

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11817 - L2 Version 3
Chandra X-Ray Center

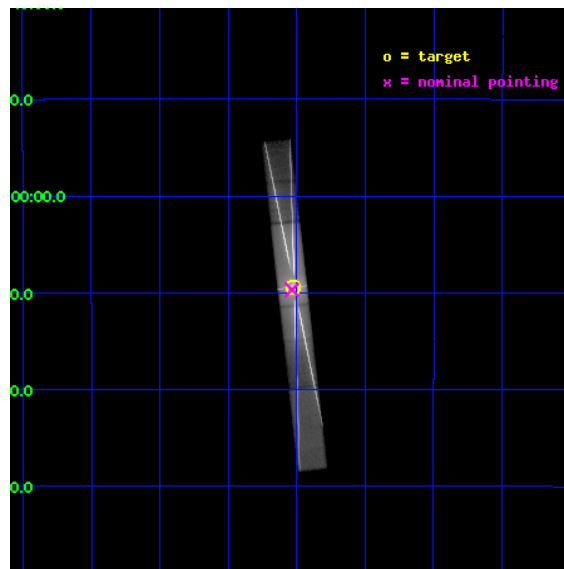
L2 Processing Date : Jul 11 2012

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1 Front

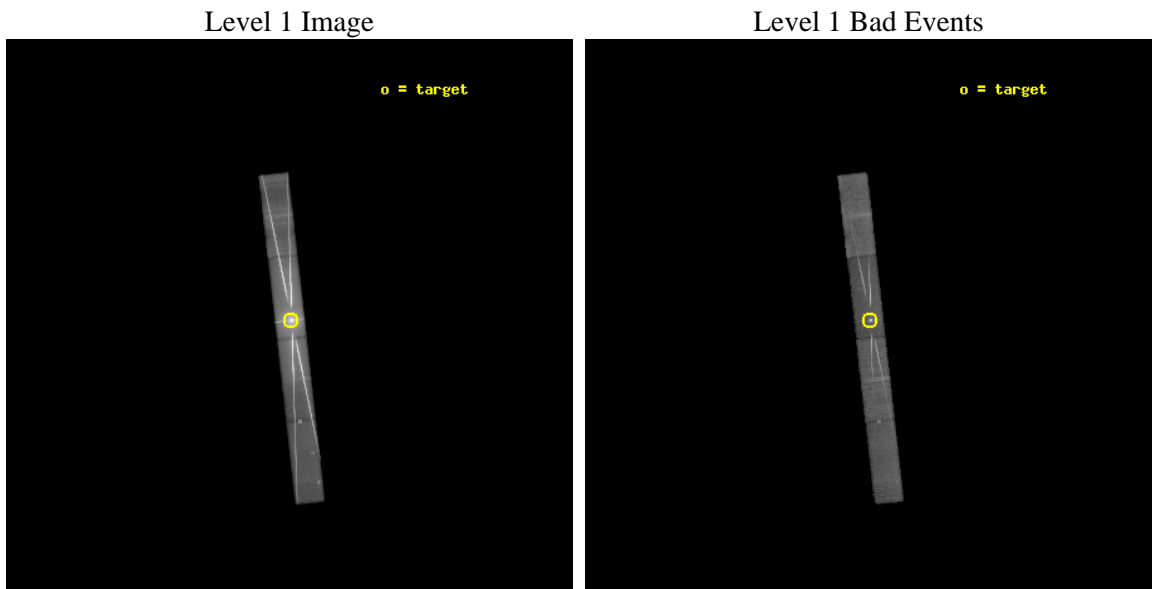
seq_num	401133	Sequence number
obs_id	11817	Observation id
title	Observe Bright Atol Sources at High Mass Accretion Rates	Proposal
observer	Prof Claude Canizares	Principal investigator
object	GX 13+1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	273.631667	Observer's specified target RA [deg]
dec_targ	-17.157417	Observer's specified target Dec [deg]
ra_nom	273.63382764697	Nominal RA [deg]
dec_nom	-17.161795455417	Nominal Dec [deg]
roll_nom	263.55137191663	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29080.457607329	Sum of GTIs [s]
liveltime	28118.794824337	Livetime [s]
ontime5	29080.416567326	Sum of GTIs [s]
ontime6	29080.375527322	Sum of GTIs [s]
ontime7	29080.457607329	Sum of GTIs [s]
ontime8	29080.334487319	Sum of GTIs [s]
l2events	2959238	Number of level 2 events



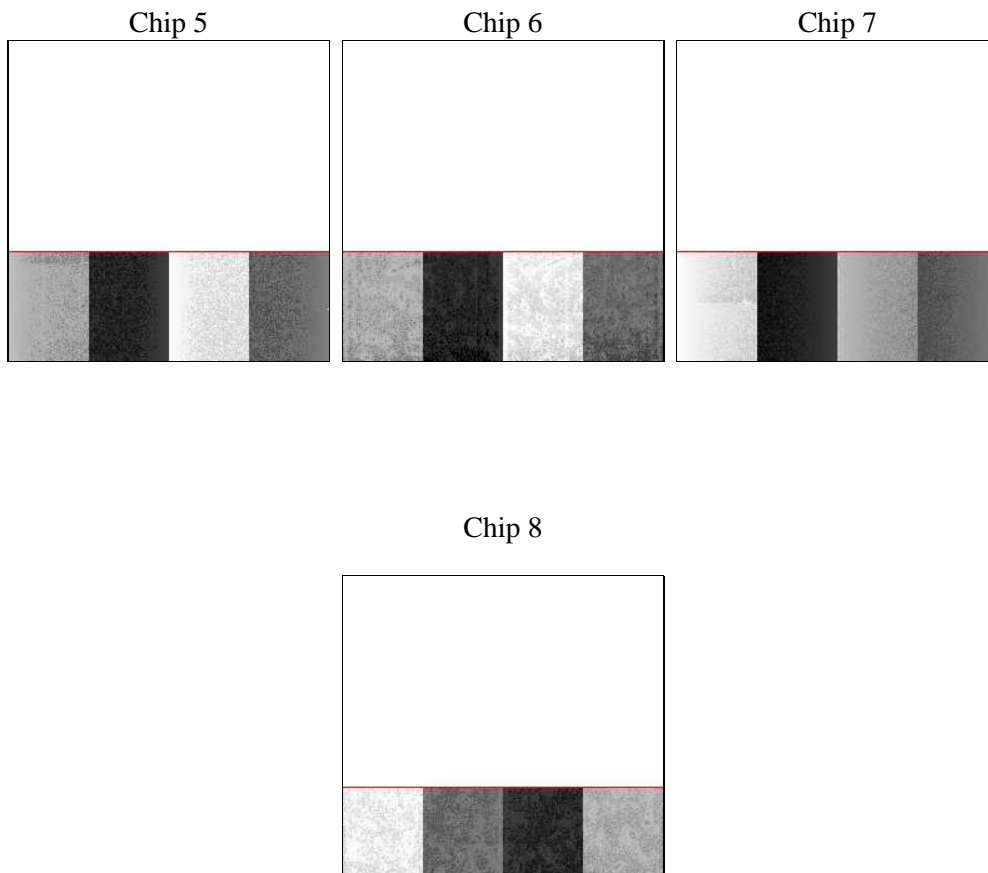
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29080.457607329	Sum of GTIs [s]
caldbver	4.5.0	 	ontime5	29080.416567326	Sum of GTIs [s]
date	2012-07-01T03:51:47	Date and time of file creation	ontime6	29080.375527322	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	29080.457607329	Sum of GTIs [s]
			ontime8	29080.334487319	Sum of GTIs [s]
			l1events	3485468	Number of level 1 events

2.1.4 Events

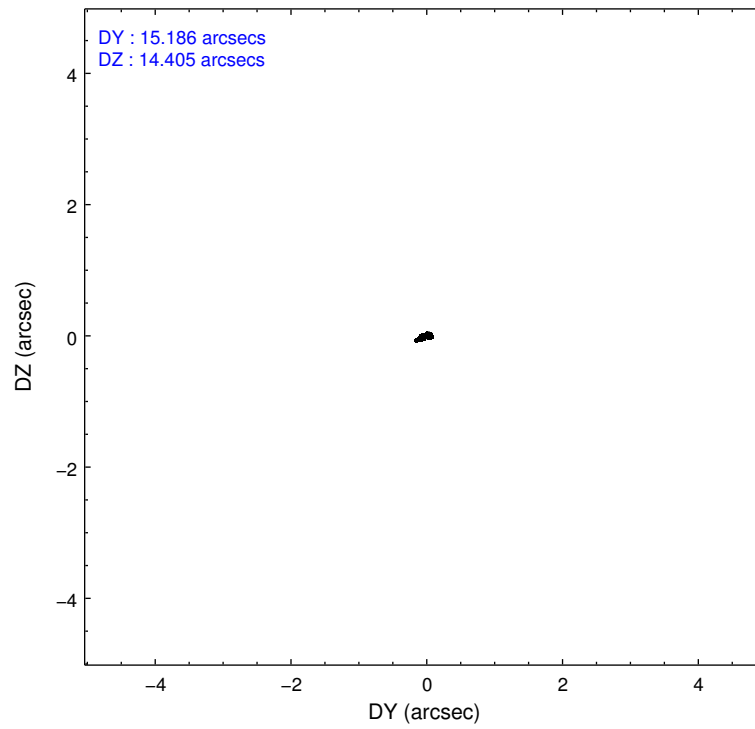
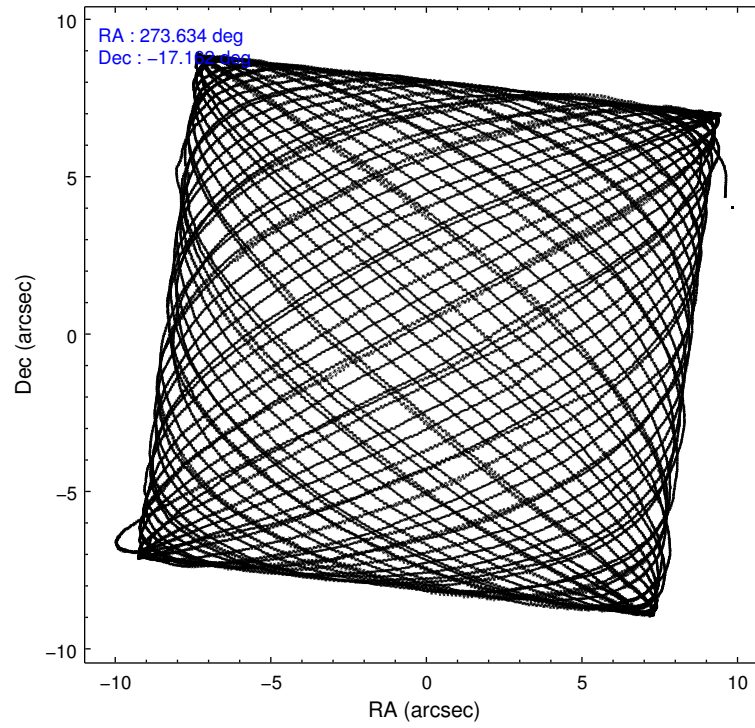
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	201549	1155752	1765537	362630
rejected events	60563	110908	125679	90442
rejected %	30%	9%	7%	24%

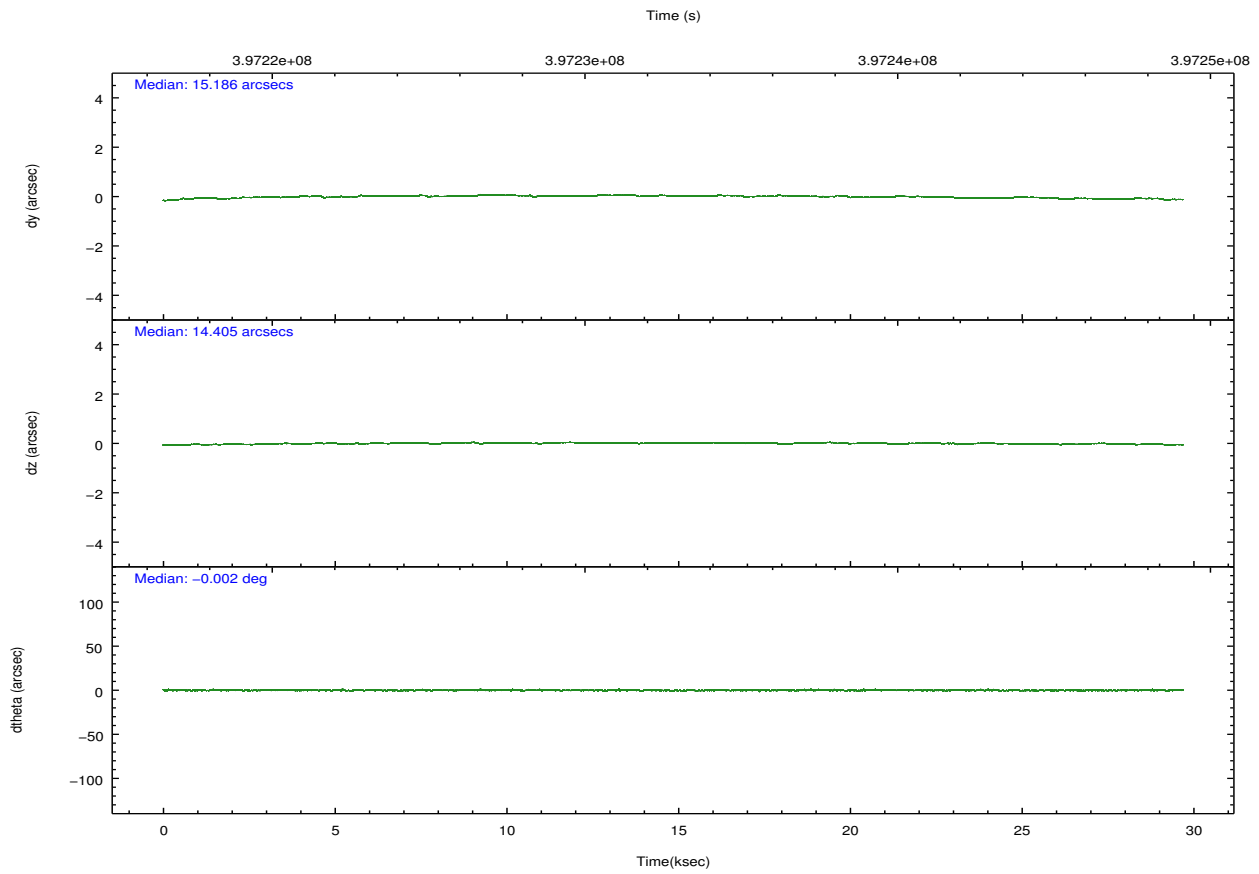
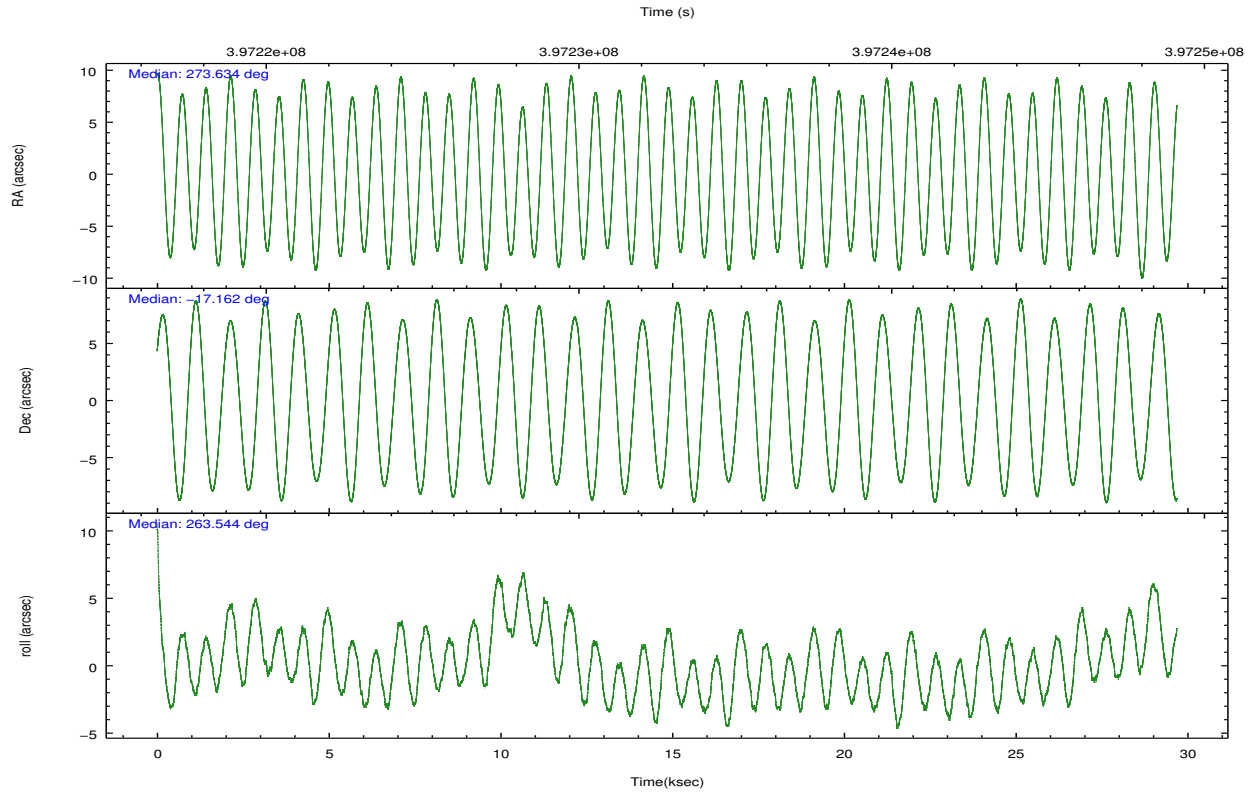
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	32274	734615	302166	183620
	16%	63%	17%	50%
grade 1 events	939	12548	6704	972
	0%	1%	0%	0%
grade 2 events	39679	143579	395482	32682
	19%	12%	22%	9%
grade 3 events	12444	51255	174538	19393
	6%	4%	9%	5%
grade 4 events	11768	50561	173881	18014
	5%	4%	9%	4%
grade 5 events	11393	14512	39866	5391
	5%	1%	2%	1%
grade 6 events	44827	64903	593848	18495
	22%	5%	33%	5%
grade 7 events	48225	83779	79052	84063
	23%	7%	4%	23%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	273.622038	273.6338276469712	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-17.136896	-17.16179545541731	Subarray start row	1	1
[deg] Pointing Roll	263.391264	263.5513719166295	Subarray row count	350	350
[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	1.2
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	397218663.184000	397217596.46618			
Observation start date	2010-08-03T10:29:57	2010-08-03T10:13:16			
[s] Observation end time (MET)	397247663.184000	397248452.55526			
Observation end date	2010-08-03T18:33:17	2010-08-03T18:47:32			
Read mode	TIMED	TIMED			

2.3 Aspect



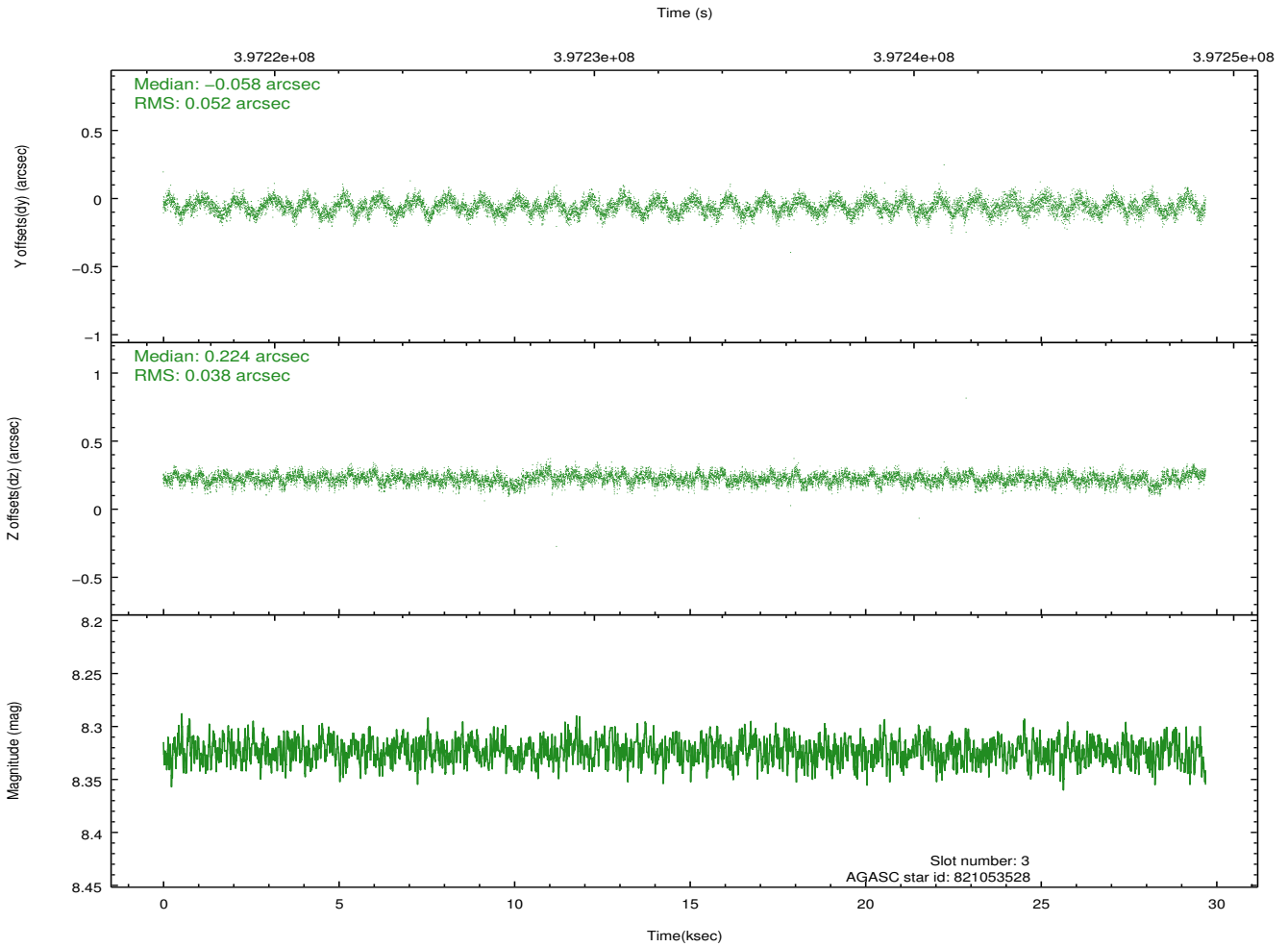
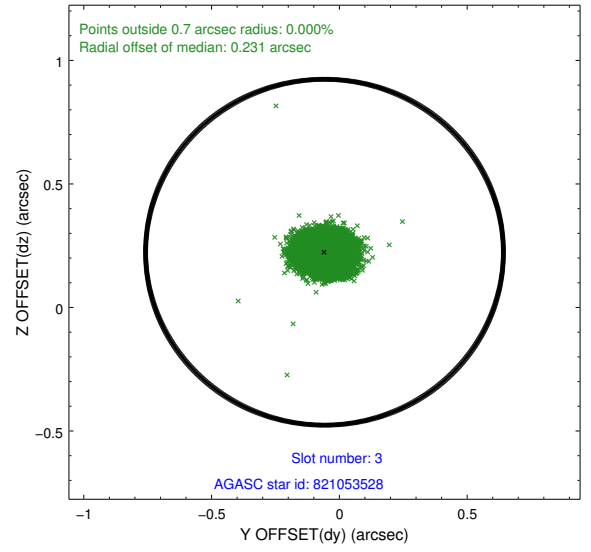
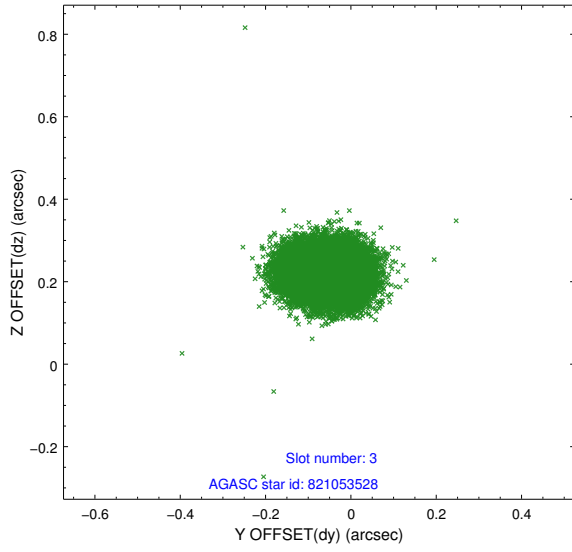


Slot Statistics

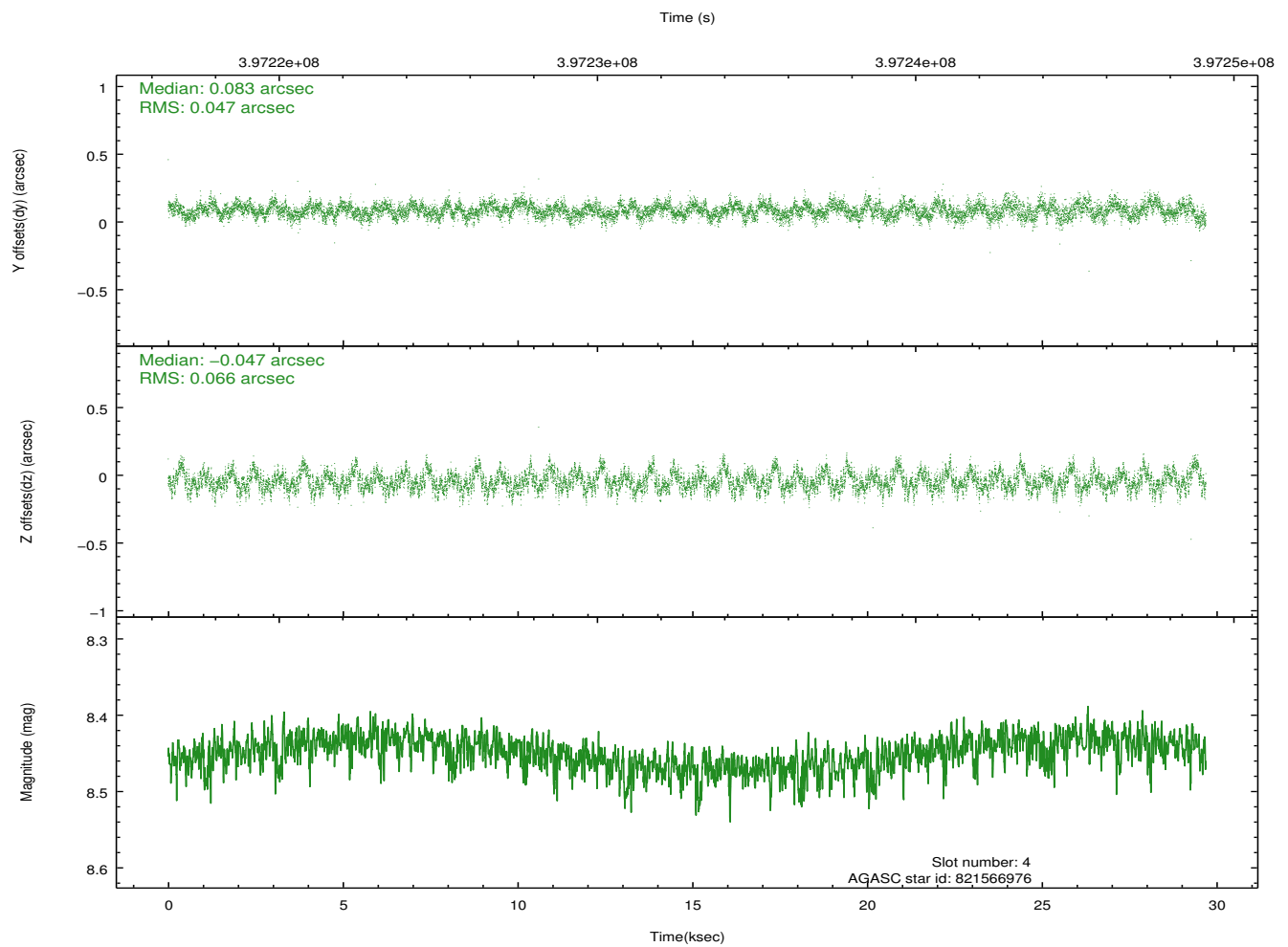
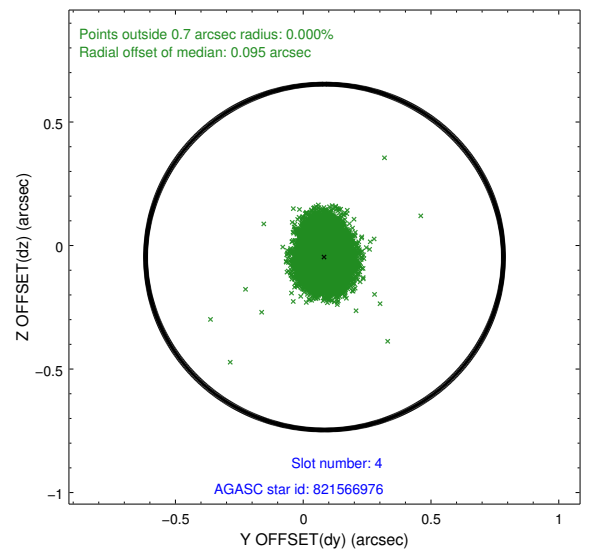
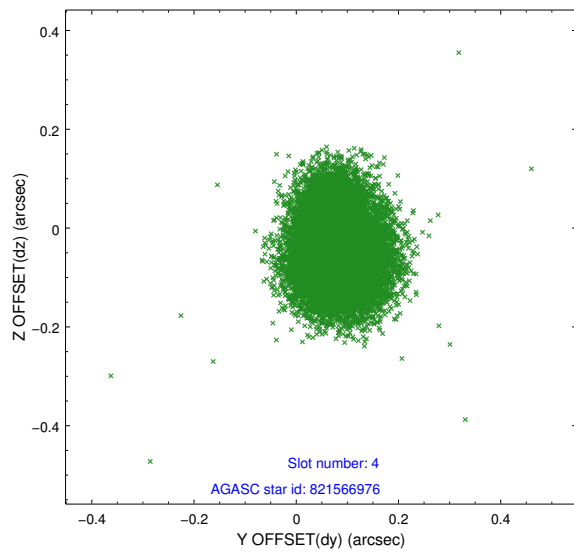
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	7242	-0.172	-0.104	0.006	0.011	0.000000	0.000000	-767.81	-1900.55
1	FID	ACIS-S-4	6.97	7242	0.150	0.115	0.006	0.011	0.000000	0.000000	2145.82	7.93
2	FID	ACIS-S-6	7.21	7241	-0.006	-0.004	0.007	0.011	0.000000	0.000000	394.52	645.36
3	GUIDE	821053528	8.32	14478	-0.058	0.224	0.069	0.110	273.625019	-16.498449	-2283.85	-254.27
4	GUIDE	821566976	8.45	14478	0.083	-0.047	0.086	0.139	272.948338	-16.893938	-597.28	-2405.35
5	GUIDE	821570064	6.64	14484	-0.024	0.070	0.072	0.112	273.185111	-17.414521	1167.66	-1375.39
6	GUIDE	821579296	8.56	14470	0.041	-0.015	0.082	0.125	273.605242	-17.813626	2427.07	223.62
7	GUIDE	821707704	8.94	14477	-0.044	-0.236	0.083	0.131	274.330077	-16.988328	-807.34	2360.39

2.4 Star Slots

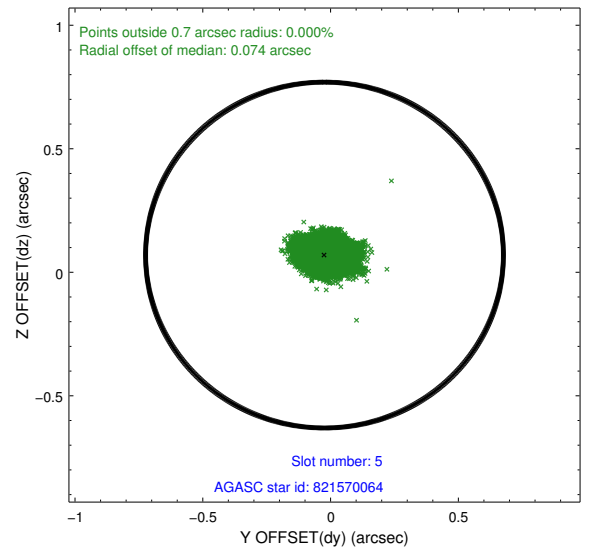
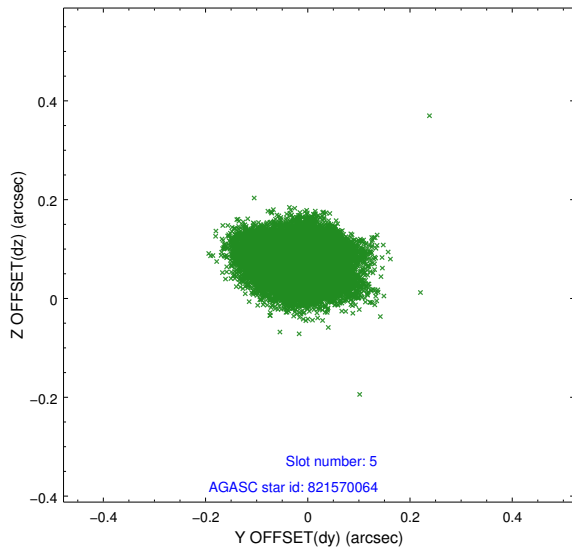
2.4.1 Slot 3



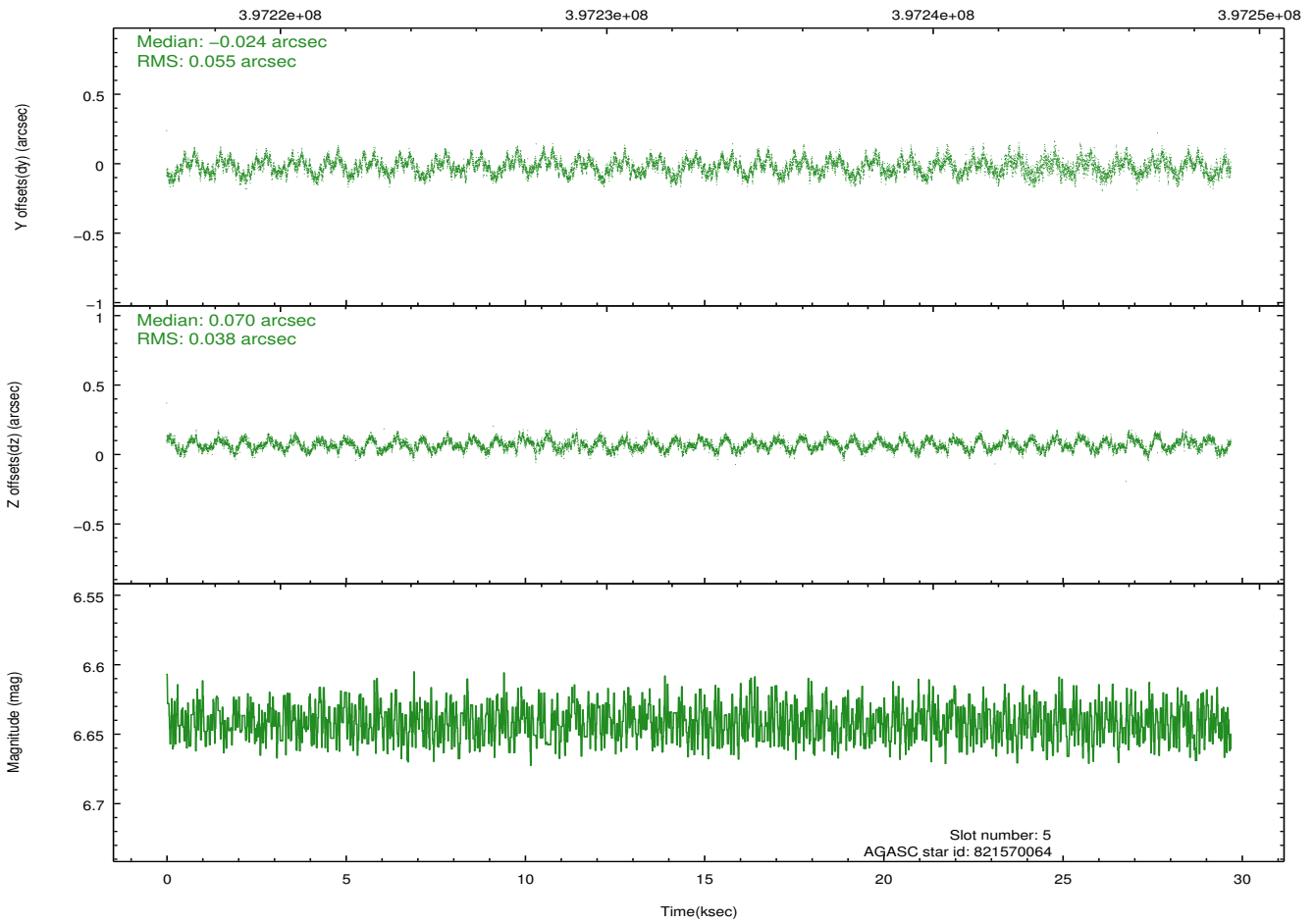
2.4.2 Slot 4



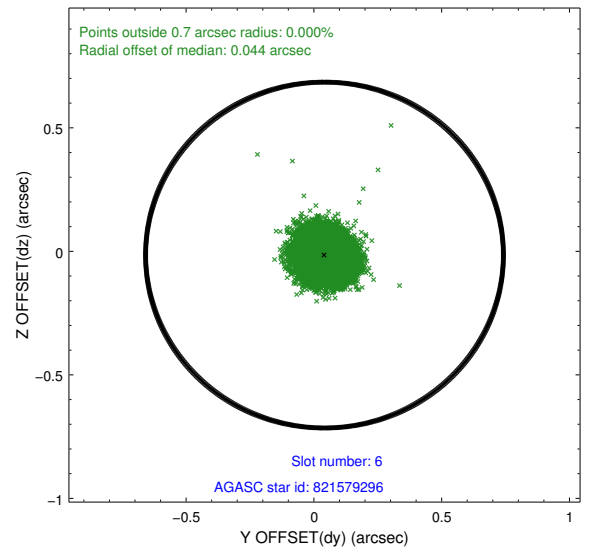
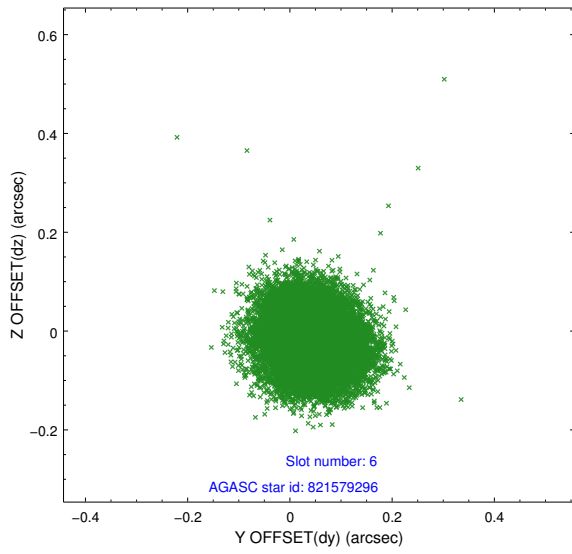
2.4.3 Slot 5



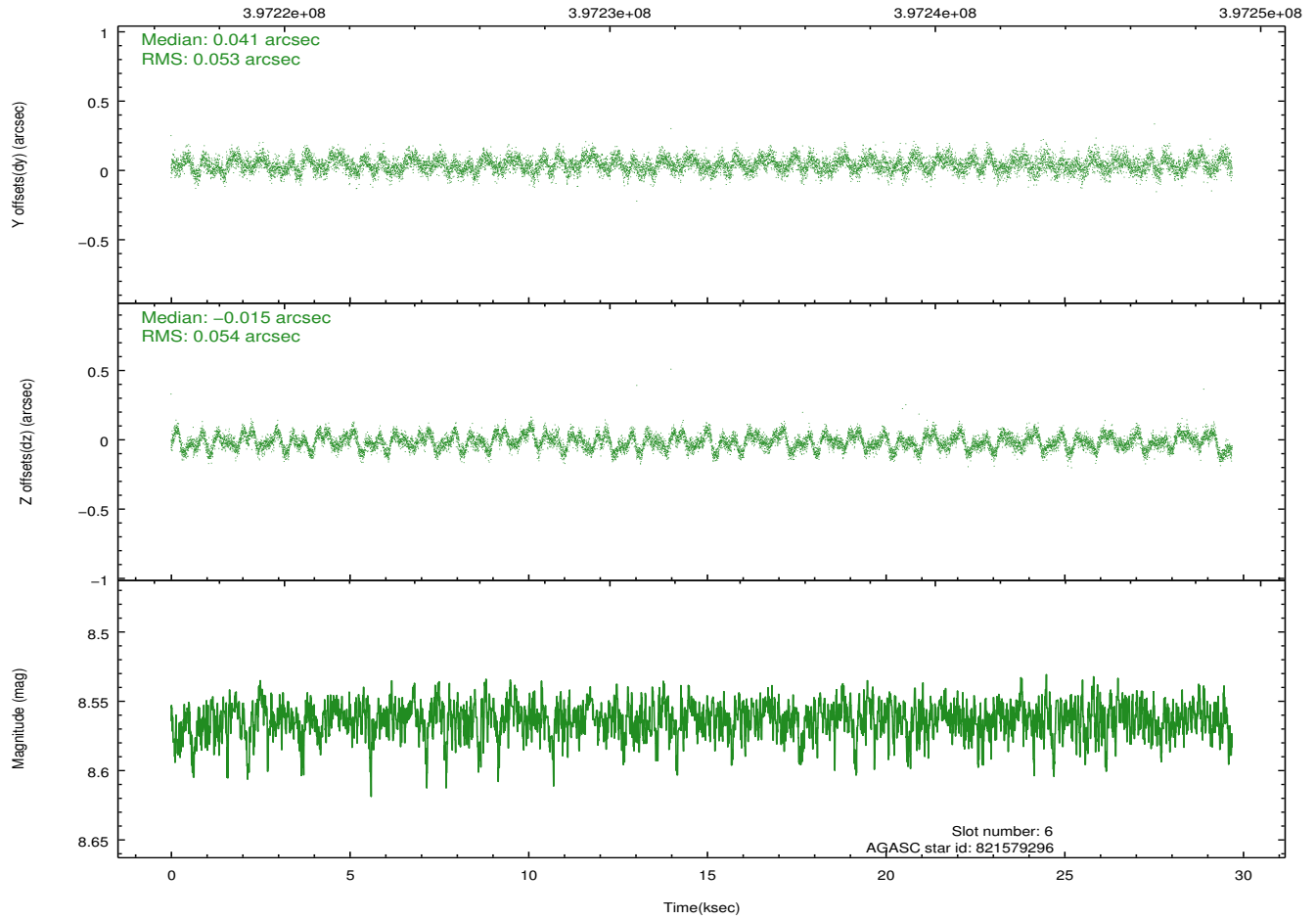
Time (s)



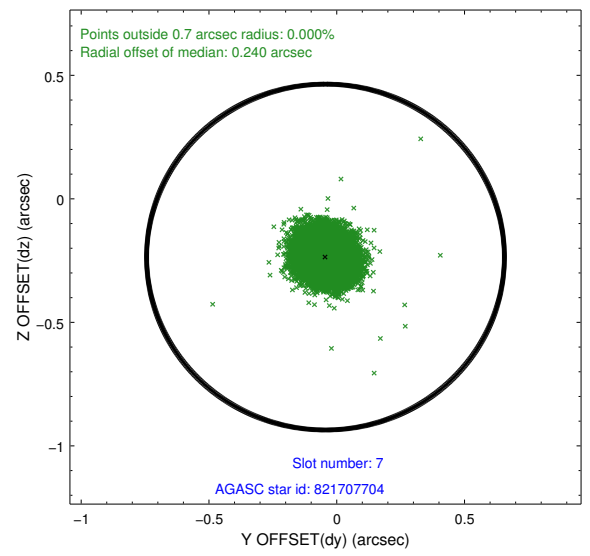
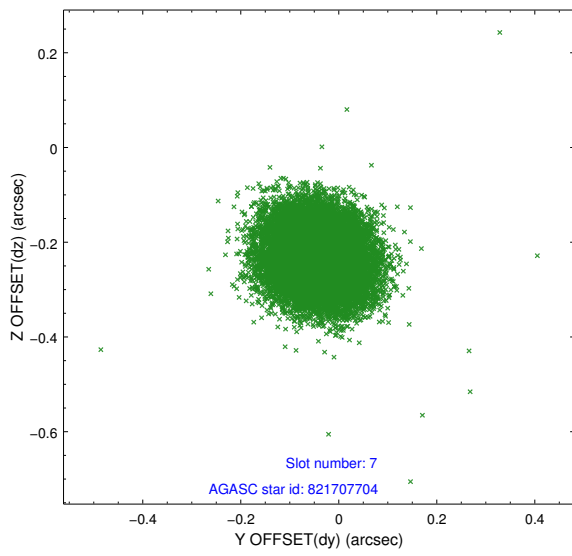
2.4.4 Slot 6



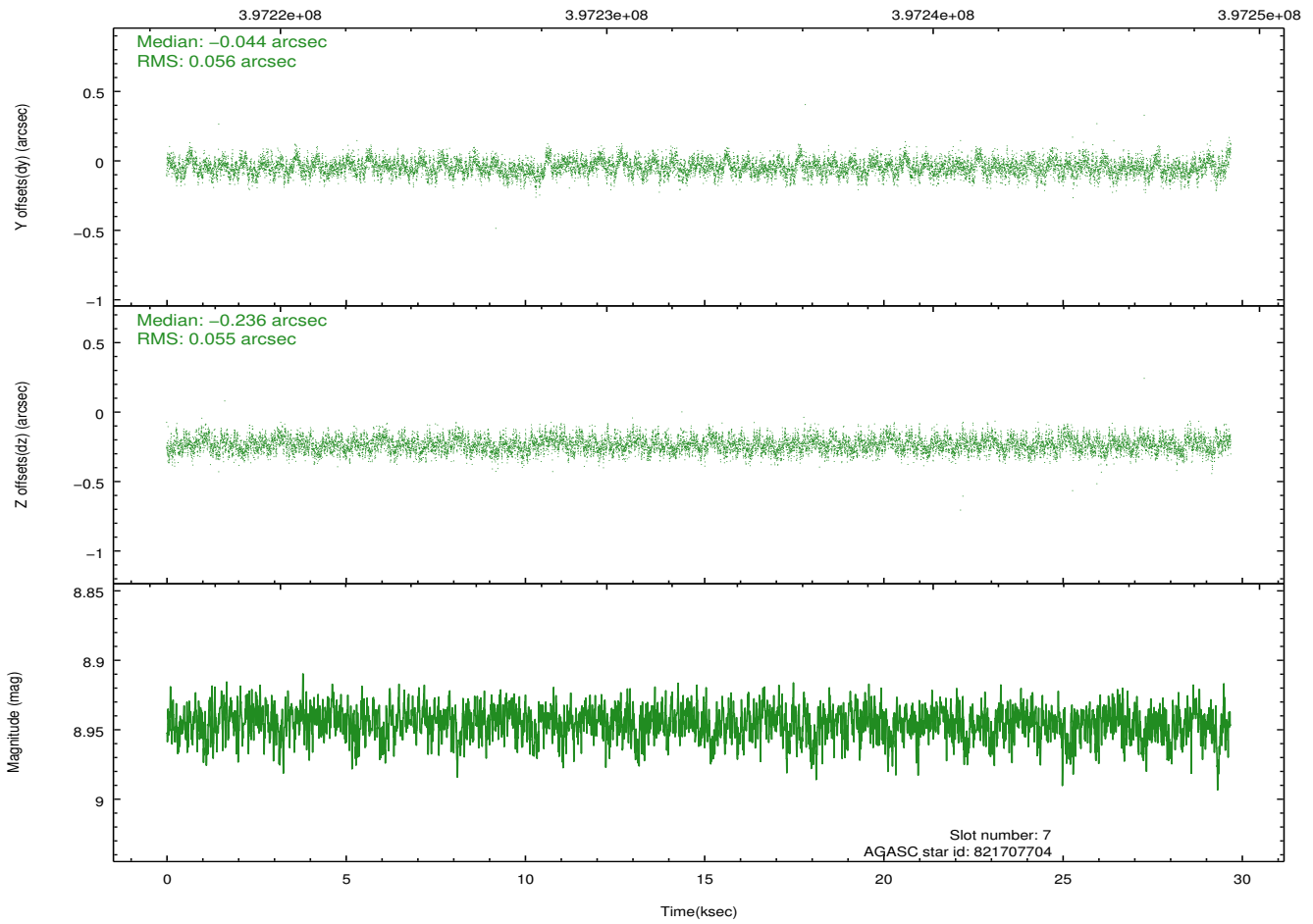
Time (s)



2.4.5 Slot 7

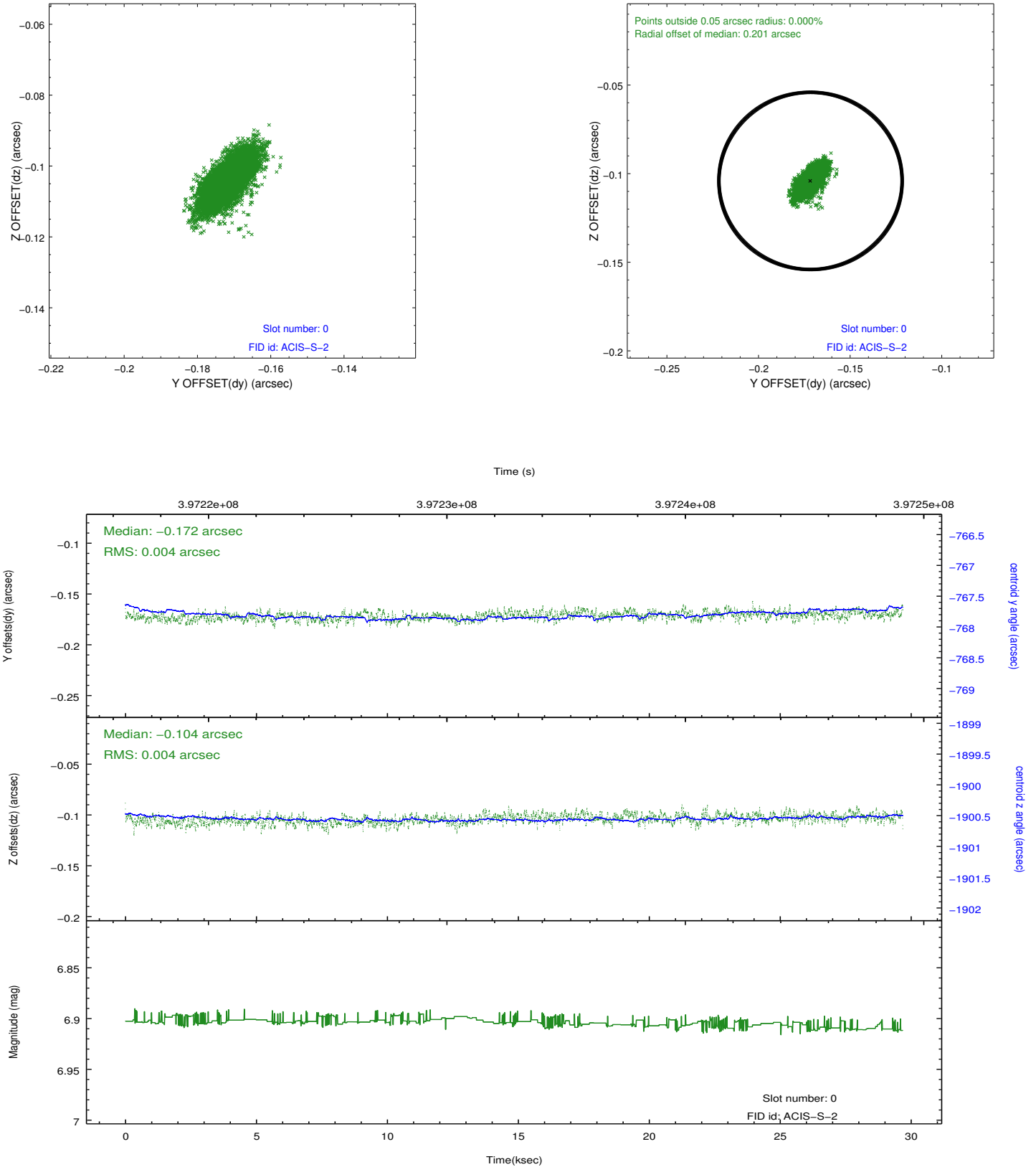


Time (s)

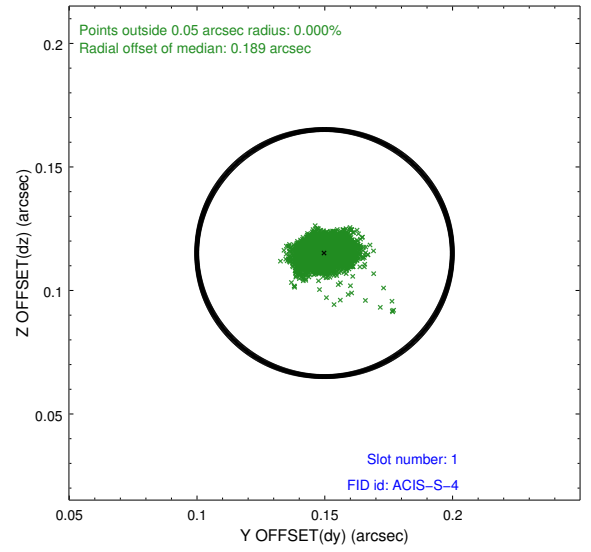
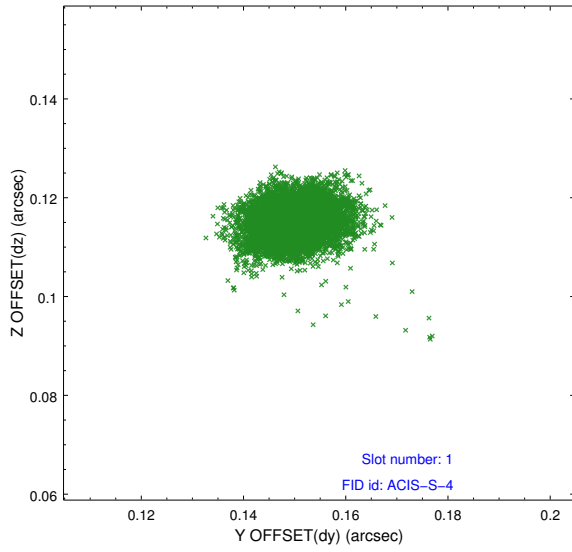


2.5 FID Slots

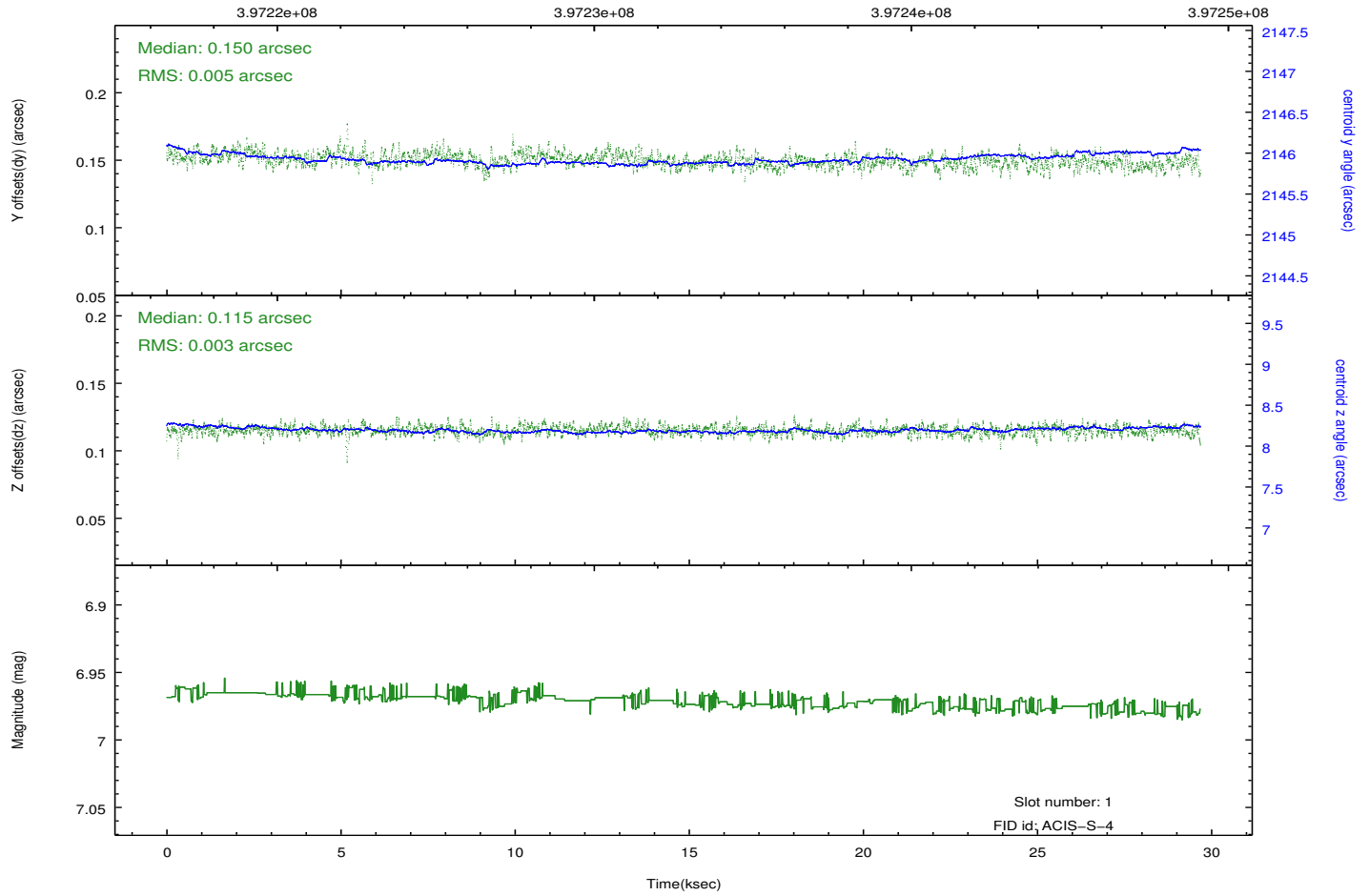
2.5.1 Slot 0



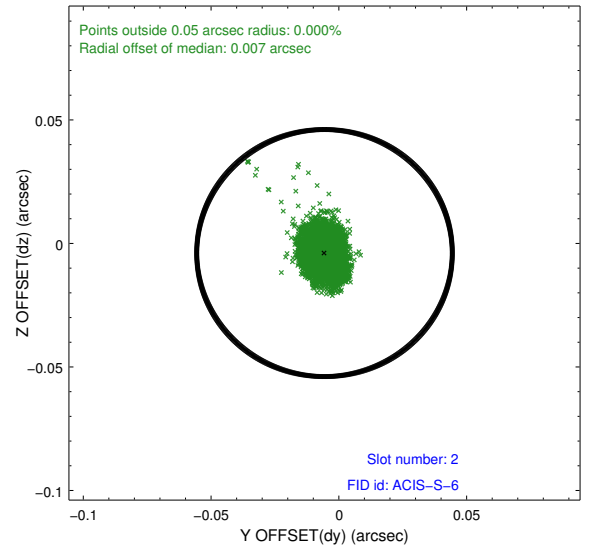
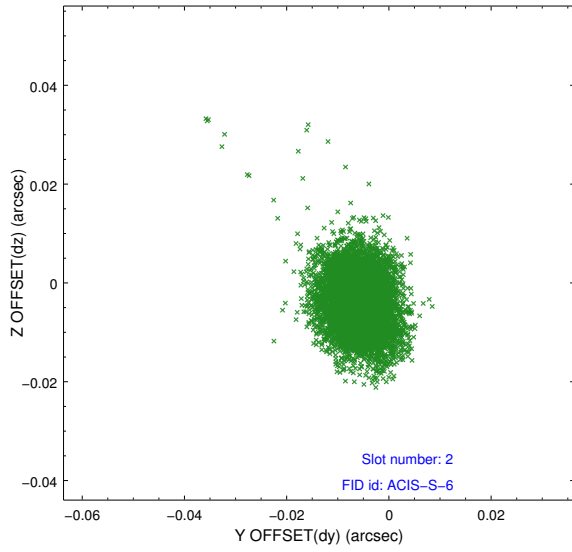
2.5.2 Slot 1



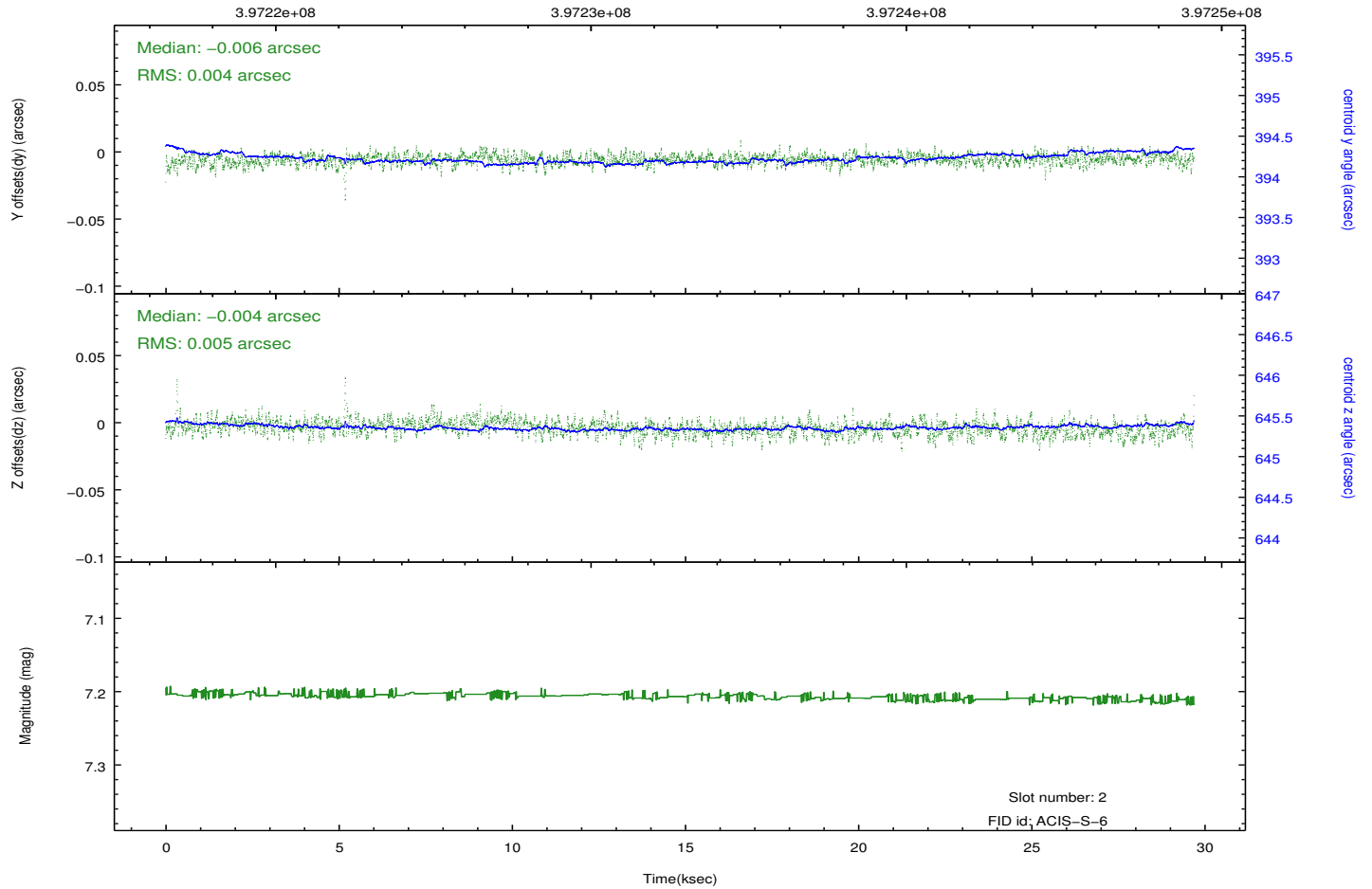
Time (s)



2.5.3 Slot 2

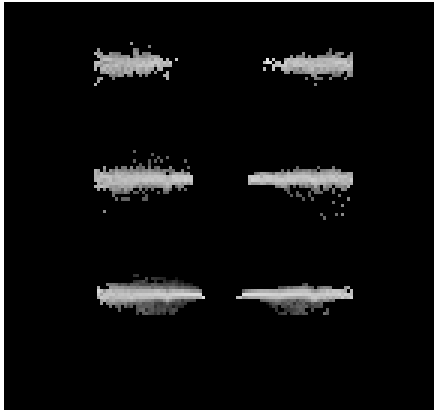


Time (s)

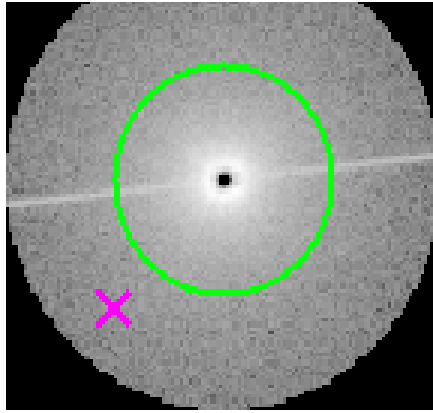


3 Gratings

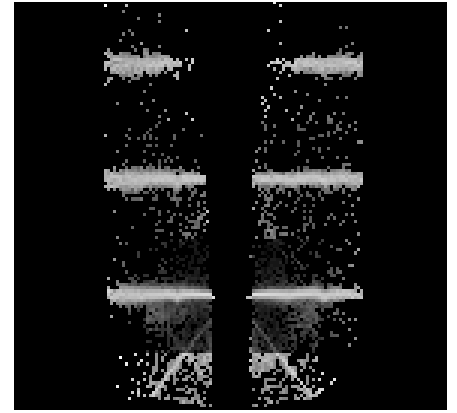
3.1 HEG Arm



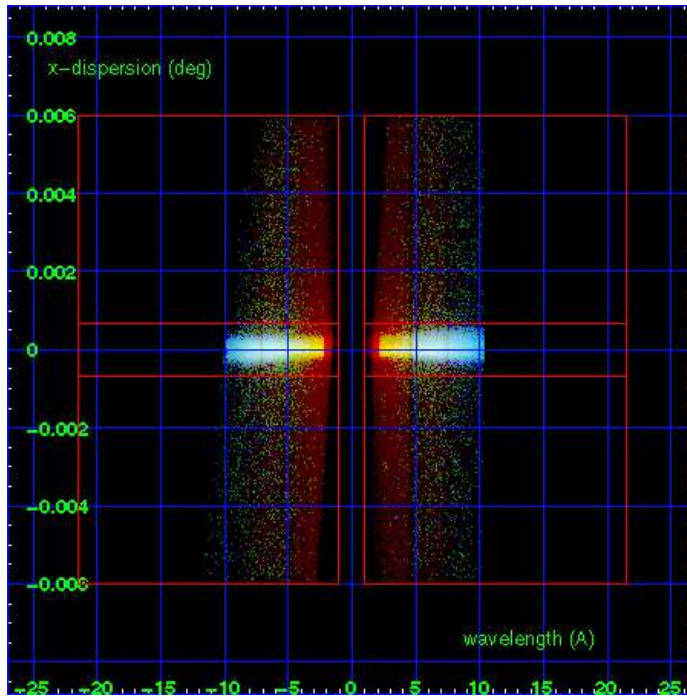
HEG Order Sort 123



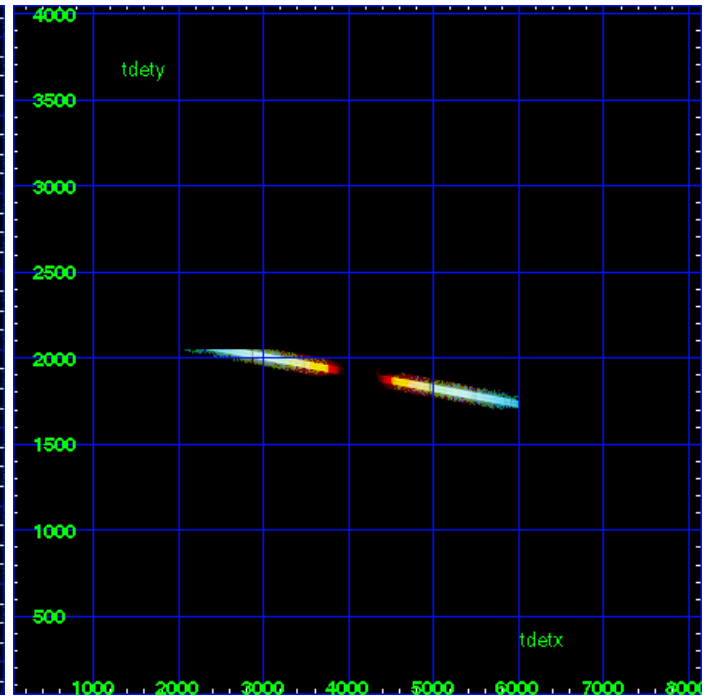
HEG Zero Order



HEG Order Sort ALL

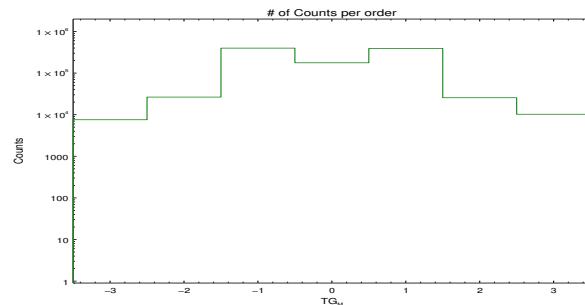


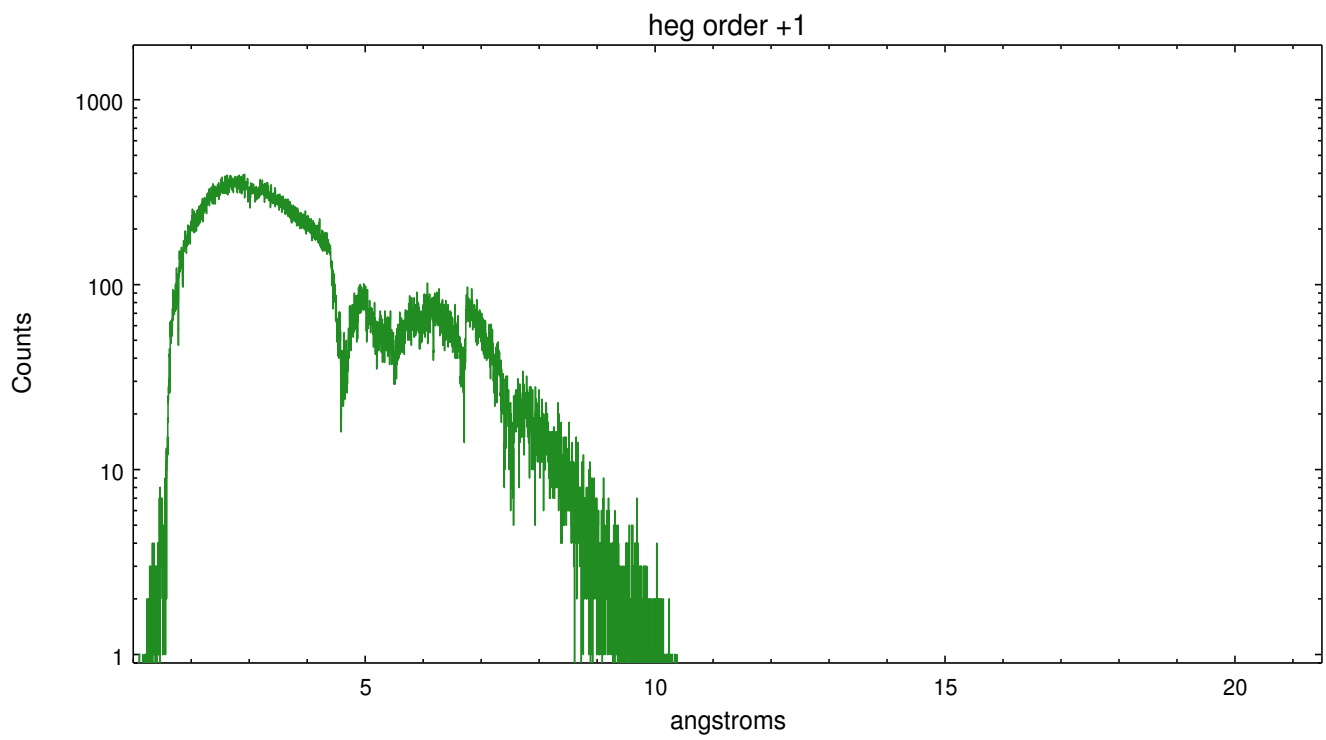
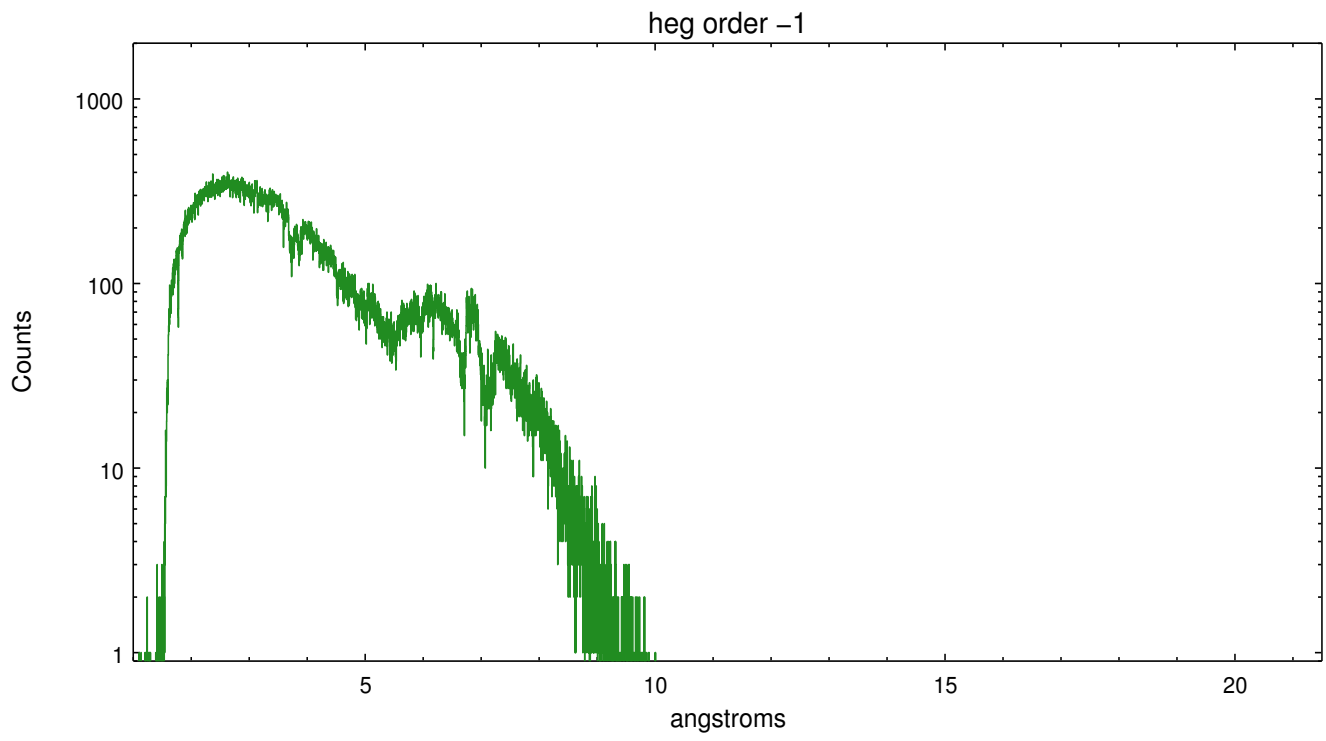
Spot Image HEG



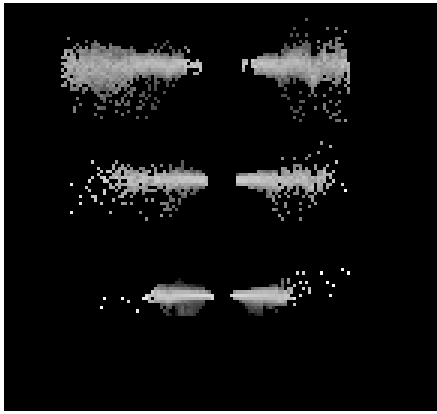
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	7567	26459	397381	176718	389617	25574	10228

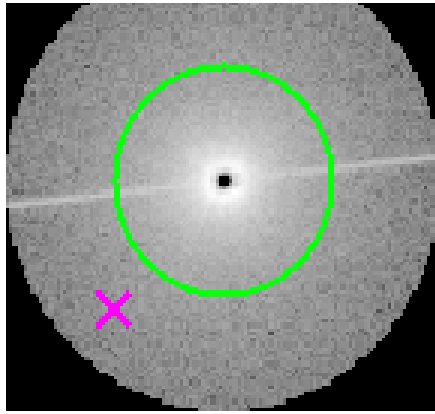




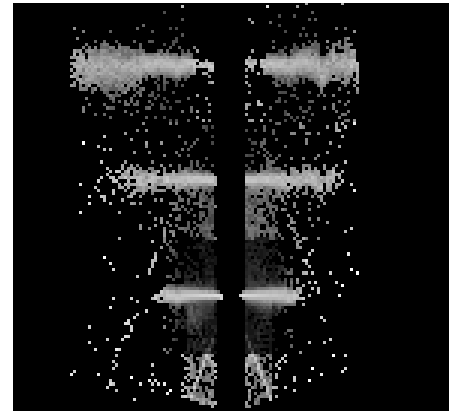
3.2 MEG Arm



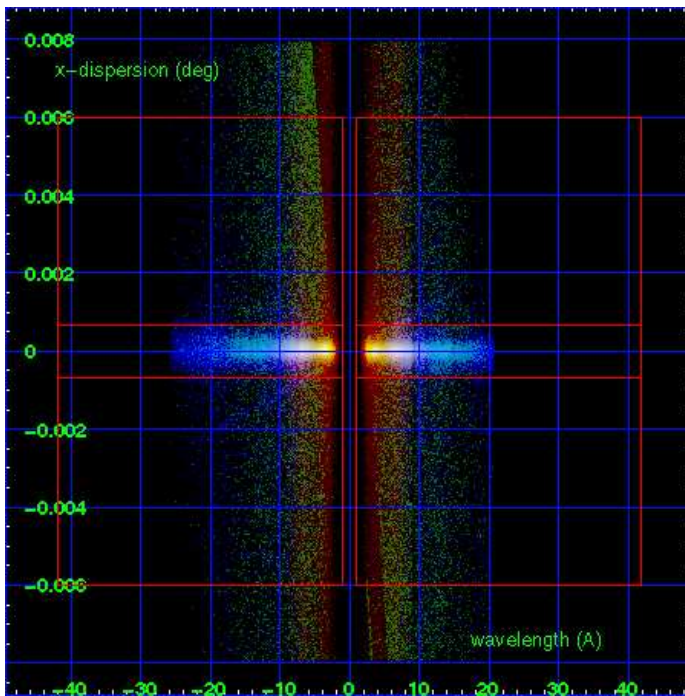
MEG Order Sort 123



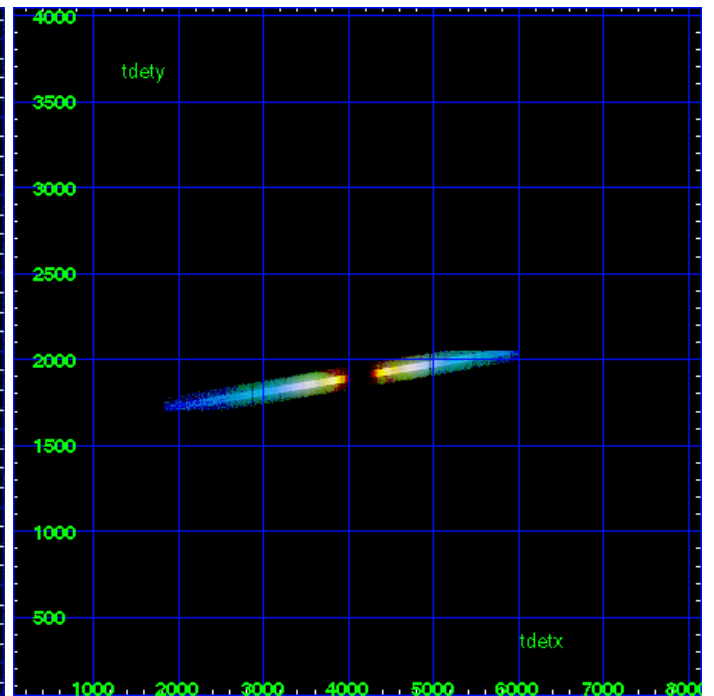
MEG Zero Order



MEG Order Sort ALL

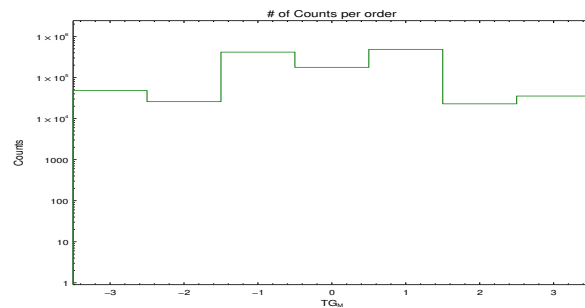


Spot Image MEG

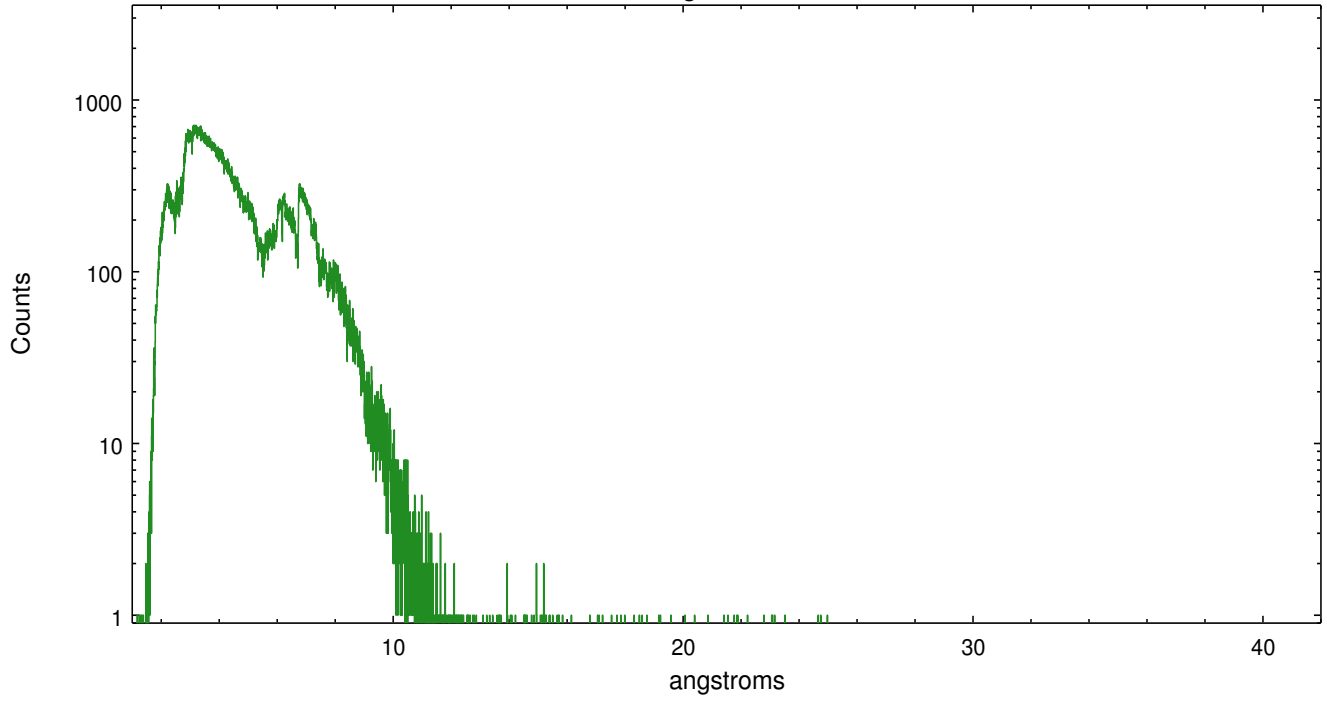


Full Detector MEG

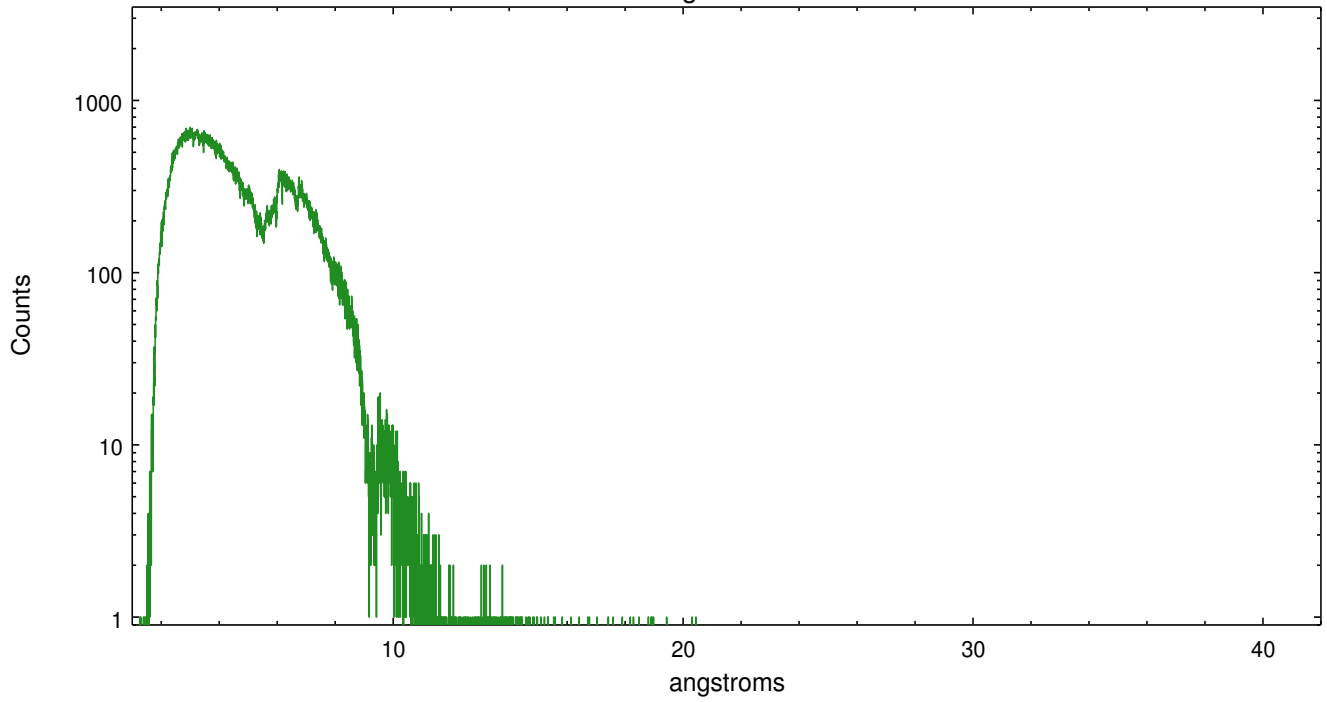
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	48228	25859	415068	176718	484077	22848	35372



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.07.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.08

A.2 Comments

WARNING: grating spectra are visible in the 'level 1 bad-events' image, meaning that the grating spectra may have CCD pileup (and unreliable fluxes).