

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 6140 - L2 Version 002  
Chandra X-Ray Center

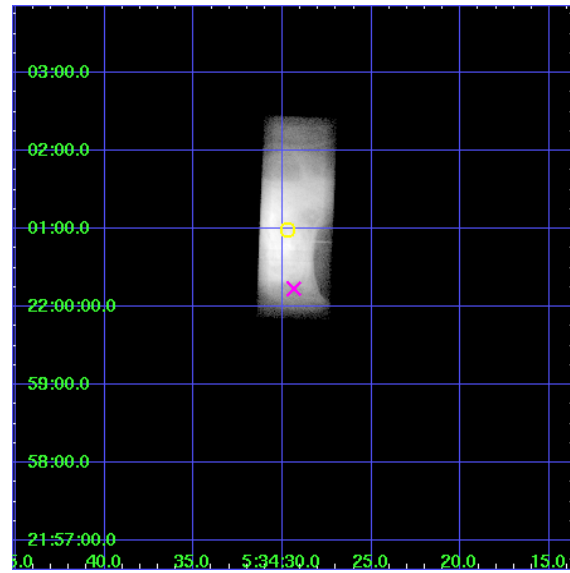
L2 Processing Date : Mar 17 2006

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# 1 Front

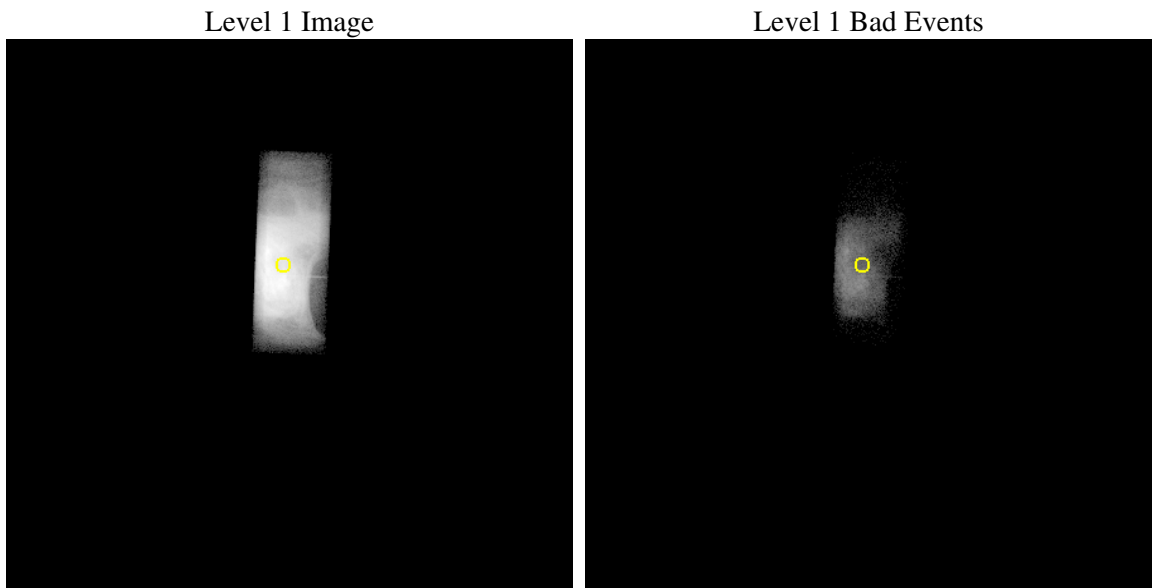
seq_num	500593
obs_id	6140
title	Monitoring of the Relativistic Magnetohydrodynamic Shock in the Crab Nebula
observer	Dr Koji Mori
object	The Crab Nebula
dtcycle	0
cycle	P
ra_targ	83.62375
dec_targ	22.016472
ra_nom	83.622414055455
dec_nom	22.004073241767
roll_nom	272.23623447791
revision	2
ontime	9853.8003915548
livetime	8668.0158264909
ontime7	9853.8003915548
l2events	1841395



## 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	2006-03-17T23:43:23
revision	2

sched_exp_time	10000.000000
ontime	9854.5745176375
ontime7	9854.5745176375
l1events	1922677

### 2.1.3 Events

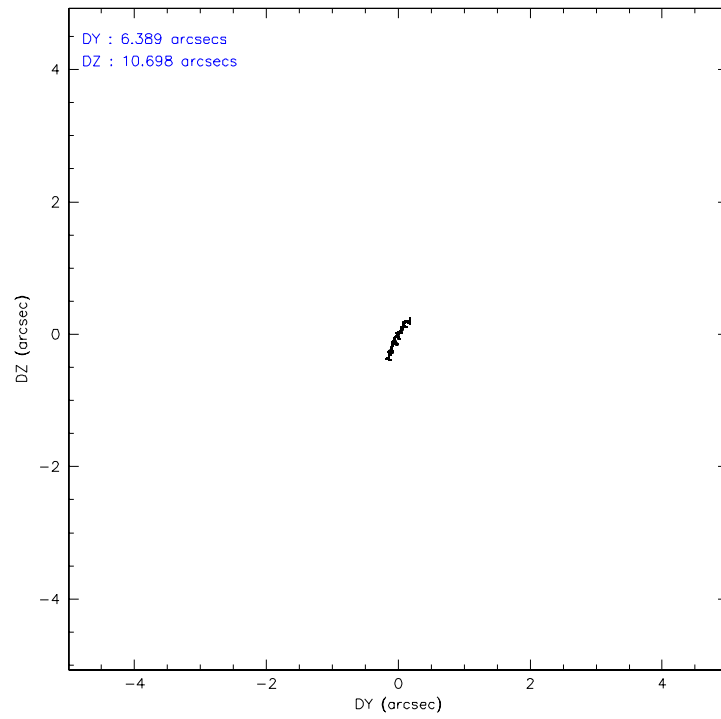
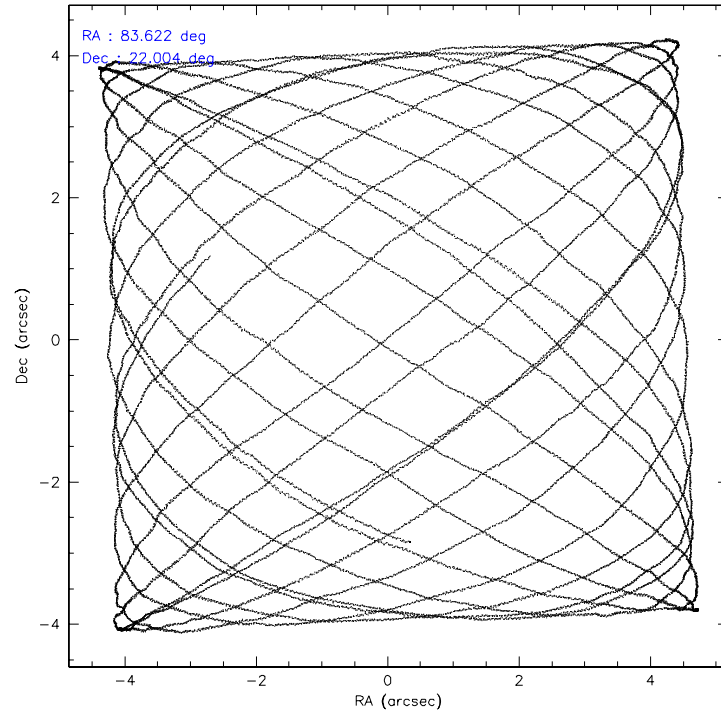
	<b>ccd 7</b>
level 1 events	1922677
rejected events	56940
rejected %	2%

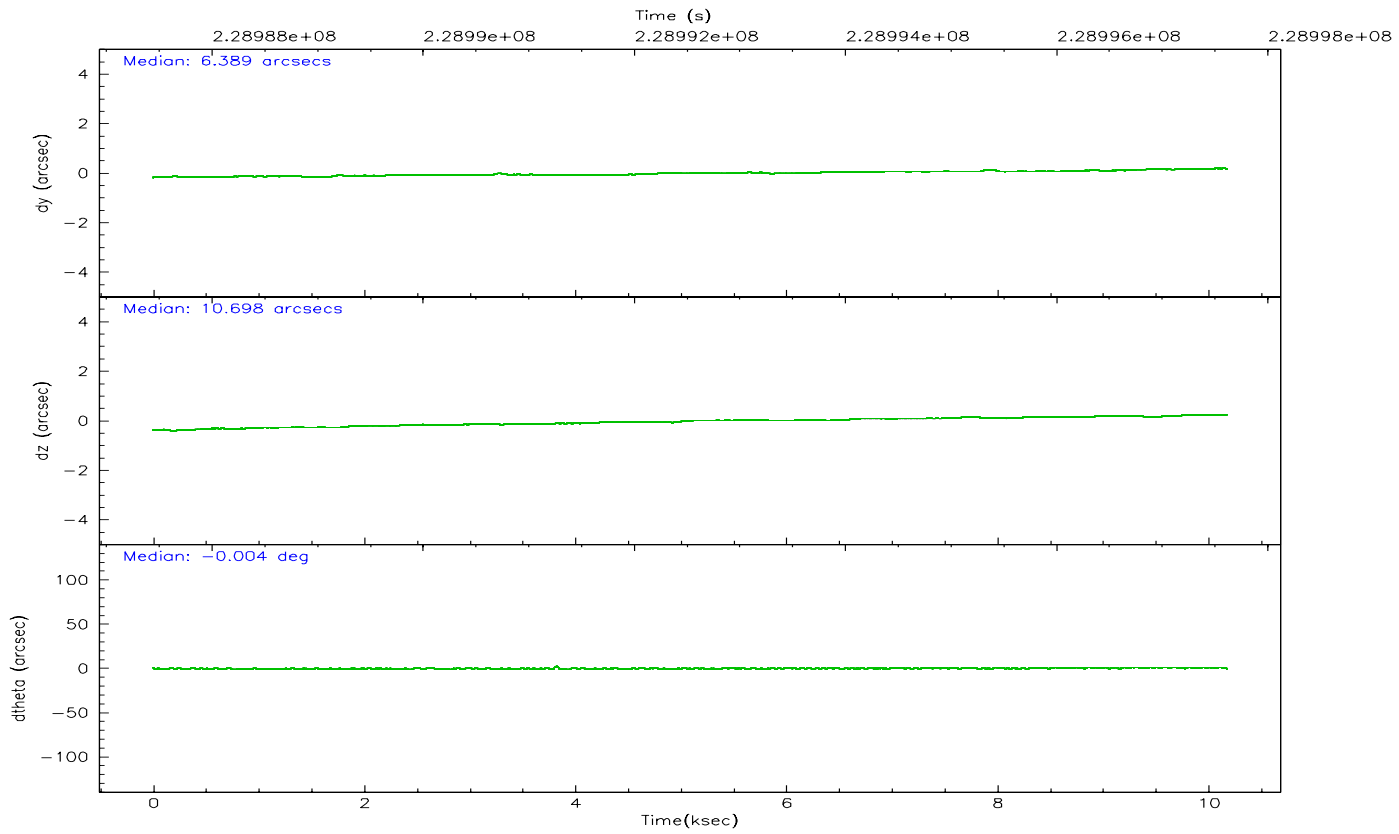
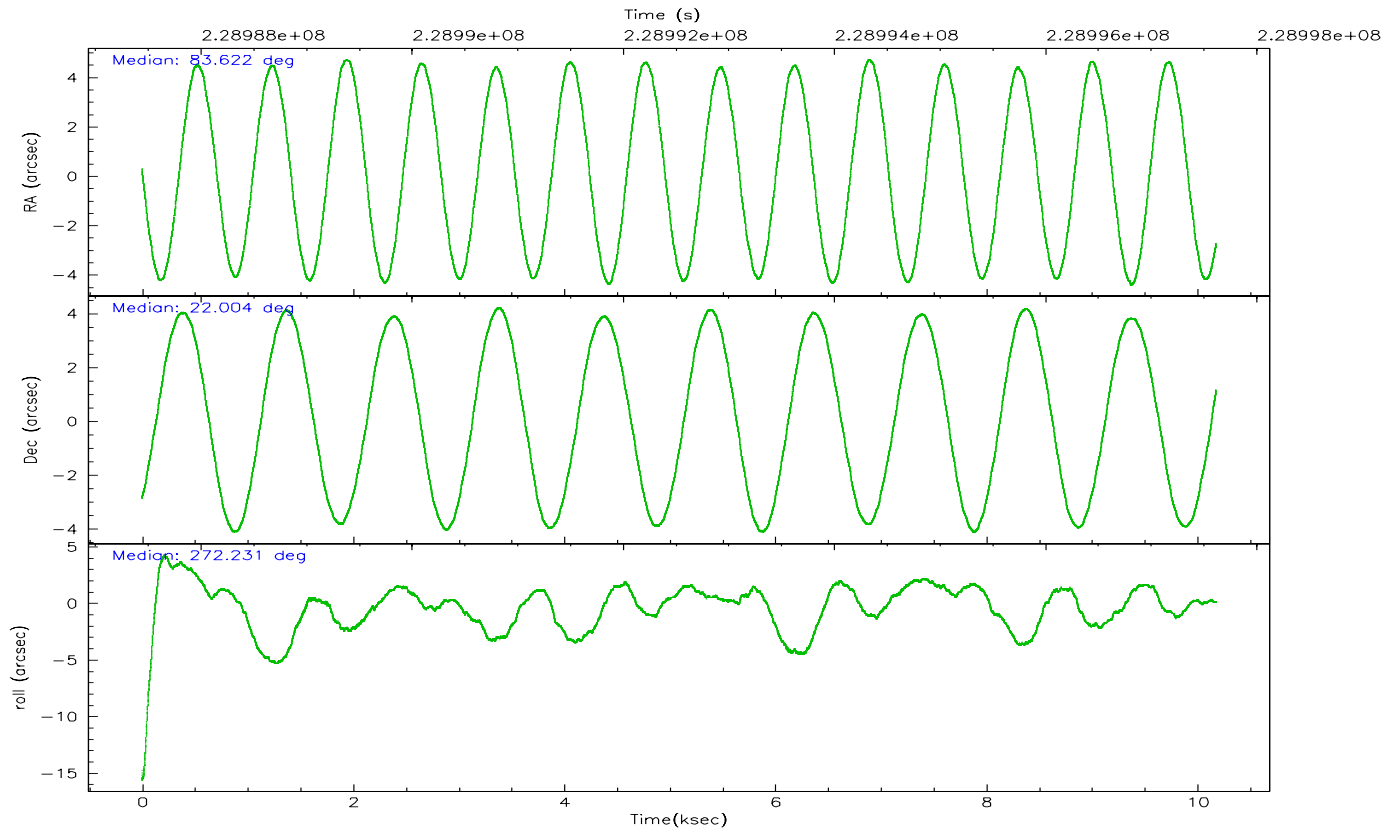
	<b>ccd 7</b>
grade 0 events	376599
	19%
grade 1 events	5538
	0%
grade 2 events	474924
	24%
grade 3 events	213152
	11%
grade 4 events	205048
	10%
grade 5 events	24283
	1%
grade 6 events	596146
	31%
grade 7 events	26987
	1%

## 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	83.606433	83.62241405545528	Subarray start row	127	127
Pointing Dec	22.026899	22.00407324176689	Subarray row count	101	101
Pointing Roll	272.085598	272.2362344779104	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	0.3
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	228987613.184000	228987237.26428			
Observation start date	2005-04-04T07:39:09	2005-04-04T07:33:57			
Observation end time	228997613.184000	228997747.61476			
Observation end date	2005-04-04T10:25:49	2005-04-04T10:29:07			
Read mode	TIMED	TIMED			

## 2.3 Aspect





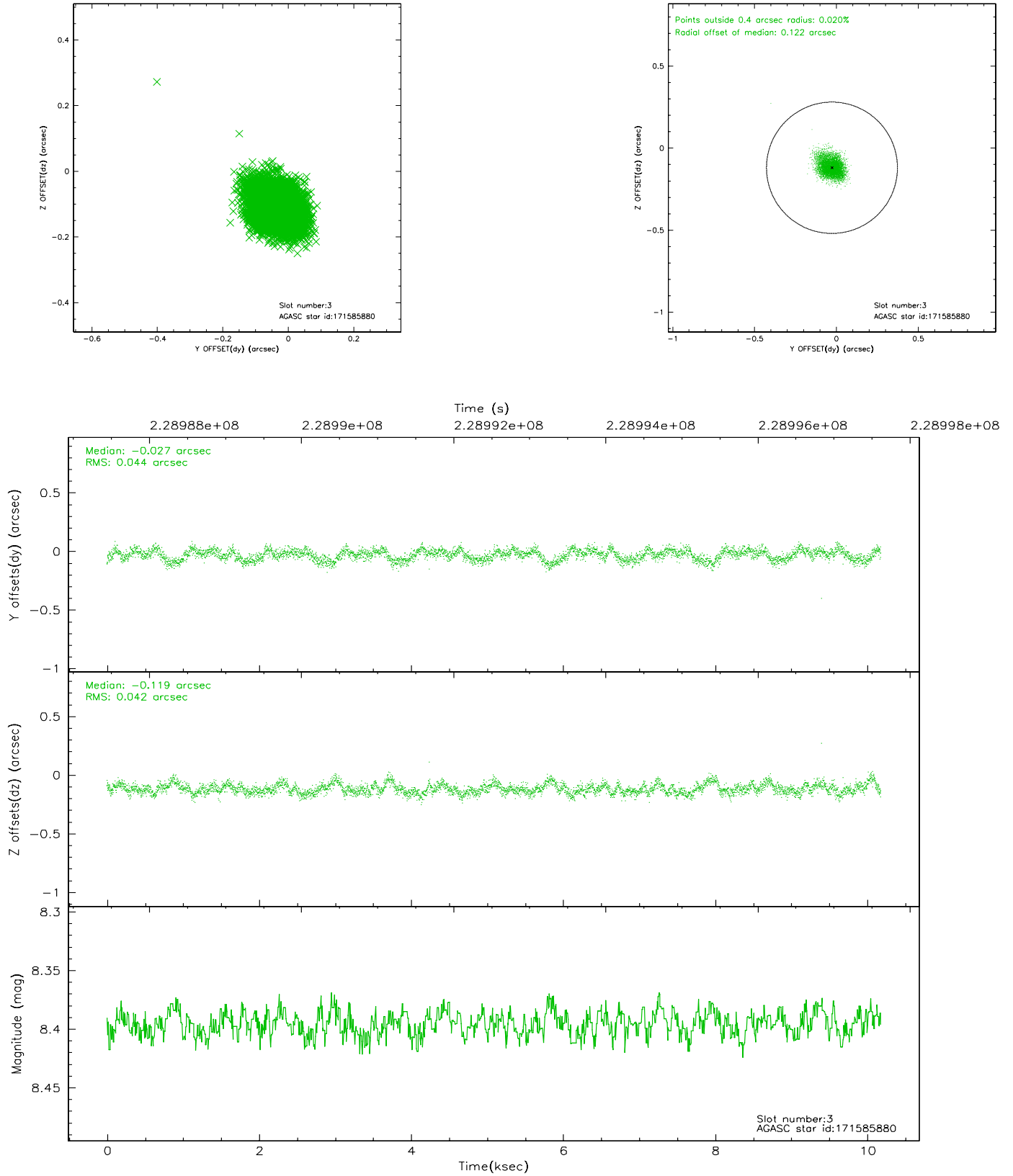
### Slot Statistics

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	2483	-0.080	-0.096	0.012	0.018	0.000000	0.000000	-758.61	-1896.74
1	FID	ACIS-S-4	7.18	2483	0.117	0.064	0.010	0.041	0.000000	0.000000	2154.61	11.30
2	FID	ACIS-S-5	7.23	2483	-0.067	0.041	0.012	0.027	0.000000	0.000000	-1810.78	5.53
3	GUIDE	171585880	8.40	4967	-0.027	-0.119	0.064	0.104	83.676260	22.176319	-528.89	252.11
4	GUIDE	171586032	8.96	4962	0.078	0.053	0.069	0.110	83.950197	22.083225	-162.04	1153.59
5	GUIDE	171597832	9.17	4965	0.144	-0.087	0.102	0.159	83.183230	21.366702	2322.16	-1503.95
6	GUIDE	171721904	9.21	4966	0.026	0.153	0.101	0.156	84.272676	22.116922	-247.29	2232.38
7	GUIDE	243941560	8.30	4963	-0.218	-0.001	0.048	0.080	83.733264	22.568598	-1933.58	492.60

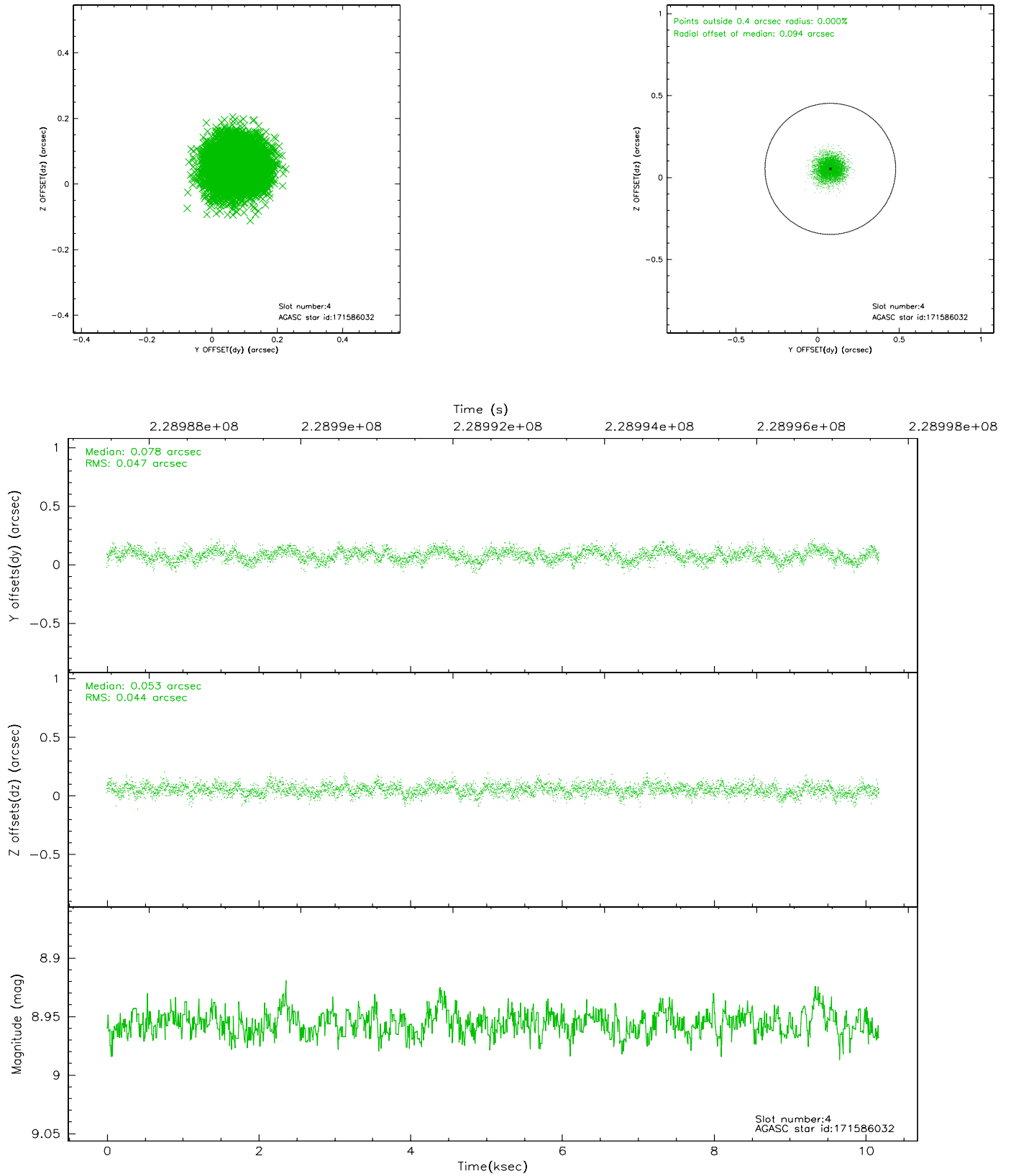


## 2.4 Star Slots

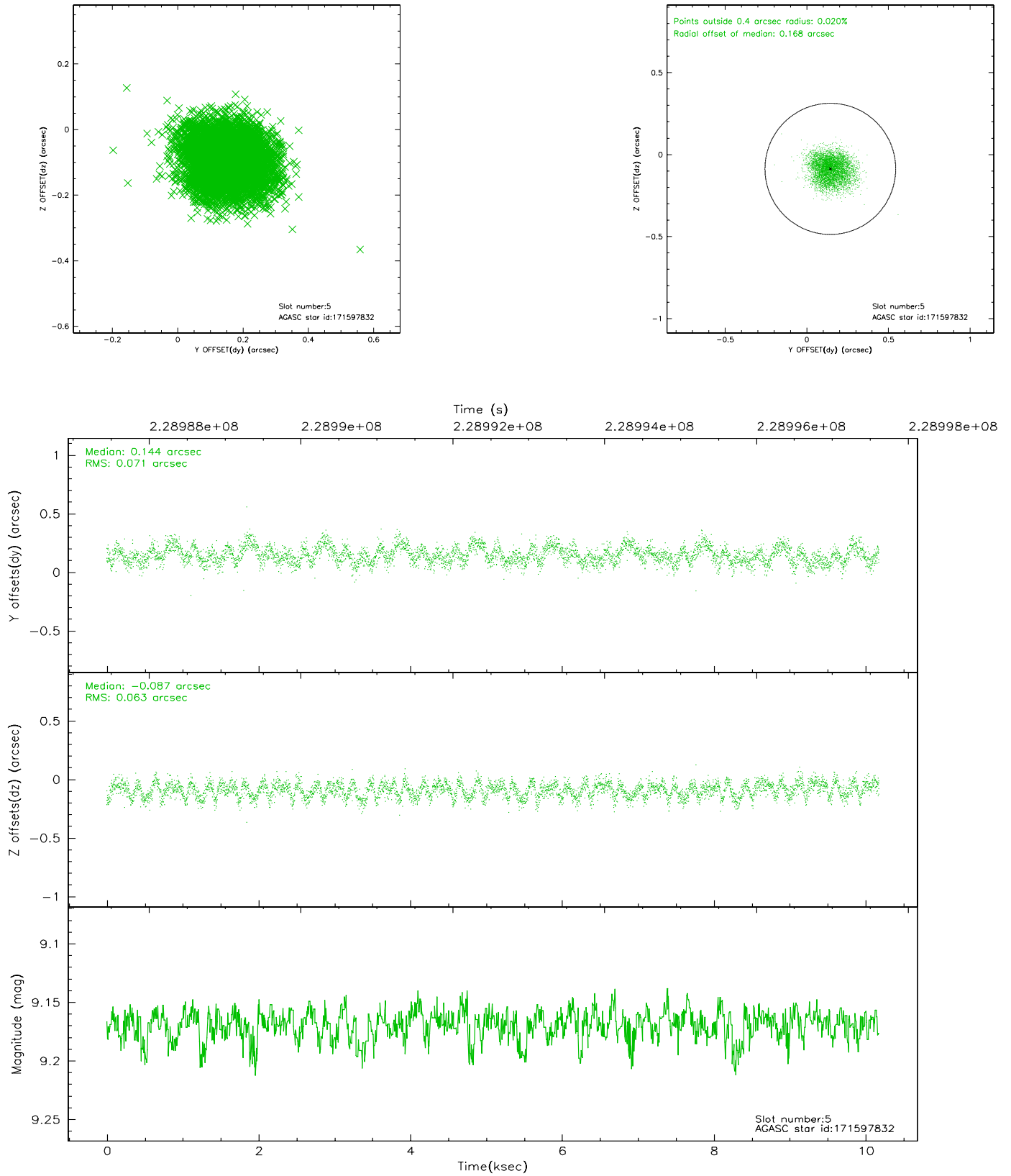
### 2.4.1 Slot 3



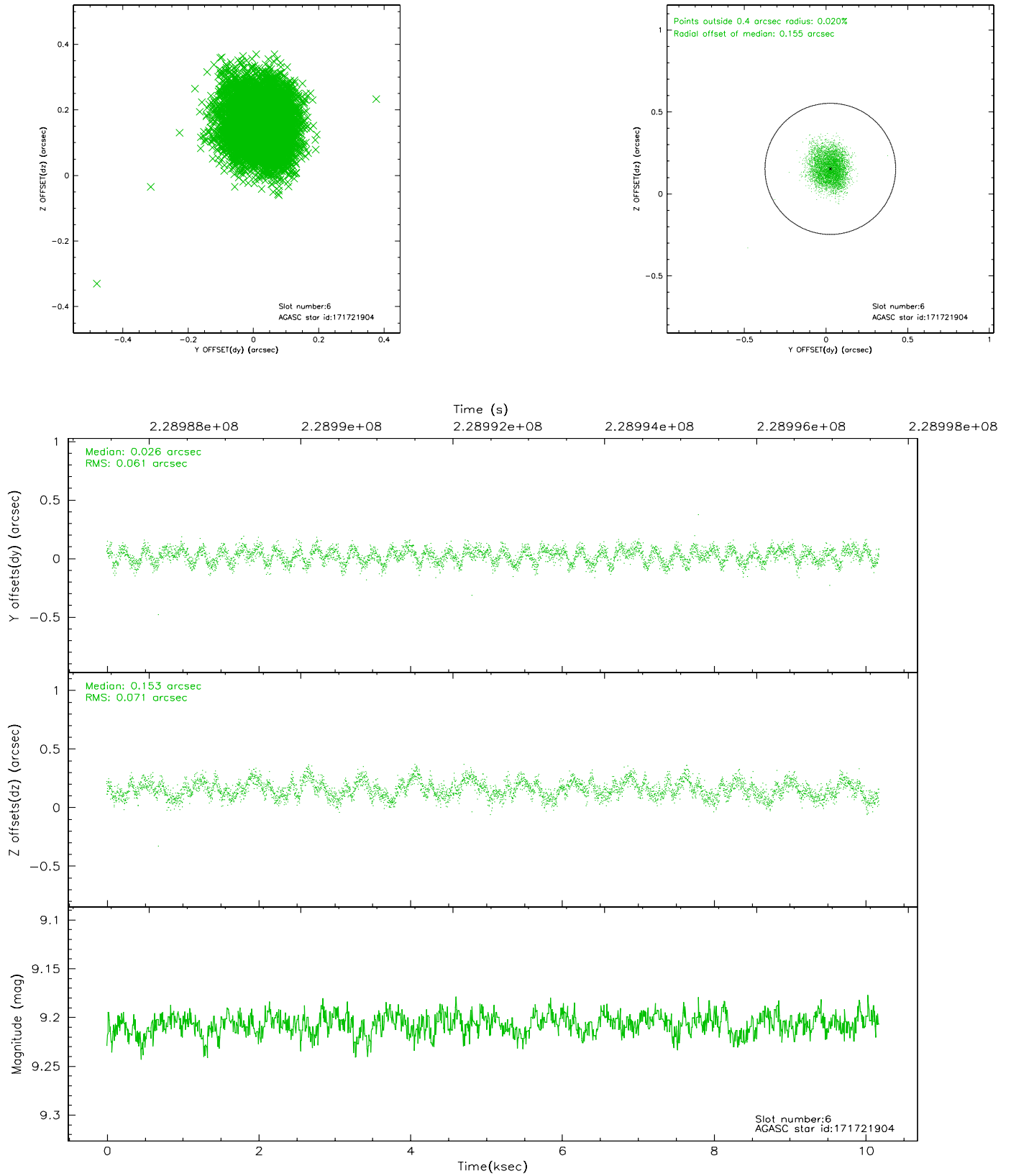
## 2.4.2 Slot 4



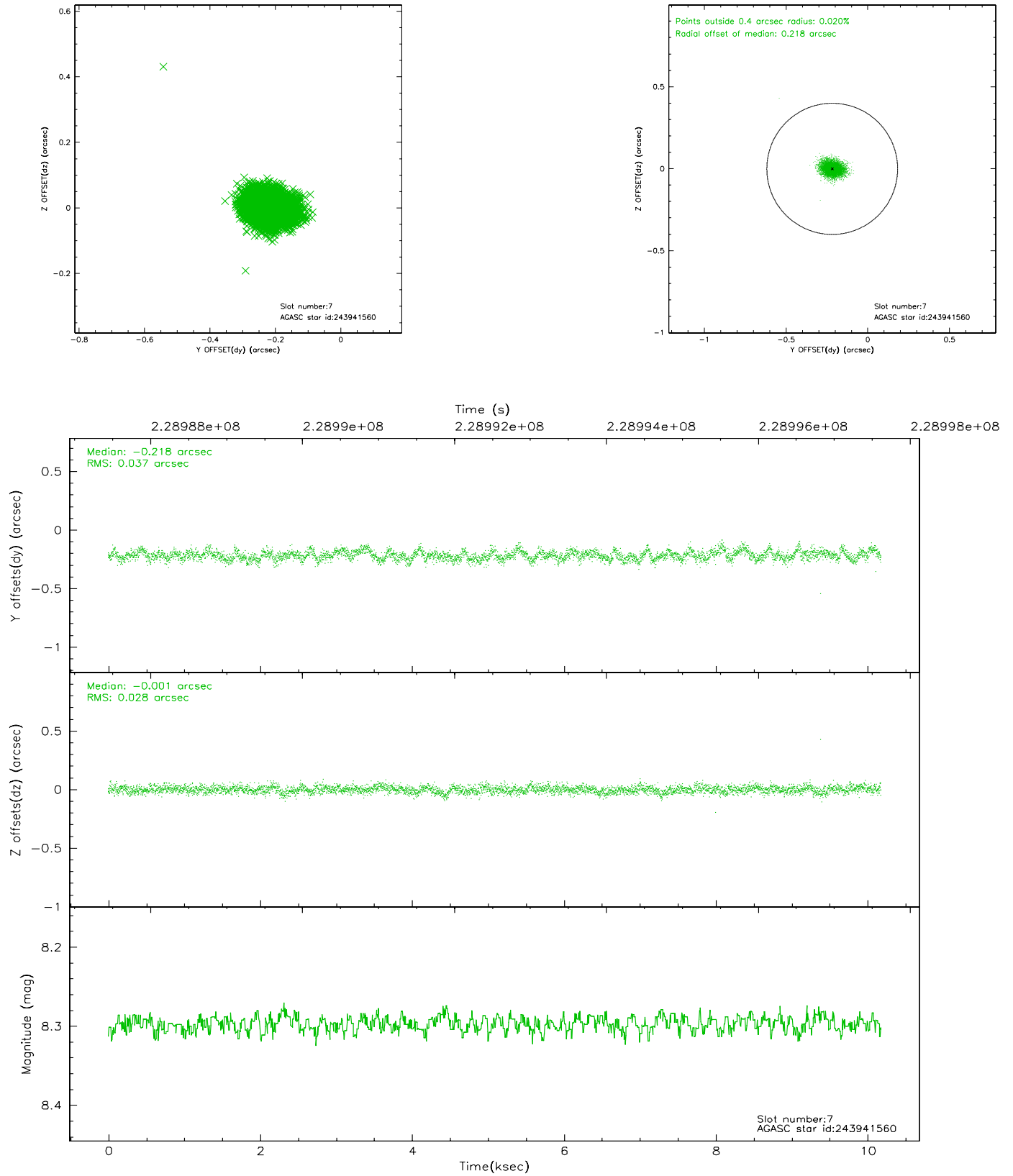
### 2.4.3 Slot 5



## 2.4.4 Slot 6

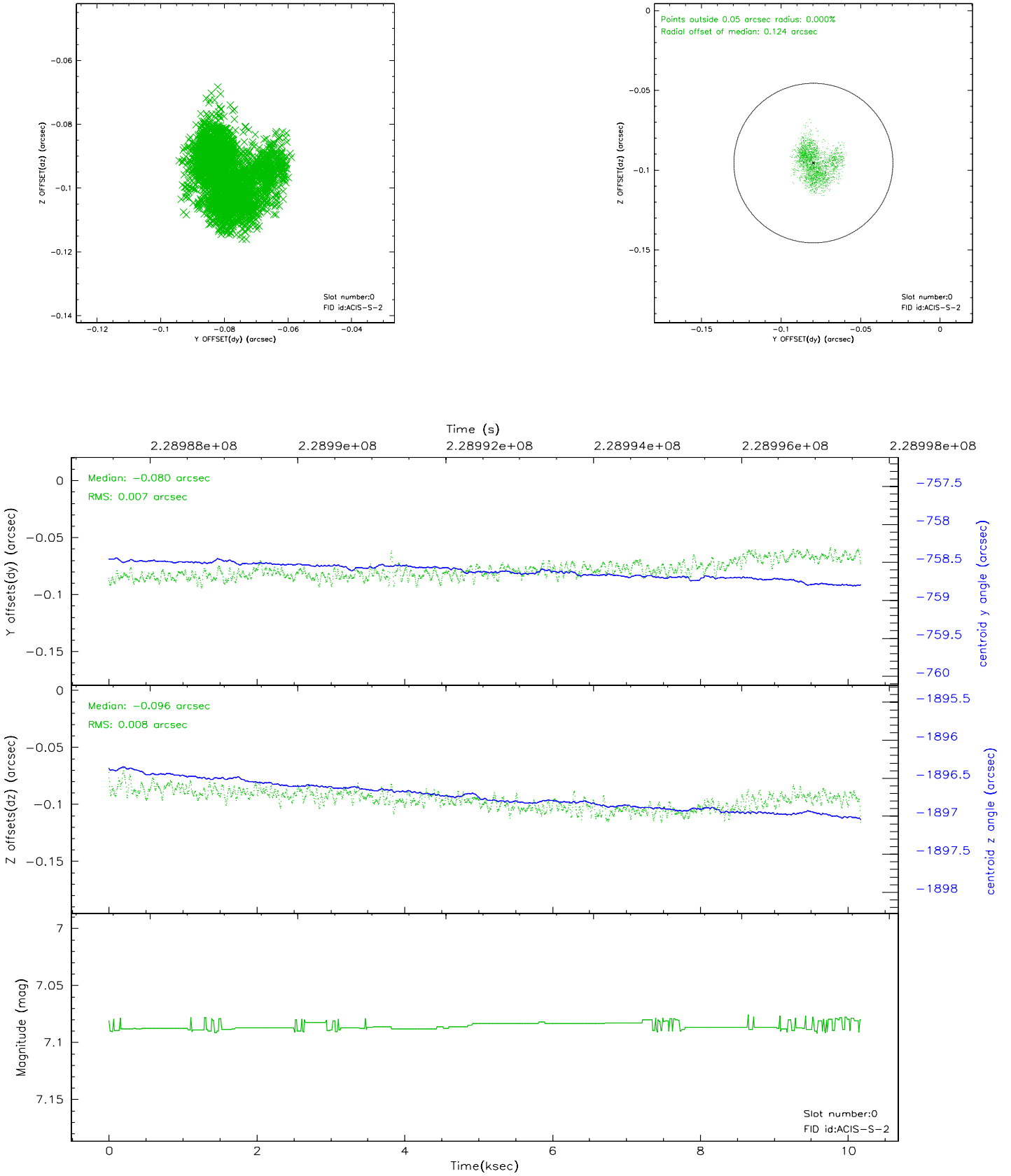


## 2.4.5 Slot 7

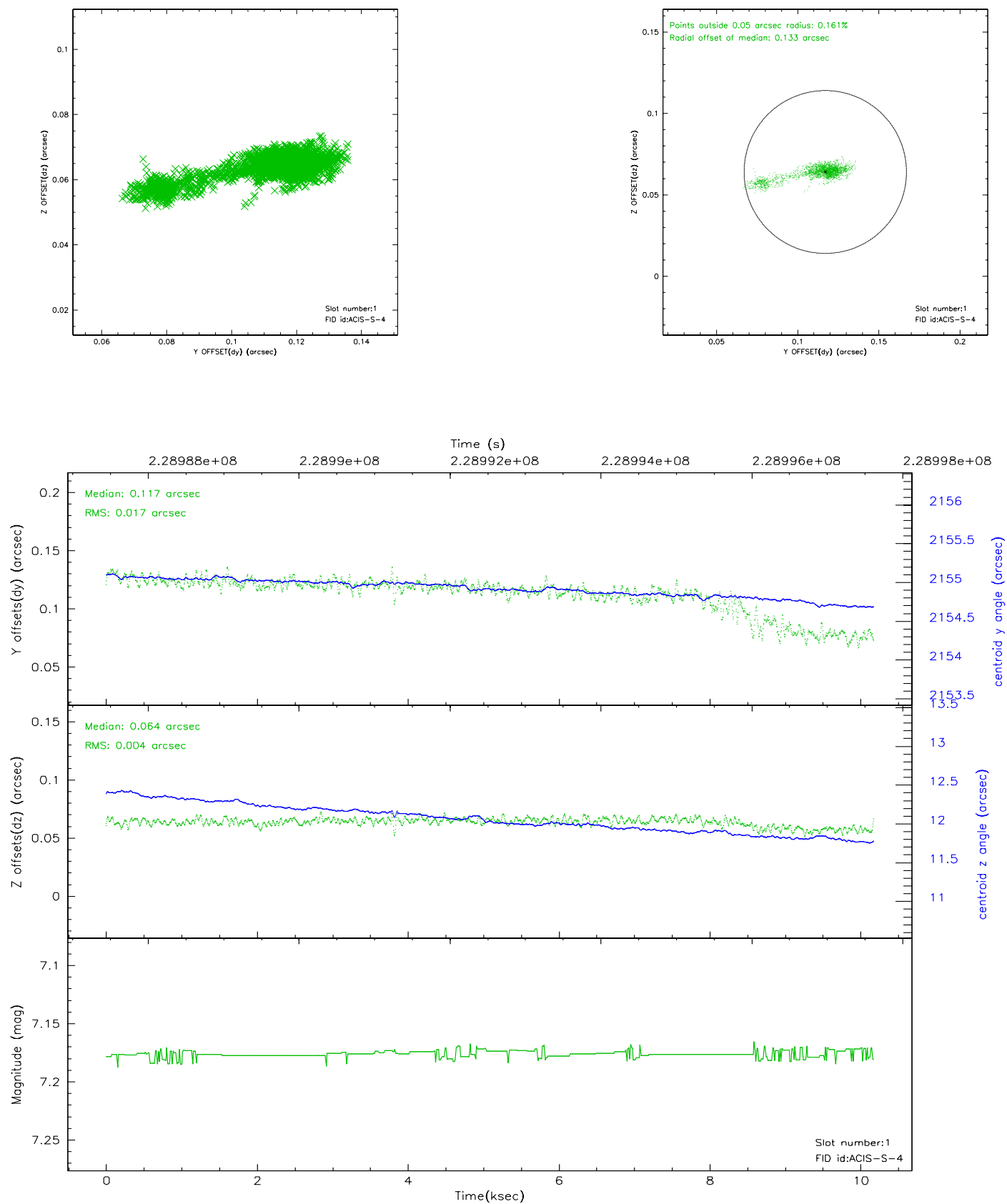


## 2.5 FID Slots

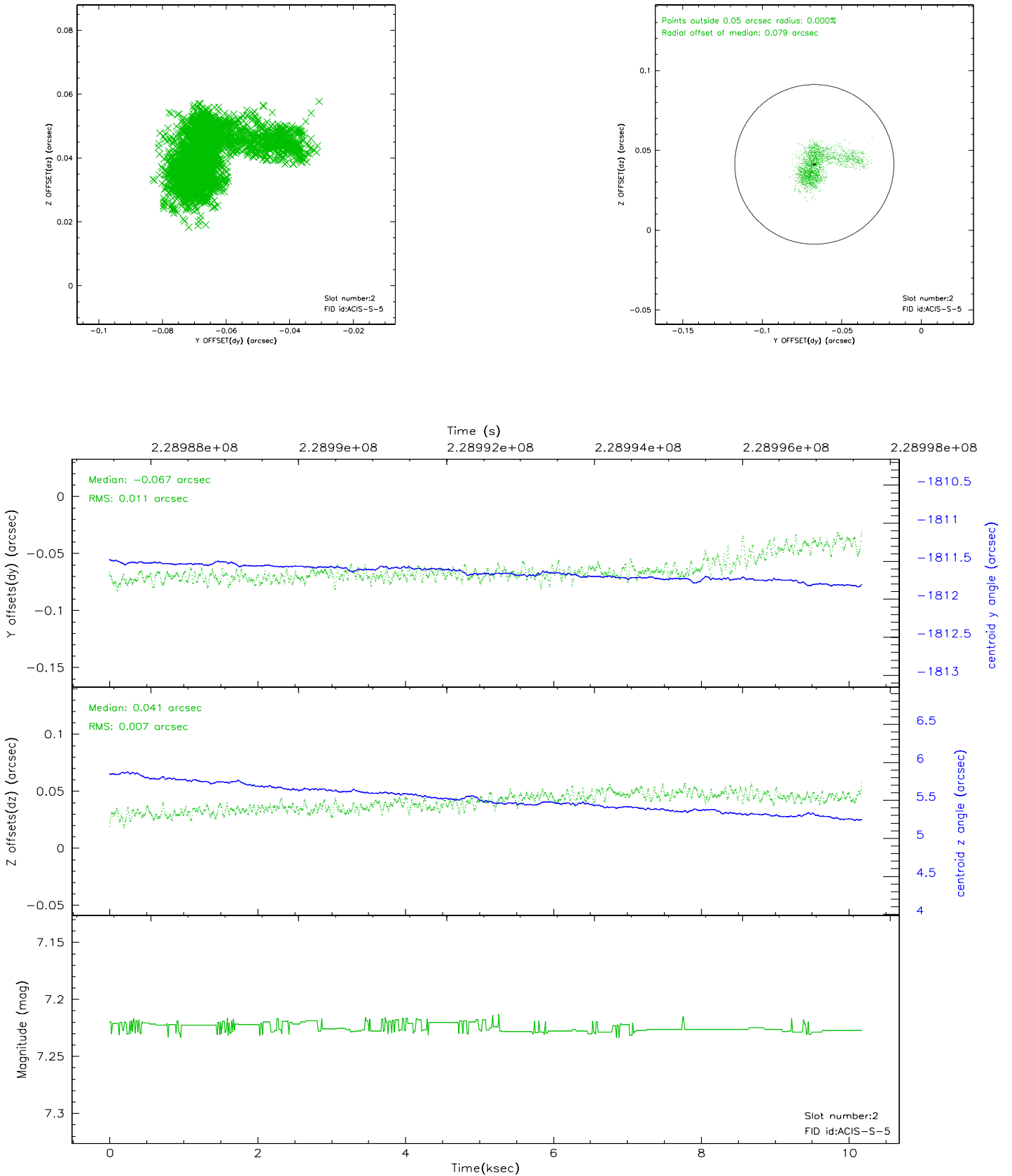
### 2.5.1 Slot 0



2.5.2 Slot 1



### 2.5.3 Slot 2



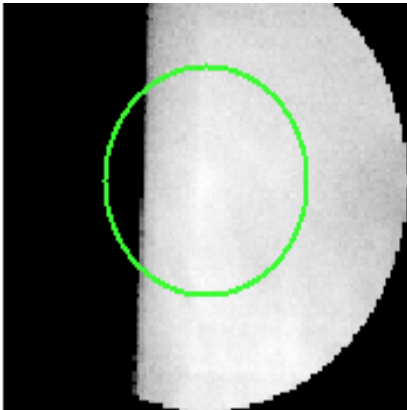


# 3 Gratings

## 3.1 HEG Arm



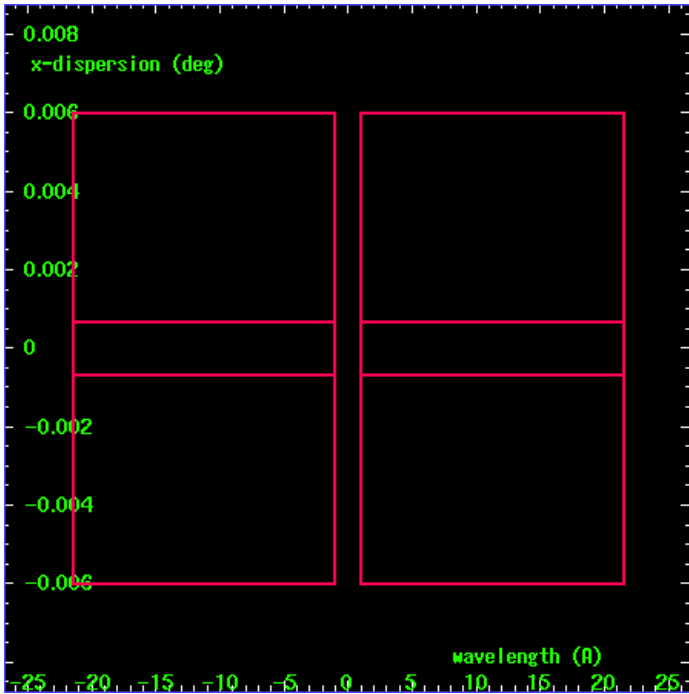
HEG Order Sort 123



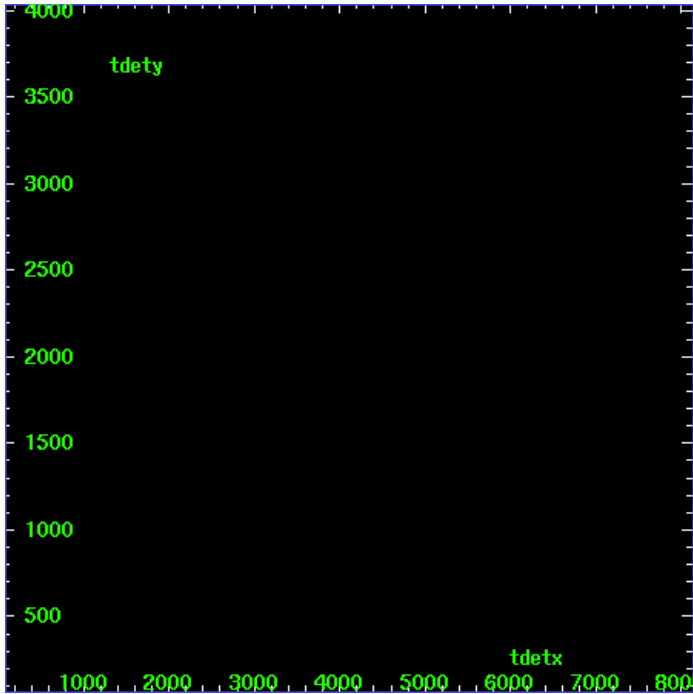
HEG Zero Order



HEG Order Sort ALL

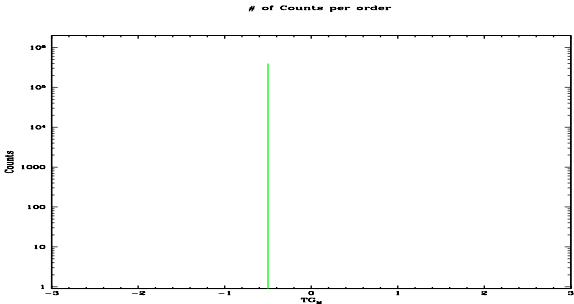


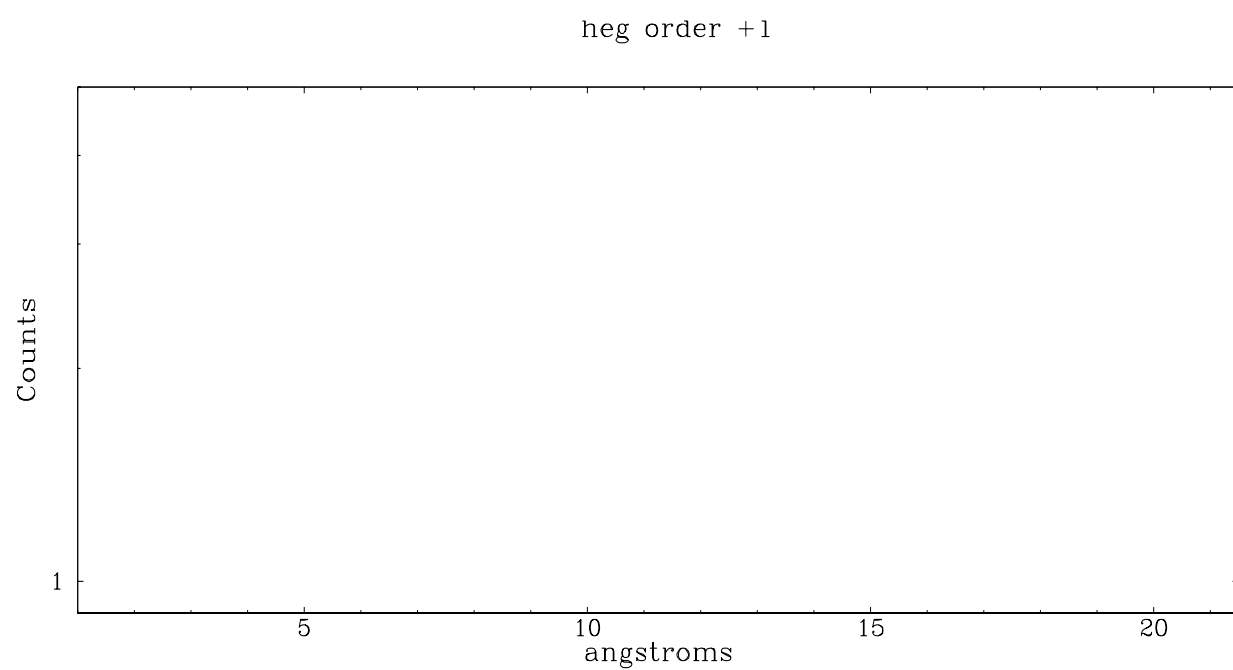
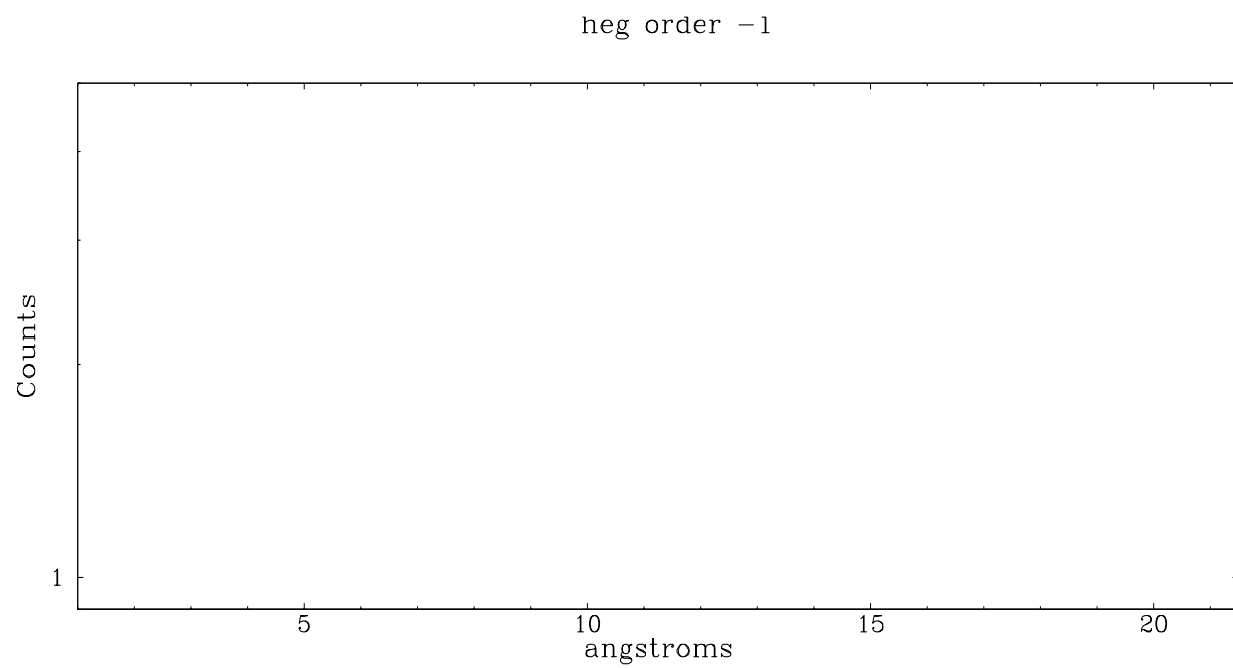
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	394629	0	0	0

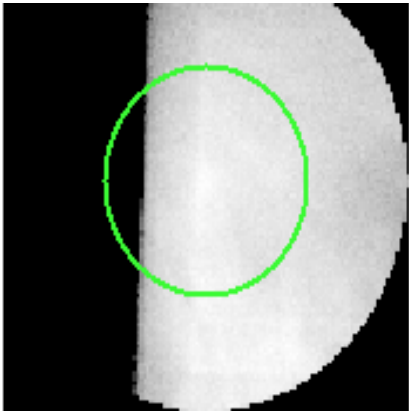




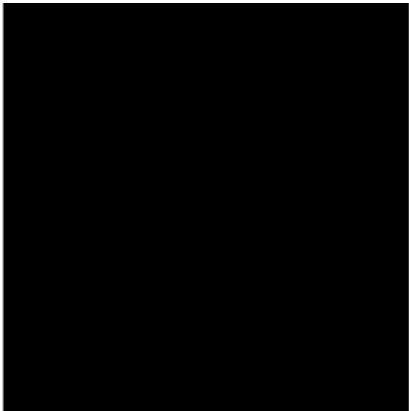
3.2 MEG Arm



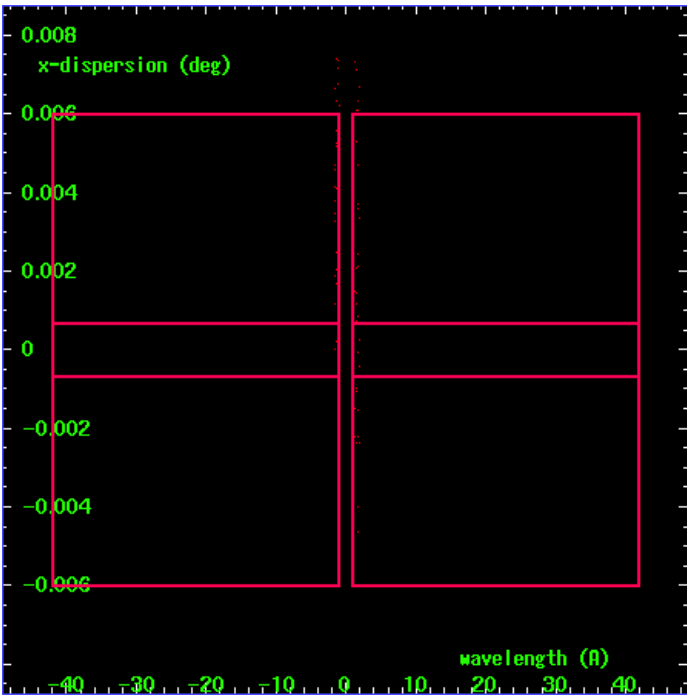
MEG Order Sort 123



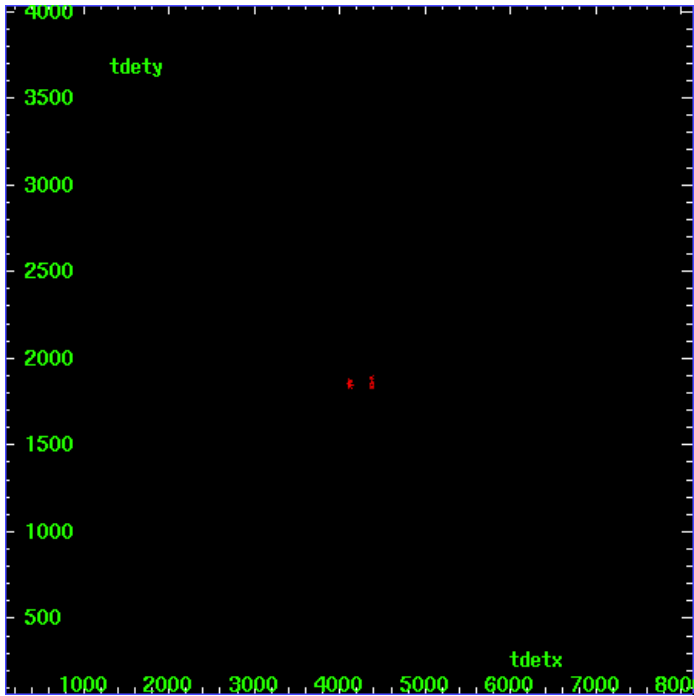
MEG Zero Order



MEG Order Sort ALL

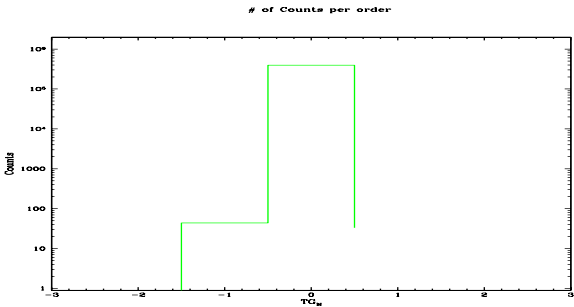


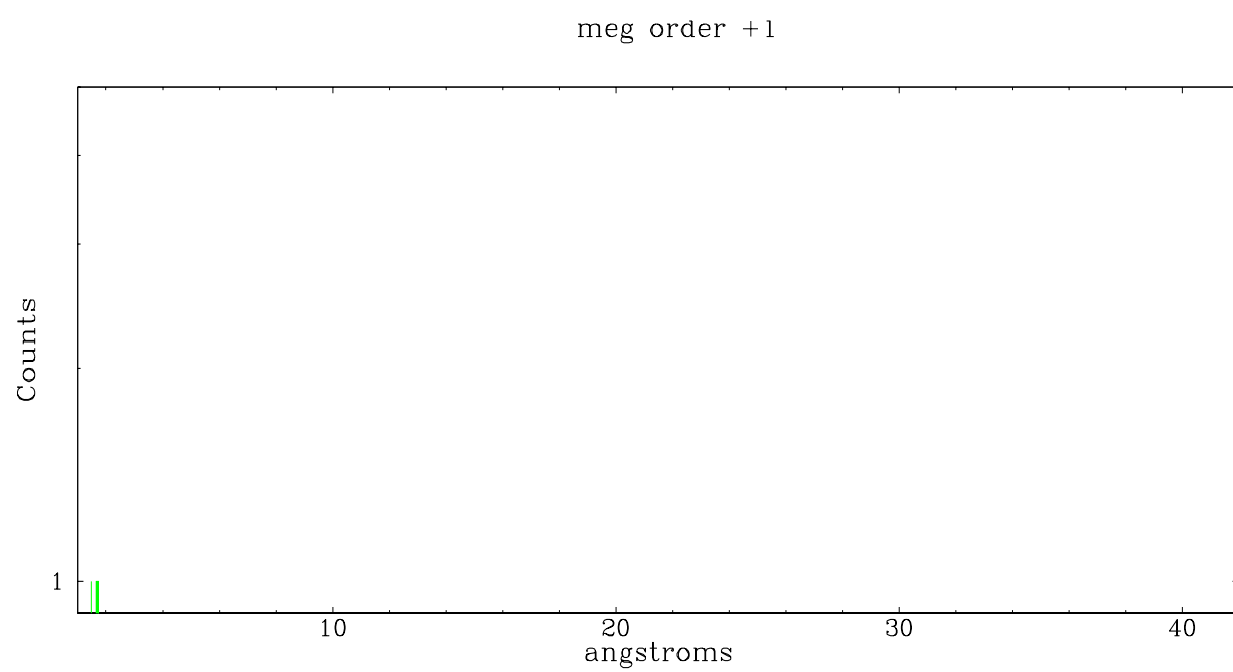
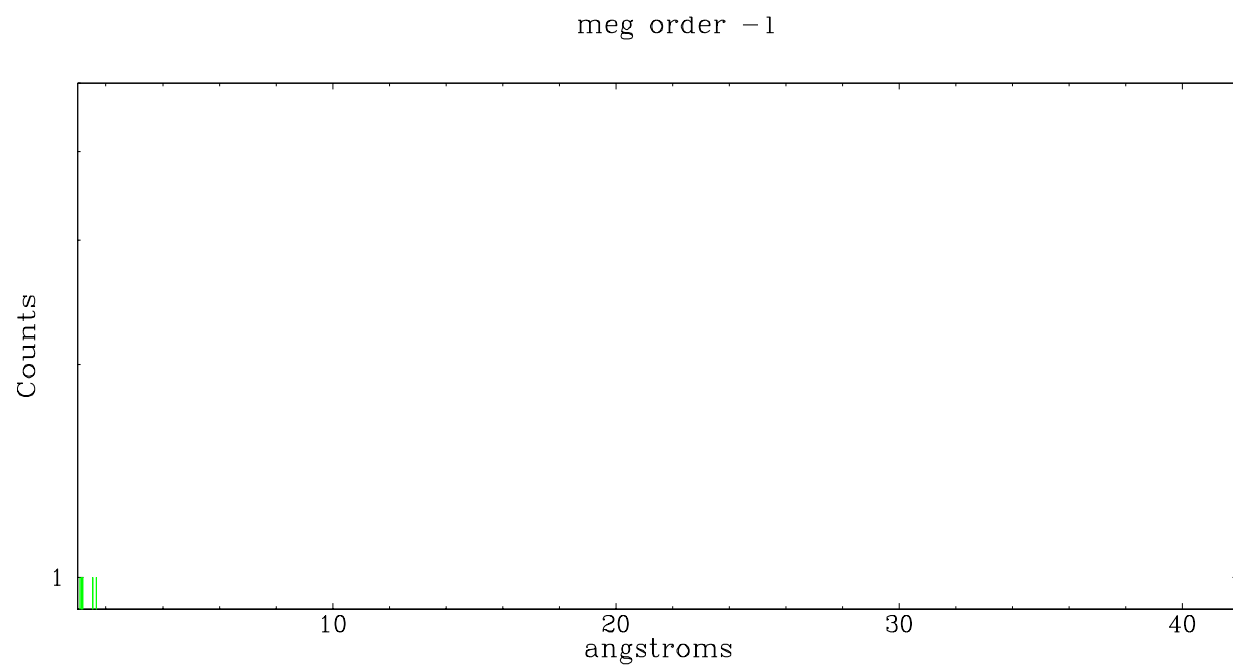
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	44	394629	33	0	0





# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.8538

## A.2 Comments

Monitor constraint met. Custom subarray: zeroth order overlaps edge of the detector.