

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13226 - L2 Version 2
Chandra X-Ray Center

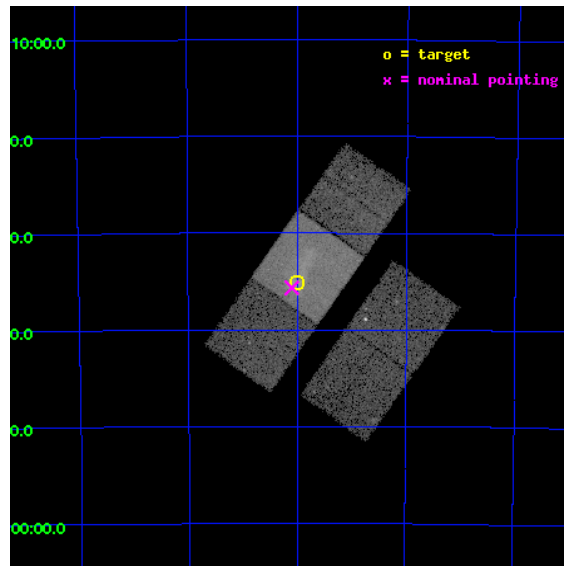
L2 Processing Date : Feb 3 2012

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1 Front

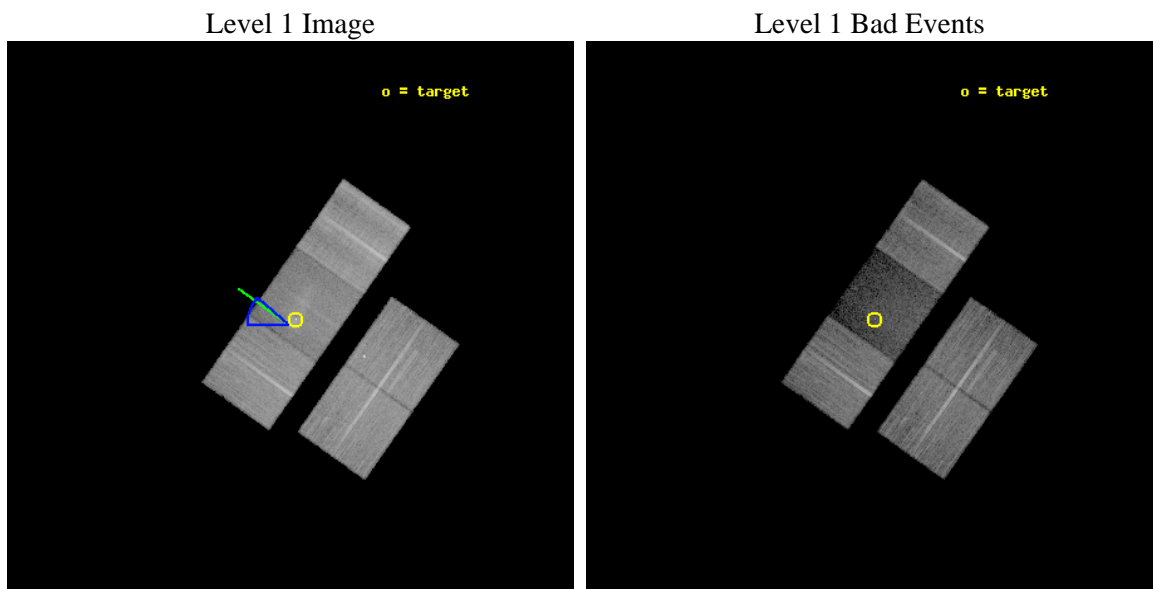
seq_num	501508	Sequence number
obs_id	13226	Observation id
title	The Pulsar Wind Nebula in DEM L241	Proposal title
observer	Frederick Seward	Principal investigator
object	DEM L241	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.0	Observer's specified target RA [deg]
dec_targ	-67.585833	Observer's specified target Dec [deg]
ra_nom	84.024179731725	Nominal RA [deg]
dec_nom	-67.594538302682	Nominal Dec [deg]
roll_nom	305.17899087931	Nominal Roll [deg]
revision	2	Processing version of data
ontime	22706.427243233	Sum of GTIs [s]
livetime	22409.751055071	Livetime [s]
ontime2	22699.981092691	Sum of GTIs [s]
ontime3	22706.345163226	Sum of GTIs [s]
ontime6	22706.386203229	Sum of GTIs [s]
ontime7	22706.427243233	Sum of GTIs [s]
ontime8	22706.304123223	Sum of GTIs [s]
l2events	104568	Number of level 2 events



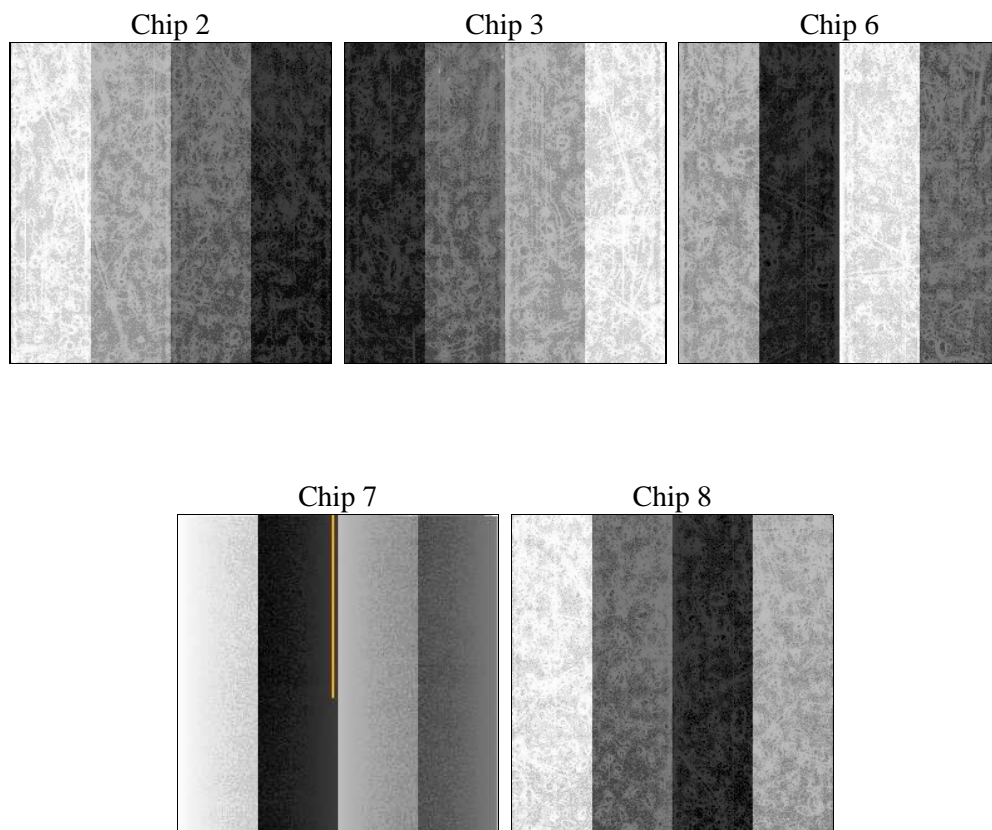
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22668.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	22706.427243233	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	22699.981092691	Sum of GTIs [s]
date	2012-02-03T16:34:05	Date and time of file creation	ontime3	22706.345163226	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	22706.386203229	Sum of GTIs [s]
			ontime7	22706.427243233	Sum of GTIs [s]
			ontime8	22706.304123223	Sum of GTIs [s]
			l1events	663593	Number of level 1 events

2.1.4 Events

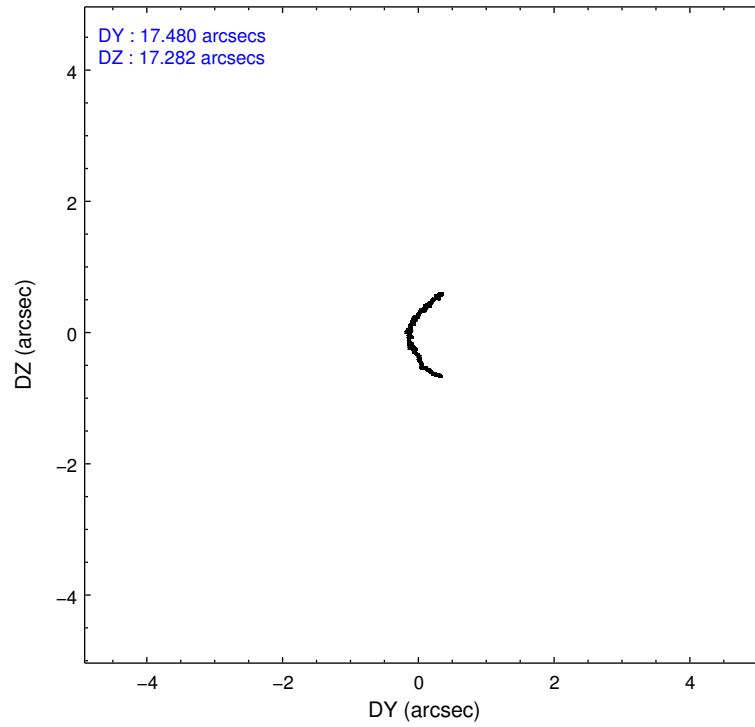
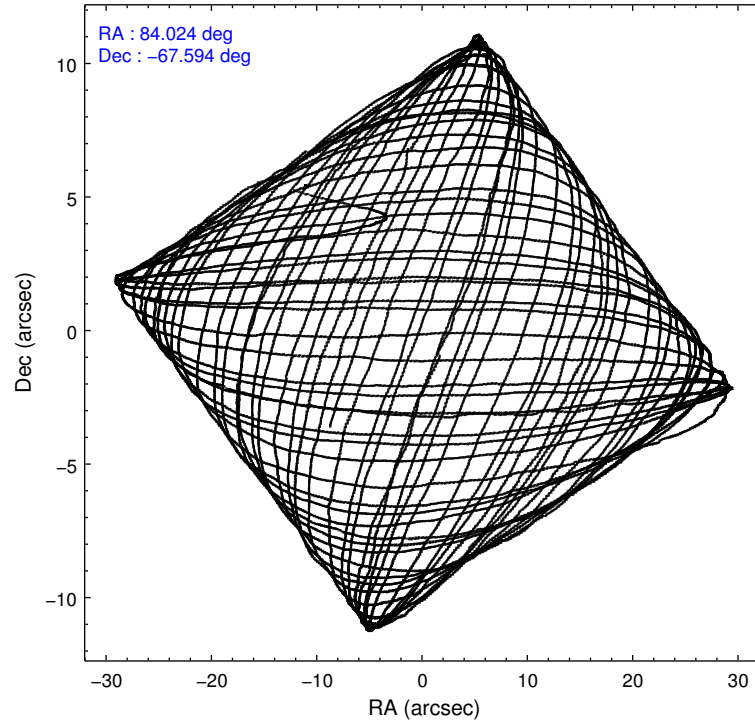
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	135938	130260	135193	97757	164445
rejected events	122563	116264	121196	39035	115746
rejected %	90%	89%	89%	39%	70%

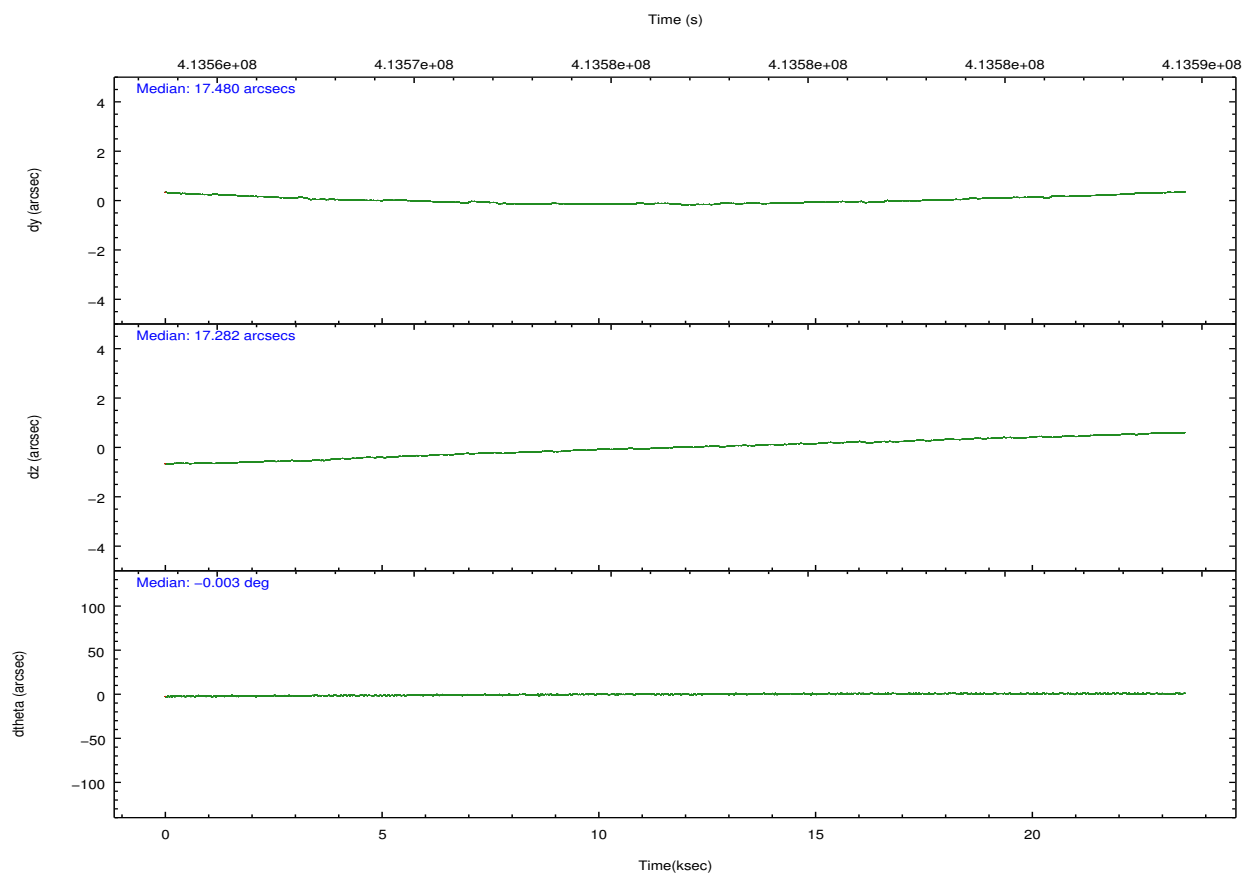
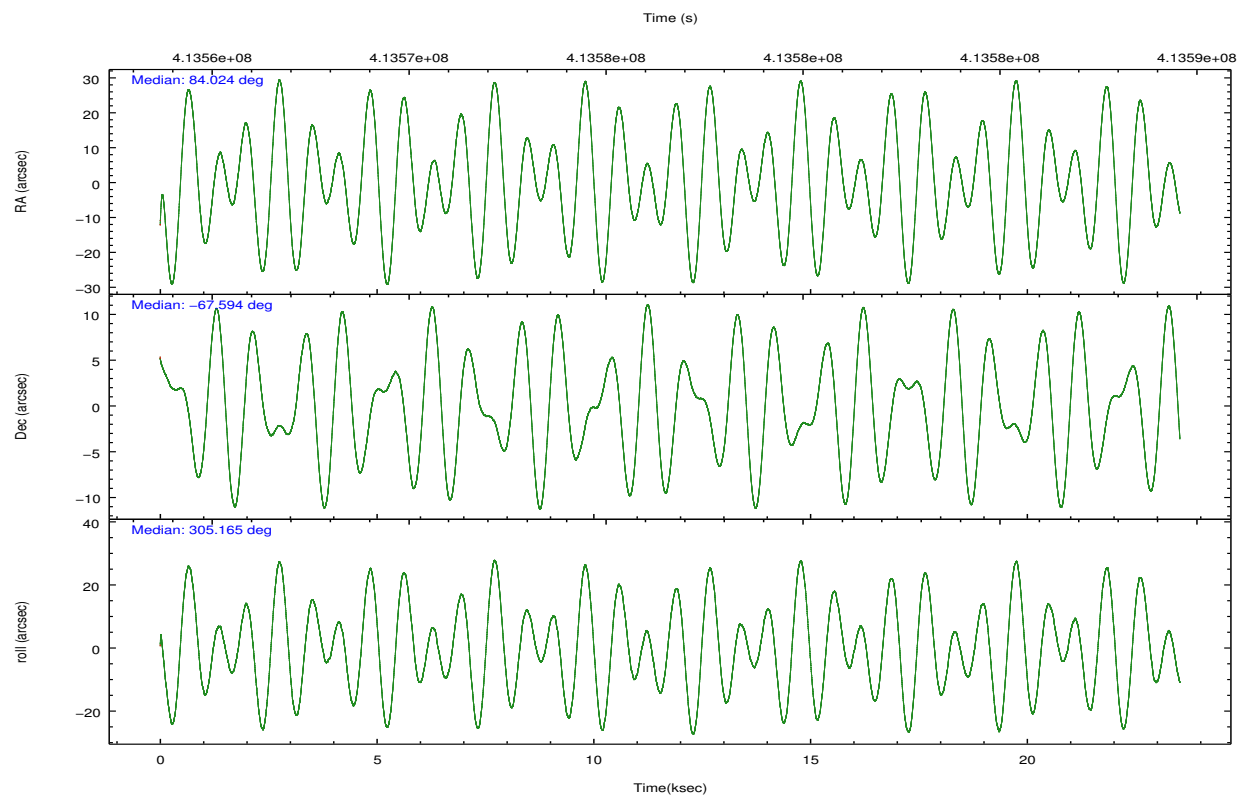
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5688	6532	5867	9316	14285
	4%	5%	4%	9%	8%
grade 1 events	68	91	74	235	160
	0%	0%	0%	0%	0%
grade 2 events	3165	2805	3058	14371	11537
	2%	2%	2%	14%	7%
grade 3 events	1249	1351	1429	5935	5142
	0%	1%	1%	6%	3%
grade 4 events	1333	1395	1390	5759	4896
	0%	1%	1%	5%	2%
grade 5 events	2533	3128	3124	9413	5441
	1%	2%	2%	9%	3%
grade 6 events	1943	1919	2257	23355	12851
	1%	1%	1%	23%	7%
grade 7 events	119959	113039	117994	29373	110133
	88%	86%	87%	30%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	83.958769	84.02417973172513	CCD I2 on	O1	Y
[deg] Pointing Dec	-67.583415	-67.59453830268212	CCD I3 on	O2	Y
[deg] Pointing Roll	304.961890	305.1789908793086	CCD S0 on	N	N
[deg] Roll angle	290.000000	290.000000	CCD S1 on	N	N
[deg] Roll tolerance	20.000000	20.000000	CCD S2 on	Y	Y
Roll constraint allows 180D rotation	N	N	CCD S3 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S4 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S5 on	N	N
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	Number of optional ACIS chips dropped	0	0
[mm] SIM translation stage offset	0	0.00754346686406393	On-chip summing requested	N	N
[s] Observation start time (MET)	413565715.184000	413563993.90761	Subarray requested	NONE	NONE
Observation start date	2011-02-08T15:20:49	2011-02-08T14:53:13	Alternating exposures requested	N	N
[s] Observation end time (MET)	413588383.184000	413589258.62142	[s] Primary exposure time	0.000000	3.1
Observation end date	2011-02-08T21:38:37	2011-02-08T21:54:18			
Read mode	TIMED	TIMED			

2.3 Aspect



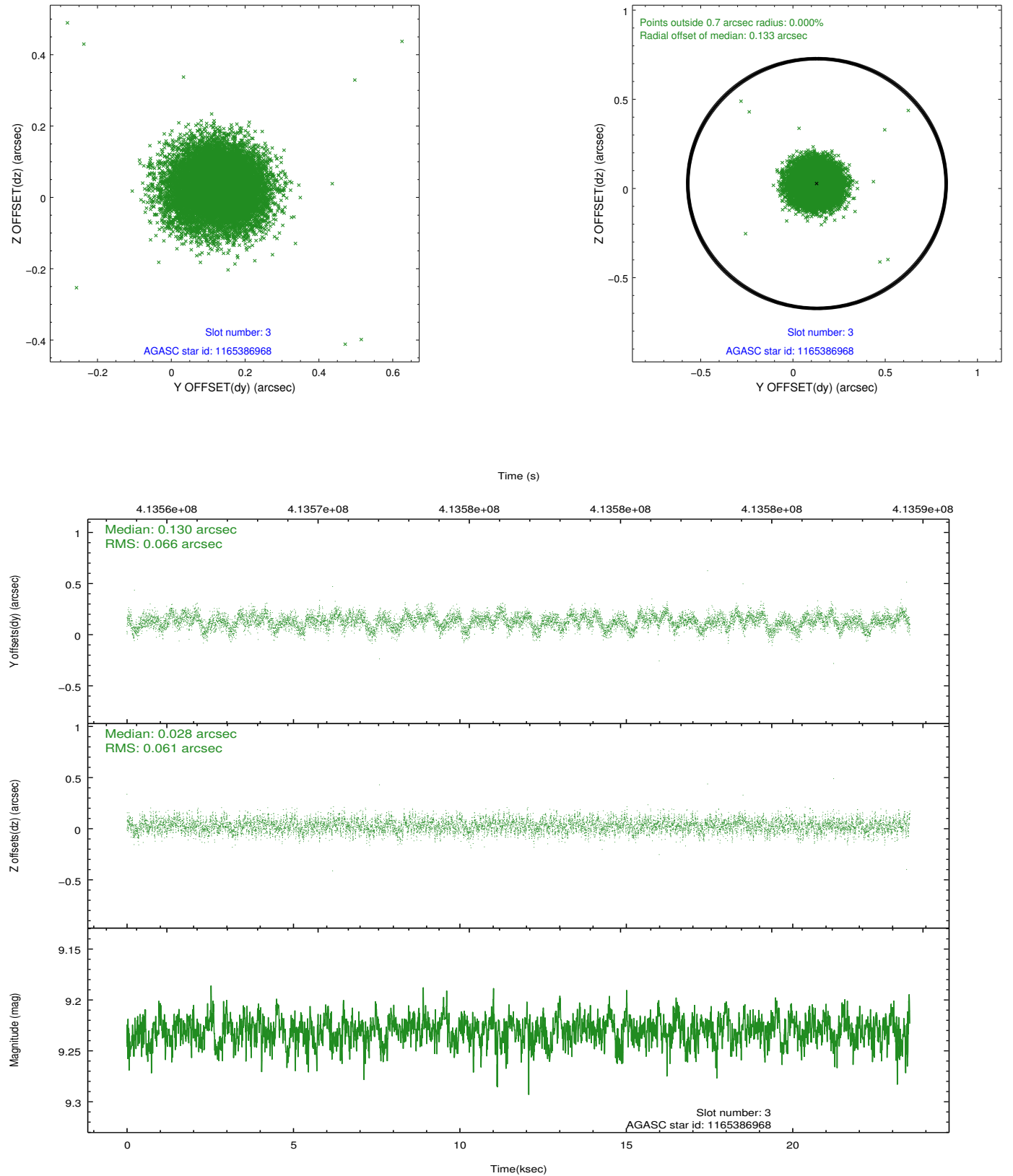


Slot Statistics

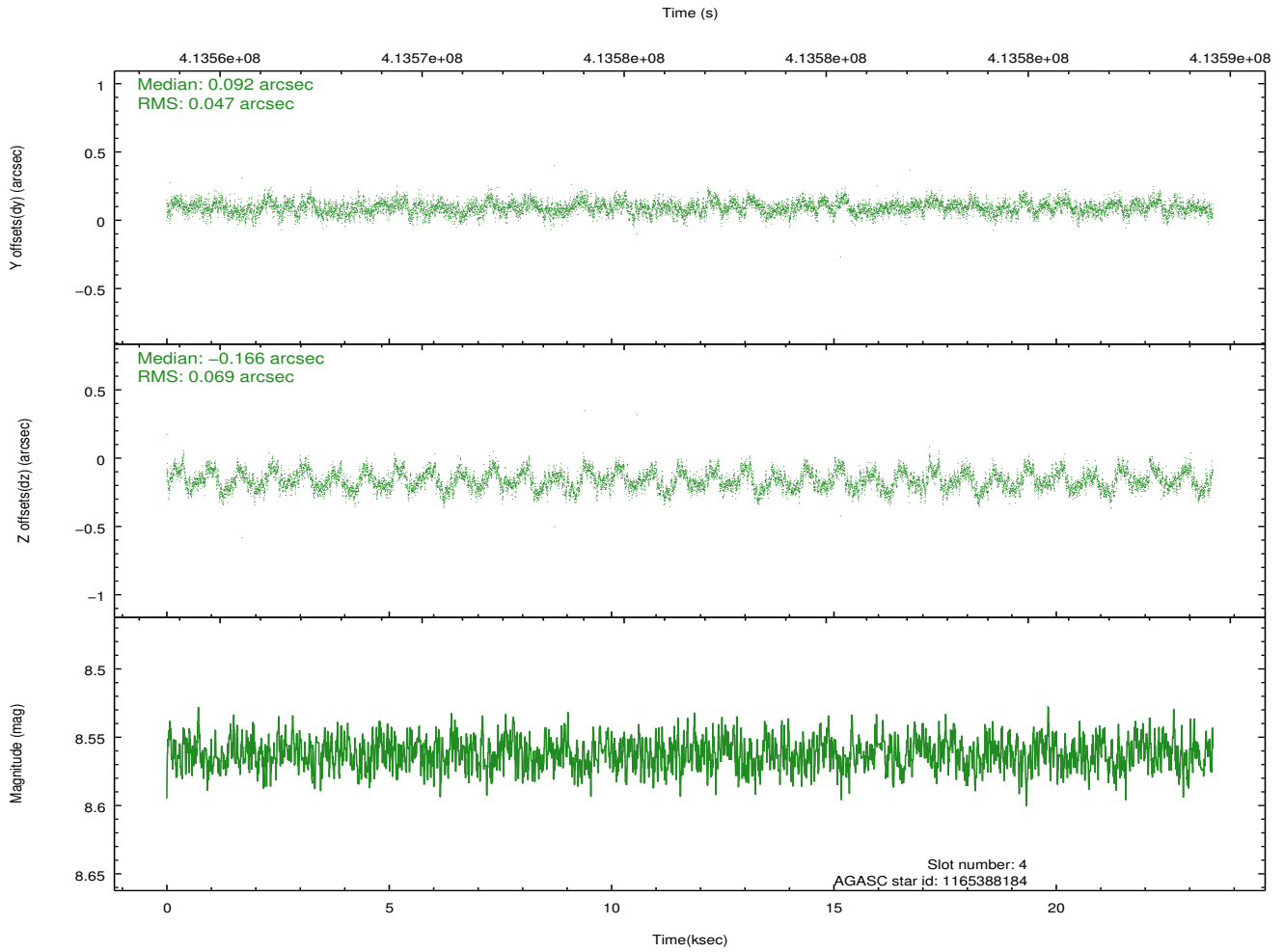
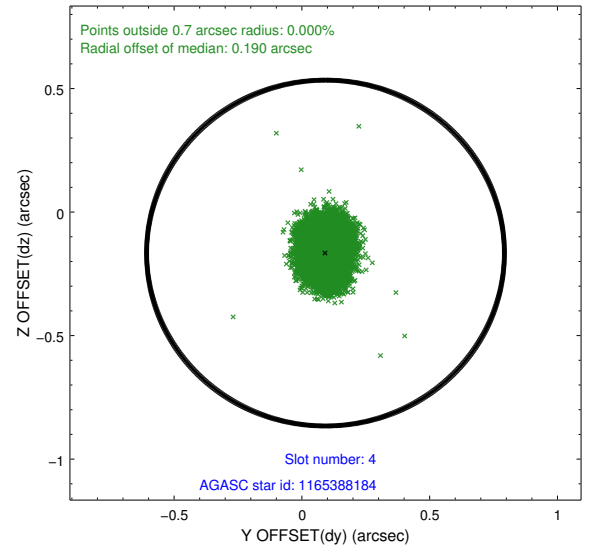
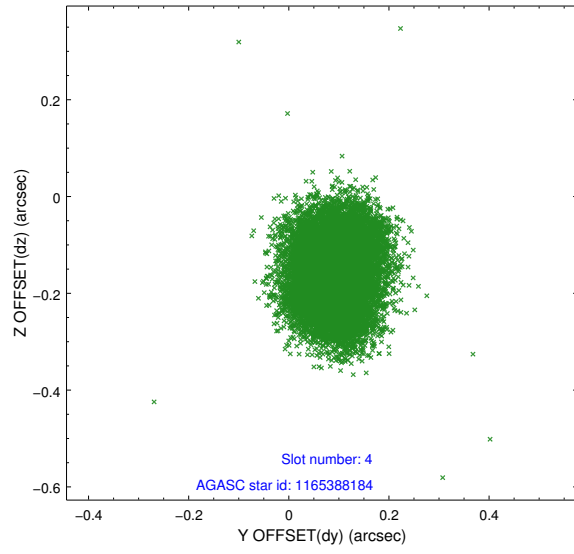
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.88	5738	-0.059	-0.024	0.012	0.018	0.000000	0.000000	-770.63	-1738.71
1	FID	ACIS-S-4	6.96	5738	0.173	0.035	0.009	0.022	0.000000	0.000000	2142.85	169.65
2	FID	ACIS-S-5	6.99	5737	-0.145	-0.002	0.012	0.020	0.000000	0.000000	-1823.36	163.50
3	GUIDE	1165386968	9.23	11467	0.130	0.028	0.096	0.153	84.607334	-67.184987	-653.46	1561.98
4	GUIDE	1165388184	8.56	11465	0.092	-0.166	0.090	0.141	84.898446	-67.041721	-833.75	2193.03
5	GUIDE	1165389208	7.49	11476	-0.088	-0.032	0.078	0.123	85.428232	-67.402764	651.32	2025.06
6	GUIDE	1200882176	7.68	11474	-0.354	0.323	0.071	0.121	83.665480	-68.205126	1610.94	-1603.35
7	GUIDE	1200885088	8.98	11462	0.217	-0.154	0.083	0.137	83.463398	-67.939320	669.54	-1284.65

2.4 Star Slots

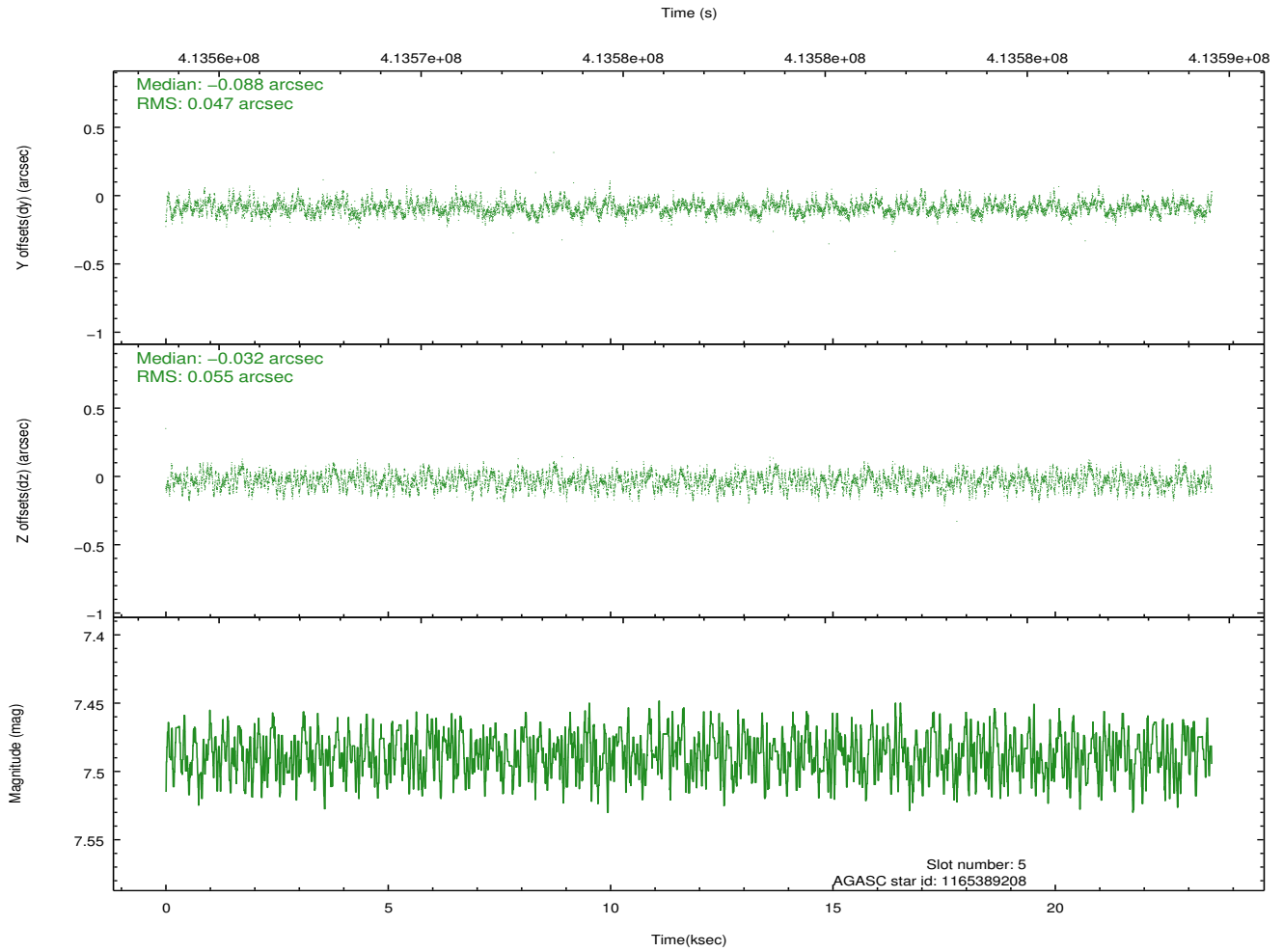
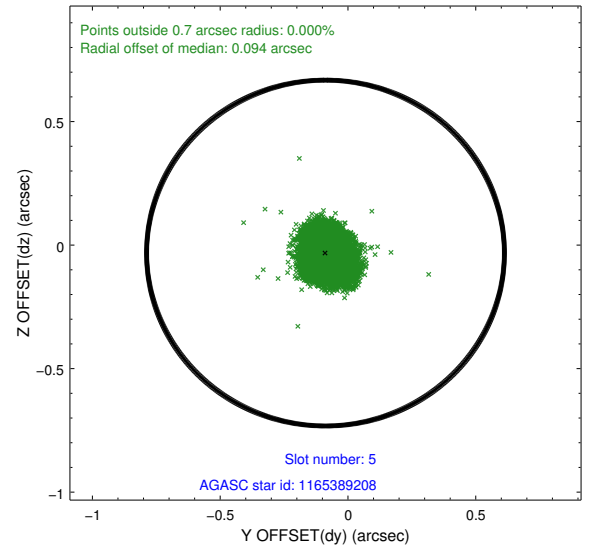
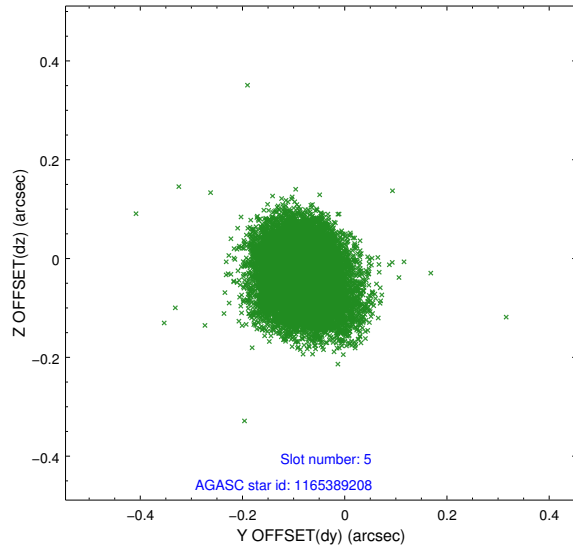
2.4.1 Slot 3



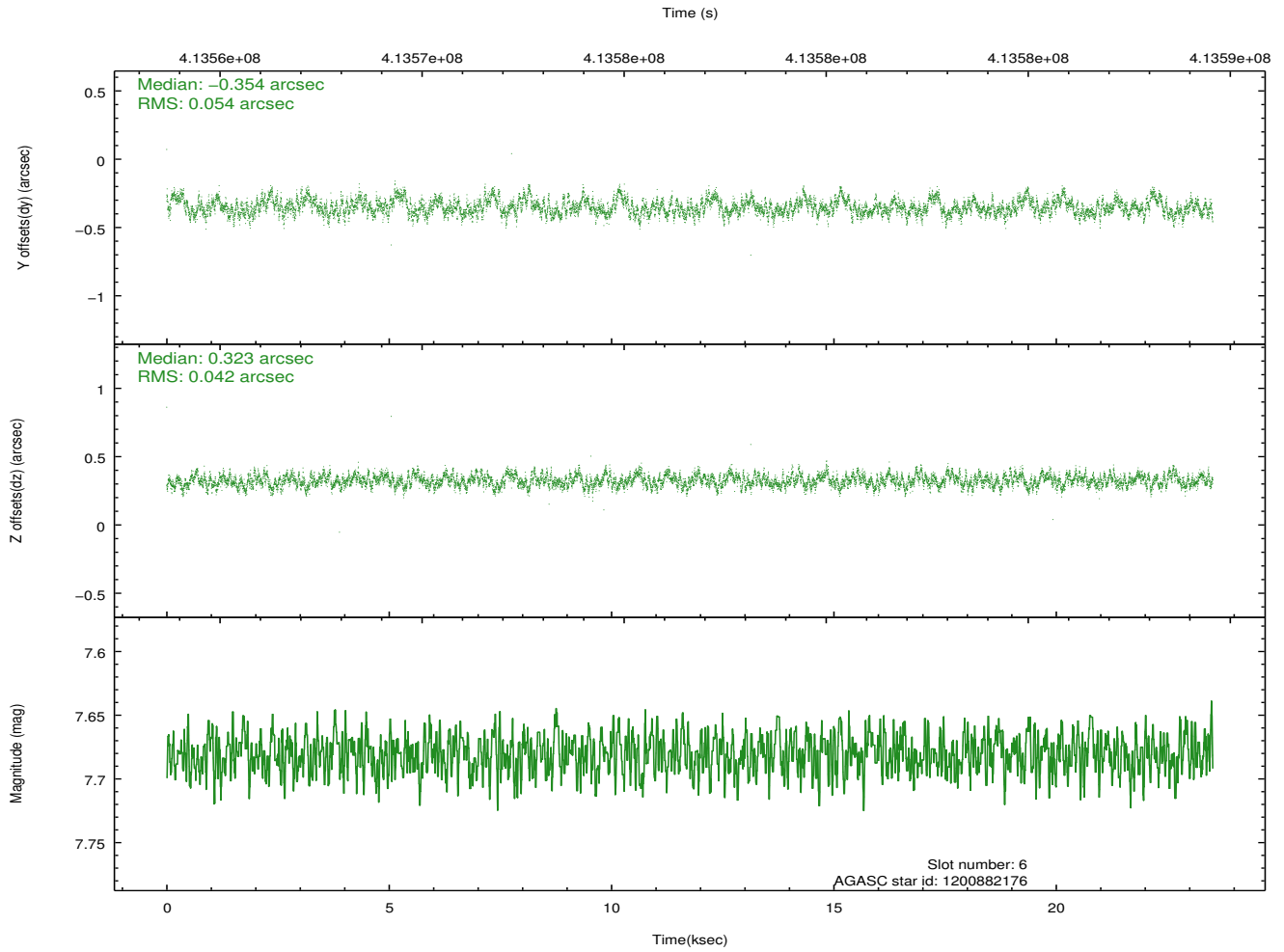
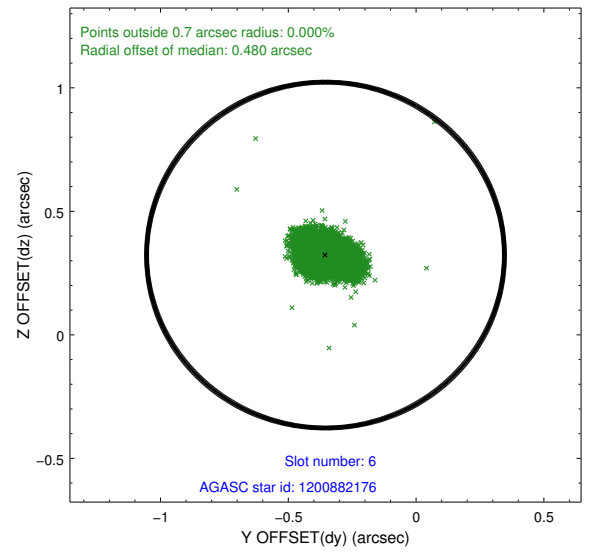
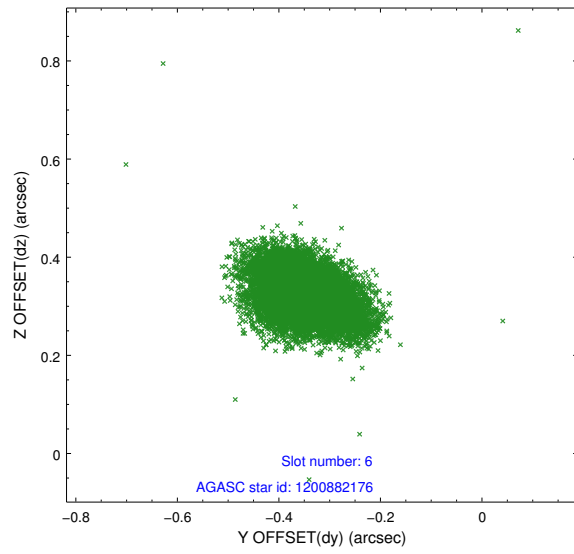
2.4.2 Slot 4



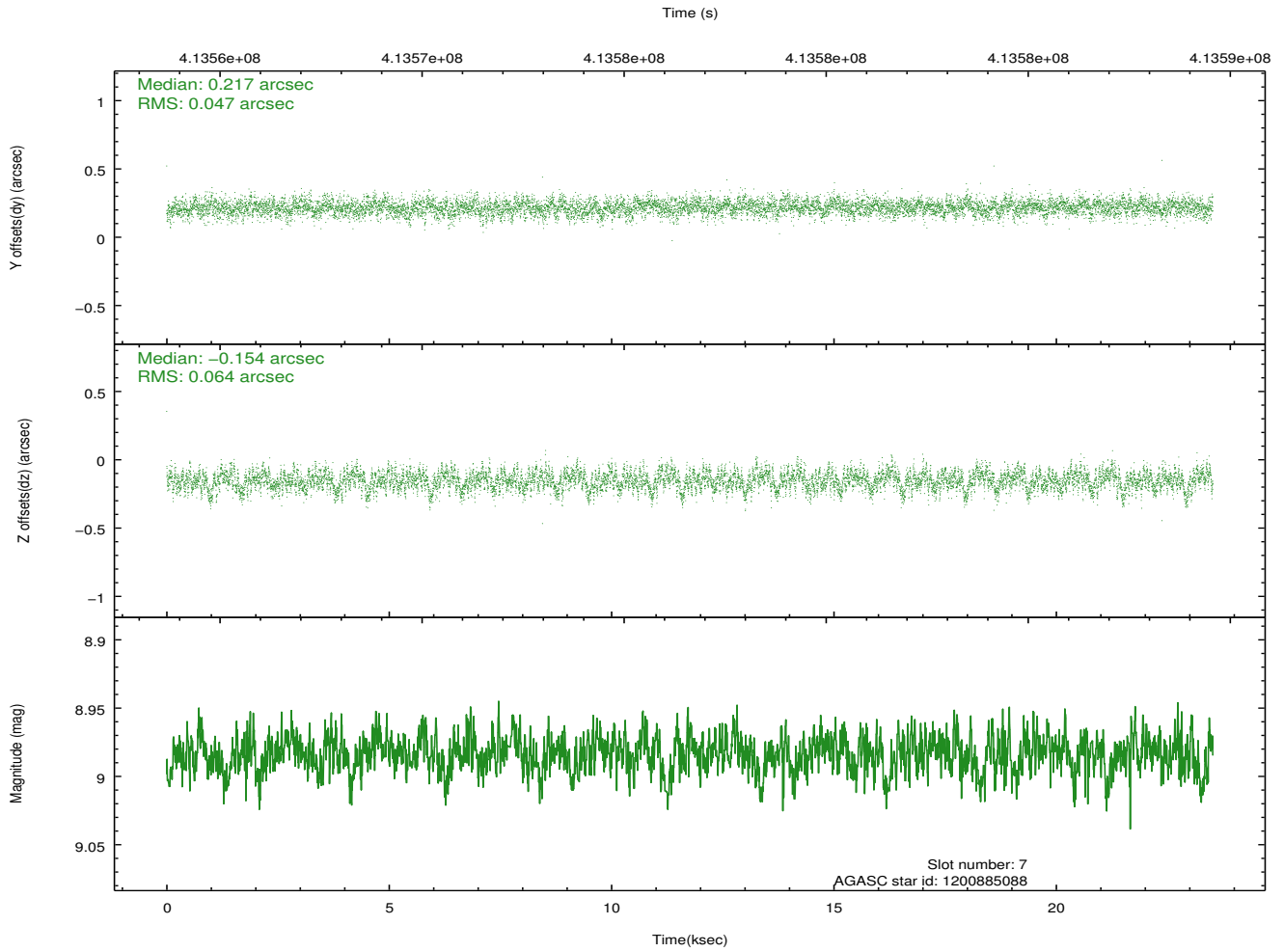
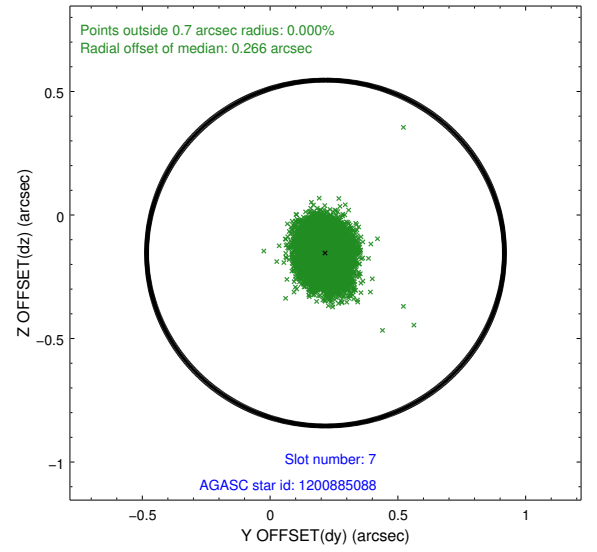
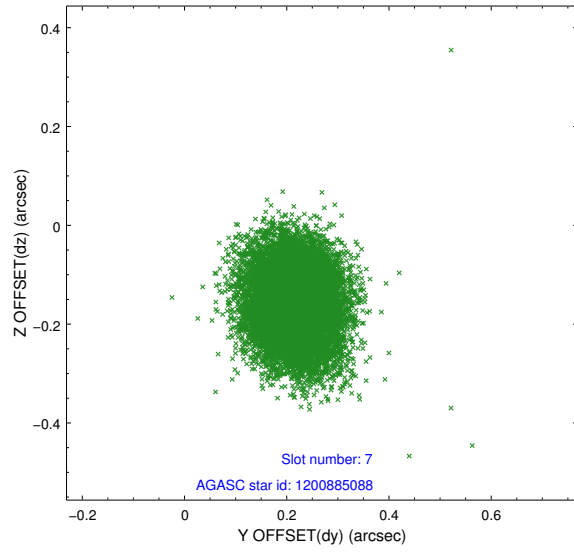
2.4.3 Slot 5



2.4.4 Slot 6

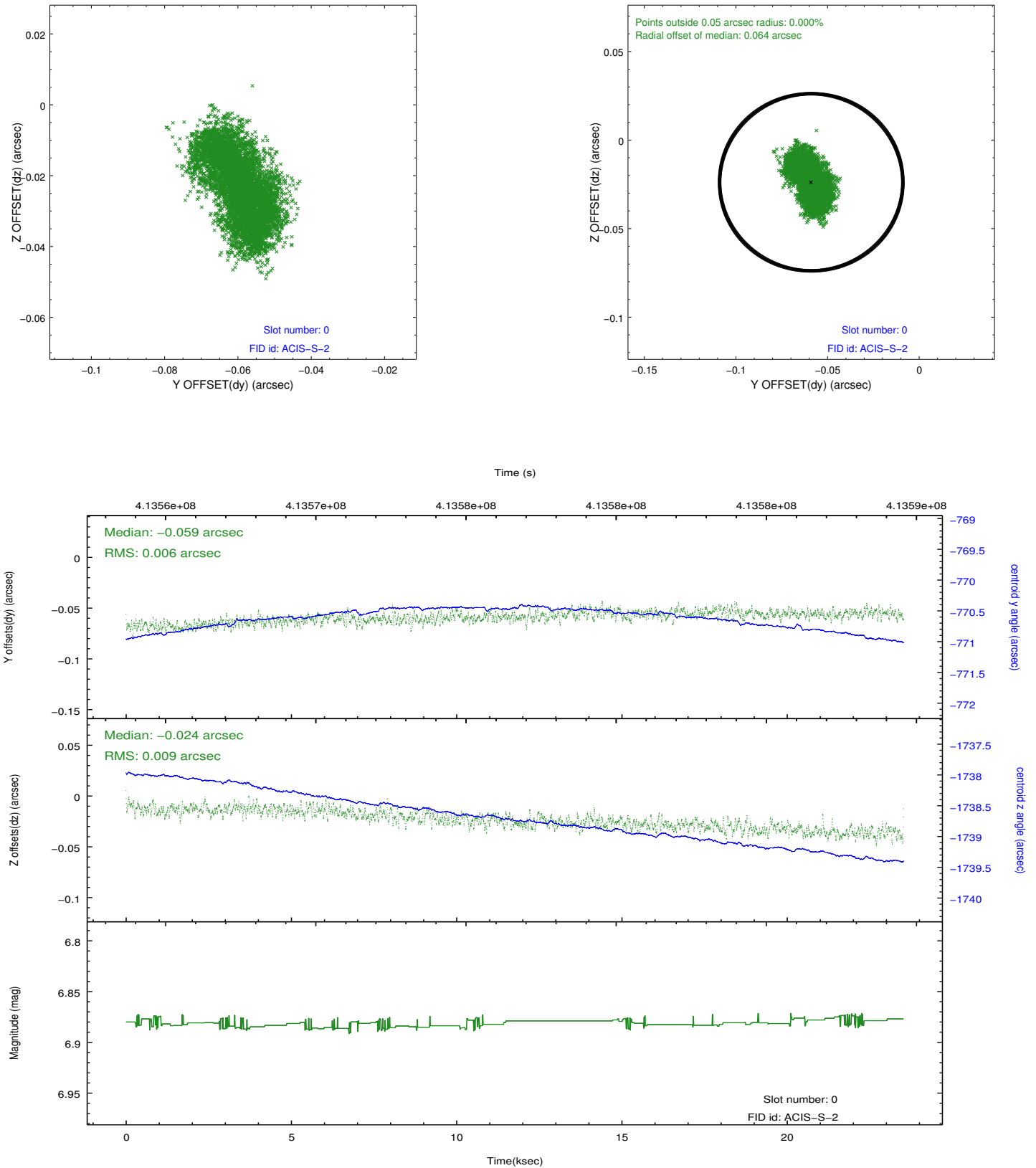


2.4.5 Slot 7

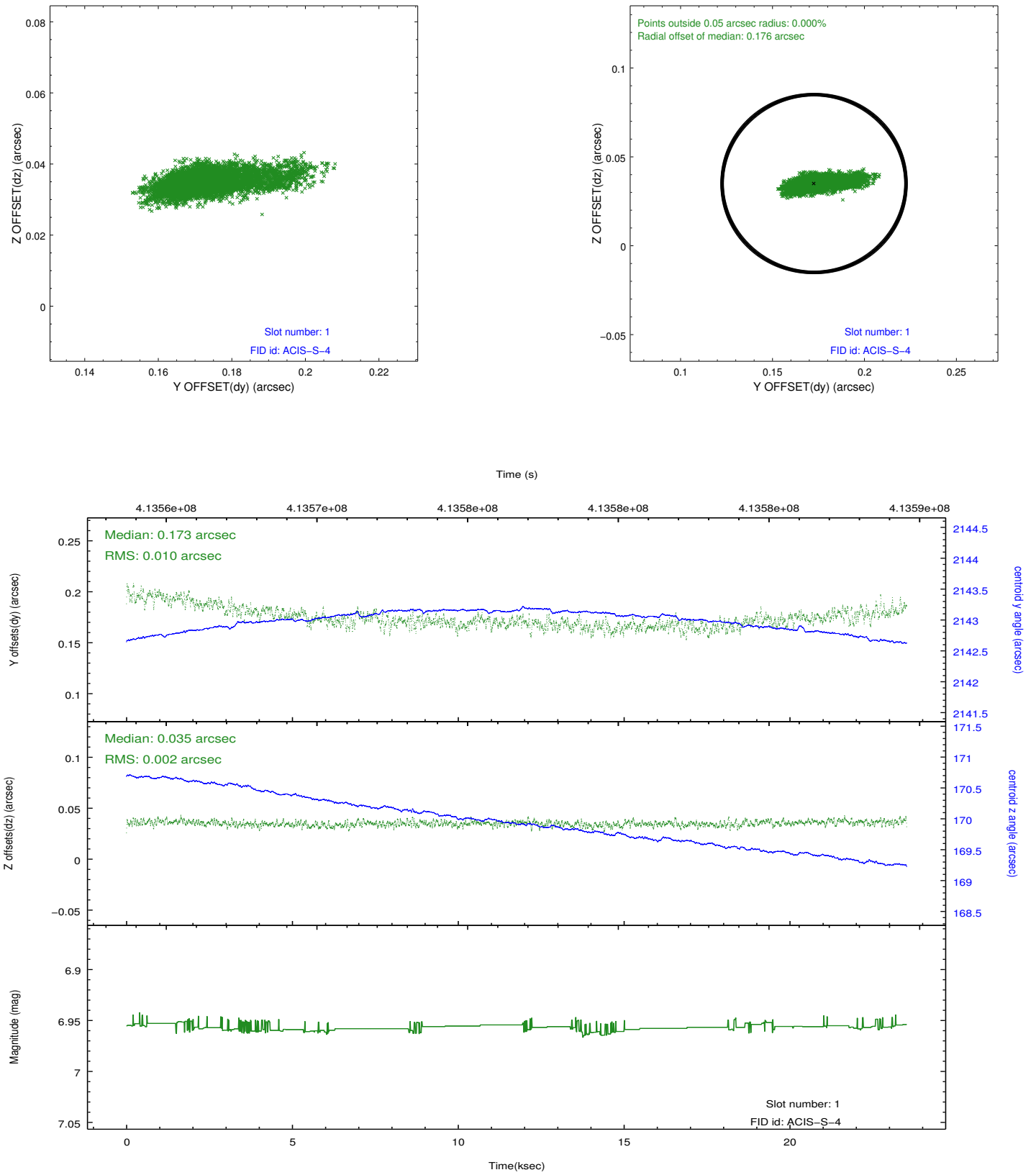


2.5 FID Slots

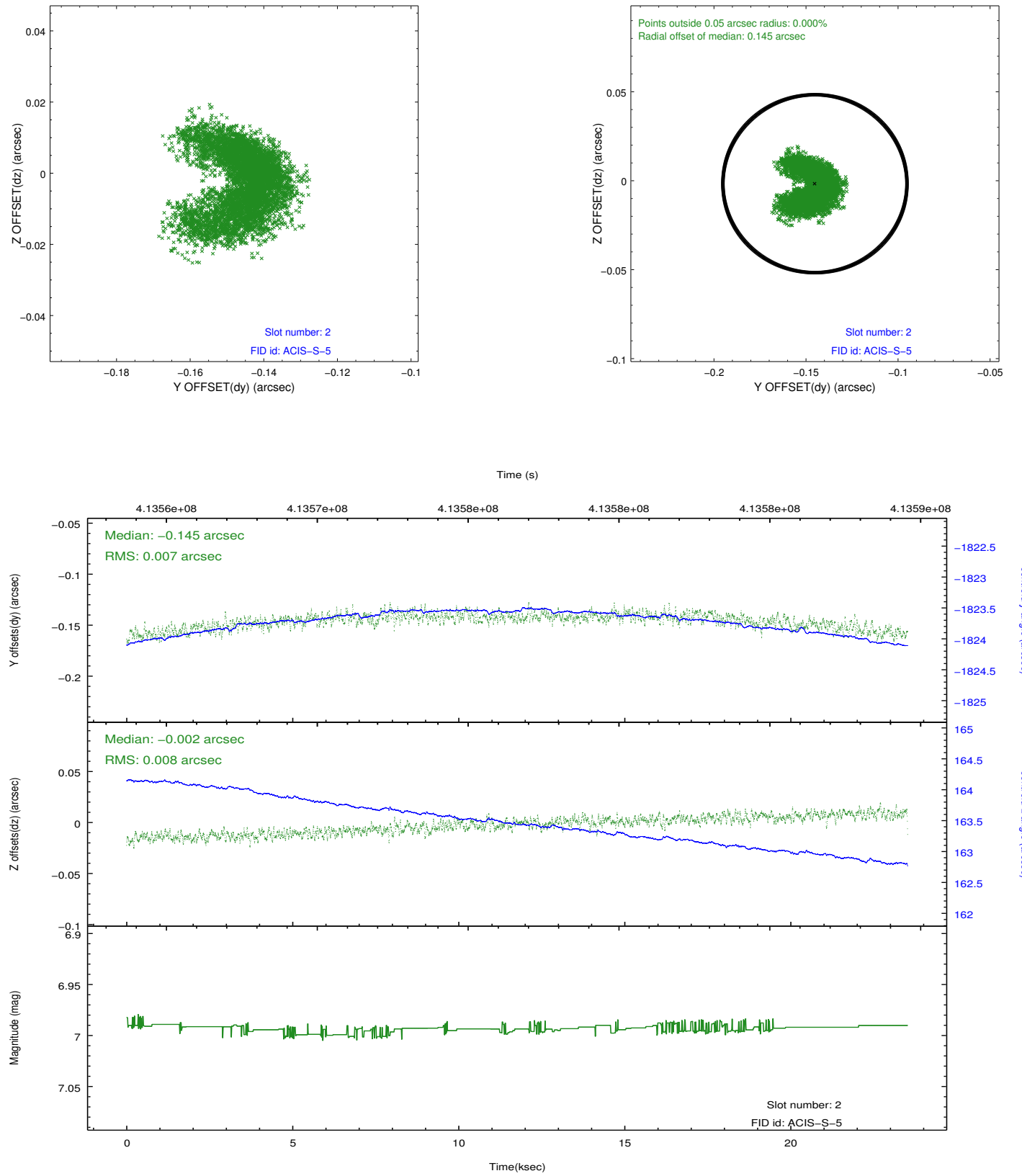
2.5.1 Slot 0



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)	2012.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.70642723912

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.

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Roll preference met.