

# V&V Reference Report

## L2 ASCDS Version : 7.6.8.1

Observation 4376 - L2 Version 001  
Chandra X-Ray Center

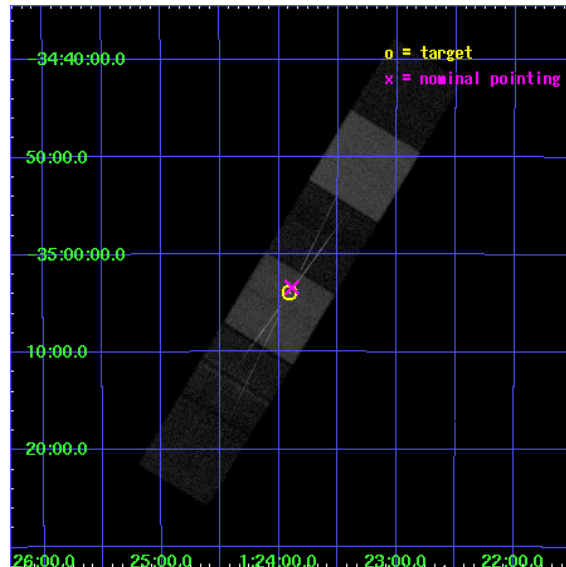
L2 Processing Date : Aug 8 2006

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# 1 Front

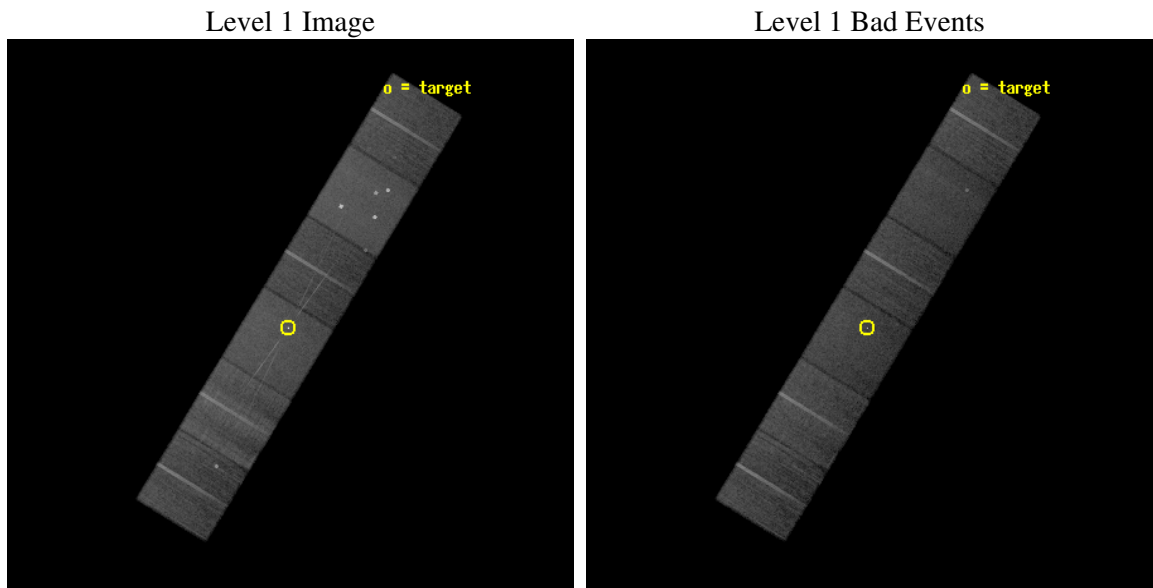
seq_num	700840
obs_id	4376
title	SIMULTANEOUS XMM-NEWTON AND CXO/HETGS OBSERVATIONS OF SEYFERT 1 GALAXIES
observer	Dr. Ian George
object	NGC 526A
dtcycle	0
cycle	P
ra_targ	20.976667
dec_targ	-35.065472
ra_nom	20.97238049726
dec_nom	-35.056462270761
roll_nom	121.33716205385
revision	2
ontime	29049.599891782
livetime	28681.756366383
ontime4	29049.599891782
ontime5	29049.599891782
ontime6	29049.599891782
ontime7	29049.599891782
ontime8	29049.599891782
ontime9	29049.599891782
l2events	269384



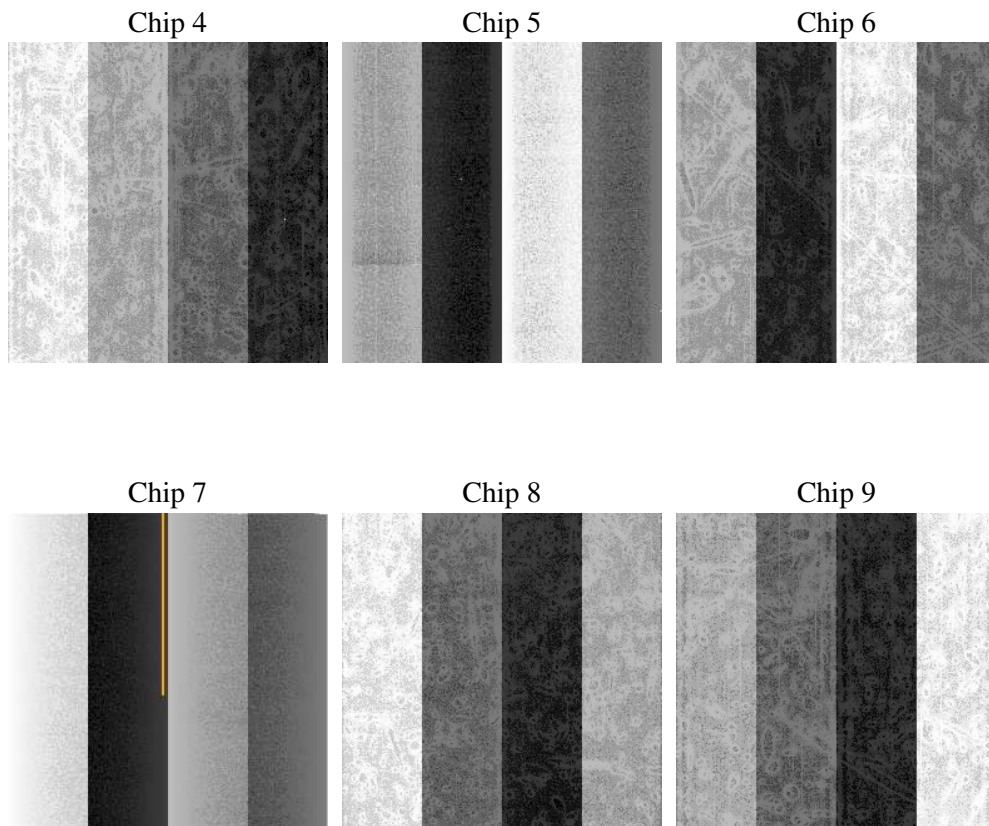
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8.1
caldsver	3.2.2
date	2006-08-08T22:40:39
revision	2

sched_exp_time	29317.000000
ontime	29055.571434915
ontime4	29055.571434915
ontime5	29055.571454853
ontime6	29055.571434915
ontime7	29055.571434915
ontime8	29055.571434915
ontime9	29058.812445015
l1events	1262548

### 2.1.4 Events

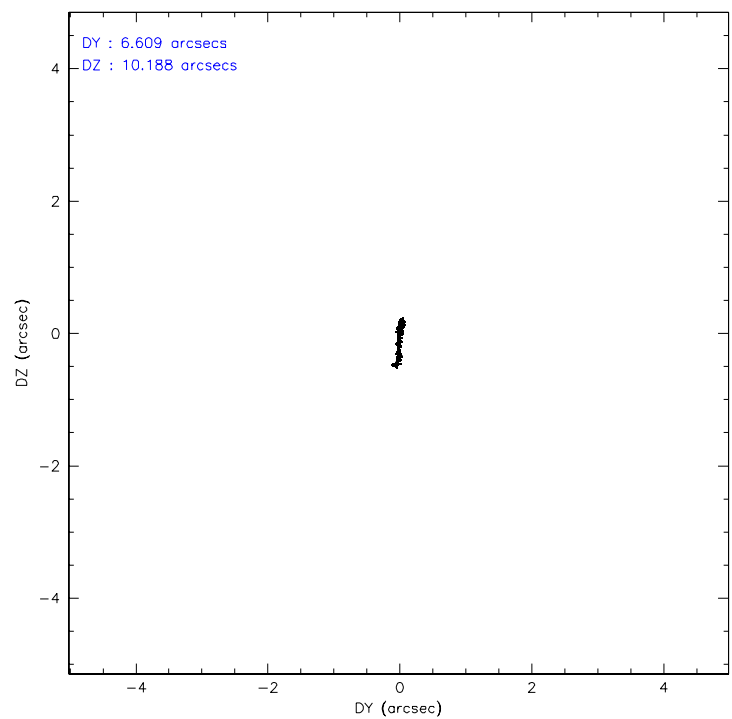
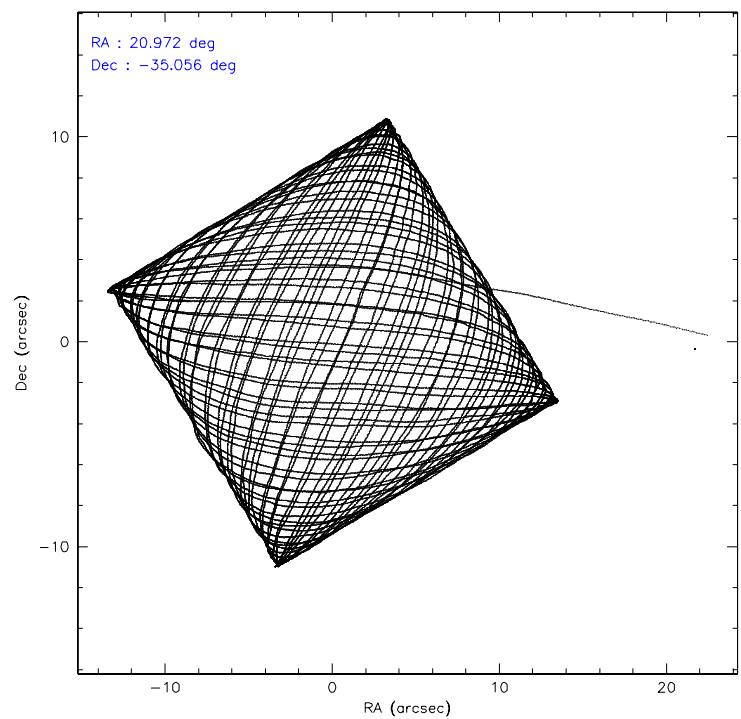
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	186504	261998	171989	233125	236163	172769
rejected events	164239	137878	148176	140277	174163	150045
rejected %	88%	52%	86%	60%	73%	86%

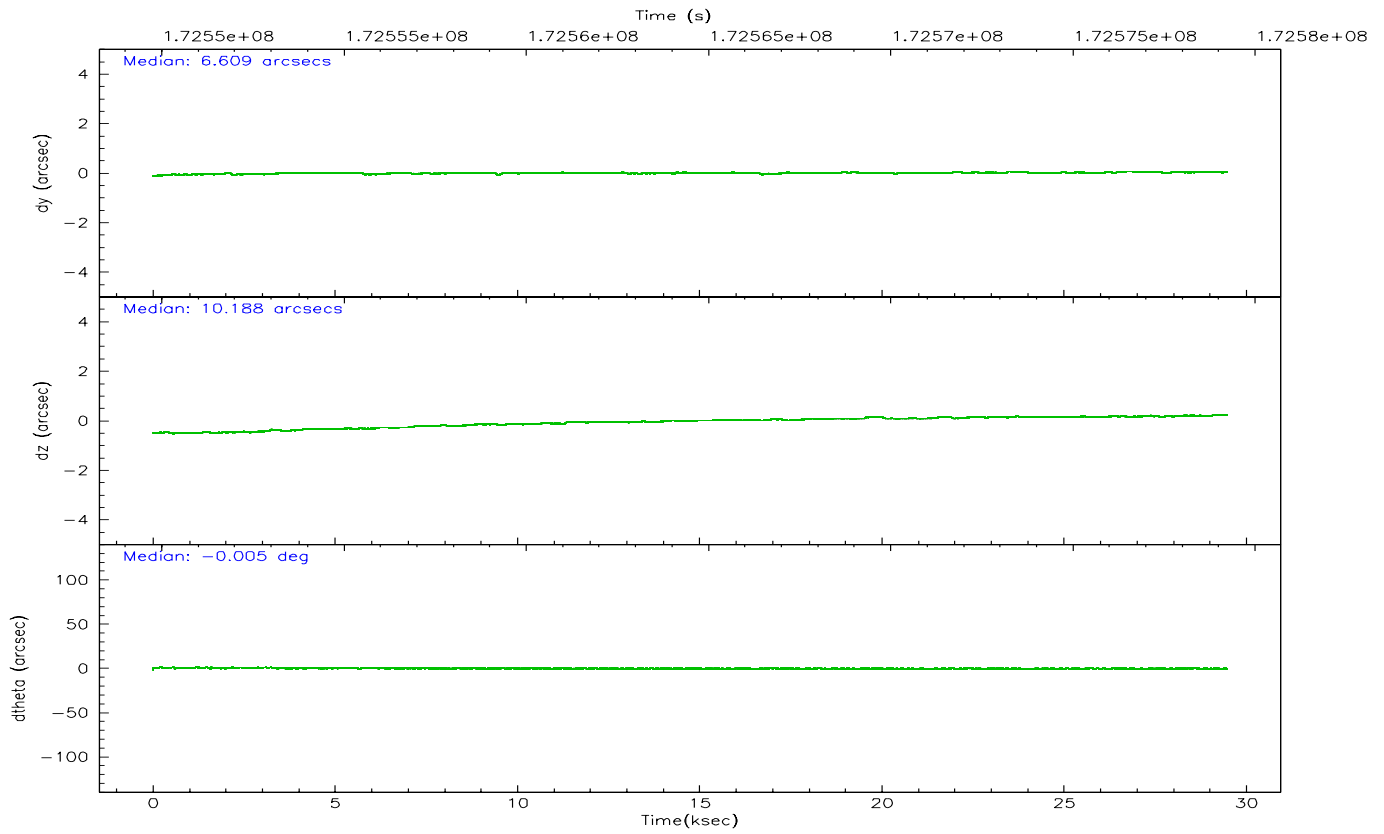
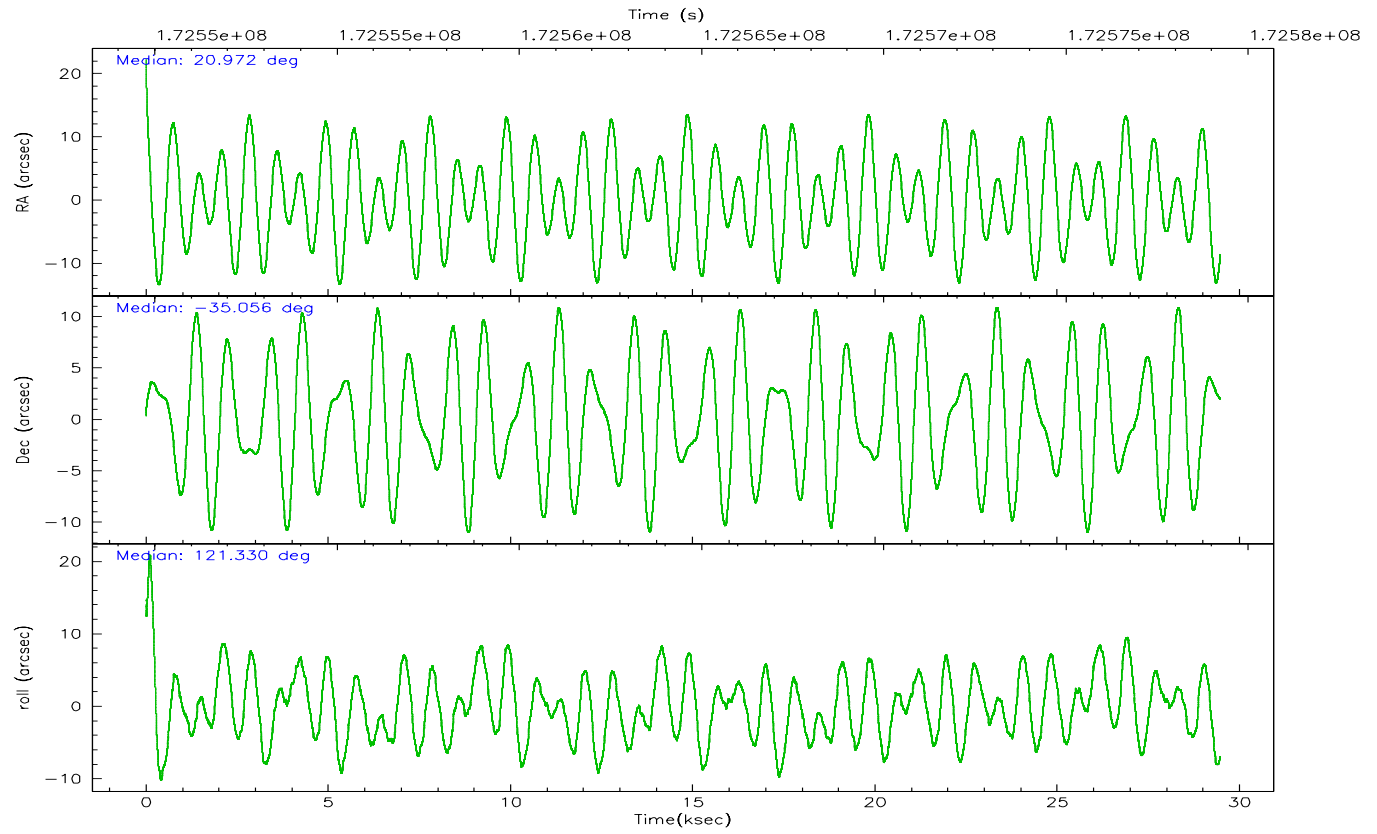
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	10033	23530	10576	6096	19525	10198
	5%	8%	6%	2%	8%	5%
grade 1 events	165	709	109	197	155	106
	0%	0%	0%	0%	0%	0%
grade 2 events	4575	34768	4796	23358	11859	4198
	2%	13%	2%	10%	5%	2%
grade 3 events	2210	2472	2051	5016	7945	2047
	1%	0%	1%	2%	3%	1%
grade 4 events	2016	2497	2082	4965	7278	2059
	1%	0%	1%	2%	3%	1%
grade 5 events	7191	11974	7622	14933	10251	7930
	3%	4%	4%	6%	4%	4%
grade 6 events	3434	60888	4311	53444	15398	4232
	1%	23%	2%	22%	6%	2%
grade 7 events	156880	125160	140442	125116	163752	141999
	84%	47%	81%	53%	69%	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	NONE	NONE
Pointing RA	21.001797	20.97238049726046	Alternating exposures requested	N	N
Pointing Dec	-35.069194	-35.05646227076106	Primary exposure time	0.000000	3.2
Pointing Roll	121.197437	121.337162053853			
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	172549912.184000	172548949.74049			
Observation start date	2003-06-21T02:30:48	2003-06-21T02:15:49			
Observation end time	172579229.184000	172580188.66681			
Observation end date	2003-06-21T10:39:25	2003-06-21T10:56:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect





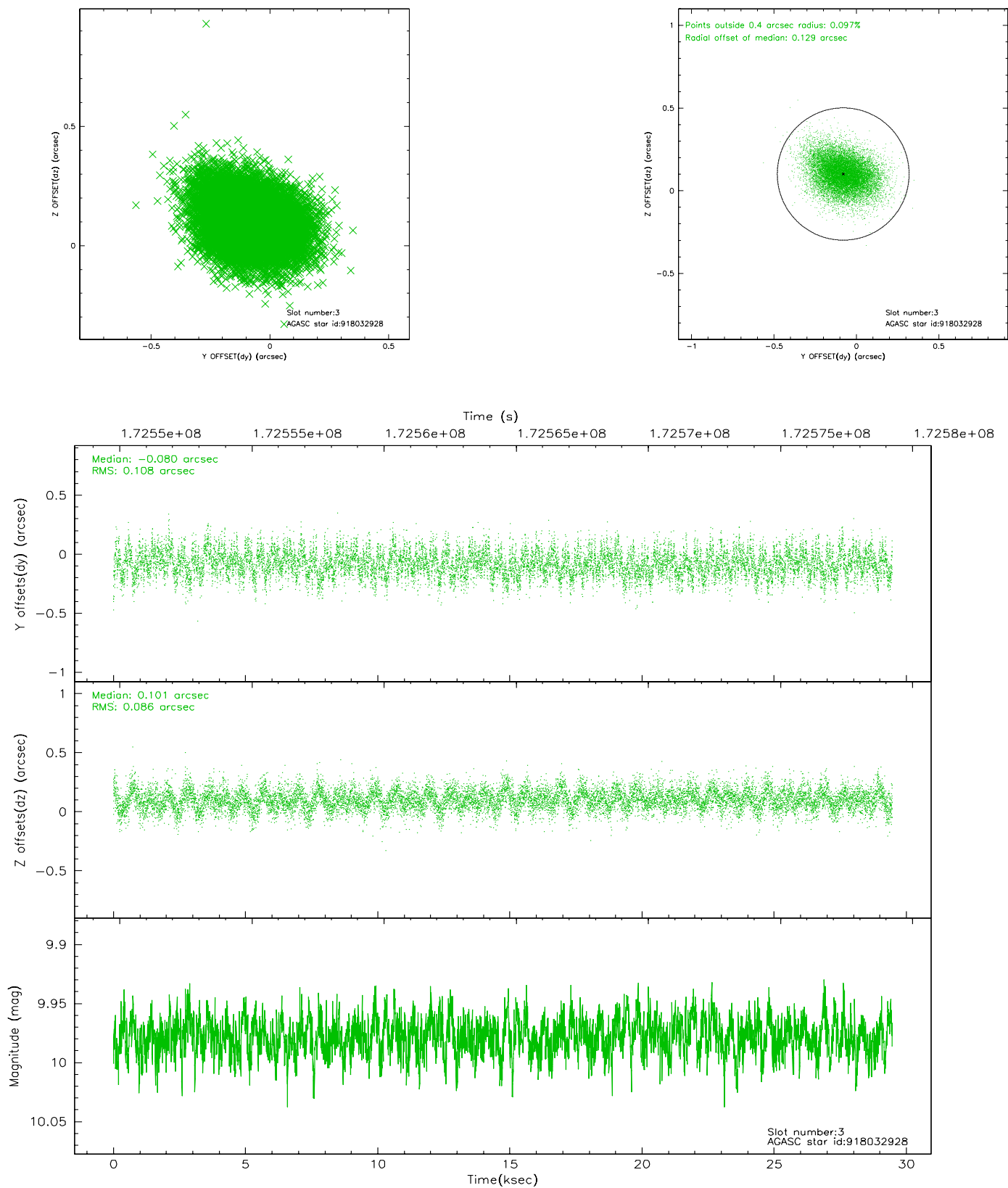
### Slot Statistics

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	7189	-0.045	0.009	0.007	0.011	0.000000	0.000000	-759.36	-1731.38
1	FID	ACIS-S-4	7.20	7189	0.017	0.019	0.005	0.008	0.000000	0.000000	2153.91	177.08
2	FID	ACIS-S-5	7.23	7189	-0.004	-0.019	0.007	0.012	0.000000	0.000000	-1812.10	170.73
3	GUIDE	918032928	9.98	14370	-0.080	0.101	0.146	0.242	21.260186	-34.205232	2261.35	-2267.91
4	GUIDE	918037384	8.47	14375	0.118	-0.043	0.069	0.112	20.982960	-35.723099	-1984.95	1266.28
5	GUIDE	918041544	10.03	14371	-0.049	0.057	0.151	0.239	20.868409	-34.646803	1505.01	-449.22
6	GUIDE	918041624	7.96	14378	-0.174	-0.087	0.060	0.092	20.656436	-34.992038	763.52	728.80
7	GUIDE	918043888	10.16	14368	0.182	-0.034	0.137	0.221	21.077642	-35.703353	-2067.53	992.65

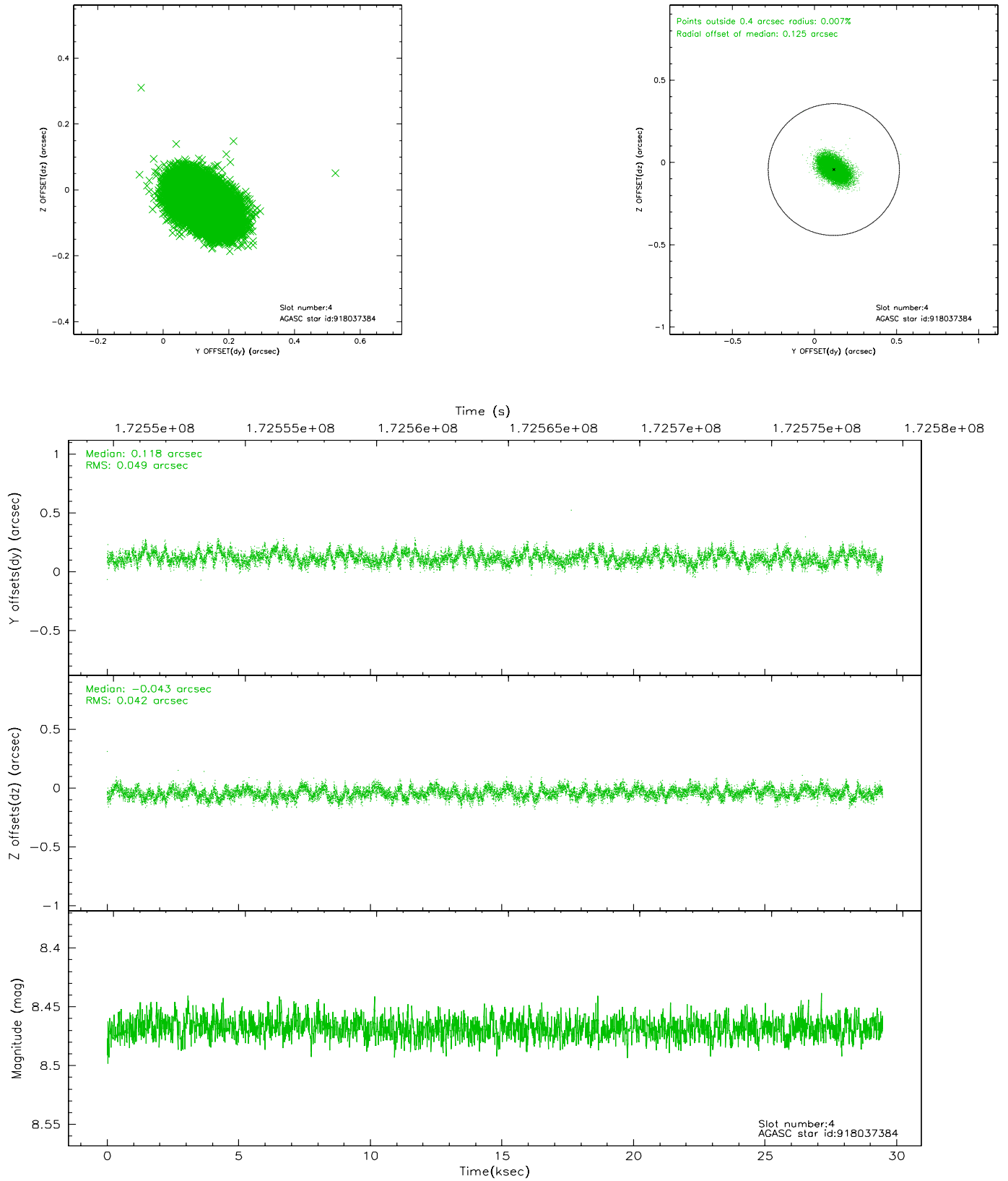


## 2.4 Star Slots

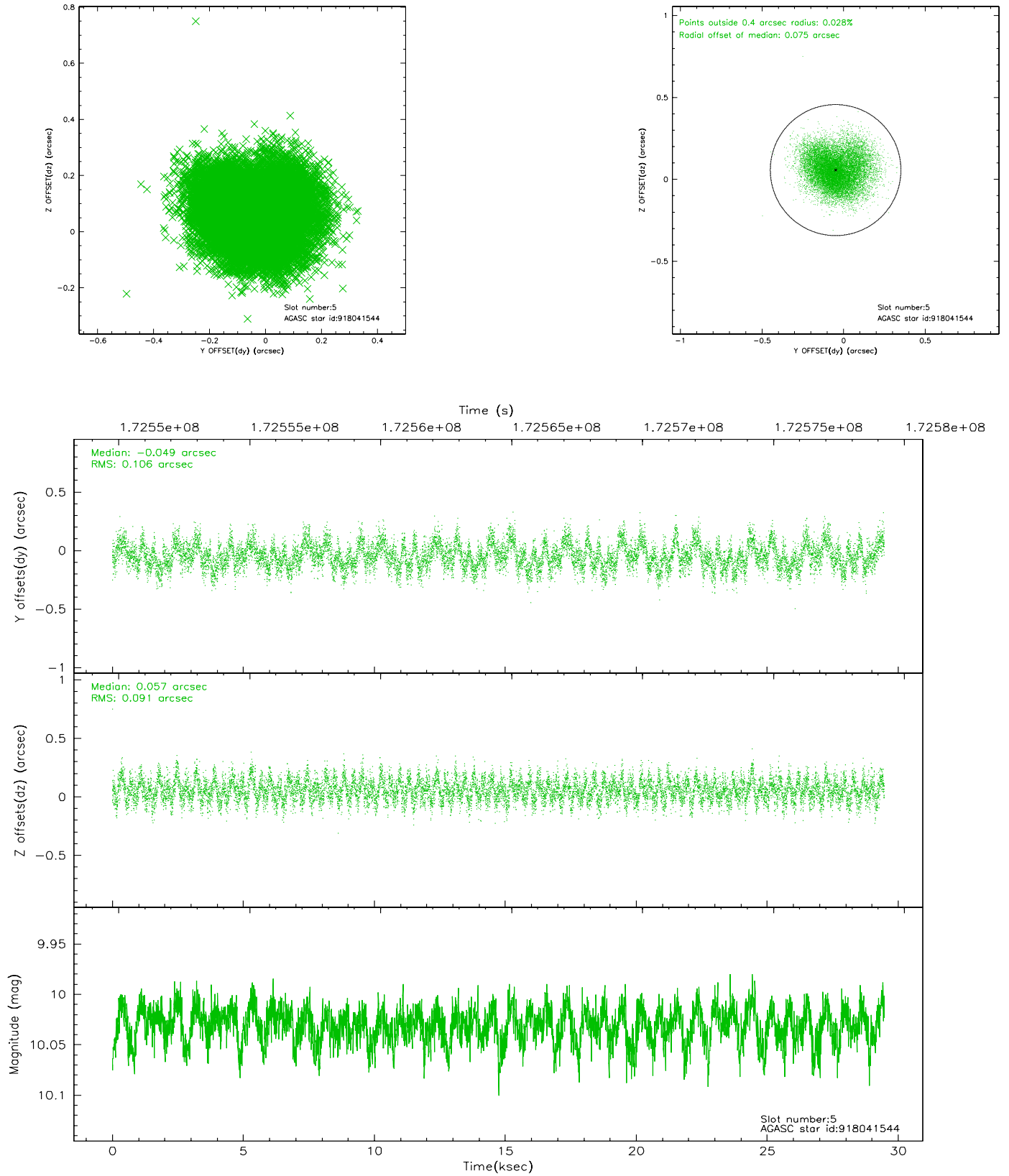
### 2.4.1 Slot 3



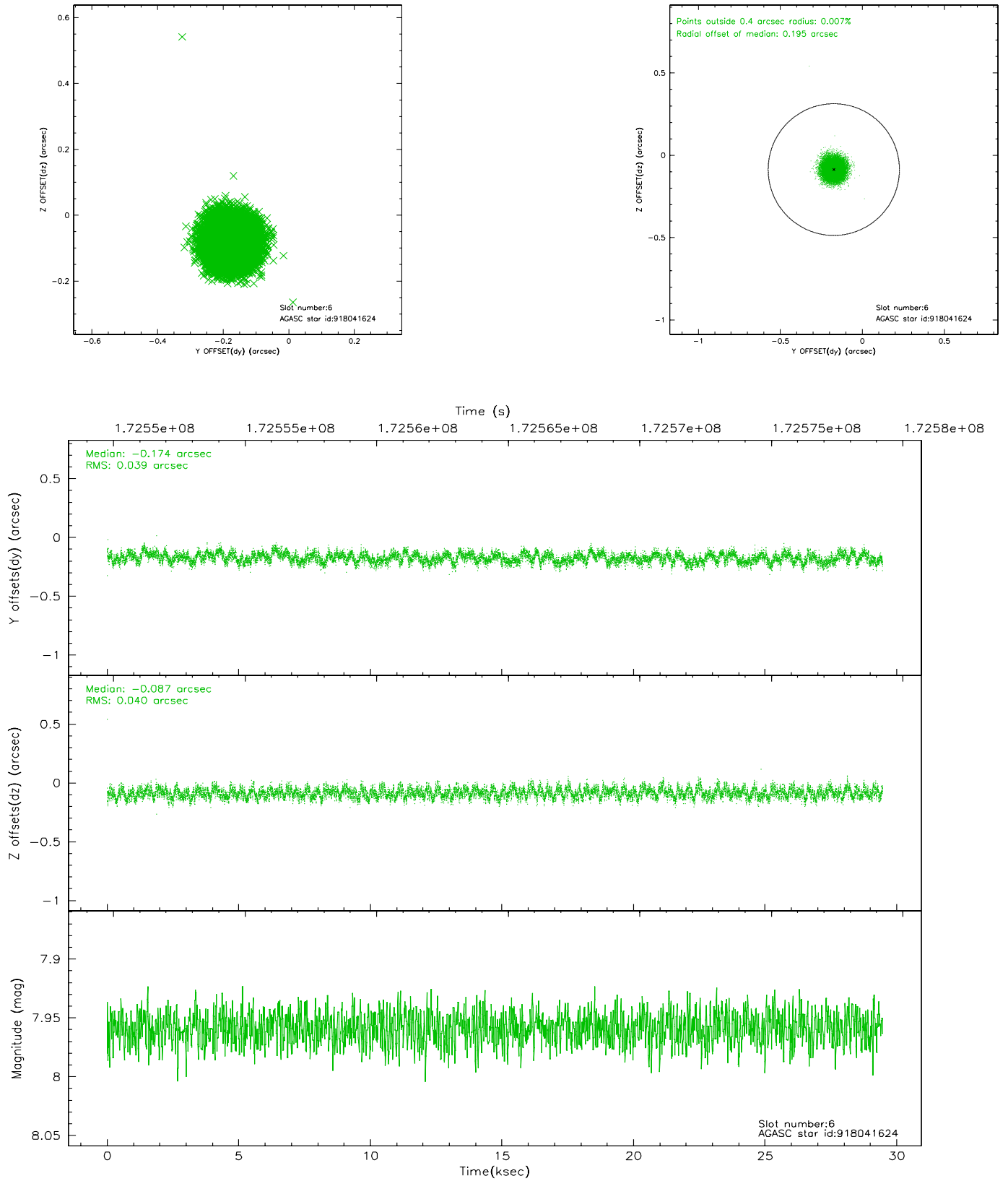
## 2.4.2 Slot 4



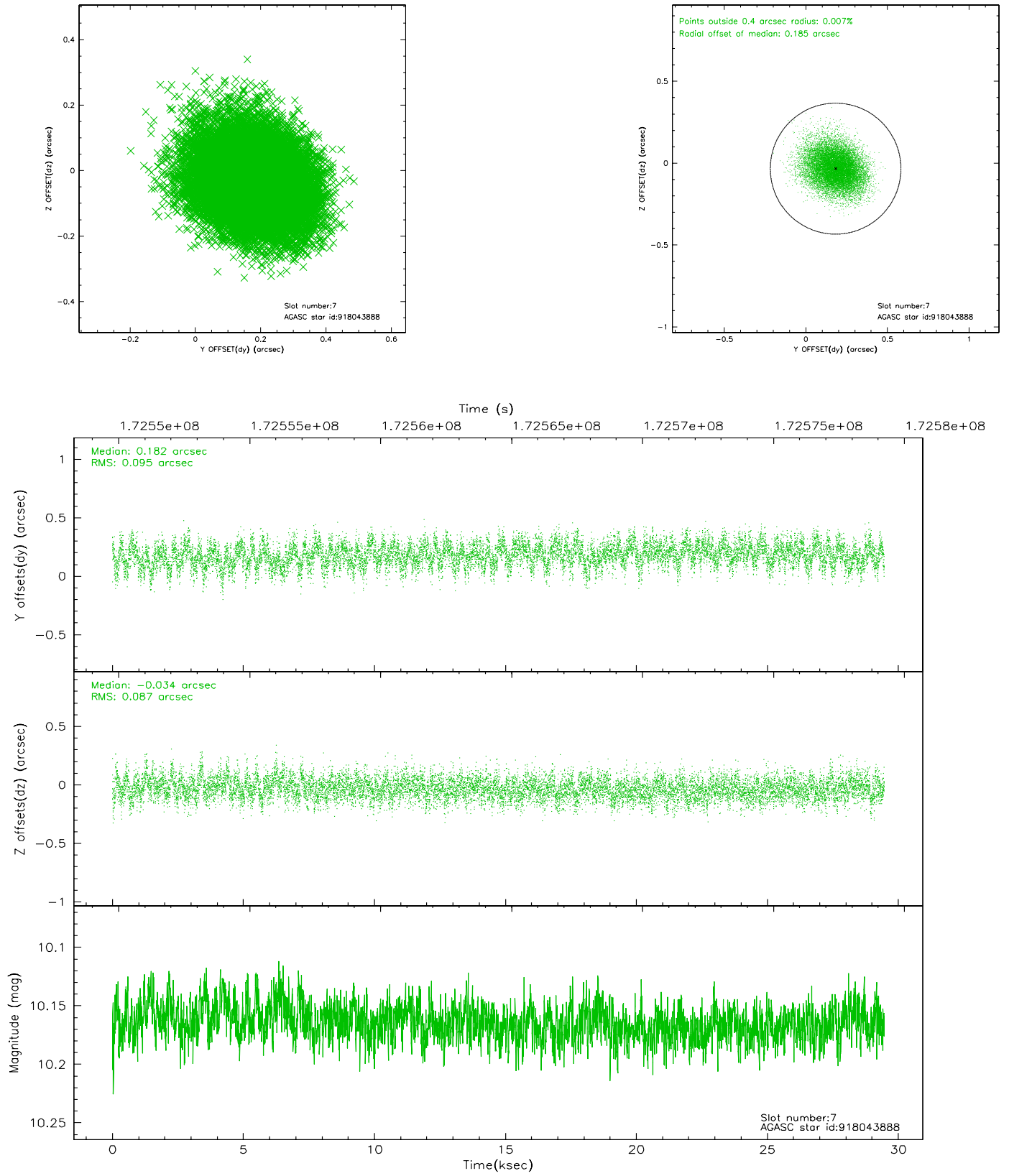
### 2.4.3 Slot 5



## 2.4.4 Slot 6

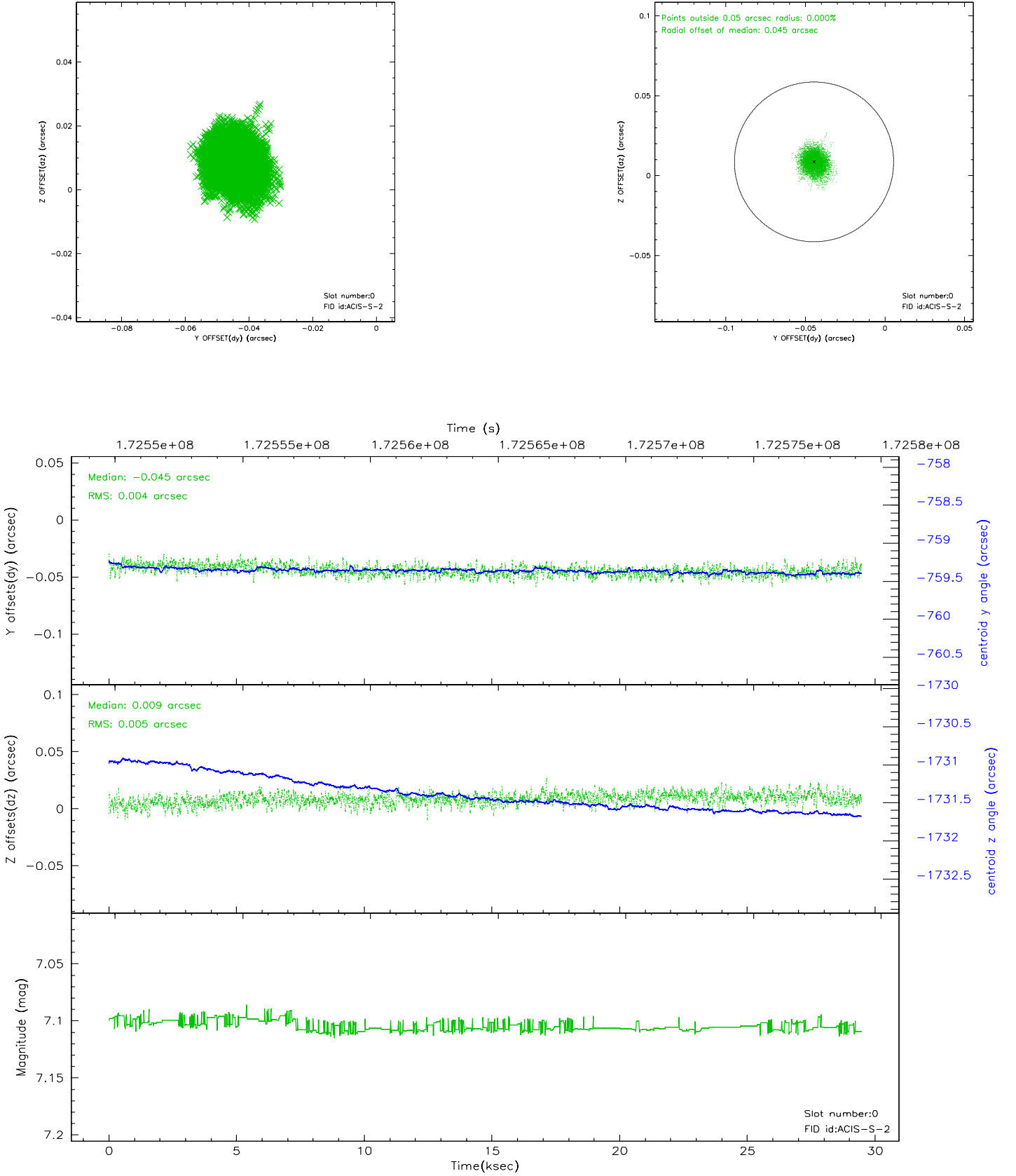


## 2.4.5 Slot 7

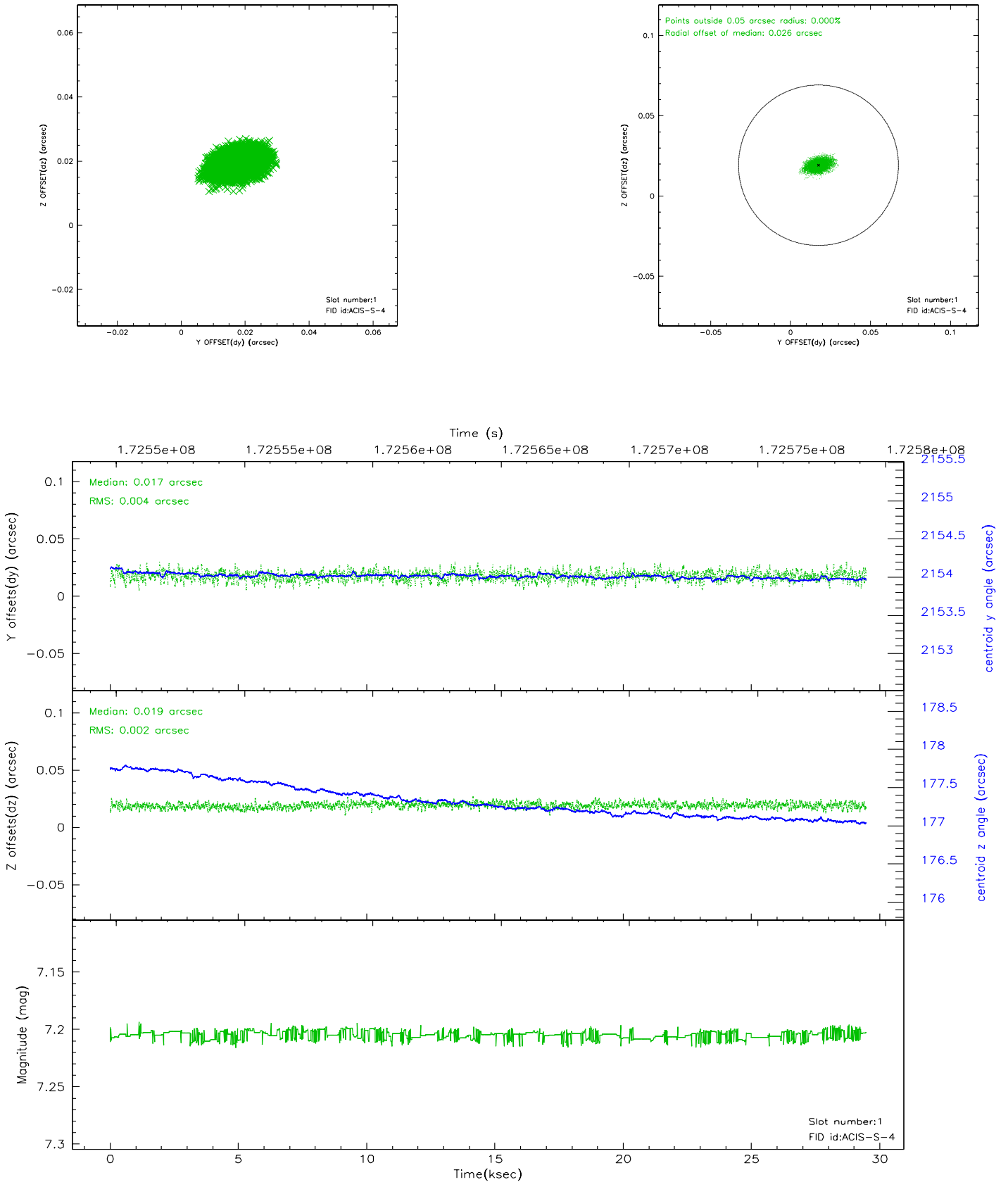


## 2.5 FID Slots

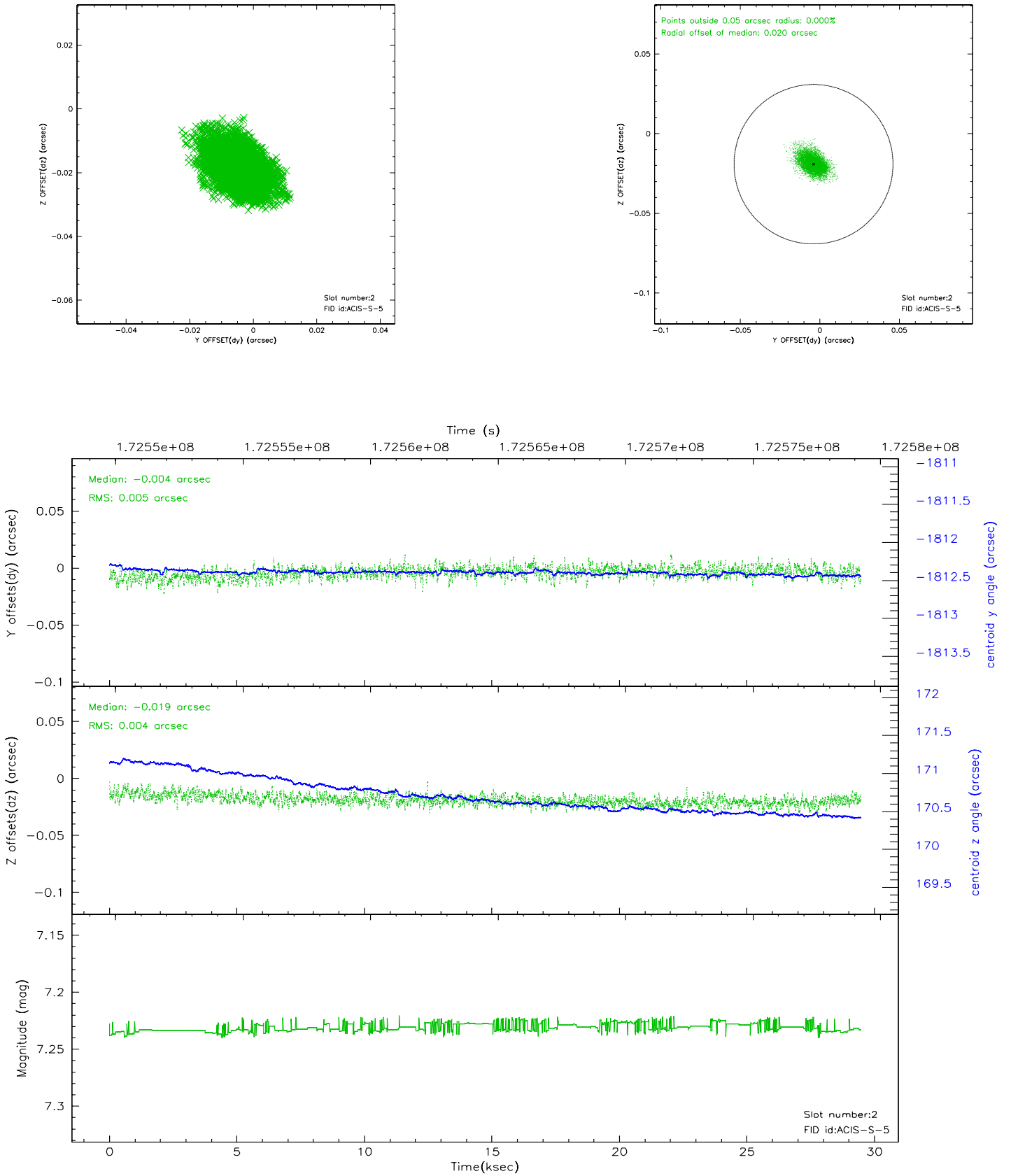
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





# 3 Gratings

## 3.1 HEG Arm



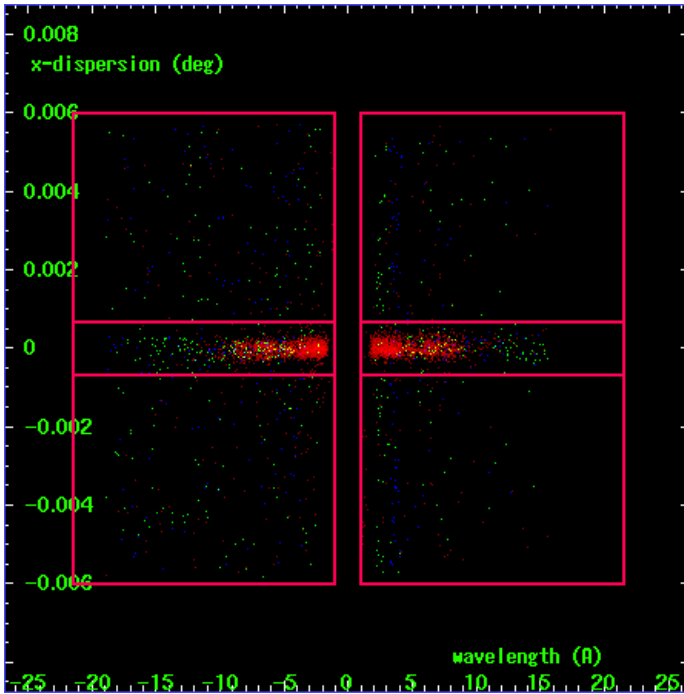
HEG Order Sort 123



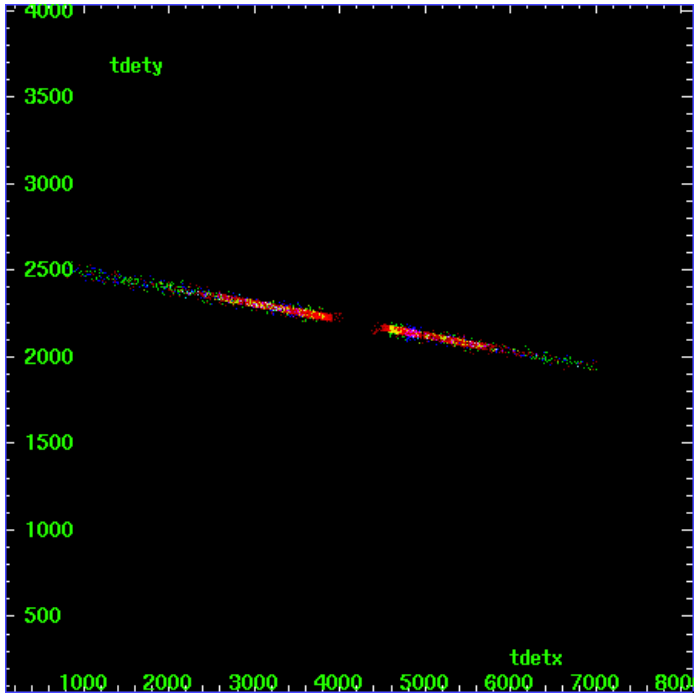
HEG Zero Order



HEG Order Sort ALL

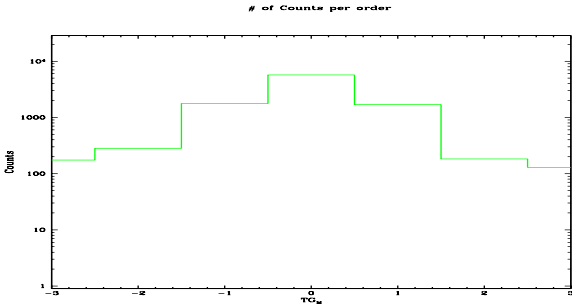


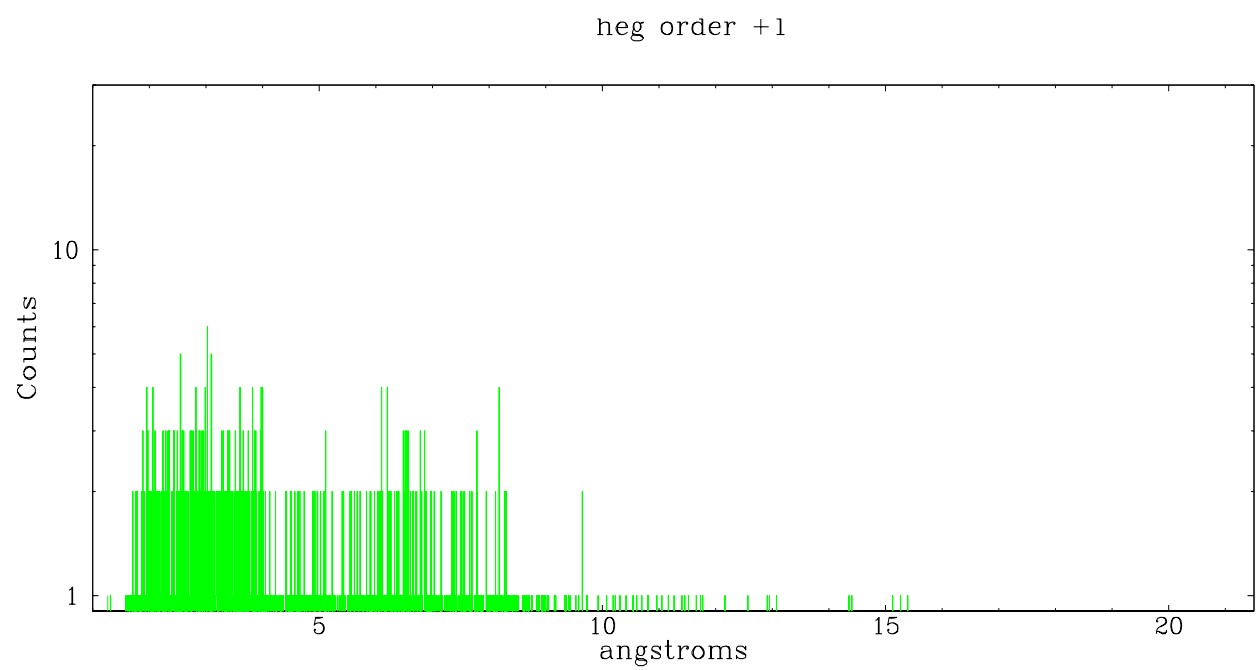
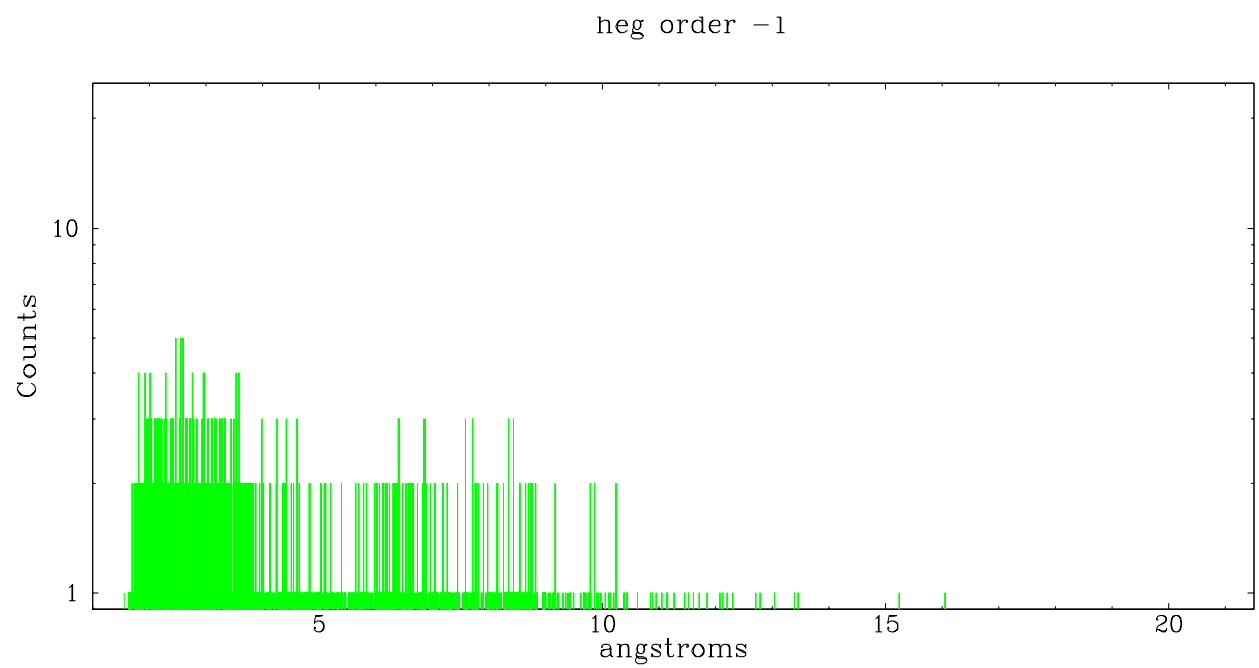
Spot Image HEG



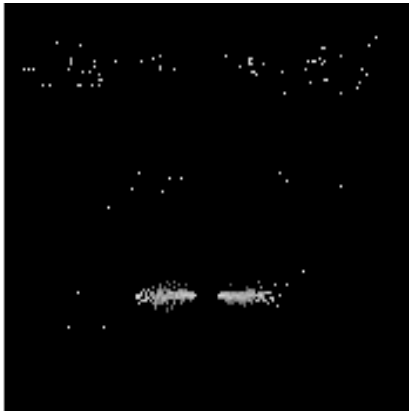
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	175	282	1768	5709	1694	183	129

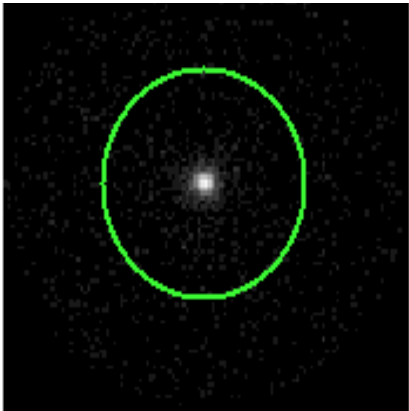




3.2 MEG Arm



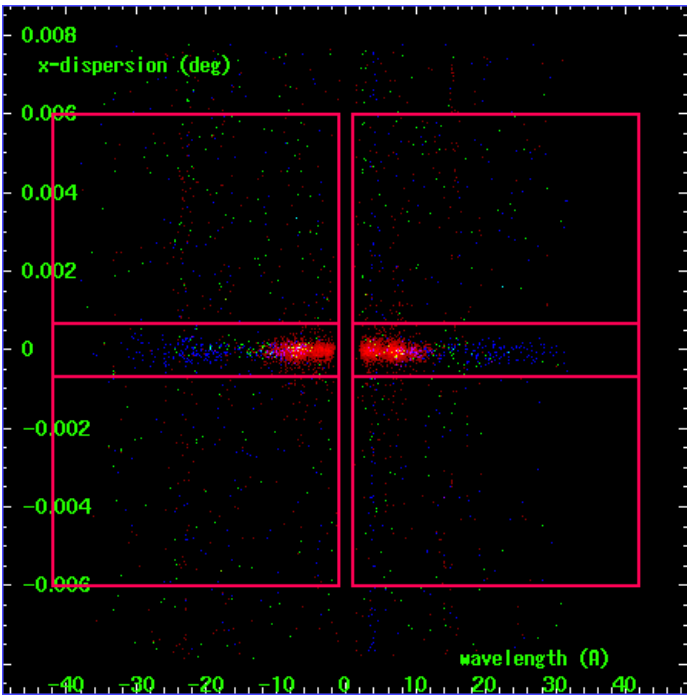
MEG Order Sort 123



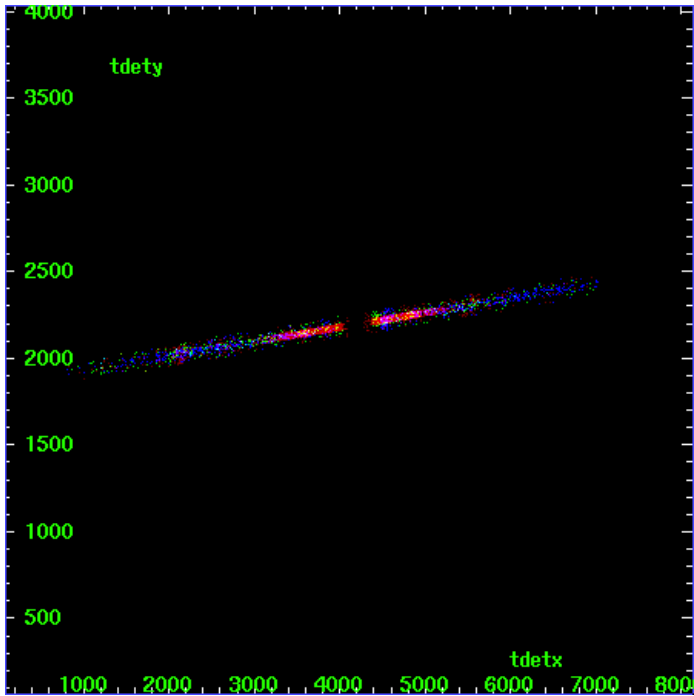
MEG Zero Order



MEG Order Sort ALL

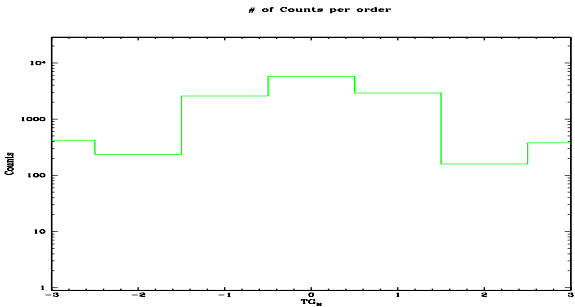


Spot Image MEG

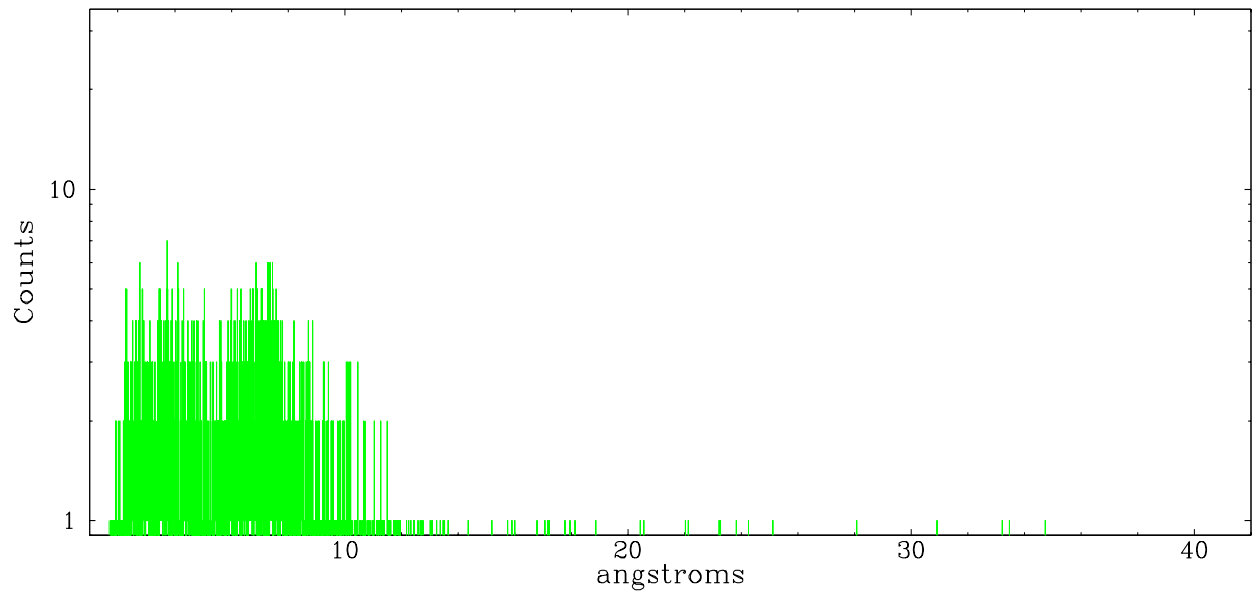


Full Detector MEG

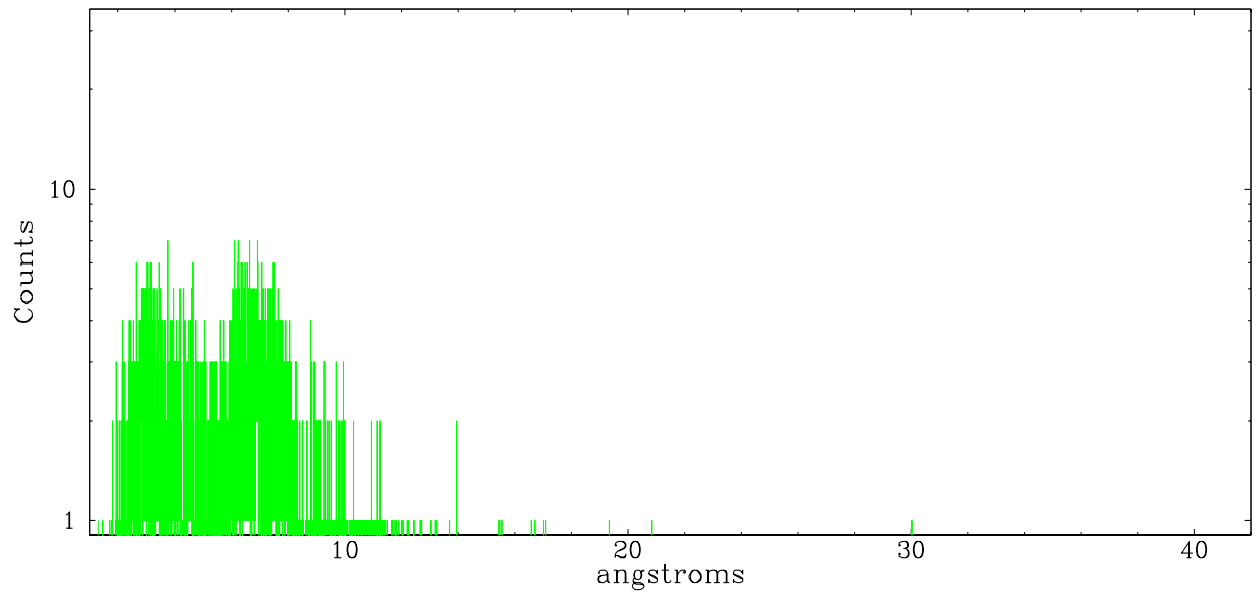
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	420	235	2570	5709	2905	159	378



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.08.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.052

### A.2 Comments