

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12872 - L2 Version 2
Chandra X-Ray Center

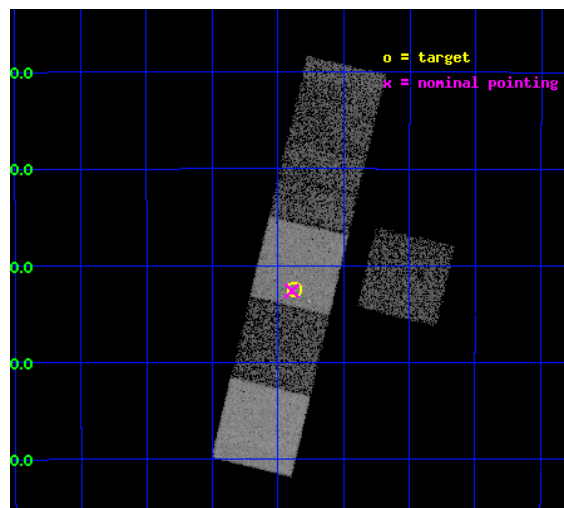
L2 Processing Date : Feb 2 2012

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1 Front

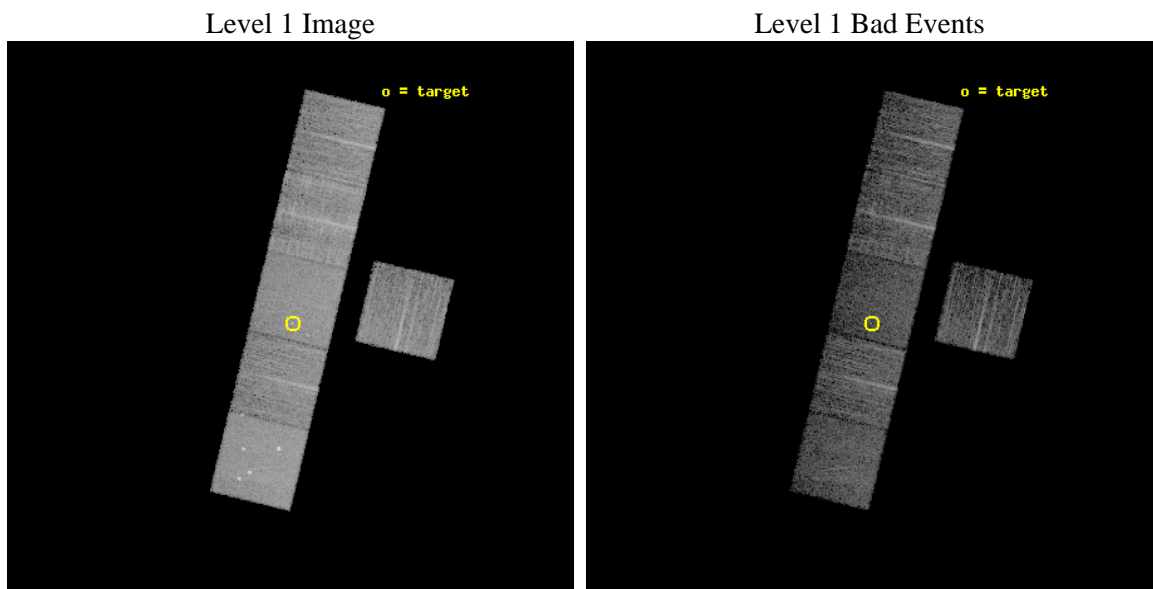
seq_num	702505	Sequence number
obs_id	12872	Observation id
title	Chandra Survey of Hard X-ray Selected Merging AGN Hosts	Proposal t
observer	Dr. Richard Mushotzky	Principal investigator
object	NGC 235A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	10.72	Observer's specified target RA [deg]
dec_targ	-23.54	Observer's specified target Dec [deg]
ra_nom	10.72374661703	Nominal RA [deg]
dec_nom	-23.543455568861	Nominal Dec [deg]
roll_nom	283.46329785871	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6959.9999741316	Sum of GTIs [s]
livetime	6871.8682636503	Livetime [s]
ontime3	6959.9999741316	Sum of GTIs [s]
ontime5	6959.9999741316	Sum of GTIs [s]
ontime6	6959.9999741316	Sum of GTIs [s]
ontime7	6959.9999741316	Sum of GTIs [s]
ontime8	6959.9999741316	Sum of GTIs [s]
ontime9	6959.9999741316	Sum of GTIs [s]
l2events	82876	Number of level 2 events



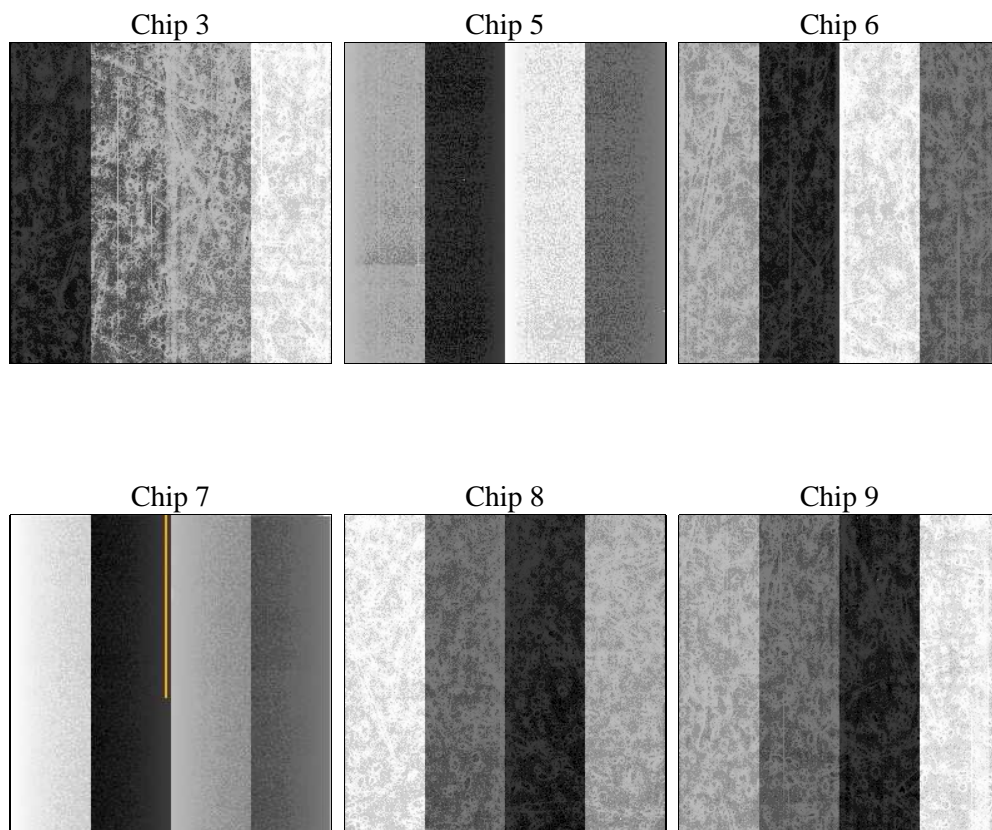
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	6959.9999741316	Sum of GTIs [s]
caldsver	4.4.7	 	ontime3	6959.9999741316	Sum of GTIs [s]
date	2012-02-02T04:21:14	Date and time of file creation	ontime5	6959.9999741316	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	6959.9999741316	Sum of GTIs [s]
			ontime7	6959.9999741316	Sum of GTIs [s]
			ontime8	6959.9999741316	Sum of GTIs [s]
			ontime9	6959.9999741316	Sum of GTIs [s]
			l1events	350391	Number of level 1 events

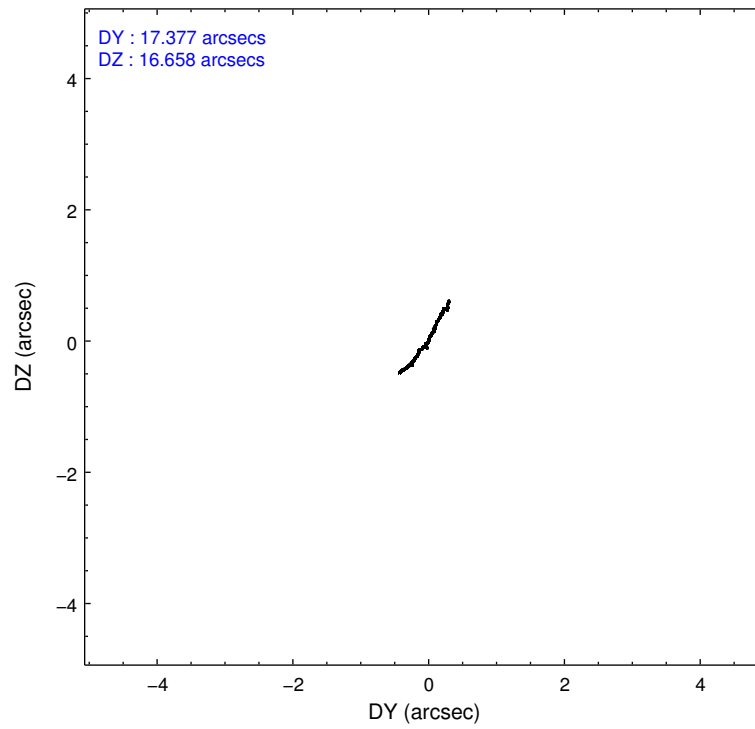
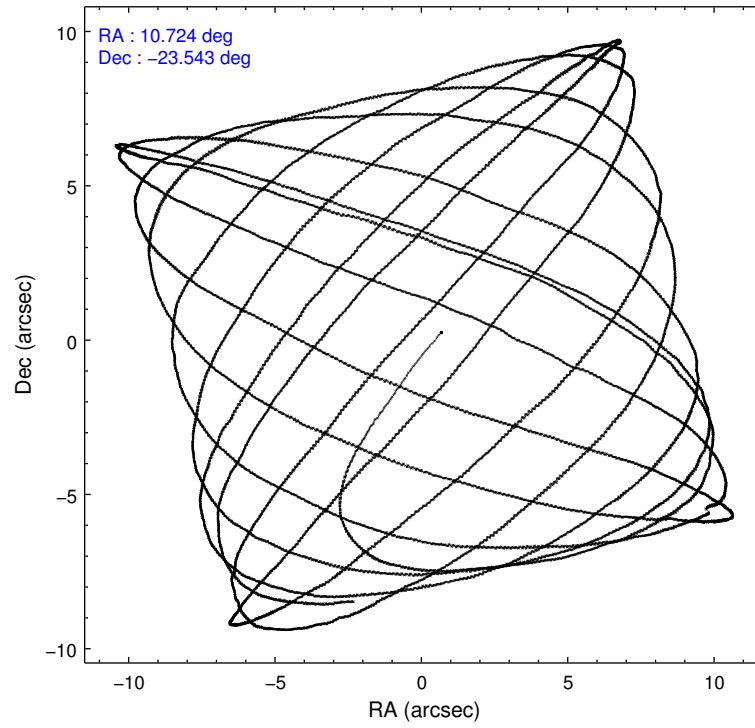
2.1.4 Events

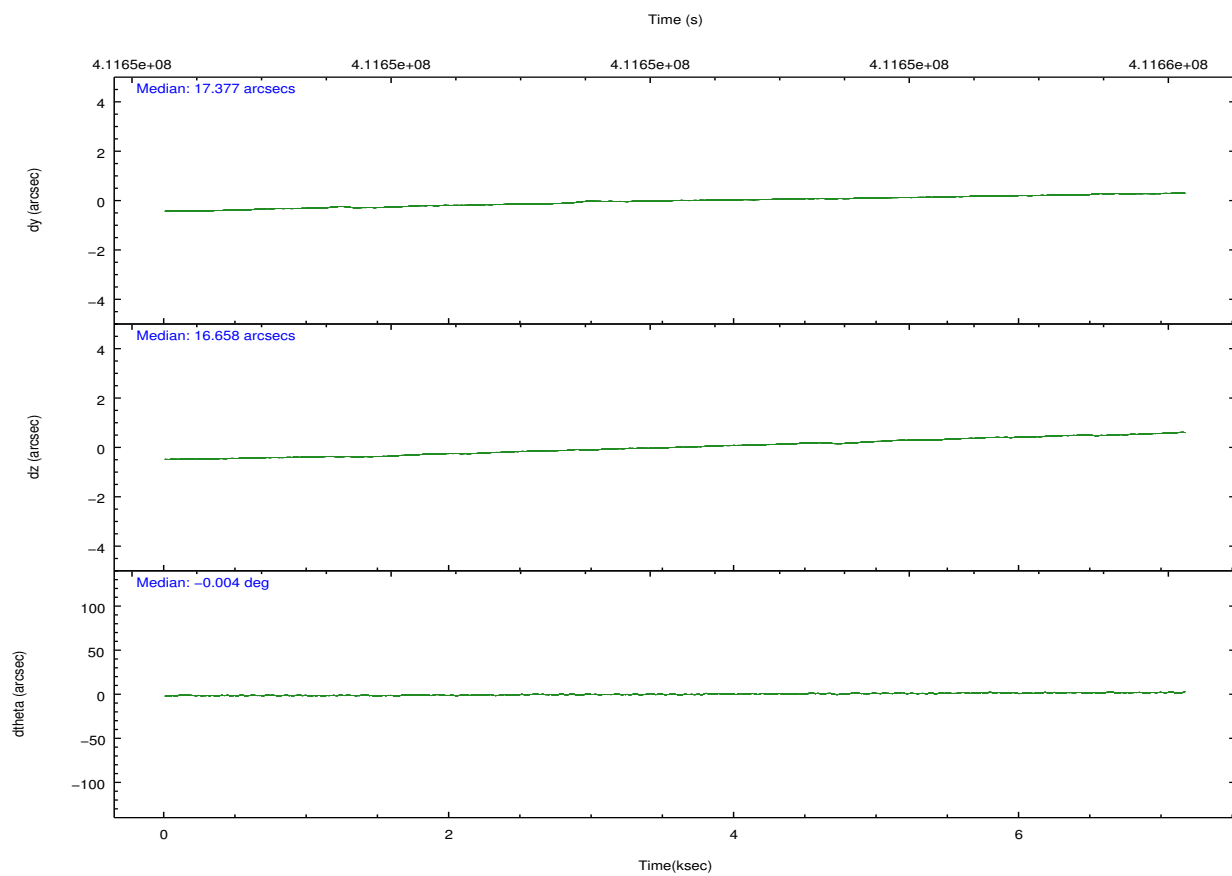
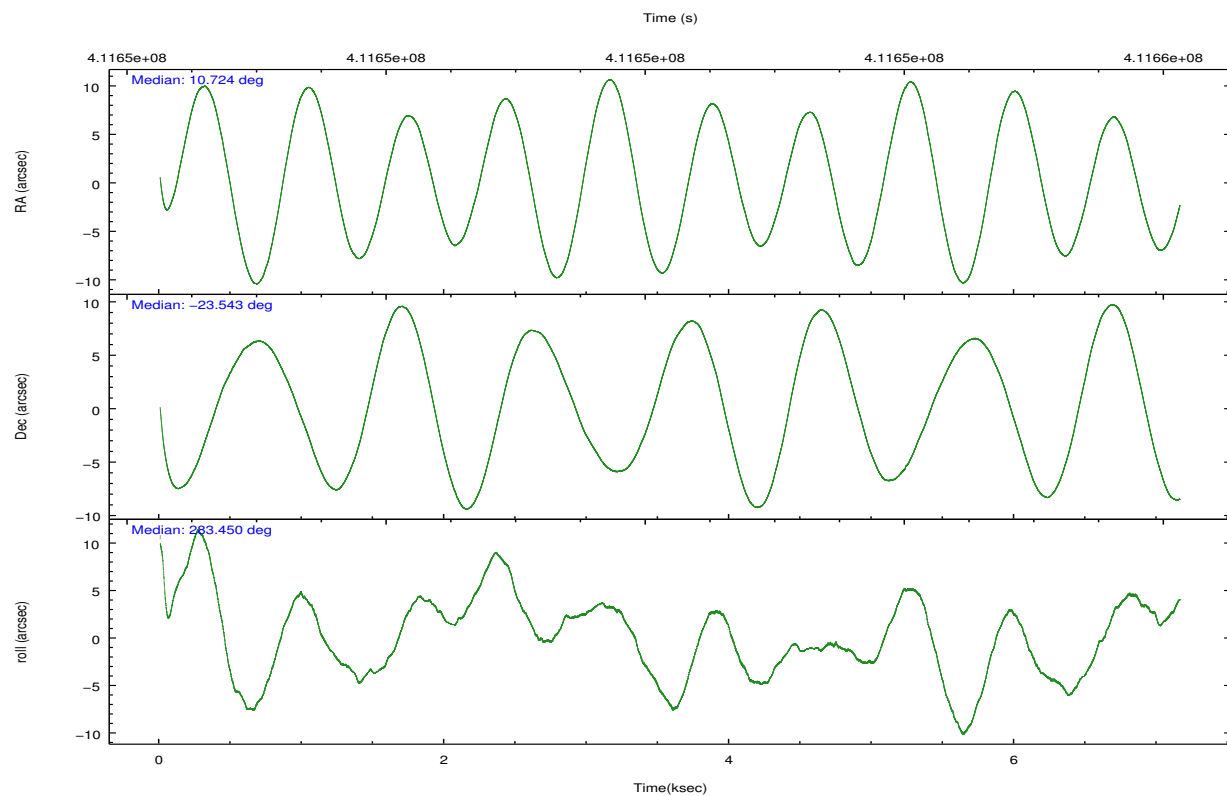
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 3	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	46258	76327	50588	61722	65165	50331	grade 0 events	1713	5506	2061	2737	5007	2178
rejected events	41278	37728	44957	33313	47641	44287		3%	7%	4%	4%	7%	4%
rejected %	89%	49%	88%	53%	73%	87%	grade 1 events	29	185	27	80	47	32
								0%	0%	0%	0%	0%	0%
							grade 2 events	1132	11052	1214	5798	4248	1313
								2%	14%	2%	9%	6%	2%
							grade 3 events	549	1399	584	2525	1748	627
								1%	1%	1%	4%	2%	1%
							grade 4 events	512	1371	560	2452	1604	669
								1%	1%	1%	3%	2%	1%
							grade 5 events	2239	5712	2324	6374	3364	2662
								4%	7%	4%	10%	5%	5%
							grade 6 events	1077	19292	1217	14911	4947	1261
								2%	25%	2%	24%	7%	2%
							grade 7 events	39007	31810	42601	26845	44200	41589
								84%	41%	84%	43%	67%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-356789	ACIS-356789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	10.702941	10.72374661703007	CCD I2 on	N	N
[deg] Pointing Dec	-23.523834	-23.5434555688606	CCD I3 on	O1	Y
[deg] Pointing Roll	283.298372	283.463297858709	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)	411648776.184000	411647797.82098	CCD S5 on	O2	Y
Observation start date	2011-01-17T10:51:50	2011-01-17T10:36:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	411655776.184000	411656355.54643	On-chip summing requested	N	N
Observation end date	2011-01-17T12:48:30	2011-01-17T12:59:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



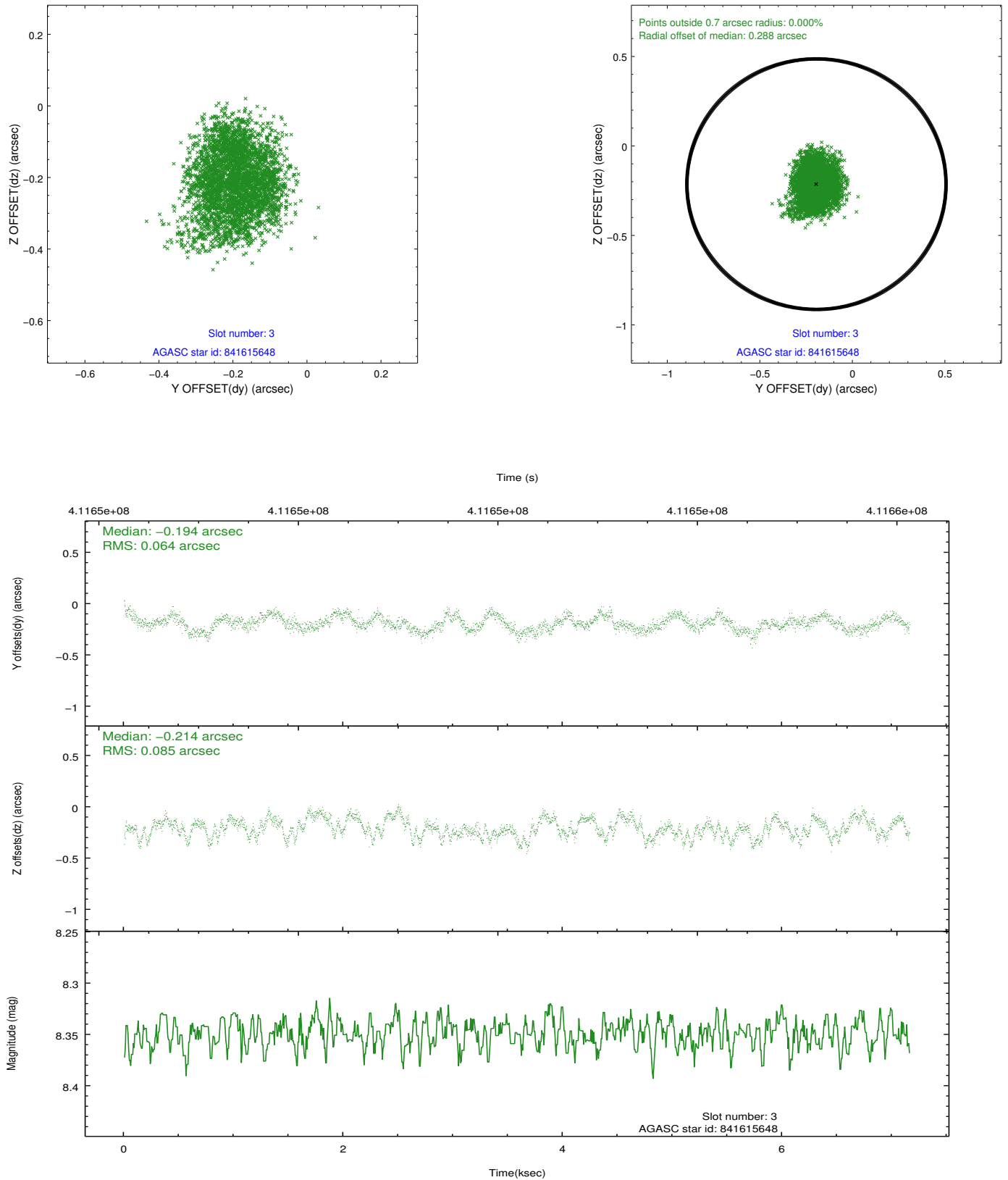


Slot Statistics

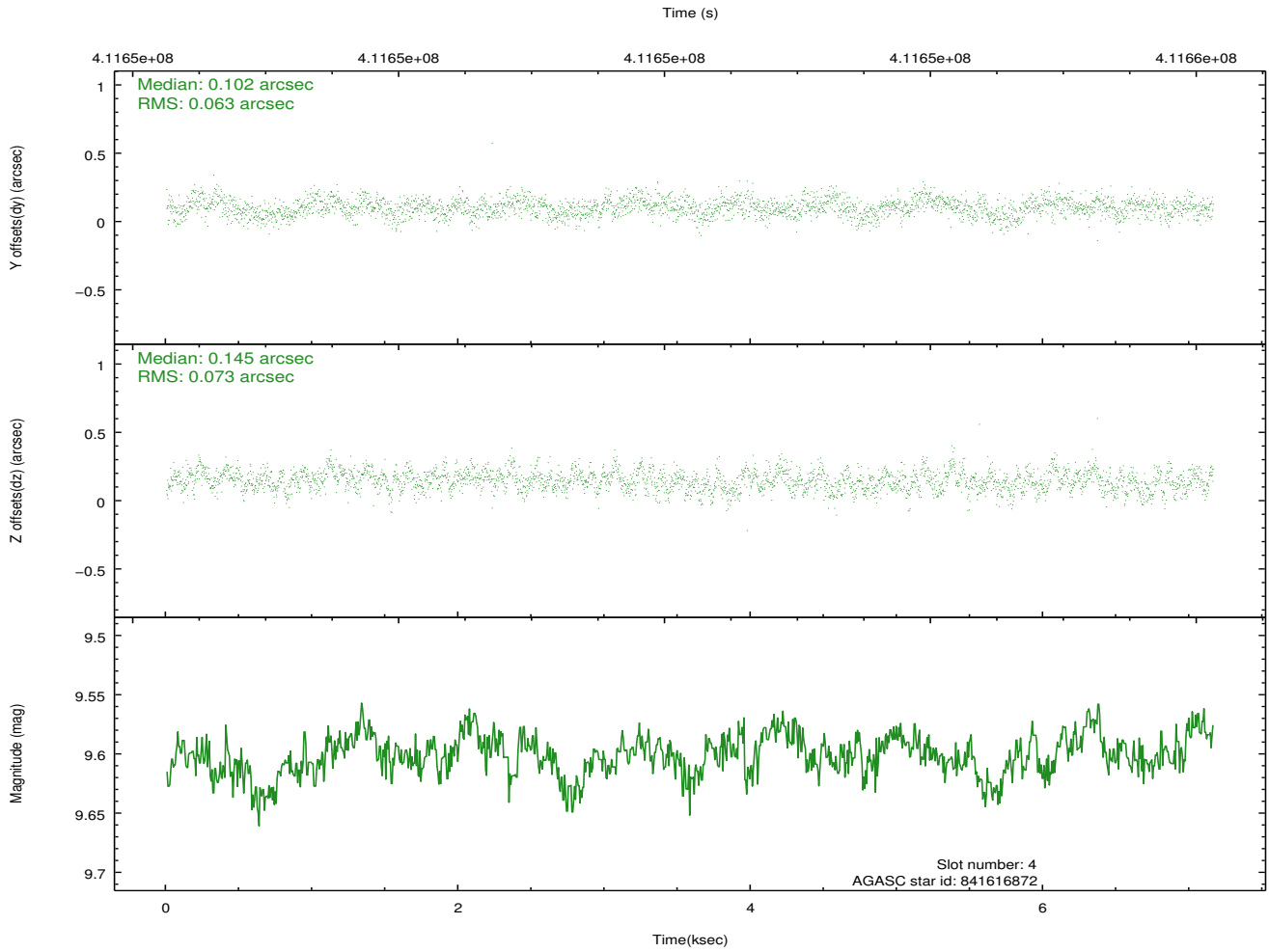
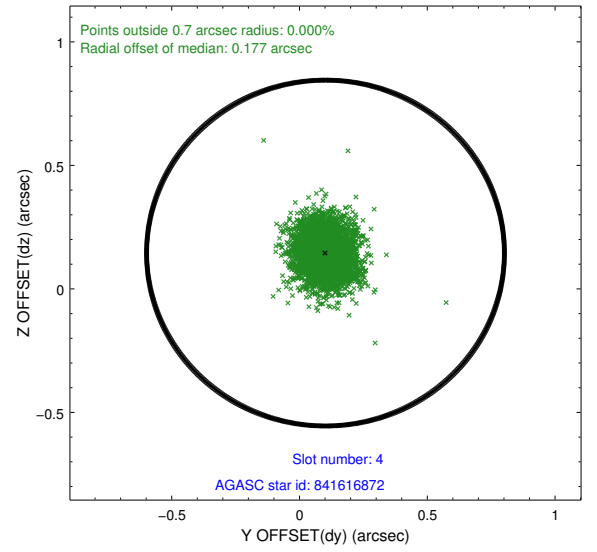
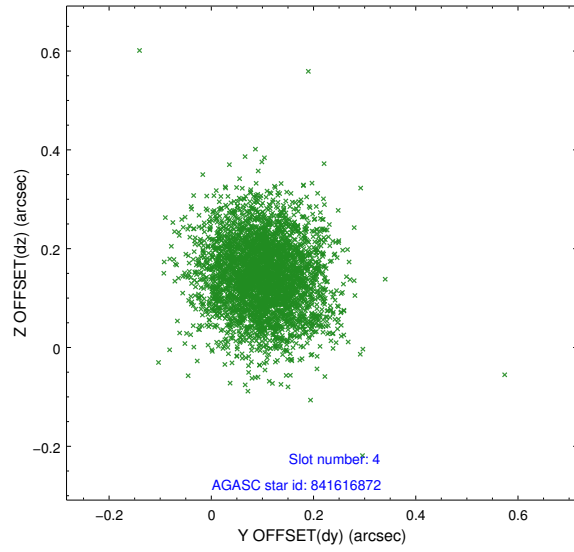
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	1746	-0.065	-0.021	0.013	0.019	0.000000	0.000000	-770.45	-1738.06
1	FID	ACIS-S-4	7.00	1746	0.181	0.037	0.009	0.014	0.000000	0.000000	2142.72	169.63
2	FID	ACIS-S-5	7.04	1746	-0.146	-0.008	0.013	0.021	0.000000	0.000000	-1822.33	164.19
3	GUIDE	841615648	8.35	3489	-0.194	-0.214	0.116	0.178	11.397828	-23.450425	275.70	2292.93
4	GUIDE	841616872	9.60	3489	0.102	0.145	0.102	0.165	11.069569	-23.065072	-1326.40	1562.19
5	GUIDE	841617512	9.98	3483	0.091	-0.035	0.180	0.301	10.277536	-23.526020	-312.92	-1368.38
6	GUIDE	841622328	10.30	3489	-0.094	-0.008	0.228	0.359	10.224299	-23.004713	-2179.77	-1112.43
7	GUIDE	841622408	9.21	3483	0.085	0.111	0.116	0.183	10.595192	-23.284109	-921.79	-148.28

2.4 Star Slots

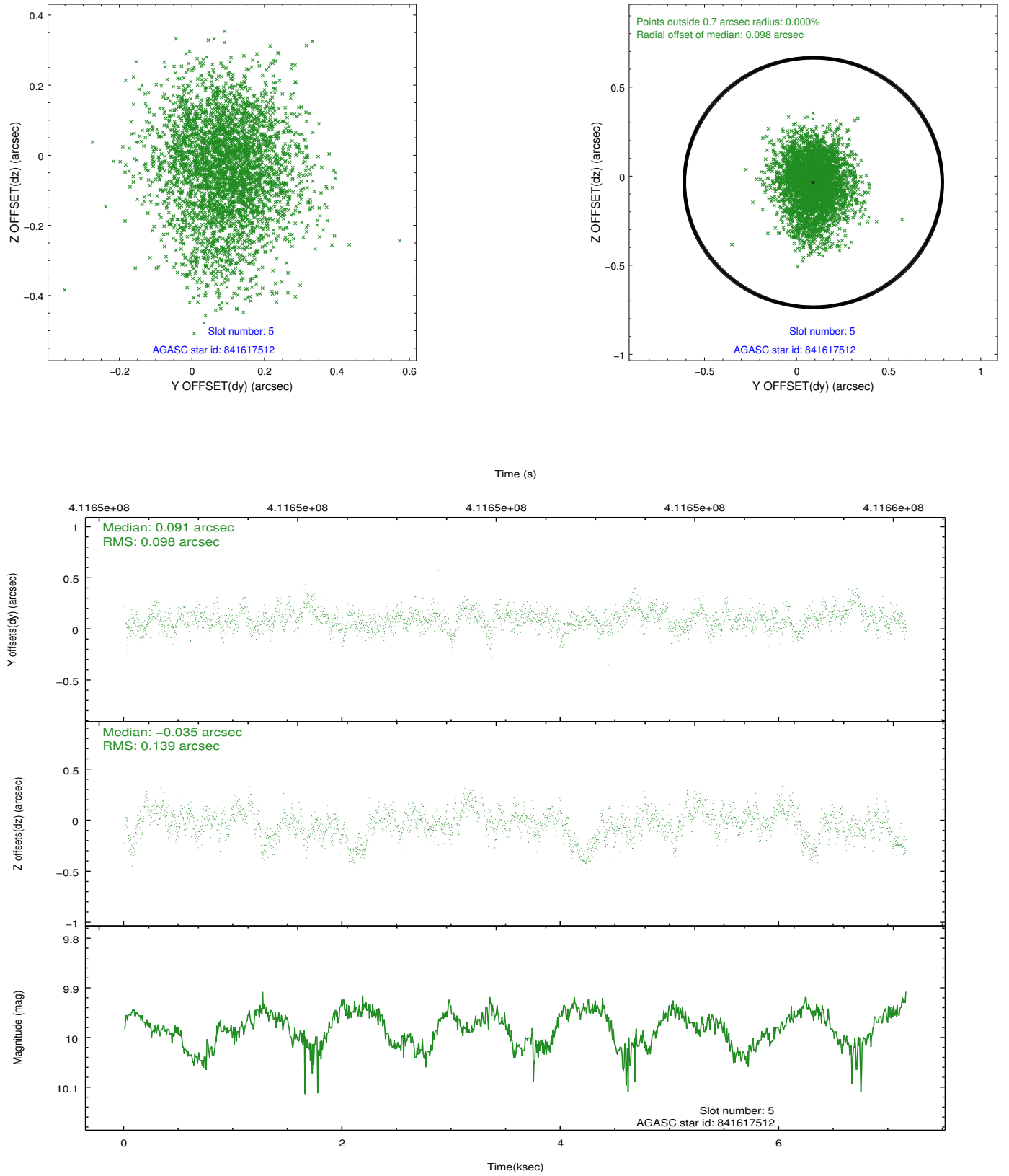
2.4.1 Slot 3



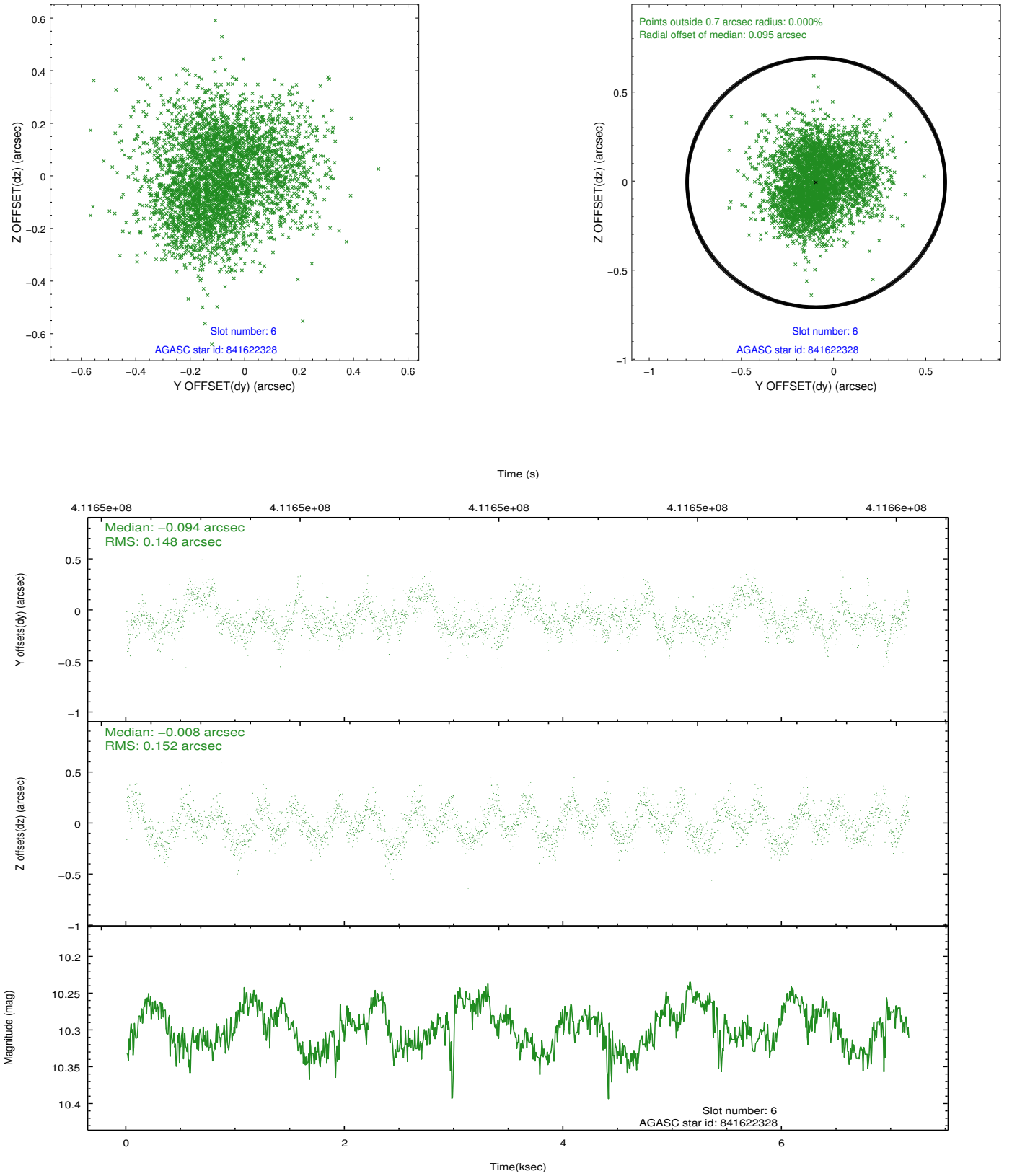
2.4.2 Slot 4



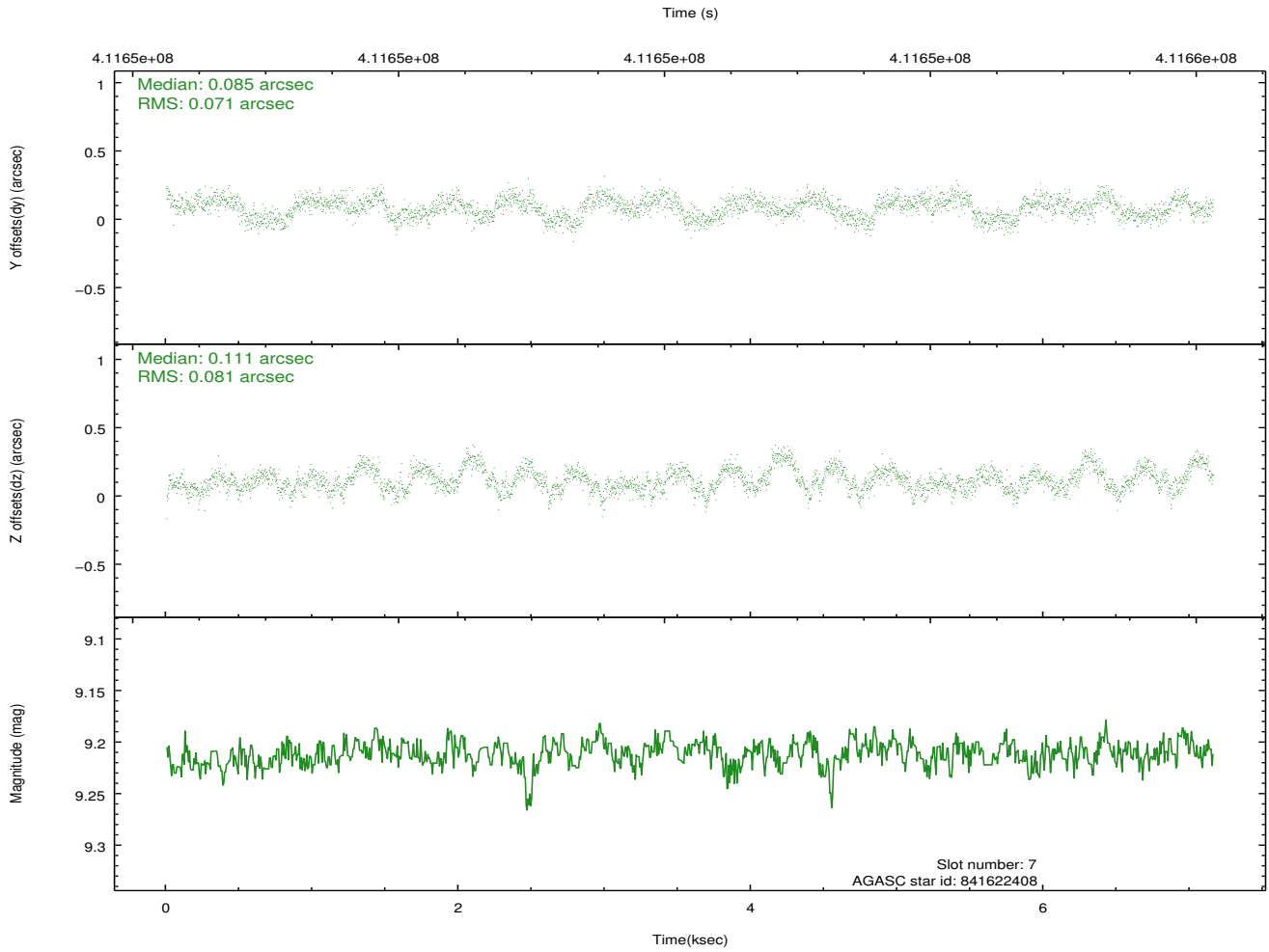
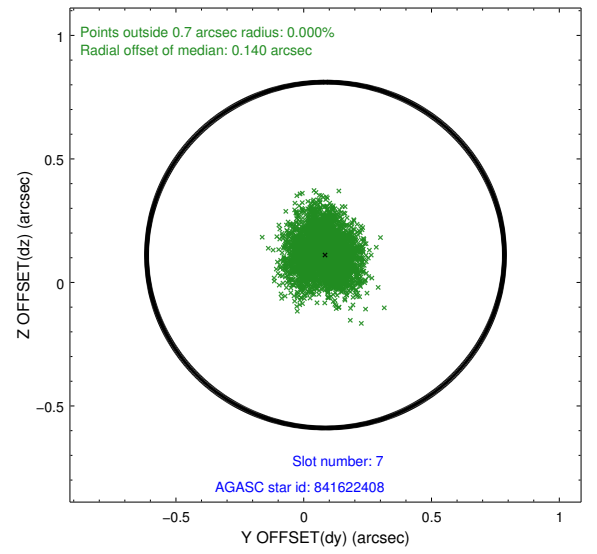
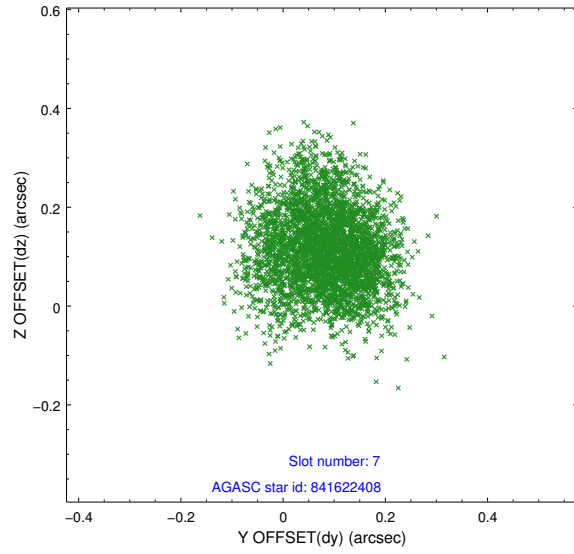
2.4.3 Slot 5



2.4.4 Slot 6

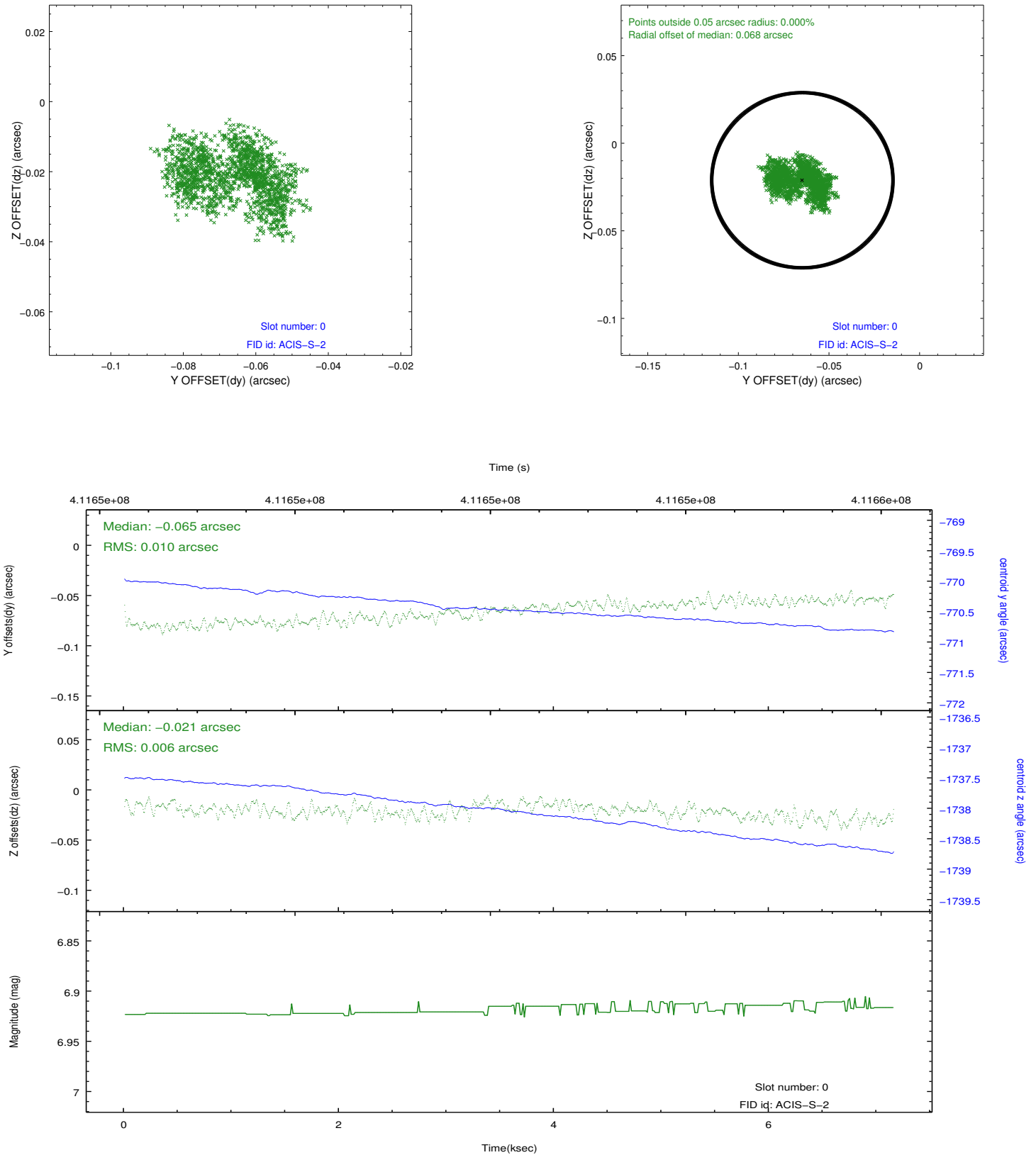


2.4.5 Slot 7

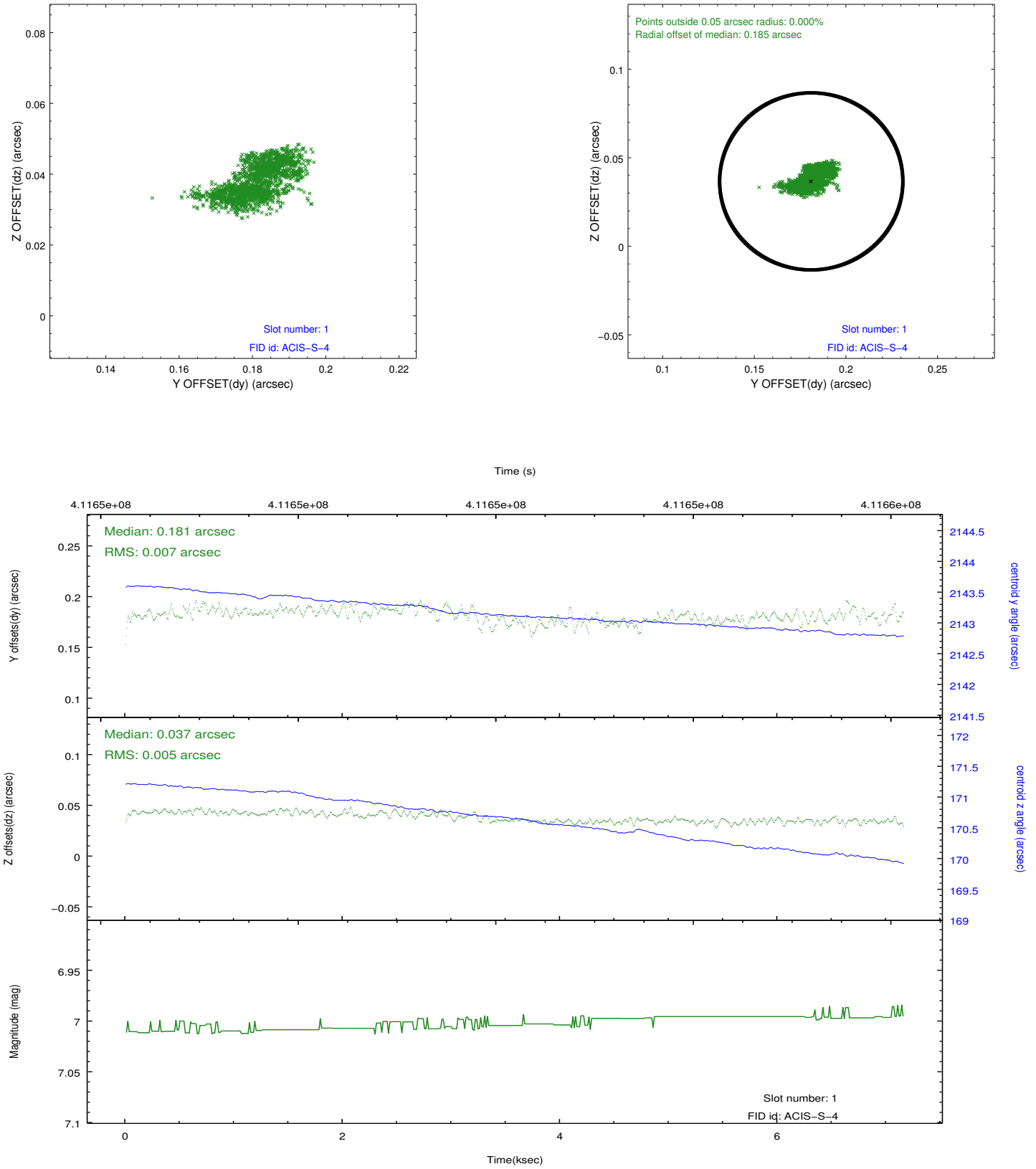


2.5 FID Slots

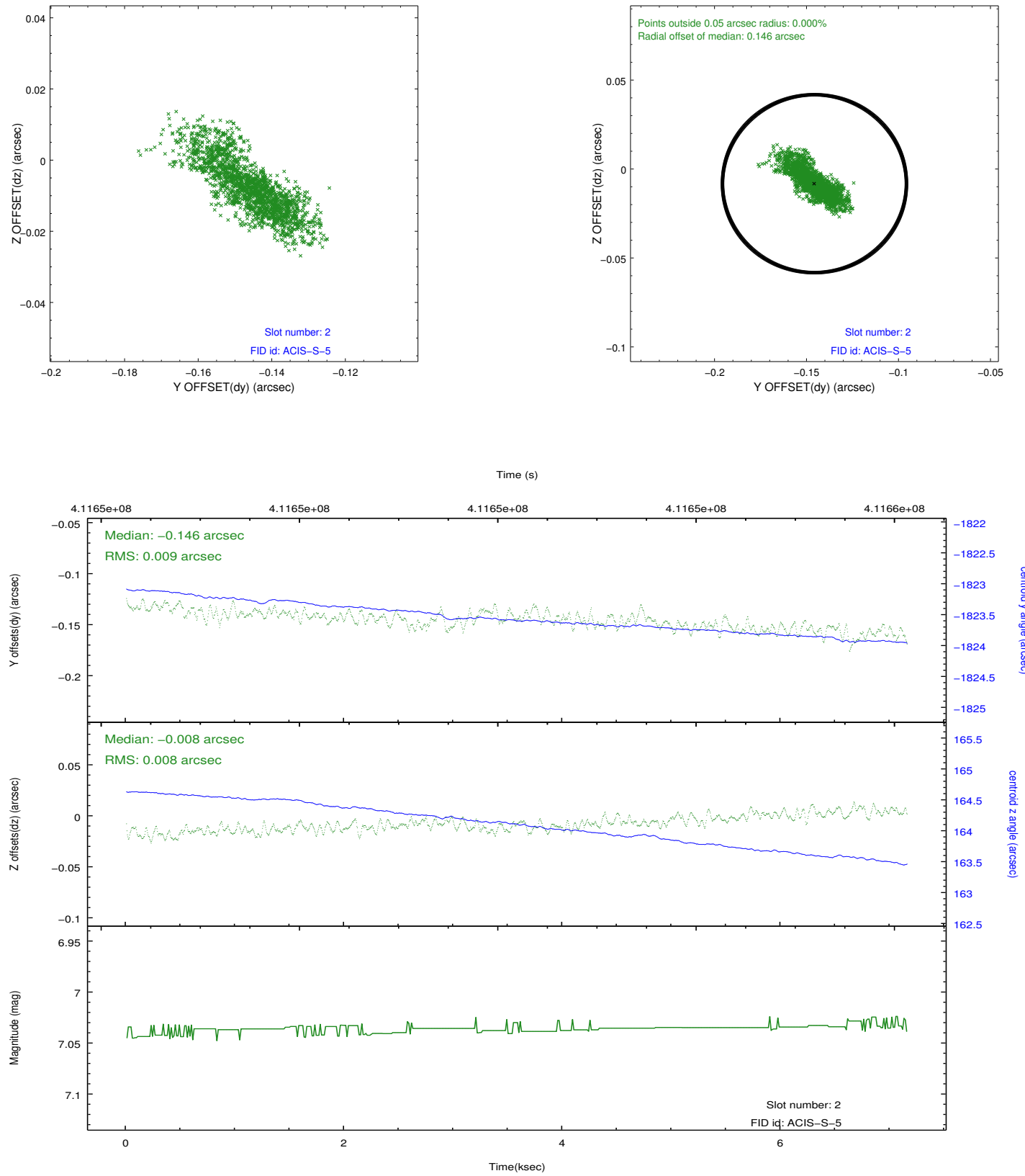
2.5.1 Slot 0



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)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.9599999741316

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.