

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12364 - L2 Version 2
Chandra X-Ray Center

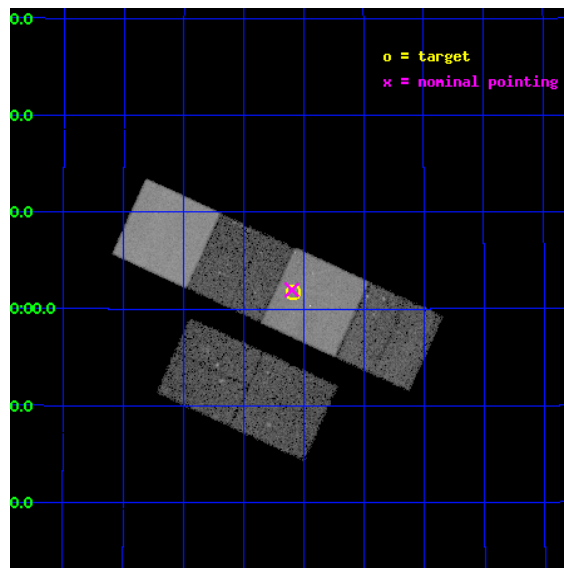
L2 Processing Date : Feb 2 2012

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1 Front

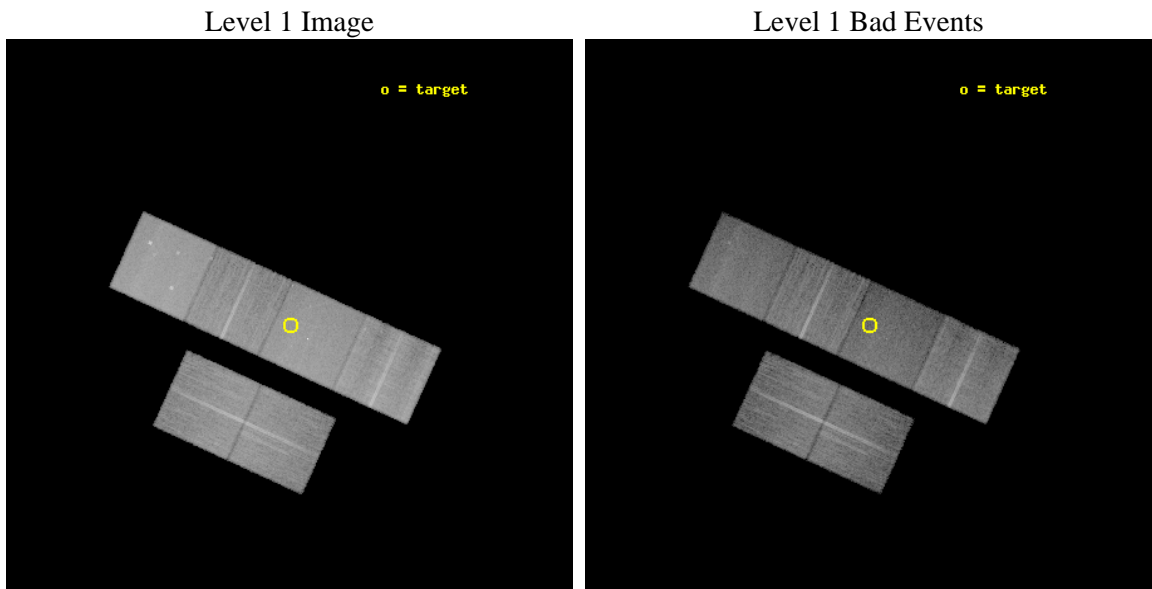
seq_num	200698	Sequence number
obs_id	12364	Observation id
title	X-rays from Planetary Nebulae: Unveiling Binarity, Magnetic Fields, and Wind Collisions	Proposal title
observer	Dr. Joel Kastner	Principal investigator
object	NGC 6720	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	283.39625	Observer's specified target RA [deg]
dec_targ	33.029167	Observer's specified target Dec [deg]
ra_nom	283.39949972126	Nominal RA [deg]
dec_nom	33.033213061489	Nominal Dec [deg]
roll_nom	24.549036395147	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20051.199925363	Sum of GTIs [s]
livetime	19797.299558525	Livetime [s]
ontime2	20047.958955109	Sum of GTIs [s]
ontime3	20047.879642963	Sum of GTIs [s]
ontime5	20051.199925363	Sum of GTIs [s]
ontime6	20051.16165328	Sum of GTIs [s]
ontime7	20051.199925363	Sum of GTIs [s]
ontime8	20051.079573274	Sum of GTIs [s]
l2events	239863	Number of level 2 events



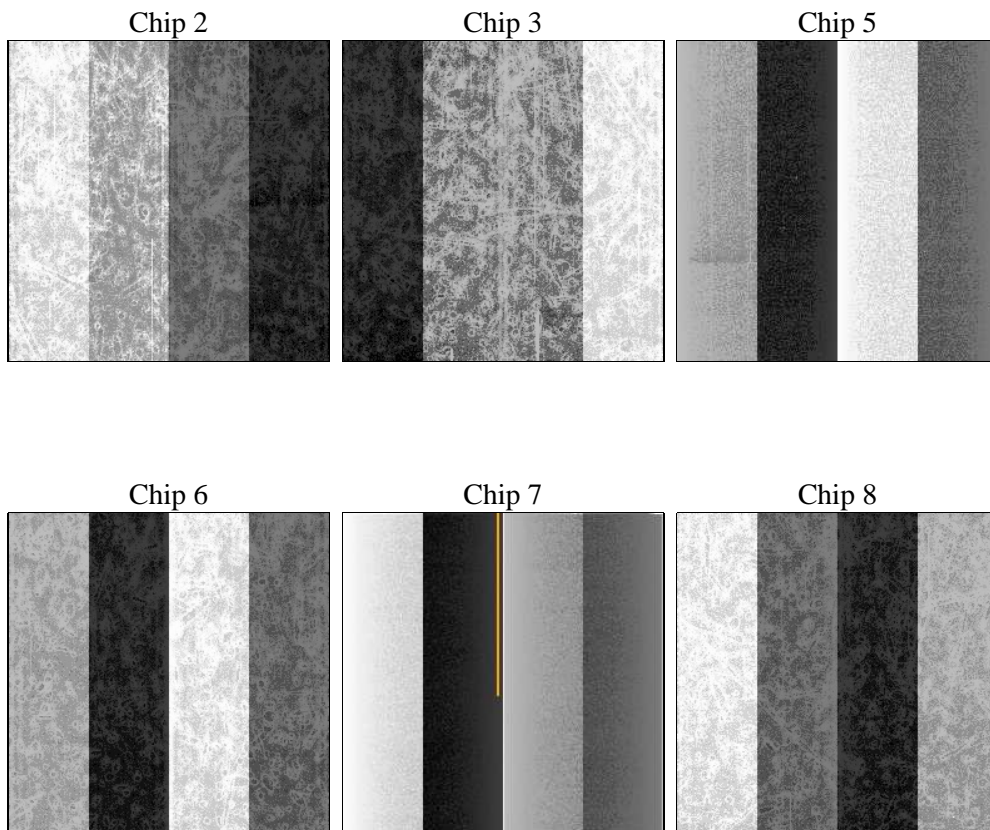
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20001.404000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	20051.199925363	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	20047.958955109	Sum of GTIs [s]
date	2012-02-02T22:45:33	Date and time of file creation	ontime3	20047.879642963	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	20051.199925363	Sum of GTIs [s]
			ontime6	20051.16165328	Sum of GTIs [s]
			ontime7	20051.199925363	Sum of GTIs [s]
			ontime8	20051.079573274	Sum of GTIs [s]
			l1events	1015525	Number of level 1 events

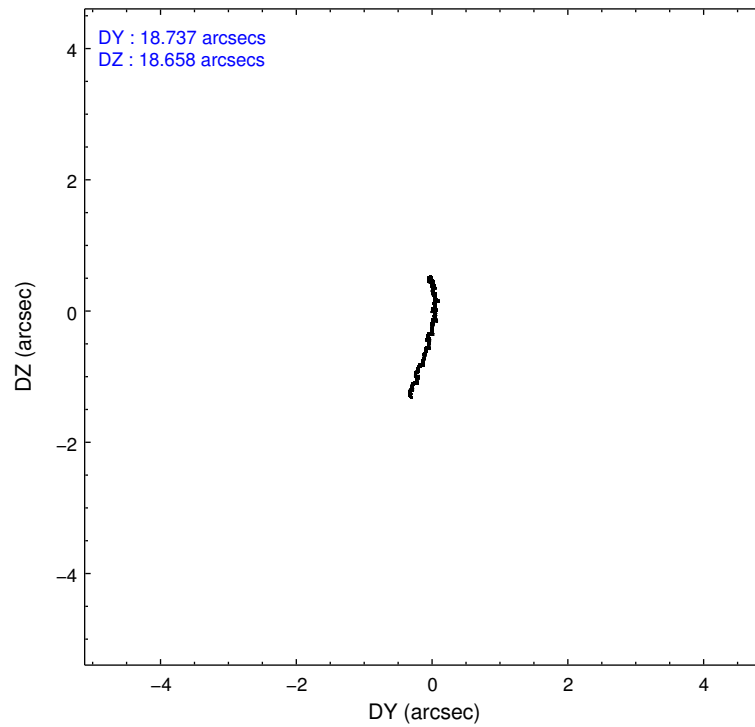
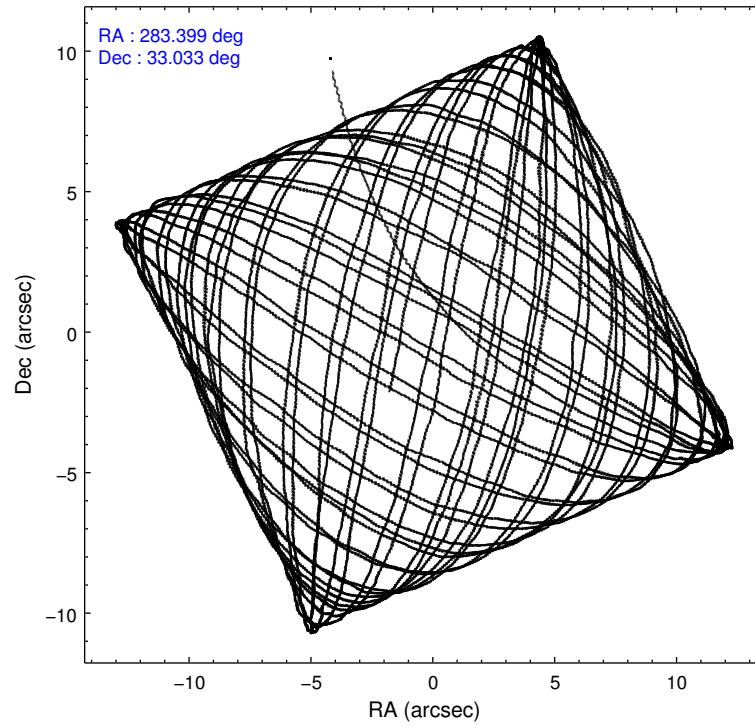
2.1.4 Events

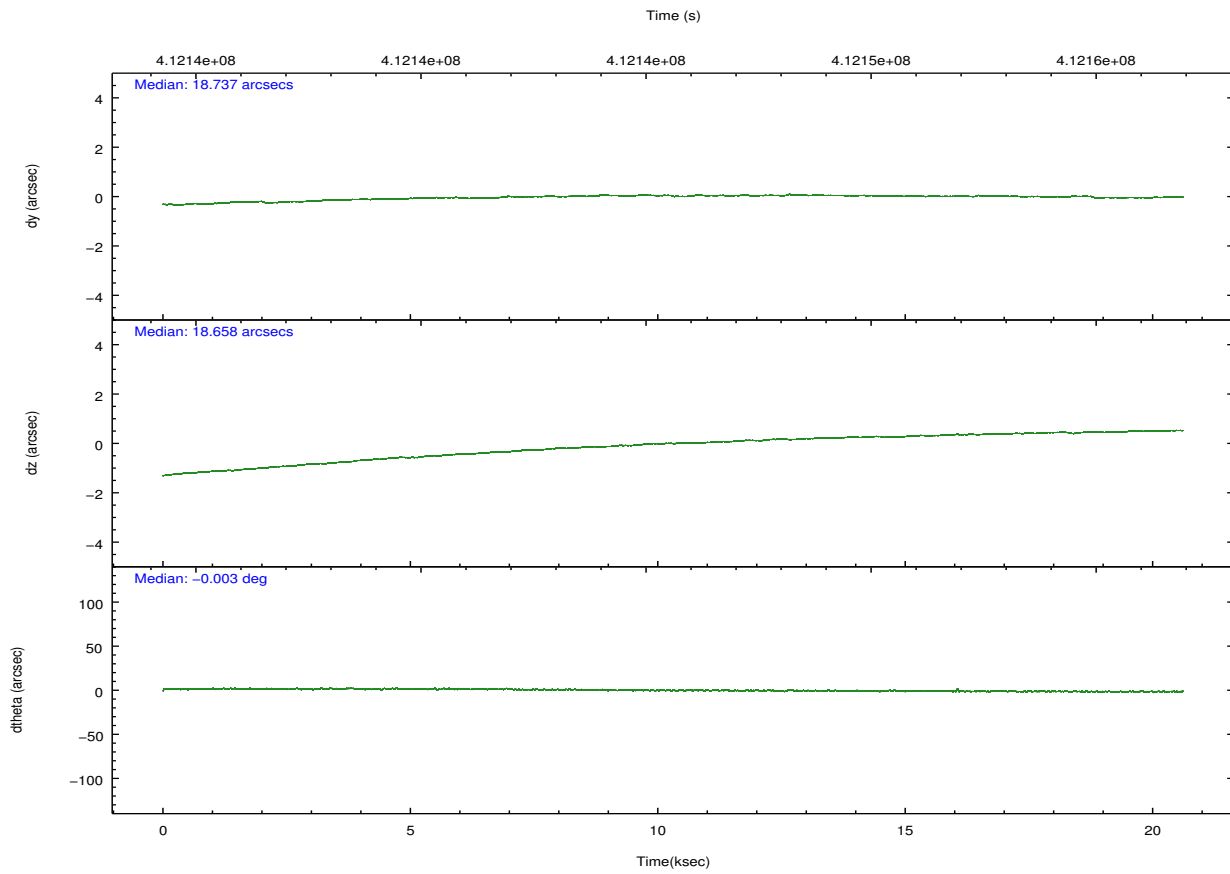
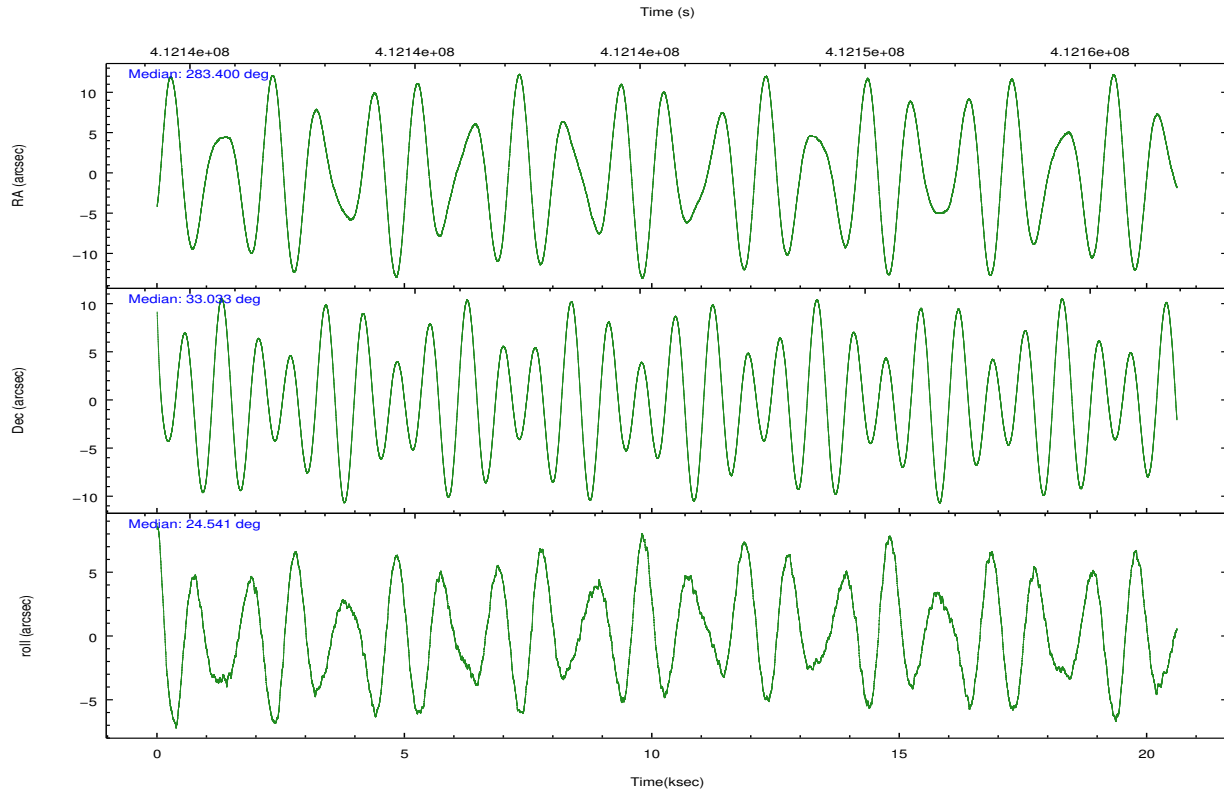
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	147312	136568	219634	146131	178273	187607	grade 0 events	6052	5332	9314	5854	7861	15052
rejected events	131244	121881	112007	129633	96686	138506		4%	3%	4%	4%	4%	8%
rejected %	89%	89%	50%	88%	54%	73%	grade 1 events	84	87	429	74	213	139
								0%	0%	0%	0%	0%	0%
							grade 2 events	3790	3209	33243	3705	16809	11640
								2%	2%	15%	2%	9%	6%
							grade 3 events	1629	1593	4199	1734	7359	4962
								1%	1%	1%	1%	4%	2%
							grade 4 events	1620	1602	3920	1684	7286	4639
								1%	1%	1%	1%	4%	2%
							grade 5 events	5636	6547	16540	6641	18773	9663
								3%	4%	7%	4%	10%	5%
							grade 6 events	2984	2953	56960	3525	42284	12808
								2%	2%	25%	2%	23%	6%
							grade 7 events	125517	115245	95029	122914	77688	128704
								85%	84%	43%	84%	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	283.380917	283.399499721261	CCD I2 on	O4	Y
[deg] Pointing Dec	33.010715	33.0332130614886	CCD I3 on	O5	Y
[deg] Pointing Roll	24.402534	24.5490363951473	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	O1	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	O2	Y
[s] Observation start time (MET)	412135906.184000	412134687.70865	CCD S5 on	N	N
Observation start date	2011-01-23T02:10:40	2011-01-23T01:51:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	412155908.184000	412156136.85976	On-chip summing requested	N	N
Observation end date	2011-01-23T07:44:02	2011-01-23T07:48:56	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



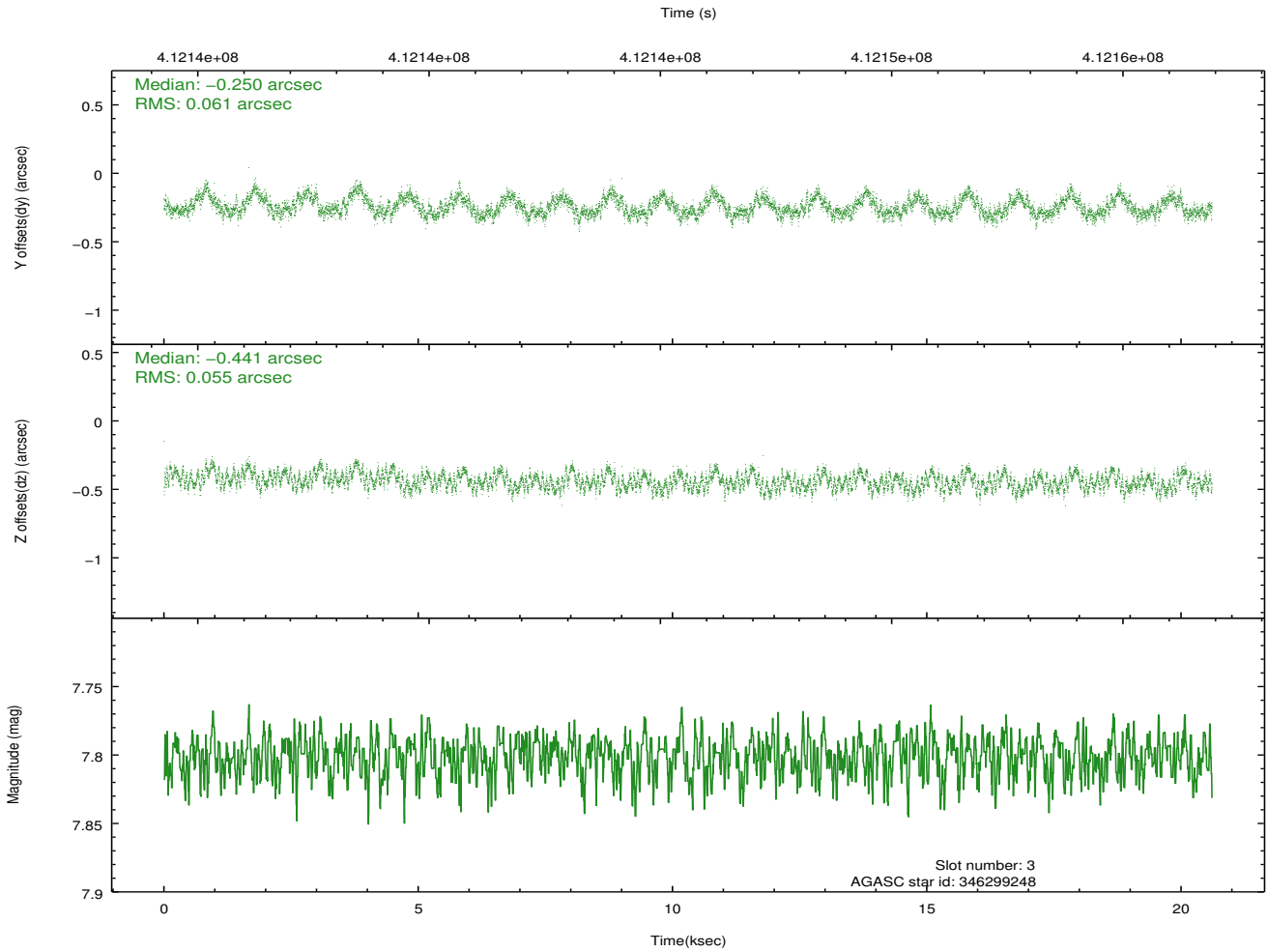
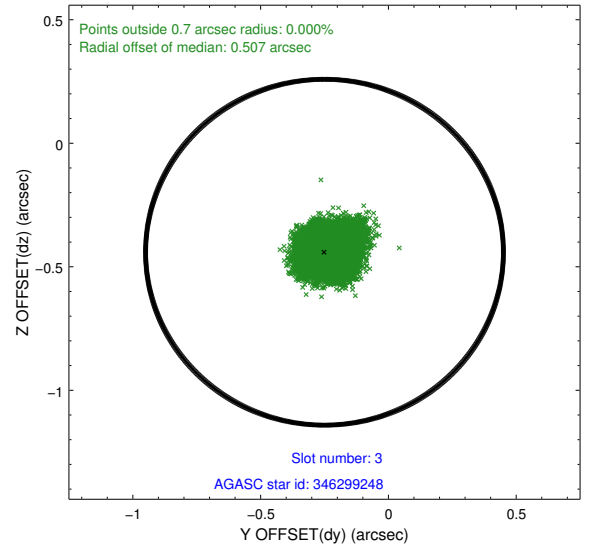
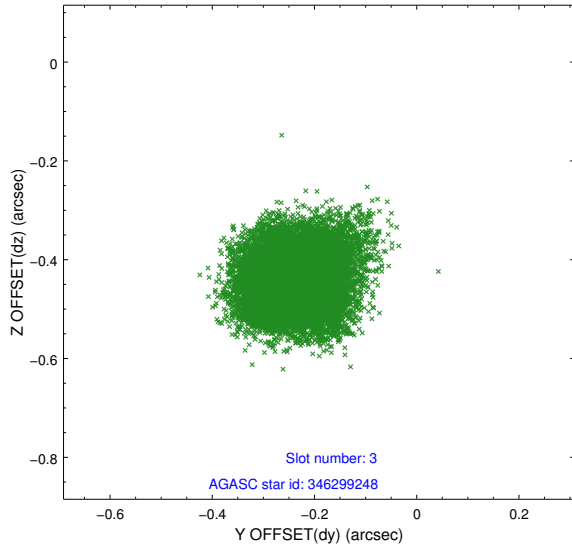


Slot Statistics

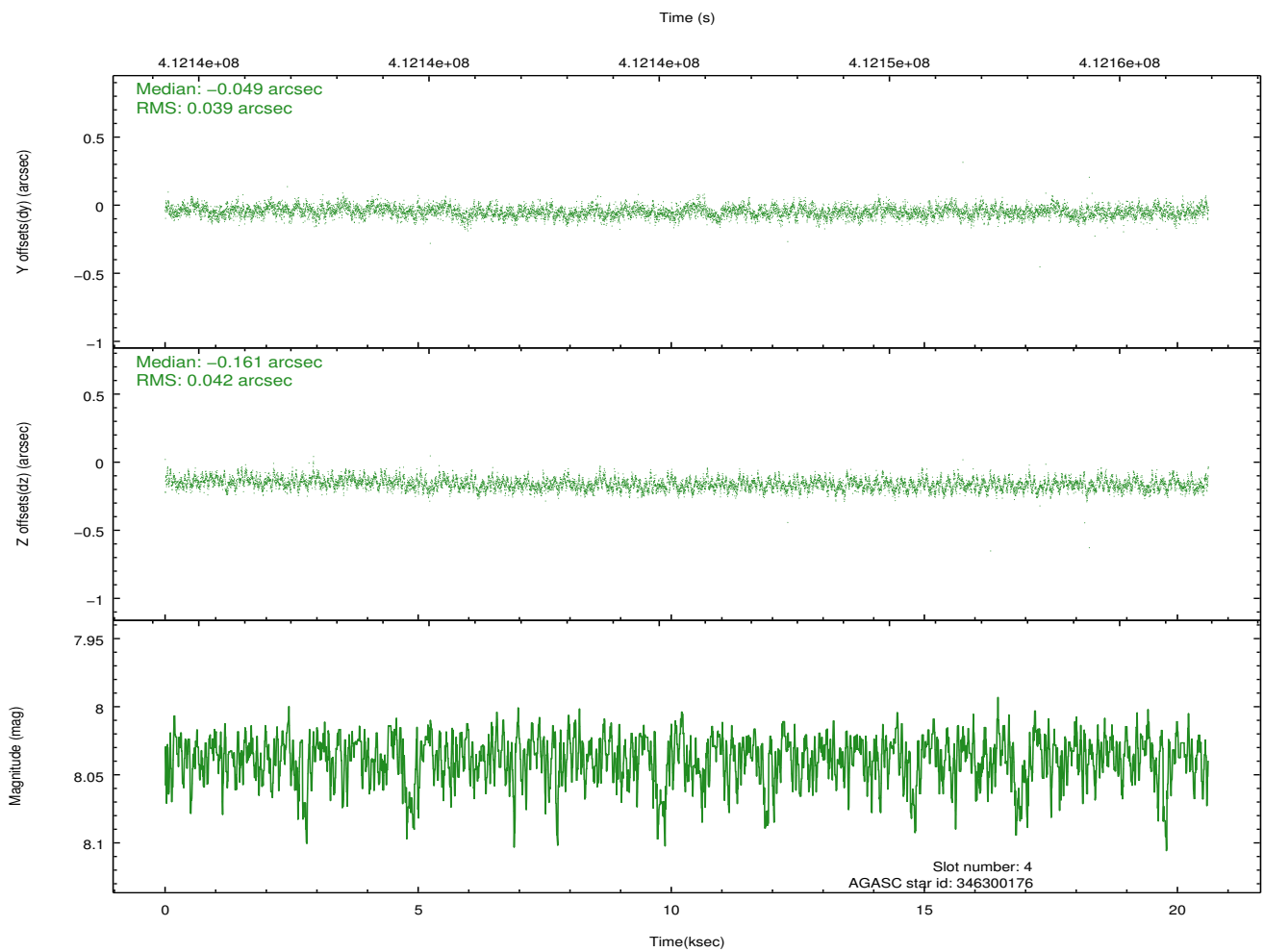
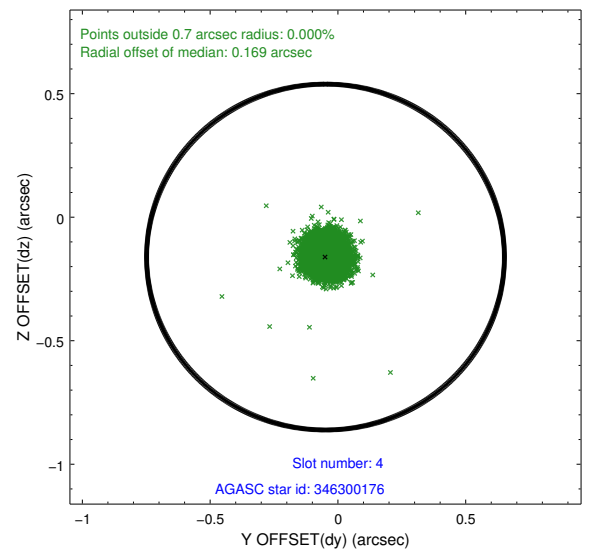
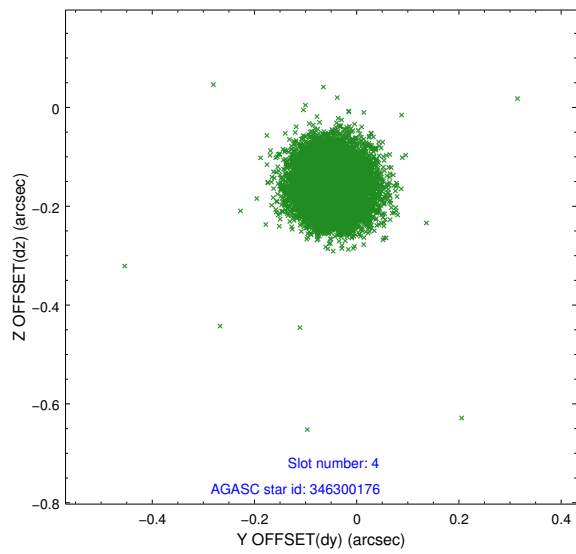
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	5027	-0.081	-0.048	0.014	0.022	0.000000	0.000000	-771.87	-1739.97
1	FID	ACIS-S-4	6.99	5027	0.222	0.052	0.009	0.017	0.000000	0.000000	2141.65	168.38
2	FID	ACIS-S-5	7.02	5027	-0.173	0.006	0.012	0.021	0.000000	0.000000	-1824.55	162.26
3	GUIDE	346299248	7.80	10051	-0.250	-0.441	0.089	0.139	283.453175	33.659185	1161.37	2036.44
4	GUIDE	346300176	8.04	10052	-0.049	-0.161	0.060	0.097	283.316012	33.474474	512.21	1601.44
5	GUIDE	346304456	8.49	10047	0.120	0.162	0.079	0.124	283.241041	32.406914	-1284.50	-1802.90
6	GUIDE	346308040	8.43	10051	0.111	0.214	0.074	0.118	283.006677	32.374298	-1981.95	-1613.41
7	GUIDE	346439408	8.03	9978	0.066	0.223	0.072	0.118	283.833075	32.643436	703.46	-1767.35

2.4 Star Slots

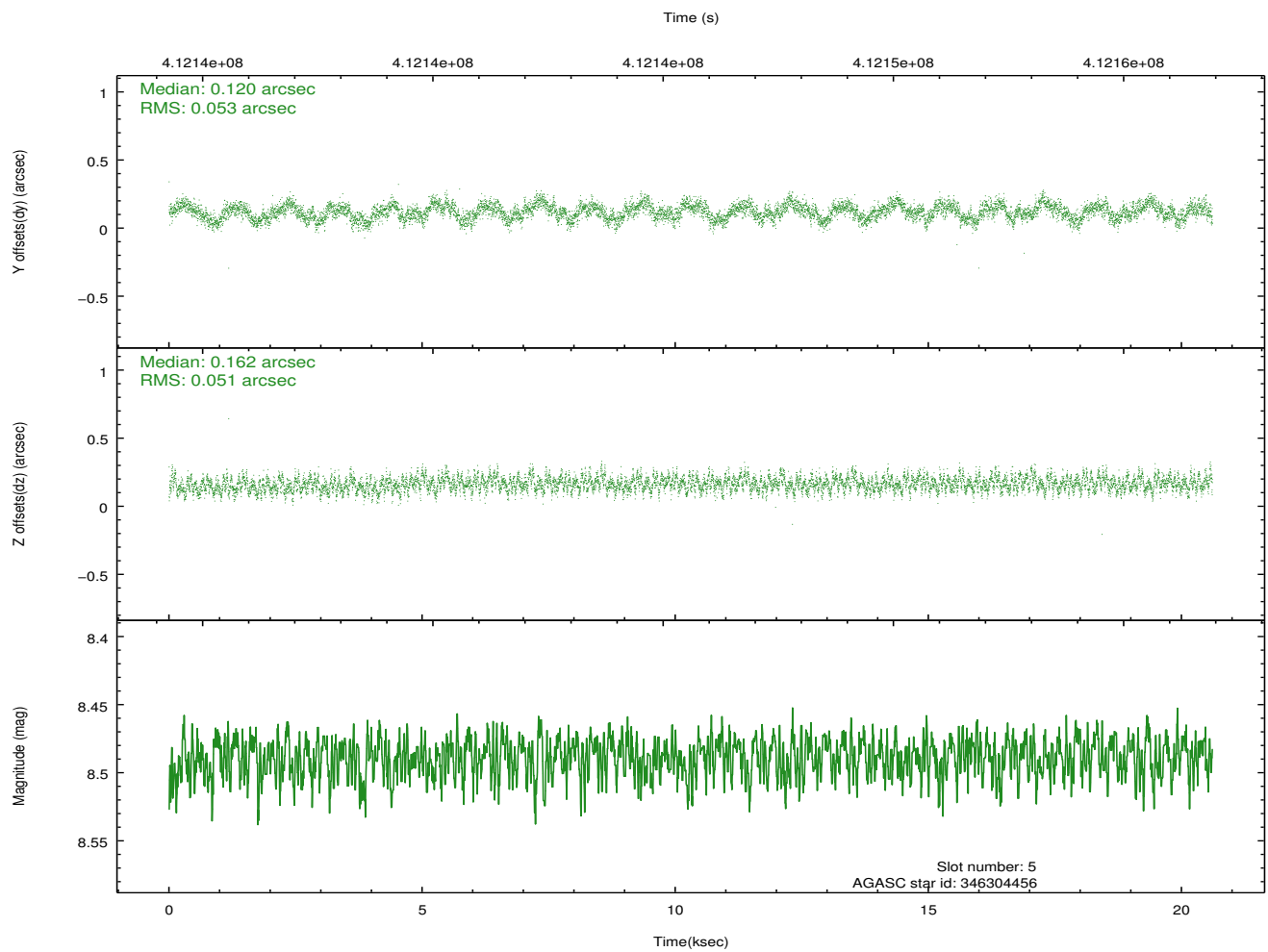
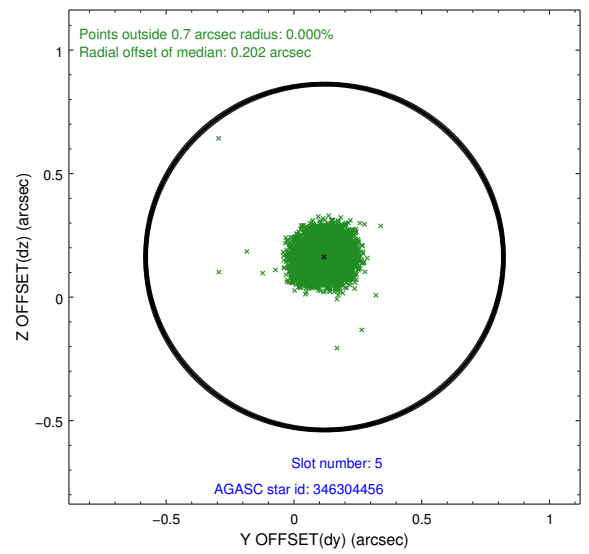
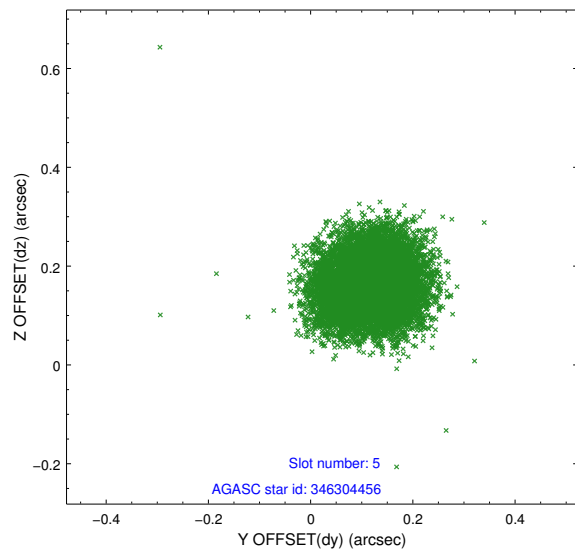
2.4.1 Slot 3



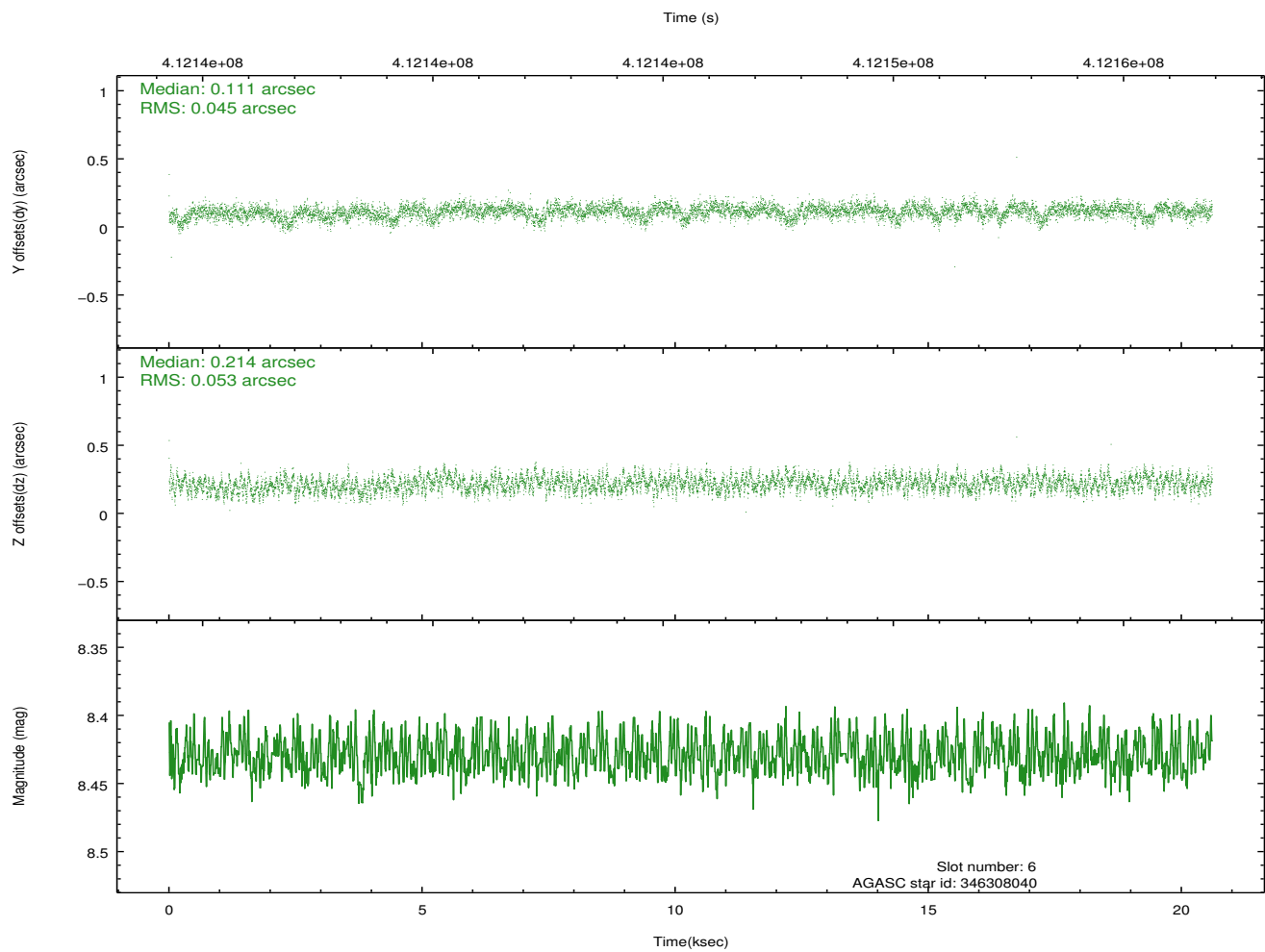
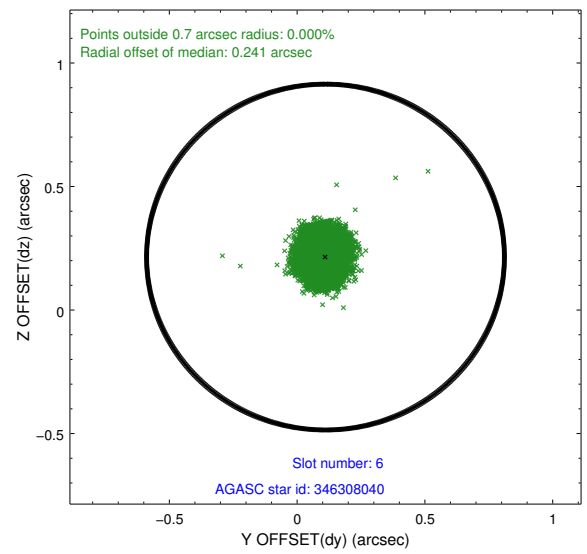
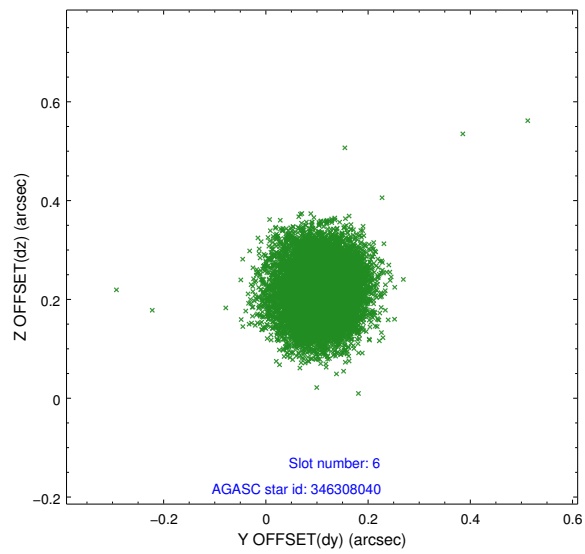
2.4.2 Slot 4



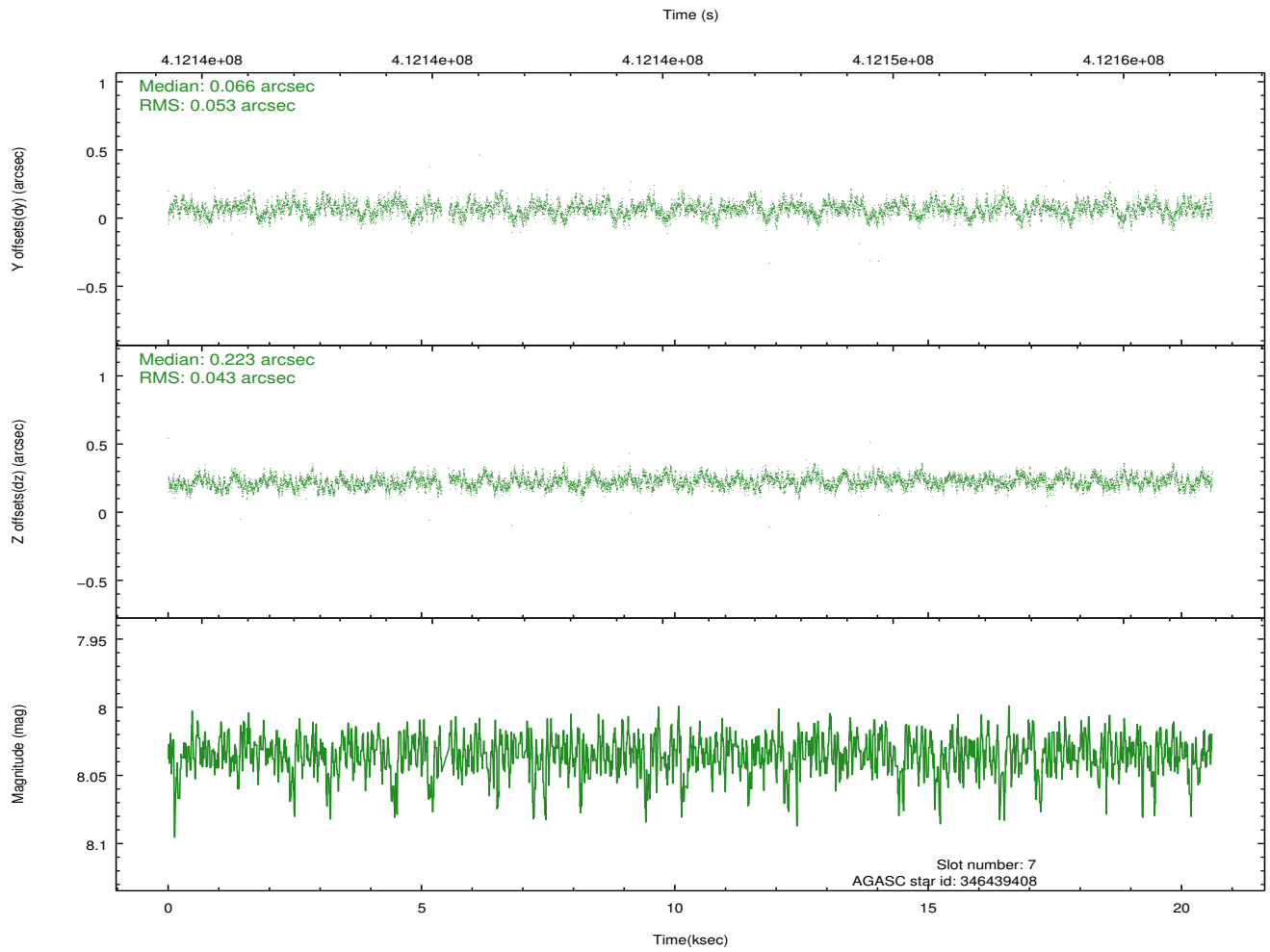
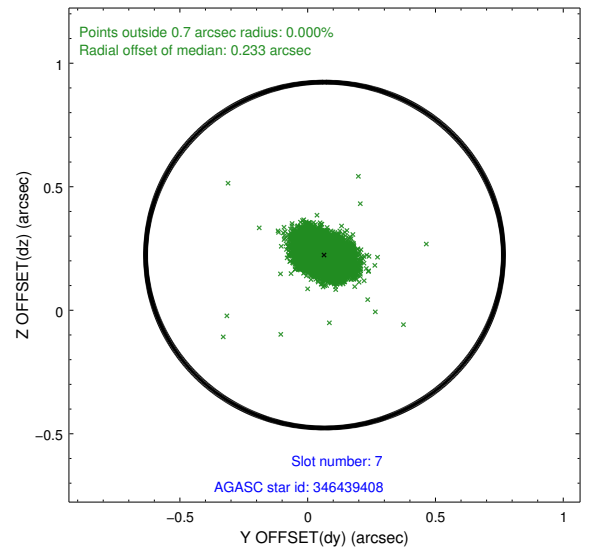
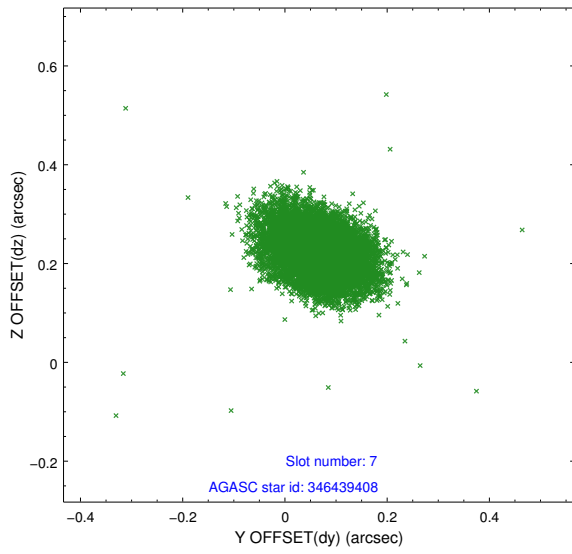
2.4.3 Slot 5



2.4.4 Slot 6

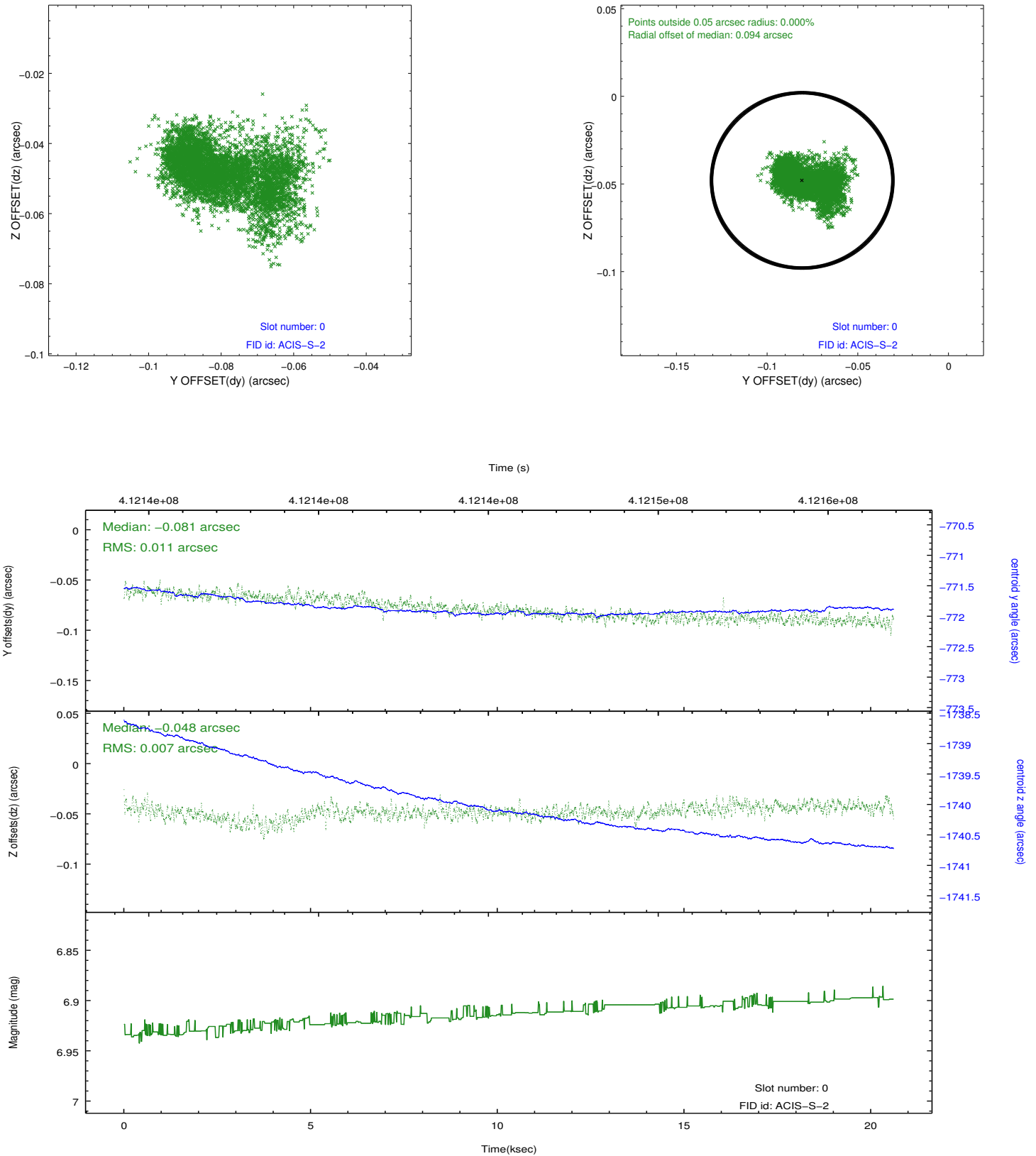


2.4.5 Slot 7

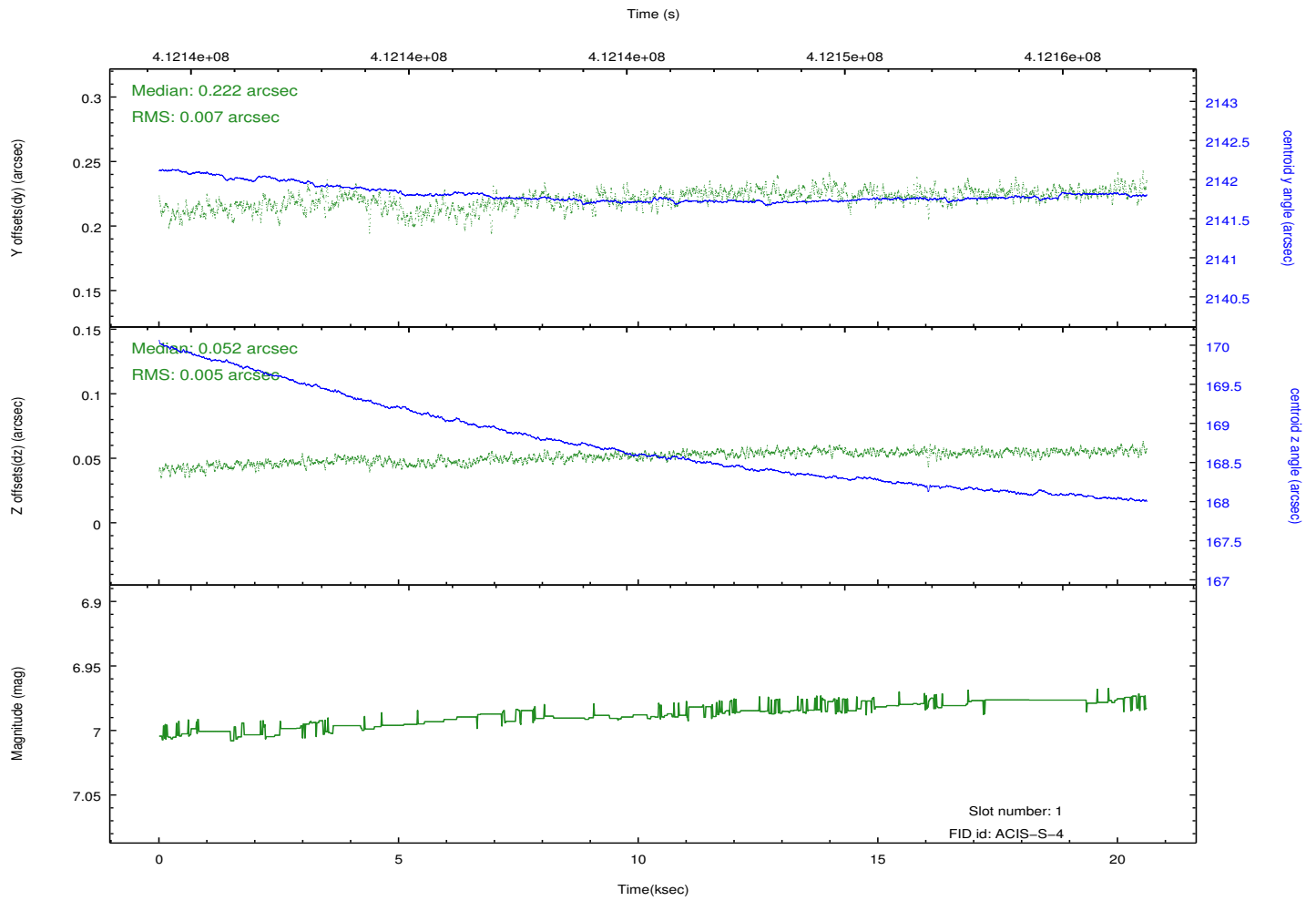
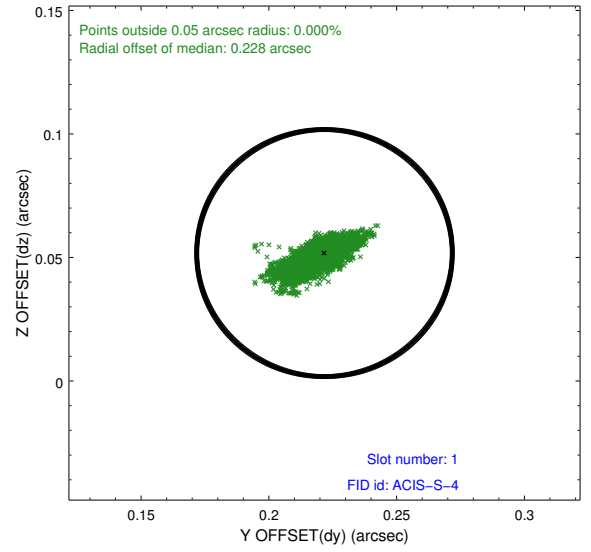
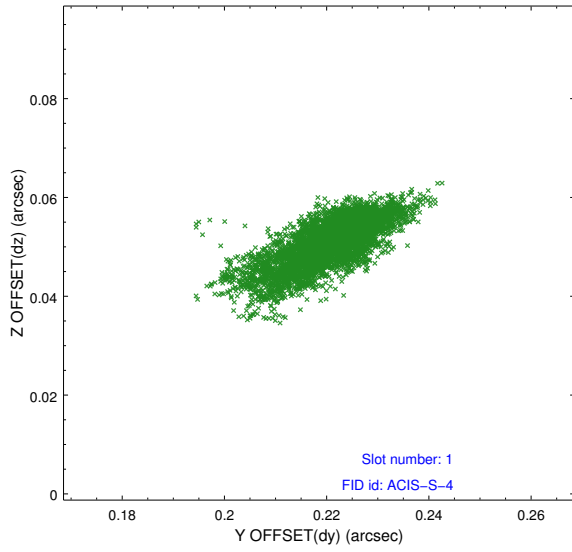


2.5 FID Slots

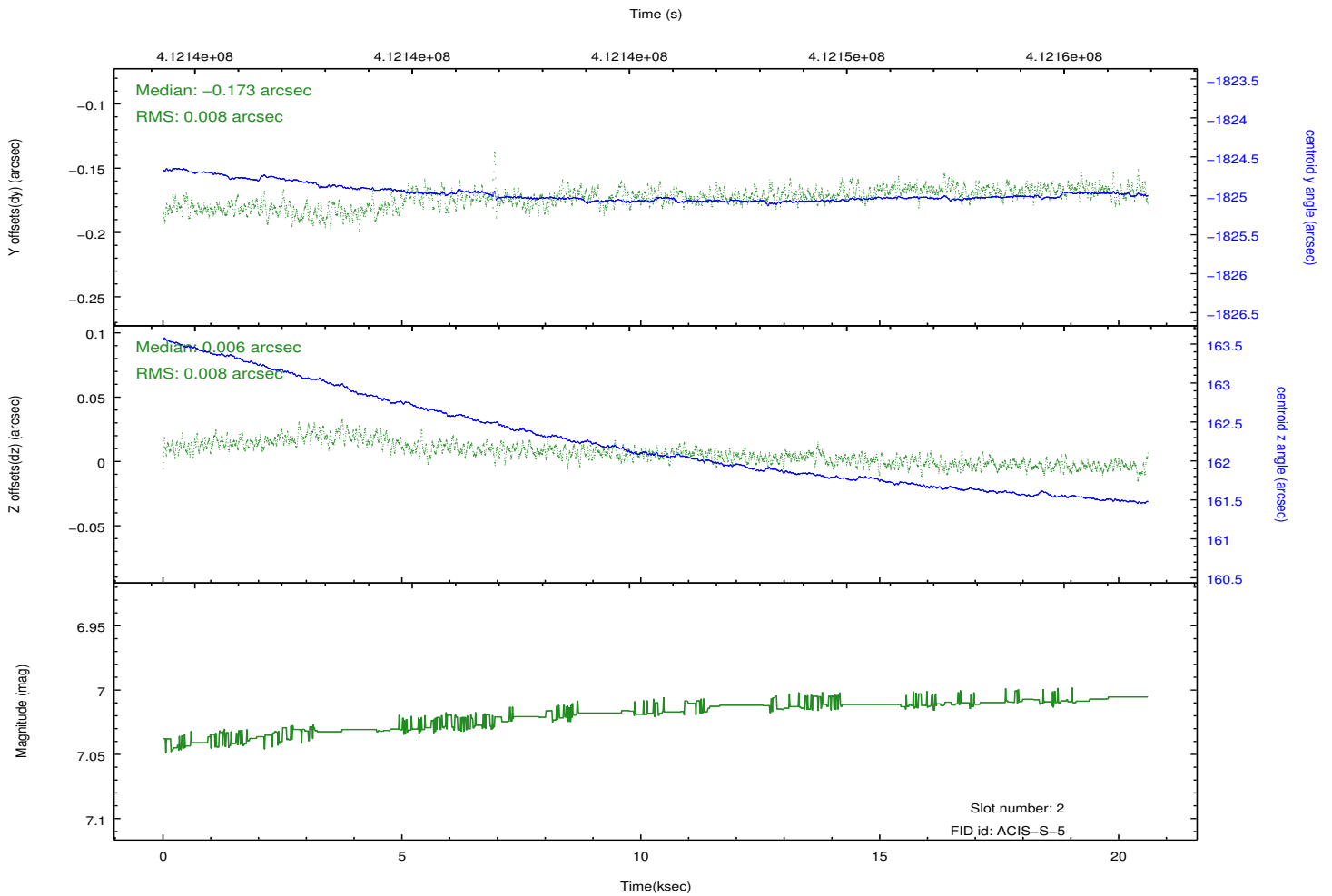
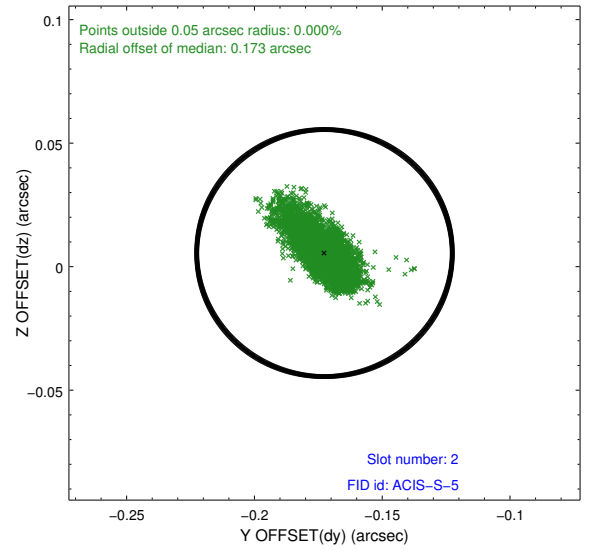
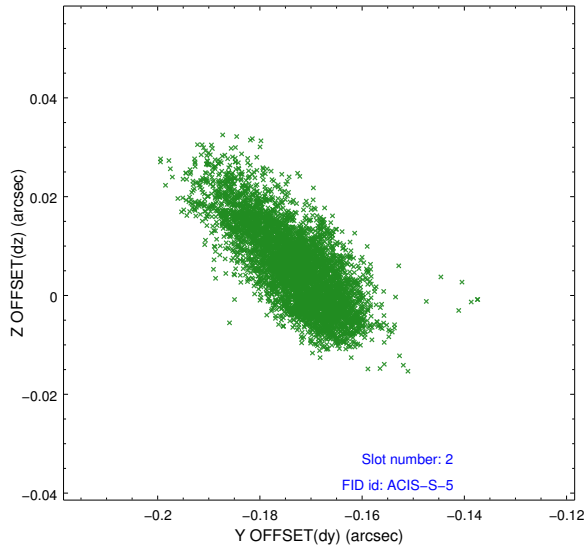
2.5.1 Slot 0



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)	2012.02.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.051199925363

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.