

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 6638 - L2 Version 3  
Chandra X-Ray Center

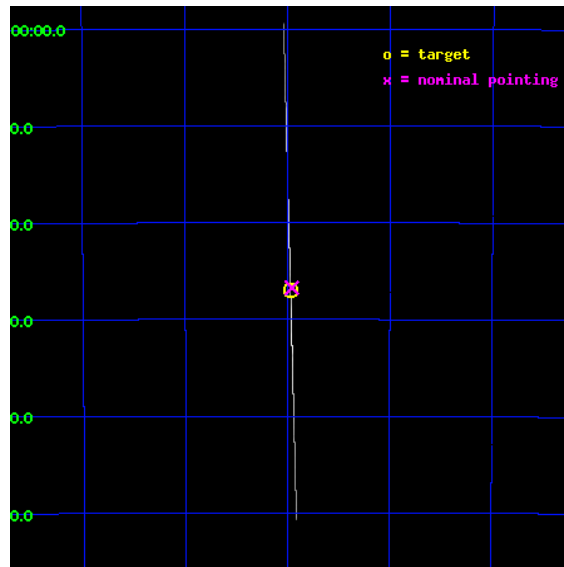
L2 Processing Date : Apr 21 2012

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# 1 Front

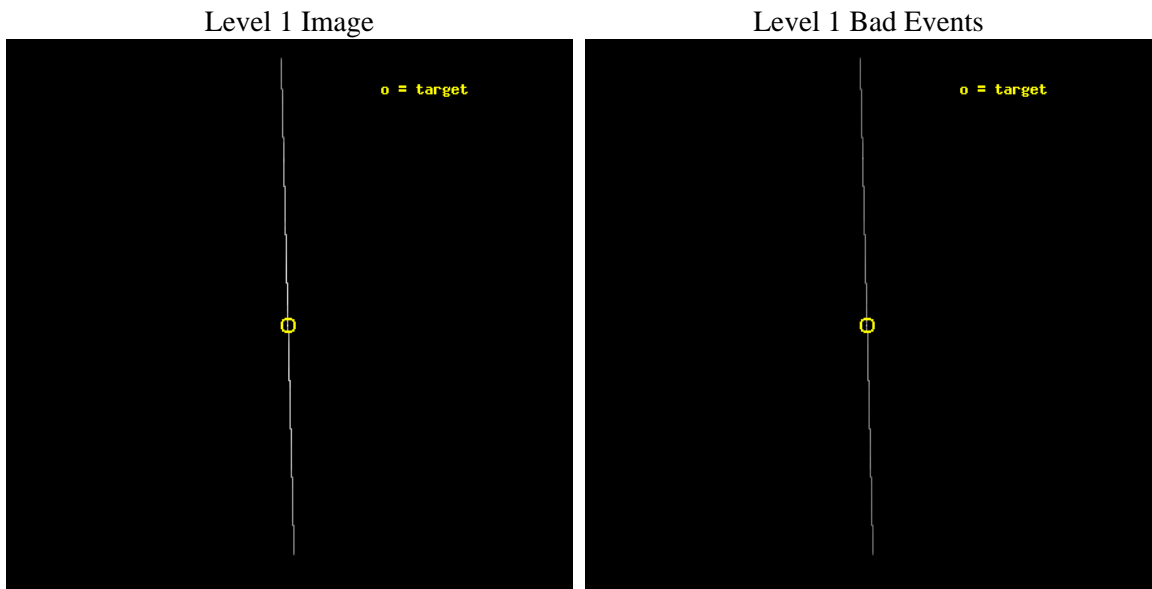
seq_num	400543	Sequence number
obs_id	6638	Observation id
title	CHAZSS: The Chandra HETGS Atoll/Z Spectroscopic Survey	Proposal ti
observer	Dr Jon Miller	Principal investigator
object	4U 1735-44	Source name
ra_targ	264.742917	Observer's specified target RA [deg]
dec_targ	-44.45	Observer's specified target Dec [deg]
ra_nom	264.73953296184	Nominal RA [deg]
dec_nom	-44.445820695436	Nominal Dec [deg]
roll_nom	88.46542170932	Nominal Roll [deg]
revision	3	Processing version of data
ontime	23125.25	Sum of GTIs [s]
livetime	23034.916992188	Livetime [s]
ontime4	23125.25	Sum of GTIs [s]
ontime5	23125.25	Sum of GTIs [s]
ontime6	23125.25	Sum of GTIs [s]
ontime7	23125.25	Sum of GTIs [s]
ontime8	23125.25	Sum of GTIs [s]
ontime9	23125.25	Sum of GTIs [s]
l2events	2541967	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	22974.666000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	23125.25	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime4	23125.25	Sum of GTIs [s]
date	2012-04-21T14:26:36	Date and time of file creation	ontime5	23125.25	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	23125.25	Sum of GTIs [s]
			ontime7	23125.25	Sum of GTIs [s]
			ontime8	23125.25	Sum of GTIs [s]
			ontime9	23125.25	Sum of GTIs [s]
			l1events	2890814	Number of level 1 events

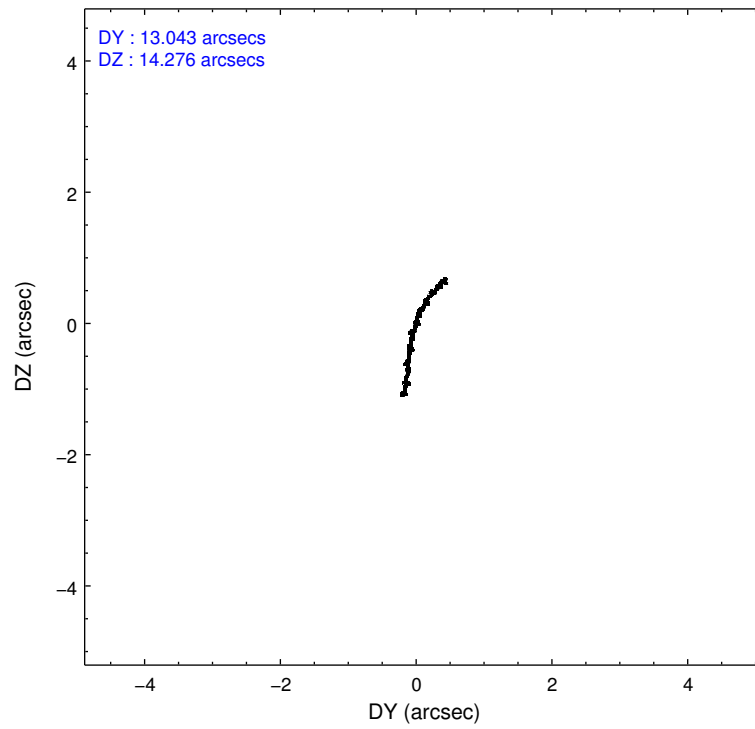
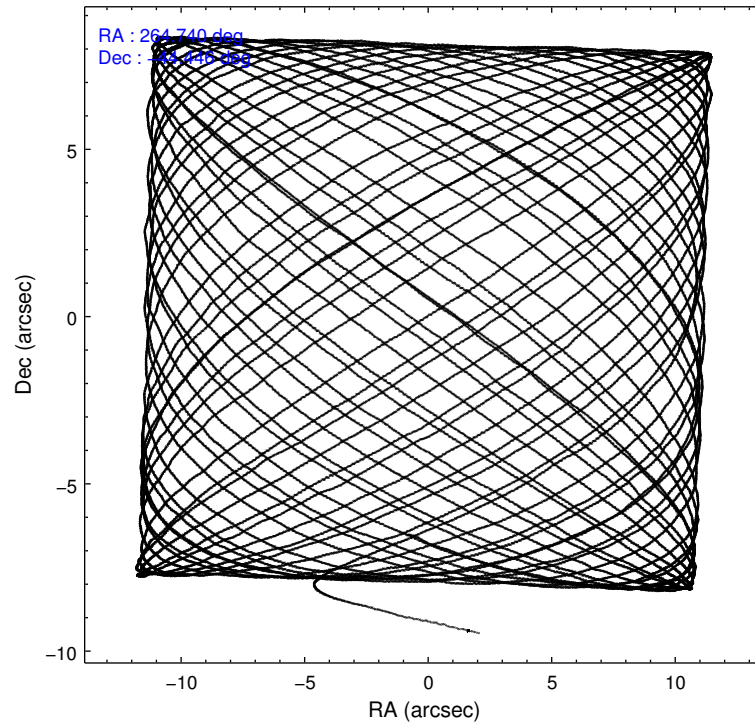
### 2.1.3 Events

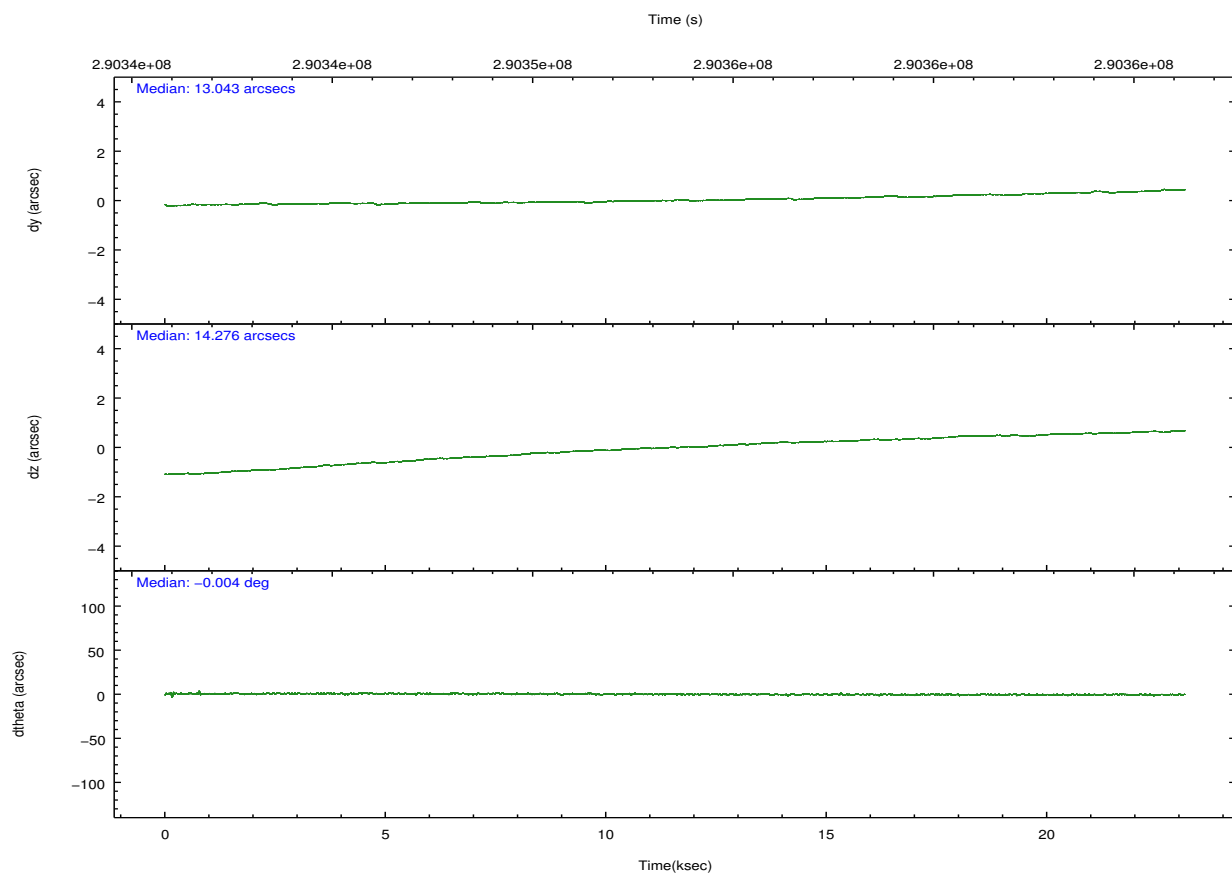
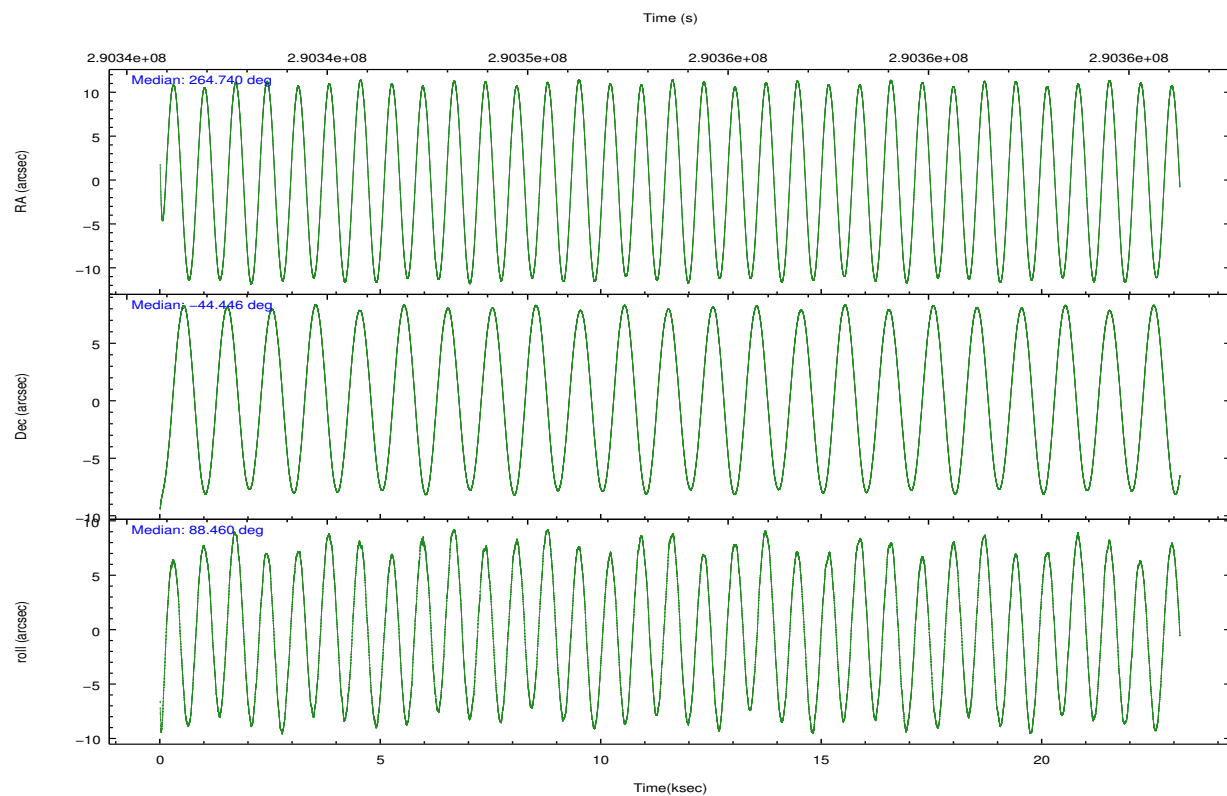
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	75693	379089	875038	1013302	445949	101743	grade 0 events	7513	56870	233770	164647	243718	17491
rejected events	9946	30042	21726	42553	21621	12121		9%	15%	26%	16%	54%	17%
rejected %	13%	7%	2%	4%	4%	11%	grade 1 events	152	285	623	1271	824	218
								0%	0%	0%	0%	0%	0%
							grade 2 events	38612	136441	521812	297123	119654	49617
								51%	35%	59%	29%	26%	48%
							grade 3 events	5238	13323	15030	83418	17558	5093
								6%	3%	1%	8%	3%	5%
							grade 4 events	5347	12901	14593	83077	17196	5329
								7%	3%	1%	8%	3%	5%
							grade 5 events	8159	19696	13768	29153	14562	10090
								10%	5%	1%	2%	3%	9%
							grade 6 events	10672	139573	75442	354613	32437	13905
								14%	36%	8%	34%	7%	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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	264.758231	264.7395329618352	CCD I2 on	N	N
[deg] Pointing Dec	-44.469656	-44.44582069543591	CCD I3 on	N	N
[deg] Pointing Roll	88.321893	88.46542170931959	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-182.632523	-182.6398635053184	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-7.5	-7.49265907768941	CCD S4 on	Y	Y
[s] Observation start time (MET)	290342146.184000	290341054.10623	CCD S5 on	Y	Y
Observation start date	2007-03-15T10:34:41	2007-03-15T10:17:34	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	290365121.184000	290365340.96988	On-chip summing requested	N	N
Observation end date	2007-03-15T16:57:36	2007-03-15T17:02:20	Subarray requested	NONE	NONE
Read mode	CONTINUOUS	CONTINUOUS	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0

## 2.3 Aspect



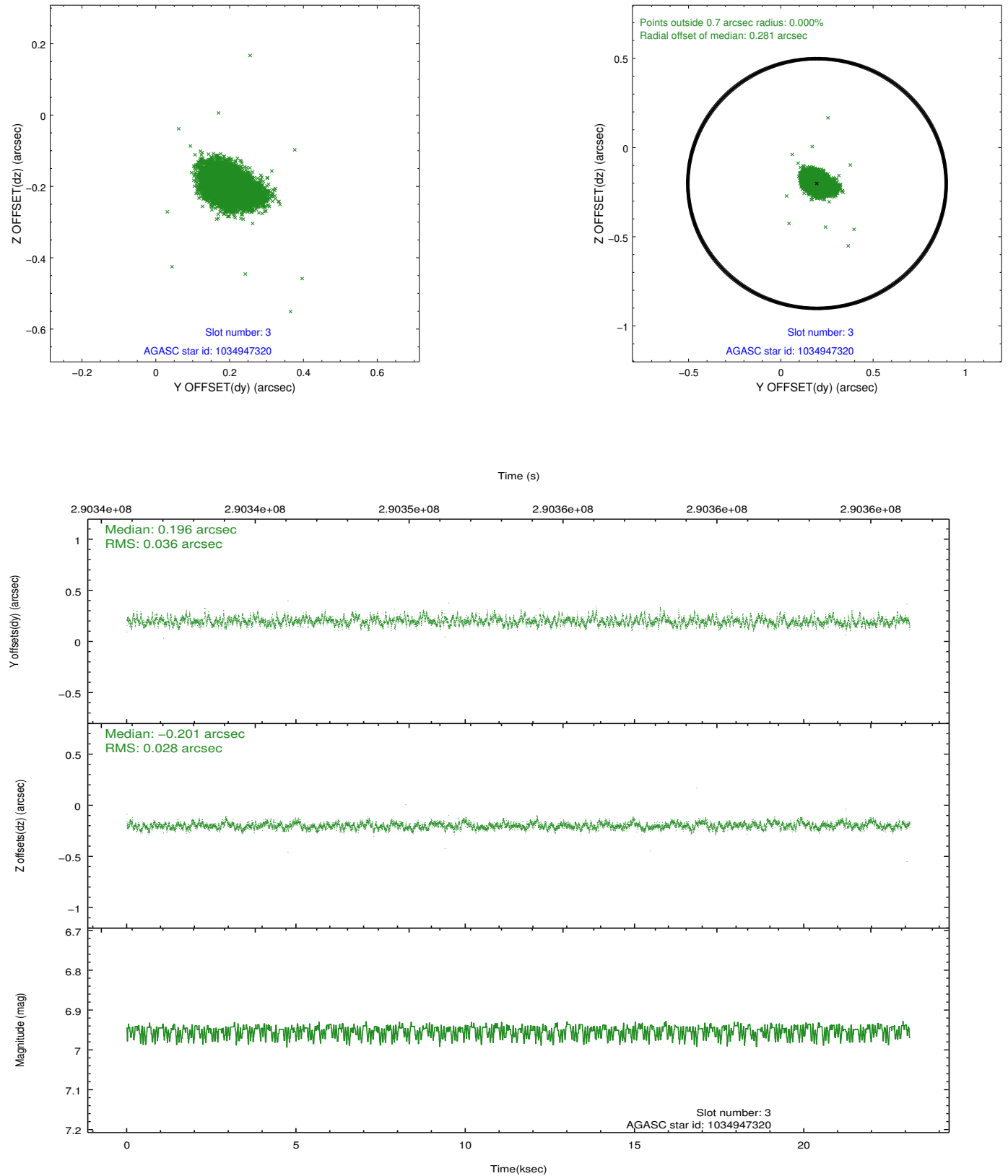


### Slot Statistics

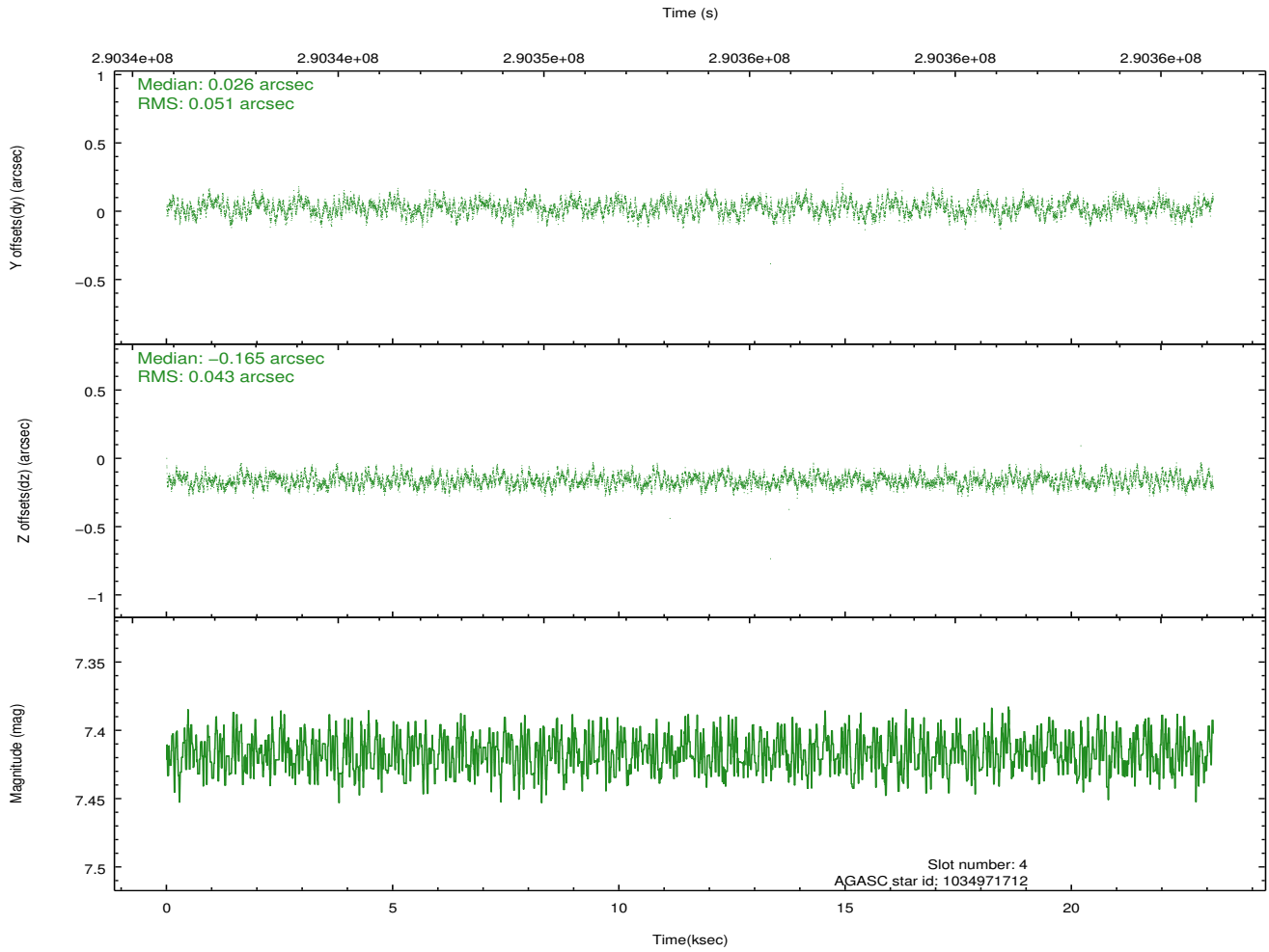
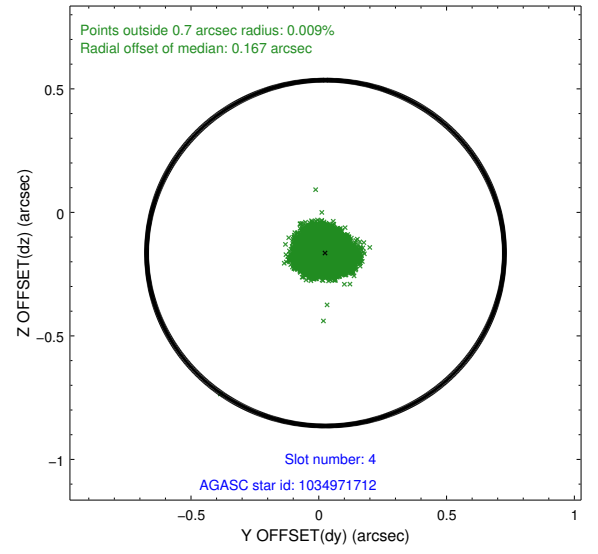
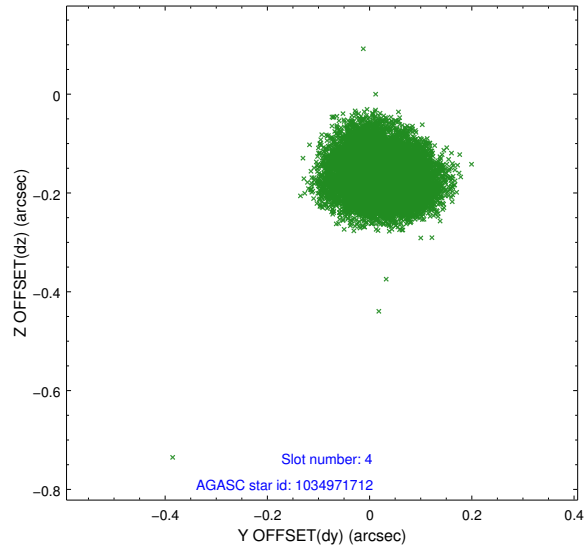
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.08	5640	-0.136	-0.096	0.010	0.023	0.000000	0.000000	-765.61	-1890.02
1	FID	ACIS-S-4	7.17	5641	0.153	0.065	0.008	0.013	0.000000	0.000000	2147.90	18.43
2	FID	ACIS-S-6	7.39	5641	-0.045	0.038	0.014	0.030	0.000000	0.000000	396.65	655.97
3	GUIDE	1034947320	6.95	11283	0.196	-0.201	0.047	0.080	264.173264	-44.879236	-1522.75	1448.24
4	GUIDE	1034971712	7.42	11282	0.026	-0.165	0.072	0.110	264.626982	-44.875616	-1470.82	291.99
5	GUIDE	1035076896	8.18	11280	-0.077	0.222	0.069	0.110	265.475145	-44.783905	-1085.05	-1864.00
6	GUIDE	1035087456	7.43	11281	0.004	0.051	0.056	0.087	265.156457	-44.672573	-702.60	-1040.43
7	GUIDE	1034975032	8.22	11274	-0.152	0.096	0.069	0.111	264.889634	-43.859068	2206.88	-276.16

## 2.4 Star Slots

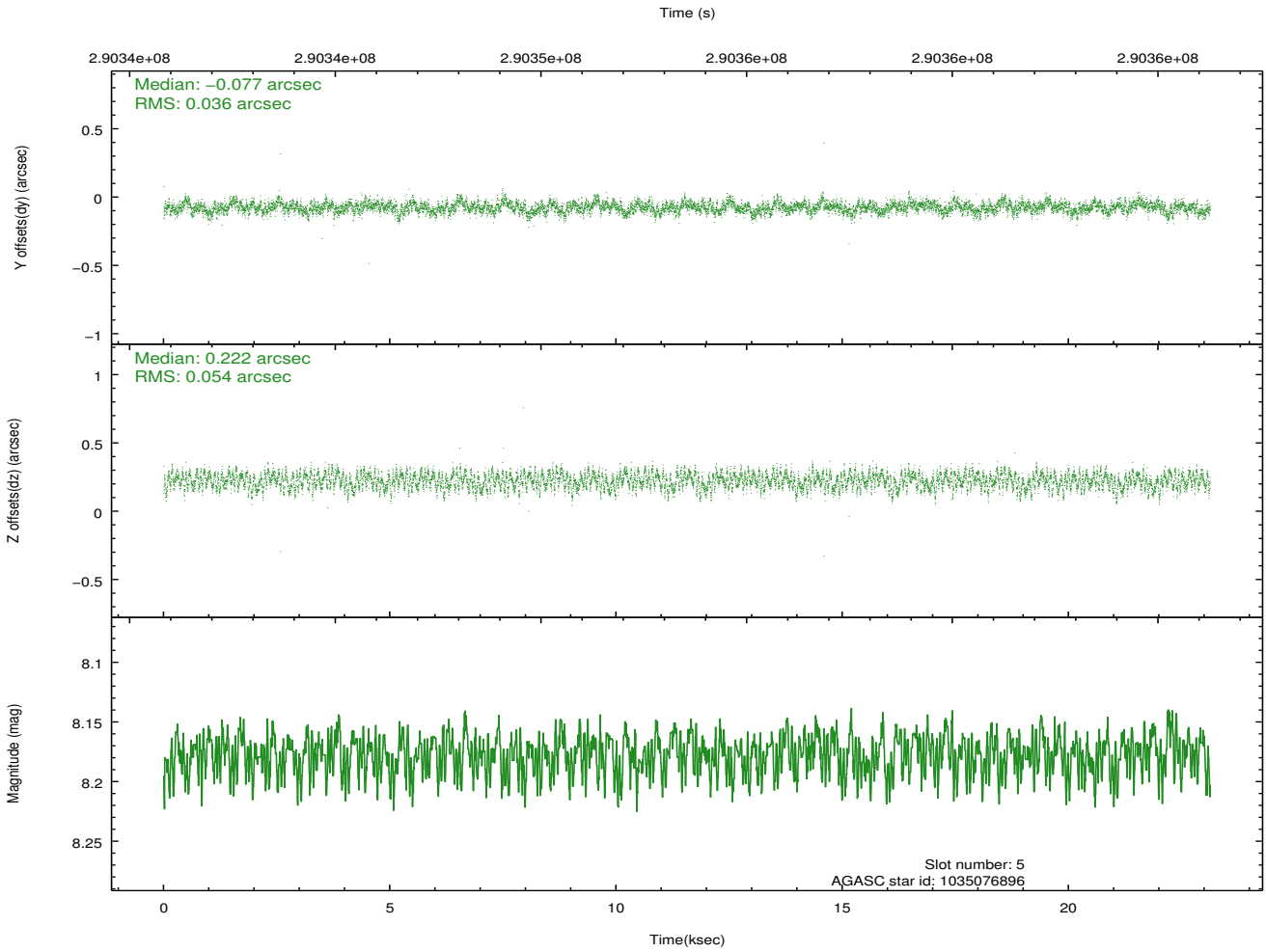
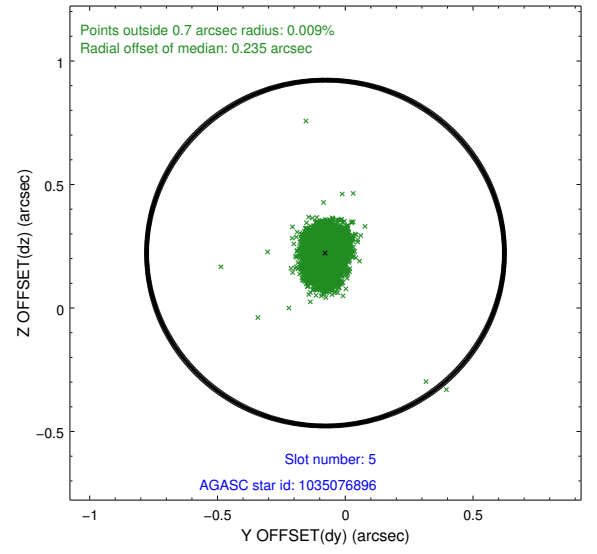
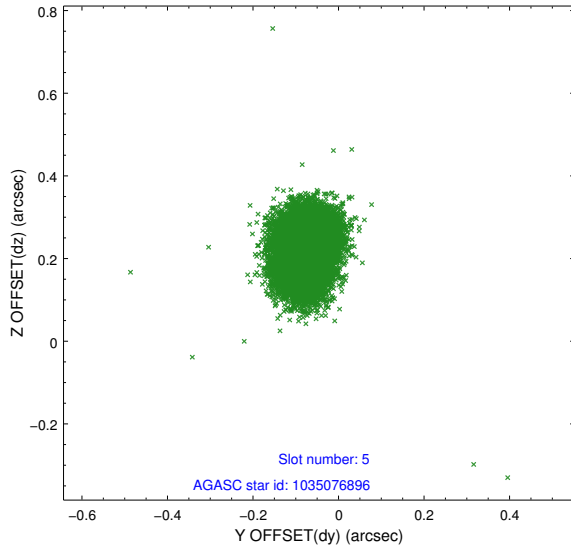
### 2.4.1 Slot 3



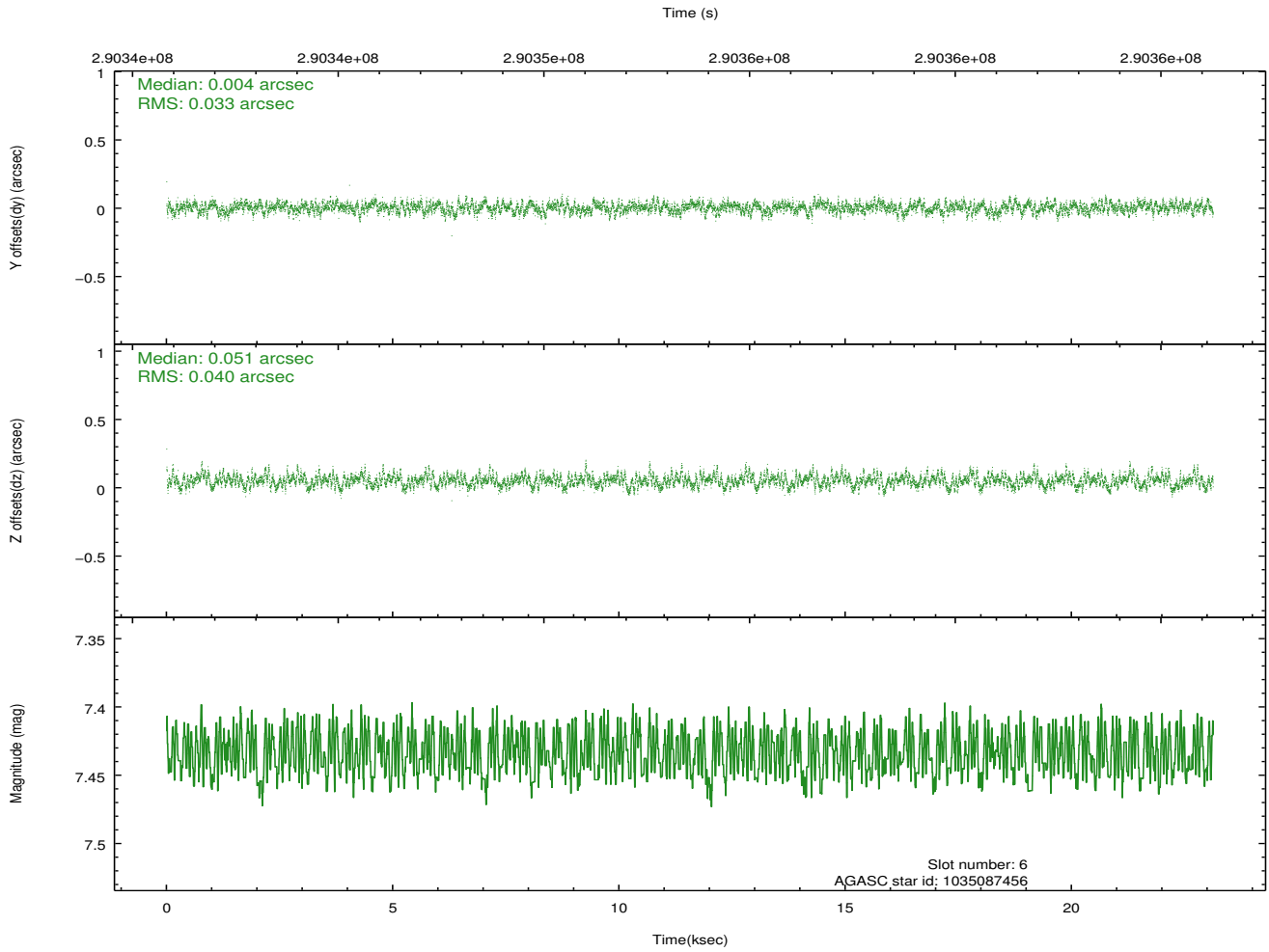
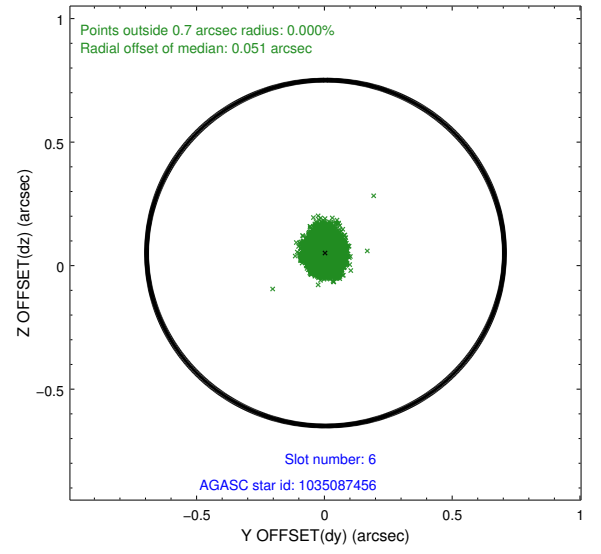
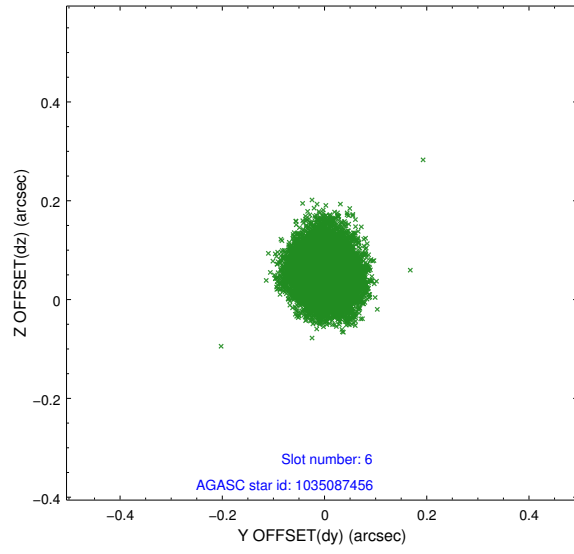
## 2.4.2 Slot 4



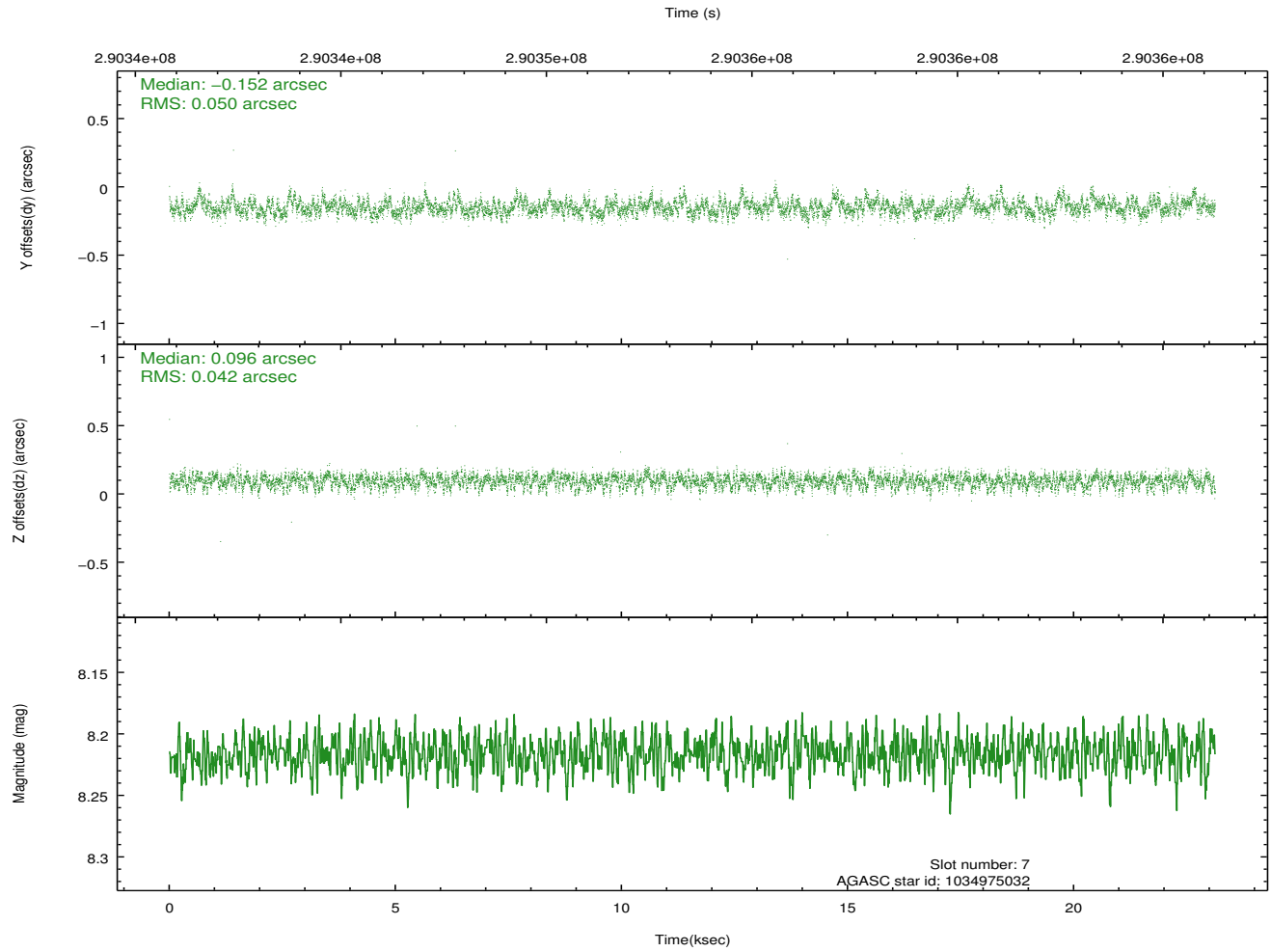
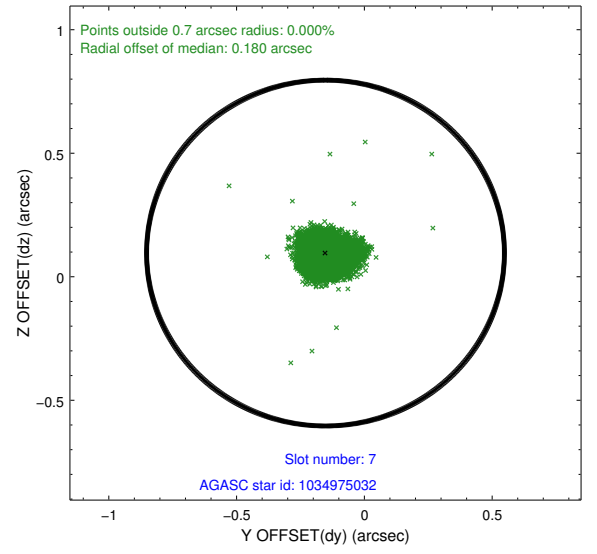
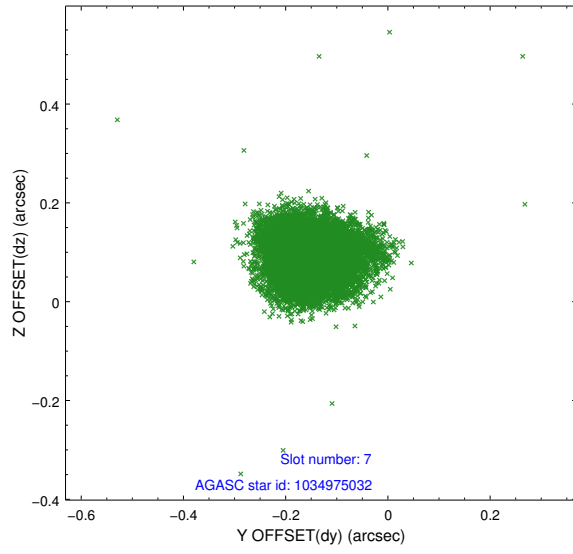
### 2.4.3 Slot 5



## 2.4.4 Slot 6

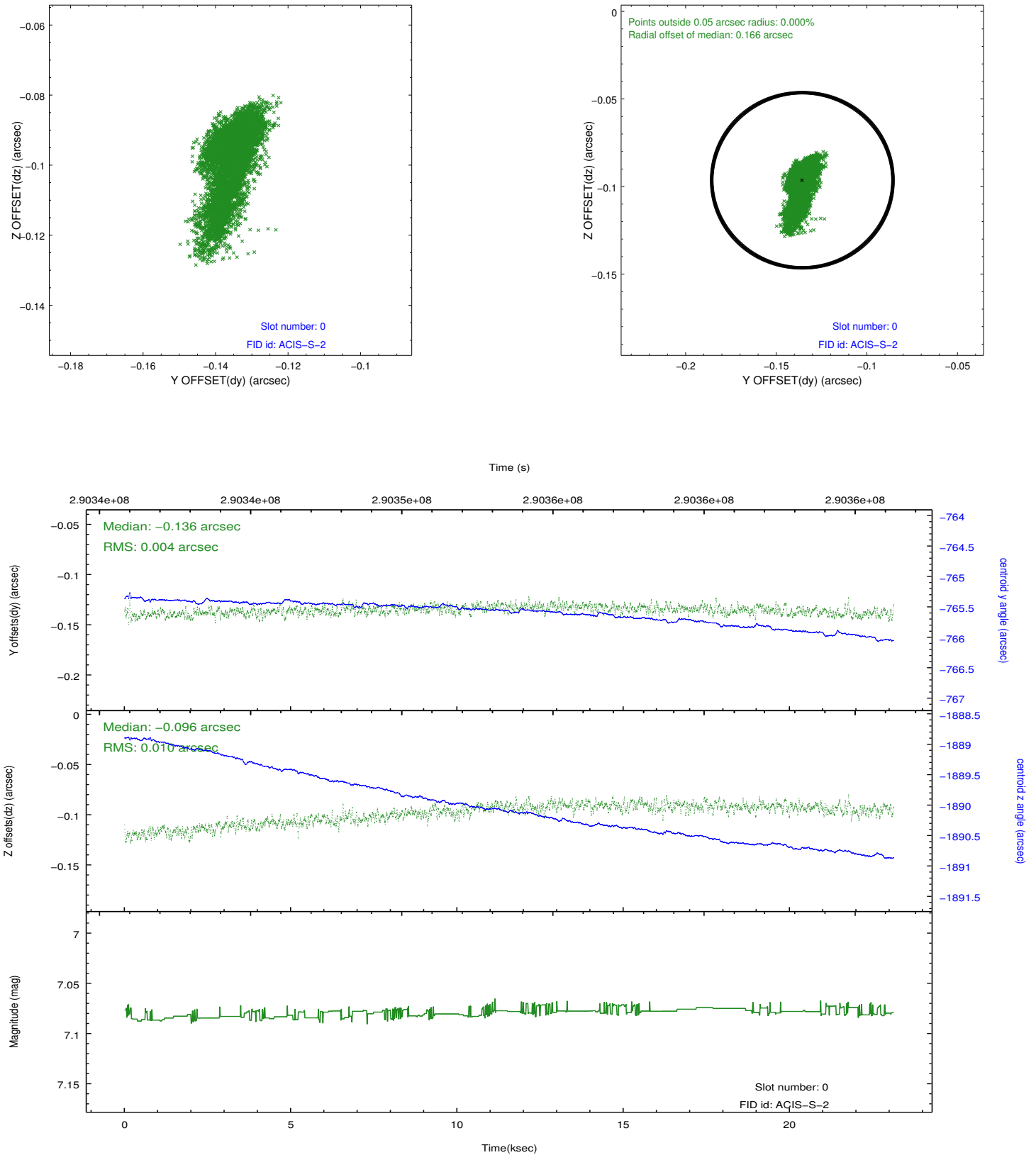


## 2.4.5 Slot 7

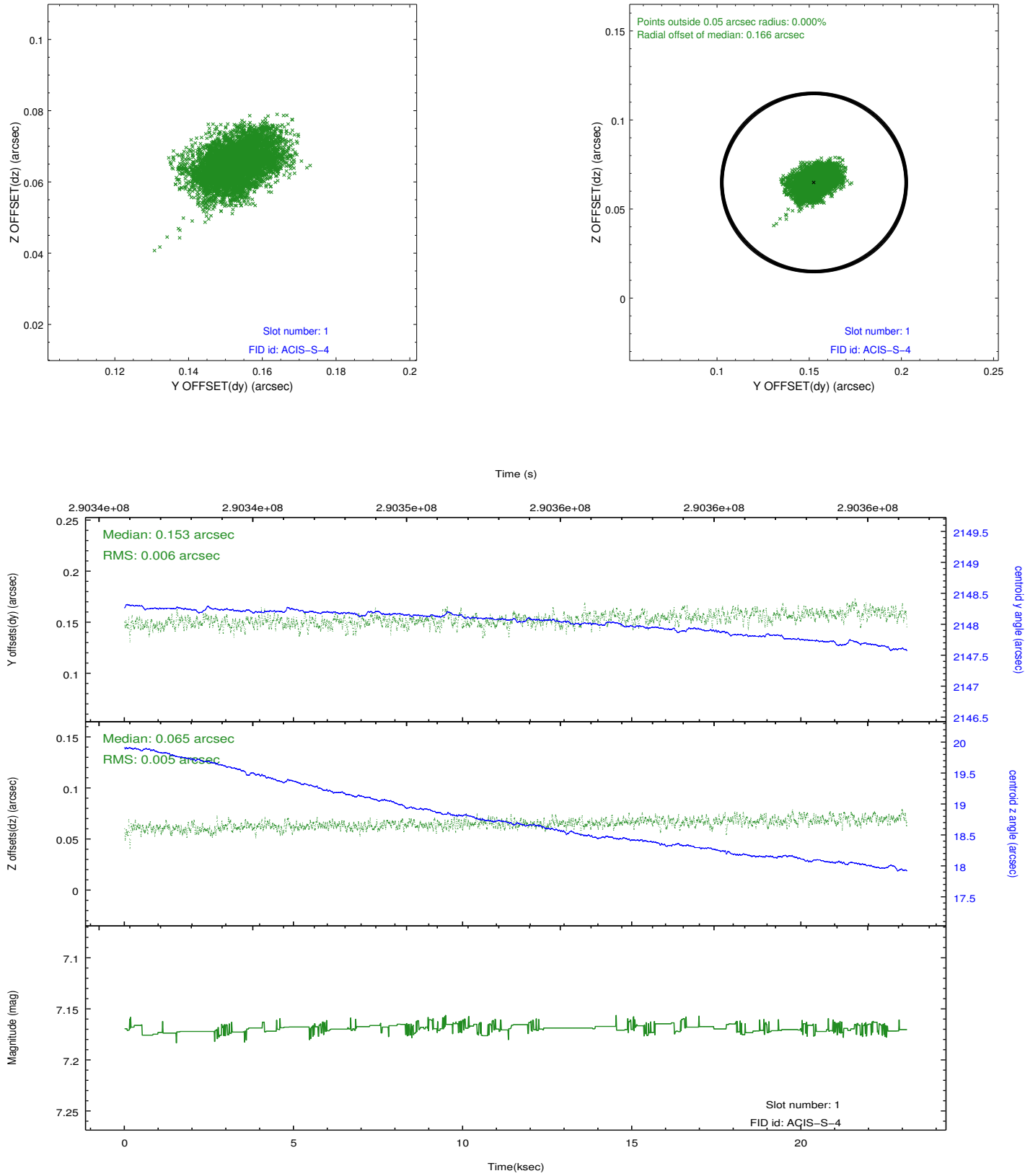


## 2.5 FID Slots

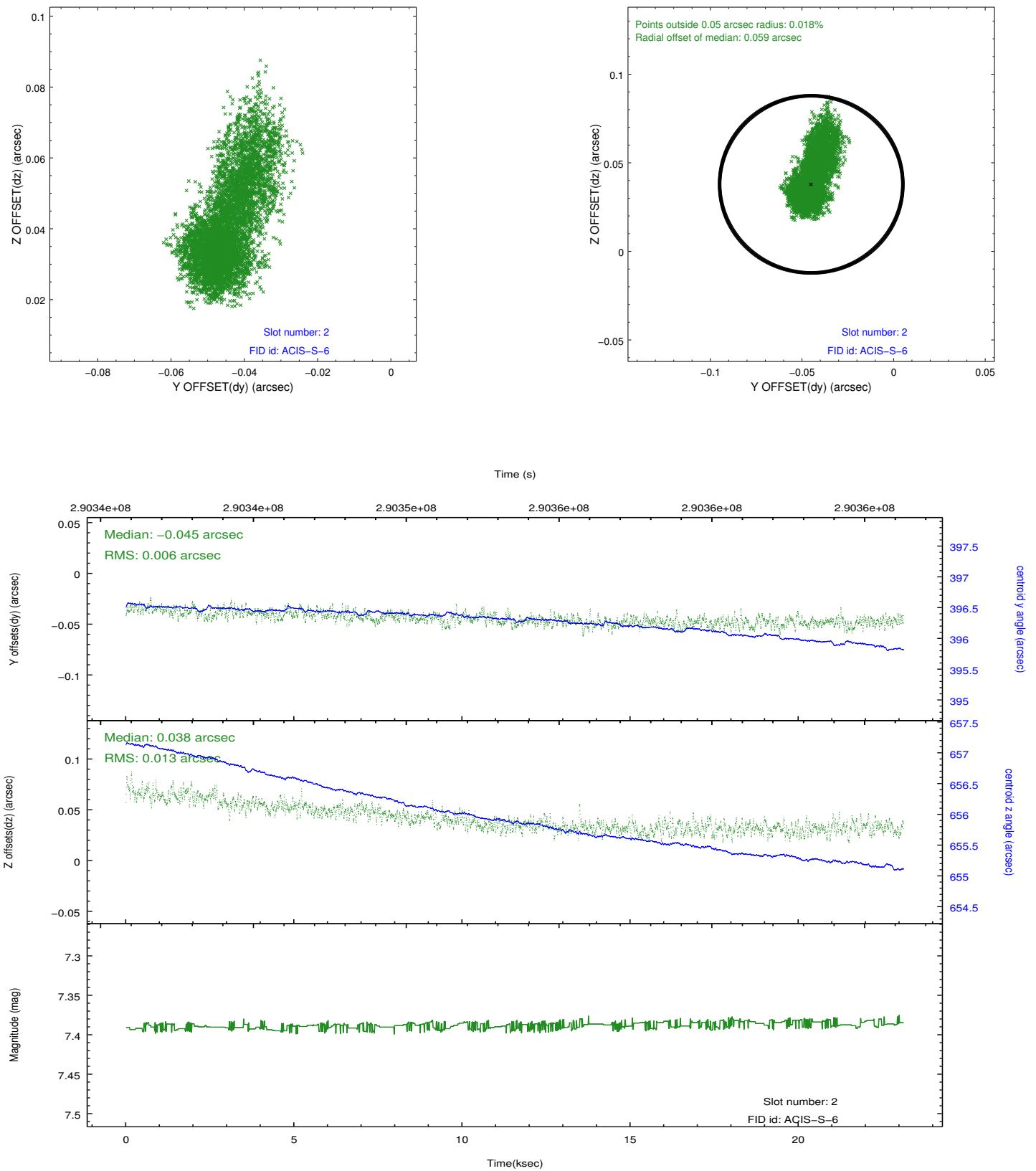
### 2.5.1 Slot 0



## 2.5.2 Slot 1

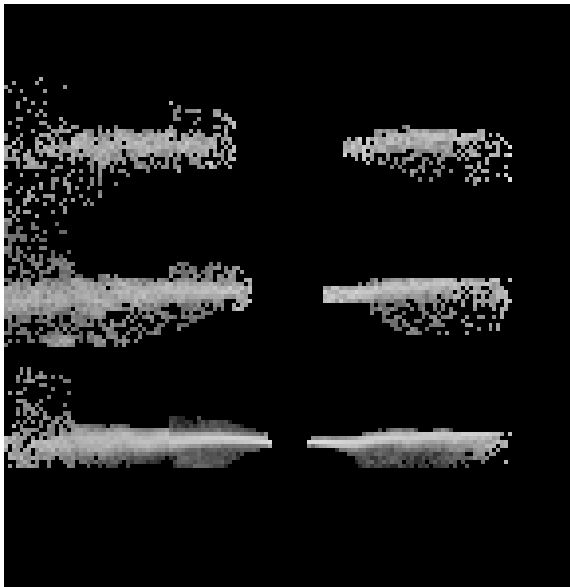


### 2.5.3 Slot 2

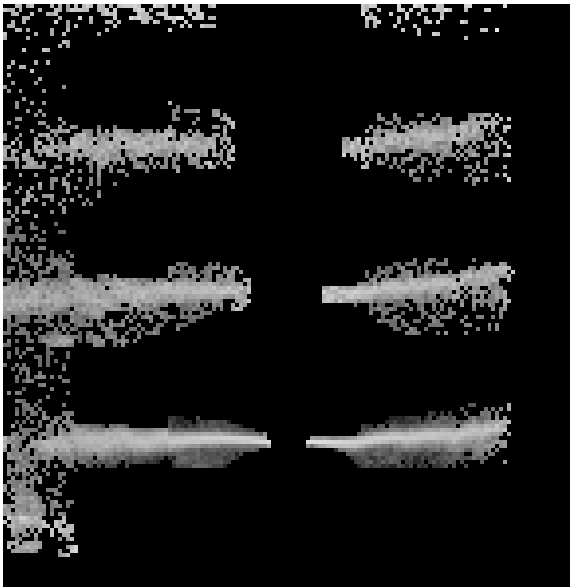


# 3 Gratings

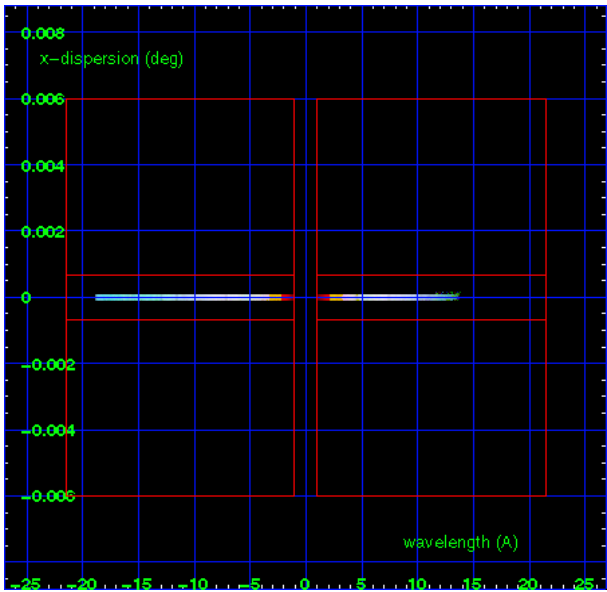
## 3.1 HEG Arm



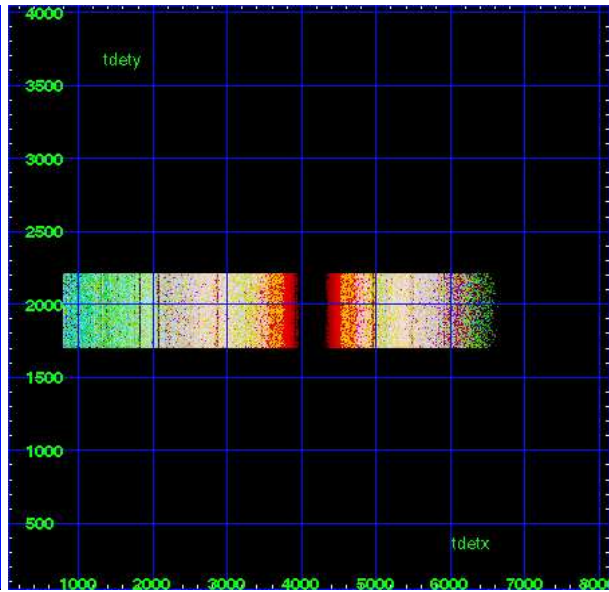
HEG Order Sort 123



HEG Order Sort ALL

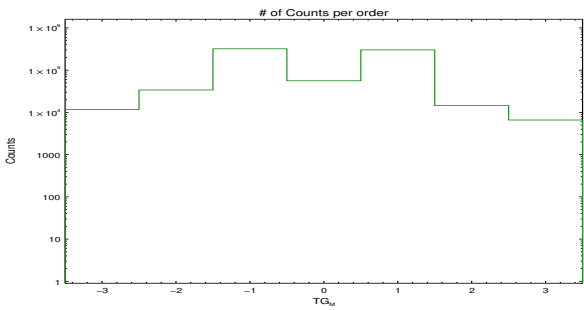


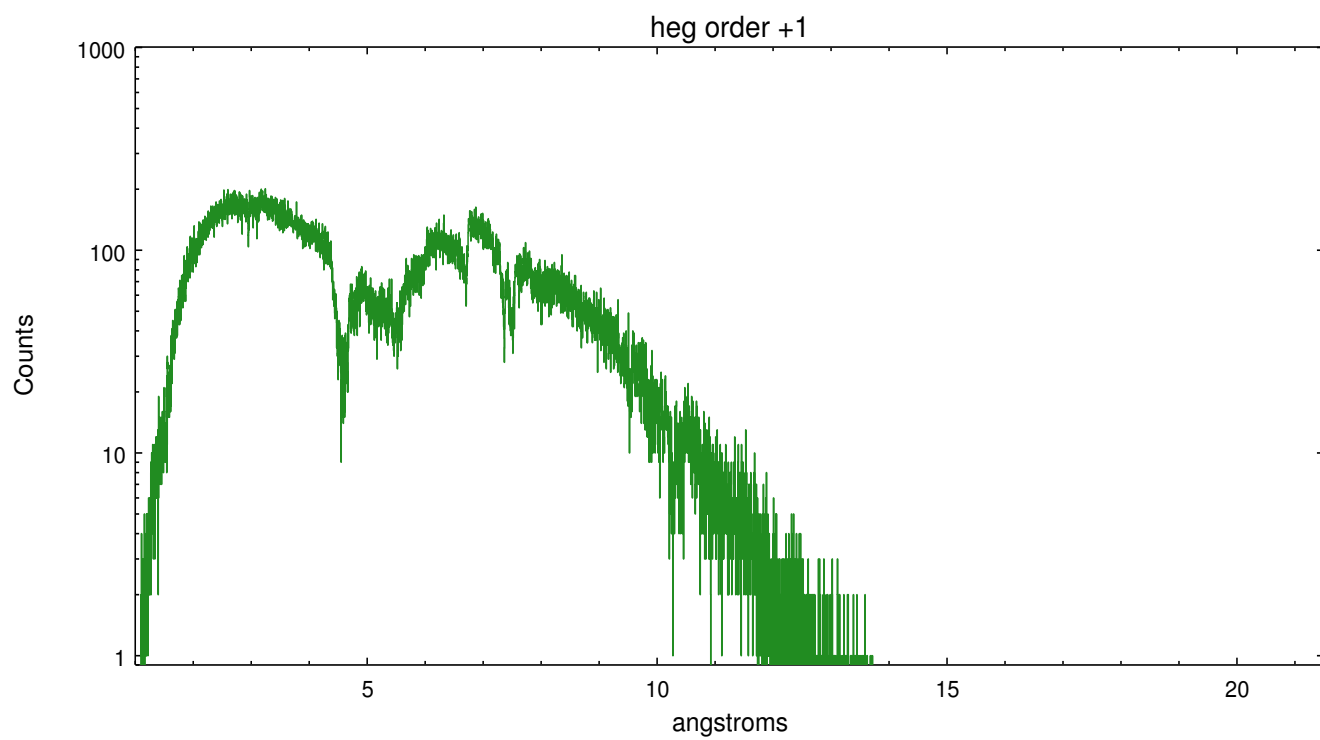
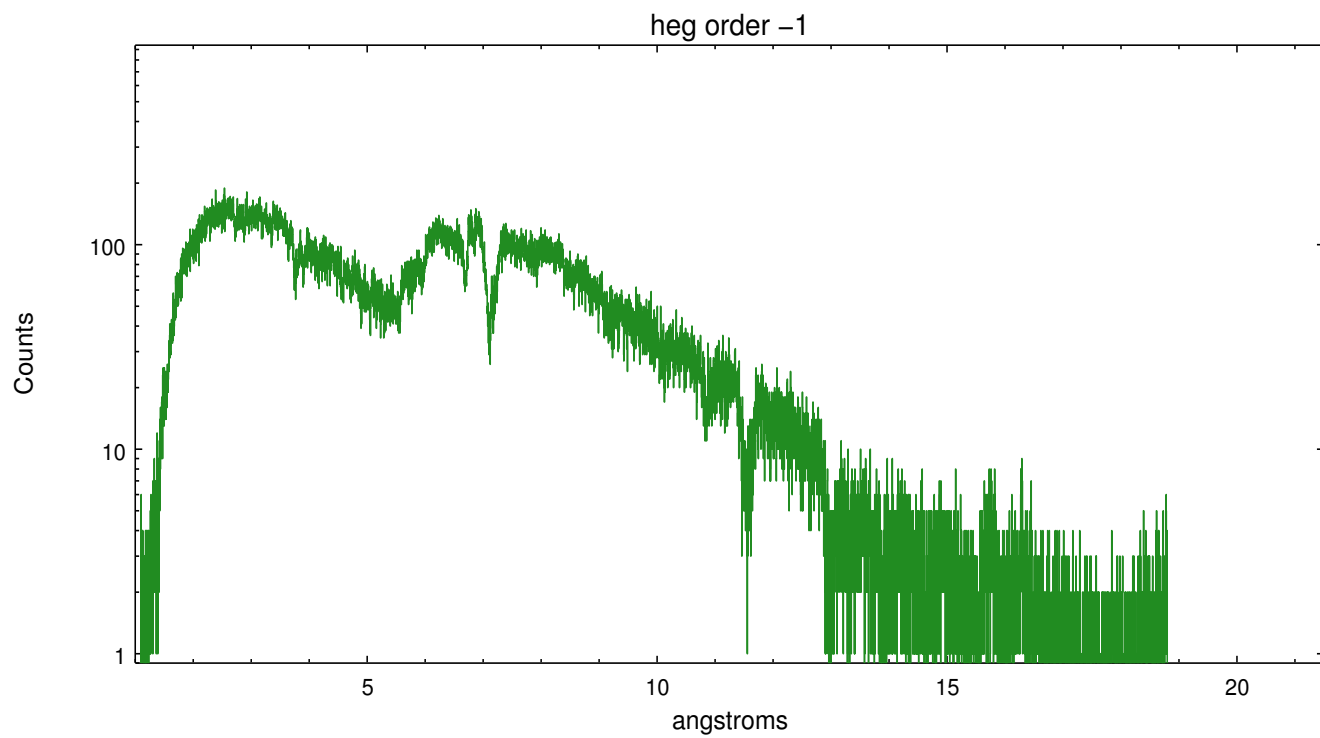
Spot Image HEG



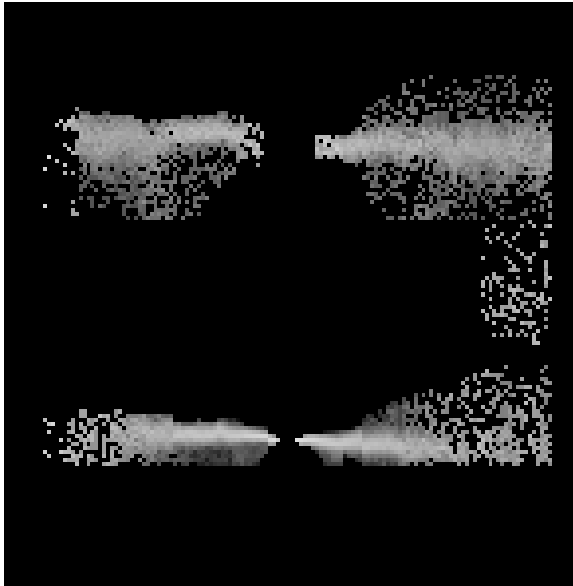
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	11696	33916	320860	56110	301783	14465	6592

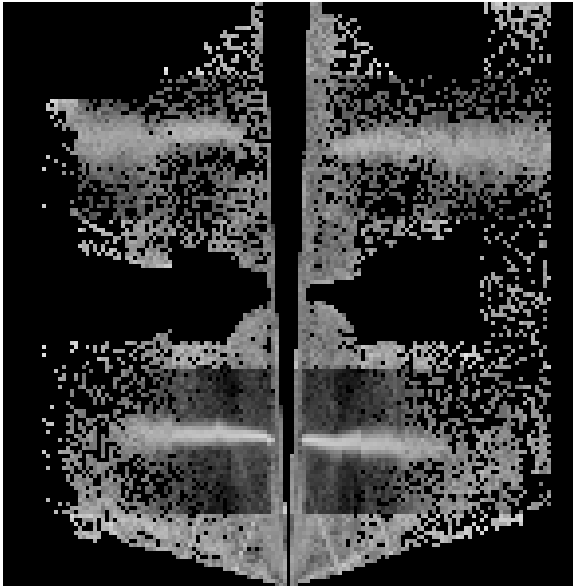




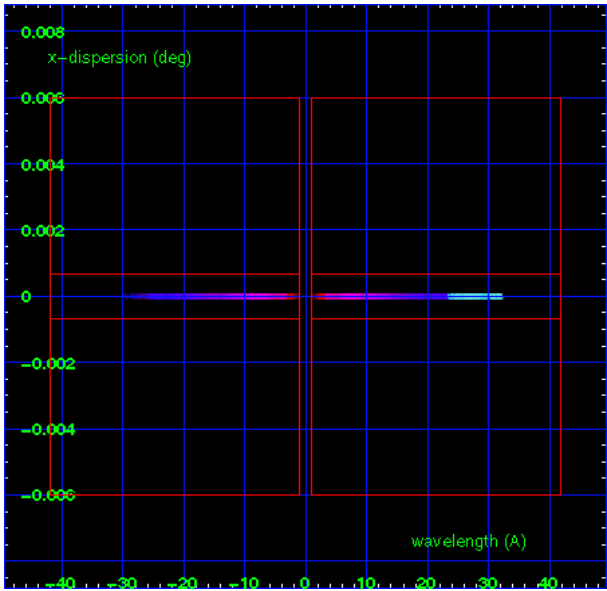
3.2 MEG Arm



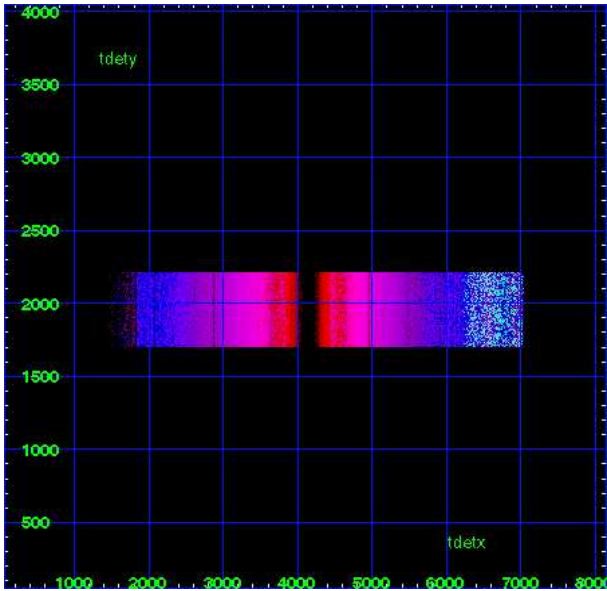
MEG Order Sort 123



MEG Order Sort ALL

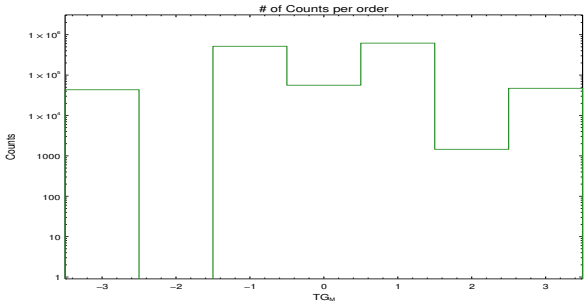


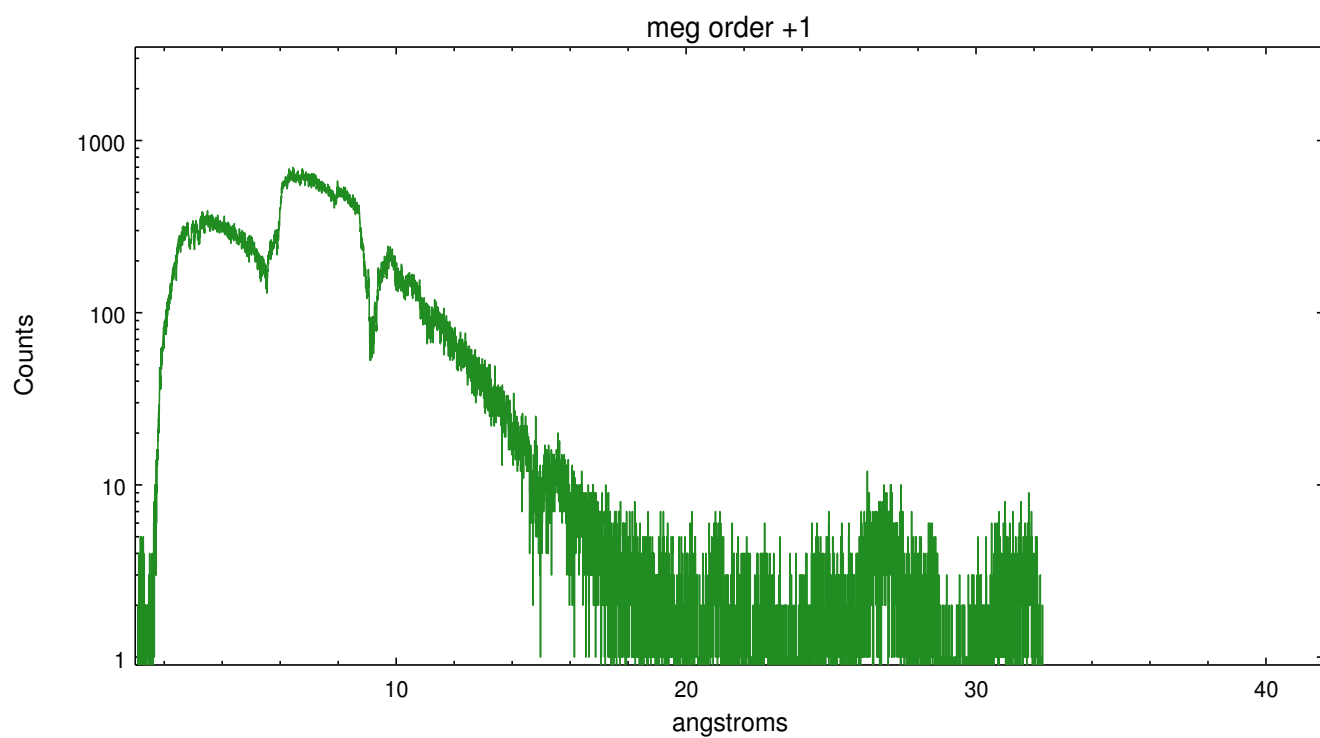
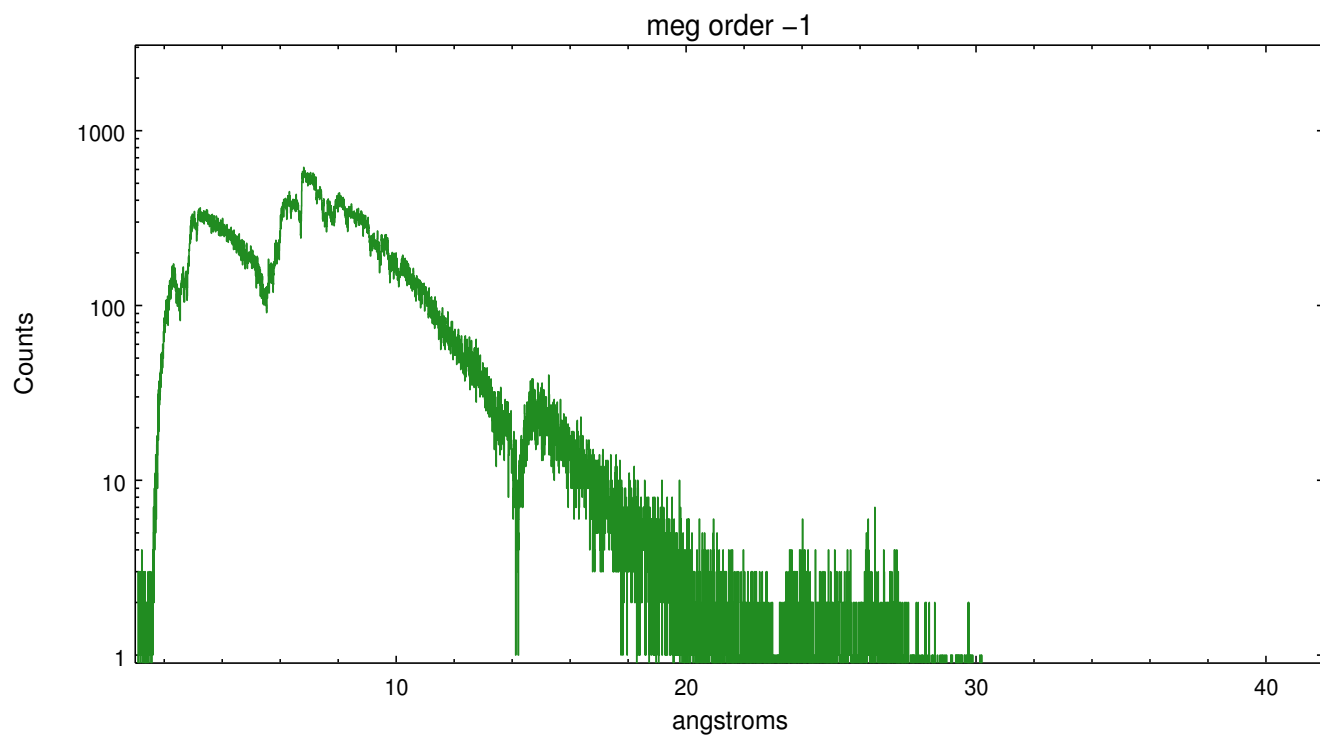
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	43311	0	516800	56110	618785	1454	47077





## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.04.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.12525

### A.2 Comments