

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12280 - L2 Version 2
Chandra X-Ray Center

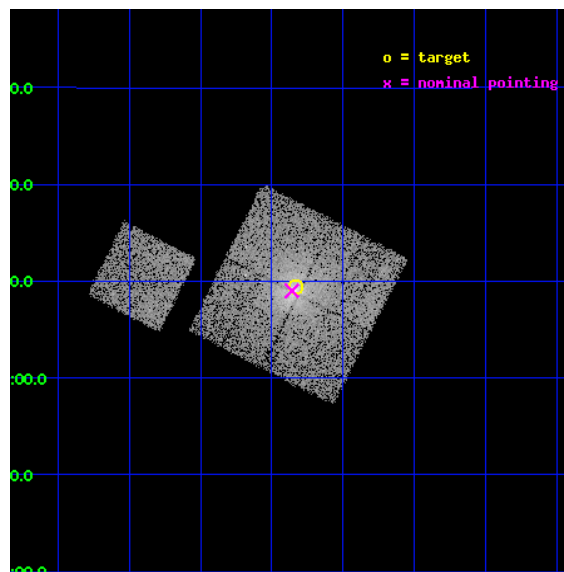
L2 Processing Date : Feb 2 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

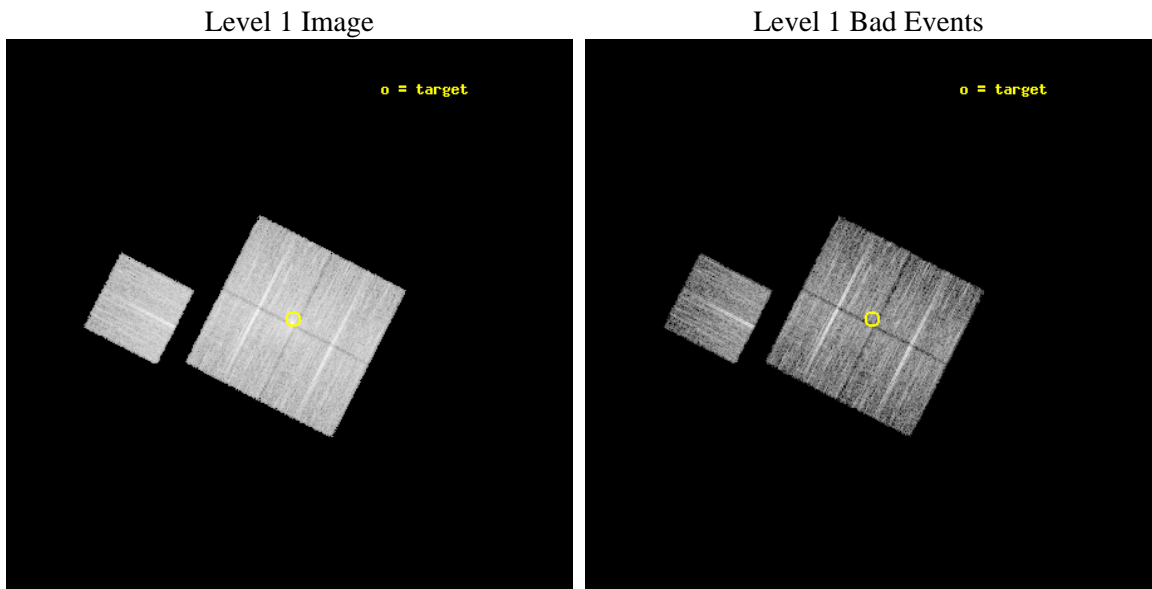
seq_num	800999	Sequence number
obs_id	12280	Observation id
title	A 'CENTENNIAL' SAMPLE OF THE 100 X-RAY BRIGHTEST GALAXY CLUSTERS	
observer	Dr. Alexey Vikhlinin	Principal investigator
object	A2665	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	357.709167	Observer's specified target RA [deg]
dec_targ	6.155917	Observer's specified target Dec [deg]
ra_nom	357.7148354902	Nominal RA [deg]
dec_nom	6.1501828265011	Nominal Dec [deg]
roll_nom	297.10755023907	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10052.218938529	Sum of GTIs [s]
livetime	9920.8792977617	Livetime [s]
ontime0	10052.09581852	Sum of GTIs [s]
ontime1	10045.854937792	Sum of GTIs [s]
ontime2	10052.177898526	Sum of GTIs [s]
ontime3	10052.218938529	Sum of GTIs [s]
ontime6	10052.054778516	Sum of GTIs [s]
l2events	46086	Number of level 2 events



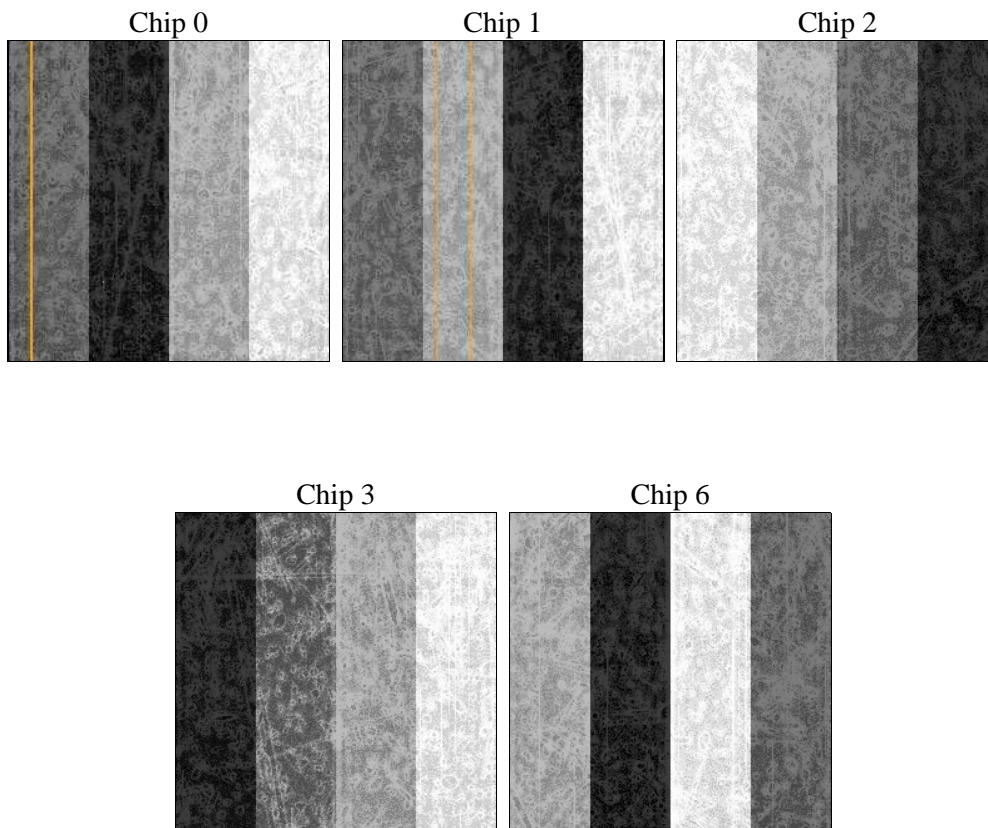
2 OBI

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	10052.218938529	Sum of GTIs [s]
caldbver	4.4.7	 	ontime0	10052.09581852	Sum of GTIs [s]
date	2012-02-02T04:39:49	Date and time of file creation	ontime1	10045.854937792	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10052.177898526	Sum of GTIs [s]
			ontime3	10052.218938529	Sum of GTIs [s]
			ontime6	10052.054778516	Sum of GTIs [s]
			l1events	355374	Number of level 1 events

2.1.4 Events

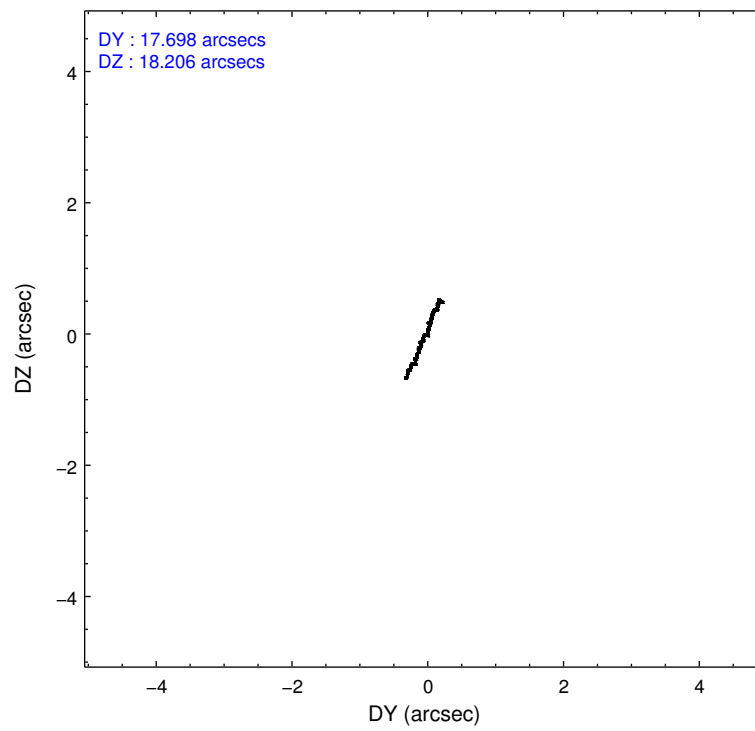
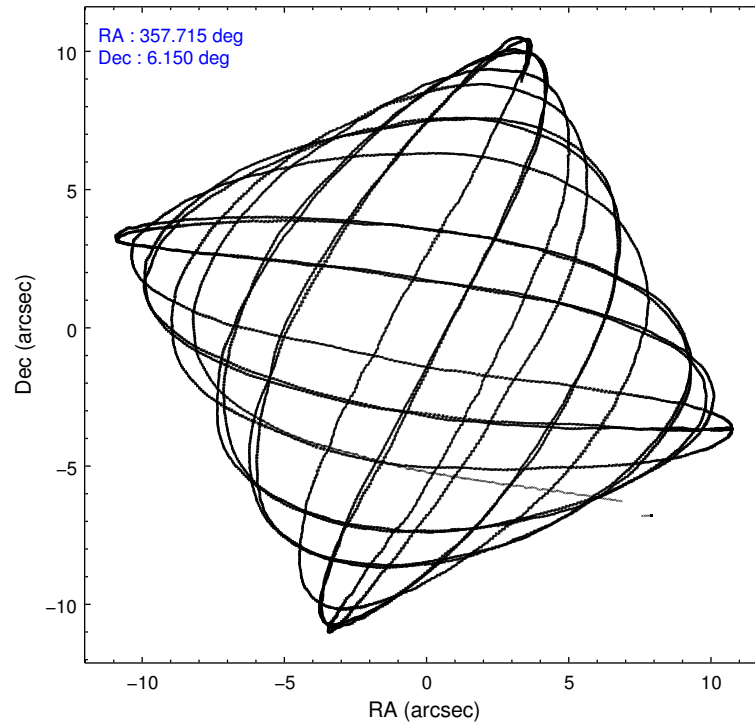
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	66277	69397	77710	72587	69403
rejected events	56519	57843	66073	60570	61293
rejected %	85%	83%	85%	83%	88%

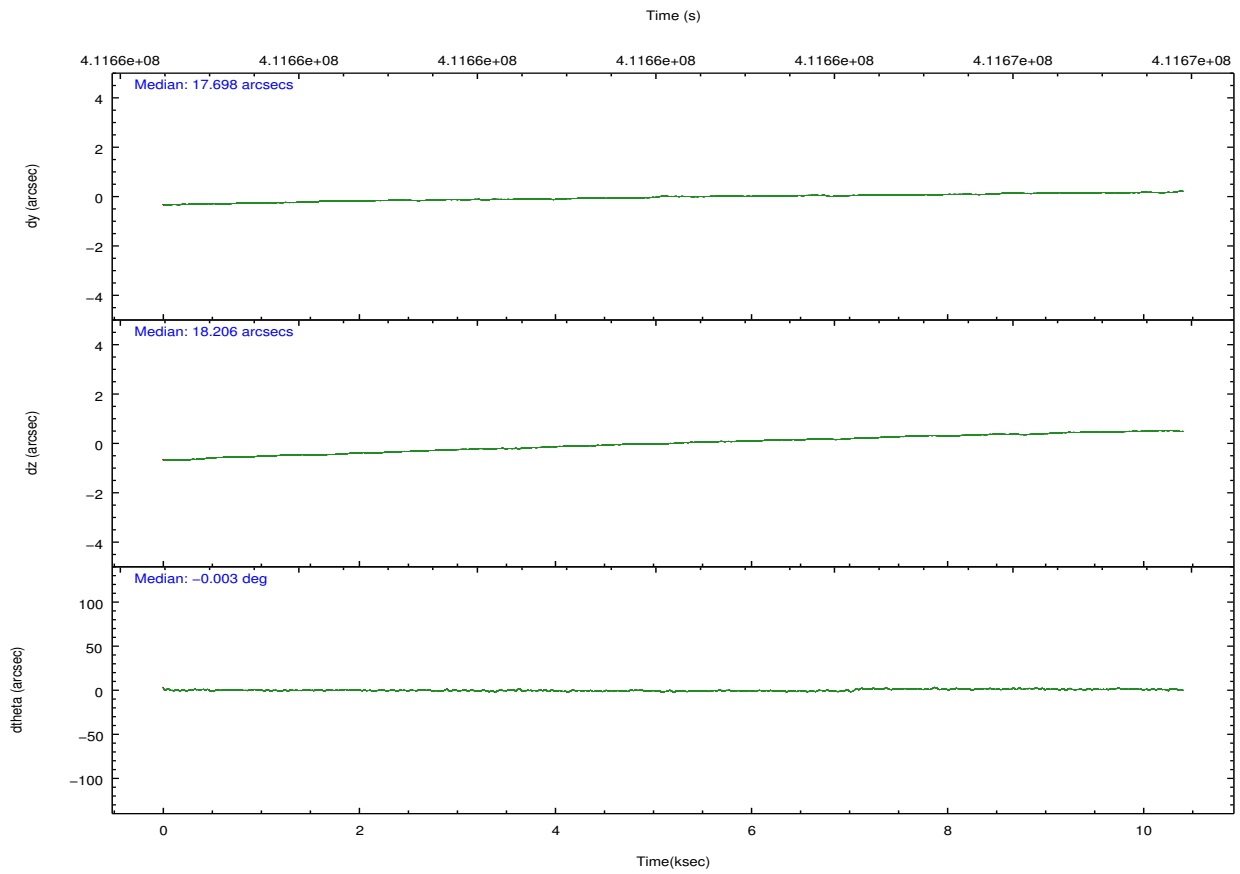
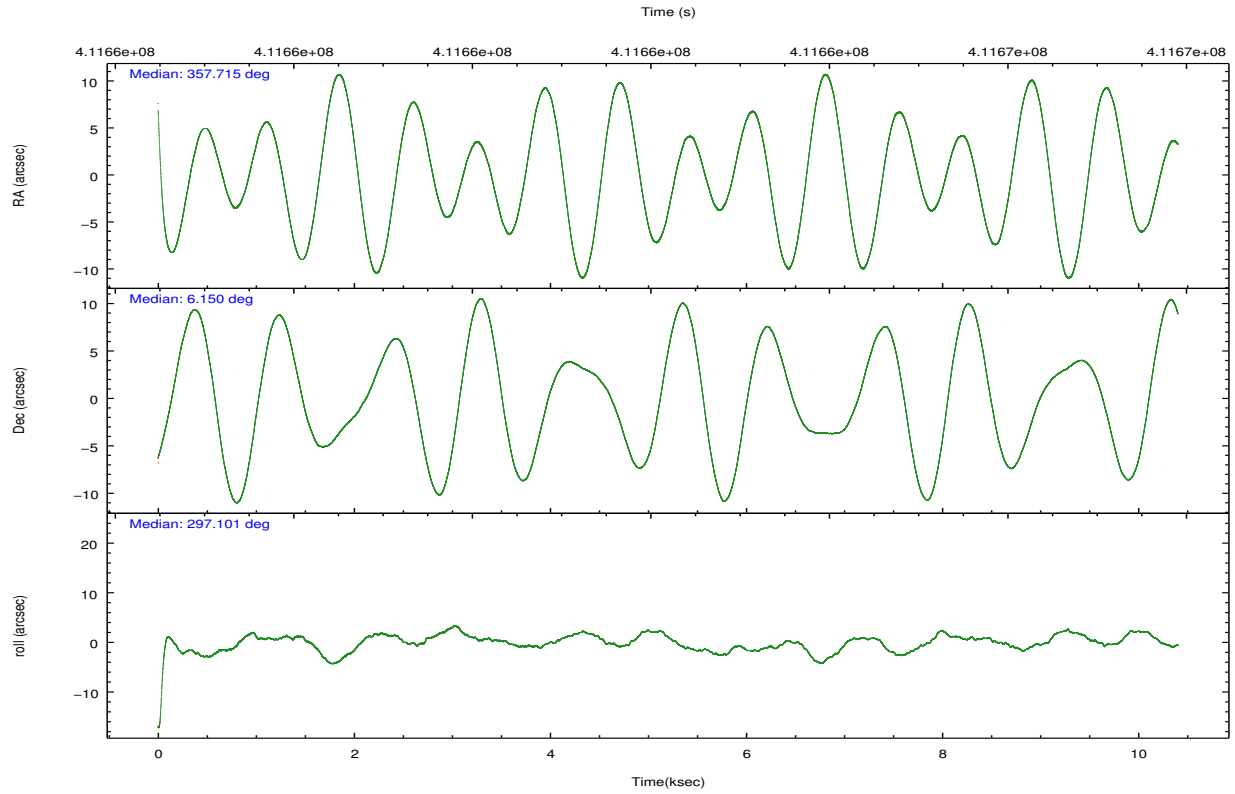
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4283	5433	6072	6364	2849
	6%	7%	7%	8%	4%
grade 1 events	51	56	48	67	25
	0%	0%	0%	0%	0%
grade 2 events	2191	2406	2319	2211	1837
	3%	3%	2%	3%	2%
grade 3 events	846	917	819	963	868
	1%	1%	1%	1%	1%
grade 4 events	850	984	882	905	835
	1%	1%	1%	1%	1%
grade 5 events	3010	3206	2849	3324	3293
	4%	4%	3%	4%	4%
grade 6 events	1596	1825	1556	1584	1726
	2%	2%	2%	2%	2%
grade 7 events	53450	54570	63165	57169	57970
	80%	78%	81%	78%	83%

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	357.691573	357.7148354901977	CCD I2 on	Y	Y
[deg] Pointing Dec	6.164976	6.150182826501084	CCD I3 on	Y	Y
[deg] Pointing Roll	296.901392	297.1075502390685	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)	411657392.184000	411656355.54643	CCD S5 on	N	N
Observation start date	2011-01-17T13:15:26	2011-01-17T12:59:15	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	411667392.184000	411667733.04701	On-chip summing requested	N	N
Observation end date	2011-01-17T16:02:06	2011-01-17T16:08:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



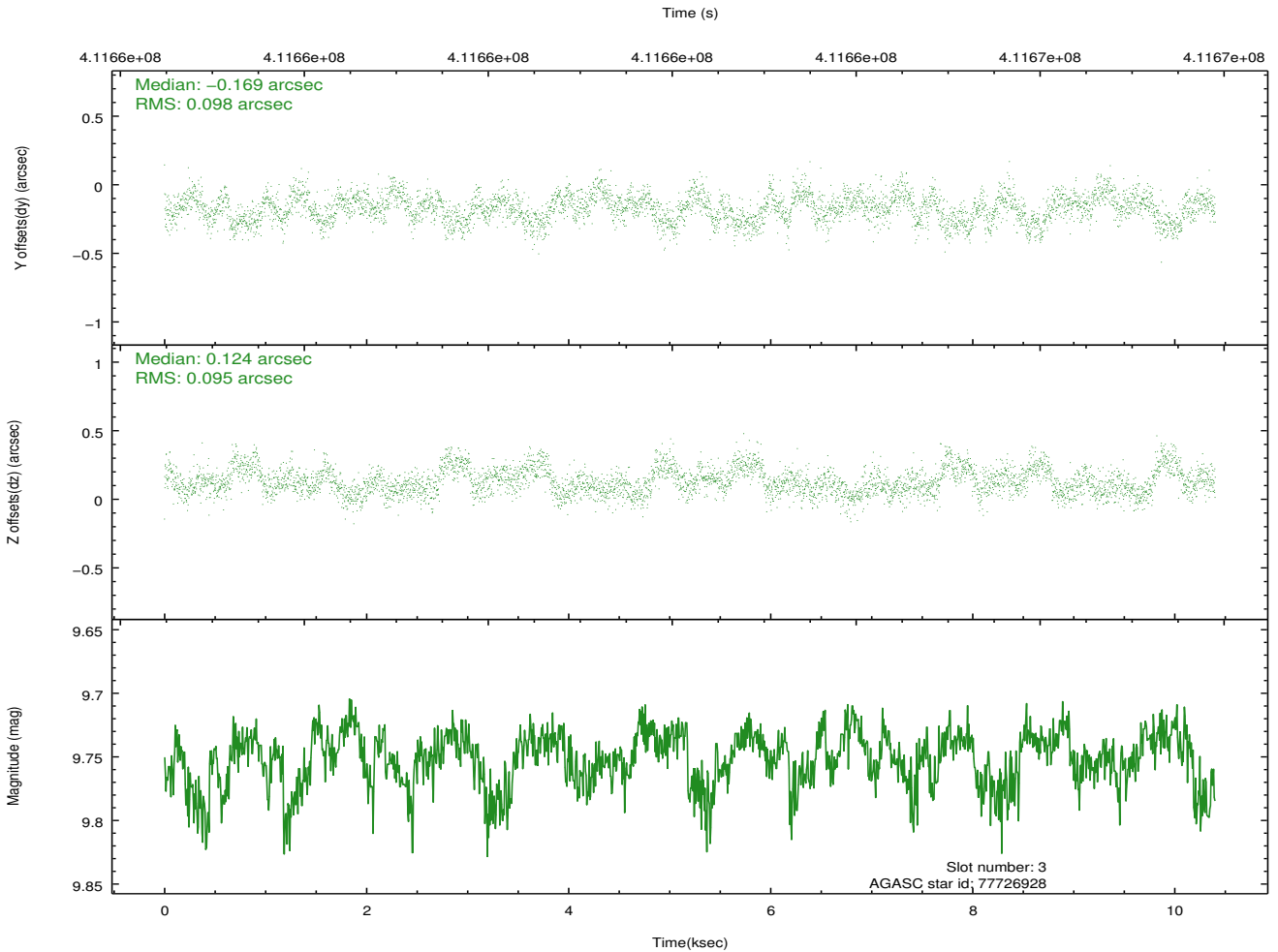
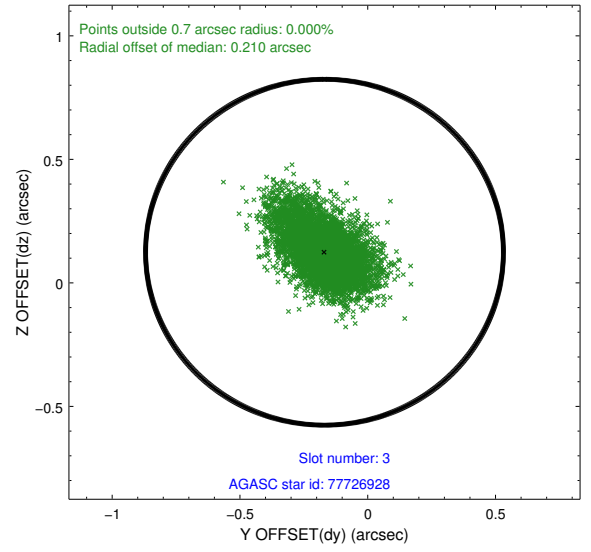
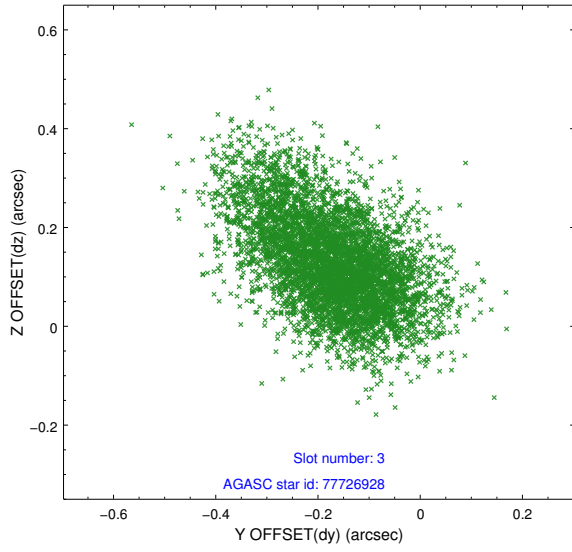


Slot Statistics

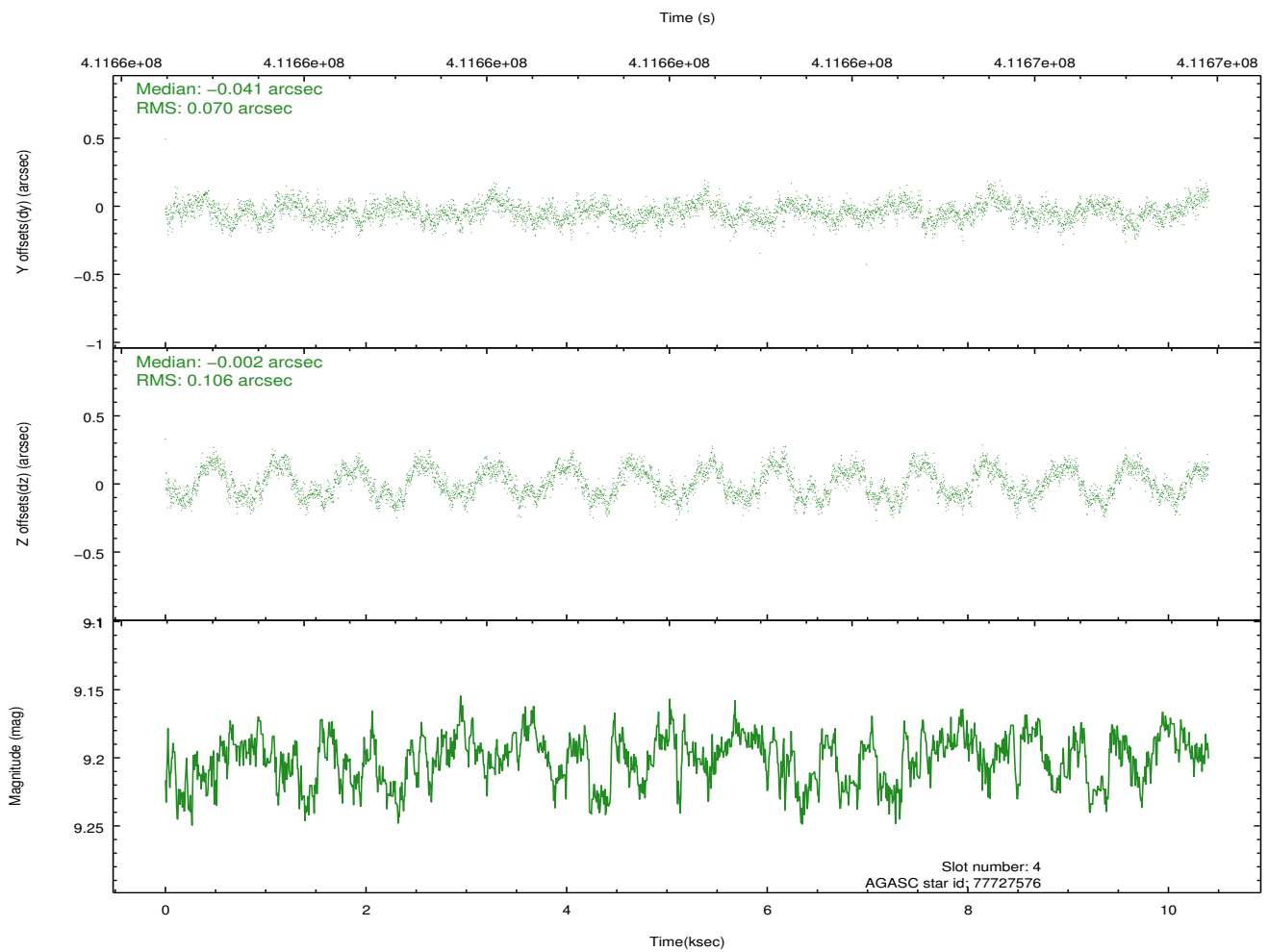
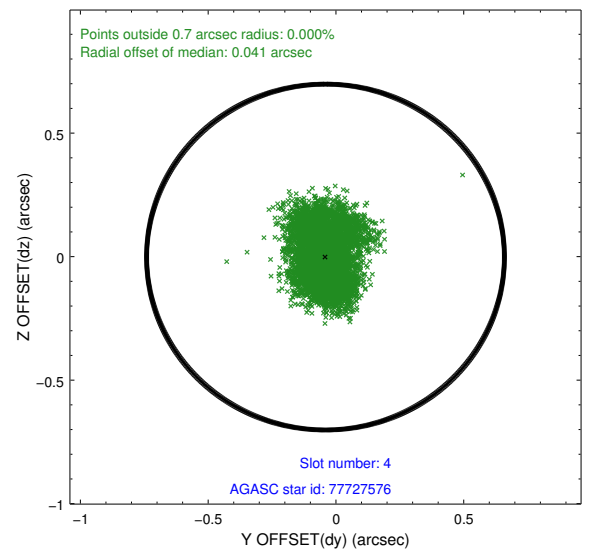
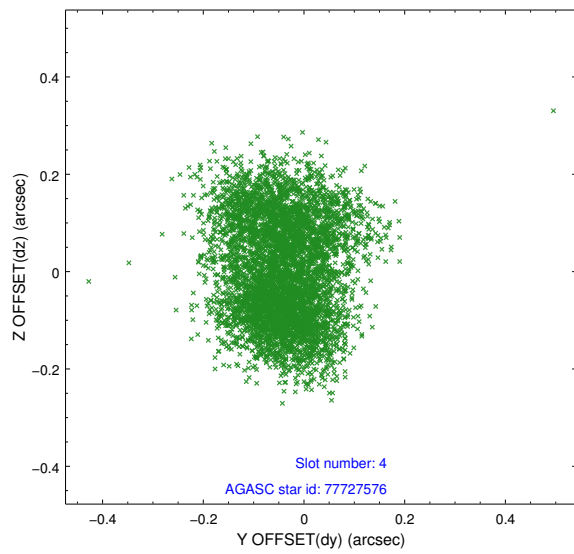
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.02	2538	-0.030	-0.041	0.037	0.050	0.000000	0.000000	921.71	-841.89
1	FID	ACIS-I-4	6.96	2538	0.218	0.068	0.029	0.038	0.000000	0.000000	2142.25	1057.78
2	FID	ACIS-I-5	7.00	2537	-0.284	0.044	0.015	0.022	0.000000	0.000000	-1825.93	1056.12
3	GUIDE	77726928	9.75	5068	-0.169	0.124	0.142	0.242	357.811022	6.892335	-2142.17	1565.36
4	GUIDE	77727576	9.20	5071	-0.041	-0.002	0.138	0.208	358.094226	5.928615	1411.20	902.26
5	GUIDE	77731288	8.00	5069	-0.034	0.044	0.092	0.146	357.652371	6.019605	404.31	-361.91
6	GUIDE	77731416	9.65	5068	0.242	-0.223	0.137	0.223	357.501495	5.398700	2152.79	-1855.58
7	GUIDE	77734800	9.72	5055	-0.001	0.033	0.145	0.244	358.220466	6.544574	-363.07	2305.44

2.4 Star Slots

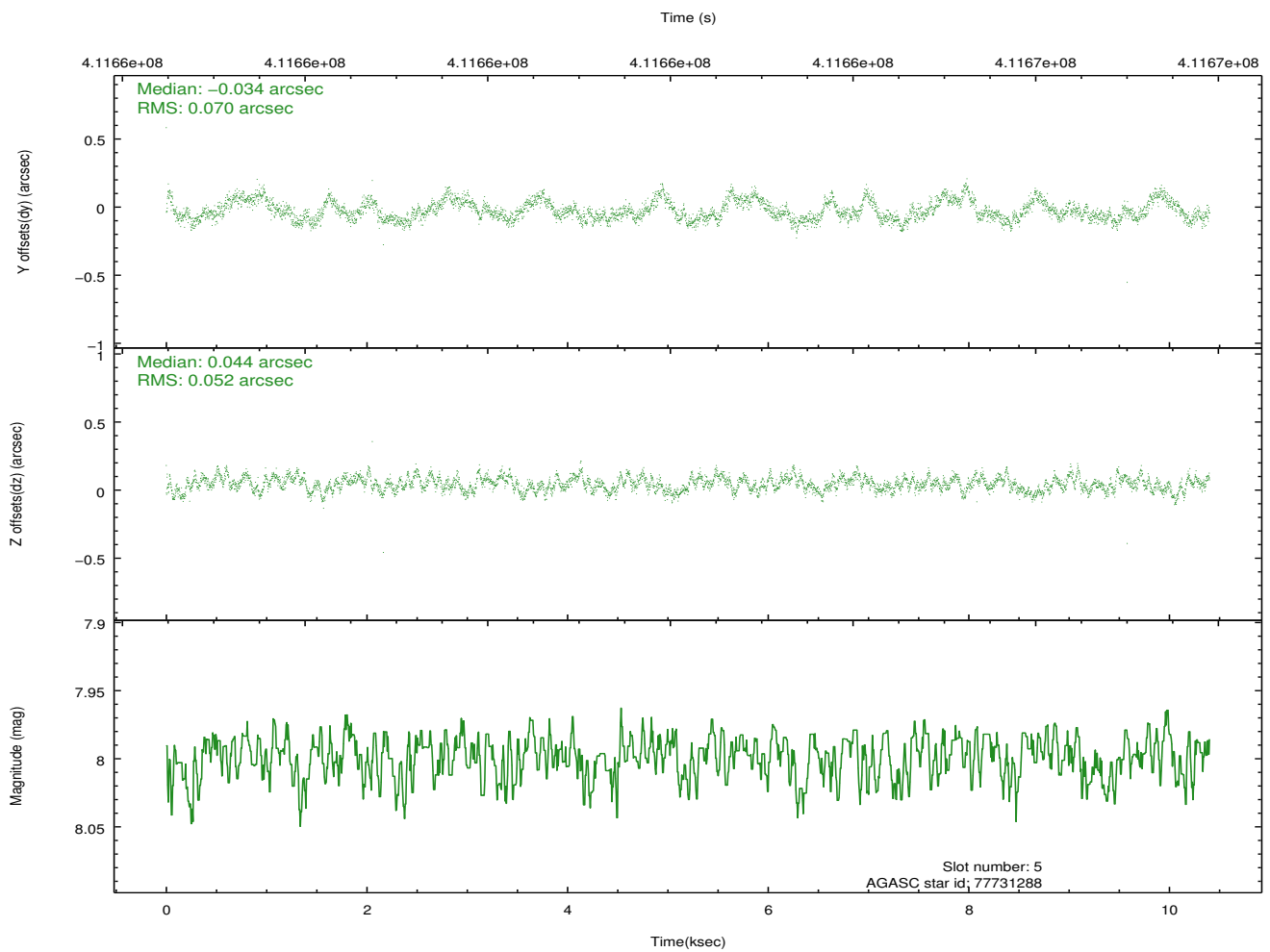
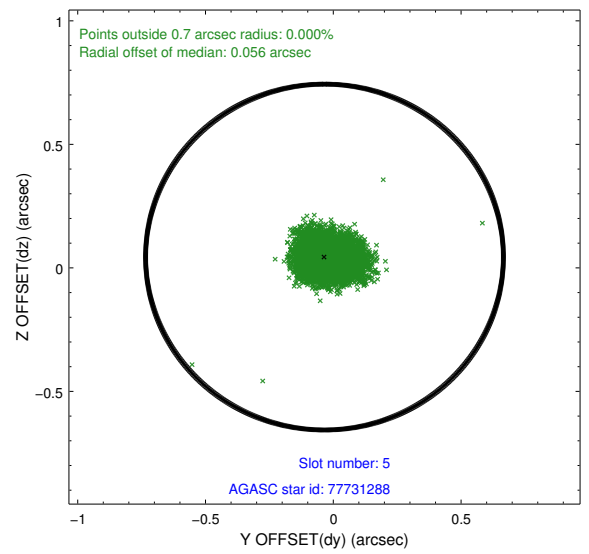
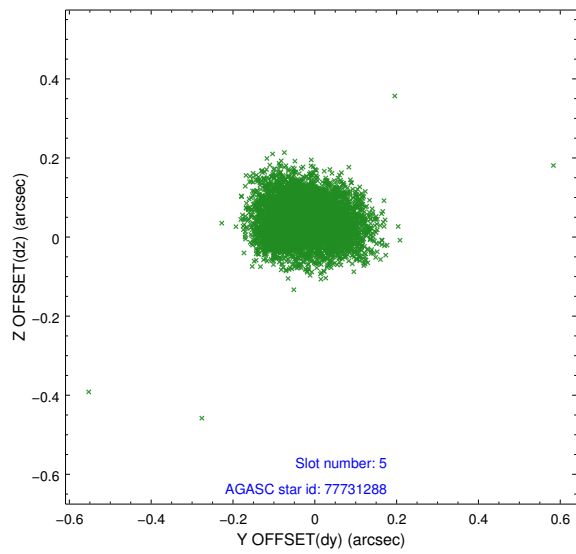
2.4.1 Slot 3



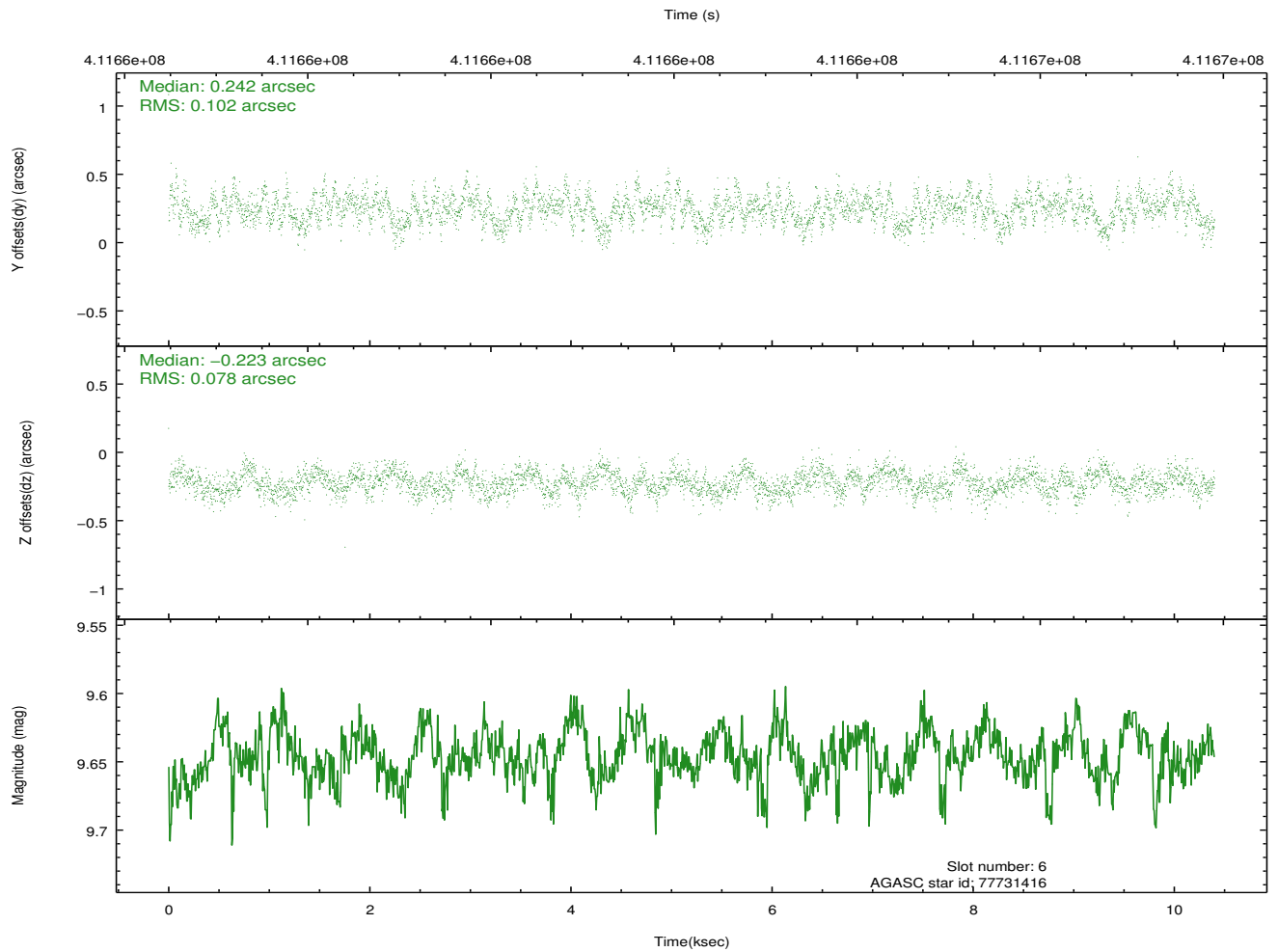
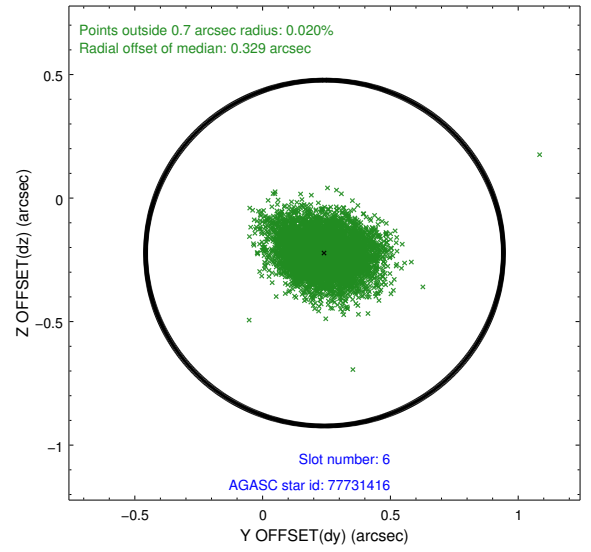
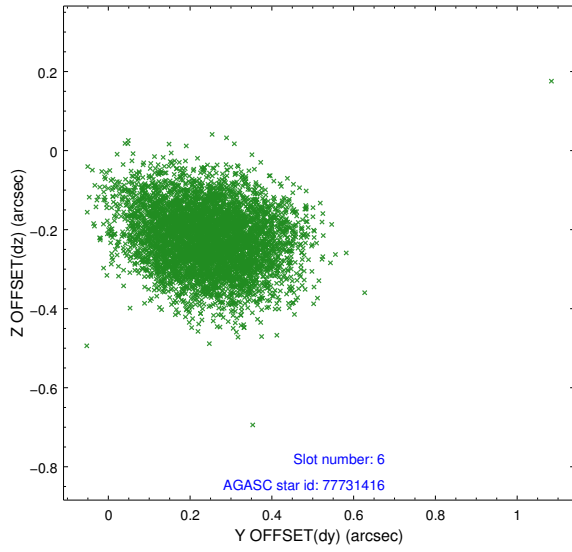
2.4.2 Slot 4



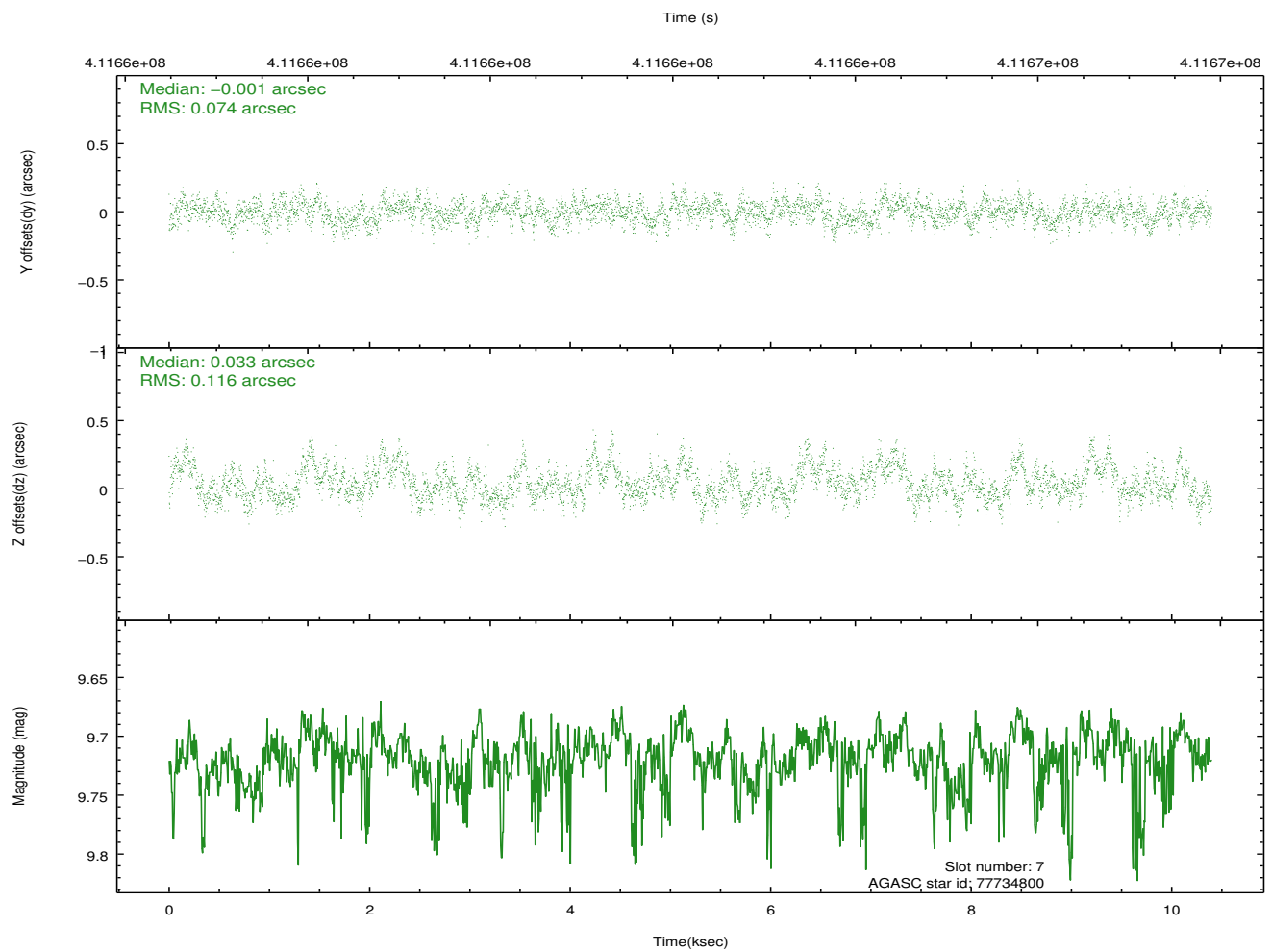
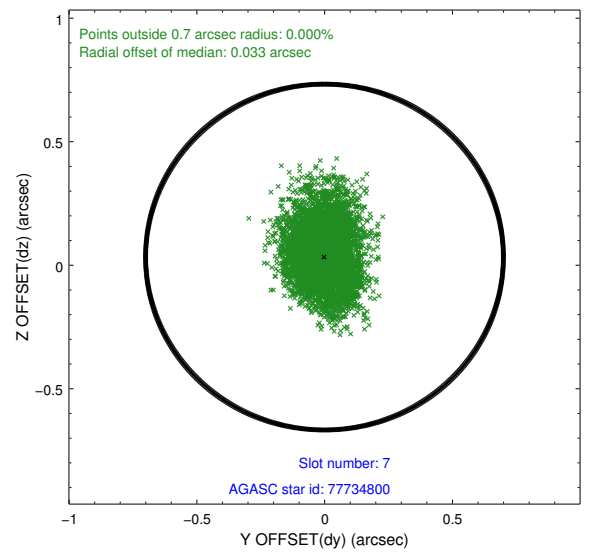
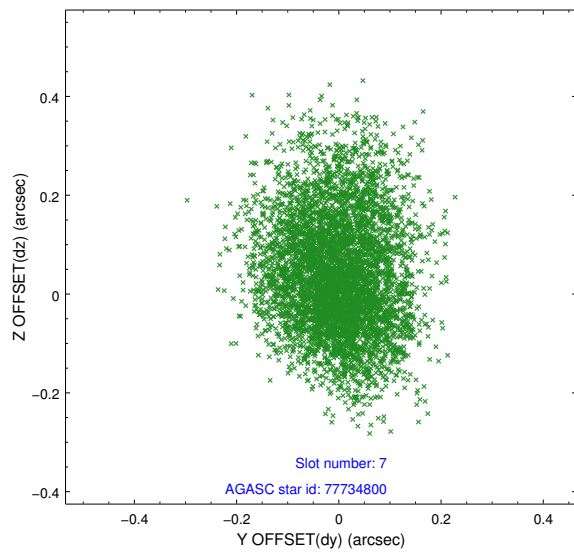
2.4.3 Slot 5



2.4.4 Slot 6

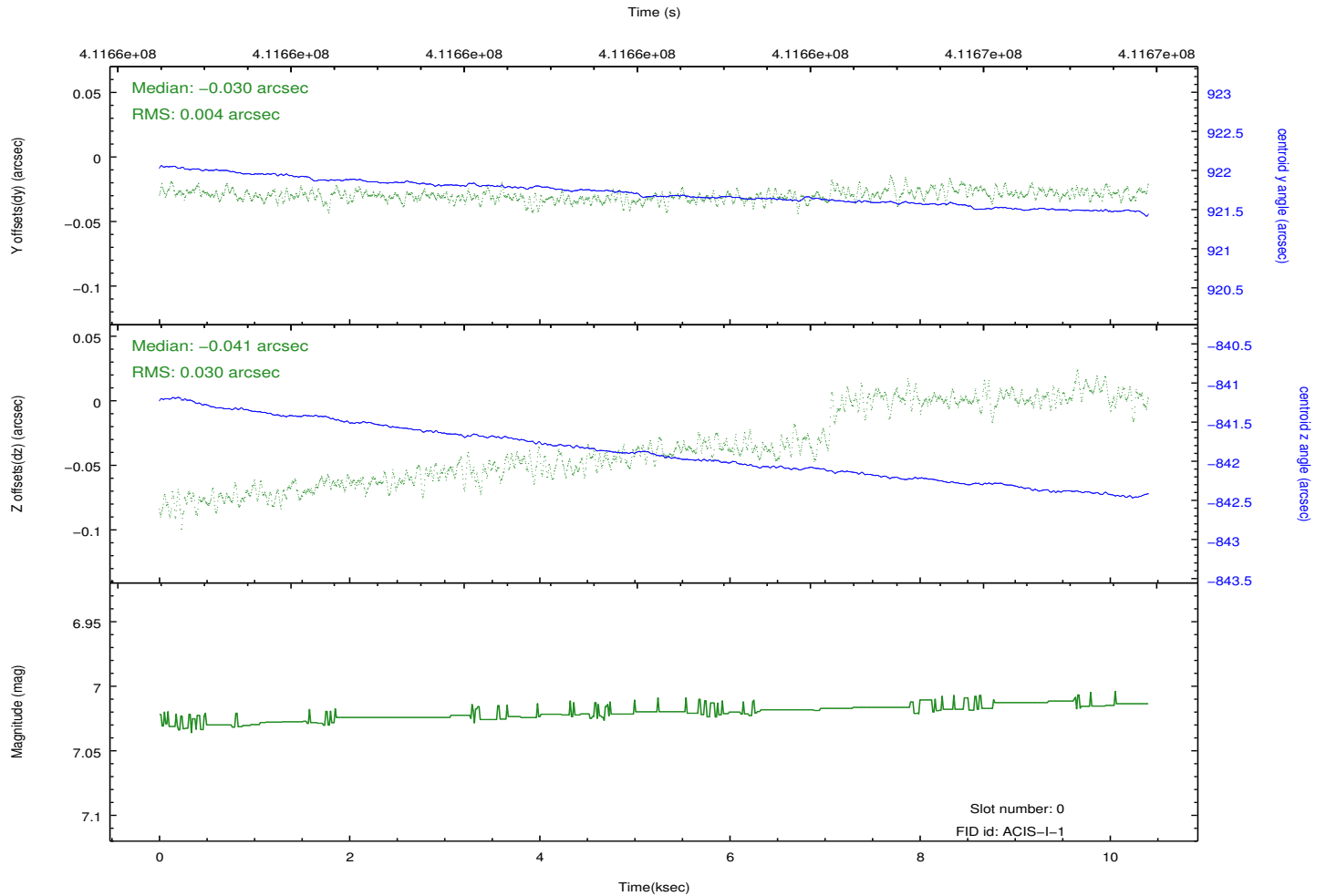
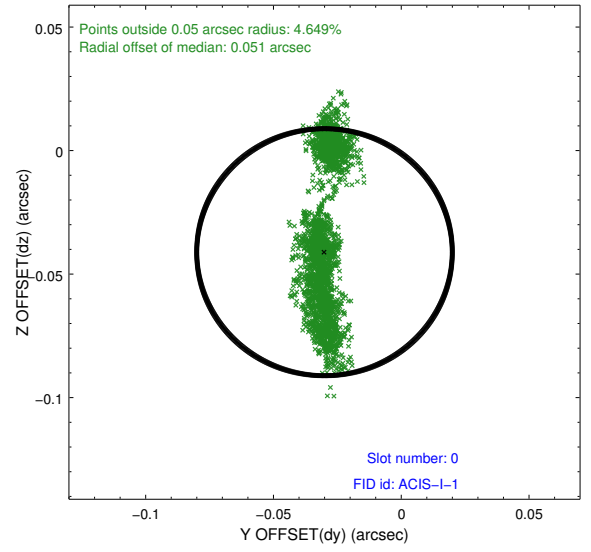
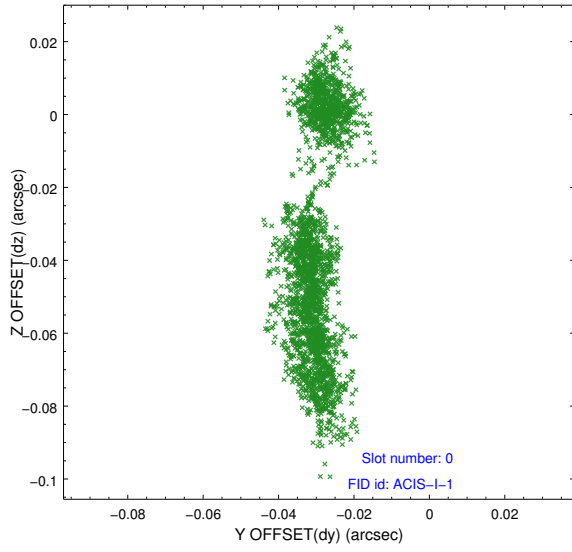


2.4.5 Slot 7

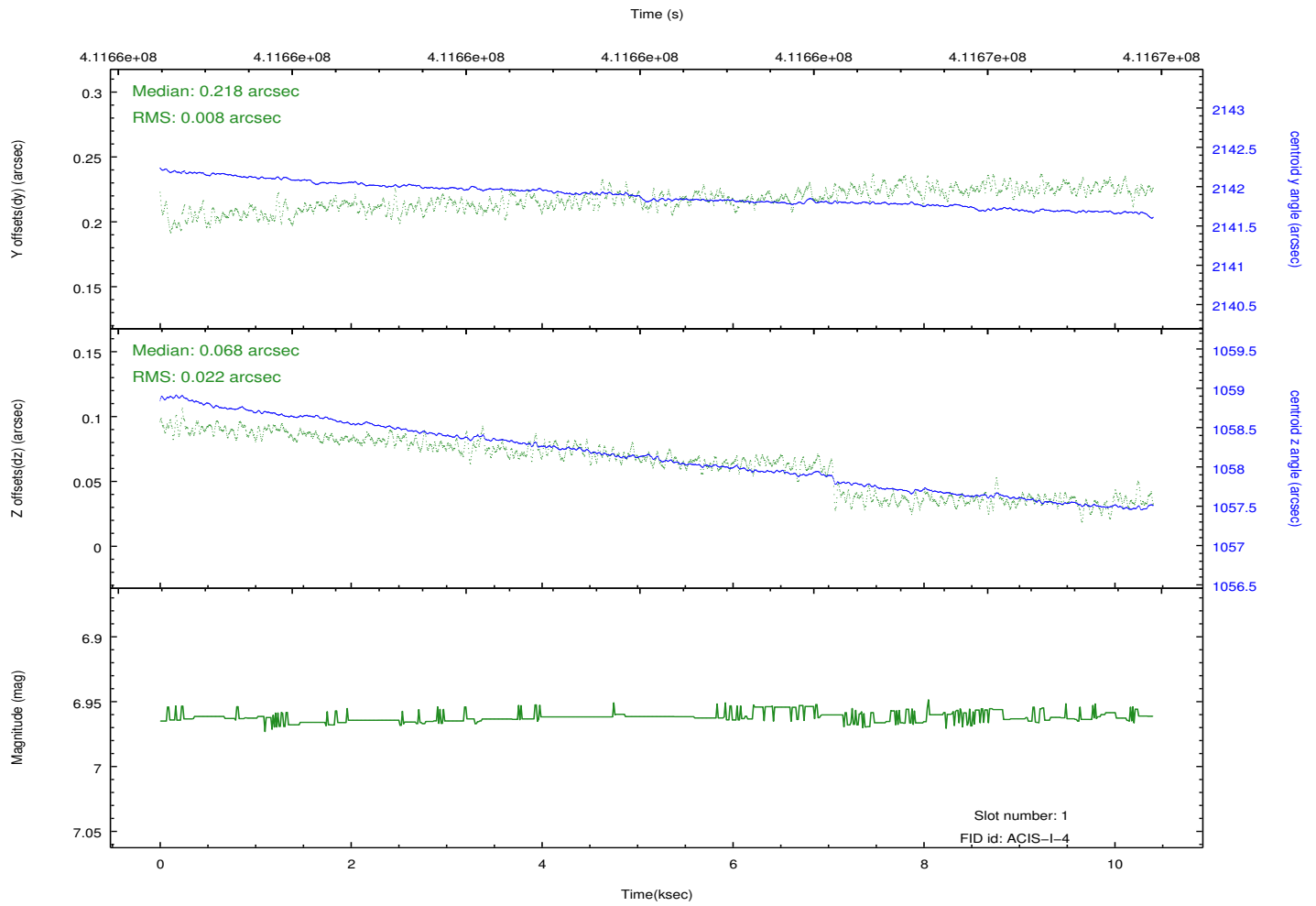
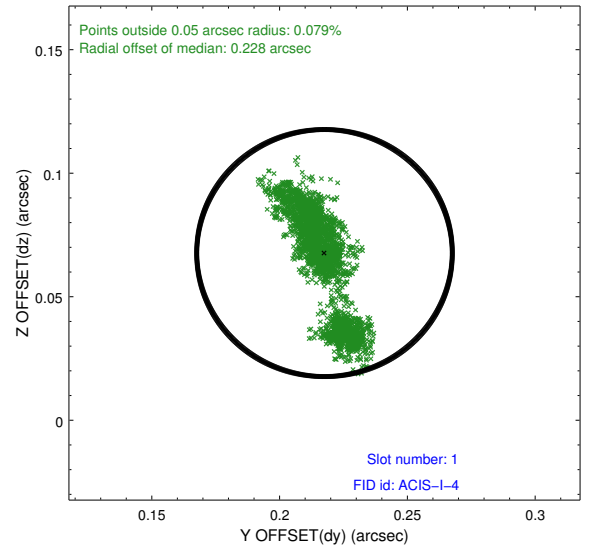
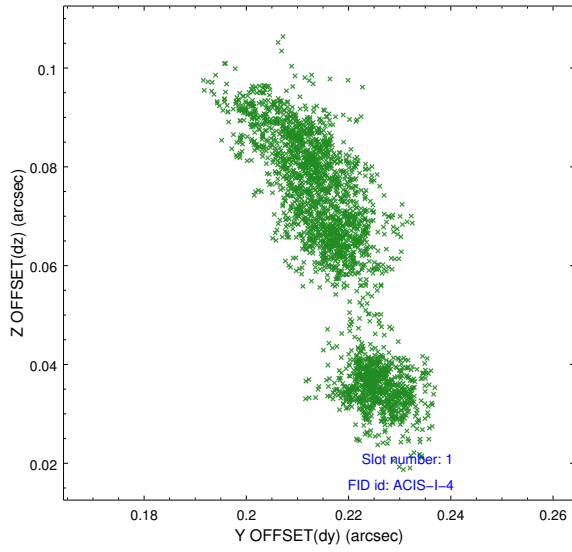


2.5 FID Slots

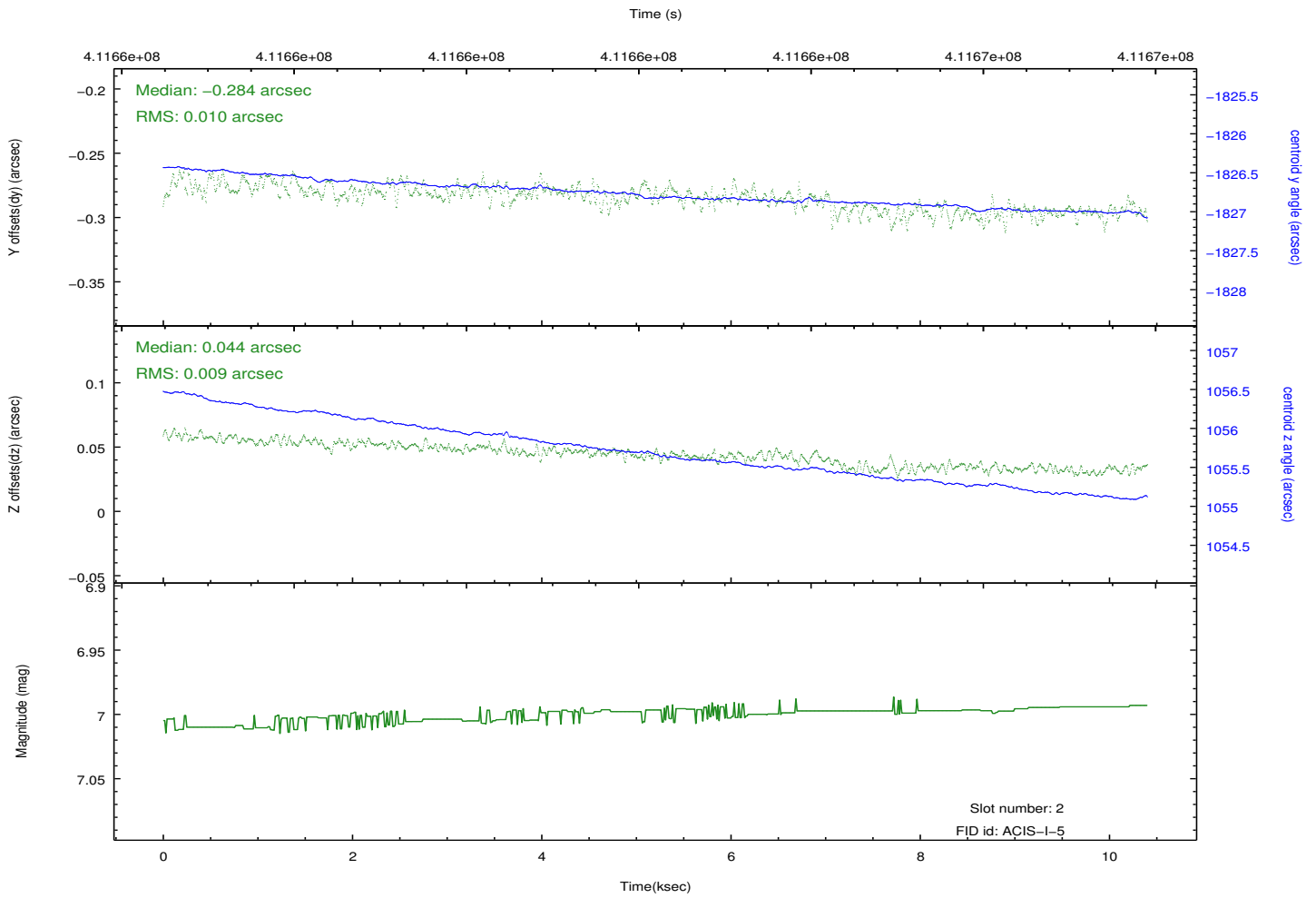
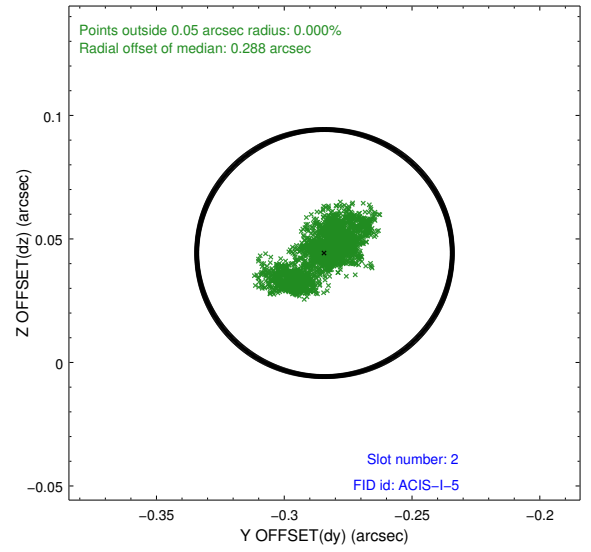
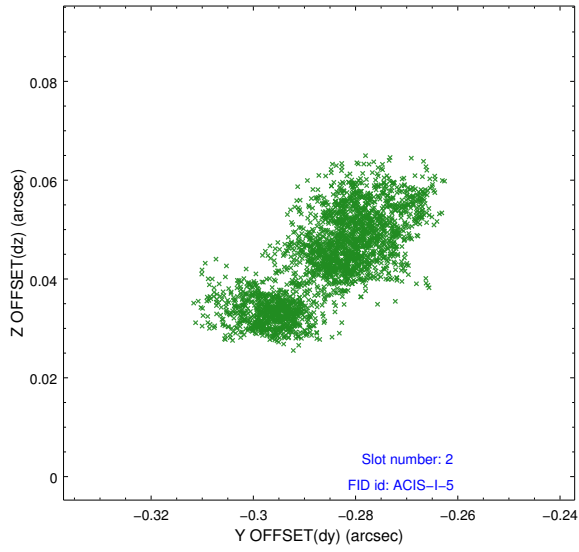
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Mike Nowak
V&V Date (YYYY-MM-DD)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.052218934238

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.