

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 2569 - L2 Version 001  
Chandra X-Ray Center

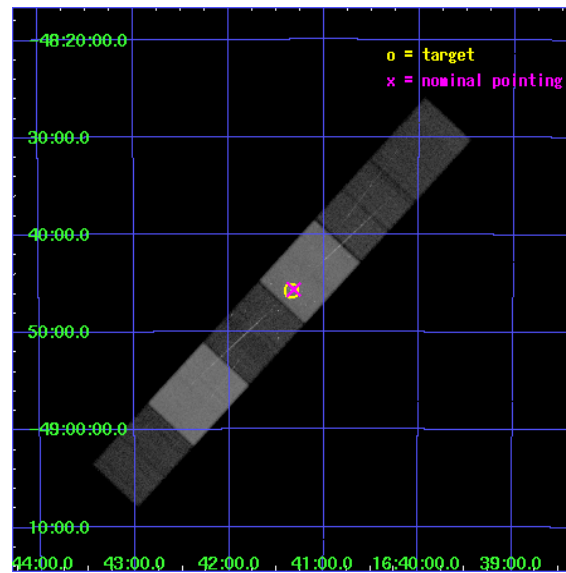
L2 Processing Date : Sep 21 2006

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# 1 Front

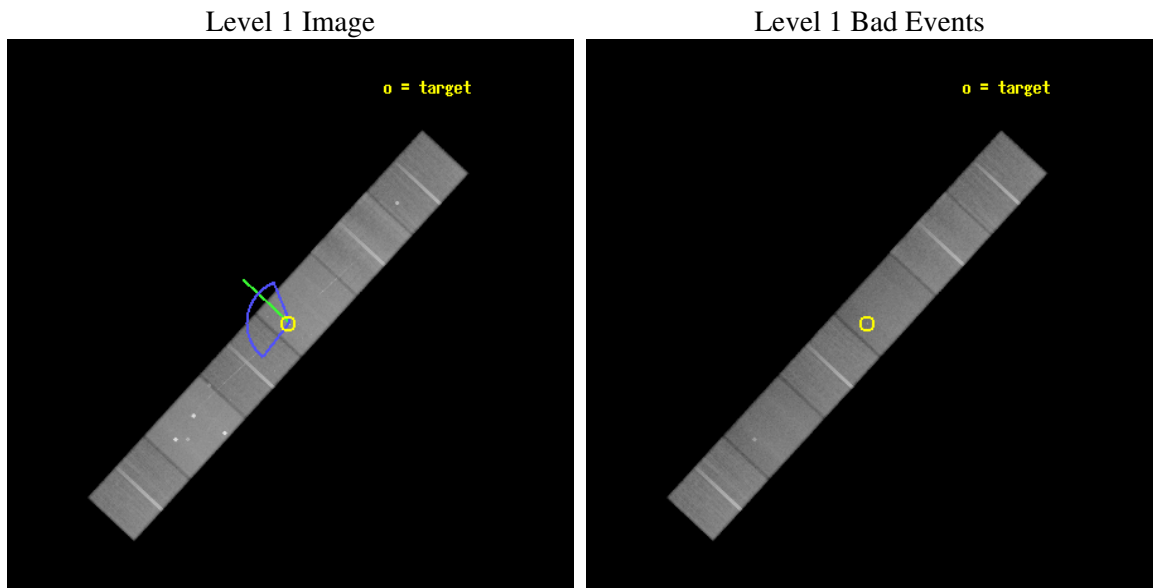
seq_num	200177
obs_id	2569
title	RESOLVING THE MASSIVE OB CORE OF THE YOUNG CLUSTER NGC 6193
observer	Dr. Stephen Skinner
object	HD 150136
dtcycle	0
cycle	P
ra_targ	250.335
dec_targ	-48.762944
ra_nom	250.32872537913
dec_nom	-48.760924120849
roll_nom	312.64272435675
revision	2
ontime	91817.5
livetime	90334.567736045
ontime4	91809.877009481
ontime5	91817.5
ontime6	91817.5
ontime7	91817.5
ontime8	91817.5
ontime9	91817.5
l2events	736093



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

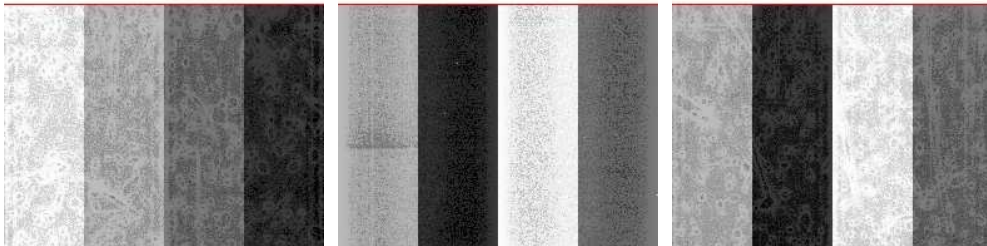


#### 2.1.2 Bias

Chip 4

Chip 5

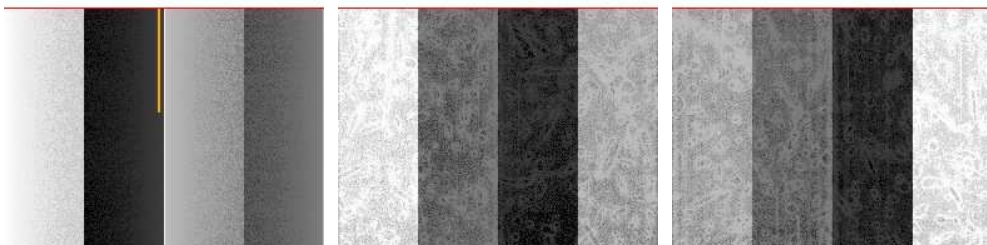
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.3
date	2006-09-21T06:09:57
revision	2

sched_exp_time	91678.615000
ontime	91822.088274062
ontime4	91814.465283543
ontime5	91822.088274062
ontime6	91822.088274062
ontime7	91822.088274062
ontime8	91822.088274062
ontime9	91822.088274062
l1events	3398206

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	516616	695646	487196	623129	599883	475736
rejected events	458408	372669	423793	370019	472375	413475
rejected %	88%	53%	86%	59%	78%	86%

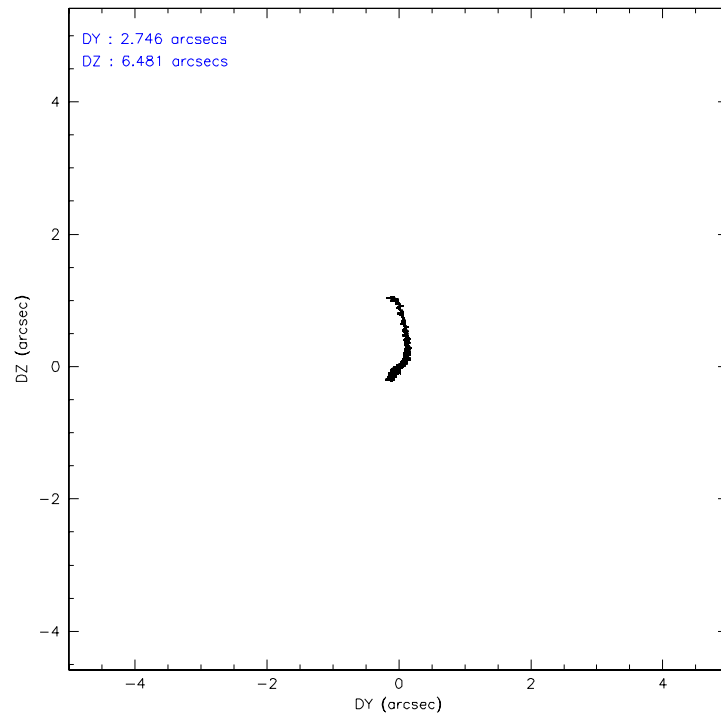
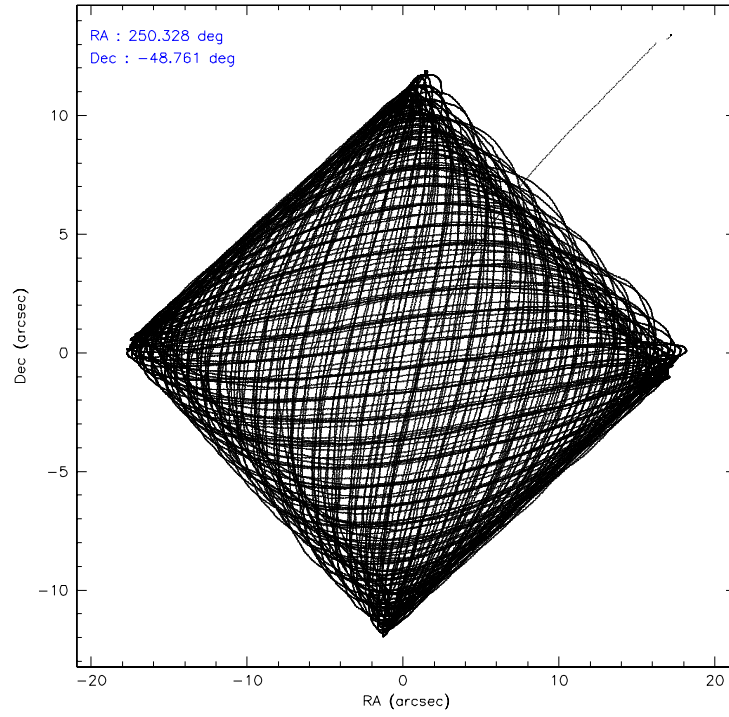
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	23278	46884	28591	17906	41869	27641
	4%	6%	5%	2%	6%	5%
grade 1 events	179	474	236	408	337	220
	0%	0%	0%	0%	0%	0%
grade 2 events	13755	93669	11875	61905	26879	11587
	2%	13%	2%	9%	4%	2%
grade 3 events	5633	8065	6110	15949	13678	6044
	1%	1%	1%	2%	2%	1%
grade 4 events	5501	7747	5967	15689	12786	5838
	1%	1%	1%	2%	2%	1%
grade 5 events	17181	34031	20088	43018	25664	20548
	3%	4%	4%	6%	4%	4%
grade 6 events	10047	166623	10867	141674	32298	11154
	1%	23%	2%	22%	5%	2%
grade 7 events	441042	338153	403462	326580	446372	392704
	85%	48%	82%	52%	74%	82%

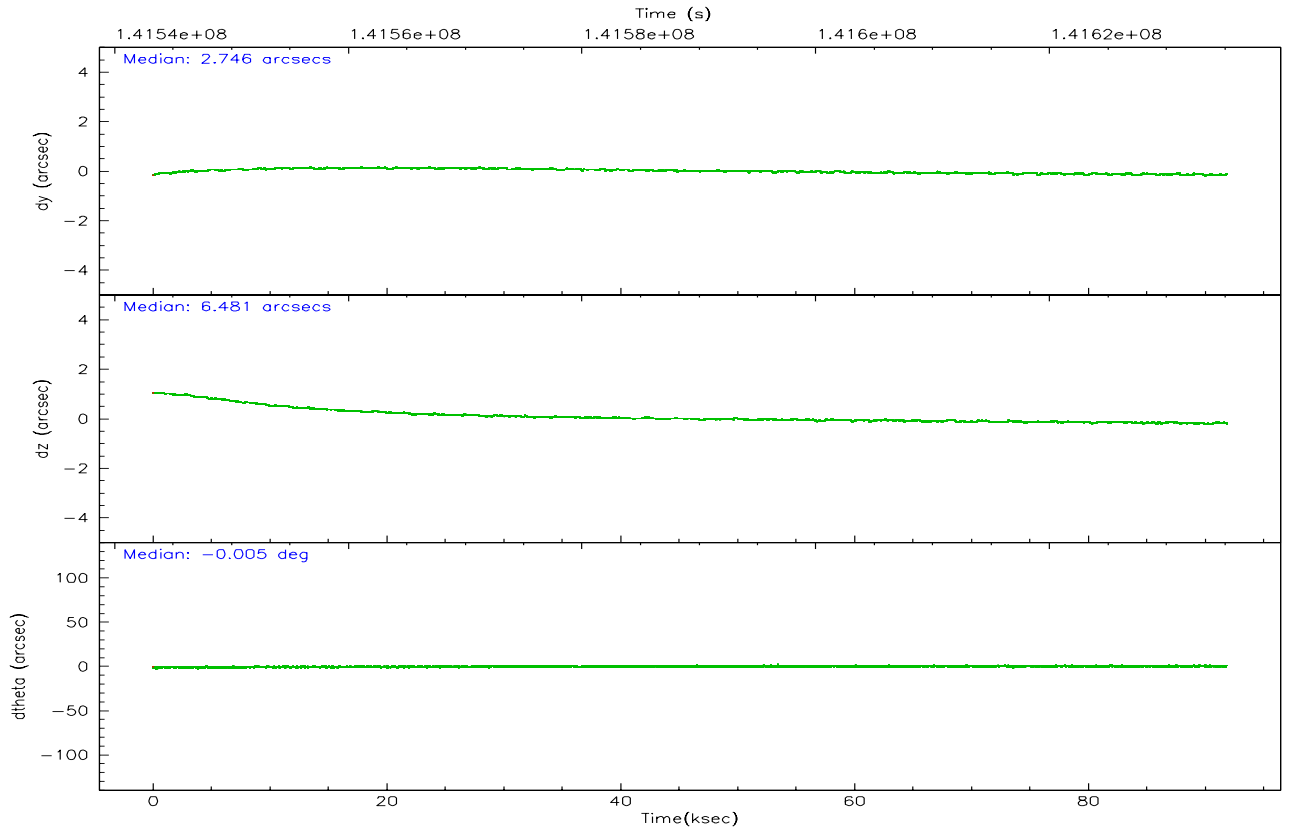
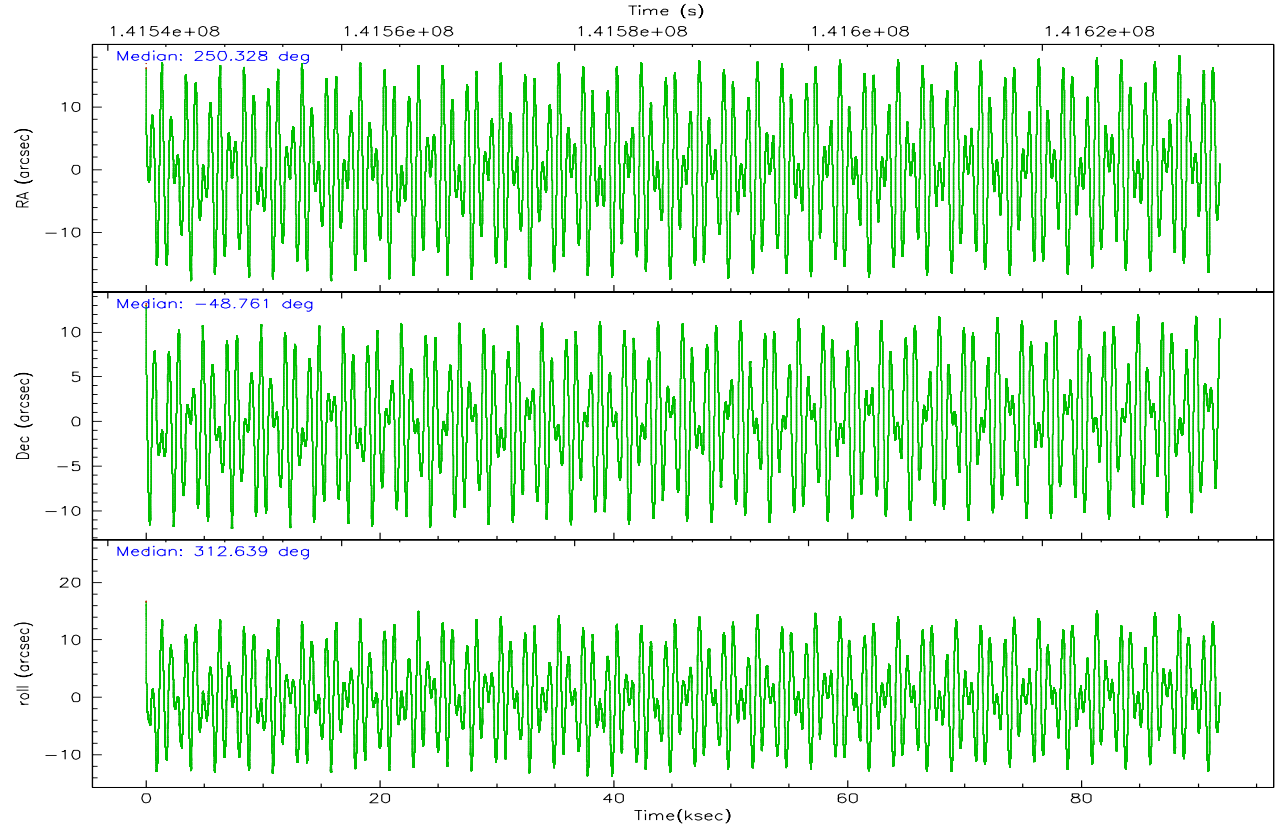


## 2.2 Compared Parameters

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	250.289132	250.3287253791322	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-48.753107	-48.76092412084864	Subarray start row	1	1
Pointing Roll	312.456323	312.6427243567548	Subarray row count	774	774
Roll angle	277.000000	277.000000	Alternating exposures requested	N	N
Roll tolerance	60.000000	60.000000	Primary exposure time	0.000000	2.5
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)	-187.132523	-187.1254020033014			
SIM translation stage offset (mm)	-3	-3.007120579706367			
Observation start time	141543499.184000	141542418.10809			
Observation start date	2002-06-27T05:37:15	2002-06-27T05:20:18			
Observation end time	141635177.184000	141635491.6994			
Observation end date	2002-06-28T07:05:13	2002-06-28T07:11:31			
Read mode	TIMED	TIMED			

## 2.3 Aspect



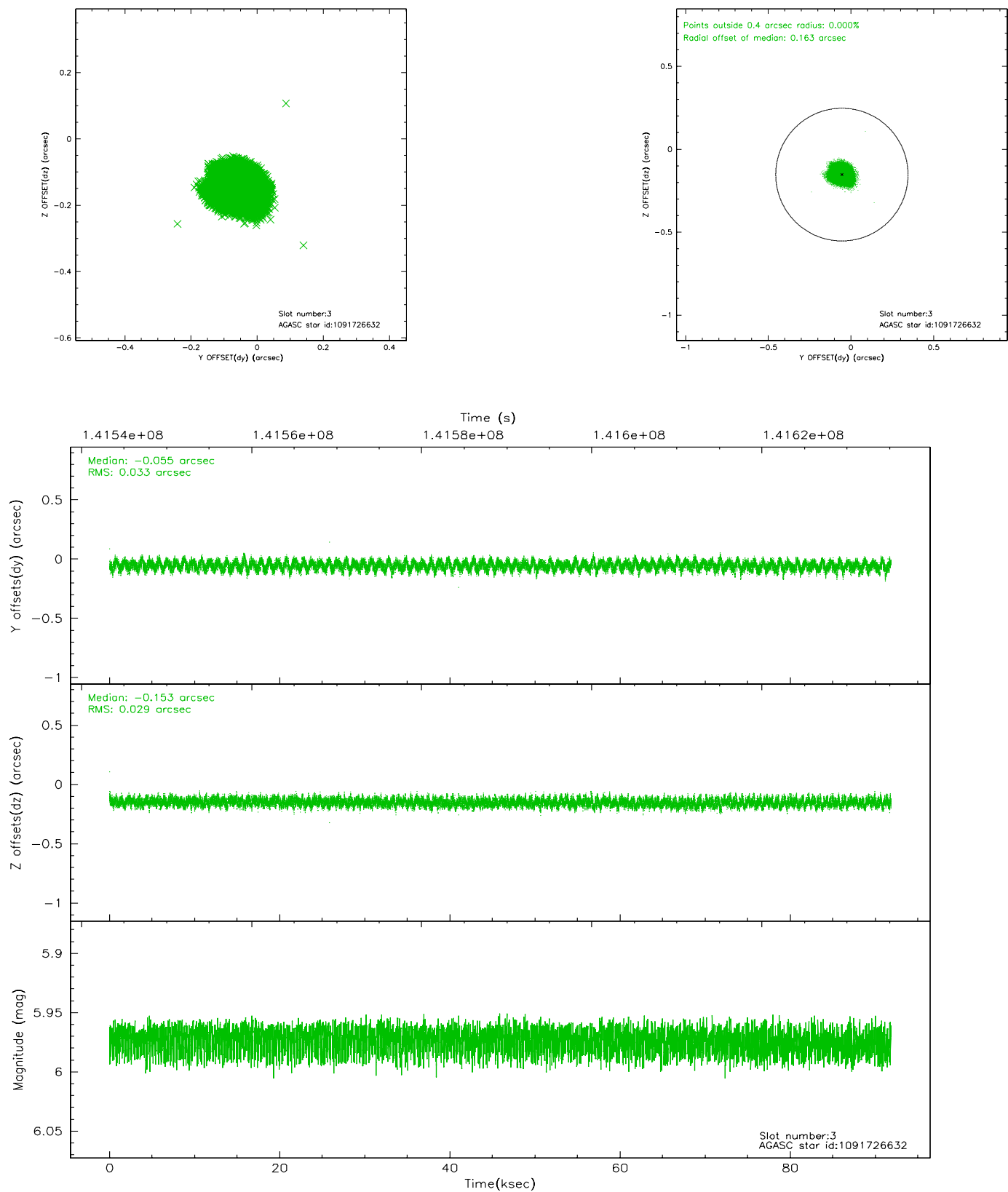


### Slot Statistics

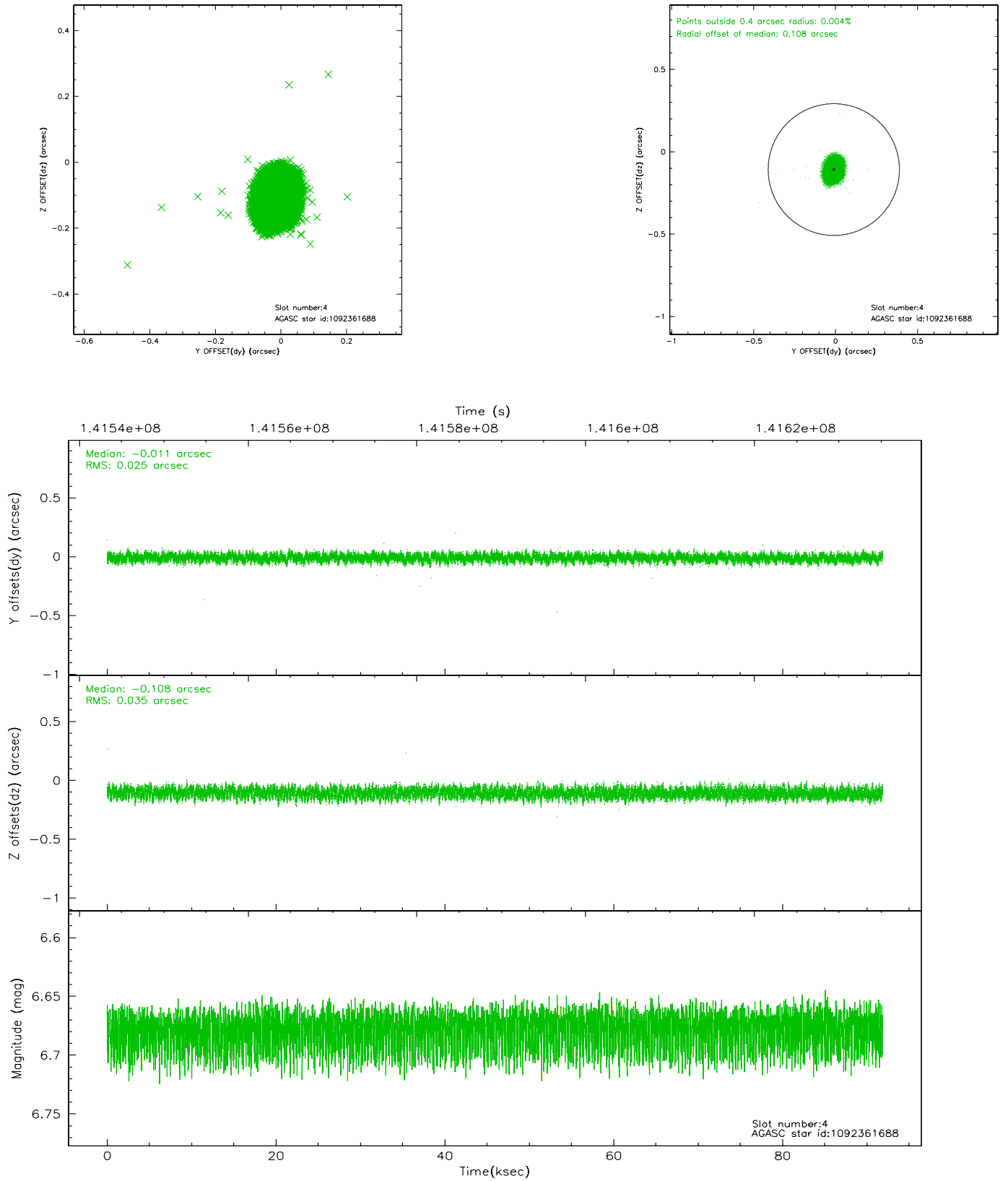
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	22408	-0.016	0.011	0.007	0.013	0.000000	0.000000	-755.17	-1789.83
1	FID	ACIS-S-4	7.20	22406	-0.020	0.027	0.007	0.011	0.000000	0.000000	2158.12	118.78
2	FID	ACIS-S-6	7.39	22403	0.009	-0.031	0.007	0.012	0.000000	0.000000	406.70	756.00
3	GUIDE	1091726632	5.97	44816	-0.055	-0.153	0.047	0.074	250.066238	-48.307770	-1541.76	687.67
4	GUIDE	1092361688	6.68	44819	-0.011	-0.108	0.046	0.073	250.792088	-48.877008	1136.62	574.78
5	GUIDE	1092355392	8.97	44799	0.046	0.039	0.076	0.121	251.394093	-48.801083	1910.93	1803.78
6	GUIDE	1092235368	8.54	44808	-0.013	0.131	0.083	0.127	249.586527	-49.226092	147.93	-2373.51
7	GUIDE	1091723904	9.45	44790	0.033	0.097	0.089	0.146	249.246684	-48.664103	-1896.02	-1623.94

## 2.4 Star Slots

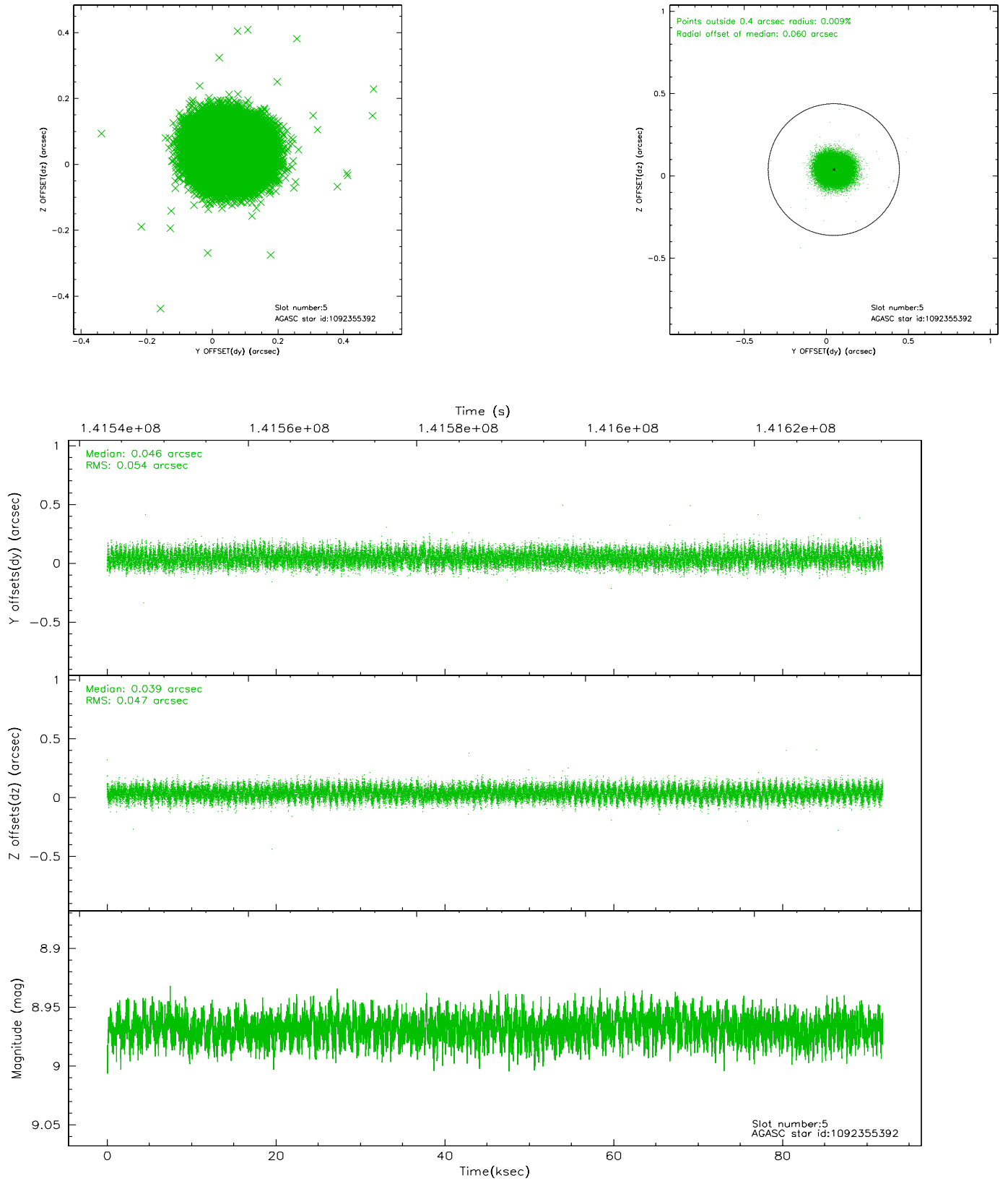
### 2.4.1 Slot 3



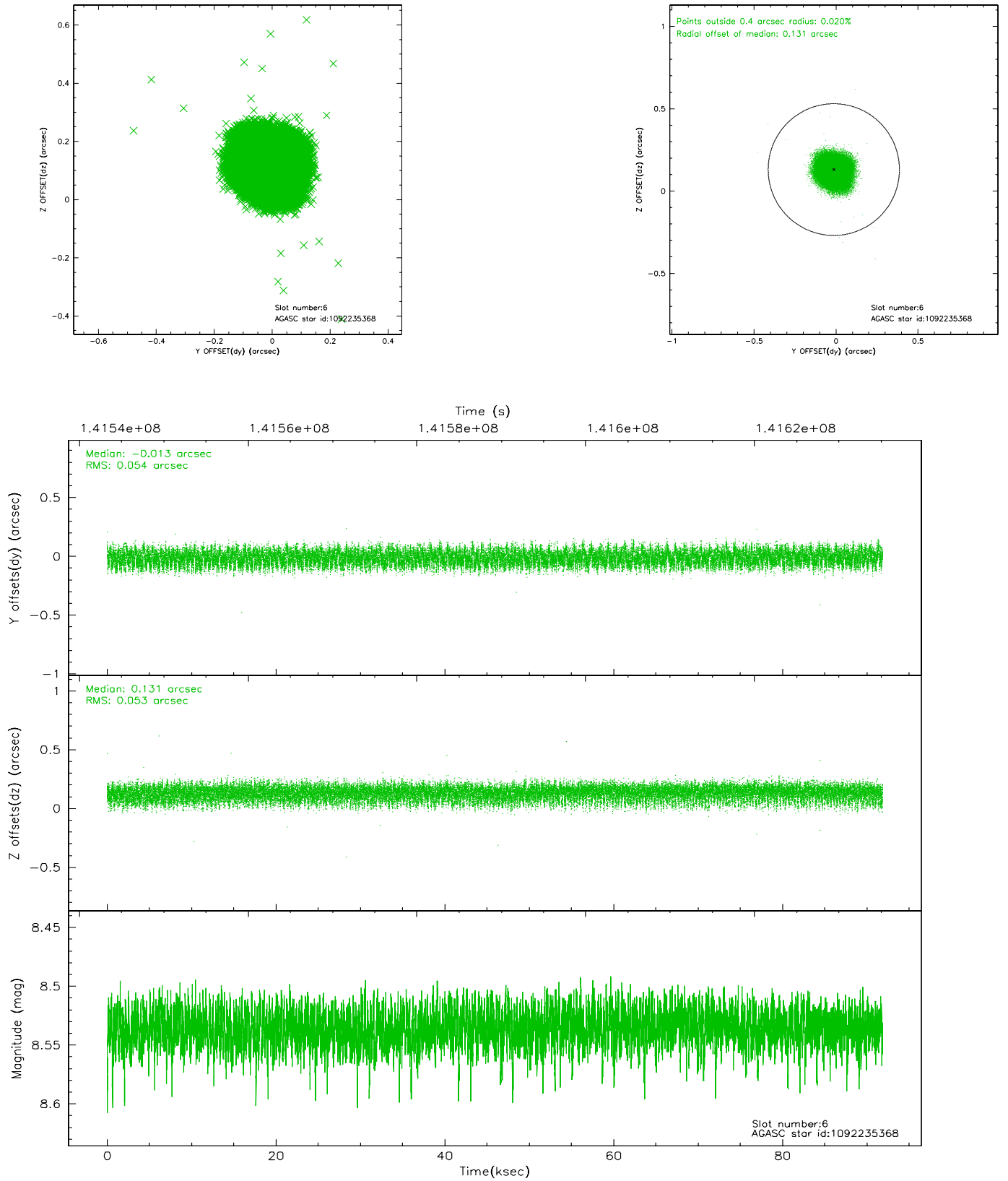
## 2.4.2 Slot 4



### 2.4.3 Slot 5

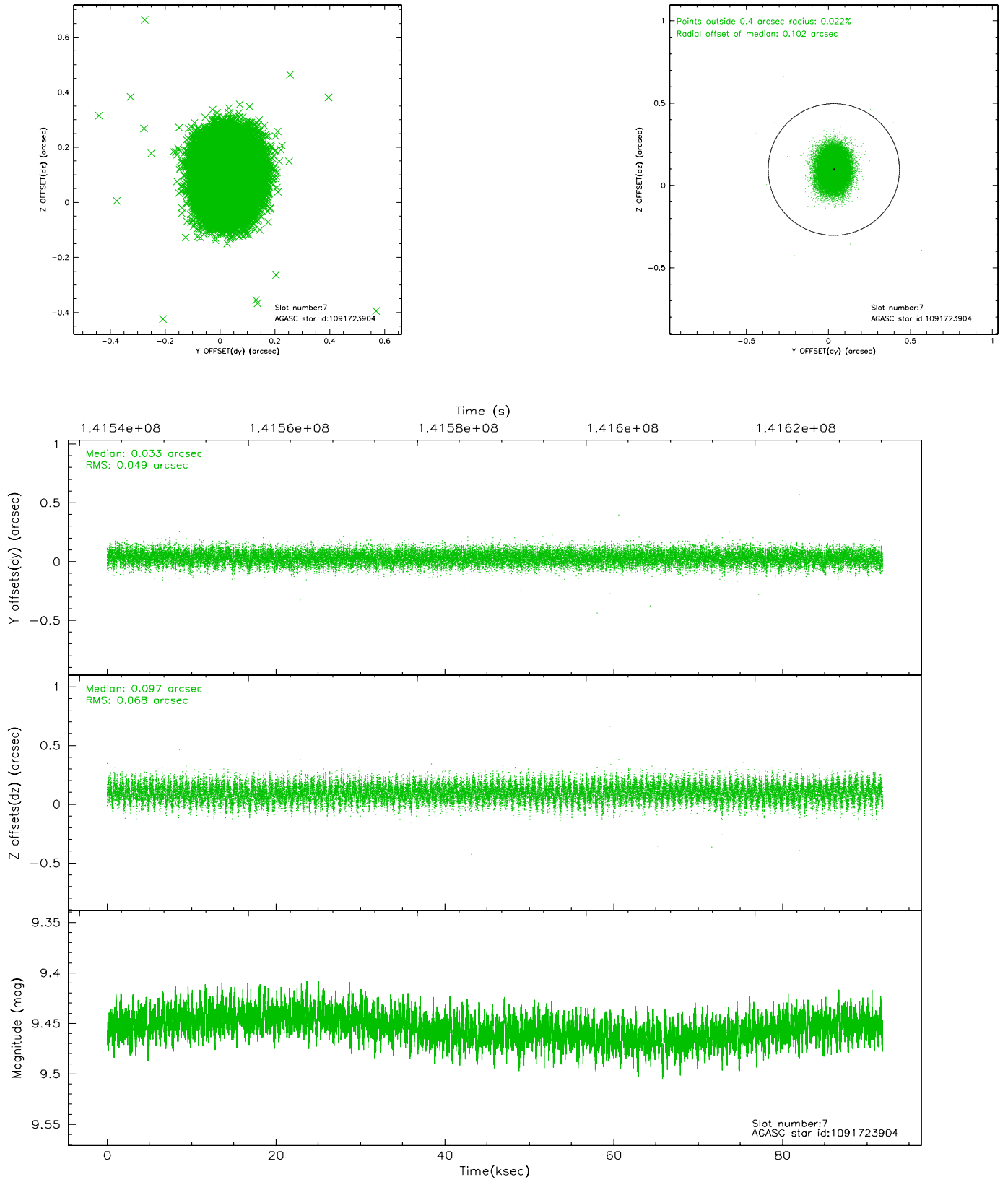


## 2.4.4 Slot 6



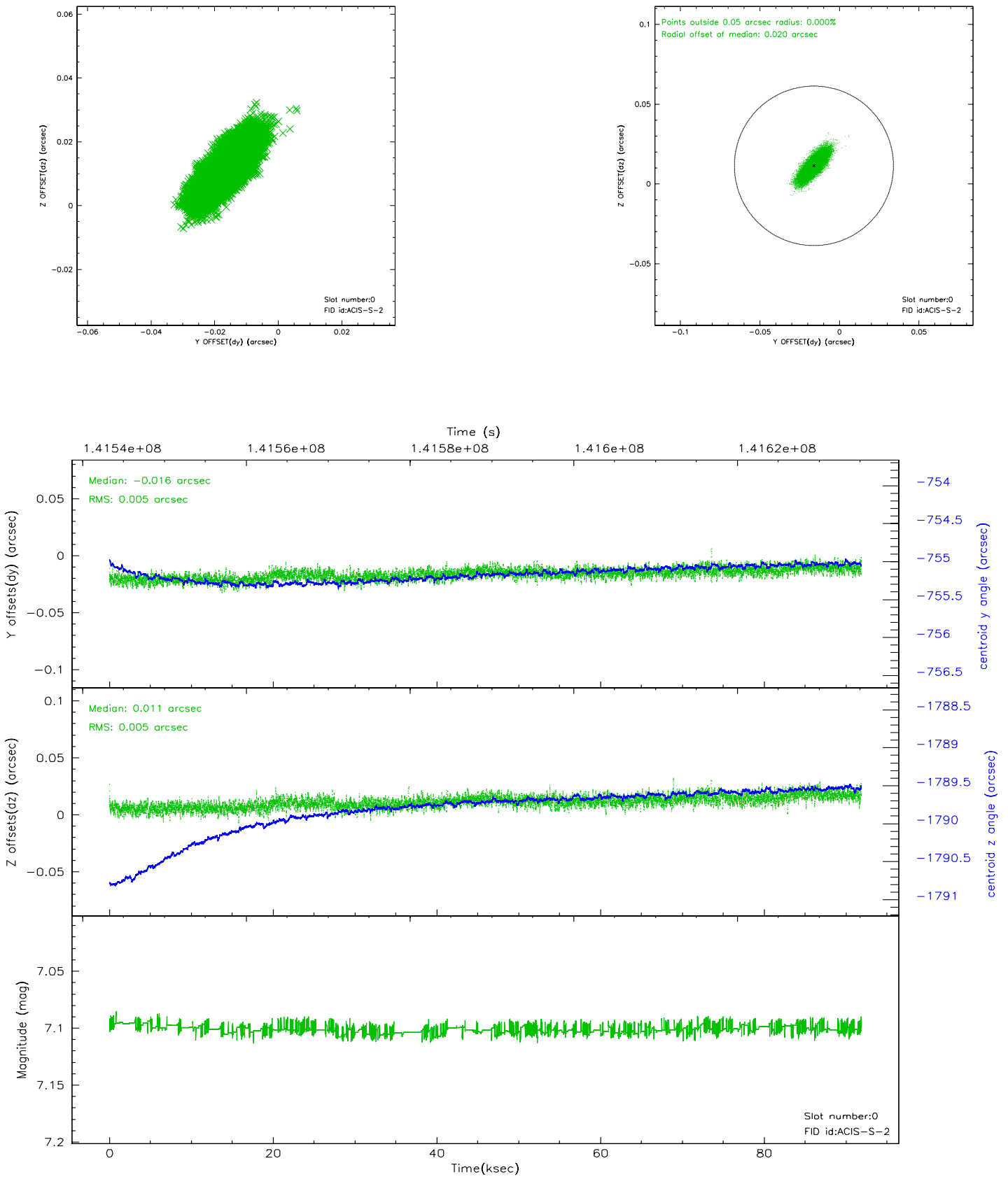


## 2.4.5 Slot 7

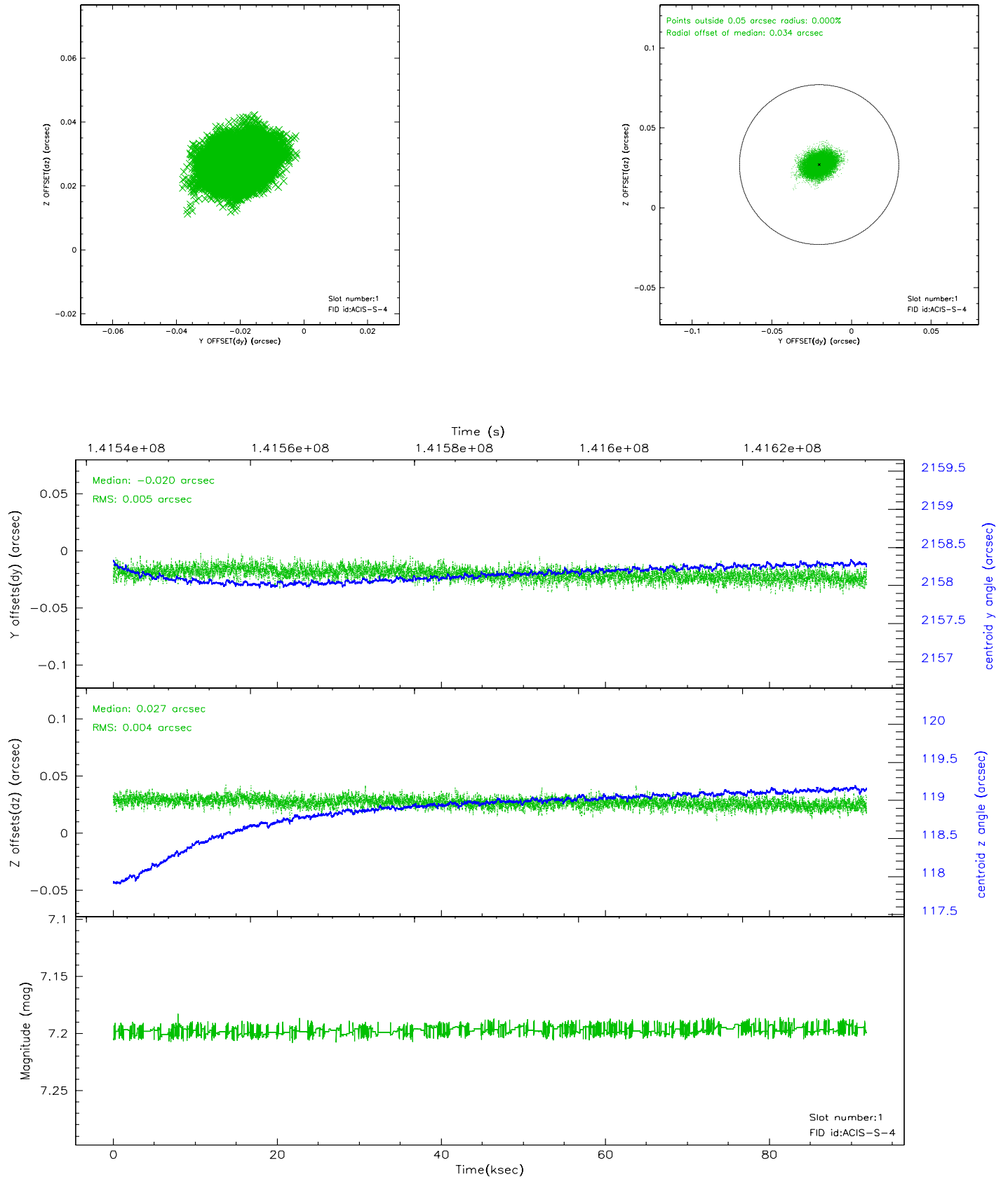


## 2.5 FID Slots

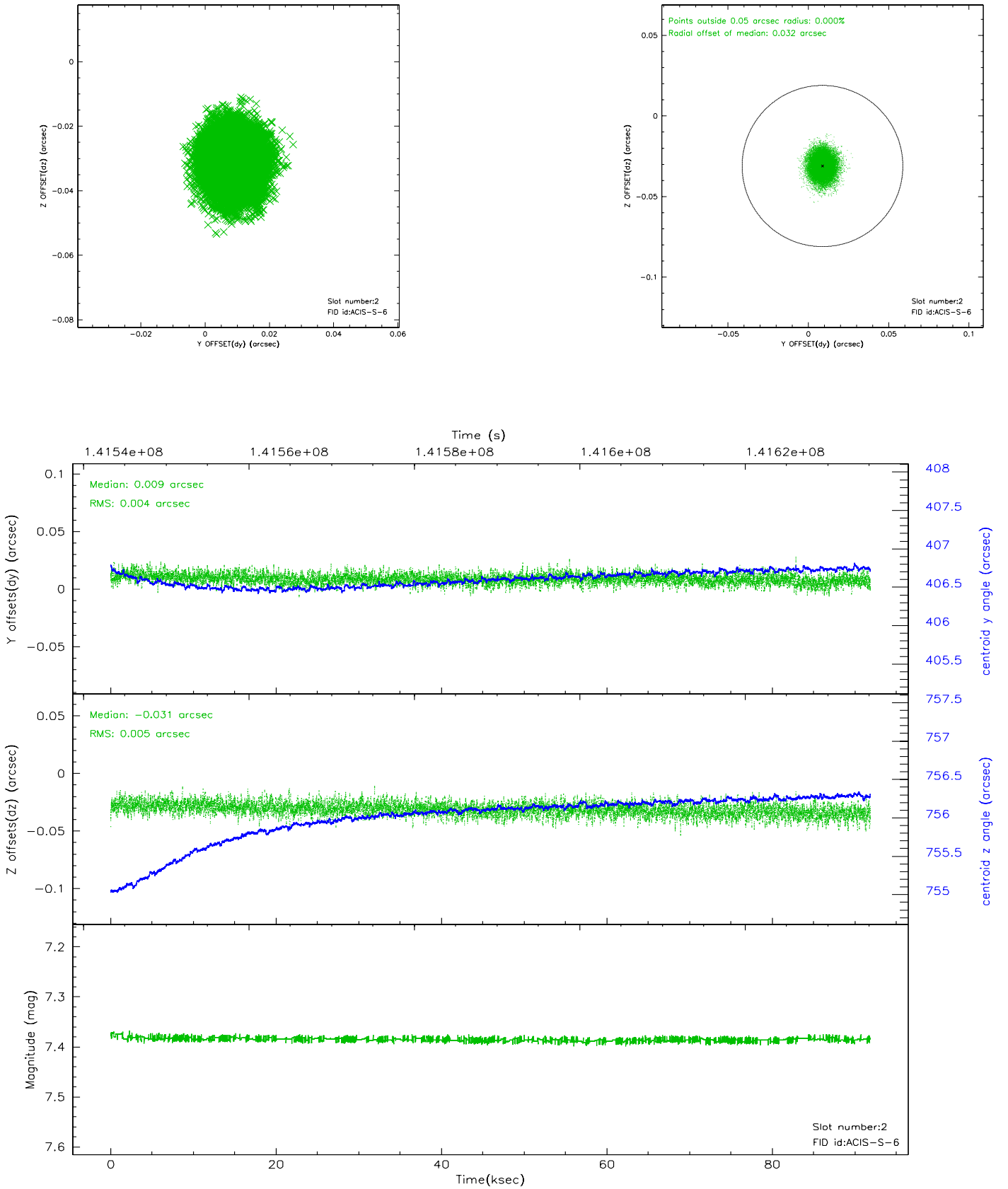
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

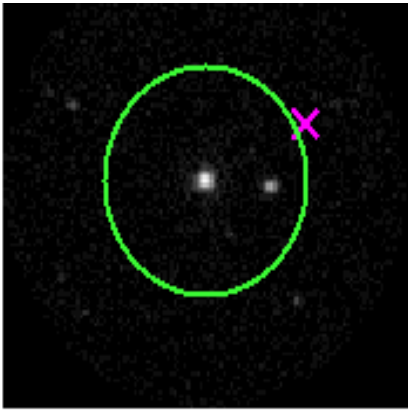


# 3 Gratings

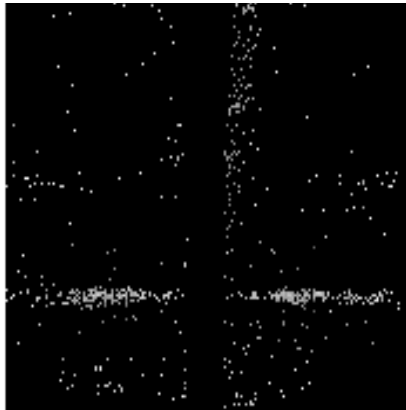
## 3.1 HEG Arm



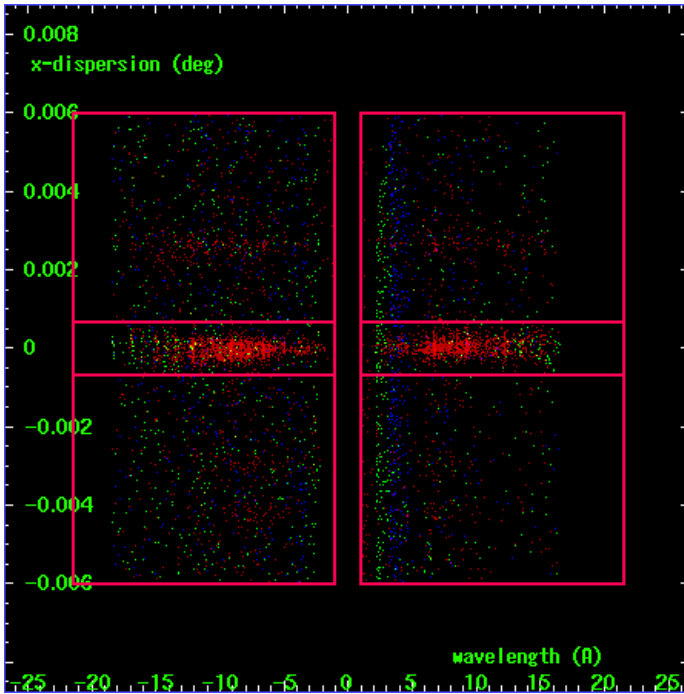
HEG Order Sort 123



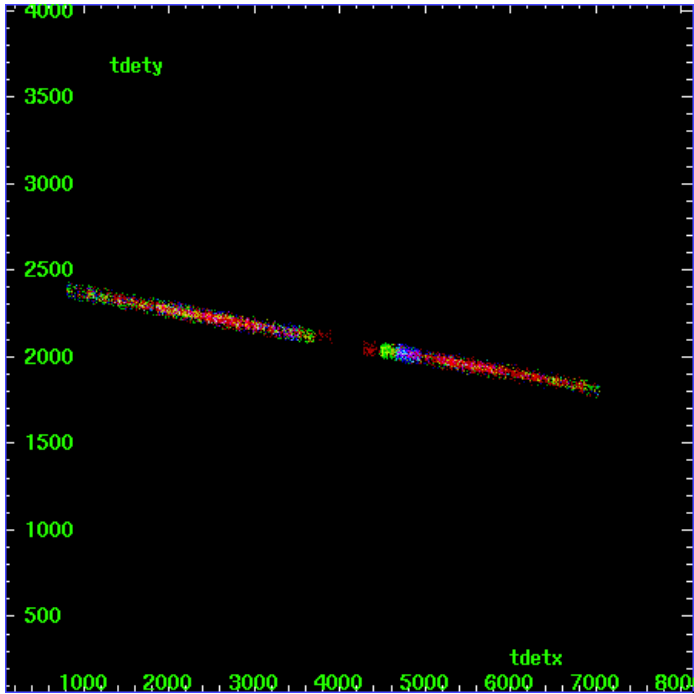
HEG Zero Order



HEG Order Sort ALL

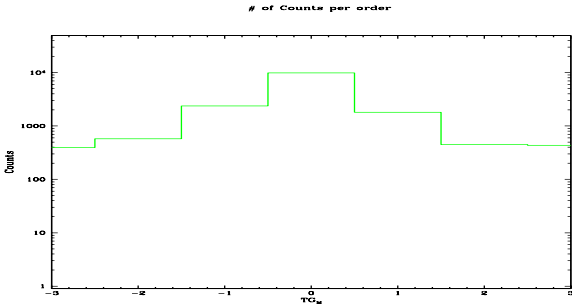


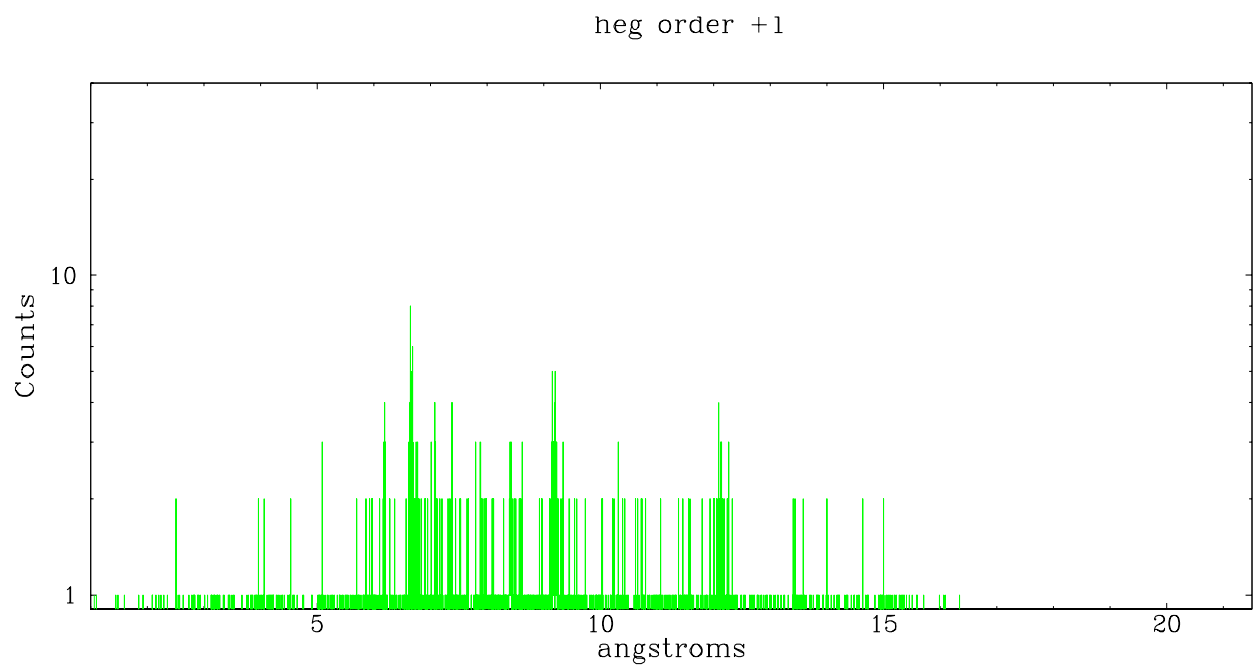
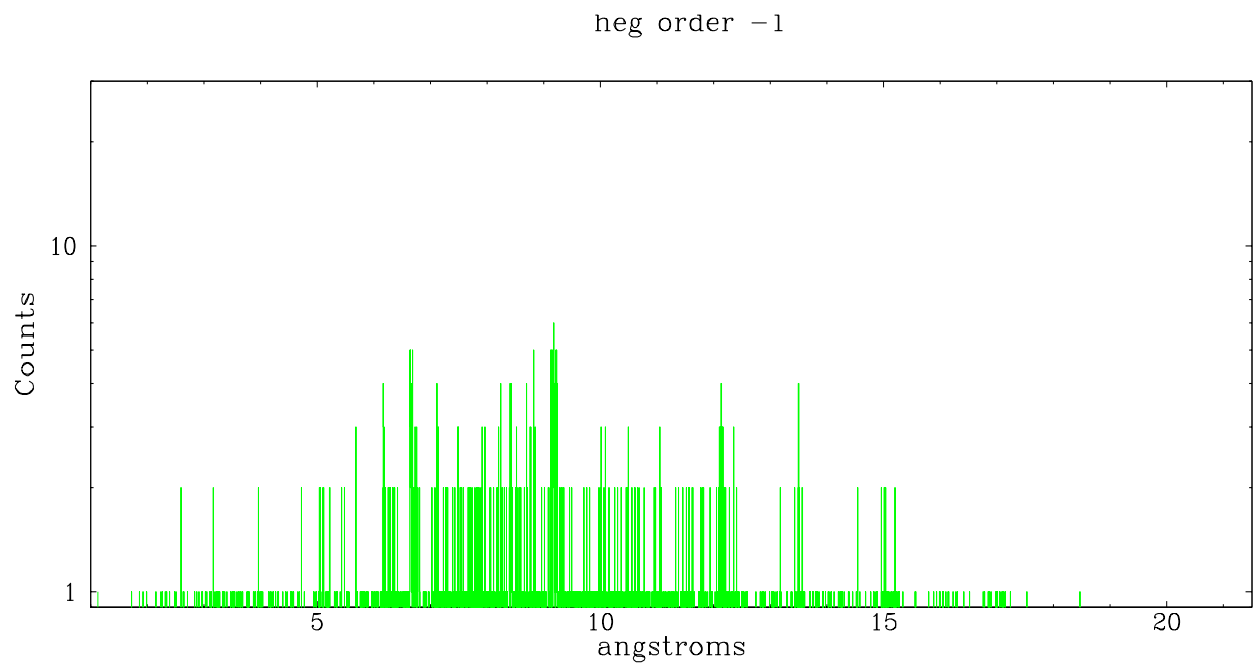
Spot Image HEG



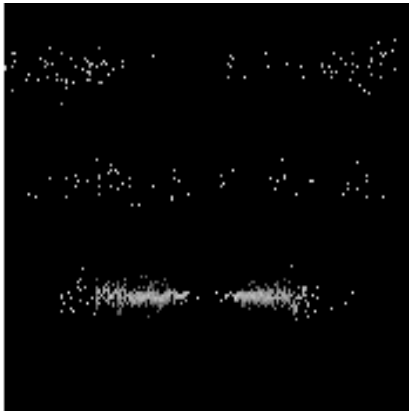
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	395	576	2377	9835	1807	450	434

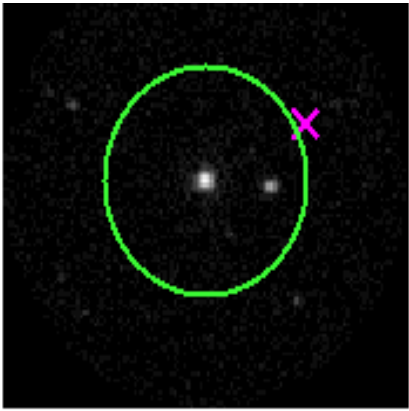




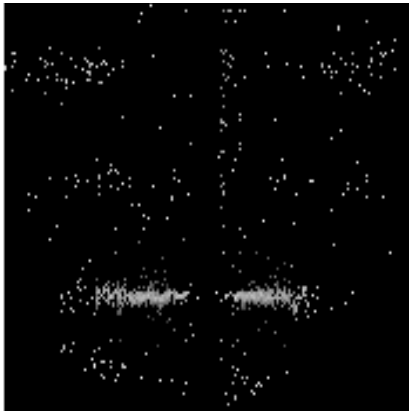
3.2 MEG Arm



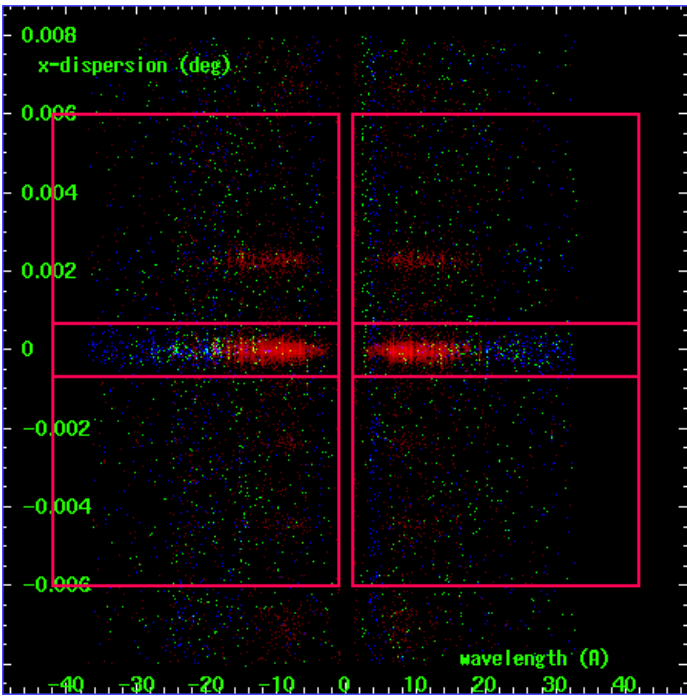
MEG Order Sort 123



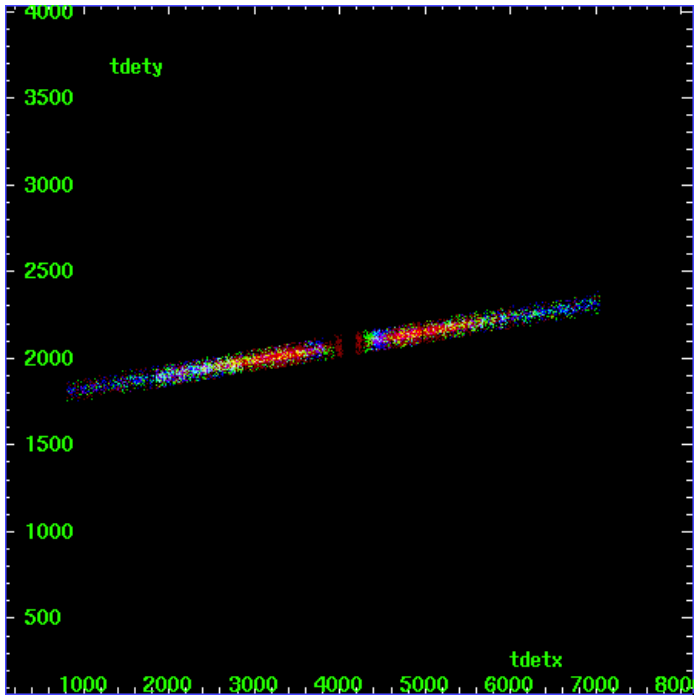
MEG Zero Order



MEG Order Sort ALL

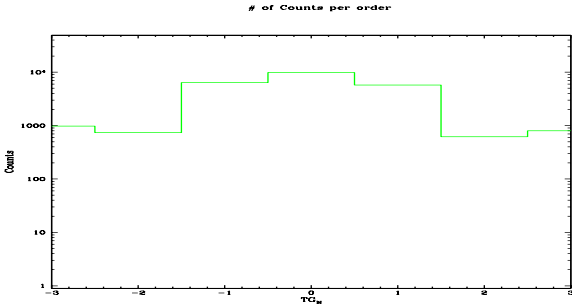


Spot Image MEG

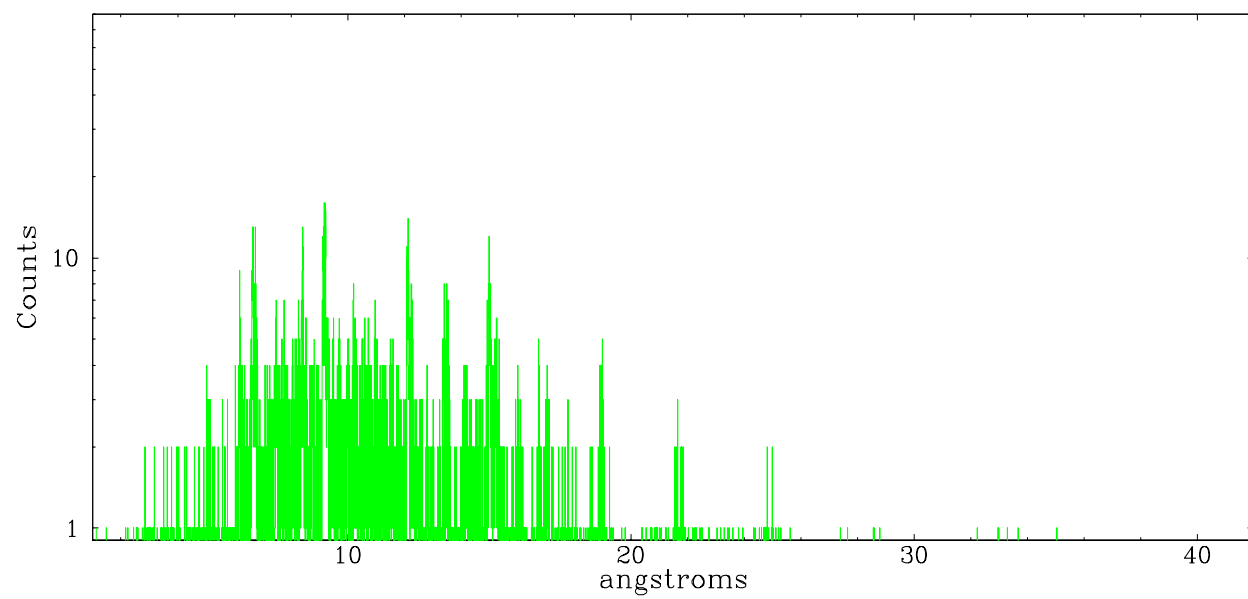


Full Detector MEG

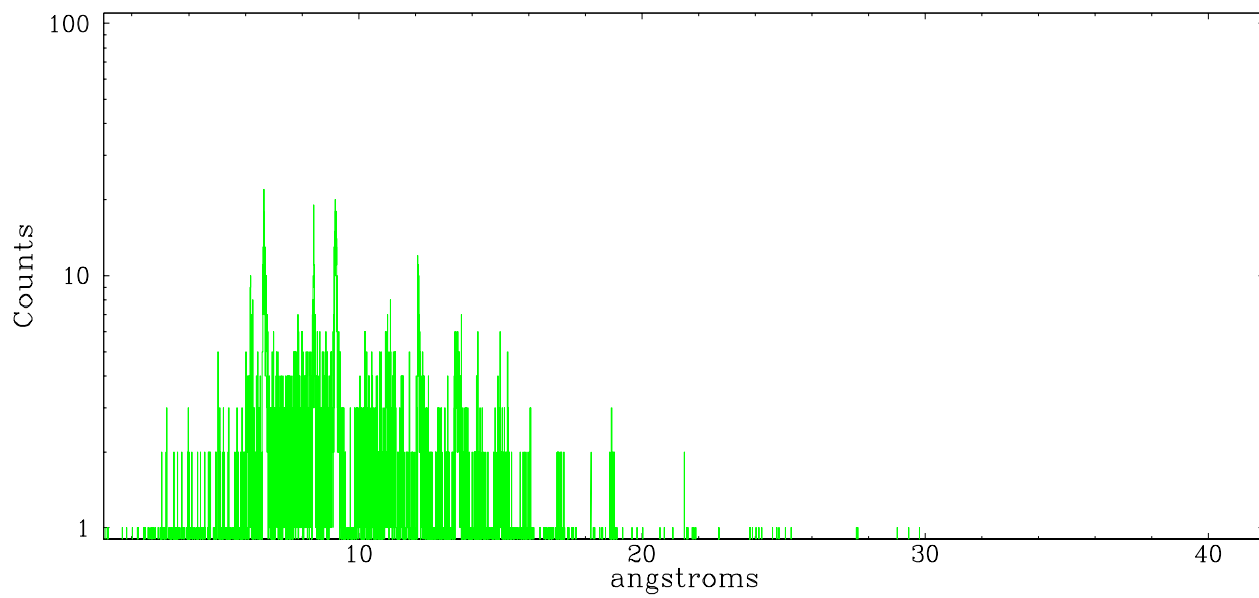
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	983	742	6395	9835	5758	618	804



meg order -1



meg order +1





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.09.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	91.82

### A.2 Comments

Roll constraint met.