

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2307 - L2 Version 4
Chandra X-Ray Center

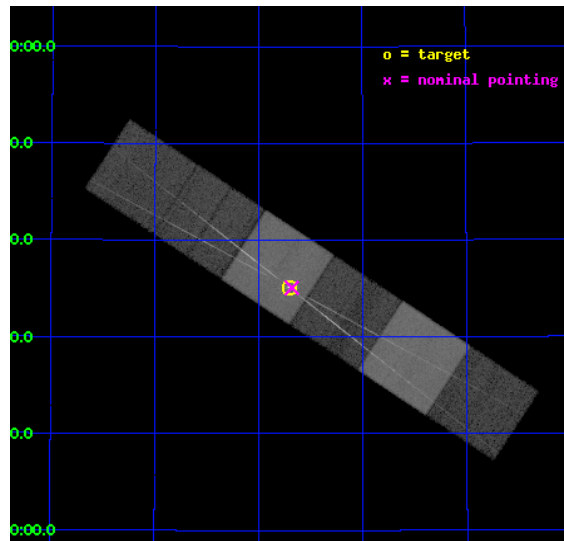
L2 Processing Date : Sep 14 2012

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1 Front

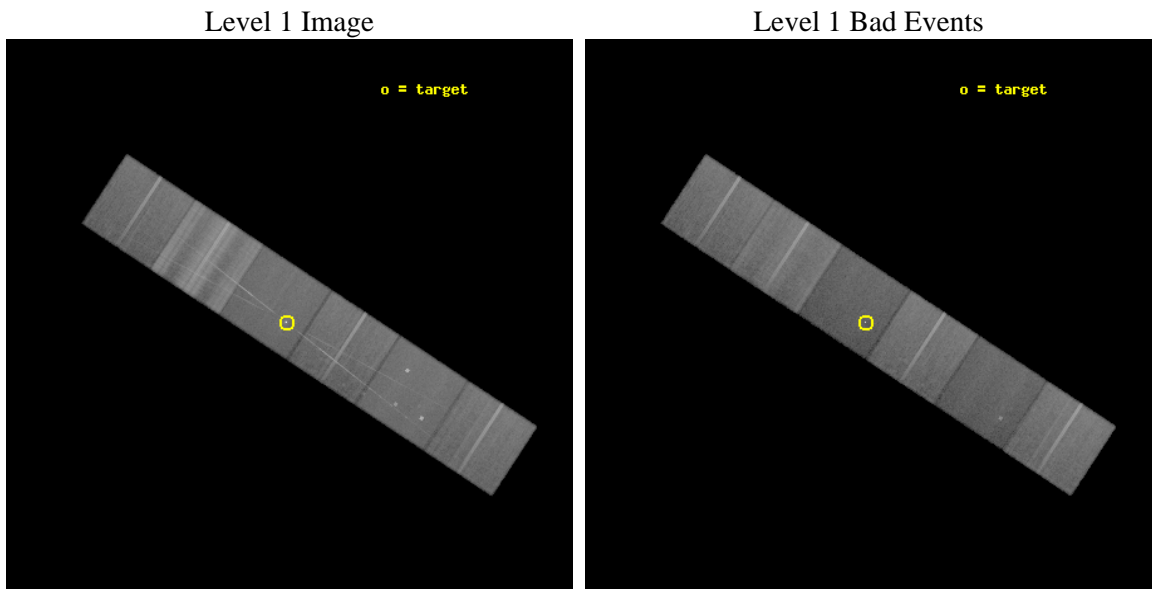
seq_num	300017	Sequence number
obs_id	2307	Observation id
title	BROAD-BAND HIGH RESOLUTION SPECTROSCOPY OF SS CYGNI IN OUTBURST	Pr
observer	Christopher Mauche	Principal investigator
object	SS CYG	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	325.67625	Observer's specified target RA [deg]
dec_targ	43.585556	Observer's specified target Dec [deg]
ra_nom	325.67001498923	Nominal RA [deg]
dec_nom	43.584716182783	Nominal Dec [deg]
roll_nom	213.25992626279	Nominal Roll [deg]
revision	4	Processing version of data
ontime	37038.752171725	Sum of GTIs [s]
livetime	36569.745189668	Livetime [s]
ontime4	37038.793211728	Sum of GTIs [s]
ontime5	37038.711131722	Sum of GTIs [s]
ontime6	37038.670091733	Sum of GTIs [s]
ontime7	37038.752171725	Sum of GTIs [s]
ontime8	37038.628942043	Sum of GTIs [s]
ontime9	37038.588011727	Sum of GTIs [s]
l2events	477066	Number of level 2 events



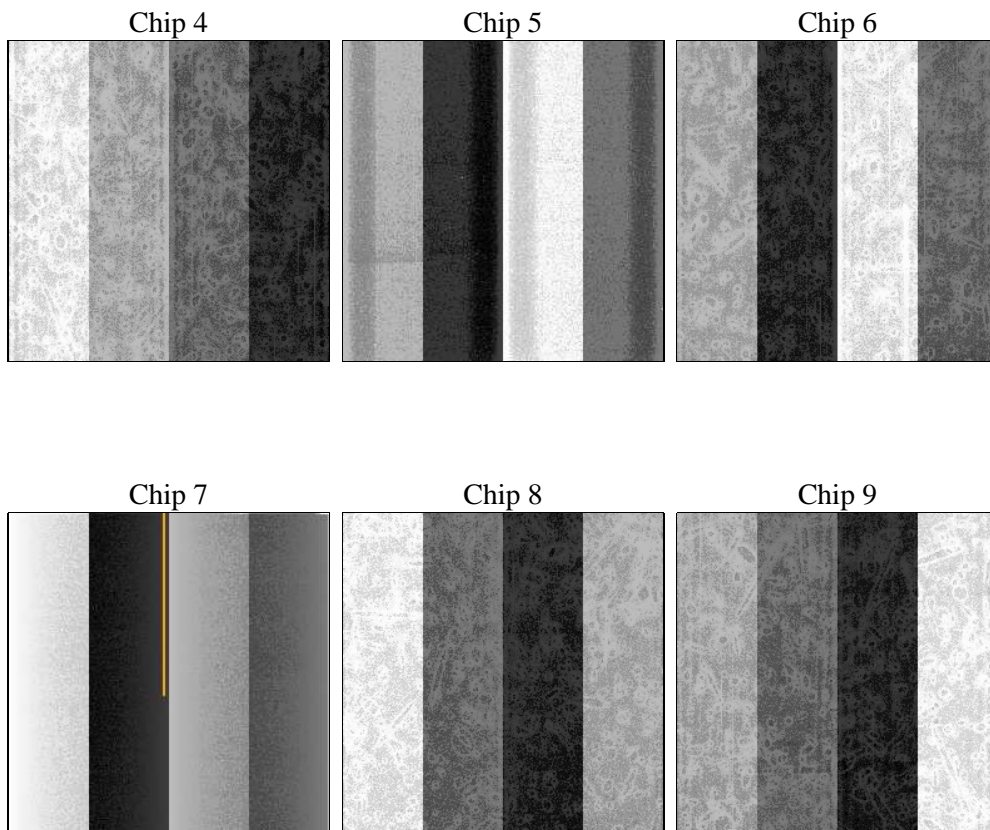
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37285.091000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	37038.752171725	Sum of GTIs [s]
caldbver	4.5.1.1	 	ontime4	37038.793211728	Sum of GTIs [s]
date	2012-09-01T17:36:44	Date and time of file creation	ontime5	37038.711131722	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	37038.670091733	Sum of GTIs [s]
			ontime7	37038.752171725	Sum of GTIs [s]
			ontime8	37038.628942043	Sum of GTIs [s]
			ontime9	37038.588011727	Sum of GTIs [s]
			l1events	2358037	Number of level 1 events

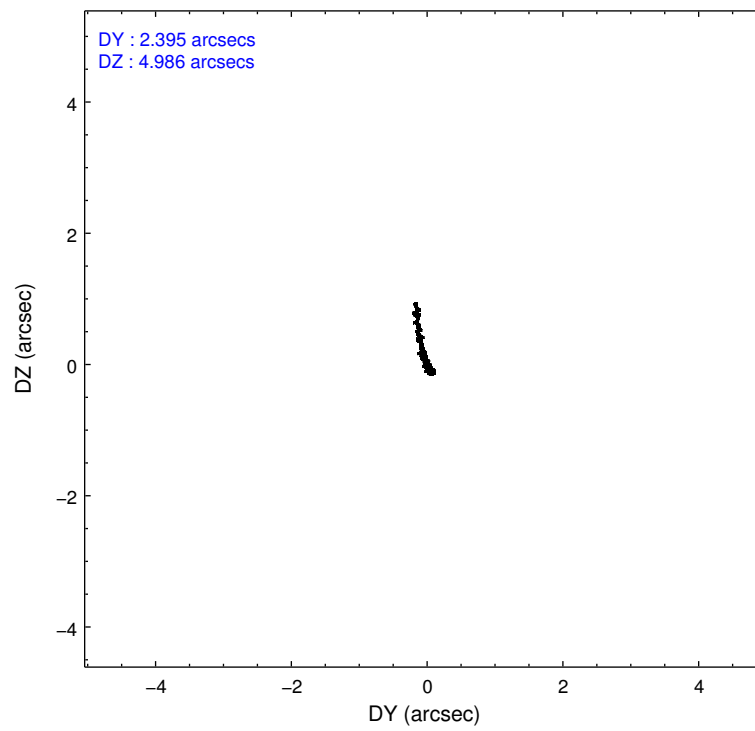
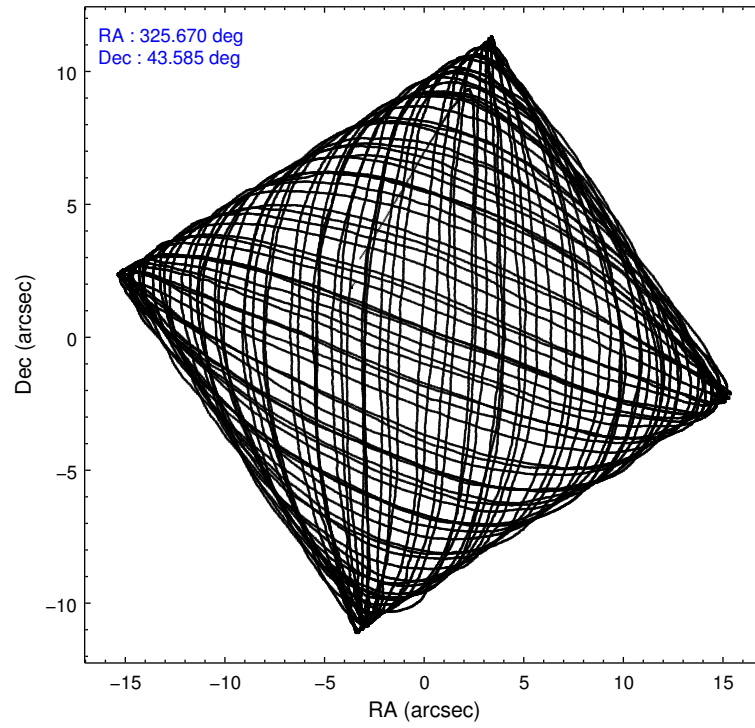
2.1.4 Events

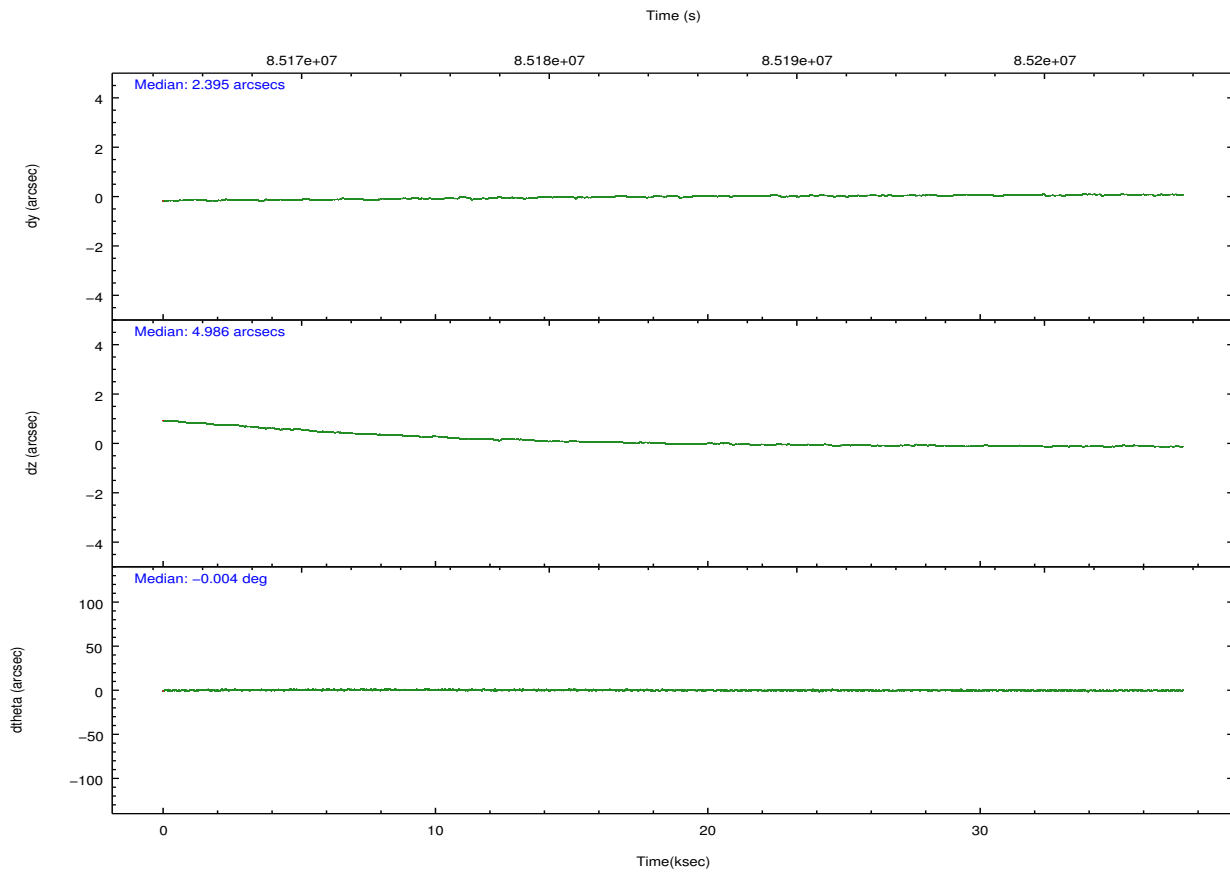
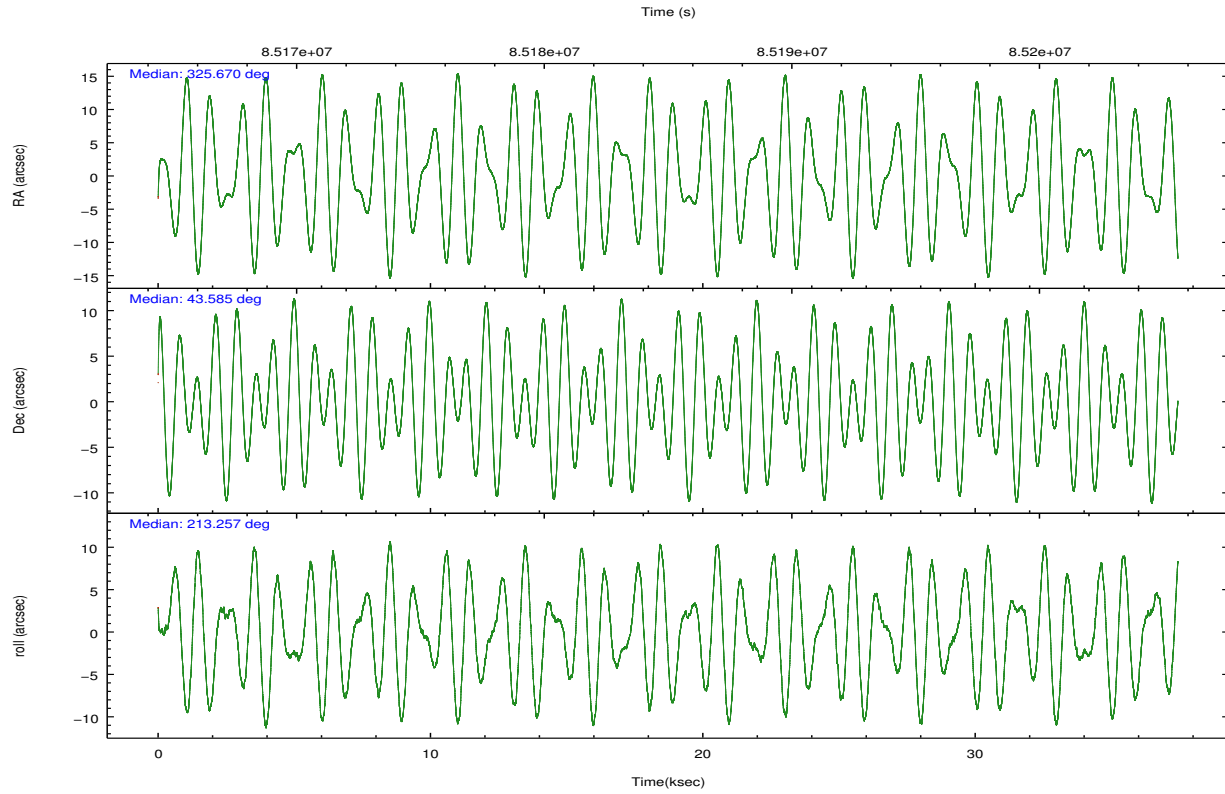
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	374886	351606	358154	335980	609428	327983	grade 0 events	23298	26387	29262	18663	73049	20080
rejected events	323985	173923	303478	173356	344349	286390		6%	7%	8%	5%	11%	6%
rejected %	86%	49%	84%	51%	56%	87%	grade 1 events	247	1704	213	657	549	168
								0%	0%	0%	0%	0%	0%
							grade 2 events	14709	52234	11170	34545	48034	8817
								3%	14%	3%	10%	7%	2%
							grade 3 events	3217	9158	3667	14879	36882	3157
								0%	2%	1%	4%	6%	0%
							grade 4 events	3256	9057	3726	14858	32933	3138
								0%	2%	1%	4%	5%	0%
							grade 5 events	7827	24730	9200	29041	15248	9084
								2%	7%	2%	8%	2%	2%
							grade 6 events	6435	80879	6856	79705	74267	6407
								1%	23%	1%	23%	12%	1%
							grade 7 events	315897	147457	294060	143632	328466	277132
								84%	41%	82%	42%	53%	84%

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	325.686799	325.6700149892322	Subarray requested	NONE	NONE
[deg] Pointing Dec	43.609237	43.58471618278253	Alternating exposures requested	N	N
[deg] Pointing Roll	213.091731	213.2599262627868	[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	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	85166439.184000	85165258.26459			
Observation start date	2000-09-12T17:19:35	2000-09-12T17:00:58			
[s] Observation end time (MET)	85203724.184000	85204038.11604799			
Observation end date	2000-09-13T03:41:00	2000-09-13T03:47:18			
Read mode	TIMED	TIMED			

2.3 Aspect



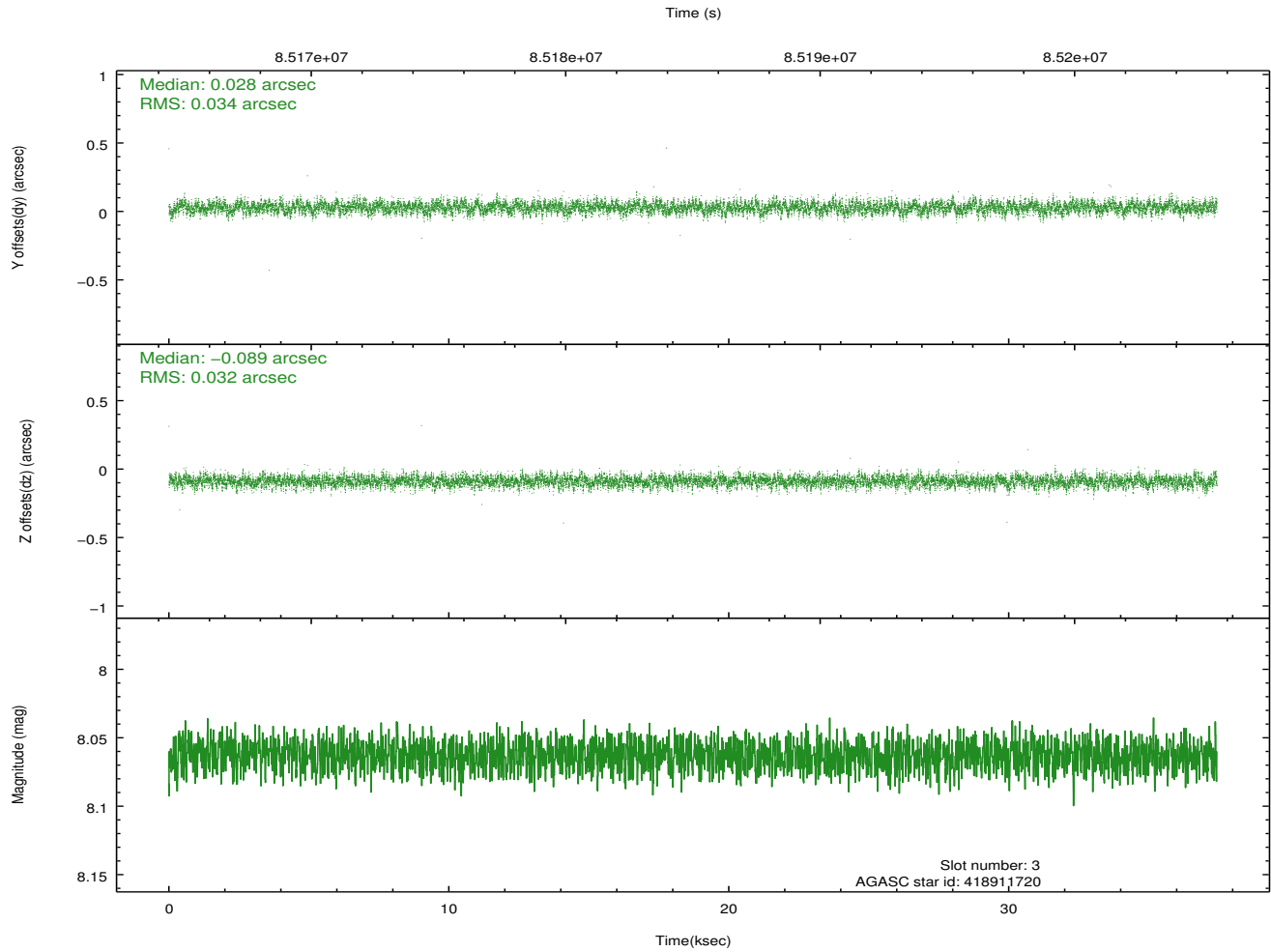
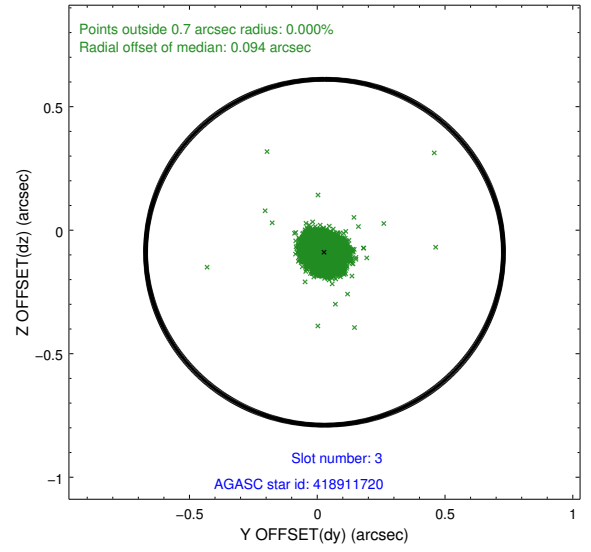
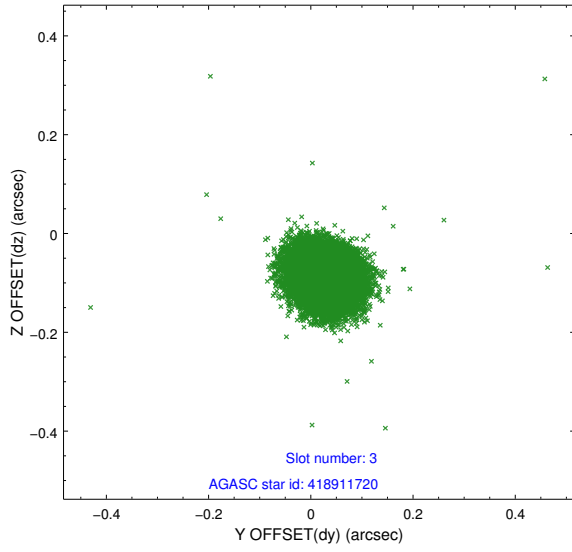


Slot Statistics

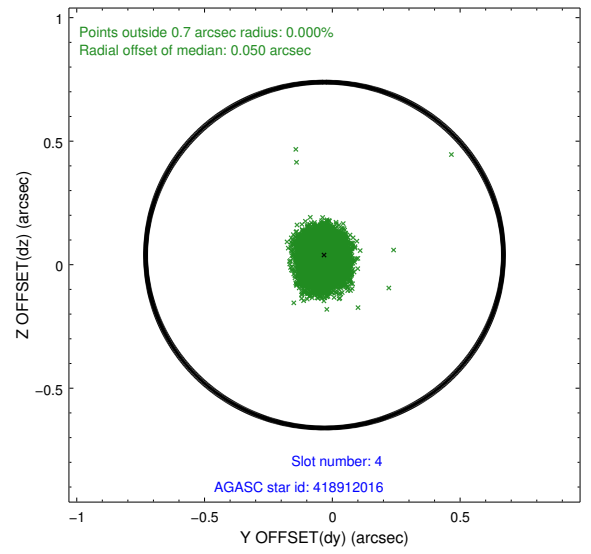
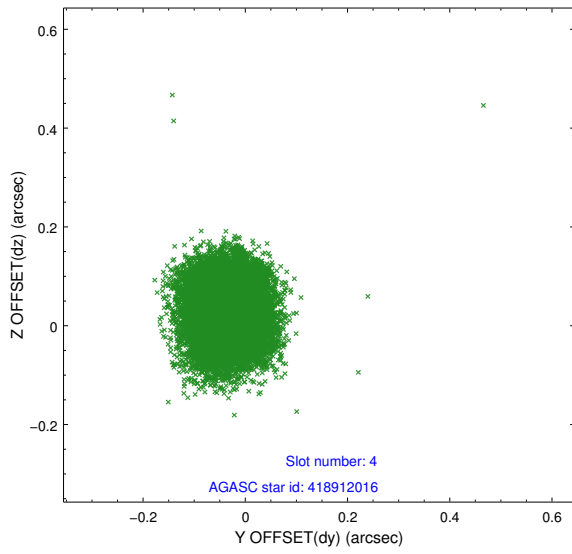
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	9131	0.023	-0.023	0.014	0.042	0.000000	0.000000	941.23	-1783.98
1	FID	ACIS-S-5	7.24	9130	-0.003	0.034	0.007	0.011	0.000000	0.000000	-1807.74	113.65
2	FID	ACIS-S-6	7.38	9129	-0.041	0.001	0.015	0.043	0.000000	0.000000	406.75	757.55
3	GUIDE	418911720	8.06	18257	0.028	-0.089	0.049	0.078	325.786180	43.583511	-166.90	219.49
4	GUIDE	418912016	8.69	18258	-0.031	0.039	0.068	0.113	325.830997	44.345072	-1757.83	-2016.37
5	GUIDE	418393488	9.02	18245	-0.001	0.030	0.083	0.132	325.537667	42.821079	1878.47	2162.55
6	GUIDE	418390104	8.98	18248	-0.005	0.029	0.063	0.103	325.407324	43.099724	1616.05	1135.48
7	GUIDE	418920400	8.99	18253	0.008	-0.002	0.073	0.117	325.896170	44.074587	-1368.82	-1107.85

2.4 Star Slots

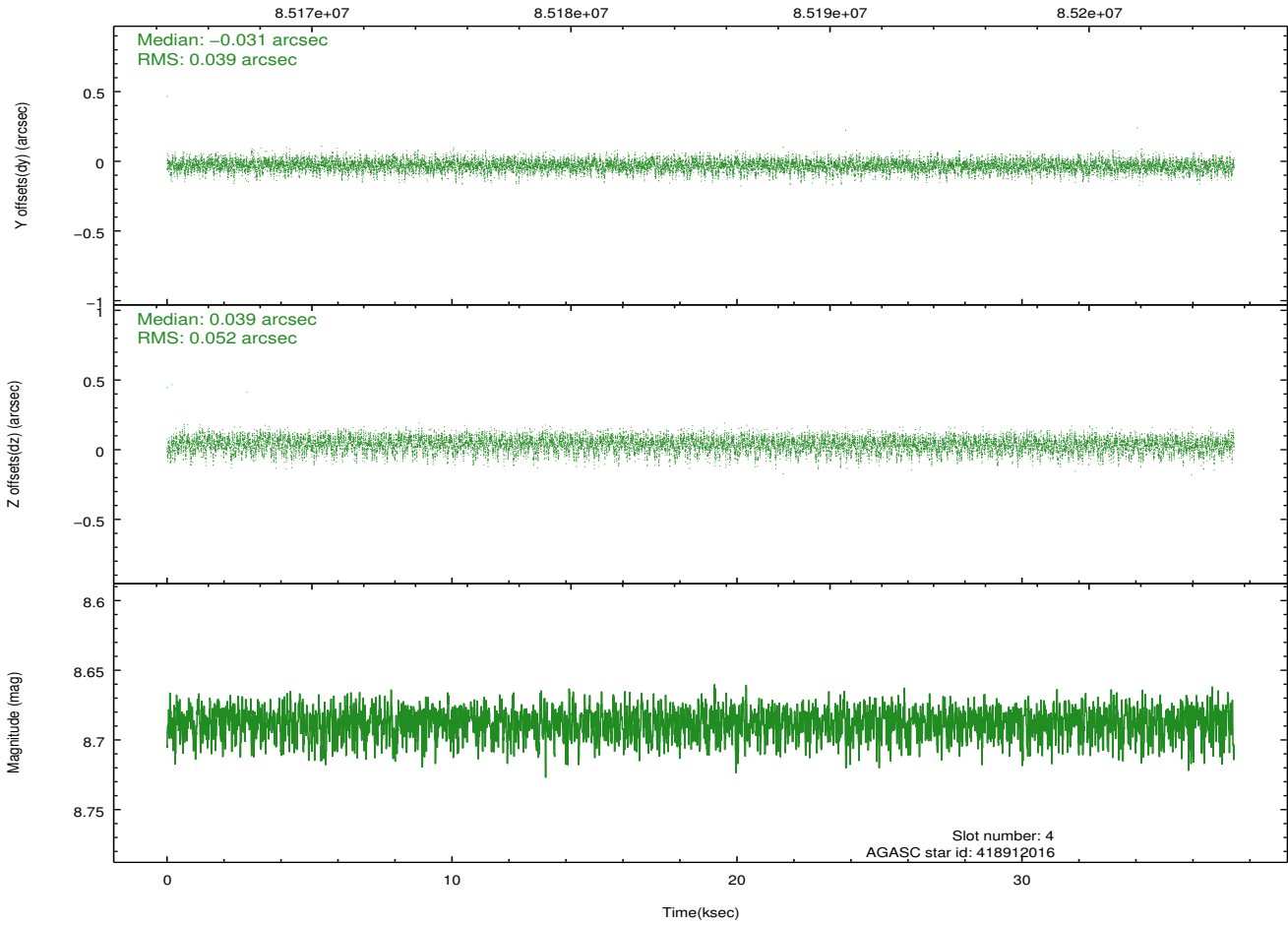
2.4.1 Slot 3



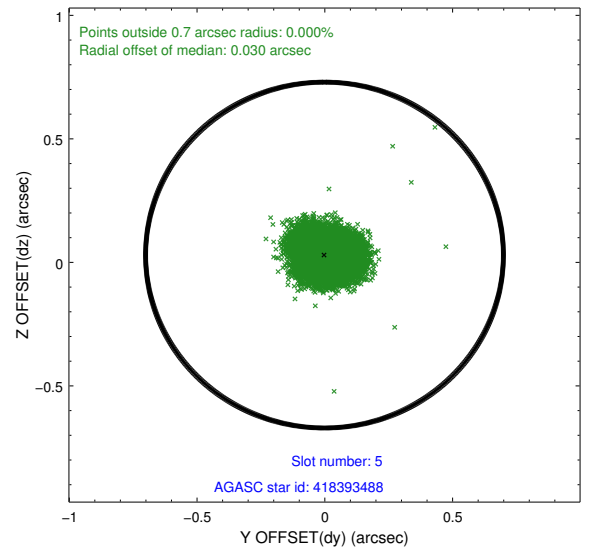
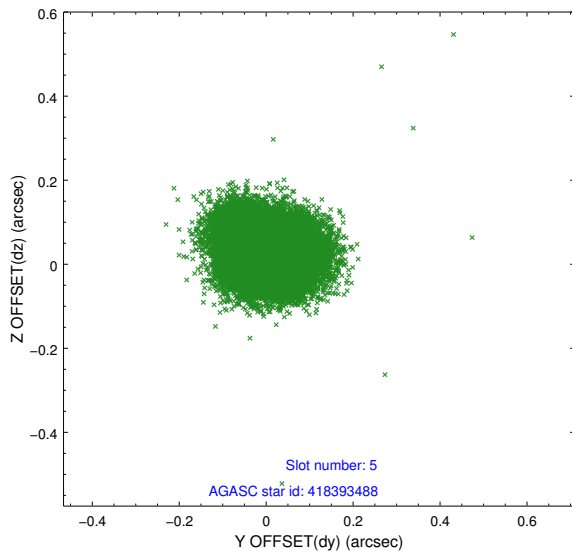
2.4.2 Slot 4



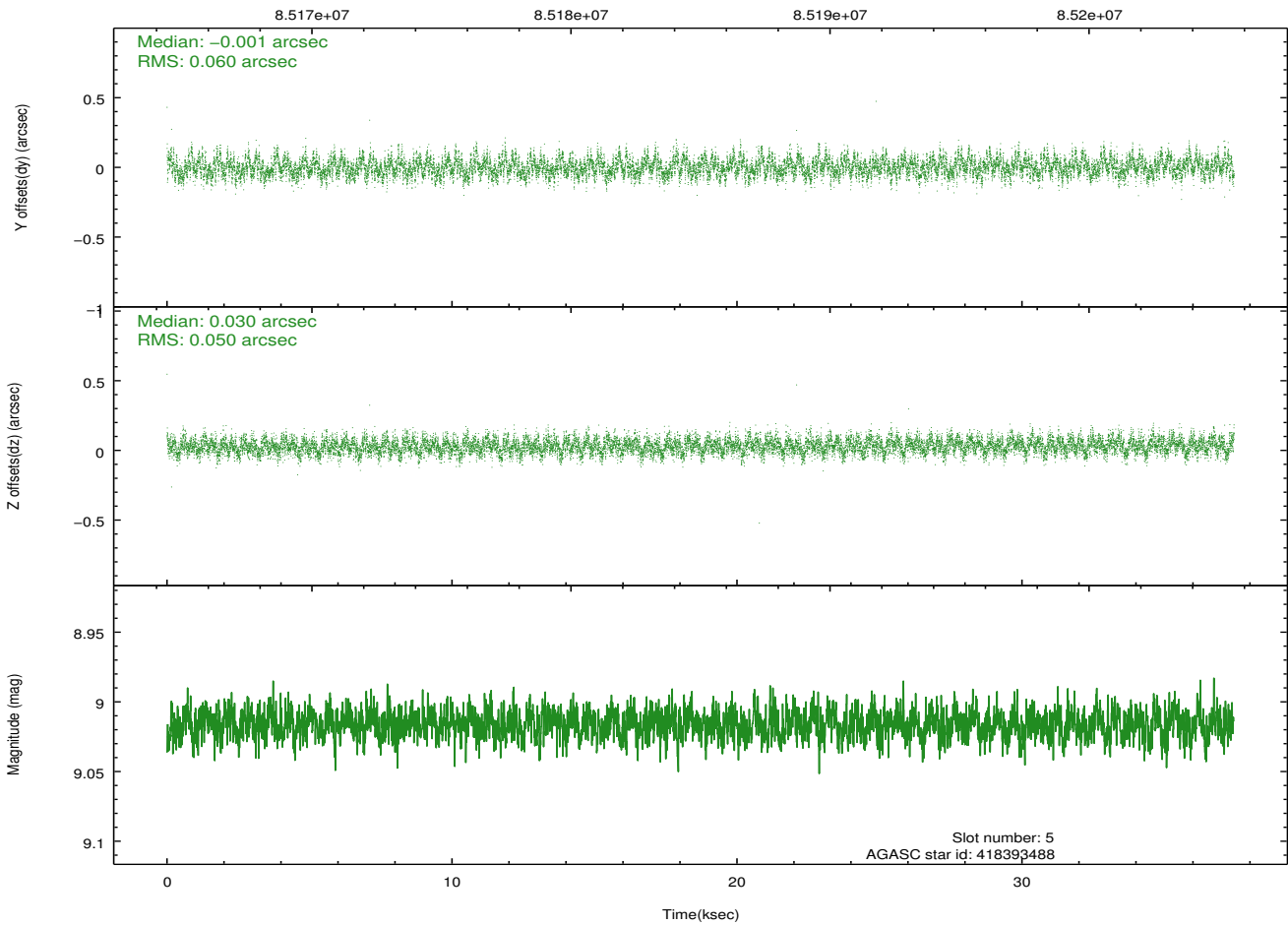
Time (s)



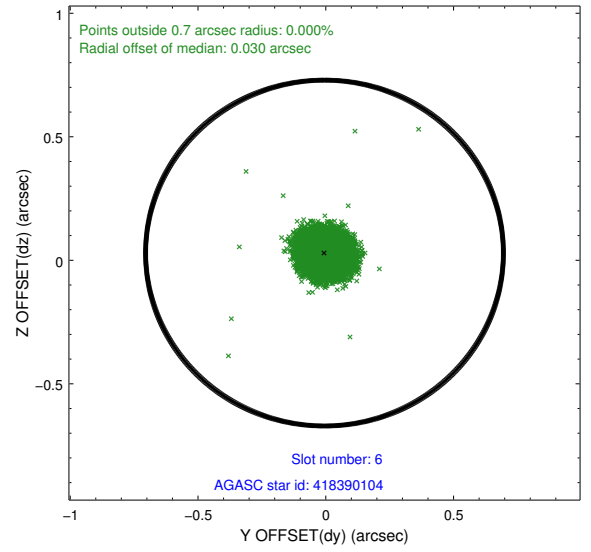
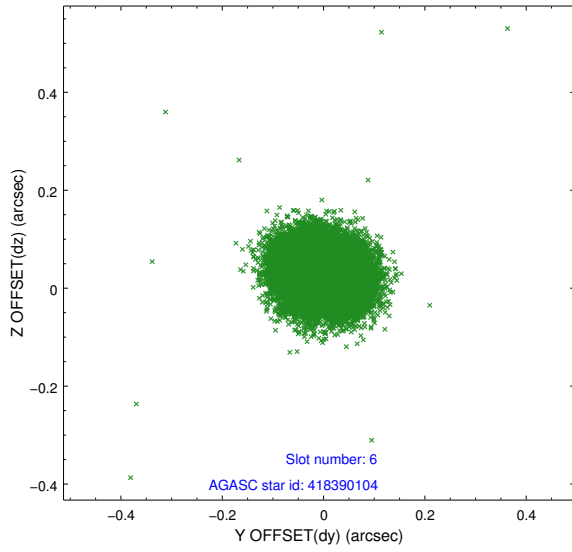
2.4.3 Slot 5



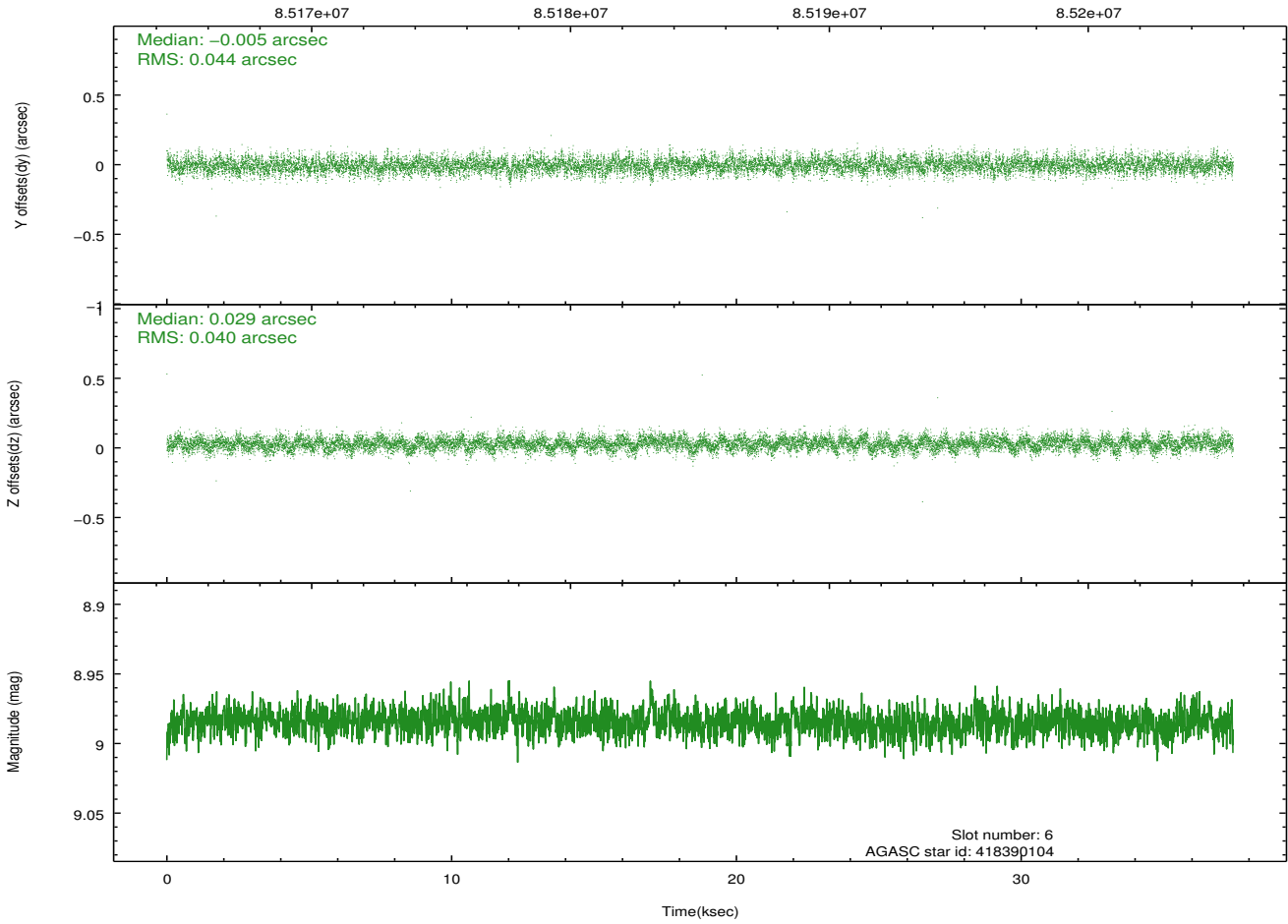
Time (s)



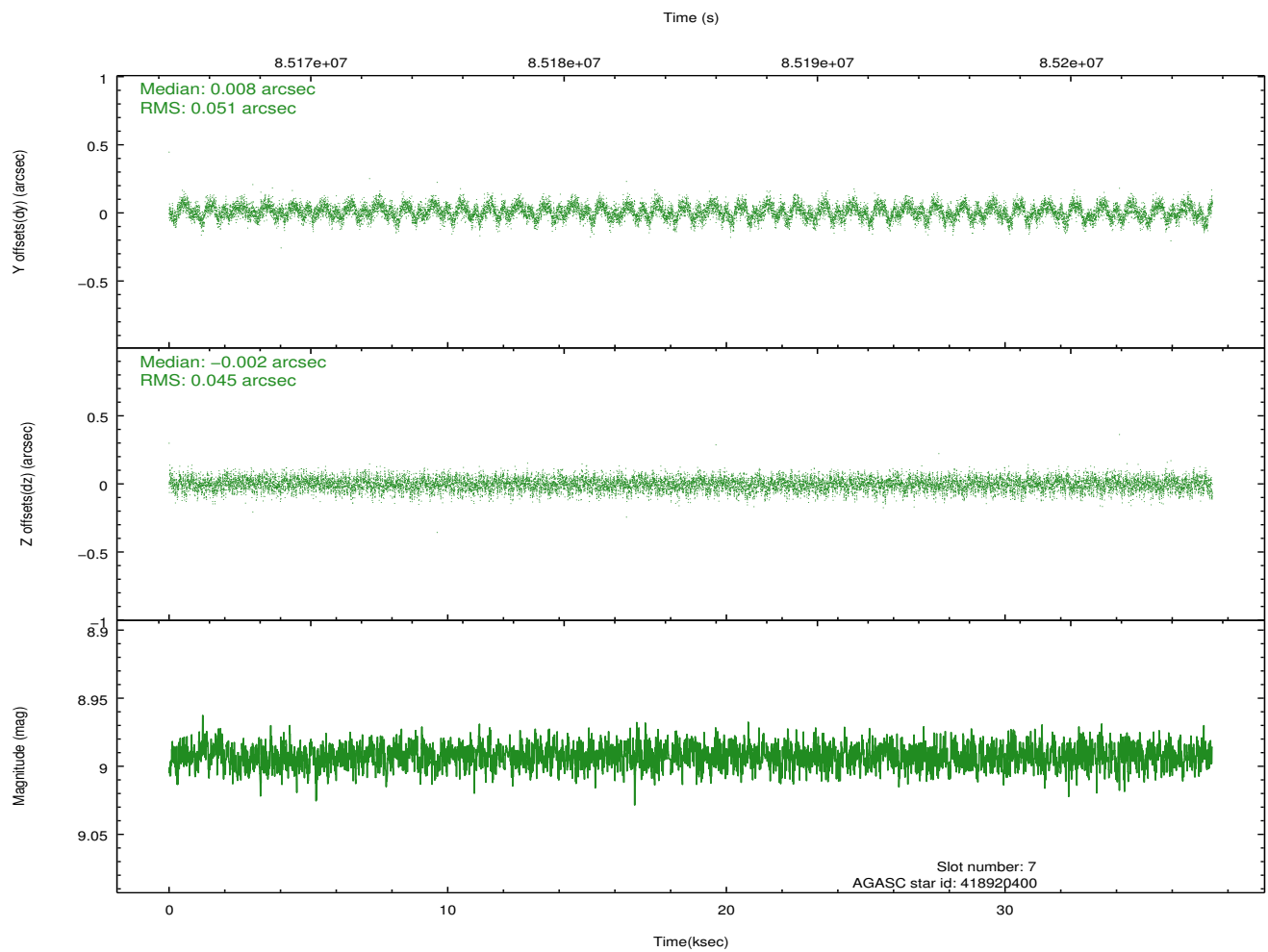
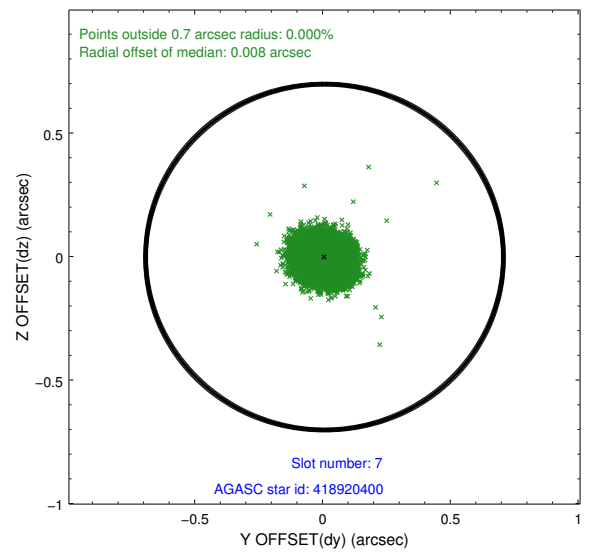
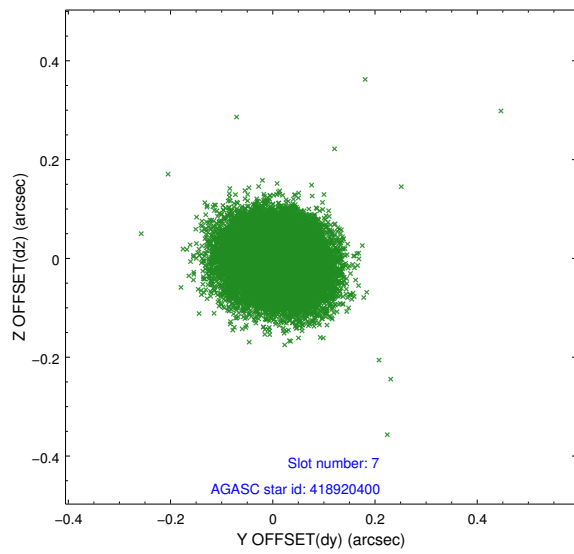
2.4.4 Slot 6



Time (s)

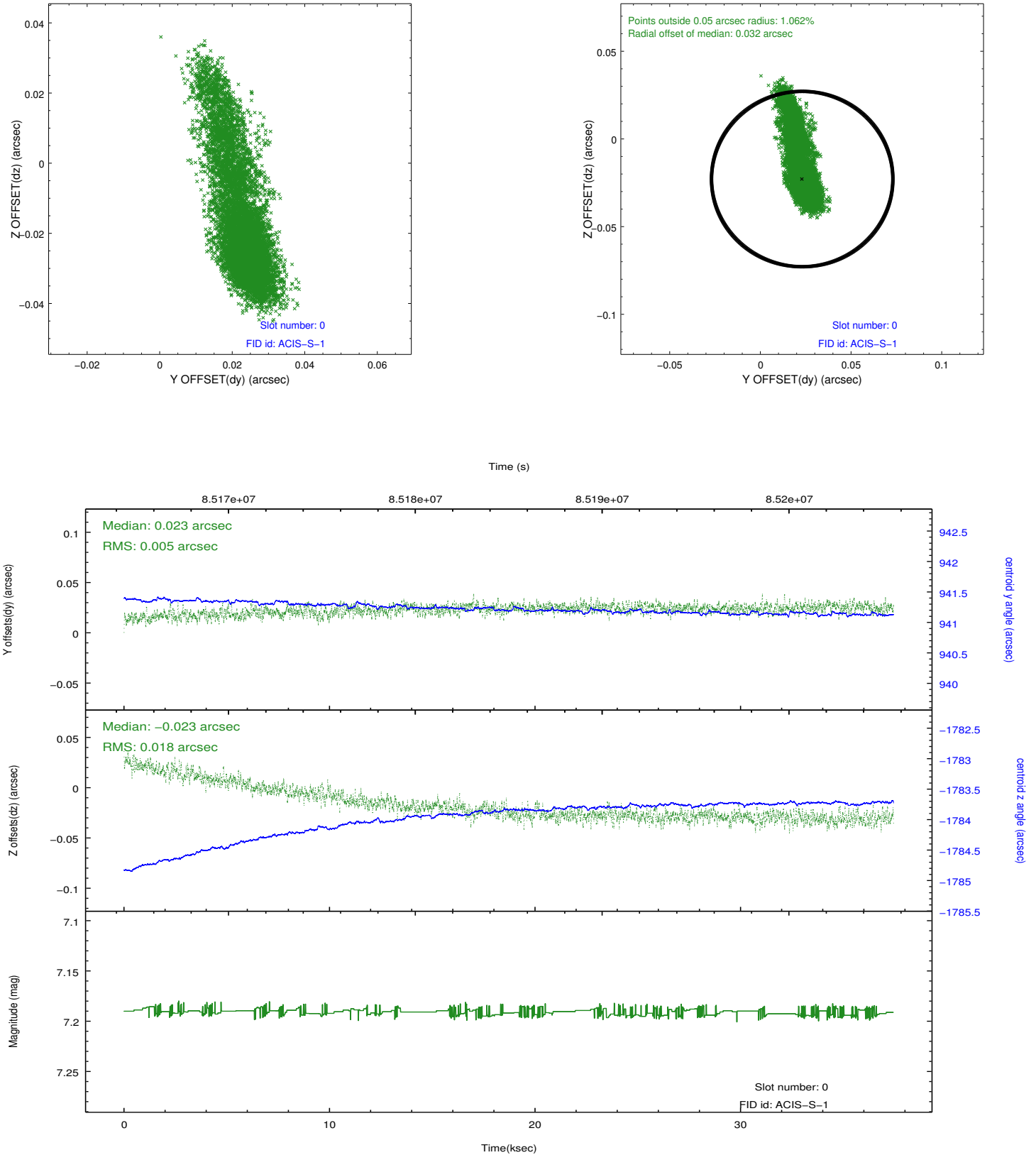


2.4.5 Slot 7

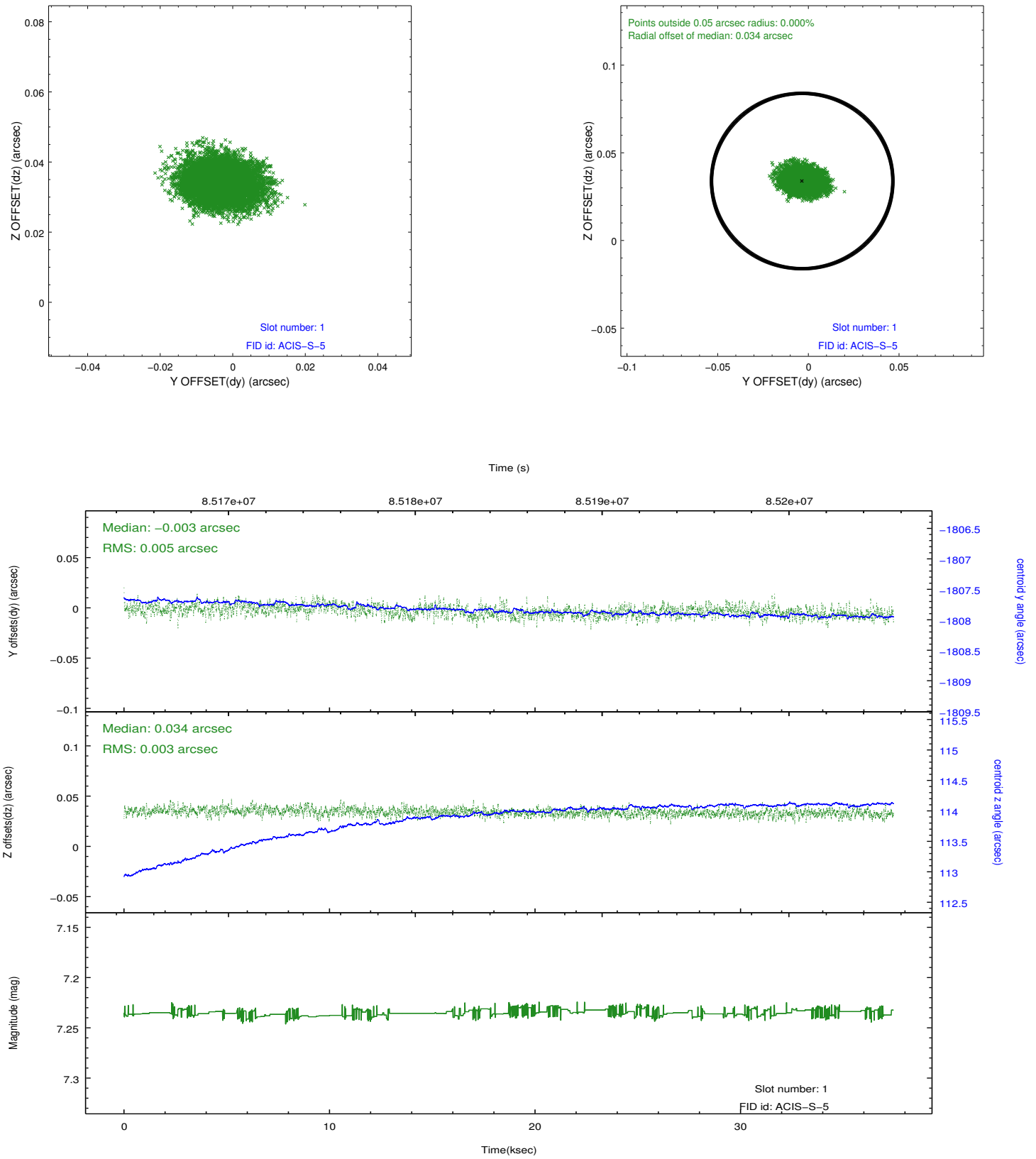


2.5 FID Slots

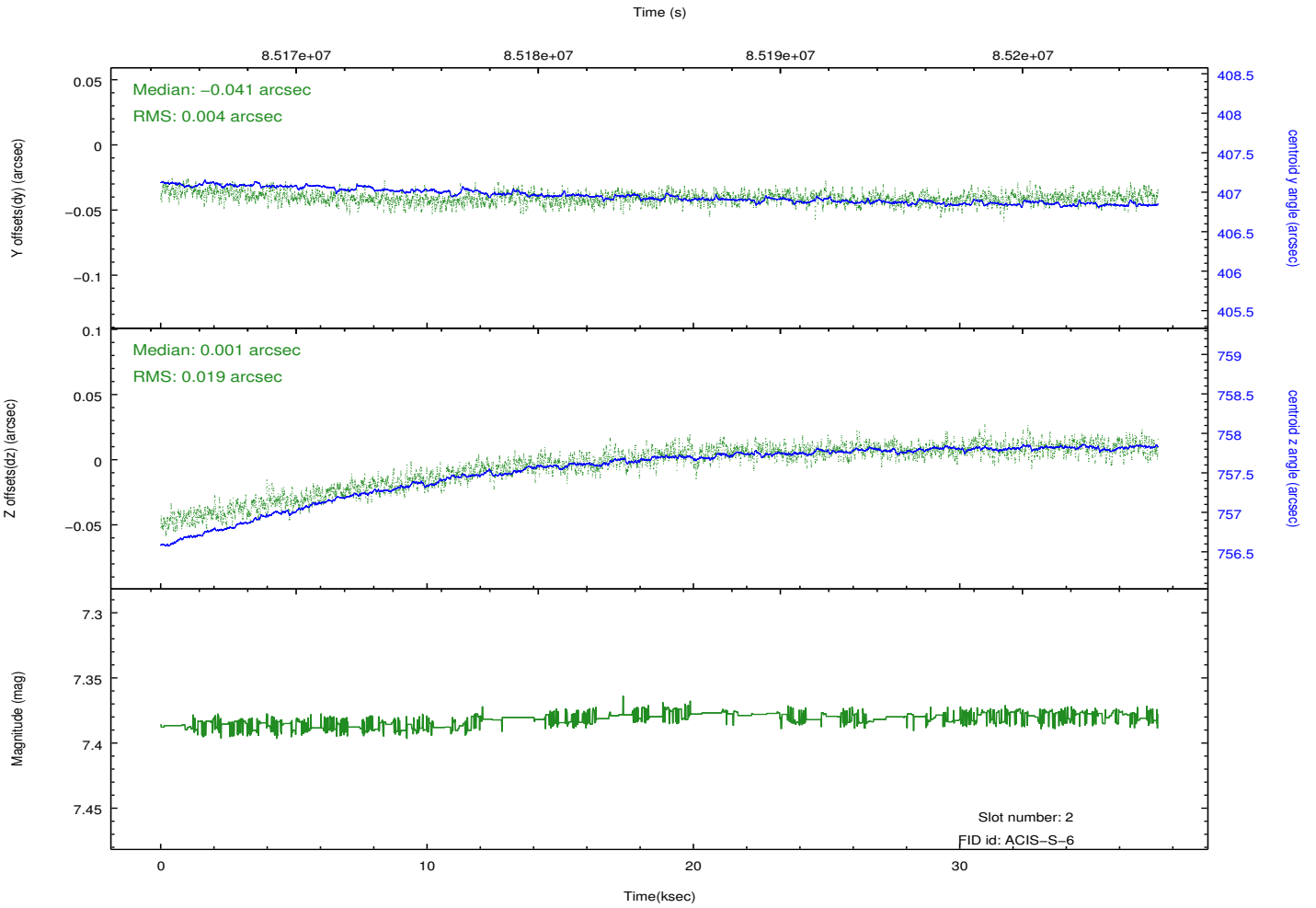
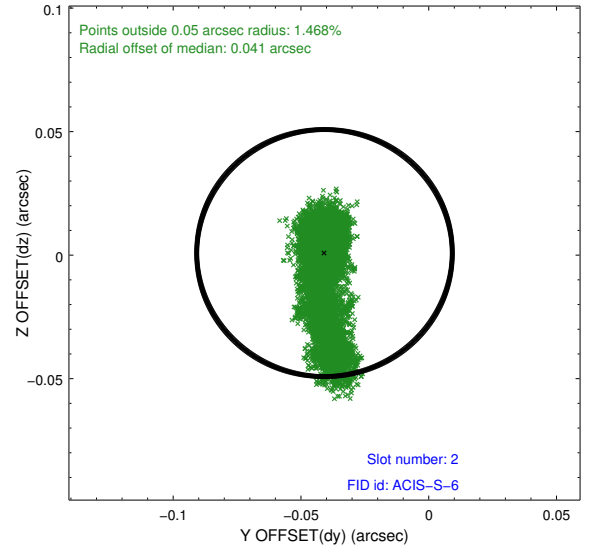
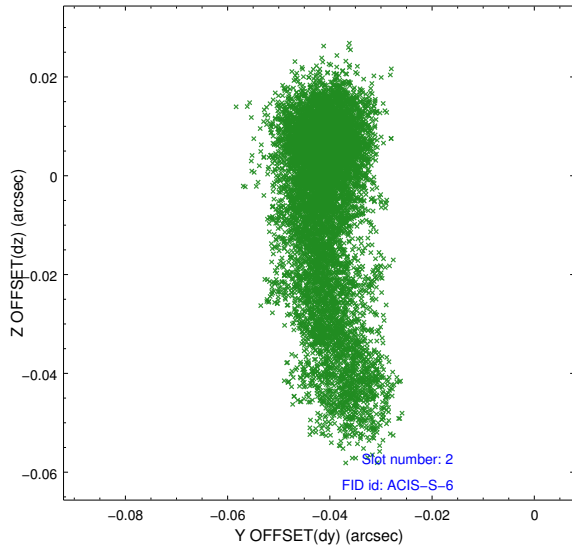
2.5.1 Slot 0



2.5.2 Slot 1

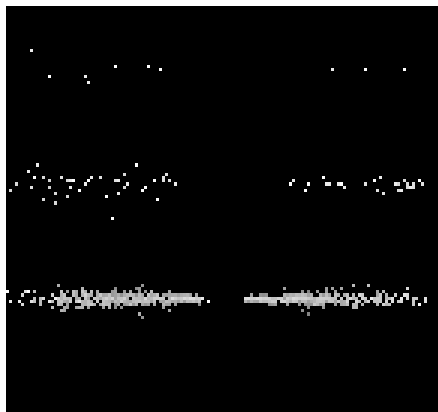


2.5.3 Slot 2

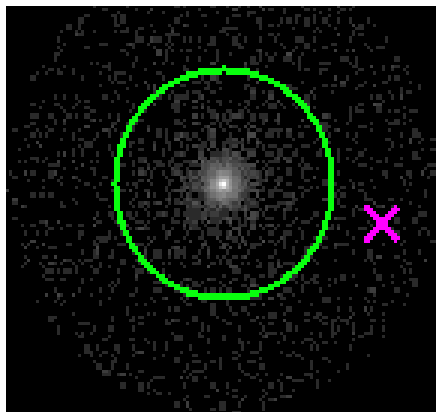


3 Gratings

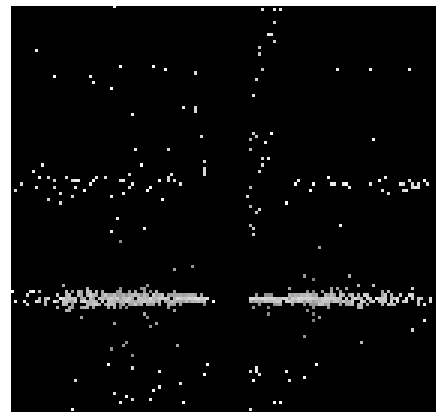
3.1 HEG Arm



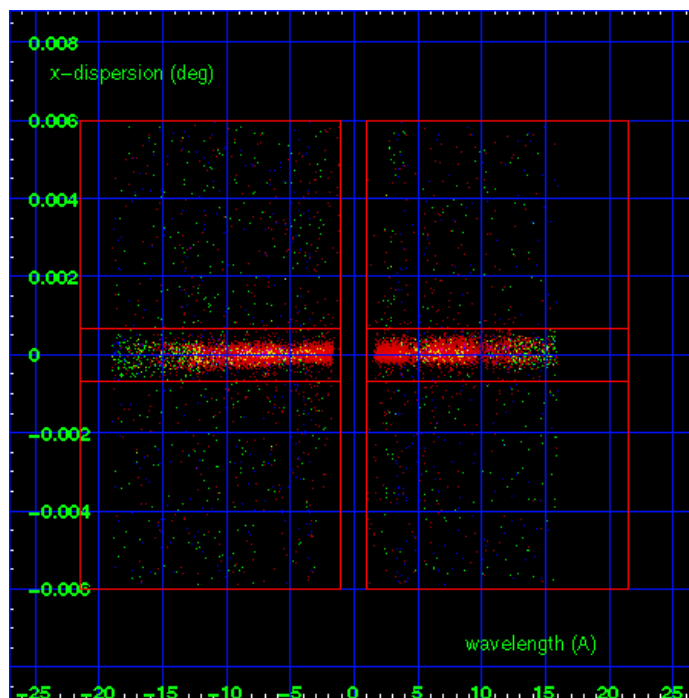
HEG Order Sort 123



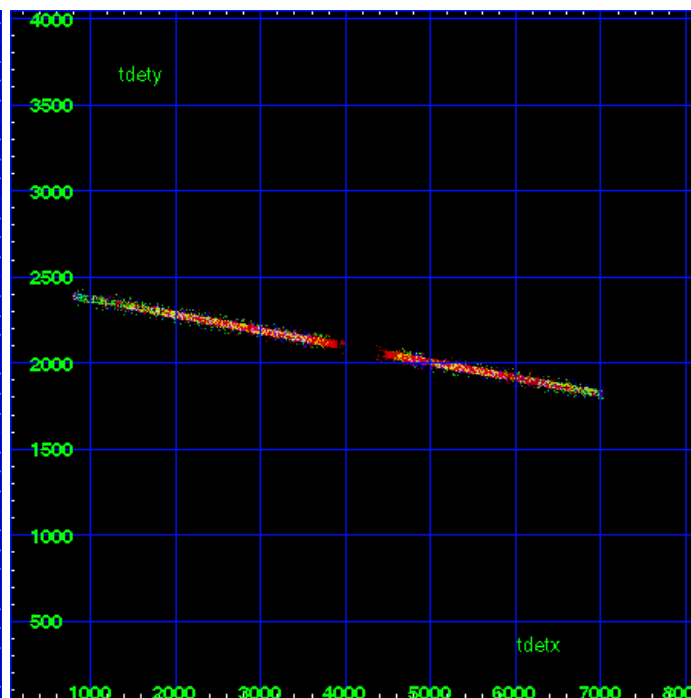
HEG Zero Order



HEG Order Sort ALL

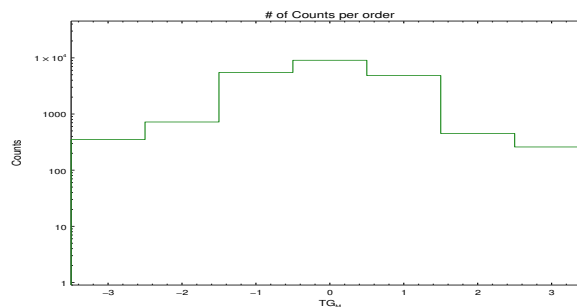


Spot Image HEG

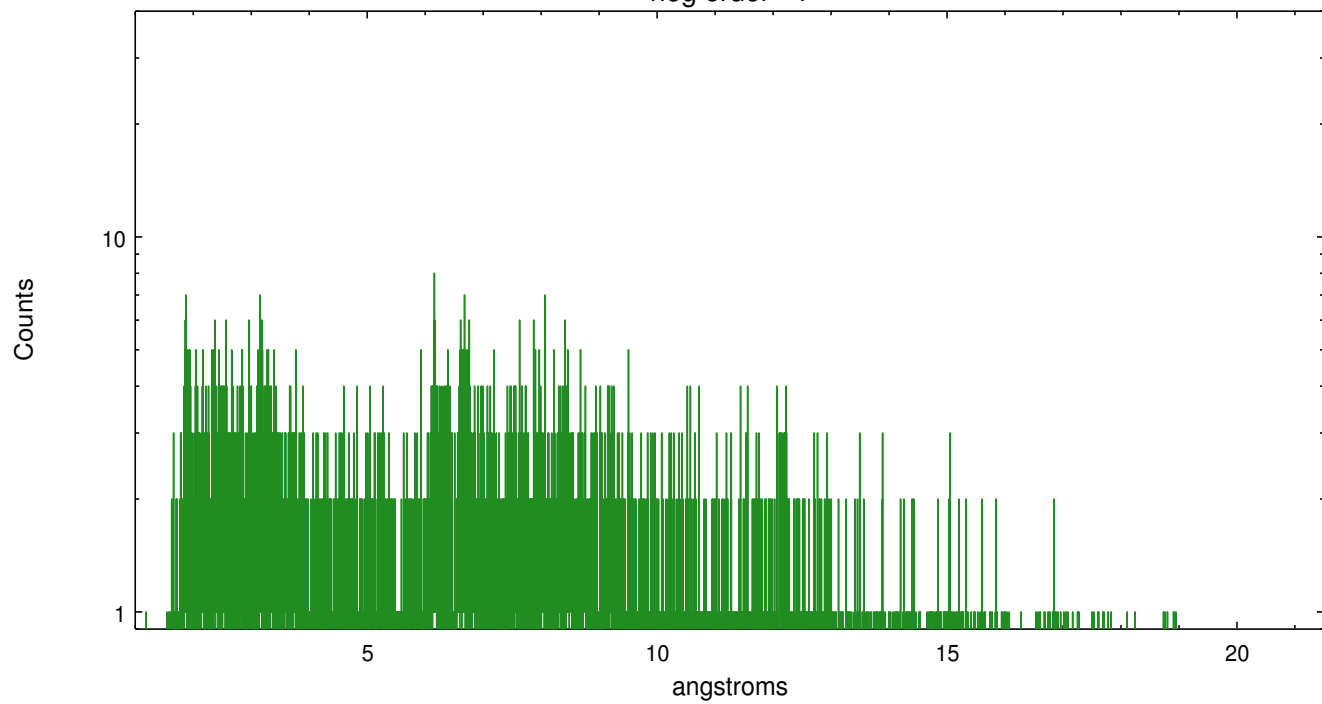


Full Detector HEG

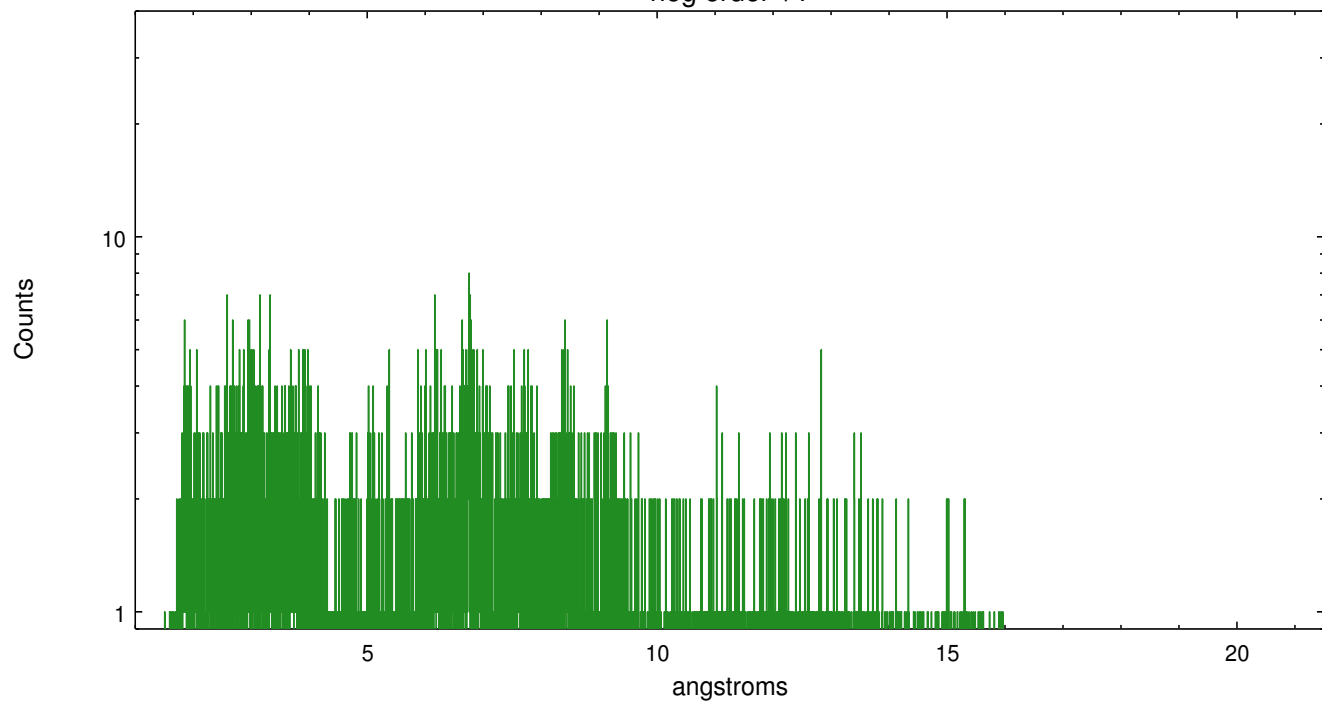
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	351	721	5498	9051	4840	450	259



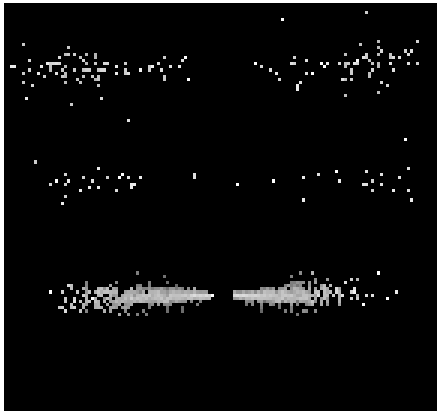
heg order -1



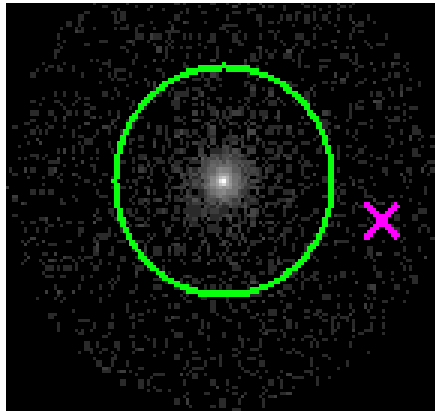
heg order +1



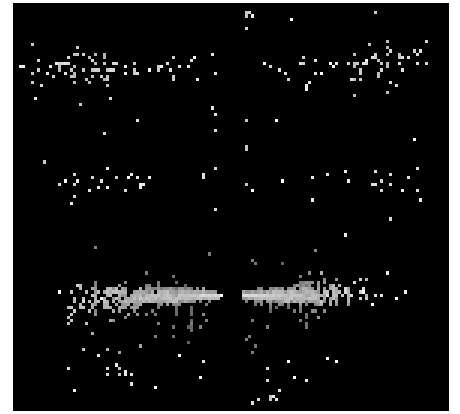
3.2 MEG Arm



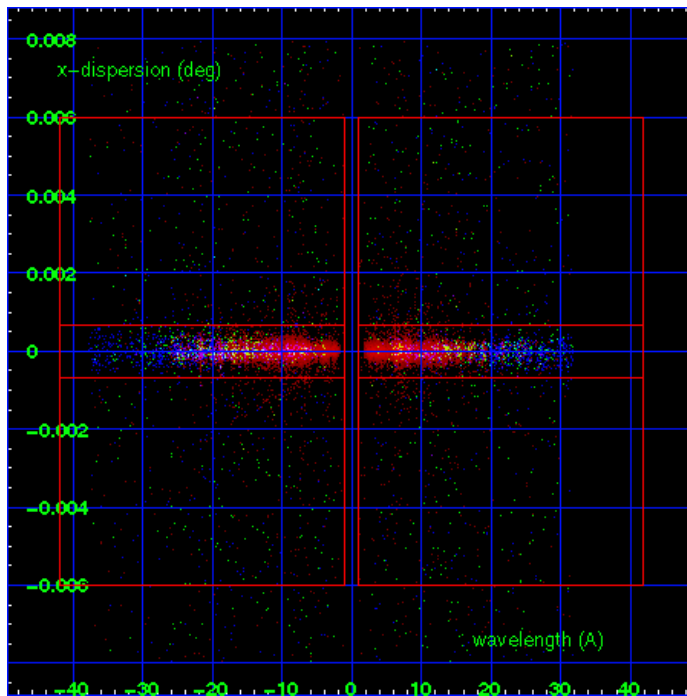
MEG Order Sort 123



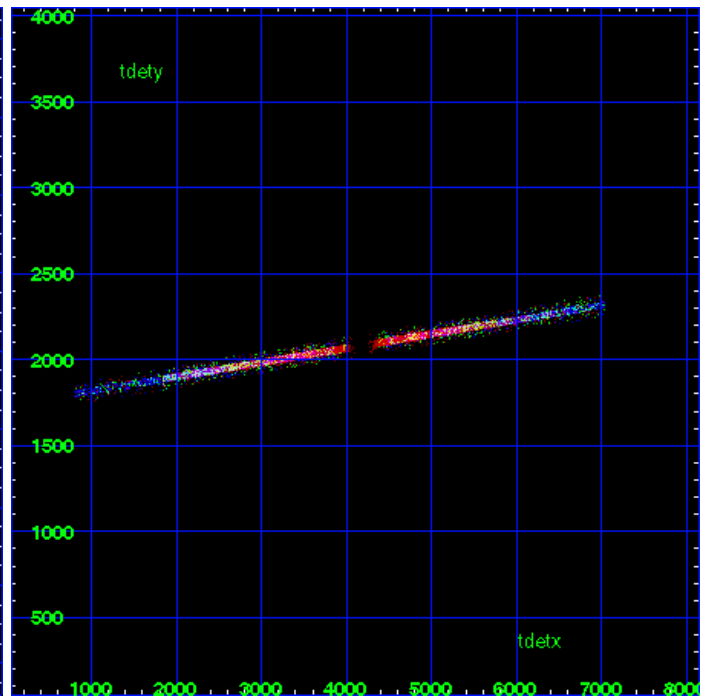
MEG Zero Order



MEG Order Sort ALL

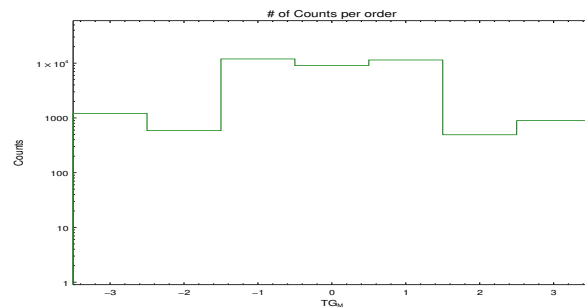


Spot Image MEG

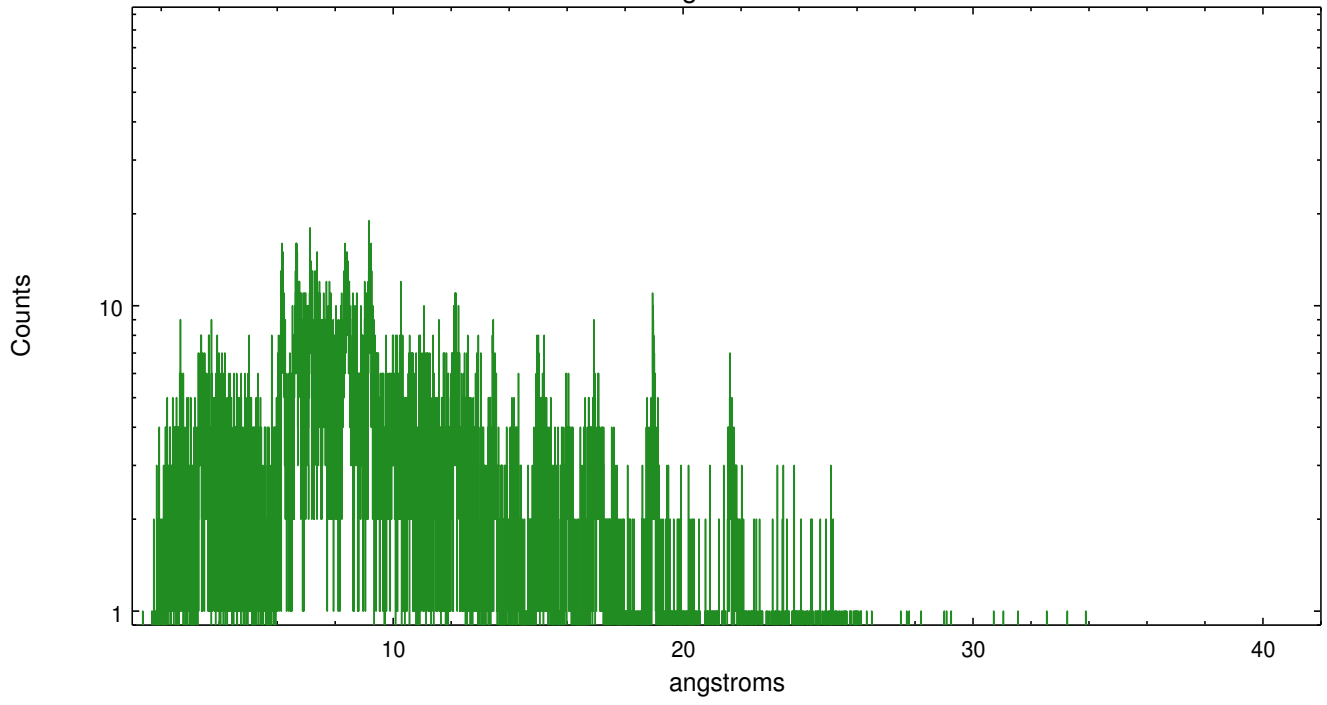


Full Detector MEG

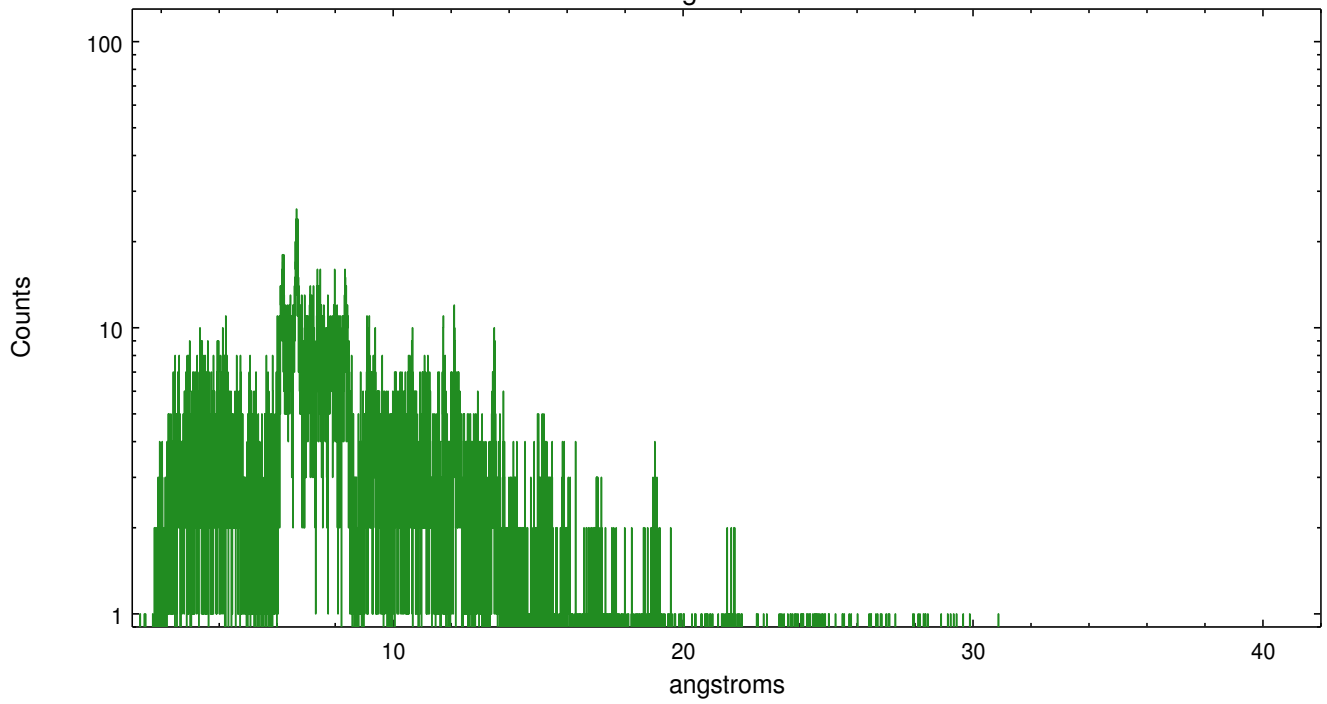
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1210	587	11942	9051	11438	493	894



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.937

A.2 Comments

Charge time for this ObsId remains at previous value of 36.937 ks, although with the current processing the charge time would have been 38.039 ks.

===

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=4052.29, y=4106.46) into the *src1a.fits file table. These corrected coordinates were determined using a software tool developed by CXC called findzero, which is expected to be released in CIAO as tg_findzo (currently in ISIS as findzo). 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.