

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 5557 - L2 Version 003  
Chandra X-Ray Center

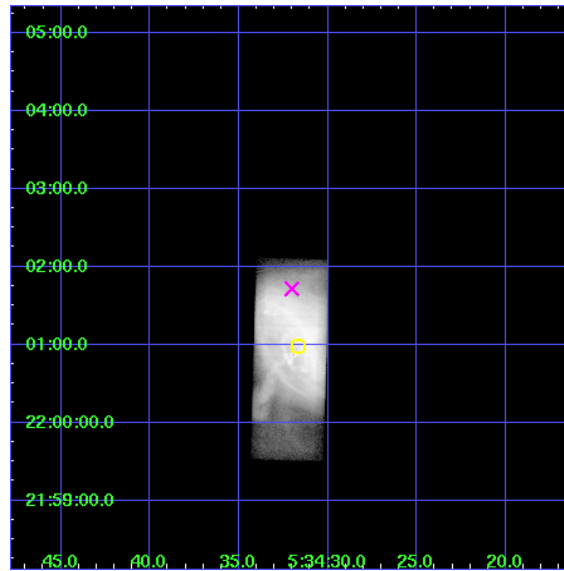
L2 Processing Date : Apr 2 2006

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# 1 Front

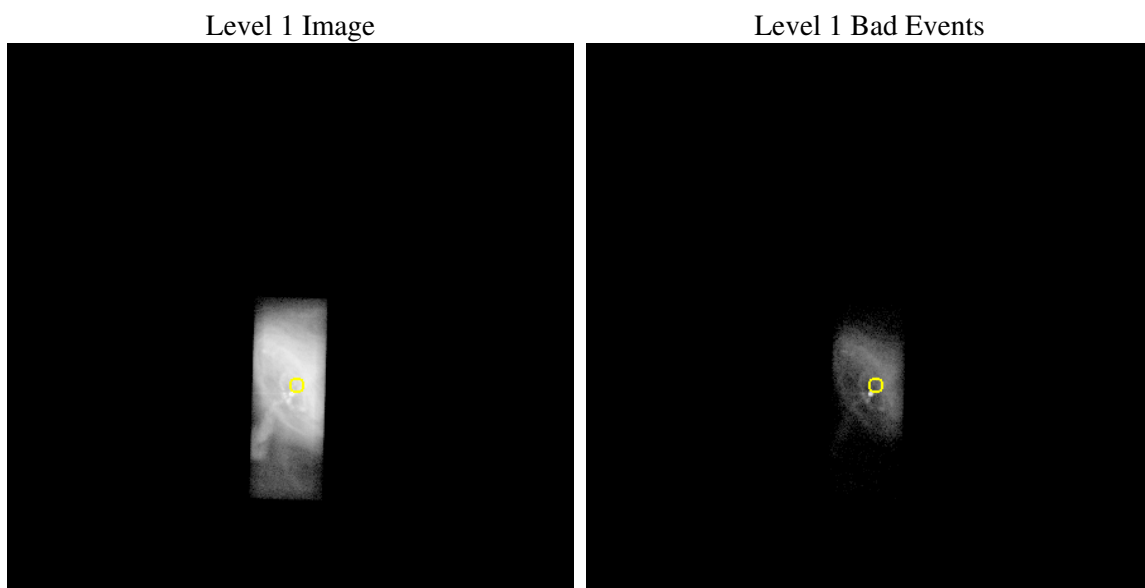
seq_num	500546
obs_id	5557
title	Monitoring of the Relativistic Magnetohydrodynamic Shock in the Crab Nebula
observer	Dr Koji Mori
object	The Crab Nebula
dtcycle	0
cycle	P
ra_targ	83.632083
dec_targ	22.016472
ra_nom	83.63350063733
dec_nom	22.028839918342
roll_nom	91.626780856604
revision	3
ontime	10183.800404668
livetime	8958.3043672307
ontime7	10183.800404668
l2events	2507218



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0
ascdsver	7.6.7.1
caldbver	3.2.1
date	2006-04-02T17:14:51
revision	3

sched_exp_time	10000.000000
ontime	10280.225393414
ontime7	10280.225393414
l1events	2667383

### 2.1.3 Events

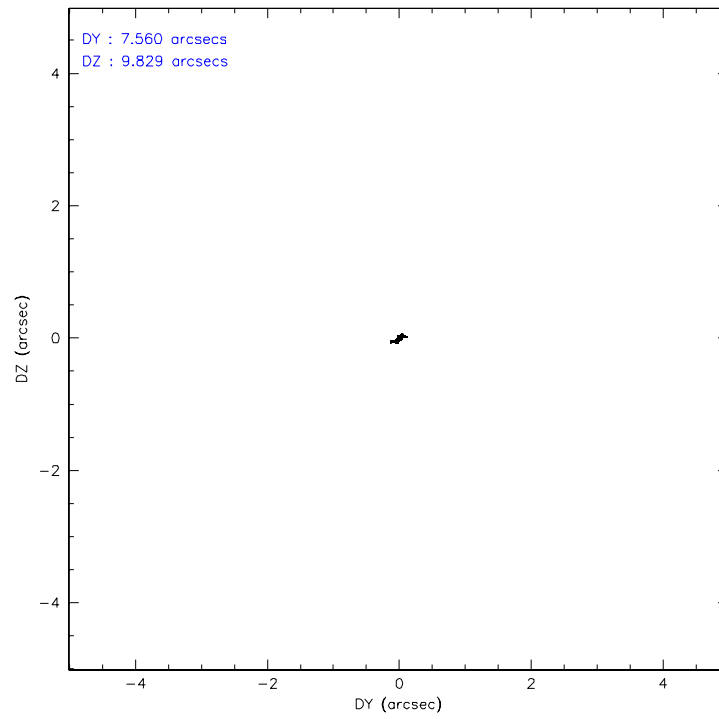
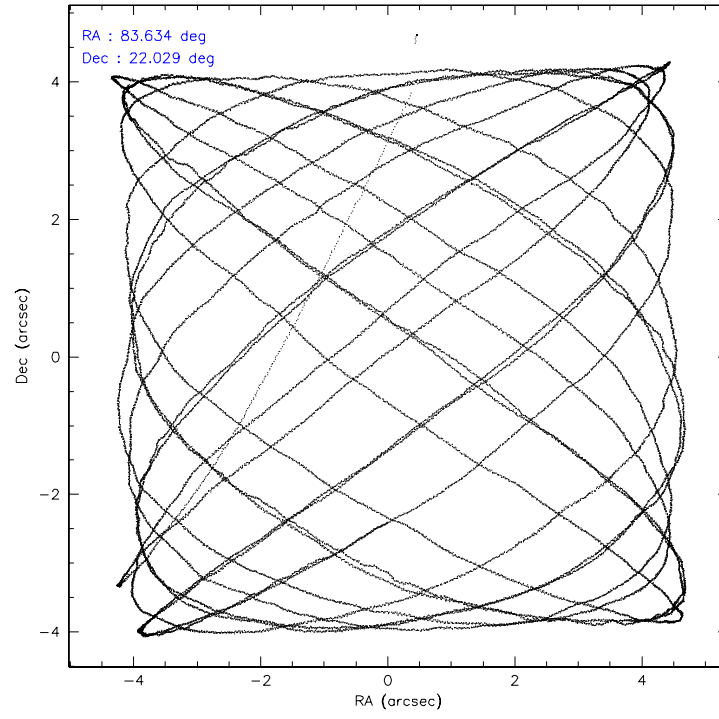
	<b>ccd 7</b>
level 1 events	2667383
rejected events	121185
rejected %	4%

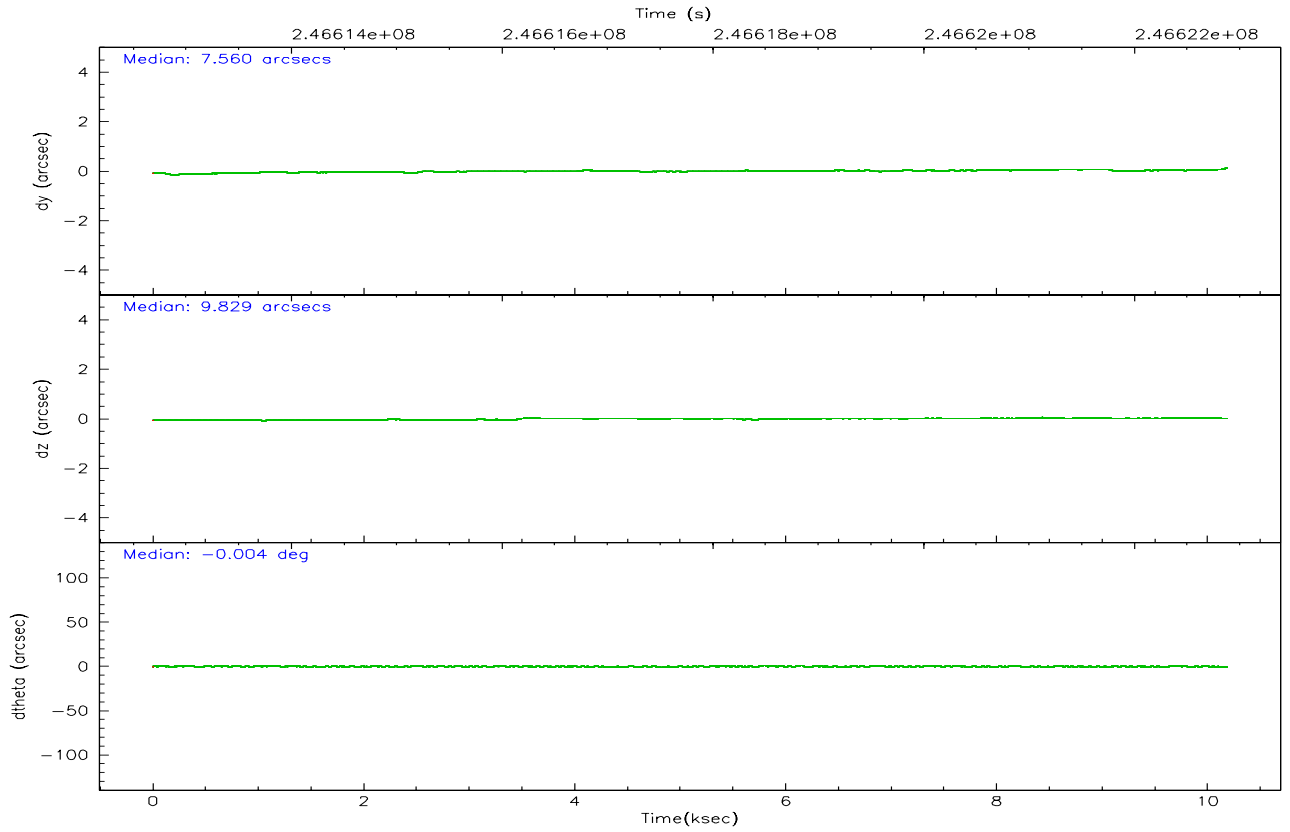
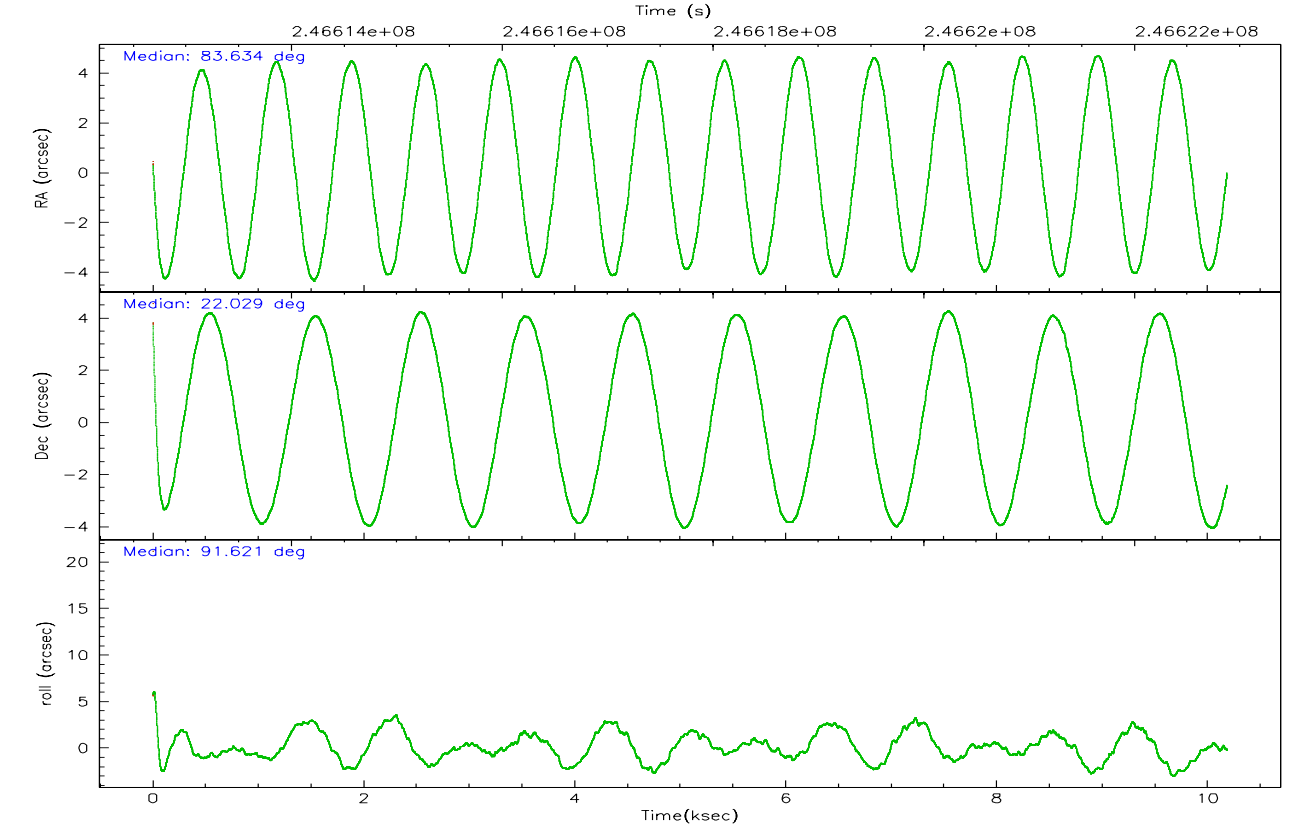
	<b>ccd 7</b>
grade 0 events	515936
	19%
grade 1 events	9757
	0%
grade 2 events	654110
	24%
grade 3 events	290729
	10%
grade 4 events	280536
	10%
grade 5 events	40207
	1%
grade 6 events	828218
	31%
grade 7 events	47890
	1%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	CUSTOM
Pointing RA	83.649279	83.63350063732994	Subarray start row	127	127
Pointing Dec	22.005877	22.02883991834153	Subarray row count	101	101
Pointing Roll	91.464220	91.62678085660363	Alternating exposures requested	N	N
Window start time	246499264.184000	246499264.184000	Primary exposure time	0.000000	0.3
Window stop time	247104064.184000	247104064.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-182.132523	-182.1370004450064			
SIM translation stage offset (mm)	-8	-7.995522138001405			
Observation start time	246612875.184000	246612060.79569			
Observation start date	2005-10-25T07:33:31	2005-10-25T07:21:00			
Observation end time	246622875.184000	246623750.92123			
Observation end date	2005-10-25T10:20:11	2005-10-25T10:35:50			
Read mode	TIMED	TIMED			

## 2.3 Aspect





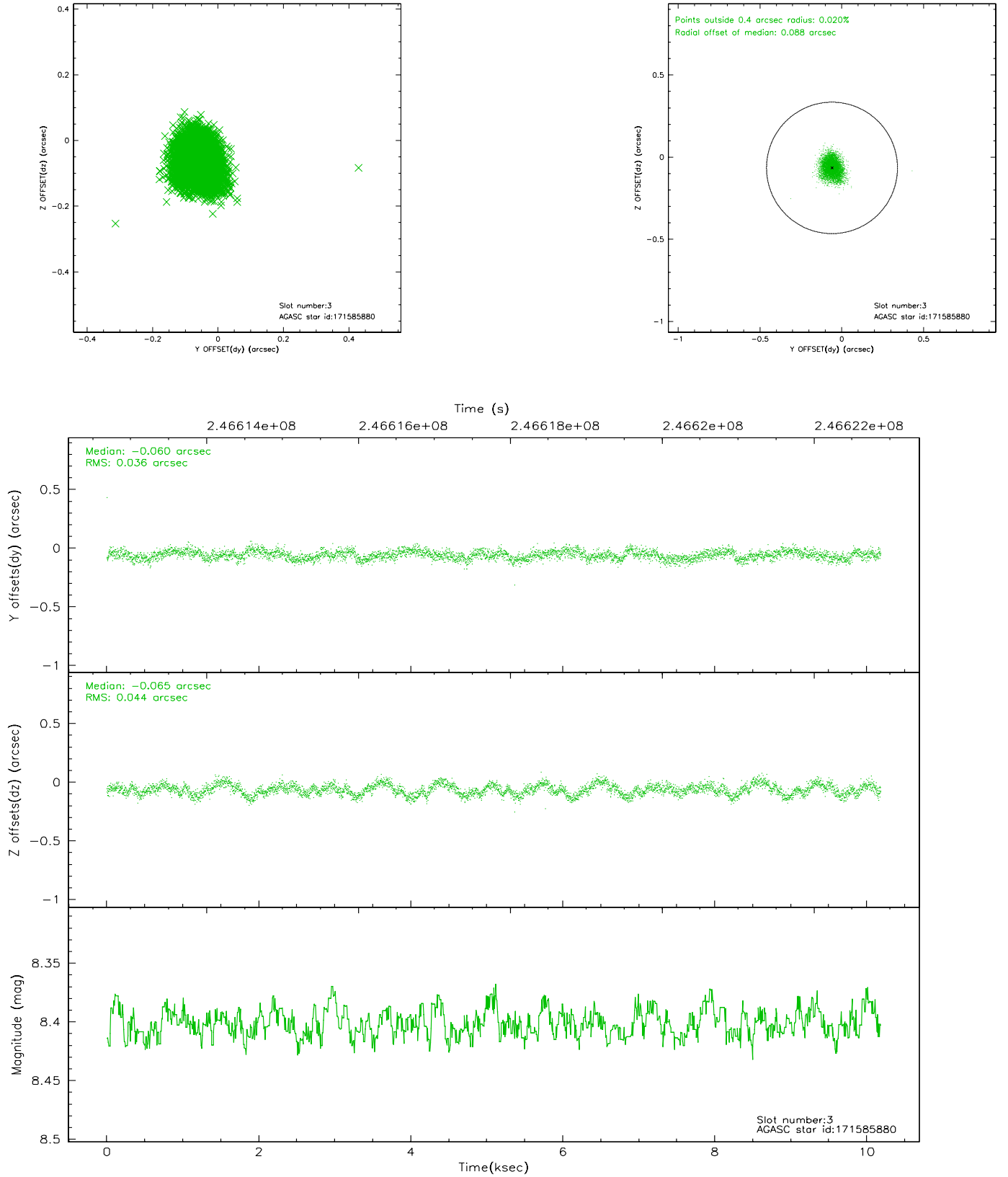
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	2485	-0.059	-0.070	0.006	0.010	0.000000	0.000000	-759.80	-1895.85
1	FID	ACIS-S-4	7.18	2485	0.076	0.047	0.005	0.008	0.000000	0.000000	2153.37	12.15
2	FID	ACIS-S-5	7.23	2485	-0.048	0.031	0.006	0.010	0.000000	0.000000	-1811.97	6.38
3	GUIDE	171585880	8.40	4969	-0.060	-0.065	0.061	0.097	83.676260	22.176319	611.42	-105.53
4	GUIDE	171586032	8.92	4969	-0.074	0.057	0.068	0.109	83.950197	22.083225	254.23	-1010.52
5	GUIDE	171721904	9.19	4962	-0.030	0.136	0.107	0.163	84.272676	22.116922	351.37	-2088.70
6	GUIDE	243941560	8.31	4966	-0.086	0.071	0.069	0.106	83.733264	22.568598	2018.36	-330.88
7	GUIDE	171597832	9.15	4963	0.261	-0.197	0.087	0.141	83.183230	21.366702	-2257.18	1620.35

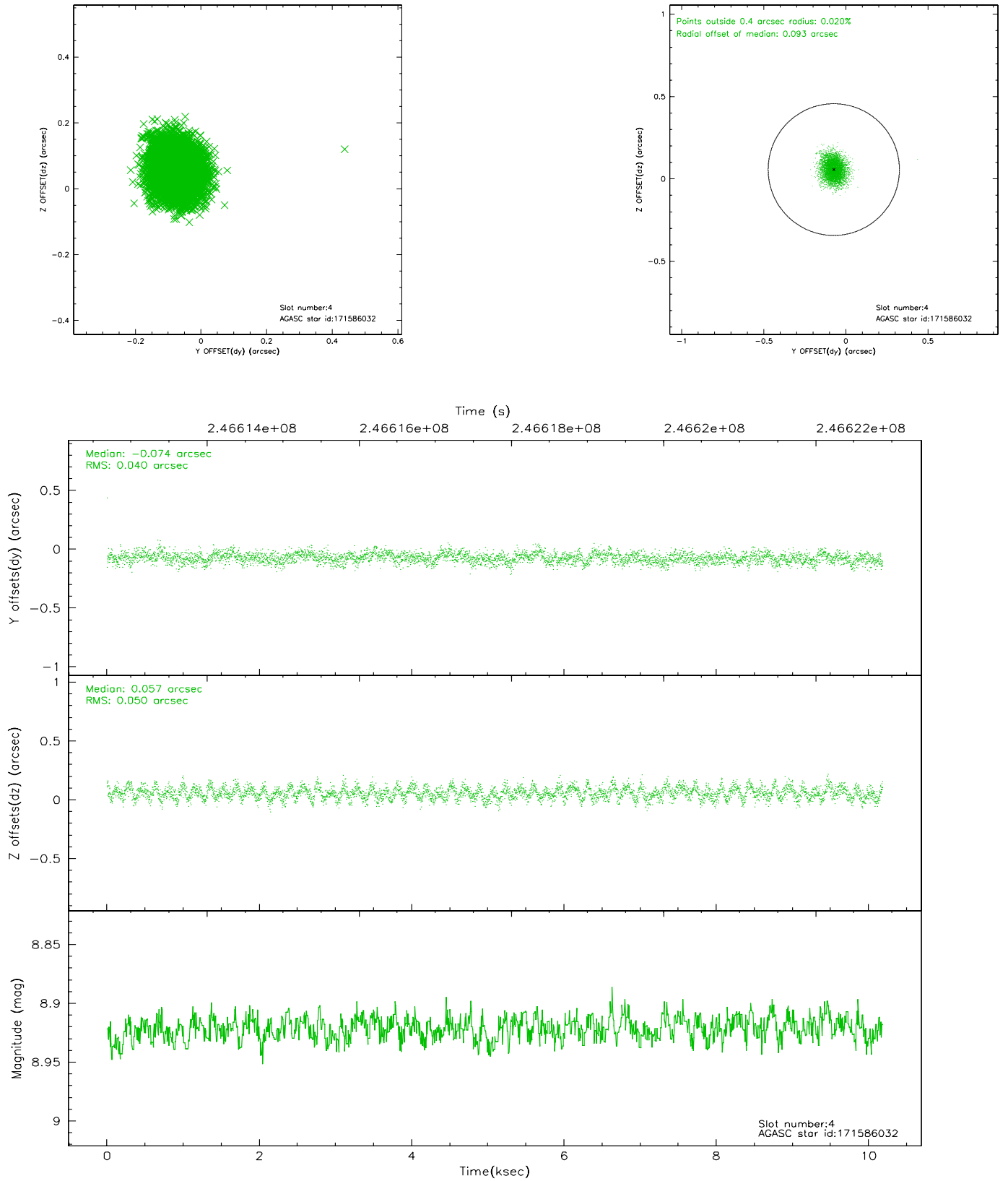


## 2.4 Star Slots

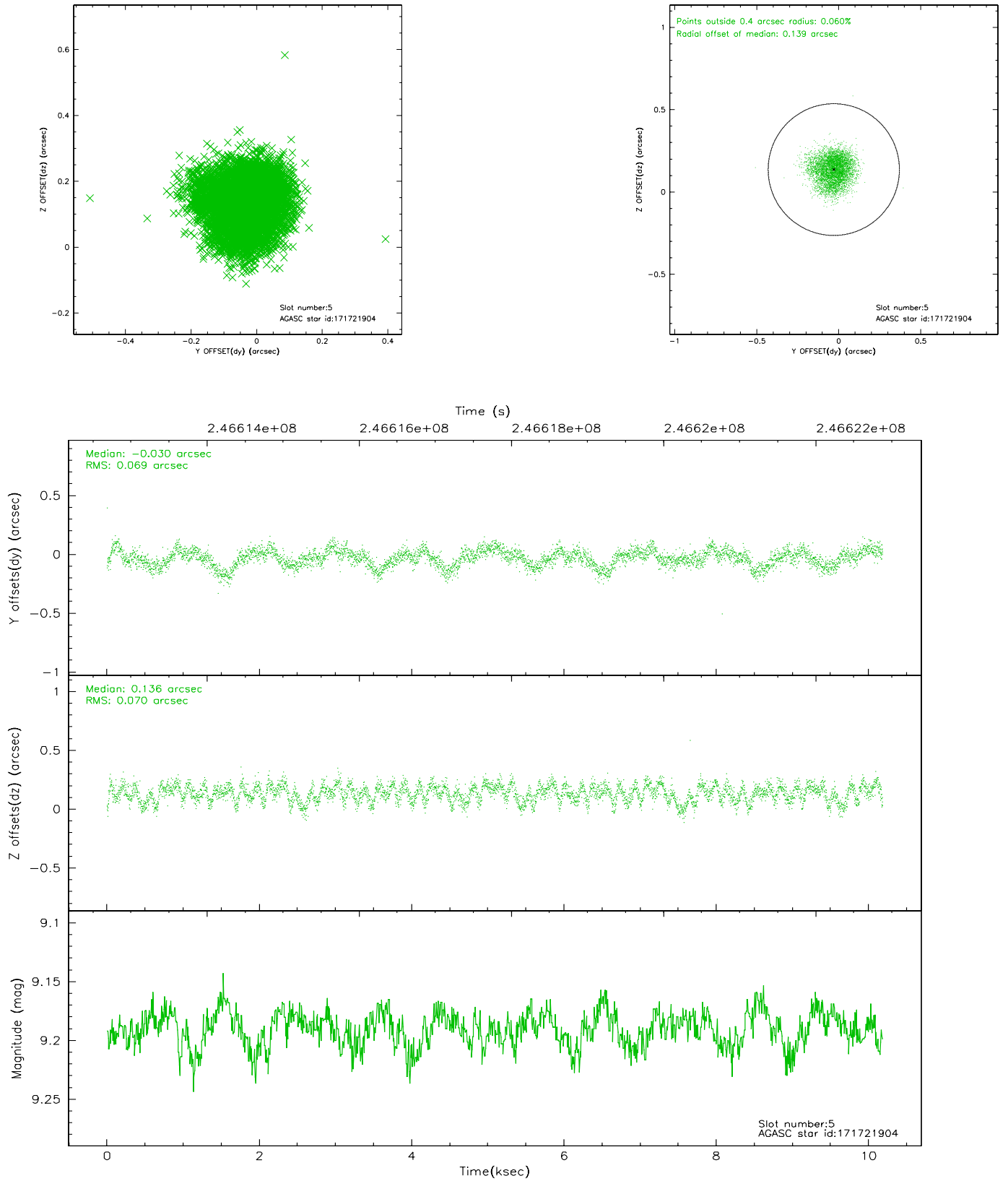
### 2.4.1 Slot 3



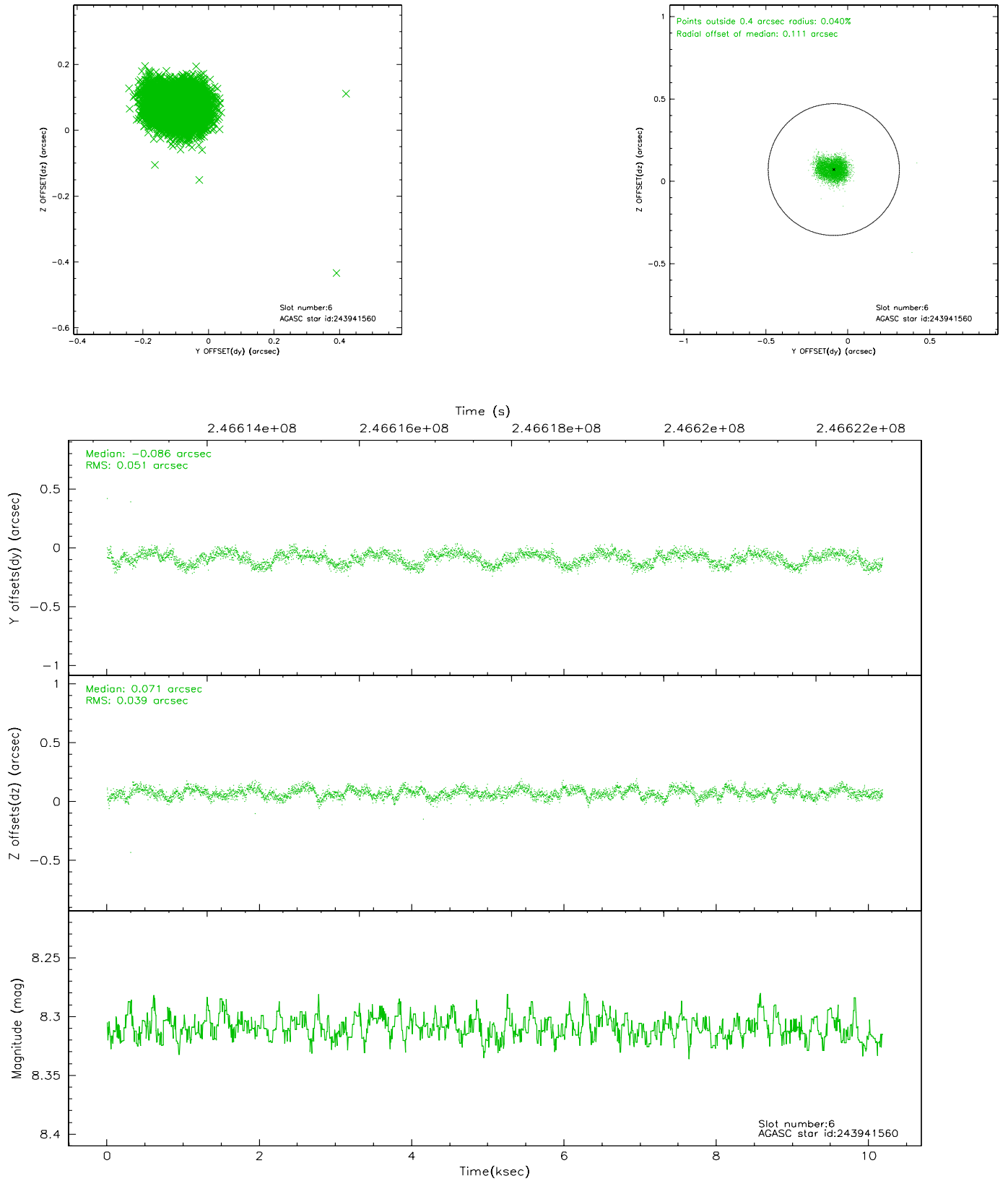
## 2.4.2 Slot 4



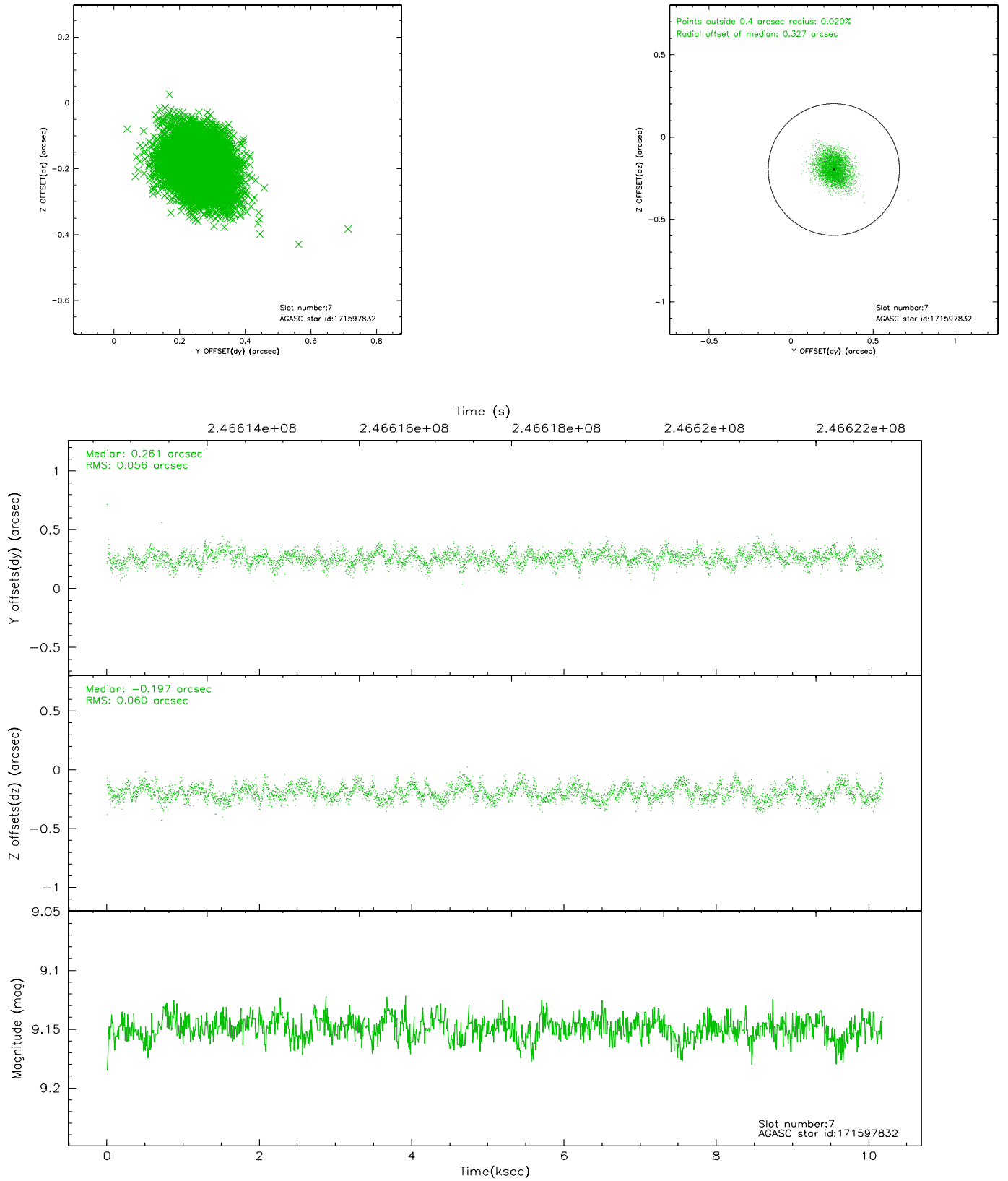
### 2.4.3 Slot 5



## 2.4.4 Slot 6

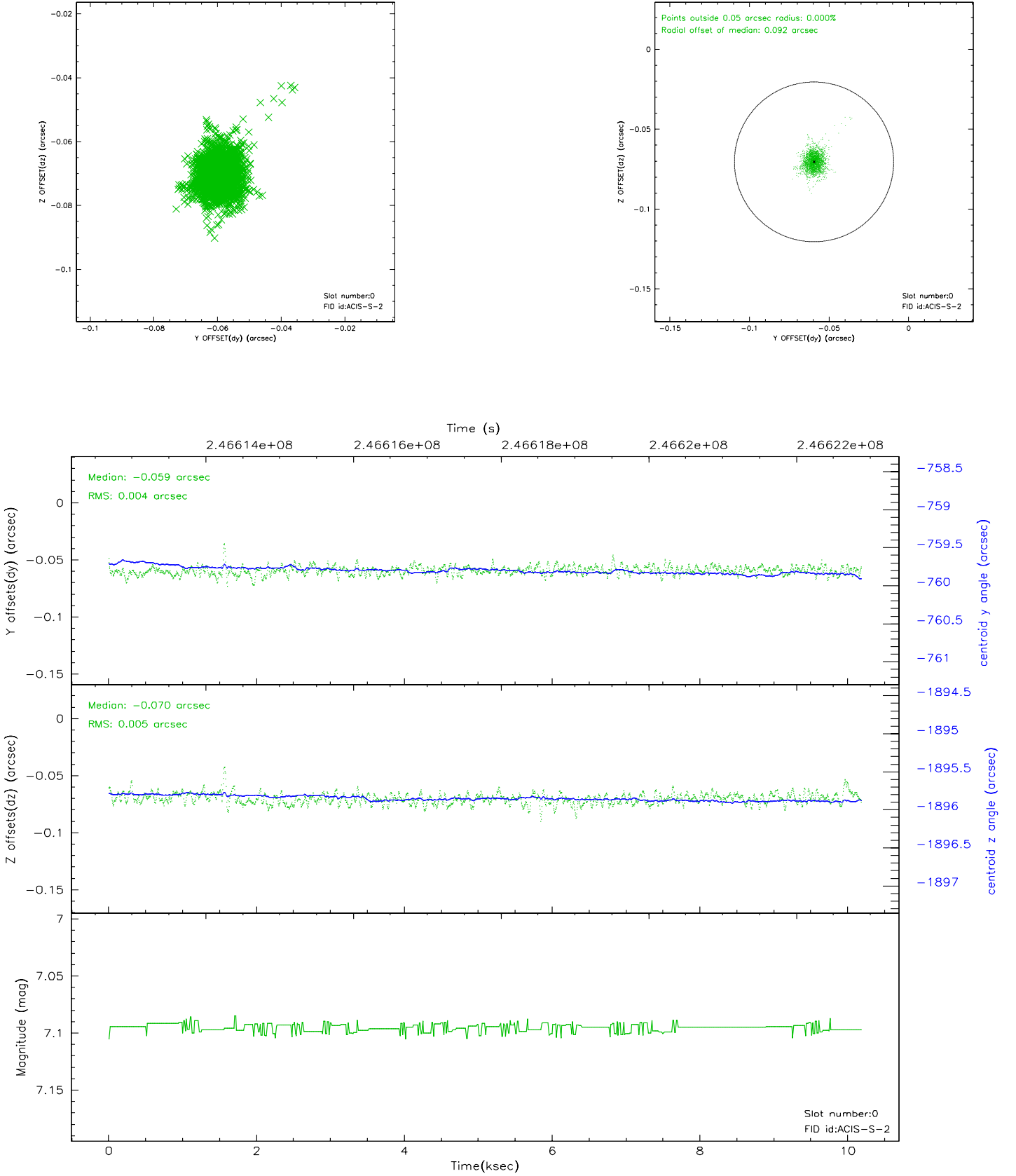


## 2.4.5 Slot 7

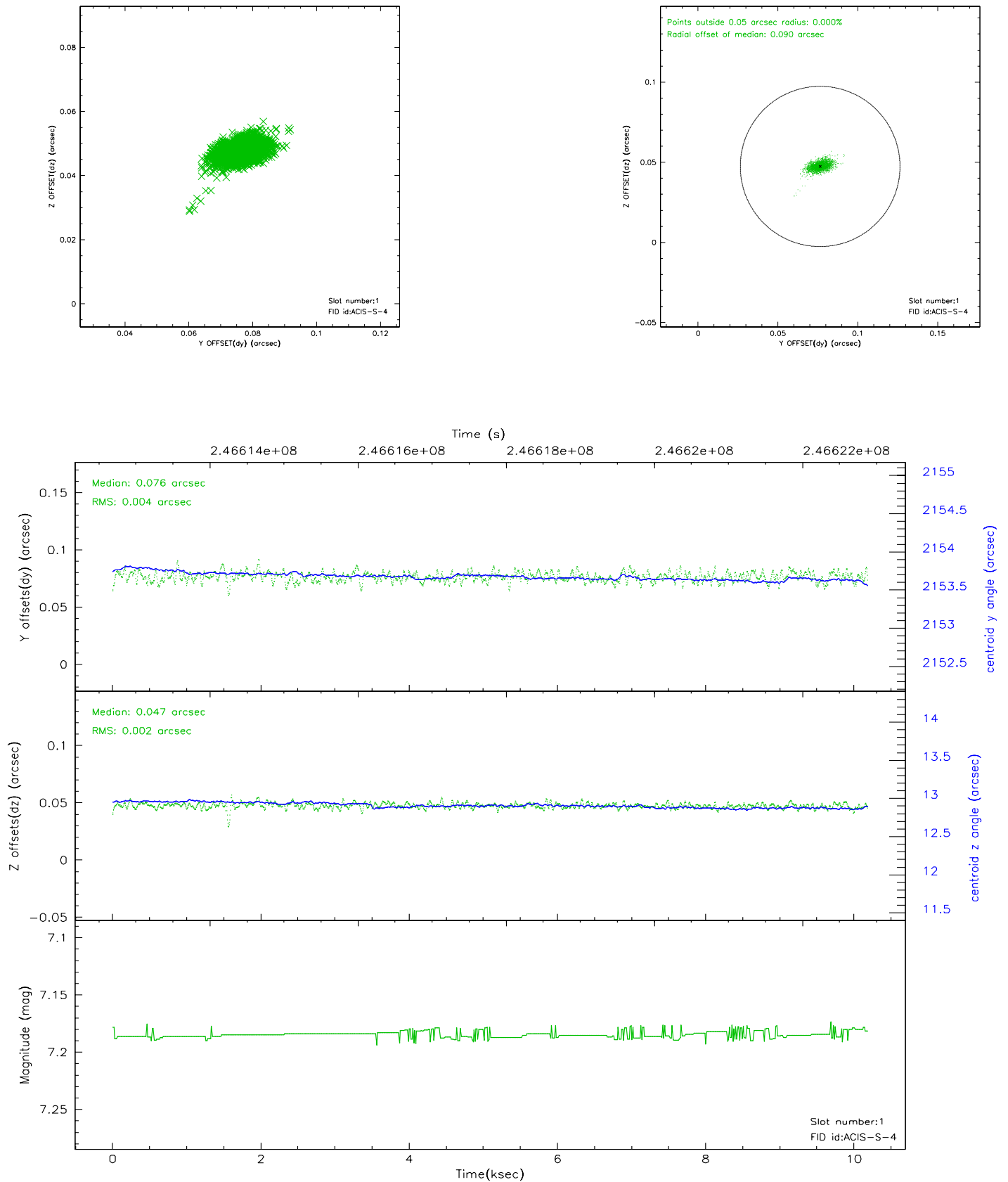


## 2.5 FID Slots

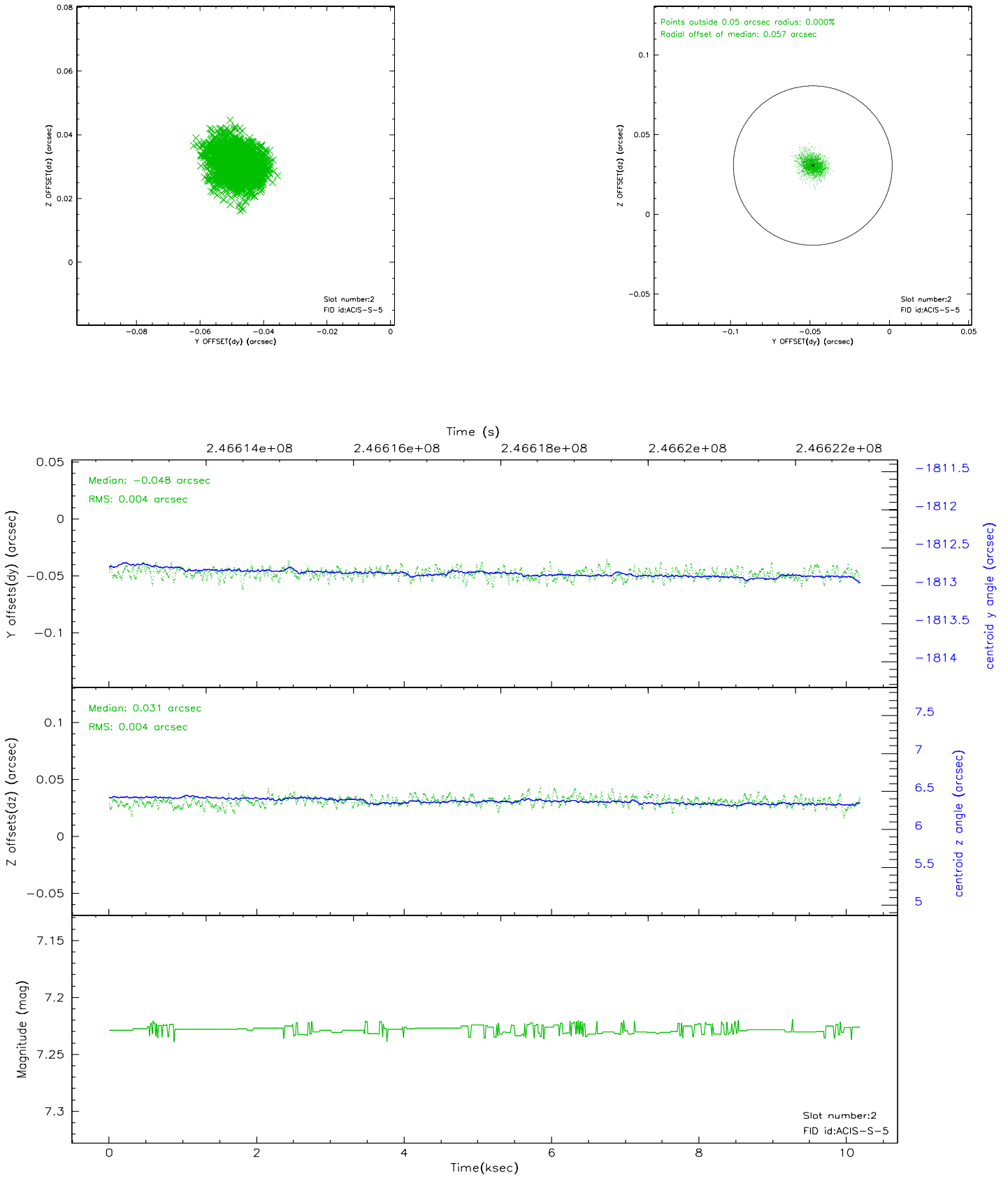
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



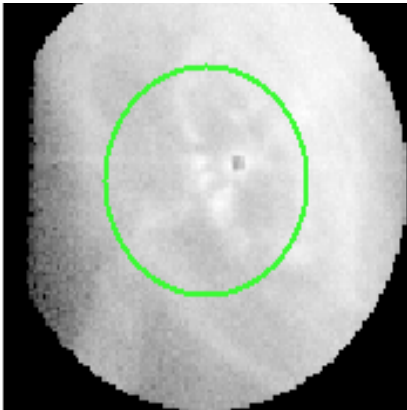


# 3 Gratings

## 3.1 HEG Arm



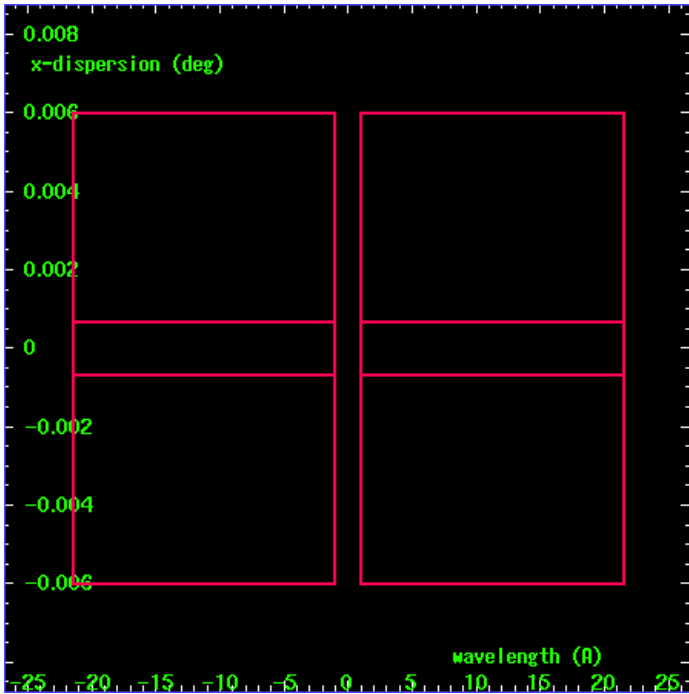
HEG Order Sort 123



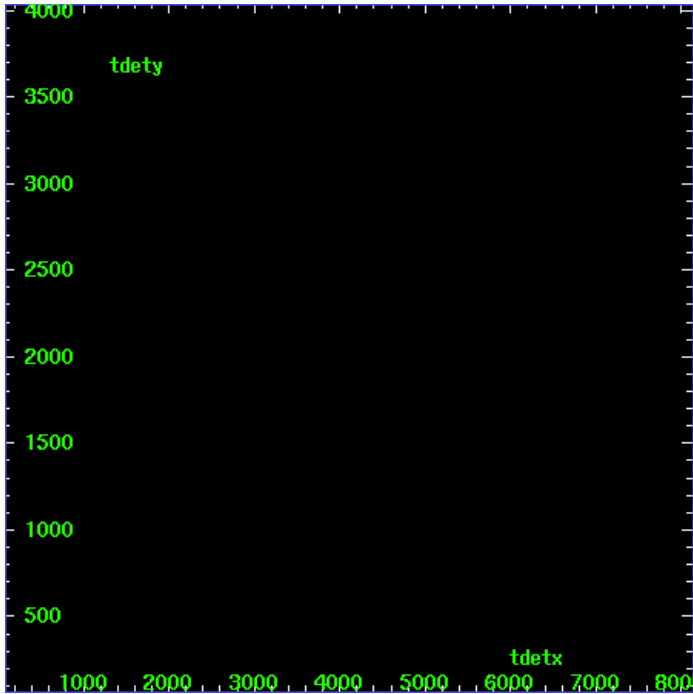
HEG Zero Order



HEG Order Sort ALL

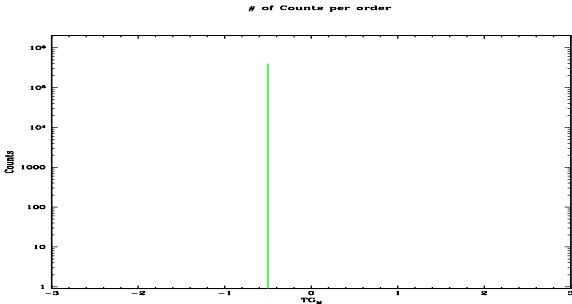


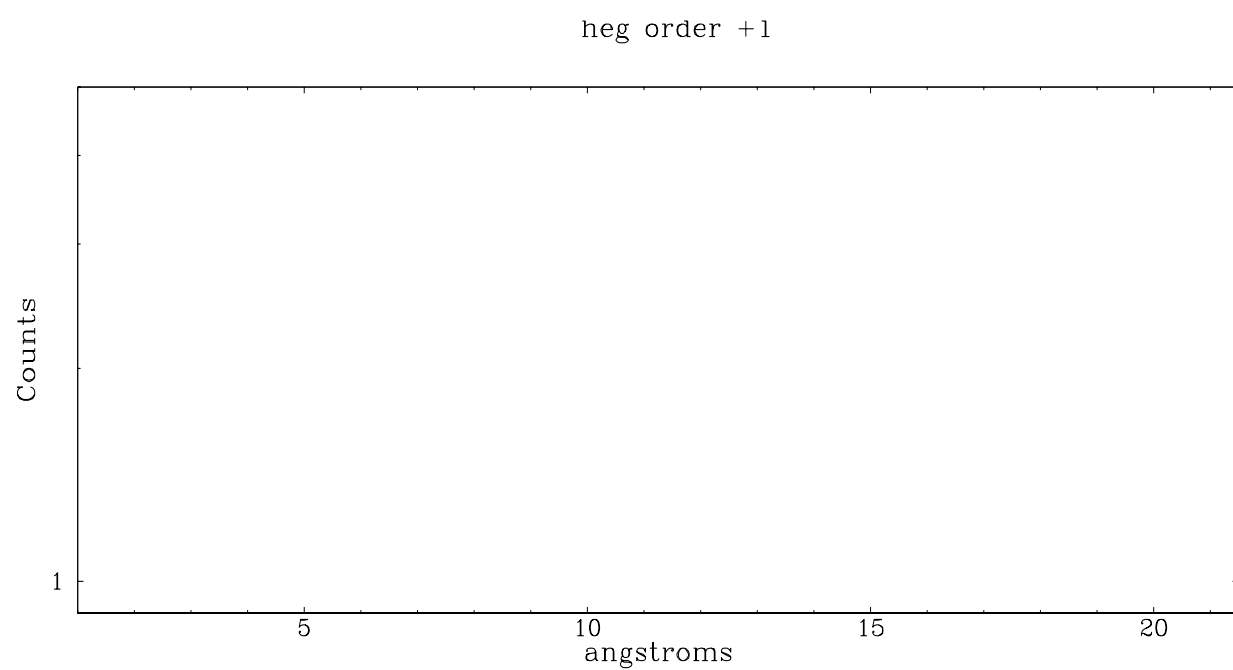
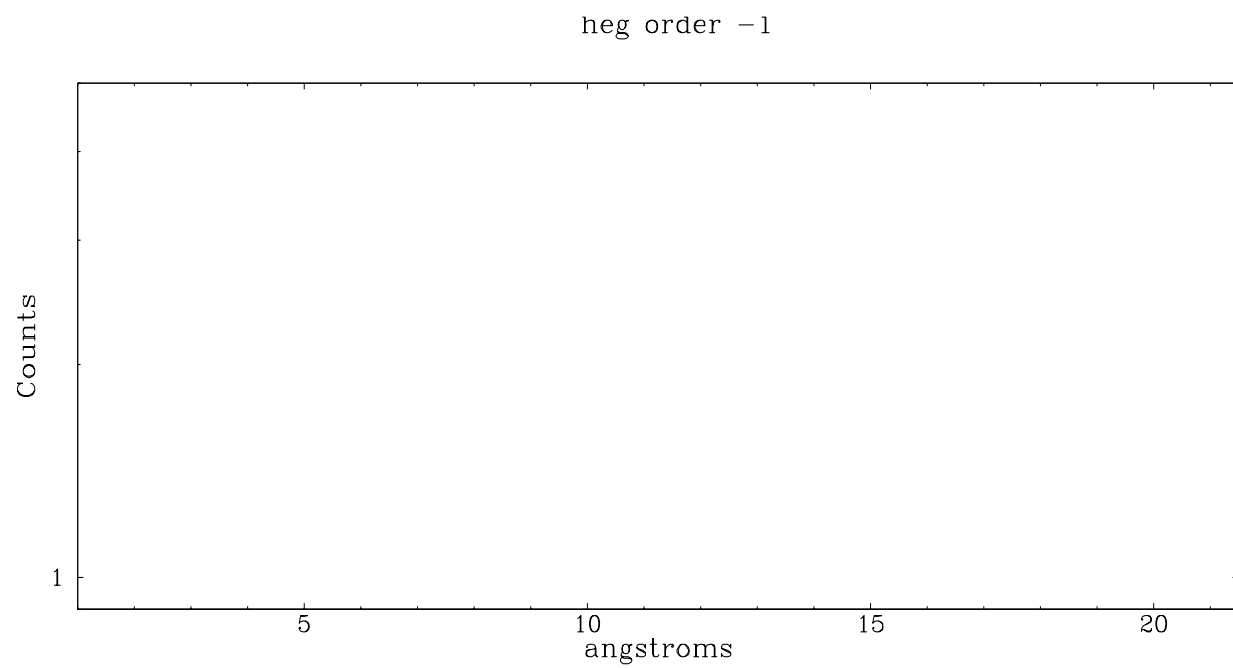
Spot Image HEG



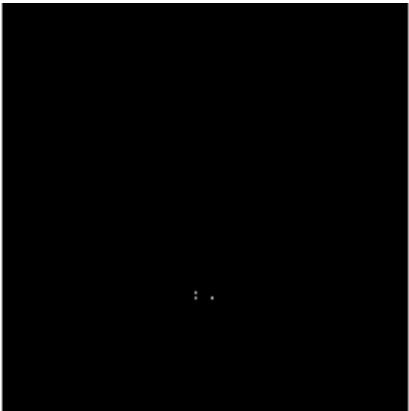
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	402424	0	0	0

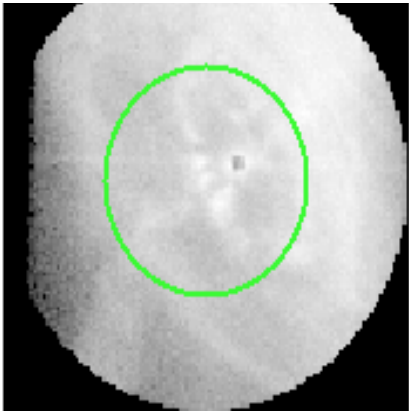




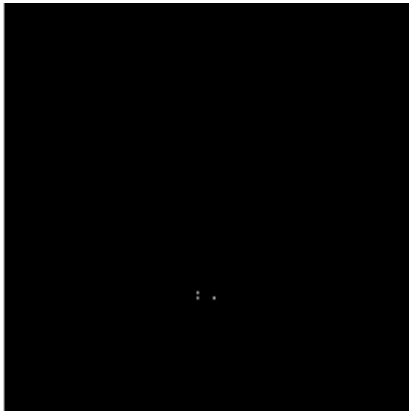
3.2 MEG Arm



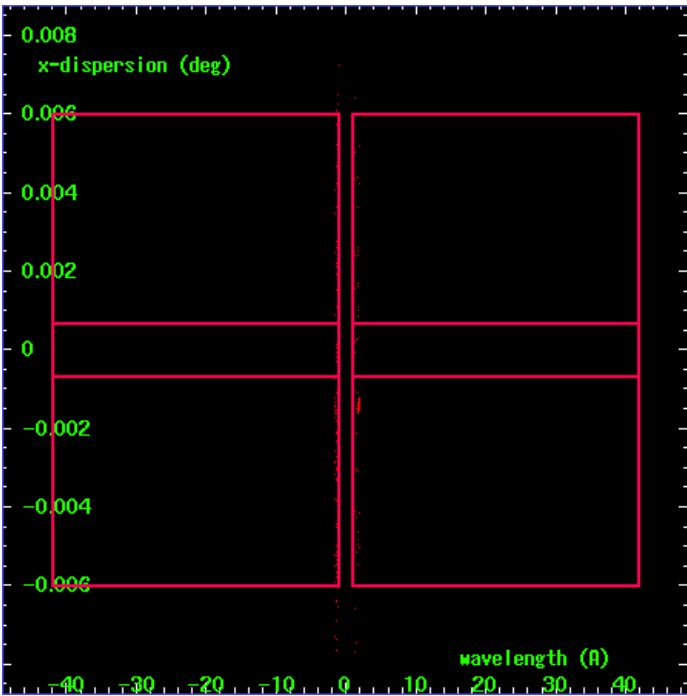
MEG Order Sort 123



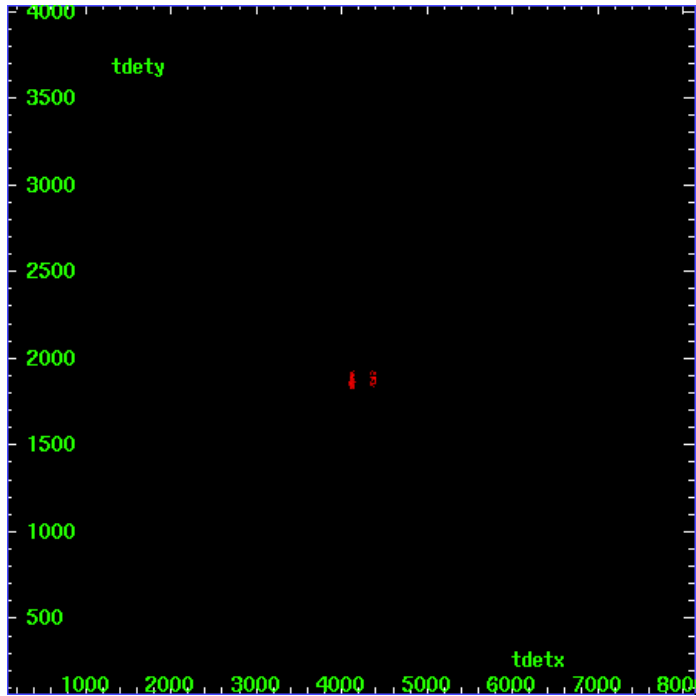
MEG Zero Order



MEG Order Sort ALL

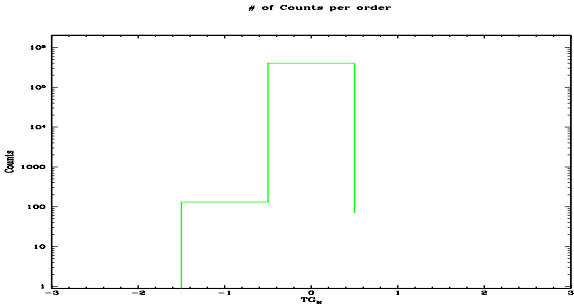


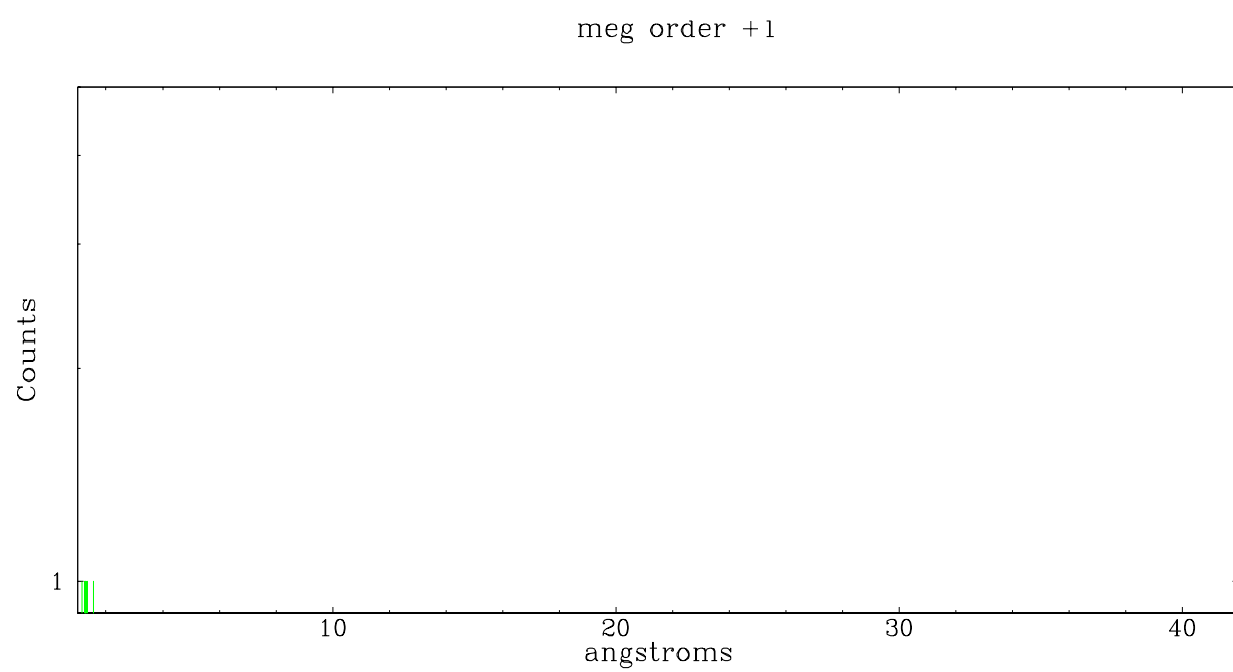
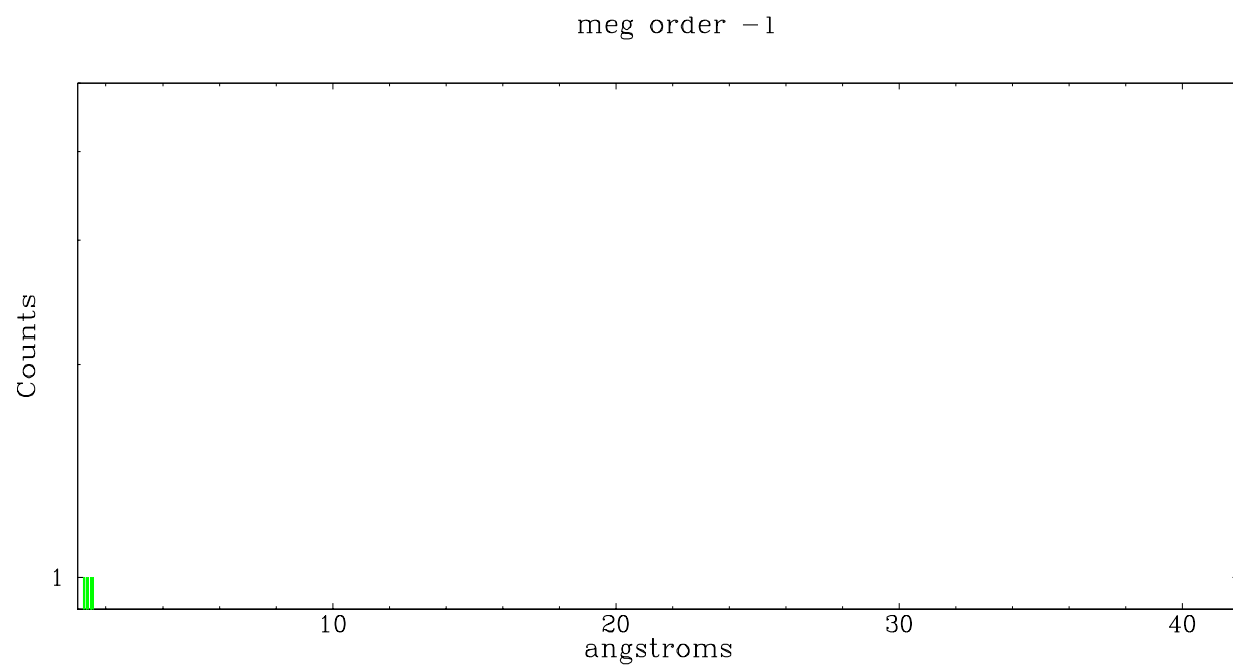
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	131	402424	69	0	0





# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.04.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.1838

## A.2 Comments

Window constraint met. HETG is inserted as a filter, little or no spectral data available. Previous calibration issue that flagged 4 columns as bad at the CCD node boundary instead of 2 columns, which is the expected numbers, has been corrected.