

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 3824 - L2 Version 001  
Chandra X-Ray Center

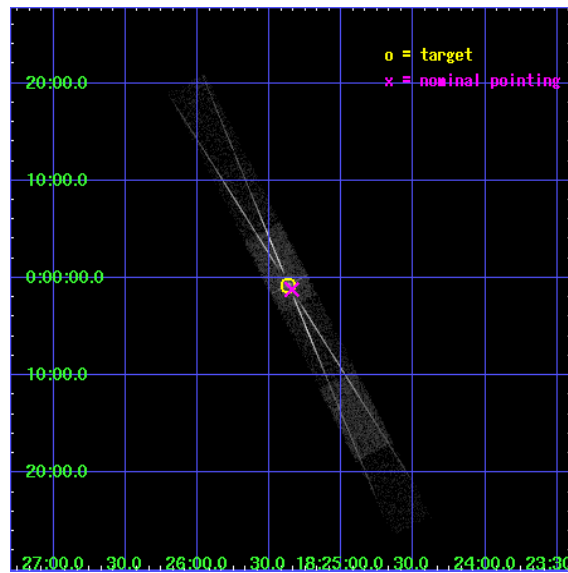
L2 Processing Date : Jul 12 2006

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# 1 Front

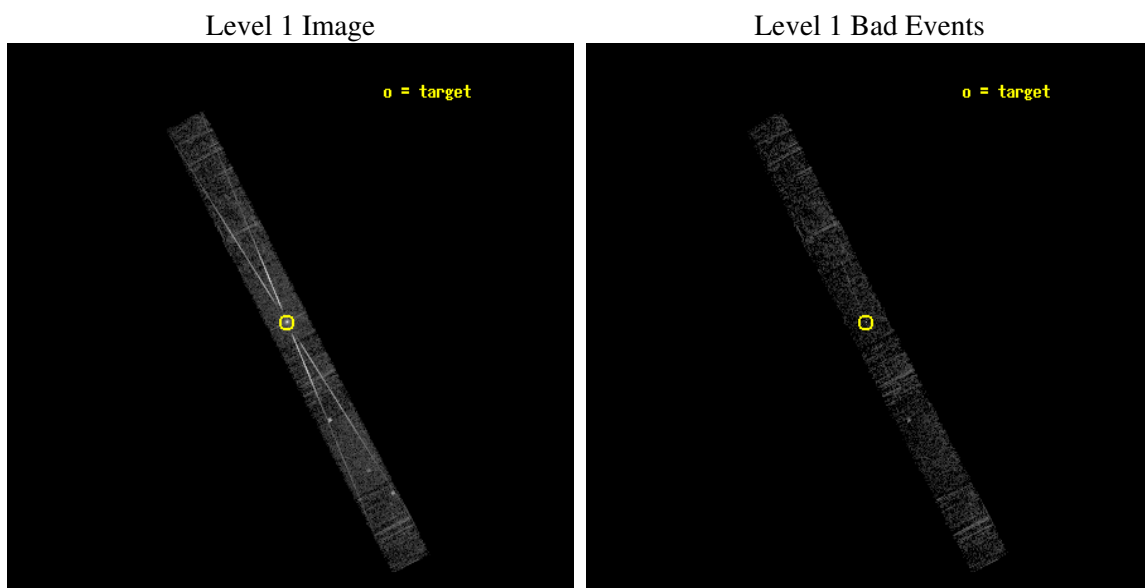
seq_num	400311
obs_id	3824
title	SNAPSHOT SURVEY OF FOUR LMXBS
observer	Prof. Deepto Chakrabarty
object	4U 1822-000
dtcycle	0
cycle	P
ra_targ	276.342083
dec_targ	-0.012167
ra_nom	276.33604938195
dec_nom	-0.019825715866862
roll_nom	242.62903230675
revision	2
ontime	2272.8999840617
livetime	2219.3229178565
ontime4	2272.8999840617
ontime5	2272.8999840617
ontime6	2272.8999840617
ontime7	2272.8999840617
ontime8	2272.8999840617
ontime9	2272.8999840617
l2events	46210



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

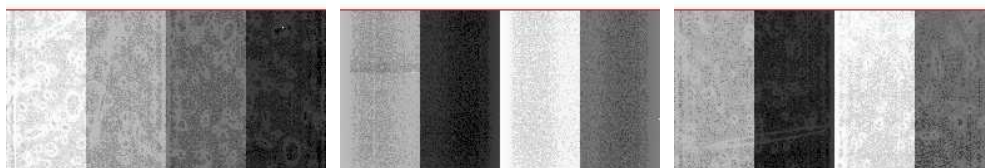


#### 2.1.2 Bias

Chip 4

Chip 5

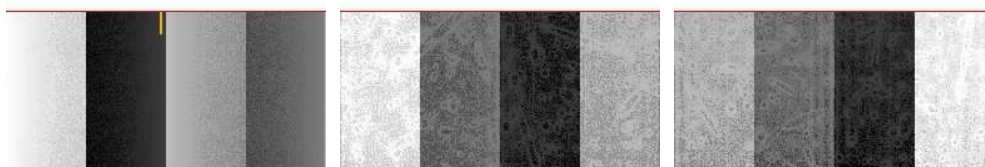
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8
caldsver	3.2.2
date	2006-07-12T21:10:12
revision	2

sched_exp_time	2000.000000
ontime	2275.5178071856
ontime4	2275.5178071856
ontime5	2275.5178071856
ontime6	2275.5178071856
ontime7	2275.5178071856
ontime8	2275.5178071856
ontime9	2275.5178071856
l1events	92516

### 2.1.4 Events

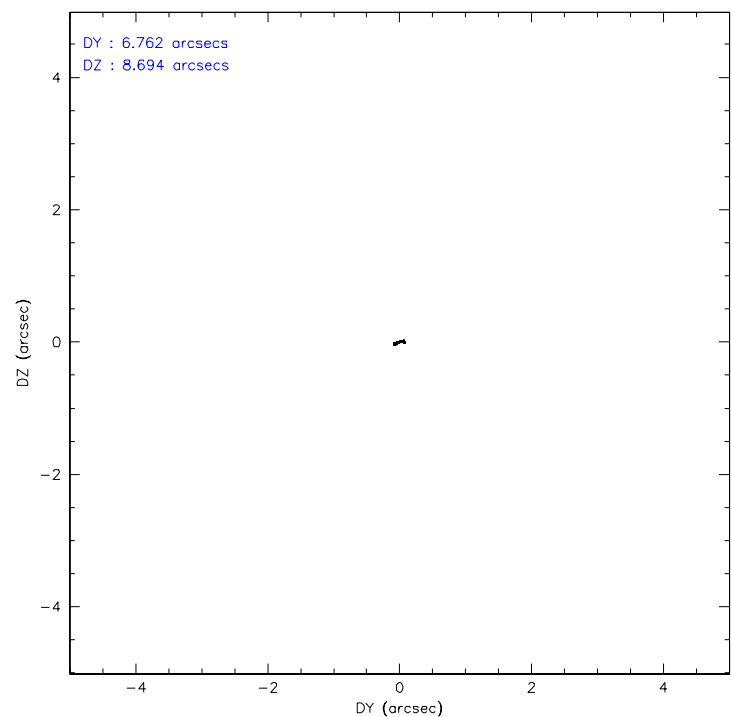
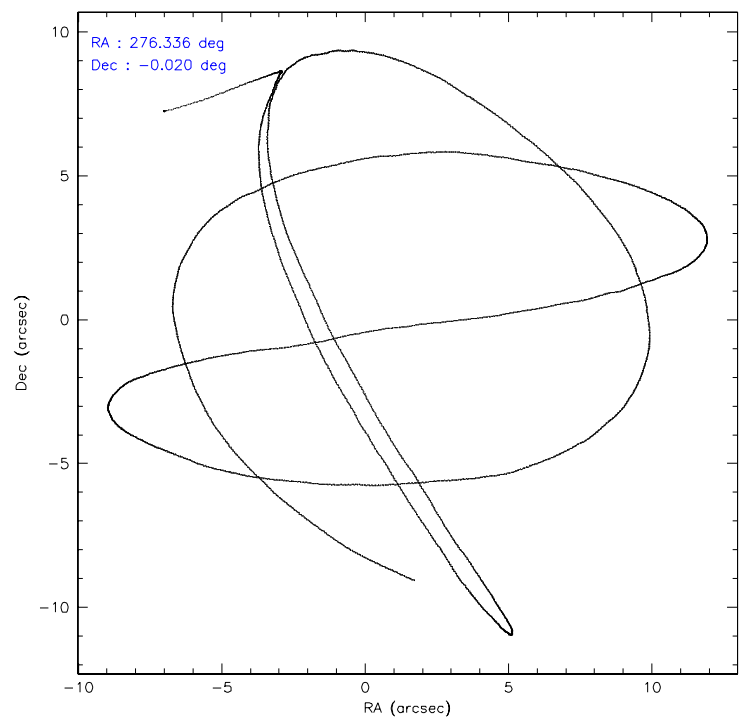
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	9586	13643	20923	25466	14715	8183
rejected events	7983	6217	7408	6314	7614	6422
rejected %	83%	45%	35%	24%	51%	78%

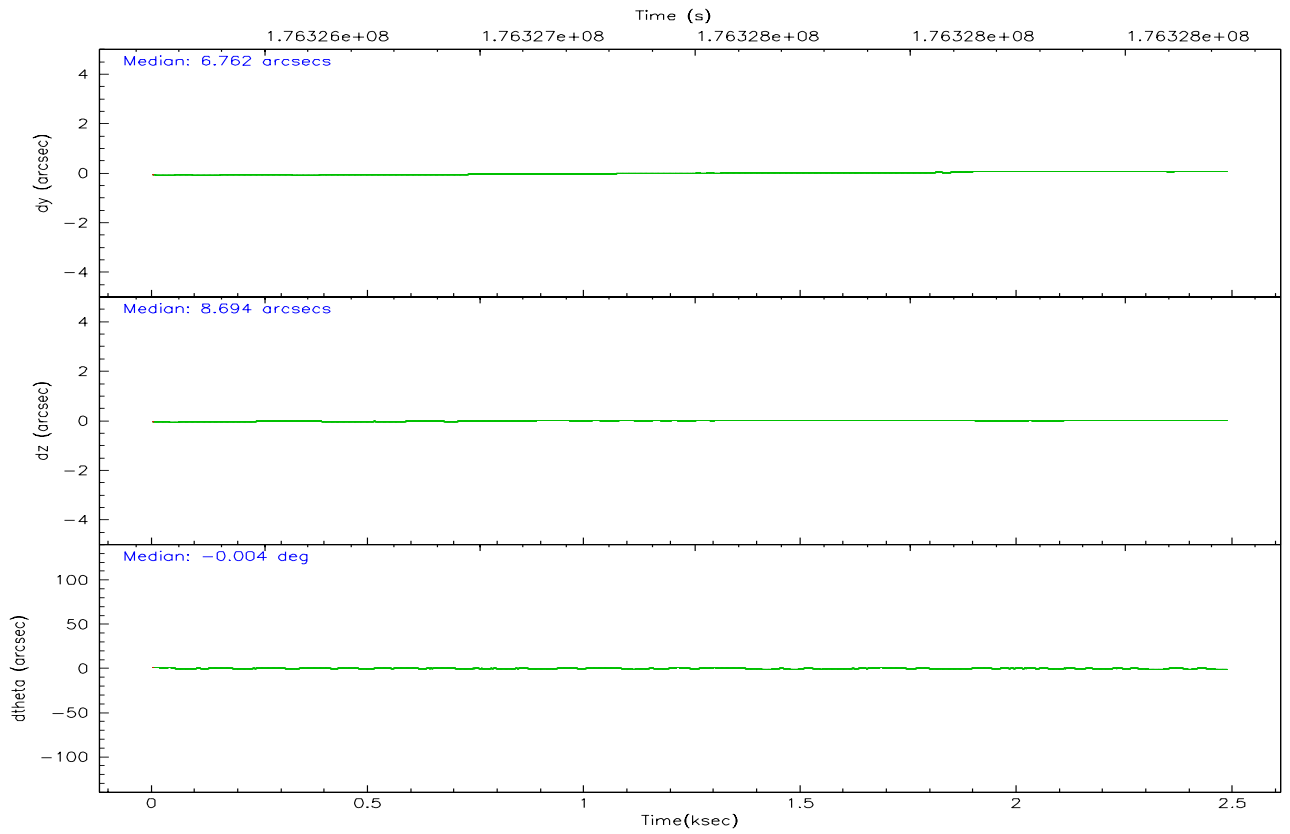
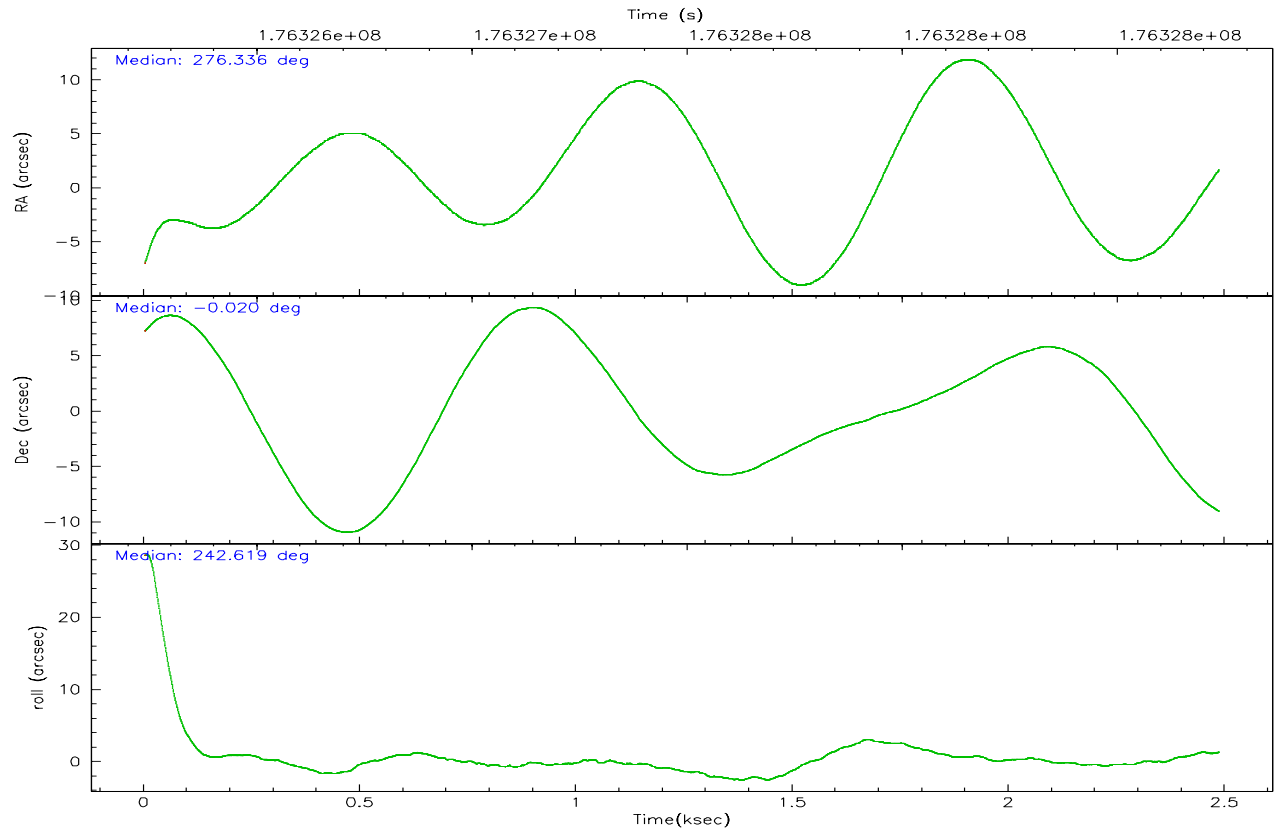
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	993	1362	9968	3105	4775	1001
	10%	9%	47%	12%	32%	12%
grade 1 events	11	112	52	43	26	5
	0%	0%	0%	0%	0%	0%
grade 2 events	237	2188	1666	4969	934	265
	2%	16%	7%	19%	6%	3%
grade 3 events	119	435	640	1857	400	162
	1%	3%	3%	7%	2%	1%
grade 4 events	107	370	595	1755	356	151
	1%	2%	2%	6%	2%	1%
grade 5 events	279	655	351	973	401	348
	2%	4%	1%	3%	2%	4%
grade 6 events	149	3079	658	7476	638	183
	1%	22%	3%	29%	4%	2%
grade 7 events	7691	5442	6993	5288	7185	6068
	80%	39%	33%	20%	48%	74%

## 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	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	1/2
Pointing RA	276.334580	276.3360493819521	Subarray start row	1	1
Pointing Dec	0.007339	-0.01982571586686178	Subarray row count	512	512
Pointing Roll	242.472256	242.6290323067523	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	1.7
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-184.032523	-184.0277655517795			
SIM translation stage offset (mm)	-6.1	-6.104757031228274			
Observation start time	176326728.184000	176325605.45133			
Observation start date	2003-08-03T19:37:44	2003-08-03T19:20:05			
Observation end time	176328728.184000	176329619.3515			
Observation end date	2003-08-03T20:11:04	2003-08-03T20:26:59			
Read mode	TIMED	TIMED			

2.3 Aspect





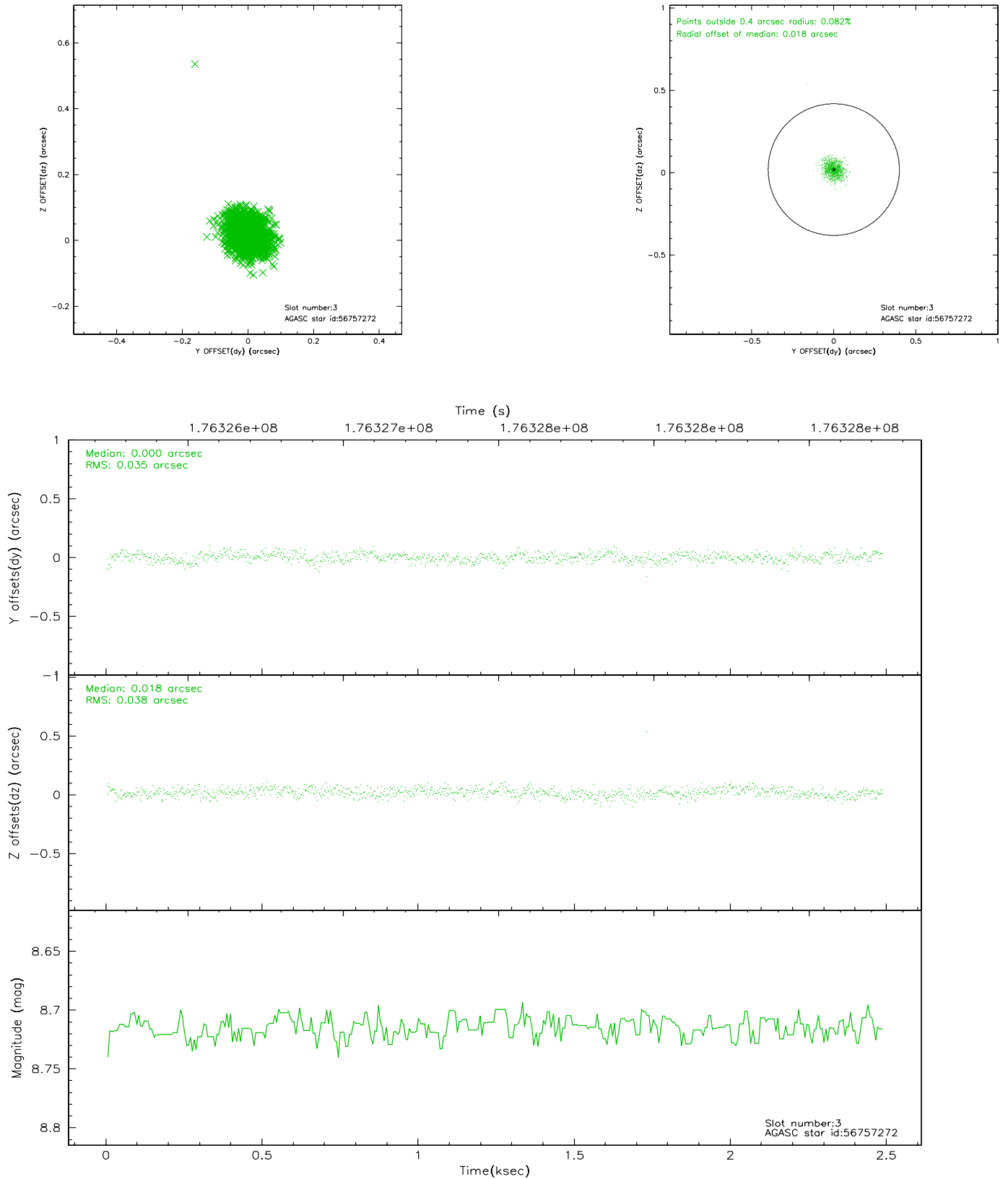
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.08	607	-0.073	-0.050	0.006	0.010	0.000000	0.000000	-759.13	-1855.78
1	FID	ACIS-S-4	7.18	607	0.070	0.048	0.005	0.008	0.000000	0.000000	2153.10	49.91
2	FID	ACIS-S-5	7.22	606	-0.030	0.010	0.006	0.011	0.000000	0.000000	-1808.59	46.48
3	GUIDE	56757272	8.71	1213	0.000	0.018	0.053	0.087	276.765161	0.091539	-985.36	1235.09
4	GUIDE	56758104	9.39	1213	0.135	0.036	0.088	0.146	276.128380	0.025973	283.12	-687.42
5	GUIDE	56758480	8.15	1212	-0.037	0.089	0.065	0.109	276.957748	0.199973	-1651.87	1668.91
6	GUIDE	56754304	8.70	1213	-0.163	-0.155	0.078	0.123	275.983332	0.807376	-1970.84	-2450.86
7	GUIDE	668339136	9.00	1212	0.062	0.003	0.092	0.146	275.625930	-0.267867	2056.63	-1805.40

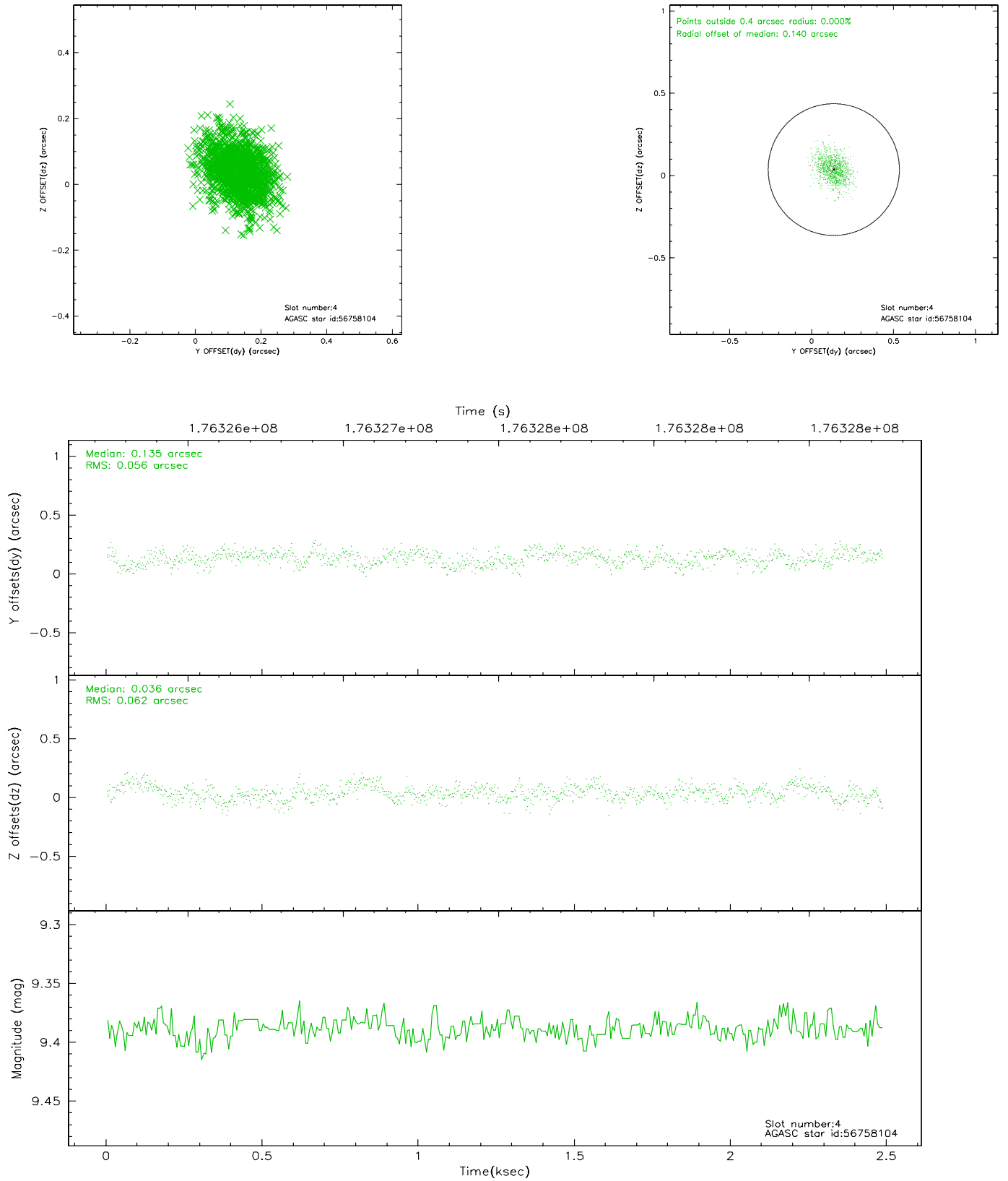


## 2.4 Star Slots

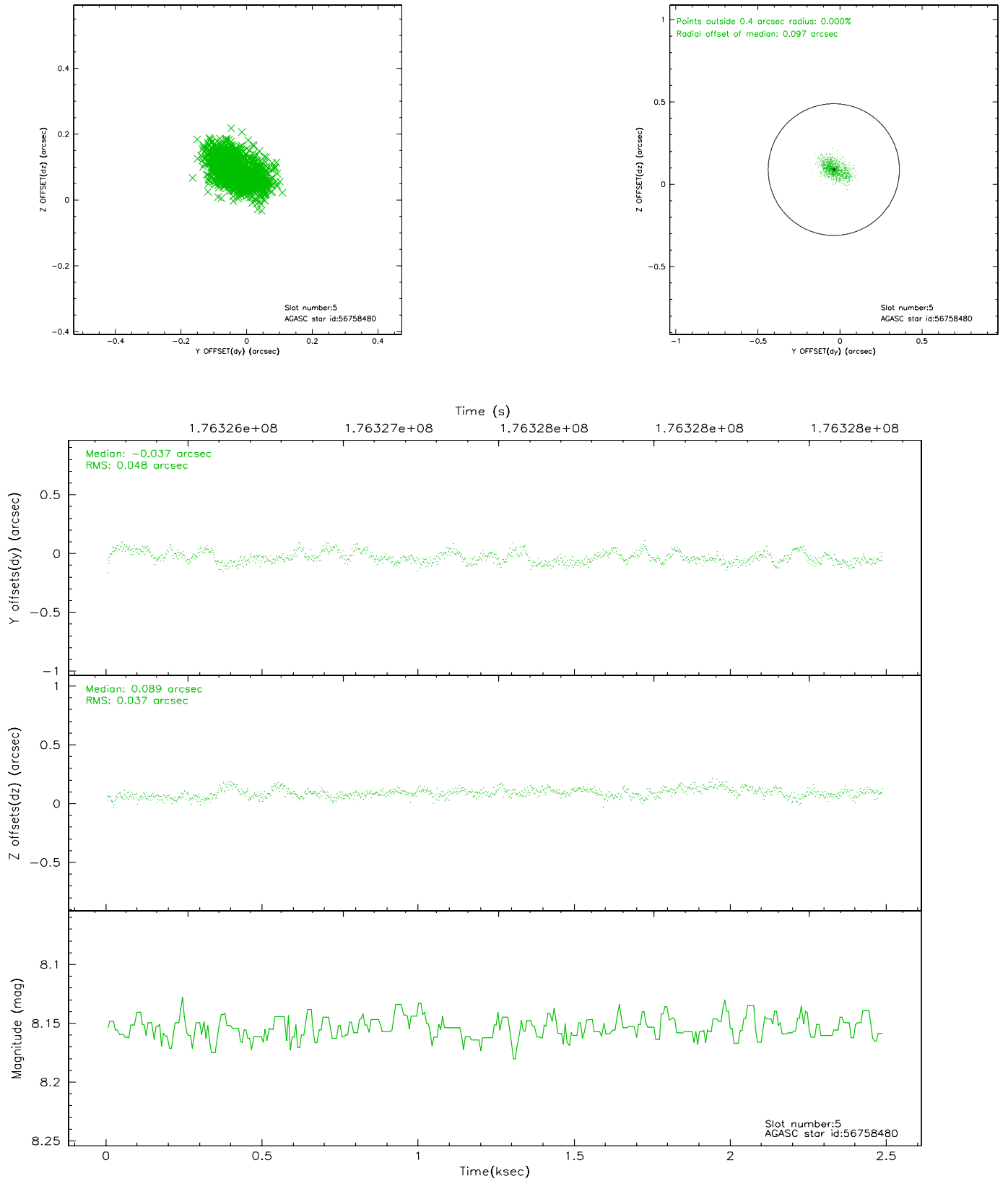
### 2.4.1 Slot 3



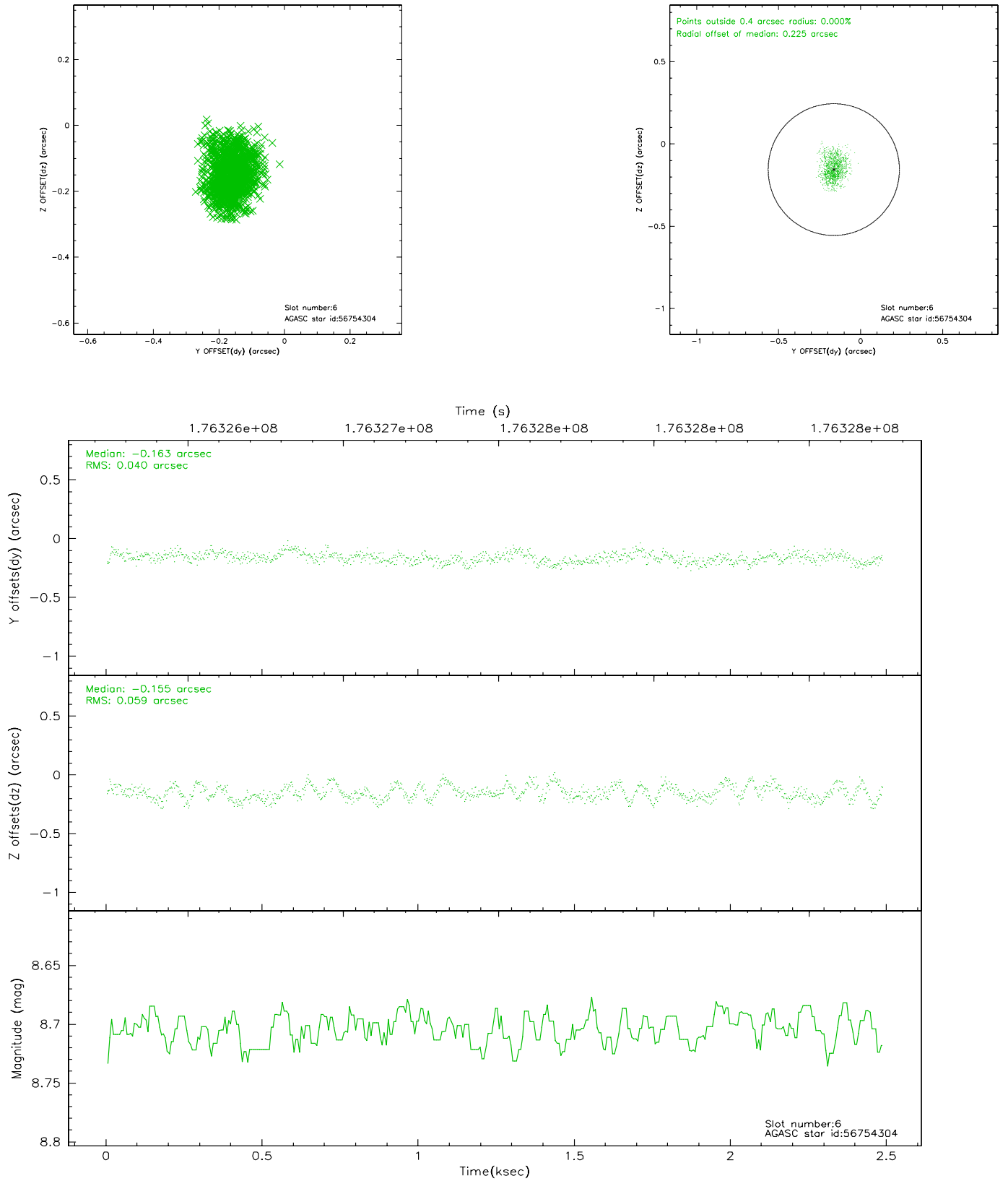
## 2.4.2 Slot 4



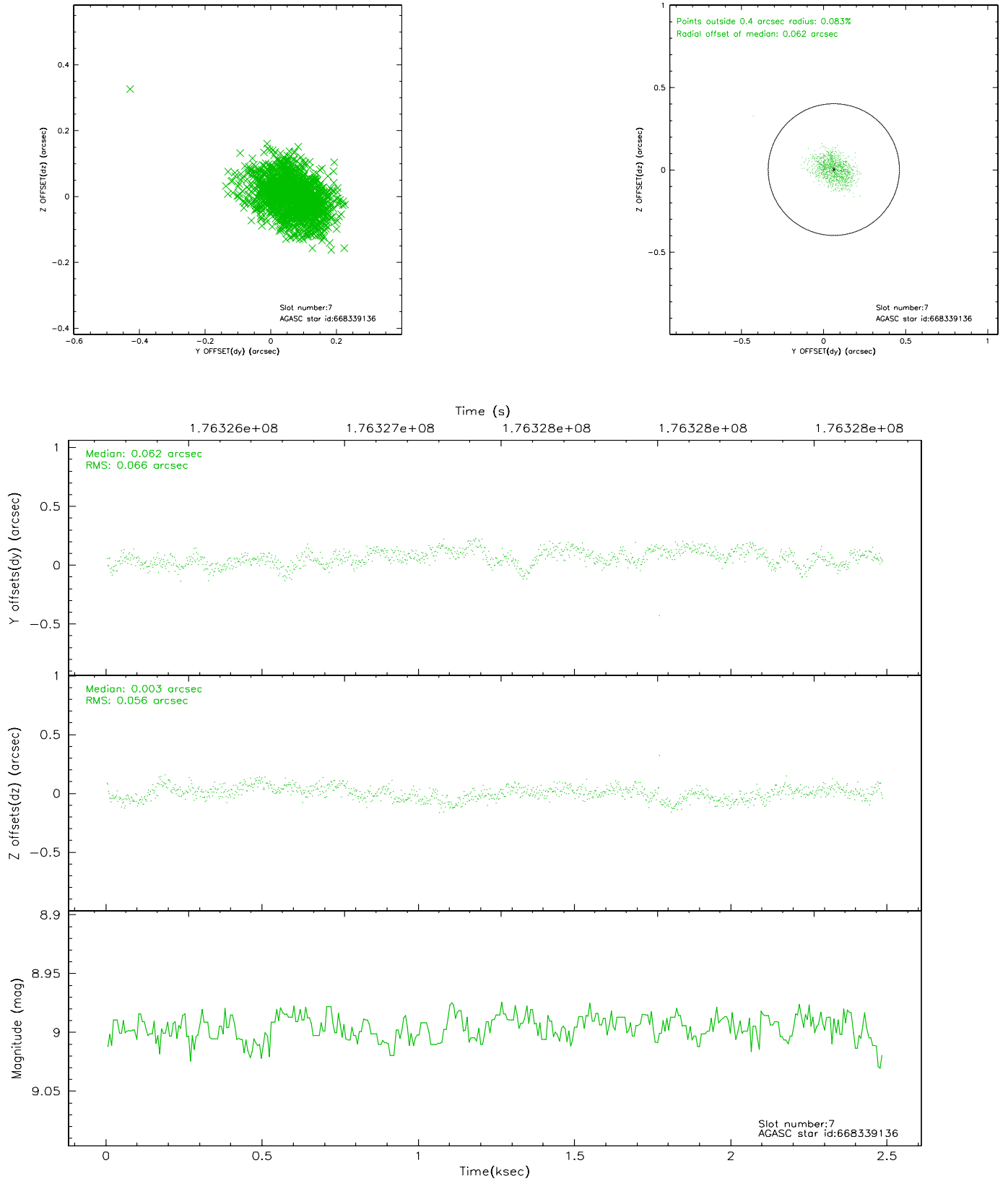
### 2.4.3 Slot 5



## 2.4.4 Slot 6

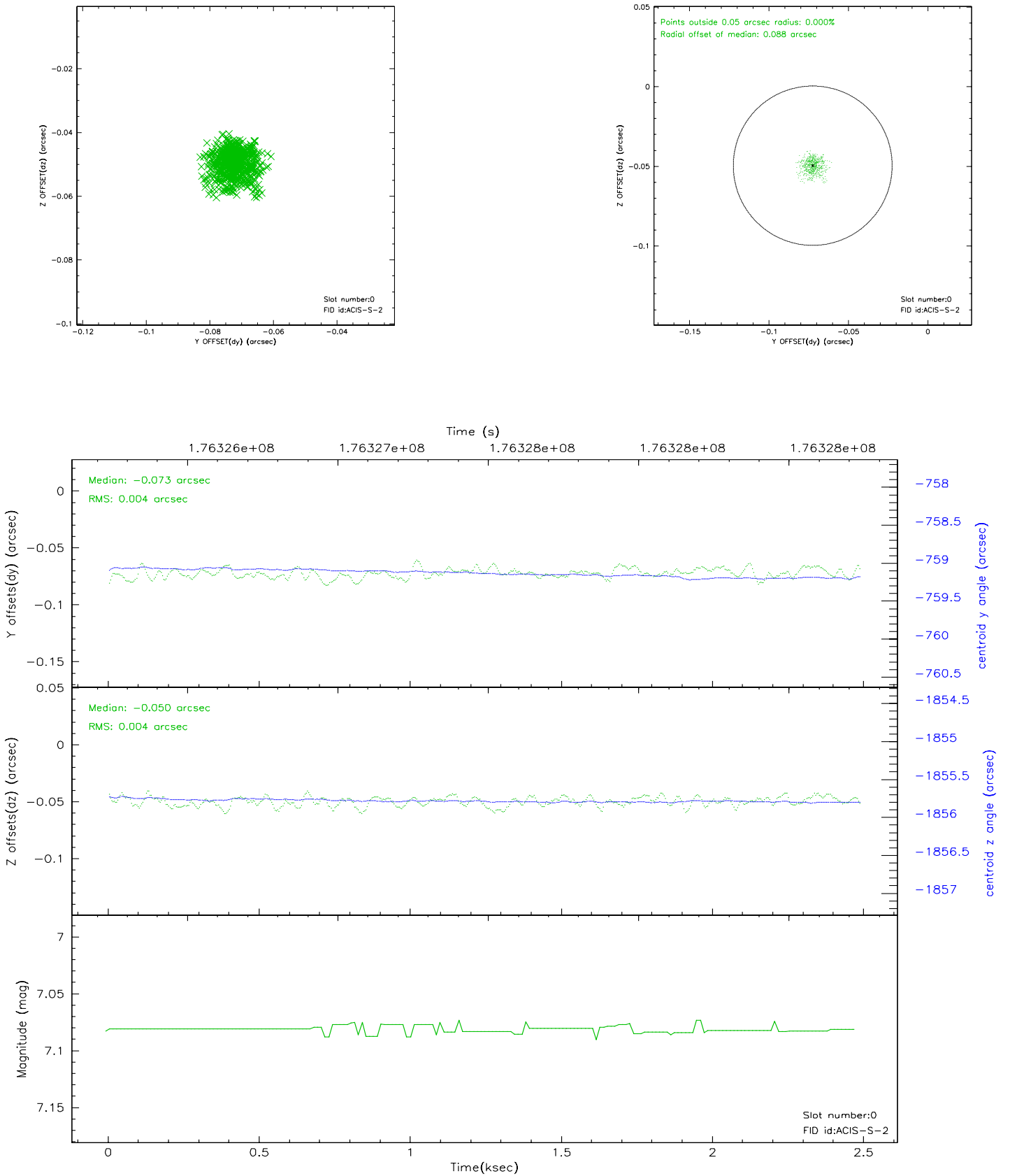


## 2.4.5 Slot 7

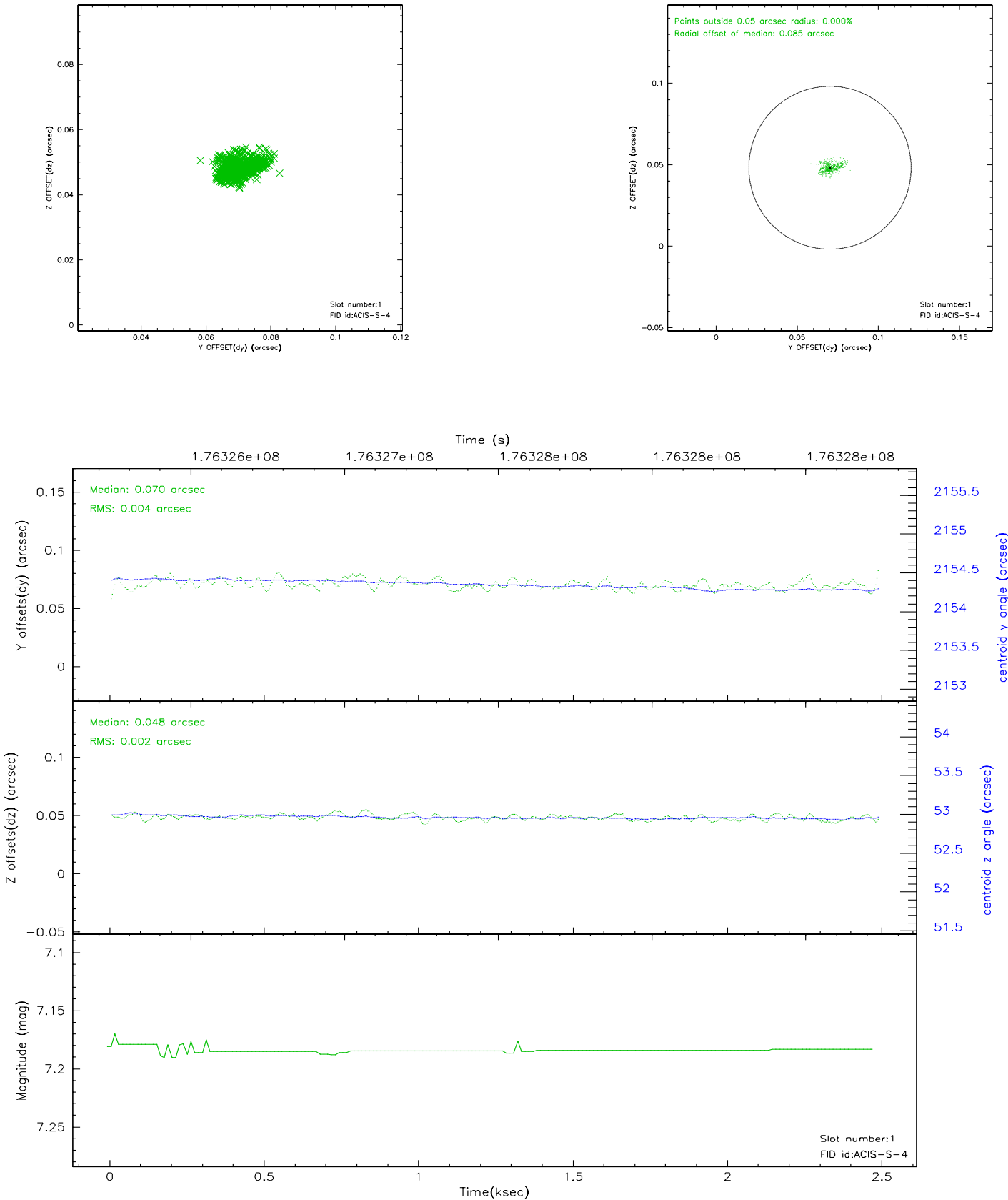


## 2.5 FID Slots

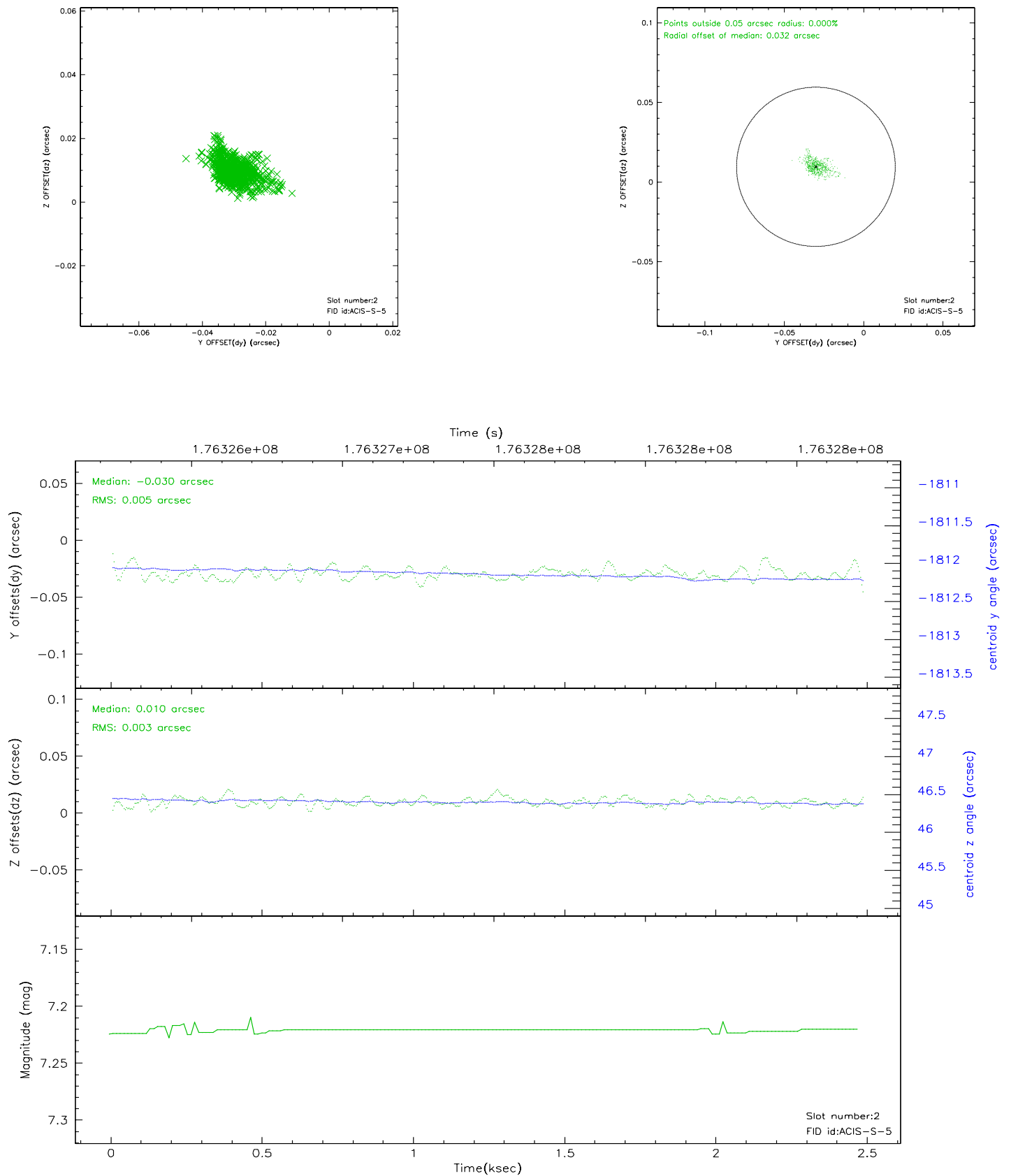
### 2.5.1 Slot 0



2.5.2 Slot 1



### 2.5.3 Slot 2



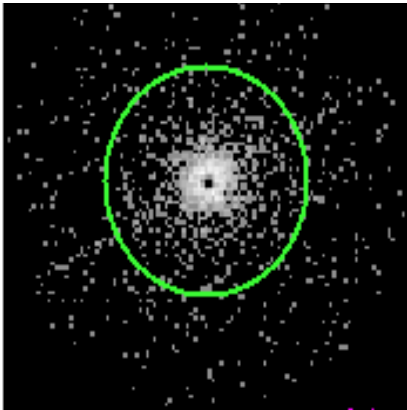


# 3 Gratings

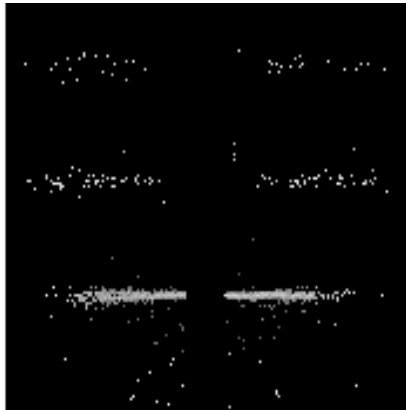
## 3.1 HEG Arm



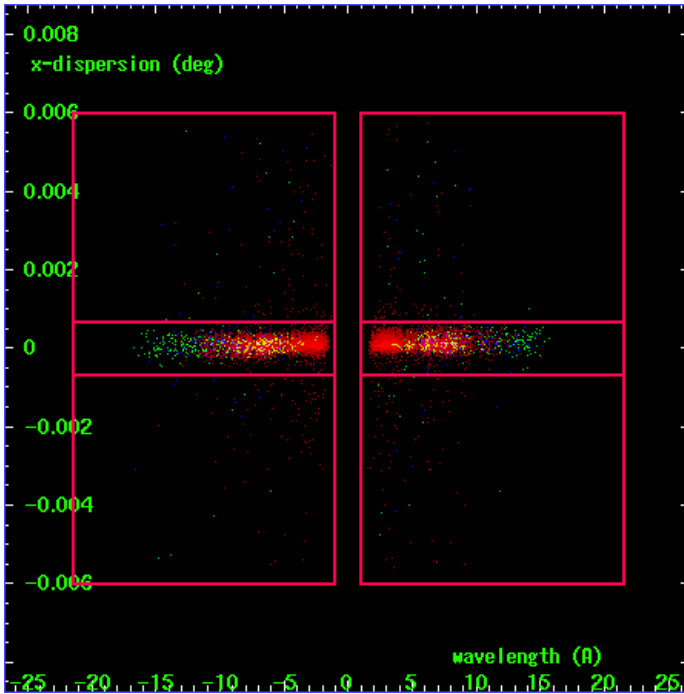
HEG Order Sort 123



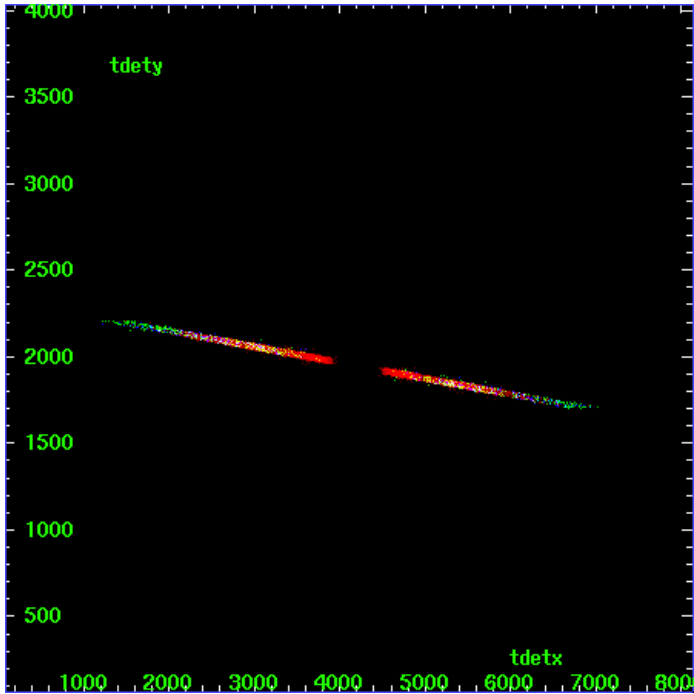
HEG Zero Order



HEG Order Sort ALL

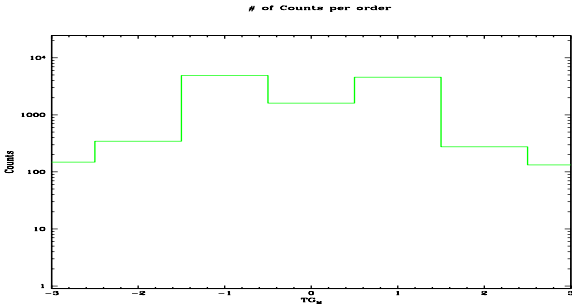


Spot Image HEG

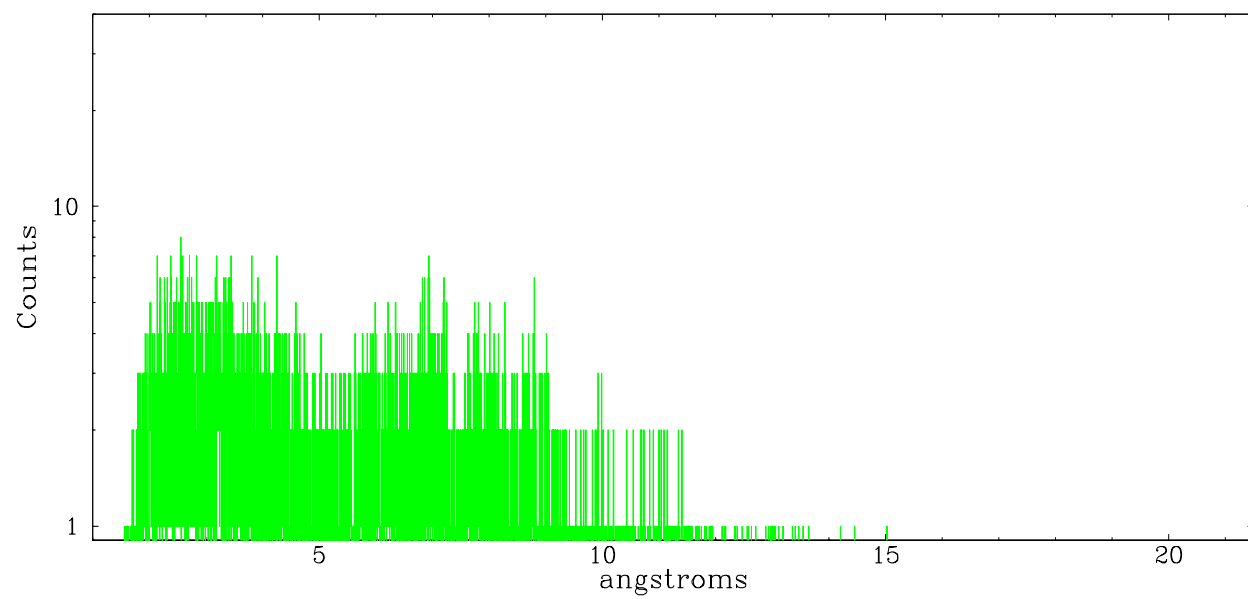


Full Detector HEG

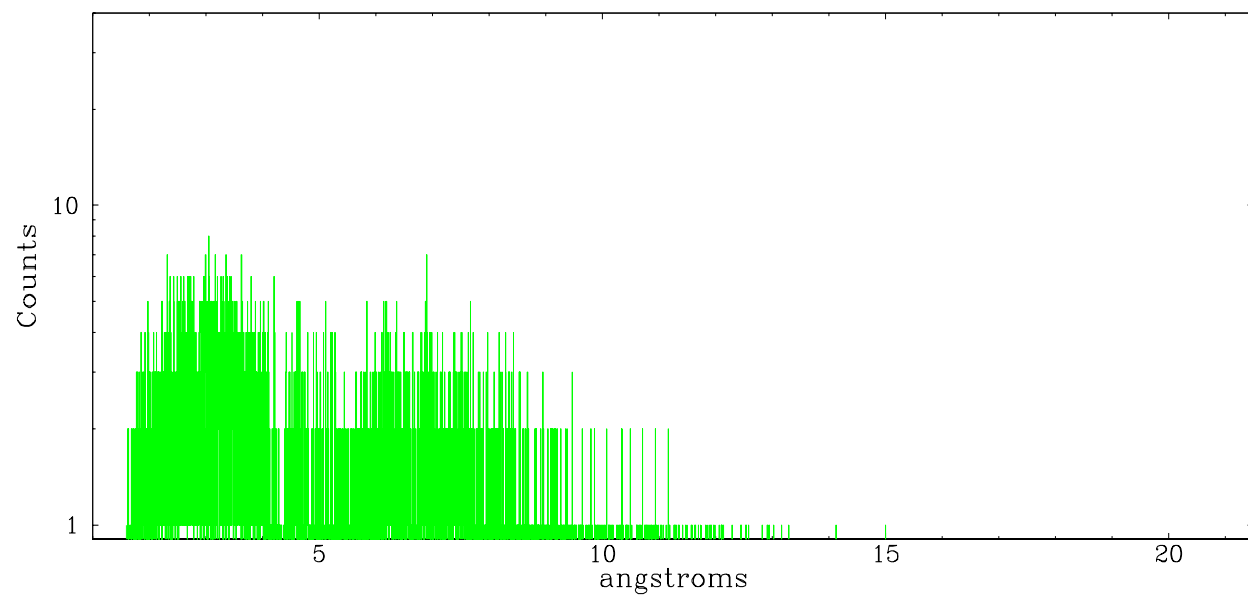
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	148	345	4893	1611	4564	275	133



heg order -1



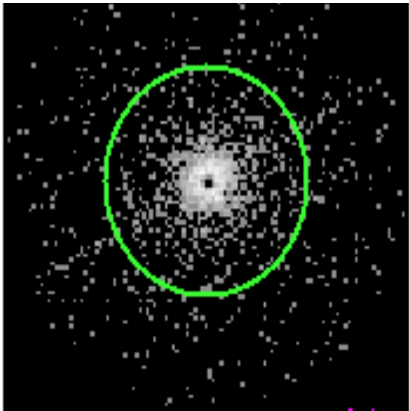
heg order +1



### 3.2 MEG Arm



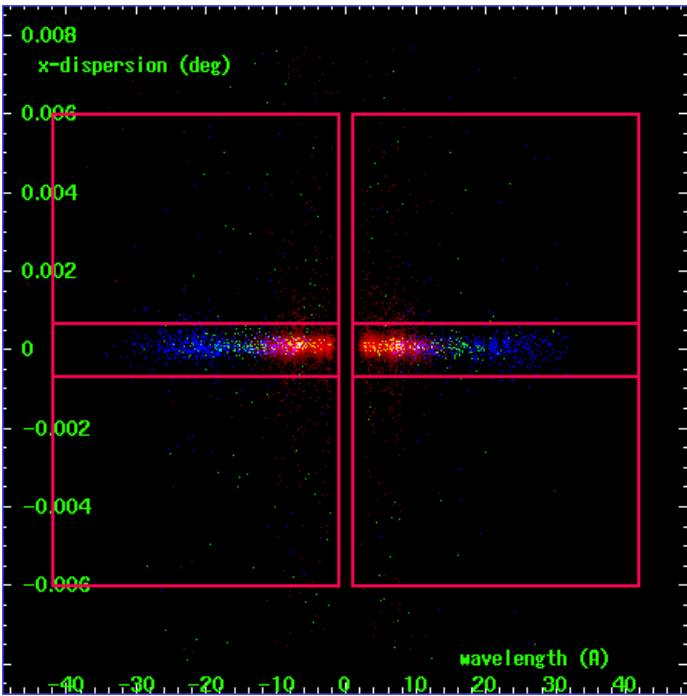
MEG Order Sort 123



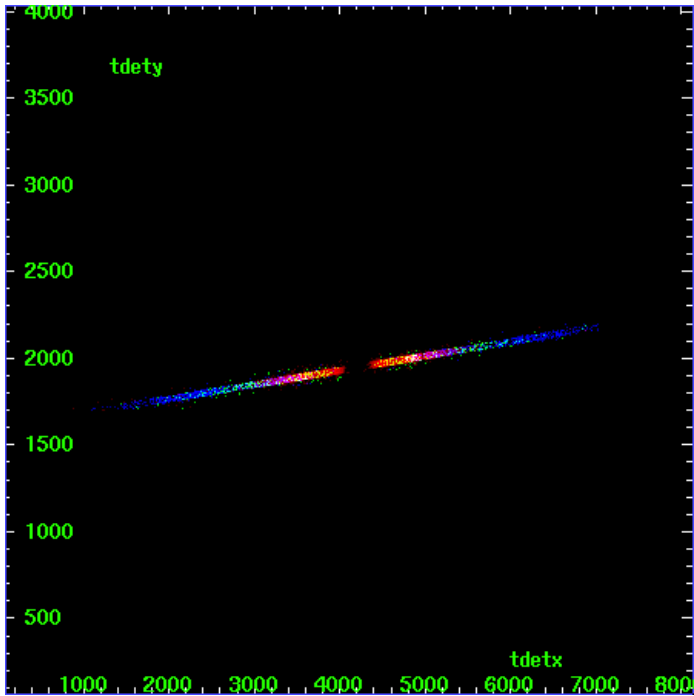
MEG Zero Order



MEG Order Sort ALL

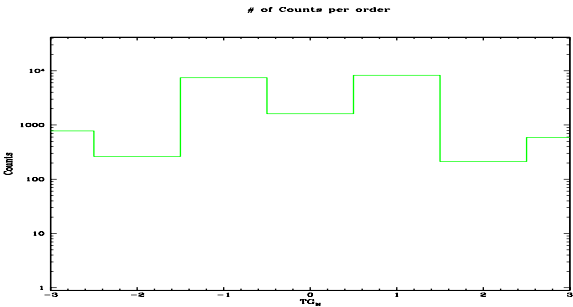


Spot Image MEG

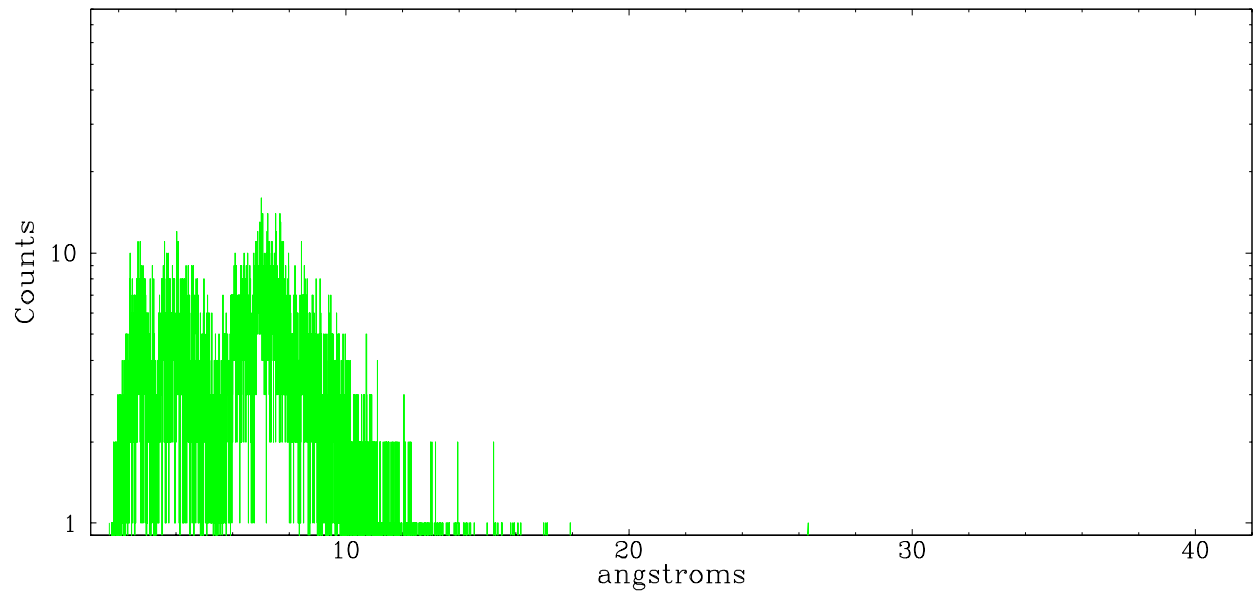


Full Detector MEG

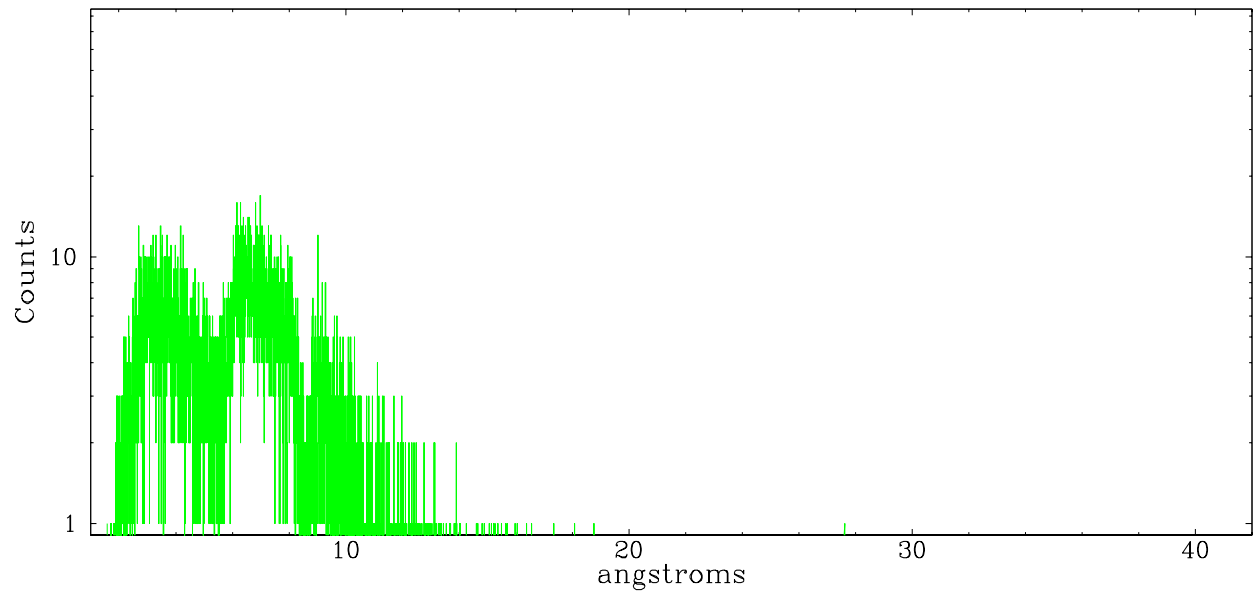
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	777	262	7424	1611	8271	212	591



meg order -1



meg order +1



# A Summary

## A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2006.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.272

## A.2 Comments

The zero order is heavily piled, such that there is a hole in the center. Care will have to be taken to verify the accuracy of the zero order centroid (the frame shift streak can be useful for this).