

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 428 - L2 Version 001  
Chandra X-Ray Center

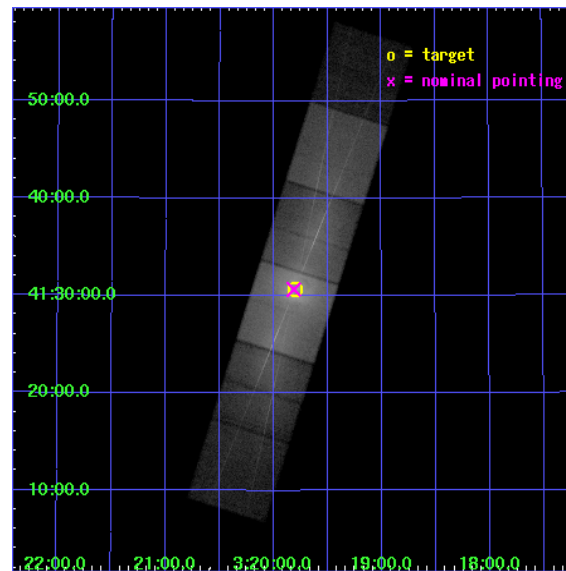
L2 Processing Date : Jun 5 2007

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# 1 Front

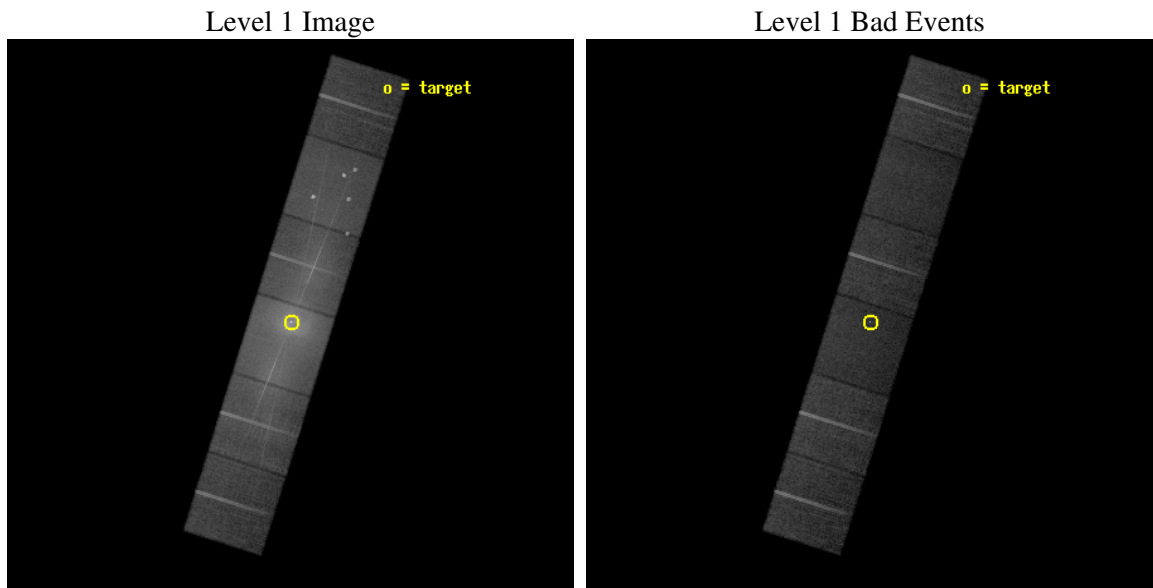
seq_num	700201
obs_id	428
title	HETG OBSERVATIONS OF VARIOUS ACTIVE GALACTIC NUCLEI
observer	Prof. Claude Canizares
object	NGC 1275
dtcycle	0
cycle	P
ra_targ	49.950417
dec_targ	41.511667
ra_nom	49.953146305965
dec_nom	41.511023172262
roll_nom	107.50512820385
revision	2
ontime	25027.200023308
livetime	24710.290547043
ontime4	25027.200023308
ontime5	25027.200023308
ontime6	25027.200023308
ontime7	25027.200023308
ontime8	25027.200023308
ontime9	25027.200023308
l2events	979386



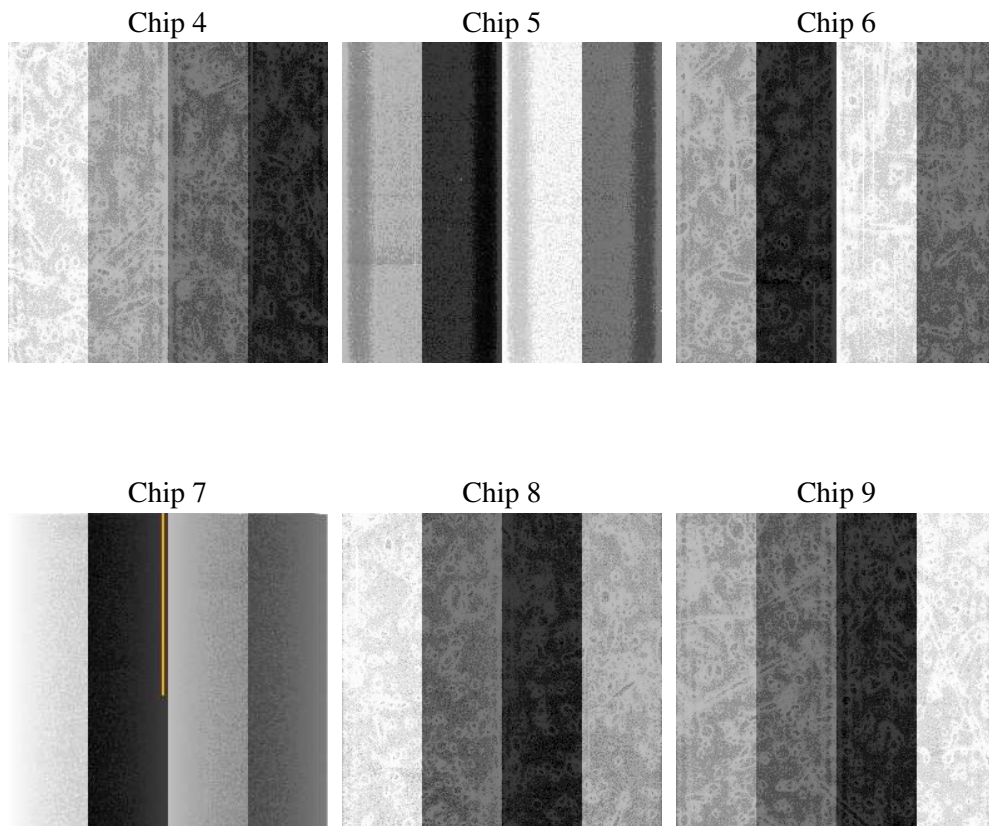
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.10
caldsver	3.4.0
date	2007-06-05T09:08:22
revision	2

sched_exp_time	25000.000000
ontime	25027.200023308
ontime4	25027.200023308
ontime5	25027.200023308
ontime6	25027.200023308
ontime7	25027.200023308
ontime8	25027.200023308
ontime9	25027.200023308
l1events	1854132

### 2.1.4 Events

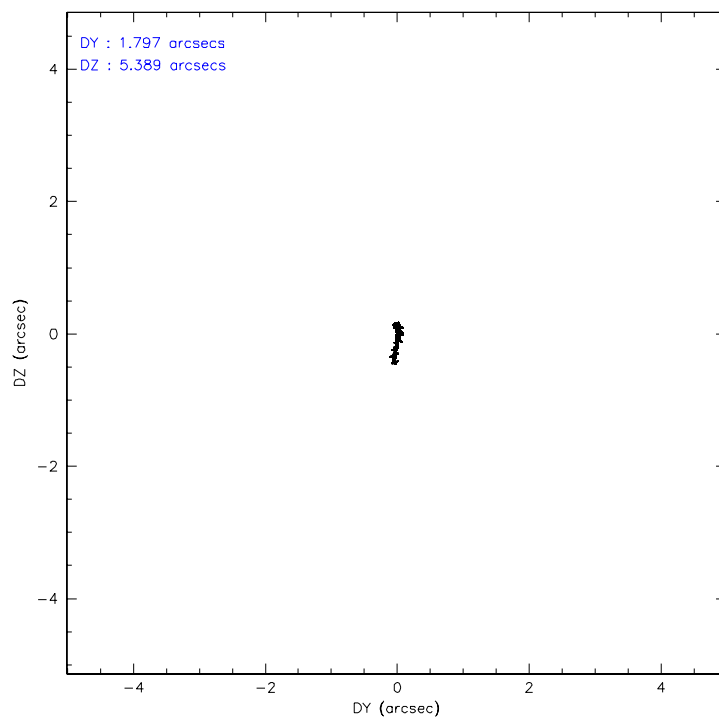
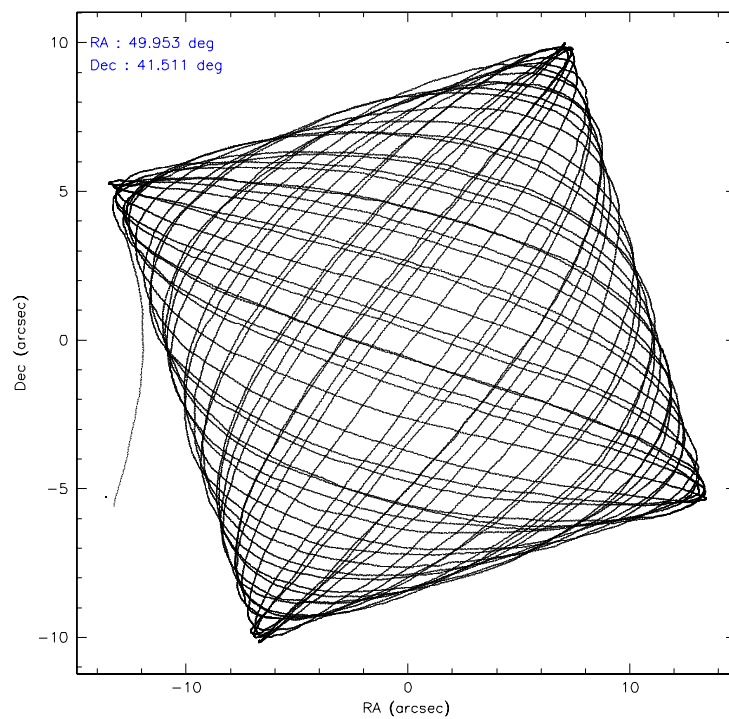
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	177923	285376	354173	563653	295331	177676
rejected events	144797	111459	137927	114938	156477	133450
rejected %	81%	39%	38%	20%	52%	75%

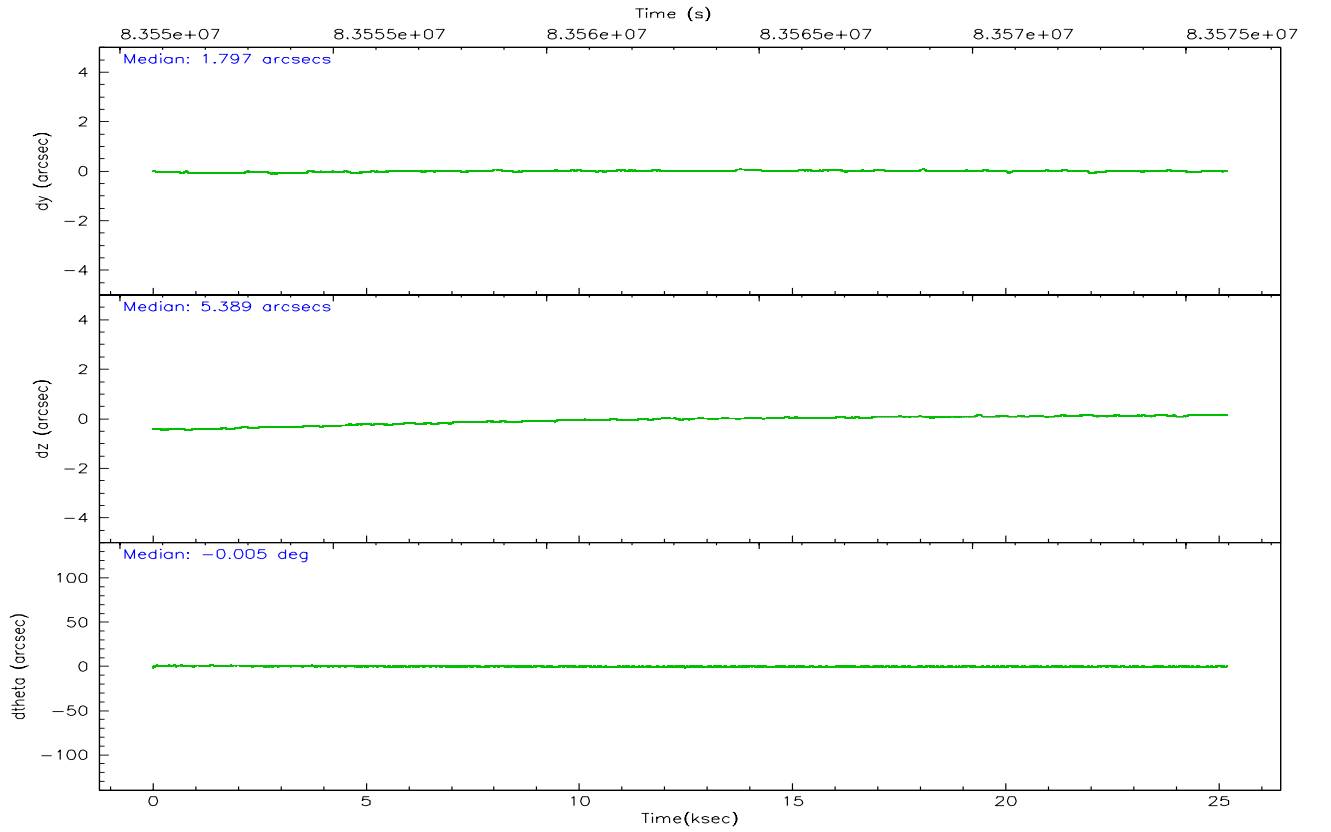
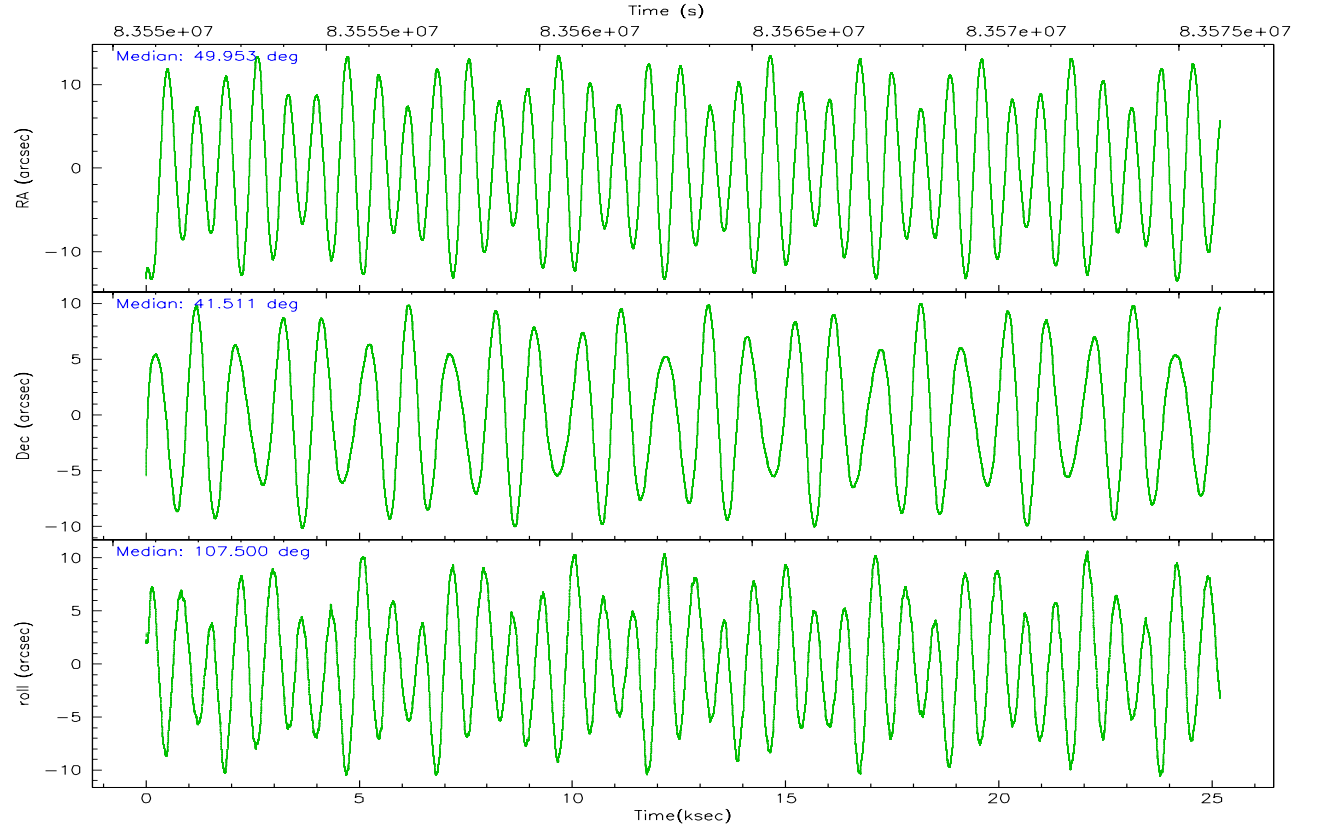
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	20211	48484	162361	96527	95101	28996
	11%	16%	45%	17%	32%	16%
grade 1 events	117	290	645	389	385	157
	0%	0%	0%	0%	0%	0%
grade 2 events	5543	46065	25736	110136	18151	6277
	3%	16%	7%	19%	6%	3%
grade 3 events	2080	10682	8796	49470	6867	2533
	1%	3%	2%	8%	2%	1%
grade 4 events	1977	10807	8752	49469	6523	2503
	1%	3%	2%	8%	2%	1%
grade 5 events	5032	16427	6727	20832	7982	6244
	2%	5%	1%	3%	2%	3%
grade 6 events	3321	57912	10662	143243	12269	3928
	1%	20%	3%	25%	4%	2%
grade 7 events	139642	94709	130494	93587	148053	127038
	78%	33%	36%	16%	50%	71%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	49.980269	49.95314630596532	Subarray requested	NONE	NONE
Pointing Dec	41.492634	41.51102317226177	Alternating exposures requested	N	N
Pointing Roll	107.330525	107.5051282038491	Primary exposure time	3.200000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	83550970.184000	83549970.953936			
Observation start date	2000-08-25T00:35:06	2000-08-25T00:19:30			
Observation end time	83575970.184000	83576640.42993601			
Observation end date	2000-08-25T07:31:46	2000-08-25T07:44:00			
Read mode	TIMED	TIMED			

## 2.3 Aspect





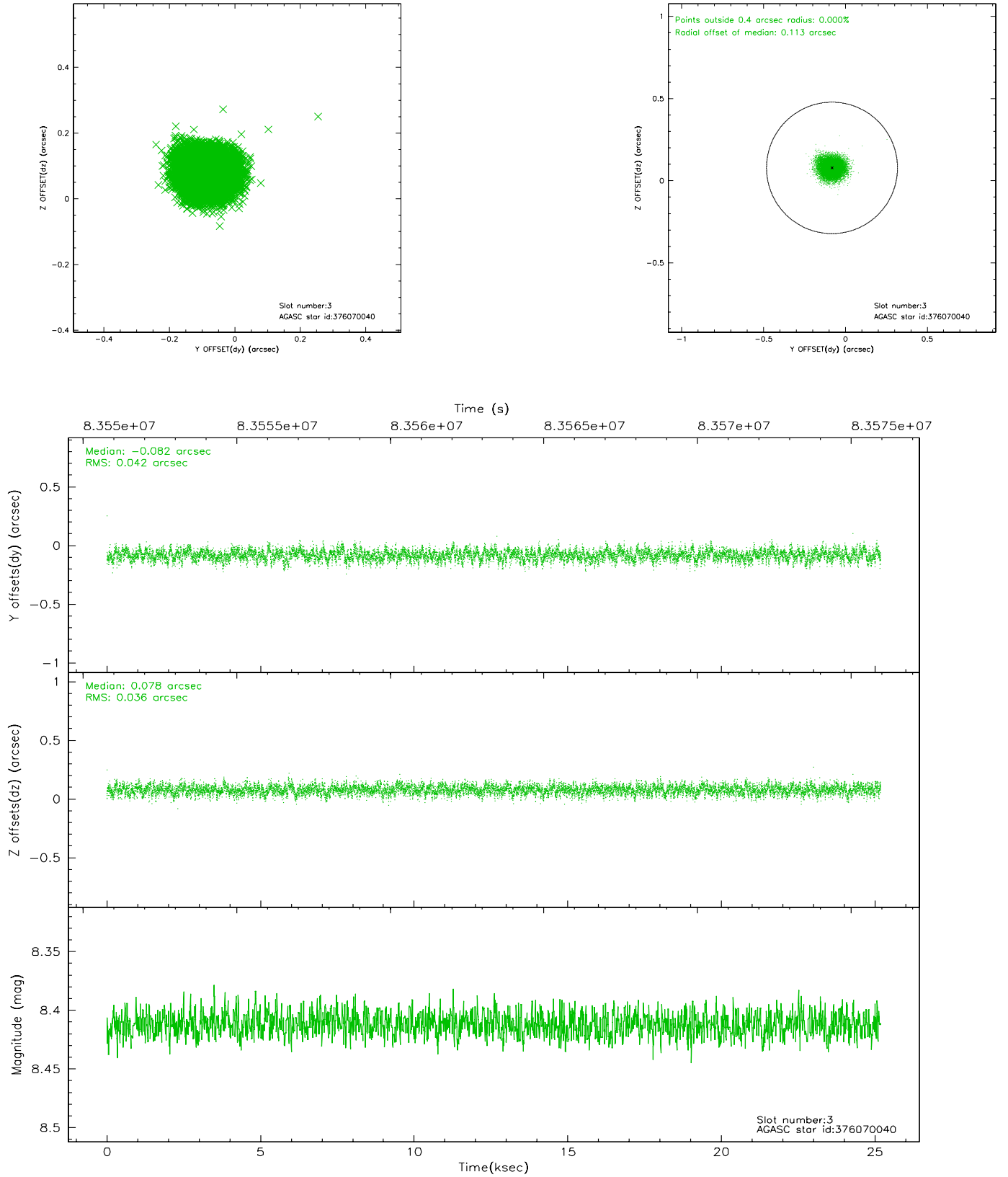
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	6144	-0.029	0.024	0.007	0.011	0.000000	0.000000	-754.41	-1726.43
1	FID	ACIS-S-4	7.21	6144	-0.050	0.007	0.005	0.008	0.000000	0.000000	2158.77	181.94
2	FID	ACIS-S-5	7.24	6145	0.048	-0.023	0.007	0.011	0.000000	0.000000	-1807.05	175.68
3	GUIDE	376070040	8.41	12287	-0.082	0.078	0.058	0.095	50.072031	41.897206	1316.68	-668.12
4	GUIDE	373817952	8.74	12287	0.125	-0.095	0.056	0.091	49.913424	40.978510	-1713.00	724.76
5	GUIDE	376068632	8.78	12287	-0.259	0.242	0.087	0.137	50.582093	42.167240	1844.71	-2257.33
6	GUIDE	373826120	8.91	12288	0.006	-0.055	0.071	0.116	49.738165	41.186341	-856.78	954.33
7	GUIDE	373828368	9.53	12284	0.207	-0.173	0.120	0.192	49.507374	40.699462	-2338.70	2081.73

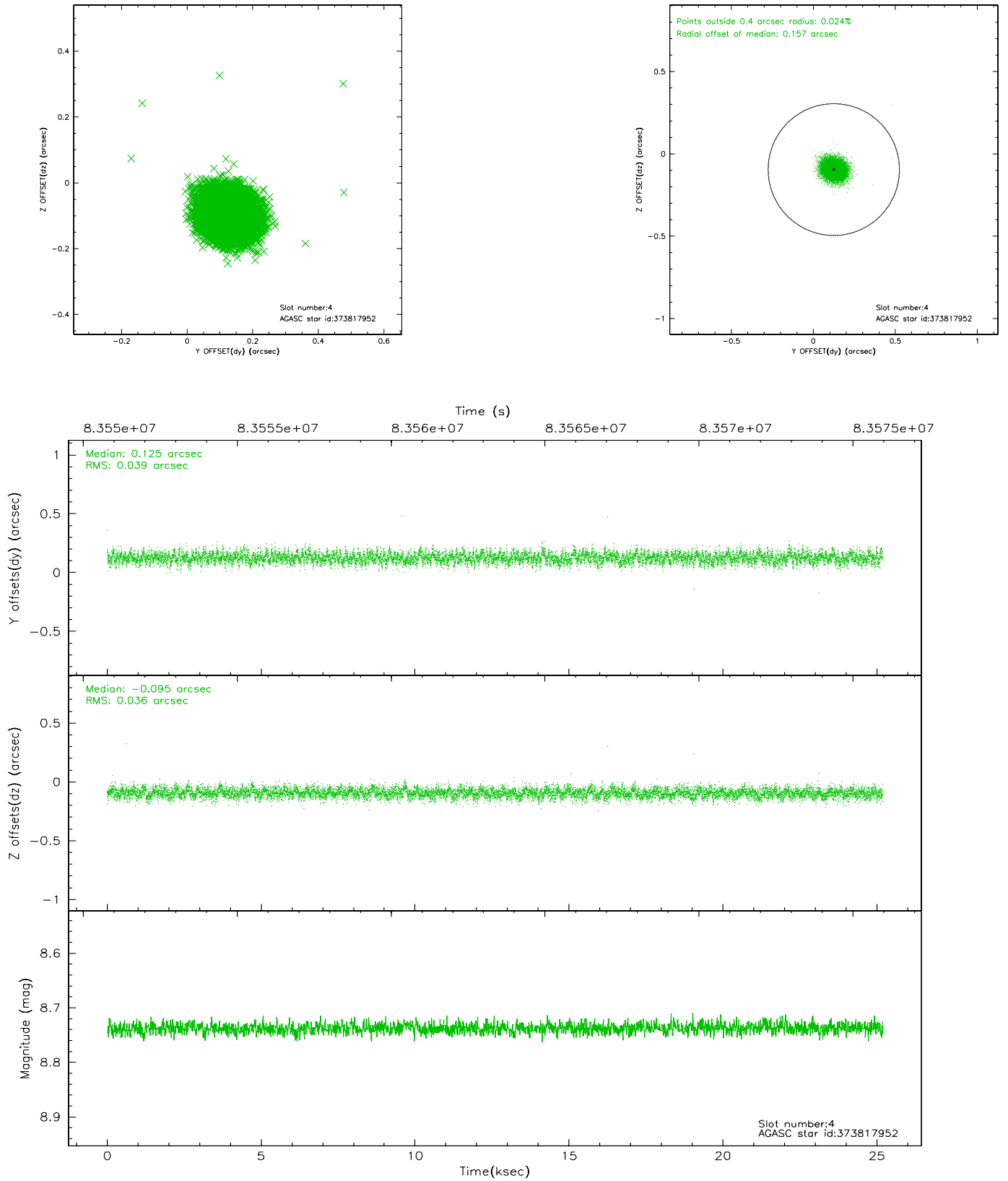


## 2.4 Star Slots

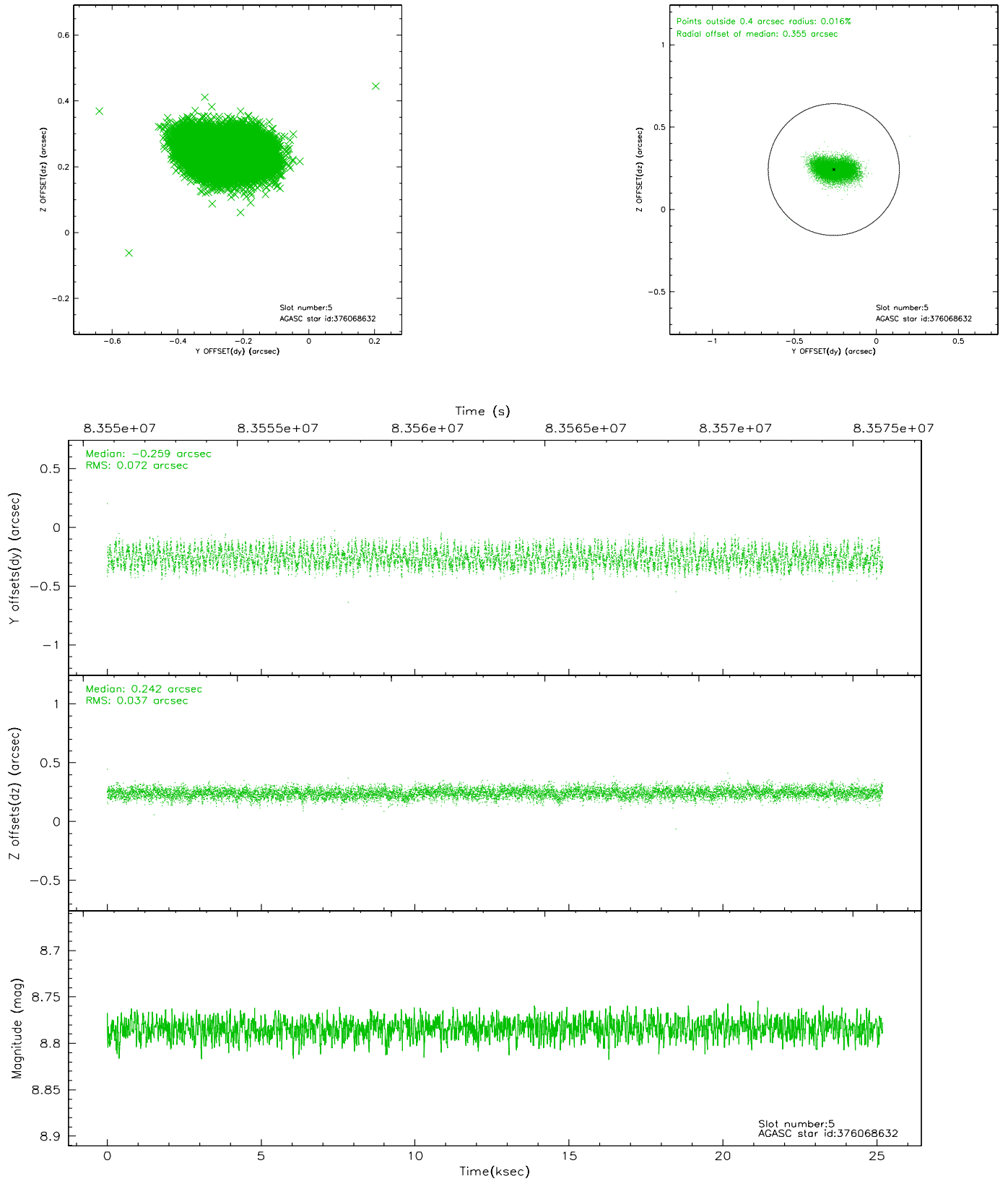
### 2.4.1 Slot 3



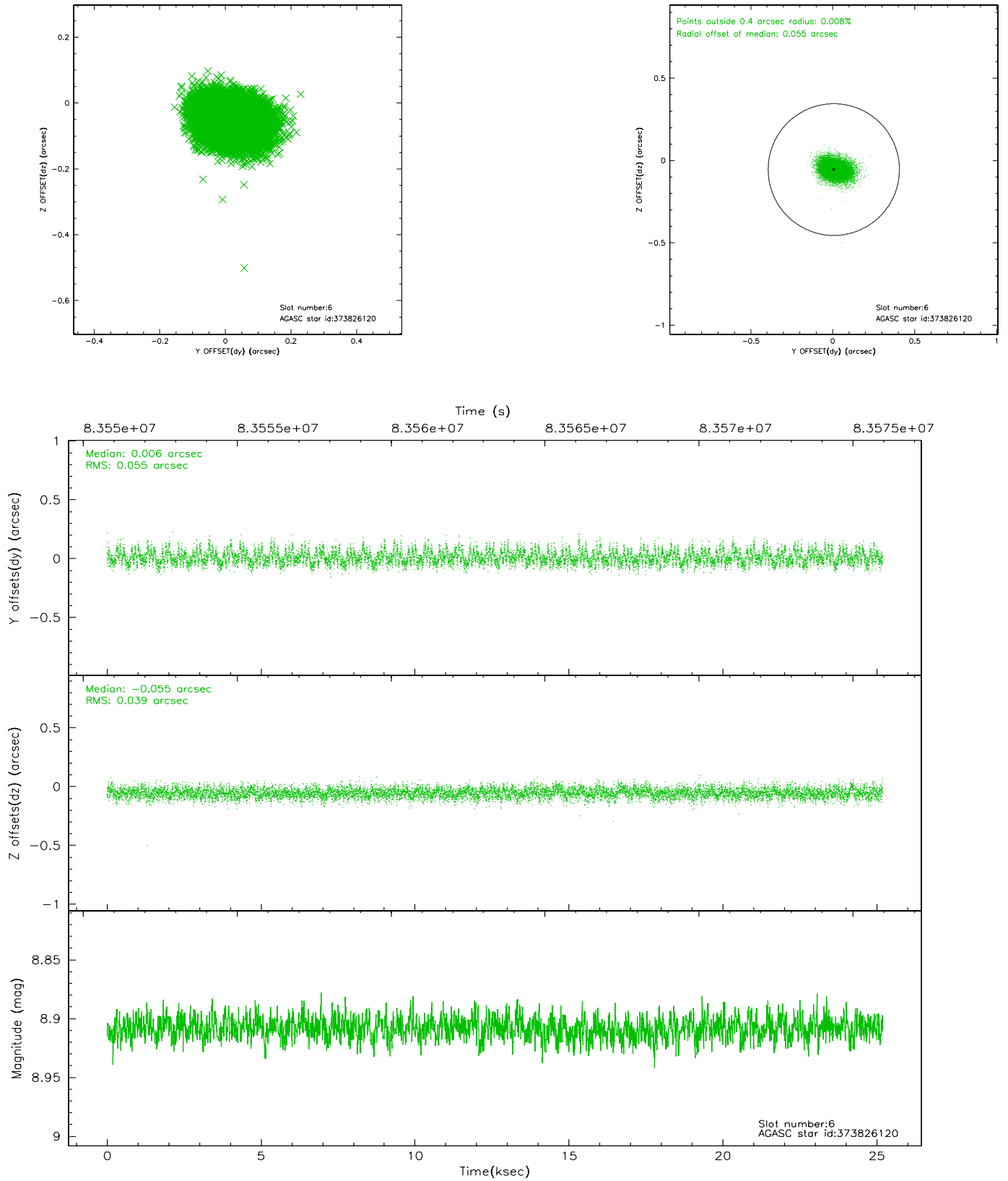
## 2.4.2 Slot 4



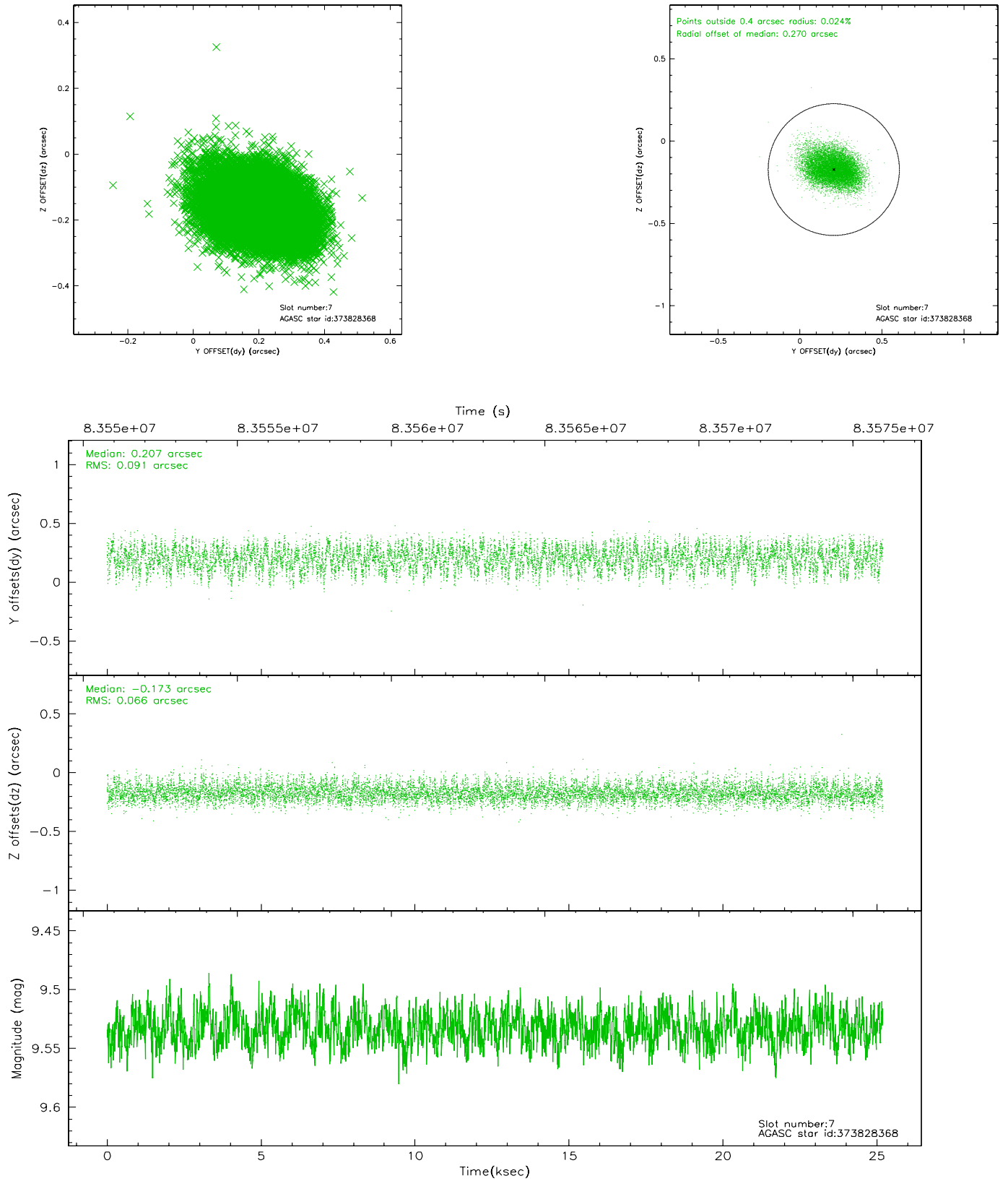
### 2.4.3 Slot 5



## 2.4.4 Slot 6

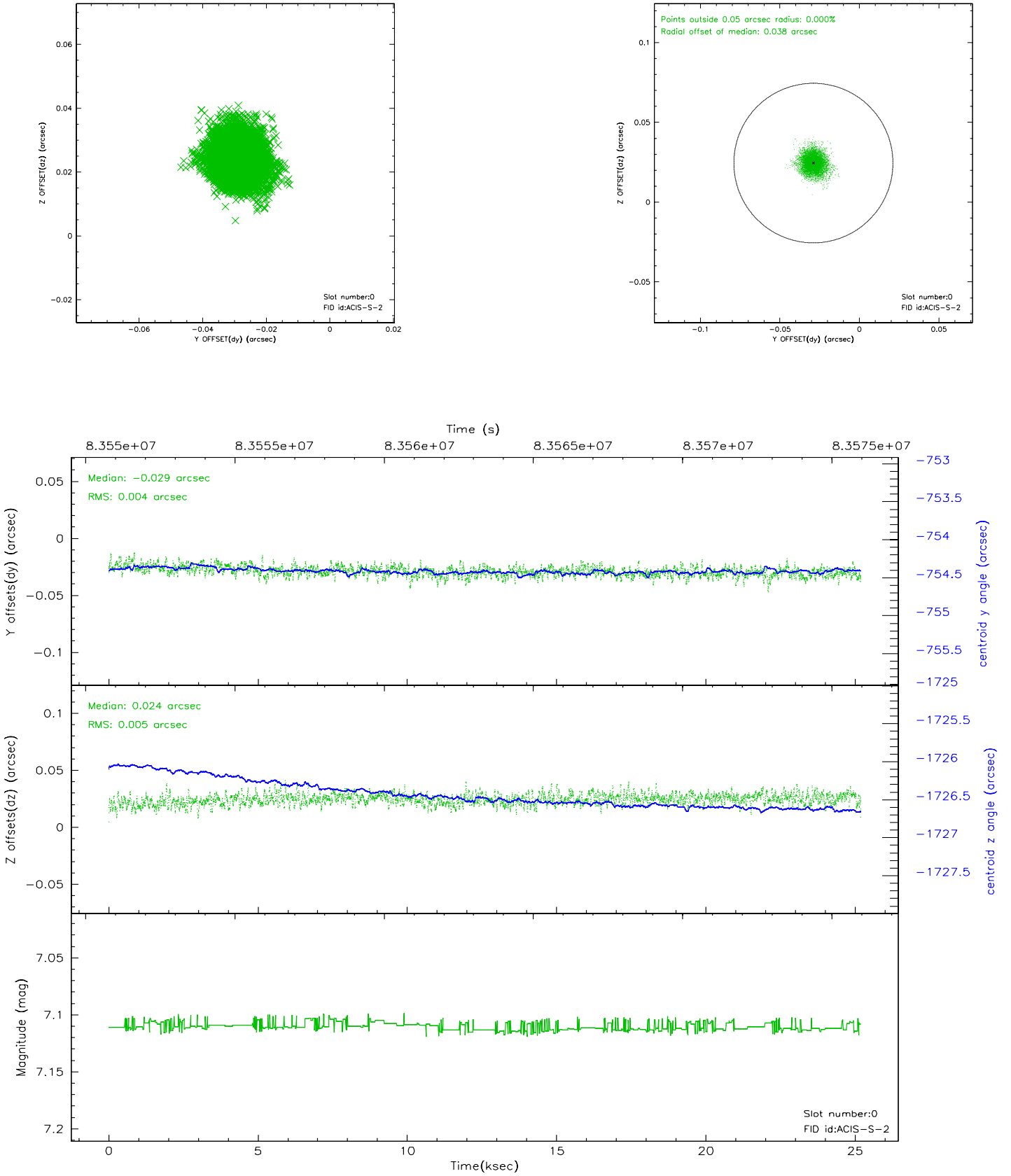


## 2.4.5 Slot 7

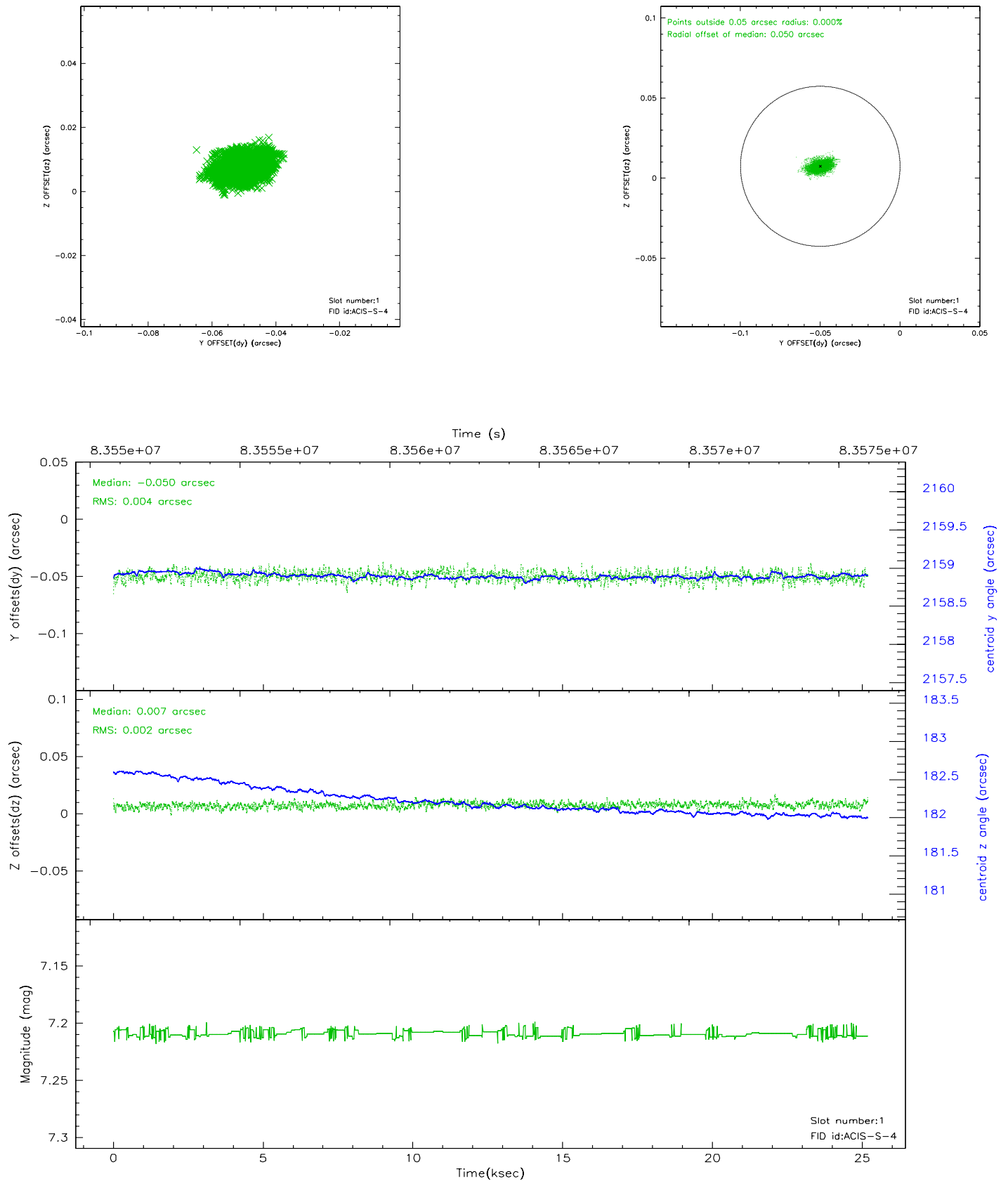


## 2.5 FID Slots

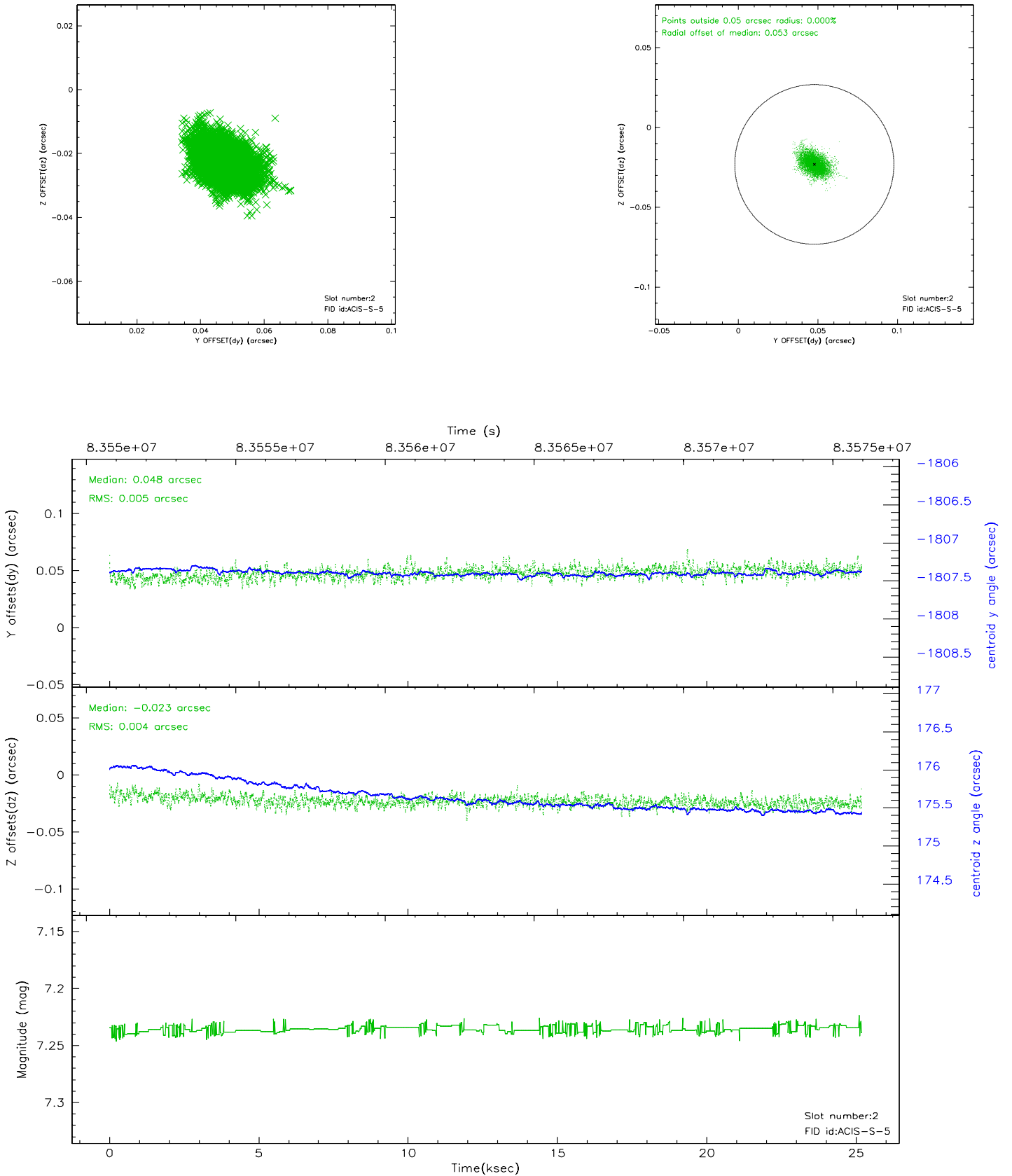
### 2.5.1 Slot 0



## 2.5.2 Slot 1



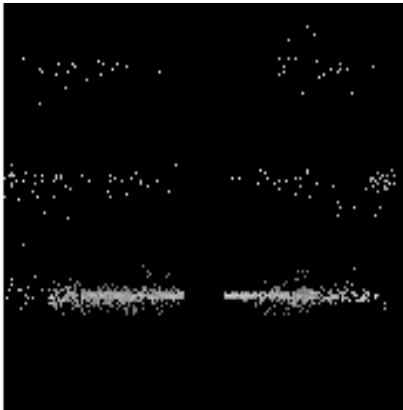
### 2.5.3 Slot 2



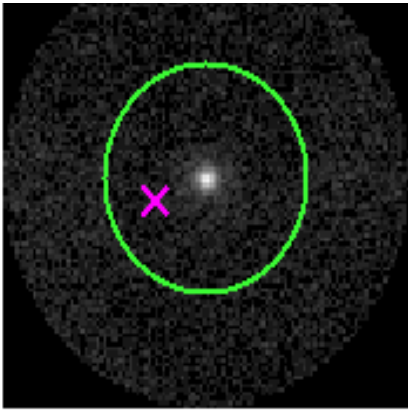


# 3 Gratings

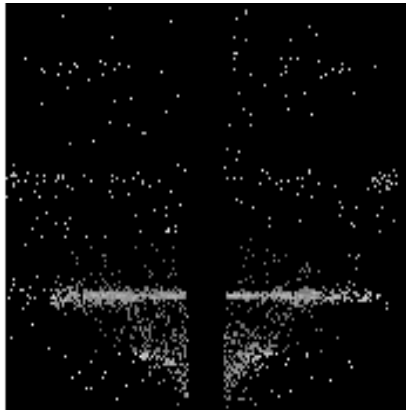
## 3.1 HEG Arm



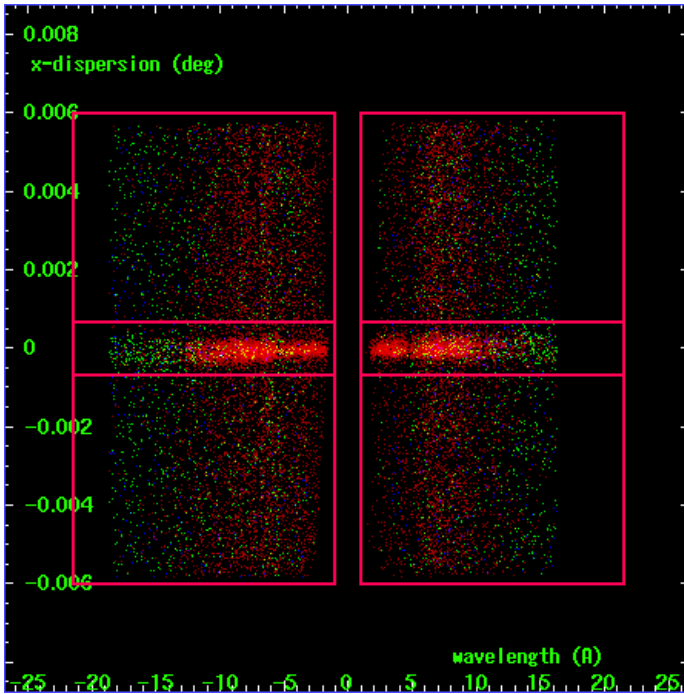
HEG Order Sort 123



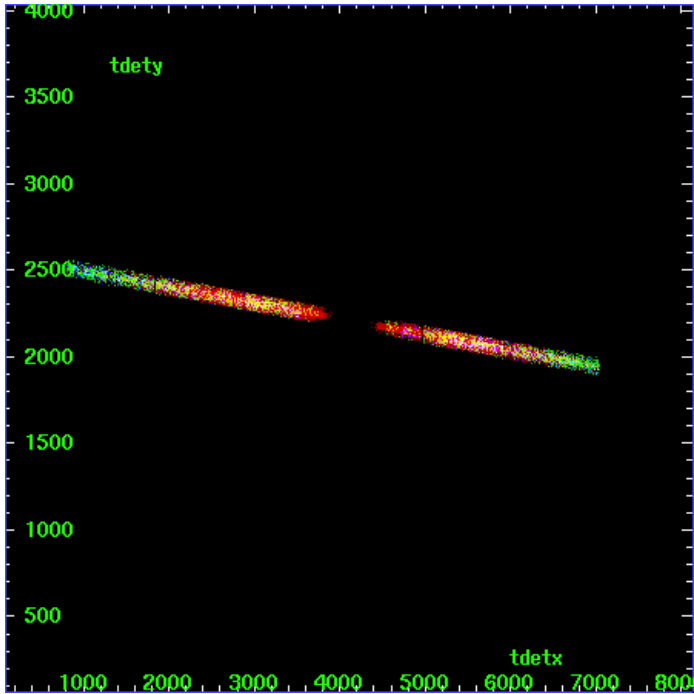
HEG Zero Order



HEG Order Sort ALL

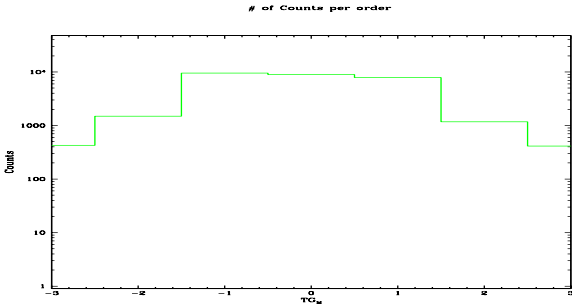


Spot Image HEG

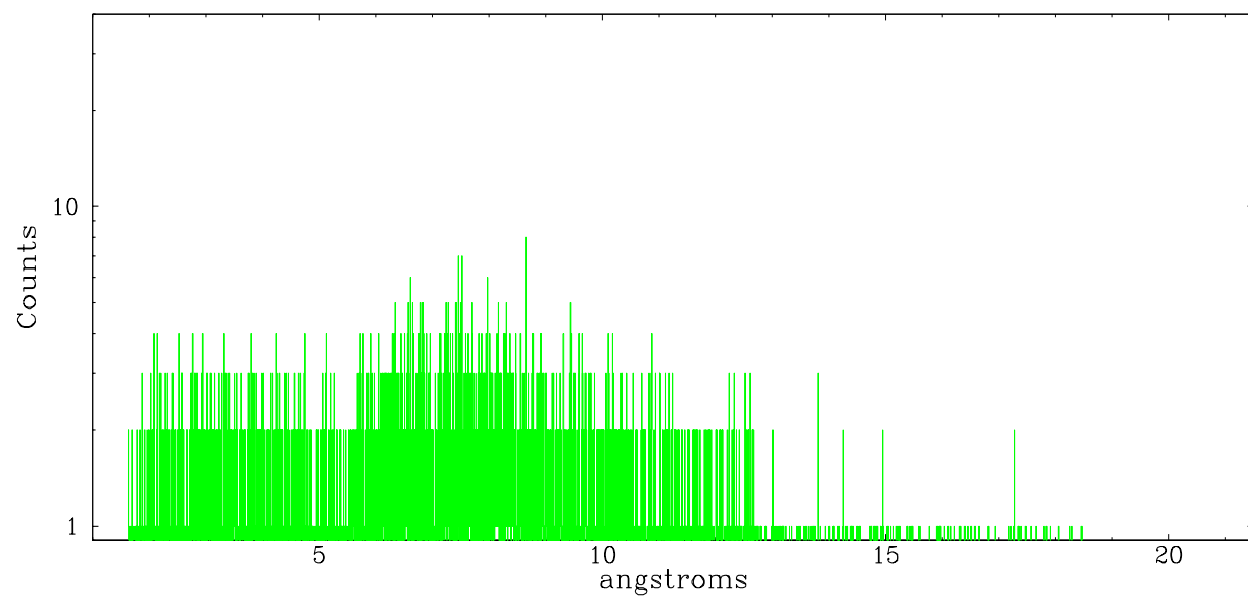


Full Detector HEG

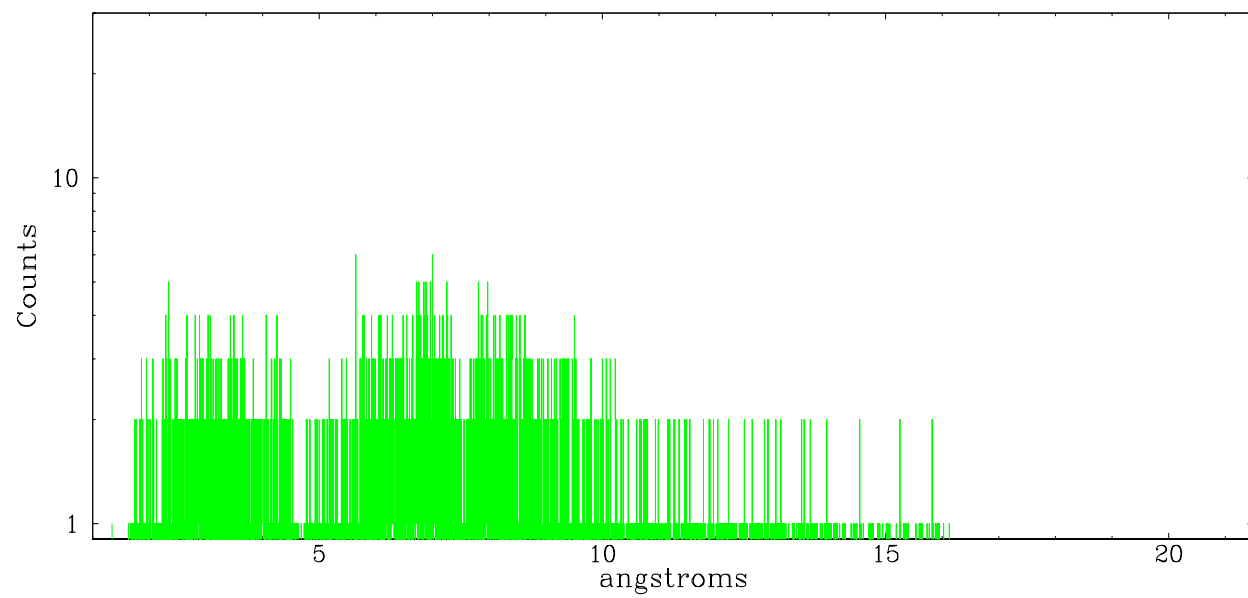
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	428	1493	9541	8921	7882	1171	414



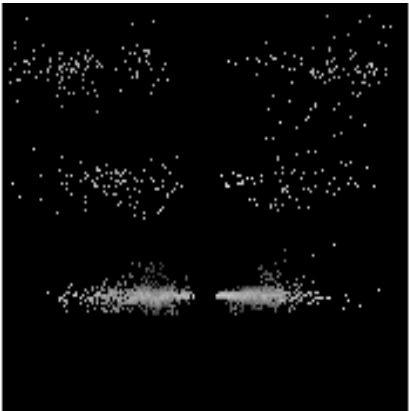
heg order -1



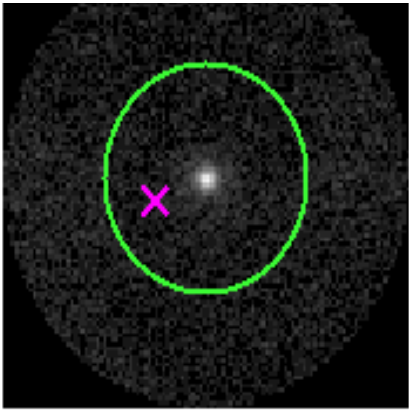
heg order +1



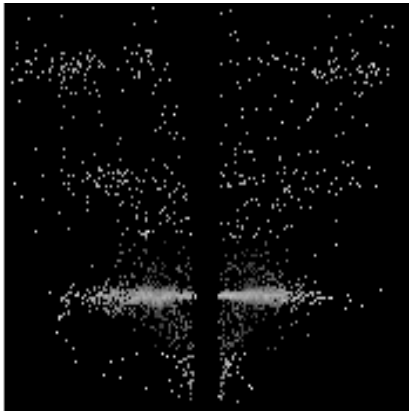
### 3.2 MEG Arm



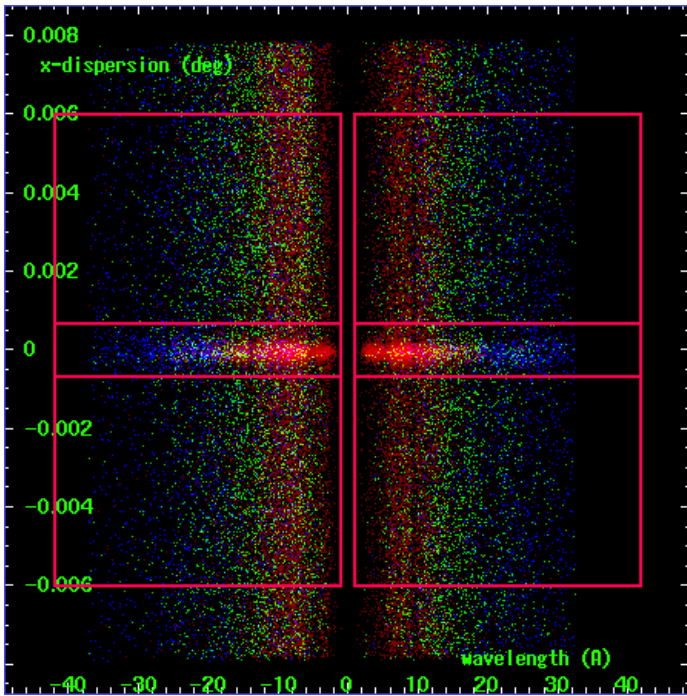
MEG Order Sort 123



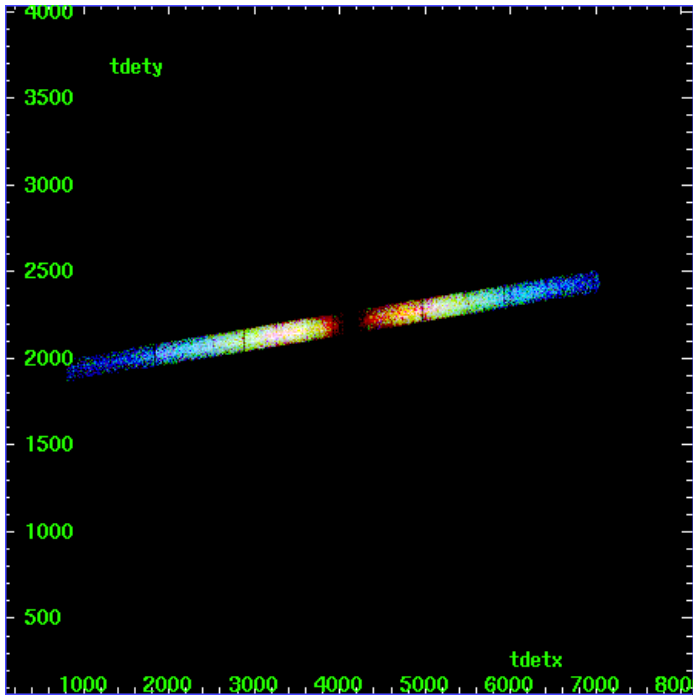
MEG Zero Order



MEG Order Sort ALL

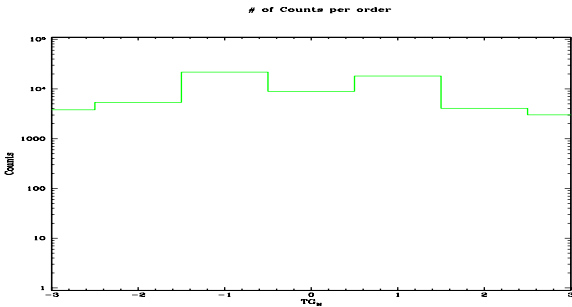


Spot Image MEG

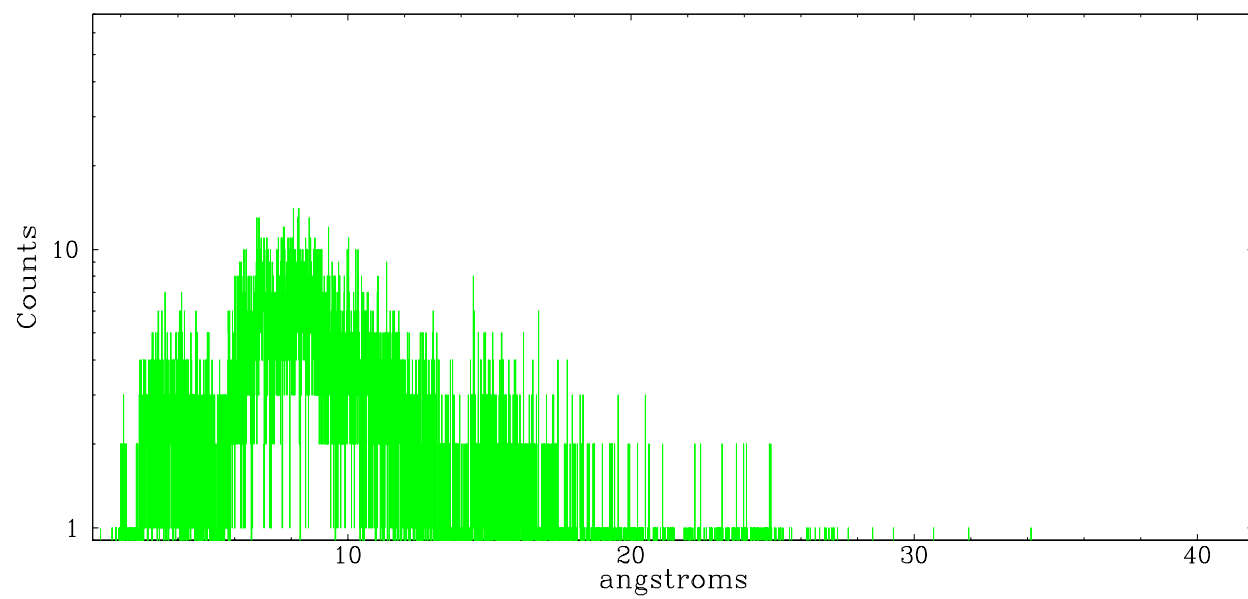


Full Detector MEG

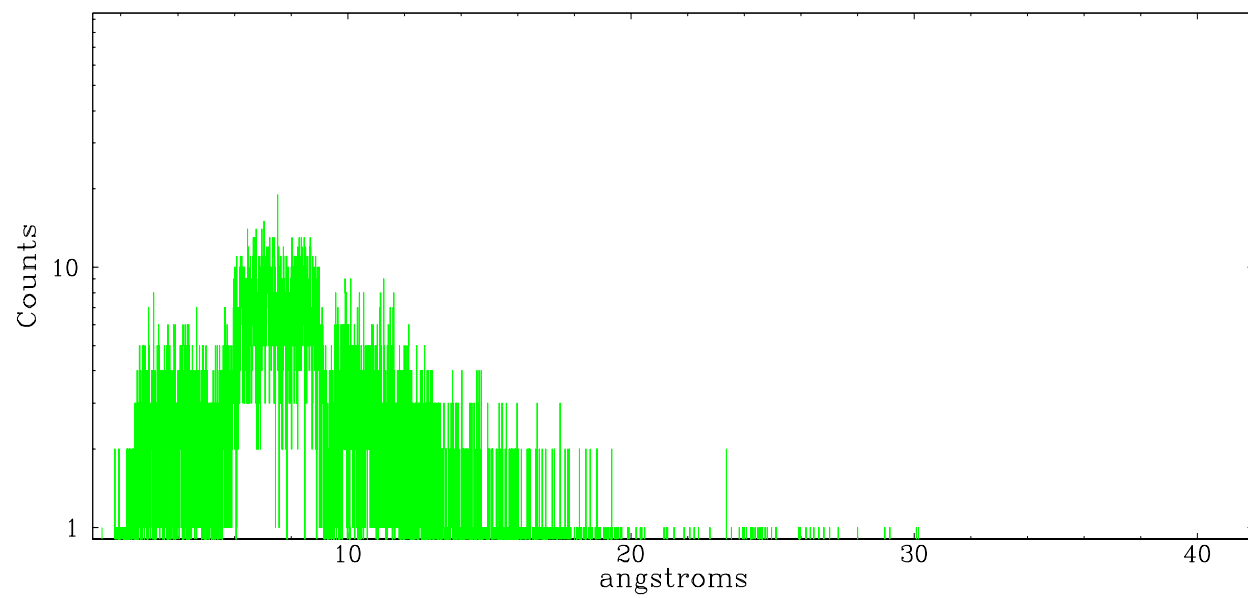
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3814	5391	21812	8921	18120	4064	3017



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.06.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.03

### A.2 Comments