

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 131 - L2 Version 5  
Chandra X-Ray Center

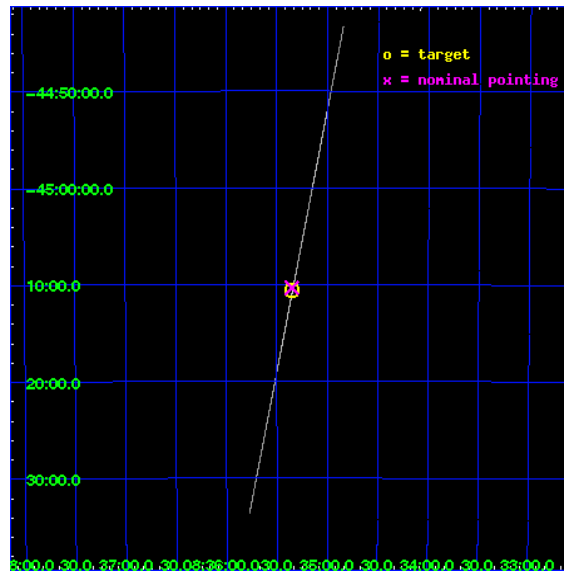
L2 Processing Date : Nov 19 2009

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# 1 Front

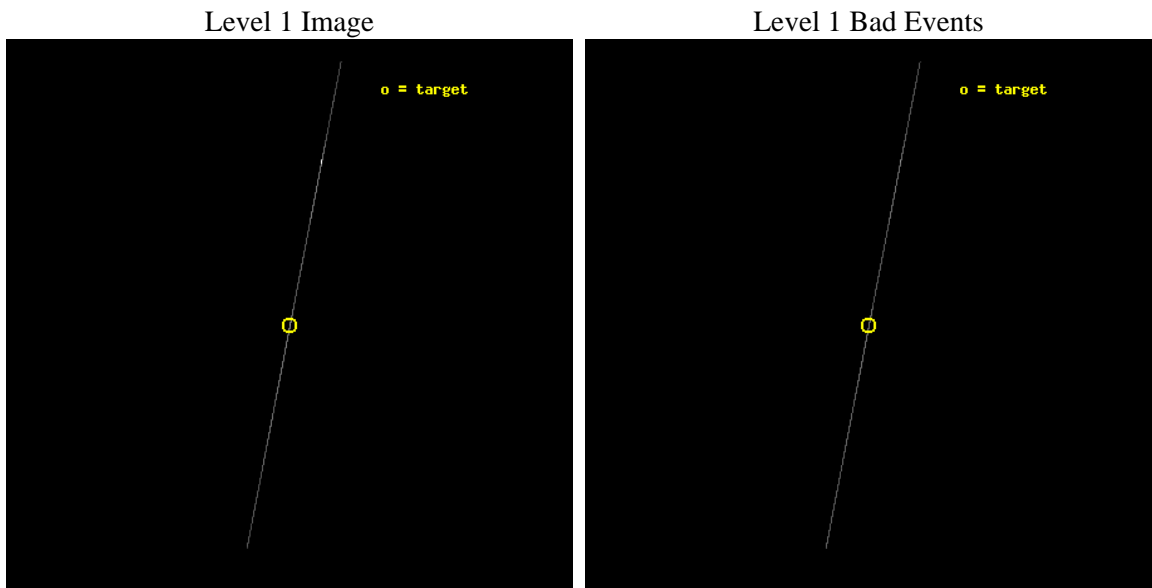
seq_num	500018	Sequence number
obs_id	131	Observation id
title	HETG OBSERVATIONS OF ISOLATED PULSARS	Proposal title
observer	DR. CLAUDE CANIZARES	Principal investigator
object	PSR B0833-45	Source name
ra_targ	128.83625	Observer's specified target RA
dec_targ	-45.177333	Observer's specified target Dec
ra_nom	128.83771526026	Nominal RA
dec_nom	-45.172414282906	Nominal Dec
roll_nom	101.03145814199	Nominal Roll
revision	5	Processing version of data
ontime	36088.539552696	Sum of GTIs [s]
livetime	35947.568695068	Livetime [s]
ontime4	36087.079791799	Sum of GTIs [s]
ontime5	36088.539553709	Sum of GTIs [s]
ontime6	36088.539553314	Sum of GTIs [s]
ontime7	36088.539552696	Sum of GTIs [s]
ontime8	36088.539552309	Sum of GTIs [s]
ontime9	36088.539551906	Sum of GTIs [s]
l2events	564304	Number of level 2 events



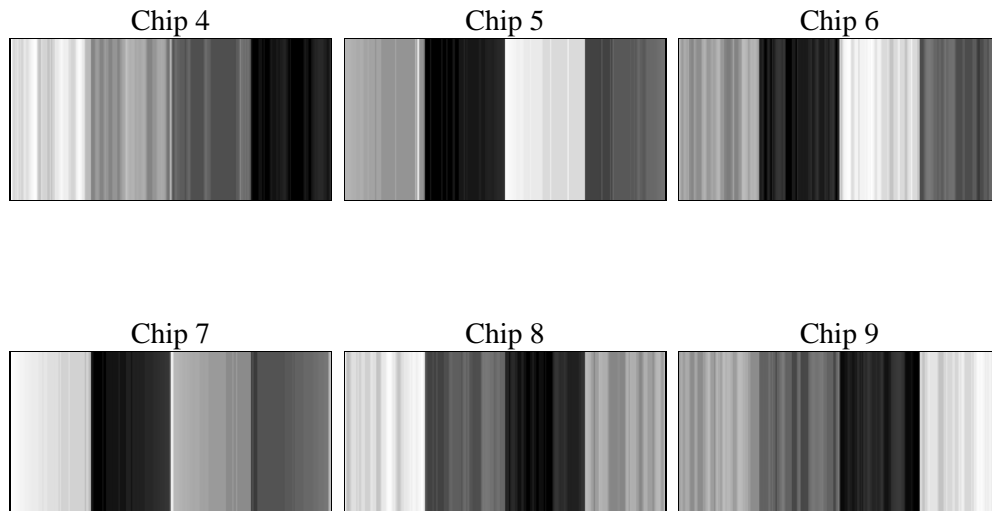
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	36088.539552696	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime4	36087.079791799	Sum of GTIs [s]
date	2009-11-19T13:38:01	Date and time of file creation	ontime5	36088.539553709	Sum of GTIs [s]
revision	5	Processing version of data	ontime6	36088.539553314	Sum of GTIs [s]
			ontime7	36088.539552696	Sum of GTIs [s]
			ontime8	36088.539552309	Sum of GTIs [s]
			ontime9	36088.539551906	Sum of GTIs [s]
			l1events	1504642	Number of level 1 events

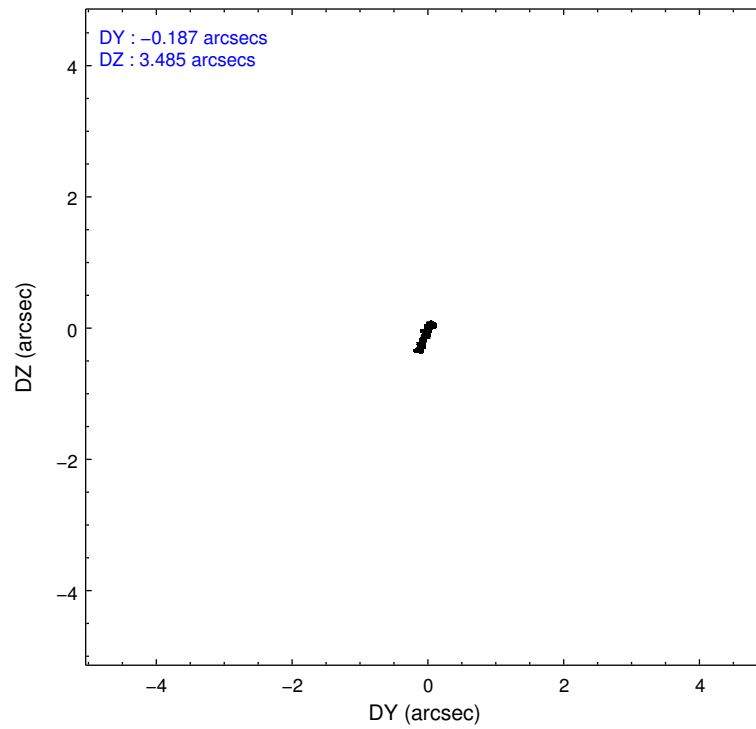
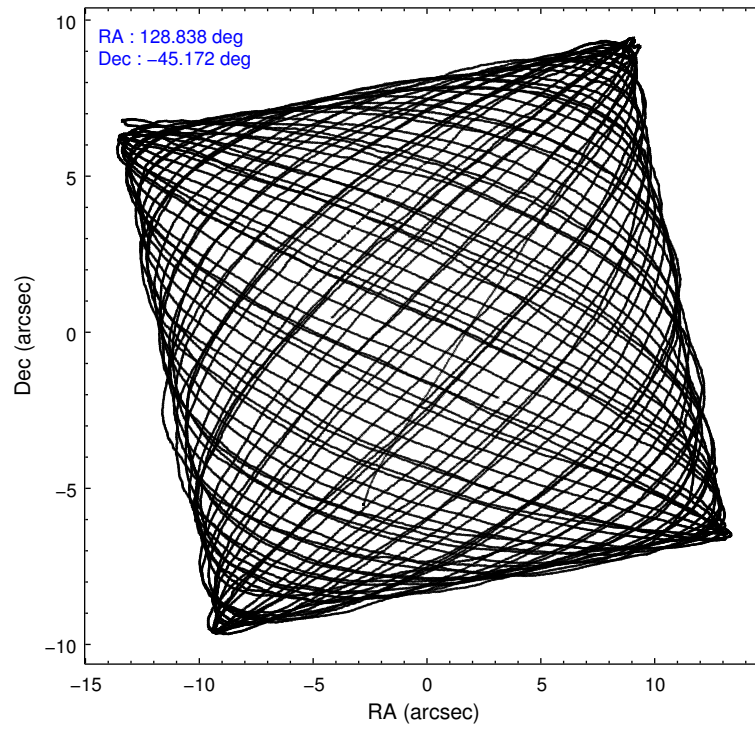
### 2.1.4 Events

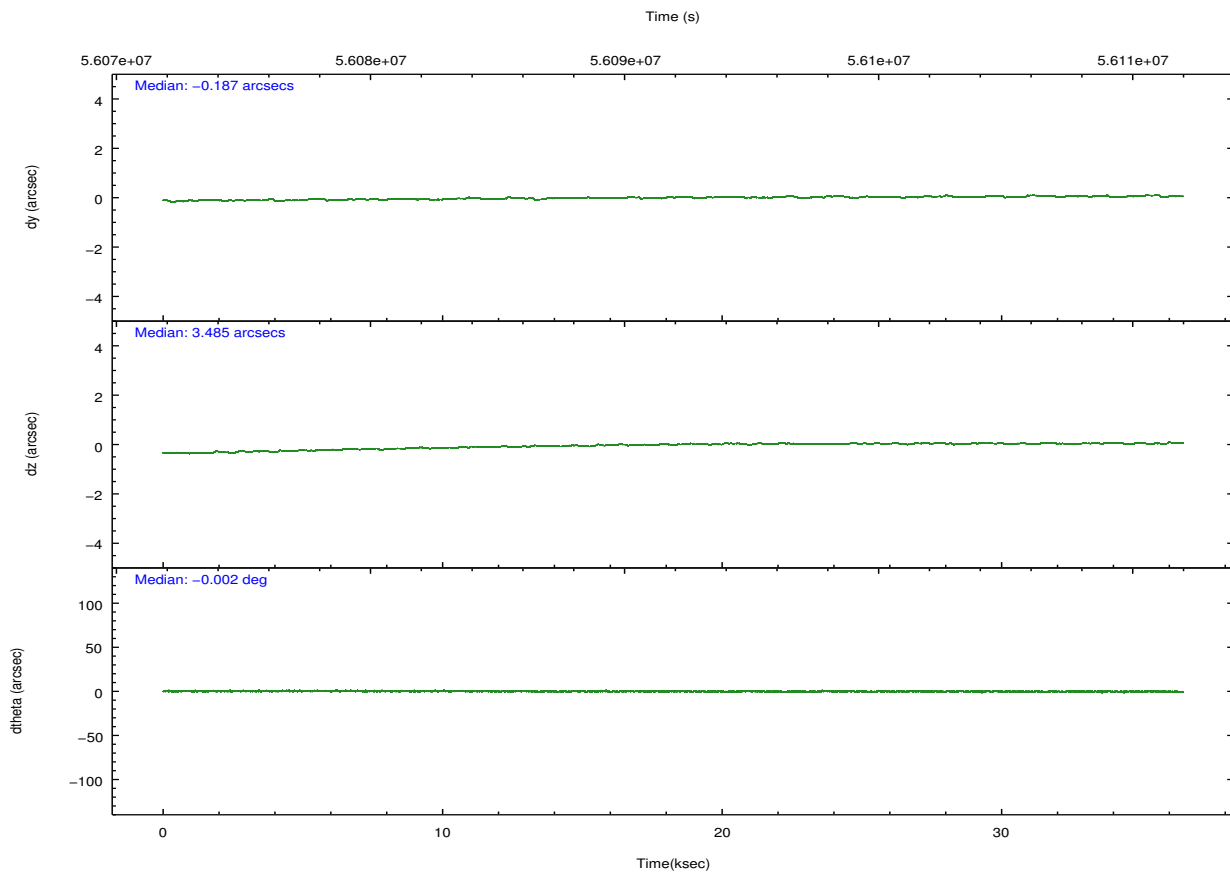
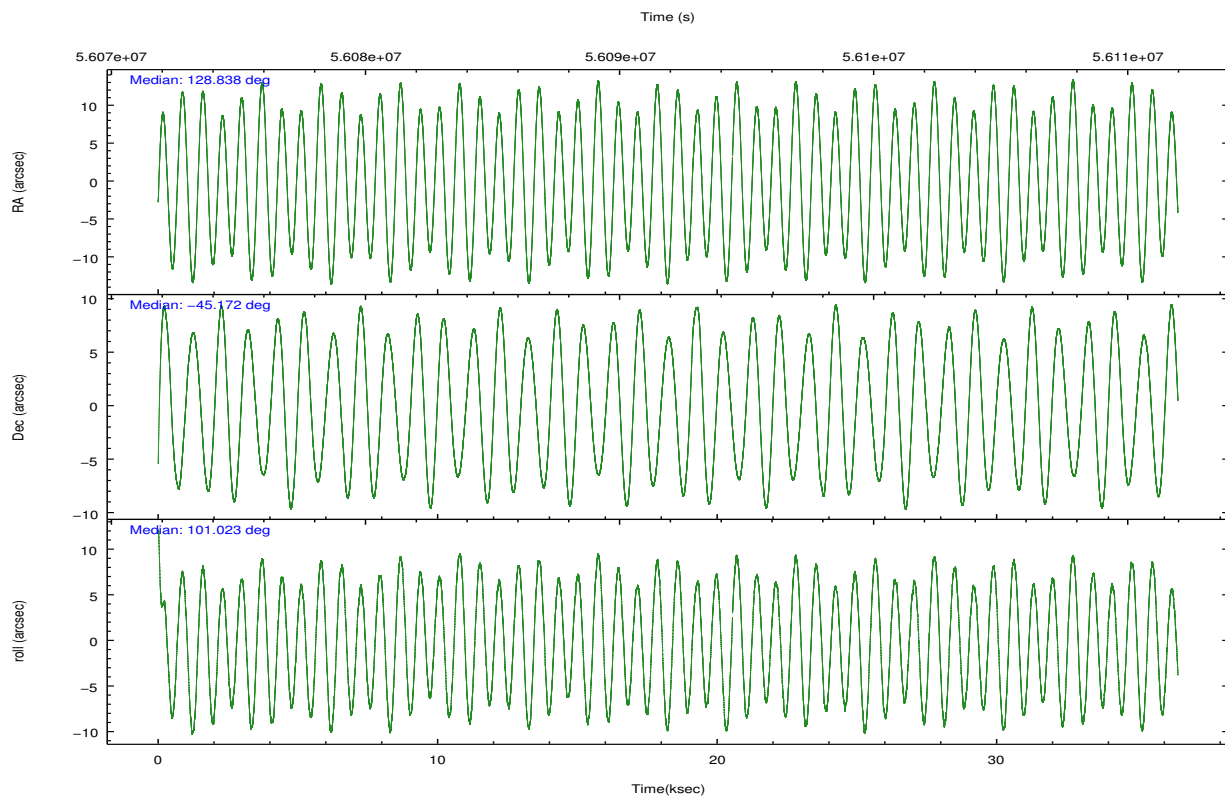
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	49766	971873	78969	229270	118161	56603	grade 0 events	4936	580138	6867	38570	22284	7209
rejected events	5712	19320	6772	19702	10184	7206		9%	59%	8%	16%	18%	12%
rejected %	11%	1%	8%	8%	8%	12%	grade 1 events	122	1107	138	368	352	144
								0%	0%	0%	0%	0%	0%
							grade 2 events	14878	270999	39449	53047	41640	18106
								29%	27%	49%	23%	35%	31%
							grade 3 events	9012	10279	8482	20925	12836	7963
								18%	1%	10%	9%	10%	14%
							grade 4 events	9394	9402	8357	19709	12366	8779
								18%	0%	10%	8%	10%	15%
							grade 5 events	5517	16546	6539	18960	9636	6982
								11%	1%	8%	8%	8%	12%
							grade 6 events	5907	83402	9137	77691	19047	7420
								11%	8%	11%	33%	16%	13%
							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	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	OVERRIDE	OVERRIDE
Data mode	CC33_FAINT	CC33_FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	128.83625	128.8377152602617	Alternating exposures requested	N	N
Pointing Dec	-45.177333	-45.17241428290589	Primary exposure time	0.000000	0.000000
Pointing Roll	100.892943	101.0314581419927			
SIM focus pos (mm)	-0.6828225247311905	-0.6828225247311905			
SIM defocus (mm)	0.001444942264670179	0.001444942264670179			
SIM translation stage pos (mm)	-190.1400660498719	-190.1400660498719			
SIM translation stage offset (mm)	0.007542945904702947	0.007542945904702947			
Observation start time	56073664.607204	56073664.607204			
Observation start date	1999-10-12T00:01:05	1999-10-12T00:01:04			
Observation end time	56110151.533518	56110151.533518			
Observation end date	1999-10-12T10:09:12	1999-10-12T10:09:11			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



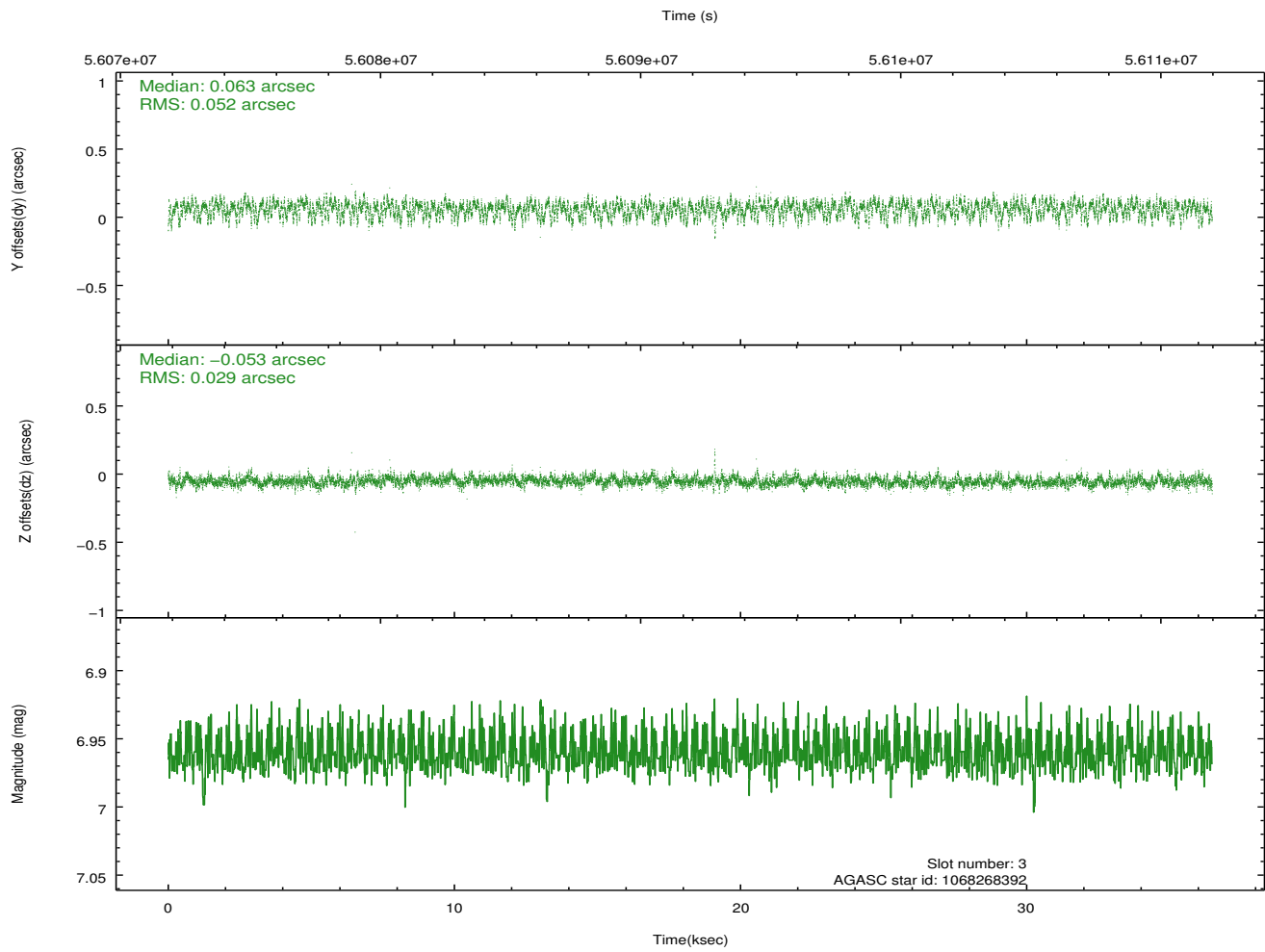
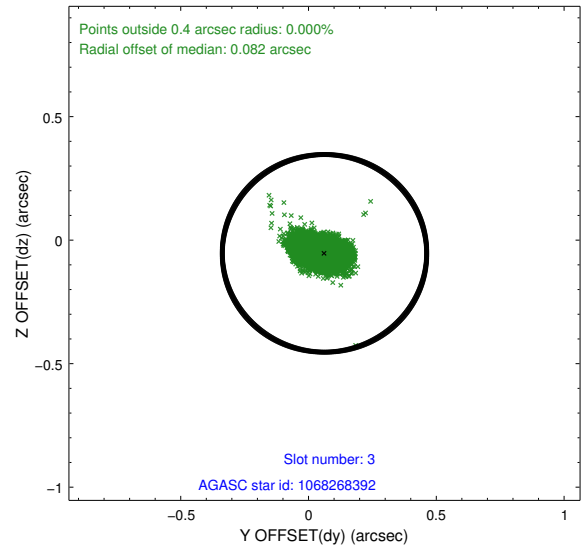
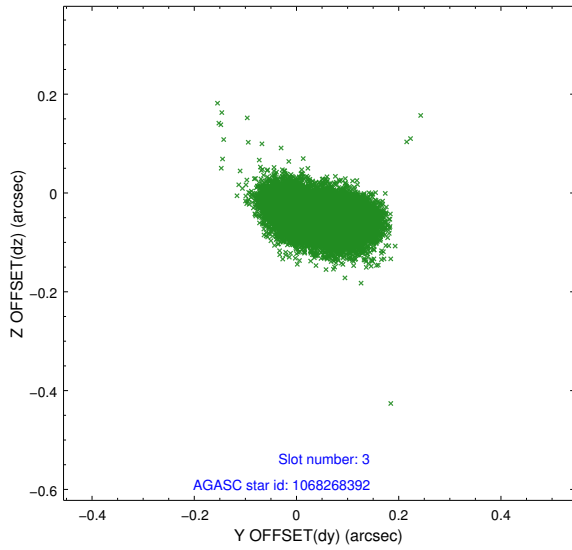


### Slot Statistics

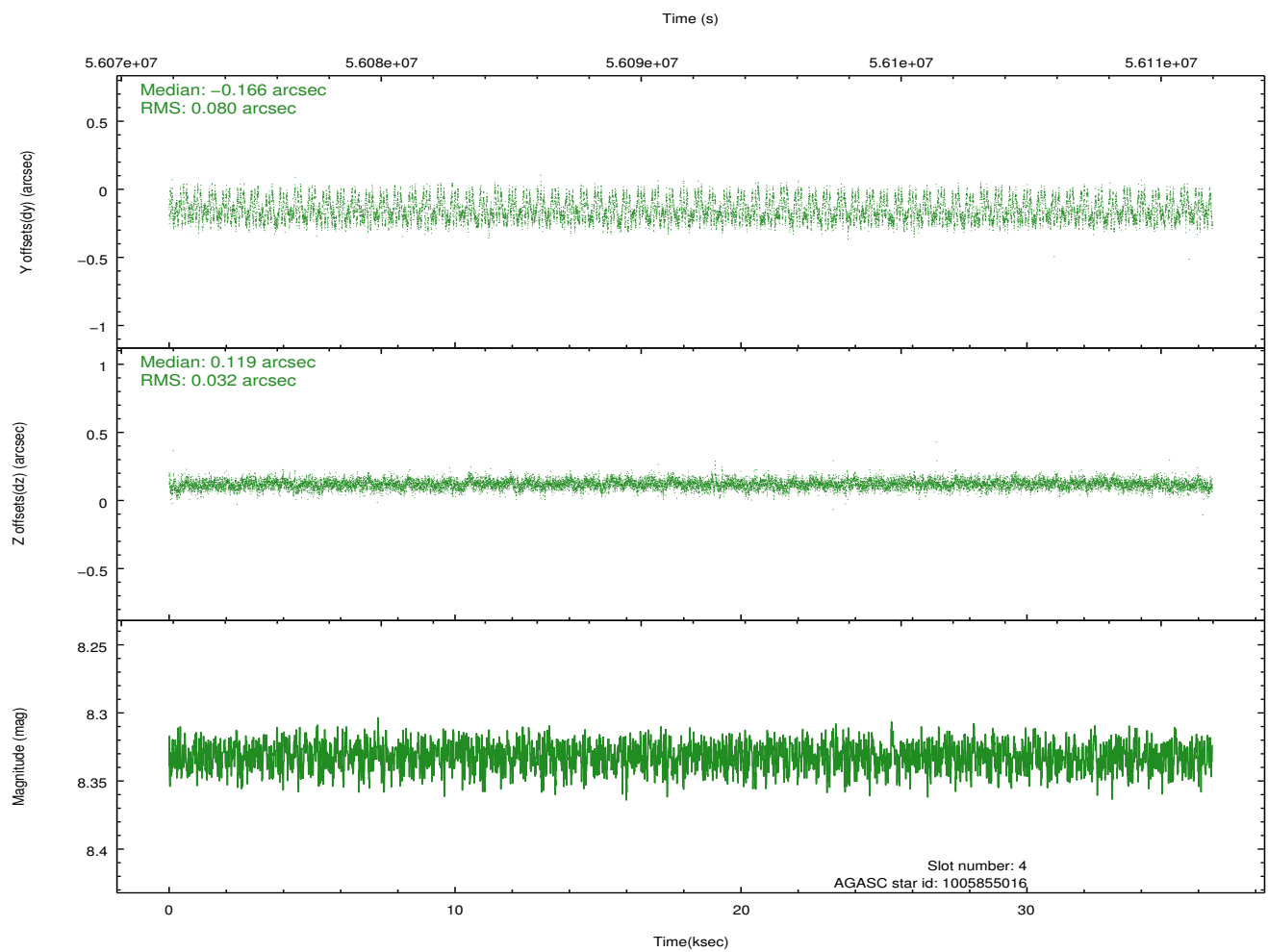
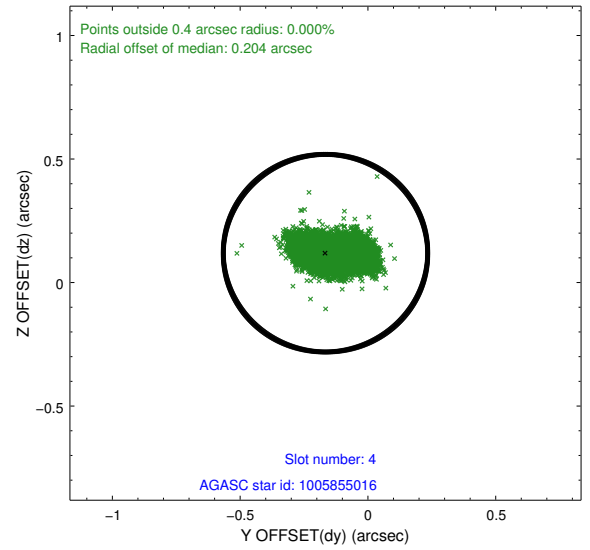
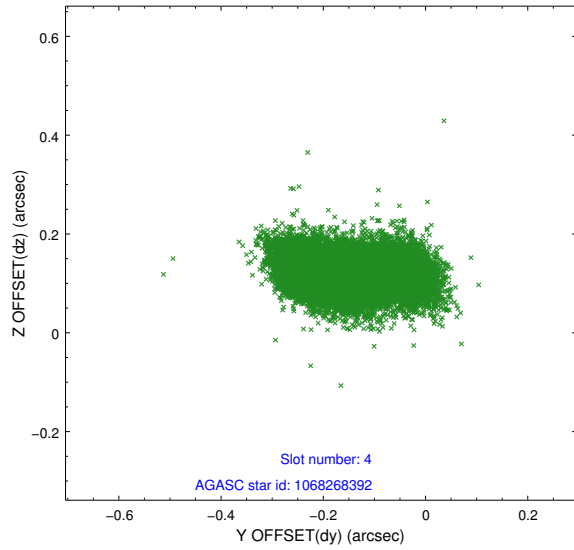
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	17797	0.016	-0.007	0.007	0.012	0.000000	0.000000	-752.41	-1724.47
1	FID	ACIS-S-4	7.21	17796	0.041	-0.006	0.006	0.011	0.000000	0.000000	2161.00	183.97
2	FID	ACIS-S-5	7.24	17796	-0.089	0.022	0.007	0.012	0.000000	0.000000	-1805.36	177.75
3	GUIDE	1068268392	6.96	17791	0.063	-0.053	0.061	0.107	128.257754	-45.752904	-1696.76	1875.42
4	GUIDE	1005855016	8.33	17792	-0.166	0.119	0.092	0.155	129.483009	-44.485796	2194.45	-2042.45
5	GUIDE	1005868872	9.13	17790	-0.048	0.039	0.070	0.117	128.945114	-44.744416	1547.34	-510.43
6	GUIDE	1068270344	8.54	17790	0.108	-0.111	0.100	0.161	128.097487	-45.785157	-1738.24	2292.15
7	GUIDE	1068399176	9.09	17787	0.046	0.007	0.070	0.115	129.539137	-45.338406	-843.07	-1579.10

## 2.4 Star Slots

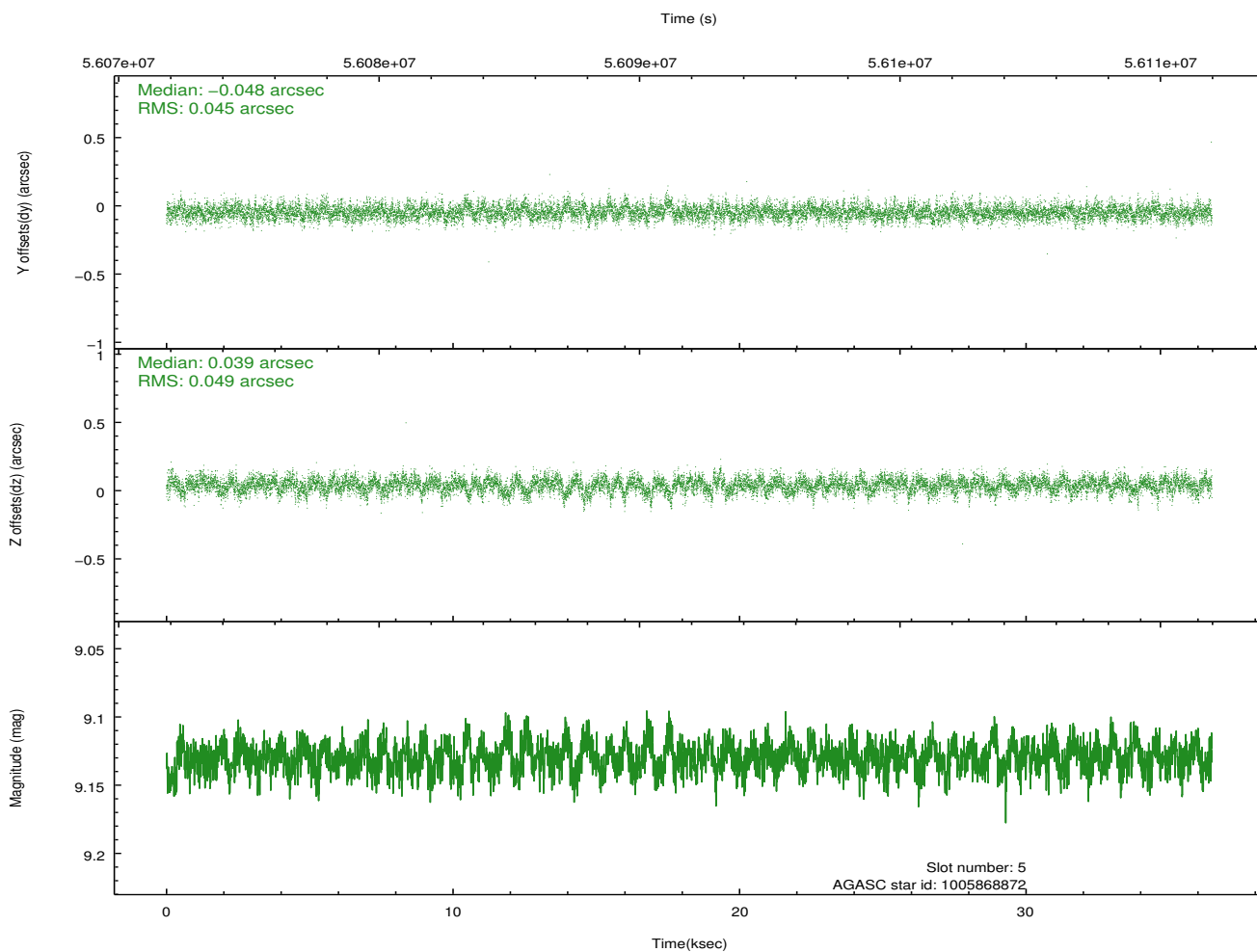
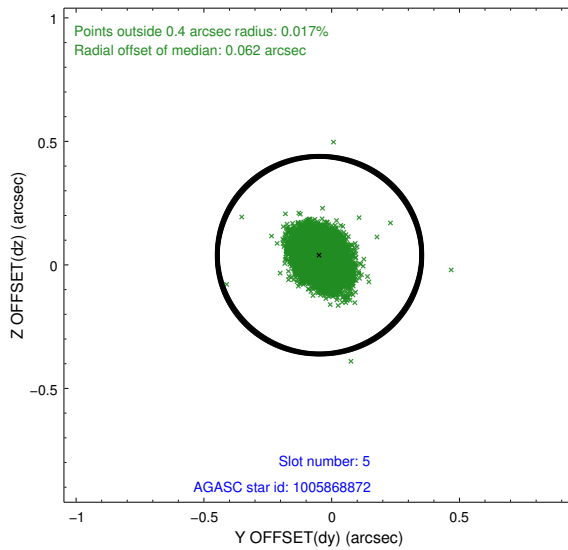
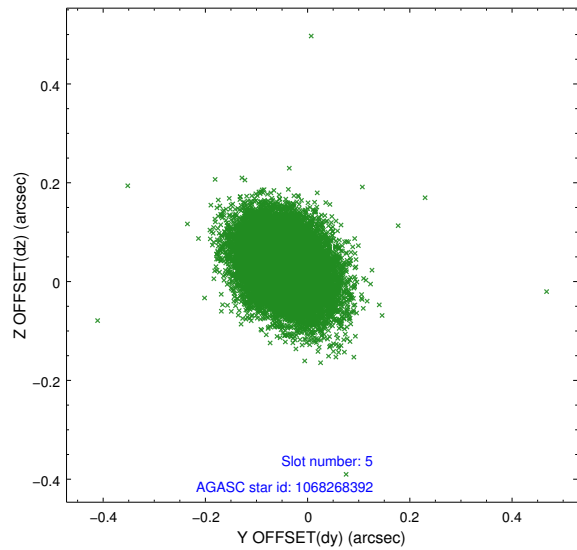
### 2.4.1 Slot 3



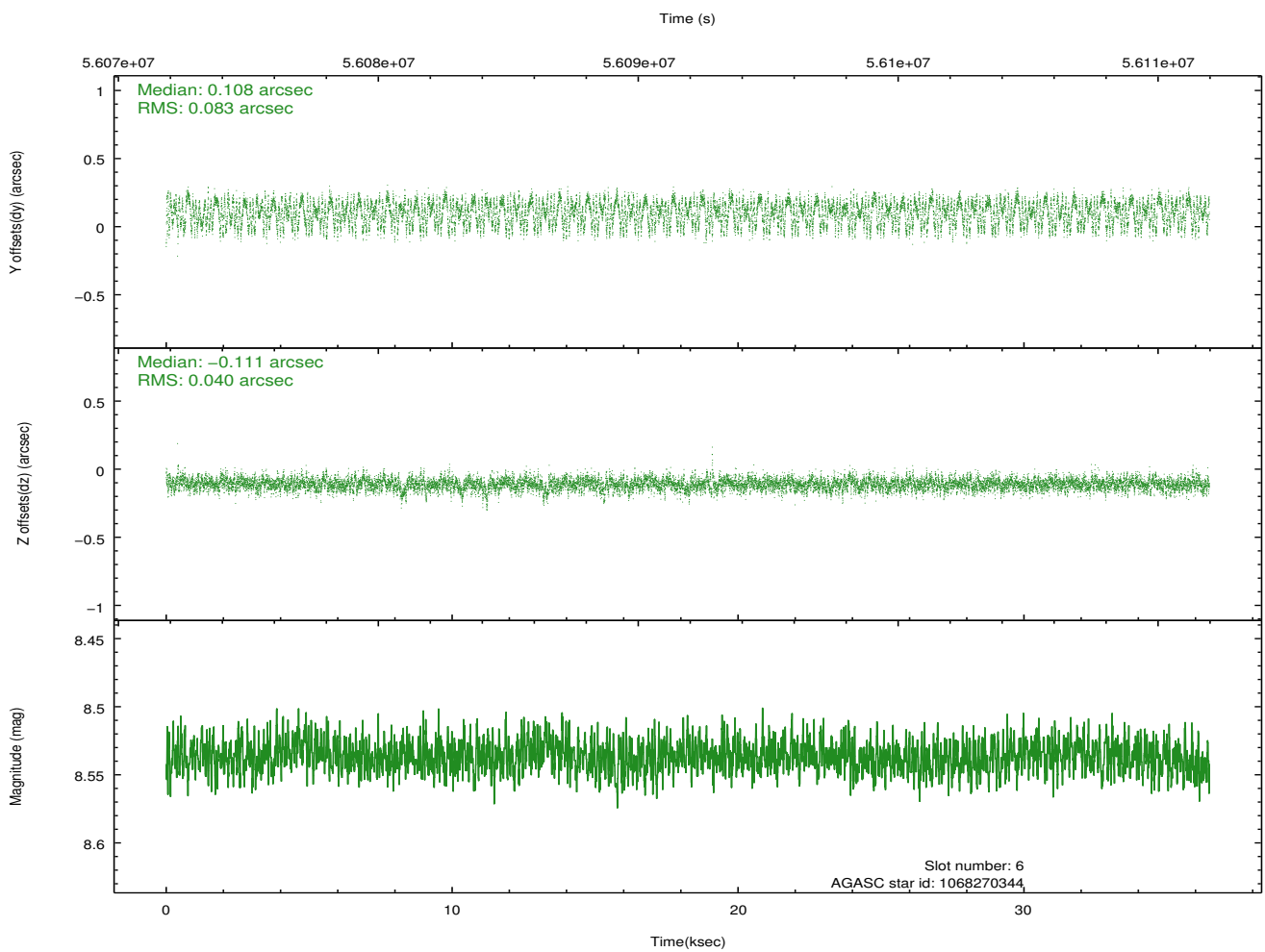
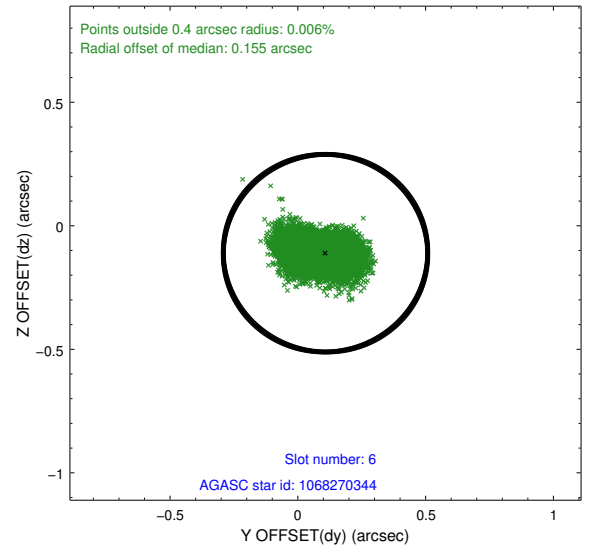
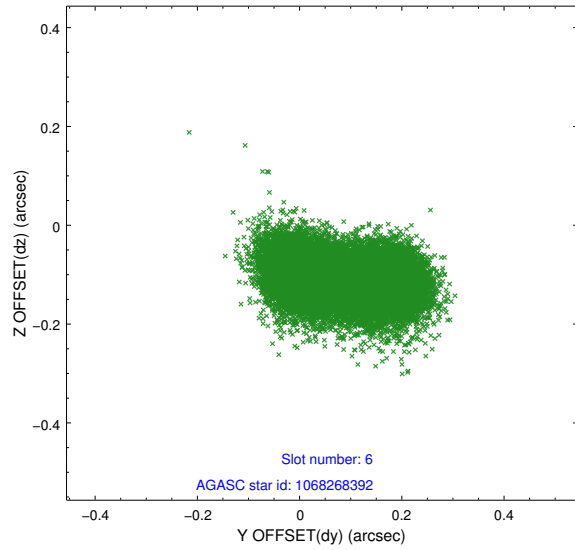
## 2.4.2 Slot 4



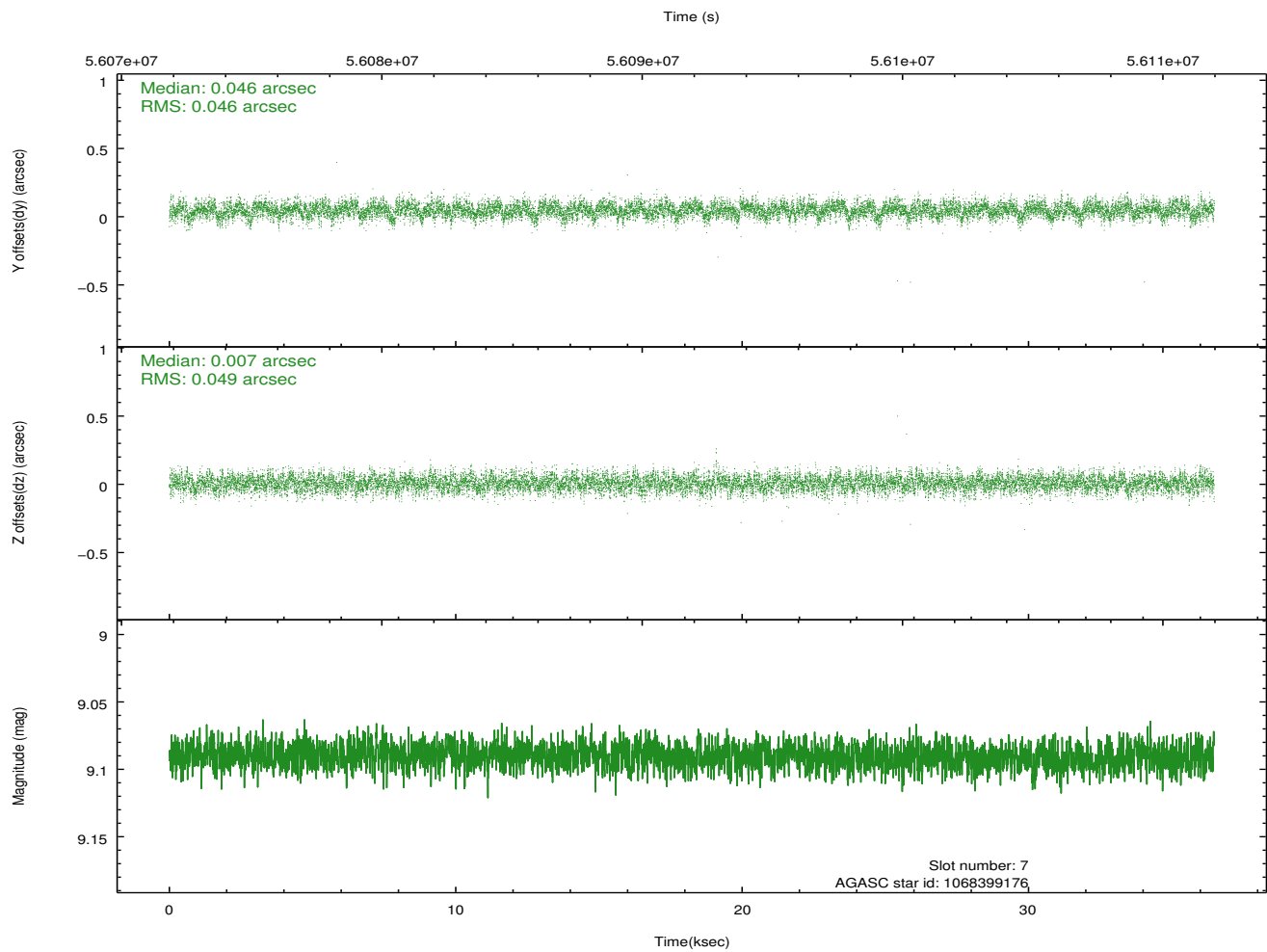
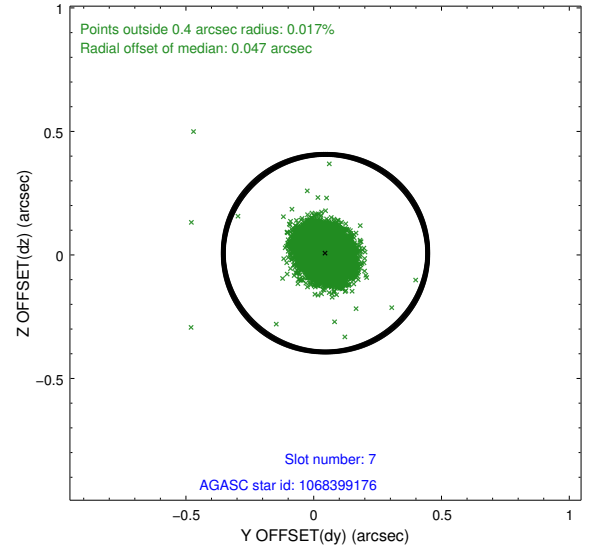
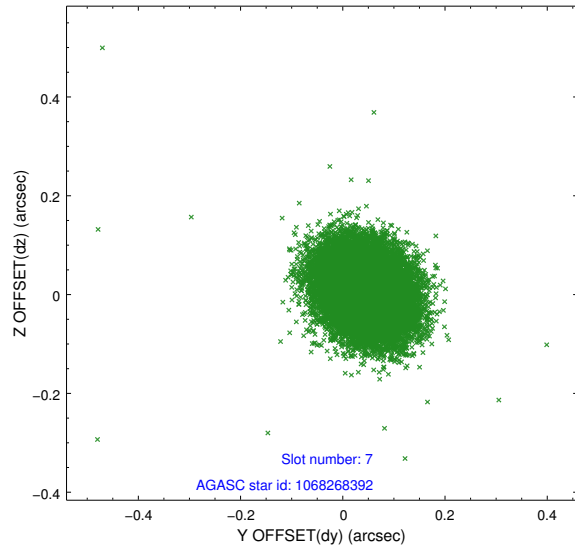
### 2.4.3 Slot 5



## 2.4.4 Slot 6

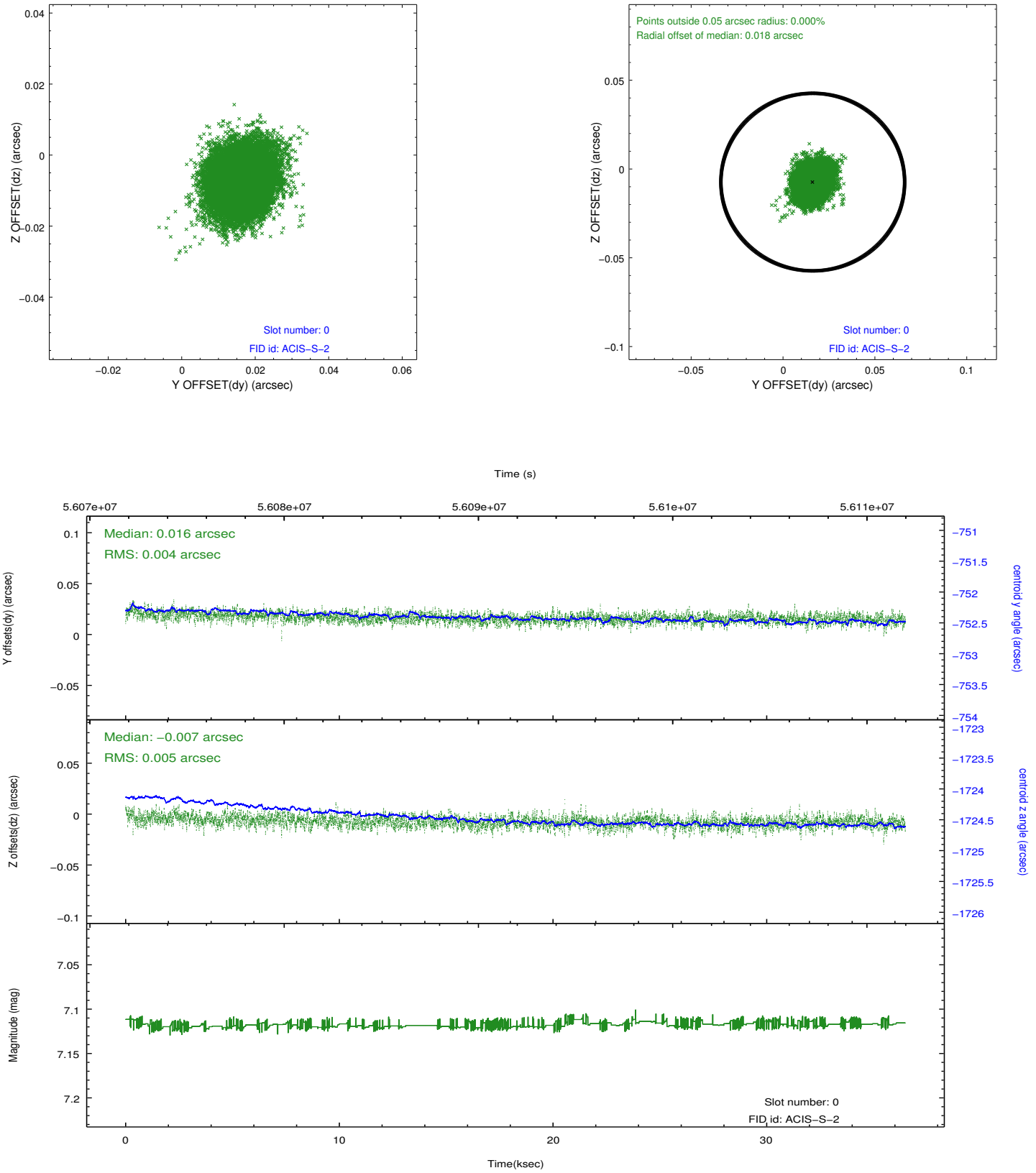


## 2.4.5 Slot 7

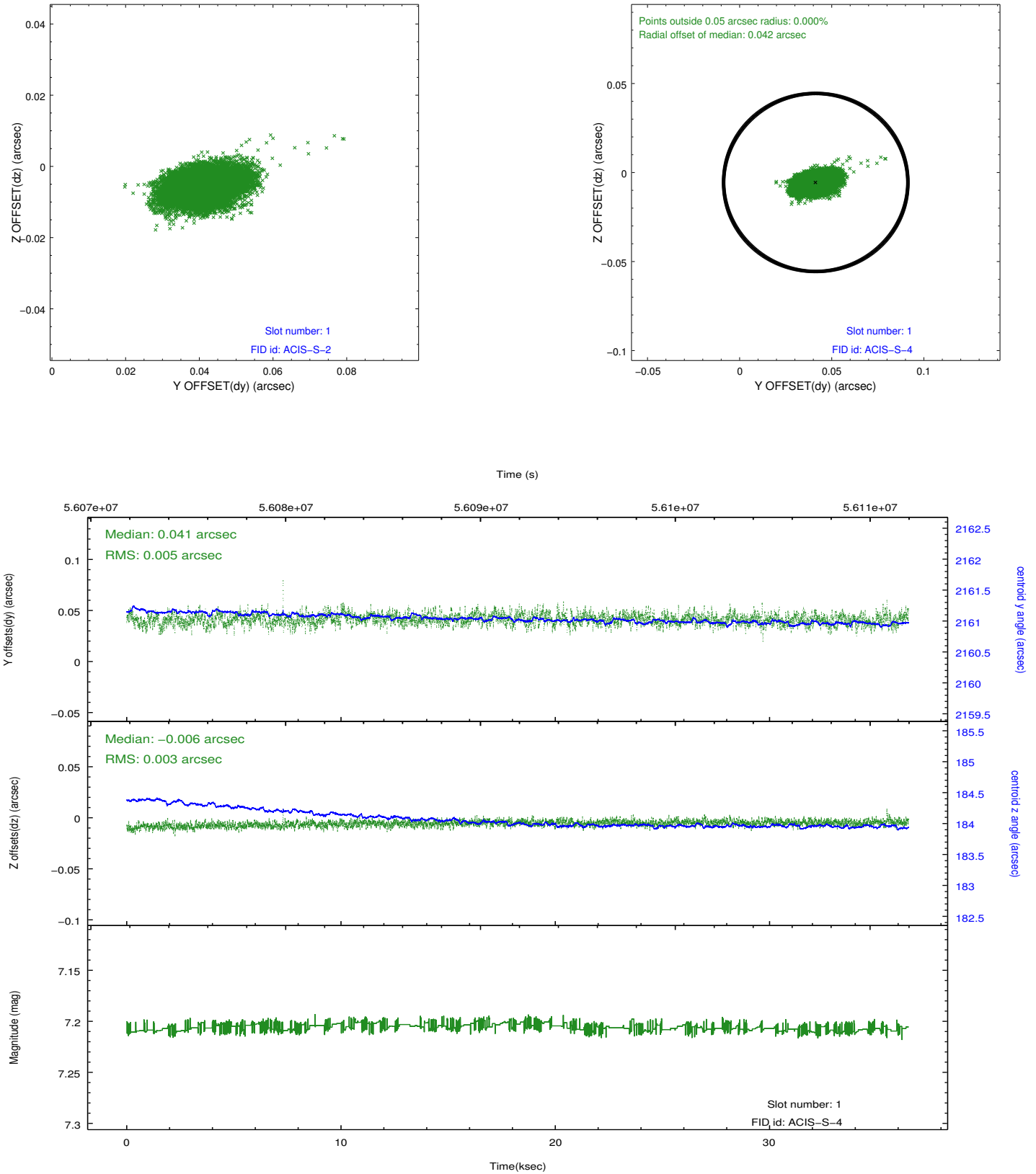


## 2.5 FID Slots

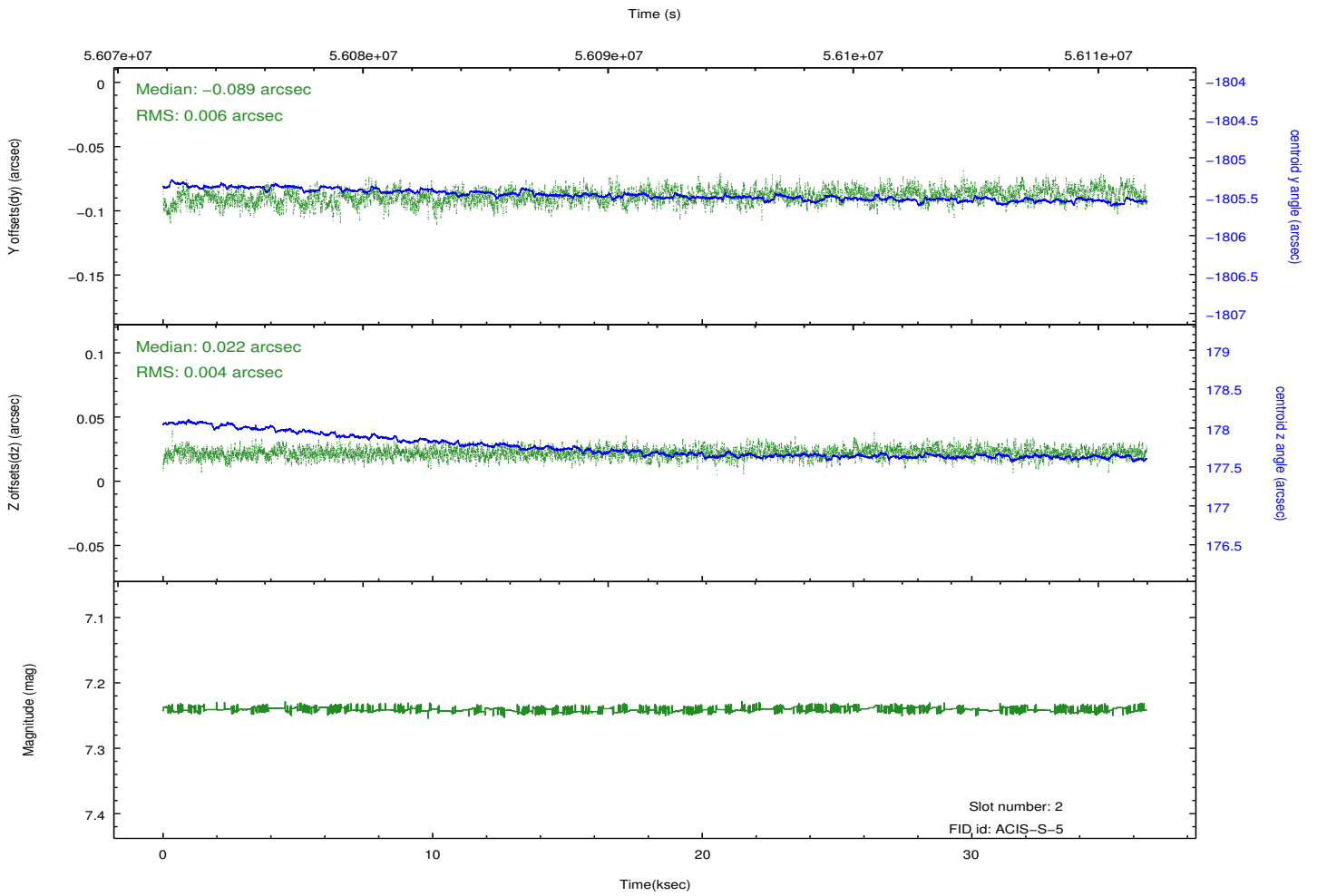
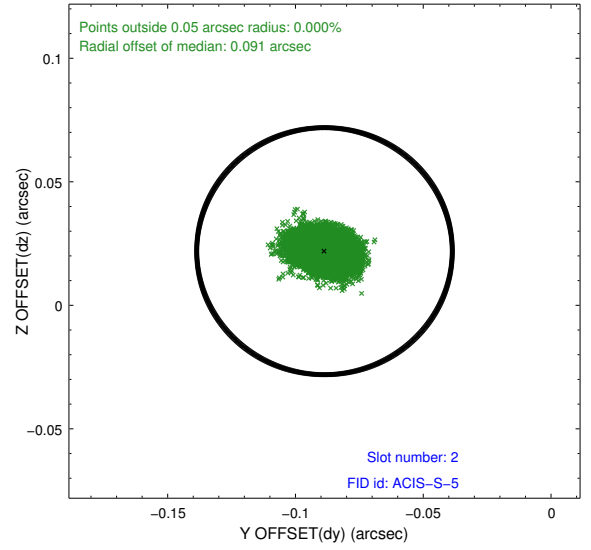
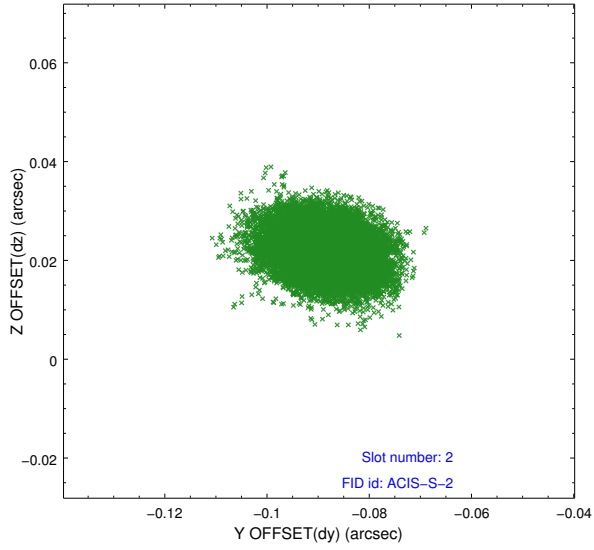
### 2.5.1 Slot 0



## 2.5.2 Slot 1

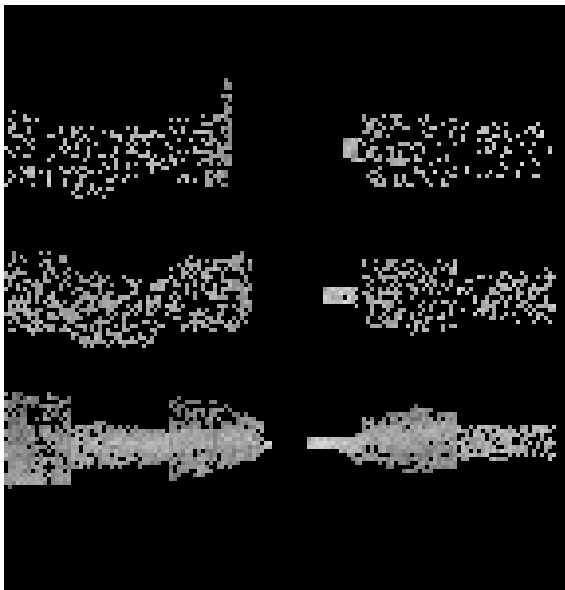


### 2.5.3 Slot 2

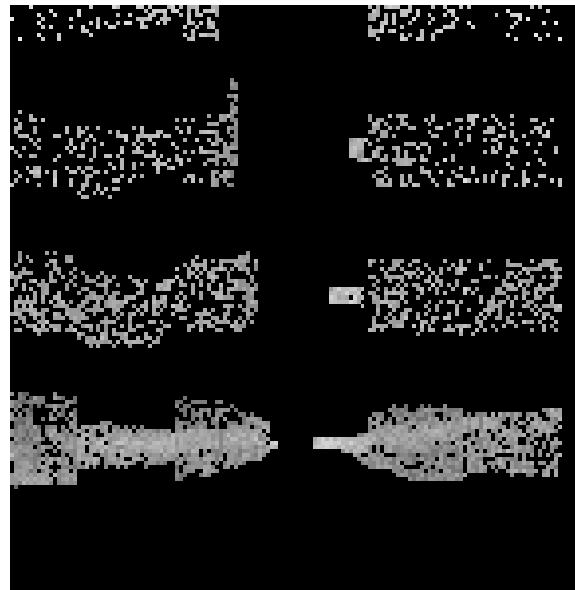


# 3 Gratings

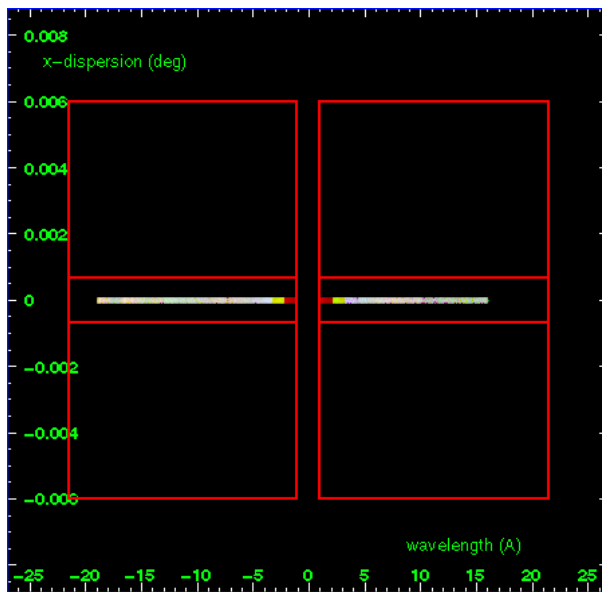
## 3.1 HEG Arm



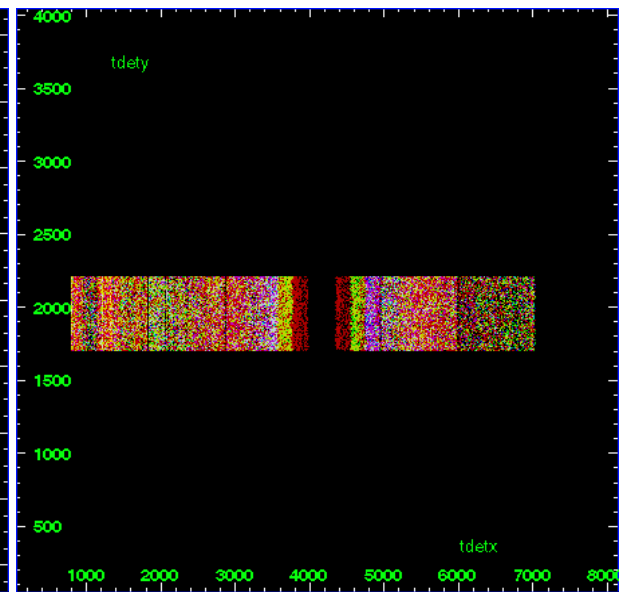
HEG Order Sort 123



HEG Order Sort ALL

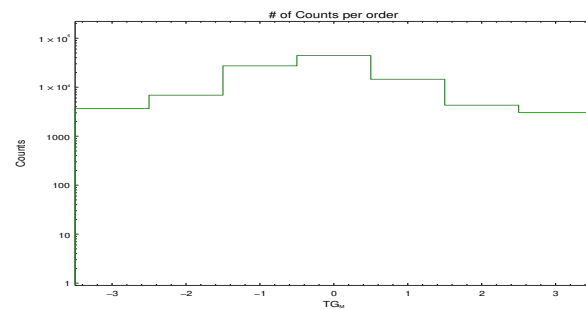


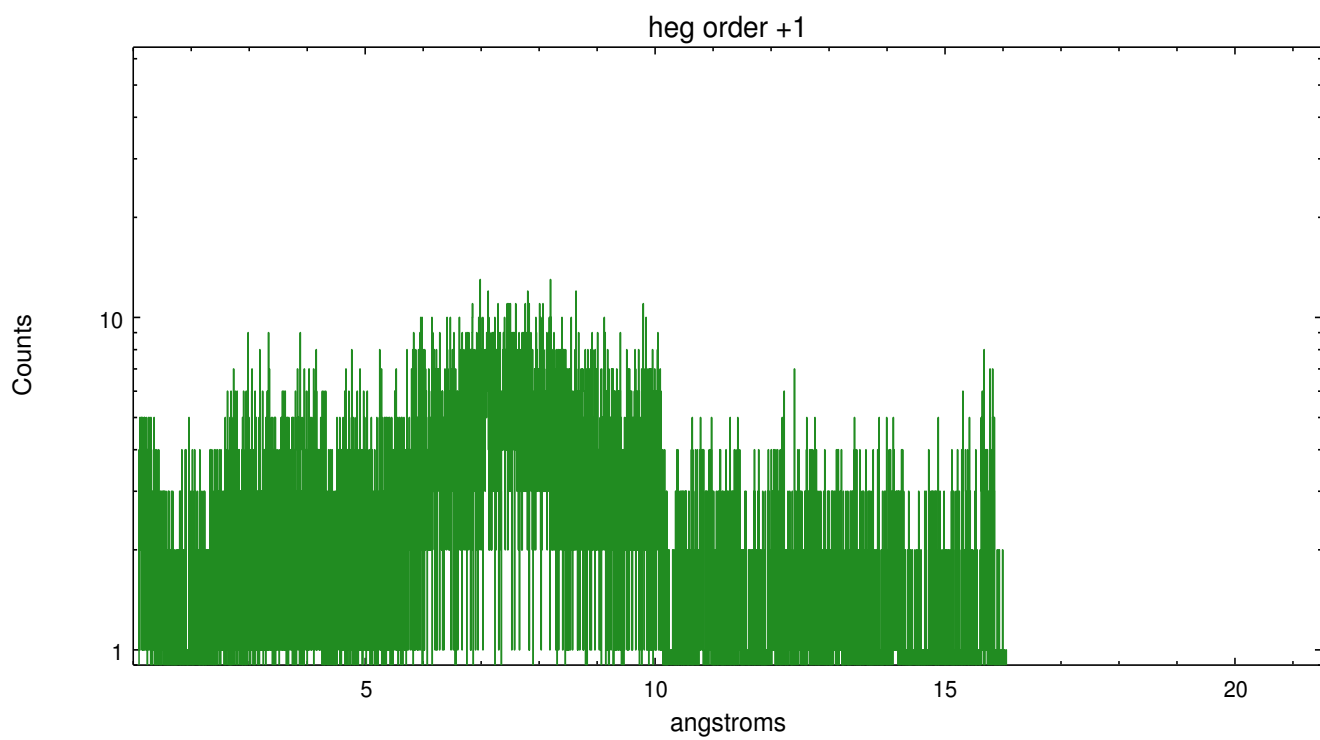
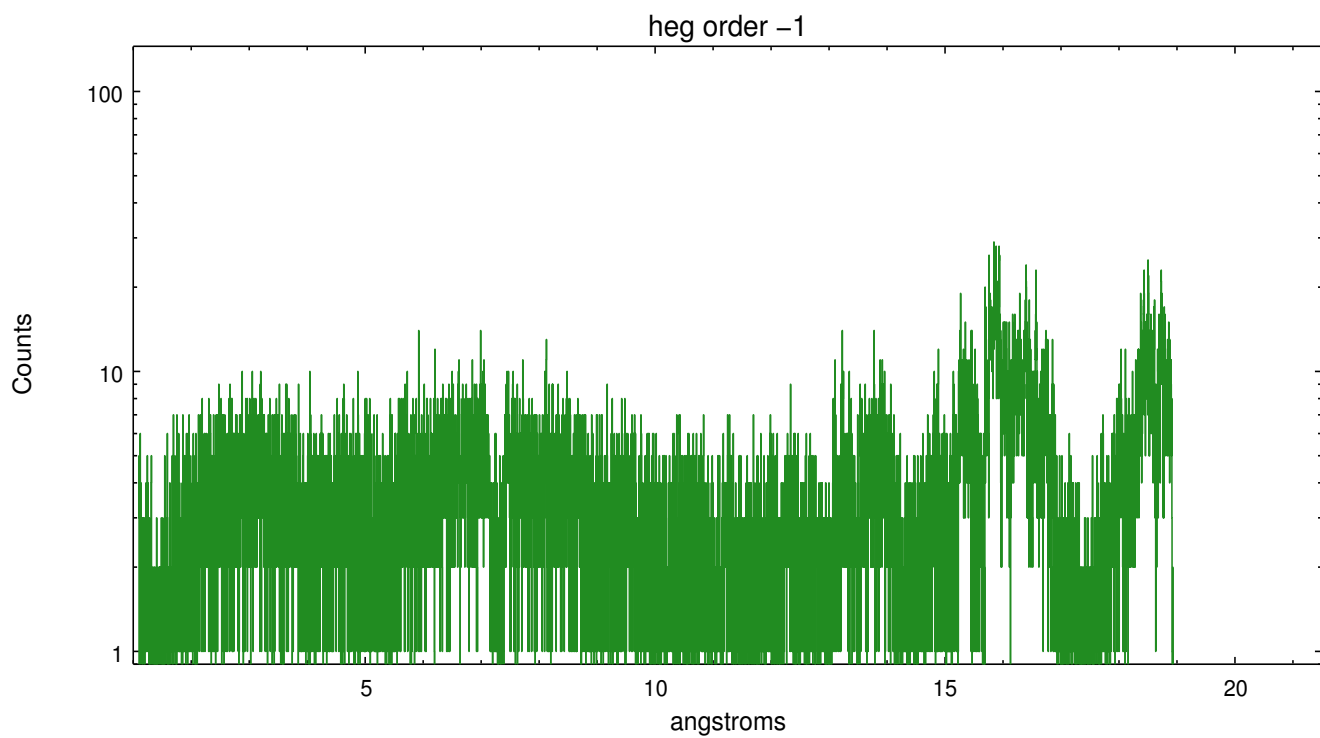
Spot Image HEG



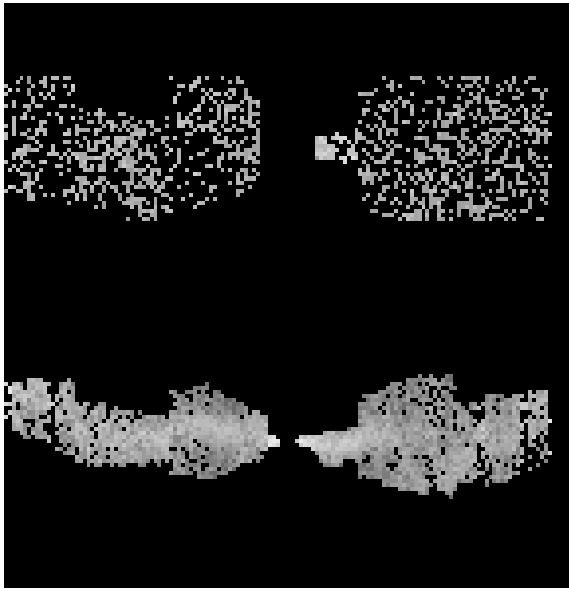
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3658	6870	27282	44189	14528	4295	3055

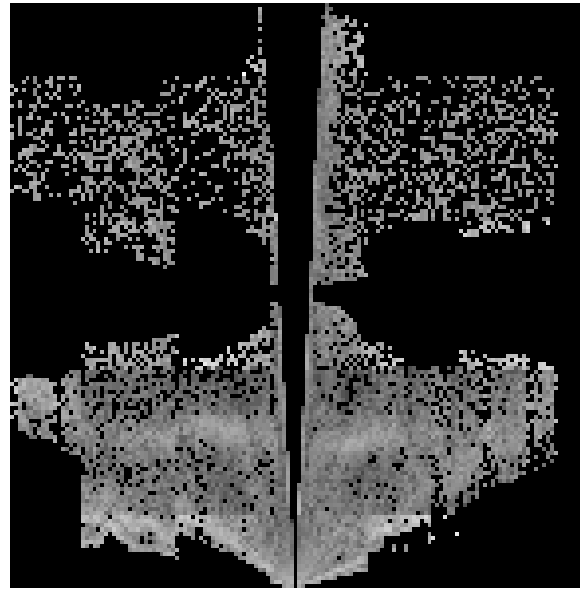




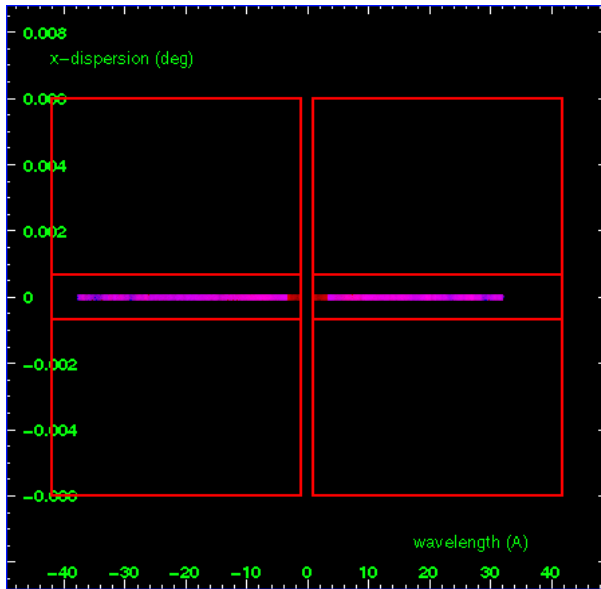
### 3.2 MEG Arm



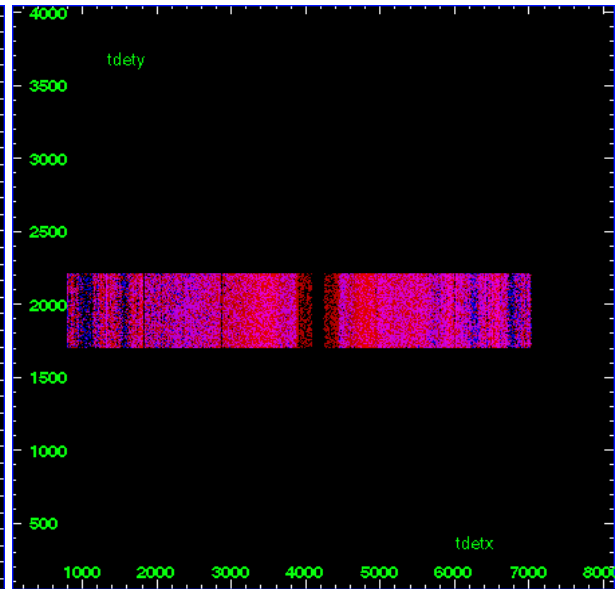
MEG Order Sort 123



MEG Order Sort ALL

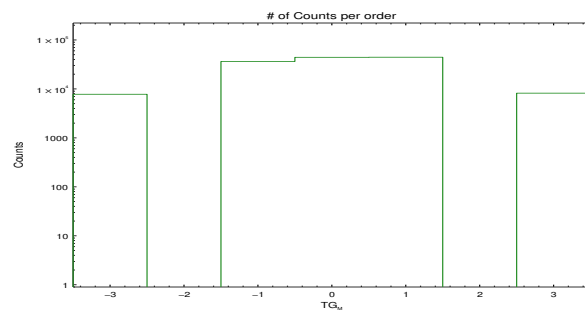


Spot Image MEG

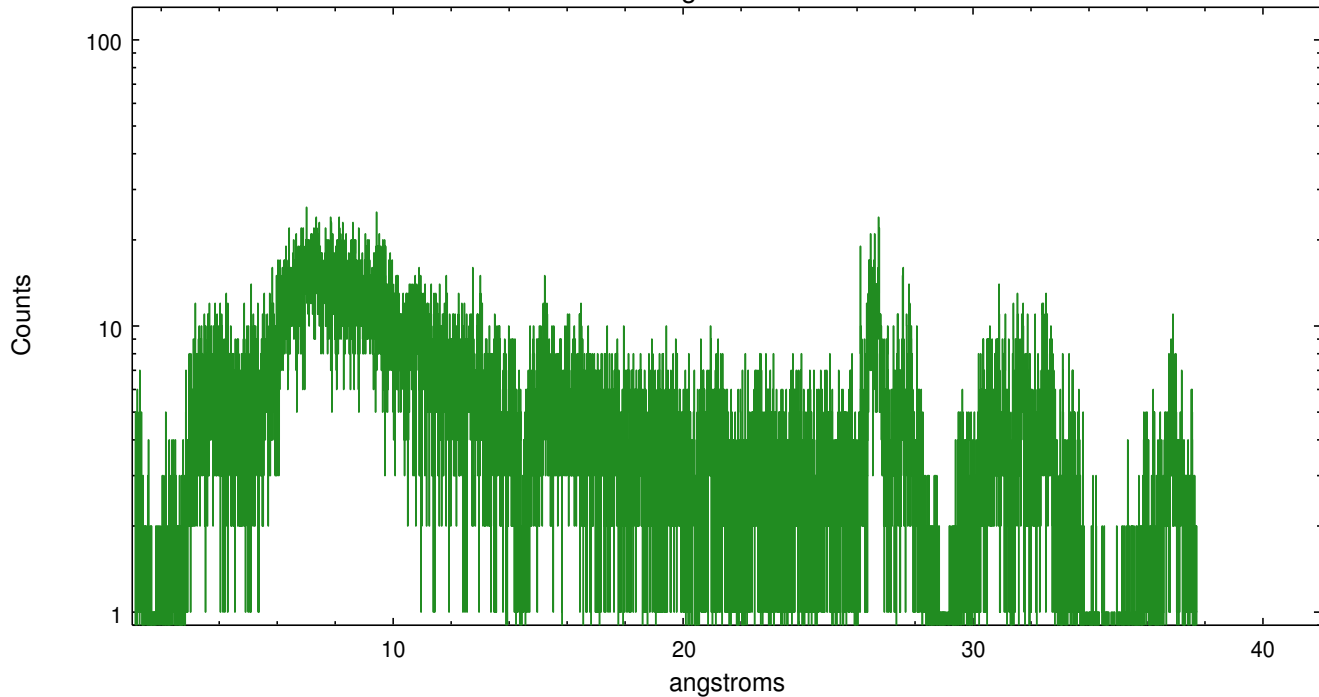


Full Detector MEG

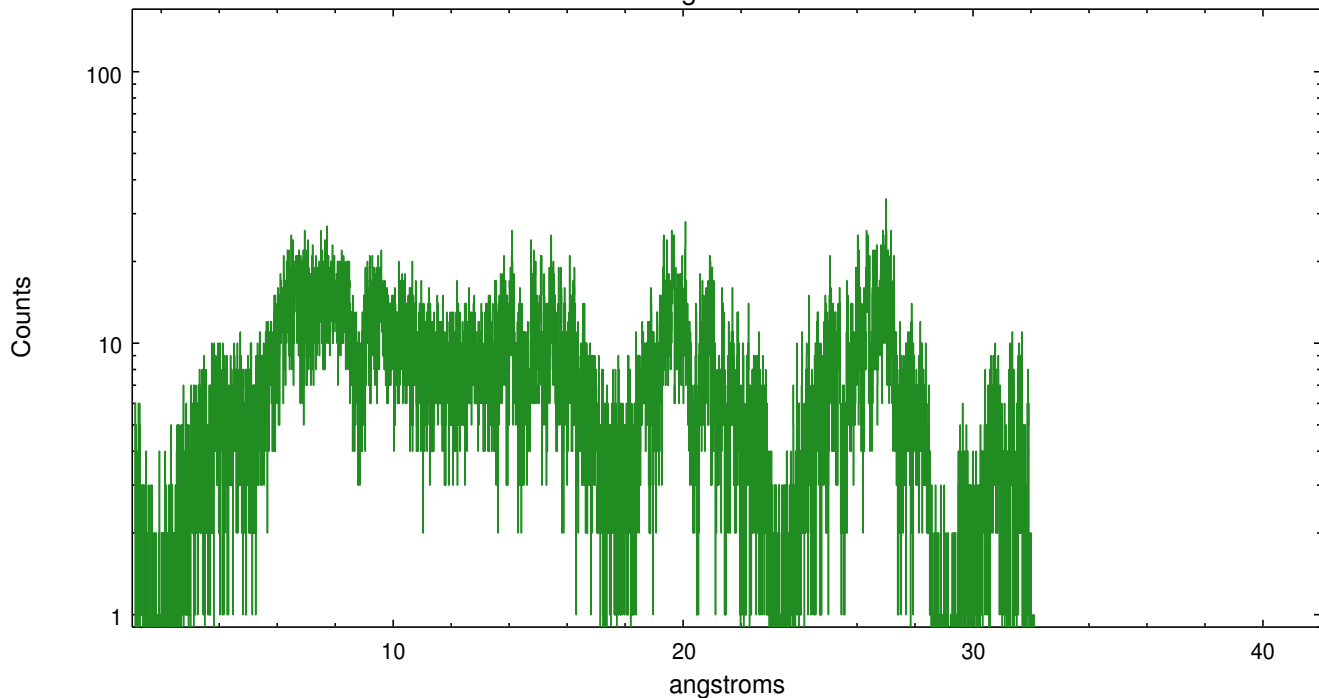
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	7774	0	36340	44189	44389	0	8190



meg order -1



meg order +1



# A Summary

## A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2009.11.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.088

## A.2 Comments