

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 862 - L2 Version 001  
Chandra X-Ray Center

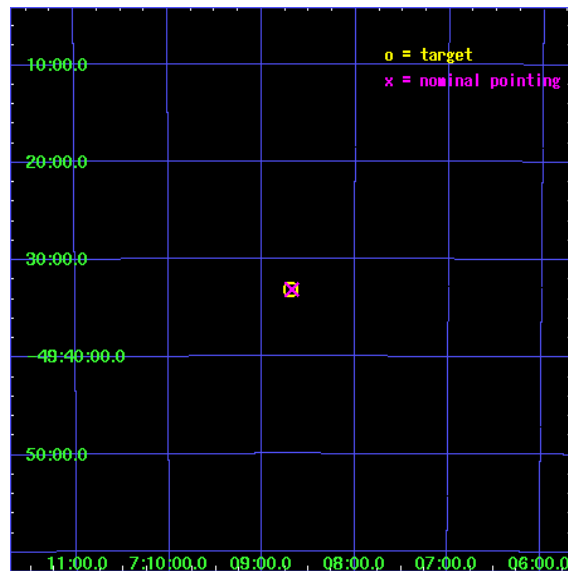
L2 Processing Date : Dec 28 2006

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# 1 Front

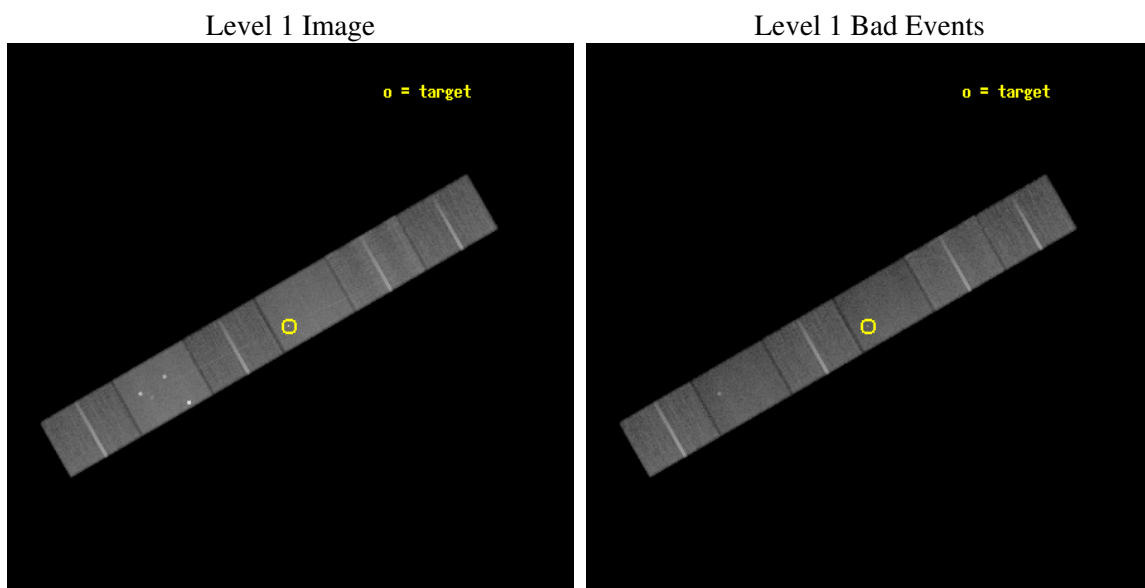
seq_num	700167
obs_id	862
title	HETG OBSERVATIONS OF EXTREME NARROW-LINE SEYFERT 1 GALAXIES
observer	PROF. KAREN LEIGHTLY
object	1H 0707-495
dtcycle	0
cycle	P
ra_targ	107.172917
dec_targ	-49.551611
ra_nom	107.16977943066
dec_nom	-49.552432960213
roll_nom	330.10113813437
revision	2
ontime	0.0
livetime	0.0
ontime4	0.0
ontime5	0.0
ontime6	0.0
ontime7	0.0
ontime8	0.0
ontime9	0.0
l2events	0



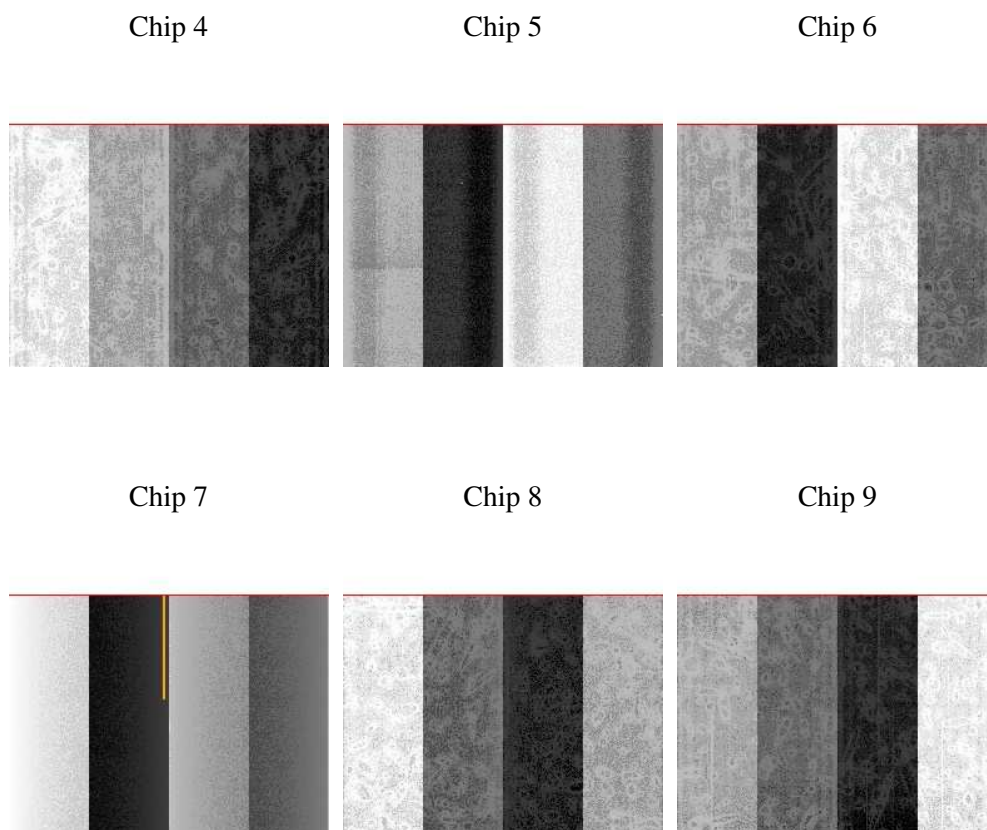
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1
ascdsver	7.6.9
caldsver	3.2.3
date	2006-11-06T13:13:19
revision	2

sched_exp_time	55490.560000
ontime	57586.857068479
ontime4	57586.857068479
ontime5	57586.857068479
ontime6	57589.398088574
ontime7	57586.857068479
ontime8	57589.398088574
ontime9	57589.398088574
l1events	1889447

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	291642	387739	270121	337798	338189	263958
rejected events	260085	204913	238682	202107	270582	232931
rejected %	89%	52%	88%	59%	80%	88%

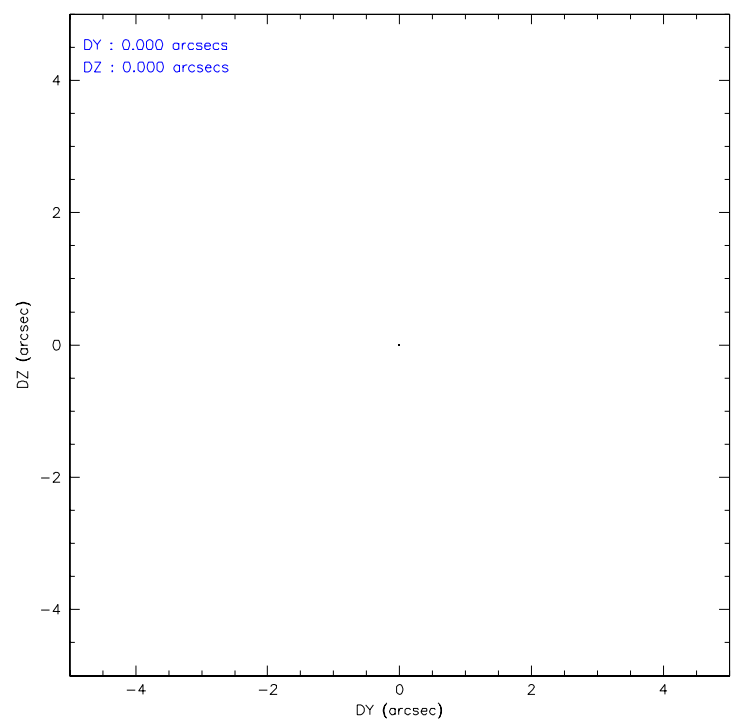
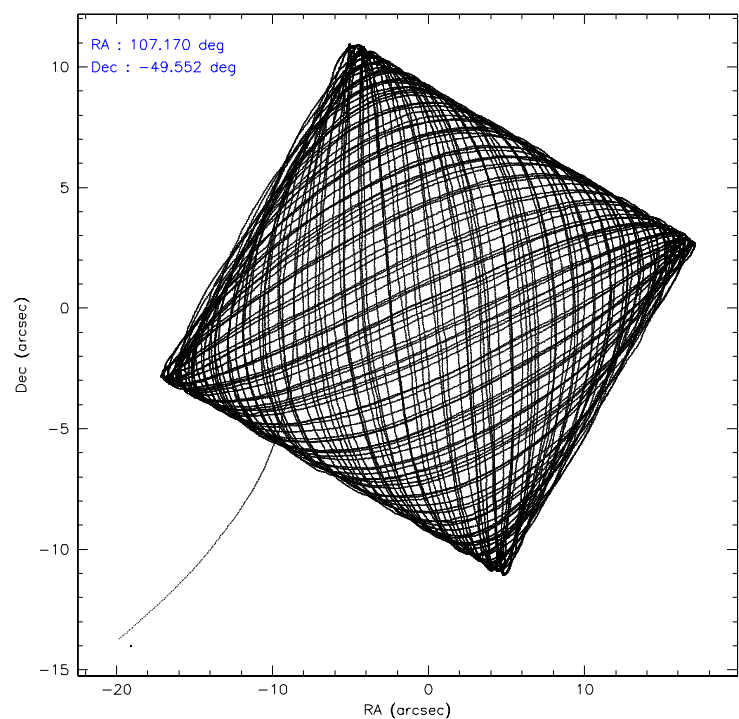
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	12574	31503	12799	9661	21095	12325
	4%	8%	4%	2%	6%	4%
grade 1 events	118	252	124	254	182	105
	0%	0%	0%	0%	0%	0%
grade 2 events	7285	52531	6098	32459	14360	6132
	2%	13%	2%	9%	4%	2%
grade 3 events	3184	4794	3352	8932	7530	3401
	1%	1%	1%	2%	2%	1%
grade 4 events	3019	4322	3348	8633	6972	3176
	1%	1%	1%	2%	2%	1%
grade 5 events	9308	19681	10727	24987	14121	11174
	3%	5%	3%	7%	4%	4%
grade 6 events	5495	89676	5842	76006	17650	5993
	1%	23%	2%	22%	5%	2%
grade 7 events	250659	184980	227831	176866	256279	221652
	85%	47%	84%	52%	75%	83%

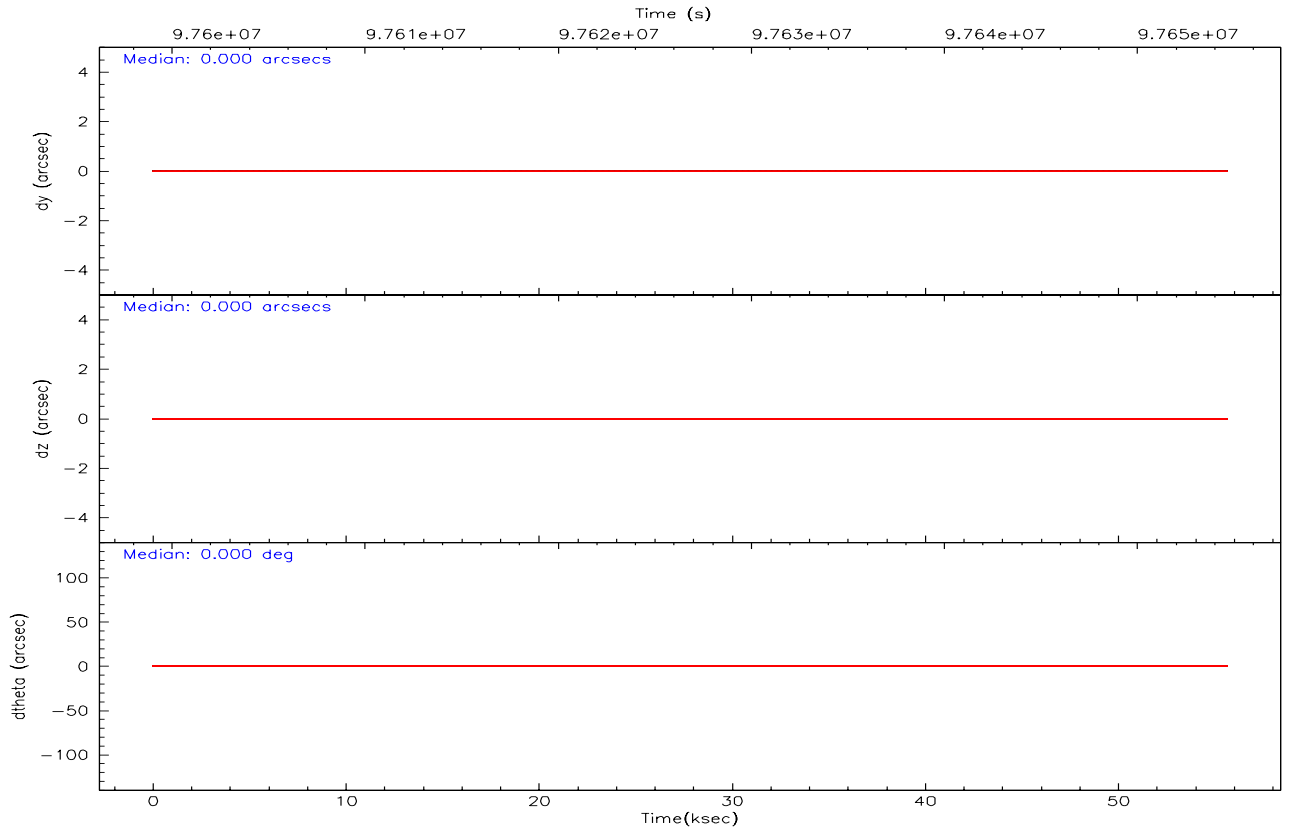
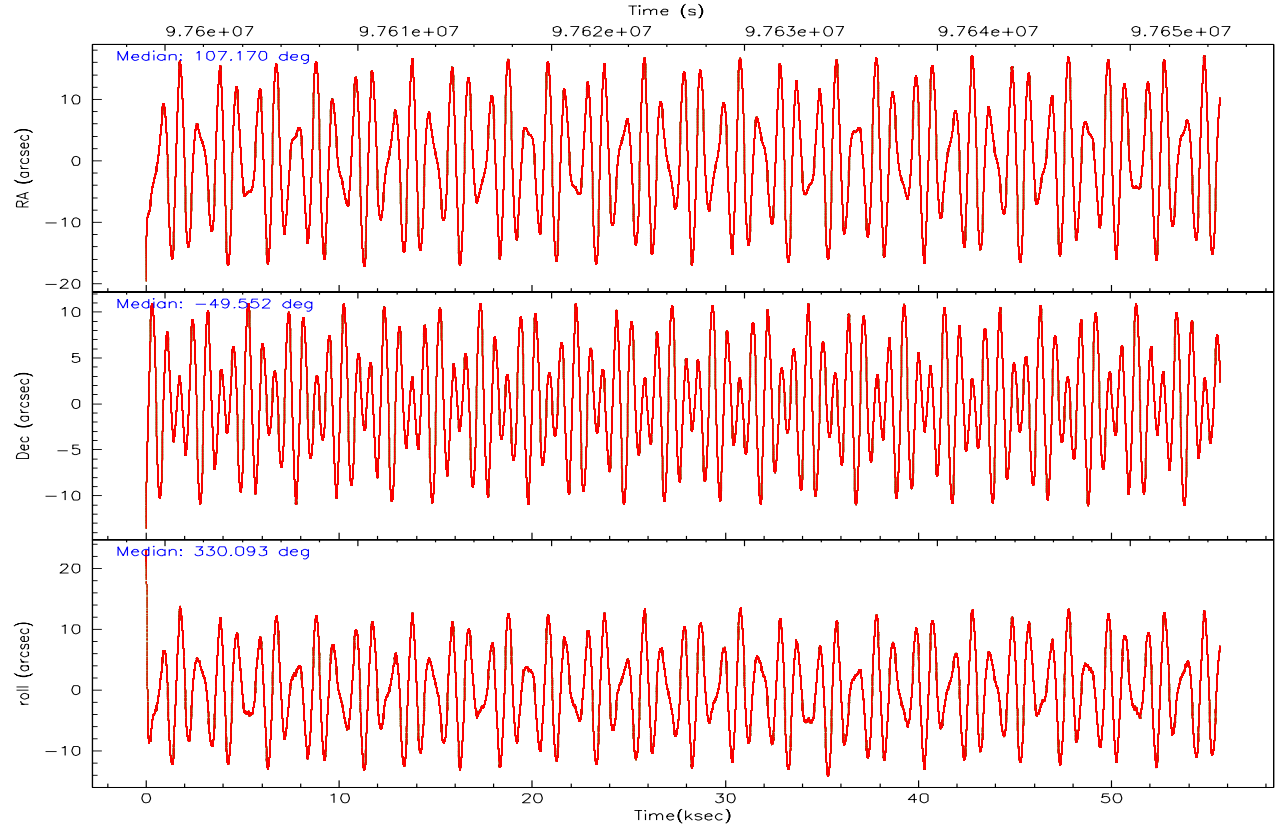


## 2.2 Compared Parameters

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	107.127692	107.169779430658	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-49.552724	-49.5524329602132	Subarray start row	1	1
Pointing Roll	329.912473	330.1011381343716	Subarray row count	774	774
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	3.200000	2.5
SIM translation stage pos (mm)	-187.132523	-190.1400660498719			
SIM translation stage offset (mm)	-3	0.00754346686406393			
Observation start time	97599149.184000	97597051.70029099			
Observation start date	2001-02-03T14:51:25	2001-02-03T14:17:31			
Observation end time	97654639.184000	97655305.527536			
Observation end date	2001-02-04T06:16:15	2001-02-04T06:28:25			
Read mode	TIMED	TIMED			

## 2.3 Aspect



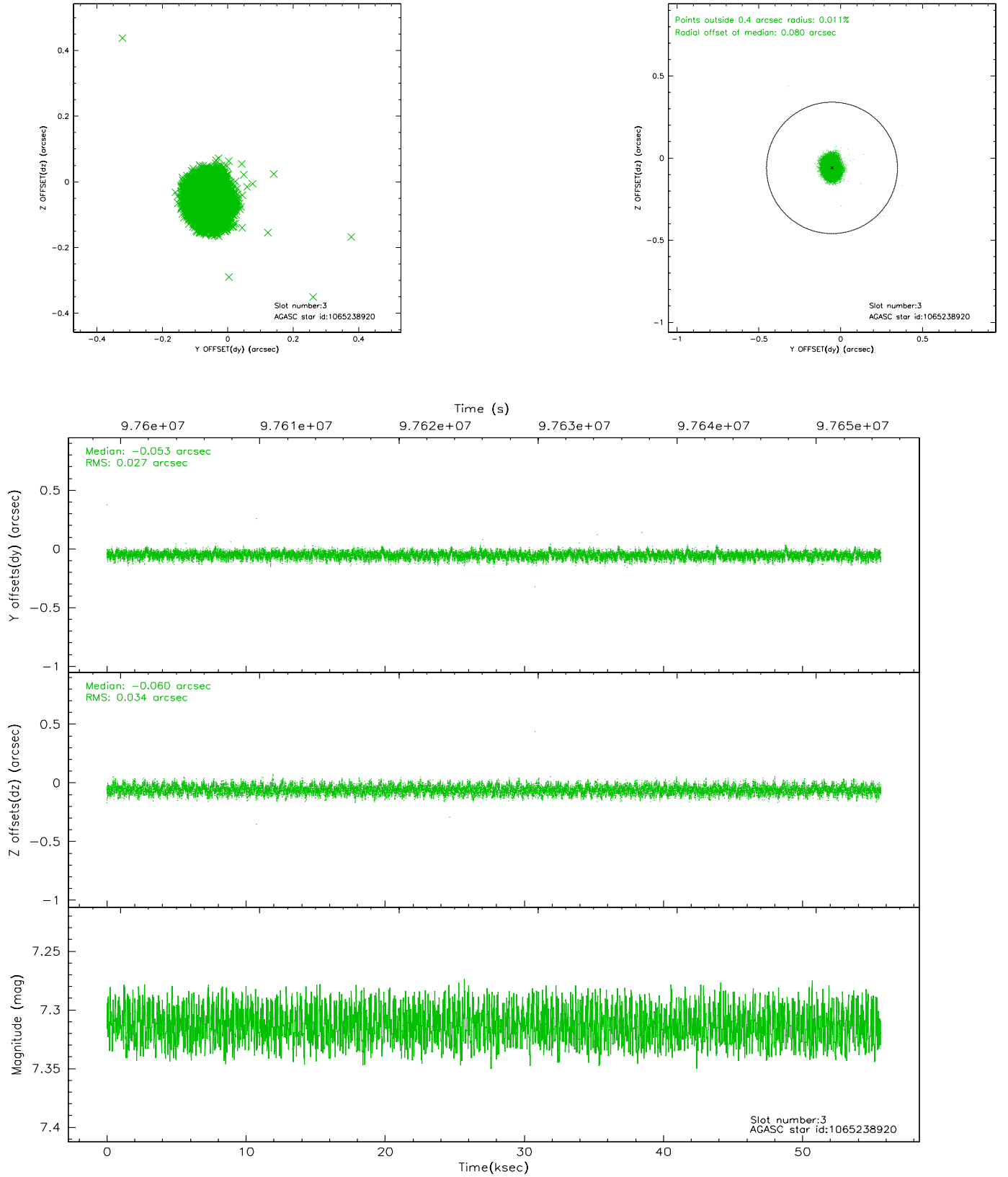


### Slot Statistics

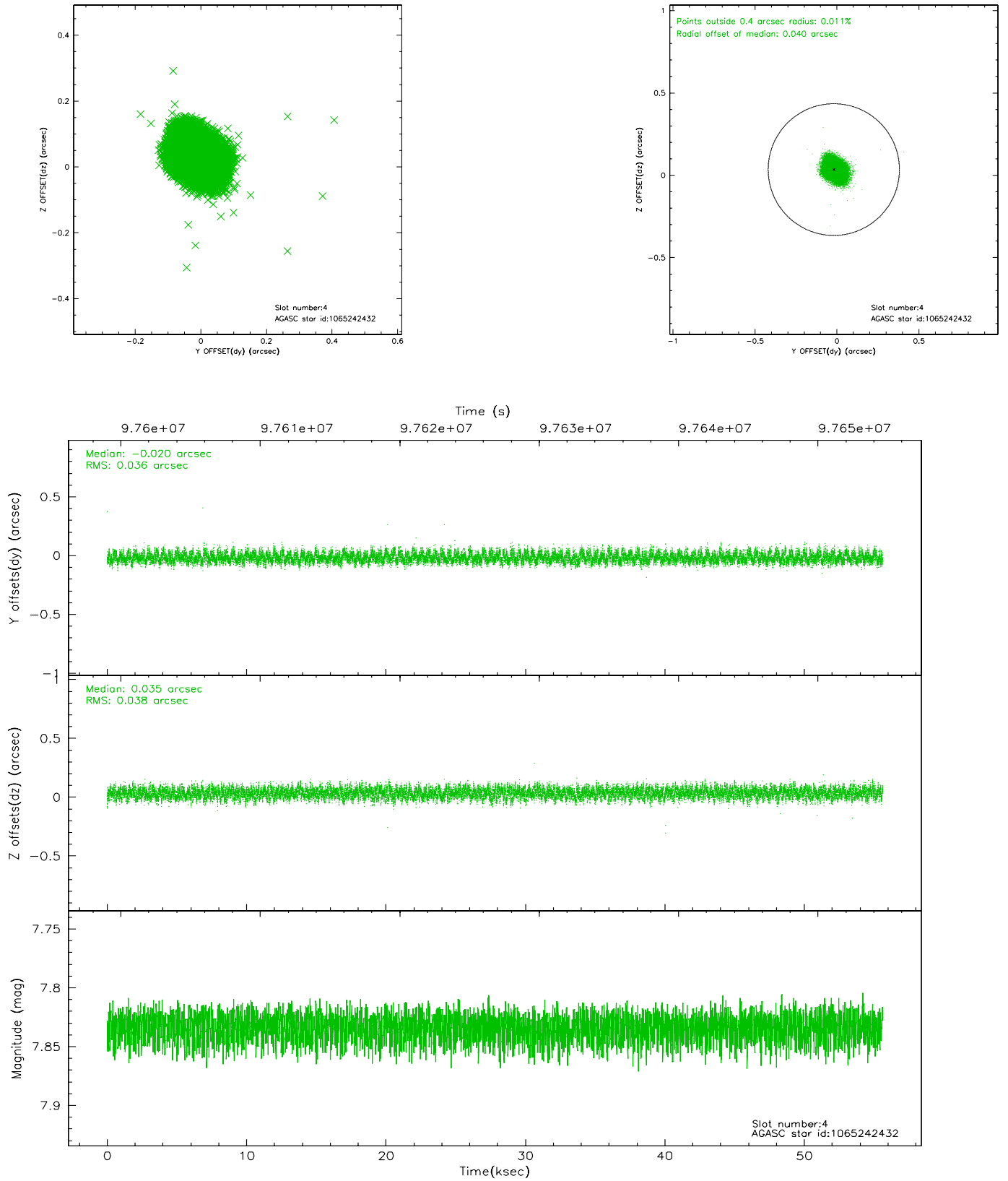
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
1	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
2	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
3	GUIDE	1065238920	7.31	27137	-0.053	-0.060	0.047	0.074	108.105033	-49.327001	1584.43	1839.64
4	GUIDE	1065242432	7.83	27132	-0.020	0.035	0.057	0.090	107.094192	-50.100313	922.22	-1744.68
5	GUIDE	1065234432	8.03	27133	-0.092	0.050	0.043	0.071	107.563286	-49.938653	1571.85	-698.89
6	GUIDE	1065109712	8.64	27128	0.077	-0.014	0.062	0.102	106.590083	-49.796179	-638.51	-1389.02
7	GUIDE	1065237304	8.78	27132	0.087	-0.008	0.069	0.111	106.981941	-48.917125	-1444.97	1806.11

## 2.4 Star Slots

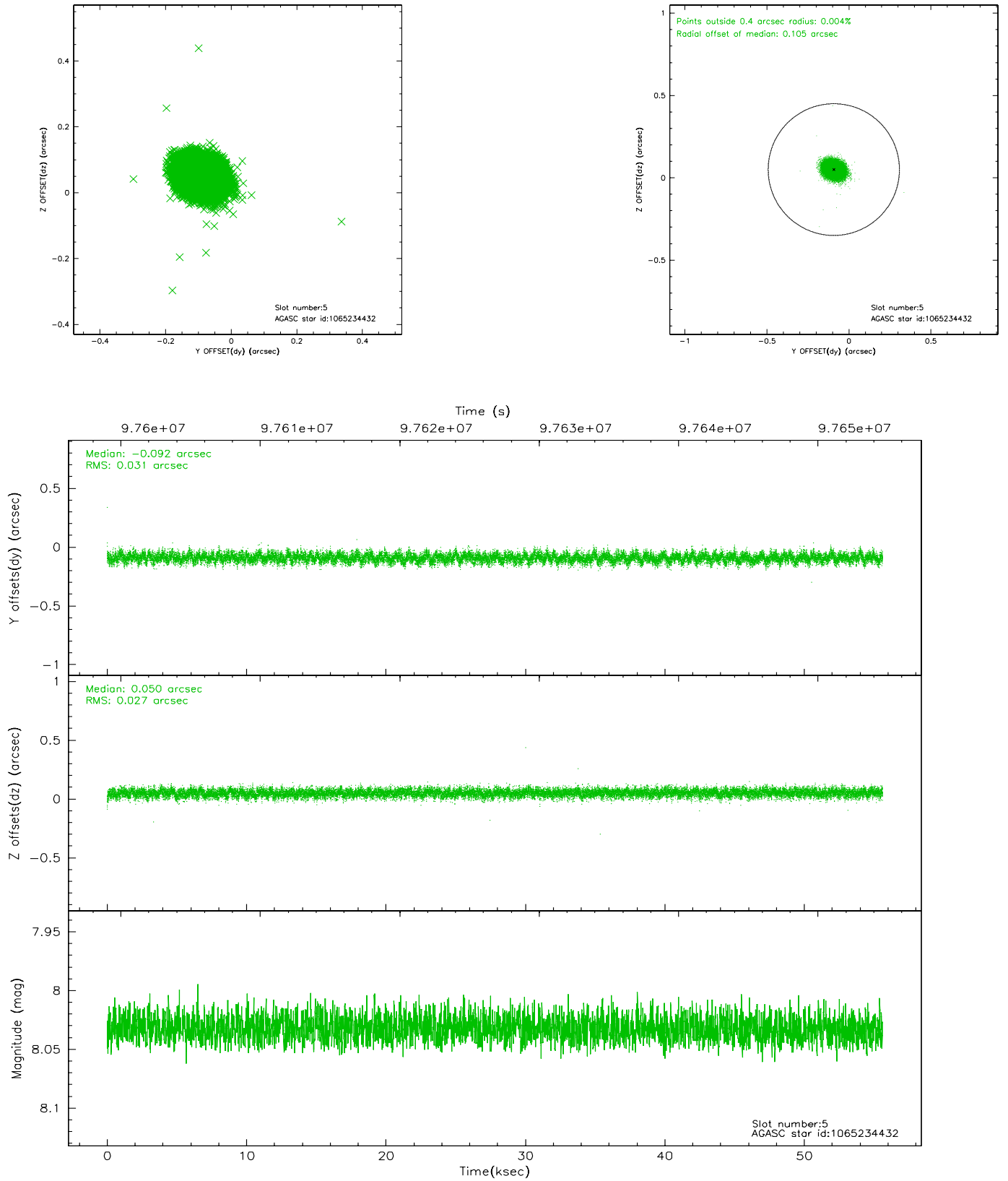
### 2.4.1 Slot 3



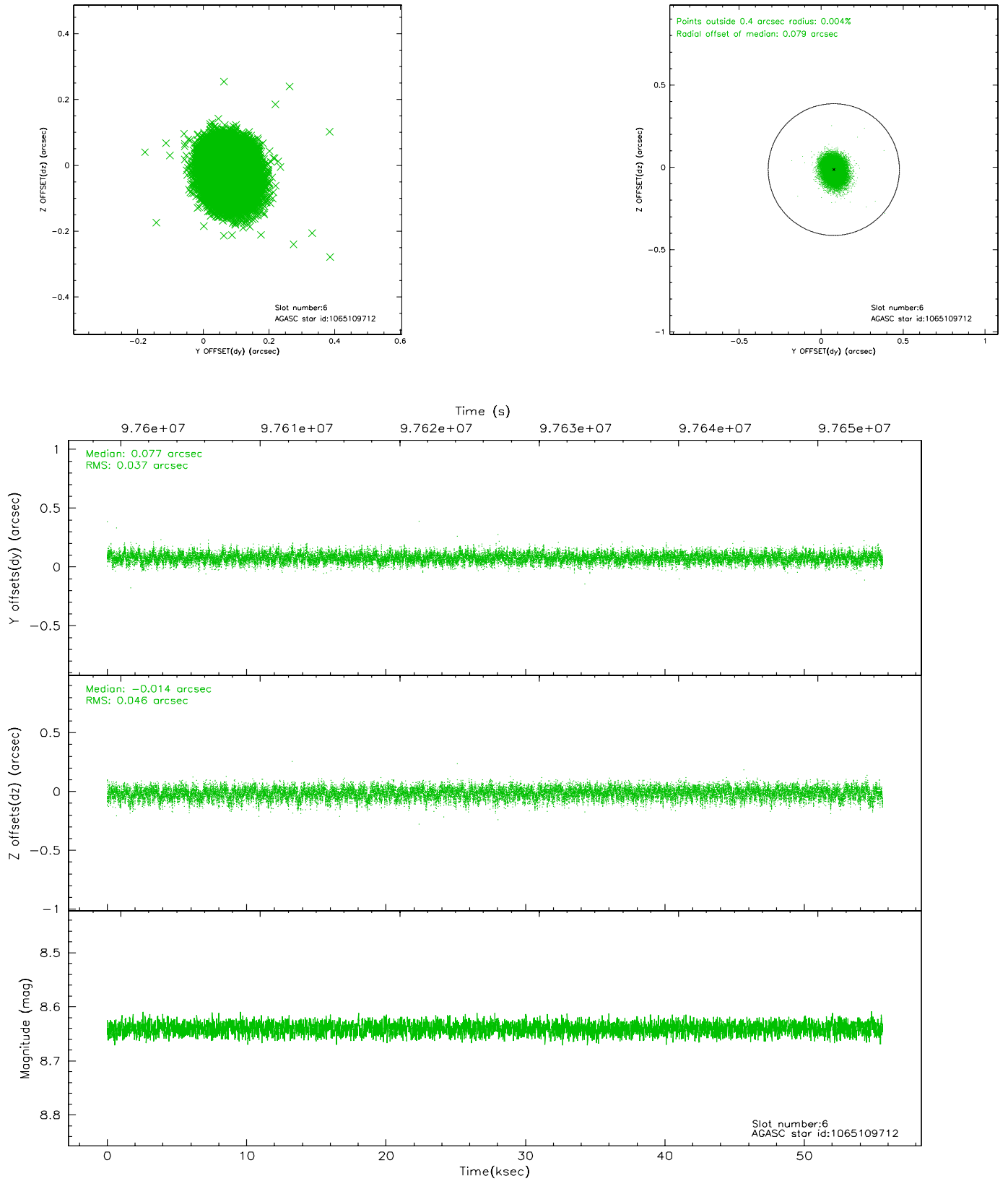
## 2.4.2 Slot 4



### 2.4.3 Slot 5

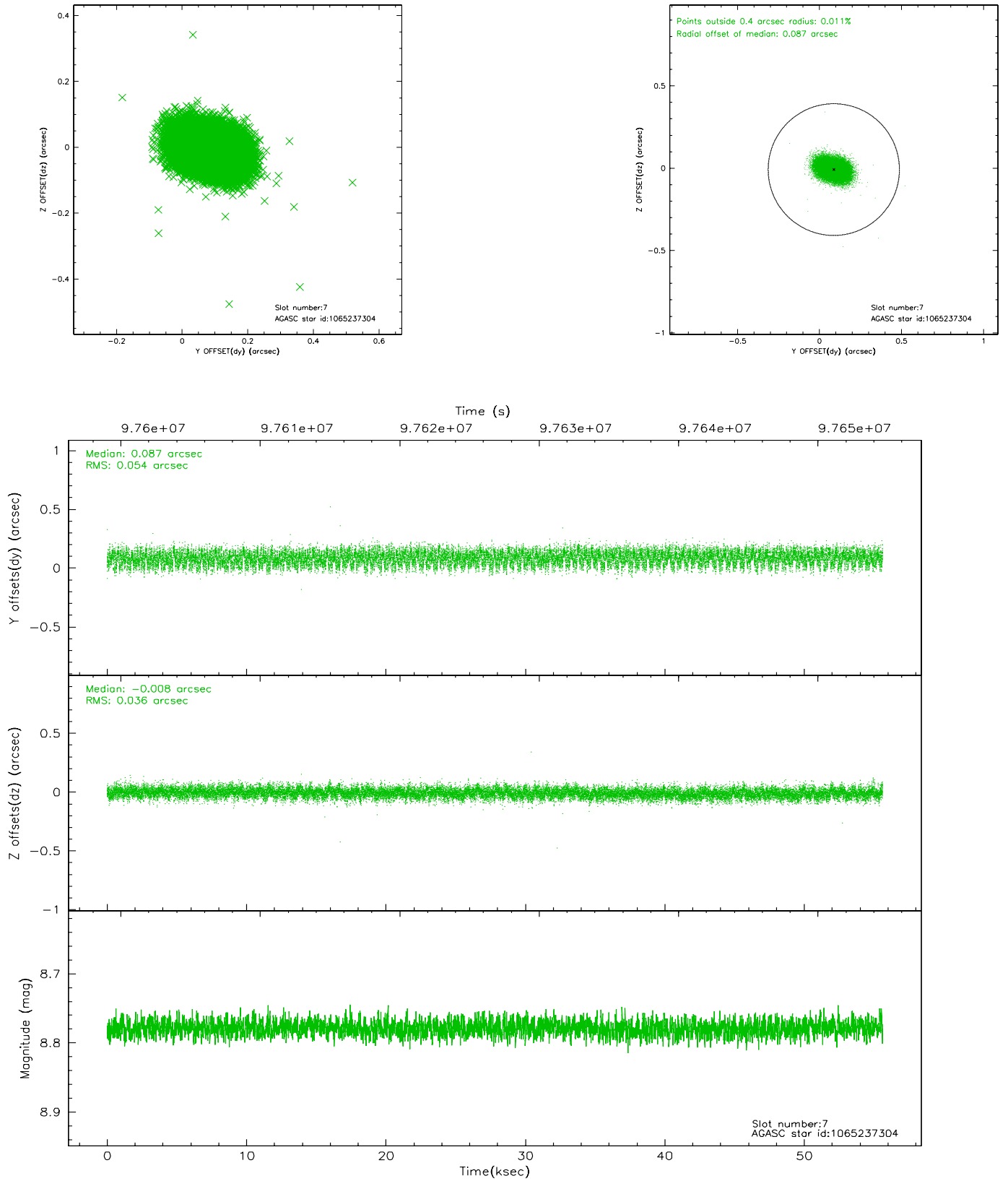


## 2.4.4 Slot 6





## 2.4.5 Slot 7



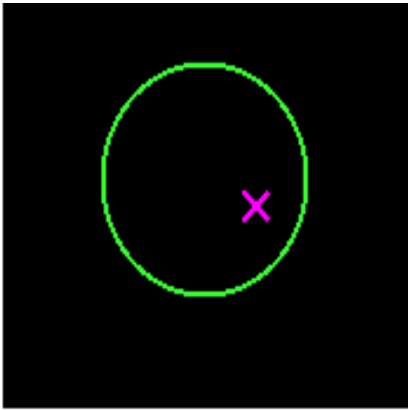
## 2.5 FID Slots

# 3 Gratings

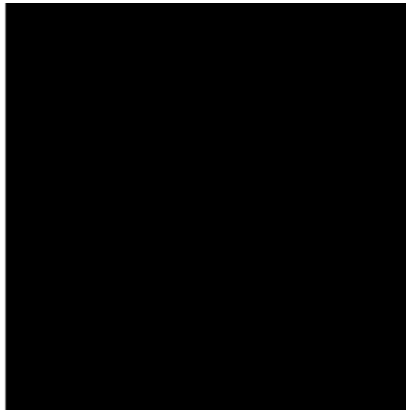
## 3.1 HEG Arm



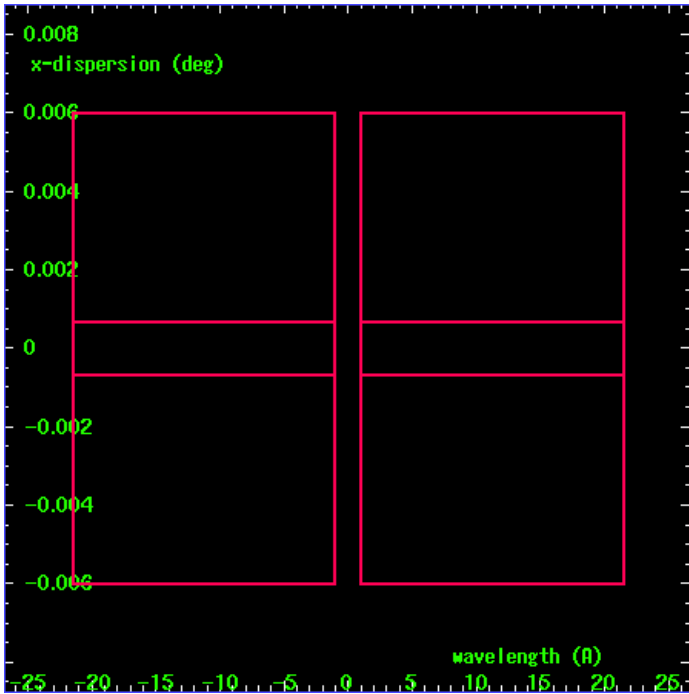
HEG Order Sort 123



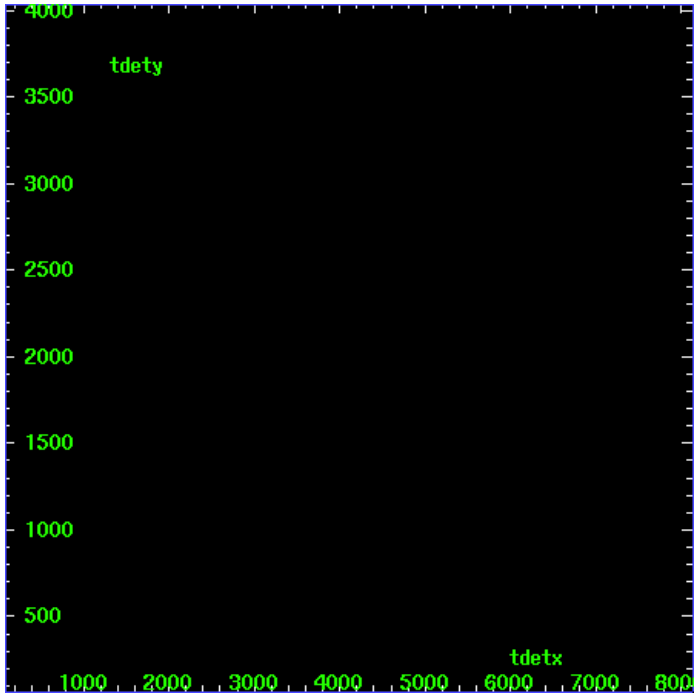
HEG Zero Order



HEG Order Sort ALL

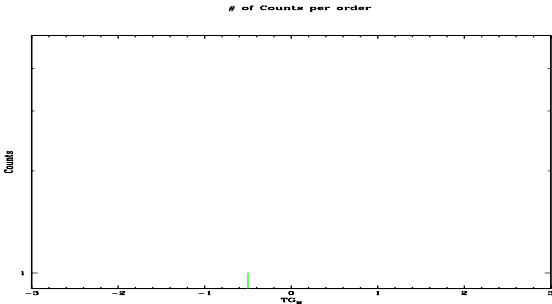


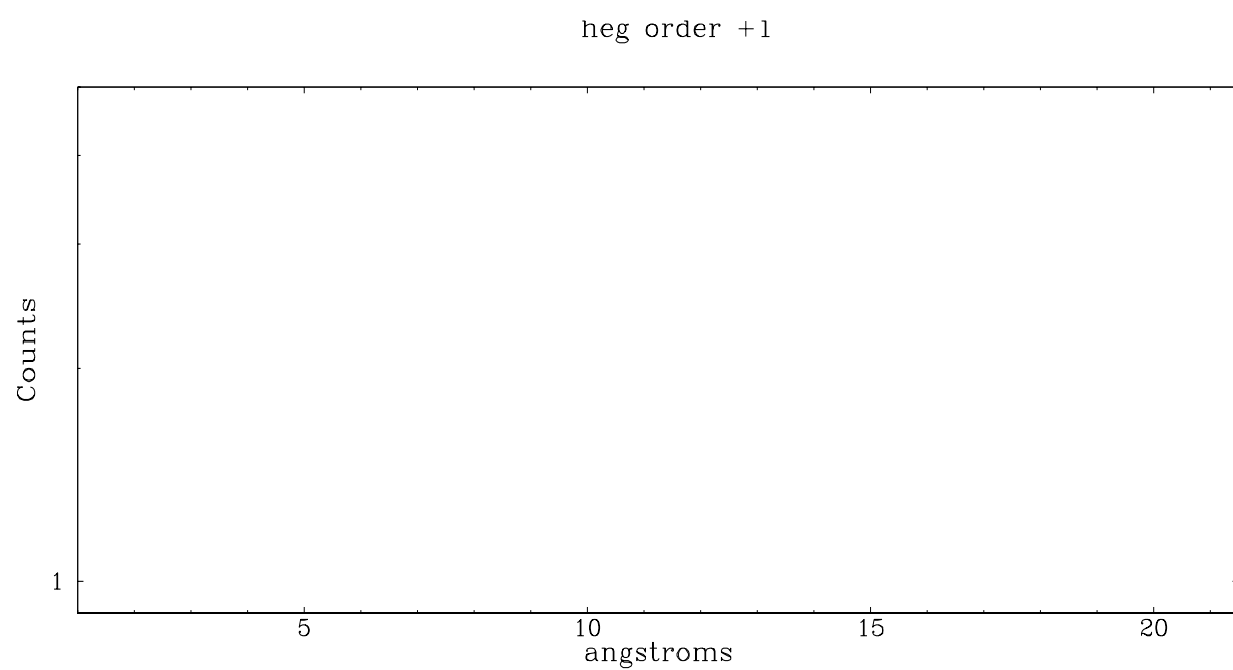
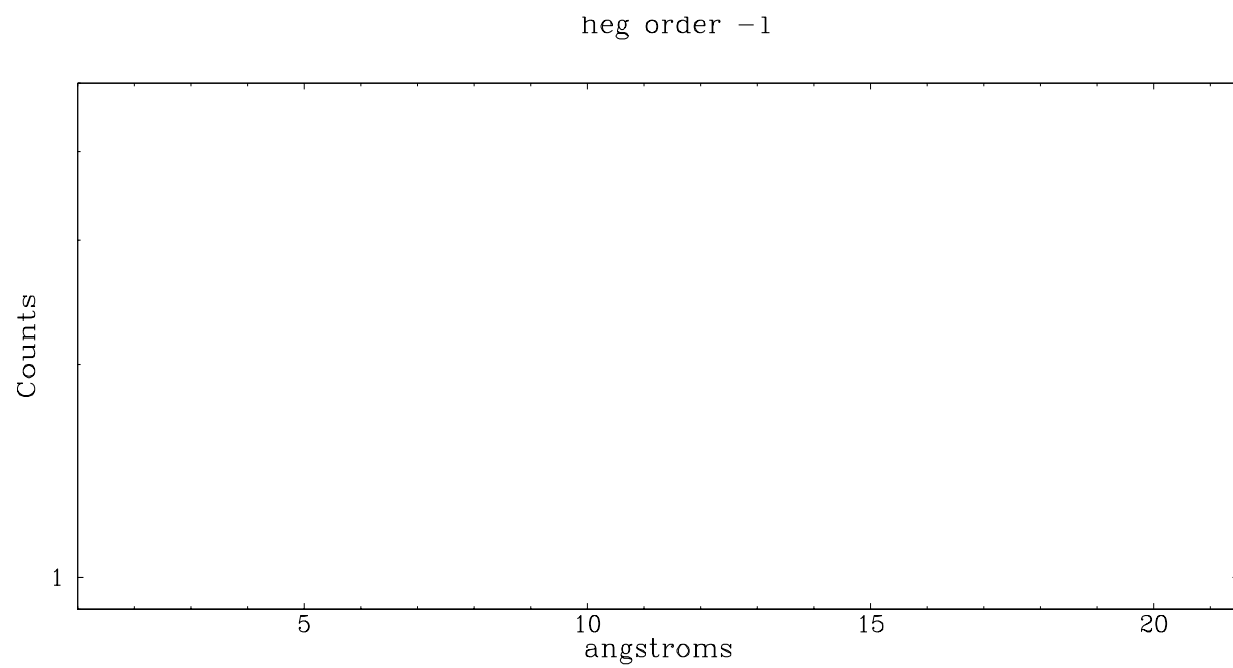
Spot Image HEG



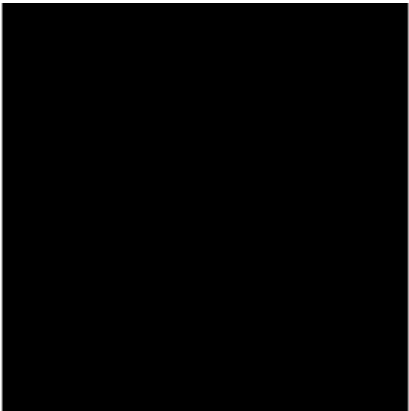
Full Detector HEG

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

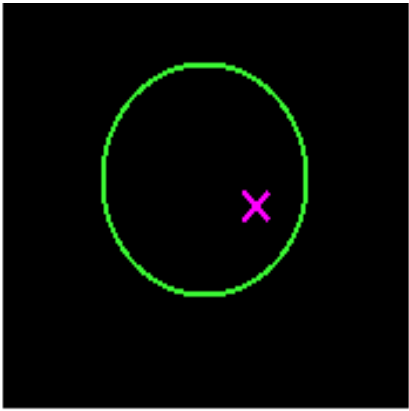




3.2 MEG Arm



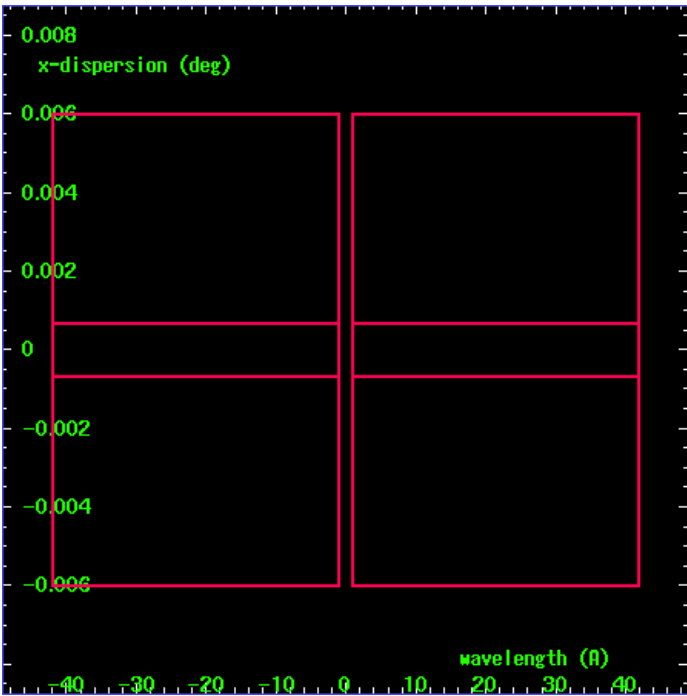
MEG Order Sort 123



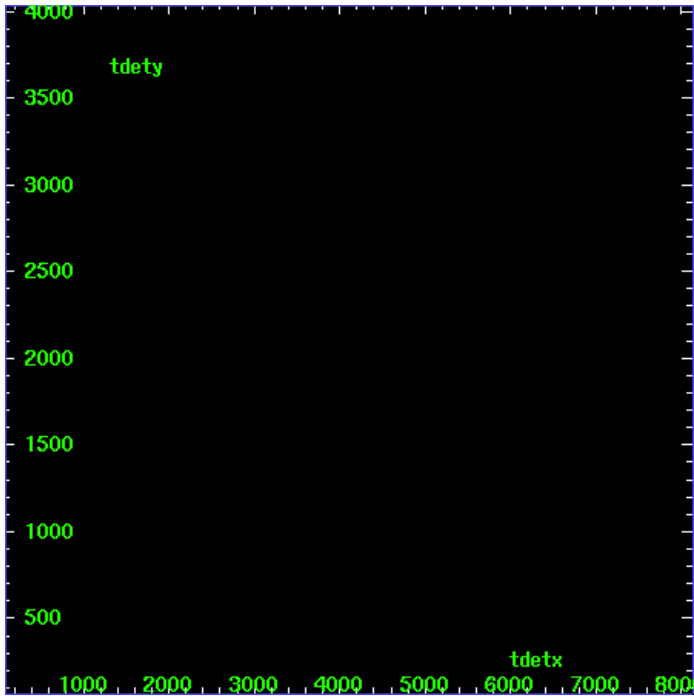
MEG Zero Order



MEG Order Sort ALL

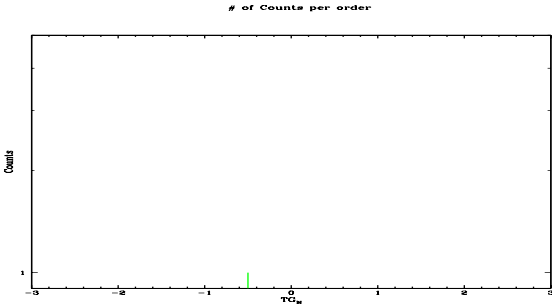


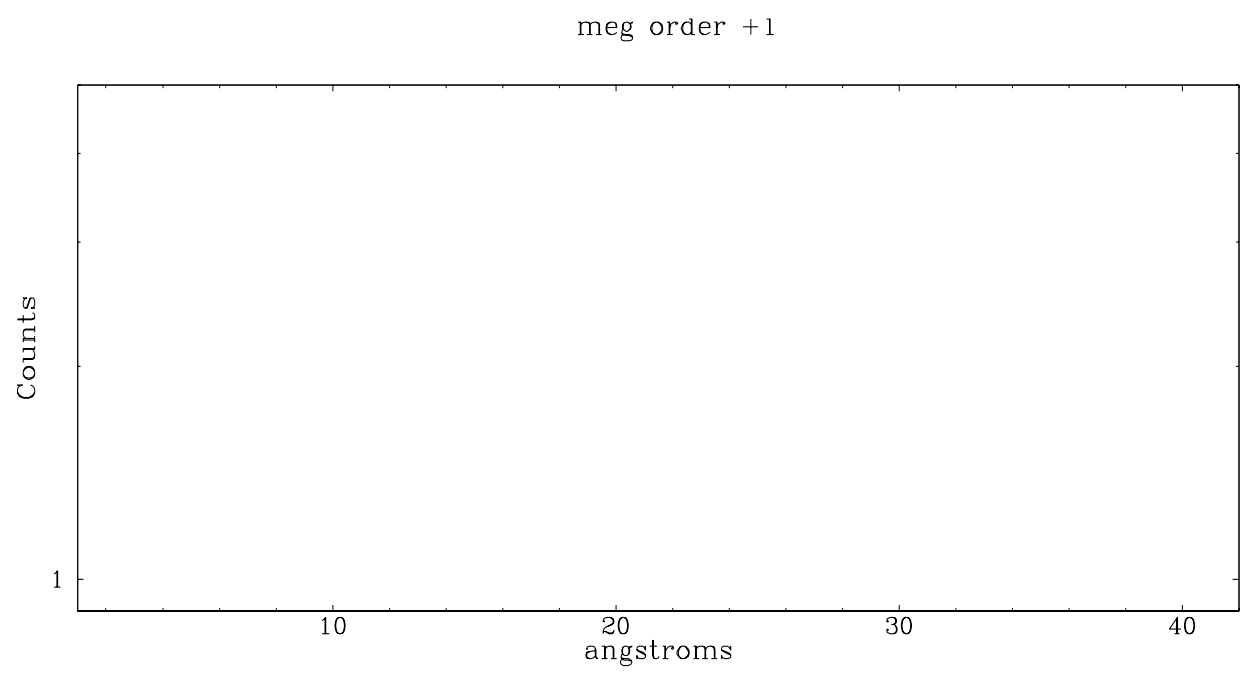
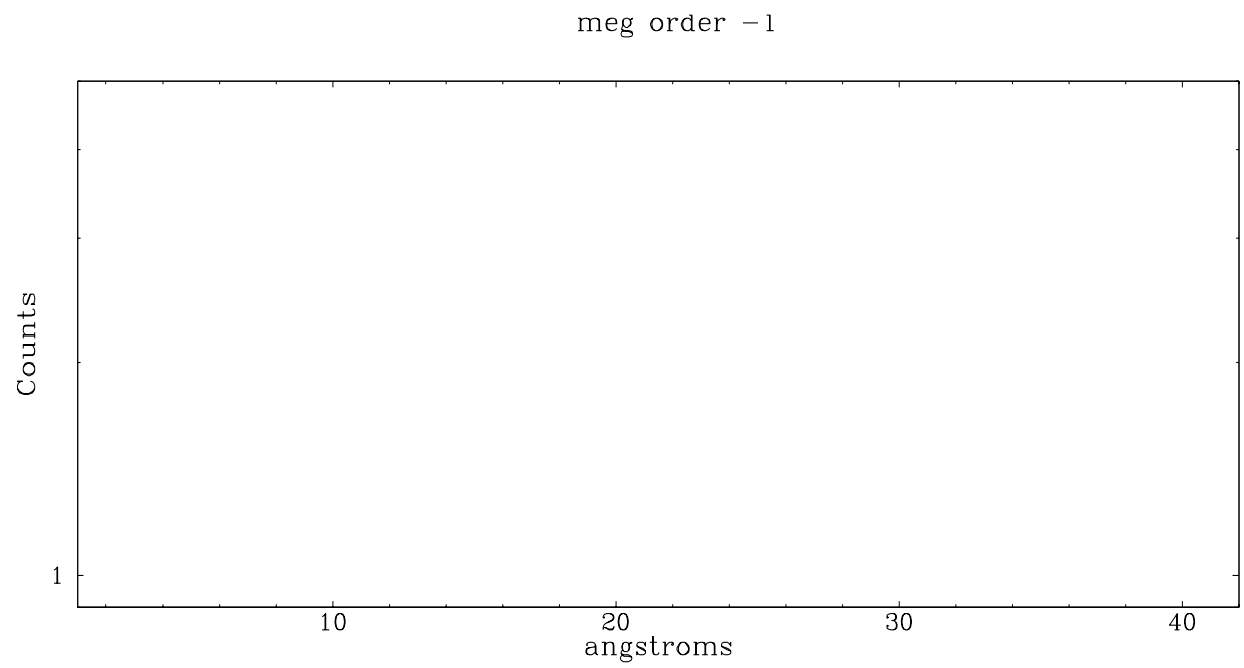
Spot Image MEG



Full Detector MEG

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





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.01.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	65

## A.2 Comments

Charge time for this ObsId remains at original value of 65 ks, although with the current processing the charge time would have been 0 ksec.

Due to an operational problem, the fid lights were not tracked during this

observation. This situation results in no Good Time Interval for the data.

There are no Level 2 events and no extracted spectral data.

The Level 1 data does contain the zeroth order and the dispersed spectral data. The Level 1 data could be used to extract the spectral data assuming

the aspect solution can be verified by independent methods. The guide stars

were accurately tracked, but there is no information on the relationship between the guide star pointing and the bore sight because of the lack of fid lights.

Target position requested: ra=07:08:41.50, dec=-49:33:05.80. Position of

source is ra=07:08:42.163, dec=-49:33:02.185