

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1017 - L2 Version 3  
Chandra X-Ray Center

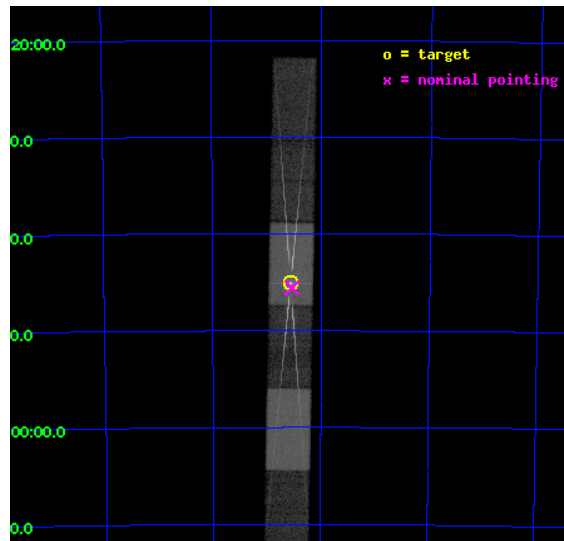
L2 Processing Date : Sep 15 2012

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# 1 Front

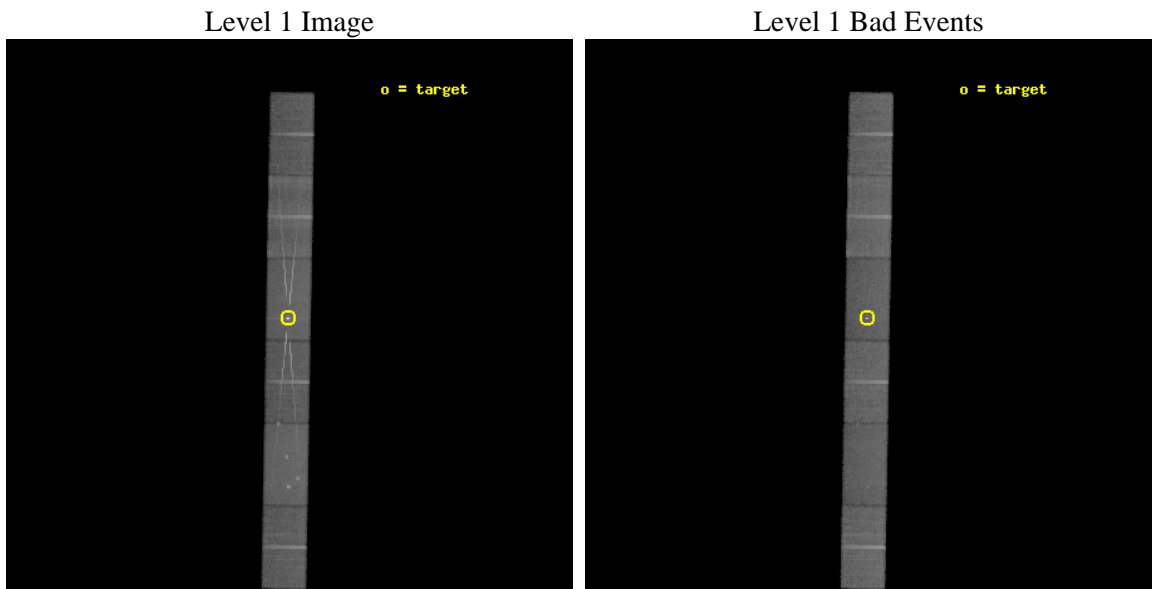
seq_num	400095	Sequence number
obs_id	1017	Observation id
title	HIGH RESOLUTION X-RAY SPECTROSCOPY OF X-RAY SPECTRA FROM THE TRANSIENT X-RAY BURST SOURCE EXO 0748-676	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	EXO 0748-676	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	117.13875	Observer's specified target RA [deg]
dec_targ	-67.75	Observer's specified target Dec [deg]
ra_nom	117.13455251611	Nominal RA [deg]
dec_nom	-67.759666920693	Nominal Dec [deg]
roll_nom	270.97614399189	Nominal Roll [deg]
revision	3	Processing version of data
ontime	49086.812404767	Sum of GTIs [s]
livetime	47992.581545529	Livetime [s]
ontime4	49086.856566891	Sum of GTIs [s]
ontime5	49085.01557675	Sum of GTIs [s]
ontime6	49085.053444743	Sum of GTIs [s]
ontime7	49086.812404767	Sum of GTIs [s]
ontime8	49086.935554639	Sum of GTIs [s]
ontime9	49086.976564765	Sum of GTIs [s]
l2events	302596	Number of level 2 events



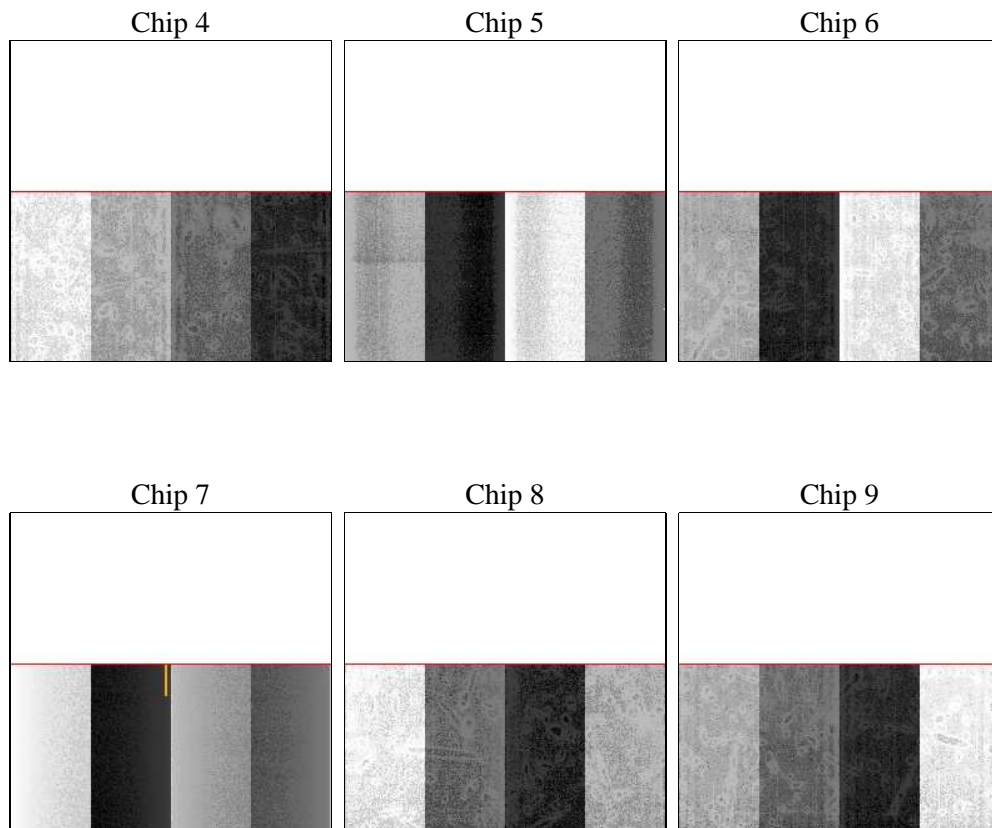
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	48950.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	49086.812404767	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime4	49086.856566891	Sum of GTIs [s]
date	2012-09-15T15:21:53	Date and time of file creation	ontime5	49085.01557675	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	49085.053444743	Sum of GTIs [s]
			ontime7	49086.812404767	Sum of GTIs [s]
			ontime8	49086.935554639	Sum of GTIs [s]
			ontime9	49086.976564765	Sum of GTIs [s]
			l1events	1117283	Number of level 1 events

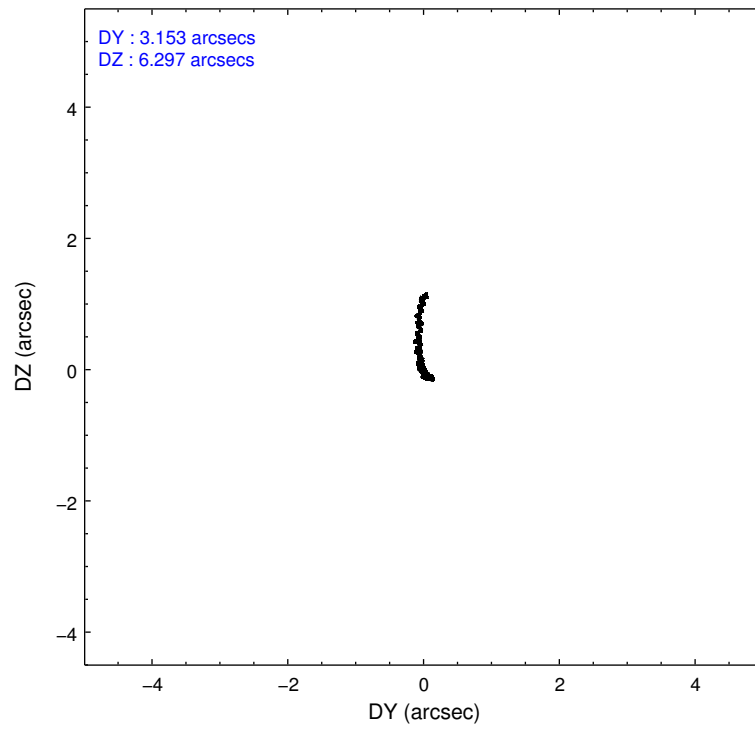
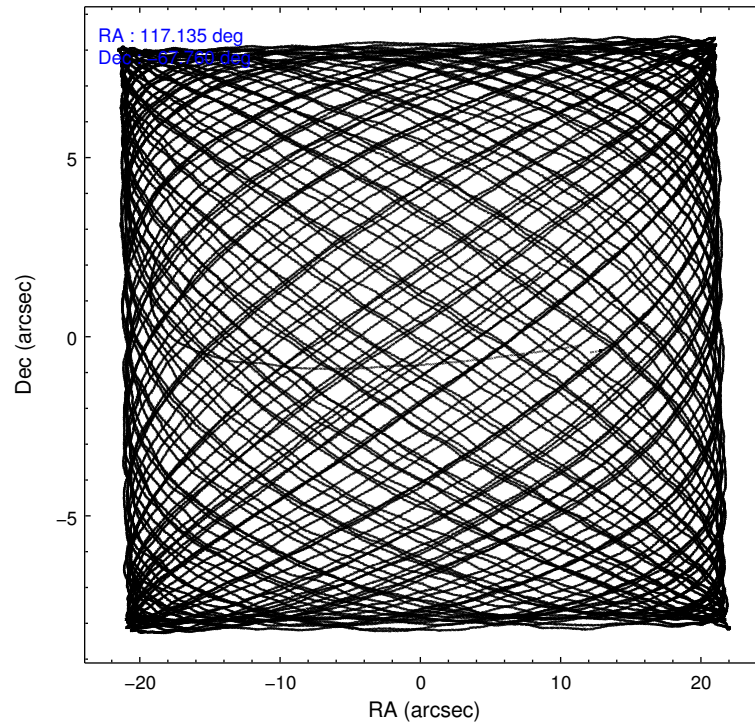
### 2.1.4 Events

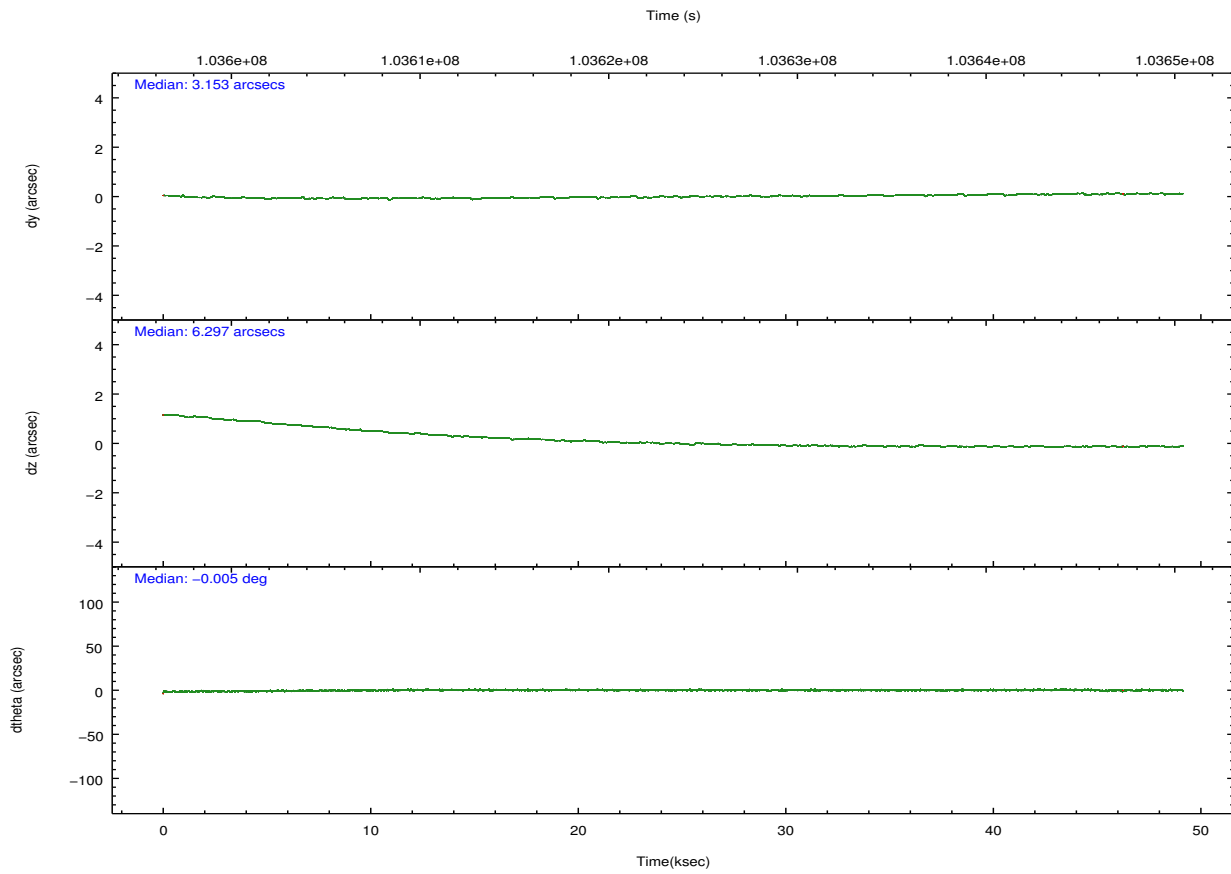
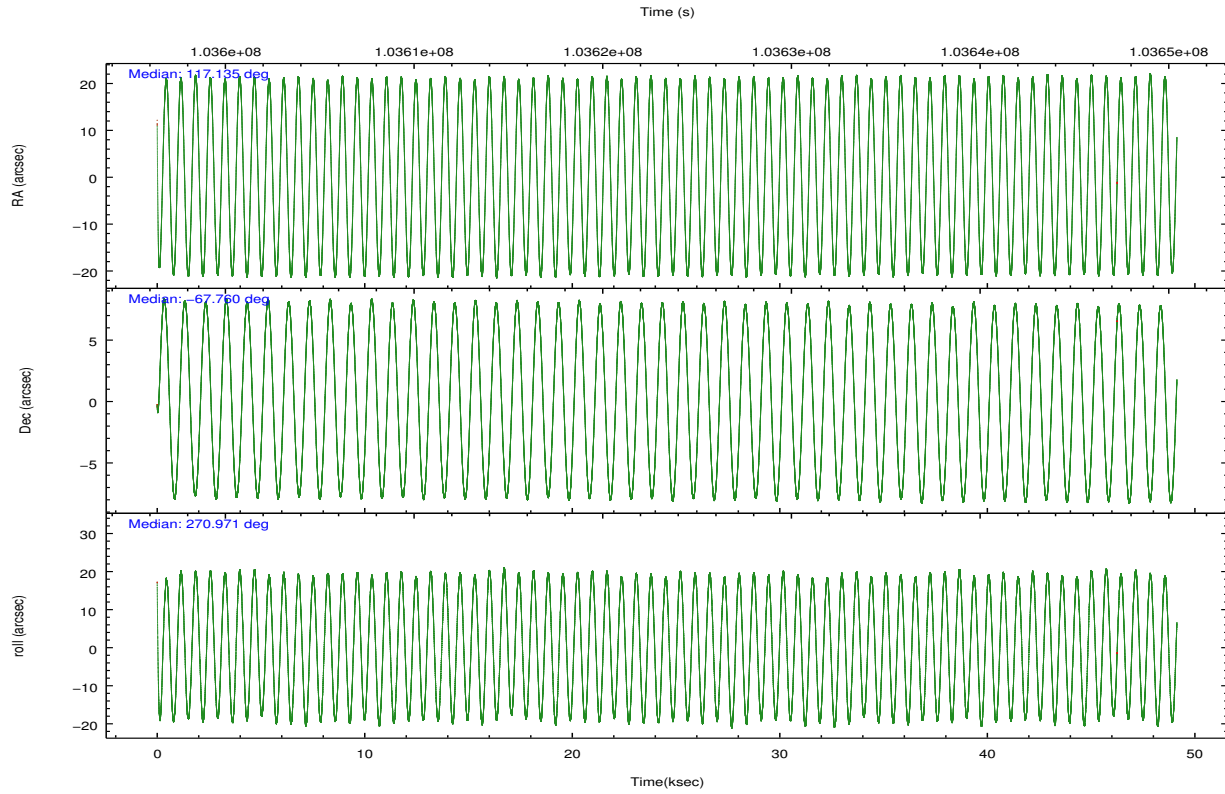
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	163482	196169	173949	237765	203902	142016	grade 0 events	8034	13204	24496	17097	19378	8032
rejected events	143872	102983	131668	110088	150740	122757		4%	6%	14%	7%	9%	5%
rejected %	88%	52%	75%	46%	73%	86%	grade 1 events	45	445	140	704	112	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	4497	24647	6639	27220	9641	3771
								2%	12%	3%	11%	4%	2%
							grade 3 events	1959	5571	3157	12403	6560	2028
								1%	2%	1%	5%	3%	1%
							grade 4 events	1918	5541	3126	12470	5949	2015
								1%	2%	1%	5%	2%	1%
							grade 5 events	4795	15825	5622	19131	7236	5560
								2%	8%	3%	8%	3%	3%
							grade 6 events	3269	44632	4979	58962	11872	3490
								1%	22%	2%	24%	5%	2%
							grade 7 events	138965	86304	125790	89778	143154	117081
								85%	43%	72%	37%	70%	82%

## 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	117.096879	117.1345525161088	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-67.736377	-67.75966692069294	Subarray start row	1	1
[deg] Pointing Roll	270.784649	270.9761439918865	Subarray row count	542	542
[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	1.8
[mm] SIM translation stage pos	-184.532523	-184.5306286120915			
[mm] SIM translation stage offset	-5.6	-5.601893970916279			
[s] Observation start time (MET)	103599024.184000	103598061.51969			
Observation start date	2001-04-14T01:29:20	2001-04-14T01:14:21			
[s] Observation end time (MET)	103647974.184000	103648723.17165			
Observation end date	2001-04-14T15:05:10	2001-04-14T15:18:43			
Read mode	TIMED	TIMED			

## 2.3 Aspect



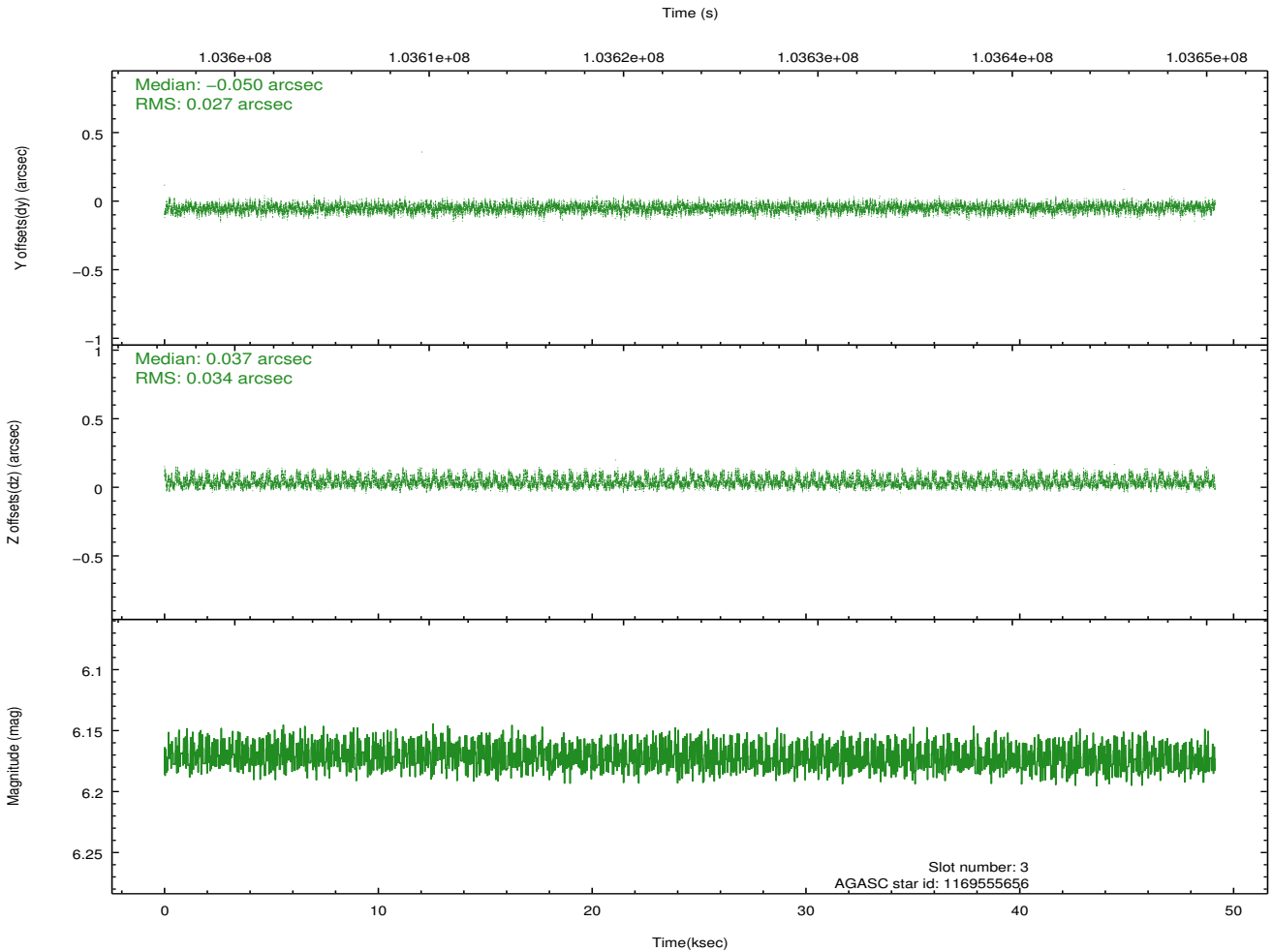
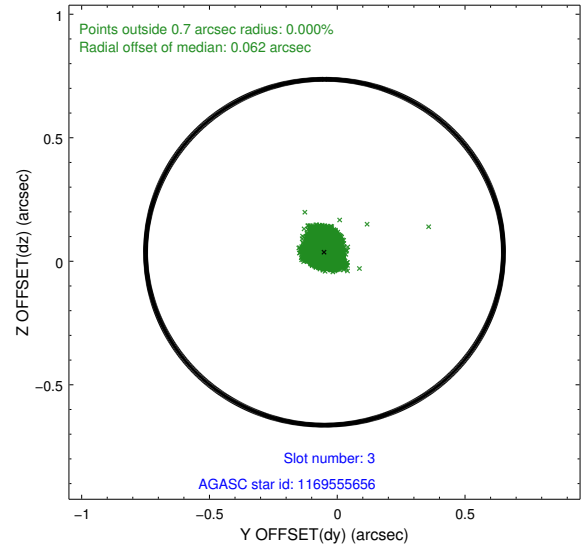
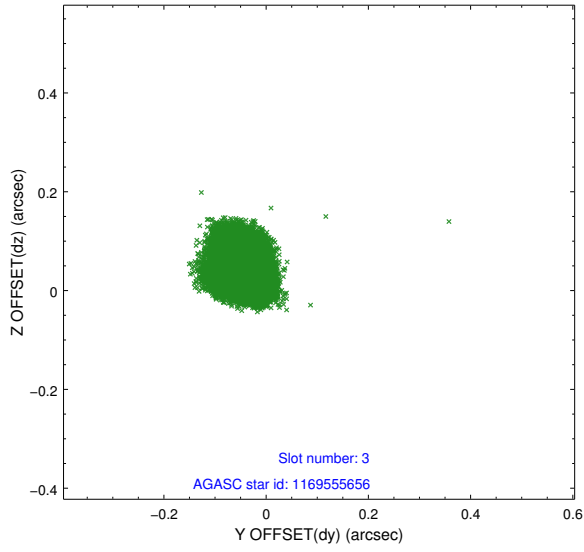


### Slot Statistics

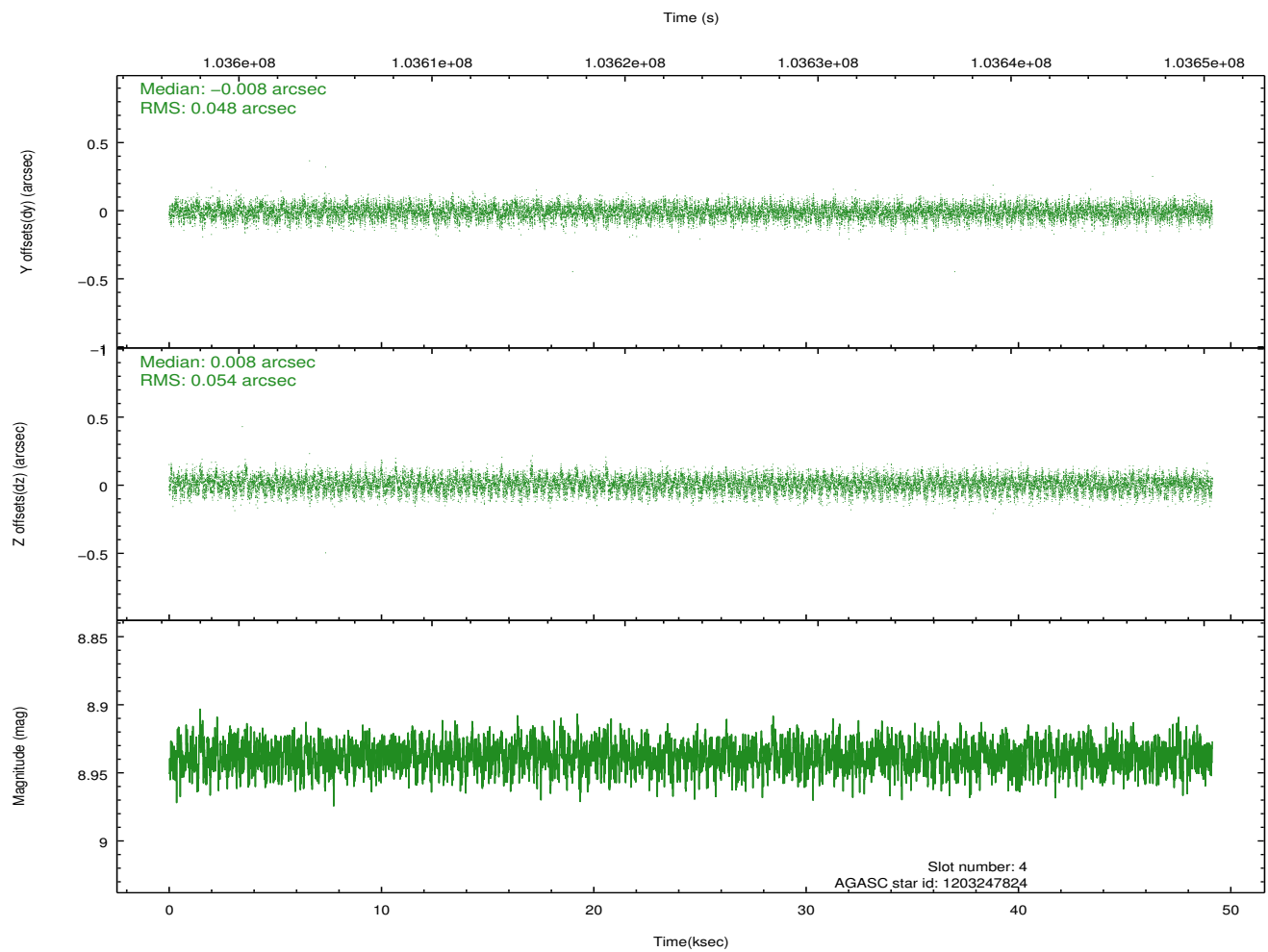
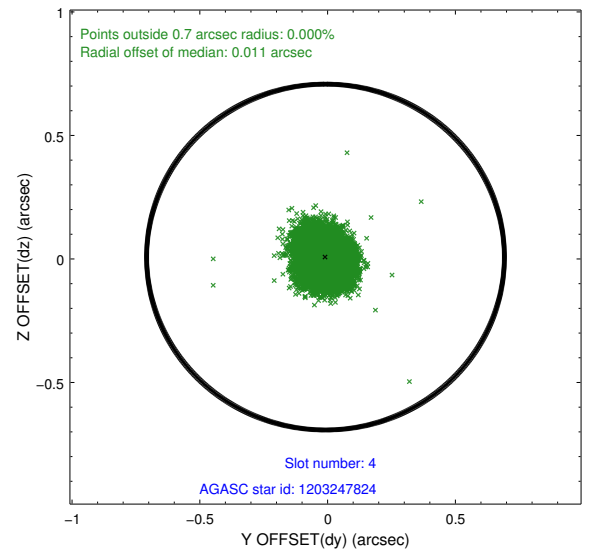
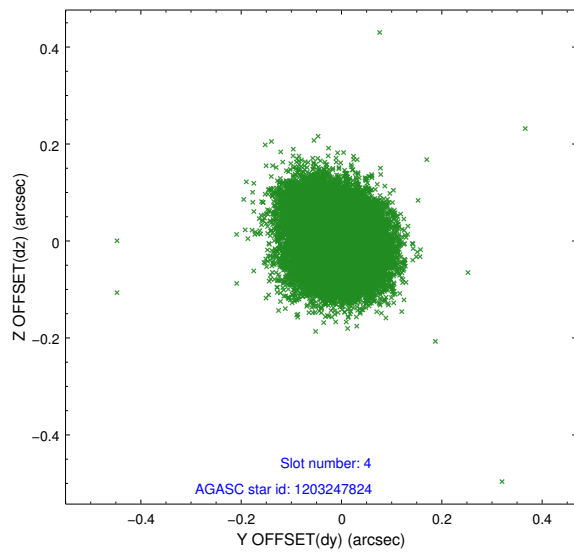
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	11975	0.021	0.047	0.017	0.051	0.000000	0.000000	940.64	-1838.69
1	FID	ACIS-S-5	7.24	11973	-0.001	0.049	0.009	0.015	0.000000	0.000000	-1808.37	58.88
2	FID	ACIS-S-6	7.39	11973	-0.040	-0.084	0.017	0.046	0.000000	0.000000	406.17	702.66
3	GUIDE	1169555656	6.17	23940	-0.050	0.037	0.046	0.075	116.003221	-67.202031	-1930.30	-1499.82
4	GUIDE	1203247824	8.94	23929	-0.008	0.008	0.077	0.123	118.440930	-68.009396	1027.50	1797.42
5	GUIDE	1203255976	8.66	23936	0.040	0.050	0.075	0.119	115.388670	-67.678535	-207.11	-2333.00
6	GUIDE	1169557456	8.56	23940	-0.078	-0.036	0.051	0.084	118.131351	-67.446369	-1012.16	1441.69
7	GUIDE	1203248696	8.96	23940	0.095	-0.059	0.064	0.106	117.312691	-68.108459	1344.42	271.08

## 2.4 Star Slots

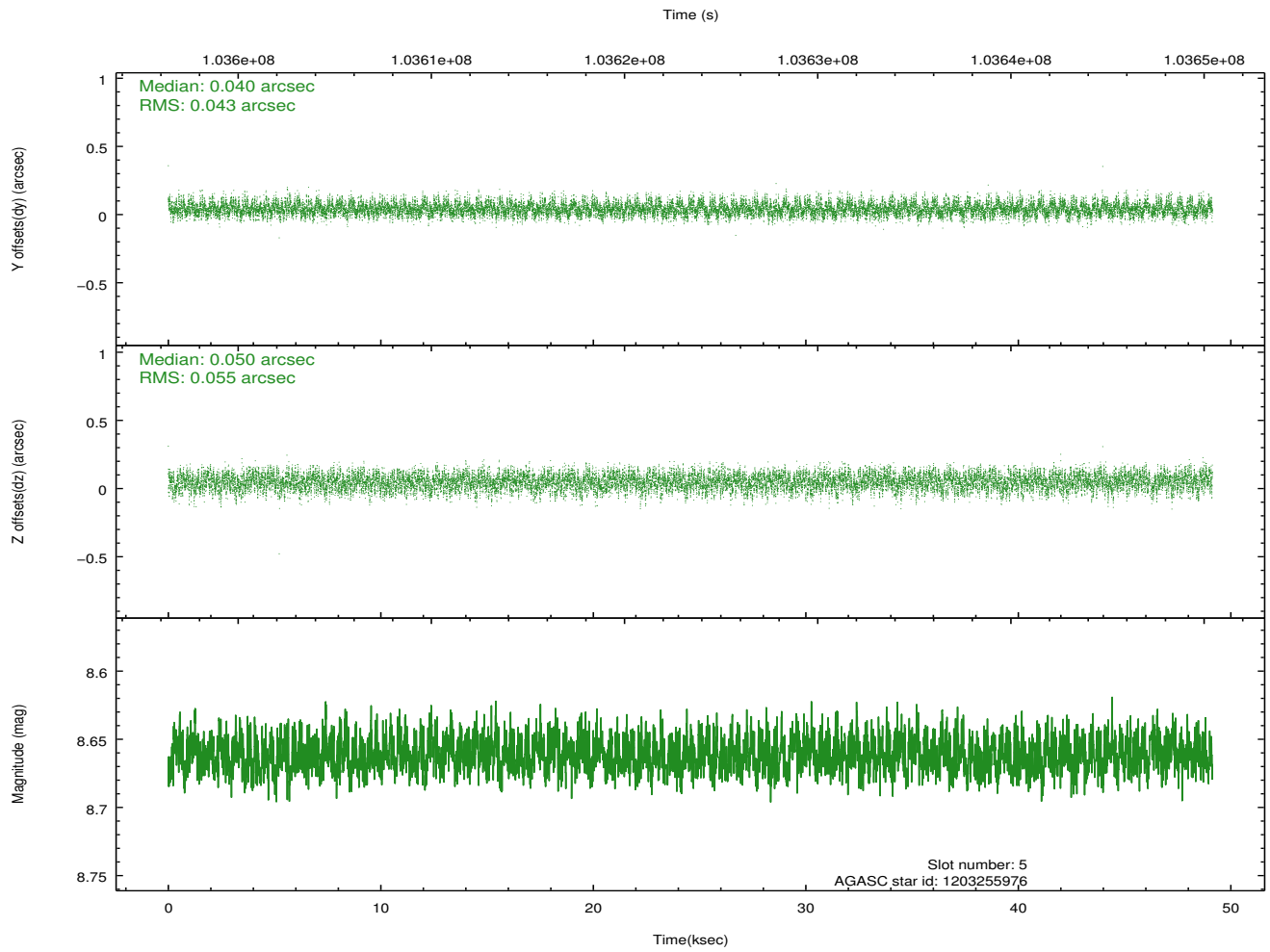
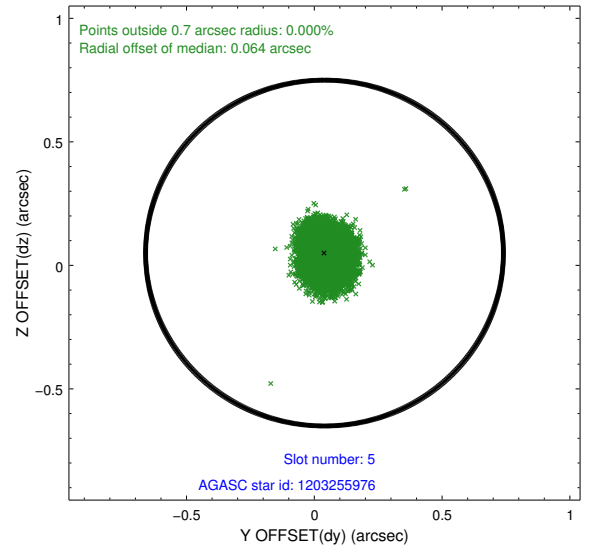
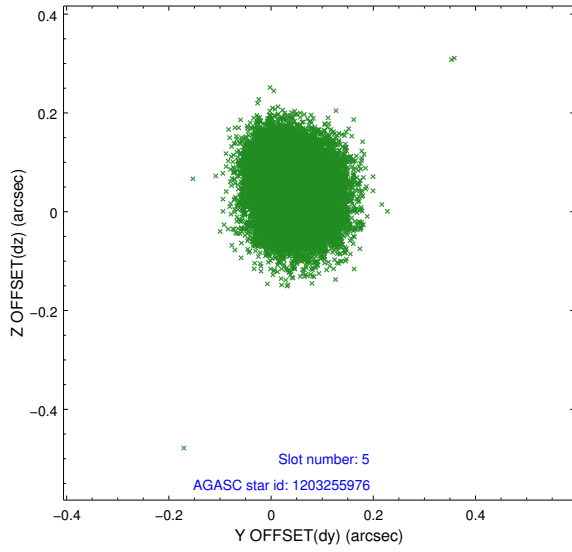
### 2.4.1 Slot 3



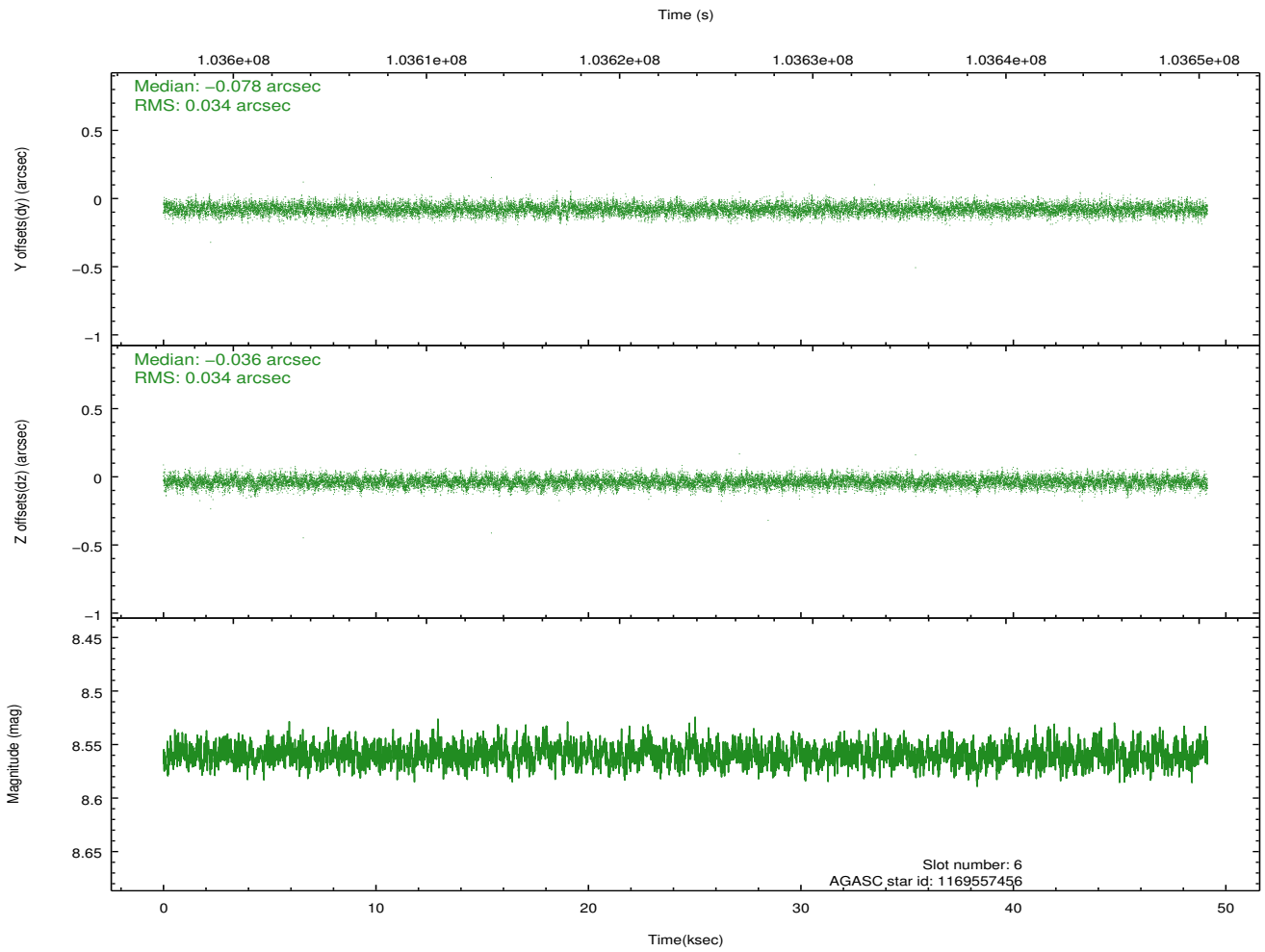
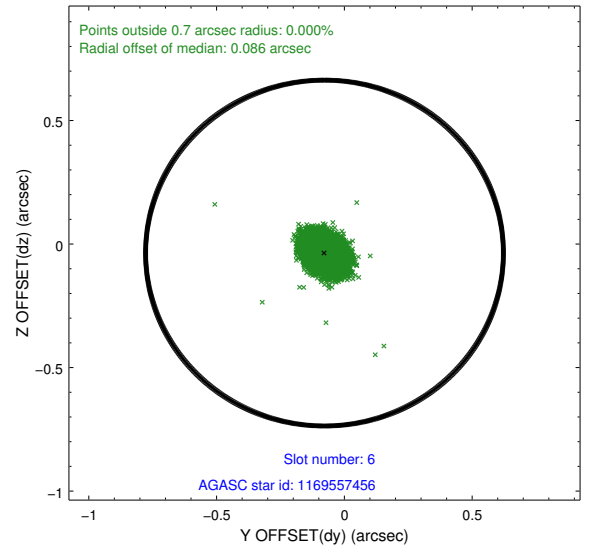
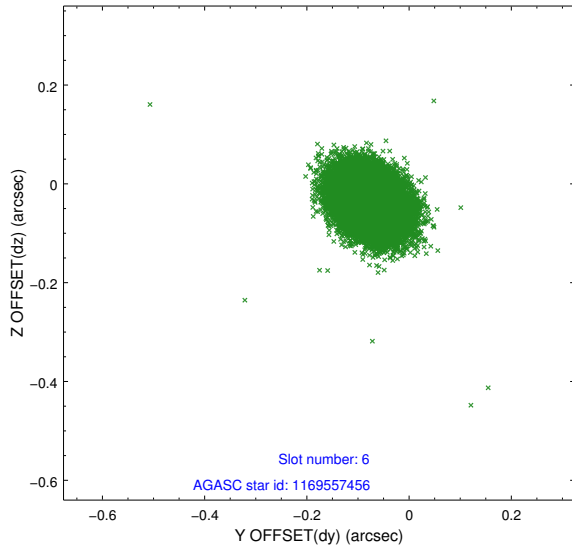
## 2.4.2 Slot 4



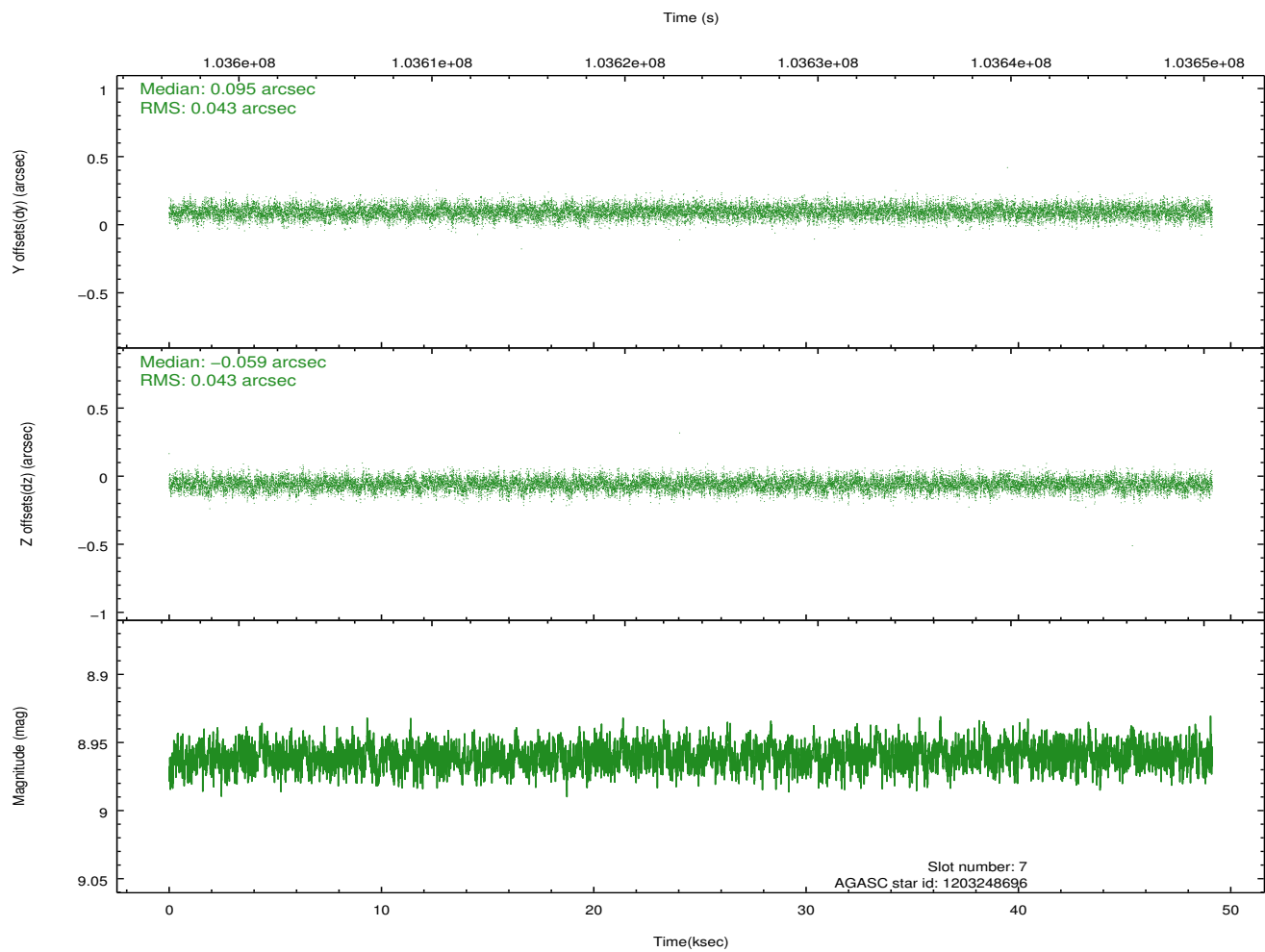
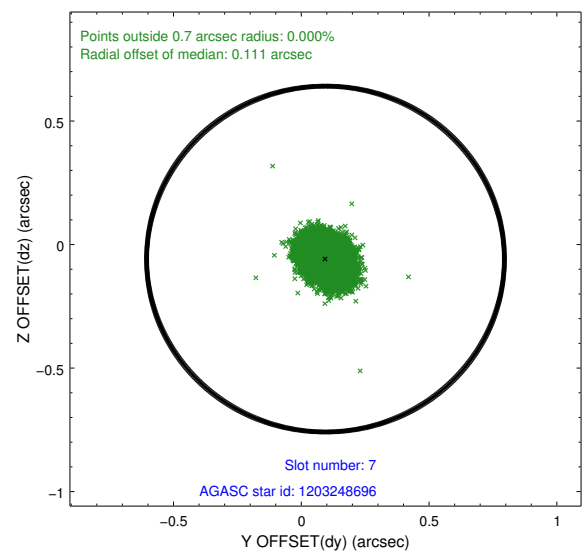
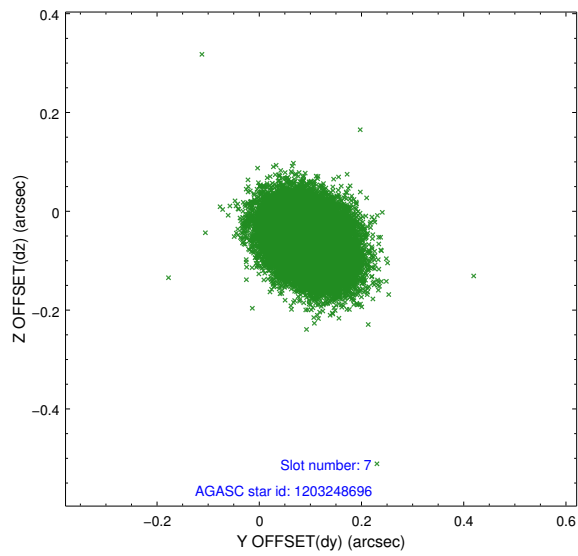
### 2.4.3 Slot 5



### 2.4.4 Slot 6

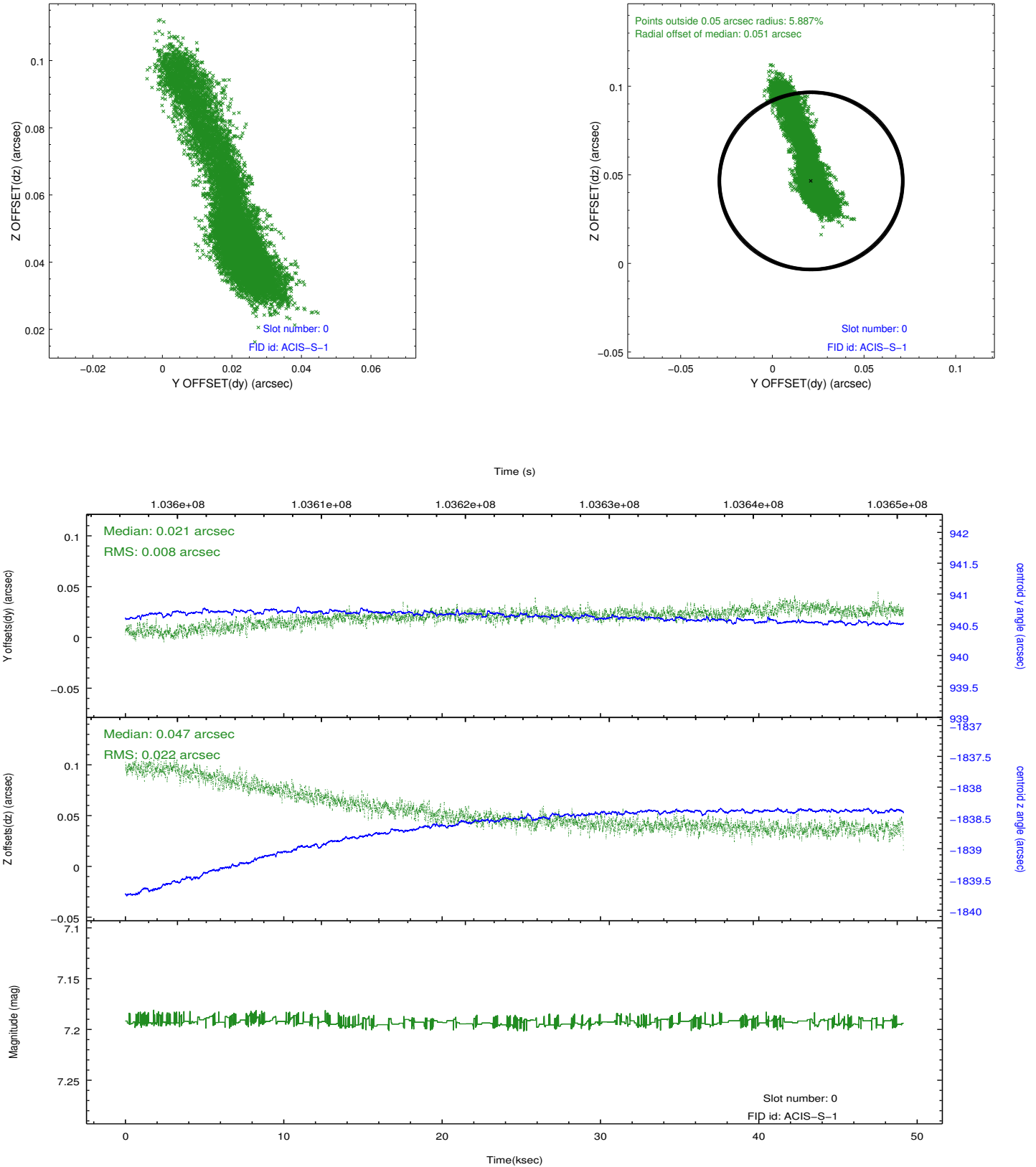


## 2.4.5 Slot 7

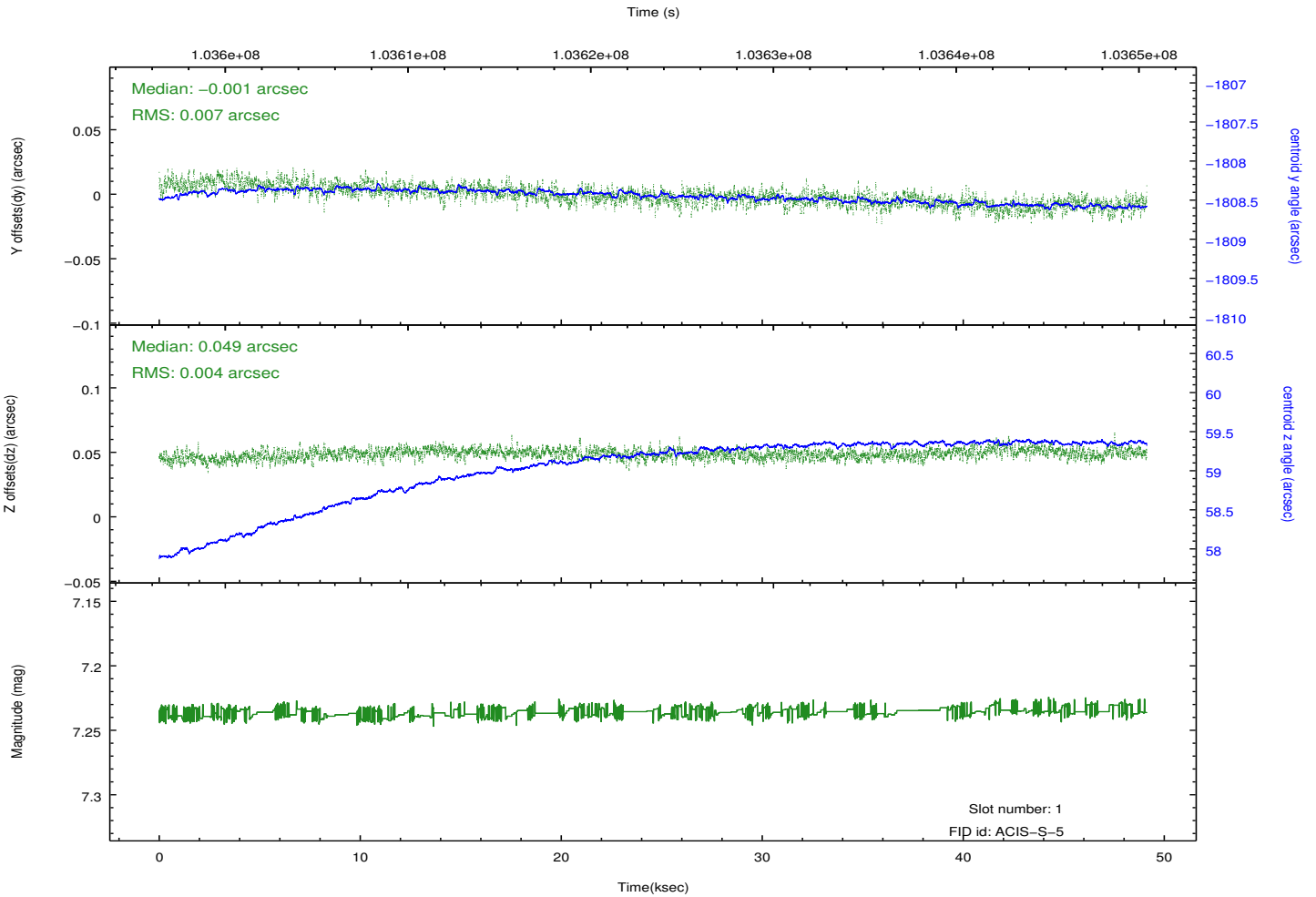
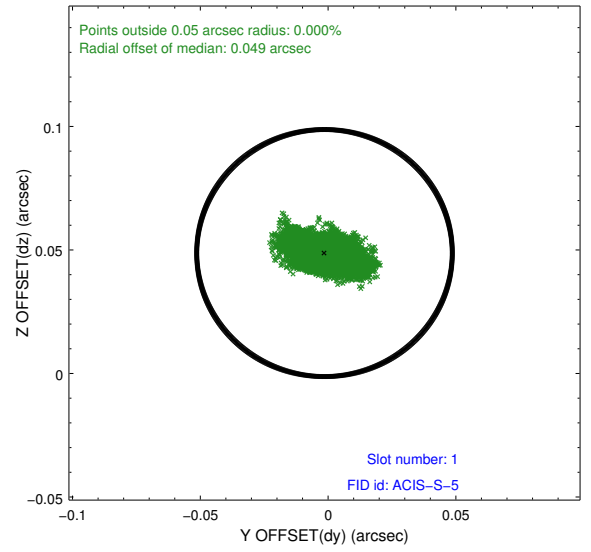
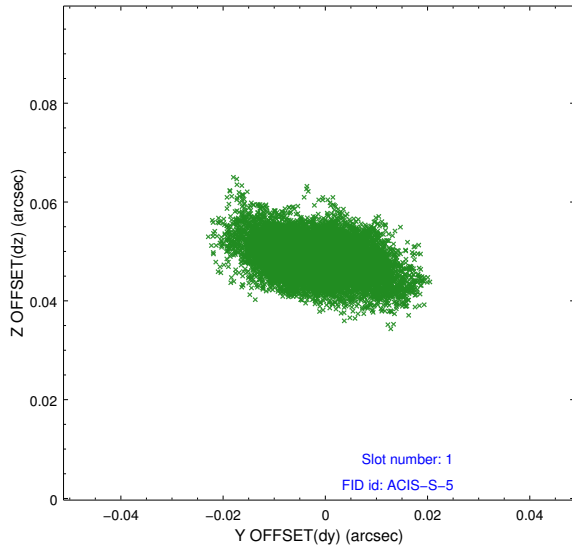


## 2.5 FID Slots

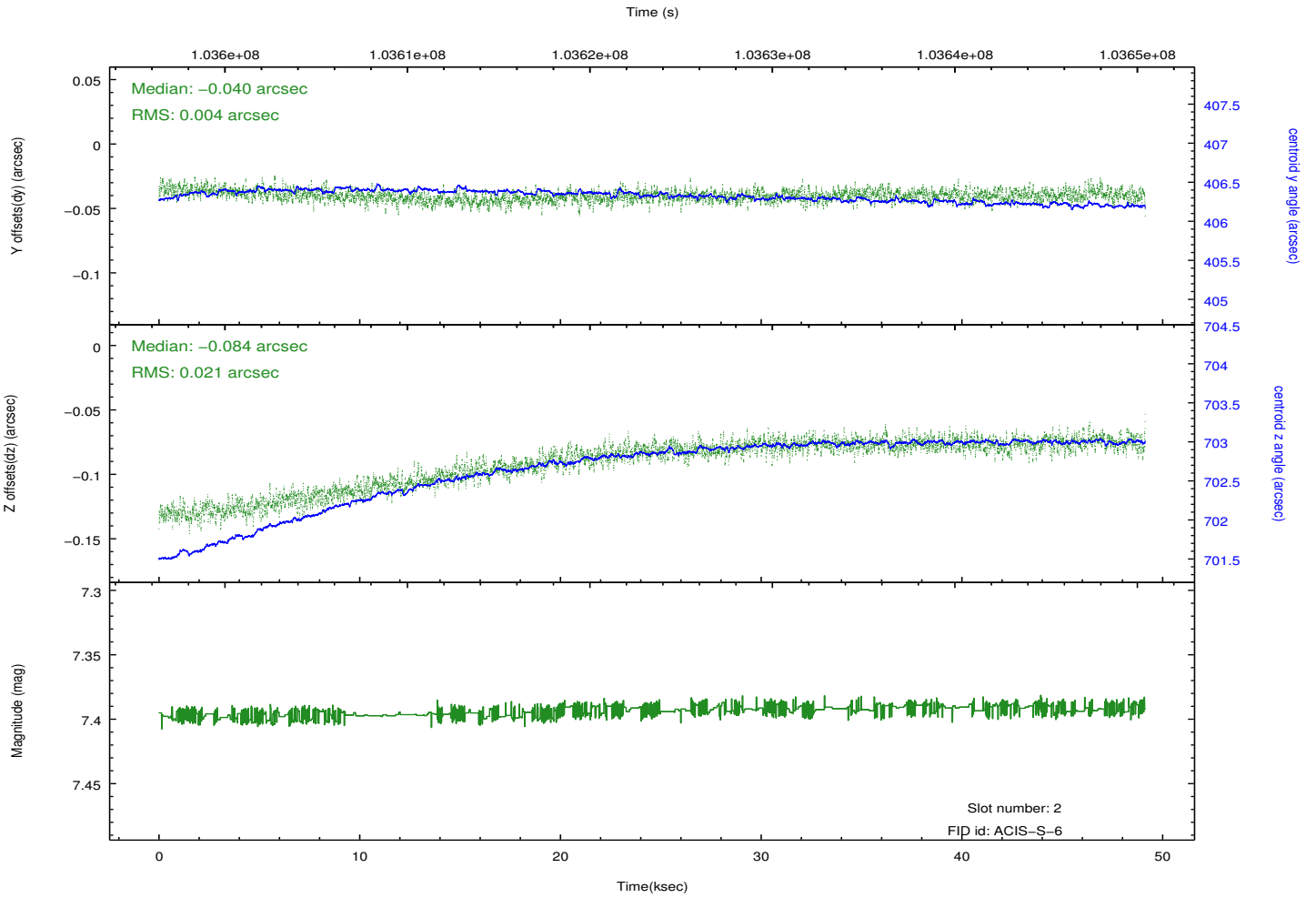
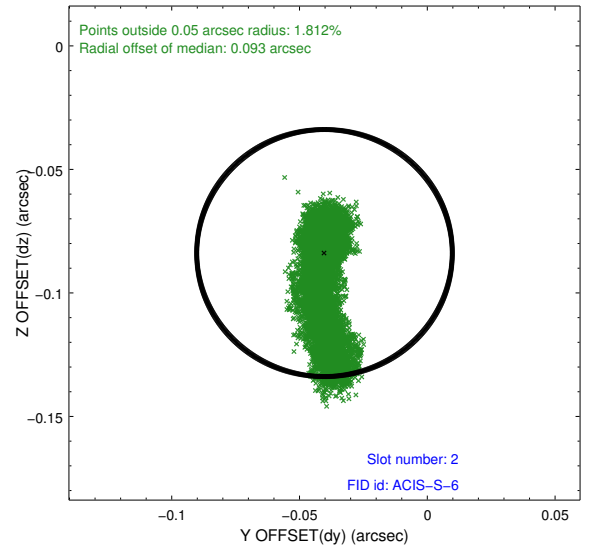
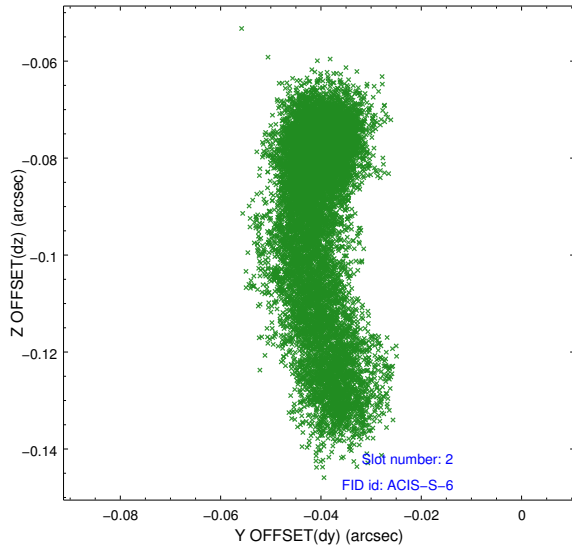
### 2.5.1 Slot 0



## 2.5.2 Slot 1

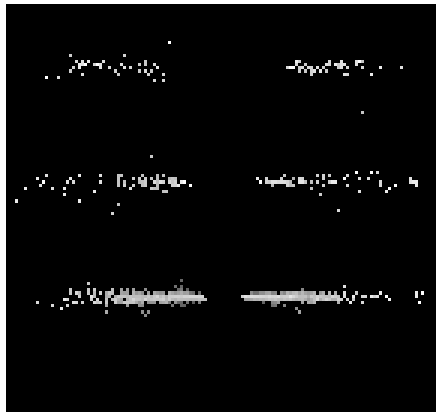


### 2.5.3 Slot 2

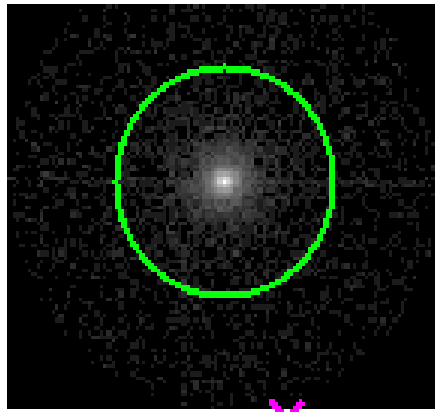


### 3 Gratings

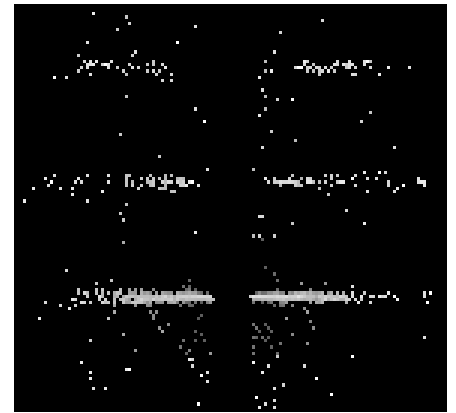
#### 3.1 HEG Arm



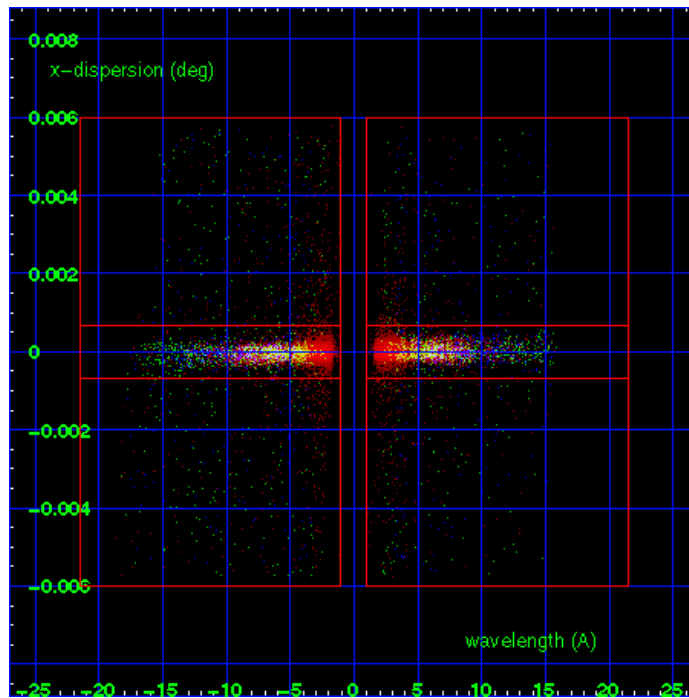
HEG Order Sort 123



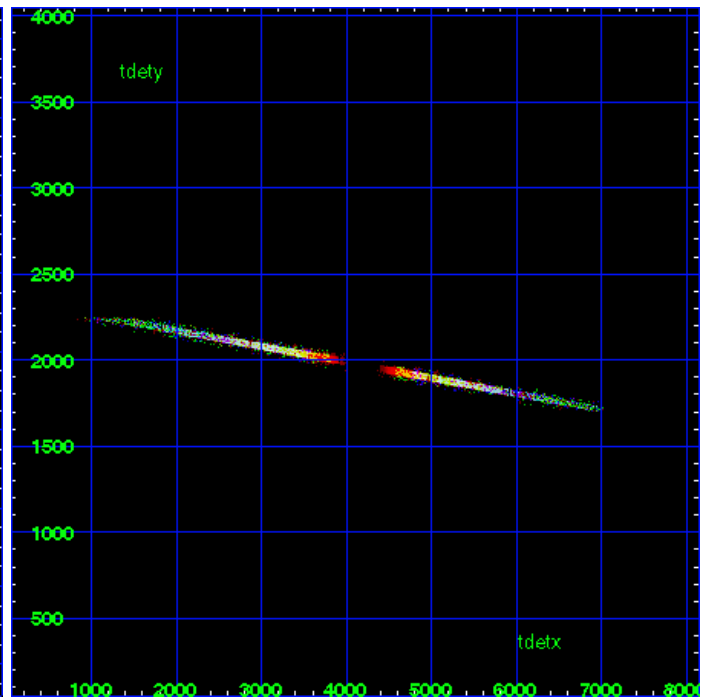
HEG Zero Order



HEG Order Sort ALL

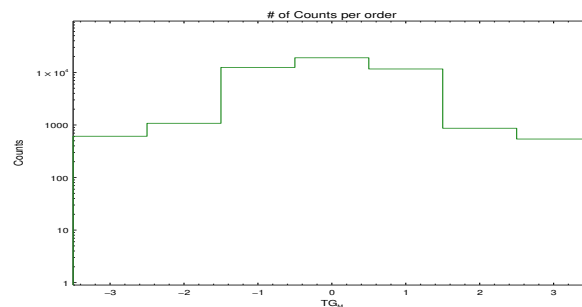


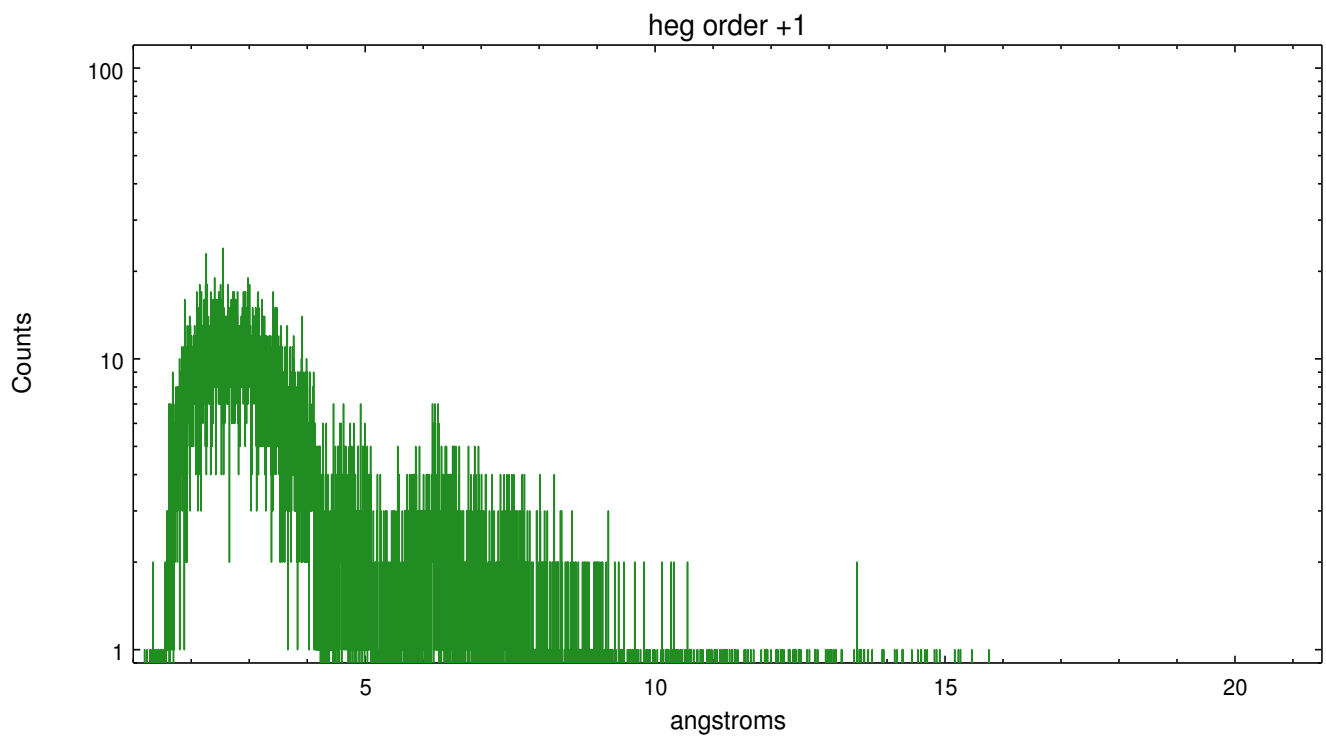
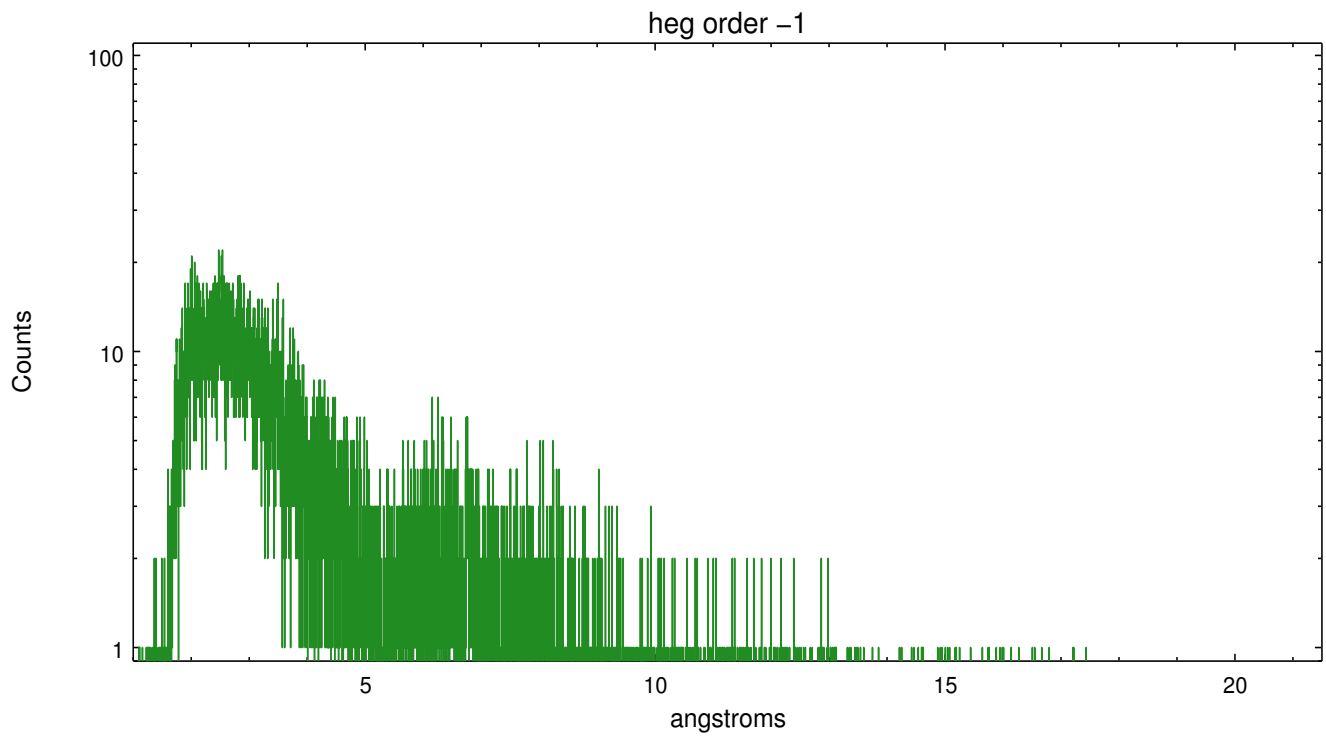
Spot Image HEG



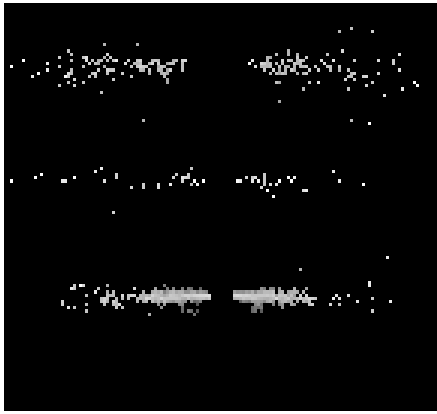
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	610	1076	12459	18990	11628	866	540

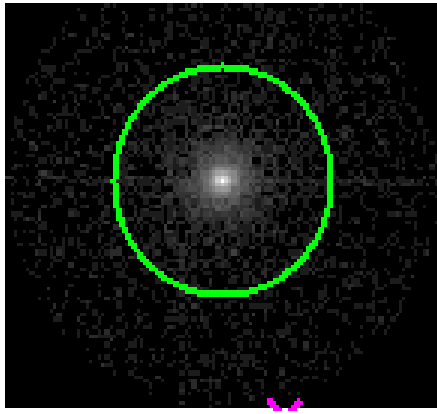




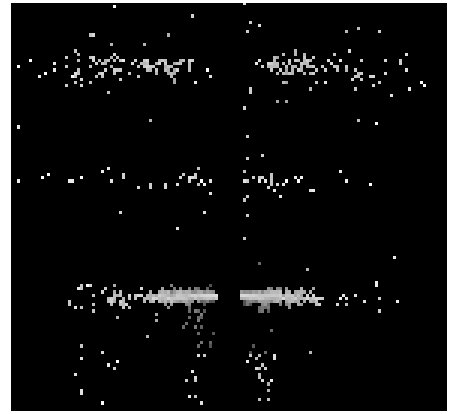
### 3.2 MEG Arm



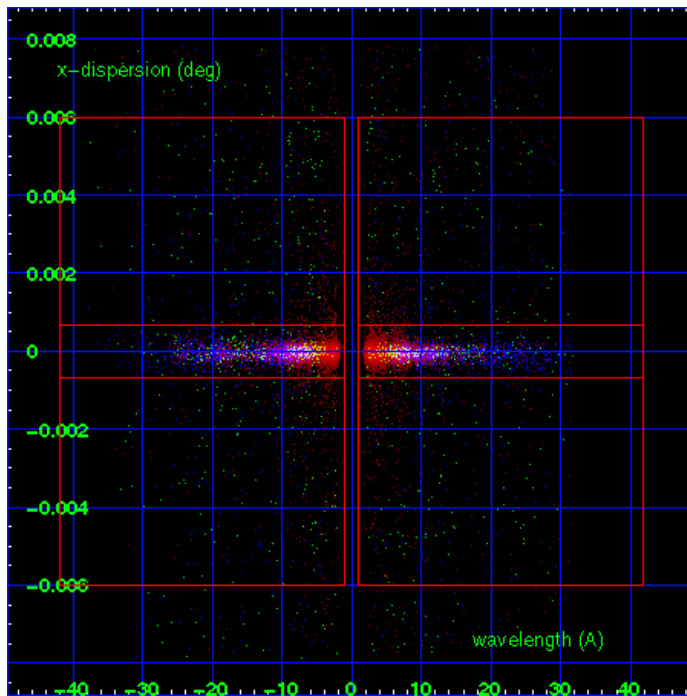
MEG Order Sort 123



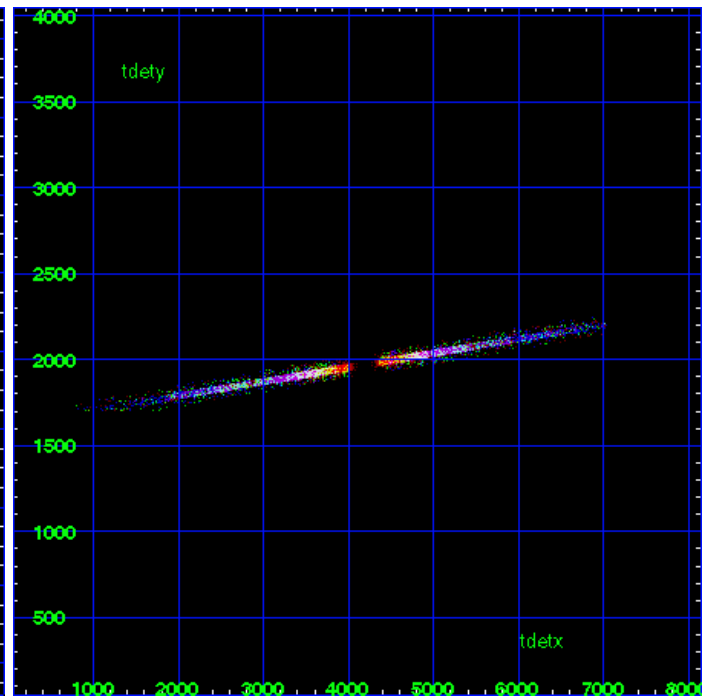
MEG Zero Order



MEG Order Sort ALL

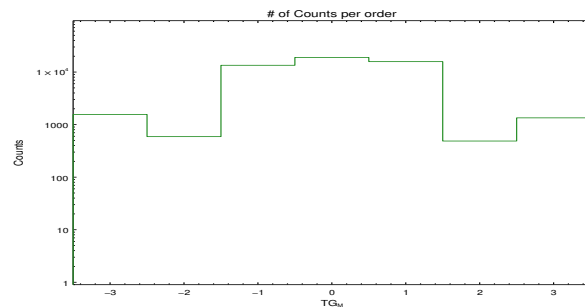


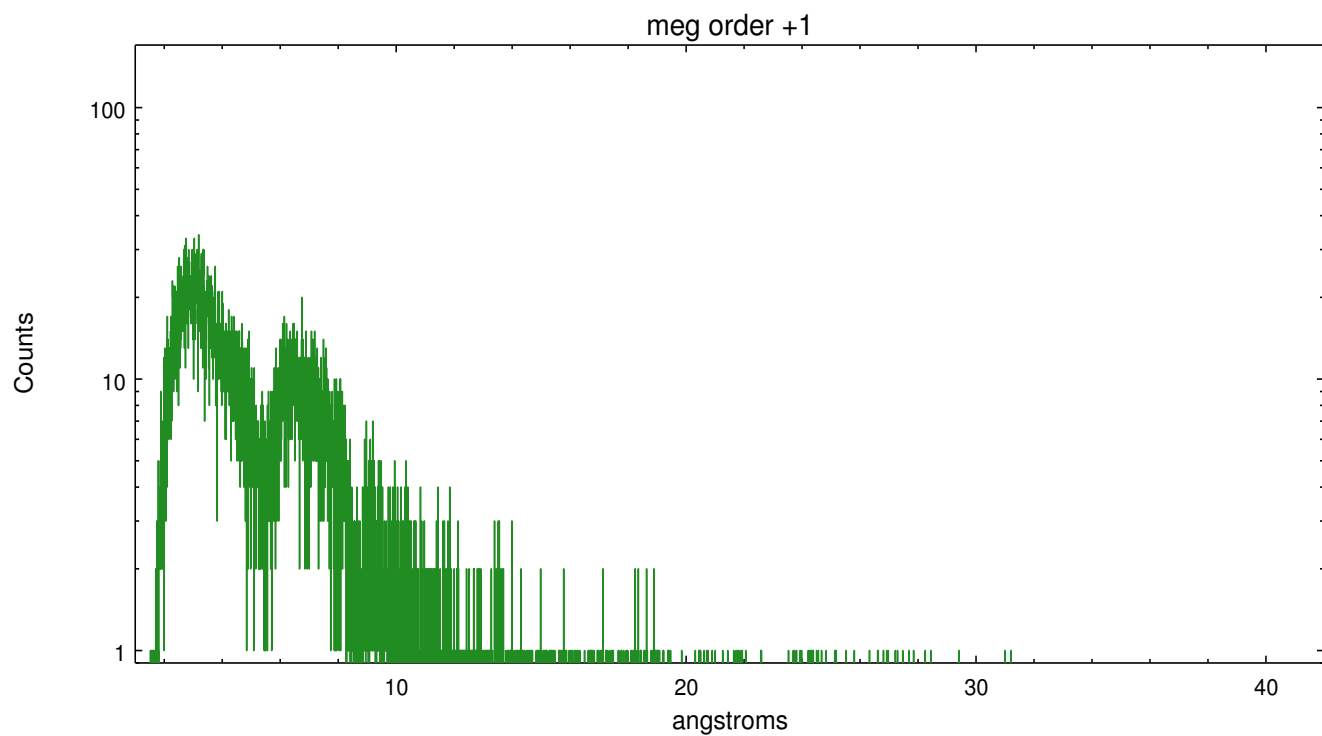
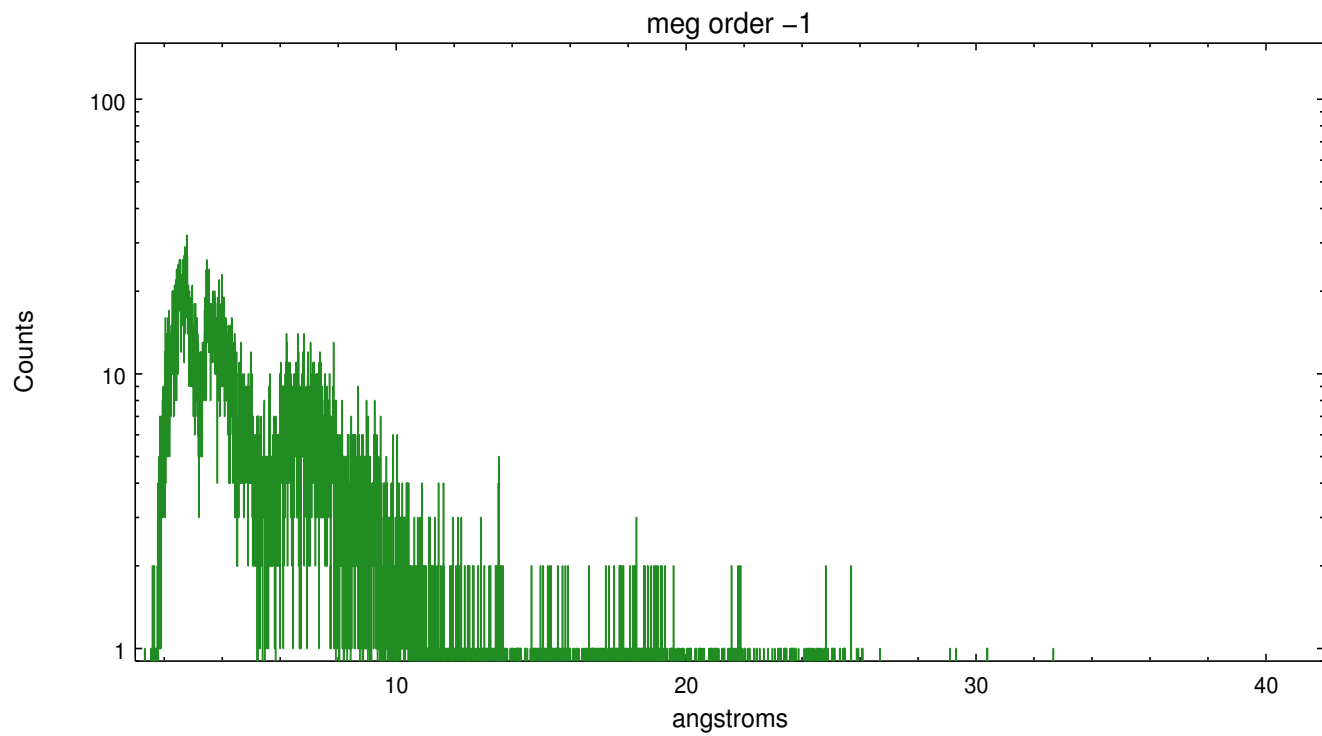
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1562	591	13447	18990	15797	487	1345





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49

## A.2 Comments