

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 2491 - L2 Version 001  
Chandra X-Ray Center

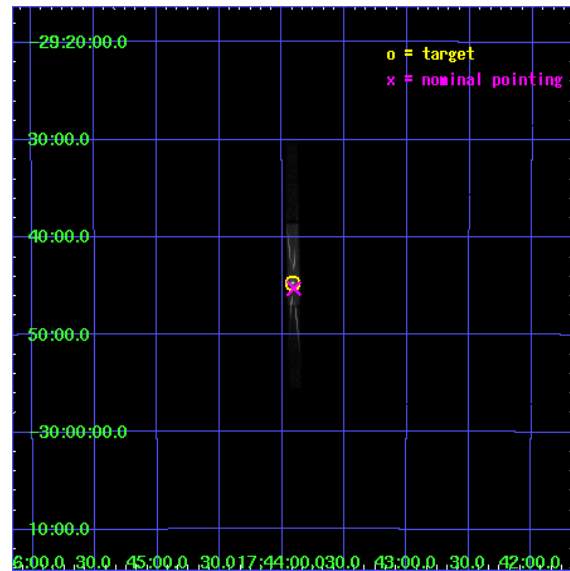
L2 Processing Date : Dec 31 2006

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# 1 Front

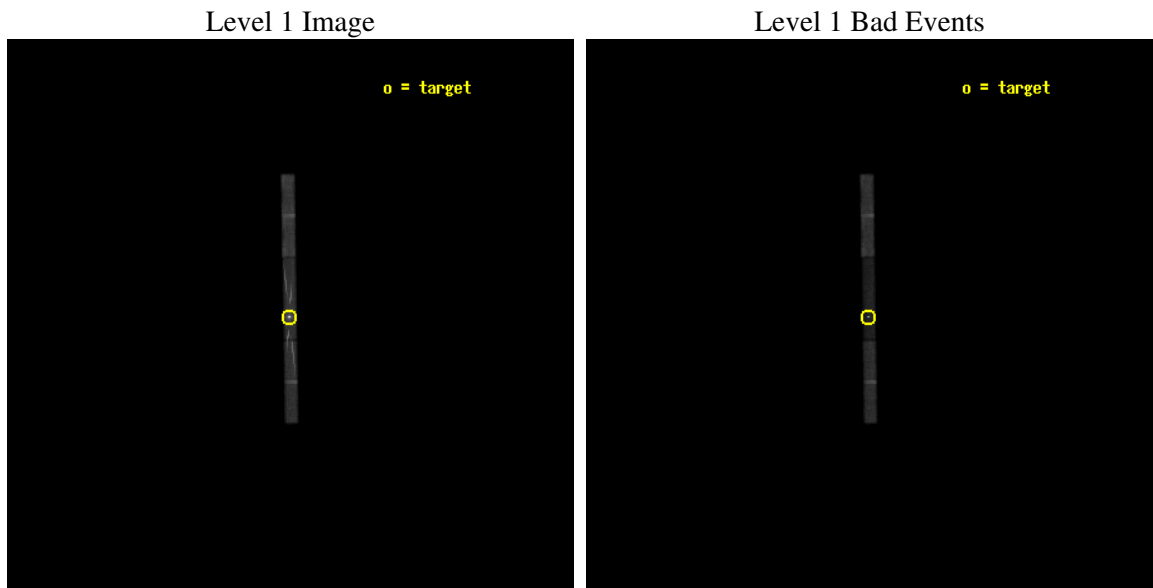
seq_num	400165
obs_id	2491
title	DOPPLER-SHIFTED EMISSION LINES FROM THE JETS OF 1E1740.7-2942?
observer	Dr. Wei Cui
object	1E1740.7-2942
dtcycle	0
cycle	P
ra_targ	265.978333
dec_targ	-29.745167
ra_nom	265.97618214215
dec_nom	-29.754731009494
roll_nom	269.14496776449
revision	2
ontime	65342.876250759
livetime	61159.562196517
ontime6	65341.594220579
ontime7	65342.876250759
ontime8	65342.876250759
l2events	178154



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 6

Chip 7

Chip 8



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldbver	3.2.4
date	2006-12-31T12:57:24
revision	2

sched_exp_time	65000.000000
ontime	65721.792728096
ontime6	65720.510697916
ontime7	65721.792728096
ontime8	65721.792728096
llevents	445068

### 2.1.4 Events

	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	113690	200656	130722
rejected events	84885	57078	105605
rejected %	74%	28%	80%

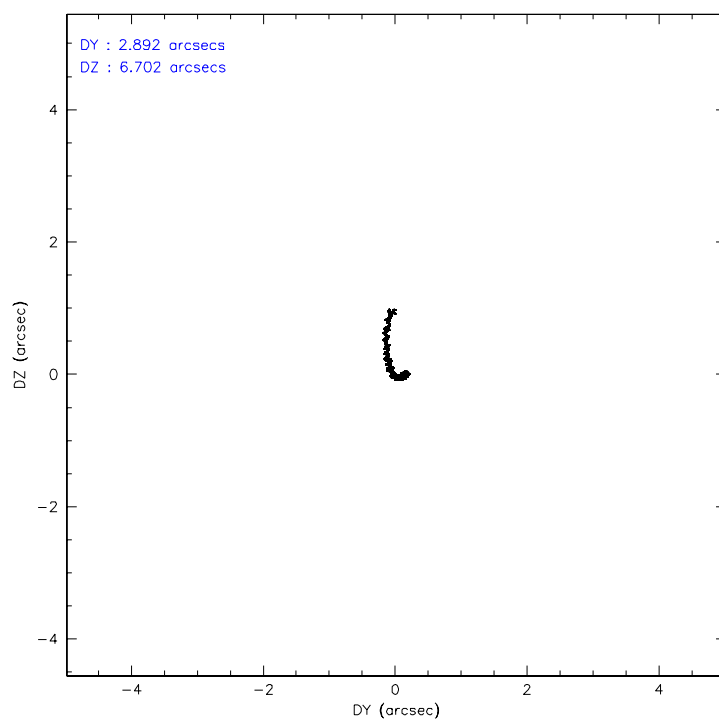
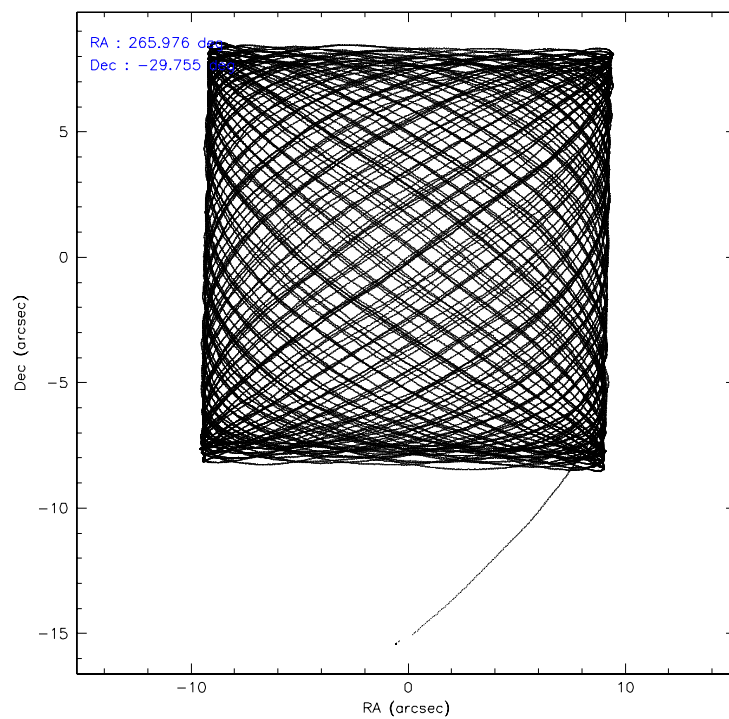
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	14810	23064	7359
	13%	11%	5%
grade 1 events	45	674	34
	0%	0%	0%
grade 2 events	4489	32507	4360
	3%	16%	3%
grade 3 events	2848	14247	3504
	2%	7%	2%
grade 4 events	2790	13479	3306
	2%	6%	2%
grade 5 events	2644	10157	3252
	2%	5%	2%
grade 6 events	3939	60652	6703
	3%	30%	5%
grade 7 events	82125	45876	102204
	72%	22%	78%

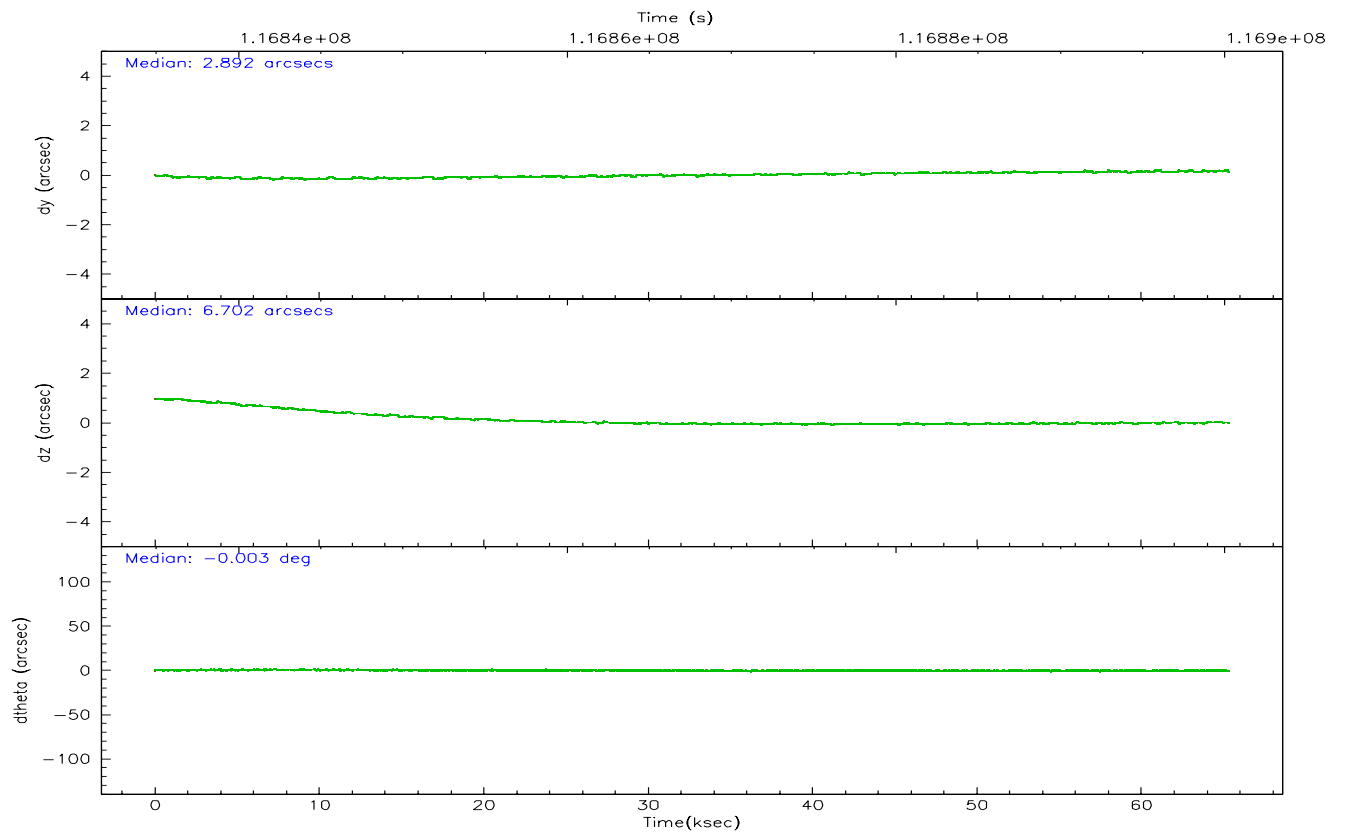
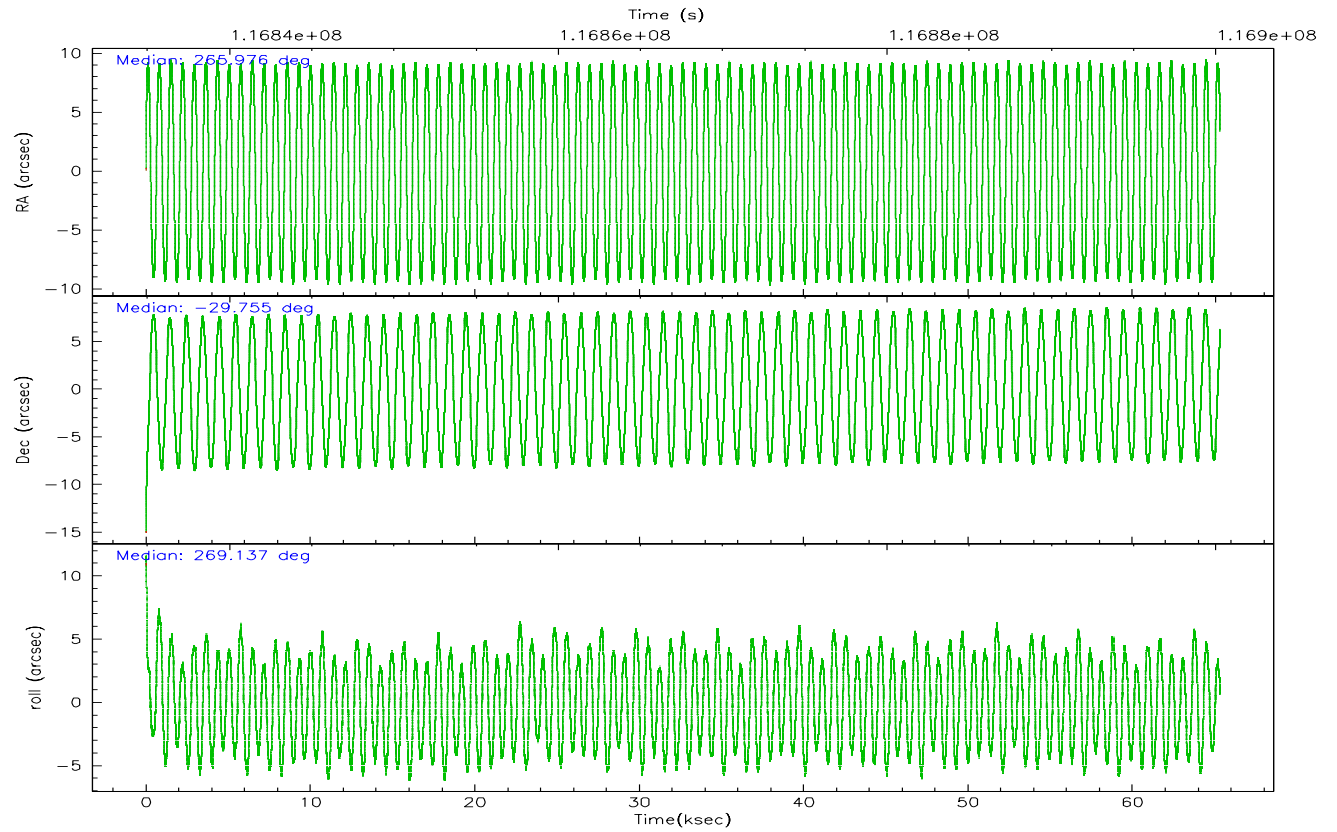


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-678	ACIS-678	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	265.960578	265.9761821421491	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-29.731058	-29.75473100949359	Subarray start row	104	104
Pointing Roll	268.980592	269.144967764492	Subarray row count	150	150
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	0.6
SIM translation stage pos (mm)	-182.132523	-182.1370004450064			
SIM translation stage offset (mm)	-8	-7.995522138001405			
Observation start time	116835265.184000	116834231.94988			
Observation start date	2001-09-14T06:13:21	2001-09-14T05:57:11			
Observation end time	116900265.184000	116901298.72754			
Observation end date	2001-09-15T00:16:41	2001-09-15T00:34:58			
Read mode	TIMED	TIMED			

## 2.3 Aspect



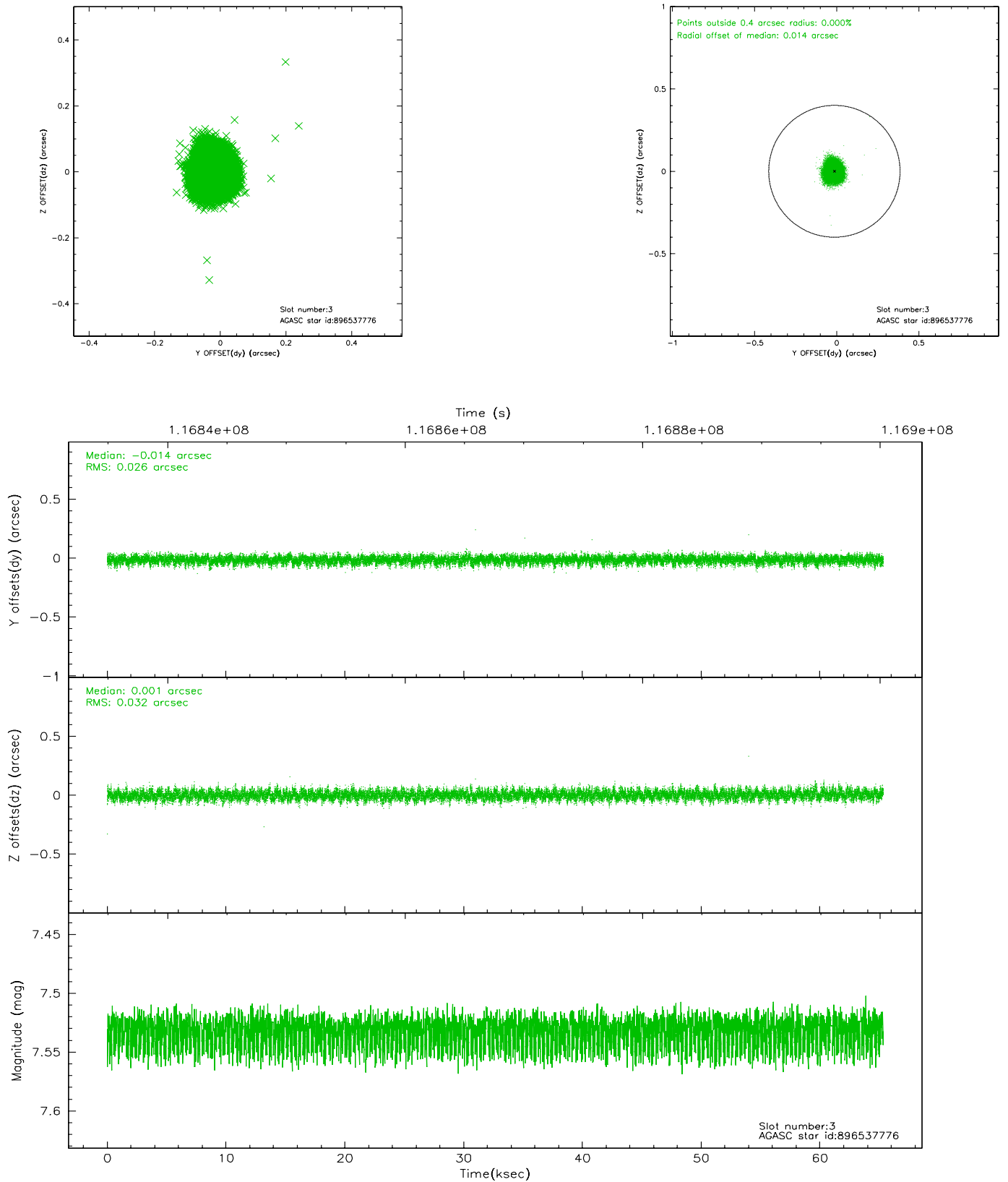


### Slot Statistics

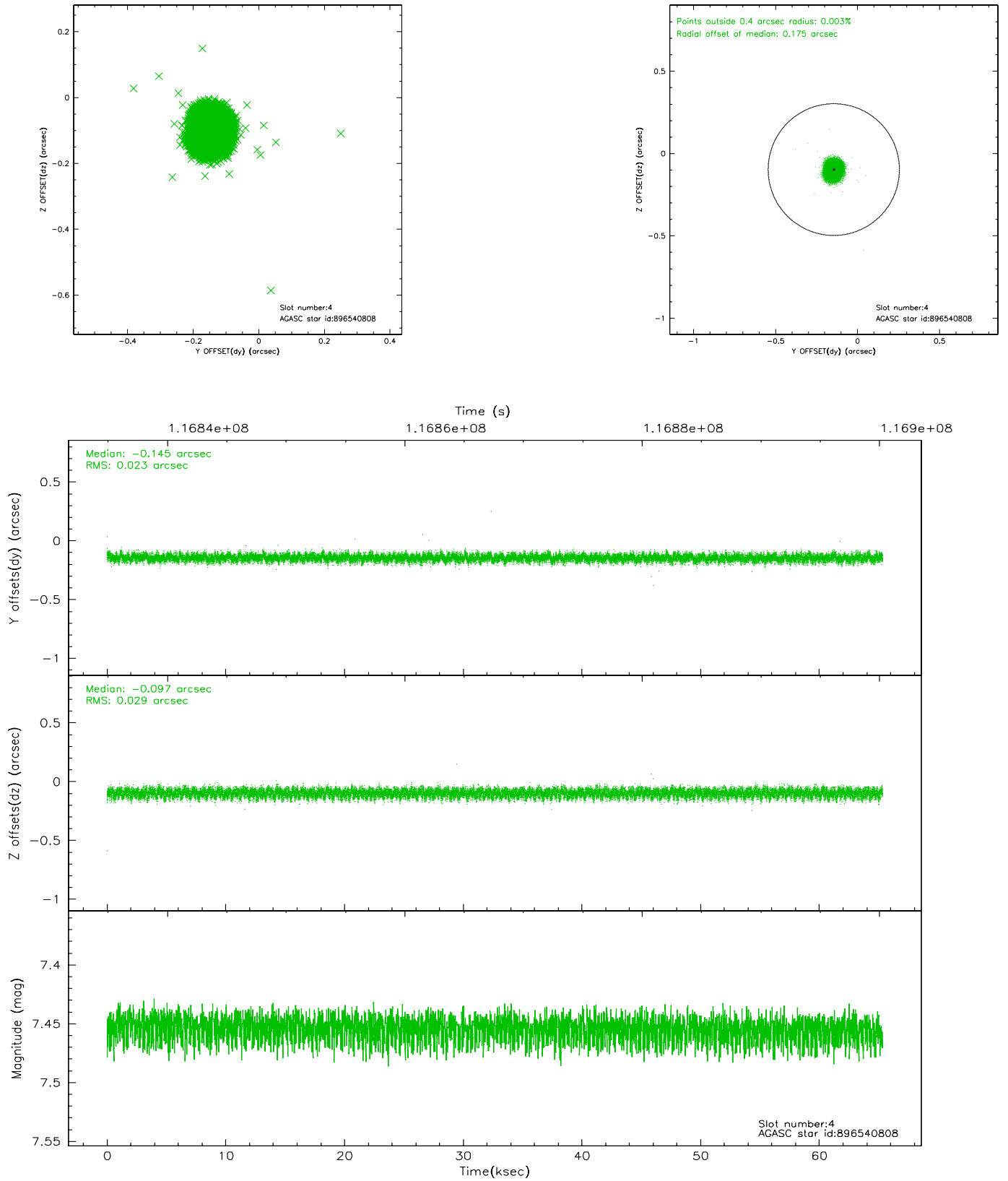
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	15937	-0.008	-0.083	0.009	0.017	0.000000	0.000000	-755.00	-1892.79
1	FID	ACIS-S-4	7.18	15937	-0.042	0.026	0.007	0.013	0.000000	0.000000	2158.29	15.78
2	FID	ACIS-S-5	7.23	15938	0.019	0.064	0.009	0.015	0.000000	0.000000	-1807.85	9.50
3	GUIDE	896537776	7.53	31868	-0.014	0.001	0.043	0.071	266.655684	-29.665673	-267.58	2170.60
4	GUIDE	896540808	7.45	31874	-0.145	-0.097	0.039	0.063	265.985401	-29.308604	-1521.88	51.28
5	GUIDE	896536320	8.97	31859	-0.012	0.093	0.073	0.117	266.369048	-29.307026	-1546.83	1255.54
6	GUIDE	966924920	8.09	31873	0.285	0.068	0.065	0.101	265.875401	-30.176961	1610.34	-235.48
7	GUIDE	896405480	8.25	31868	-0.113	-0.060	0.056	0.092	265.220460	-29.599691	-423.71	-2324.08

## 2.4 Star Slots

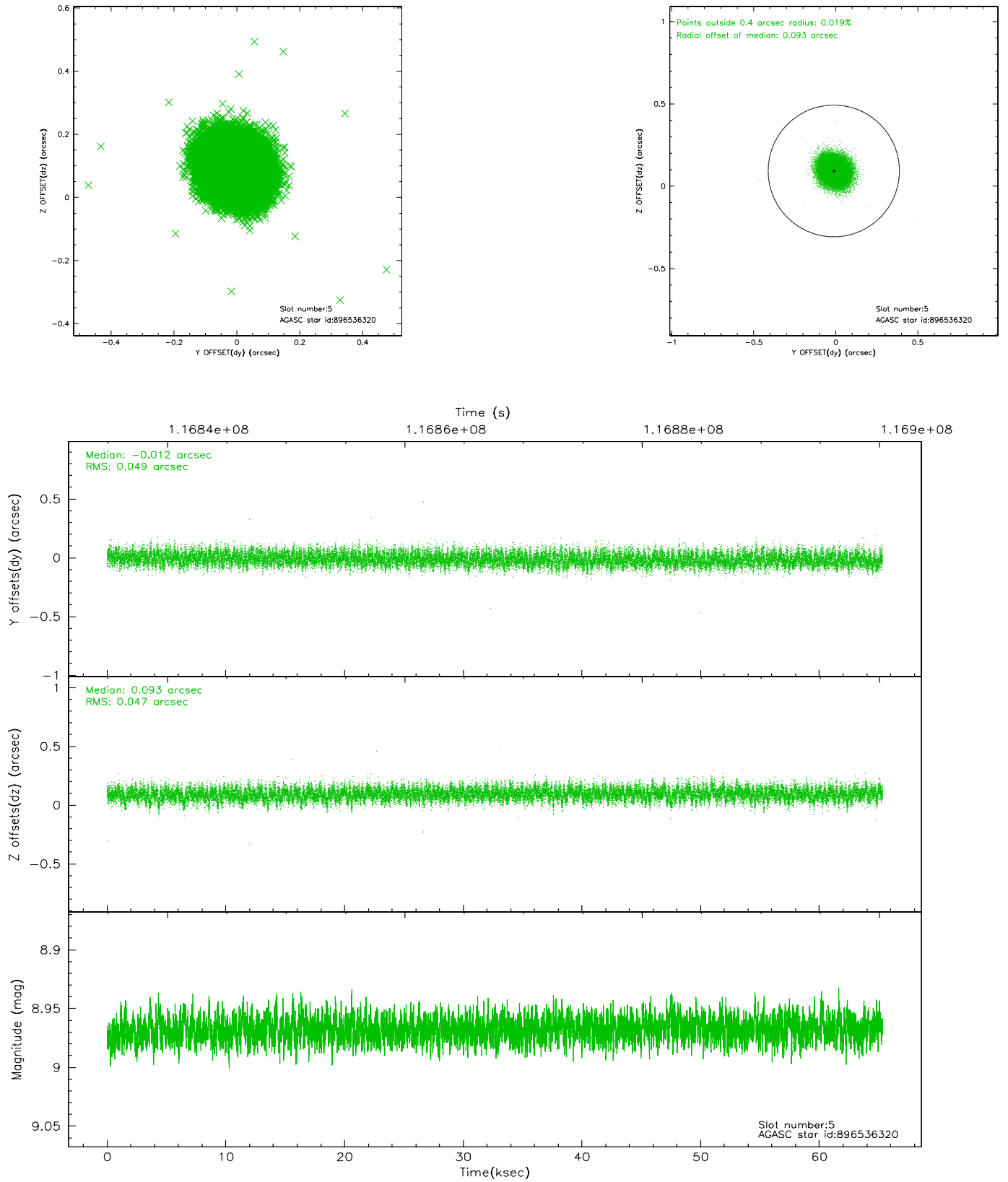
### 2.4.1 Slot 3



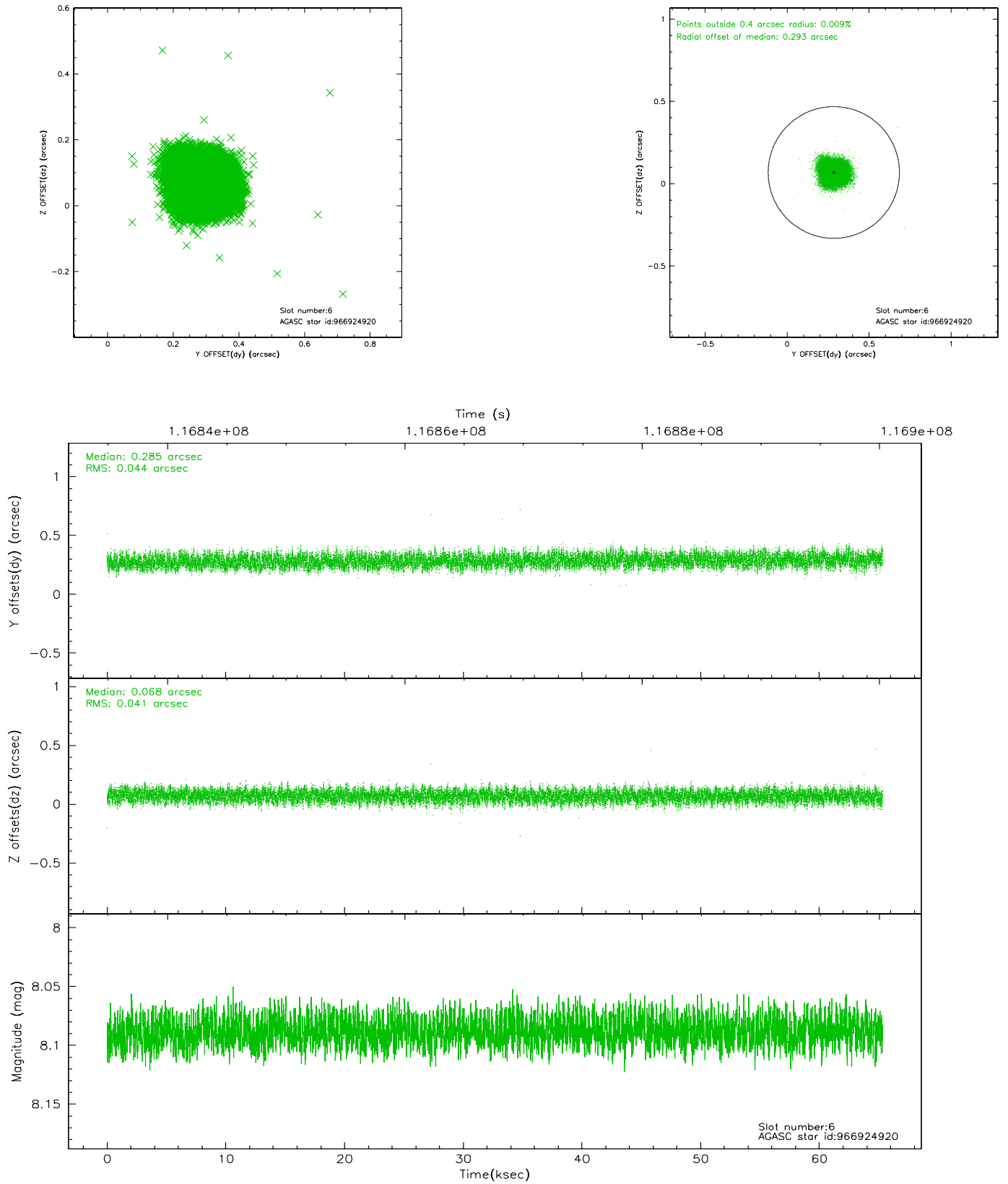
## 2.4.2 Slot 4



### 2.4.3 Slot 5

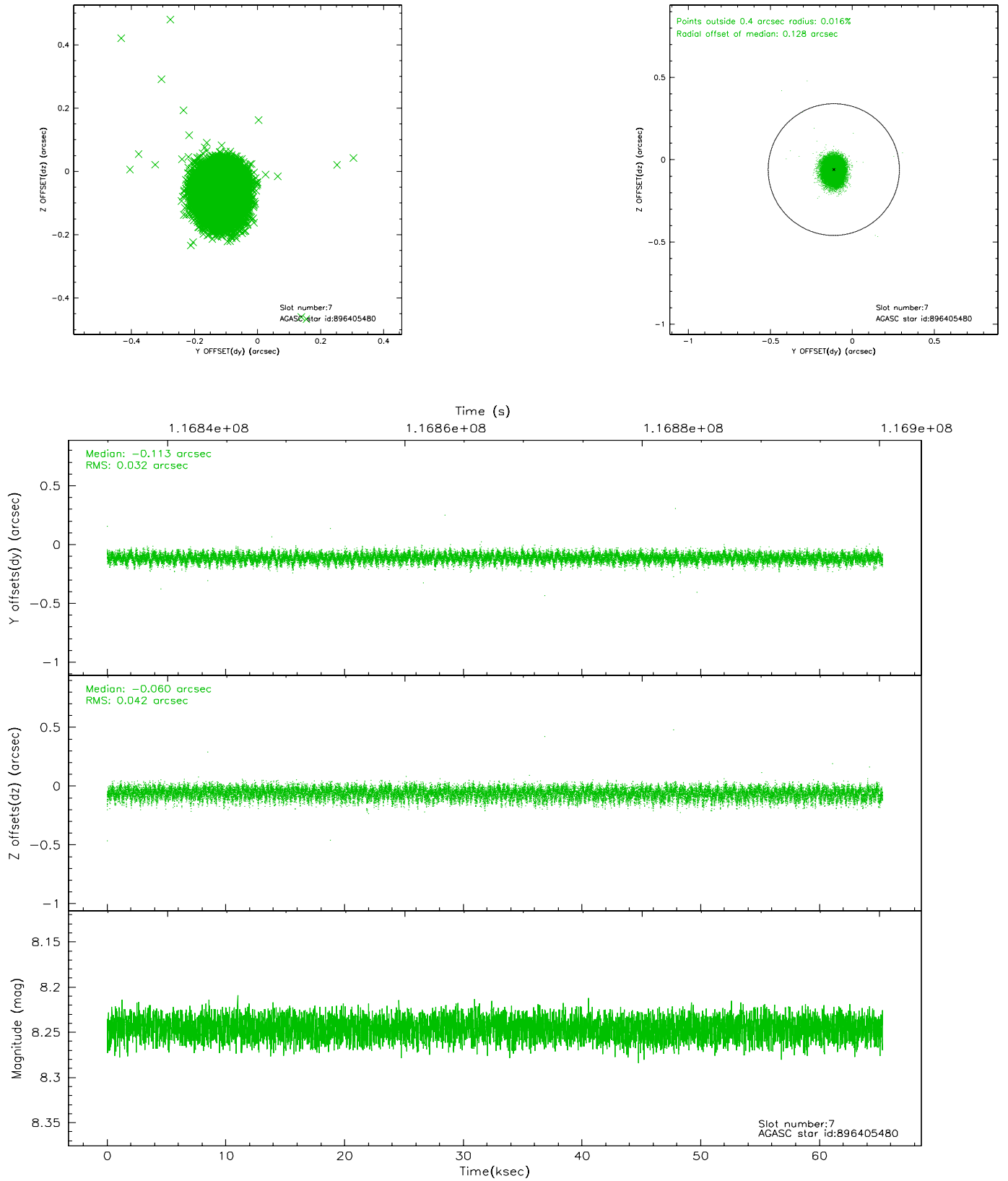


## 2.4.4 Slot 6



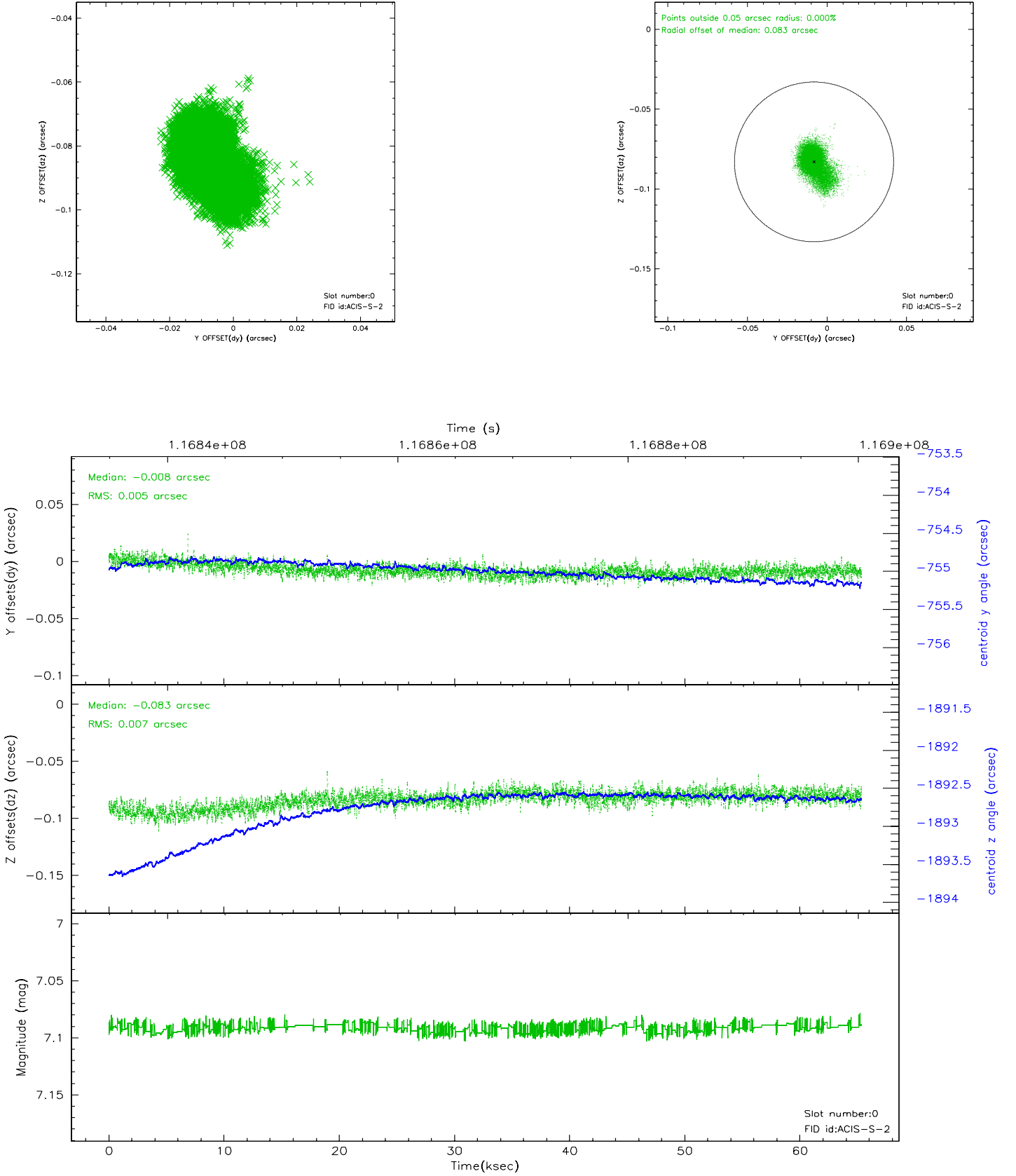


## 2.4.5 Slot 7

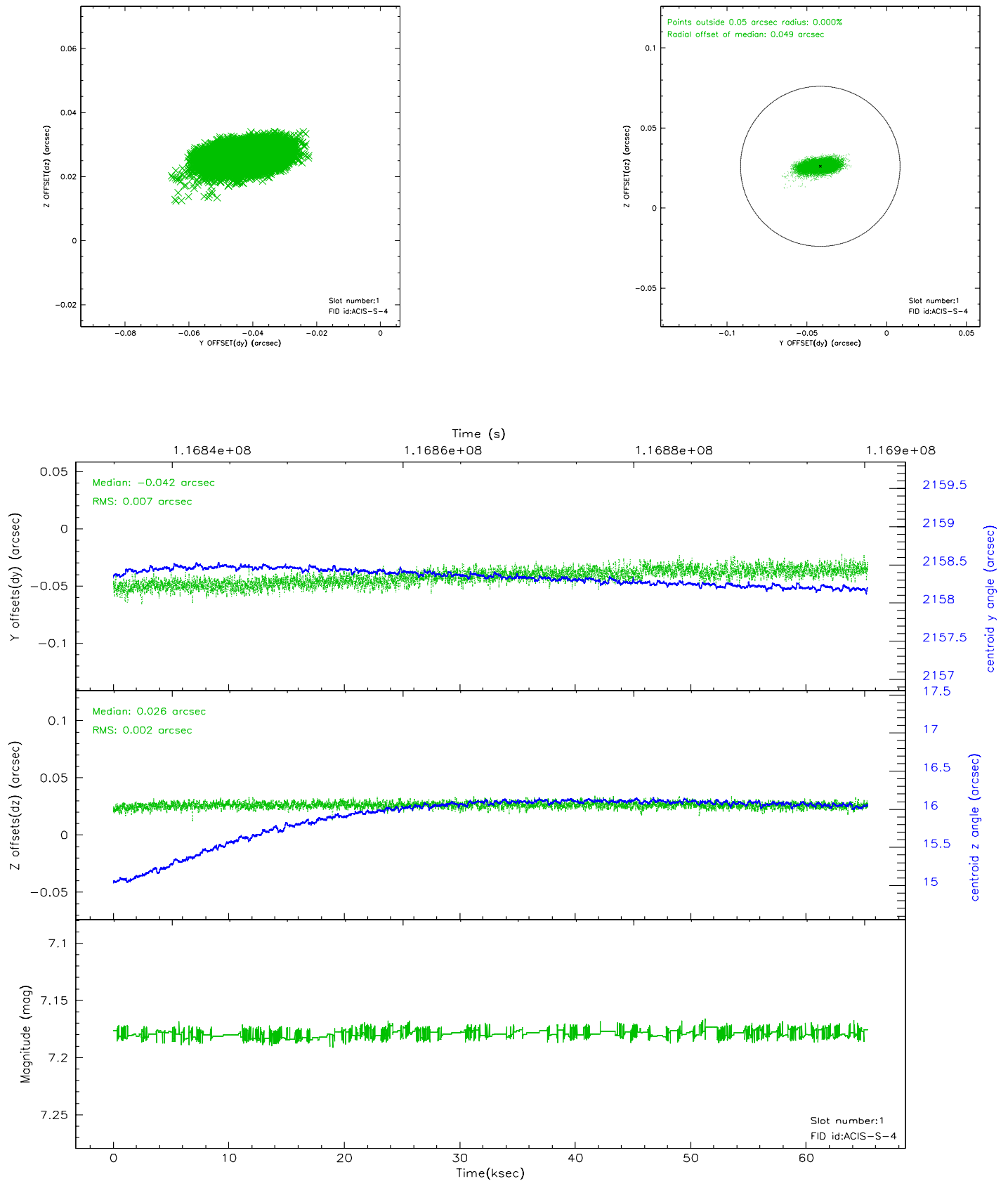


## 2.5 FID Slots

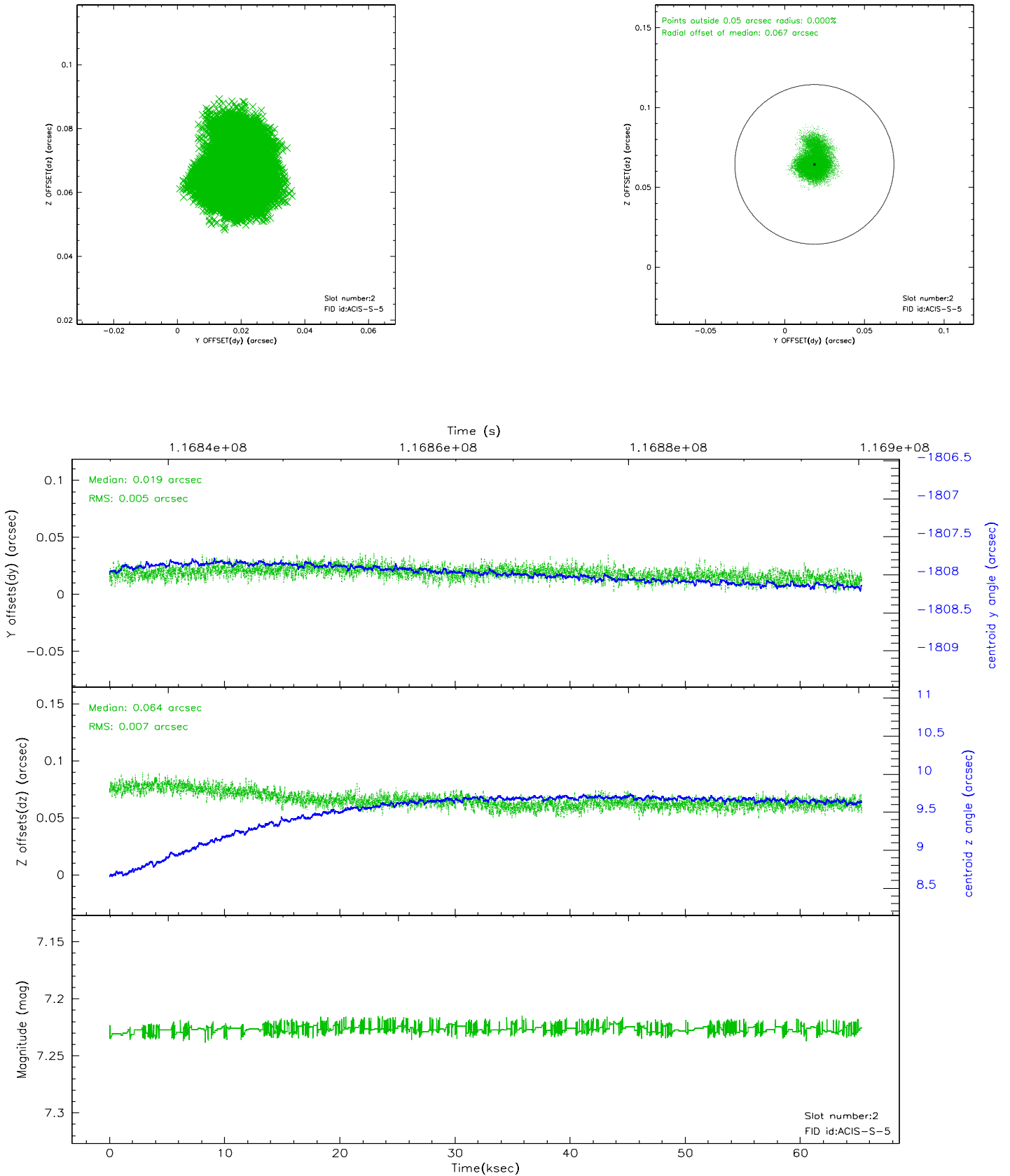
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

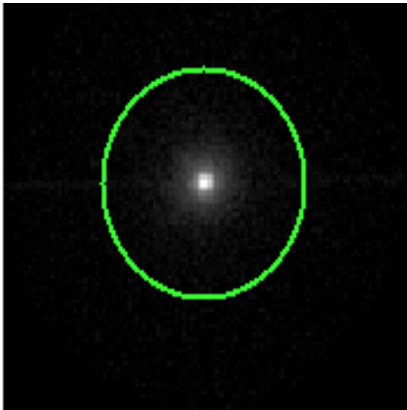


# 3 Gratings

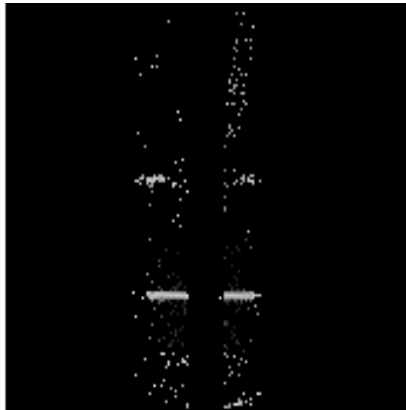
## 3.1 HEG Arm



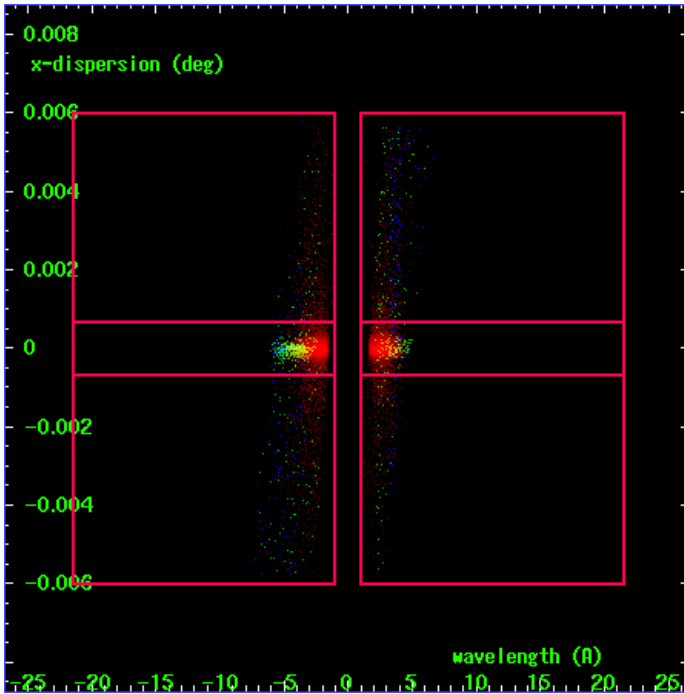
HEG Order Sort 123



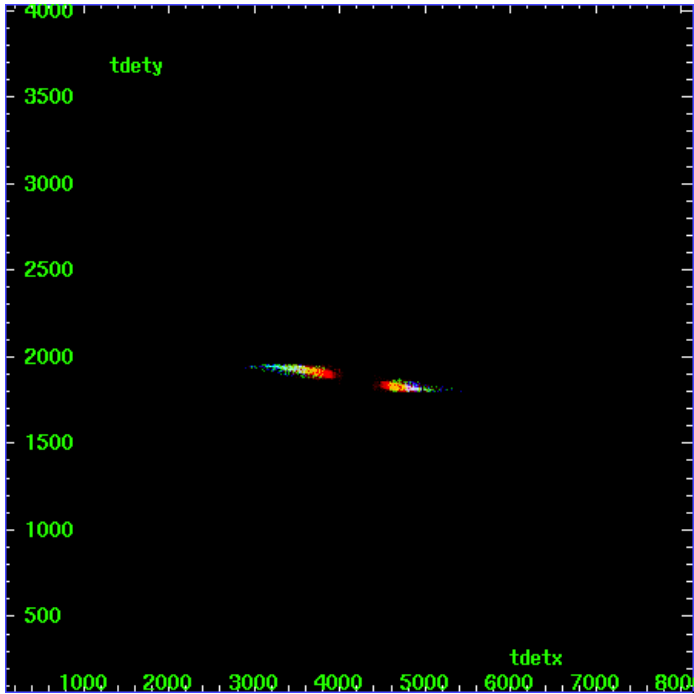
HEG Zero Order



HEG Order Sort ALL

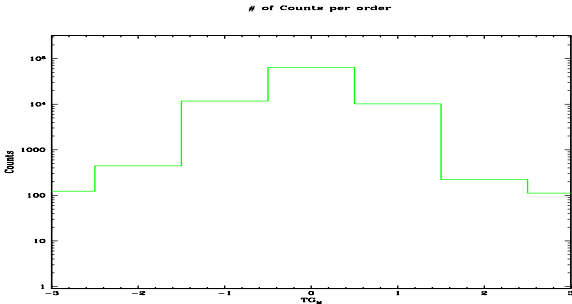


Spot Image HEG

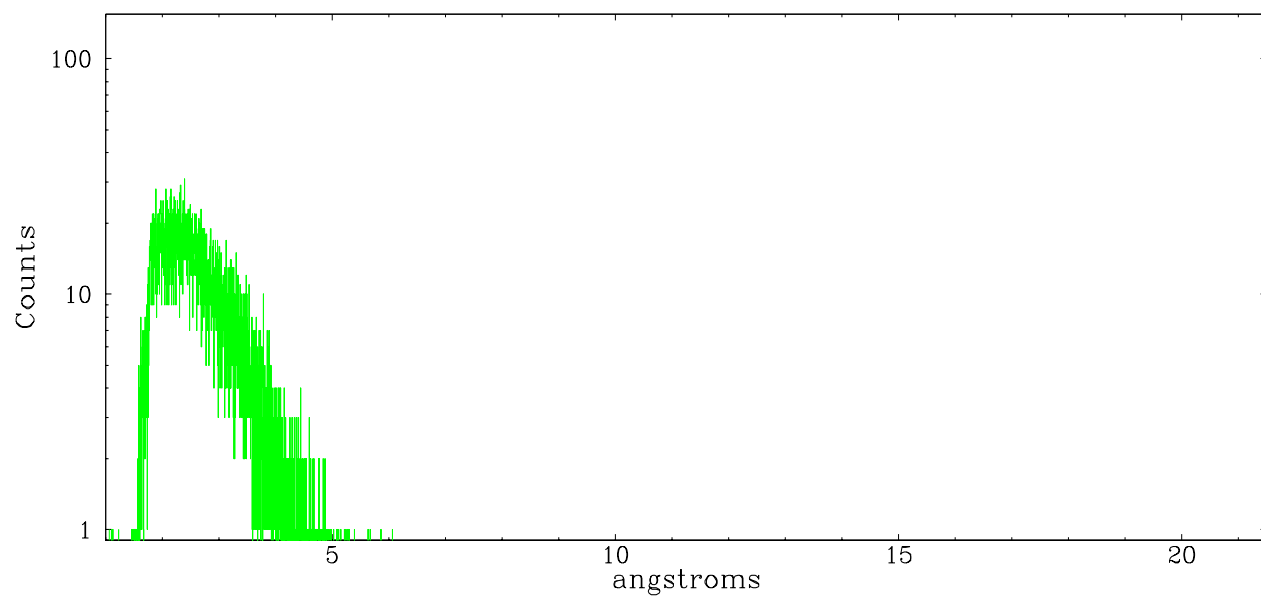


Full Detector HEG

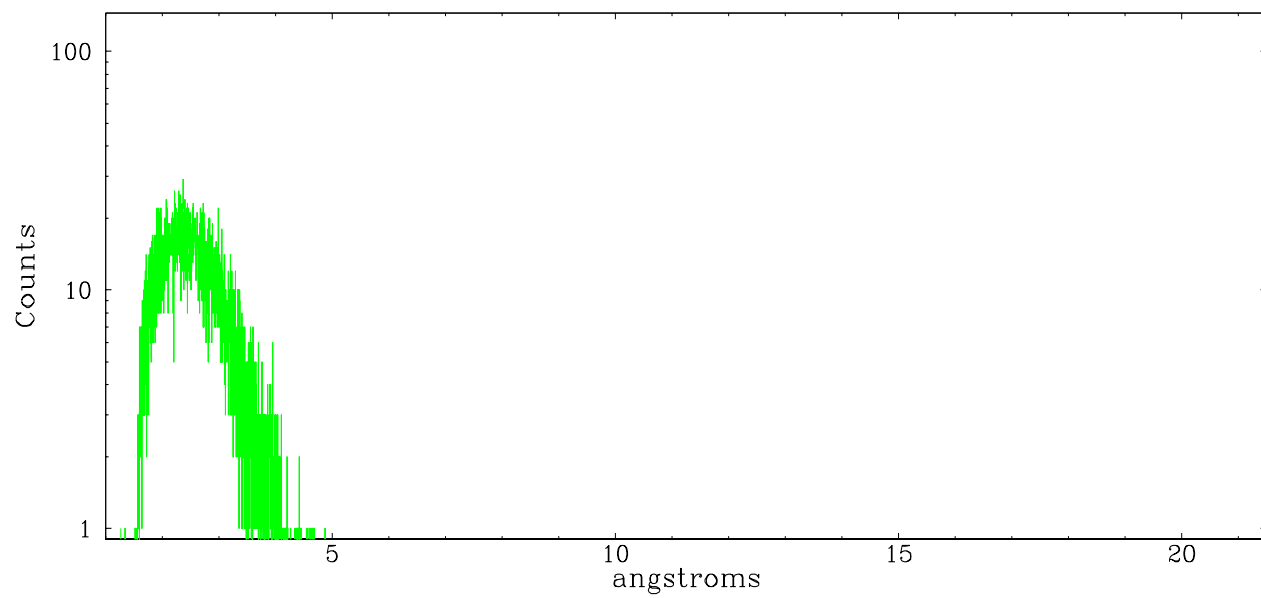
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	123	444	11686	63719	10189	224	112



heg order -1



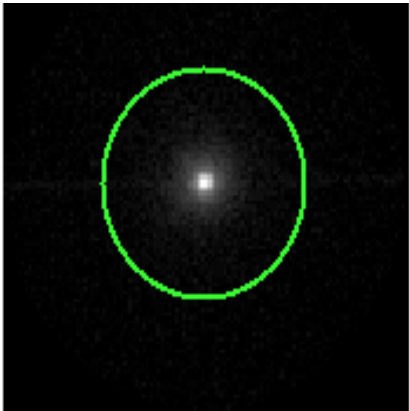
heg order +1



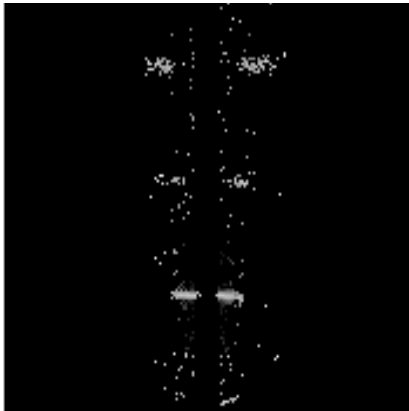
3.2 MEG Arm



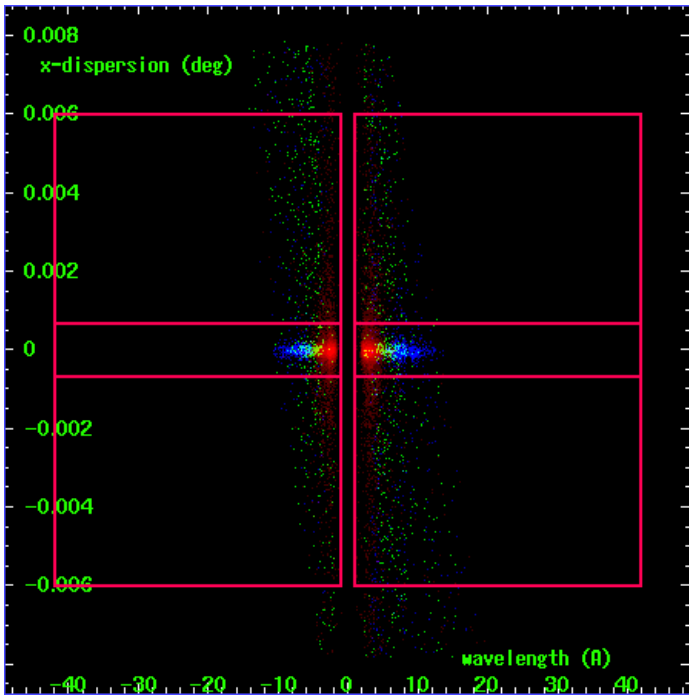
MEG Order Sort 123



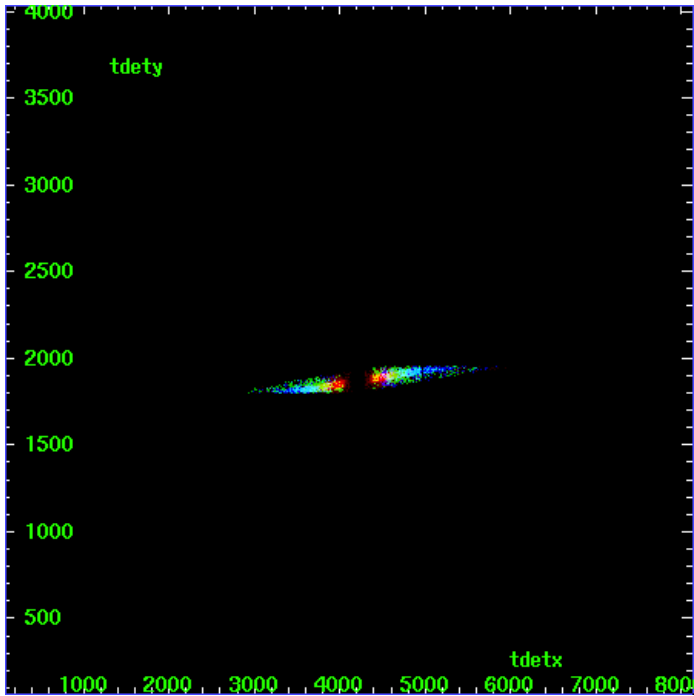
MEG Zero Order



MEG Order Sort ALL

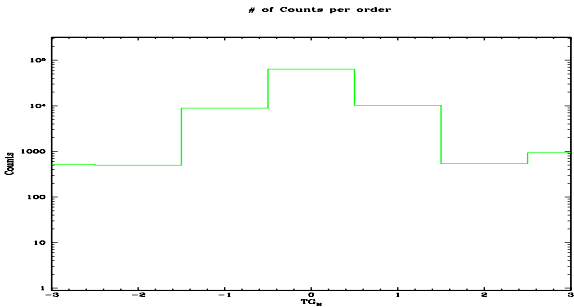


Spot Image MEG

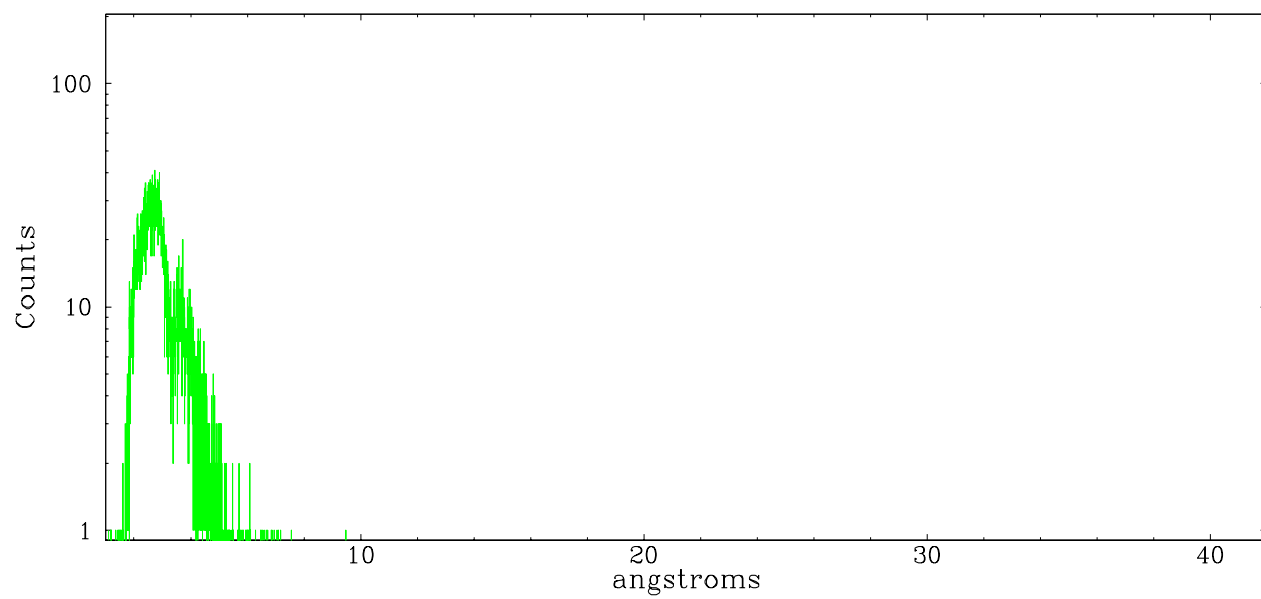


Full Detector MEG

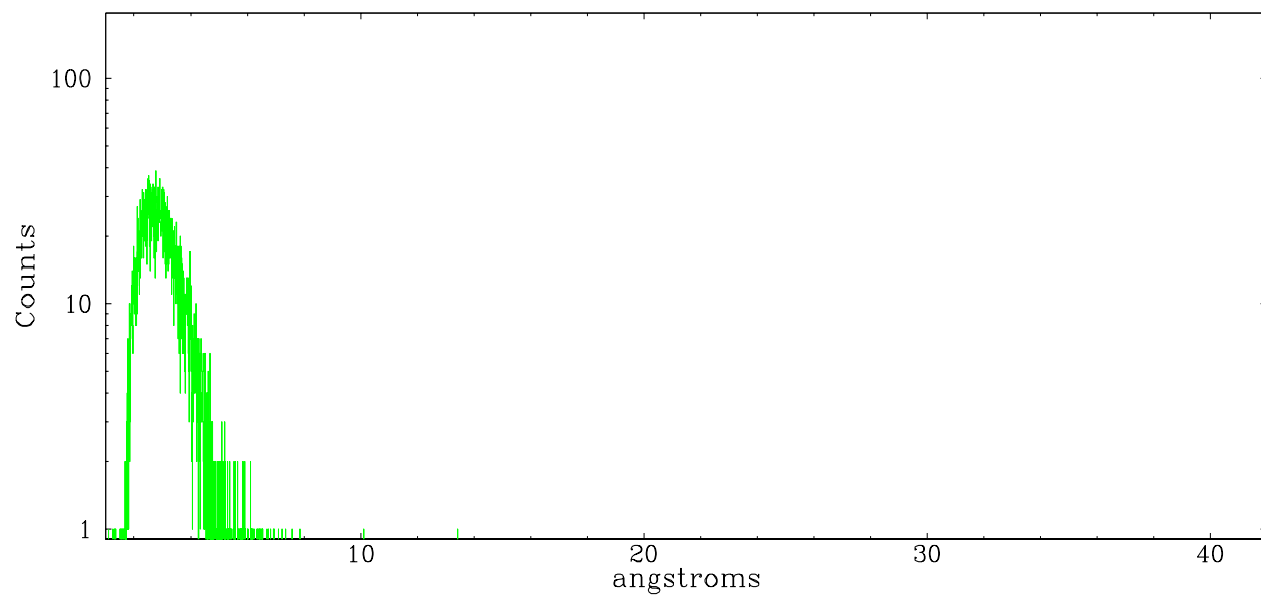
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	515	497	8885	63719	10221	539	933



meg order -1



meg order +1





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	65.34

## A.2 Comments

This observation is a replacement for obsid 1910, which mistakenly placed the target slightly off the ACIS subarray. There may be some usable spectral data in obsid 1910.

This observation uses a rather unusual configuration of 3 CCD chips and a 150 row subarray. The lower energy portions of the spectral arms do not fall in this narrow subarray.