

# V&V Reference Report

## L2 ASCDS Version : 7.6.8.1

Observation 3454 - L2 Version 001  
Chandra X-Ray Center

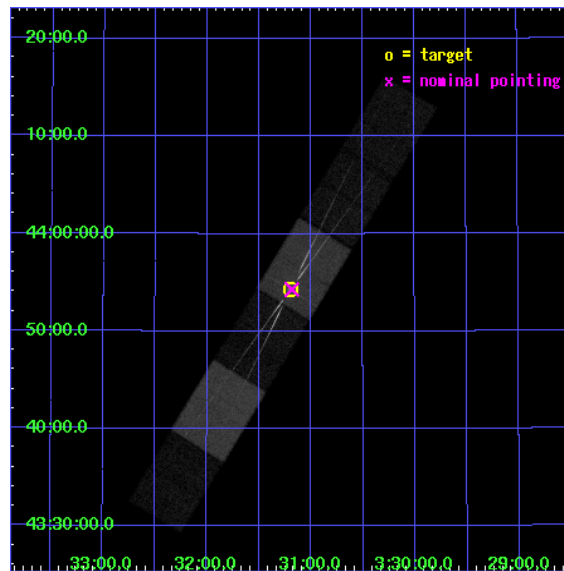
L2 Processing Date : Sep 8 2006

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# 1 Front

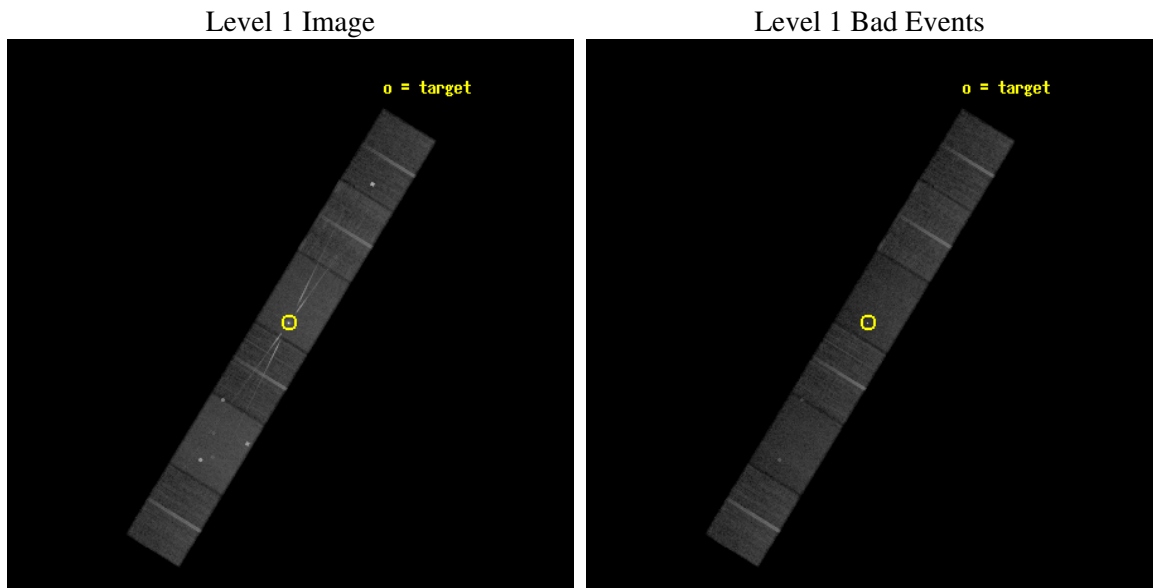
seq_num	300089
obs_id	3454
title	CHANDRA HETG SPECTROSCOPY OF GK PER IN OUTBURST
observer	Dr. Christopher Mauche
object	GK PER
dtcycle	0
cycle	P
ra_targ	52.799167
dec_targ	43.904667
ra_nom	52.796131023364
dec_nom	43.905009752595
roll_nom	301.44045424174
revision	2
ontime	32099.958999842
livetime	31581.51681973
ontime4	32102.5
ontime5	32099.958999842
ontime6	32102.5
ontime7	32099.958999842
ontime8	32102.5
ontime9	32099.958999842
l2events	269107



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

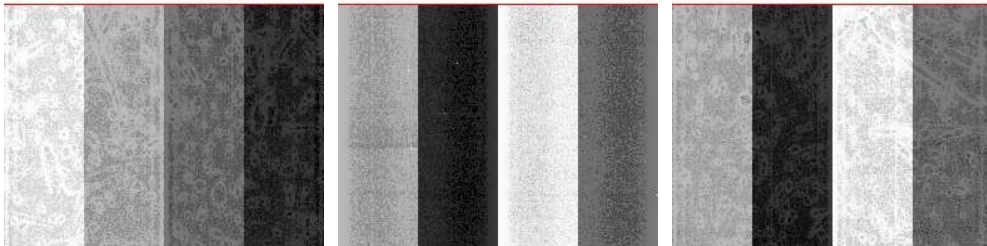


#### 2.1.2 Bias

Chip 4

Chip 5

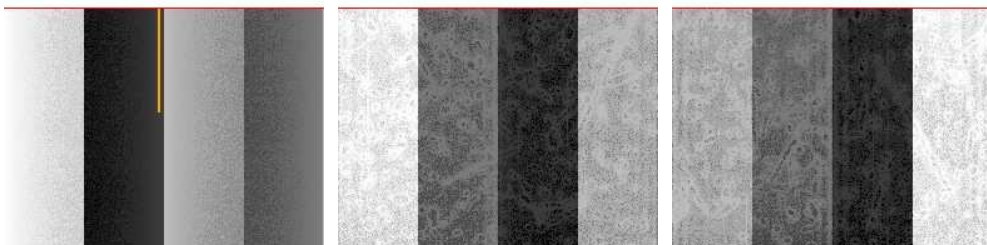
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8.1
caldsver	3.2.3
date	2006-09-08T12:08:34
revision	2

sched_exp_time	32340.530000
ontime	32103.098881096
ontime4	32105.639881253
ontime5	32103.098881096
ontime6	32105.639881253
ontime7	32103.098881096
ontime8	32105.639901176
ontime9	32103.098881096
l1events	1138376

### 2.1.4 Events

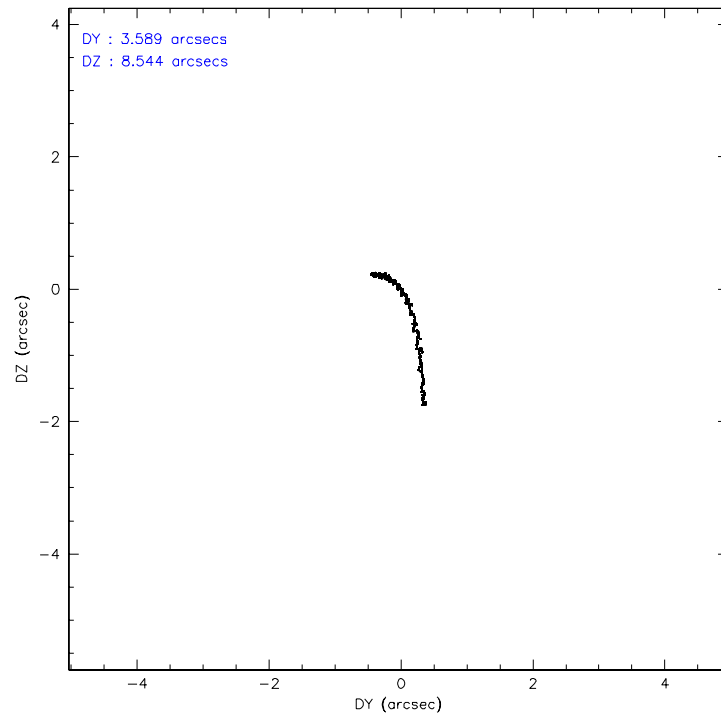
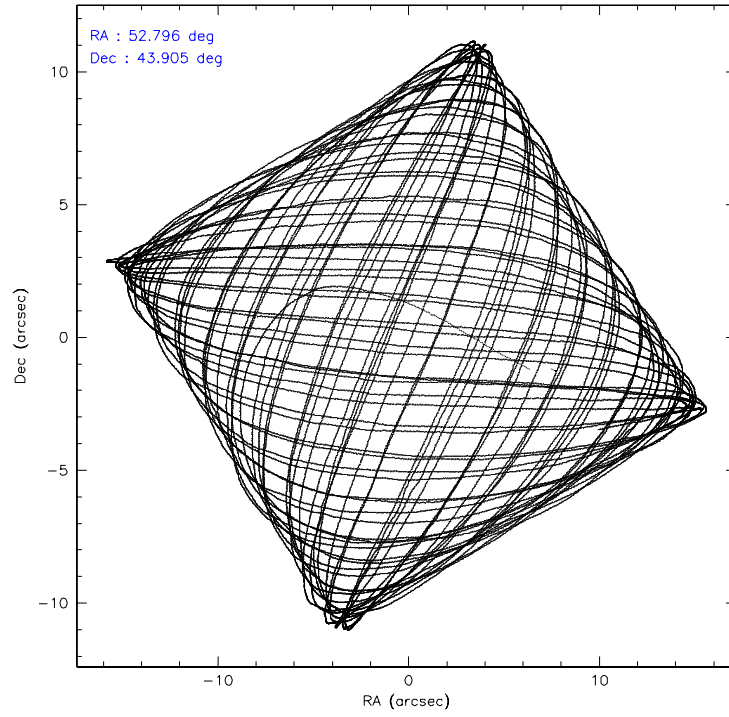
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	164397	224658	169366	225923	196113	157919
rejected events	146171	120168	137795	122897	155536	130687
rejected %	88%	53%	81%	54%	79%	82%

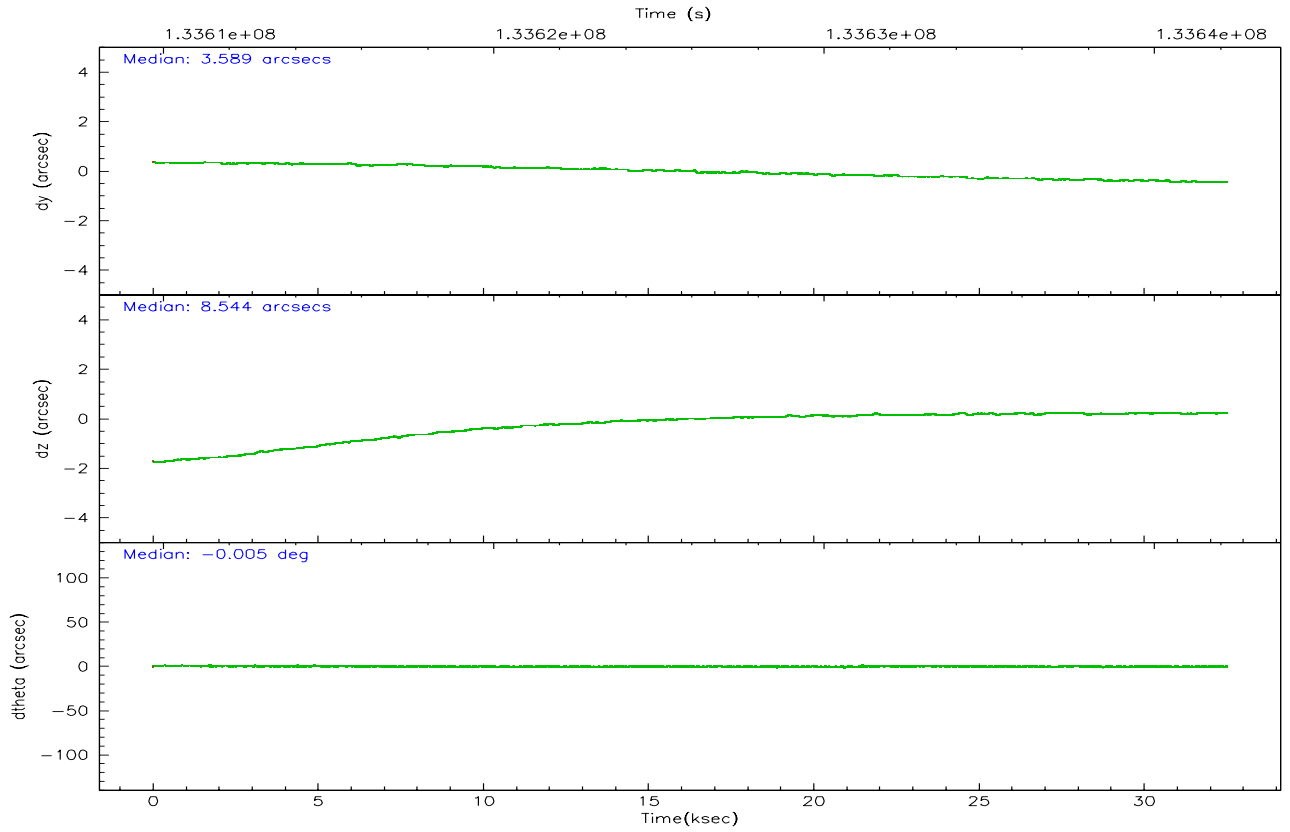
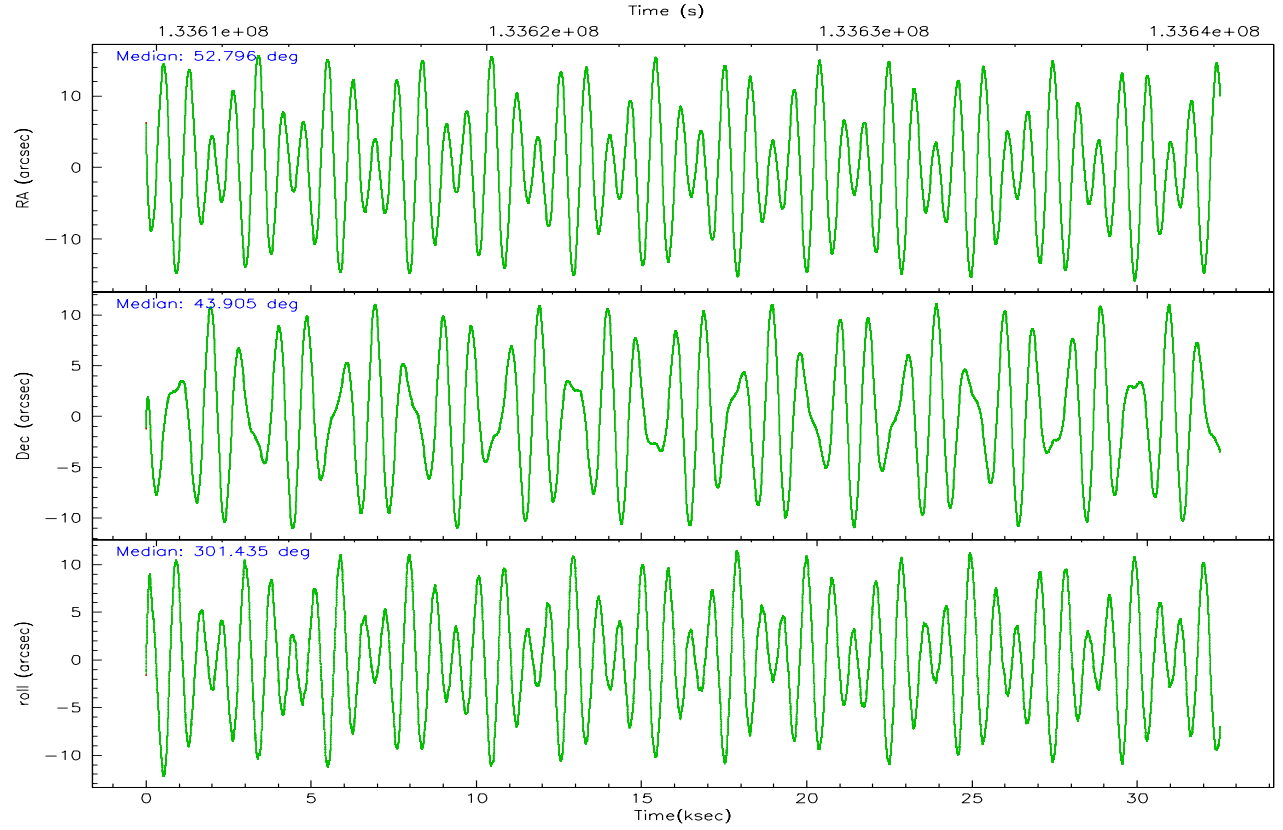
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	7216	15898	15126	9410	12834	15389
	4%	7%	8%	4%	6%	9%
grade 1 events	75	949	85	367	112	68
	0%	0%	0%	0%	0%	0%
grade 2 events	4189	28988	5861	25251	8758	4604
	2%	12%	3%	11%	4%	2%
grade 3 events	1849	2651	2705	6695	4129	1962
	1%	1%	1%	2%	2%	1%
grade 4 events	1789	2585	2633	6702	3908	1872
	1%	1%	1%	2%	1%	1%
grade 5 events	5298	11010	6489	15372	8223	6514
	3%	4%	3%	6%	4%	4%
grade 6 events	3185	54389	5247	54981	10952	3411
	1%	24%	3%	24%	5%	2%
grade 7 events	140796	108188	131220	107145	147197	124099
	85%	48%	77%	47%	75%	78%

## 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	52.762681	52.79613102336377	Subarray start row	1	1
Pointing Dec	43.917756	43.90500975259503	Subarray row count	774	774
Pointing Roll	301.307026	301.4404542417413	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	2.5
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	133609861.184000	133608837.32212			
Observation start date	2002-03-27T09:49:57	2002-03-27T09:33:57			
Observation end time	133642202.184000	133642516.26099			
Observation end date	2002-03-27T18:48:58	2002-03-27T18:55:16			
Read mode	TIMED	TIMED			

## 2.3 Aspect





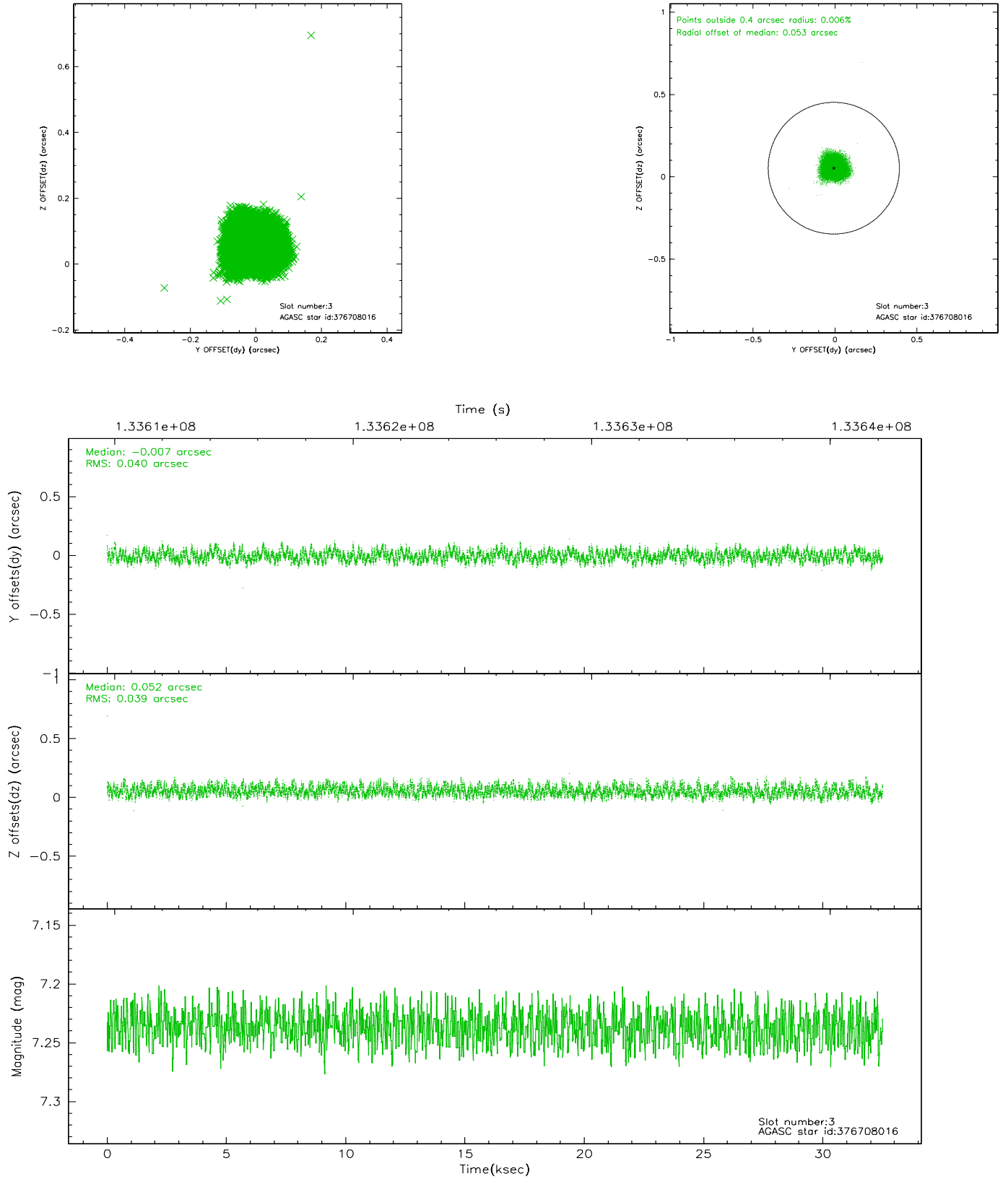
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7929	-0.025	-0.007	0.015	0.021	0.000000	0.000000	-756.02	-1791.56
1	FID	ACIS-S-4	7.20	7928	-0.012	0.025	0.014	0.022	0.000000	0.000000	2157.21	116.93
2	FID	ACIS-S-6	7.38	7930	0.010	-0.013	0.009	0.015	0.000000	0.000000	406.03	754.32
3	GUIDE	376708016	7.24	15860	-0.007	0.052	0.061	0.093	53.836874	43.847951	1649.39	2261.75
4	GUIDE	376586144	7.52	15861	-0.051	-0.134	0.052	0.092	52.137991	43.753592	-342.97	-1691.92
5	GUIDE	376576840	8.76	15858	-0.139	0.068	0.064	0.103	52.014072	44.339588	-2305.31	-853.55
6	GUIDE	376570704	9.16	15847	0.136	-0.058	0.078	0.126	52.383963	43.230715	1596.62	-2132.84
7	GUIDE	376709472	9.24	15853	0.063	0.071	0.080	0.126	53.555484	43.741943	1605.01	1438.00

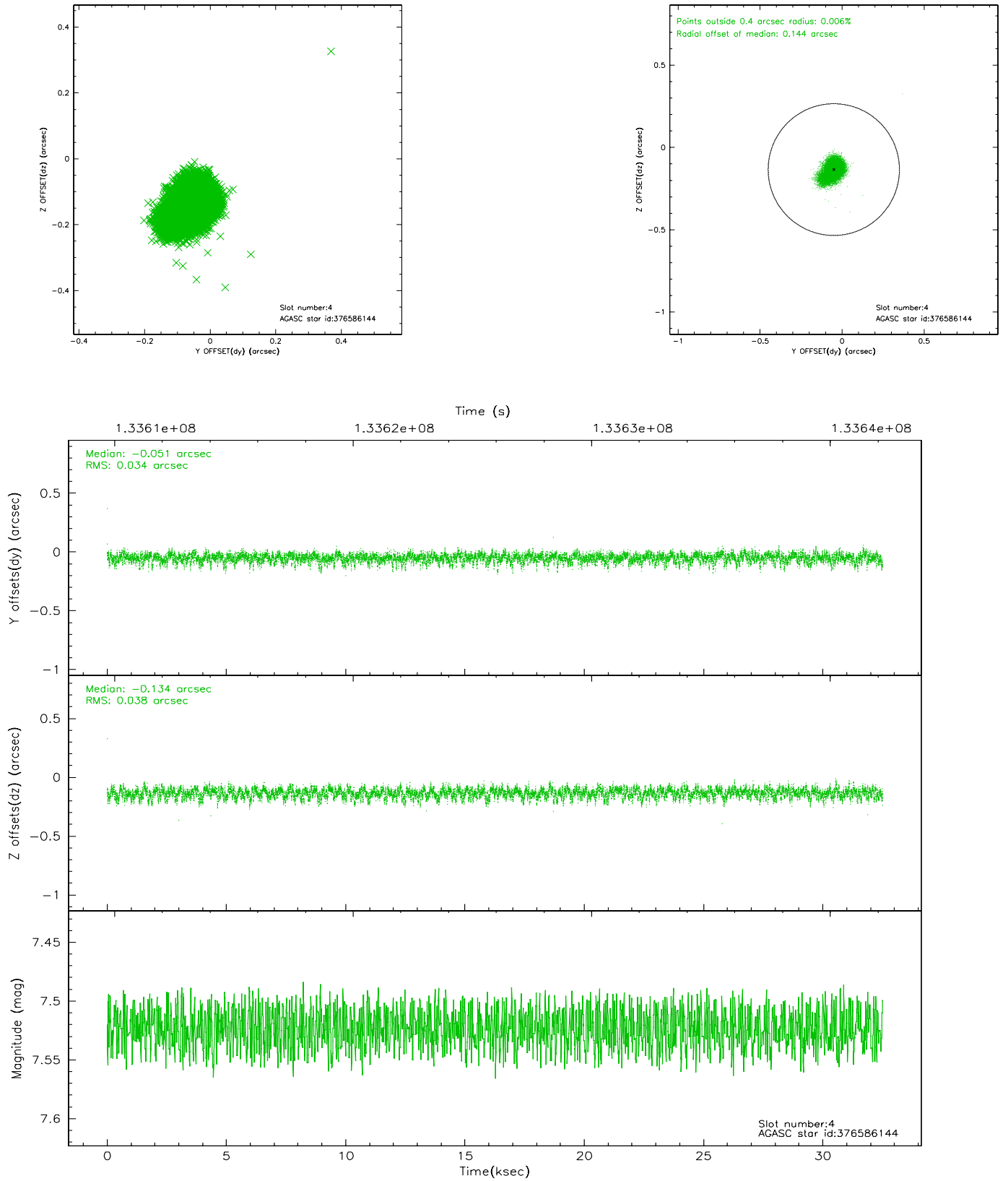


## 2.4 Star Slots

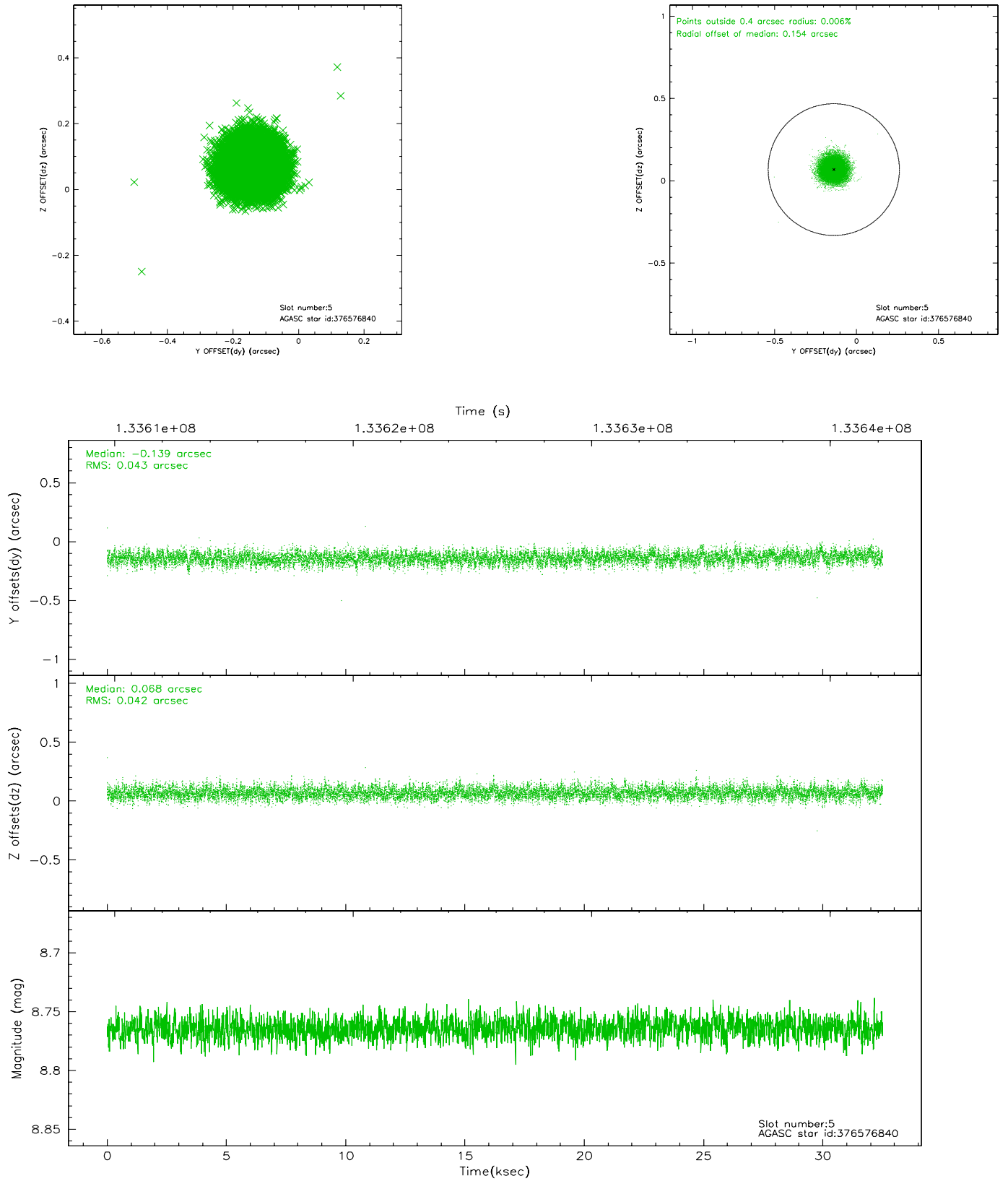
### 2.4.1 Slot 3



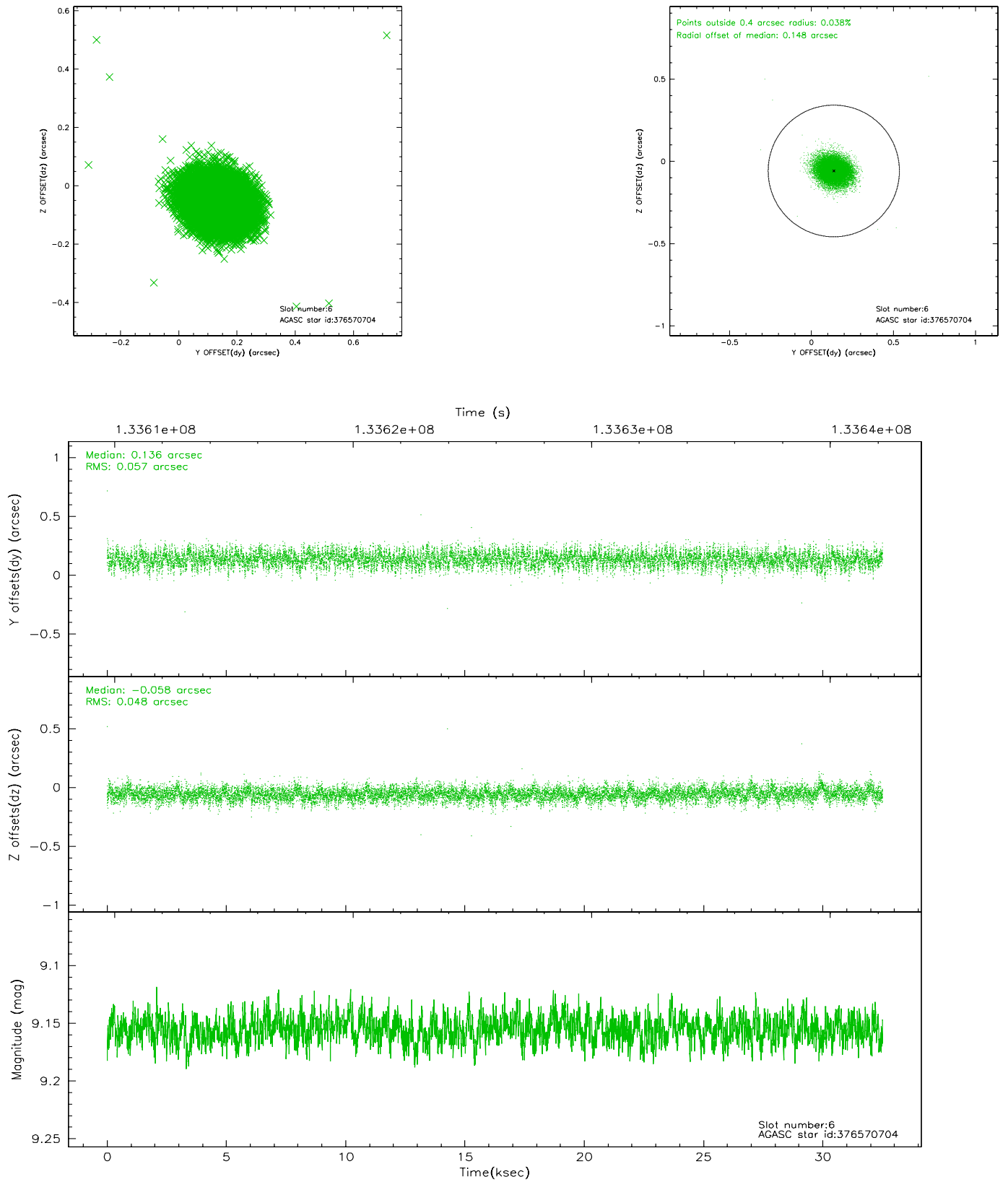
## 2.4.2 Slot 4



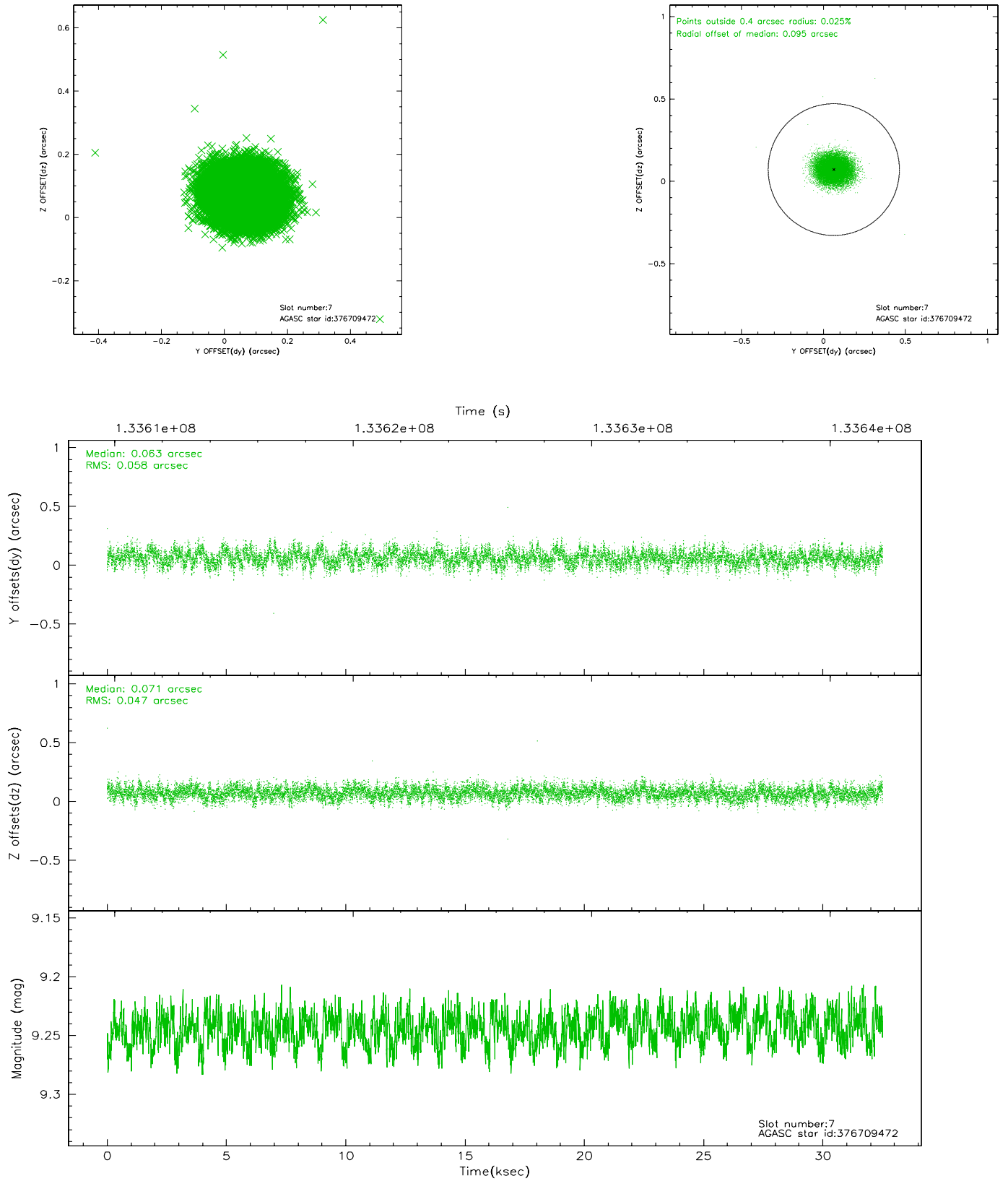
### 2.4.3 Slot 5



## 2.4.4 Slot 6

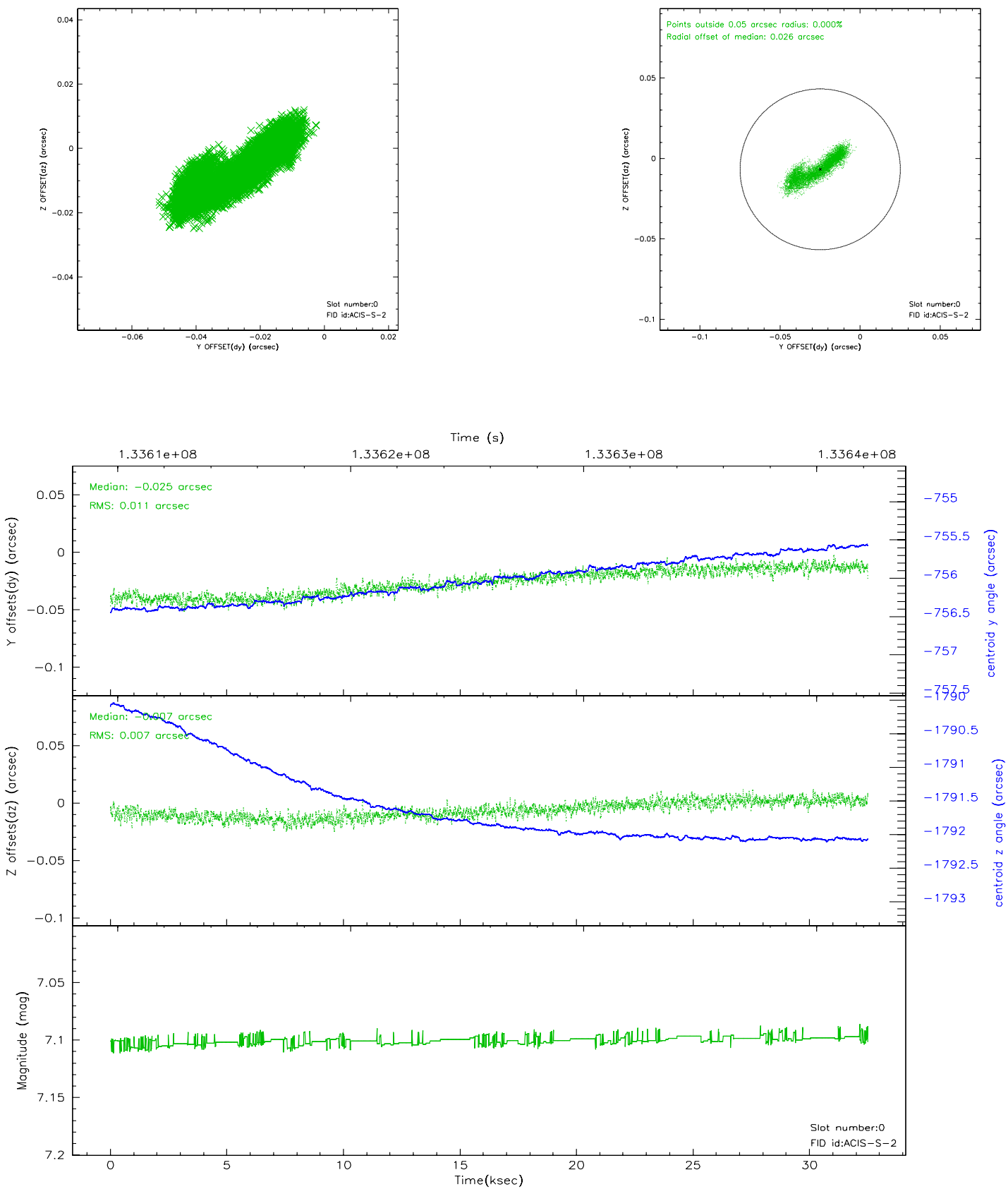


## 2.4.5 Slot 7

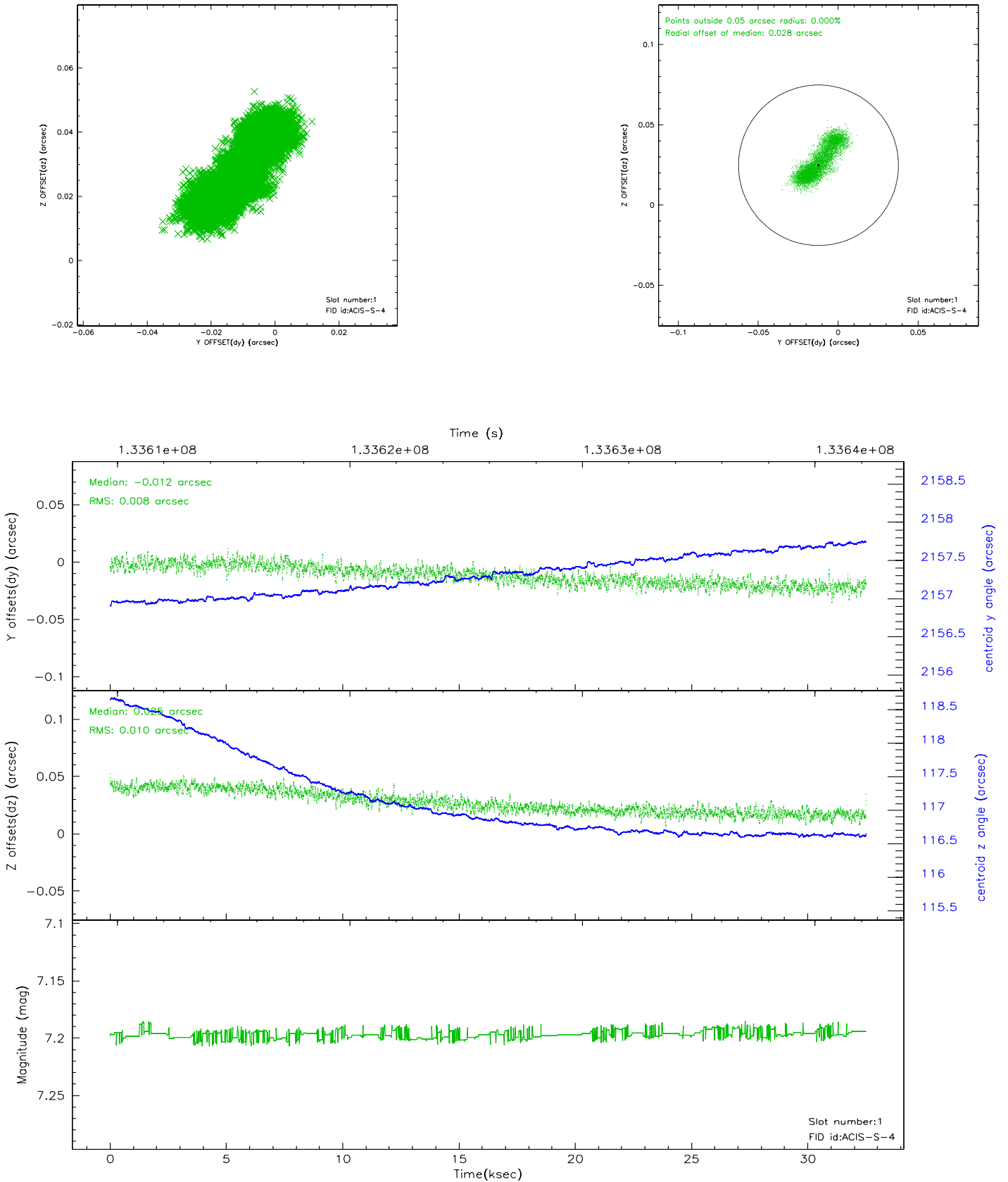


## 2.5 FID Slots

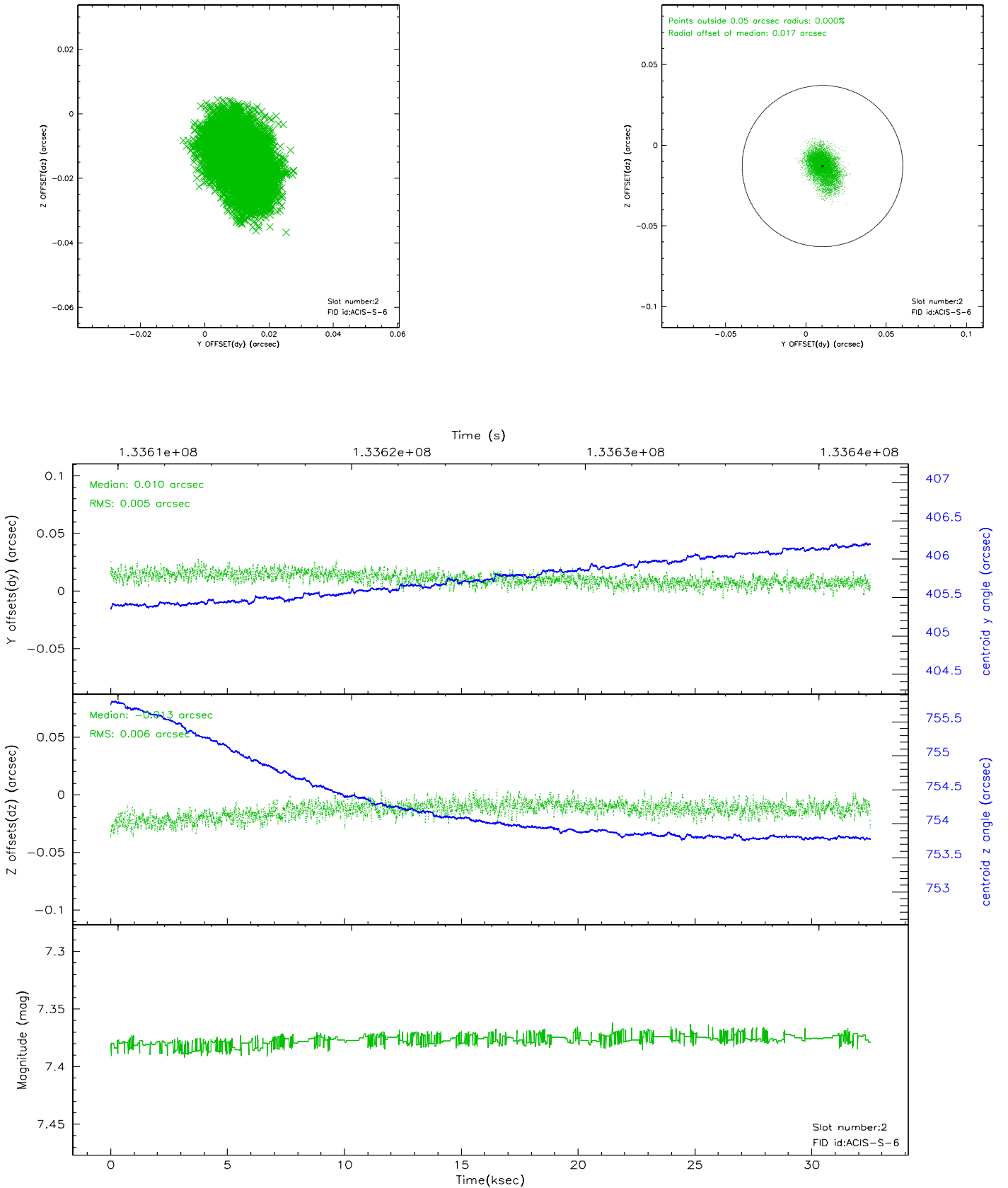
### 2.5.1 Slot 0



## 2.5.2 Slot 1



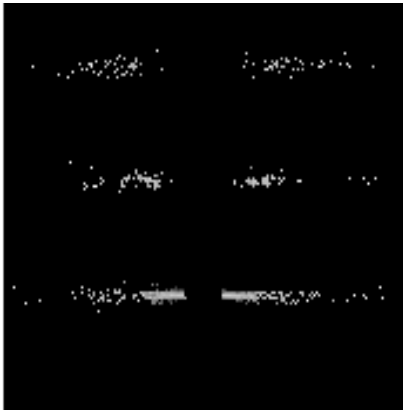
### 2.5.3 Slot 2



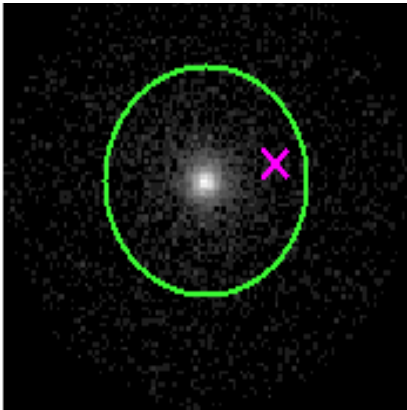


# 3 Gratings

## 3.1 HEG Arm



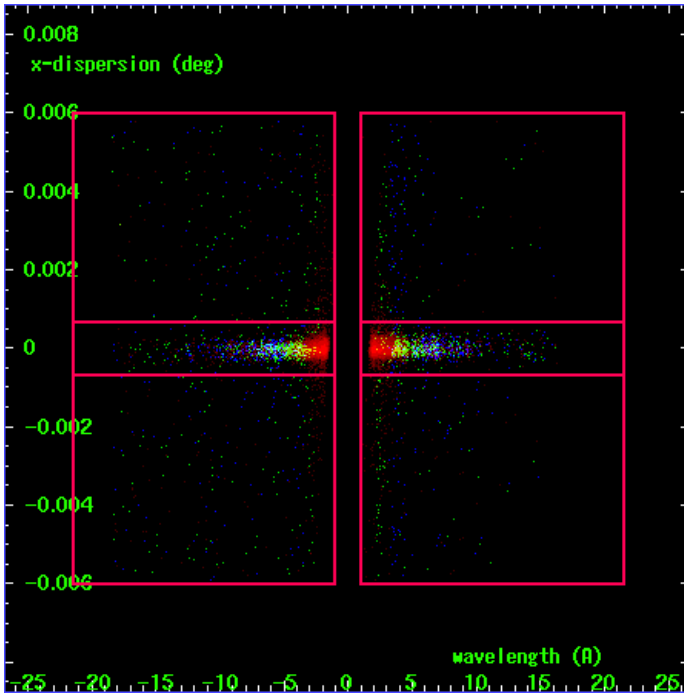
HEG Order Sort 123



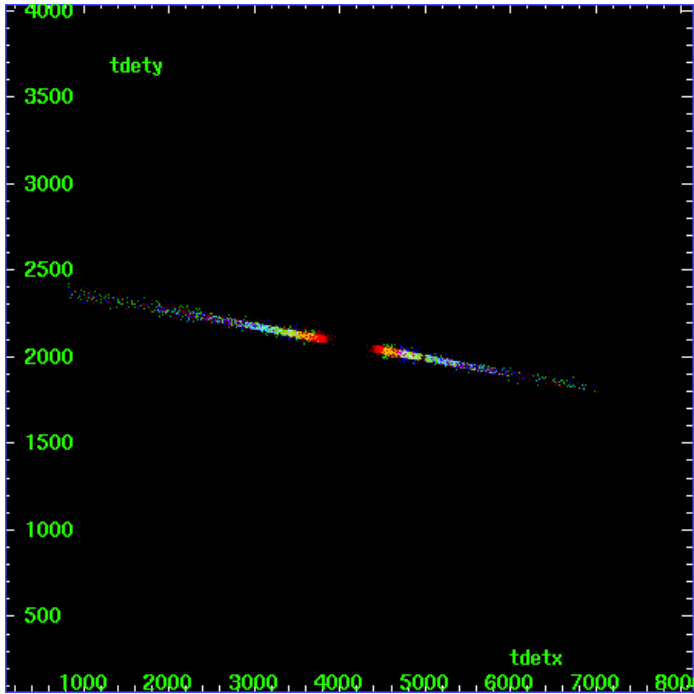
HEG Zero Order



HEG Order Sort ALL

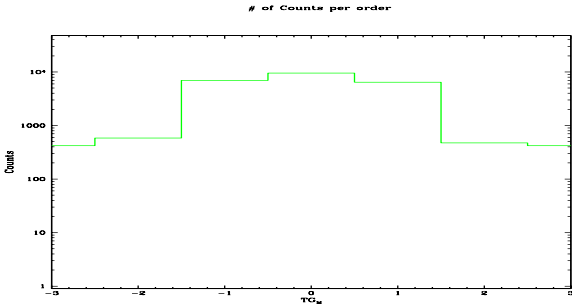


Spot Image HEG

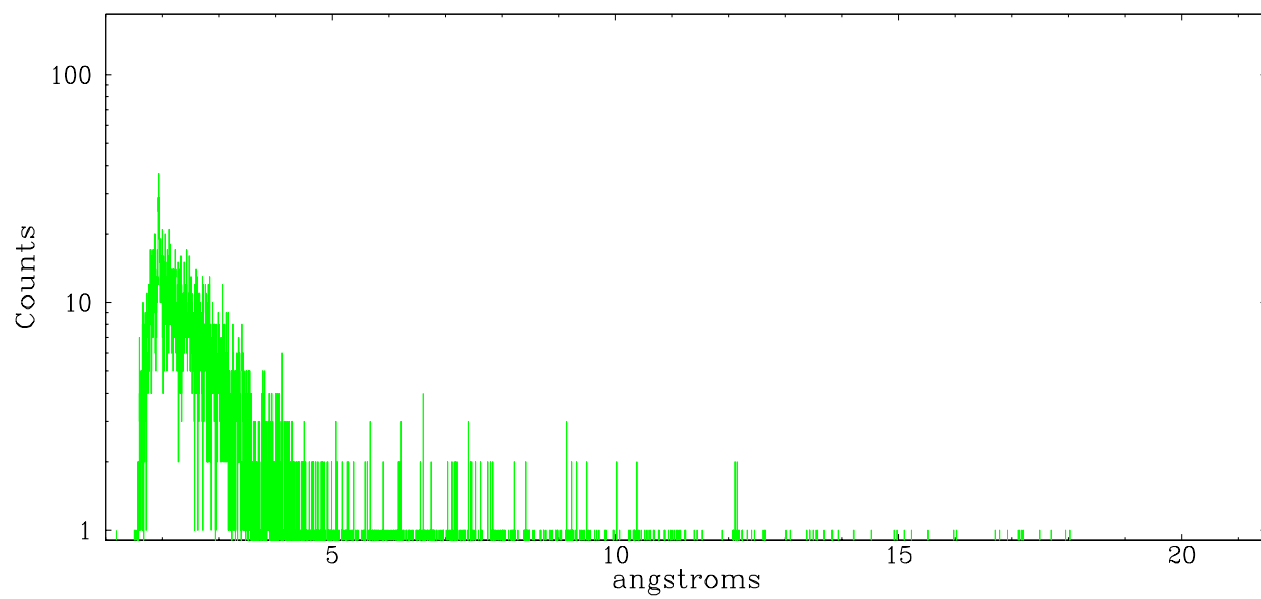


Full Detector HEG

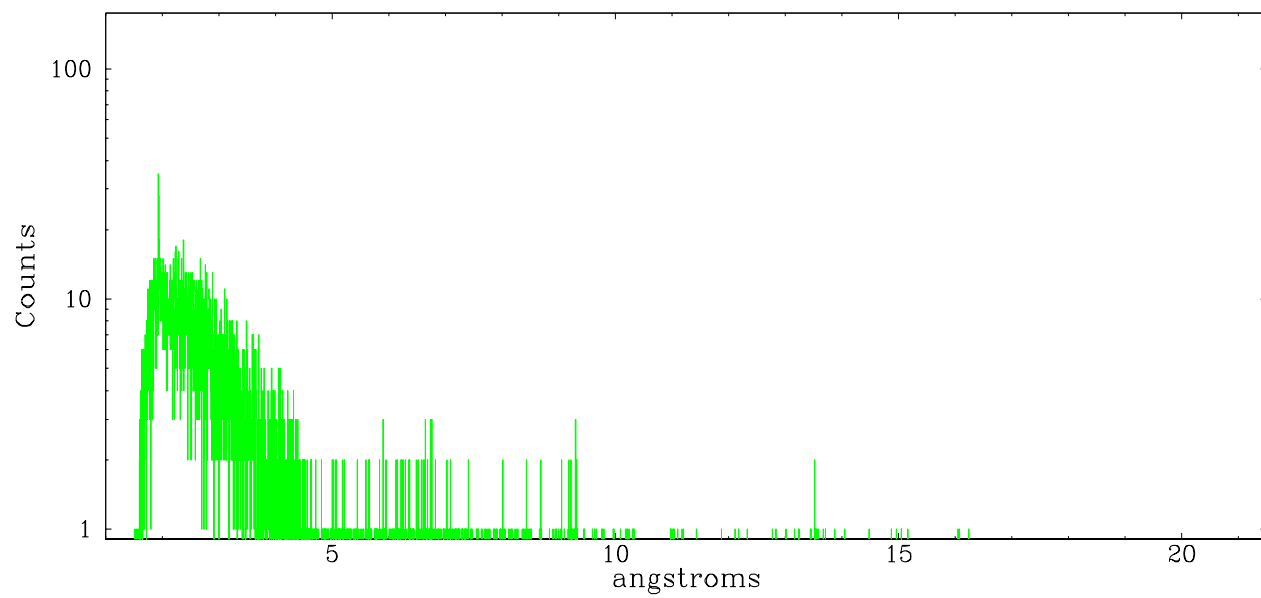
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	419	584	6985	9544	6438	476	421



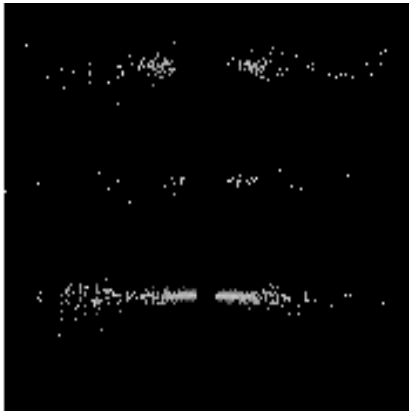
heg order -1



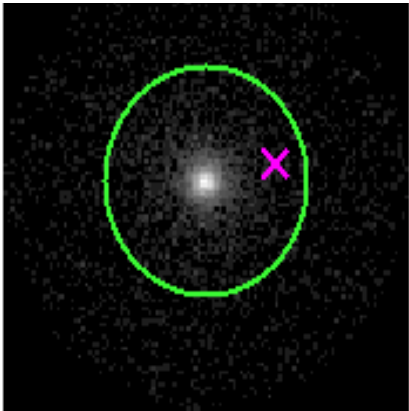
heg order +1



3.2 MEG Arm



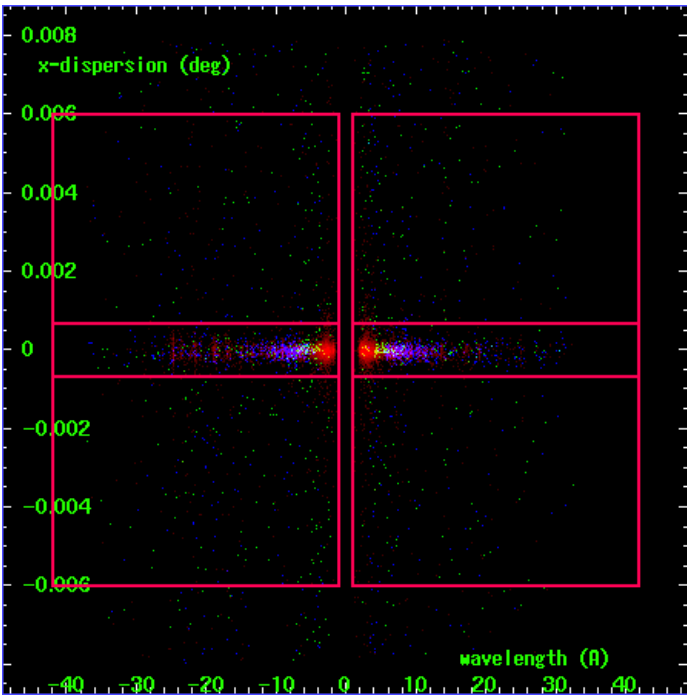
MEG Order Sort 123



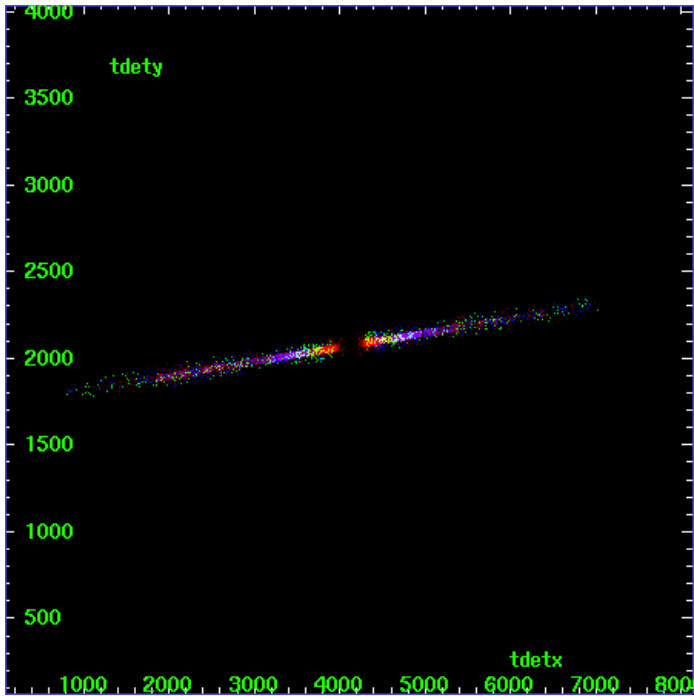
MEG Zero Order



MEG Order Sort ALL

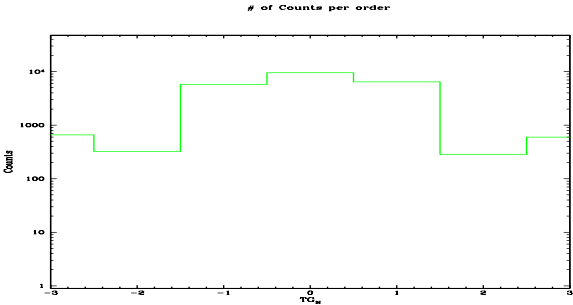


Spot Image MEG

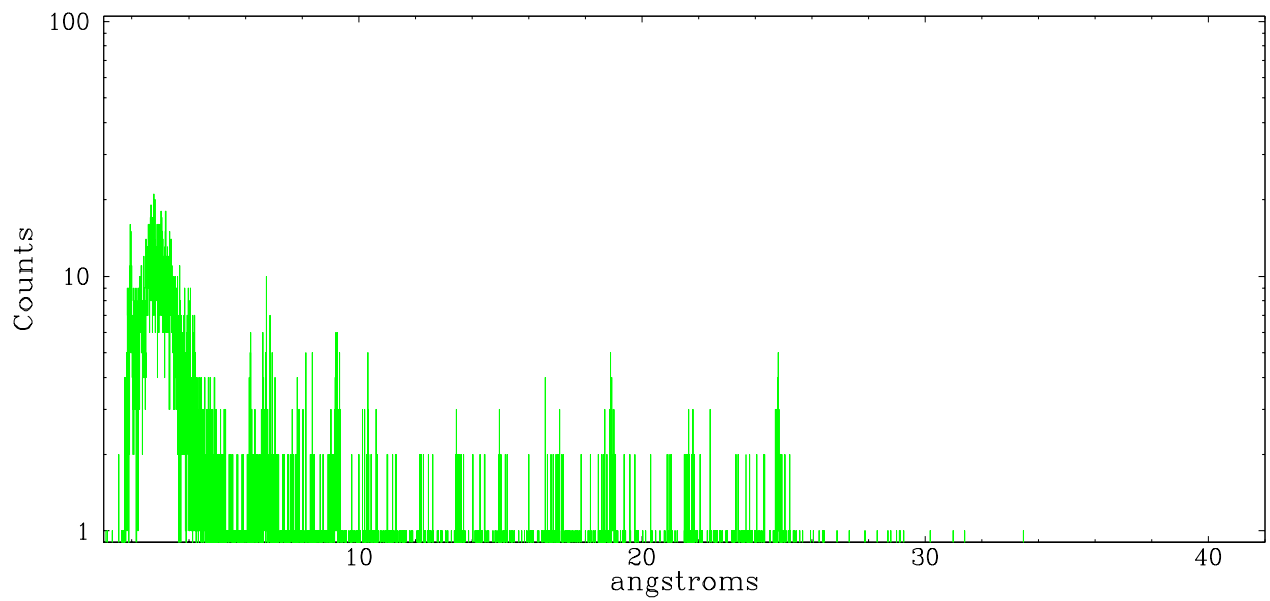


Full Detector MEG

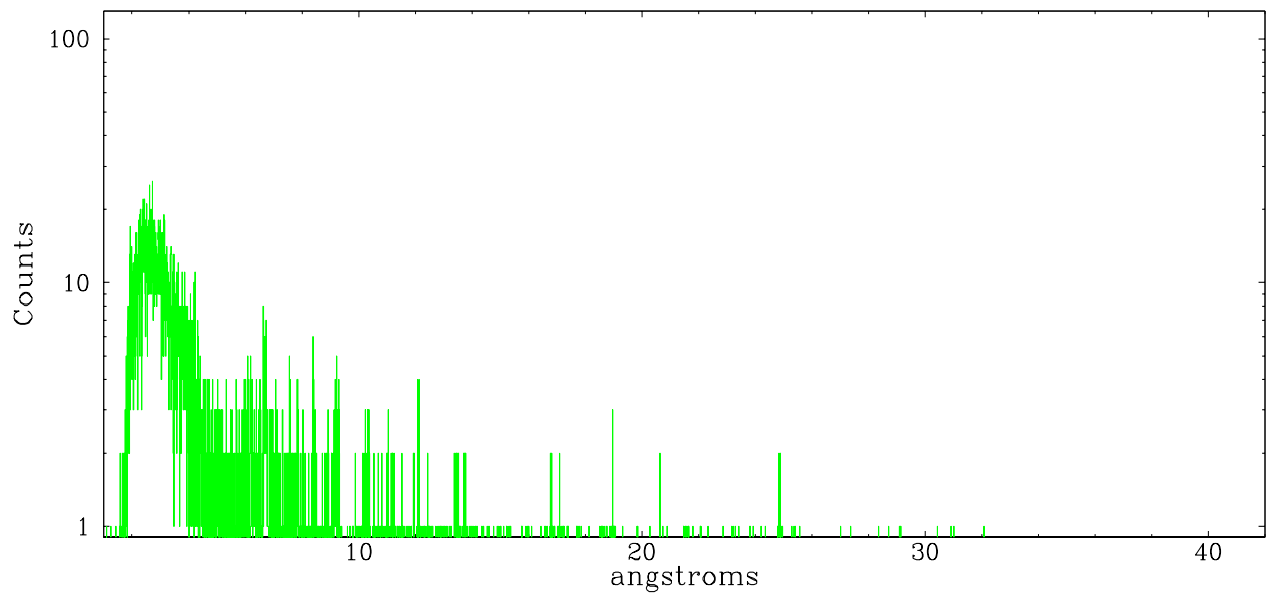
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	660	322	5755	9544	6422	283	598



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.09.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.102

### A.2 Comments