

# V&V Reference Report

## L2 ASCDS Version : 7.6.8.1

Observation 2733 - L2 Version 001  
Chandra X-Ray Center

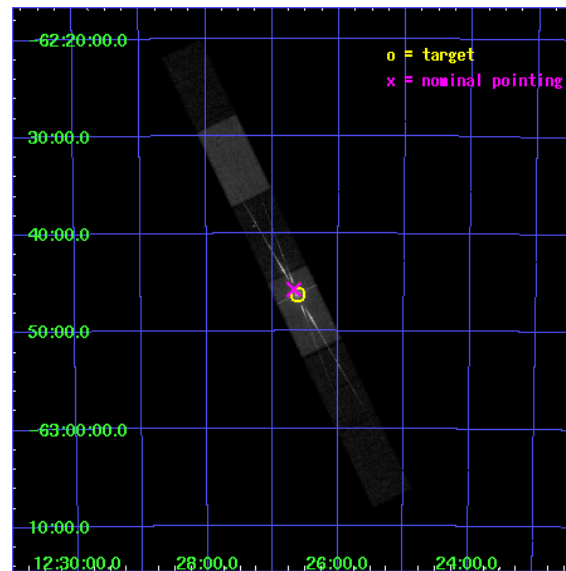
L2 Processing Date : Aug 26 2006

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# 1 Front

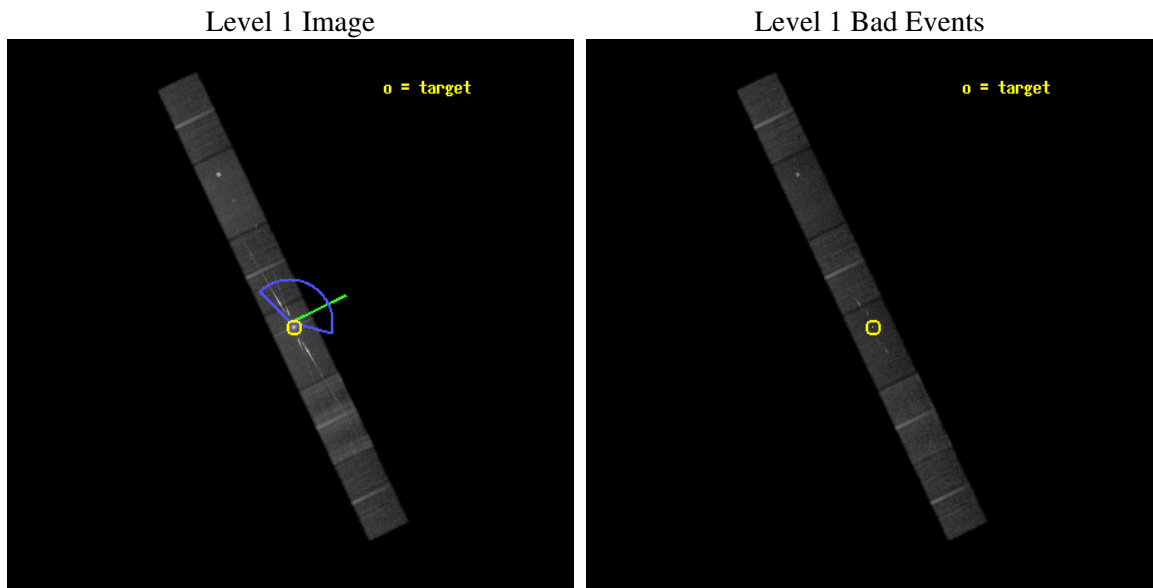
seq_num	400213
obs_id	2733
title	PROBING THE CIRCUMSTELLAR MATERIAL IN GX 301-2
observer	Dr. Masao Sako
object	GX 301-2
dtcycle	0
cycle	P
ra_targ	186.656667
dec_targ	-62.770278
ra_nom	186.66907223213
dec_nom	-62.762388720009
roll_nom	64.468526637672
revision	2
ontime	40125.599933565
livetime	39231.130165785
ontime4	40121.917903379
ontime5	40123.758913472
ontime6	40125.599933565
ontime7	40125.599933565
ontime8	40125.599933565
ontime9	40125.599933565
l2events	344222



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

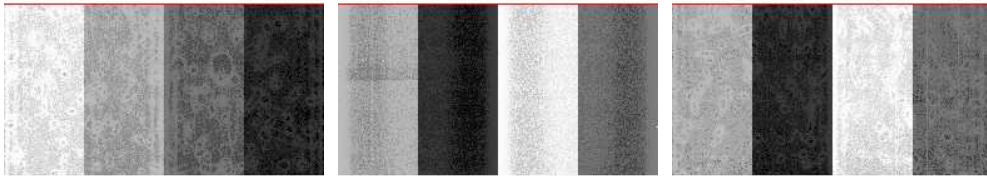


#### 2.1.2 Bias

Chip 4

Chip 5

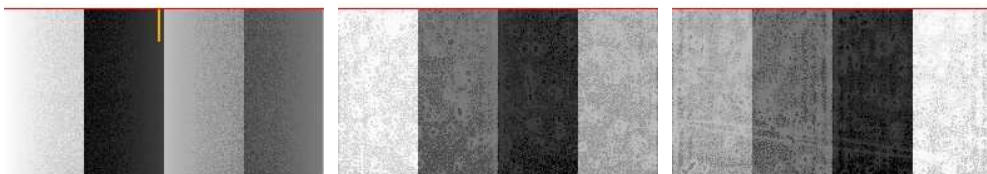
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	1
ascdsver	7.6.8.1
caldsver	3.2.3
date	2006-08-26T08:48:01
revision	2

sched_exp_time	40000.000000
ontime	40128.641833782
ontime4	40123.118793502
ontime5	40126.80081369
ontime6	40128.641833782
ontime7	40128.641833782
ontime8	40128.641833782
ontime9	40128.641833782
l1events	1196161

### 2.1.4 Events

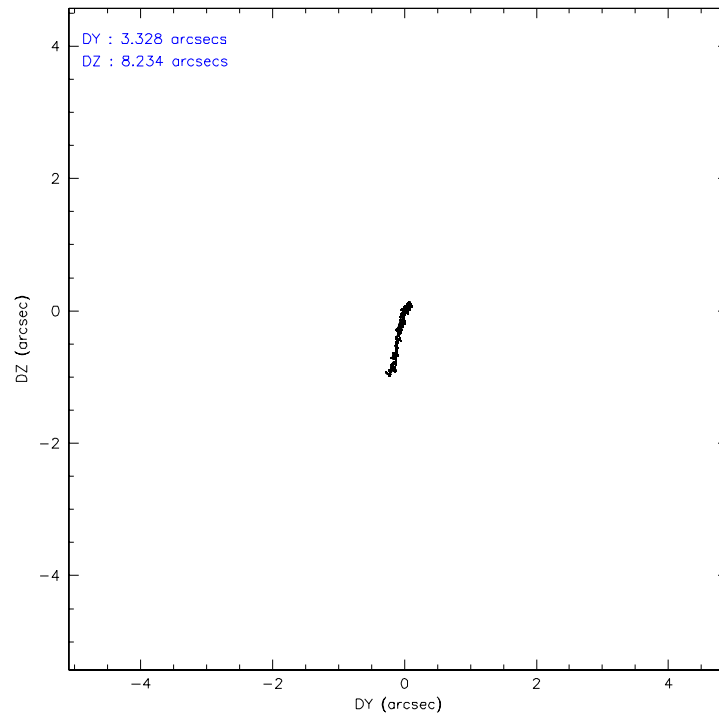
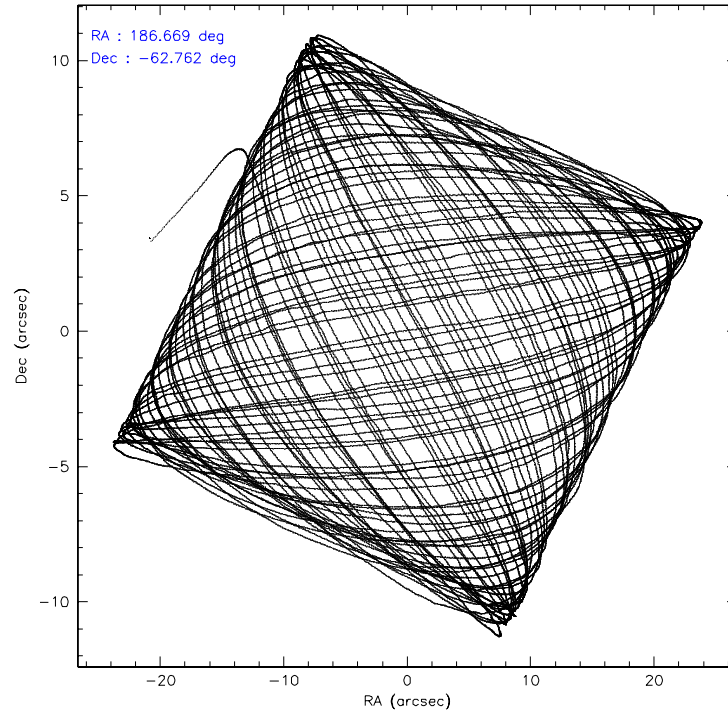
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	160067	202202	184744	277173	230903	141072
rejected events	139512	108841	131988	111422	151439	122261
rejected %	87%	53%	71%	40%	65%	86%

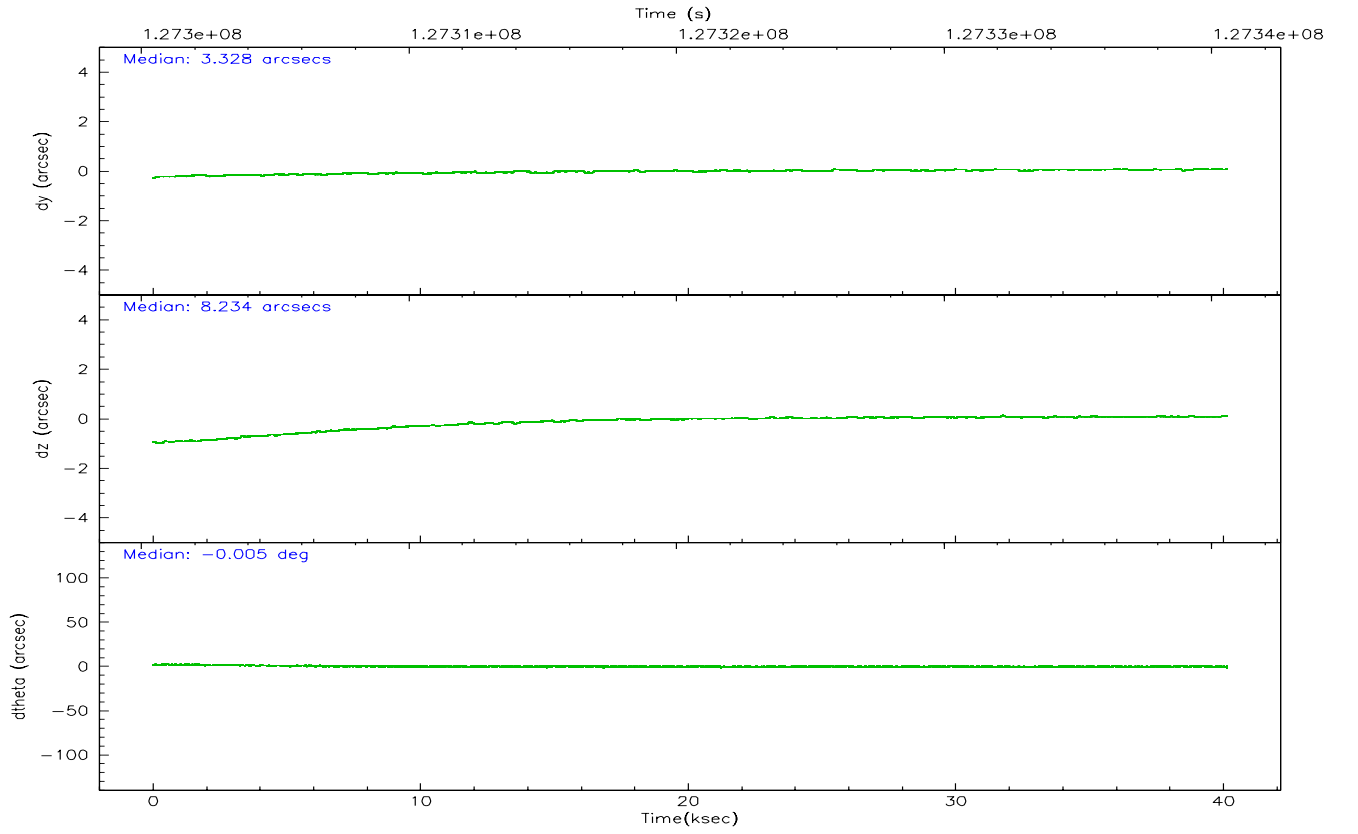
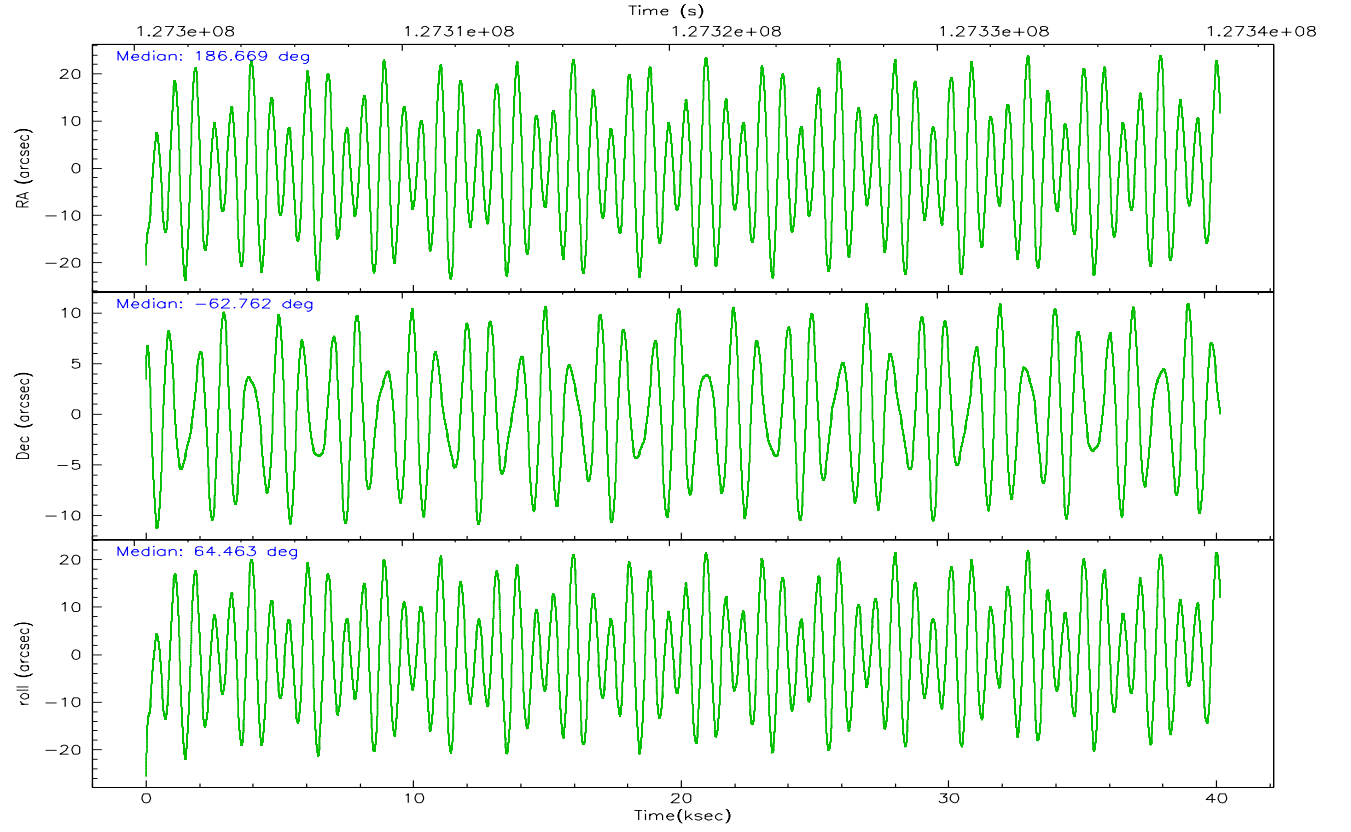
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	8219	12805	22380	25714	22640	7486
	5%	6%	12%	9%	9%	5%
grade 1 events	62	2587	216	706	151	53
	0%	1%	0%	0%	0%	0%
grade 2 events	5178	27177	10240	40654	13635	3837
	3%	13%	5%	14%	5%	2%
grade 3 events	2006	3051	4271	12648	12221	2001
	1%	1%	2%	4%	5%	1%
grade 4 events	1884	2946	4258	12180	10834	1881
	1%	1%	2%	4%	4%	1%
grade 5 events	4840	10147	5890	15723	7553	5596
	3%	5%	3%	5%	3%	3%
grade 6 events	3270	47388	11612	74578	20138	3606
	2%	23%	6%	26%	8%	2%
grade 7 events	134608	96101	125877	94970	143731	116612
	84%	47%	68%	34%	62%	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	186.674421	186.6690722321329	Subarray start row	15	15
Pointing Dec	-62.789534	-62.7623887200085	Subarray row count	542	542
Pointing Roll	64.316656	64.46852663767228	Alternating exposures requested	N	N
Roll angle	30.000000	30.000000	Primary exposure time	0.000000	1.8
Roll tolerance	75.000000	75.000000			
Roll constraint allows 180D rotation	N	N			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-184.708523	-184.7091449985023			
SIM translation stage offset (mm)	-5.424	-5.423377584505516			
Phase constraints	Y	Y			
Phase period	41.498000	41.498000			
Phase epoch	50130.726000	50130.726000			
Phase start	0.960000	0.960000			
Phase end	0.980000	0.980000			
Phase start error	0.010000	0.010000			
Phase end error	0.010000	0.010000			
Observation start time	127300581.184000	127299624.32982			
Observation start date	2002-01-13T09:15:17	2002-01-13T09:00:24			
Observation end time	127340581.184000	127341180.90649			
Observation end date	2002-01-13T20:21:57	2002-01-13T20:33:00			

## 2.3 Aspect





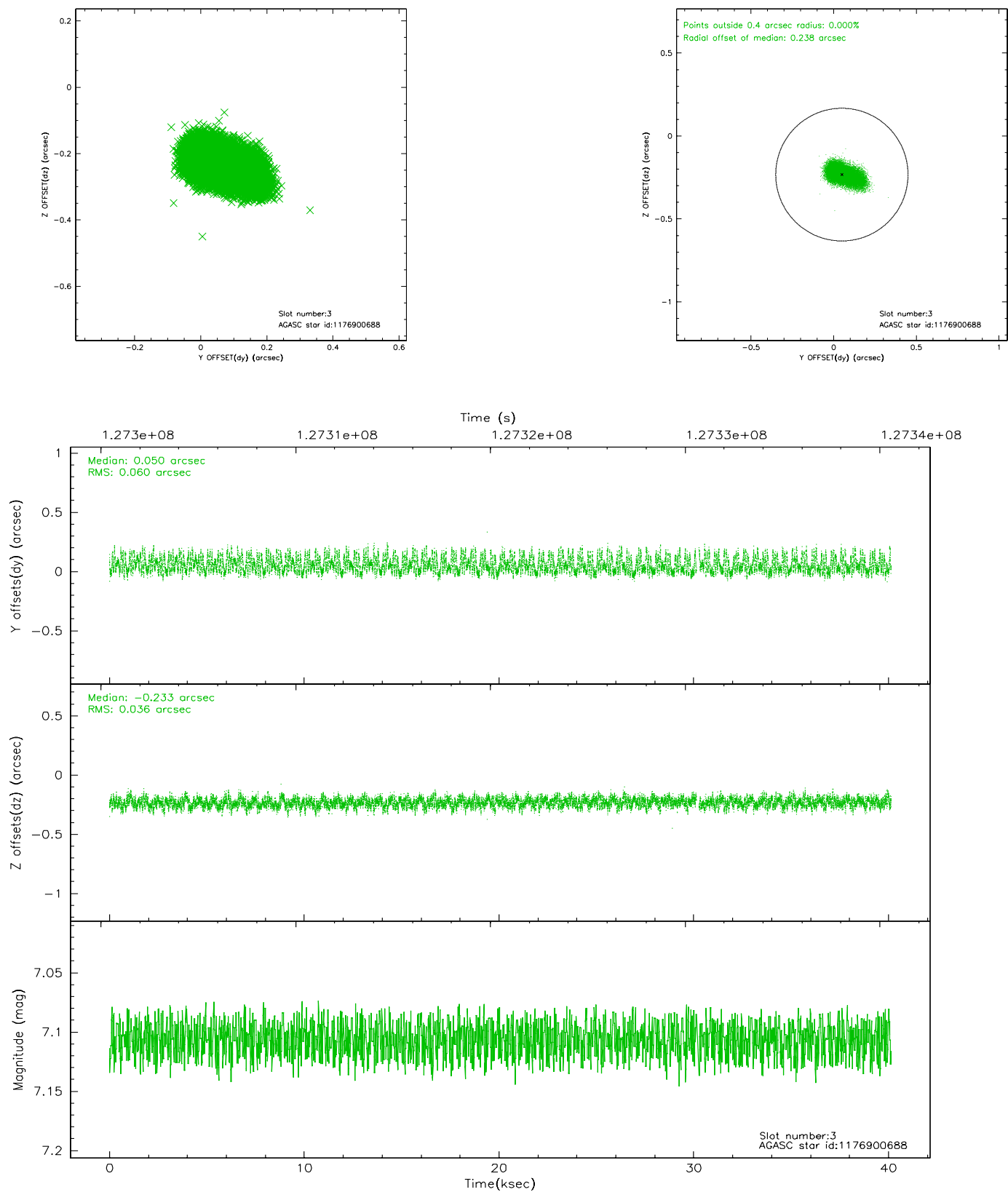
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	9790	-0.036	-0.023	0.009	0.018	0.000000	0.000000	-755.58	-1841.12
1	FID	ACIS-S-4	7.19	9787	-0.032	0.024	0.005	0.009	0.000000	0.000000	2157.66	67.42
2	FID	ACIS-S-5	7.23	9788	0.037	0.007	0.008	0.016	0.000000	0.000000	-1808.36	61.03
3	GUIDE	1176900688	7.11	19504	0.050	-0.233	0.074	0.125	184.973775	-62.854186	-1452.97	2399.22
4	GUIDE	1176903120	8.25	19574	-0.204	-0.175	0.074	0.116	186.056854	-62.258063	1271.60	1759.14
5	GUIDE	1176904752	8.81	19572	0.026	0.110	0.062	0.103	187.035955	-62.645951	724.35	-316.05
6	GUIDE	1176902448	9.25	19571	0.107	0.068	0.109	0.168	185.684465	-63.252727	-2208.19	716.61
7	GUIDE	1176910784	9.27	19570	0.018	0.223	0.081	0.130	187.406095	-63.272390	-1058.43	-1824.41

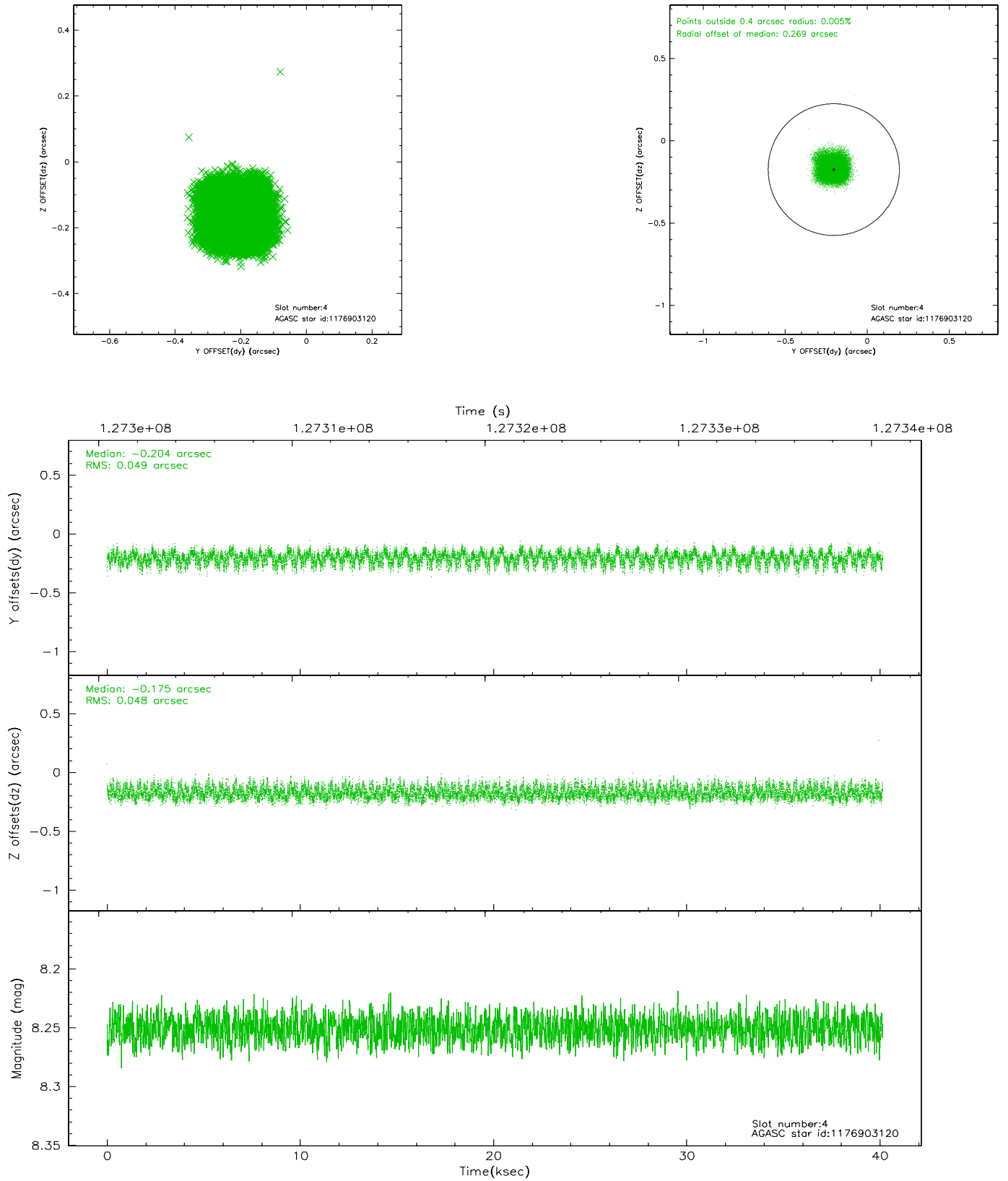


## 2.4 Star Slots

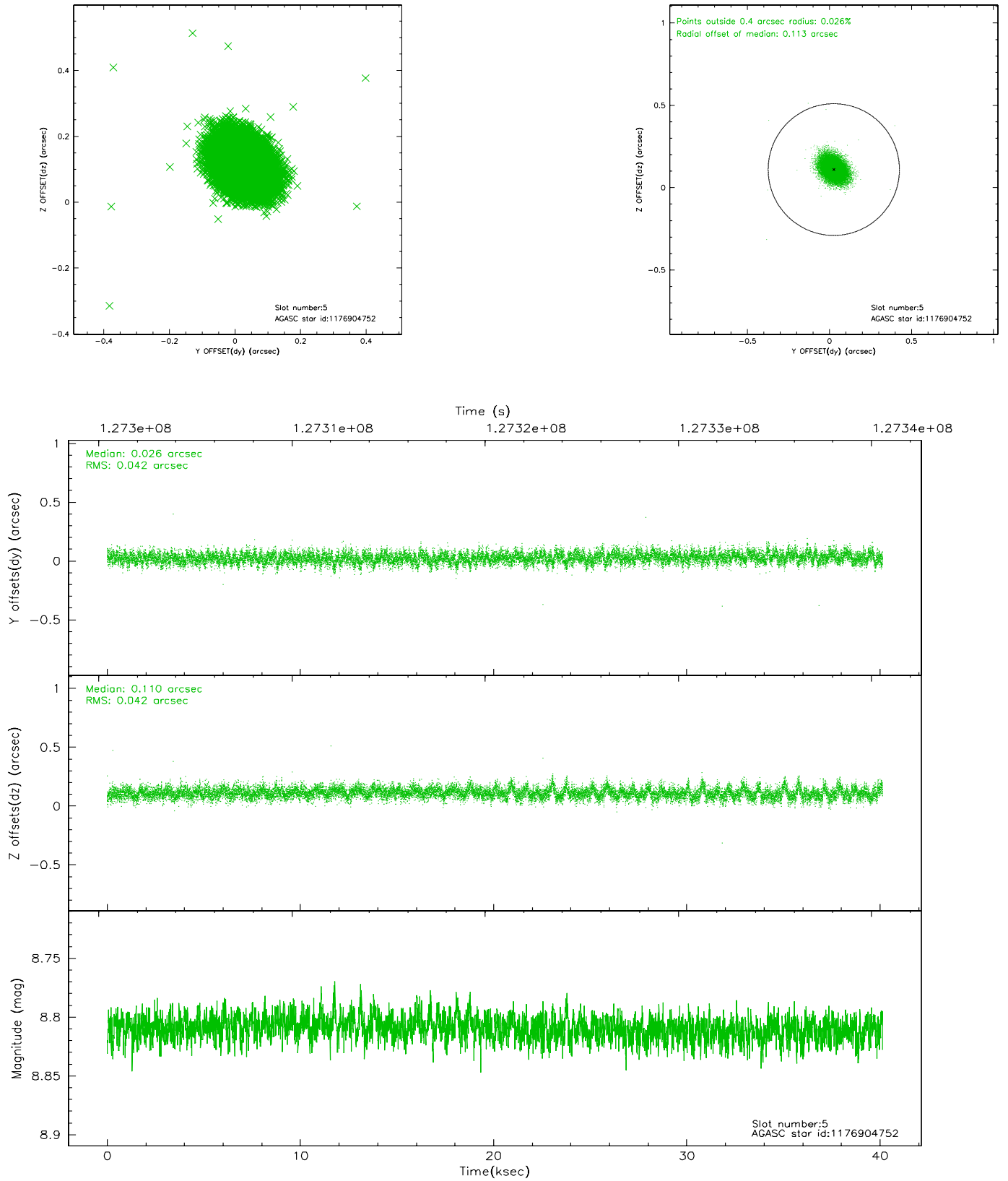
### 2.4.1 Slot 3



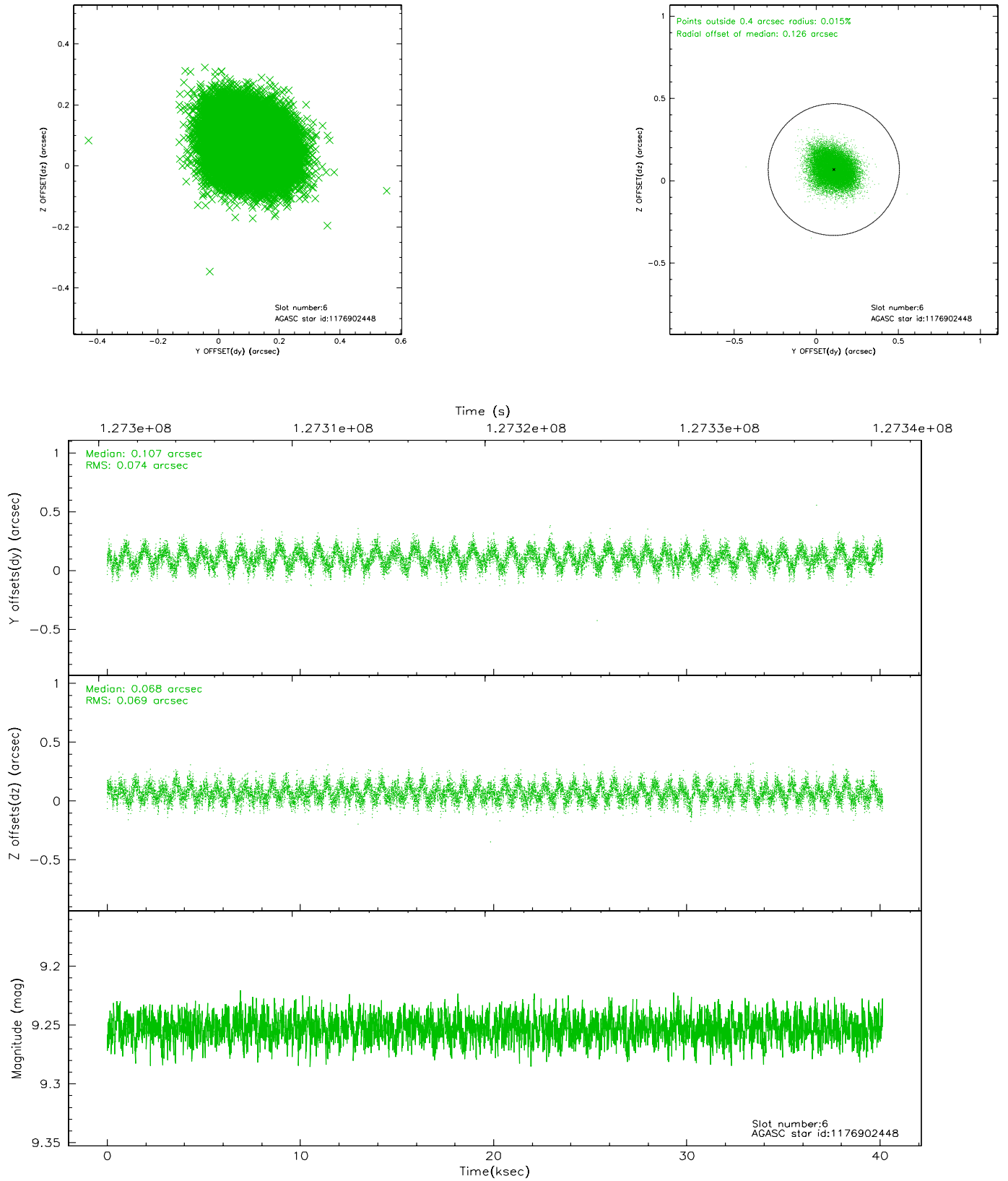
## 2.4.2 Slot 4



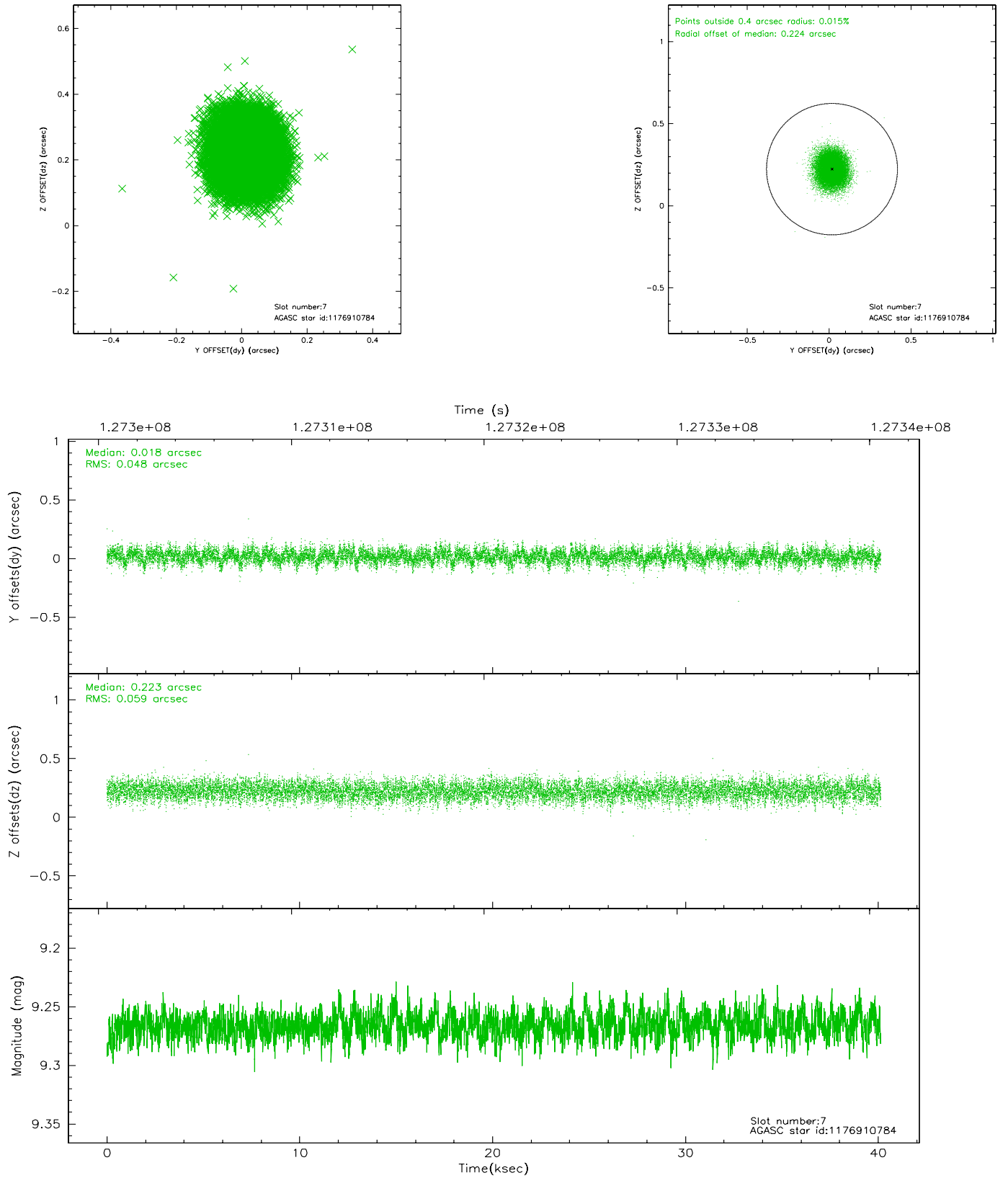
### 2.4.3 Slot 5



## 2.4.4 Slot 6

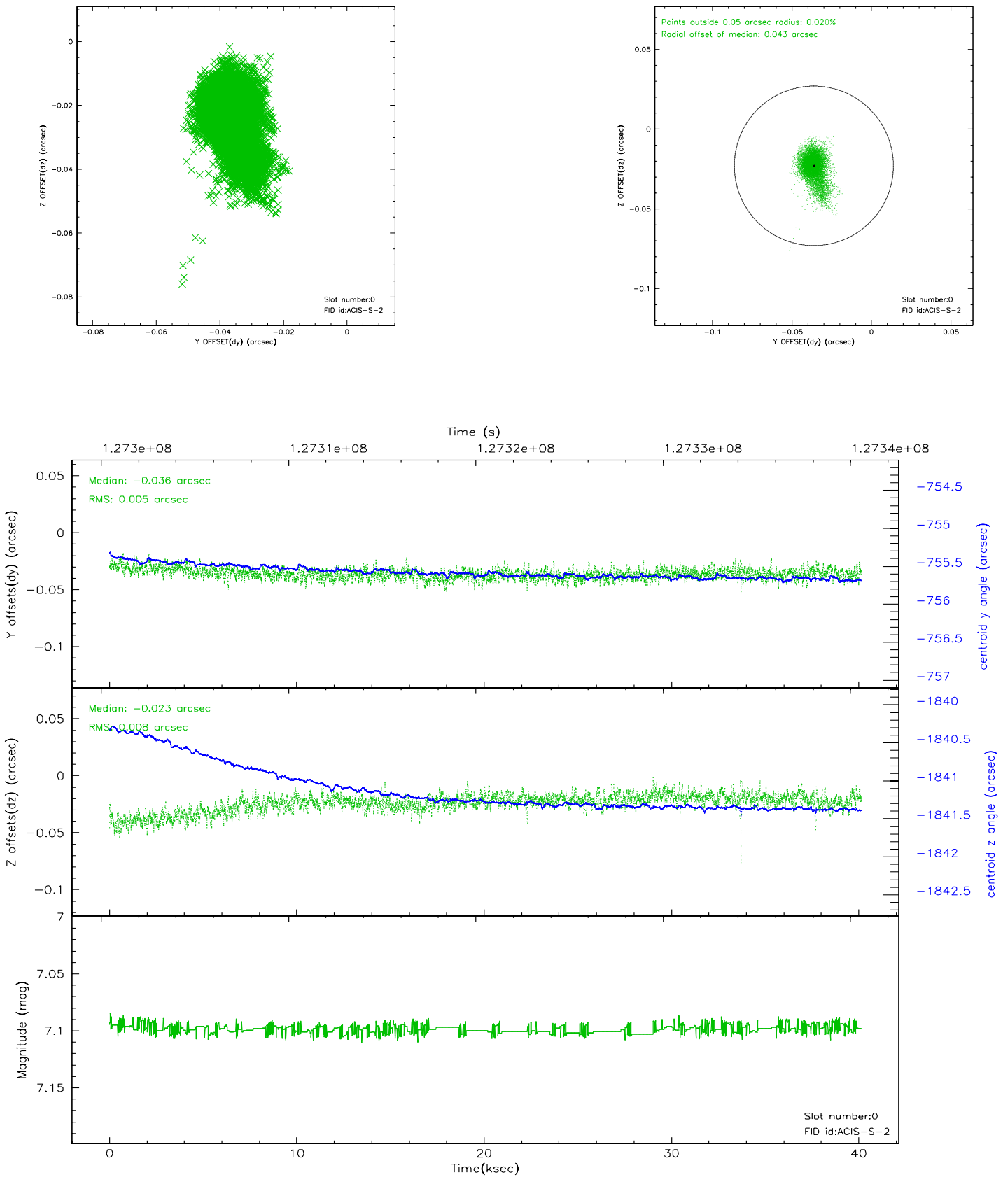


## 2.4.5 Slot 7

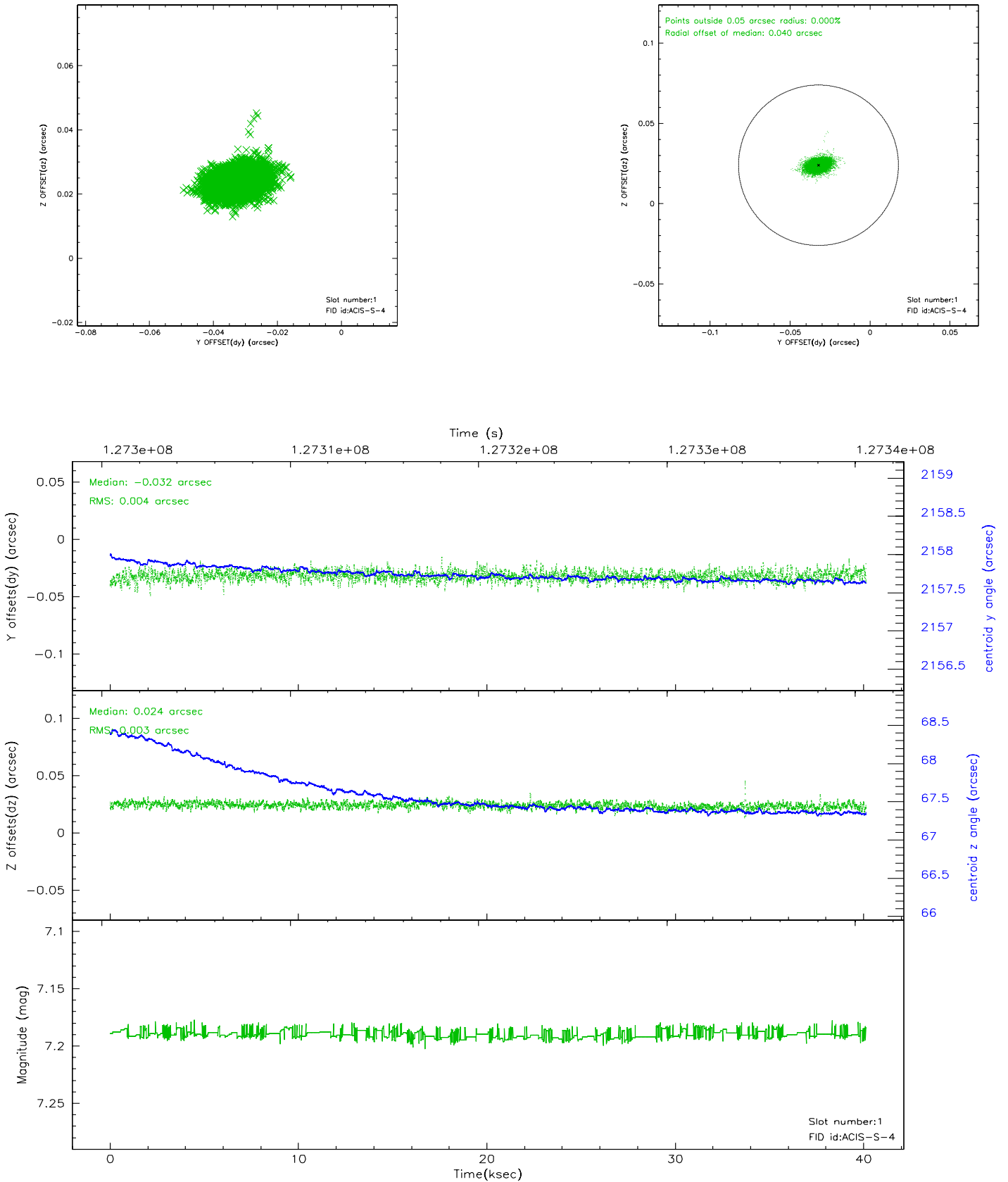


## 2.5 FID Slots

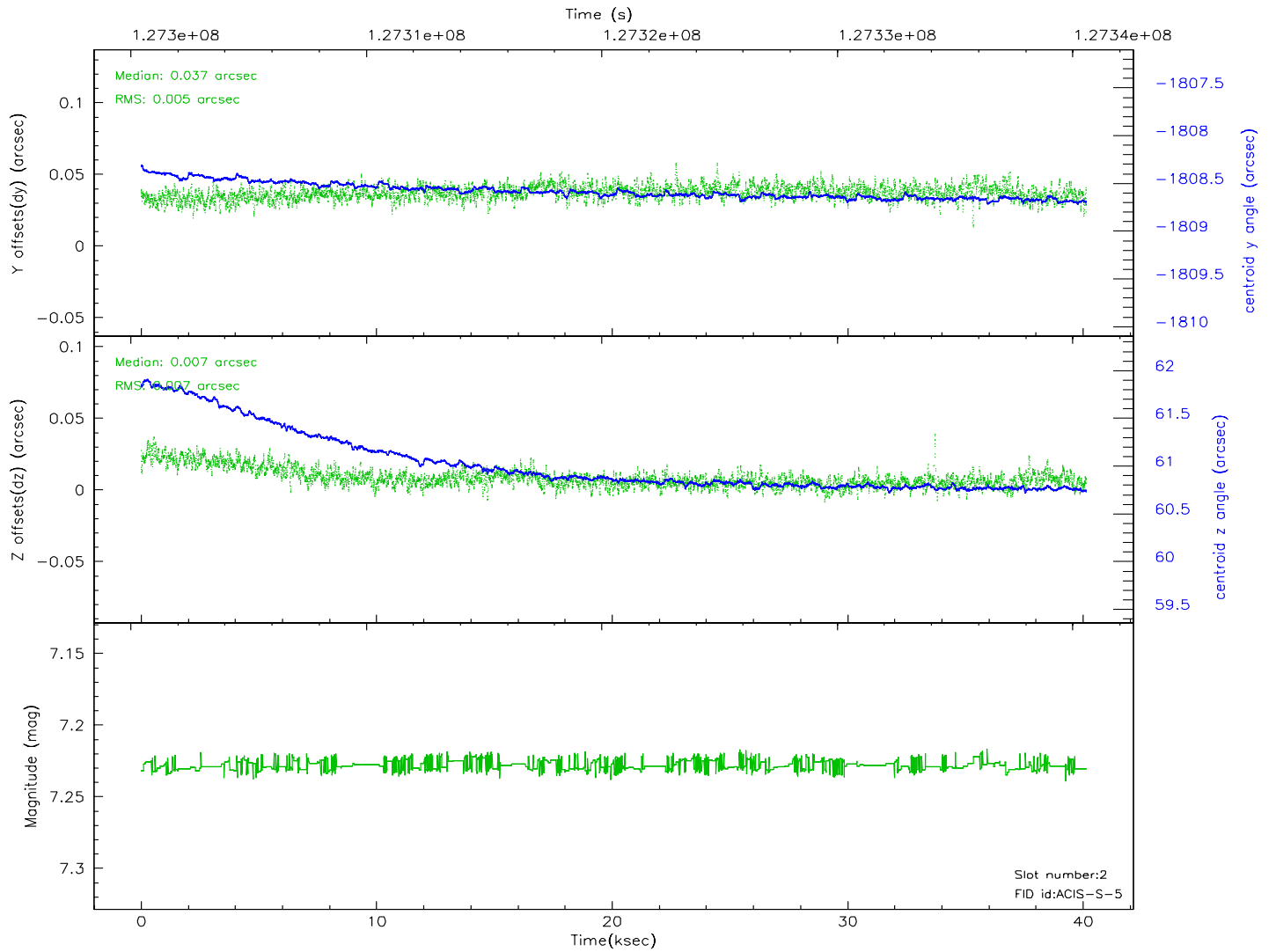
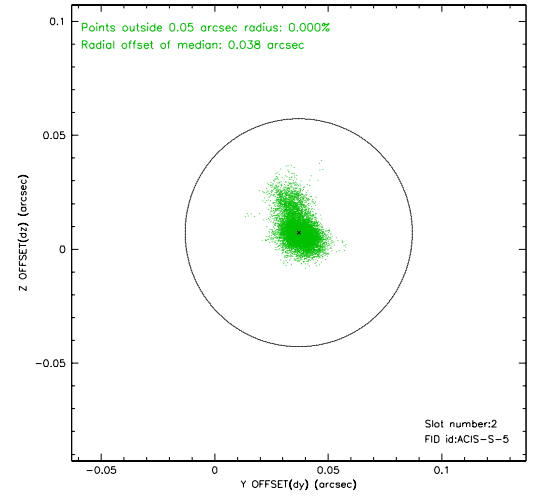
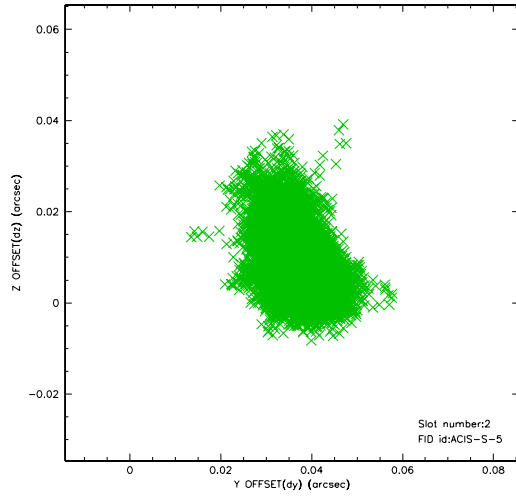
### 2.5.1 Slot 0



## 2.5.2 Slot 1



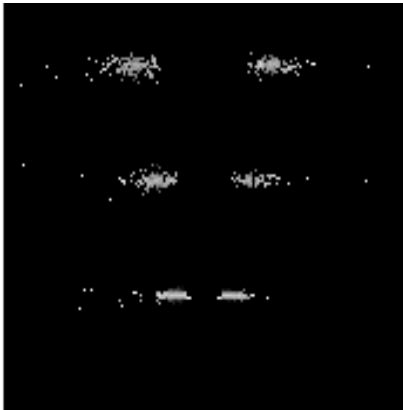
### 2.5.3 Slot 2



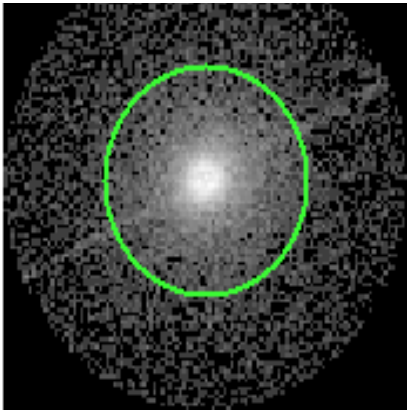


# 3 Gratings

## 3.1 HEG Arm



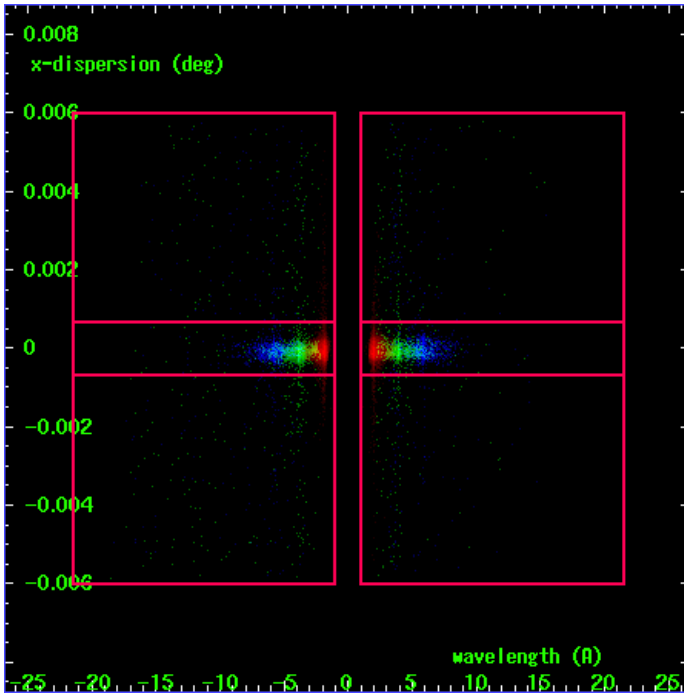
HEG Order Sort 123



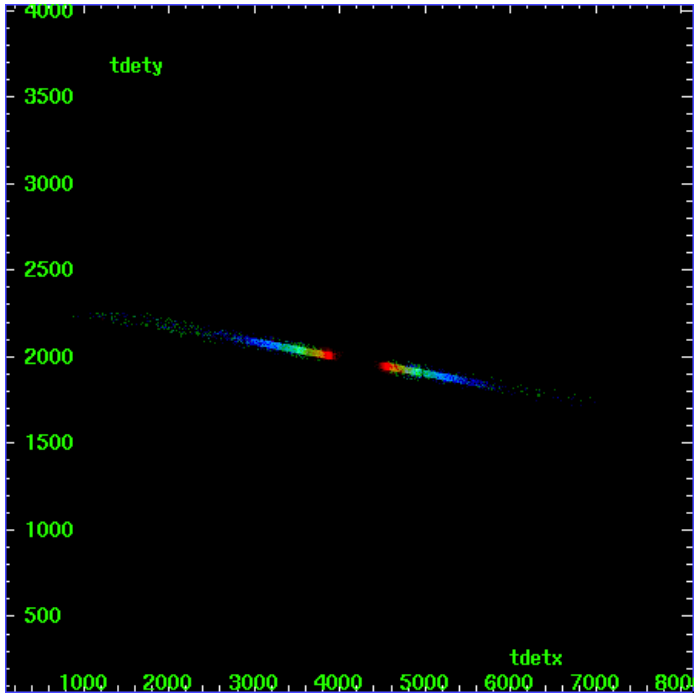
HEG Zero Order



HEG Order Sort ALL

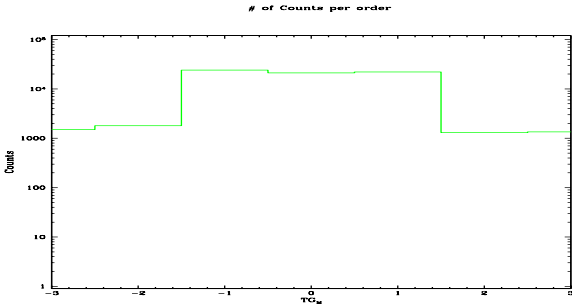


Spot Image HEG

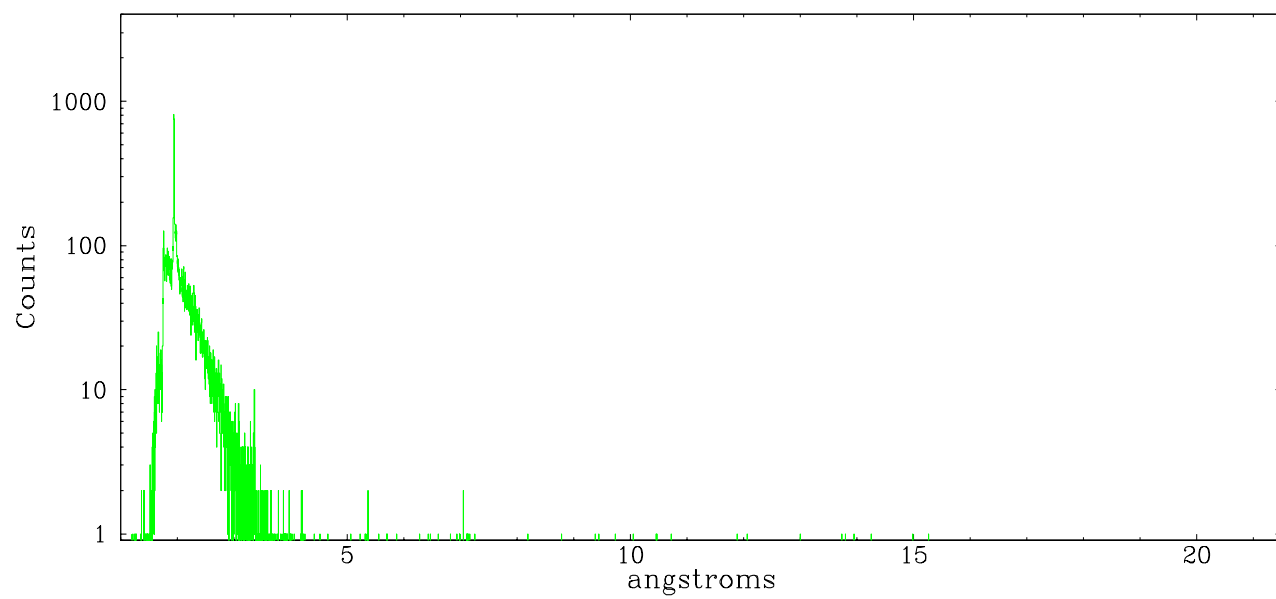


Full Detector HEG

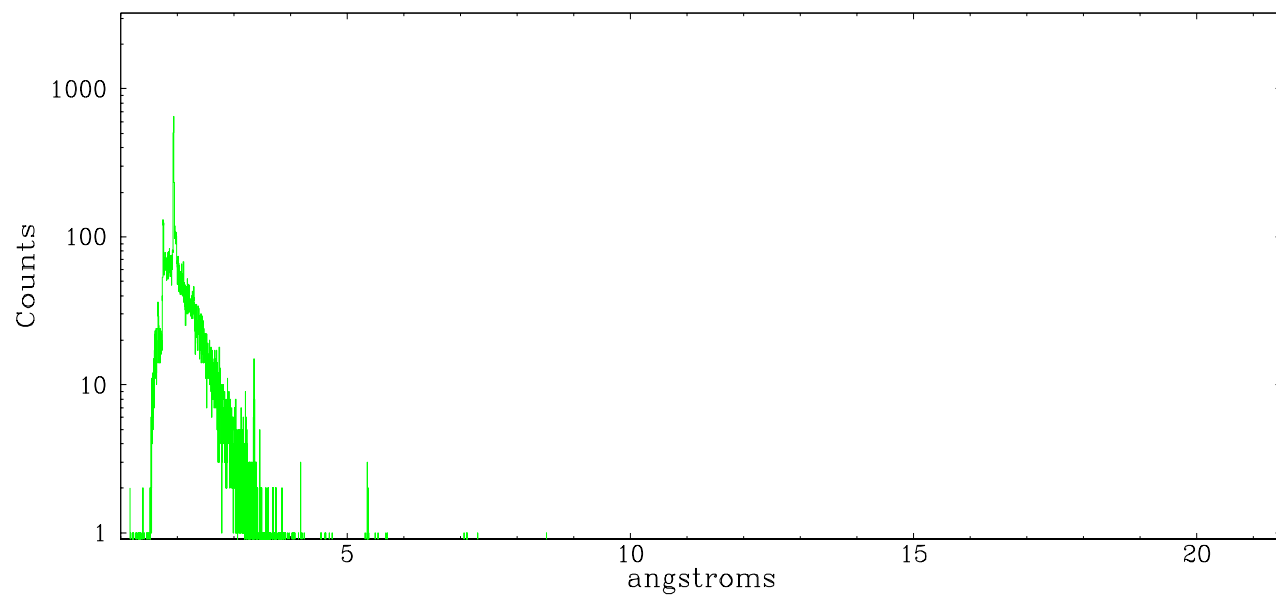
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1502	1799	24004	21146	22082	1302	1345



heg order -1



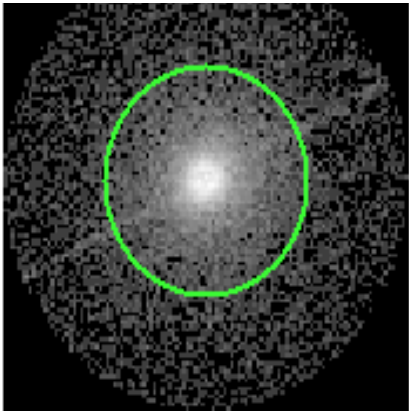
heg order +1



### 3.2 MEG Arm



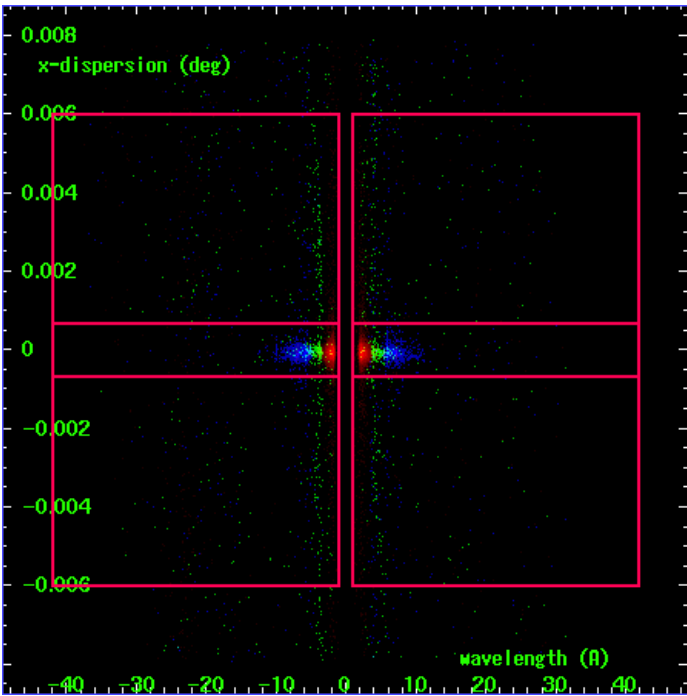
MEG Order Sort 123



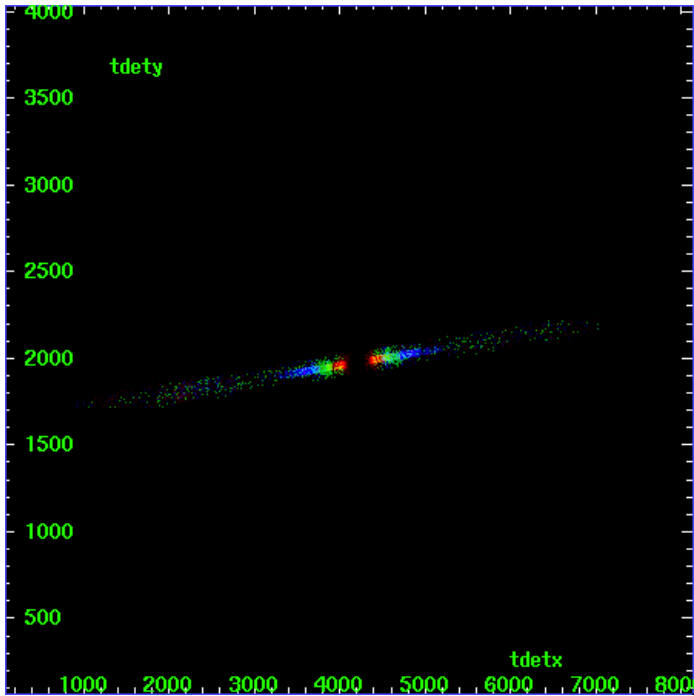
MEG Zero Order



MEG Order Sort ALL

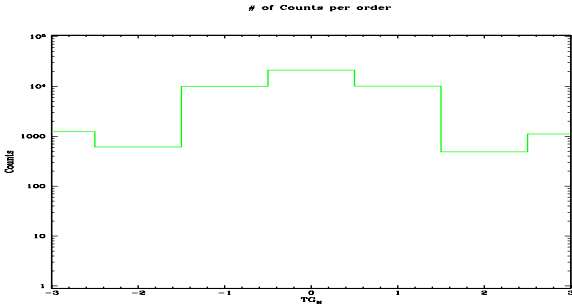


Spot Image MEG

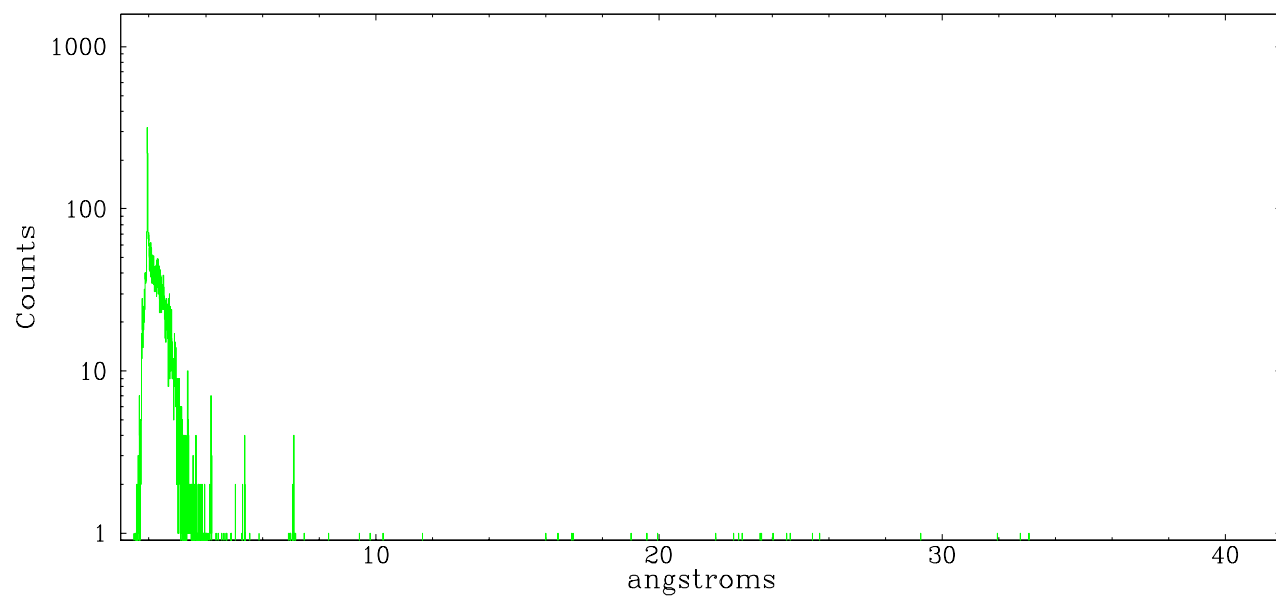


Full Detector MEG

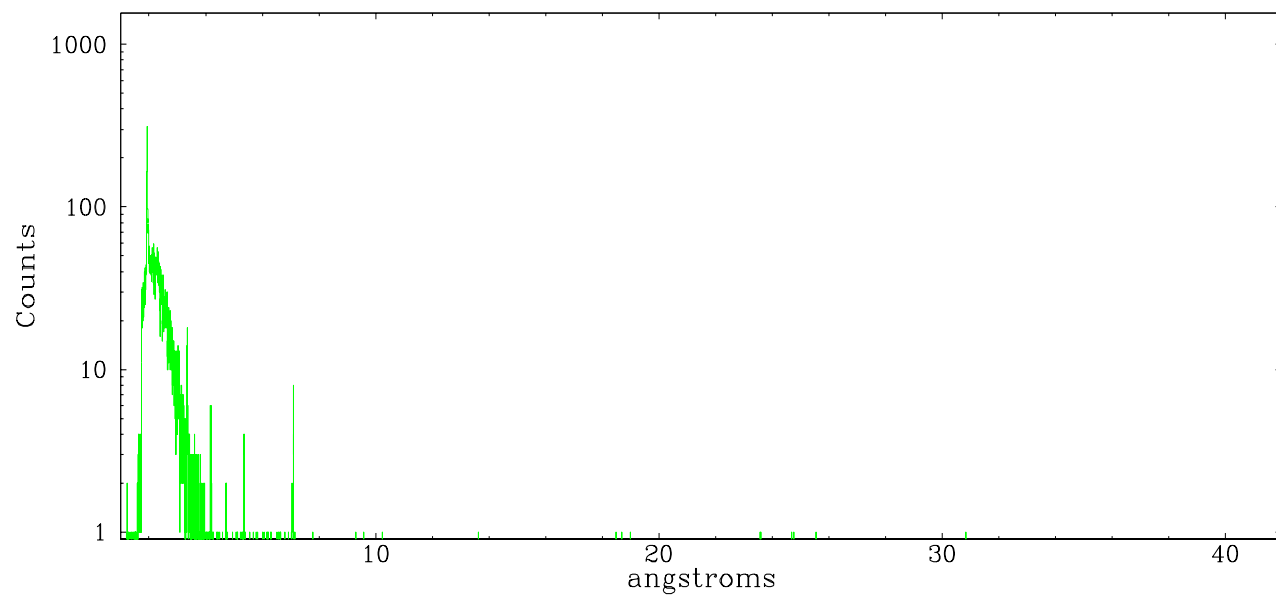
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1231	609	10002	21146	10128	489	1111



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.08.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.127

### A.2 Comments