

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12432 - L2 Version 2
Chandra X-Ray Center

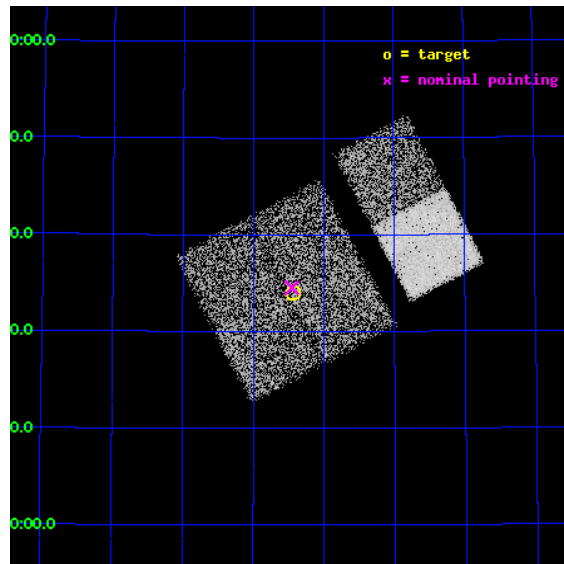
L2 Processing Date : Feb 8 2012

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1 Front

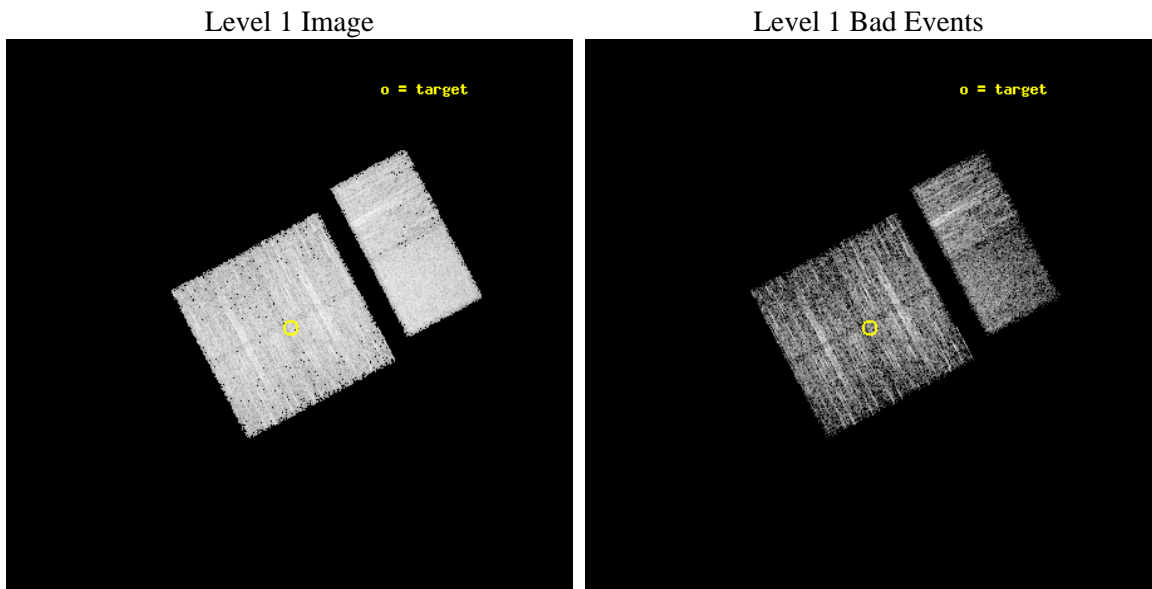
seq_num	401173	Sequence number
obs_id	12432	Observation id
title	The Nature of INTEGRAL Sources in the Galactic Plane	Proposal titl
observer	Dr. John Tomsick	Principal investigator
object	IGR J22014+6034	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	330.360833	Observer's specified target RA [deg]
dec_targ	60.567	Observer's specified target Dec [deg]
ra_nom	330.36377900854	Nominal RA [deg]
dec_nom	60.575428983045	Nominal Dec [deg]
roll_nom	62.196124634911	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5057.6906508803	Sum of GTIs [s]
livetime	4993.6471264832	Livetime [s]
ontime0	5057.5675308704	Sum of GTIs [s]
ontime1	5057.6085708737	Sum of GTIs [s]
ontime2	5057.649610877	Sum of GTIs [s]
ontime3	5057.6906508803	Sum of GTIs [s]
ontime6	5057.7727308869	Sum of GTIs [s]
ontime7	5057.7316908836	Sum of GTIs [s]
l2events	33592	Number of level 2 events



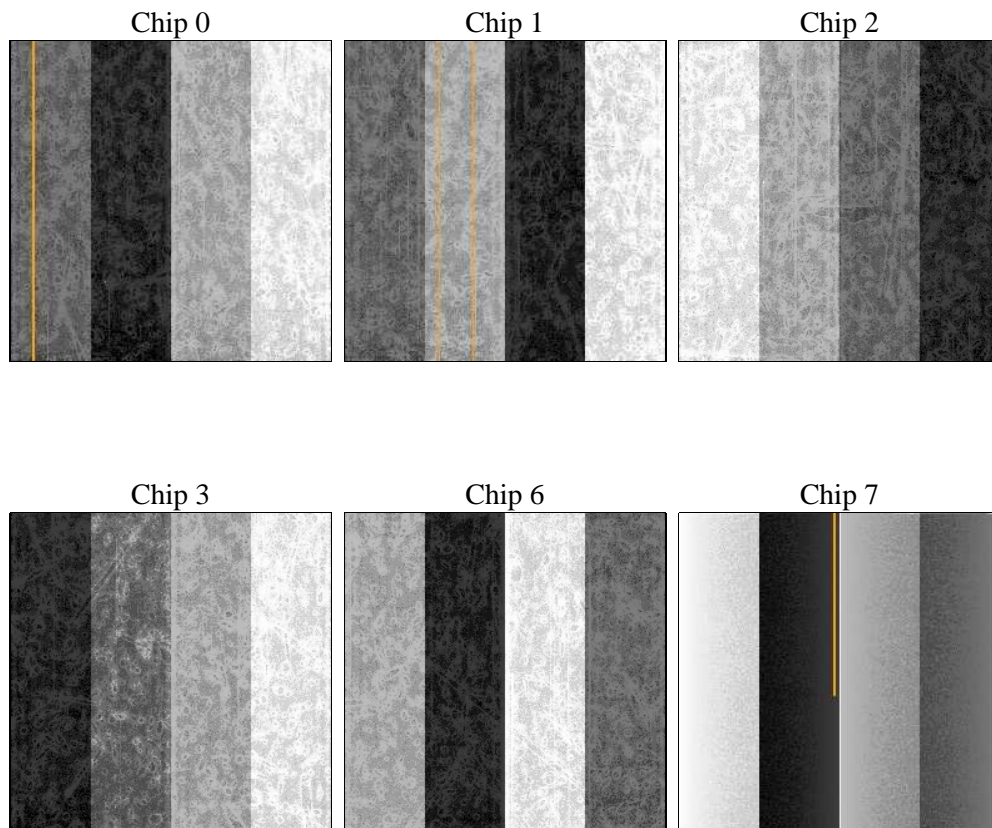
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	5057.6906508803	Sum of GTIs [s]
caldsver	4.4.7	 	ontime0	5057.5675308704	Sum of GTIs [s]
date	2012-02-08T03:44:43	Date and time of file creation	ontime1	5057.6085708737	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	5057.649610877	Sum of GTIs [s]
			ontime3	5057.6906508803	Sum of GTIs [s]
			ontime6	5057.7727308869	Sum of GTIs [s]
			ontime7	5057.7316908836	Sum of GTIs [s]
			l1events	197760	Number of level 1 events

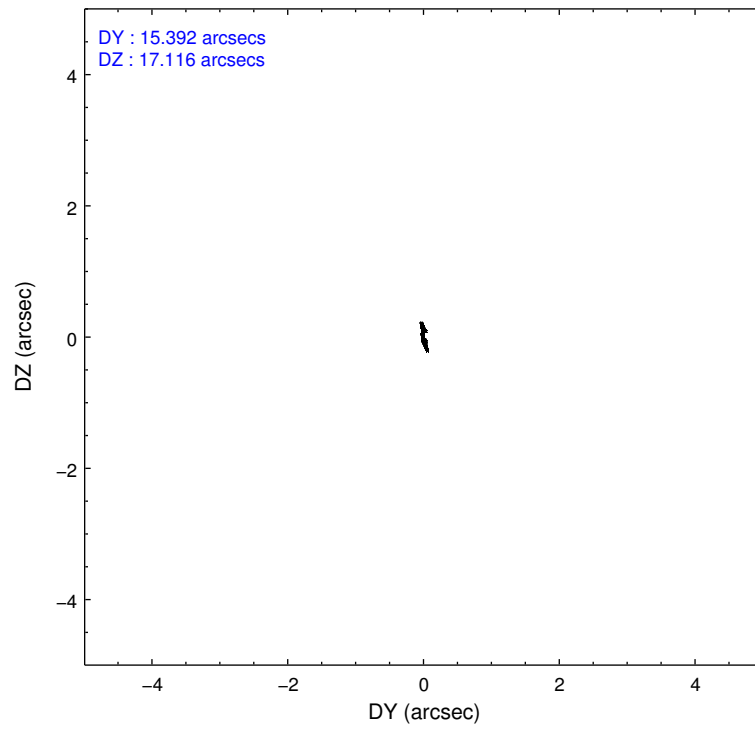
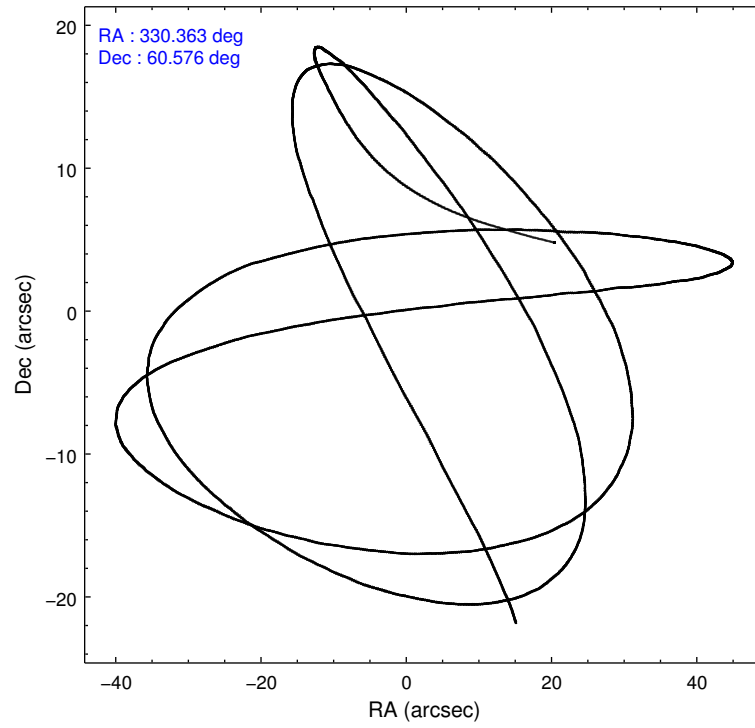
2.1.4 Events

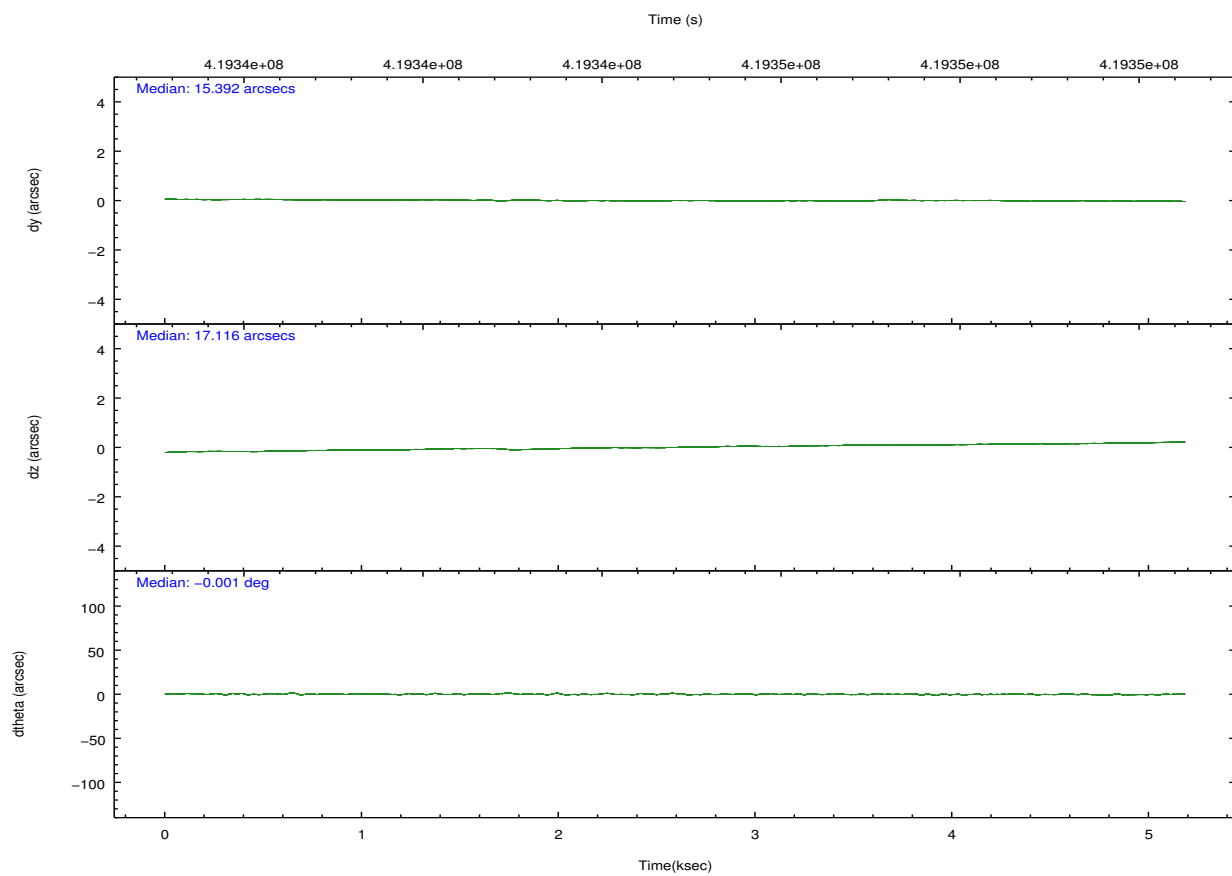
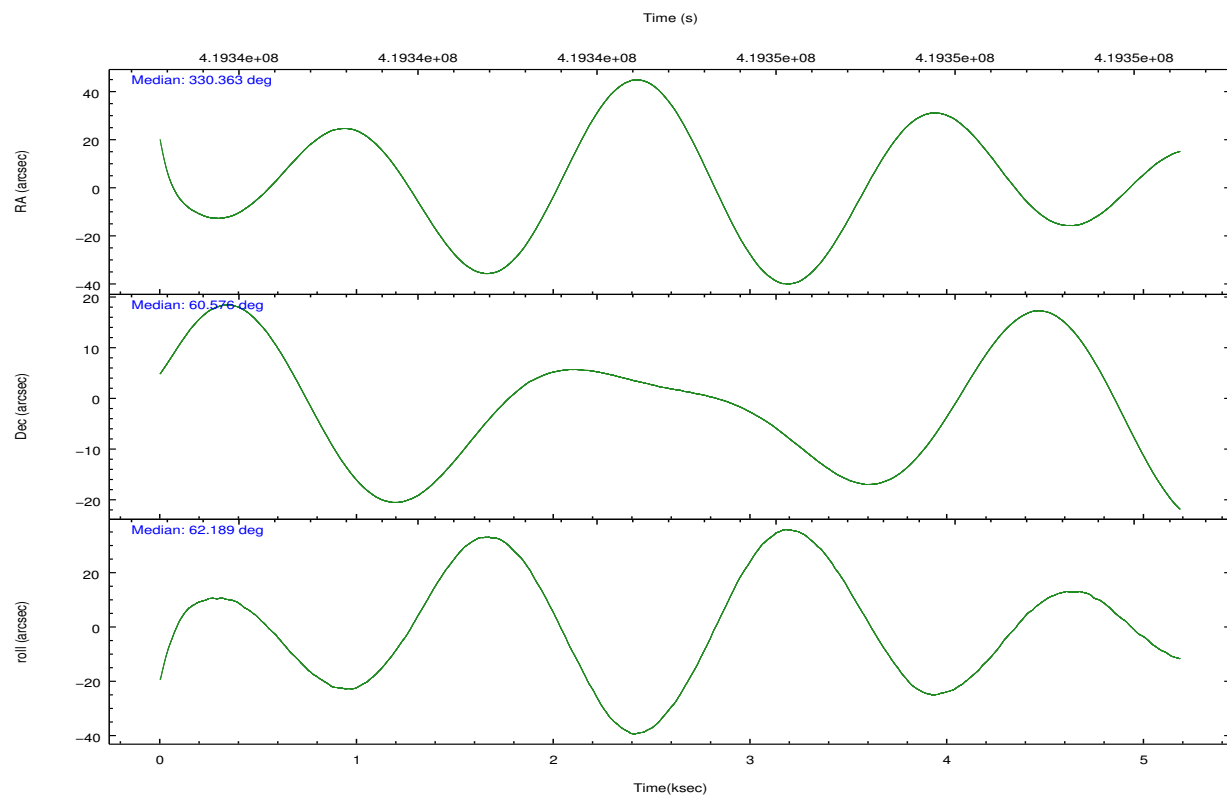
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	28819	30109	32054	32139	33529	41110	grade 0 events	1265	1433	1252	1261	1294	1684
rejected events	25191	26049	28402	28614	29721	22707		4%	4%	3%	3%	3%	4%
rejected %	87%	86%	88%	89%	88%	55%	grade 1 events	19	21	22	23	13	45
								0%	0%	0%	0%	0%	0%
							grade 2 events	874	963	902	788	909	3676
								3%	3%	2%	2%	2%	8%
							grade 3 events	406	439	374	385	436	1583
								1%	1%	1%	1%	1%	3%
							grade 4 events	359	396	407	373	382	1564
								1%	1%	1%	1%	1%	3%
							grade 5 events	1407	1463	1238	1497	1566	4253
								4%	4%	3%	4%	4%	10%
							grade 6 events	727	832	720	721	787	9910
								2%	2%	2%	2%	2%	24%
							grade 7 events	23762	24562	27139	27091	28142	18395
								82%	81%	84%	84%	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	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	330.366203	330.3637790085432	CCD I2 on	Y	Y
[deg] Pointing Dec	60.547467	60.57542898304474	CCD I3 on	Y	Y
[deg] Pointing Roll	61.985339	62.1961246349115	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)	419343001.184000	419341771.60692	CCD S5 on	N	N
Observation start date	2011-04-16T12:08:55	2011-04-16T11:49:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	419348001.184000	419348933.79479	On-chip summing requested	N	N
Observation end date	2011-04-16T13:32:15	2011-04-16T13:48:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



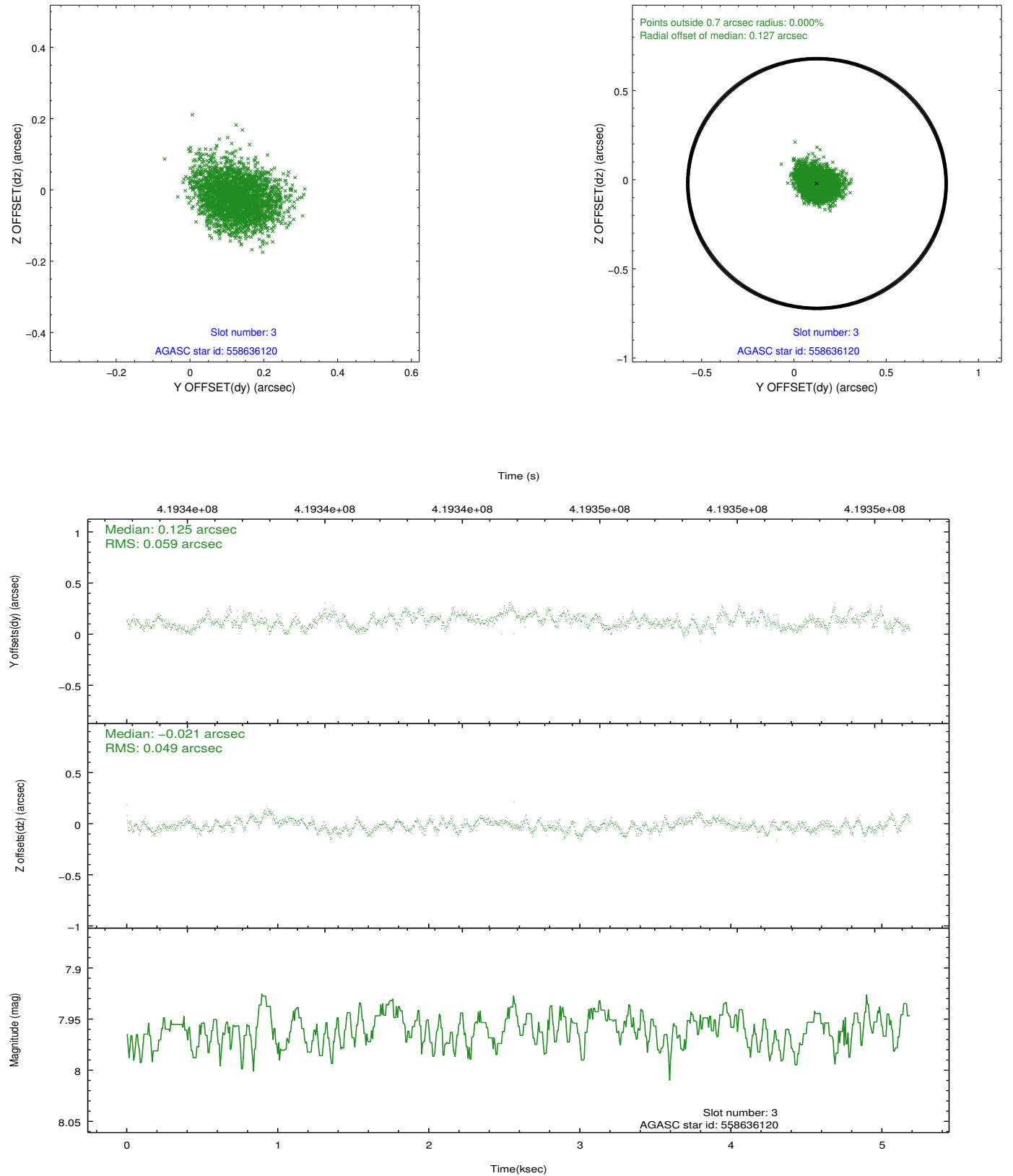


Slot Statistics

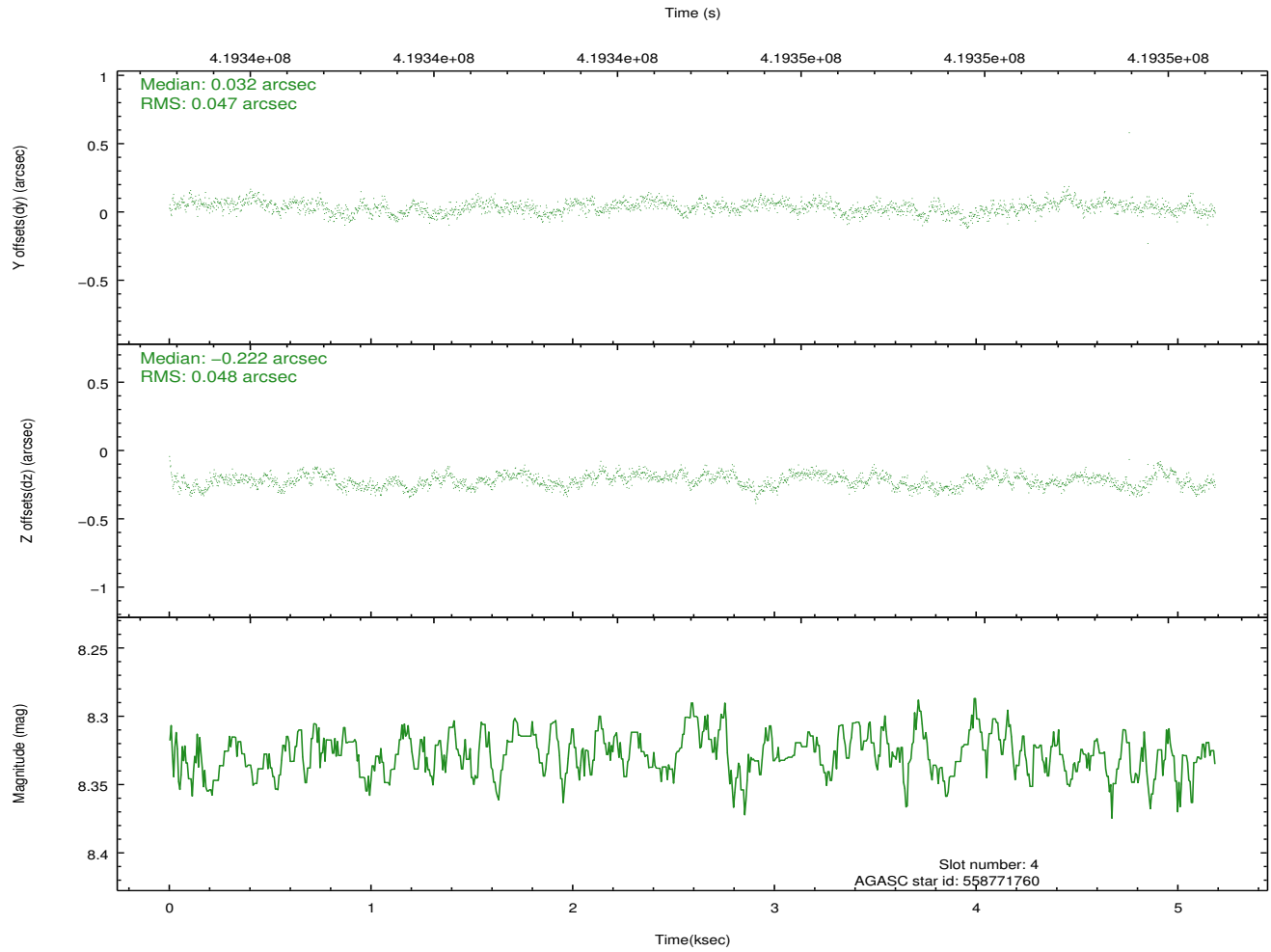
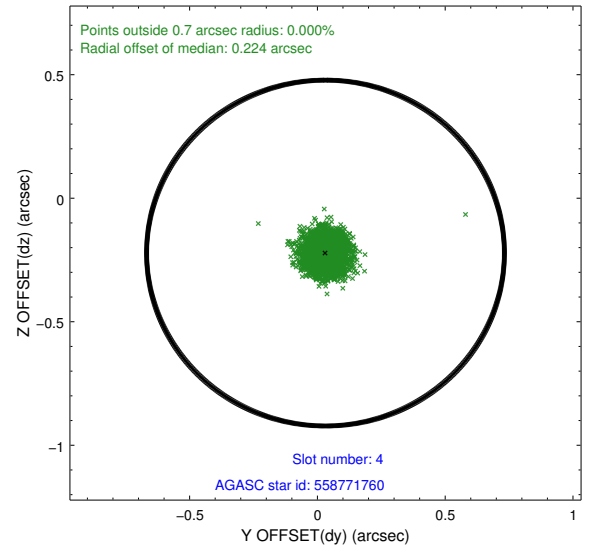
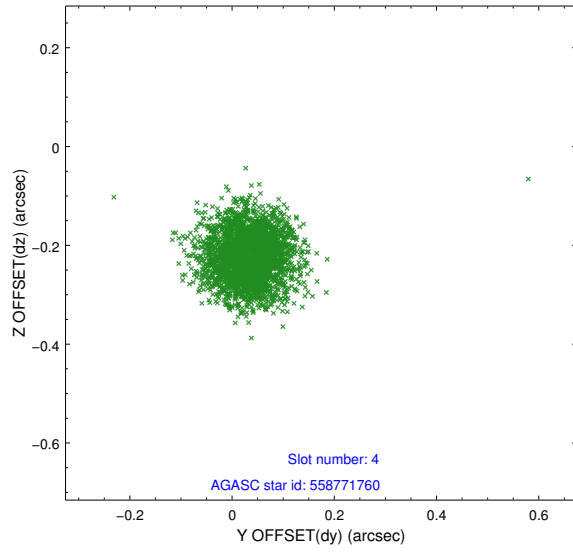
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.09	1265	0.070	-0.033	0.008	0.013	0.000000	0.000000	924.11	-840.82
1	FID	ACIS-I-5	7.09	1265	-0.229	0.069	0.006	0.009	0.000000	0.000000	-1823.63	1056.22
2	FID	ACIS-I-6	7.10	1265	0.068	0.035	0.009	0.014	0.000000	0.000000	388.41	1701.98
3	GUIDE	558636120	7.96	2530	0.125	-0.021	0.082	0.130	329.741932	60.084107	-1996.62	208.40
4	GUIDE	558771760	8.33	2529	0.032	-0.222	0.071	0.112	330.577437	61.094626	1910.08	600.15
5	GUIDE	521803520	7.40	2530	0.075	0.189	0.064	0.104	331.053597	59.867162	-1573.13	-2244.74
6	GUIDE	558636936	7.75	2530	-0.200	-0.142	0.086	0.146	329.466368	61.018870	768.19	2185.93
7	GUIDE	558766992	7.16	2528	-0.034	0.191	0.063	0.103	331.369531	60.730067	1420.85	-1243.64

2.4 Star Slots

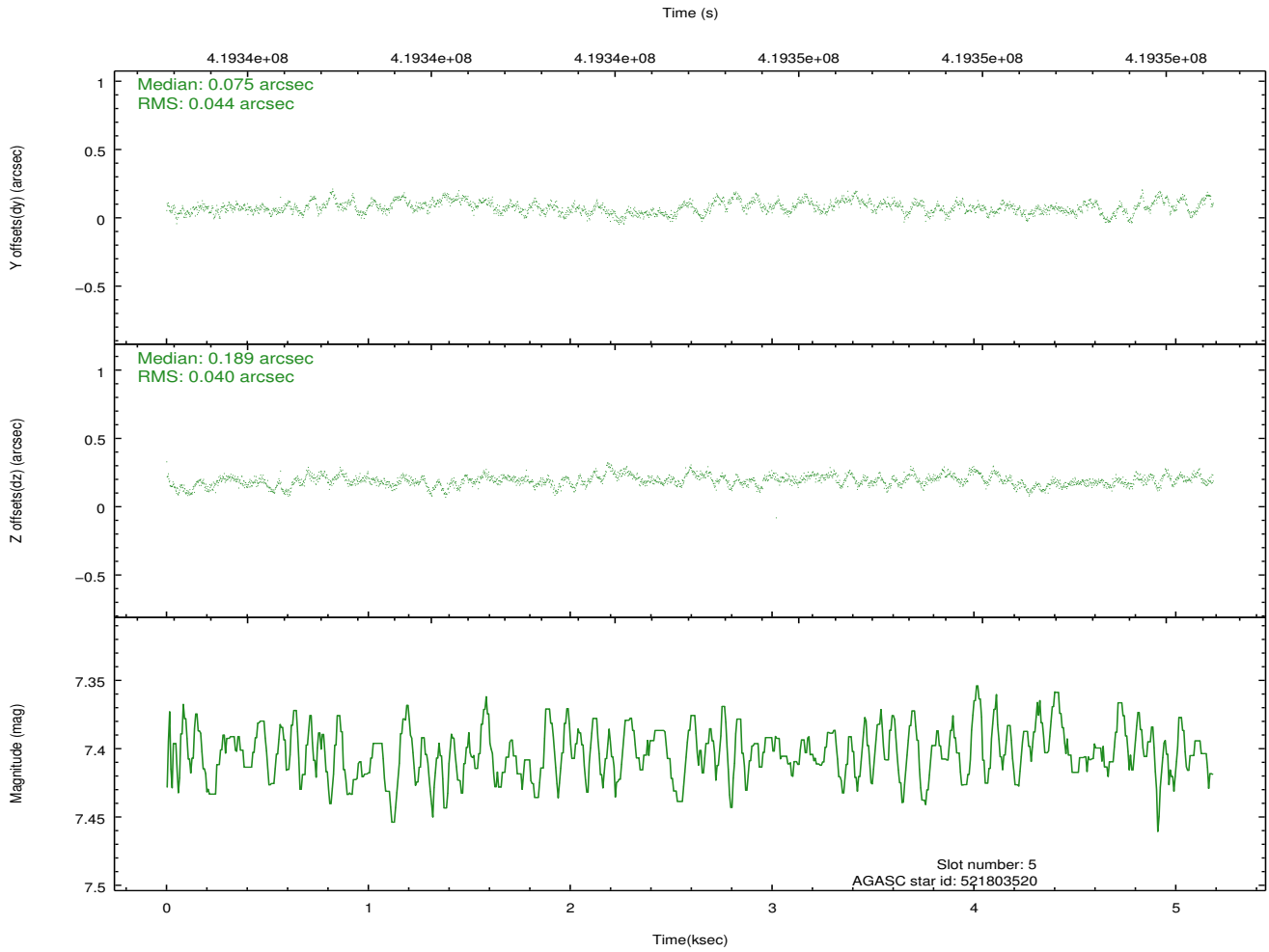
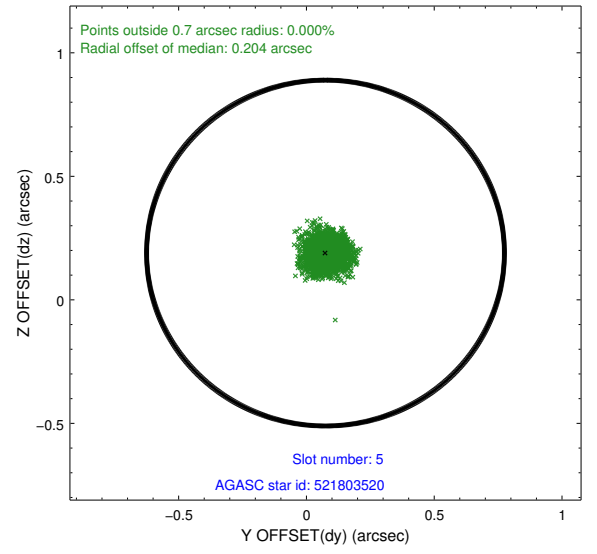
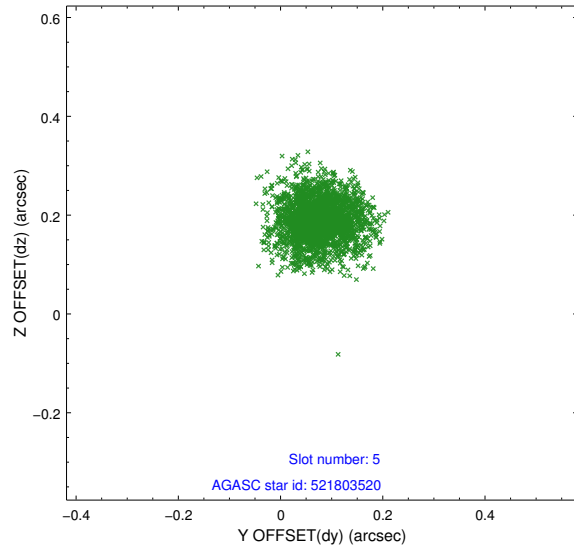
2.4.1 Slot 3



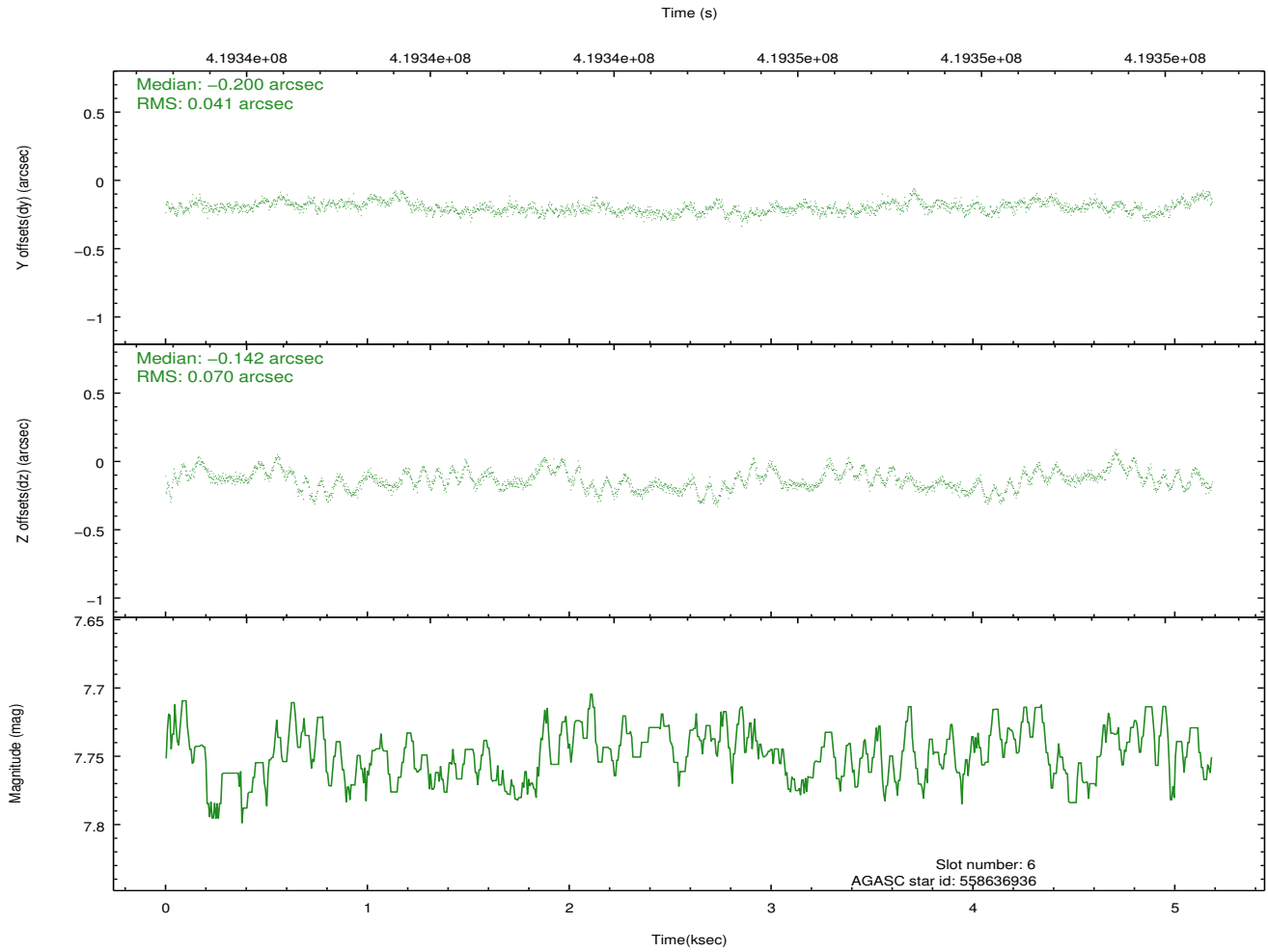
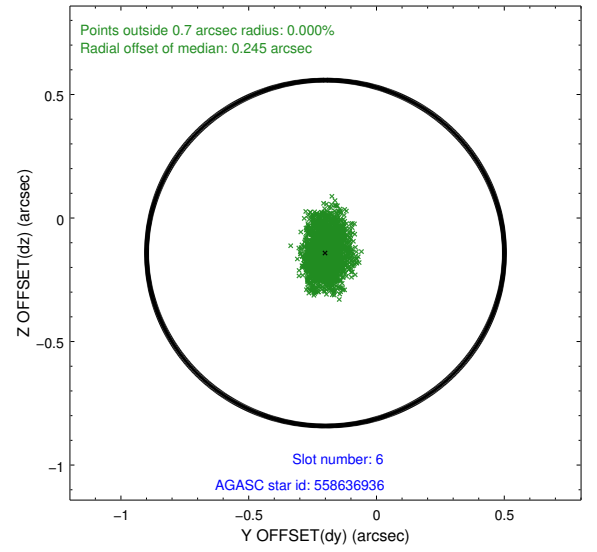
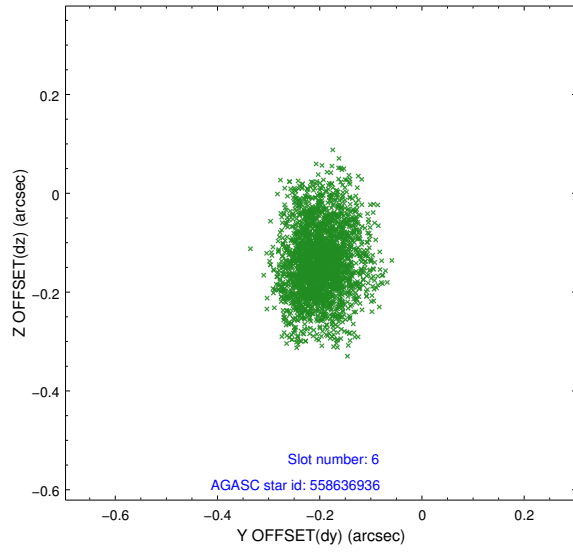
2.4.2 Slot 4



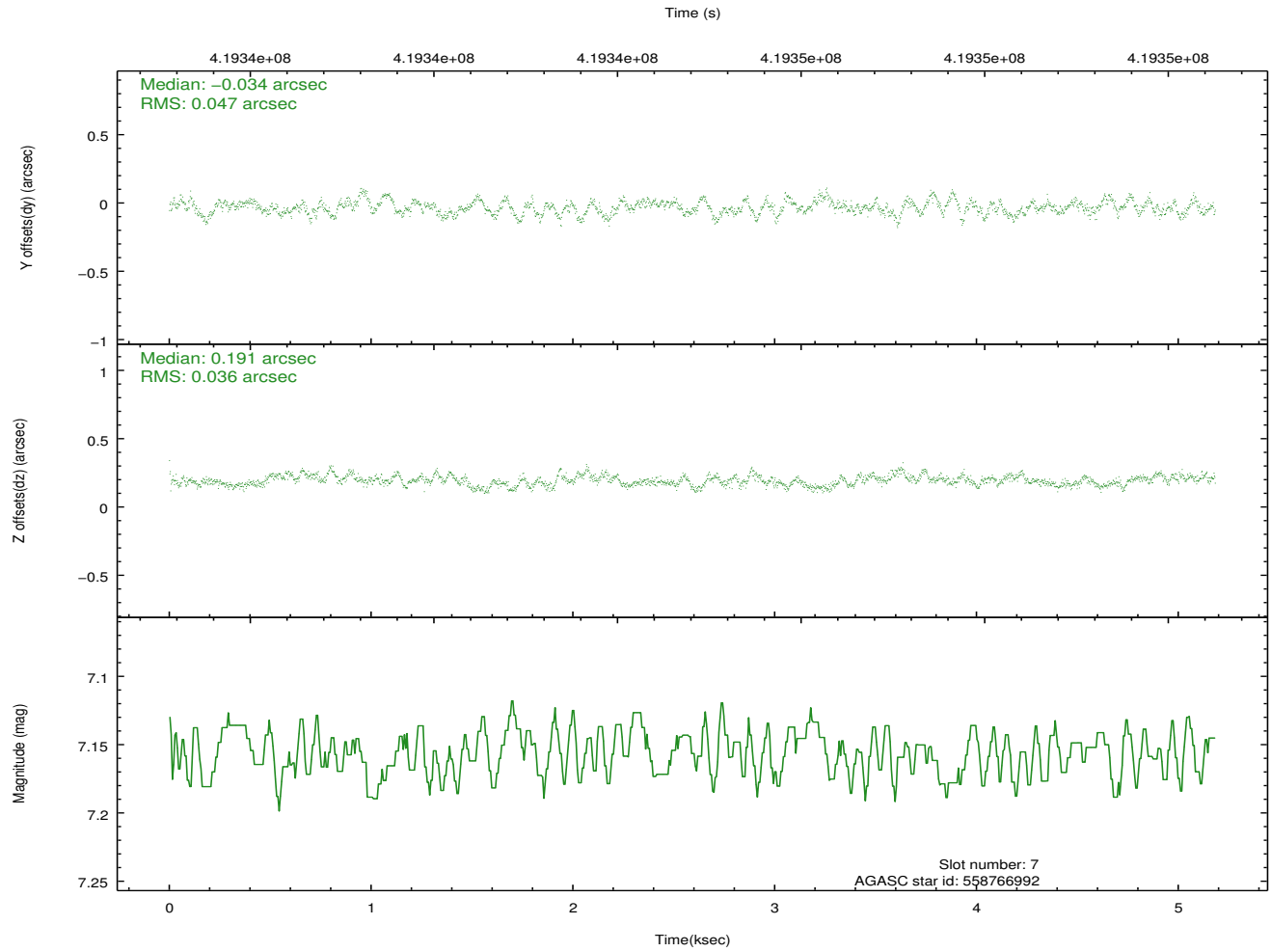
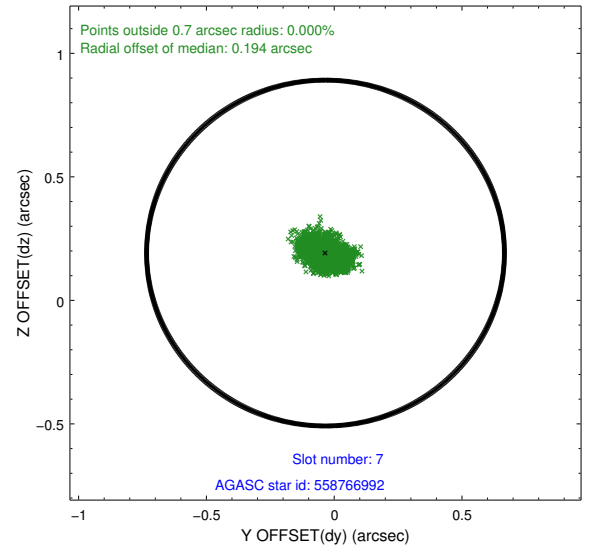
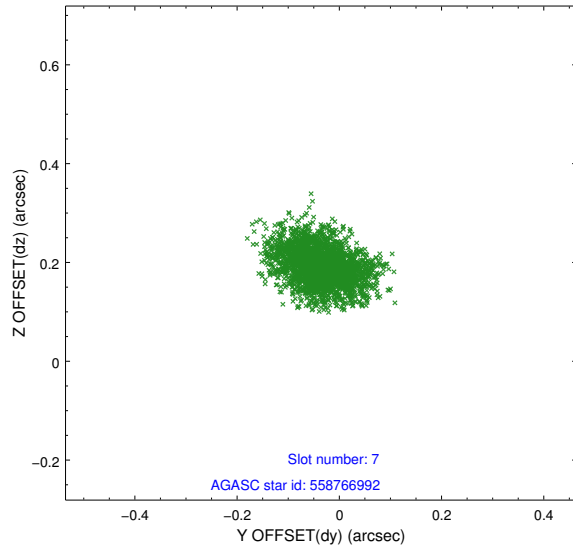
2.4.3 Slot 5



2.4.4 Slot 6

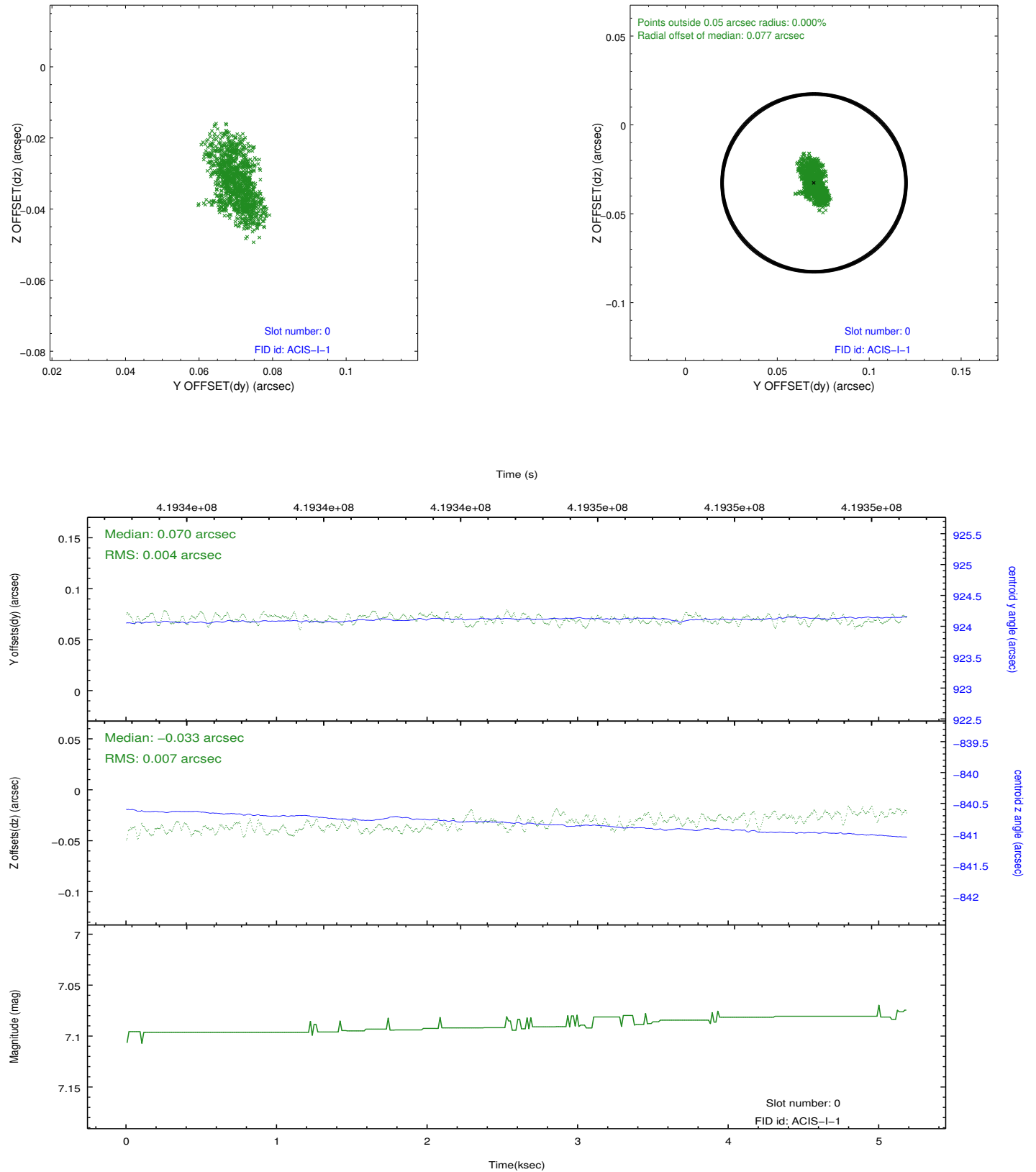


2.4.5 Slot 7

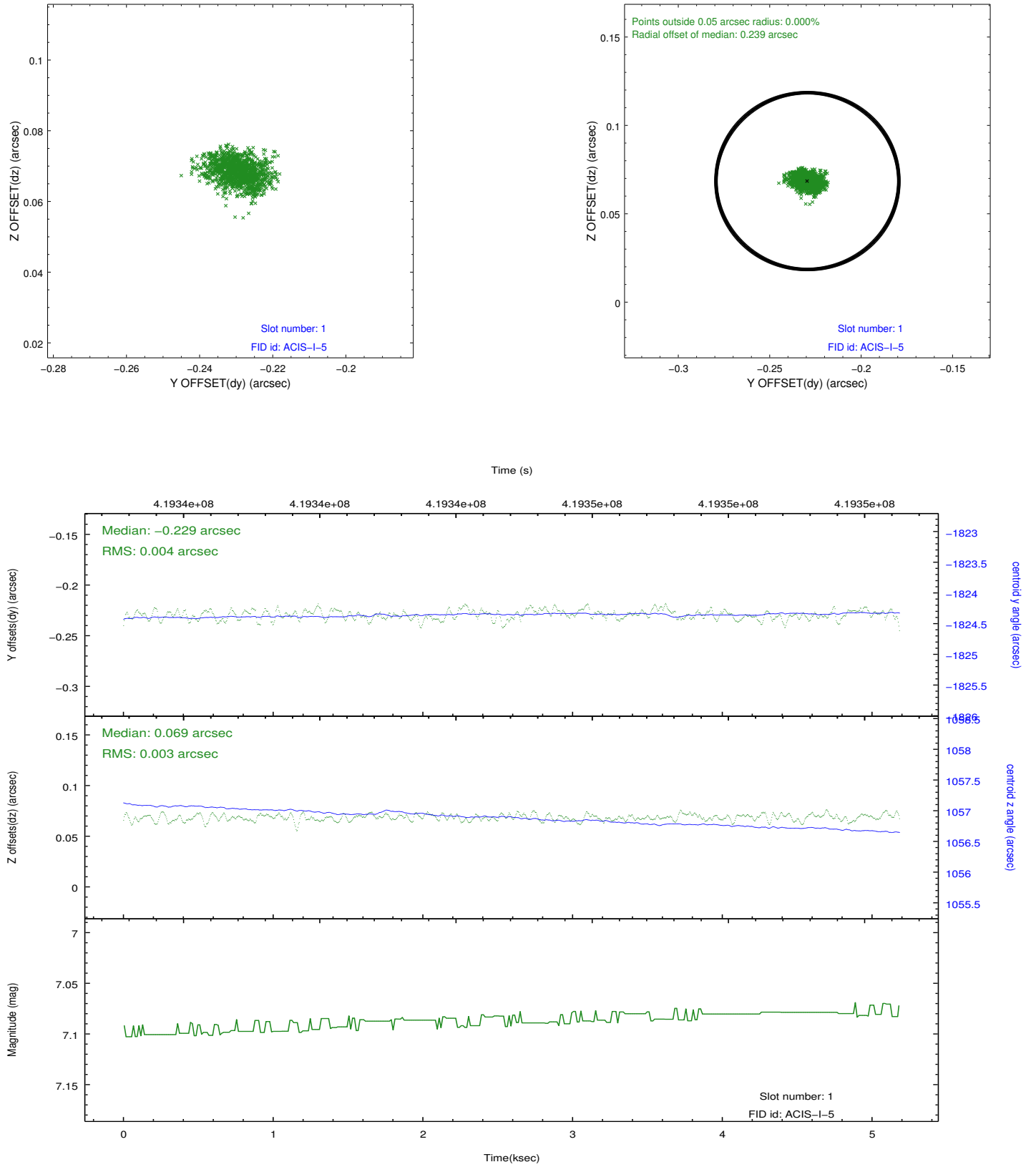


2.5 FID Slots

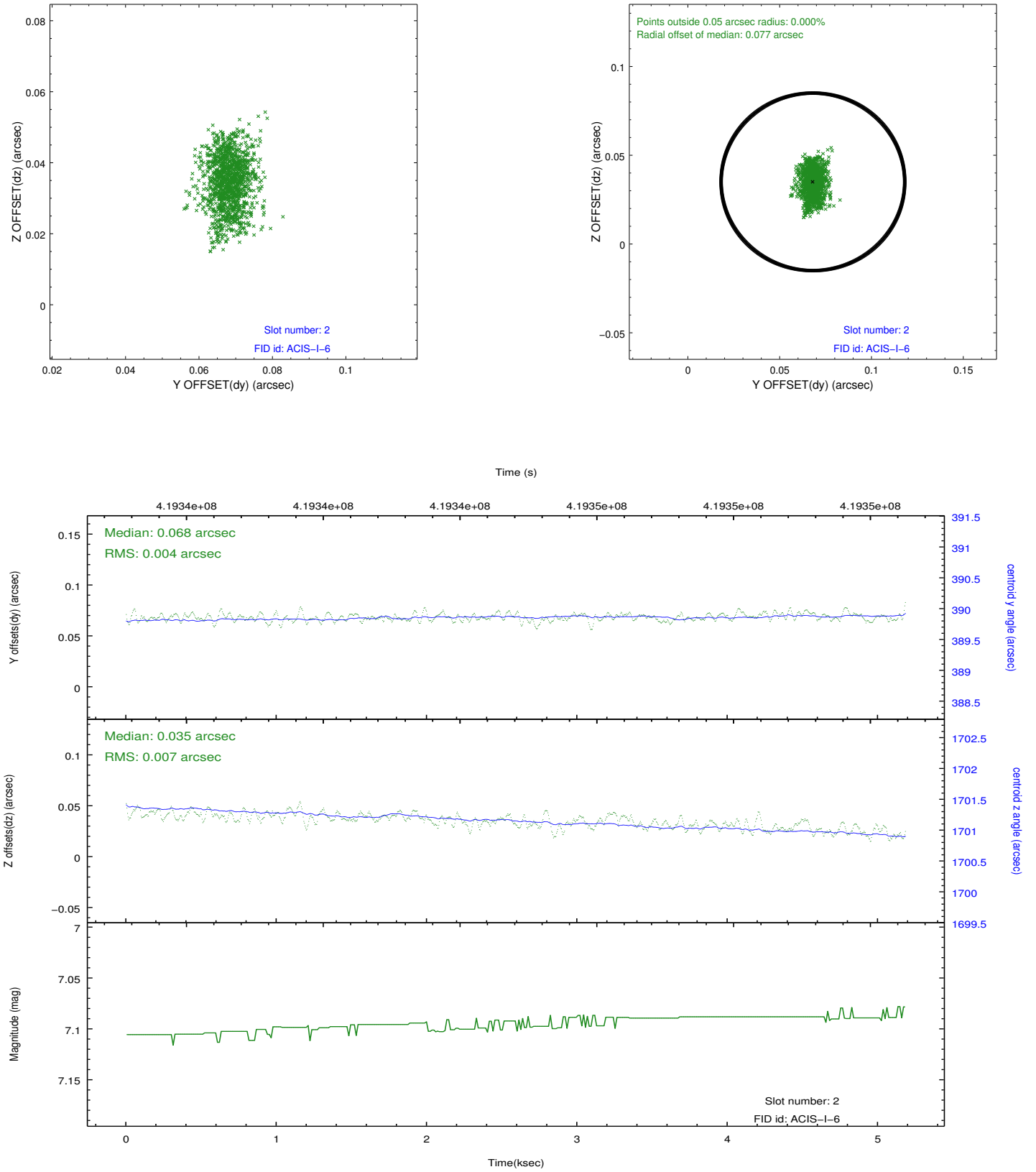
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0576906491518

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.