

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 5955 - L2 Version 002  
Chandra X-Ray Center

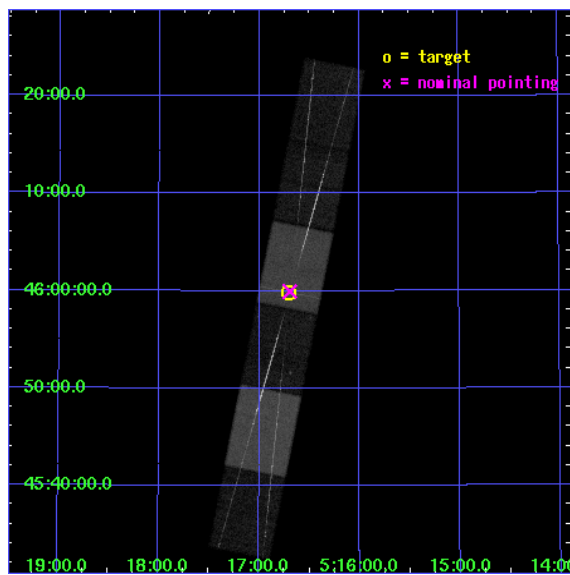
L2 Processing Date : Mar 17 2006

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# 1 Front

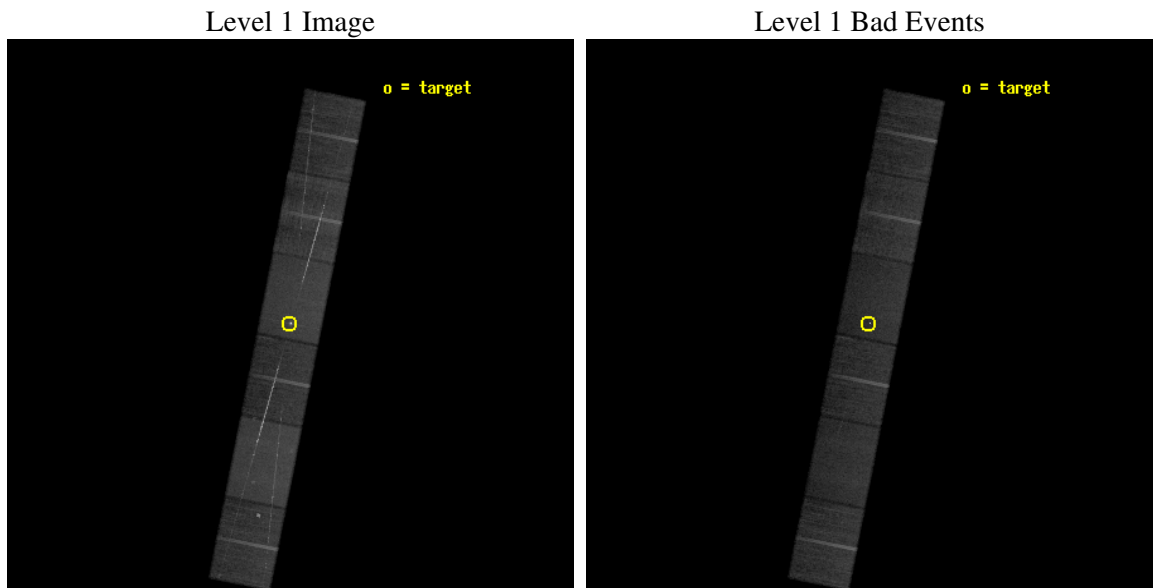
seq_num	290447
obs_id	5955
title	AO6 Calibration Observations of Capella
observer	Dr. CXC Calibration
object	Capella
dtcycle	0
cycle	P
ra_targ	79.17625
dec_targ	45.997889
ra_nom	79.173469583933
dec_nom	45.999040803367
roll_nom	281.22698009399
revision	2
ontime	29147.5
livetime	28676.742593584
ontime4	29147.5
ontime5	29147.5
ontime6	29144.959009796
ontime7	29147.5
ontime8	29147.5
ontime9	29147.5
l2events	344946



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

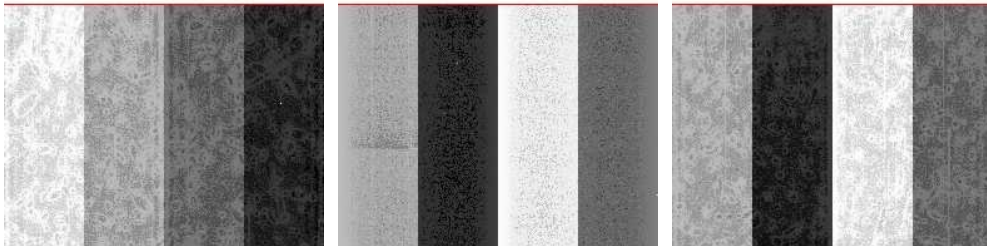


#### 2.1.2 Bias

Chip 4

Chip 5

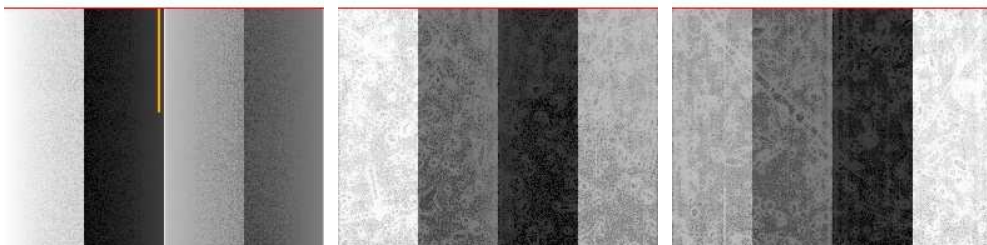
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldsver	3.2.1
date	2006-03-17T18:01:08
revision	2

sched_exp_time	29000.000000
ontime	29267.36943838
ontime4	29267.369418442
ontime5	29267.36943838
ontime6	29259.746437788
ontime7	29267.36943838
ontime8	29267.36943838
ontime9	29267.36943838
l1events	1293392

### 2.1.4 Events

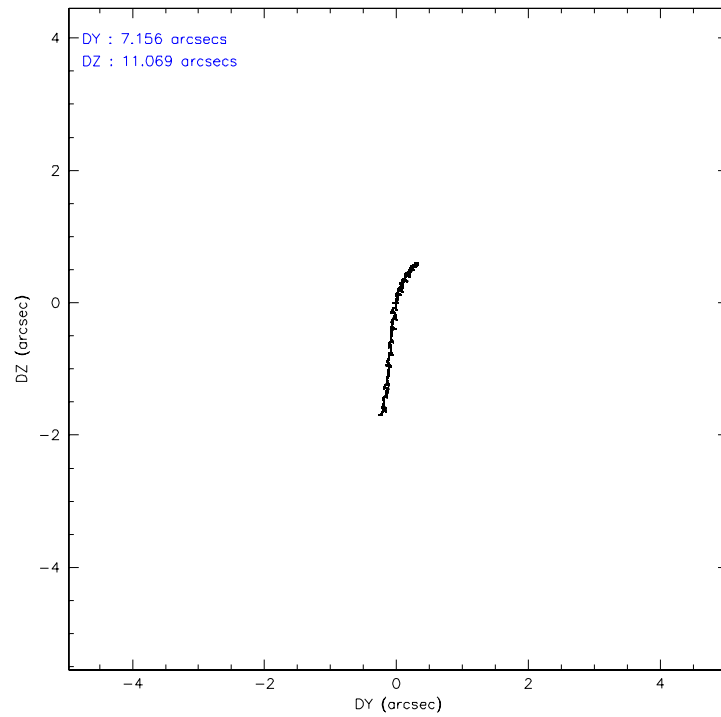
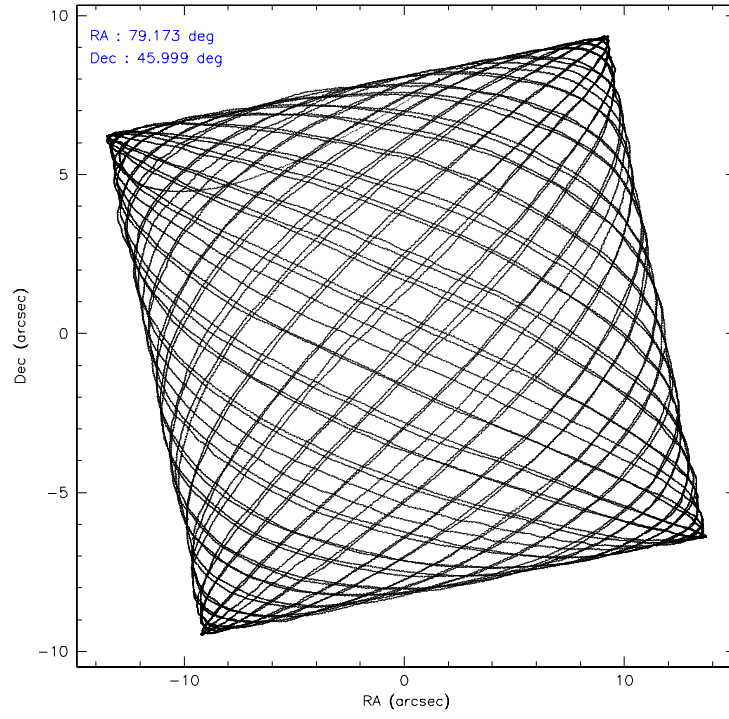
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	190614	265449	186636	249348	233473	167872
rejected events	161666	138785	145961	146867	164554	142210
rejected %	84%	52%	78%	58%	70%	84%

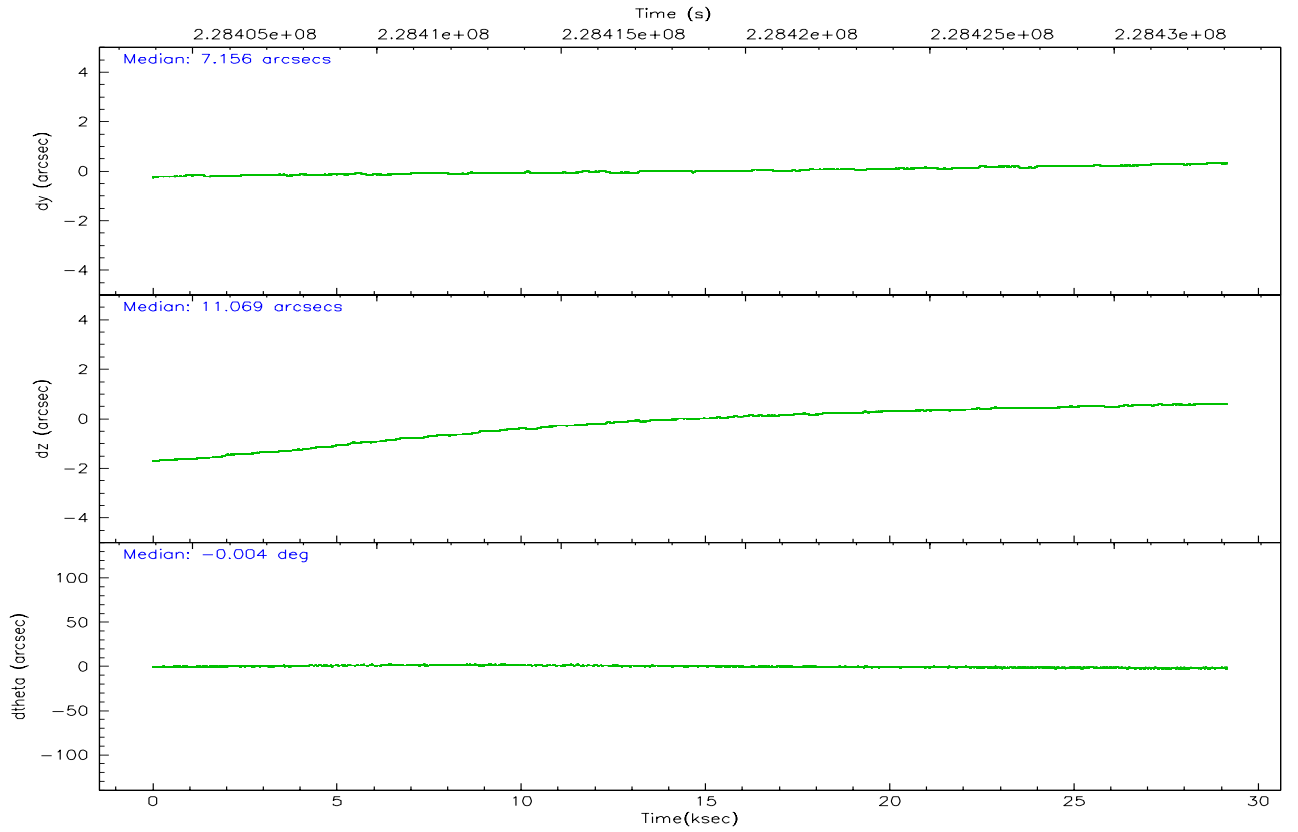
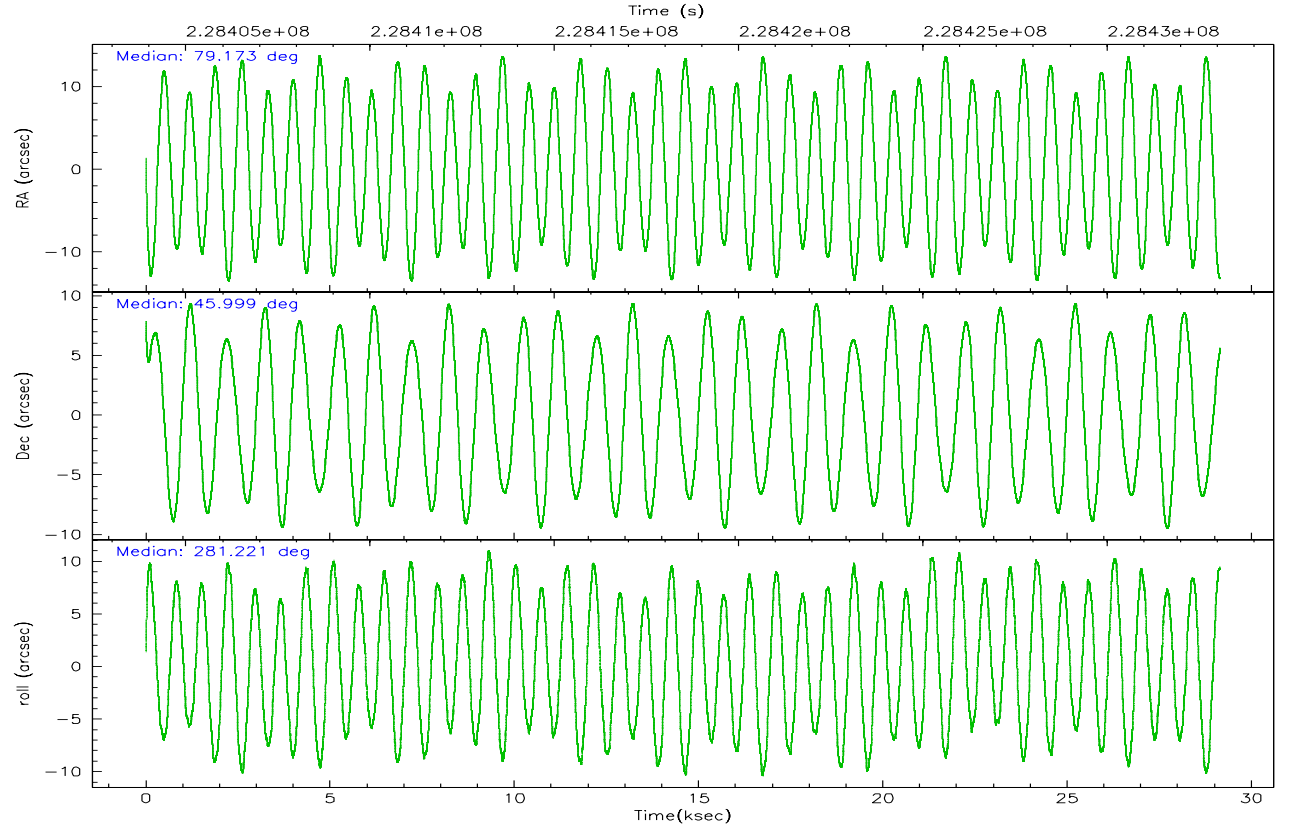
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	16440	13512	25686	8383	34956	12926
	8%	5%	13%	3%	14%	7%
grade 1 events	186	279	159	346	258	104
	0%	0%	0%	0%	0%	0%
grade 2 events	4785	39729	5872	25279	11664	4377
	2%	14%	3%	10%	4%	2%
grade 3 events	2270	4675	2544	6311	5443	2241
	1%	1%	1%	2%	2%	1%
grade 4 events	2248	4582	2517	6335	4964	2161
	1%	1%	1%	2%	2%	1%
grade 5 events	7188	12389	7530	16386	9768	8043
	3%	4%	4%	6%	4%	4%
grade 6 events	3349	64679	4208	56576	12221	4068
	1%	24%	2%	22%	5%	2%
grade 7 events	154148	125604	138120	129732	154199	133952
	80%	47%	74%	52%	66%	79%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	CUSTOM
Pointing RA	79.147239	79.17346958393296	Subarray start row	1	1
Pointing Dec	46.019251	45.99904080336749	Subarray row count	774	774
Pointing Roll	281.089228	281.2269800939919	Alternating exposures requested	N	N
Window start time	227232064.184000	227232064.184000	Primary exposure time	0.000000	2.5
Window stop time	241833664.184000	241833664.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-187.132523	-187.1254020033014			
SIM translation stage offset (mm)	-3	-3.007120579706367			
Observation start time	228404077.184000	228403008.76276			
Observation start date	2005-03-28T13:33:33	2005-03-28T13:16:48			
Observation end time	228433077.184000	228433866.38916			
Observation end date	2005-03-28T21:36:53	2005-03-28T21:51:06			
Read mode	TIMED	TIMED			

## 2.3 Aspect





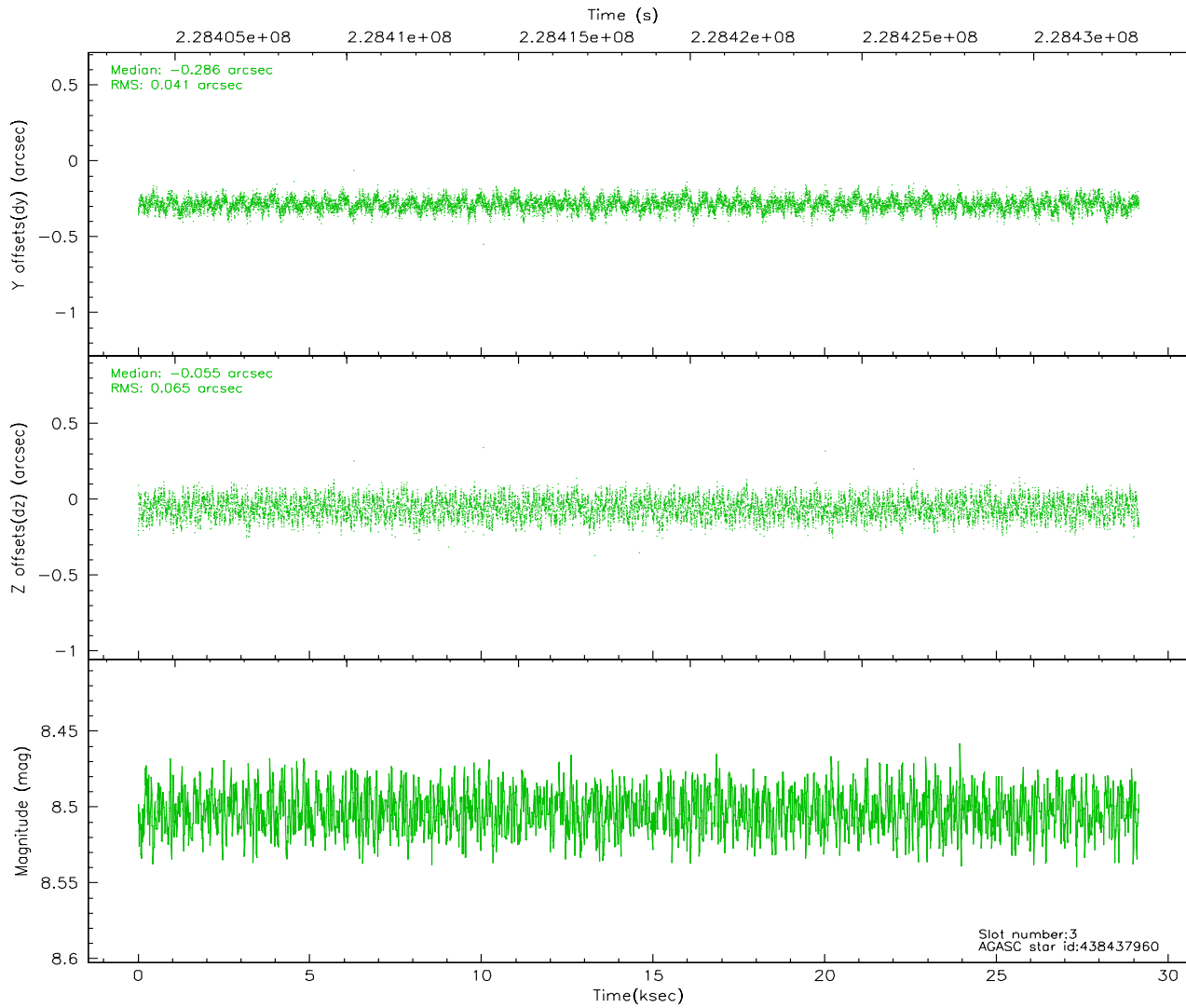
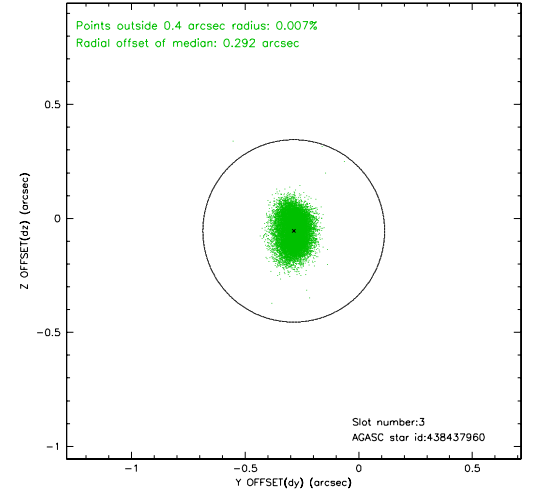
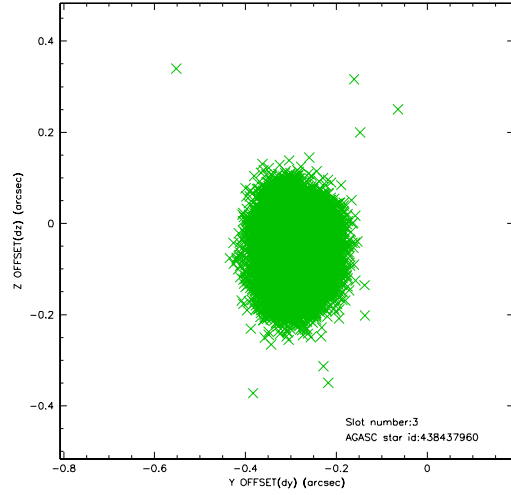
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7109	-0.043	-0.076	0.010	0.028	0.000000	0.000000	-759.78	-1794.27
1	FID	ACIS-S-4	7.18	7110	0.067	0.040	0.007	0.012	0.000000	0.000000	2153.58	114.21
2	FID	ACIS-S-5	7.23	7111	-0.056	0.043	0.009	0.024	0.000000	0.000000	-1812.52	108.00
3	GUIDE	438437960	8.50	14213	-0.286	-0.055	0.084	0.129	78.069023	46.438843	-2014.56	-2331.06
4	GUIDE	438460832	8.97	14216	0.165	0.051	0.078	0.128	78.414614	45.554782	1278.21	-2132.01
5	GUIDE	440150048	7.19	14215	-0.146	0.012	0.075	0.116	79.112838	46.416060	-1417.94	190.98
6	GUIDE	440163960	8.88	14215	0.192	0.021	0.081	0.130	79.298370	45.827072	751.92	239.55
7	GUIDE	438455912	9.25	14210	0.073	-0.025	0.108	0.175	78.251946	45.690923	715.32	-2433.89

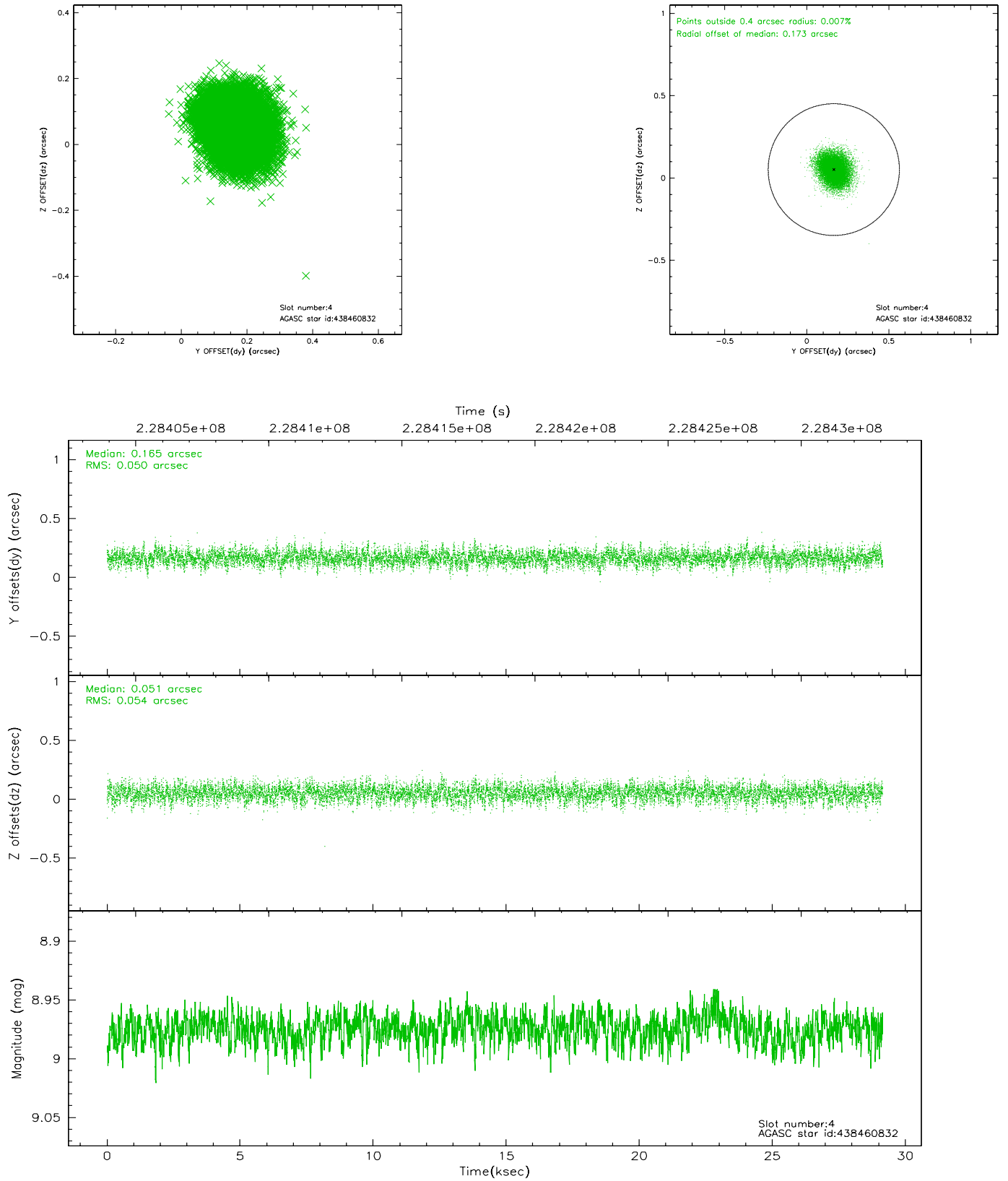


## 2.4 Star Slots

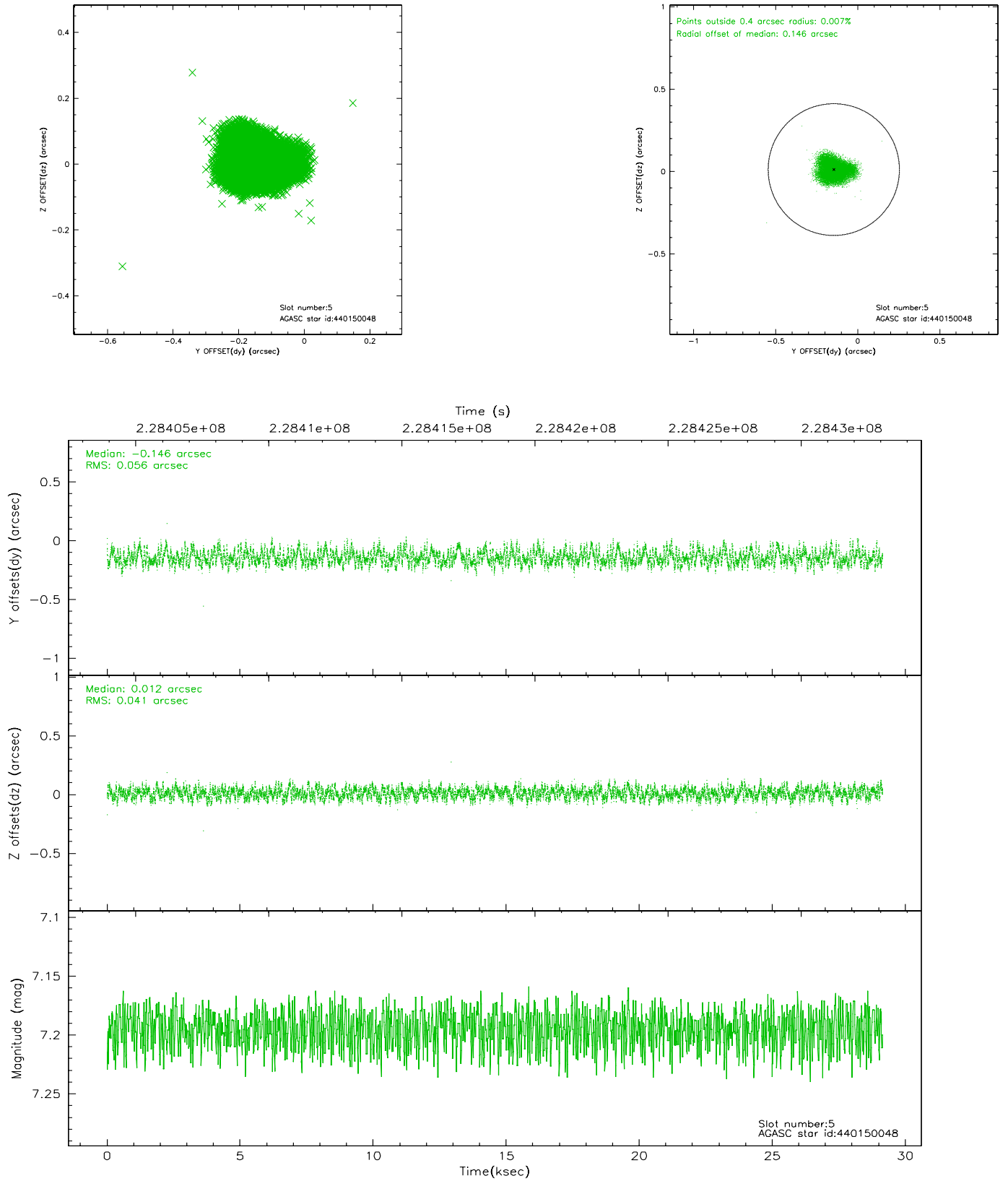
### 2.4.1 Slot 3



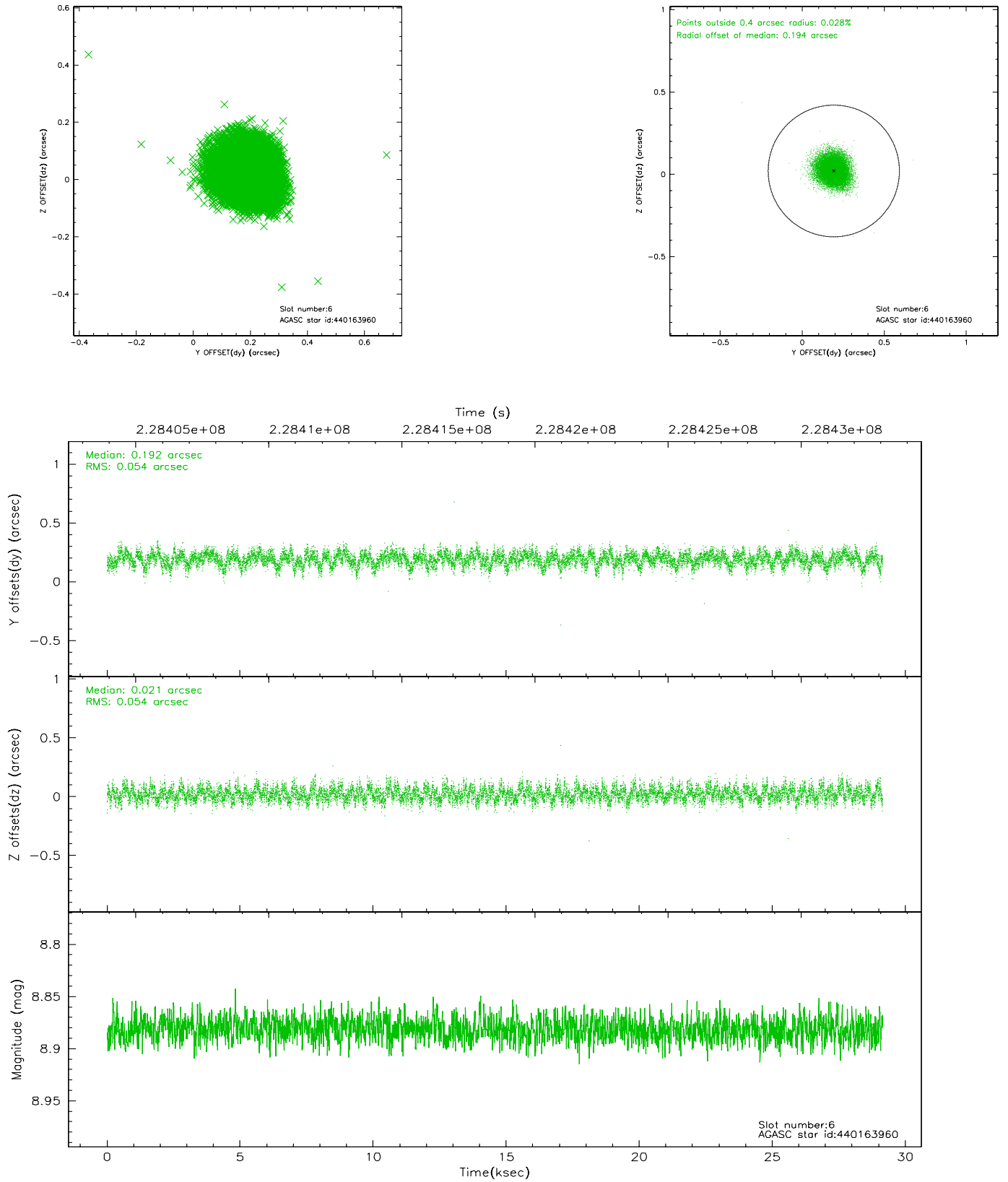
## 2.4.2 Slot 4



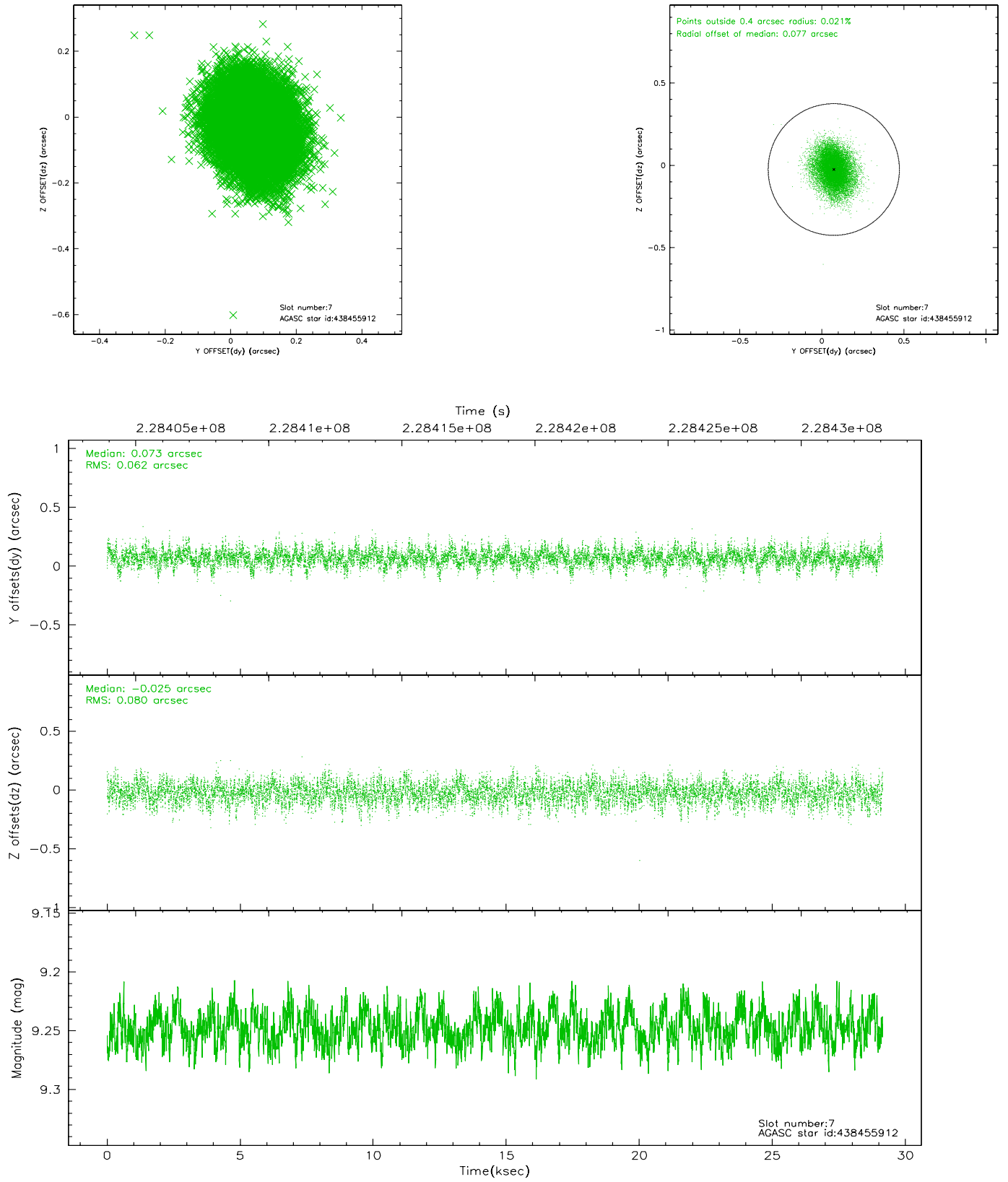
### 2.4.3 Slot 5



## 2.4.4 Slot 6

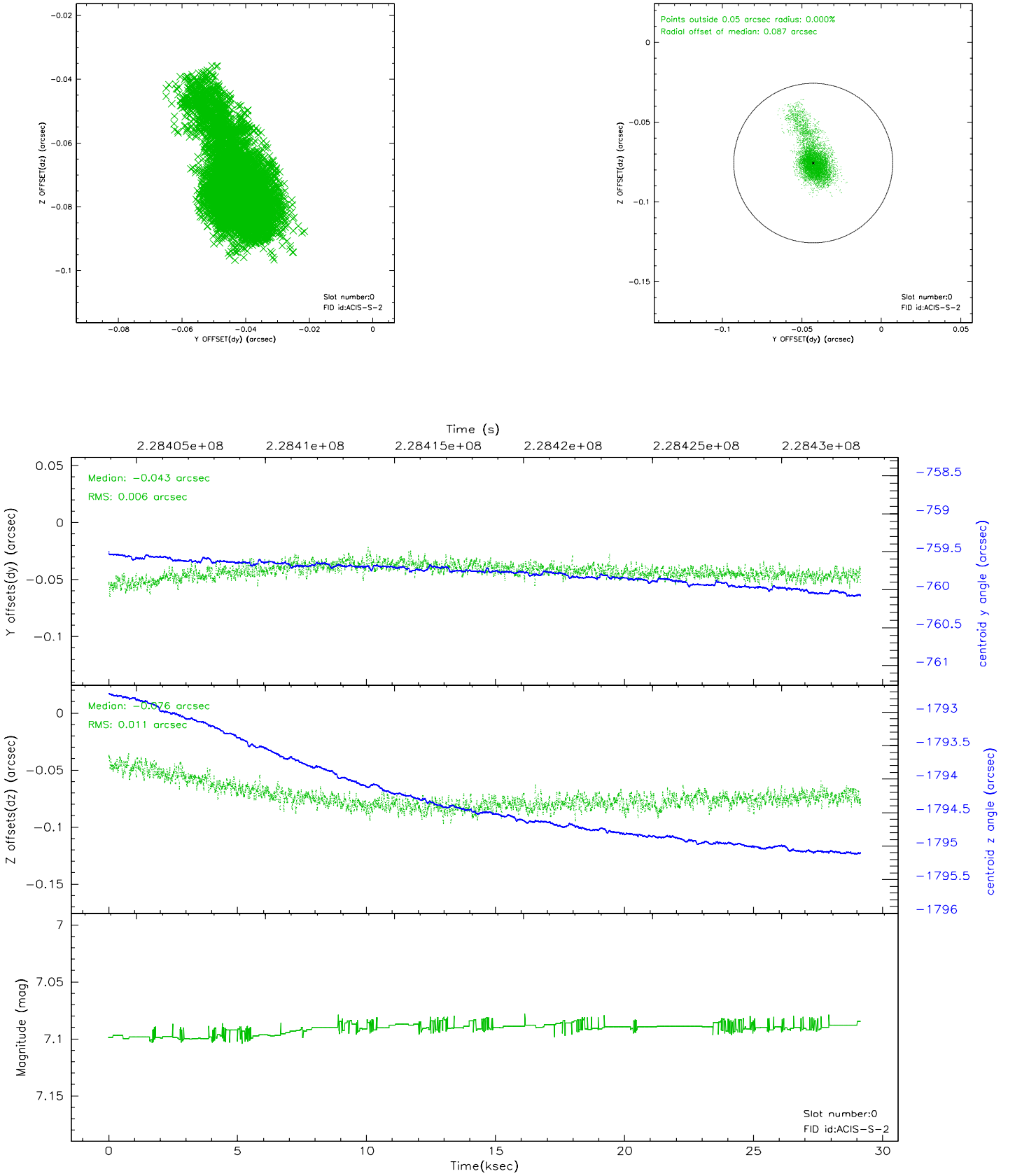


## 2.4.5 Slot 7

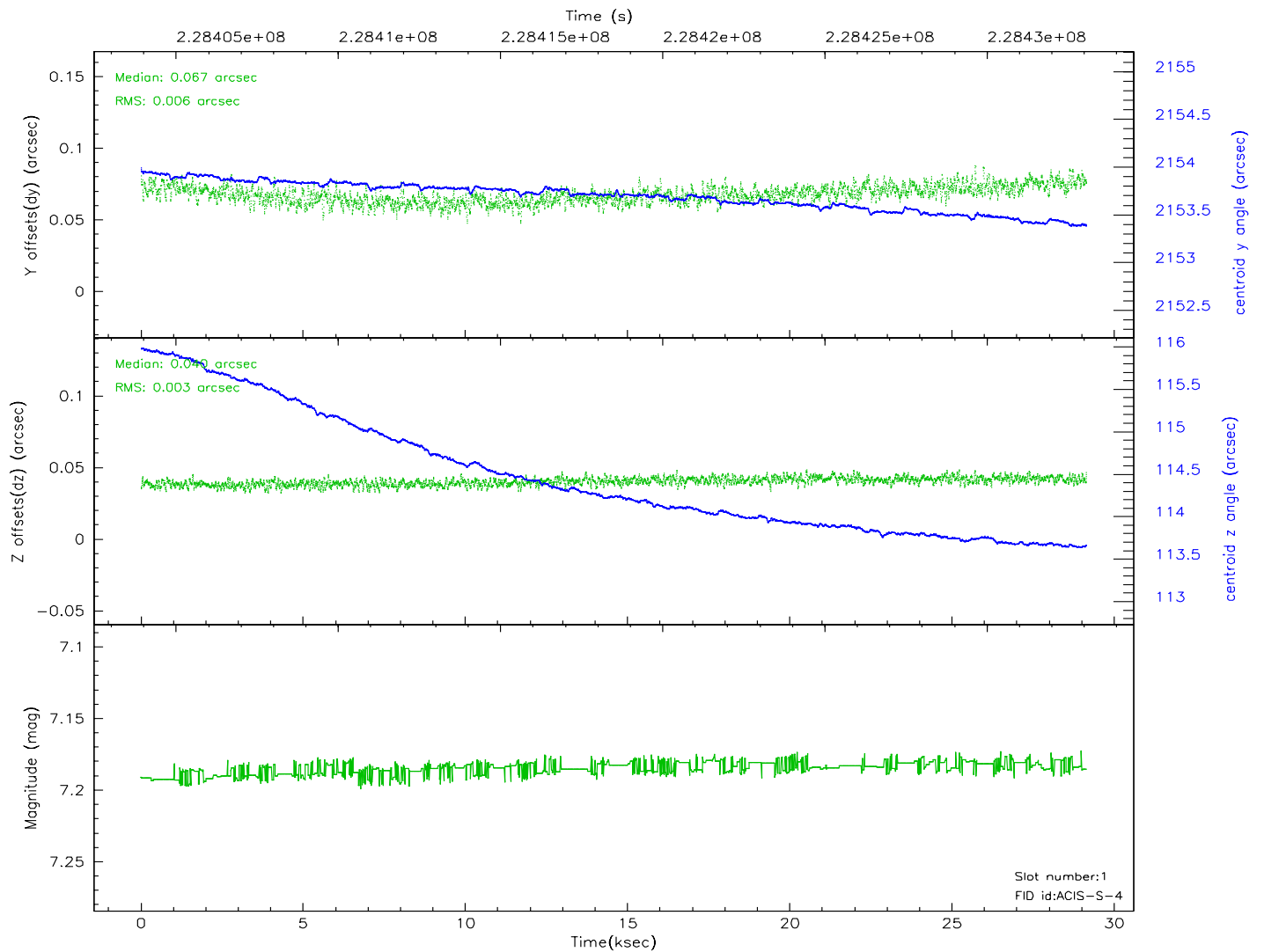
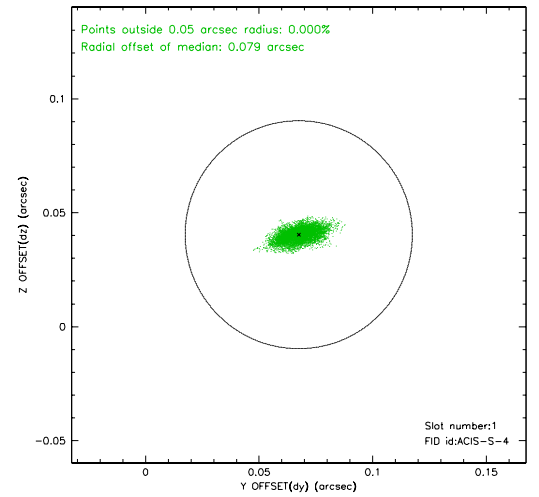
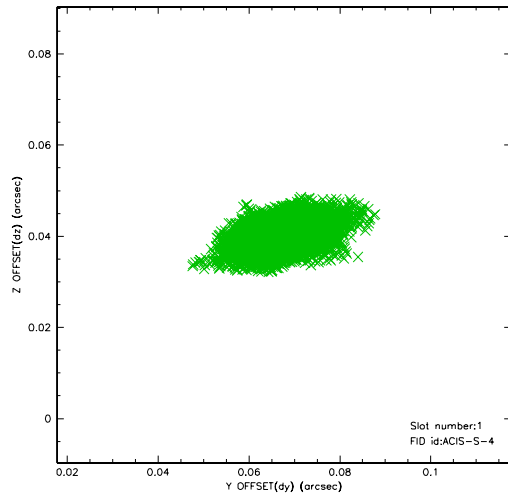


## 2.5 FID Slots

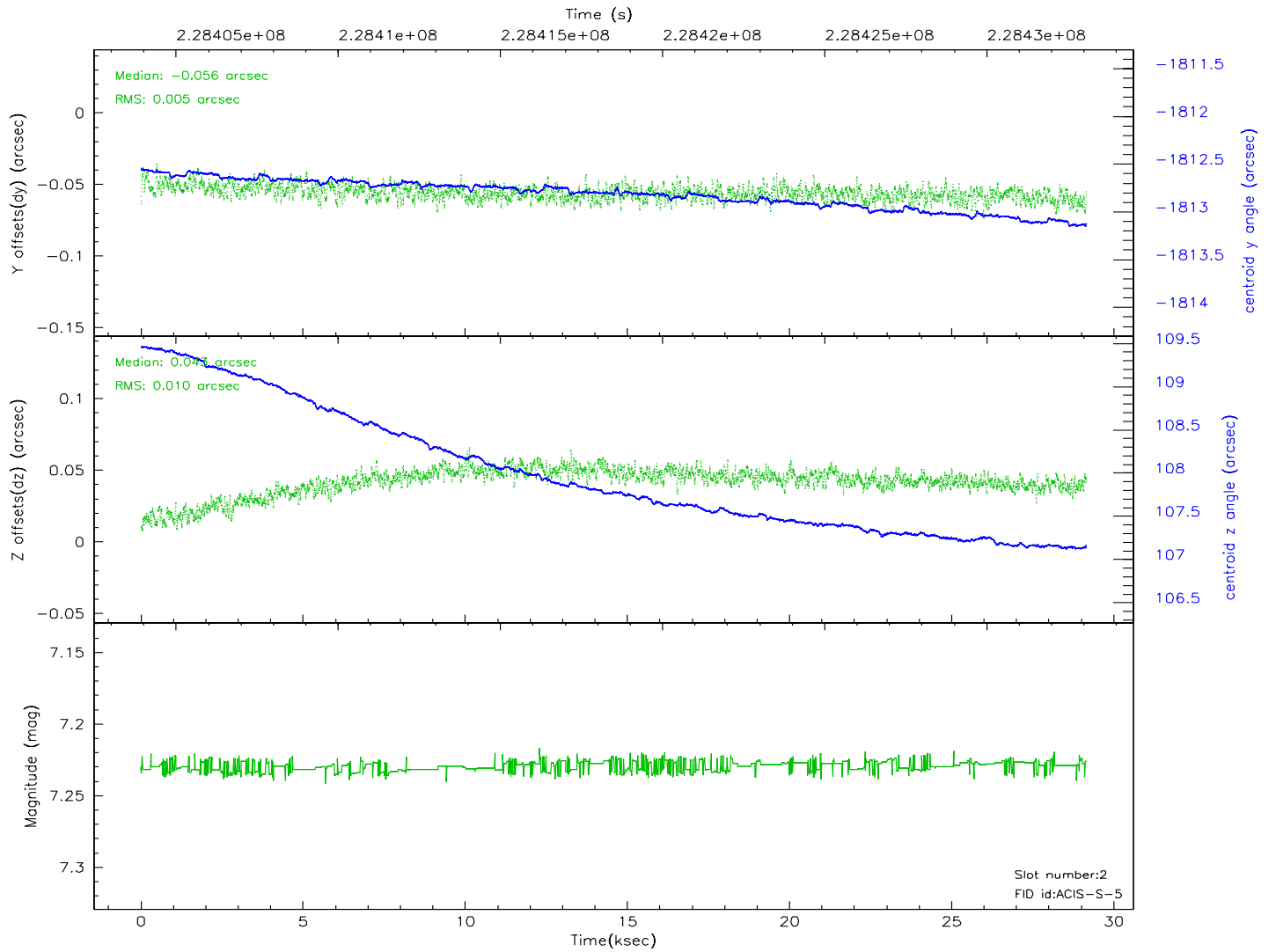
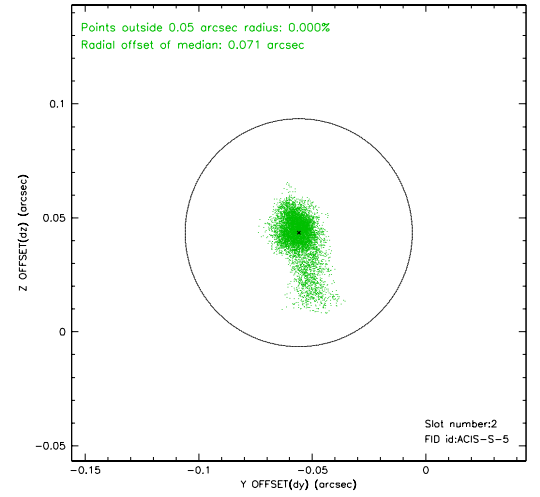
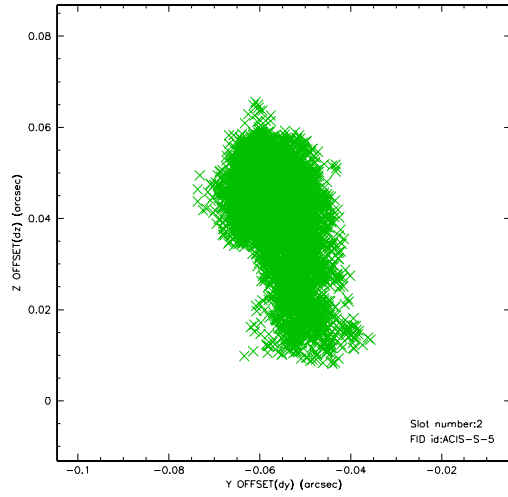
### 2.5.1 Slot 0



## 2.5.2 Slot 1



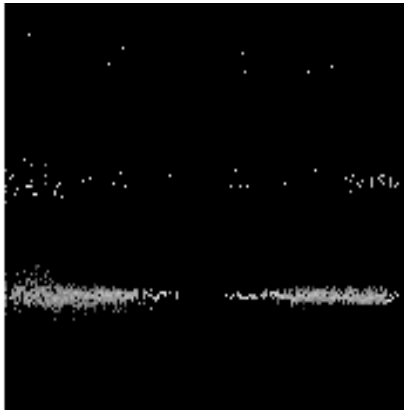
### 2.5.3 Slot 2



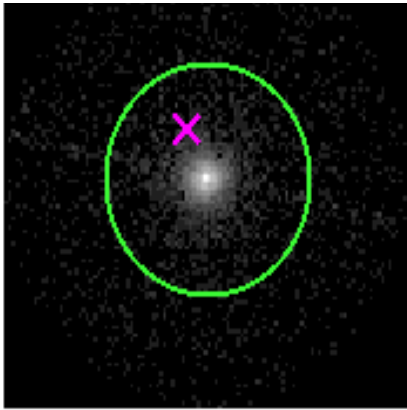


# 3 Gratings

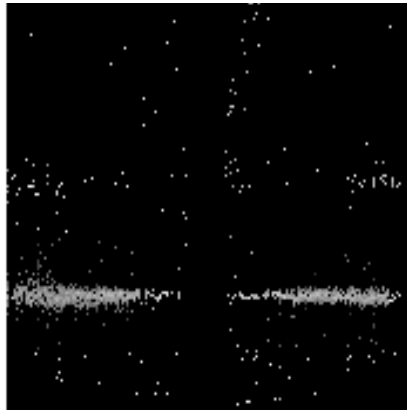
## 3.1 HEG Arm



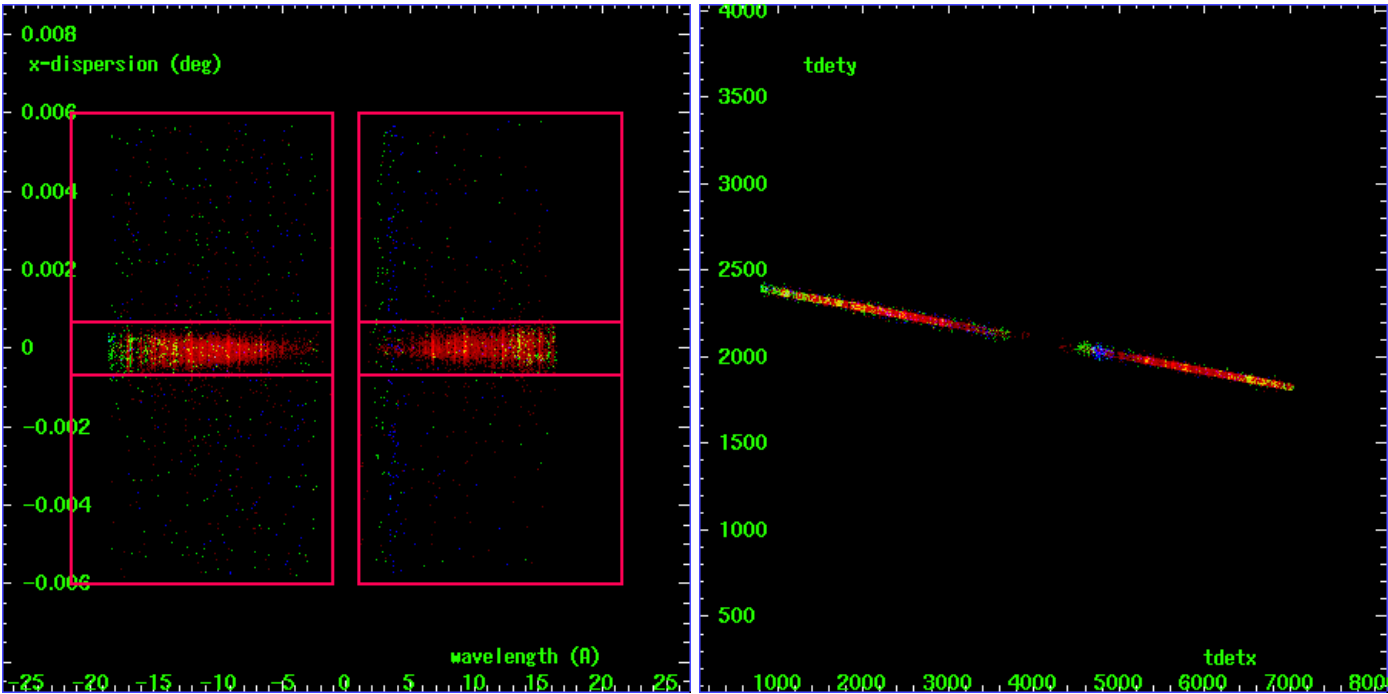
HEG Order Sort 123



HEG Zero Order



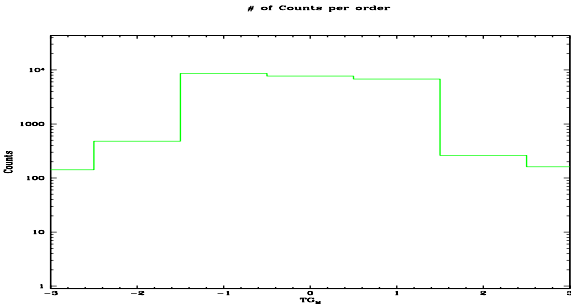
HEG Order Sort ALL



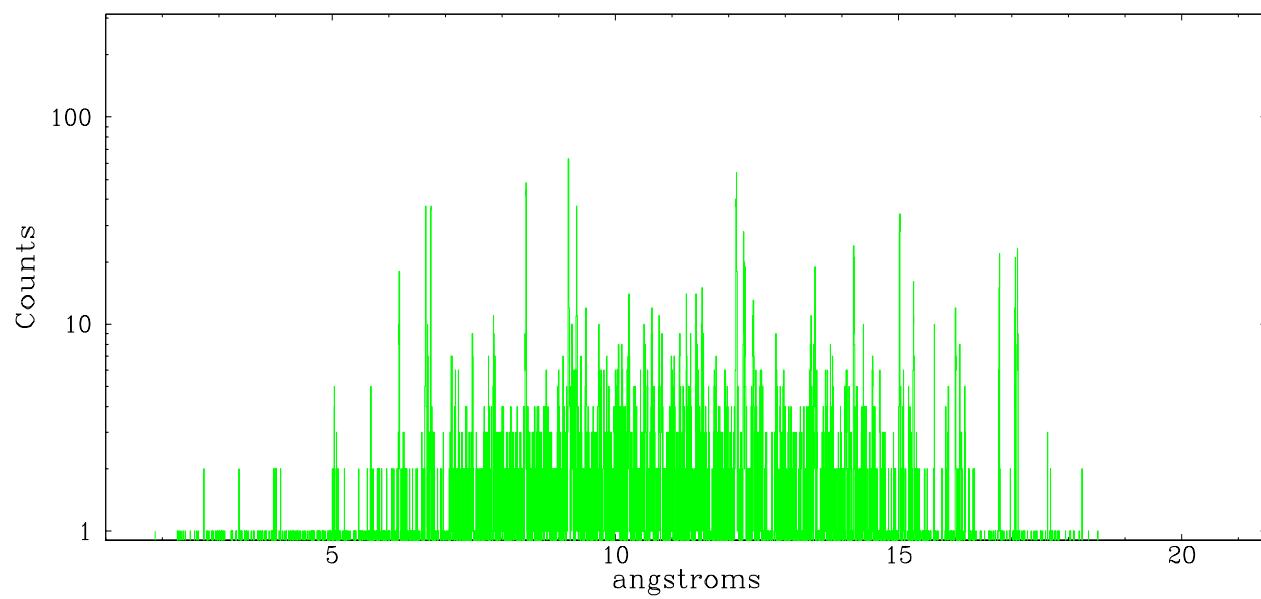
Spot Image HEG

Full Detector HEG

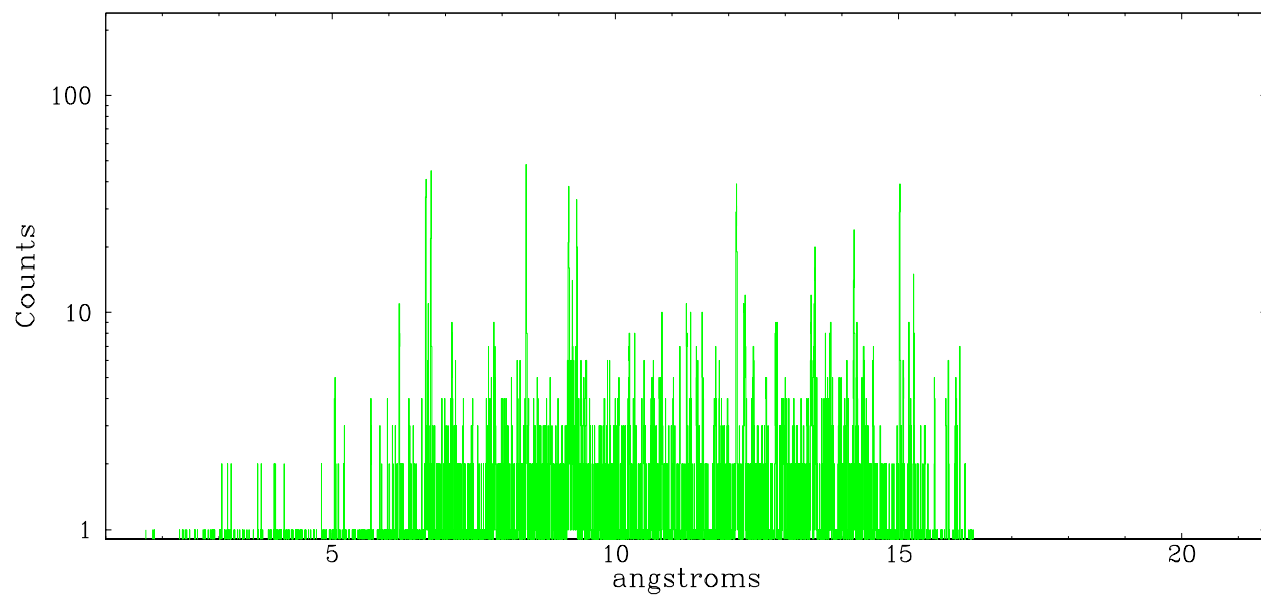
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	142	478	8610	7693	6771	263	161



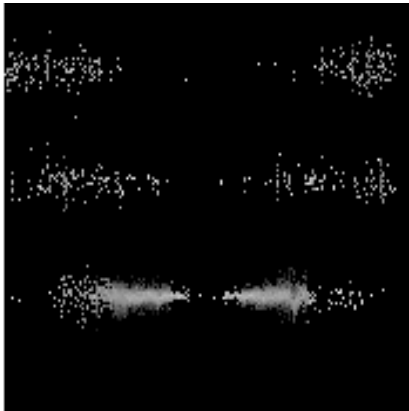
heg order -1



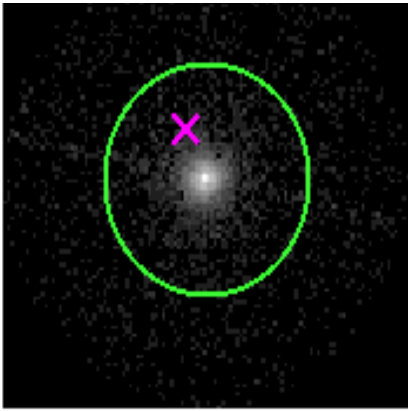
heg order +1



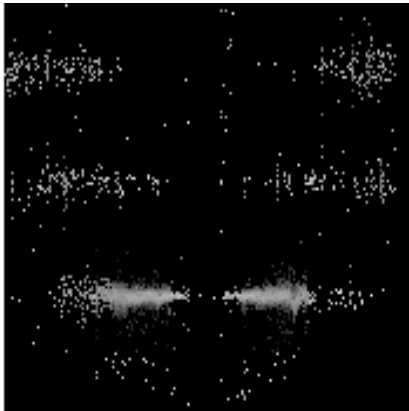
3.2 MEG Arm



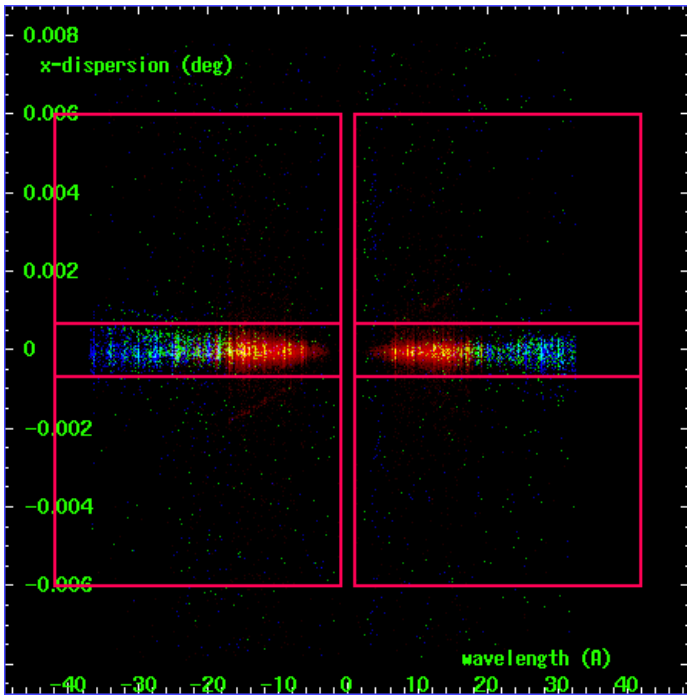
MEG Order Sort 123



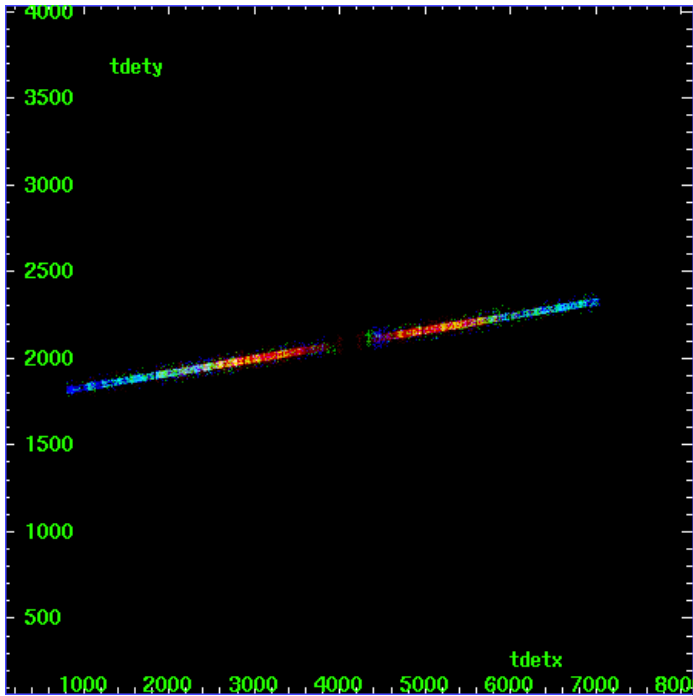
MEG Zero Order



MEG Order Sort ALL

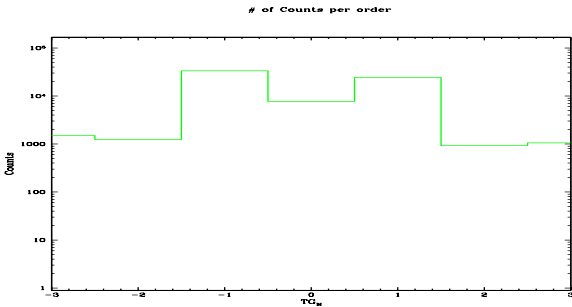


Spot Image MEG

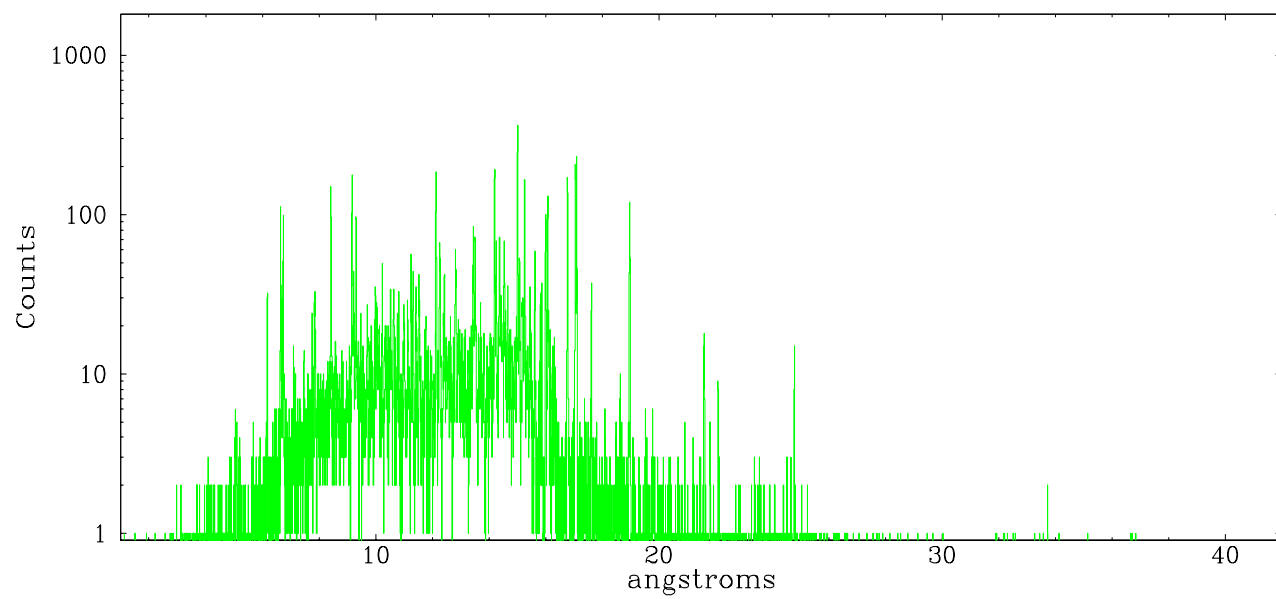


Full Detector MEG

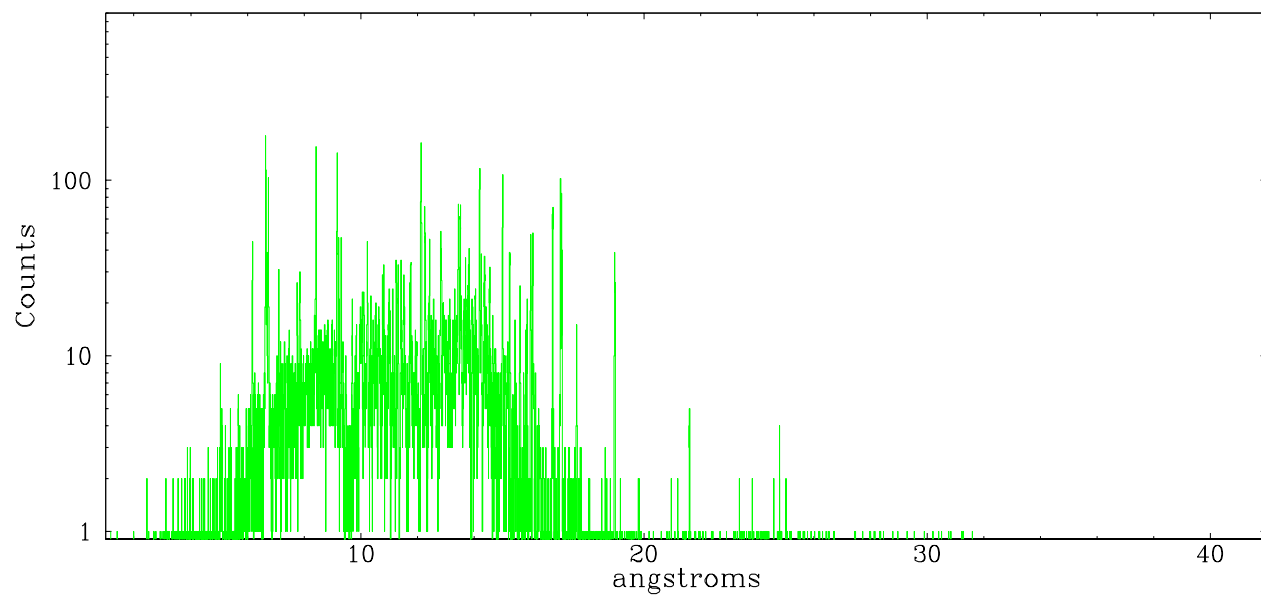
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1501	1238	33338	7693	24252	925	1055



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.1475

### A.2 Comments

Window constraint met.