

V&V Reference Report

L2 ASCDS Version : 8.1.1

Observation 105 - L2 Version 4
Chandra X-Ray Center

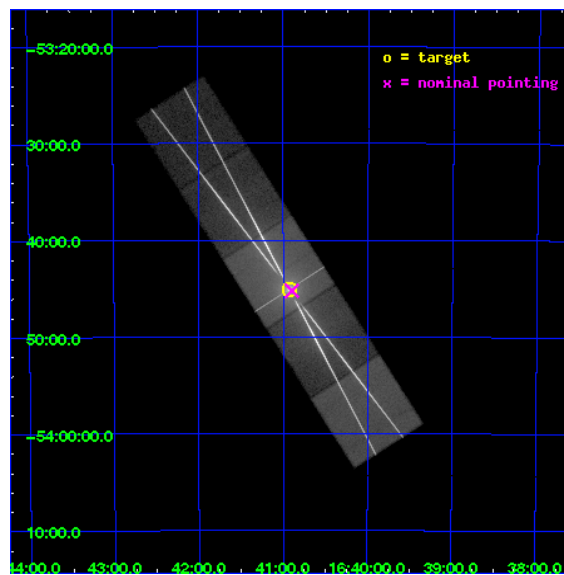
L2 Processing Date : Nov 20 2009

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1 Front

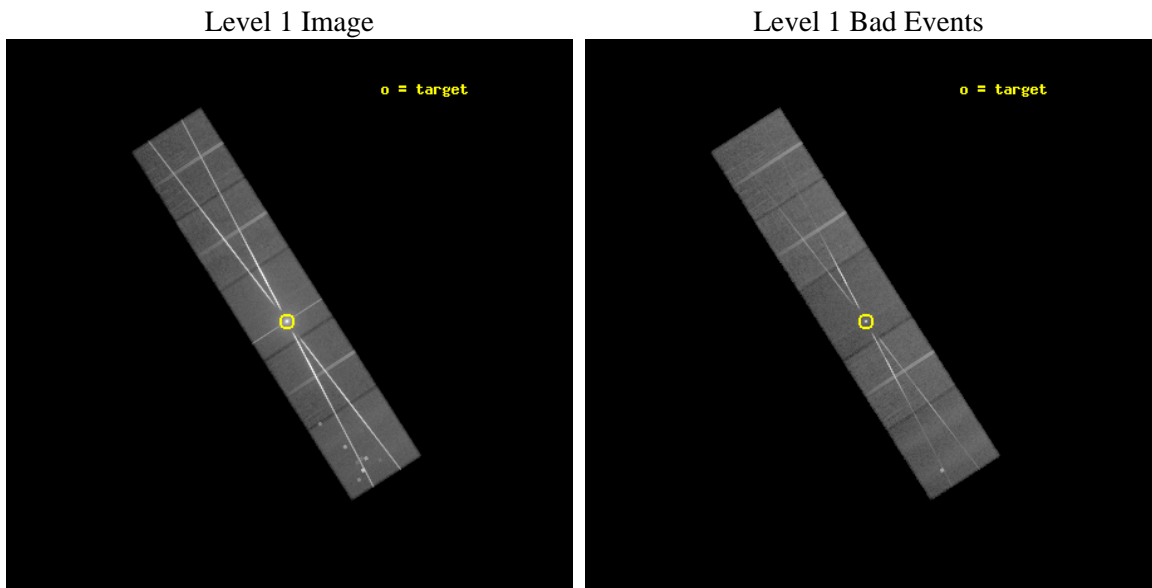
seq_num	400018	Sequence number
obs_id	105	Observation id
title	HETG OBSERVATIONS OF X-RAY BINARIES	Proposal title
observer	Prof. Claude Canizares	Principal investigator
object	4U 1636-53	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	250.23125	Observer's specified target RA
dec_targ	-53.751389	Observer's specified target Dec
ra_nom	250.22428766755	Nominal RA
dec_nom	-53.754234276778	Nominal Dec
roll_nom	237.37029005972	Nominal Roll
revision	4	Processing version of data
ontime	29772.800027728	Sum of GTIs [s]
livetime	29395.798906749	Livetime [s]
ontime5	29772.800027728	Sum of GTIs [s]
ontime6	29772.800027728	Sum of GTIs [s]
ontime7	29772.800027728	Sum of GTIs [s]
ontime8	29772.800027728	Sum of GTIs [s]
ontime9	29772.800027728	Sum of GTIs [s]
l2events	3099421	Number of level 2 events



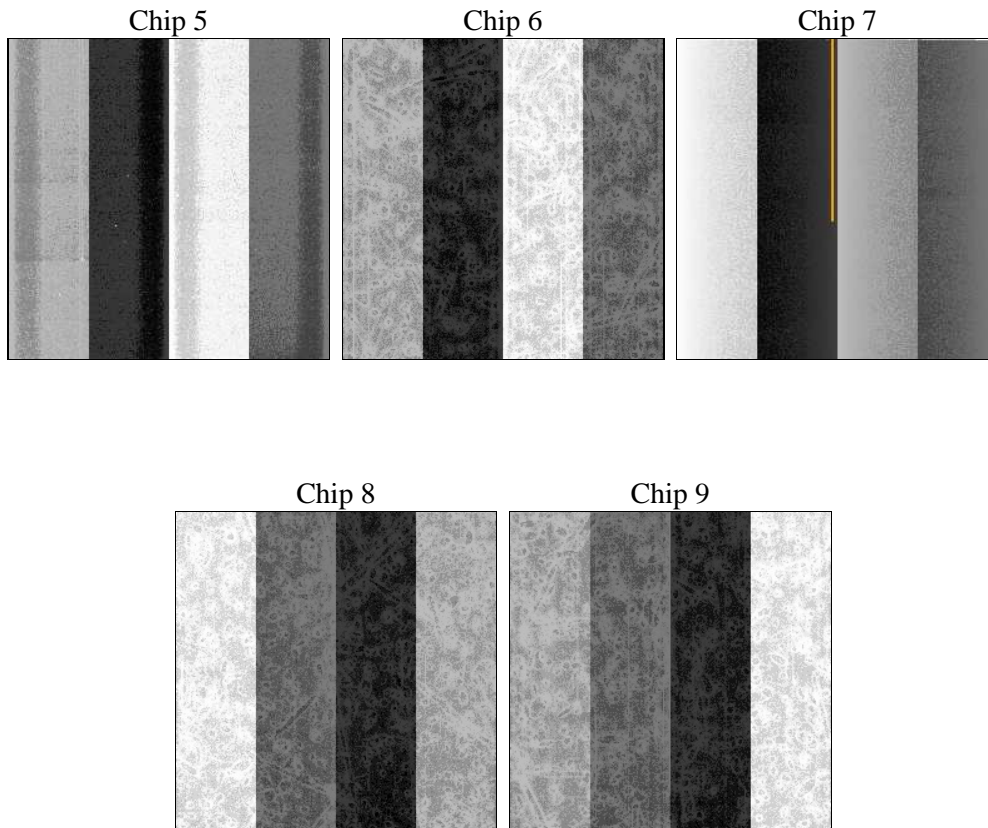
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	30000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	29772.800027728	Sum of GTIs [s]
caldbver	4.1.4	 	ontime5	29772.800027728	Sum of GTIs [s]
date	2009-11-20T12:36:42	Date and time of file creation	ontime6	29772.800027728	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	29772.800027728	Sum of GTIs [s]
			ontime8	29772.800027728	Sum of GTIs [s]
			ontime9	29772.800027728	Sum of GTIs [s]
			l1events	4550382	Number of level 1 events

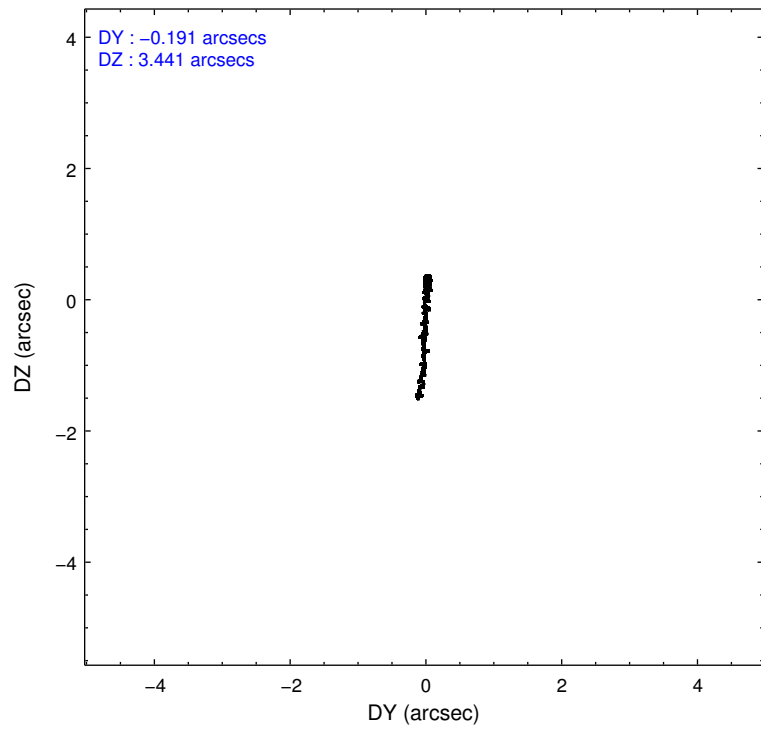
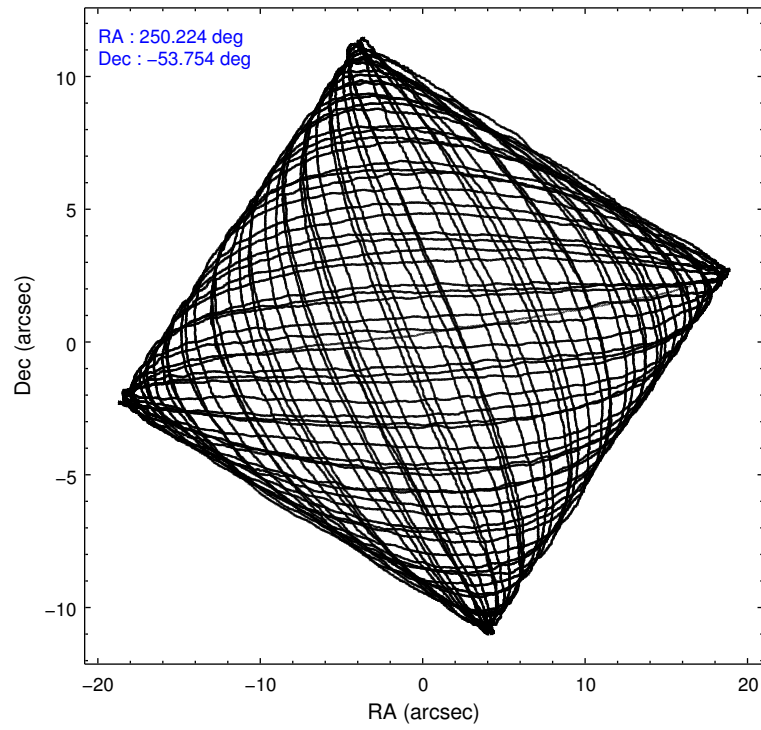
2.1.4 Events

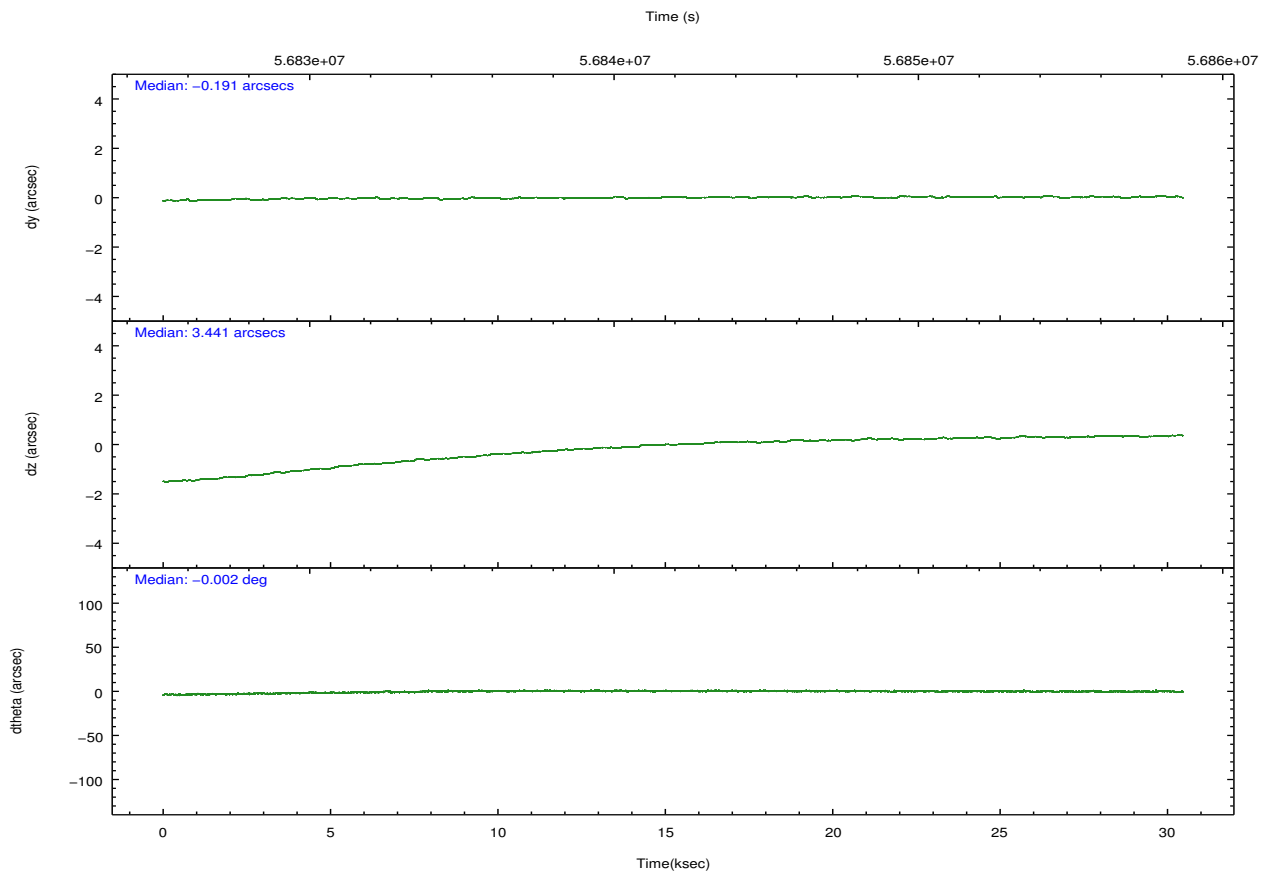
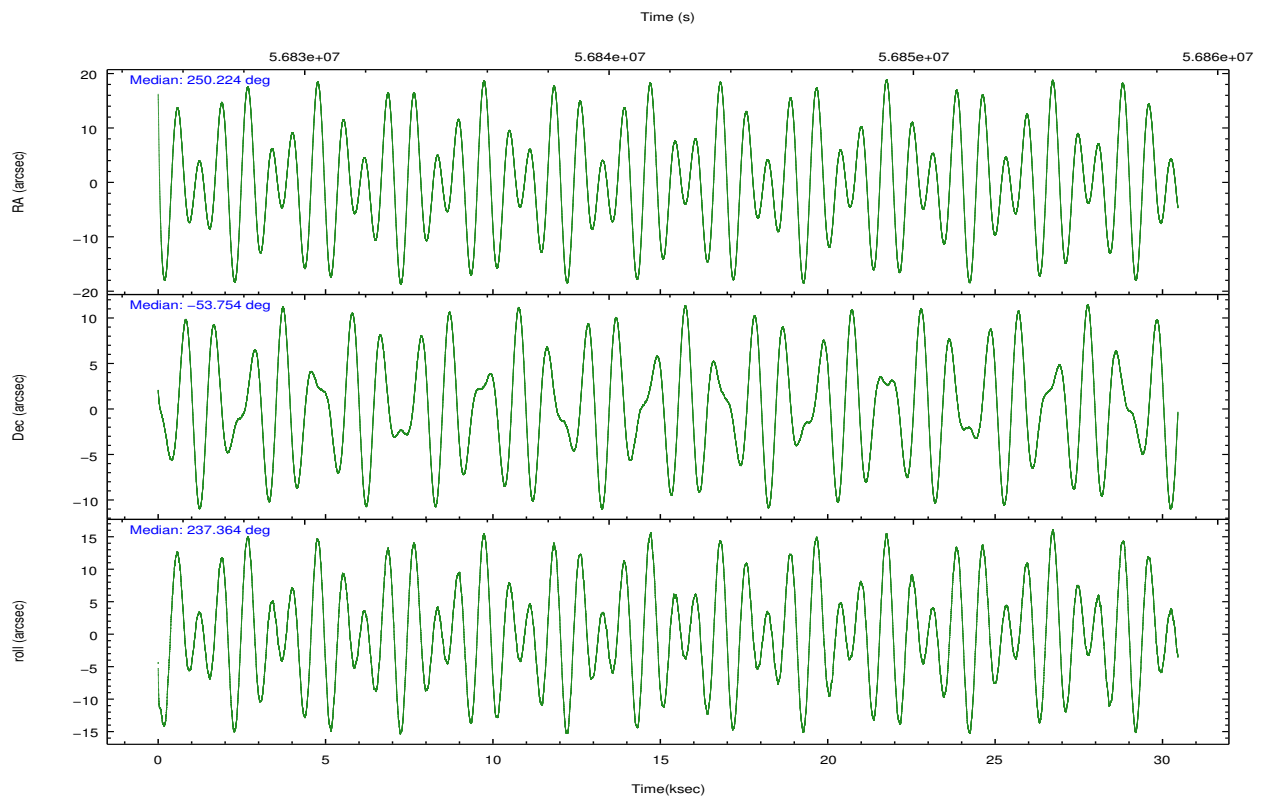
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	630672	1327269	1357916	861937	372588	grade 0 events	98485	530110	171175	406481	79654
rejected events	203692	326288	294436	290015	236953		15%	39%	12%	47%	21%
rejected %	32%	24%	21%	33%	63%	grade 1 events	3966	22071	7426	8575	364
							0%	1%	0%	0%	0%
						grade 2 events	139735	345067	280649	98045	37337
							22%	25%	20%	11%	10%
						grade 3 events	26035	31421	102799	20471	4393
							4%	2%	7%	2%	1%
						grade 4 events	24157	31078	98191	20068	4375
							3%	2%	7%	2%	1%
						grade 5 events	18685	32239	57335	13161	6196
							2%	2%	4%	1%	1%
						grade 6 events	138664	63515	410880	26970	9911
							21%	4%	30%	3%	2%
						grade 7 events	180945	271768	229461	268166	230358
							28%	20%	16%	31%	61%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-56789	ACIS-56789	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
Pointing RA	250.226685	250.2242876675492	Subarray requested	NONE	NONE
Pointing Dec	-53.726652	-53.75423427677817	Alternating exposures requested	N	N
Pointing Roll	237.215609	237.3702900597184	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.145094680475			
SIM translation stage offset (mm)	0	0.01257209746719923			
Observation start time	56827169.184000	56825892.659582			
Observation start date	1999-10-20T17:18:25	1999-10-20T16:58:12			
Observation end time	56857169.184000	56858581.448261			
Observation end date	1999-10-21T01:38:25	1999-10-21T02:03:01			
Read mode	TIMED	TIMED			

2.3 Aspect



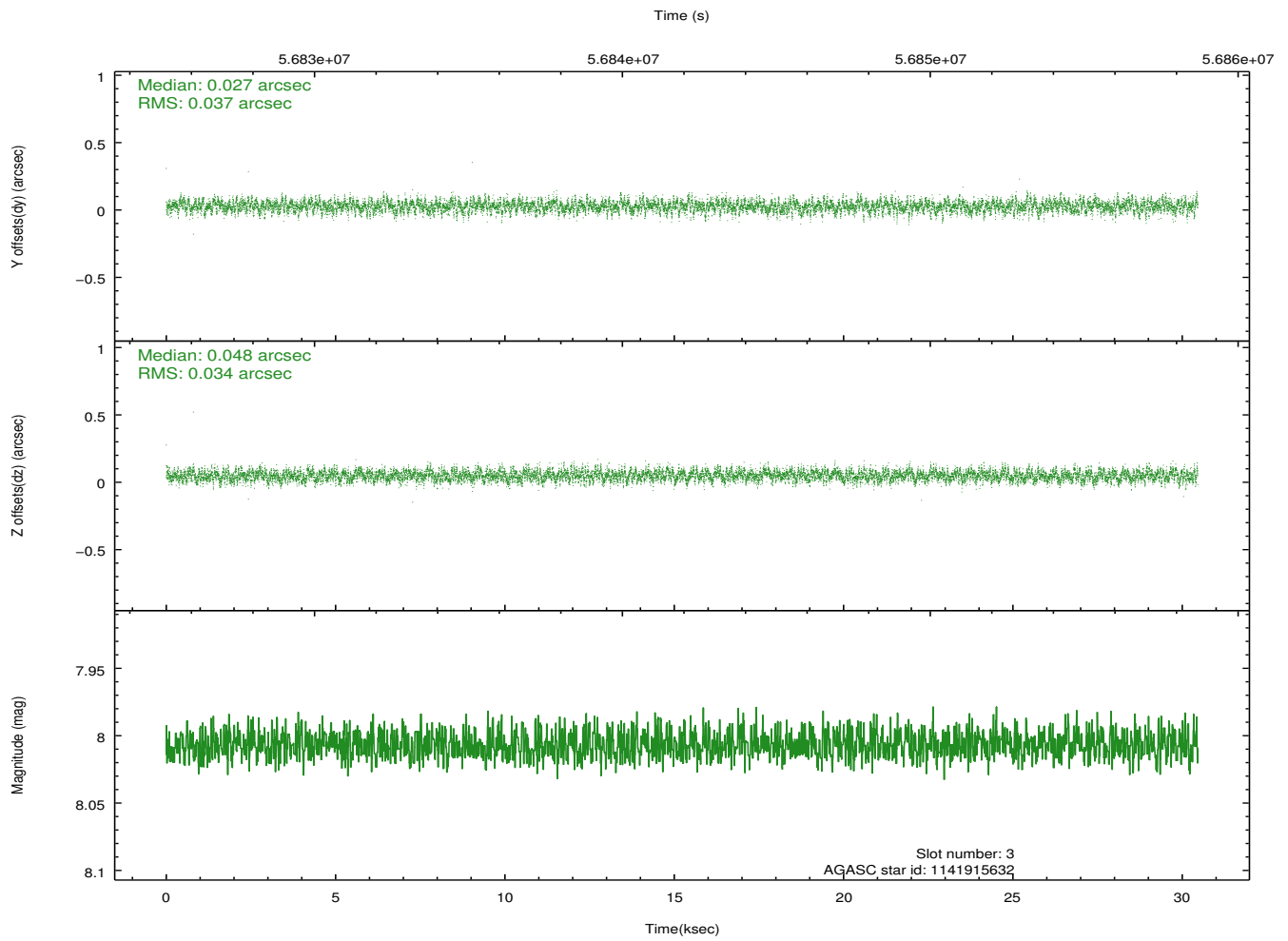
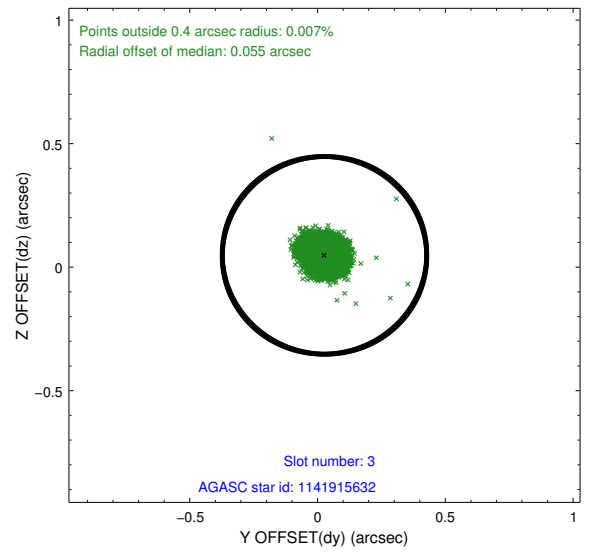
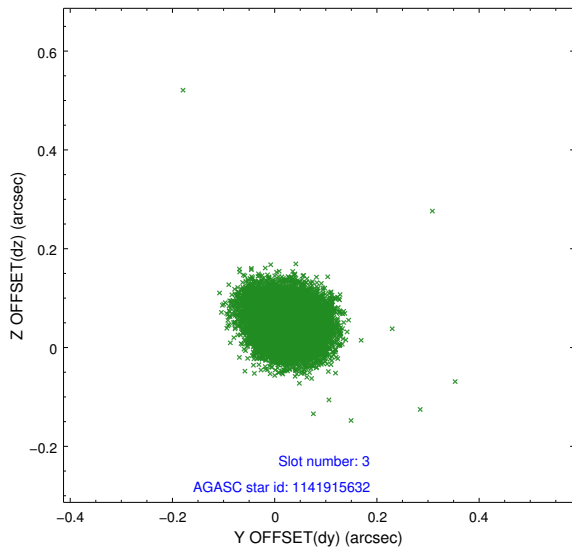


Slot Statistics

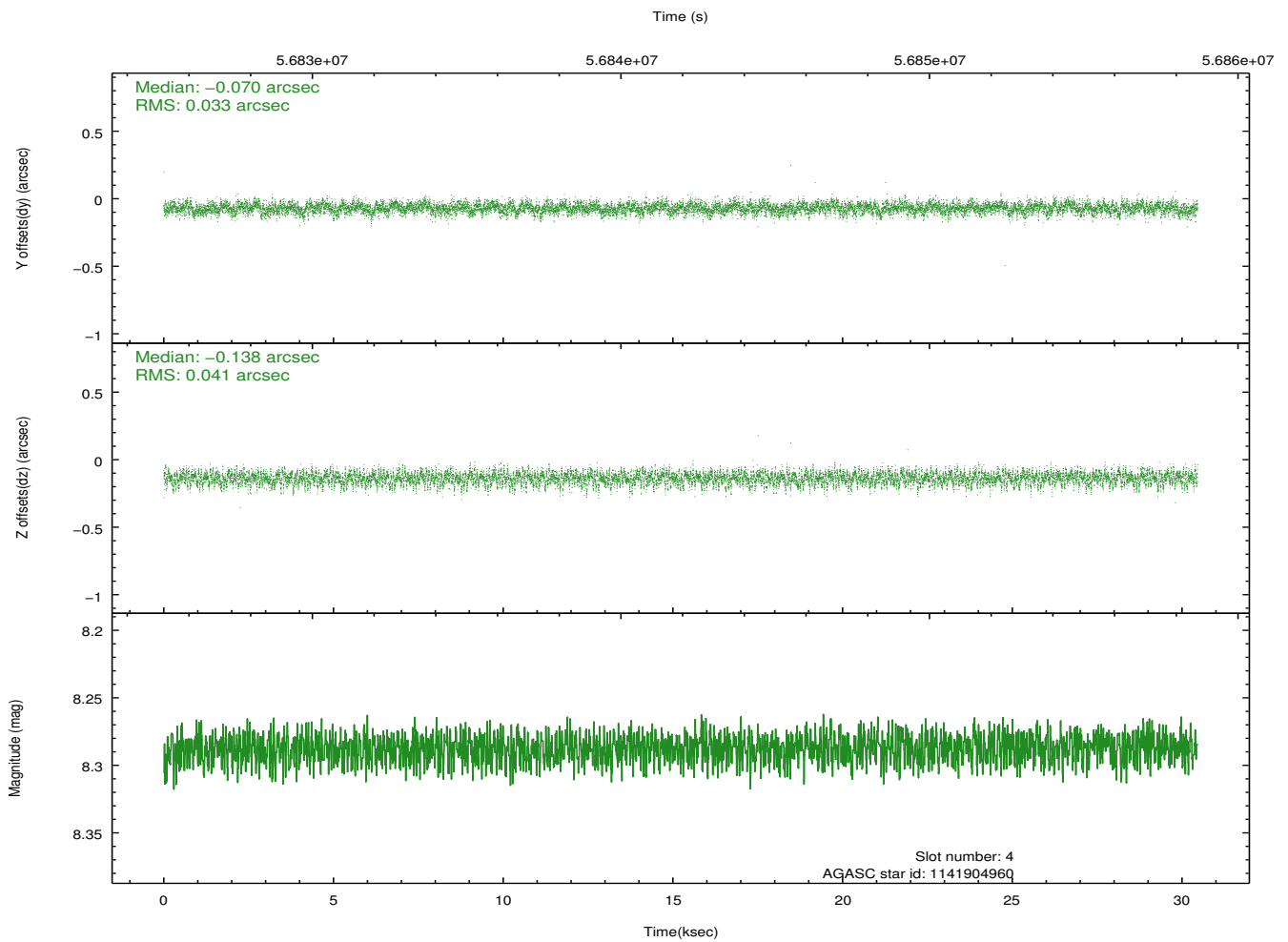
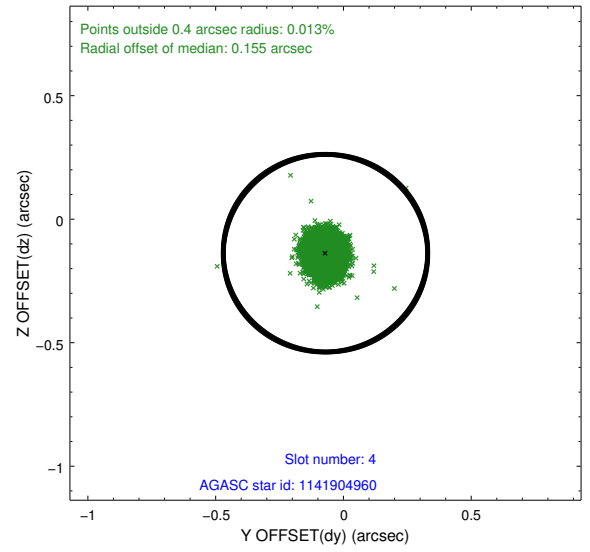
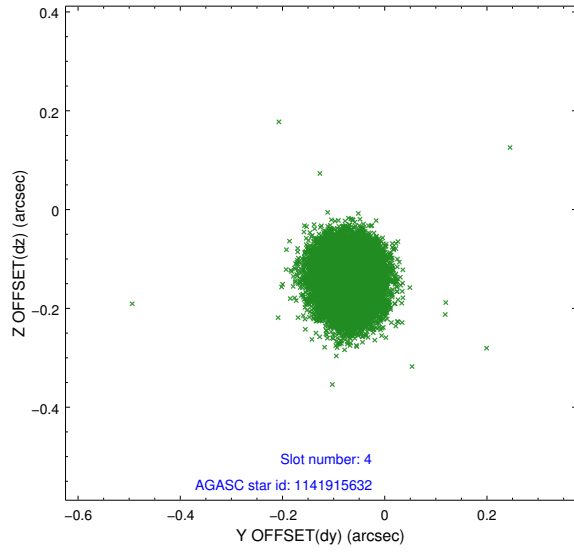
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	14860	0.014	-0.008	0.010	0.021	0.000000	0.000000	-752.41	-1724.15
1	FID	ACIS-S-4	7.21	14860	0.042	-0.004	0.007	0.015	0.000000	0.000000	2160.99	184.28
2	FID	ACIS-S-5	7.24	14858	-0.087	0.022	0.010	0.019	0.000000	0.000000	-1805.34	178.07
3	GUIDE	1141915632	8.01	14858	0.027	0.048	0.053	0.086	249.175229	-53.921117	1810.02	-1485.24
4	GUIDE	1141904960	8.29	14853	-0.070	-0.138	0.056	0.091	249.830144	-53.372737	-607.41	-1404.42
5	GUIDE	1142047448	8.69	14858	-0.178	-0.014	0.065	0.104	250.987986	-53.236686	-2363.63	428.86
6	GUIDE	1141917160	9.72	14848	0.129	0.040	0.102	0.165	249.972548	-54.263827	1916.24	599.23
7	GUIDE	1142041320	9.74	14840	0.091	0.066	0.094	0.154	251.143209	-53.881230	-574.34	1943.77

2.4 Star Slots

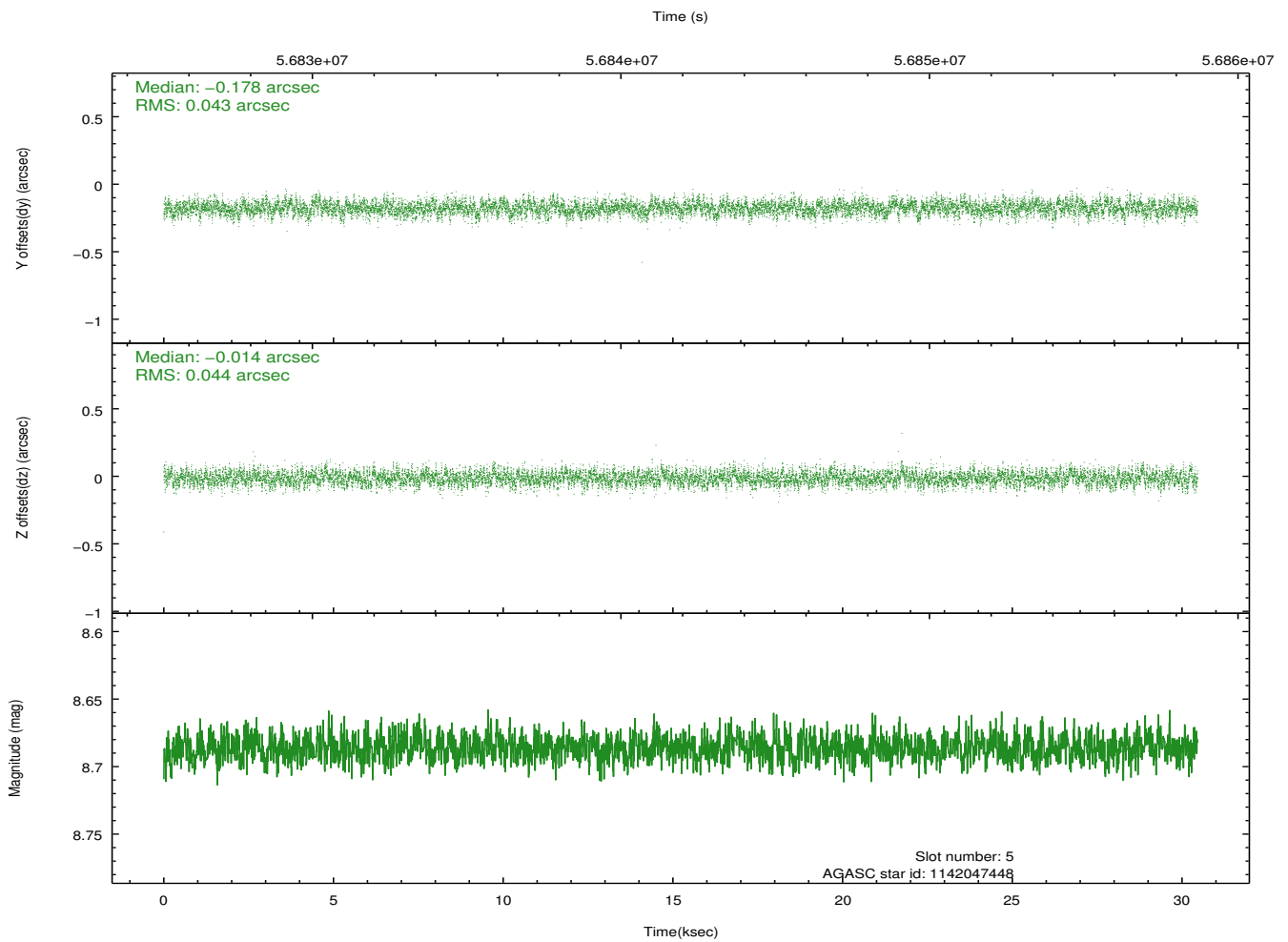
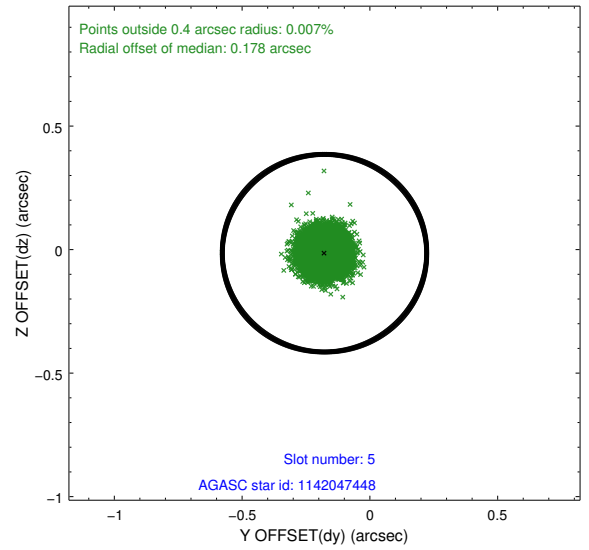
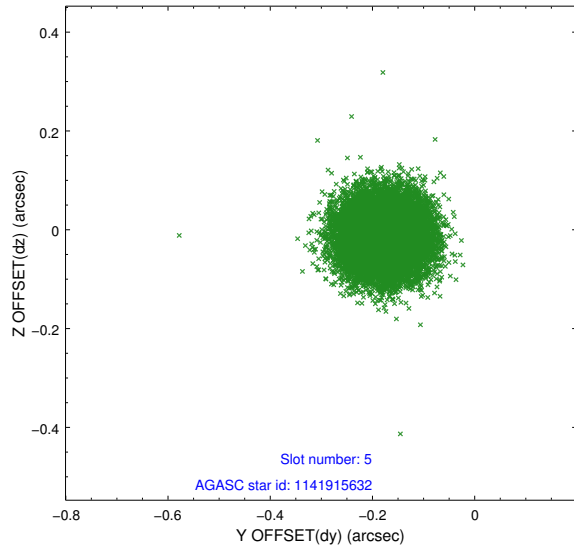
2.4.1 Slot 3



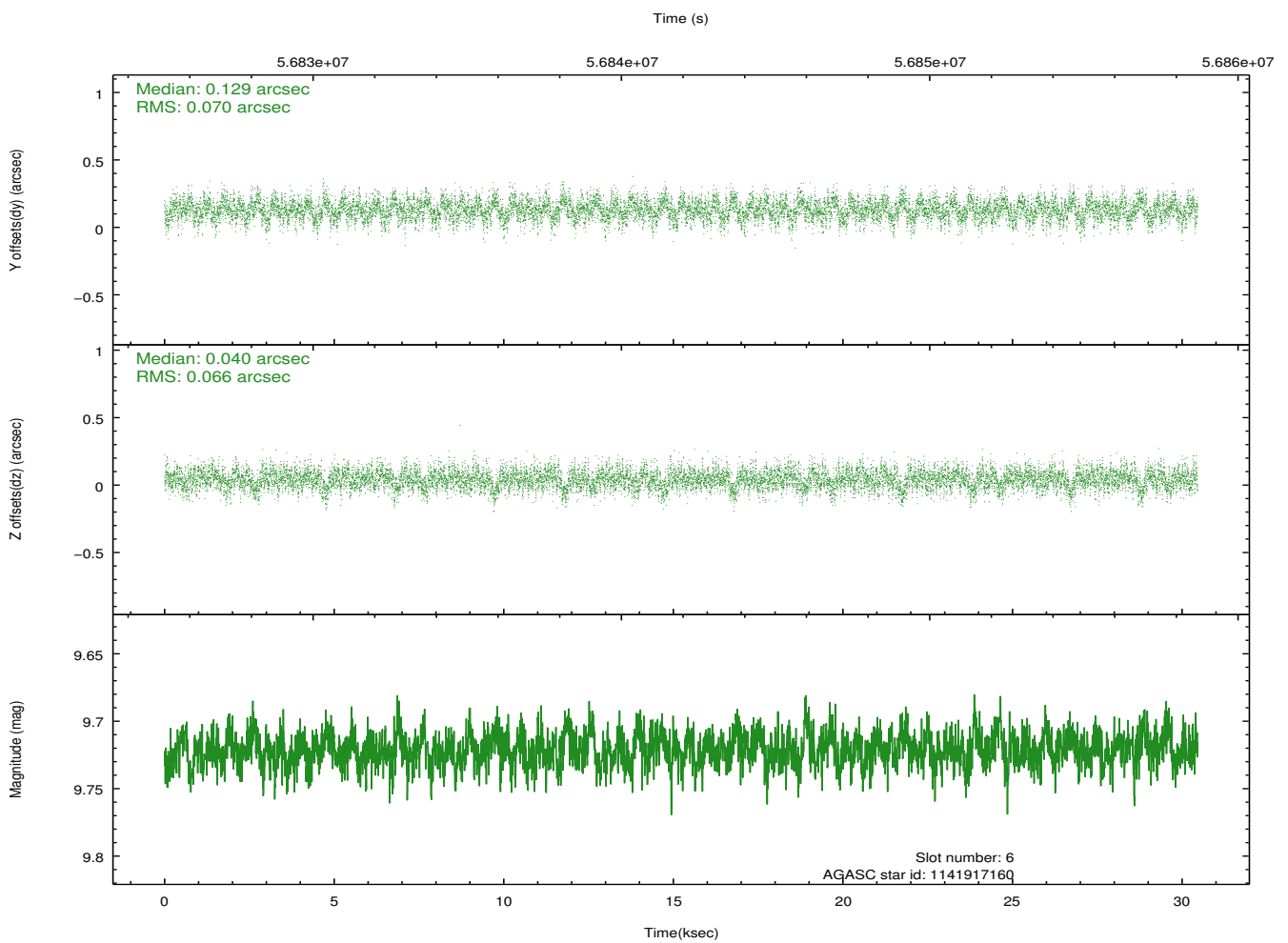
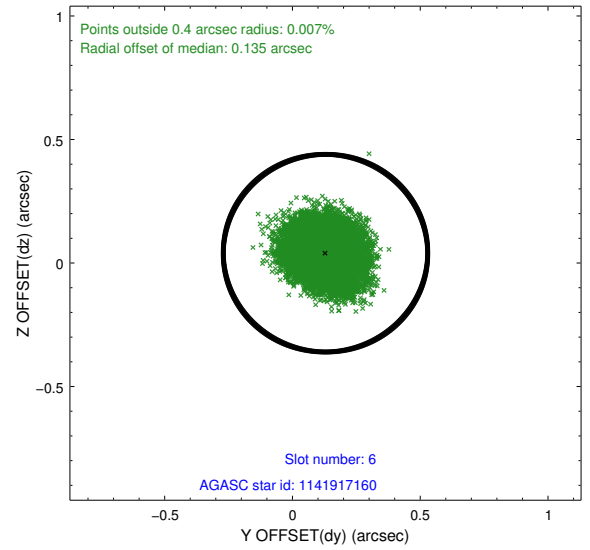
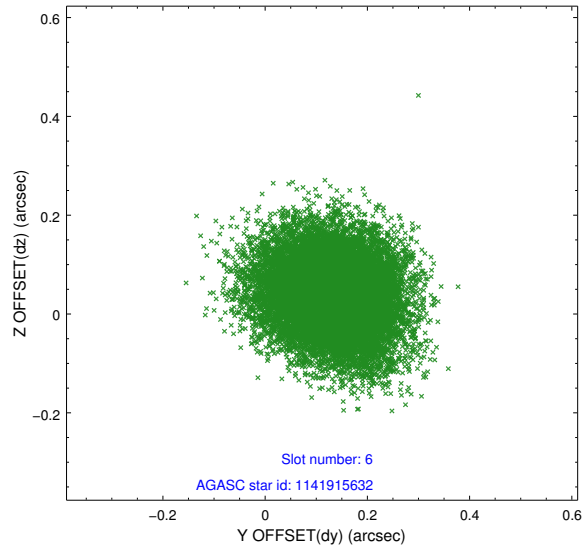
2.4.2 Slot 4



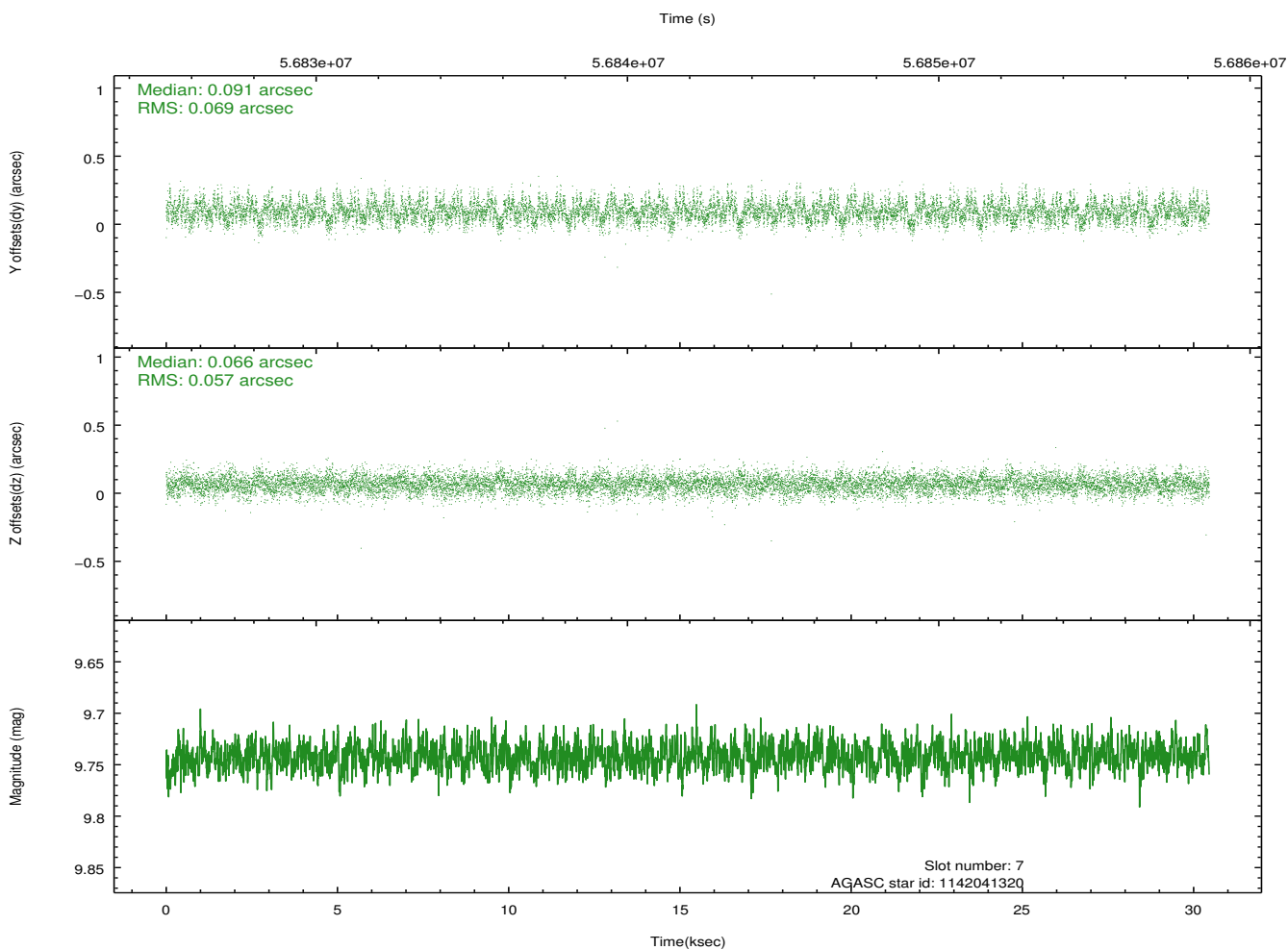
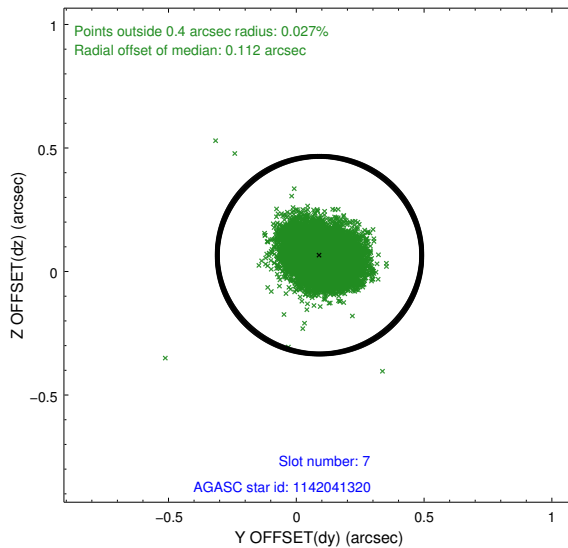
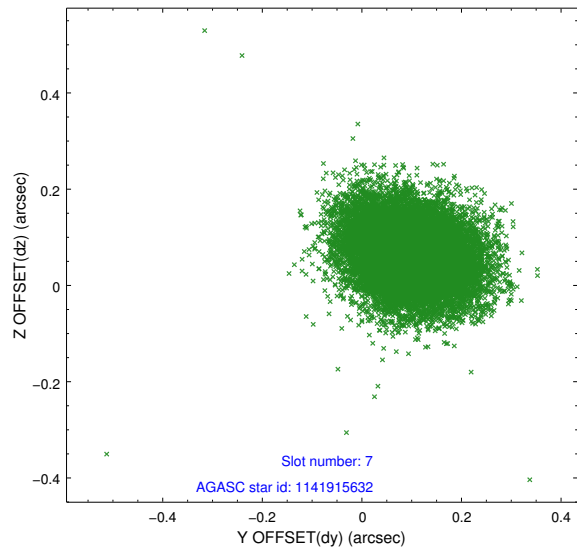
2.4.3 Slot 5



2.4.4 Slot 6

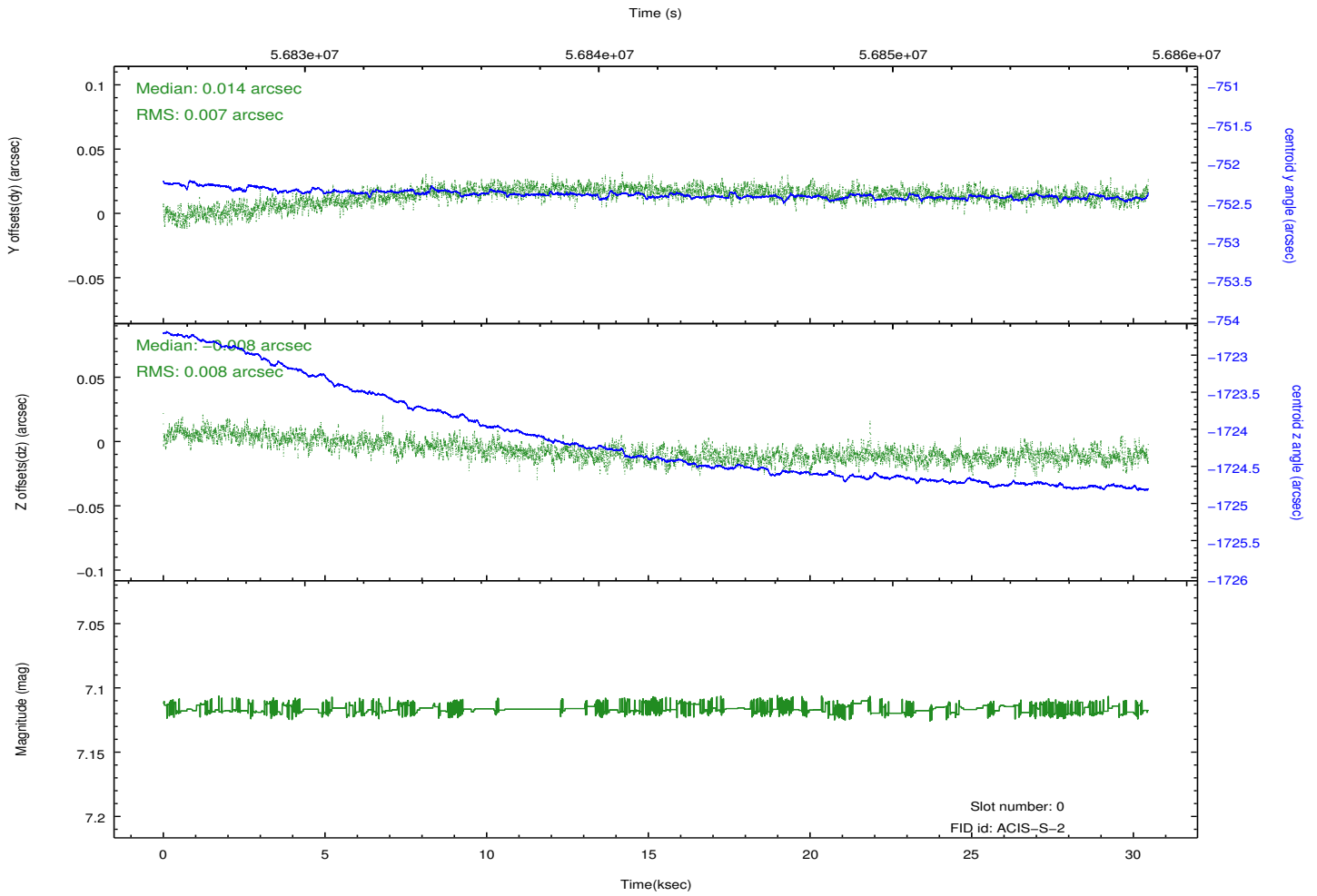
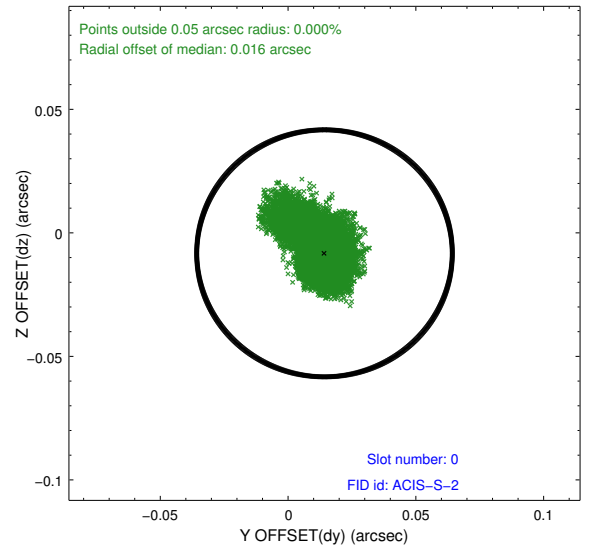
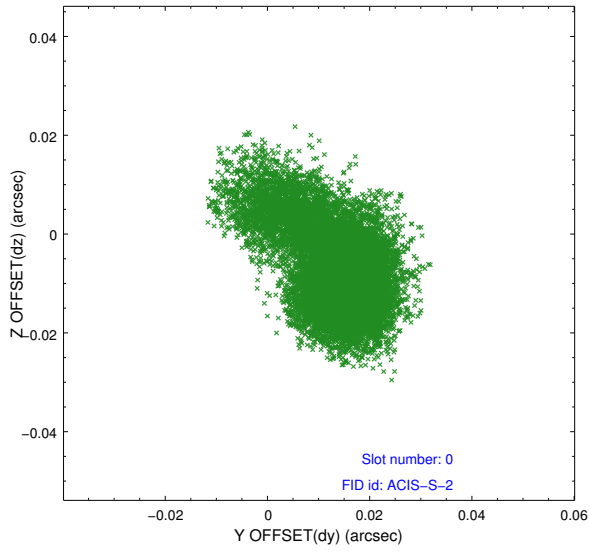


2.4.5 Slot 7

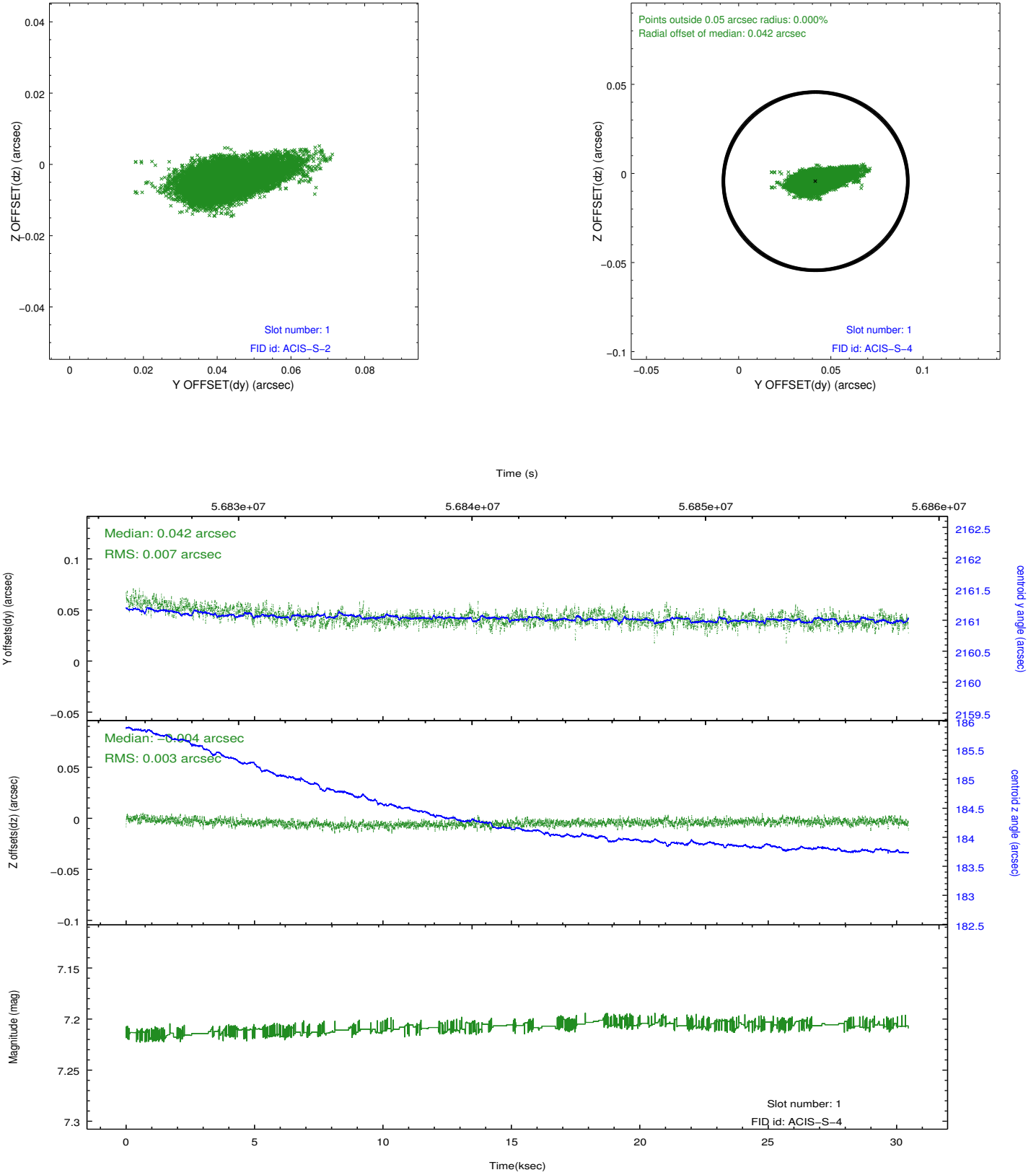


2.5 FID Slots

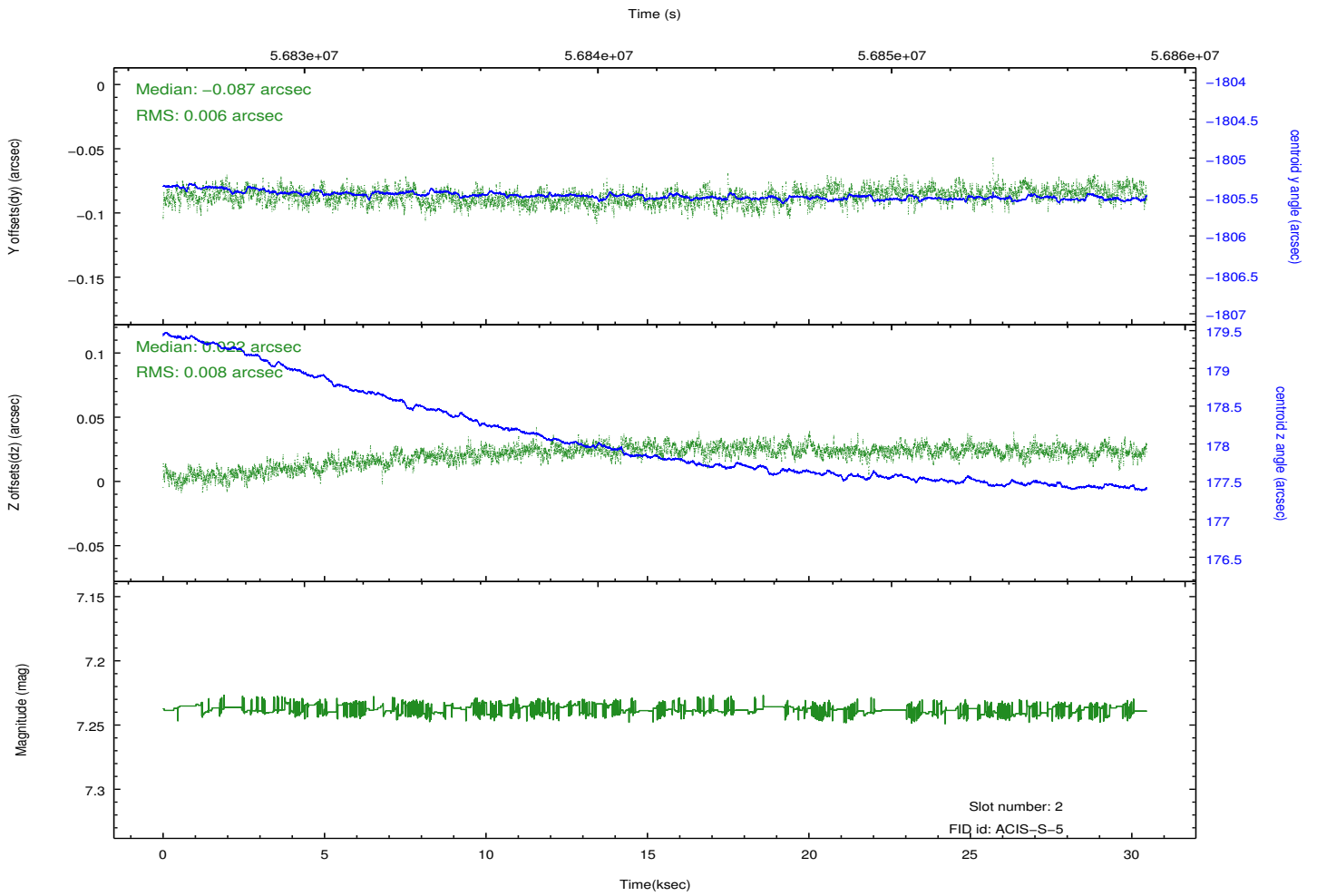
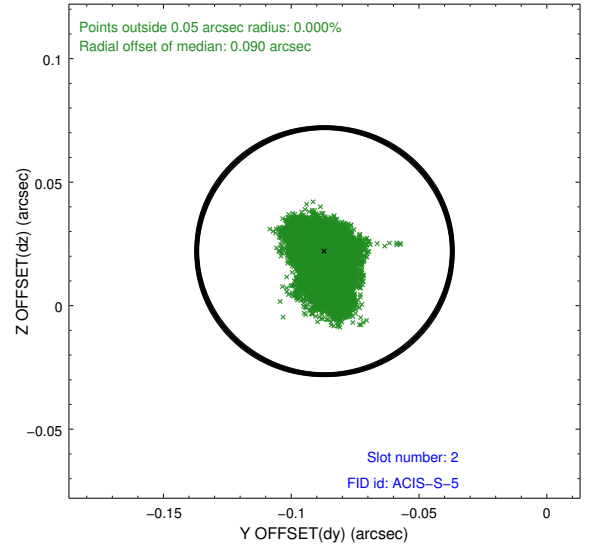
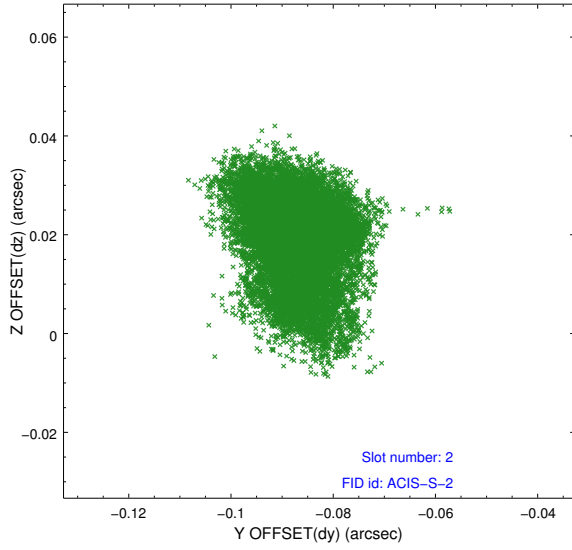
2.5.1 Slot 0



2.5.2 Slot 1

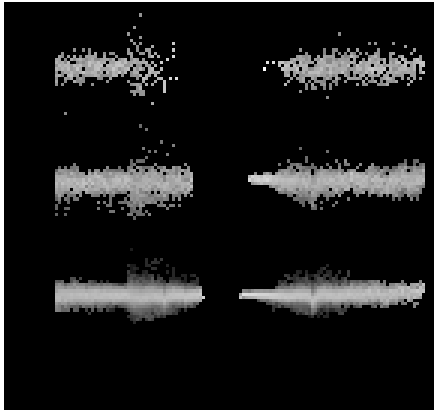


2.5.3 Slot 2

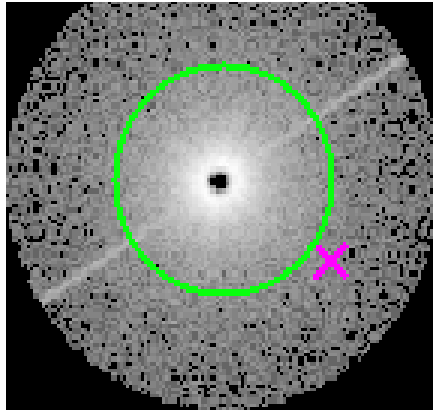


3 Gratings

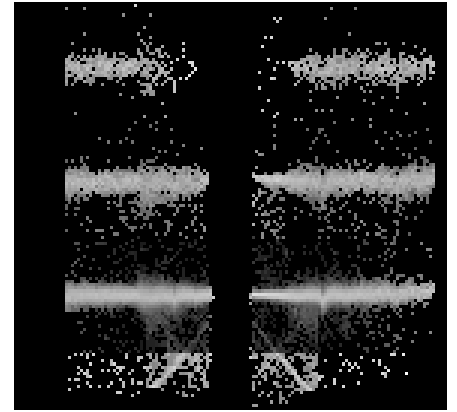
3.1 HEG Arm



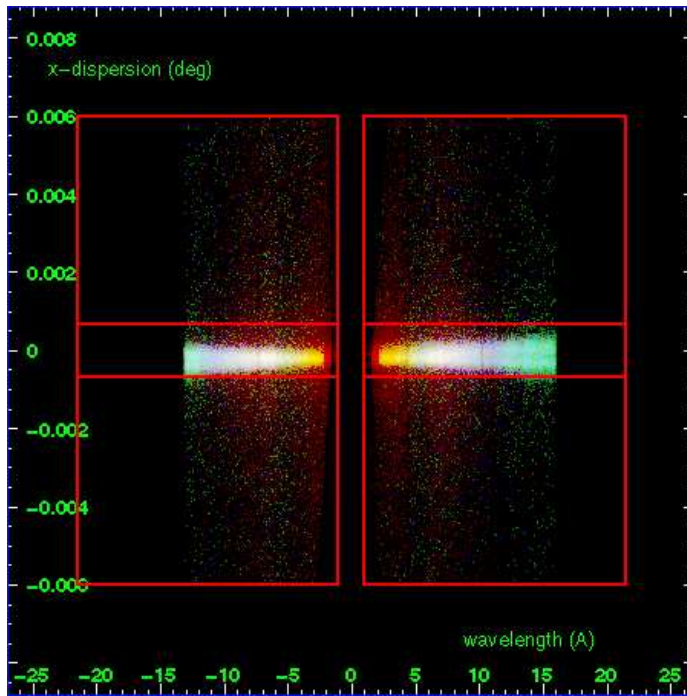
HEG Order Sort 123



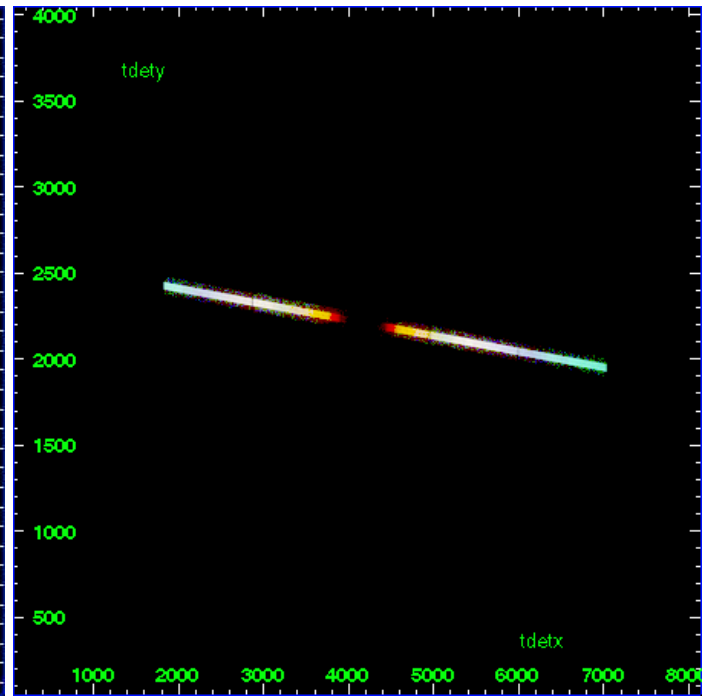
HEG Zero Order



HEG Order Sort ALL

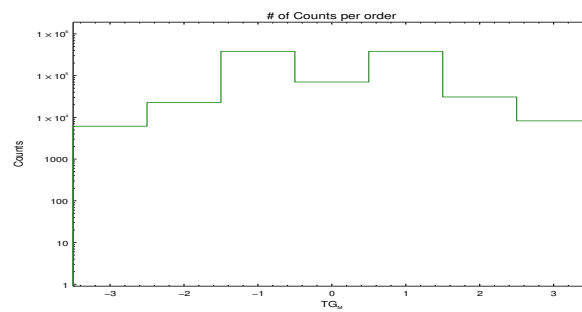


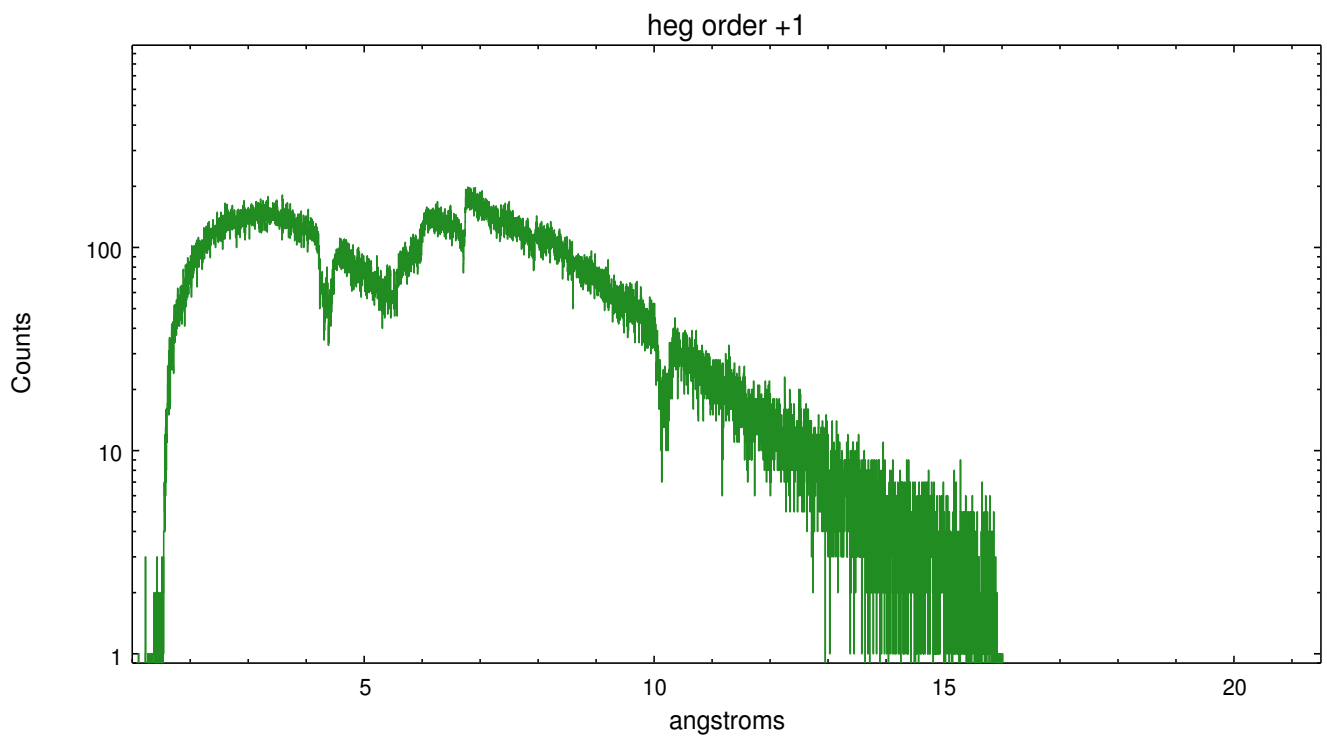
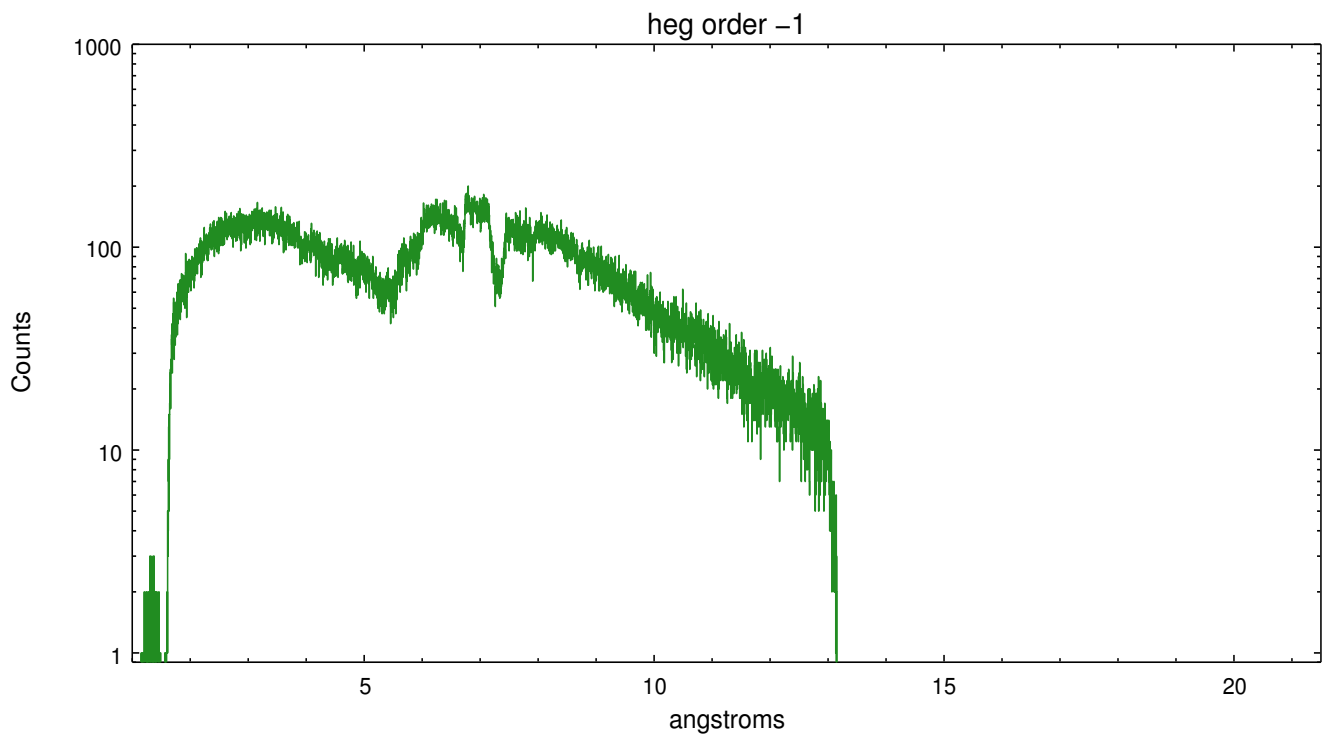
Spot Image HEG



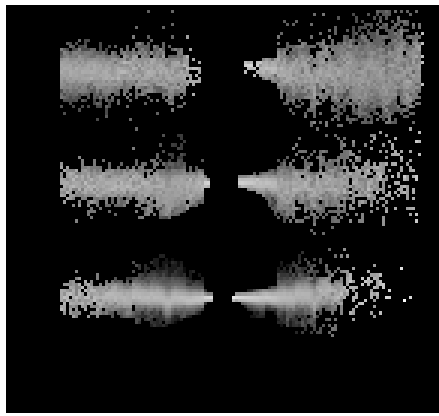
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	6129	22726	381939	70237	381510	30805	8234

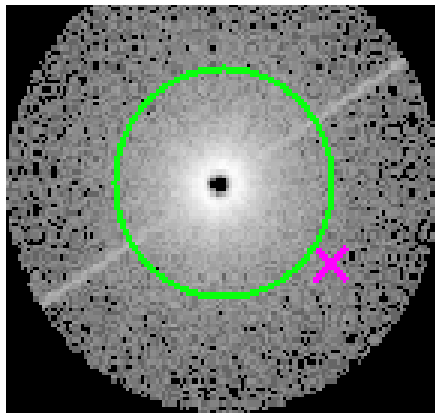




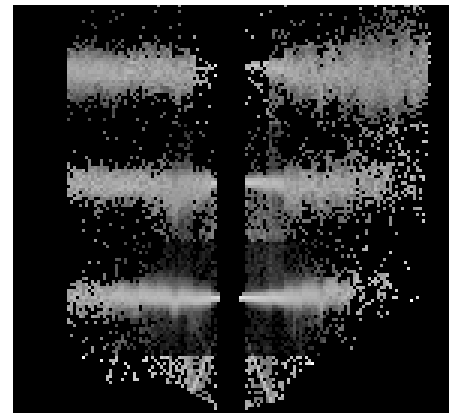
3.2 MEG Arm



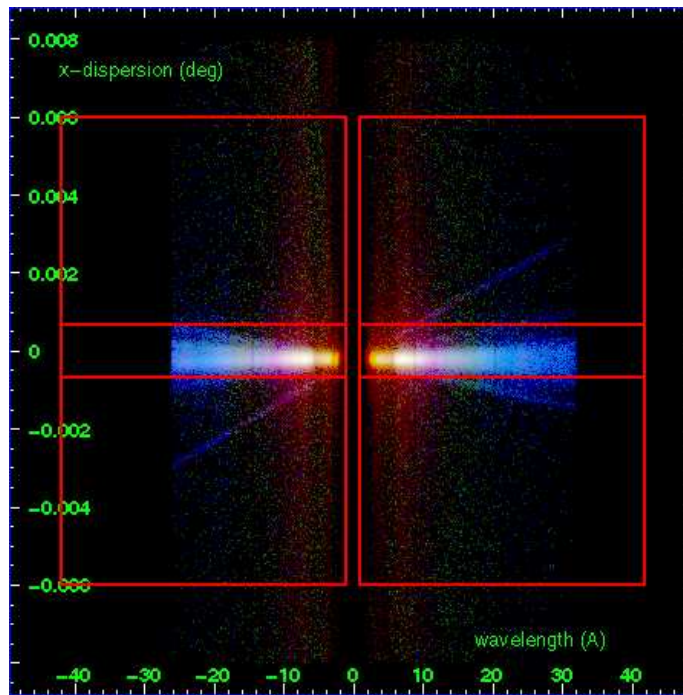
MEG Order Sort 123



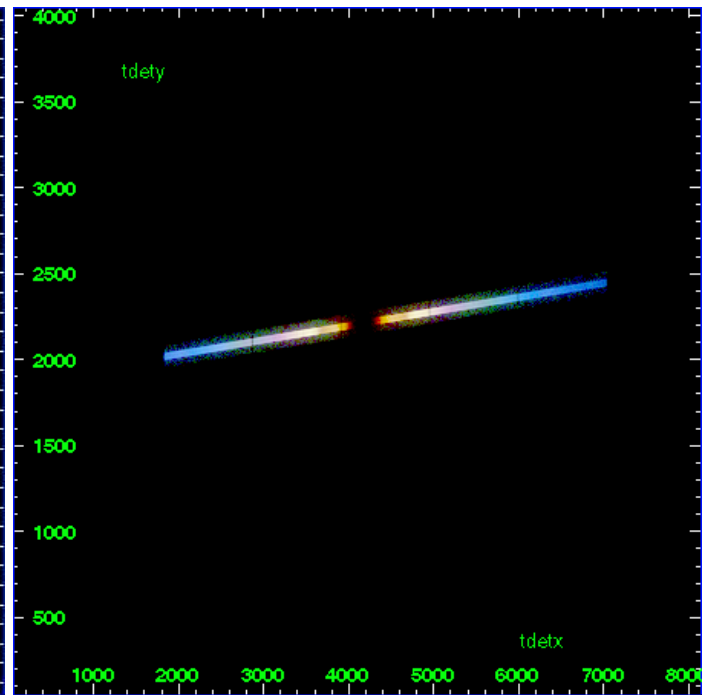
MEG Zero Order



MEG Order Sort ALL

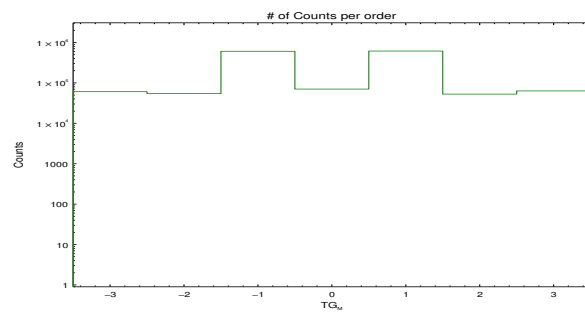


Spot Image MEG

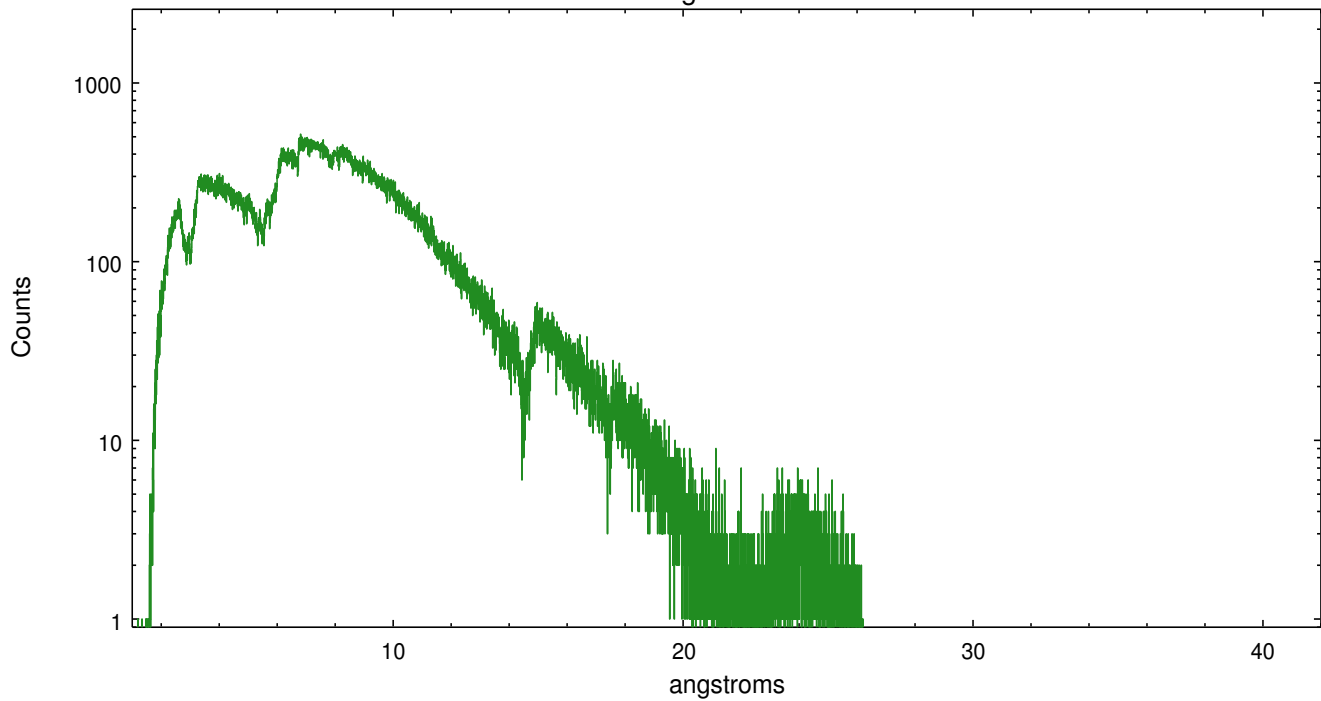


Full Detector MEG

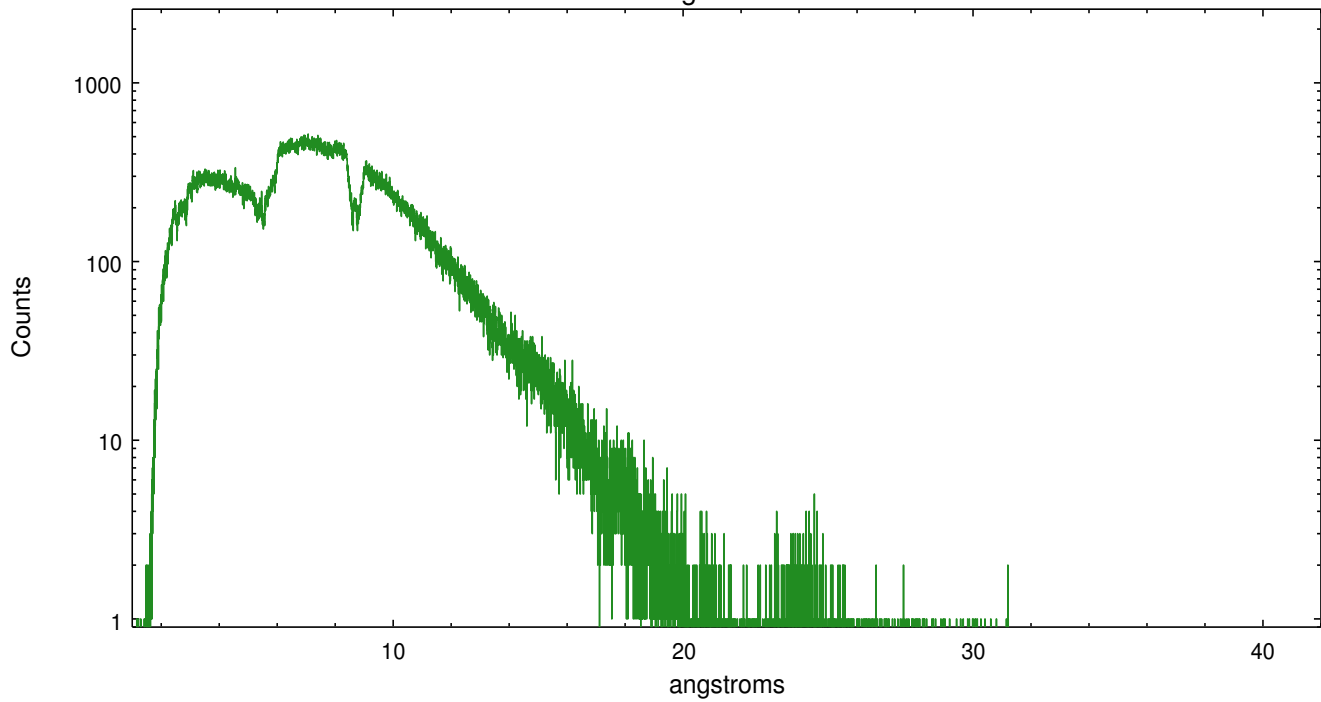
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	60707	54453	604275	70237	613671	52750	63301



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	John Houck
V&V Date (YYYY-MM-DD)	2009.12.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.776

A.2 Comments