

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5888 - L2 Version 4
Chandra X-Ray Center

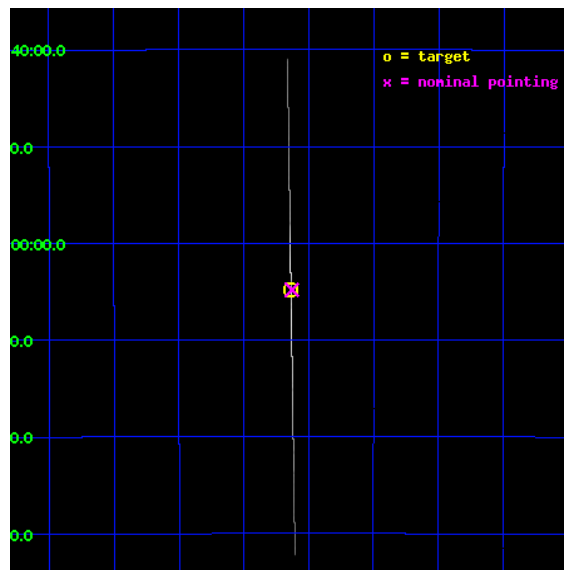
L2 Processing Date : Dec 31 2012

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1 Front

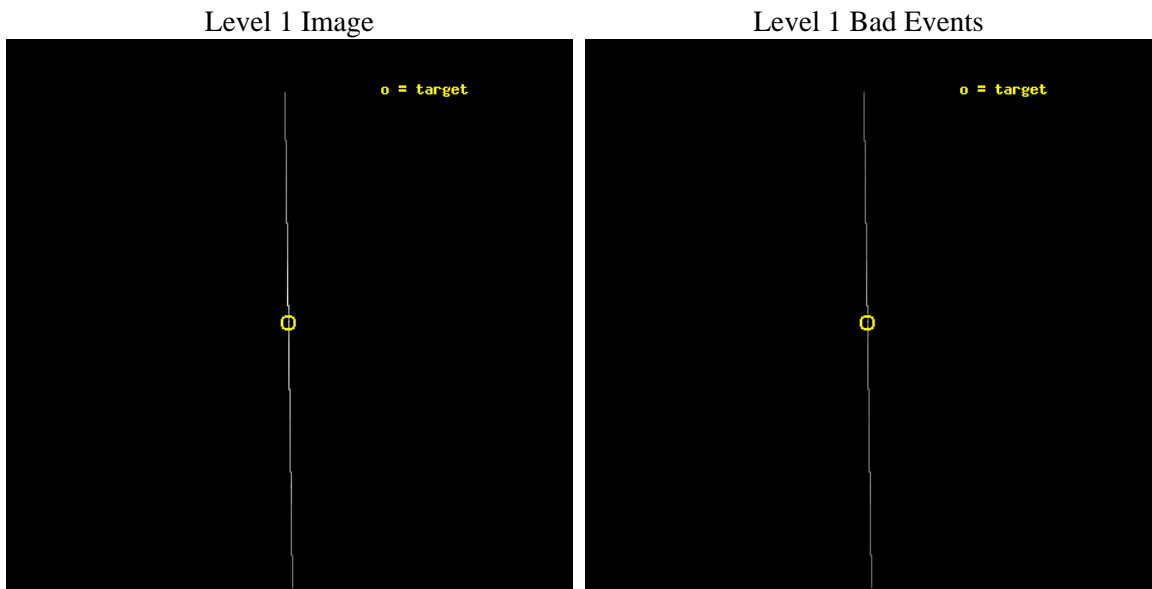
seq_num	900388	Sequence number
obs_id	5888	Observation id
title	Measuring X-ray Absorption Fine Structures of Interstellar Grains	
observer	Prof Claude Canizares	Principal investigator
object	GX 5-1	Source name
ra_targ	270.284167	Observer's specified target RA [deg]
dec_targ	-25.079167	Observer's specified target Dec [deg]
ra_nom	270.28230178855	Nominal RA [deg]
dec_nom	-25.080391679519	Nominal Dec [deg]
roll_nom	269.08929500473	Nominal Roll [deg]
revision	4	Processing version of data
ontime	45157.0	Sum of GTIs [s]
livetime	44980.60546875	Livetime [s]
ontime4	45157.0	Sum of GTIs [s]
ontime5	45157.0	Sum of GTIs [s]
ontime6	45157.0	Sum of GTIs [s]
ontime7	45157.0	Sum of GTIs [s]
ontime8	45157.0	Sum of GTIs [s]
ontime9	45157.0	Sum of GTIs [s]
l2events	8968809	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	45157.0	Sum of GTIs [s]
caldbver	4.5.5	 	ontime4	45157.0	Sum of GTIs [s]
date	2012-12-30T23:26:59	Date and time of file creation	ontime5	45157.0	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	45157.0	Sum of GTIs [s]
			ontime7	45157.0	Sum of GTIs [s]
			ontime8	45157.0	Sum of GTIs [s]
			ontime9	45157.0	Sum of GTIs [s]
			l1events	9840533	Number of level 1 events

2.1.3 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	170820	649314	3378570	4859620	582720	199489	grade 0 events	10962	84865	1749626	694136	247525	28566
rejected events	15755	41973	62655	147132	29331	19117		6%	13%	51%	14%	42%	14%
rejected %	9%	6%	1%	3%	5%	9%	grade 1 events	263	409	7534	11395	1084	319
								0%	0%	0%	0%	0%	0%
							grade 2 events	104092	236017	987556	1328720	194900	107833
								60%	36%	29%	27%	33%	54%
							grade 3 events	9187	17914	137962	419606	27394	9025
								5%	2%	4%	8%	4%	4%
							grade 4 events	9344	17347	136854	418658	26651	9883
								5%	2%	4%	8%	4%	4%
							grade 5 events	13644	33059	33926	104146	23235	16699
								7%	5%	1%	2%	3%	8%
							grade 6 events	23328	259703	325112	1882959	61931	27164
								13%	39%	9%	38%	10%	13%
							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	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	270.267333	270.2823017885485	Subarray requested	NONE	NONE
[deg] Pointing Dec	-25.056769	-25.08039167951874	Alternating exposures requested	N	N
[deg] Pointing Roll	268.926332	269.0892950047286	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-178.832523	-178.8357044540581			
[mm] SIM translation stage offset	-11.3	-11.2968181289497			
[s] Observation start time (MET)	247026283.184000	247025098.91473			
Observation start date	2005-10-30T02:23:39	2005-10-30T02:04:58			
[s] Observation end time (MET)	247071283.184000	247072465.70441			
Observation end date	2005-10-30T14:53:39	2005-10-30T15:14:25			
Read mode	CONTINUOUS	CONTINUOUS			

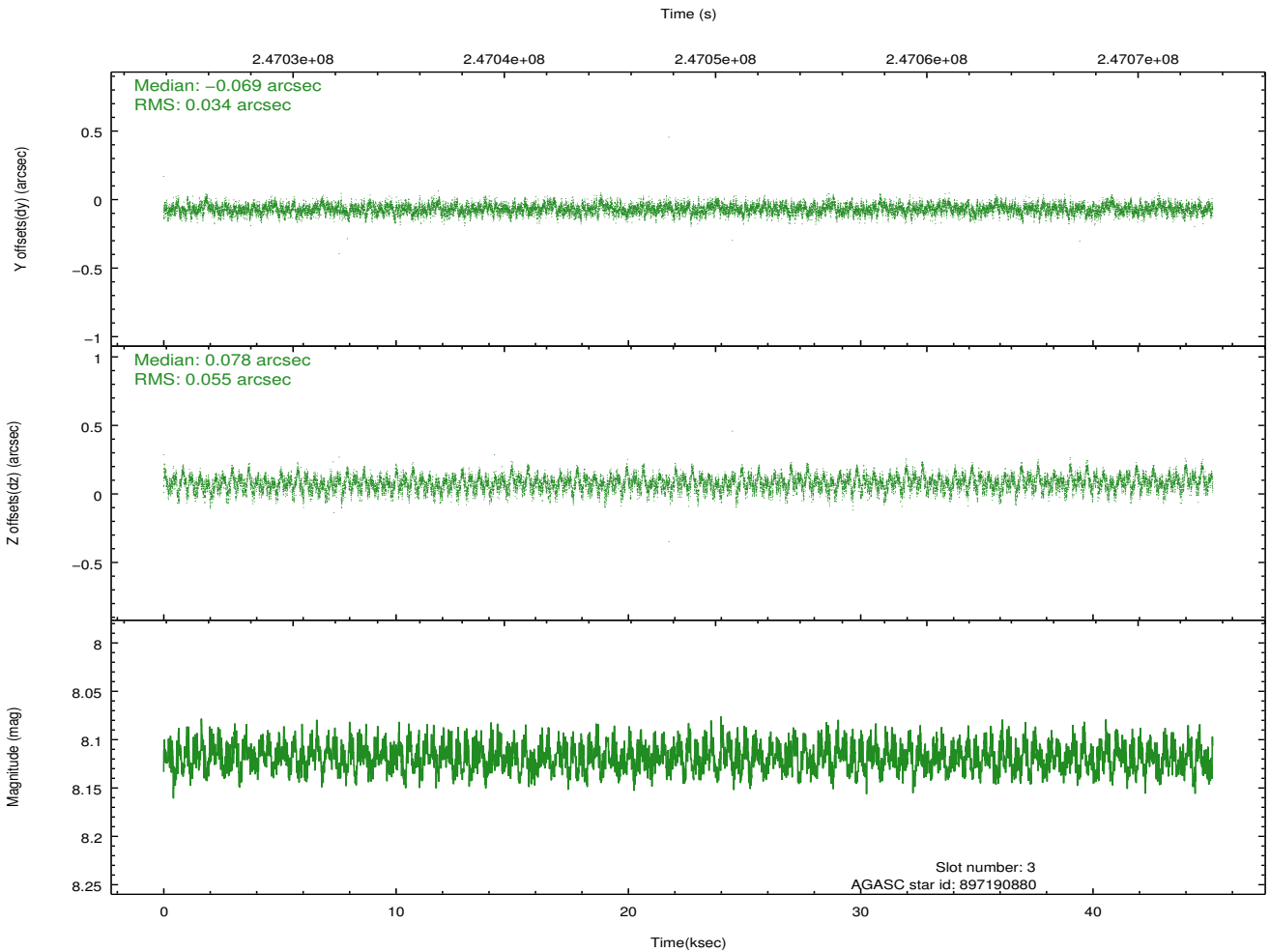
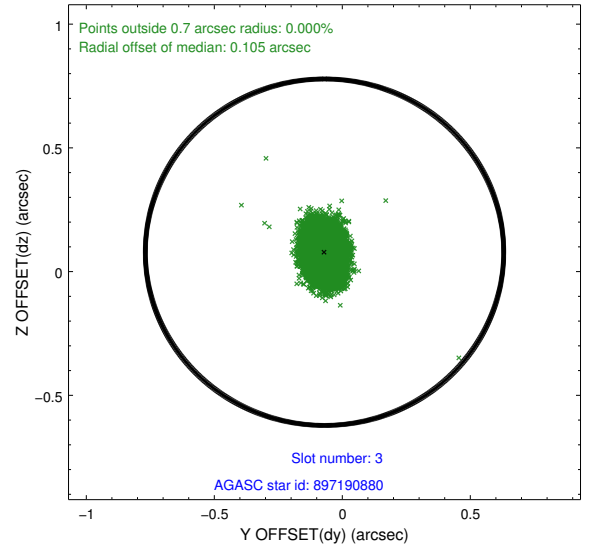
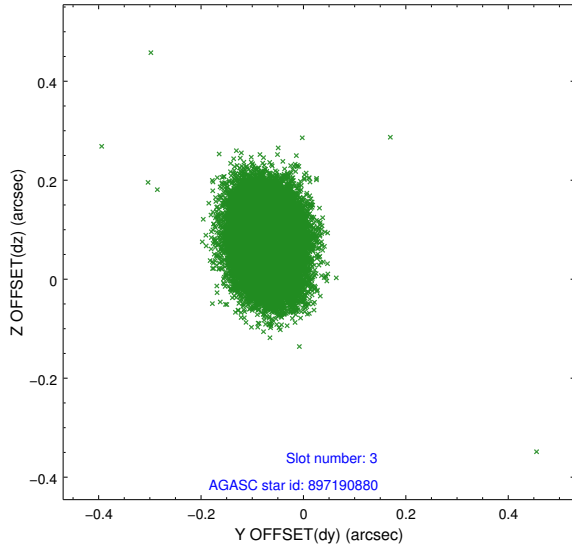
2.3 Aspect

Slot Statistics

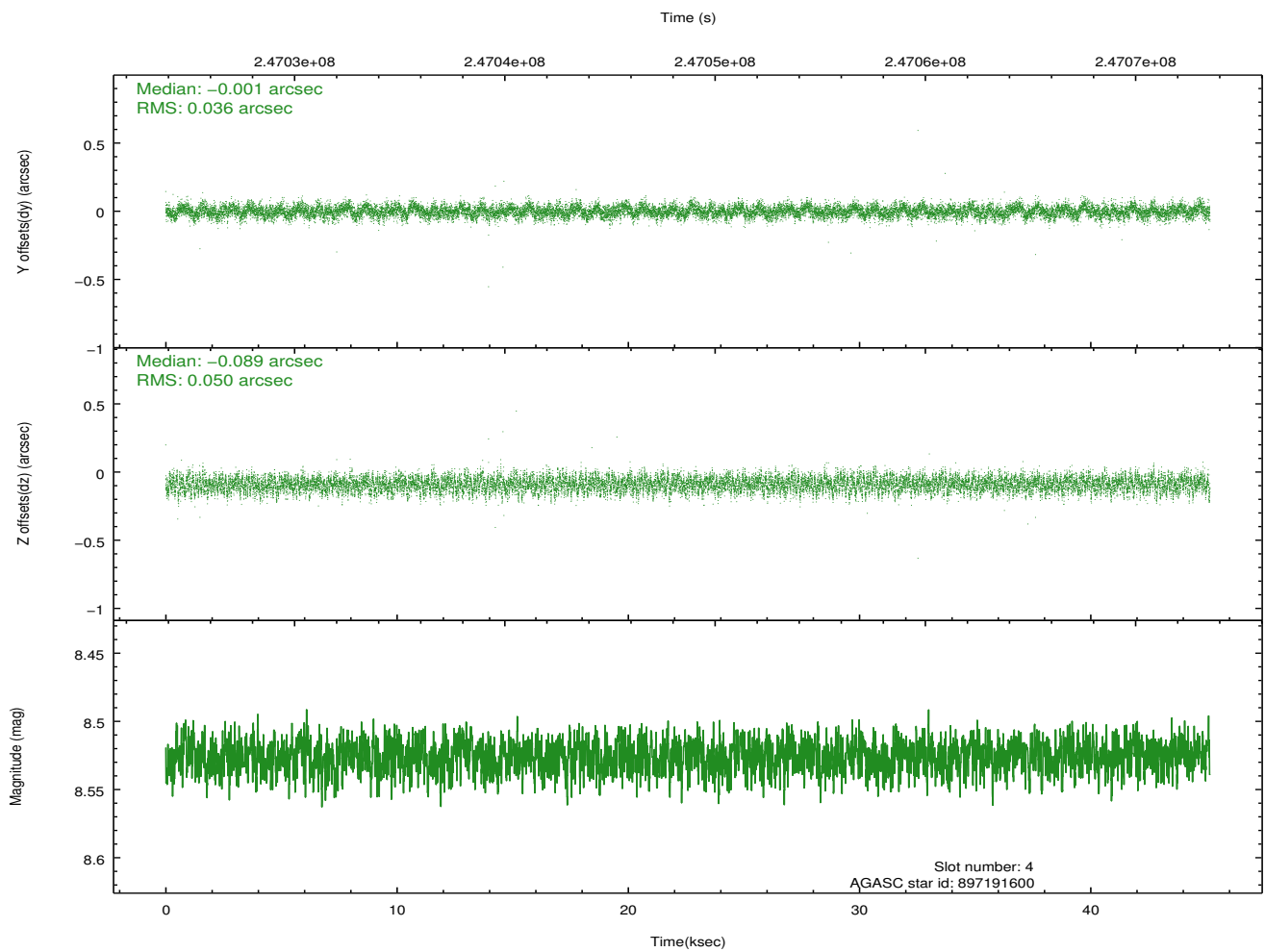
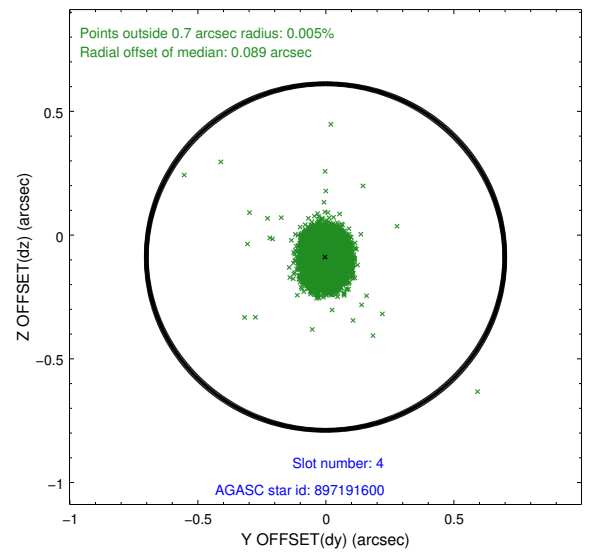
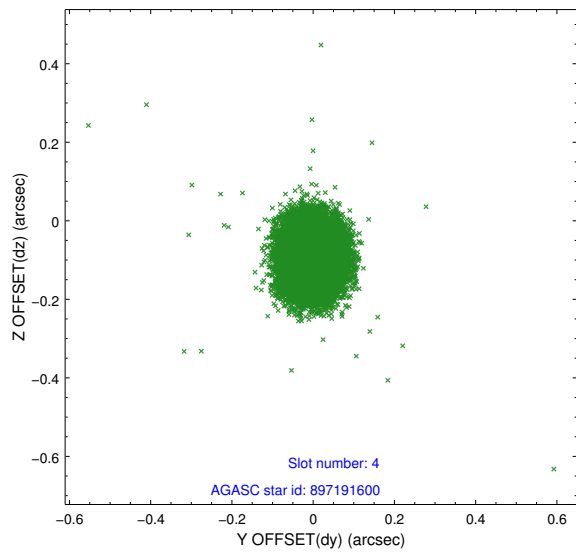
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	11015	0.101	0.088	0.010	0.027	0.000000	0.000000	936.93	-1961.28
1	FID	ACIS-S-5	7.24	11015	-0.105	0.119	0.010	0.037	0.000000	0.000000	-1812.20	-63.60
2	FID	ACIS-S-6	7.42	11015	-0.017	-0.196	0.009	0.032	0.000000	0.000000	402.48	579.93
3	GUIDE	897190880	8.12	22027	-0.069	0.078	0.067	0.115	269.584058	-25.142408	356.11	-2220.29
4	GUIDE	897191600	8.53	22010	-0.001	-0.089	0.064	0.104	269.999842	-25.086611	125.10	-870.11
5	GUIDE	897323472	8.48	22021	-0.053	0.007	0.078	0.120	270.860121	-25.266503	723.10	1943.92
6	GUIDE	897324960	7.64	22027	-0.190	-0.199	0.059	0.092	270.333871	-24.632185	-1532.13	188.83
7	GUIDE	897322760	8.56	22024	0.312	0.201	0.059	0.096	270.988015	-25.669699	2169.69	2379.80

2.4 Star Slots

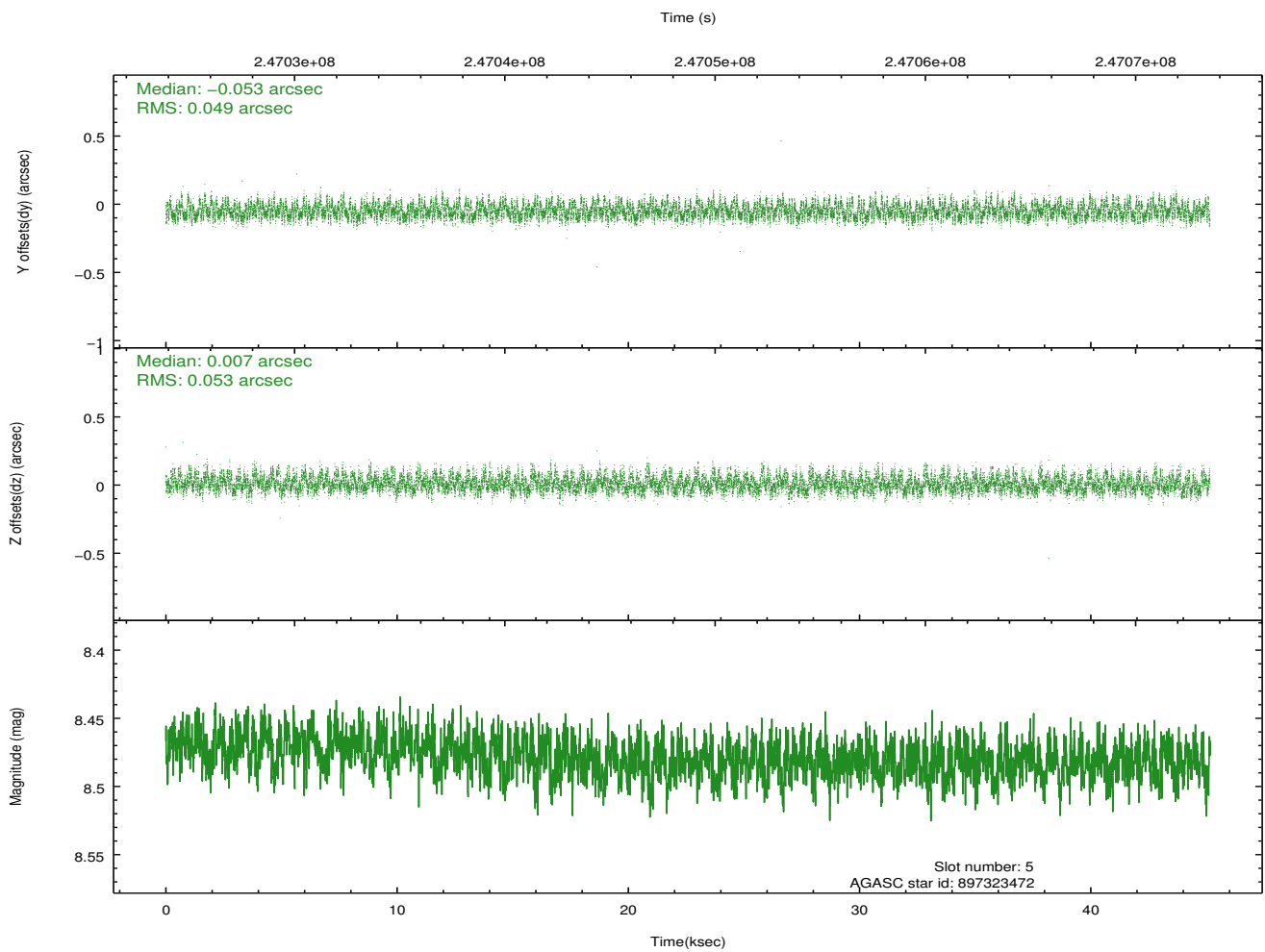
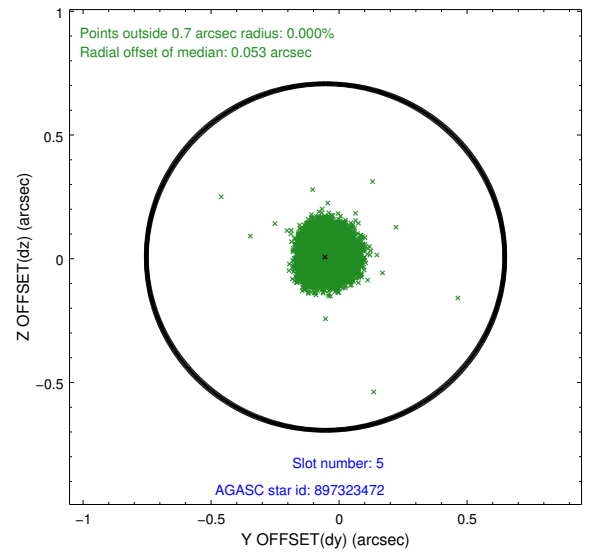
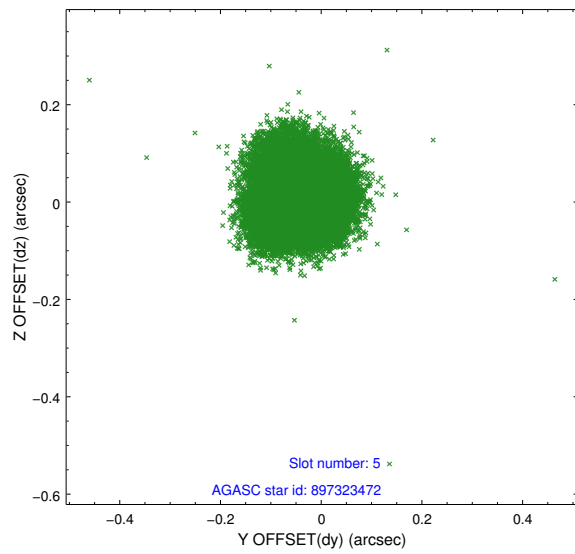
2.4.1 Slot 3



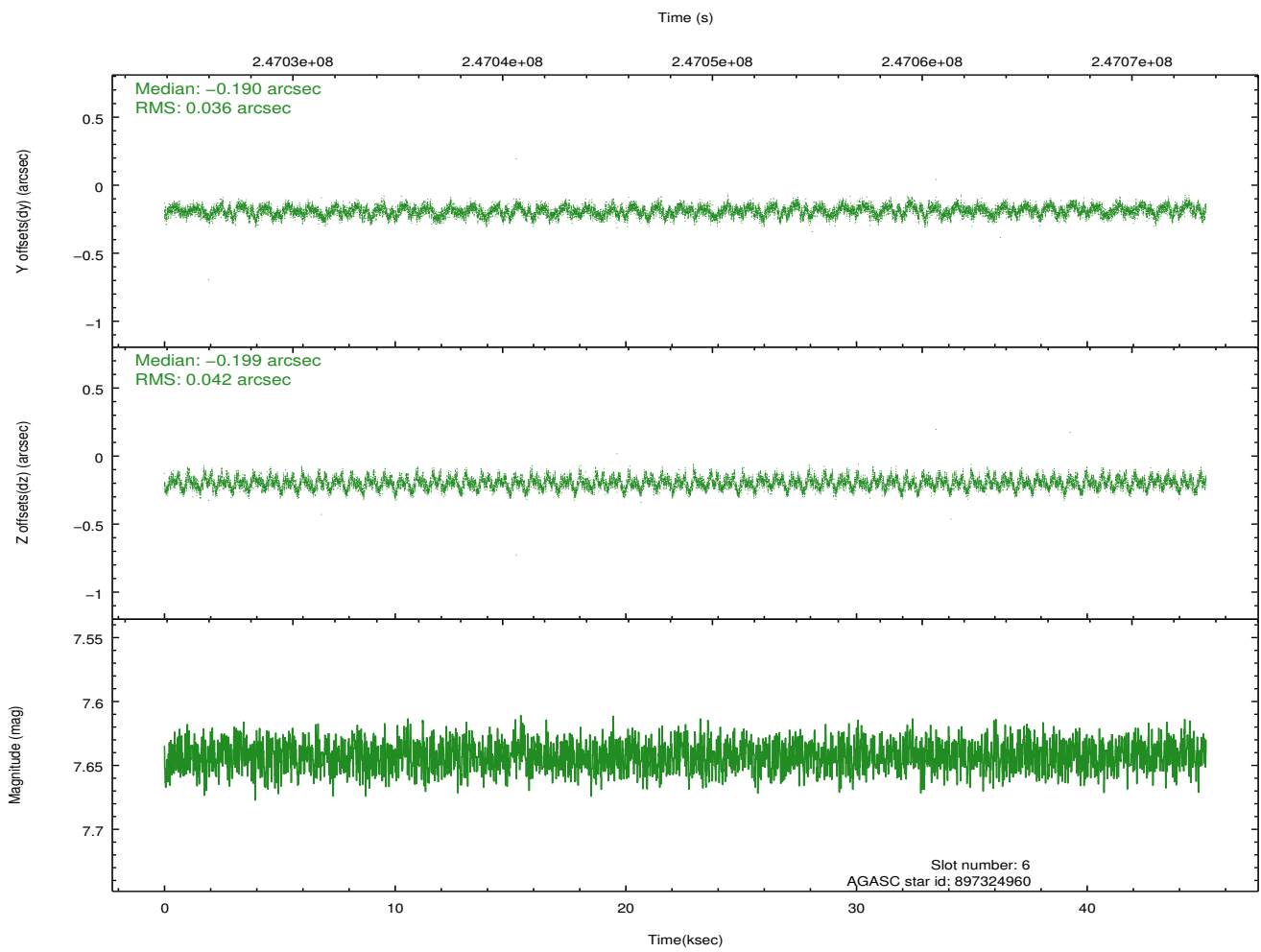
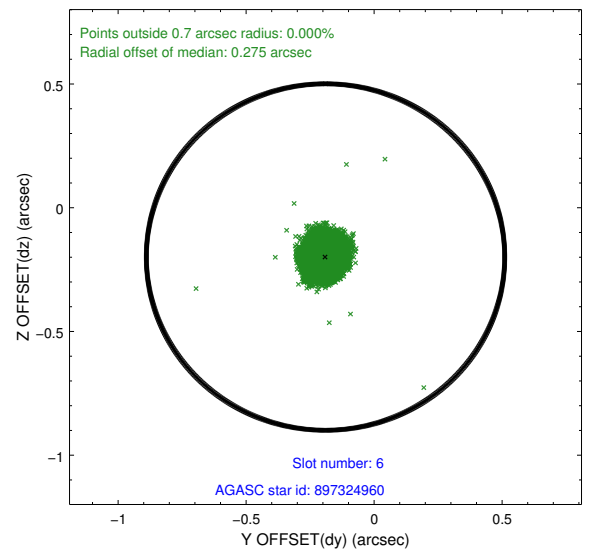
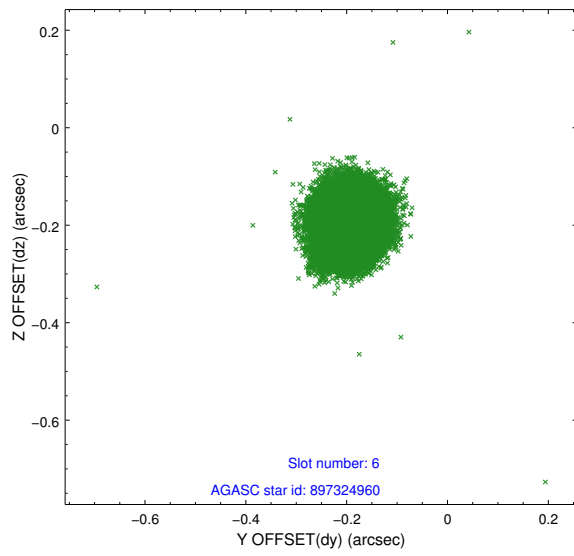
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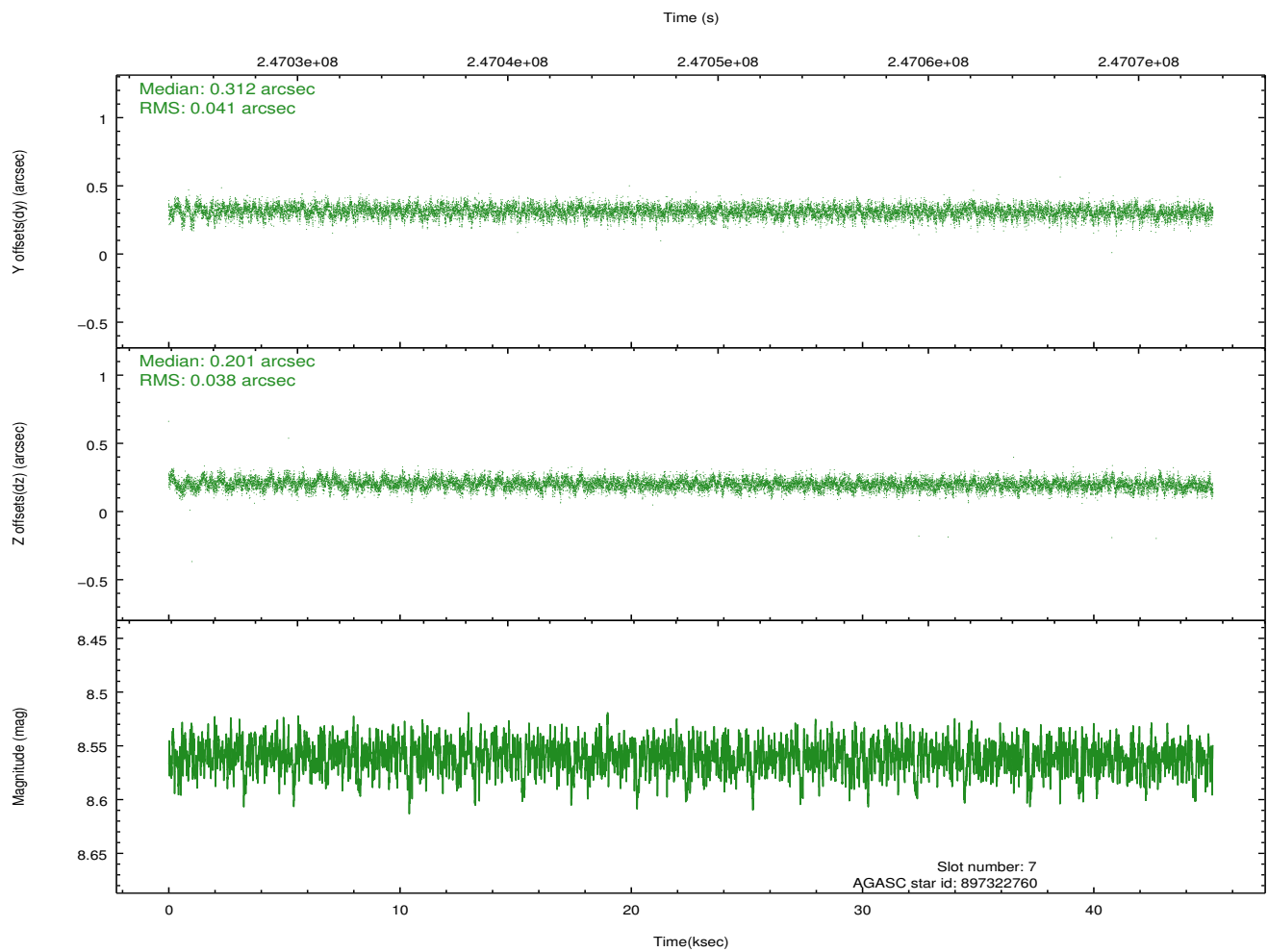
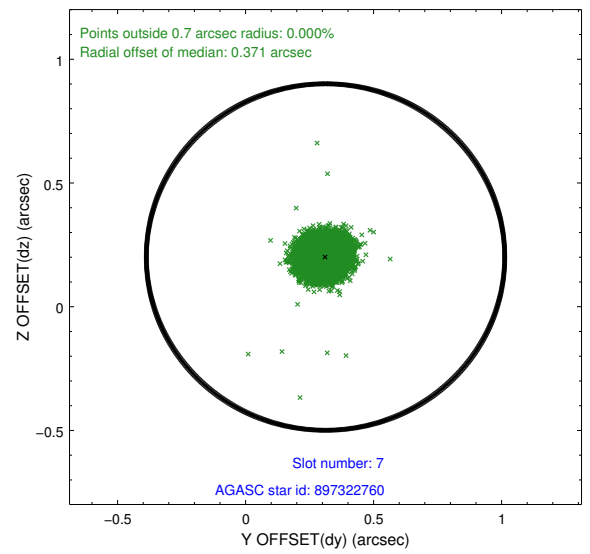
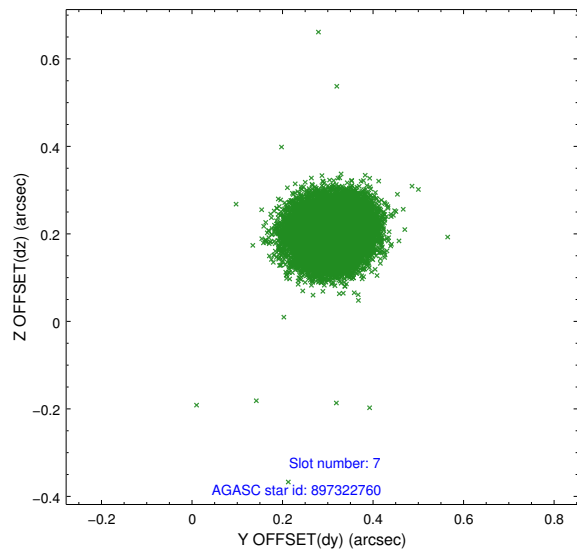
2.4.3 Slot 5



2.4.4 Slot 6

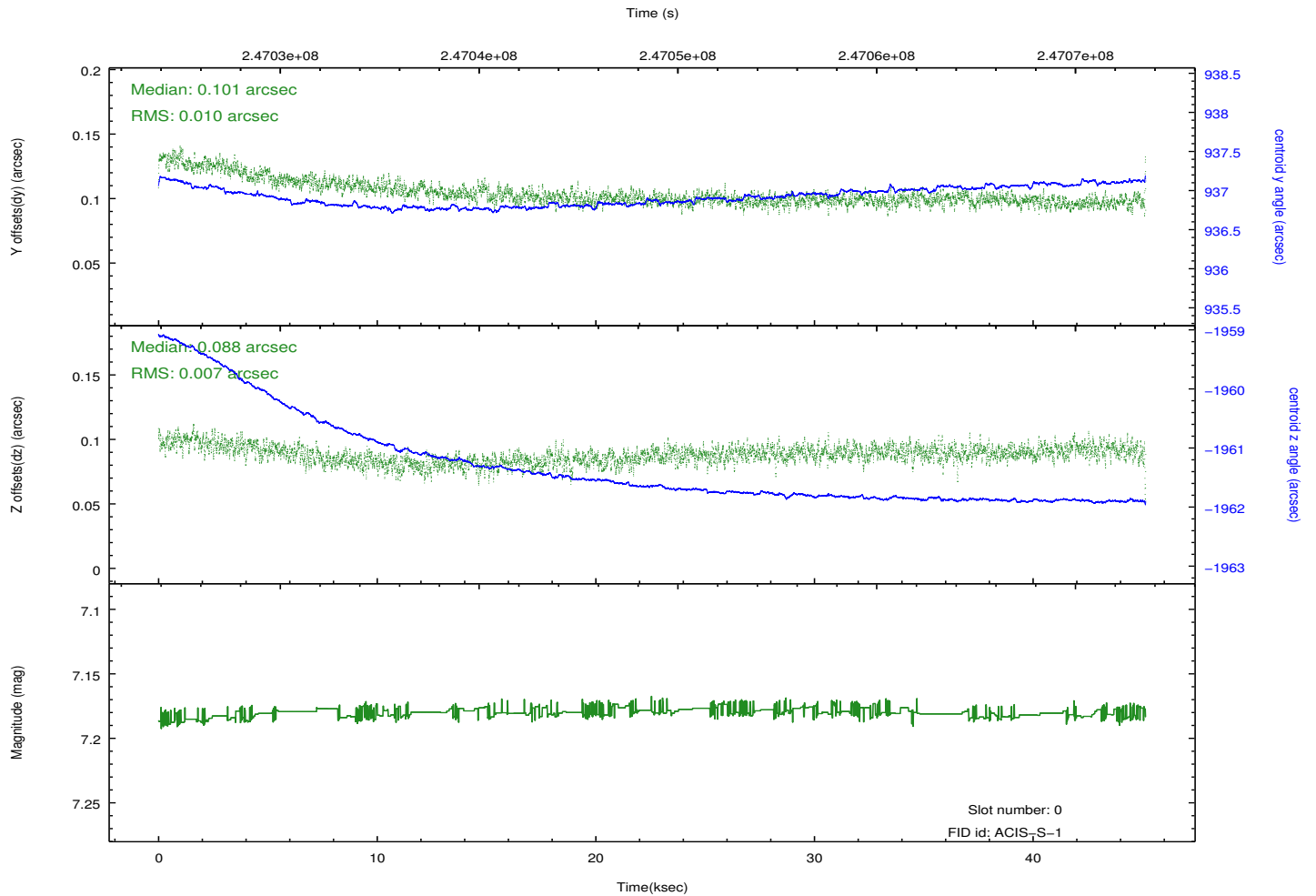
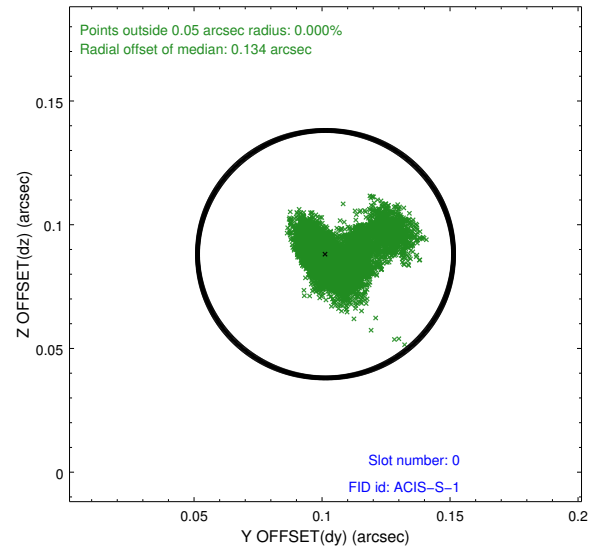
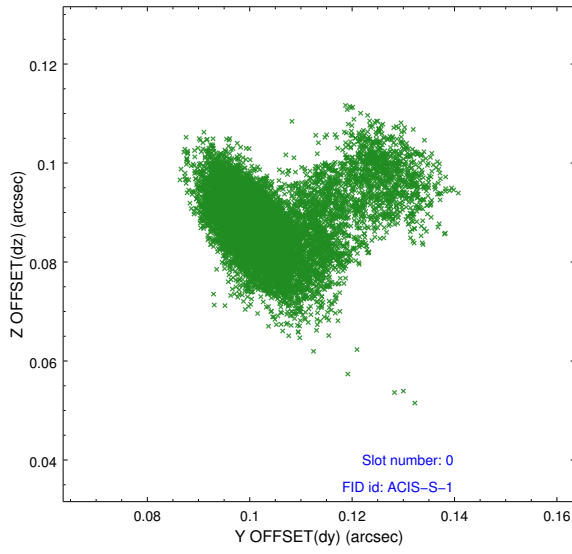


2.4.5 Slot 7

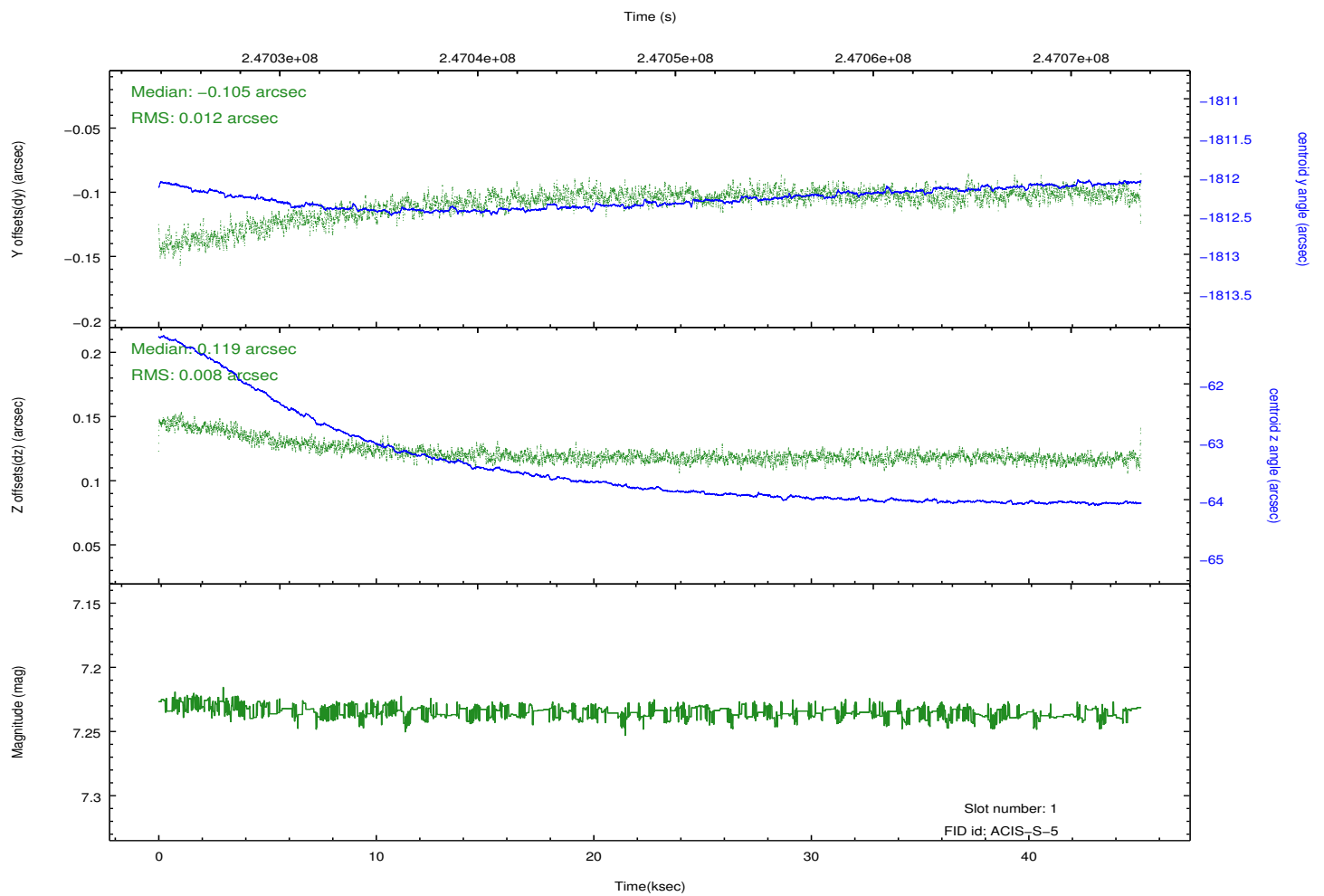
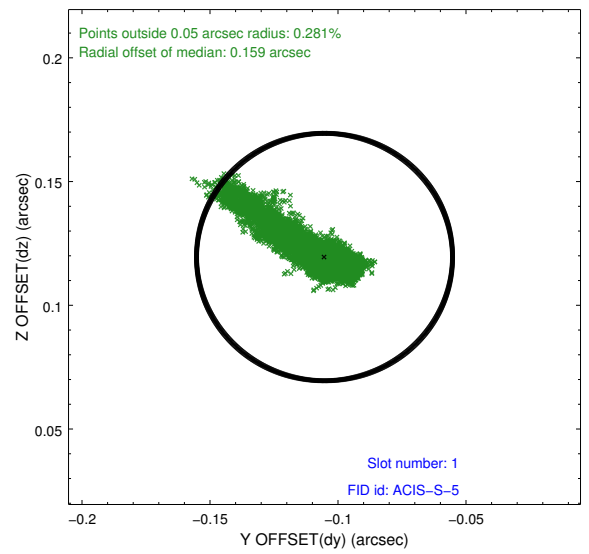
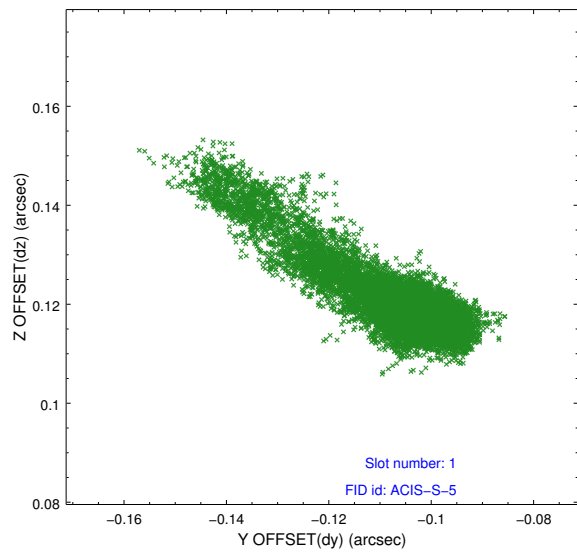


2.5 FID Slots

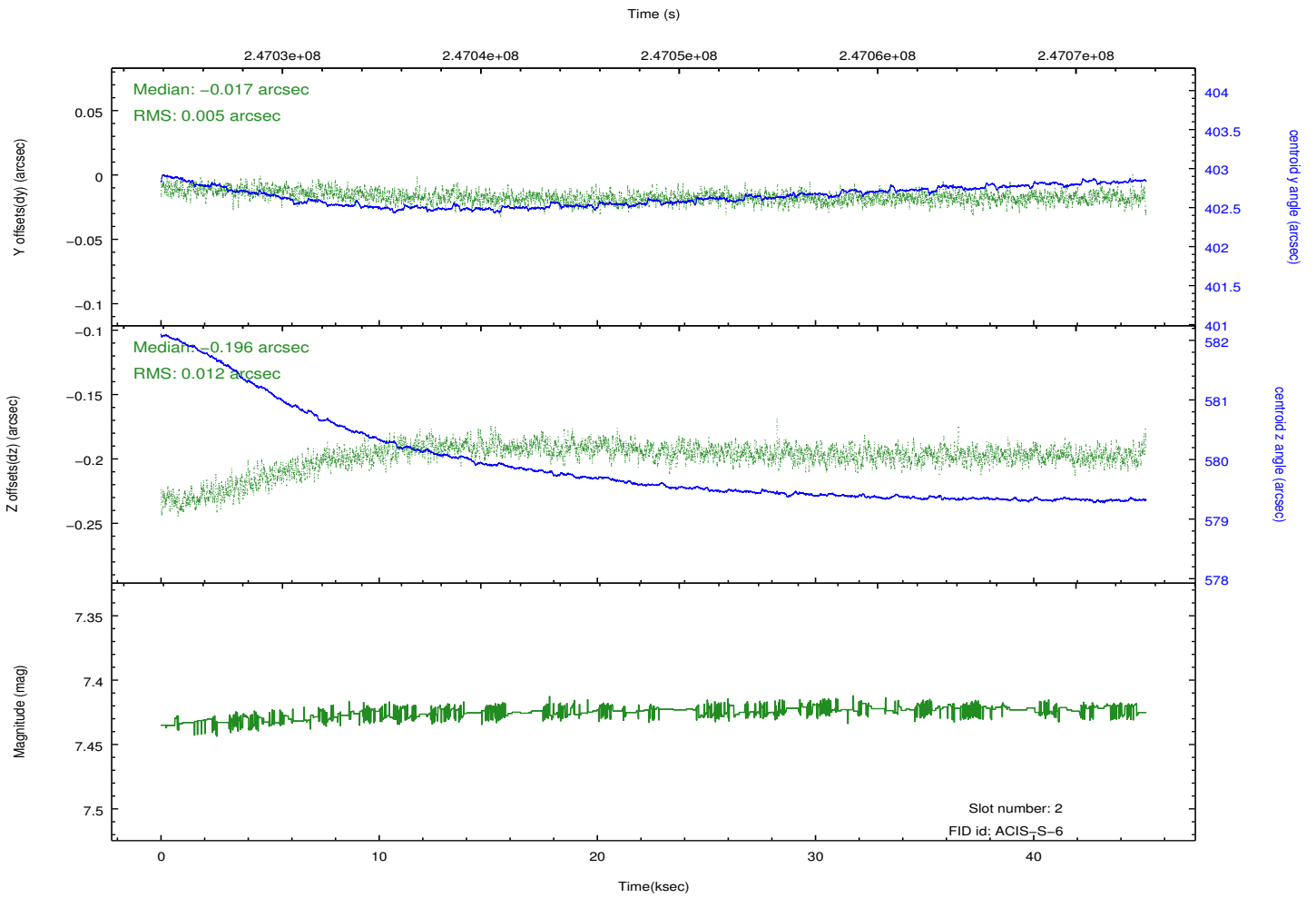
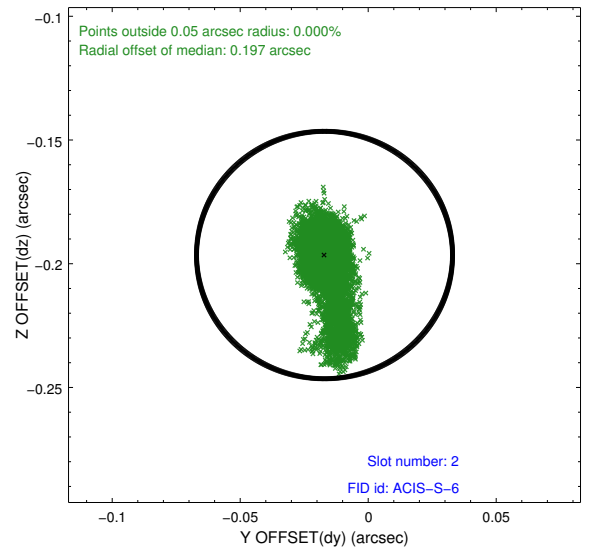
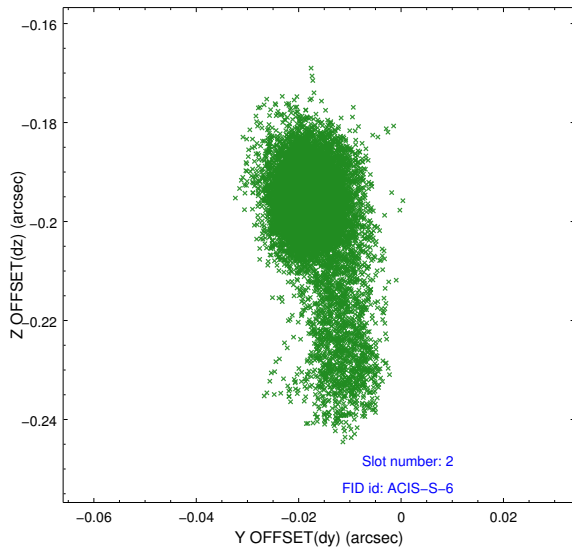
2.5.1 Slot 0



2.5.2 Slot 1

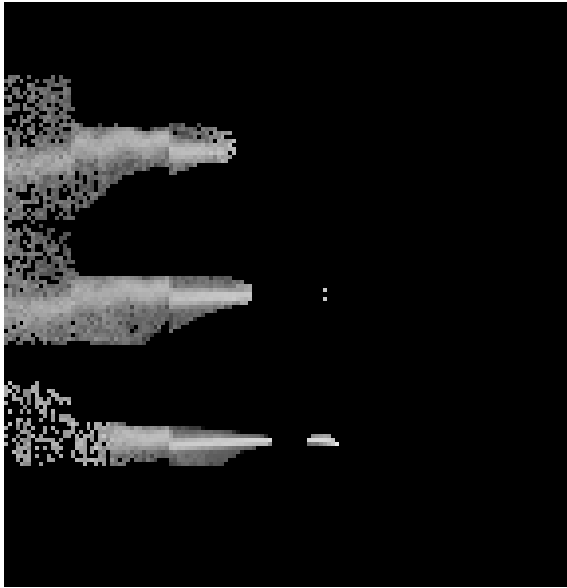


2.5.3 Slot 2

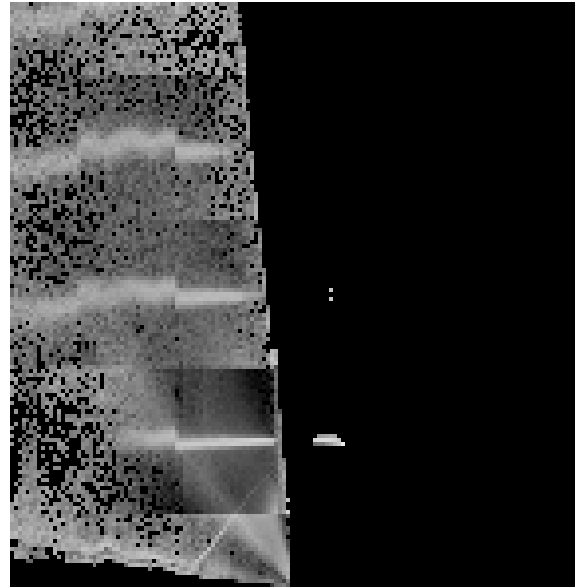


3 Gratings

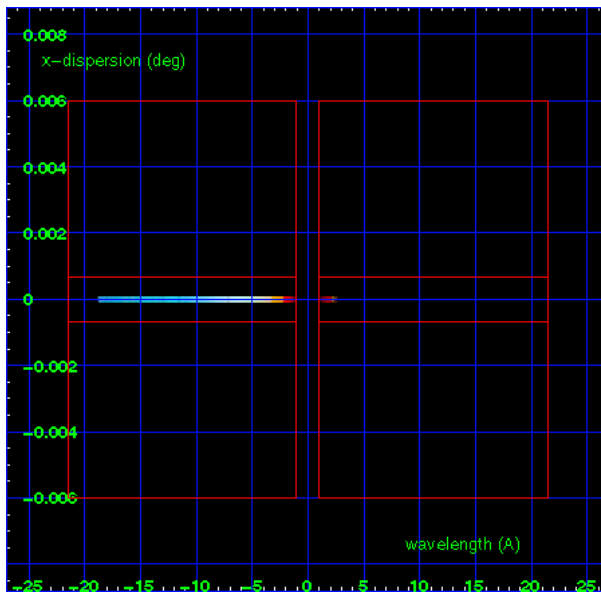
3.1 HEG Arm



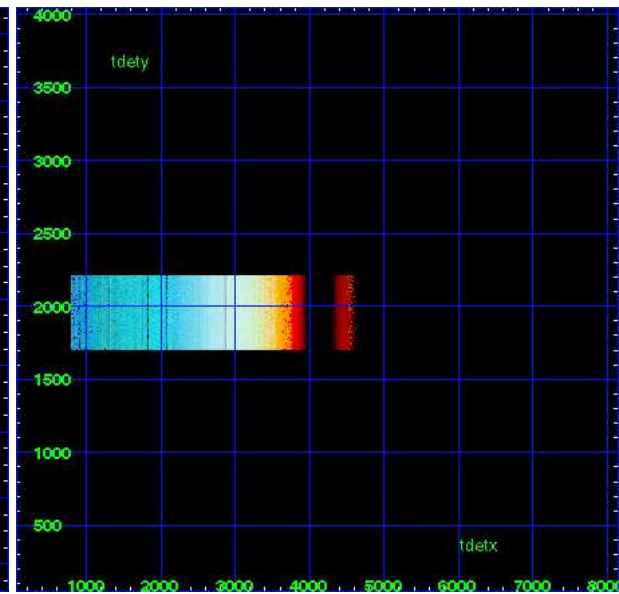
HEG Order Sort 123



HEG Order Sort ALL

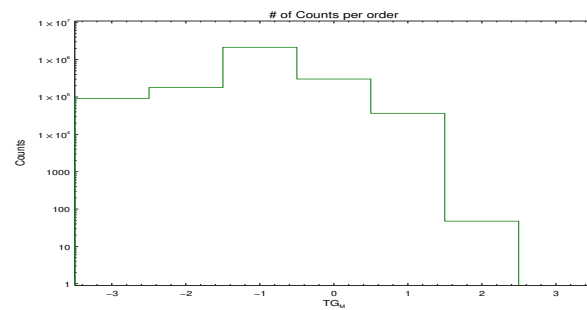


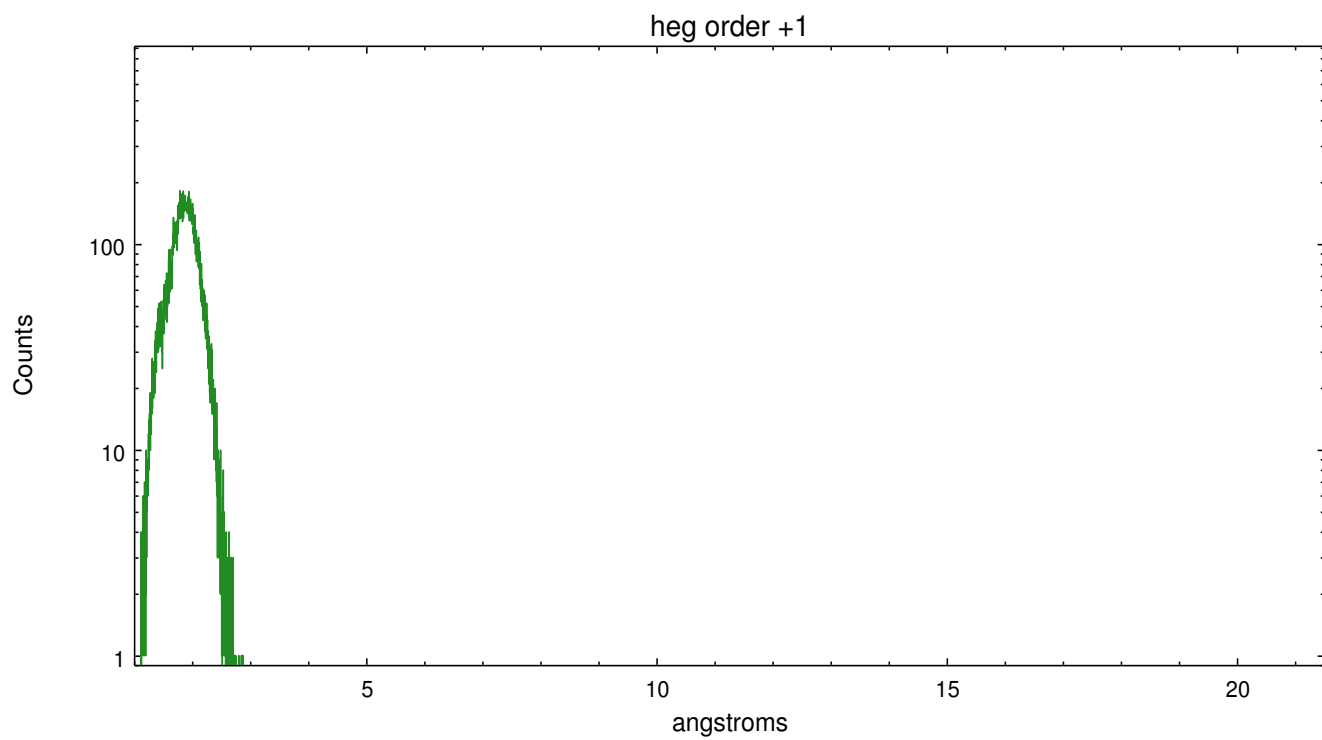
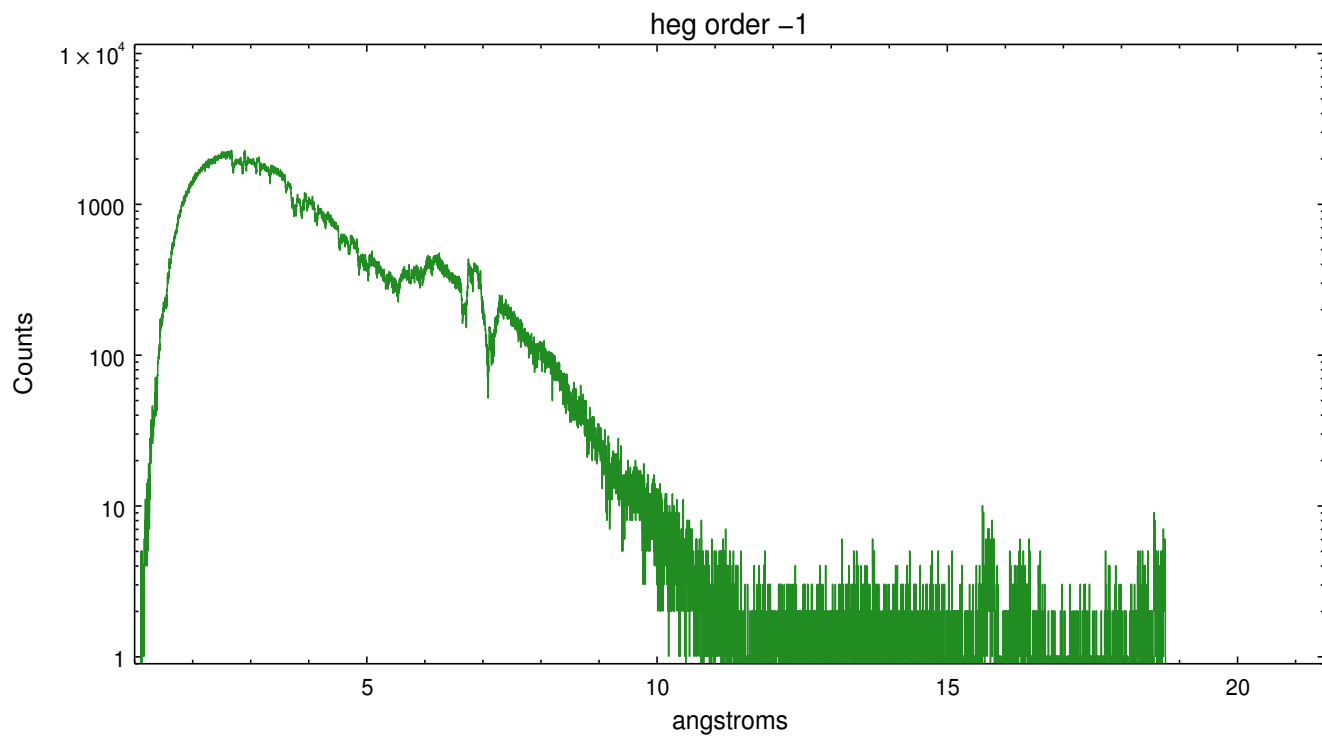
Spot Image HEG



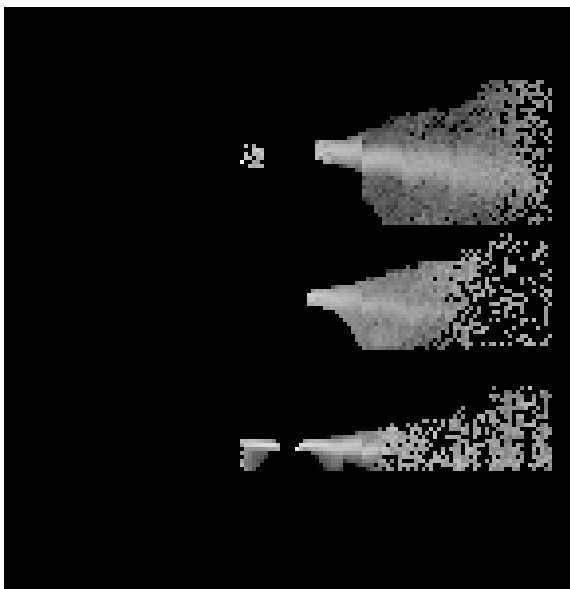
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	91775	180721	2161924	304843	36626	47	0

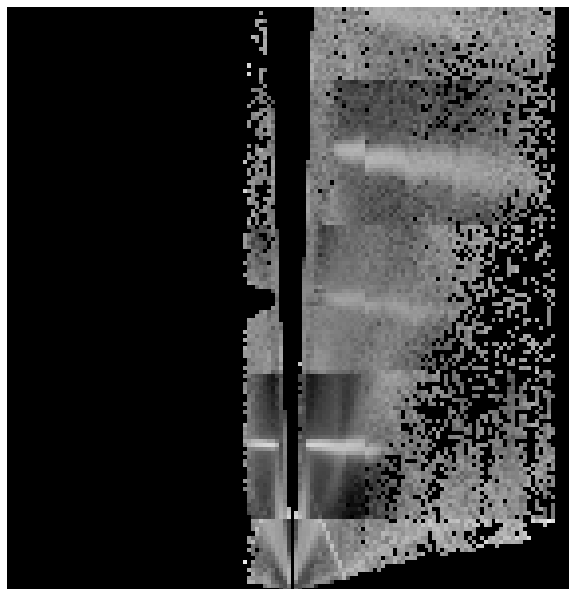




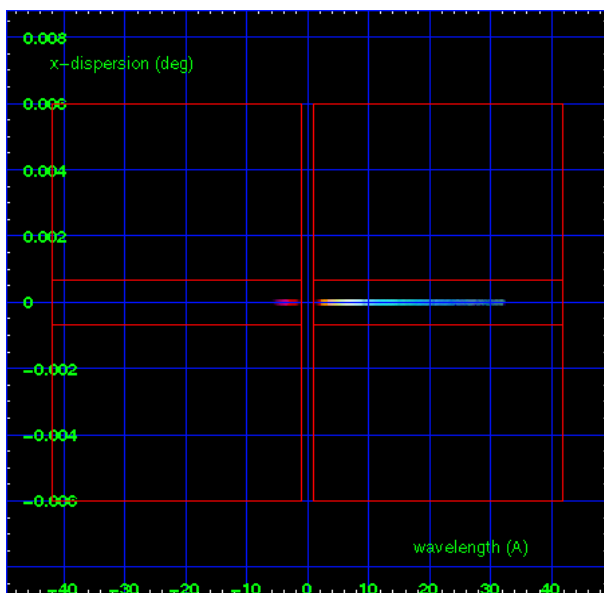
3.2 MEG Arm



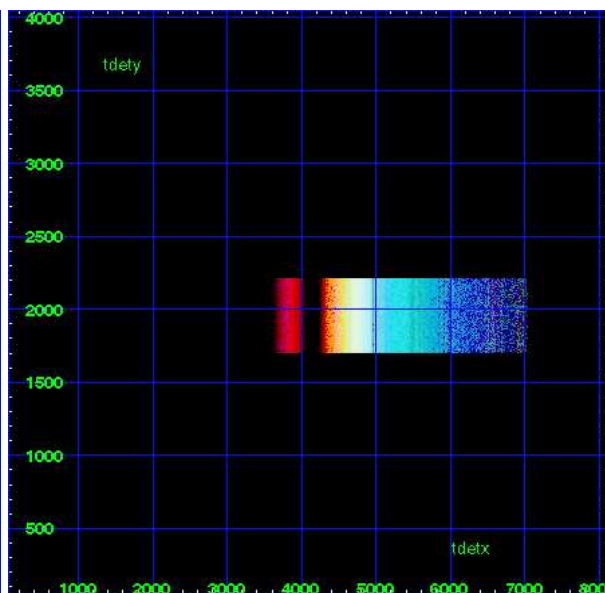
MEG Order Sort 123



MEG Order Sort ALL

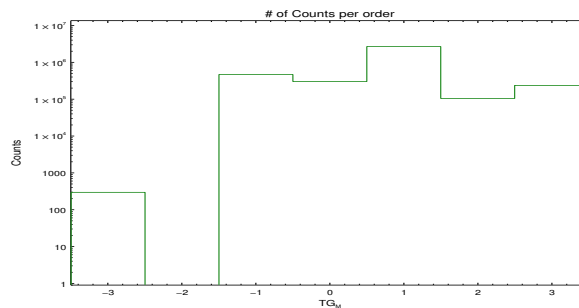


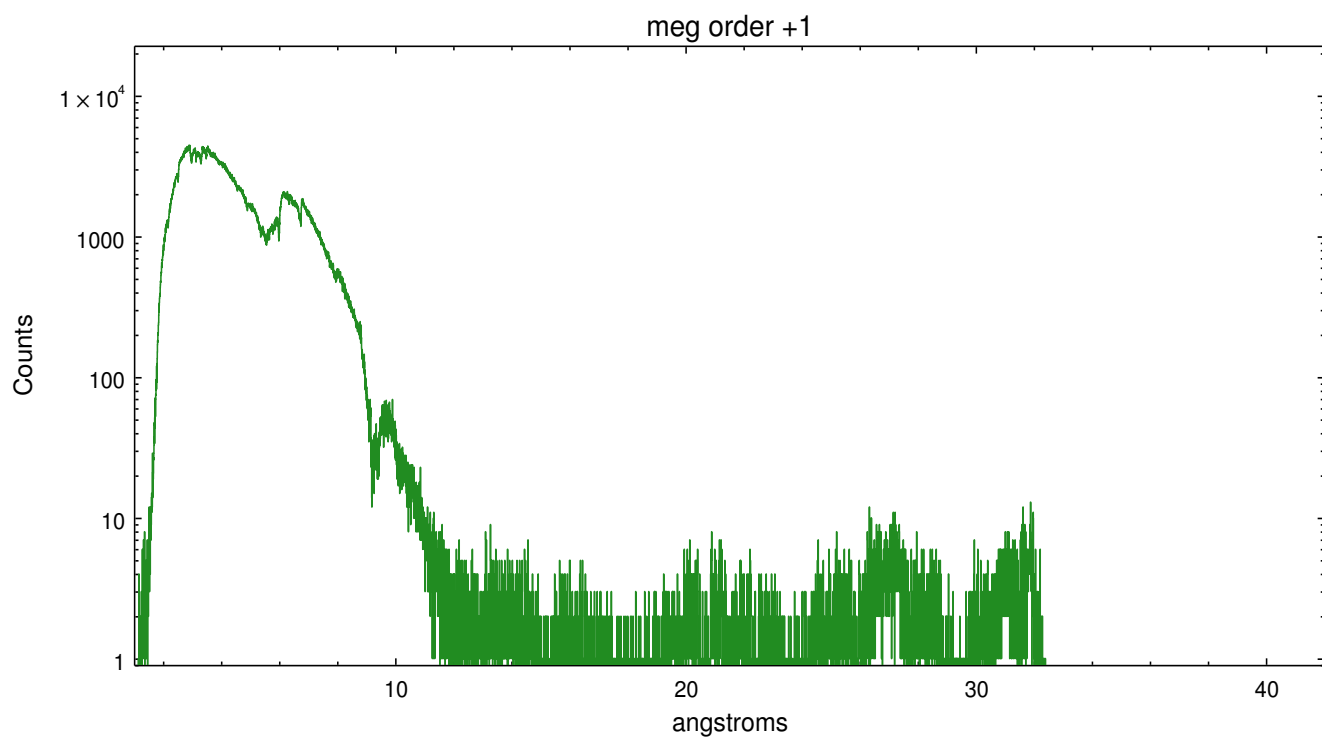
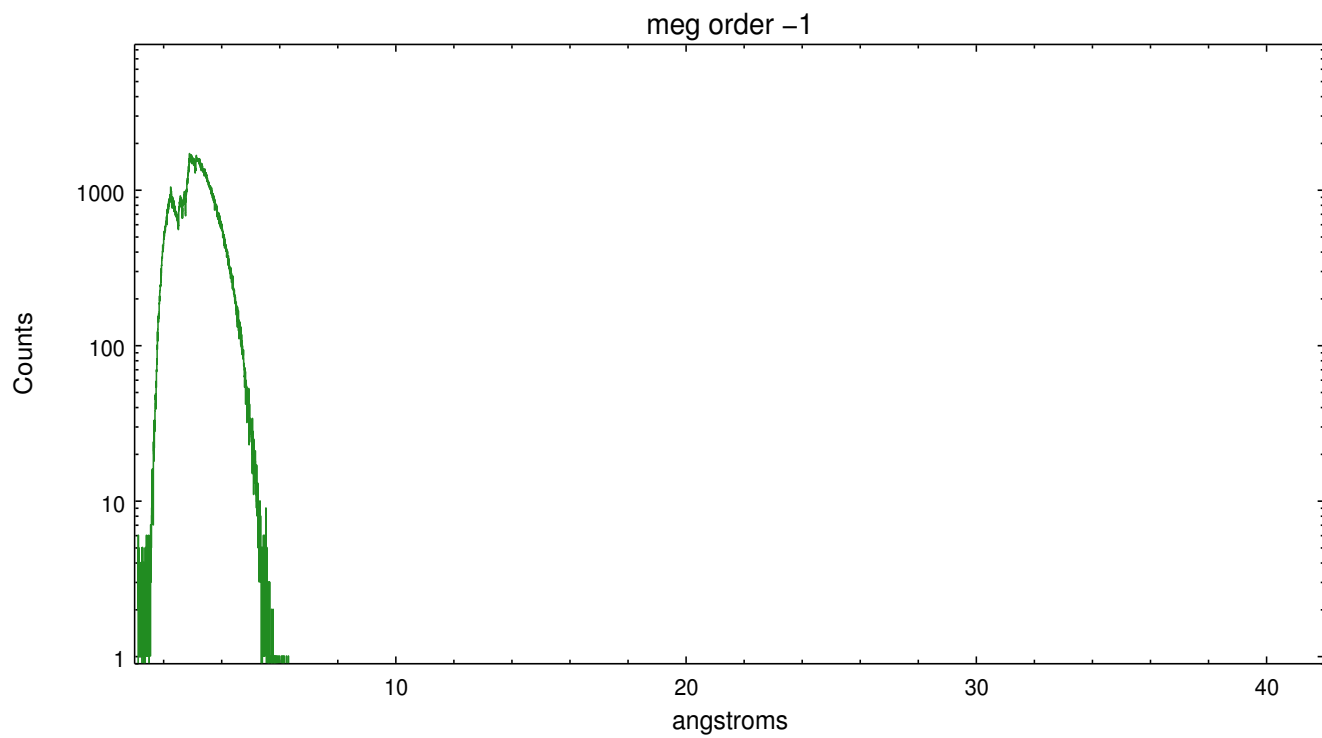
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	295	0	470919	304843	2709928	105717	238525





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2013.01.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.157

A.2 Comments

Source near edge of array, such that HEG positive and MEG negative orders are off the detector (to remove grating/order confusion in CC-mode).