

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 614 - L2 Version 4  
Chandra X-Ray Center

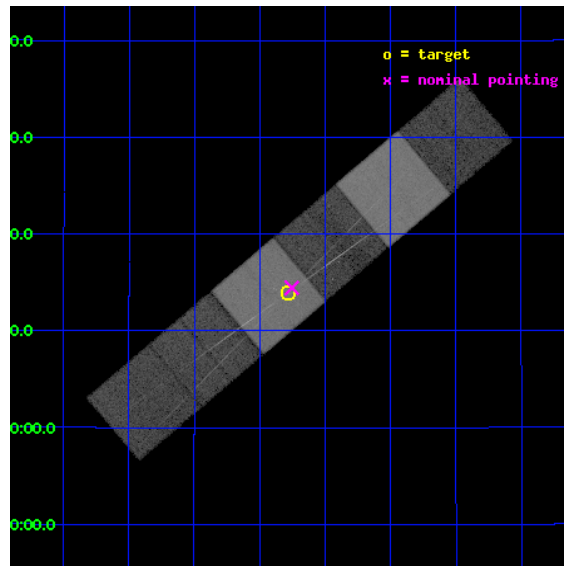
L2 Processing Date : Aug 27 2012

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# 1 Front

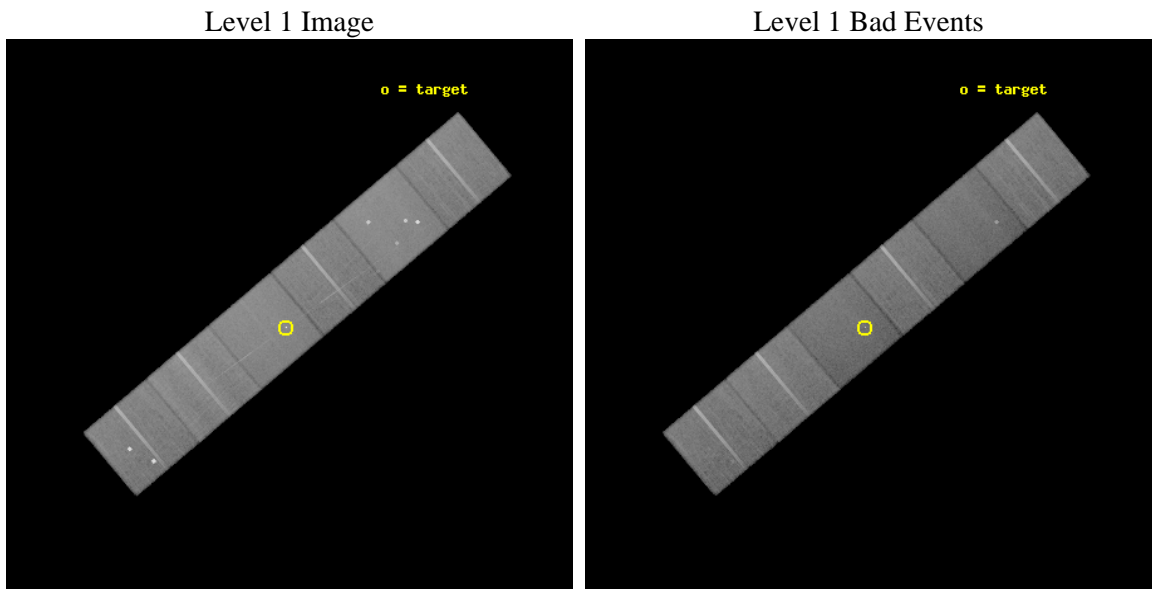
seq_num	200039	Sequence number
obs_id	614	Observation id
title	FK COM: SHROUDED IN MYSTERY	Proposal title
observer	Dr. Derek Buzasi	Principal investigator
object	FK COM/HD 117555	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.695417	Observer's specified target RA [deg]
dec_targ	24.233028	Observer's specified target Dec [deg]
ra_nom	202.68839708578	Nominal RA [deg]
dec_nom	24.240882077673	Nominal Dec [deg]
roll_nom	139.76986285895	Nominal Roll [deg]
revision	4	Processing version of data
ontime	41938.862697393	Sum of GTIs [s]
livetime	41407.807565367	Livetime [s]
ontime4	41938.903737396	Sum of GTIs [s]
ontime5	41938.821657389	Sum of GTIs [s]
ontime6	41938.780617401	Sum of GTIs [s]
ontime7	41938.862697393	Sum of GTIs [s]
ontime8	41938.739577398	Sum of GTIs [s]
ontime9	41938.698537394	Sum of GTIs [s]
l2events	430872	Number of level 2 events



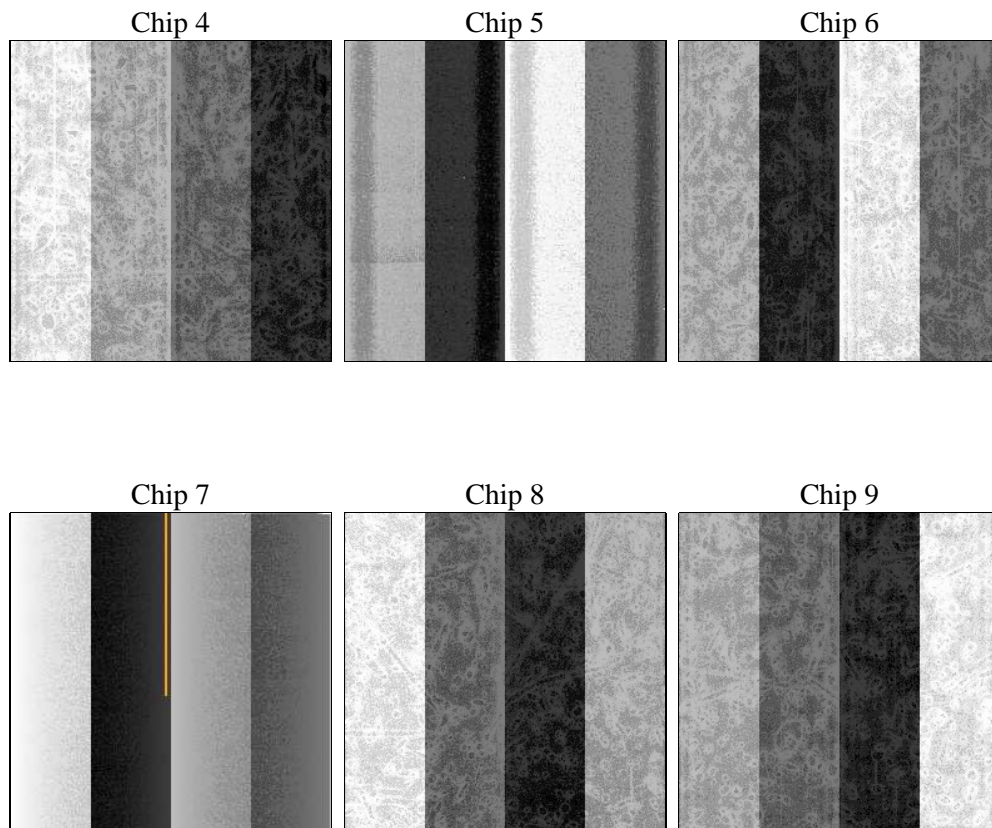
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	42000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	41938.862697393	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime4	41938.903737396	Sum of GTIs [s]
date	2012-08-27T11:04:48	Date and time of file creation	ontime5	41938.821657389	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	41938.780617401	Sum of GTIs [s]
			ontime7	41938.862697393	Sum of GTIs [s]
			ontime8	41938.739577398	Sum of GTIs [s]
			ontime9	41938.698537394	Sum of GTIs [s]
			l1events	2088312	Number of level 1 events

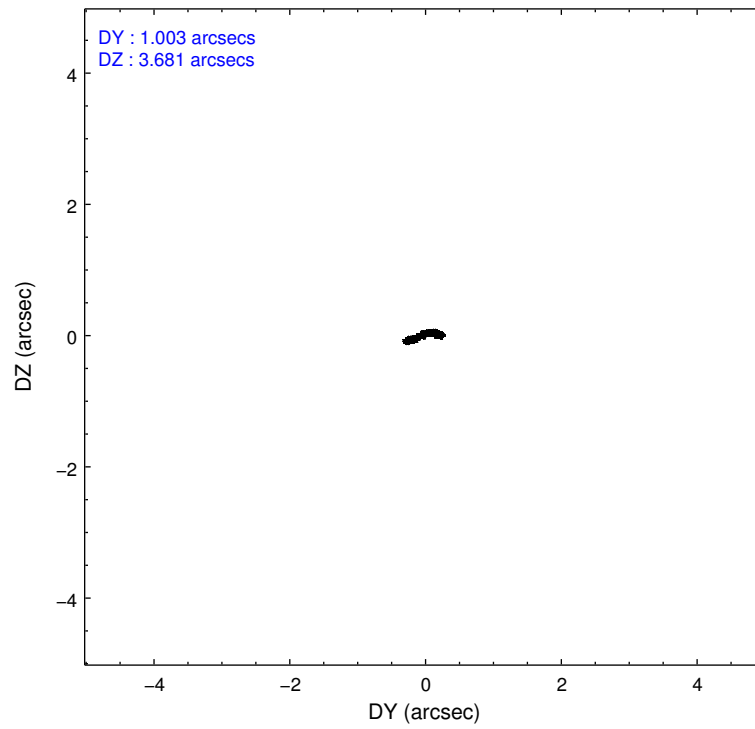
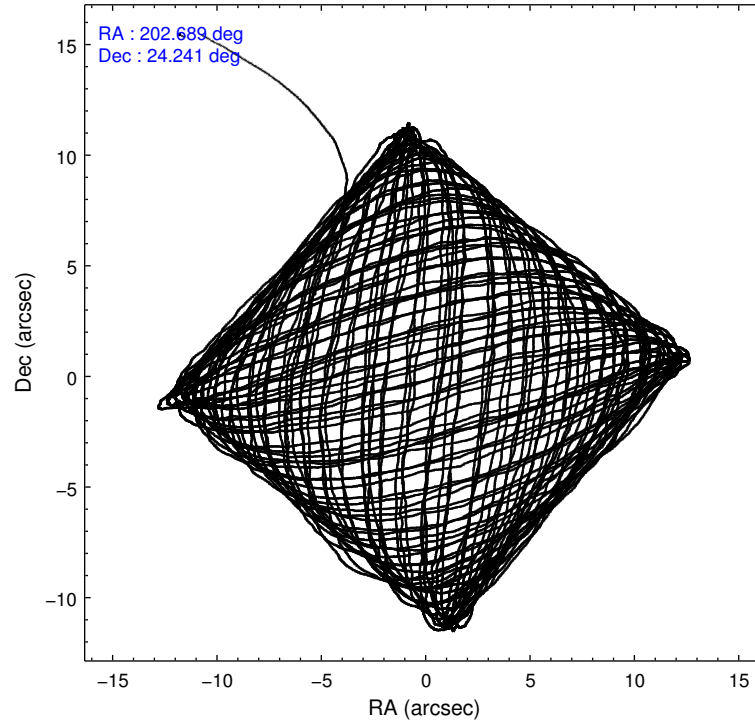
### 2.1.4 Events

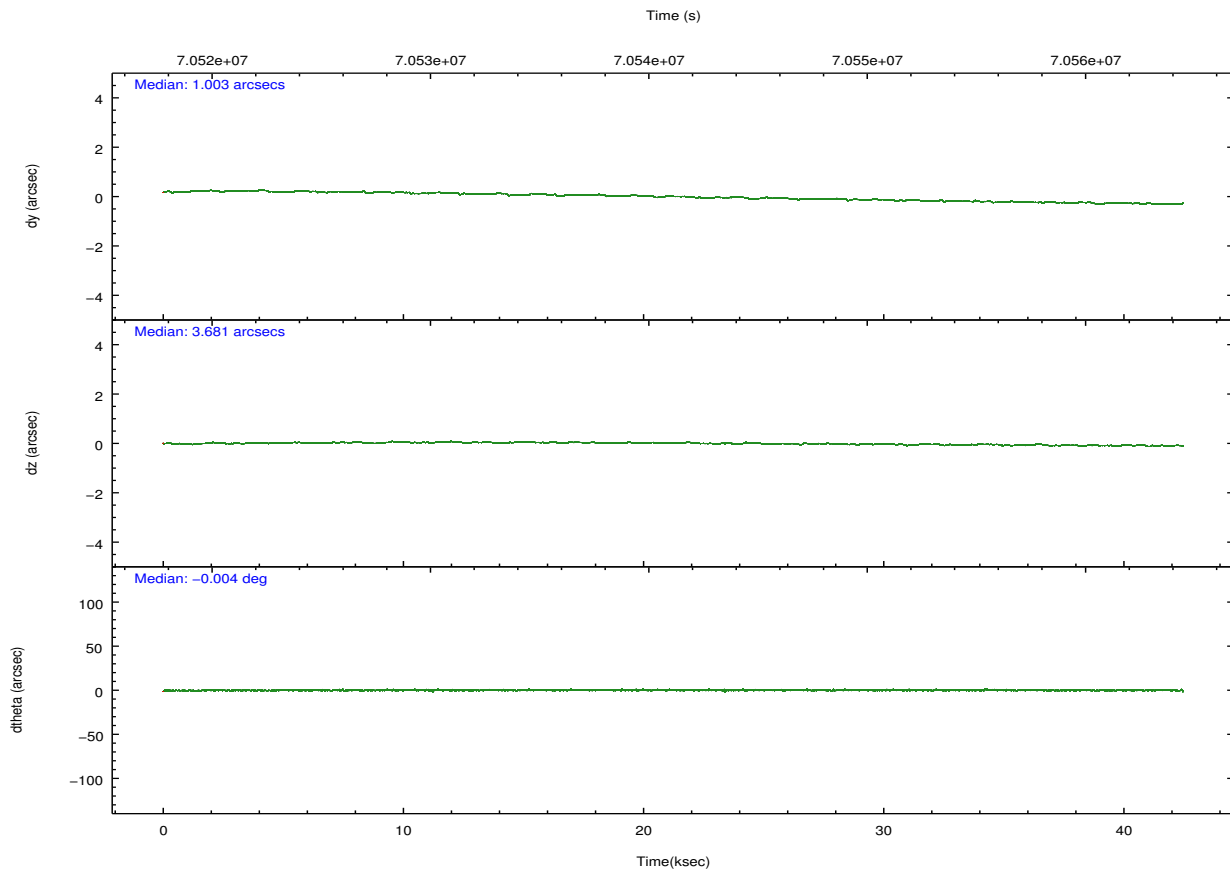
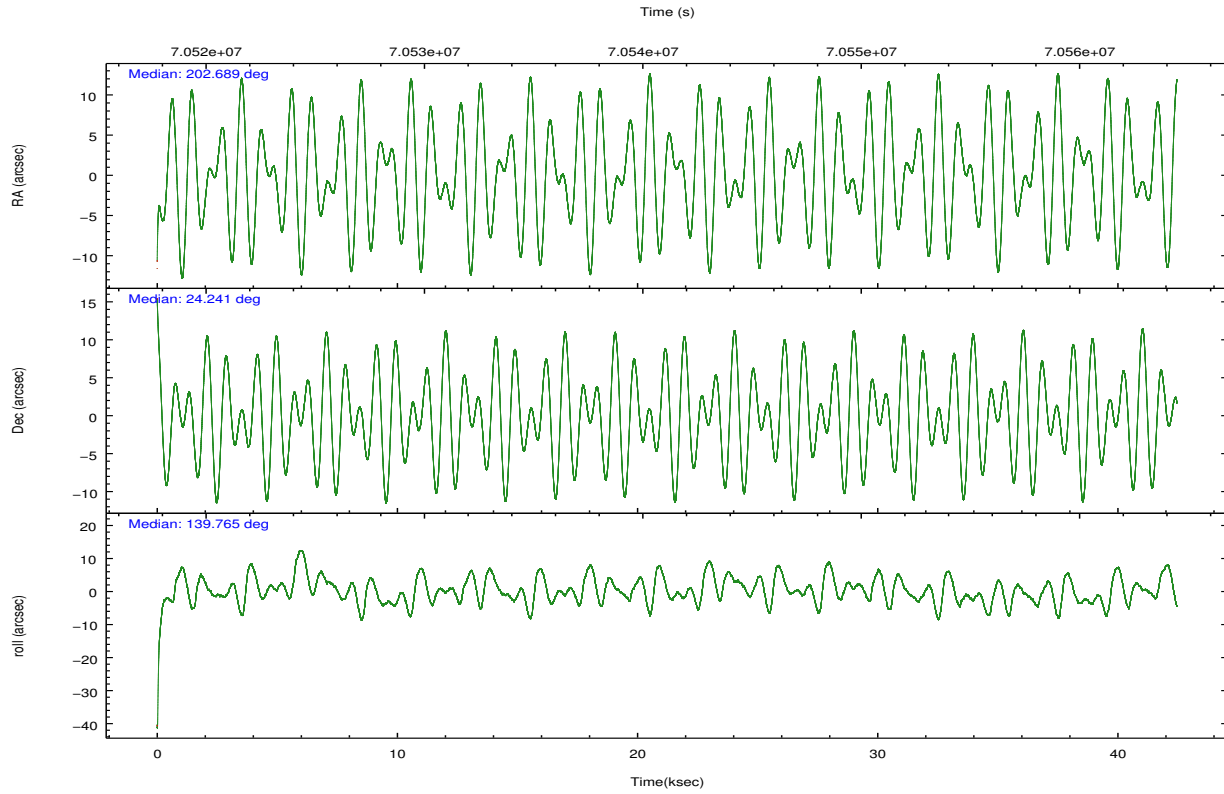
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	332558	400540	307838	353337	376162	317877	grade 0 events	13495	27904	15523	15000	23814	32909
rejected events	299769	205822	272728	201098	304287	261330		4%	6%	5%	4%	6%	10%
rejected %	90%	51%	88%	56%	80%	82%	grade 1 events	135	1786	138	388	234	292
								0%	0%	0%	0%	0%	0%
							grade 2 events	7622	59489	6513	30372	15179	6223
								2%	14%	2%	8%	4%	1%
							grade 3 events	3061	8291	3457	14371	7640	3285
								0%	2%	1%	4%	2%	1%
							grade 4 events	3083	7965	3411	13997	7093	8082
								0%	1%	1%	3%	1%	2%
							grade 5 events	9228	29986	11177	33908	14190	11208
								2%	7%	3%	9%	3%	3%
							grade 6 events	5529	91104	6209	78524	18159	6058
								1%	22%	2%	22%	4%	1%
							grade 7 events	290405	174015	261410	166777	289853	249820
								87%	43%	84%	47%	77%	78%

## 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	202.718055	202.688397085779	Subarray requested	NONE	NONE
[deg] Pointing Dec	24.236039	24.24088207767264	Alternating exposures requested	N	N
[deg] Pointing Roll	139.601070	139.7698628589528	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	70520336.184000	70519234.64812499			
Observation start date	2000-03-27T04:57:52	2000-03-27T04:40:34			
[s] Observation end time (MET)	70562336.184000	70562794.587219			
Observation end date	2000-03-27T16:37:52	2000-03-27T16:46:34			
Read mode	TIMED	TIMED			

## 2.3 Aspect



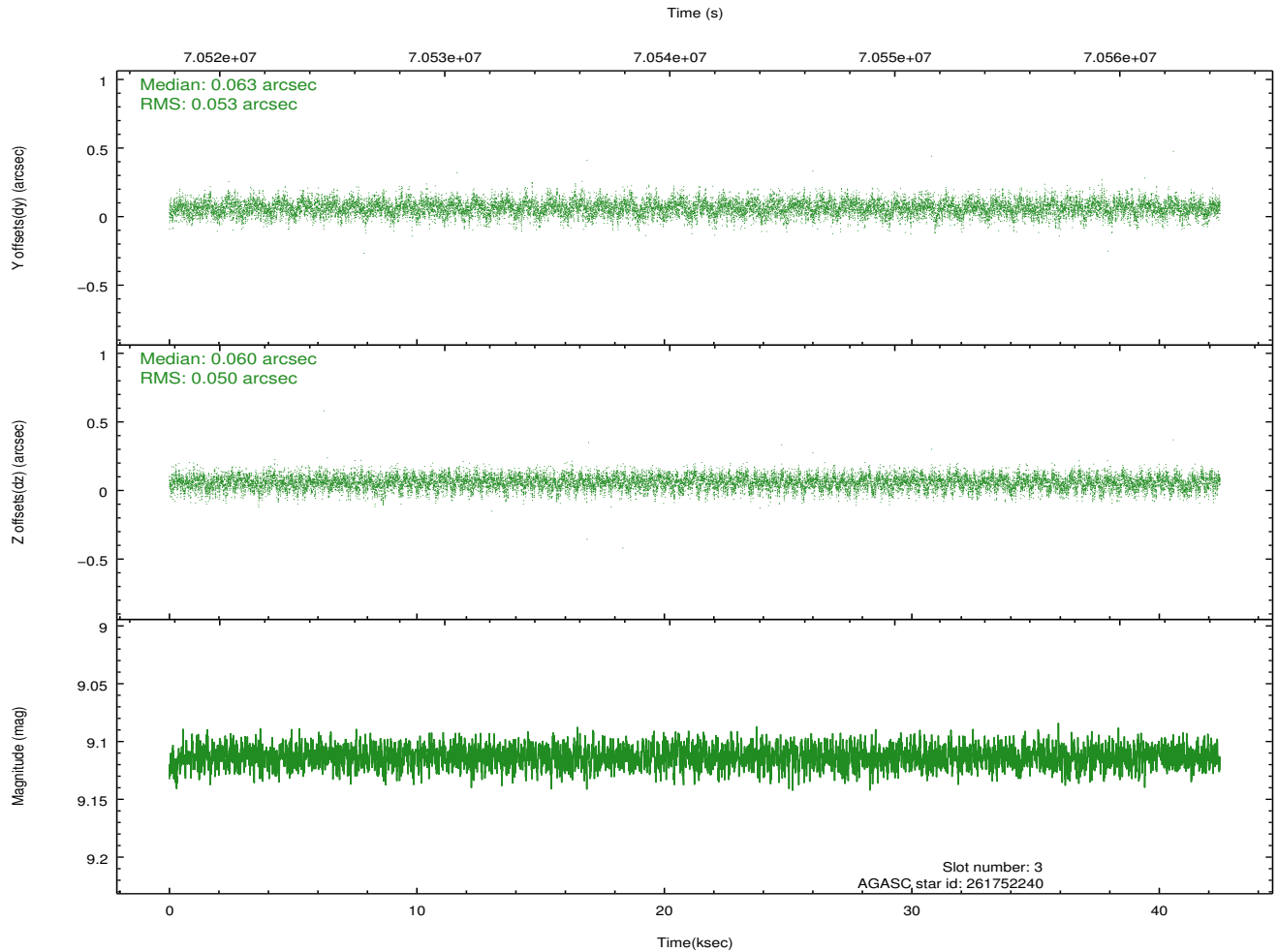
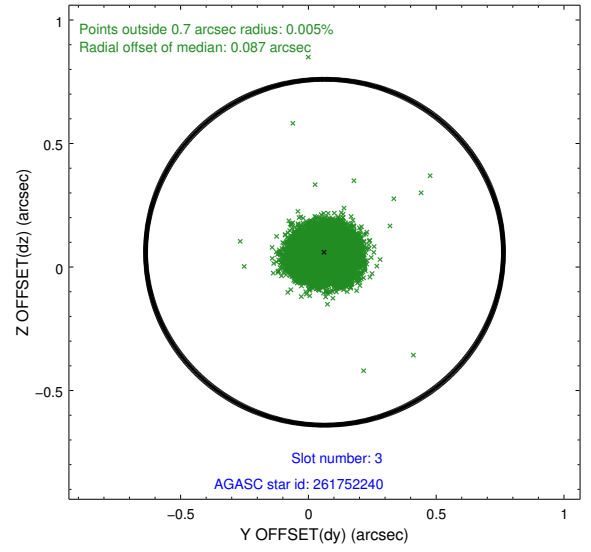
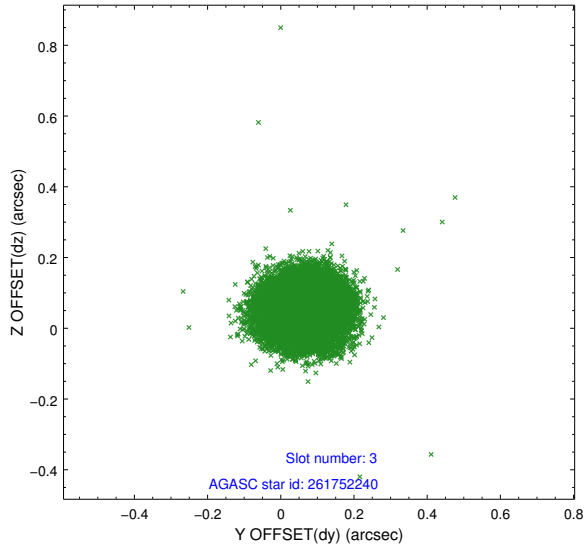


### Slot Statistics

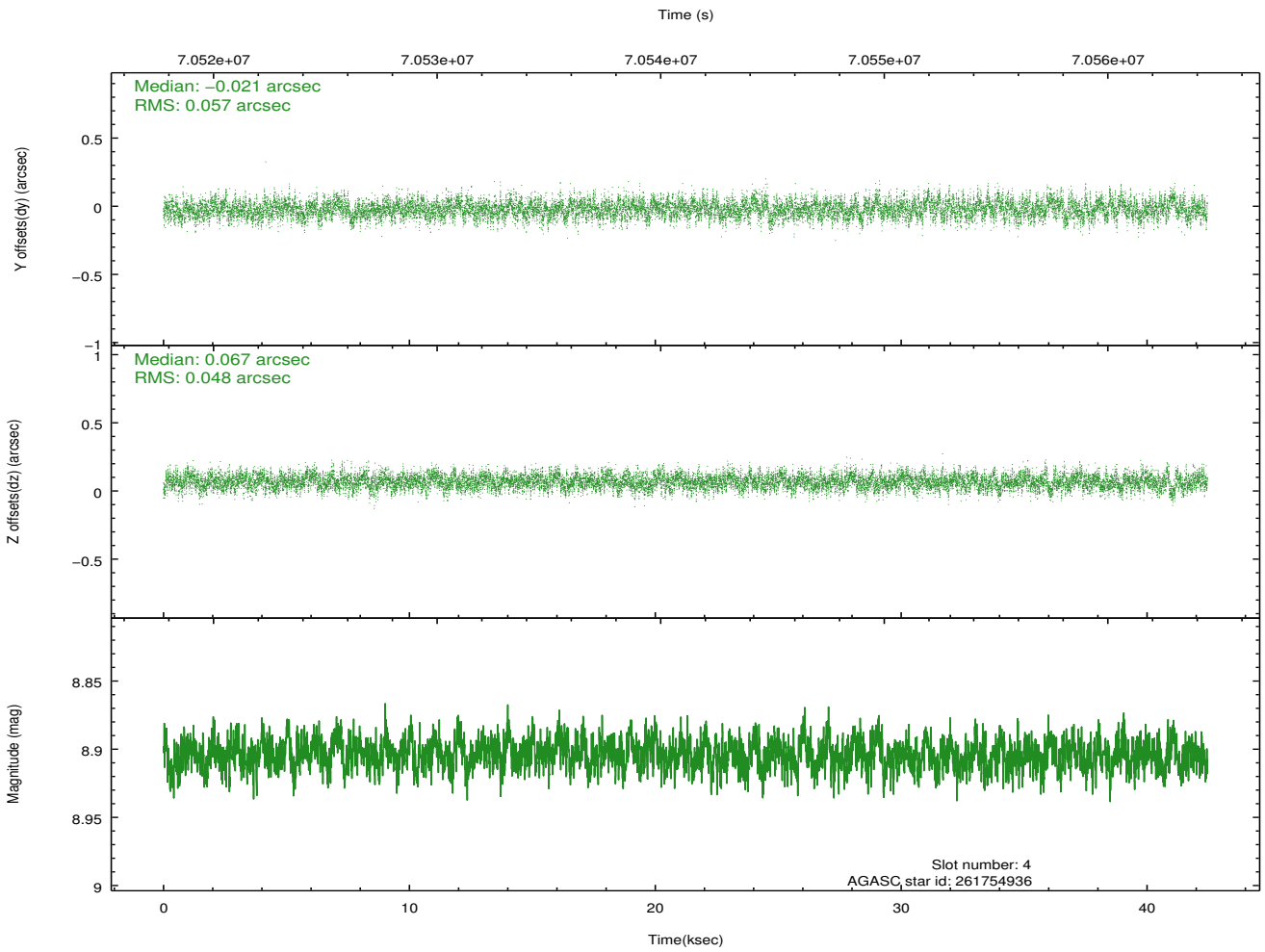
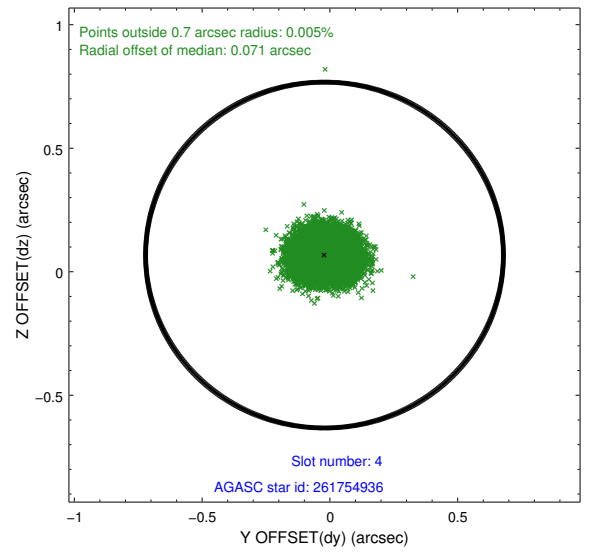
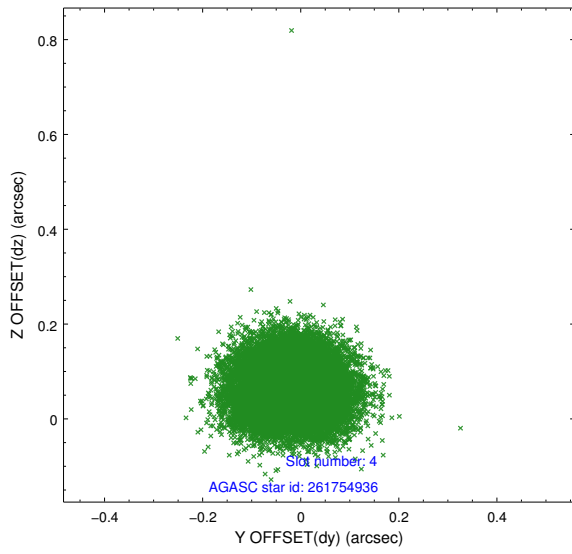
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	10357	-0.061	-0.029	0.007	0.011	0.000000	0.000000	-753.43	-1786.86
1	FID	ACIS-S-4	7.20	10356	0.034	0.037	0.006	0.011	0.000000	0.000000	2159.94	121.67
2	FID	ACIS-S-5	7.23	10357	-0.004	0.000	0.008	0.012	0.000000	0.000000	-1806.21	115.32
3	GUIDE	261752240	9.11	20709	0.063	0.060	0.076	0.126	201.874883	24.312077	2289.77	1578.60
4	GUIDE	261754936	8.90	20705	-0.021	0.067	0.080	0.128	201.937295	24.404248	2346.72	1192.98
5	GUIDE	261756232	10.49	20686	-0.017	0.036	0.132	0.223	202.441197	23.785481	-355.81	1826.06
6	GUIDE	261754656	9.81	20692	0.014	0.089	0.099	0.160	203.261455	24.322726	-1152.61	-1395.21
7	GUIDE	261758232	10.36	20506	-0.035	-0.257	0.130	0.214	202.839913	24.550184	429.46	-1119.93

## 2.4 Star Slots

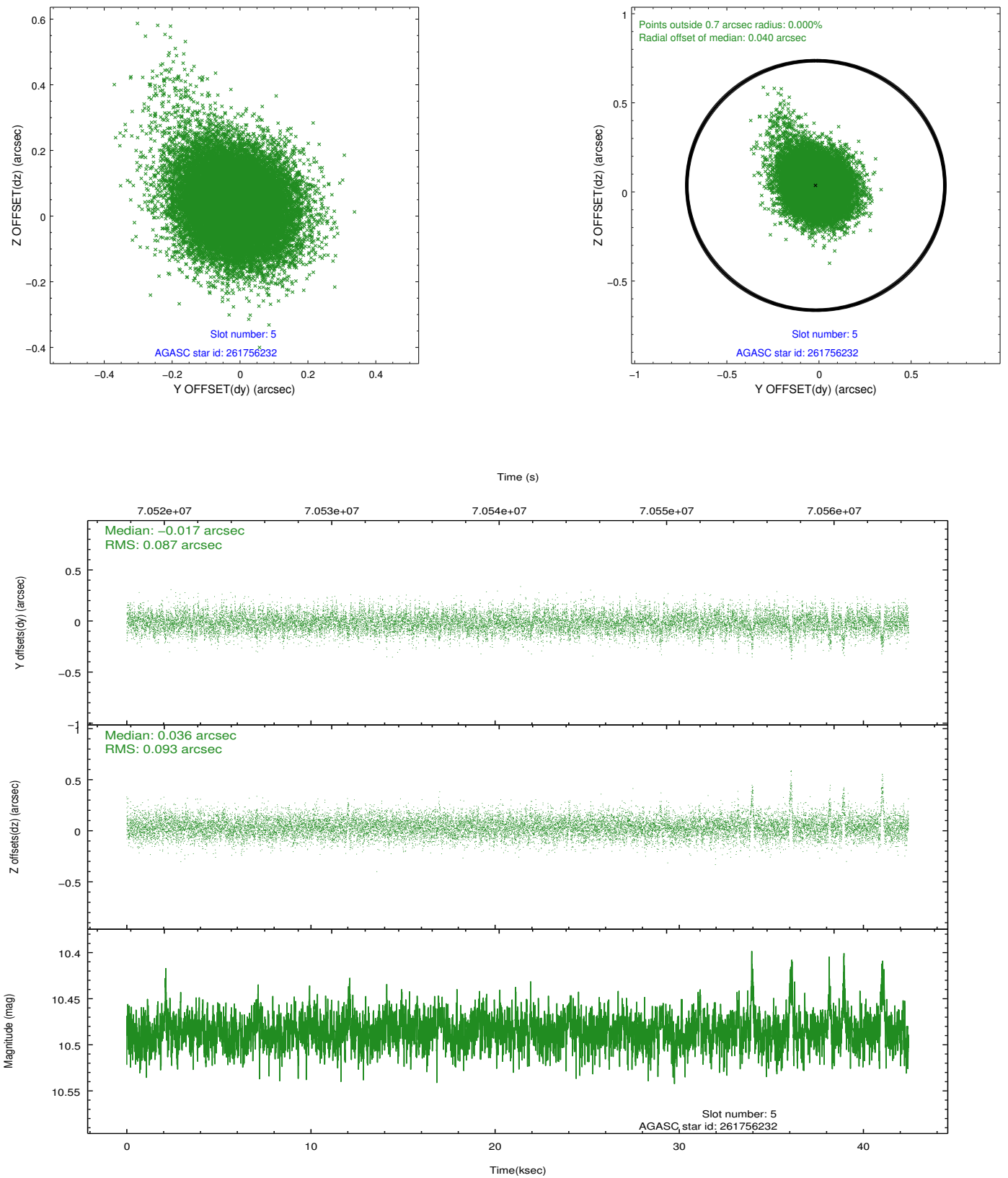
### 2.4.1 Slot 3



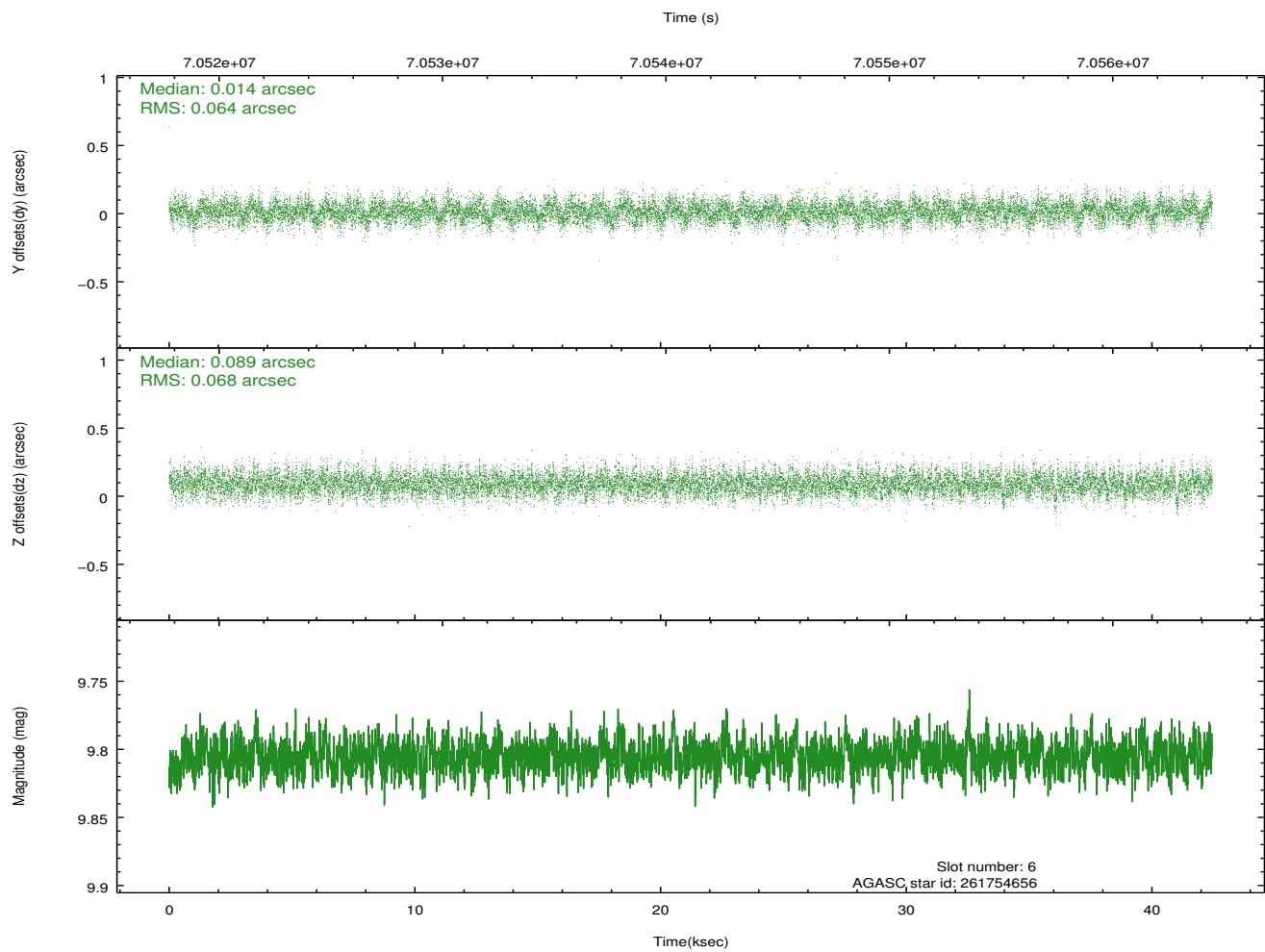
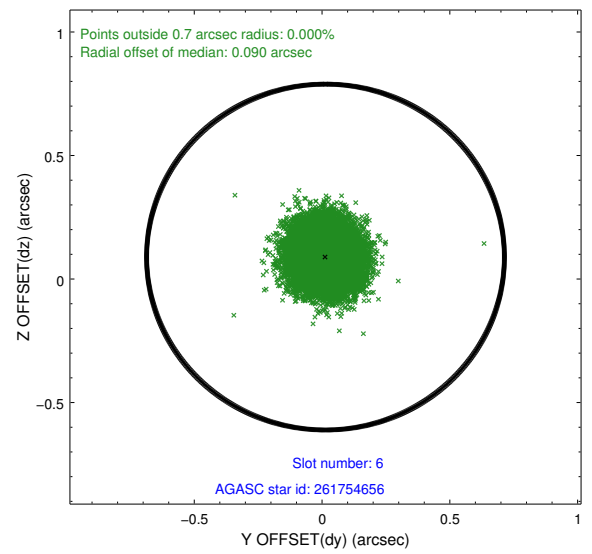
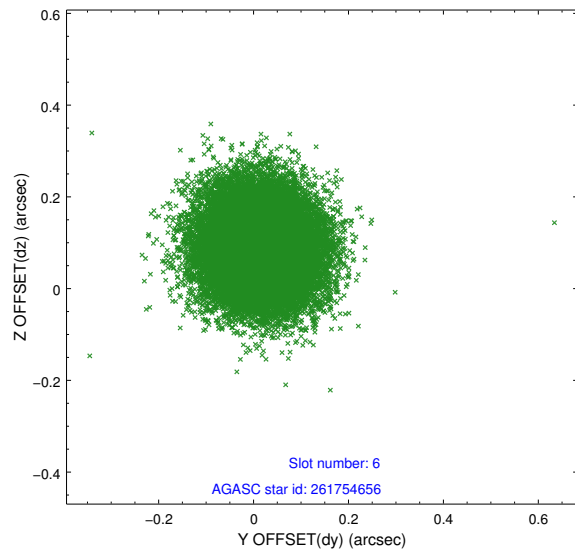
### 2.4.2 Slot 4



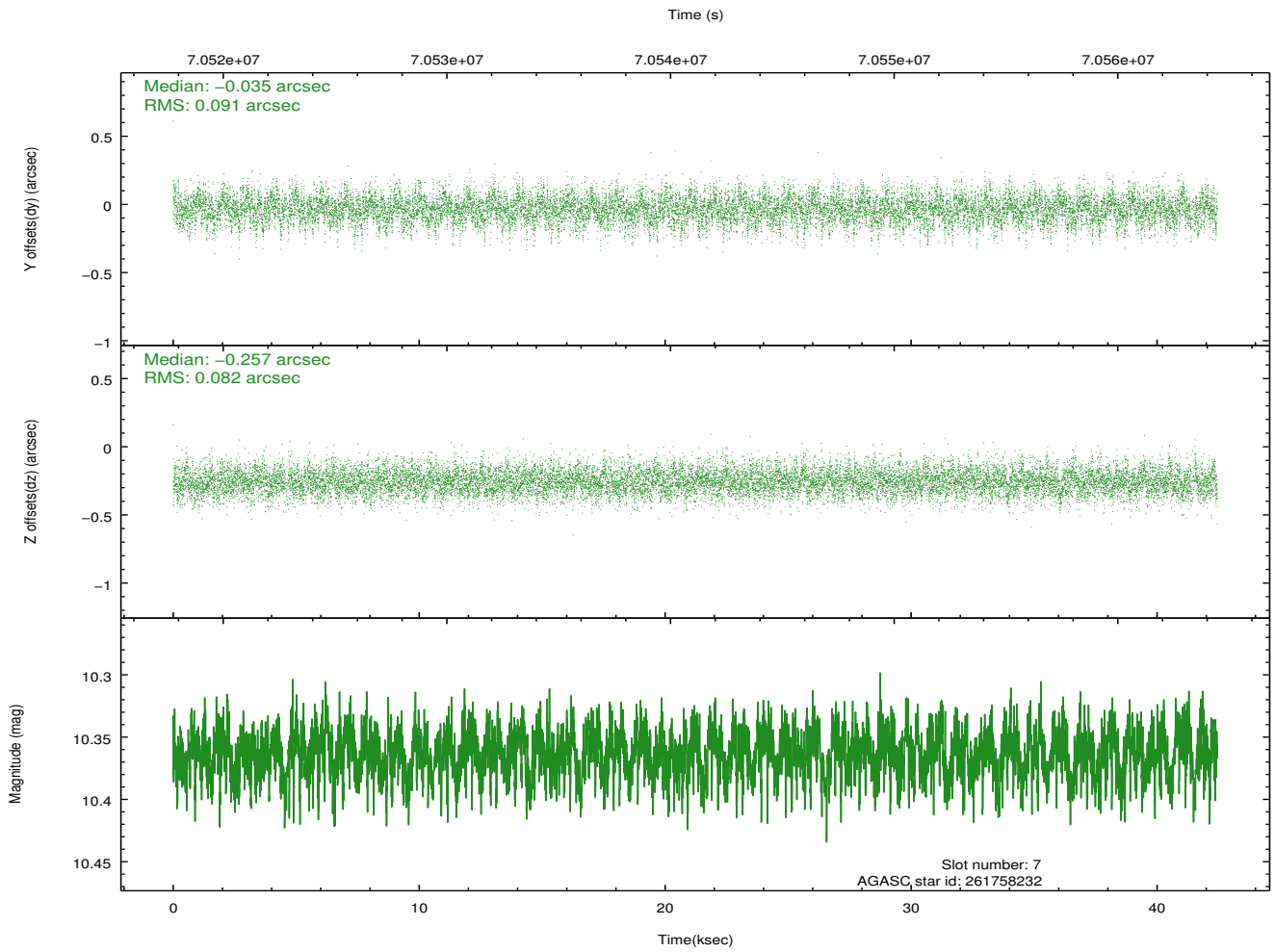
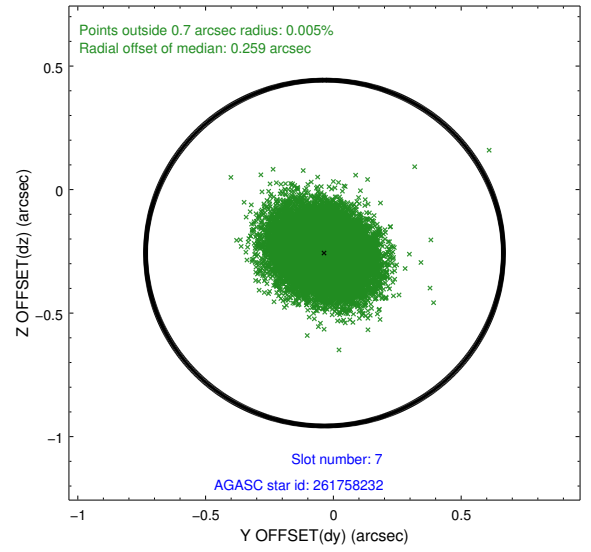
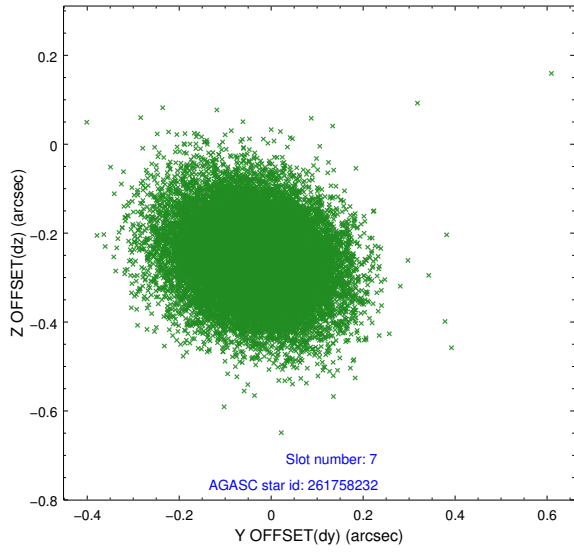
### 2.4.3 Slot 5



## 2.4.4 Slot 6

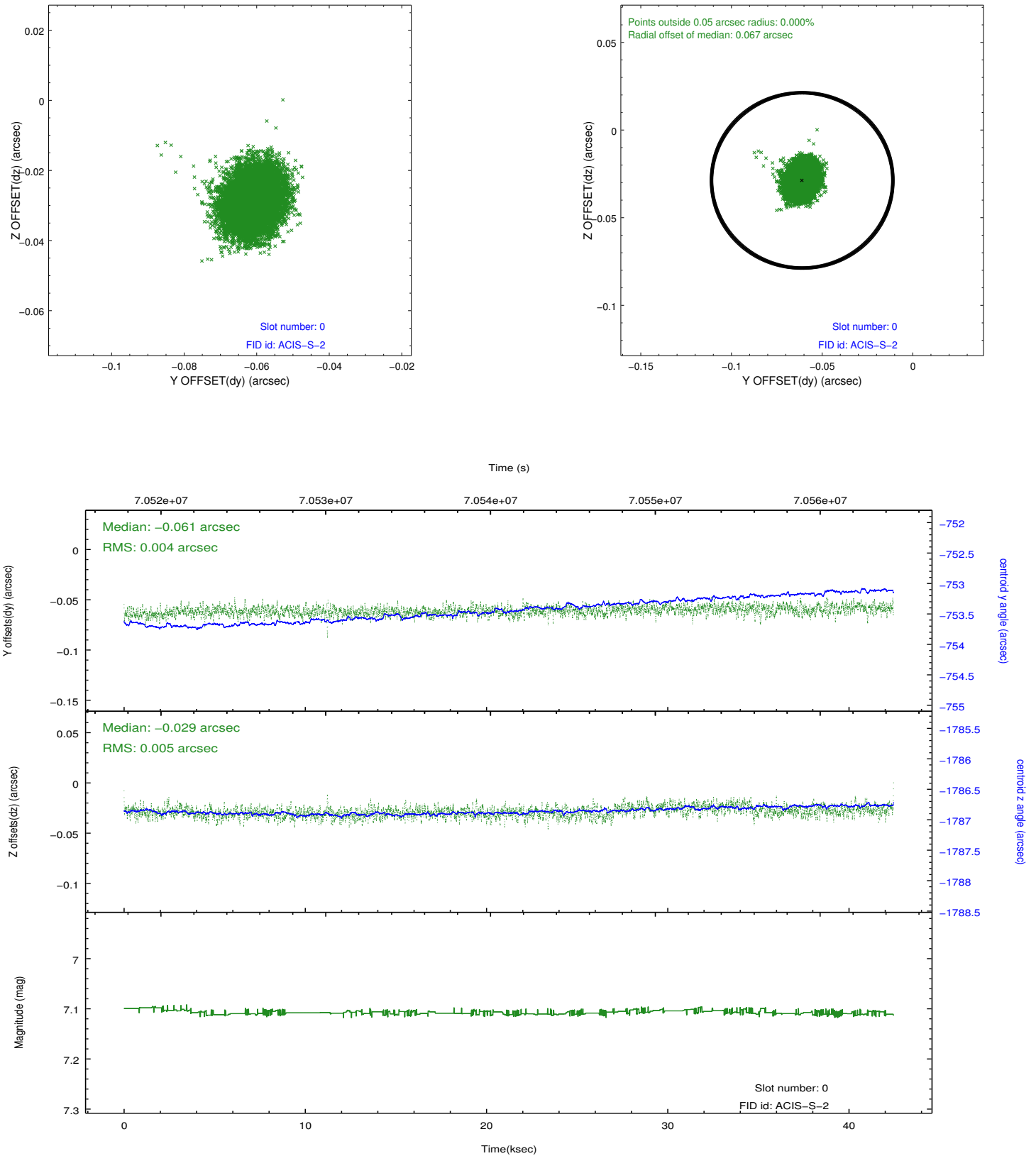


### 2.4.5 Slot 7

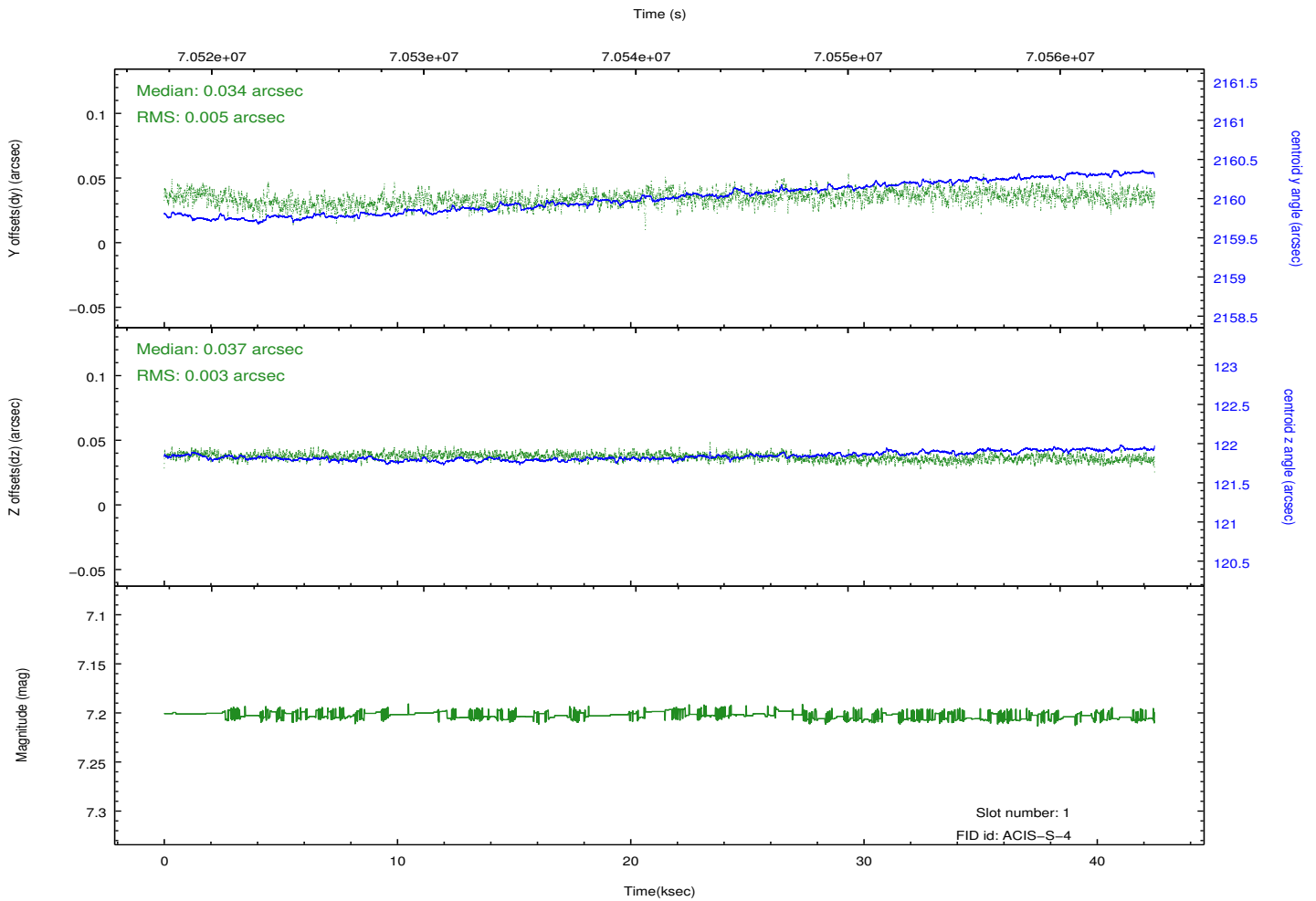
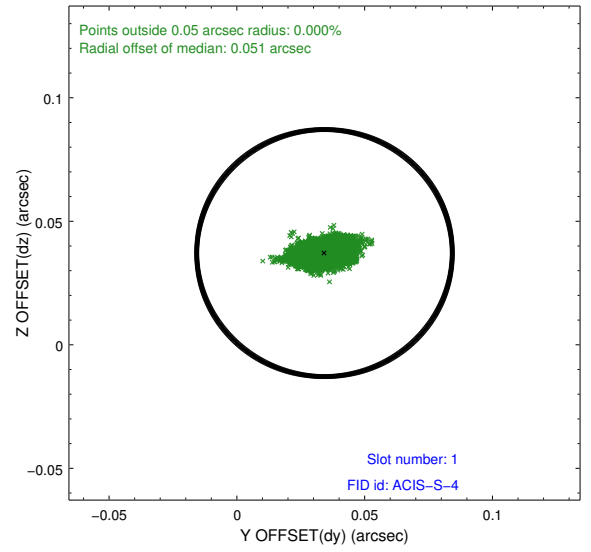
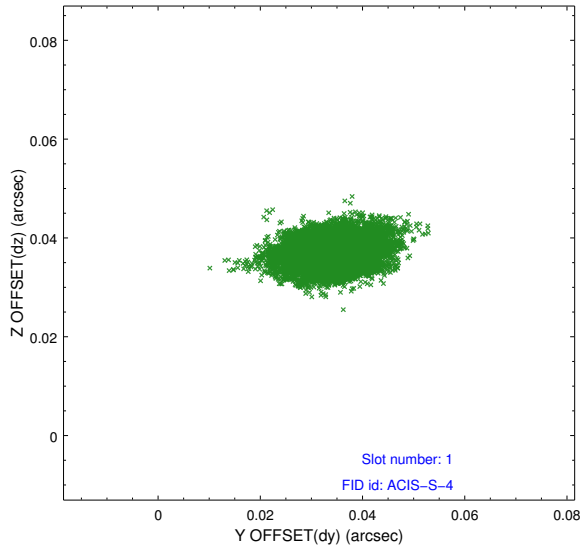


## 2.5 FID Slots

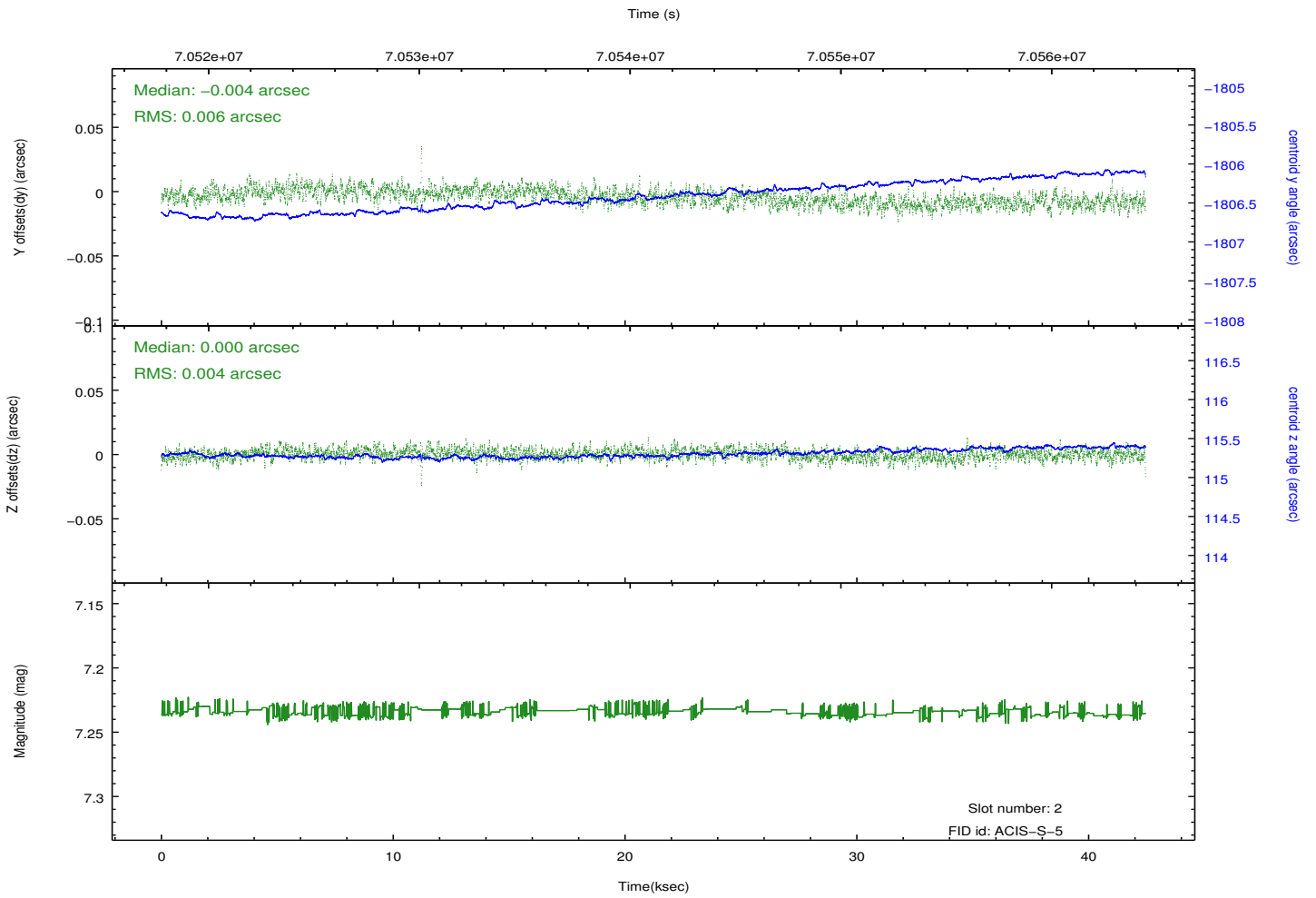
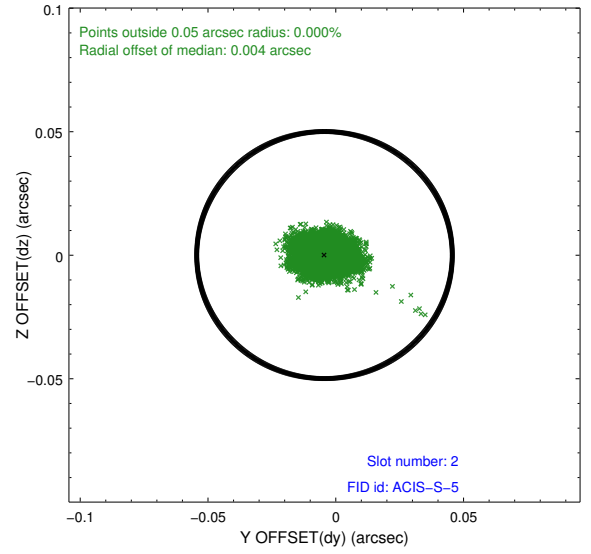
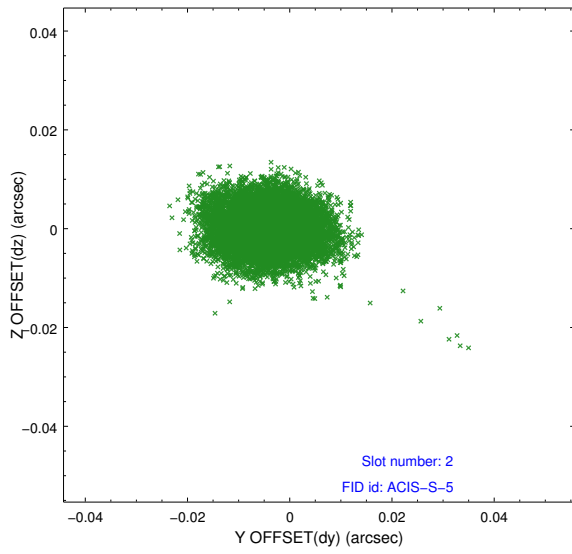
### 2.5.1 Slot 0



## 2.5.2 Slot 1

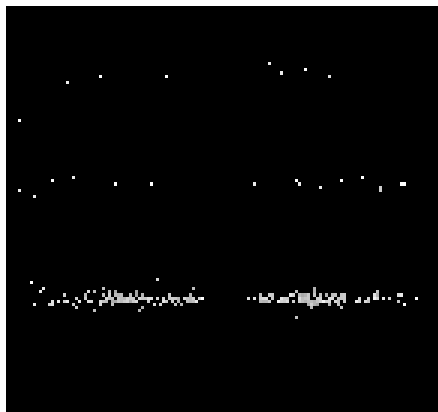


### 2.5.3 Slot 2

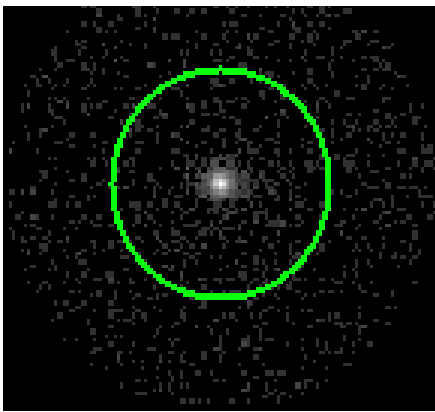


# 3 Gratings

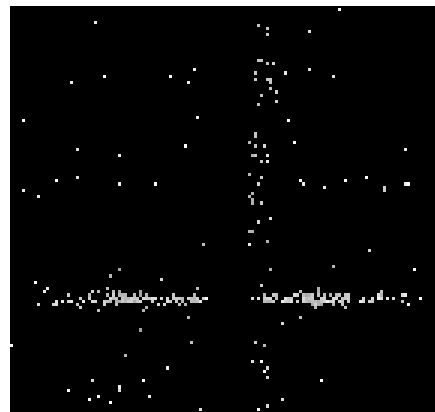
## 3.1 HEG Arm



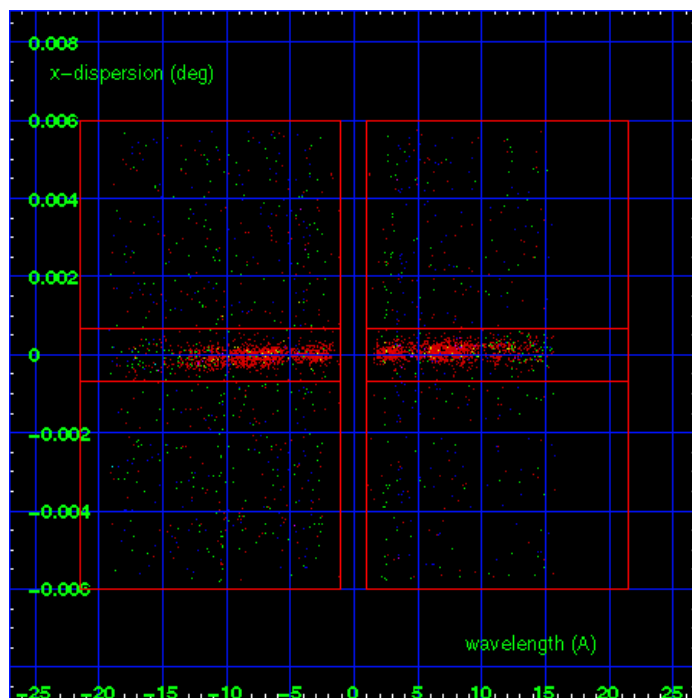
HEG Order Sort 123



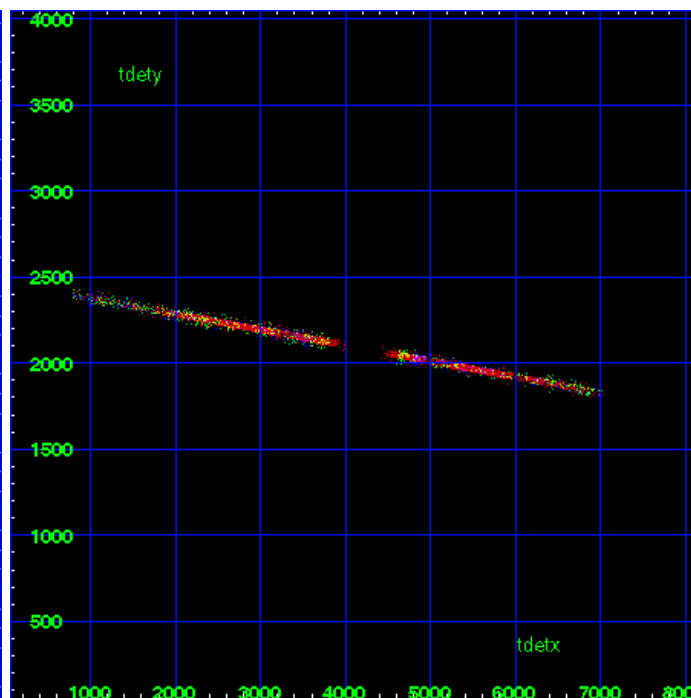
HEG Zero Order



HEG Order Sort ALL

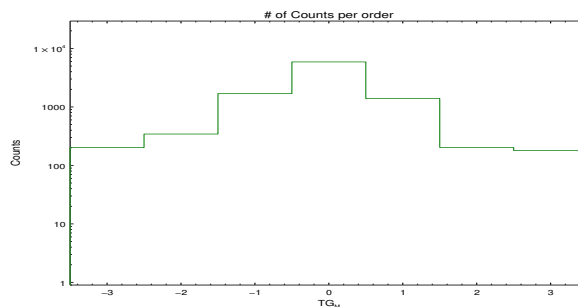


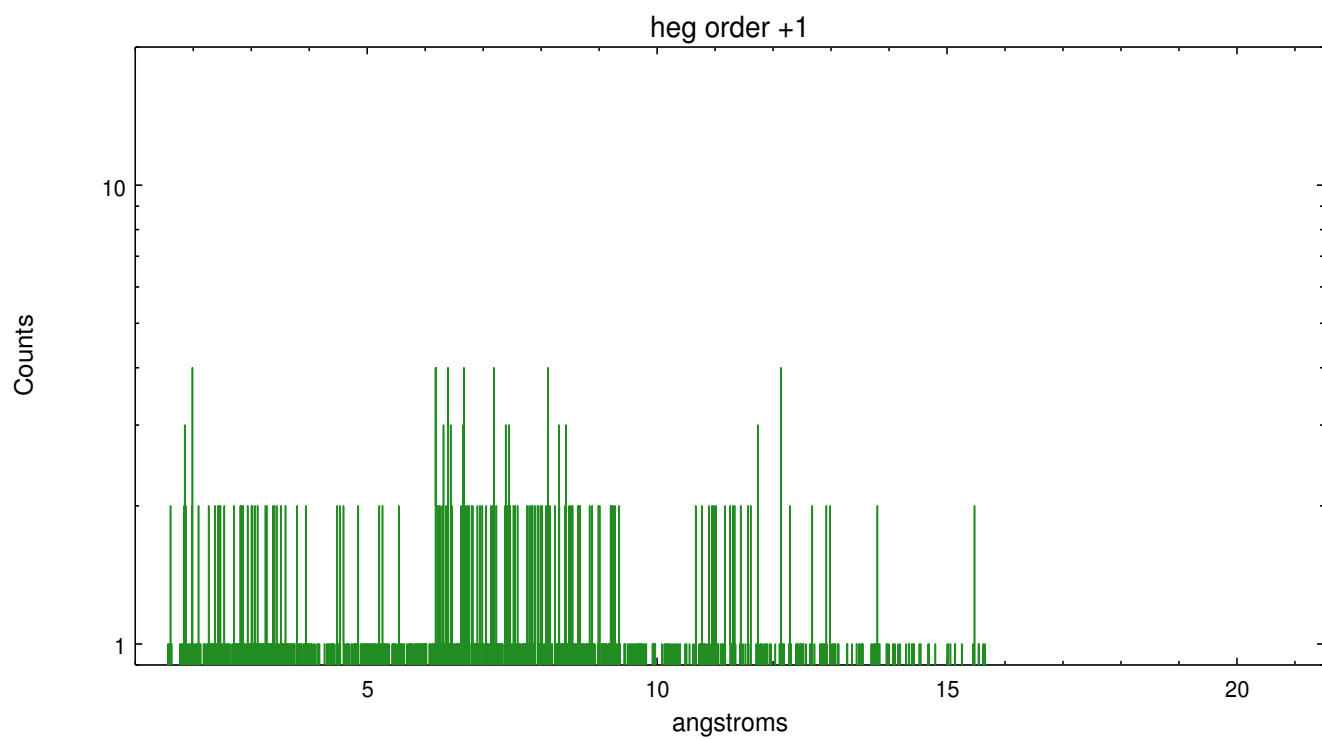
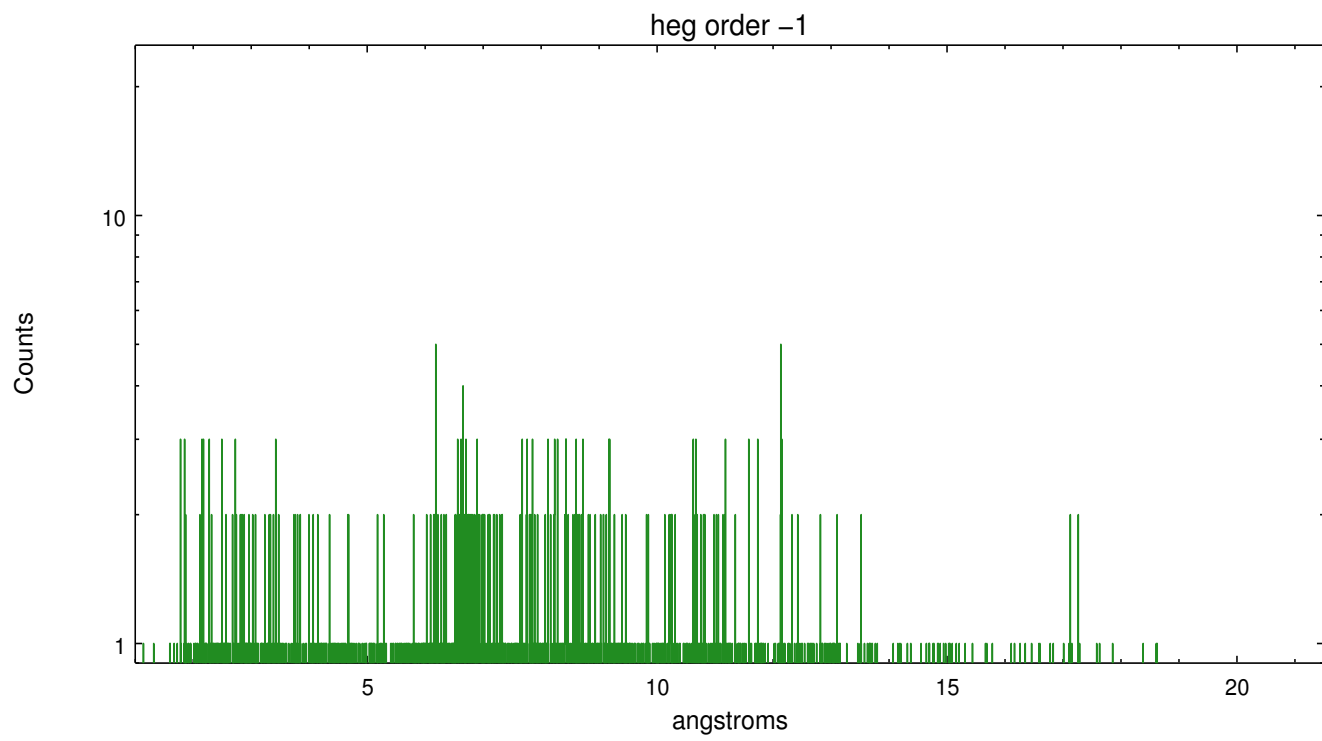
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	202	344	1689	5884	1393	203	180

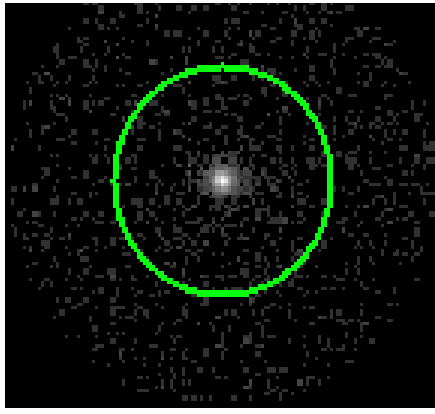




### 3.2 MEG Arm



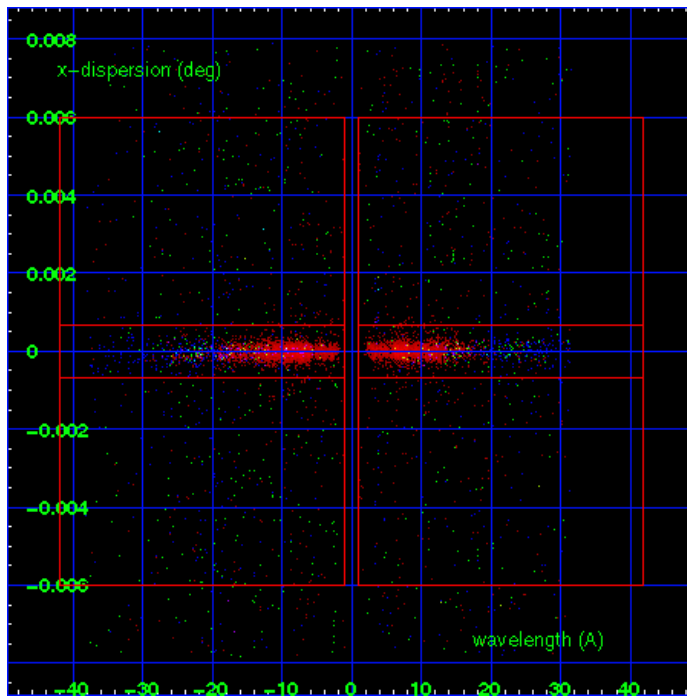
MEG Order Sort 123



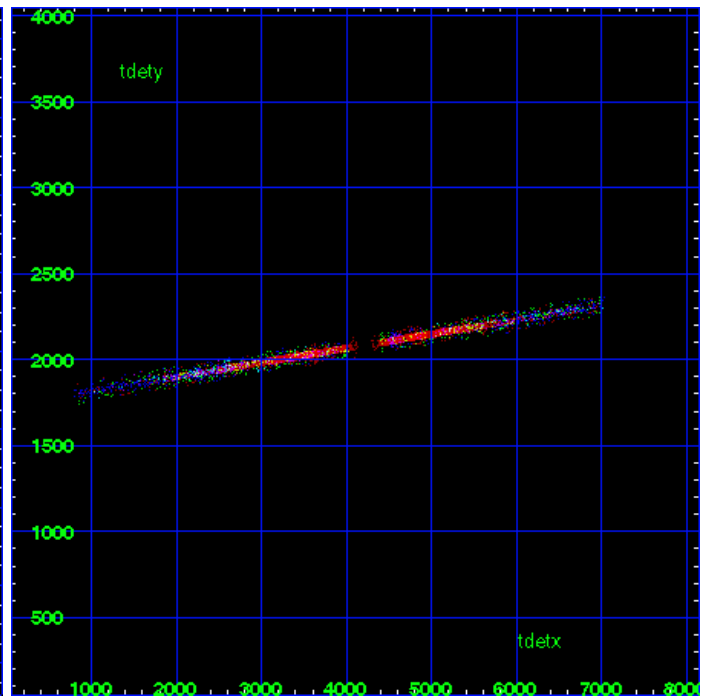
MEG Zero Order



MEG Order Sort ALL

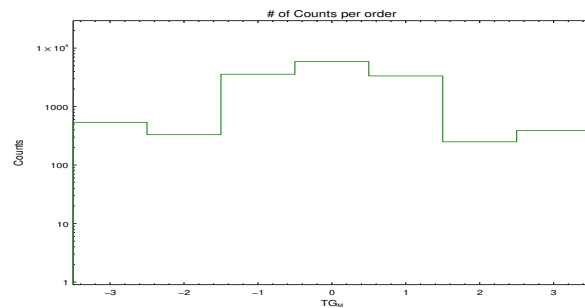


Spot Image MEG

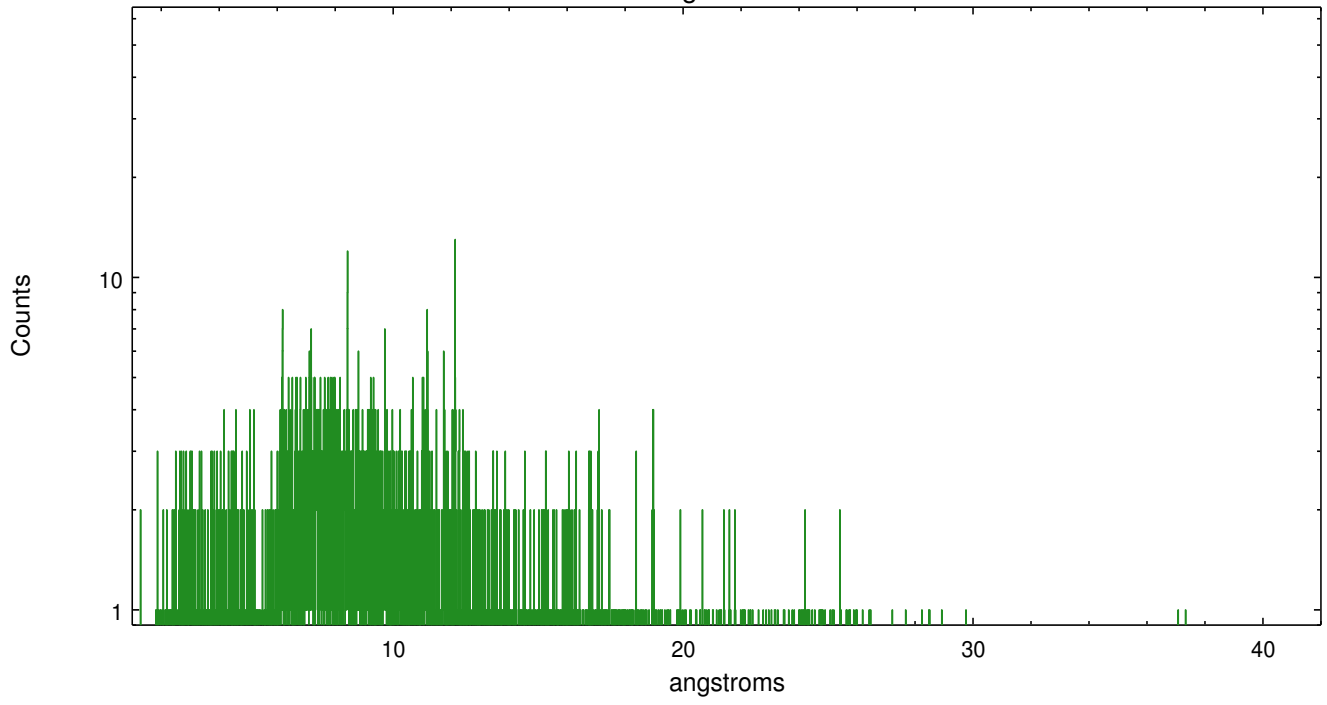


Full Detector MEG

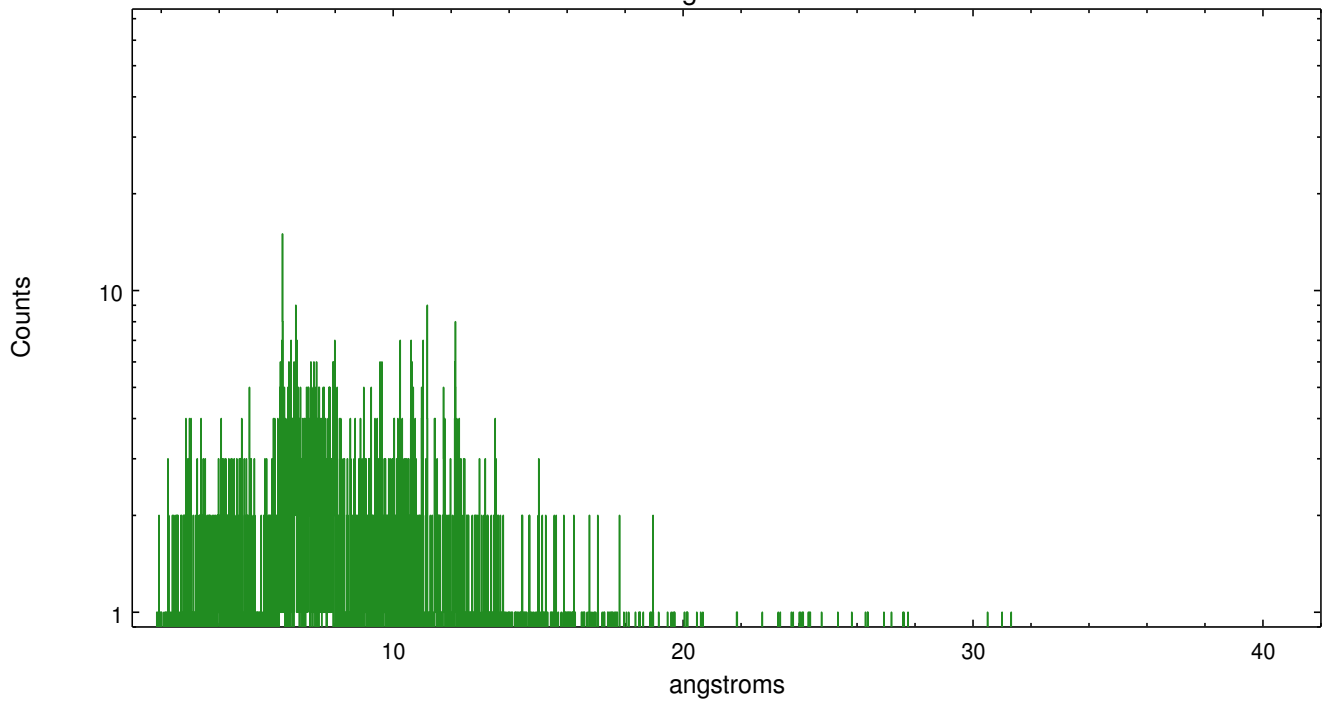
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	538	331	3569	5884	3343	250	388



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.08.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.939

### A.2 Comments