

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1924 - L2 Version 4  
Chandra X-Ray Center

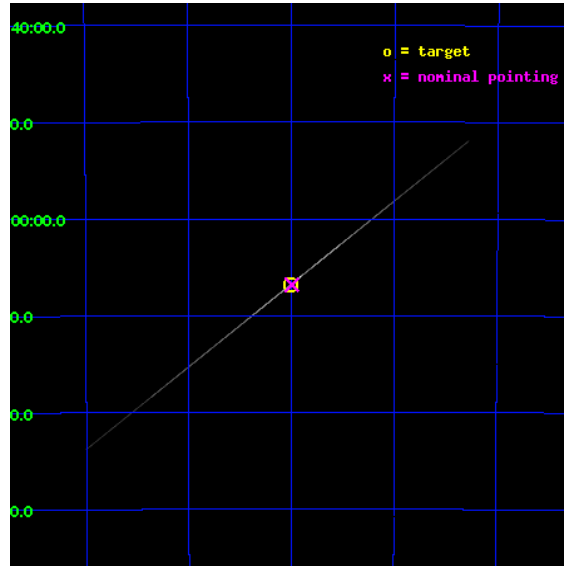
L2 Processing Date : Sep 20 2012

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# 1 Front

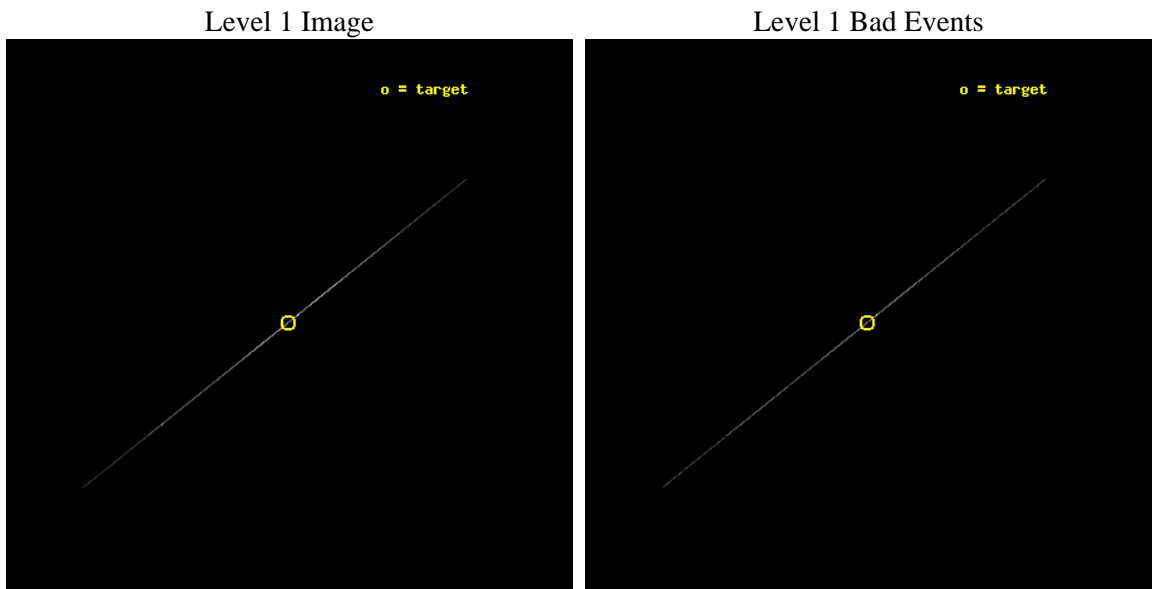
seq_num	400137	Sequence number
obs_id	1924	Observation id
title	DETAILED STUDY OF THE IRON LINE AND LOW ENERGY FEATURES IN Z AND ATOLL SOURCES	Proposal title
observer	Prof. Natale Robba	Principal investigator
object	4U1705-44	Source name
ra_targ	257.251667	Observer's specified target RA [deg]
dec_targ	-44.113333	Observer's specified target Dec [deg]
ra_nom	257.24865118473	Nominal RA [deg]
dec_nom	-44.113765683129	Nominal Dec [deg]
roll_nom	321.44107337855	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5886.5	Sum of GTIs [s]
livetime	5863.505859375	Livetime [s]
ontime4	5886.5	Sum of GTIs [s]
ontime5	5886.5	Sum of GTIs [s]
ontime6	5886.5	Sum of GTIs [s]
ontime7	5886.5	Sum of GTIs [s]
ontime8	5886.5	Sum of GTIs [s]
ontime9	5886.5	Sum of GTIs [s]
l2events	1004029	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	5165.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	5886.5	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime4	5886.5	Sum of GTIs [s]
date	2012-09-20T05:42:20	Date and time of file creation	ontime5	5886.5	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	5886.5	Sum of GTIs [s]
			ontime7	5886.5	Sum of GTIs [s]
			ontime8	5886.5	Sum of GTIs [s]
			ontime9	5886.5	Sum of GTIs [s]
			l1events	1139654	Number of level 1 events

### 2.1.3 Events

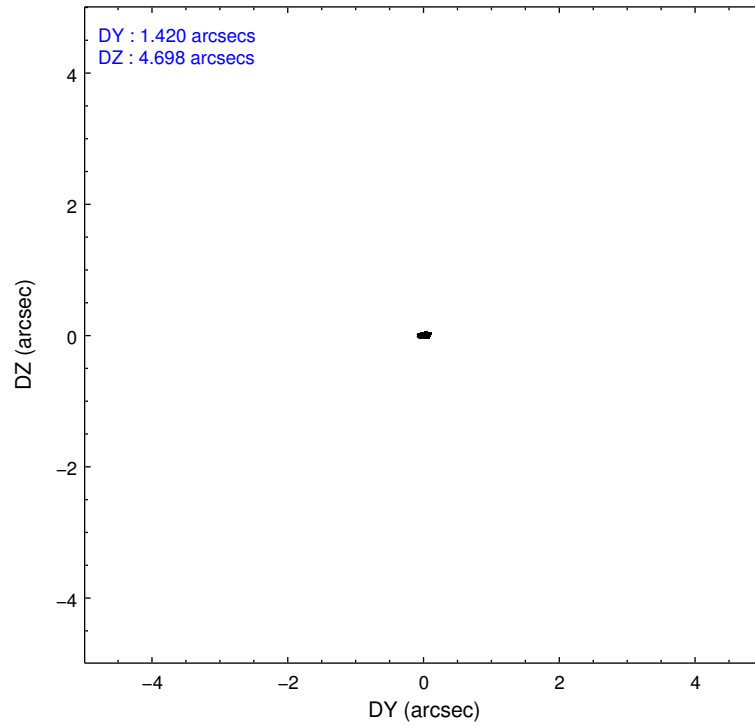
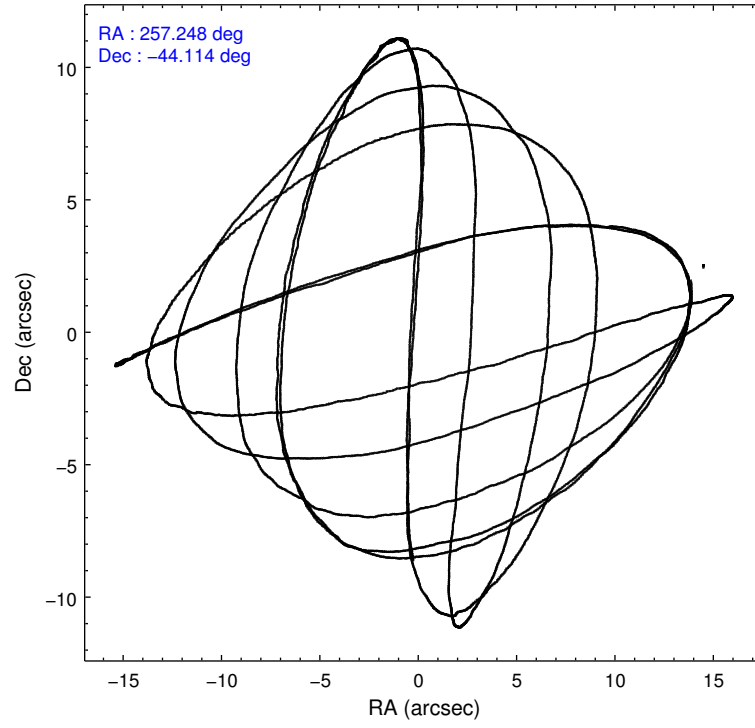
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	13740	67387	203804	719870	113070	21783	grade 0 events	1195	15055	48177	106290	59483	4084
rejected events	1977	6058	7831	59276	5544	2374		8%	22%	23%	14%	52%	18%
rejected %	14%	8%	3%	8%	4%	10%	grade 1 events	26	38	101	6487	166	33
								0%	0%	0%	0%	0%	0%
							grade 2 events	6977	21332	128463	183160	34969	11067
								50%	31%	63%	25%	30%	50%
							grade 3 events	1080	2090	3251	61227	4346	1103
								7%	3%	1%	8%	3%	5%
							grade 4 events	1109	1995	3219	59182	4167	1144
								8%	2%	1%	8%	3%	5%
							grade 5 events	1395	3533	2441	35862	2474	1621
								10%	5%	1%	4%	2%	7%
							grade 6 events	1958	23344	18152	267662	7465	2731
								14%	34%	8%	37%	6%	12%
							grade 7 events	0	0	0	0	0	0
								0%	0%	0%	0%	0%	0%

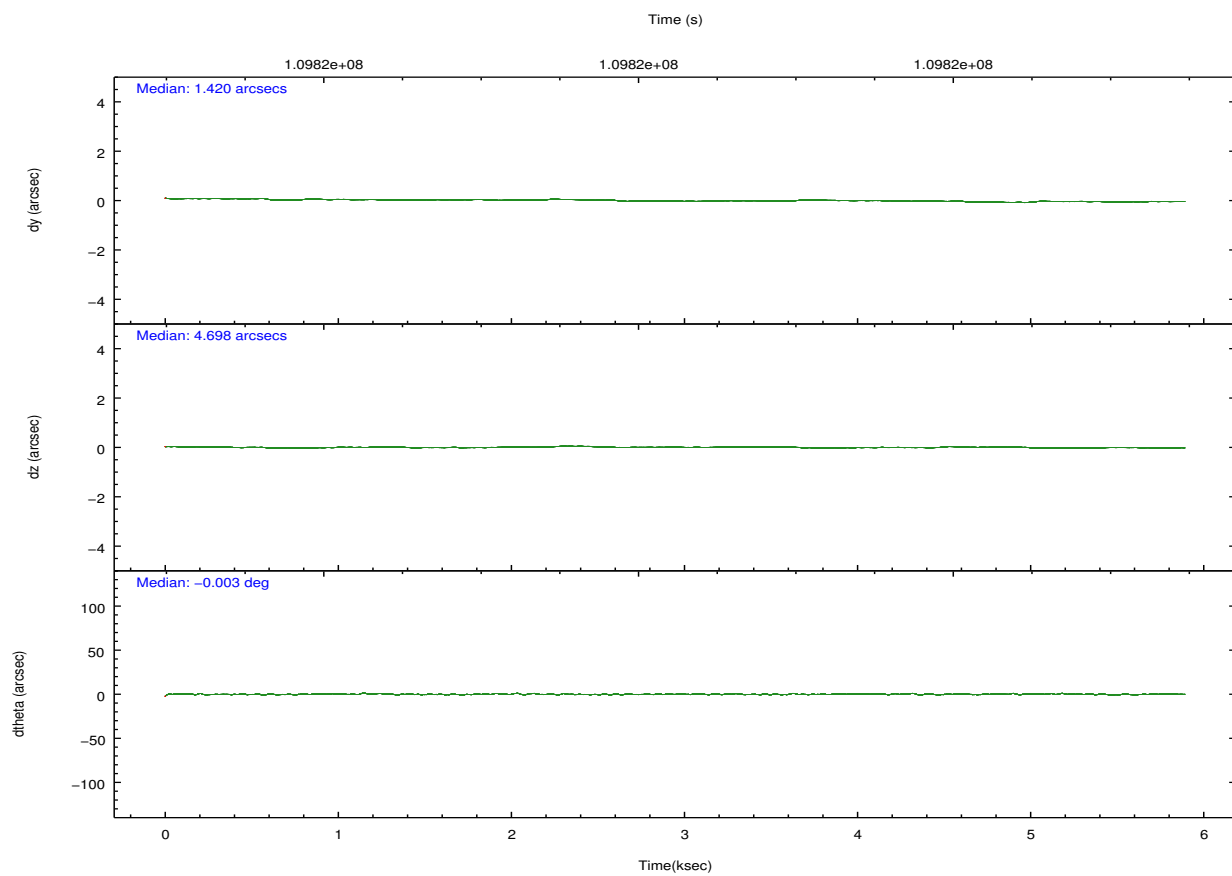
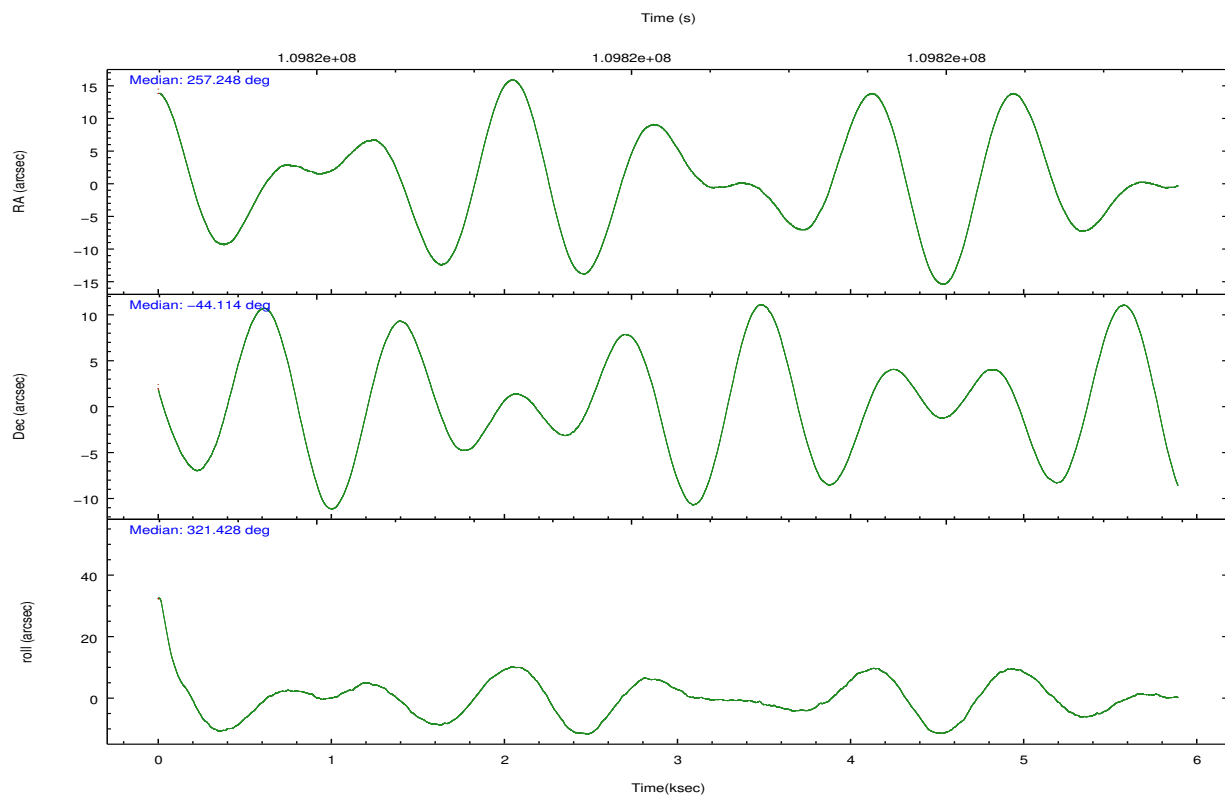


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	257.211033	257.2486511847294	Subarray requested	NONE	NONE
[deg] Pointing Dec	-44.110019	-44.11376568312887	Alternating exposures requested	N	N
[deg] Pointing Roll	321.258210	321.4410733785476	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-182.642523	-182.6373491900168			
[mm] SIM translation stage offset	-7.49	-7.495173392990978			
[s] Observation start time (MET)	109818015.184000	109816785.44903			
Observation start date	2001-06-25T00:59:11	2001-06-25T00:39:45			
[s] Observation end time (MET)	109823180.184000	109824551.36183			
Observation end date	2001-06-25T02:25:16	2001-06-25T02:49:11			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



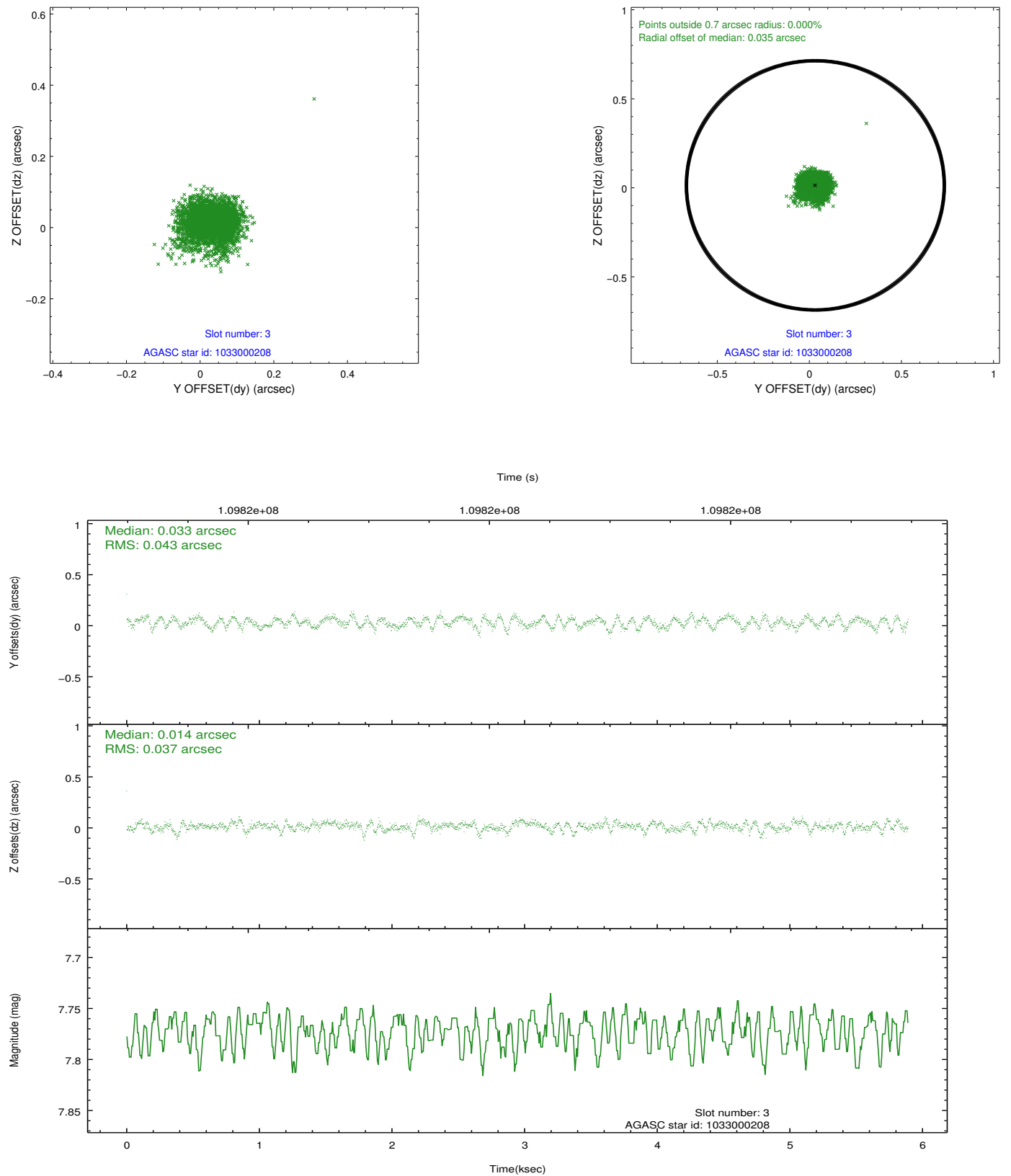


### Slot Statistics

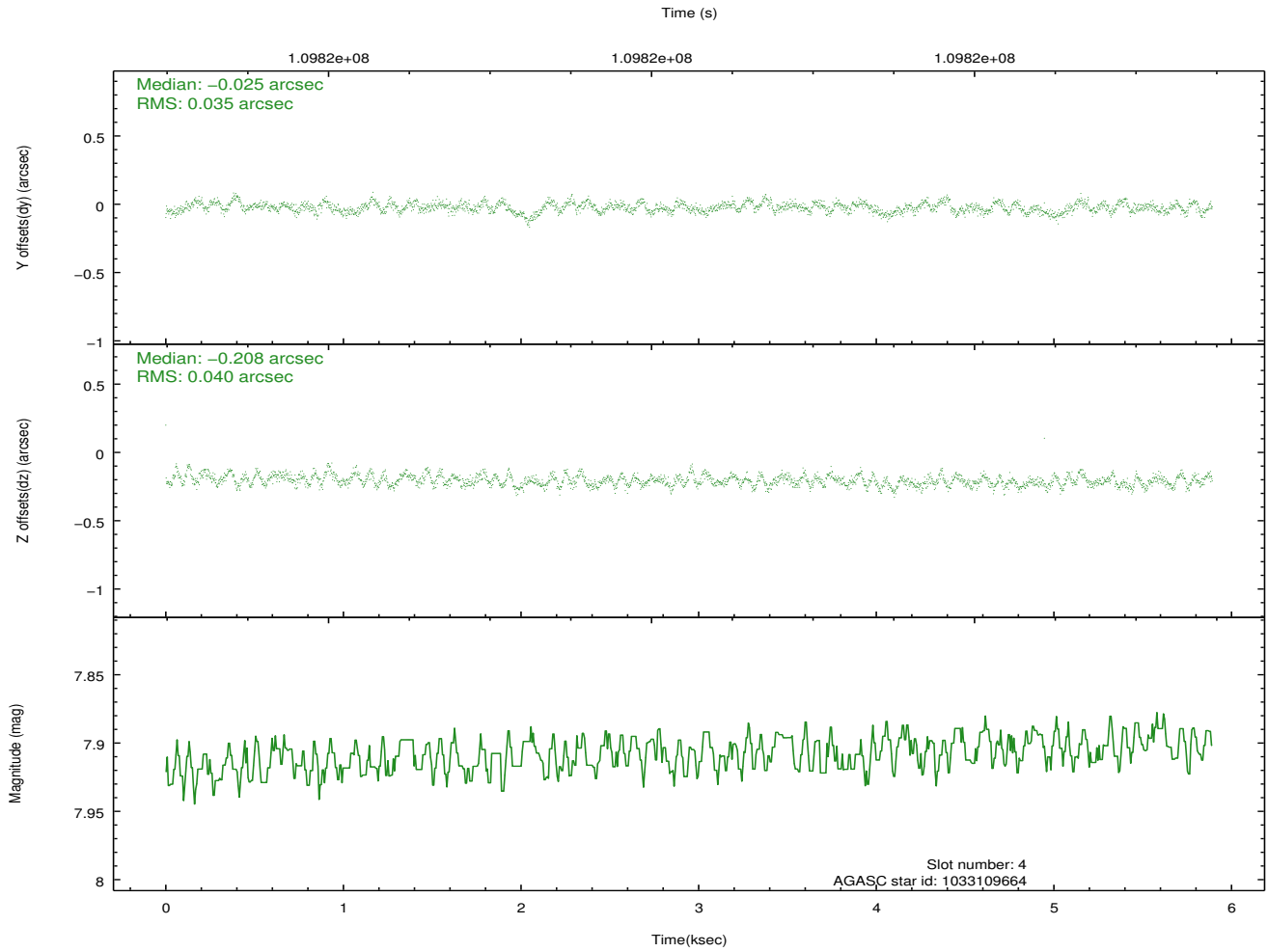
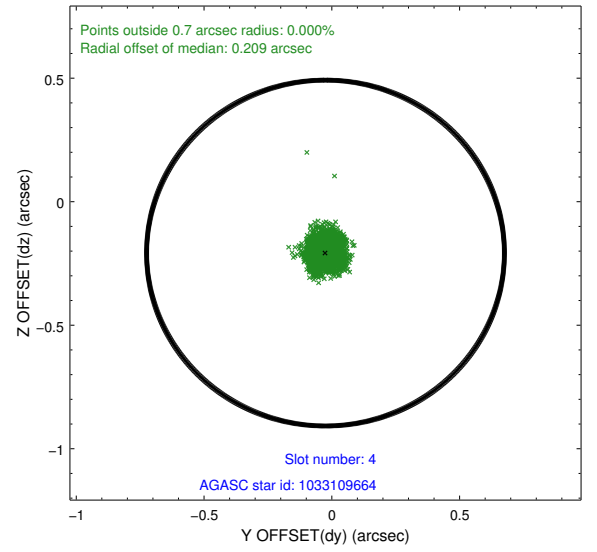
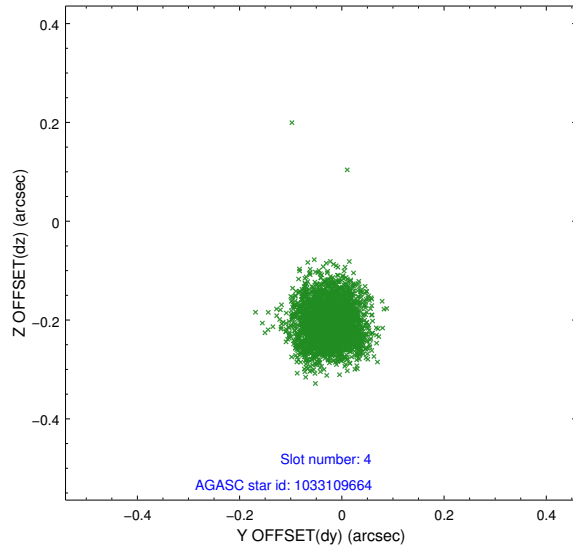
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.34	1438	-0.047	-0.011	0.008	0.014	0.000000	0.000000	59.65	-2009.30
1	FID	ACIS-S-4	7.18	1438	0.056	0.031	0.006	0.011	0.000000	0.000000	2159.96	27.02
2	FID	ACIS-S-5	7.23	1438	-0.038	-0.011	0.006	0.011	0.000000	0.000000	-1805.06	21.92
3	GUIDE	1033000208	7.77	2874	0.033	0.014	0.060	0.096	256.502750	-44.372681	-823.40	-1884.24
4	GUIDE	1033109664	7.91	2875	-0.025	-0.208	0.056	0.090	257.645718	-43.523560	-434.11	2353.68
5	GUIDE	1032985488	8.41	2872	-0.003	0.091	0.072	0.131	256.341779	-44.392959	-1097.83	-2202.24
6	GUIDE	1032978936	8.99	2875	-0.021	0.043	0.073	0.146	257.447182	-44.360307	1039.27	-323.38
7	GUIDE	1032979296	8.76	2874	0.006	0.069	0.095	0.149	257.257446	-43.353483	-1608.71	2200.14

## 2.4 Star Slots

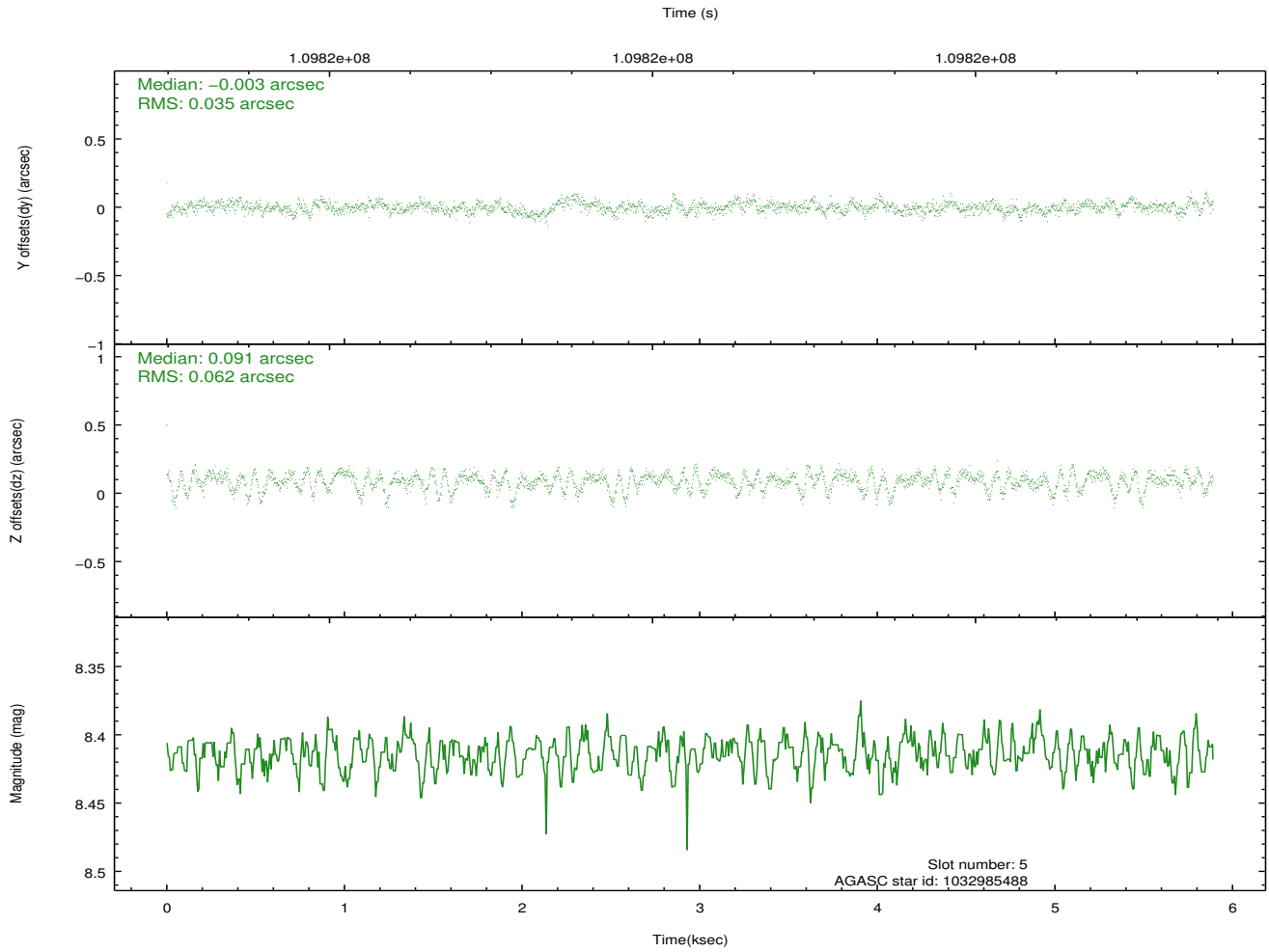
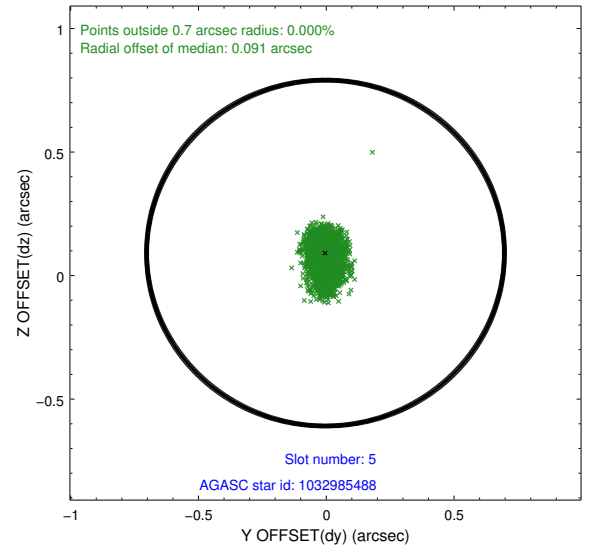
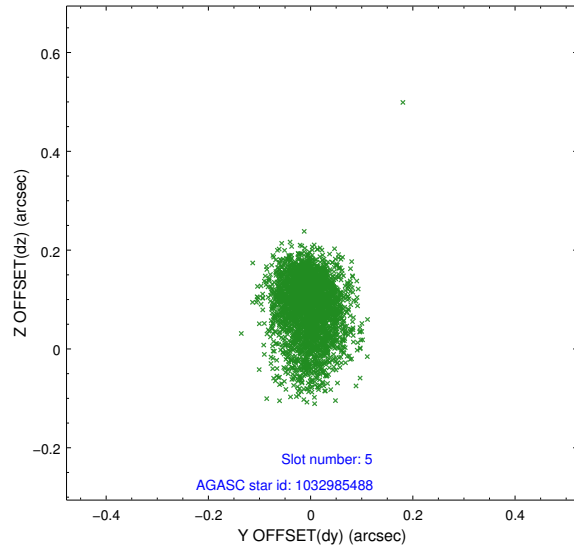
### 2.4.1 Slot 3



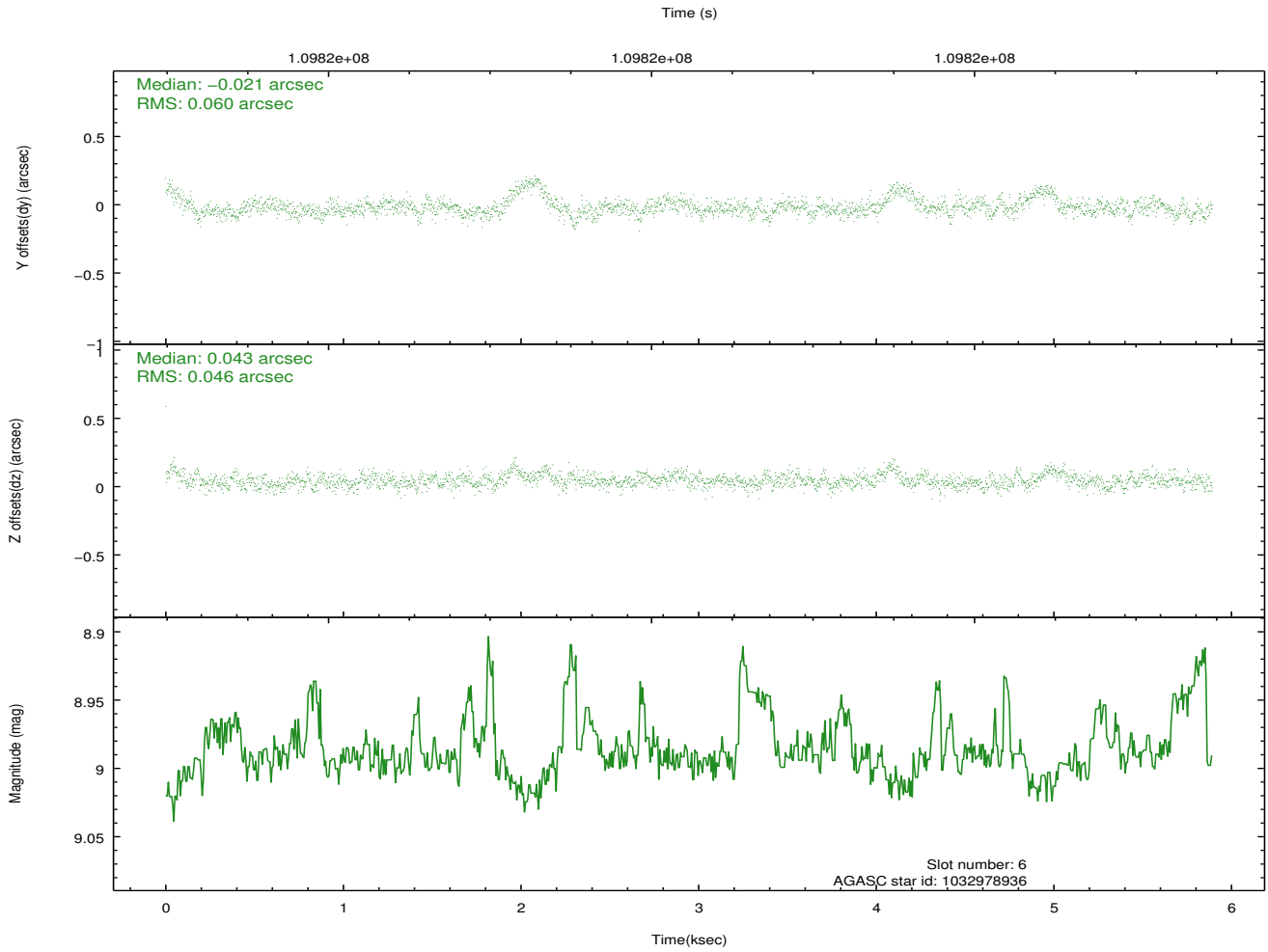
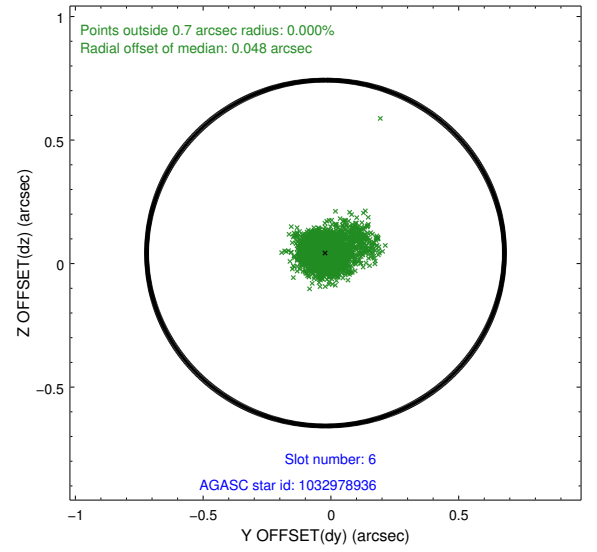
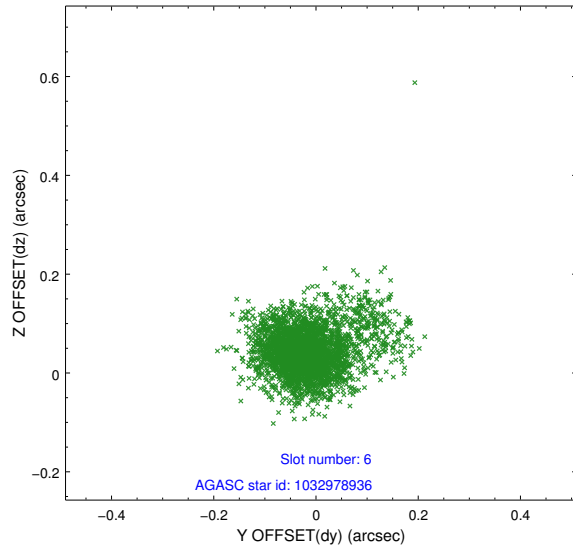
## 2.4.2 Slot 4



### 2.4.3 Slot 5

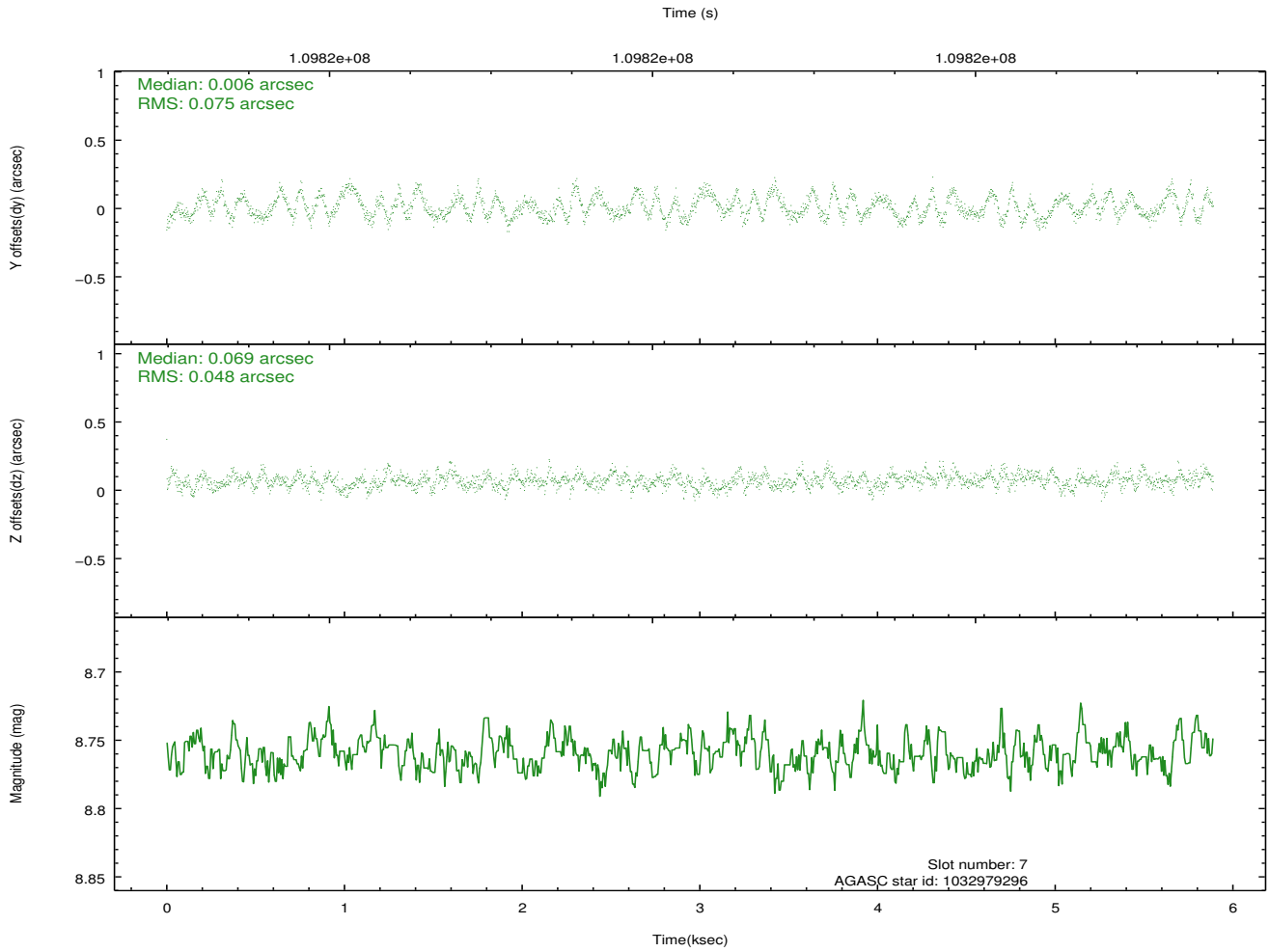
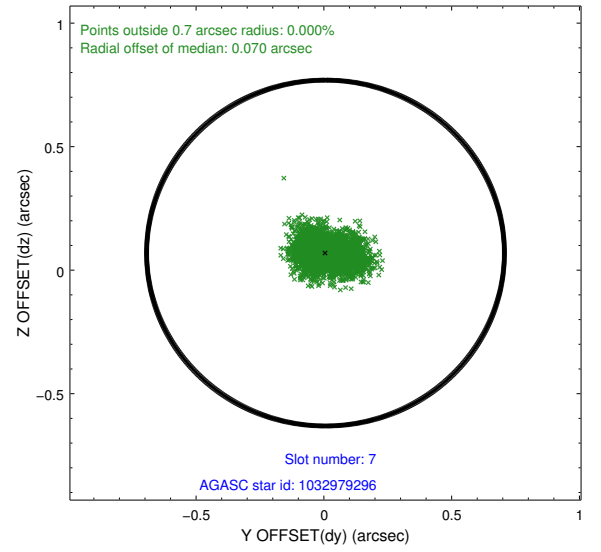
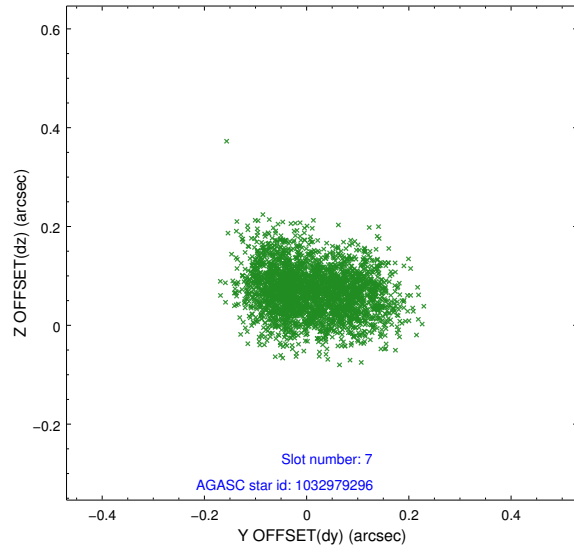


## 2.4.4 Slot 6



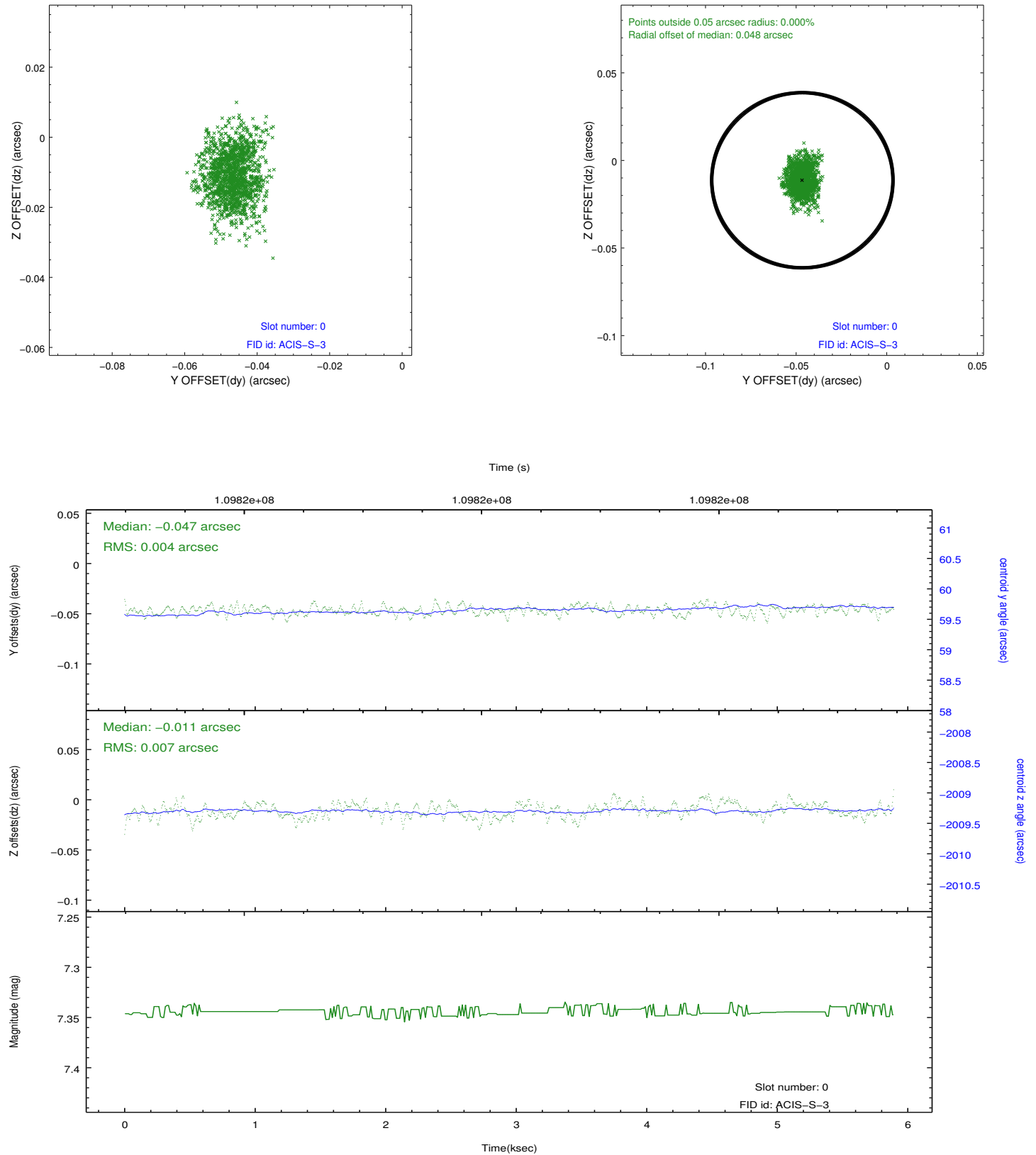


## 2.4.5 Slot 7

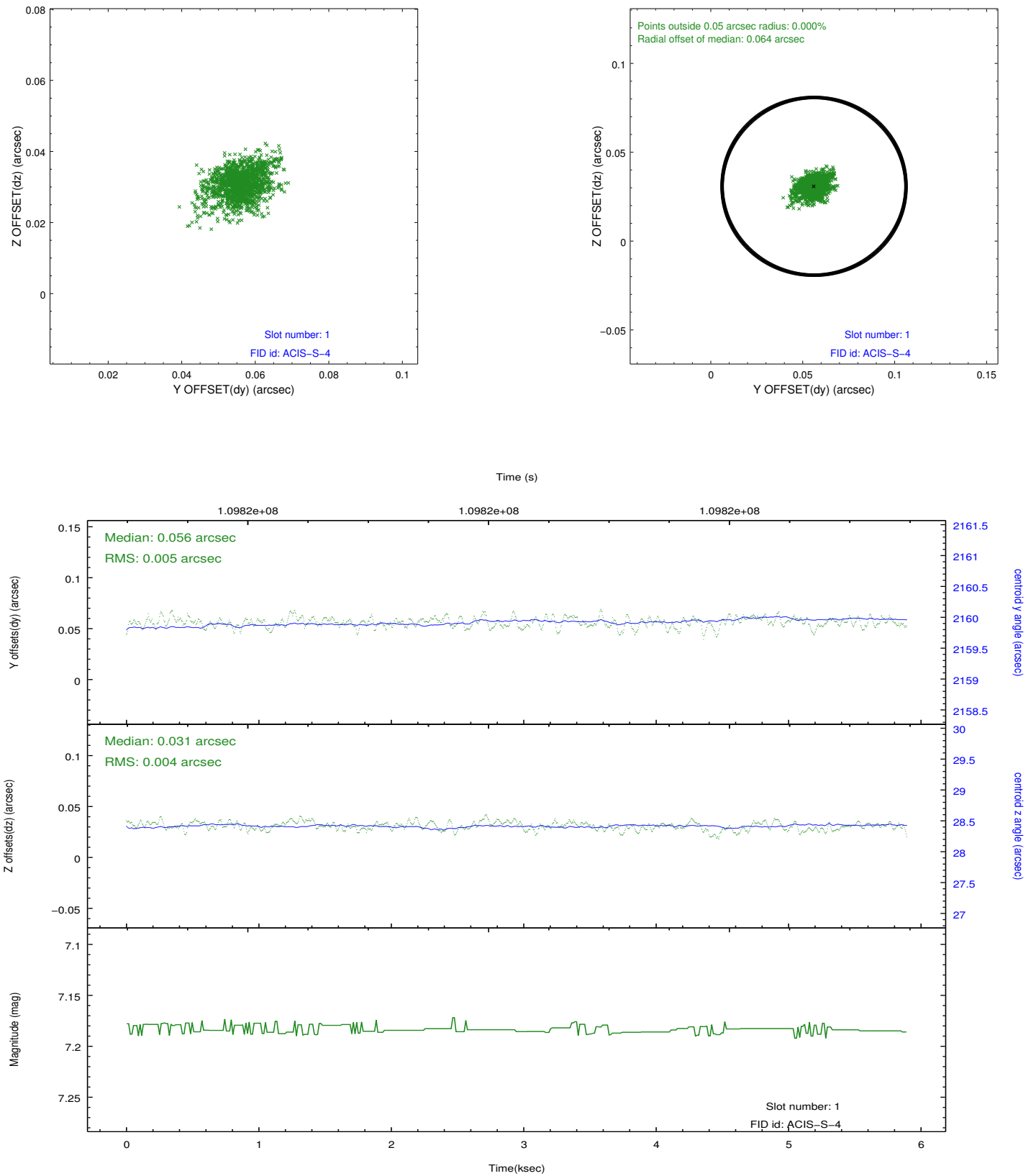


## 2.5 FID Slots

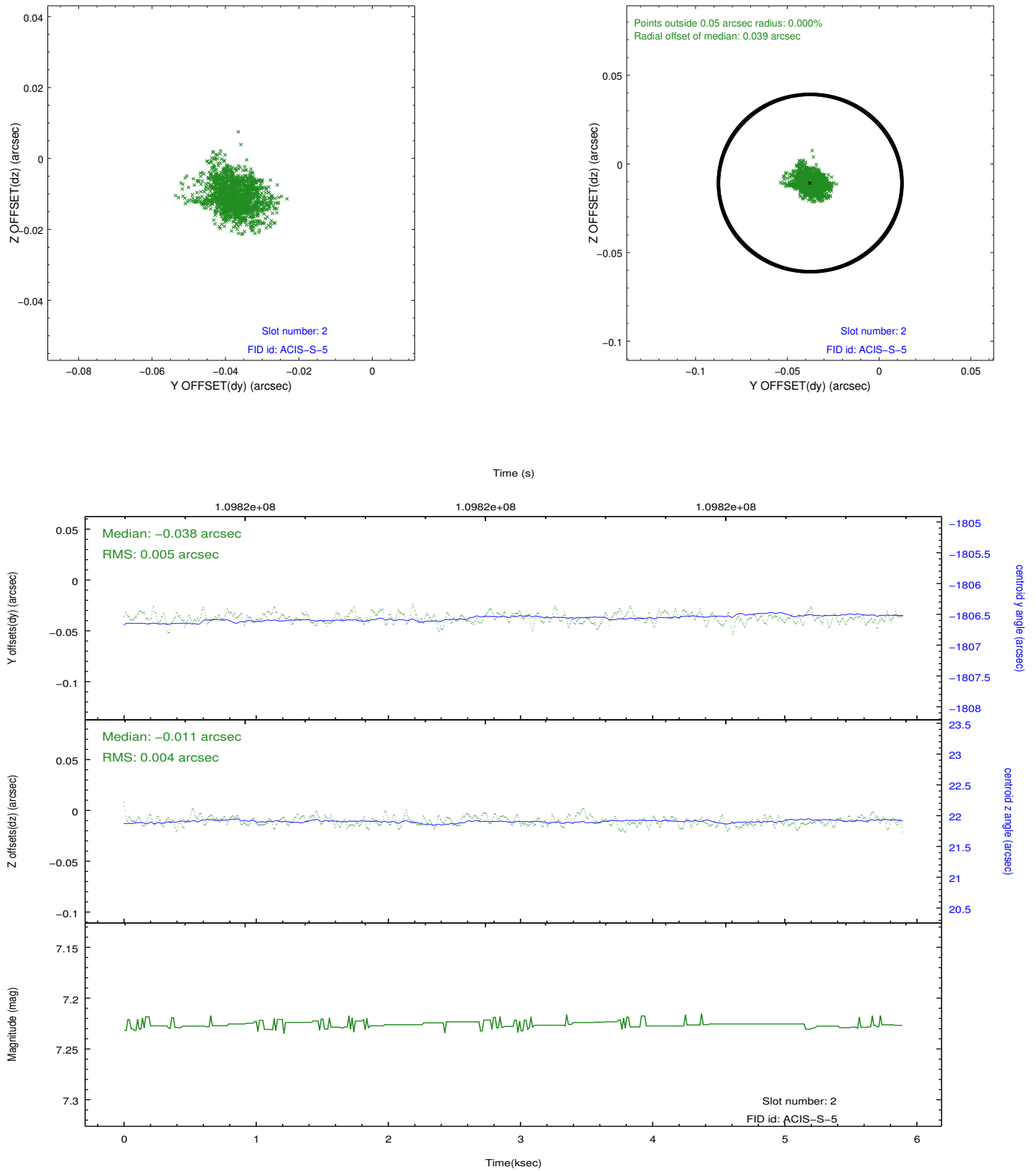
### 2.5.1 Slot 0



## 2.5.2 Slot 1

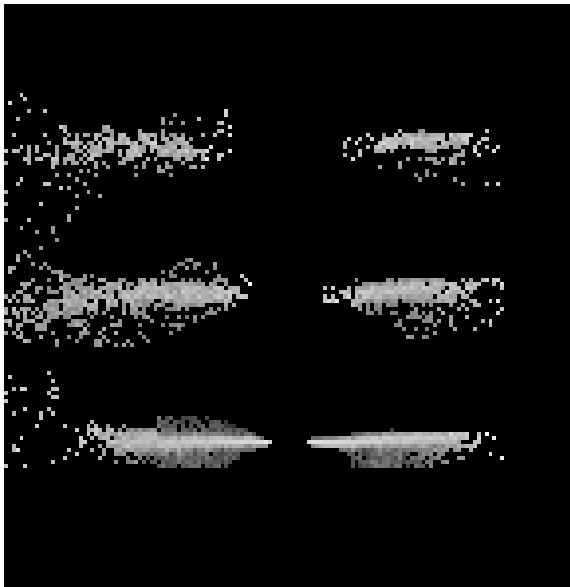


### 2.5.3 Slot 2

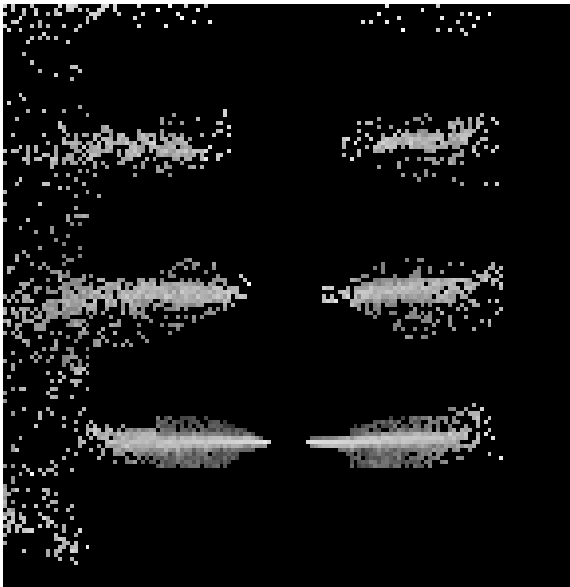


# 3 Gratings

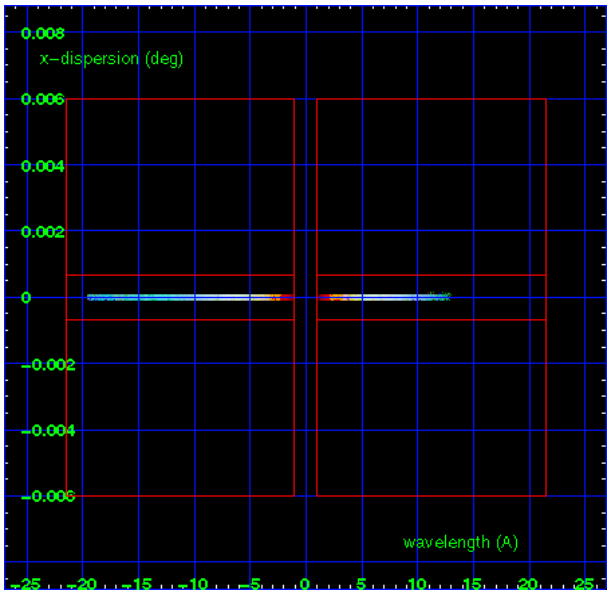
## 3.1 HEG Arm



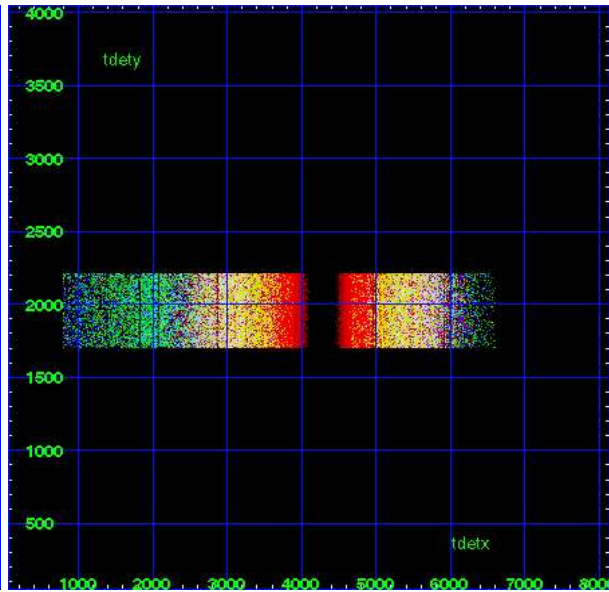
HEG Order Sort 123



HEG Order Sort ALL

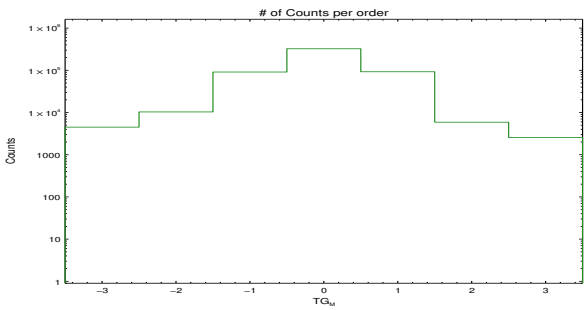


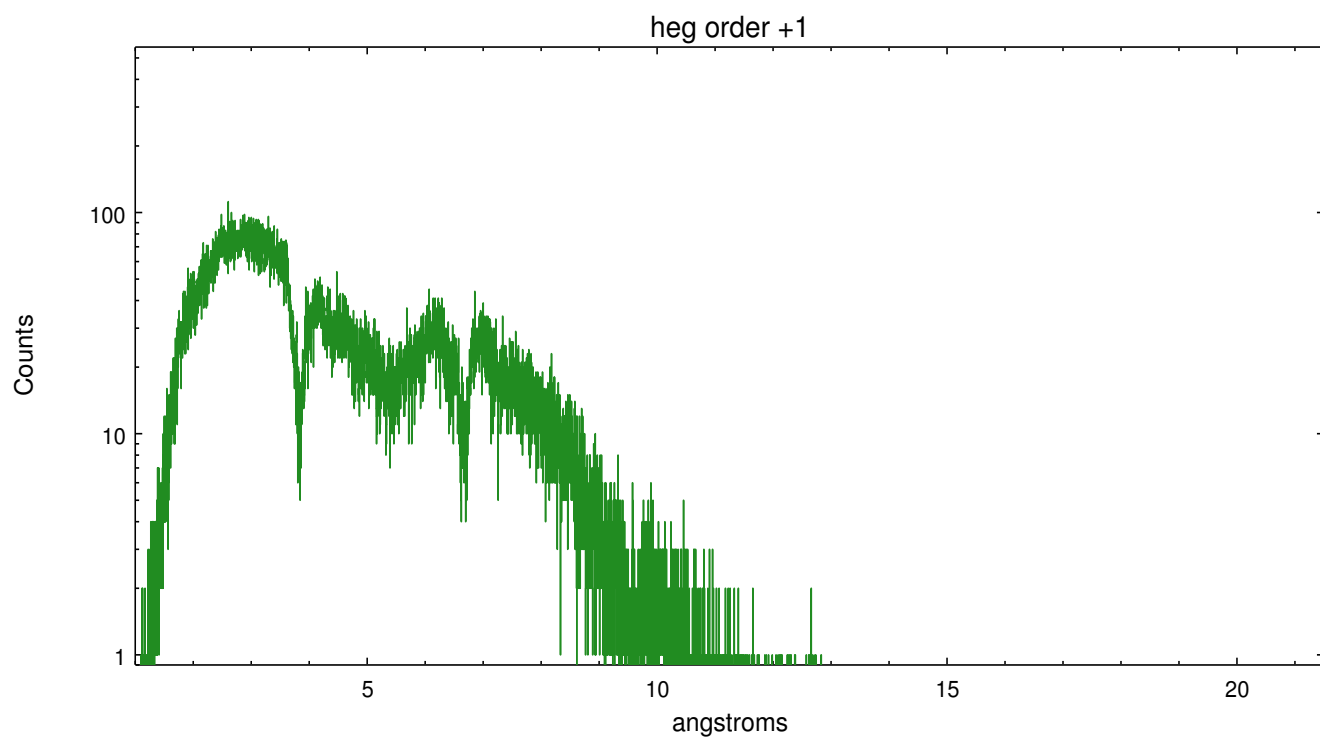
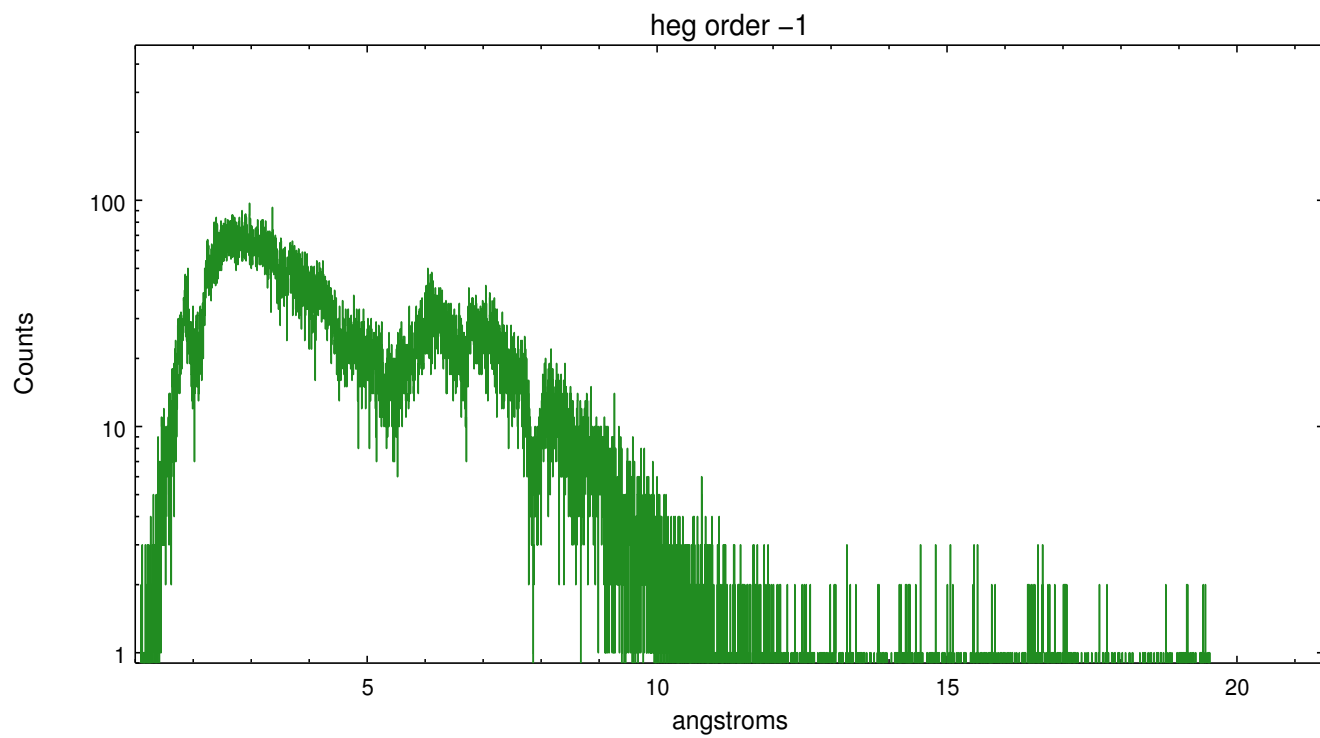
Spot Image HEG



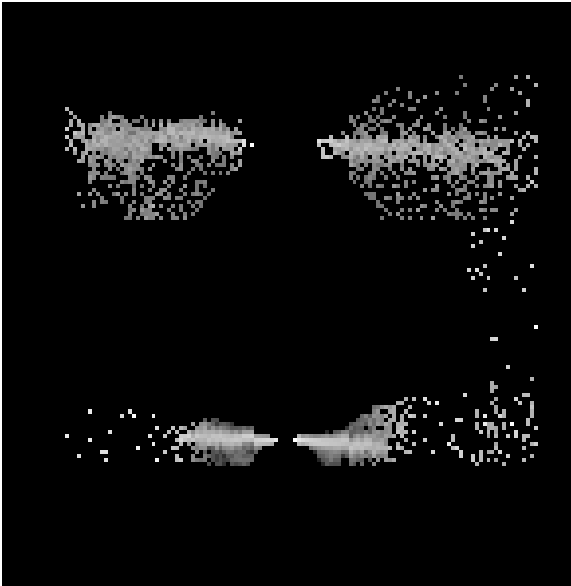
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	4502	10329	91061	324454	92466	5898	2555

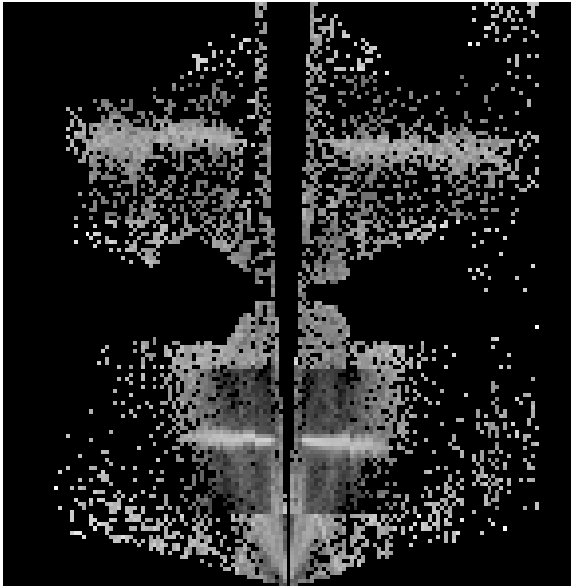




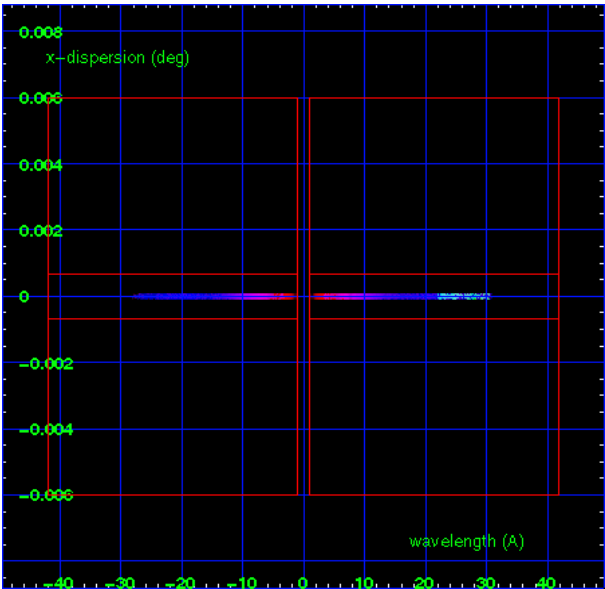
3.2 MEG Arm



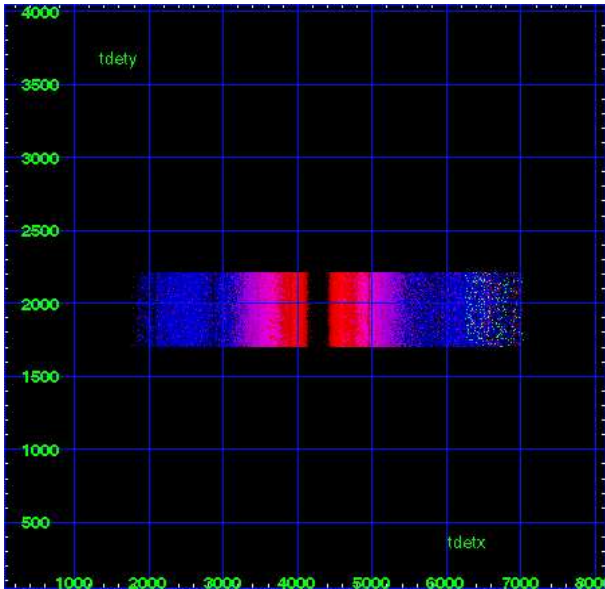
MEG Order Sort 123



MEG Order Sort ALL

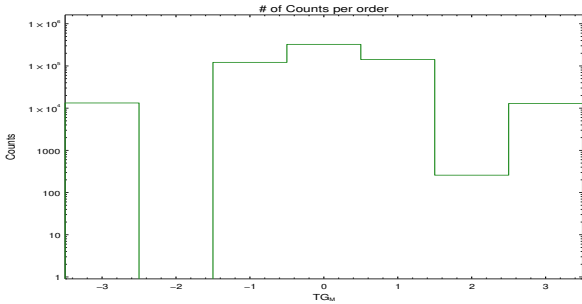


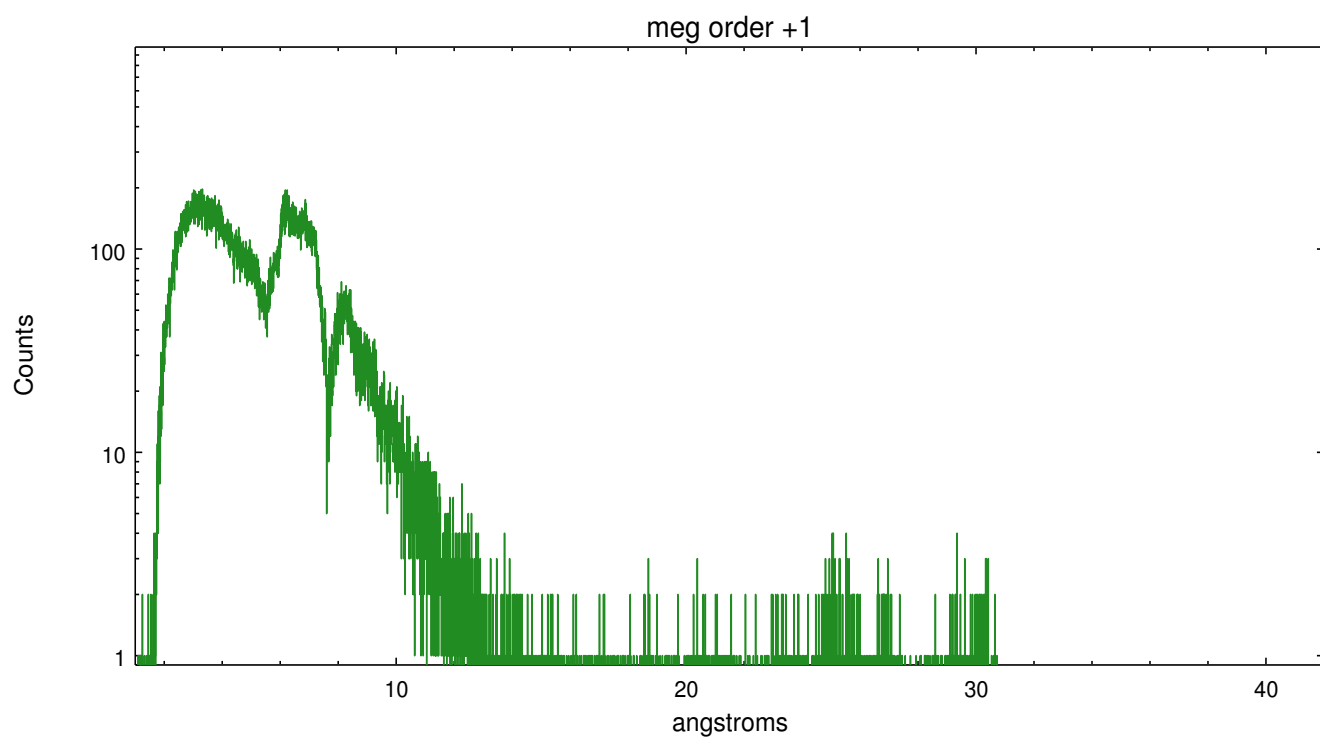
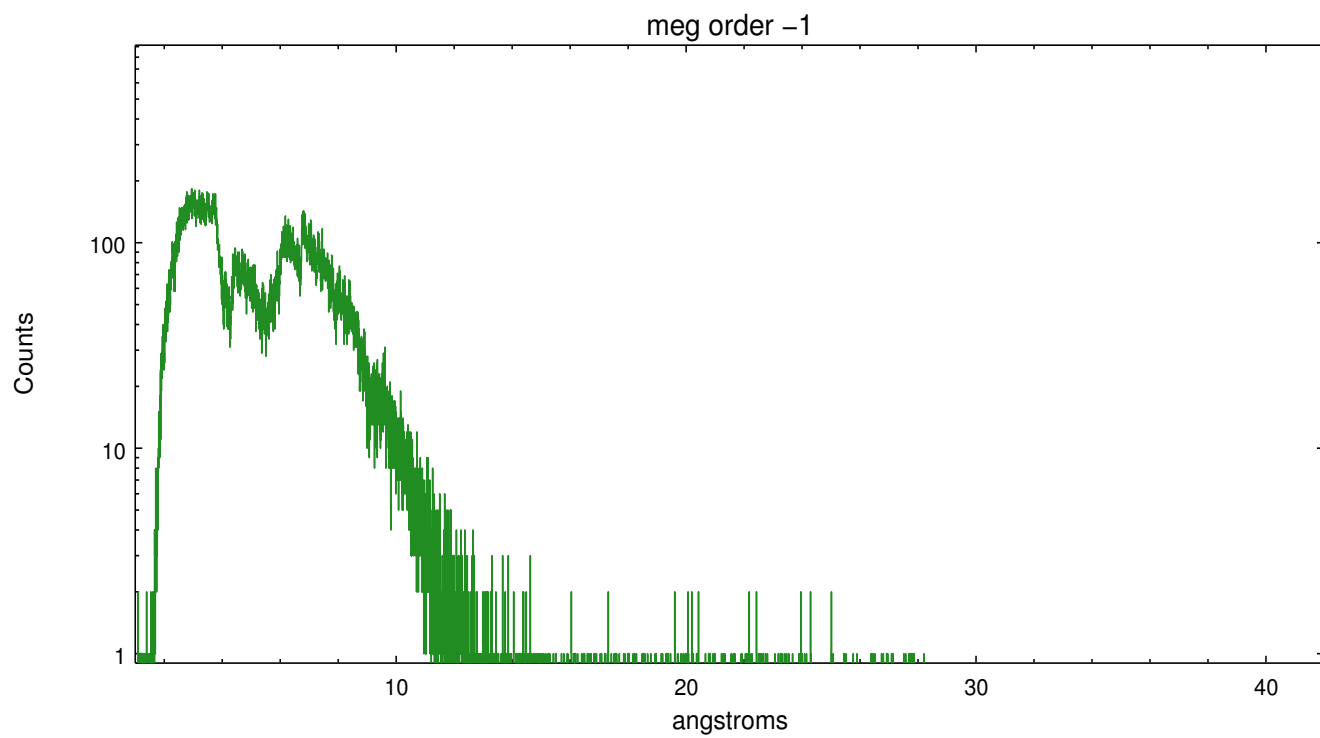
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	13272	0	121535	324454	141754	258	12874







## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.10.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.886

### A.2 Comments