

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12953 - L2 Version 2
Chandra X-Ray Center

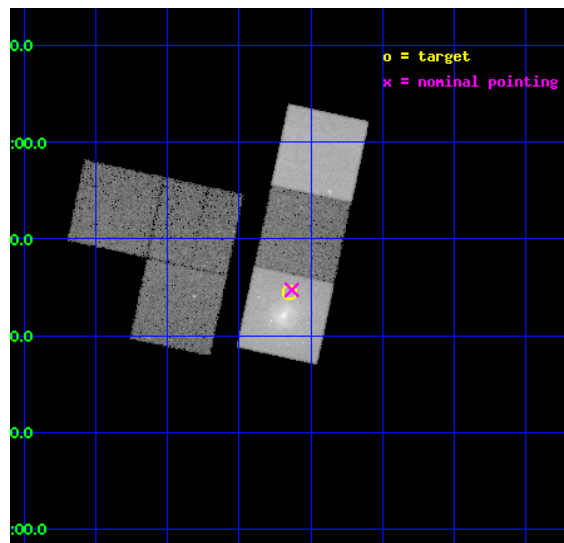
L2 Processing Date : Feb 7 2012

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1 Front

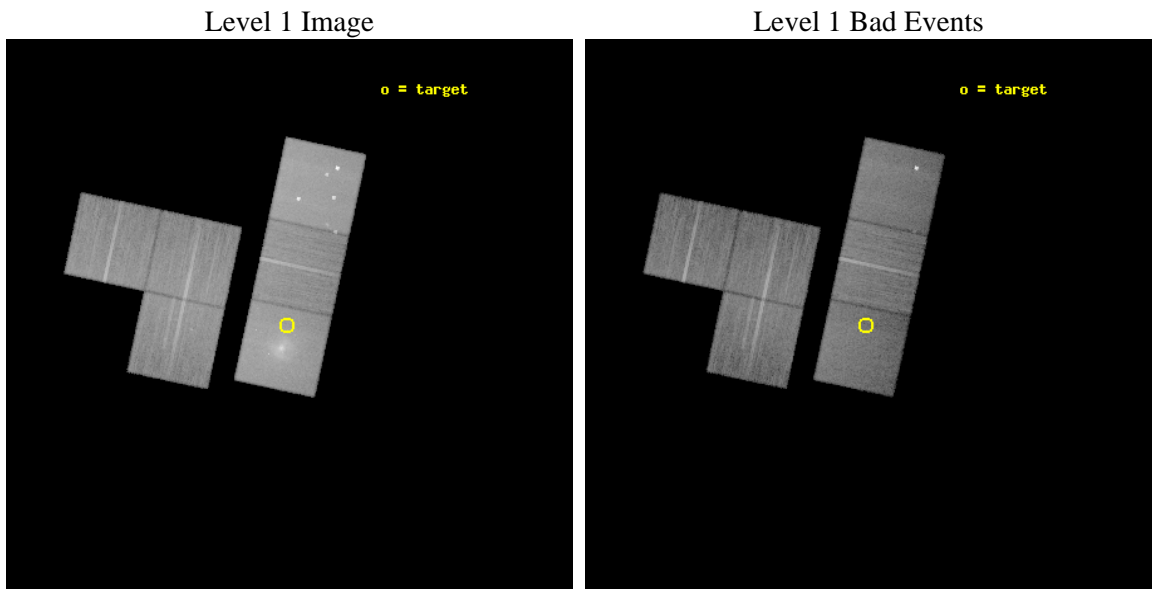
seq_num	600922	Sequence number
obs_id	12953	Observation id
title	Understanding AGN Feedback with Deep Observations of NGC 5813	Prop
observer	Dr. Scott Randall	Principal investigator
object	NGC5813	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	225.286321	Observer's specified target RA [deg]
dec_targ	1.741986	Observer's specified target Dec [deg]
ra_nom	225.28296824404	Nominal RA [deg]
dec_nom	1.7454851545736	Nominal Dec [deg]
roll_nom	102.1567501823	Nominal Roll [deg]
revision	2	Processing version of data
ontime	32162.489012003	Sum of GTIs [s]
livetime	31755.228210207	Livetime [s]
ontime0	32162.530052006	Sum of GTIs [s]
ontime2	32162.32485199	Sum of GTIs [s]
ontime3	32162.365891993	Sum of GTIs [s]
ontime5	32162.447972	Sum of GTIs [s]
ontime6	32162.406931996	Sum of GTIs [s]
ontime7	32162.489012003	Sum of GTIs [s]
l2events	379026	Number of level 2 events



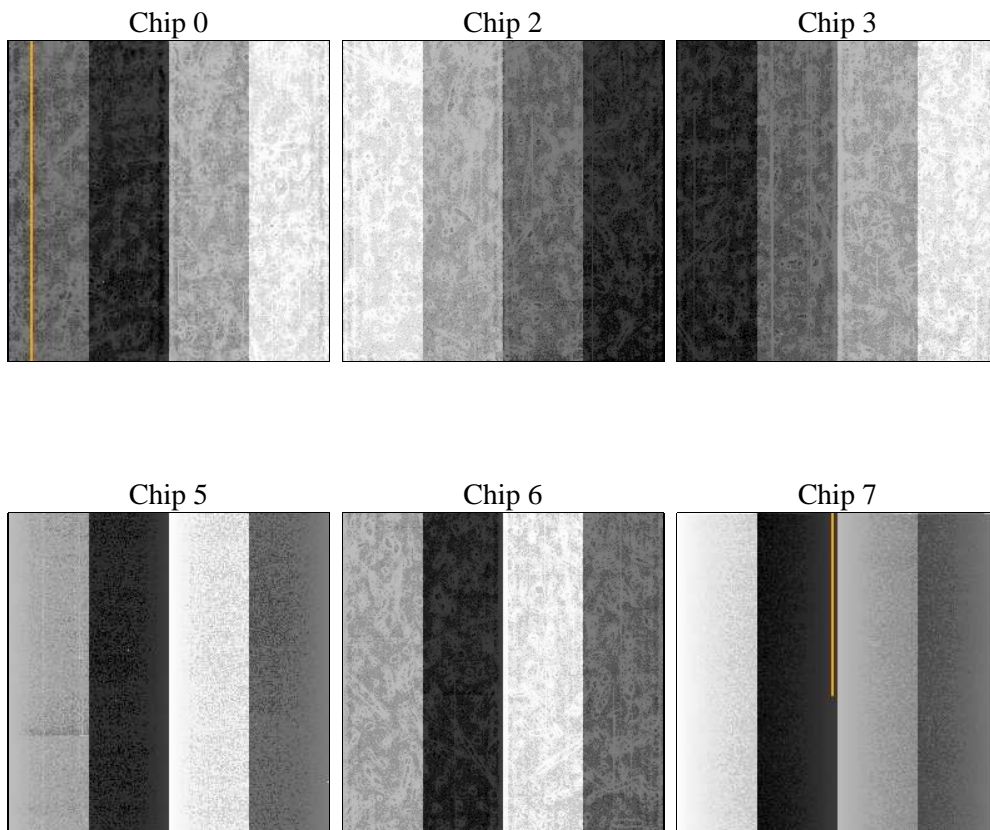
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	187612.125000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	32162.489012003	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	32162.530052006	Sum of GTIs [s]
date	2012-02-07T15:40:59	Date and time of file creation	ontime2	32162.32485199	Sum of GTIs [s]
revision	2	Processing version of data	ontime3	32162.365891993	Sum of GTIs [s]
			ontime5	32162.447972	Sum of GTIs [s]
			ontime6	32162.406931996	Sum of GTIs [s]
			ontime7	32162.489012003	Sum of GTIs [s]
			l1events	1377388	Number of level 1 events

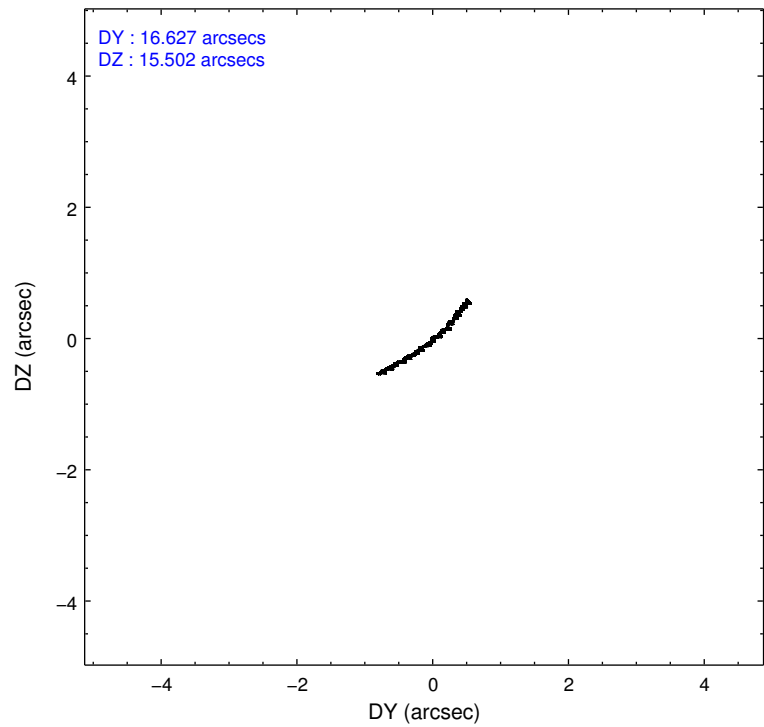
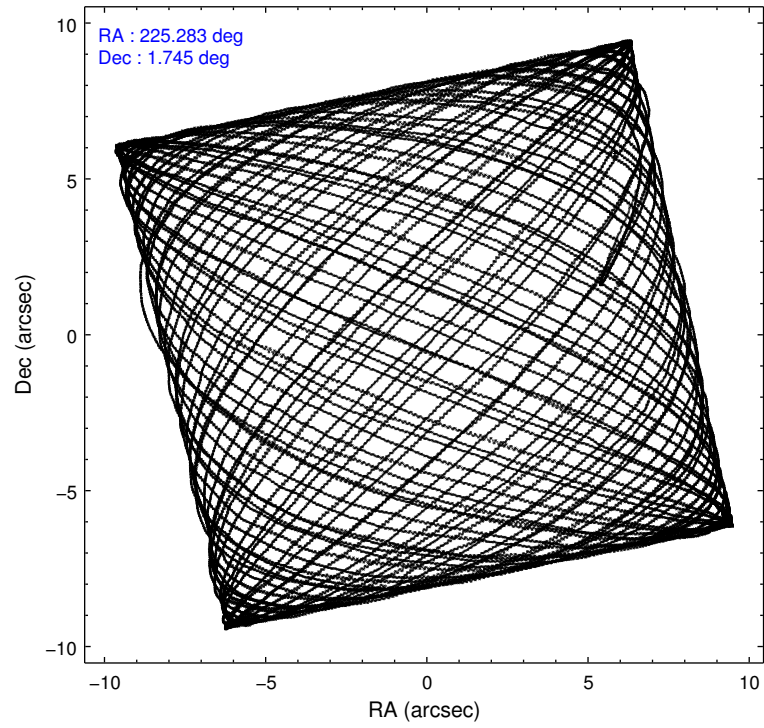
2.1.4 Events

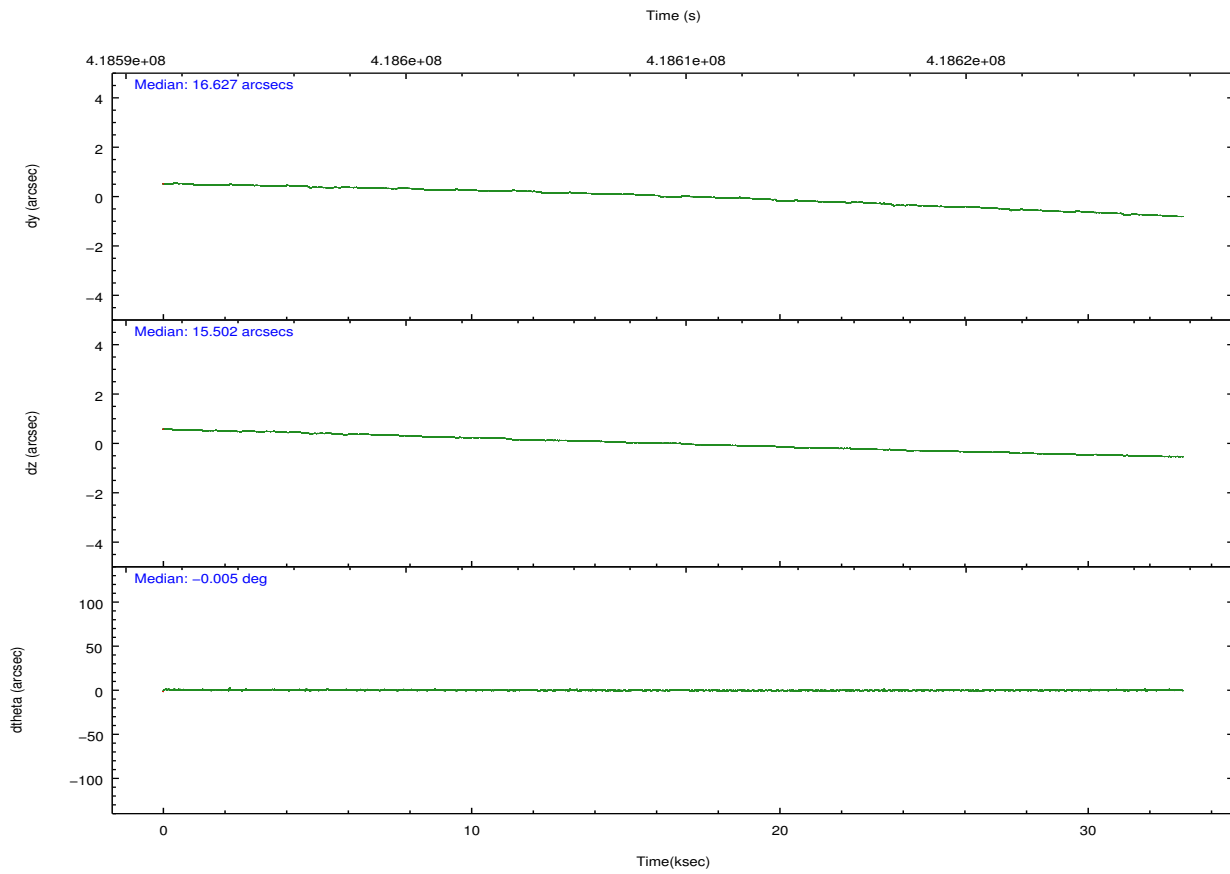
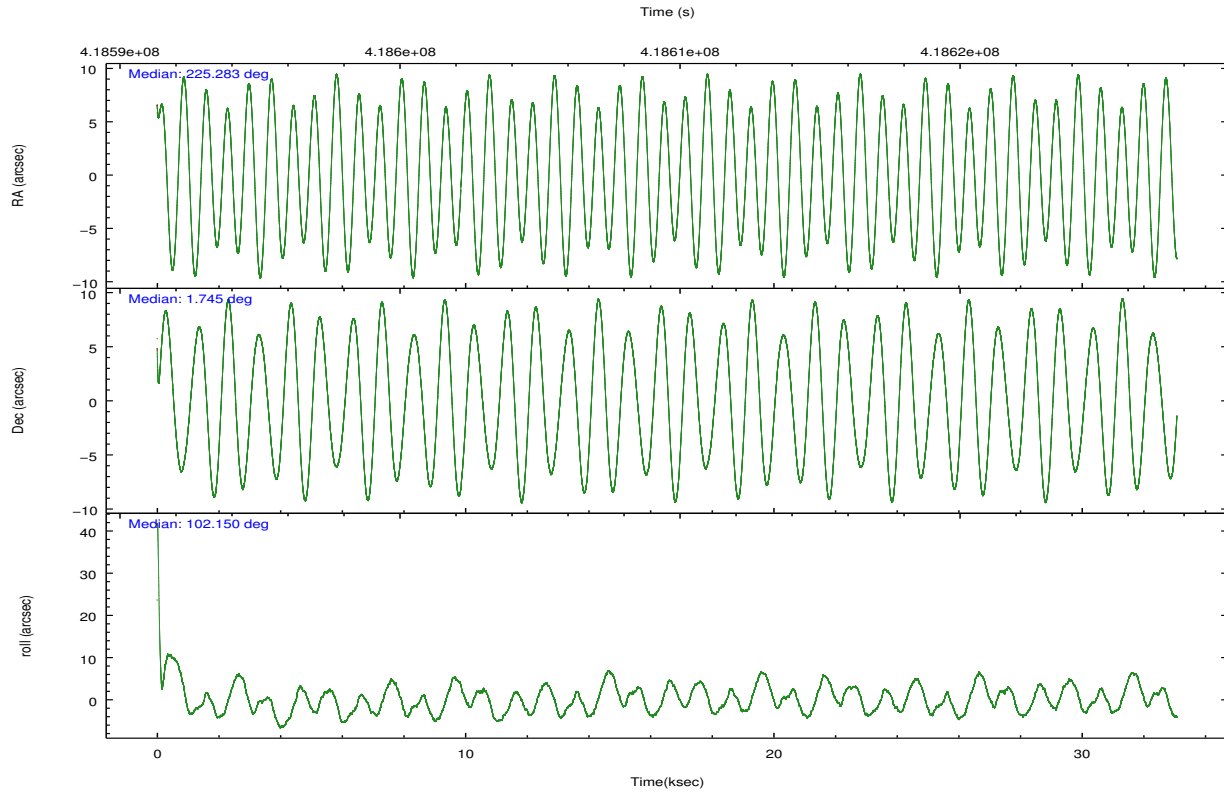
	ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7		ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	182694	191118	184916	322685	193187	302788	grade 0 events	7500	7864	8155	24945	9651	29829
rejected events	160791	169868	163570	160543	168956	136420		4%	4%	4%	7%	4%	9%
rejected %	88%	88%	88%	49%	87%	45%	grade 1 events	121	100	114	648	108	313
								0%	0%	0%	0%	0%	0%
							grade 2 events	5466	5015	4557	47213	5094	37914
								2%	2%	2%	14%	2%	12%
							grade 3 events	2278	2186	2206	5985	2368	16305
								1%	1%	1%	1%	1%	5%
							grade 4 events	2167	2187	2228	5545	2244	16194
								1%	1%	1%	1%	1%	5%
							grade 5 events	8637	7717	8979	24571	9323	26178
								4%	4%	4%	7%	4%	8%
							grade 6 events	4494	3999	4205	78473	4884	66136
								2%	2%	2%	24%	2%	21%
							grade 7 events	152031	162050	154472	135305	159515	109919
								83%	84%	83%	41%	82%	36%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-023567	ACIS-023567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	O1	Y
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	225.301596	225.282968244041	CCD I2 on	O3	Y
[deg] Pointing Dec	1.725467	1.745485154573618	CCD I3 on	O2	Y
[deg] Pointing Roll	101.999541	102.156750182302	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O5	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O4	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	N	N
[s] Observation start time (MET)	418593868.184000	418591917.44302	CCD S5 on	N	N
Observation start date	2011-04-07T20:03:22	2011-04-07T19:31:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	418781480.184000	418626848.41983	On-chip summing requested	N	N
Observation end date	2011-04-10T00:10:14	2011-04-08T05:14:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



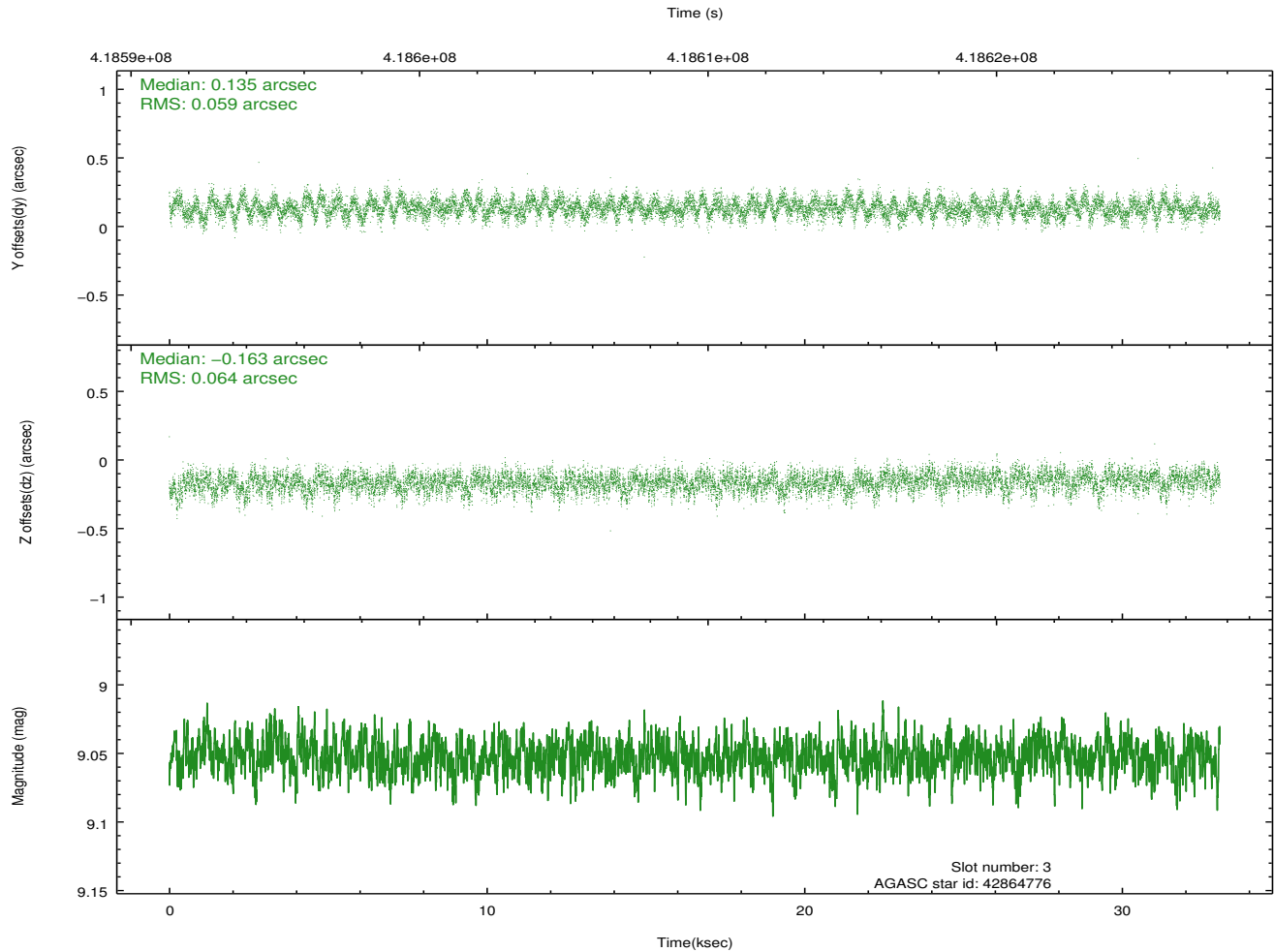
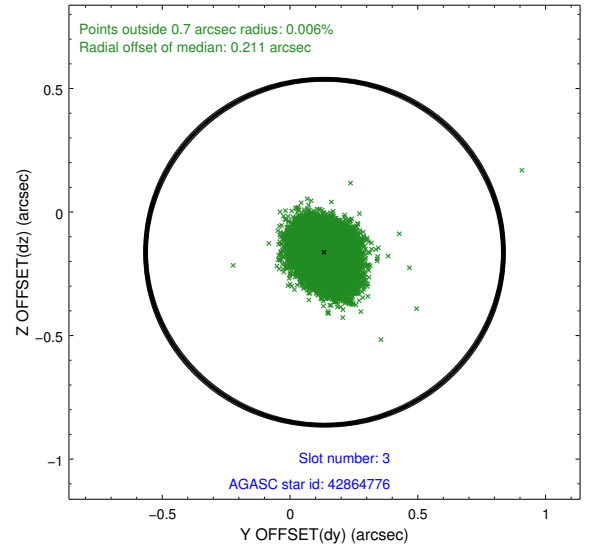
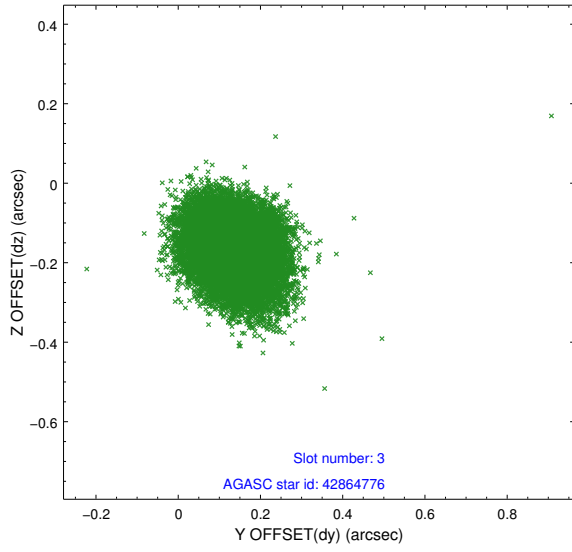


Slot Statistics

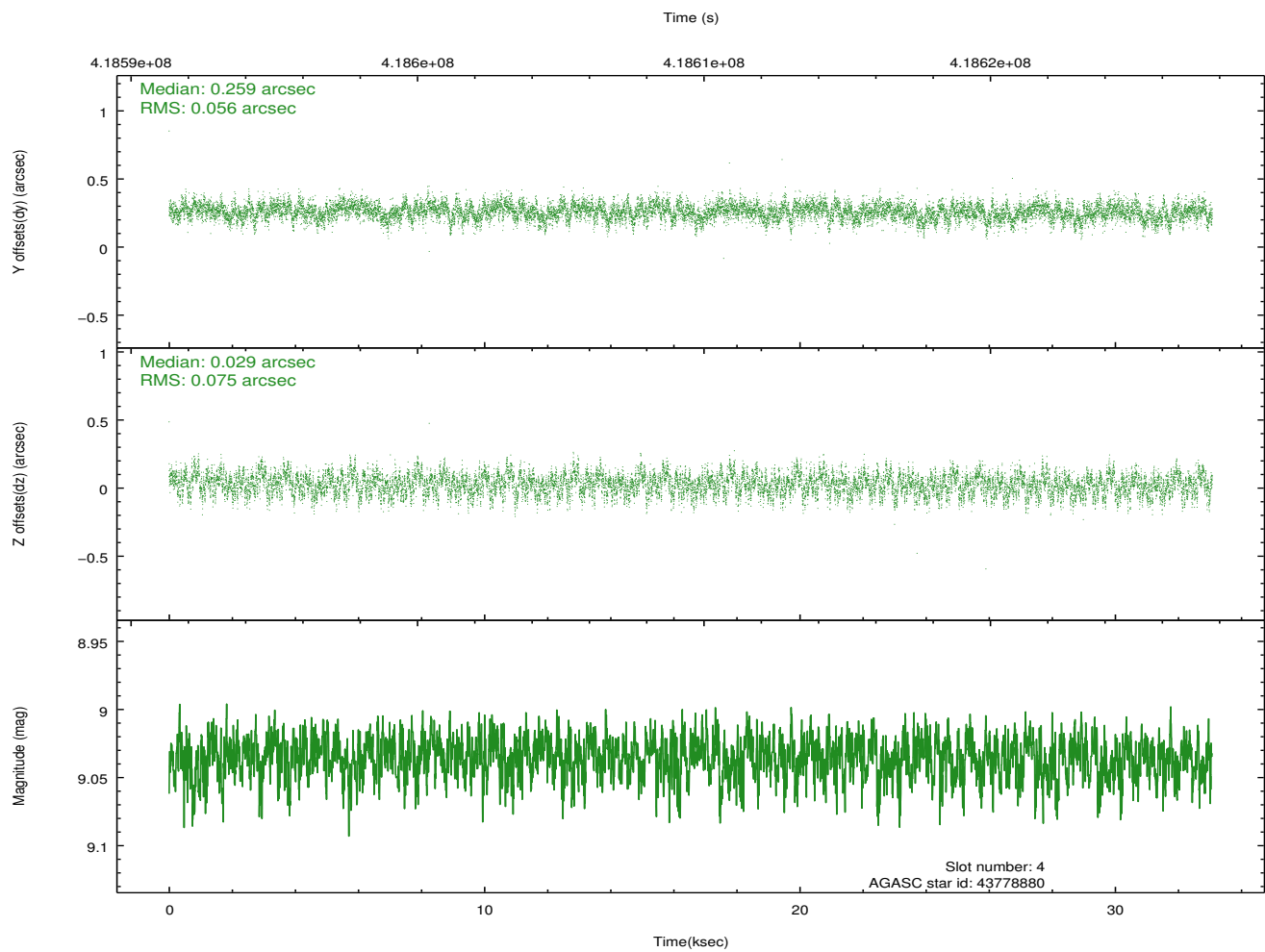
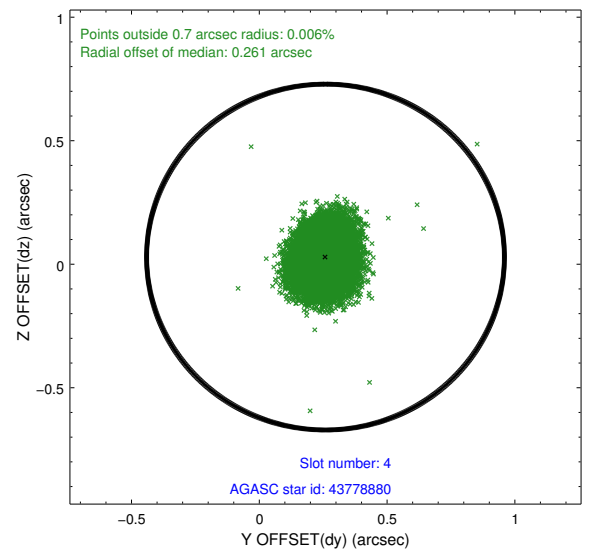
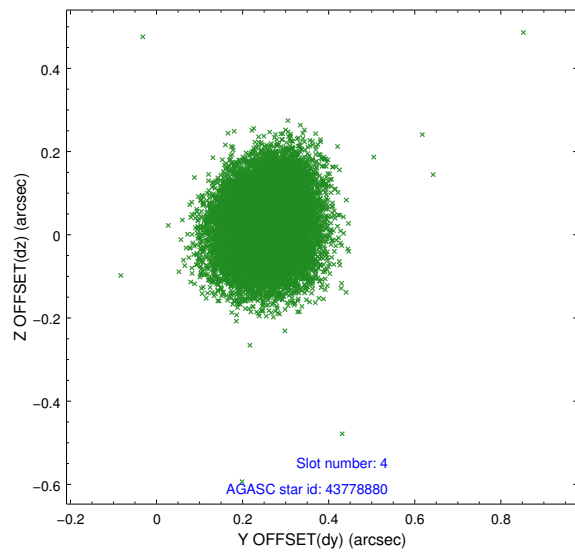
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	8068	-0.096	-0.007	0.012	0.018	0.000000	0.000000	-769.68	-1736.91
1	FID	ACIS-S-4	7.00	8069	0.184	0.048	0.009	0.015	0.000000	0.000000	2143.84	171.60
2	FID	ACIS-S-5	7.02	8068	-0.119	-0.031	0.013	0.021	0.000000	0.000000	-1822.49	165.22
3	GUIDE	42864776	9.05	16123	0.135	-0.163	0.092	0.149	224.993302	1.618488	-146.51	1165.82
4	GUIDE	43778880	9.03	16122	0.259	0.029	0.101	0.161	225.720242	1.617889	-690.09	-1392.87
5	GUIDE	43782432	8.06	16129	-0.153	-0.043	0.058	0.095	225.298629	1.853875	454.68	-85.62
6	GUIDE	44304040	8.10	16131	-0.178	0.142	0.078	0.129	225.823407	2.372575	1889.42	-2319.91
7	GUIDE	44305752	8.85	16116	-0.064	0.040	0.112	0.178	225.685277	2.473250	2347.20	-1909.19

2.4 Star Slots

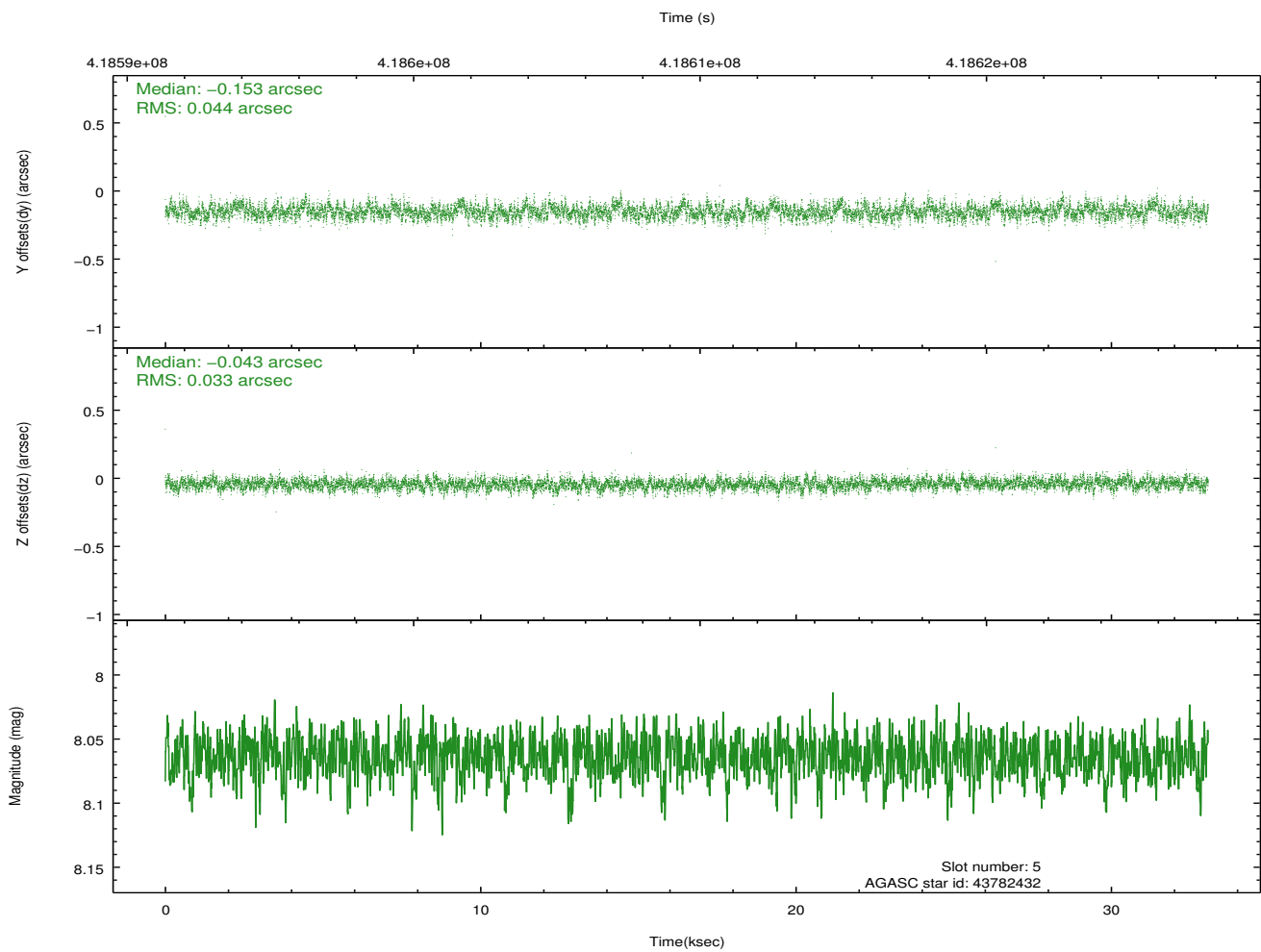
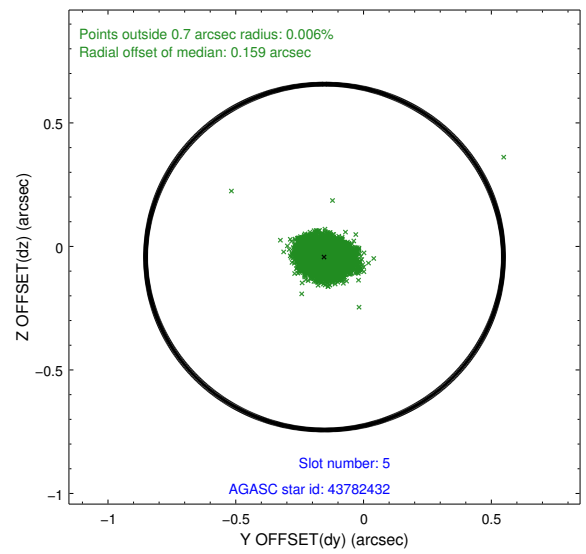
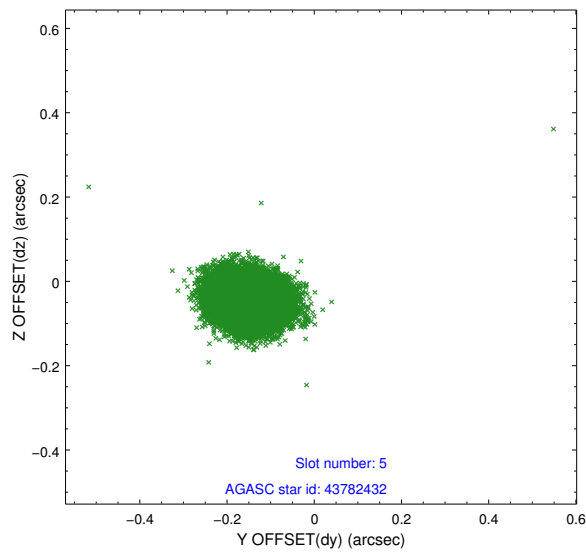
2.4.1 Slot 3



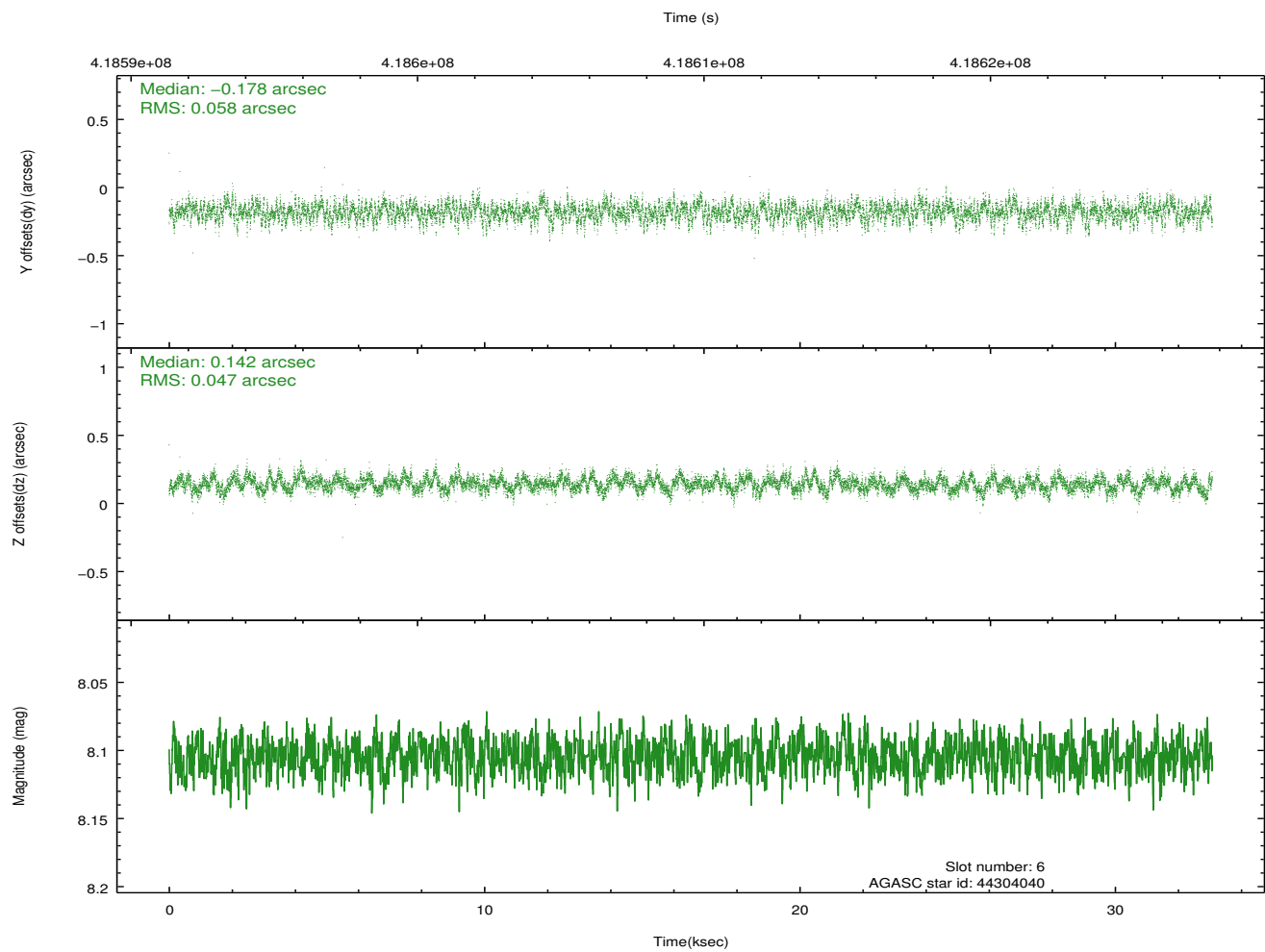
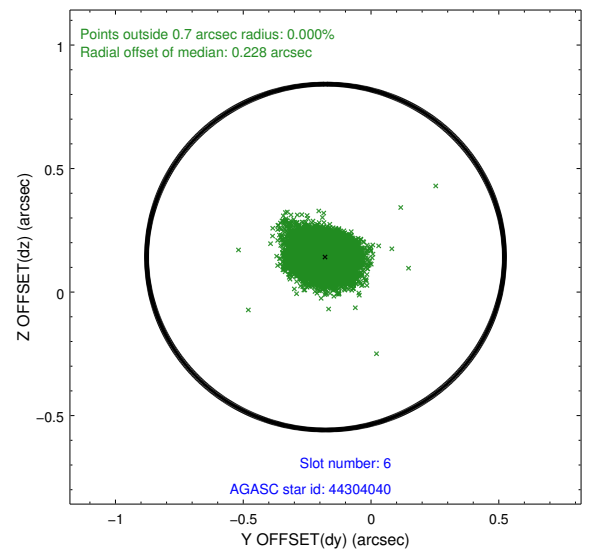
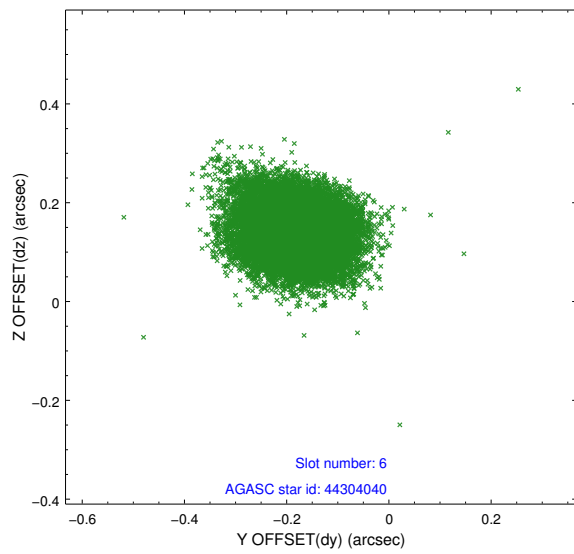
2.4.2 Slot 4



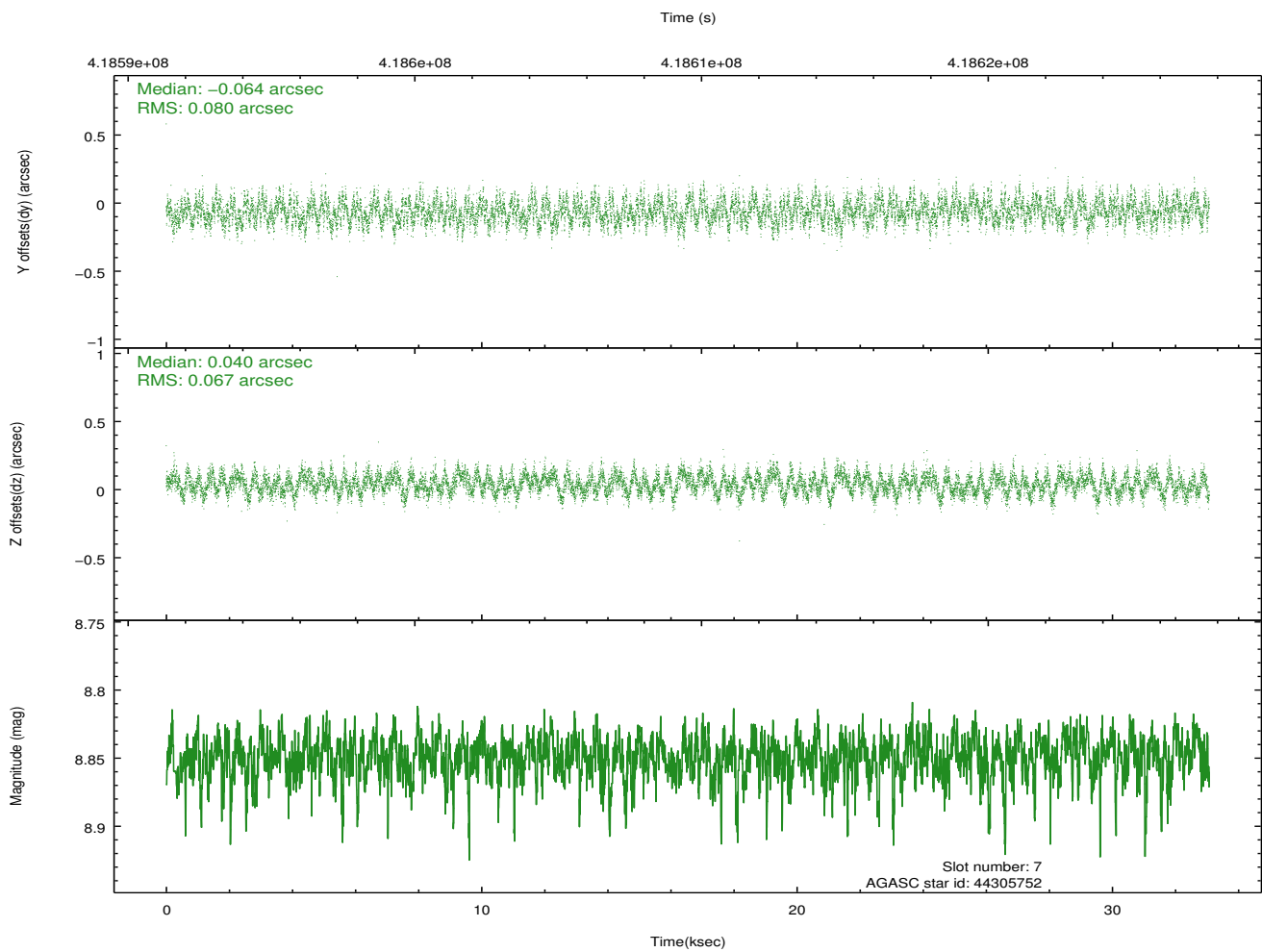
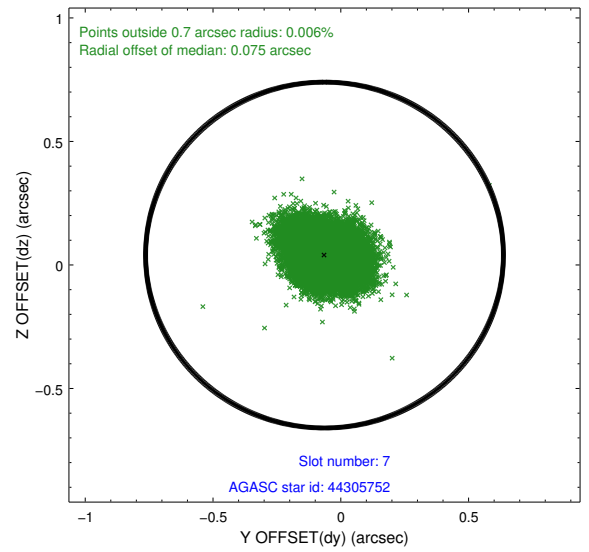
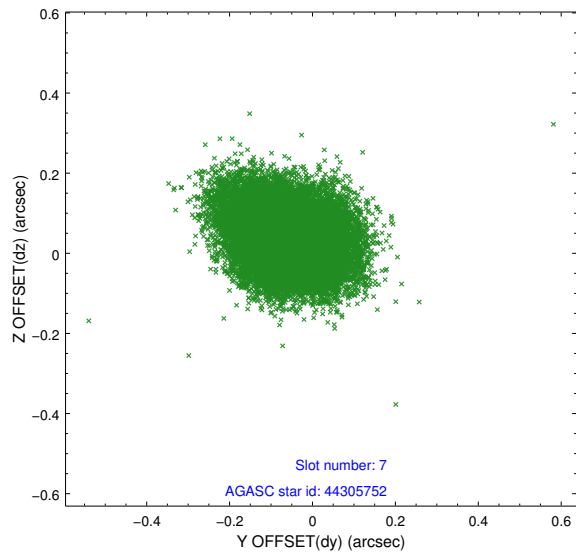
2.4.3 Slot 5



2.4.4 Slot 6

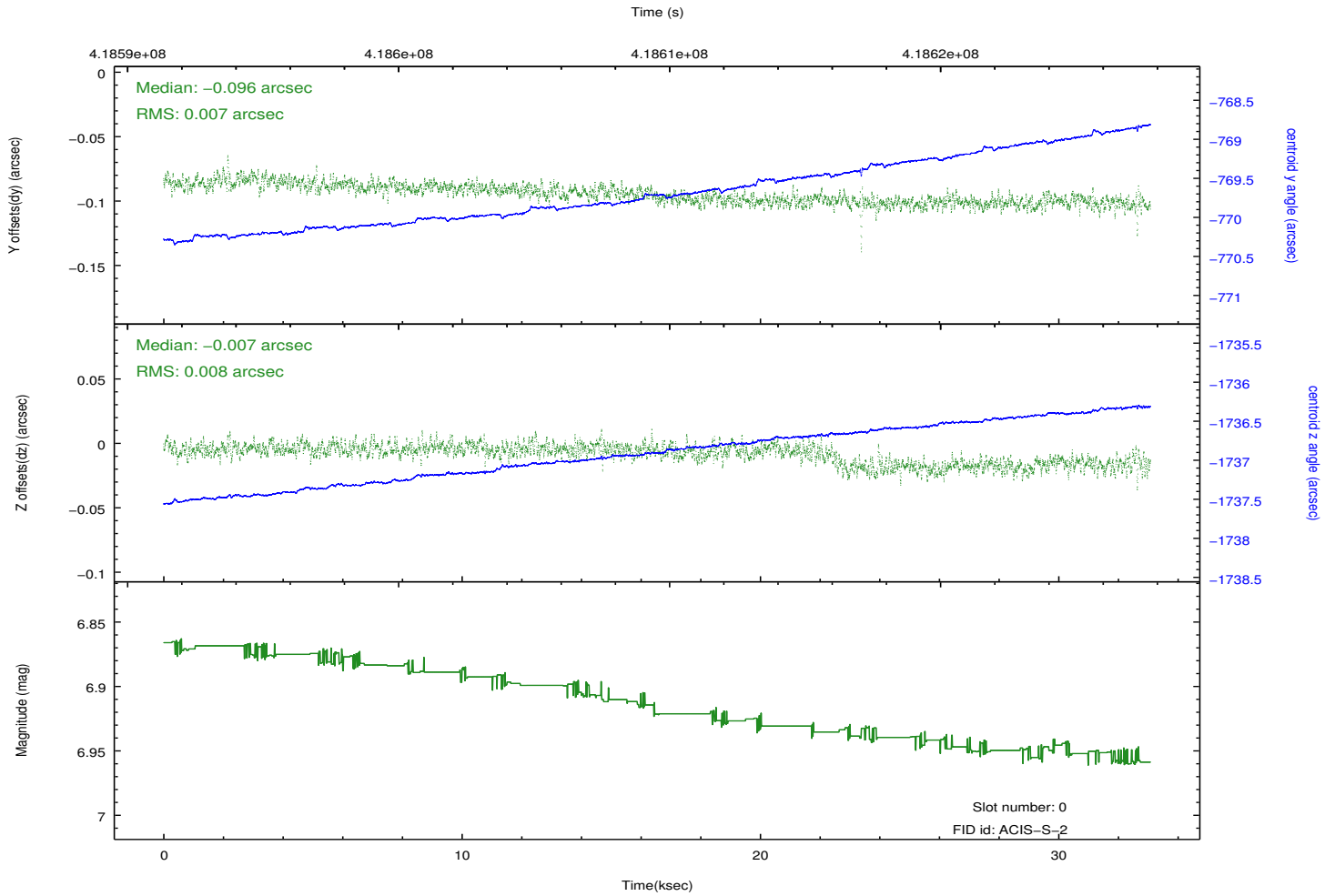
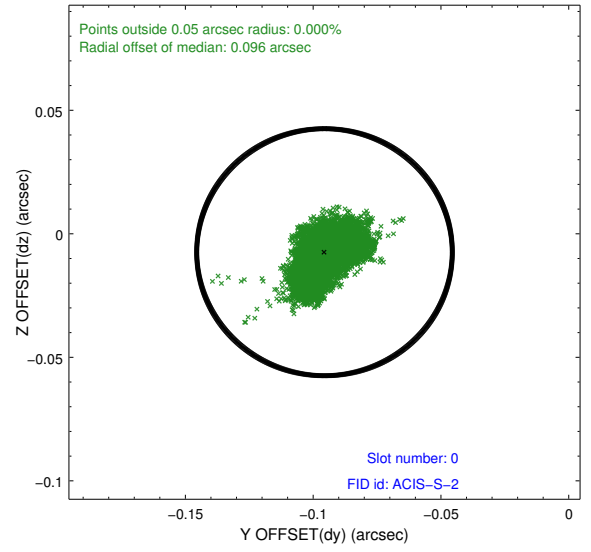
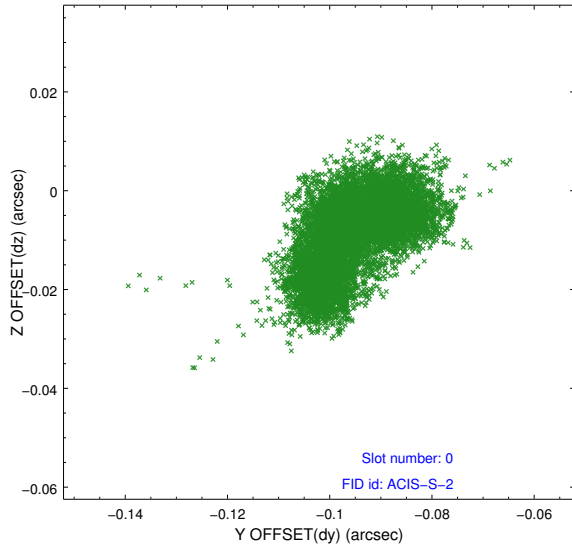


2.4.5 Slot 7

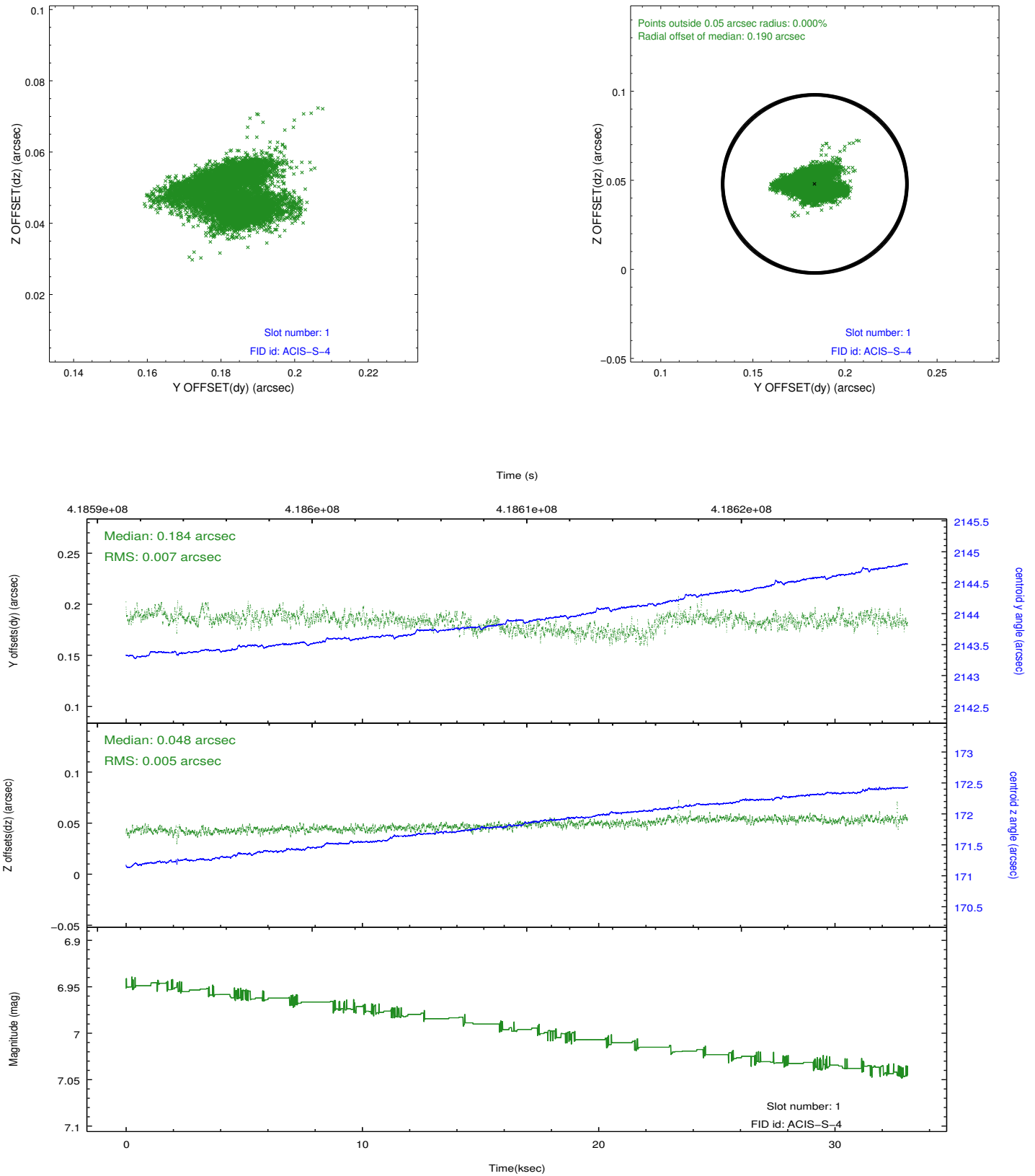


2.5 FID Slots

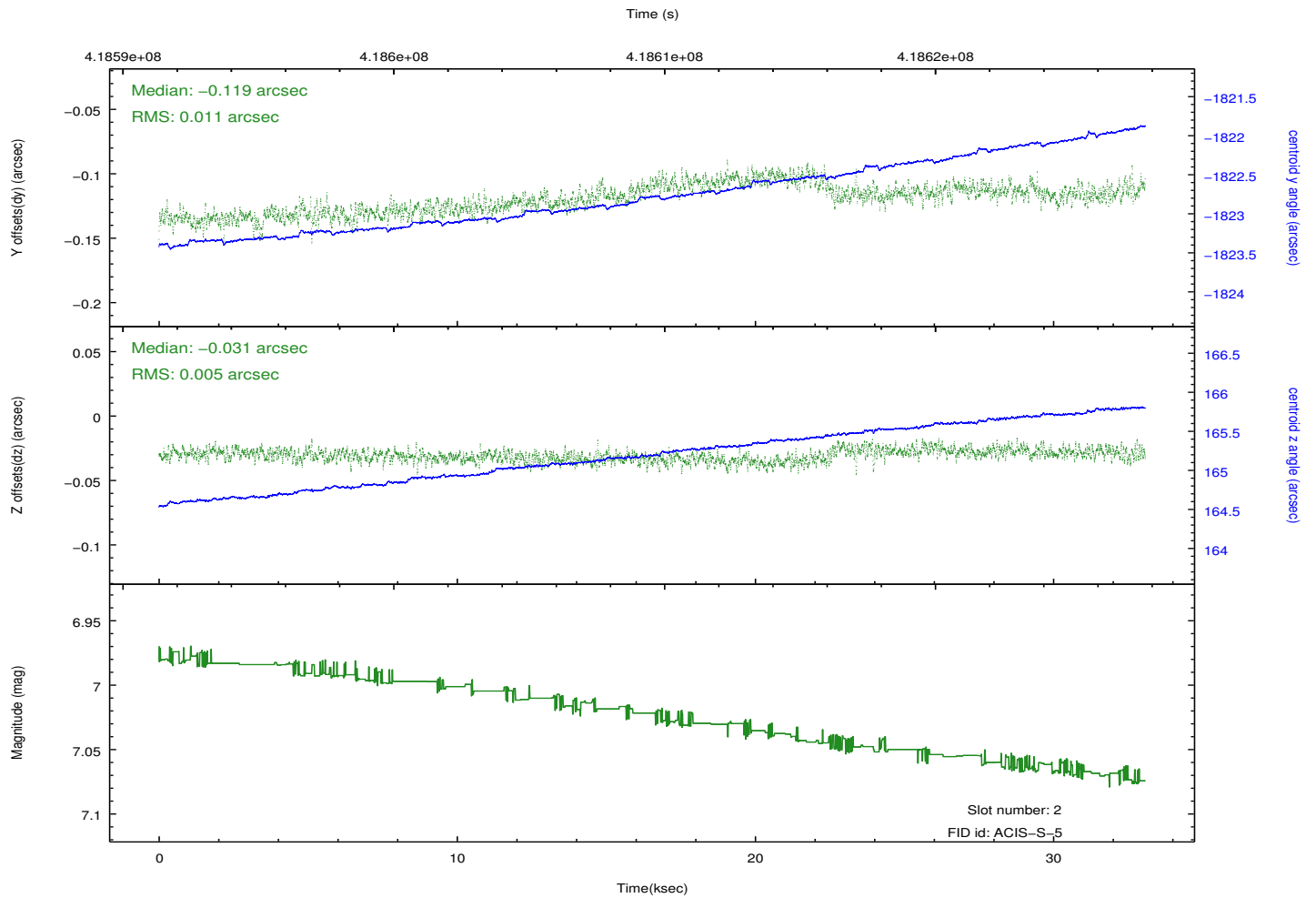
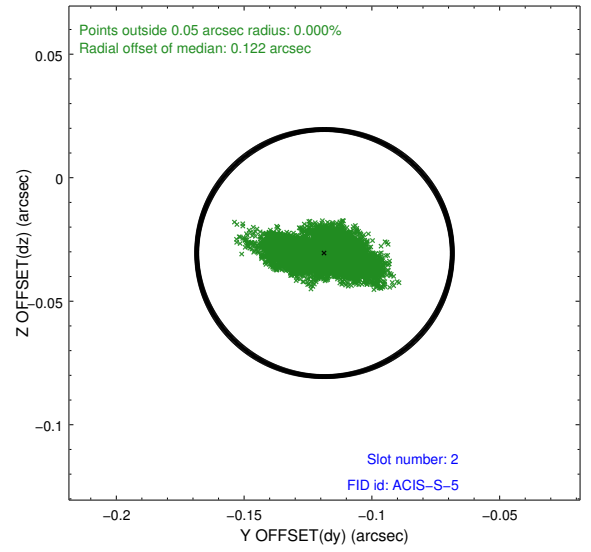
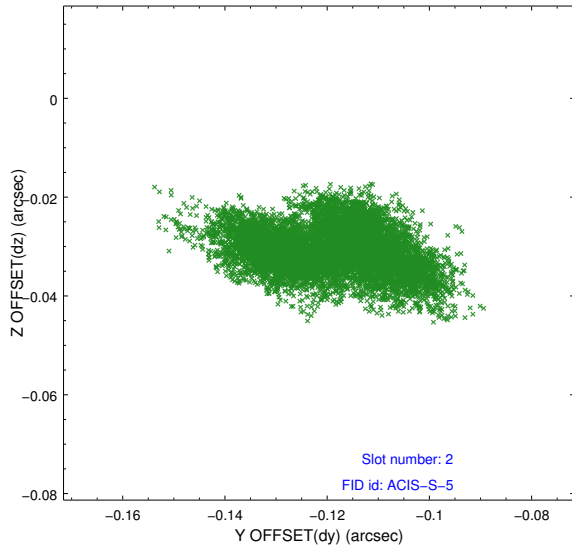
2.5.1 Slot 0



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	32.162489012122

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.

=====

Joint Proposal: NRAO