

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10403 - L2 Version 2
Chandra X-Ray Center

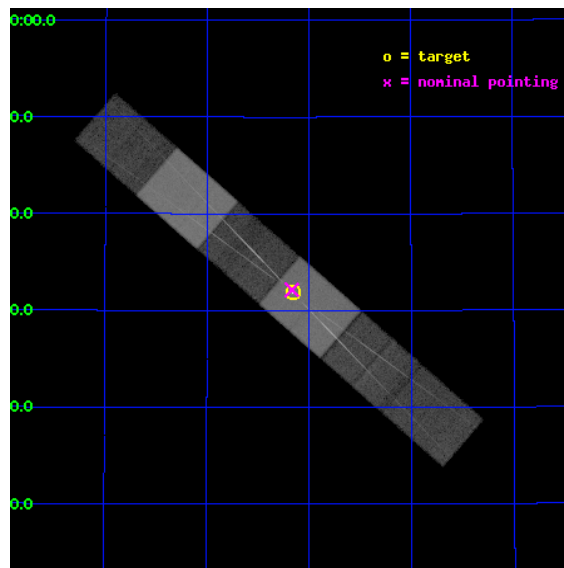
L2 Processing Date : May 23 2012

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1 Front

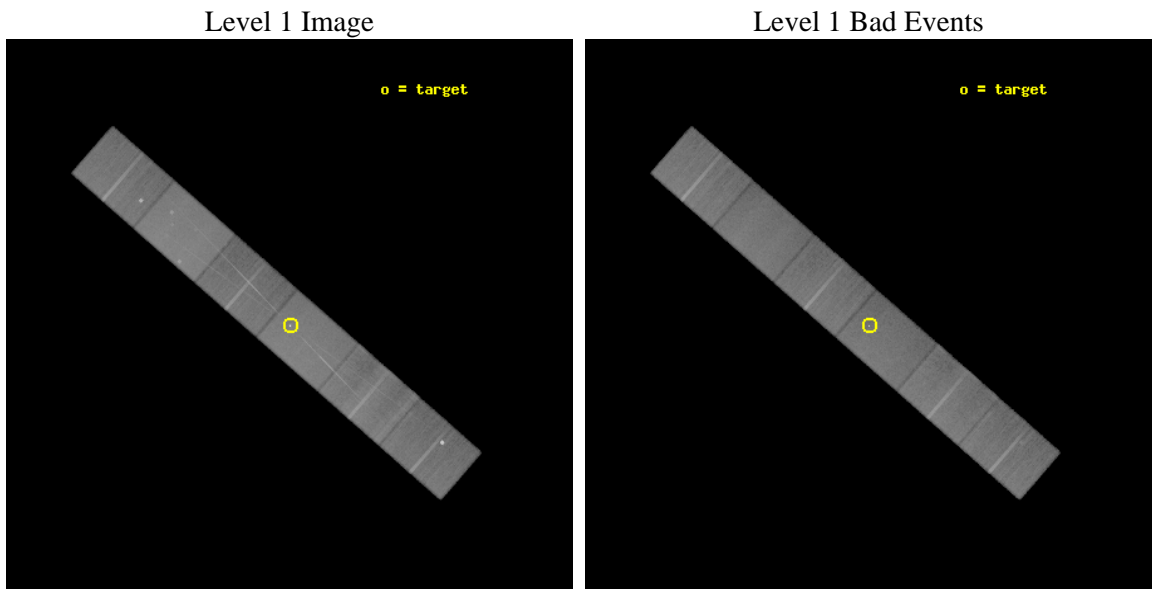
seq_num	701946	Sequence number
obs_id	10403	Observation id
title	Deconstructing AGN X-ray Spectra - Time for a Paradigm Shift?	Prop
observer	Dr Tracey Turner	Principal investigator
object	NGC 4051	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	180.79	Observer's specified target RA [deg]
dec_targ	44.531333	Observer's specified target Dec [deg]
ra_nom	180.79201445528	Nominal RA [deg]
dec_nom	44.53596096927	Nominal Dec [deg]
roll_nom	41.155227956098	Nominal Roll [deg]
revision	2	Processing version of data
ontime	38147.5	Sum of GTIs [s]
livetime	37531.384787331	Livetime [s]
ontime4	38147.5	Sum of GTIs [s]
ontime5	38147.5	Sum of GTIs [s]
ontime6	38142.418039382	Sum of GTIs [s]
ontime7	38147.5	Sum of GTIs [s]
ontime8	38147.5	Sum of GTIs [s]
ontime9	38144.959009707	Sum of GTIs [s]
l2events	538392	Number of level 2 events



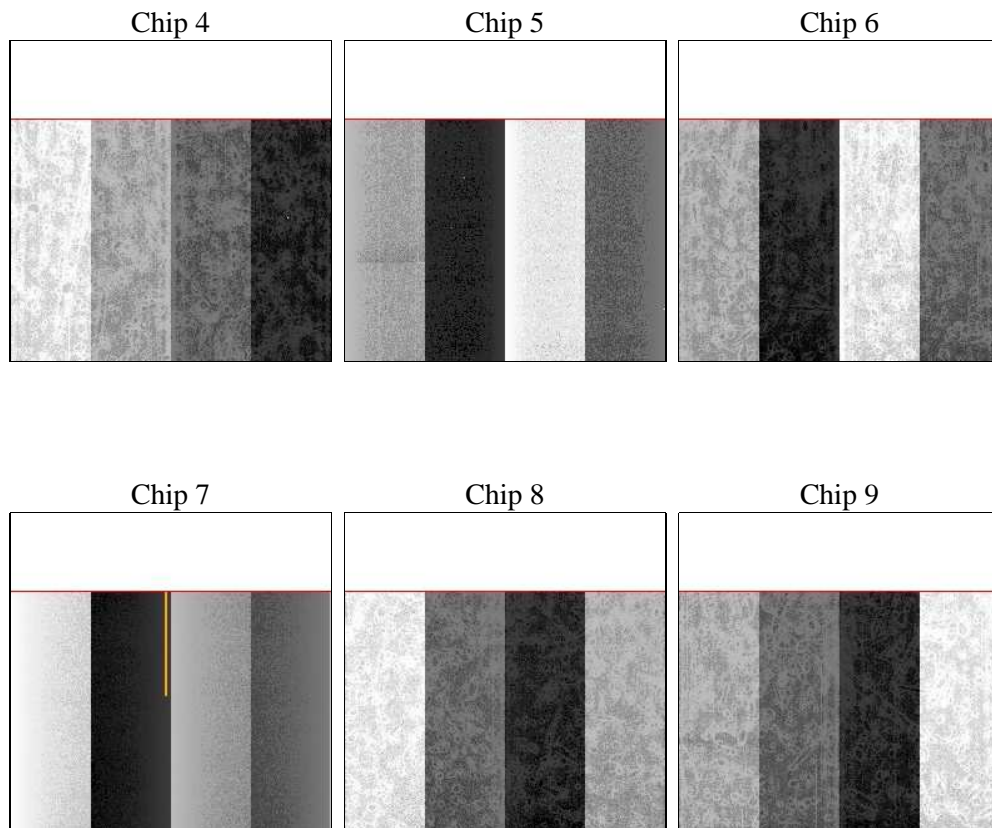
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	38001.461000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	38147.5	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	38147.5	Sum of GTIs [s]
date	2012-05-23T14:41:22	Date and time of file creation	ontime5	38147.5	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	38142.418039382	Sum of GTIs [s]
			ontime7	38147.5	Sum of GTIs [s]
			ontime8	38147.5	Sum of GTIs [s]
			ontime9	38144.959009707	Sum of GTIs [s]
			l1events	2201684	Number of level 1 events

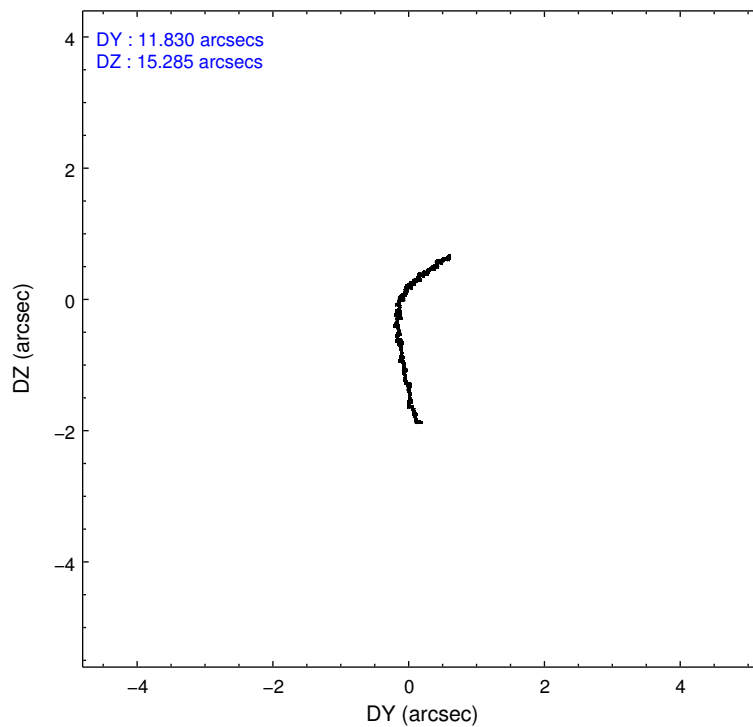
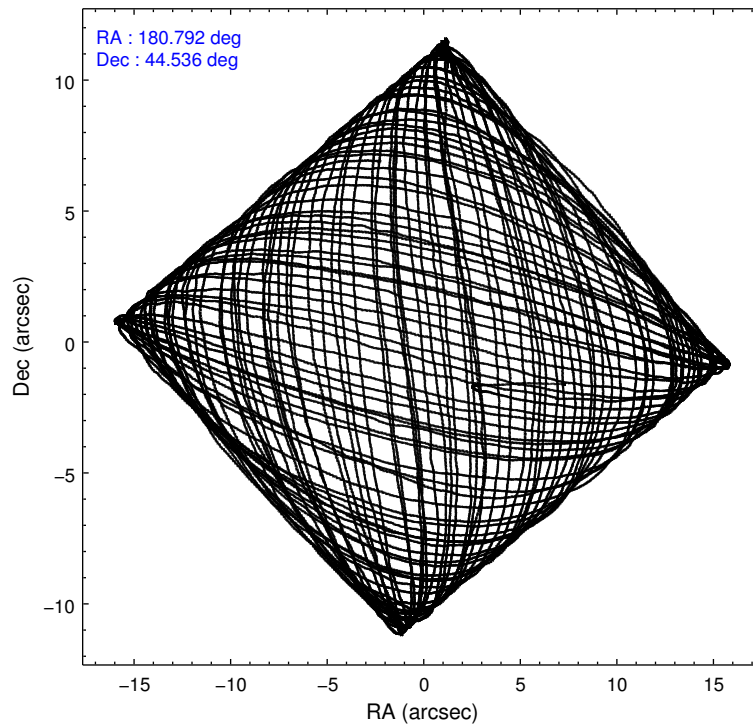
2.1.4 Events

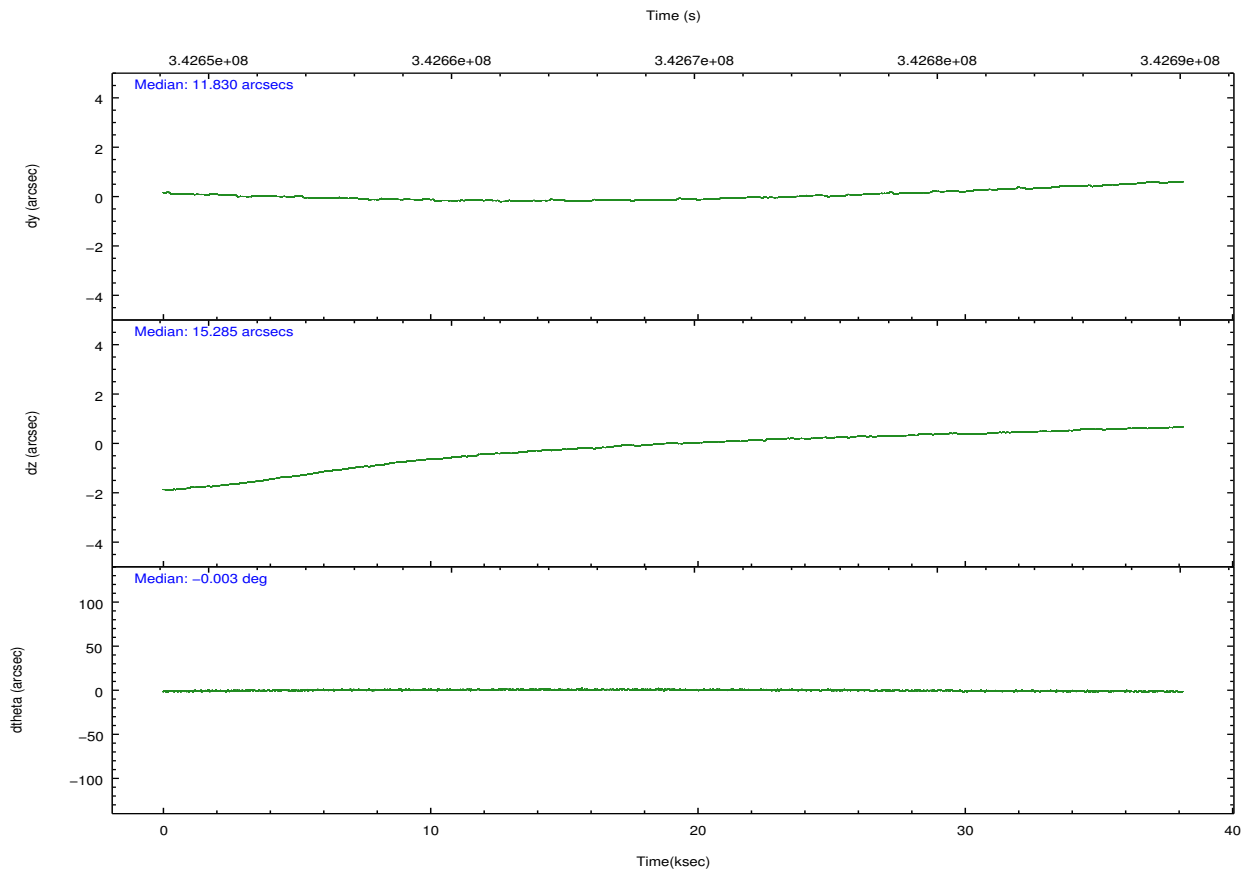
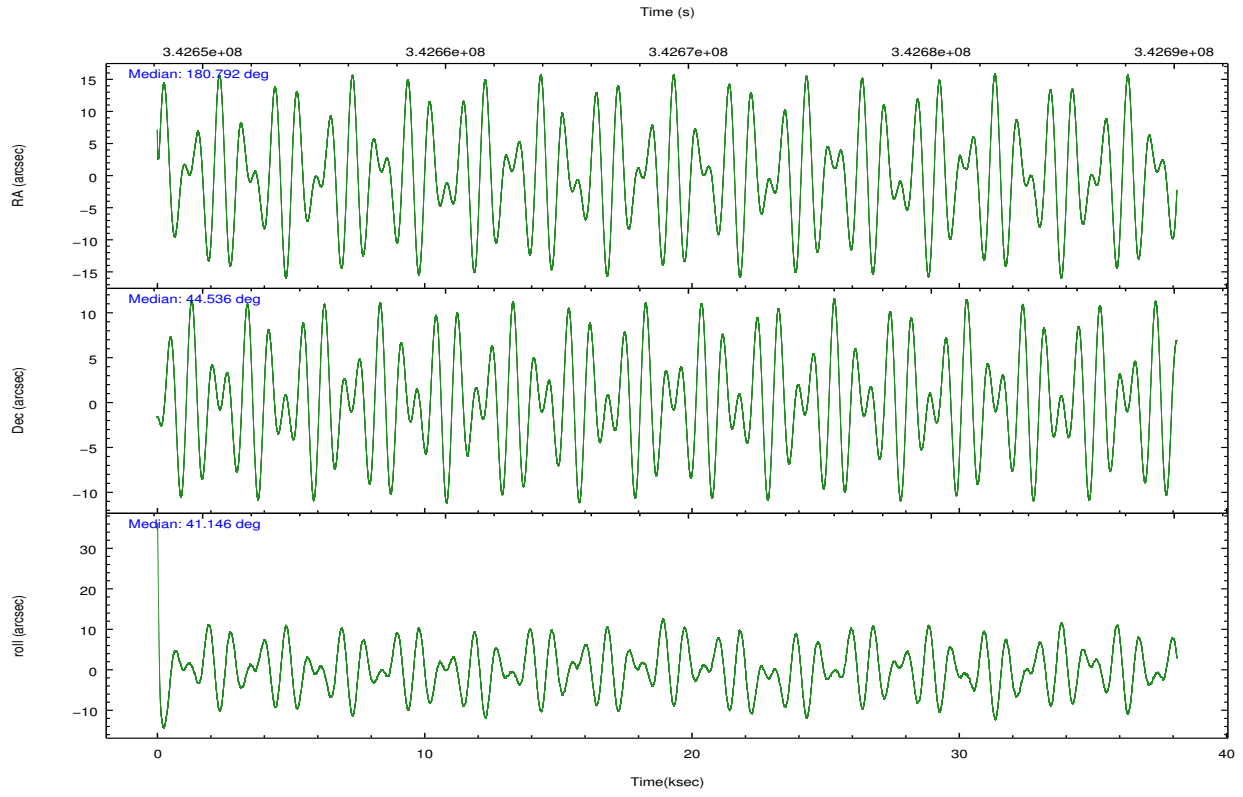
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	324286	454455	304134	428784	381438	308587	grade 0 events	22580	18744	23351	19311	32759	16376
rejected events	279557	244880	256668	238834	286919	255636		6%	4%	7%	4%	8%	5%
rejected %	86%	53%	84%	55%	75%	82%	grade 1 events	284	697	165	651	252	289
								0%	0%	0%	0%	0%	0%
							grade 2 events	8626	63867	9051	39941	20522	21915
								2%	14%	2%	9%	5%	7%
							grade 3 events	4000	9148	4001	17137	9518	3872
								1%	2%	1%	3%	2%	1%
							grade 4 events	3776	8671	3819	17084	8735	3752
								1%	1%	1%	3%	2%	1%
							grade 5 events	13535	34039	13749	39566	18650	15109
								4%	7%	4%	9%	4%	4%
							grade 6 events	6018	110600	7553	97663	23515	7357
								1%	24%	2%	22%	6%	2%
							grade 7 events	265467	208689	242445	197431	267487	239917
								81%	45%	79%	46%	70%	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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	180.780120	180.7920144552788	CCD I2 on	N	N
[deg] Pointing Dec	44.509963	44.53596096926969	CCD I3 on	N	N
[deg] Pointing Roll	41.006923	41.15522795609846	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-187.132523	-187.1254020033014	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-3	-3.007120579706367	CCD S4 on	Y	Y
[s] Observation start time (MET)	342650189.184000	342649055.77506	CCD S5 on	Y	Y
Observation start date	2008-11-09T20:35:24	2008-11-09T20:17:35	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	342688191.184000	342688412.70201	On-chip summing requested	N	N
Observation end date	2008-11-10T07:08:46	2008-11-10T07:13:32	Subarray requested	CUSTOM	CUSTOM
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	774	774
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	2.5

2.3 Aspect





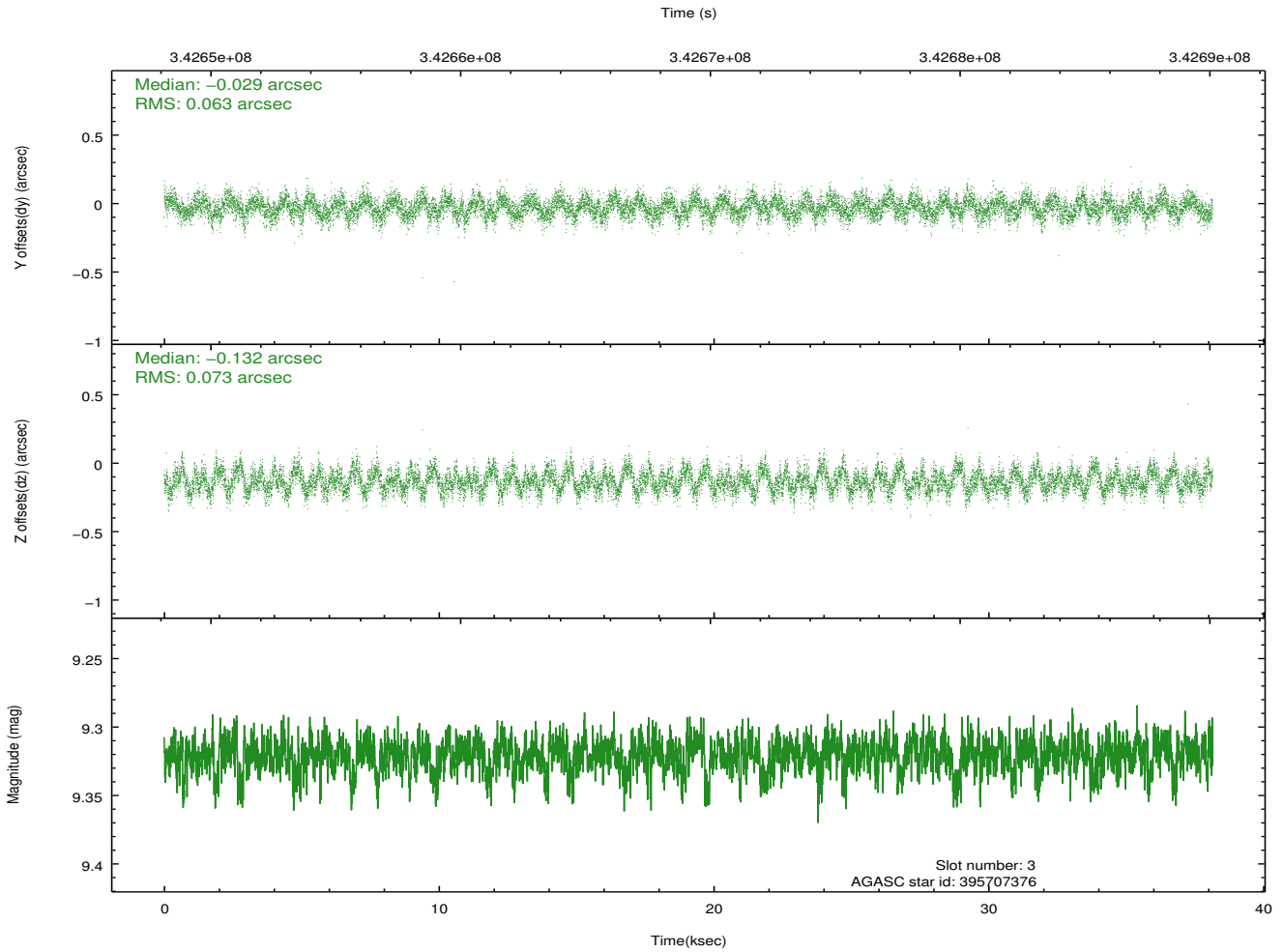
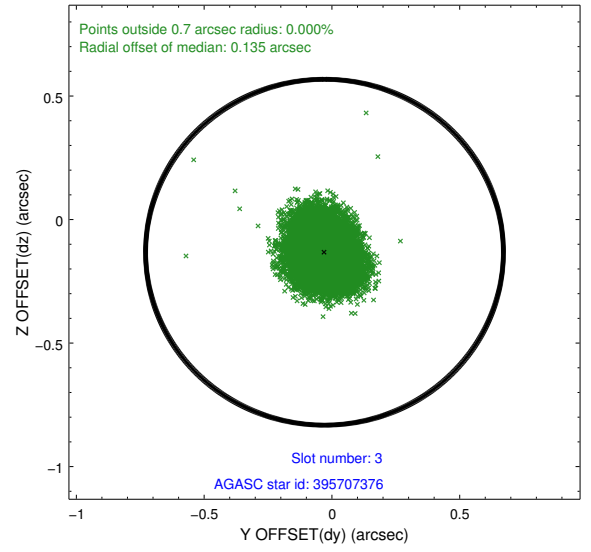
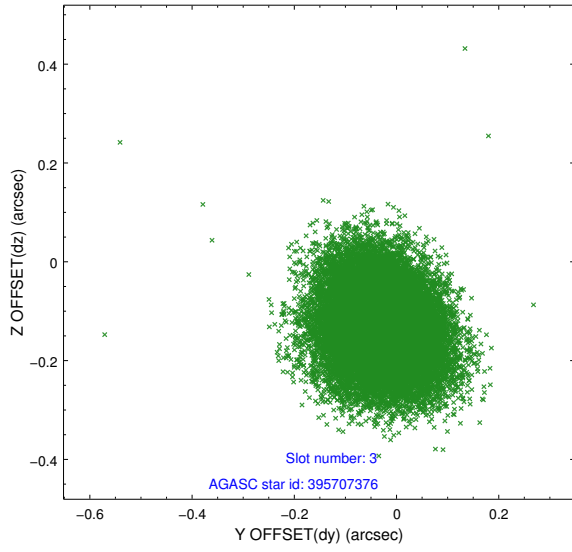
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	9305	-0.106	-0.070	0.006	0.011	0.000000	0.000000	-764.70	-1798.57
1	FID	ACIS-S-4	6.97	9306	0.104	0.058	0.007	0.013	0.000000	0.000000	2148.80	109.96
2	FID	ACIS-S-6	7.14	9305	-0.026	0.019	0.008	0.014	0.000000	0.000000	397.43	747.37
3	GUIDE	395707376	9.32	18588	-0.029	-0.132	0.104	0.164	180.967983	44.858789	1185.91	633.49
4	GUIDE	395708616	7.99	18609	0.000	-0.128	0.066	0.110	180.101872	44.630343	-1022.02	1472.47
5	GUIDE	395708696	8.87	18602	0.028	0.087	0.101	0.167	180.383726	44.624291	-494.70	979.07
6	GUIDE	395709608	8.36	18602	0.060	0.094	0.063	0.103	181.055130	44.450389	393.78	-624.35
7	GUIDE	395710032	8.79	18602	-0.057	0.083	0.076	0.124	181.512910	44.376001	1112.51	-1594.44

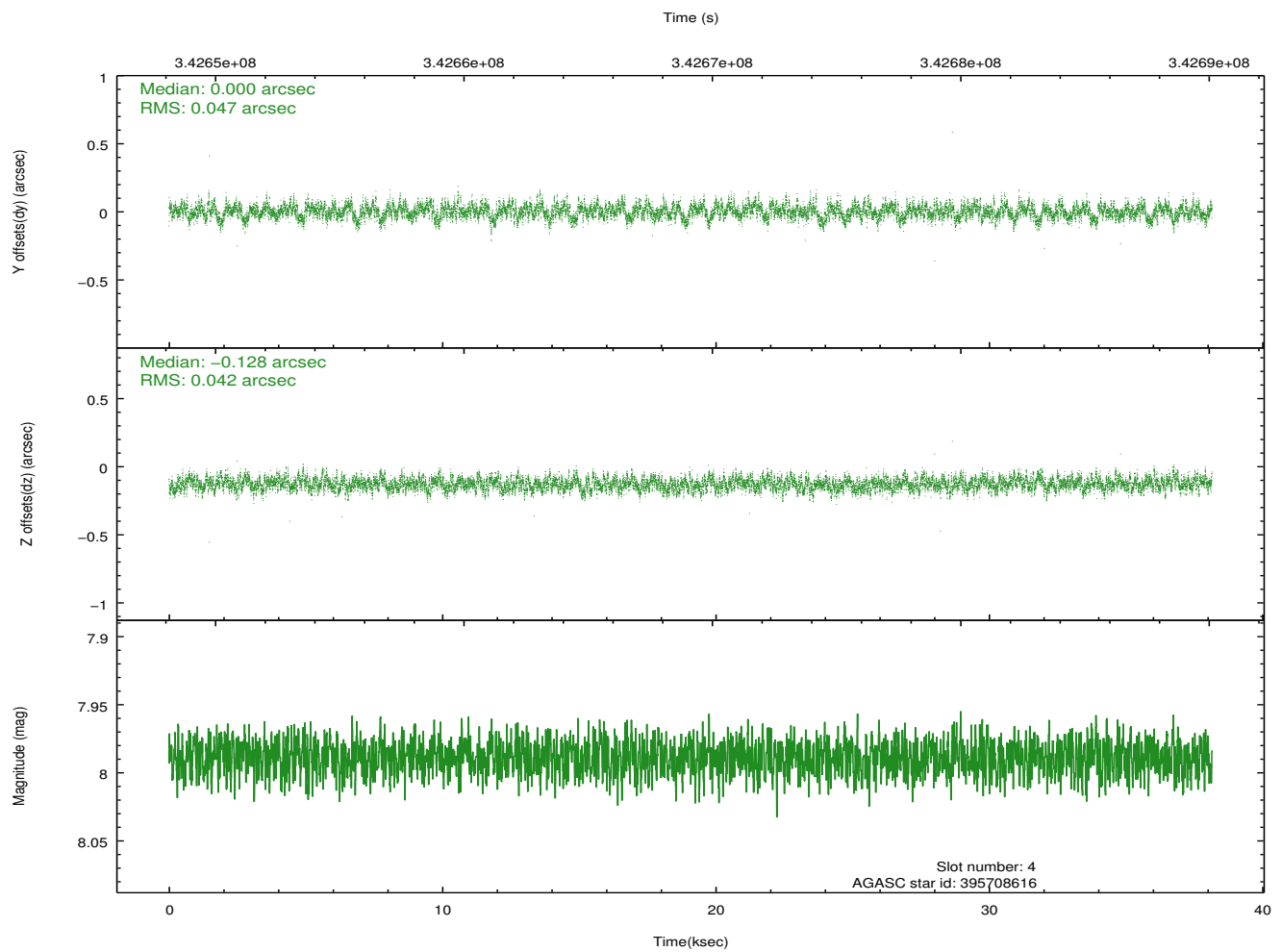
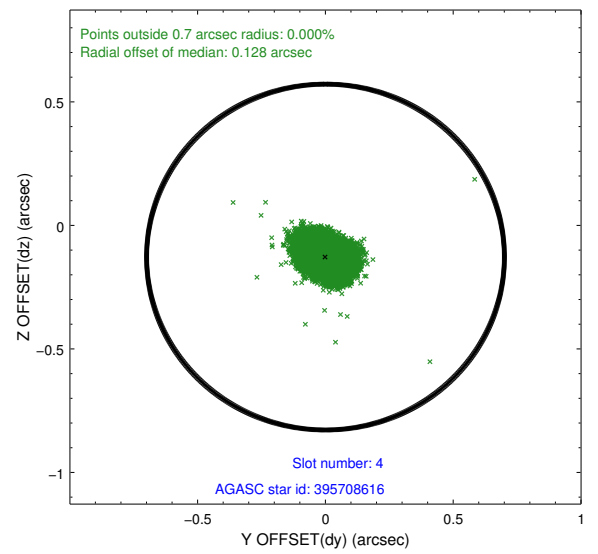
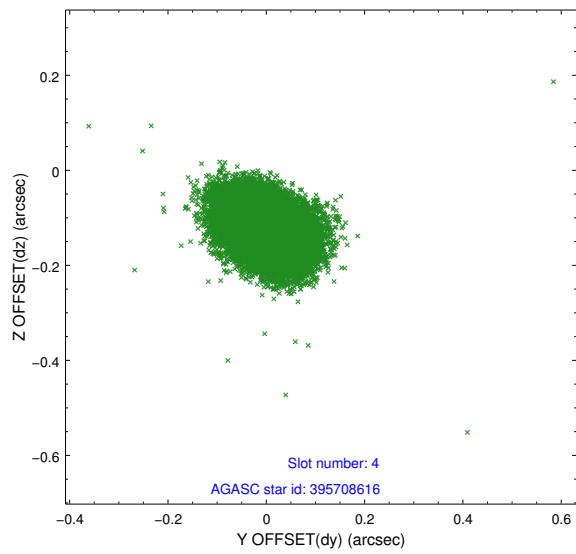
∞

2.4 Star Slots

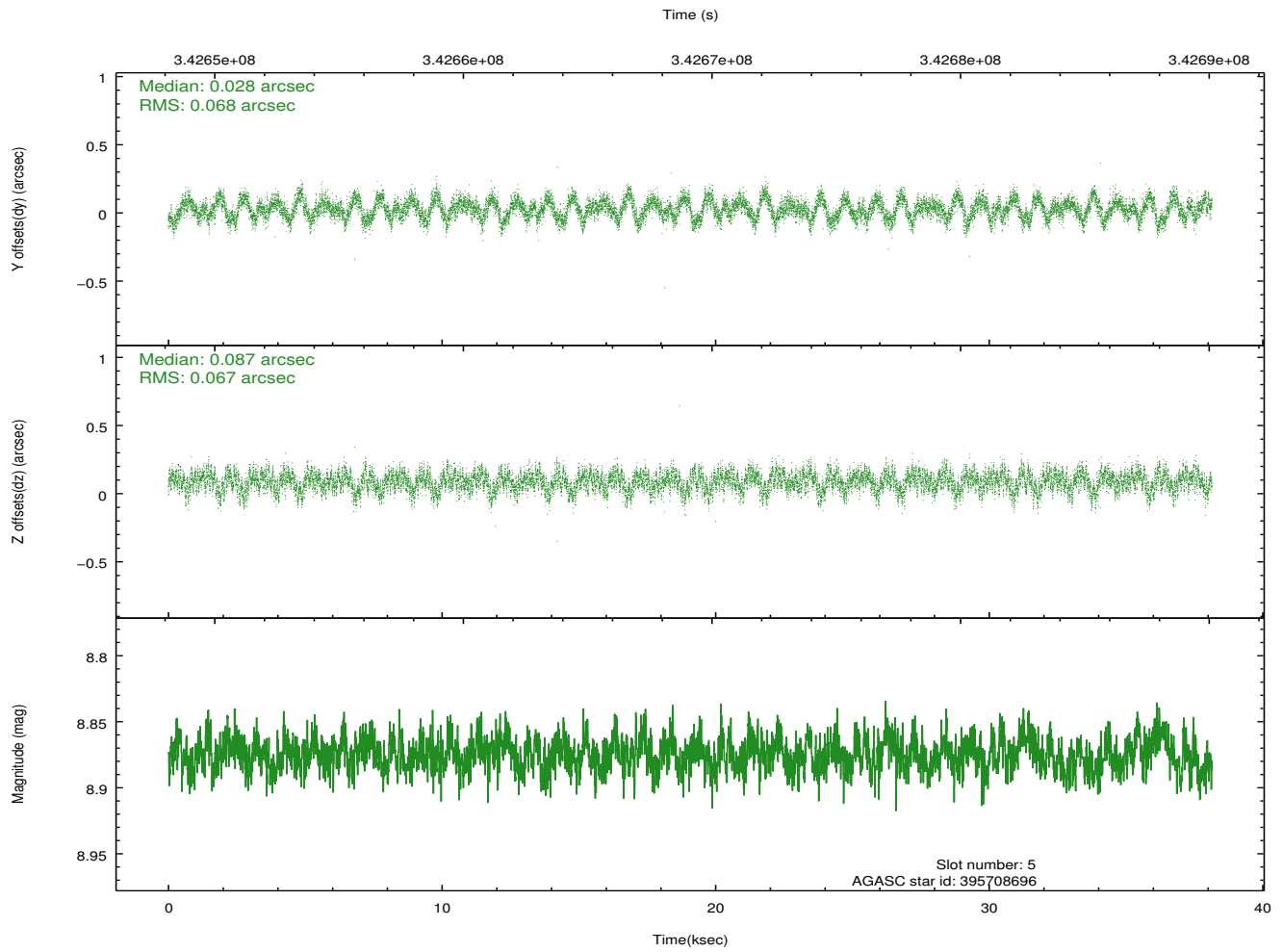
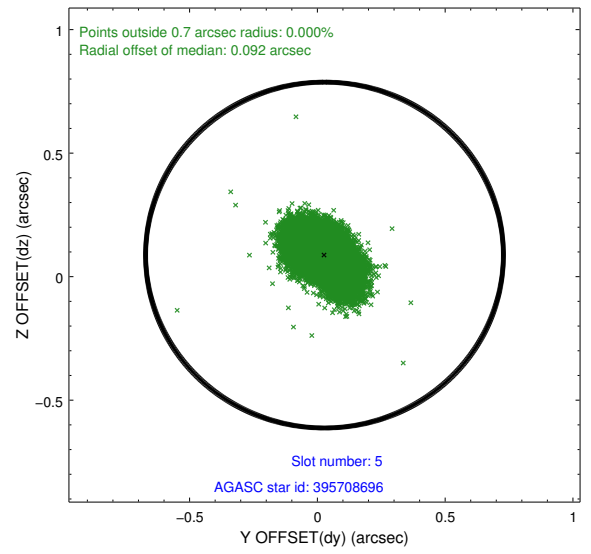
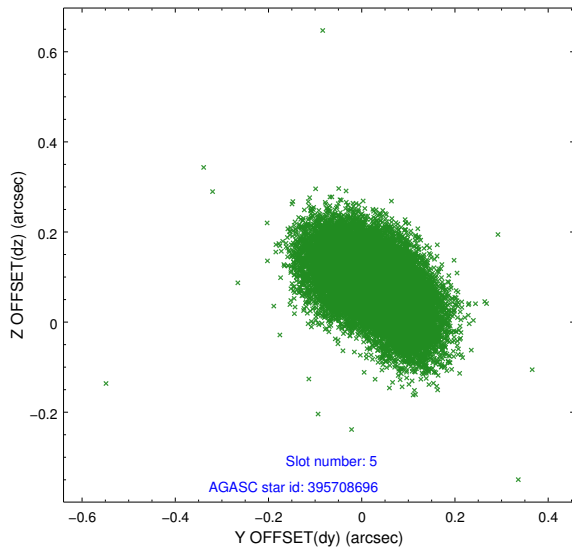
2.4.1 Slot 3



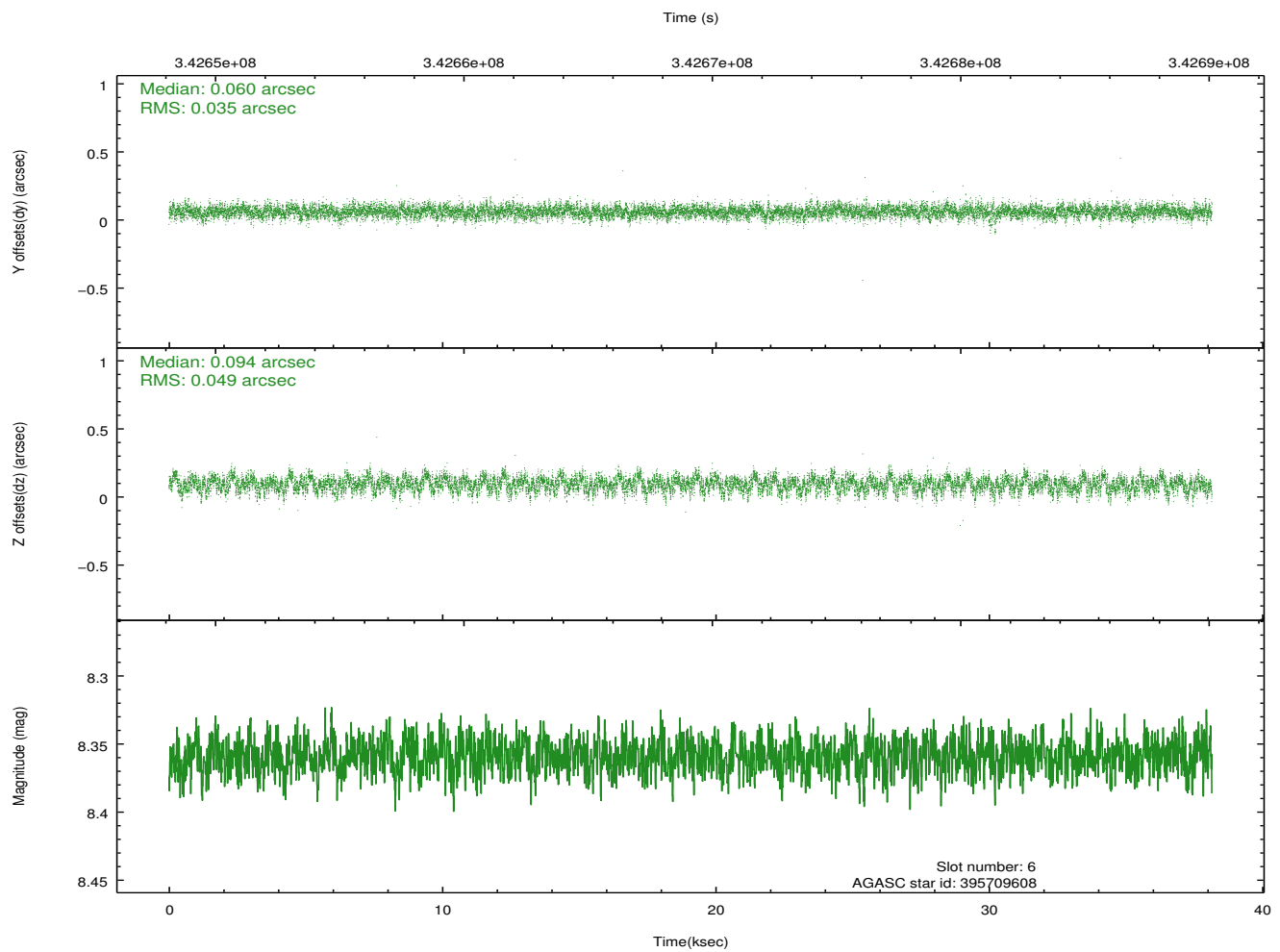
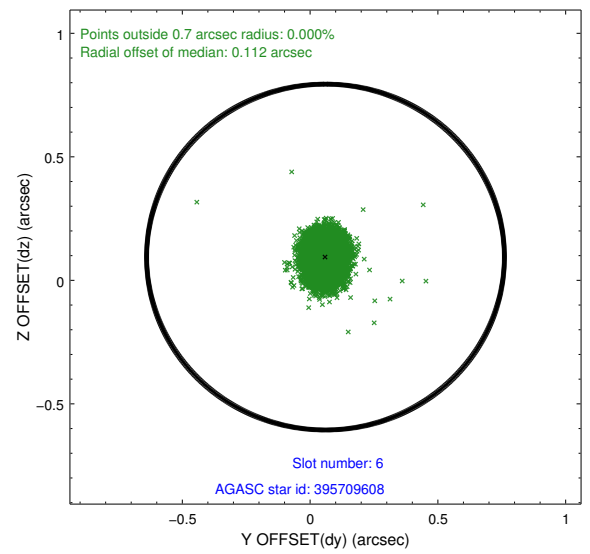
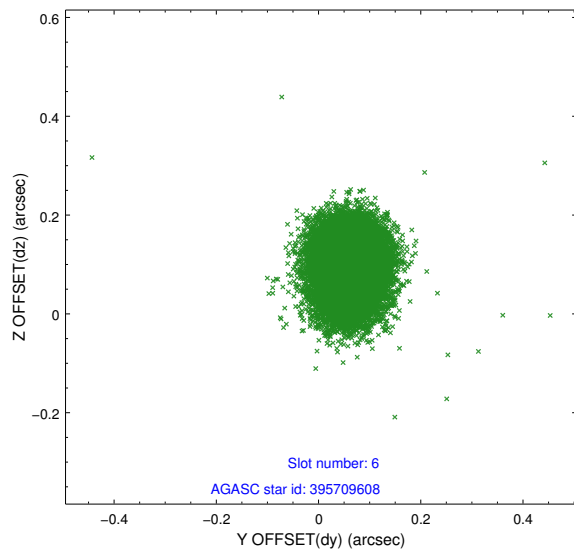
2.4.2 Slot 4



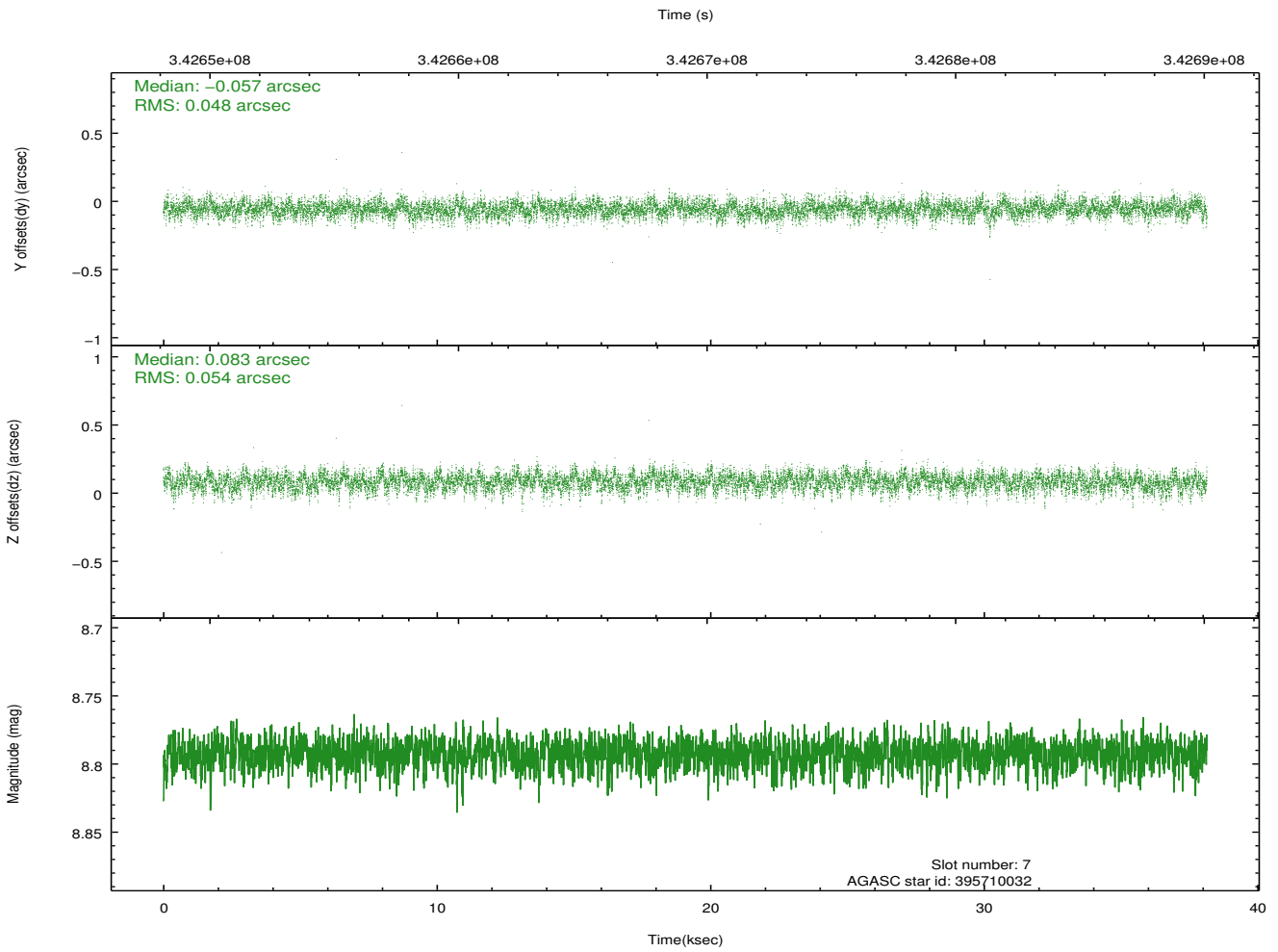
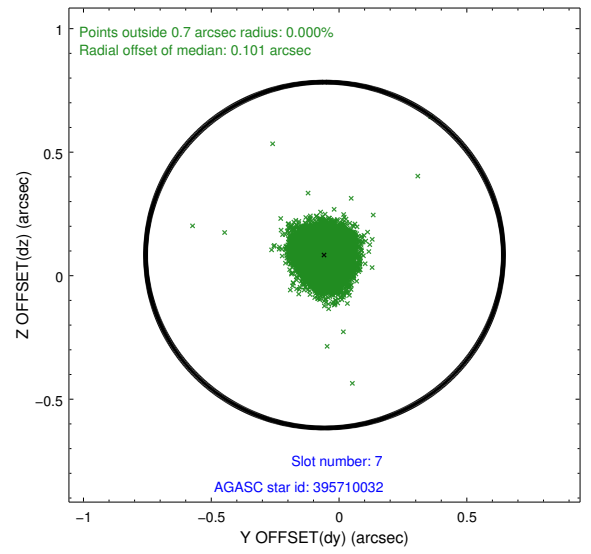
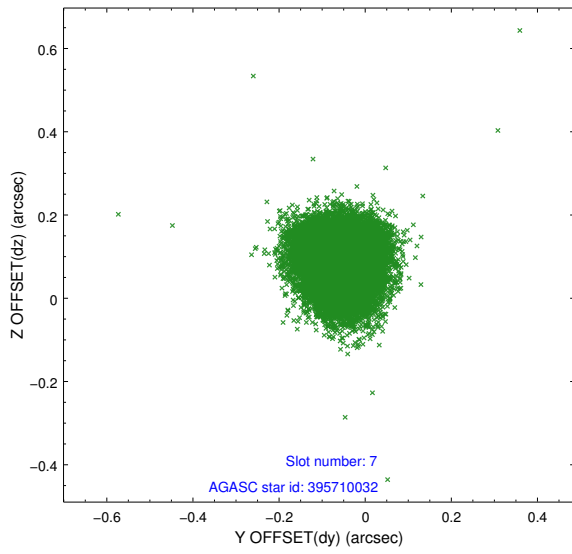
2.4.3 Slot 5



2.4.4 Slot 6

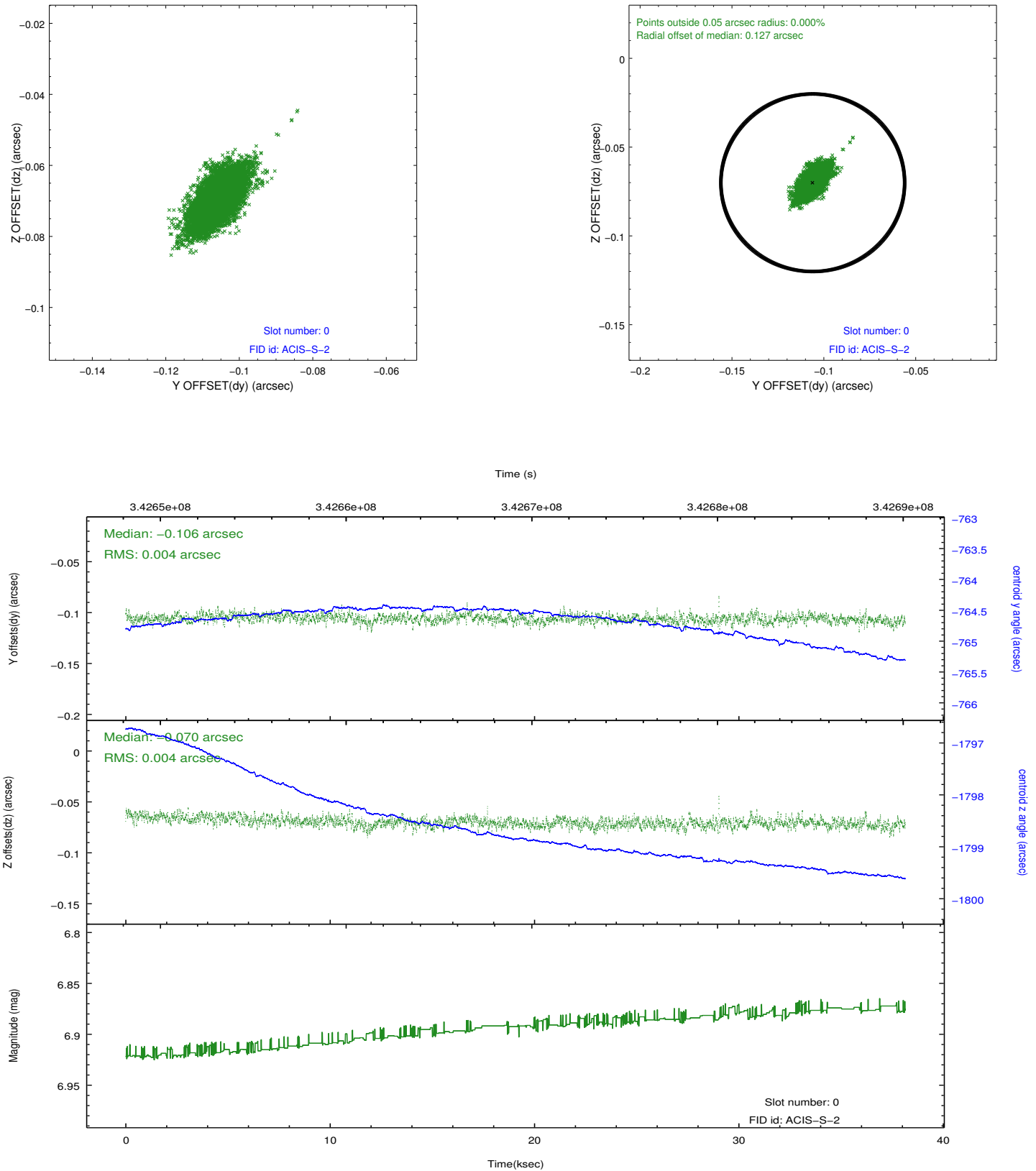


2.4.5 Slot 7

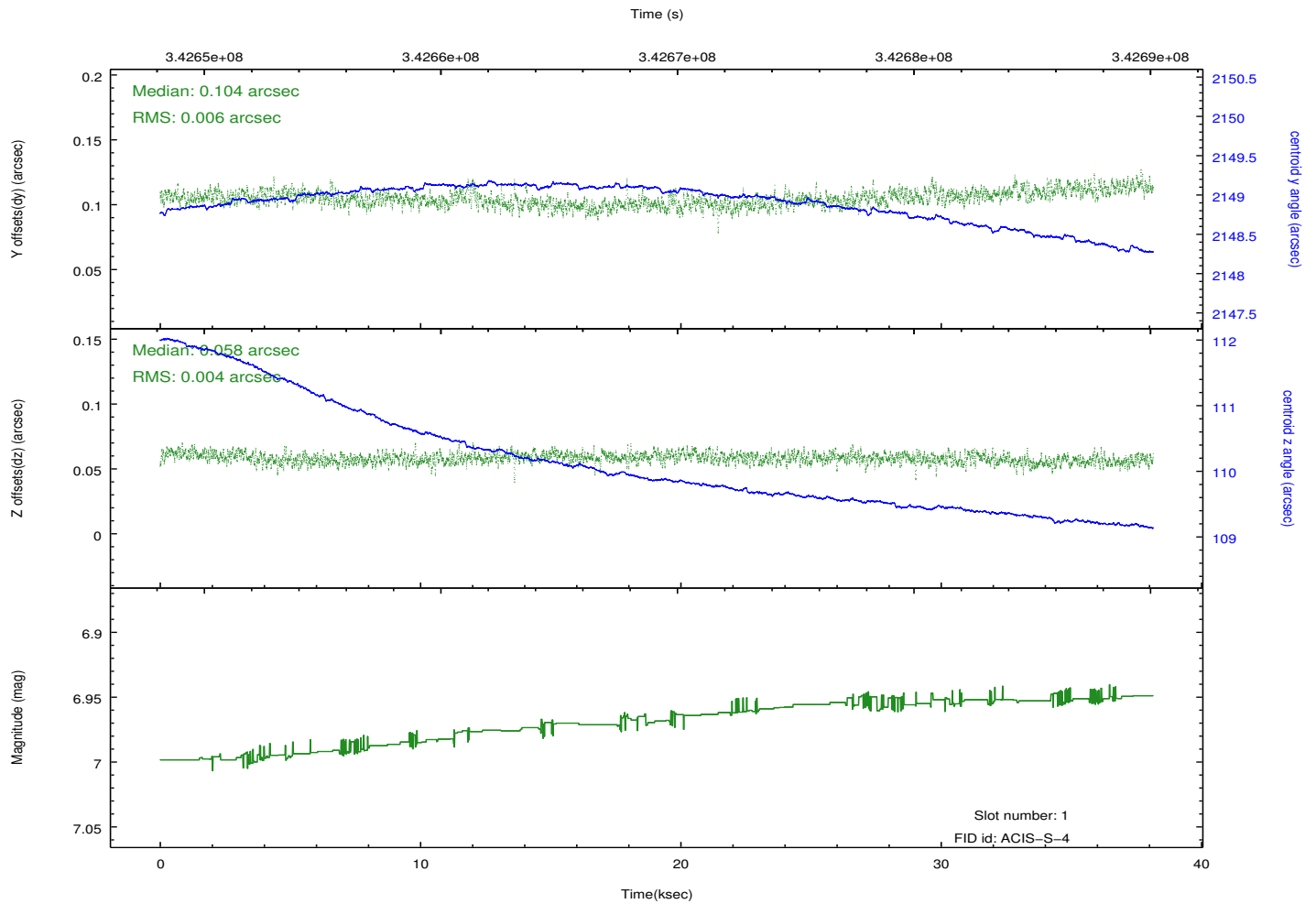
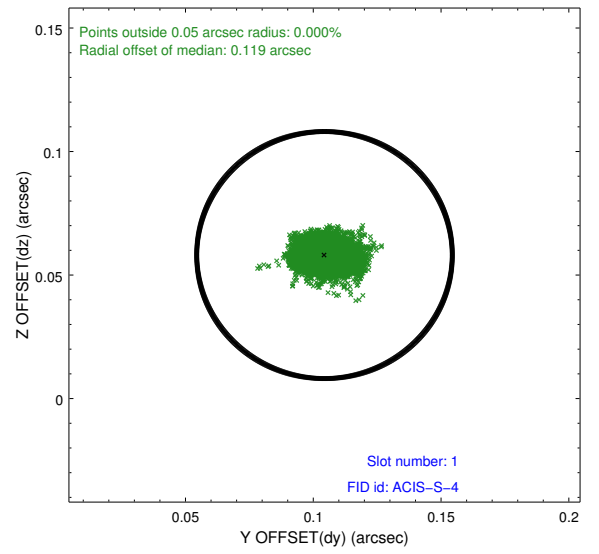
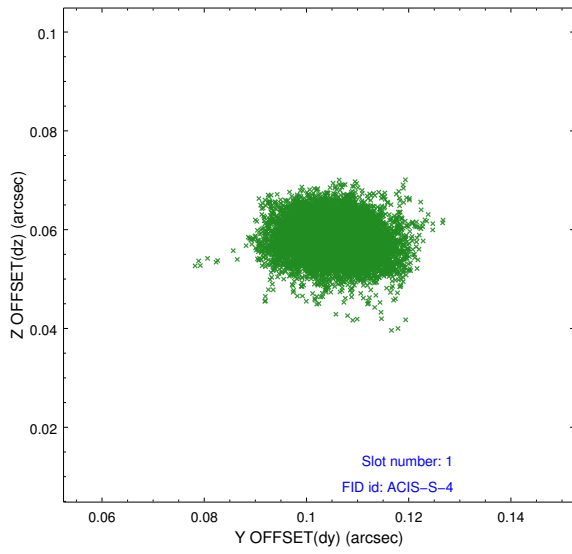


2.5 FID Slots

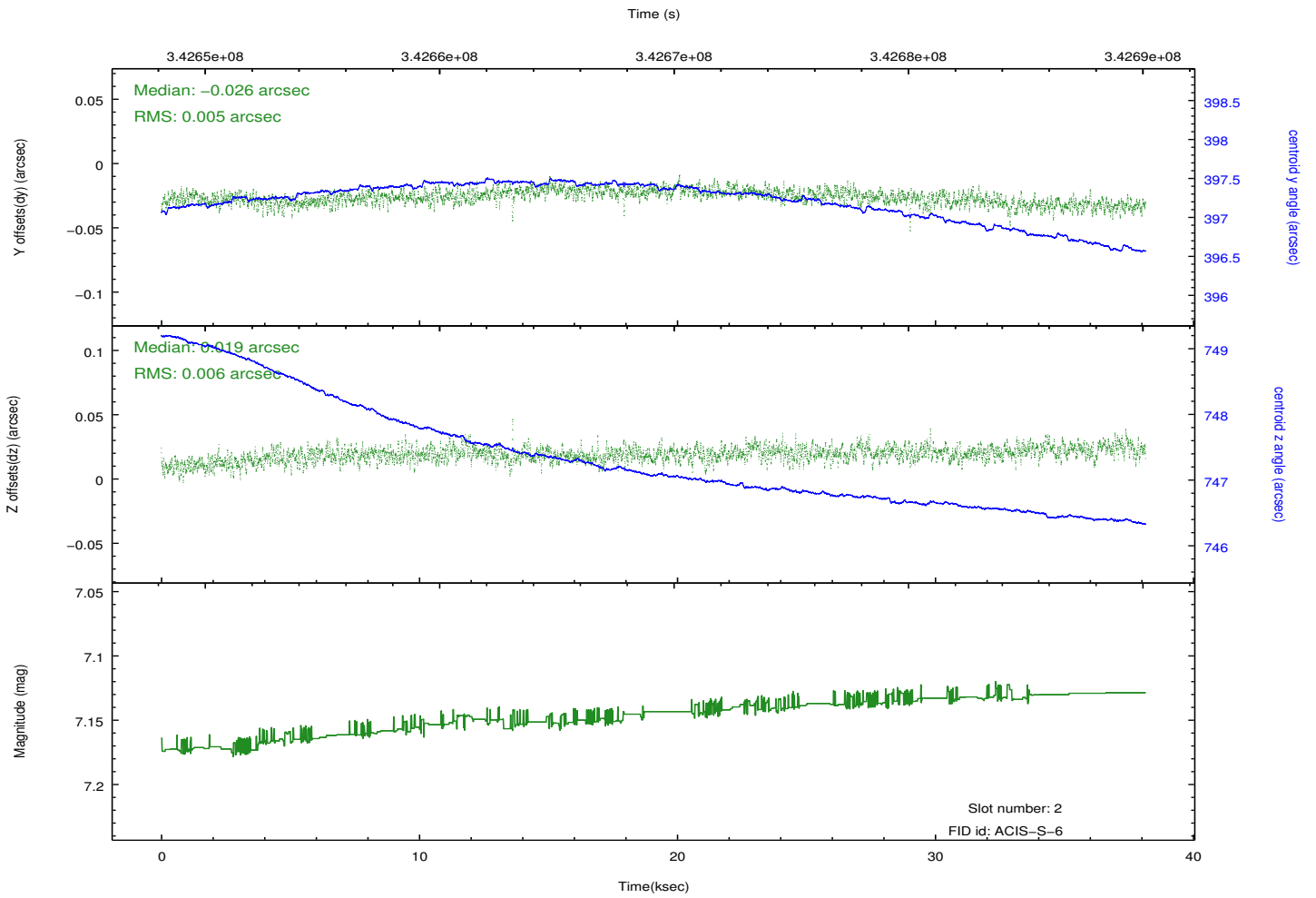
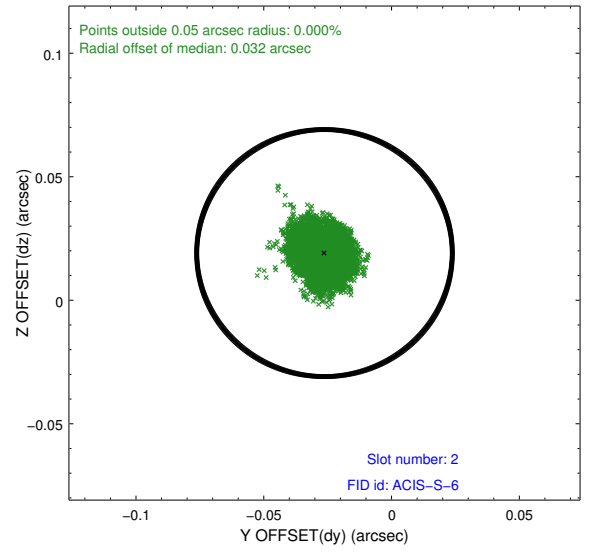
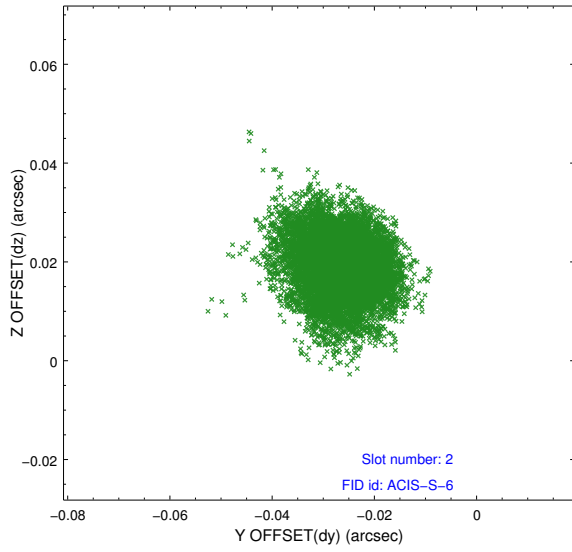
2.5.1 Slot 0



2.5.2 Slot 1

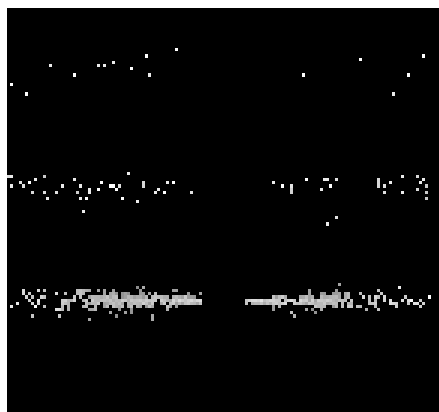


2.5.3 Slot 2

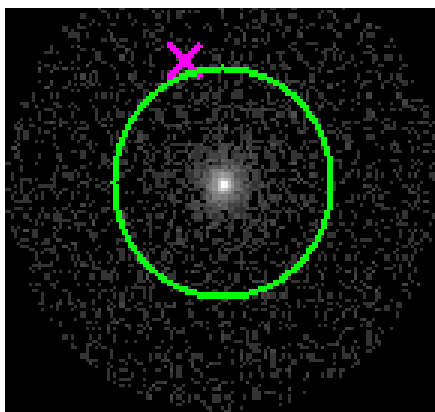


3 Gratings

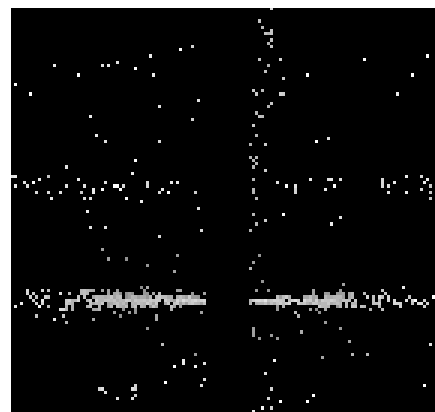
3.1 HEG Arm



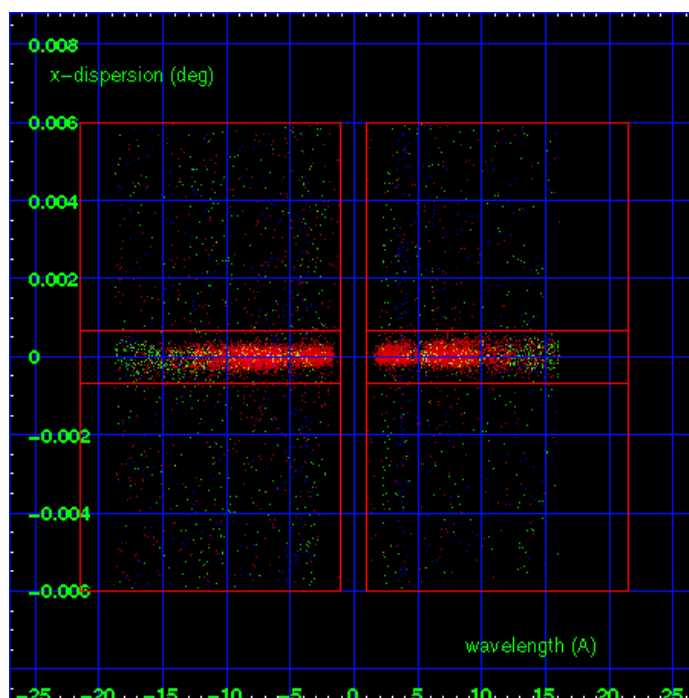
HEG Order Sort 123



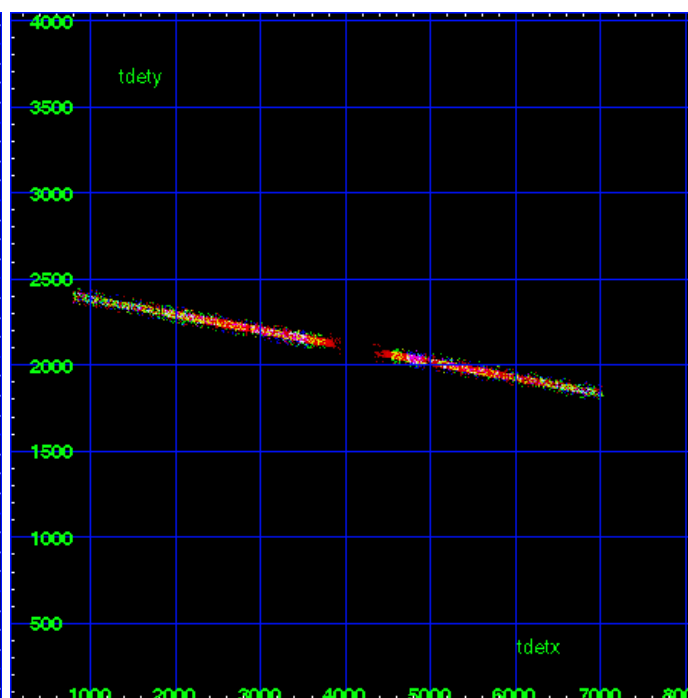
HEG Zero Order



HEG Order Sort ALL

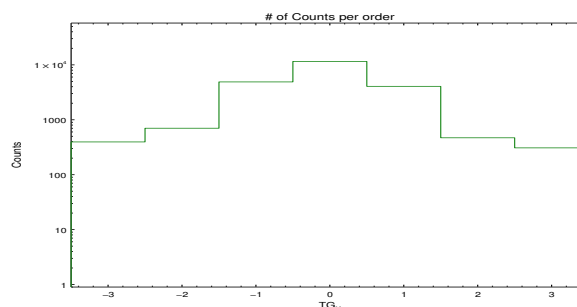


Spot Image HEG

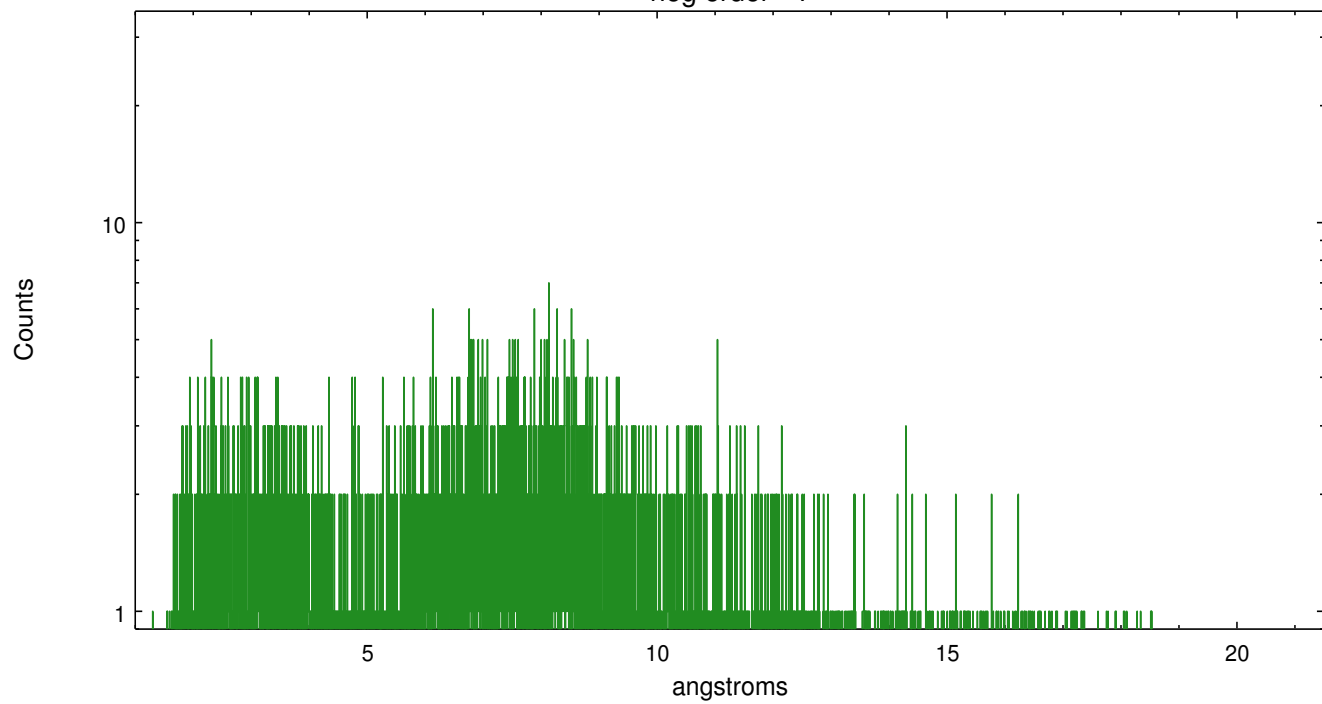


Full Detector HEG

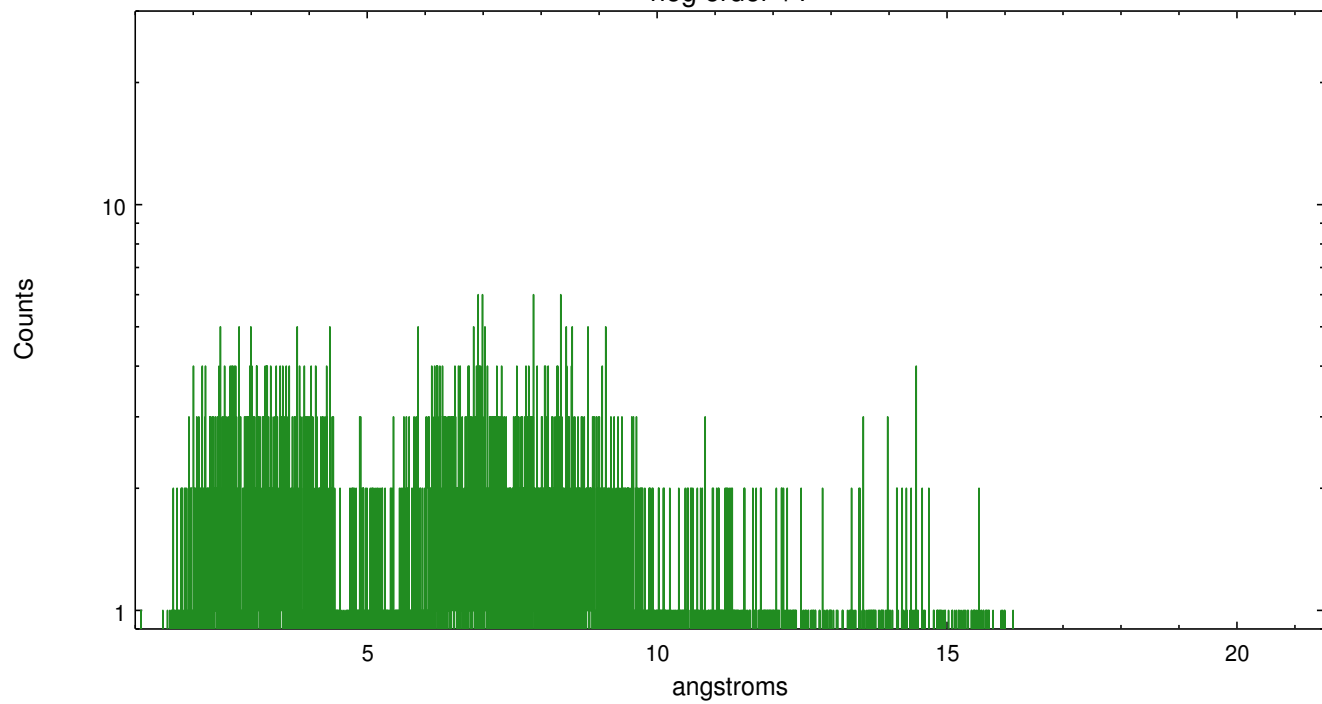
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	395	701	4891	11540	4058	470	308



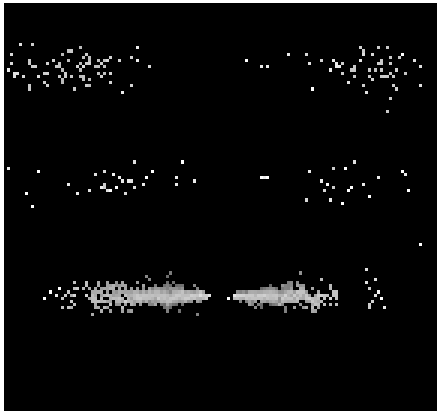
heg order -1



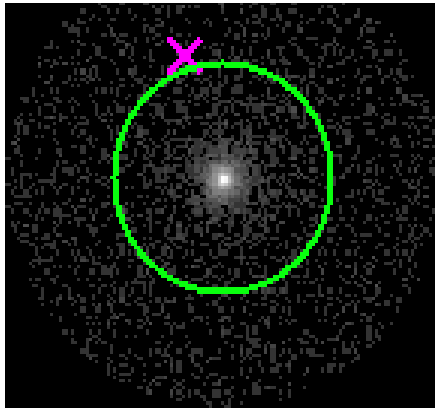
heg order +1



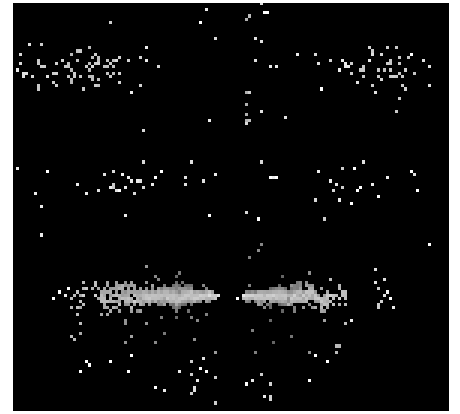
3.2 MEG Arm



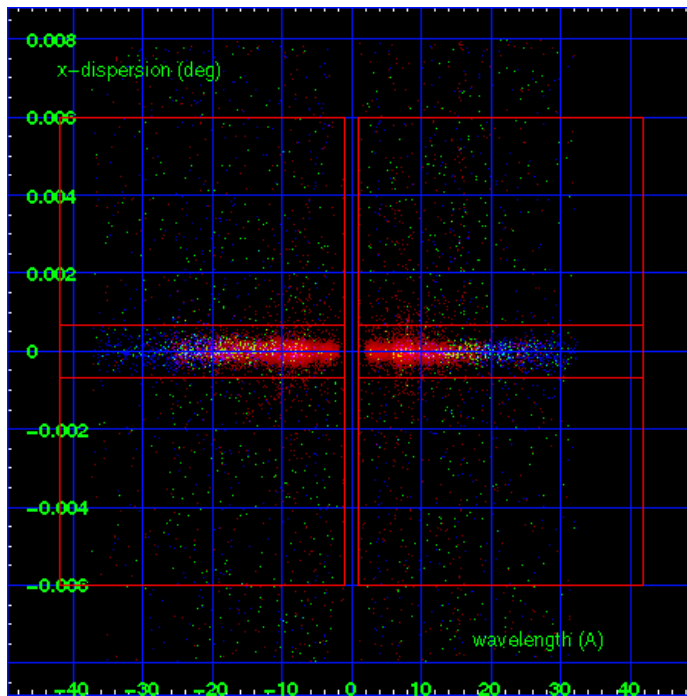
MEG Order Sort 123



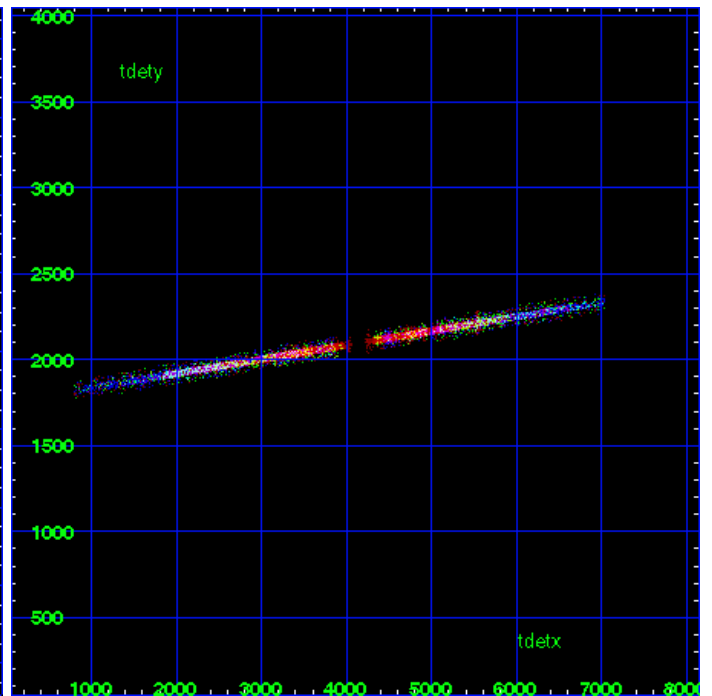
MEG Zero Order



MEG Order Sort ALL

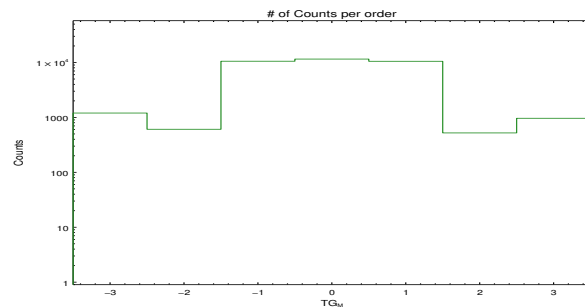


Spot Image MEG

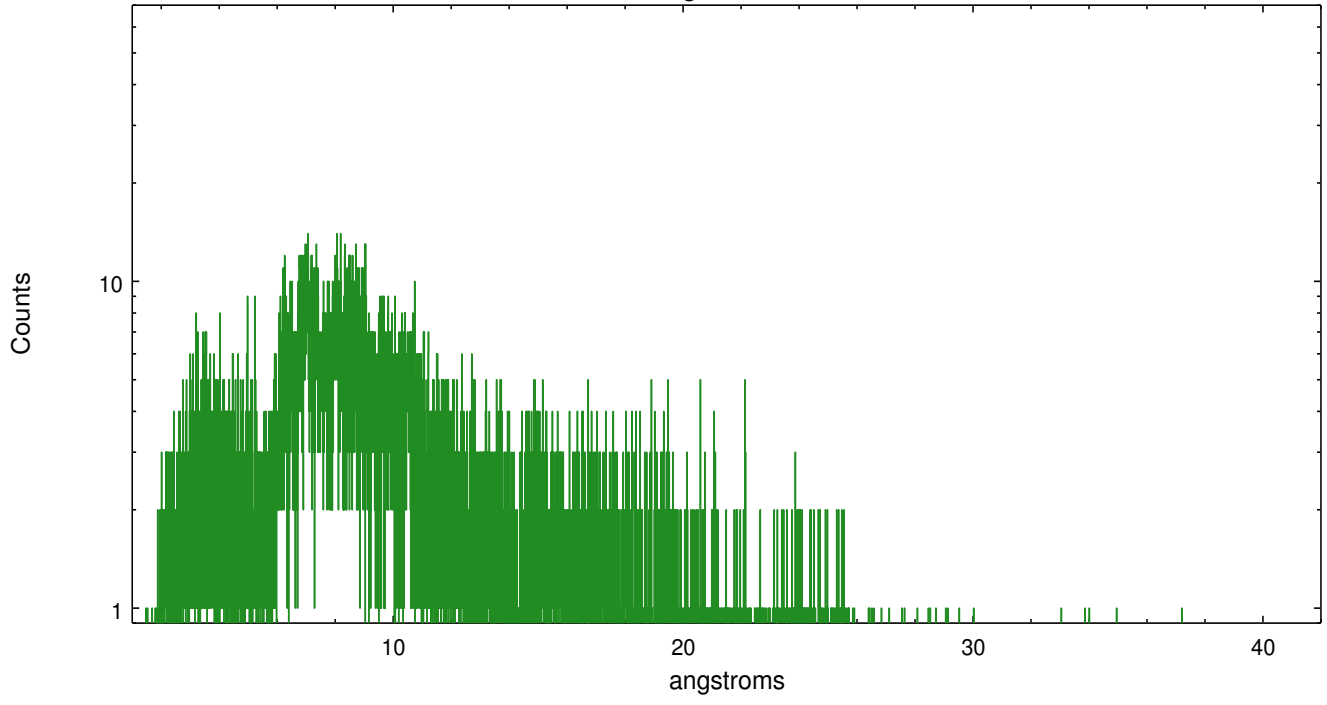


Full Detector MEG

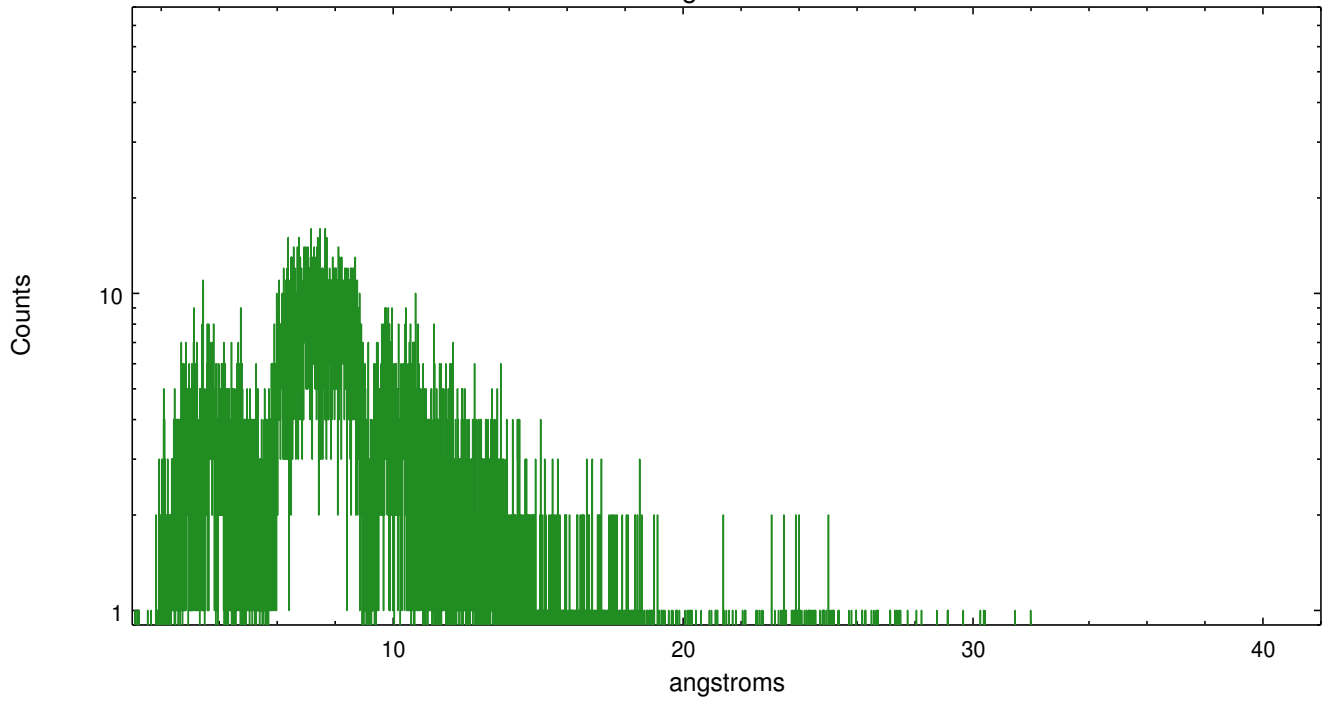
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1201	608	10543	11540	10513	522	964



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Mike Nowak
V&V Date (YYYY-MM-DD)	2012.05.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	38.1475

A.2 Comments