

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12557 - L2 Version 2
Chandra X-Ray Center

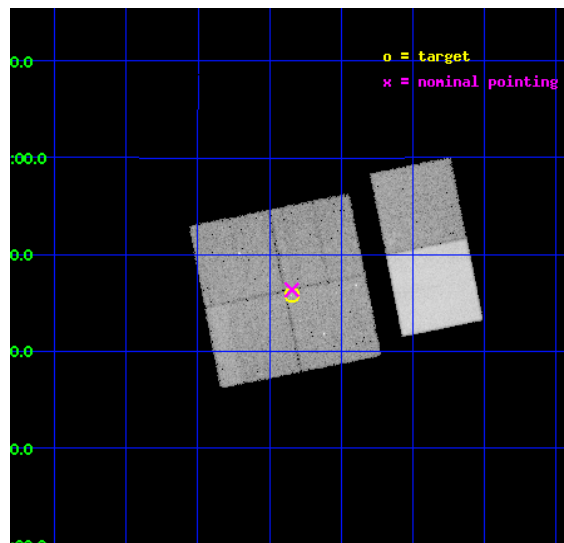
L2 Processing Date : Feb 4 2012

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1 Front

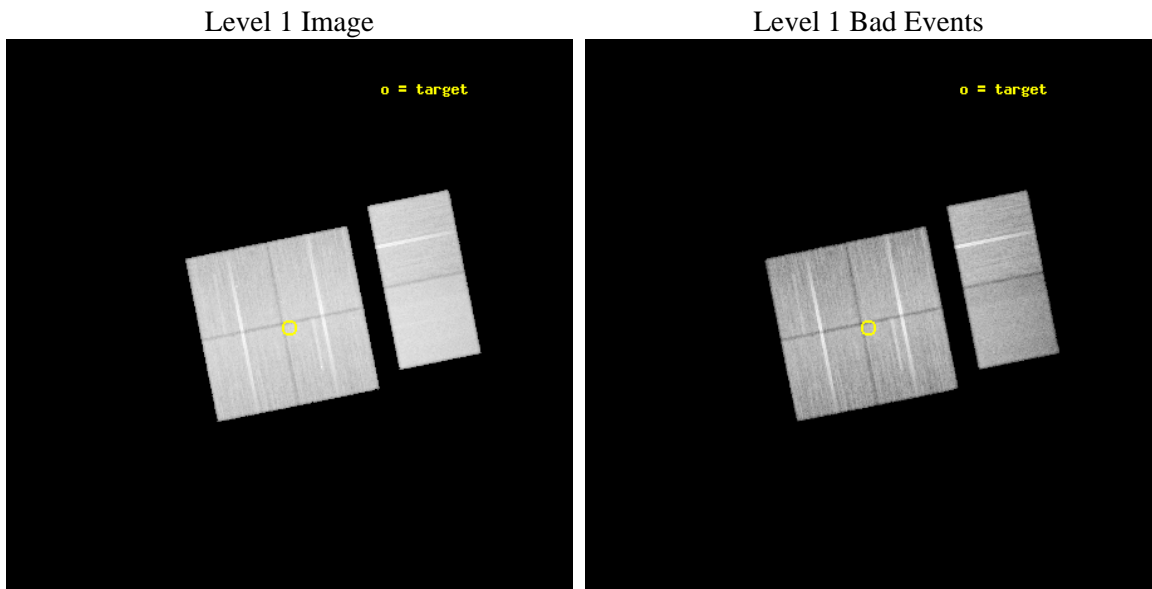
seq_num	501390	Sequence number
obs_id	12557	Observation id
title	PSR J1856+0245: Understanding the Connection Between Young Pulsars and TeV gamma-ray Sources	Proposal title
observer	Dr Slavko Bogdanov	Principal investigator
object	PSR J1856+0245	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	284.211667	Observer's specified target RA [deg]
dec_targ	2.7645	Observer's specified target Dec [deg]
ra_nom	284.21082993303	Nominal RA [deg]
dec_nom	2.772545975231	Nominal Dec [deg]
roll_nom	78.629515209185	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39049.259277821	Sum of GTIs [s]
livetime	38554.794044204	Livetime [s]
ontime0	39052.377128124	Sum of GTIs [s]
ontime1	39039.454286873	Sum of GTIs [s]
ontime2	39052.459208131	Sum of GTIs [s]
ontime3	39049.259277821	Sum of GTIs [s]
ontime6	39052.582328141	Sum of GTIs [s]
ontime7	39052.541288137	Sum of GTIs [s]
l2events	287737	Number of level 2 events



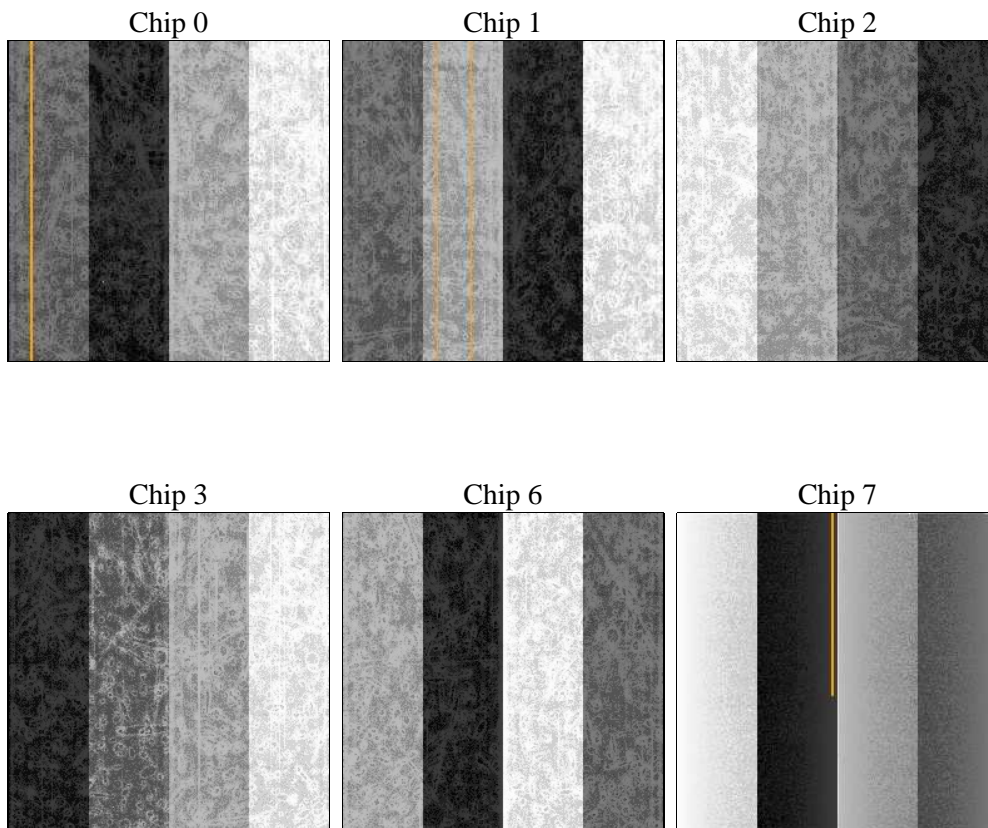
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	39000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	39049.259277821	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	39052.377128124	Sum of GTIs [s]
date	2012-02-04T22:20:48	Date and time of file creation	ontime1	39039.454286873	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	39052.459208131	Sum of GTIs [s]
			ontime3	39049.259277821	Sum of GTIs [s]
			ontime6	39052.582328141	Sum of GTIs [s]
			ontime7	39052.541288137	Sum of GTIs [s]
			l1events	1706332	Number of level 1 events

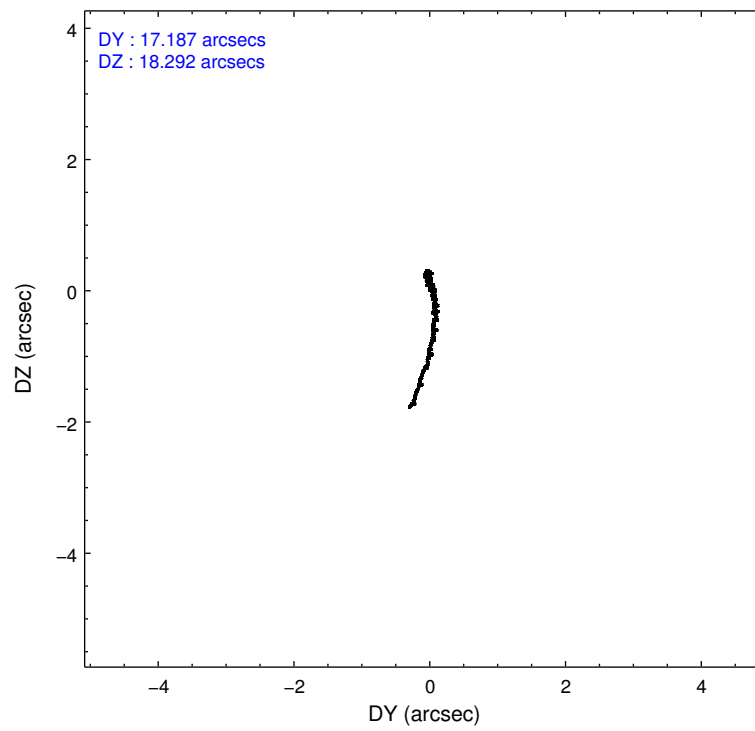
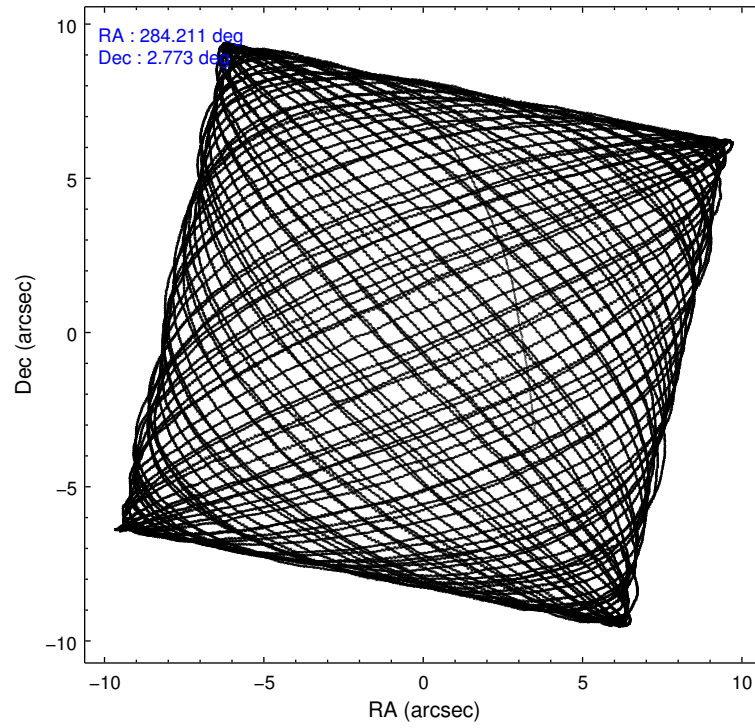
2.1.4 Events

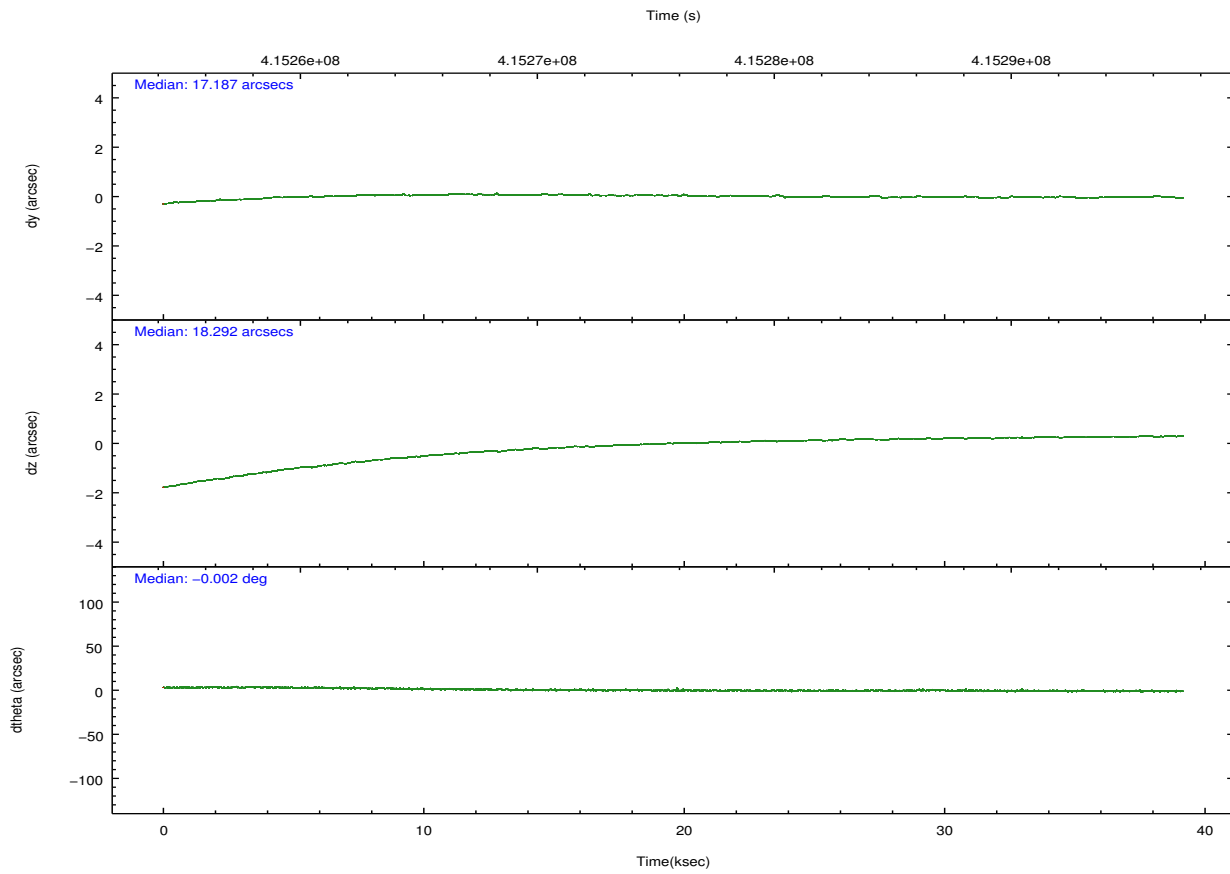
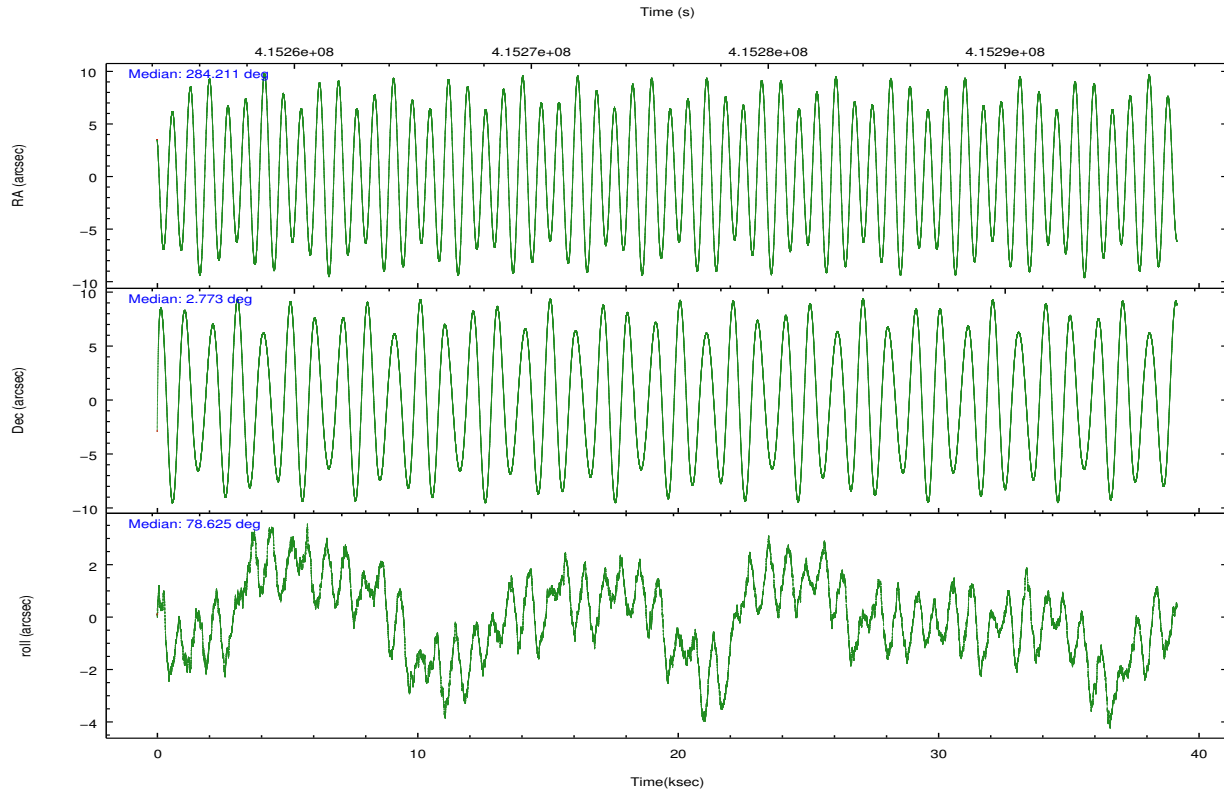
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	255003	267135	277200	272204	288996	345794	grade 0 events	11506	12969	11195	11422	11235	14408
rejected events	222858	231621	246335	241690	256698	189637		4%	4%	4%	4%	3%	4%
rejected %	87%	86%	88%	88%	88%	54%	grade 1 events	156	135	168	186	156	450
								0%	0%	0%	0%	0%	0%
							grade 2 events	7800	8402	7484	6733	7408	32182
								3%	3%	2%	2%	2%	9%
							grade 3 events	3501	3626	3196	3155	3326	13628
								1%	1%	1%	1%	1%	3%
							grade 4 events	3199	3455	3280	3144	3342	13539
								1%	1%	1%	1%	1%	3%
							grade 5 events	11766	12293	10665	12919	13178	36307
								4%	4%	3%	4%	4%	10%
							grade 6 events	6143	7067	5714	6061	6990	82409
								2%	2%	2%	2%	2%	23%
							grade 7 events	210932	219188	235498	228584	243361	152871
								82%	82%	84%	83%	84%	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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	284.219733	284.2108299330257	CCD I2 on	Y	Y
[deg] Pointing Dec	2.746517	2.772545975230987	CCD I3 on	Y	Y
[deg] Pointing Roll	78.420405	78.62951520918452	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)	415256311.184000	415255287.04514	CCD S5 on	N	N
Observation start date	2011-02-28T04:57:25	2011-02-28T04:41:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	415295311.184000	415295844.75974	On-chip summing requested	N	N
Observation end date	2011-02-28T15:47:25	2011-02-28T15:57:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



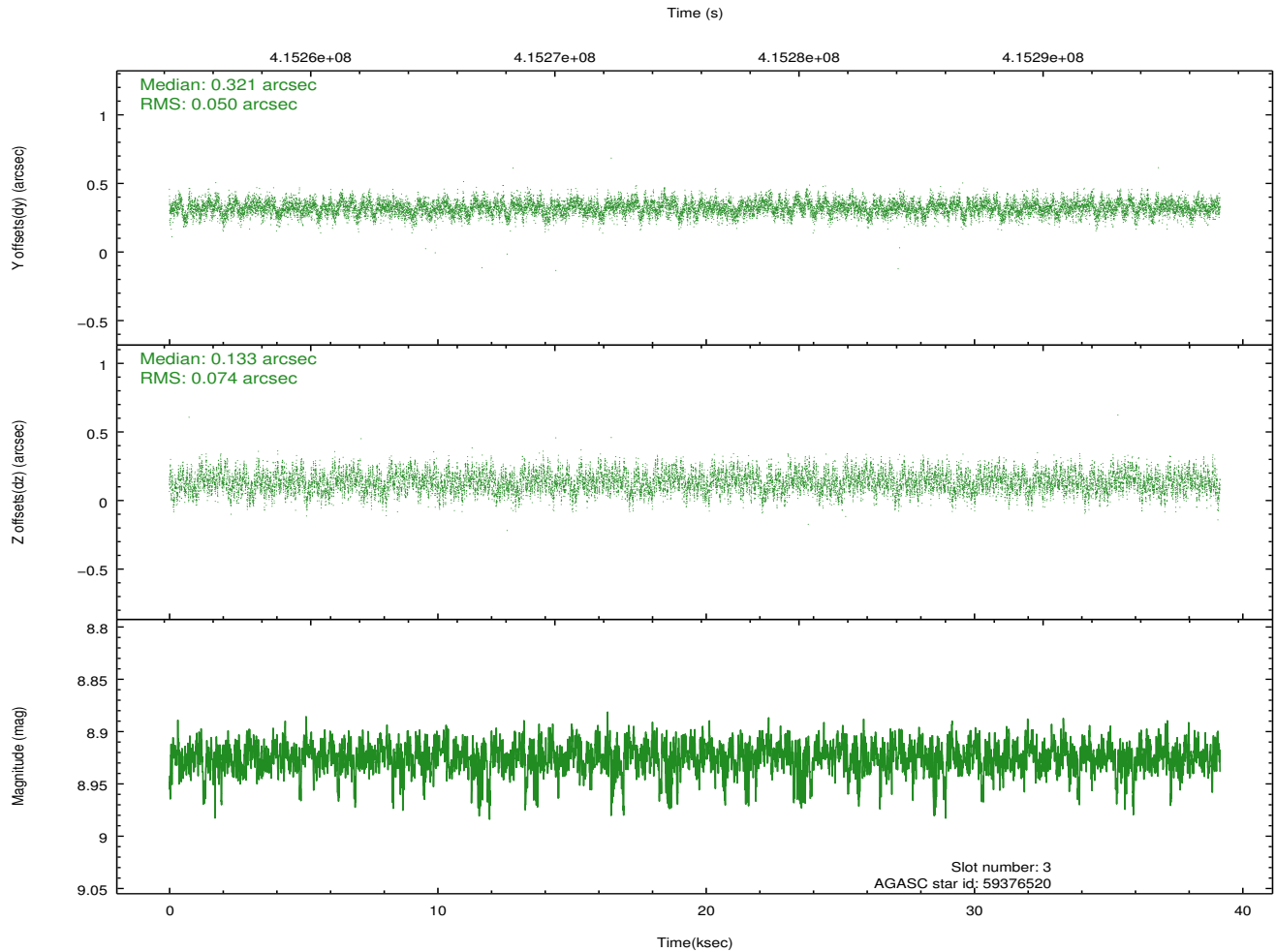
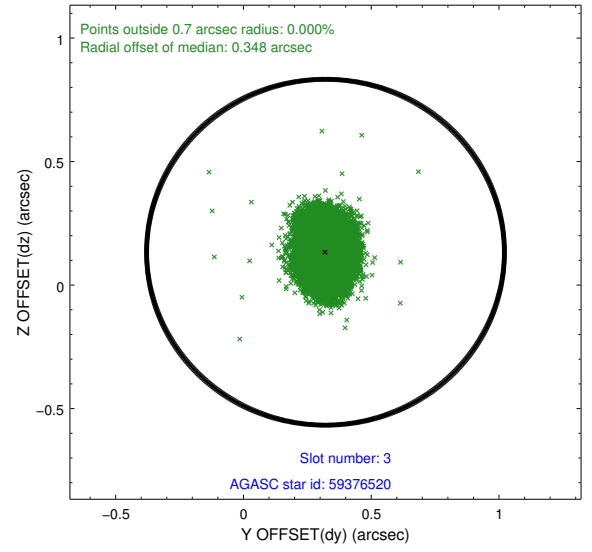
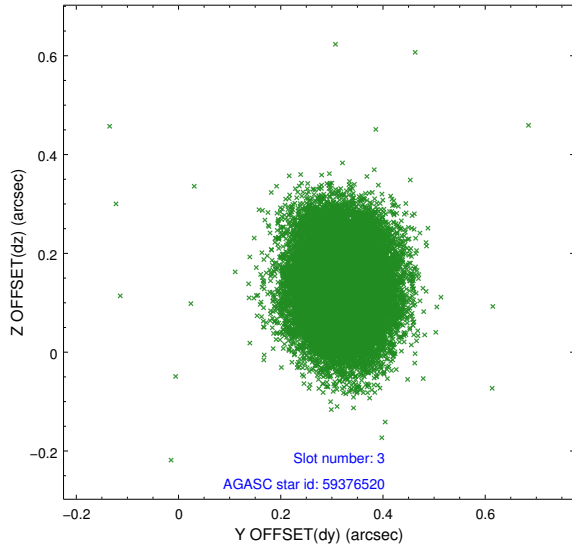


Slot Statistics

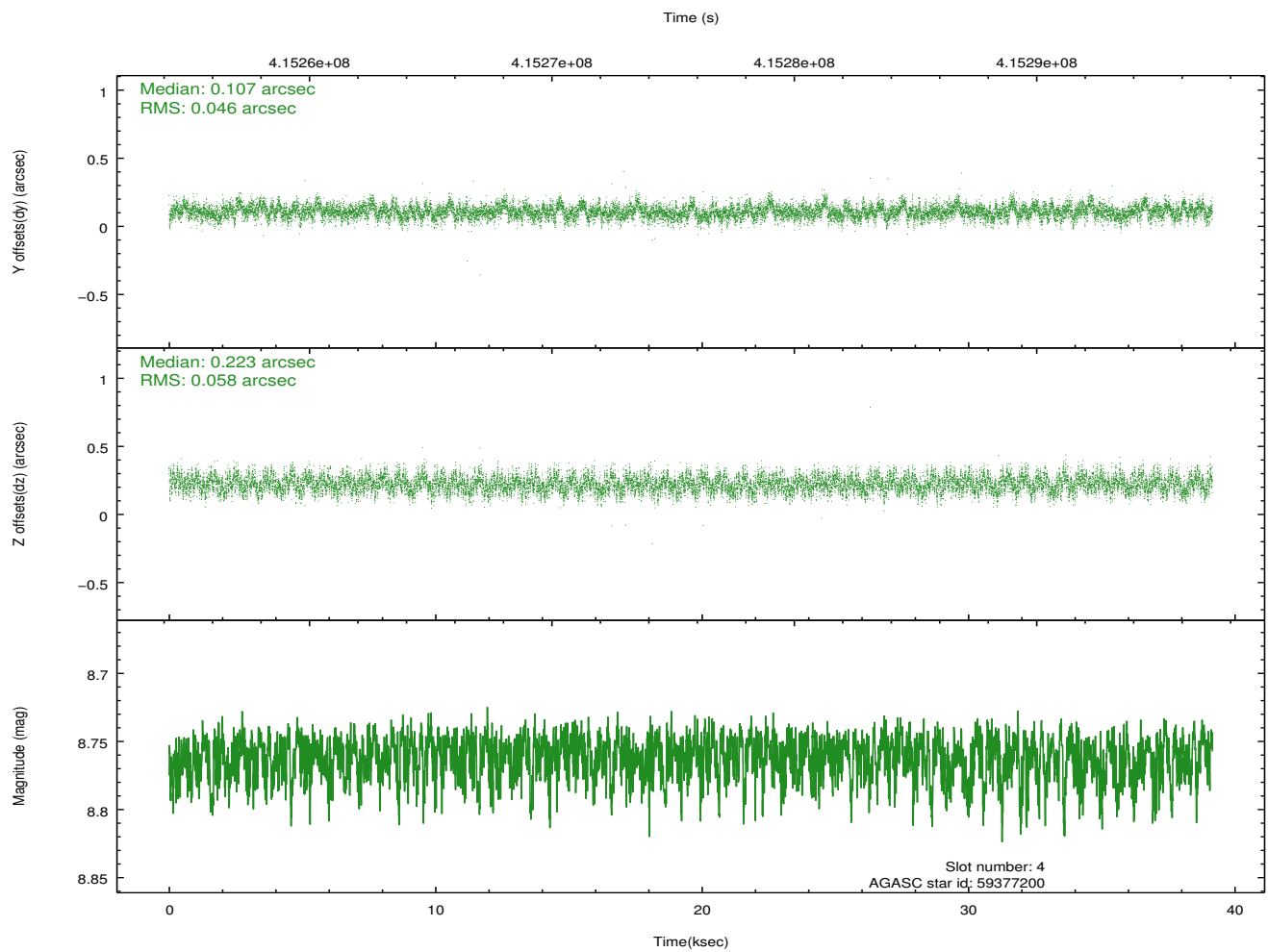
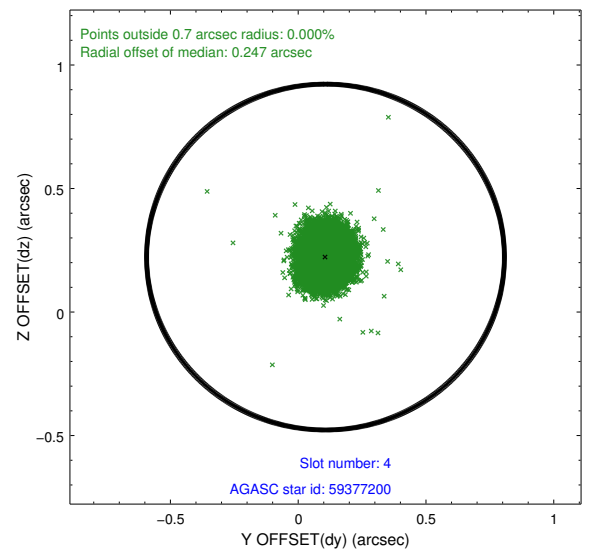
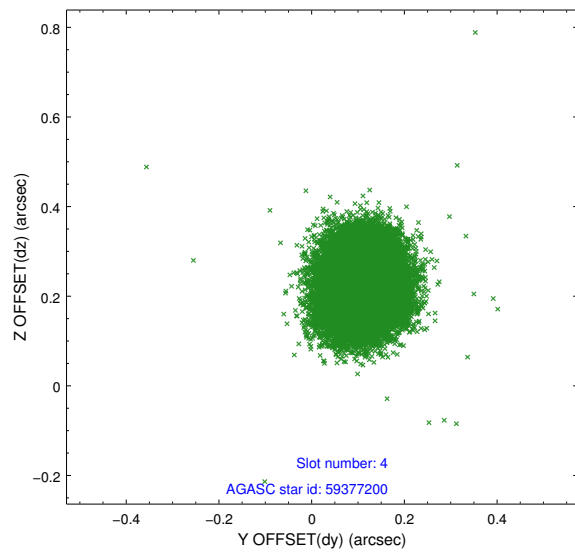
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	9550	0.033	0.022	0.018	0.048	0.000000	0.000000	922.26	-841.71
1	FID	ACIS-I-5	6.99	9551	-0.205	0.046	0.011	0.019	0.000000	0.000000	-1826.10	1055.78
2	FID	ACIS-I-6	7.01	9552	0.080	0.004	0.011	0.035	0.000000	0.000000	387.80	1700.28
3	GUIDE	59376520	8.92	19088	0.321	0.133	0.095	0.154	284.649079	2.608986	-174.24	-1611.73
4	GUIDE	59377200	8.76	19089	0.107	0.223	0.078	0.126	284.692162	2.481077	-594.36	-1856.14
5	GUIDE	59377976	8.73	19090	0.107	0.196	0.073	0.117	284.180813	2.207923	-1927.34	-252.02
6	GUIDE	59379120	7.87	19096	-0.293	-0.348	0.066	0.107	283.687397	3.468456	2162.19	2395.82
7	GUIDE	59379352	9.08	19091	-0.246	-0.205	0.093	0.149	283.985882	3.470651	2384.71	1346.80

2.4 Star Slots

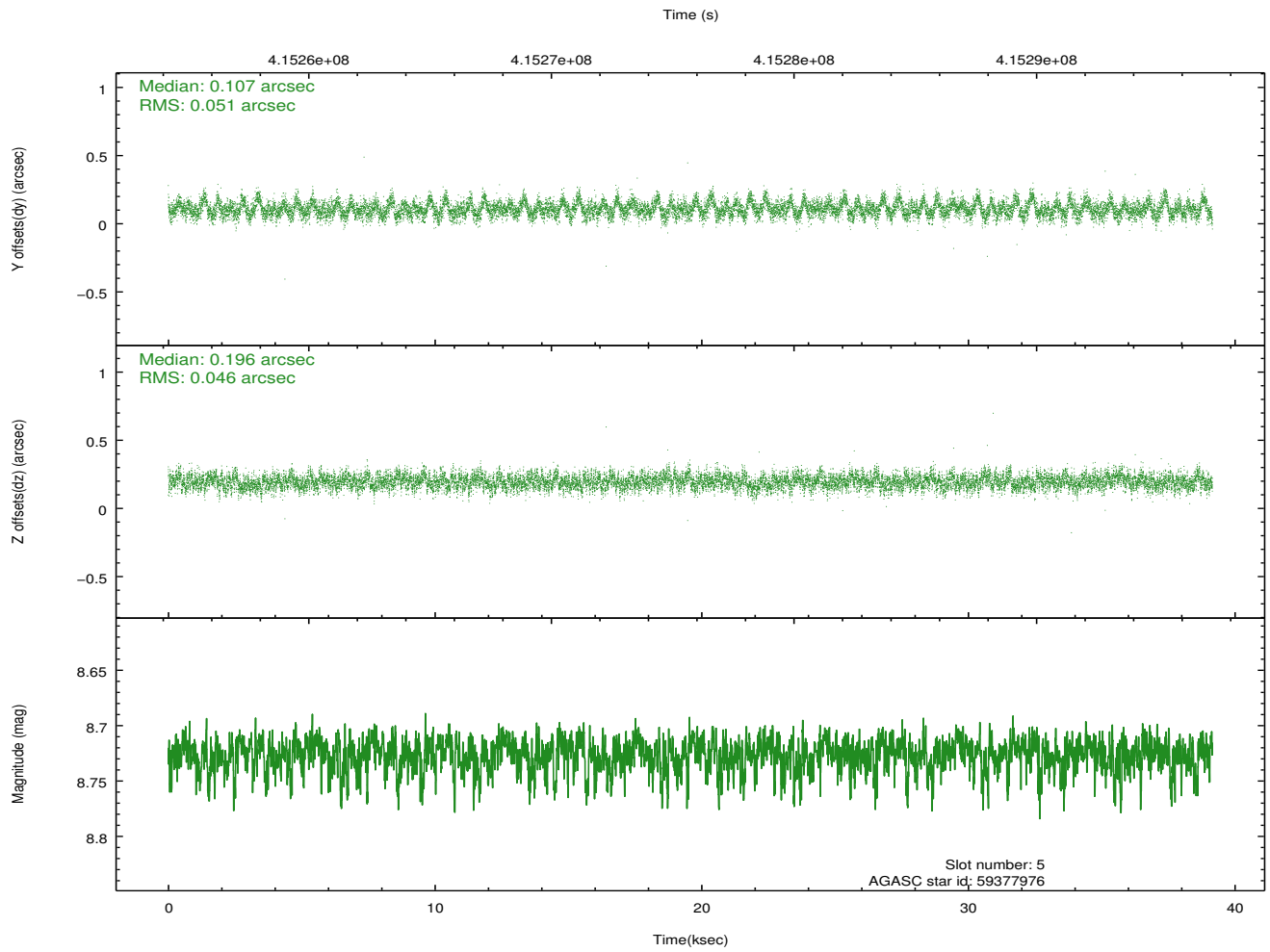
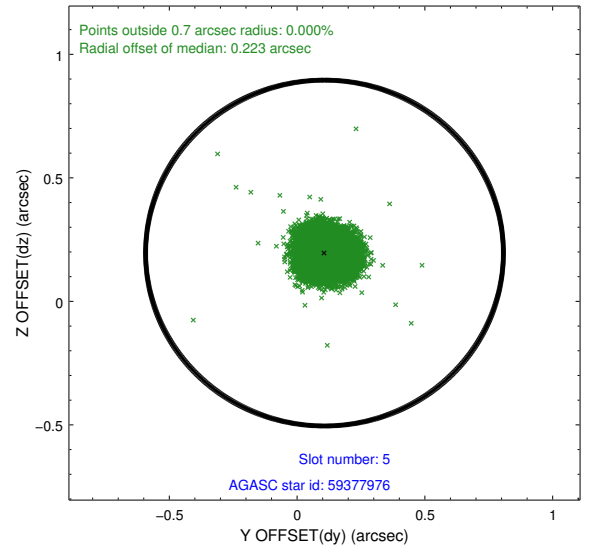
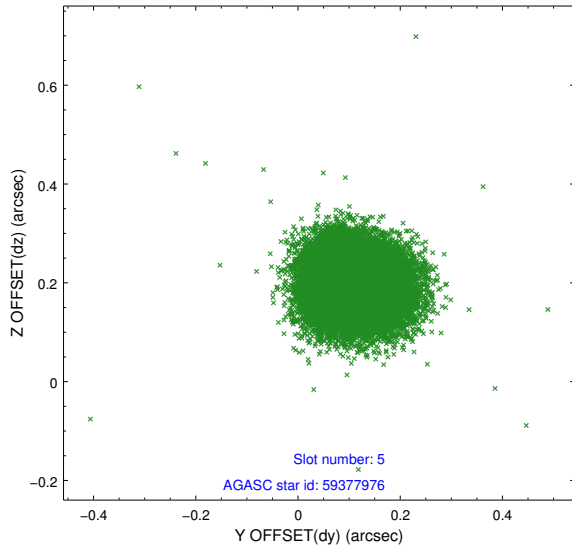
2.4.1 Slot 3



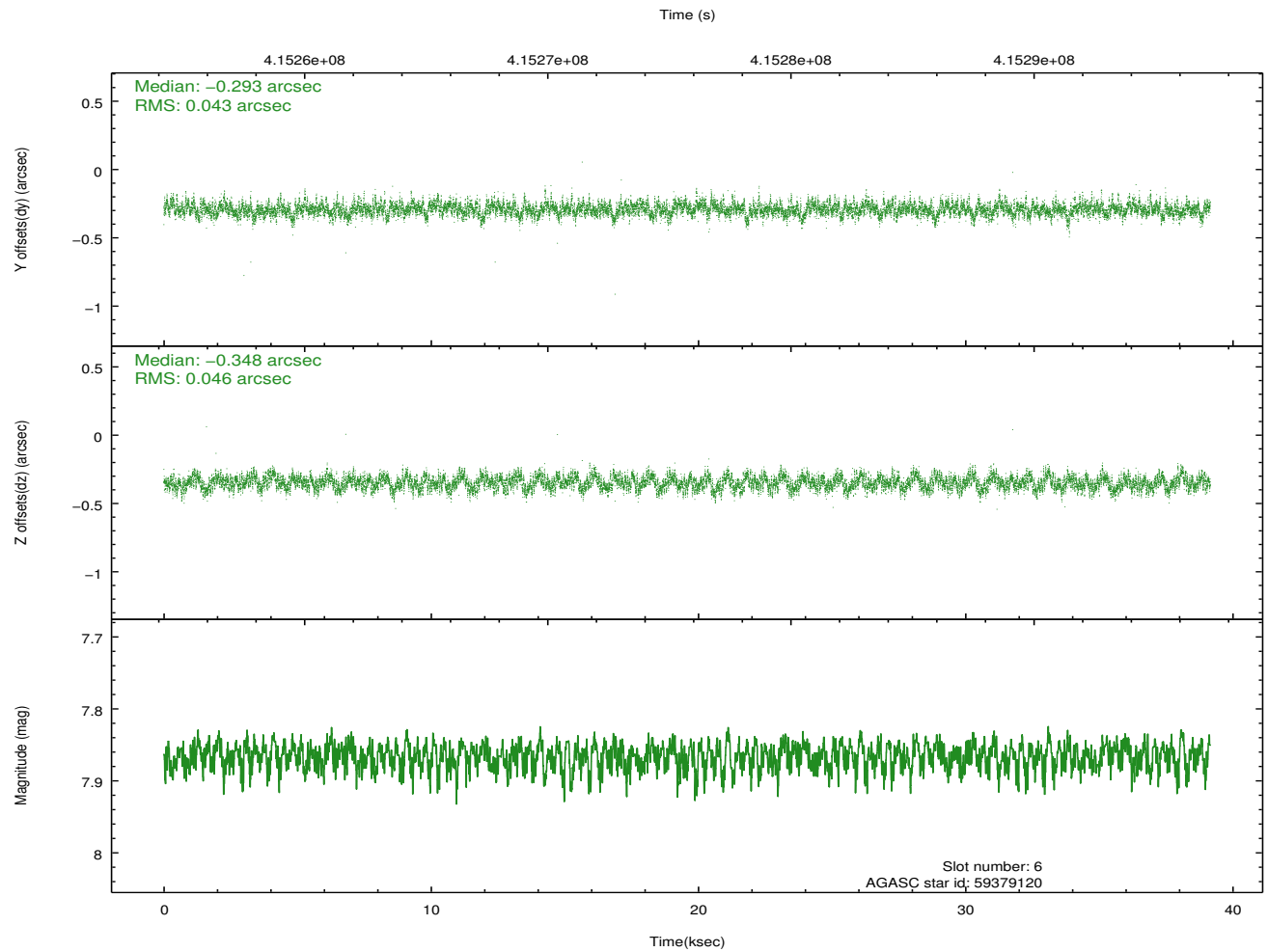
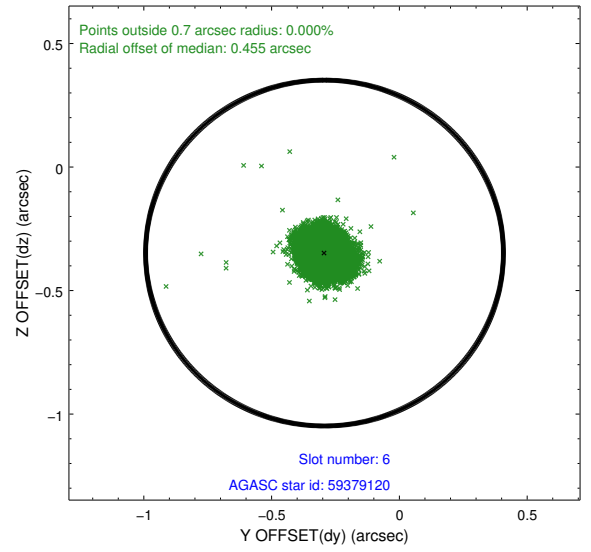
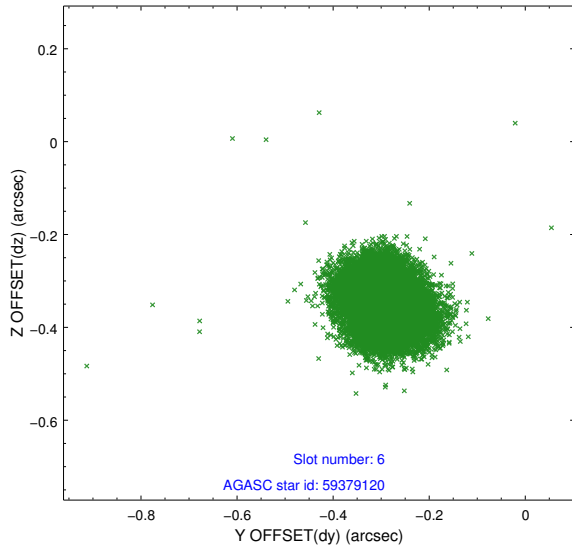
2.4.2 Slot 4



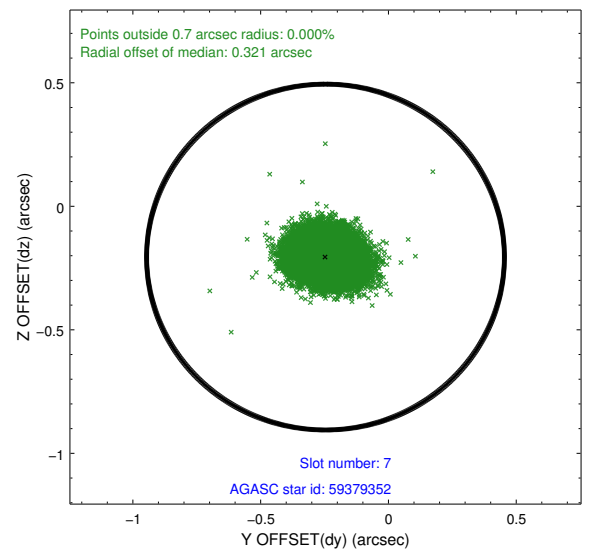
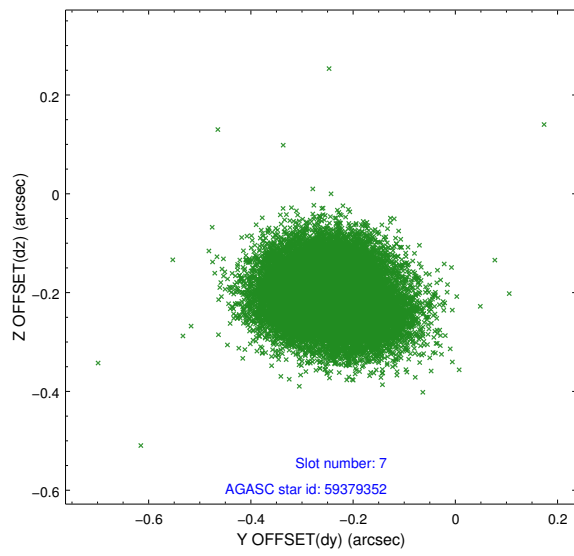
2.4.3 Slot 5



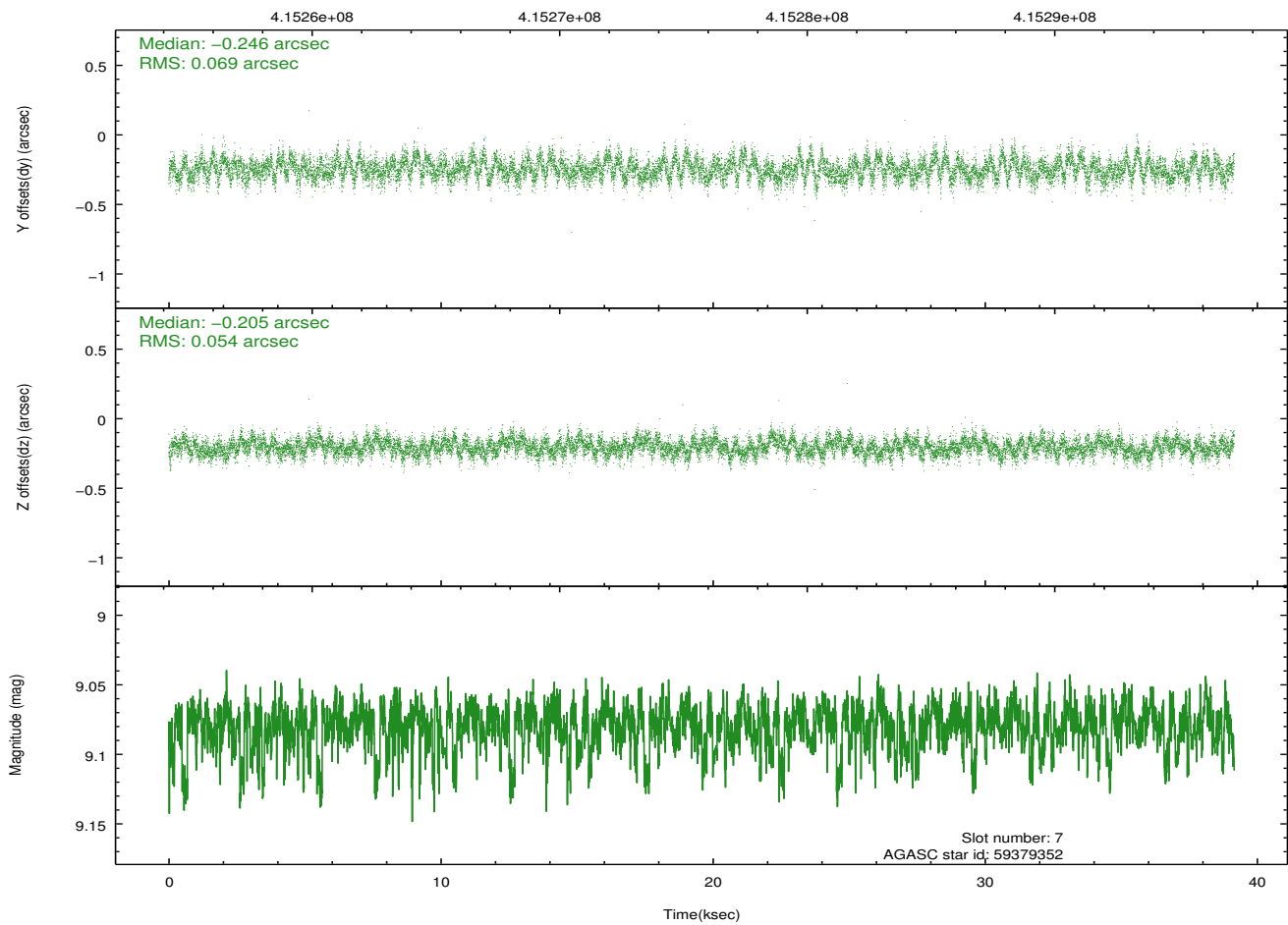
2.4.4 Slot 6



2.4.5 Slot 7

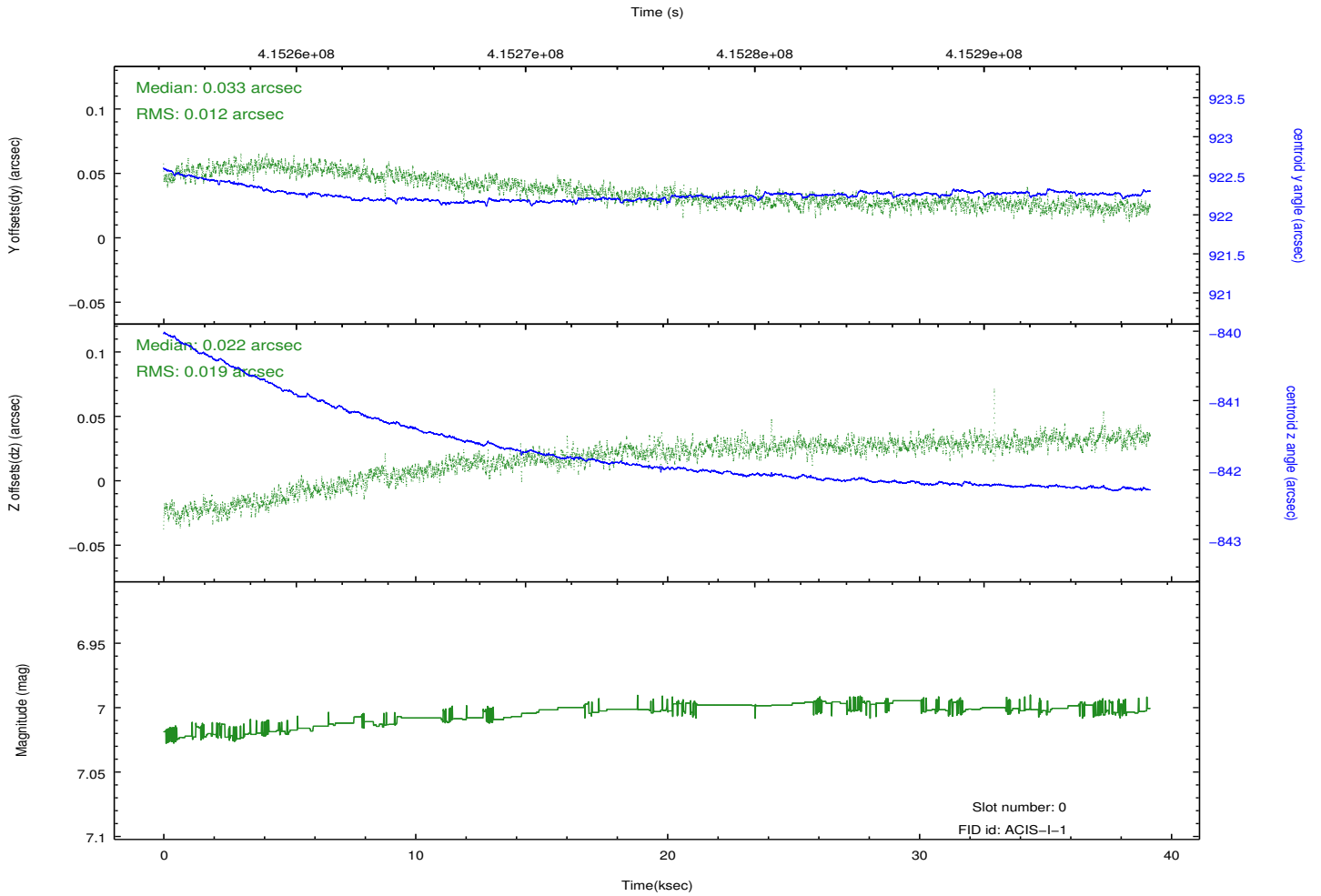
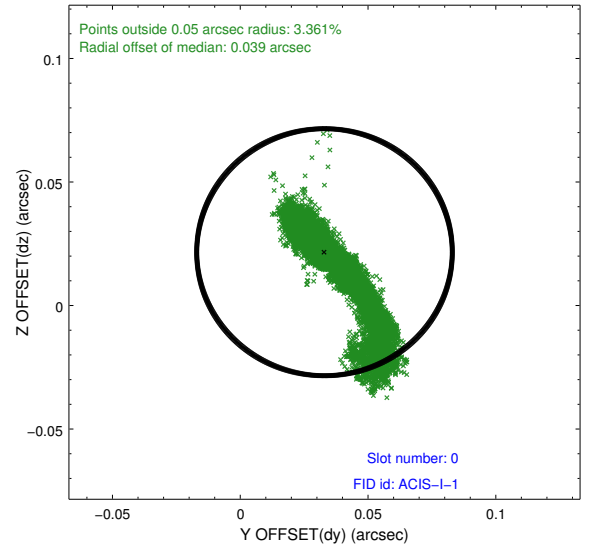
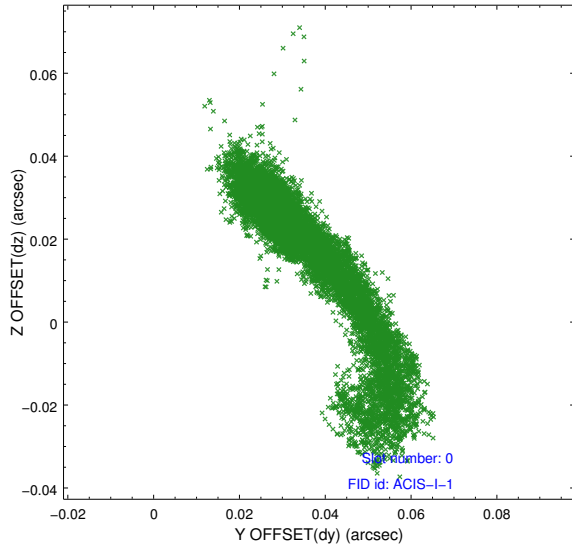


Time (s)

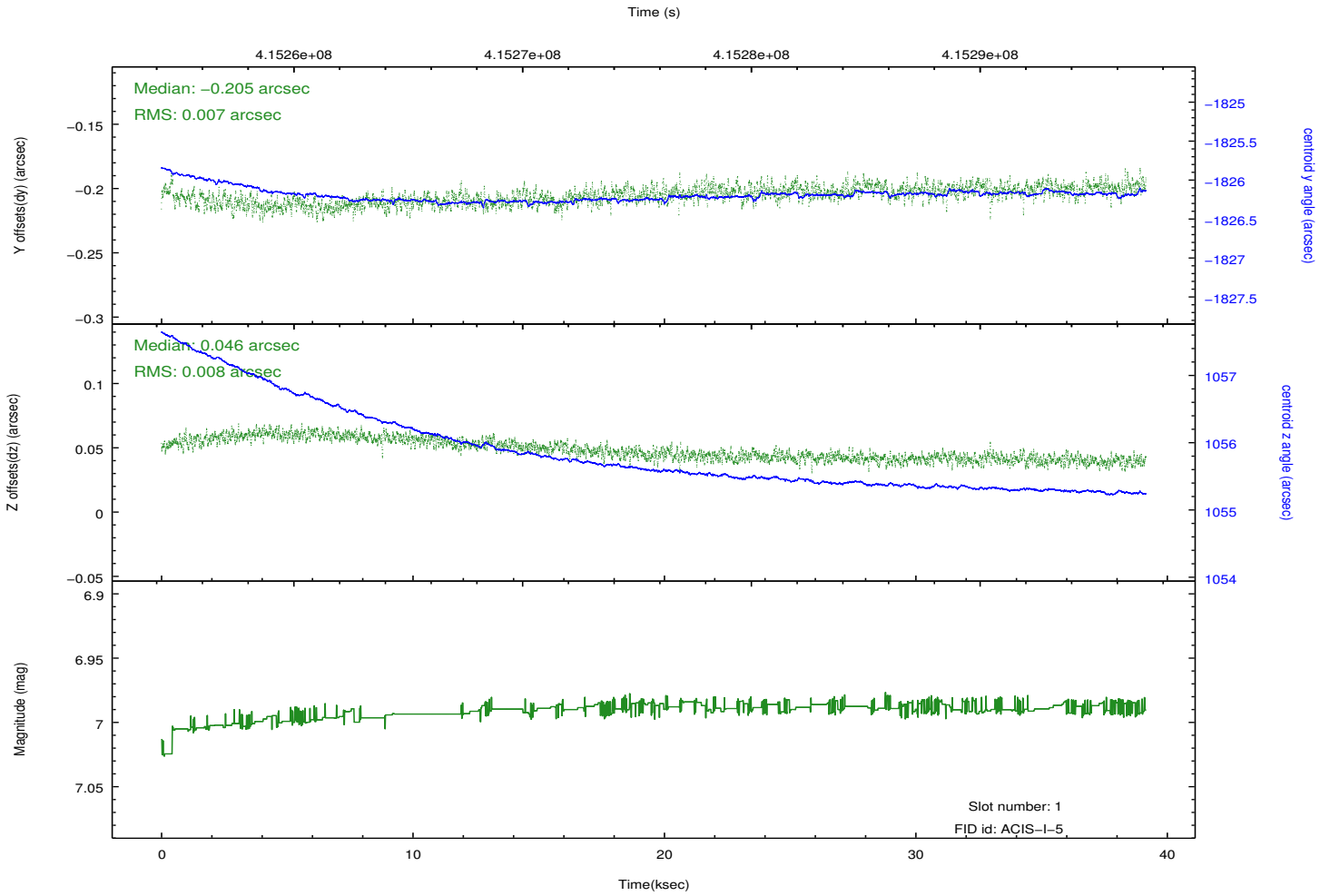
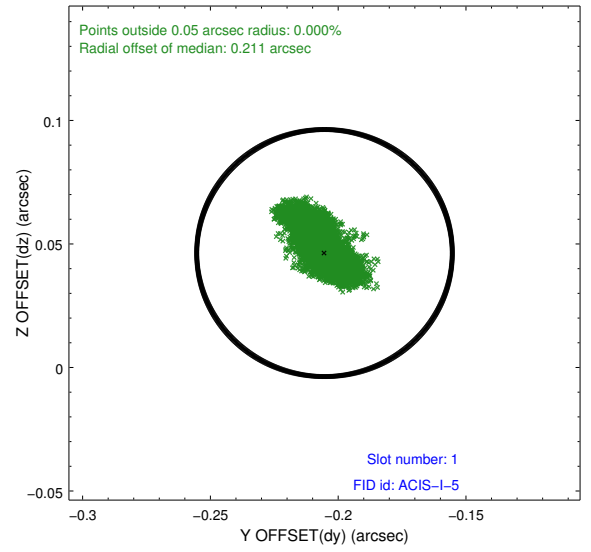
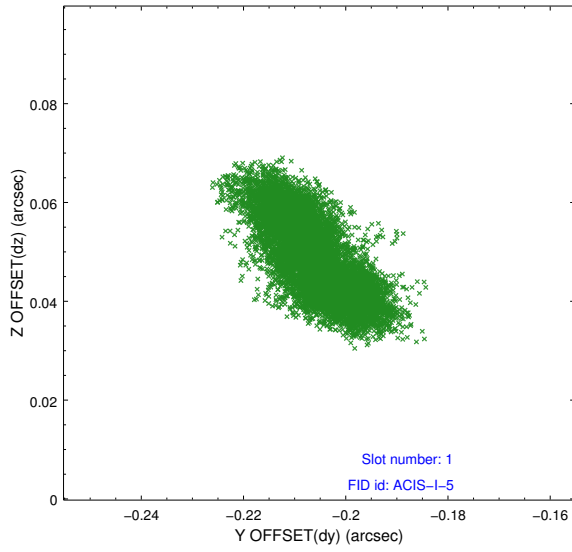


2.5 FID Slots

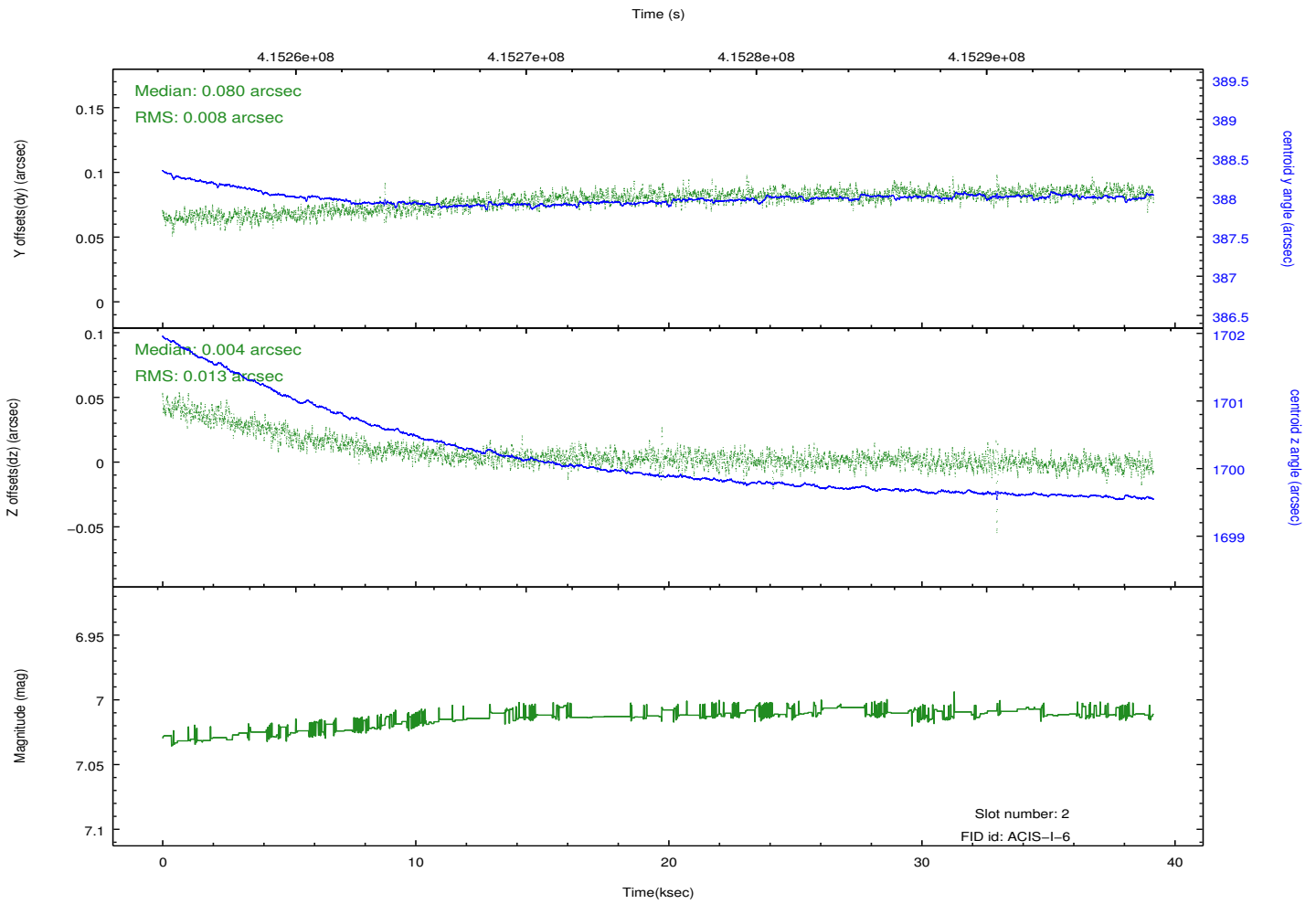
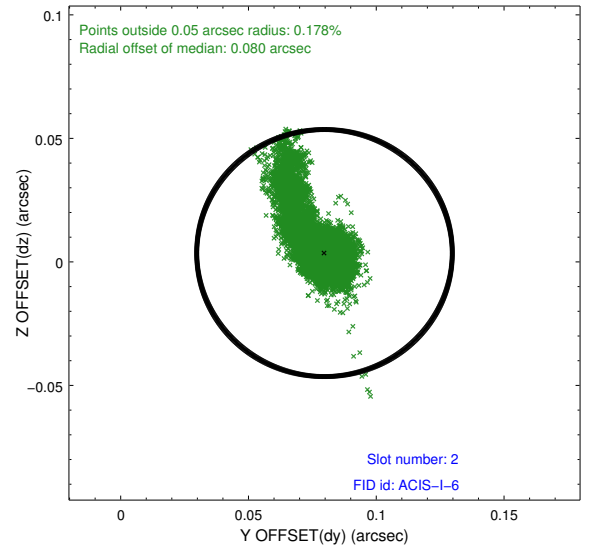
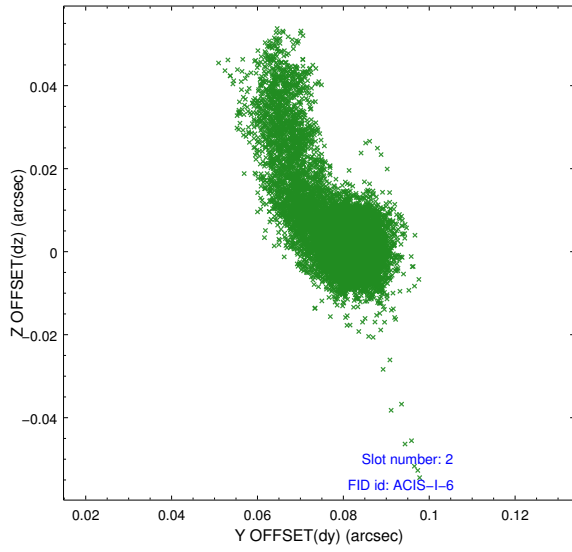
2.5.1 Slot 0



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)	2012.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.049259283662

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.