

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 4564 - L2 Version 3
Chandra X-Ray Center

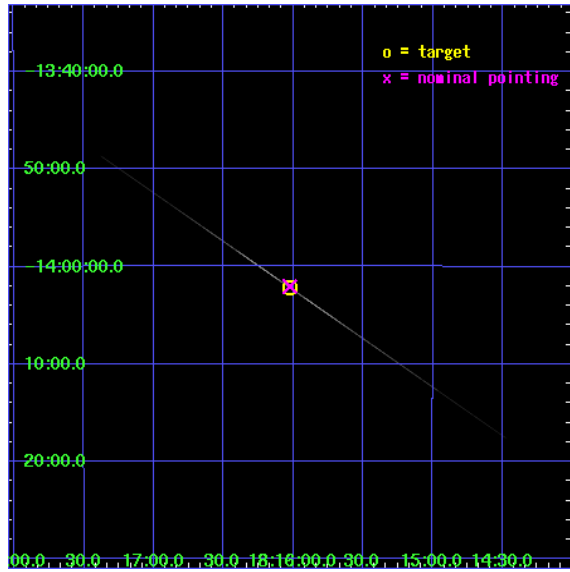
L2 Processing Date : Apr 11 2008

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1 Front

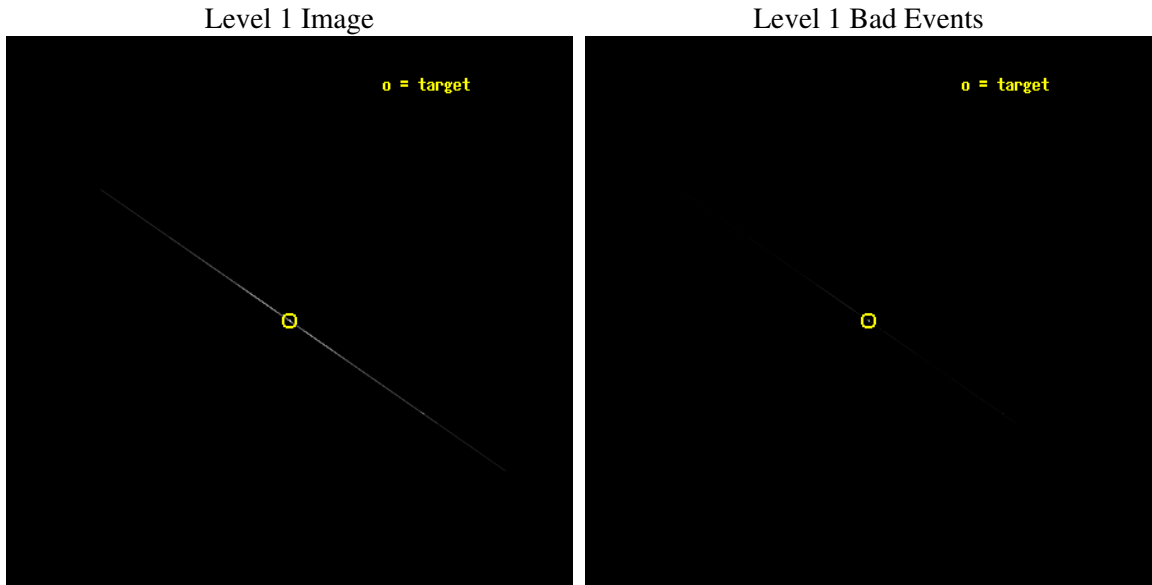
seq_num	400347
obs_id	4564
title	High Resolution Spectroscopy of GX 17+2 with the Chandra/HETG
observer	Dr. Tiziana Di Salvo
object	GX 17+2
ra_targ	274.005833
dec_targ	-14.036389
ra_nom	274.00614160316
dec_nom	-14.034185706271
roll_nom	214.40442409252
revision	3
ontime	30178.540286541
livetime	30060.655363547
ontime4	30180.0
ontime5	30180.0
ontime6	30180.0
ontime7	30178.540286541
ontime8	30178.540306628
ontime9	30178.540286899
l2events	7592767



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0
ascdsver	7.6.11.6
caldsver	3.4.4
date	2008-04-11T19:47:59
revision	3

sched_exp_time	30000.000000
ontime	30178.540286541
ontime4	30180.0
ontime5	30180.0
ontime6	30180.0
ontime7	30178.540286541
ontime8	30178.540306628
ontime9	30178.540286899
l1events	8433519

2.1.3 Events

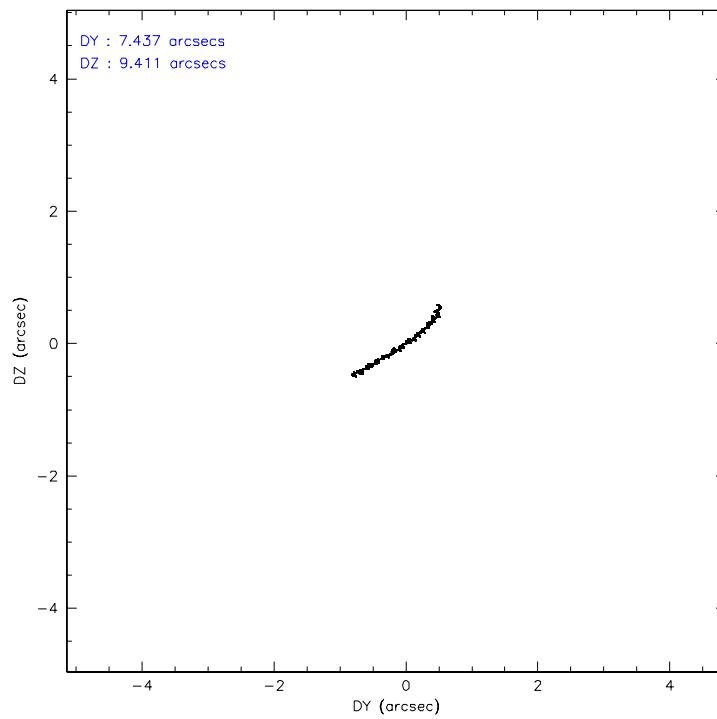
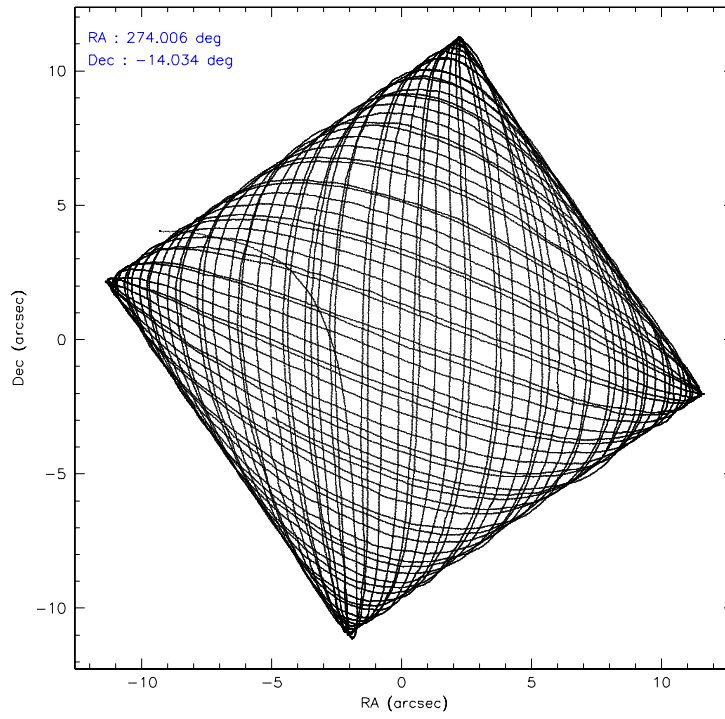
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	114354	489947	2151602	4942972	586332	148312
rejected events	10356	30344	31182	346585	24533	12882
rejected %	9%	6%	1%	7%	4%	8%

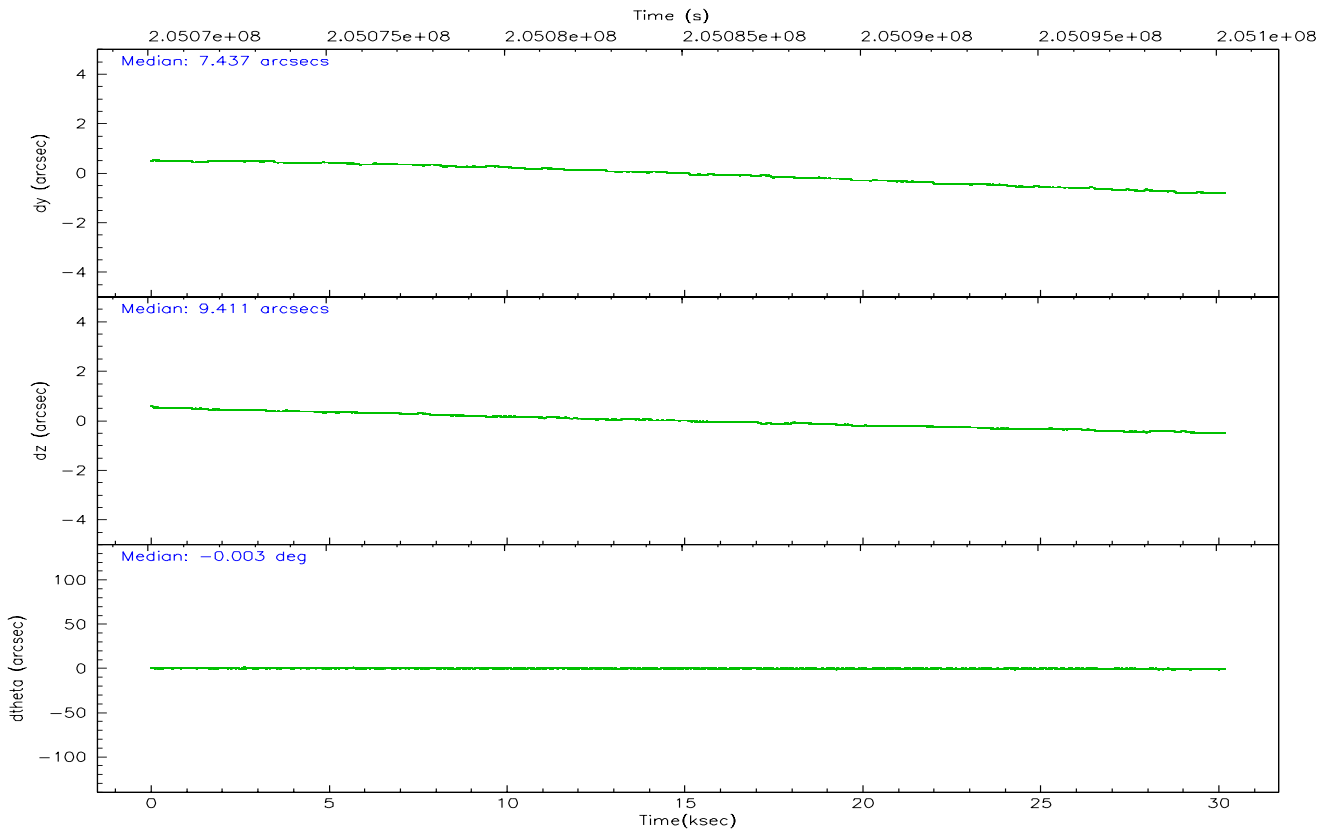
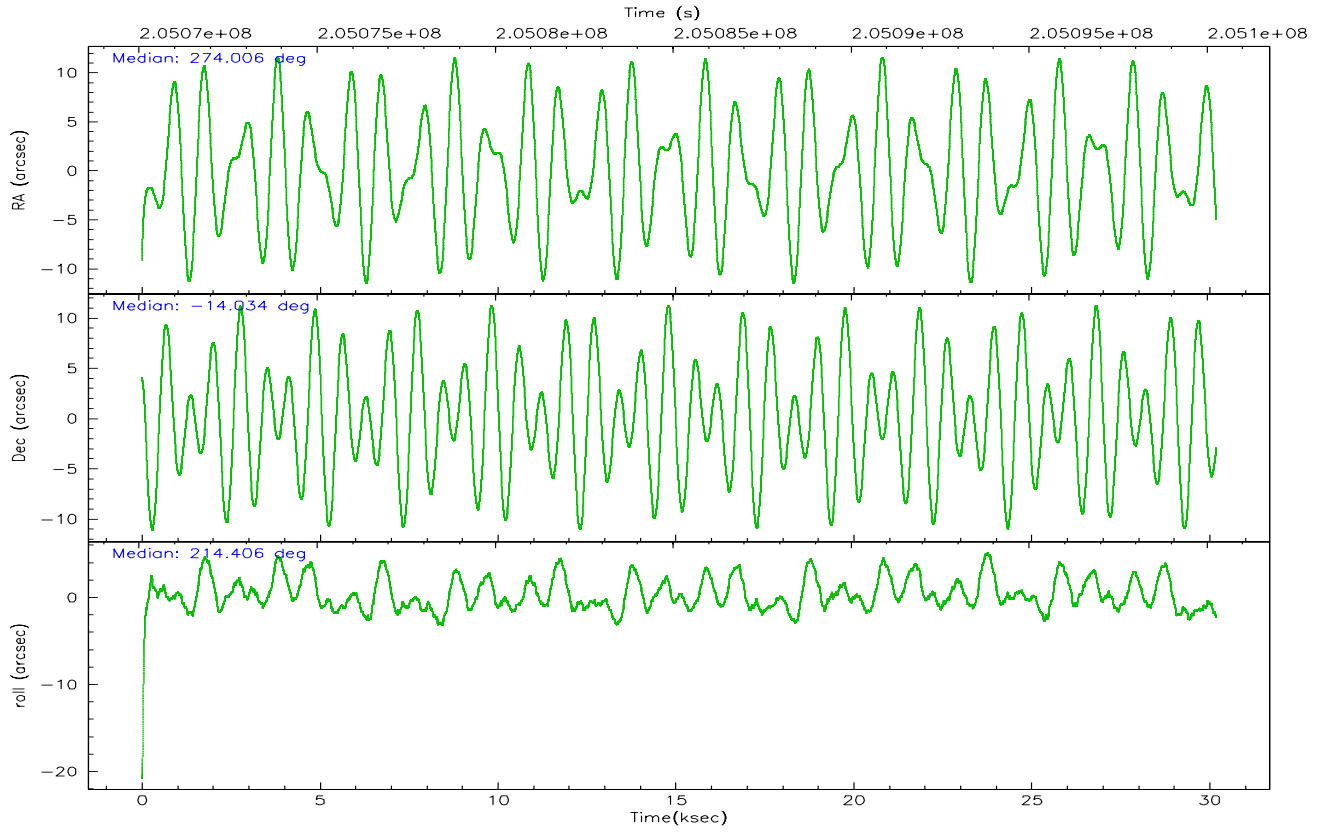
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	13993	82907	60203	613956	178019	26070
	12%	16%	2%	12%	30%	17%
grade 1 events	172	279	398	39543	632	227
	0%	0%	0%	0%	0%	0%
grade 2 events	66234	185786	1791187	1377992	306598	81267
	57%	37%	83%	27%	52%	54%
grade 3 events	5667	11713	8156	346626	16473	6037
	4%	2%	0%	7%	2%	4%
grade 4 events	5831	11483	7932	347911	16602	6359
	5%	2%	0%	7%	2%	4%
grade 5 events	8425	21670	19129	273048	15316	10357
	7%	4%	0%	5%	2%	6%
grade 6 events	14032	176109	264597	1943896	52692	17995
	12%	35%	12%	39%	8%	12%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_GRADED	CC33_GRADED	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	274.017902	274.0061416031601	Alternating exposures requested	N	N
Pointing Dec	-14.009458	-14.03418570627096	Primary exposure time	0.000000	0
Pointing Roll	214.250655	214.4044240925175			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-186.132523	-186.1423047203915			
SIM translation stage offset (mm)	-4	-3.990217862616333			
Observation start time	205070259.184000	205068980.0908			
Observation start date	2004-07-01T11:56:35	2004-07-01T11:36:20			
Observation end time	205100259.184000	205100883.72971			
Observation end date	2004-07-01T20:16:35	2004-07-01T20:28:03			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



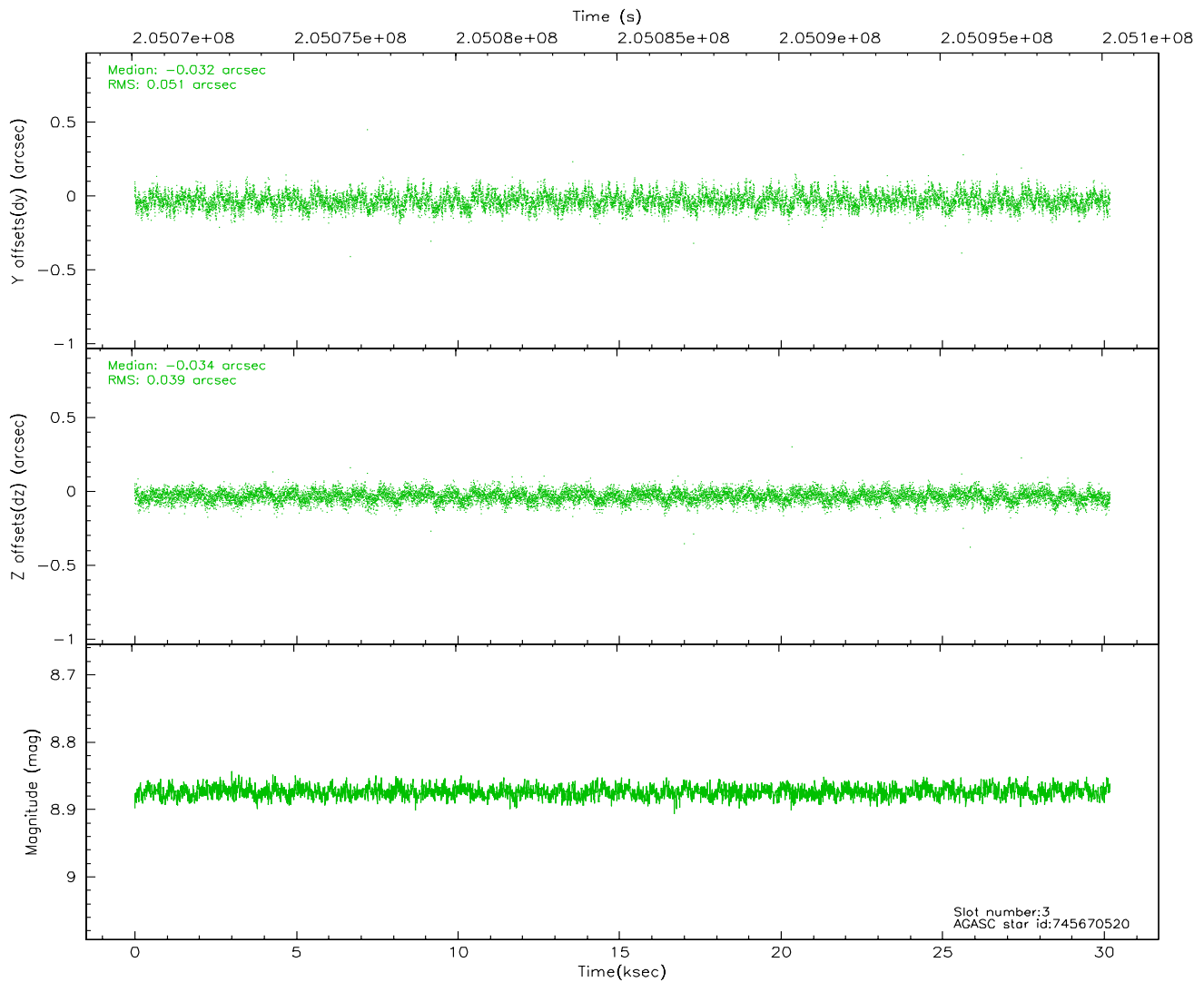
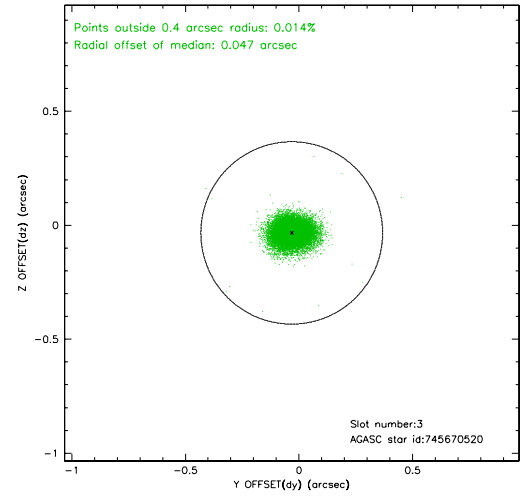
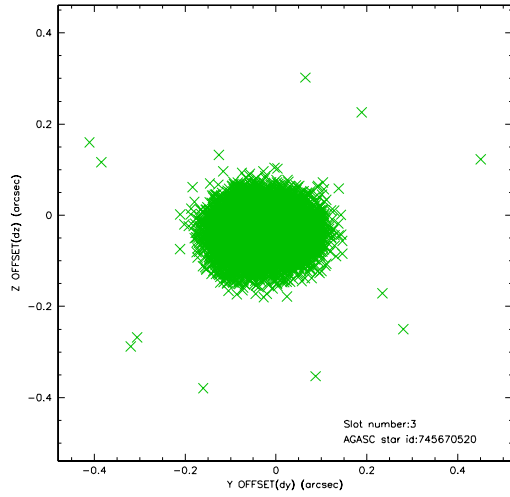


Slot Statistics

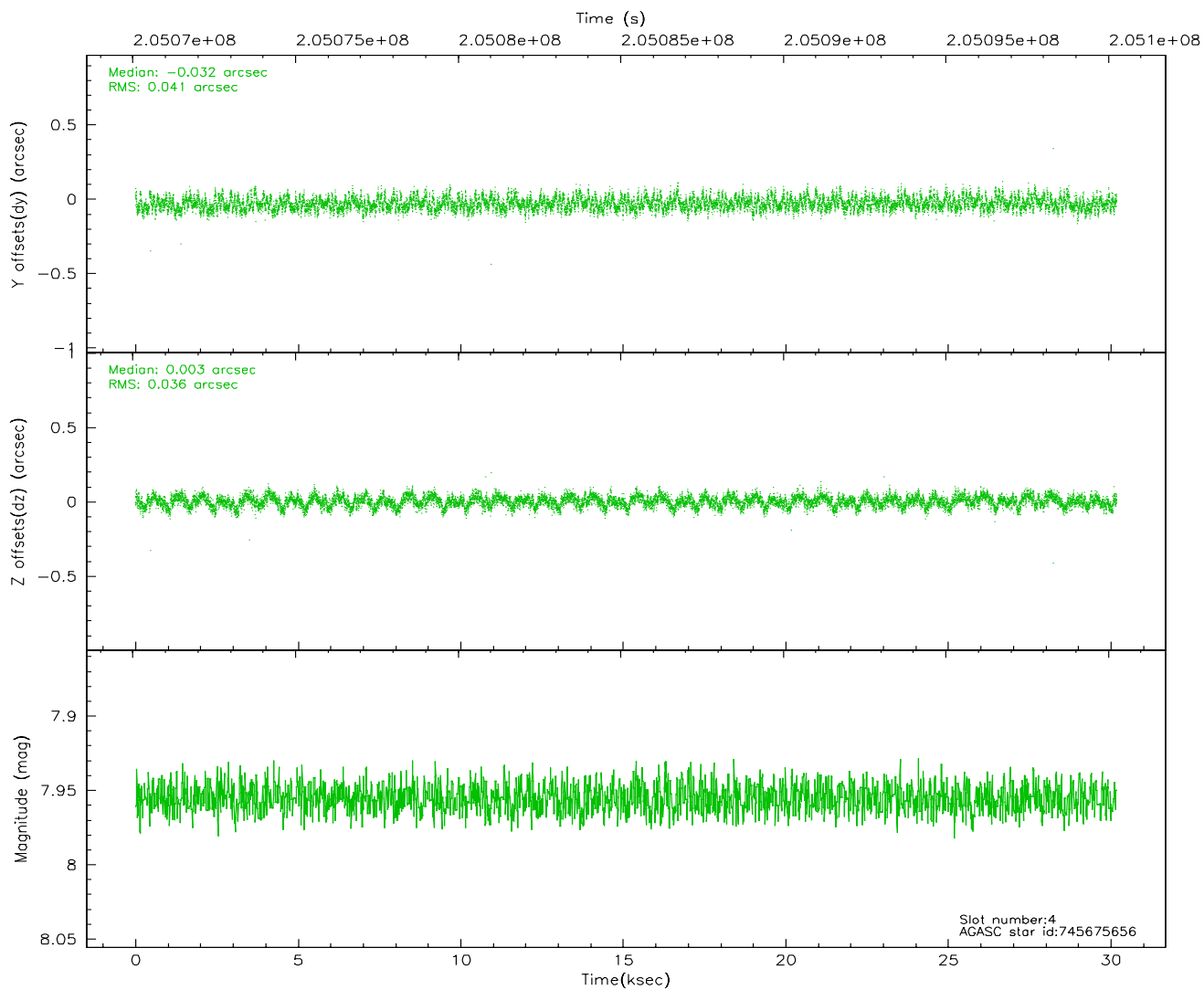
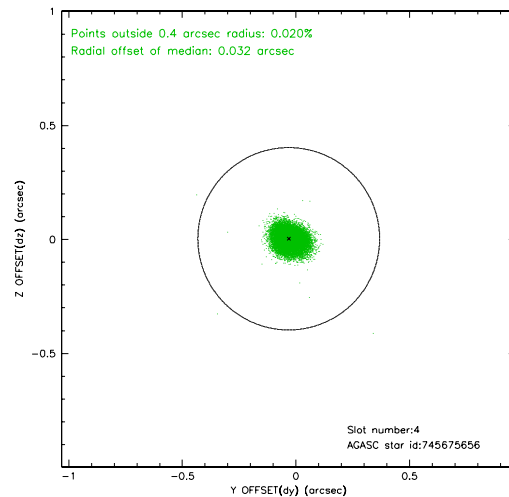
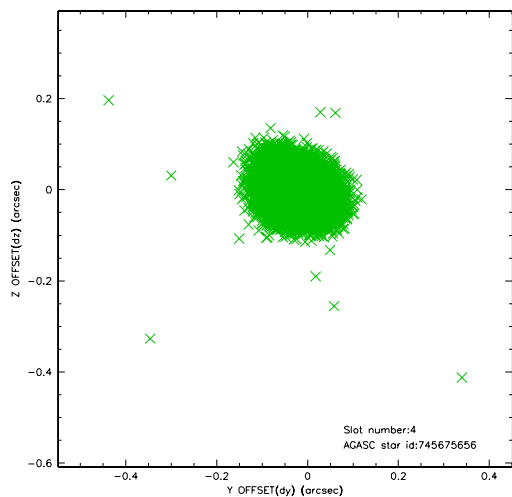
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7363	-0.040	-0.051	0.019	0.028	0.000000	0.000000	-759.92	-1813.01
1	FID	ACIS-S-4	7.18	7356	0.050	0.033	0.007	0.031	0.000000	0.000000	2153.44	95.44
2	FID	ACIS-S-5	7.23	7363	-0.042	0.026	0.020	0.029	0.000000	0.000000	-1812.65	89.23
3	GUIDE	745670520	8.87	14714	-0.032	-0.034	0.068	0.110	274.614741	-13.988466	-1764.55	1113.23
4	GUIDE	745675656	7.96	14723	-0.032	0.003	0.058	0.092	274.656383	-13.977352	-1907.31	1162.52
5	GUIDE	745675904	9.19	14655	0.035	0.011	0.101	0.157	274.379684	-14.452468	-144.52	2029.05
6	GUIDE	745676944	8.90	14709	0.017	0.046	0.089	0.139	274.121102	-14.245583	180.70	905.60
7	GUIDE	745680576	8.68	14711	0.016	-0.024	0.069	0.112	274.063292	-14.644899	1156.79	1979.94

2.4 Star Slots

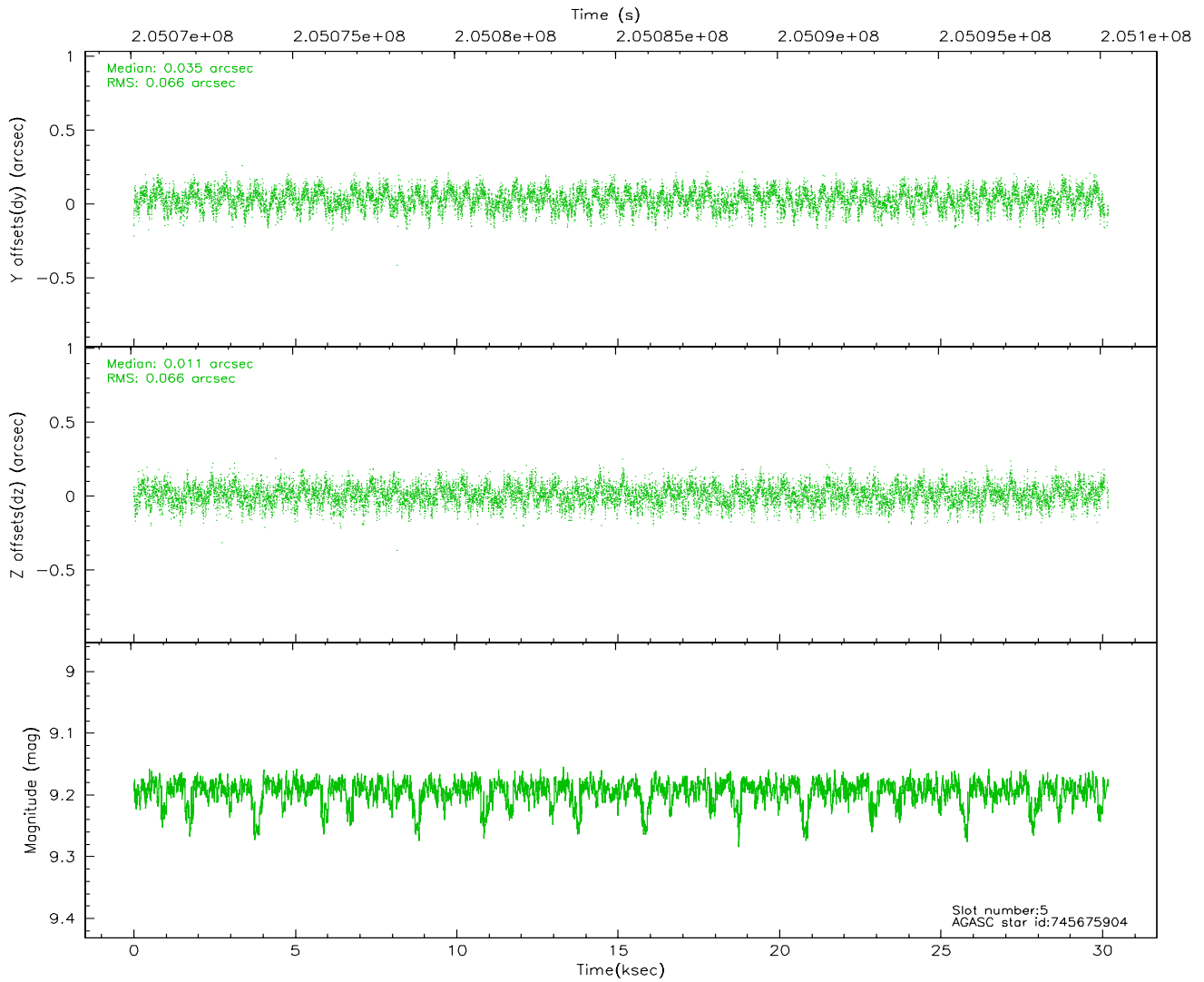
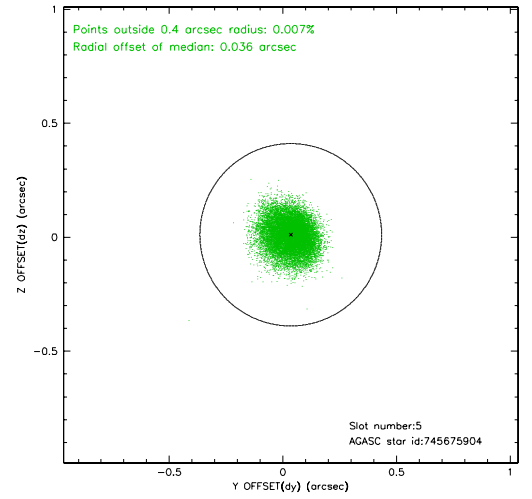
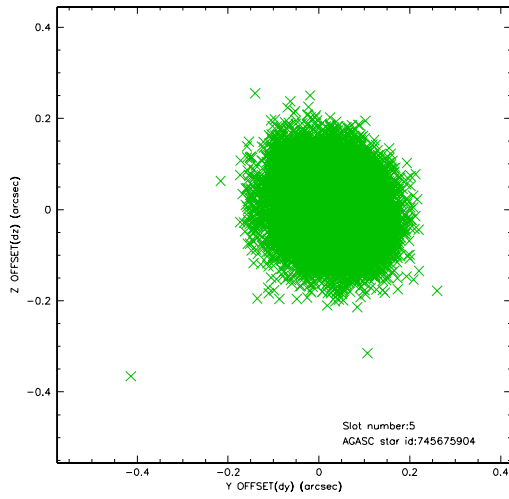
2.4.1 Slot 3



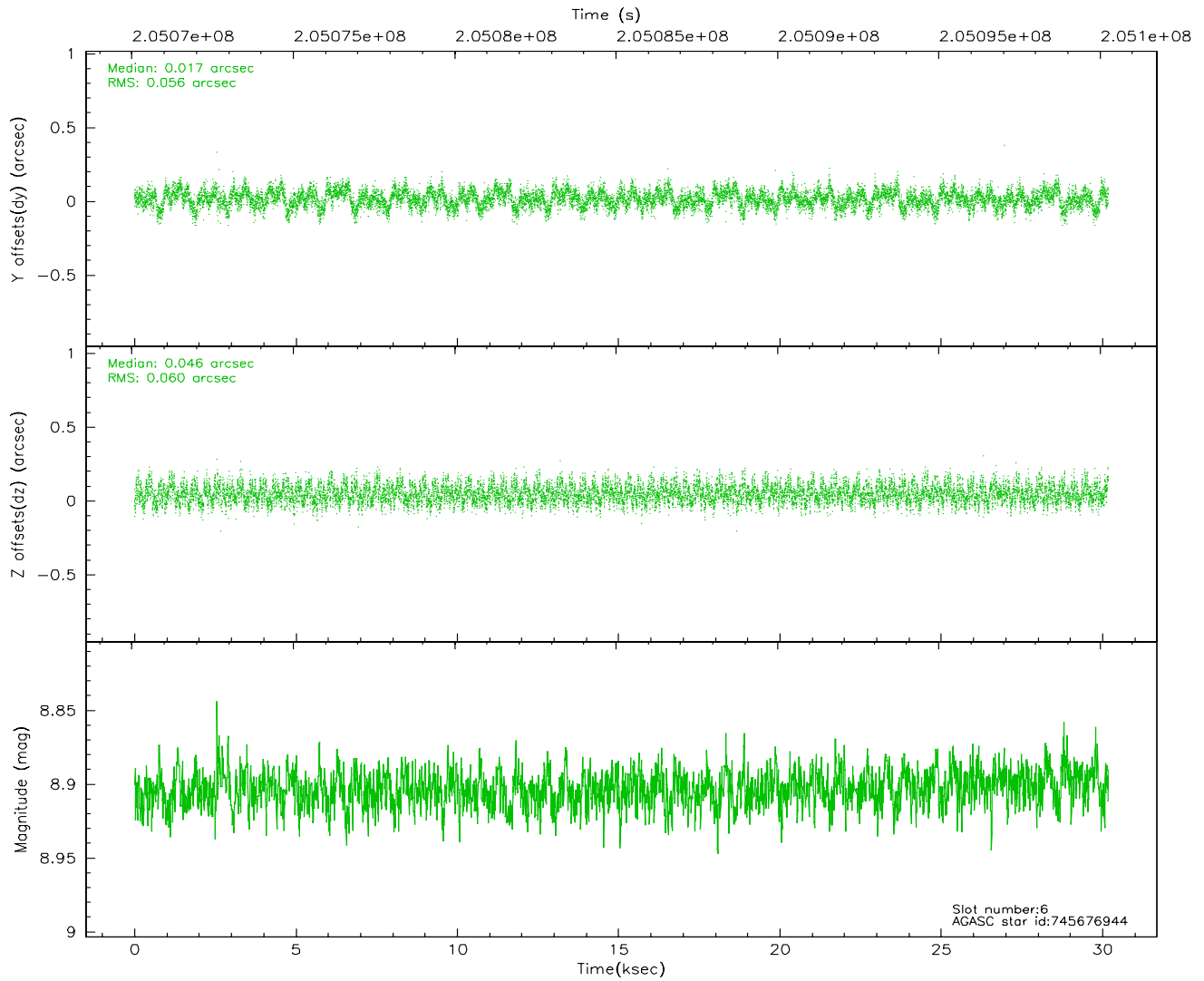
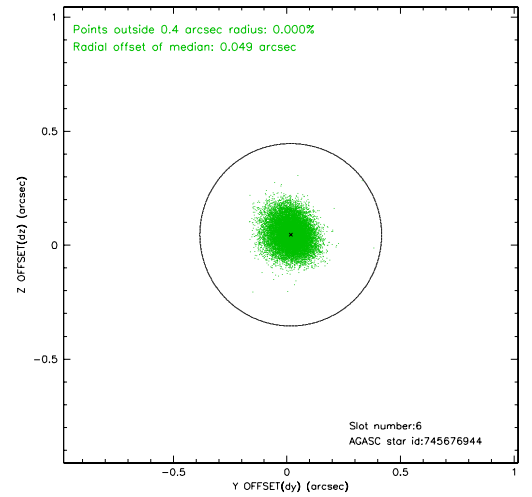
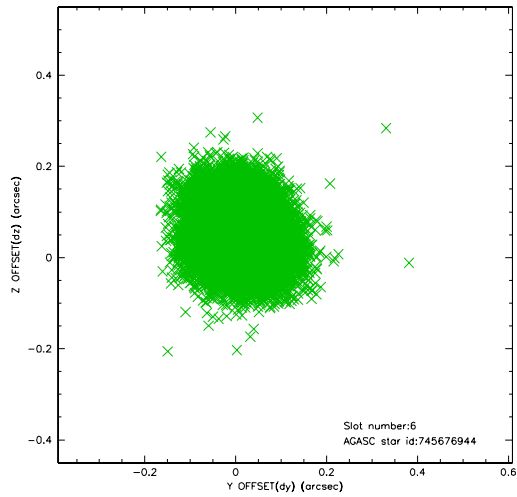
2.4.2 Slot 4



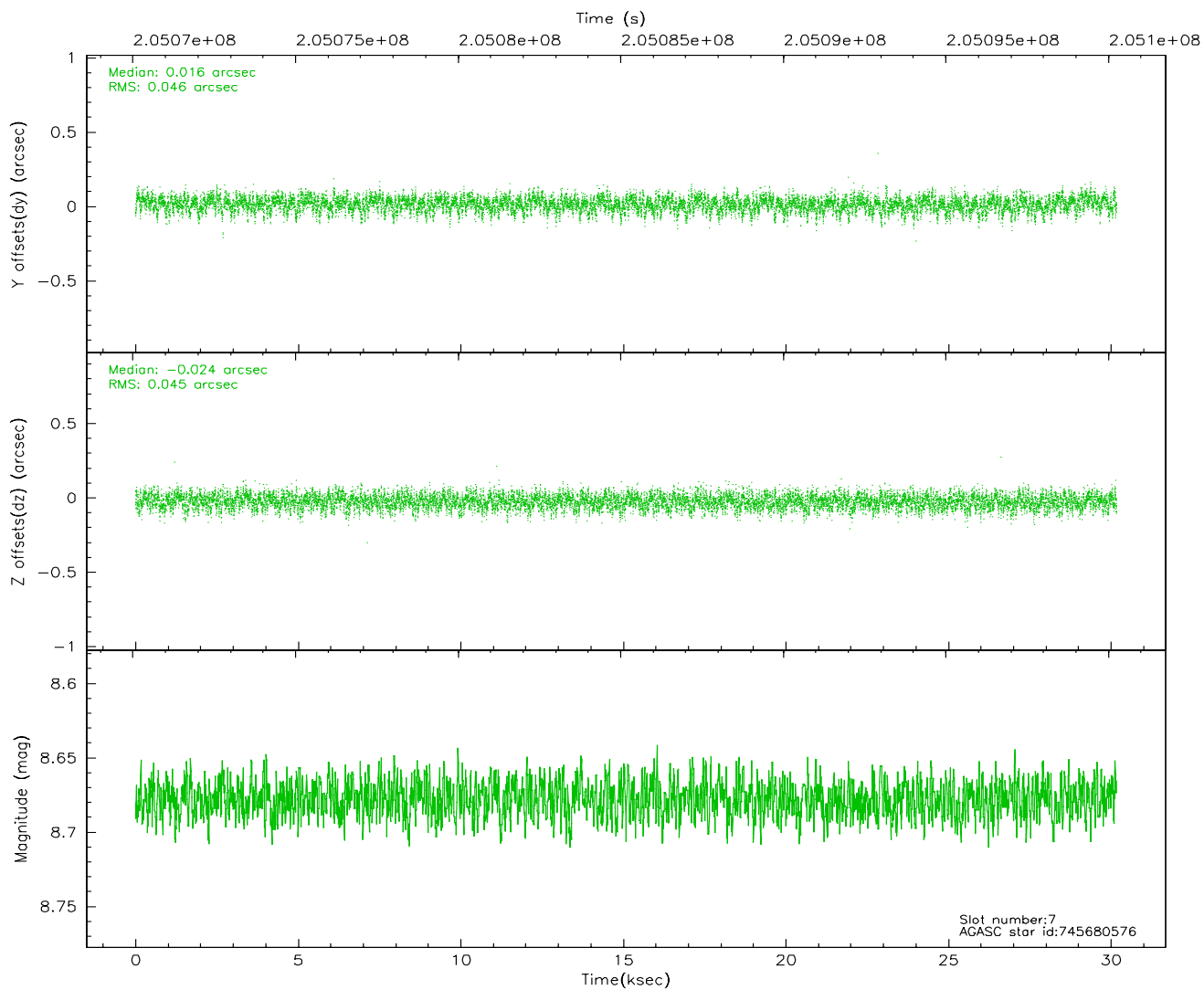
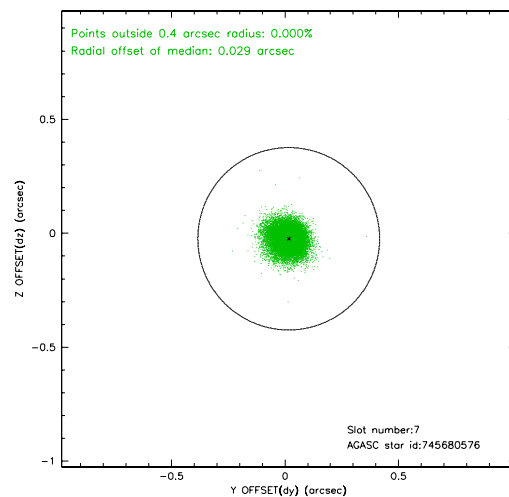
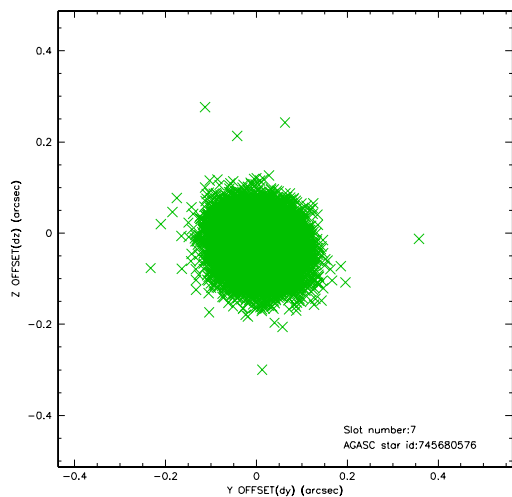
2.4.3 Slot 5



2.4.4 Slot 6

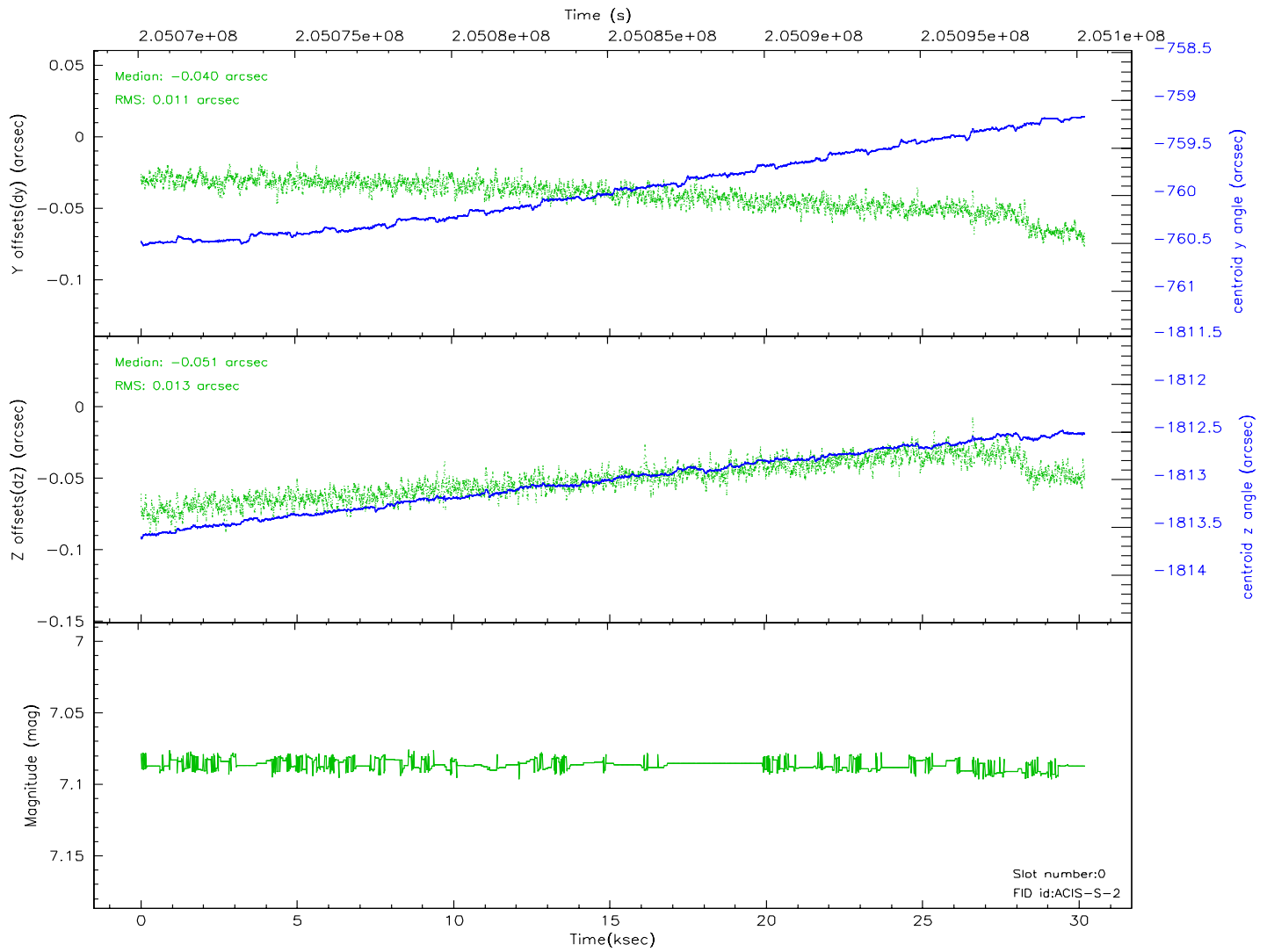
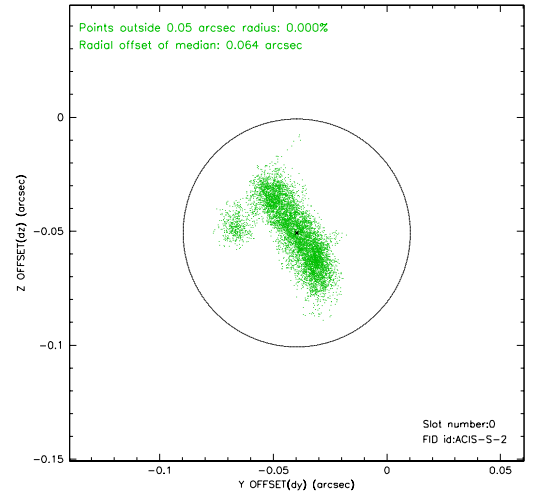
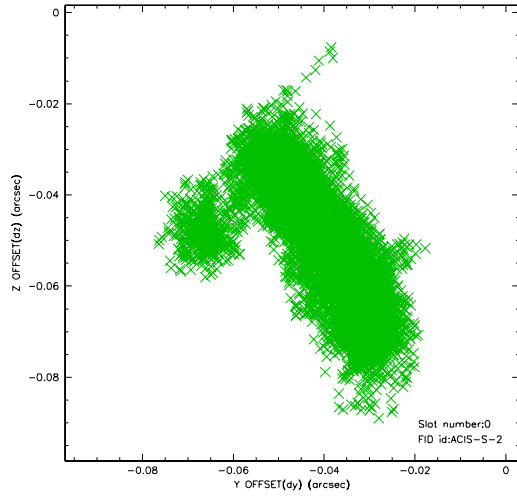


2.4.5 Slot 7

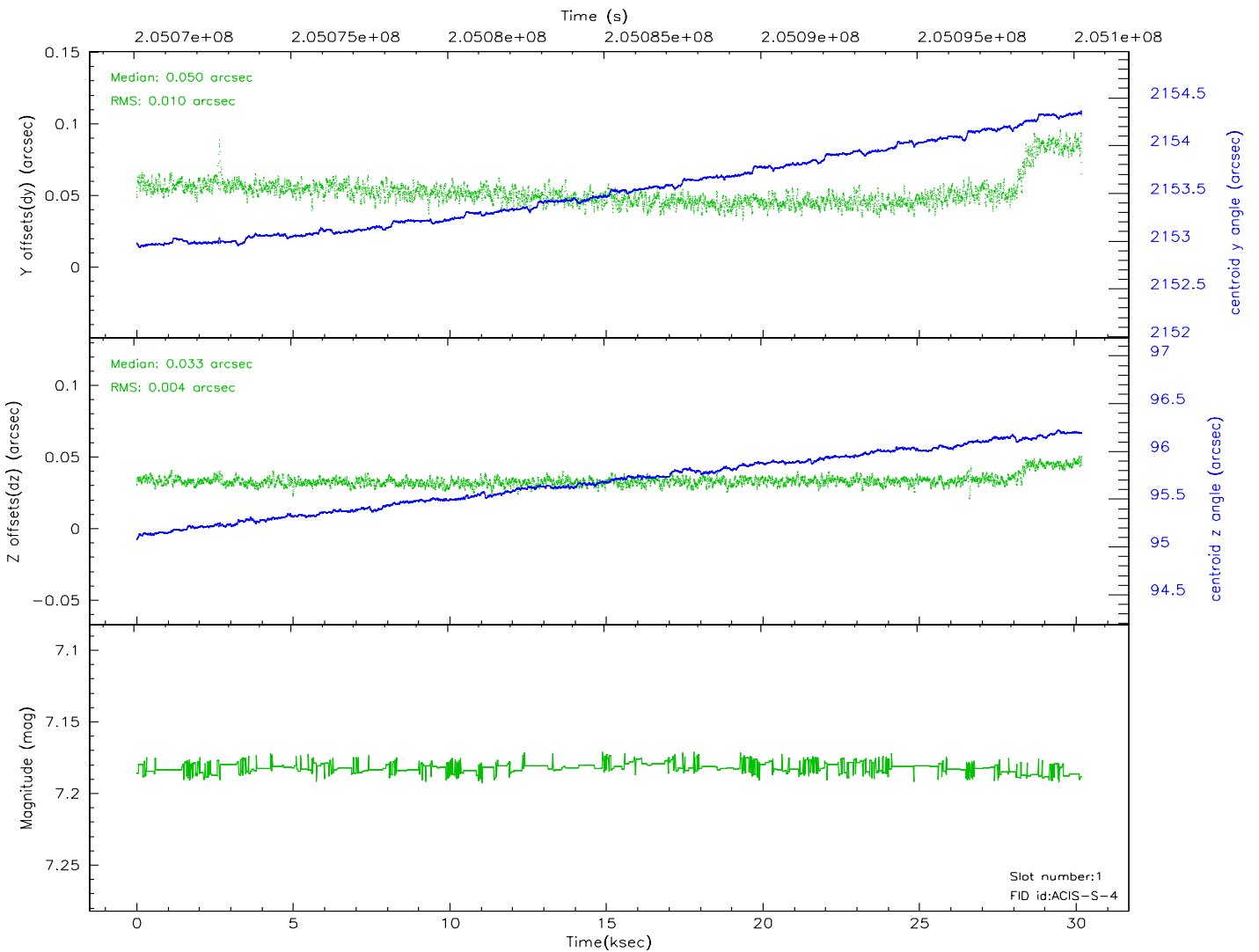
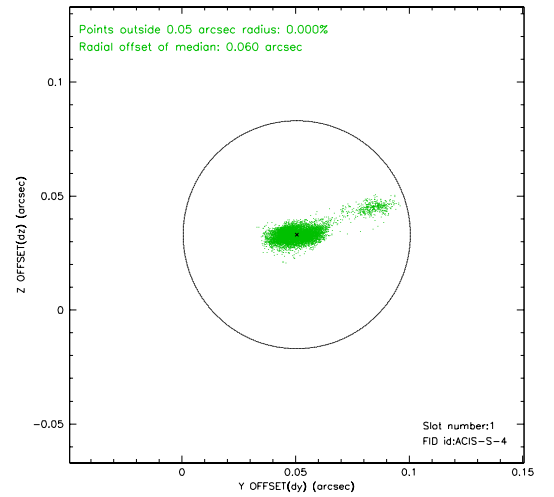
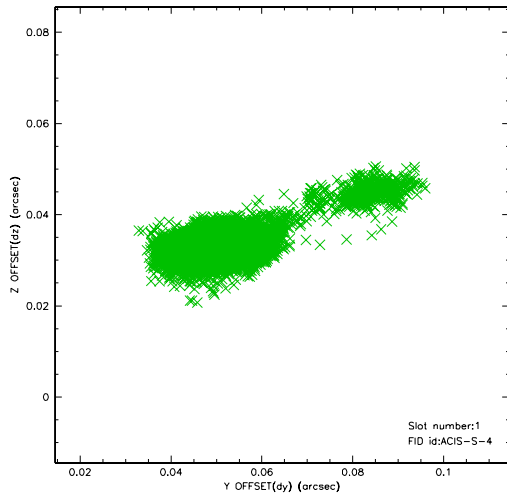


2.5 FID Slots

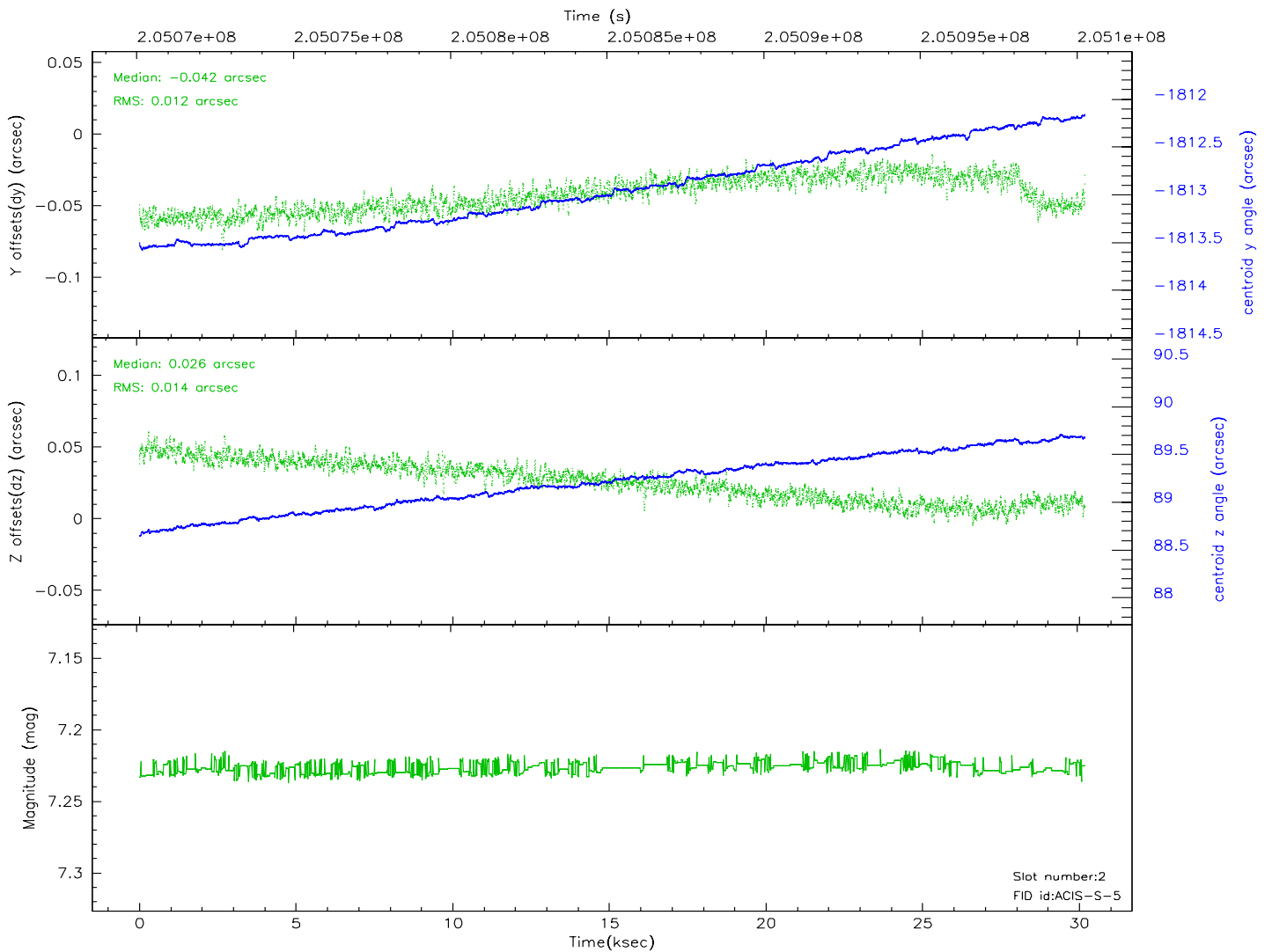
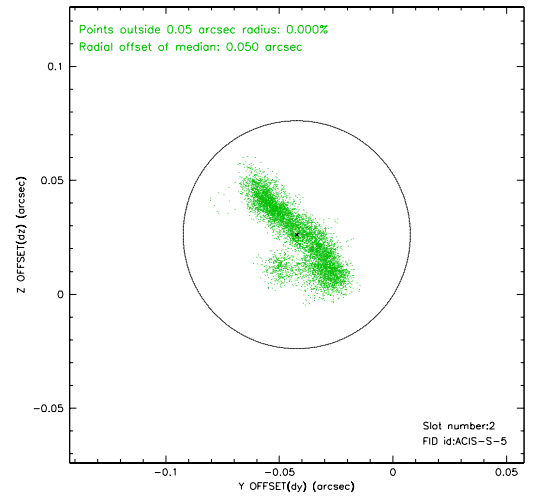
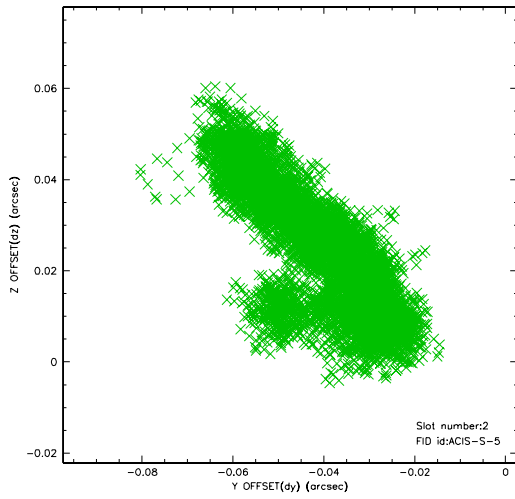
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

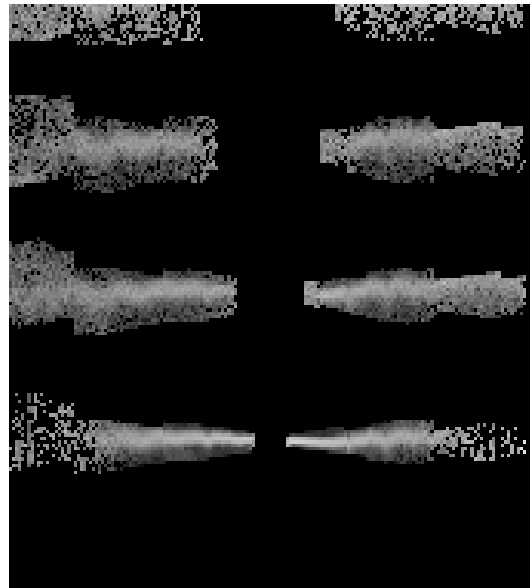


3 Gratings

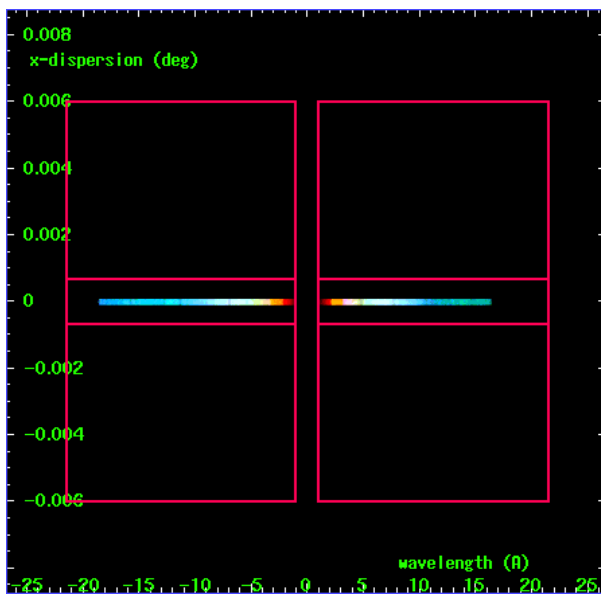
3.1 HEG Arm



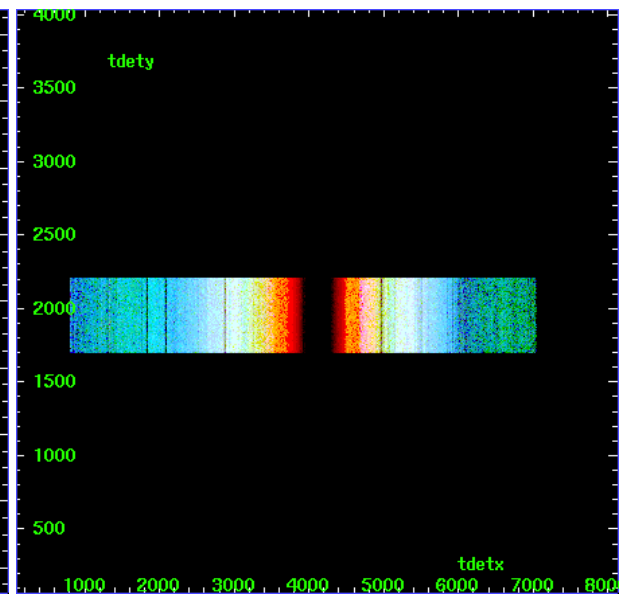
HEG Order Sort 123



HEG Order Sort ALL

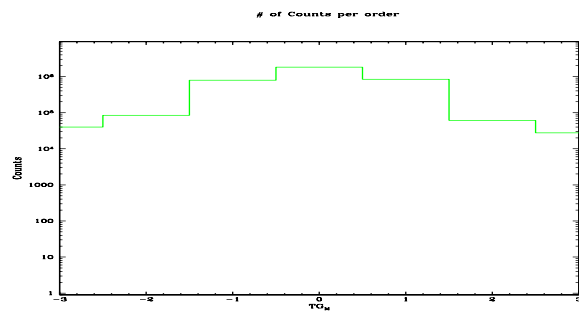


Spot Image HEG

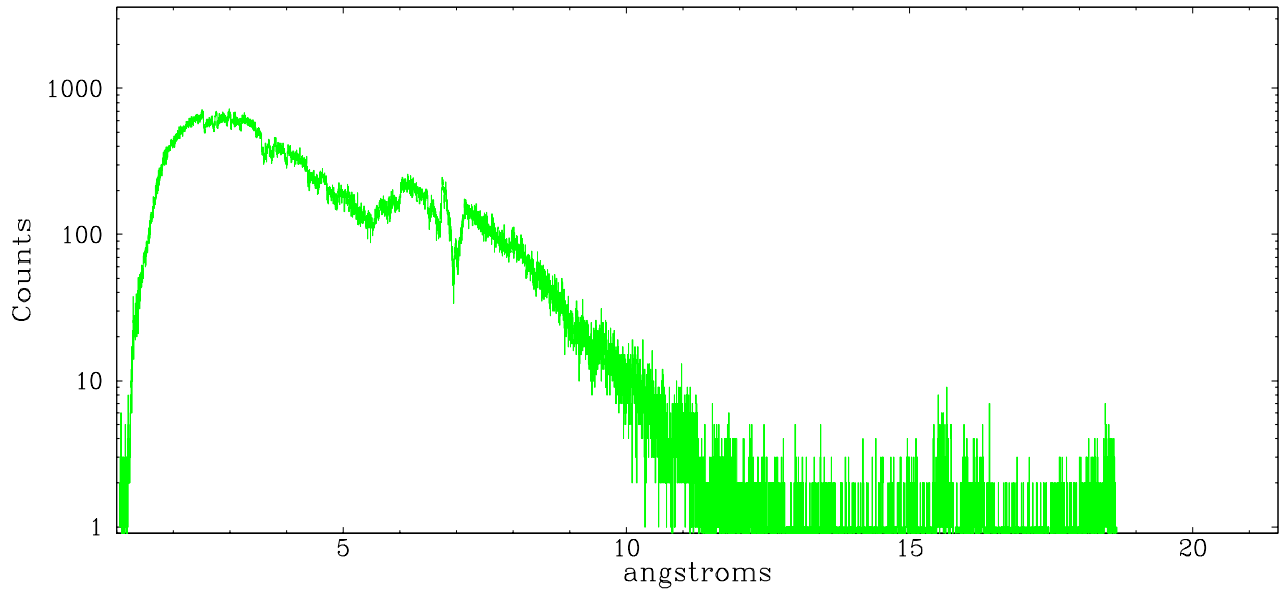


Full Detector HEG

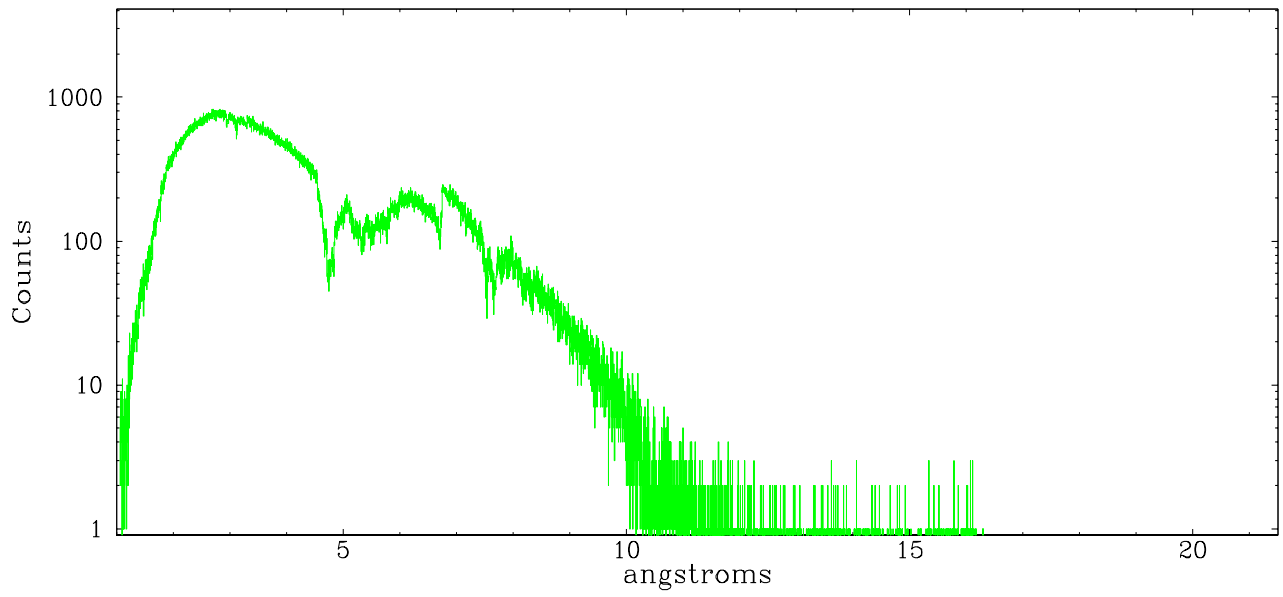
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	39657	83913	786546	1824356	840447	61169	27587



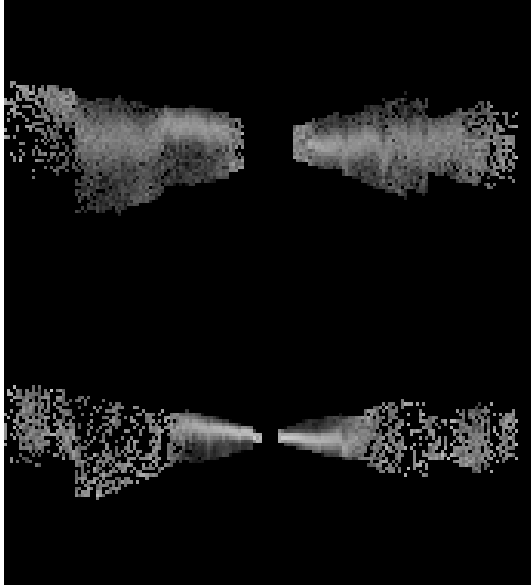
heg order -1



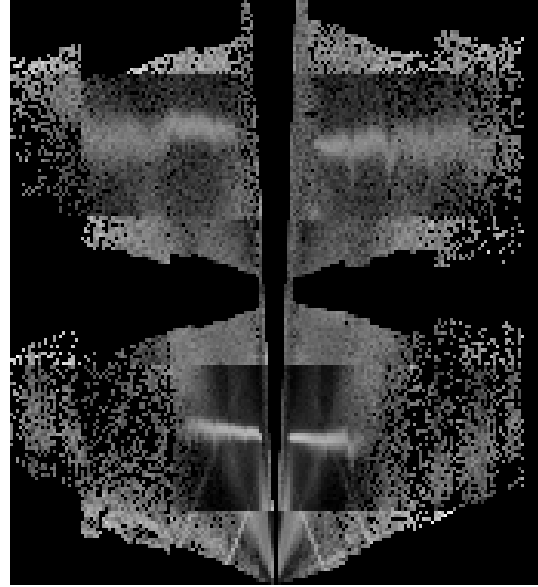
heg order +1



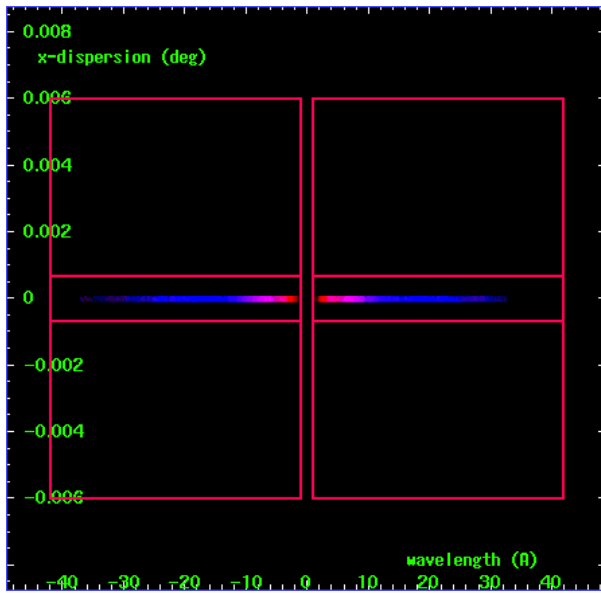
3.2 MEG Arm



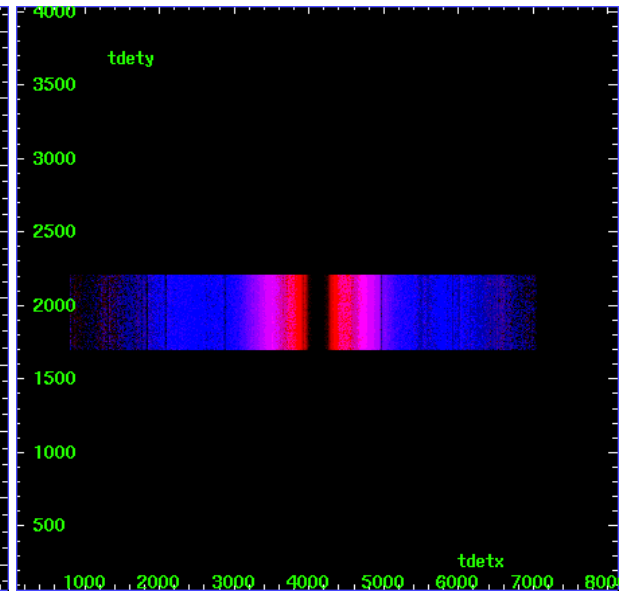
MEG Order Sort 123



MEG Order Sort ALL

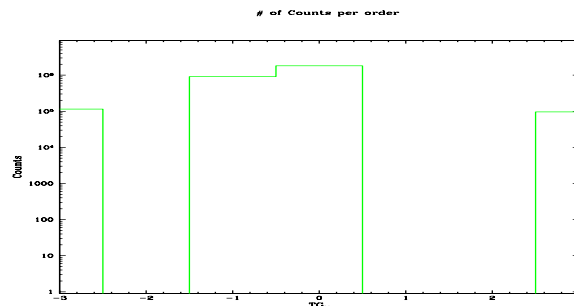


Spot Image MEG

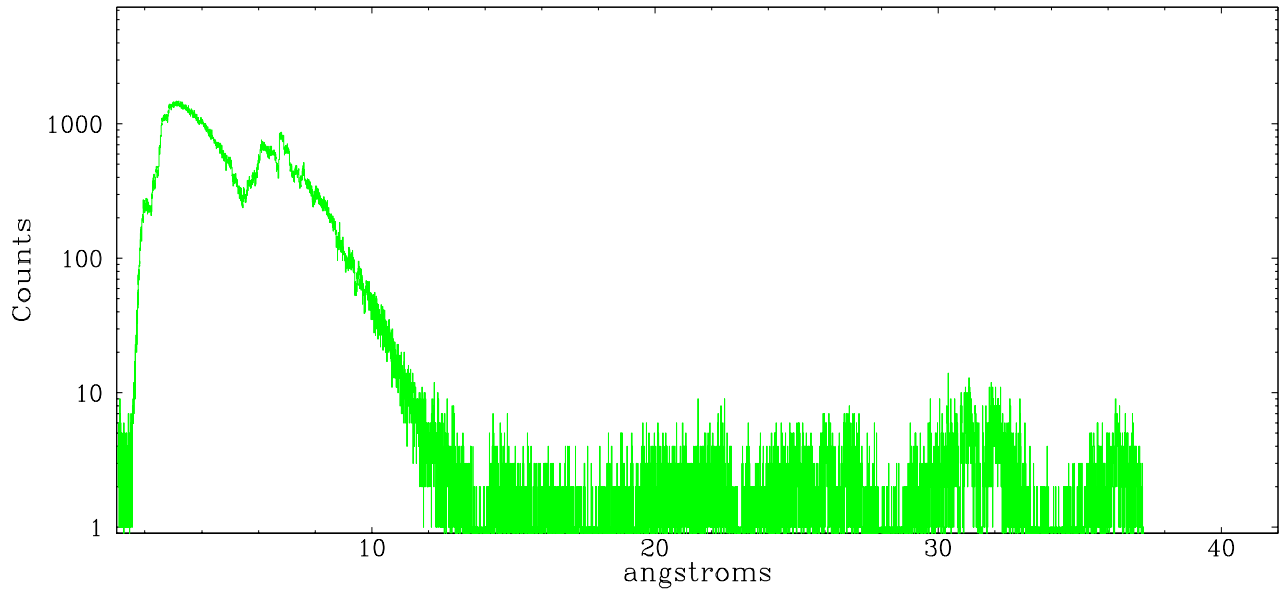


Full Detector MEG

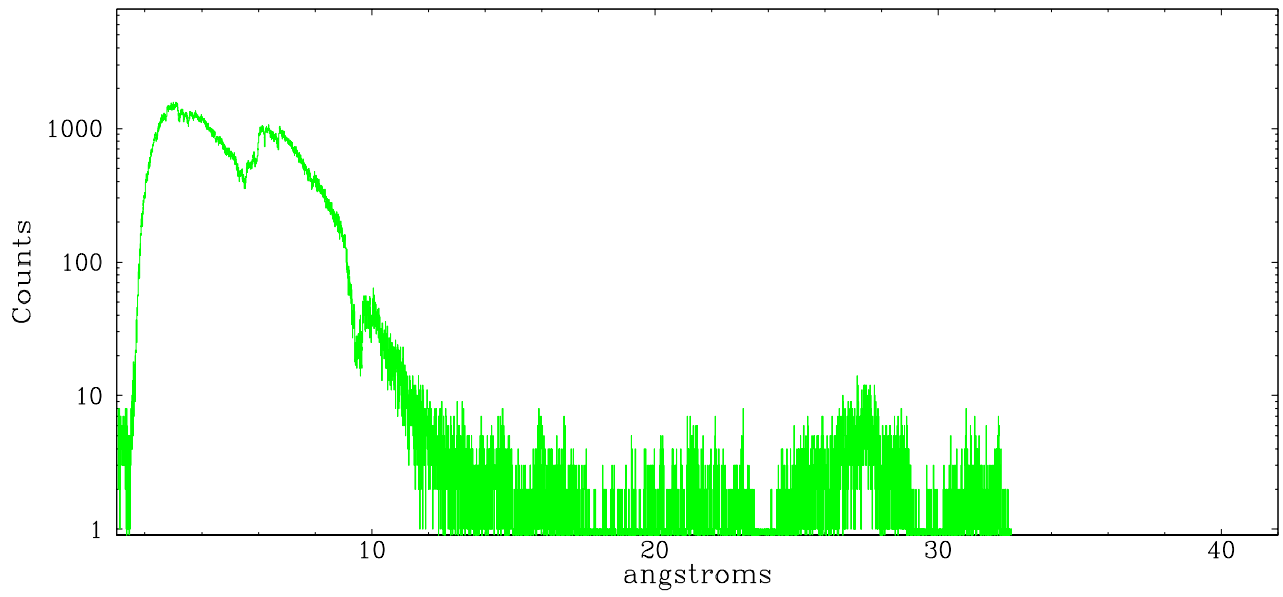
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	115310	0	914533	1824356	1126410	0	96090



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2008.04.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.181

A.2 Comments

Gain and CTI correction are not well calibrated in CC-mode.
Default order sorting can clip some regions, particularly in high orders. User-specified custom processing parameters may be required in `tg_resolve_events` (`osipfile=None`, `osort_lo`, `osort_hi` ~0.3) though this can allow more zeroth order background at short wavelengths.=====

For ACIS/CC-mode w/ HETG, there are no MEG even order counts. MEG even orders overlap with HEG orders in energy, but MEG even order efficiencies are very low. Since HEG and MEG cannot be spatially separated, events are preferentially assigned to HEG. (MEG odd orders can be resolved.)