

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12159 - L2 Version 3
Chandra X-Ray Center

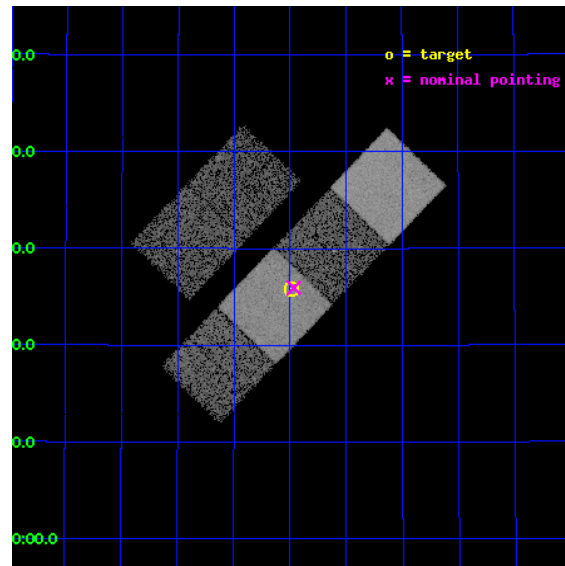
L2 Processing Date : Feb 5 2012

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1 Front

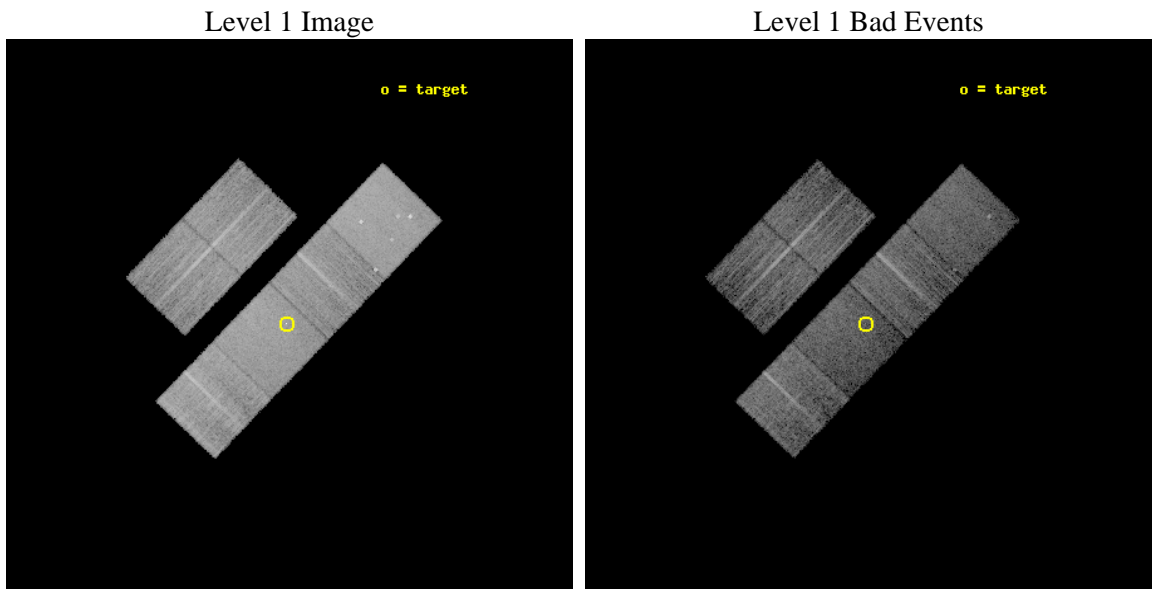
seq_num	702329	Sequence number
obs_id	12159	Observation id
title	Snapshot survey of 3CRR radio galaxies	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	Protocluster at z=1.30	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	177.8725	Observer's specified target RA [deg]
dec_targ	38.431111	Observer's specified target Dec [deg]
ra_nom	177.86651249712	Nominal RA [deg]
dec_nom	38.432332970139	Nominal Dec [deg]
roll_nom	133.85981858863	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9753.5999637246	Sum of GTIs [s]
livetime	9630.0940080711	Livetime [s]
ontime2	9753.5999637246	Sum of GTIs [s]
ontime3	9753.5999637246	Sum of GTIs [s]
ontime5	9753.5999637246	Sum of GTIs [s]
ontime6	9753.5999637246	Sum of GTIs [s]
ontime7	9753.5999637246	Sum of GTIs [s]
ontime8	9747.117993176	Sum of GTIs [s]
l2events	108806	Number of level 2 events



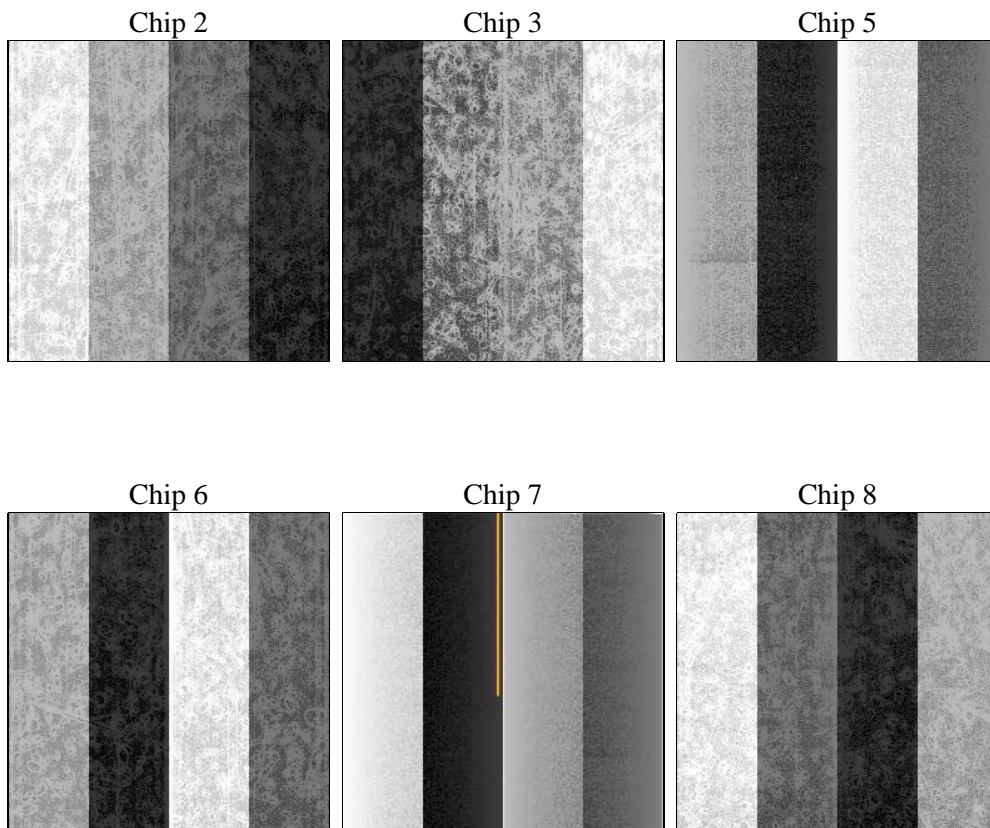
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	9753.5999637246	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	9753.5999637246	Sum of GTIs [s]
date	2012-02-05T16:50:11	Date and time of file creation	ontime3	9753.5999637246	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9753.5999637246	Sum of GTIs [s]
			ontime6	9753.5999637246	Sum of GTIs [s]
			ontime7	9753.5999637246	Sum of GTIs [s]
			ontime8	9747.117993176	Sum of GTIs [s]
			l1events	466651	Number of level 1 events

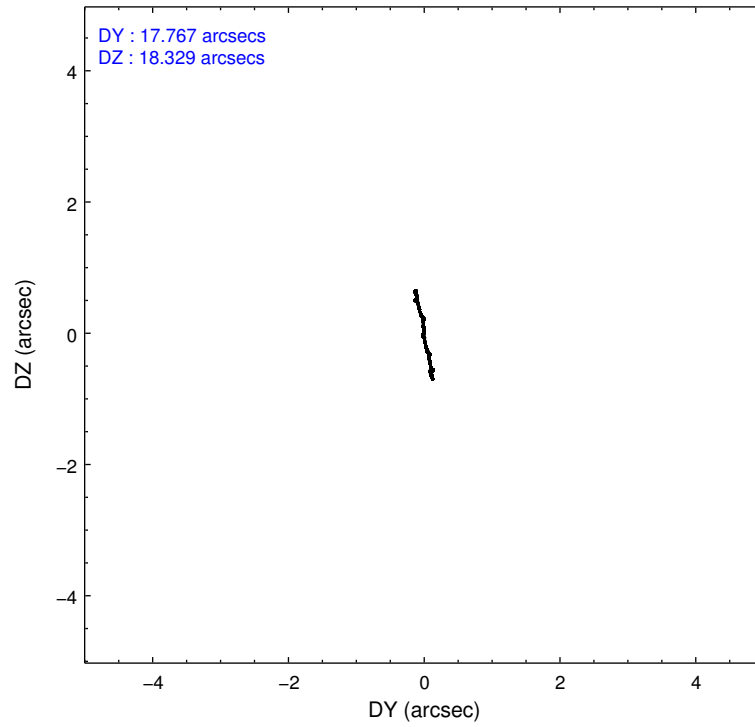
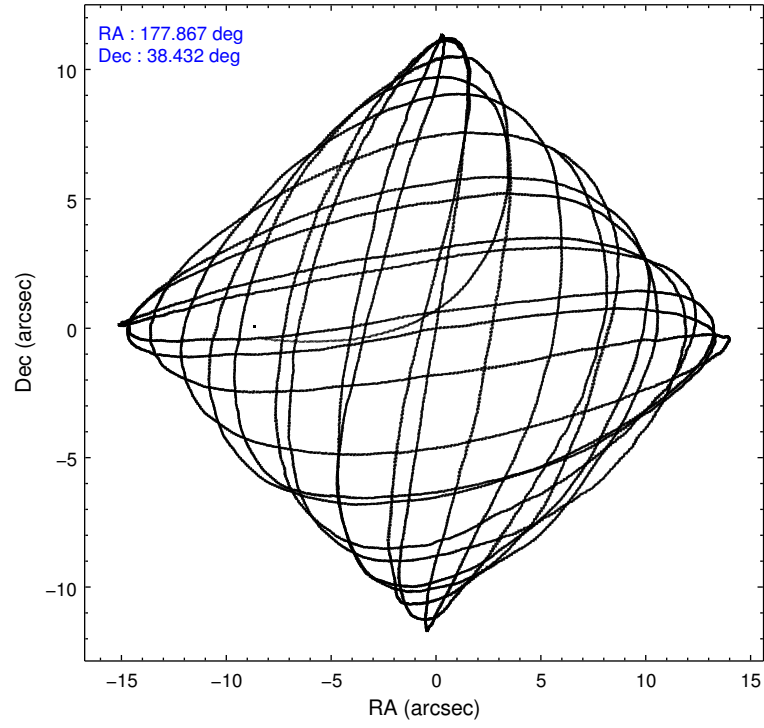
2.1.4 Events

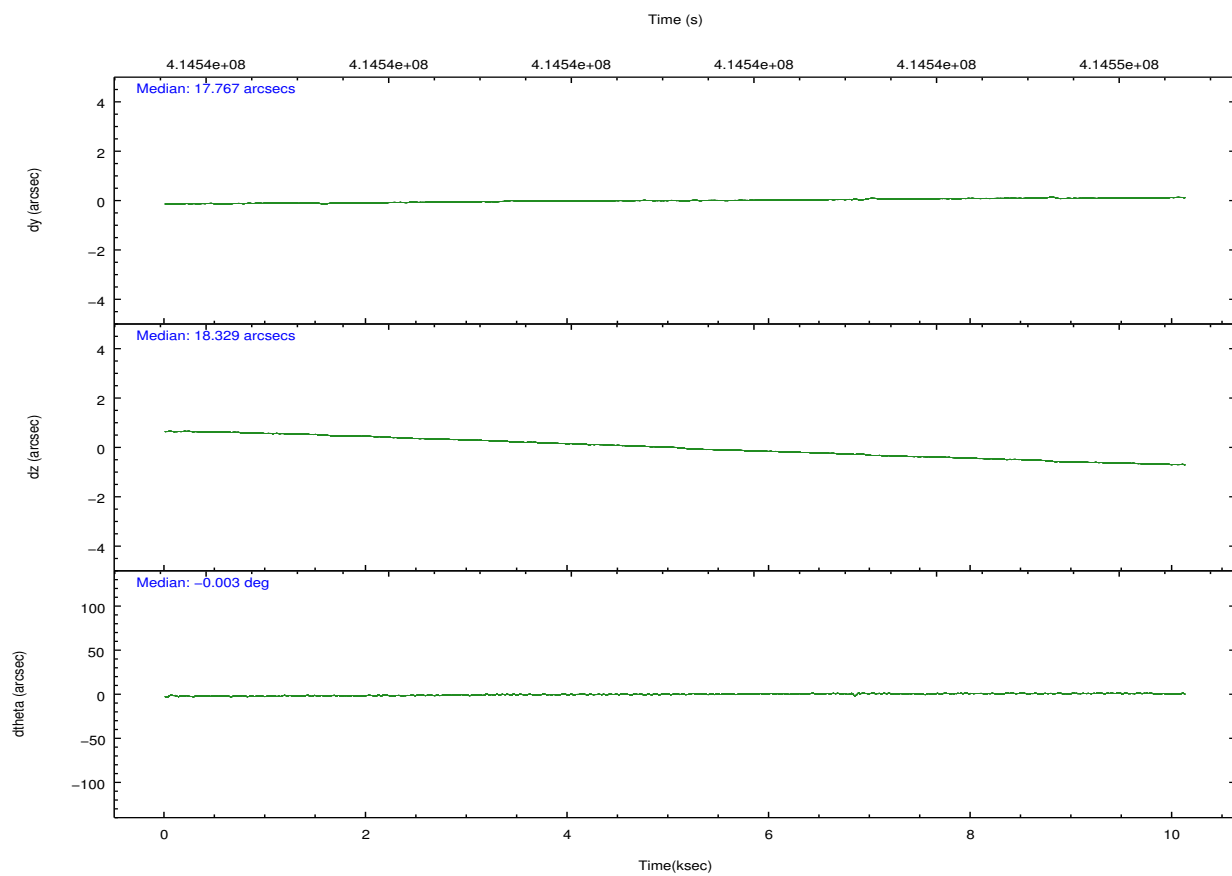
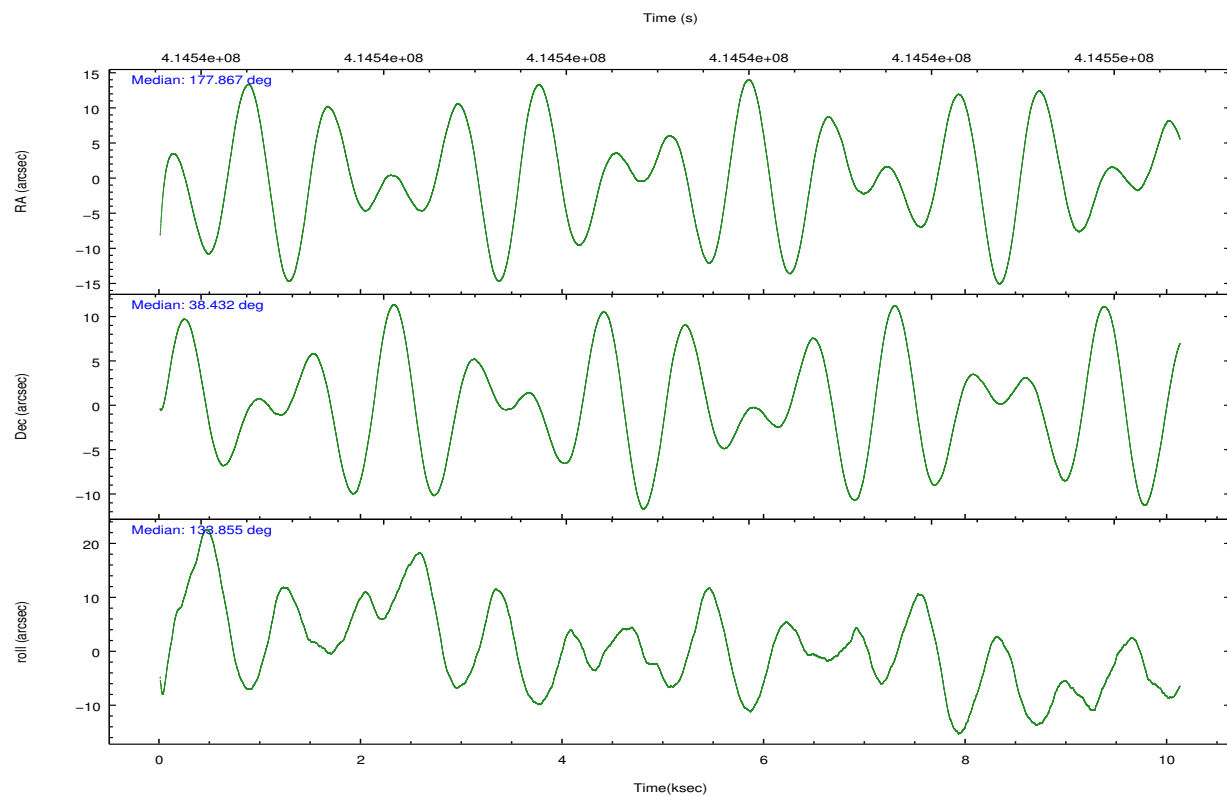
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	66668	63671	100456	66624	82296	86936	grade 0 events	2463	2382	4797	2684	3457	6386
rejected events	59531	56929	50490	58954	44906	64324		3%	3%	4%	4%	4%	7%
rejected %	89%	89%	50%	88%	54%	73%	grade 1 events	35	45	215	39	124	95
								0%	0%	0%	0%	0%	0%
							grade 2 events	1841	1589	15218	1716	7616	5315
								2%	2%	15%	2%	9%	6%
							grade 3 events	735	738	1976	771	3317	2500
								1%	1%	1%	1%	4%	2%
							grade 4 events	727	703	1859	831	3293	2269
								1%	1%	1%	1%	4%	2%
							grade 5 events	2561	2943	7892	3010	8570	4465
								3%	4%	7%	4%	10%	5%
							grade 6 events	1373	1332	26138	1673	19718	6144
								2%	2%	26%	2%	23%	7%
							grade 7 events	56933	53939	42361	55900	36201	59762
								85%	84%	42%	83%	43%	68%

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	177.900158	177.8665124971157	CCD I2 on	O1	Y
[deg] Pointing Dec	38.425082	38.43233297013929	CCD I3 on	Y	Y
[deg] Pointing Roll	133.682296	133.8598185886268	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	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)	414536195.184000	414534914.44536	CCD S5 on	N	N
Observation start date	2011-02-19T20:55:29	2011-02-19T20:35:14	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	414546195.184000	414546891.05848	On-chip summing requested	N	N
Observation end date	2011-02-19T23:42:09	2011-02-19T23:54:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



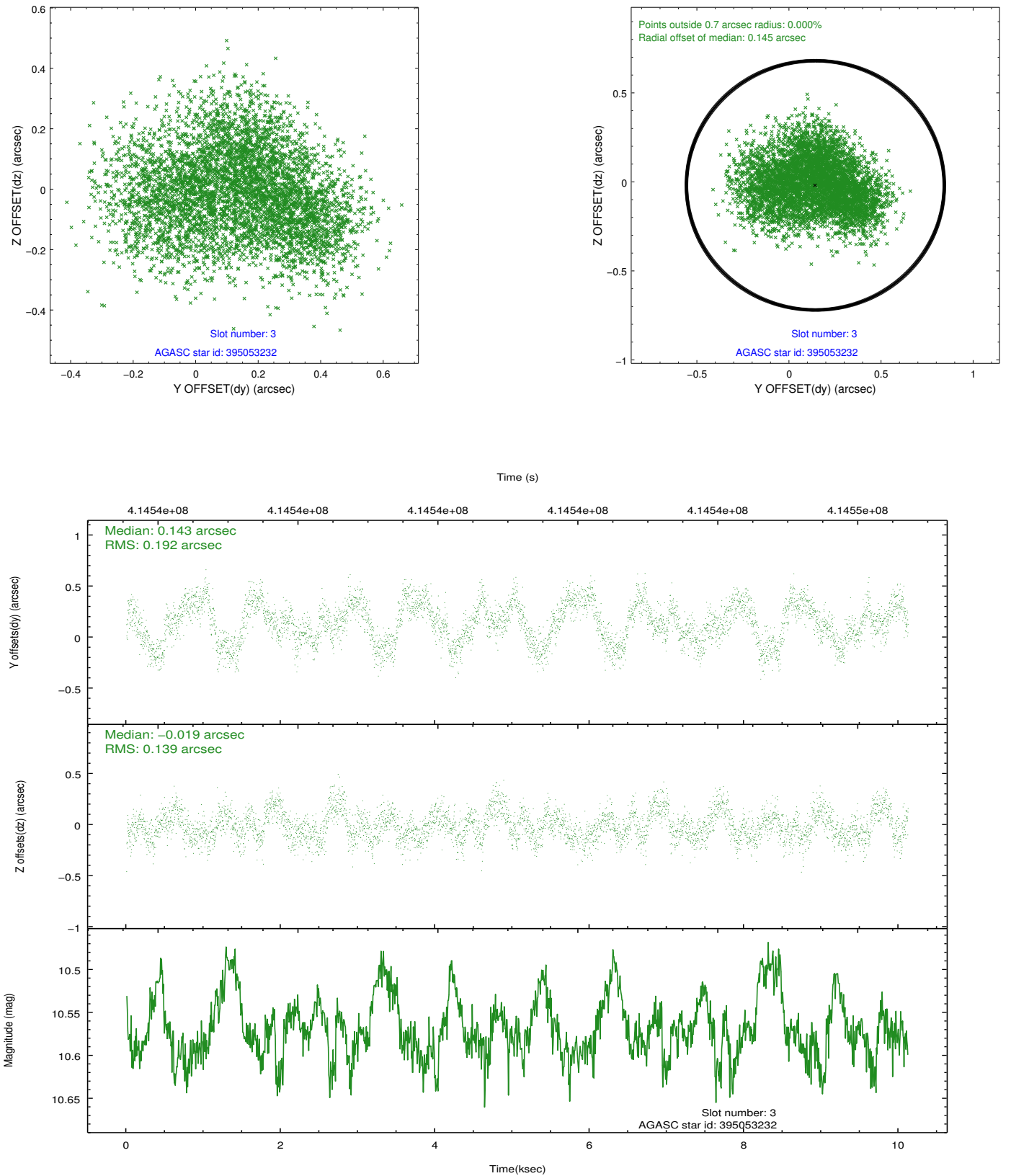


Slot Statistics

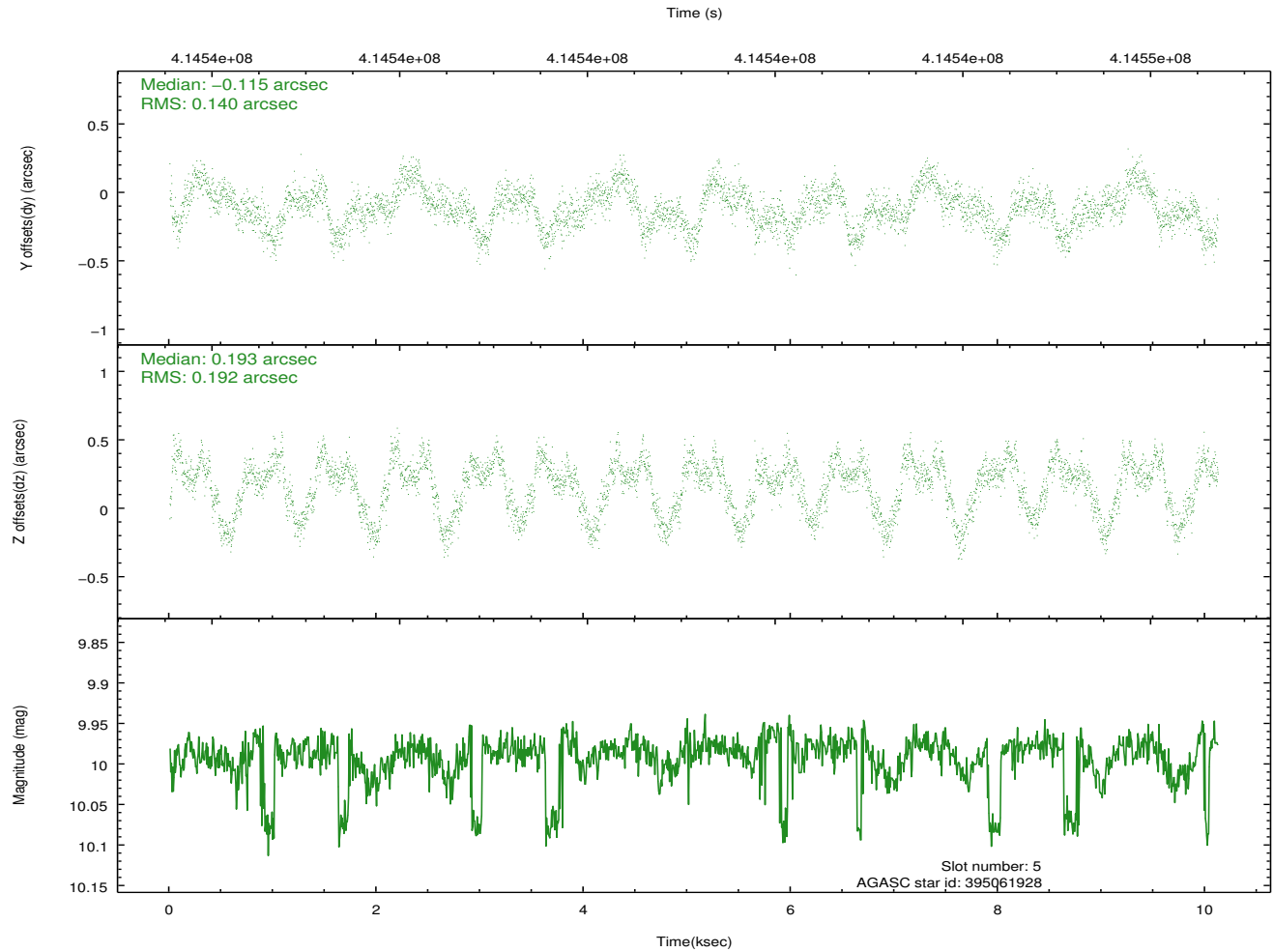
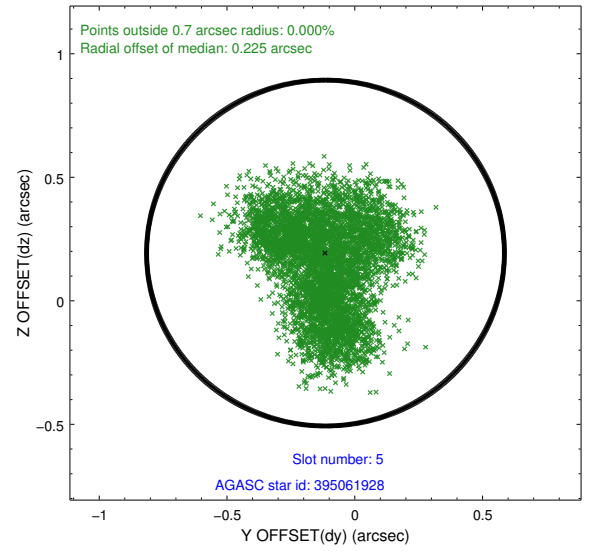
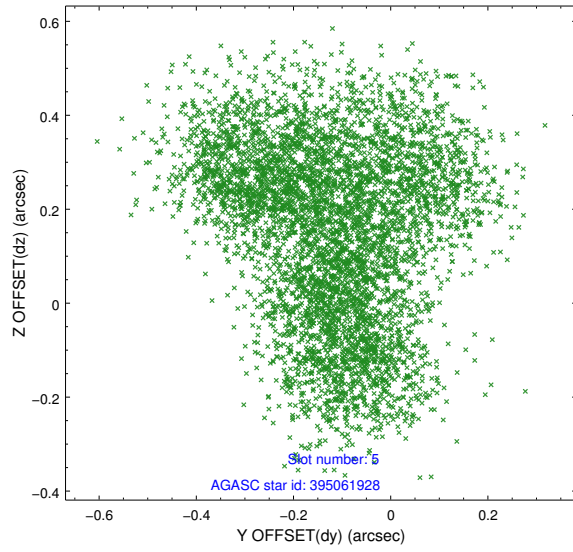
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	2469	-0.064	-0.045	0.009	0.017	0.000000	0.000000	-770.90	-1739.77
1	FID	ACIS-S-4	6.97	2469	0.188	0.043	0.006	0.011	0.000000	0.000000	2142.41	168.22
2	FID	ACIS-S-5	7.01	2469	-0.155	0.011	0.008	0.016	0.000000	0.000000	-1823.14	162.51
3	GUIDE	395053232	10.57	4909	0.143	-0.019	0.260	0.394	178.576606	38.242442	-1790.69	-933.79
4	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	GUIDE	395061928	9.99	4922	-0.115	0.193	0.260	0.400	177.762879	38.677020	922.67	-347.25
6	GUIDE	395068736	9.07	4933	-0.014	-0.153	0.121	0.192	177.268391	38.635397	1779.61	757.90
7	GUIDE	395070608	8.83	4935	-0.011	0.004	0.110	0.171	177.546802	38.790410	1638.98	-190.79

2.4 Star Slots

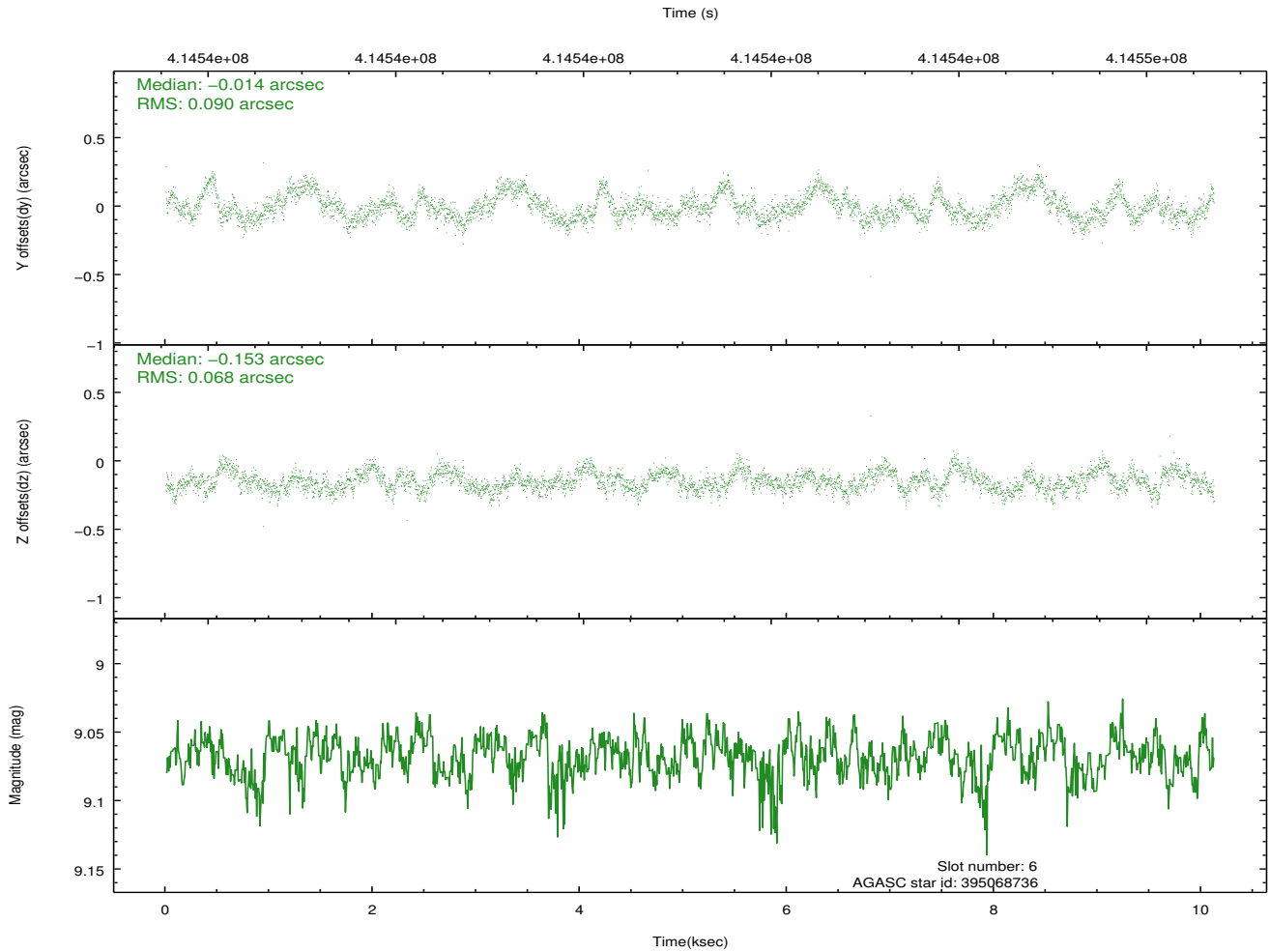
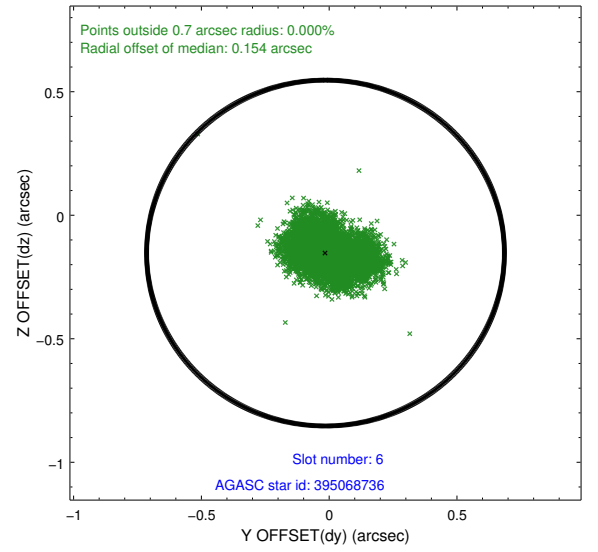
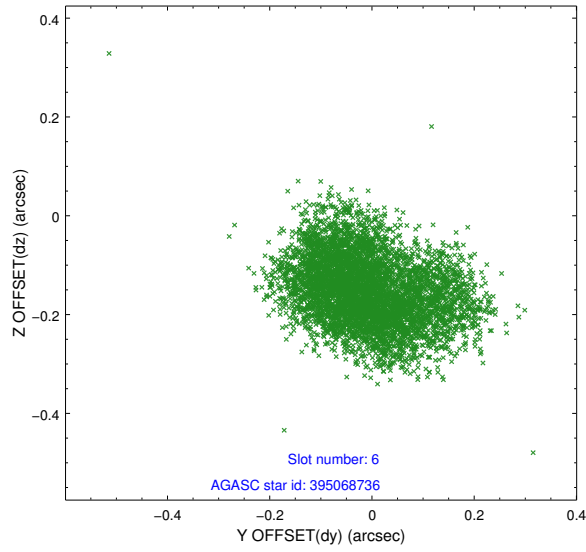
2.4.1 Slot 3



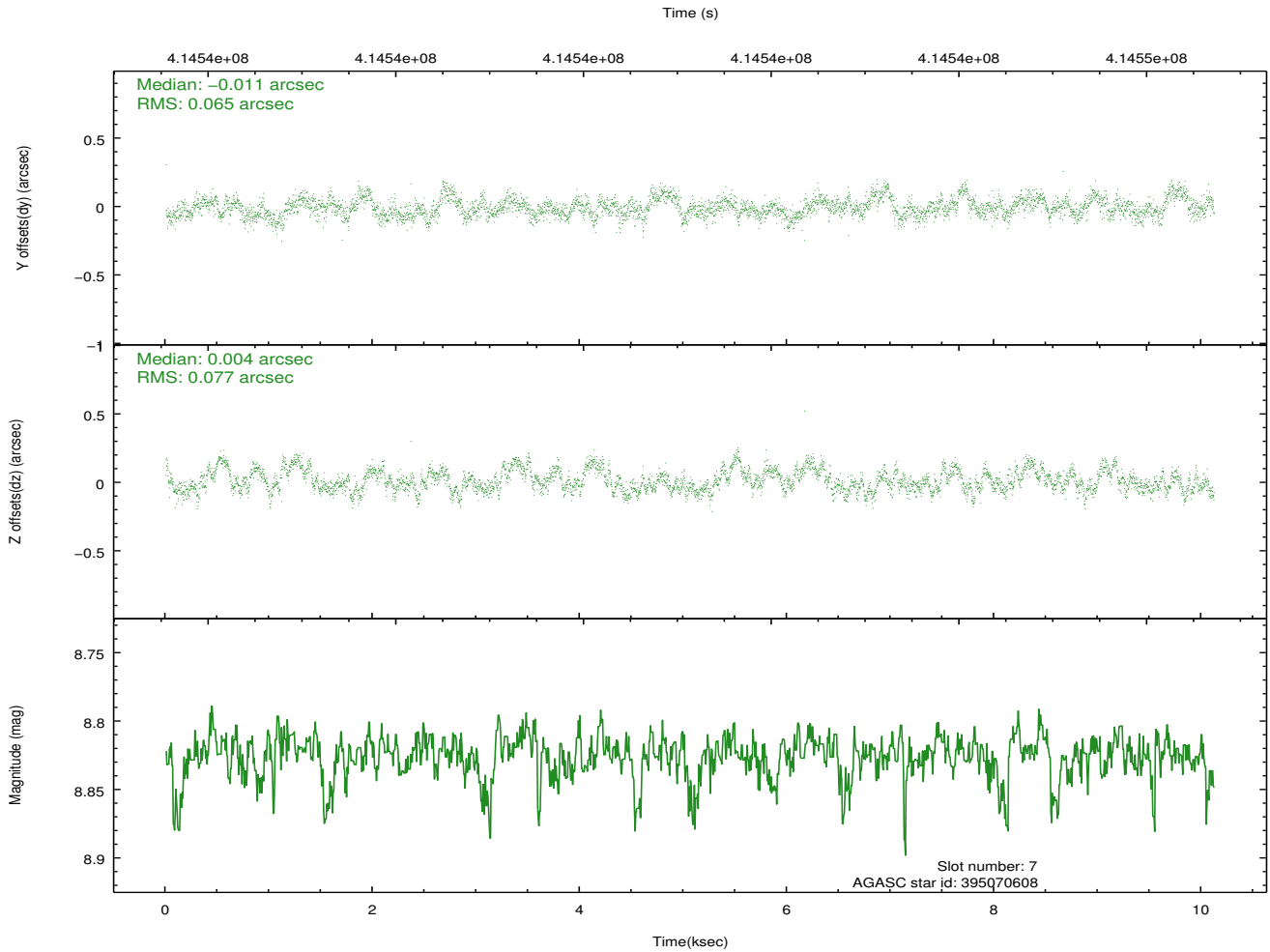
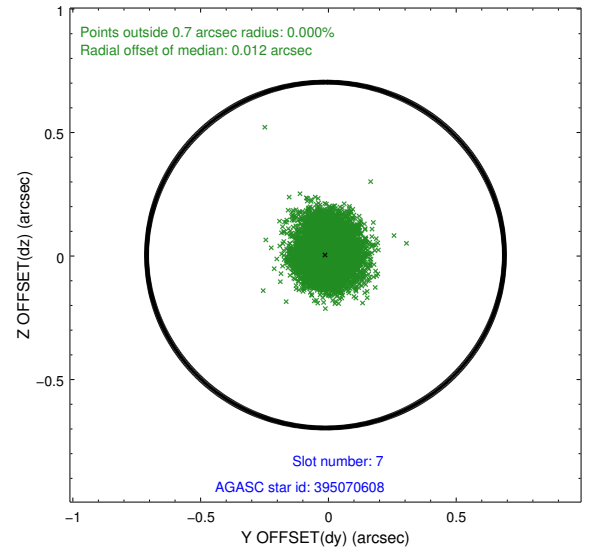
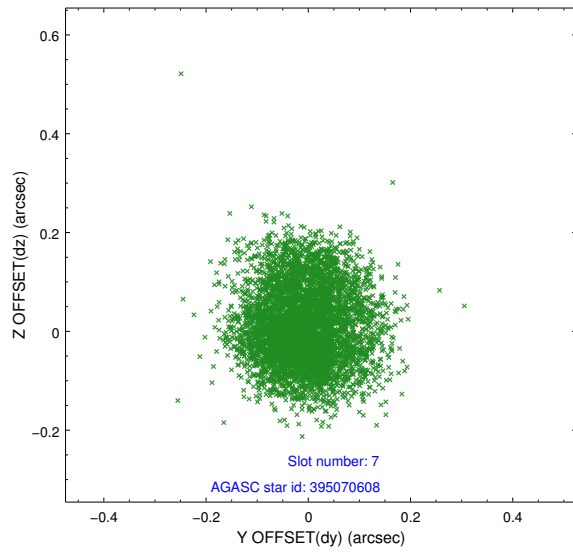
2.4.2 Slot 5



2.4.3 Slot 6

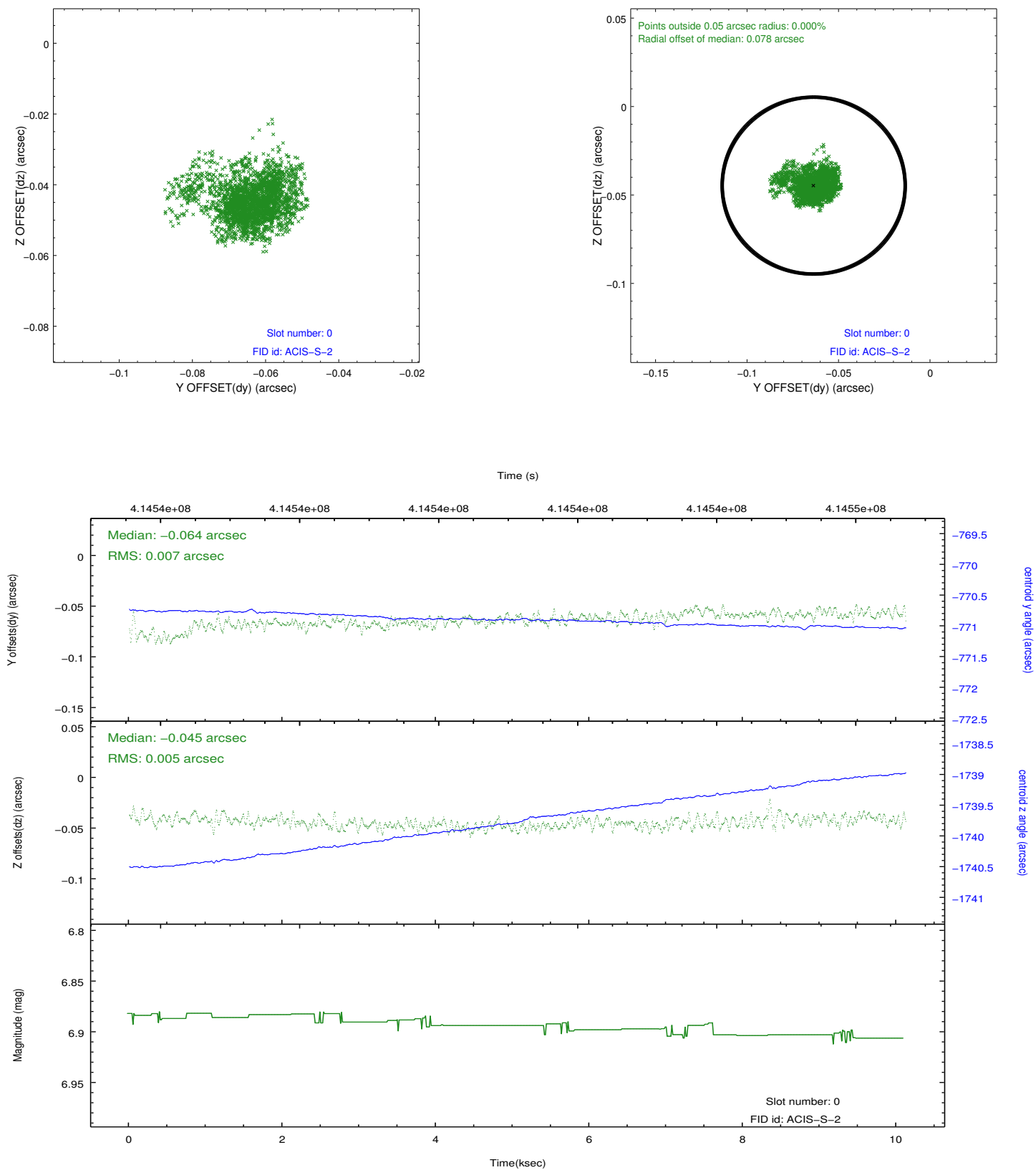


2.4.4 Slot 7

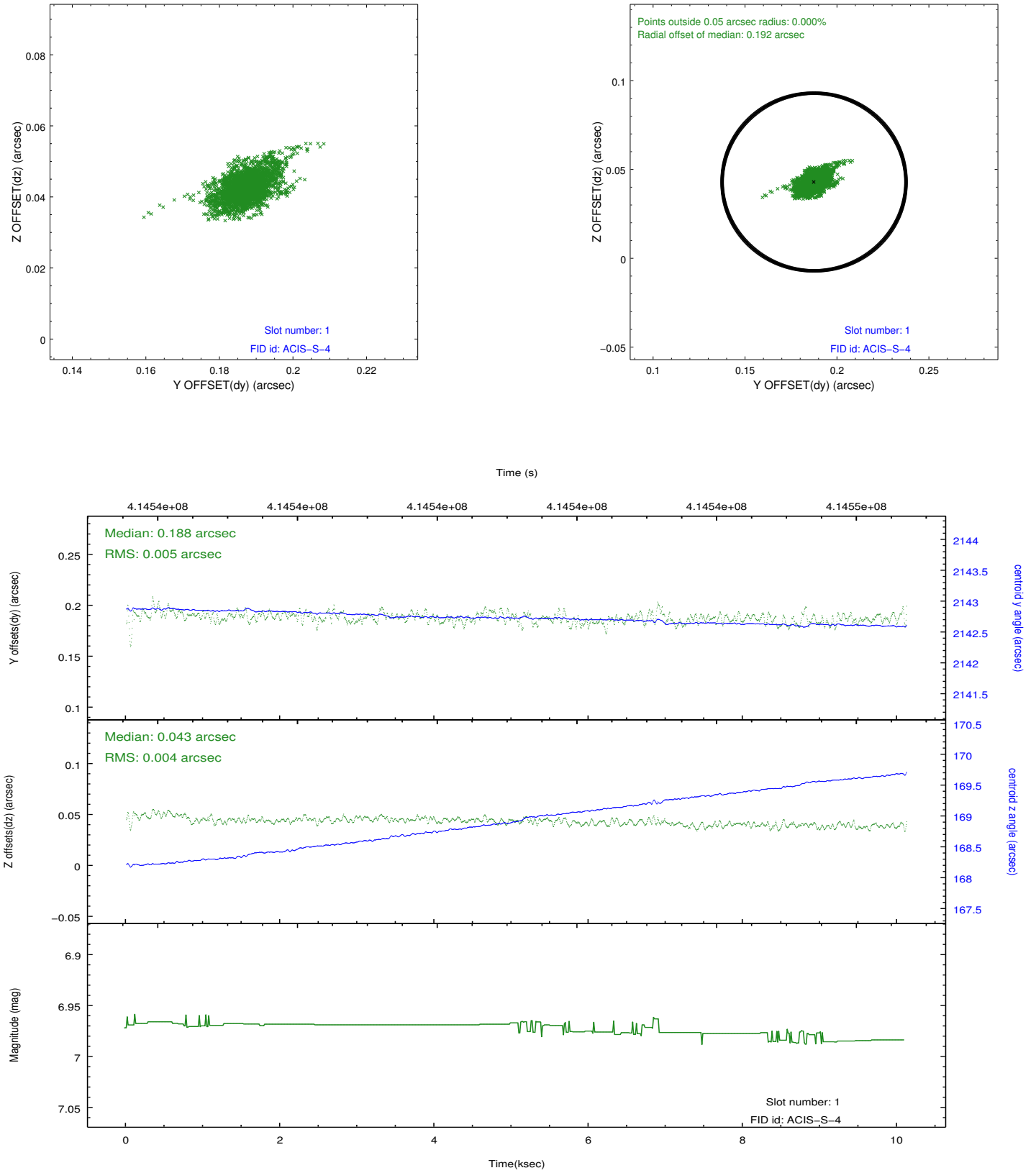


2.5 FID Slots

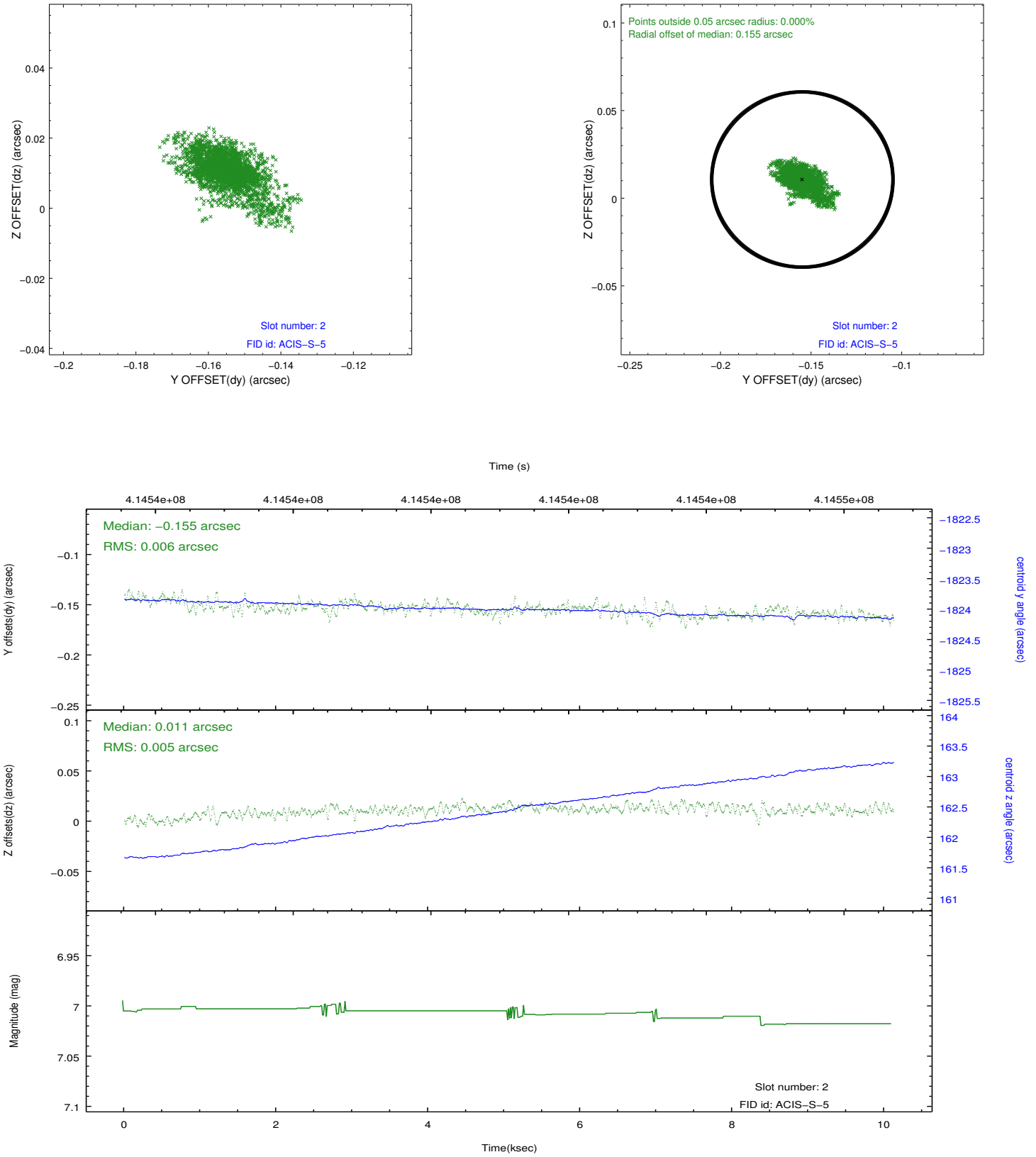
2.5.1 Slot 0



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)	2012.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.7535999637246

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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The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is not expected to be degraded by removing one fid light or guide star from the solution.