

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 3708 - L2 Version 001  
Chandra X-Ray Center

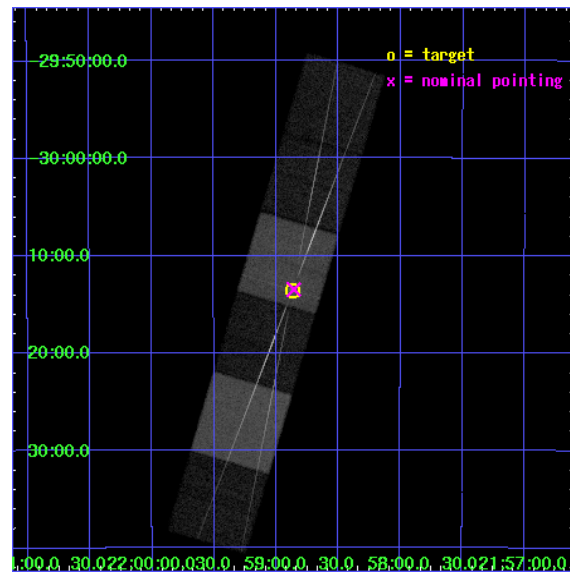
L2 Processing Date : Oct 17 2006

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# 1 Front

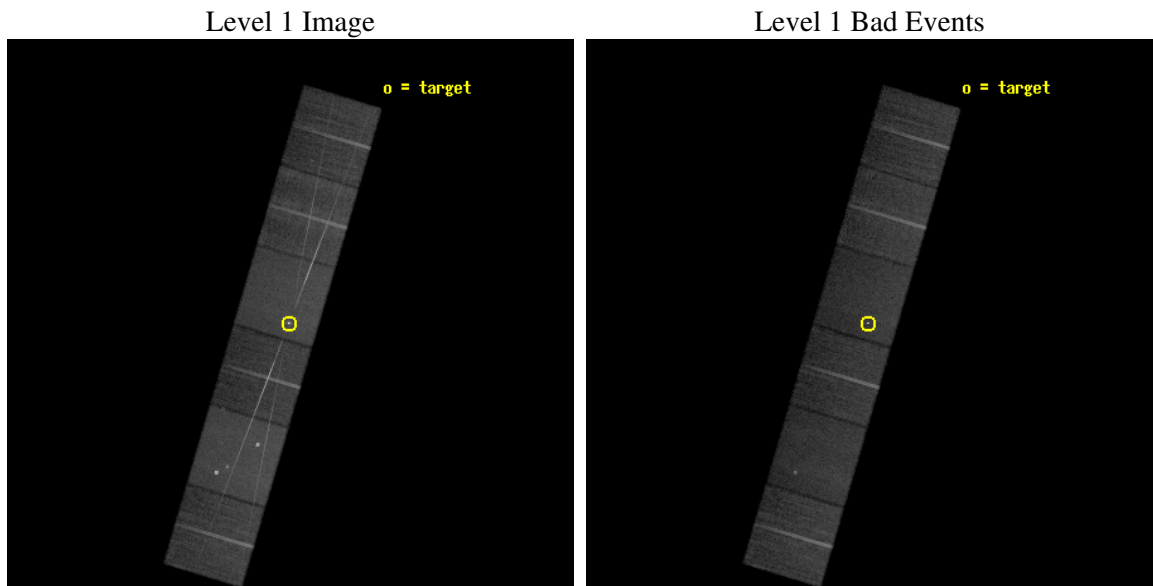
seq_num	790084
obs_id	3708
title	AO4 CALIBRATION OBSERVATIONS OF PKS2155-304
observer	Dr. CXC Calibration
object	PKS2155-304
dtcycle	0
cycle	P
ra_targ	329.716667
dec_targ	-30.225556
ra_nom	329.71434517399
dec_nom	-30.224636644303
roll_nom	286.49764577416
revision	2
ontime	26959.999899566
livetime	26618.616147475
ontime4	26956.758909374
ontime5	26956.758959204
ontime6	26956.758939266
ontime7	26959.999899566
ontime8	26956.759038925
ontime9	26959.999899566
l2events	317767



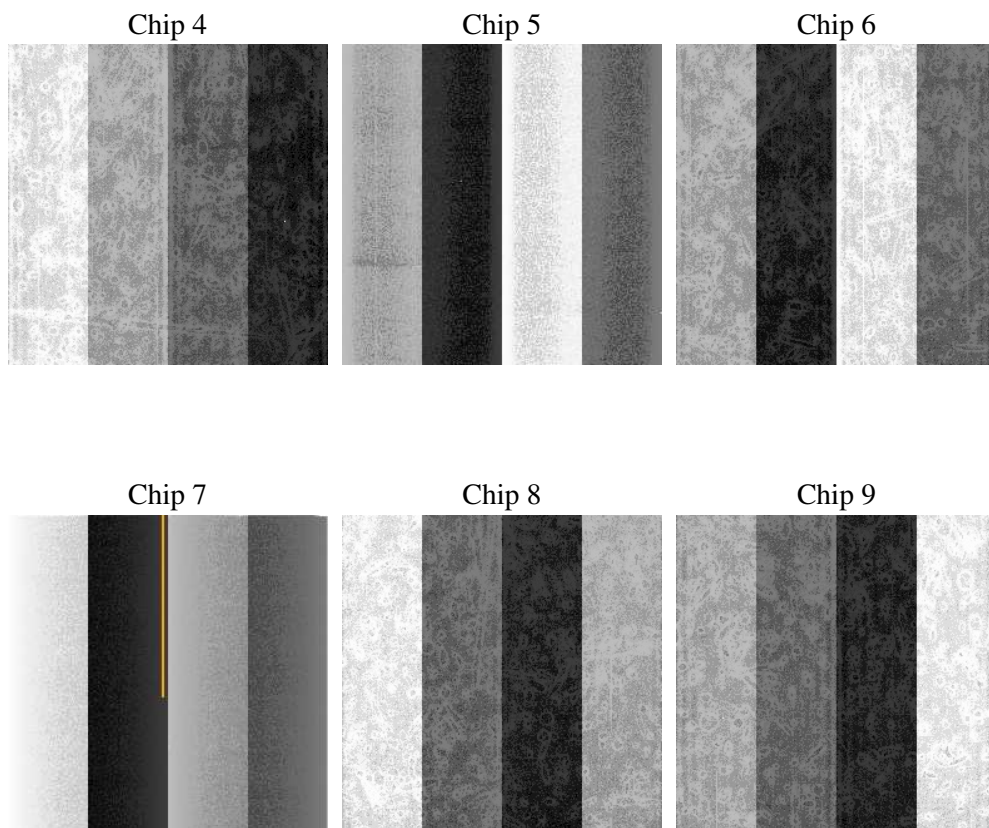
## 2 OBI

### 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	2006-10-13T15:56:14
revision	2

sched_exp_time	27000.000000
ontime	26965.125494033
ontime4	26961.88447395
ontime5	26961.884553671
ontime6	26961.884533733
ontime7	26965.125494033
ontime8	26961.8846035
ontime9	26965.125464141
l1events	1296524

### 2.1.4 Events

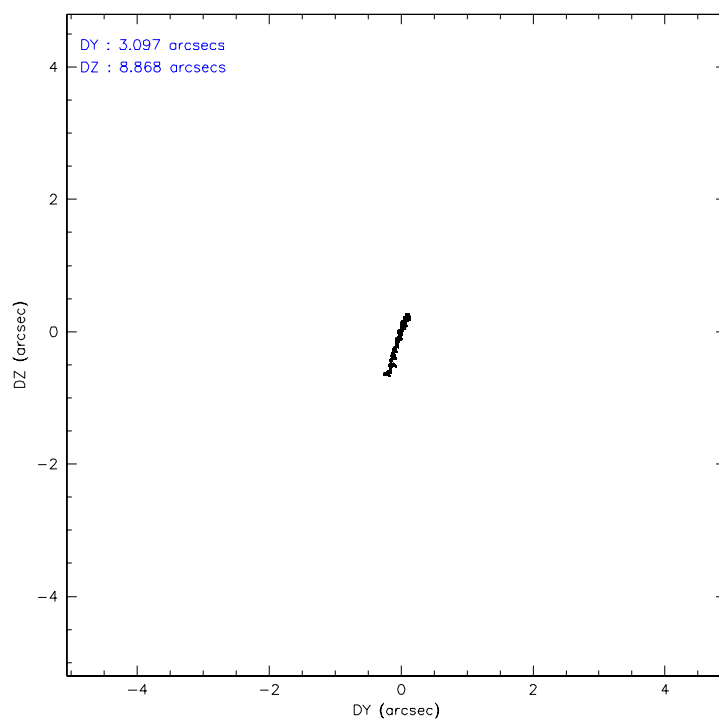
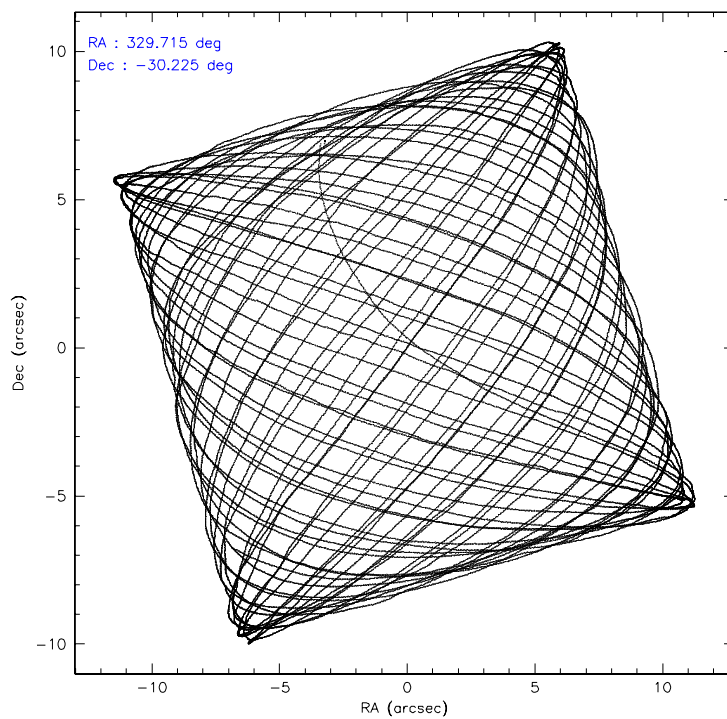
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	191106	262192	186779	249492	231406	175549
rejected events	168391	138639	147959	145578	172616	152120
rejected %	88%	52%	79%	58%	74%	86%

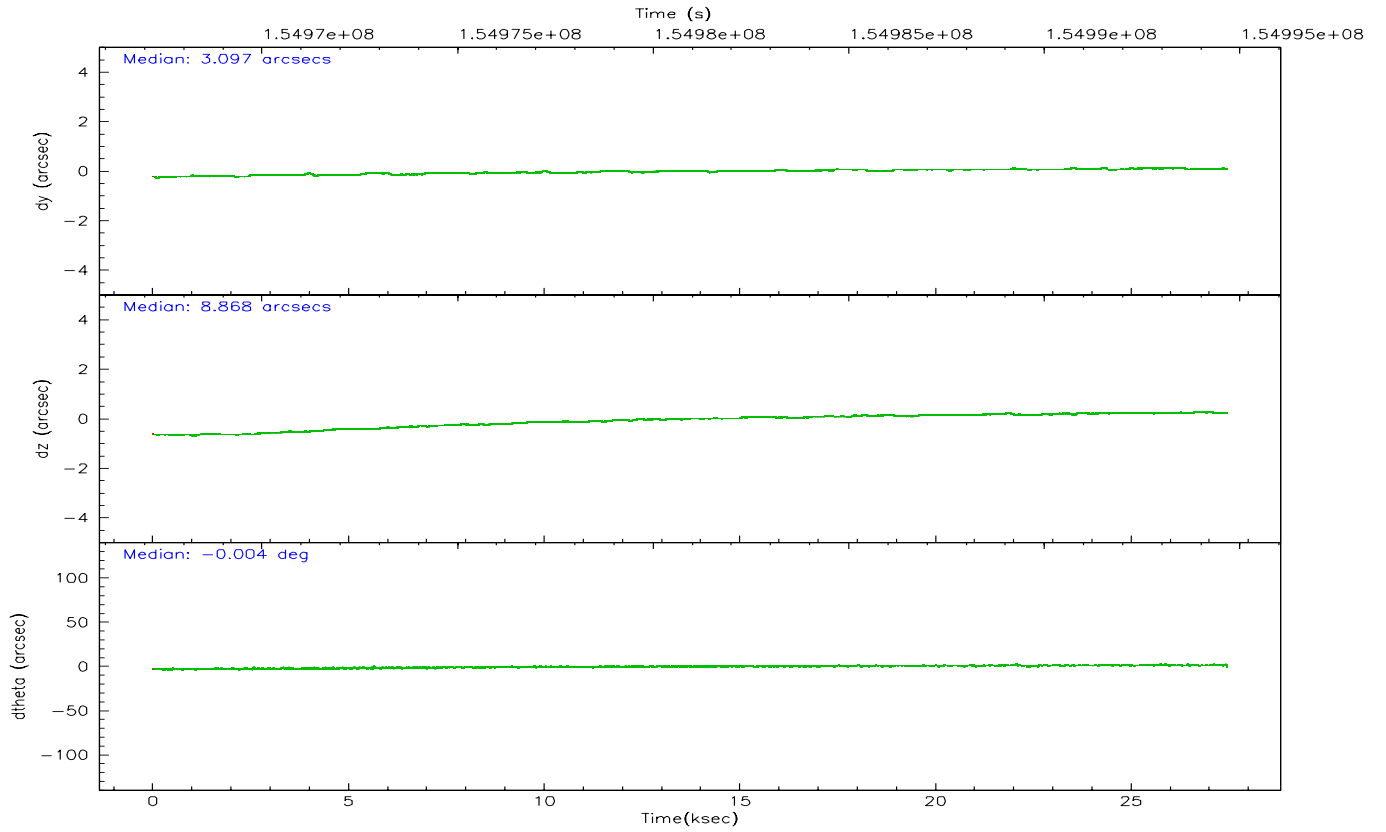
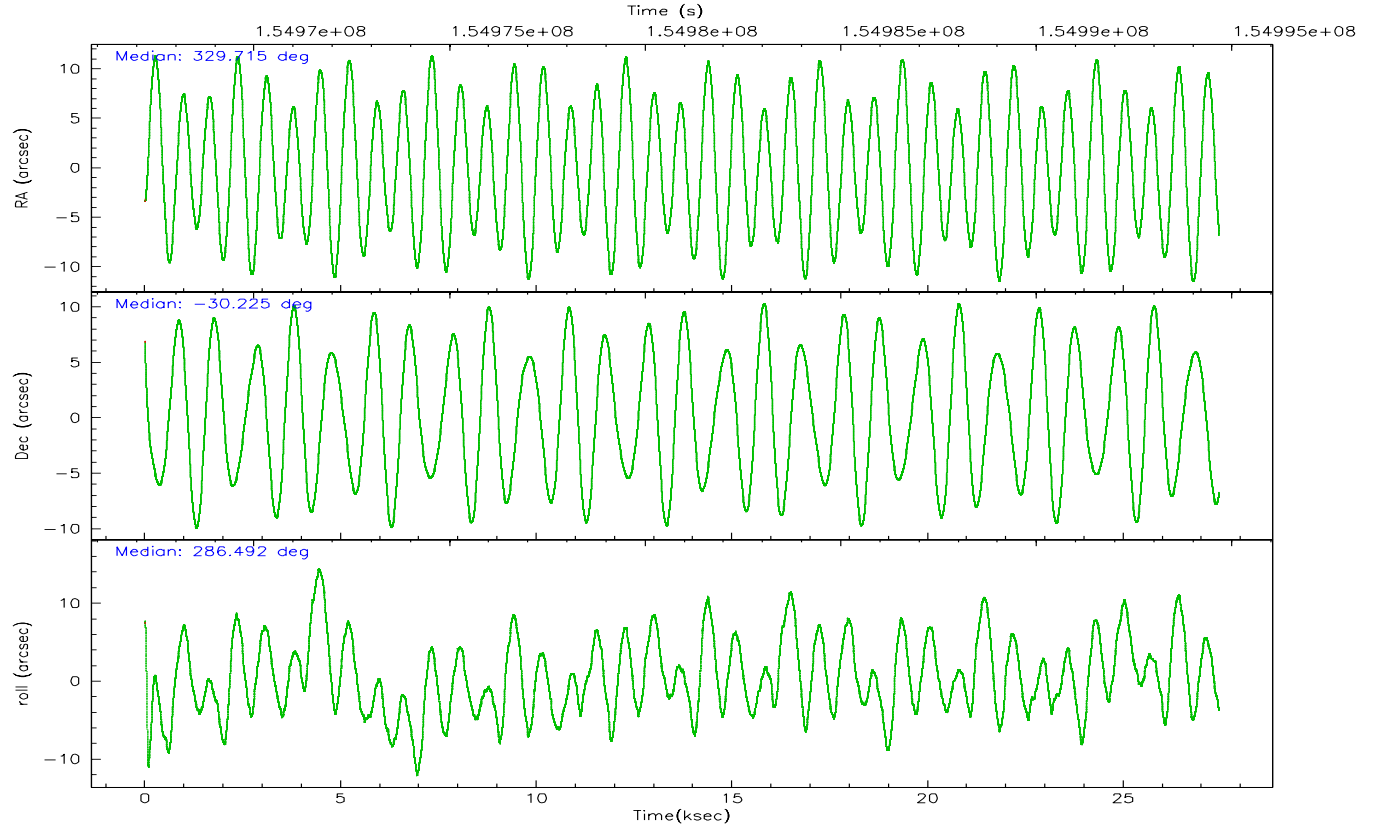
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	10761	15890	23545	9014	25649	11076
	5%	6%	12%	3%	11%	6%
grade 1 events	189	809	163	301	171	115
	0%	0%	0%	0%	0%	0%
grade 2 events	4458	38746	5938	26226	10973	4153
	2%	14%	3%	10%	4%	2%
grade 3 events	2183	3020	2534	6078	5208	2176
	1%	1%	1%	2%	2%	1%
grade 4 events	2074	3048	2507	5914	4747	2039
	1%	1%	1%	2%	2%	1%
grade 5 events	7208	11718	7633	15954	9889	7918
	3%	4%	4%	6%	4%	4%
grade 6 events	3245	62879	4301	56715	12229	3989
	1%	23%	2%	22%	5%	2%
grade 7 events	160988	126082	140158	129290	162540	144083
	84%	48%	75%	51%	70%	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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	329.691186	329.7143451739906	Subarray requested	NONE	NONE
Pointing Dec	-30.206133	-30.22463664430258	Alternating exposures requested	N	N
Pointing Roll	286.329353	286.497645774156	Primary exposure time	0.000000	3.2
Window start time	152496064.184000	152496064.184000			
Window stop time	155001664.184000	155001664.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-194.132523	-194.1227414875429			
SIM translation stage offset (mm)	4	3.990218904535112			
Observation start time	154967674.184000	154966580.75043			
Observation start date	2002-11-29T14:33:30	2002-11-29T14:16:20			
Observation end time	154994674.184000	154994807.7141			
Observation end date	2002-11-29T22:03:30	2002-11-29T22:06:47			
Read mode	TIMED	TIMED			

## 2.3 Aspect





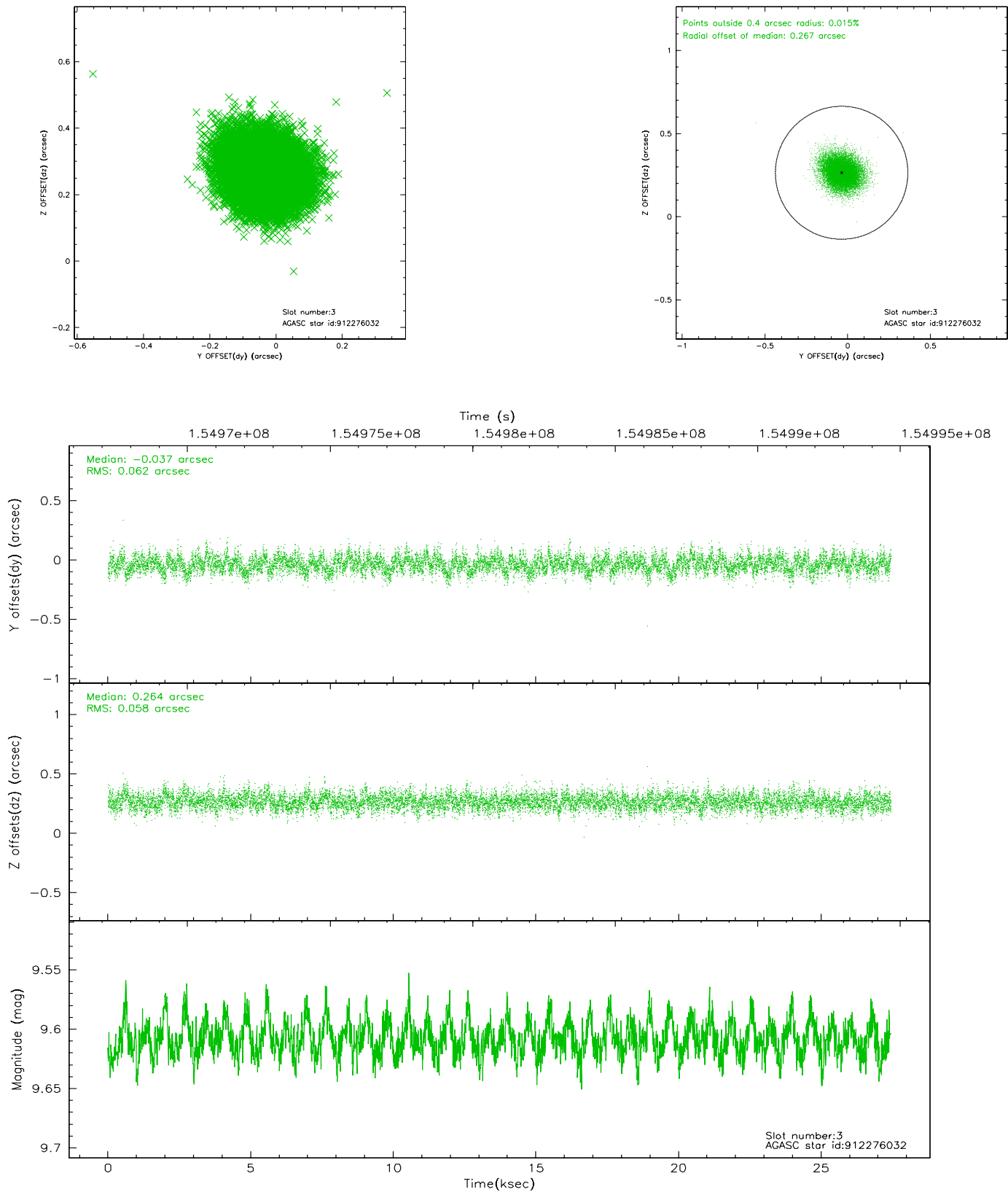
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.21	6694	0.012	-0.061	0.013	0.029	0.000000	0.000000	940.03	-1643.60
1	FID	ACIS-S-5	7.25	6693	0.021	0.018	0.010	0.019	0.000000	0.000000	-1808.85	254.01
2	FID	ACIS-S-6	7.33	6694	-0.053	0.054	0.008	0.013	0.000000	0.000000	405.49	898.06
3	GUIDE	912276032	9.61	13369	-0.037	0.264	0.090	0.147	329.395967	-29.803466	-1649.83	-478.17
4	GUIDE	981468016	9.00	13372	0.046	-0.167	0.113	0.180	328.842457	-30.034984	-1325.98	-2368.79
5	GUIDE	981468128	9.36	13379	0.073	-0.062	0.102	0.181	329.756350	-30.158334	-108.59	242.34
6	GUIDE	981478152	9.42	13113	-0.015	0.073	0.078	0.130	329.415589	-30.057192	-755.53	-674.19
7	GUIDE	912275088	9.05	13387	-0.073	-0.098	0.073	0.118	329.619228	-29.738698	-1678.77	256.46

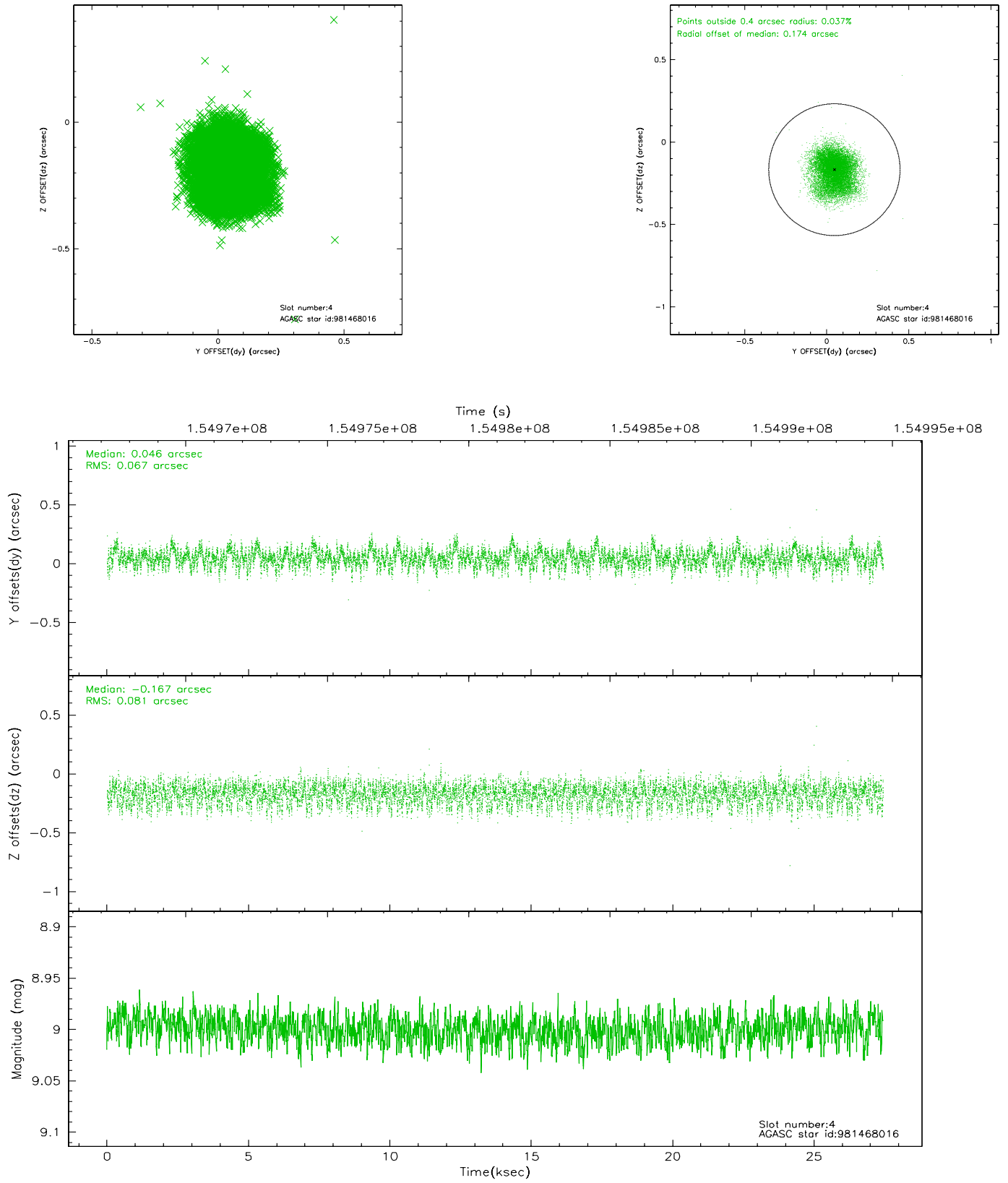


## 2.4 Star Slots

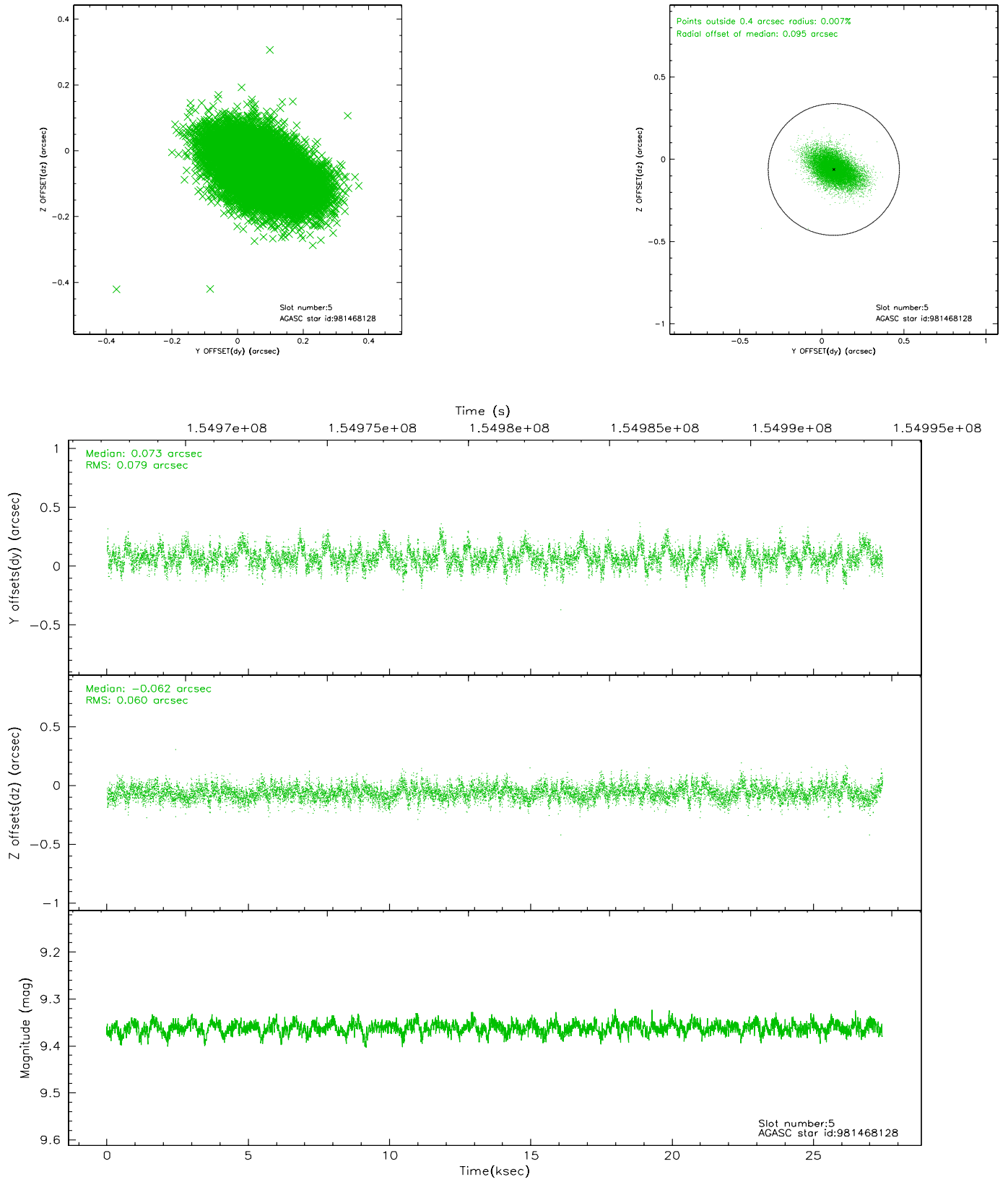
### 2.4.1 Slot 3



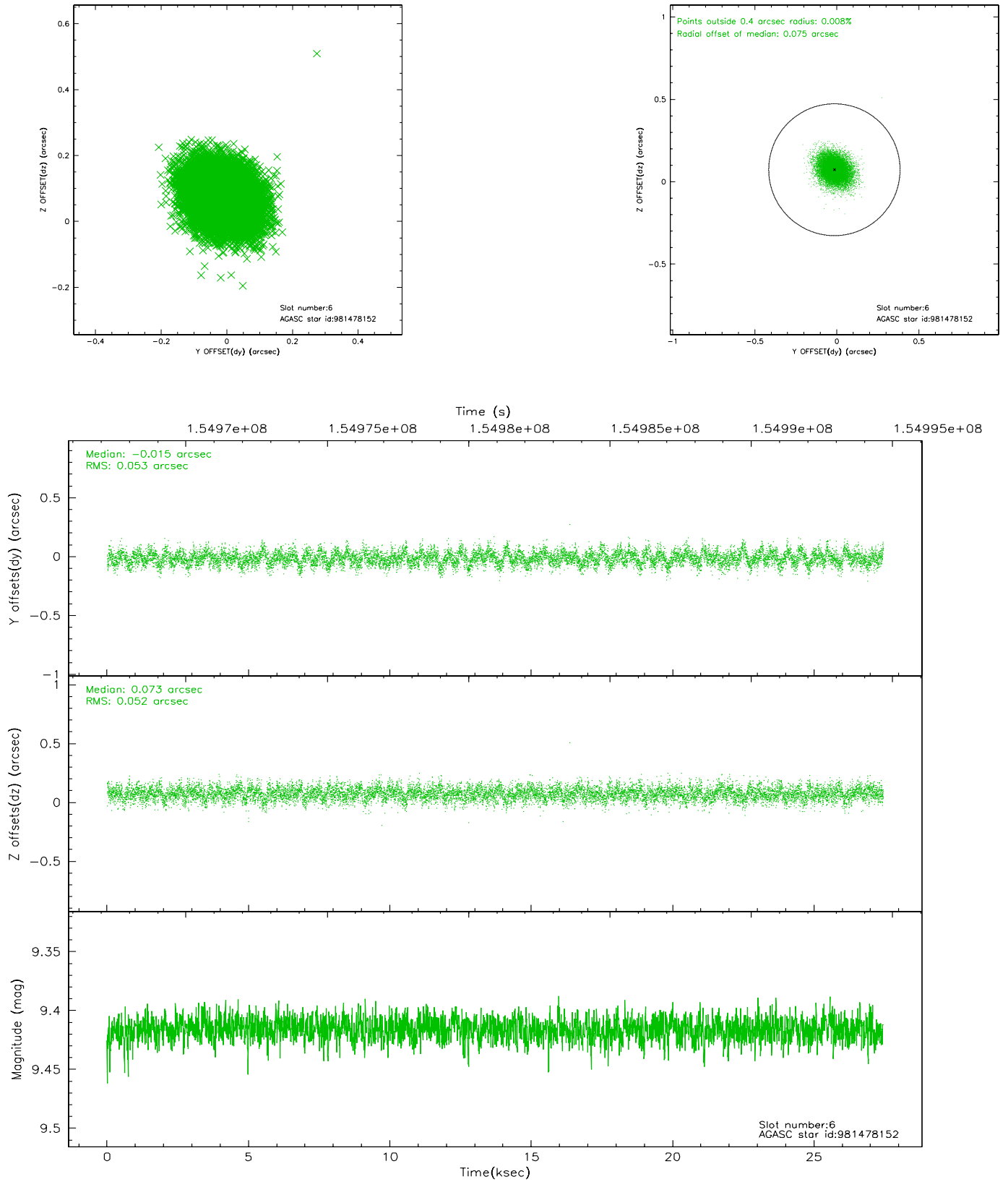
## 2.4.2 Slot 4



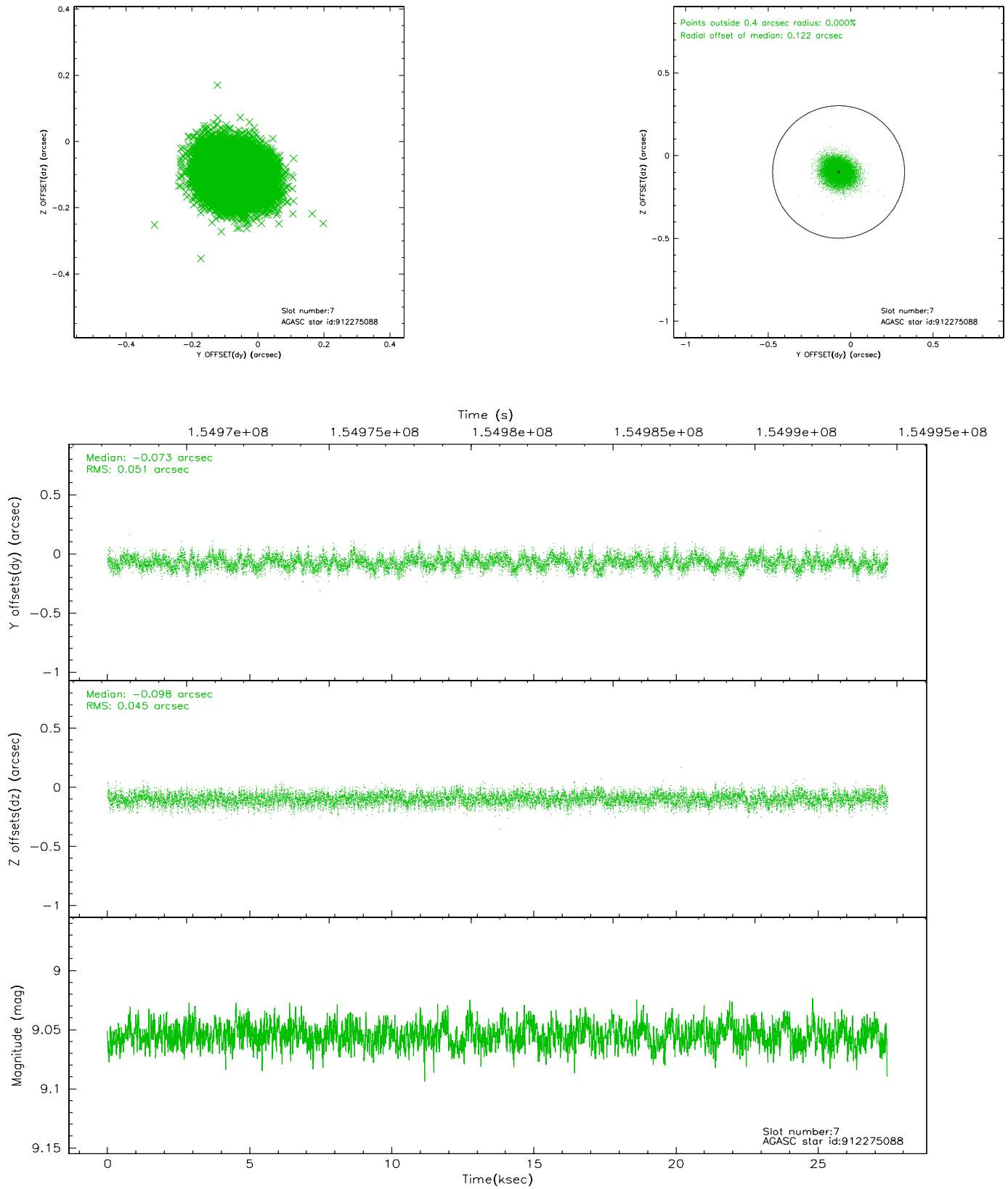
### 2.4.3 Slot 5



## 2.4.4 Slot 6

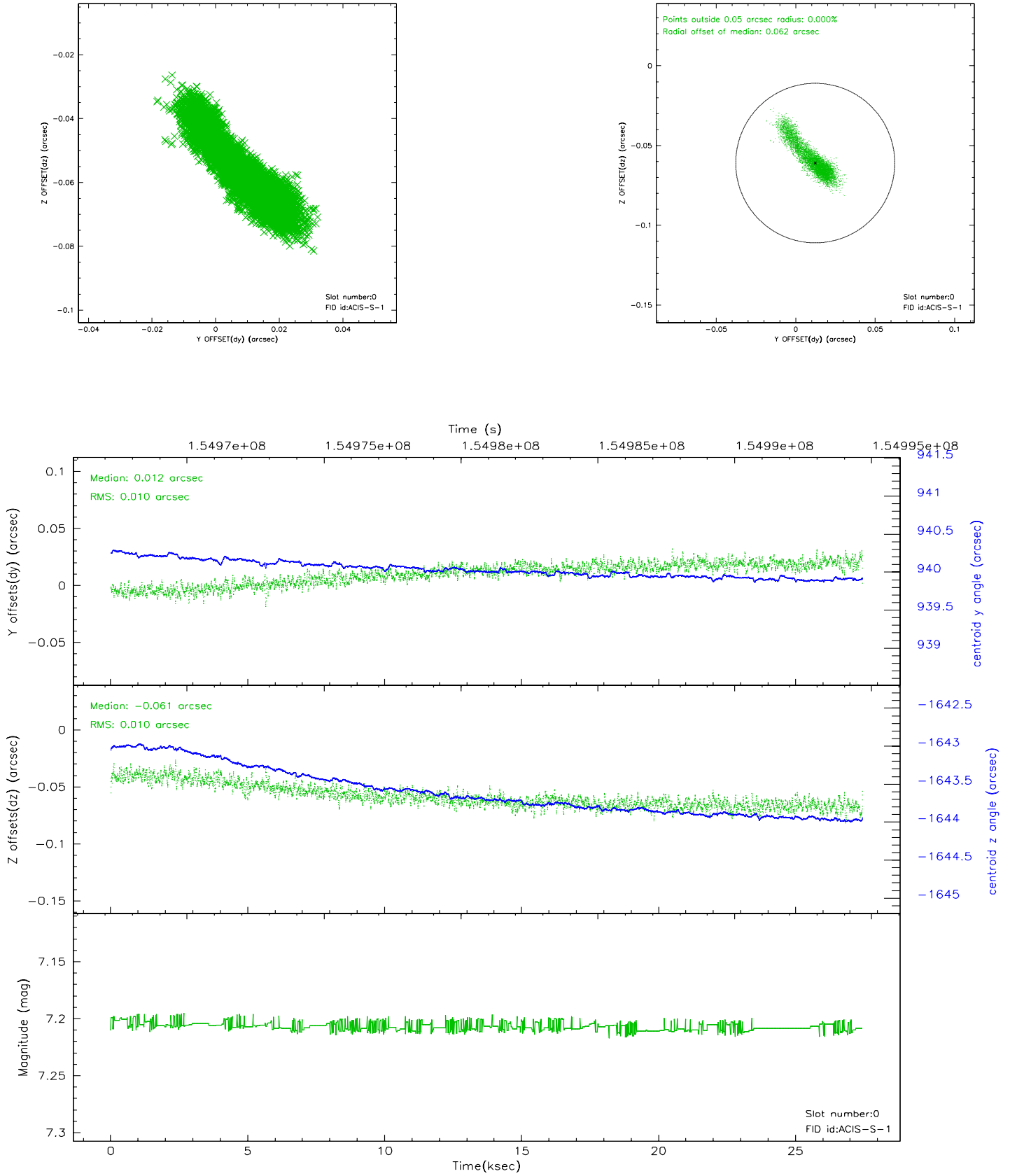


## 2.4.5 Slot 7

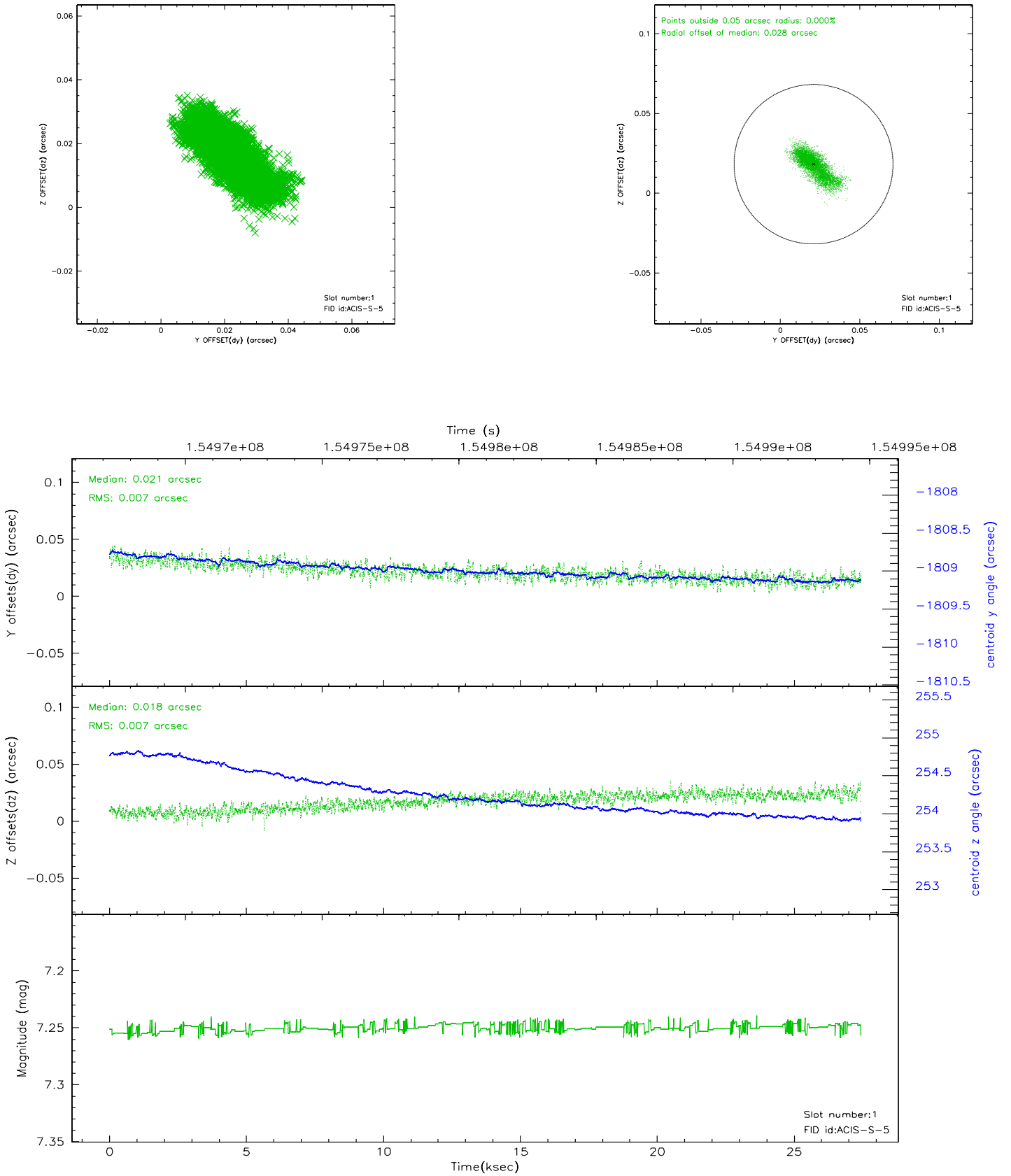


## 2.5 FID Slots

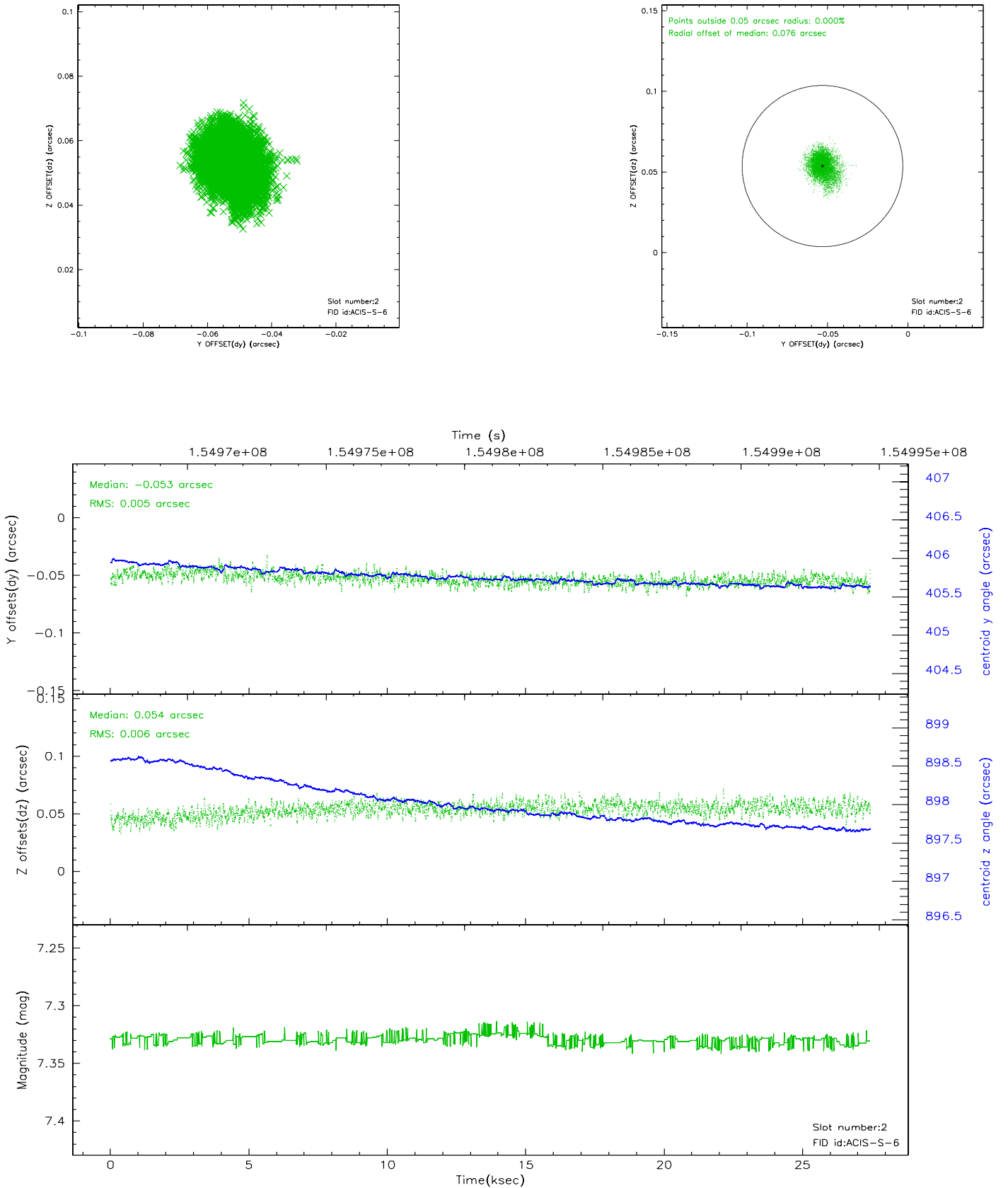
### 2.5.1 Slot 0



## 2.5.2 Slot 1



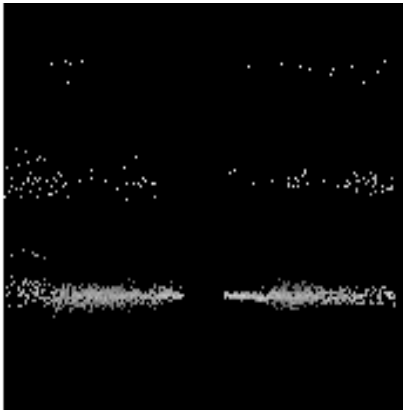
### 2.5.3 Slot 2



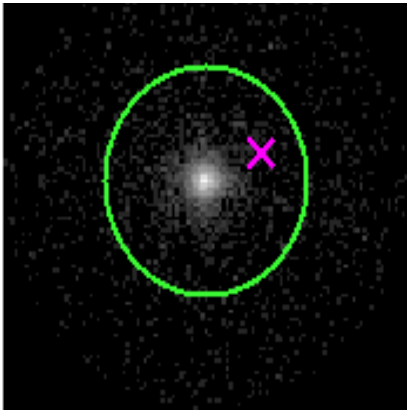


# 3 Gratings

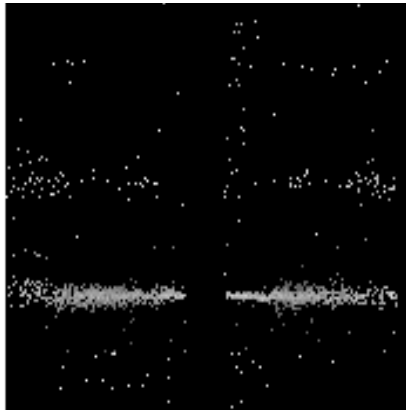
## 3.1 HEG Arm



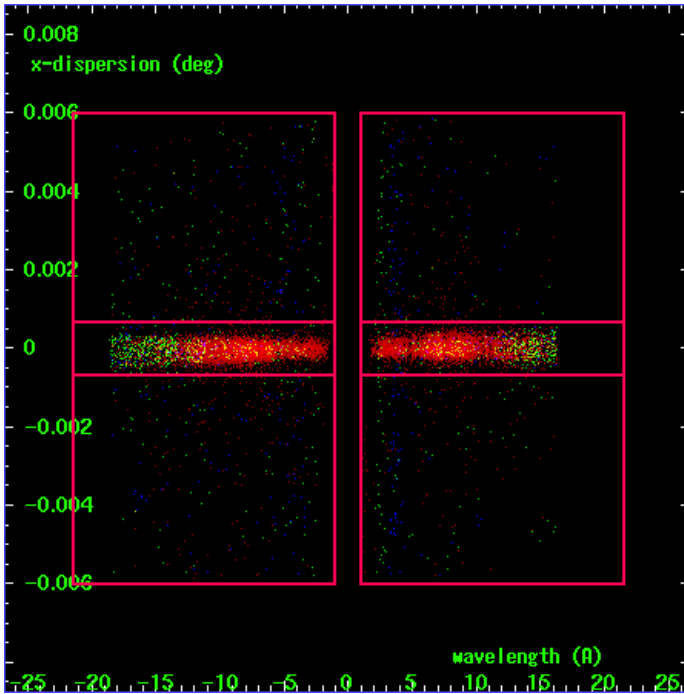
HEG Order Sort 123



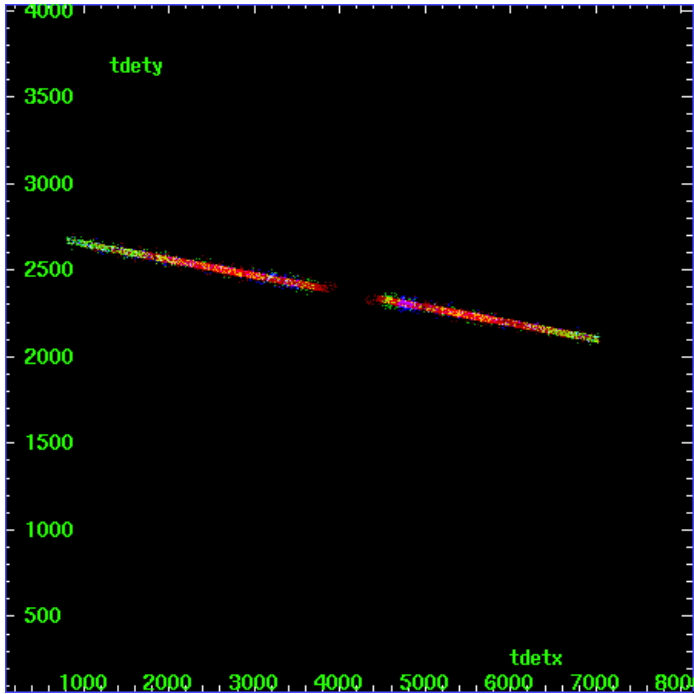
HEG Zero Order



HEG Order Sort ALL

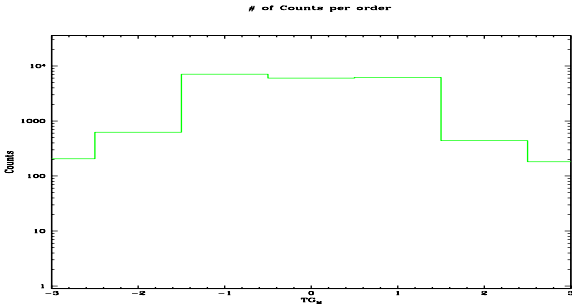


Spot Image HEG

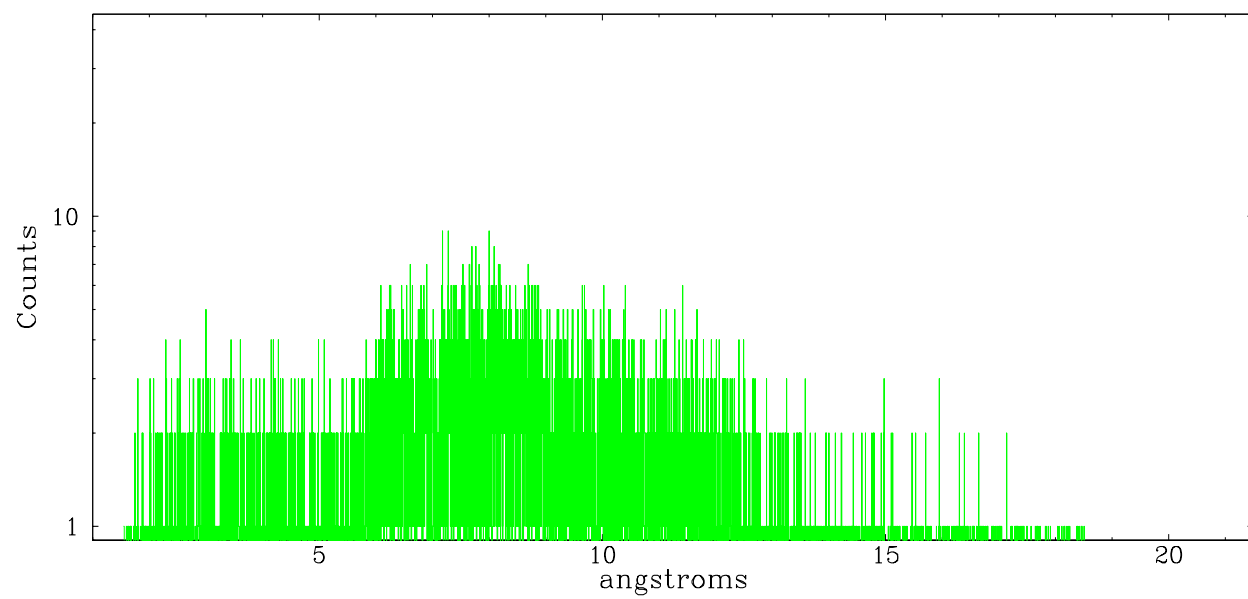


Full Detector HEG

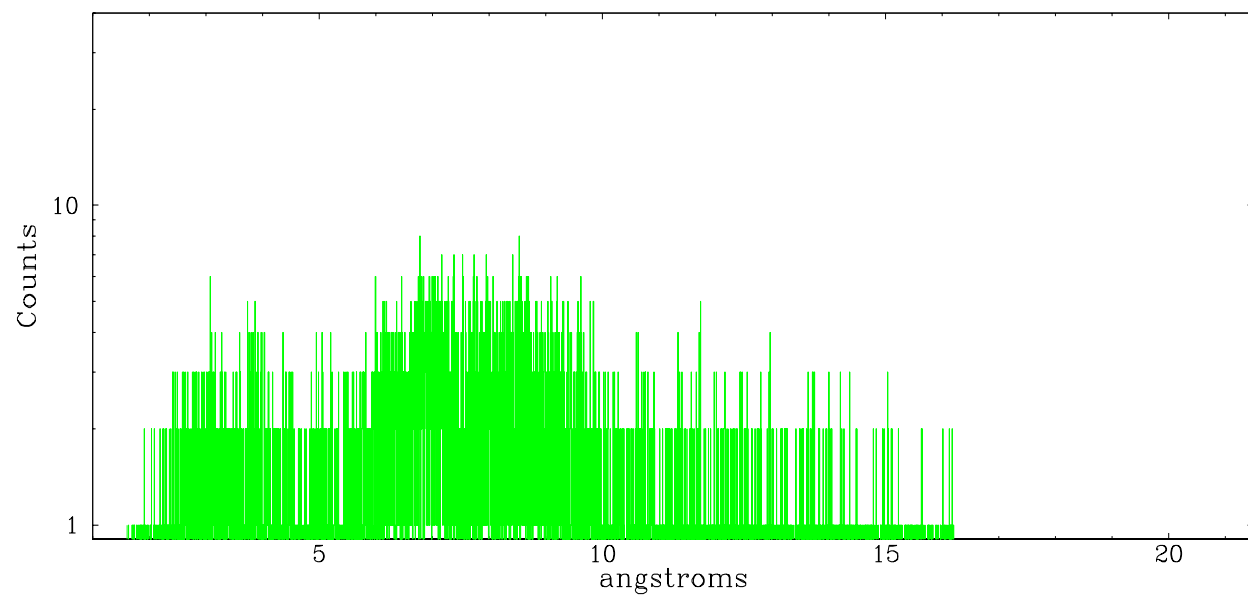
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	206	623	7104	6010	6179	440	182



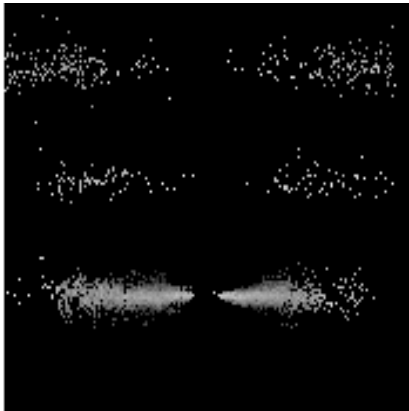
heg order -1



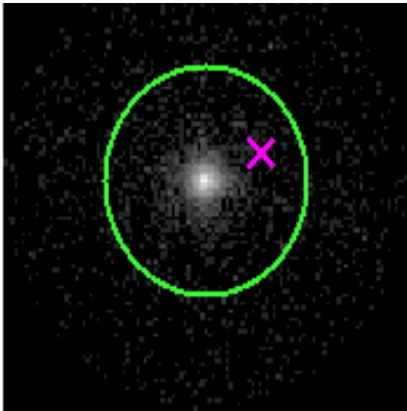
heg order +1



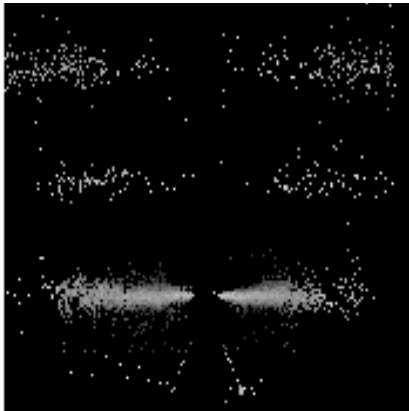
### 3.2 MEG Arm



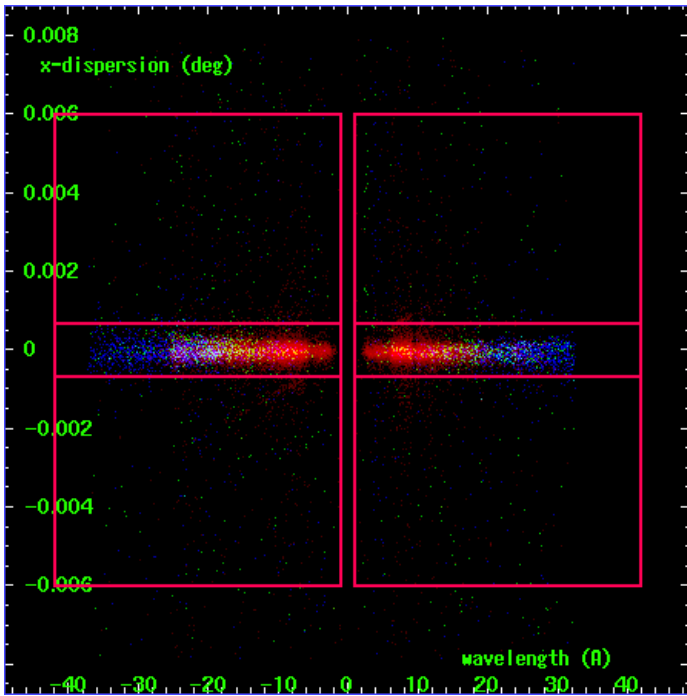
MEG Order Sort 123



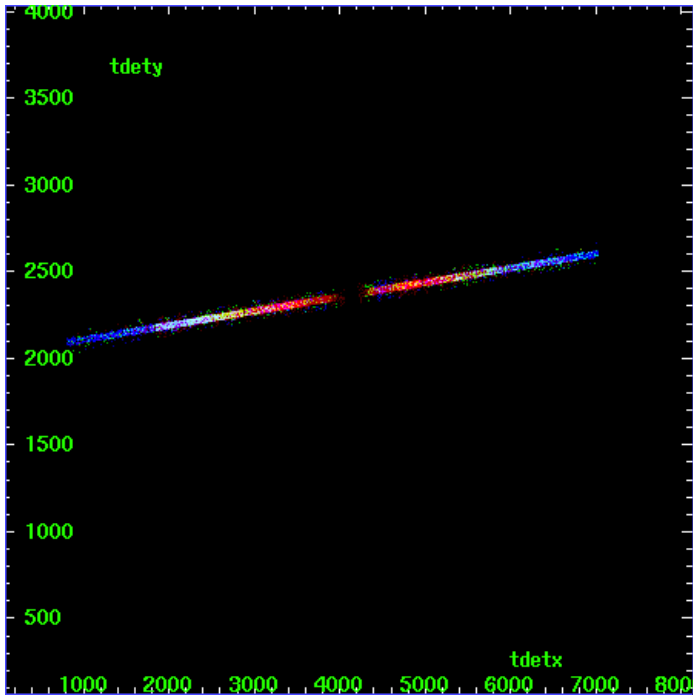
MEG Zero Order



MEG Order Sort ALL

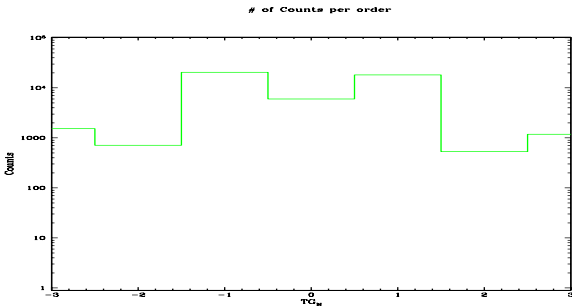


Spot Image MEG

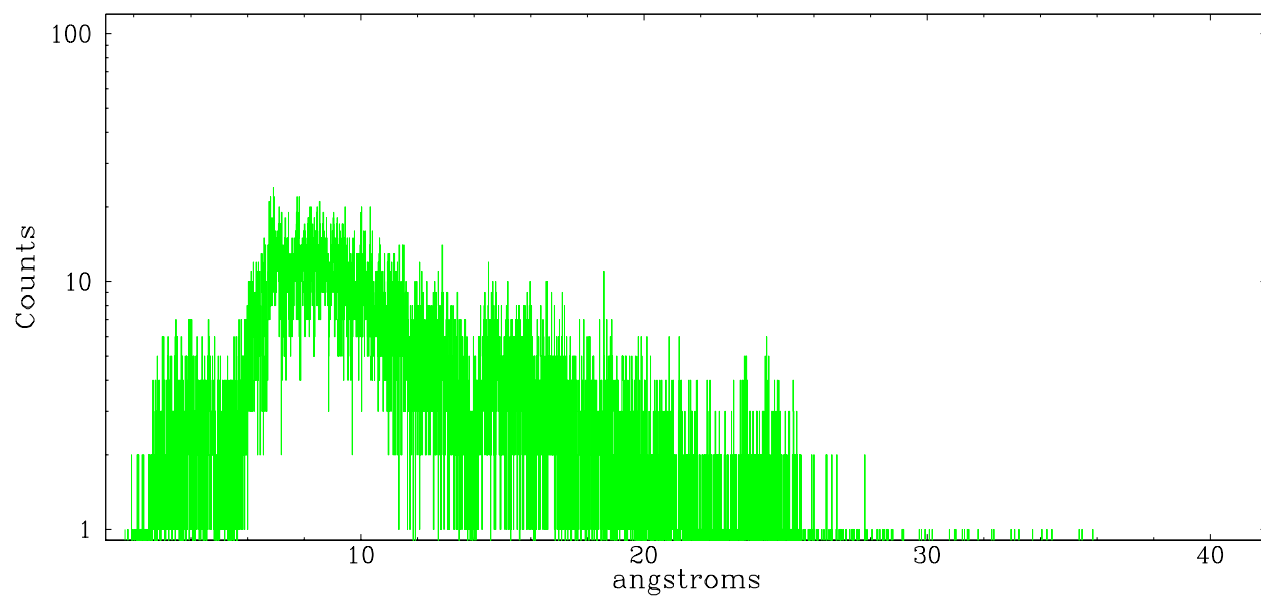


Full Detector MEG

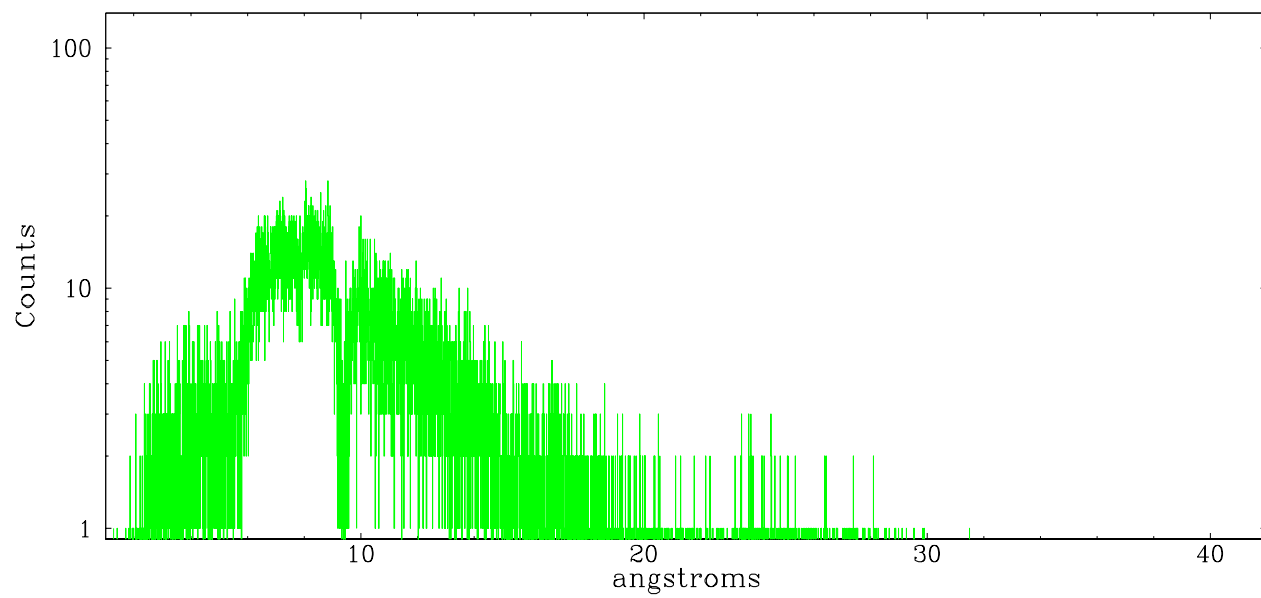
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1531	713	20506	6010	18172	530	1183



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.10.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	26.963

### A.2 Comments