

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 6630 - L2 Version 2  
Chandra X-Ray Center

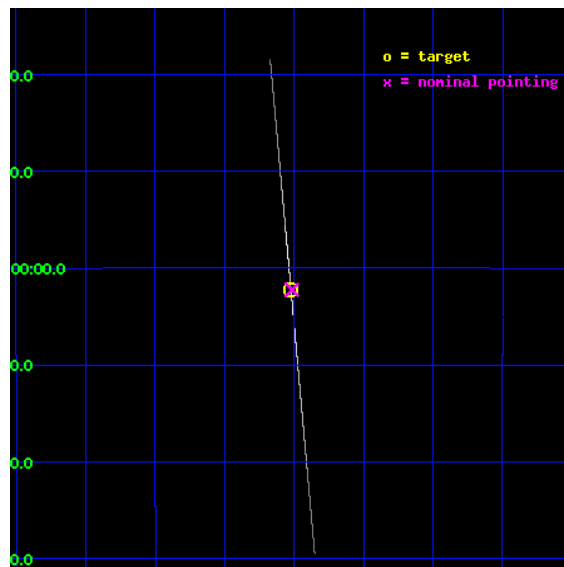
L2 Processing Date : Apr 7 2012

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# 1 Front

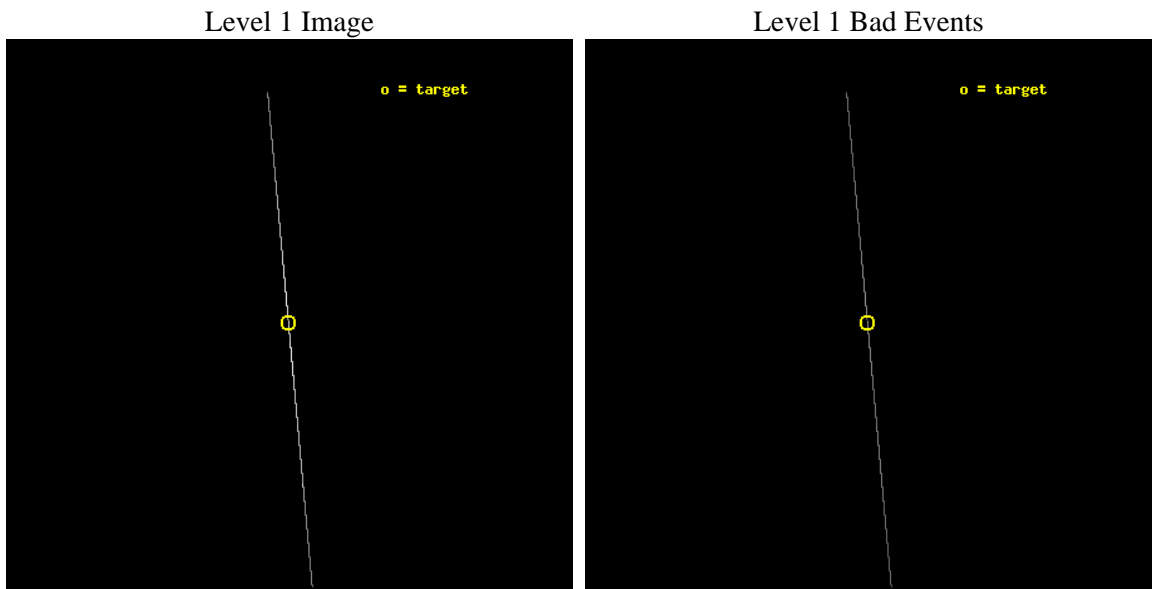
seq_num	400535	Sequence number
obs_id	6630	Observation id
title	CHAZSS: The Chandra HETGS Atoll/Z Spectroscopic Survey	Proposal ti
observer	Dr Jon Miller	Principal investigator
object	GX 17+2	Source name
ra_targ	274.005833	Observer's specified target RA [deg]
dec_targ	-14.036389	Observer's specified target Dec [deg]
ra_nom	274.00400563047	Nominal RA [deg]
dec_nom	-14.037457083444	Nominal Dec [deg]
roll_nom	264.75251883361	Nominal Roll [deg]
revision	2	Processing version of data
ontime	24081.25	Sum of GTIs [s]
livetime	23987.182617188	Livetime [s]
ontime4	24081.25	Sum of GTIs [s]
ontime5	24081.25	Sum of GTIs [s]
ontime6	24081.25	Sum of GTIs [s]
ontime7	24081.25	Sum of GTIs [s]
ontime8	24081.25	Sum of GTIs [s]
ontime9	24081.25	Sum of GTIs [s]
l2events	4521560	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	24000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	24081.25	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime4	24081.25	Sum of GTIs [s]
date	2012-04-07T13:21:52	Date and time of file creation	ontime5	24081.25	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	24081.25	Sum of GTIs [s]
			ontime7	24081.25	Sum of GTIs [s]
			ontime8	24081.25	Sum of GTIs [s]
			ontime9	24081.25	Sum of GTIs [s]
			l1events	4950509	Number of level 1 events

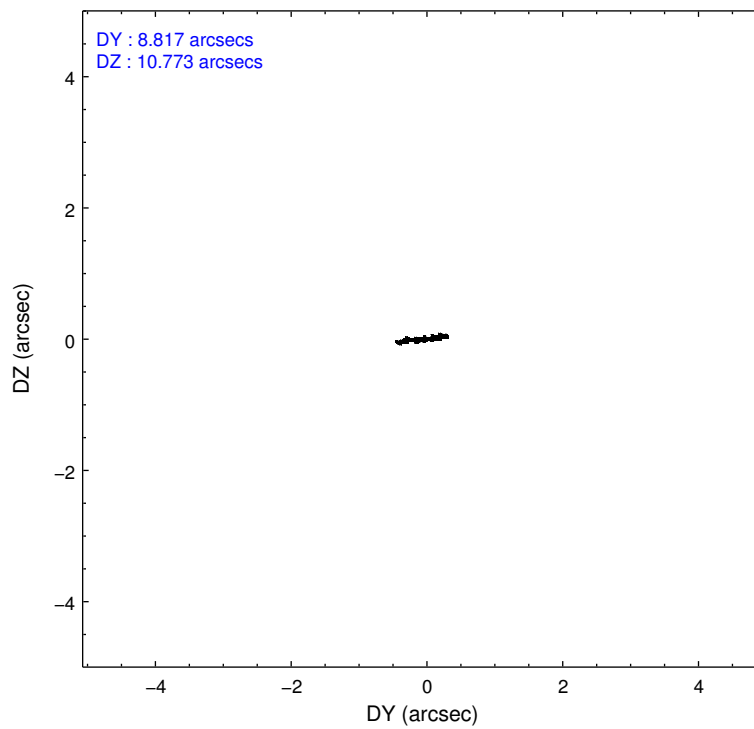
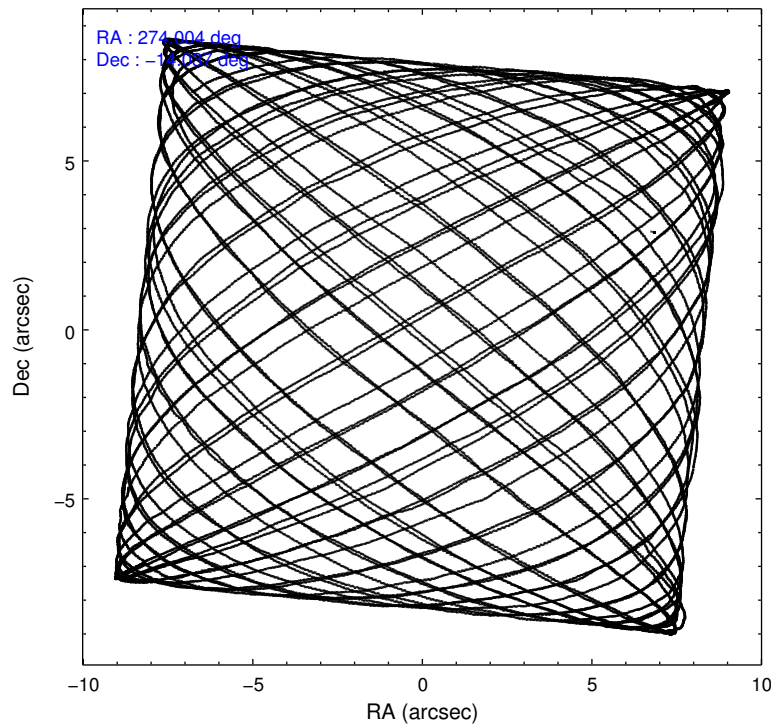
### 2.1.3 Events

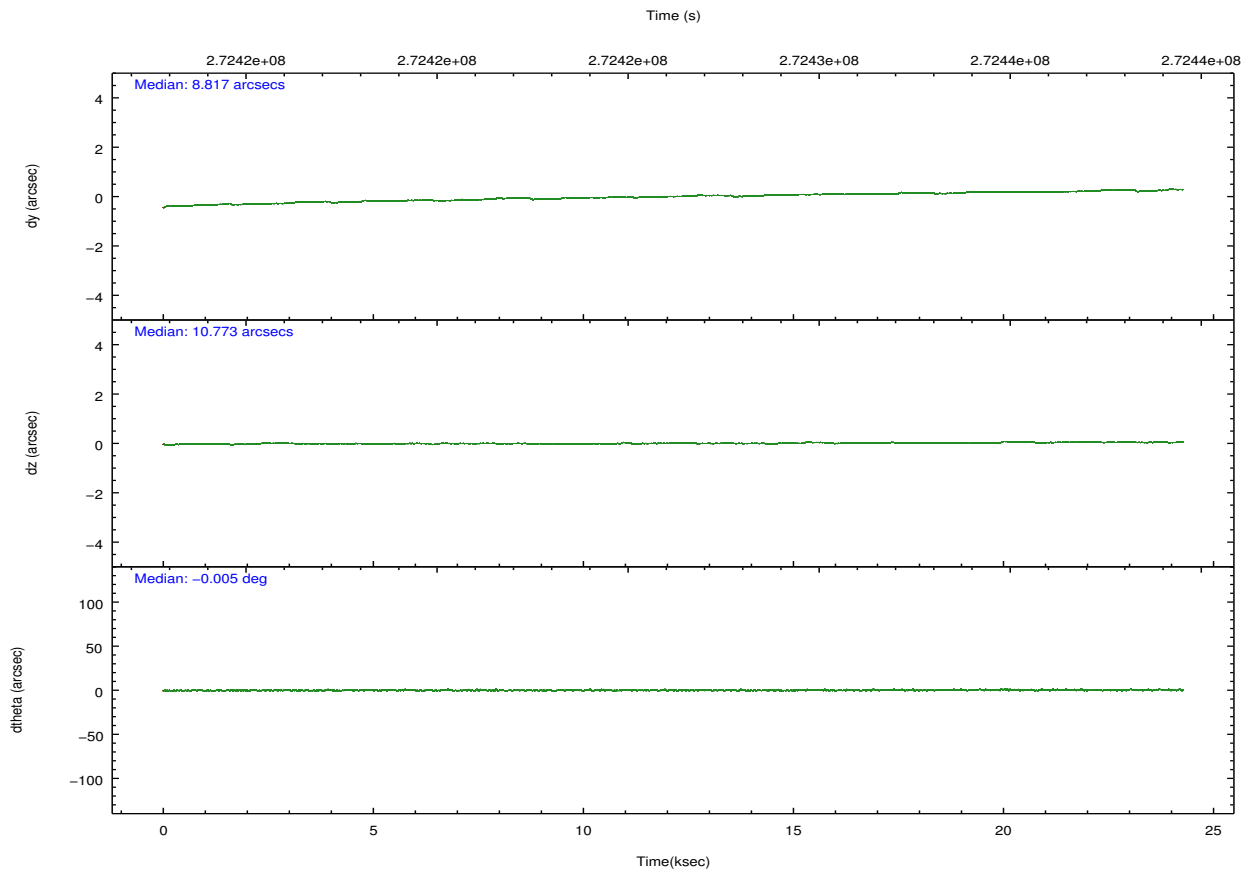
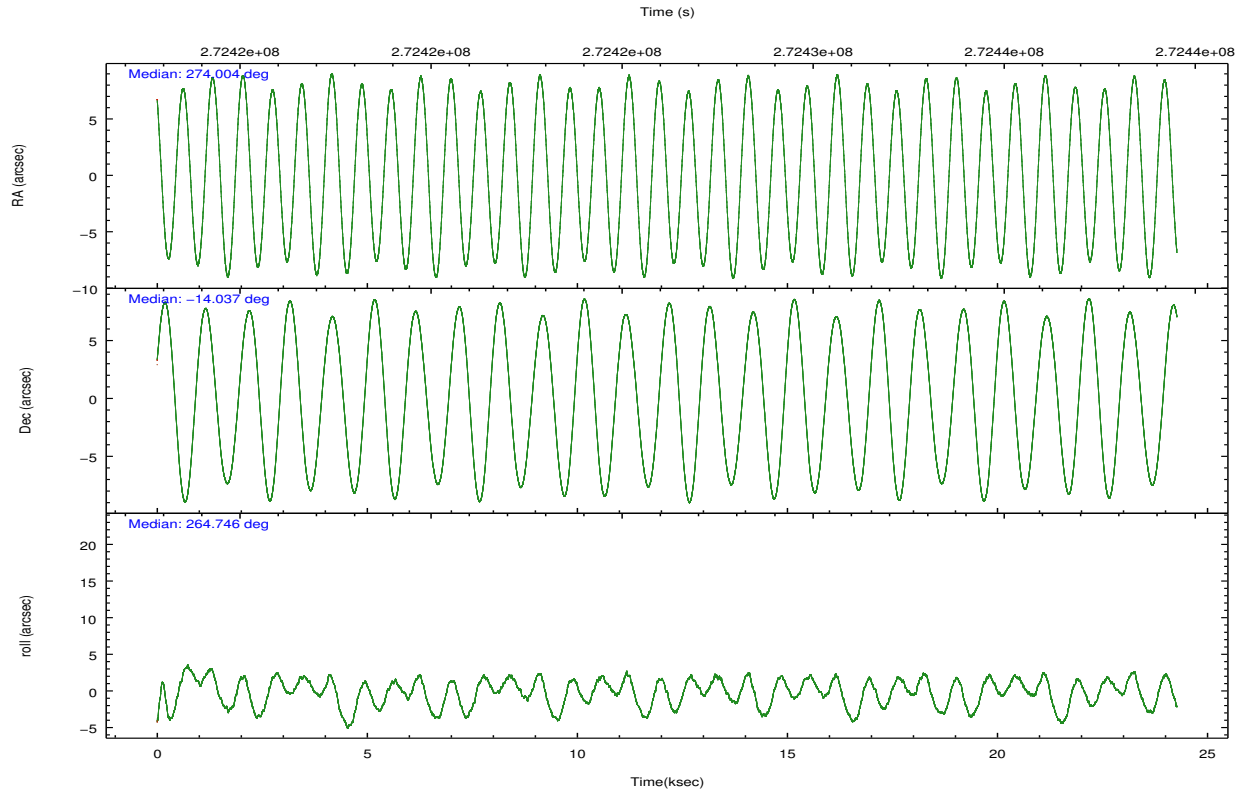
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	80244	397837	1655044	2236676	482482	98226	grade 0 events	5741	67925	306738	334987	231275	10832
rejected events	7989	19331	19643	48533	15564	9743		7%	17%	18%	14%	47%	11%
rejected %	9%	4%	1%	2%	3%	9%	grade 1 events	148	337	1170	3550	990	198
								0%	0%	0%	0%	0%	0%
							grade 2 events	44526	140647	1108237	659854	158377	53295
								55%	35%	66%	29%	32%	54%
							grade 3 events	5225	10934	21031	185923	18966	4970
								6%	2%	1%	8%	3%	5%
							grade 4 events	5208	10833	20920	184315	18408	5172
								6%	2%	1%	8%	3%	5%
							grade 5 events	7835	18956	18314	44764	14527	9536
								9%	4%	1%	2%	3%	9%
							grade 6 events	11561	148205	178634	823283	39939	14223
								14%	37%	10%	36%	8%	14%
							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	273.991907	274.004005630466	Subarray requested	NONE	NONE
[deg] Pointing Dec	-14.012901	-14.03745708344395	Alternating exposures requested	N	N
[deg] Pointing Roll	264.592957	264.7525188336126	[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	-182.632523	-182.6398635053184			
[mm] SIM translation stage offset	-7.5	-7.49265907768941			
[s] Observation start time (MET)	272414320.184000	272413656.17129			
Observation start date	2006-08-19T22:37:35	2006-08-19T22:27:36			
[s] Observation end time (MET)	272438320.184000	272438856.82247			
Observation end date	2006-08-20T05:17:35	2006-08-20T05:27:36			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



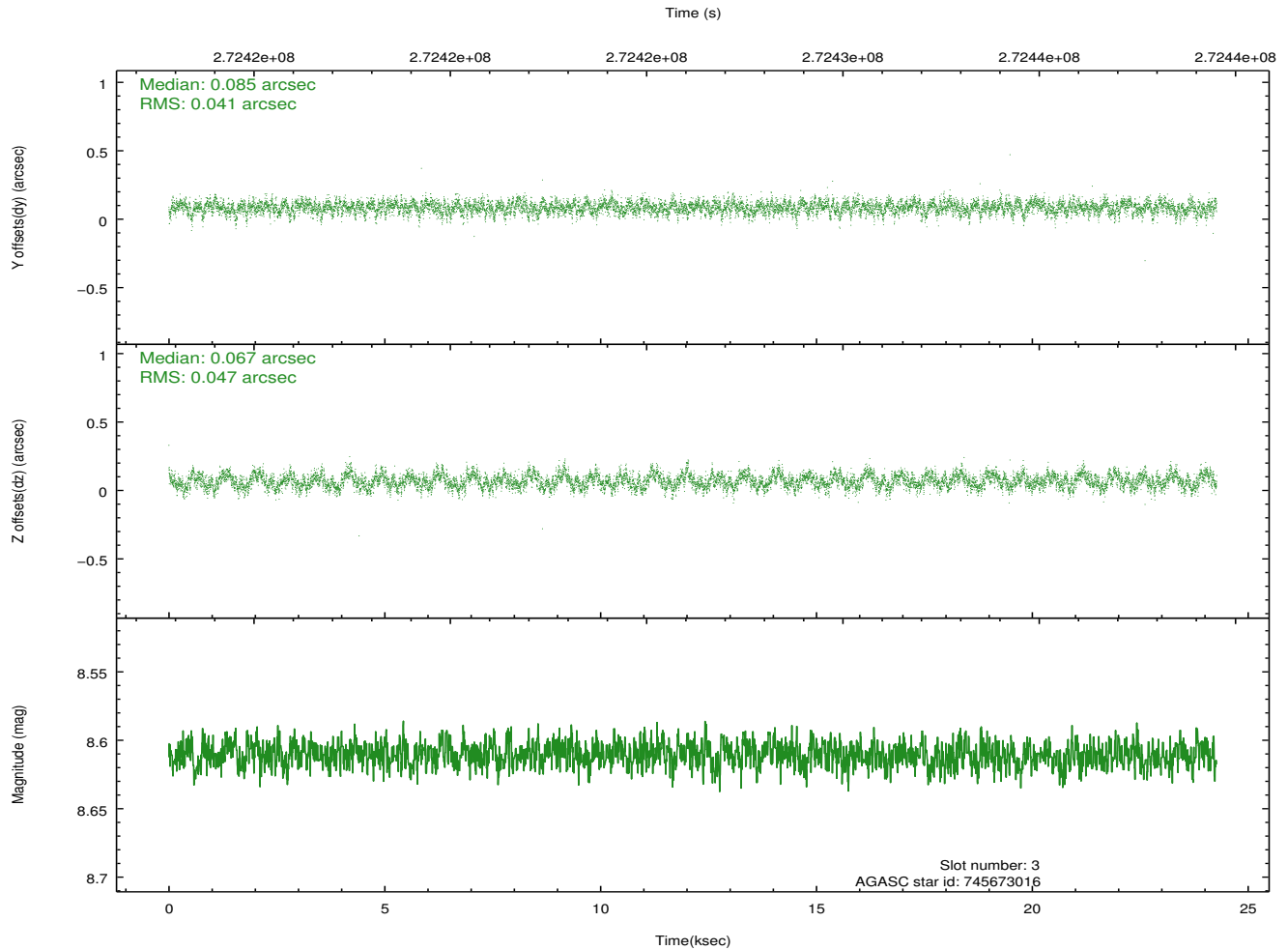
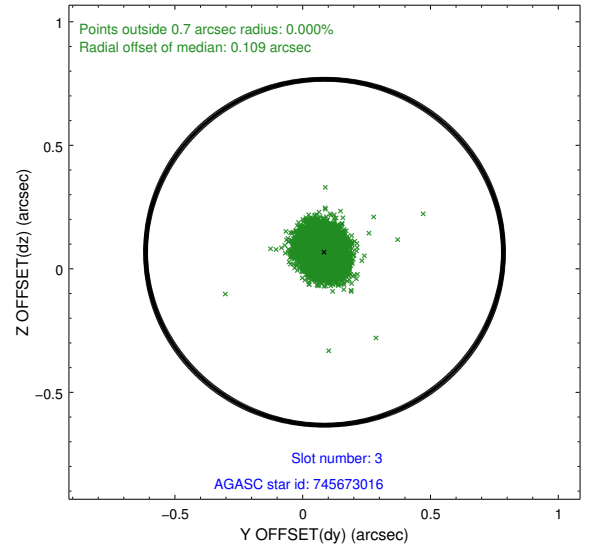
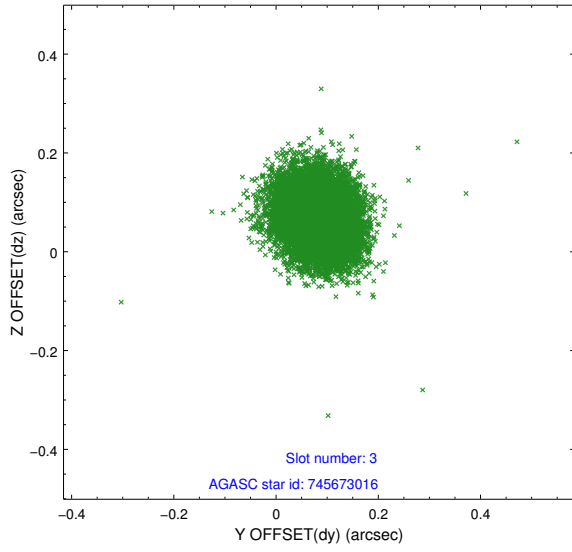


### Slot Statistics

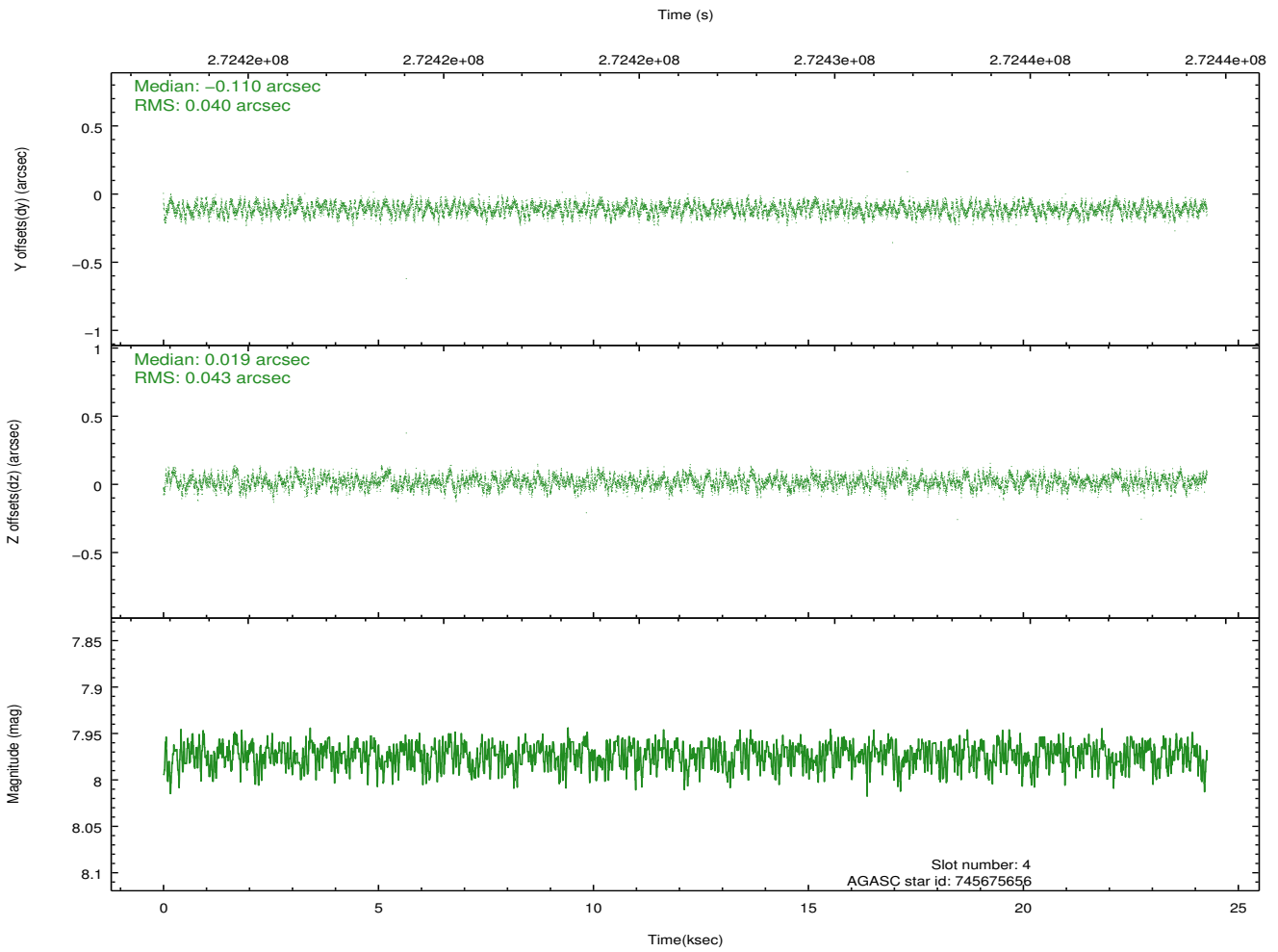
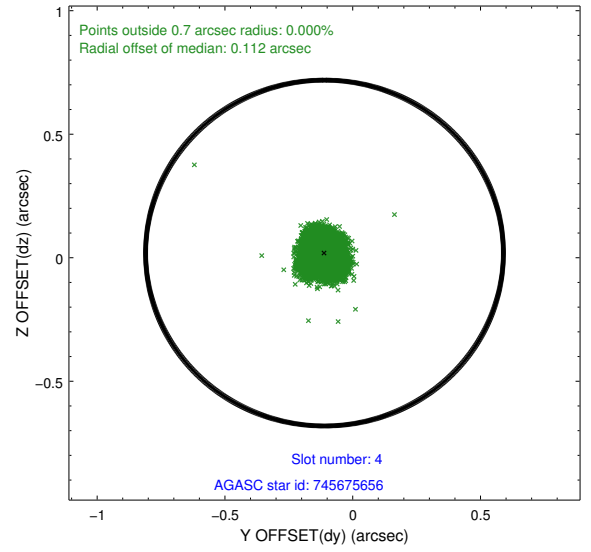
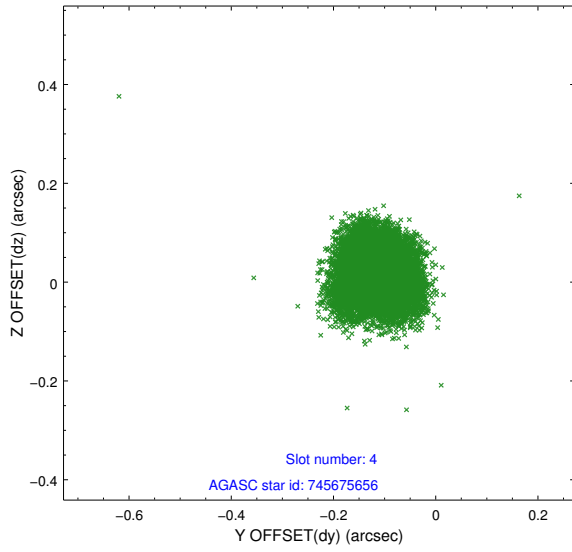
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-4	7.18	5921	0.115	0.013	0.010	0.018	0.000000	0.000000	2152.40	22.25
1	FID	ACIS-S-5	7.23	5921	-0.135	0.011	0.016	0.027	0.000000	0.000000	-1813.88	15.70
2	FID	ACIS-S-6	7.40	5920	-0.009	-0.010	0.010	0.015	0.000000	0.000000	400.39	659.43
3	GUIDE	745673016	8.61	11837	0.085	0.067	0.066	0.106	274.601407	-14.684413	2209.67	2341.46
4	GUIDE	745675656	7.97	11841	-0.110	0.019	0.064	0.099	274.656383	-13.977352	-342.79	2299.26
5	GUIDE	745676944	8.91	11834	0.021	-0.008	0.071	0.114	274.121102	-14.245583	791.82	527.89
6	GUIDE	745678840	9.20	11836	0.030	0.034	0.083	0.137	274.156904	-14.659171	2262.60	791.60
7	GUIDE	745680576	8.70	11834	-0.023	-0.113	0.065	0.105	274.063292	-14.644899	2242.11	462.02

## 2.4 Star Slots

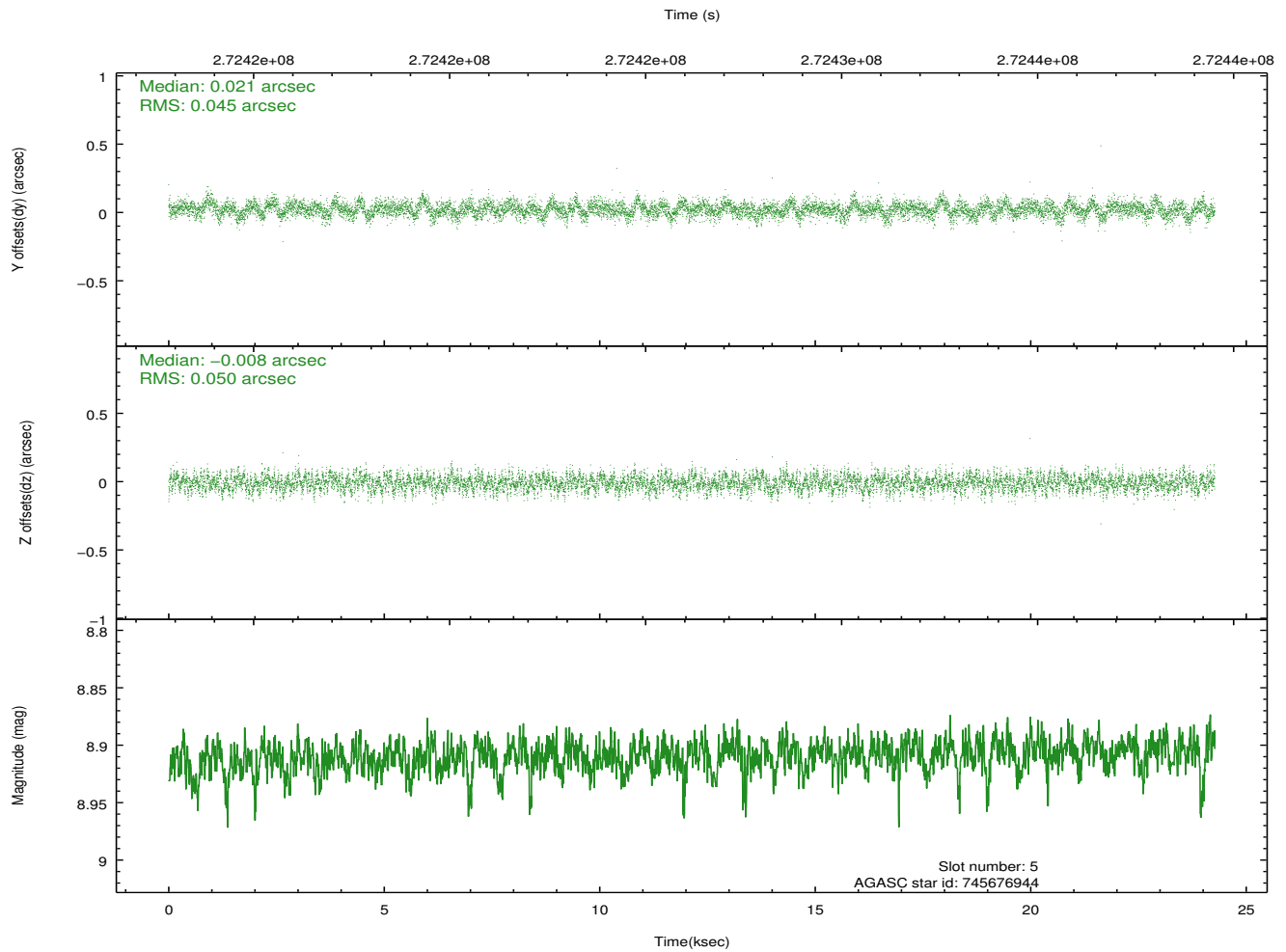
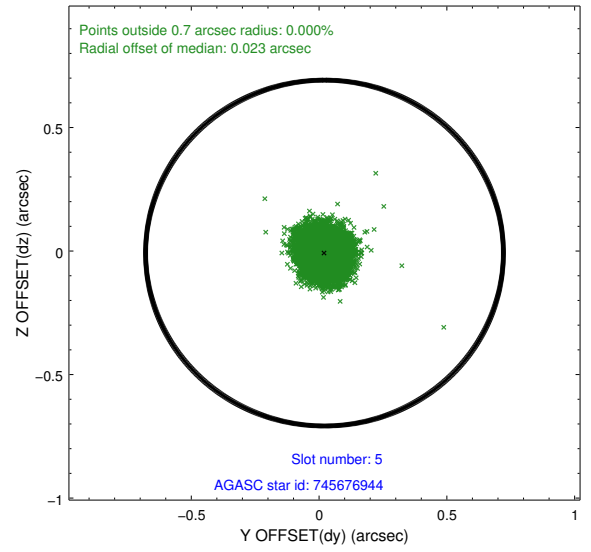
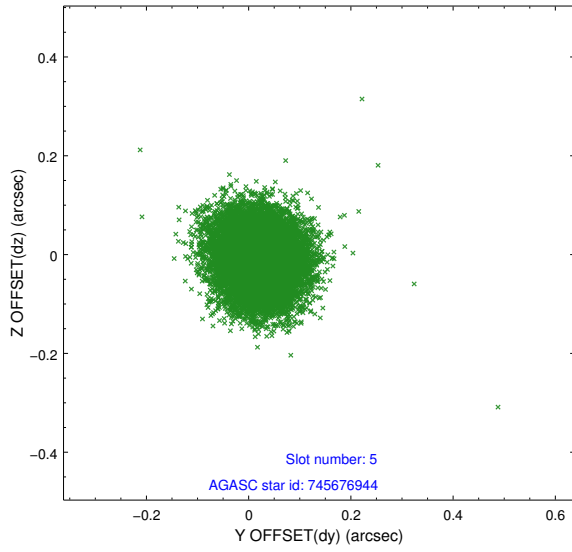
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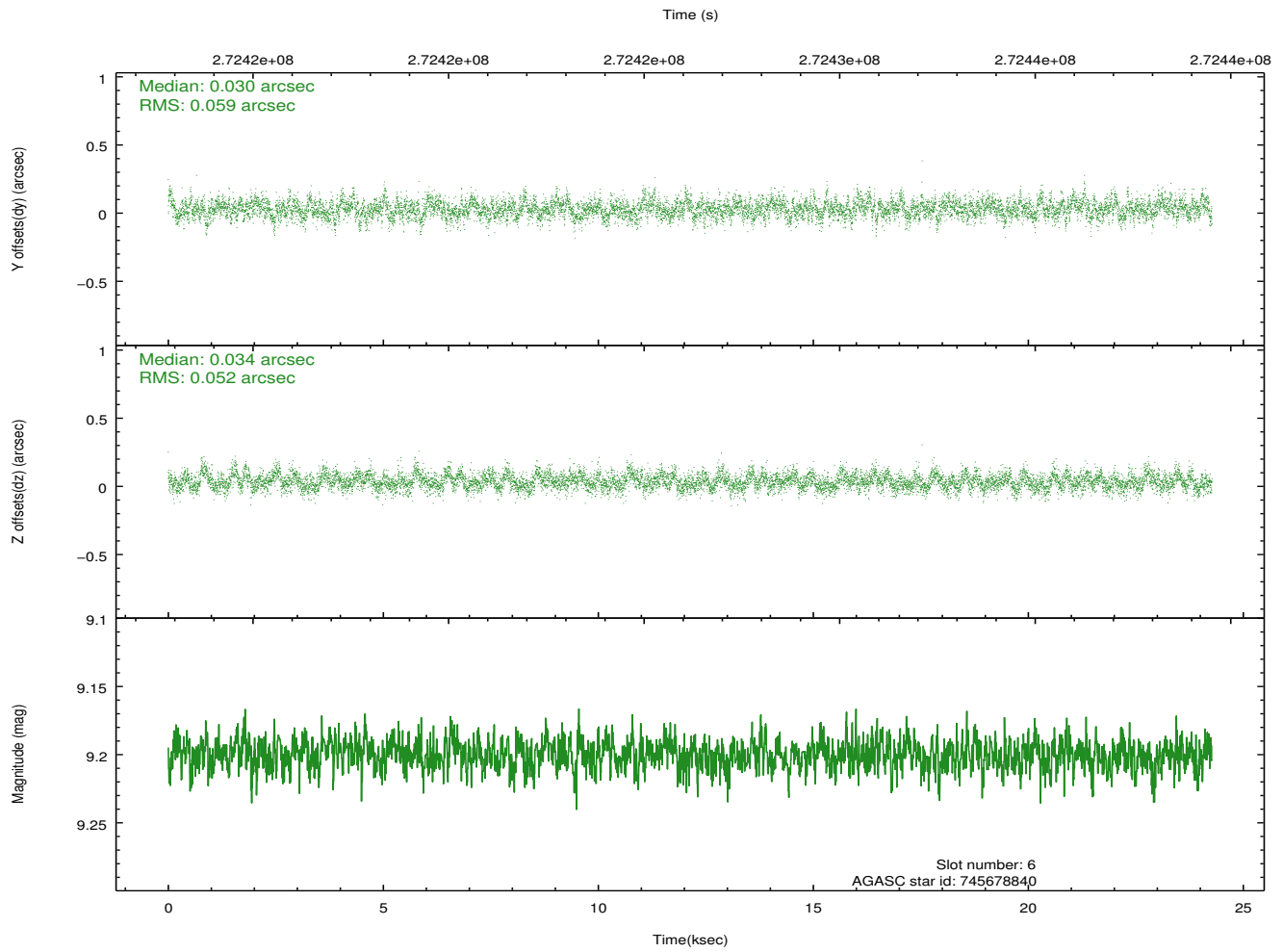
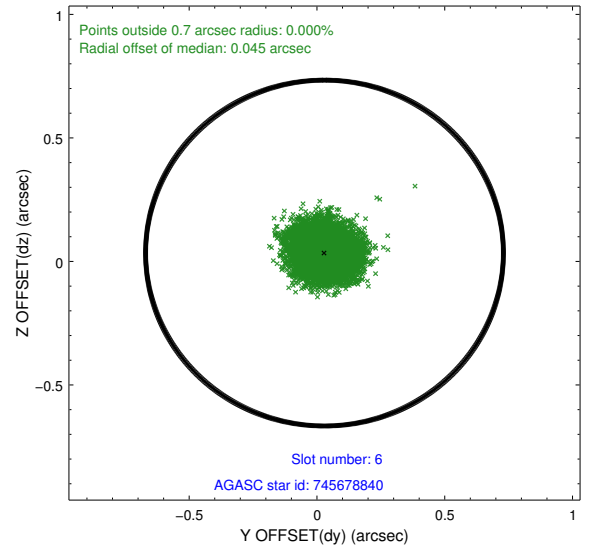
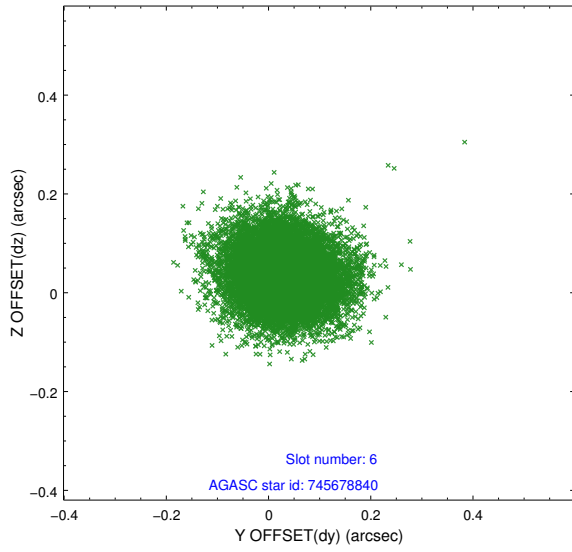
### 2.4.2 Slot 4



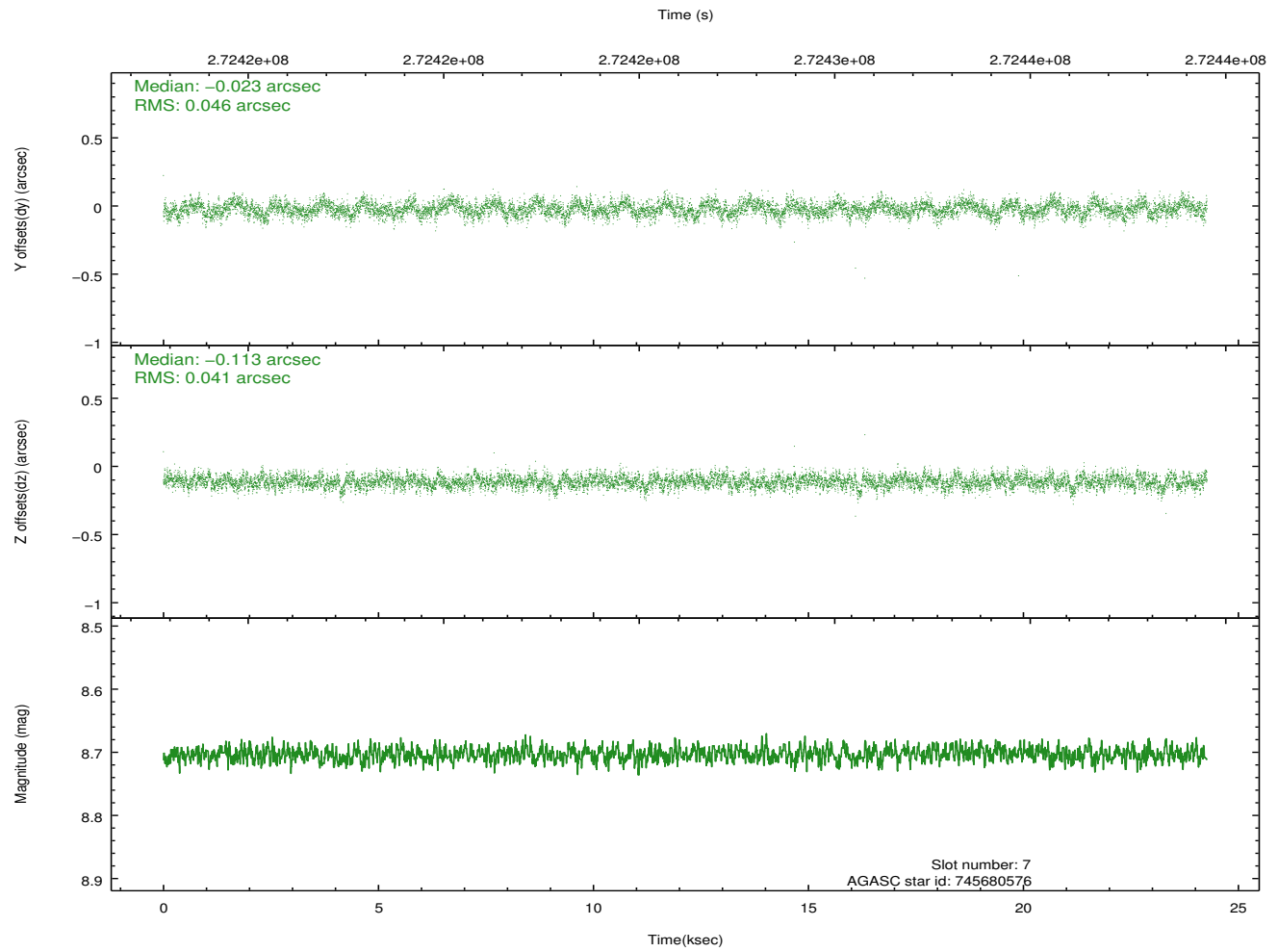
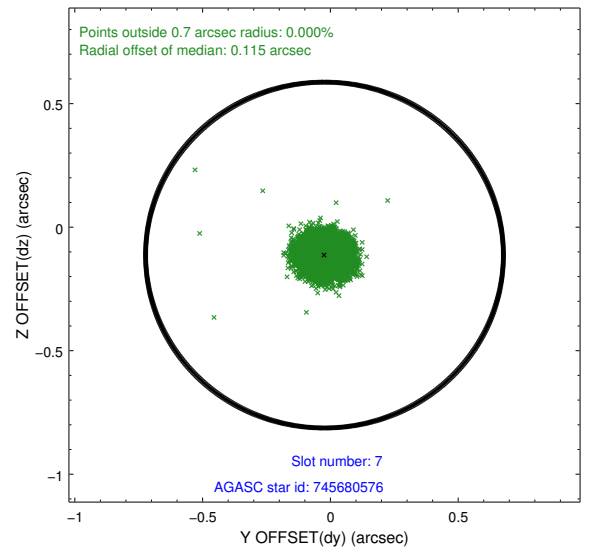
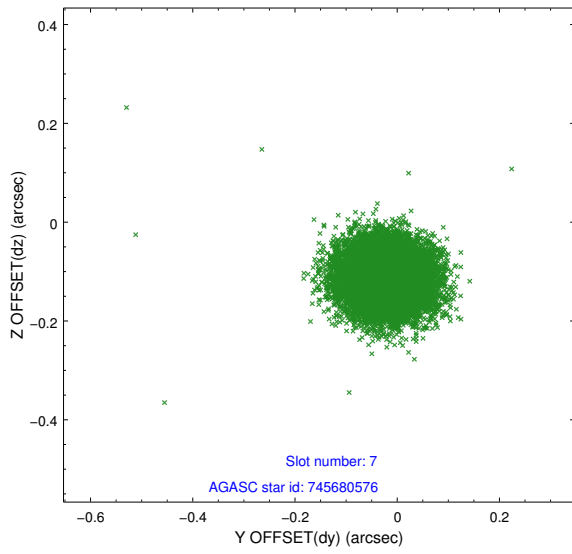
### 2.4.3 Slot 5



### 2.4.4 Slot 6

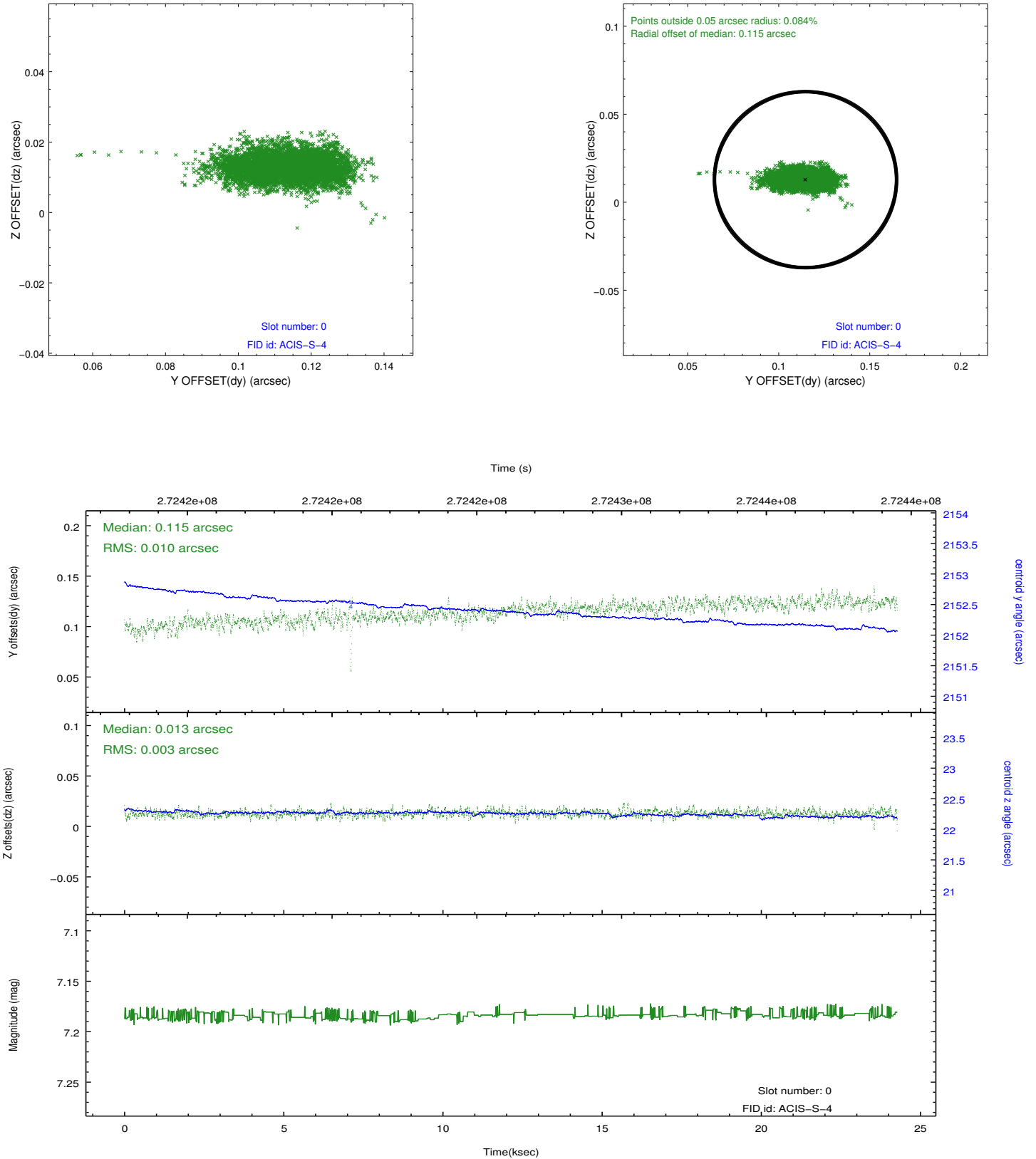


### 2.4.5 Slot 7

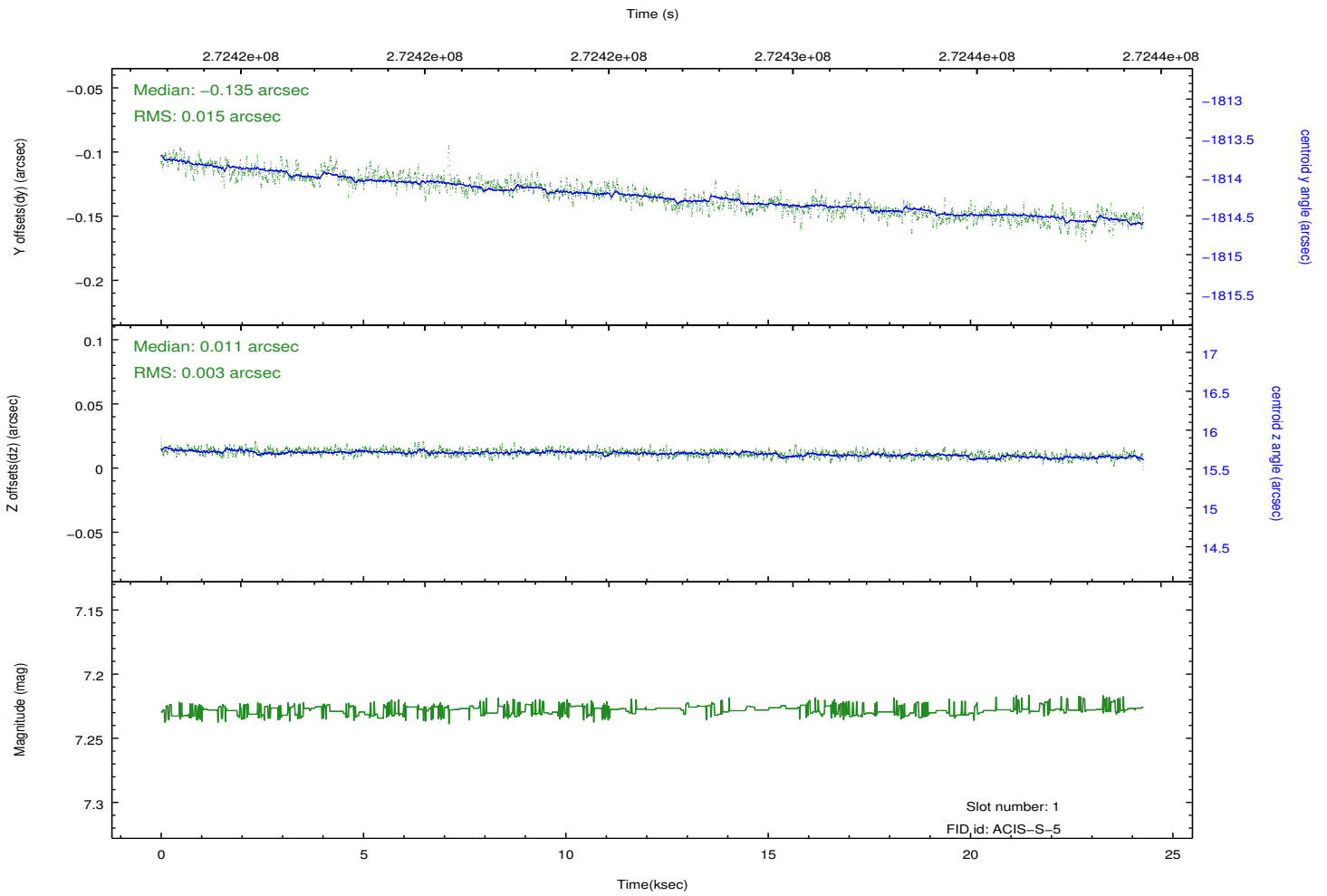
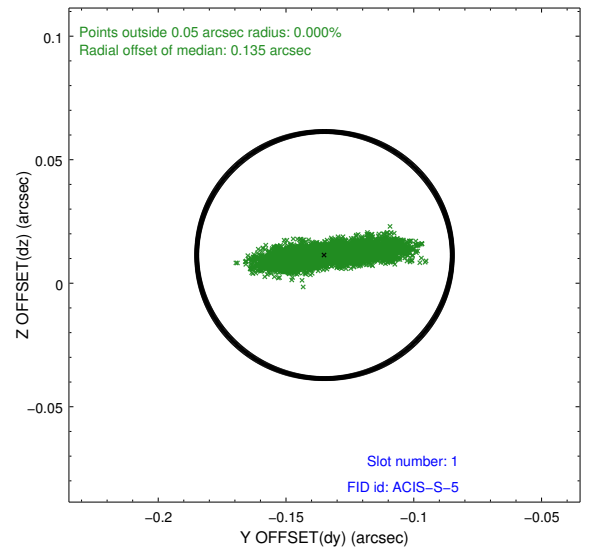
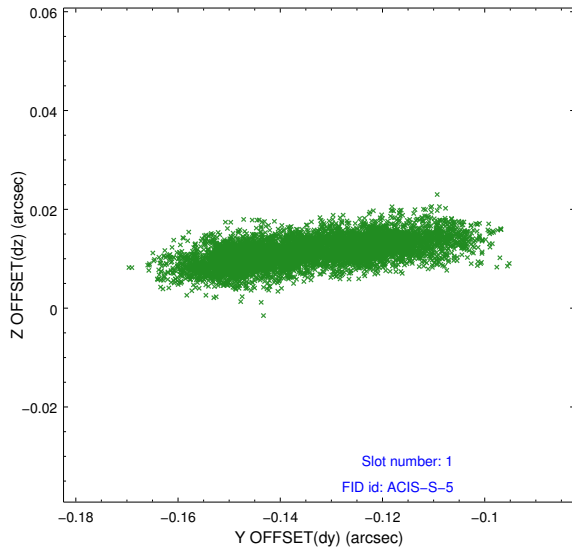


## 2.5 FID Slots

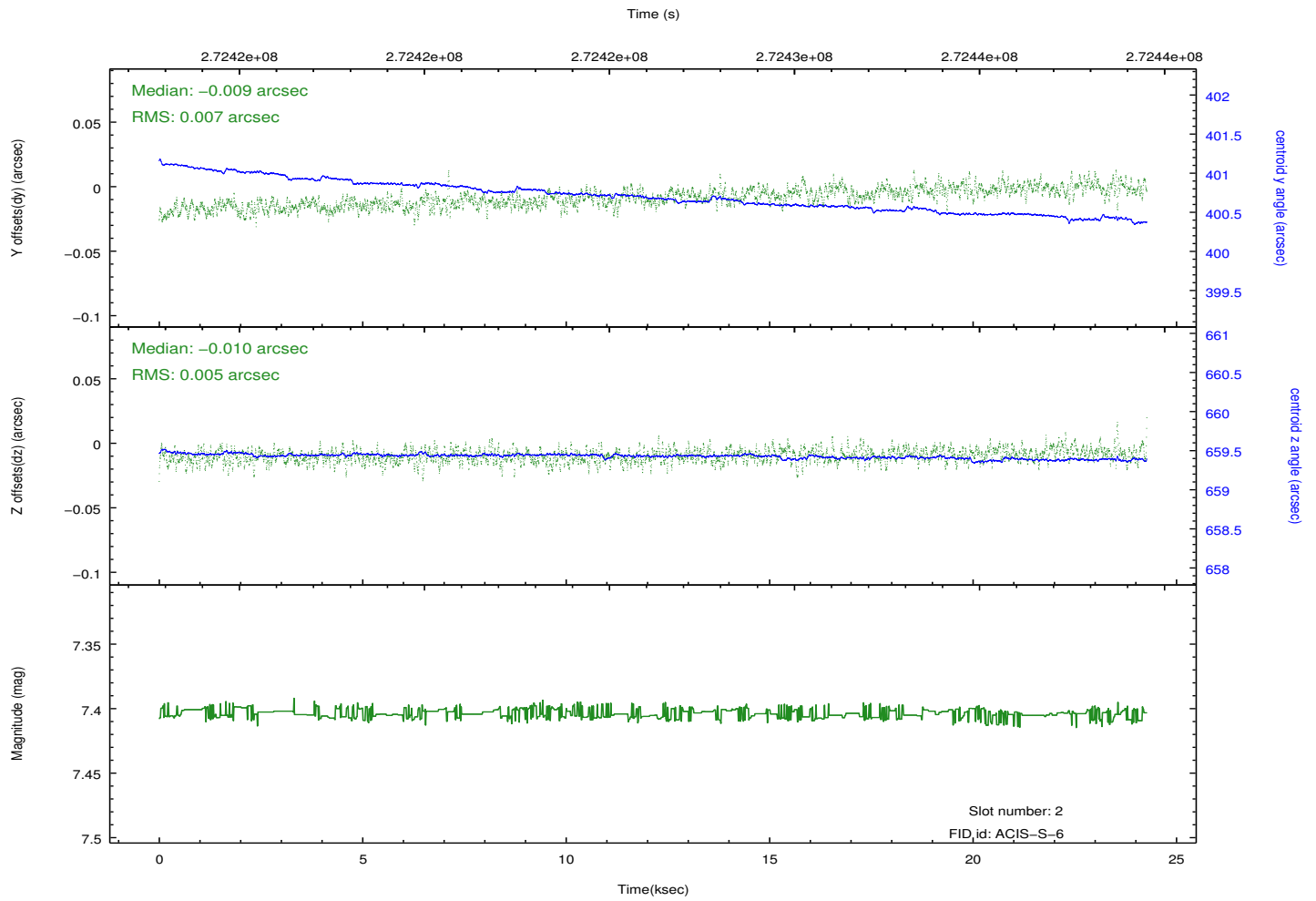
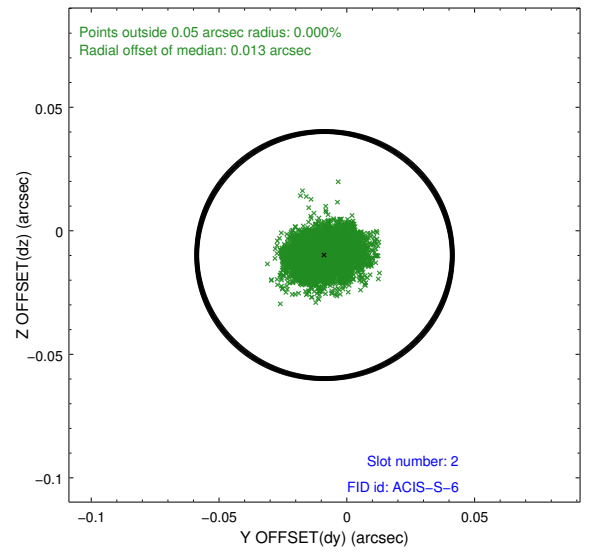
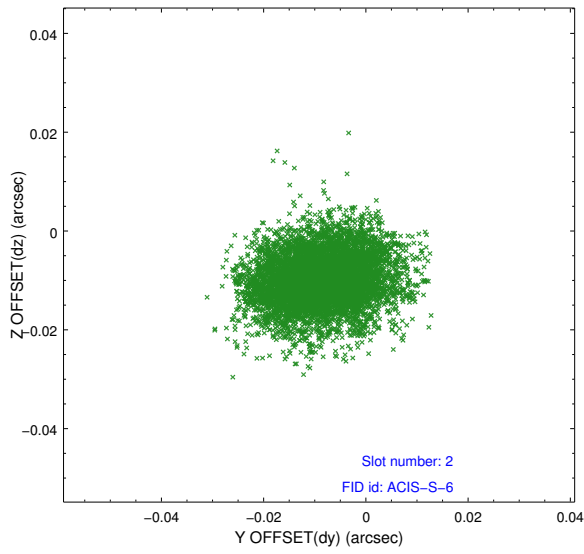
### 2.5.1 Slot 0



## 2.5.2 Slot 1

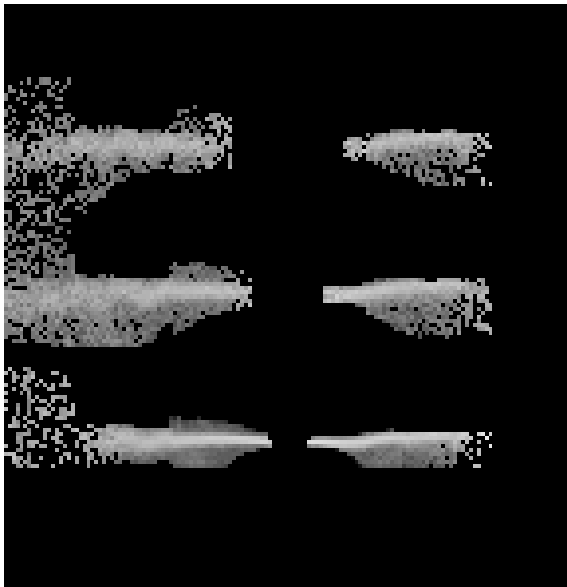


### 2.5.3 Slot 2

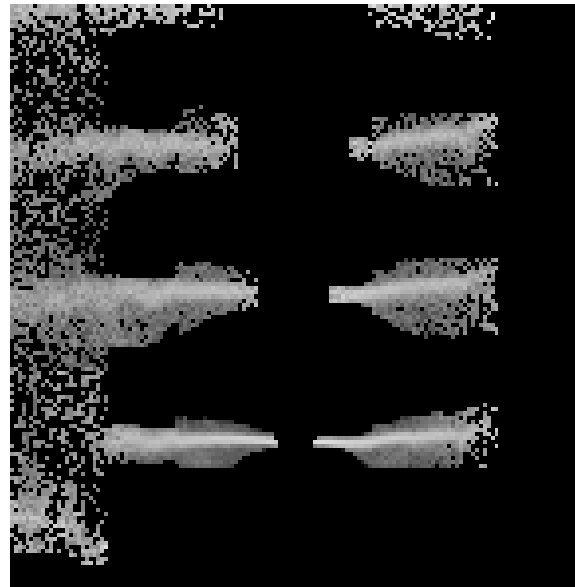


# 3 Gratings

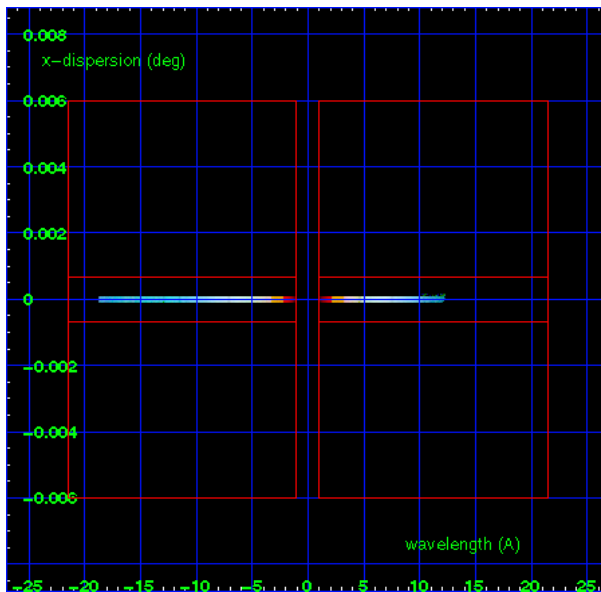
## 3.1 HEG Arm



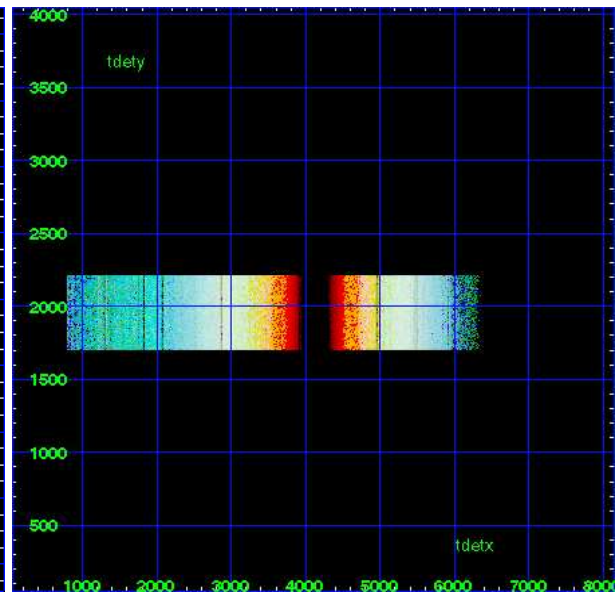
HEG Order Sort 123



HEG Order Sort ALL

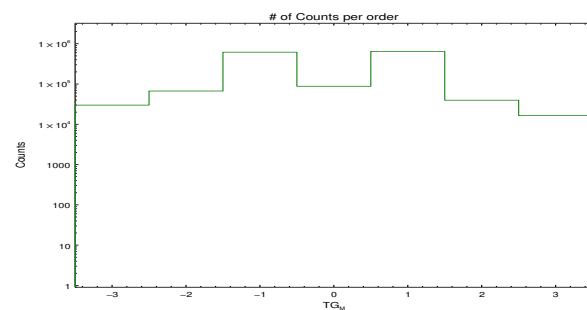


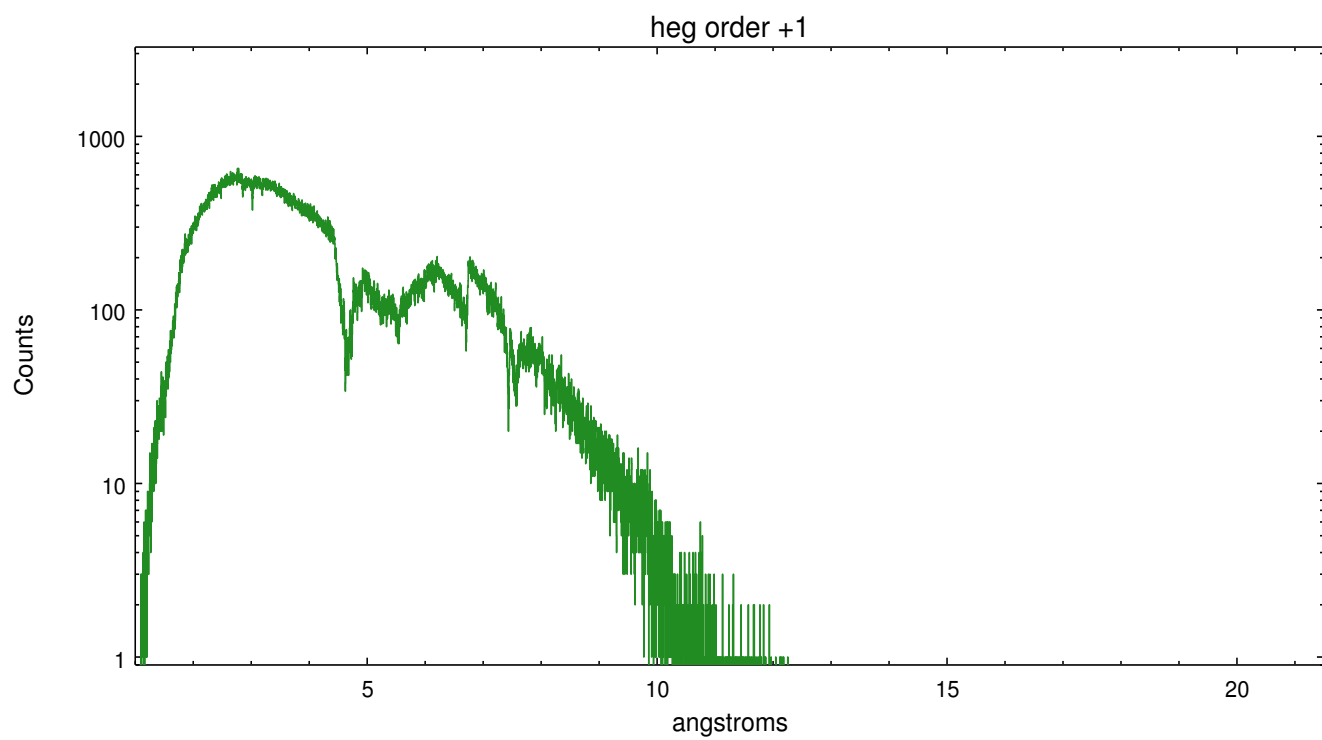
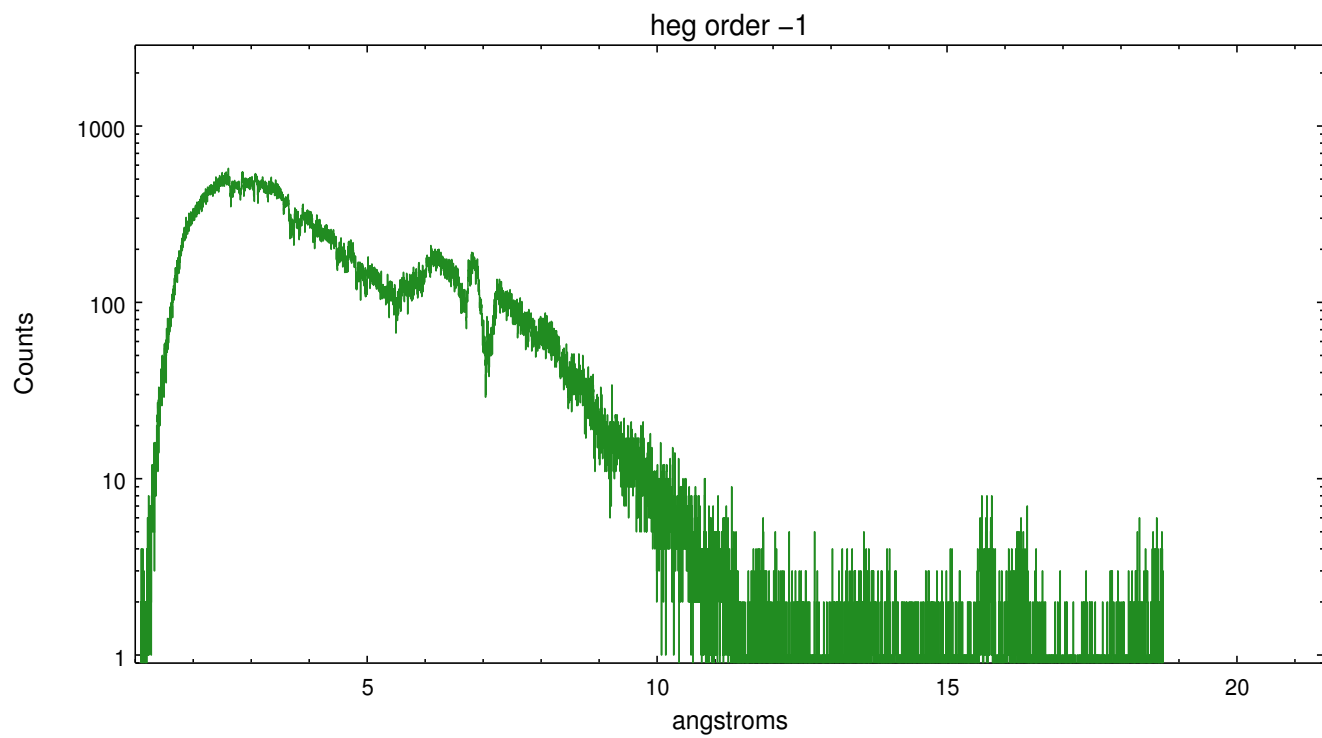
Spot Image HEG



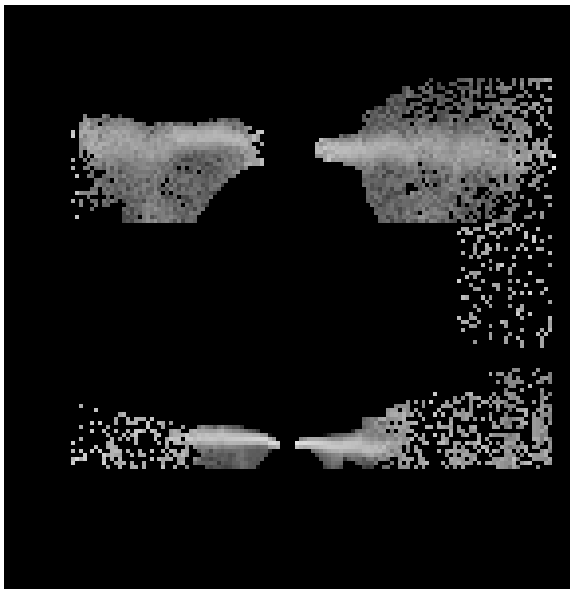
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	29915	67011	617315	87839	645849	39611	16470

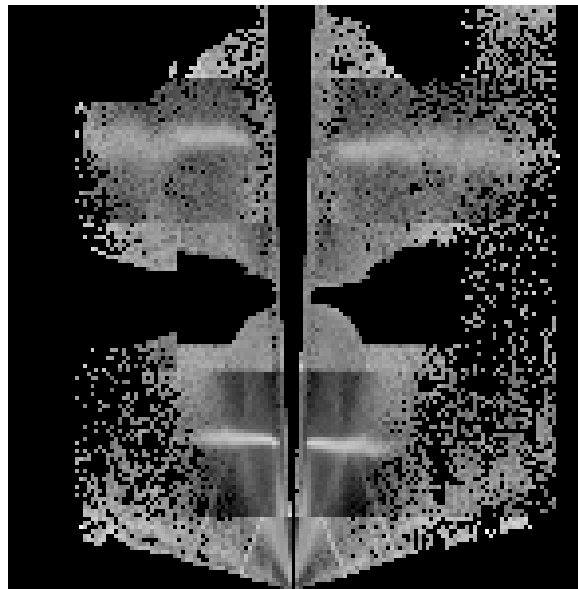




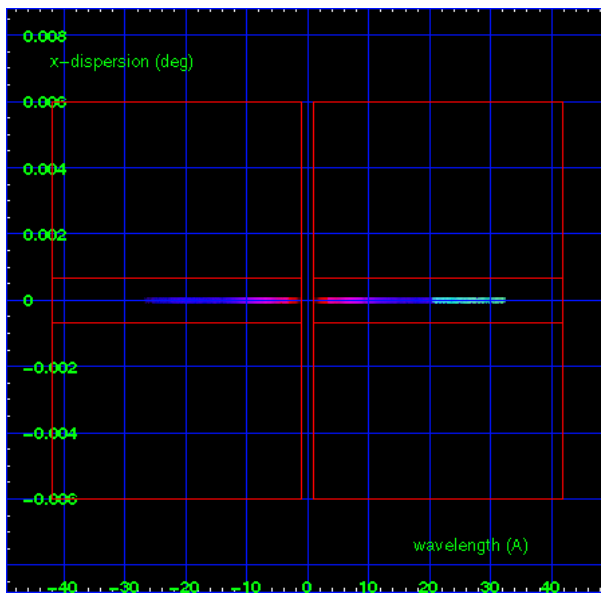
### 3.2 MEG Arm



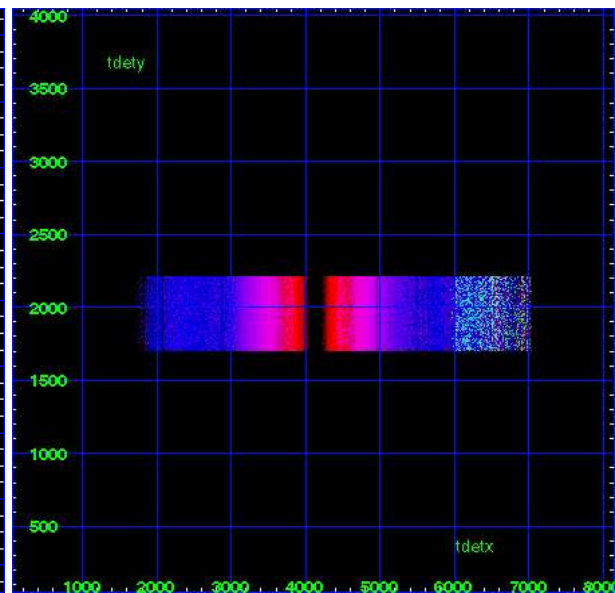
MEG Order Sort 123



MEG Order Sort ALL

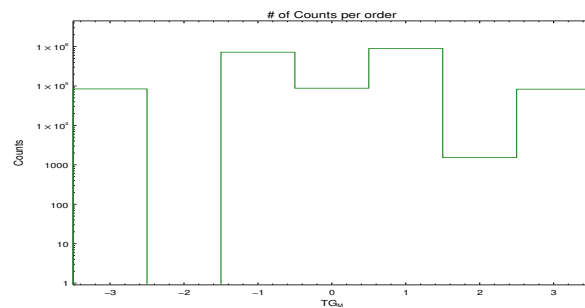


Spot Image MEG

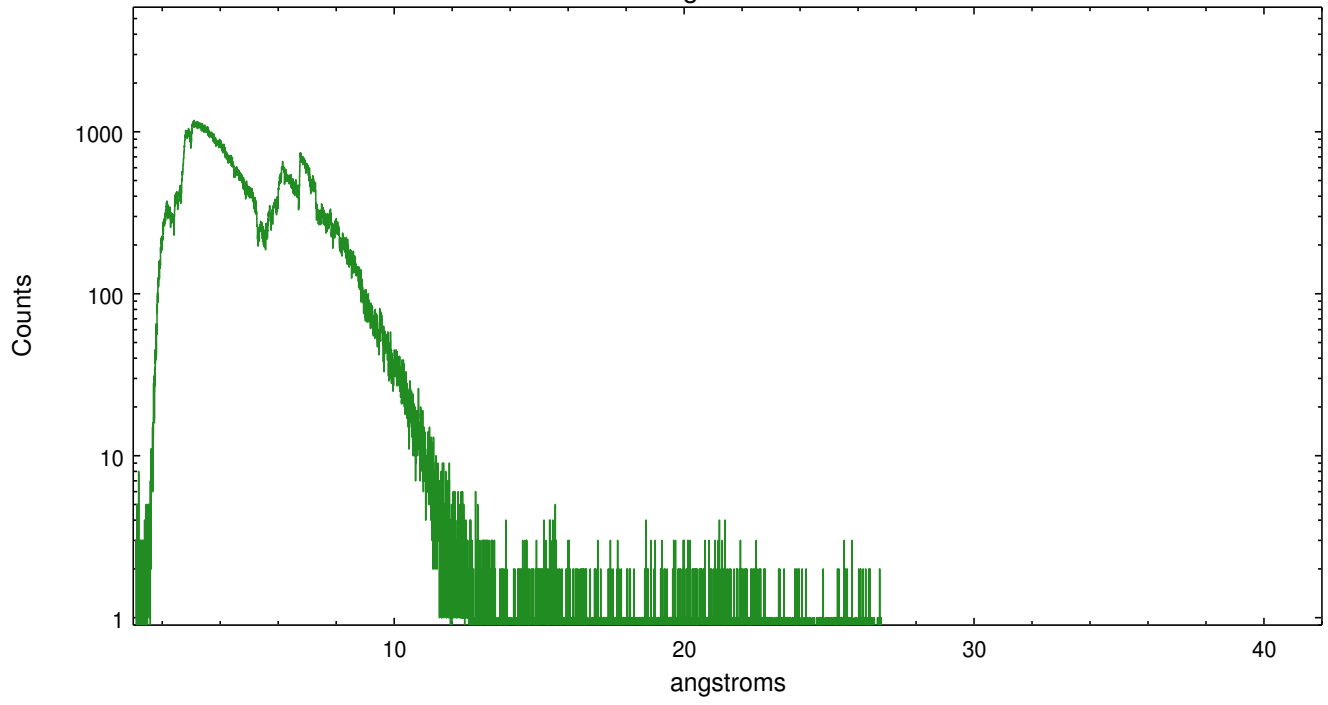


Full Detector MEG

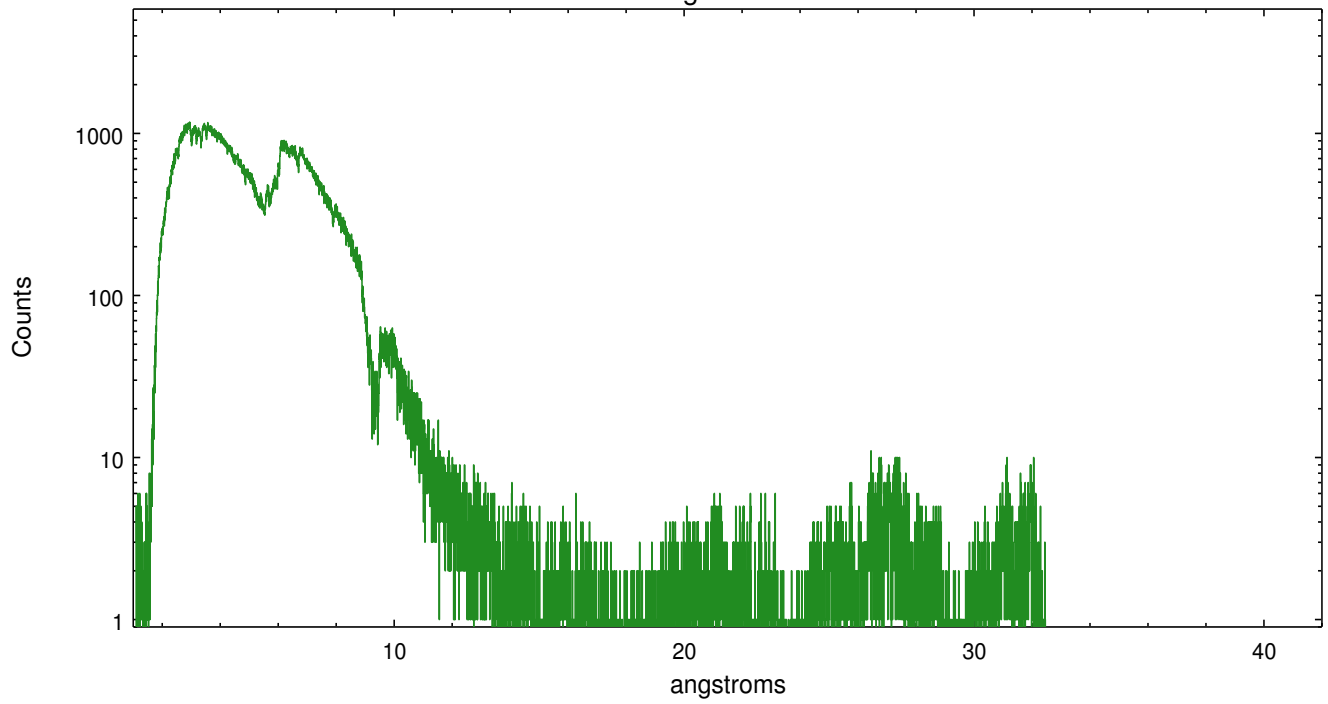
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	84323	0	720742	87839	897478	1528	83051



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.04.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.08125

### A.2 Comments