

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12369 - L2 Version 2
Chandra X-Ray Center

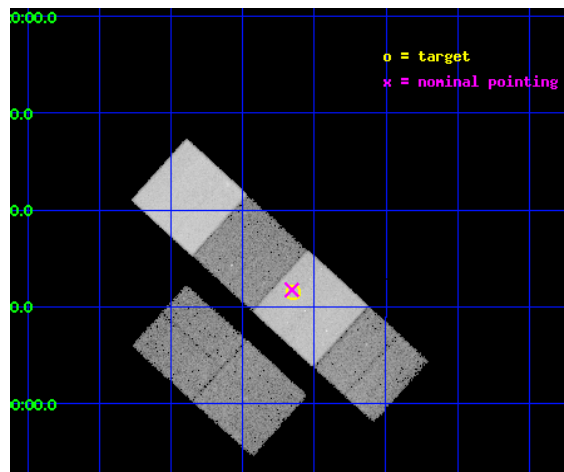
L2 Processing Date : Feb 2 2012

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1 Front

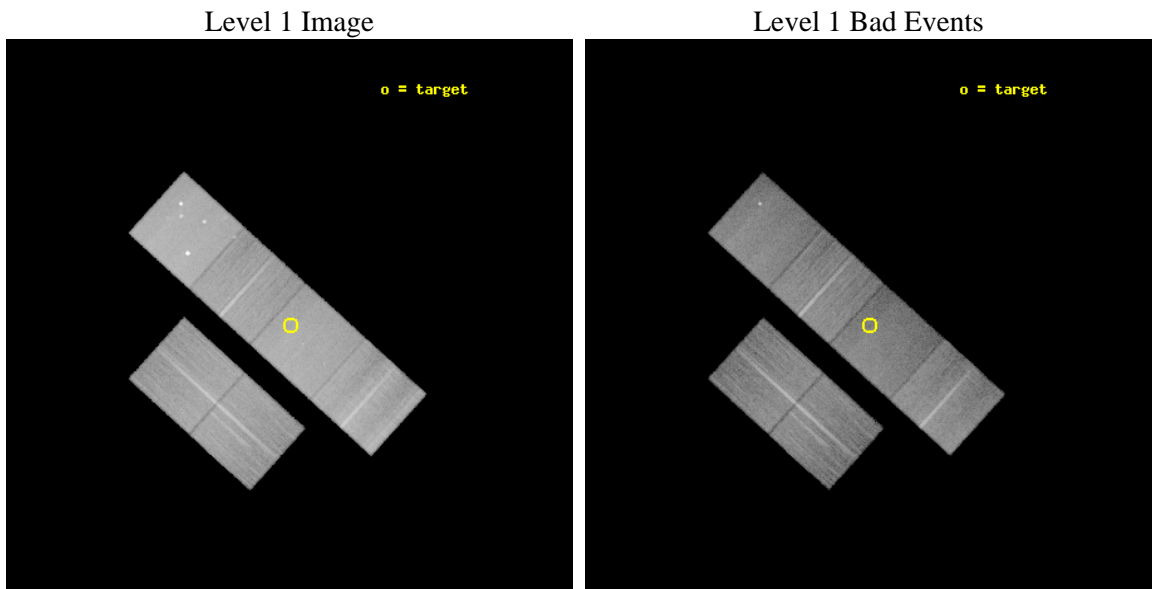
seq_num	200703	Sequence number
obs_id	12369	Observation id
title	X-rays from Planetary Nebulae: Unveiling Binarity, Magnetic Fields, and Wind Collisions	Proposal title
observer	Dr. Joel Kastner	Principal investigator
object	A66 33	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	144.787917	Observer's specified target RA [deg]
dec_targ	-2.808889	Observer's specified target Dec [deg]
ra_nom	144.78927068184	Nominal RA [deg]
dec_nom	-2.8042245649743	Nominal Dec [deg]
roll_nom	42.189667192389	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30049.845021486	Sum of GTIs [s]
livetime	29669.33578998	Livetime [s]
ontime2	30046.645011246	Sum of GTIs [s]
ontime3	30049.721901476	Sum of GTIs [s]
ontime5	30049.803981483	Sum of GTIs [s]
ontime6	30046.521891117	Sum of GTIs [s]
ontime7	30049.845021486	Sum of GTIs [s]
ontime8	30049.680861473	Sum of GTIs [s]
l2events	351647	Number of level 2 events



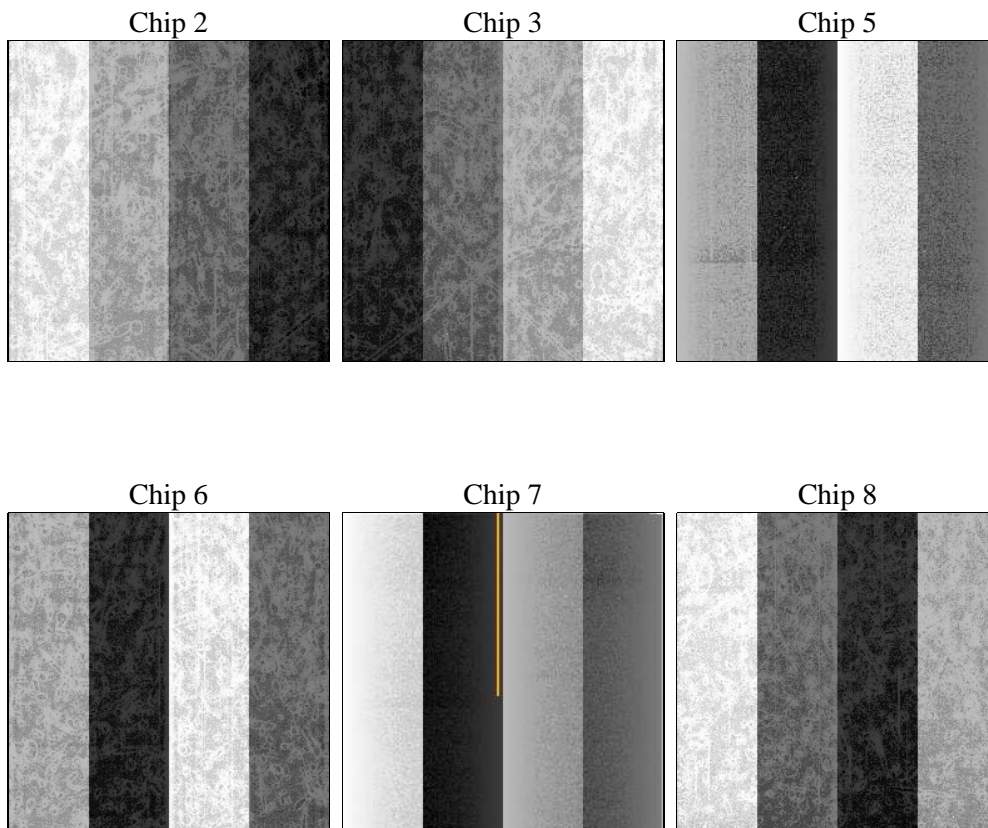
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	30049.845021486	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	30046.645011246	Sum of GTIs [s]
date	2012-02-02T23:10:35	Date and time of file creation	ontime3	30049.721901476	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	30049.803981483	Sum of GTIs [s]
			ontime6	30046.521891117	Sum of GTIs [s]
			ontime7	30049.845021486	Sum of GTIs [s]
			ontime8	30049.680861473	Sum of GTIs [s]
			l1events	1526794	Number of level 1 events

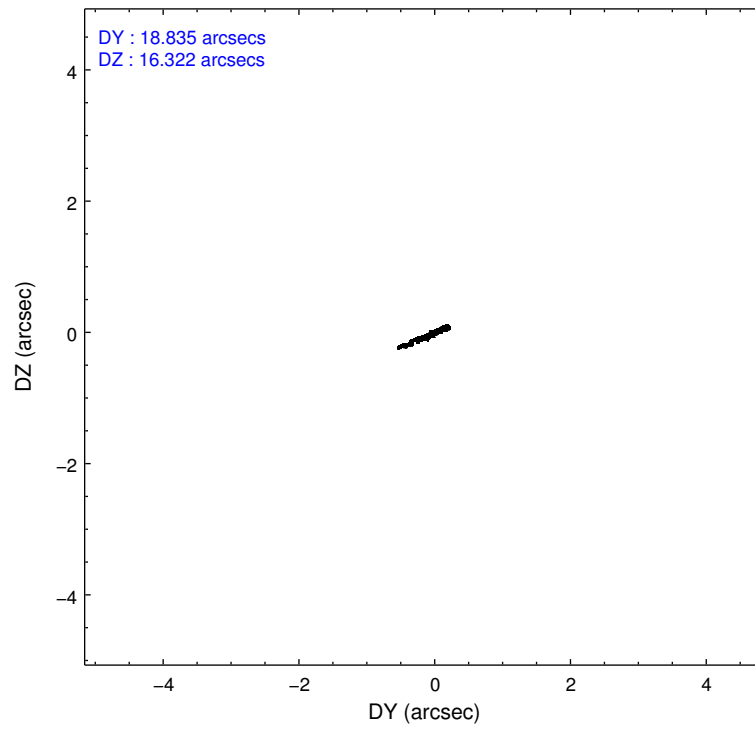
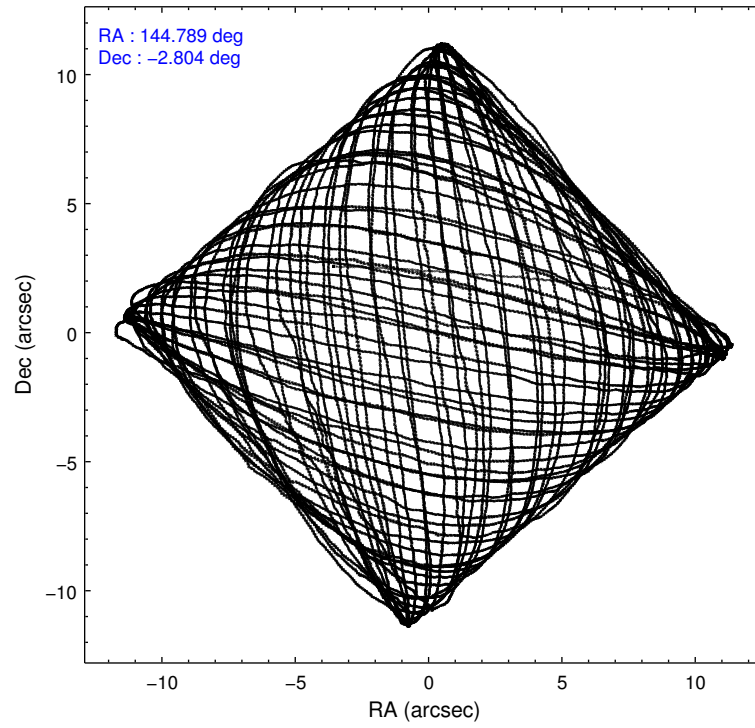
2.1.4 Events

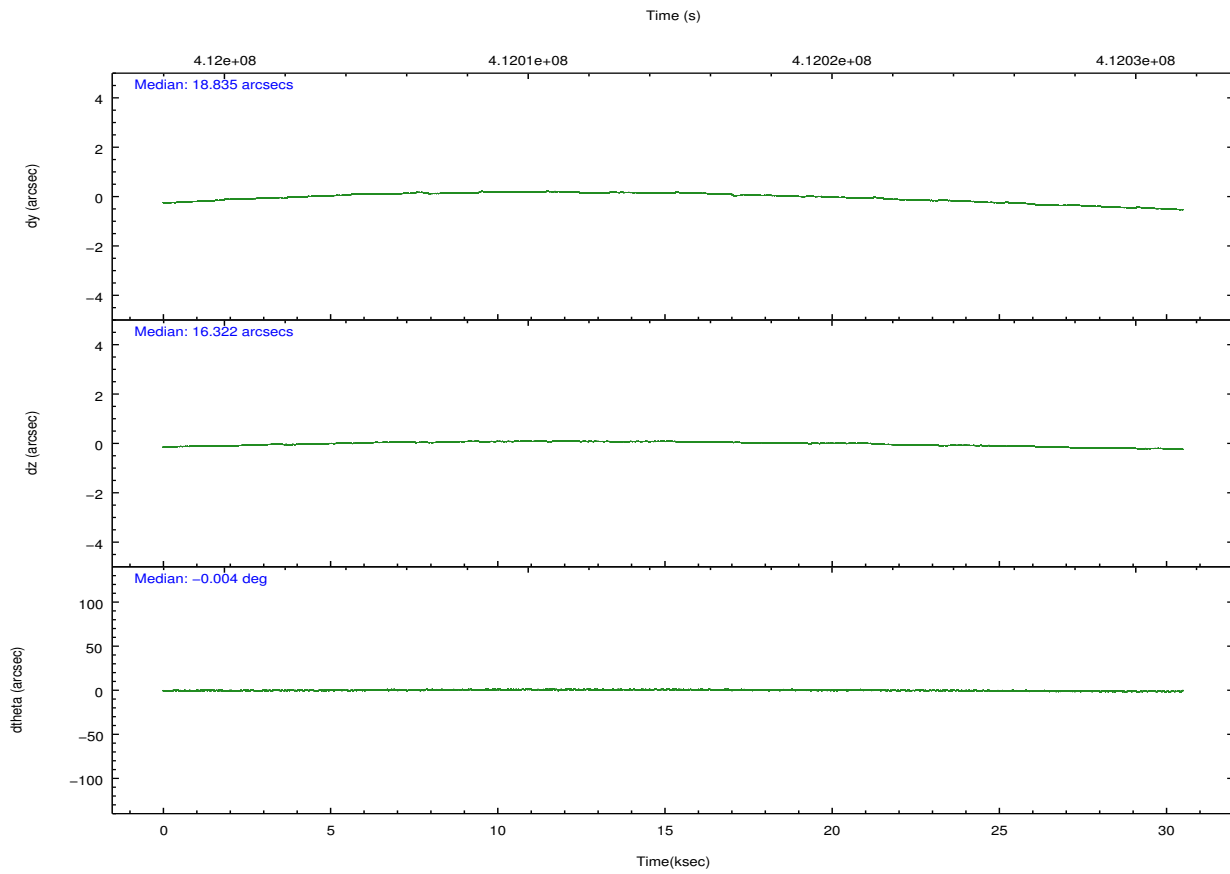
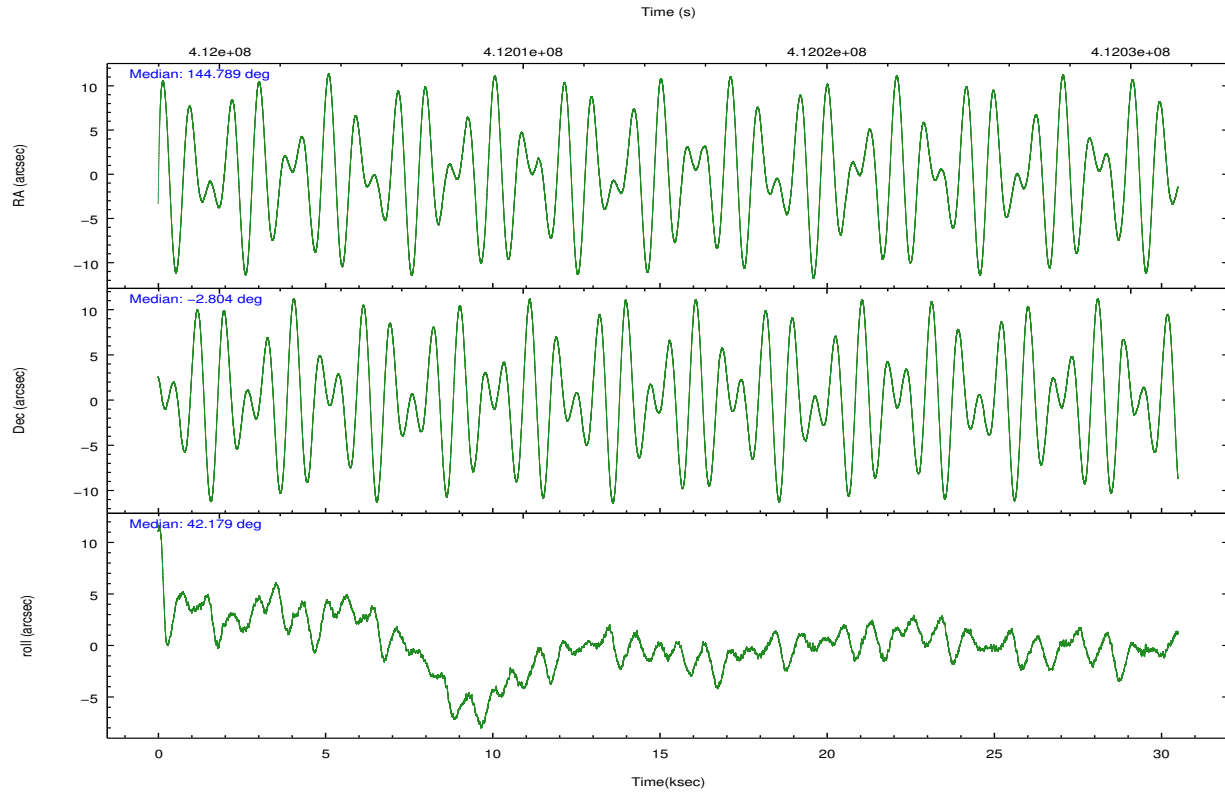
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	215225	207447	339896	219992	267453	276781	grade 0 events	7792	7540	21826	8259	10659	19772
rejected events	192488	185824	168609	195887	147610	206041		3%	3%	6%	3%	3%	7%
rejected %	89%	89%	49%	89%	55%	74%	grade 1 events	124	105	599	136	348	244
								0%	0%	0%	0%	0%	0%
							grade 2 events	5597	4752	51288	5408	24555	17055
								2%	2%	15%	2%	9%	6%
							grade 3 events	2362	2431	6119	2542	10368	7558
								1%	1%	1%	1%	3%	2%
							grade 4 events	2456	2302	5832	2502	10514	7143
								1%	1%	1%	1%	3%	2%
							grade 5 events	8788	9913	25525	9927	27654	14532
								4%	4%	7%	4%	10%	5%
							grade 6 events	4532	4600	86253	5395	63765	19215
								2%	2%	25%	2%	23%	6%
							grade 7 events	183574	175804	142454	185823	119590	191262
								85%	84%	41%	84%	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	144.781247	144.789270681838	CCD I2 on	O4	Y
[deg] Pointing Dec	-2.830371	-2.804224564974255	CCD I3 on	O5	Y
[deg] Pointing Roll	42.032647	42.18966719238899	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	O1	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	O2	Y
[s] Observation start time (MET)	412000009.184000	411998841.37662	CCD S5 on	N	N
Observation start date	2011-01-21T12:25:43	2011-01-21T12:07:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	412030009.184000	412030555.90326	On-chip summing requested	N	N
Observation end date	2011-01-21T20:45:43	2011-01-21T20:55:55	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





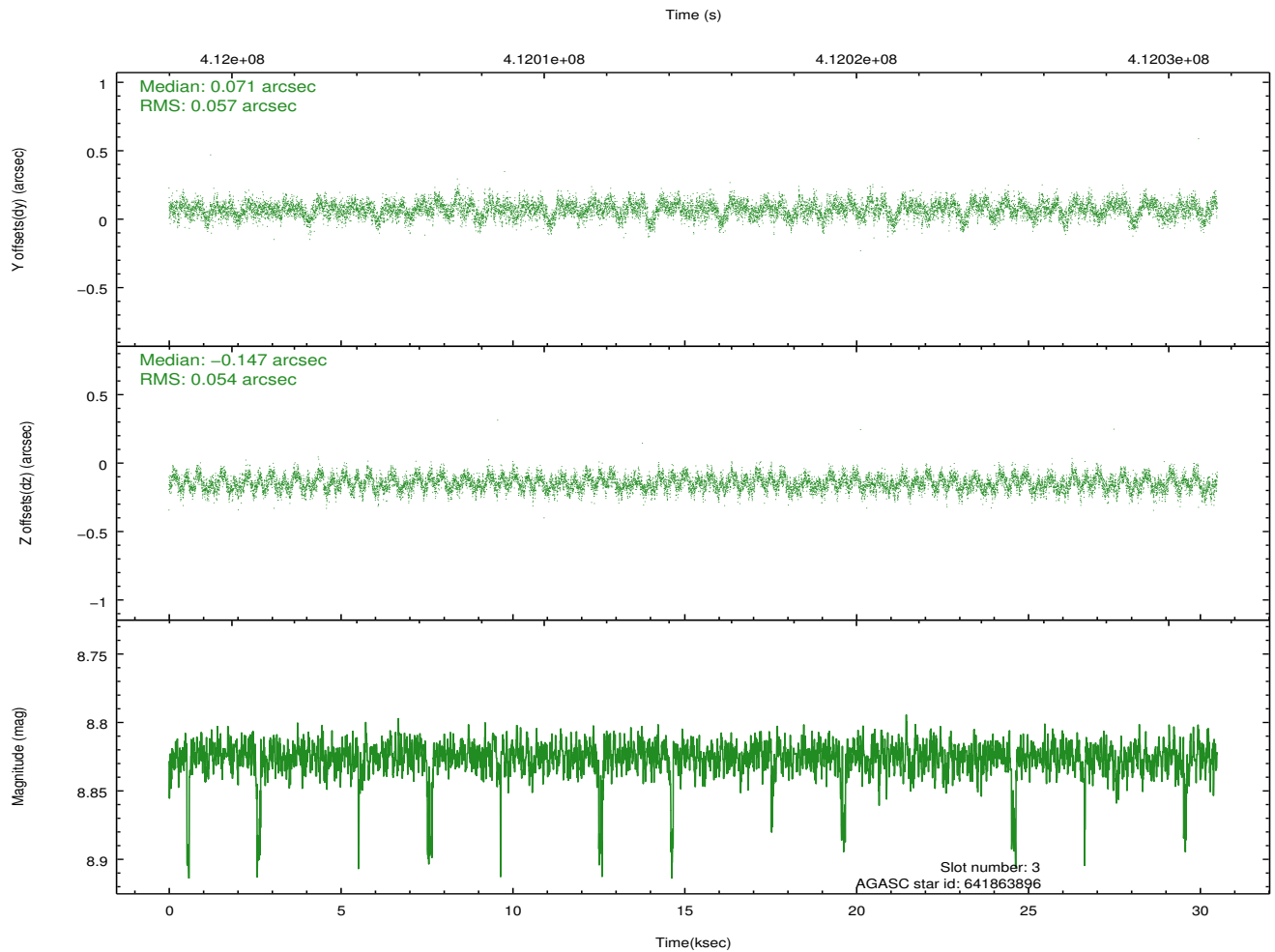
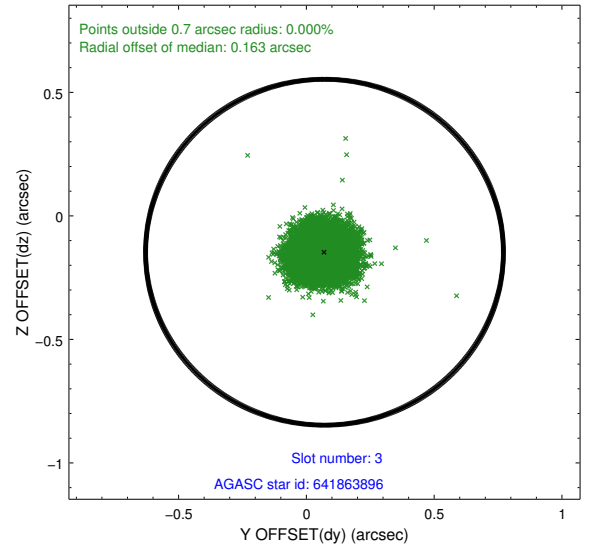
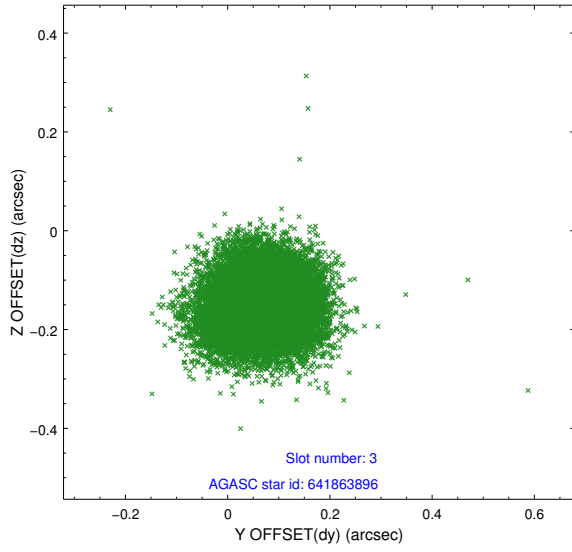
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.98	7439	-0.095	-0.029	0.007	0.012	0.000000	0.000000	-771.96	-1737.74
1	FID	ACIS-S-4	7.06	7439	0.258	0.054	0.007	0.013	0.000000	0.000000	2141.64	170.75
2	FID	ACIS-S-5	7.09	7439	-0.194	-0.016	0.007	0.012	0.000000	0.000000	-1824.81	164.44
3	GUIDE	641863896	8.83	14863	0.071	-0.147	0.084	0.134	144.251530	-2.991660	-1803.48	843.57
4	GUIDE	641864672	8.83	14870	-0.021	0.028	0.090	0.144	144.814824	-3.356634	-1178.57	-1487.71
5	GUIDE	641866032	6.92	14878	-0.047	-0.272	0.077	0.133	144.115608	-2.777880	-1652.02	1742.08
6	GUIDE	641866344	9.11	14868	0.094	-0.022	0.144	0.221	144.865920	-2.997341	-176.34	-649.85
7	GUIDE	641875368	8.94	14860	-0.104	0.415	0.101	0.156	144.445166	-3.187580	-1758.33	-145.99

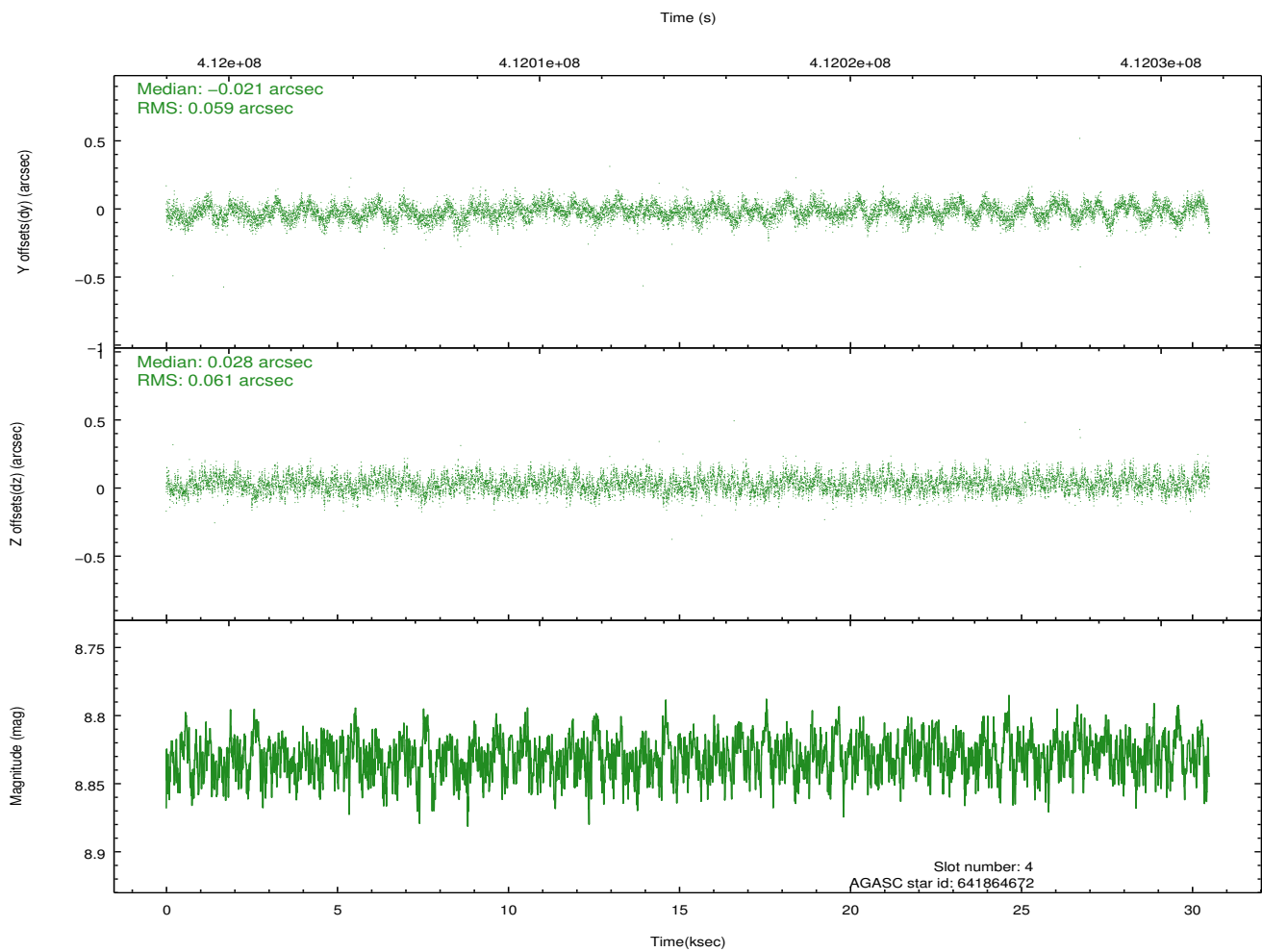
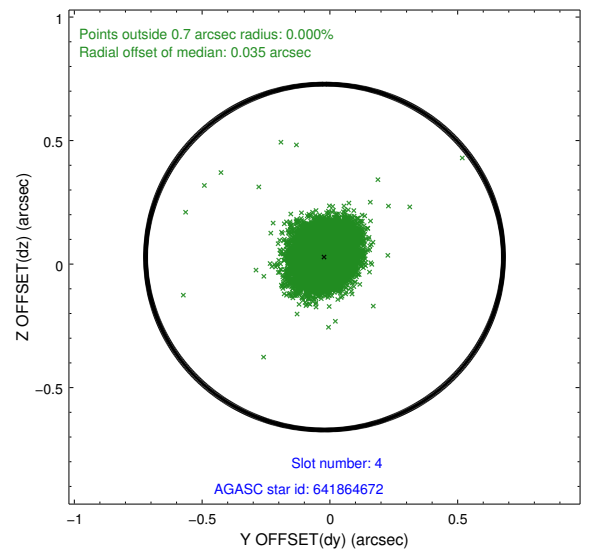
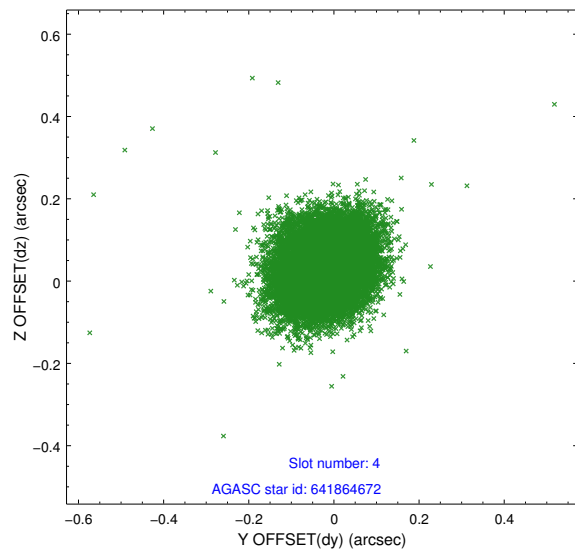
∞

2.4 Star Slots

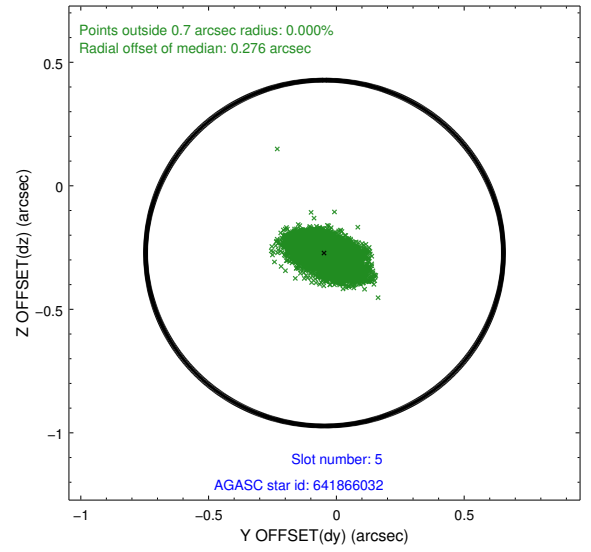
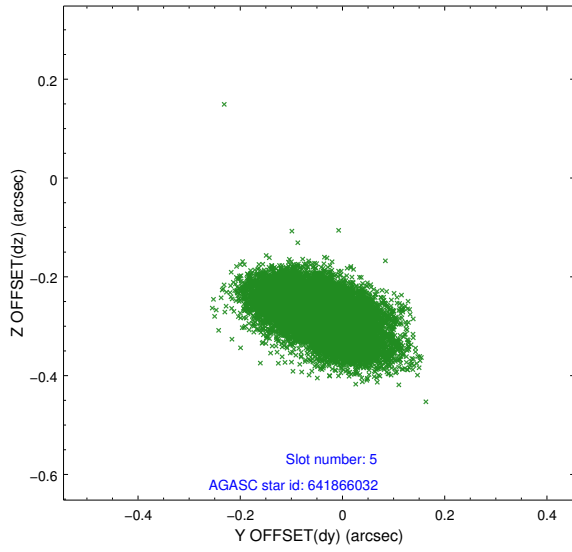
2.4.1 Slot 3



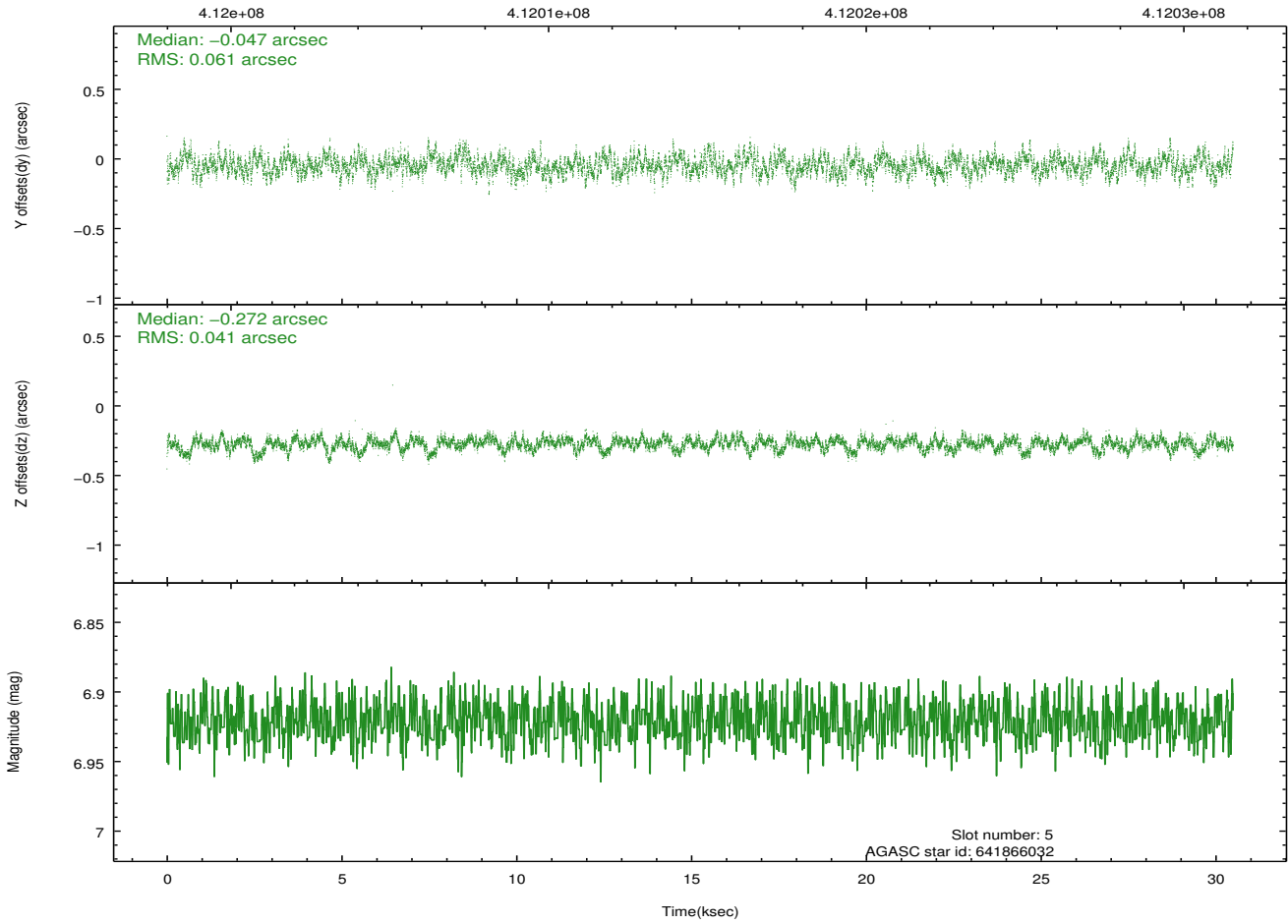
2.4.2 Slot 4



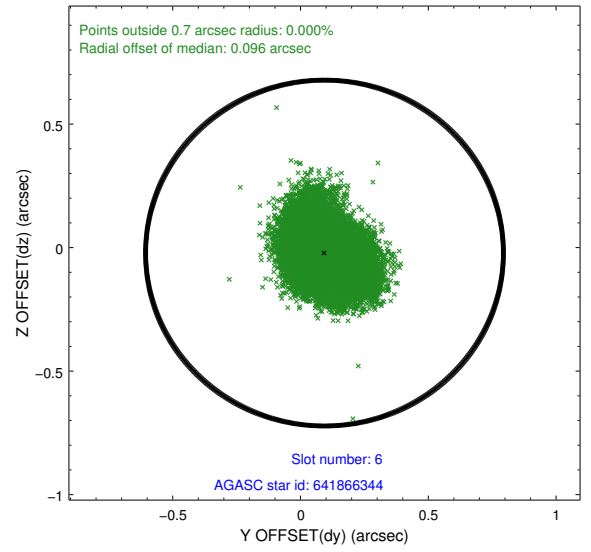
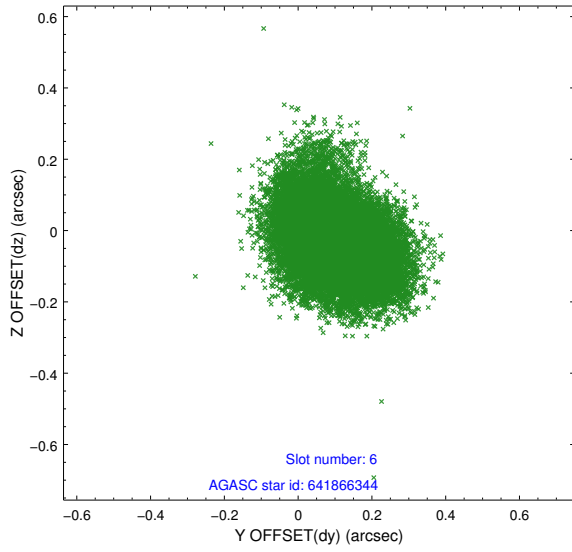
2.4.3 Slot 5



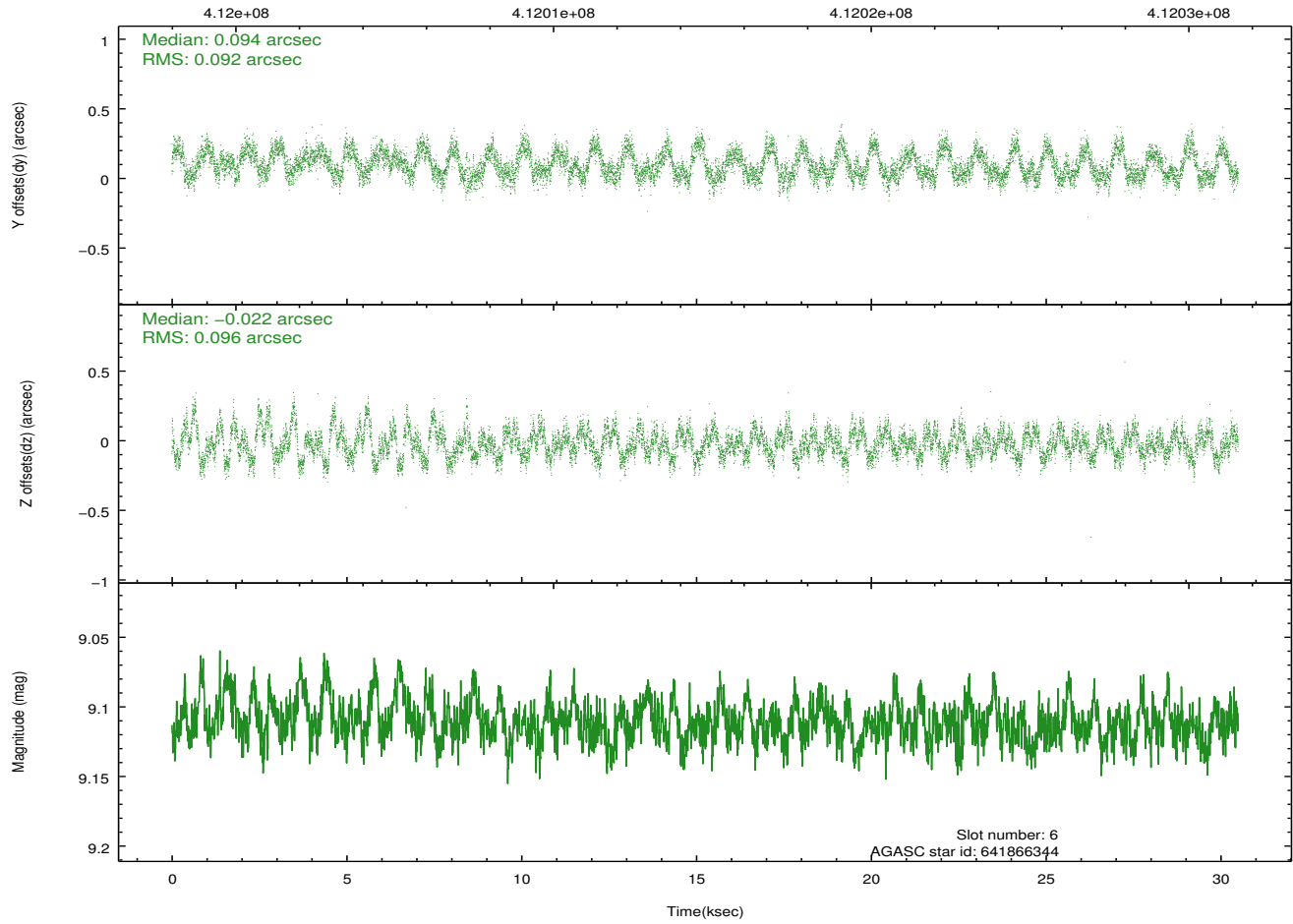
Time (s)



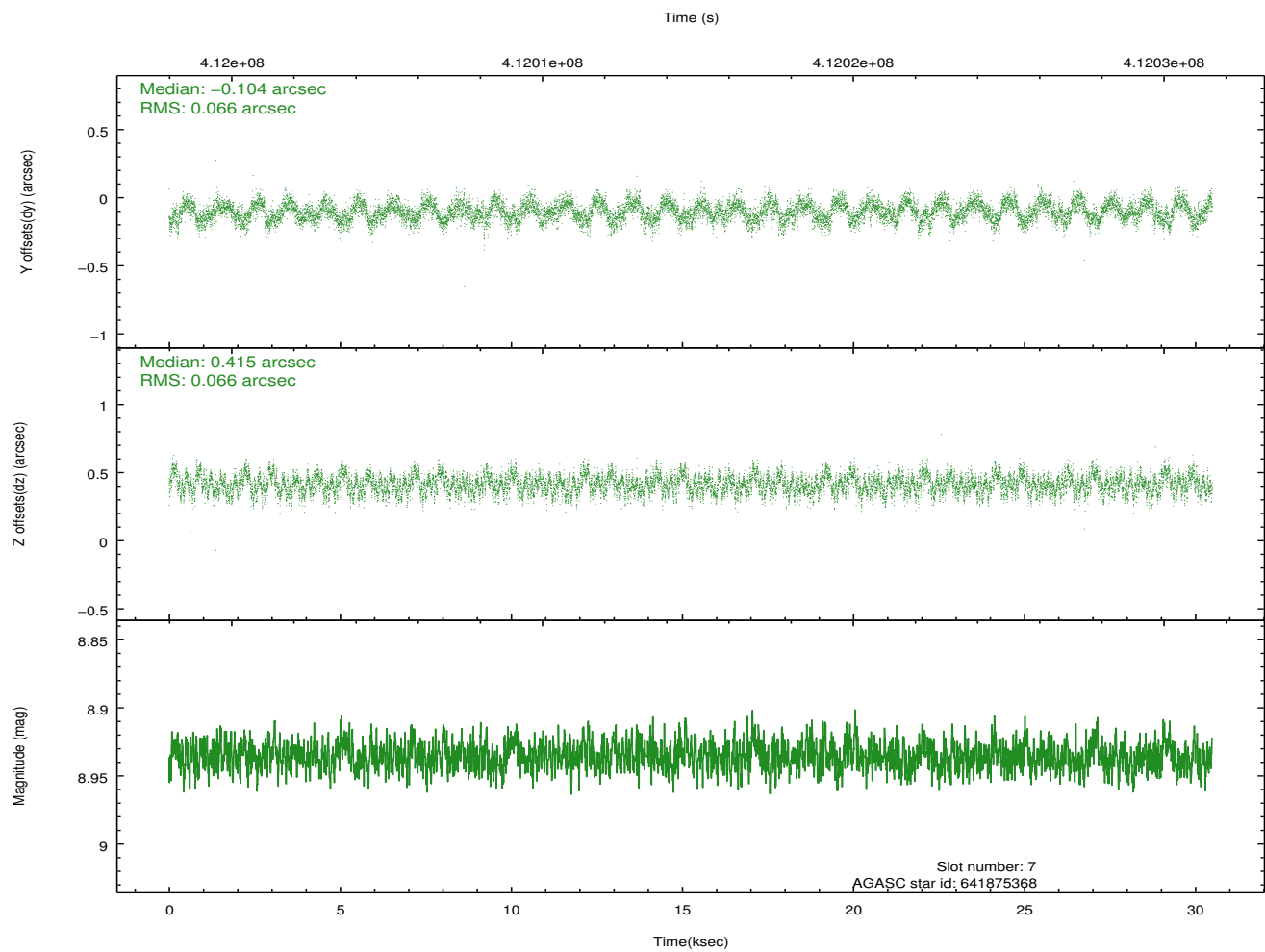
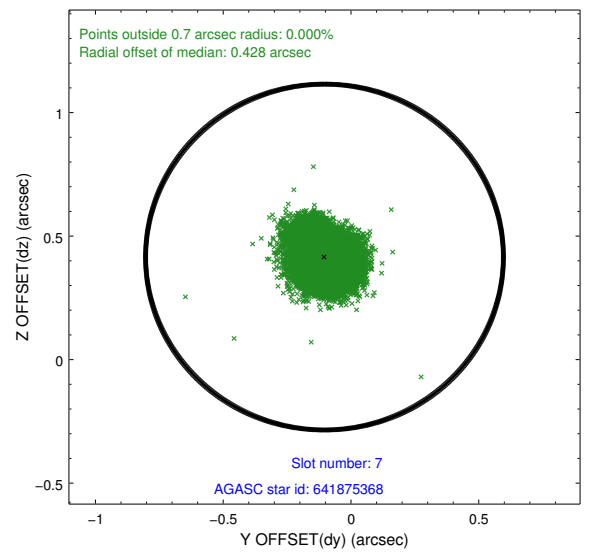
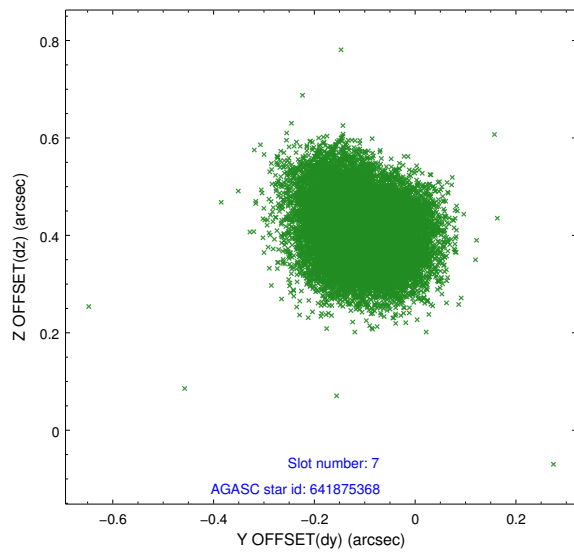
2.4.4 Slot 6



Time (s)

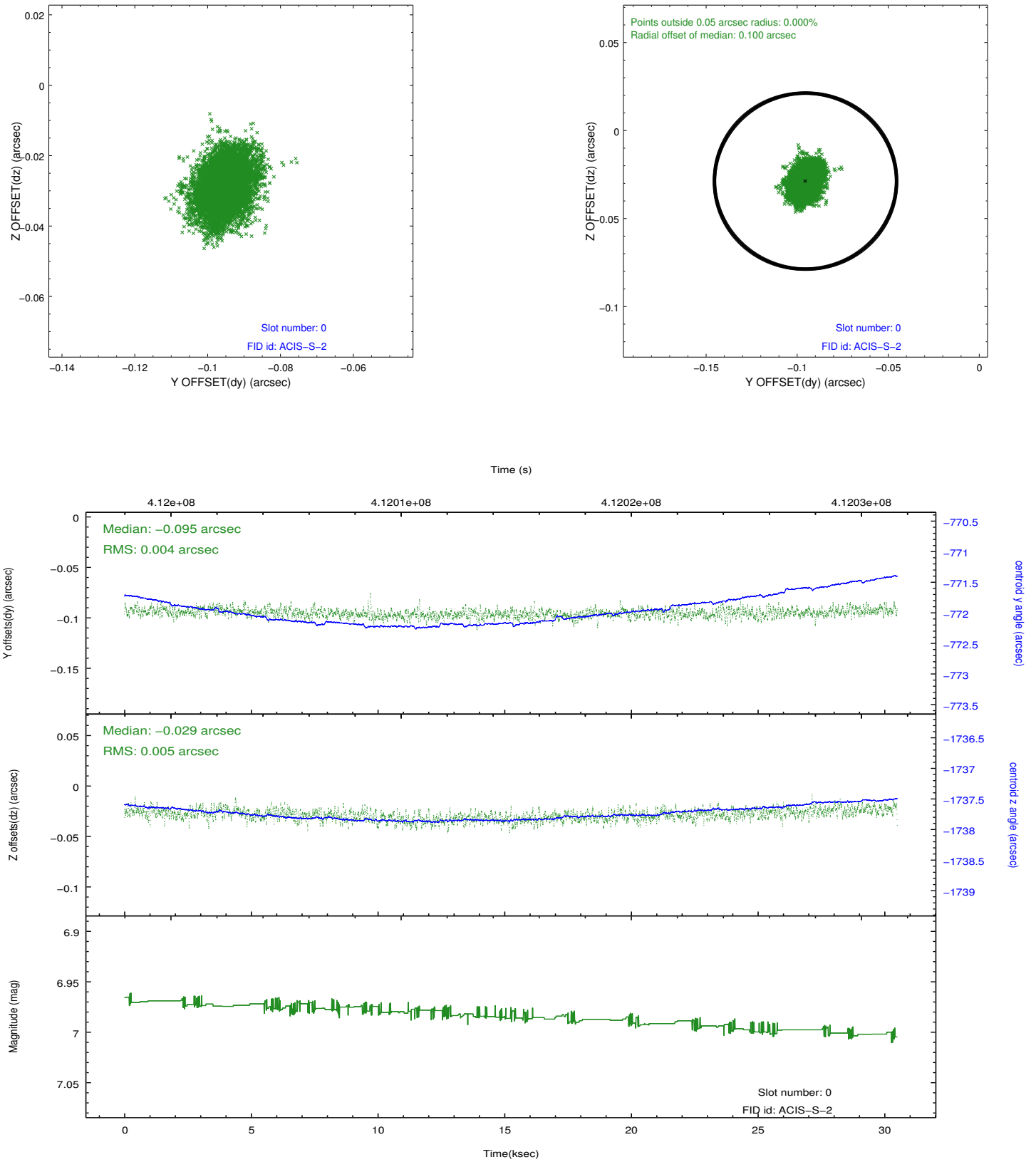


2.4.5 Slot 7

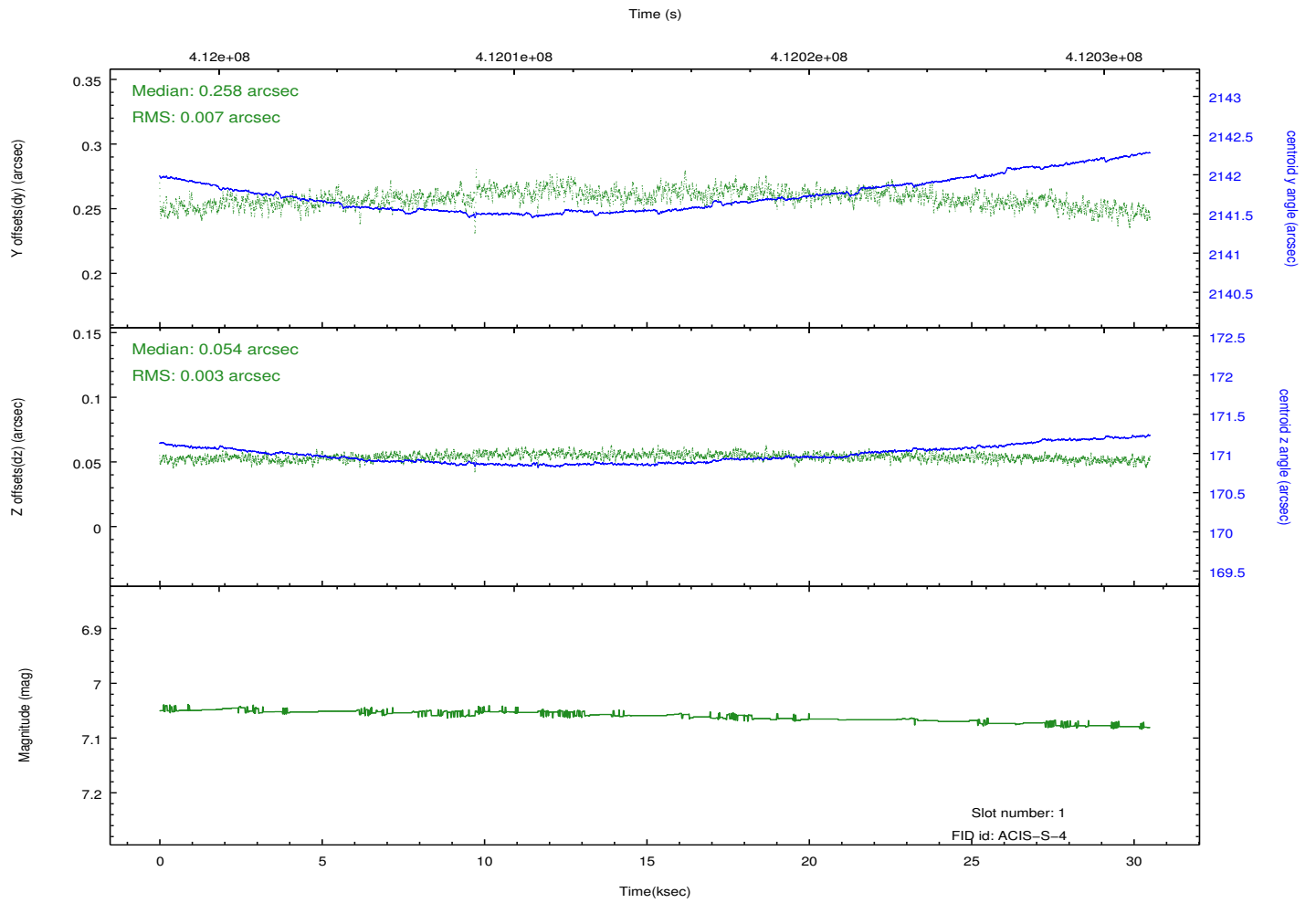
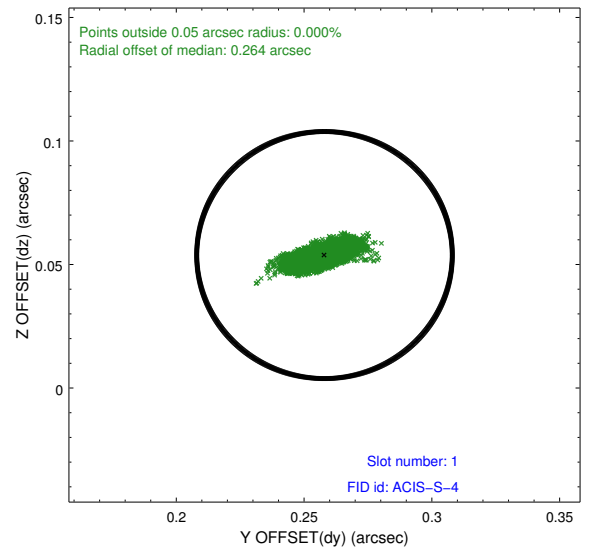
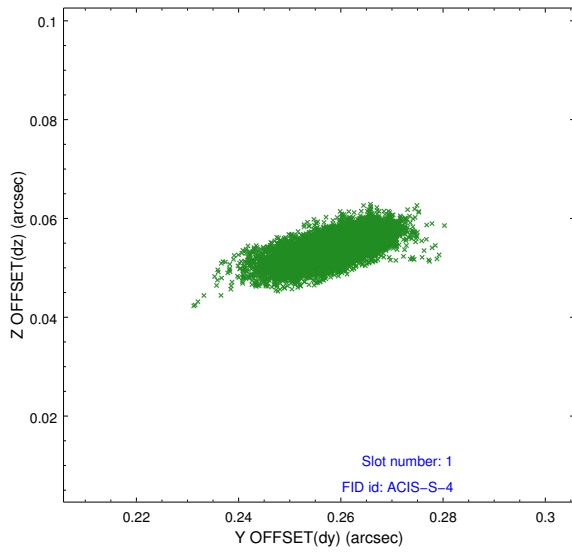


2.5 FID Slots

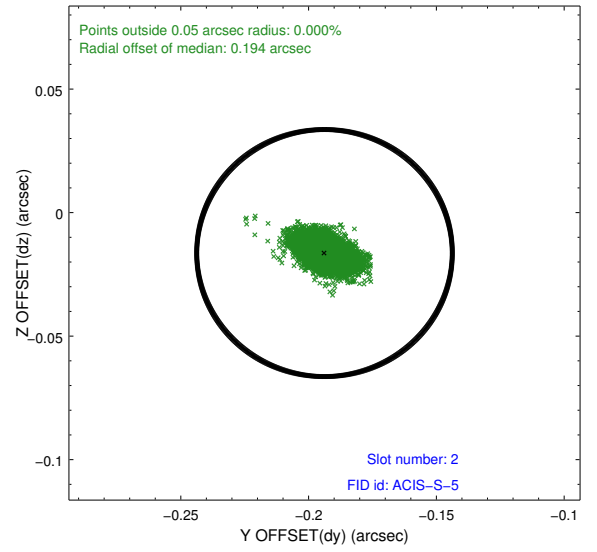
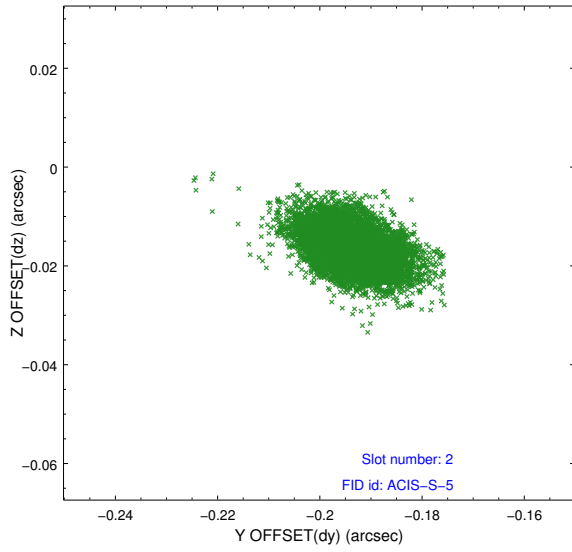
2.5.1 Slot 0



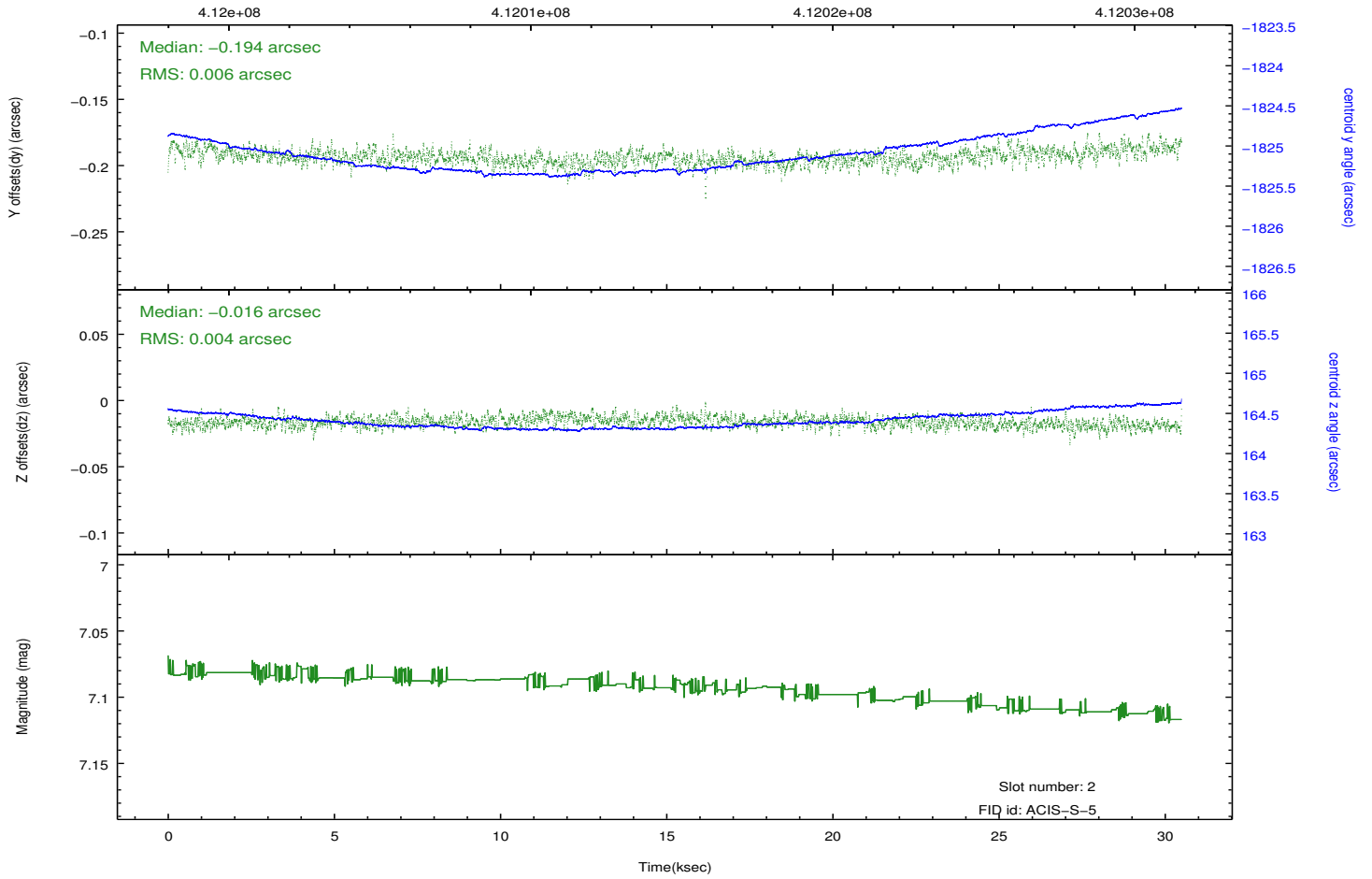
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



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	30.049845021486

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.