

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3016 - L2 Version 3  
Chandra X-Ray Center

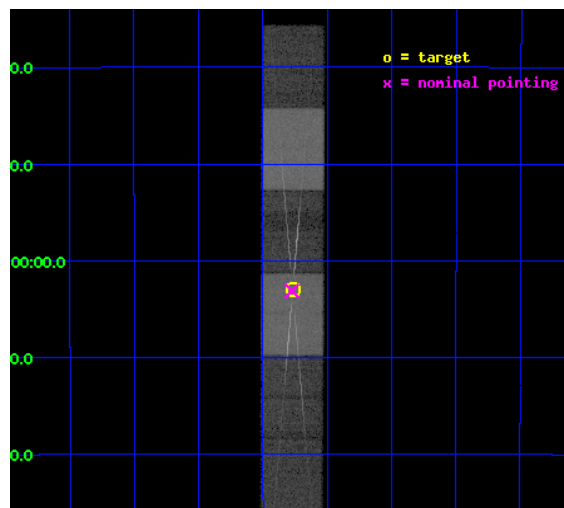
L2 Processing Date : Oct 11 2012

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# 1 Front

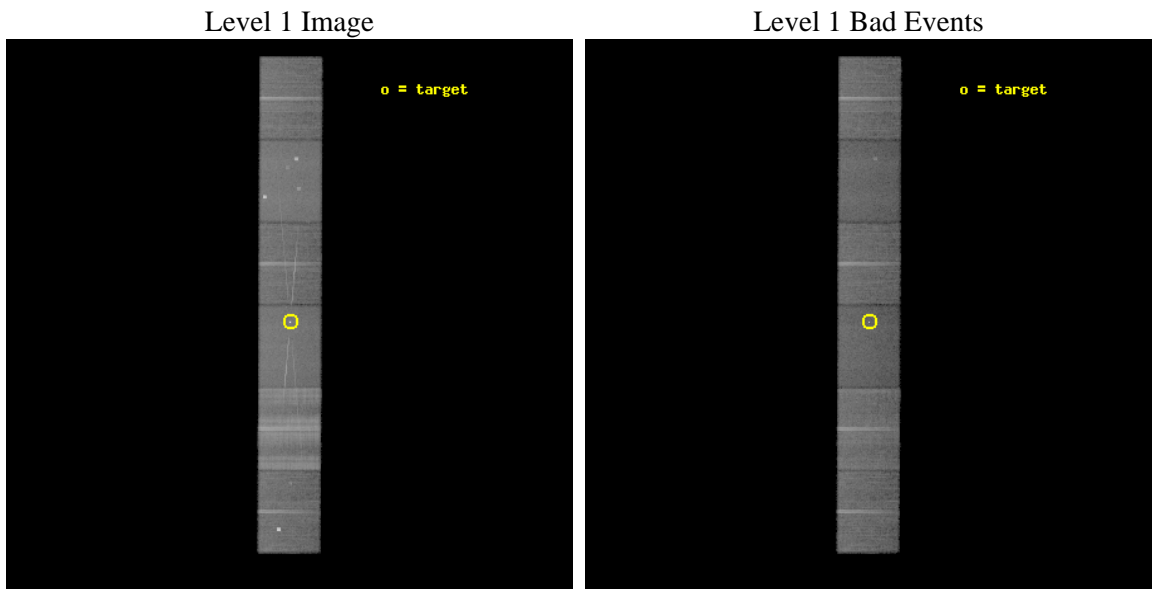
seq_num	700455	Sequence number
obs_id	3016	Observation id
title	DECONVOLUTION OF THE RELATIVISTIC FE-K LINES IN ACTIVE GALAXIES AND PHYSICS FROM THE NARROW EMISSION COMPONENT	Proposal title
observer	Dr. Tahir Yaqoob	Principal investigator
object	NGC 7314	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	338.942083	Observer's specified target RA [deg]
dec_targ	-26.050611	Observer's specified target Dec [deg]
ra_nom	338.94393862446	Nominal RA [deg]
dec_nom	-26.052071982877	Nominal Dec [deg]
roll_nom	90.202258039655	Nominal Roll [deg]
revision	3	Processing version of data
ontime	28875.0	Sum of GTIs [s]
livetime	28408.64370494	Livetime [s]
ontime4	28875.0	Sum of GTIs [s]
ontime5	28875.0	Sum of GTIs [s]
ontime6	28875.0	Sum of GTIs [s]
ontime7	28875.0	Sum of GTIs [s]
ontime8	28875.0	Sum of GTIs [s]
ontime9	28875.0	Sum of GTIs [s]
l2events	297907	Number of level 2 events



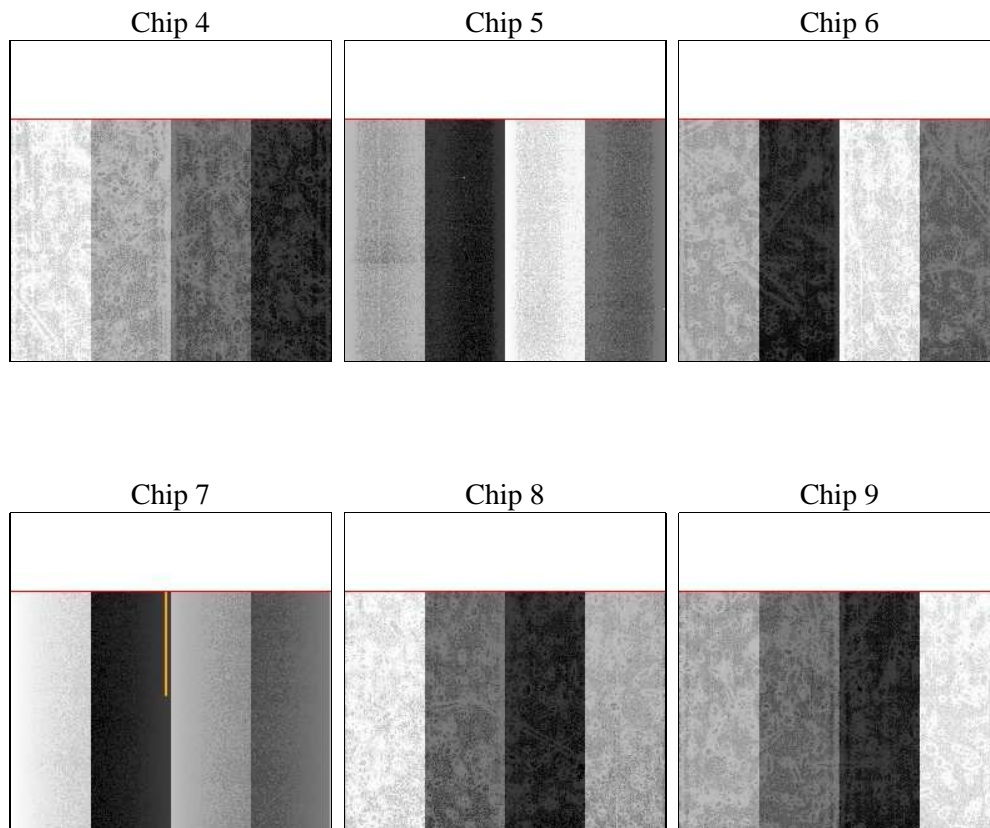
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	28702.686000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28875.0	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime4	28875.0	Sum of GTIs [s]
date	2012-10-11T15:55:33	Date and time of file creation	ontime5	28875.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	28875.0	Sum of GTIs [s]
			ontime7	28875.0	Sum of GTIs [s]
			ontime8	28875.0	Sum of GTIs [s]
			ontime9	28875.0	Sum of GTIs [s]
			l1events	1370935	Number of level 1 events

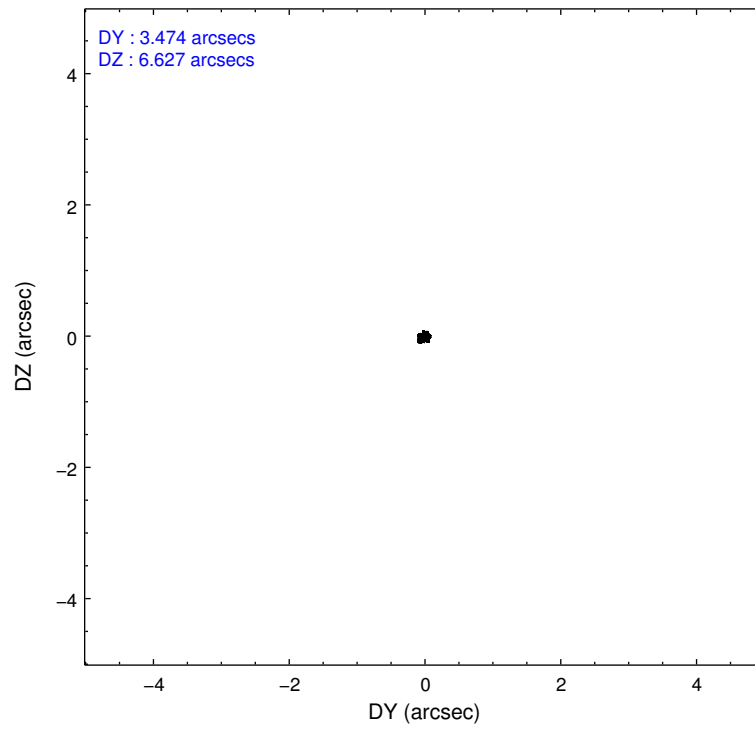
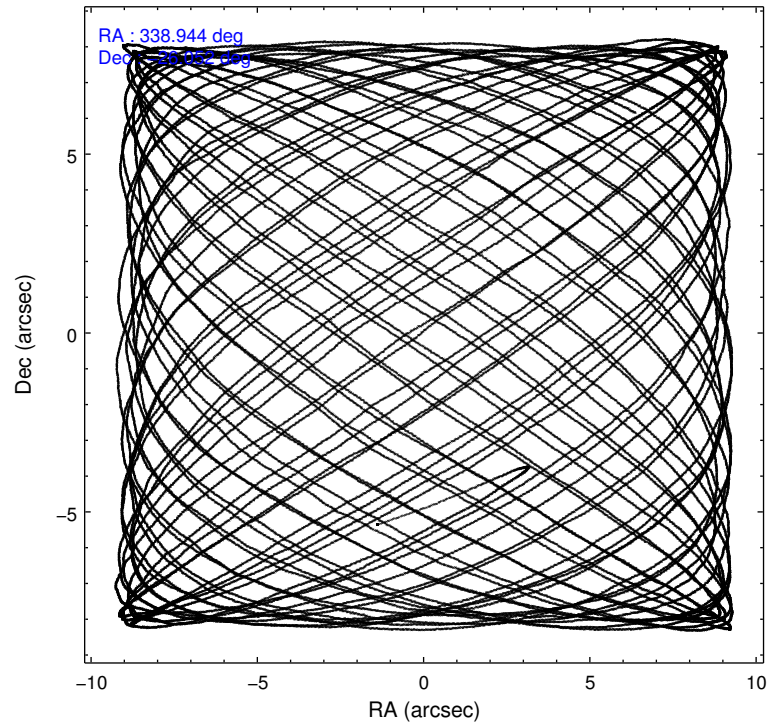
### 2.1.4 Events

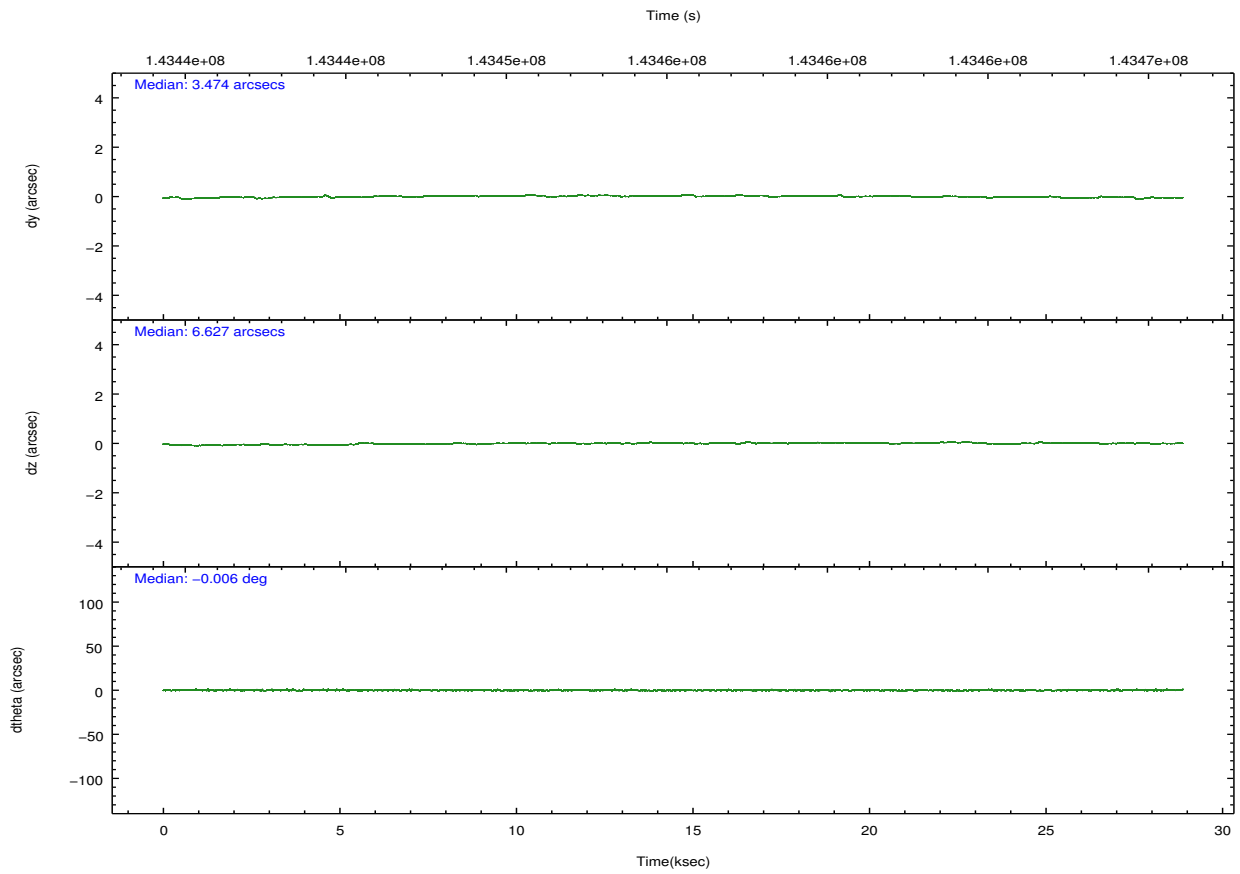
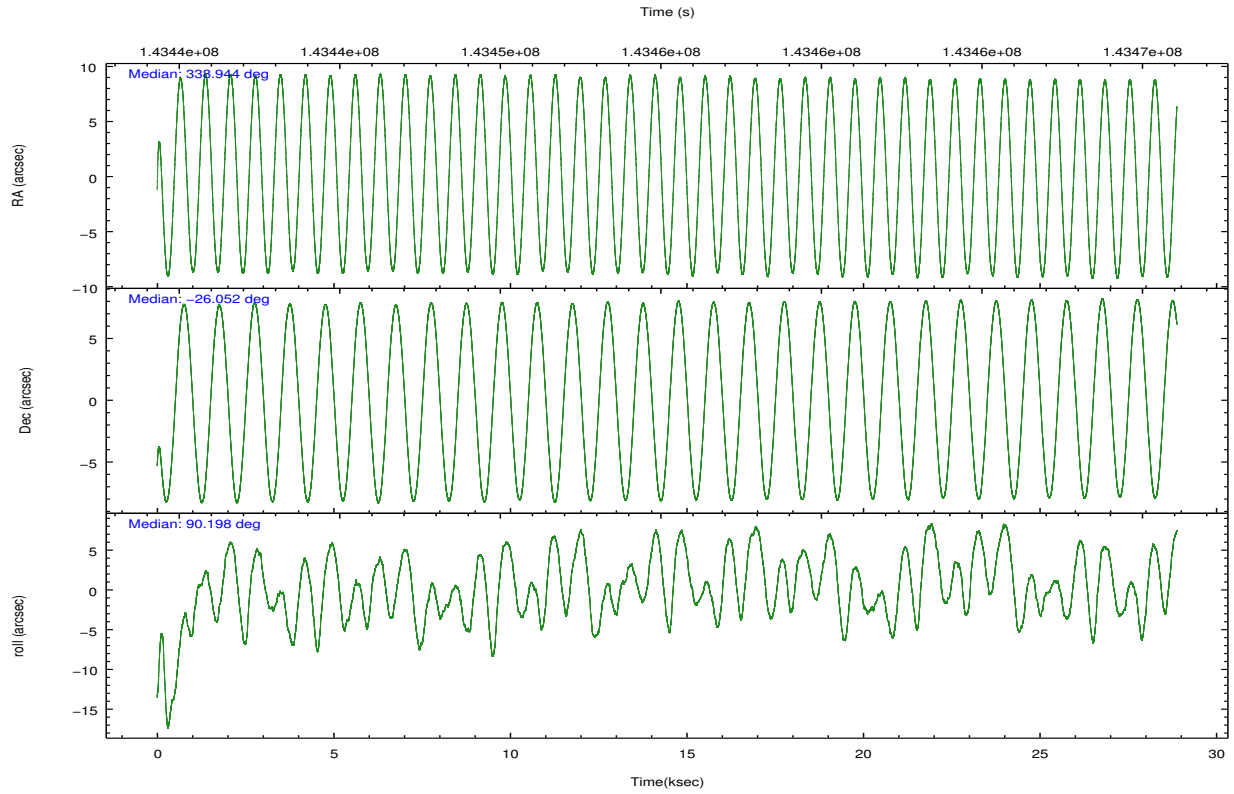
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	197288	236429	190663	220418	342371	183766	grade 0 events	13099	20106	15893	11368	49822	21586
rejected events	166054	119856	157602	116516	183223	147076		6%	8%	8%	5%	14%	11%
rejected %	84%	50%	82%	52%	53%	80%	grade 1 events	118	831	103	326	400	133
								0%	0%	0%	0%	0%	0%
							grade 2 events	8948	31826	7318	21946	23324	5993
								4%	13%	3%	9%	6%	3%
							grade 3 events	2154	5995	2419	10011	27878	2120
								1%	2%	1%	4%	8%	1%
							grade 4 events	2144	5863	2319	9799	23929	1990
								1%	2%	1%	4%	6%	1%
							grade 5 events	5522	17124	6203	19410	9645	6444
								2%	7%	3%	8%	2%	3%
							grade 6 events	4895	52794	5115	50792	34224	5003
								2%	22%	2%	23%	9%	2%
							grade 7 events	160408	101890	151293	96766	173149	140497
								81%	43%	79%	43%	50%	76%

## 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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	338.959545	338.9439386244592	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-26.075430	-26.05207198287683	Subarray start row	1	1
[deg] Pointing Roll	90.052492	90.20225803965502	Subarray row count	774	774
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	2.5
[mm] SIM translation stage pos	-187.132523	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
[s] Observation start time (MET)	143440927.184000	143439960.19846			
Observation start date	2002-07-19T04:41:03	2002-07-19T04:26:00			
[s] Observation end time (MET)	143469629.184000	143469944.01219			
Observation end date	2002-07-19T12:39:25	2002-07-19T12:45:44			
Read mode	TIMED	TIMED			

## 2.3 Aspect



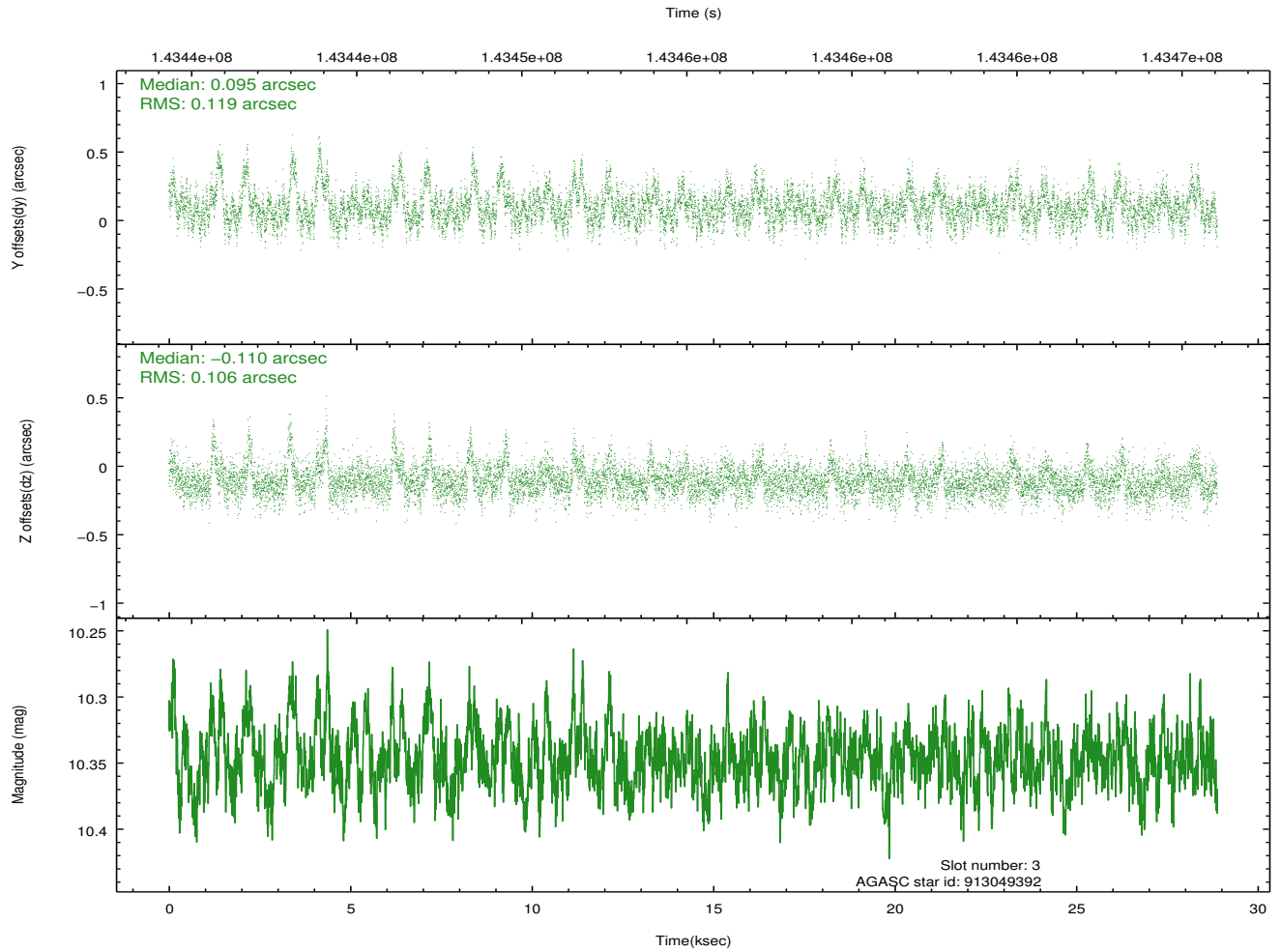
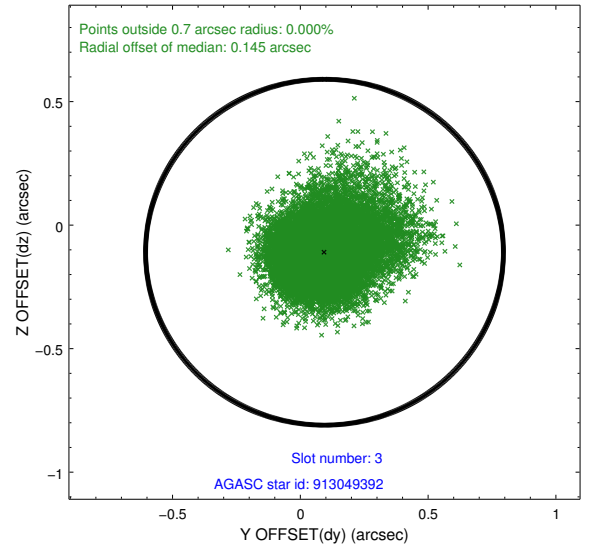
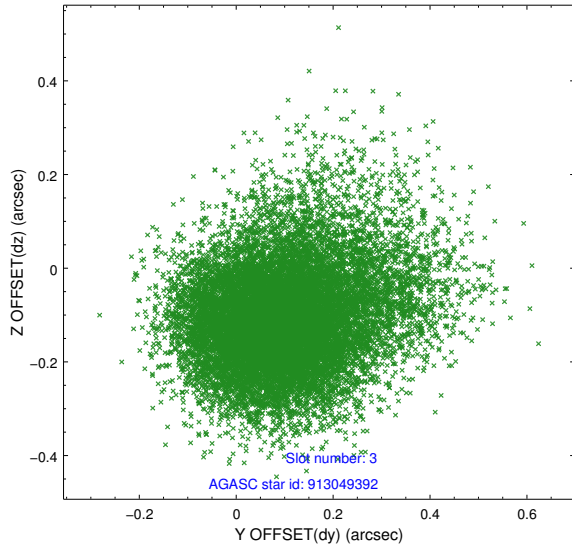


### Slot Statistics

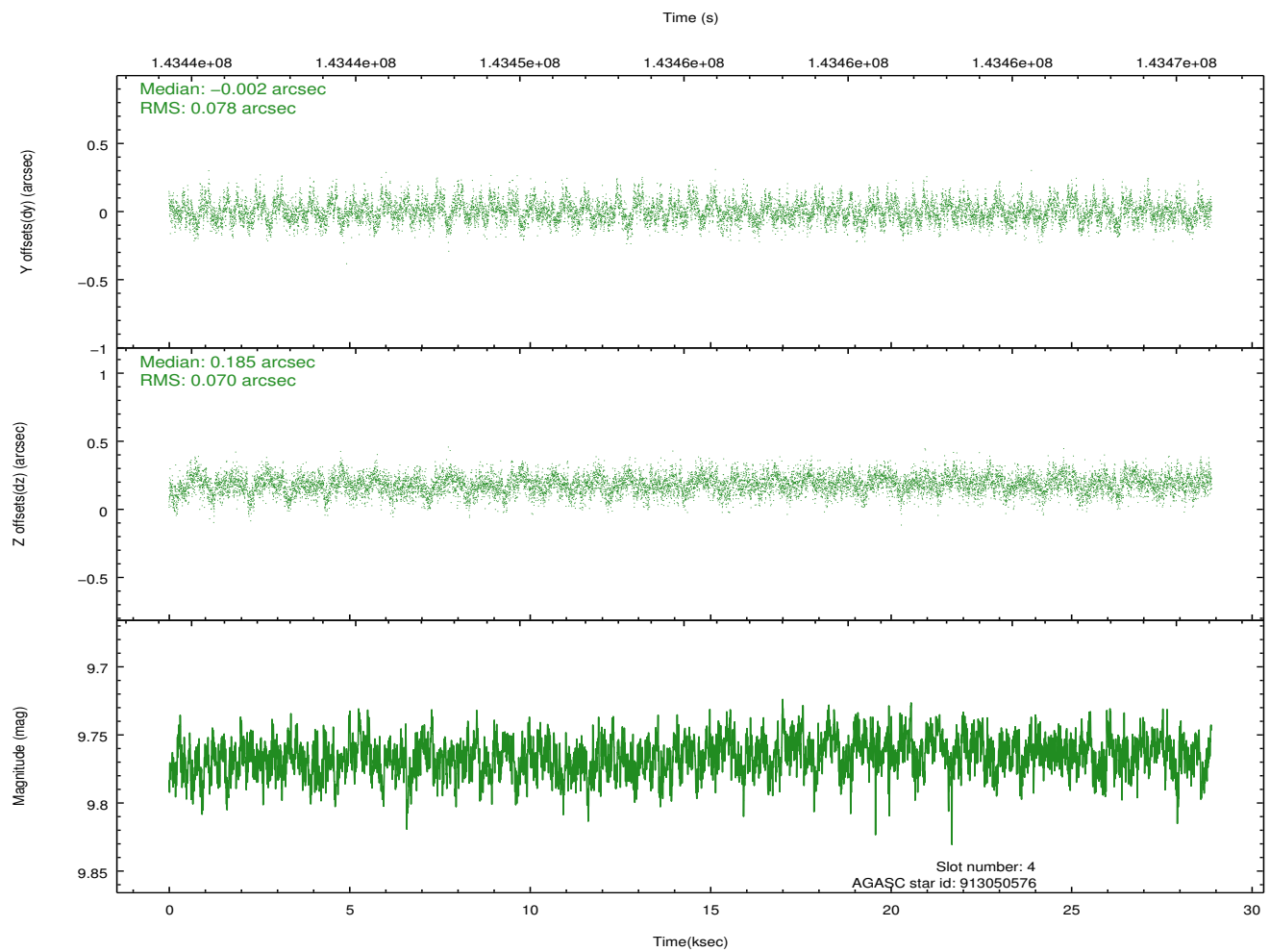
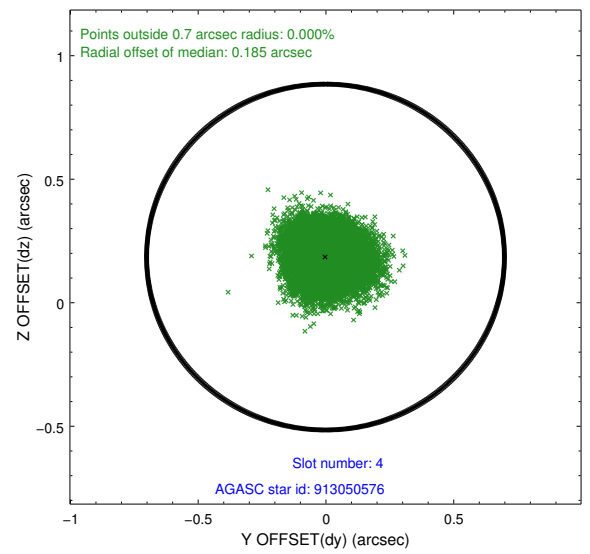
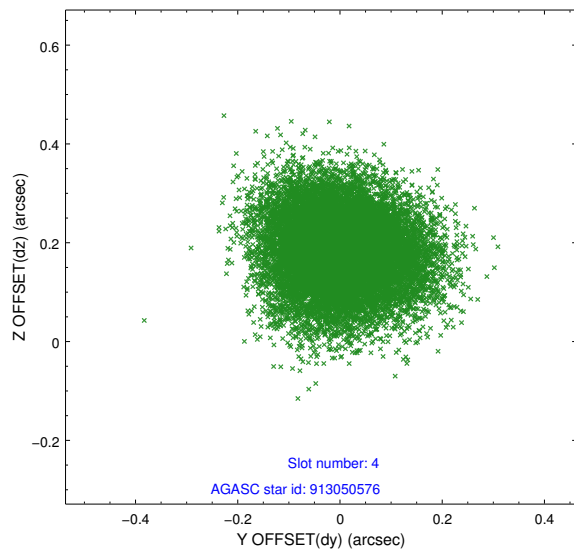
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	7045	0.017	0.055	0.006	0.011	0.000000	0.000000	940.15	-1785.48
1	FID	ACIS-S-5	7.24	7046	-0.043	0.033	0.006	0.011	0.000000	0.000000	-1808.87	111.94
2	FID	ACIS-S-6	7.38	7045	0.005	-0.076	0.007	0.011	0.000000	0.000000	405.59	755.90
3	GUIDE	913049392	10.35	14082	0.095	-0.110	0.163	0.289	338.305127	-26.229898	-560.13	2112.74
4	GUIDE	913050576	9.77	14082	-0.002	0.185	0.112	0.181	339.398805	-25.857774	779.40	-1424.32
5	GUIDE	913055744	9.70	14076	0.136	0.033	0.114	0.189	339.034663	-26.334108	-931.91	-242.59
6	GUIDE	913051736	9.91	14009	-0.025	-0.147	0.150	0.240	338.239401	-25.803806	972.77	2332.11
7	GUIDE	913047808	9.42	14080	-0.212	0.030	0.108	0.175	338.934868	-25.449672	2252.06	77.60

## 2.4 Star Slots

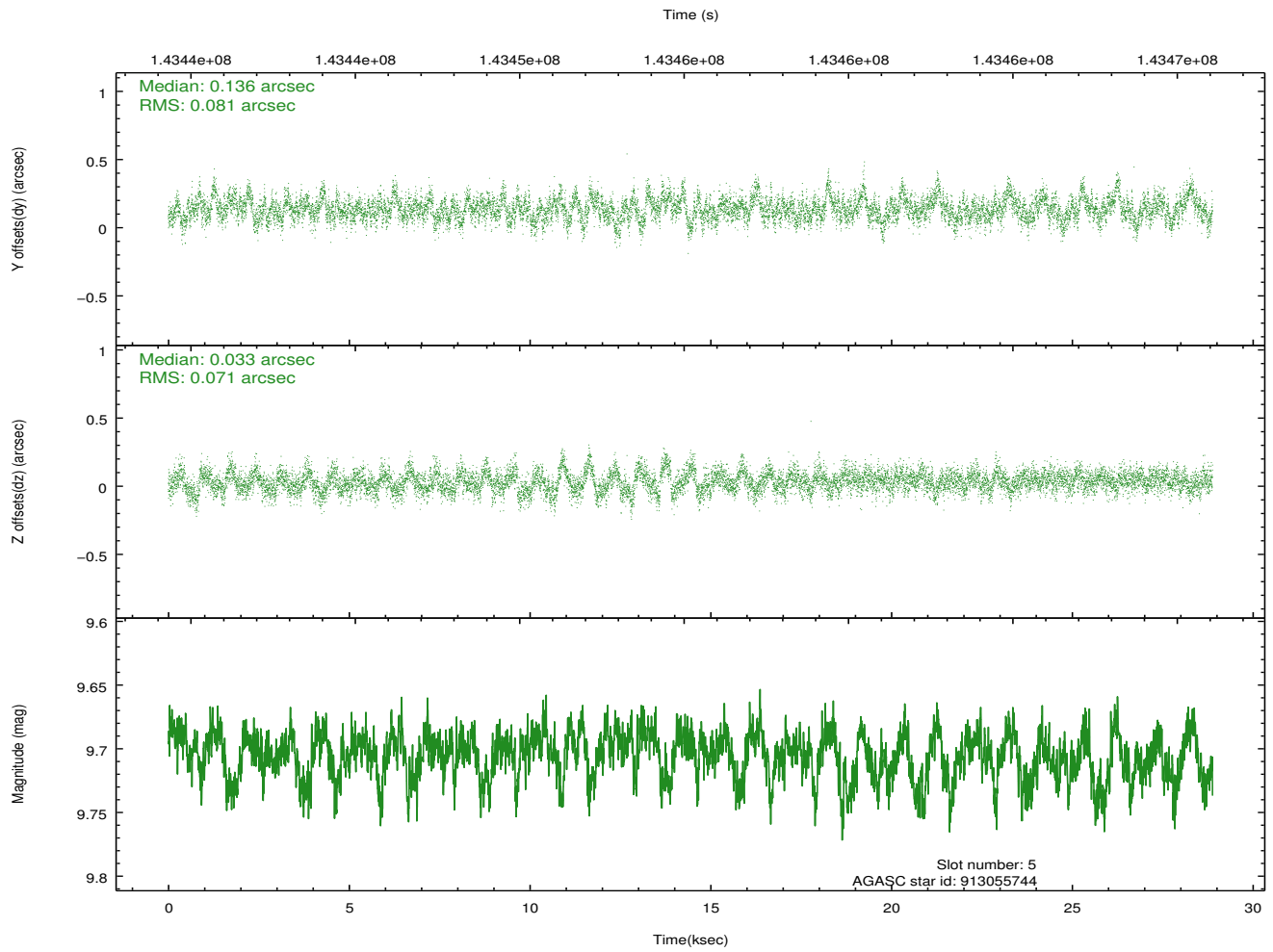
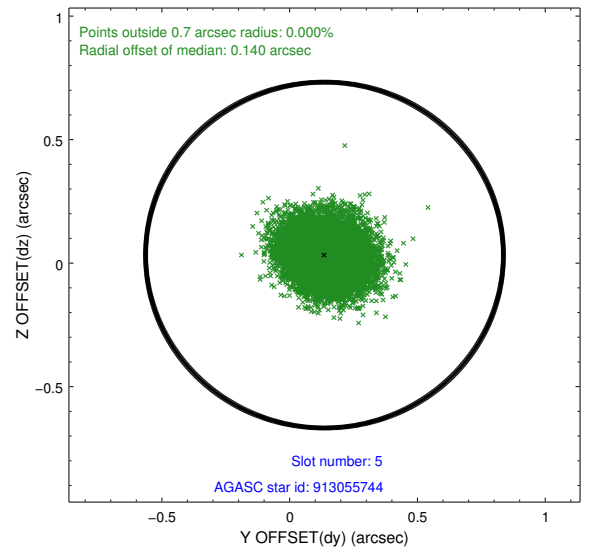
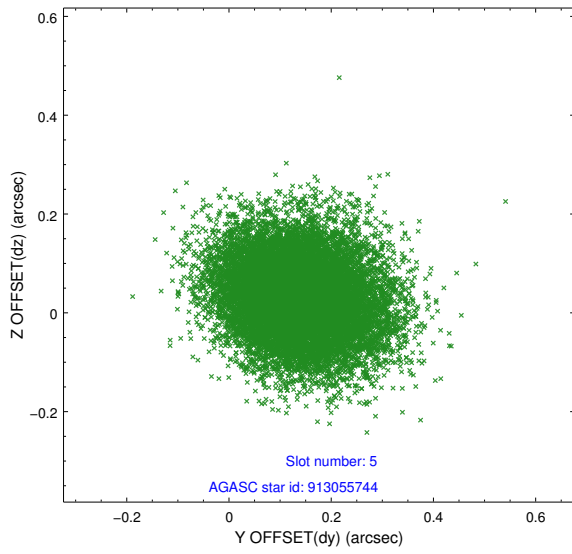
### 2.4.1 Slot 3



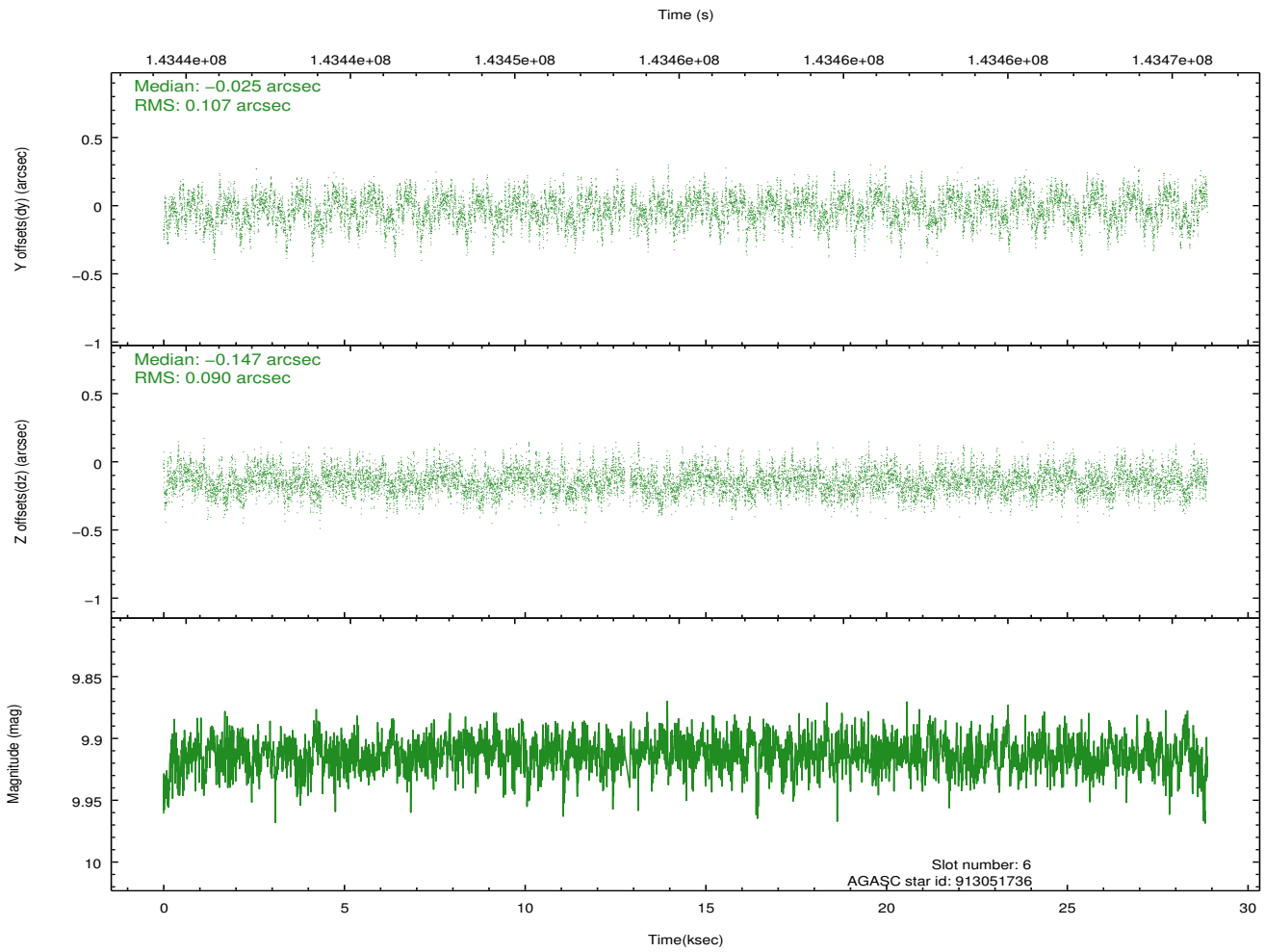
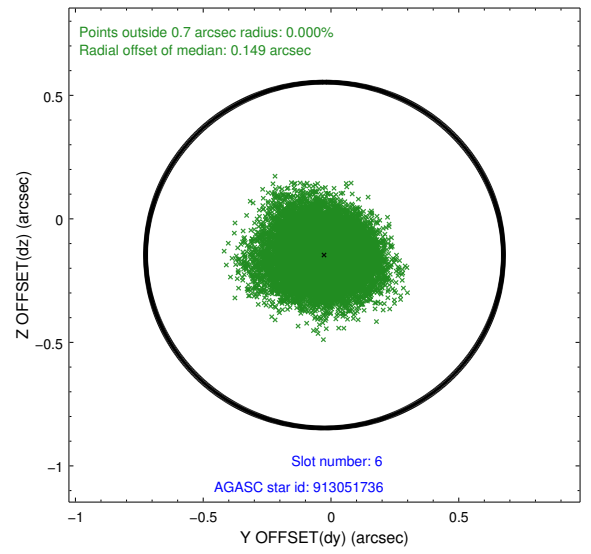
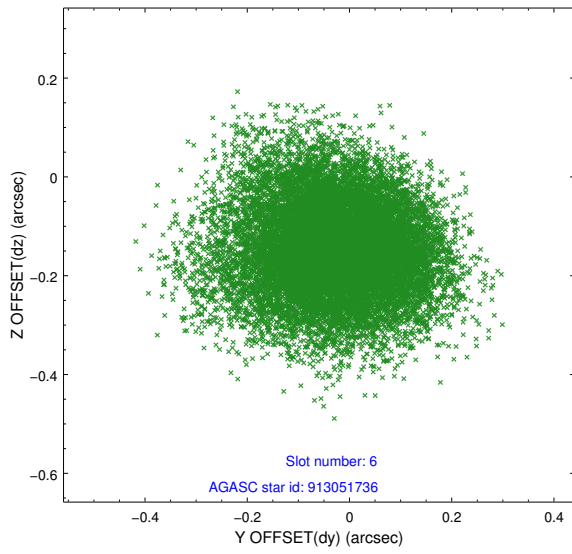
## 2.4.2 Slot 4



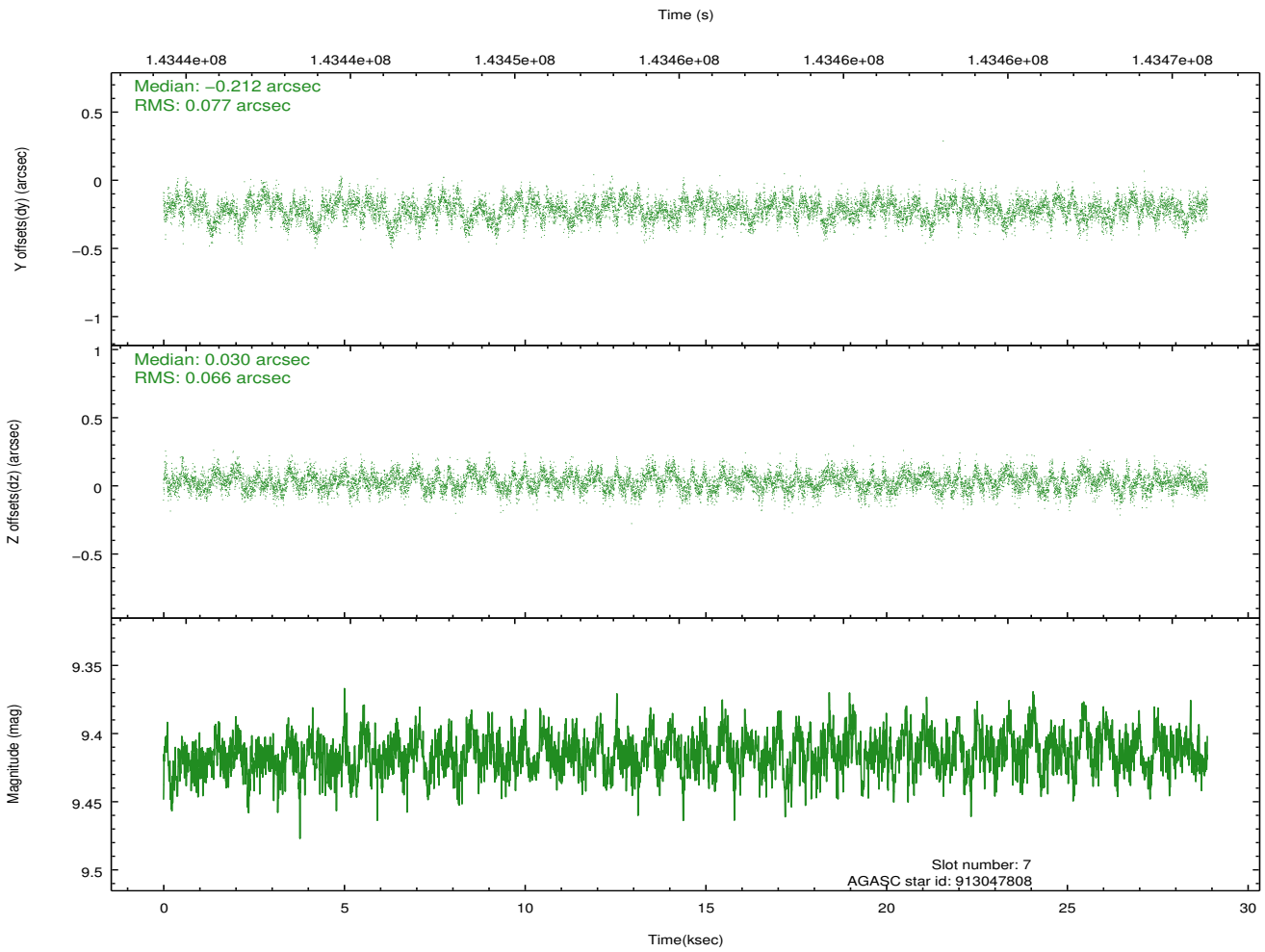
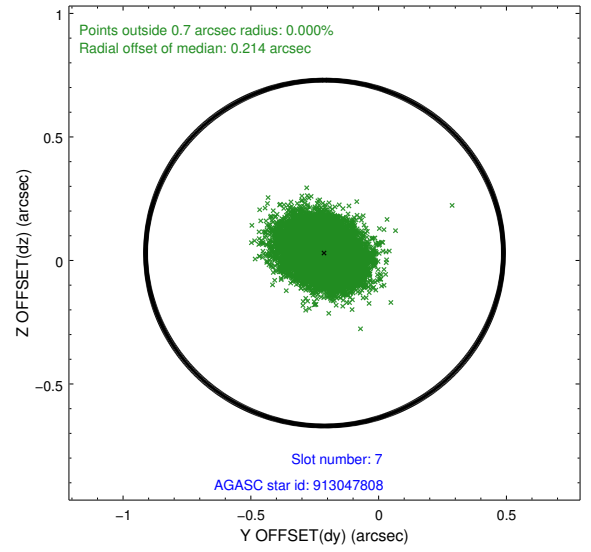
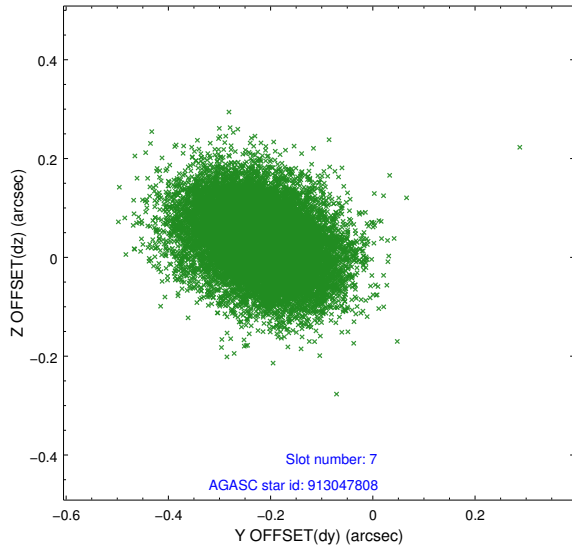
### 2.4.3 Slot 5



## 2.4.4 Slot 6

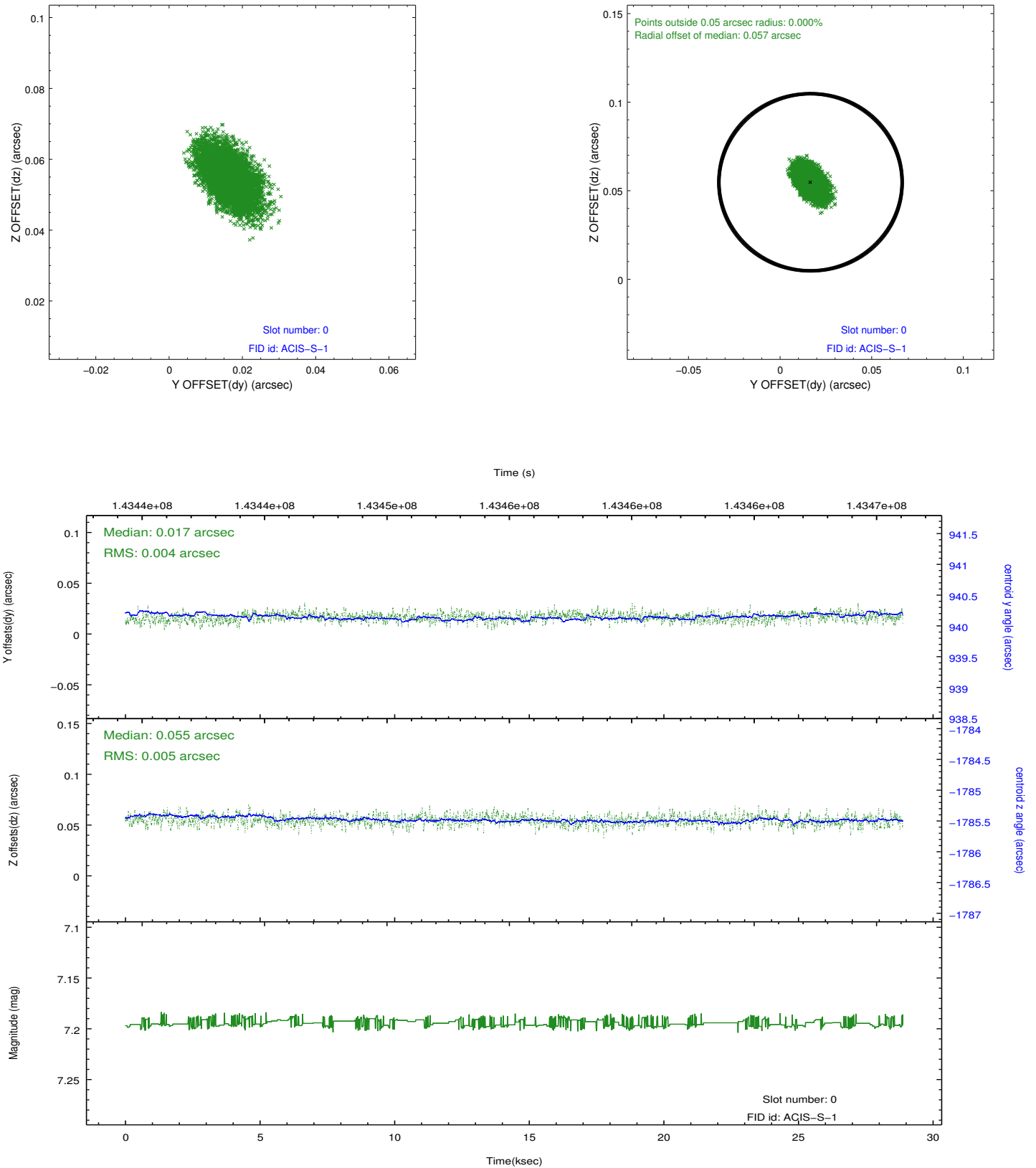


### 2.4.5 Slot 7

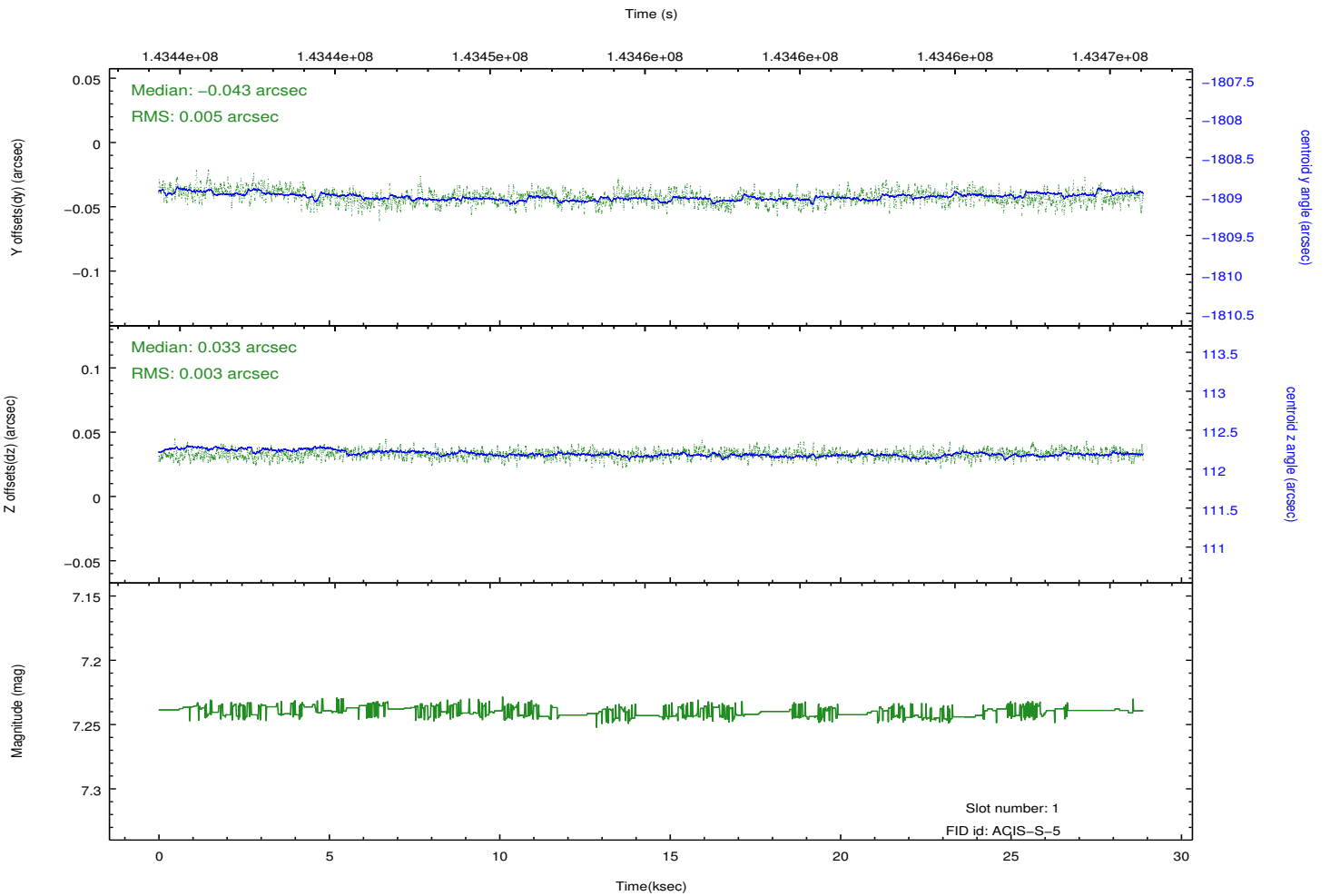
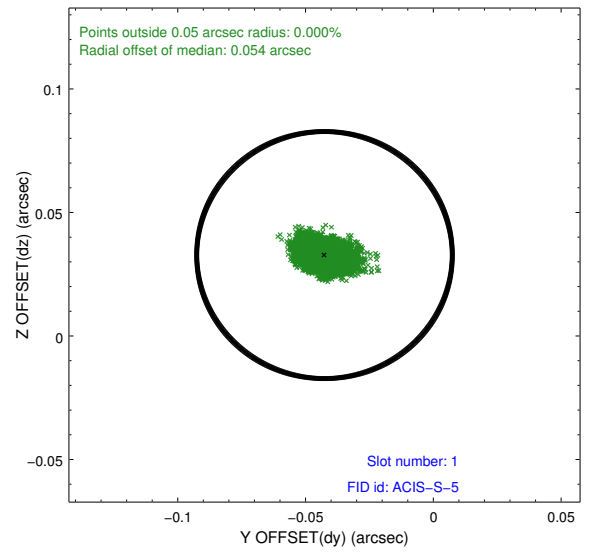
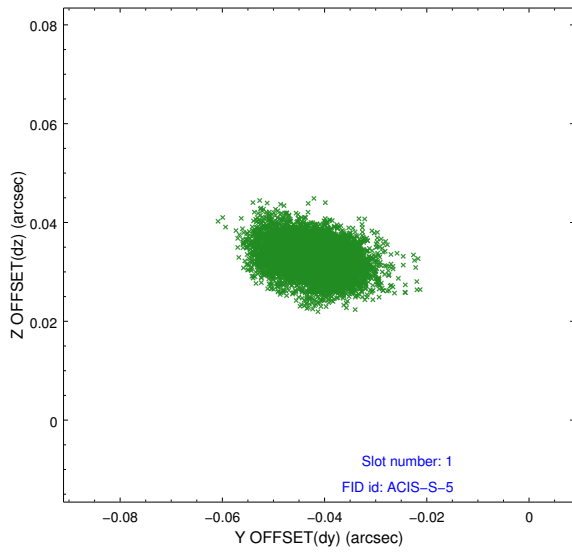


## 2.5 FID Slots

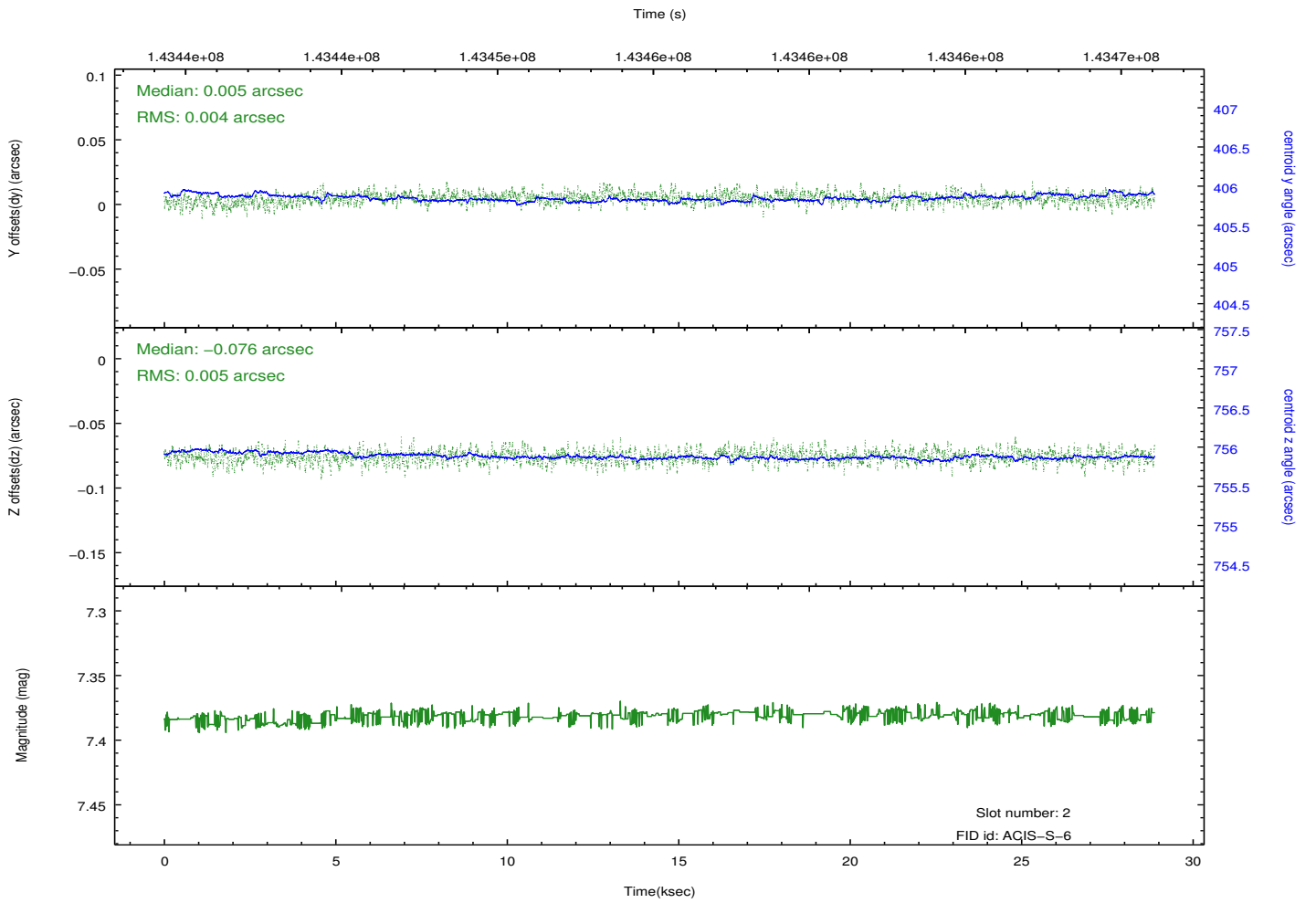
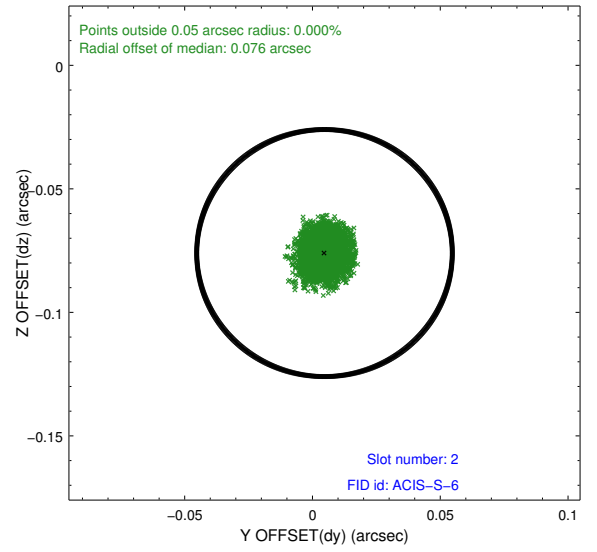
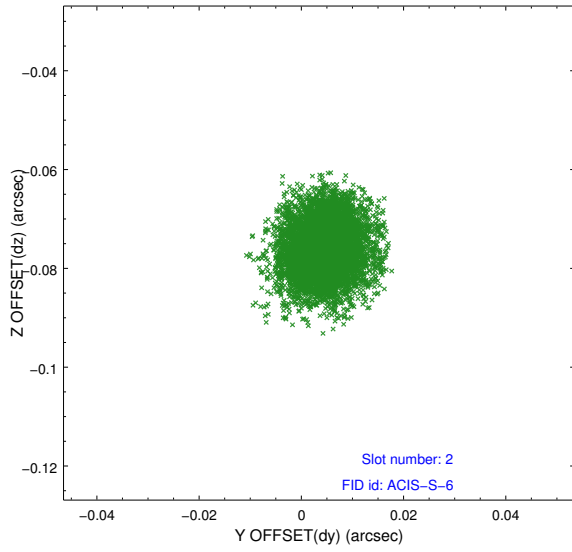
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

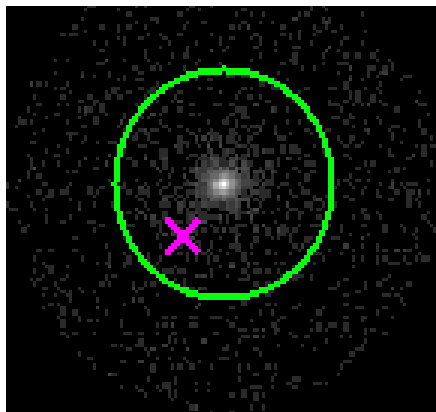


### 3 Gratings

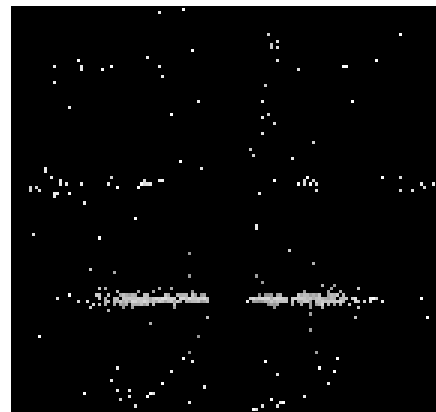
#### 3.1 HEG Arm



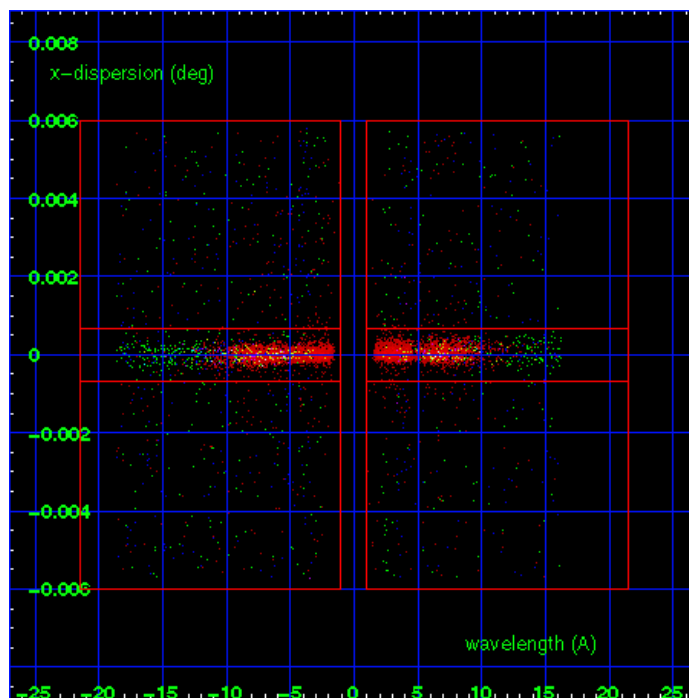
HEG Order Sort 123



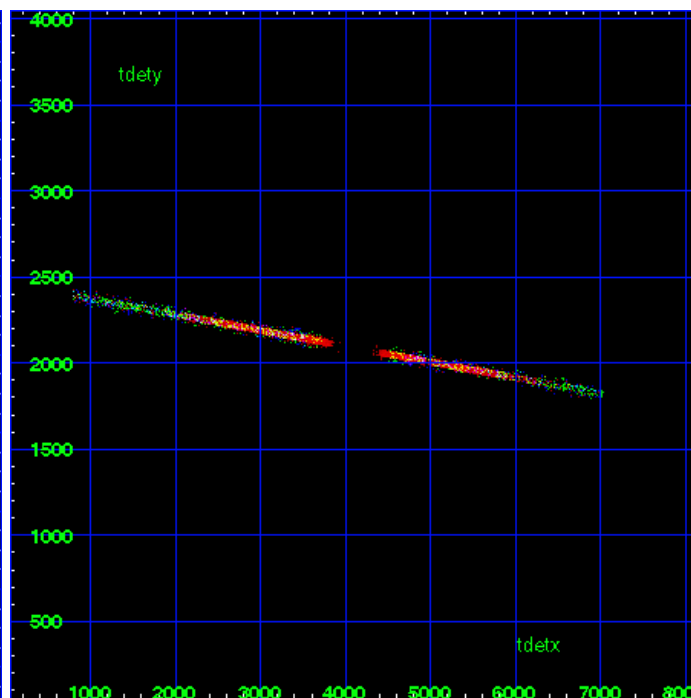
HEG Zero Order



HEG Order Sort ALL

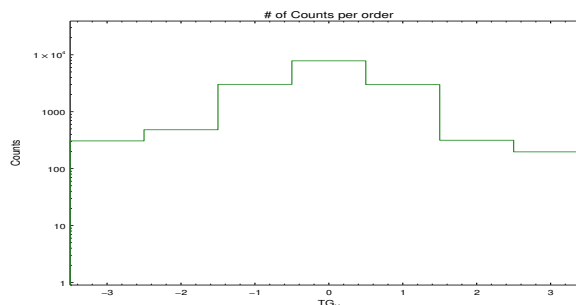


Spot Image HEG

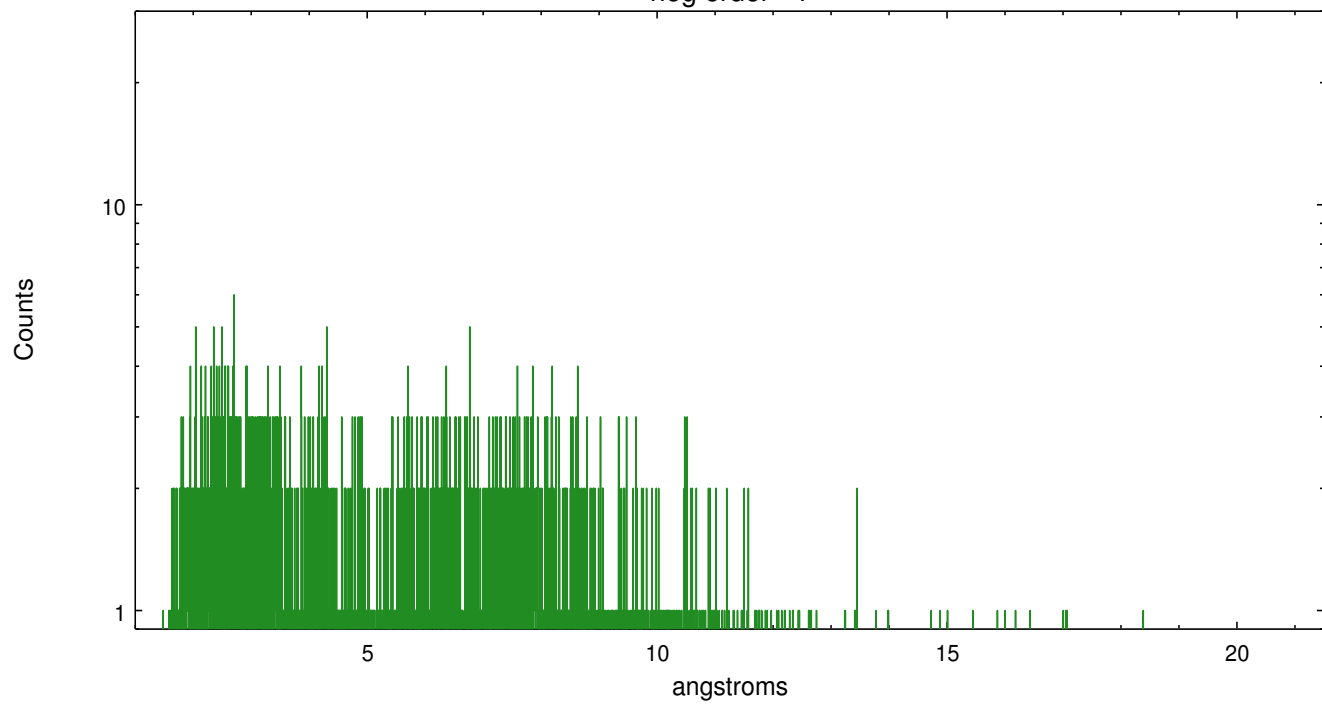


Full Detector HEG

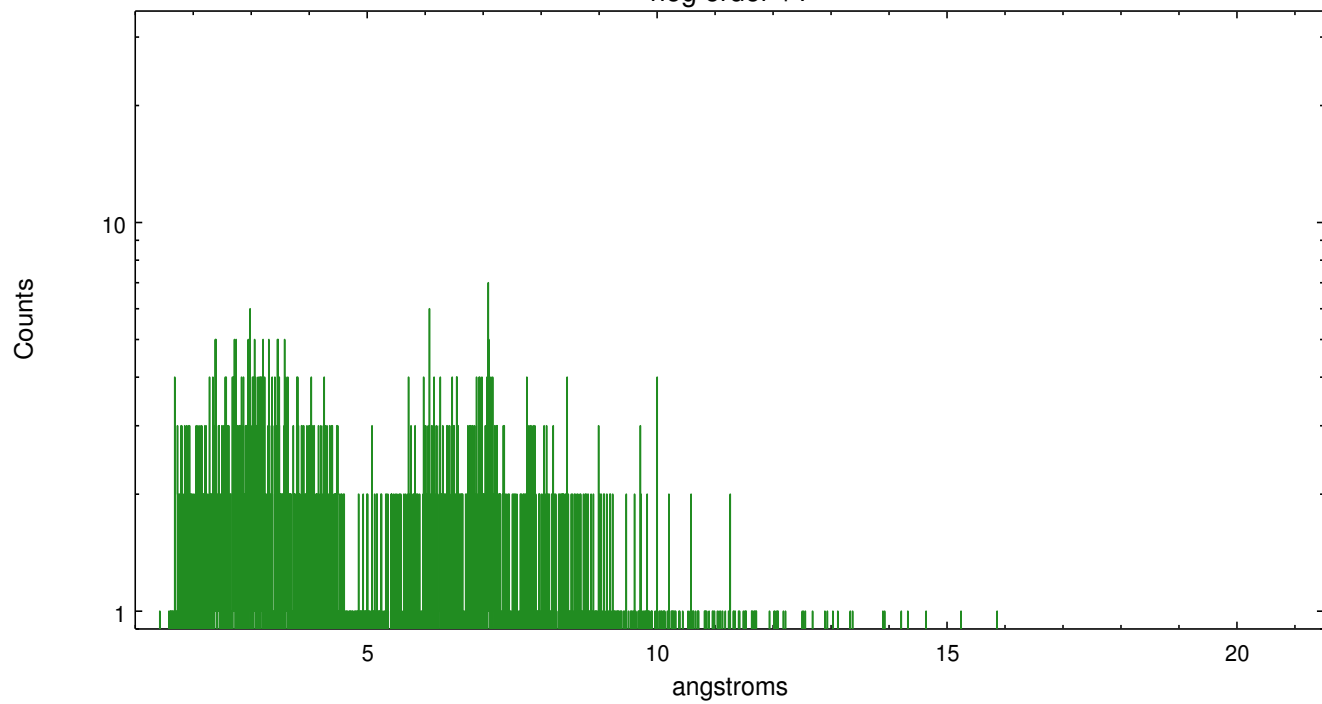
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	307	482	3024	7834	2989	315	197



heg order -1



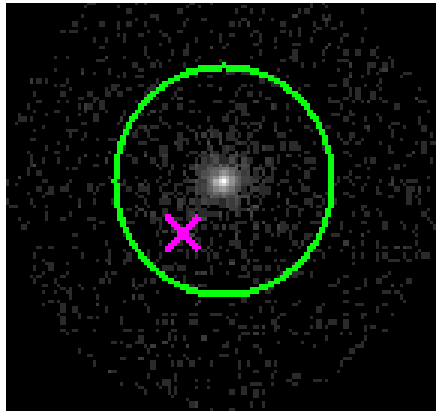
heg order +1



### 3.2 MEG Arm



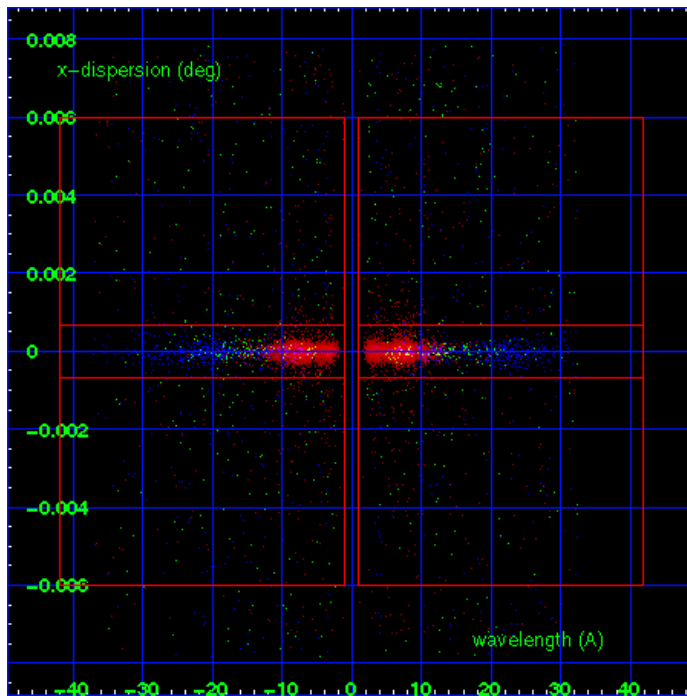
MEG Order Sort 123



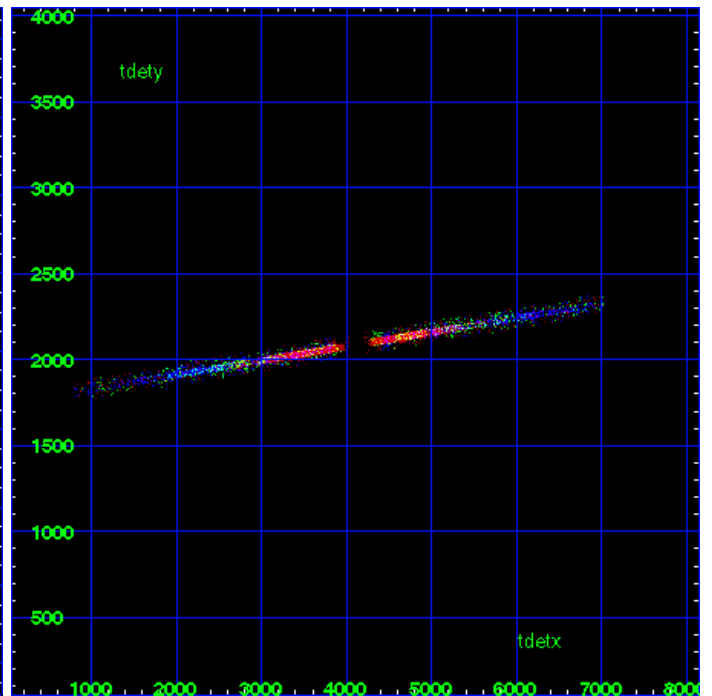
MEG Zero Order



MEG Order Sort ALL

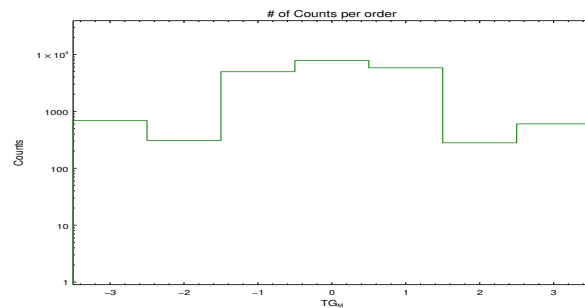


Spot Image MEG

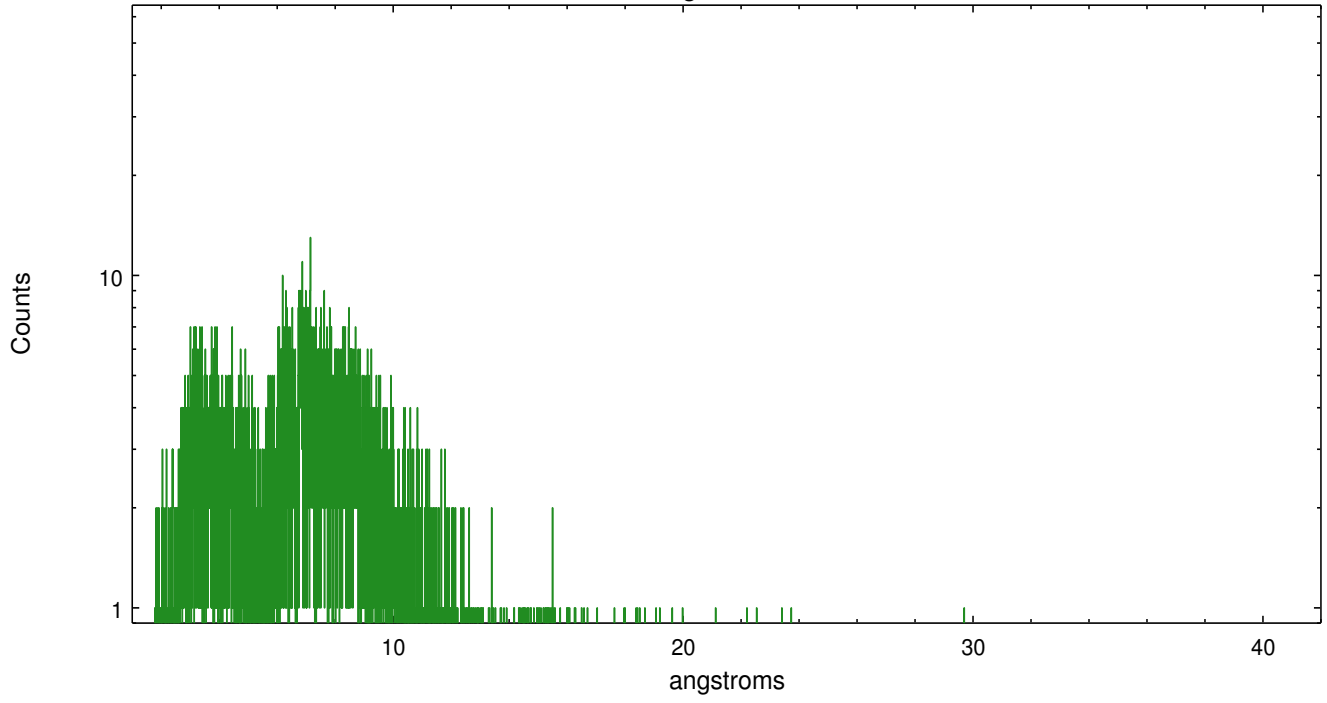


Full Detector MEG

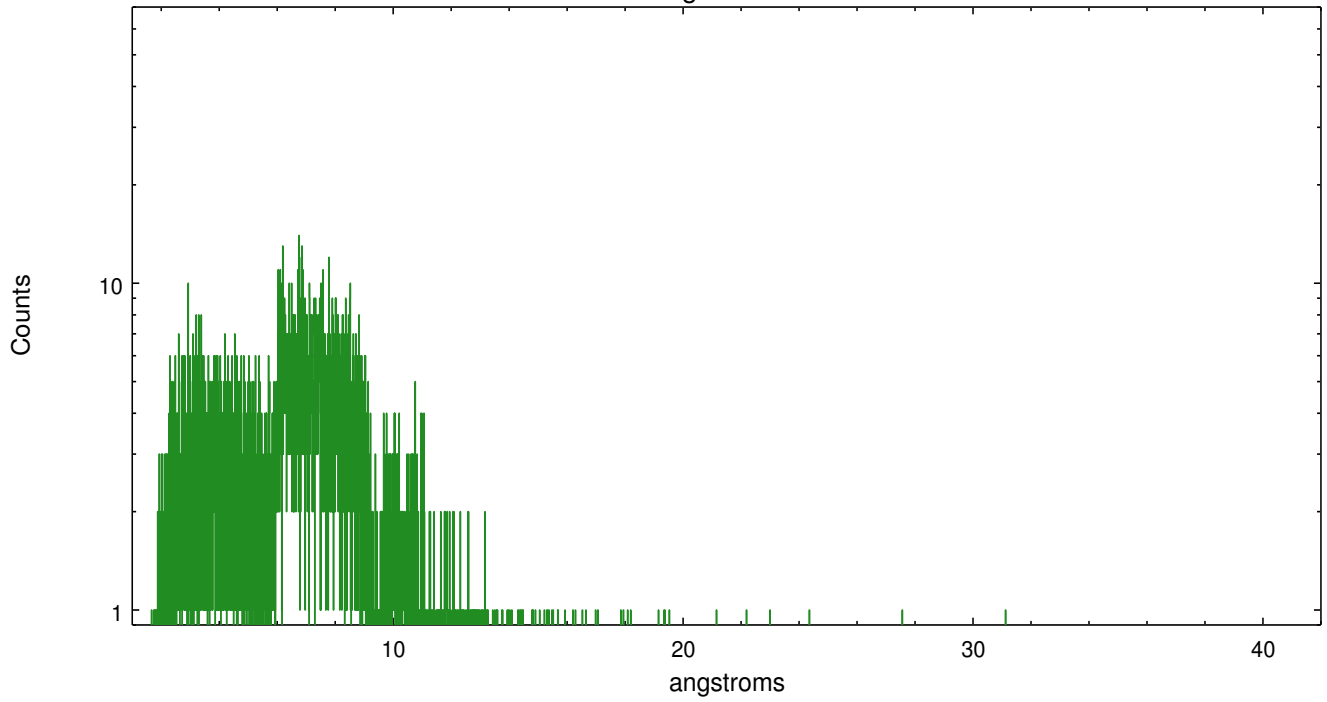
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	687	306	4971	7834	5821	280	603



meg order -1



meg order +1



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.877

## A.2 Comments