

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12285 - L2 Version 2
Chandra X-Ray Center

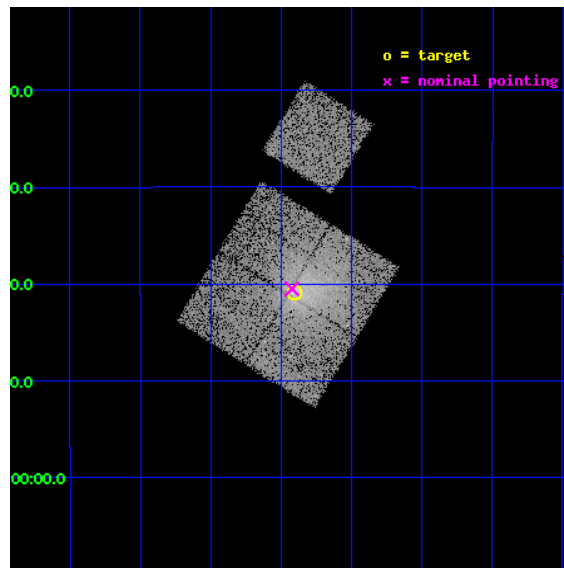
L2 Processing Date : Feb 3 2012

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1 Front

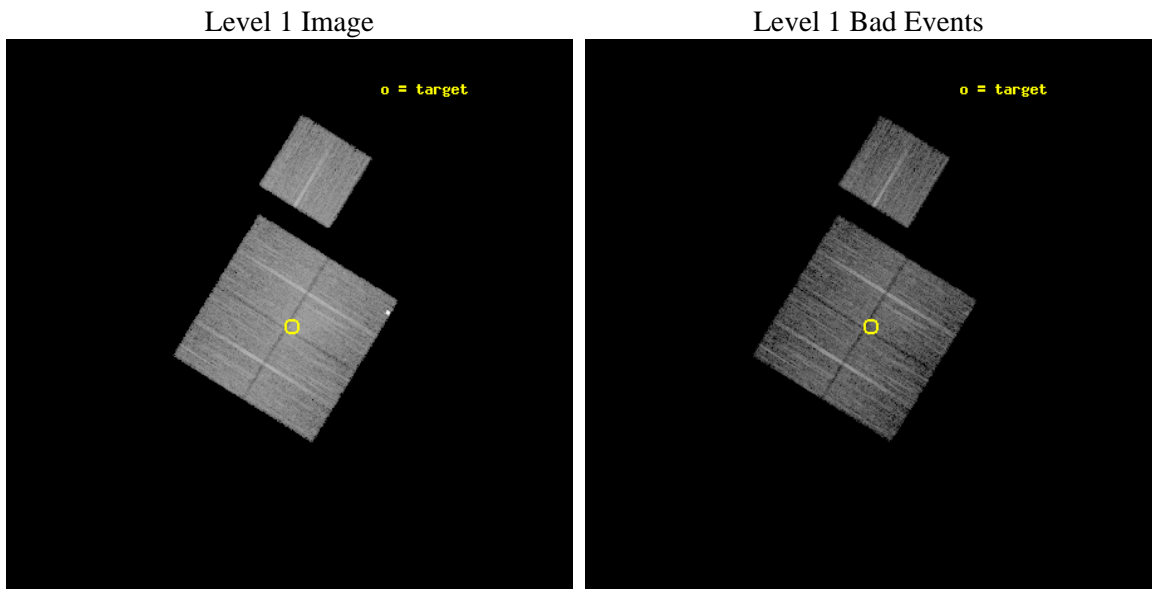
seq_num	801004	Sequence number
obs_id	12285	Observation id
title	A 'CENTENNIAL' SAMPLE OF THE 100 X-RAY BRIGHTEST GALAXY CLUSTERS	
observer	Dr. Alexey Vikhlinin	Principal investigator
object	A970	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	154.350417	Observer's specified target RA [deg]
dec_targ	-10.681167	Observer's specified target Dec [deg]
ra_nom	154.35579337444	Nominal RA [deg]
dec_nom	-10.675099344261	Nominal Dec [deg]
roll_nom	31.661049021532	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10051.873721242	Sum of GTIs [s]
livetime	9920.5385909921	Livetime [s]
ontime0	10048.609560966	Sum of GTIs [s]
ontime1	10051.791641235	Sum of GTIs [s]
ontime2	10051.832681239	Sum of GTIs [s]
ontime3	10051.873721242	Sum of GTIs [s]
ontime6	10048.56851083	Sum of GTIs [s]
l2events	48033	Number of level 2 events



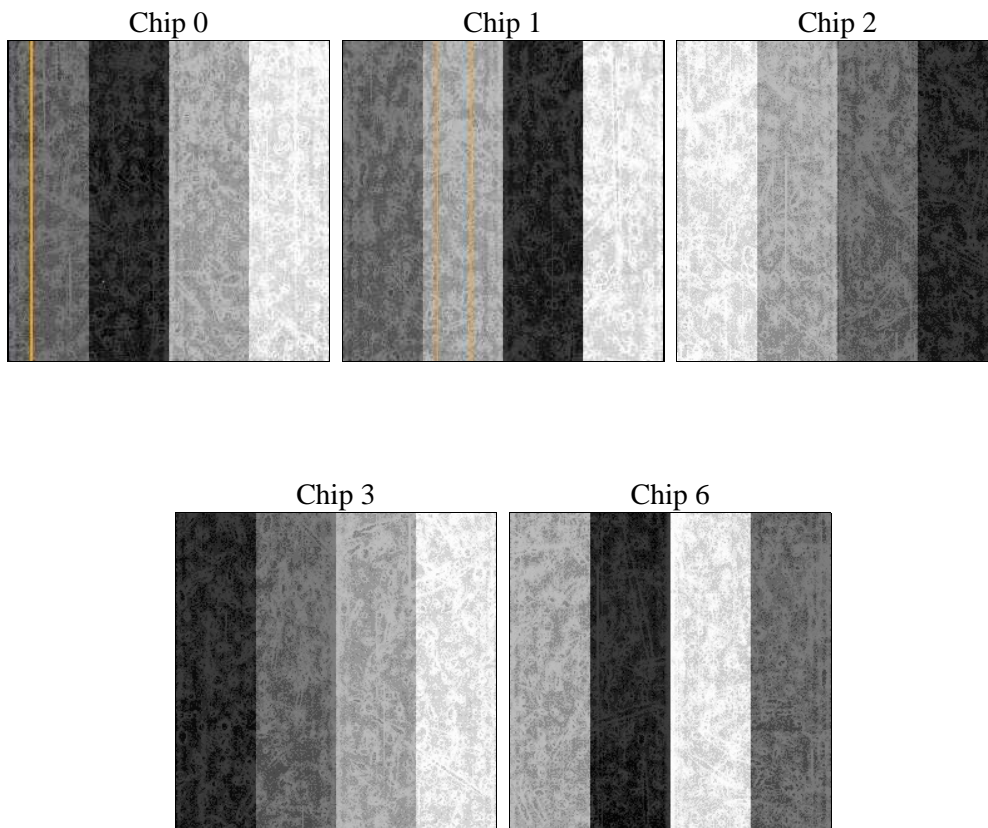
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	10051.873721242	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	10048.609560966	Sum of GTIs [s]
date	2012-02-03T14:46:32	Date and time of file creation	ontime1	10051.791641235	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10051.832681239	Sum of GTIs [s]
			ontime3	10051.873721242	Sum of GTIs [s]
			ontime6	10048.56851083	Sum of GTIs [s]
			l1events	362444	Number of level 1 events

2.1.4 Events

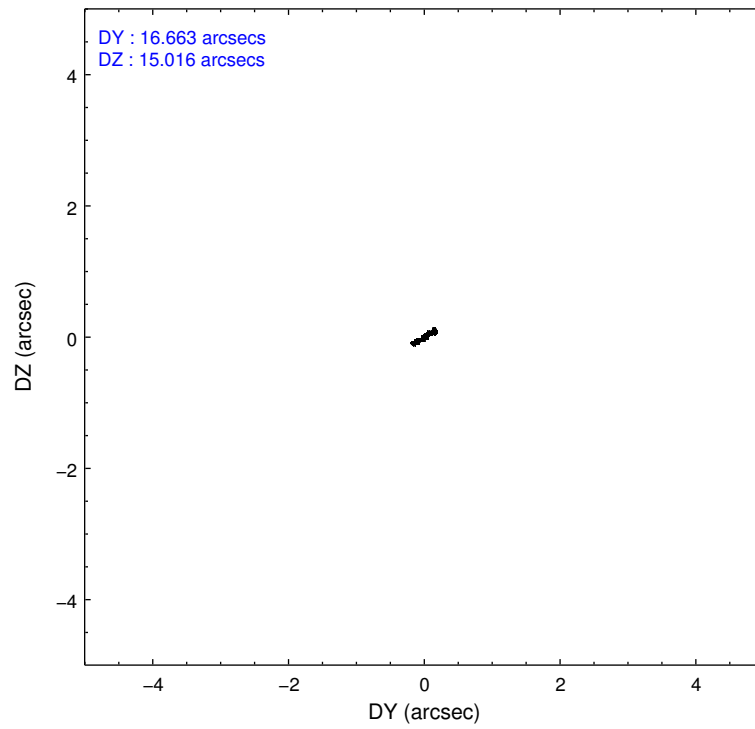
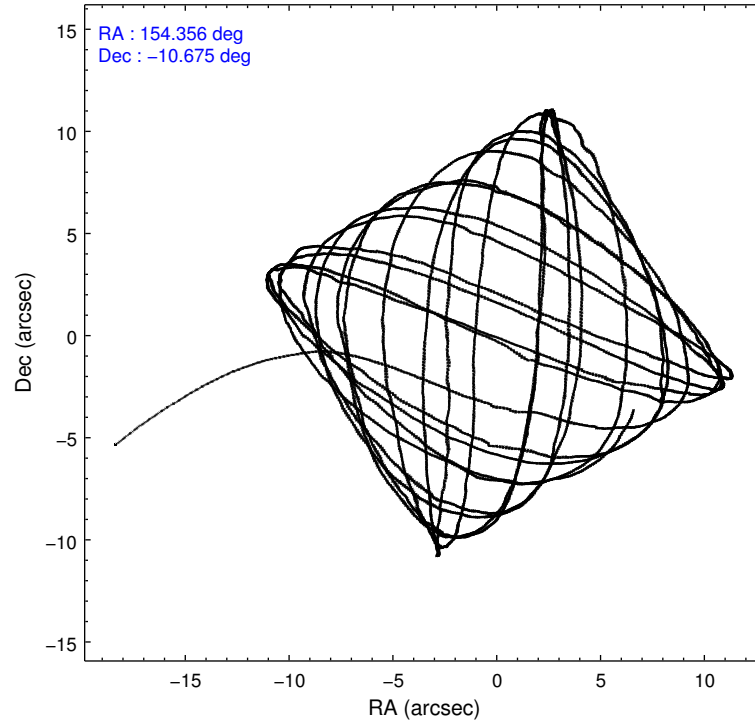
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	65104	67955	72599	83715	73071
rejected events	56515	56370	62517	61158	65108
rejected %	86%	82%	86%	73%	89%

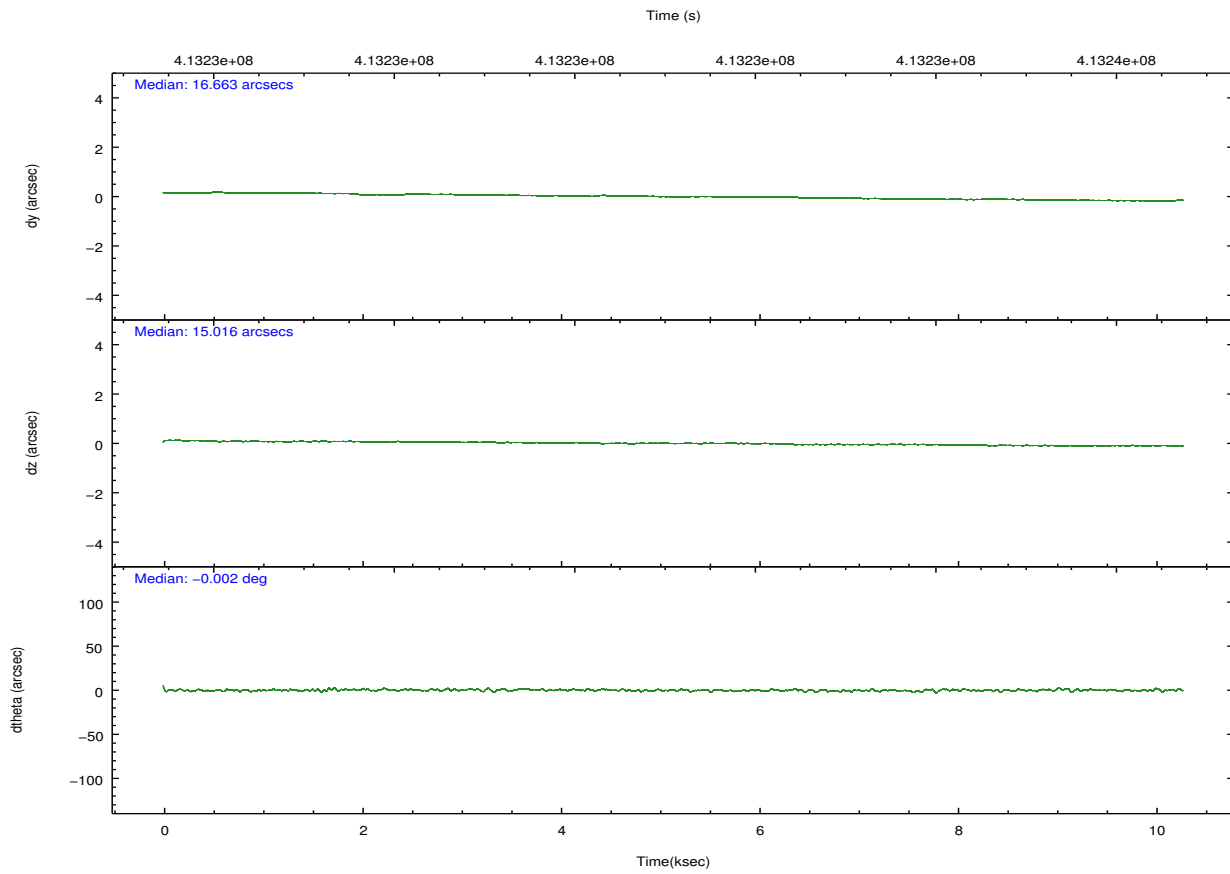
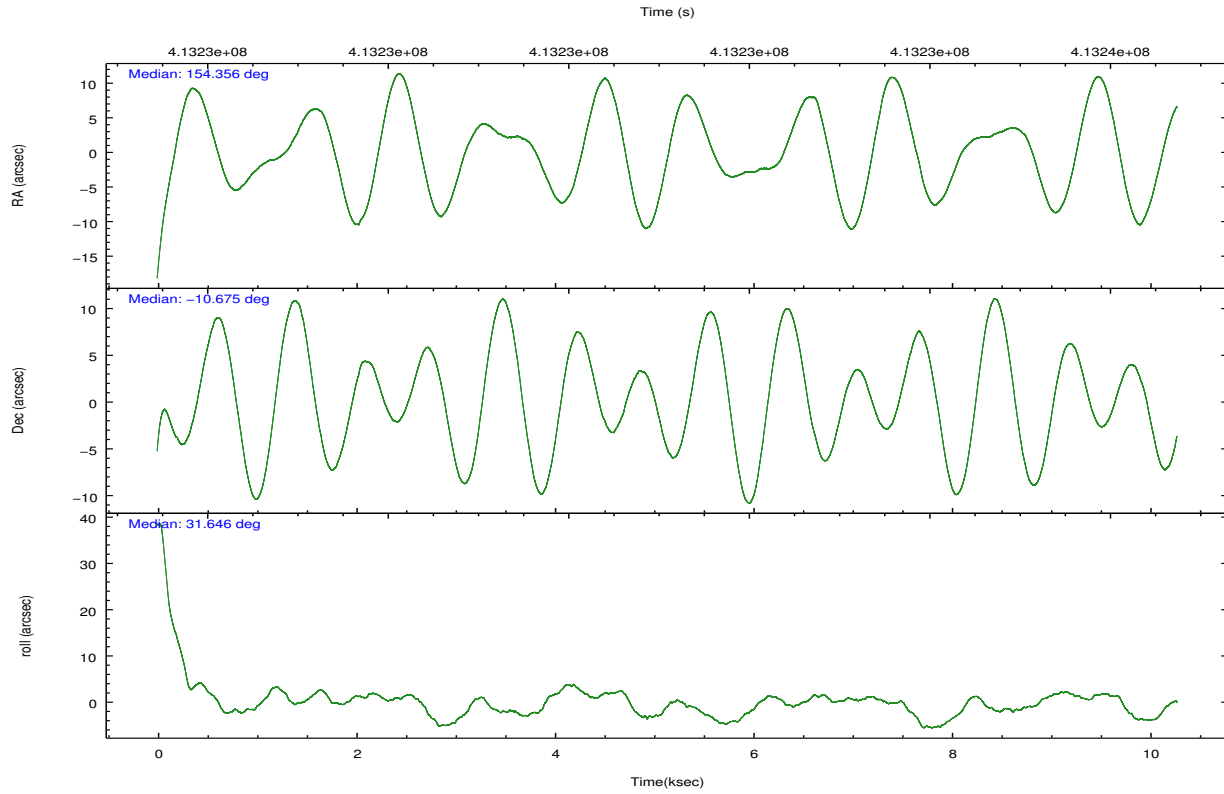
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3352	5545	4821	16121	2699
	5%	8%	6%	19%	3%
grade 1 events	42	52	47	96	26
	0%	0%	0%	0%	0%
grade 2 events	1917	2336	2004	2466	1773
	2%	3%	2%	2%	2%
grade 3 events	916	942	857	1084	854
	1%	1%	1%	1%	1%
grade 4 events	792	966	873	1092	851
	1%	1%	1%	1%	1%
grade 5 events	2960	3112	2741	3335	3266
	4%	4%	3%	3%	4%
grade 6 events	1620	1807	1532	1805	1793
	2%	2%	2%	2%	2%
grade 7 events	53505	53195	59724	57716	61809
	82%	78%	82%	68%	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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	154.342636	154.3557933744359	CCD I2 on	Y	Y
[deg] Pointing Dec	-10.699321	-10.67509934426114	CCD I3 on	Y	Y
[deg] Pointing Roll	31.449886	31.66104902153237	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	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	413226213.184000	413225238.56508	CCD S5 on	N	N
Observation start date	2011-02-04T17:02:27	2011-02-04T16:47:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	413236213.184000	413236898.45318	On-chip summing requested	N	N
Observation end date	2011-02-04T19:49:07	2011-02-04T20:01:38	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





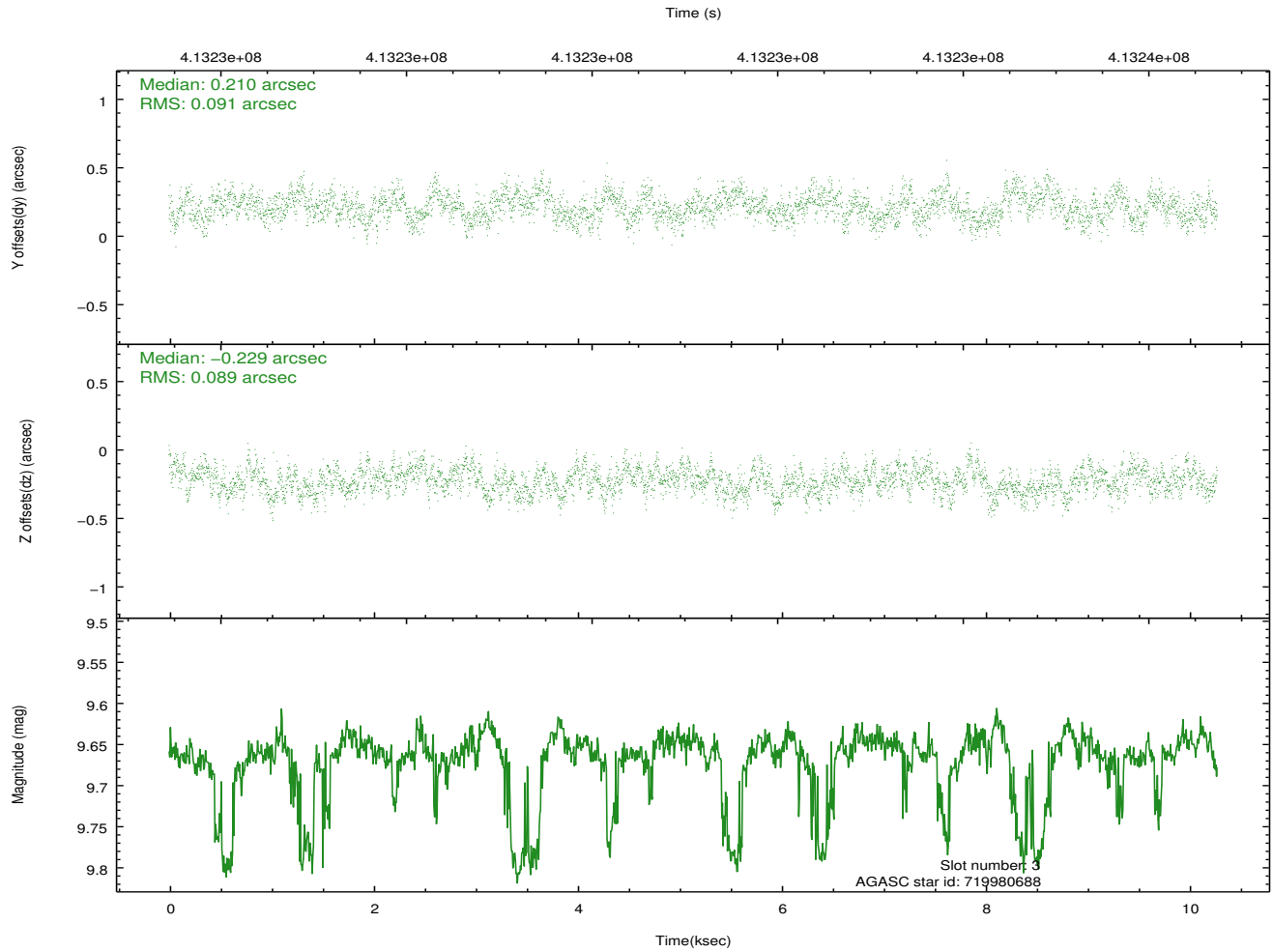
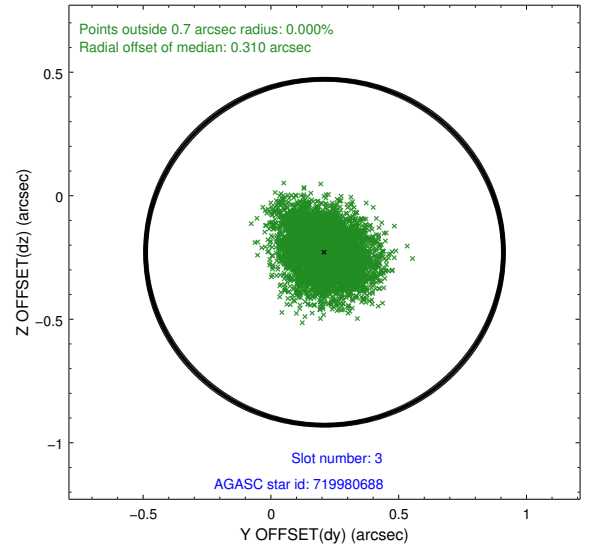
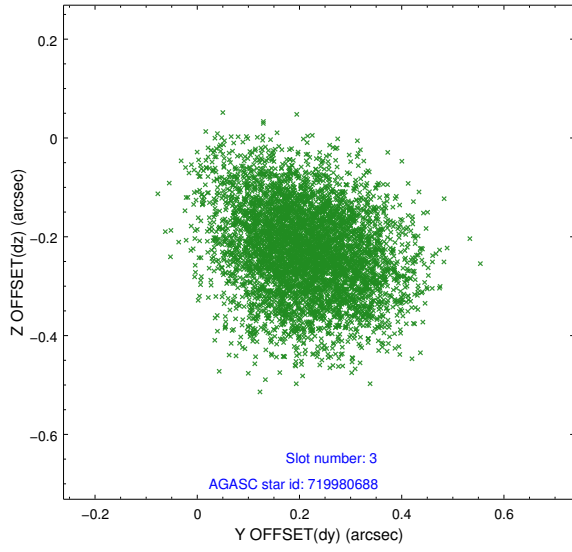
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.14	2507	-0.083	0.050	0.010	0.016	0.000000	0.000000	922.67	-838.56
1	FID	ACIS-I-2	7.05	2507	-0.123	-0.083	0.007	0.012	0.000000	0.000000	-771.17	-845.39
2	FID	ACIS-I-4	7.06	2507	0.107	0.100	0.009	0.016	0.000000	0.000000	2142.52	1061.03
3	GUIDE	719980688	9.66	4985	0.210	-0.229	0.137	0.220	154.501573	-10.462631	924.84	433.03
4	GUIDE	719987240	7.94	5013	-0.555	-0.873	0.074	0.118	154.750873	-11.185076	317.49	-2245.78
5	GUIDE	719989432	9.30	4991	0.001	0.431	0.108	0.177	154.805155	-10.749375	1301.42	-1008.19
6	GUIDE	719989640	8.62	5012	0.163	0.352	0.074	0.123	154.833556	-10.989037	935.83	-1796.55
7	GUIDE	719990848	8.62	5006	0.175	0.320	0.095	0.146	154.848055	-10.892536	1161.12	-1527.02

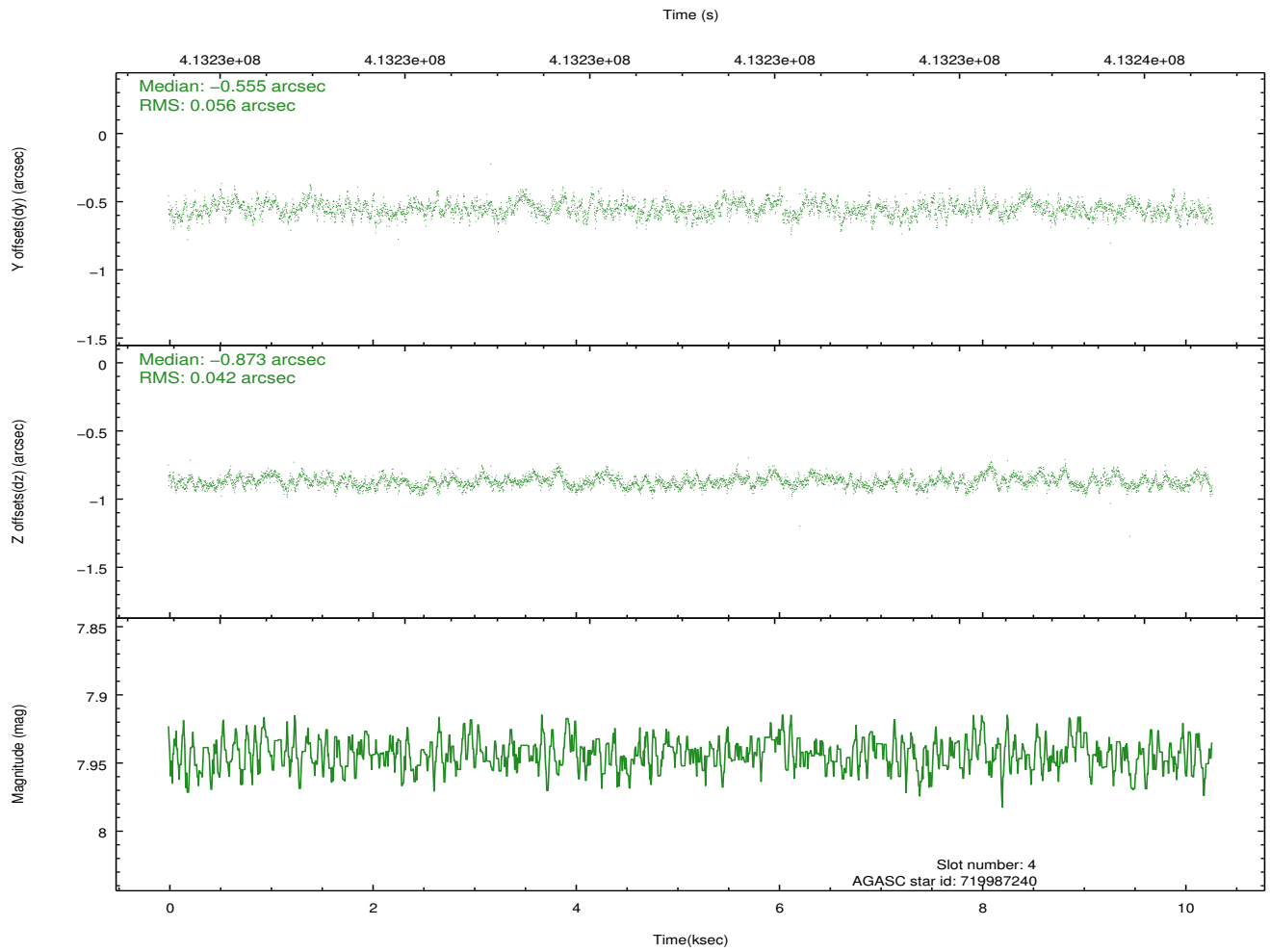
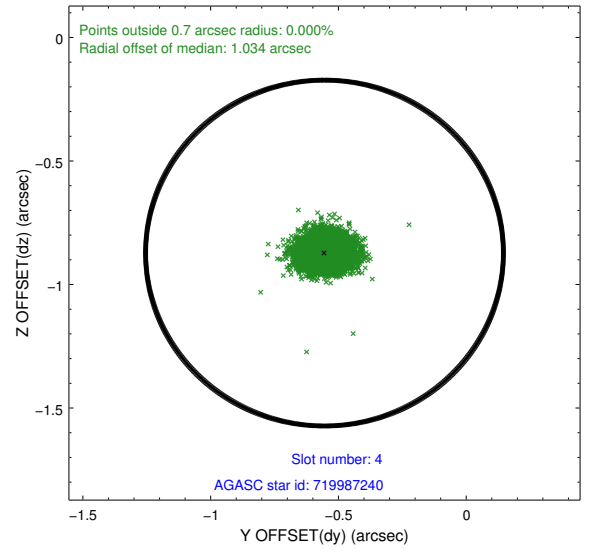
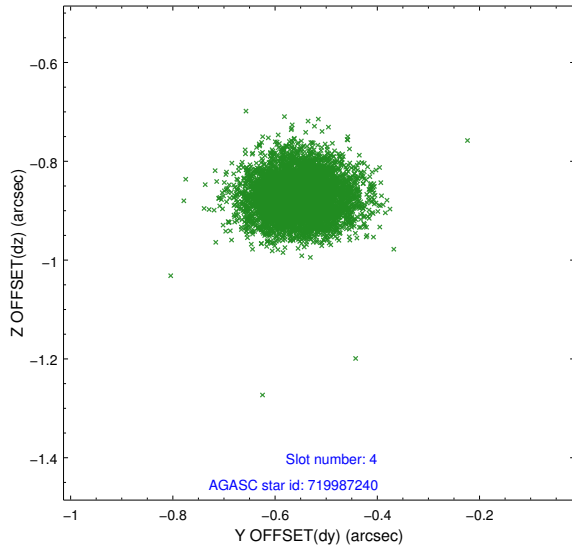
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2.4 Star Slots

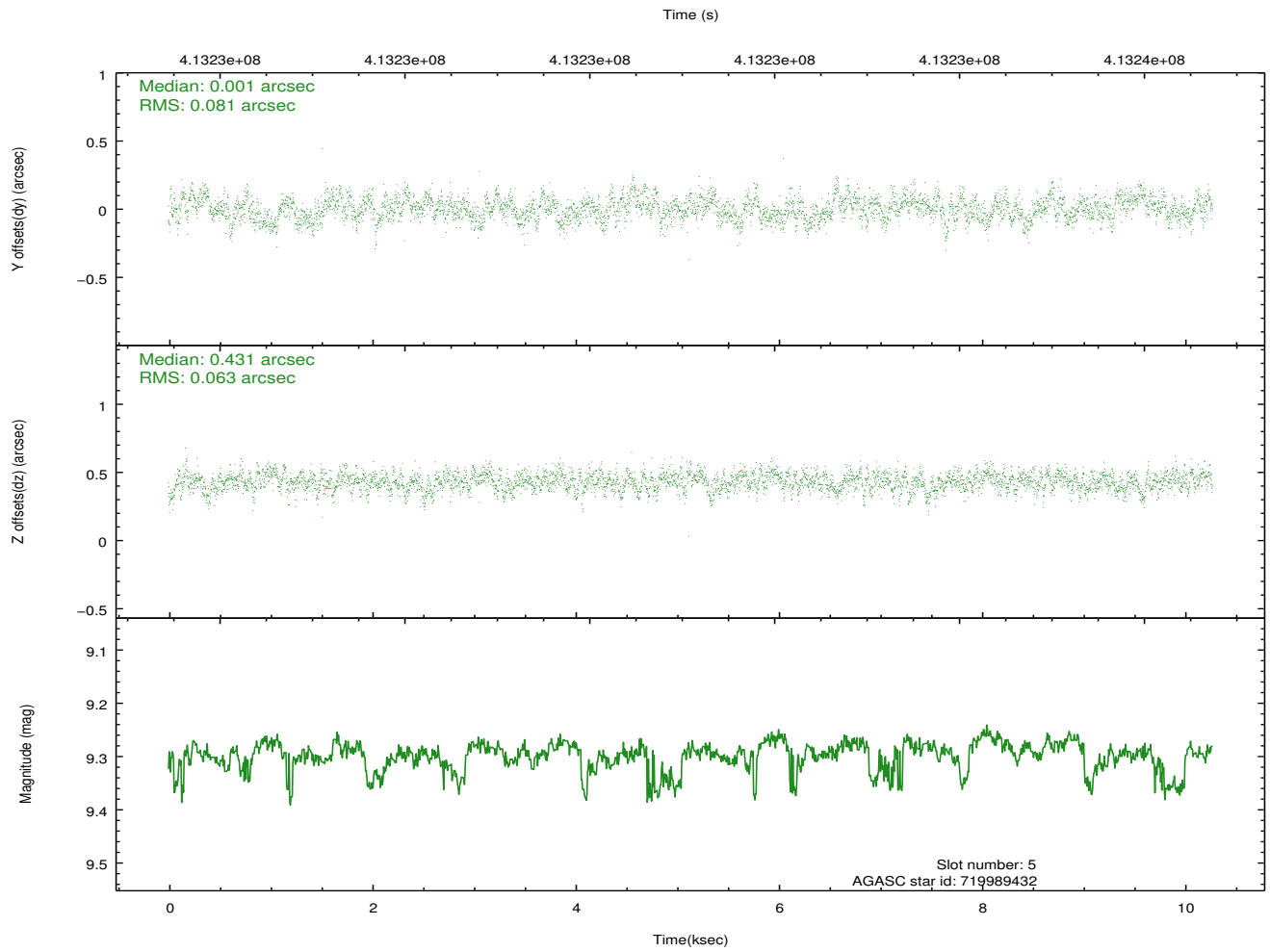
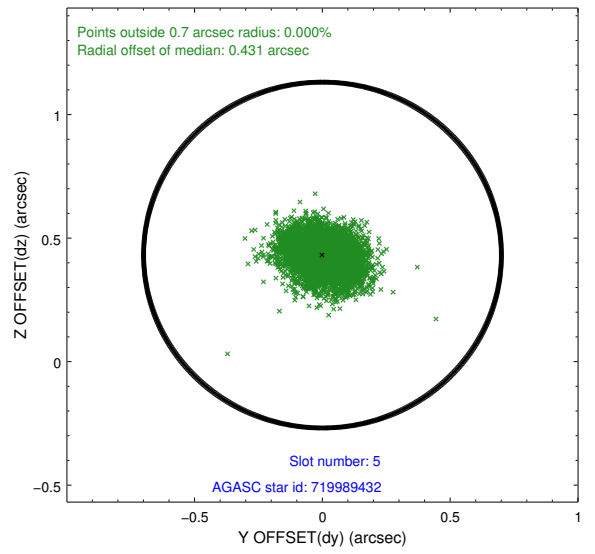
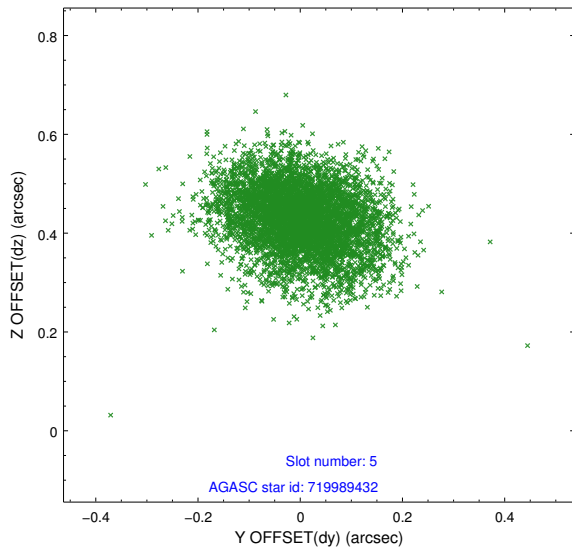
2.4.1 Slot 3



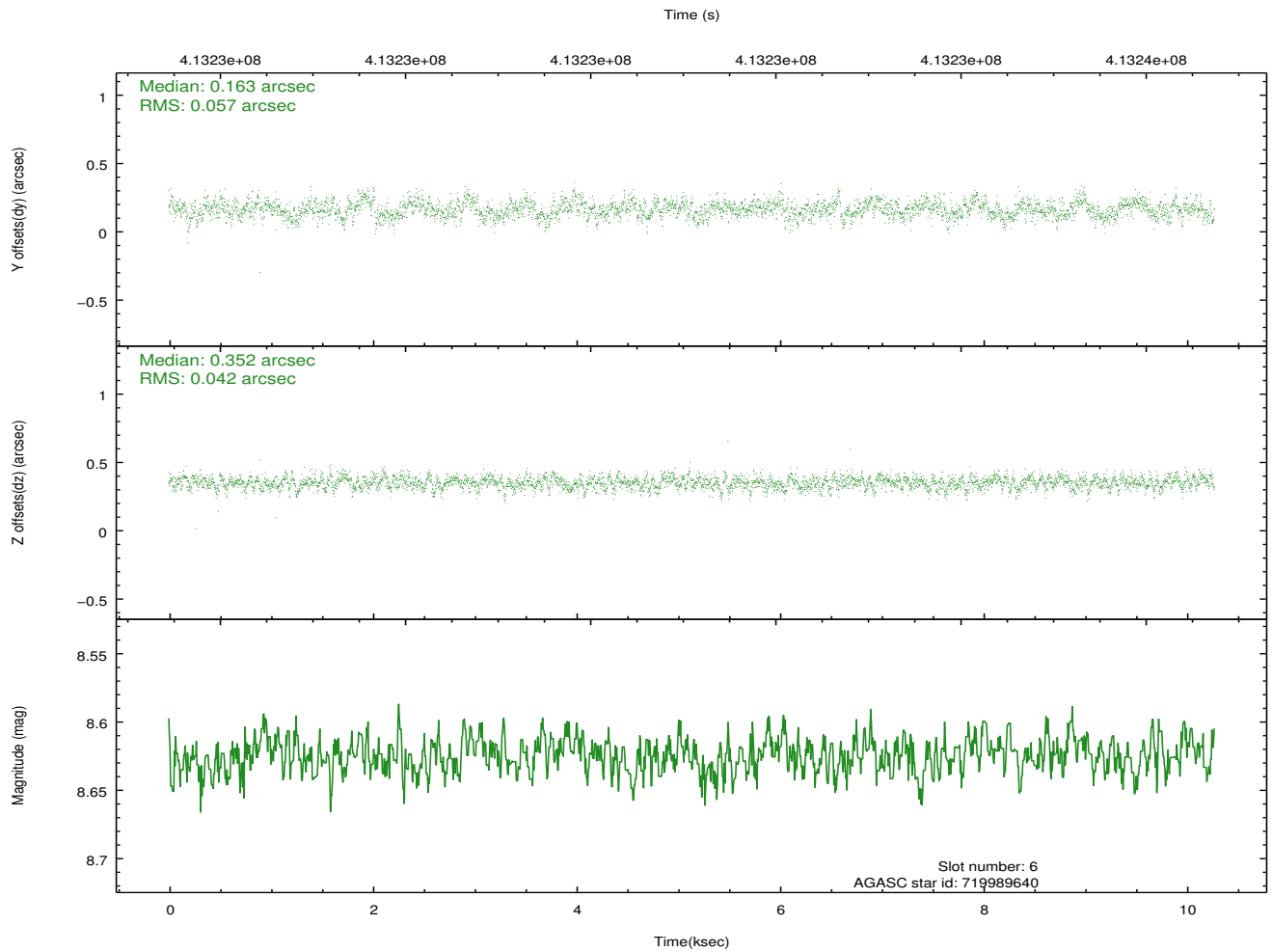
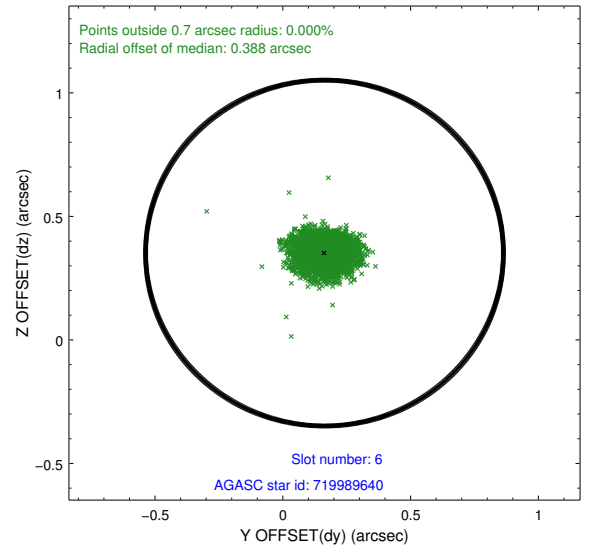
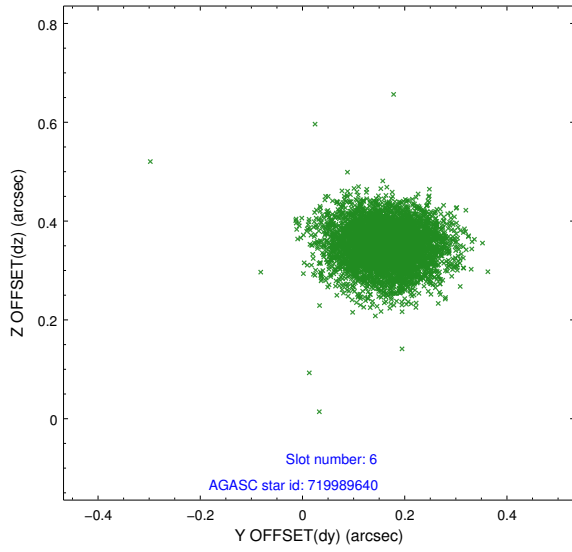
2.4.2 Slot 4



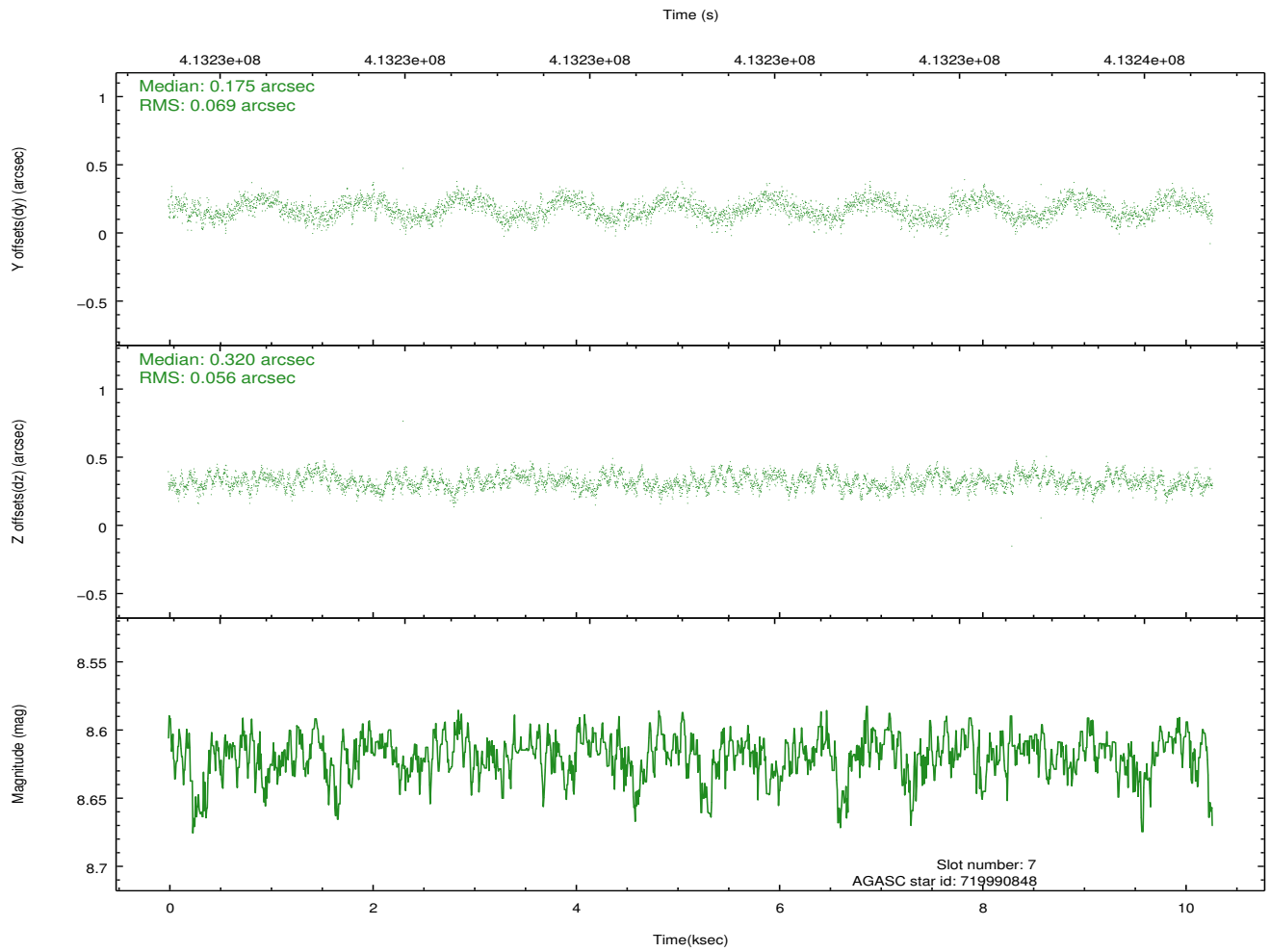
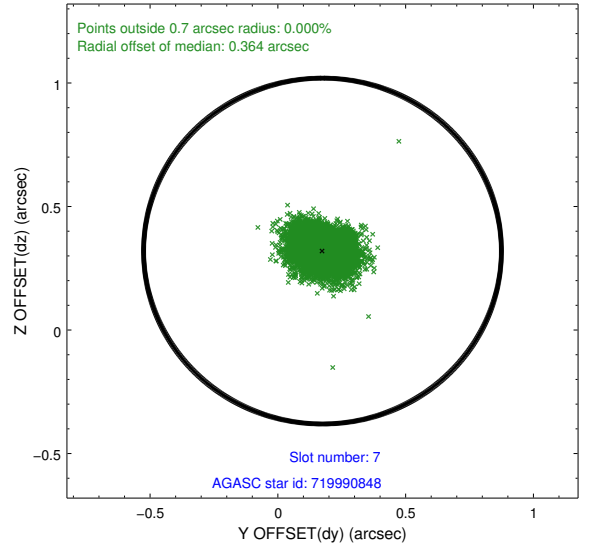
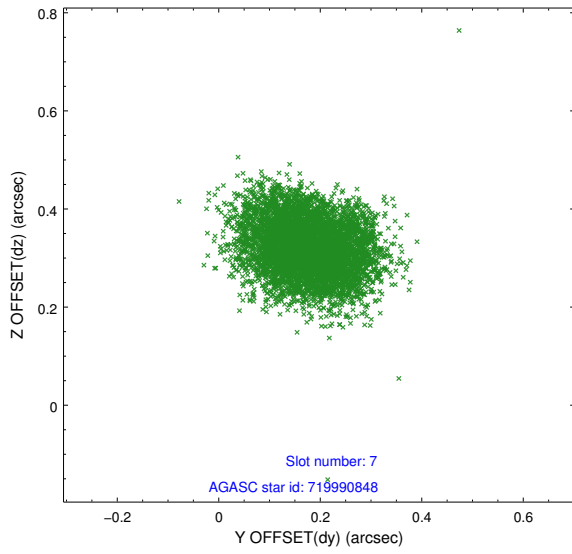
2.4.3 Slot 5



2.4.4 Slot 6

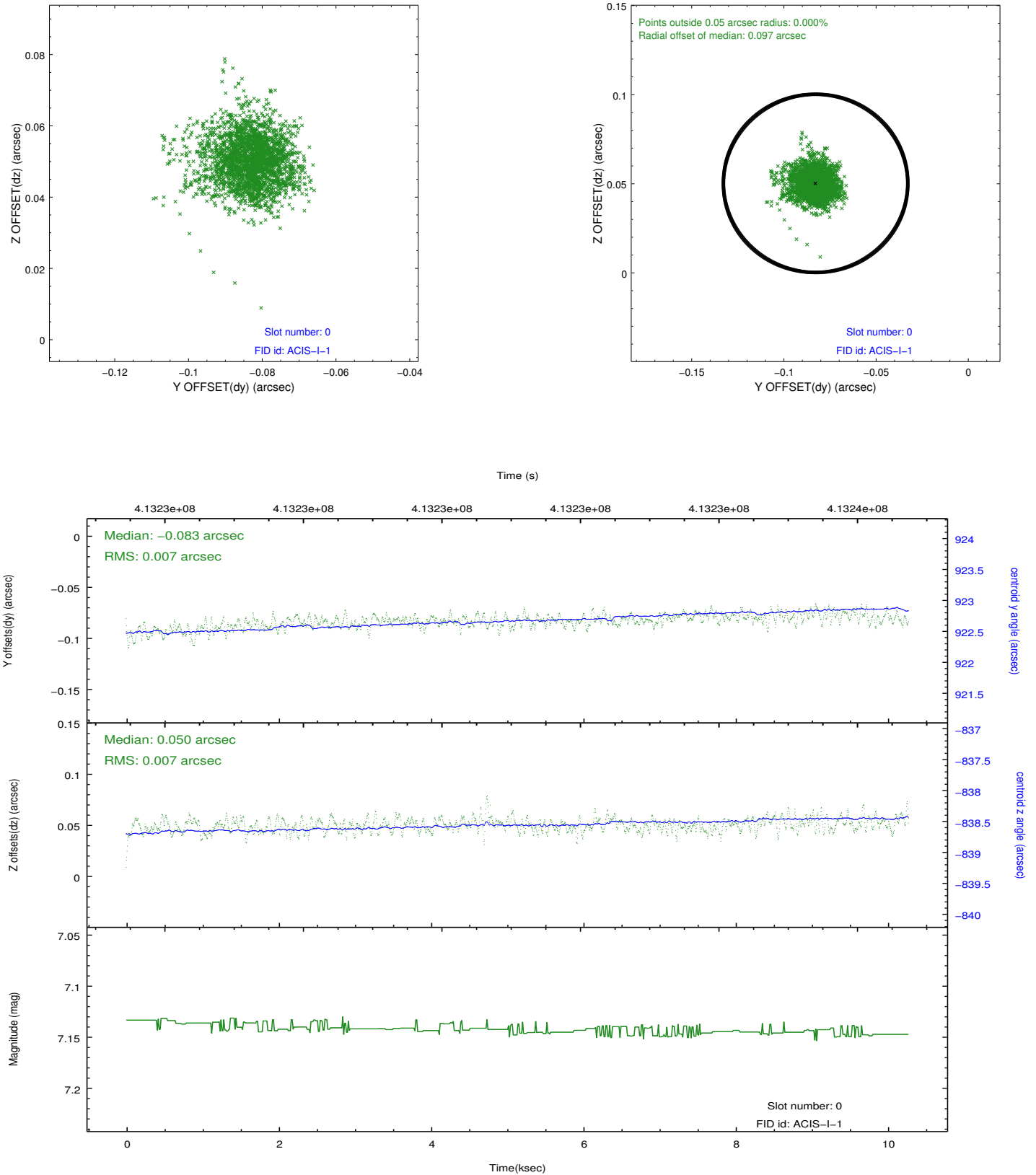


2.4.5 Slot 7

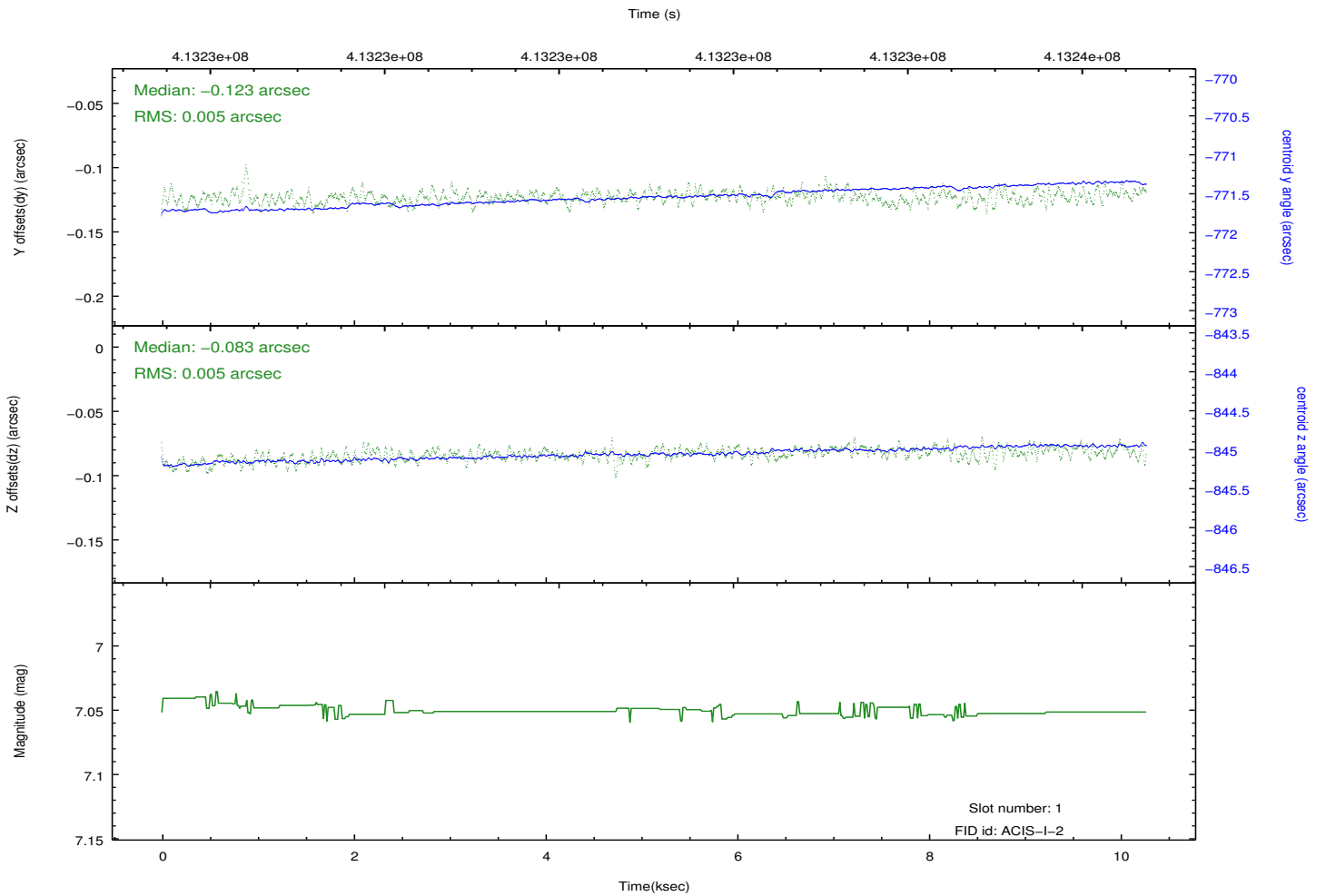
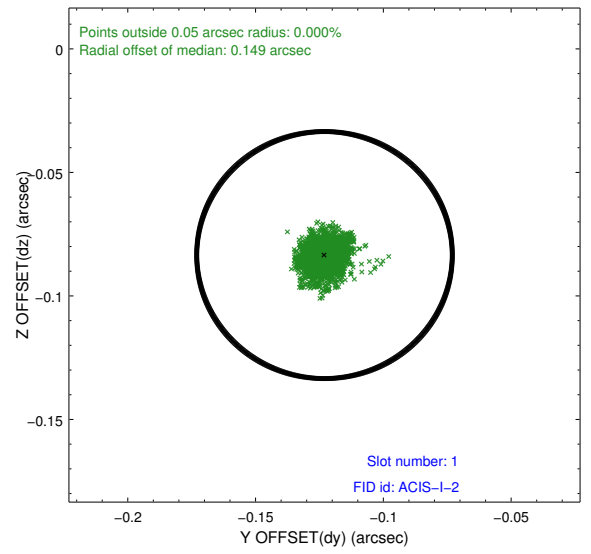
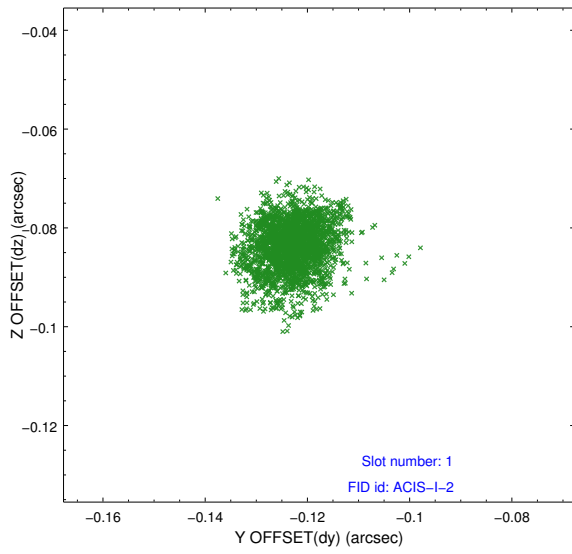


2.5 FID Slots

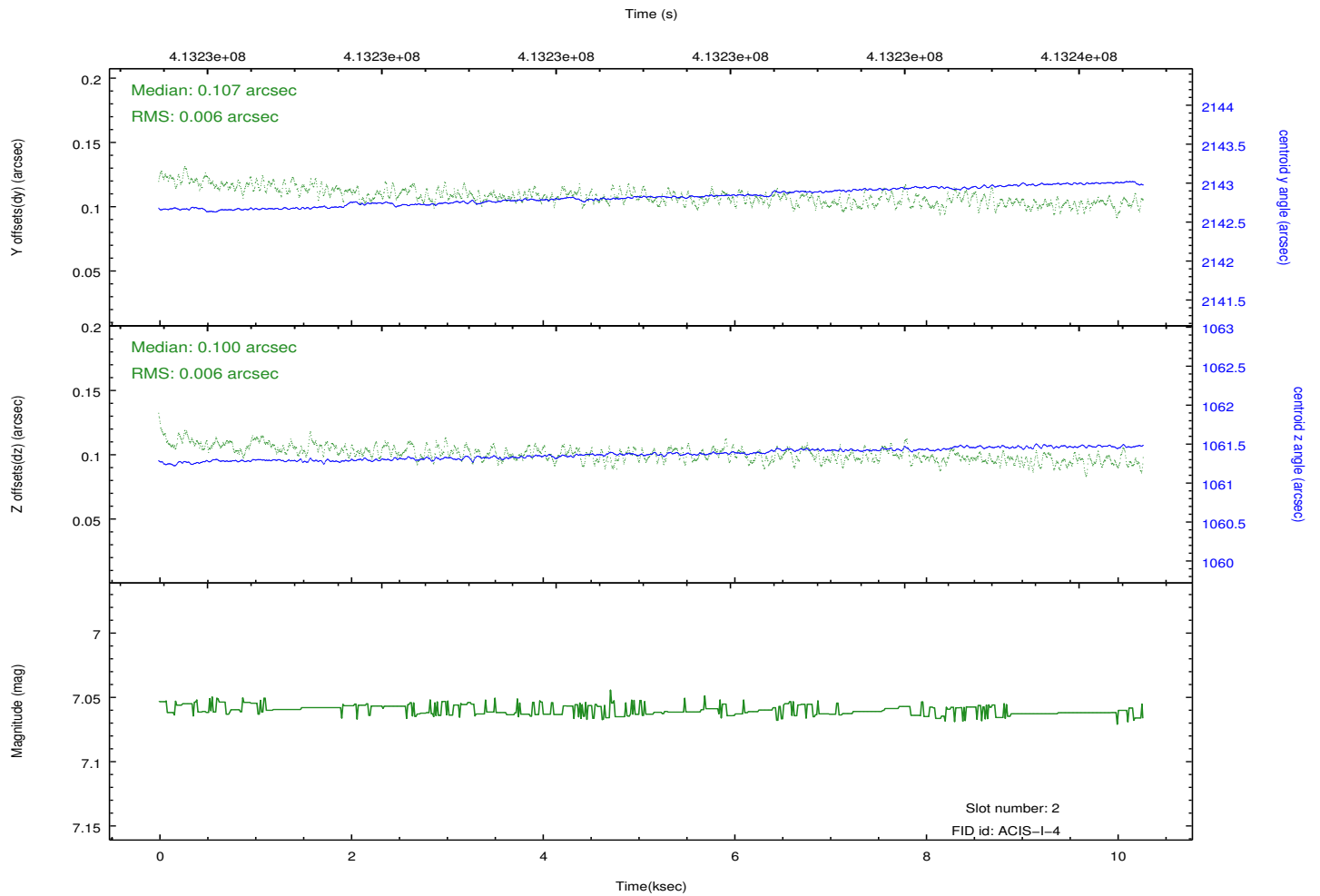
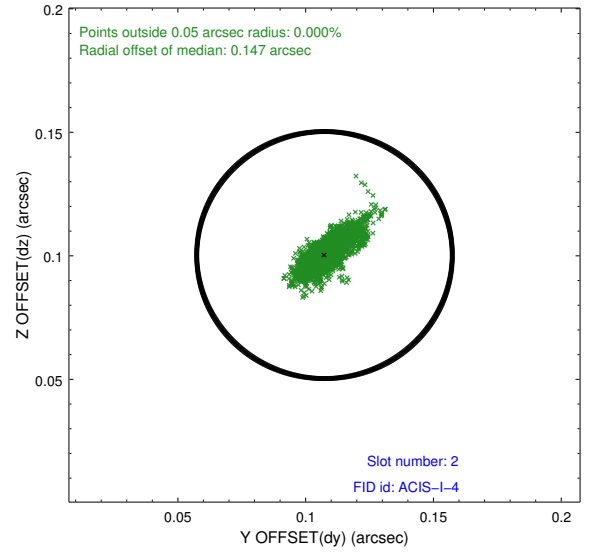
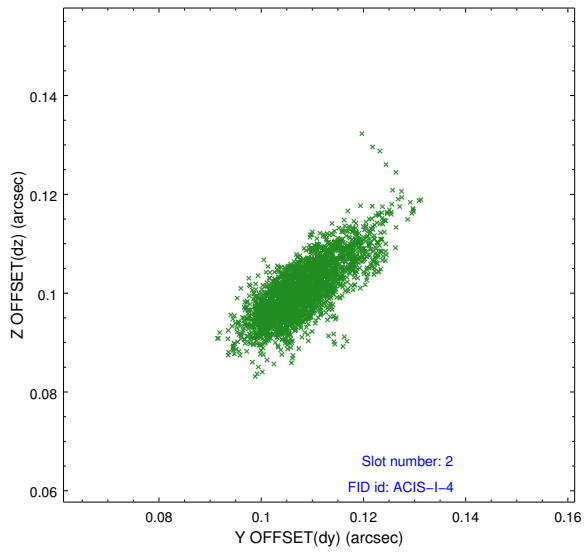
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.051873712242

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.