

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12250 - L2 Version 2
Chandra X-Ray Center

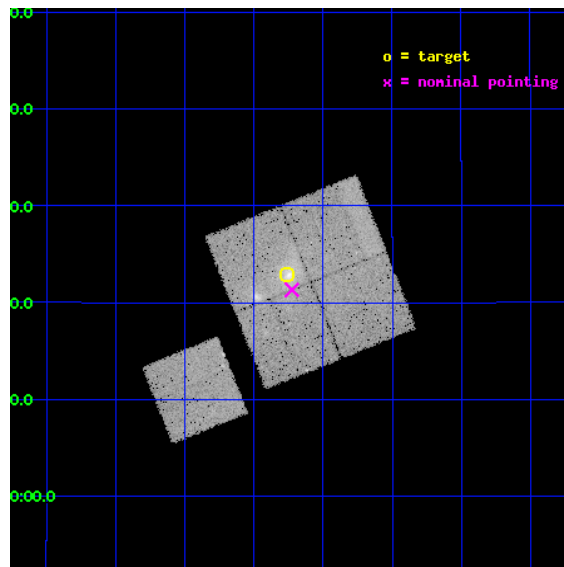
L2 Processing Date : Feb 5 2012

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1 Front

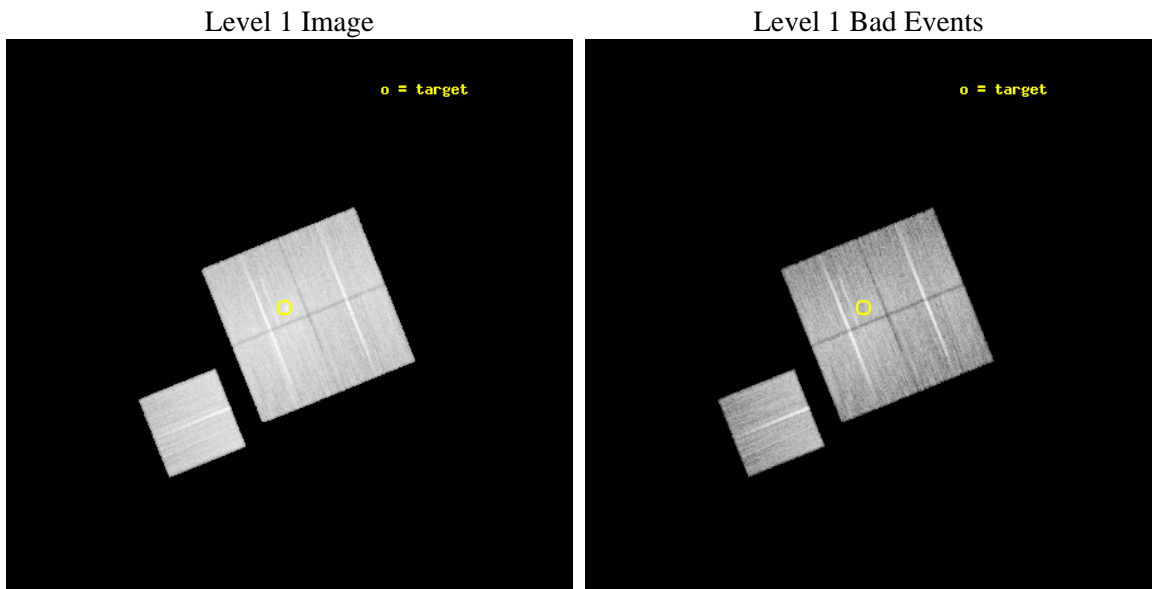
seq_num	800970	Sequence number
obs_id	12250	Observation id
title	Extending X-ray and Sunyaev-Zel'dovich effect calibrations to low mass galaxy clusters	Proposal title
observer	Dr Ben Maughan	Principal investigator
object	A853	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	145.565	Observer's specified target RA [deg]
dec_targ	15.382	Observer's specified target Dec [deg]
ra_nom	145.55654470276	Nominal RA [deg]
dec_nom	15.35540609308	Nominal Dec [deg]
roll_nom	248.11801195117	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25595.52202642	Sum of GTIs [s]
livetime	25261.097687995	Livetime [s]
ontime0	25595.39890641	Sum of GTIs [s]
ontime1	25595.439946413	Sum of GTIs [s]
ontime2	25589.198985755	Sum of GTIs [s]
ontime3	25595.52202642	Sum of GTIs [s]
ontime6	25595.357866406	Sum of GTIs [s]
l2events	98317	Number of level 2 events



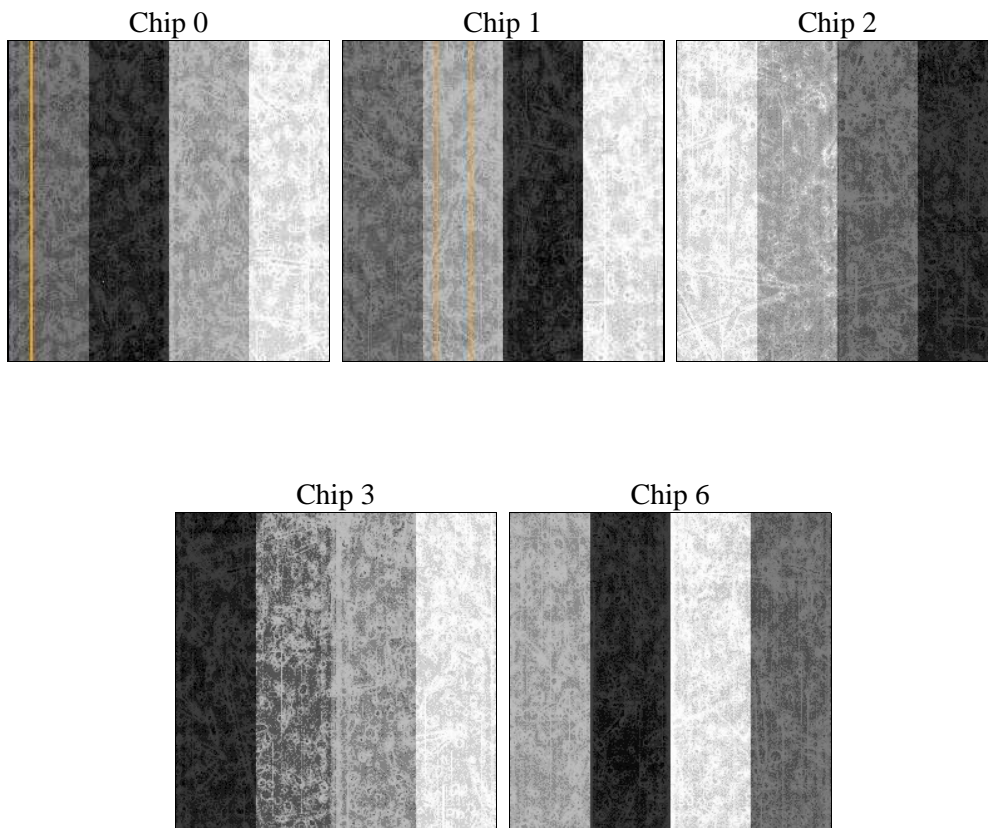
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	25540.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	25595.52202642	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	25595.39890641	Sum of GTIs [s]
date	2012-02-05T16:52:48	Date and time of file creation	ontime1	25595.439946413	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	25589.198985755	Sum of GTIs [s]
			ontime3	25595.52202642	Sum of GTIs [s]
			ontime6	25595.357866406	Sum of GTIs [s]
			l1events	996786	Number of level 1 events

2.1.4 Events

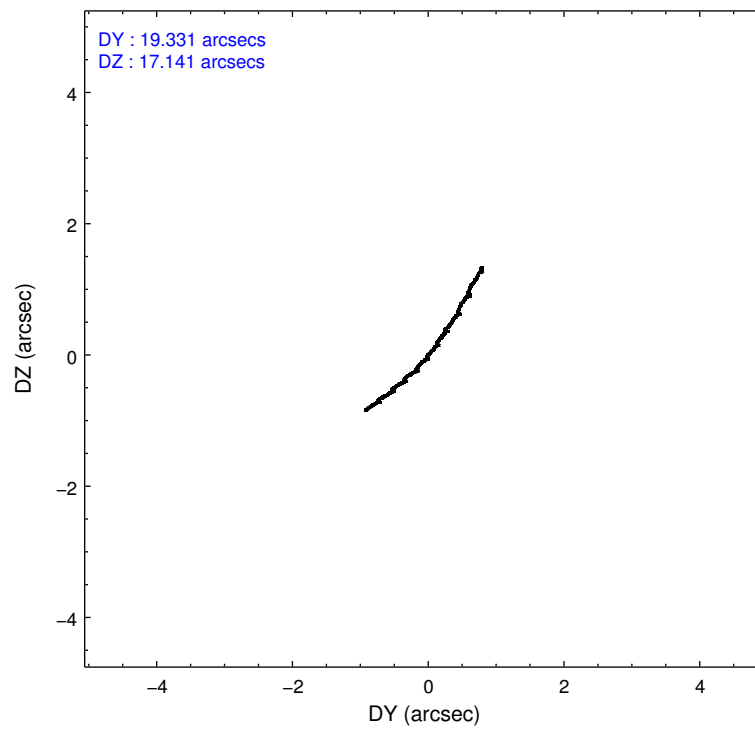
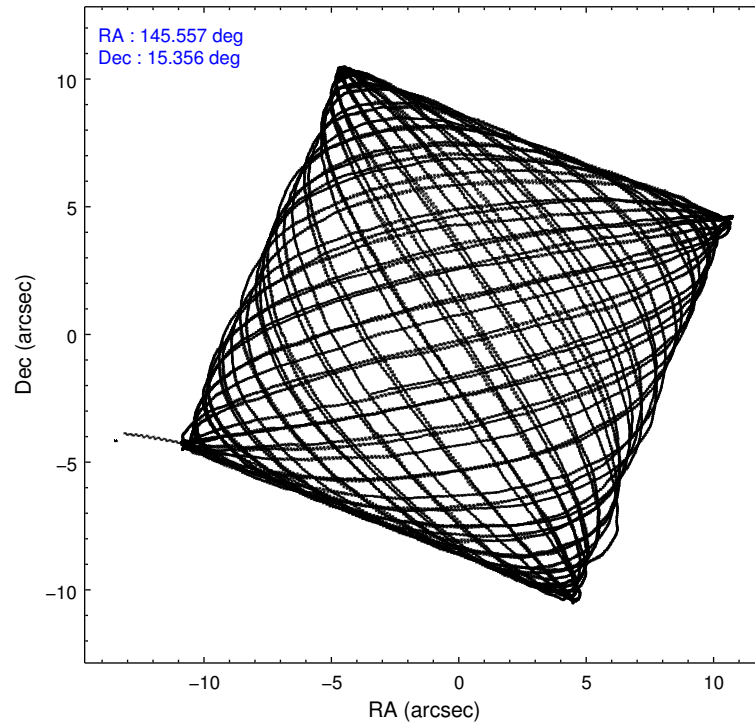
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	180747	185800	216447	205328	208464
rejected events	157171	161040	190973	178579	184221
rejected %	86%	86%	88%	86%	88%

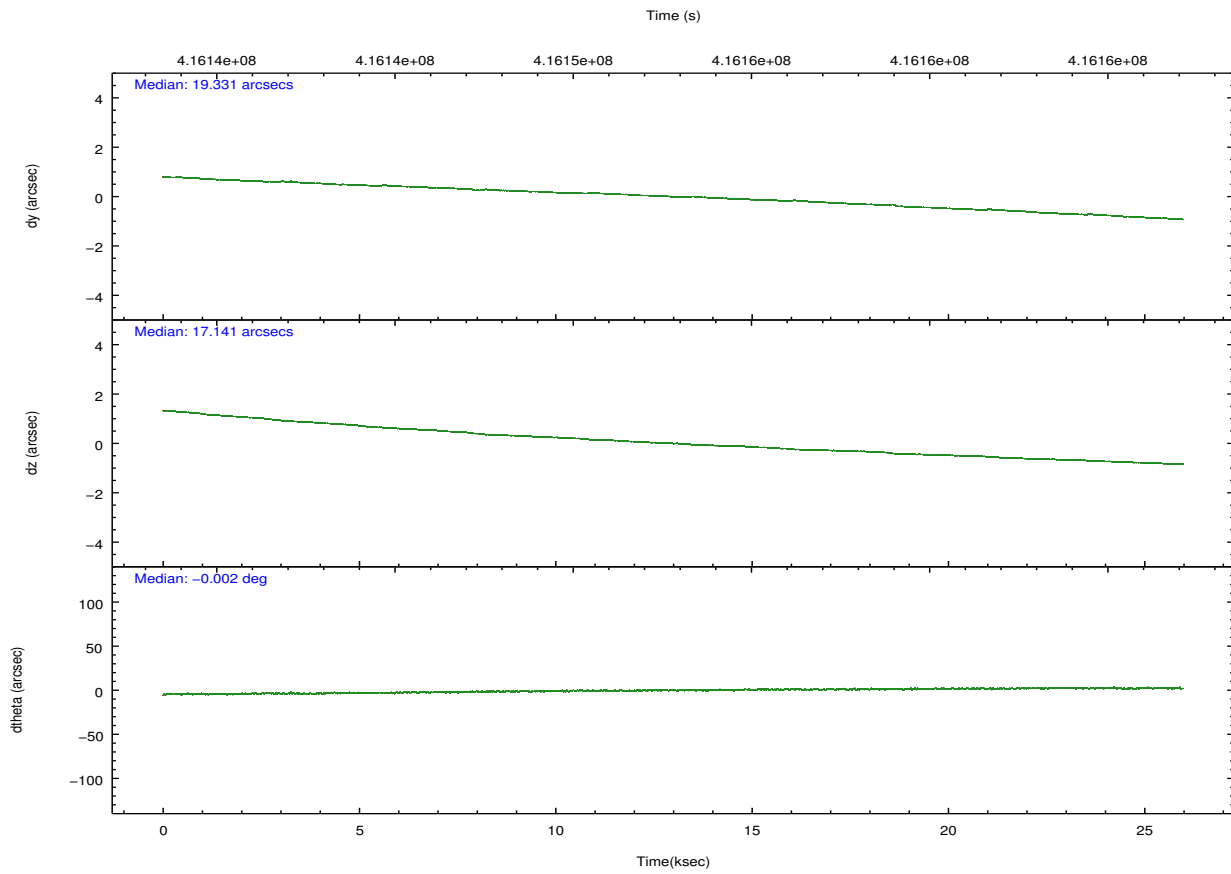
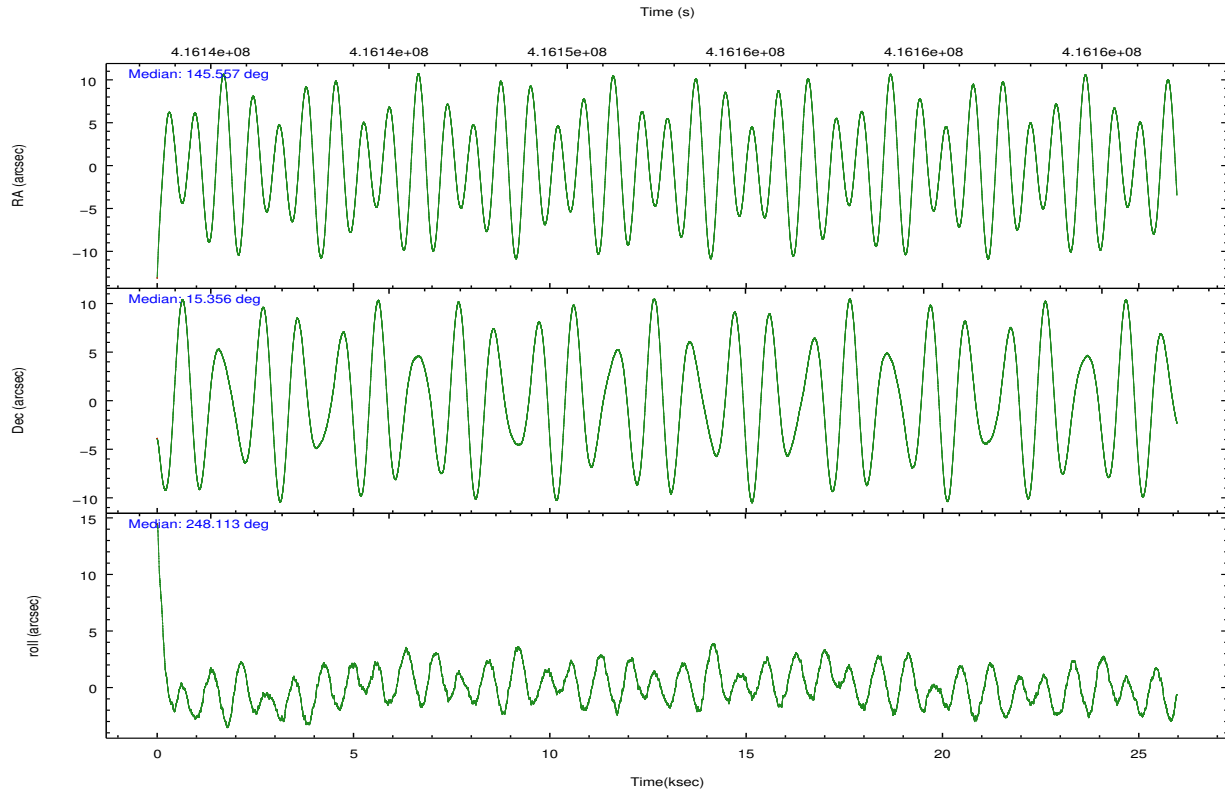
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	9073	9317	10548	13031	9549
	5%	5%	4%	6%	4%
grade 1 events	130	104	170	147	109
	0%	0%	0%	0%	0%
grade 2 events	6303	6151	6536	5208	5843
	3%	3%	3%	2%	2%
grade 3 events	2125	2311	1972	2167	2143
	1%	1%	0%	1%	1%
grade 4 events	1997	2263	2467	2191	2118
	1%	1%	1%	1%	1%
grade 5 events	7445	7764	7000	8494	8126
	4%	4%	3%	4%	3%
grade 6 events	4081	4721	3955	4156	4592
	2%	2%	1%	2%	2%
grade 7 events	149593	153169	183799	169934	175984
	82%	82%	84%	82%	84%

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	145.552388	145.5565447027566	Subarray requested	NONE	NONE
[deg] Pointing Dec	15.382618	15.35540609307994	Alternating exposures requested	N	N
[deg] Pointing Roll	247.910421	248.1180119511677	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	416140239.184000	416139189.17843			
Observation start date	2011-03-10T10:29:33	2011-03-10T10:13:09			
[s] Observation end time (MET)	416165779.184000	416167027.66737			
Observation end date	2011-03-10T17:35:13	2011-03-10T17:57:07			
Read mode	TIMED	TIMED			

2.3 Aspect



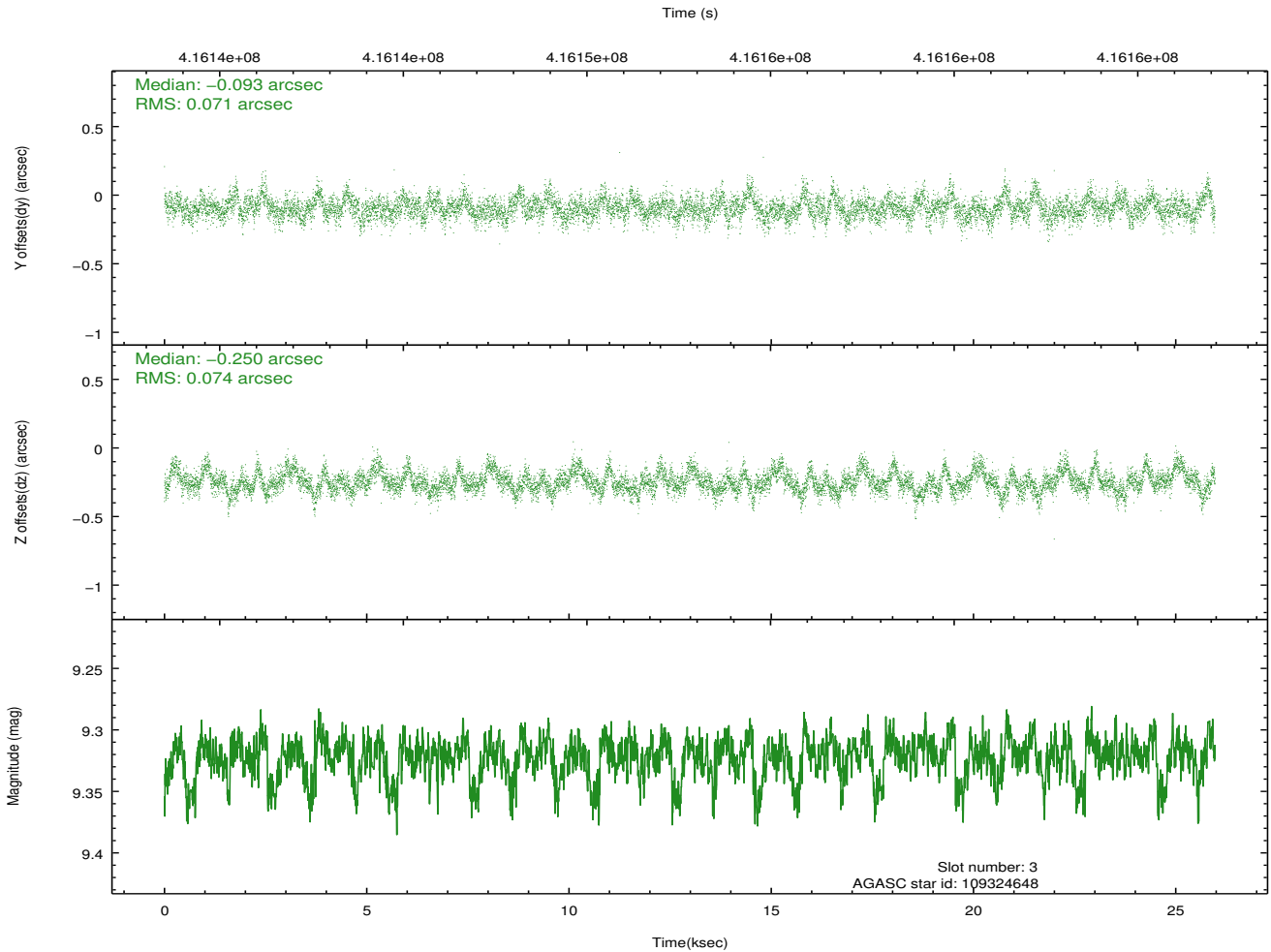
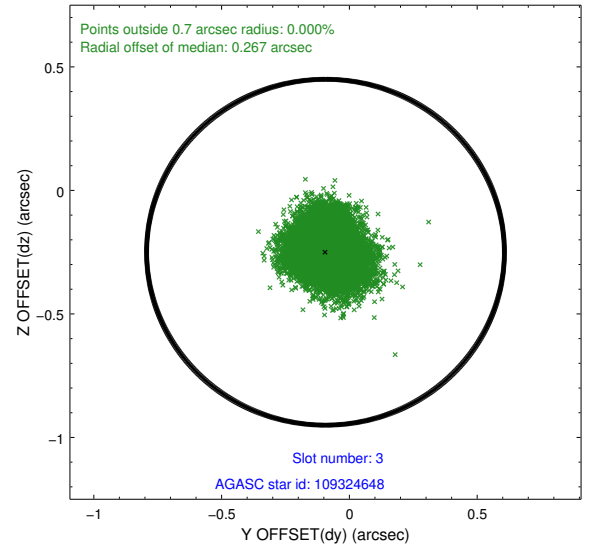
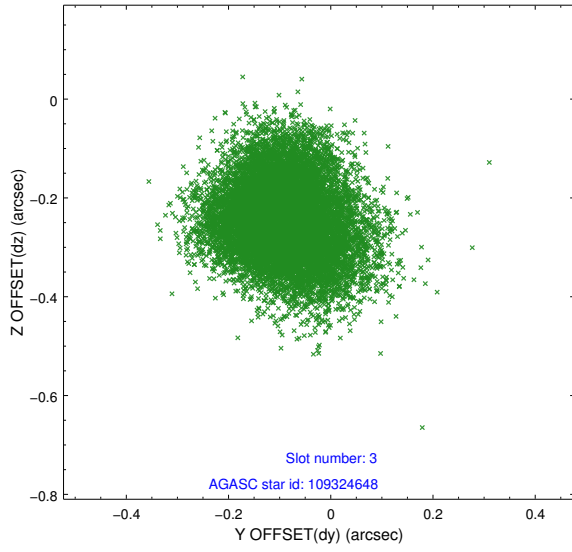


Slot Statistics

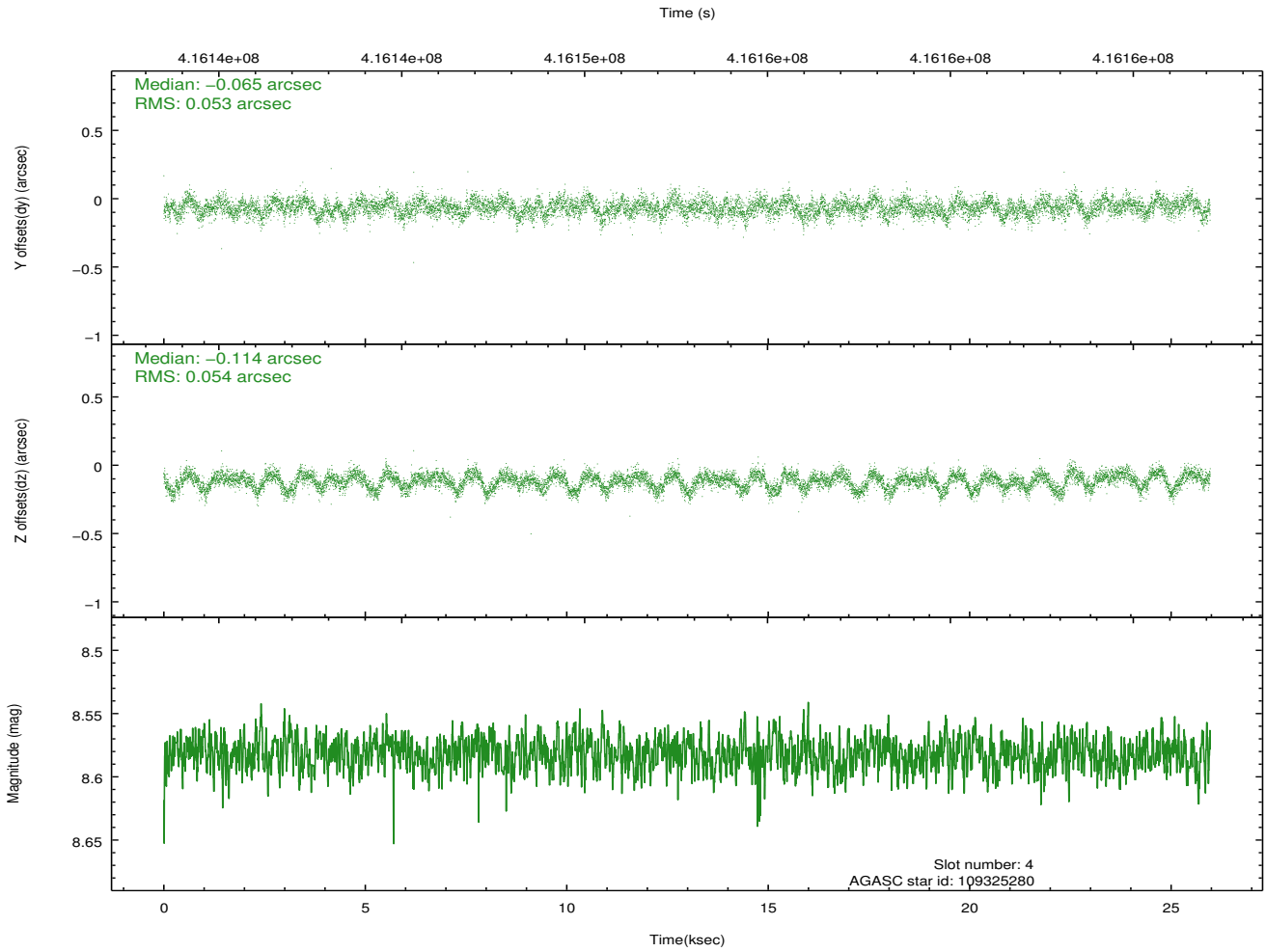
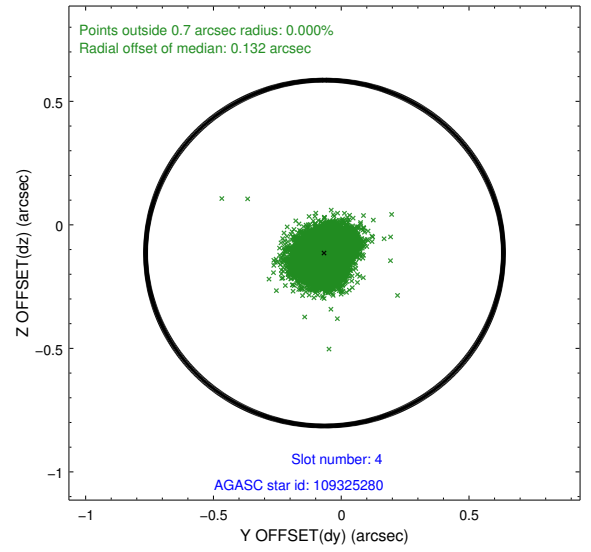
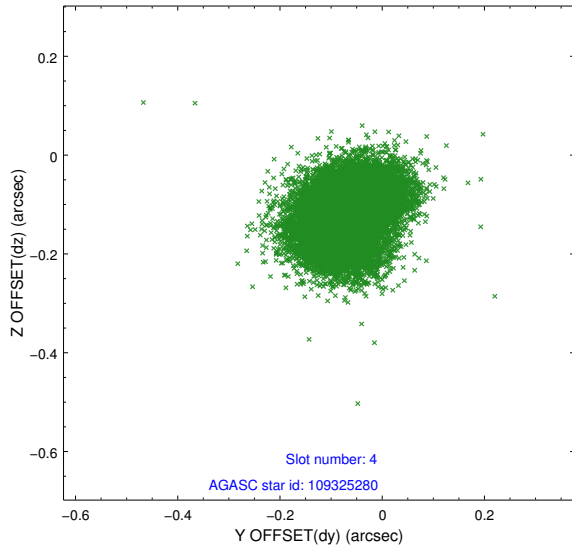
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.02	6335	0.099	-0.012	0.023	0.039	0.000000	0.000000	920.06	-925.99
1	FID	ACIS-I-5	6.99	6335	-0.294	0.087	0.015	0.027	0.000000	0.000000	-1828.39	971.50
2	FID	ACIS-I-6	7.00	6334	0.105	0.000	0.019	0.028	0.000000	0.000000	385.48	1616.07
3	GUIDE	109324648	9.32	12652	-0.093	-0.250	0.109	0.179	145.609138	14.797770	1877.06	974.87
4	GUIDE	109325280	8.58	12660	-0.065	-0.114	0.081	0.129	145.576163	14.763967	2033.10	914.77
5	GUIDE	184813648	9.47	12646	0.076	0.138	0.115	0.184	144.781909	15.276039	1358.28	-2336.99
6	GUIDE	184813944	7.85	12667	-0.016	0.029	0.084	0.134	145.441575	15.755188	-1097.73	-860.59
7	GUIDE	184817568	8.69	12644	0.098	0.197	0.073	0.118	145.387071	15.105317	1141.36	-156.65

2.4 Star Slots

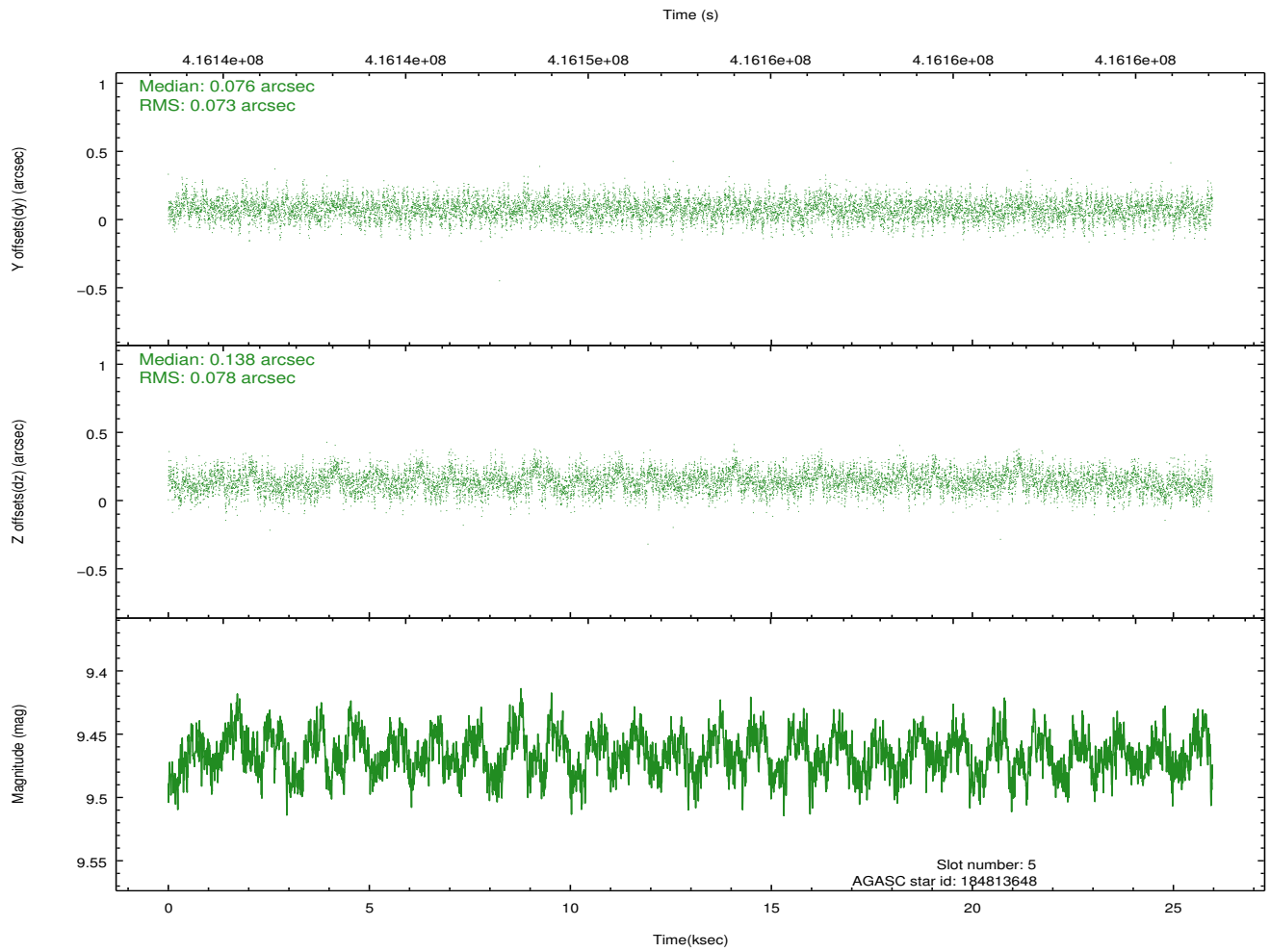
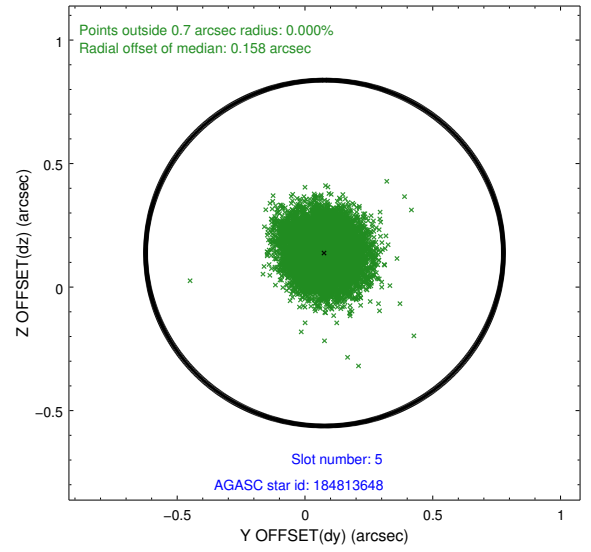
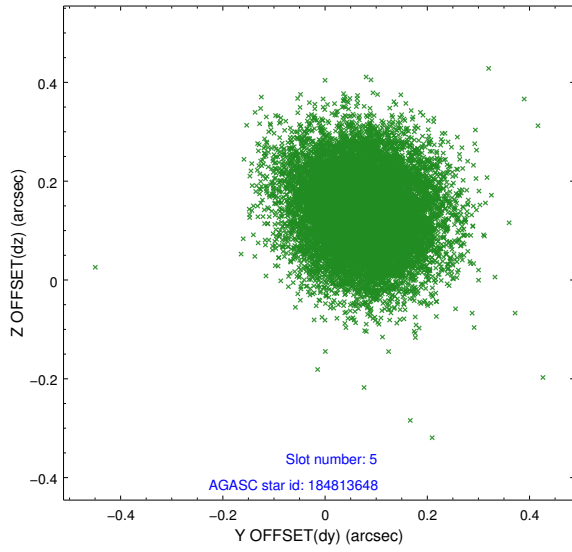
2.4.1 Slot 3



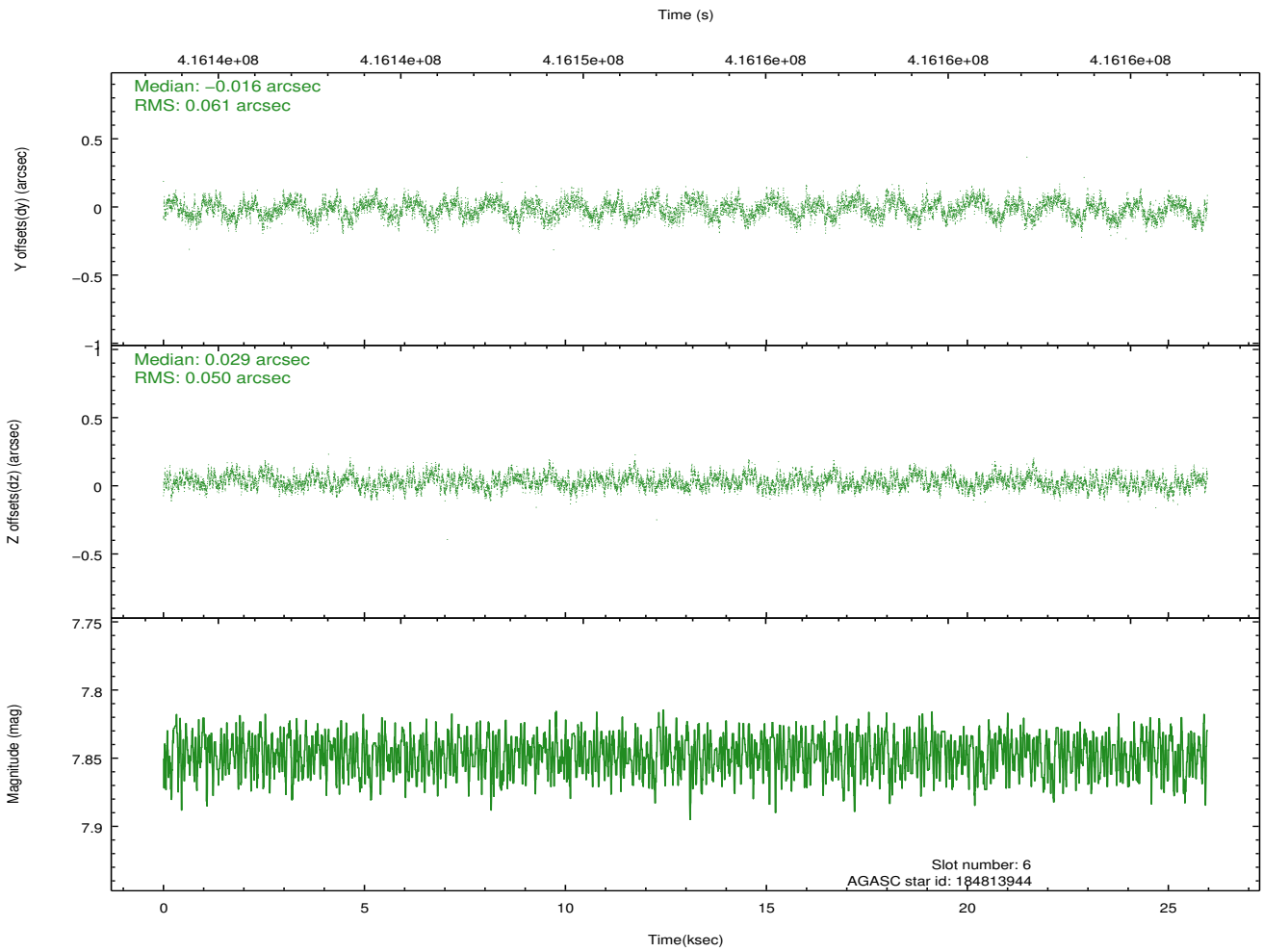
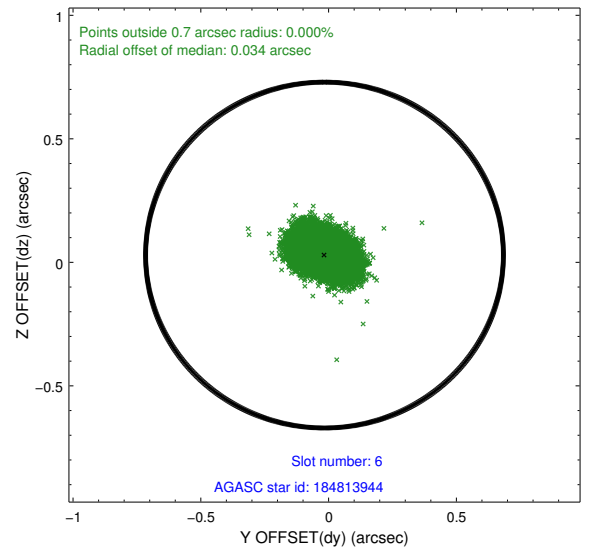
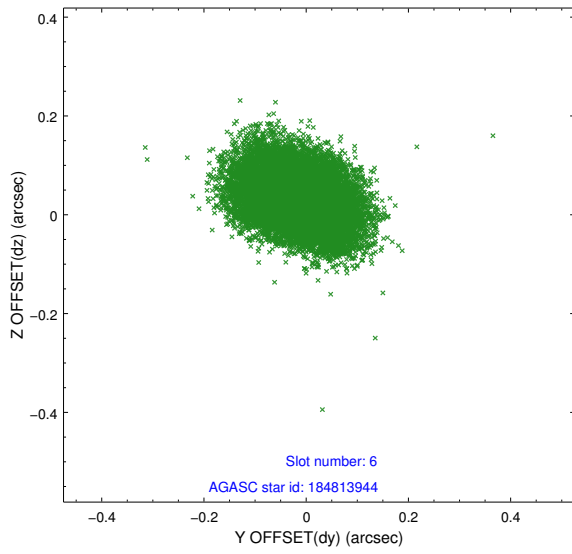
2.4.2 Slot 4



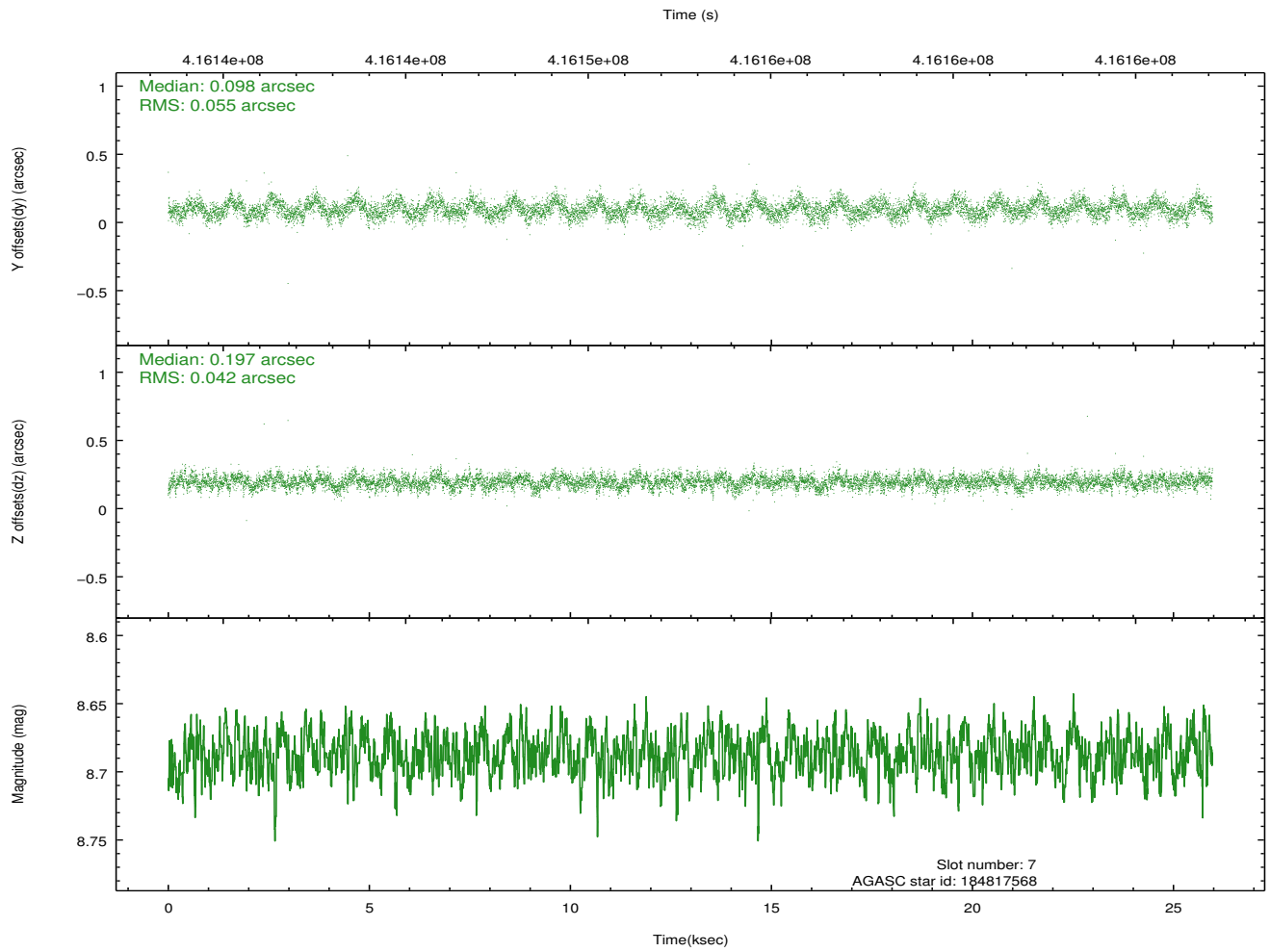
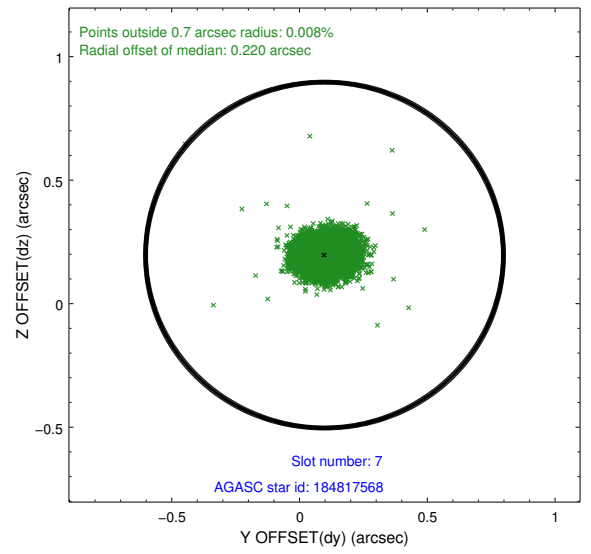
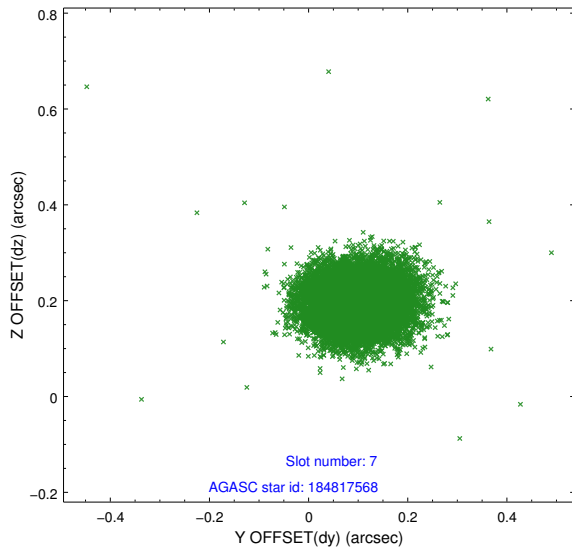
2.4.3 Slot 5



2.4.4 Slot 6

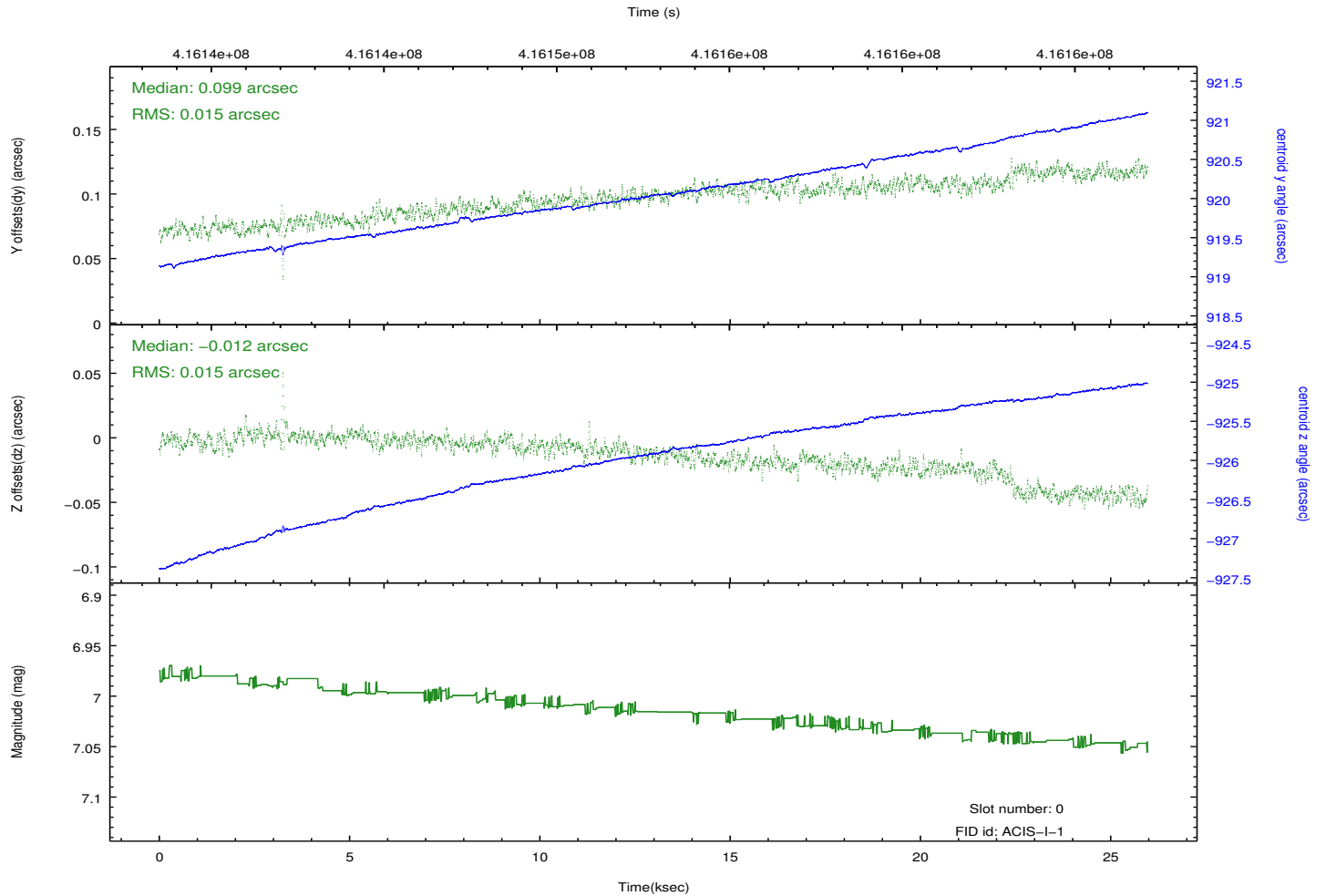
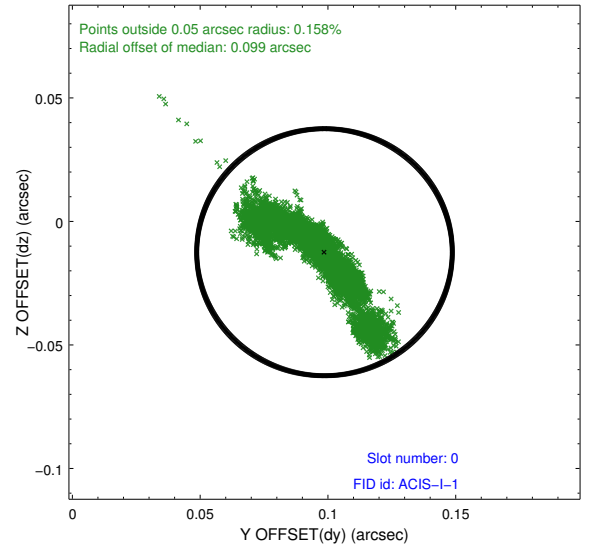
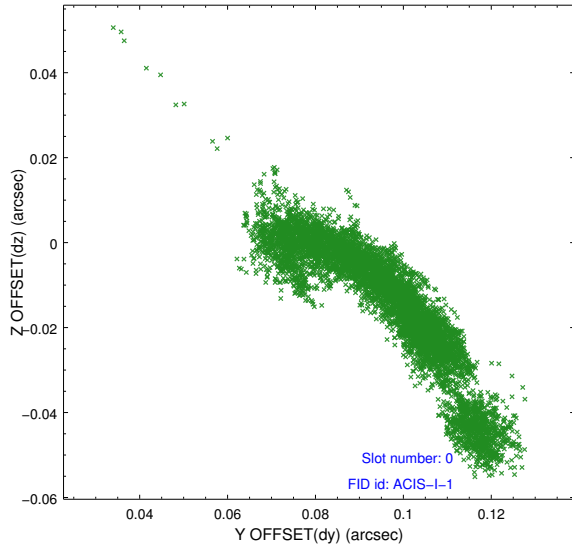


2.4.5 Slot 7

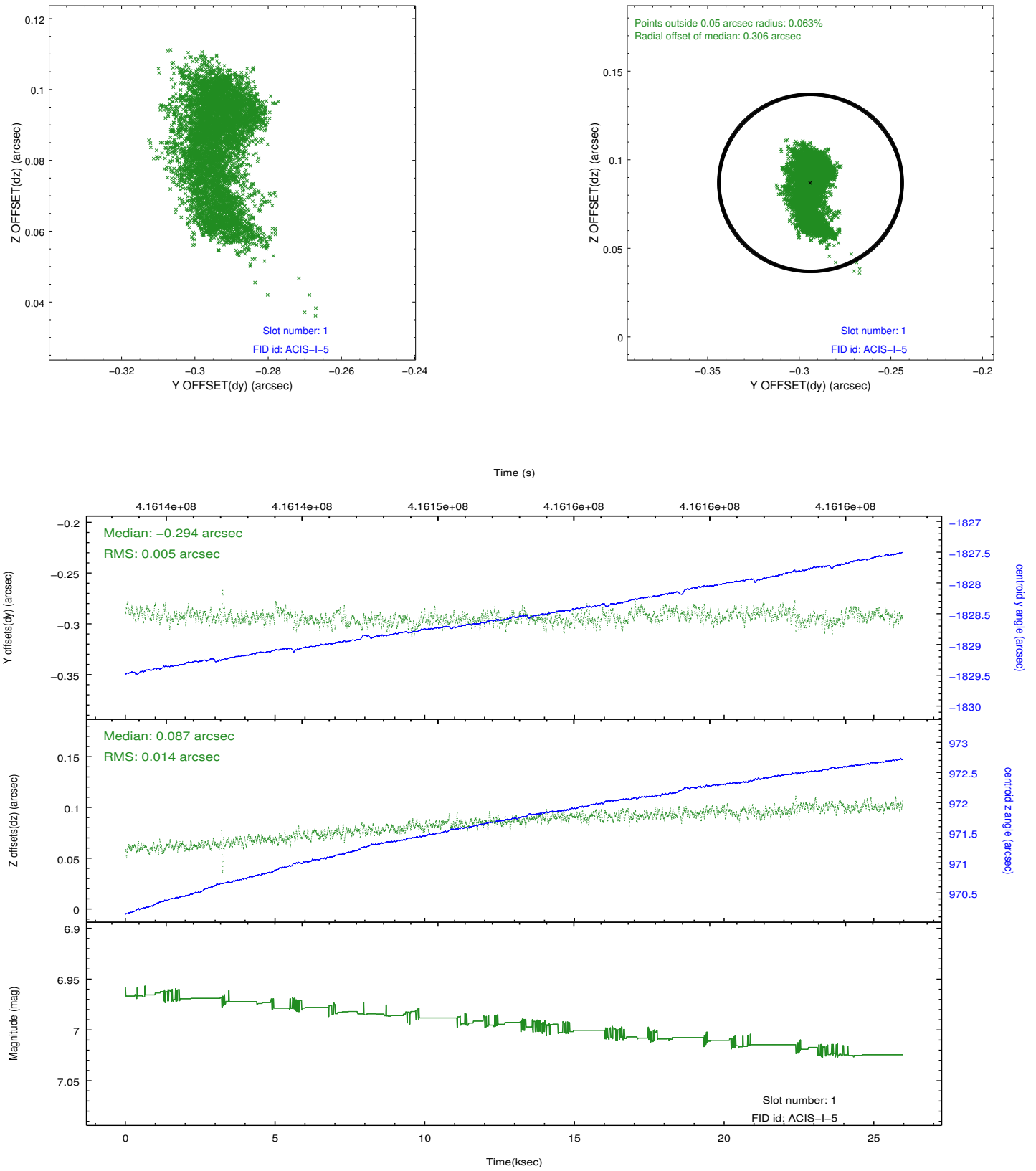


2.5 FID Slots

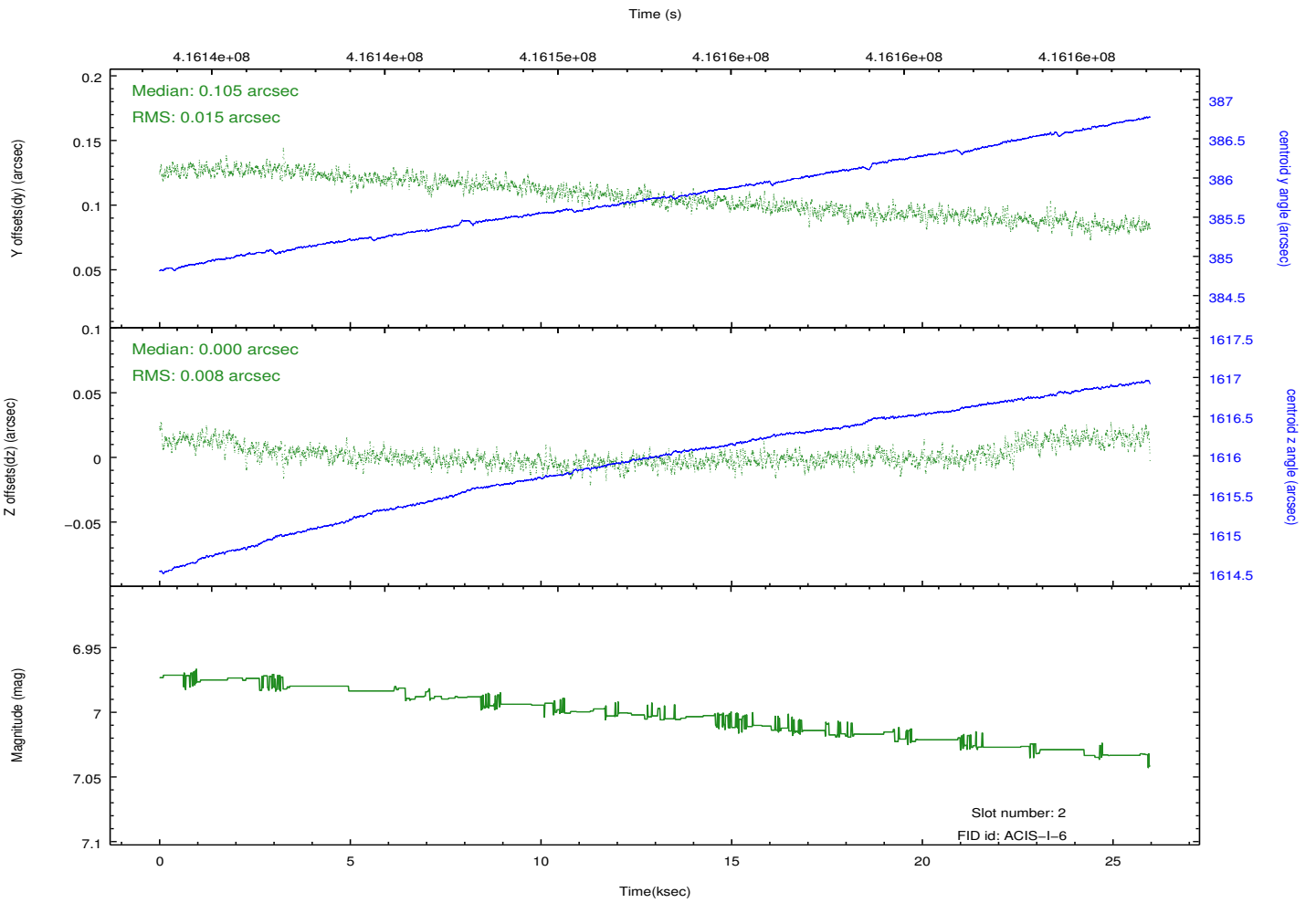
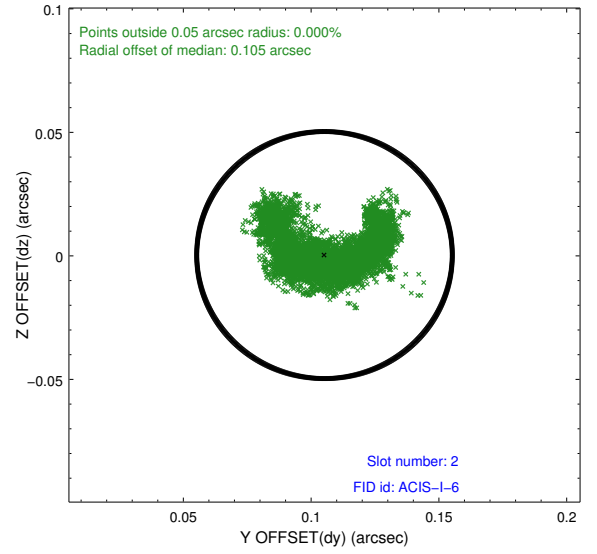
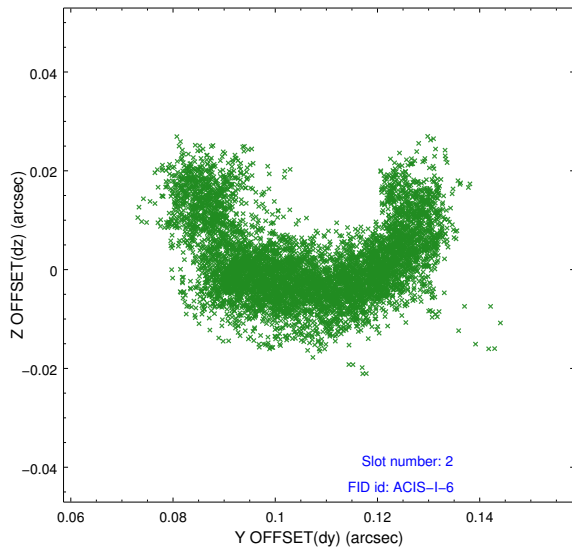
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.595522027671

A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.