

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12687 - L2 Version 2
Chandra X-Ray Center

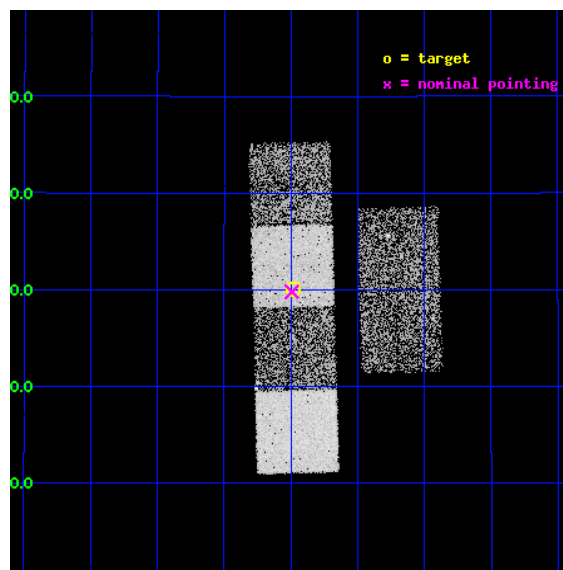
L2 Processing Date : Feb 7 2012

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1 Front

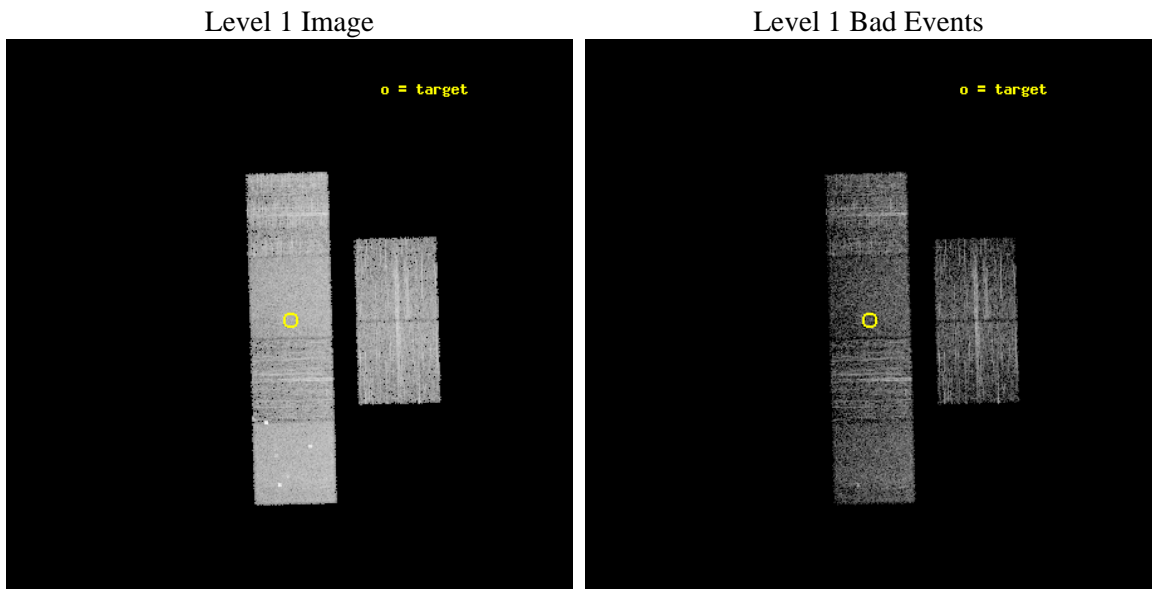
seq_num	501520	Sequence number
obs_id	12687	Observation id
title	Hunting for Anti-magnetars with Chandra	Proposal title
observer	Dr Chi-Yung Ng	Principal investigator
object	PSR J0609+2130	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	92.495417	Observer's specified target RA [deg]
dec_targ	21.500778	Observer's specified target Dec [deg]
ra_nom	92.498036990122	Nominal RA [deg]
dec_nom	21.496658129505	Nominal Dec [deg]
roll_nom	268.45375672181	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5052.7999812365	Sum of GTIs [s]
livetime	4988.8183854432	Livetime [s]
ontime2	5052.7999812365	Sum of GTIs [s]
ontime3	5052.7999812365	Sum of GTIs [s]
ontime5	5052.7999812365	Sum of GTIs [s]
ontime6	5052.7999812365	Sum of GTIs [s]
ontime7	5052.7999812365	Sum of GTIs [s]
ontime8	5052.7999812365	Sum of GTIs [s]
l2events	53362	Number of level 2 events



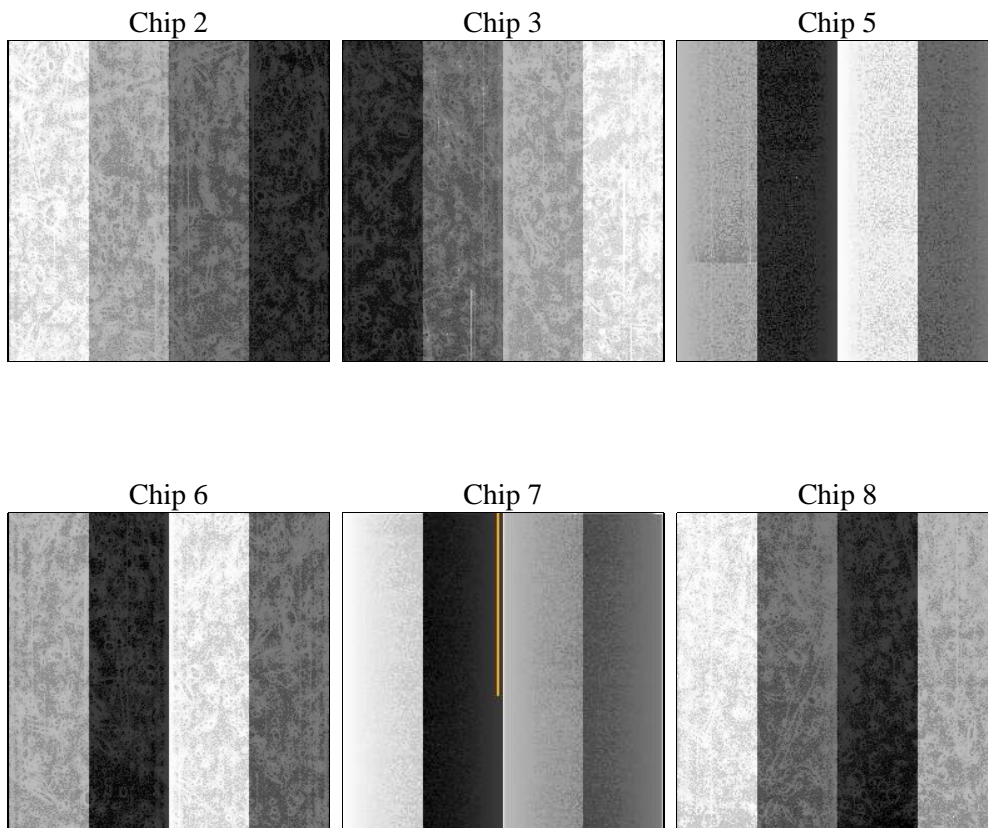
2 OBI

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	5052.7999812365	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	5052.7999812365	Sum of GTIs [s]
date	2012-02-08T03:18:20	Date and time of file creation	ontime3	5052.7999812365	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	5052.7999812365	Sum of GTIs [s]
			ontime6	5052.7999812365	Sum of GTIs [s]
			ontime7	5052.7999812365	Sum of GTIs [s]
			ontime8	5052.7999812365	Sum of GTIs [s]
			l1events	227405	Number of level 1 events

2.1.4 Events

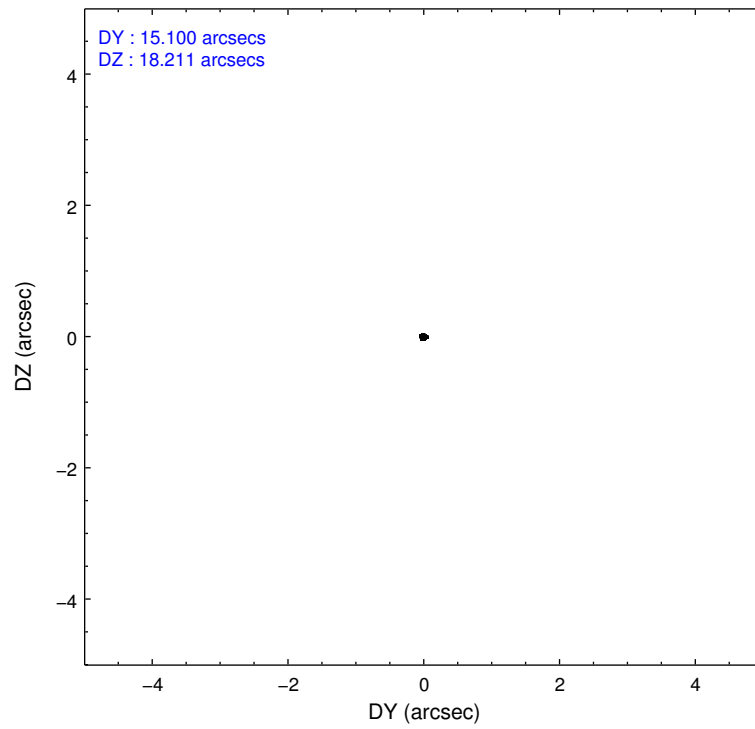
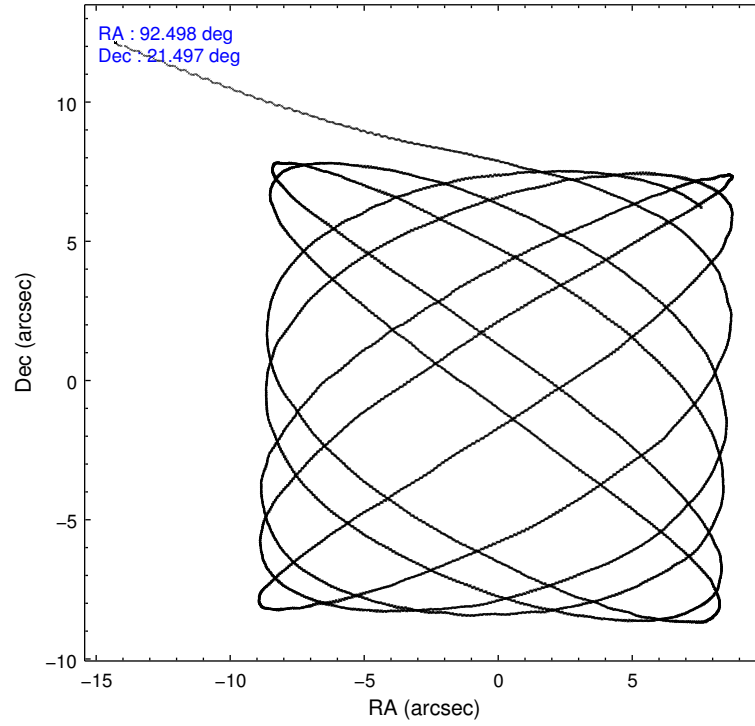
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	32304	30288	51540	31757	39982	41534
rejected events	28706	26950	25742	27923	22236	30964
rejected %	88%	88%	49%	87%	55%	74%

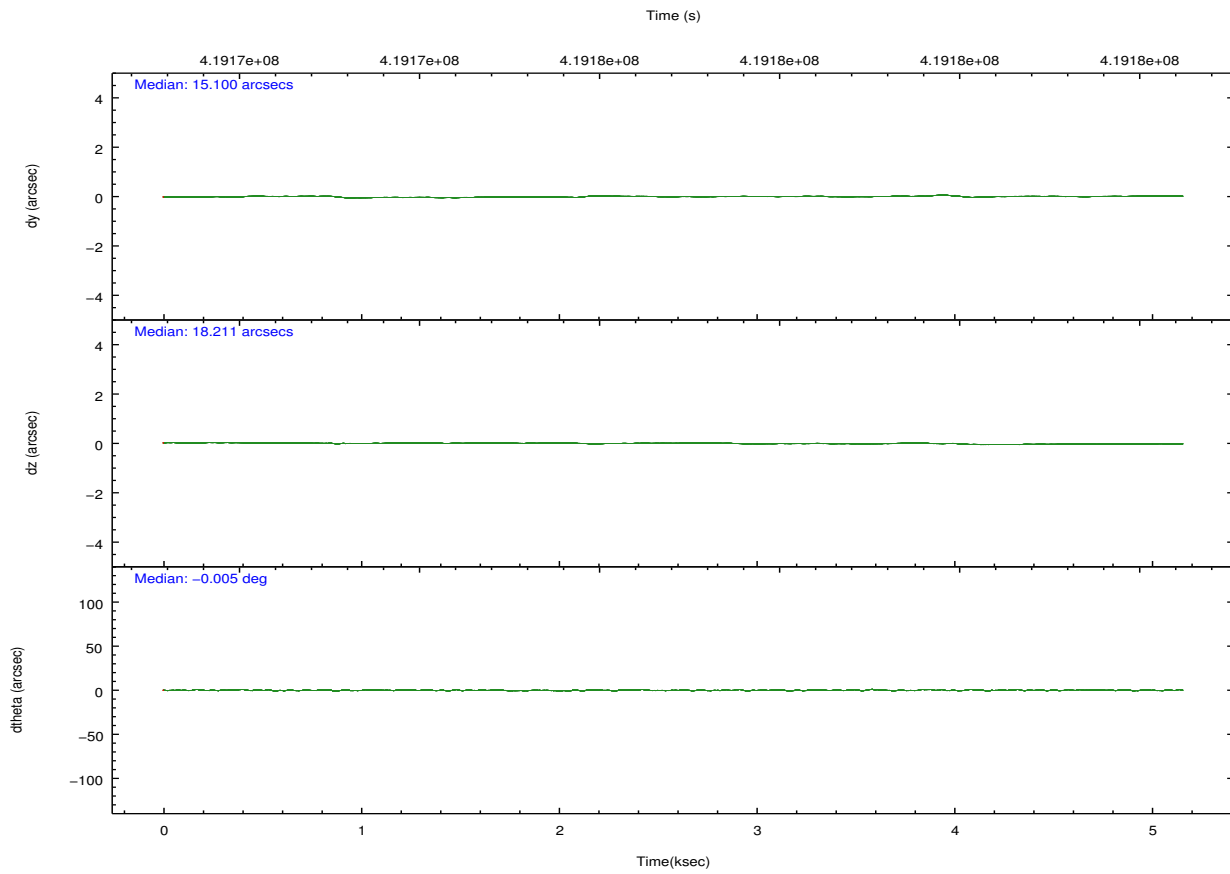
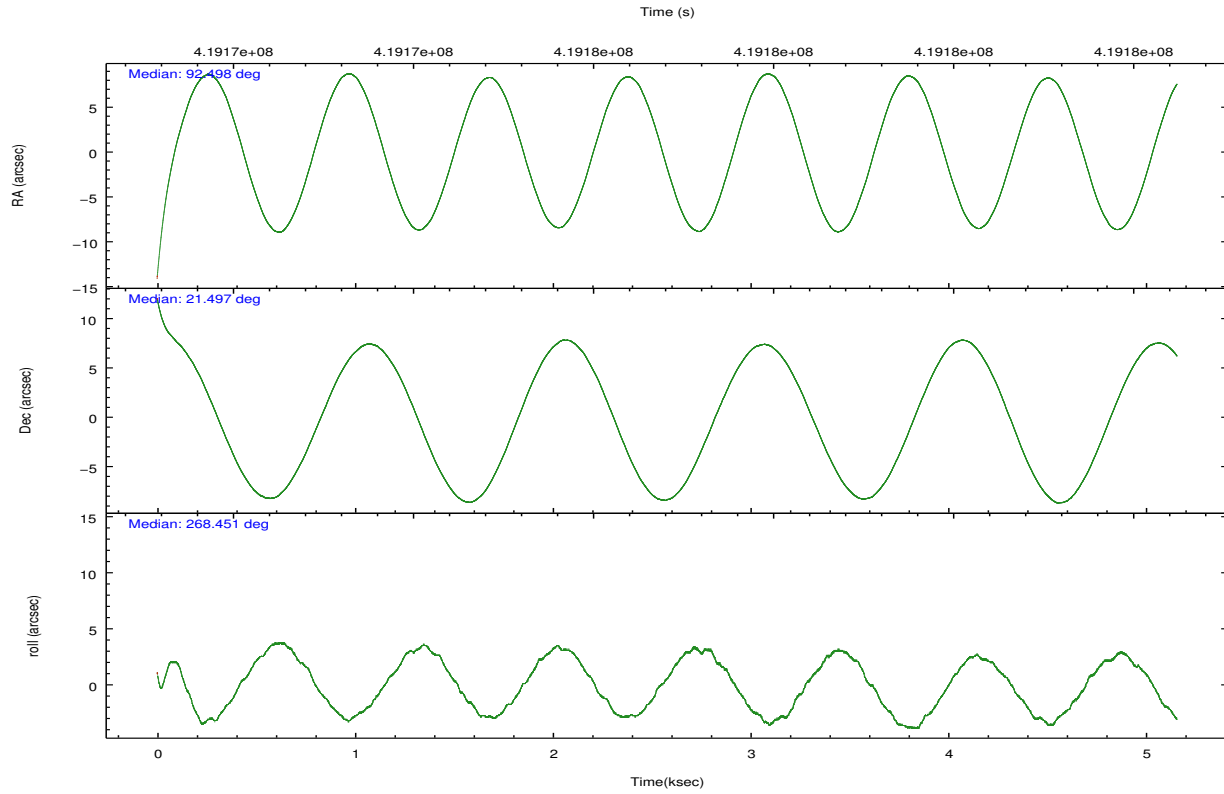
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	1219	1129	3332	1404	1642	3335
	3%	3%	6%	4%	4%	8%
grade 1 events	25	29	219	18	51	45
	0%	0%	0%	0%	0%	0%
grade 2 events	880	773	7647	857	3579	2425
	2%	2%	14%	2%	8%	5%
grade 3 events	366	385	953	393	1666	1122
	1%	1%	1%	1%	4%	2%
grade 4 events	383	387	899	376	1566	1014
	1%	1%	1%	1%	3%	2%
grade 5 events	1238	1444	3903	1531	4222	2157
	3%	4%	7%	4%	10%	5%
grade 6 events	756	671	12993	807	9311	2681
	2%	2%	25%	2%	23%	6%
grade 7 events	27437	25470	21594	26371	17945	28755
	84%	84%	41%	83%	44%	69%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	92.483673	92.49803699012185	CCD I2 on	Y	Y
[deg] Pointing Dec	21.520446	21.49665812950535	CCD I3 on	Y	Y
[deg] Pointing Roll	268.302428	268.4537567218076	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O2	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O1	Y
[s] Observation start time (MET)	419172987.184000	419171877.3356	CCD S5 on	N	N
Observation start date	2011-04-14T12:55:21	2011-04-14T12:37:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	419177987.184000	419178289.73593	On-chip summing requested	N	N
Observation end date	2011-04-14T14:18:41	2011-04-14T14:24:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



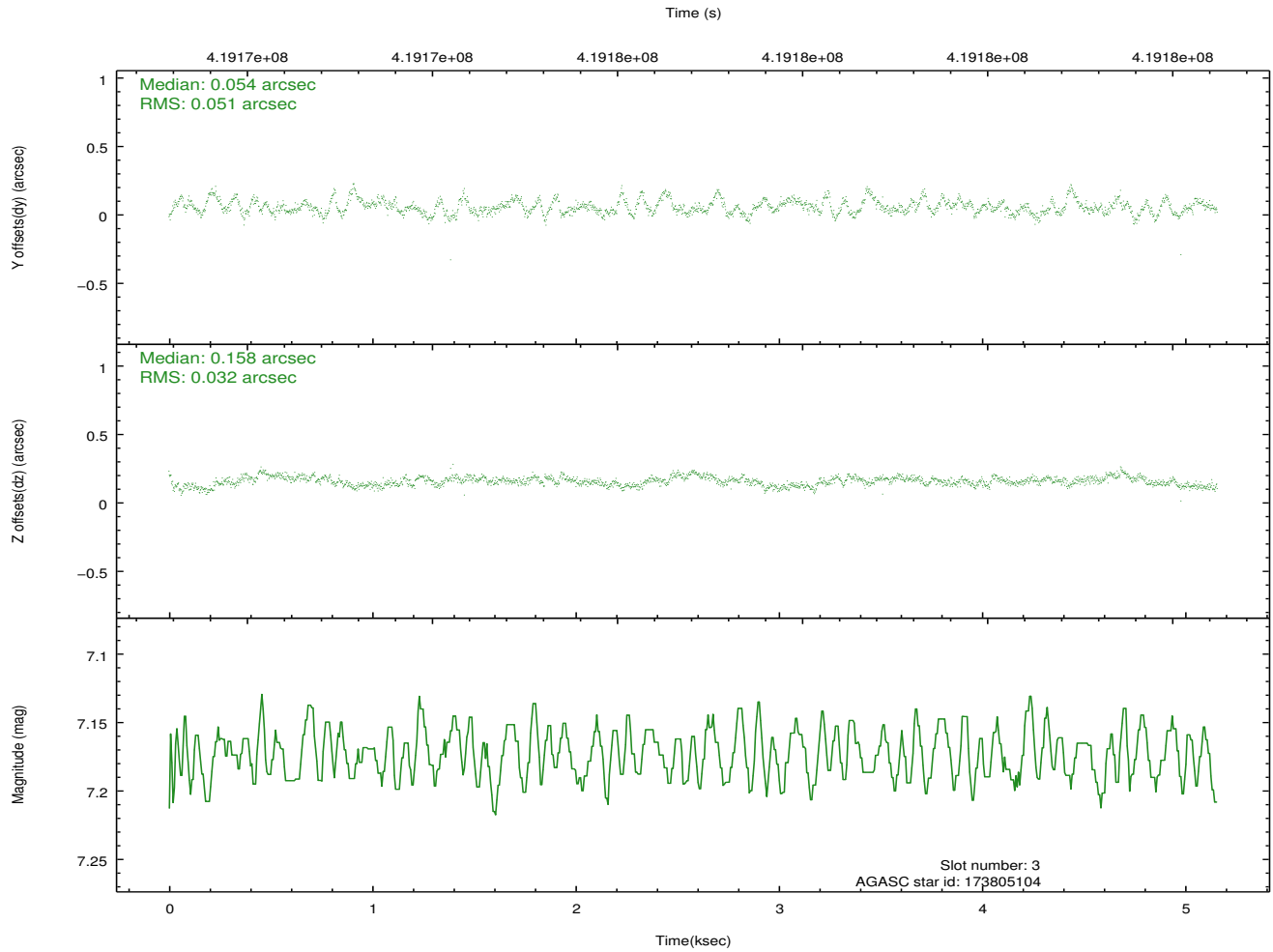
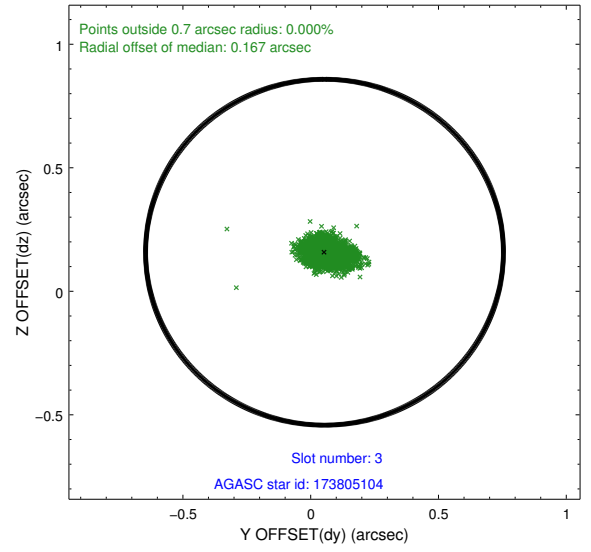
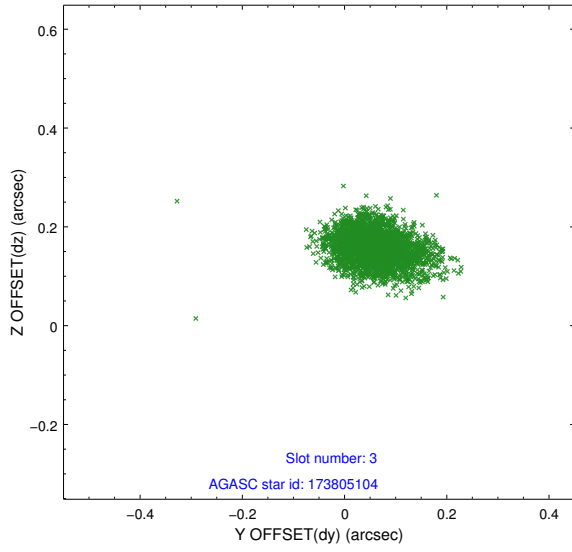


Slot Statistics

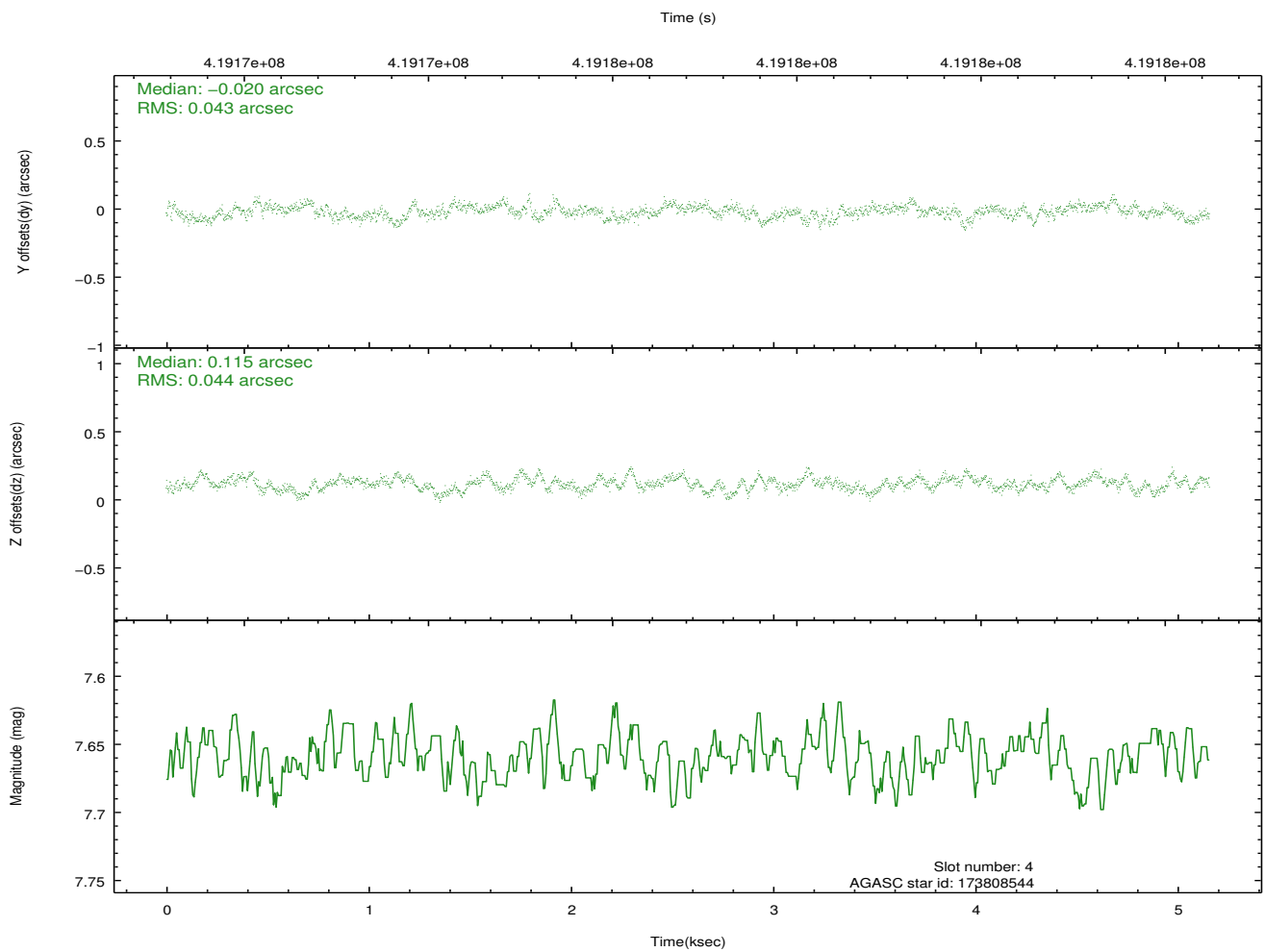
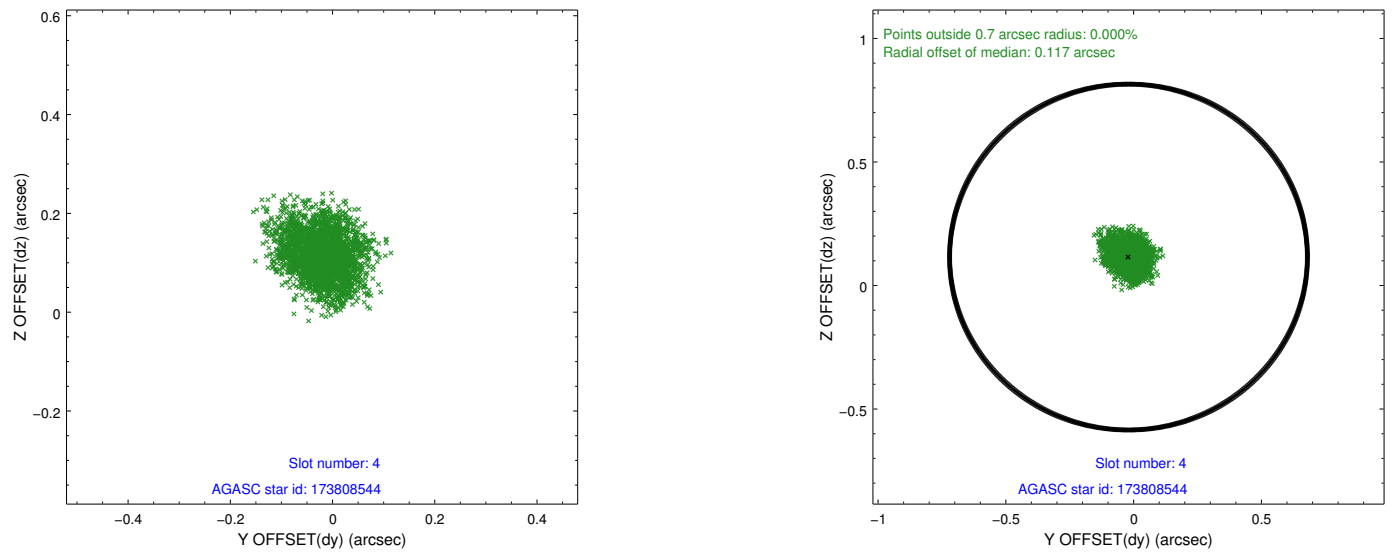
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.96	1259	0.087	-0.010	0.006	0.010	0.000000	0.000000	928.03	-1735.33
1	FID	ACIS-S-5	7.00	1259	-0.146	0.068	0.006	0.010	0.000000	0.000000	-1820.52	161.14
2	FID	ACIS-S-6	7.11	1259	0.038	-0.046	0.006	0.010	0.000000	0.000000	392.30	806.27
3	GUIDE	173805104	7.17	2516	0.054	0.158	0.061	0.106	92.846590	20.905415	2176.12	1285.96
4	GUIDE	173808544	7.66	2517	-0.020	0.115	0.067	0.104	92.825357	21.563792	-189.82	1139.55
5	GUIDE	173813576	8.48	2516	0.203	-0.079	0.079	0.125	92.527366	21.235447	1021.70	177.63
6	GUIDE	173680024	8.04	2516	-0.076	-0.144	0.092	0.135	91.773675	22.171692	-2277.93	-2435.77
7	GUIDE	173681344	7.49	2516	-0.153	-0.051	0.064	0.111	91.792328	22.106433	-2046.00	-2368.61

2.4 Star Slots

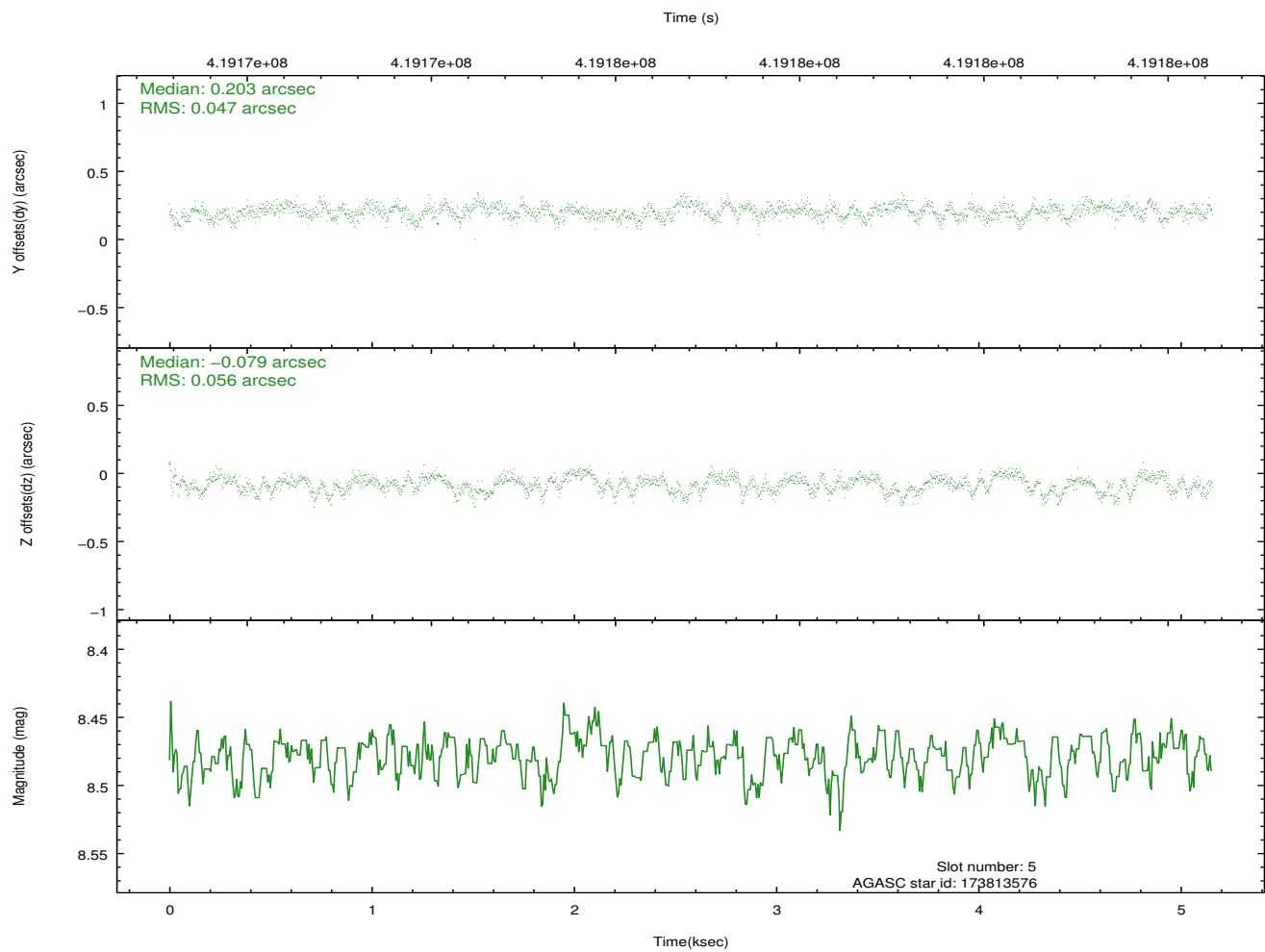
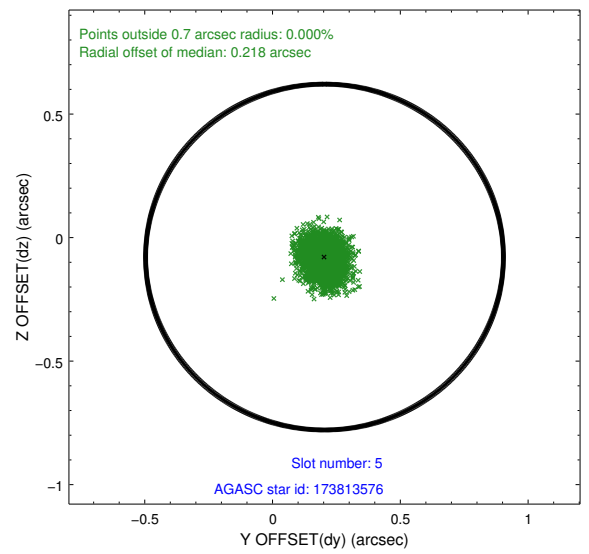
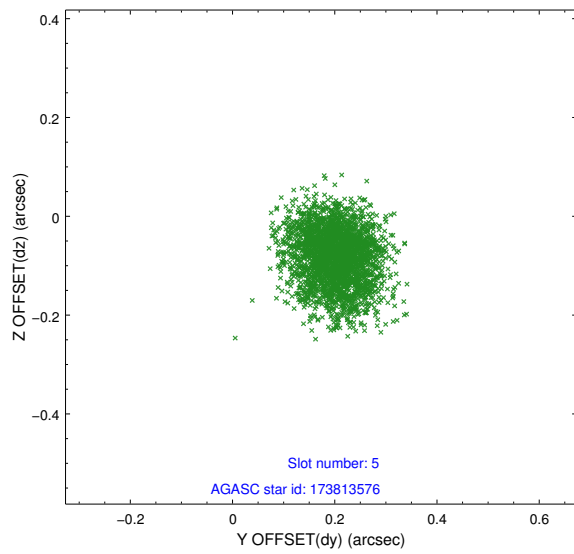
2.4.1 Slot 3



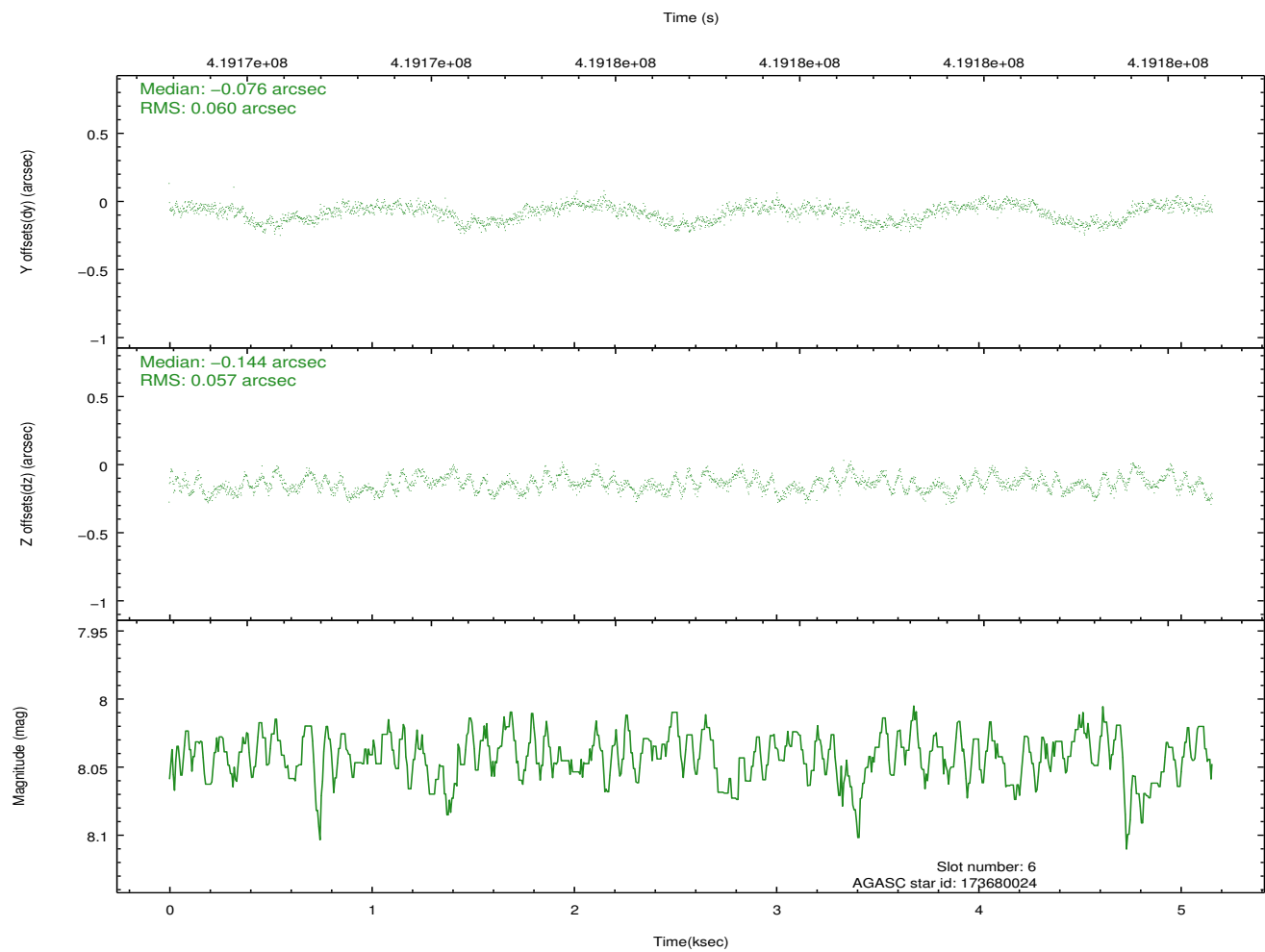
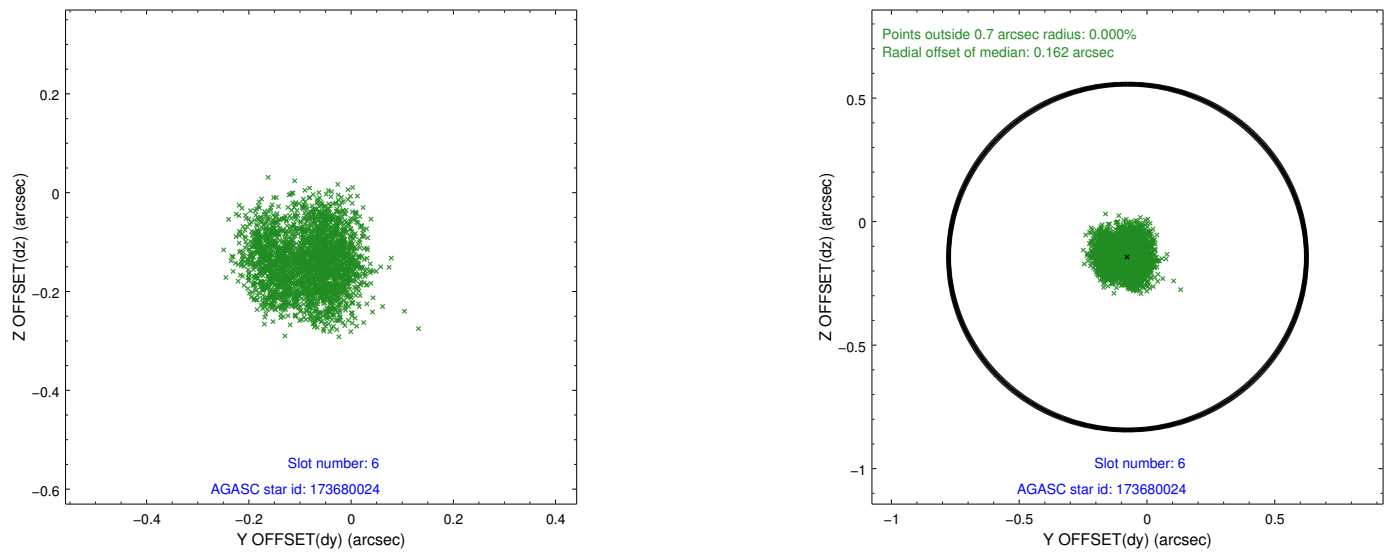
2.4.2 Slot 4



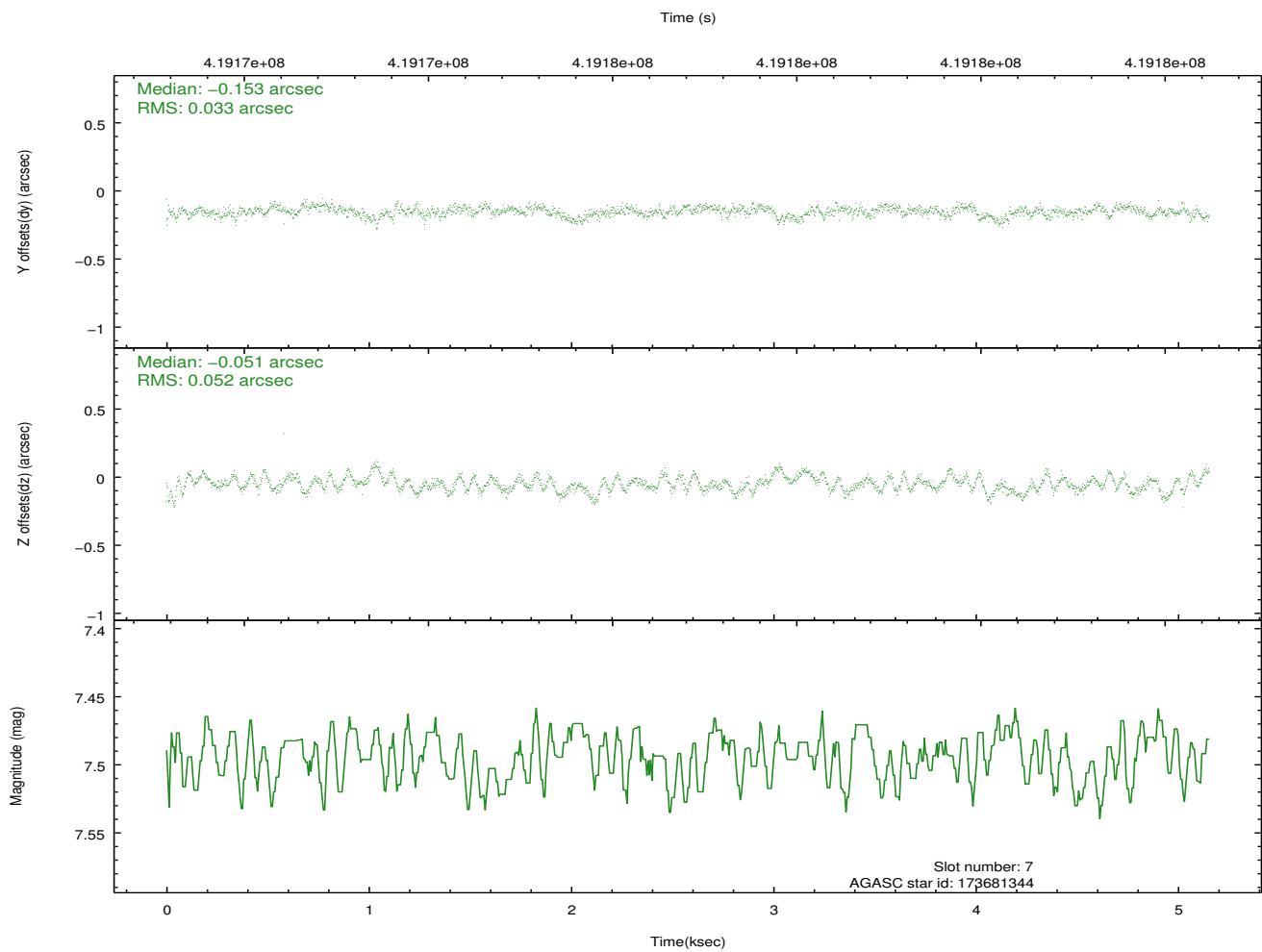
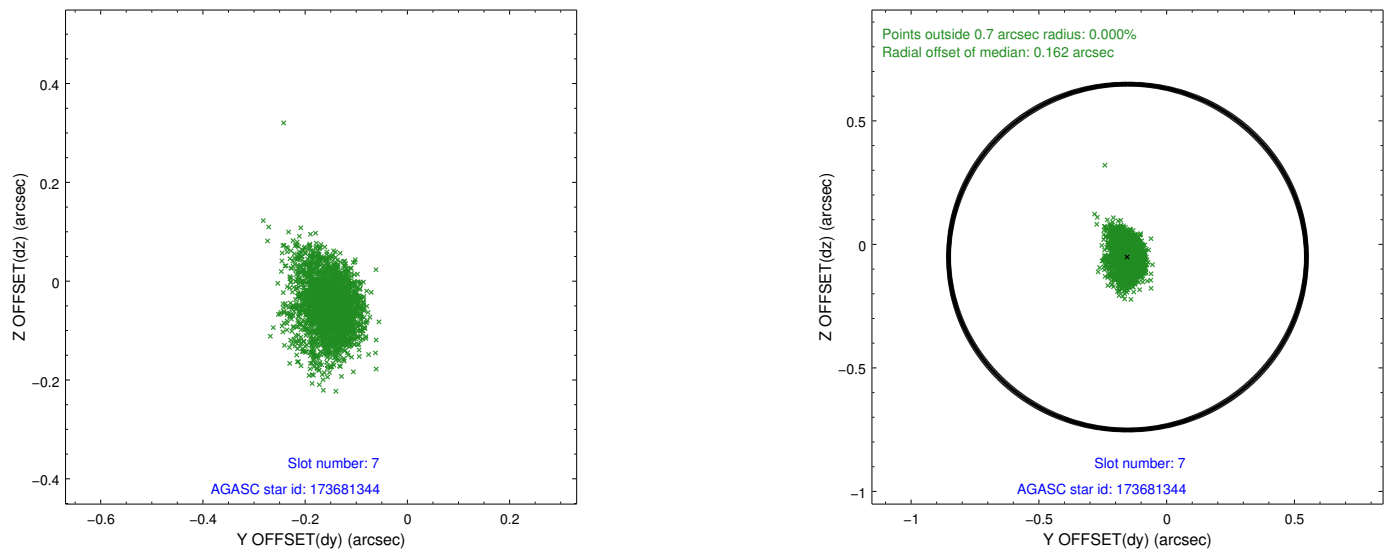
2.4.3 Slot 5



2.4.4 Slot 6

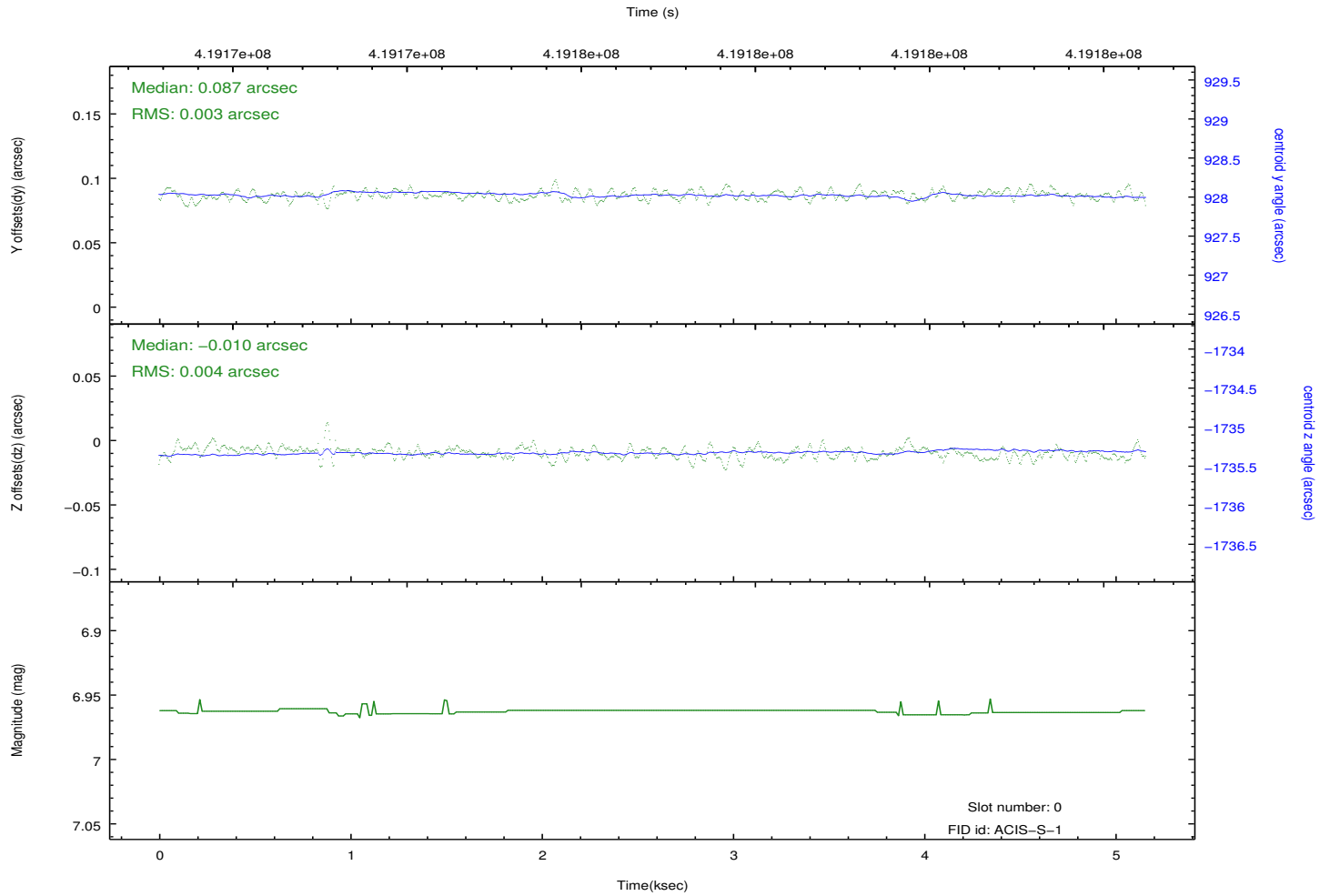
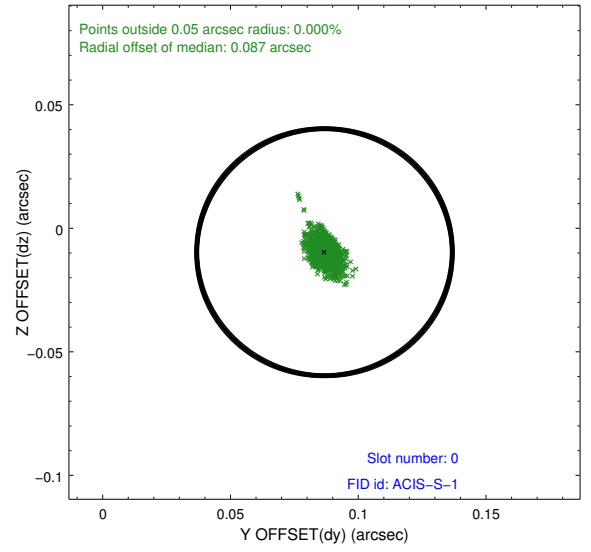
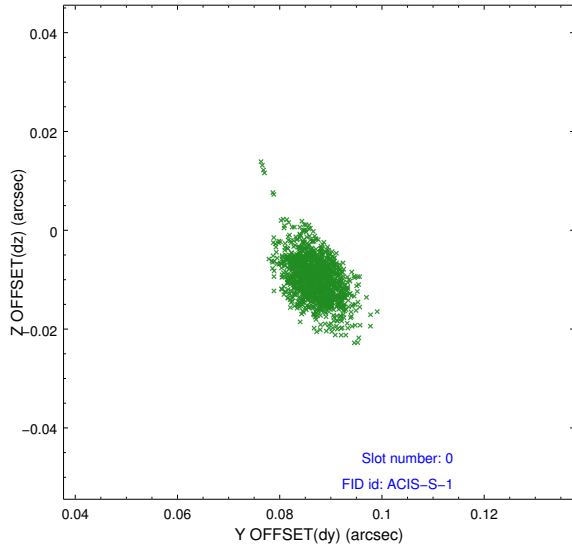


2.4.5 Slot 7

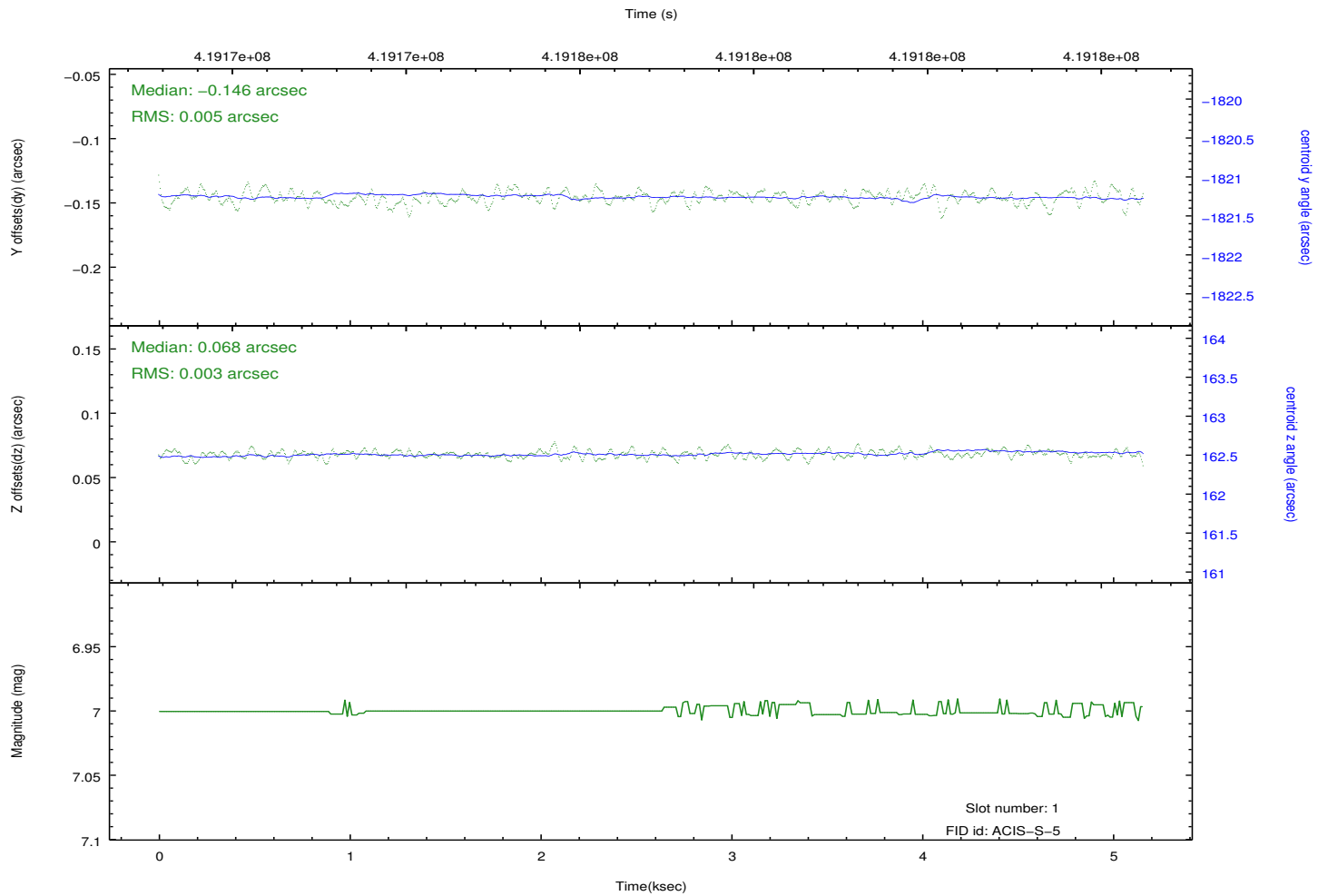
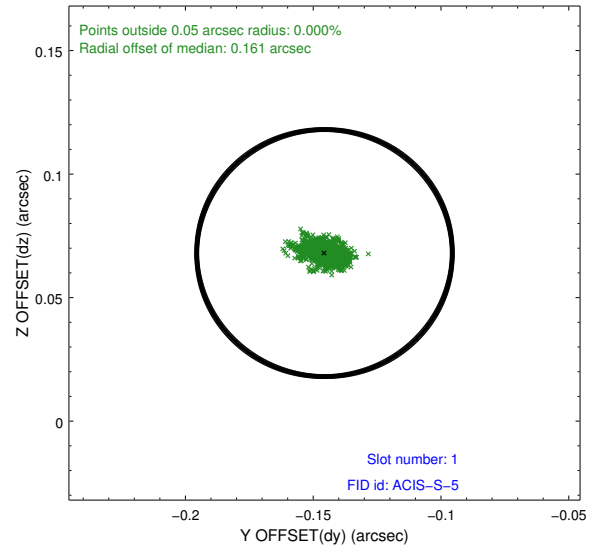
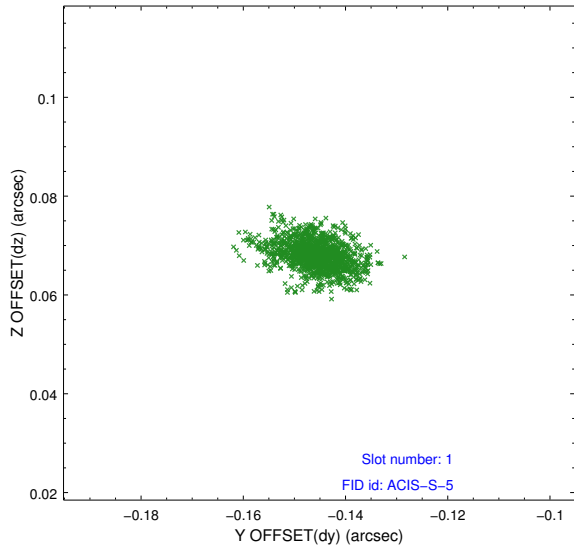


2.5 FID Slots

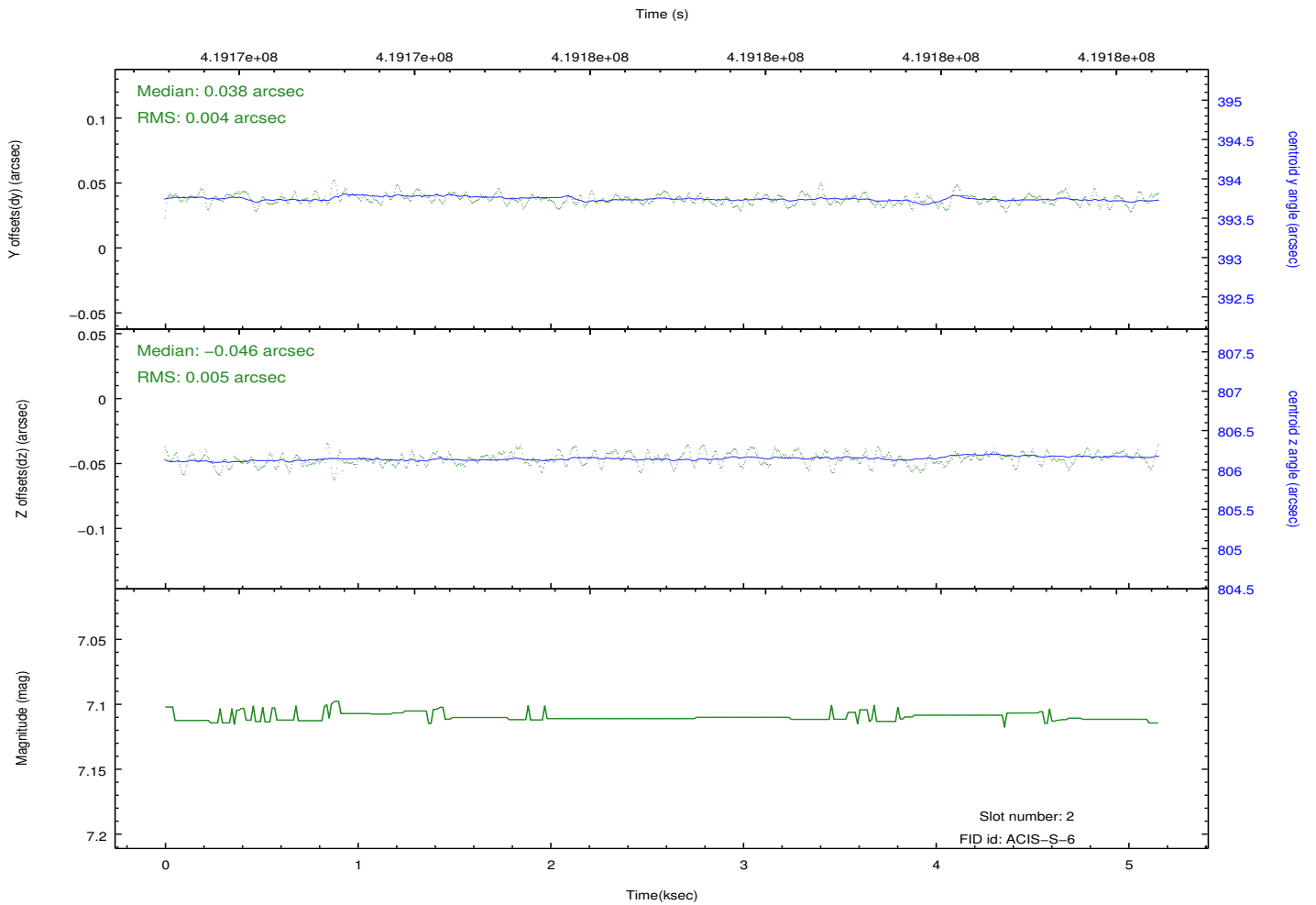
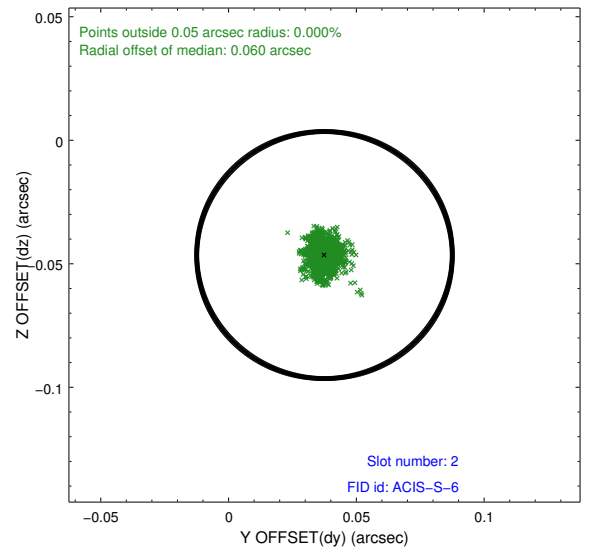
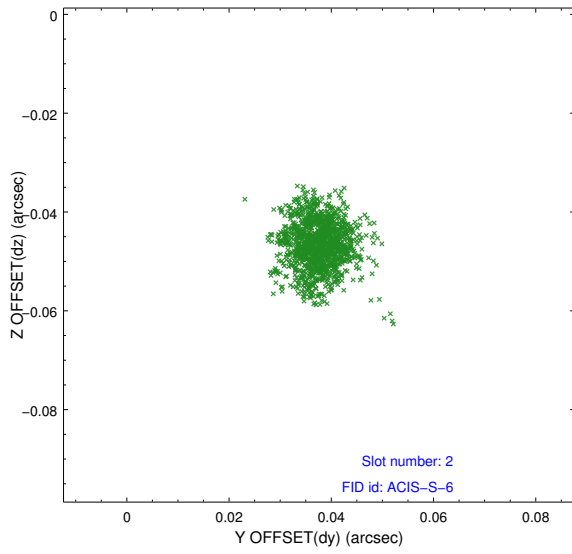
2.5.1 Slot 0



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)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0527999812365

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.