

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13247 - L2 Version 2
Chandra X-Ray Center

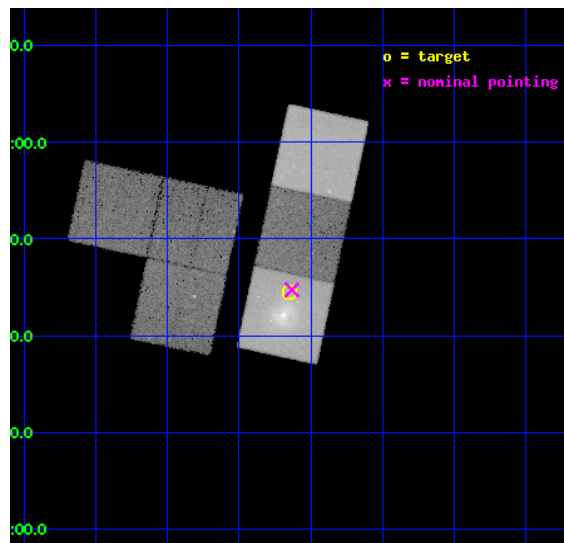
L2 Processing Date : Feb 7 2012

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1 Front

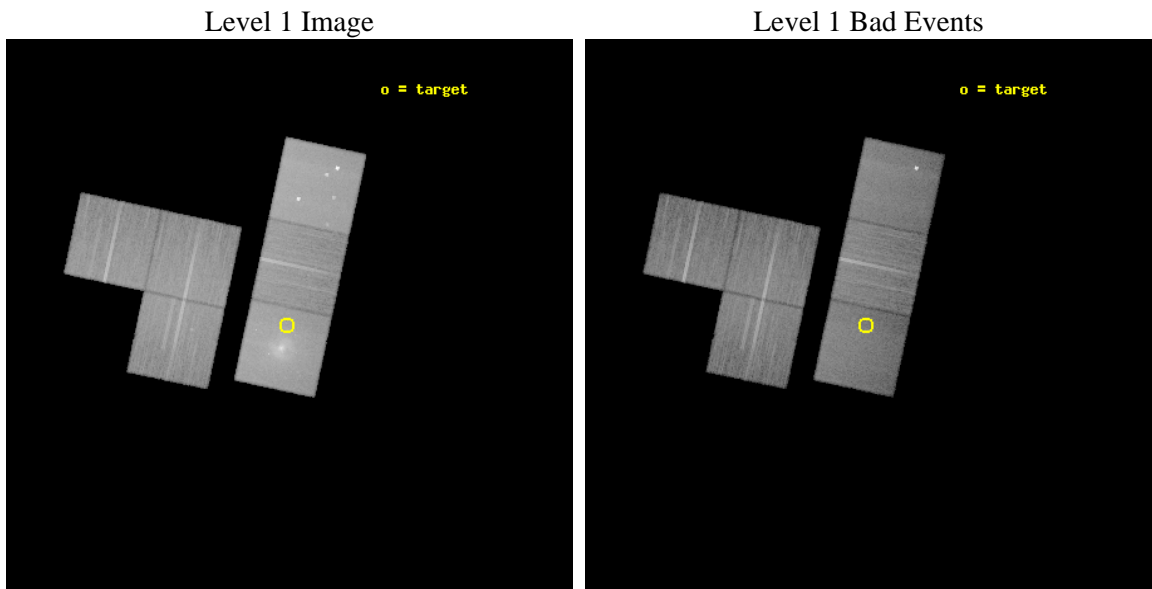
seq_num	600922	Sequence number
obs_id	13247	Observation id
title	Understanding AGN Feedback with Deep Observations of NGC 5813	Prop
observer	Dr. Scott Randall	Principal investigator
object	NGC5813	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	225.286321	Observer's specified target RA [deg]
dec_targ	1.741986	Observer's specified target Dec [deg]
ra_nom	225.28296124989	Nominal RA [deg]
dec_nom	1.745486471552	Nominal Dec [deg]
roll_nom	102.15675881496	Nominal Roll [deg]
revision	2	Processing version of data
ontime	36214.39986515	Sum of GTIs [s]
livetime	35755.831328364	Livetime [s]
ontime0	36211.15887475	Sum of GTIs [s]
ontime2	36211.158794284	Sum of GTIs [s]
ontime3	36211.158814847	Sum of GTIs [s]
ontime5	36214.39986515	Sum of GTIs [s]
ontime6	36214.39986515	Sum of GTIs [s]
ontime7	36214.39986515	Sum of GTIs [s]
l2events	457832	Number of level 2 events



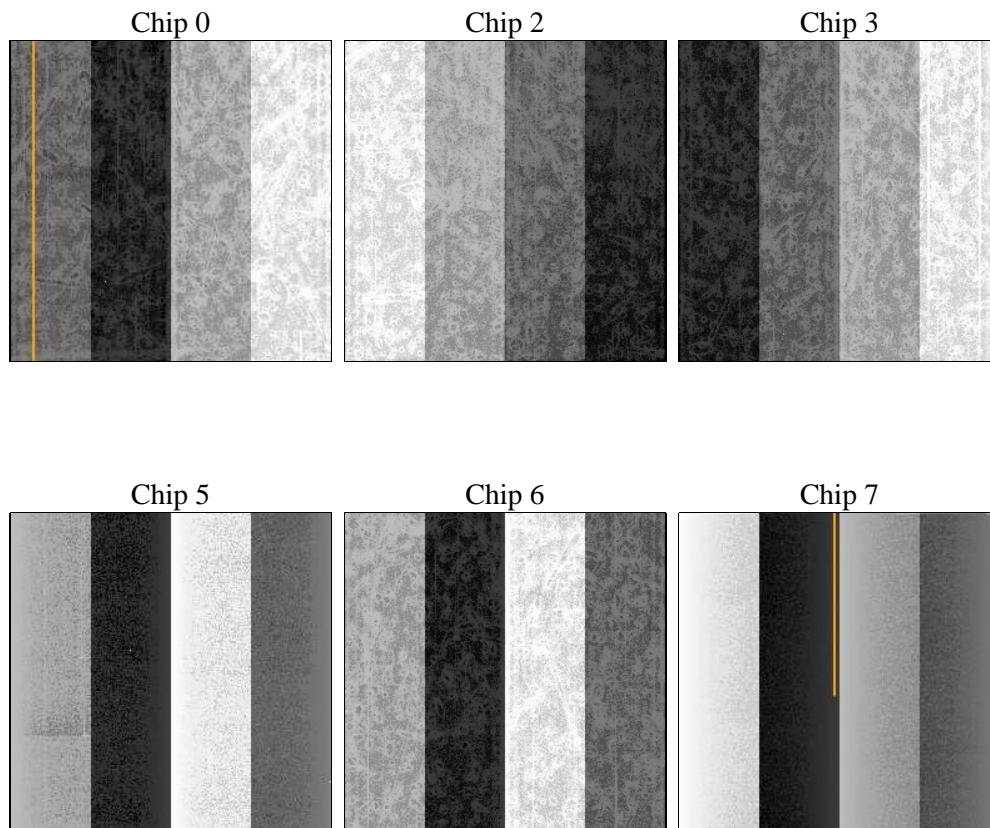
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36252.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	36214.39986515	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	36211.15887475	Sum of GTIs [s]
date	2012-02-07T14:35:26	Date and time of file creation	ontime2	36211.158794284	Sum of GTIs [s]
revision	2	Processing version of data	ontime3	36211.158814847	Sum of GTIs [s]
			ontime5	36214.39986515	Sum of GTIs [s]
			ontime6	36214.39986515	Sum of GTIs [s]
			ontime7	36214.39986515	Sum of GTIs [s]
			l1events	1673108	Number of level 1 events

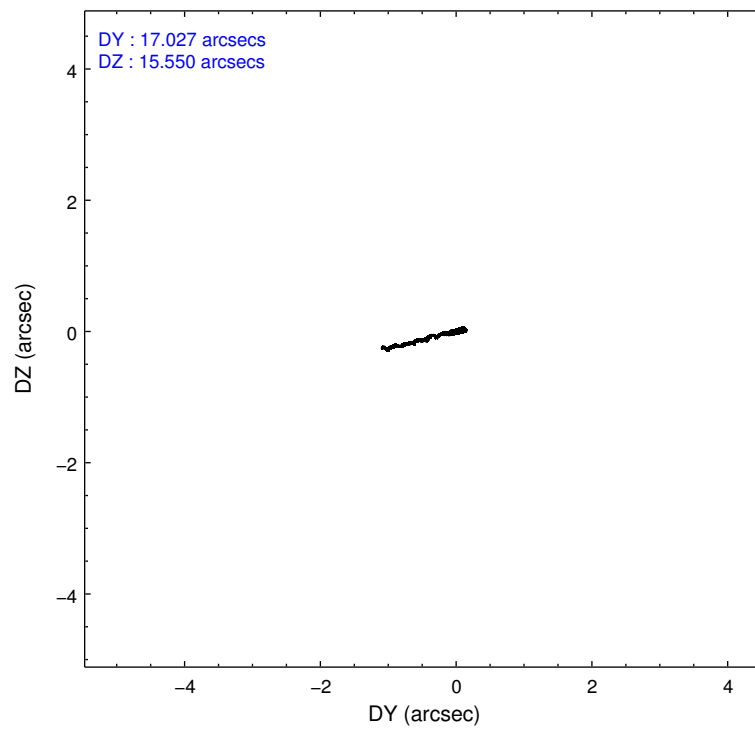
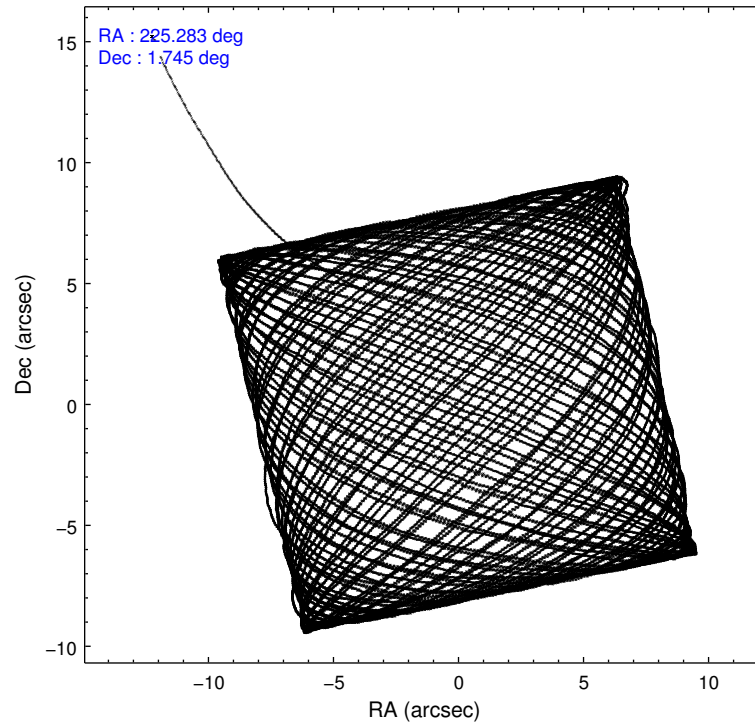
2.1.4 Events

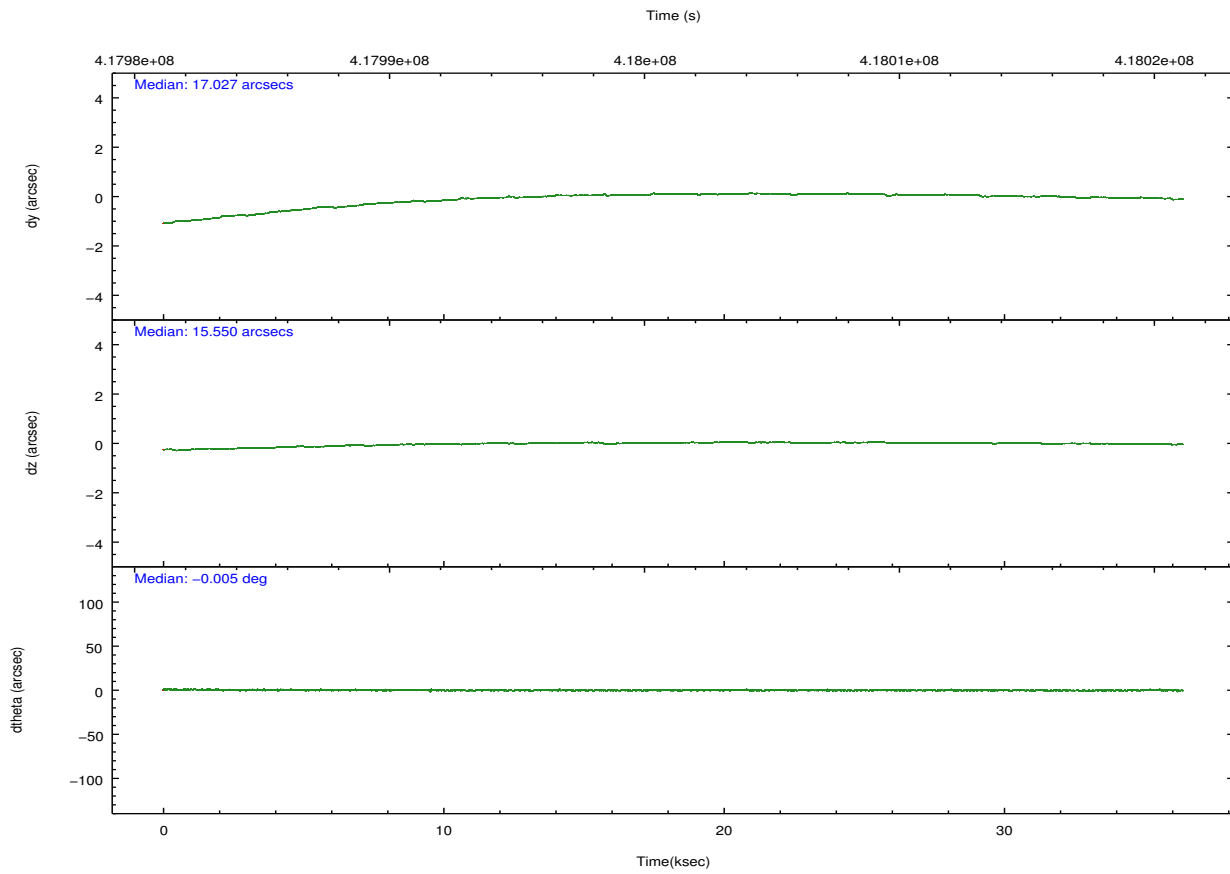
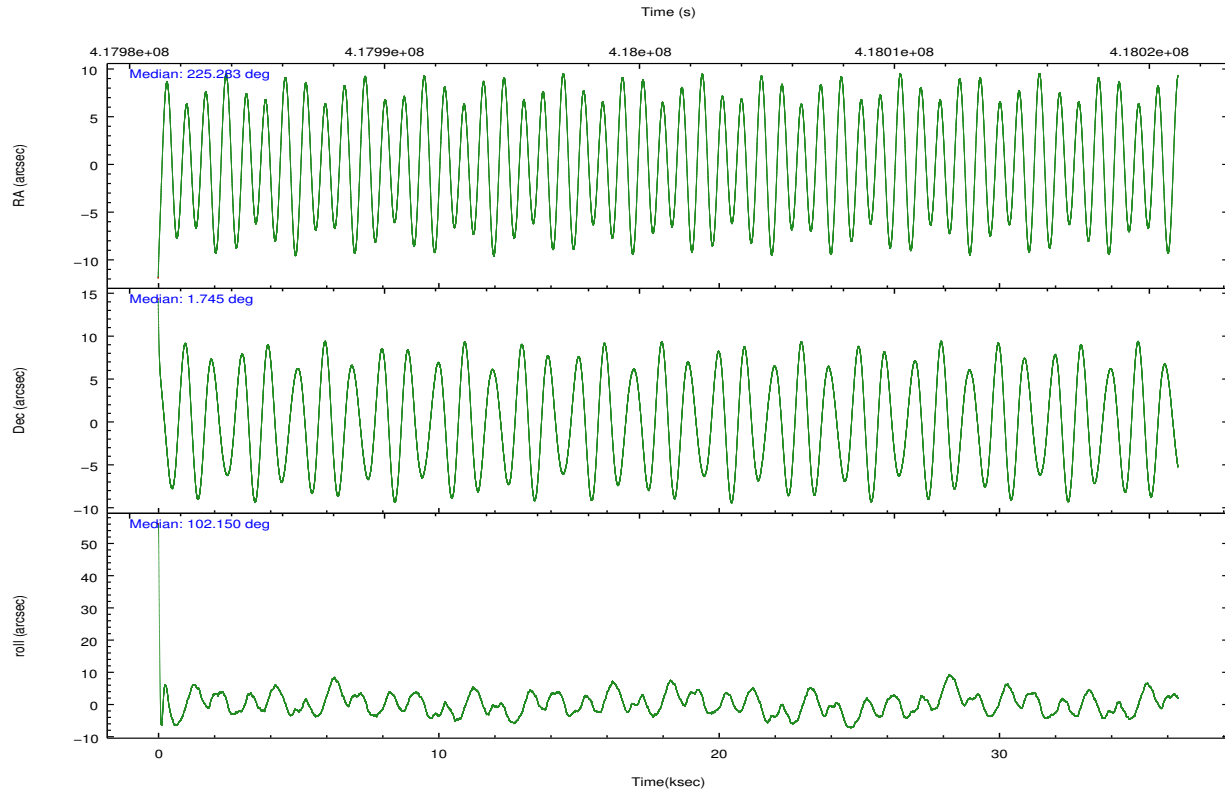
	ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7		ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	221068	234659	228612	383293	240995	364481	grade 0 events	8985	9551	9772	23328	11426	35255
rejected events	194380	208790	202847	192383	211601	165992		4%	4%	4%	6%	4%	9%
rejected %	87%	88%	88%	50%	87%	45%	grade 1 events	122	140	127	683	138	392
								0%	0%	0%	0%	0%	0%
							grade 2 events	6788	6256	5405	57645	6304	44900
								3%	2%	2%	15%	2%	12%
							grade 3 events	2809	2698	2723	7288	2801	19200
								1%	1%	1%	1%	1%	5%
							grade 4 events	2674	2613	2737	6859	2775	19097
								1%	1%	1%	1%	1%	5%
							grade 5 events	10340	9101	11082	30457	11366	31965
								4%	3%	4%	7%	4%	8%
							grade 6 events	5436	4759	5133	95844	6094	80071
								2%	2%	2%	25%	2%	21%
							grade 7 events	183914	199541	191633	161189	200091	133601
								83%	85%	83%	42%	83%	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	225.2829612498878	CCD I2 on	O3	Y
[deg] Pointing Dec	1.725467	1.745486471552039	CCD I3 on	O2	Y
[deg] Pointing Roll	101.999541	102.1567588149586	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	N	N
[s] Observation start time (MET)	417983057.184000	417981680.07388	CCD S5 on	N	N
Observation start date	2011-03-31T18:23:11	2011-03-31T18:01:20	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	418019309.184000	418020156.01337	On-chip summing requested	N	N
Observation end date	2011-04-01T04:27:23	2011-04-01T04:42:36	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



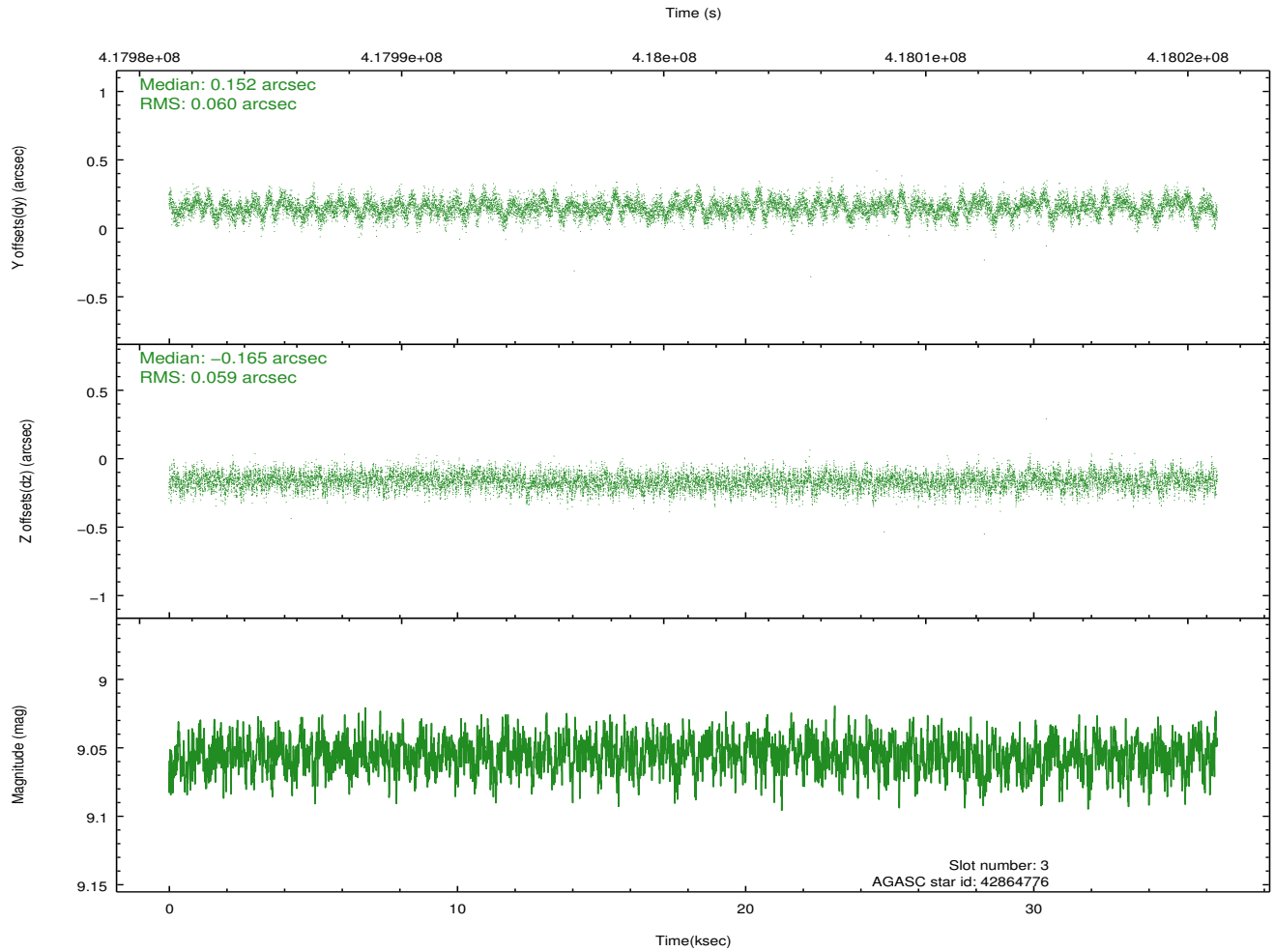
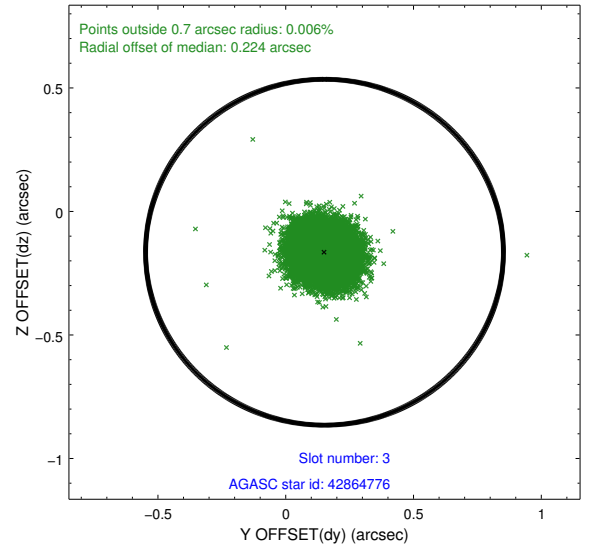
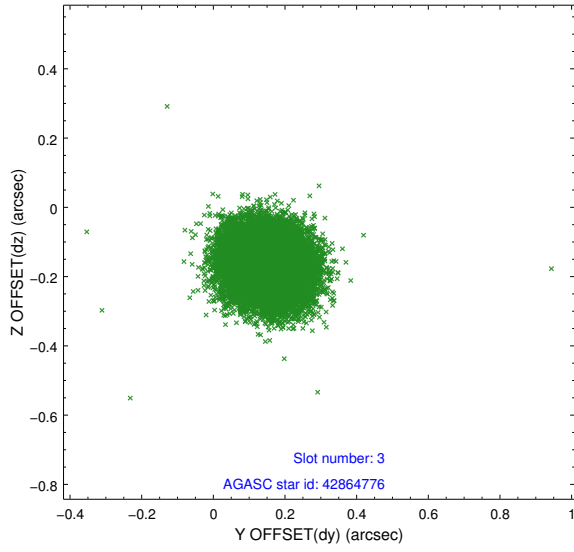


Slot Statistics

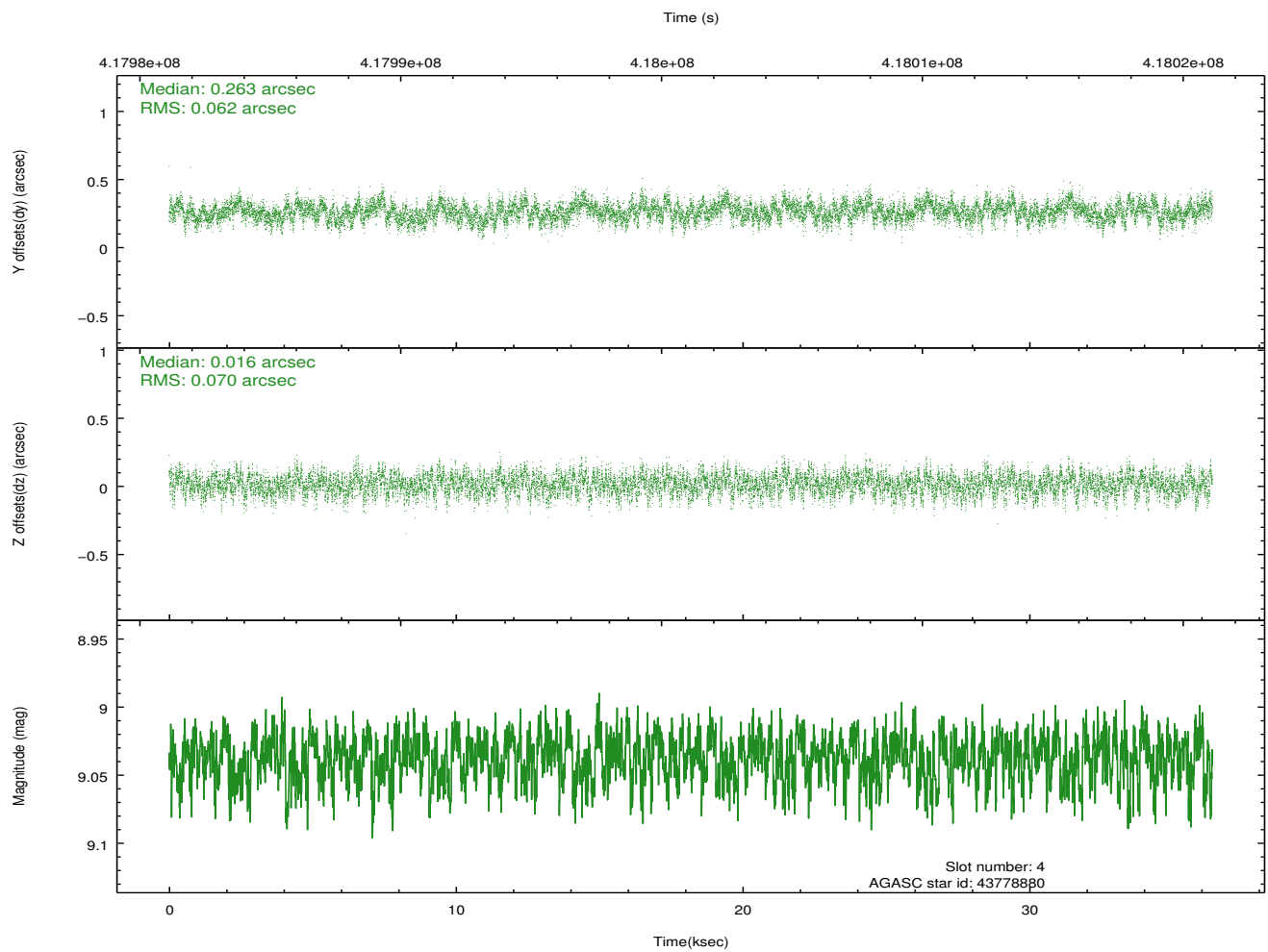
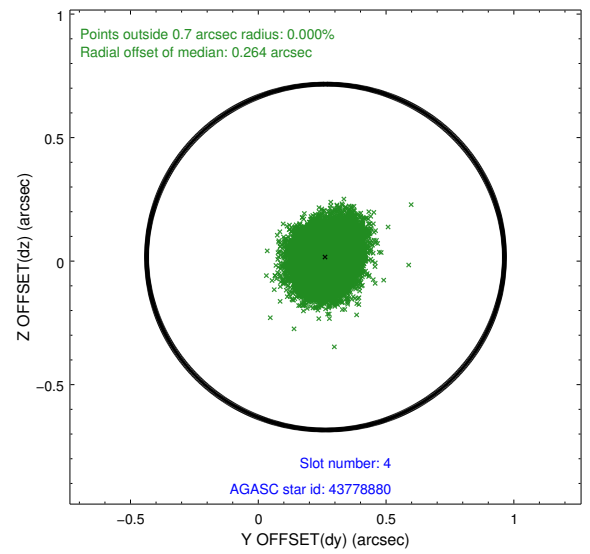
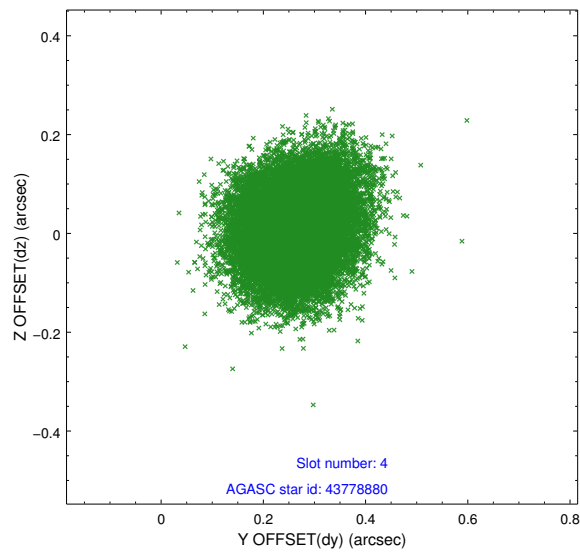
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.97	8874	-0.098	-0.023	0.009	0.014	0.000000	0.000000	-769.99	-1736.90
1	FID	ACIS-S-4	7.05	8870	0.204	0.054	0.007	0.012	0.000000	0.000000	2143.55	171.67
2	FID	ACIS-S-5	7.07	8873	-0.136	-0.022	0.008	0.013	0.000000	0.000000	-1822.86	165.25
3	GUIDE	42864776	9.06	17733	0.152	-0.165	0.090	0.144	224.993302	1.618488	-146.48	1165.80
4	GUIDE	43778880	9.04	17660	0.263	0.016	0.100	0.159	225.720242	1.617889	-690.08	-1392.90
5	GUIDE	43782432	8.06	17740	-0.147	-0.059	0.060	0.100	225.298629	1.853875	454.69	-85.65
6	GUIDE	44304040	8.12	17740	-0.186	0.157	0.074	0.123	225.823407	2.372575	1889.39	-2319.93
7	GUIDE	44305752	8.85	17734	-0.080	0.053	0.106	0.176	225.685277	2.473250	2347.16	-1909.20

2.4 Star Slots

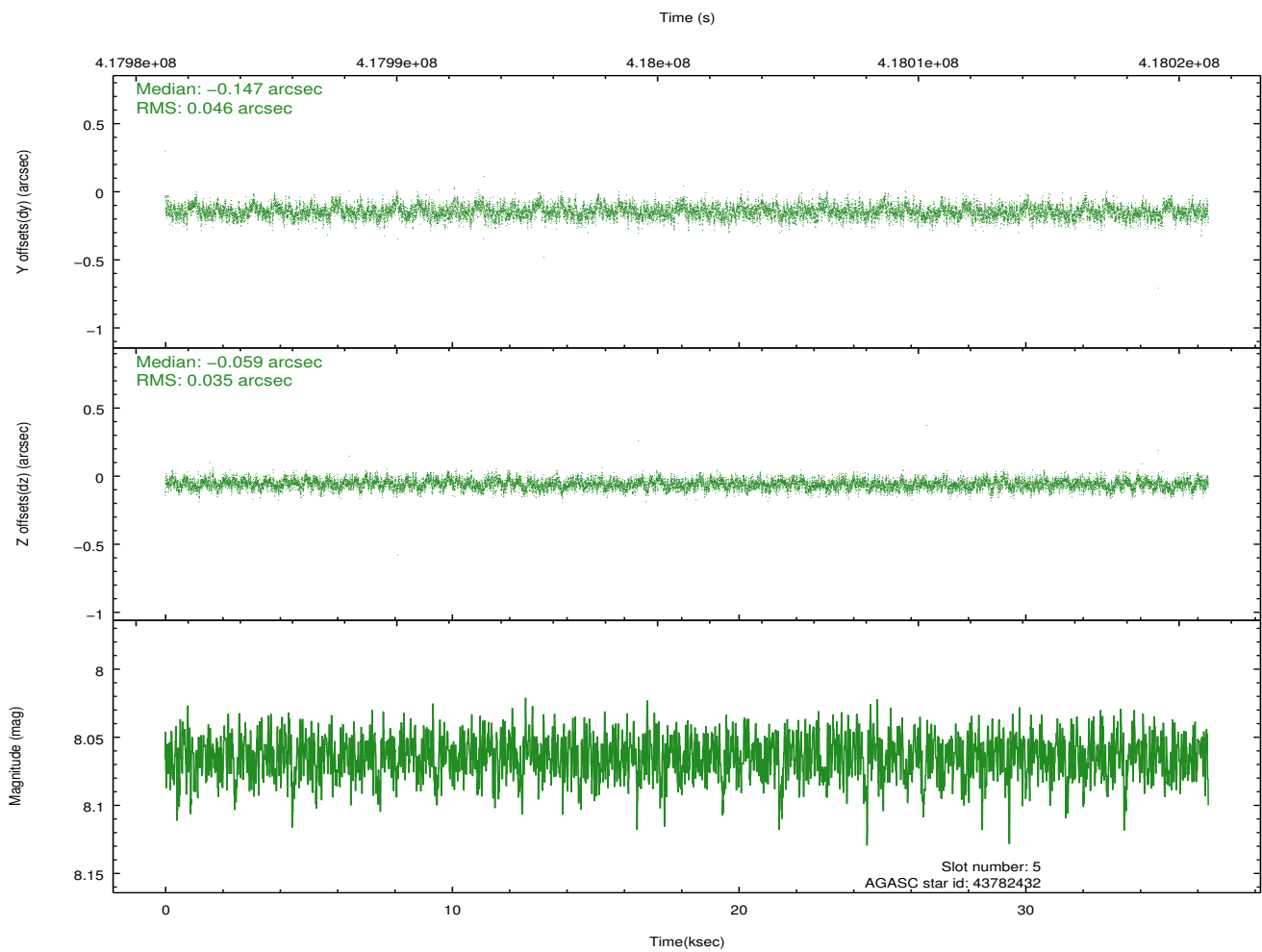
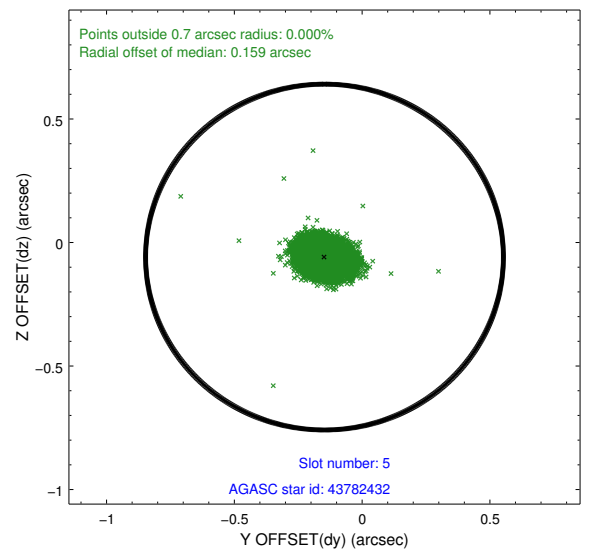
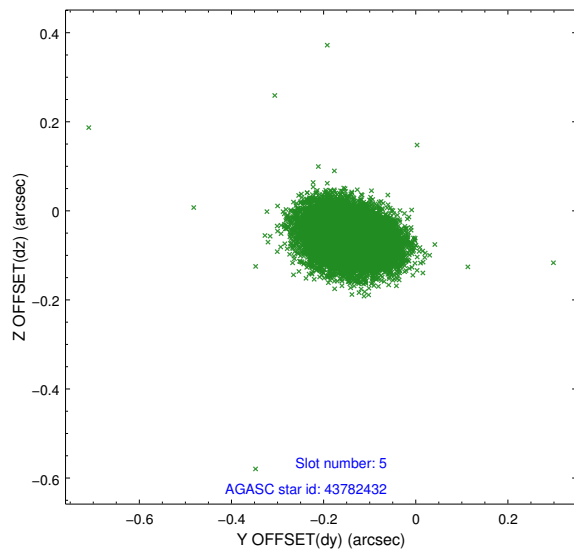
2.4.1 Slot 3



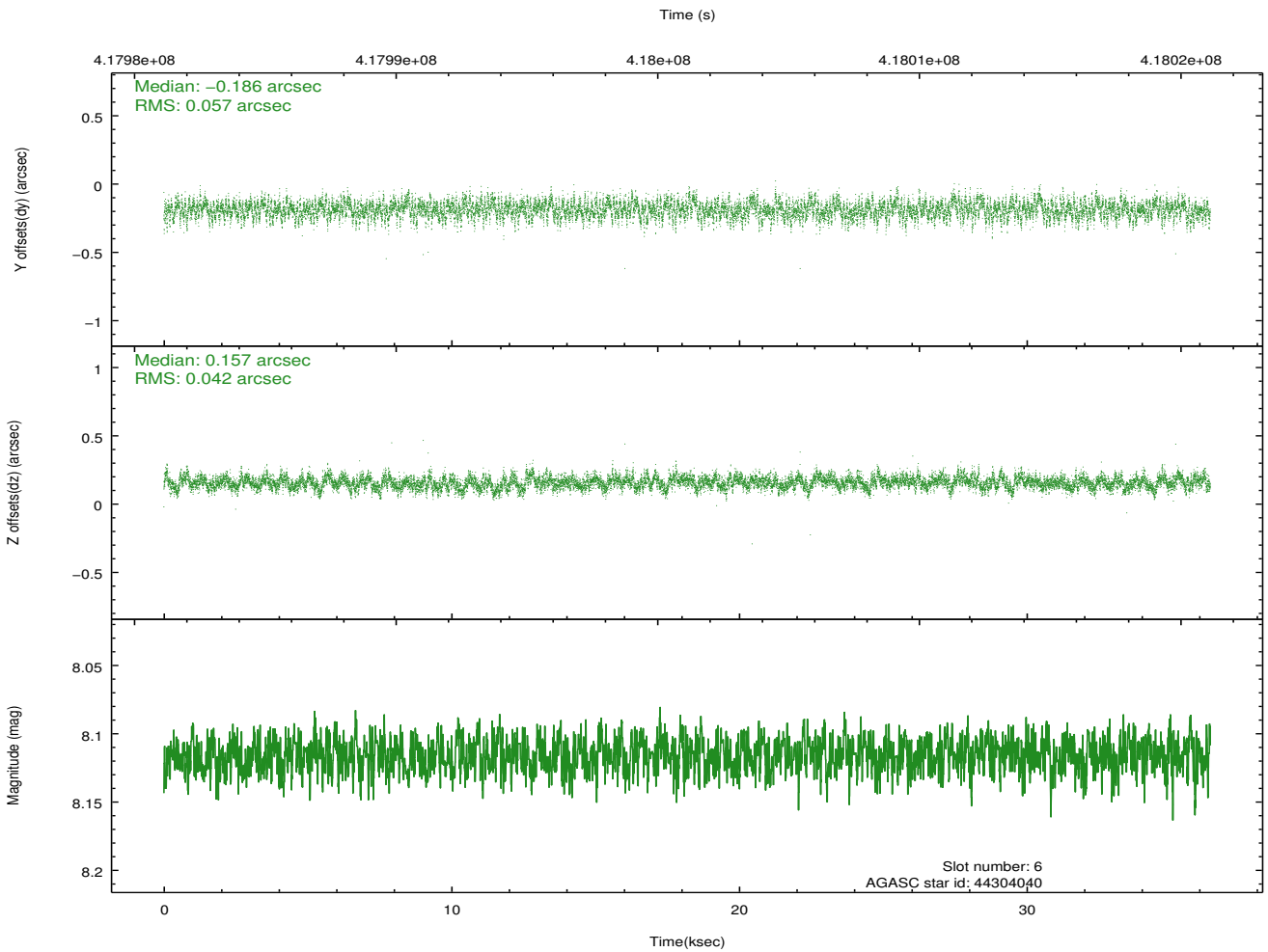
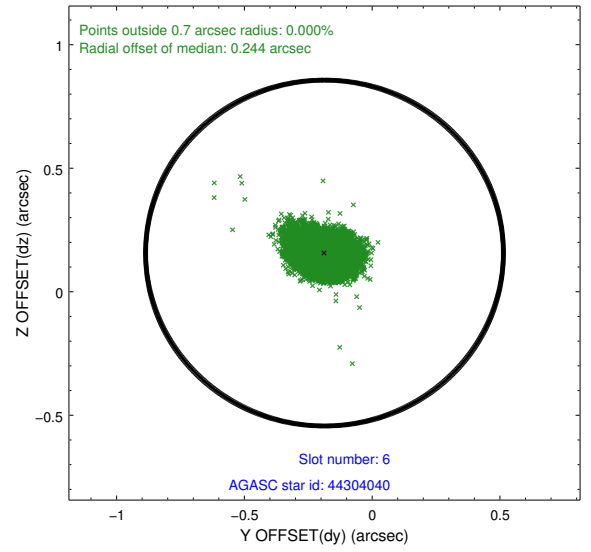
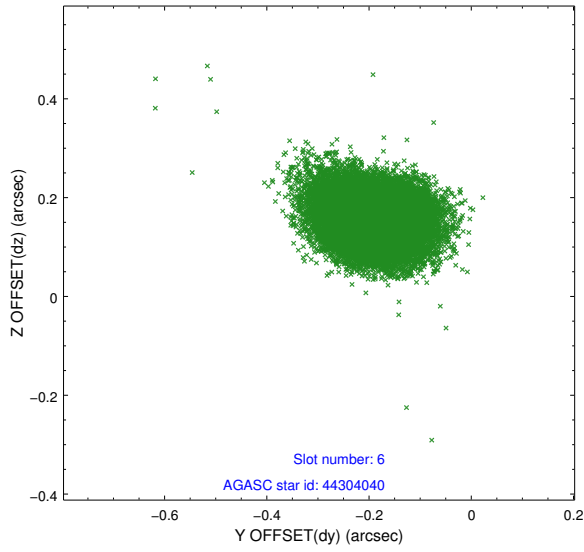
2.4.2 Slot 4



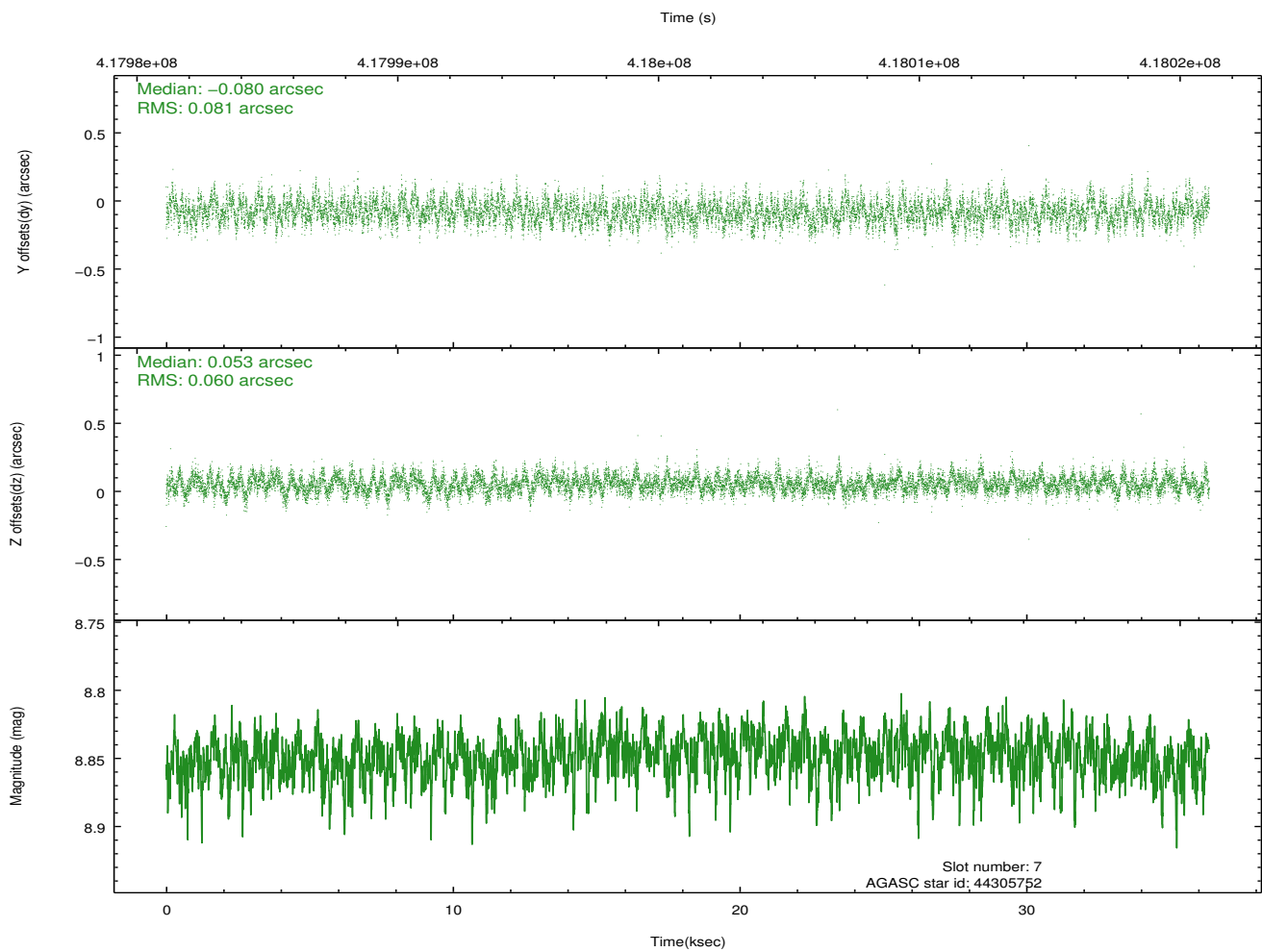
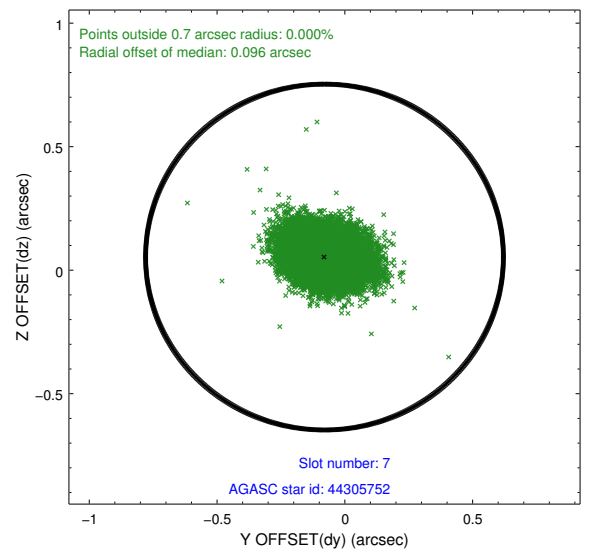
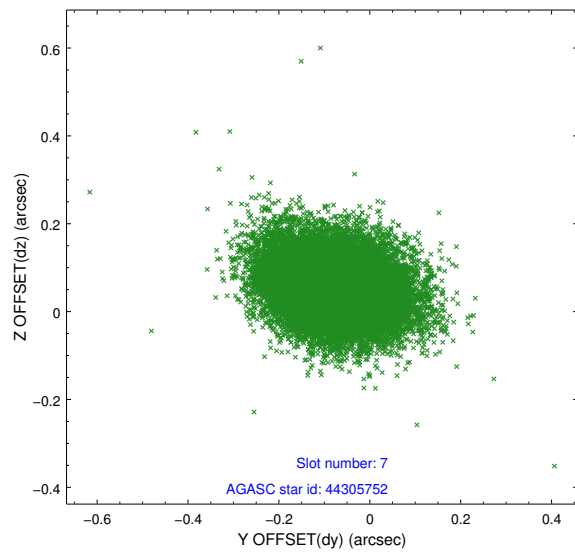
2.4.3 Slot 5



2.4.4 Slot 6

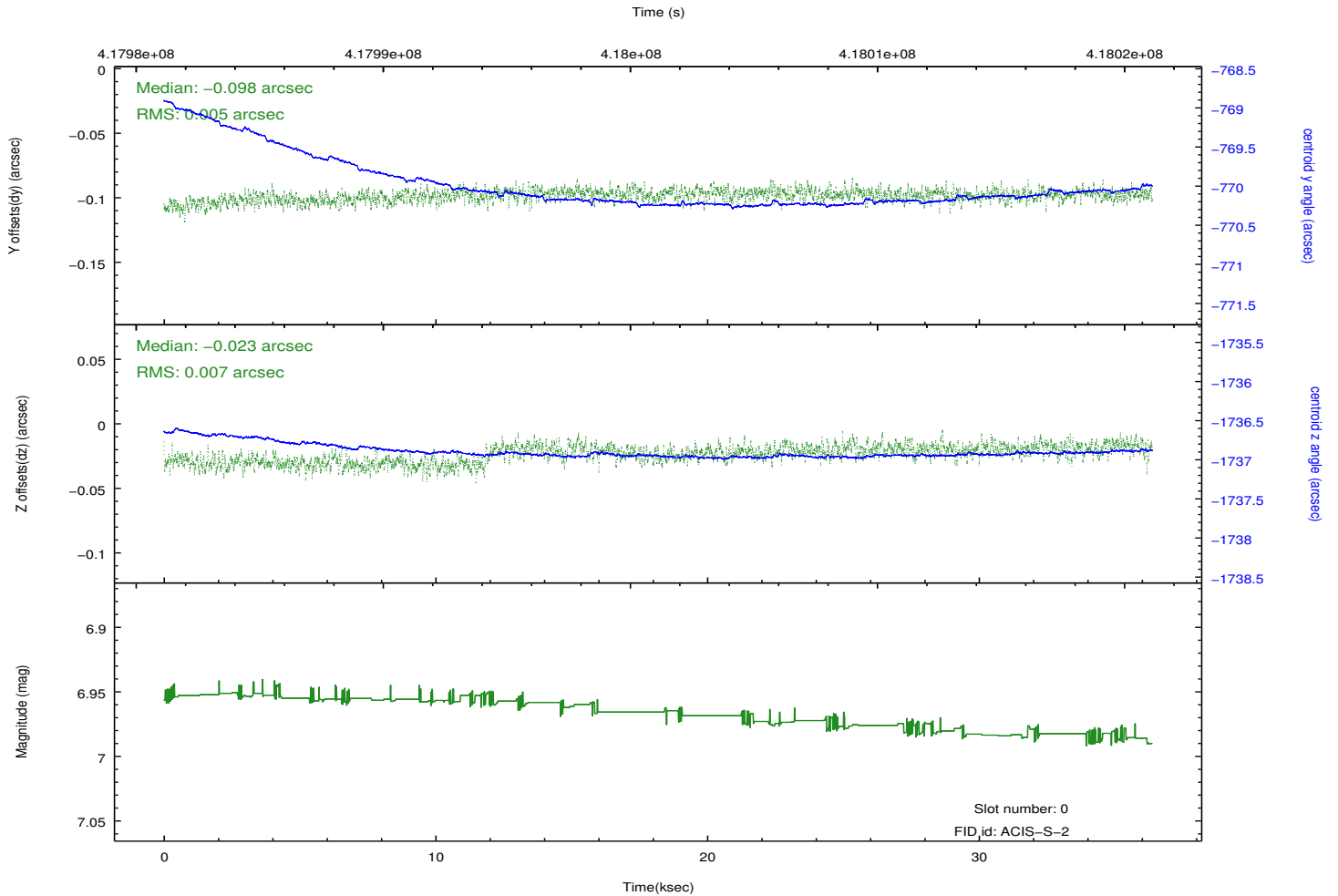
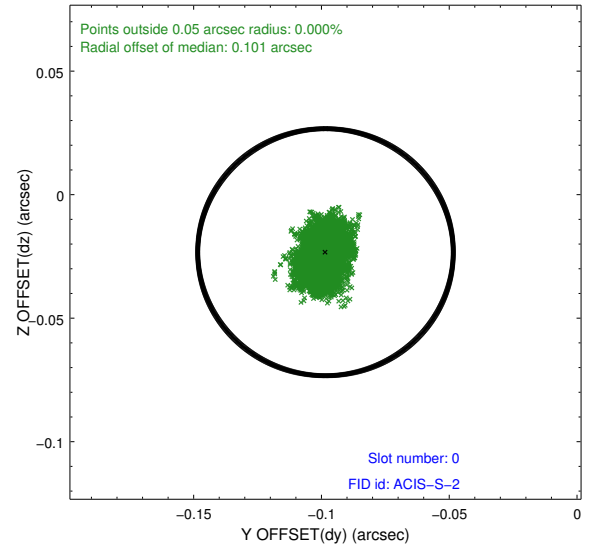
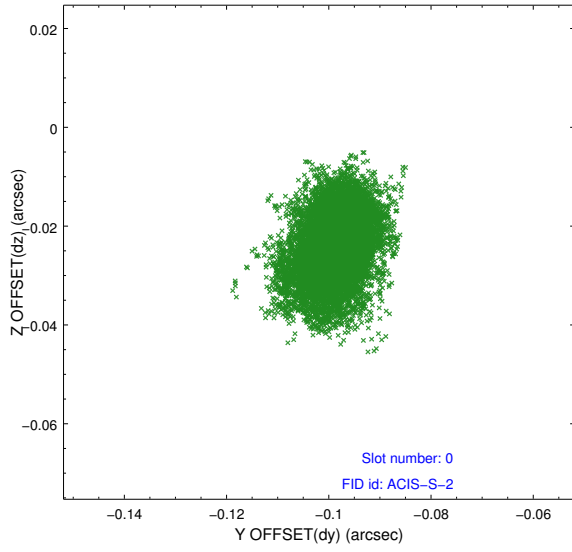


2.4.5 Slot 7

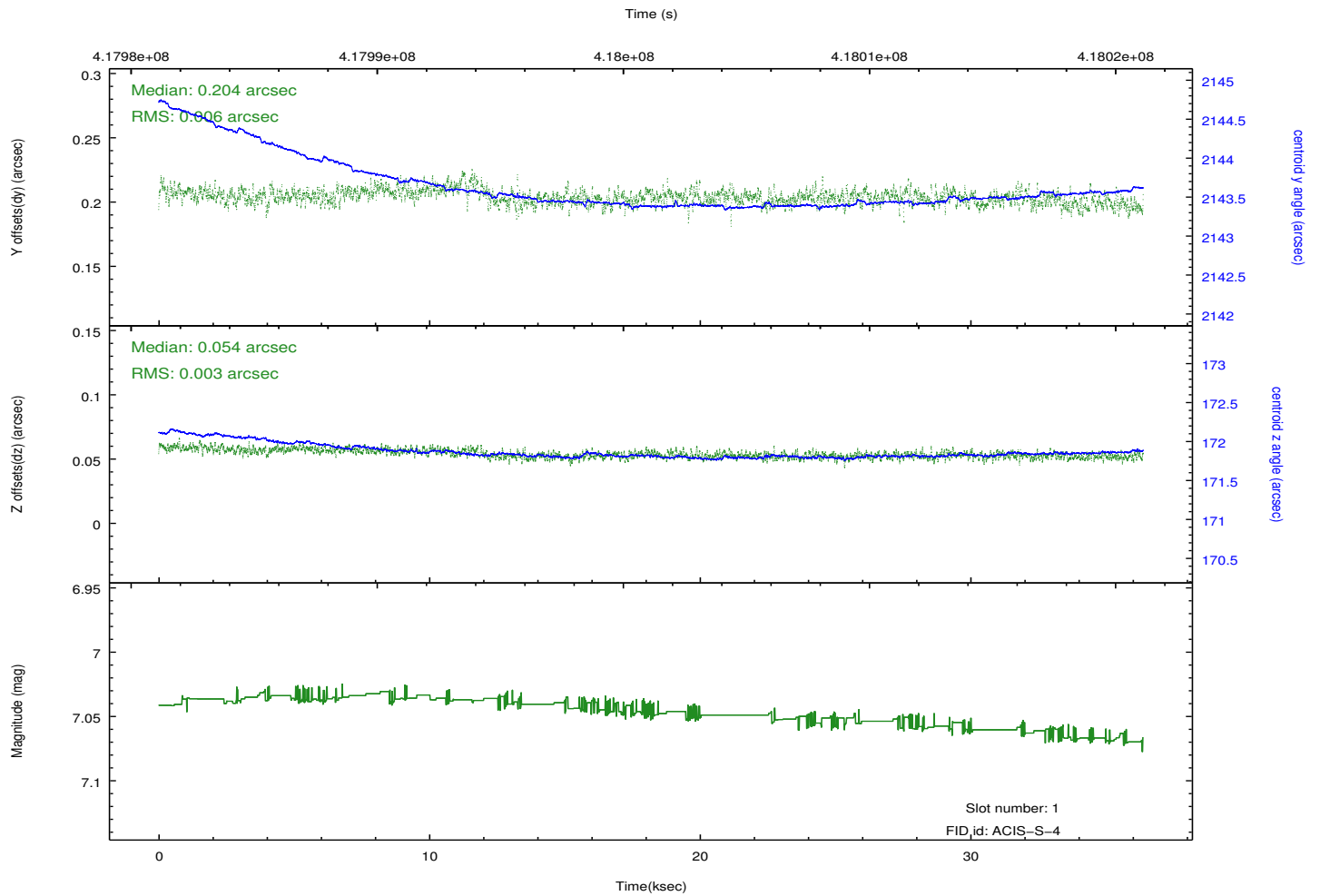
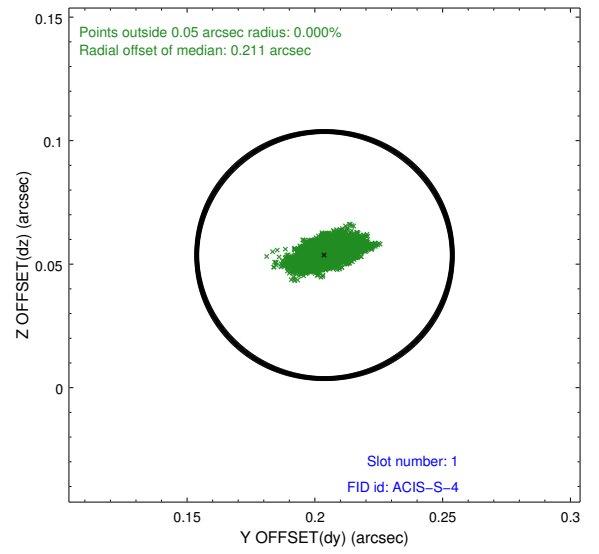
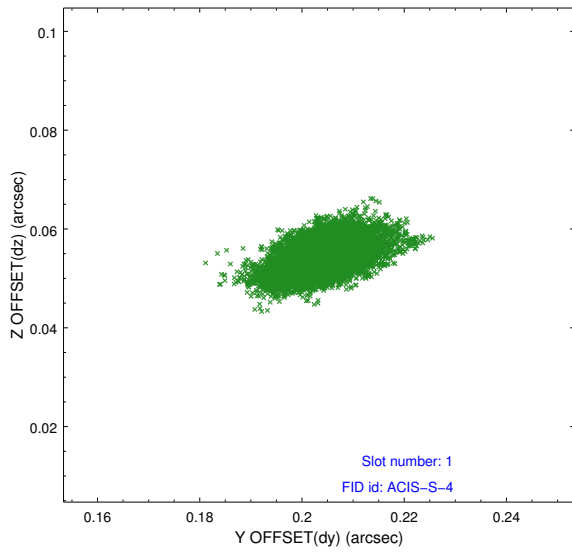


2.5 FID Slots

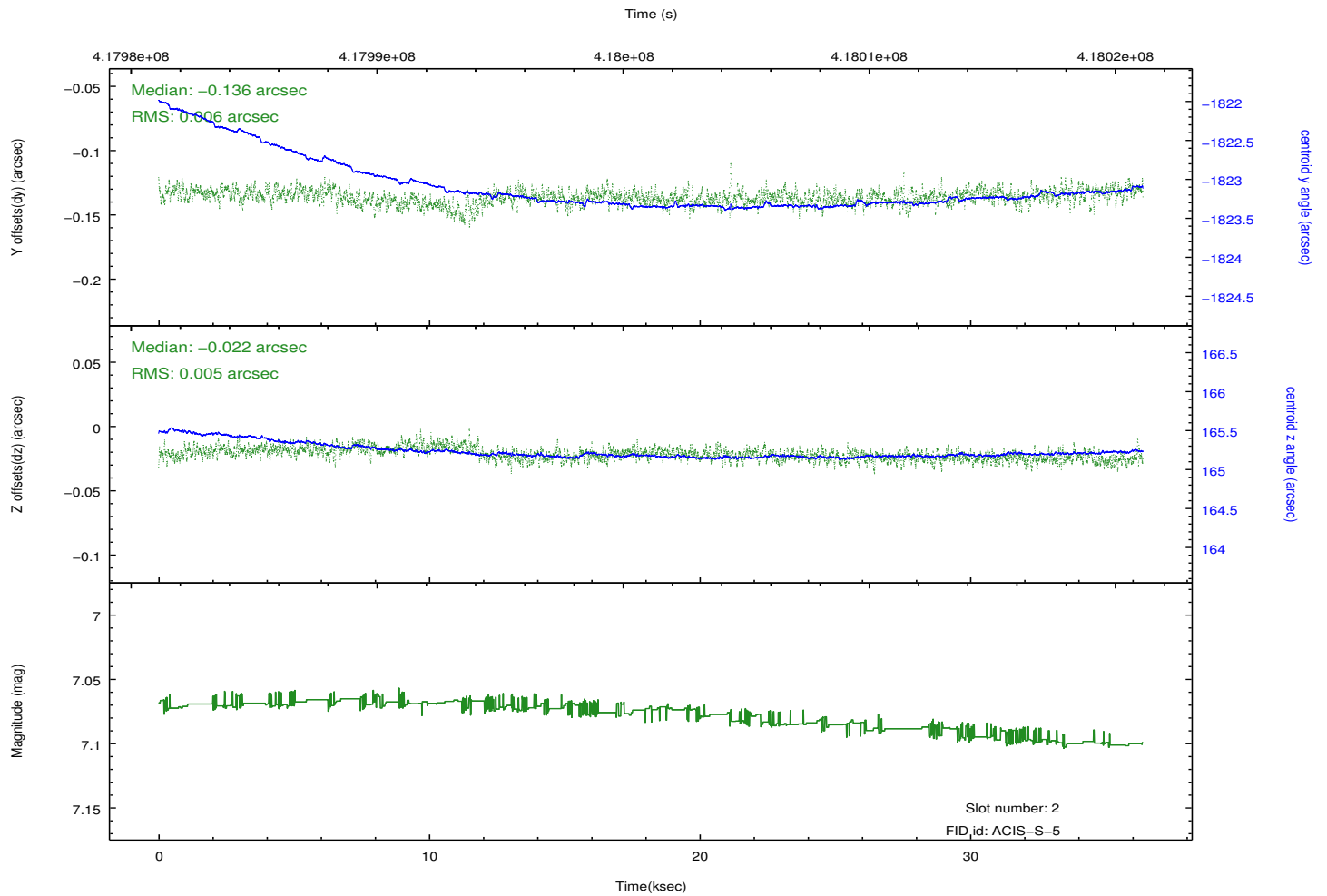
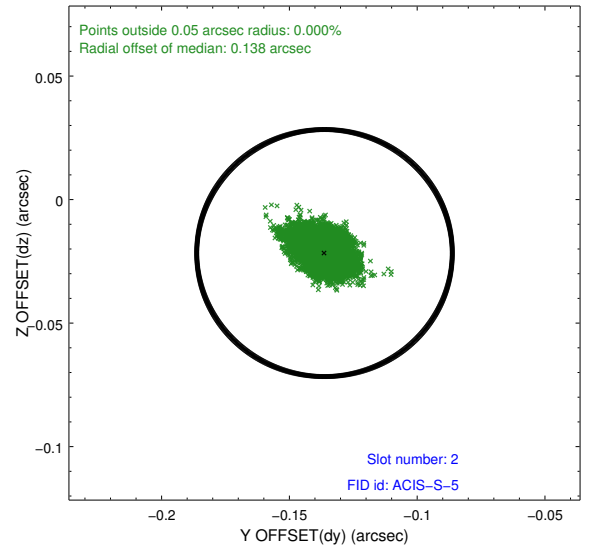
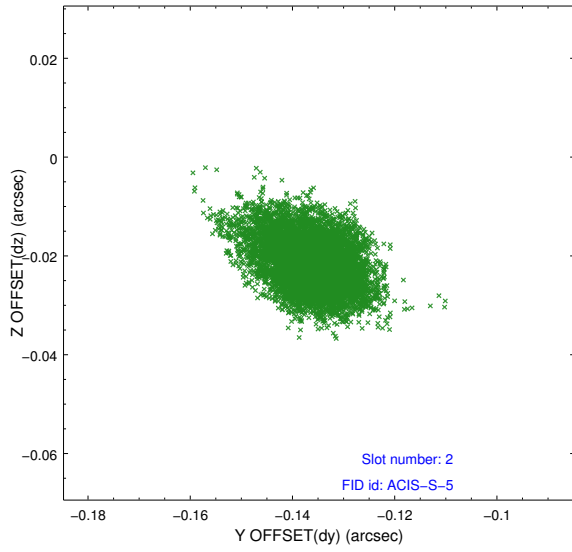
2.5.1 Slot 0



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	36.21439986515

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