

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 4437 - L2 Version 4
Chandra X-Ray Center

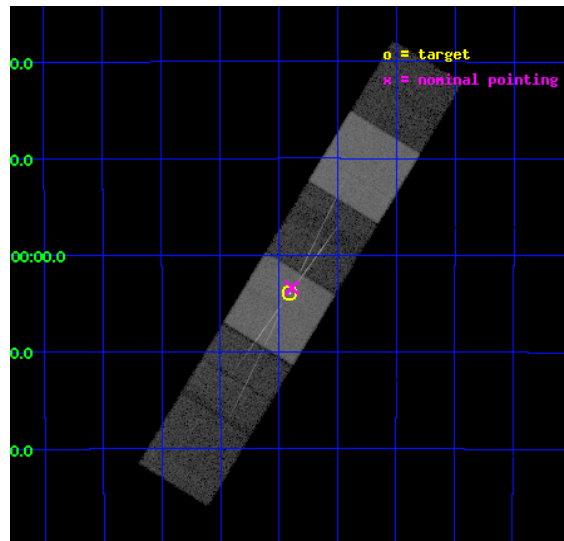
L2 Processing Date : Nov 5 2012

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1 Front

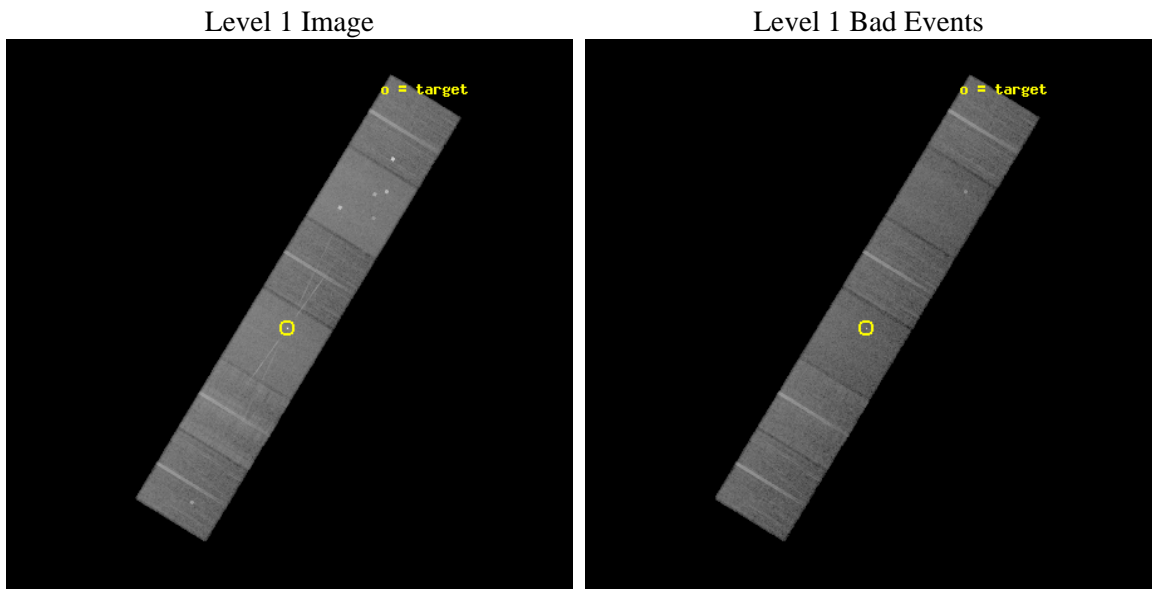
seq_num	700840	Sequence number
obs_id	4437	Observation id
title	SIMULTANEOUS XMM-NEWTON AND CXO/HETGS OBSERVATIONS OF SEYFERT 1 GALAXIES	Proposal title
observer	Dr. Ian George	Principal investigator
object	NGC 526A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	20.976667	Observer's specified target RA [deg]
dec_targ	-35.065472	Observer's specified target Dec [deg]
ra_nom	20.972405590443	Nominal RA [deg]
dec_nom	-35.056458834382	Nominal Dec [deg]
roll_nom	121.33716754596	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29443.158939958	Sum of GTIs [s]
livetime	29070.331932918	Livetime [s]
ontime4	29443.15892002	Sum of GTIs [s]
ontime5	29443.158939958	Sum of GTIs [s]
ontime6	29443.15892002	Sum of GTIs [s]
ontime7	29443.158939958	Sum of GTIs [s]
ontime8	29443.15892002	Sum of GTIs [s]
ontime9	29443.15892002	Sum of GTIs [s]
l2events	282238	Number of level 2 events



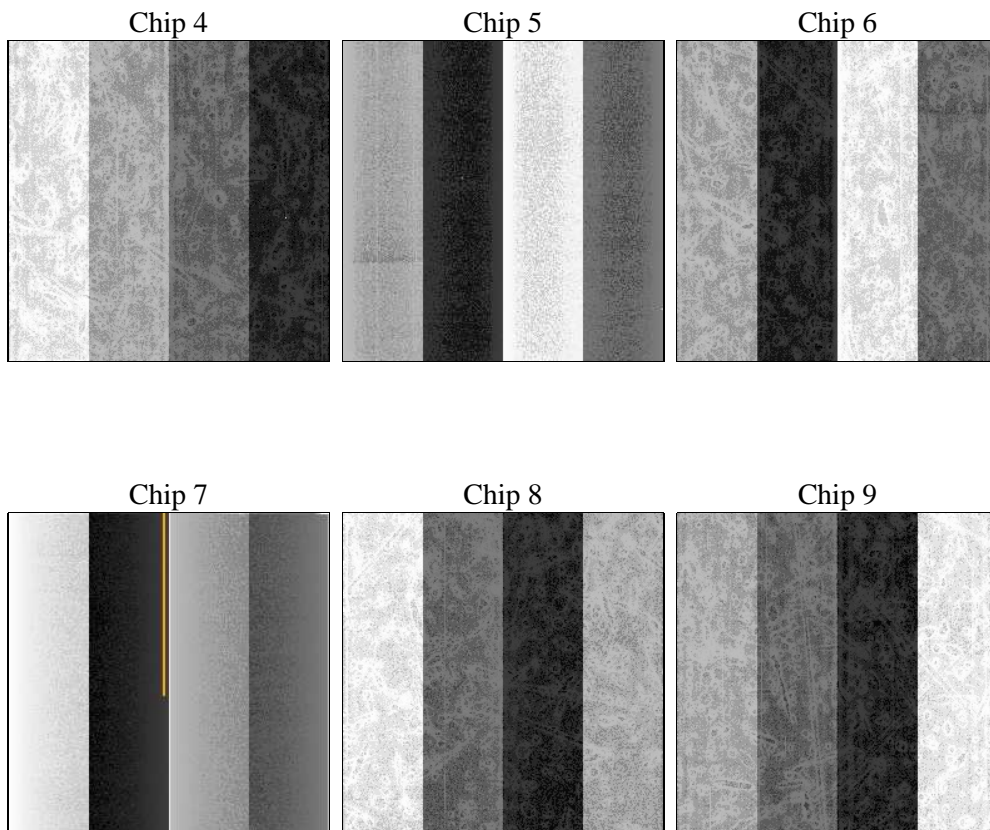
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29317.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29443.158939958	Sum of GTIs [s]
caldbver	4.5.2	 	ontime4	29443.15892002	Sum of GTIs [s]
date	2012-10-29T19:26:53	Date and time of file creation	ontime5	29443.158939958	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	29443.15892002	Sum of GTIs [s]
			ontime7	29443.158939958	Sum of GTIs [s]
			ontime8	29443.15892002	Sum of GTIs [s]
			ontime9	29443.15892002	Sum of GTIs [s]
			l1events	1269843	Number of level 1 events

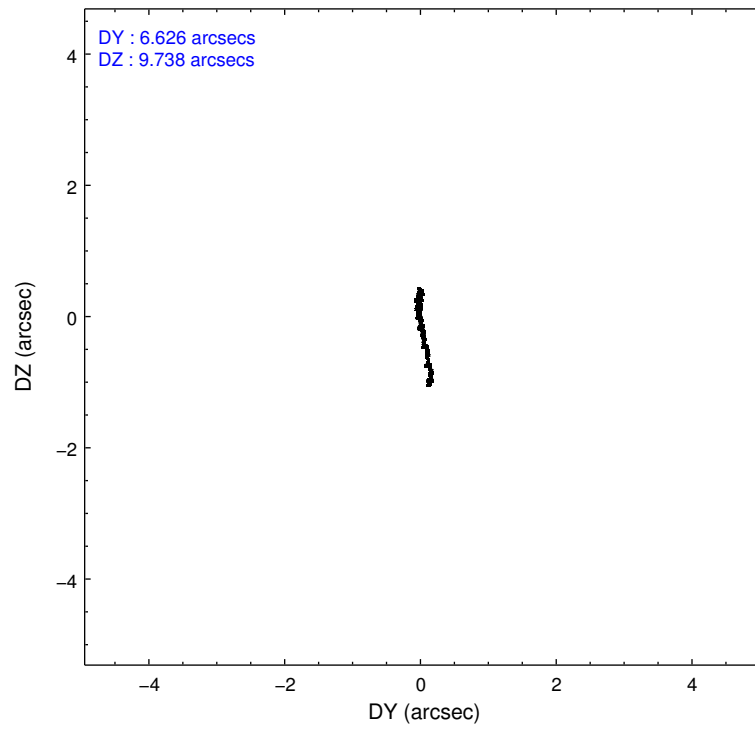
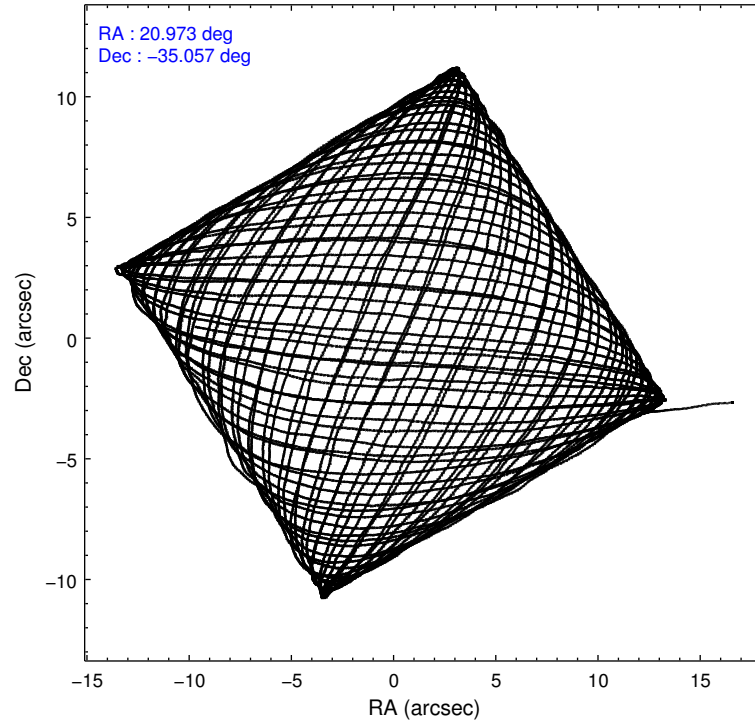
2.1.4 Events

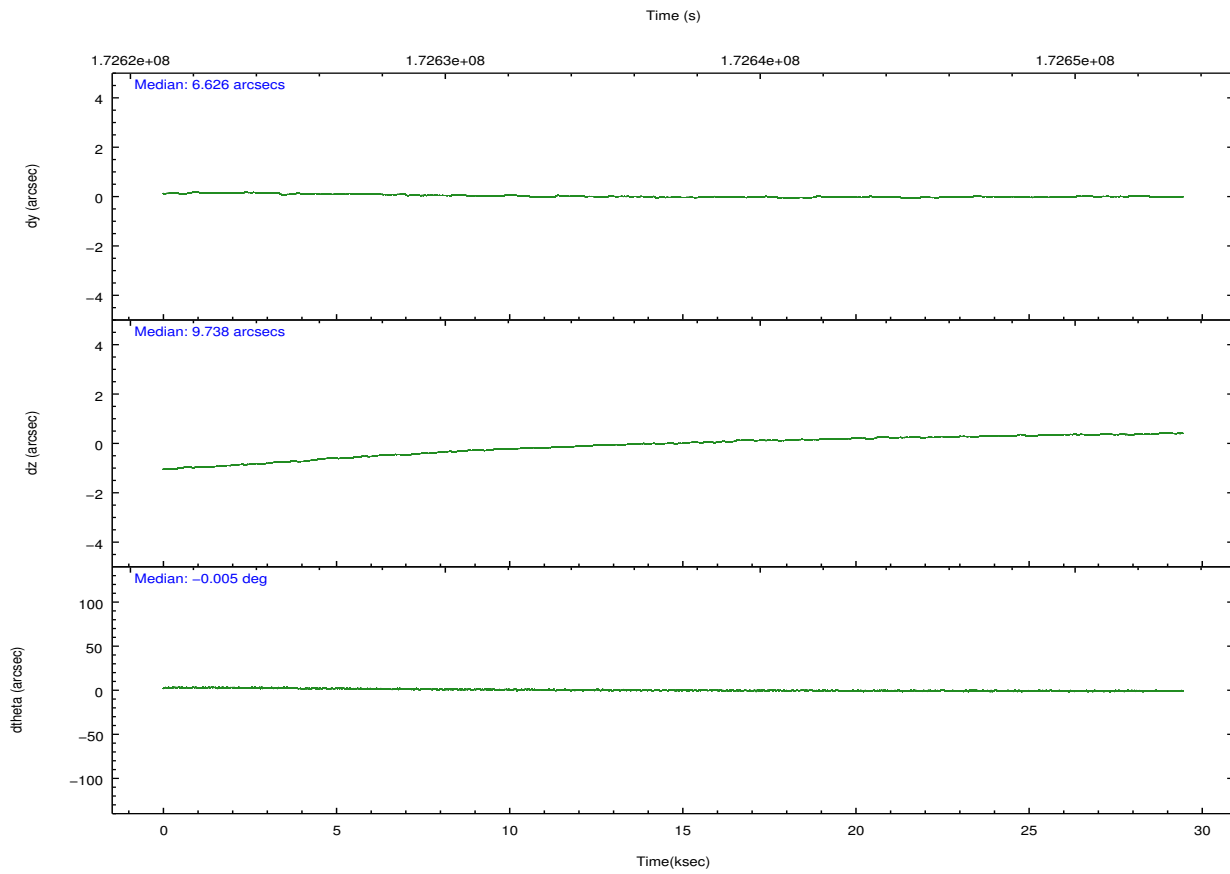
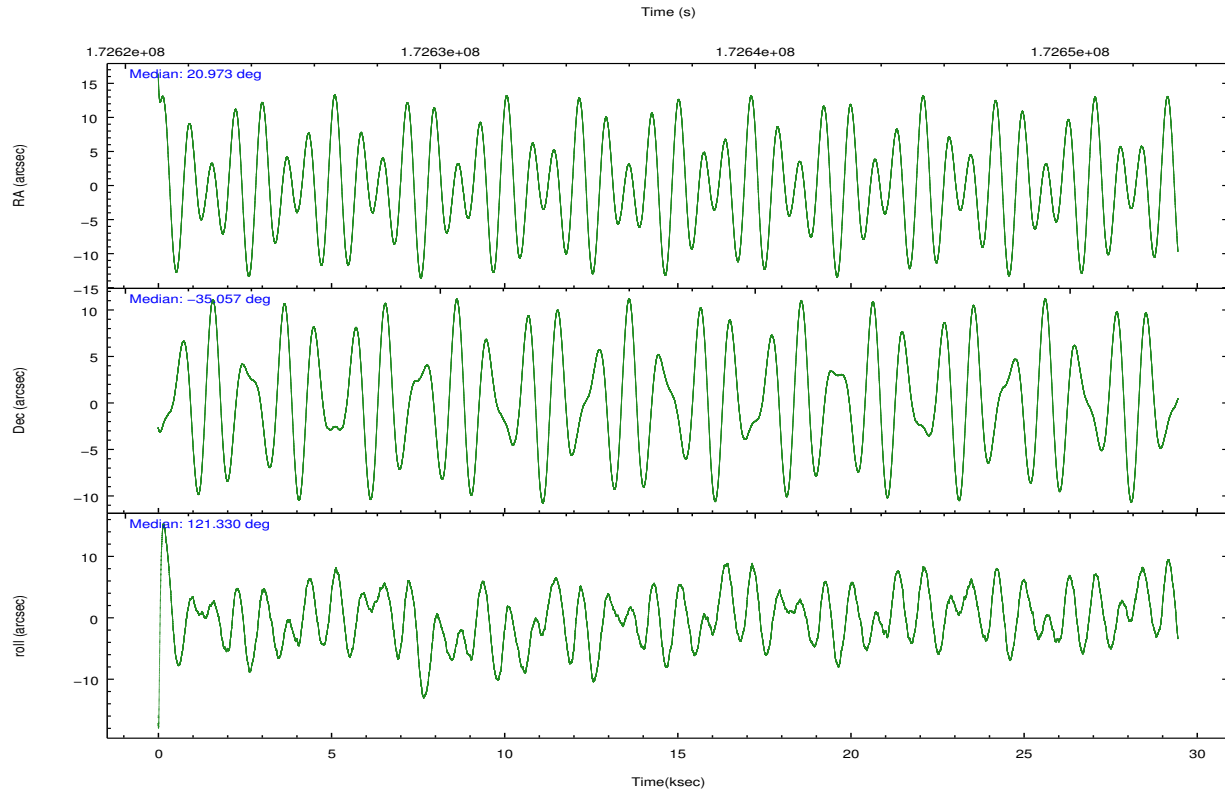
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	198715	254755	174931	236916	233509	171017	grade 0 events	17880	16334	10737	9895	18374	9684
rejected events	168276	137227	150820	135208	175234	148870		8%	6%	6%	4%	7%	5%
rejected %	84%	53%	86%	57%	75%	87%	grade 1 events	192	993	87	333	184	108
								0%	0%	0%	0%	0%	0%
							grade 2 events	4852	33008	4800	20400	11499	4229
								2%	12%	2%	8%	4%	2%
							grade 3 events	2172	4651	2152	9367	7168	2102
								1%	1%	1%	3%	3%	1%
							grade 4 events	2121	4358	2140	9135	6542	2112
								1%	1%	1%	3%	2%	1%
							grade 5 events	7401	18438	7949	22170	10087	7952
								3%	7%	4%	9%	4%	4%
							grade 6 events	3459	59403	4334	53086	14771	4066
								1%	23%	2%	22%	6%	2%
							grade 7 events	160638	117570	142732	112530	164884	140764
								80%	46%	81%	47%	70%	82%

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	21.001797	20.97240559044263	Subarray requested	NONE	NONE
[deg] Pointing Dec	-35.069194	-35.05645883438185	Alternating exposures requested	N	N
[deg] Pointing Roll	121.197437	121.3371675459625	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	172622637.184000	172621436.71857			
Observation start date	2003-06-21T22:42:53	2003-06-21T22:23:56			
[s] Observation end time (MET)	172651954.184000	172652531.63239			
Observation end date	2003-06-22T06:51:30	2003-06-22T07:02:11			
Read mode	TIMED	TIMED			

2.3 Aspect



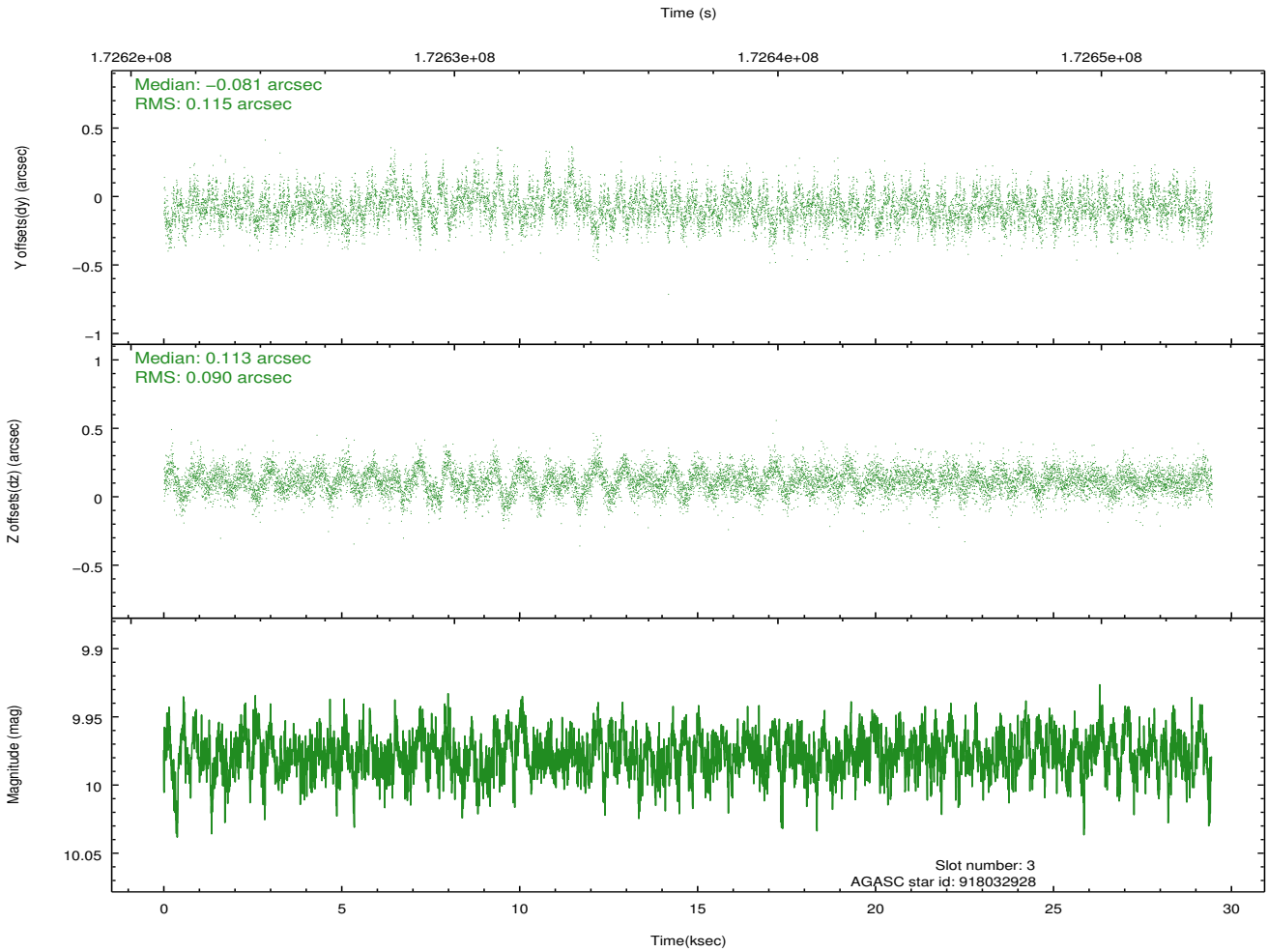
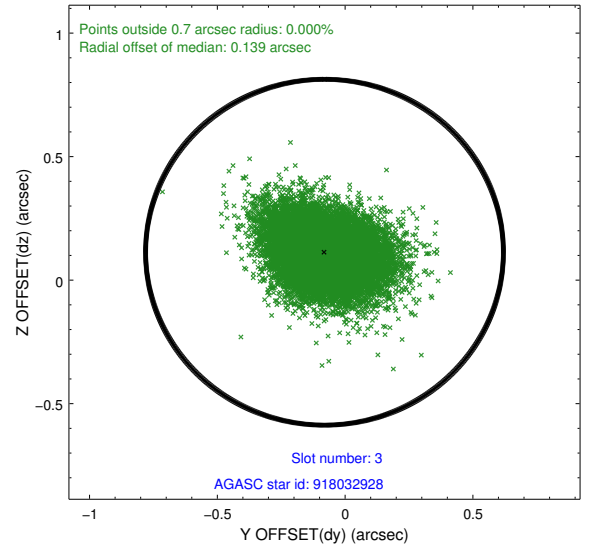
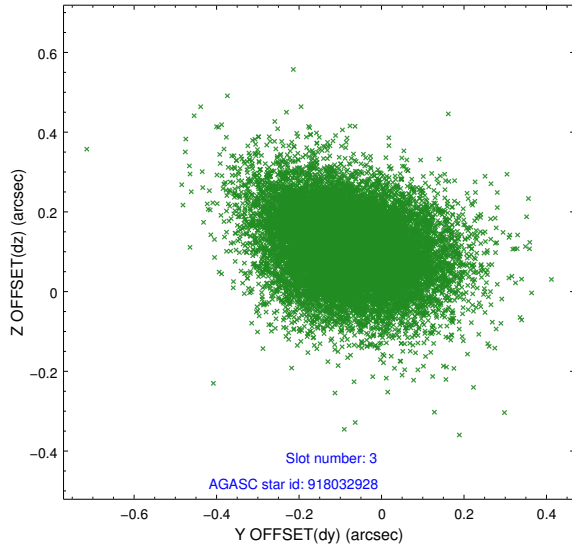


Slot Statistics

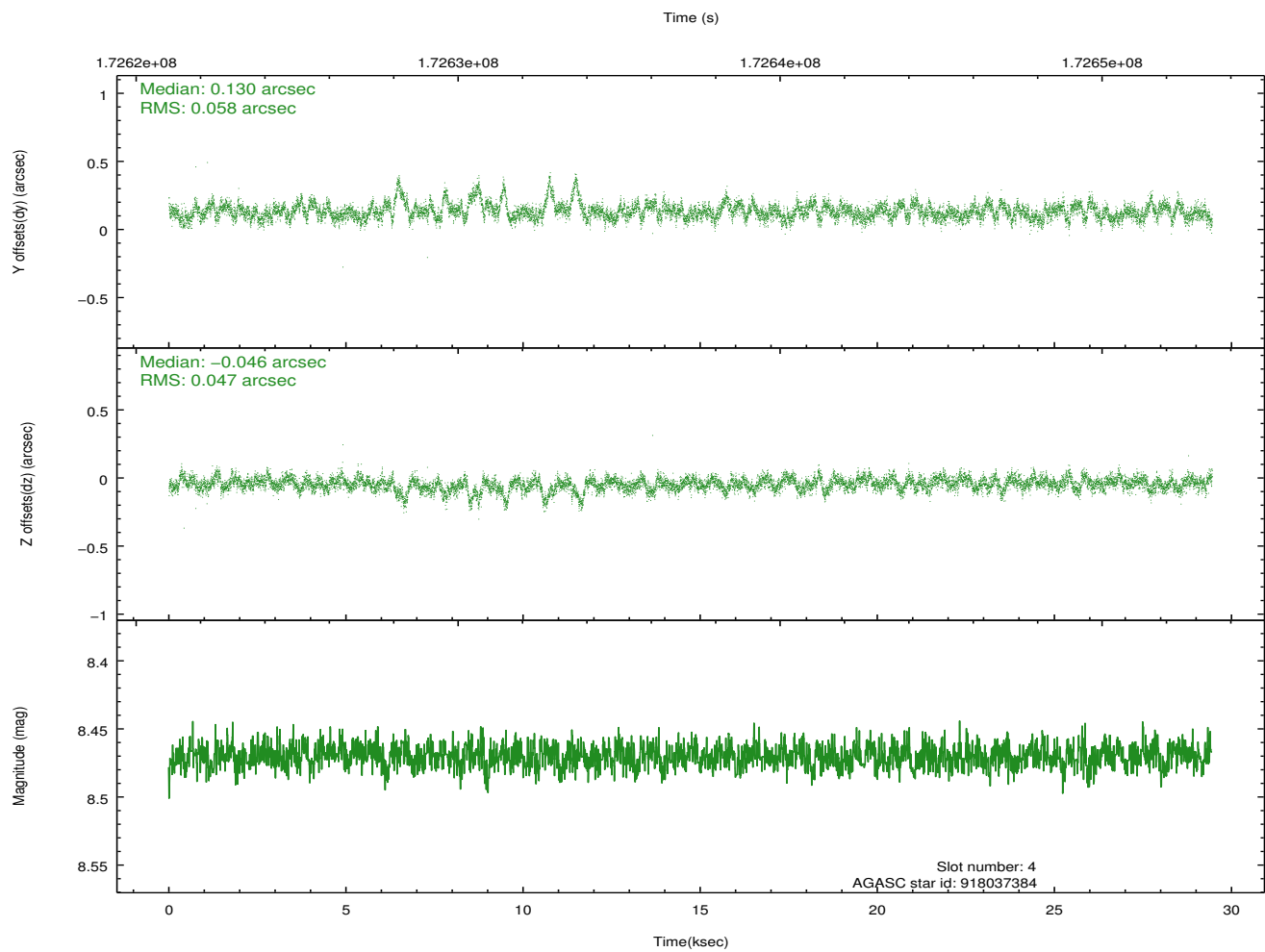
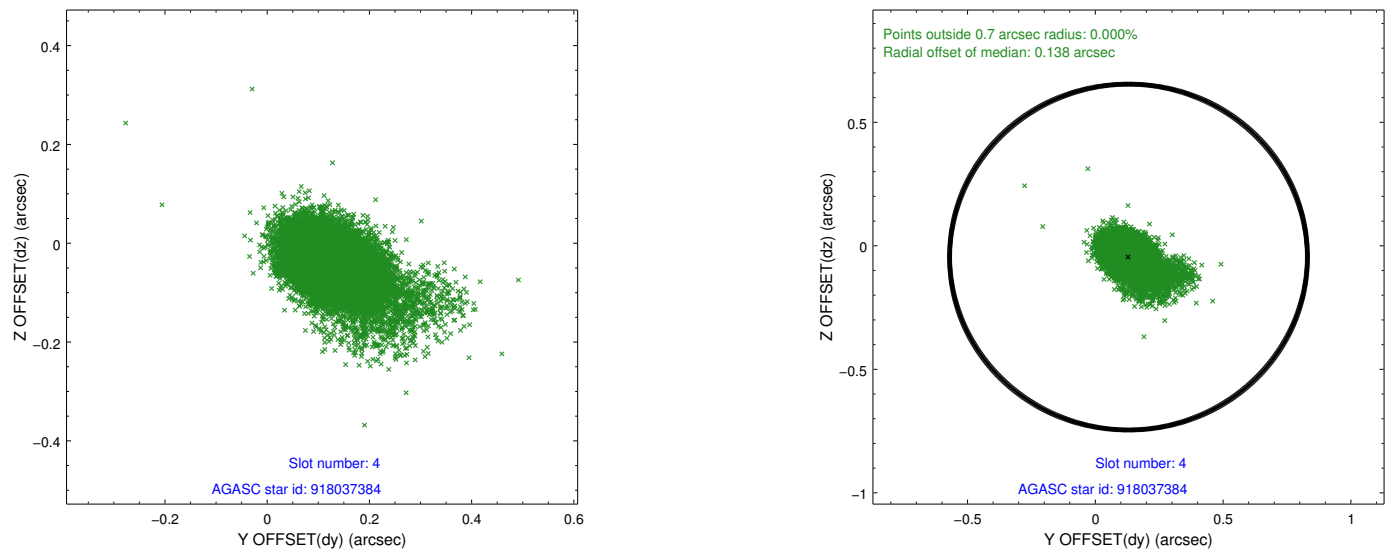
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7181	-0.050	-0.023	0.013	0.026	0.000000	0.000000	-759.42	-1730.85
1	FID	ACIS-S-4	7.20	7182	0.059	0.030	0.007	0.014	0.000000	0.000000	2153.91	177.64
2	FID	ACIS-S-5	7.23	7182	-0.041	0.001	0.012	0.024	0.000000	0.000000	-1812.18	171.33
3	GUIDE	918032928	9.98	14348	-0.081	0.113	0.152	0.257	21.260186	-34.205232	2261.47	-2267.83
4	GUIDE	918037384	8.47	14366	0.130	-0.046	0.071	0.138	20.982960	-35.723099	-1984.81	1266.35
5	GUIDE	918041544	10.03	14348	-0.065	0.058	0.154	0.243	20.868409	-34.646803	1505.11	-449.16
6	GUIDE	918041624	7.96	14365	-0.171	-0.096	0.066	0.117	20.656436	-34.992038	763.65	728.86
7	GUIDE	918043888	10.16	14351	0.195	-0.043	0.143	0.480	21.077642	-35.703353	-2067.41	992.73

2.4 Star Slots

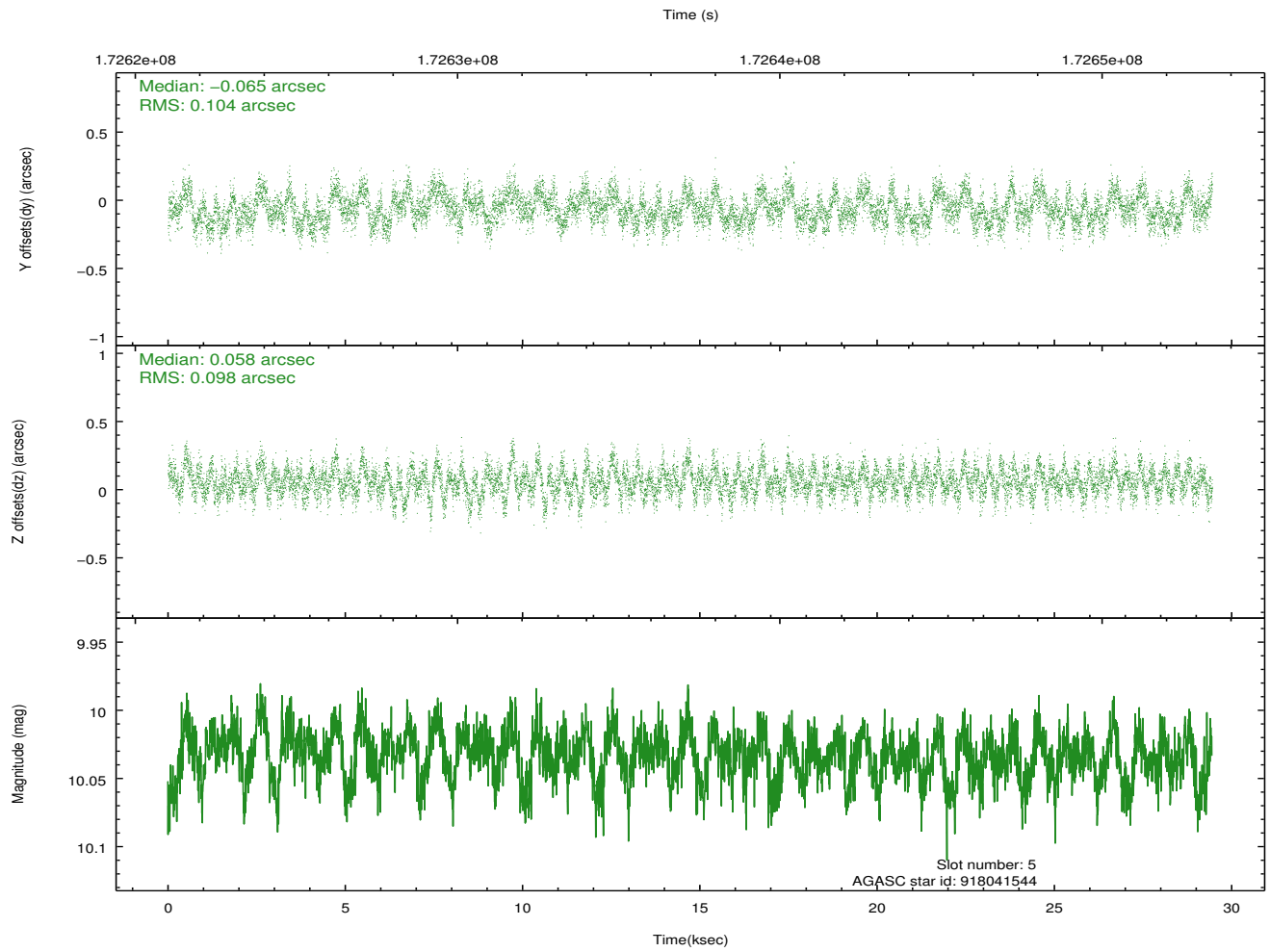
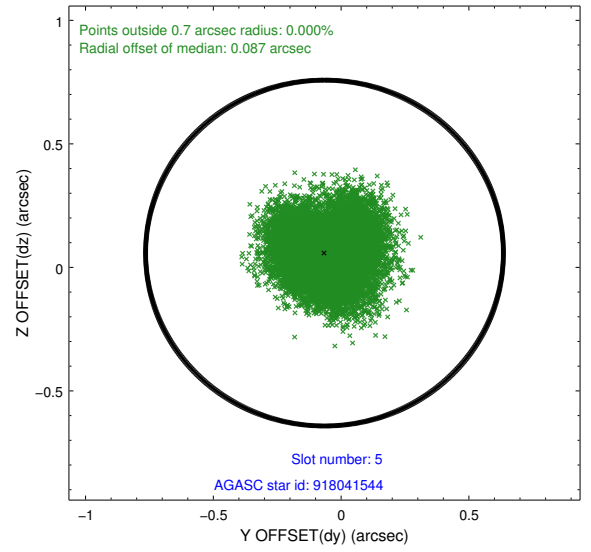
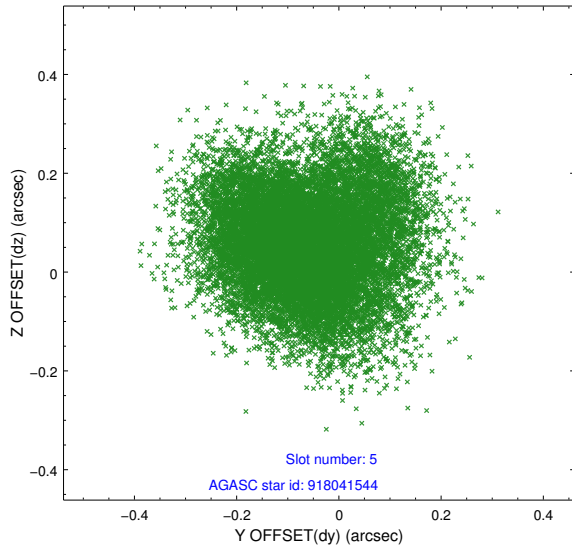
2.4.1 Slot 3



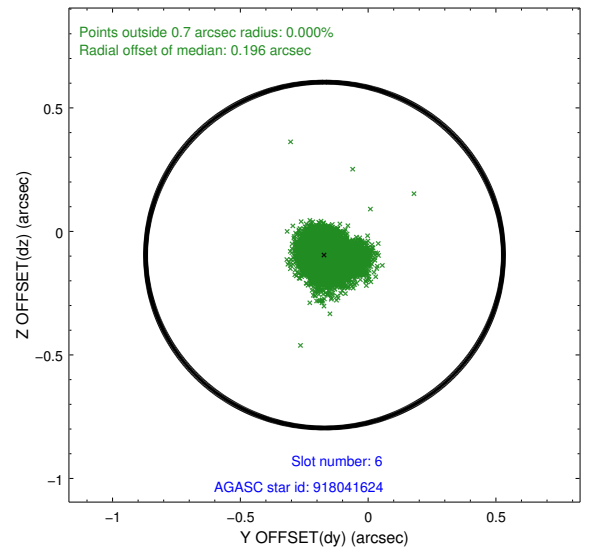
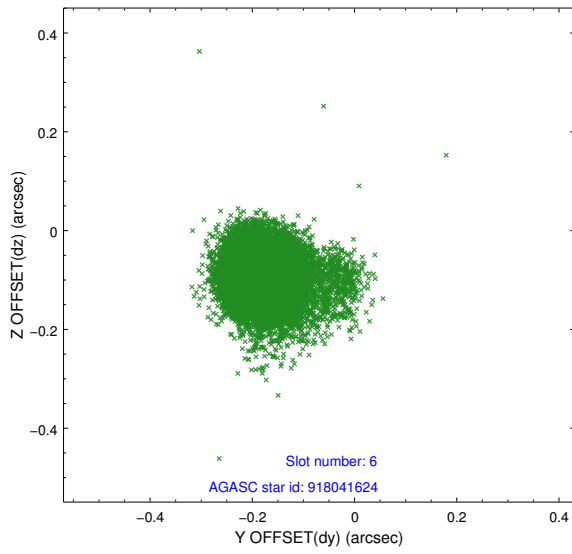
2.4.2 Slot 4



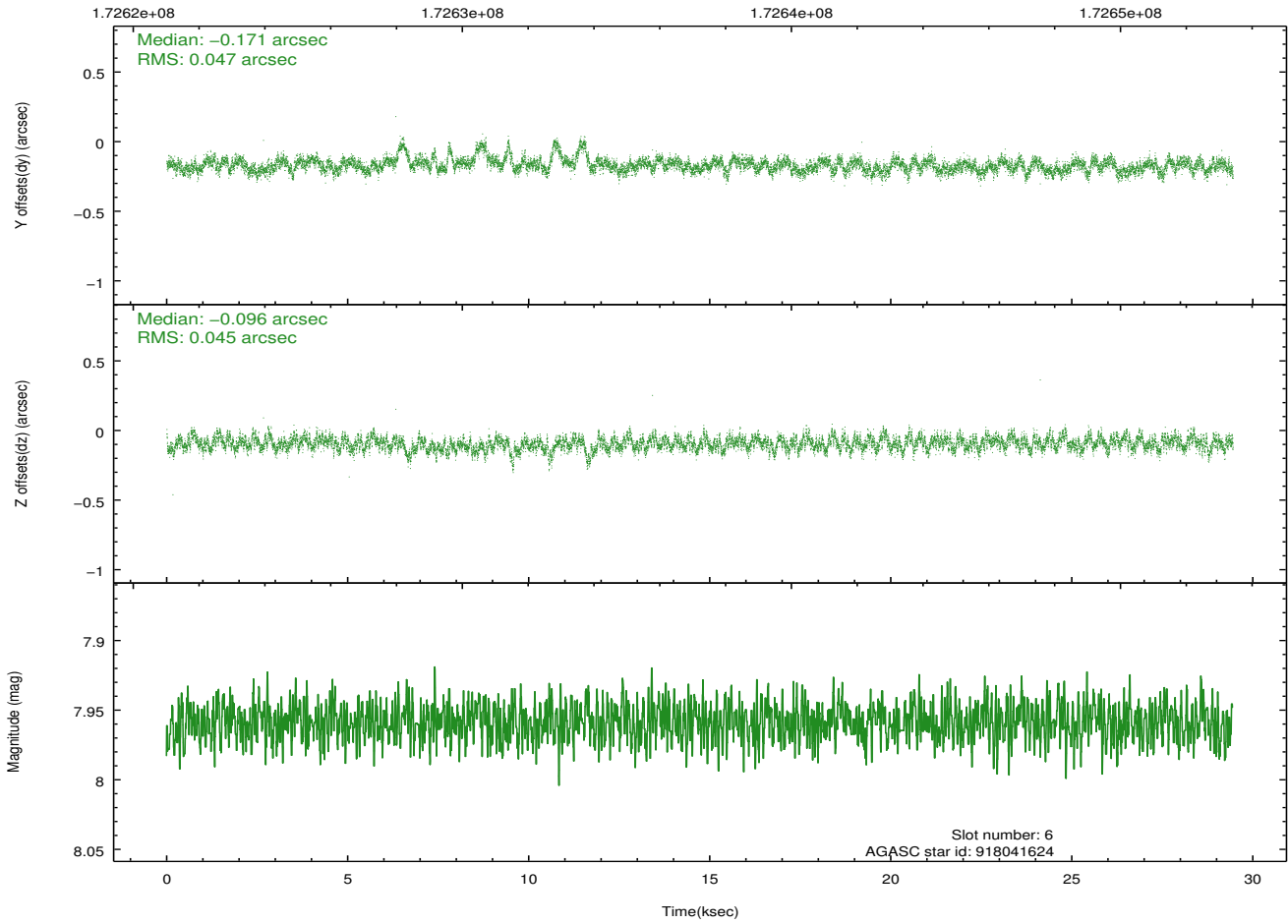
2.4.3 Slot 5



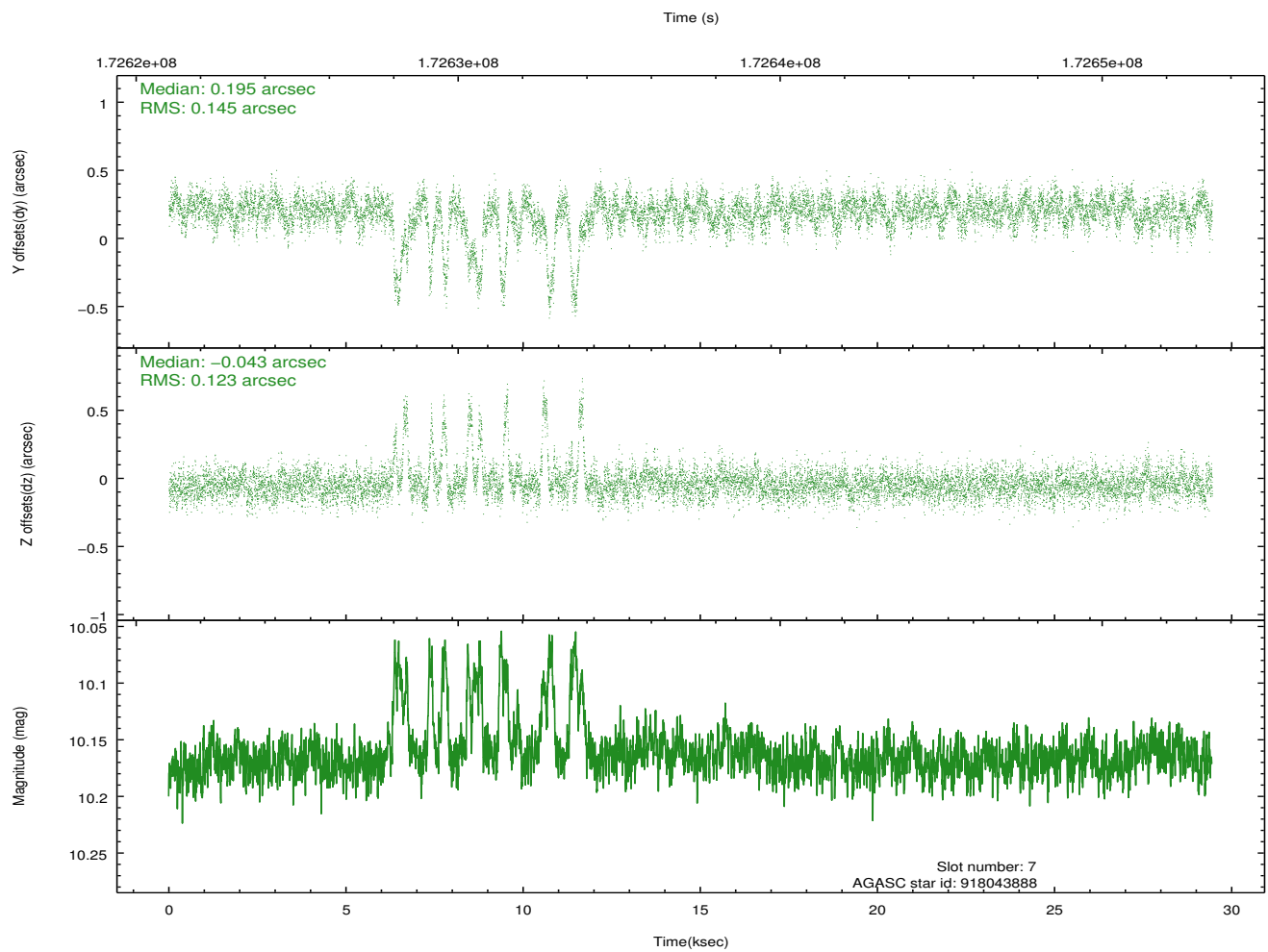
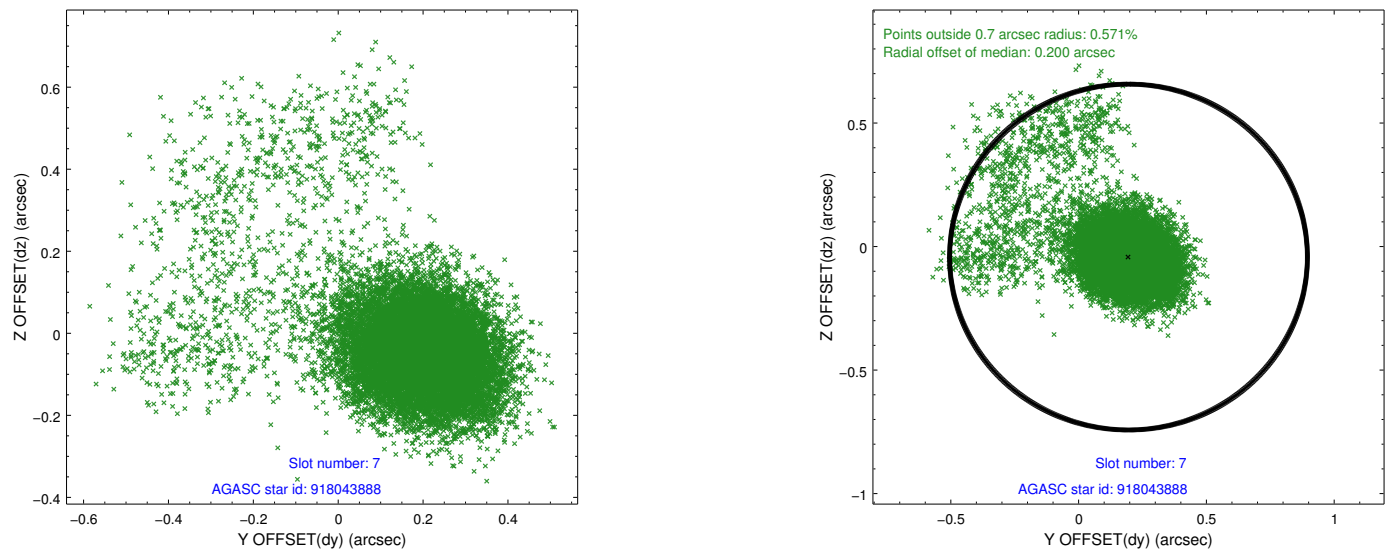
2.4.4 Slot 6



Time (s)

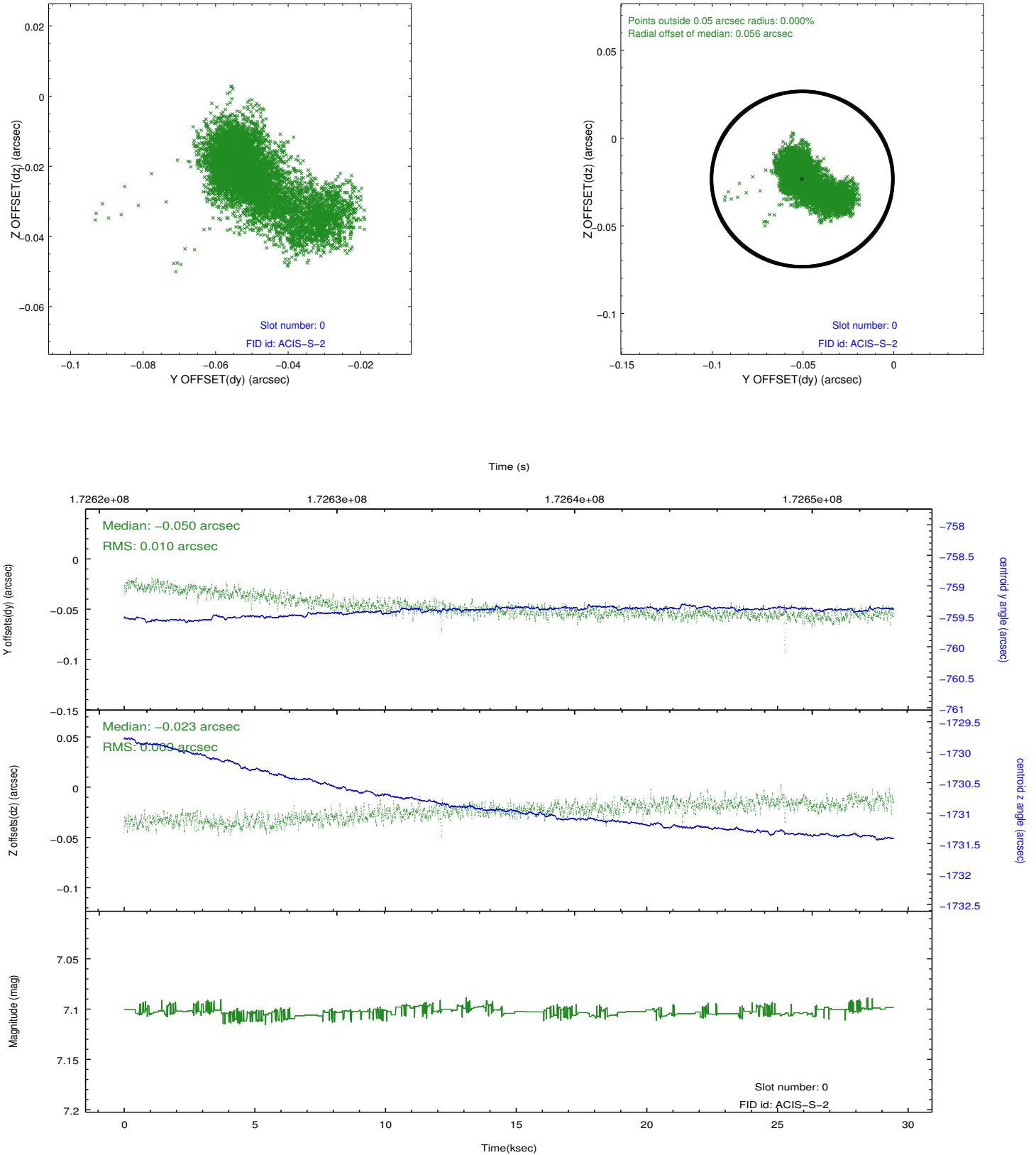


2.4.5 Slot 7

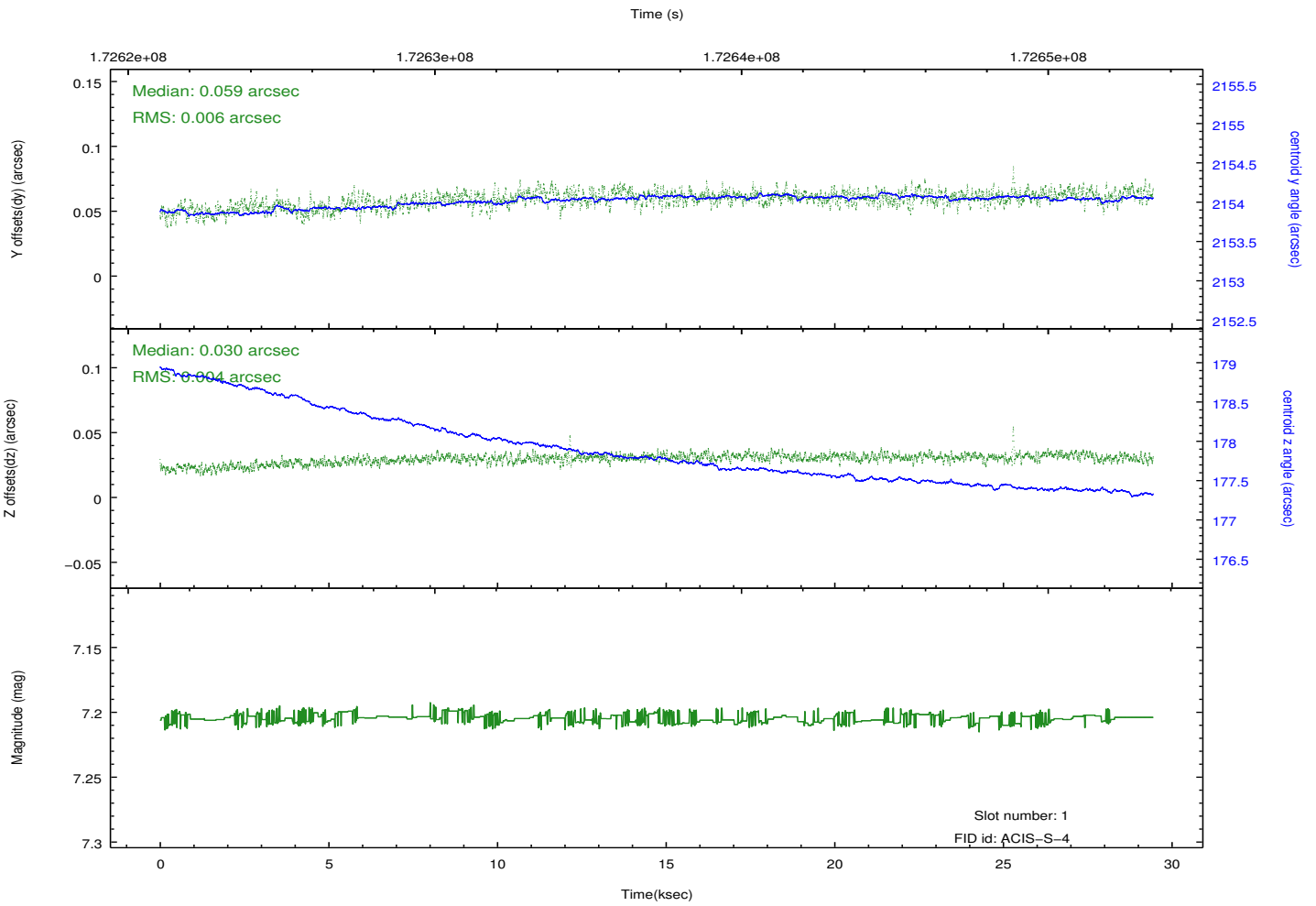
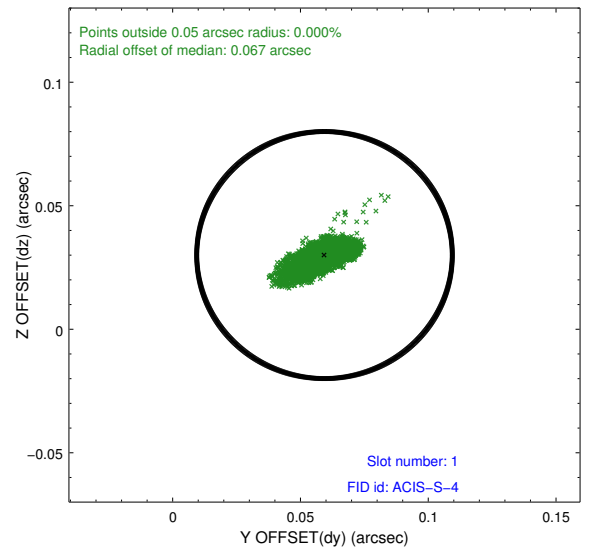
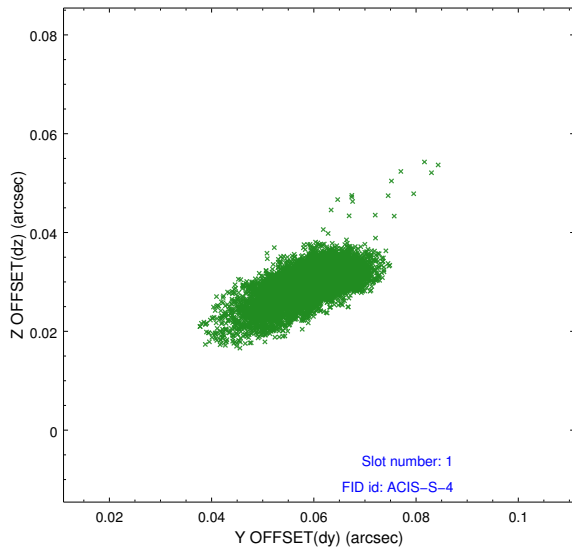


2.5 FID Slots

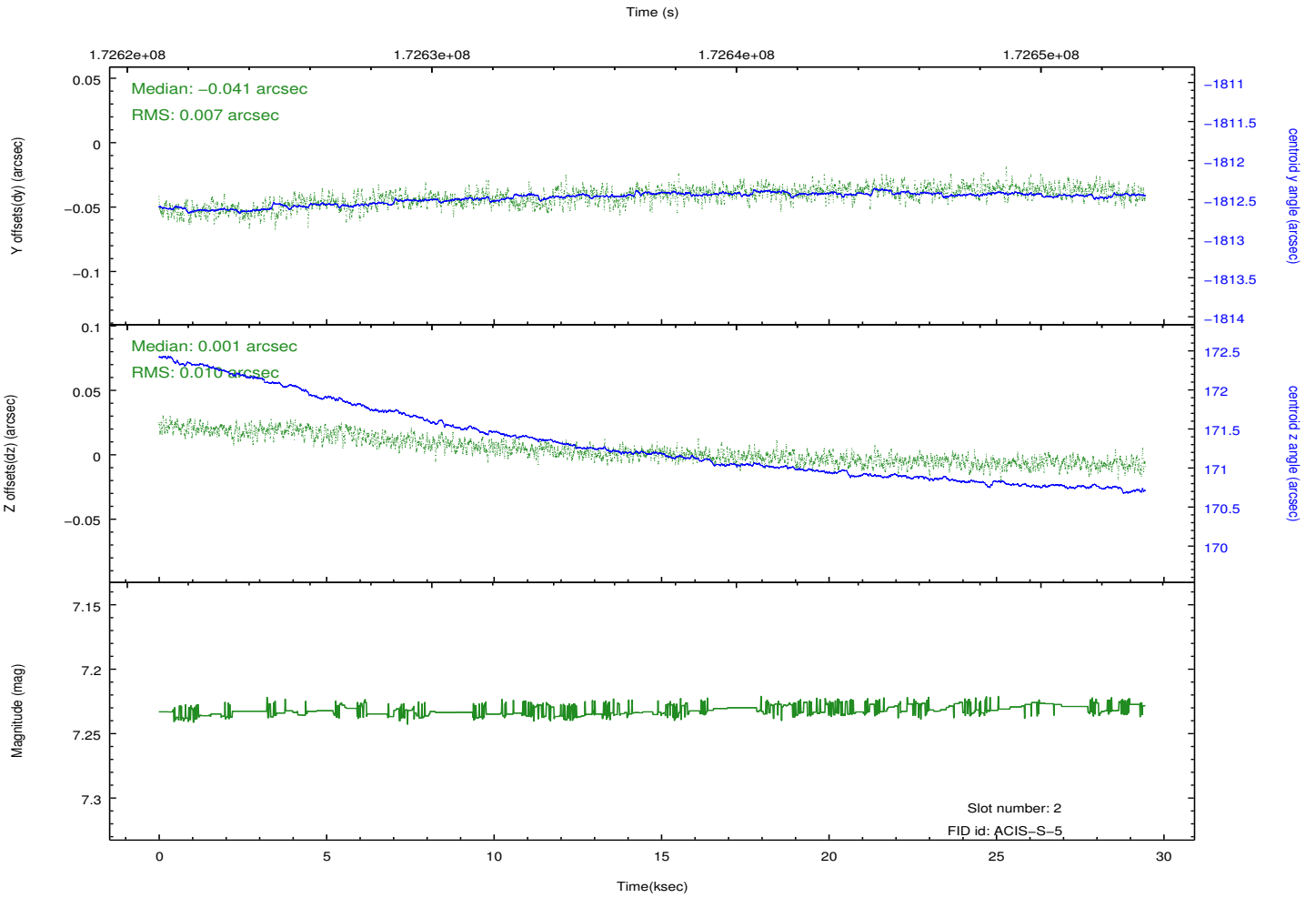
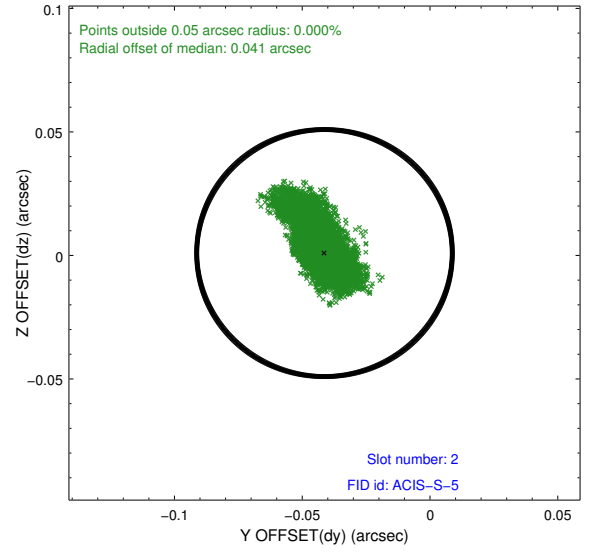
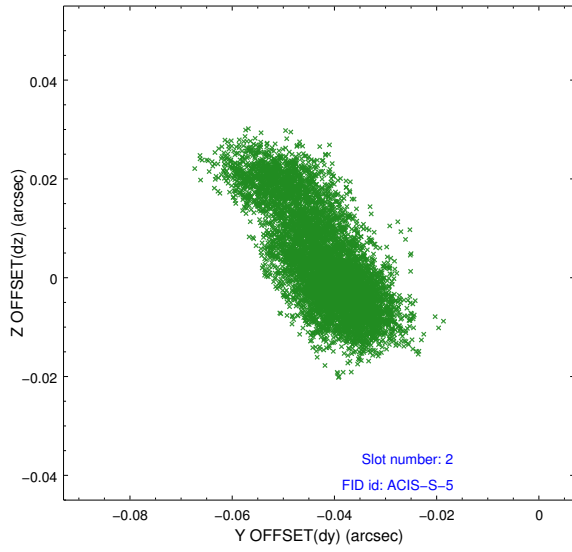
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

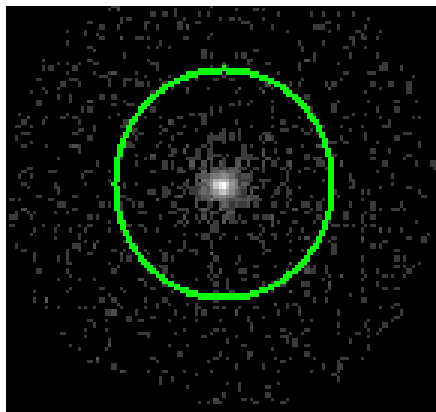


3 Gratings

3.1 HEG Arm



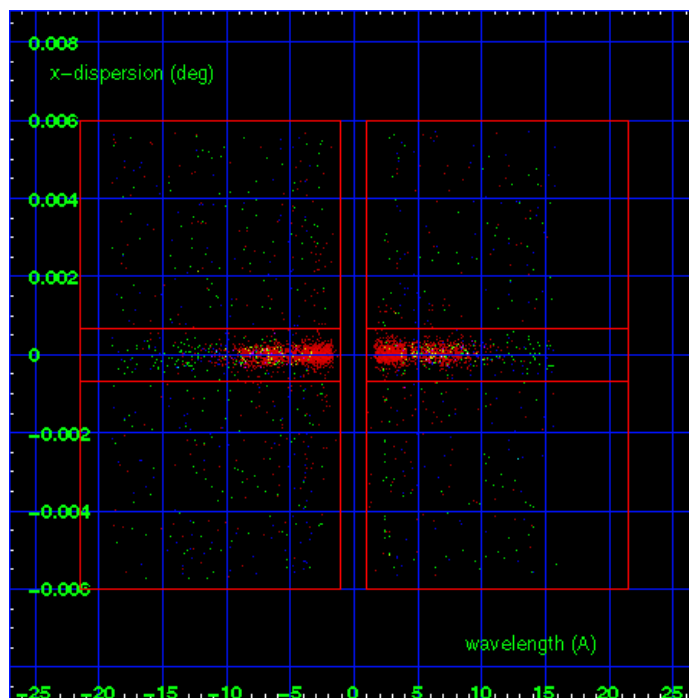
HEG Order Sort 123



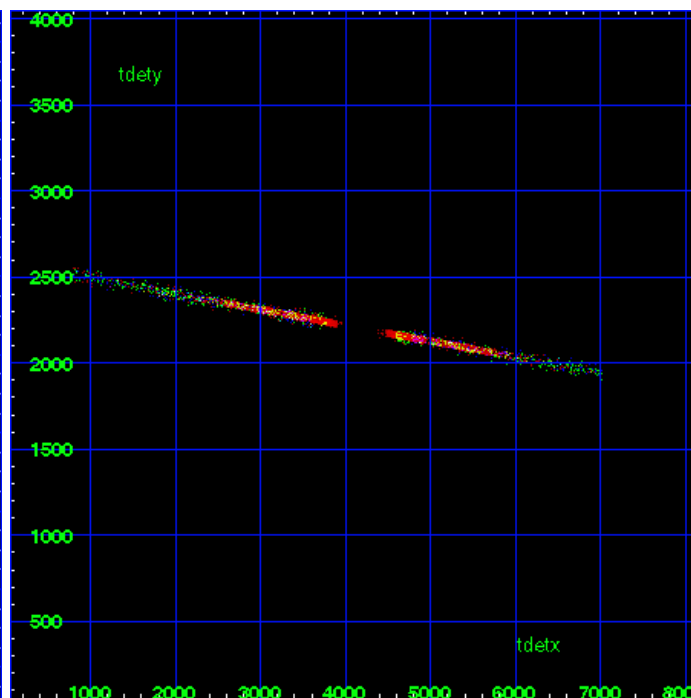
HEG Zero Order



HEG Order Sort ALL

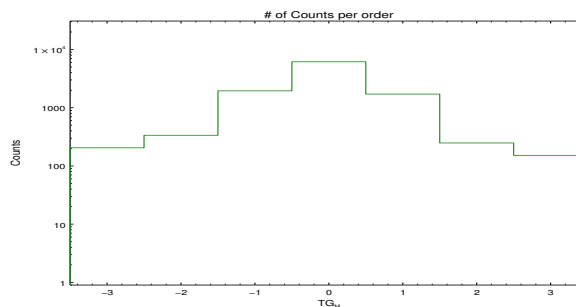


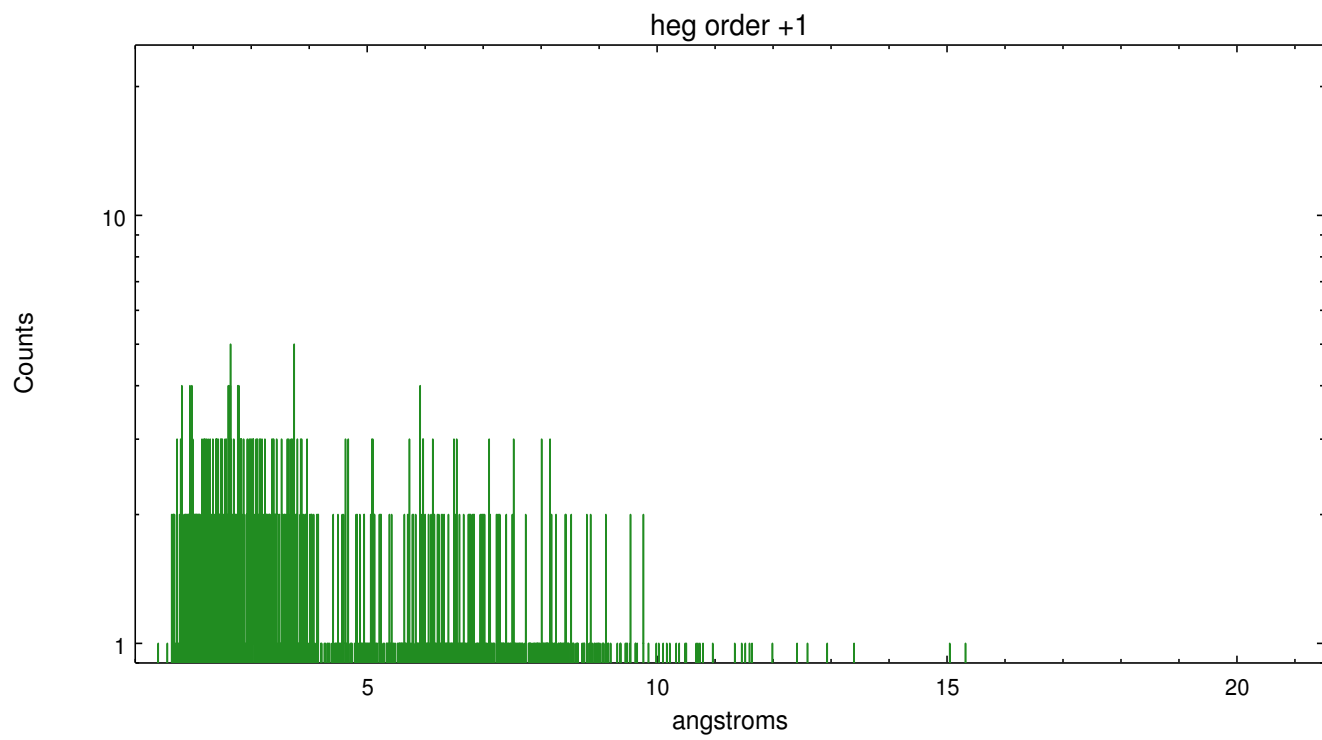
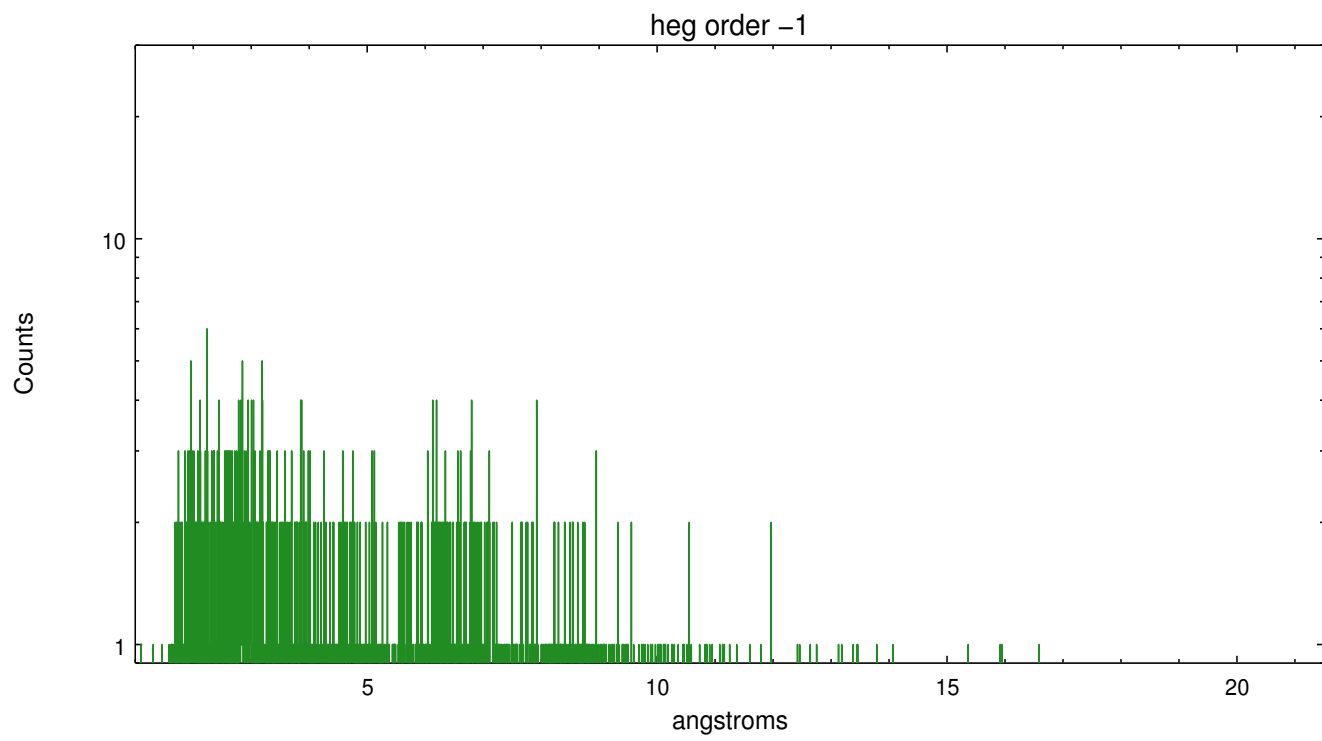
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	205	336	1950	6162	1714	248	152





3.2 MEG Arm



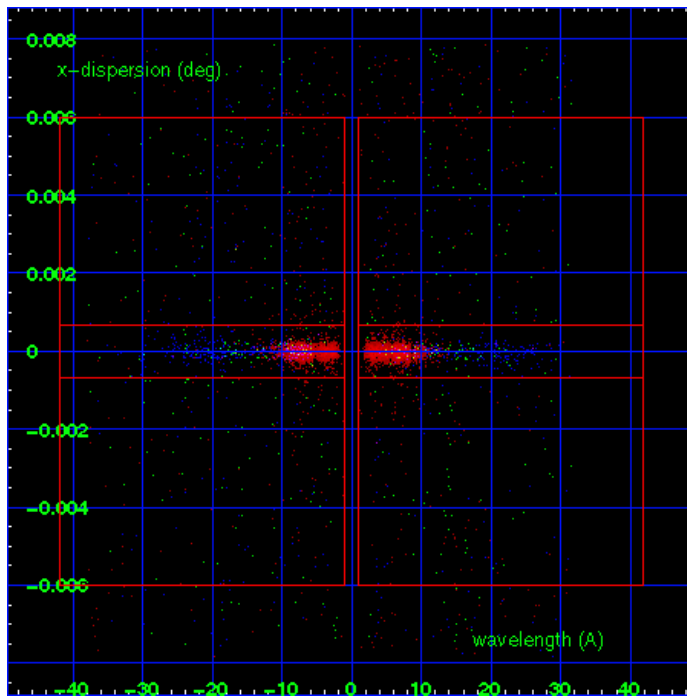
MEG Order Sort 123



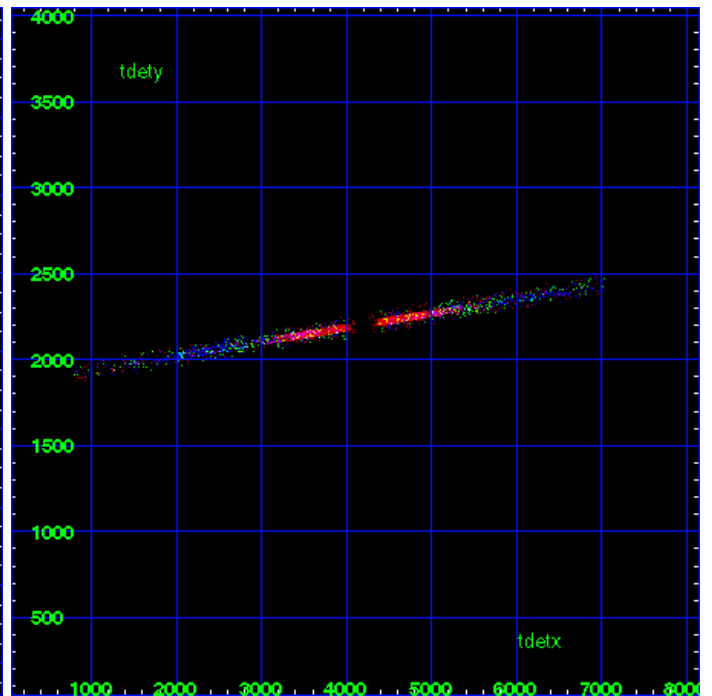
MEG Zero Order



MEG Order Sort ALL

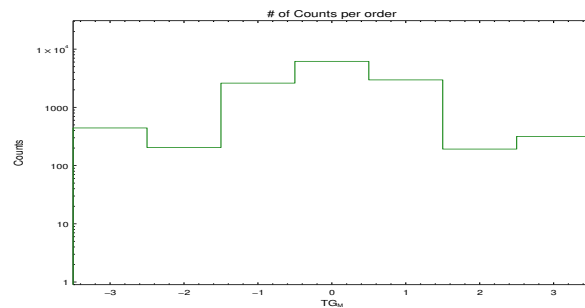


Spot Image MEG

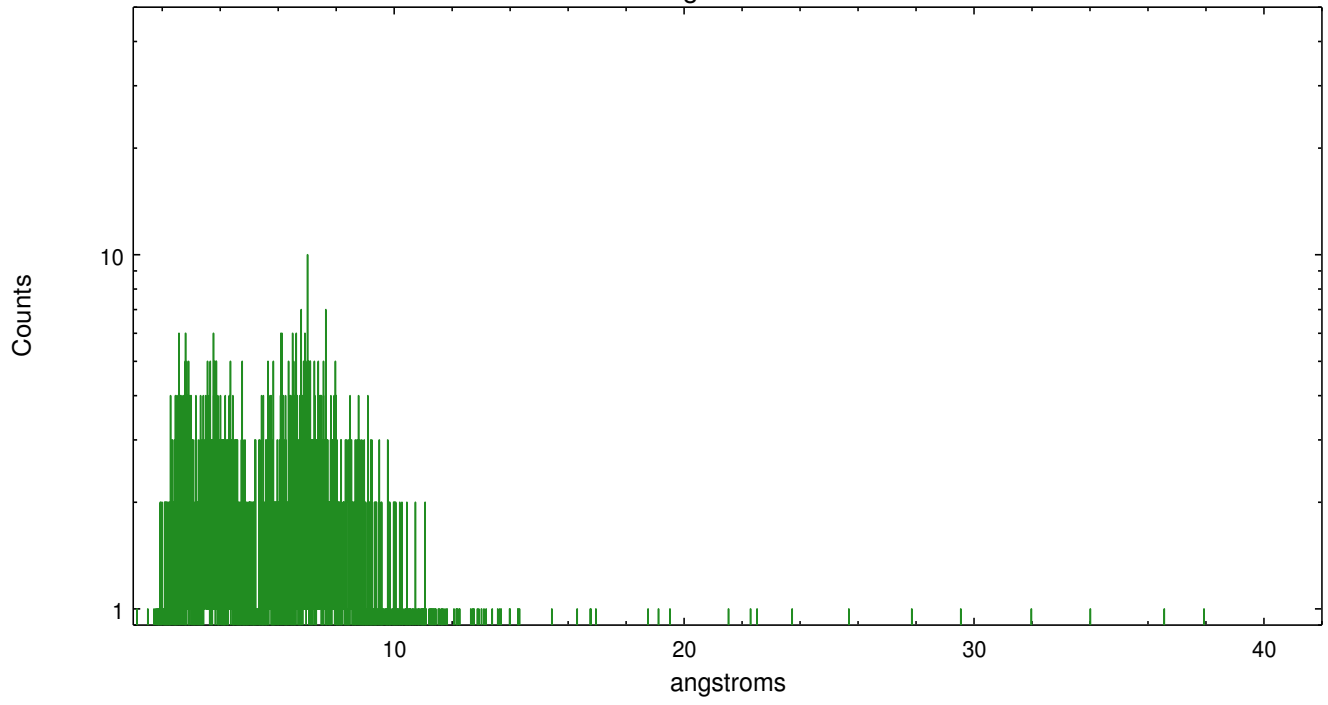


Full Detector MEG

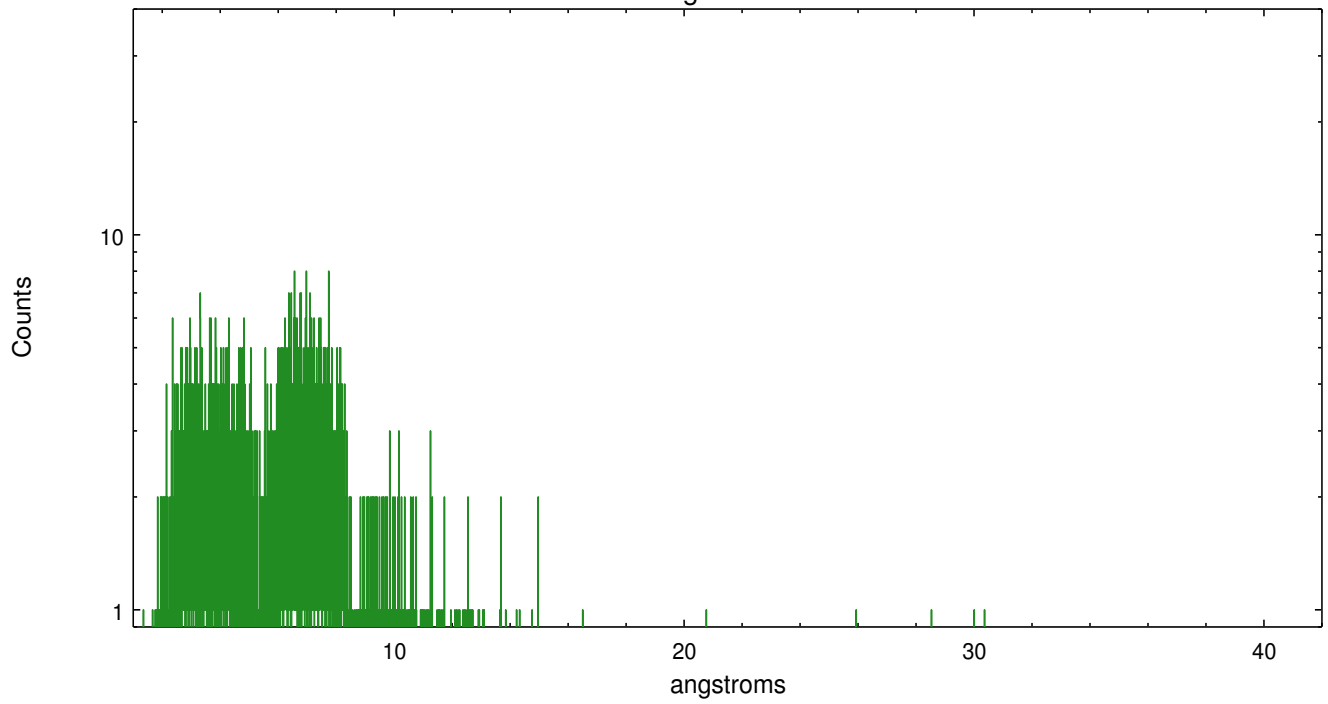
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	443	204	2607	6162	2963	192	317



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.443

A.2 Comments

Zeroth order piled up. Standard data processing software did not correctly locate the zeroth order due to pileup. Manual intervention was used to input the correct sky coordinates (x=4071.305, y=4030.275) into the *src1a.fits file table. These corrected coordinates were determined using a software tool developed by CXC called tg_findzo, available in CIAO. The tool calculates the point of intersection of the readout streak and the meg arm. The zeroth order source position determined by the standard pipeline processing using the tool tgdetect was not used in this processing. The newly determined zeroth order coordinates have been placed in the *src1a.fits file, replacing the coordinates determined by tgdetect. Note that these corrected coordinates of the zeroth order cannot be reproduced by running tgdetect on the data.