

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13258 - L2 Version 2
Chandra X-Ray Center

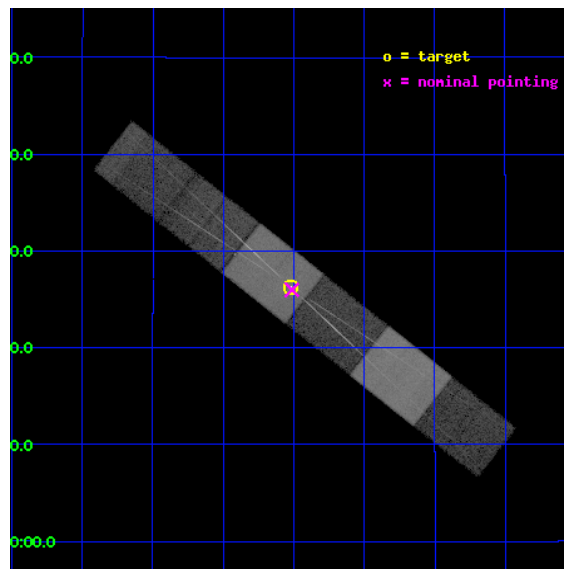
L2 Processing Date : Feb 11 2012

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1 Front

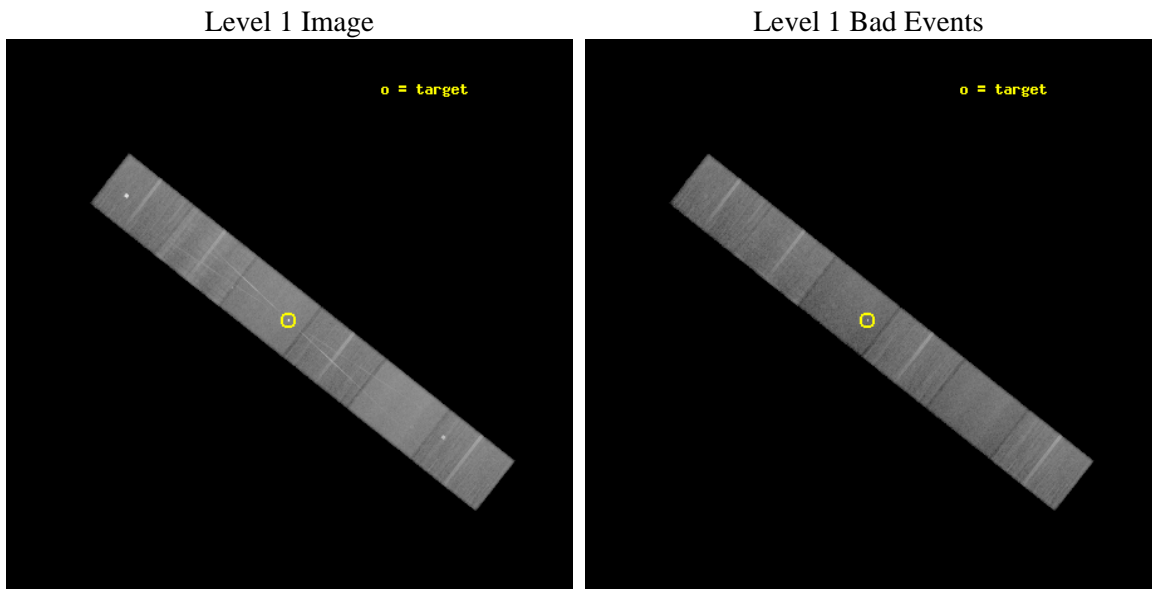
seq_num	702330	Sequence number
obs_id	13258	Observation id
title	A very complex seyfert 1 galaxy	Proposal title
observer	Prof. Claude Canizares	Principal investigator
object	Mkn 841	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	226.005	Observer's specified target RA [deg]
dec_targ	10.437778	Observer's specified target Dec [deg]
ra_nom	226.00330834134	Nominal RA [deg]
dec_nom	10.433235772226	Nominal Dec [deg]
roll_nom	218.2570889375	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40044.874334455	Sum of GTIs [s]
livetime	39398.114880575	Livetime [s]
ontime4	40044.915374458	Sum of GTIs [s]
ontime5	40044.833294451	Sum of GTIs [s]
ontime6	40044.792254448	Sum of GTIs [s]
ontime7	40044.874334455	Sum of GTIs [s]
ontime8	40042.210174203	Sum of GTIs [s]
ontime9	40044.710174441	Sum of GTIs [s]
l2events	343162	Number of level 2 events



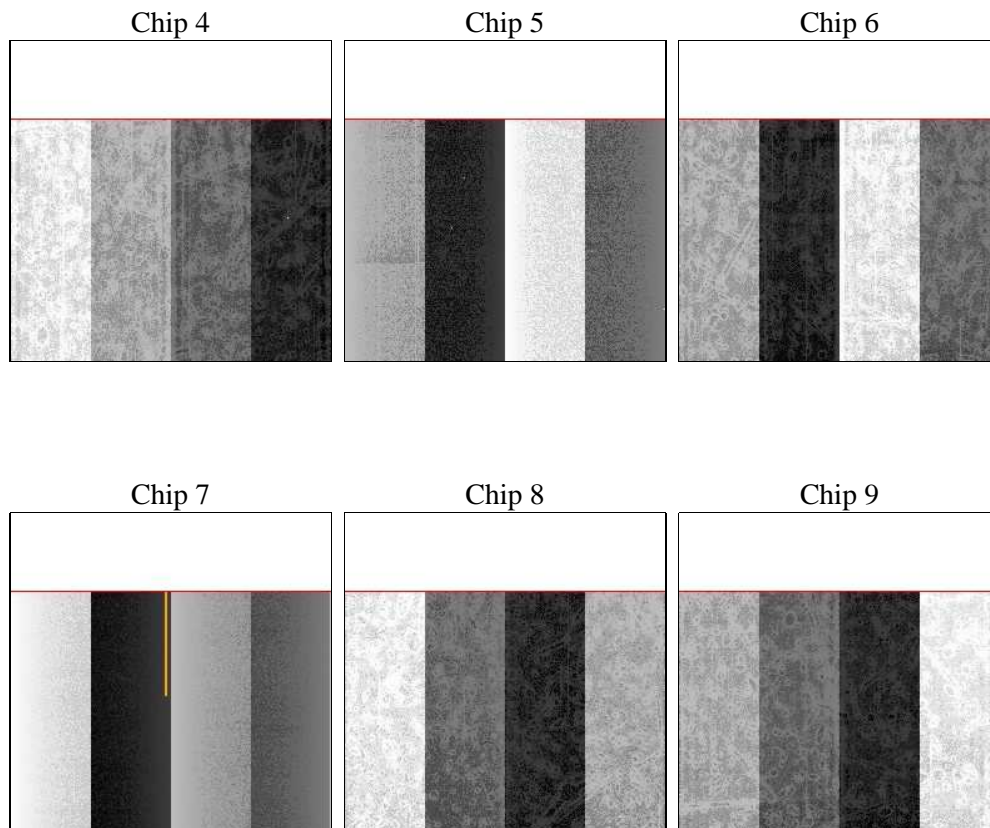
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	40044.874334455	Sum of GTIs [s]
caldbver	4.4.7	 	ontime4	40044.915374458	Sum of GTIs [s]
date	2012-02-11T18:16:47	Date and time of file creation	ontime5	40044.833294451	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	40044.792254448	Sum of GTIs [s]
			ontime7	40044.874334455	Sum of GTIs [s]
			ontime8	40042.210174203	Sum of GTIs [s]
			ontime9	40044.710174441	Sum of GTIs [s]
			l1events	1401036	Number of level 1 events

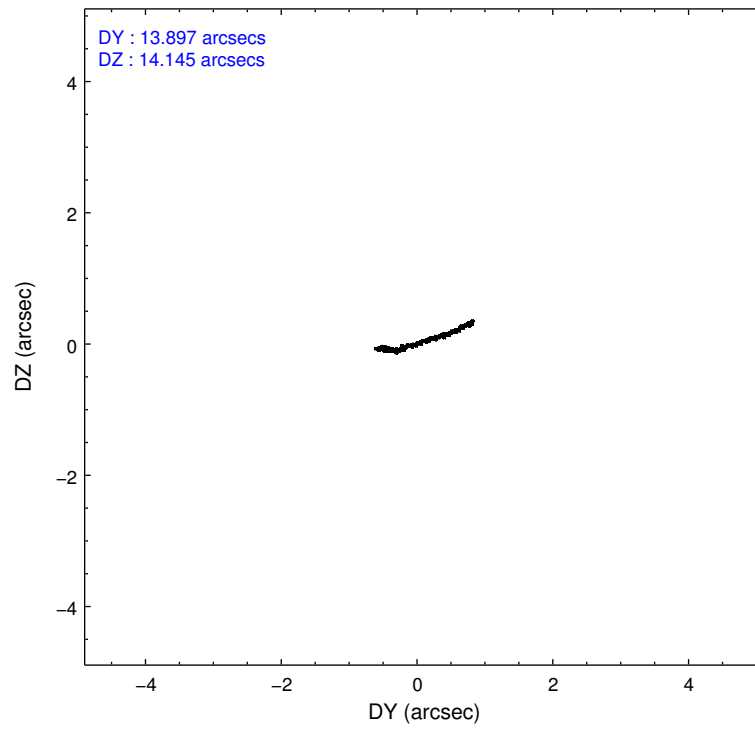
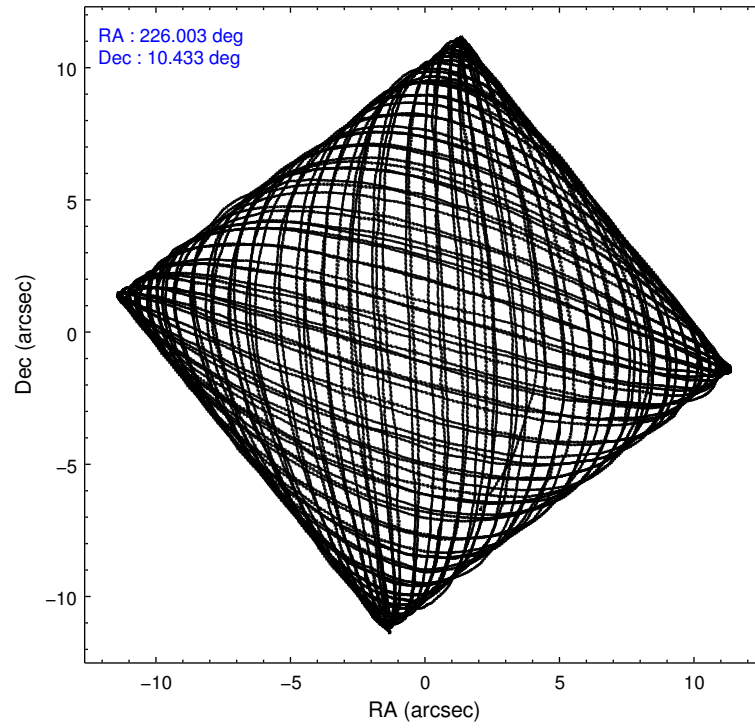
2.1.4 Events

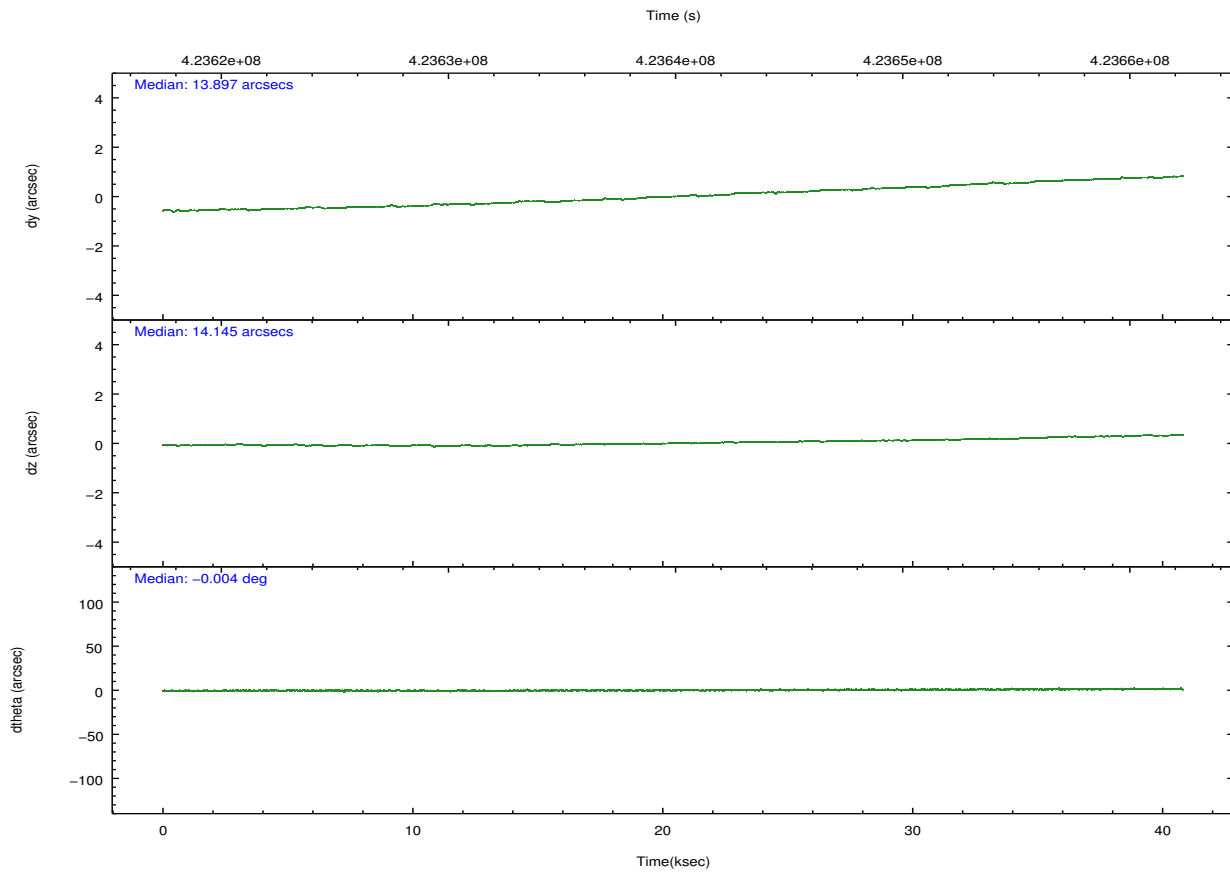
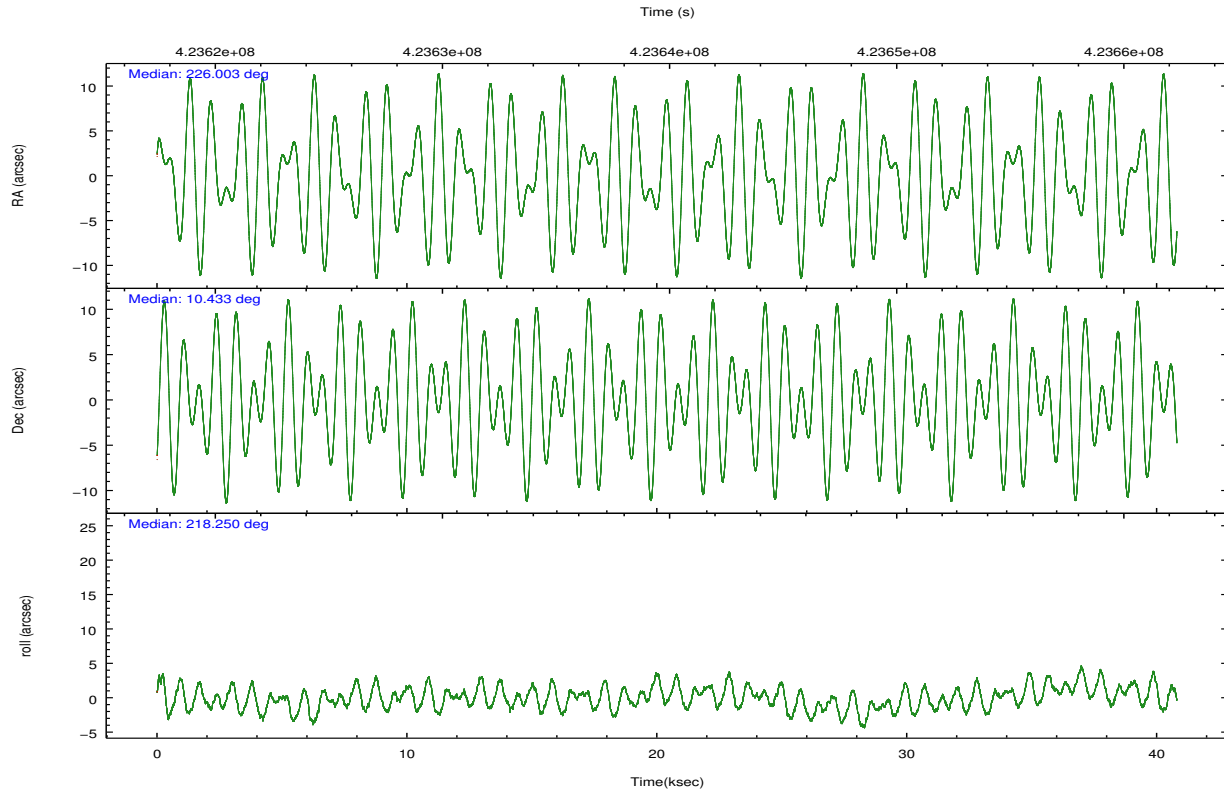
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	217683	283925	197770	251002	248432	202224	grade 0 events	12152	9184	13806	12858	22118	24142
rejected events	191109	146955	167733	129740	180068	163231		5%	3%	6%	5%	8%	11%
rejected %	87%	51%	84%	51%	72%	80%	grade 1 events	153	433	88	409	190	130
								0%	0%	0%	0%	0%	0%
							grade 2 events	5468	40978	5905	25361	14964	4860
								2%	14%	2%	10%	6%	2%
							grade 3 events	2593	5810	2651	11206	7423	2630
								1%	2%	1%	4%	2%	1%
							grade 4 events	2433	5422	2596	11000	6806	2489
								1%	1%	1%	4%	2%	1%
							grade 5 events	8345	20937	8495	24667	12378	9528
								3%	7%	4%	9%	4%	4%
							grade 6 events	3929	75587	5083	60854	17053	4879
								1%	26%	2%	24%	6%	2%
							grade 7 events	182610	125574	159146	104647	167500	153566
								83%	44%	80%	41%	67%	75%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	226.013249	226.003308341336	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	10.458756	10.43323577222642	Subarray start row	1	1
[deg] Pointing Roll	218.098662	218.2570889375033	Subarray row count	774	774
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	2.5
[mm] SIM translation stage pos	-187.132523	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
[s] Observation start time (MET)	423620301.184000	423618920.52906			
Observation start date	2011-06-05T00:17:15	2011-06-04T23:55:20			
[s] Observation end time (MET)	423660301.184000	423661218.18126			
Observation end date	2011-06-05T11:23:55	2011-06-05T11:40:18			
Read mode	TIMED	TIMED			

2.3 Aspect



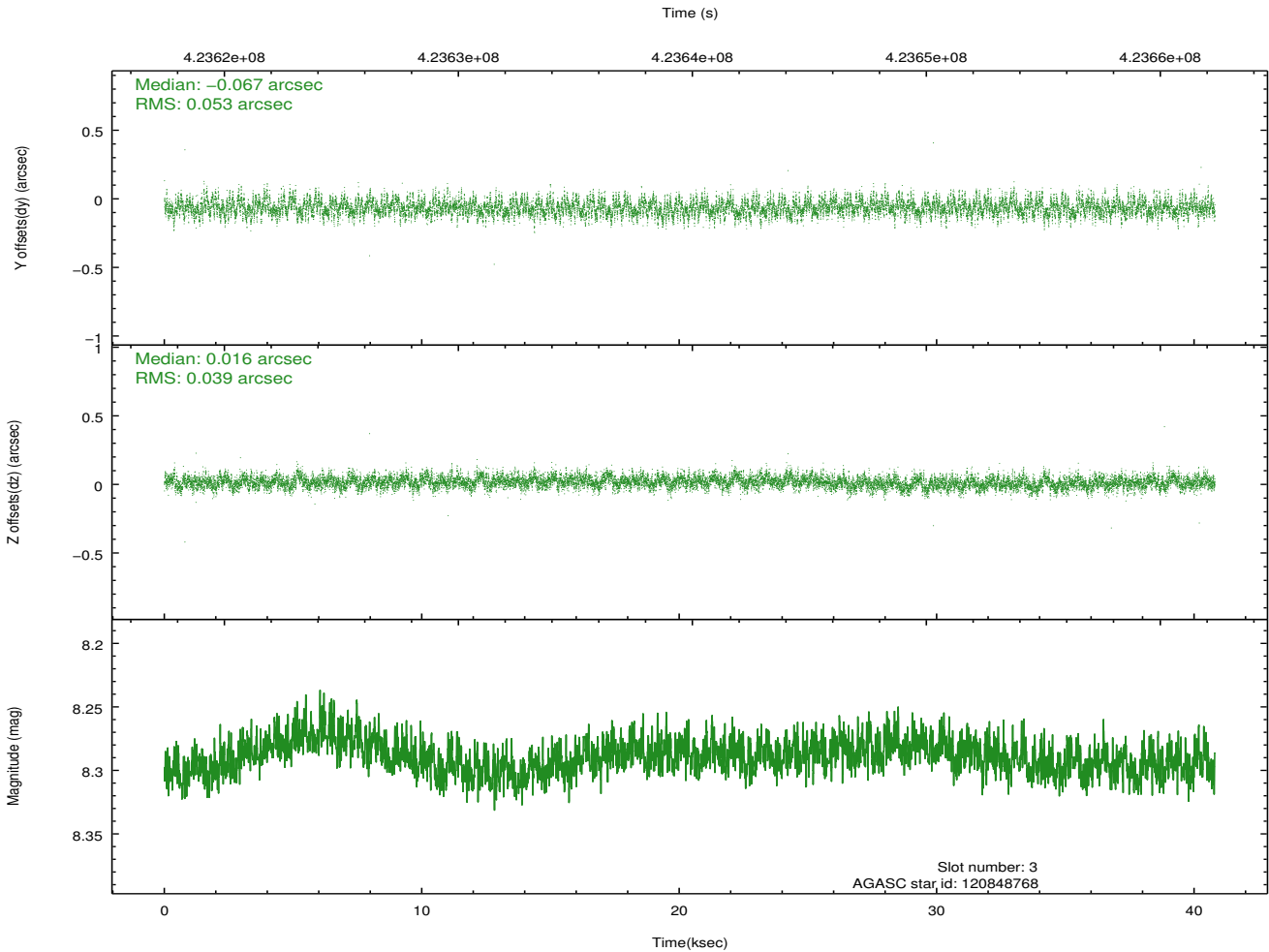
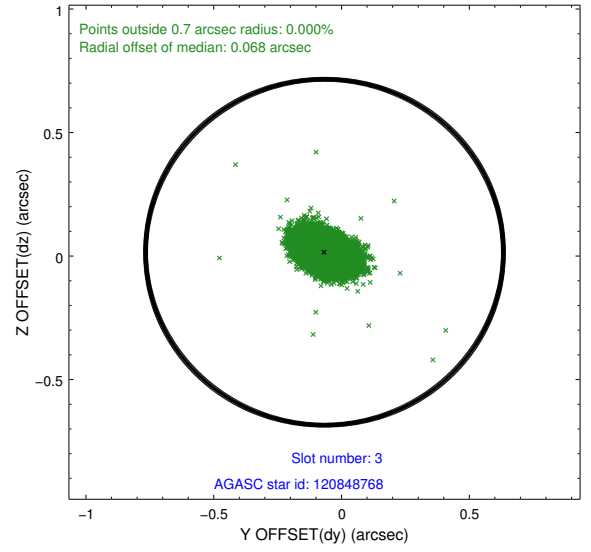
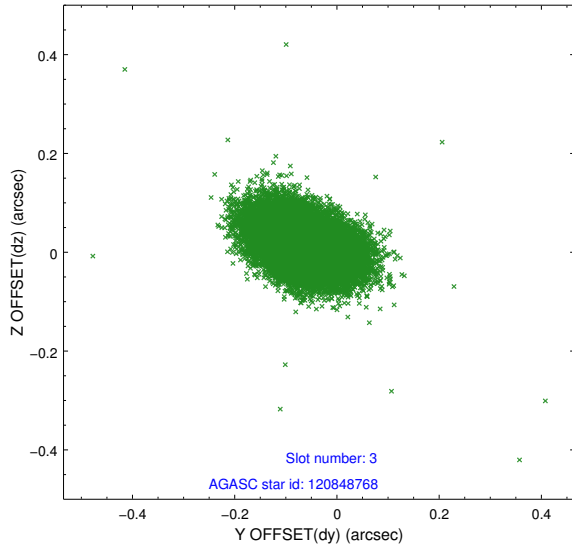


Slot Statistics

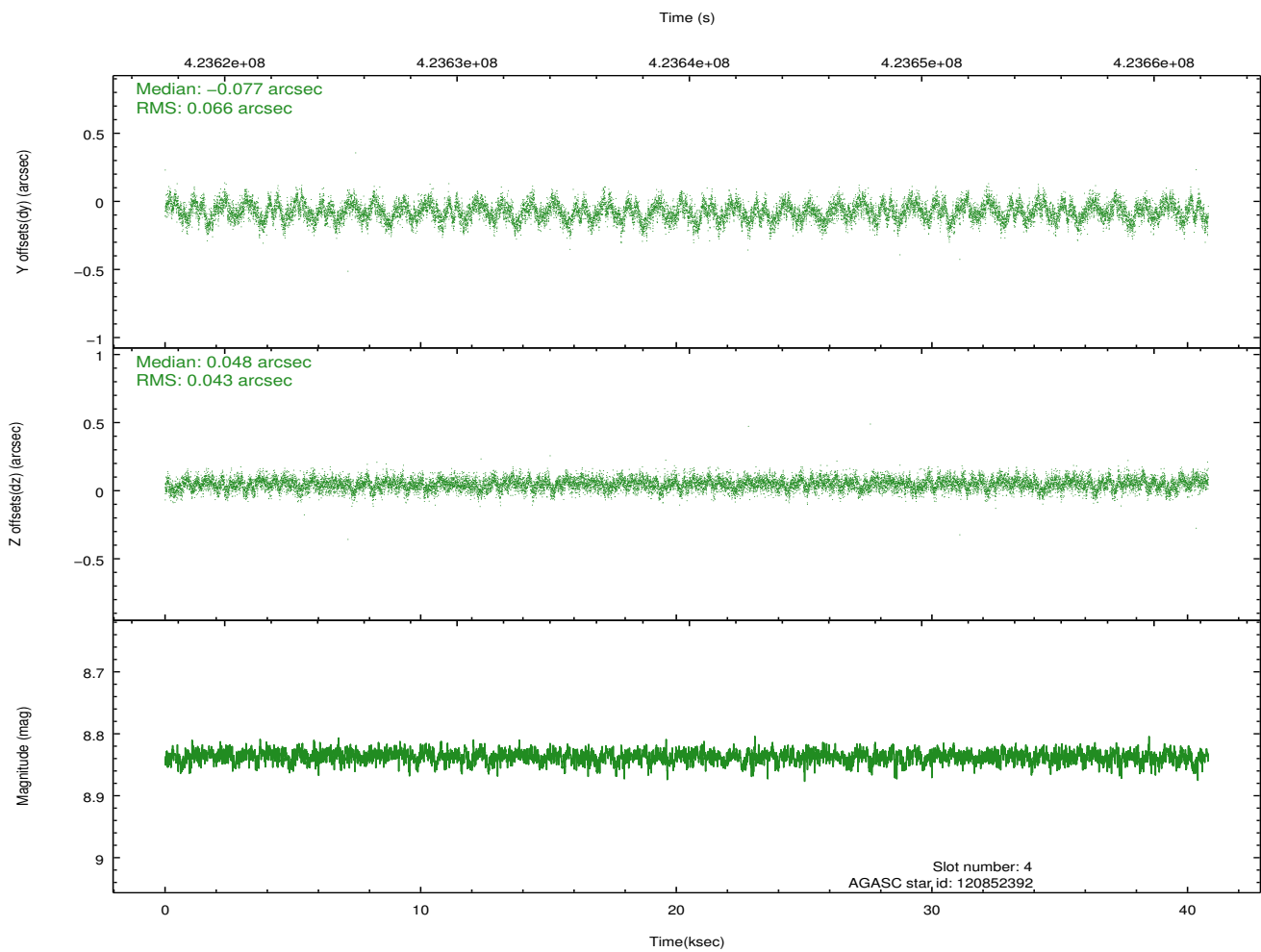
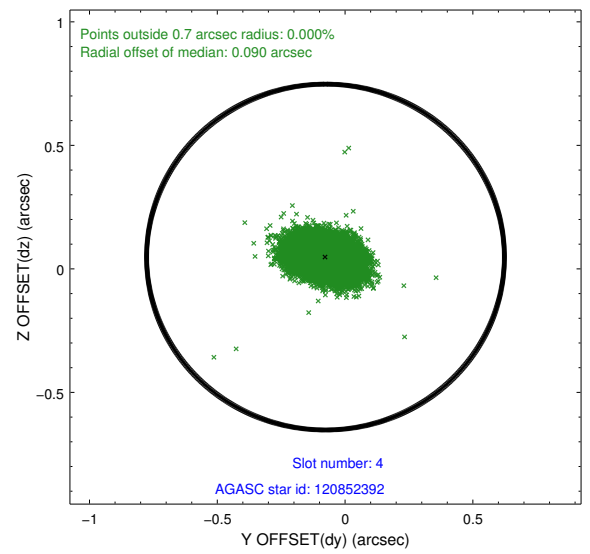
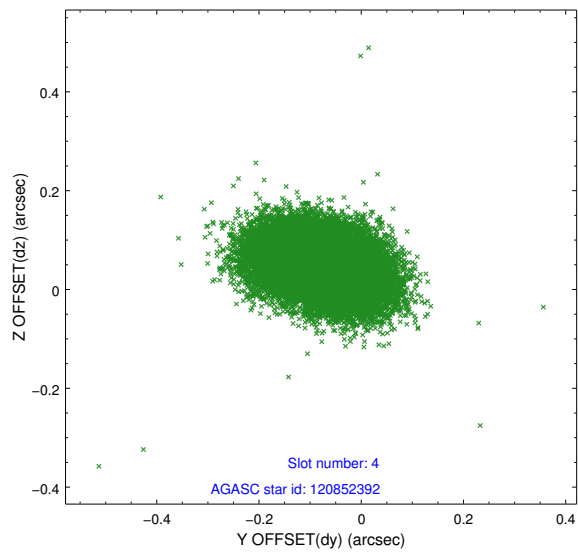
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.97	9953	-0.107	-0.069	0.011	0.019	0.000000	0.000000	-766.77	-1797.75
1	FID	ACIS-S-4	7.04	9953	0.228	0.070	0.012	0.026	0.000000	0.000000	2146.83	110.85
2	FID	ACIS-S-5	7.08	9953	-0.151	0.007	0.011	0.022	0.000000	0.000000	-1819.64	104.47
3	GUIDE	120848768	8.29	19900	-0.067	0.016	0.069	0.116	226.805006	10.295985	-1847.59	2188.90
4	GUIDE	120852392	8.84	19888	-0.077	0.048	0.083	0.139	226.601101	10.759865	-2306.13	428.41
5	GUIDE	120857304	7.35	19903	-0.037	0.030	0.065	0.103	226.016011	10.735132	-621.11	-776.90
6	GUIDE	120857992	8.83	19897	0.015	-0.006	0.071	0.115	225.633634	10.396915	1195.10	-654.65
7	GUIDE	120859328	8.77	19884	0.167	-0.088	0.080	0.131	225.353432	10.362574	2052.30	-1170.78

2.4 Star Slots

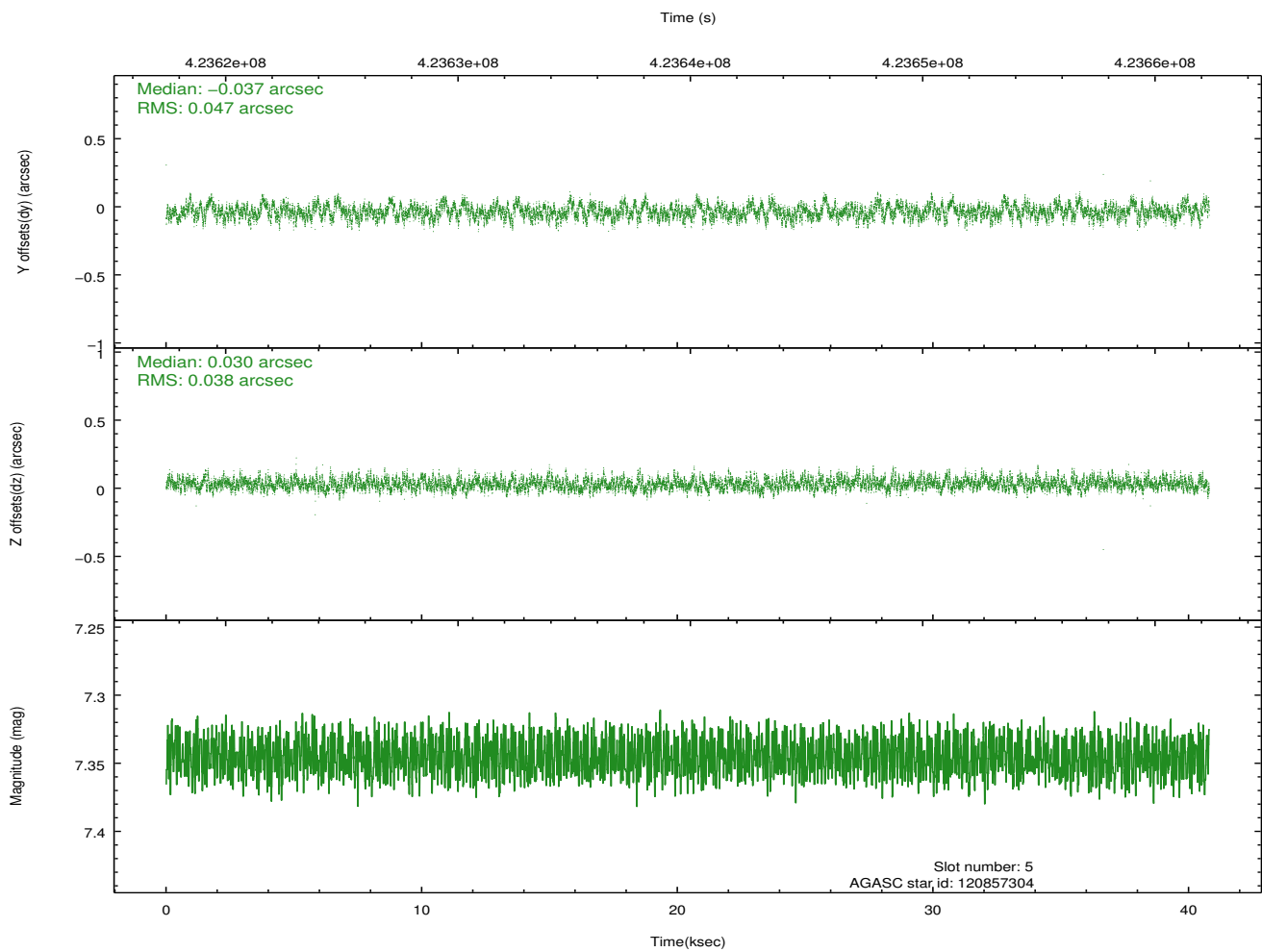
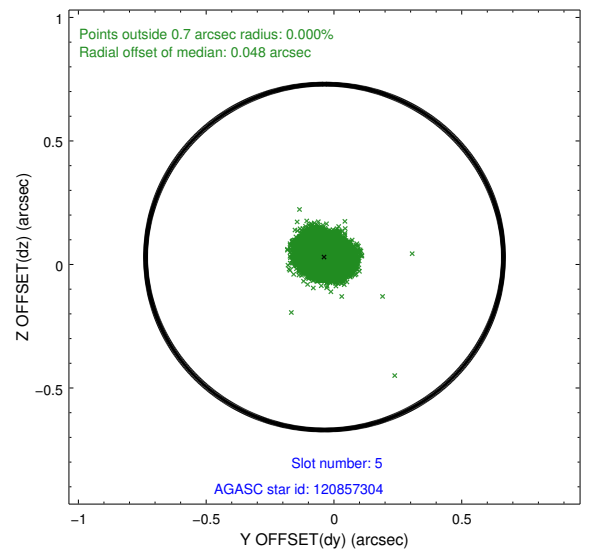
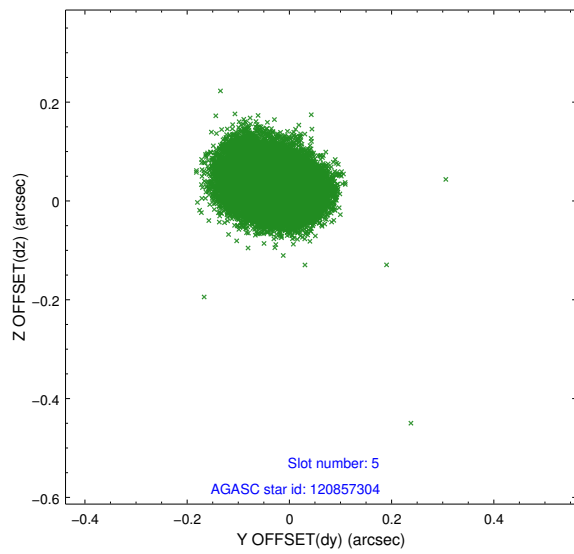
2.4.1 Slot 3



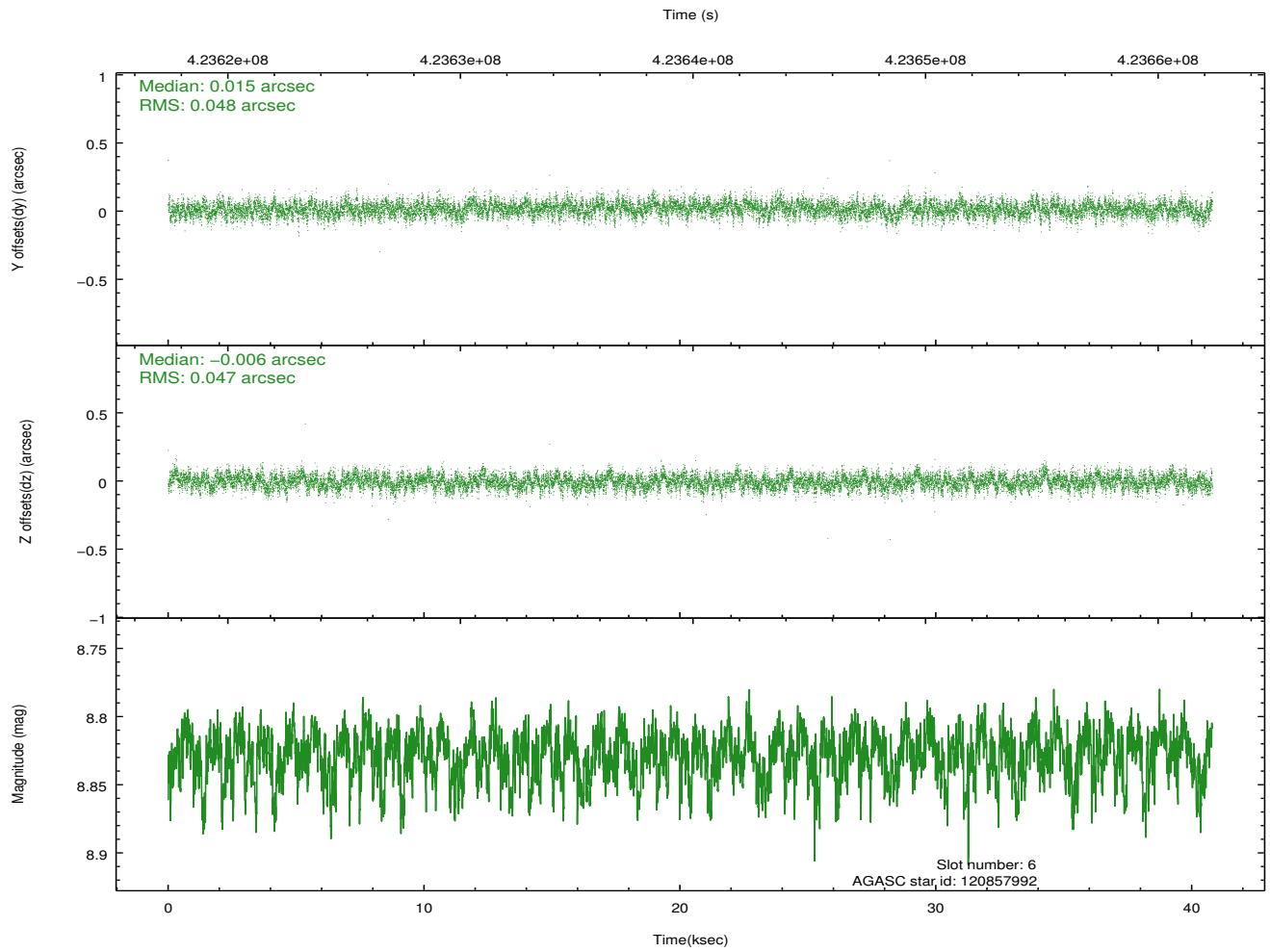
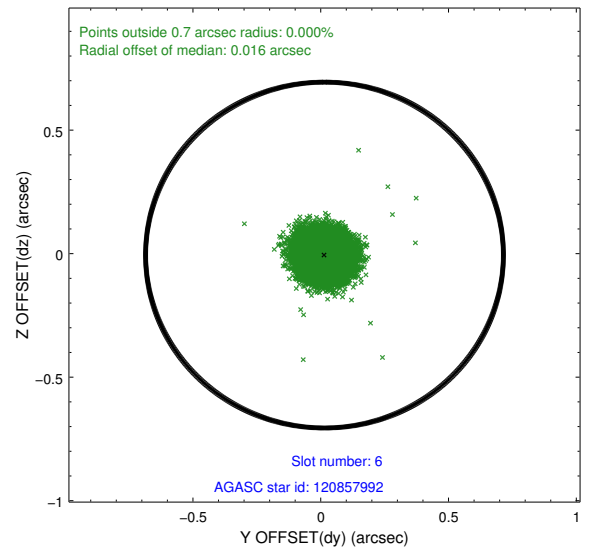
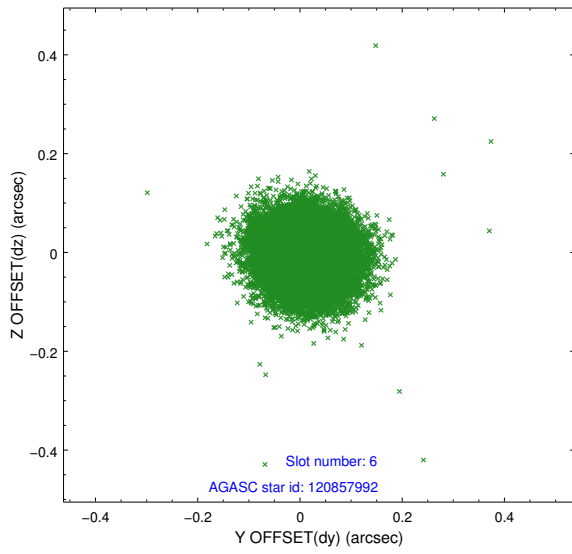
2.4.2 Slot 4



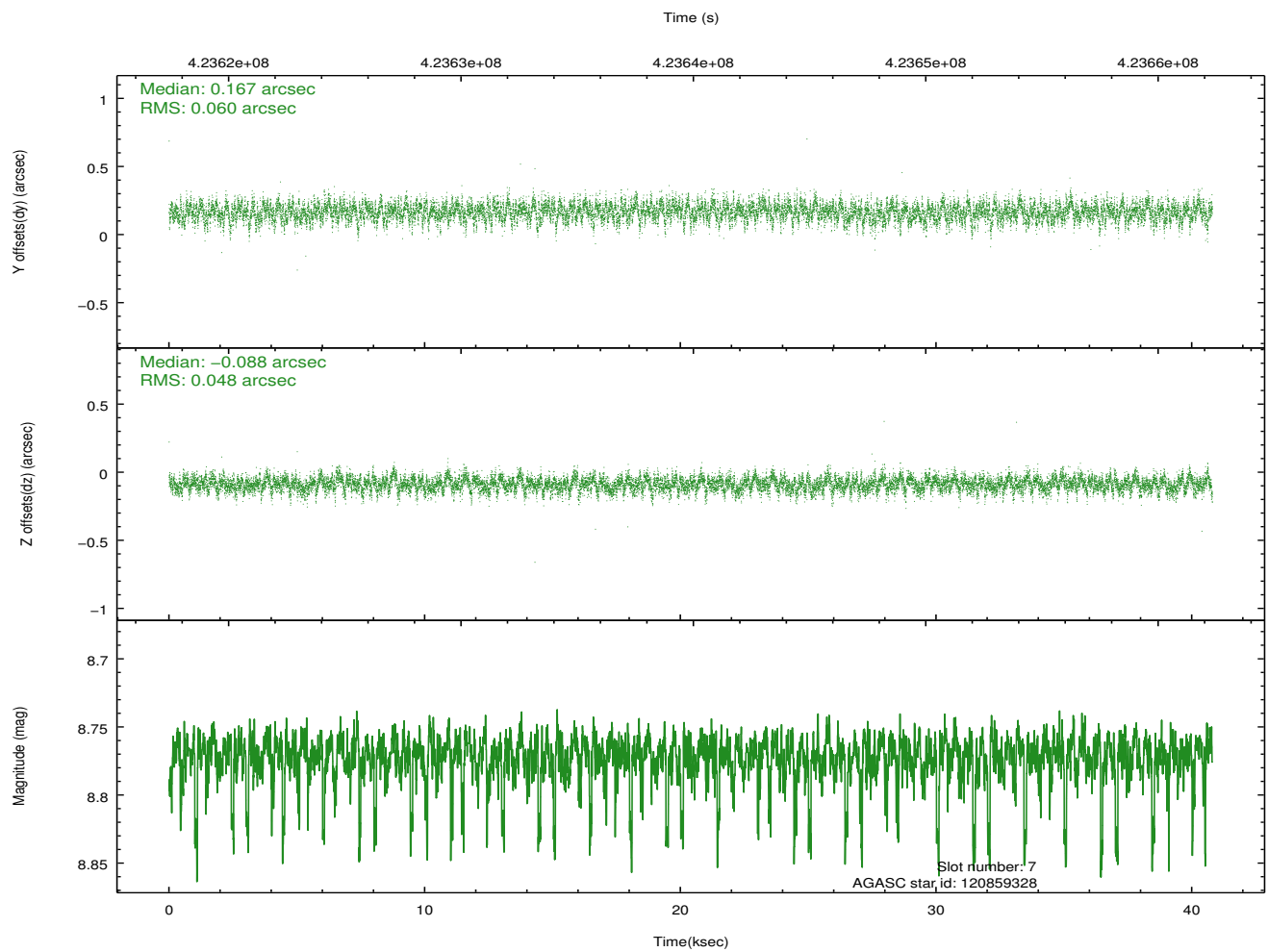
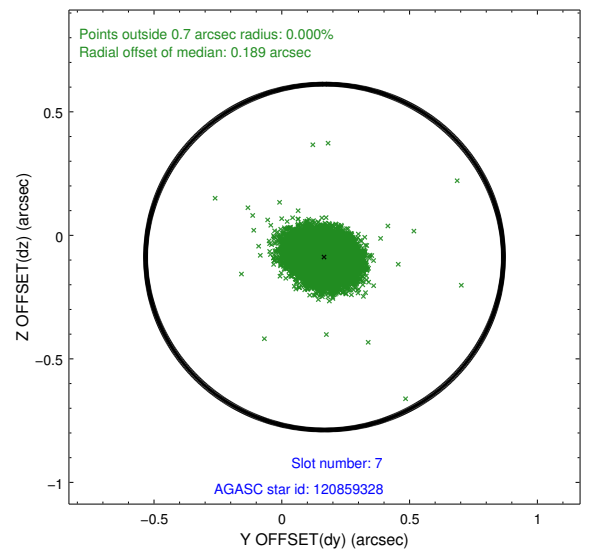
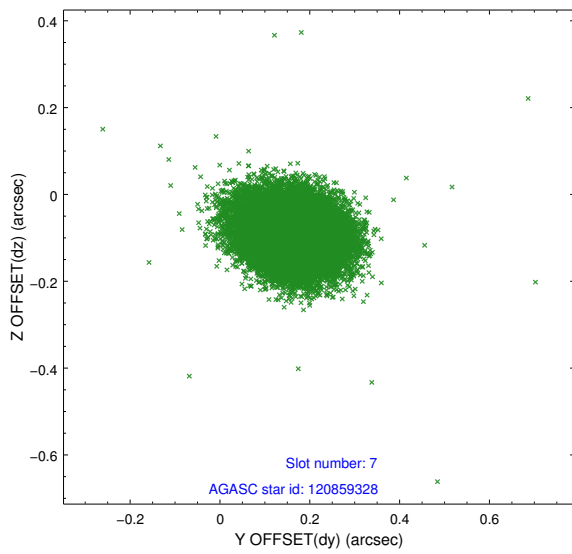
2.4.3 Slot 5



2.4.4 Slot 6

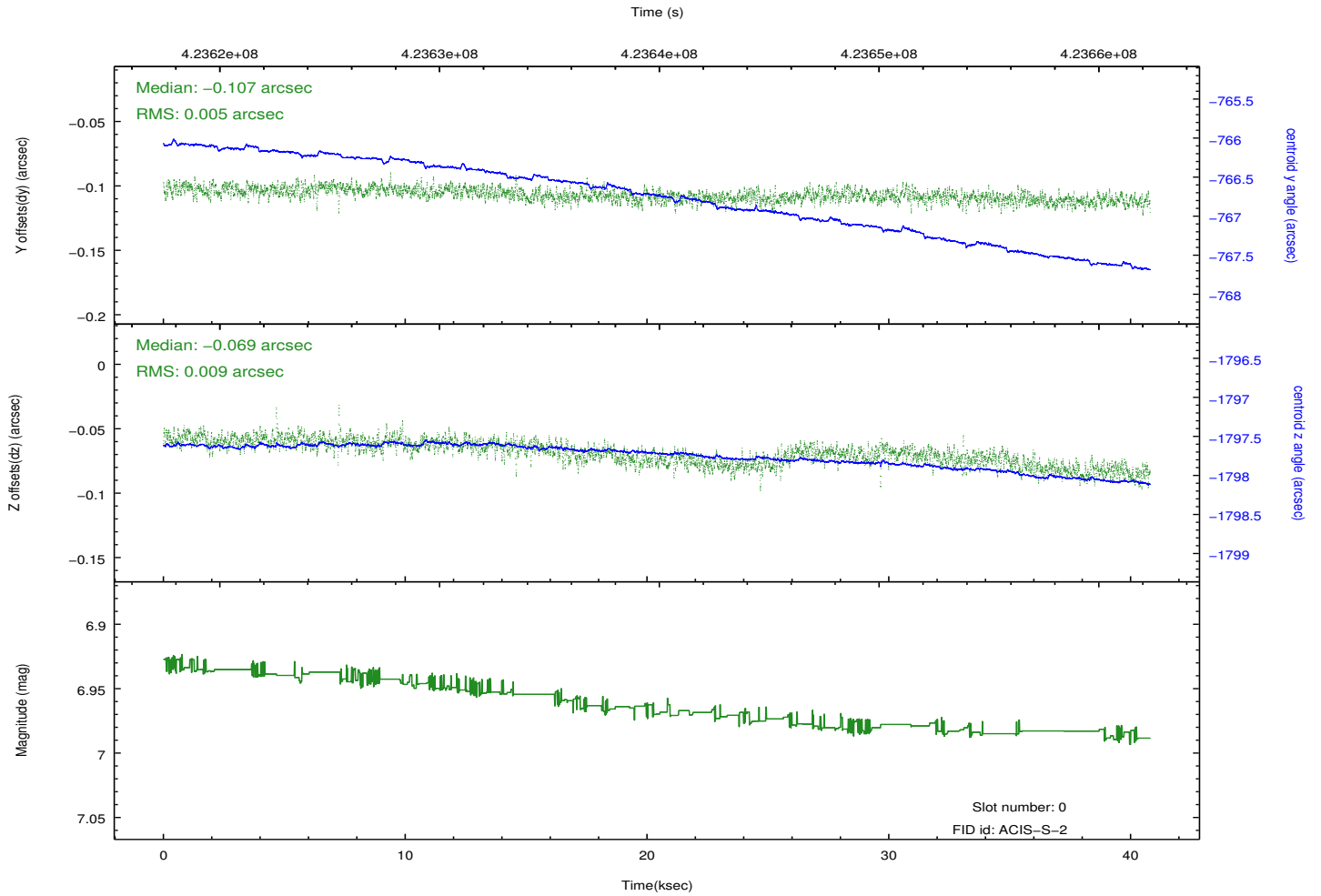
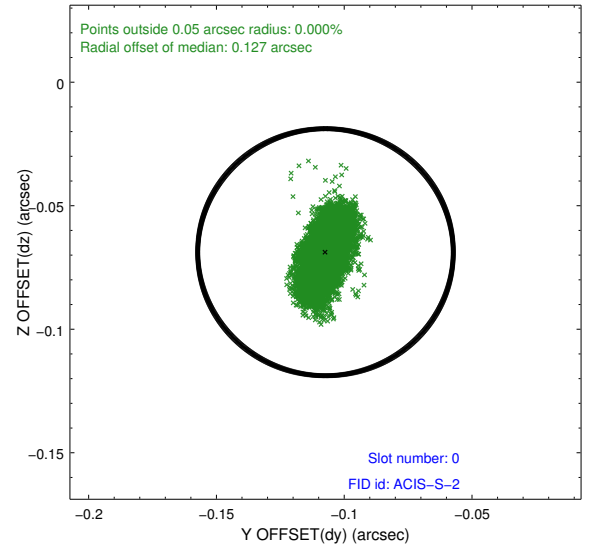
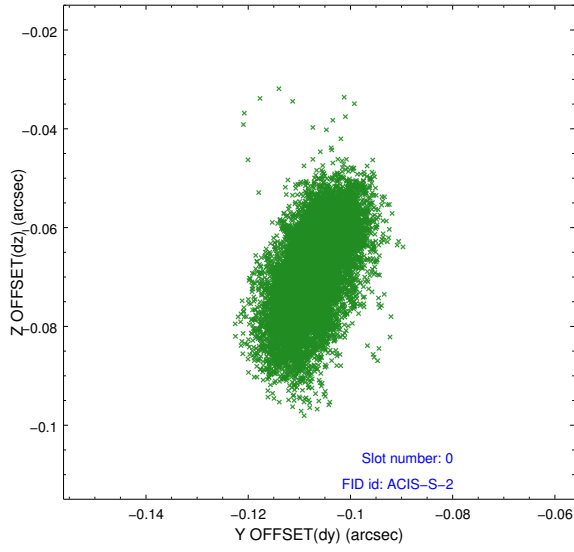


2.4.5 Slot 7

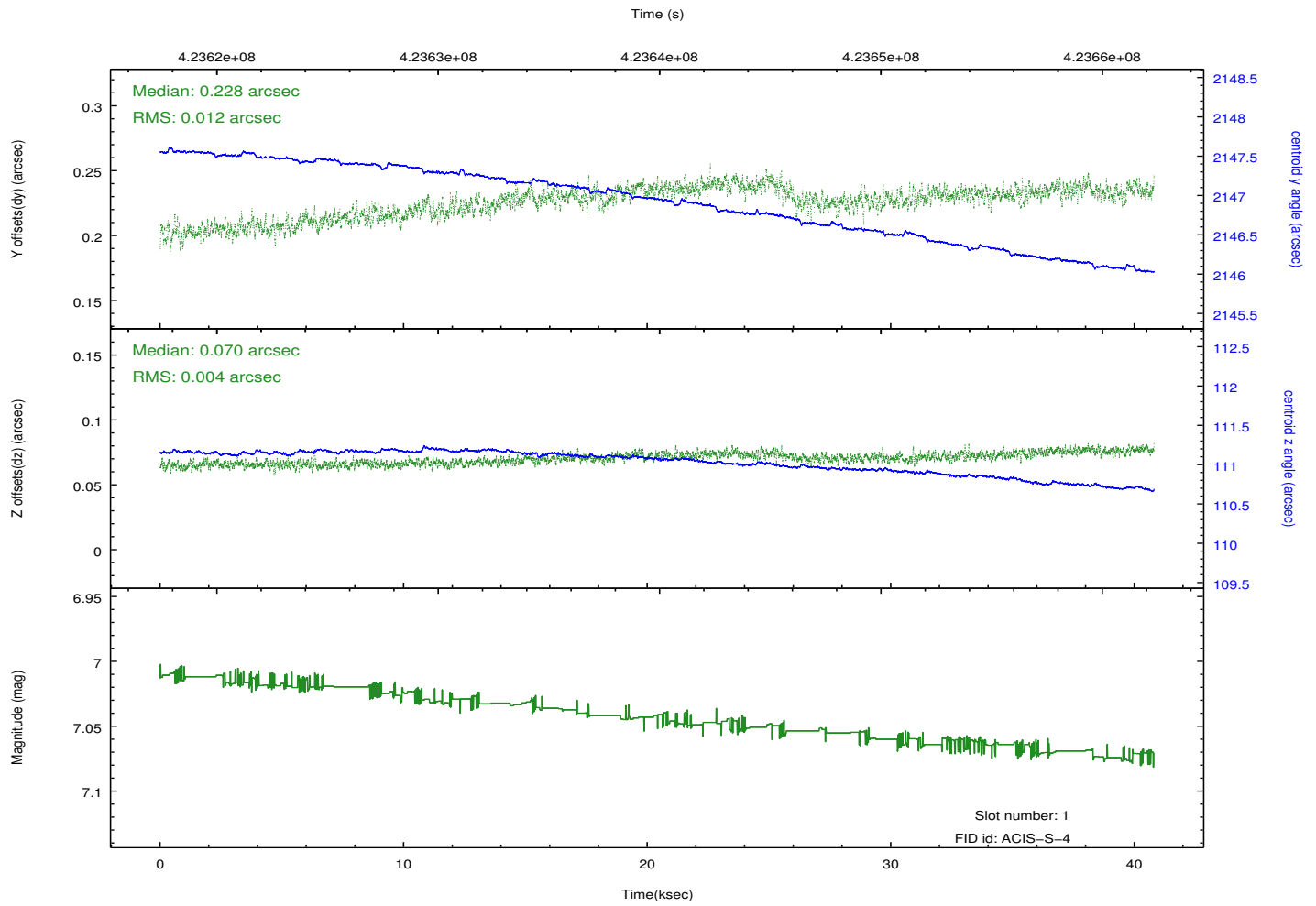
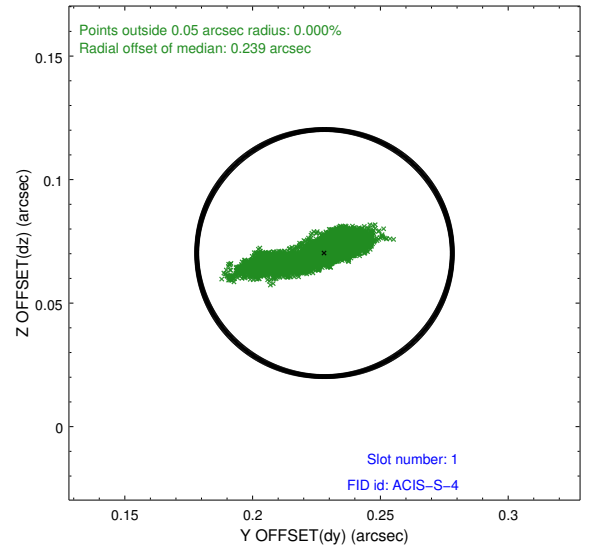
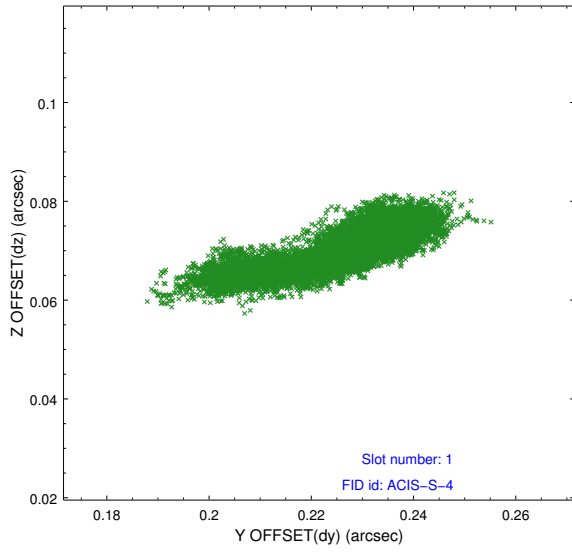


2.5 FID Slots

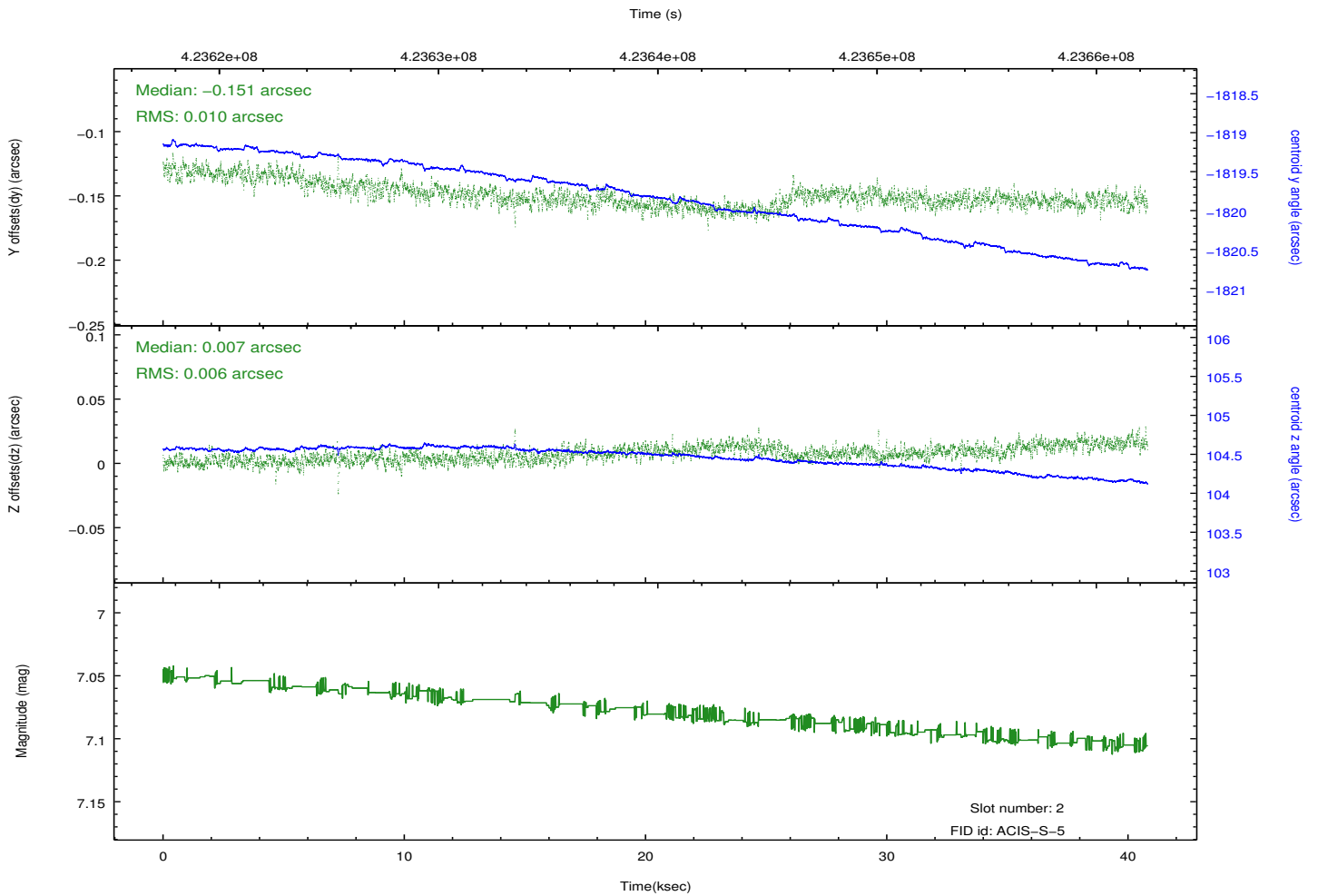
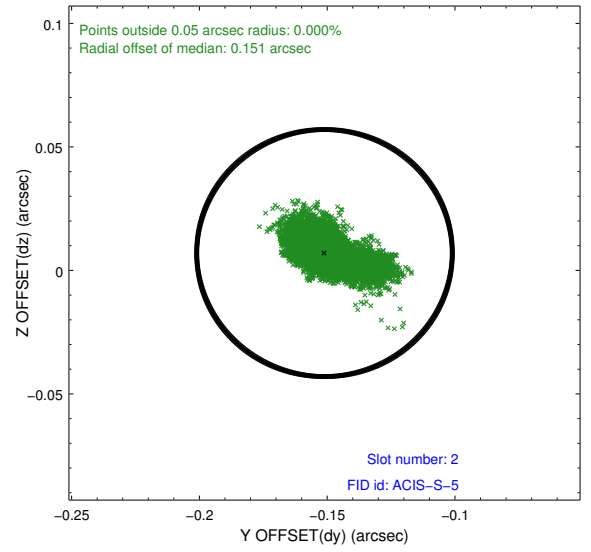
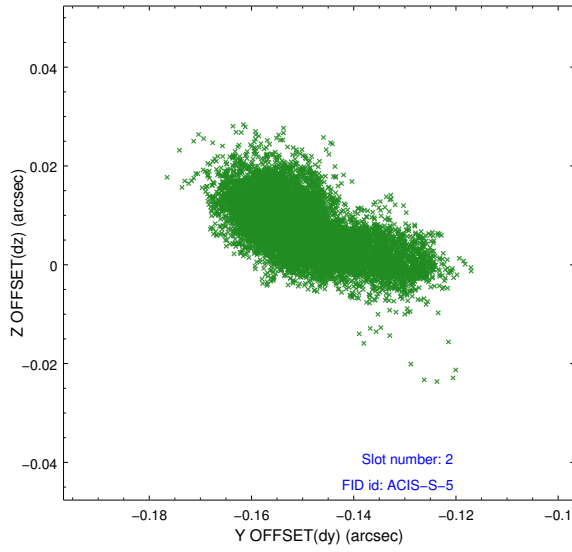
2.5.1 Slot 0



2.5.2 Slot 1

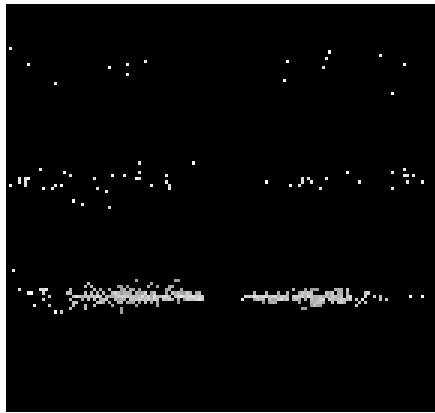


2.5.3 Slot 2

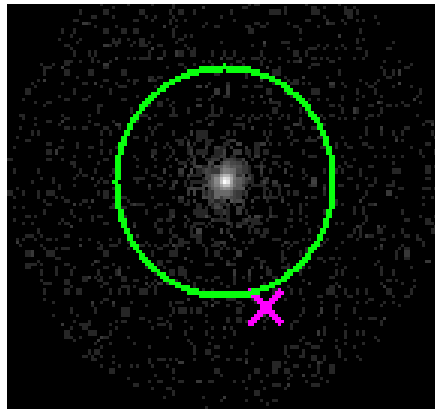


3 Gratings

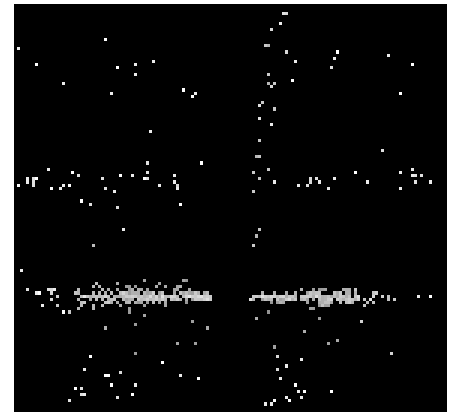
3.1 HEG Arm



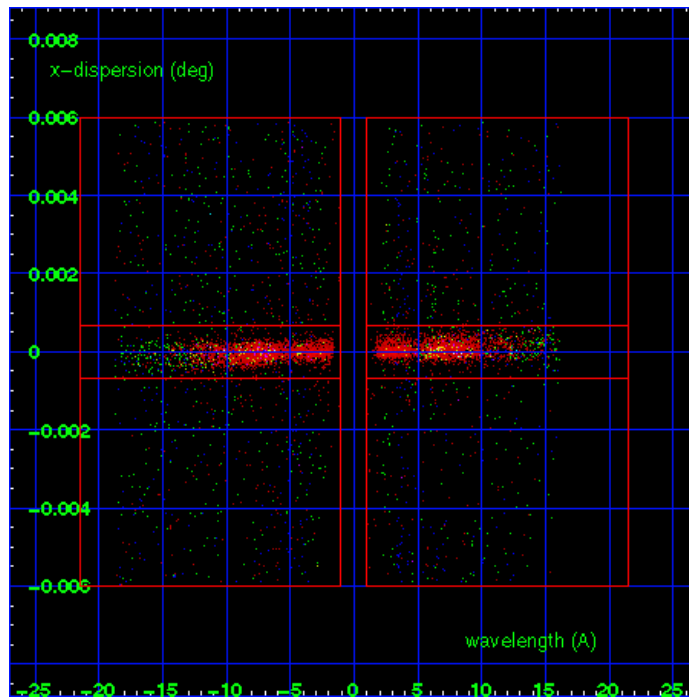
HEG Order Sort 123



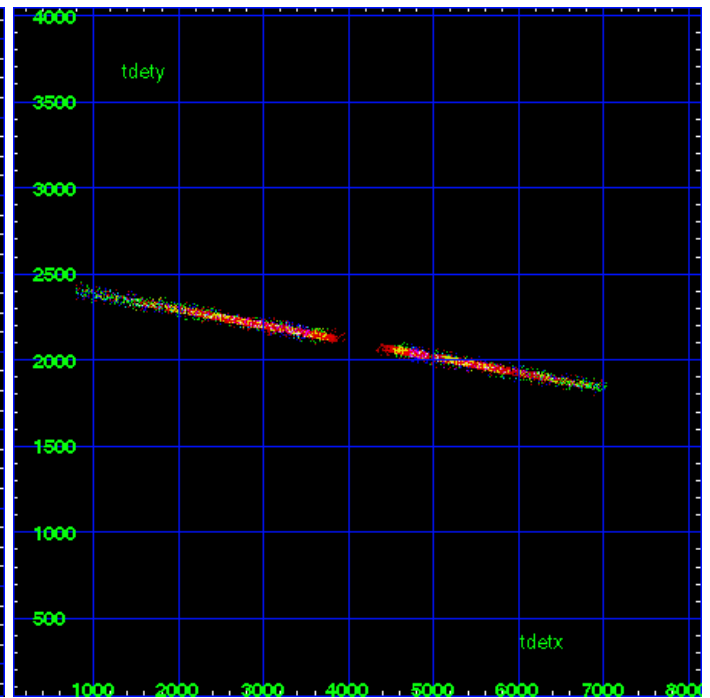
HEG Zero Order



HEG Order Sort ALL

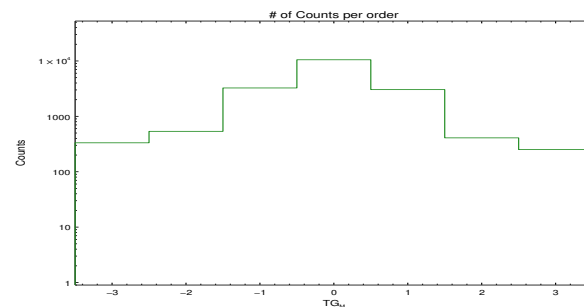


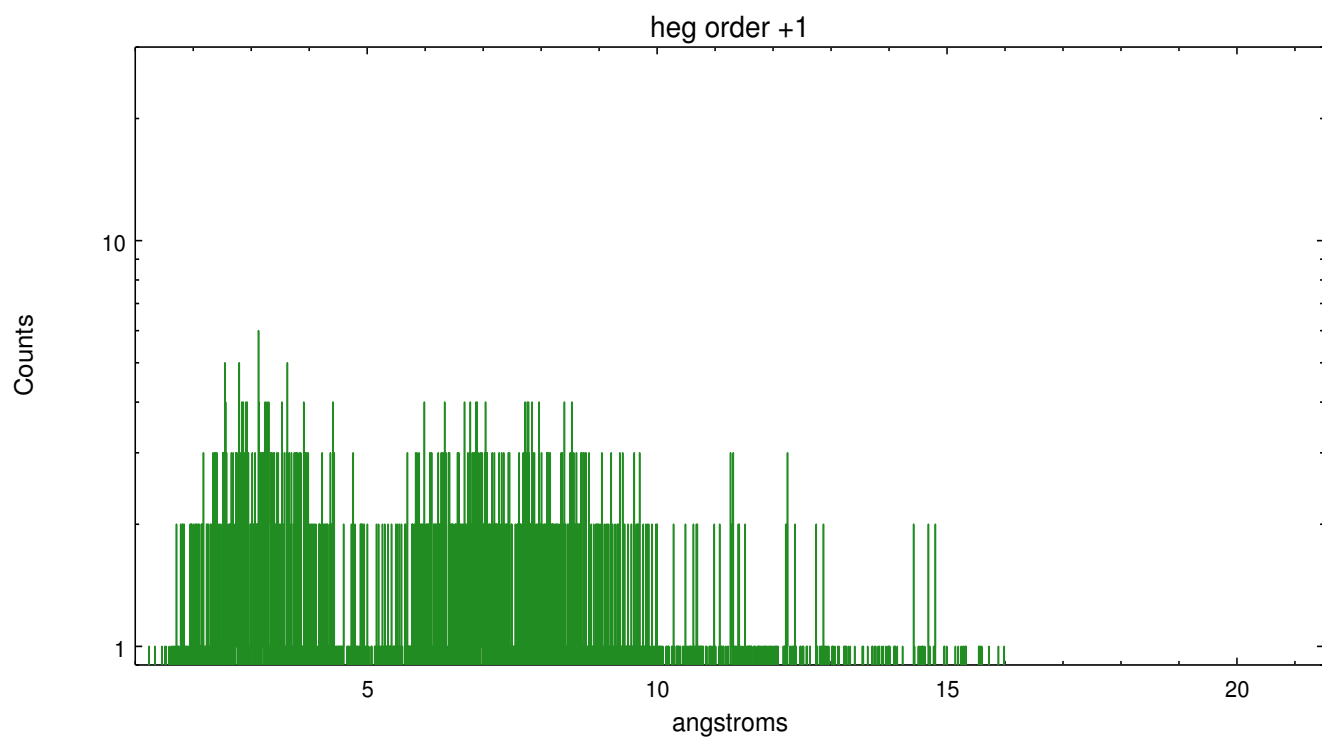
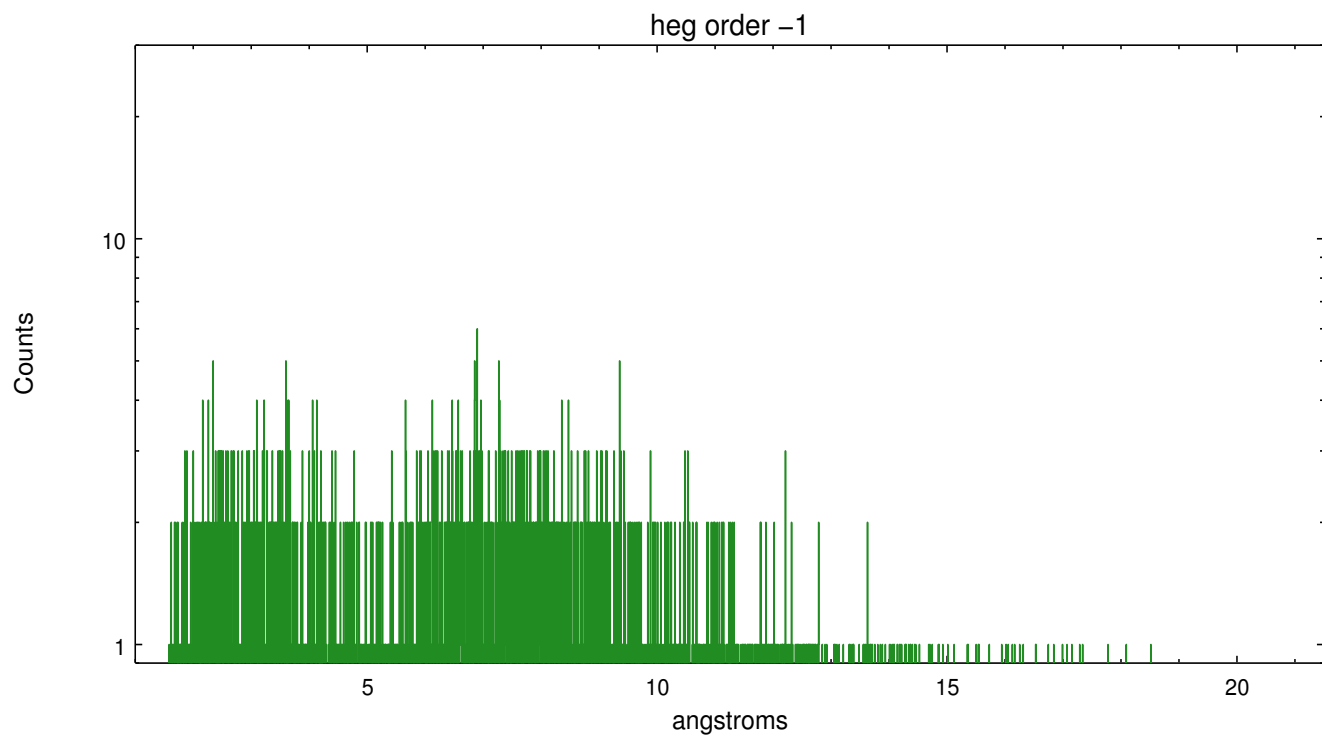
Spot Image HEG



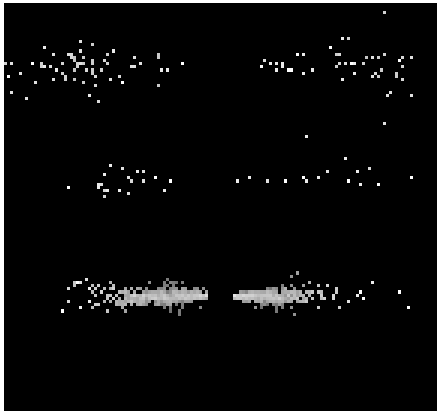
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	333	536	3256	10512	3039	409	251

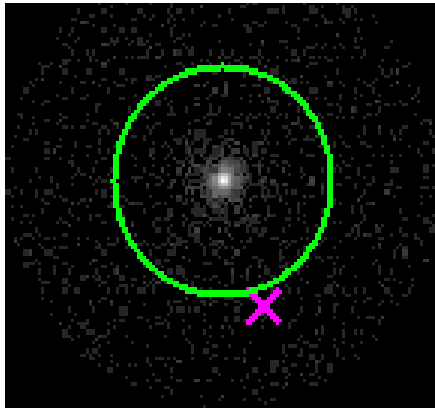




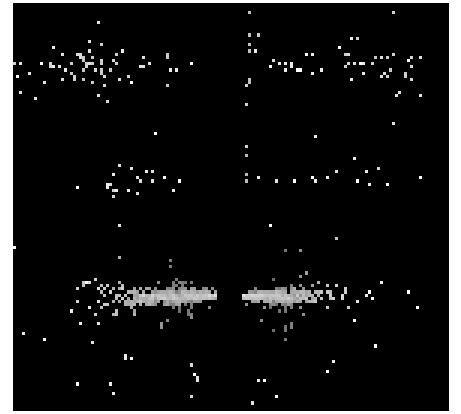
3.2 MEG Arm



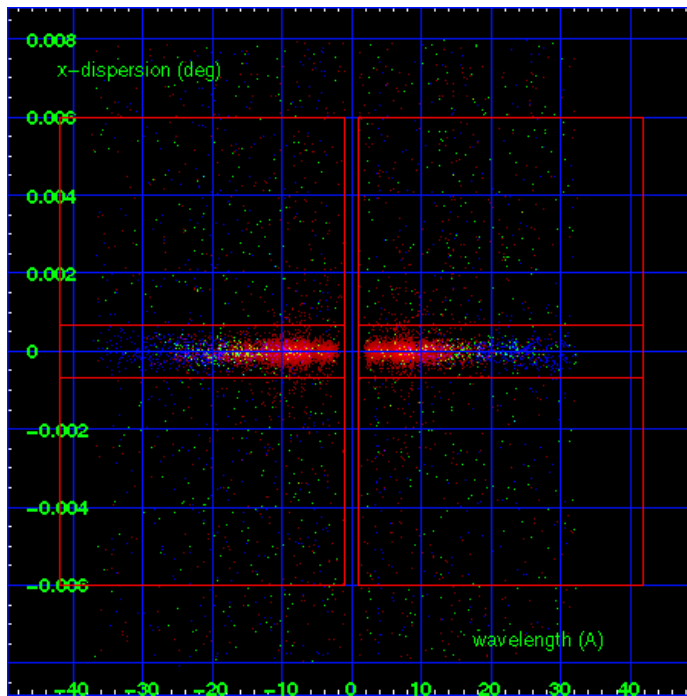
MEG Order Sort 123



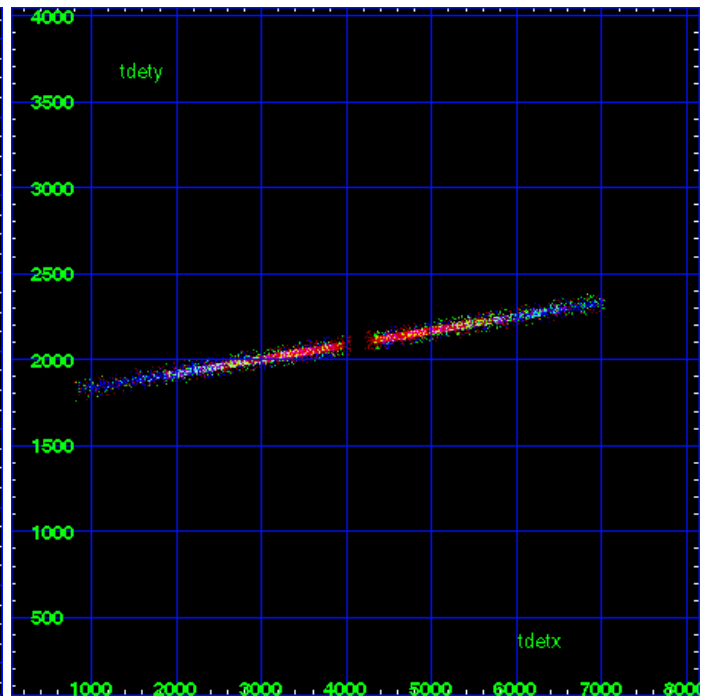
MEG Zero Order



MEG Order Sort ALL

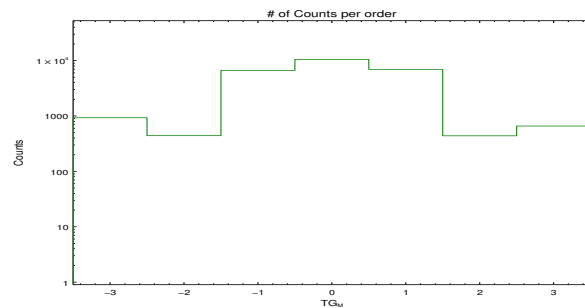


Spot Image MEG

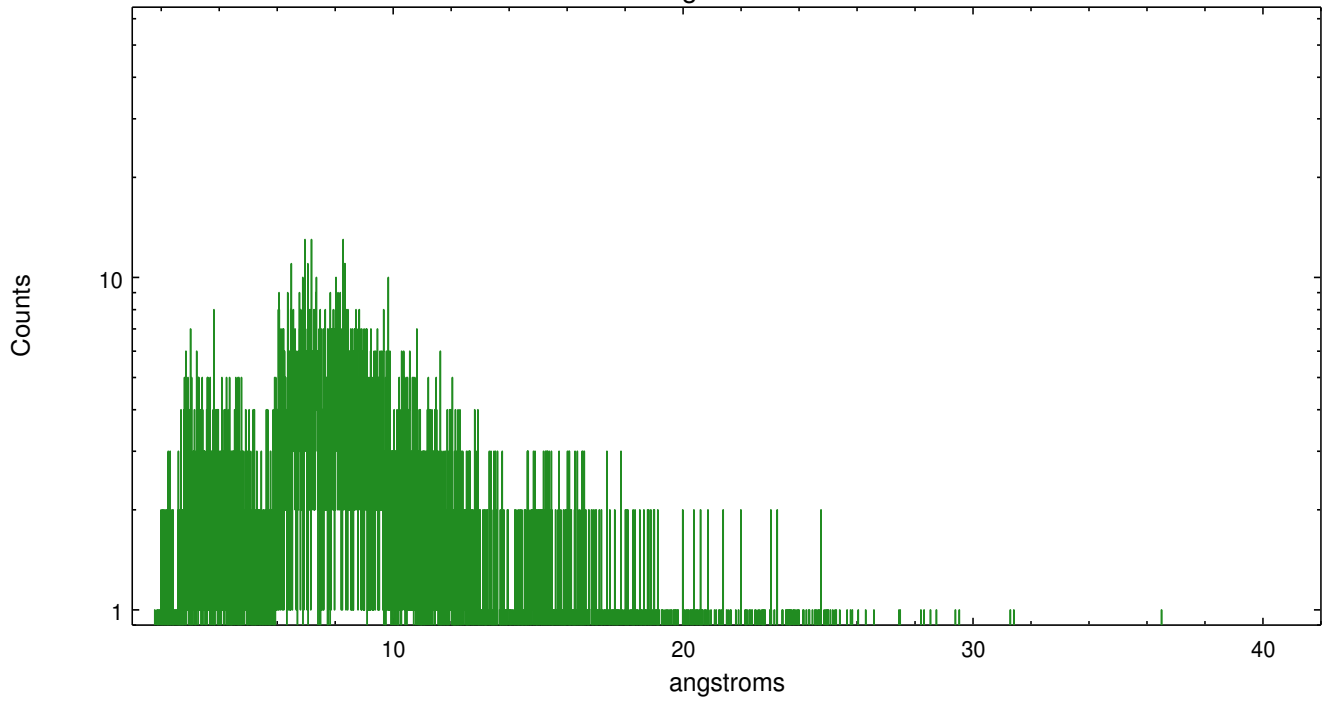


Full Detector MEG

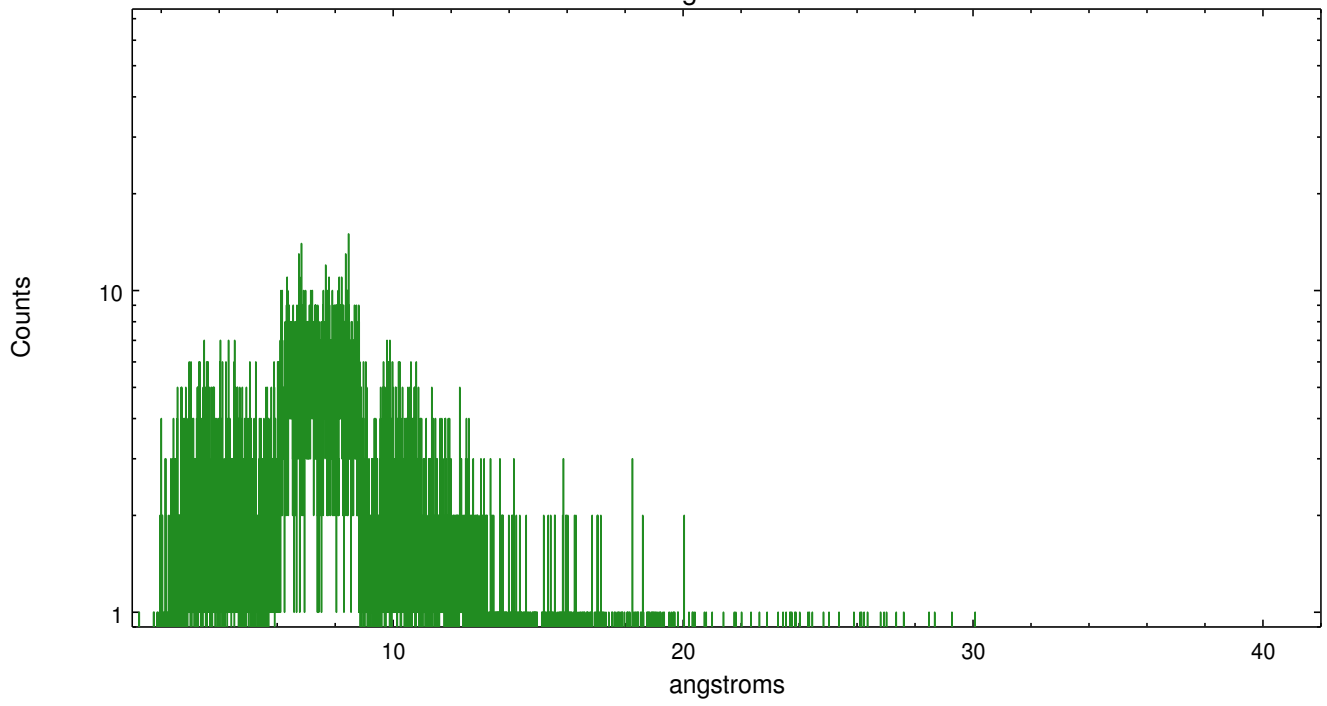
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	930	442	6652	10512	6942	439	659



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.044874330163

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.