

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 11 - L2 Version 001  
Chandra X-Ray Center

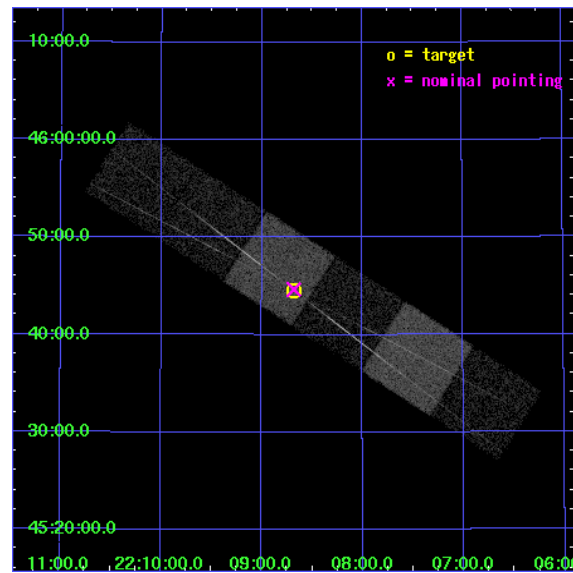
L2 Processing Date : Jun 8 2007

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# 1 Front

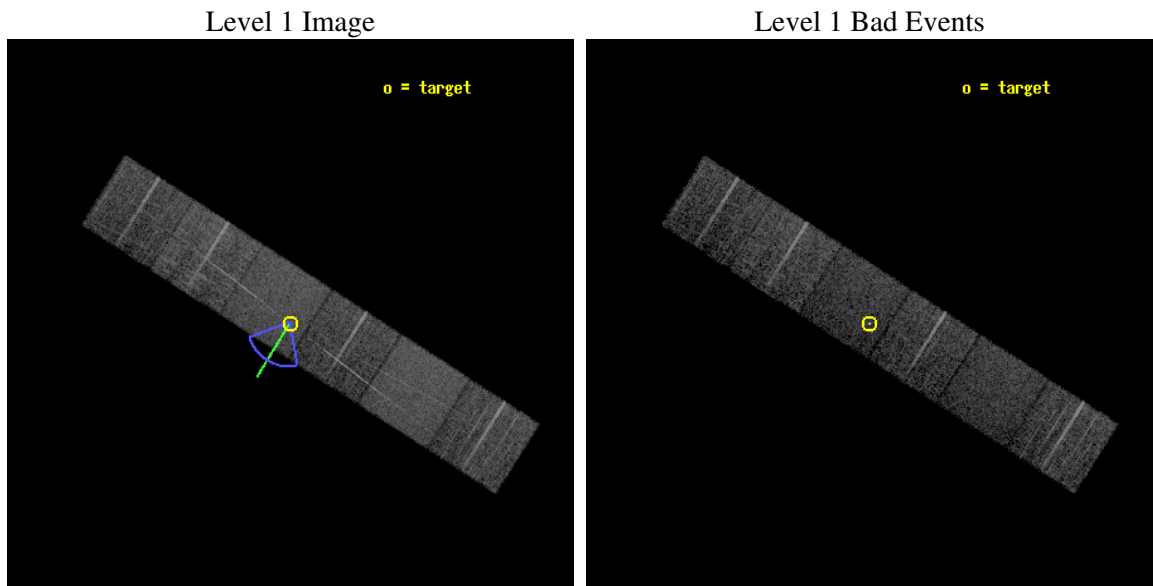
seq_num	200009
obs_id	11
title	STELLAR CORONAL SPECTROSCOPY OF COOL STARS
observer	Prof. Claude Canizares
object	AR LAC-6 LAST QUAD (2)
dtcycle	0
cycle	P
ra_targ	332.17
dec_targ	45.742222
ra_nom	332.1702436991
dec_nom	45.744365440087
roll_nom	212.59854155446
revision	2
ontime	7251.1590664238
livetime	7159.3405242009
ontime4	7251.1590465158
ontime5	7251.1590664238
ontime6	7254.4000067562
ontime7	7251.1590664238
ontime8	7251.1590465158
ontime9	7254.4000067562
l2events	68002



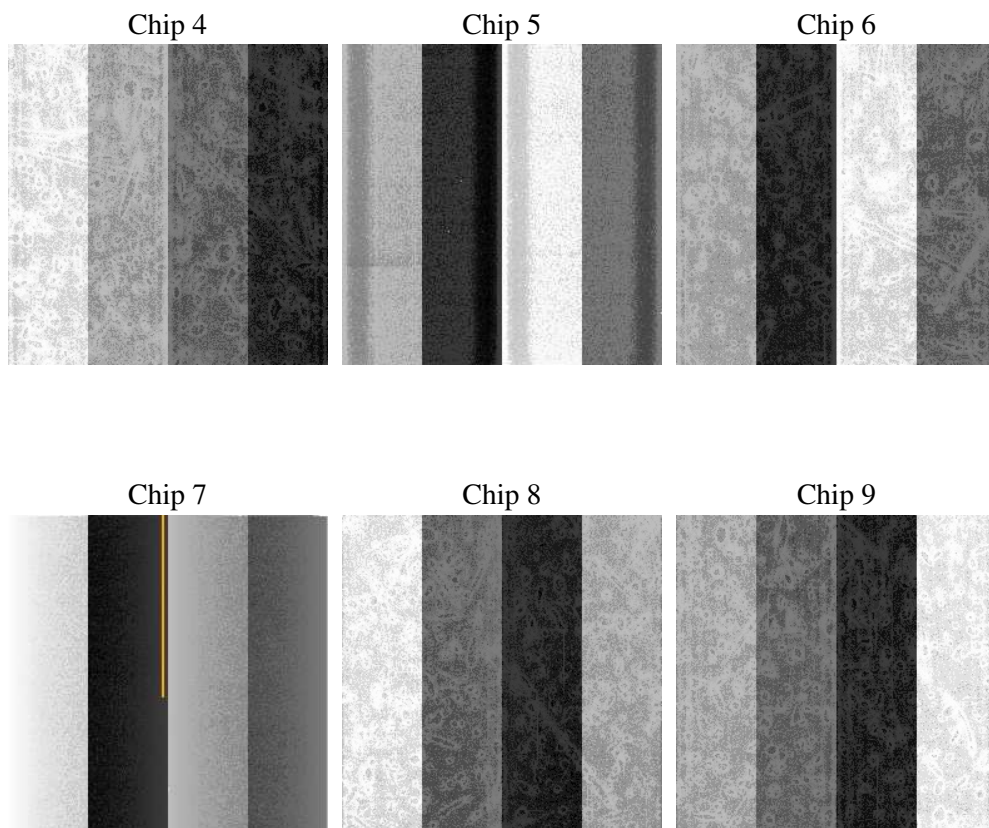
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.10
caldbver	3.4.0
date	2007-06-08T08:24:30
revision	2

sched_exp_time	7500.000000
ontime	7251.1590664238
ontime4	7251.1590465158
ontime5	7251.1590664238
ontime6	7254.4000067562
ontime7	7251.1590664238
ontime8	7251.1590465158
ontime9	7254.4000067562
l1events	286864

### 2.1.4 Events

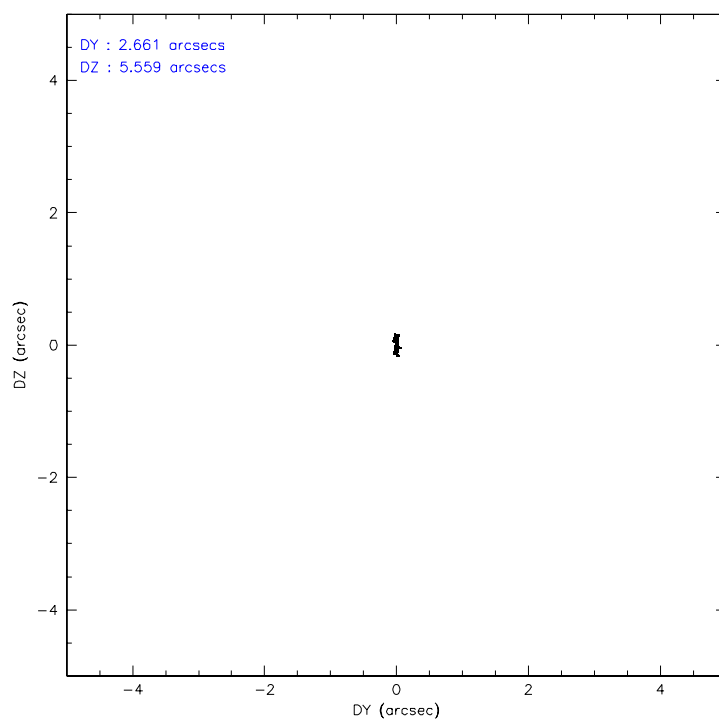
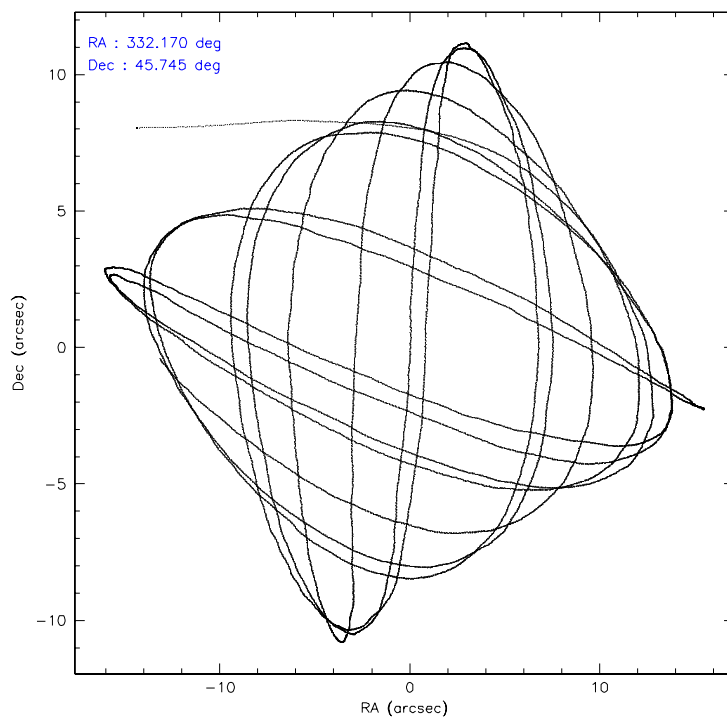
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	44376	53587	41738	53180	54815	39168
rejected events	39294	29218	34405	29749	42321	34159
rejected %	88%	54%	82%	55%	77%	87%

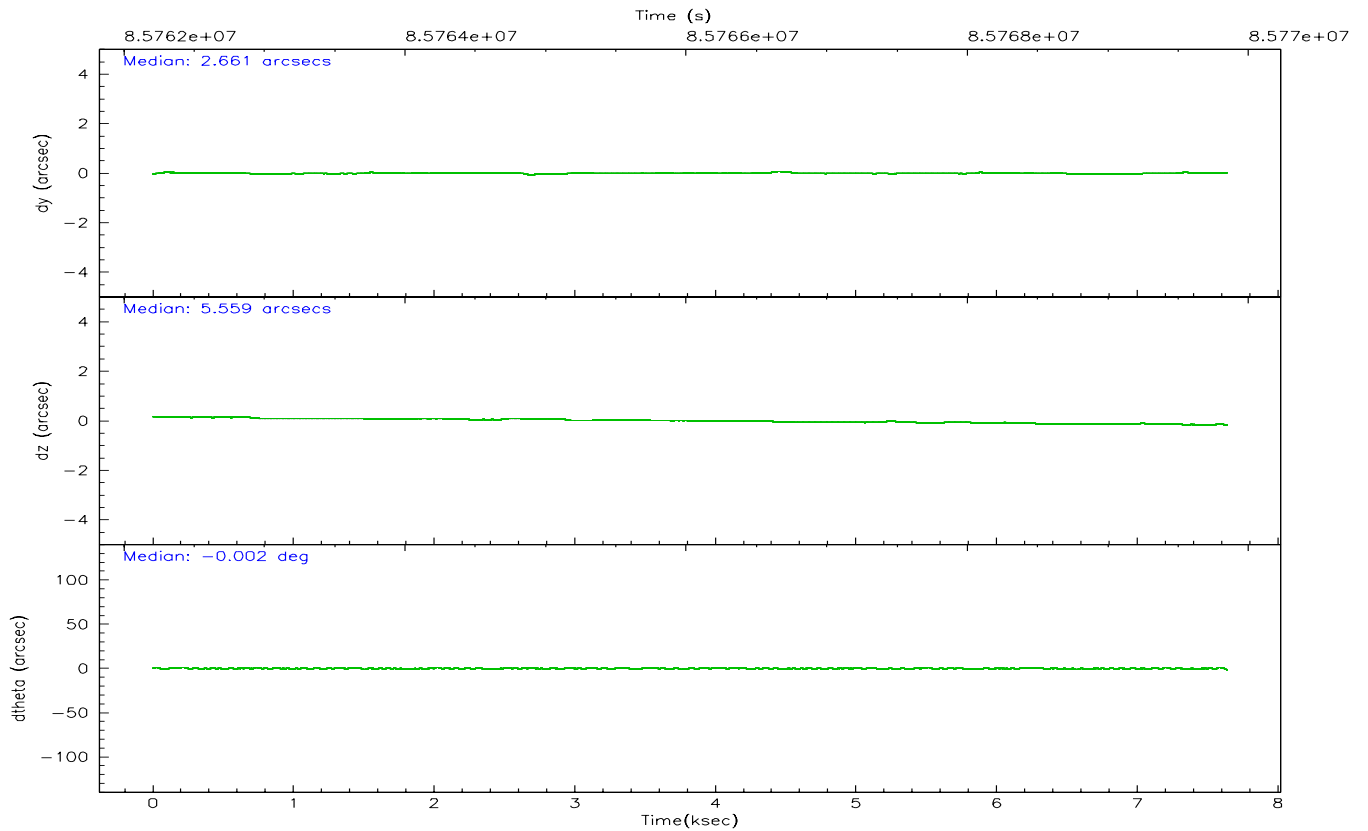
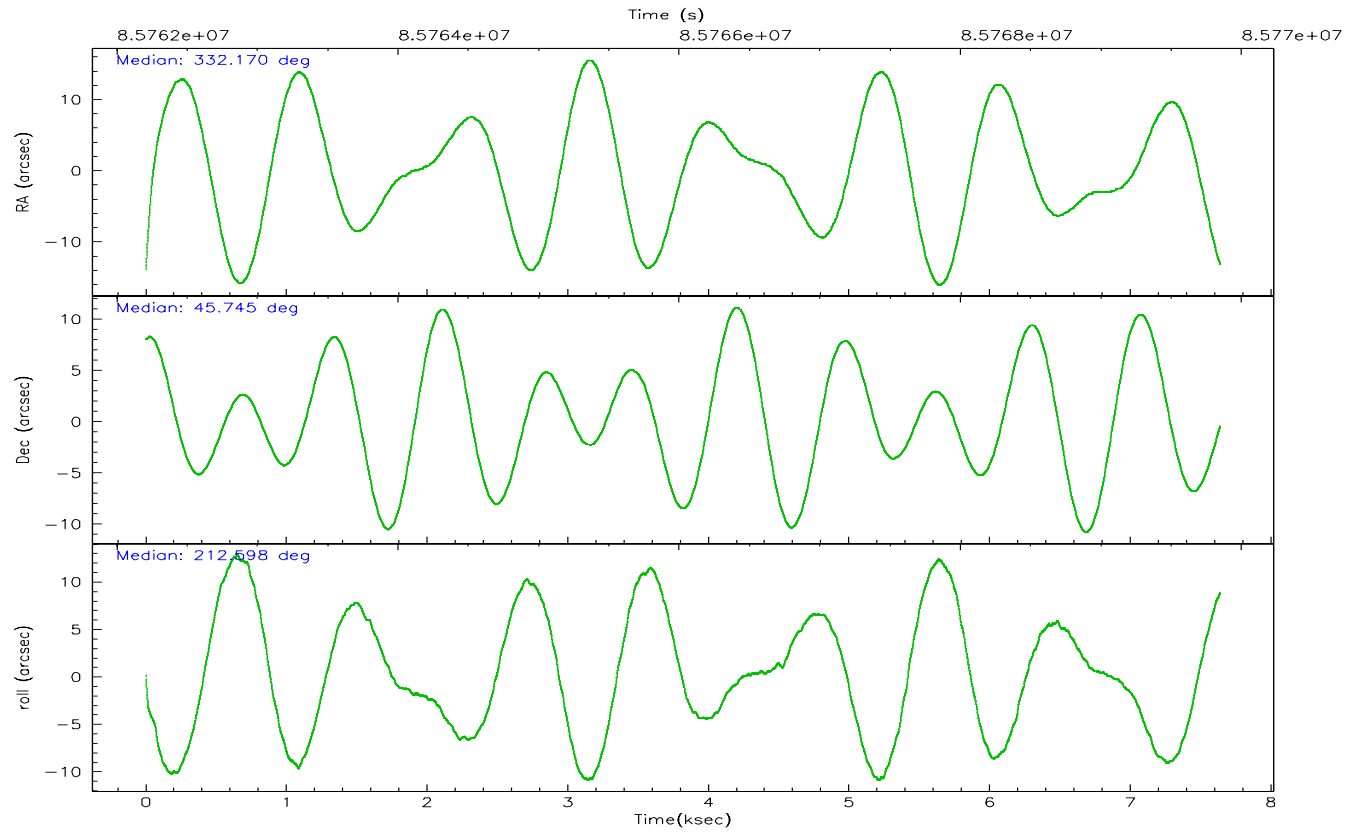
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	2217	2082	4150	2535	4905	2231
	4%	3%	9%	4%	8%	5%
grade 1 events	18	69	26	94	38	26
	0%	0%	0%	0%	0%	0%
grade 2 events	1174	7183	1170	4789	2353	978
	2%	13%	2%	9%	4%	2%
grade 3 events	481	1206	559	2109	1241	458
	1%	2%	1%	3%	2%	1%
grade 4 events	439	1145	519	2140	1163	458
	0%	2%	1%	4%	2%	1%
grade 5 events	1370	4208	1578	5022	2011	1627
	3%	7%	3%	9%	3%	4%
grade 6 events	777	12776	942	11889	2833	889
	1%	23%	2%	22%	5%	2%
grade 7 events	37900	24918	32794	24602	40271	32501
	85%	46%	78%	46%	73%	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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	332.187994	332.1702436991012	Subarray requested	NONE	NONE
Pointing Dec	45.768763	45.74436544008664	Alternating exposures requested	N	N
Pointing Roll	212.429203	212.5985415544595	Primary exposure time	3.200000	3.2
Roll angle	210.000000	210.000000			
Roll tolerance	40.000000	40.000000			
Roll constraint allows 180D rotation	N	N			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-187.132523	-187.1254020033014			
SIM translation stage offset (mm)	-3	-3.007120579706367			
Phase constraints	Y	Y			
Phase period	1.983180	1.983180			
Phase epoch	48501.123200	48501.123200			
Phase start	0.728000	0.728000			
Phase end	0.772000	0.772000			
Phase start error	0.080000	0.080000			
Phase end error	0.080000	0.080000			
Observation start time	85762349.184000	85761074.38699301			
Observation start date	2000-09-19T14:51:25	2000-09-19T14:31:14			
Observation end	85769849.184000	85770882.09986199			

## 2.3 Aspect





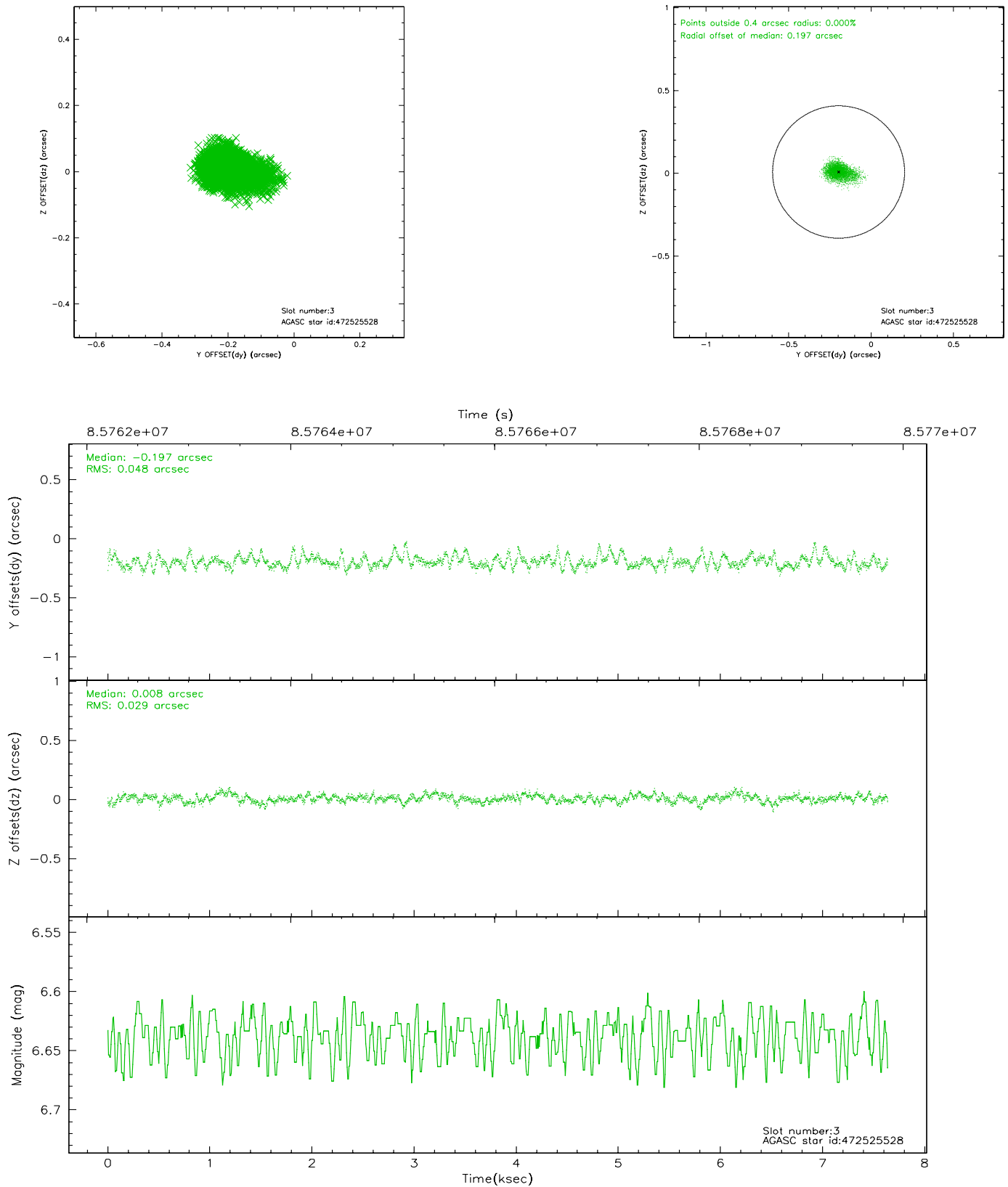
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.36	1864	-0.059	-0.032	0.008	0.013	0.000000	0.000000	58.00	-1917.86
1	FID	ACIS-S-4	7.19	1864	-0.021	0.047	0.006	0.010	0.000000	0.000000	2158.28	118.82
2	FID	ACIS-S-5	7.23	1864	0.053	-0.006	0.006	0.010	0.000000	0.000000	-1806.91	113.48
3	GUIDE	472525528	6.64	3727	-0.197	0.008	0.057	0.104	331.551102	45.248694	2363.64	709.51
4	GUIDE	472523760	8.24	3727	0.006	-0.015	0.057	0.093	331.645363	45.403260	1862.21	371.61
5	GUIDE	472665256	8.99	3726	0.098	0.021	0.064	0.104	332.808125	46.195041	-2129.14	-471.32
6	GUIDE	472659832	9.45	3725	0.015	0.126	0.080	0.128	332.780399	46.098139	-1886.81	-212.21
7	GUIDE	472655152	9.42	3726	0.072	-0.140	0.083	0.133	332.504239	45.862991	-851.59	137.55

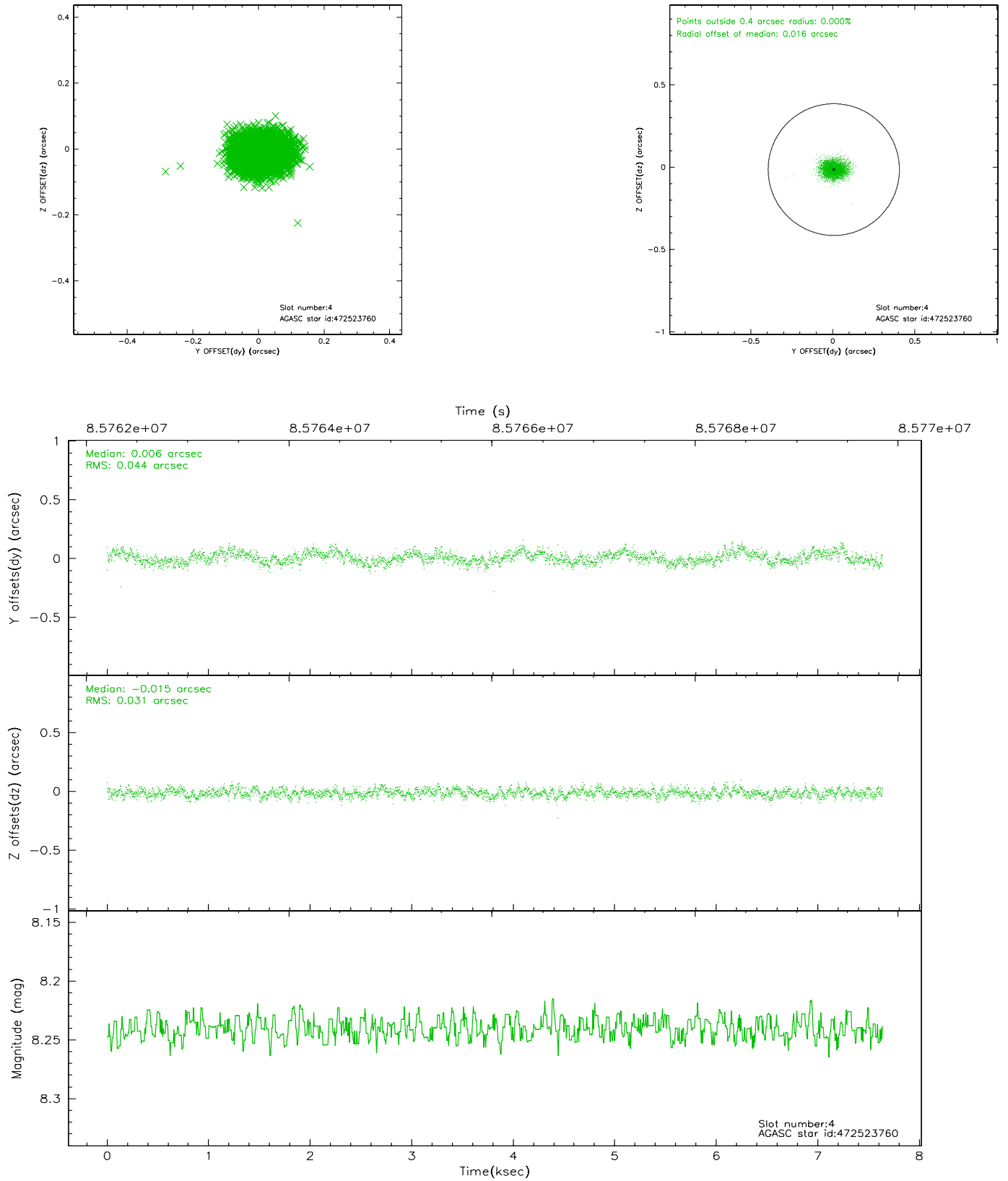


## 2.4 Star Slots

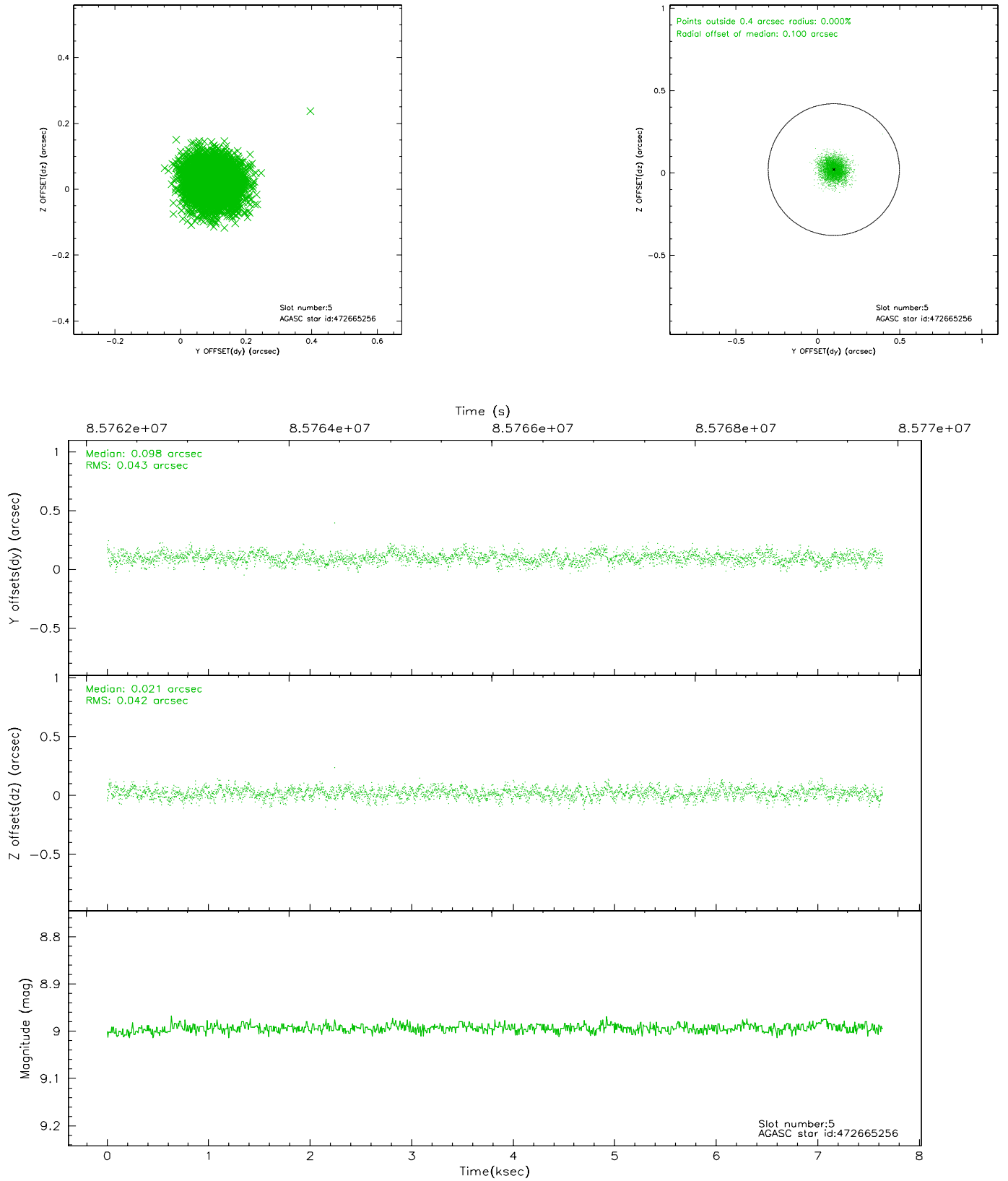
### 2.4.1 Slot 3



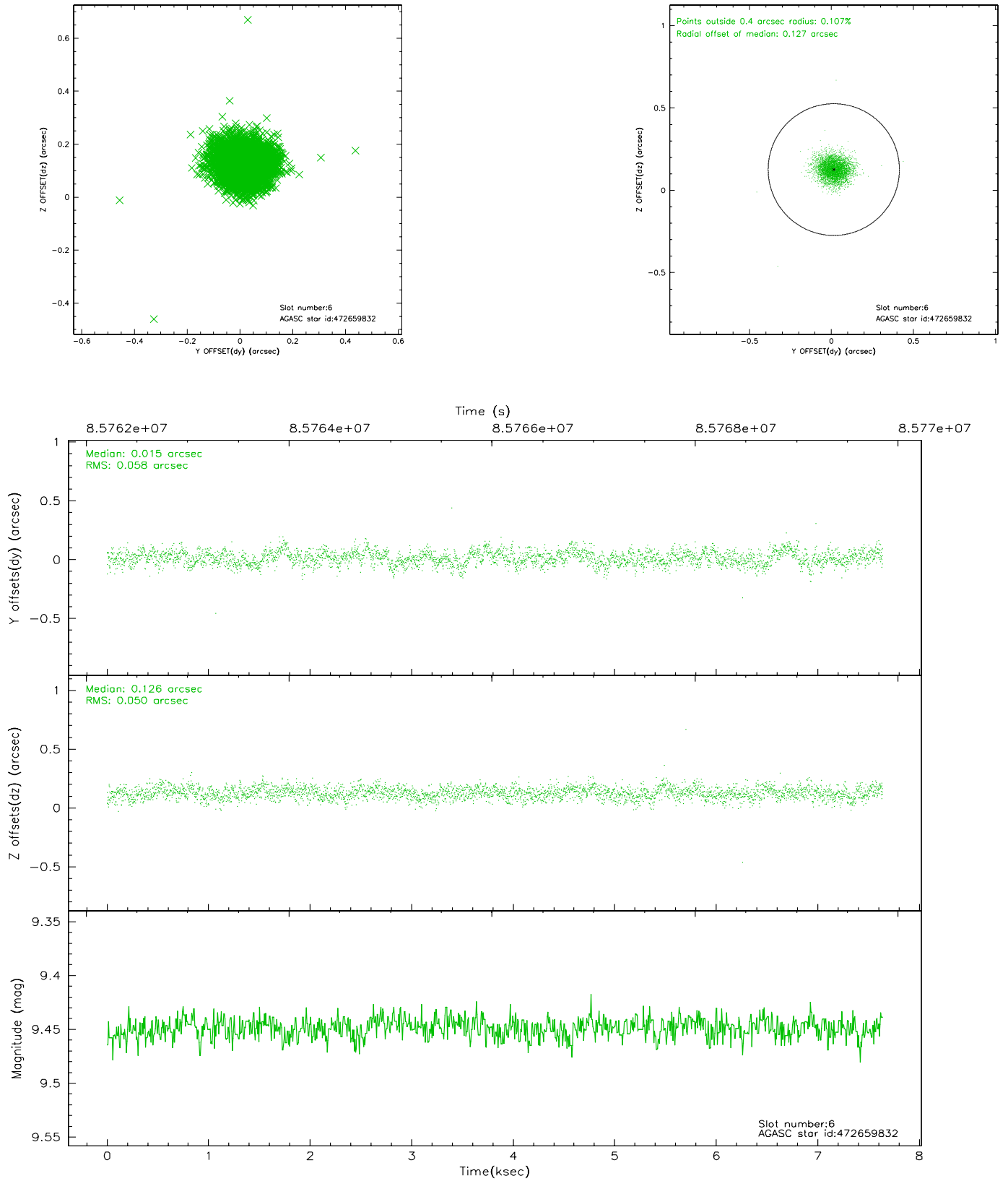
## 2.4.2 Slot 4



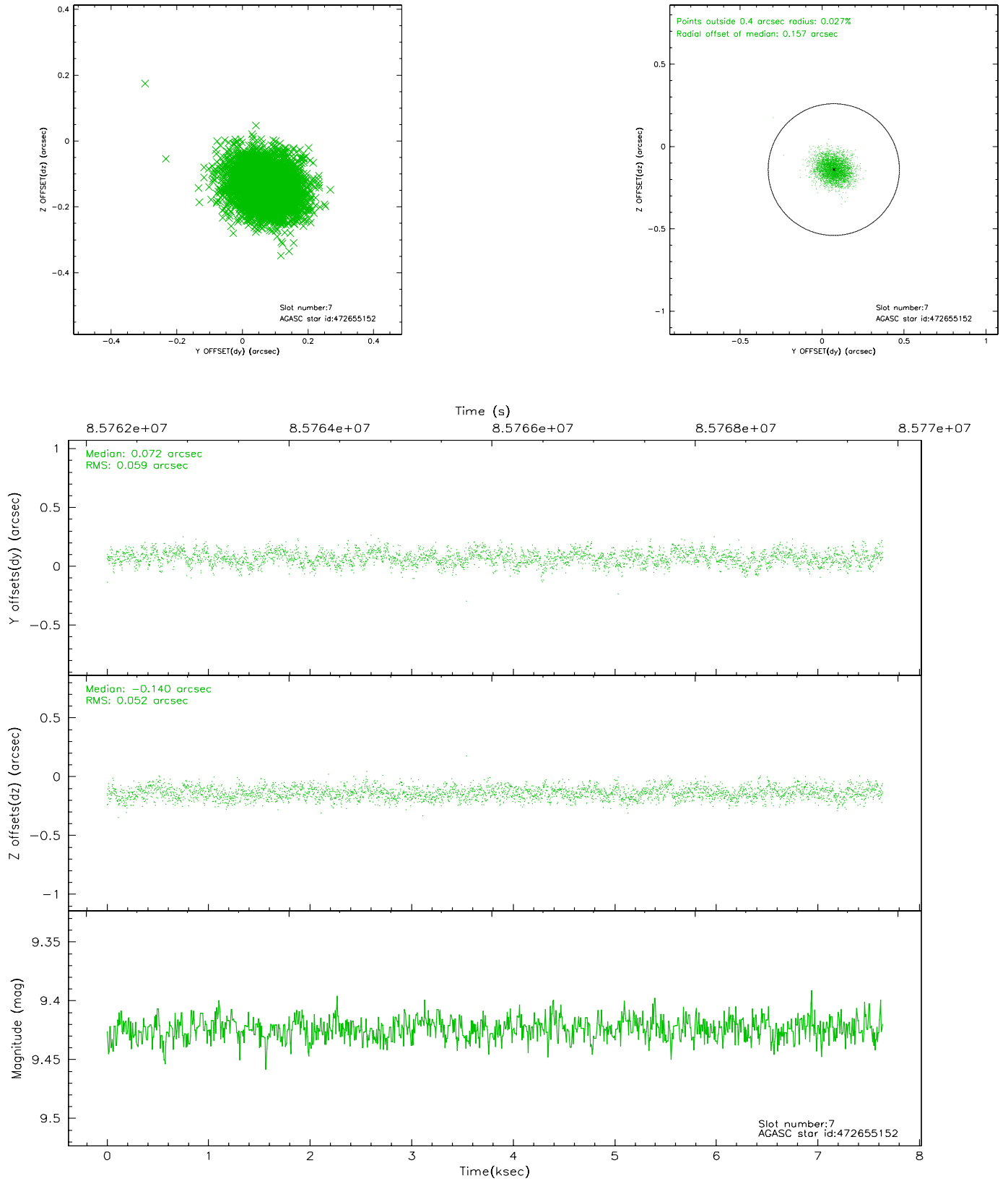
### 2.4.3 Slot 5



## 2.4.4 Slot 6

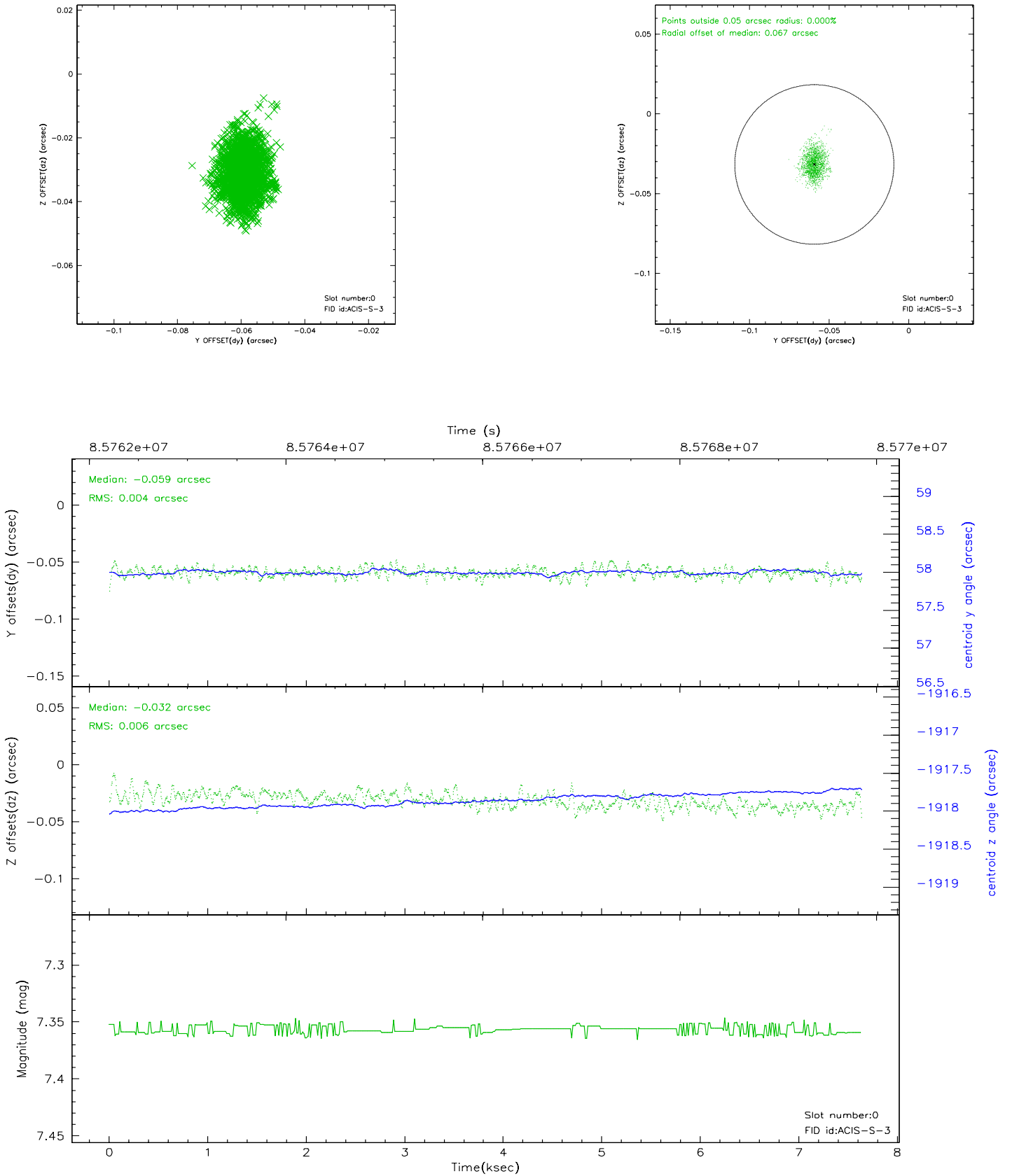


## 2.4.5 Slot 7

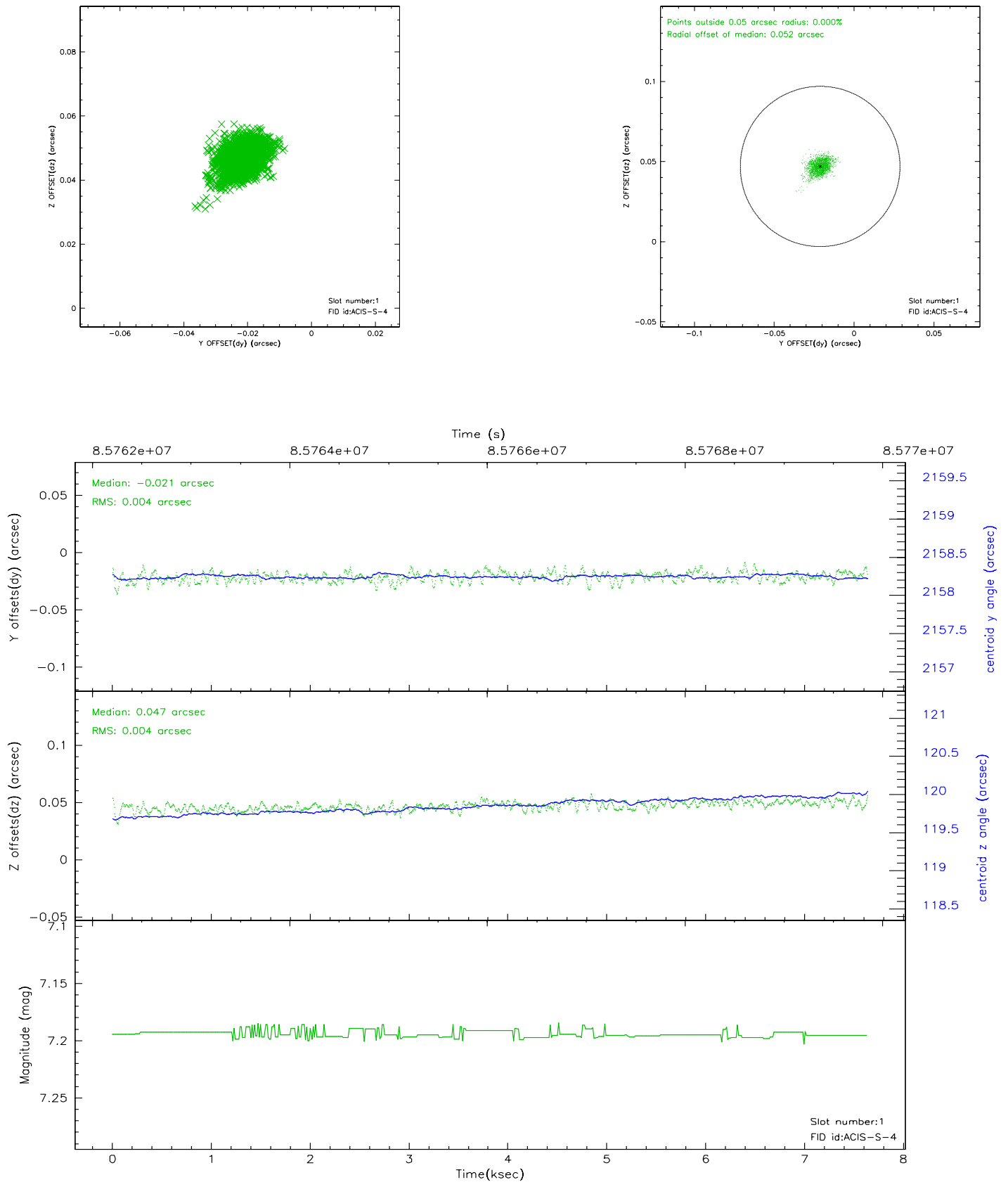


## 2.5 FID Slots

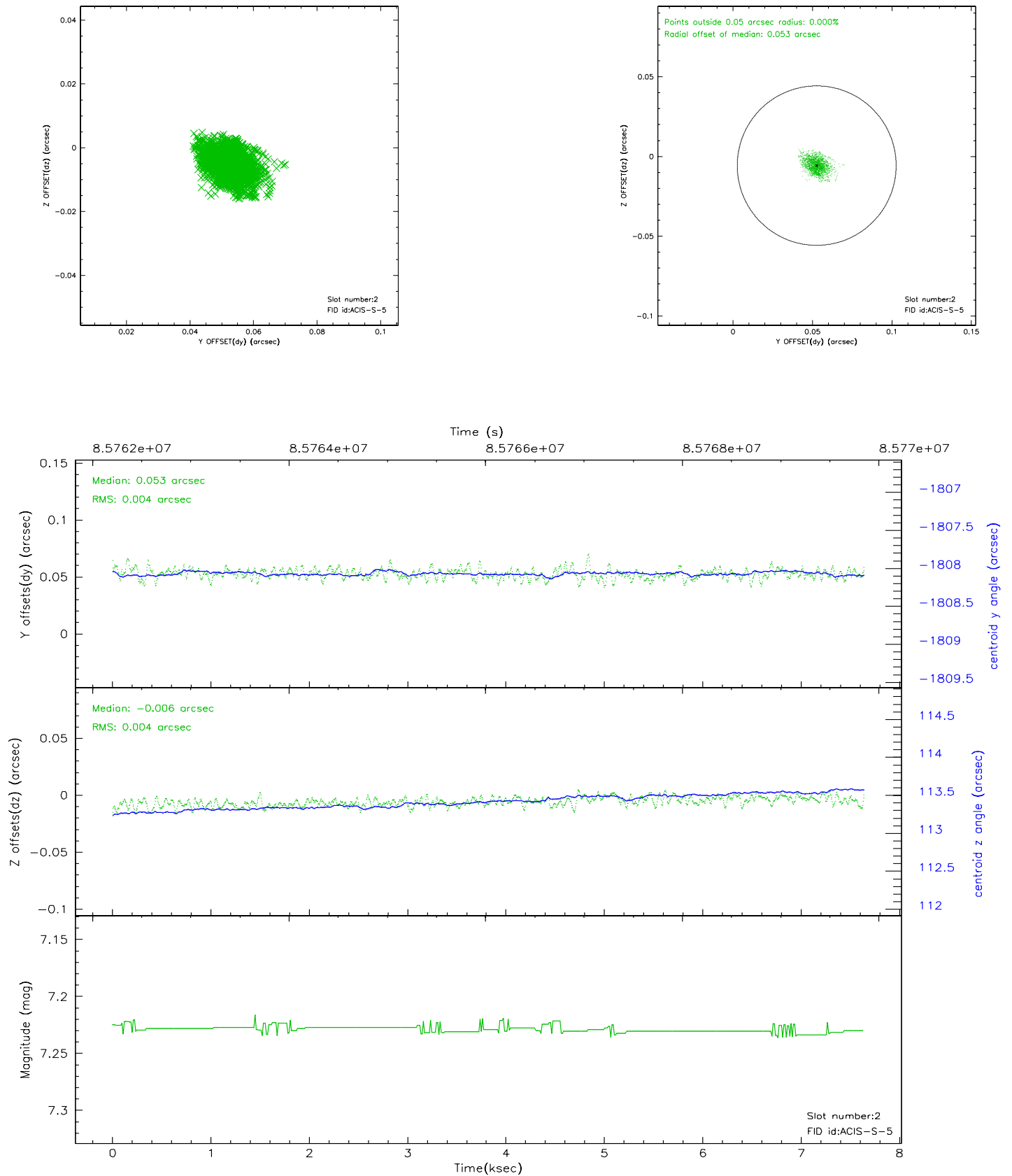
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



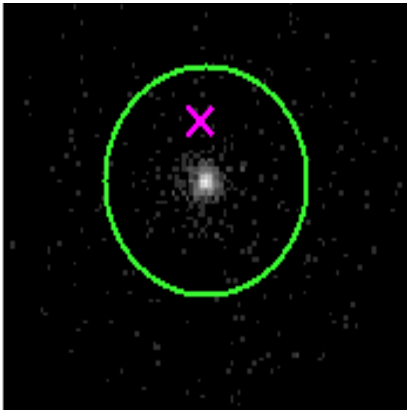


# 3 Gratings

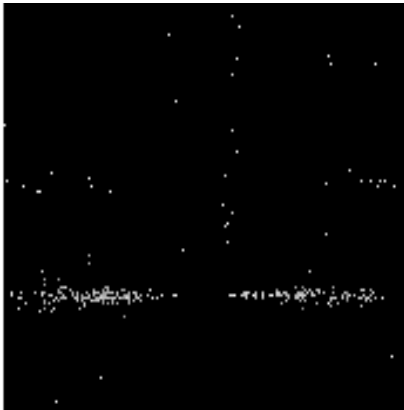
## 3.1 HEG Arm



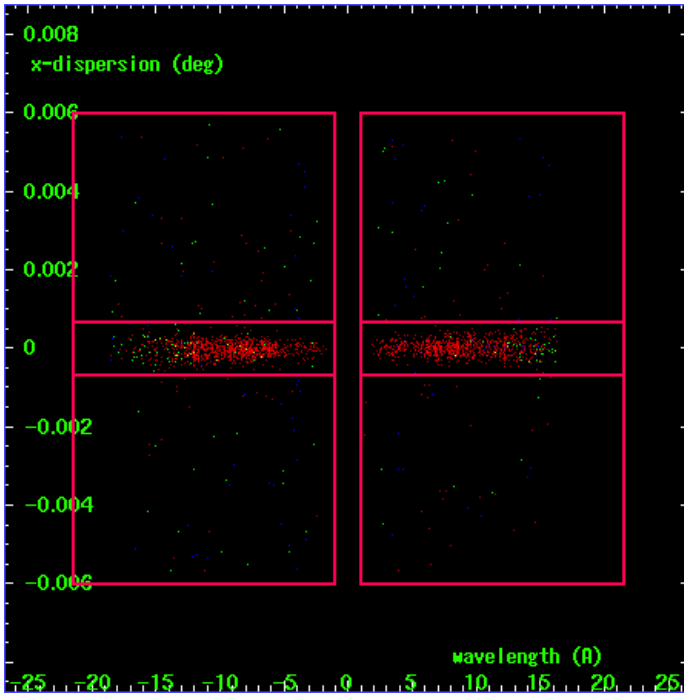
HEG Order Sort 123



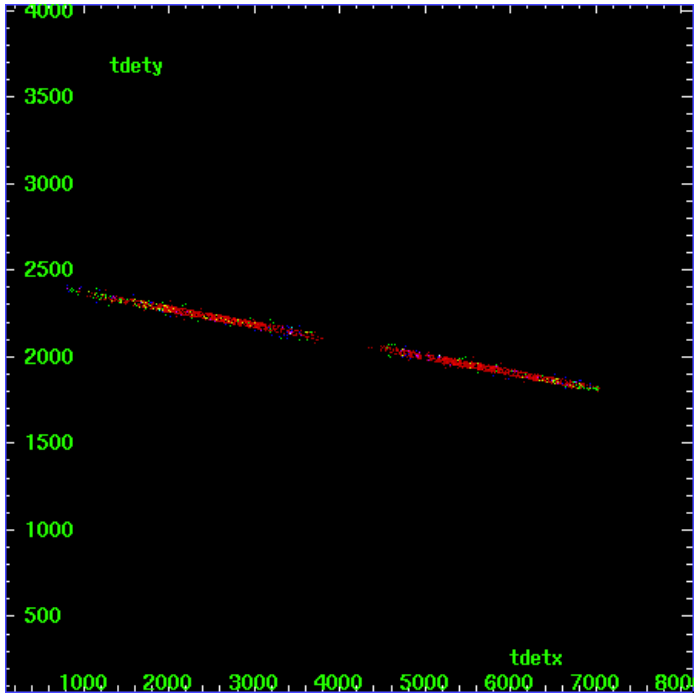
HEG Zero Order



HEG Order Sort ALL

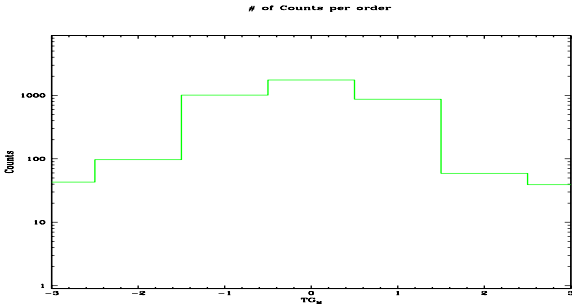


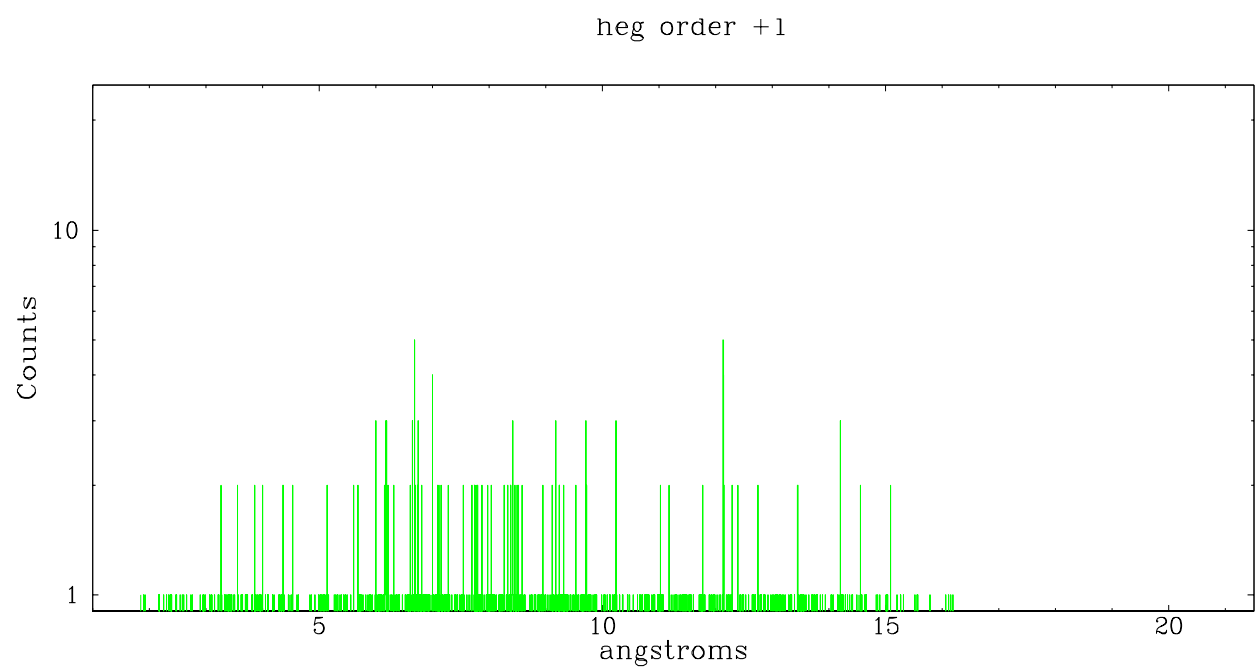
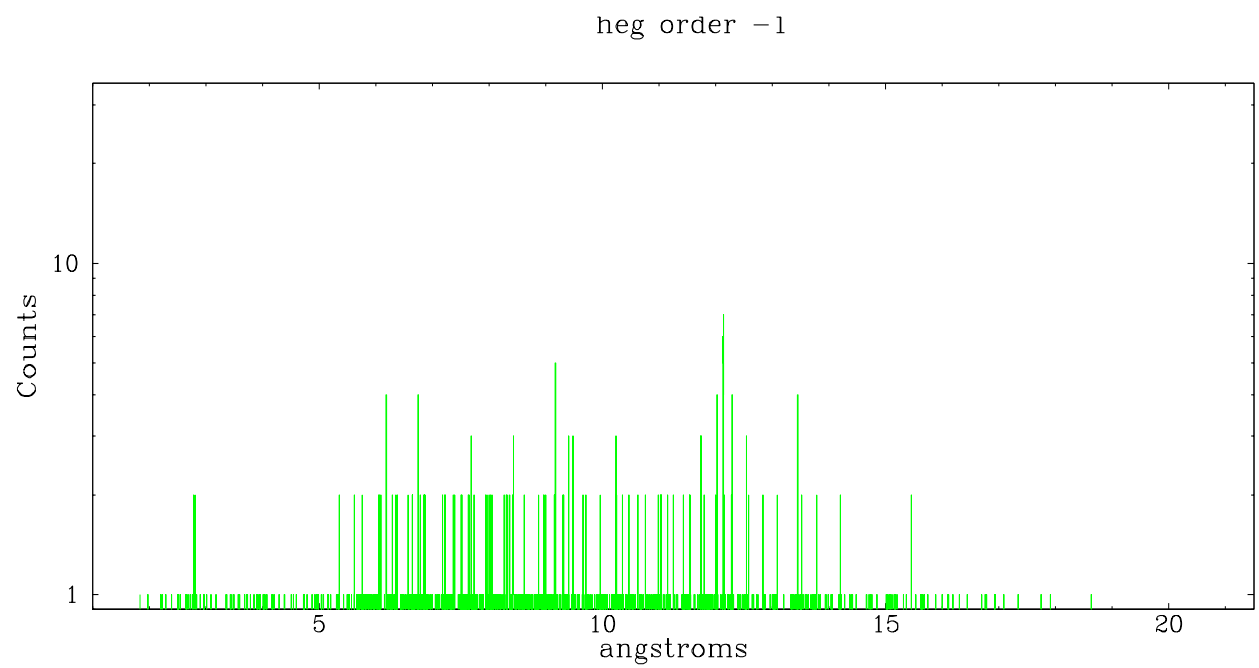
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	43	97	1015	1751	872	59	39

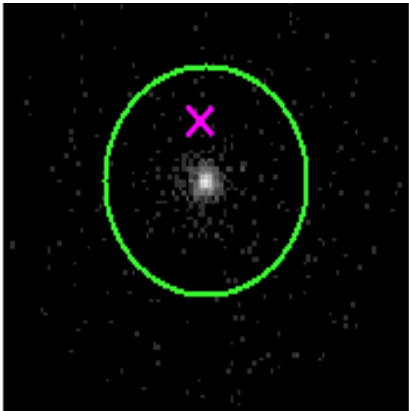




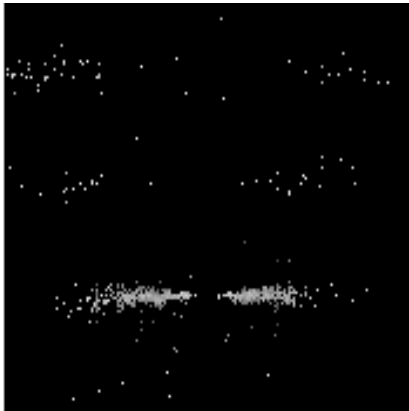
3.2 MEG Arm



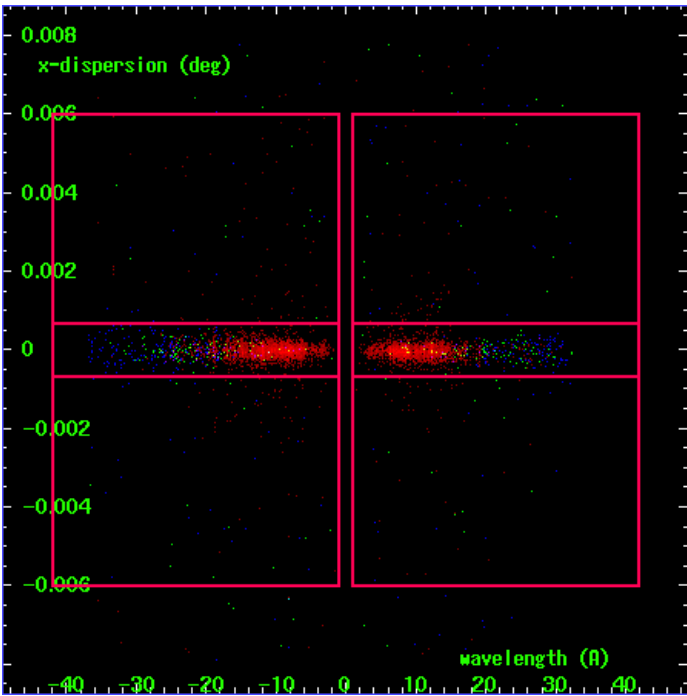
MEG Order Sort 123



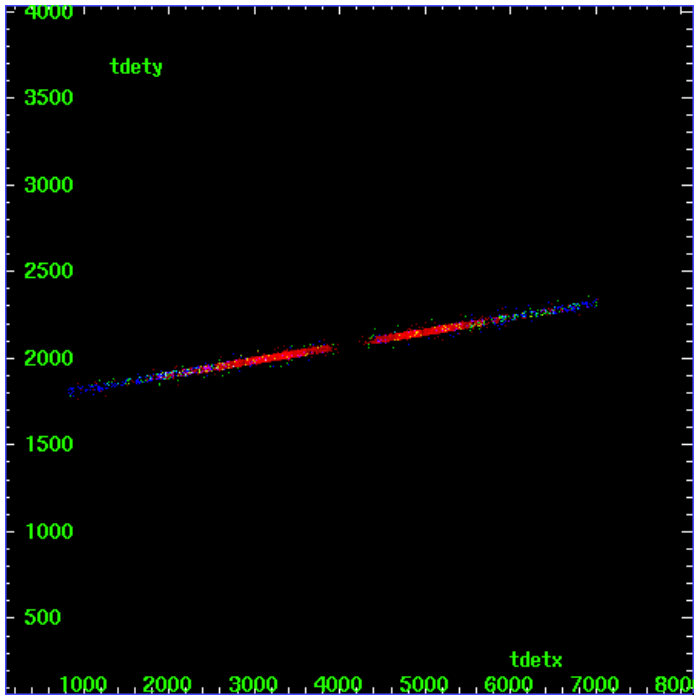
MEG Zero Order



MEG Order Sort ALL

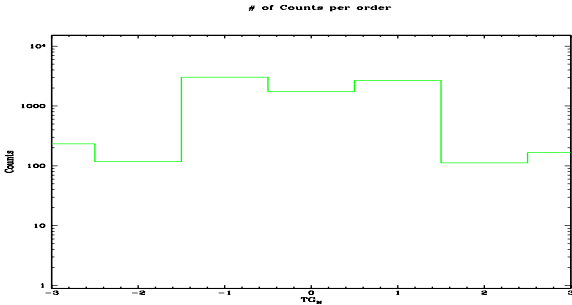


Spot Image MEG

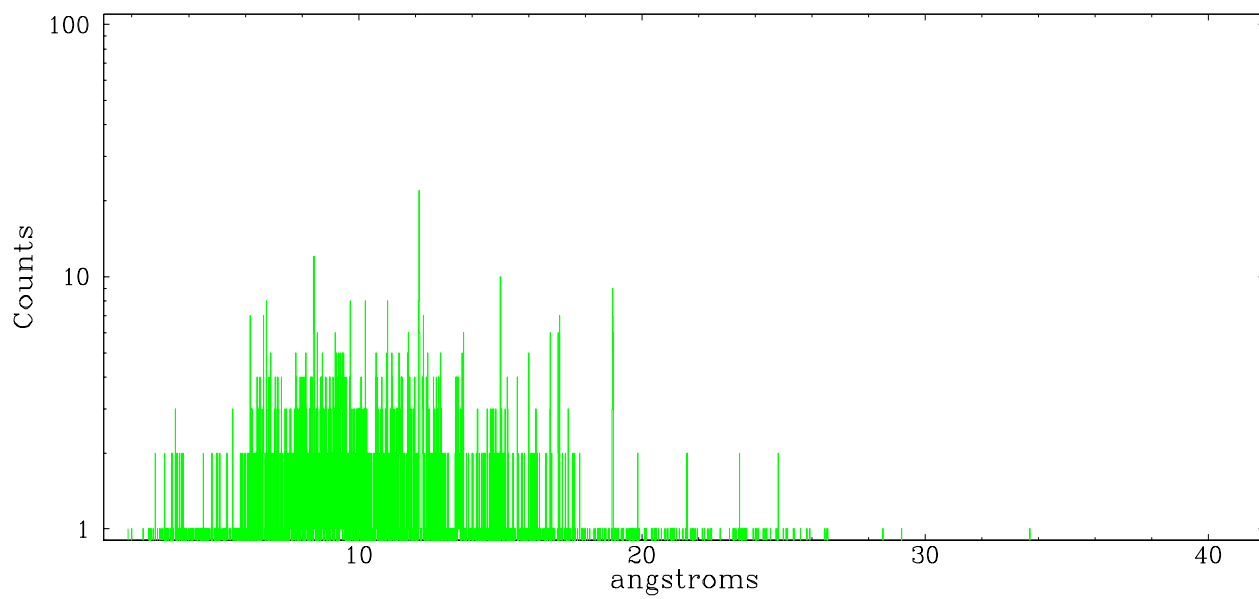


Full Detector MEG

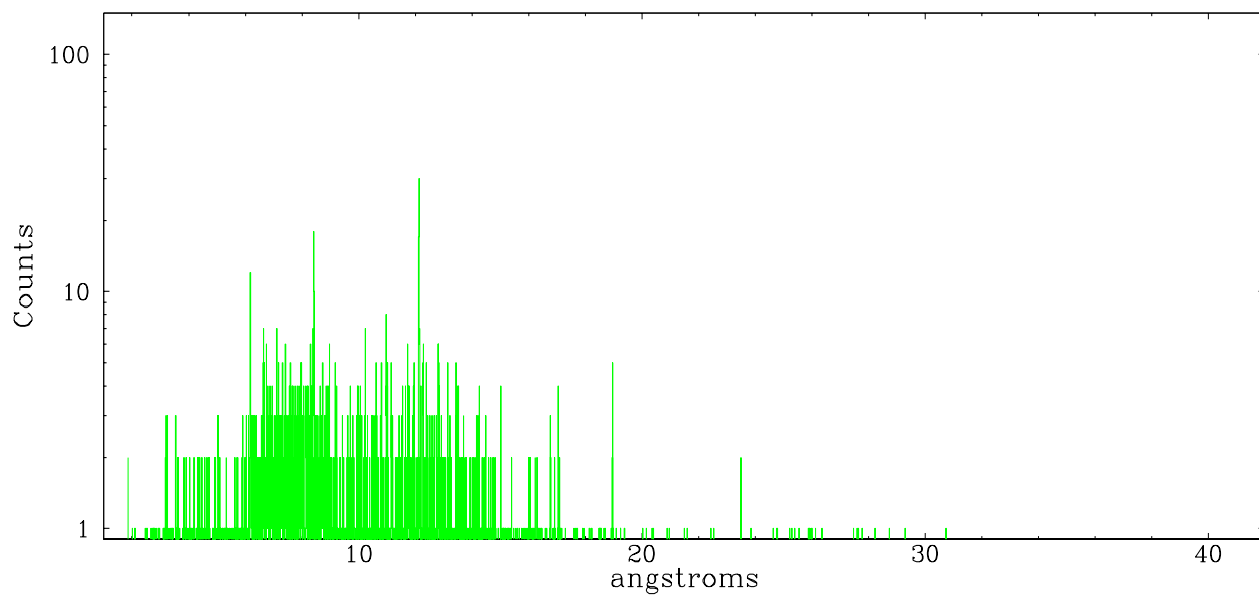
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	234	118	3042	1751	2660	112	167



meg order -1



meg order +1



# A Summary

## A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2007.06.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.254

## A.2 Comments

Caveat: due to an 0.5 day observer error on the ephemeris, comments on the phase in the header 'OBJECT' are wrong.