

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12711 - L2 Version 2
Chandra X-Ray Center

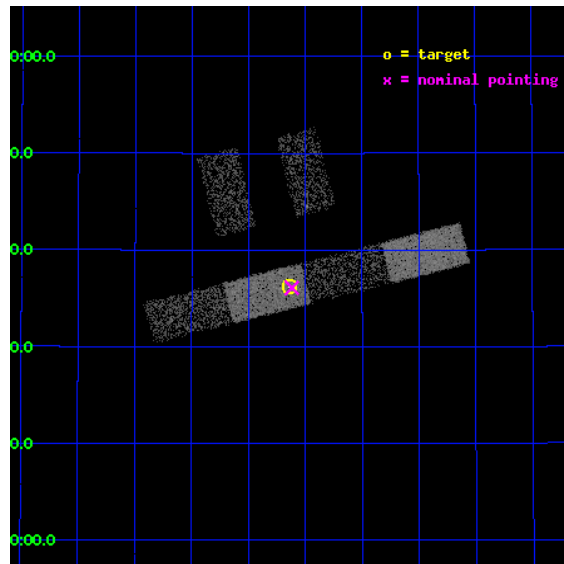
L2 Processing Date : Feb 4 2012

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1 Front

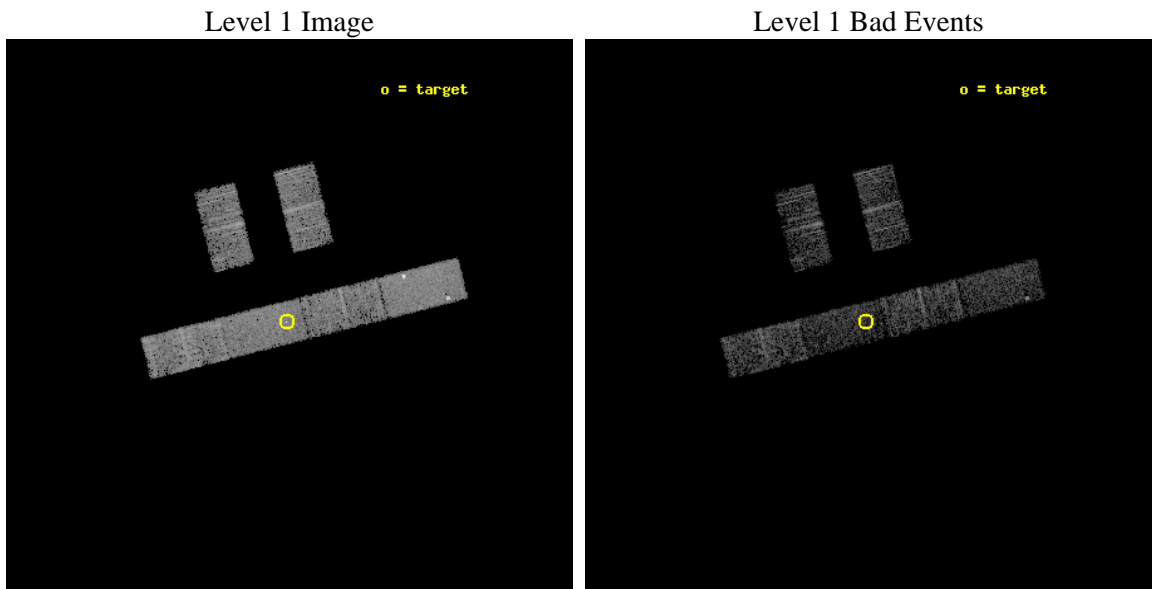
seq_num	702347	Sequence number
obs_id	12711	Observation id
title	The Nature of Weak-Line Quasars at Low Redshift	Proposal title
observer	Prof. William Brandt	Principal investigator
object	SDSS J1109+3736	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	167.410417	Observer's specified target RA [deg]
dec_targ	37.603222	Observer's specified target Dec [deg]
ra_nom	167.40451694582	Nominal RA [deg]
dec_nom	37.601651514834	Nominal Dec [deg]
roll_nom	165.91540568096	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3196.800021112	Sum of GTIs [s]
livetime	3125.5377601799	Livetime [s]
ontime2	3196.800021112	Sum of GTIs [s]
ontime3	3196.800021112	Sum of GTIs [s]
ontime5	3196.800021112	Sum of GTIs [s]
ontime6	3196.800021112	Sum of GTIs [s]
ontime7	3196.800021112	Sum of GTIs [s]
ontime8	3196.800021112	Sum of GTIs [s]
l2events	20471	Number of level 2 events



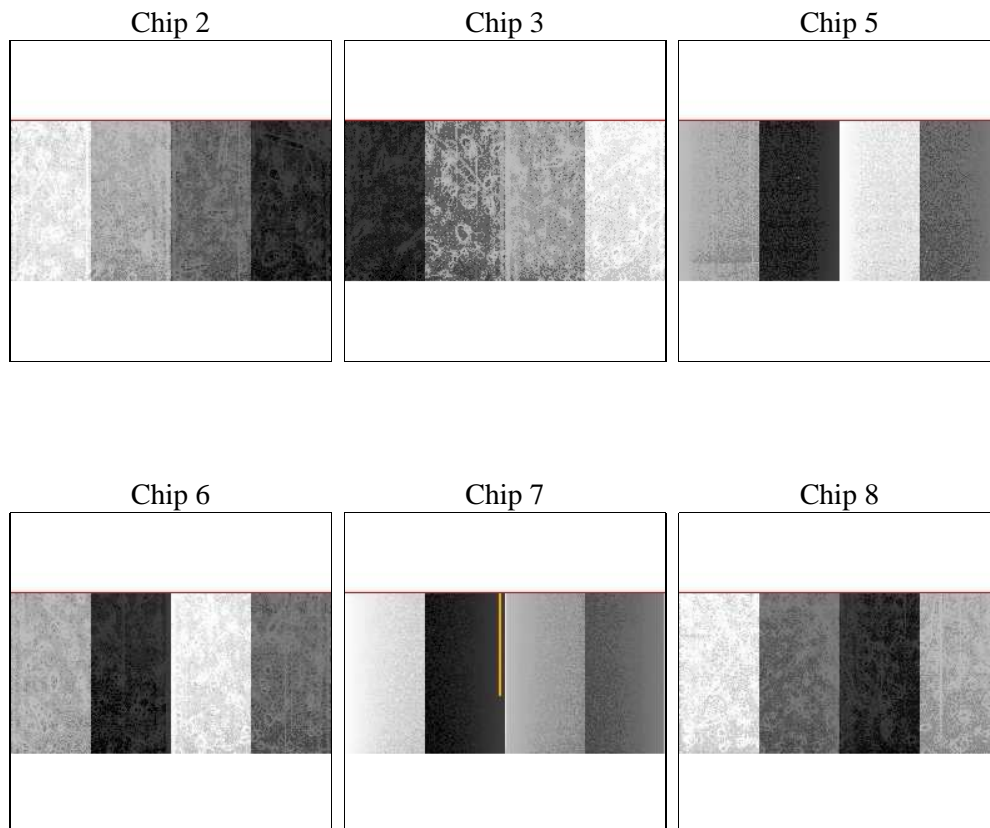
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3100.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	3196.800021112	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	3196.800021112	Sum of GTIs [s]
date	2012-02-04T21:09:03	Date and time of file creation	ontime3	3196.800021112	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	3196.800021112	Sum of GTIs [s]
			ontime6	3196.800021112	Sum of GTIs [s]
			ontime7	3196.800021112	Sum of GTIs [s]
			ontime8	3196.800021112	Sum of GTIs [s]
			l1events	88920	Number of level 1 events

2.1.4 Events

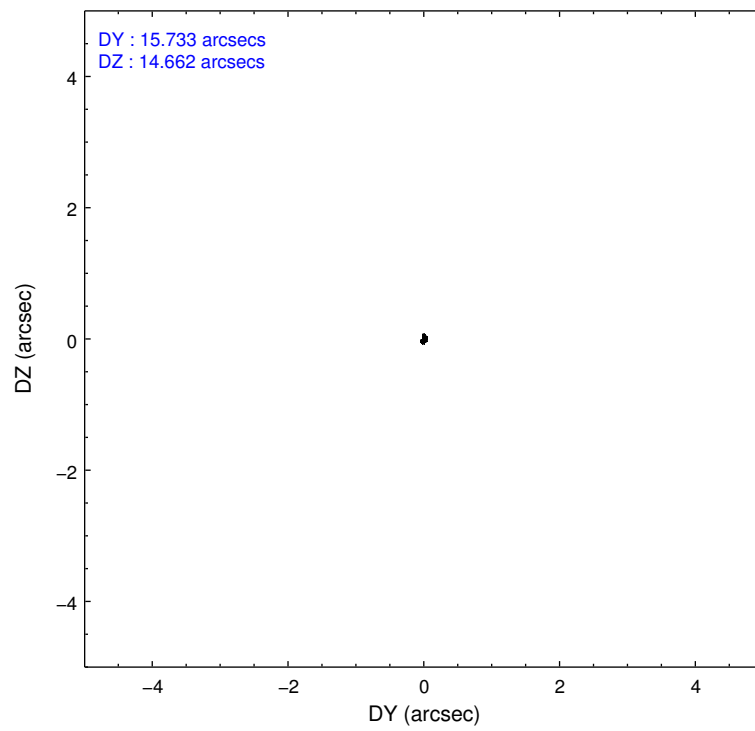
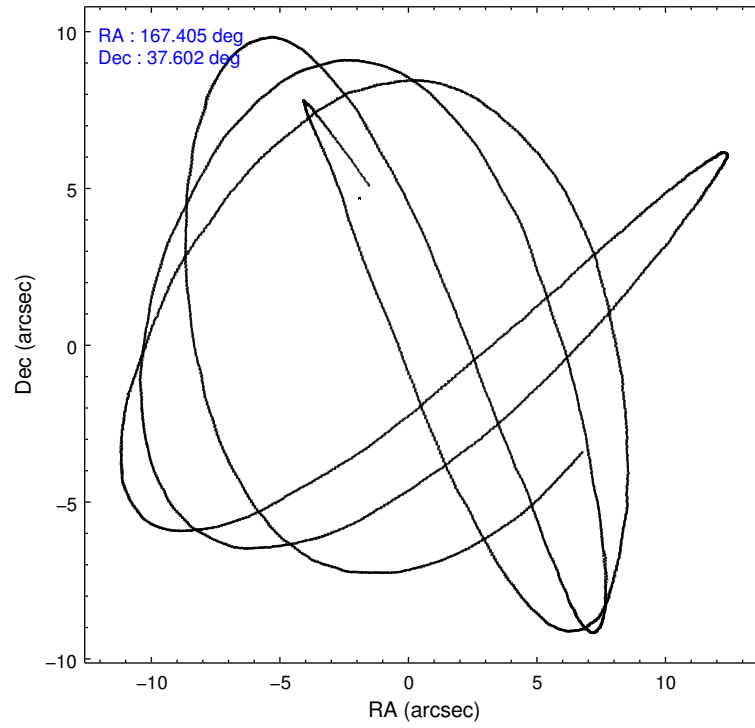
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	12627	11493	20109	12589	15595	16507
rejected events	11241	10253	9304	11239	8054	12159
rejected %	89%	89%	46%	89%	51%	73%

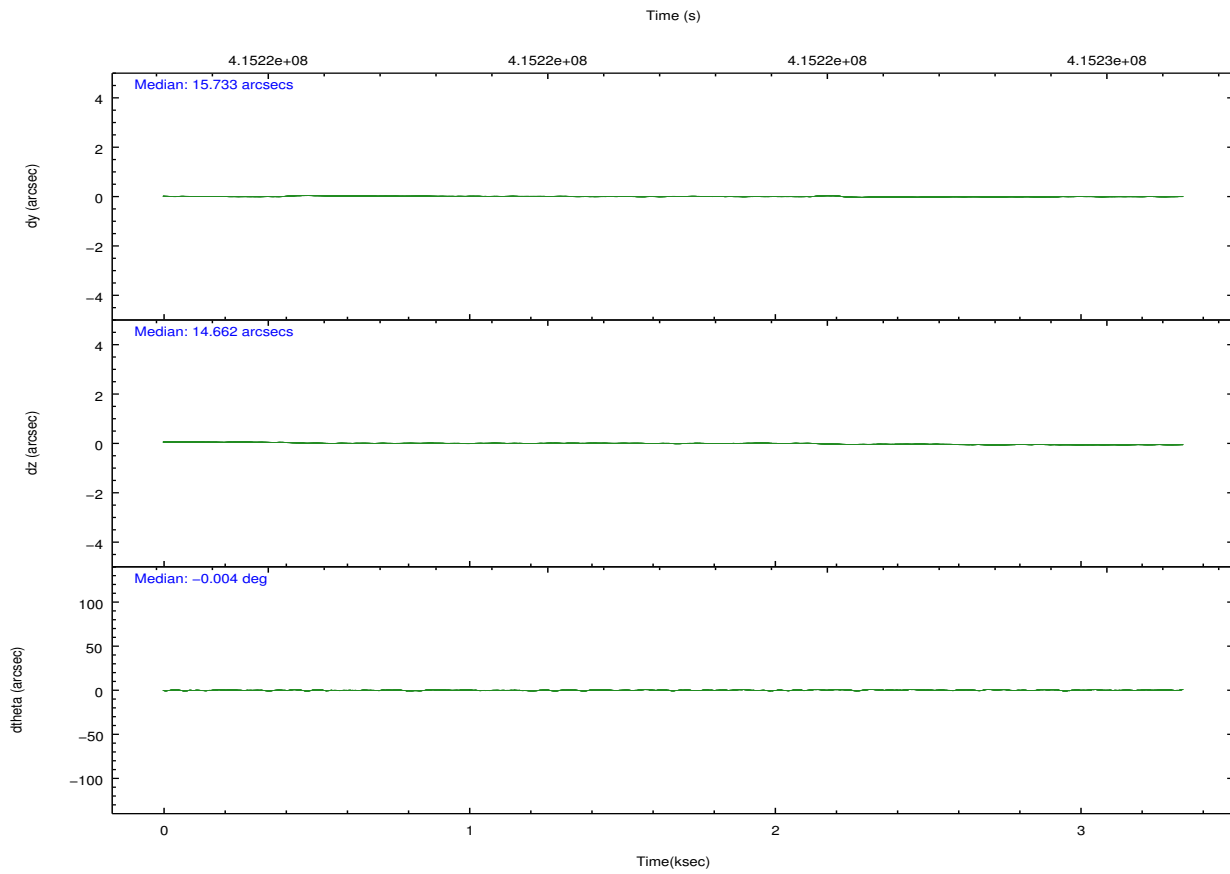
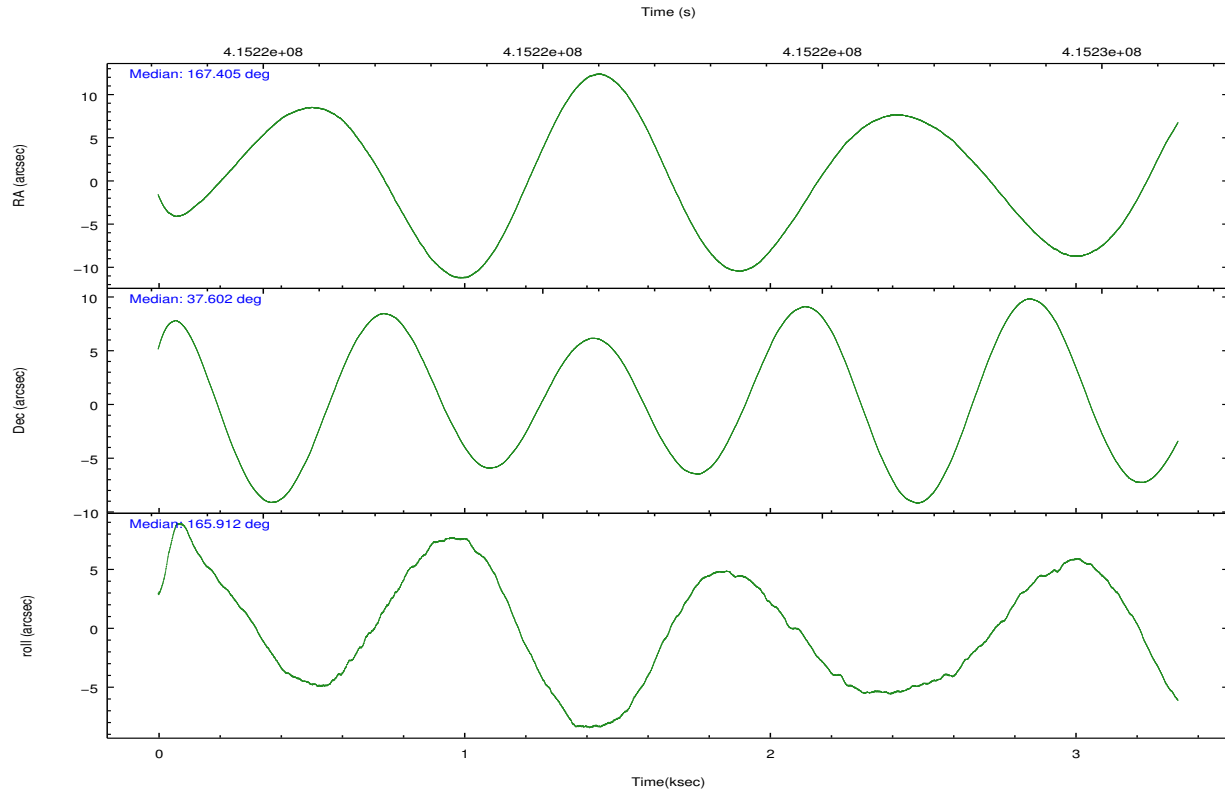
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	475	382	2272	444	857	1218
	3%	3%	11%	3%	5%	7%
grade 1 events	5	9	44	6	33	8
	0%	0%	0%	0%	0%	0%
grade 2 events	353	261	3282	288	1599	1037
	2%	2%	16%	2%	10%	6%
grade 3 events	146	178	443	170	746	415
	1%	1%	2%	1%	4%	2%
grade 4 events	176	163	377	168	764	434
	1%	1%	1%	1%	4%	2%
grade 5 events	467	543	1516	490	1590	802
	3%	4%	7%	3%	10%	4%
grade 6 events	236	257	4436	280	3584	1245
	1%	2%	22%	2%	22%	7%
grade 7 events	10769	9700	7739	10743	6422	11348
	85%	84%	38%	85%	41%	68%

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	167.437645	167.4045169458238	CCD I2 on	O2	Y
[deg] Pointing Dec	37.609610	37.60165151483356	CCD I3 on	O1	Y
[deg] Pointing Roll	165.738563	165.915405680964	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	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	Y	Y
[s] Observation start time (MET)	415223017.184000	415222181.08093	CCD S5 on	N	N
Observation start date	2011-02-27T19:42:31	2011-02-27T19:29:41	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	415226117.184000	415226760.78117	On-chip summing requested	N	N
Observation end date	2011-02-27T20:34:11	2011-02-27T20:46:00	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.8

2.3 Aspect



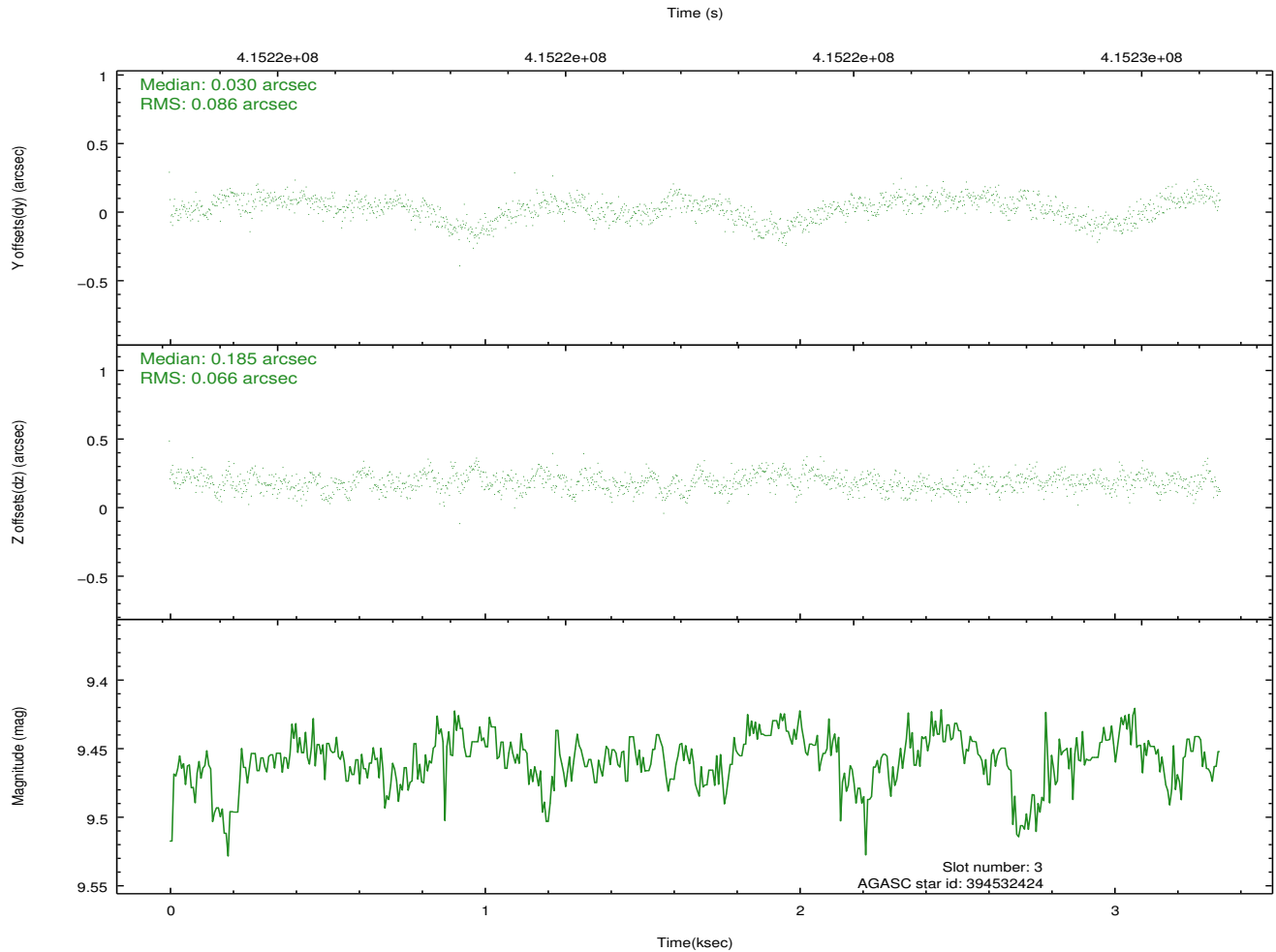
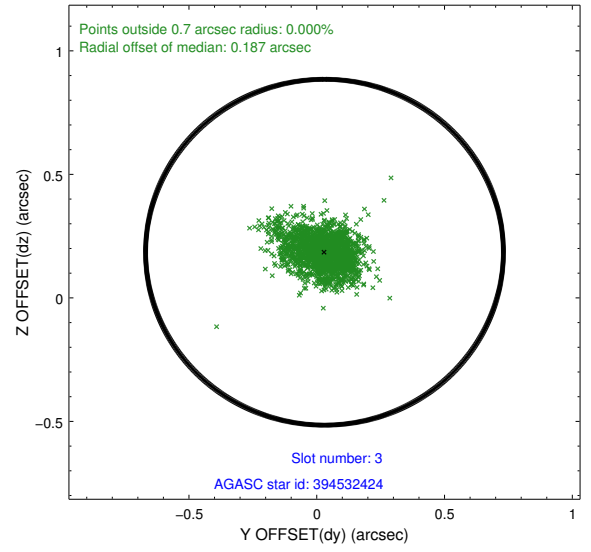
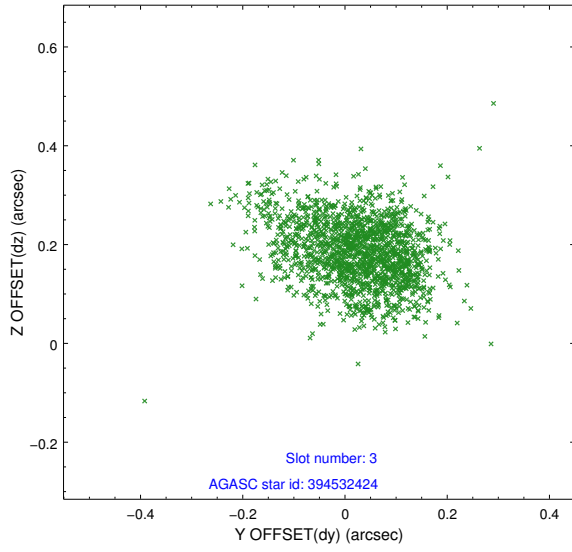


Slot Statistics

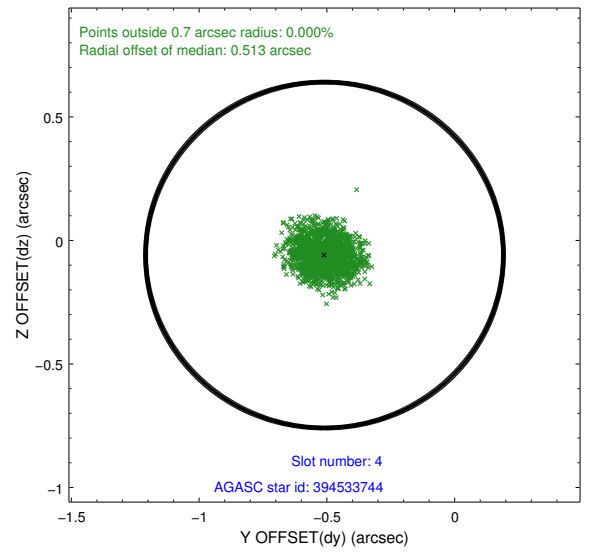
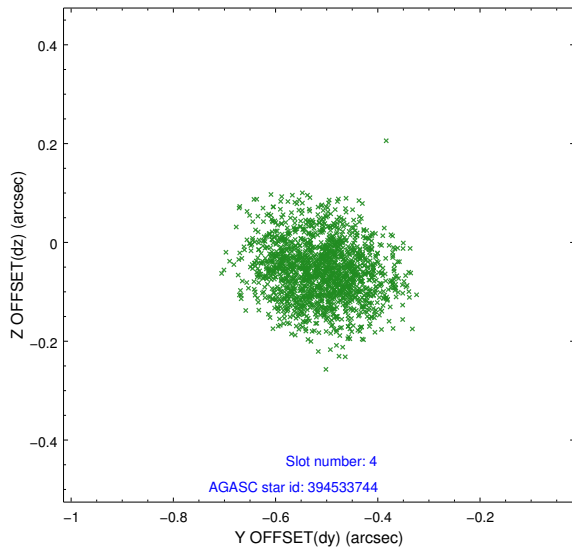
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	814	-0.105	-0.042	0.006	0.010	0.000000	0.000000	-768.82	-1736.07
1	FID	ACIS-S-4	6.99	814	0.212	0.062	0.005	0.009	0.000000	0.000000	2143.89	170.56
2	FID	ACIS-S-5	7.01	814	-0.138	-0.012	0.006	0.010	0.000000	0.000000	-1819.27	166.31
3	GUIDE	394532424	9.46	1628	0.030	0.185	0.112	0.193	167.196007	38.297687	1272.65	-2231.43
4	GUIDE	394533744	8.90	1629	-0.509	-0.059	0.100	0.152	167.094985	37.988717	1279.39	-1086.33
5	GUIDE	394546080	8.38	1564	0.080	-0.017	0.080	0.121	167.854675	37.698312	-1070.71	-605.18
6	GUIDE	394546568	9.29	1626	0.269	-0.009	0.119	0.186	167.690700	37.930390	-411.56	-1297.14
7	GUIDE	330571544	7.39	1628	0.144	-0.099	0.080	0.134	168.061713	36.892699	-2375.94	2052.00

2.4 Star Slots

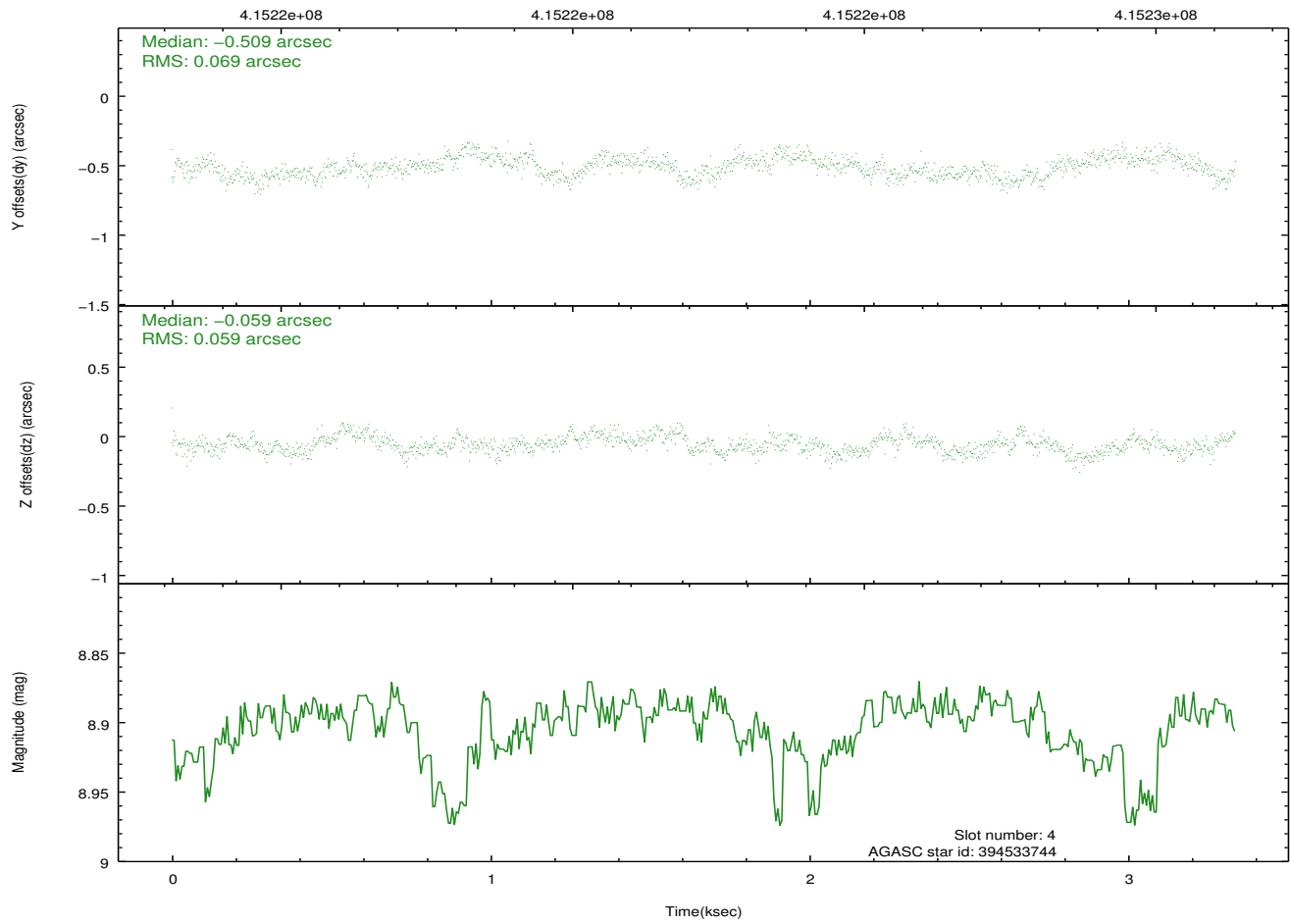
2.4.1 Slot 3



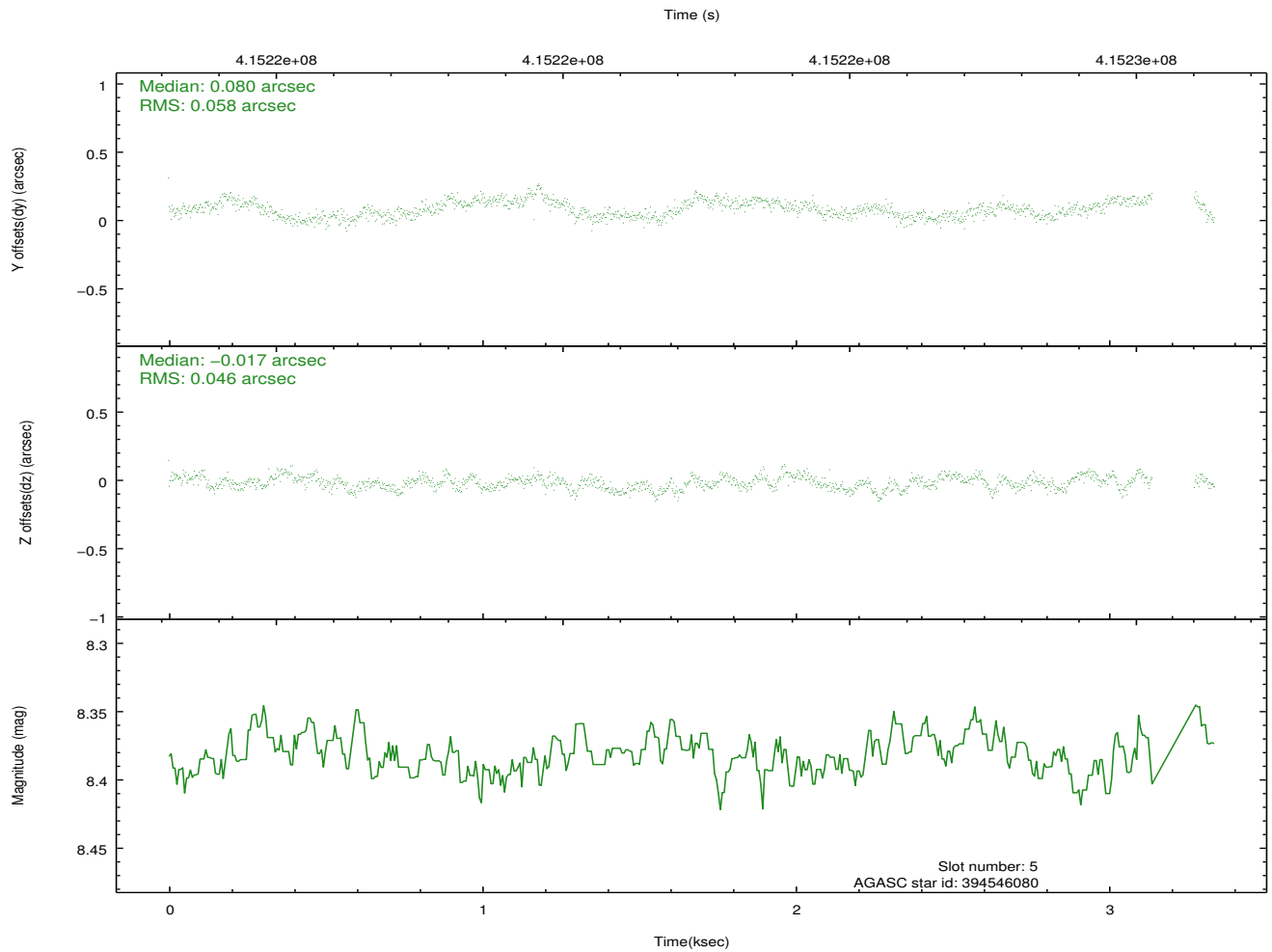
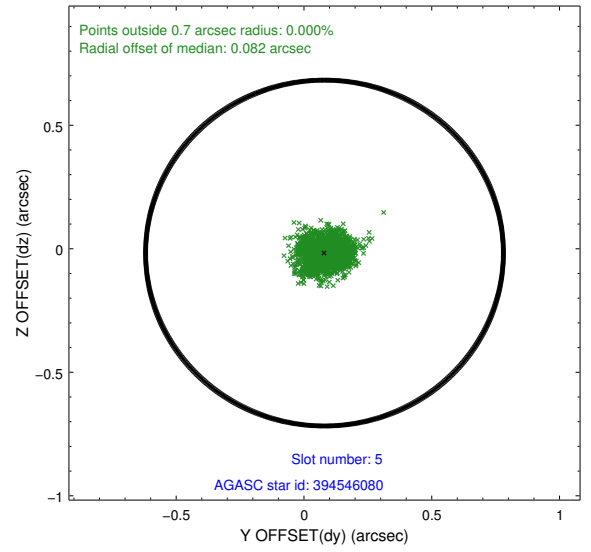
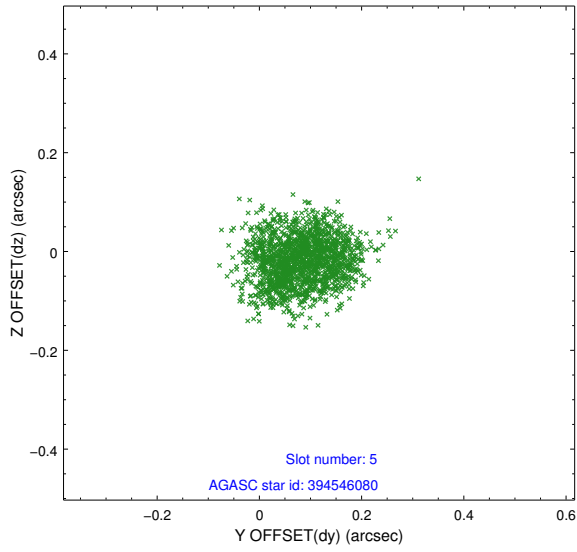
2.4.2 Slot 4



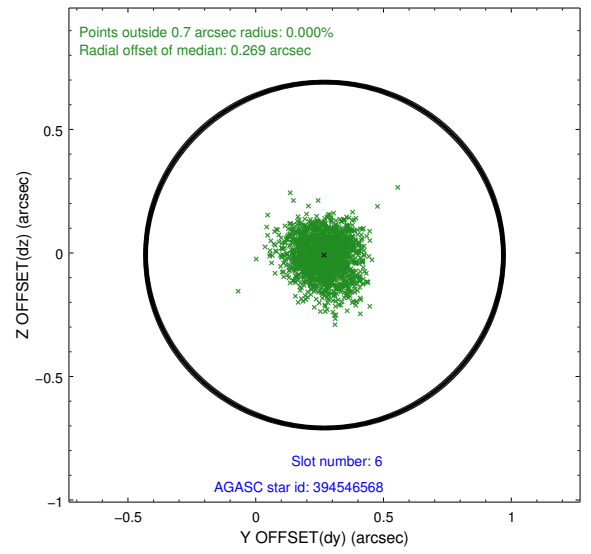
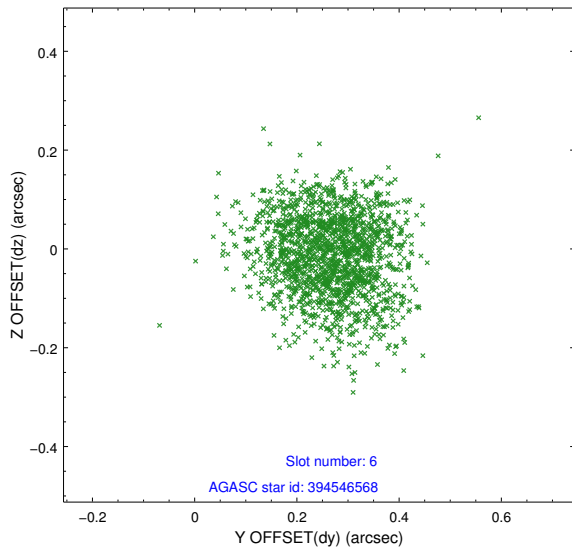
Time (s)



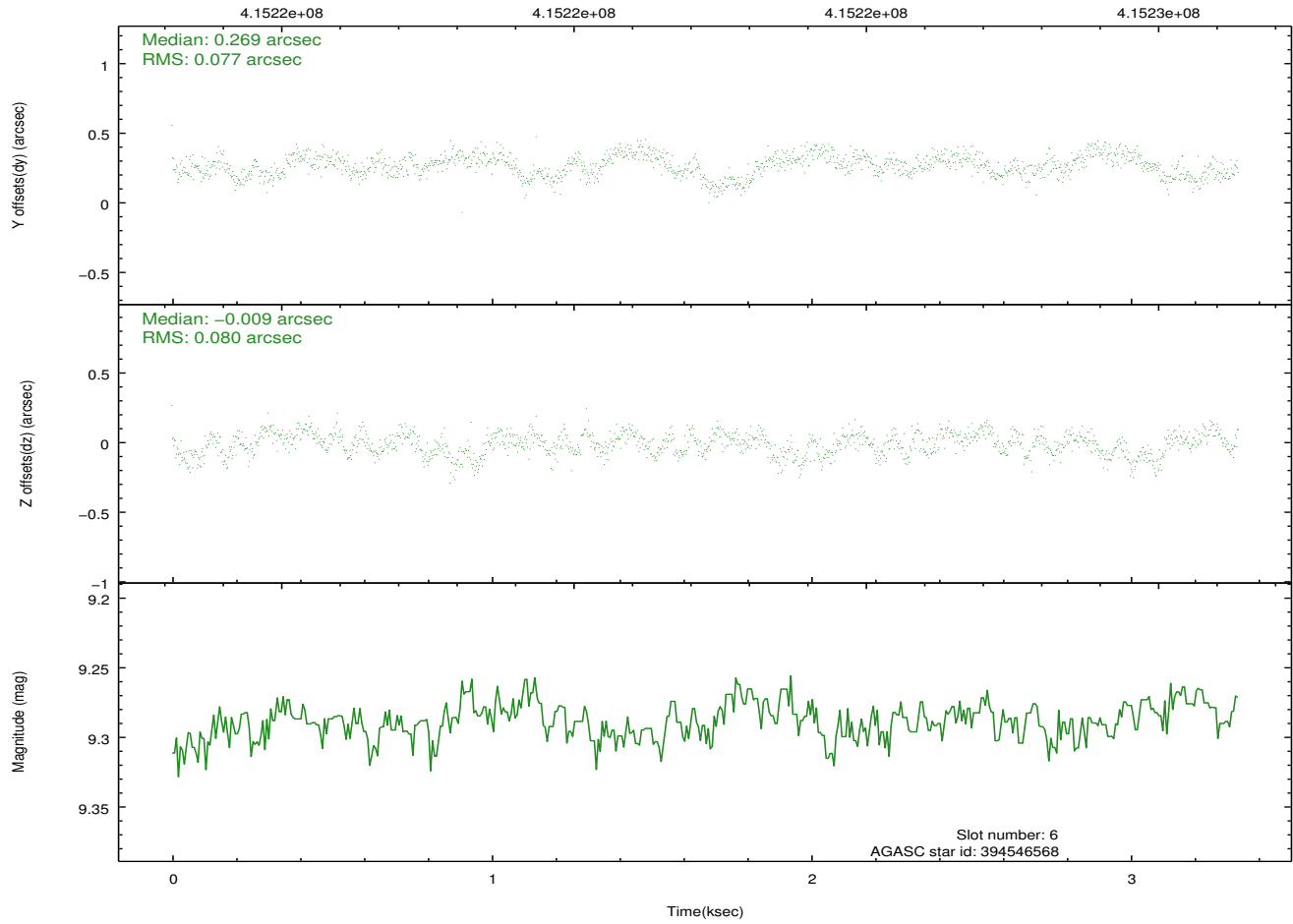
2.4.3 Slot 5



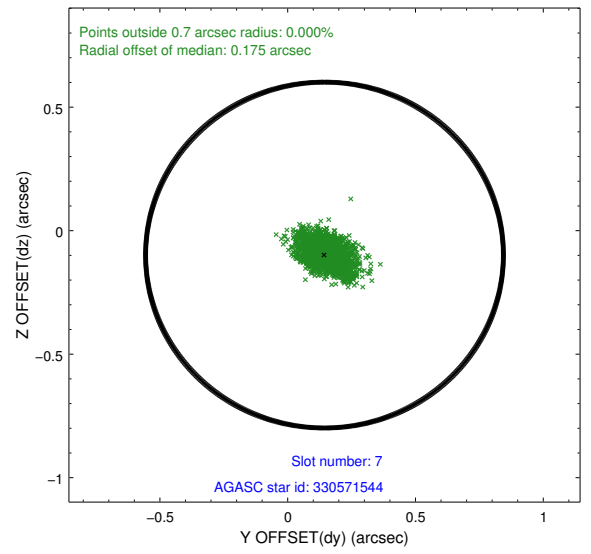
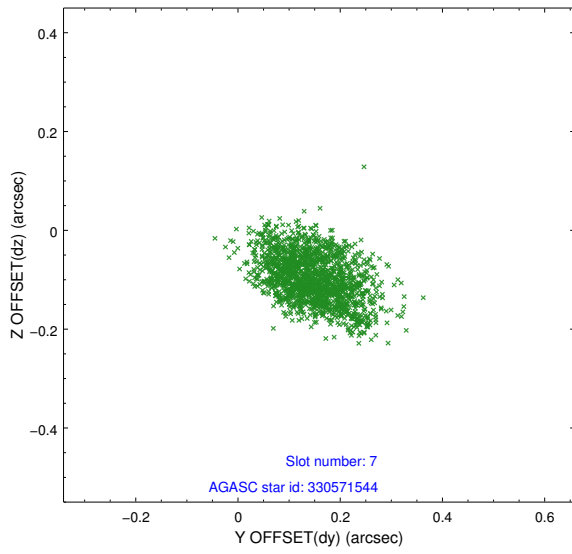
2.4.4 Slot 6



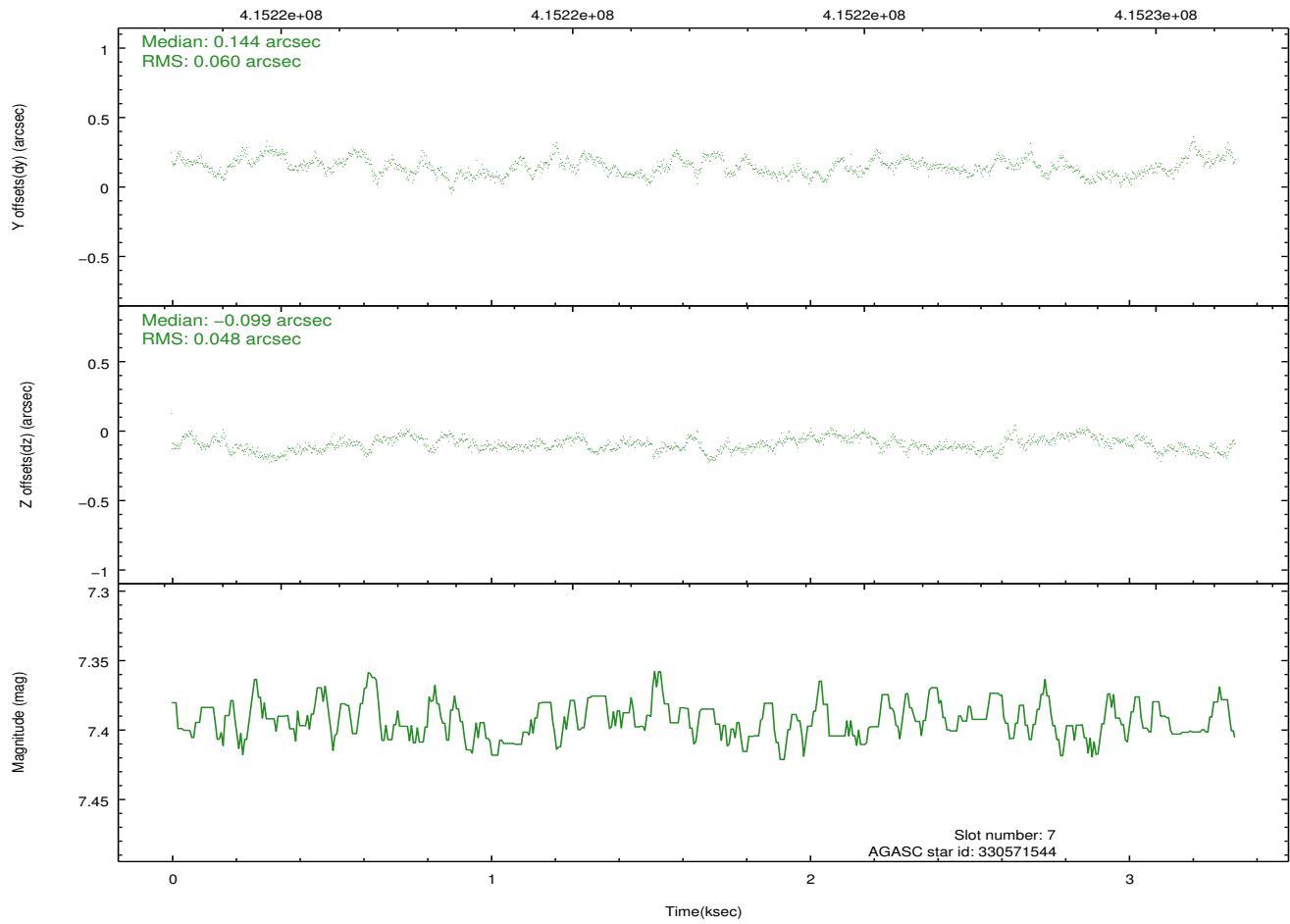
Time (s)



2.4.5 Slot 7

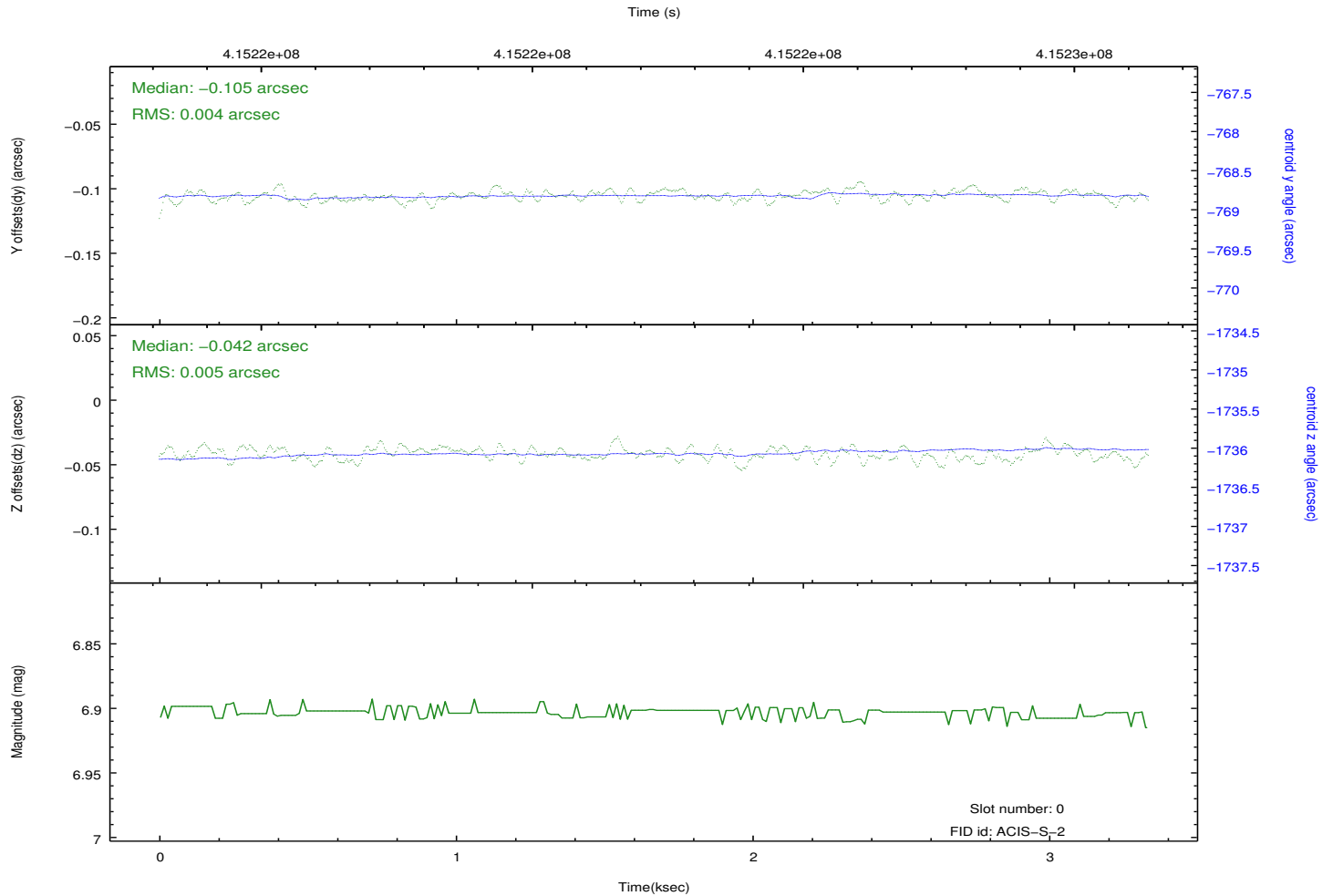
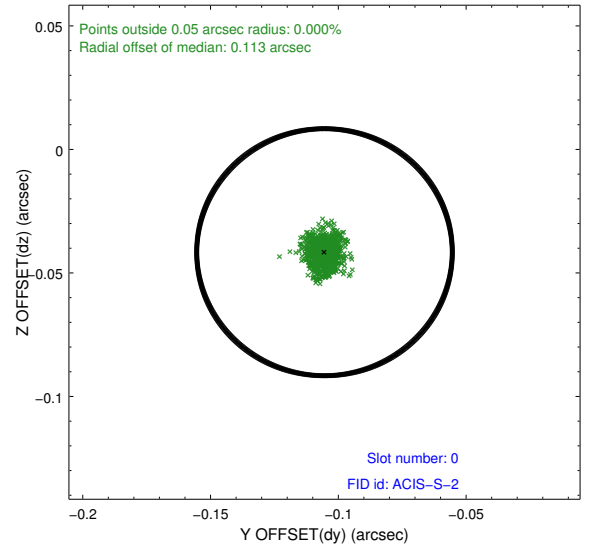
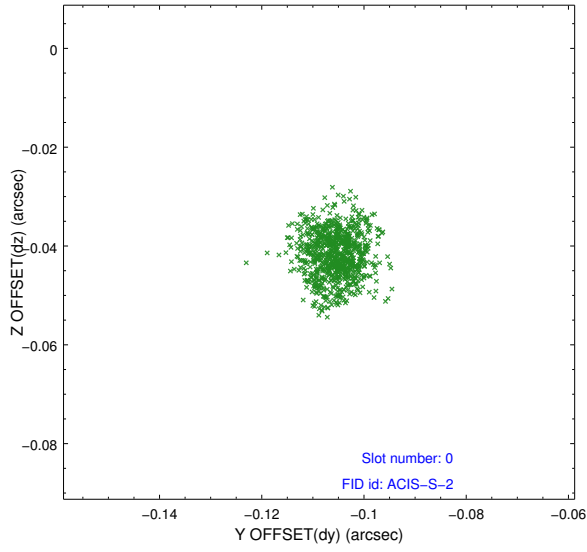


Time (s)

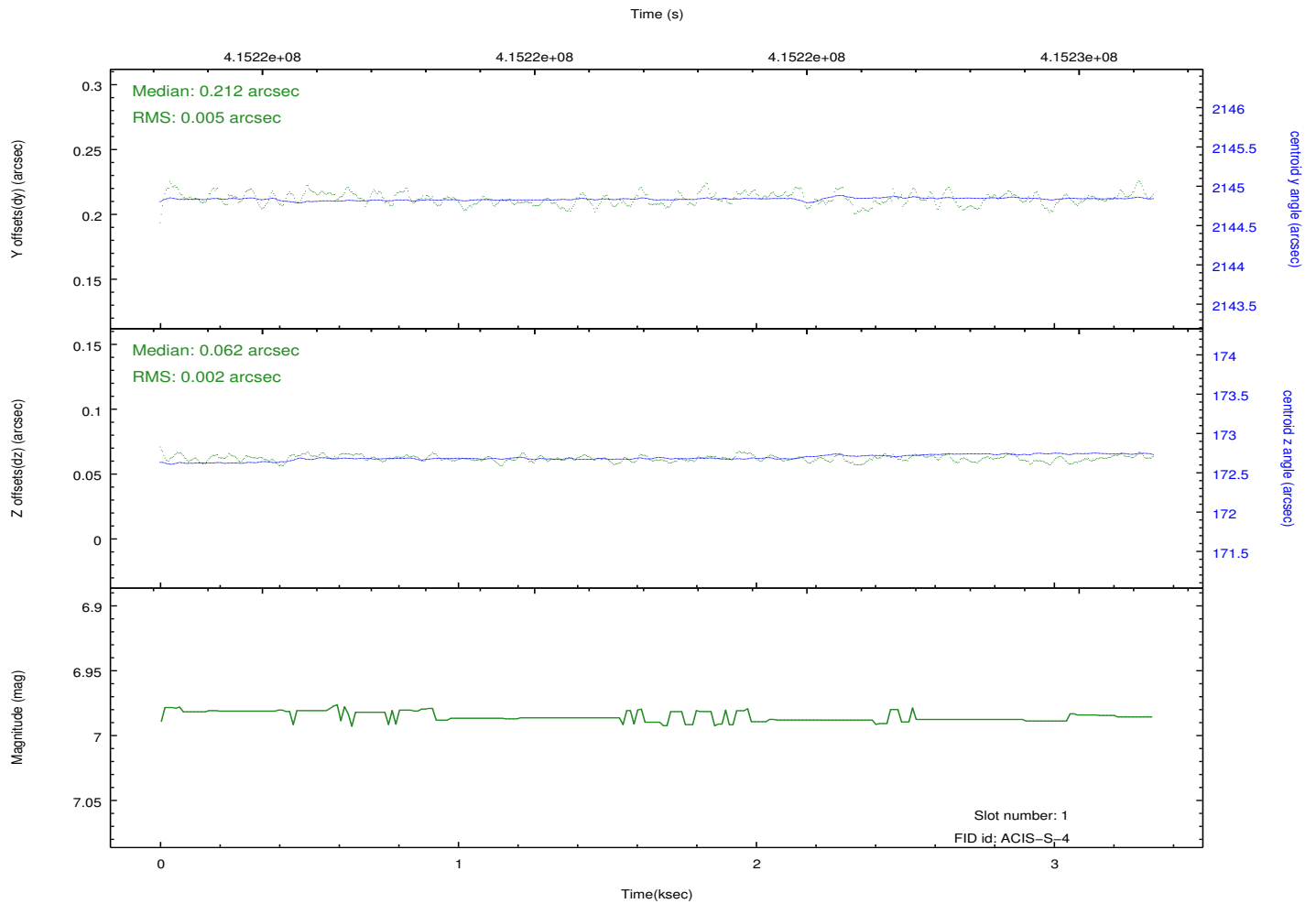
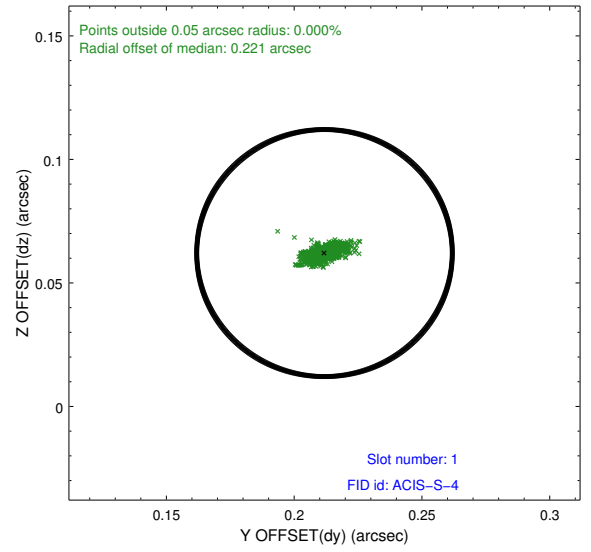
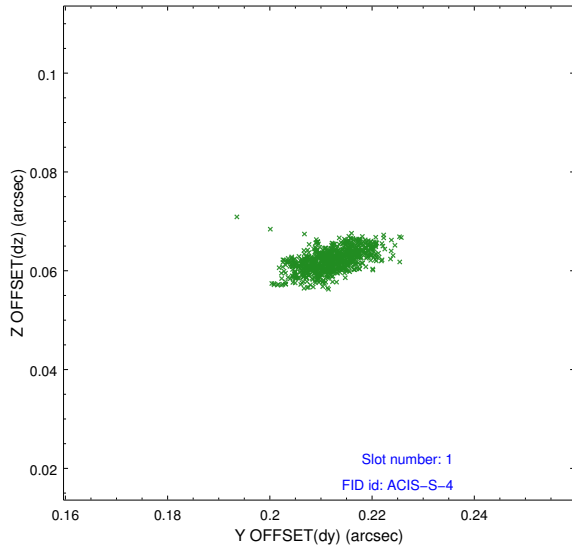


2.5 FID Slots

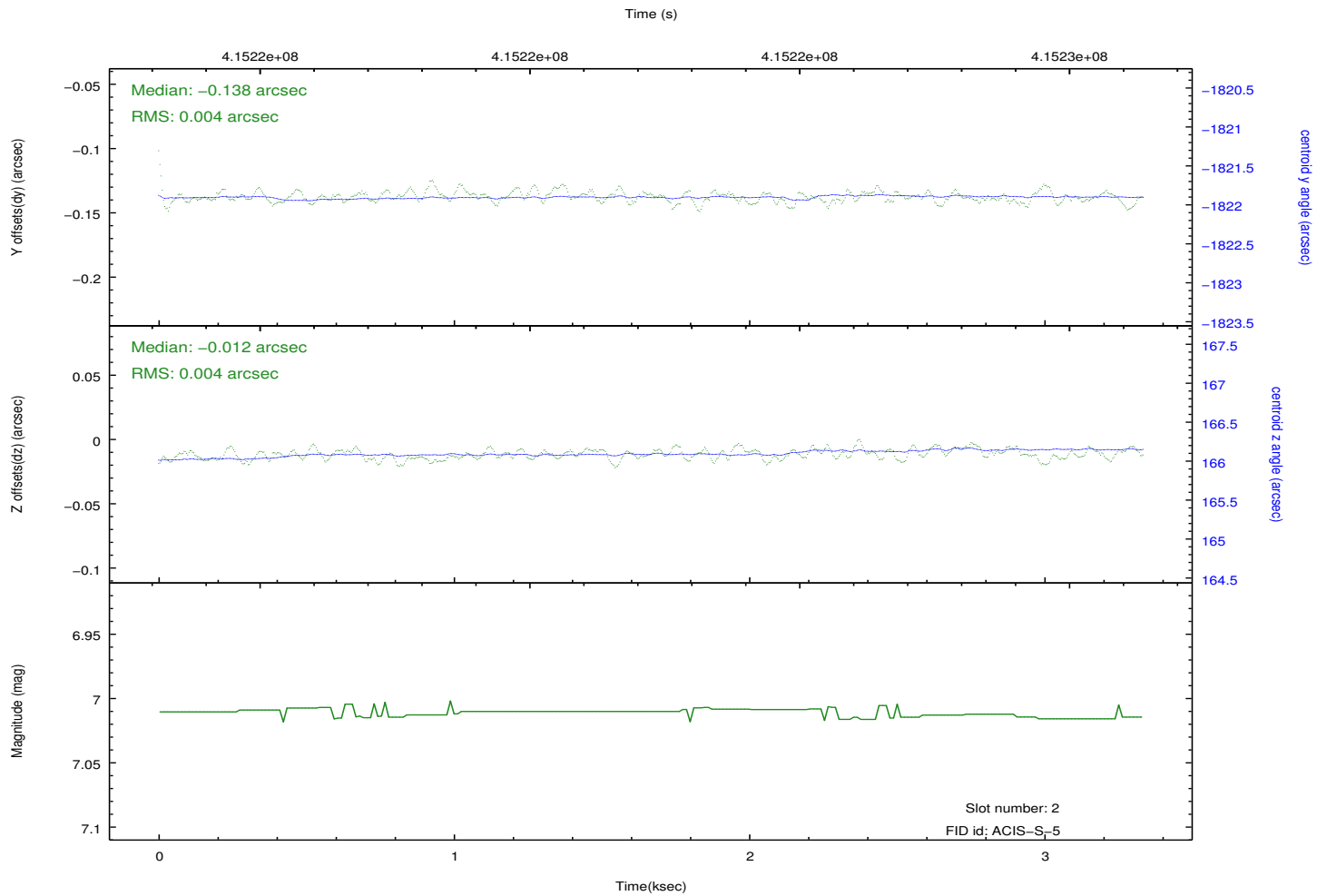
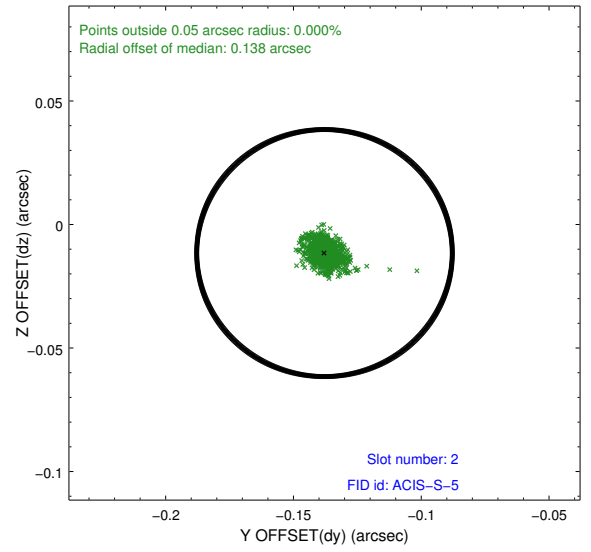
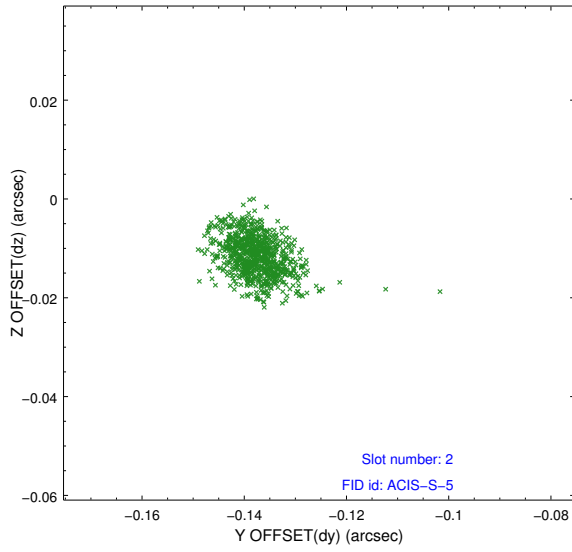
2.5.1 Slot 0



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)	2012.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.196800021112

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.