

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12685 - L2 Version 2
Chandra X-Ray Center

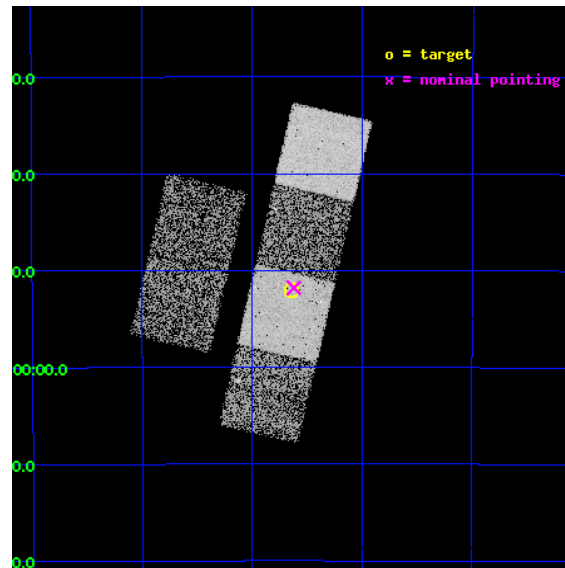
L2 Processing Date : Feb 3 2012

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1 Front

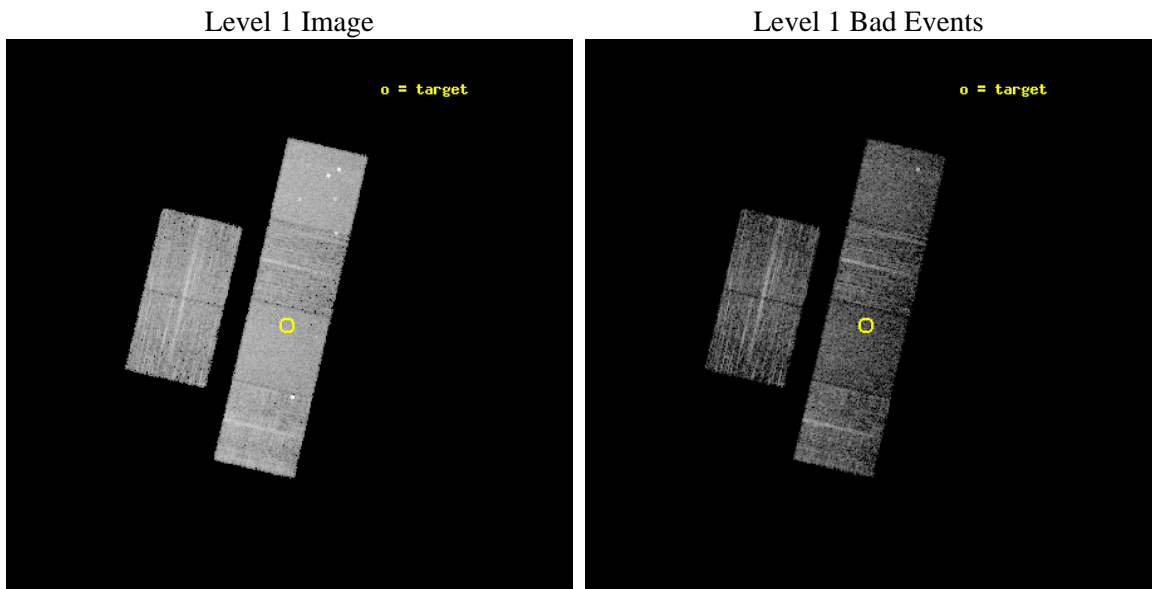
seq_num	501518	Sequence number
obs_id	12685	Observation id
title	Hunting for Anti-magnetars with Chandra	Proposal title
observer	Dr Chi-Yung Ng	Principal investigator
object	PSR J1739-3951	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	264.909583	Observer's specified target RA [deg]
dec_targ	-39.86675	Observer's specified target Dec [deg]
ra_nom	264.90503557893	Nominal RA [deg]
dec_nom	-39.863323688812	Nominal Dec [deg]
roll_nom	103.12323284153	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5051.961961031	Sum of GTIs [s]
livetime	4987.9909767541	Livetime [s]
ontime2	5052.0030010343	Sum of GTIs [s]
ontime3	5051.8388410211	Sum of GTIs [s]
ontime5	5051.9209210277	Sum of GTIs [s]
ontime6	5051.8798810244	Sum of GTIs [s]
ontime7	5051.961961031	Sum of GTIs [s]
ontime8	5051.7978010178	Sum of GTIs [s]
l2events	61137	Number of level 2 events



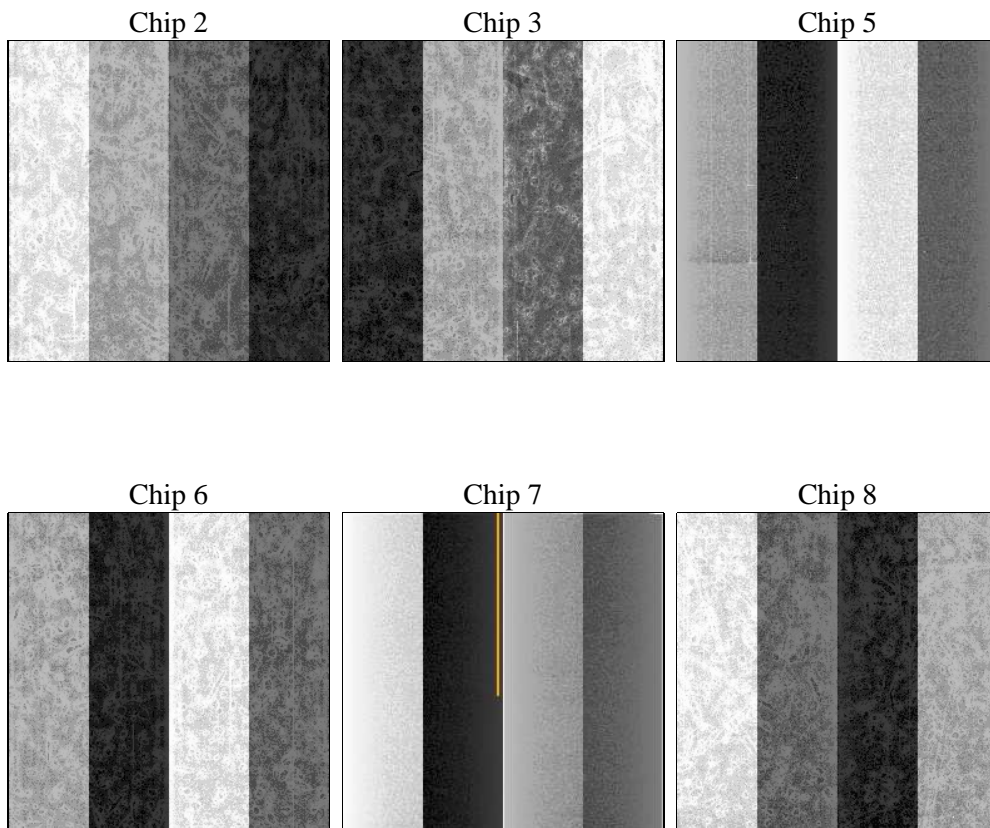
2 OBI

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	5051.961961031	Sum of GTIs [s]
caldsver	4.4.7	 	ontime2	5052.0030010343	Sum of GTIs [s]
date	2012-02-03T14:16:55	Date and time of file creation	ontime3	5051.8388410211	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	5051.9209210277	Sum of GTIs [s]
			ontime6	5051.8798810244	Sum of GTIs [s]
			ontime7	5051.961961031	Sum of GTIs [s]
			ontime8	5051.7978010178	Sum of GTIs [s]
			l1events	259060	Number of level 1 events

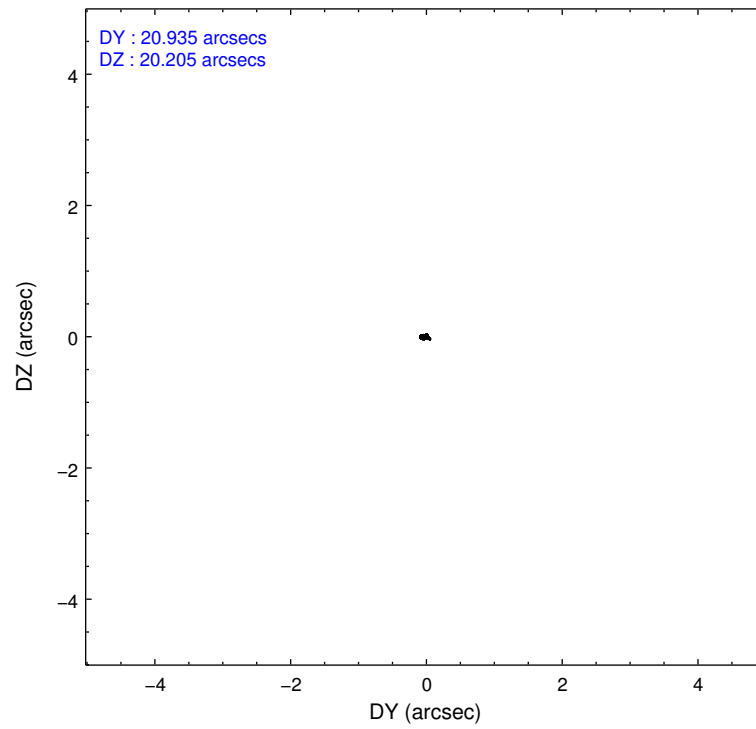
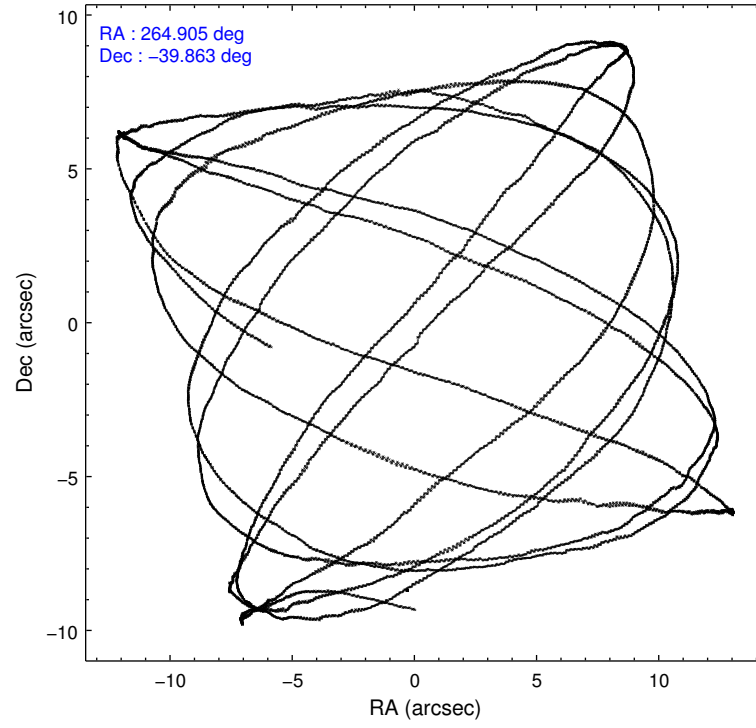
2.1.4 Events

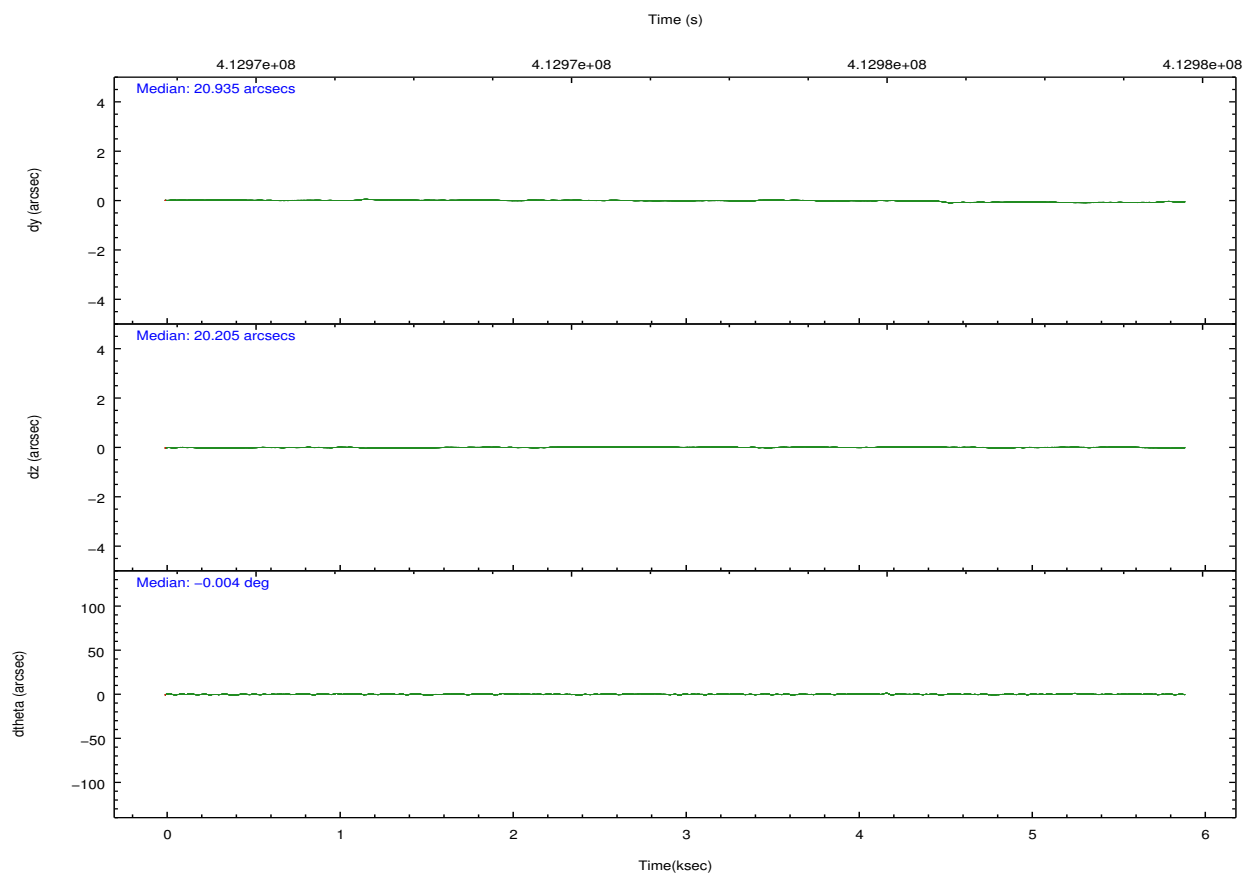
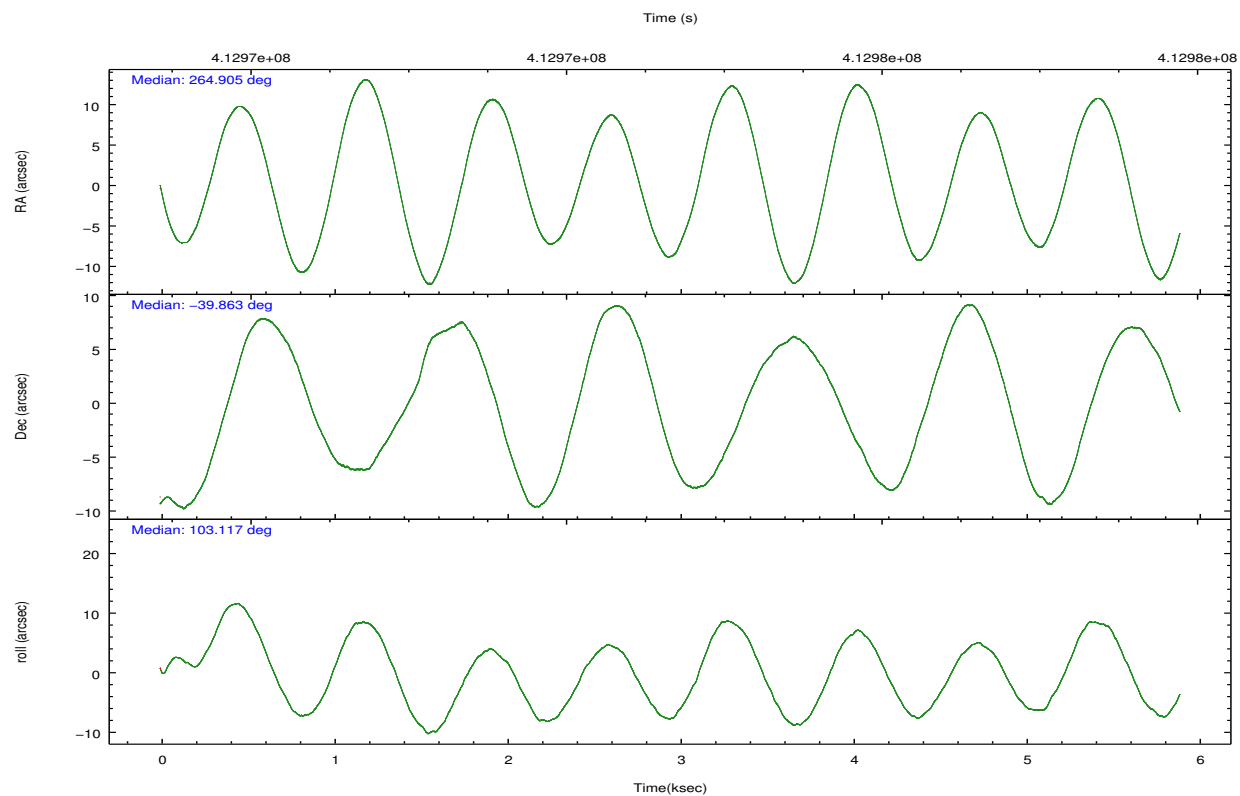
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	37479	35234	57928	35093	45173	48153	grade 0 events	1560	1466	4058	1886	2106	5576
rejected events	33458	31388	28501	30557	24553	33982		4%	4%	7%	5%	4%	11%
rejected %	89%	89%	49%	87%	54%	70%	grade 1 events	23	22	133	20	63	68
								0%	0%	0%	0%	0%	0%
							grade 2 events	949	801	8999	958	4225	2877
								2%	2%	15%	2%	9%	5%
							grade 3 events	376	418	1059	413	1860	1328
								1%	1%	1%	1%	4%	2%
							grade 4 events	377	393	1012	405	1784	1263
								1%	1%	1%	1%	3%	2%
							grade 5 events	1455	1625	4347	1674	4712	2304
								3%	4%	7%	4%	10%	4%
							grade 6 events	761	769	14318	878	10656	3172
								2%	2%	24%	2%	23%	6%
							grade 7 events	31978	29740	24002	28859	19767	31565
								85%	84%	41%	82%	43%	65%

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	264.929840	264.905035578935	CCD I2 on	Y	Y
[deg] Pointing Dec	-39.883014	-39.86332368881182	CCD I3 on	Y	Y
[deg] Pointing Roll	102.982523	103.1232328415263	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O2	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	O1	Y
[s] Observation start time (MET)	412972594.184000	412971235.35193	CCD S5 on	N	N
Observation start date	2011-02-01T18:35:28	2011-02-01T18:13:55	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	412977594.184000	412978603.05231	On-chip summing requested	N	N
Observation end date	2011-02-01T19:58:48	2011-02-01T20:16:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



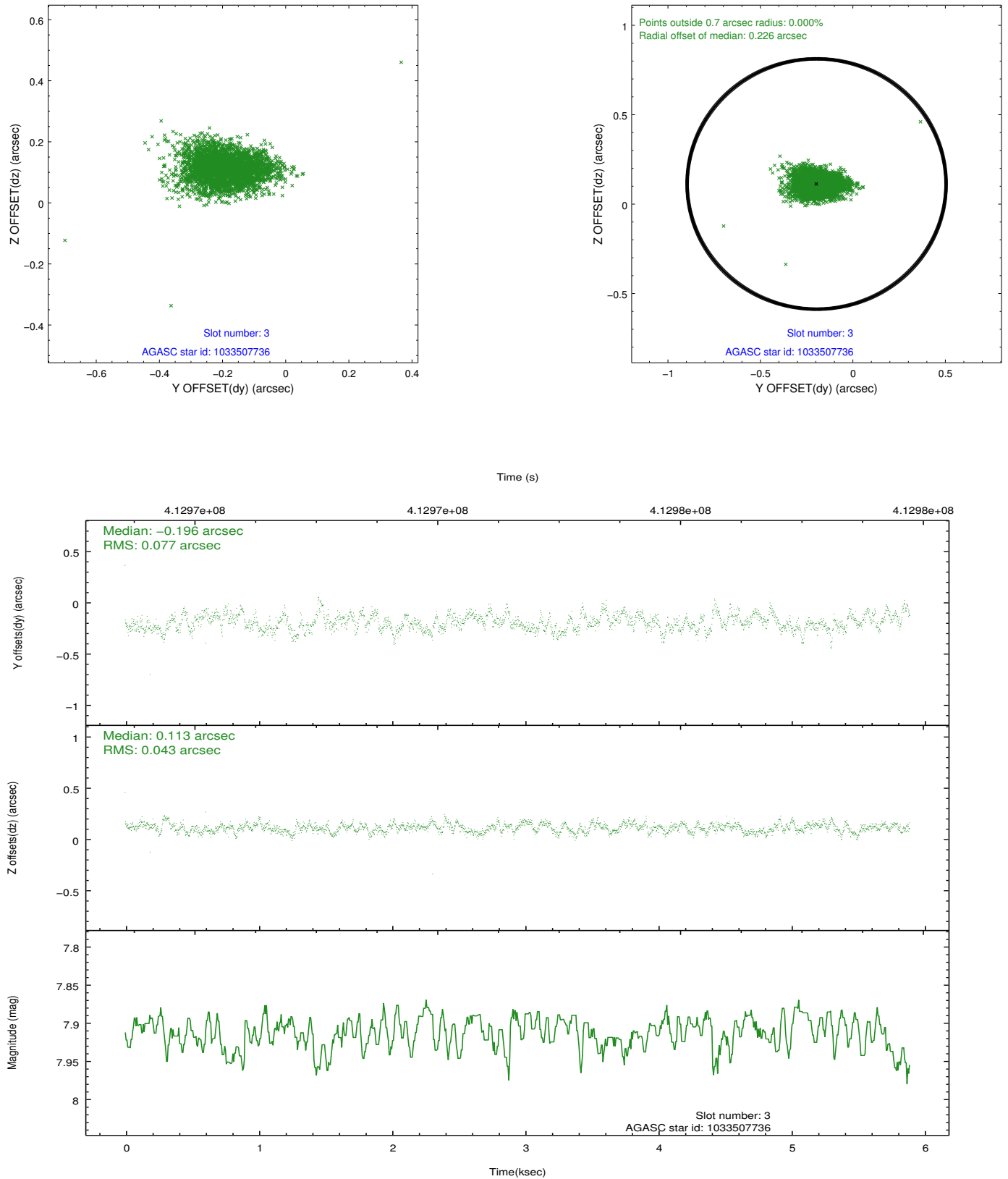


Slot Statistics

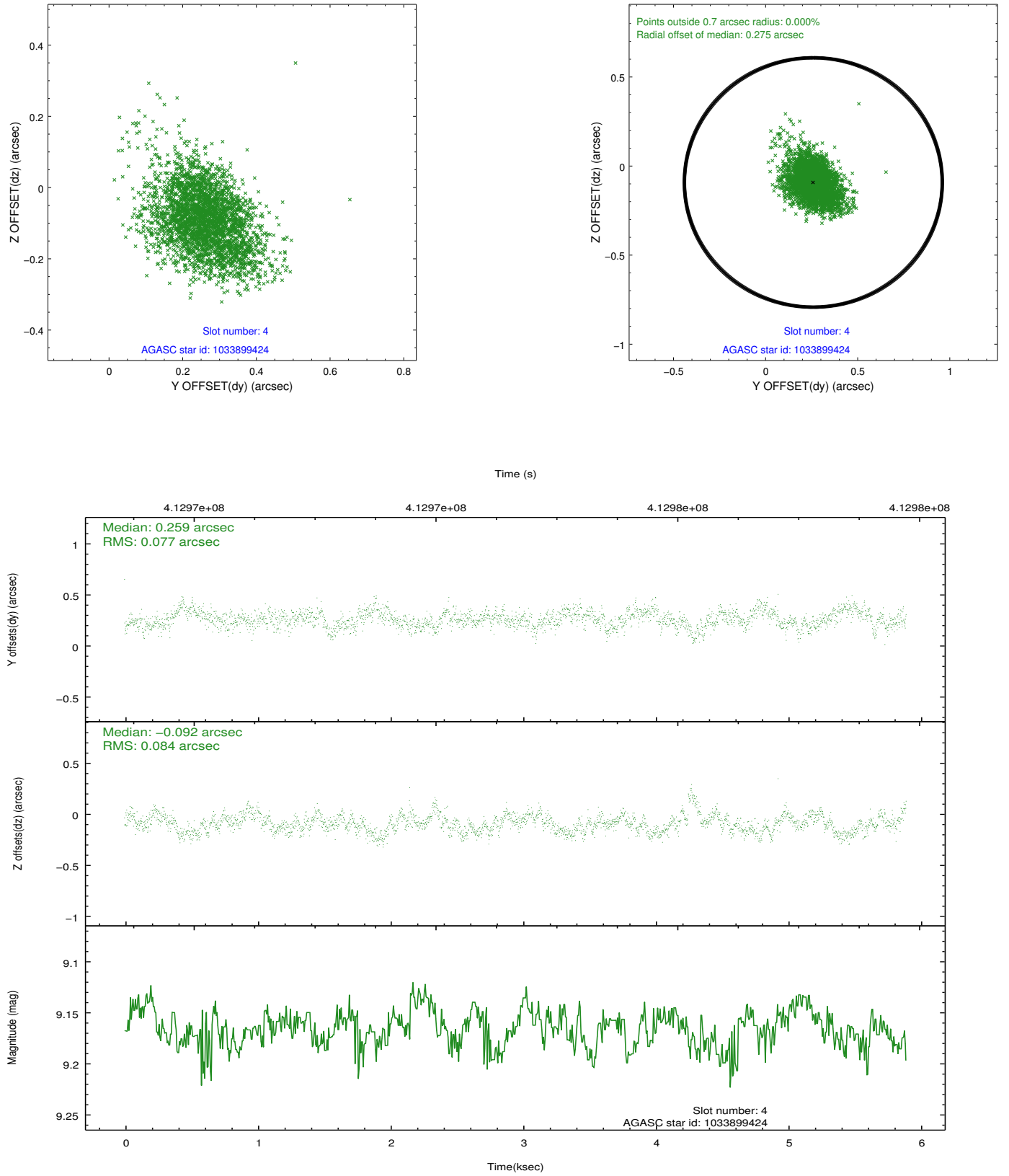
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	1438	-0.102	-0.009	0.007	0.011	0.000000	0.000000	-774.15	-1741.68
1	FID	ACIS-S-4	6.97	1438	0.180	0.051	0.006	0.012	0.000000	0.000000	2138.94	165.81
2	FID	ACIS-S-5	7.00	1438	-0.109	-0.034	0.006	0.011	0.000000	0.000000	-1825.72	160.55
3	GUIDE	1033507736	7.91	2874	-0.196	0.113	0.089	0.153	265.040525	-39.204984	2309.10	-848.83
4	GUIDE	1033899424	9.16	2861	0.259	-0.092	0.119	0.197	264.822523	-40.303719	-1408.61	626.86
5	GUIDE	1033903104	8.88	2875	0.064	-0.071	0.108	0.170	264.726601	-40.185626	-936.91	789.59
6	GUIDE	1033924880	9.20	2852	0.158	-0.276	0.115	0.179	264.367488	-40.491016	-1791.98	1992.97
7	GUIDE	1033510352	8.22	2873	-0.283	0.325	0.140	0.209	265.676046	-39.353499	1382.11	-2449.27

2.4 Star Slots

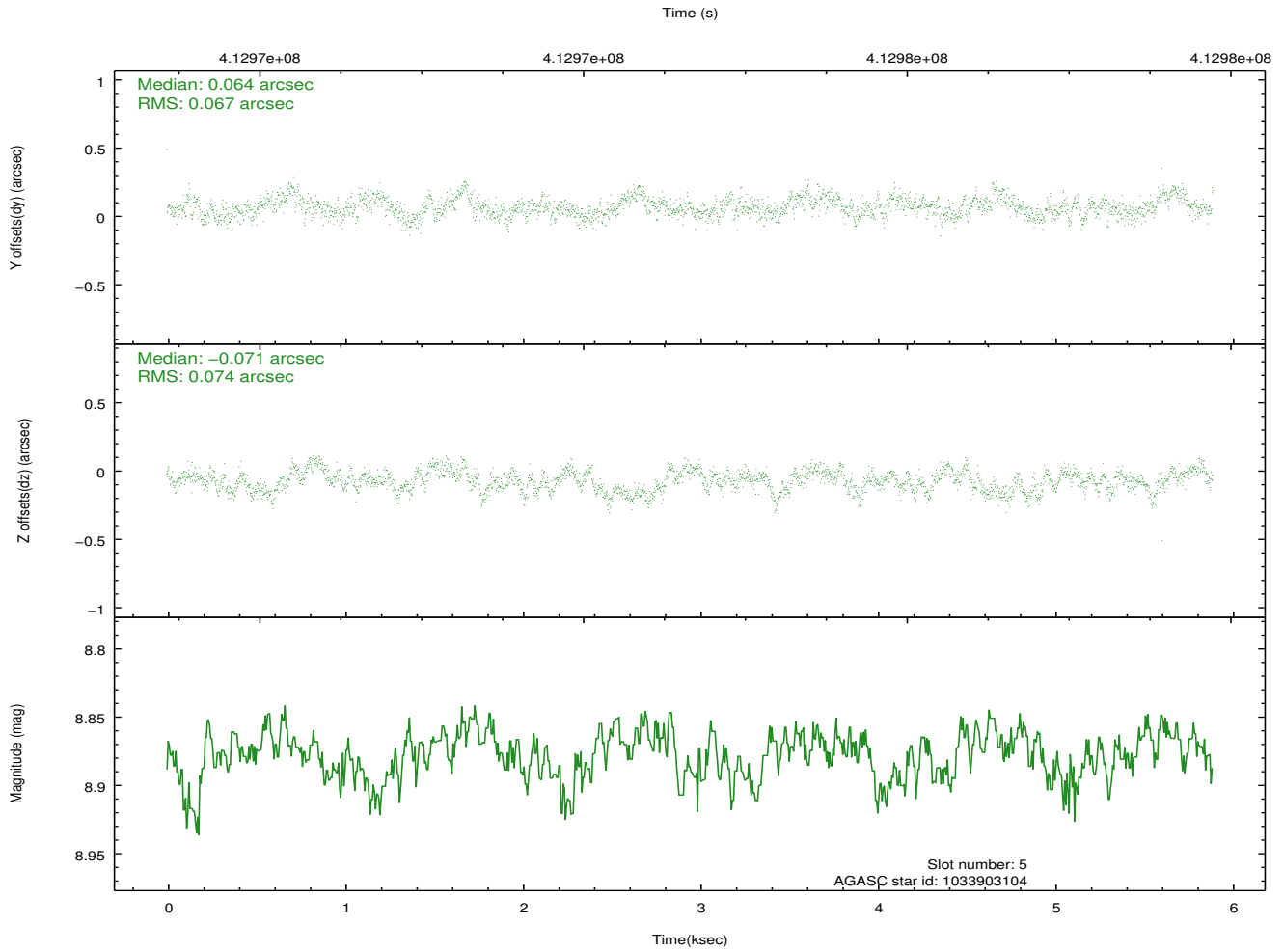
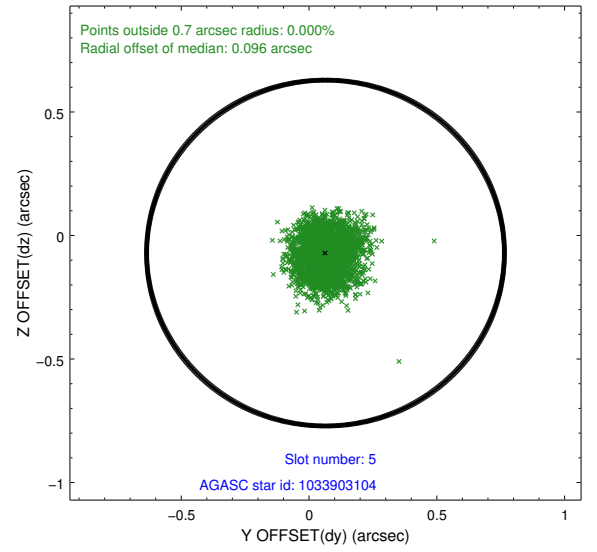
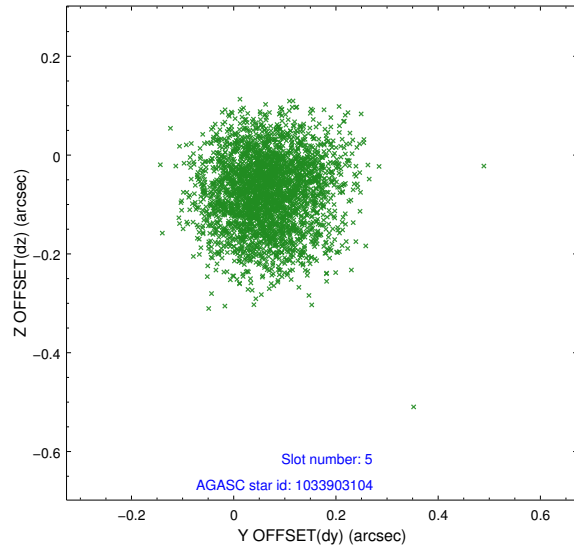
2.4.1 Slot 3



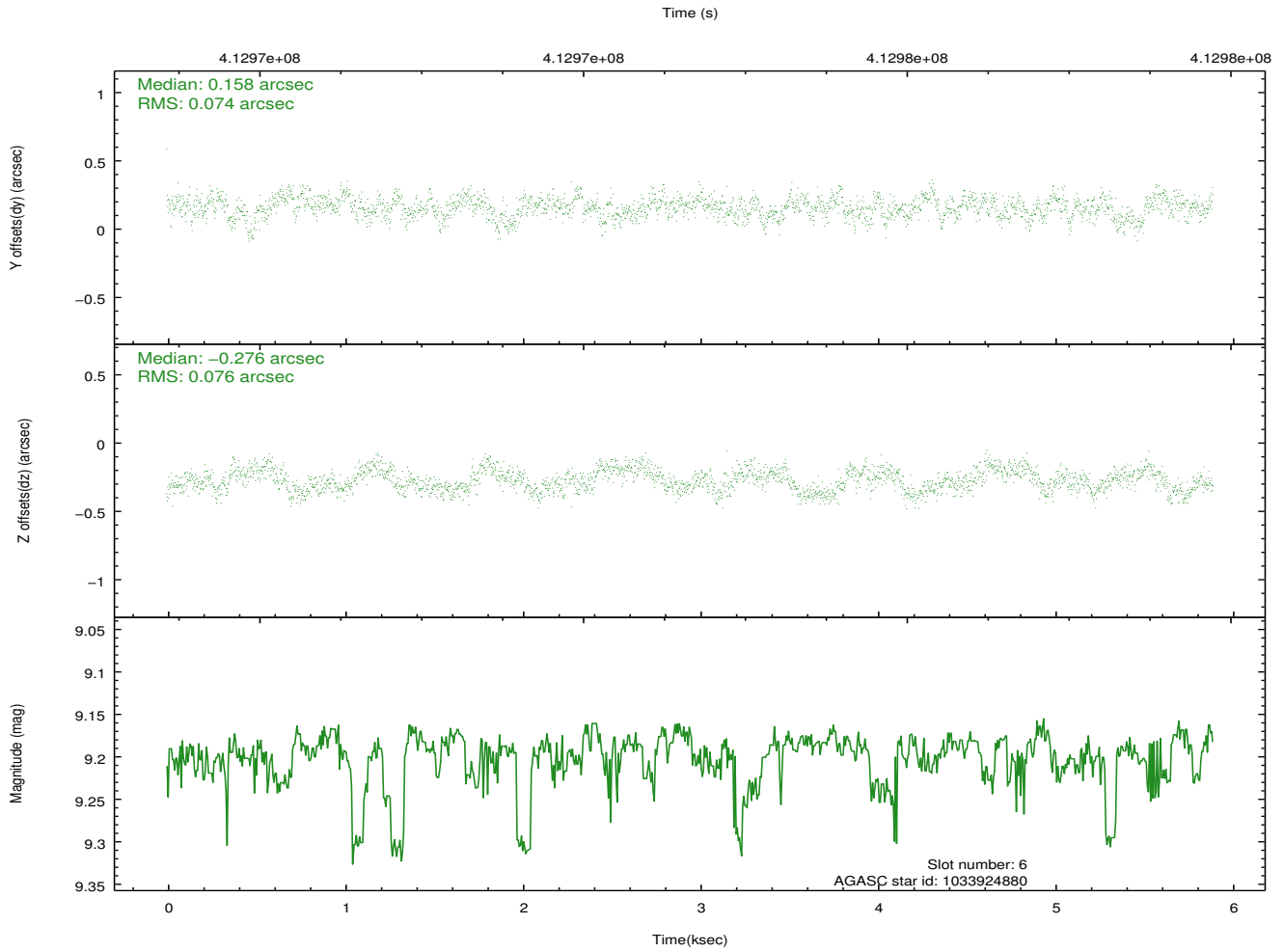
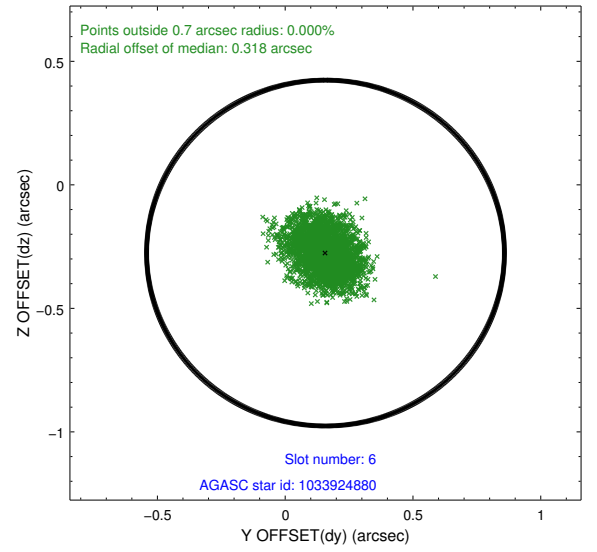
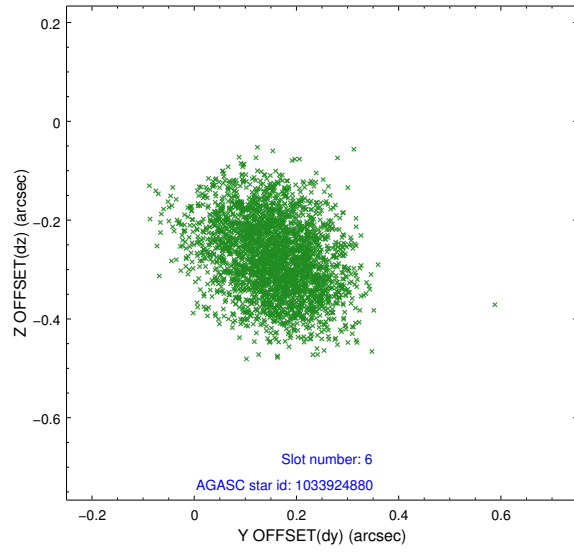
2.4.2 Slot 4



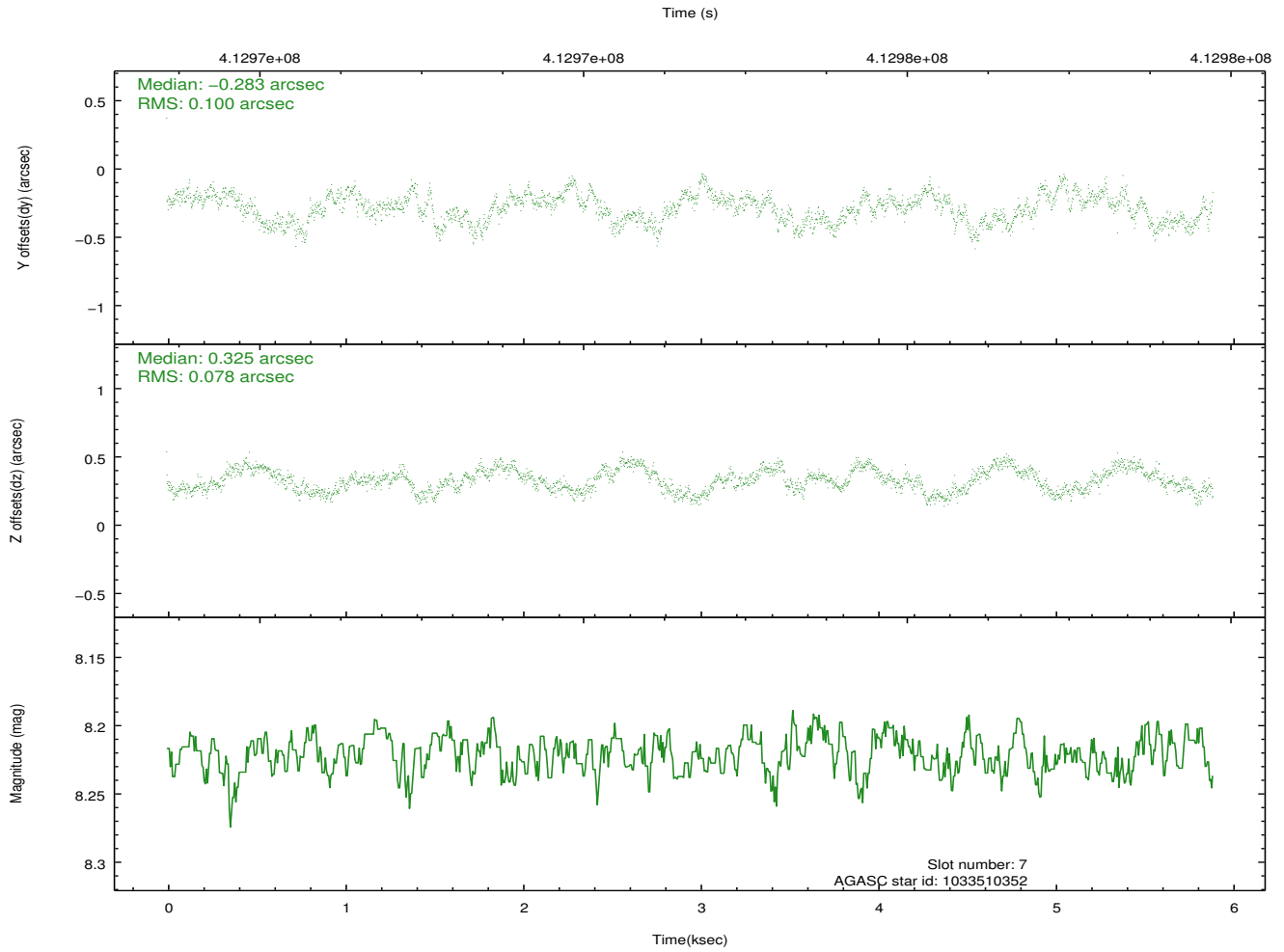
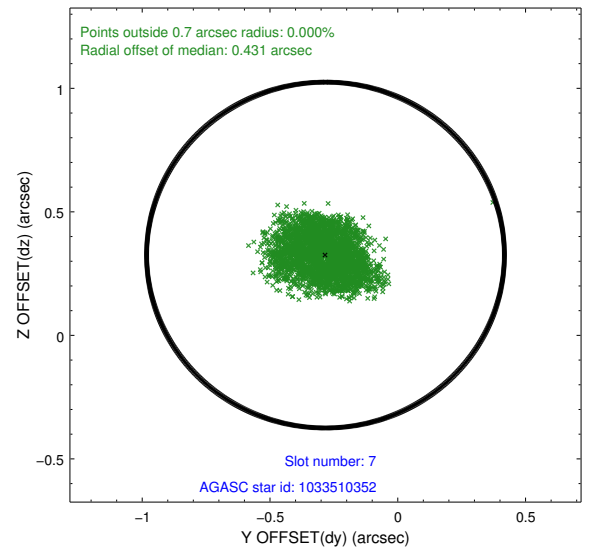
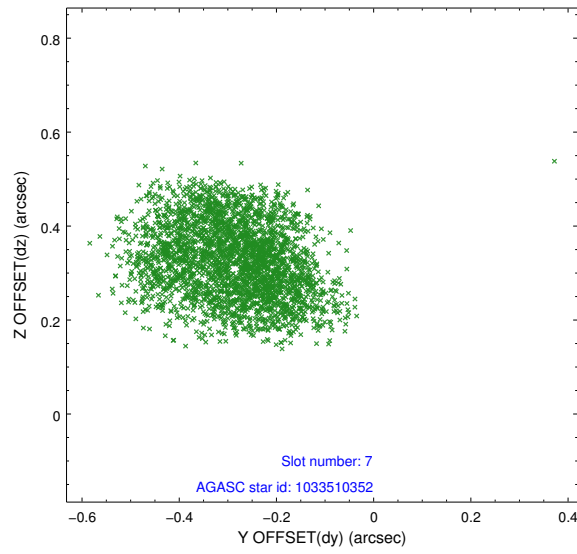
2.4.3 Slot 5



2.4.4 Slot 6

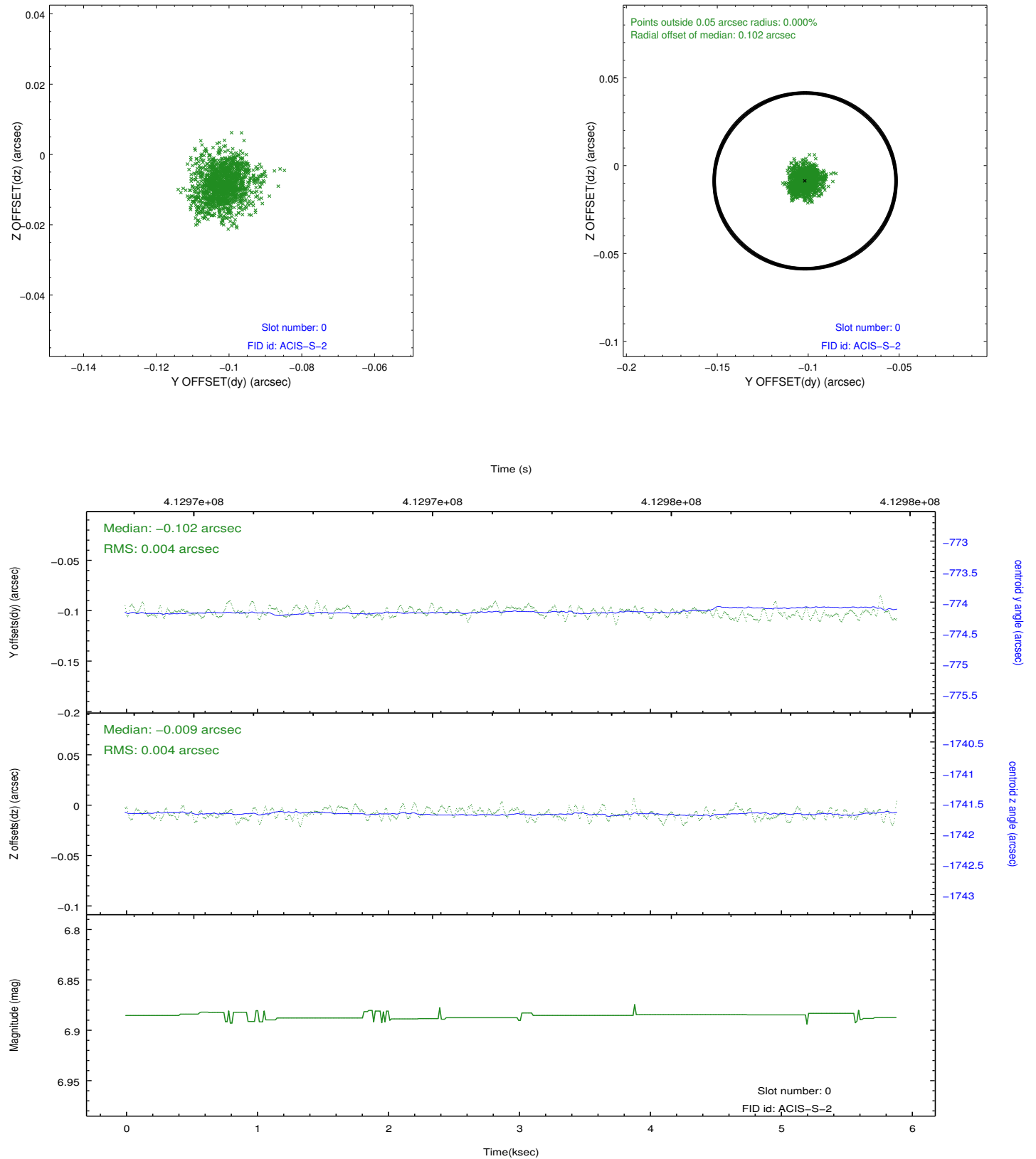


2.4.5 Slot 7

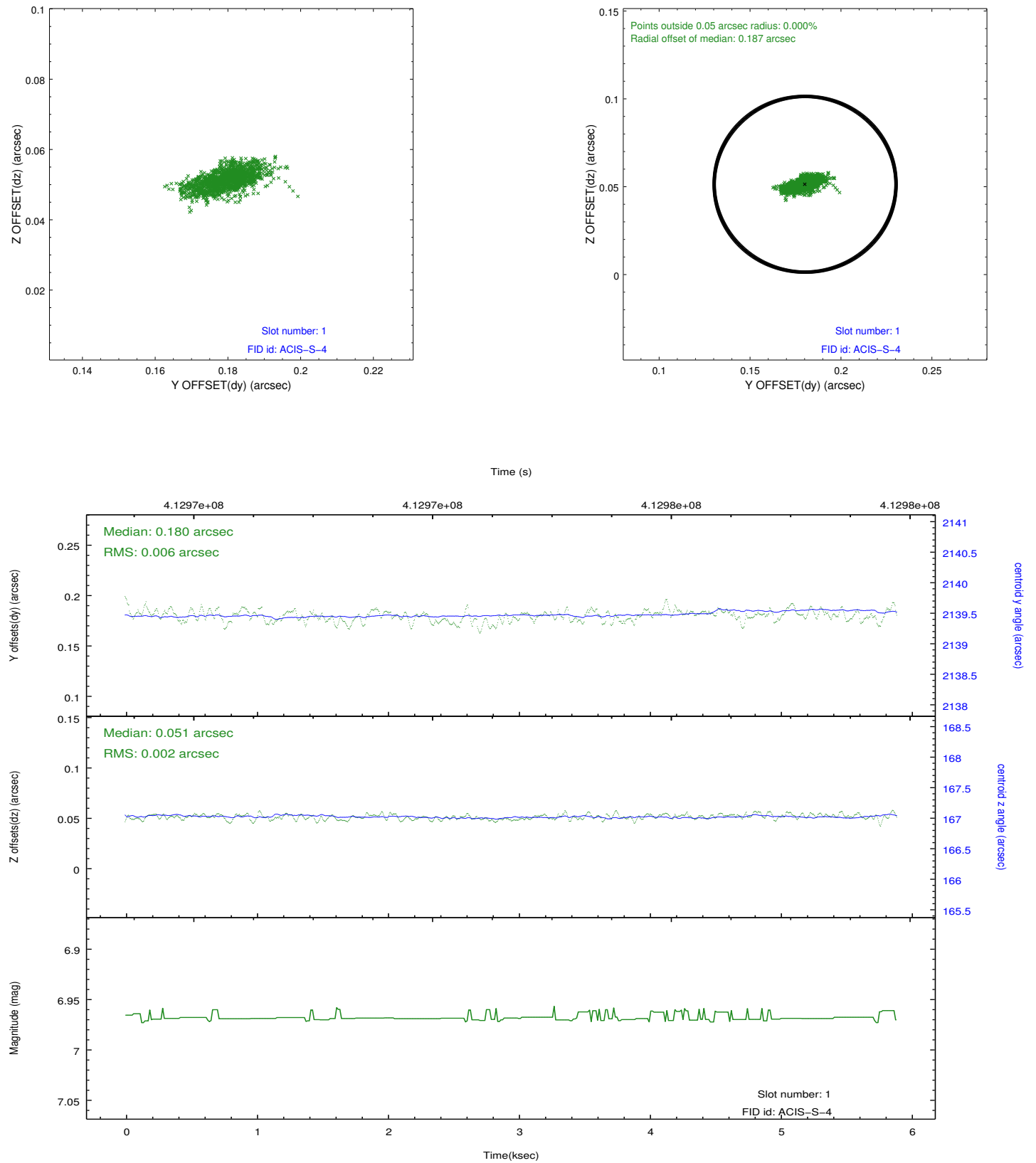


2.5 FID Slots

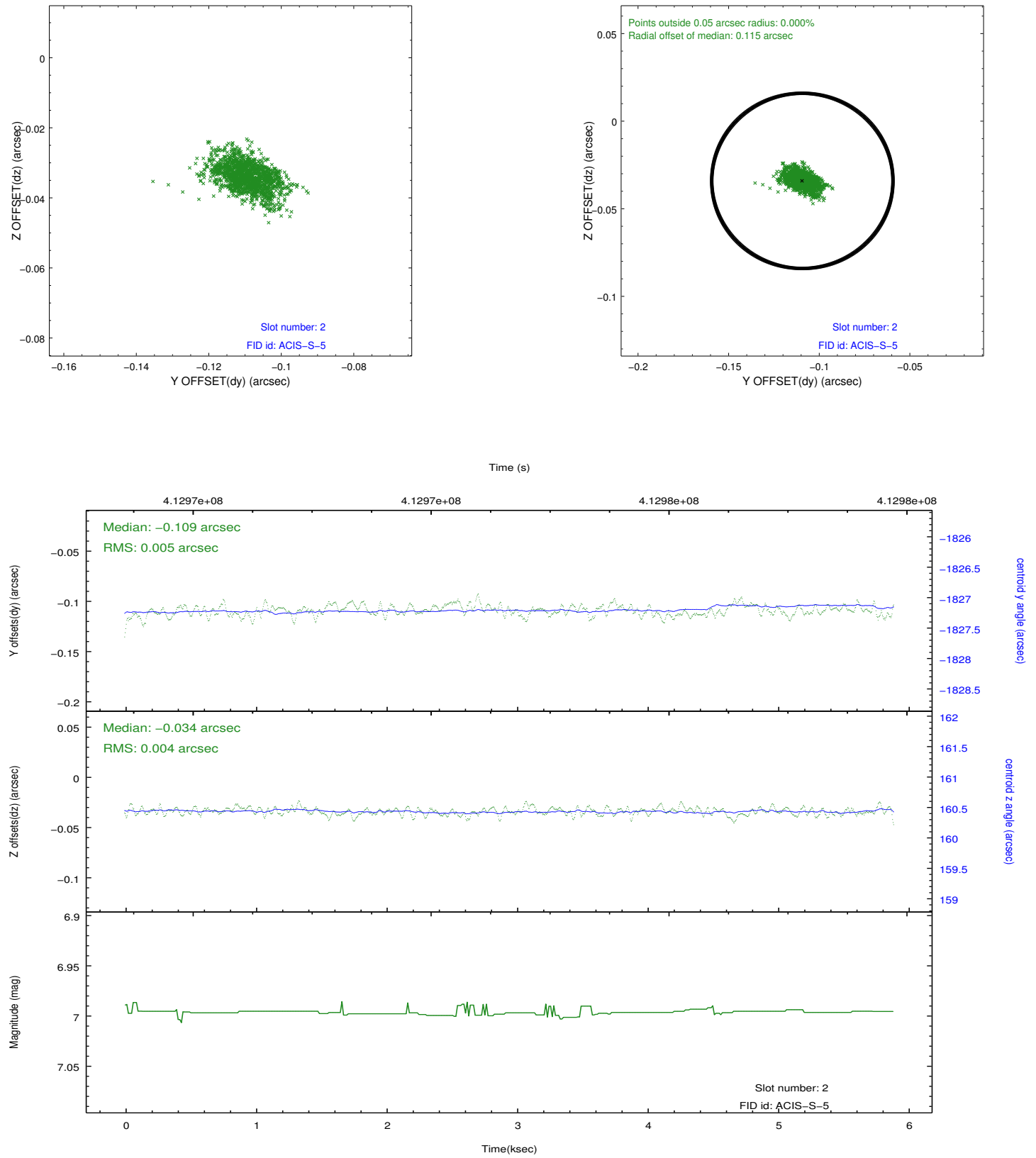
2.5.1 Slot 0



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)	2012.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.051961958468

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.