

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12707 - L2 Version 2
Chandra X-Ray Center

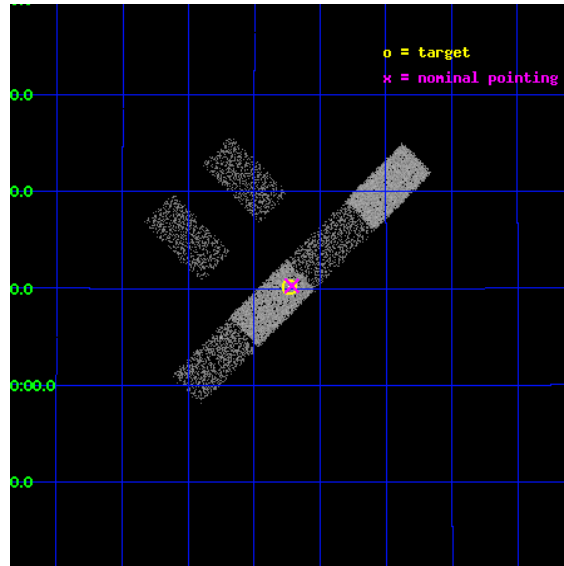
L2 Processing Date : Feb 8 2012

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

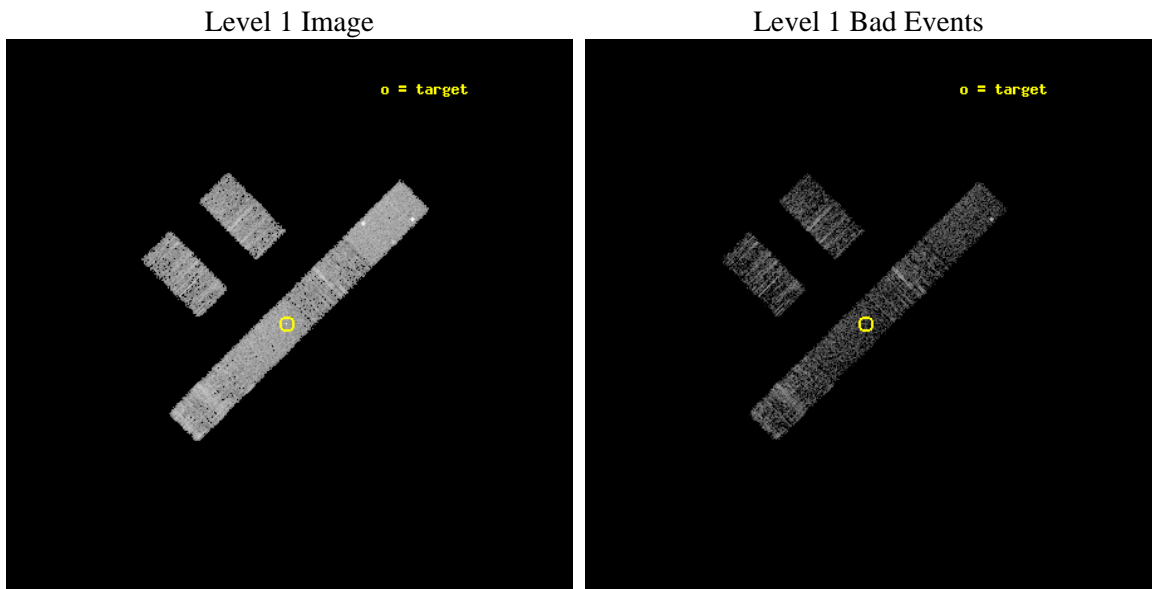
seq_num	702343	Sequence number
obs_id	12707	Observation id
title	The Nature of Weak-Line Quasars at Low Redshift	Proposal title
observer	Prof. William Brandt	Principal investigator
object	SDSS J1530+2310	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	232.68375	Observer's specified target RA [deg]
dec_targ	23.170417	Observer's specified target Dec [deg]
ra_nom	232.67854600368	Nominal RA [deg]
dec_nom	23.1713648792	Nominal Dec [deg]
roll_nom	135.17609425931	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3097.8000204563	Sum of GTIs [s]
liveltime	3028.7446426049	Livetime [s]
ontime2	3097.8000204563	Sum of GTIs [s]
ontime3	3097.8000204563	Sum of GTIs [s]
ontime5	3097.8000204563	Sum of GTIs [s]
ontime6	3097.8000204563	Sum of GTIs [s]
ontime7	3097.8000204563	Sum of GTIs [s]
ontime8	3097.764795661	Sum of GTIs [s]
l2events	17847	Number of level 2 events



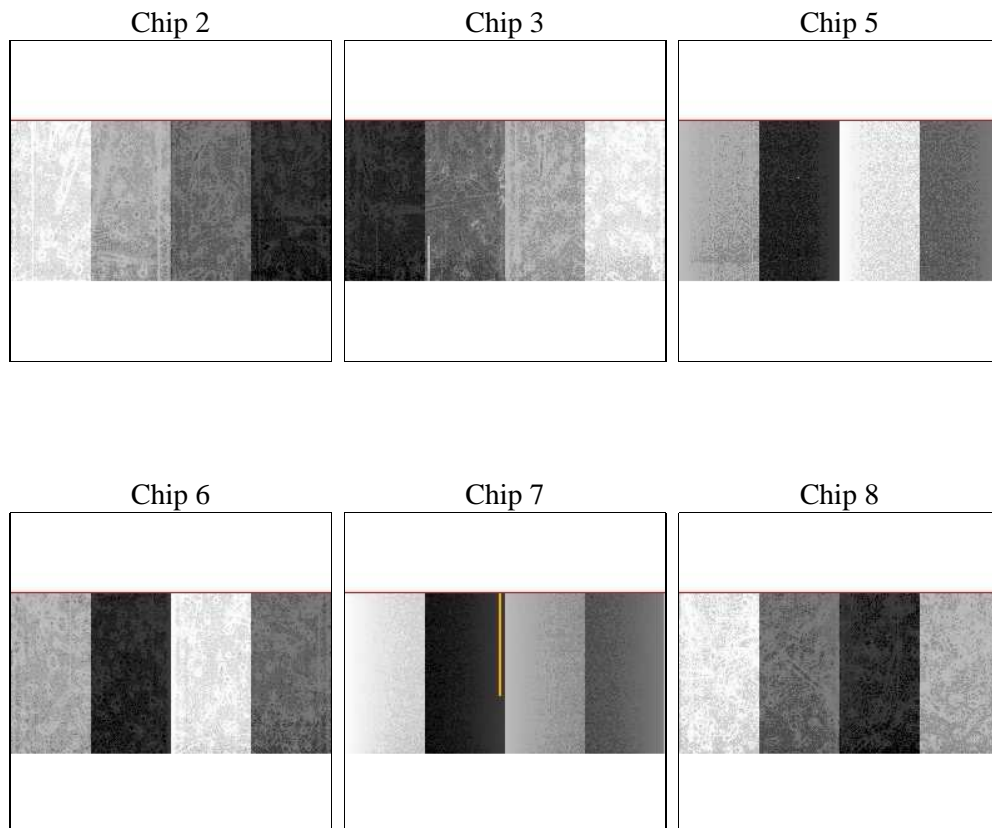
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.429000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	3097.8000204563	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	3097.8000204563	Sum of GTIs [s]
date	2012-02-08T03:27:55	Date and time of file creation	ontime3	3097.8000204563	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	3097.8000204563	Sum of GTIs [s]
			ontime6	3097.8000204563	Sum of GTIs [s]
			ontime7	3097.8000204563	Sum of GTIs [s]
			ontime8	3097.764795661	Sum of GTIs [s]
			l1events	76312	Number of level 1 events

2.1.4 Events

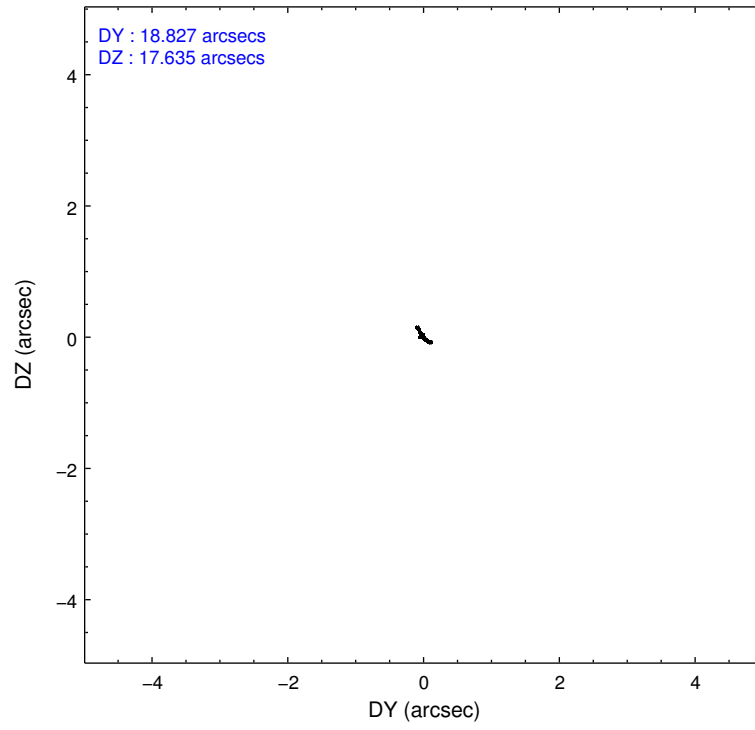
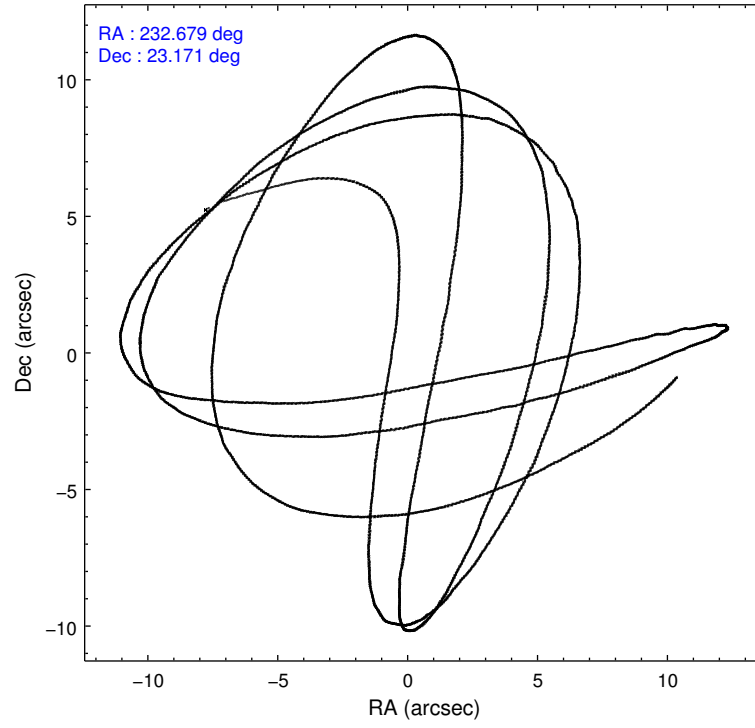
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	10381	10087	17364	10302	13268	14910
rejected events	9150	9004	8184	9017	7039	11019
rejected %	88%	89%	47%	87%	53%	73%

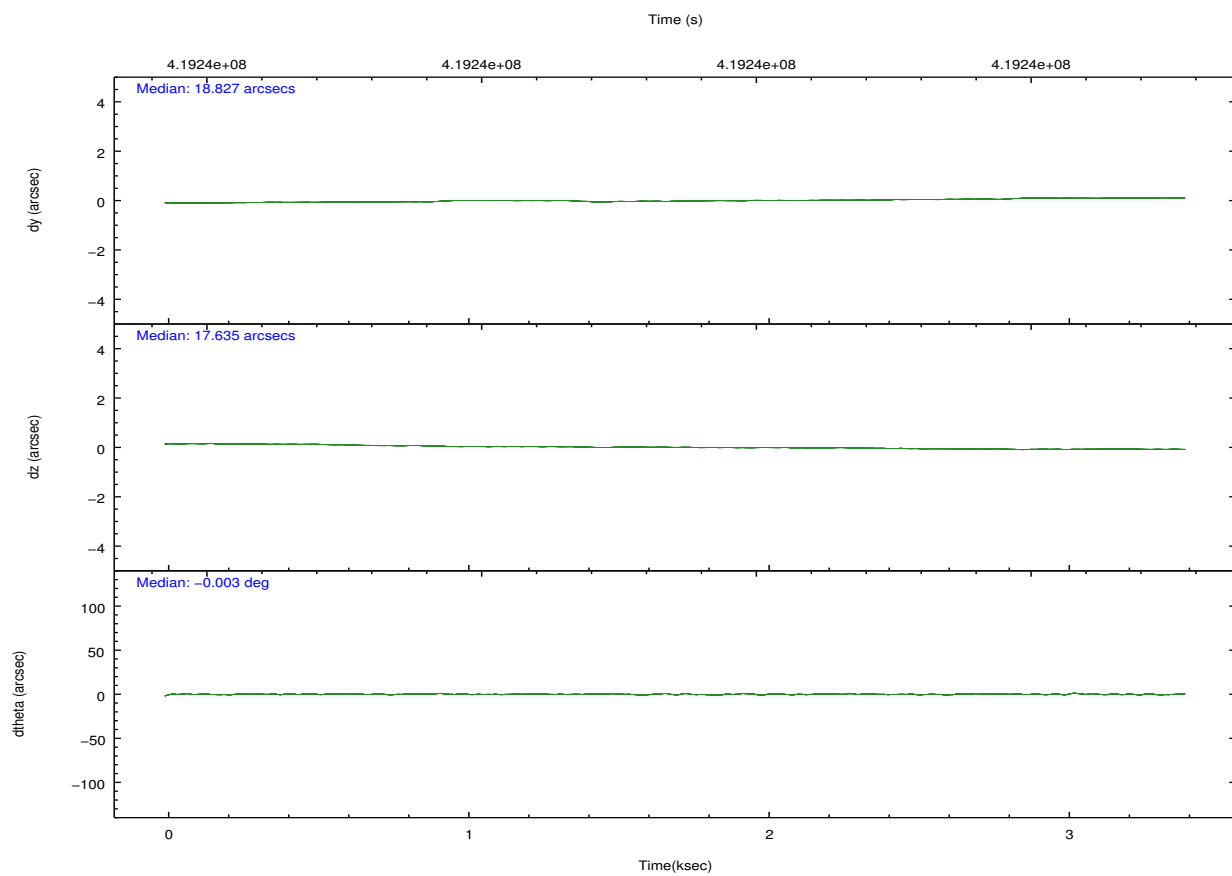
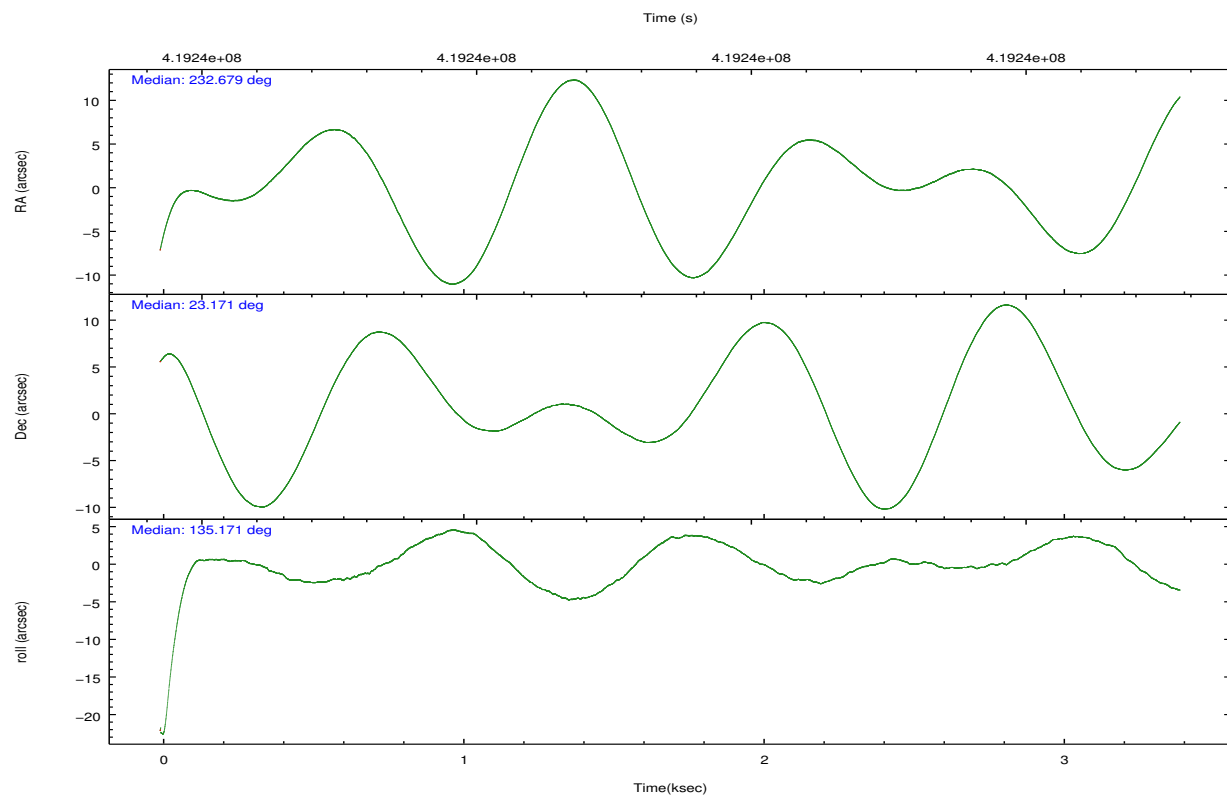
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	435	382	1732	462	668	1008
	4%	3%	9%	4%	5%	6%
grade 1 events	6	5	34	1	14	7
	0%	0%	0%	0%	0%	0%
grade 2 events	278	214	2765	253	1255	982
	2%	2%	15%	2%	9%	6%
grade 3 events	138	143	398	159	643	396
	1%	1%	2%	1%	4%	2%
grade 4 events	142	133	351	147	626	376
	1%	1%	2%	1%	4%	2%
grade 5 events	372	430	1338	471	1412	674
	3%	4%	7%	4%	10%	4%
grade 6 events	238	211	3940	265	3039	1130
	2%	2%	22%	2%	22%	7%
grade 7 events	8772	8569	6806	8544	5611	10337
	84%	84%	39%	82%	42%	69%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	232.707464	232.678546003677	CCD I2 on	O2	Y
[deg] Pointing Dec	23.164880	23.17136487920043	CCD I3 on	O1	Y
[deg] Pointing Roll	135.008183	135.1760942593089	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	Y	Y
[s] Observation start time (MET)	419235393.184000	419234480.75135	CCD S5 on	N	N
Observation start date	2011-04-15T06:15:27	2011-04-15T06:01:20	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	419238394.184000	419238619.70156	On-chip summing requested	N	N
Observation end date	2011-04-15T07:05:28	2011-04-15T07:10:19	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.8

2.3 Aspect



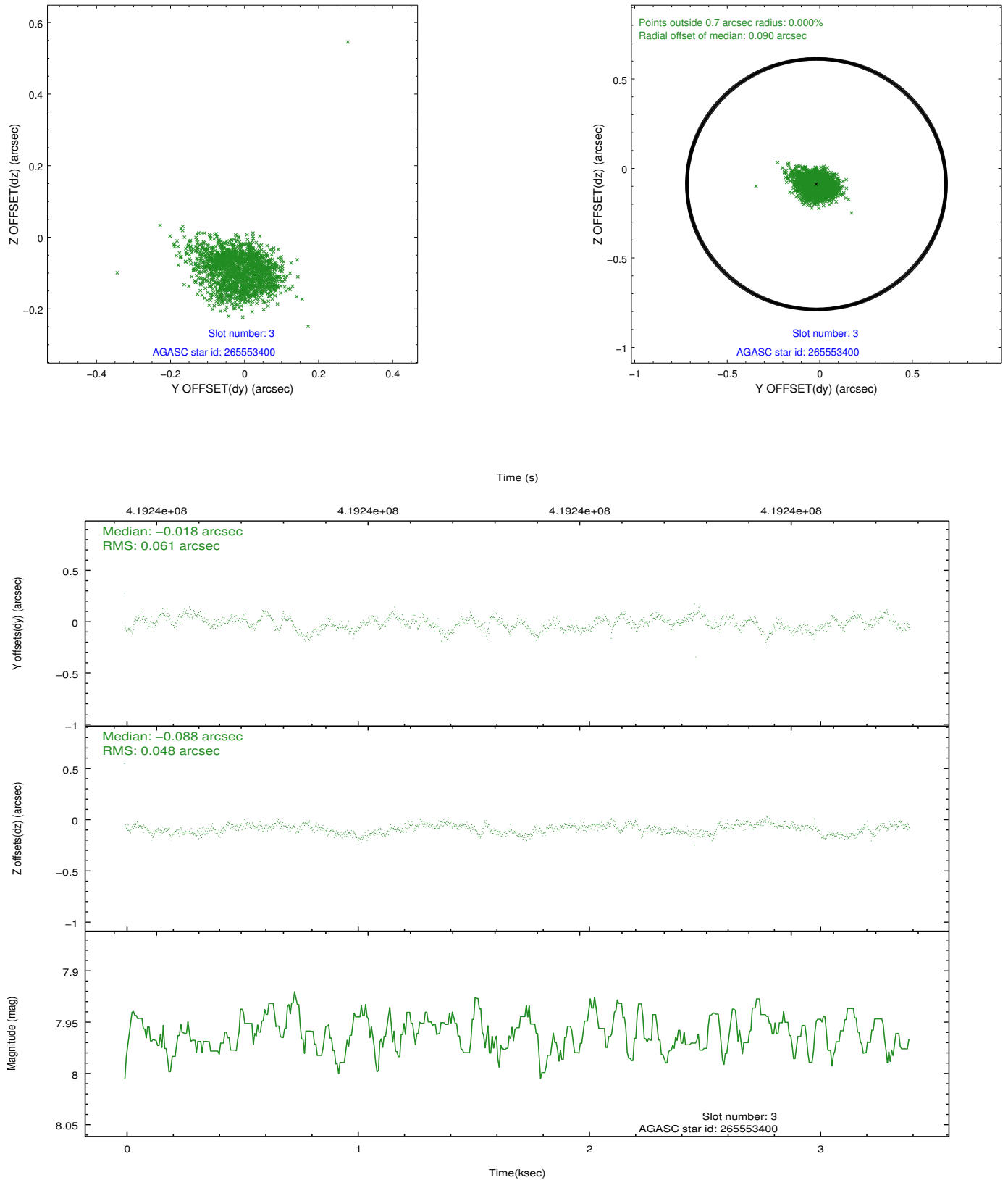


Slot Statistics

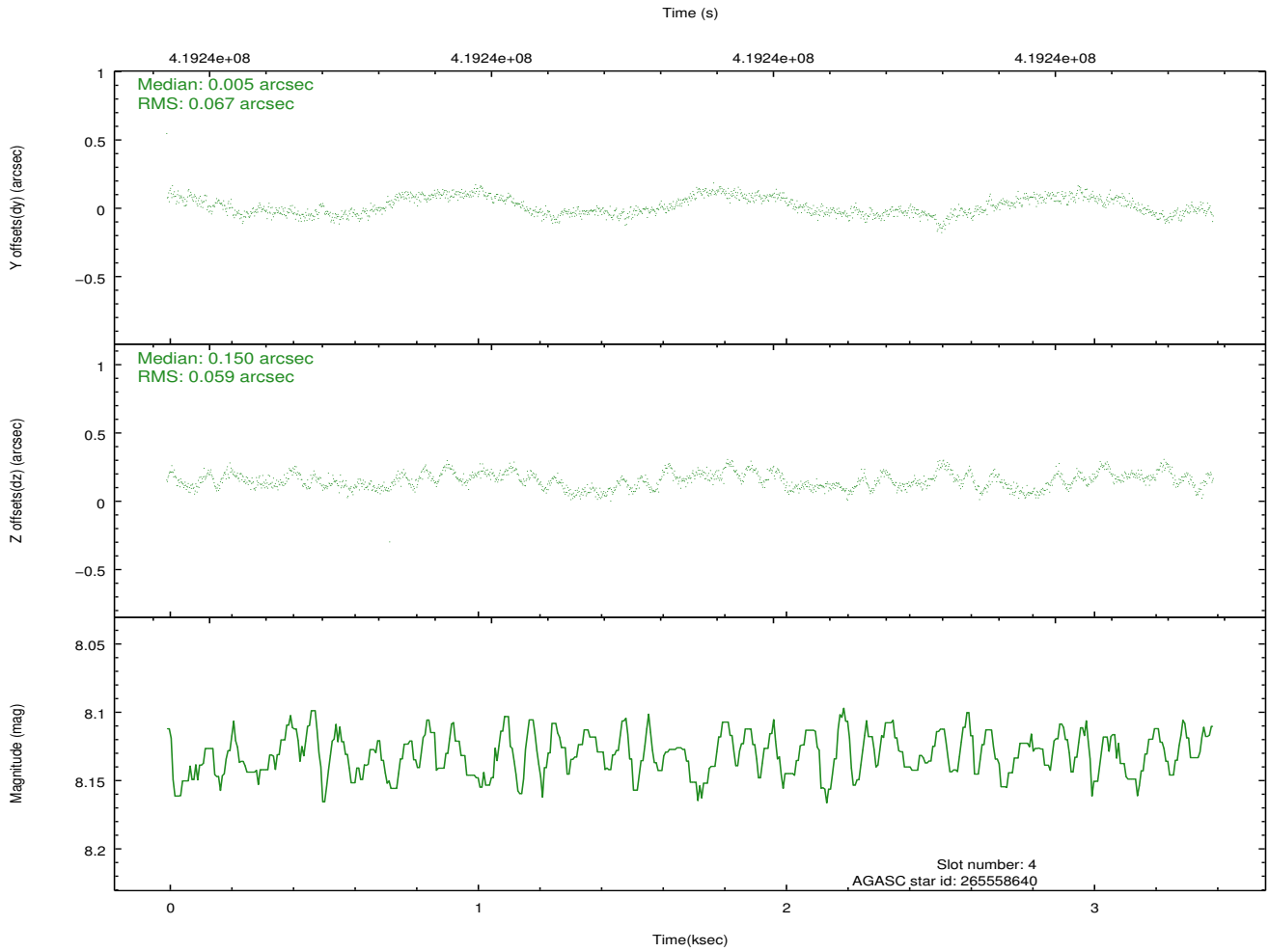
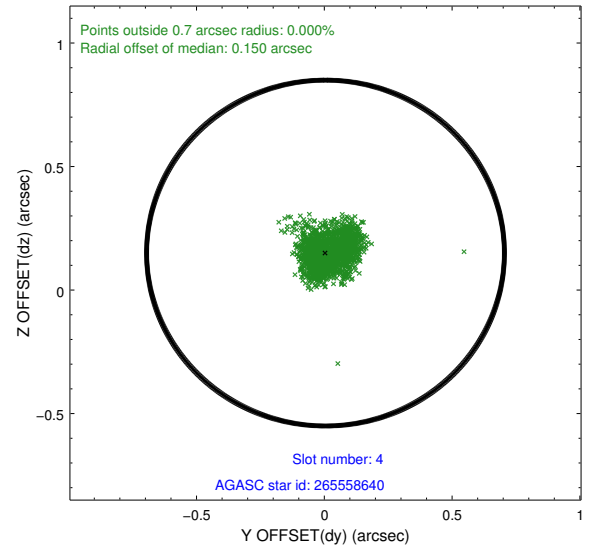
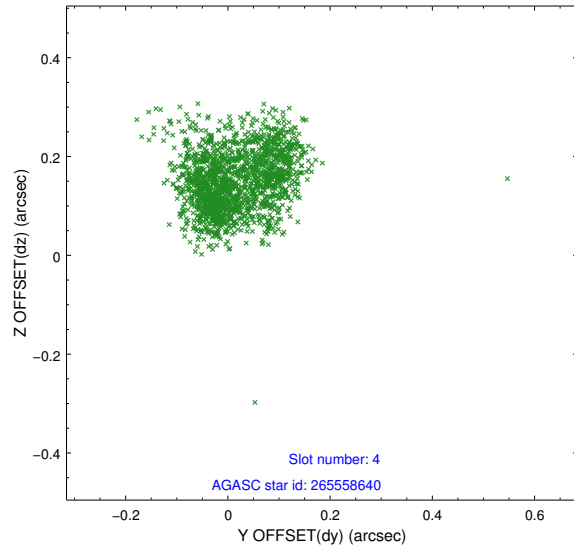
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	829	-0.069	-0.039	0.006	0.011	0.000000	0.000000	-772.01	-1739.07
1	FID	ACIS-S-4	7.01	829	0.221	0.044	0.005	0.009	0.000000	0.000000	2140.74	167.50
2	FID	ACIS-S-5	7.04	829	-0.184	0.004	0.006	0.009	0.000000	0.000000	-1822.54	163.34
3	GUIDE	265553400	7.96	1657	-0.018	-0.088	0.079	0.126	232.475560	23.817136	2201.31	-1120.79
4	GUIDE	265558640	8.13	1658	0.005	0.150	0.095	0.146	233.589053	23.210181	-1939.54	-2184.64
5	GUIDE	265560536	8.06	1657	-0.332	0.273	0.077	0.118	232.543821	23.755517	1883.86	-1123.73
6	GUIDE	265562736	7.52	1658	0.108	-0.156	0.059	0.108	233.012022	22.570784	-2227.56	795.57
7	GUIDE	265563368	9.12	1655	0.223	-0.170	0.084	0.137	232.886259	22.530188	-2036.13	1195.54

2.4 Star Slots

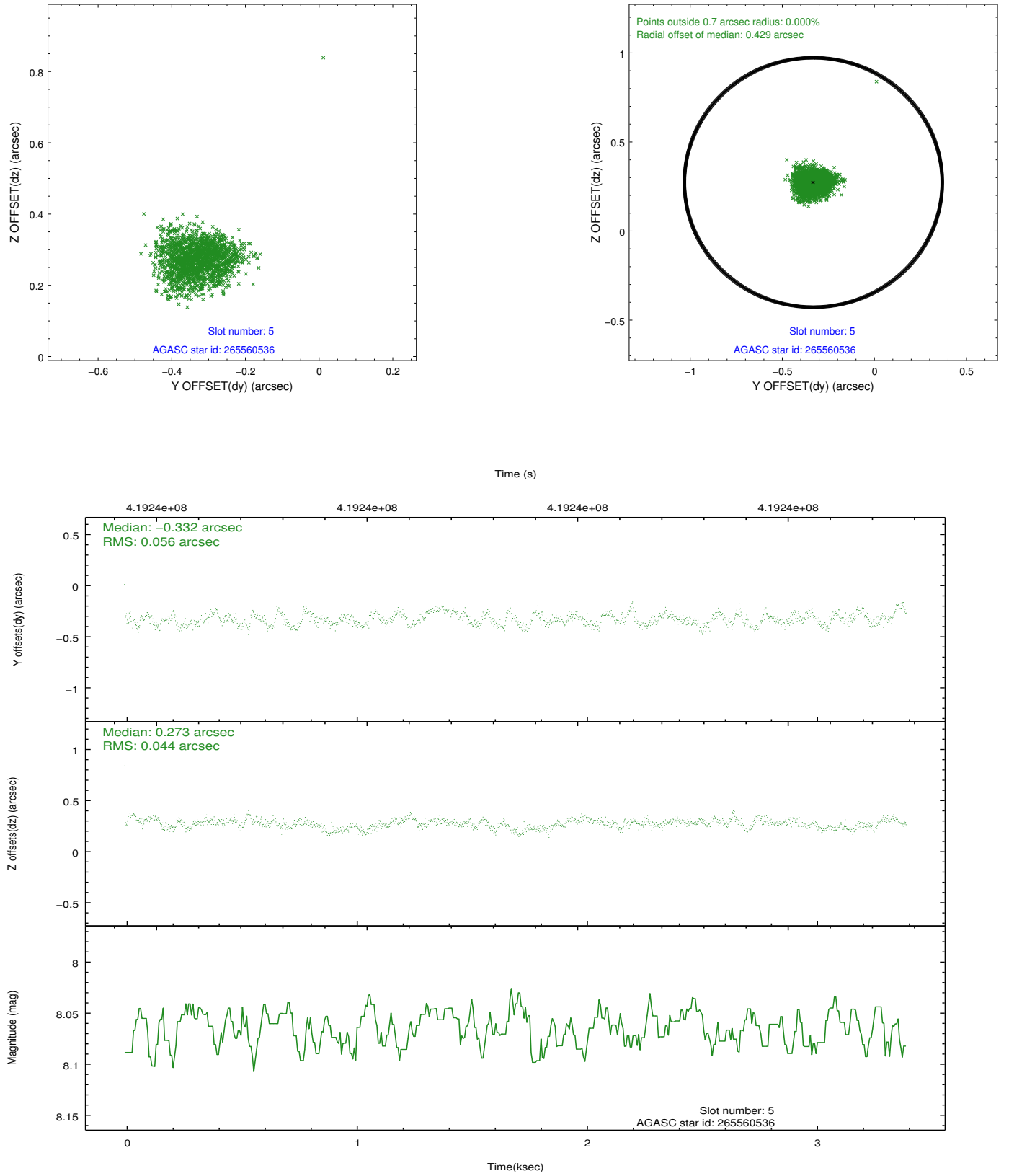
2.4.1 Slot 3



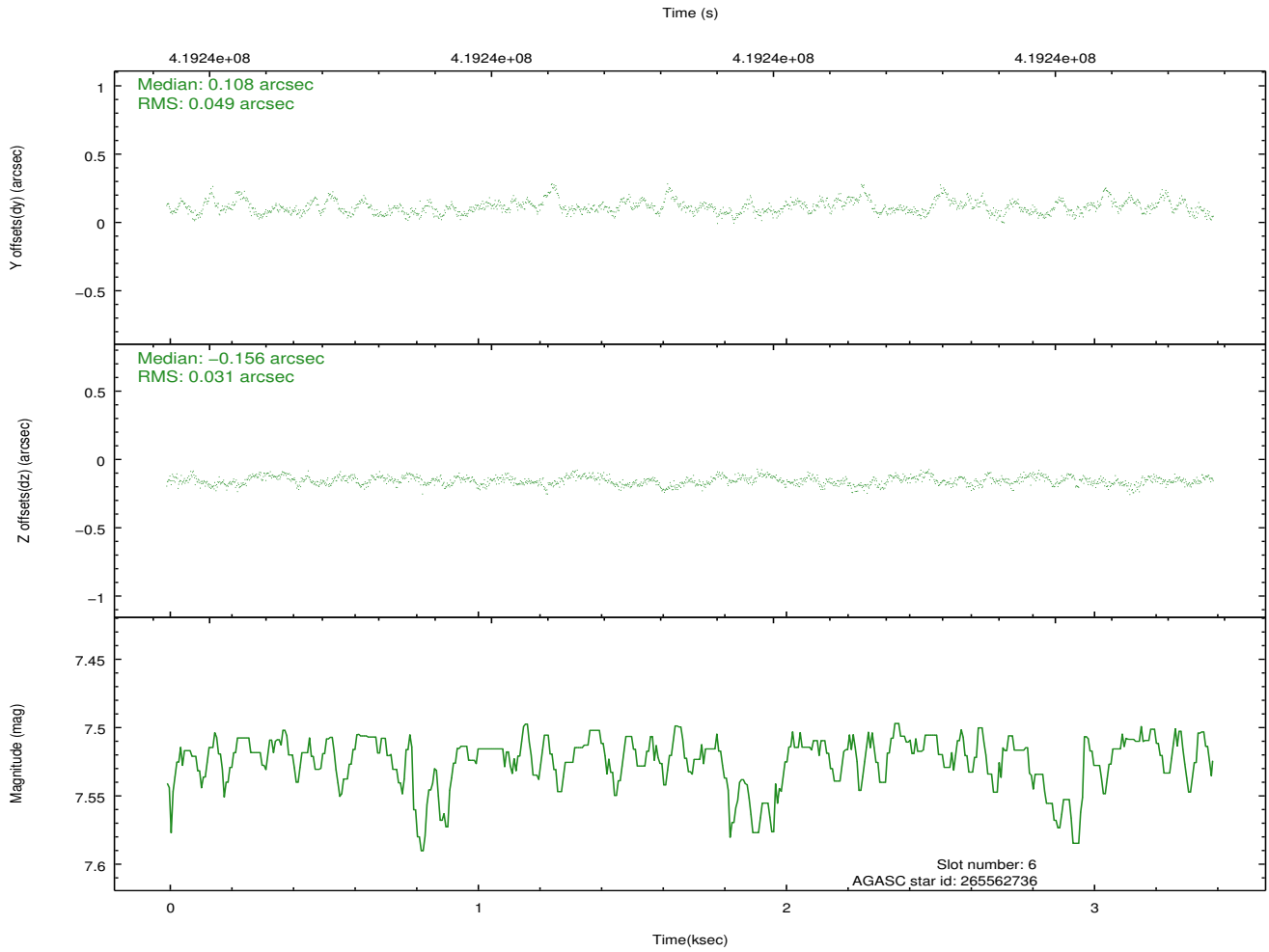
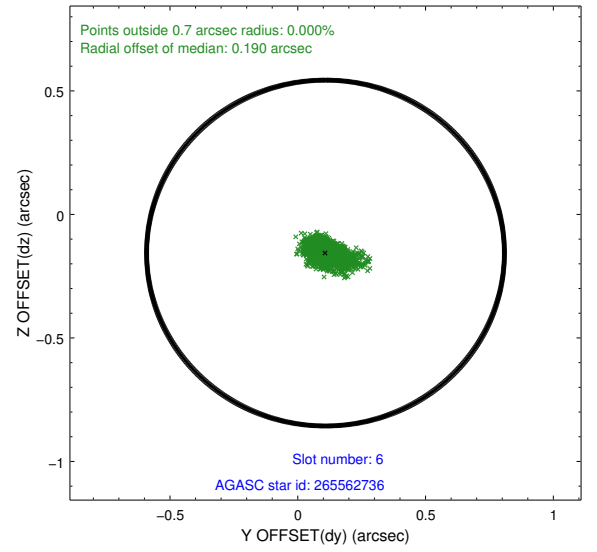
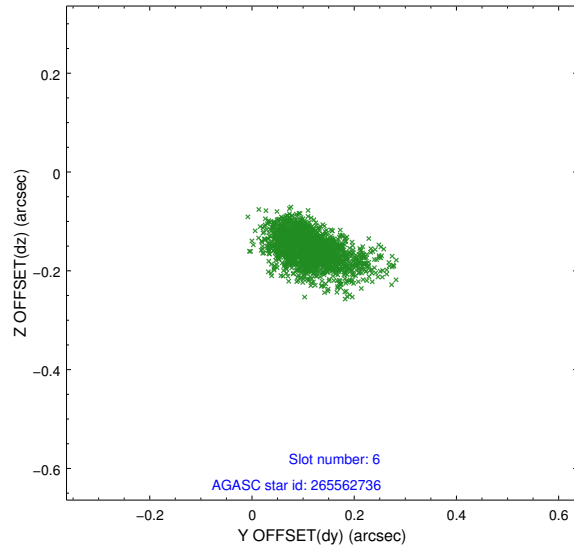
2.4.2 Slot 4



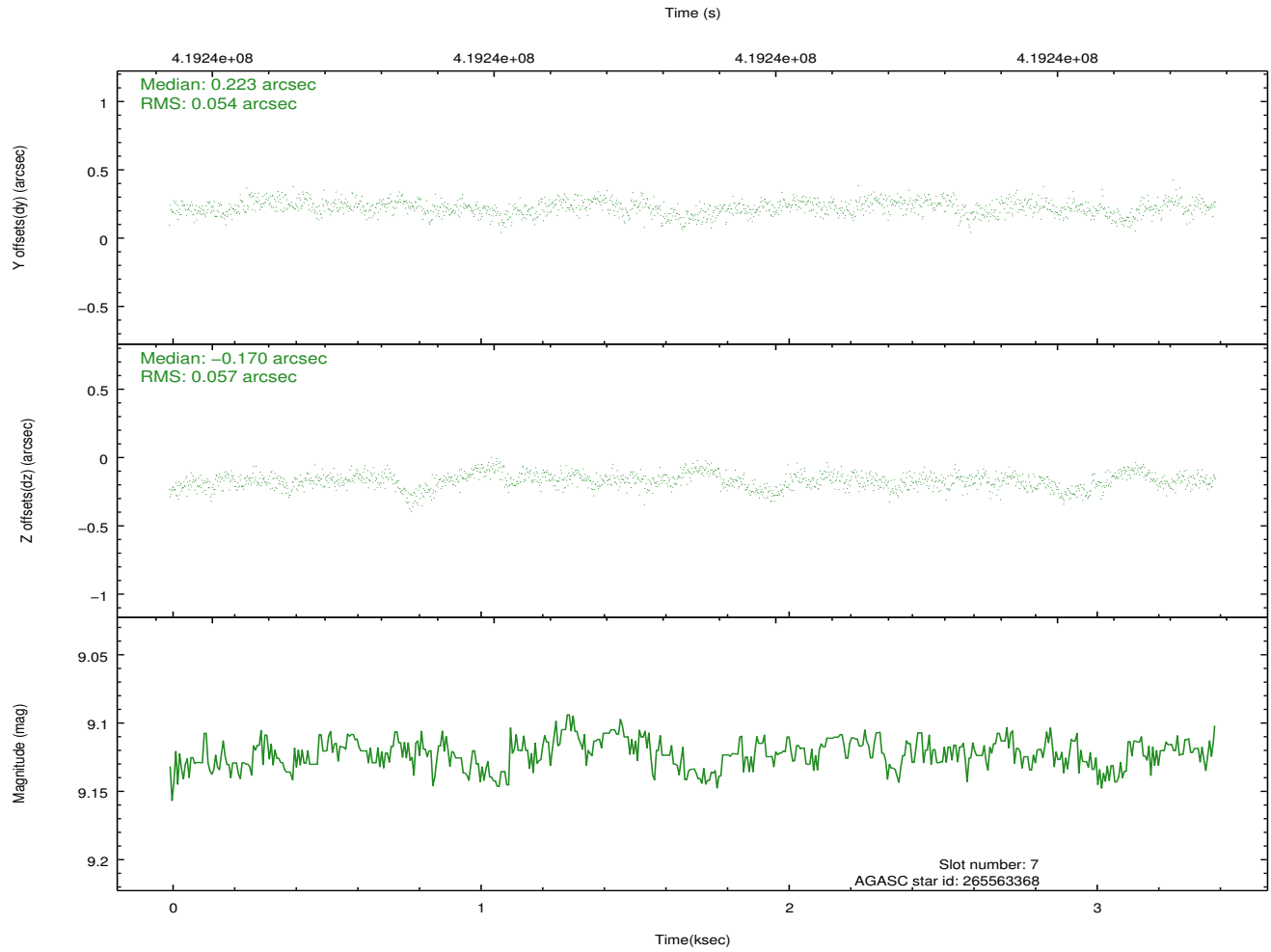
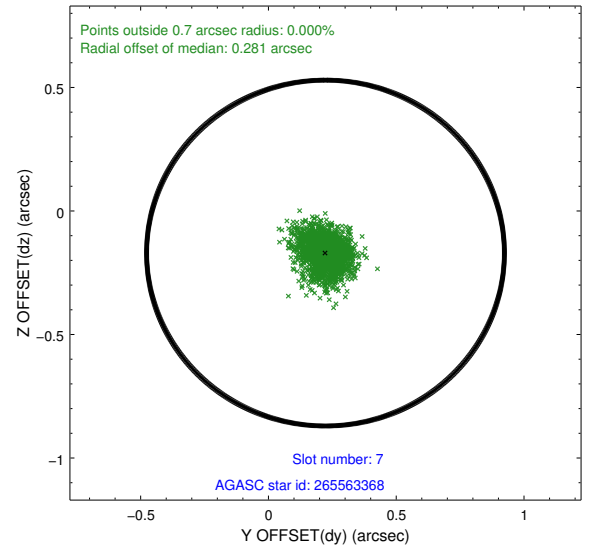
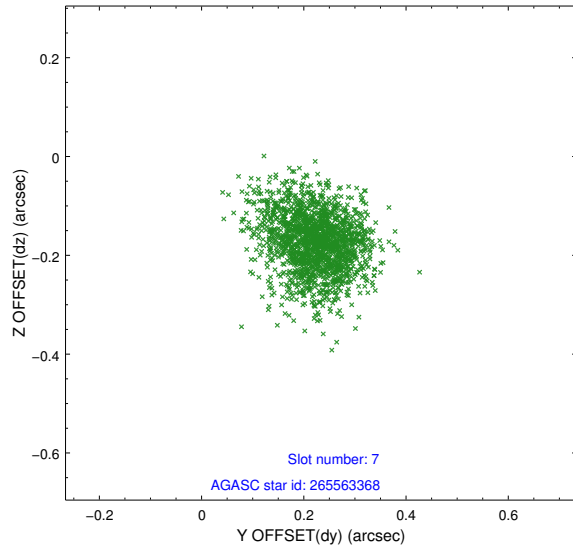
2.4.3 Slot 5



2.4.4 Slot 6

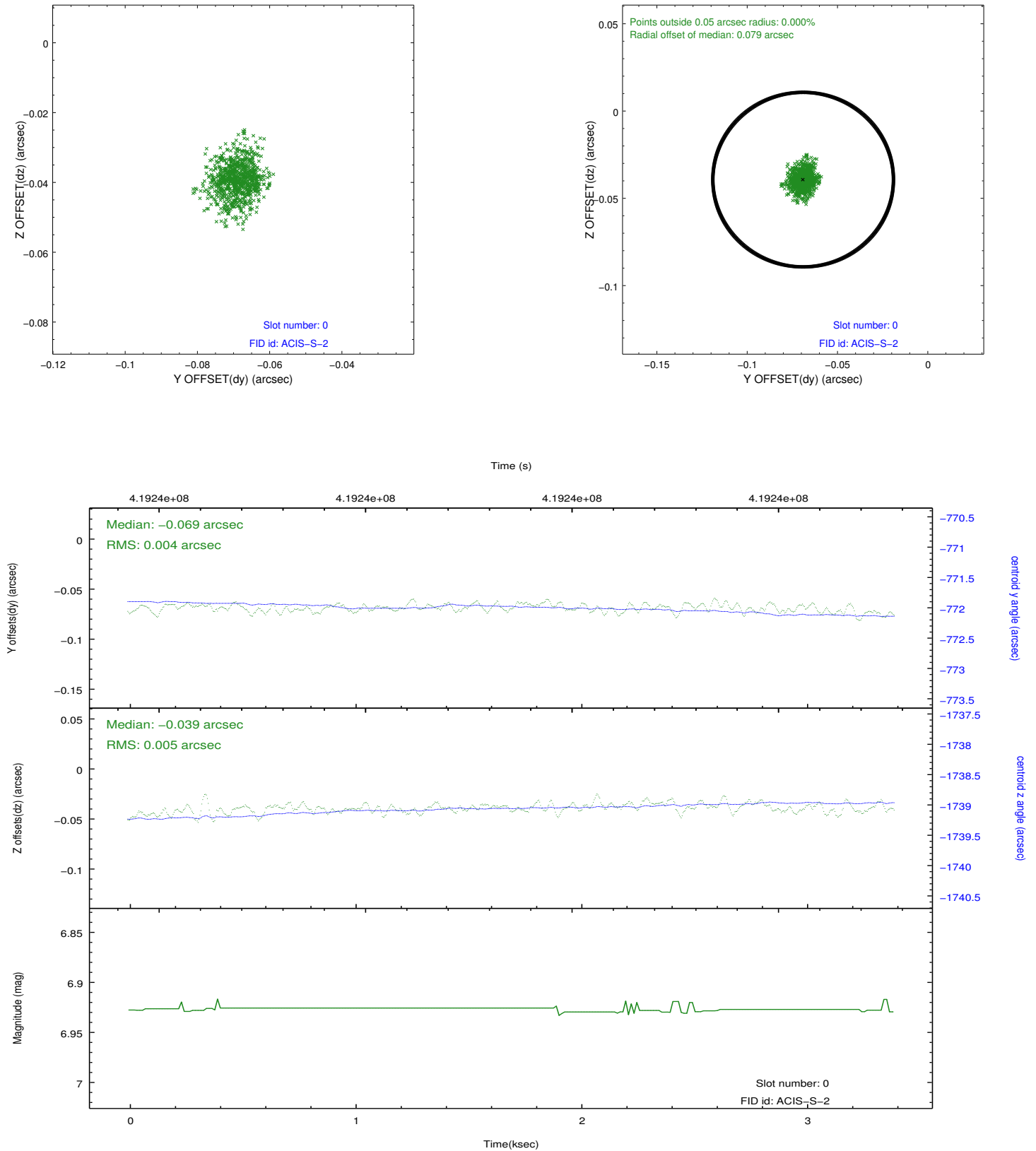


2.4.5 Slot 7

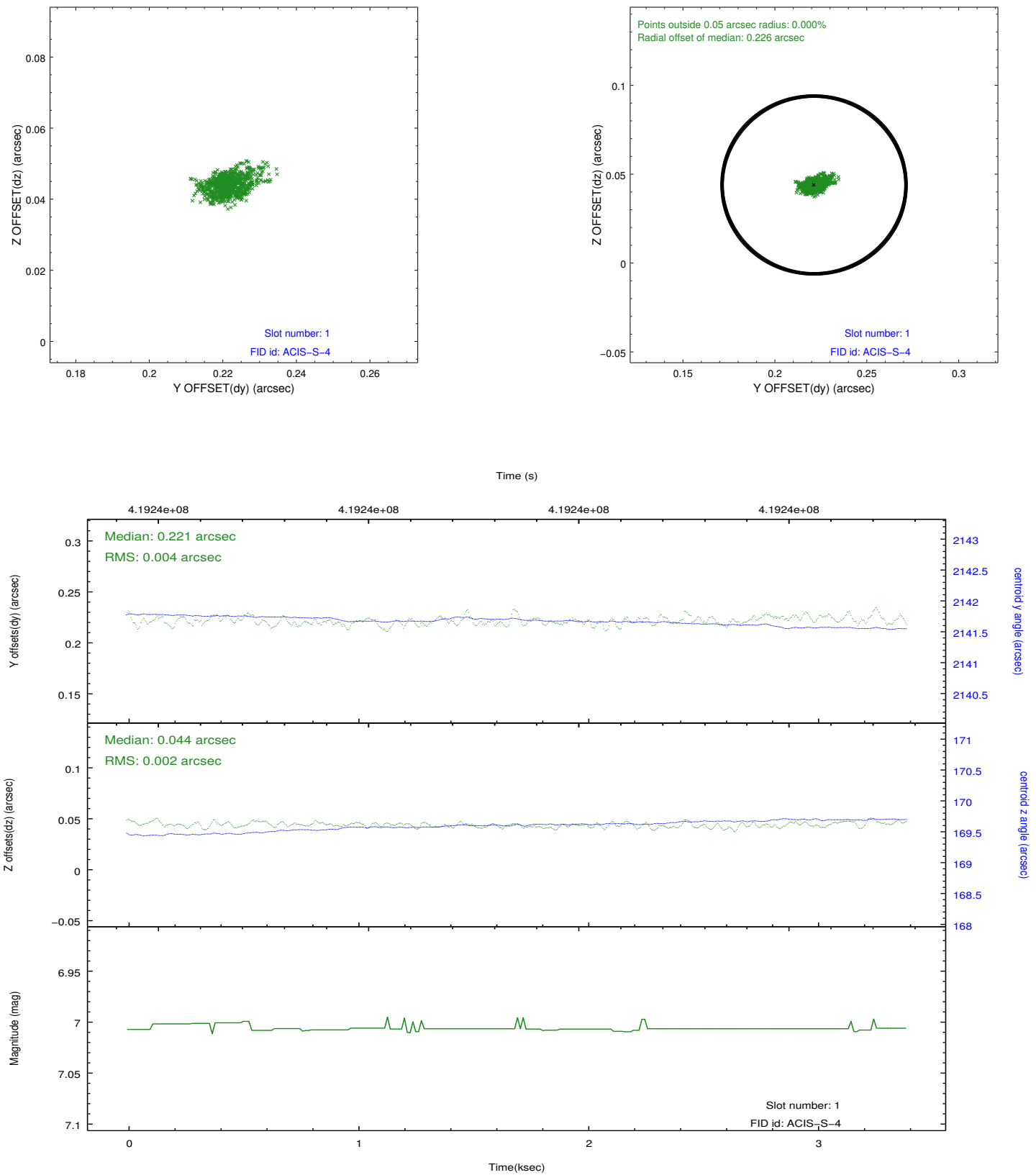


2.5 FID Slots

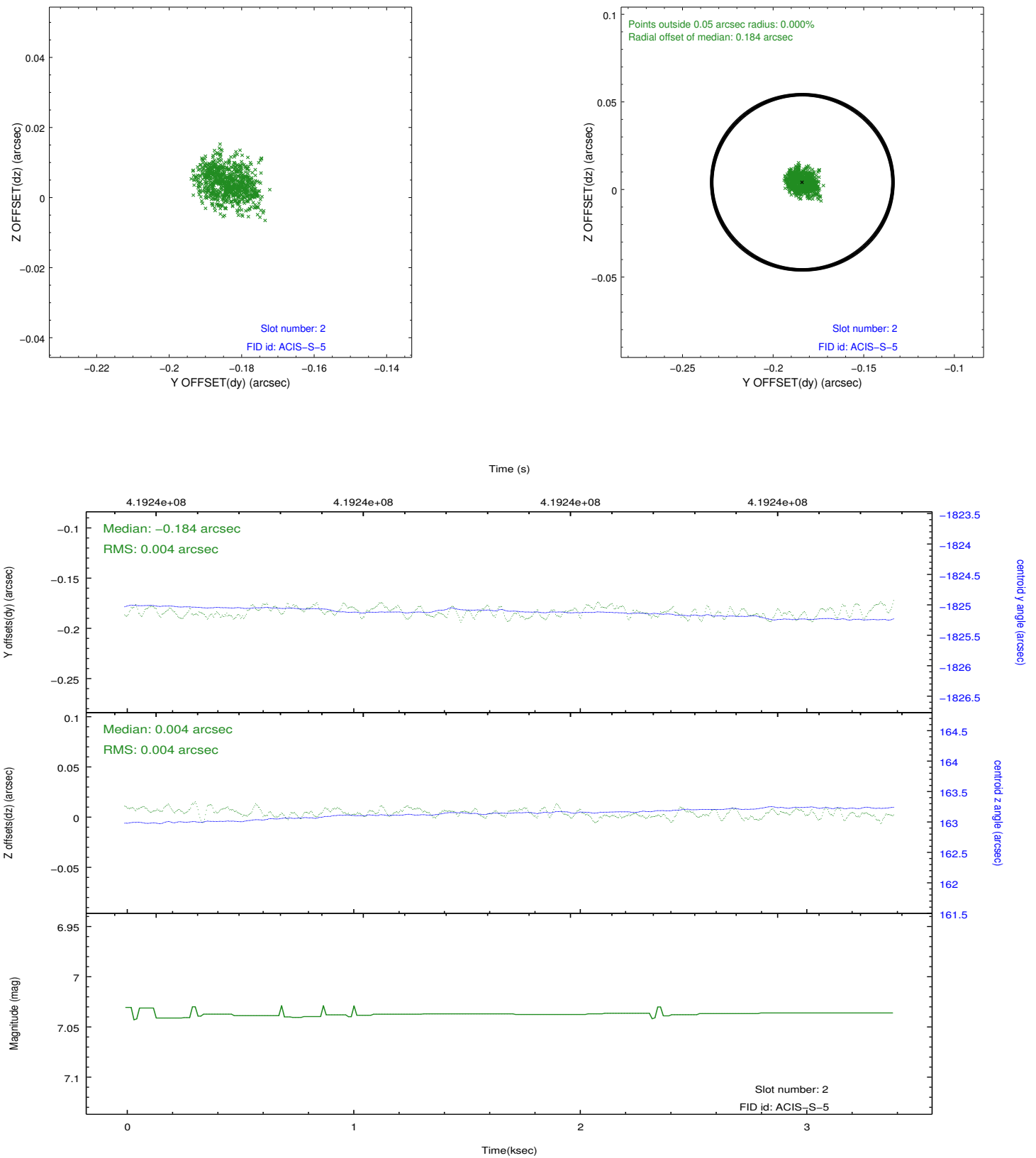
2.5.1 Slot 0



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	3.0978000204563

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.