

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.2

Observation 4770 - L2 Version 001  
Chandra X-Ray Center

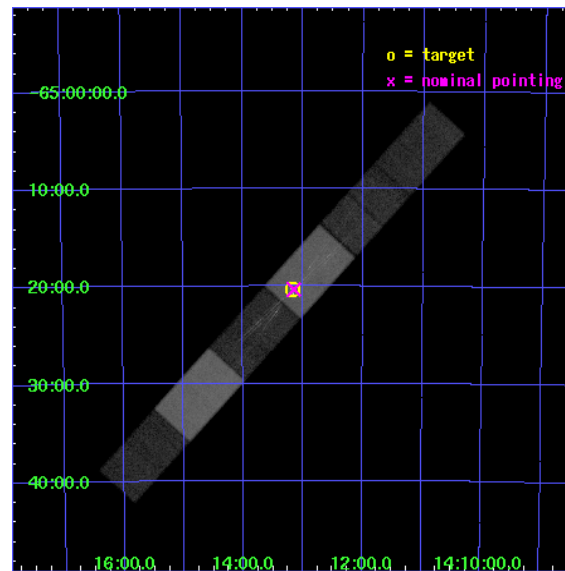
L2 Processing Date : May 15 2006

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# 1 Front

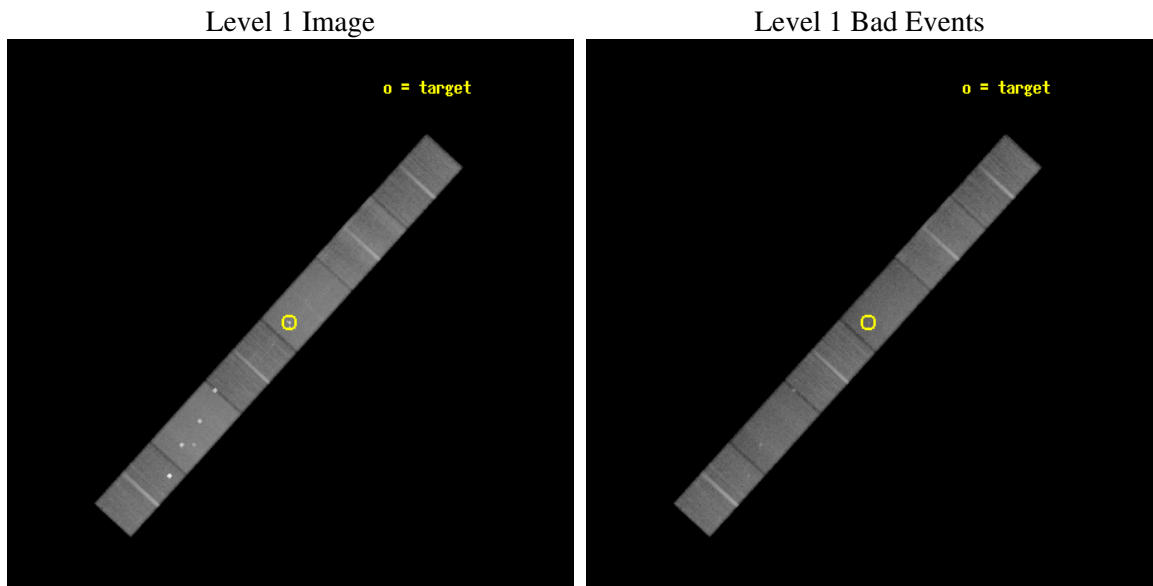
seq_num	700853
obs_id	4770
title	The size of the nuclear reflector in the Circinus Galaxy
observer	Professor Giorgio Matt
object	Circinus Galaxy
dtcycle	0
cycle	P
ra_targ	213.2925
dec_targ	-65.339111
ra_nom	213.28711847503
dec_nom	-65.339113952114
roll_nom	312.28380274874
revision	2
ontime	56103.59984076
livetime	55028.191750549
ontime4	56103.59984076
ontime5	56103.59984076
ontime6	56103.59984076
ontime7	56103.59984076
ontime8	56103.59984076
ontime9	56103.59984076
l2events	399038



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

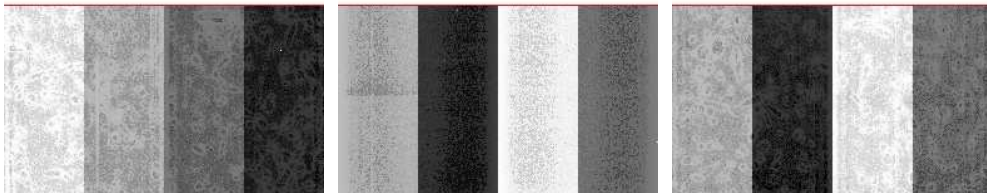


#### 2.1.2 Bias

Chip 4

Chip 5

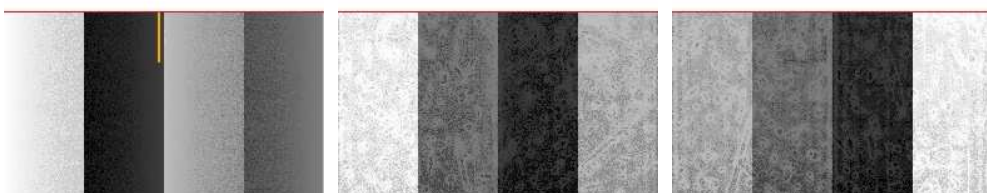
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.2
caldsver	3.2.2
date	2006-05-15T02:06:46
revision	2

sched_exp_time	56000.000000
ontime	56107.57115975
ontime4	56107.57115975
ontime5	56107.57115975
ontime6	56107.57115975
ontime7	56107.57115975
ontime8	56107.57115975
ontime9	56107.57115975
l1events	1813376

### 2.1.4 Events

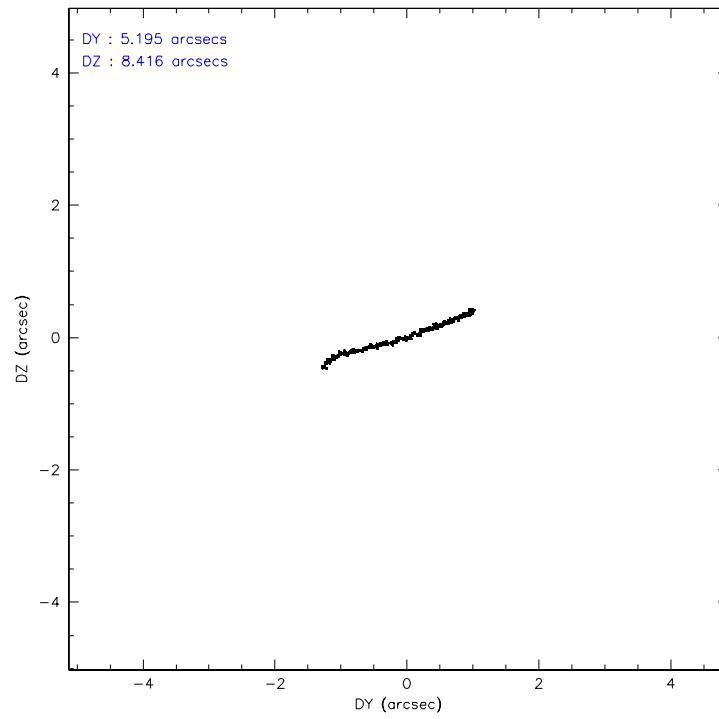
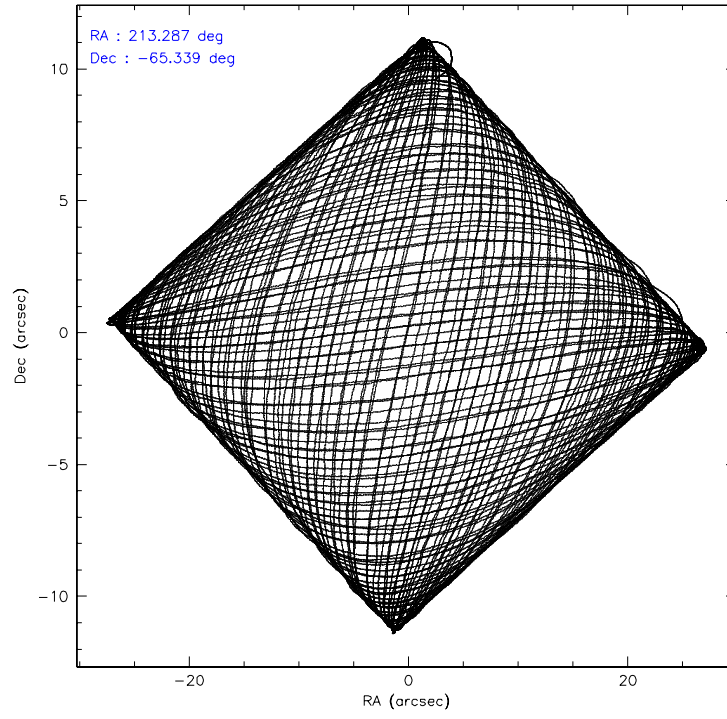
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	295931	372903	251449	334403	316742	241948	grade 0 events	37208	26001	14185	10405	21274	12410
rejected events	240394	198168	217881	192785	247500	211444		12%	6%	5%	3%	6%	5%
rejected %	81%	53%	86%	57%	78%	87%	grade 1 events	353	1245	123	253	141	108
								0%	0%	0%	0%	0%	0%
							grade 2 events	6582	49202	6521	33912	14878	5717
								2%	13%	2%	10%	4%	2%
							grade 3 events	3434	4681	3447	9453	7639	3428
								1%	1%	1%	2%	2%	1%
							grade 4 events	3204	4463	3367	9372	7076	3220
								1%	1%	1%	2%	2%	1%
							grade 5 events	10256	18581	10611	23989	13981	11306
								3%	4%	4%	7%	4%	4%
							grade 6 events	5112	90405	6049	78485	18378	5731
								1%	24%	2%	23%	5%	2%
							grade 7 events	229782	178325	207146	168534	233375	200028
								77%	47%	82%	50%	73%	82%

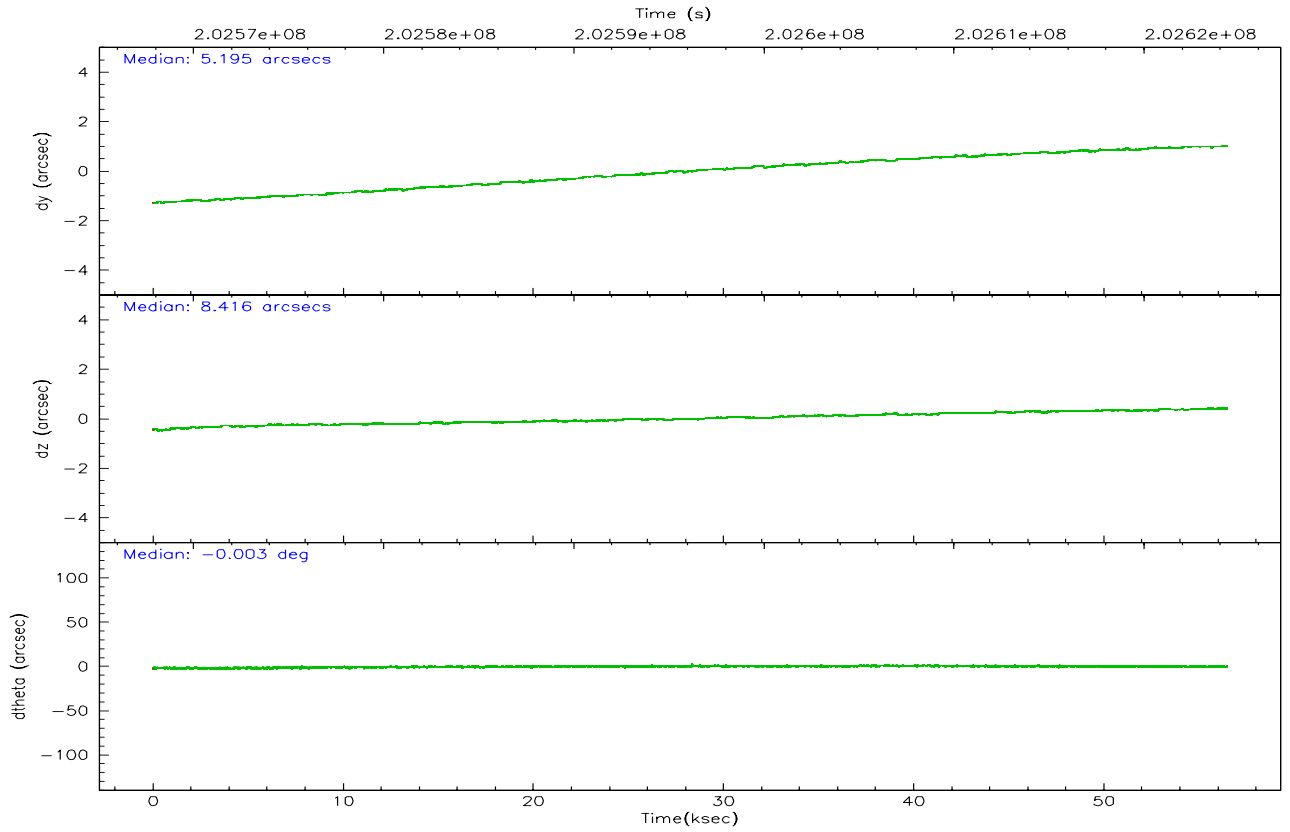
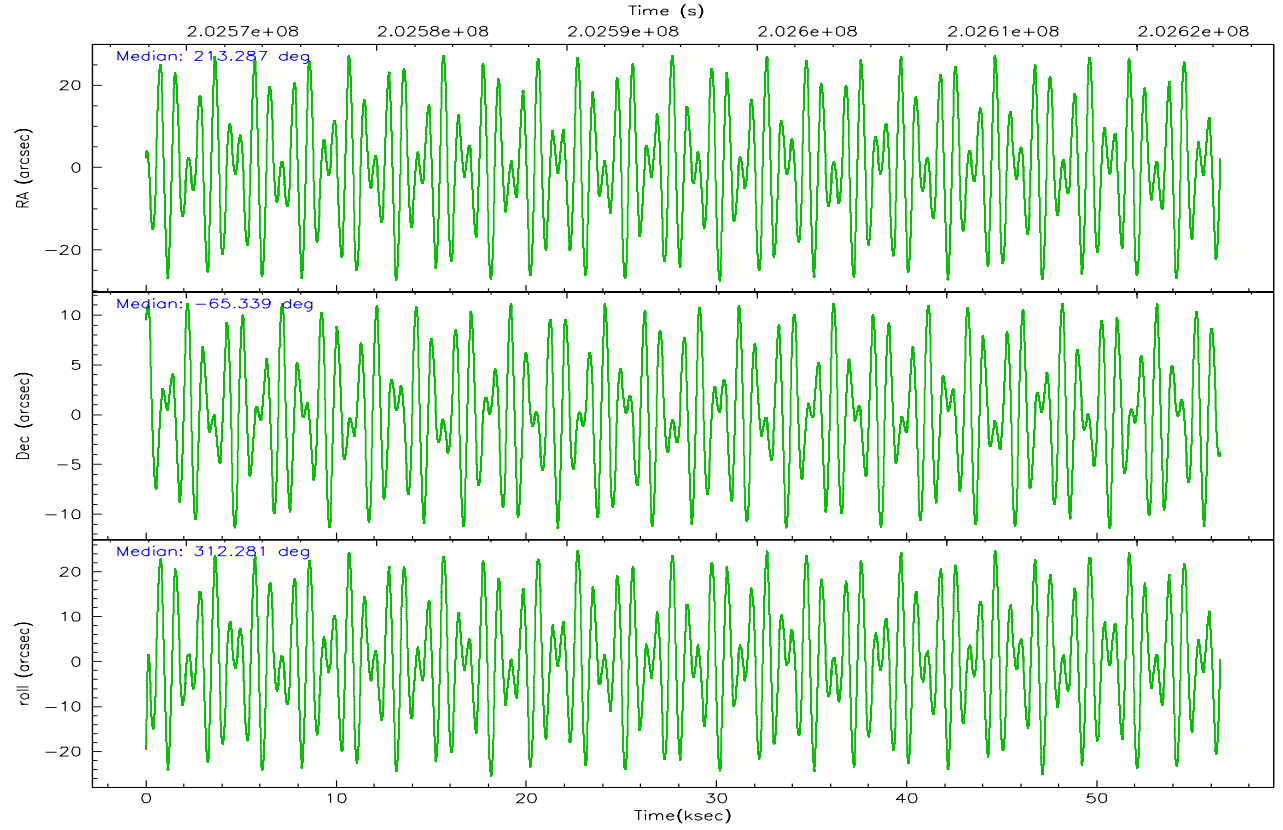


## 2.2 Compared Parameters

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	213.224739	213.2871184750275	Subarray start row	1	1
Pointing Dec	-65.331184	-65.33911395211405	Subarray row count	600	600
Pointing Roll	312.070491	312.2838027487405	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	2.1
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-185.052523	-185.0510918795144			
SIM translation stage offset (mm)	-5.08	-5.081430703493368			
Observation start time	202568360.184000	202567306.04256			
Observation start date	2004-06-02T12:58:16	2004-06-02T12:41:46			
Observation end time	202624360.184000	202625285.68262			
Observation end date	2004-06-03T04:31:36	2004-06-03T04:48:05			
Read mode	TIMED	TIMED			

## 2.3 Aspect



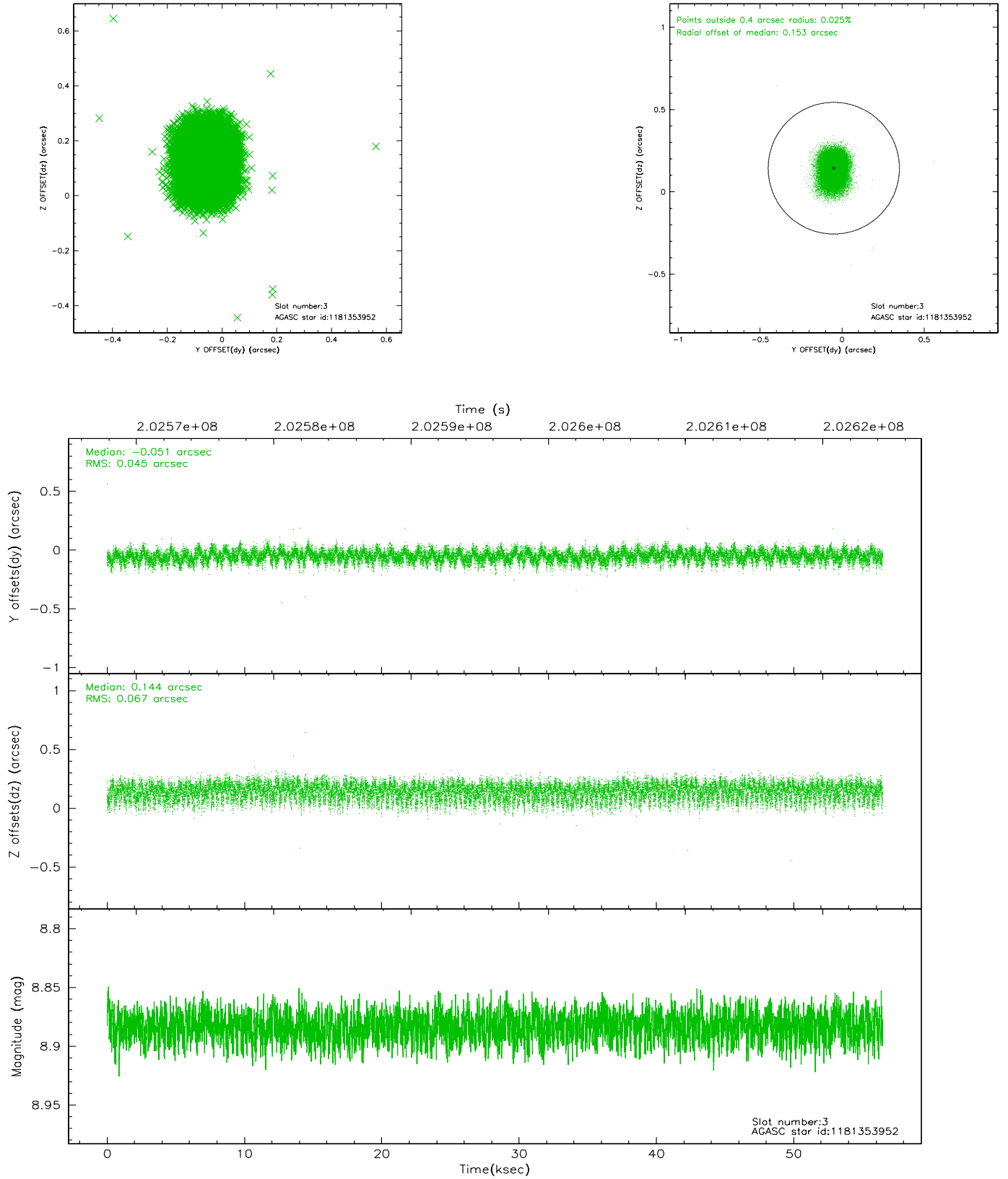


### Slot Statistics

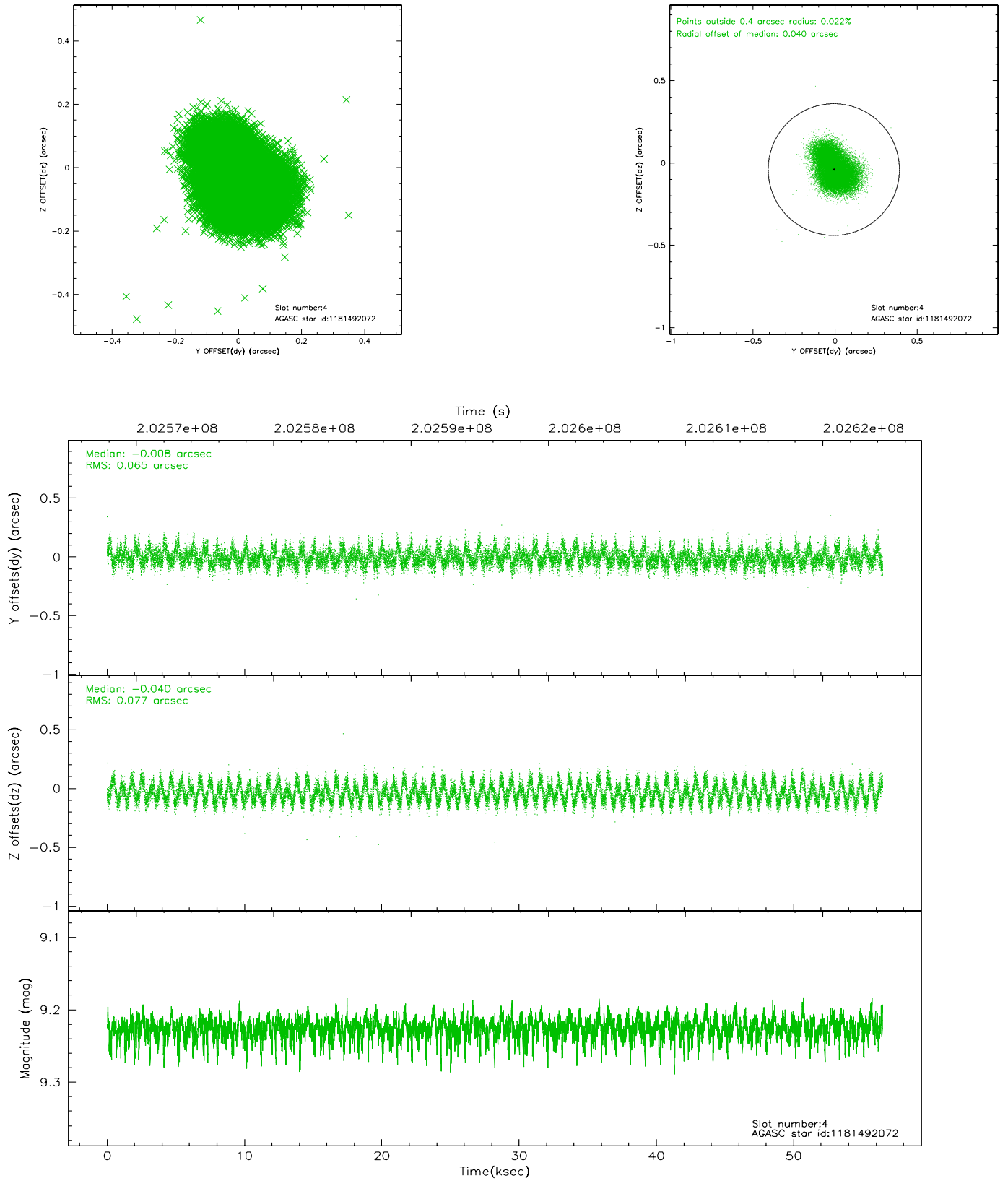
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	13777	-0.109	-0.072	0.015	0.027	0.000000	0.000000	-757.62	-1834.48
1	FID	ACIS-S-4	7.19	13777	0.053	0.081	0.014	0.023	0.000000	0.000000	2155.85	74.14
2	FID	ACIS-S-6	7.39	13775	0.029	0.004	0.013	0.022	0.000000	0.000000	404.49	711.44
3	GUIDE	1181353952	8.88	27537	-0.051	0.144	0.085	0.139	211.658427	-65.506998	-1074.52	-2178.42
4	GUIDE	1181492072	9.23	27542	-0.008	-0.040	0.109	0.168	214.479575	-65.592809	1963.84	742.28
5	GUIDE	1181492872	9.10	27544	0.050	0.068	0.085	0.135	214.965330	-65.517798	2265.39	1453.64
6	GUIDE	1181888328	9.14	27544	0.060	-0.069	0.093	0.150	213.100875	-66.006078	1682.73	-1762.47
7	GUIDE	1181362720	8.22	27550	-0.054	-0.101	0.056	0.089	212.359703	-64.776136	-2365.48	347.61

## 2.4 Star Slots

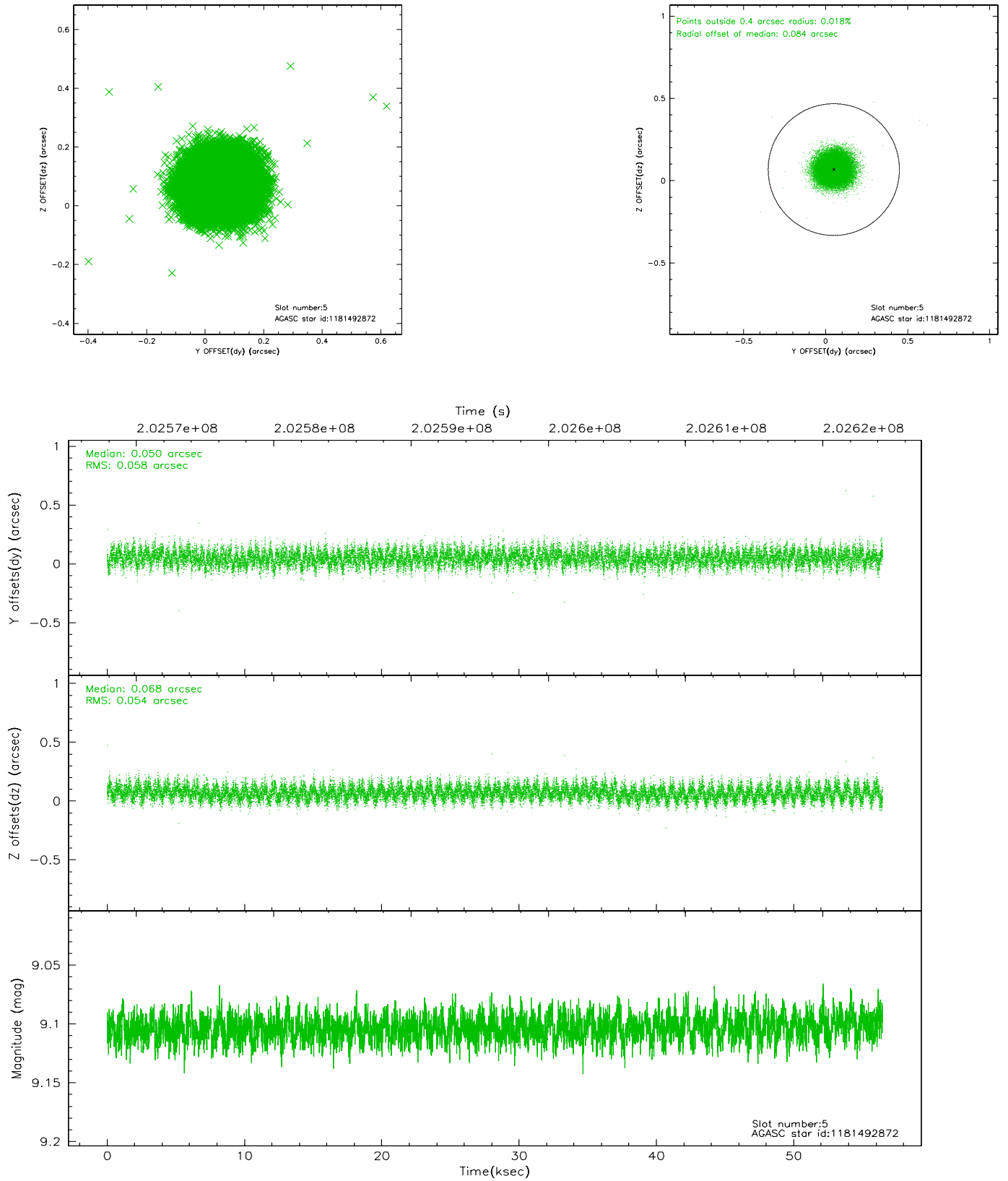
### 2.4.1 Slot 3



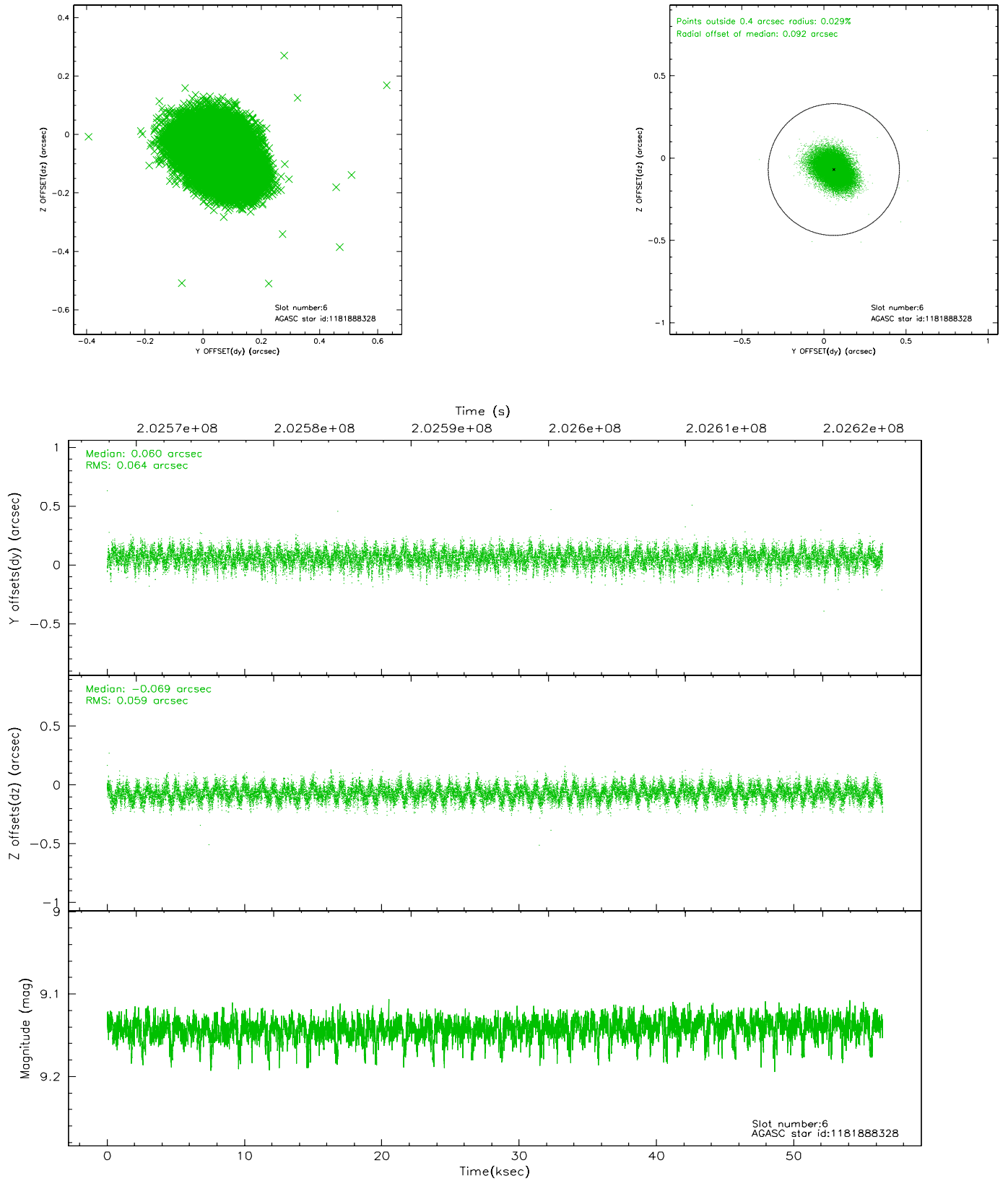
## 2.4.2 Slot 4



### 2.4.3 Slot 5

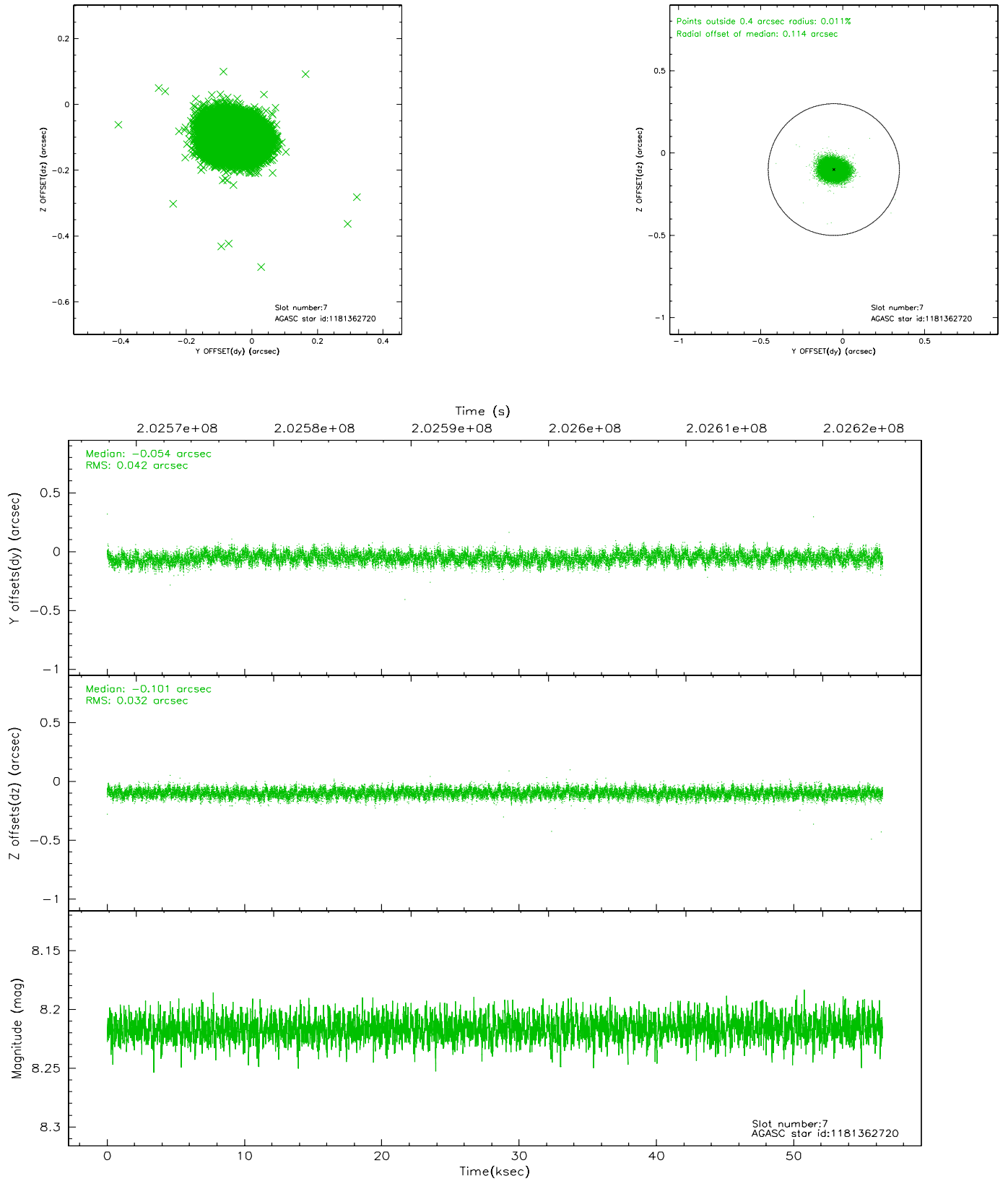


## 2.4.4 Slot 6



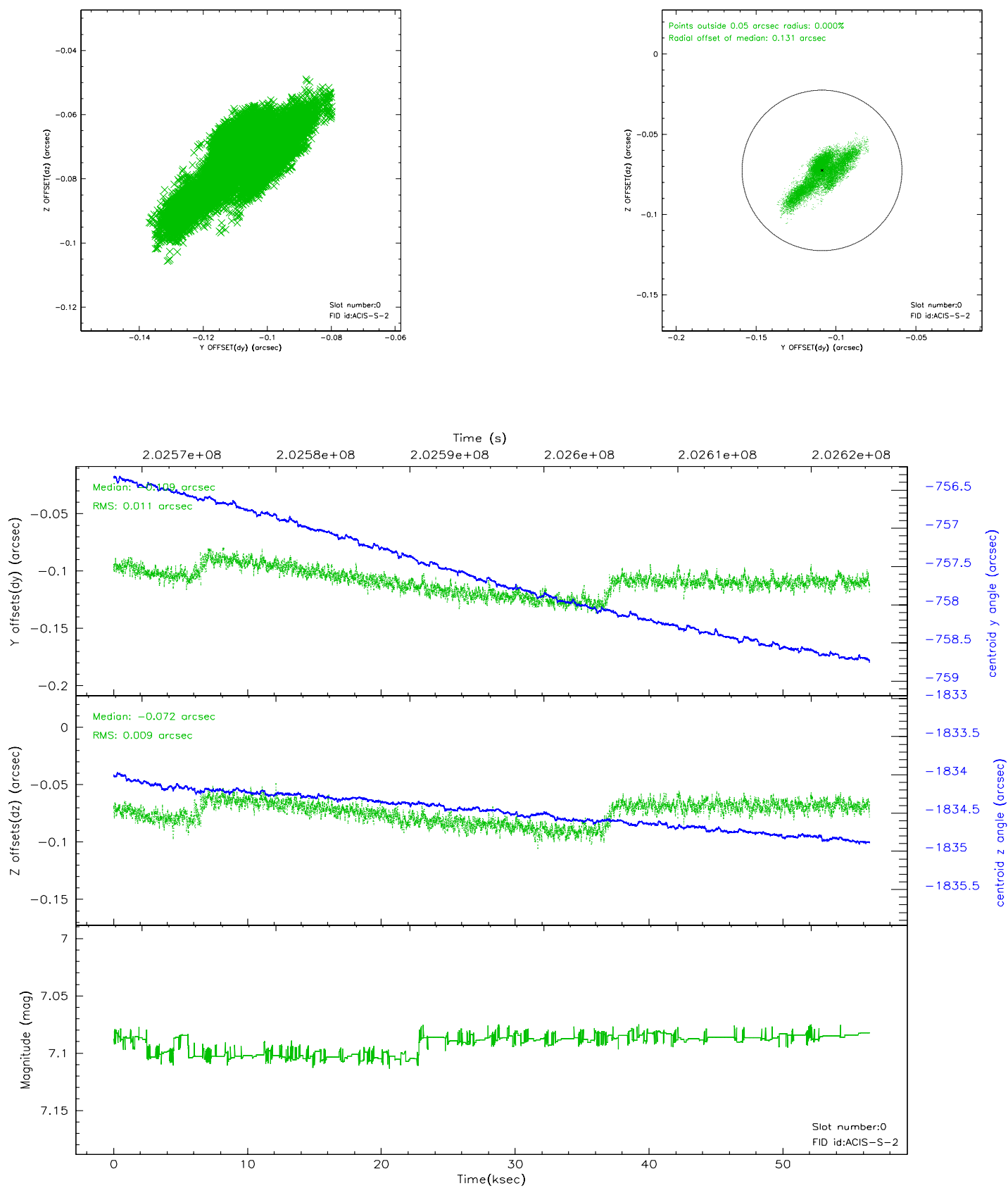


## 2.4.5 Slot 7

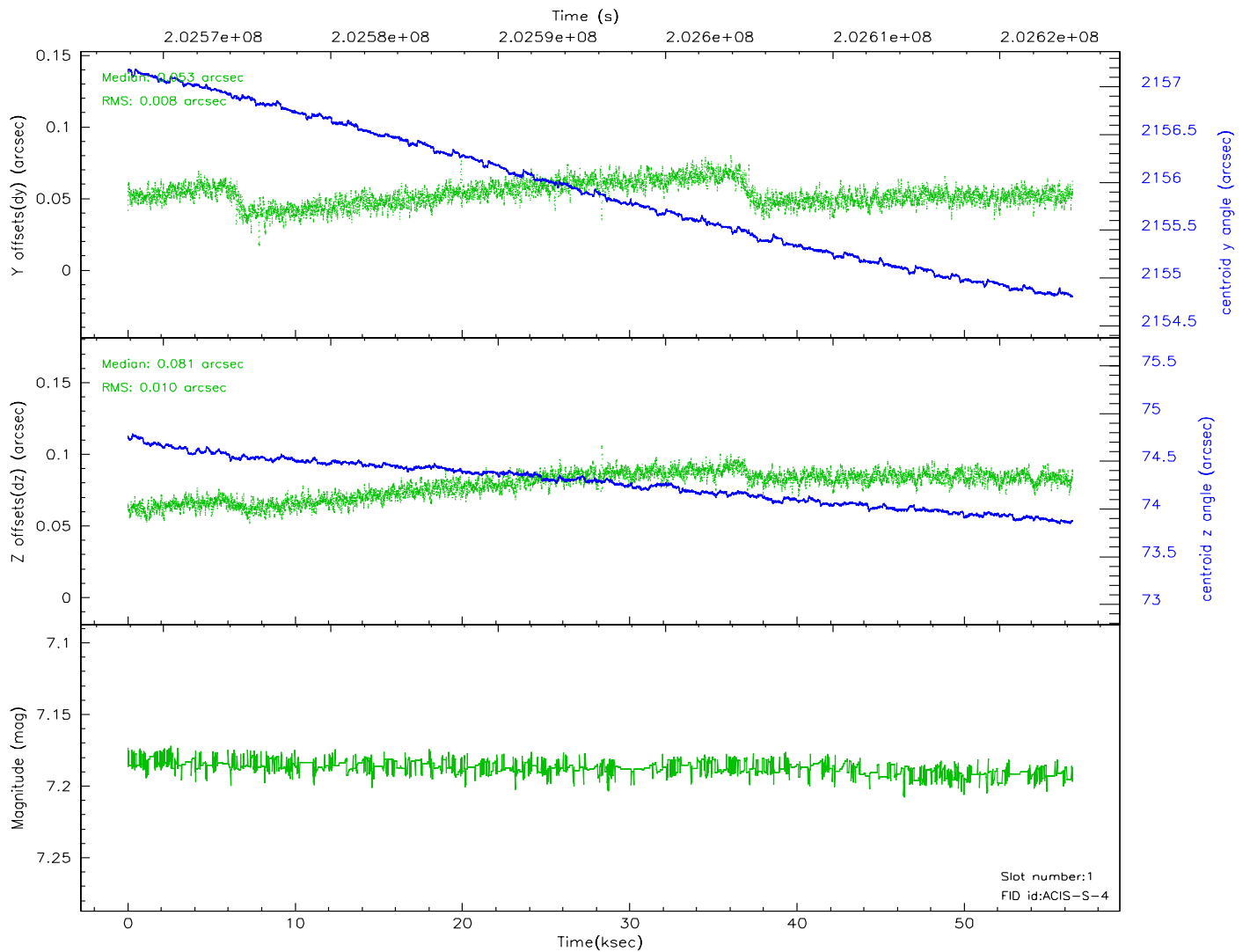
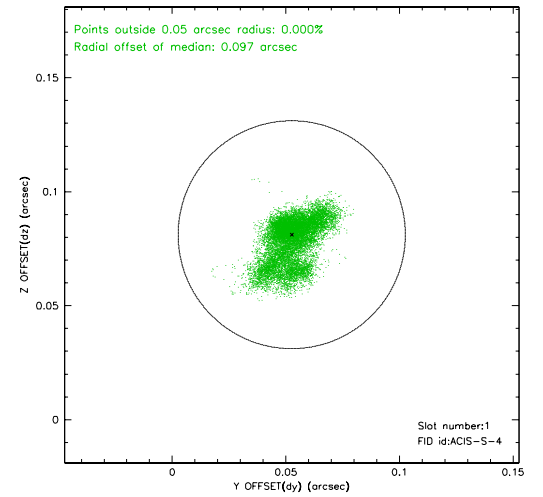
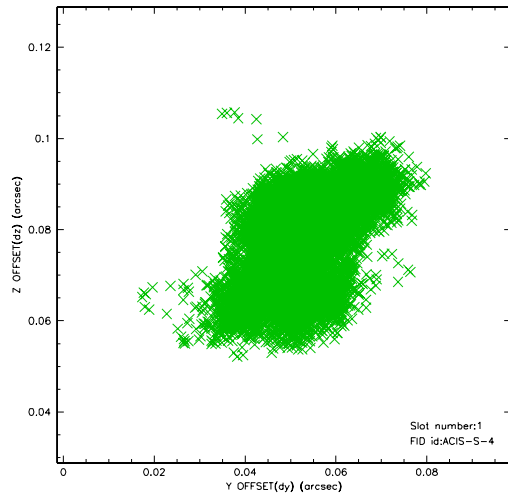


## 2.5 FID Slots

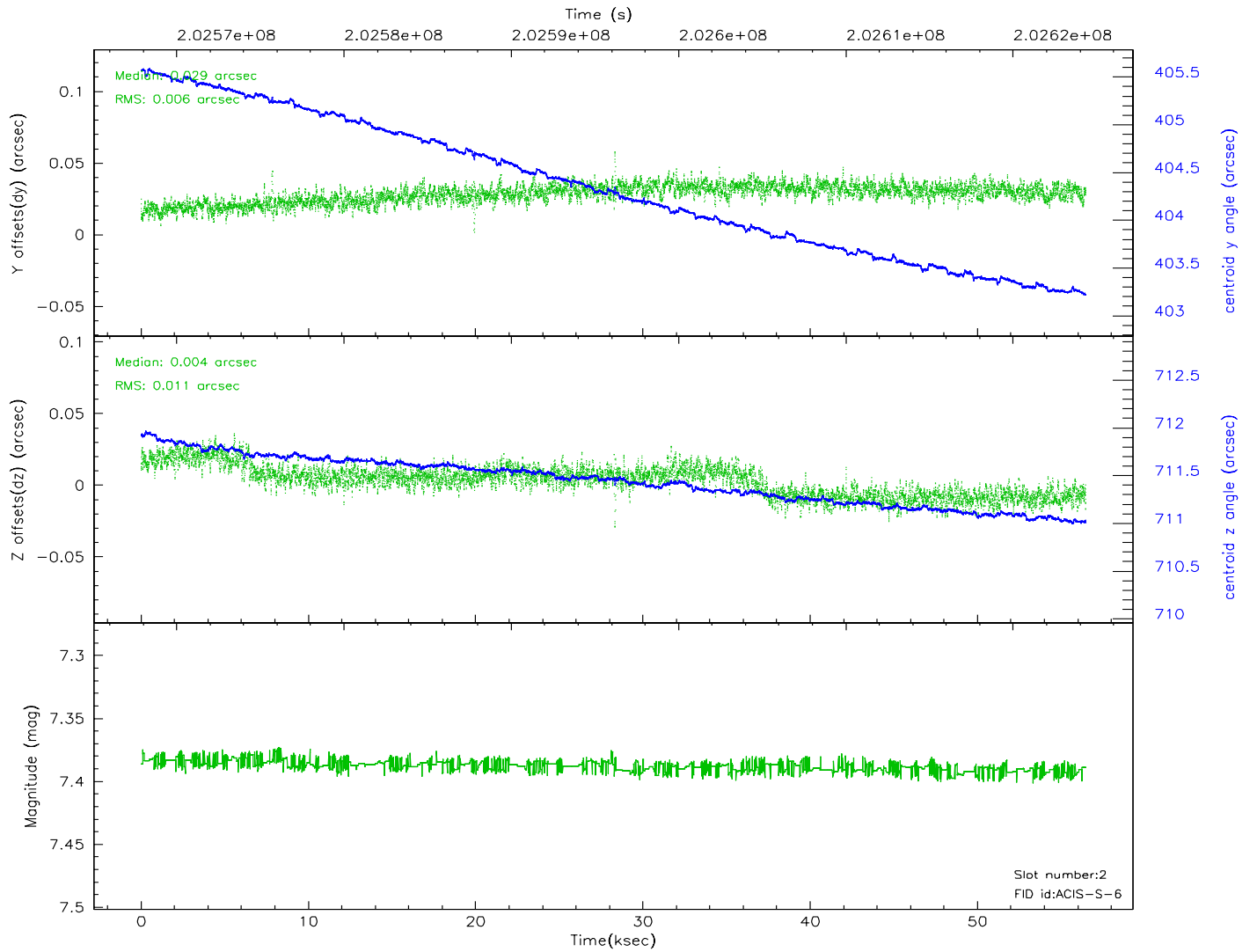
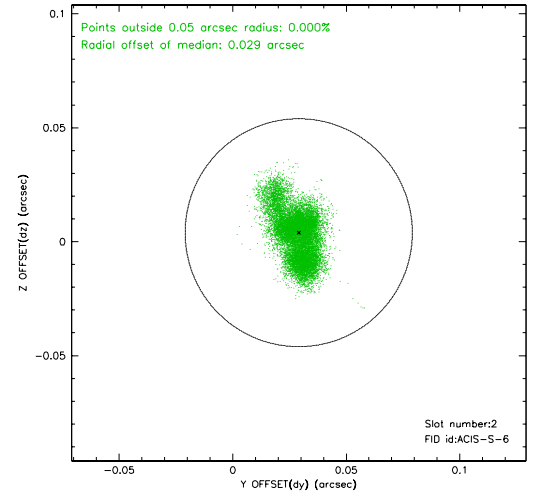
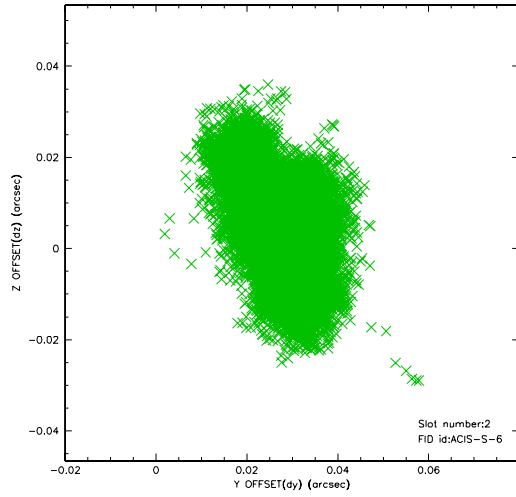
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

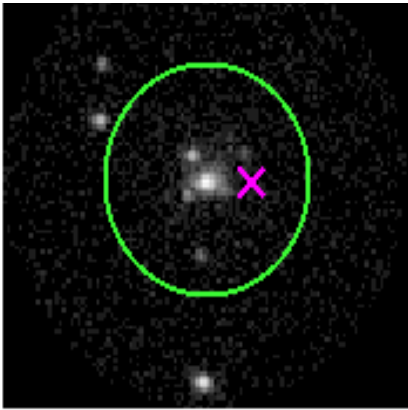


# 3 Gratings

## 3.1 HEG Arm



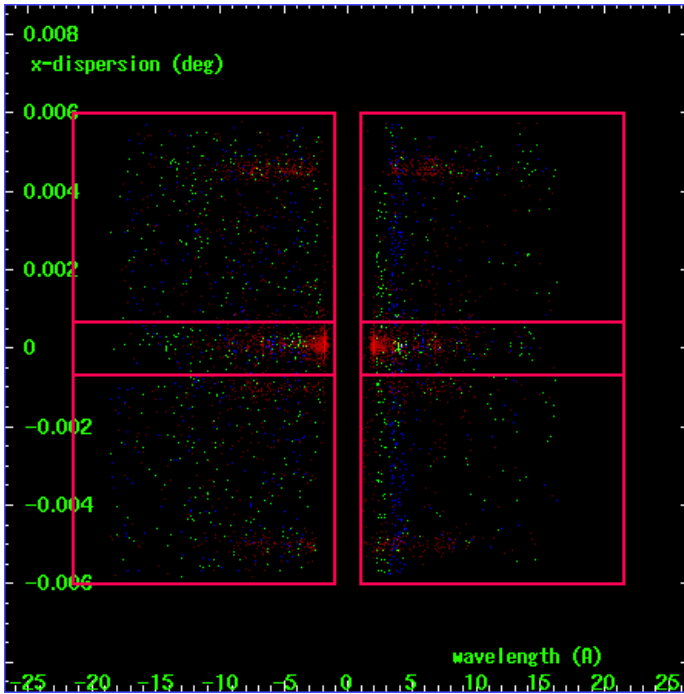
HEG Order Sort 123



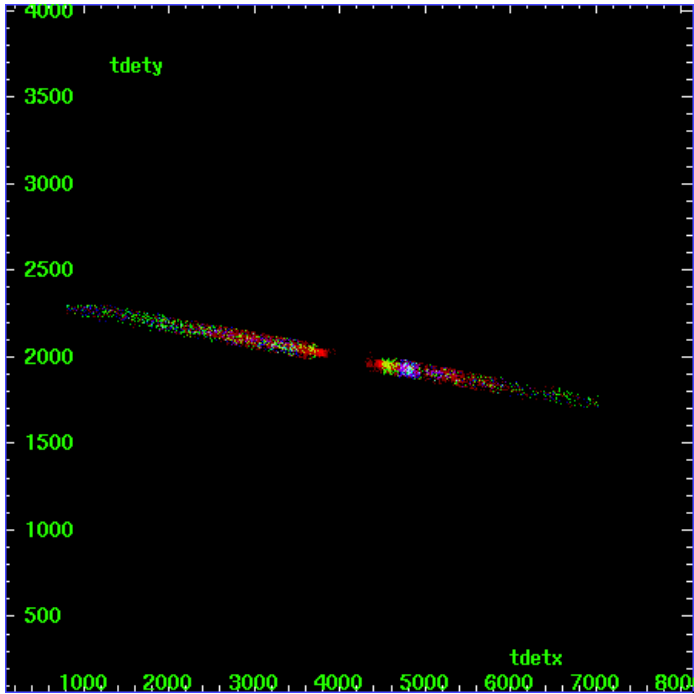
HEG Zero Order



HEG Order Sort ALL

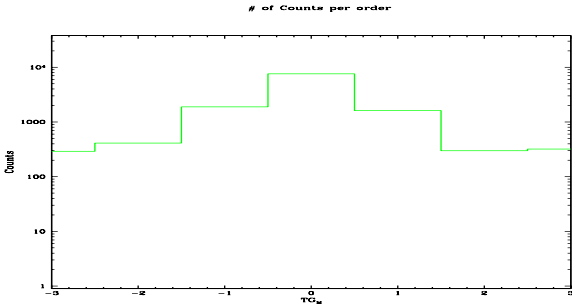


Spot Image HEG

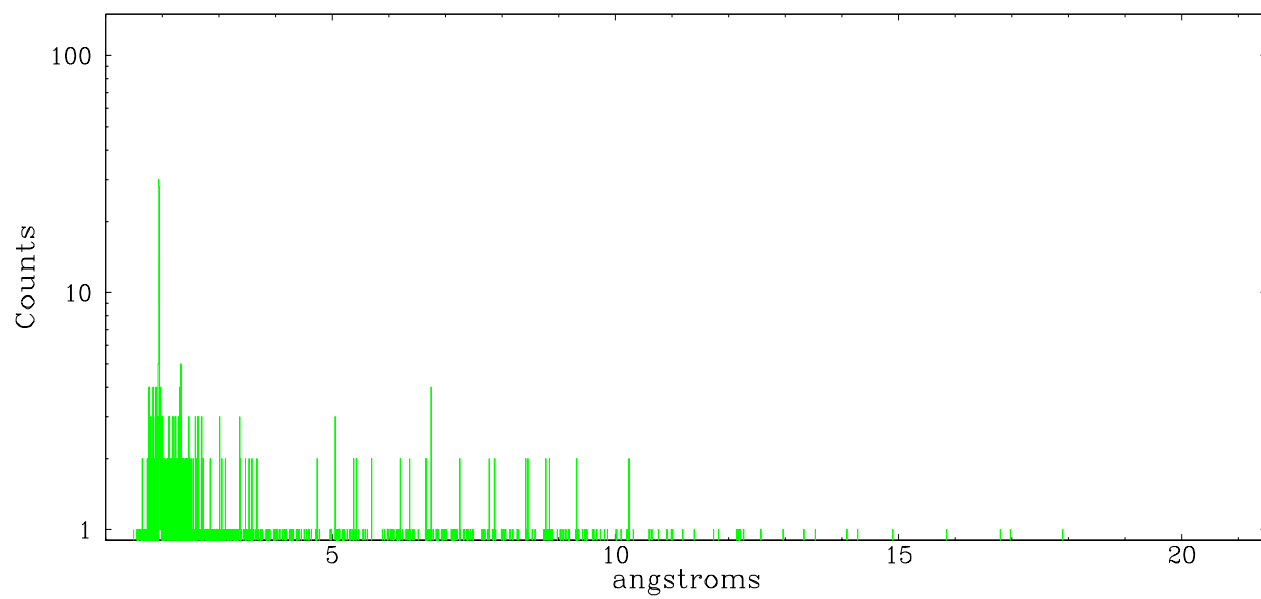


Full Detector HEG

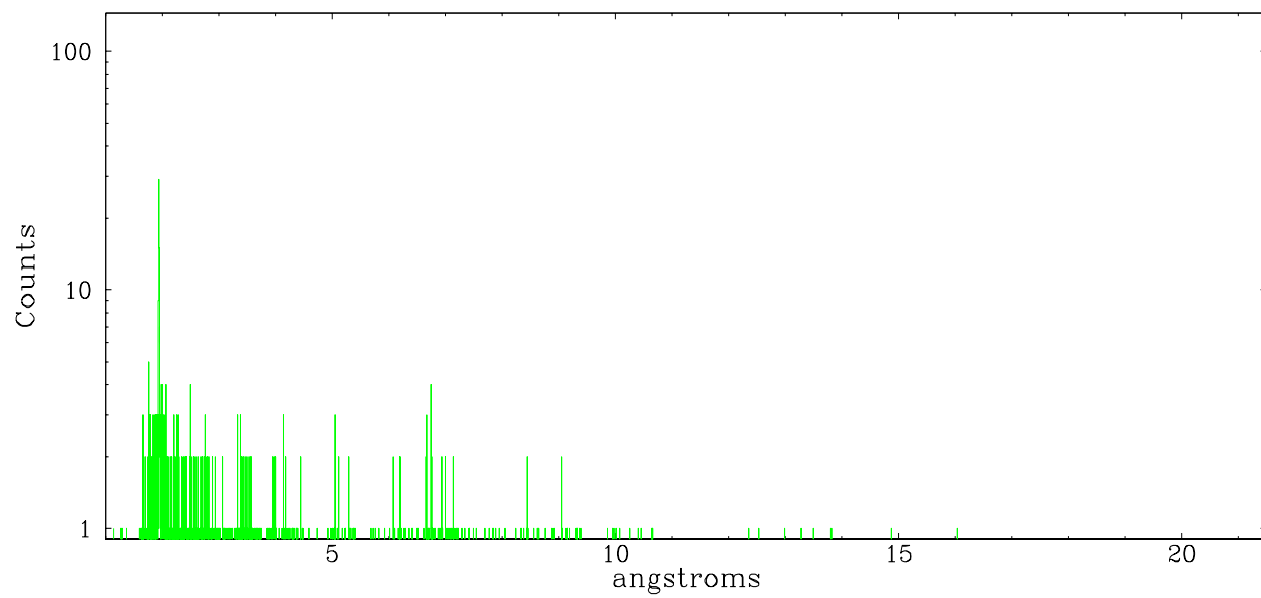
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	292	412	1892	7559	1613	297	320



heg order -1



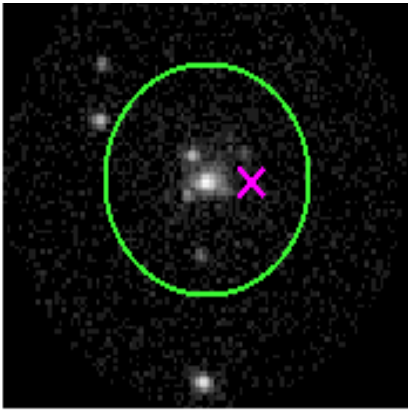
heg order +1



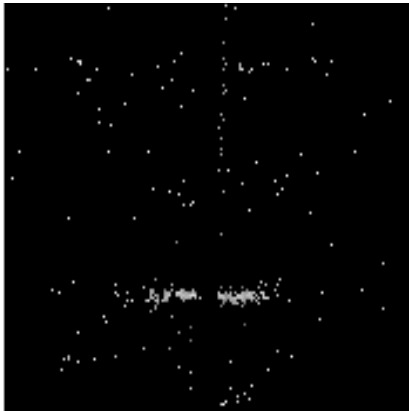
### 3.2 MEG Arm



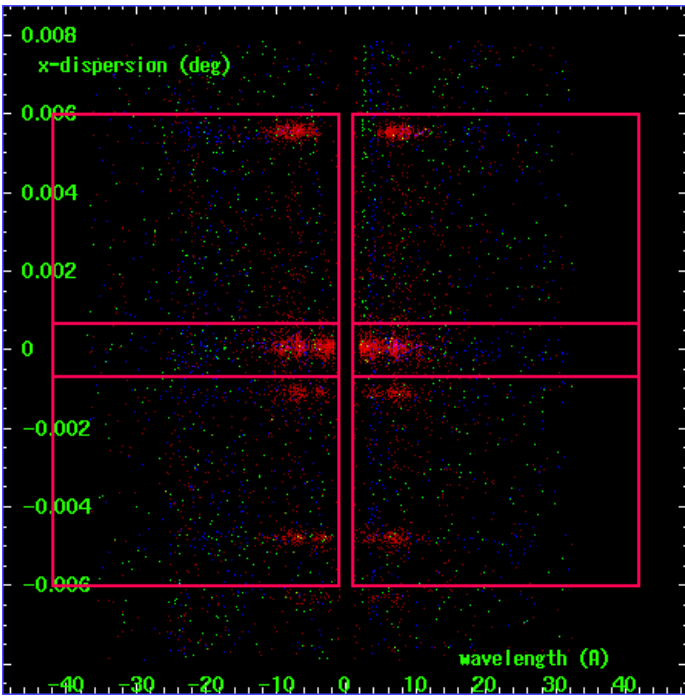
MEG Order Sort 123



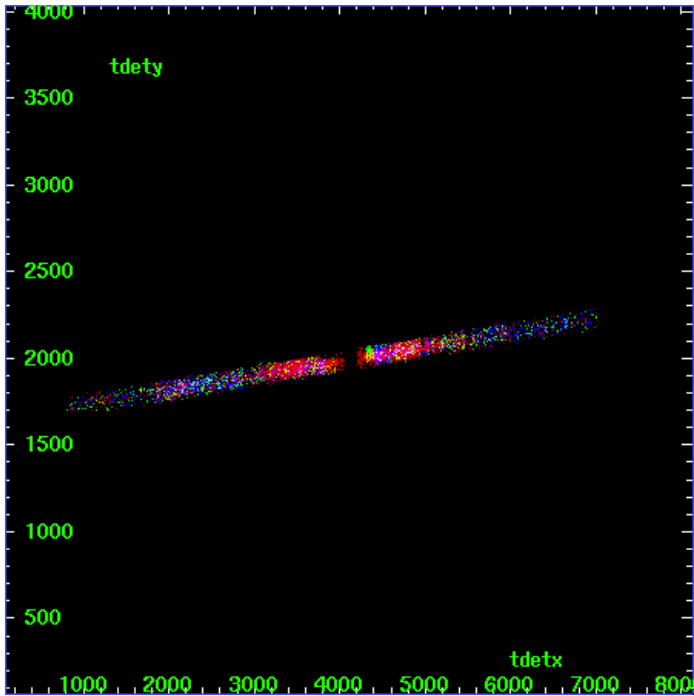
MEG Zero Order



MEG Order Sort ALL

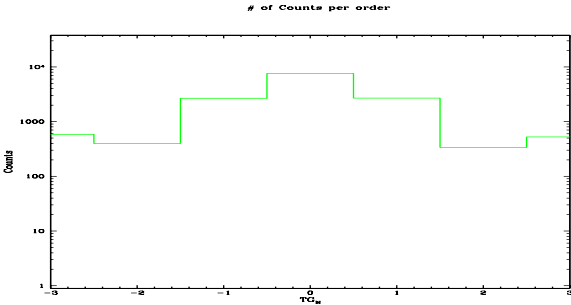


Spot Image MEG

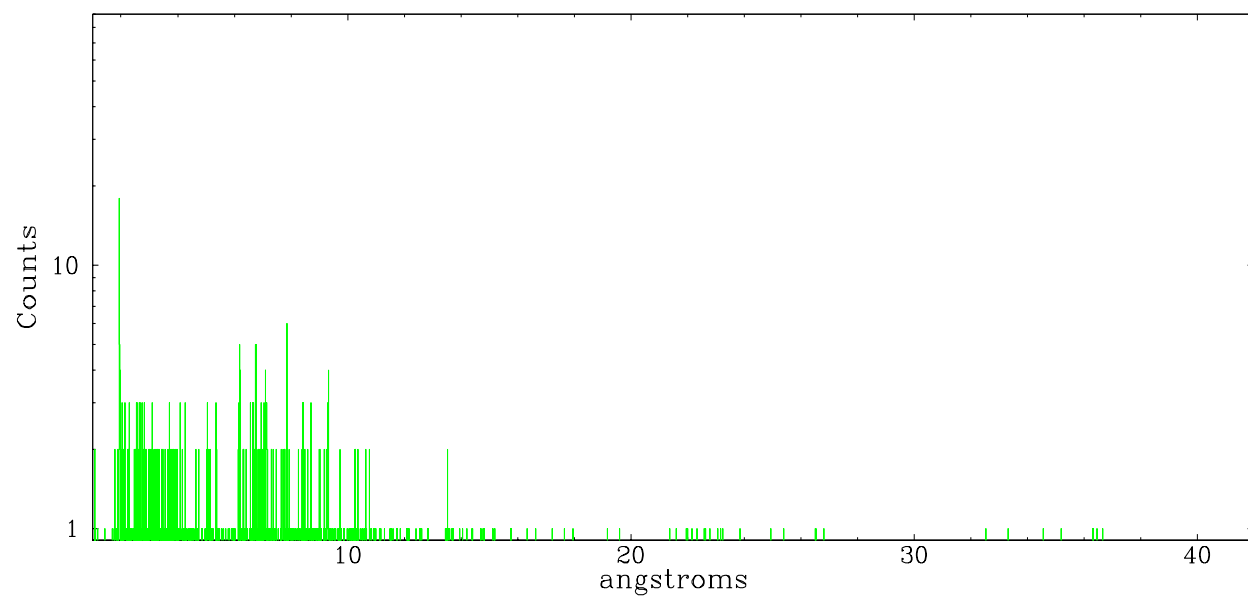


Full Detector MEG

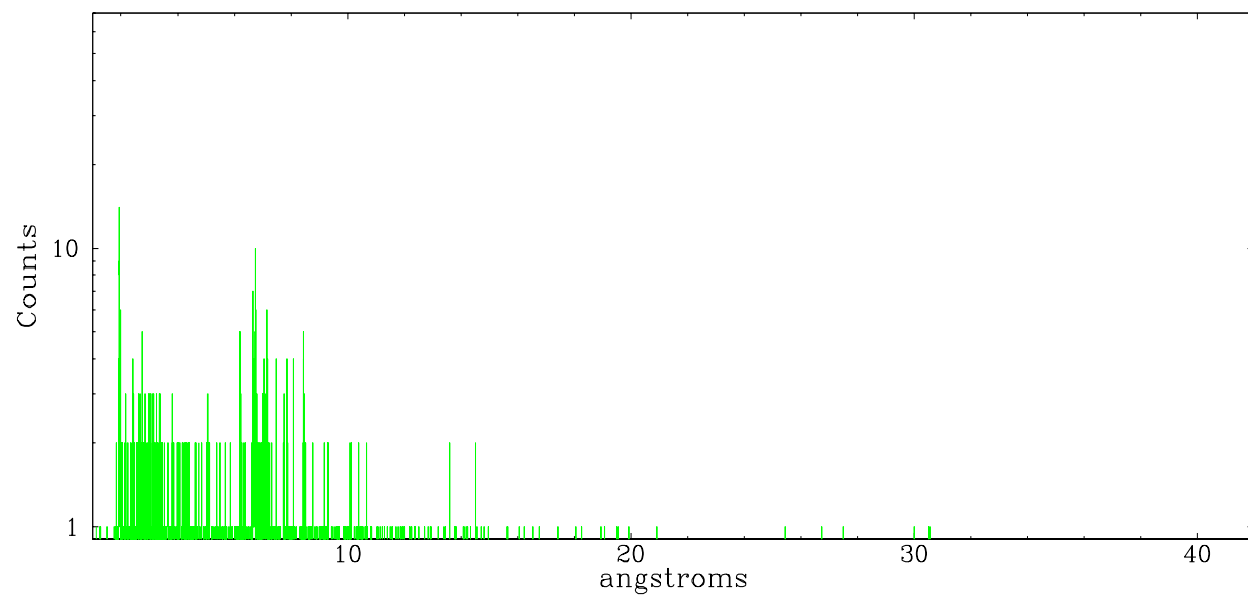
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	584	398	2657	7559	2689	337	524



meg order -1



meg order +1





## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2006.05.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	56.105

### A.2 Comments