

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12431 - L2 Version 2
Chandra X-Ray Center

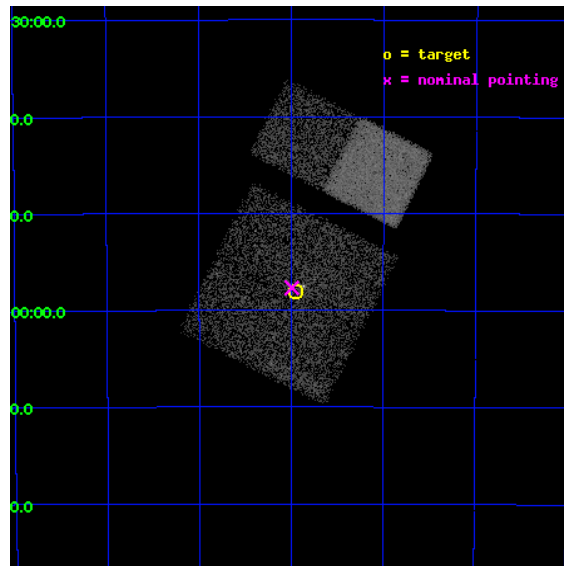
L2 Processing Date : Feb 10 2012

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1 Front

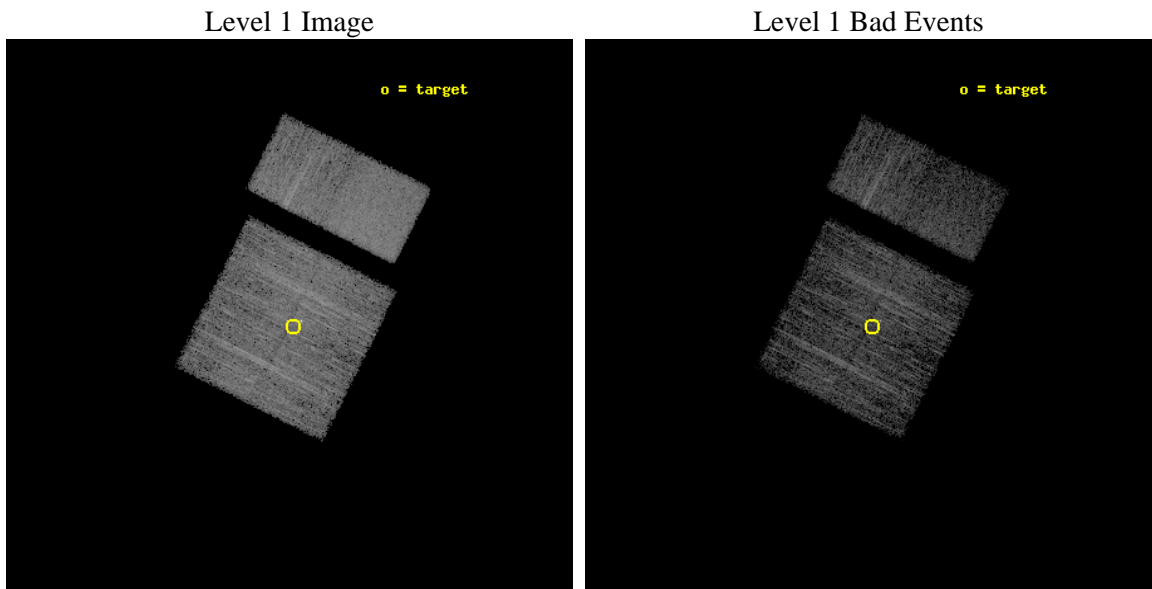
seq_num	401172	Sequence number
obs_id	12431	Observation id
title	The Nature of INTEGRAL Sources in the Galactic Plane	Proposal titl
observer	Dr. John Tomsick	Principal investigator
object	IGR J16560-4958	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	253.989167	Observer's specified target RA [deg]
dec_targ	-49.967	Observer's specified target Dec [deg]
ra_nom	253.99801227292	Nominal RA [deg]
dec_nom	-49.961590448803	Nominal Dec [deg]
roll_nom	26.712506956795	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5055.9999812245	Sum of GTIs [s]
livetime	4991.9778651046	Livetime [s]
ontime0	5055.9999812245	Sum of GTIs [s]
ontime1	5055.9999812245	Sum of GTIs [s]
ontime2	5055.9999812245	Sum of GTIs [s]
ontime3	5055.9999812245	Sum of GTIs [s]
ontime6	5055.9999812245	Sum of GTIs [s]
ontime7	5055.9999812245	Sum of GTIs [s]
l2events	36010	Number of level 2 events



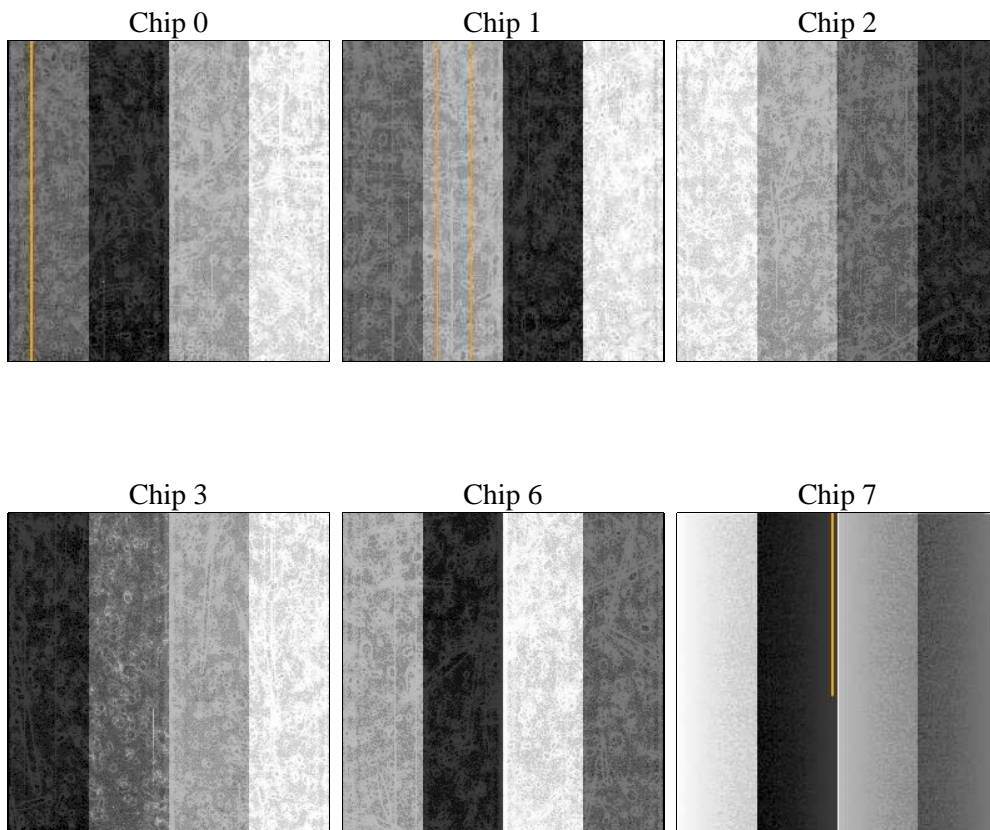
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	5055.9999812245	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	5055.9999812245	Sum of GTIs [s]
date	2012-02-10T23:45:25	Date and time of file creation	ontime1	5055.9999812245	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	5055.9999812245	Sum of GTIs [s]
			ontime3	5055.9999812245	Sum of GTIs [s]
			ontime6	5055.9999812245	Sum of GTIs [s]
			ontime7	5055.9999812245	Sum of GTIs [s]
			l1events	208108	Number of level 1 events

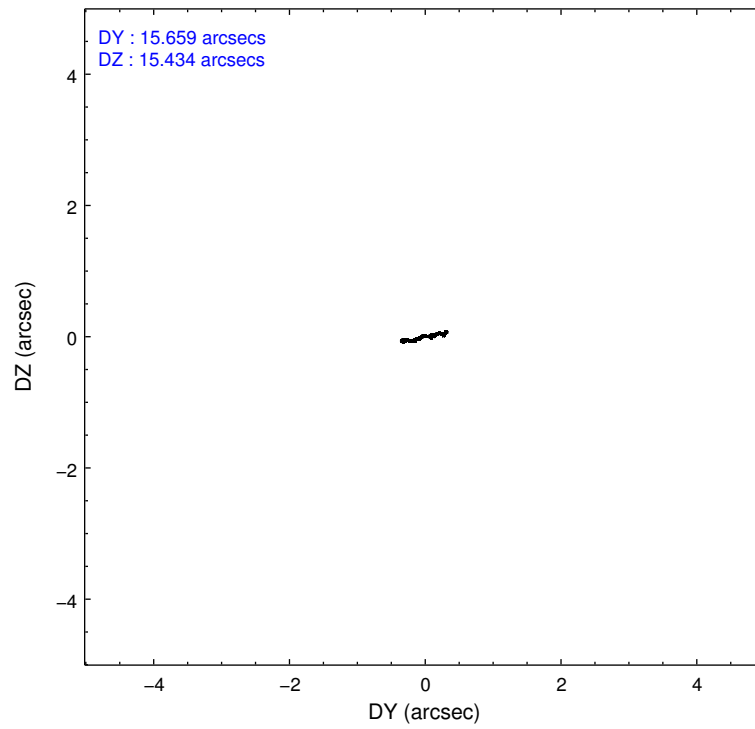
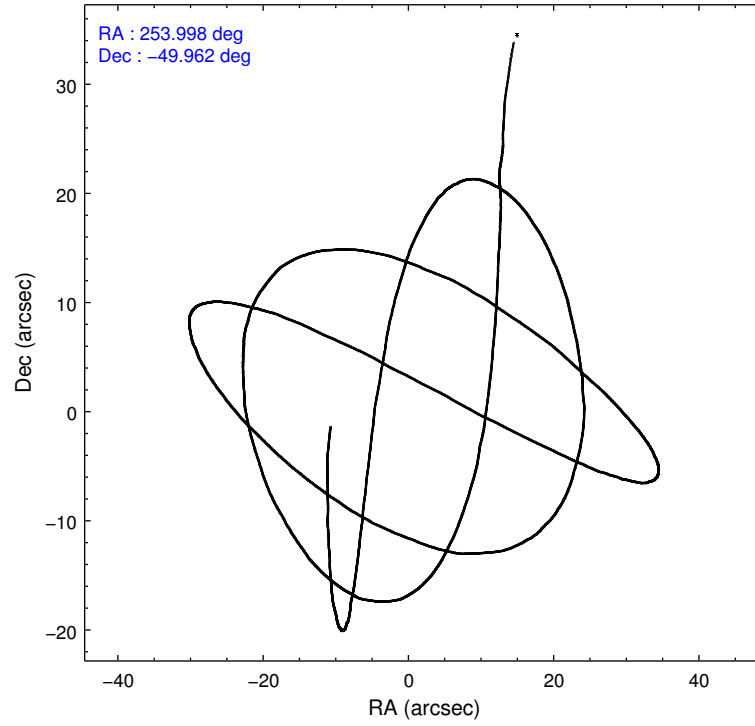
2.1.4 Events

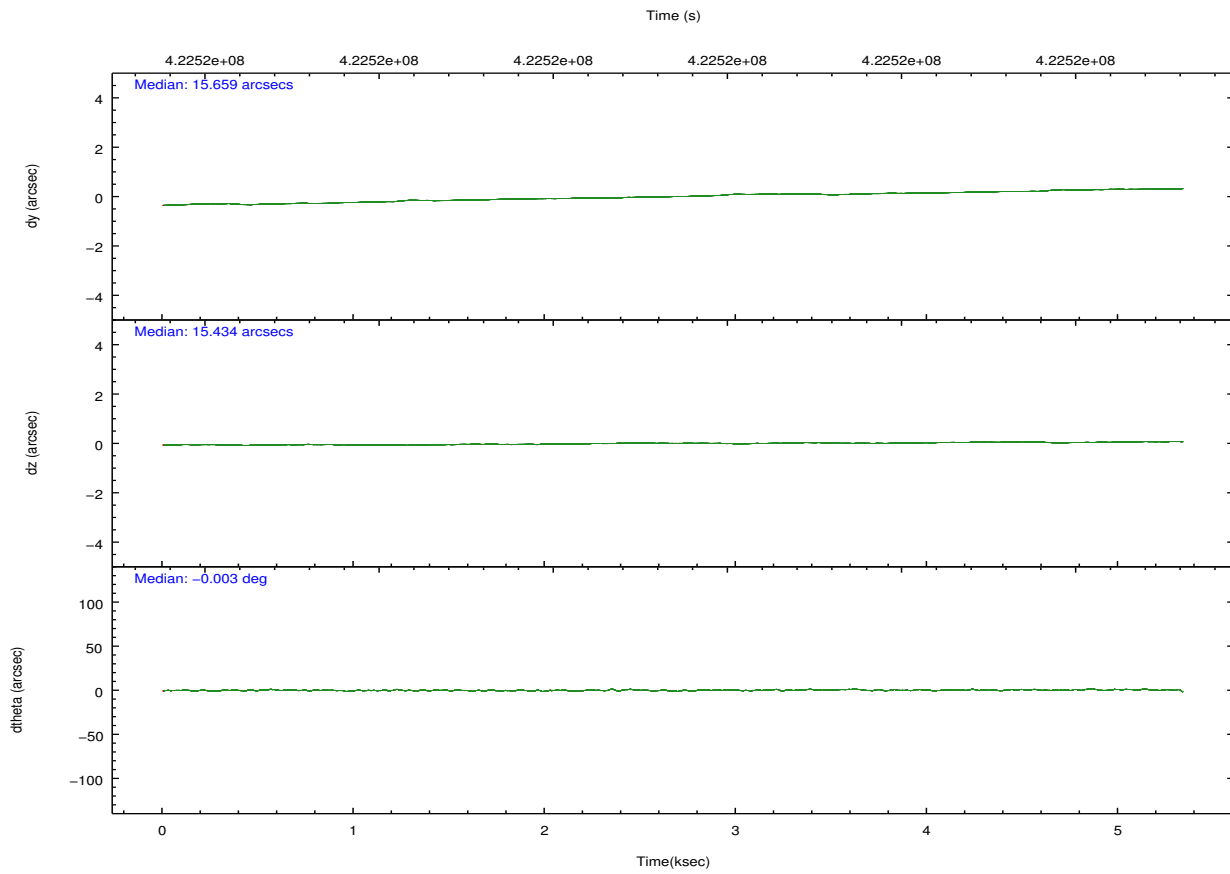
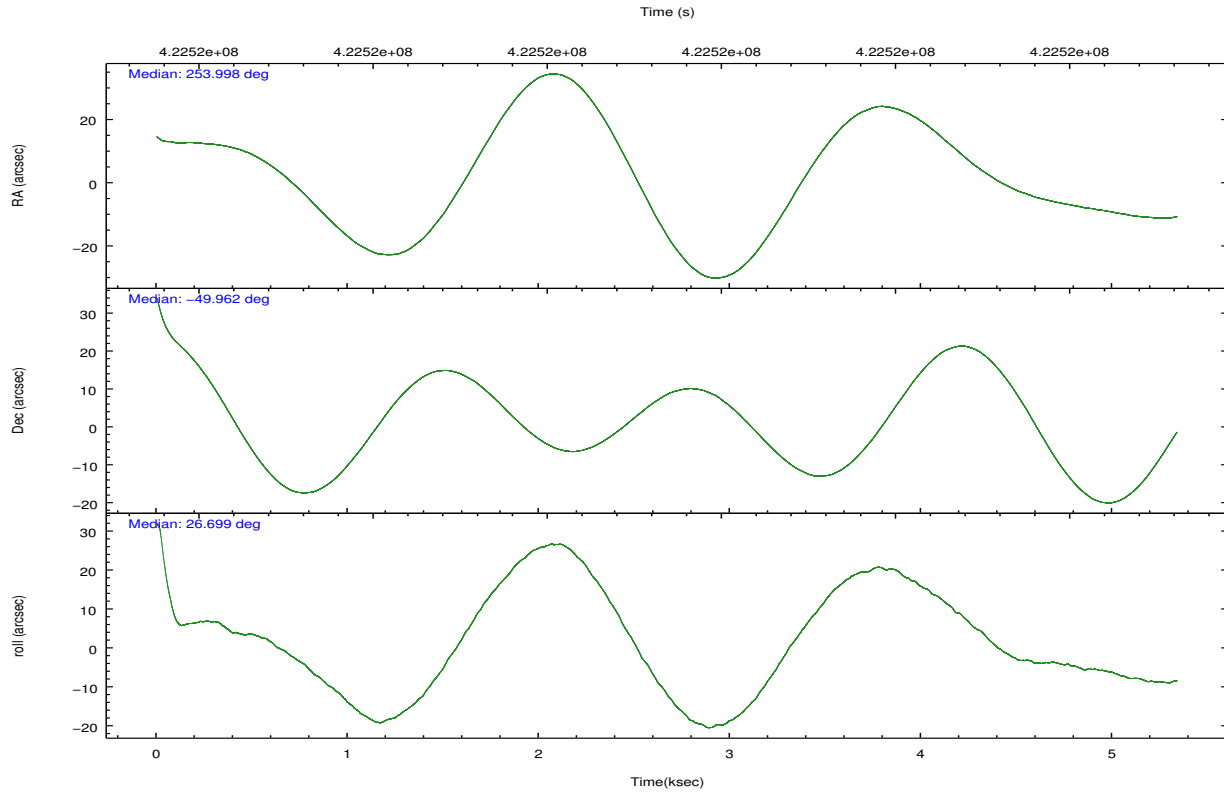
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	30862	30963	33537	35576	34855	42315	grade 0 events	1353	1593	1449	2125	1419	1711
rejected events	27051	26713	29807	30627	30837	23360		4%	5%	4%	5%	4%	4%
rejected %	87%	86%	88%	86%	88%	55%	grade 1 events	16	26	21	134	16	57
								0%	0%	0%	0%	0%	0%
							grade 2 events	953	987	886	1012	904	3912
								3%	3%	2%	2%	2%	9%
							grade 3 events	400	441	346	483	407	1705
								1%	1%	1%	1%	1%	4%
							grade 4 events	387	419	354	474	408	1674
								1%	1%	1%	1%	1%	3%
							grade 5 events	1362	1460	1275	1727	1593	4440
								4%	4%	3%	4%	4%	10%
							grade 6 events	725	815	701	862	883	9975
								2%	2%	2%	2%	2%	23%
							grade 7 events	25666	25222	28505	28759	29225	18841
								83%	81%	84%	80%	83%	44%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	253.974883	253.9980122729198	CCD I2 on	Y	Y
[deg] Pointing Dec	-49.984429	-49.96159044880257	CCD I3 on	Y	Y
[deg] Pointing Roll	26.486045	26.71250695679518	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	422518359.184000	422517276.60931	CCD S5 on	N	N
Observation start date	2011-05-23T06:11:33	2011-05-23T05:54:36	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	422523359.184000	422524039.04716	On-chip summing requested	N	N
Observation end date	2011-05-23T07:34:53	2011-05-23T07:47:19	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





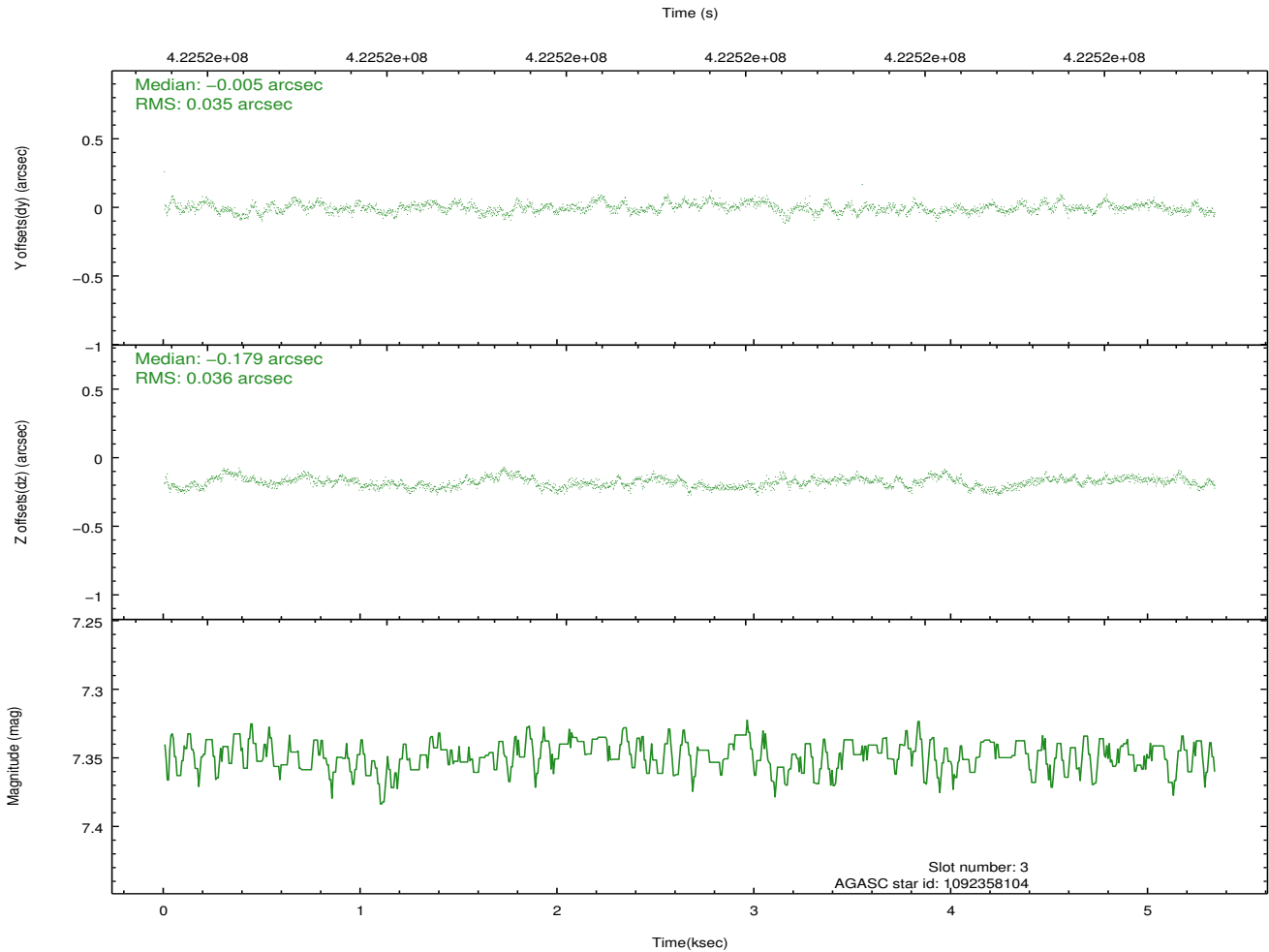
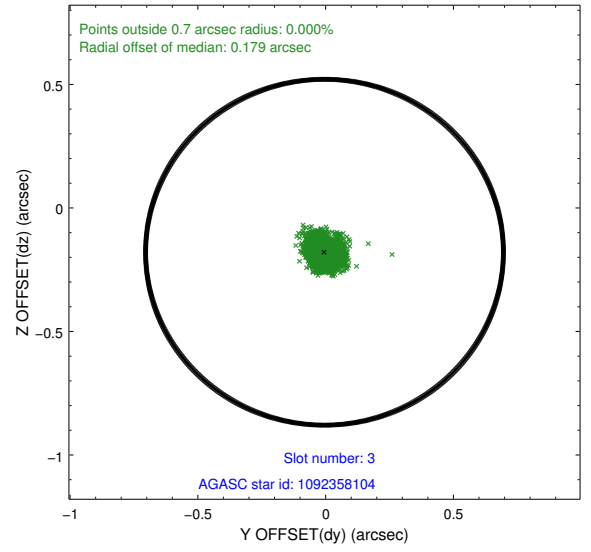
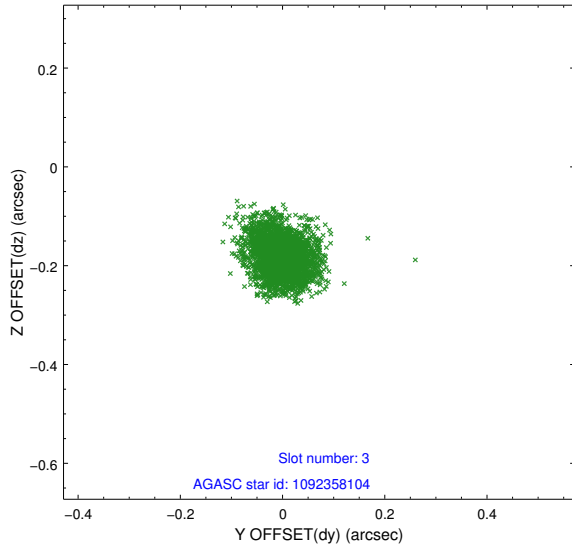
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.06	1302	-0.005	-0.037	0.009	0.016	0.000000	0.000000	923.80	-839.05
1	FID	ACIS-I-4	6.97	1302	0.122	0.051	0.010	0.017	0.000000	0.000000	2144.56	1060.30
2	FID	ACIS-I-5	7.04	1302	-0.215	0.056	0.007	0.015	0.000000	0.000000	-1822.99	1059.36
3	GUIDE	1092358104	7.35	2604	-0.005	-0.179	0.053	0.084	252.987980	-50.029421	-2121.15	859.69
4	GUIDE	1092361152	8.18	2601	0.094	-0.265	0.064	0.106	252.848913	-49.764897	-2000.18	1858.07
5	GUIDE	1092493800	9.03	2602	-0.086	0.176	0.089	0.145	253.697634	-50.579833	-1523.35	-1635.31
6	GUIDE	1093010088	8.72	2601	0.029	0.130	0.088	0.145	253.851927	-50.662437	-1339.04	-2059.51
7	GUIDE	1093037872	6.73	2603	-0.035	0.146	0.063	0.101	254.036843	-50.674793	-981.21	-2287.46

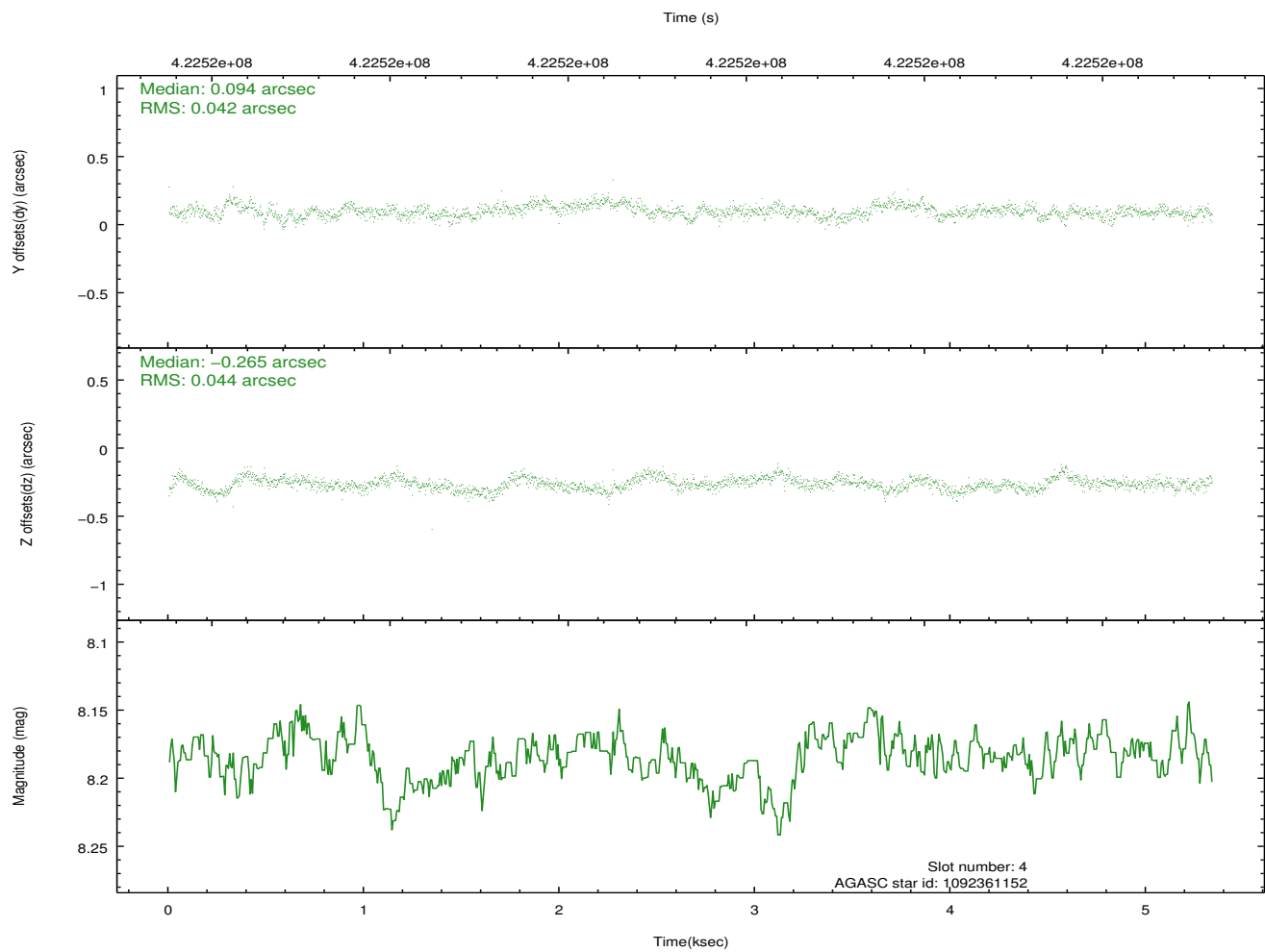
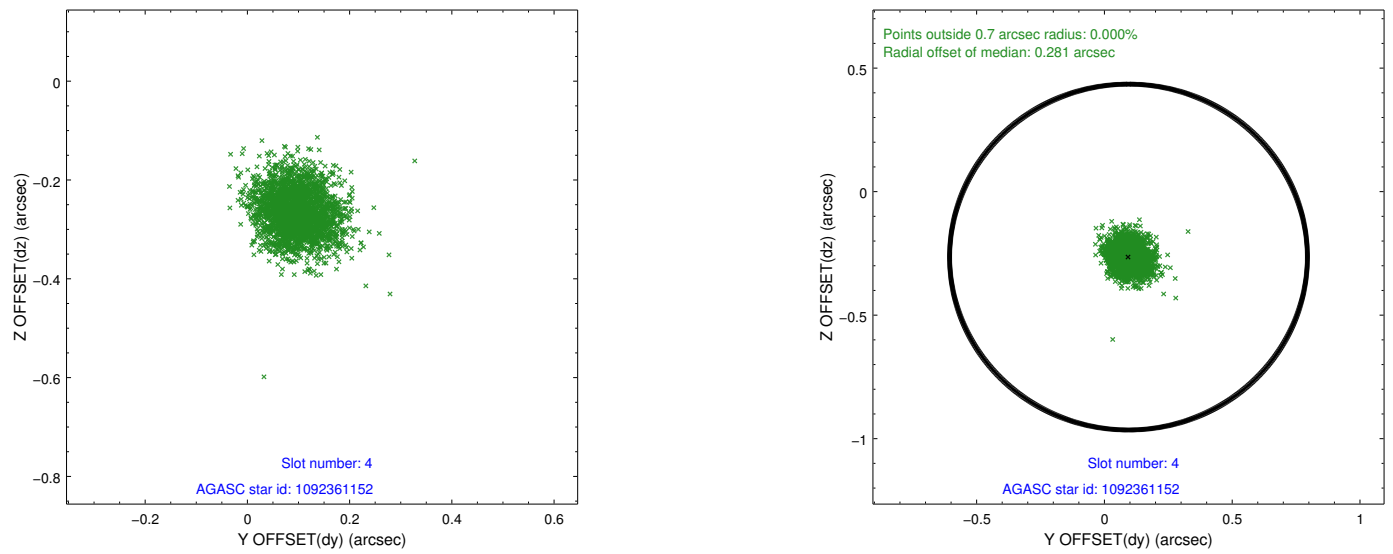
∞

2.4 Star Slots

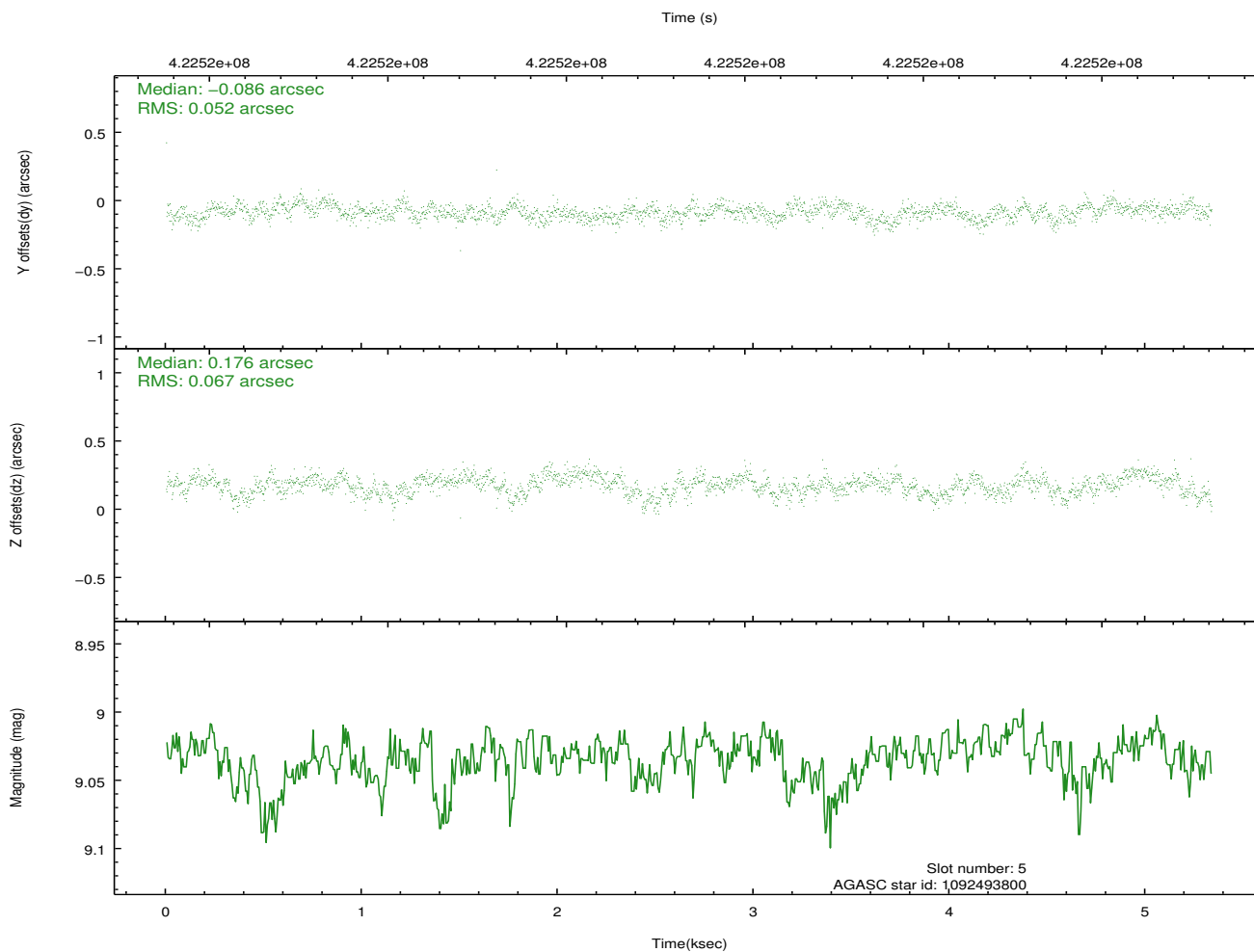
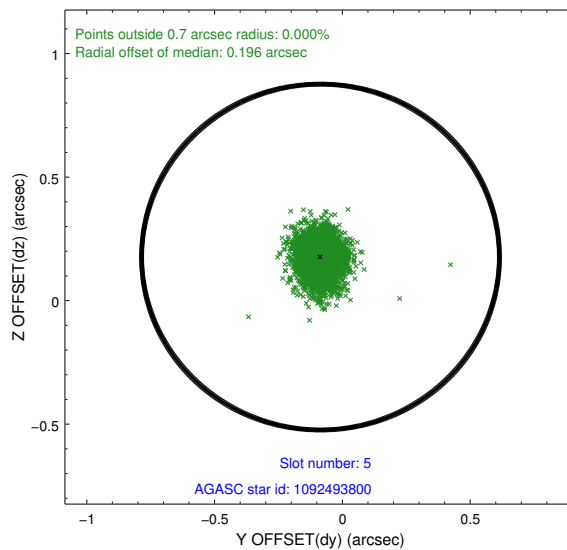
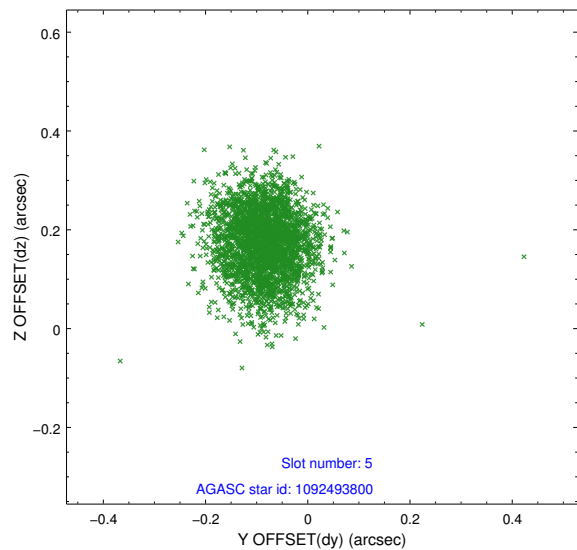
2.4.1 Slot 3



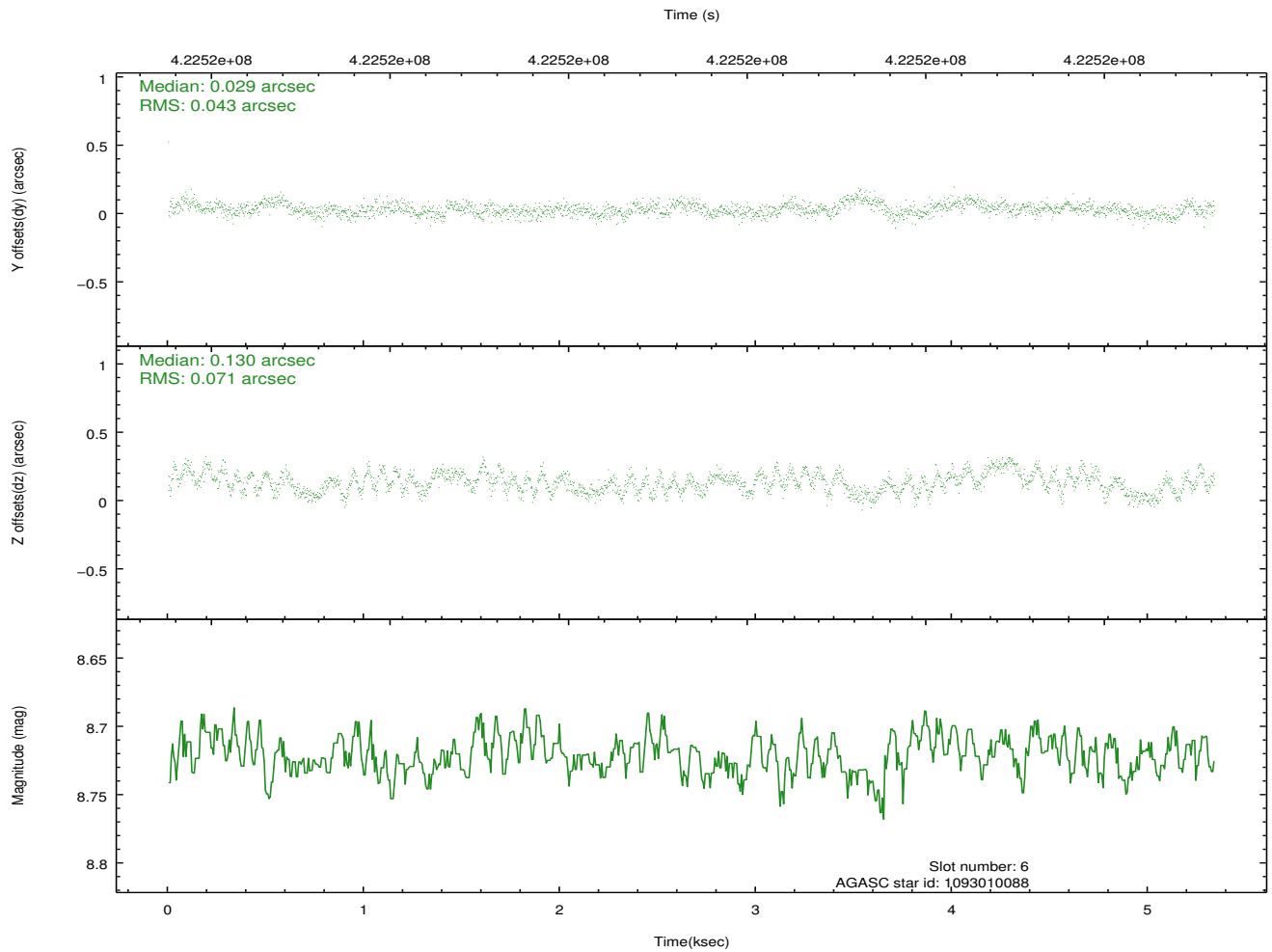
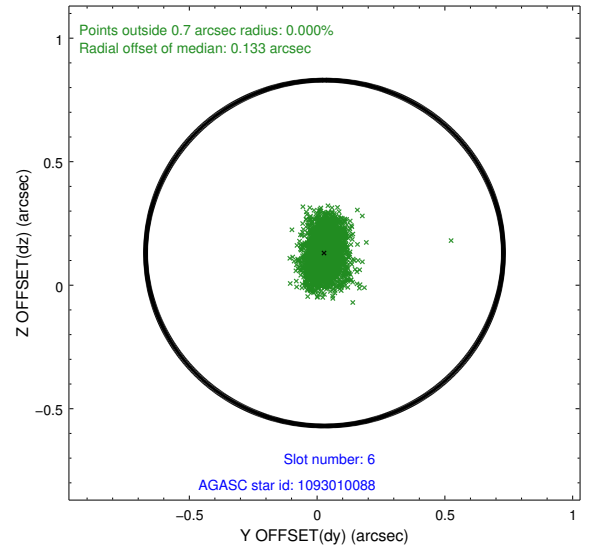
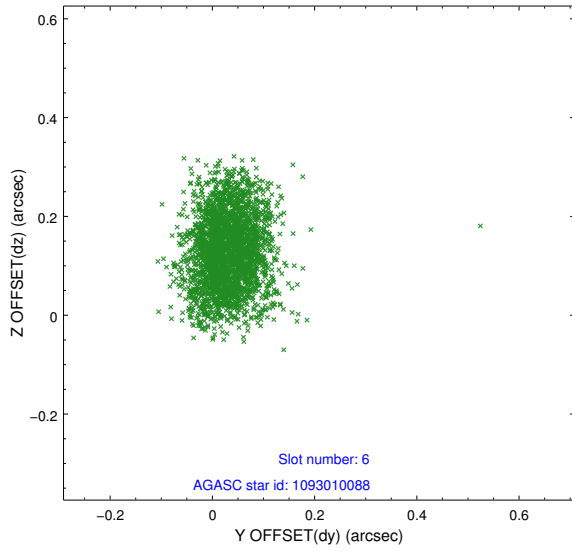
2.4.2 Slot 4



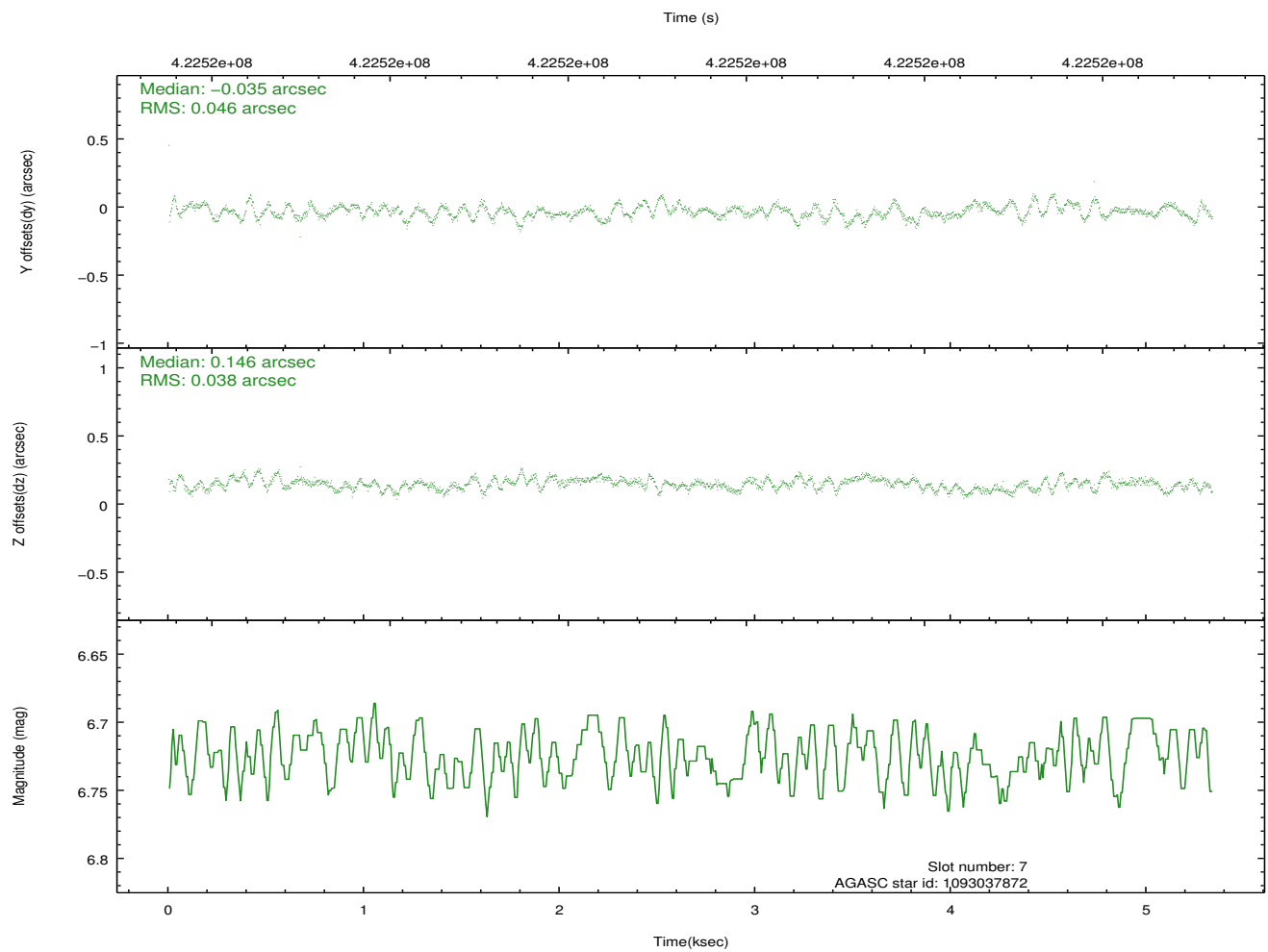
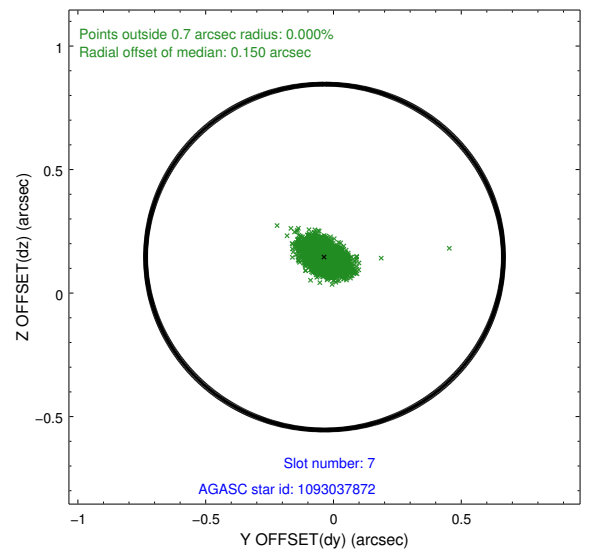
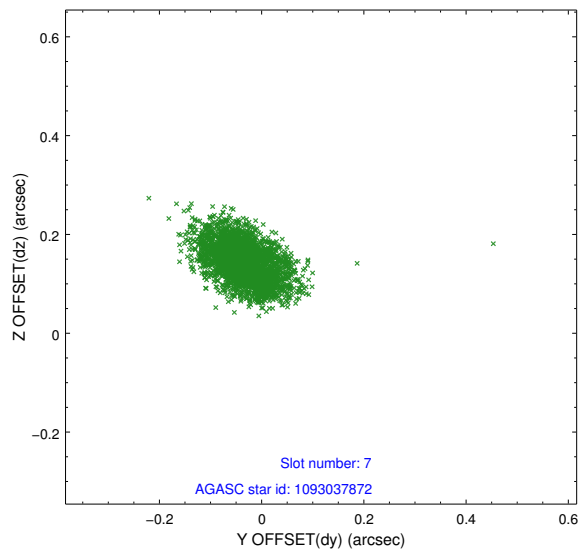
2.4.3 Slot 5



2.4.4 Slot 6

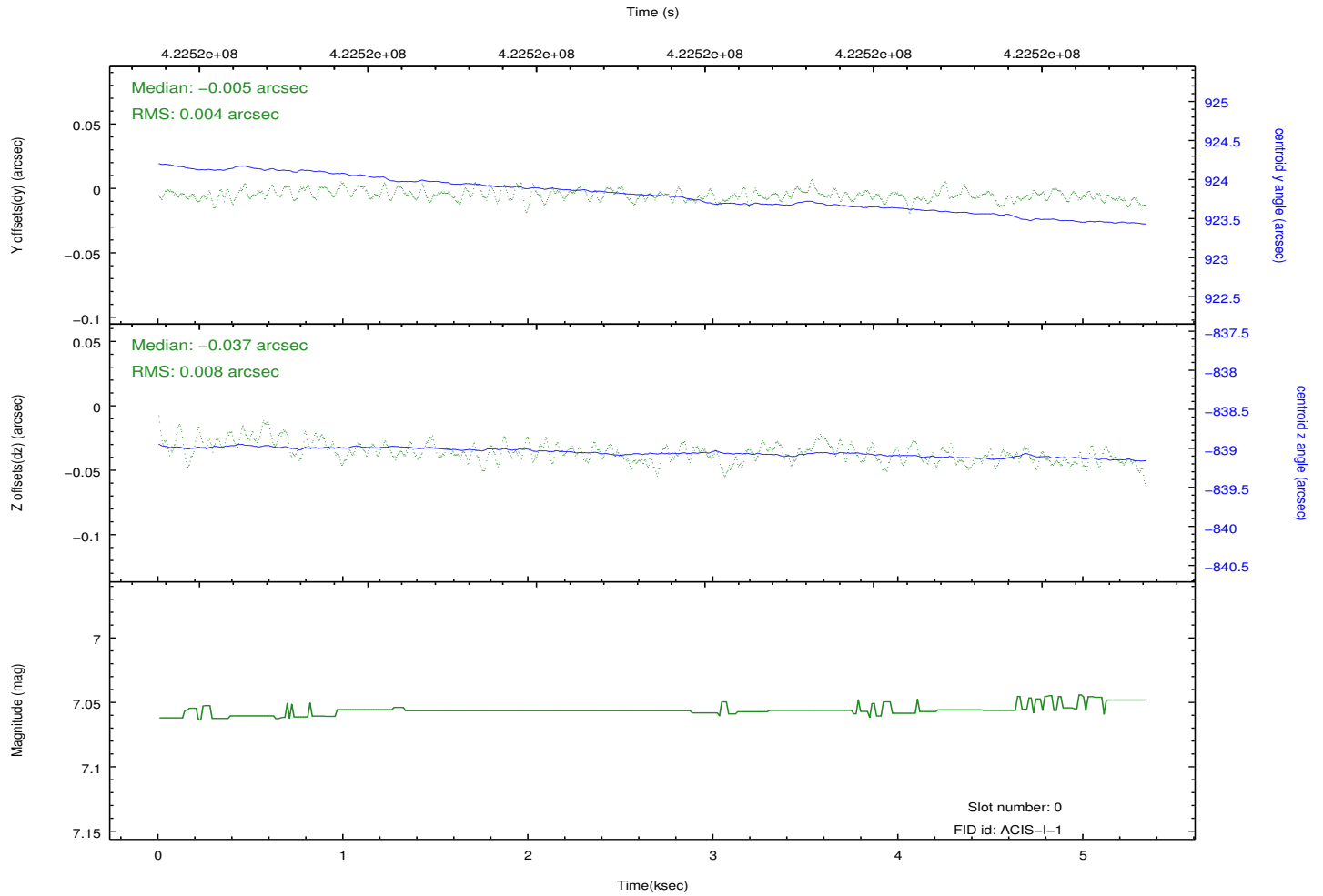
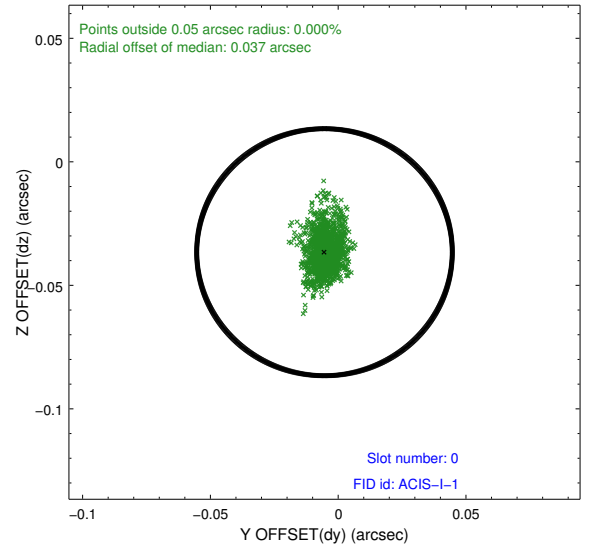
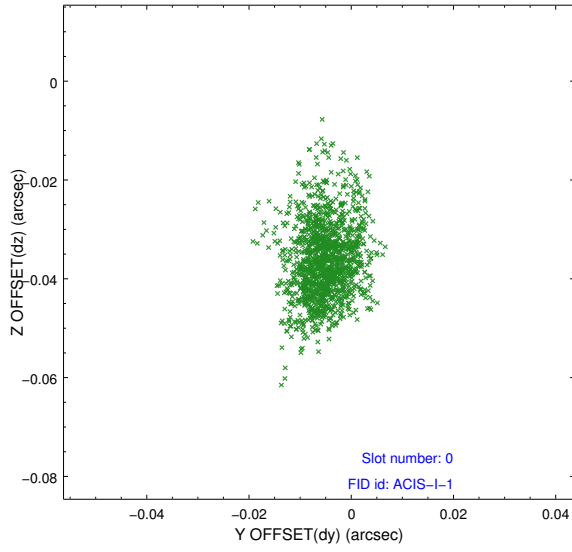


2.4.5 Slot 7

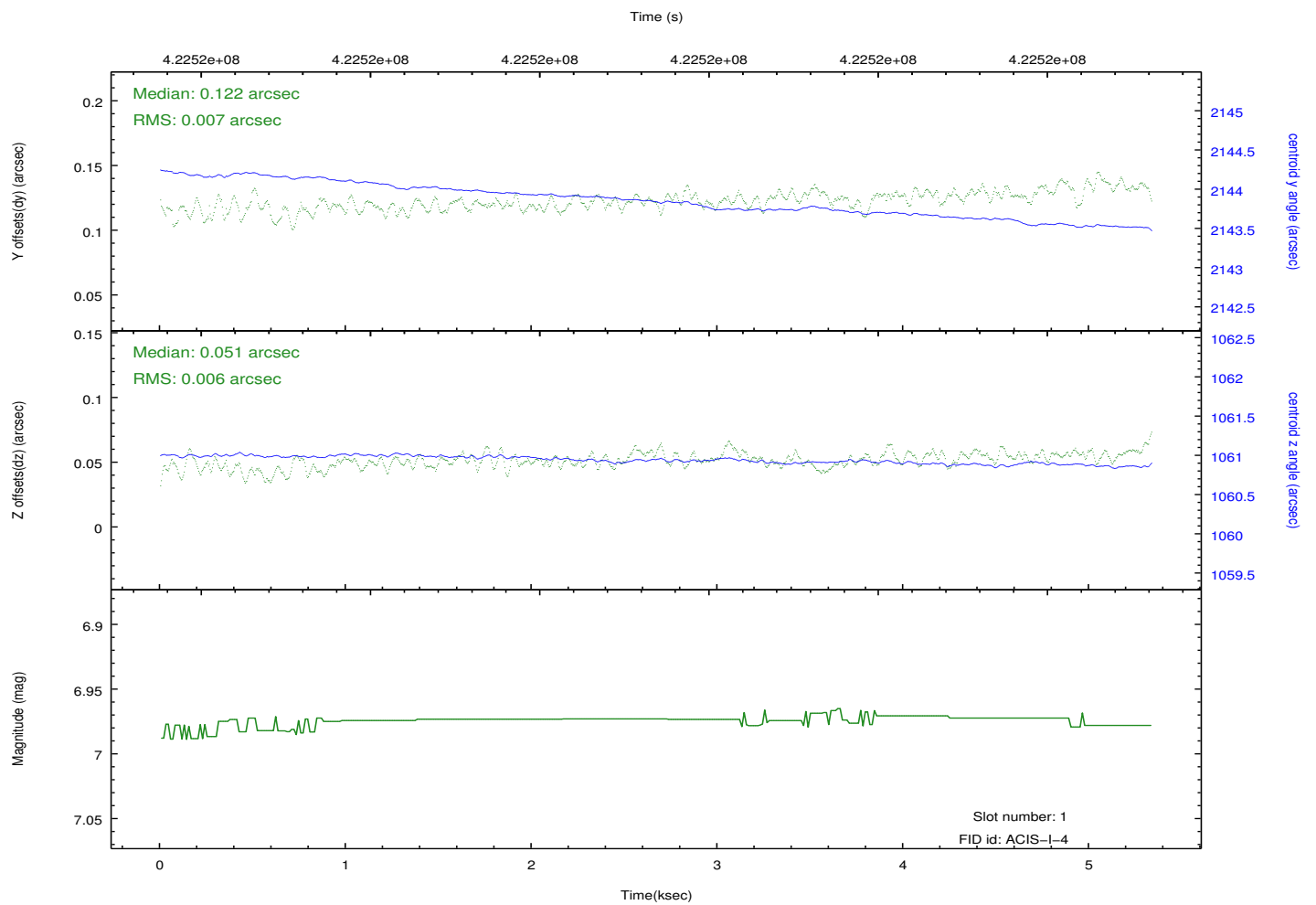
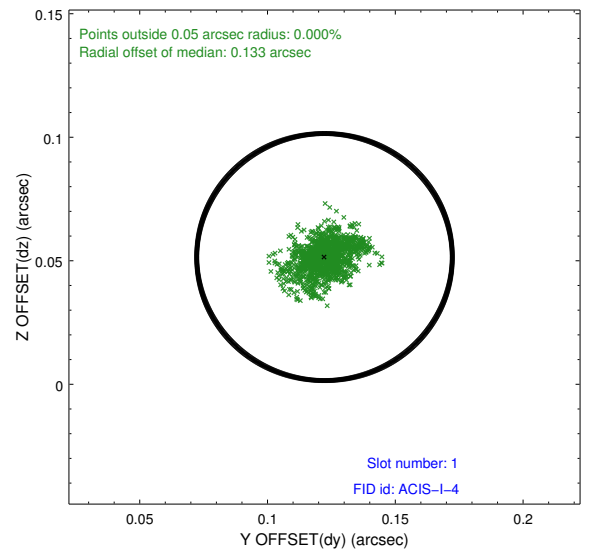
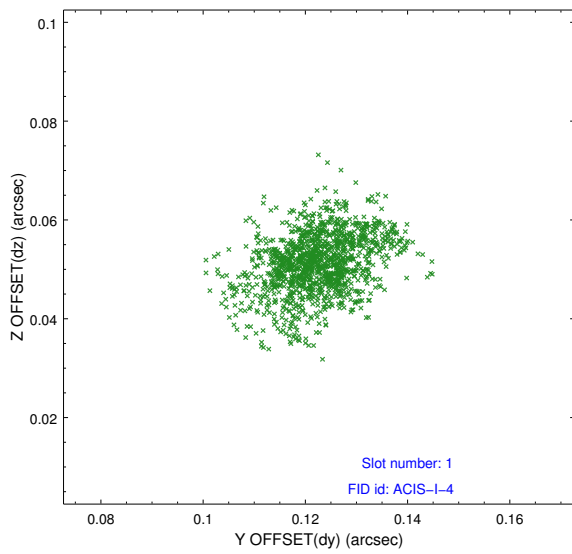


2.5 FID Slots

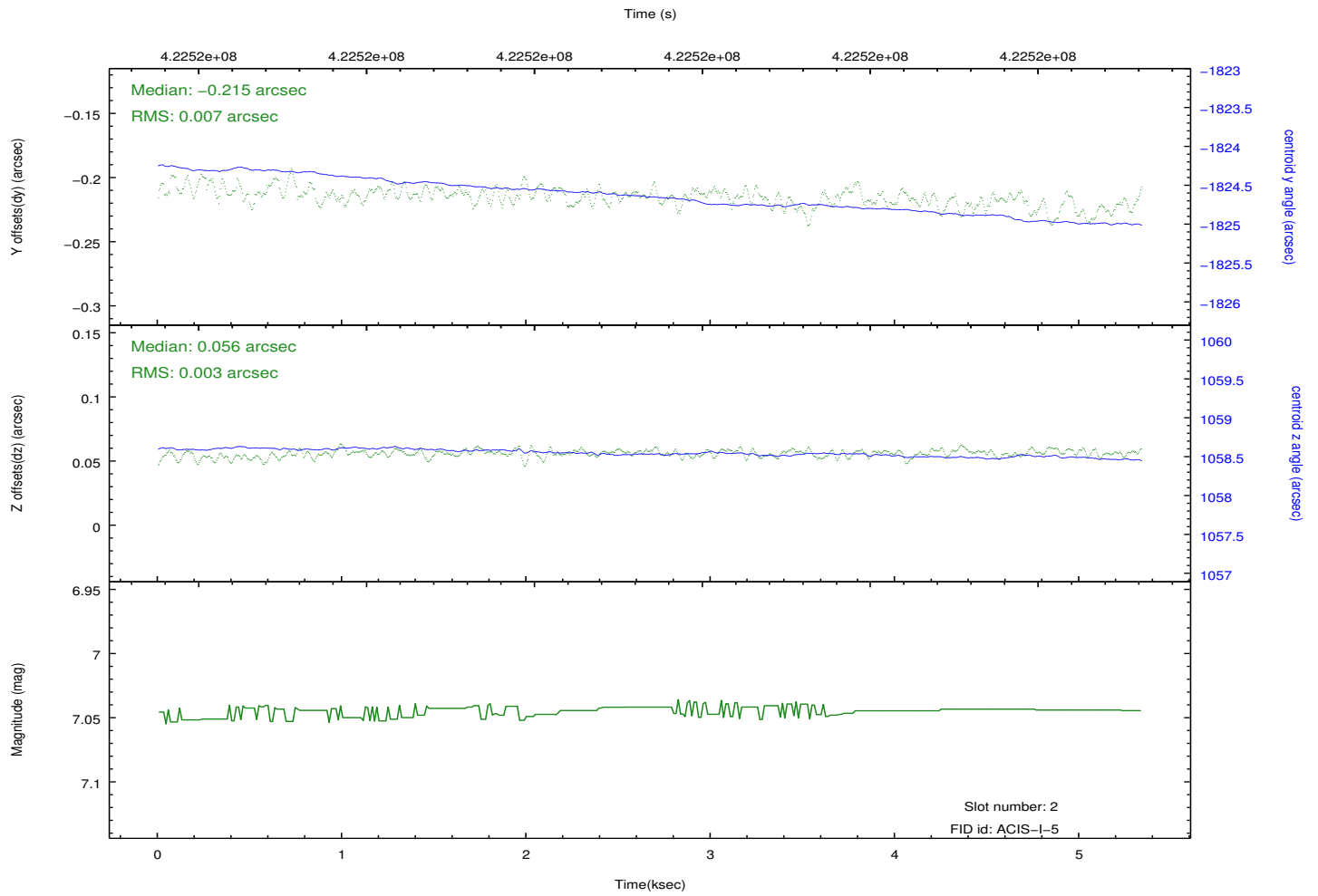
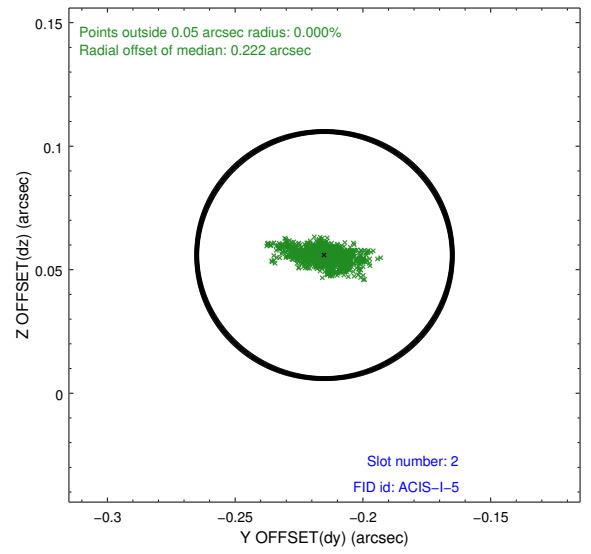
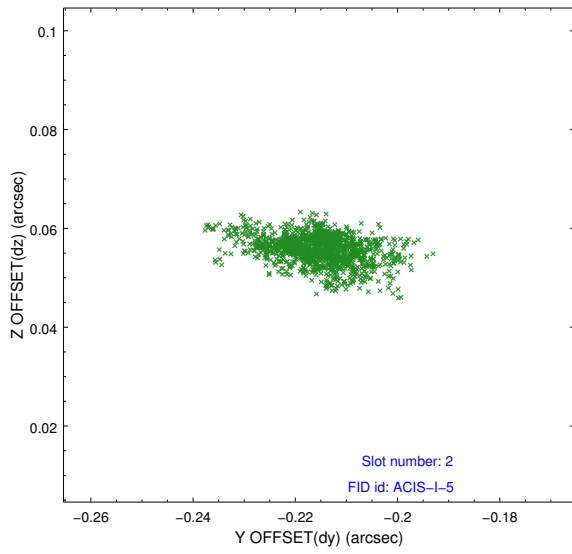
2.5.1 Slot 0



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)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0559999812245

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.