

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12890 - L2 Version 2
Chandra X-Ray Center

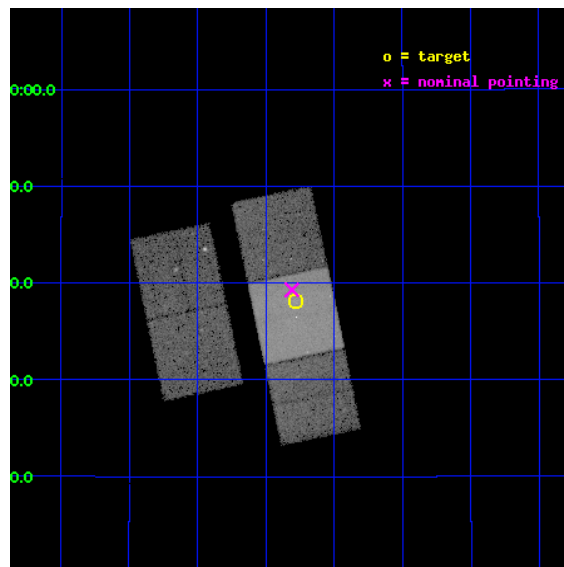
L2 Processing Date : Feb 2 2012

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1 Front

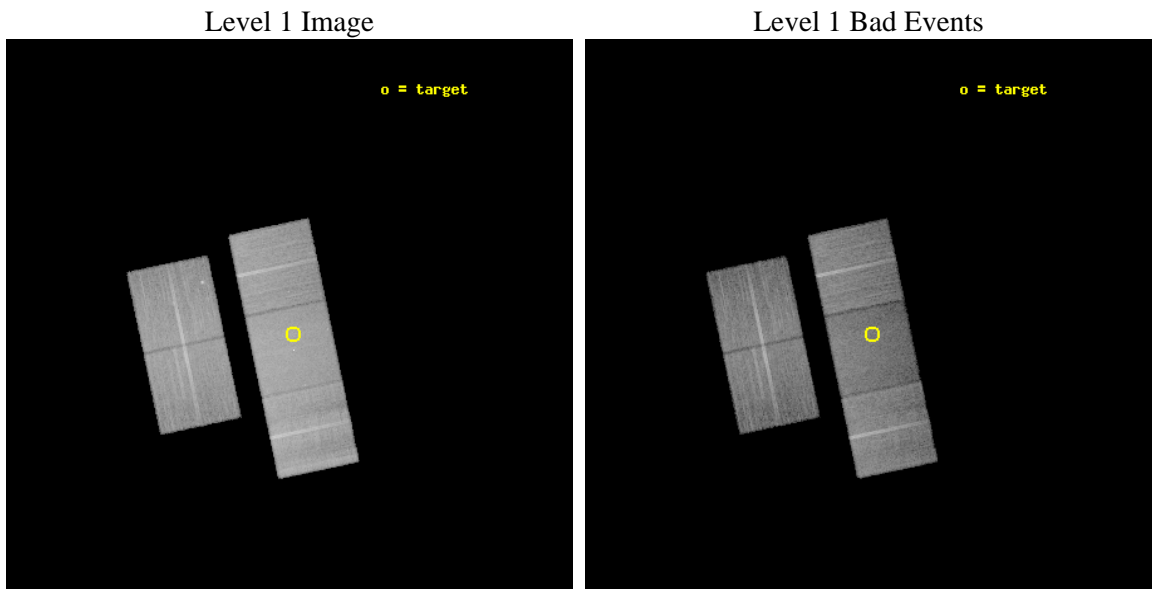
seq_num	801027	Sequence number
obs_id	12890	Observation id
title	Chandra Study of the X-ray Bright Distant Galaxy Cluster XMMU J0954+1738 at z=0.83	Proposal title
observer	Prof. Dr. Hans Boehringer	Principal investigator
object	XMMU J0954+1738	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.57125	Observer's specified target RA [deg]
dec_targ	17.634972	Observer's specified target Dec [deg]
ra_nom	148.57744706769	Nominal RA [deg]
dec_nom	17.654958741563	Nominal Dec [deg]
roll_nom	78.154747610337	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25001.09873575	Sum of GTIs [s]
livetime	24674.440975226	Livetime [s]
ontime2	24994.652575076	Sum of GTIs [s]
ontime3	24997.875625432	Sum of GTIs [s]
ontime6	24997.91670543	Sum of GTIs [s]
ontime7	25001.09873575	Sum of GTIs [s]
ontime8	25000.97561574	Sum of GTIs [s]
l2events	168296	Number of level 2 events



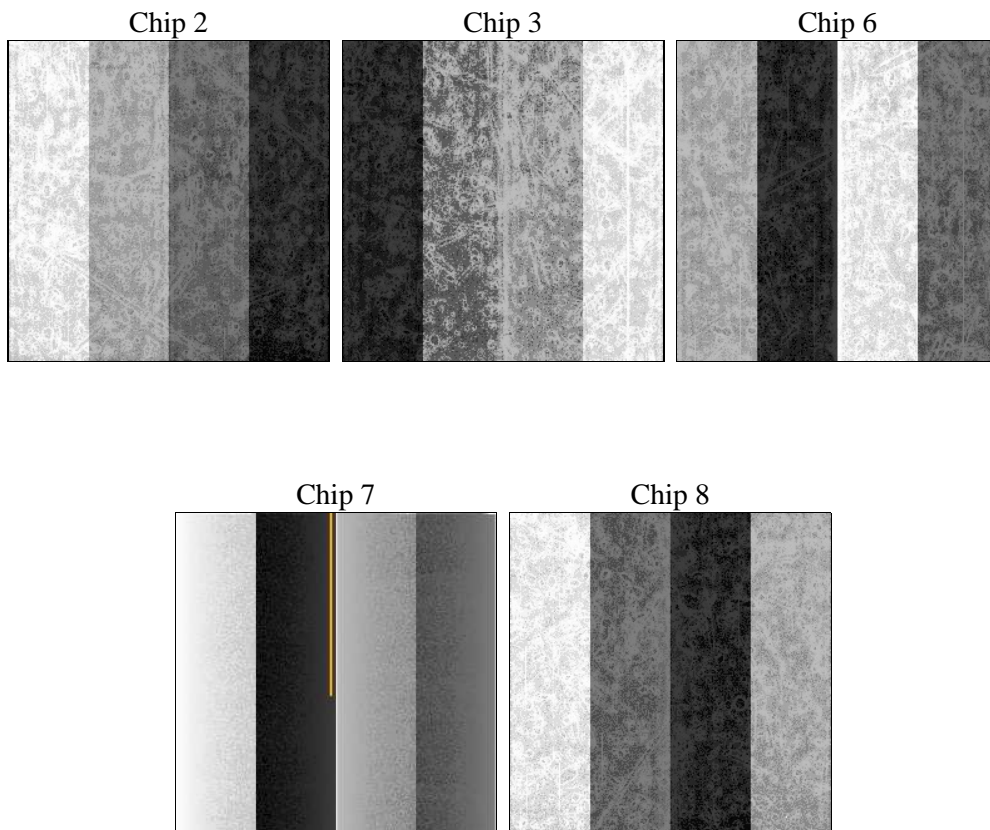
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	24960.392000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	25001.09873575	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	24994.652575076	Sum of GTIs [s]
date	2012-02-02T05:13:57	Date and time of file creation	ontime3	24997.875625432	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	24997.91670543	Sum of GTIs [s]
			ontime7	25001.09873575	Sum of GTIs [s]
			ontime8	25000.97561574	Sum of GTIs [s]
			l1events	979674	Number of level 1 events

2.1.4 Events

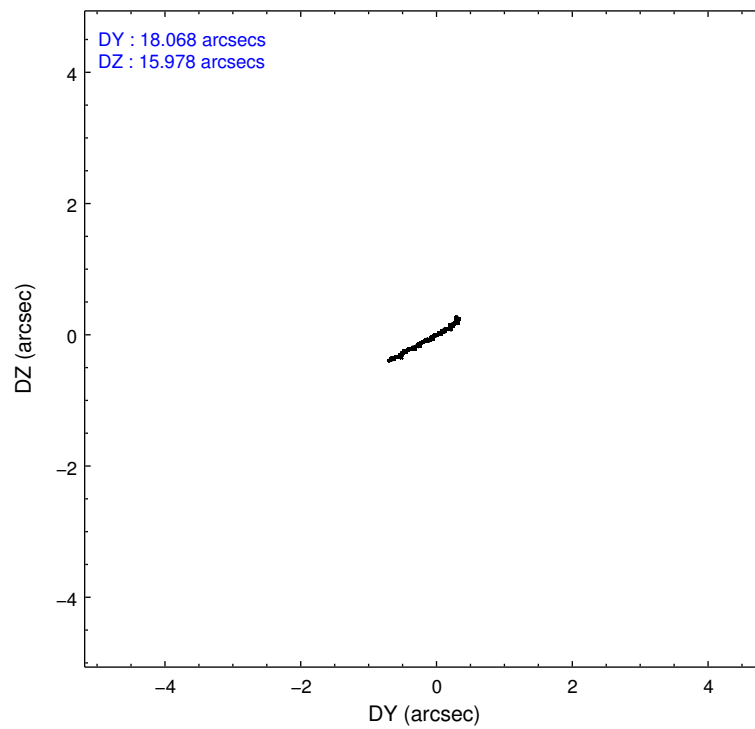
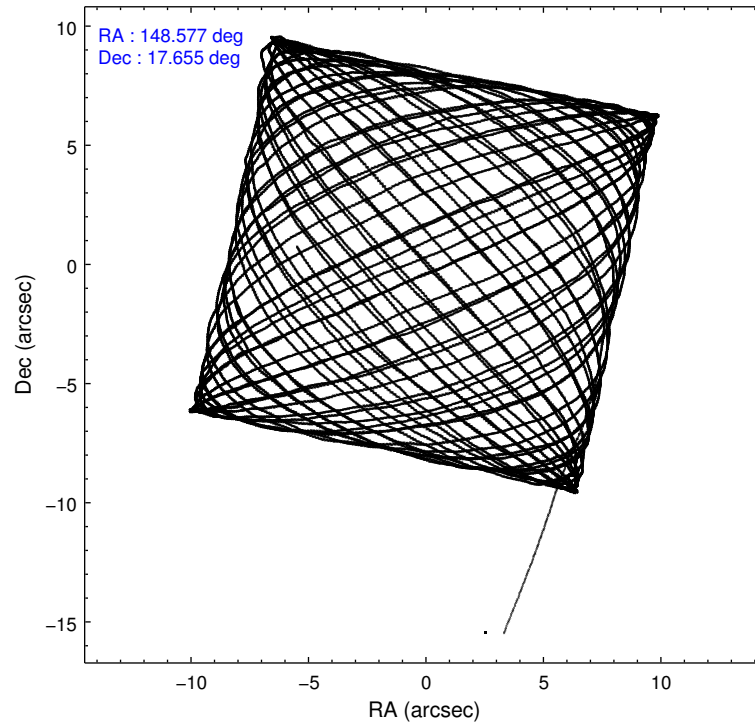
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	174030	170383	183319	220964	230978
rejected events	154719	152185	162766	120693	169922
rejected %	88%	89%	88%	54%	73%

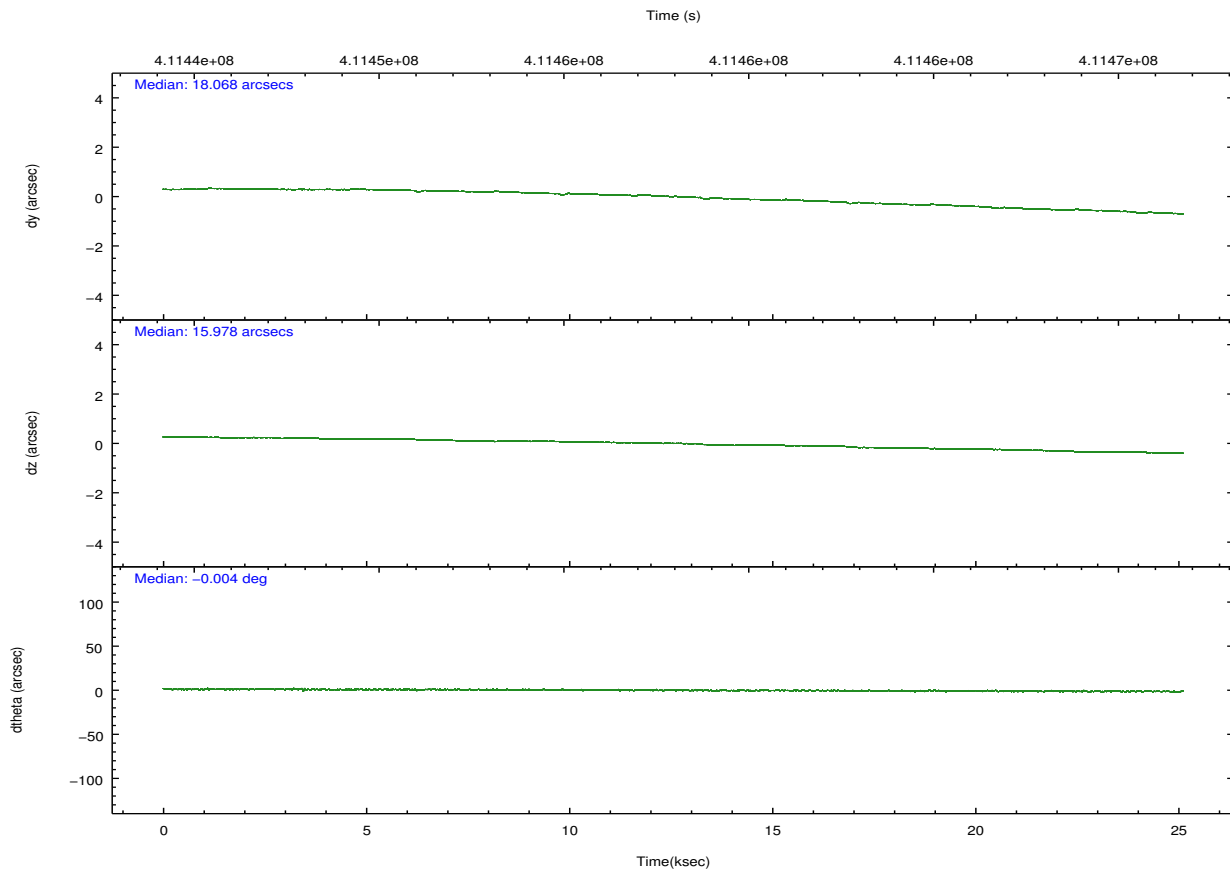
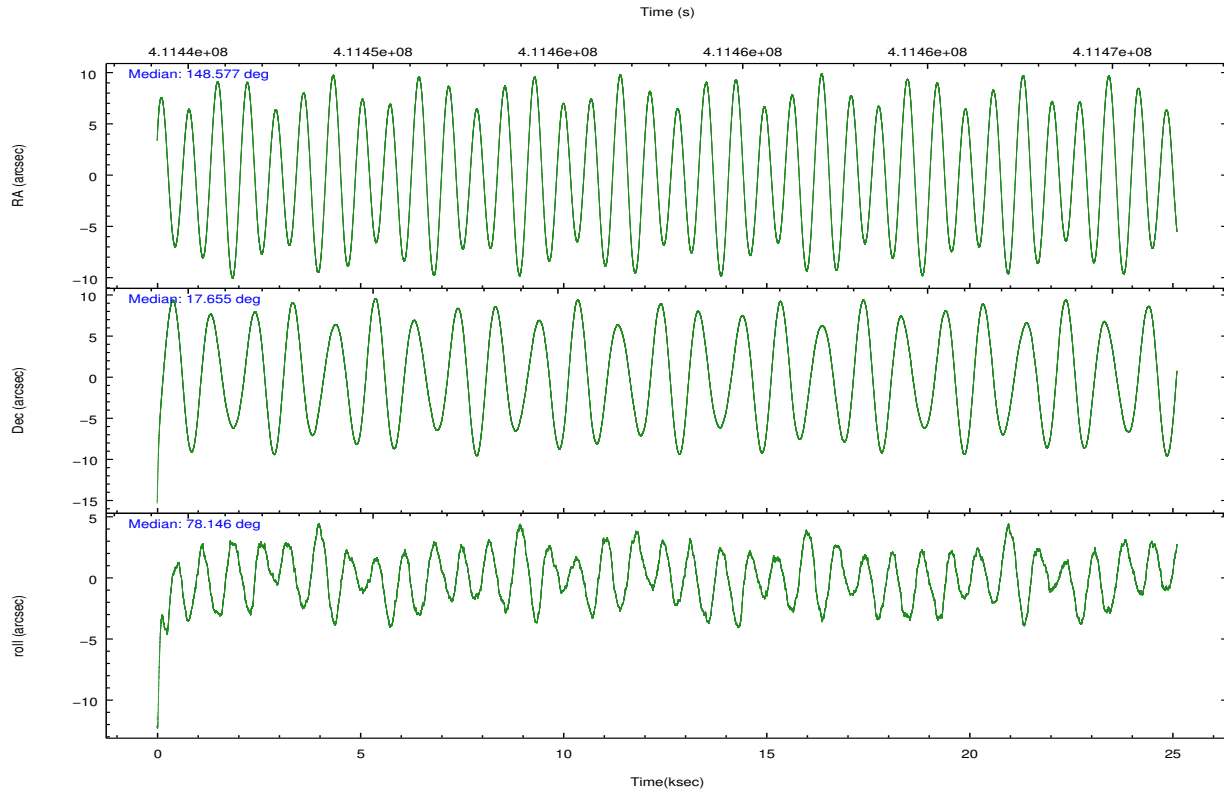
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	7291	6319	7127	9537	17831
	4%	3%	3%	4%	7%
grade 1 events	98	109	90	285	198
	0%	0%	0%	0%	0%
grade 2 events	4554	3968	4594	20551	14188
	2%	2%	2%	9%	6%
grade 3 events	1936	1986	2091	8850	6579
	1%	1%	1%	4%	2%
grade 4 events	1964	2064	2064	8790	6168
	1%	1%	1%	3%	2%
grade 5 events	6801	8161	8088	22833	11901
	3%	4%	4%	10%	5%
grade 6 events	3574	3864	4680	52565	16299
	2%	2%	2%	23%	7%
grade 7 events	147812	143912	154585	97553	157814
	84%	84%	84%	44%	68%

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	148.586745	148.577447067694	CCD I2 on	O1	Y
[deg] Pointing Dec	17.629109	17.65495874156316	CCD I3 on	Y	Y
[deg] Pointing Roll	77.995312	78.15474761033734	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	411445546.184000	411443804.36044	CCD S5 on	N	N
Observation start date	2011-01-15T02:24:40	2011-01-15T01:56:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	411470507.184000	411470732.64933	On-chip summing requested	N	N
Observation end date	2011-01-15T09:20:41	2011-01-15T09:25:32	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



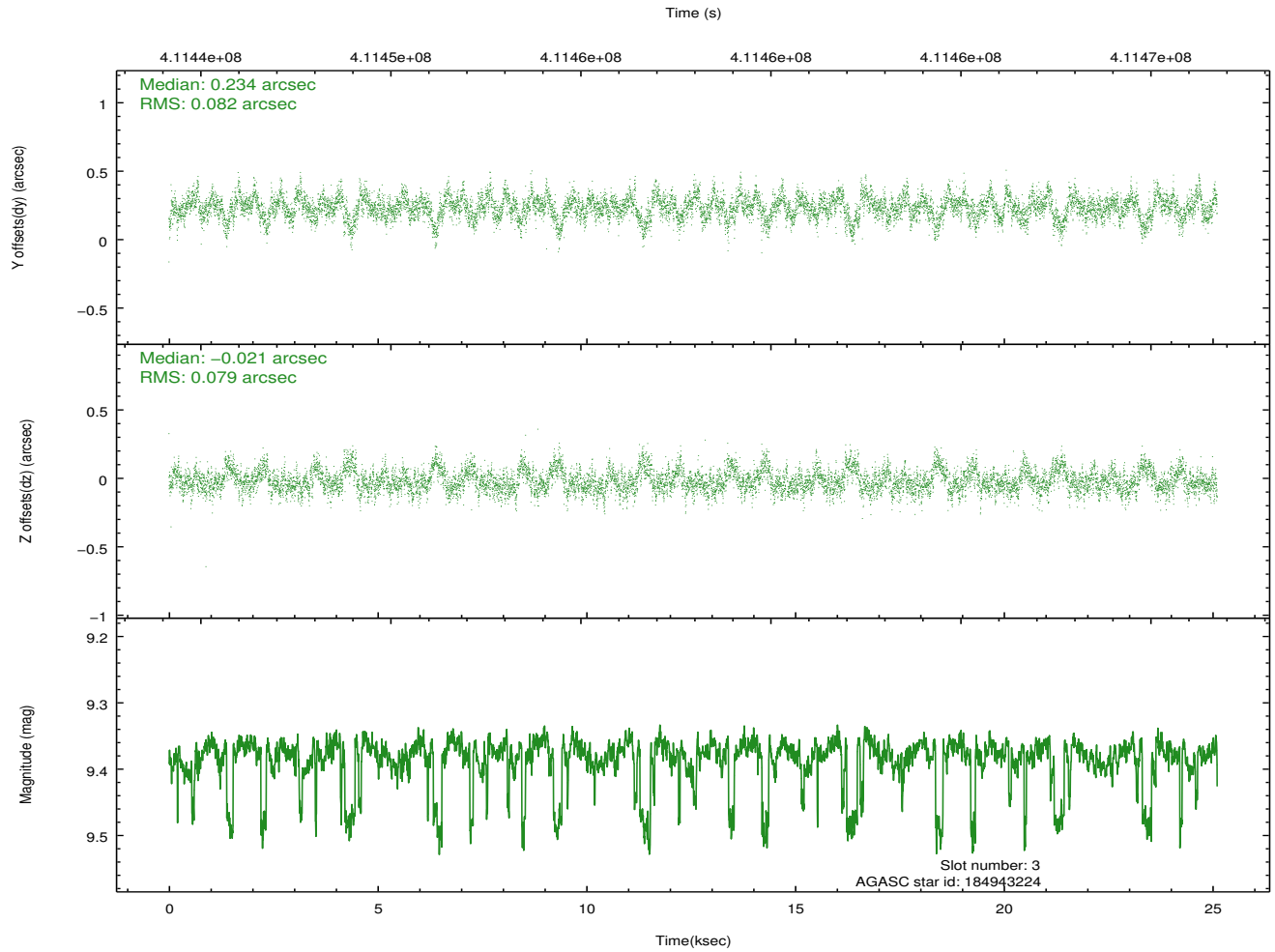
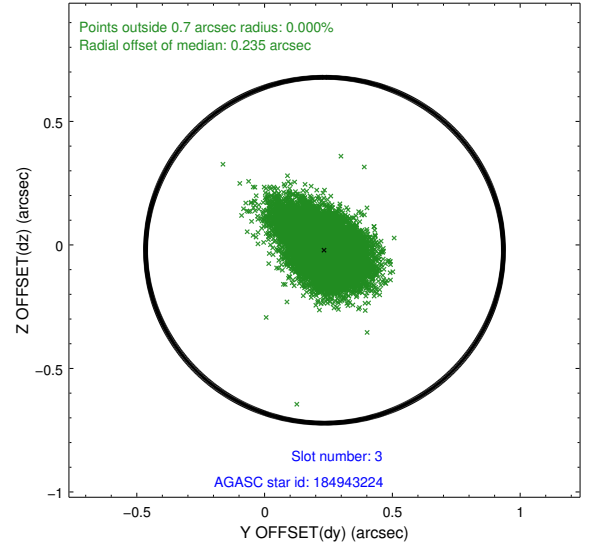
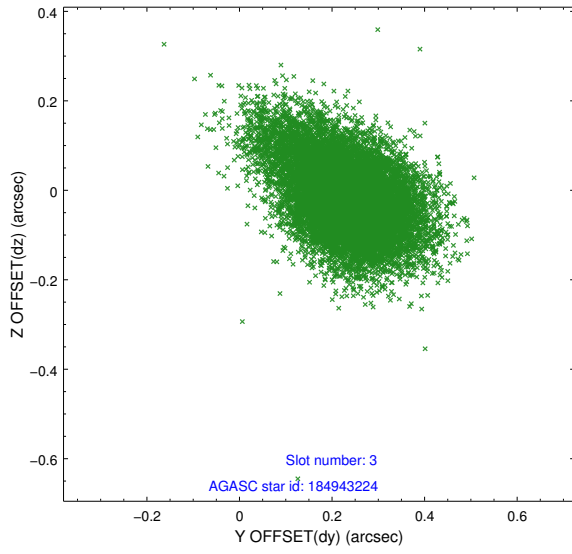


Slot Statistics

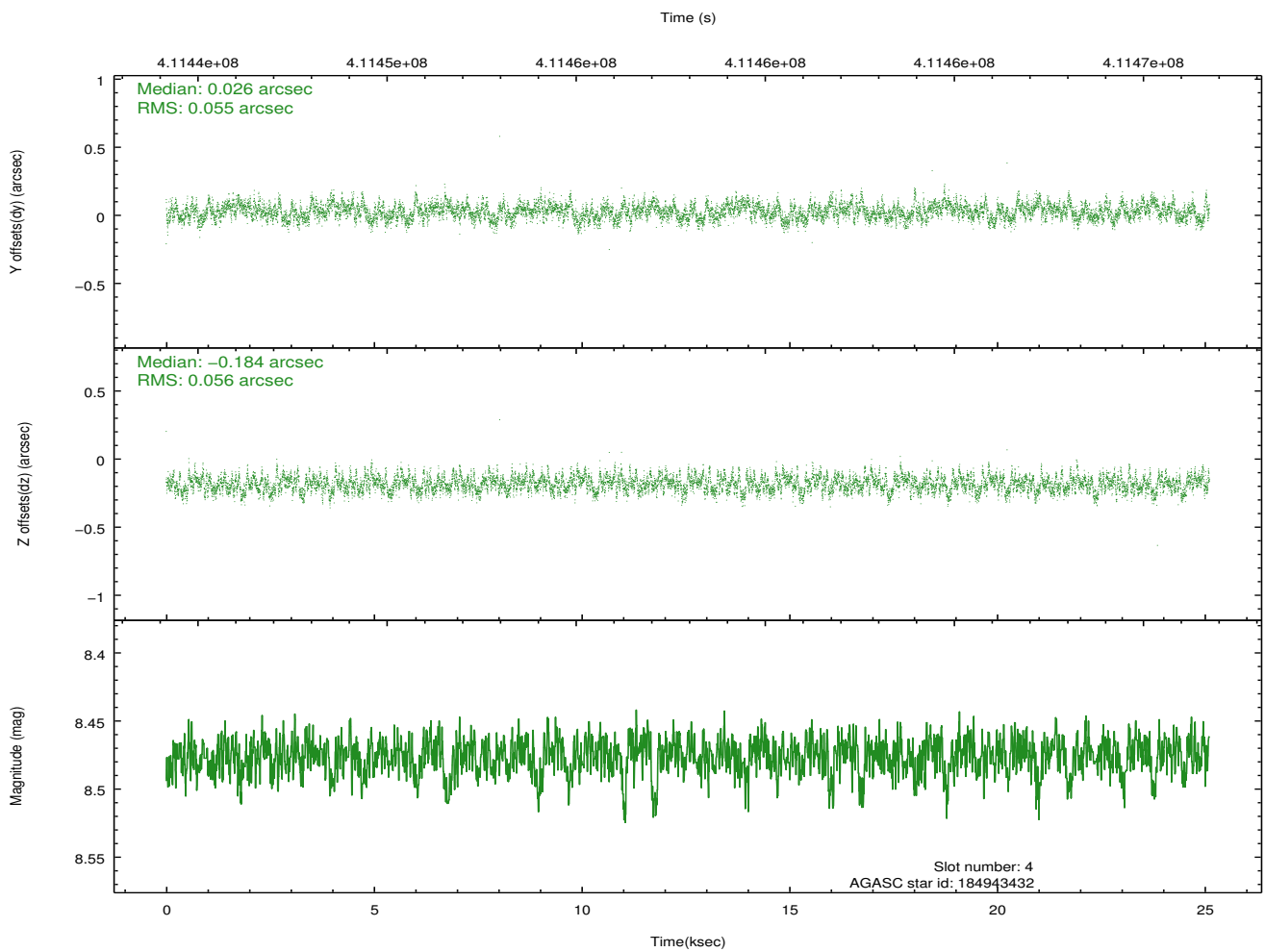
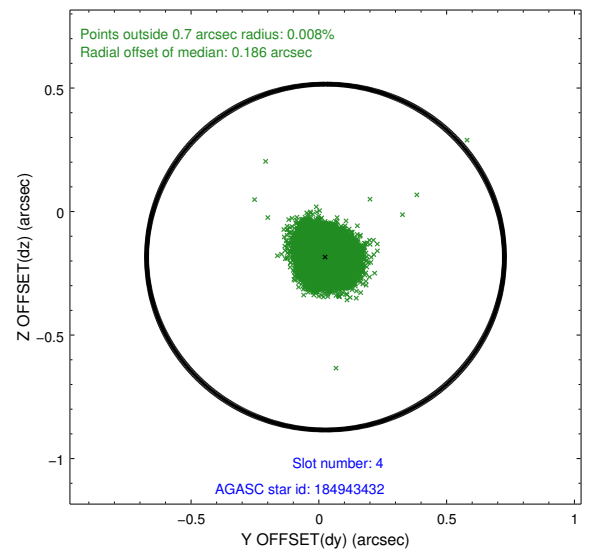
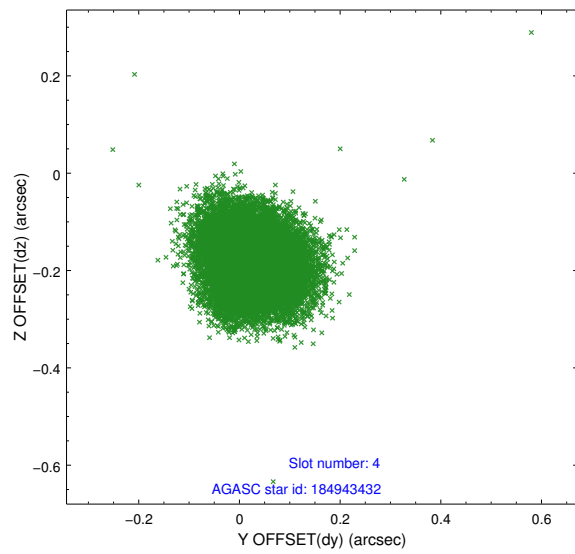
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	6125	-0.083	-0.009	0.007	0.012	0.000000	0.000000	-771.12	-1737.37
1	FID	ACIS-S-4	7.02	6125	0.212	0.043	0.010	0.023	0.000000	0.000000	2142.38	171.06
2	FID	ACIS-S-5	7.05	6125	-0.161	-0.025	0.012	0.029	0.000000	0.000000	-1823.90	164.77
3	GUIDE	184943224	9.38	12175	0.234	-0.021	0.116	0.208	147.948365	17.351606	-1430.09	1938.73
4	GUIDE	184943432	8.48	12246	0.026	-0.184	0.084	0.132	147.913077	17.475778	-1019.14	2148.29
5	GUIDE	185339440	8.59	12245	0.146	0.173	0.108	0.174	148.983258	17.541515	-23.83	-1395.97
6	GUIDE	185341024	9.35	12233	-0.127	0.097	0.106	0.174	148.923349	18.116620	1957.16	-761.69
7	GUIDE	185341112	8.77	12240	-0.281	-0.067	0.068	0.110	148.572585	18.202375	2008.66	476.98

2.4 Star Slots

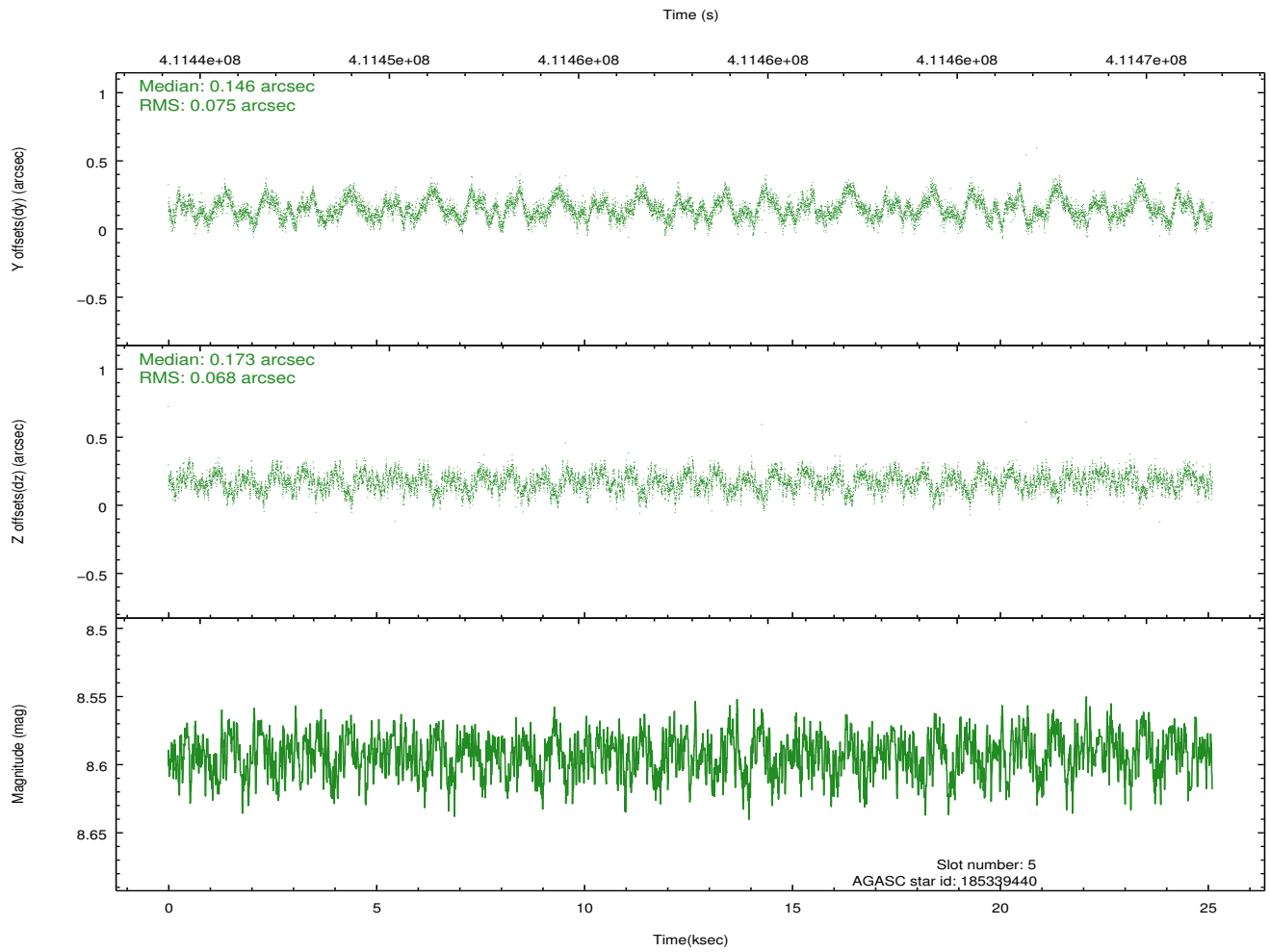
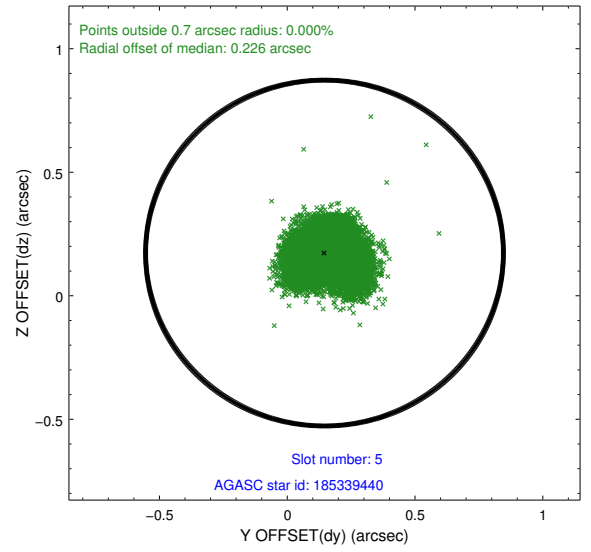
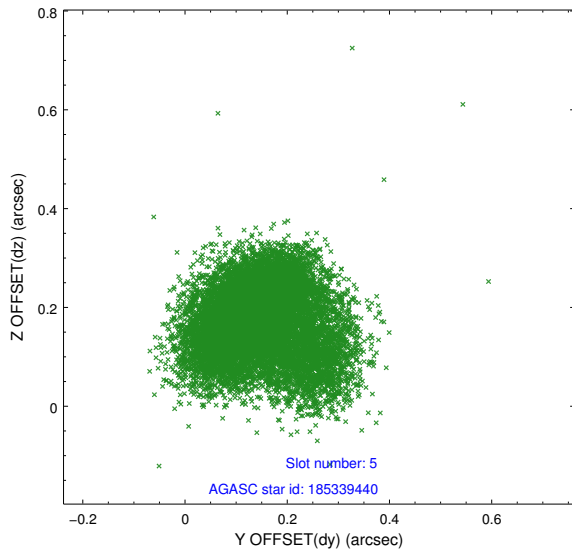
2.4.1 Slot 3



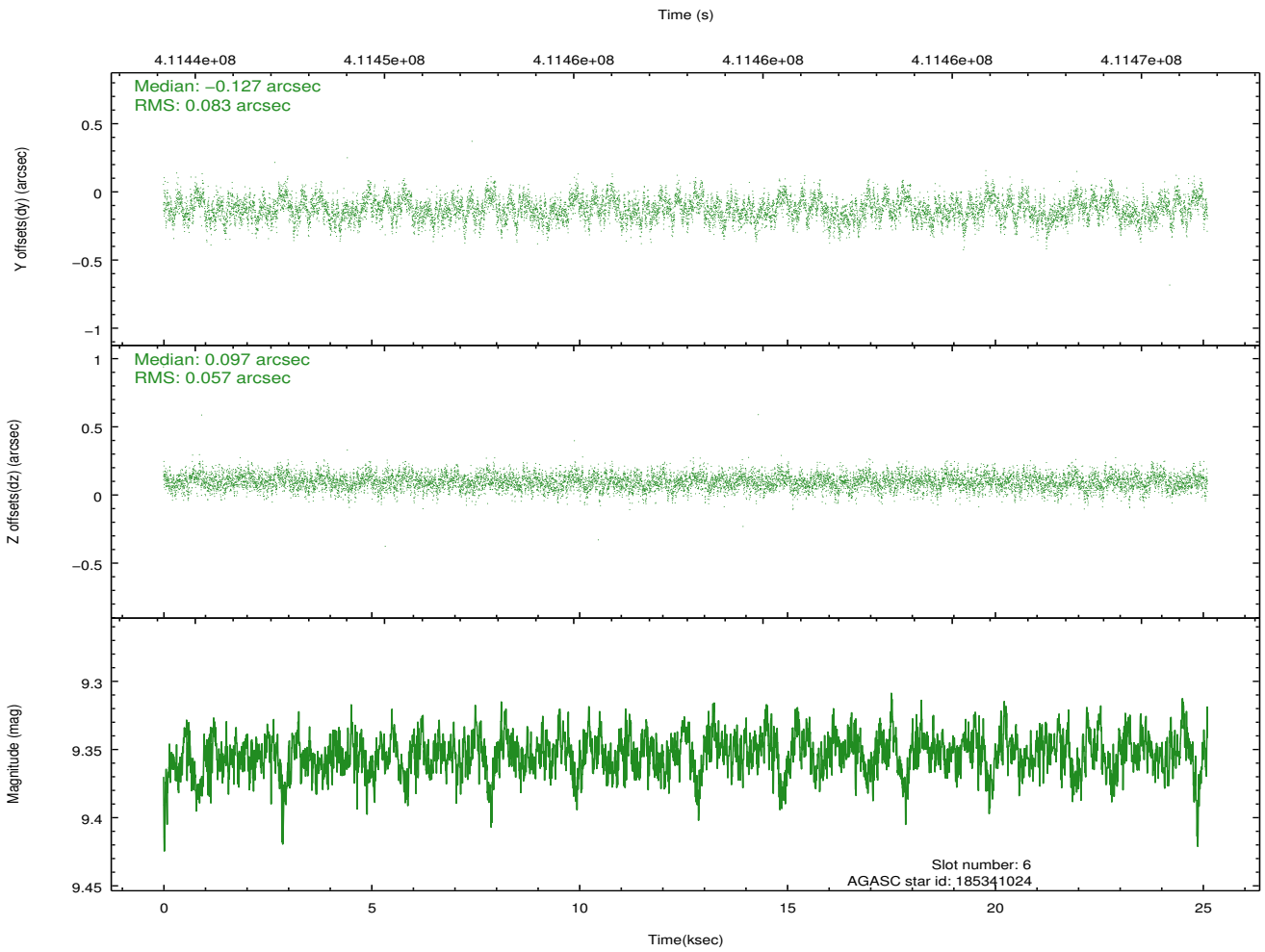
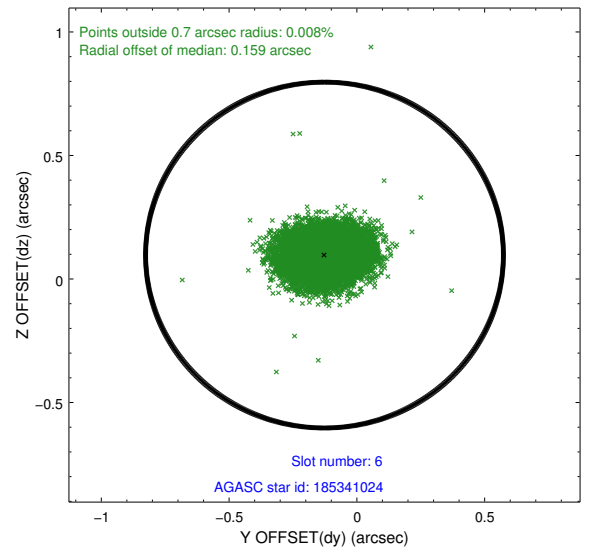
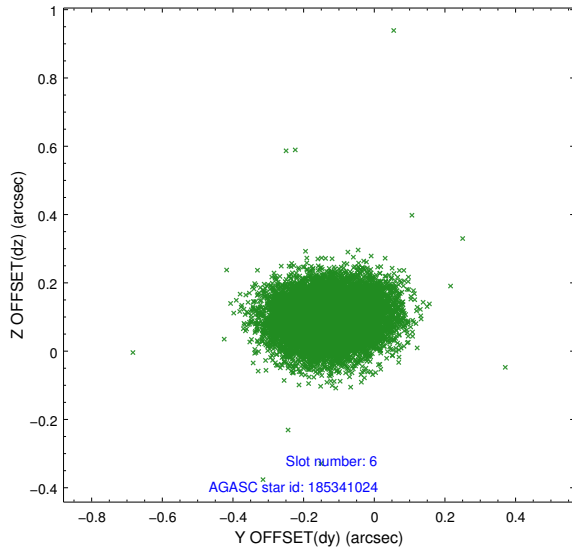
2.4.2 Slot 4



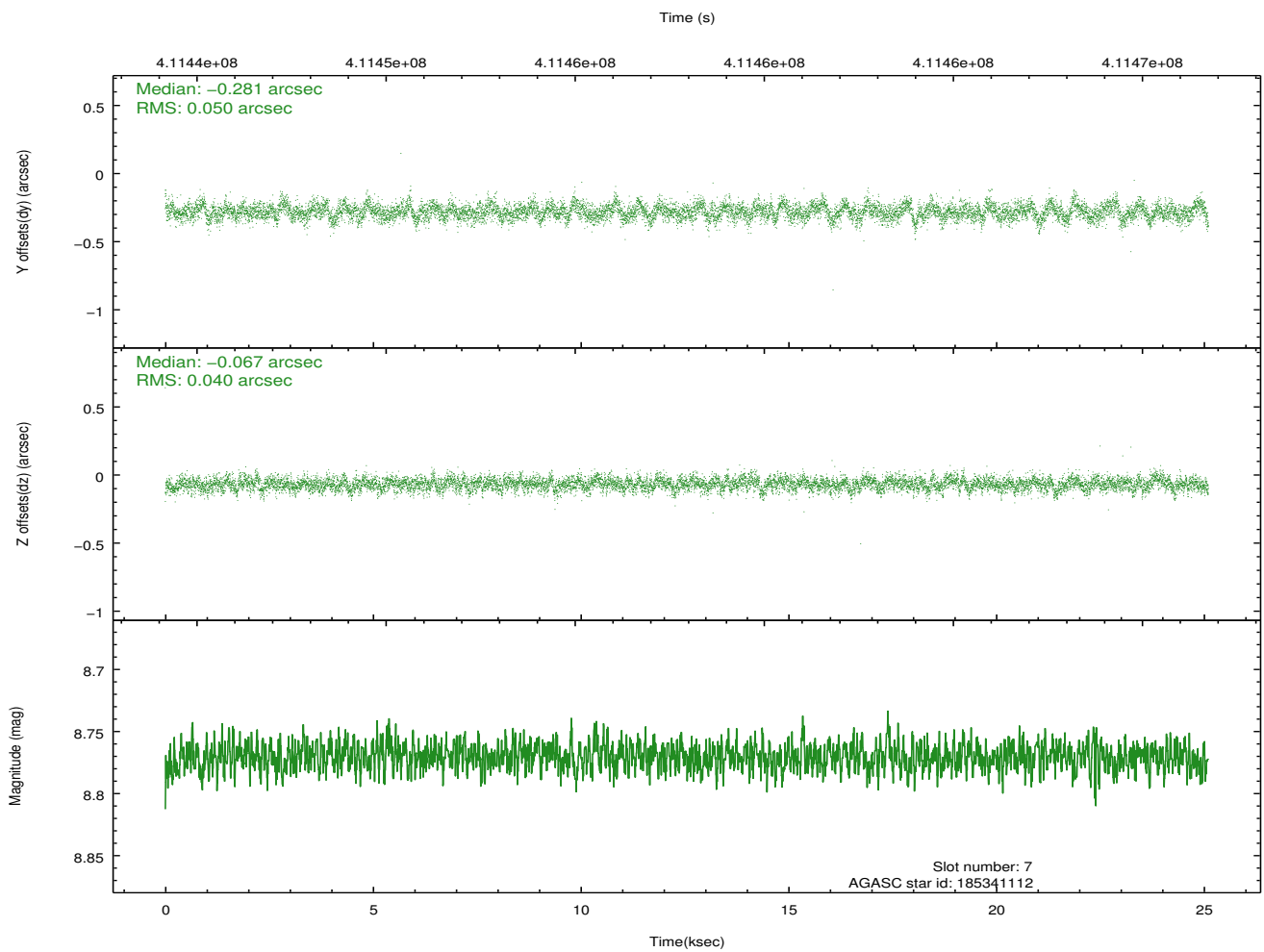
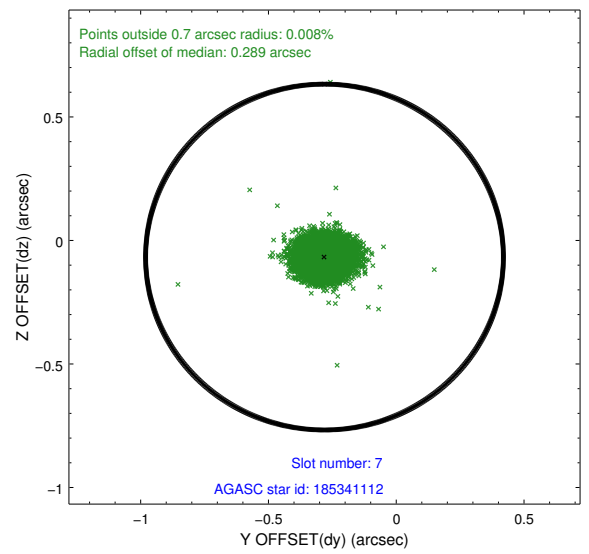
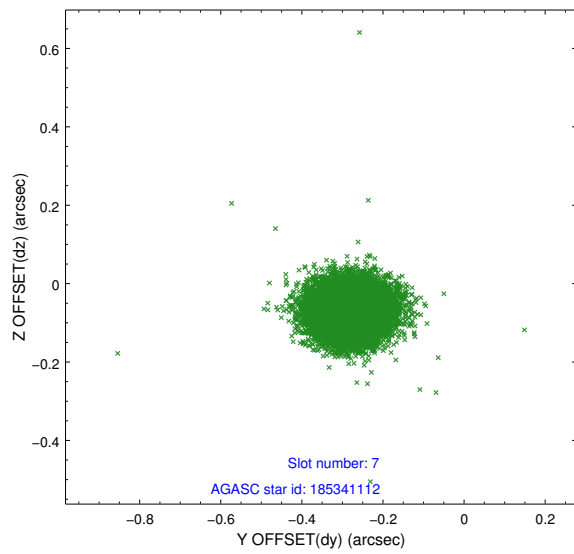
2.4.3 Slot 5



2.4.4 Slot 6

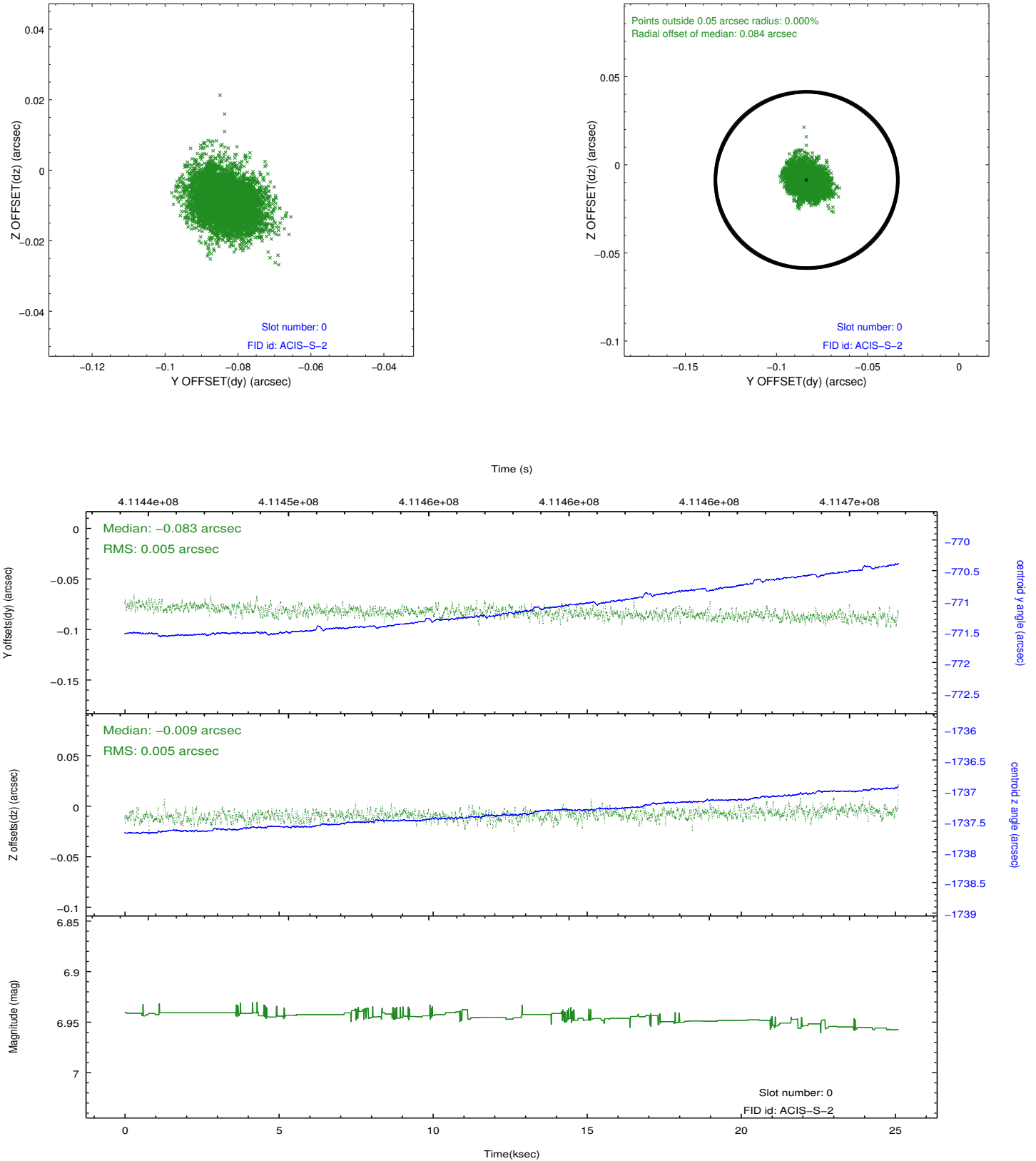


2.4.5 Slot 7

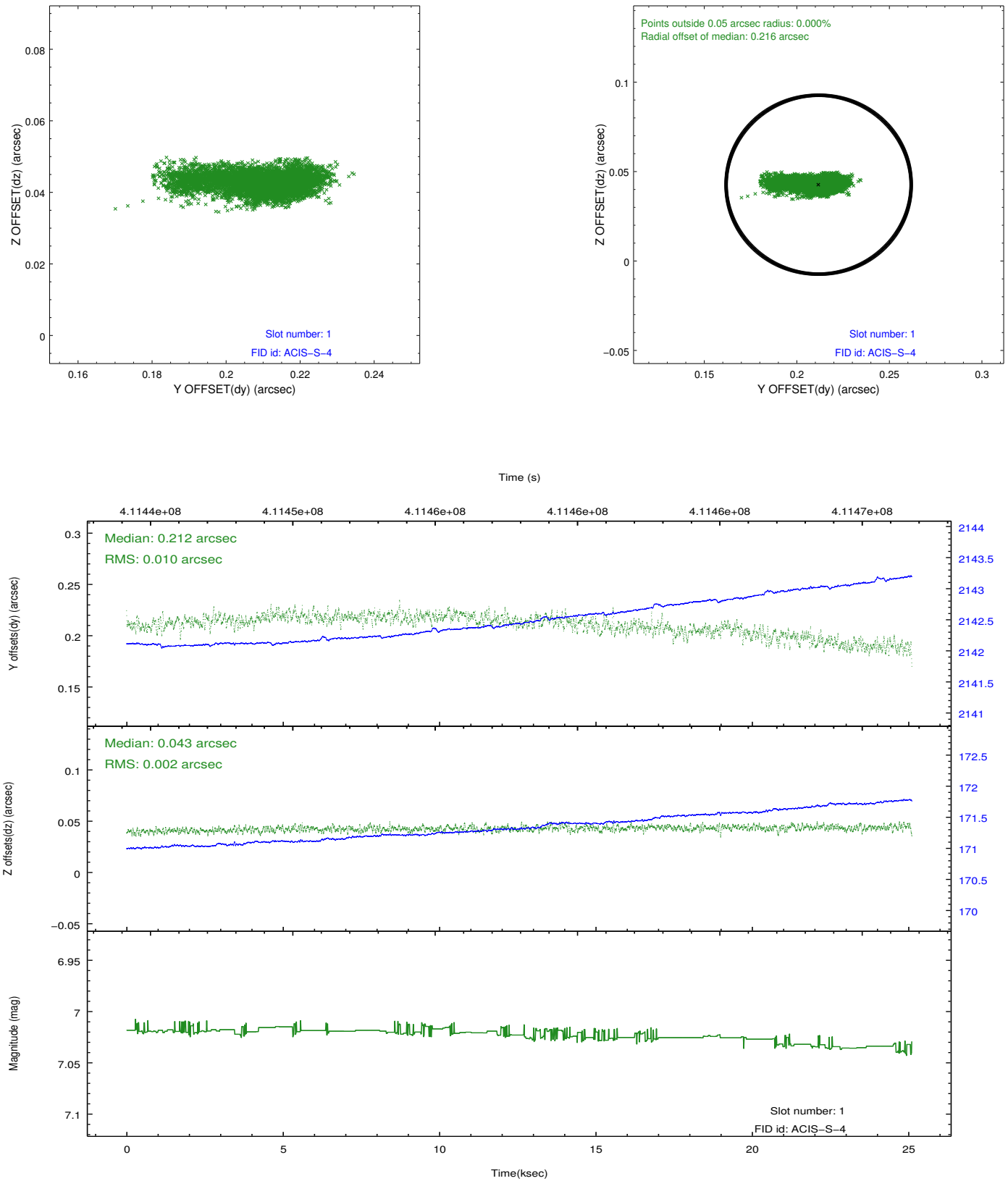


2.5 FID Slots

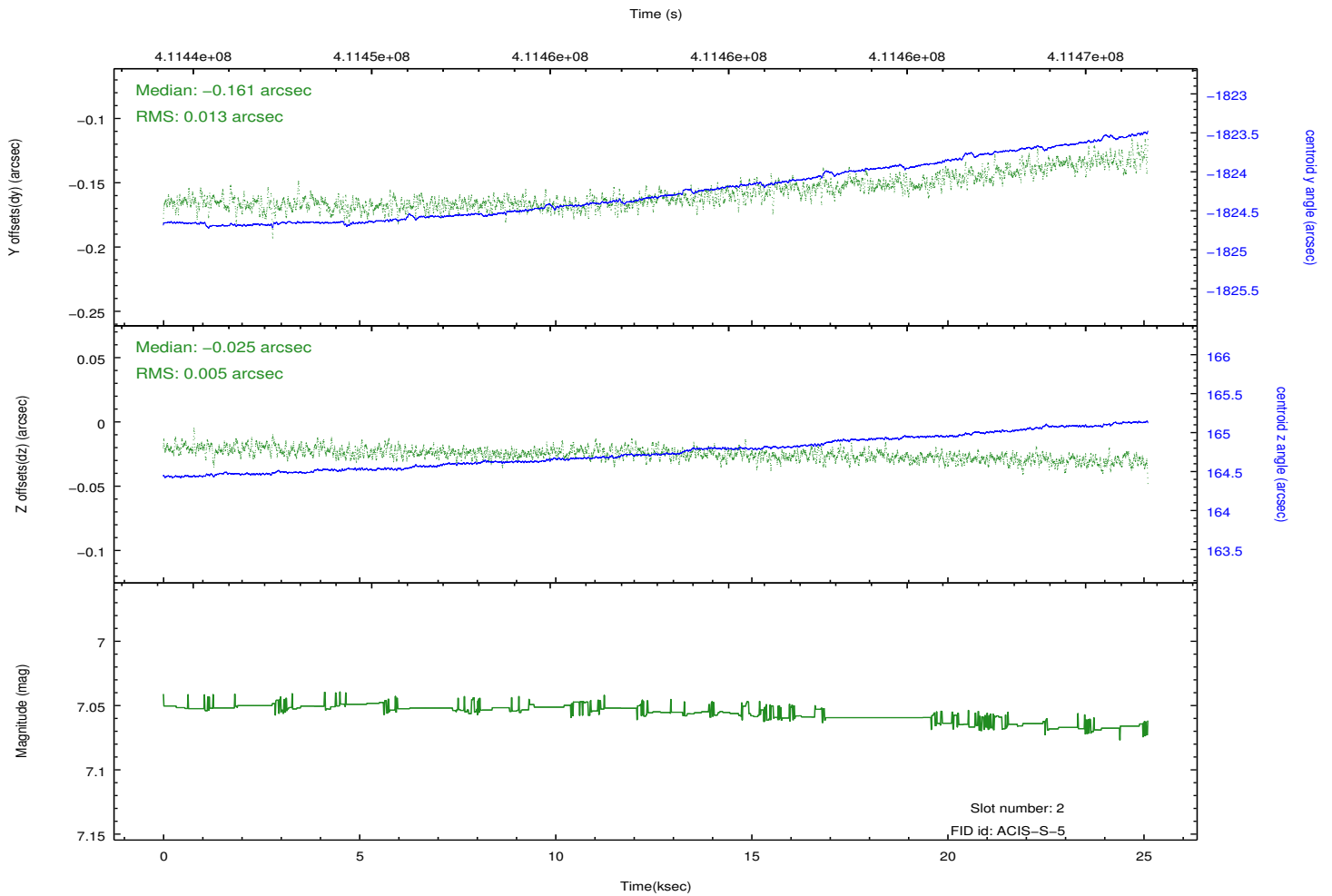
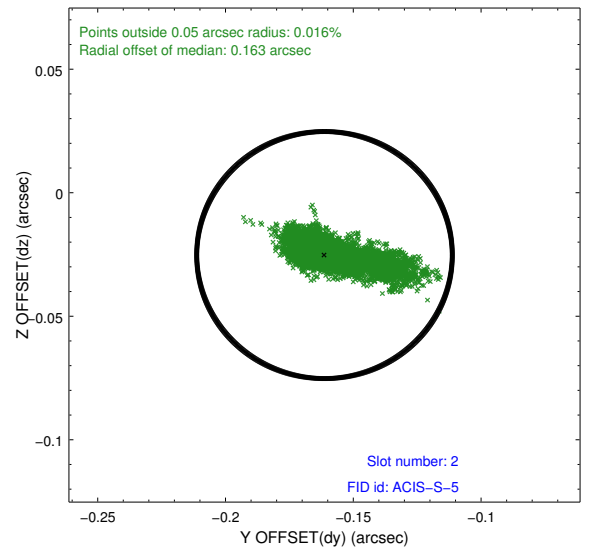
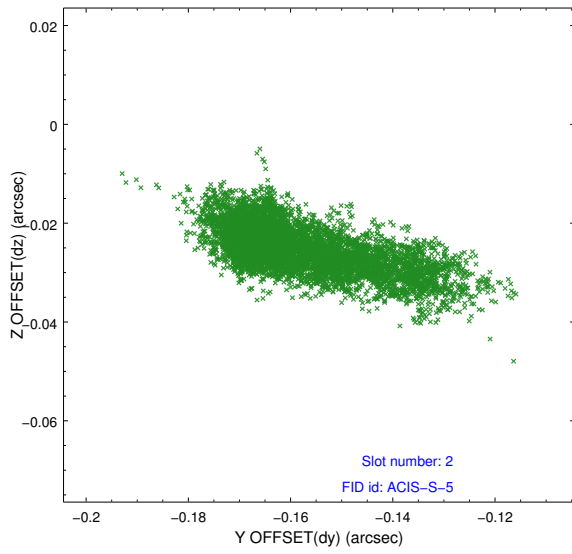
2.5.1 Slot 0



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	25.001098735273

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.