

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3455 - L2 Version 3
Chandra X-Ray Center

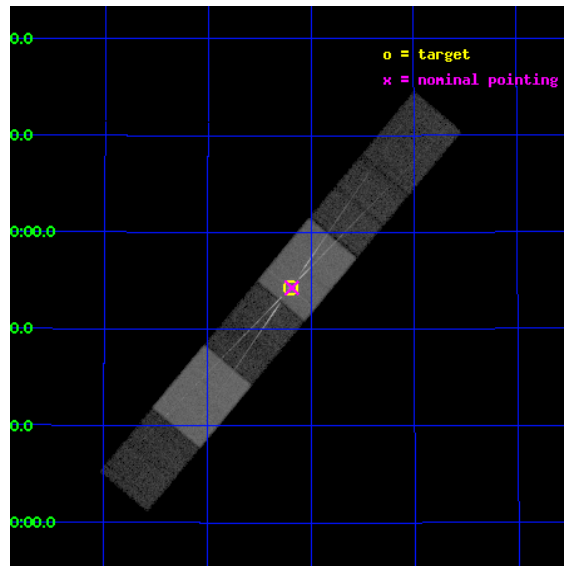
L2 Processing Date : Oct 5 2012

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1 Front

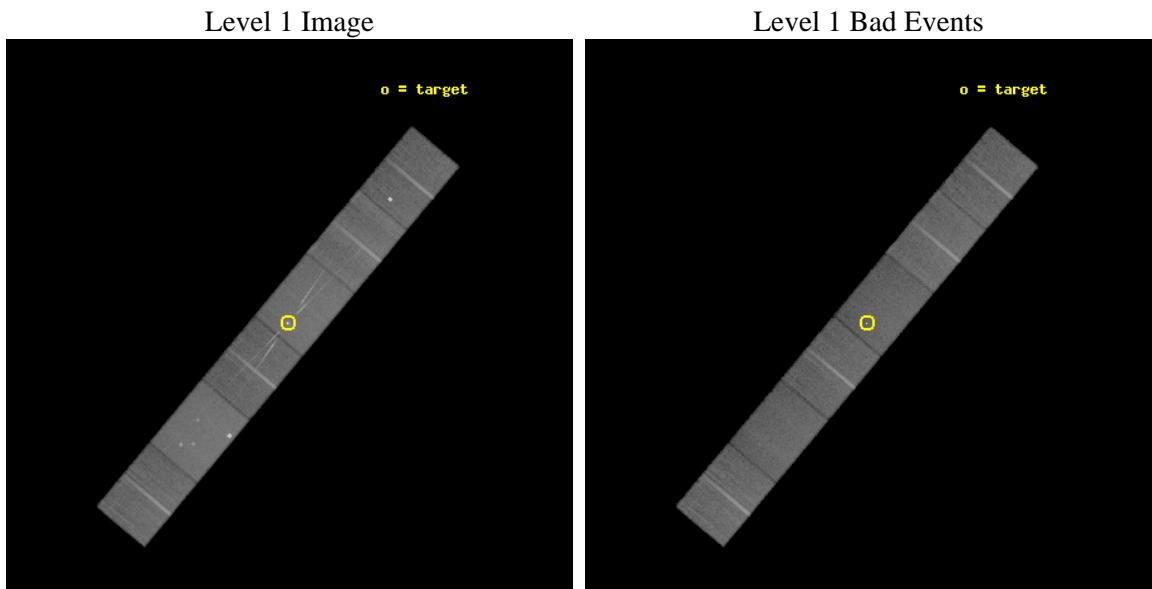
seq_num	300090	Sequence number
obs_id	3455	Observation id
title	CHANDRA HETG SPECTROSCOPY OF GK PER IN OUTBURST	Proposal title
observer	Christopher Mauche	Principal investigator
object	GK PER	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	52.799167	Observer's specified target RA [deg]
dec_targ	43.904667	Observer's specified target Dec [deg]
ra_nom	52.79608738812	Nominal RA [deg]
dec_nom	43.904681153568	Nominal Dec [deg]
roll_nom	309.91749052485	Nominal Roll [deg]
revision	3	Processing version of data
ontime	34457.5	Sum of GTIs [s]
livetime	33900.981487895	Livetime [s]
ontime4	34457.5	Sum of GTIs [s]
ontime5	34457.5	Sum of GTIs [s]
ontime6	34457.5	Sum of GTIs [s]
ontime7	34457.5	Sum of GTIs [s]
ontime8	34452.418019652	Sum of GTIs [s]
ontime9	34457.5	Sum of GTIs [s]
l2events	306556	Number of level 2 events



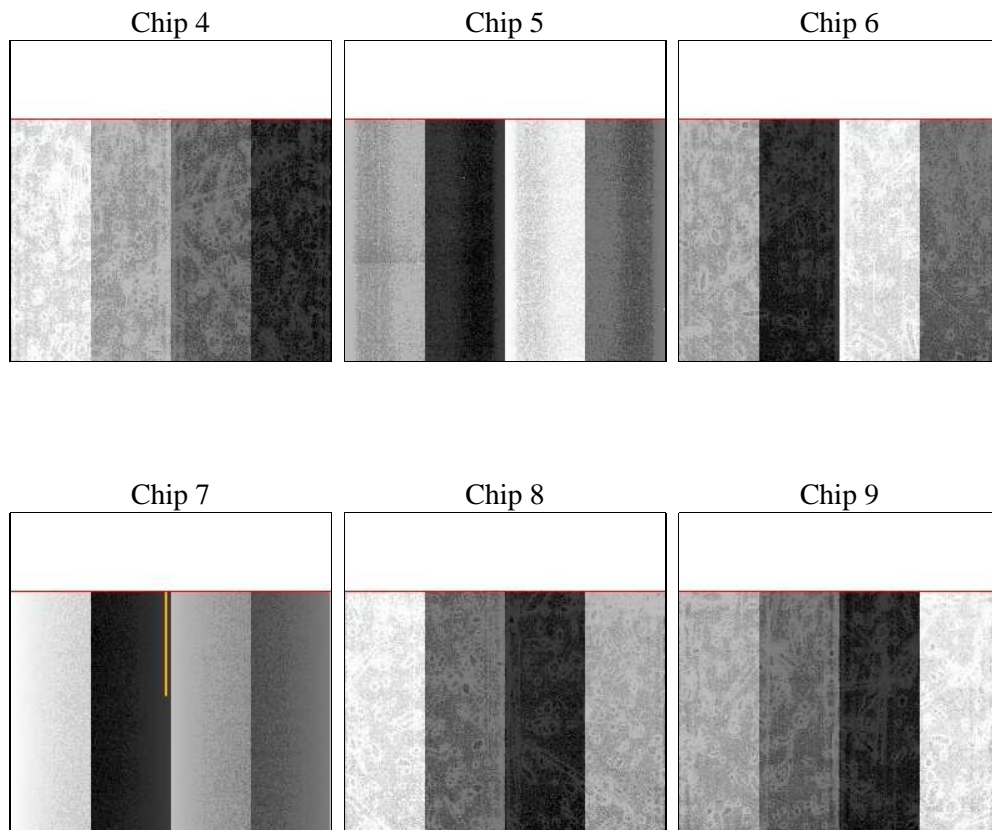
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	34307.860000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	34457.5	Sum of GTIs [s]
caldbver	4.5.2	 	ontime4	34457.5	Sum of GTIs [s]
date	2012-10-04T20:19:52	Date and time of file creation	ontime5	34457.5	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	34457.5	Sum of GTIs [s]
			ontime7	34457.5	Sum of GTIs [s]
			ontime8	34452.418019652	Sum of GTIs [s]
			ontime9	34457.5	Sum of GTIs [s]
			l1events	1304117	Number of level 1 events

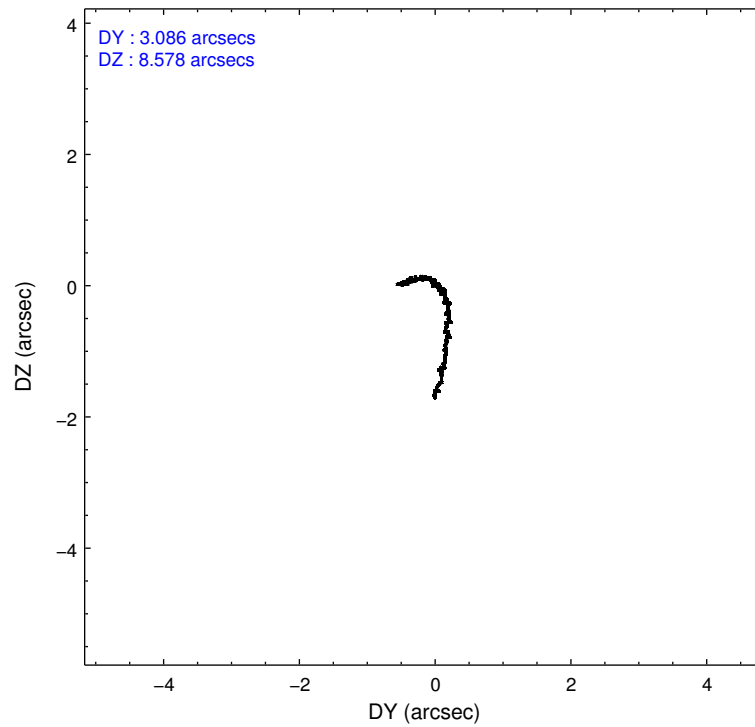
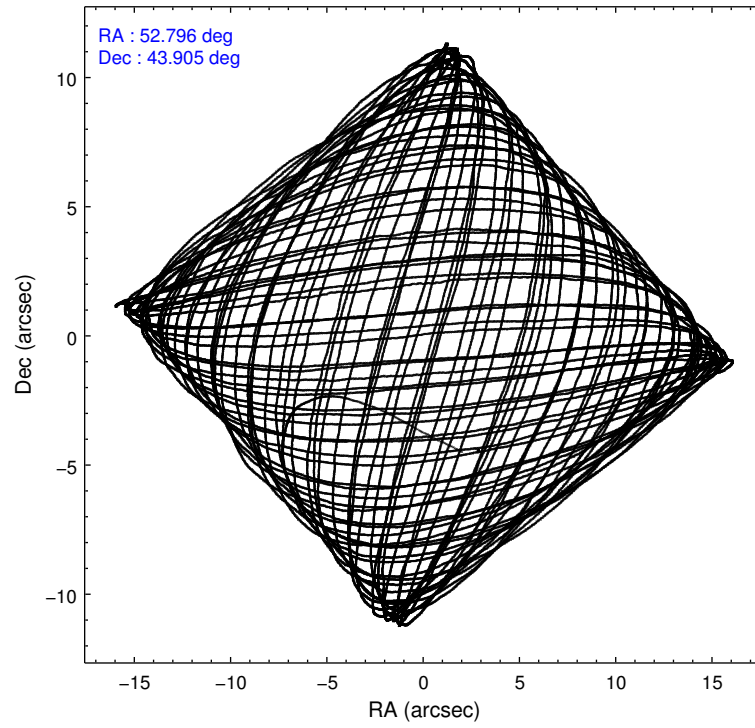
2.1.4 Events

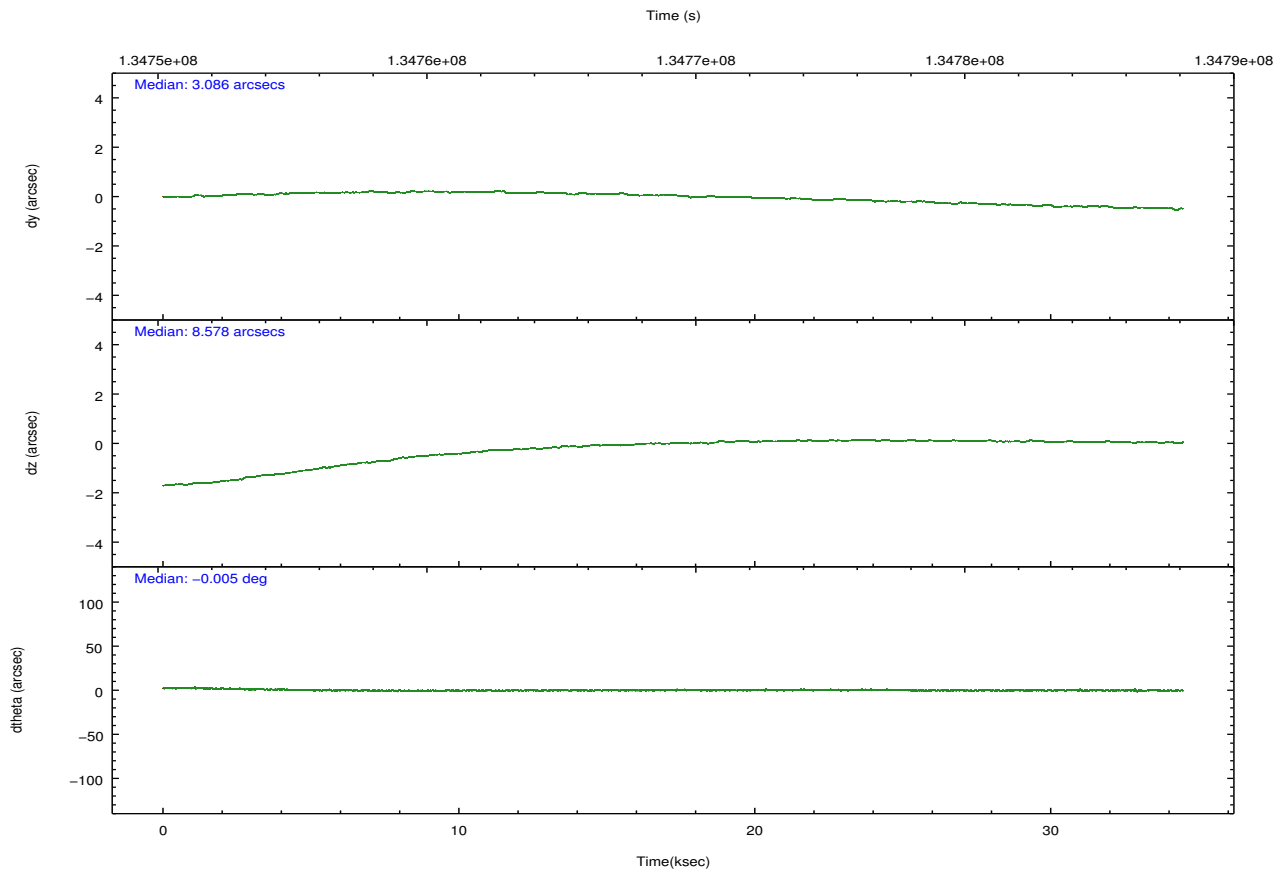
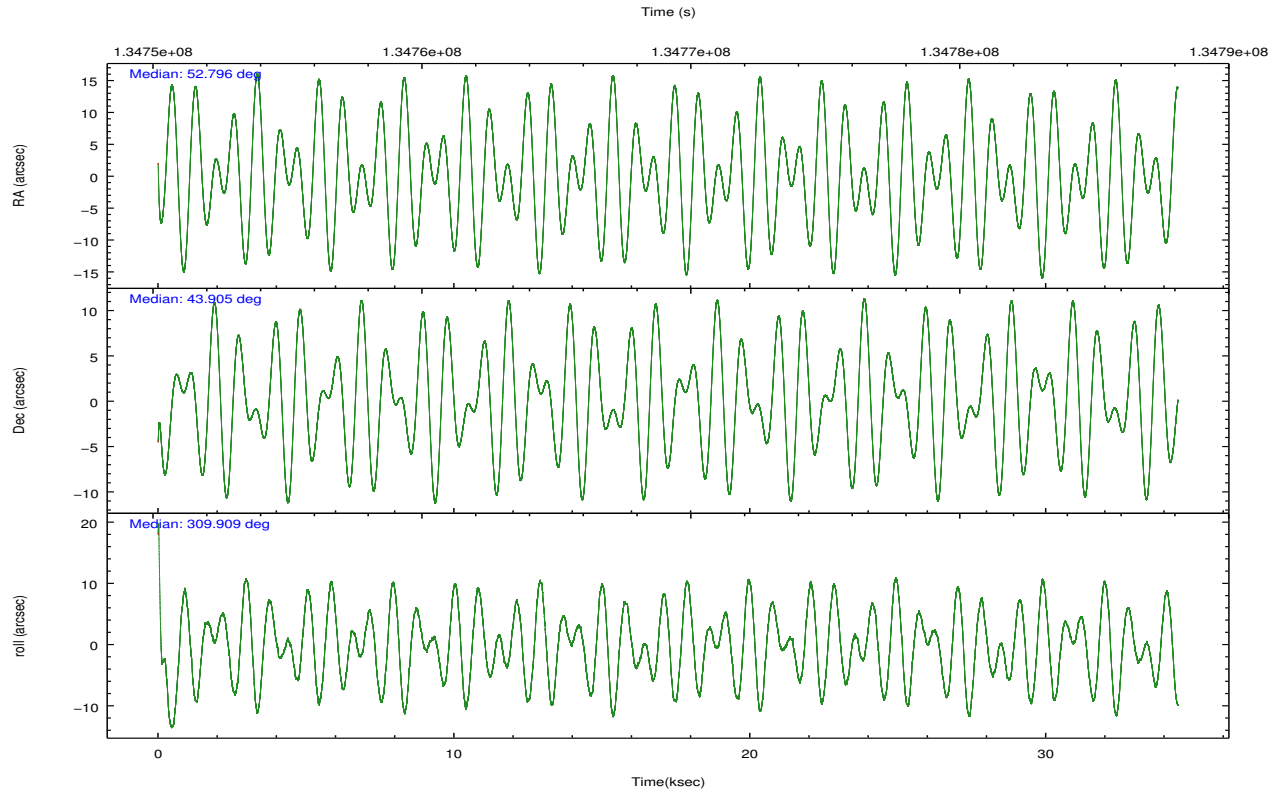
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	194649	258524	187172	251891	225955	185926	grade 0 events	8369	24687	14923	13740	14964	17629
rejected events	173301	133163	155226	133796	178922	152442		4%	9%	7%	5%	6%	9%
rejected %	89%	51%	82%	53%	79%	81%	grade 1 events	91	409	128	529	107	73
								0%	0%	0%	0%	0%	0%
							grade 2 events	5196	31930	5915	24254	10039	7278
								2%	12%	3%	9%	4%	3%
							grade 3 events	2066	5558	2917	10915	5056	2263
								1%	2%	1%	4%	2%	1%
							grade 4 events	2075	5489	2801	10904	4674	2201
								1%	2%	1%	4%	2%	1%
							grade 5 events	6306	19432	7423	22473	9520	7563
								3%	7%	3%	8%	4%	4%
							grade 6 events	3710	58119	5491	58663	12518	4226
								1%	22%	2%	23%	5%	2%
							grade 7 events	166836	112900	147574	110413	169077	144693
								85%	43%	78%	43%	74%	77%

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	52.760400	52.79608738811958	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	43.913734	43.90468115356752	Subarray start row	1	1
[deg] Pointing Roll	309.785608	309.9174905248486	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)	134752081.184000	134751069.18097			
Observation start date	2002-04-09T15:06:57	2002-04-09T14:51:09			
[s] Observation end time (MET)	134786389.184000	134786703.81992			
Observation end date	2002-04-10T00:38:45	2002-04-10T00:45:03			
Read mode	TIMED	TIMED			

2.3 Aspect



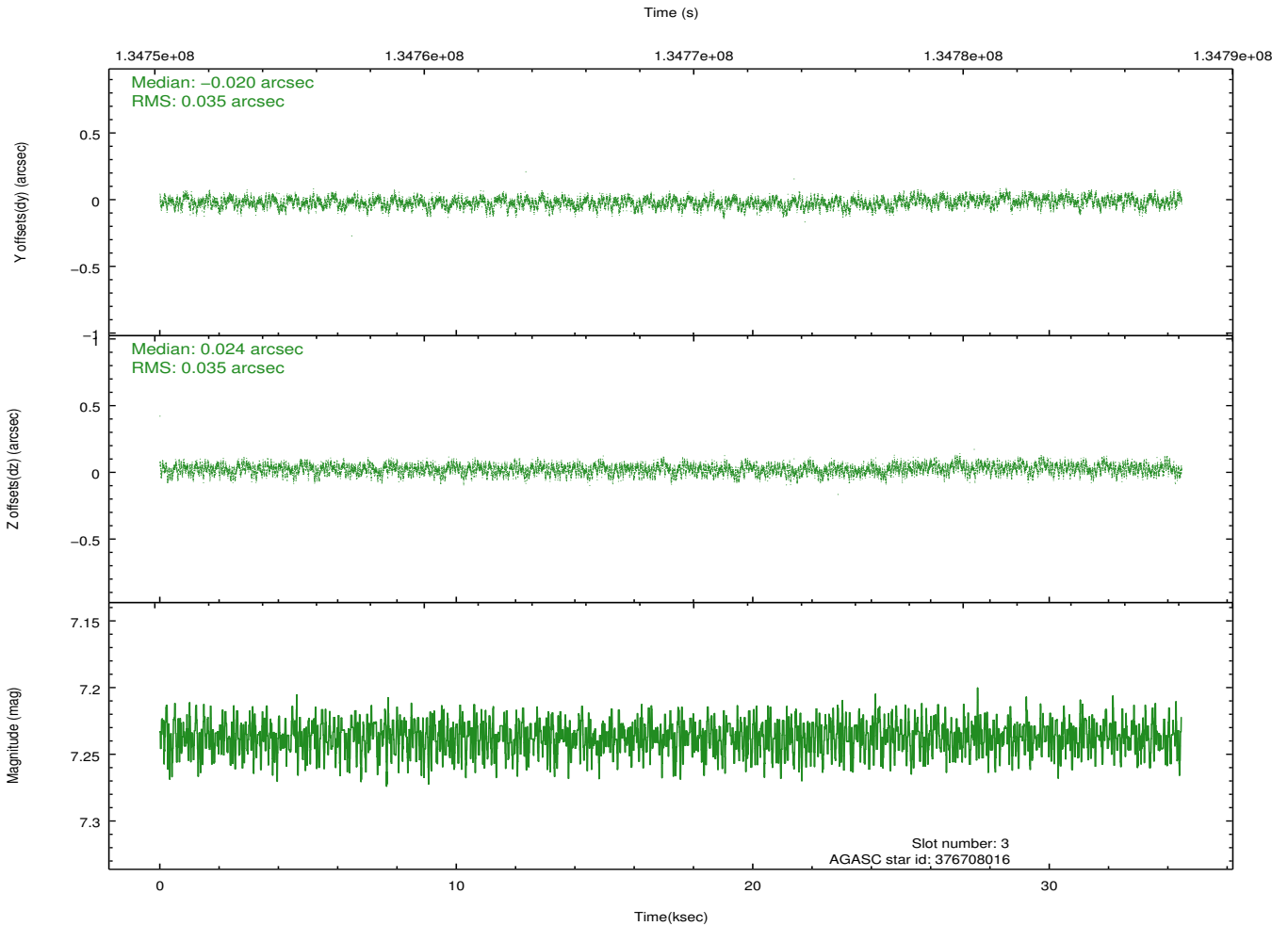
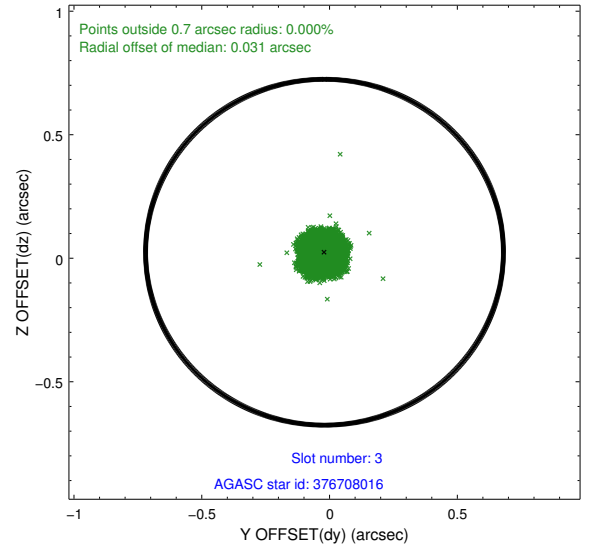
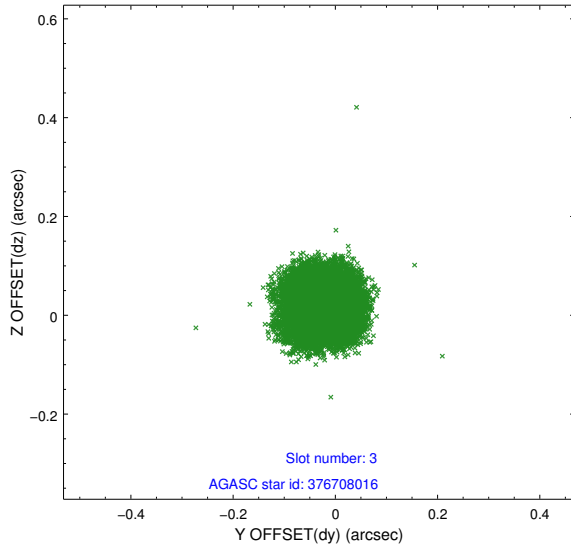


Slot Statistics

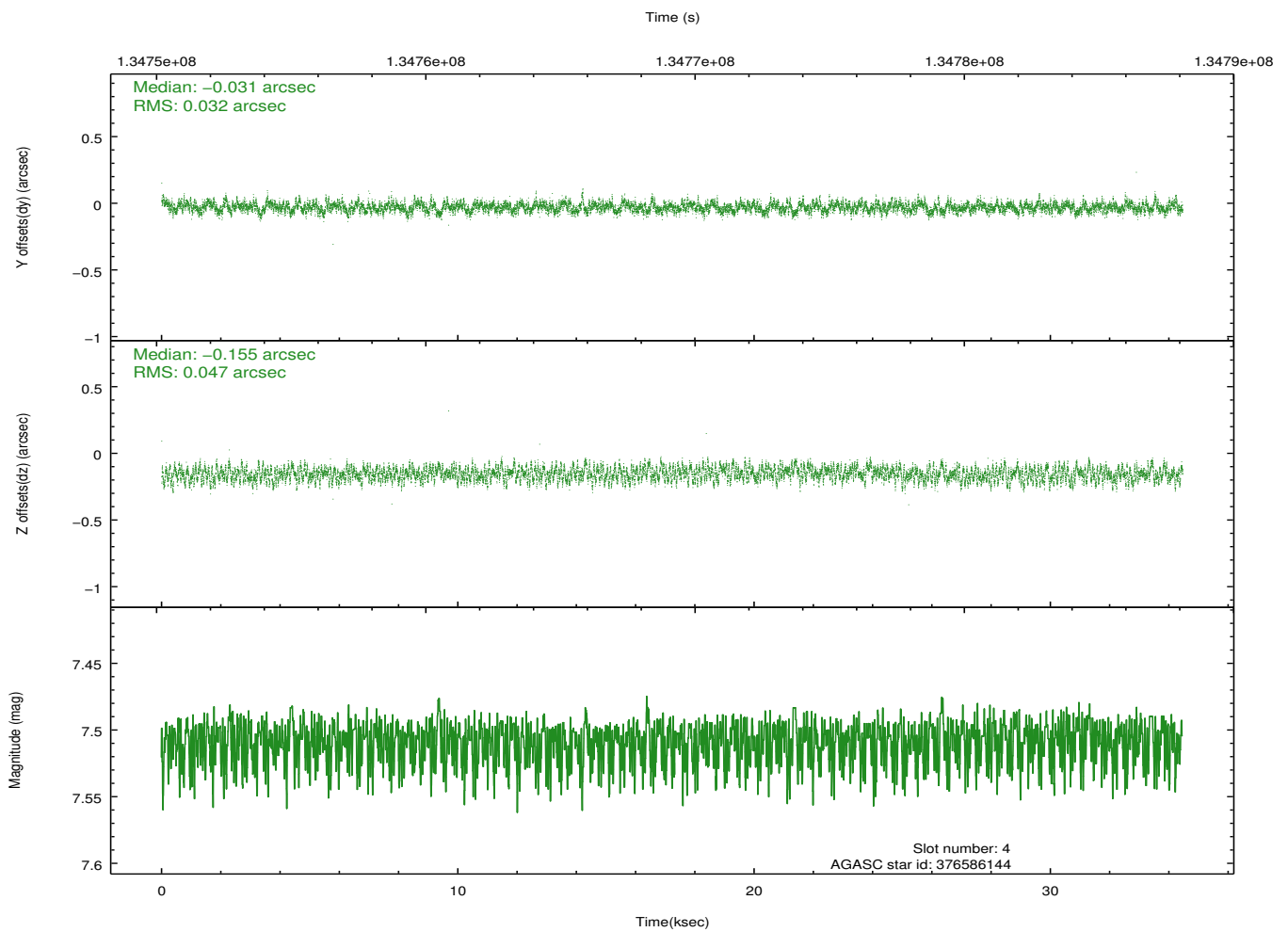
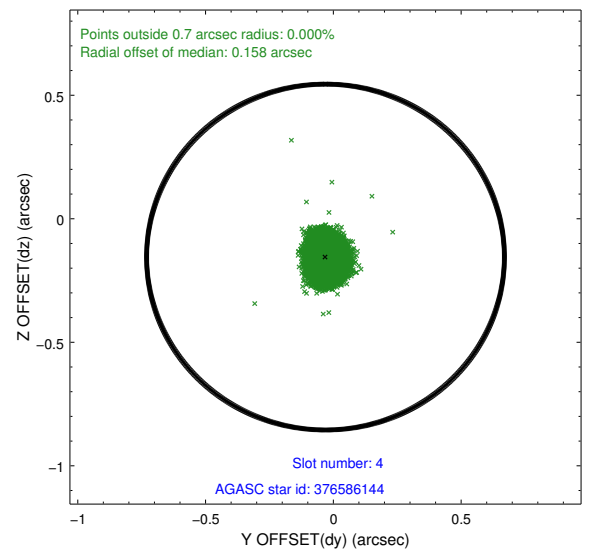
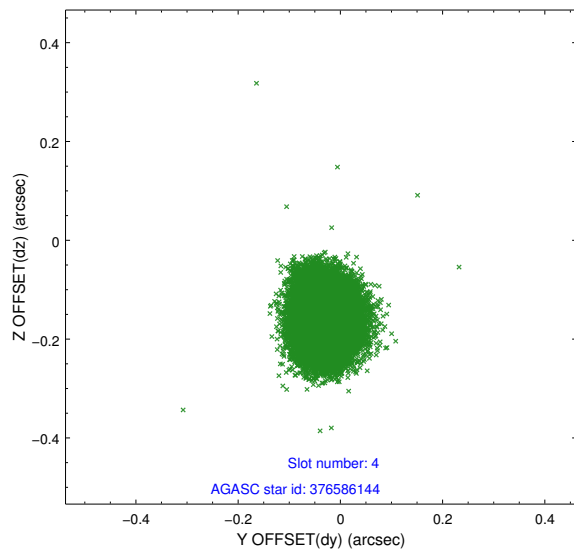
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	8405	-0.051	-0.025	0.013	0.022	0.000000	0.000000	-755.48	-1791.66
1	FID	ACIS-S-4	7.20	8404	0.012	0.032	0.011	0.022	0.000000	0.000000	2157.80	116.89
2	FID	ACIS-S-5	7.23	8404	0.010	0.002	0.011	0.021	0.000000	0.000000	-1808.24	110.50
3	GUIDE	376708016	7.24	16806	-0.020	0.024	0.053	0.085	53.836874	43.847951	1957.24	2007.95
4	GUIDE	376586144	7.51	16808	-0.031	-0.155	0.061	0.096	52.137991	43.753592	-595.93	-1608.99
5	GUIDE	376718080	8.45	16806	-0.025	0.070	0.064	0.101	52.906904	44.533699	-1473.98	1717.01
6	GUIDE	376570704	9.15	16805	0.127	-0.100	0.104	0.164	52.383963	43.230715	1257.55	-2330.75
7	GUIDE	376701952	9.17	16807	-0.054	0.162	0.096	0.162	52.832333	44.654698	-1931.17	1848.25

2.4 Star Slots

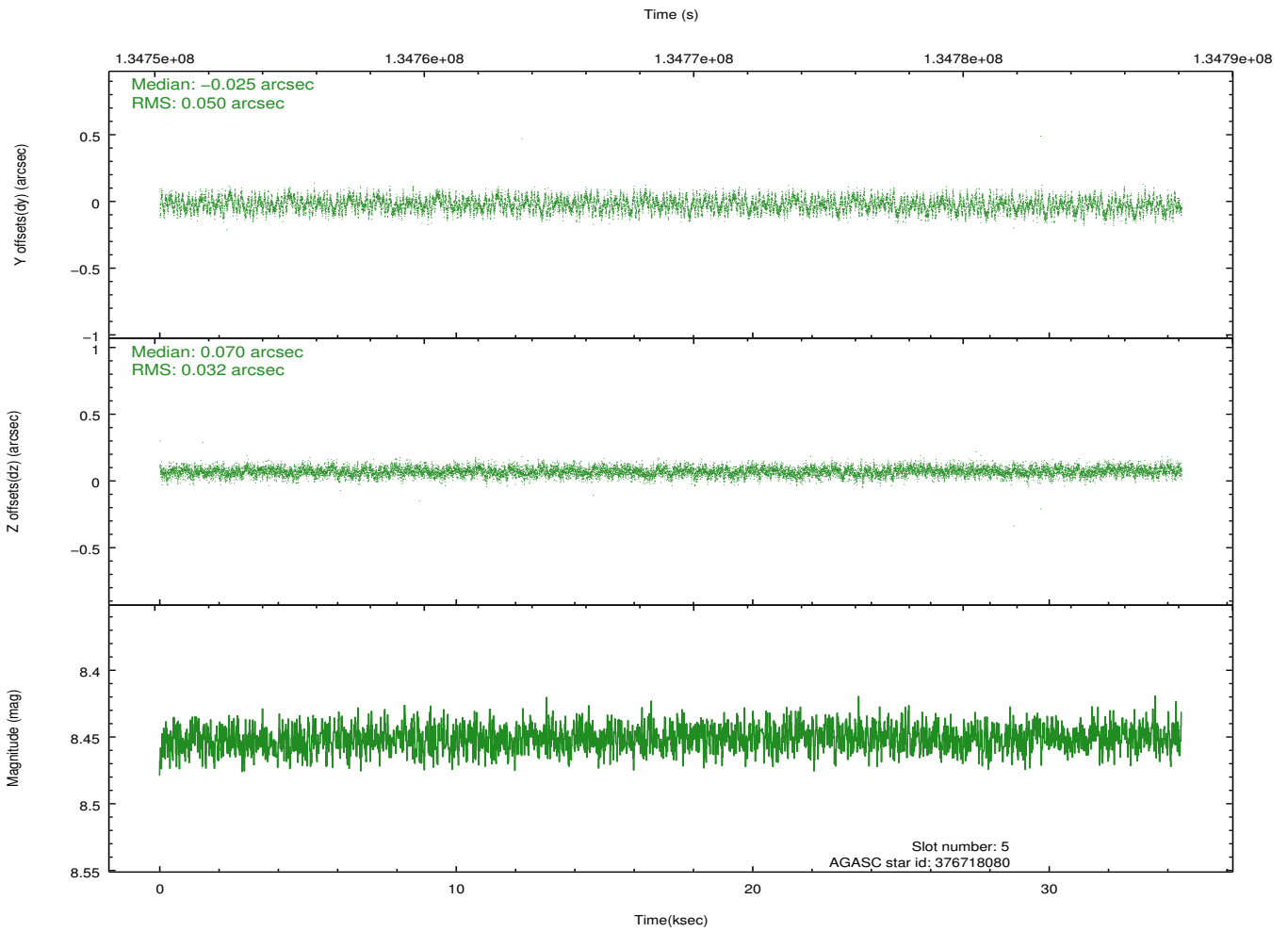
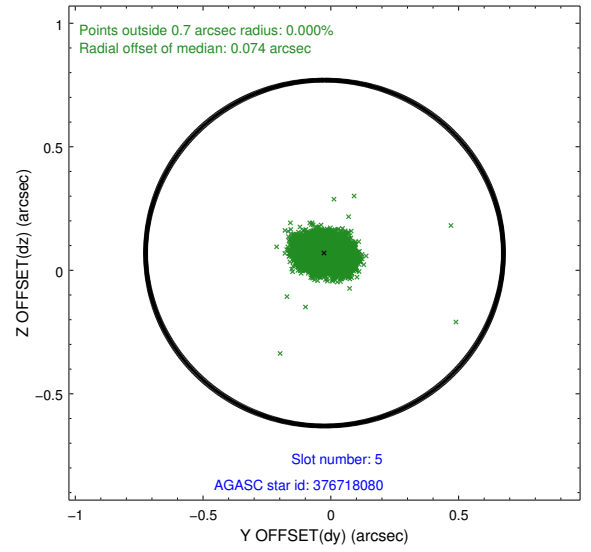
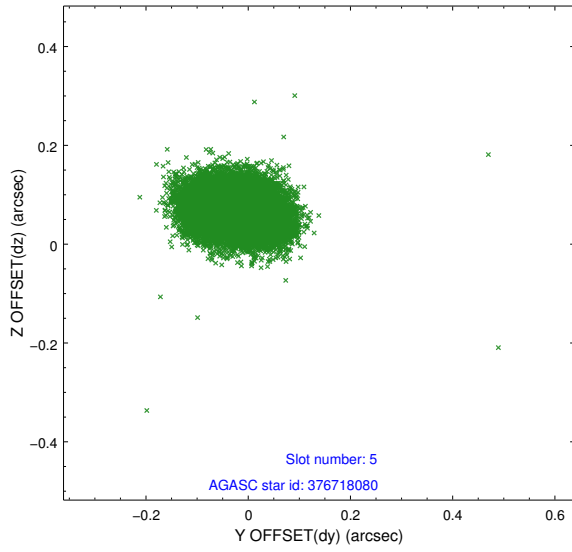
2.4.1 Slot 3



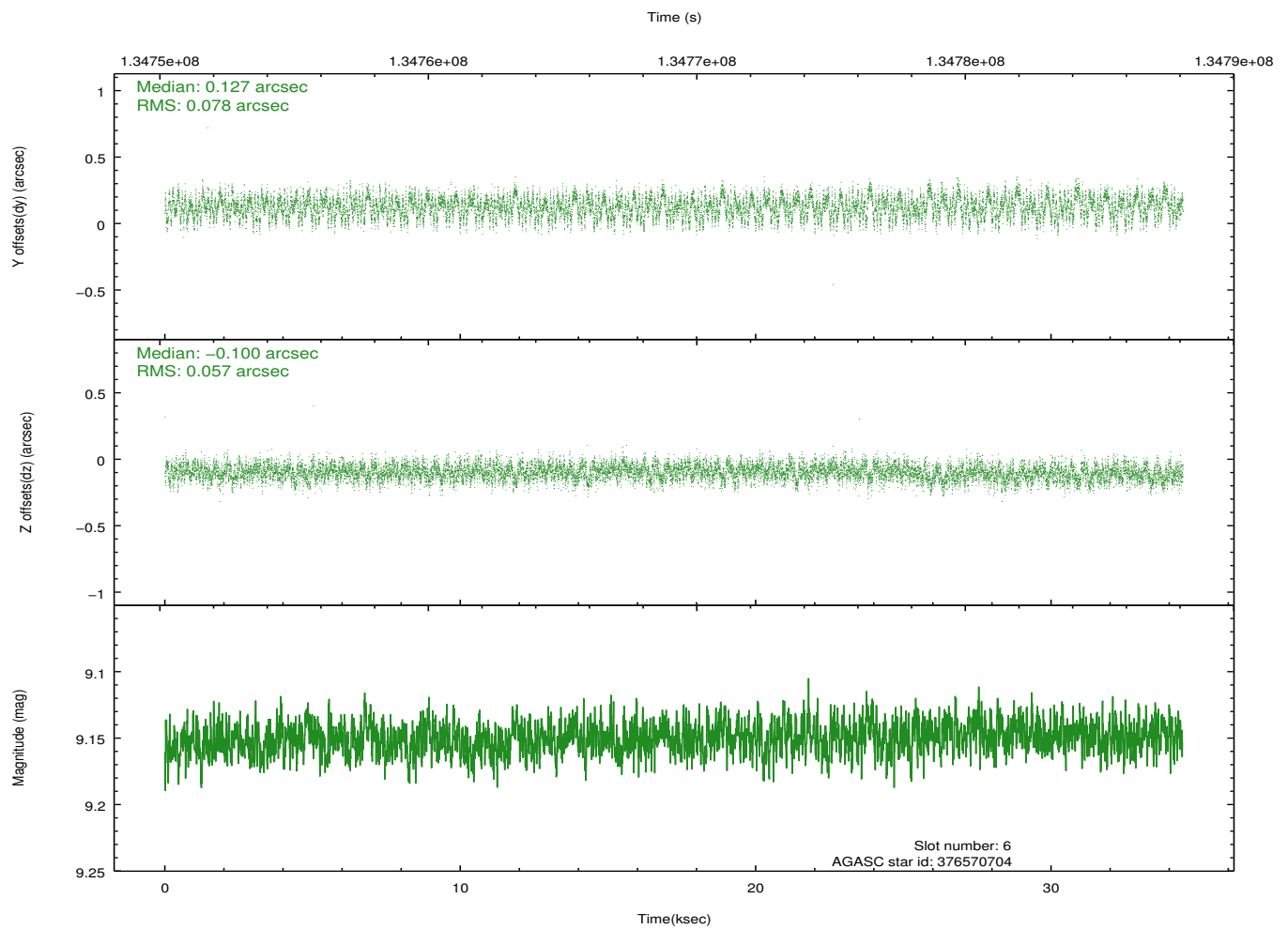
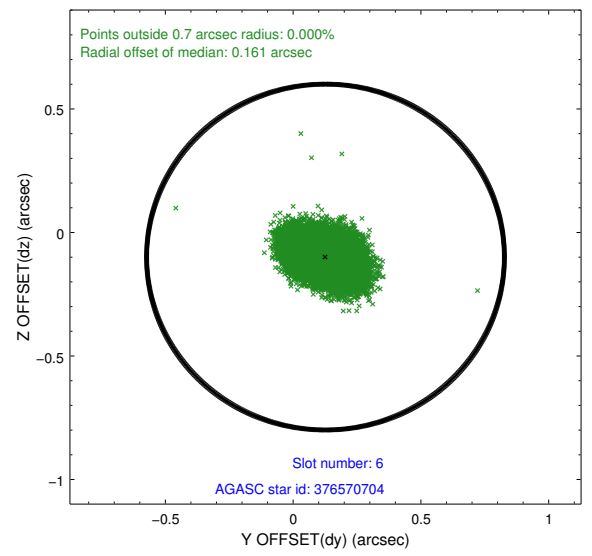
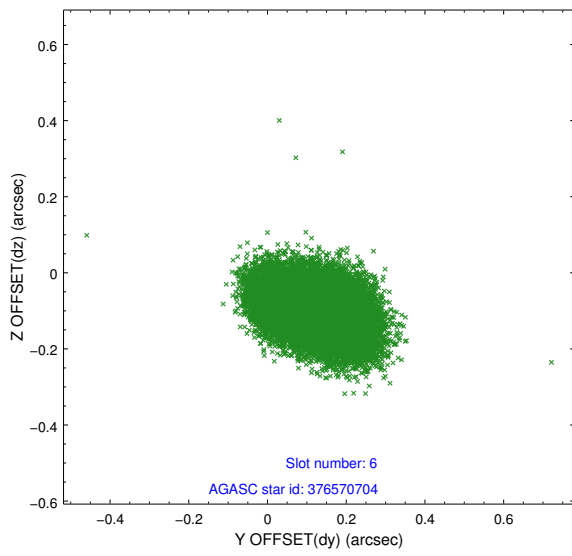
2.4.2 Slot 4



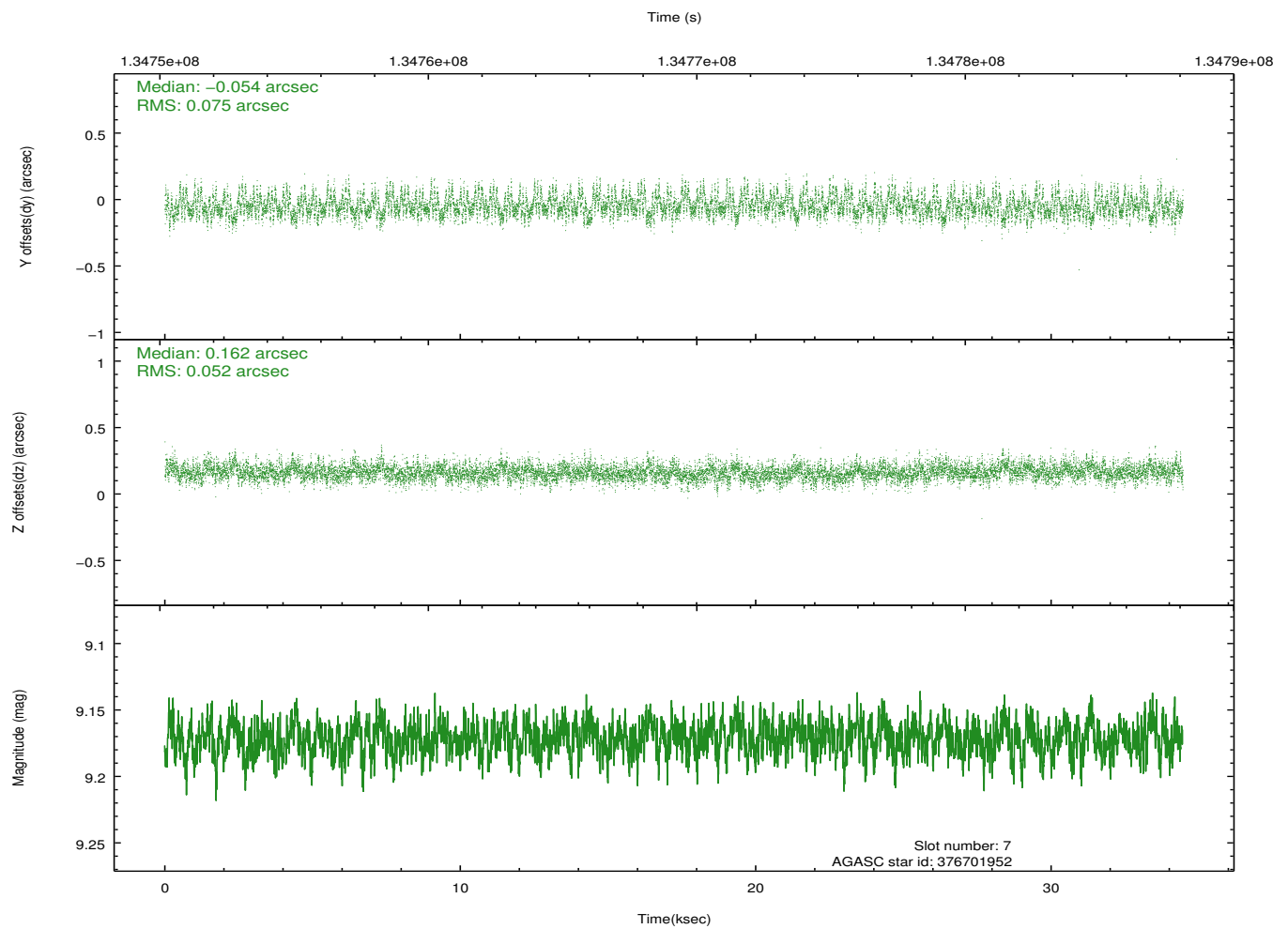
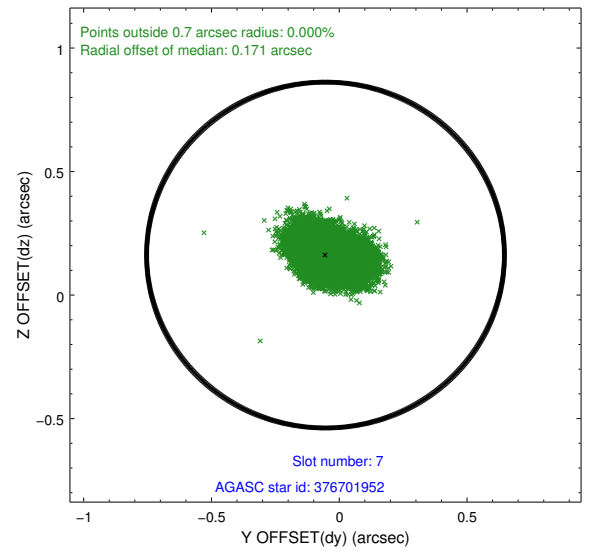
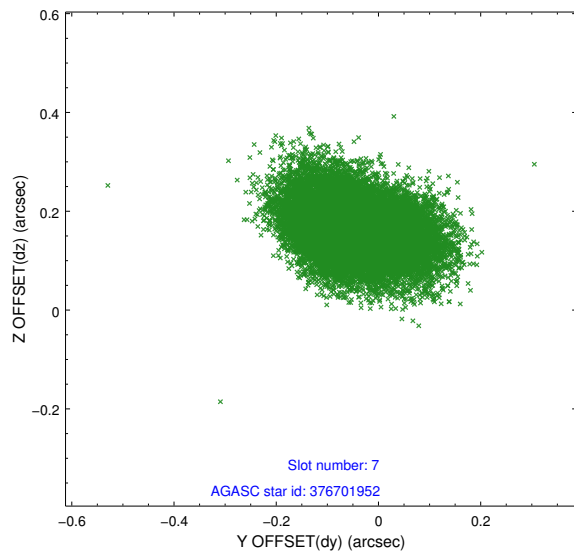
2.4.3 Slot 5



2.4.4 Slot 6

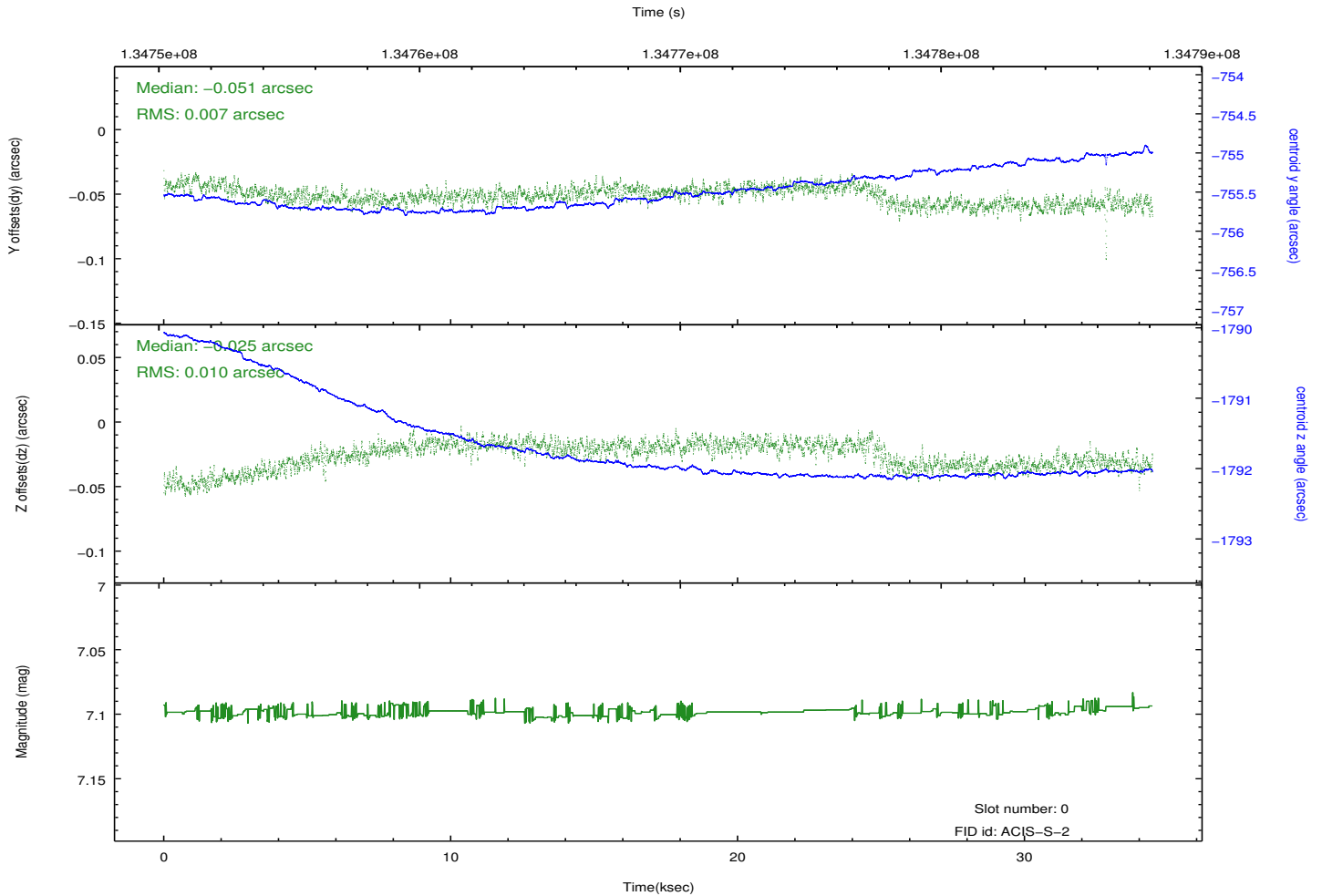
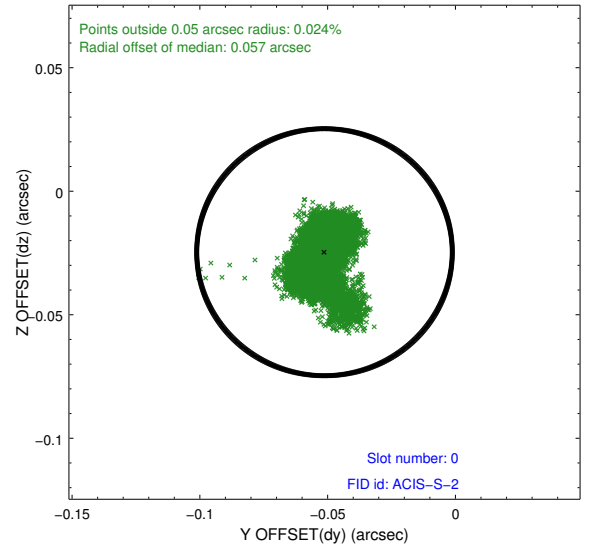
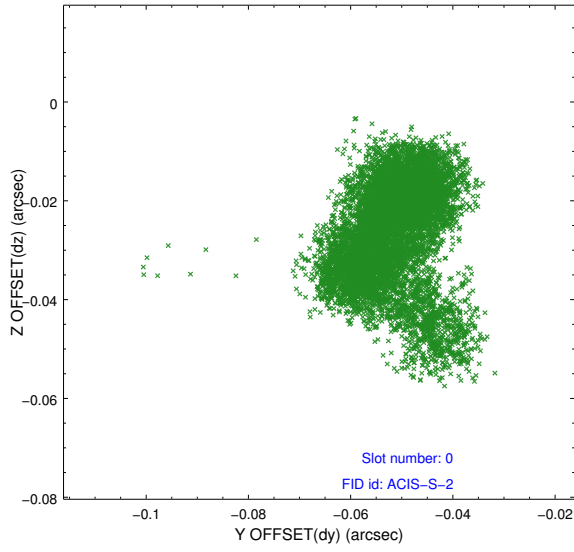


2.4.5 Slot 7

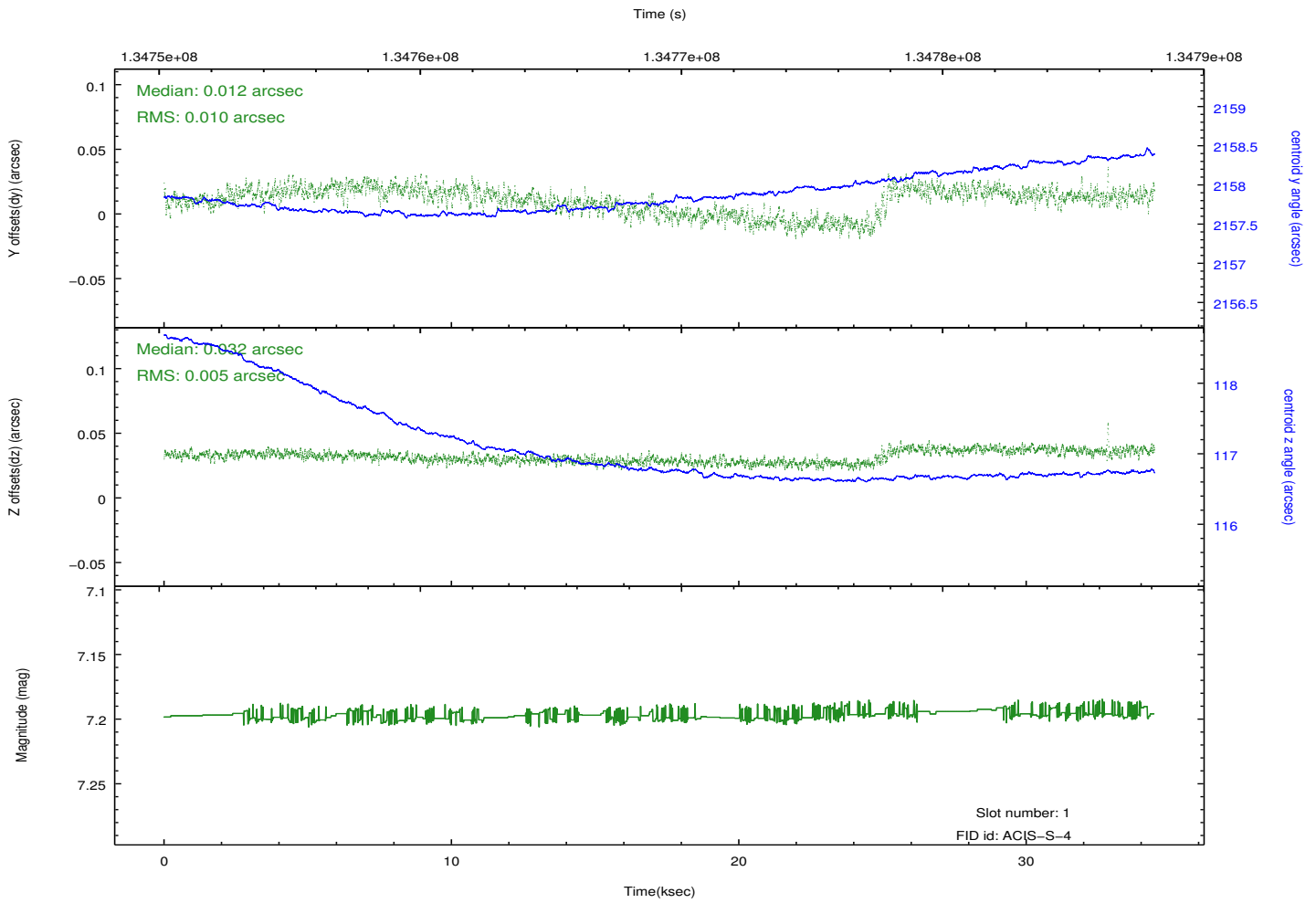
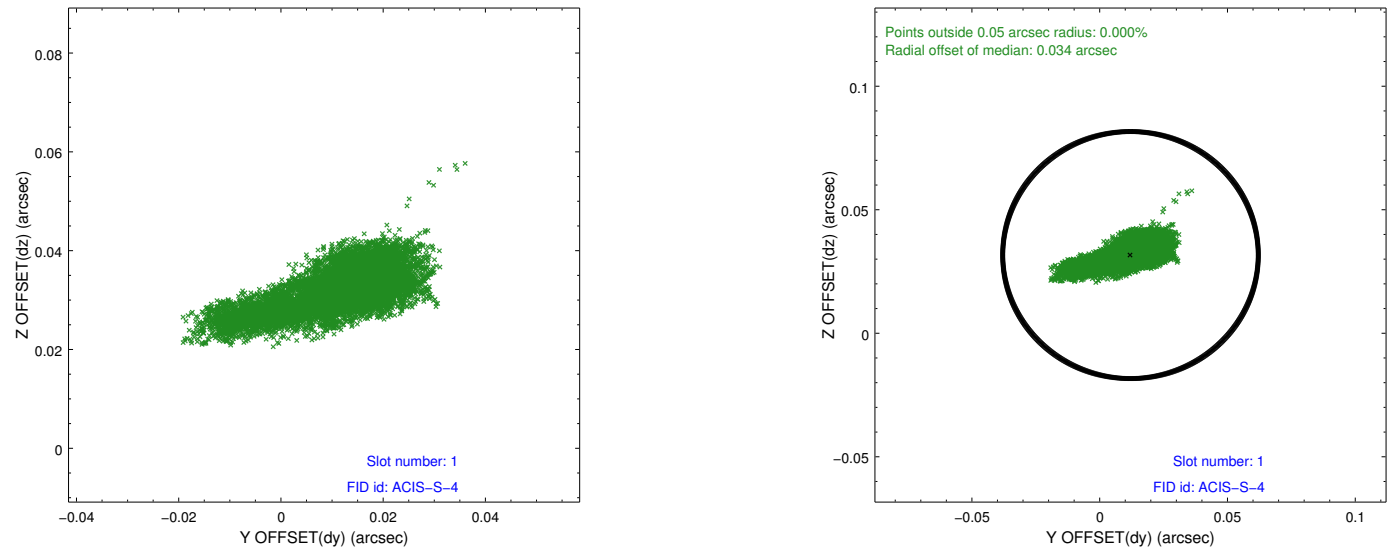


2.5 FID Slots

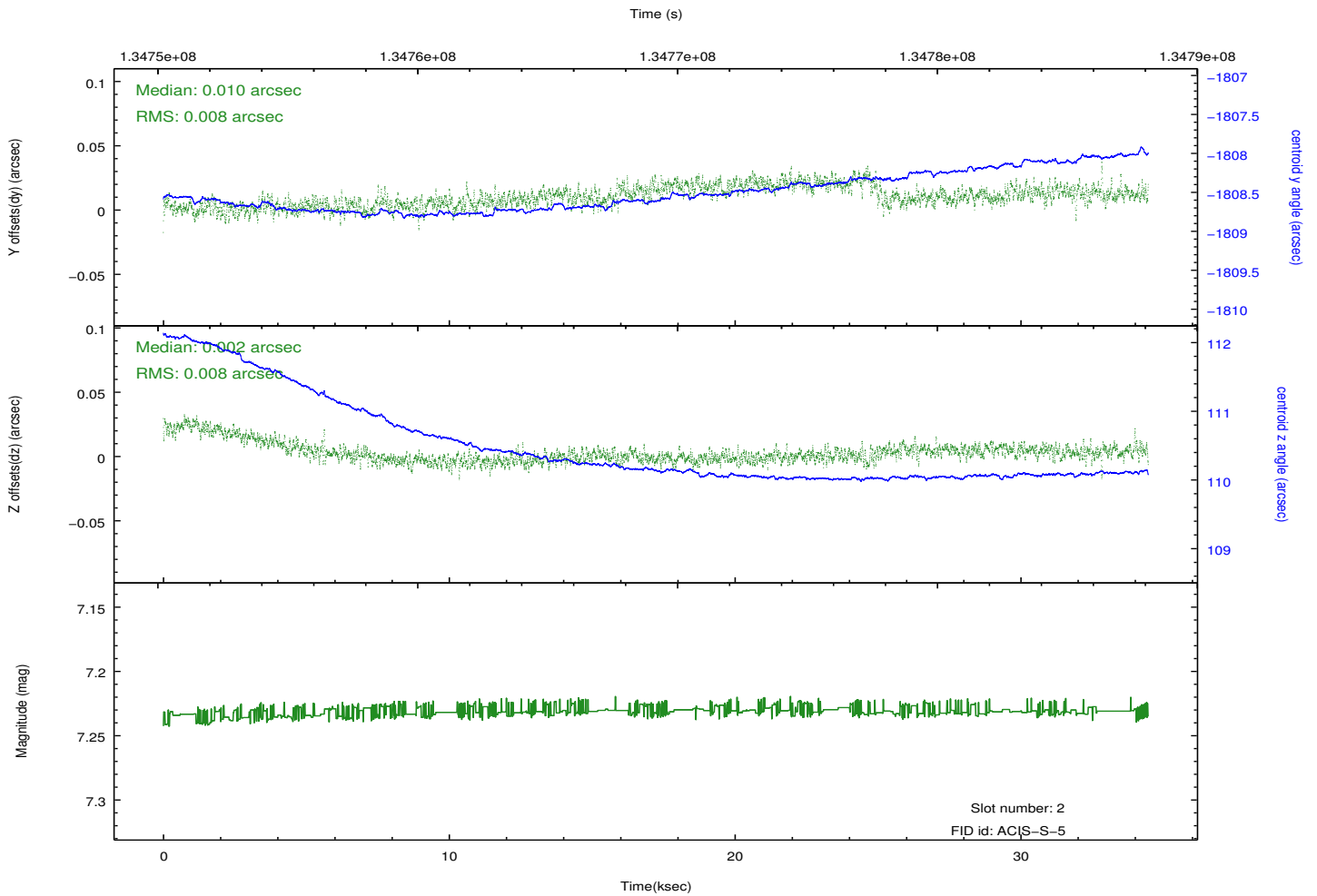
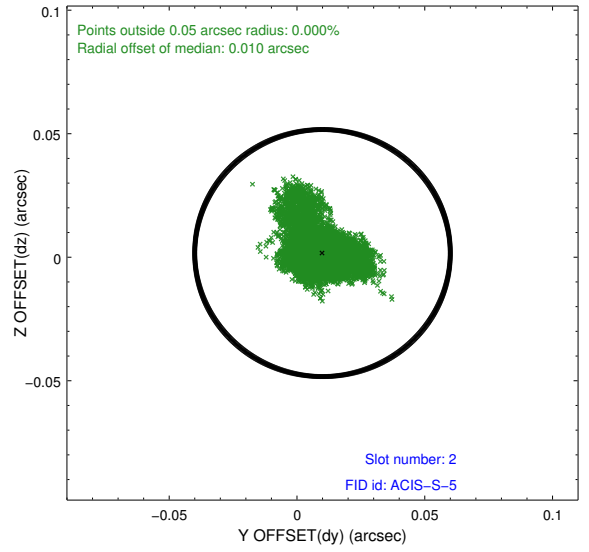
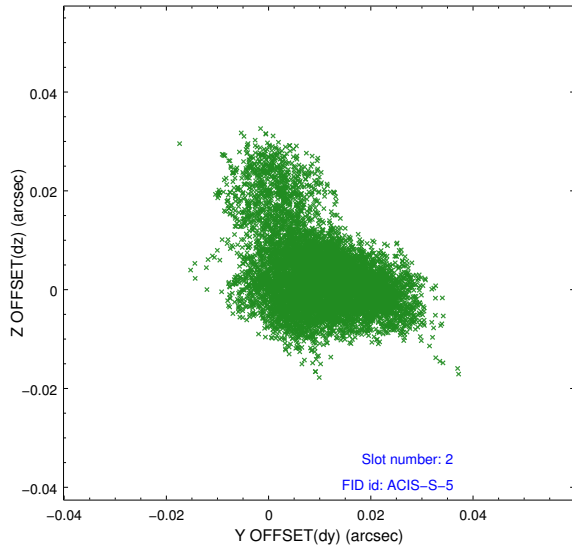
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

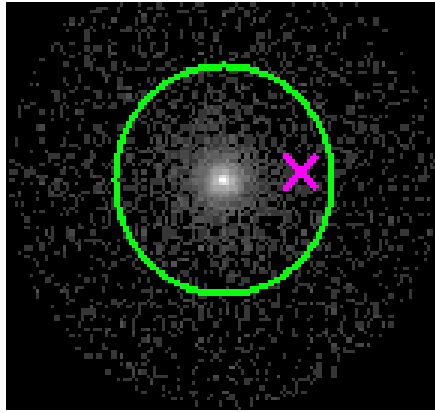


3 Gratings

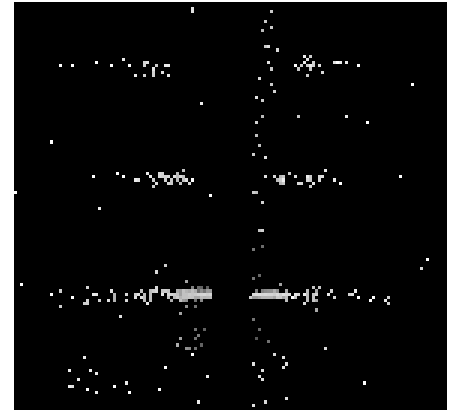
3.1 HEG Arm



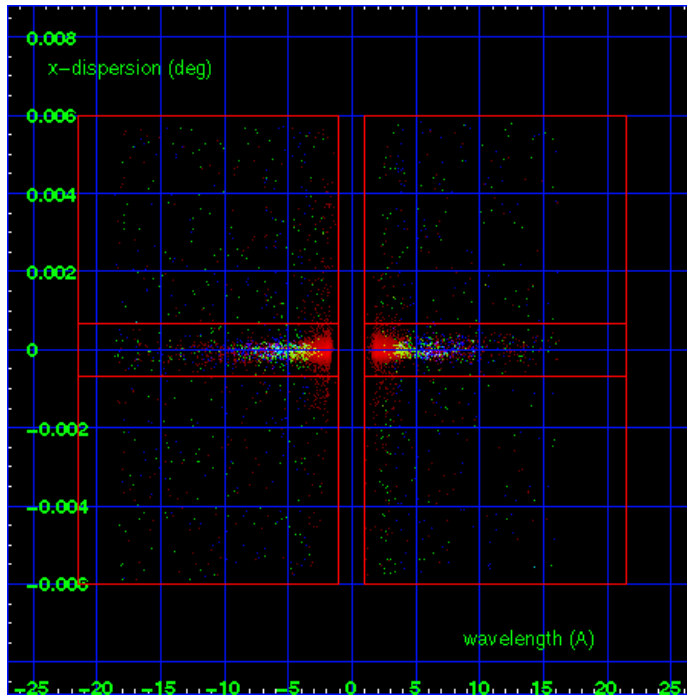
HEG Order Sort 123



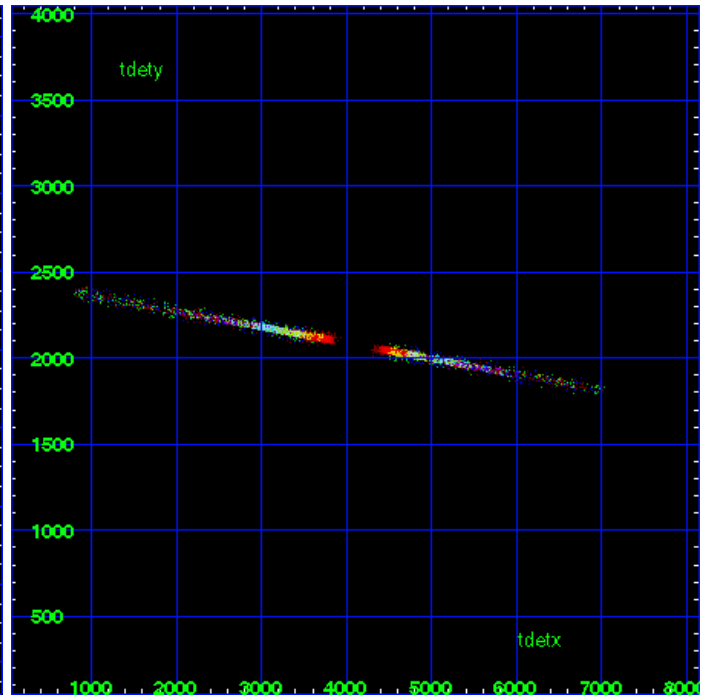
HEG Zero Order



HEG Order Sort ALL

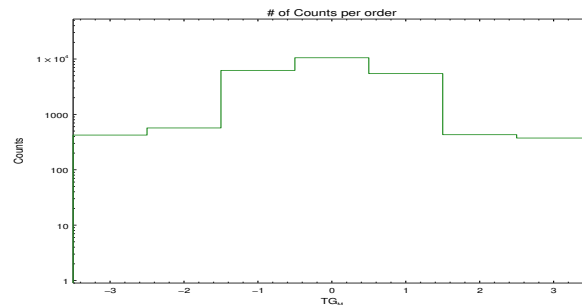


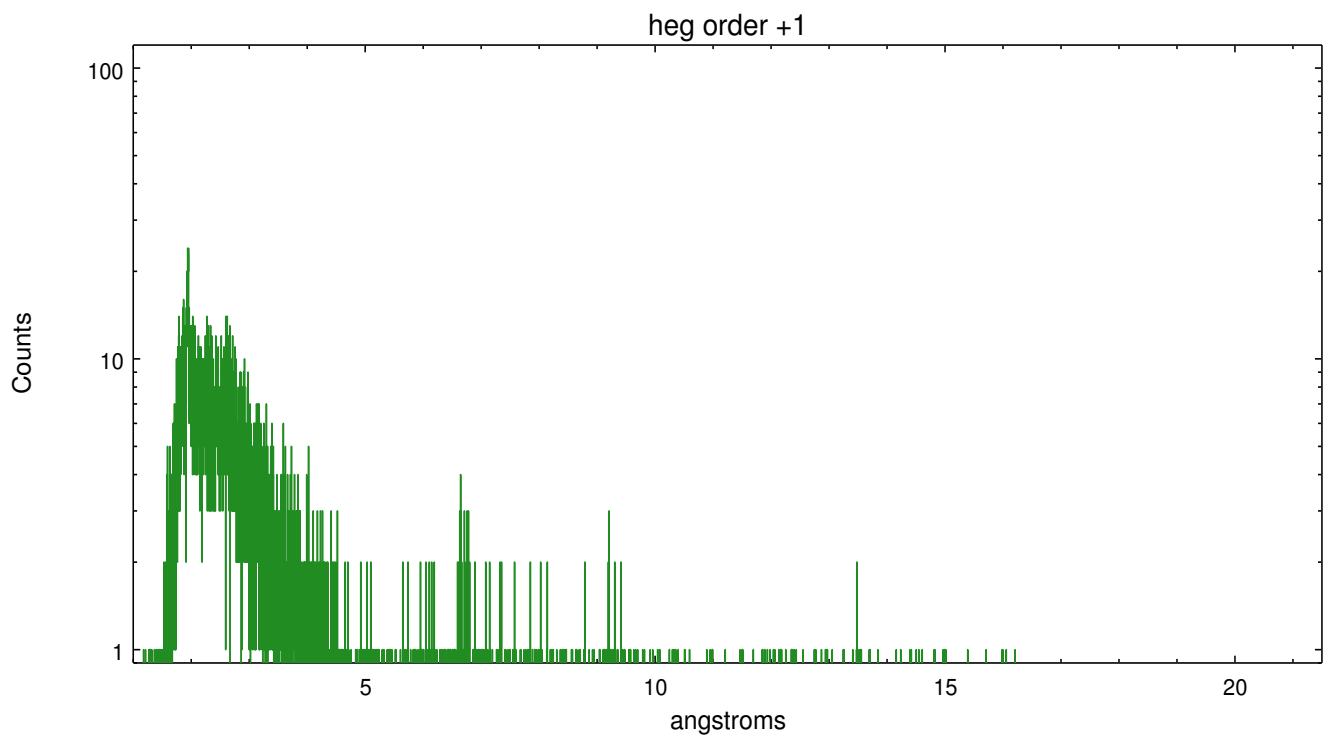
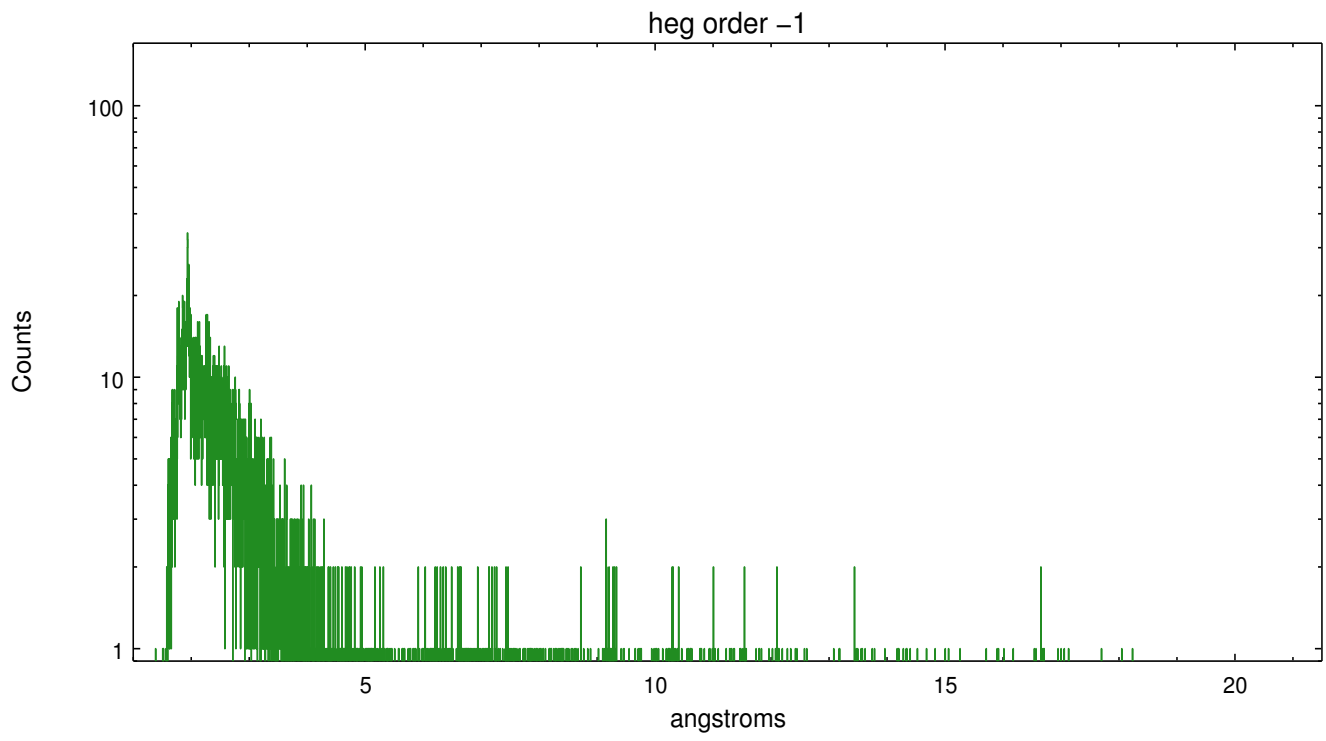
Spot Image HEG



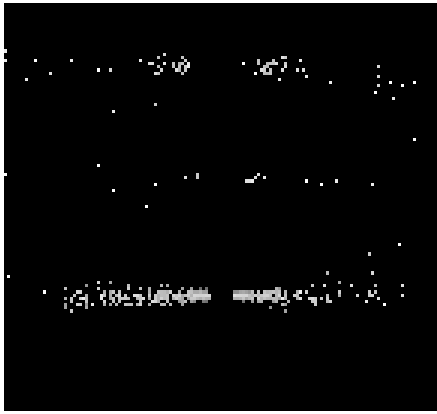
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	423	569	6229	10540	5452	430	374

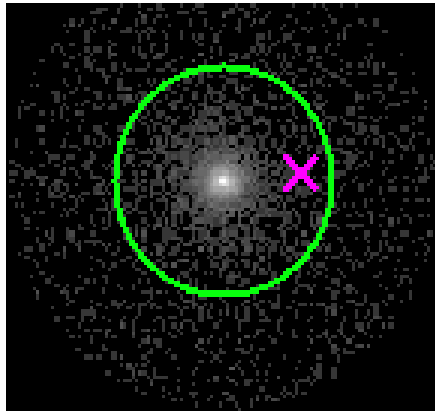




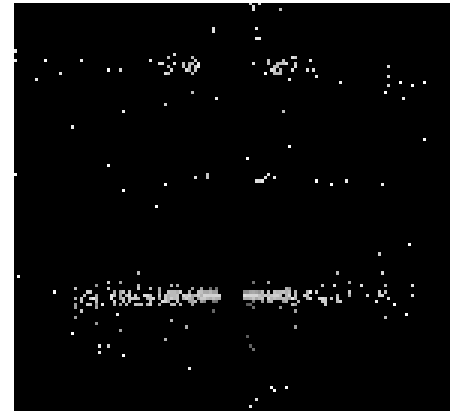
3.2 MEG Arm



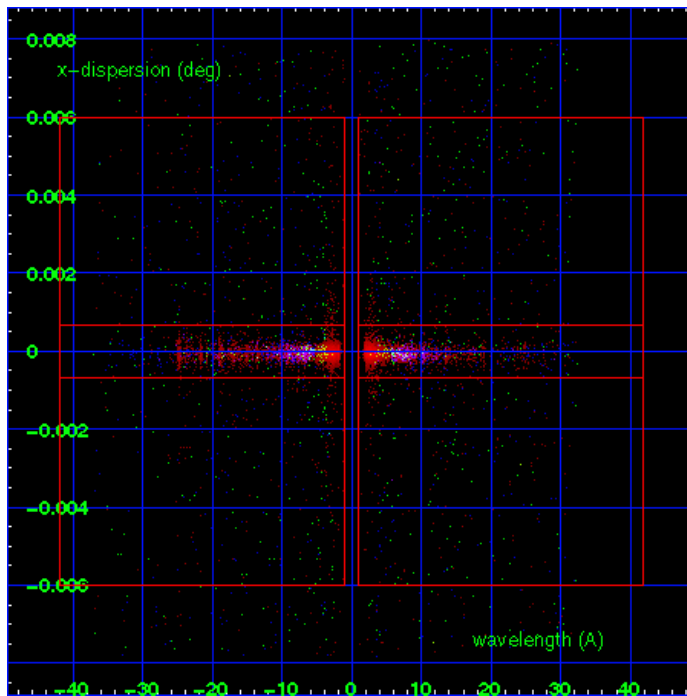
MEG Order Sort 123



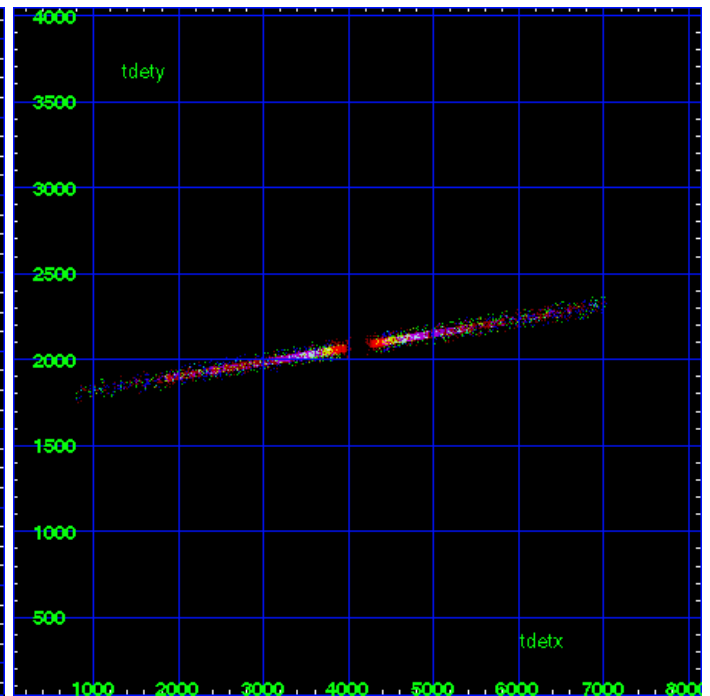
MEG Zero Order



MEG Order Sort ALL

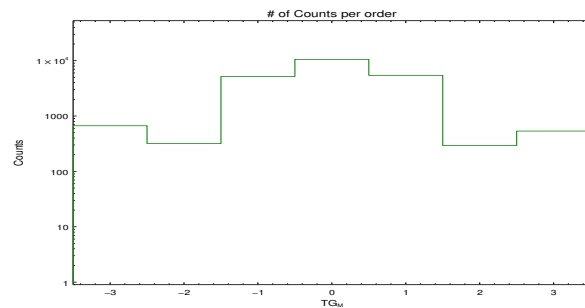


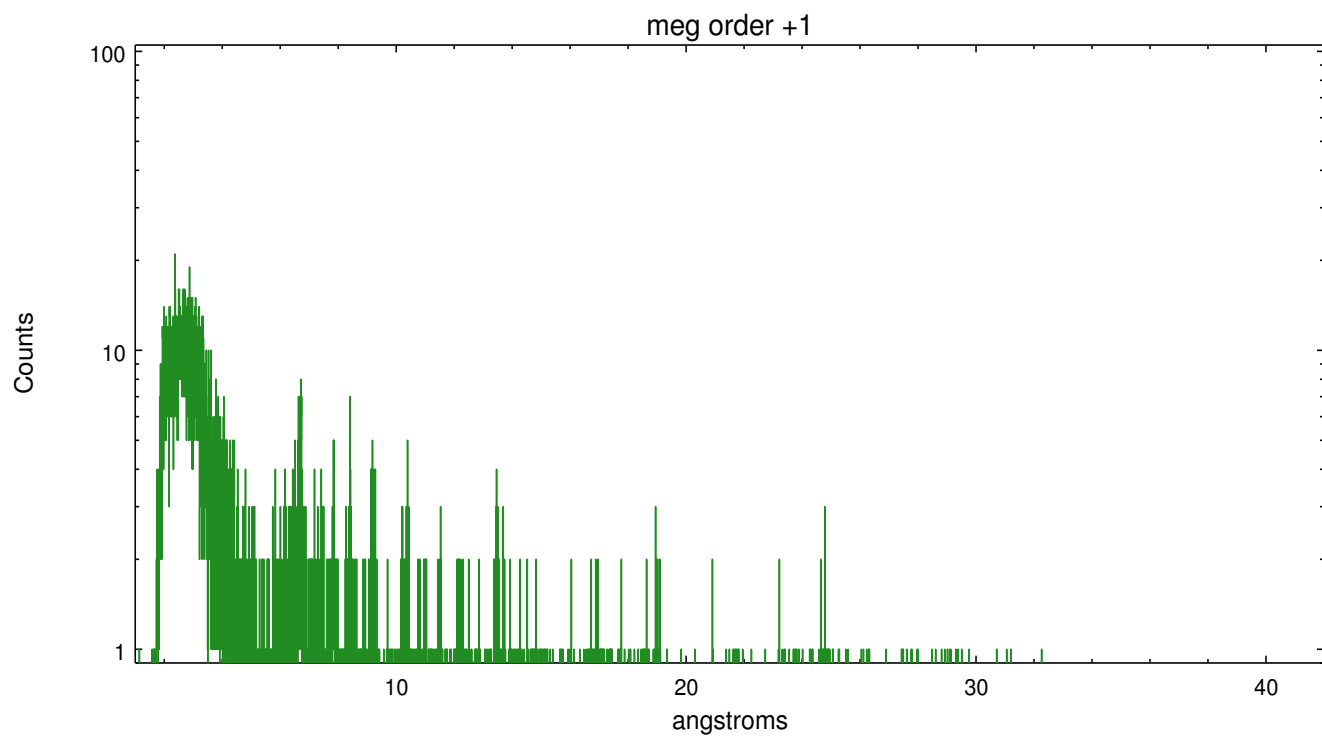
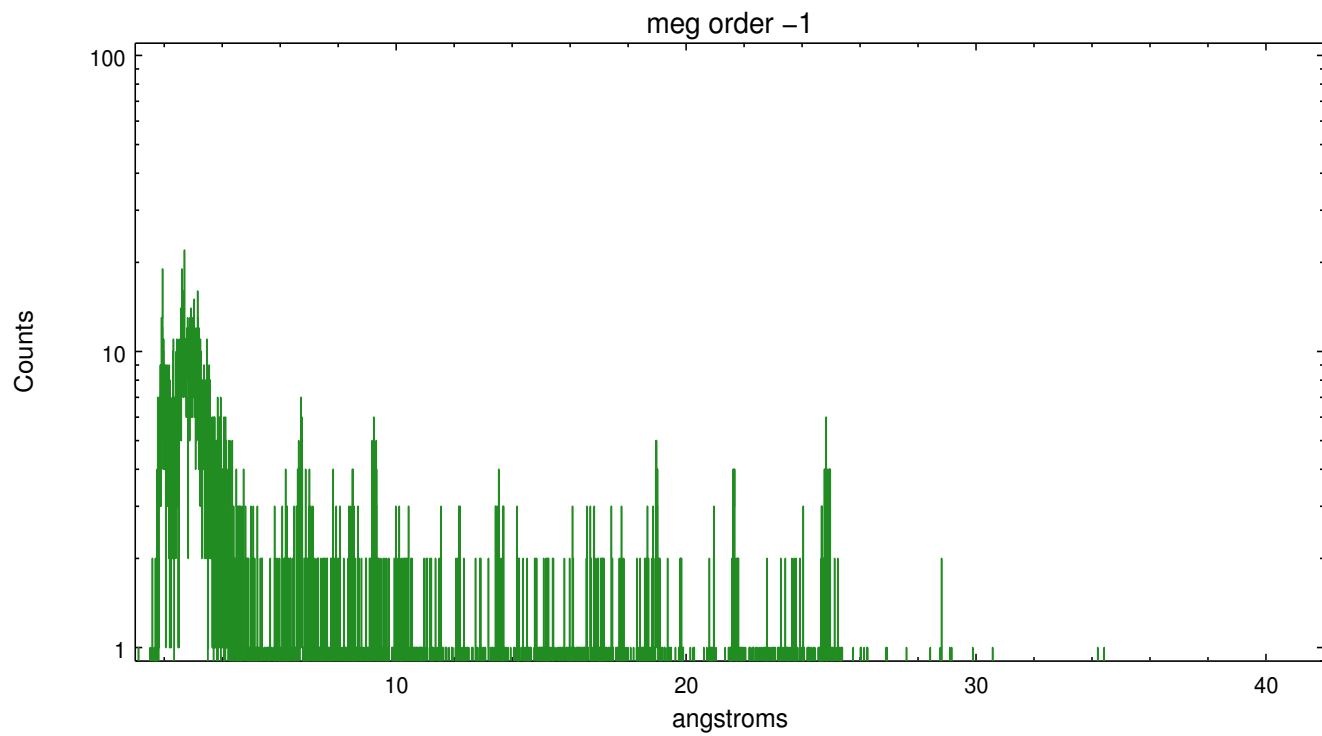
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	668	318	5176	10540	5421	293	535





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.457

A.2 Comments

The location of the zeroth order for purposes of spectral extraction was done in the pipeline using the standard tool `tgdetect`. Other gratings observations of this target used `findzo`, but a correct answer could not be obtained for this observation with `findzo`.