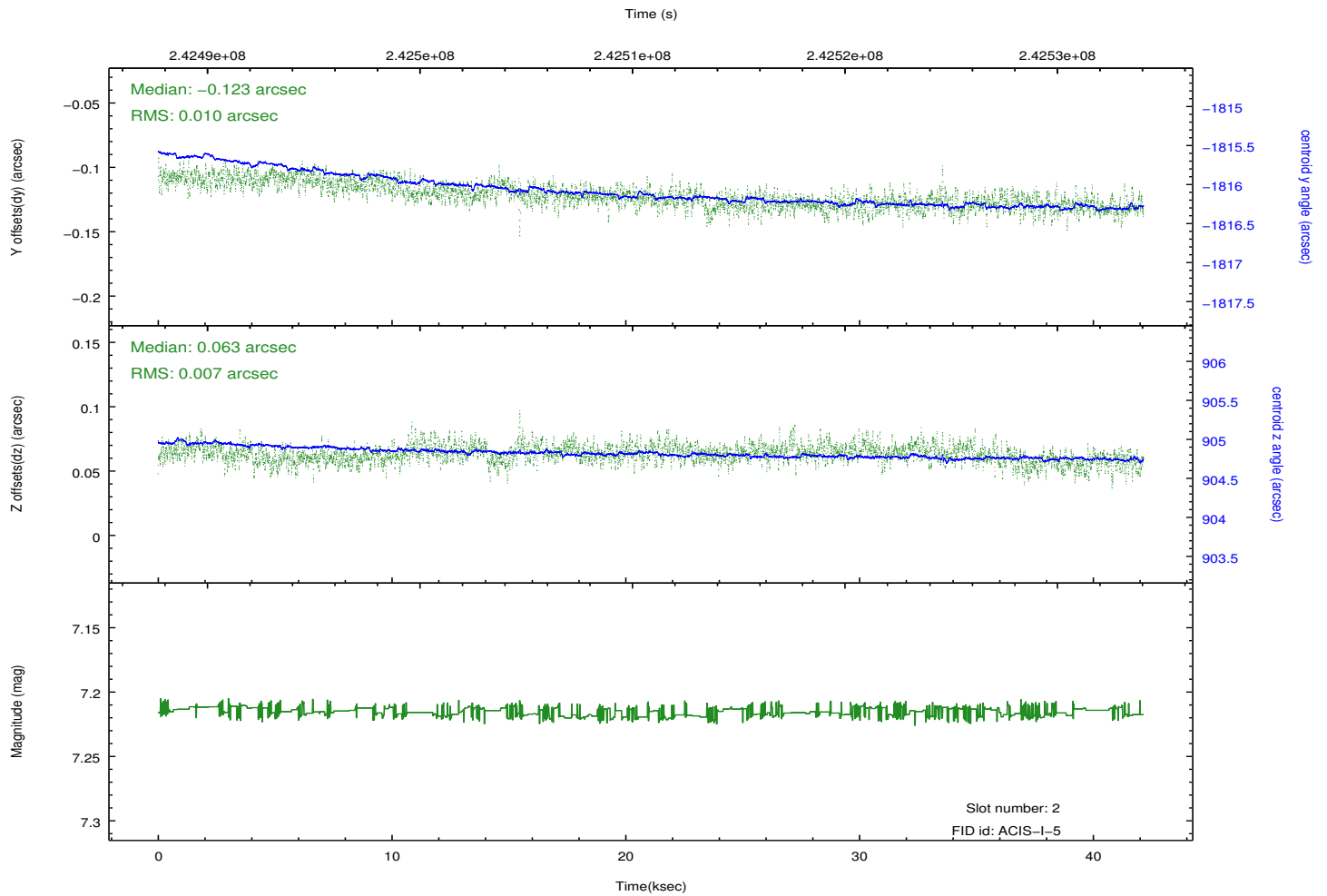
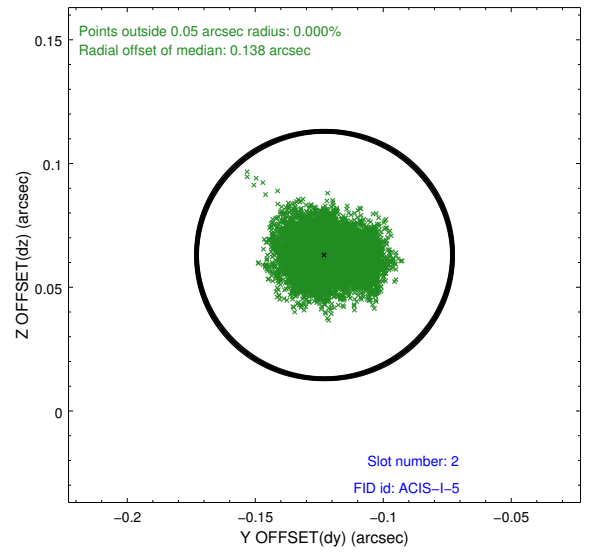
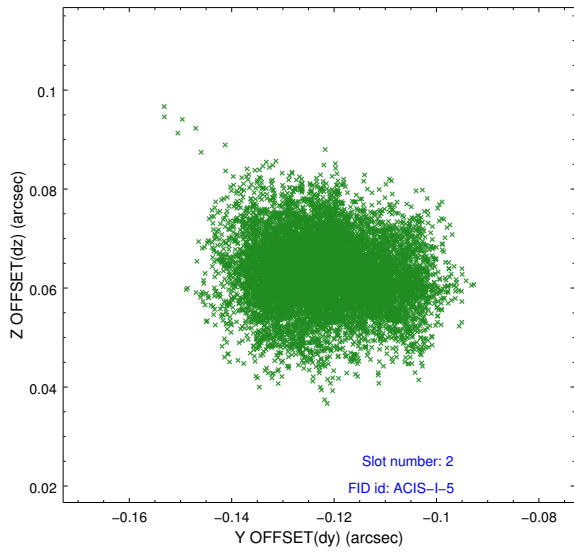
2.5.1 Slot 0



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)	2013.02.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.57397

A.2 Comments

This observation was interrupted by safing of the science instruments onboard Chandra due to high solar radiation environment. The observation was interrupted at 2005:251:01:57:56. Due to a high radiation environment, the instruments were safed and the observation terminated early. This observation has been reprocessed so that the aspect solution correctly handles the instrument safing and maneuver activities at the end of the observation.

=====

Radiation environment was increasing during last 10 ksec of the observation. Also, 11 ksec into the observation, there was a single radiation event that caused a rather broad spike in the number of events sent. This time period was excluded from the Good Time Interval and does not appear in the Level 2 data.