

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 240 - L2 Version 4
Chandra X-Ray Center

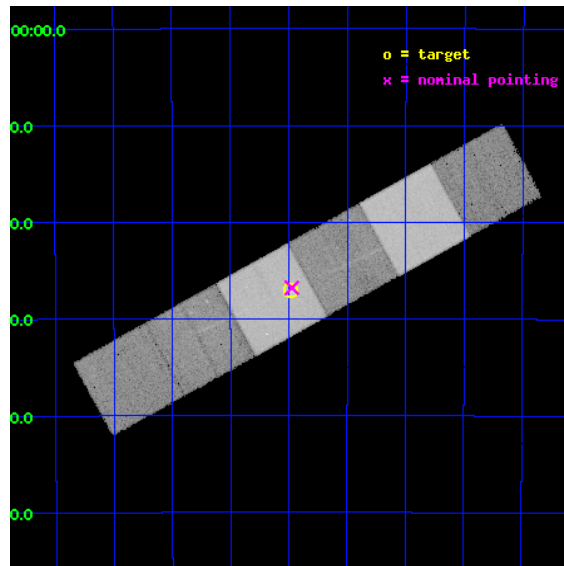
L2 Processing Date : Sep 14 2012

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1 Front

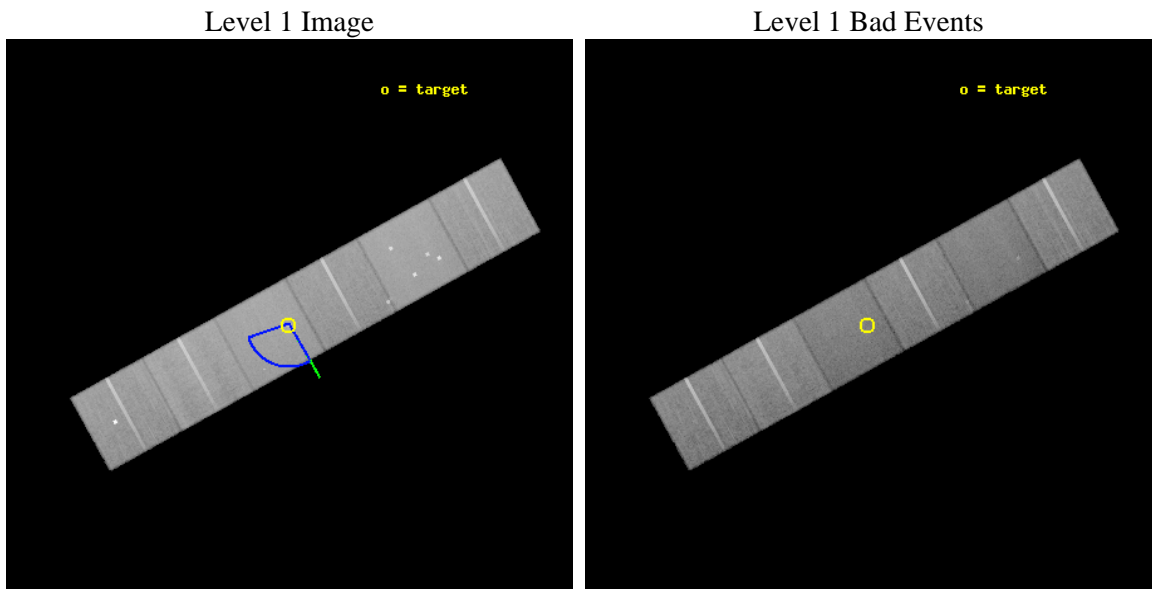
seq_num	600000	Sequence number
obs_id	240	Observation id
title	THE DETAILED X-RAY SPECTRA OF ELLIPTICAL GALAXIES	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	NGC 1399	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	54.622083	Observer's specified target RA [deg]
dec_targ	-35.450278	Observer's specified target Dec [deg]
ra_nom	54.618524122813	Nominal RA [deg]
dec_nom	-35.446616611384	Nominal Dec [deg]
roll_nom	151.10455945613	Nominal Roll [deg]
revision	4	Processing version of data
ontime	44091.922615021	Sum of GTIs [s]
livetime	43533.604141902	Livetime [s]
ontime4	44091.963655025	Sum of GTIs [s]
ontime5	44091.881575018	Sum of GTIs [s]
ontime6	44088.599574789	Sum of GTIs [s]
ontime7	44091.922615021	Sum of GTIs [s]
ontime8	44091.799495026	Sum of GTIs [s]
ontime9	44091.758455023	Sum of GTIs [s]
l2events	441103	Number of level 2 events



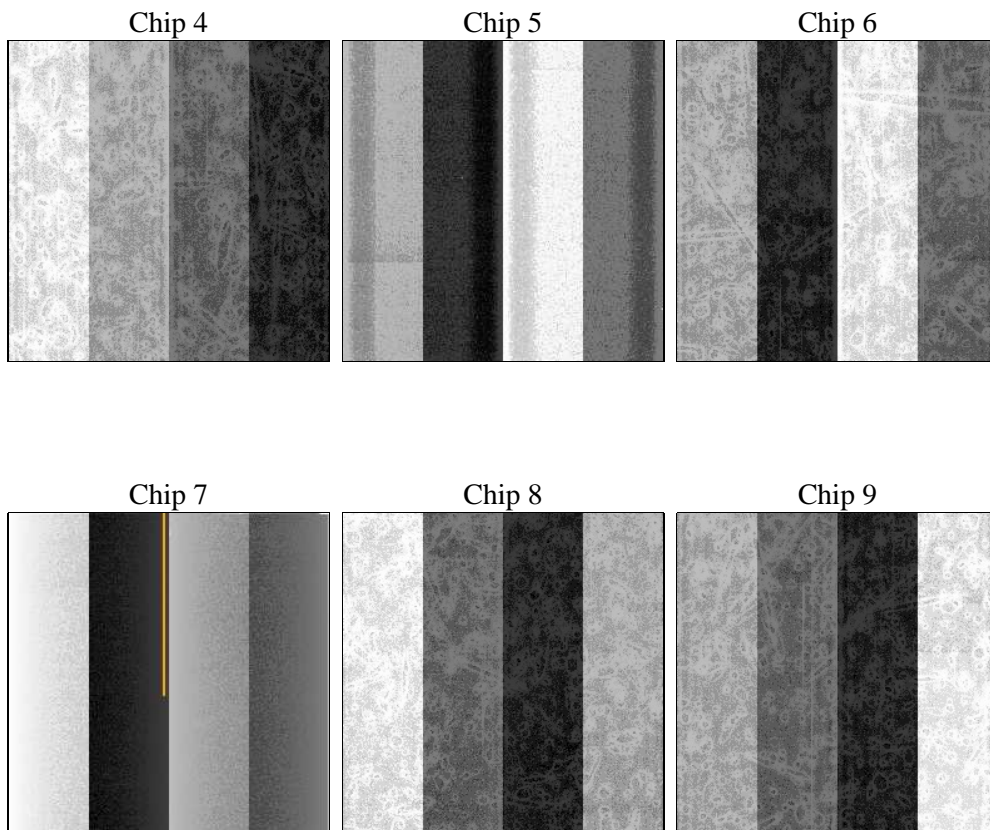
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	44000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	44091.922615021	Sum of GTIs [s]
caldbver	4.5.1.1	 	ontime4	44091.963655025	Sum of GTIs [s]
date	2012-08-29T09:05:59	Date and time of file creation	ontime5	44091.881575018	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	44088.599574789	Sum of GTIs [s]
			ontime7	44091.922615021	Sum of GTIs [s]
			ontime8	44091.799495026	Sum of GTIs [s]
			ontime9	44091.758455023	Sum of GTIs [s]
			l1events	2008500	Number of level 1 events

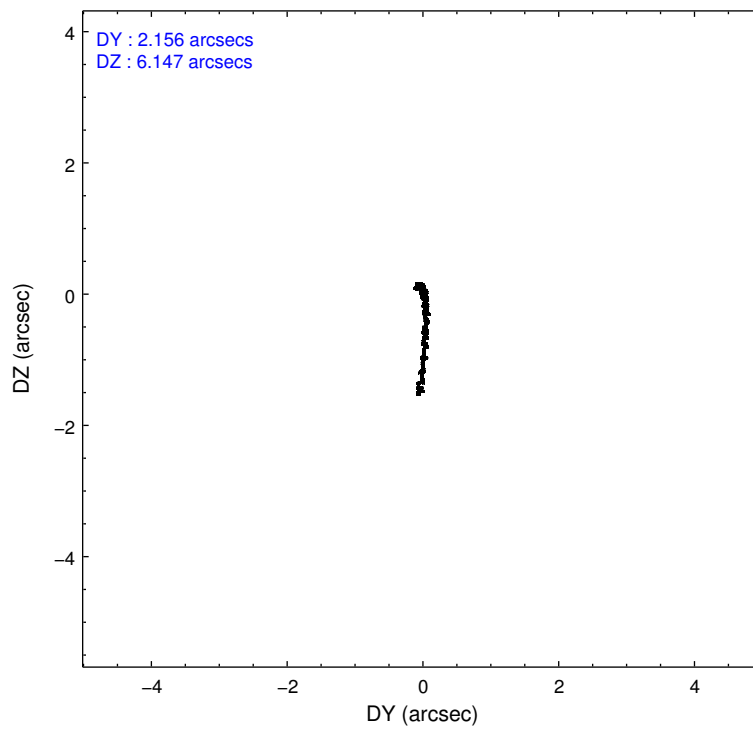
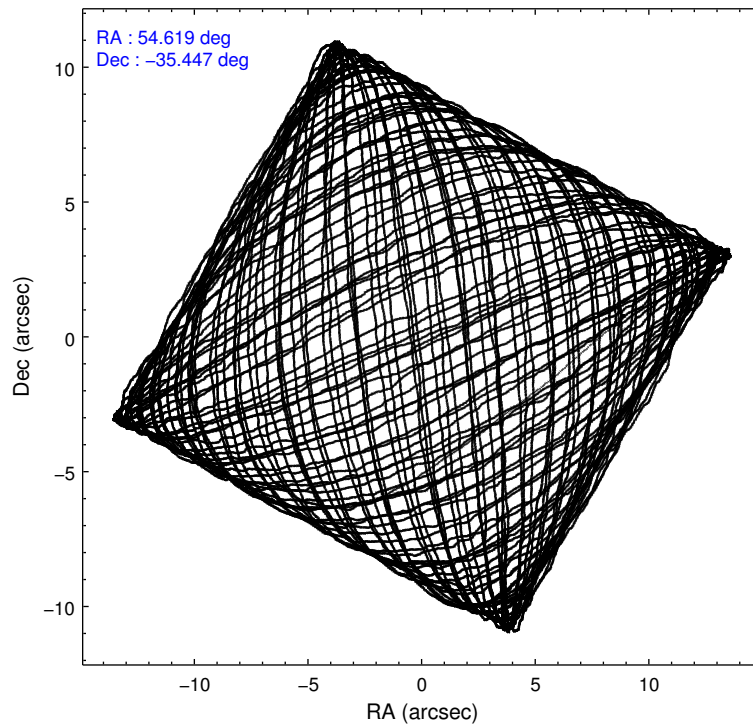
2.1.4 Events

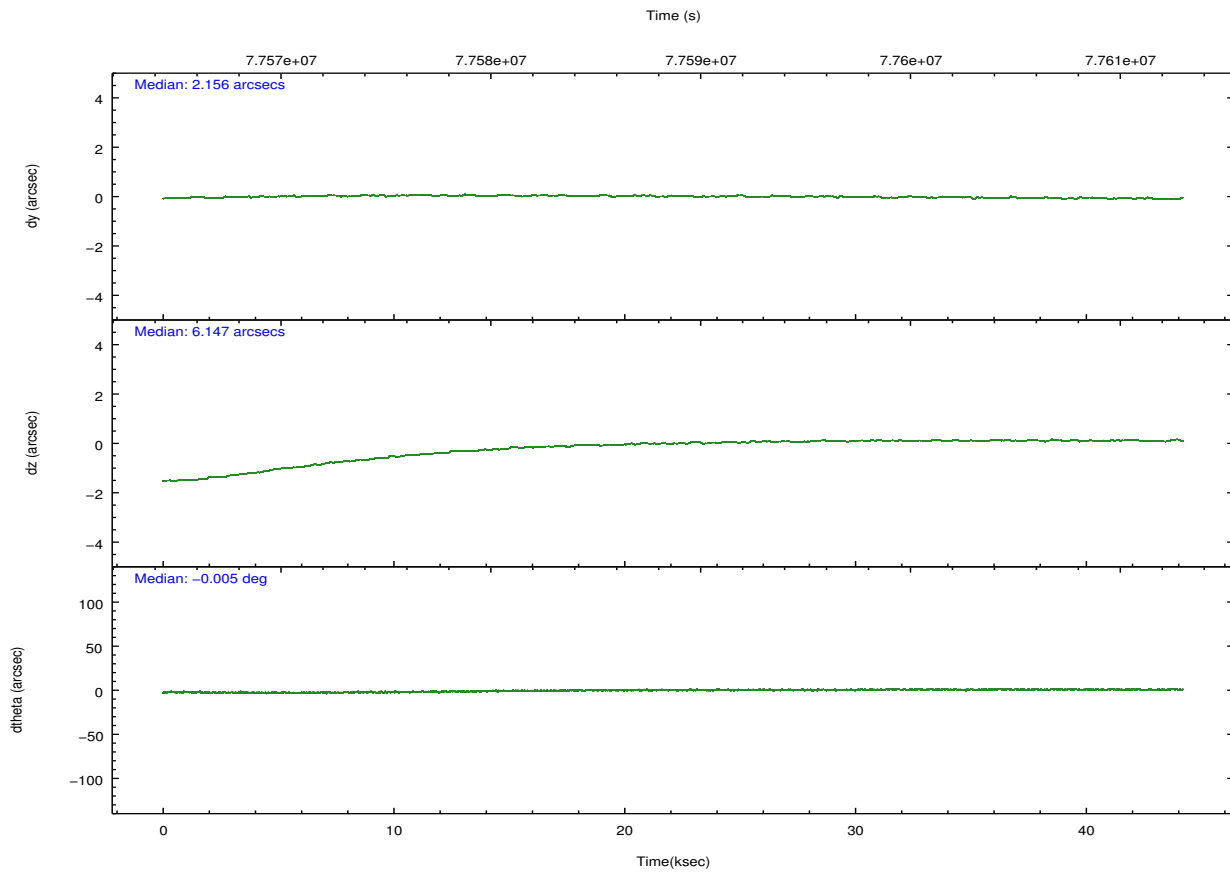
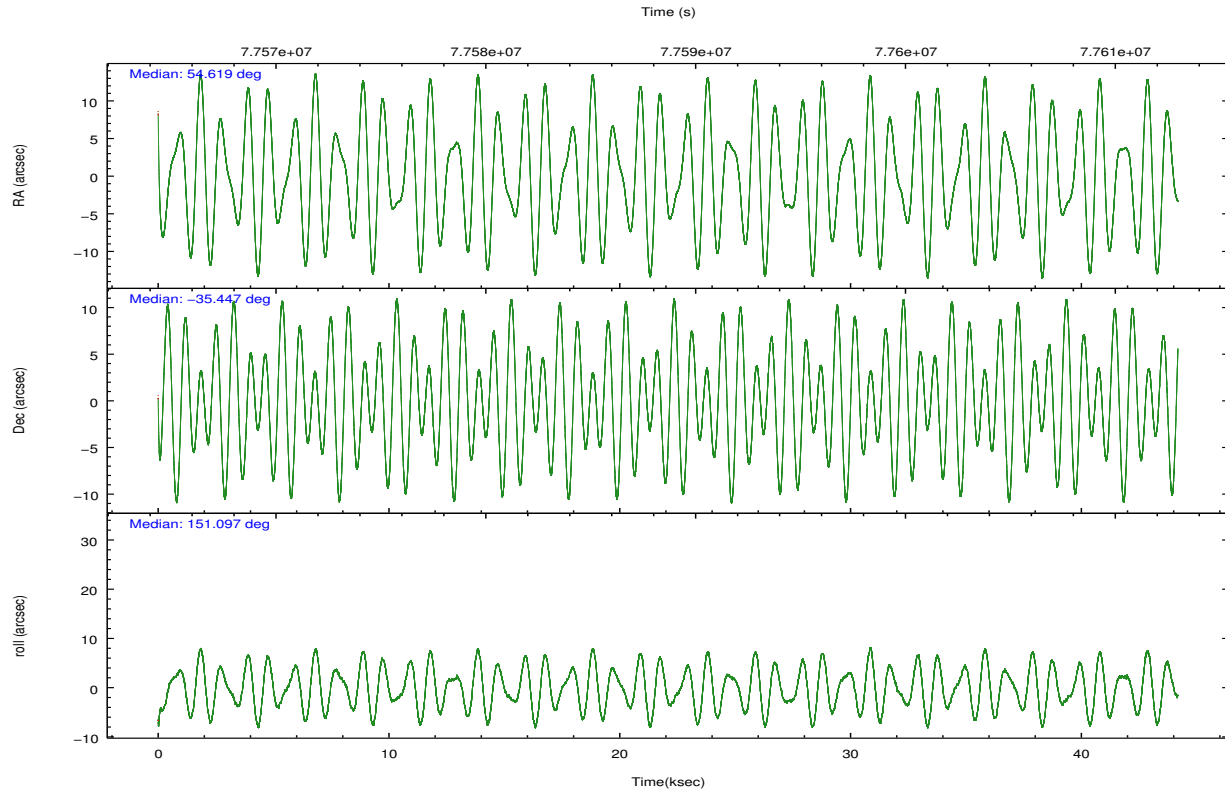
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	323502	381302	296746	349824	362477	294649	grade 0 events	14591	30169	21174	17010	26403	14868
rejected events	289595	197621	255805	194847	287511	247722		4%	7%	7%	4%	7%	5%
rejected %	89%	51%	86%	55%	79%	84%	grade 1 events	148	823	266	309	235	148
								0%	0%	0%	0%	0%	0%
							grade 2 events	7663	49804	6802	31626	15532	19527
								2%	13%	2%	9%	4%	6%
							grade 3 events	3089	8149	3395	14831	7591	3227
								0%	2%	1%	4%	2%	1%
							grade 4 events	2977	7833	3410	14768	7138	3137
								0%	2%	1%	4%	1%	1%
							grade 5 events	9160	28581	10853	32406	13806	11004
								2%	7%	3%	9%	3%	3%
							grade 6 events	5590	87748	6164	76769	18305	6174
								1%	23%	2%	21%	5%	2%
							grade 7 events	280284	168195	244682	162105	273467	236564
								86%	44%	82%	46%	75%	80%

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	54.652173	54.61852412281318	Subarray requested	NONE	NONE
[deg] Pointing Dec	-35.445961	-35.44661661138443	Alternating exposures requested	N	N
[deg] Pointing Roll	150.967451	151.1045594561282	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	200.000000	200.000000			
[deg] Roll tolerance	50.000000	50.000000			
Roll constraint allows 180D rotation	N	N			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	77566777.184000	77565669.66936301			
Observation start date	2000-06-16T18:18:33	2000-06-16T18:01:09			
[s] Observation end time (MET)	77610777.184000	77611776.73356199			
Observation end date	2000-06-17T06:31:53	2000-06-17T06:49:36			
Read mode	TIMED	TIMED			

2.3 Aspect



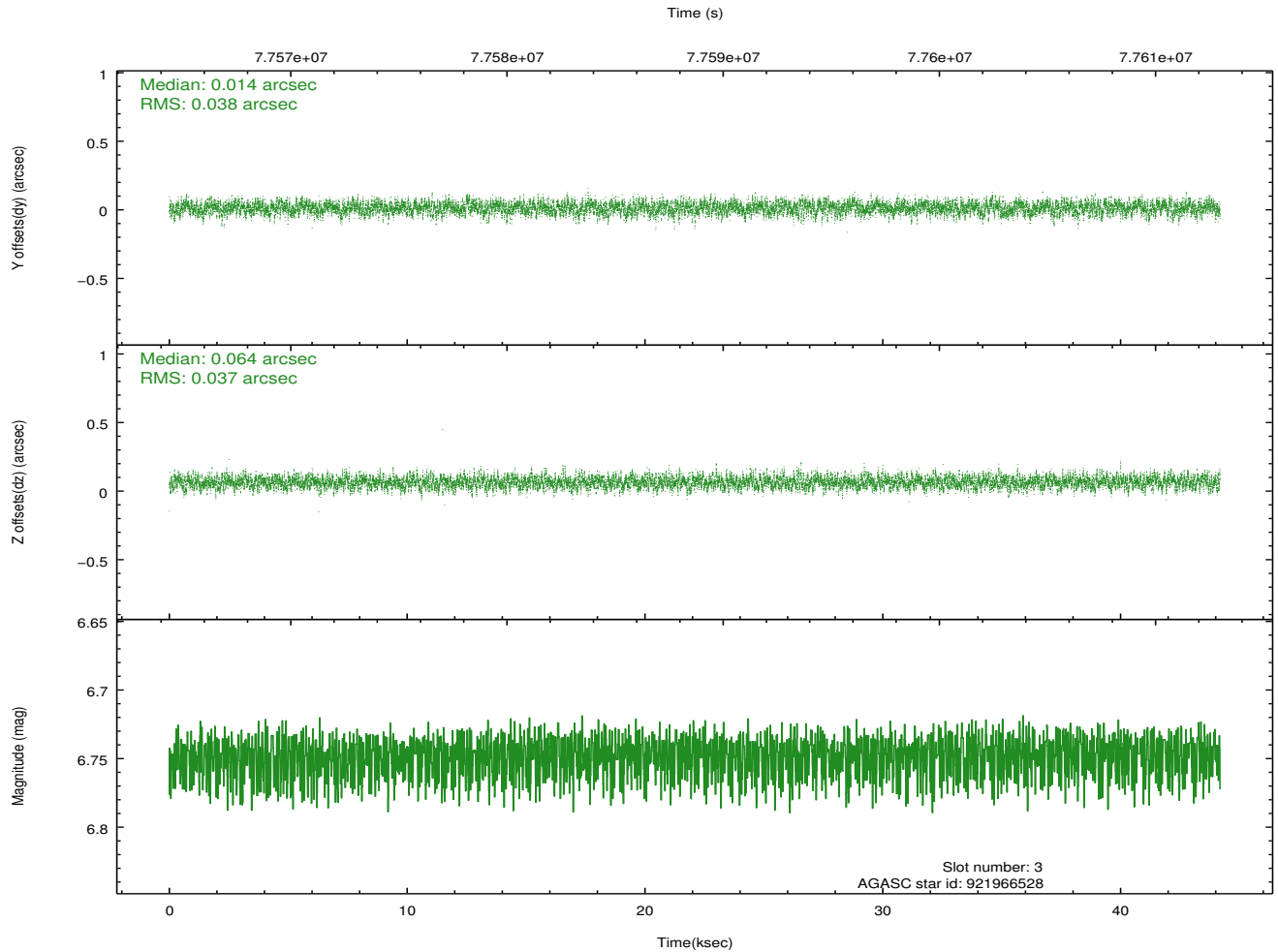
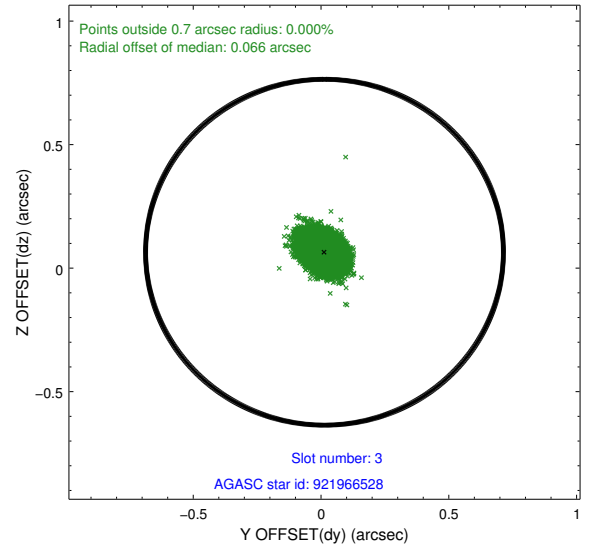
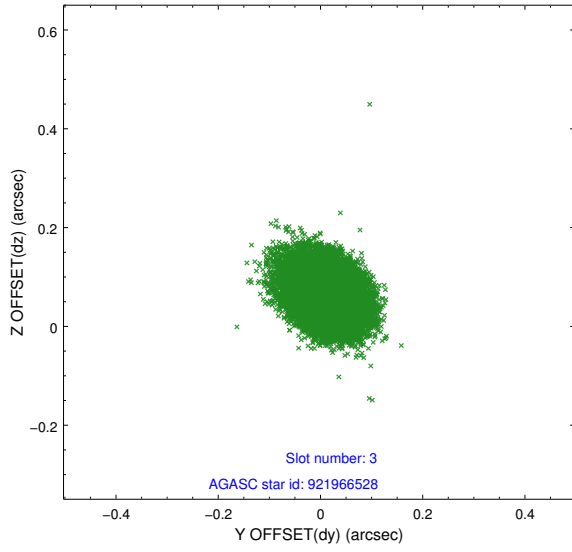


Slot Statistics

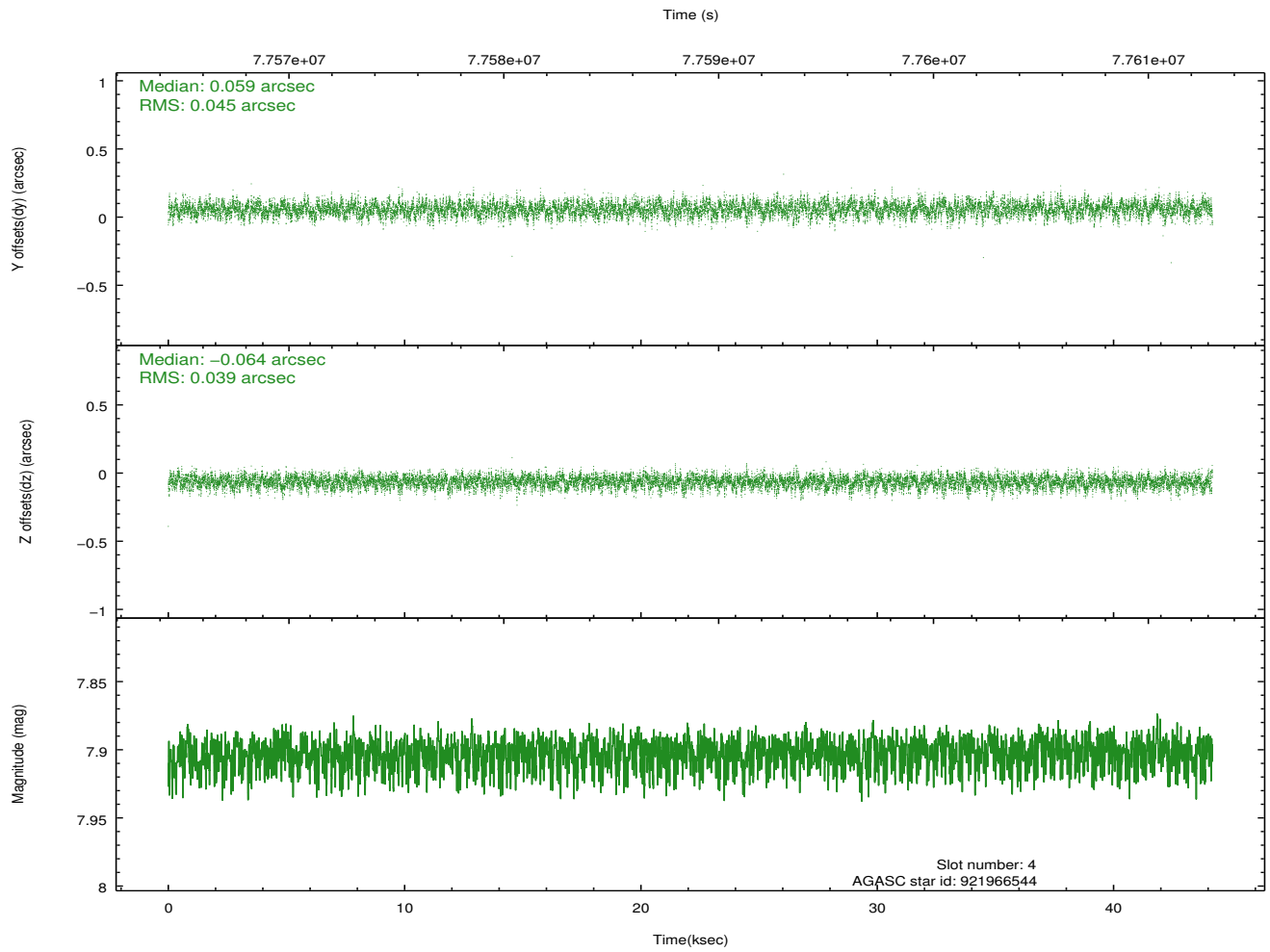
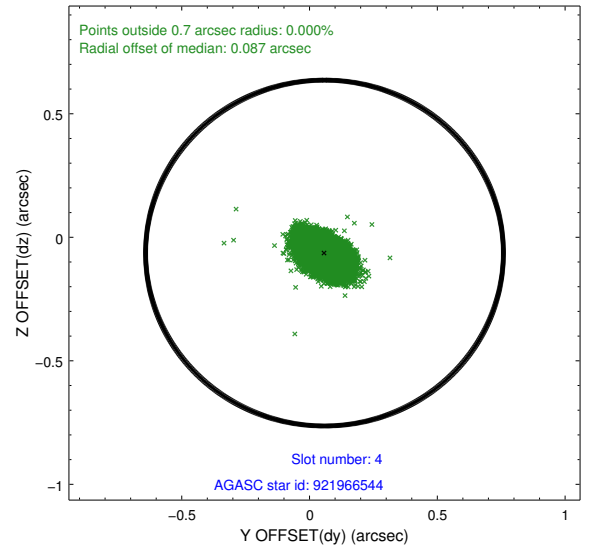
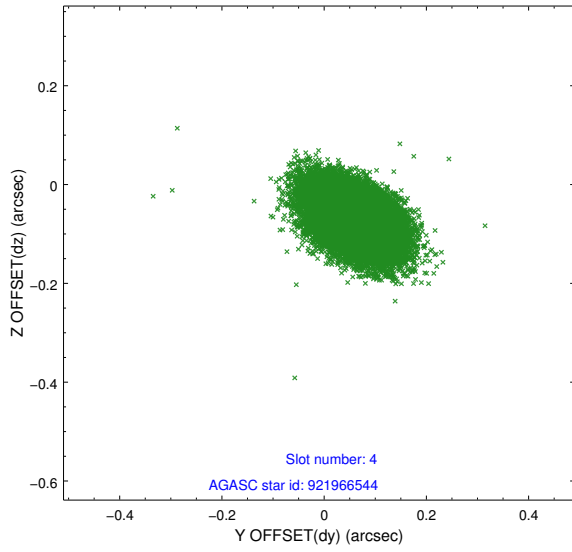
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	10777	0.002	-0.050	0.014	0.061	0.000000	0.000000	941.26	-1722.71
1	FID	ACIS-S-5	7.24	10775	0.008	0.007	0.008	0.014	0.000000	0.000000	-1807.72	174.90
2	FID	ACIS-S-6	7.35	10777	-0.033	0.054	0.014	0.066	0.000000	0.000000	406.80	818.89
3	GUIDE	921966528	6.75	21554	0.014	0.064	0.056	0.090	54.675841	-35.204254	362.02	-794.29
4	GUIDE	921966544	7.90	21549	0.059	-0.064	0.062	0.106	54.743508	-35.636012	-565.26	468.67
5	GUIDE	921575736	8.54	21546	-0.097	0.202	0.070	0.118	54.586331	-34.827401	1251.43	-1851.95
6	GUIDE	921965624	8.63	21482	0.078	-0.038	0.071	0.120	54.900706	-35.940077	-1496.66	1204.40
7	GUIDE	921048648	9.06	21545	-0.056	-0.166	0.101	0.157	53.884610	-35.870023	1212.76	2429.38

2.4 Star Slots

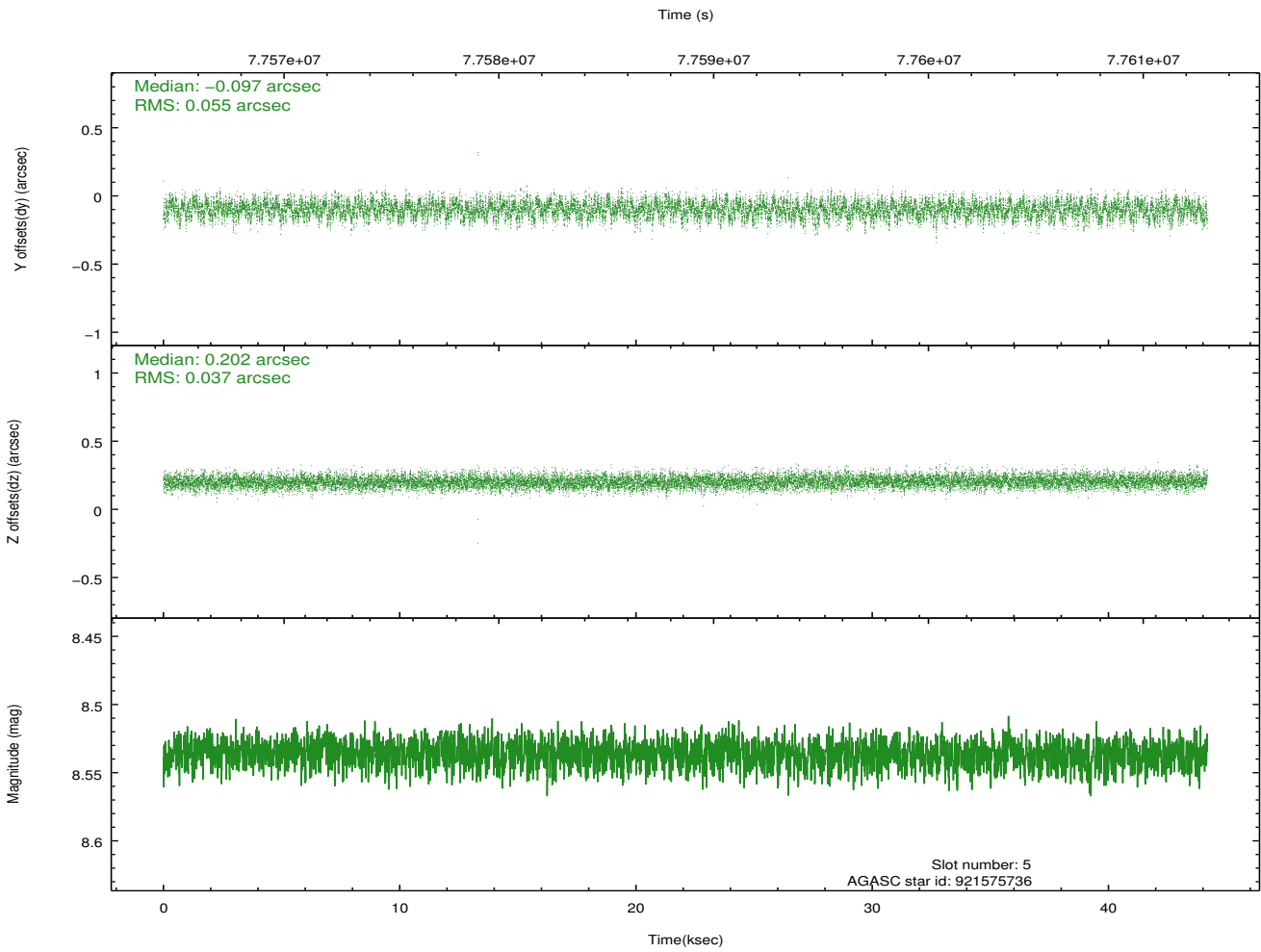
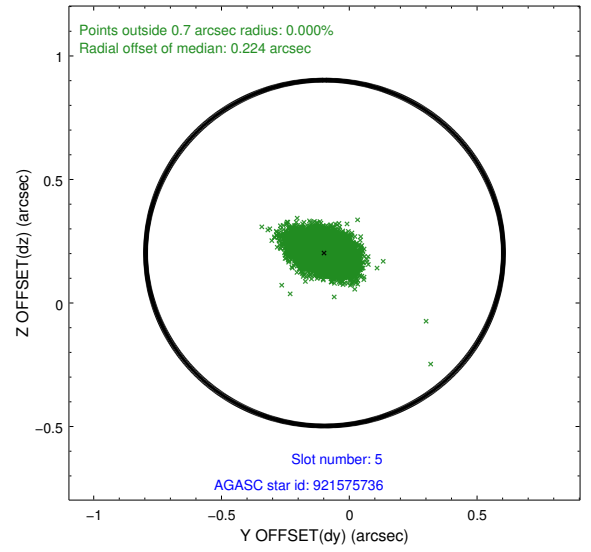
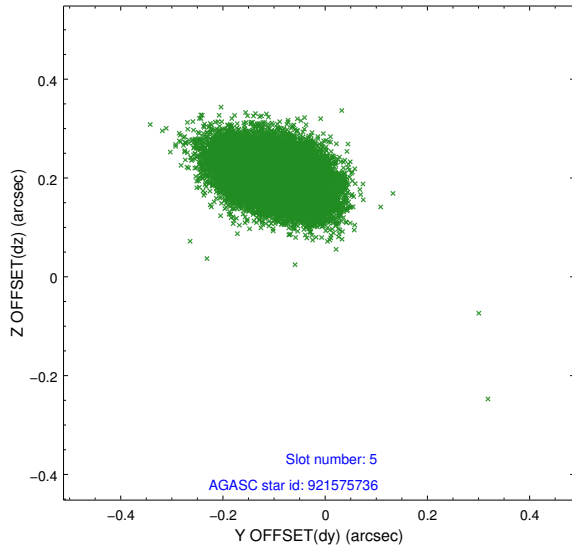
2.4.1 Slot 3



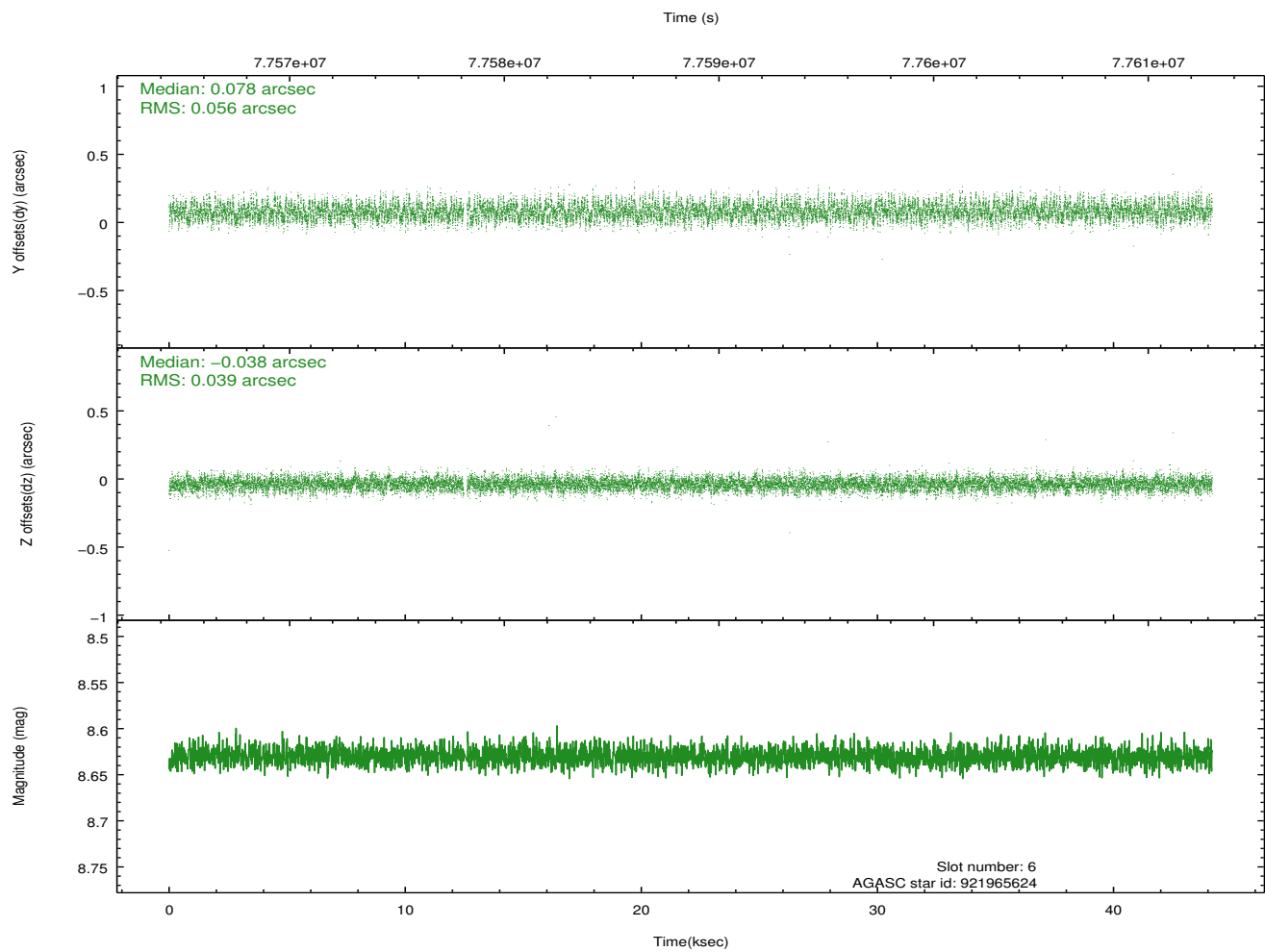
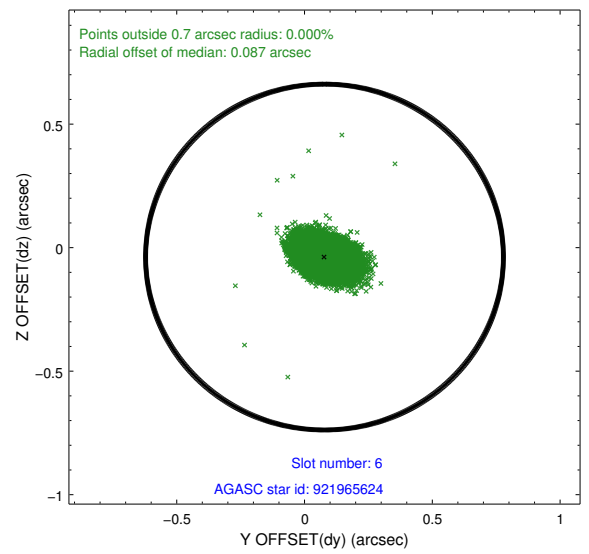
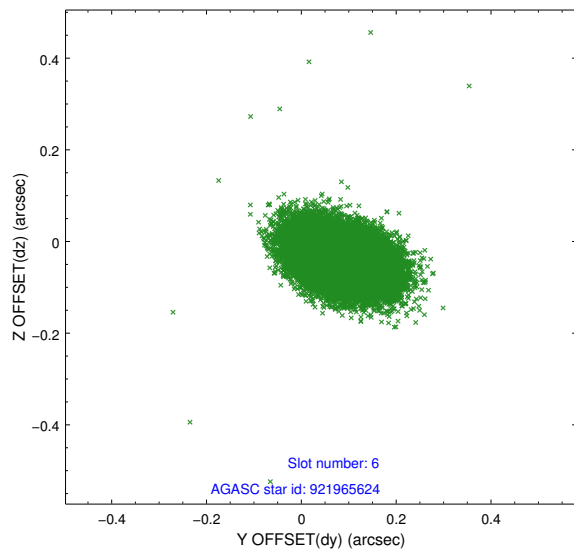
2.4.2 Slot 4



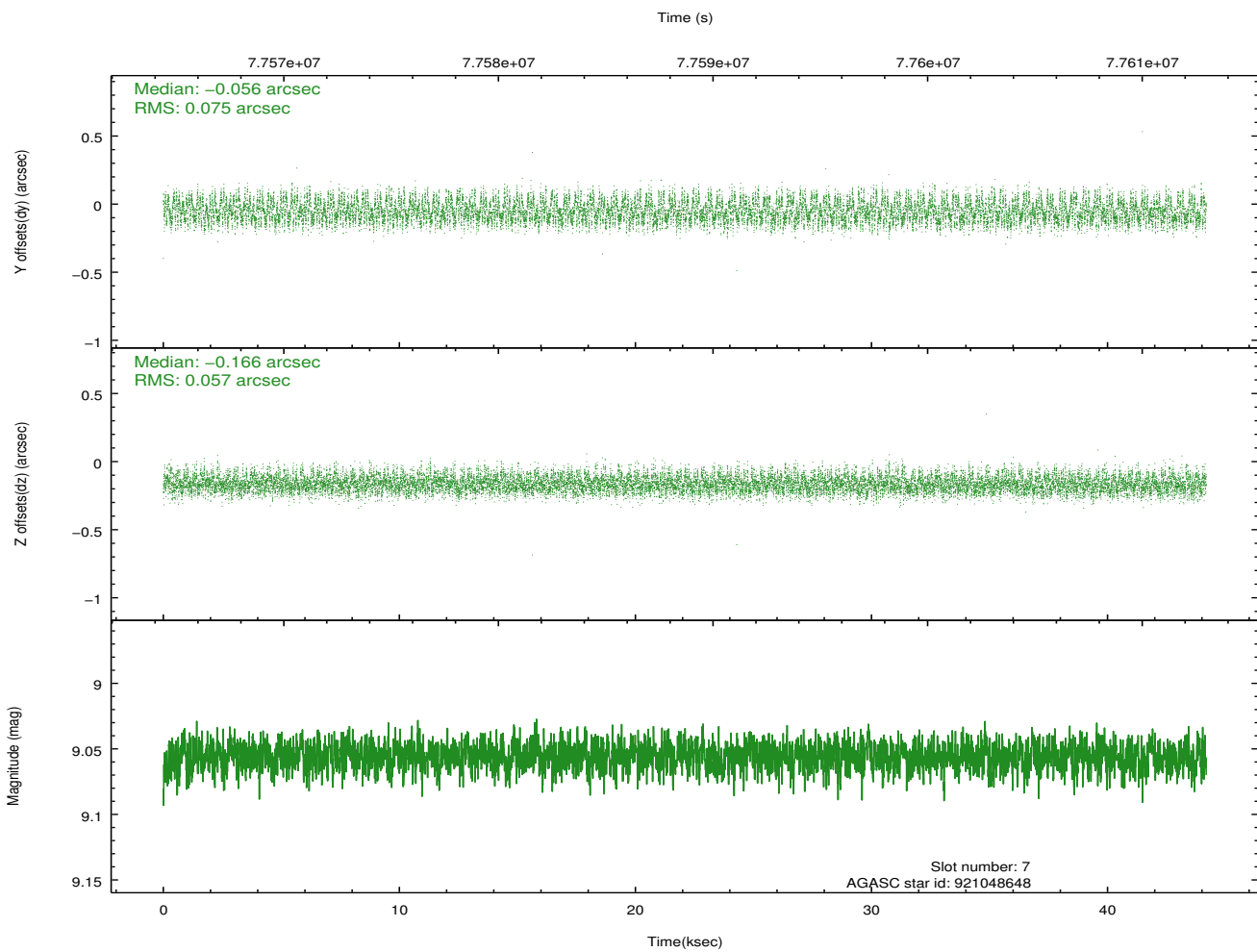
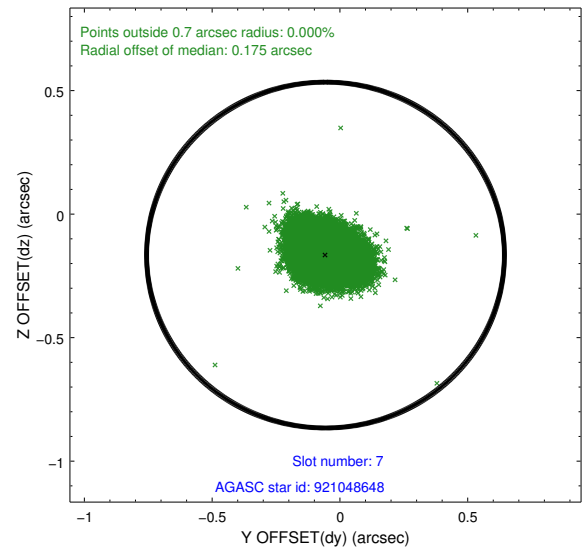
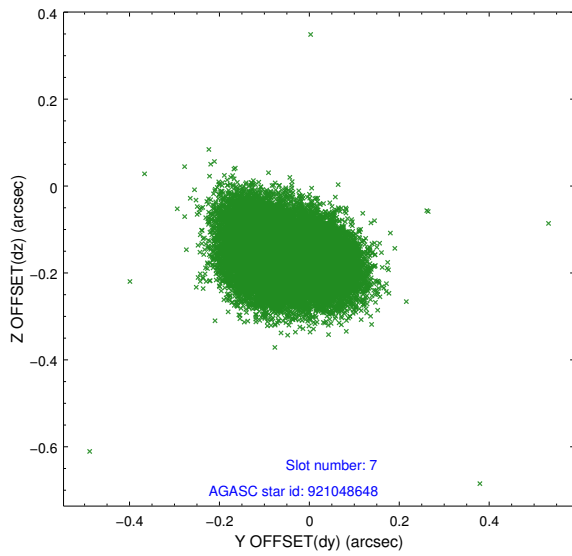
2.4.3 Slot 5



2.4.4 Slot 6

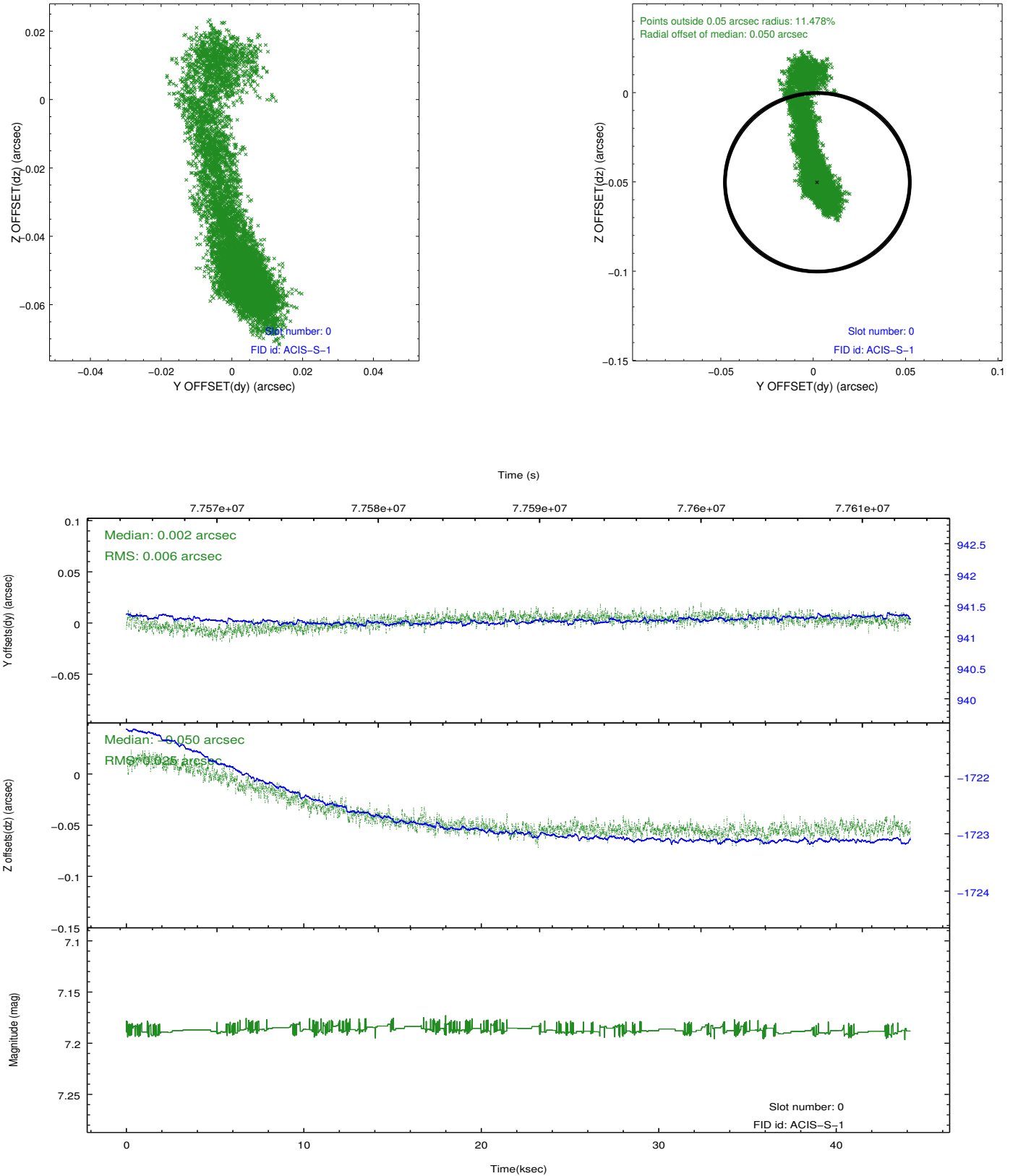


2.4.5 Slot 7

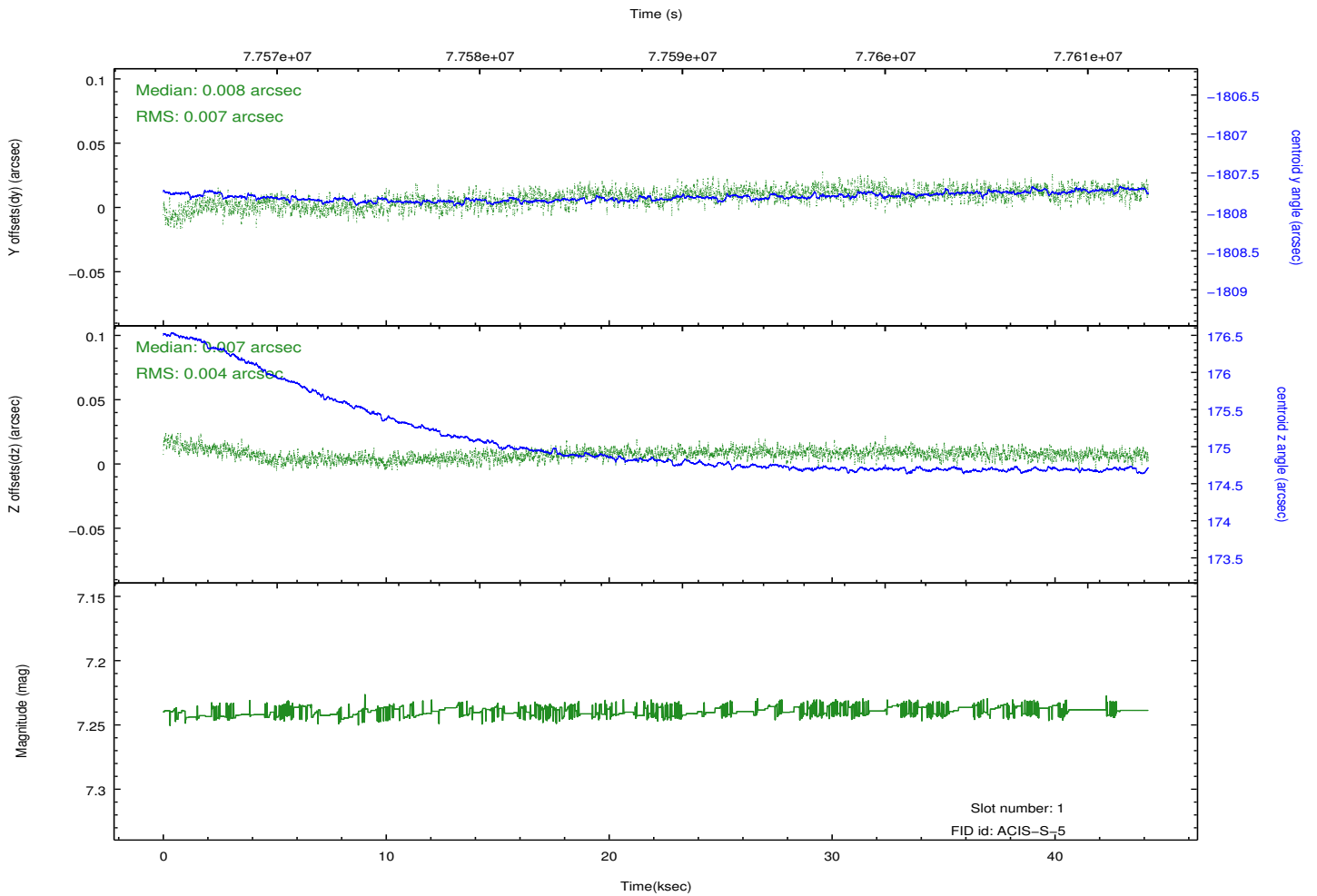
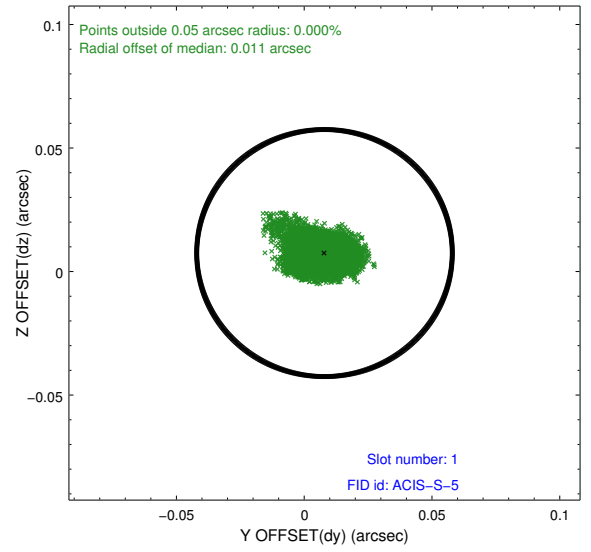
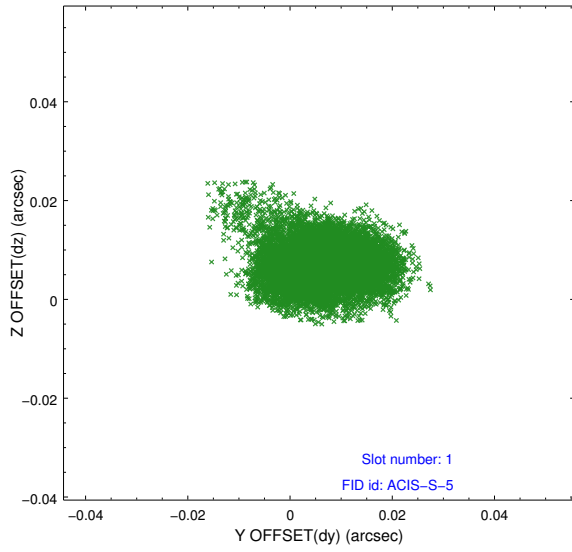


2.5 FID Slots

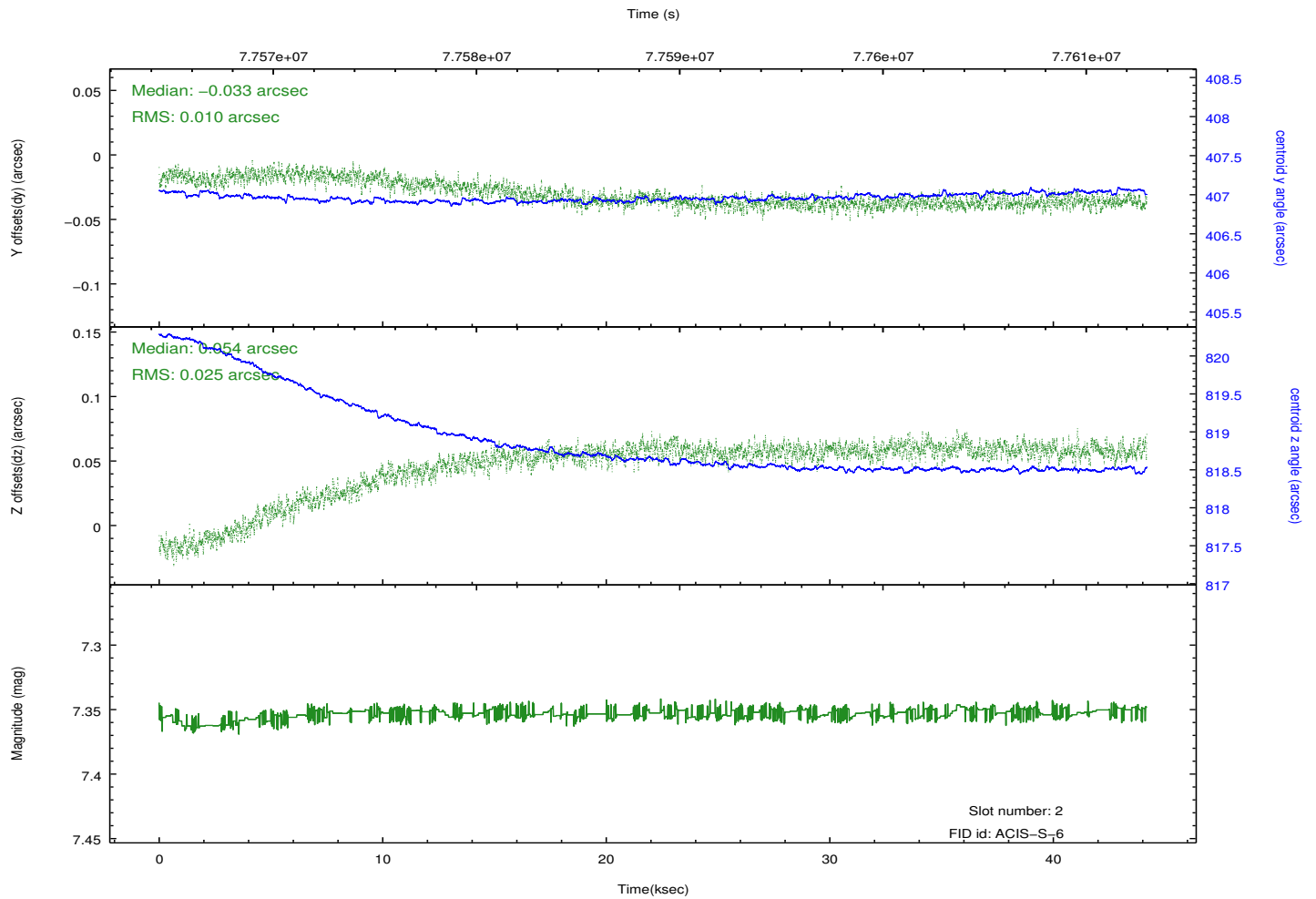
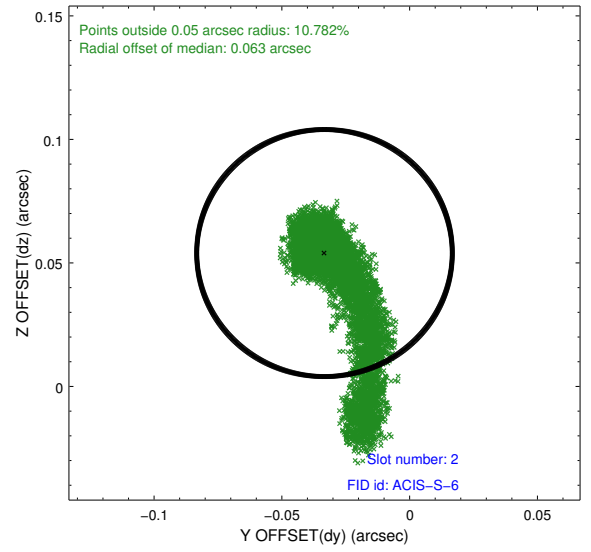
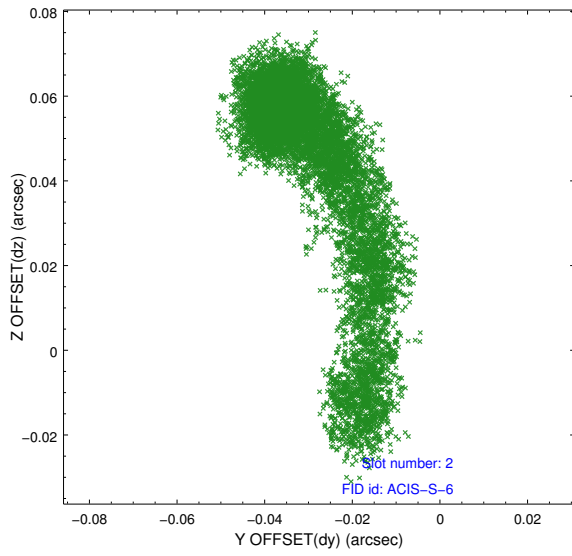
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

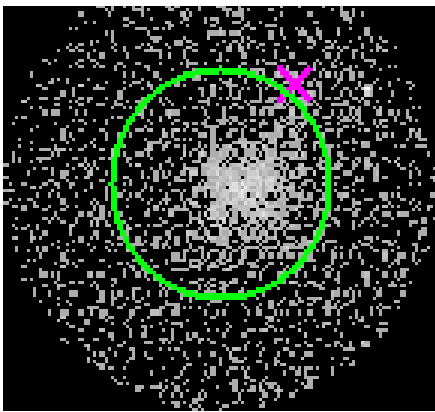


3 Gratings

3.1 HEG Arm



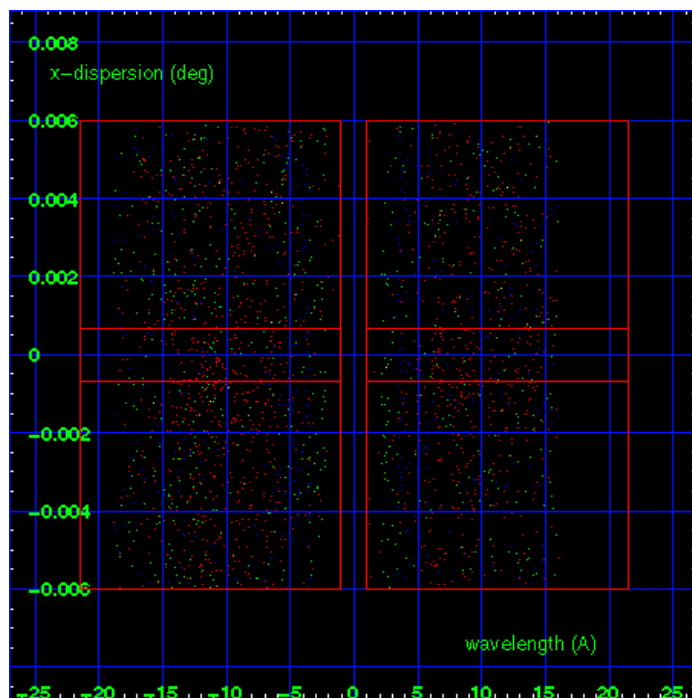
HEG Order Sort 123



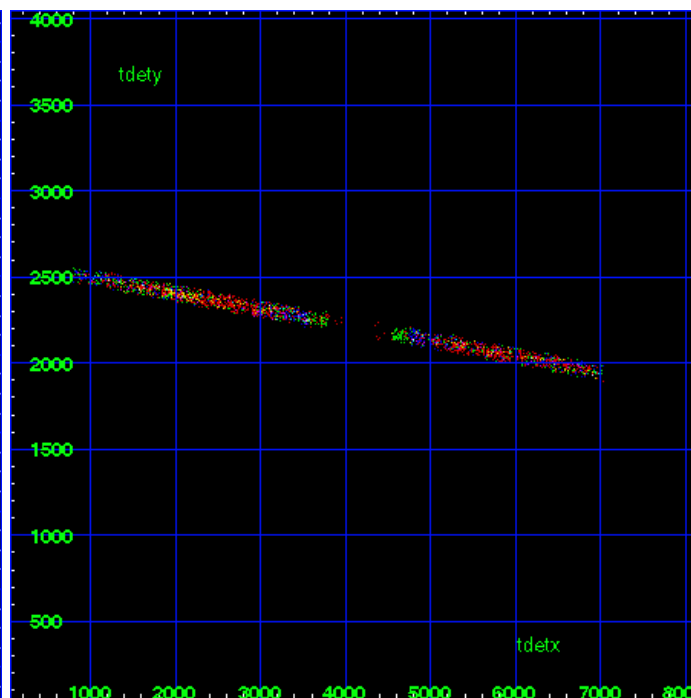
HEG Zero Order



HEG Order Sort ALL

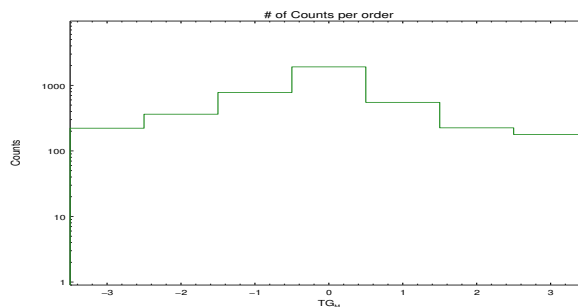


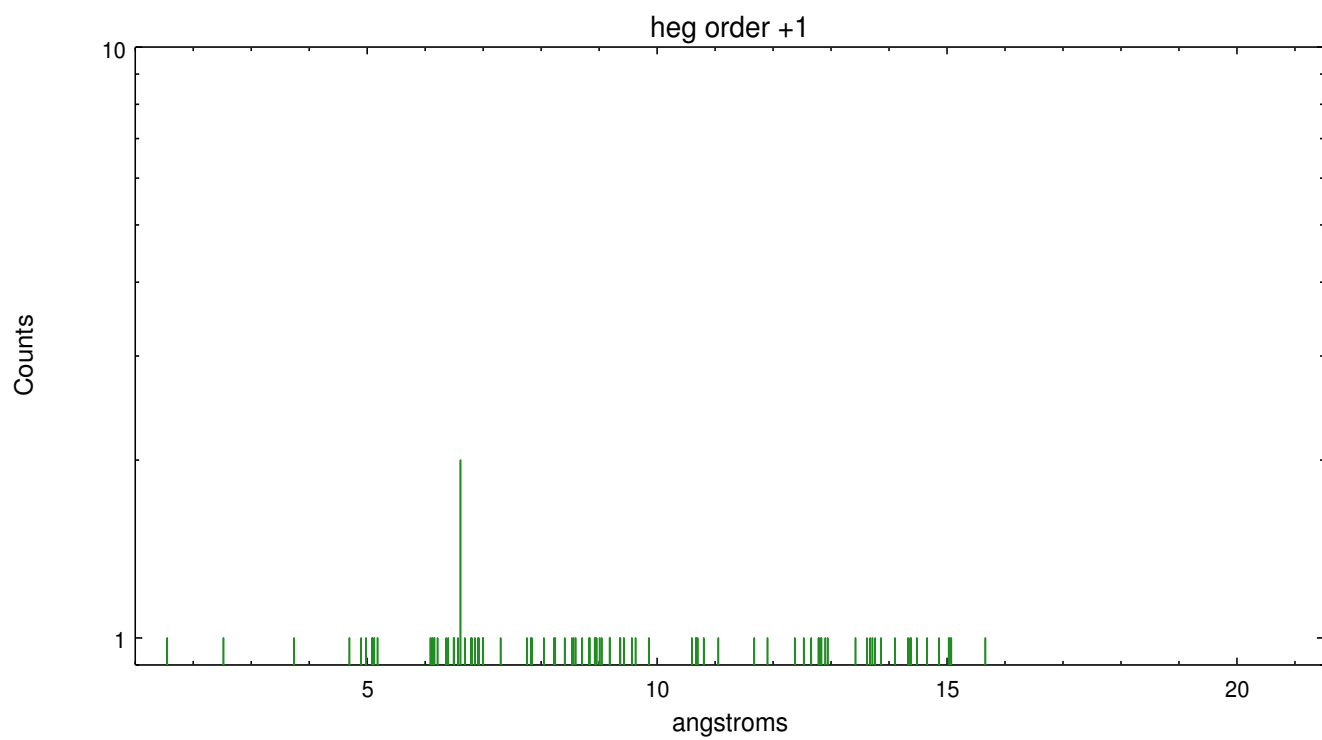
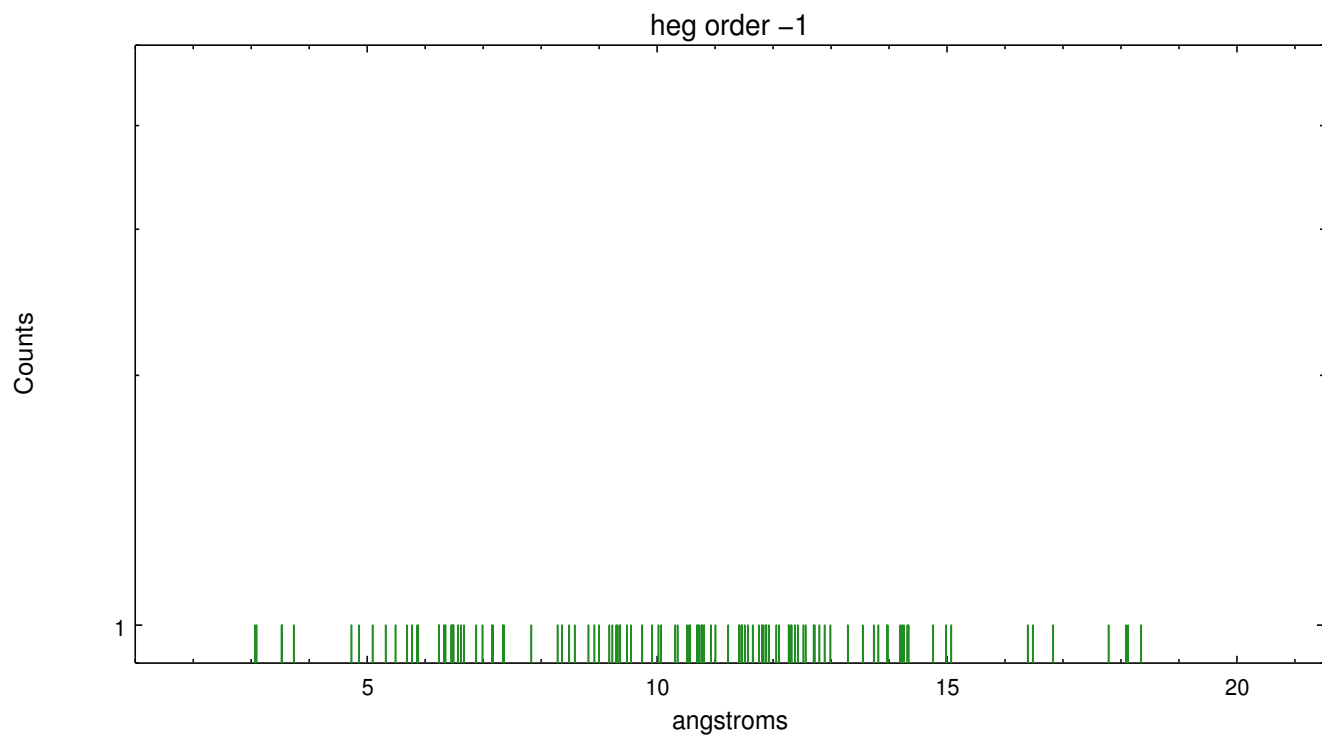
Spot Image HEG



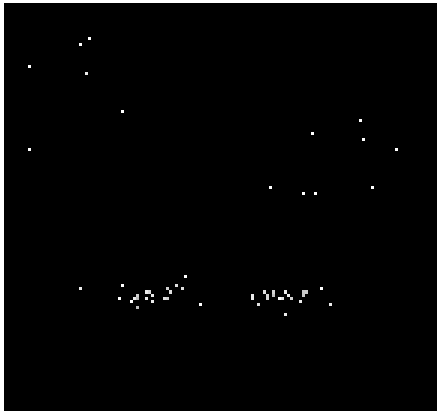
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	222	363	779	1914	550	225	178

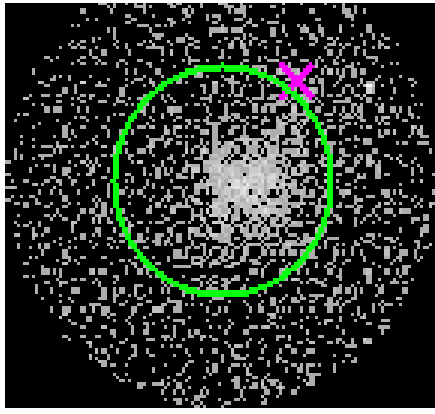




3.2 MEG Arm



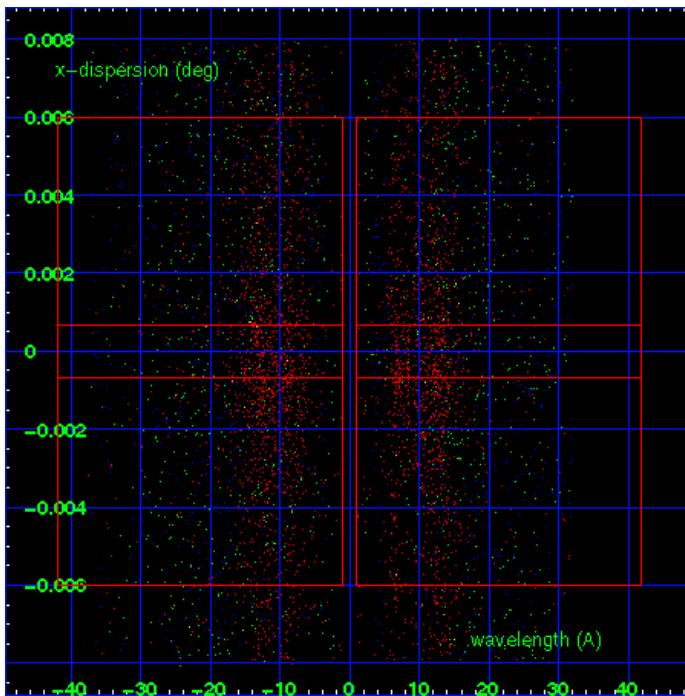
MEG Order Sort 123



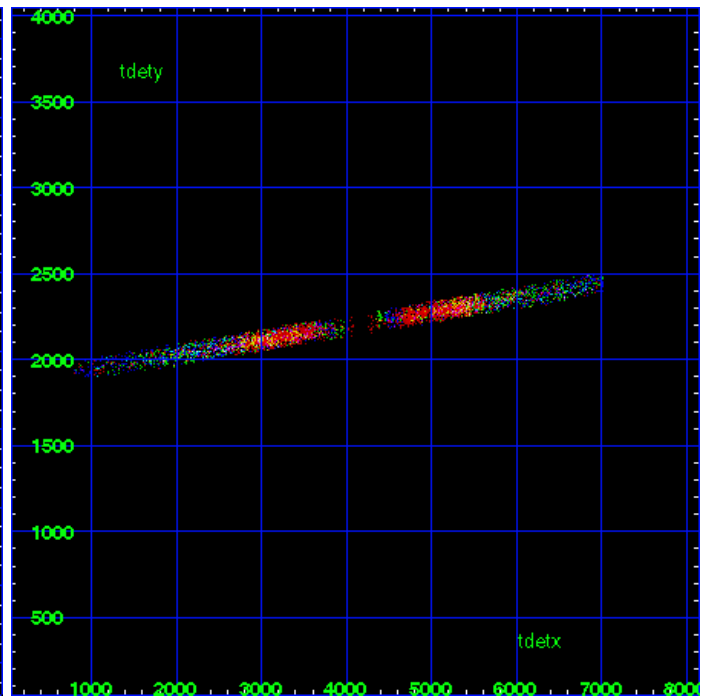
MEG Zero Order



MEG Order Sort ALL

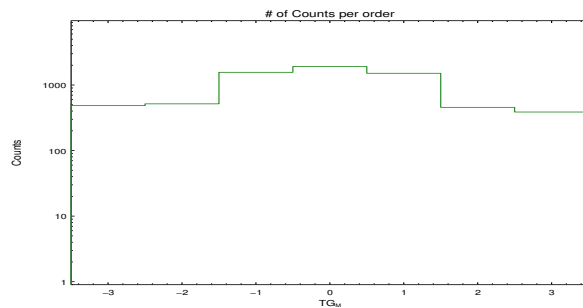


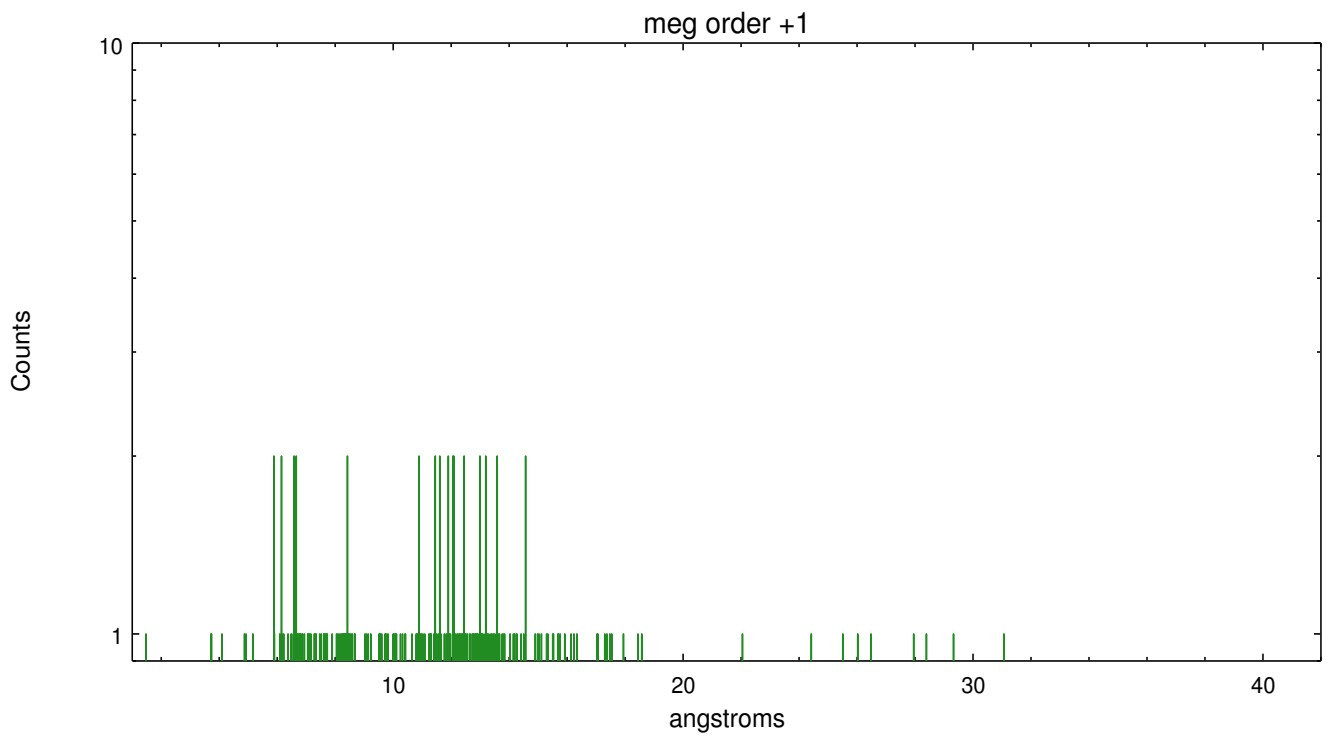
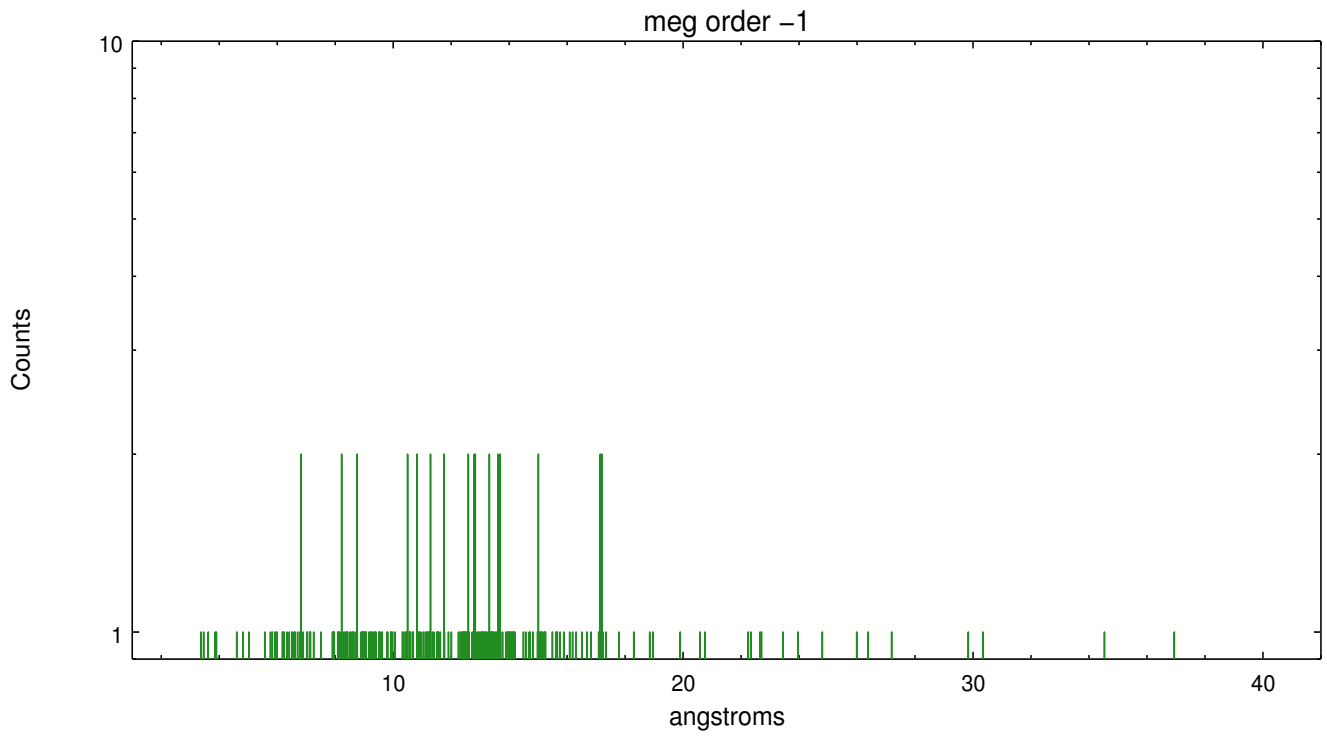
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	485	516	1560	1914	1508	456	387





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	44.08

A.2 Comments

Standard software processing technique using the tool `tgdetect` failed to determine an accurate position for the zeroth order for this observation. The source is extended and asymmetric. The processing software defaulted to the coordinates supplied by the user for the position of the zeroth order for the grating spectral extraction. For grating analysis of localized X-ray emission within the extended emission, the investigator will need to extract one or more dispersed spectra using user-defined zeroth order positions for all positions of interest. Coordinates used as zeroth order position for extracting dispersed spectra in this processing: `ra=03:38:29.3, dec=-35:27:01.0`.