

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12390 - L2 Version 2
Chandra X-Ray Center

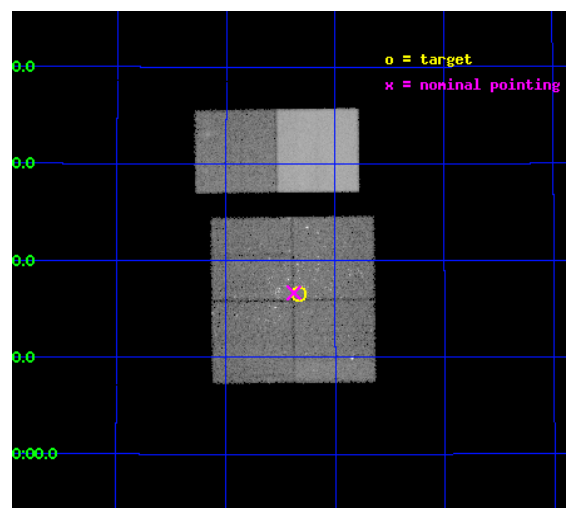
L2 Processing Date : Feb 2 2012

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

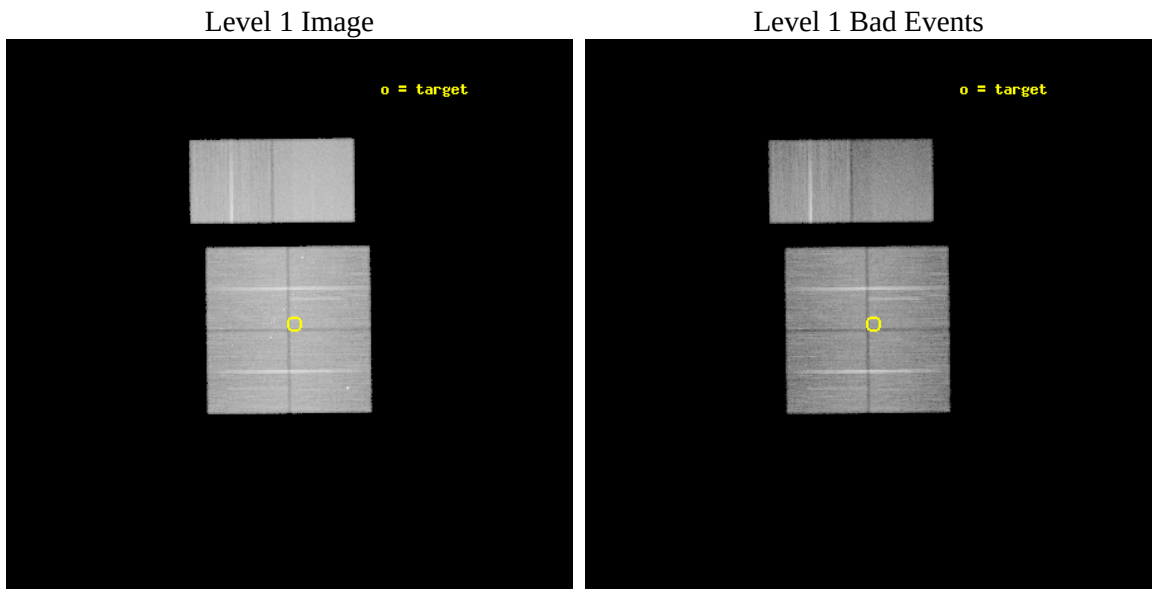
seq_num	200724	Sequence number
obs_id	12390	Observation id
title	Testing 'Collect and Collapse' Triggered Star Formation Models in DR15	Proposal title
observer	Dr Nicholas Wright	Principal investigator
object	DR15	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.084375	Observer's specified target RA [deg]
dec_targ	40.275833	Observer's specified target Dec [deg]
ra_nom	308.09451590324	Nominal RA [deg]
dec_nom	40.278145234371	Nominal Dec [deg]
roll_nom	359.37763182831	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40387.15887928	Sum of GTIs [s]
livetime	39875.752355323	Livetime [s]
ontime0	40383.917908967	Sum of GTIs [s]
ontime1	40390.399849594	Sum of GTIs [s]
ontime2	40387.15887928	Sum of GTIs [s]
ontime3	40387.15887928	Sum of GTIs [s]
ontime6	40390.399849594	Sum of GTIs [s]
ontime7	40390.399849594	Sum of GTIs [s]
l2events	308253	Number of level 2 events



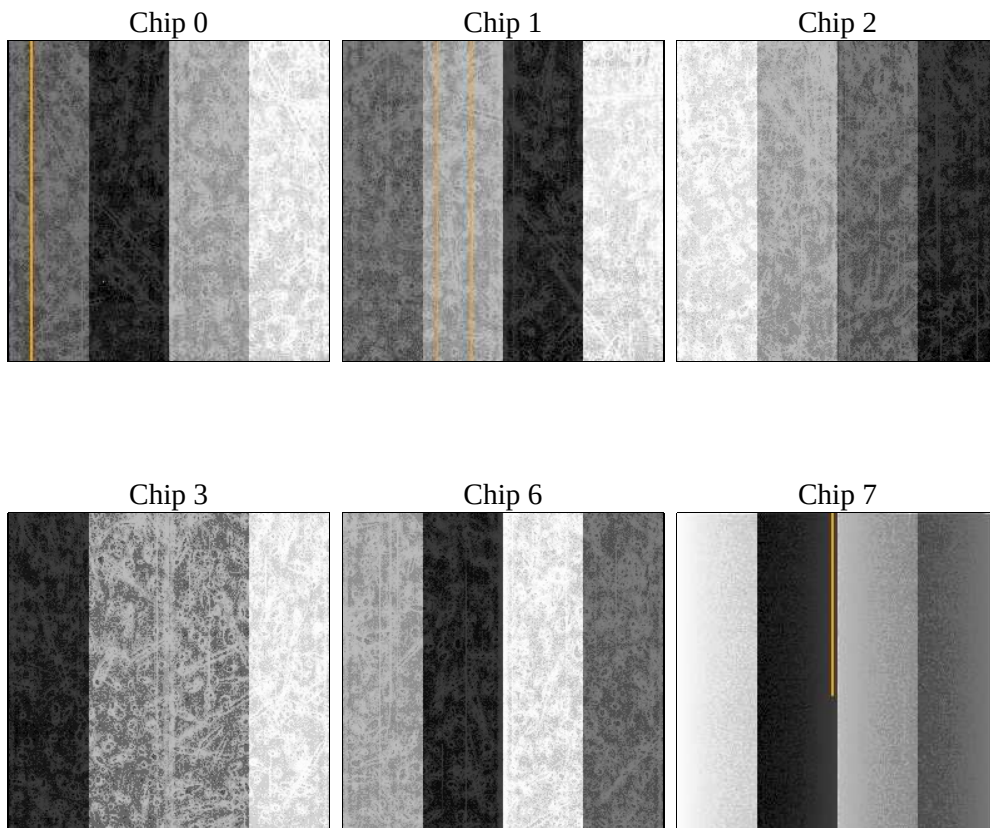
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40336.327000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	40387.15887928	Sum of GTIs [s]
caldsver	4.4.7	 	ontime0	40383.917908967	Sum of GTIs [s]
date	2012-02-03T00:23:45	Date and time of file creation	ontime1	40390.399849594	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	40387.15887928	Sum of GTIs [s]
			ontime3	40387.15887928	Sum of GTIs [s]
			ontime6	40390.399849594	Sum of GTIs [s]
			ontime7	40390.399849594	Sum of GTIs [s]
			l1events	1766372	Number of level 1 events

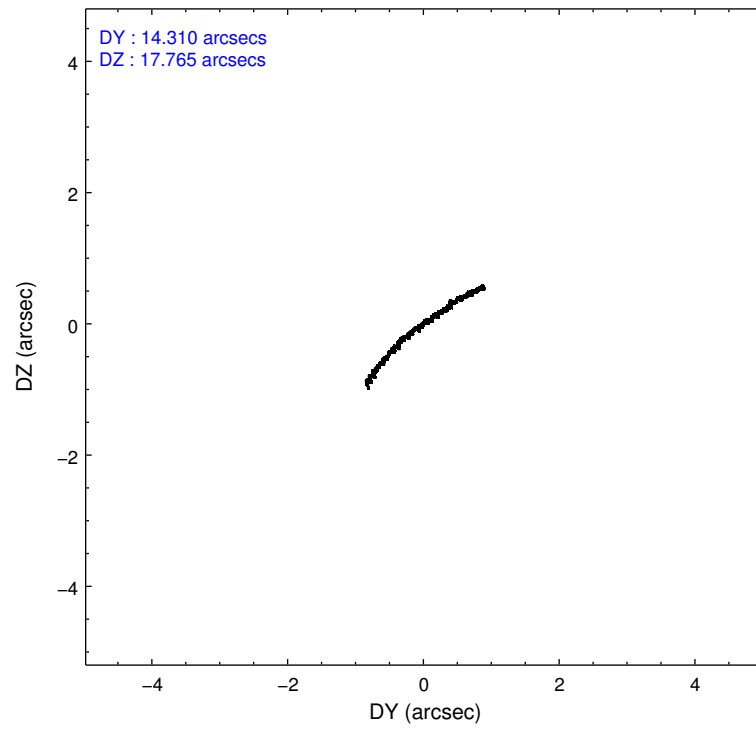
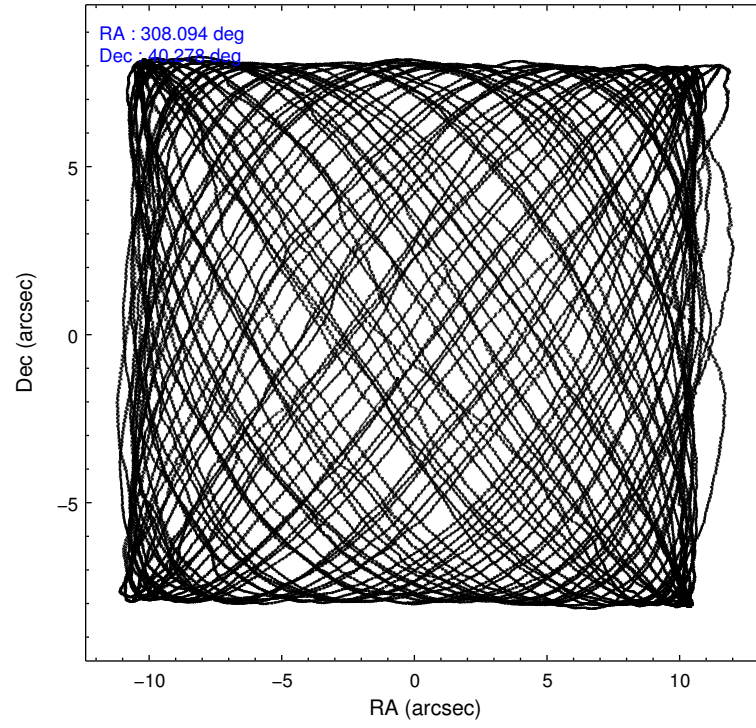
2.1.4 Events

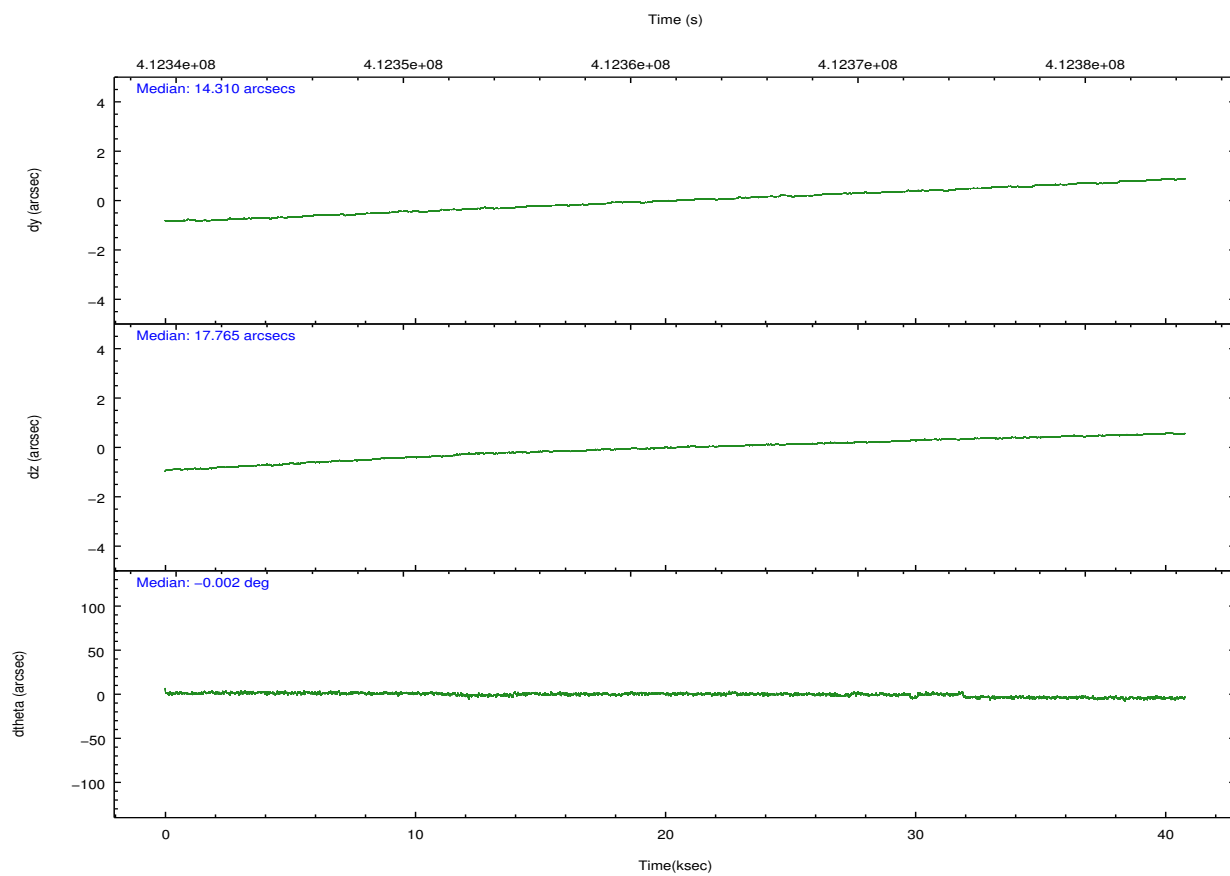
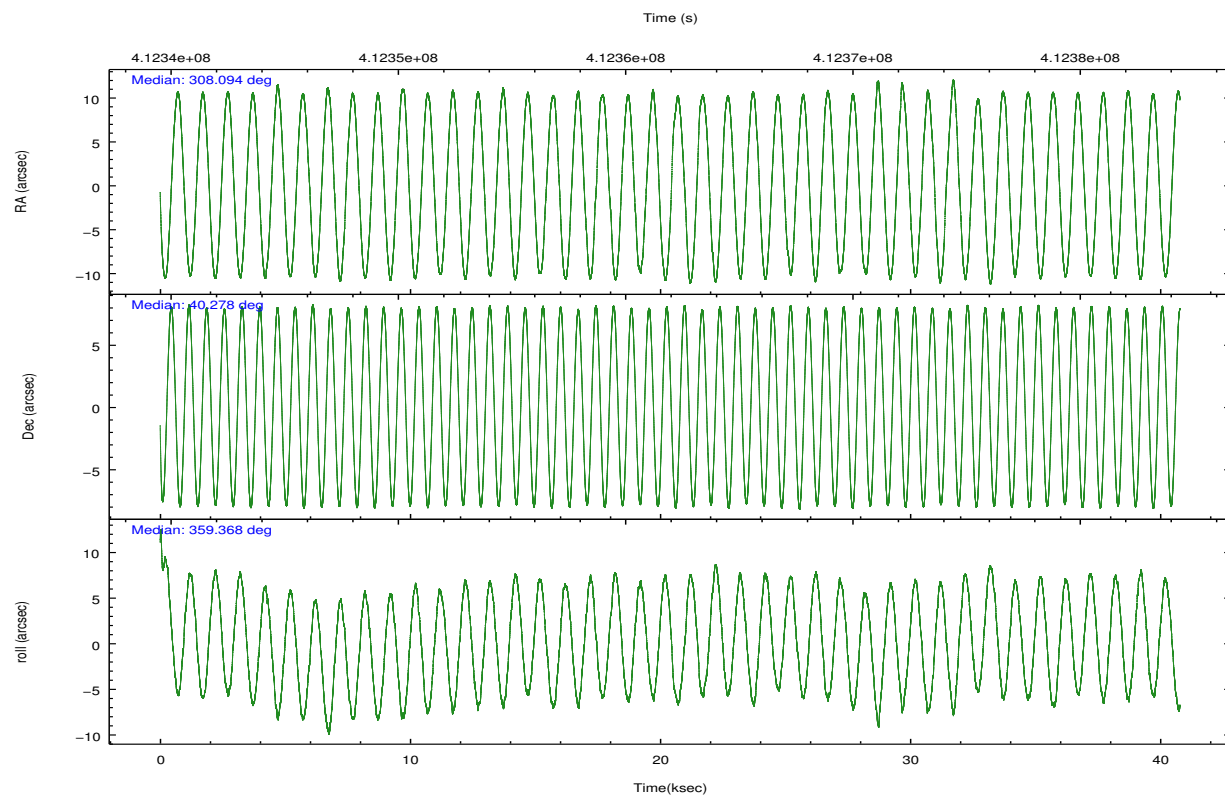
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	263723	267192	289747	284370	304094	357246	grade 0 events	12633	15036	14598	14403	13433	14913
rejected events	229874	228800	254189	249952	268530	195700		4%	5%	5%	5%	4%	4%
rejected %	87%	85%	87%	87%	88%	54%	grade 1 events	138	170	206	194	163	449
								0%	0%	0%	0%	0%	0%
							grade 2 events	8237	8737	8087	7076	7763	33564
								3%	3%	2%	2%	2%	9%
							grade 3 events	3409	3590	3429	3335	3503	14308
								1%	1%	1%	1%	1%	4%
							grade 4 events	3293	3734	3404	3401	3450	14087
								1%	1%	1%	1%	1%	3%
							grade 5 events	11726	12331	11087	13372	13608	37111
								4%	4%	3%	4%	4%	10%
							grade 6 events	6280	7303	6041	6209	7419	84691
								2%	2%	2%	2%	2%	23%
							grade 7 events	218007	216291	242895	236380	254755	158123
								82%	80%	83%	83%	83%	44%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	308.063191	308.094515903244	CCD I2 on	Y	Y
[deg] Pointing Dec	40.264561	40.27814523437054	CCD I3 on	Y	Y
[deg] Pointing Roll	359.189199	359.3776318283069	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	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	412342001.184000	412340863.39431	CCD S5 on	N	N
Observation start date	2011-01-25T11:25:35	2011-01-25T11:07:43	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	412382337.184000	412382574.74647	On-chip summing requested	N	N
Observation end date	2011-01-25T22:37:51	2011-01-25T22:42:54	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



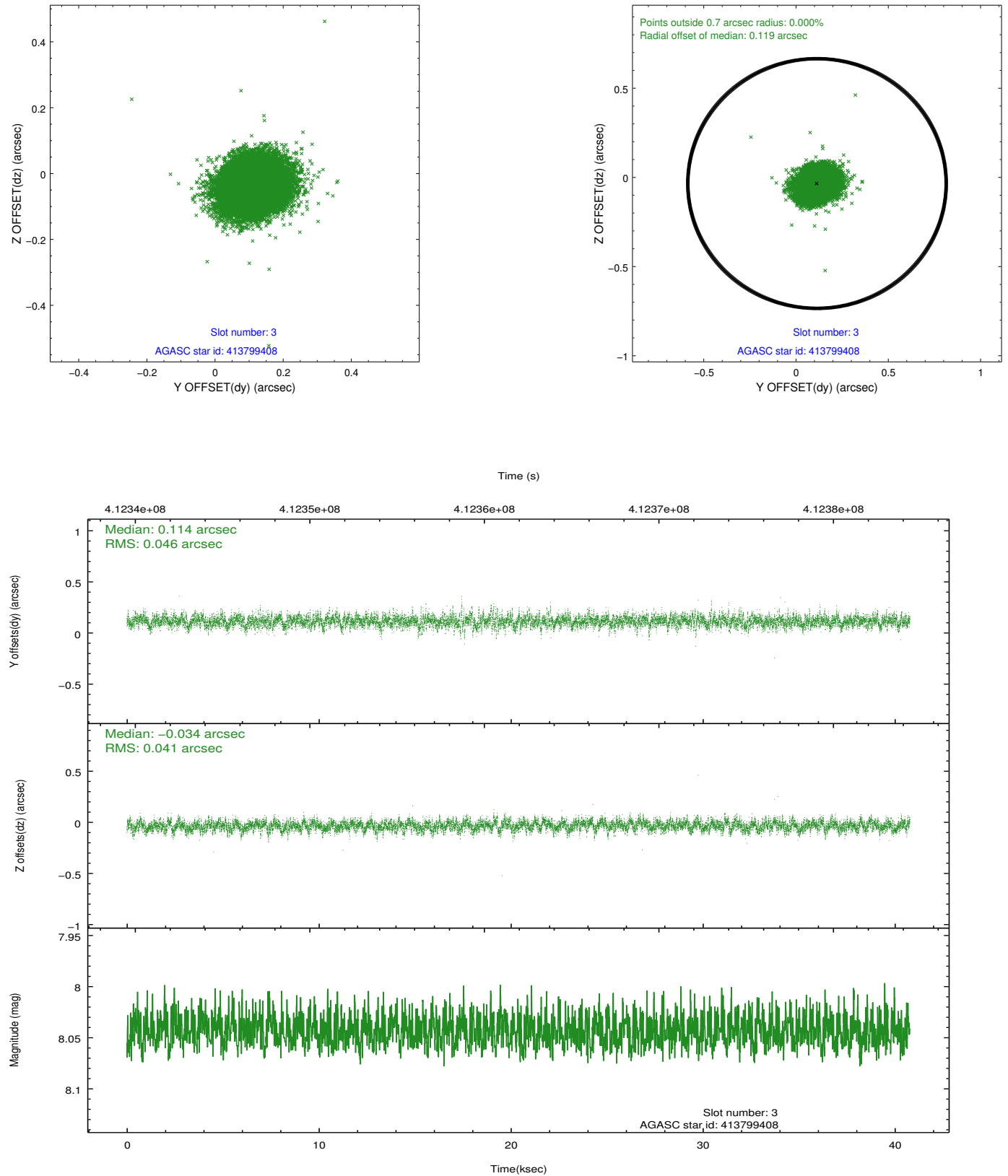


Slot Statistics

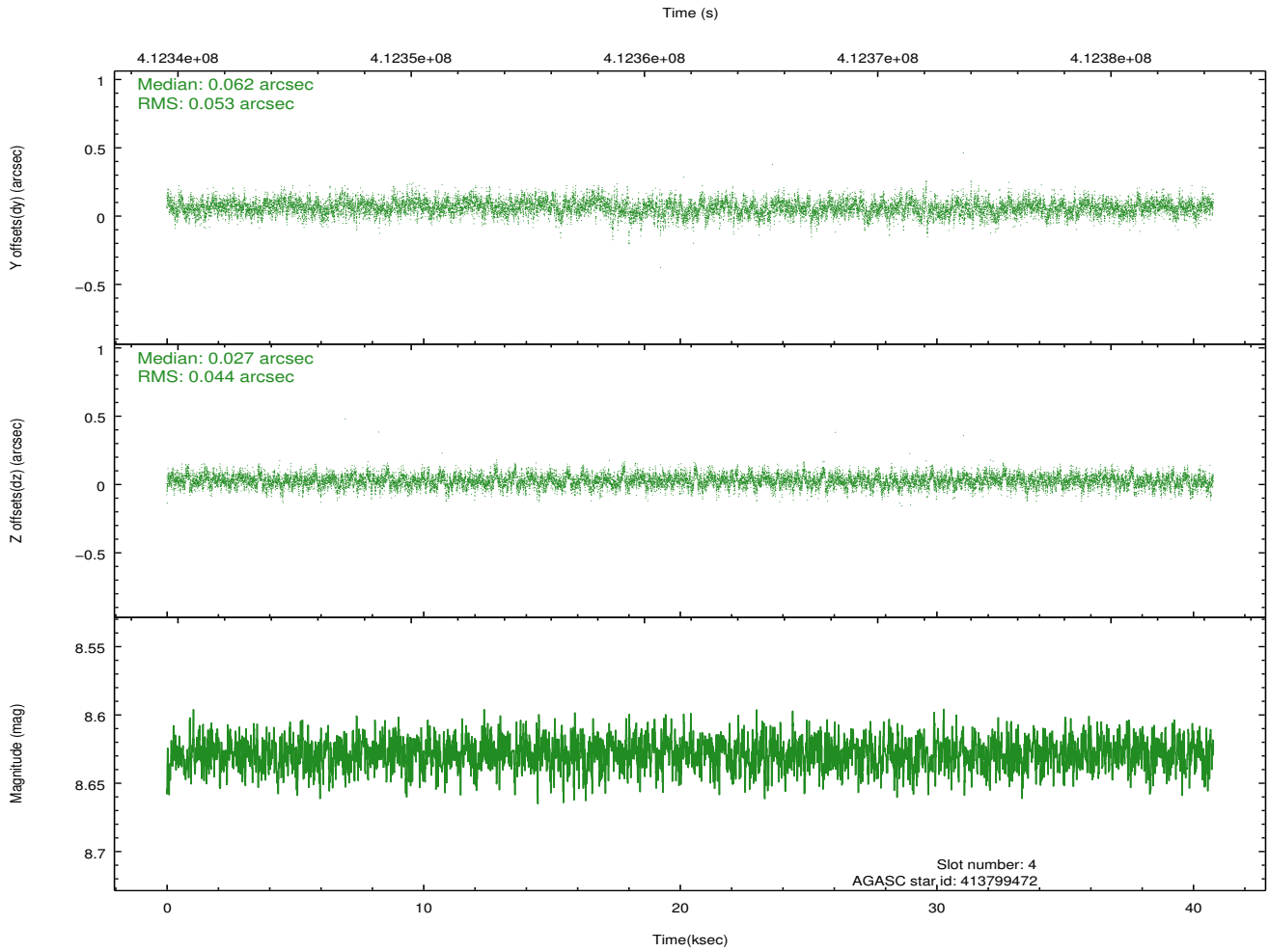
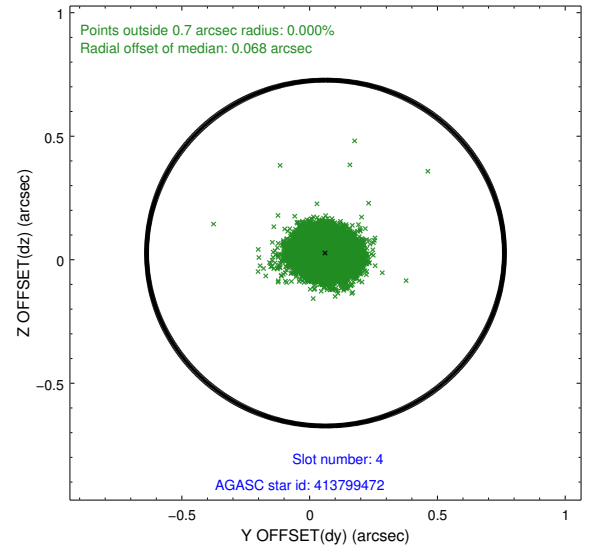
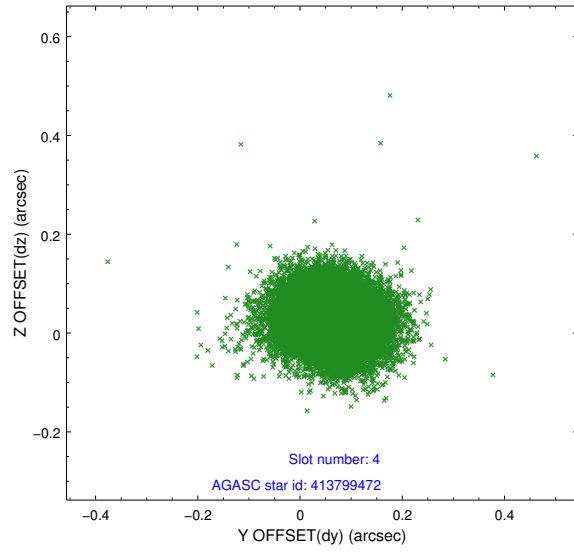
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.02	9945	-0.040	-0.029	0.024	0.037	0.000000	0.000000	925.13	-841.40
1	FID	ACIS-I-2	6.93	9947	-0.159	-0.048	0.017	0.026	0.000000	0.000000	-769.07	-847.87
2	FID	ACIS-I-4	6.94	9945	0.103	0.137	0.027	0.041	0.000000	0.000000	2145.16	1058.57
3	GUIDE	413799408	8.04	19891	0.114	-0.034	0.064	0.107	307.859803	39.938830	-544.05	-1179.52
4	GUIDE	413799472	8.63	19882	0.062	0.027	0.073	0.119	308.718205	39.893476	1828.25	-1303.26
5	GUIDE	413803288	6.99	19886	-0.057	0.004	0.056	0.093	307.629978	40.506899	-1197.92	858.38
6	GUIDE	413805792	7.34	19895	-0.019	-0.158	0.061	0.101	307.778748	40.858024	-804.80	2126.94
7	GUIDE	413664272	8.96	19866	-0.100	0.155	0.094	0.153	307.442202	39.650300	-1689.70	-2229.95

2.4 Star Slots

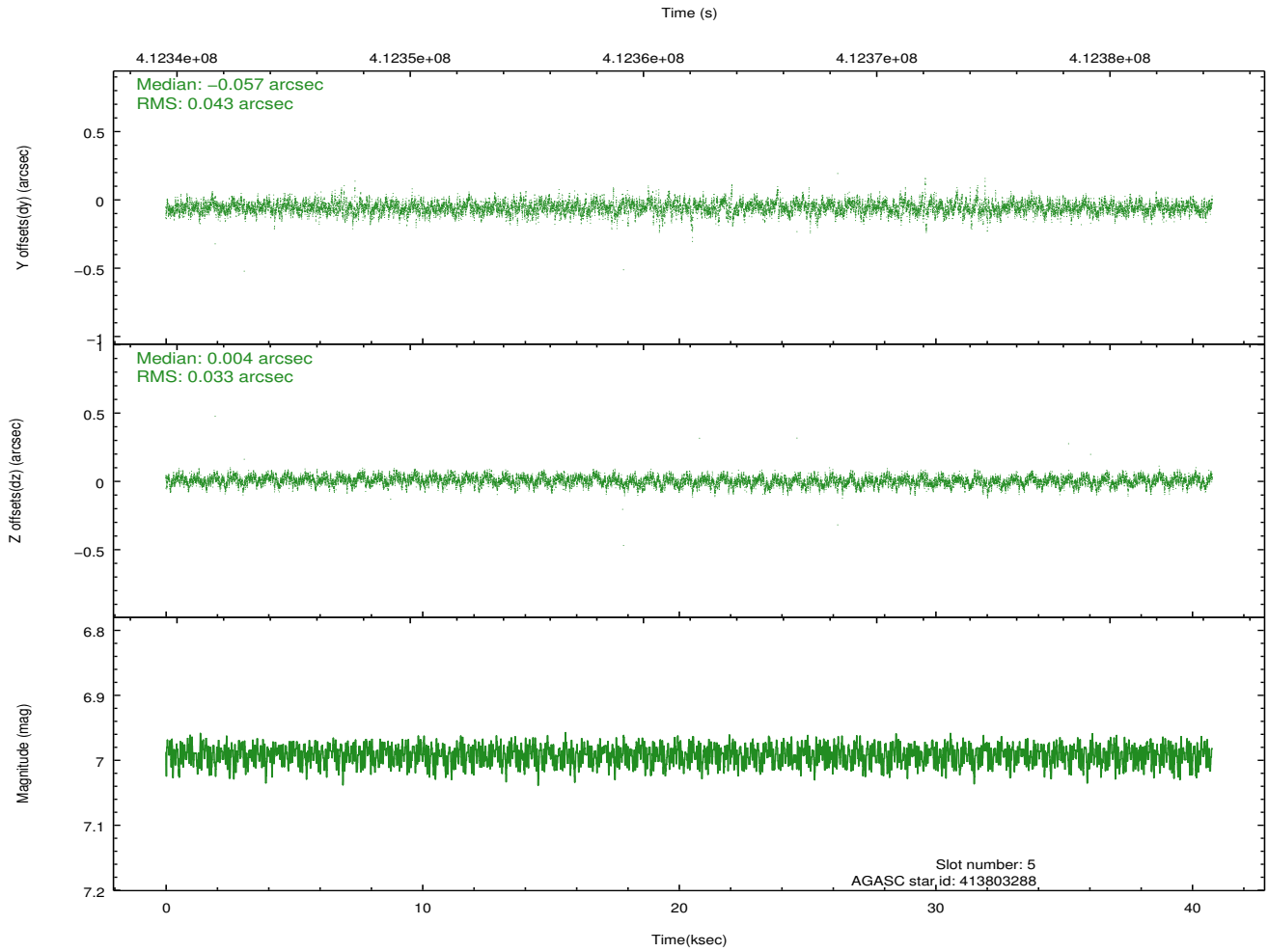
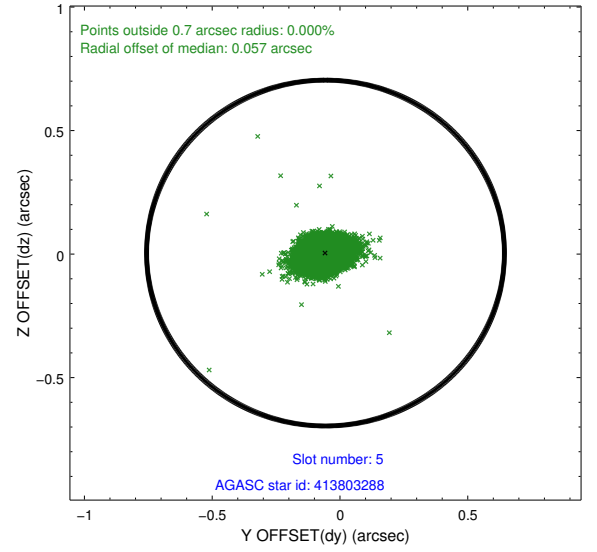
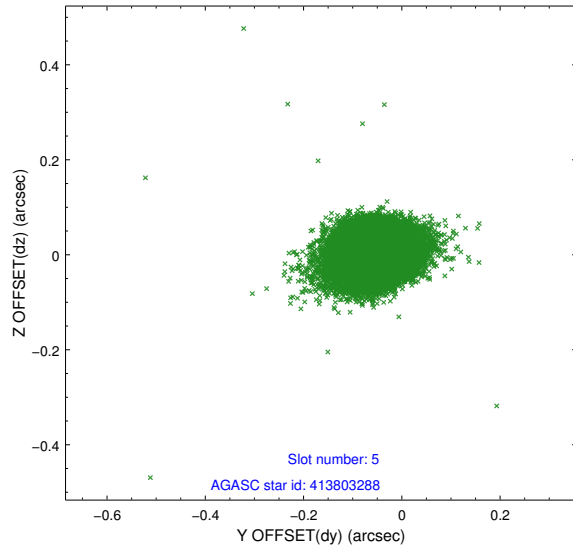
2.4.1 Slot 3



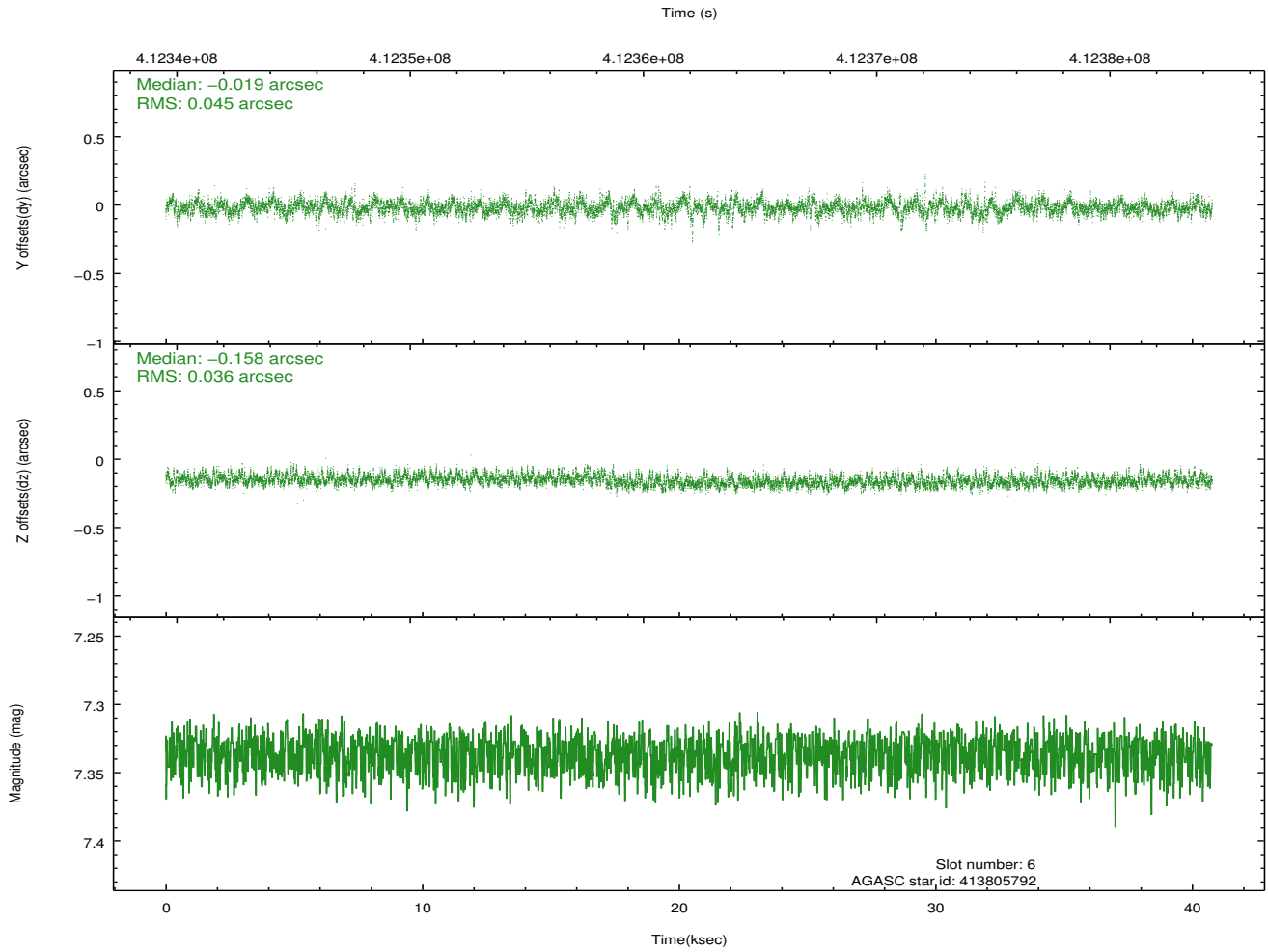
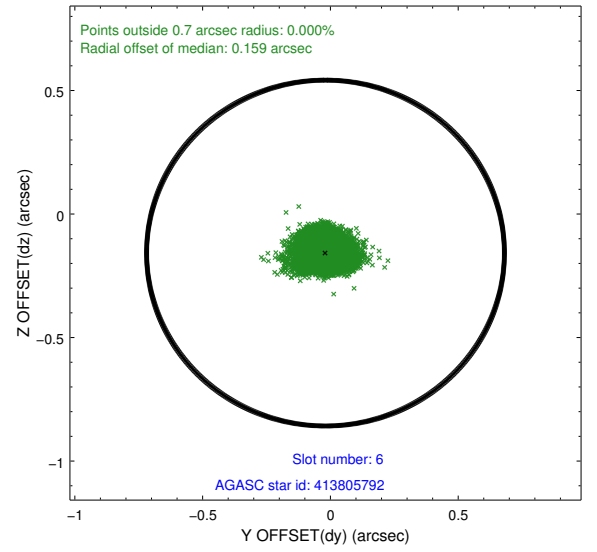
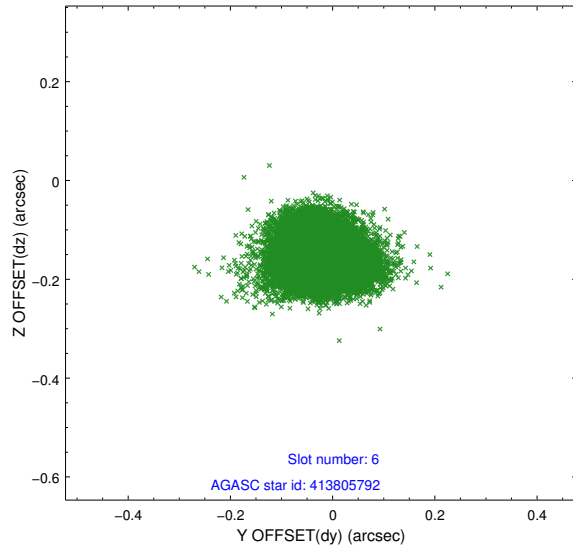
2.4.2 Slot 4



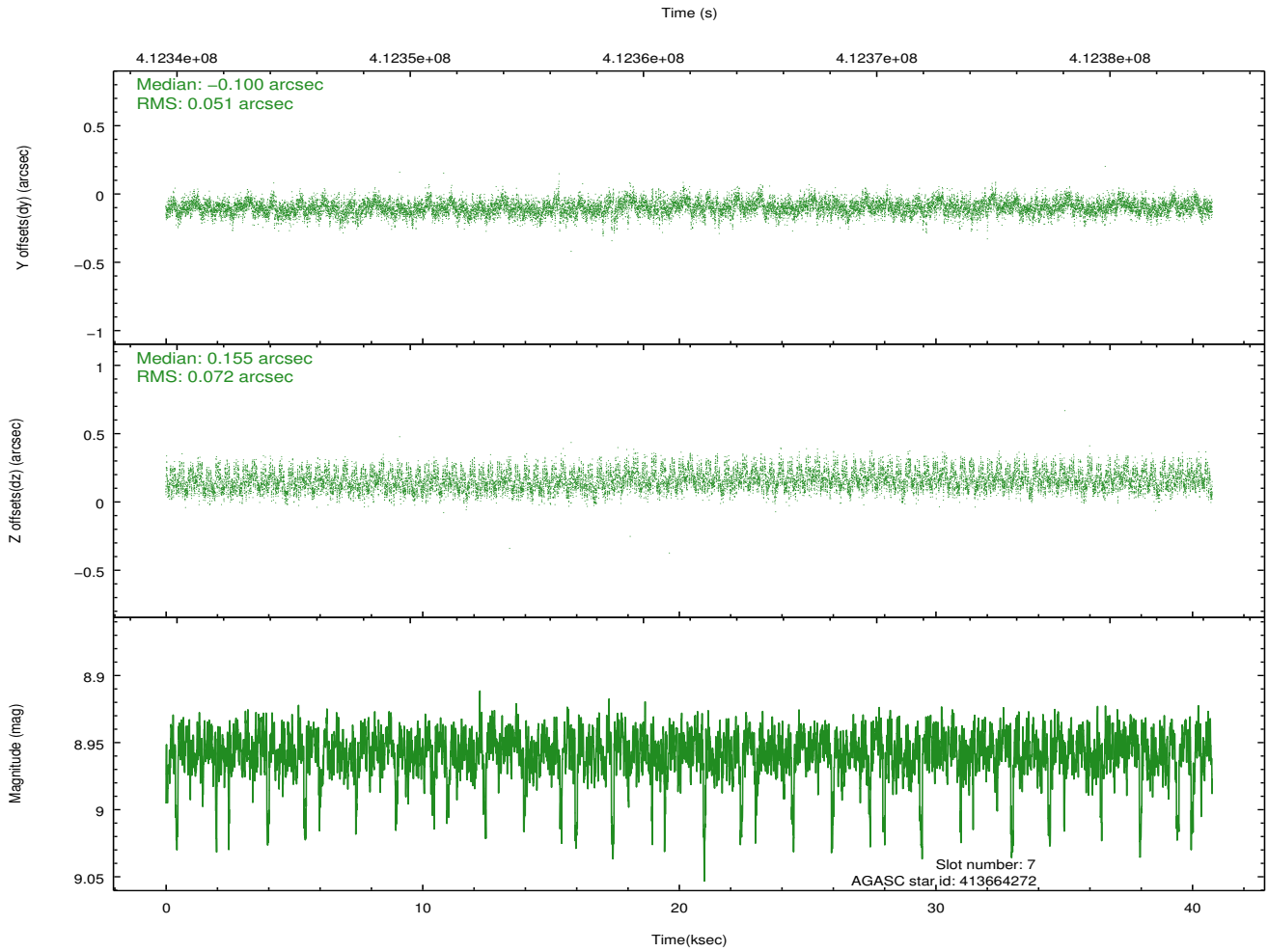
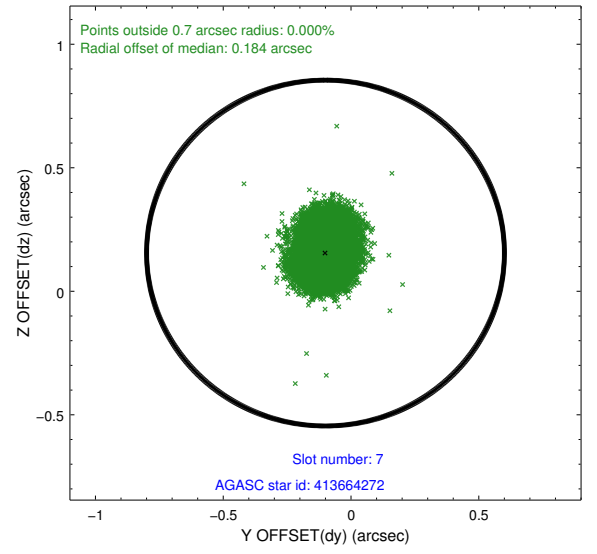
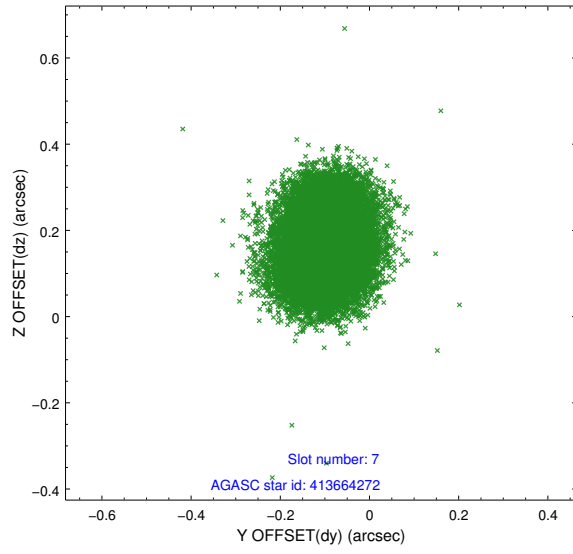
2.4.3 Slot 5



2.4.4 Slot 6

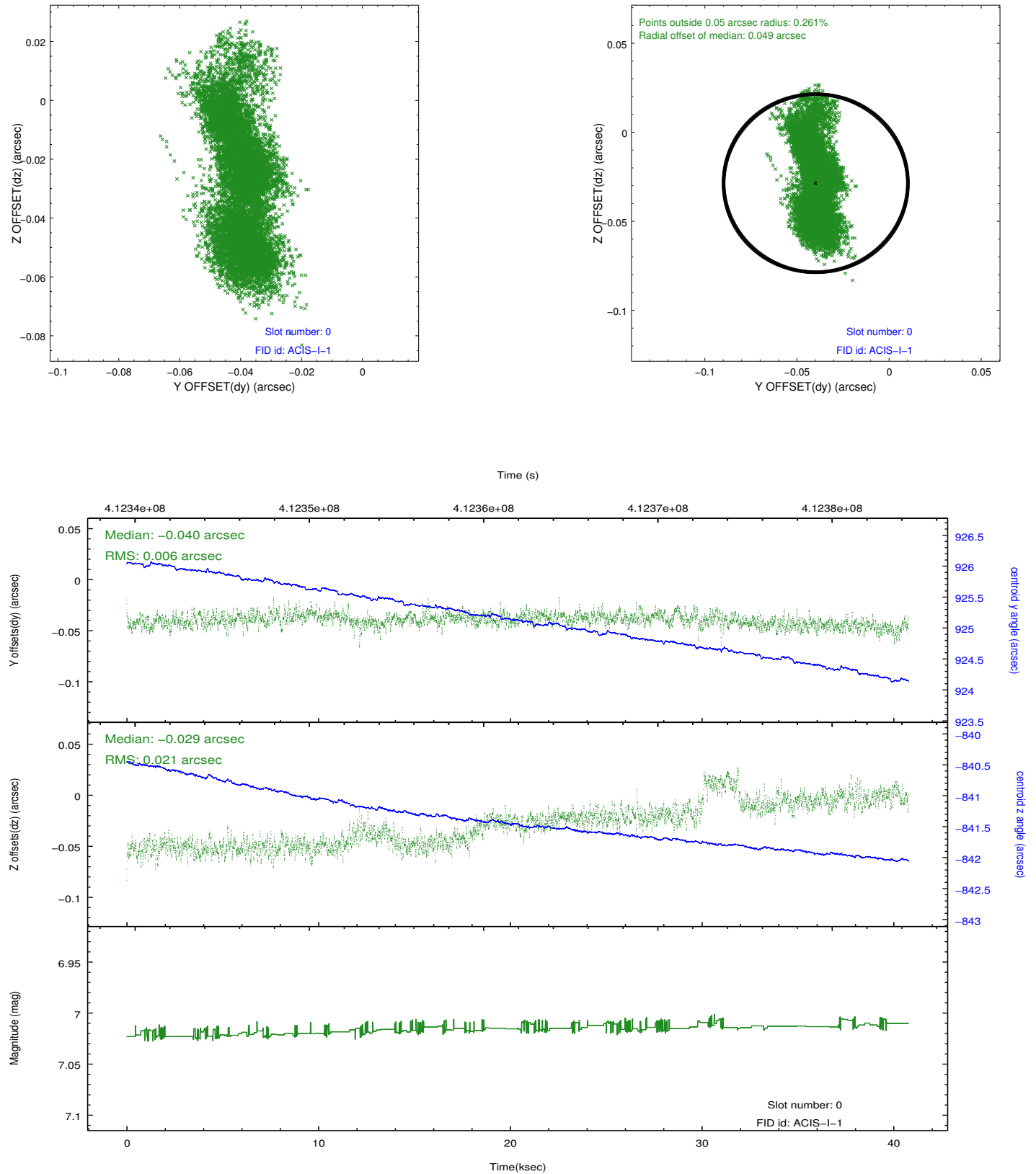


2.4.5 Slot 7

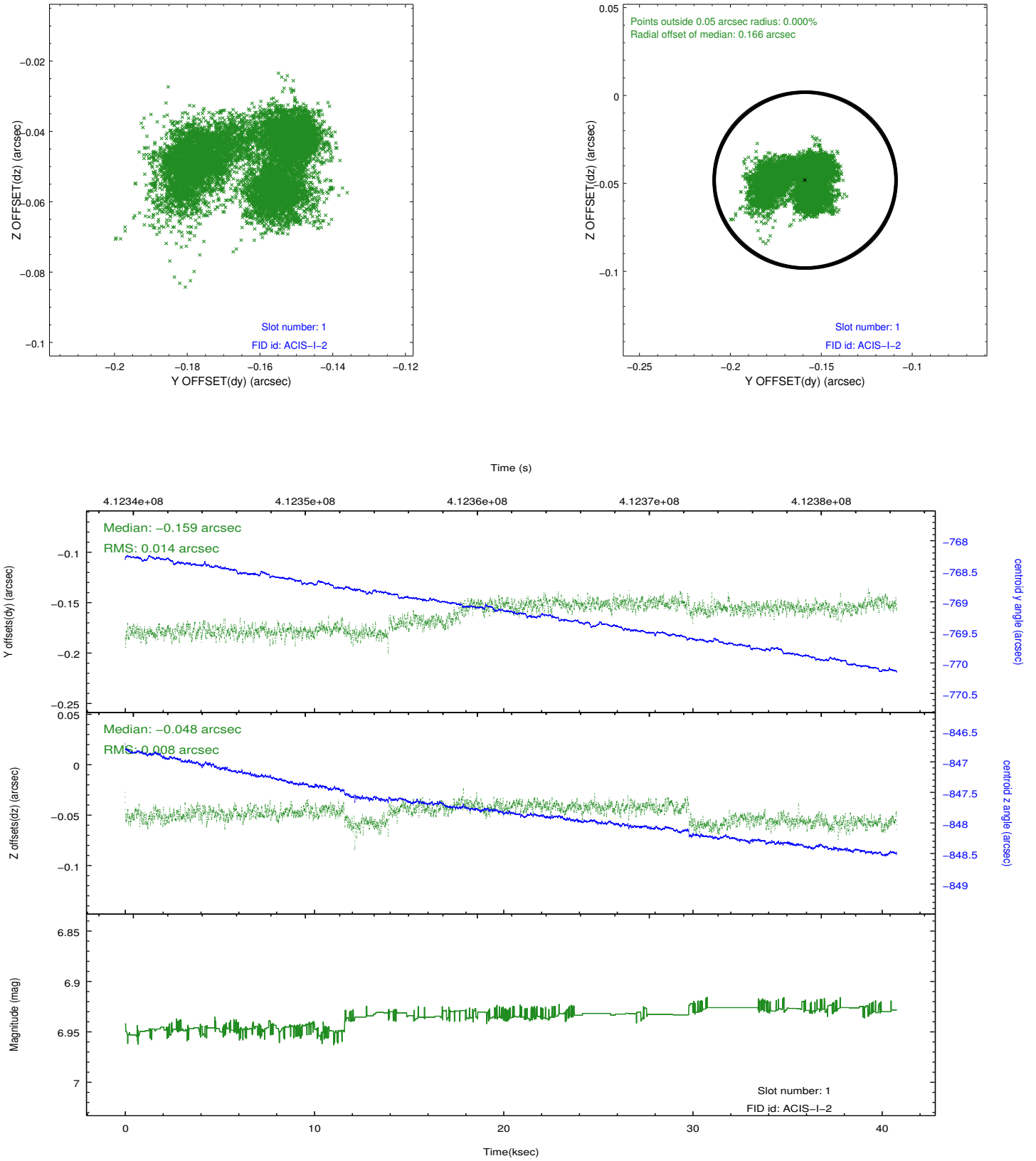


2.5 FID Slots

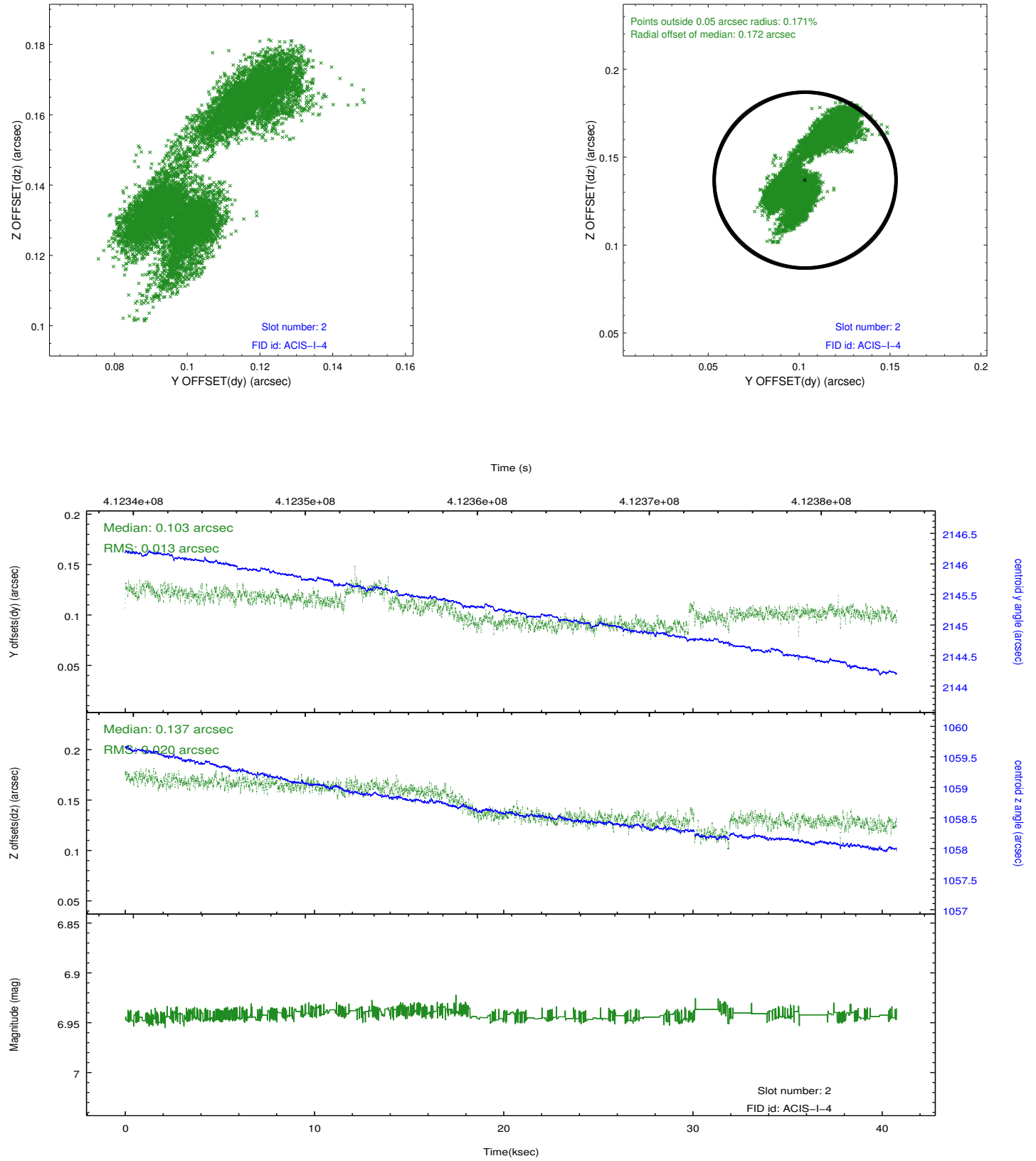
2.5.1 Slot 0



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	40.38715887928

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.