

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2811 - L2 Version 3  
Chandra X-Ray Center

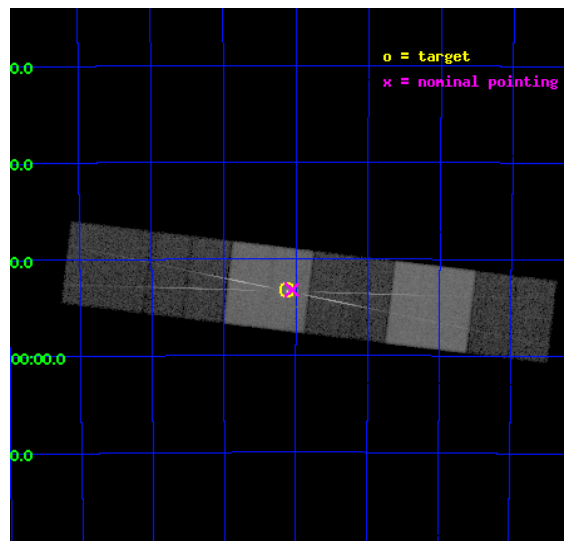
L2 Processing Date : Oct 13 2012

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# 1 Front

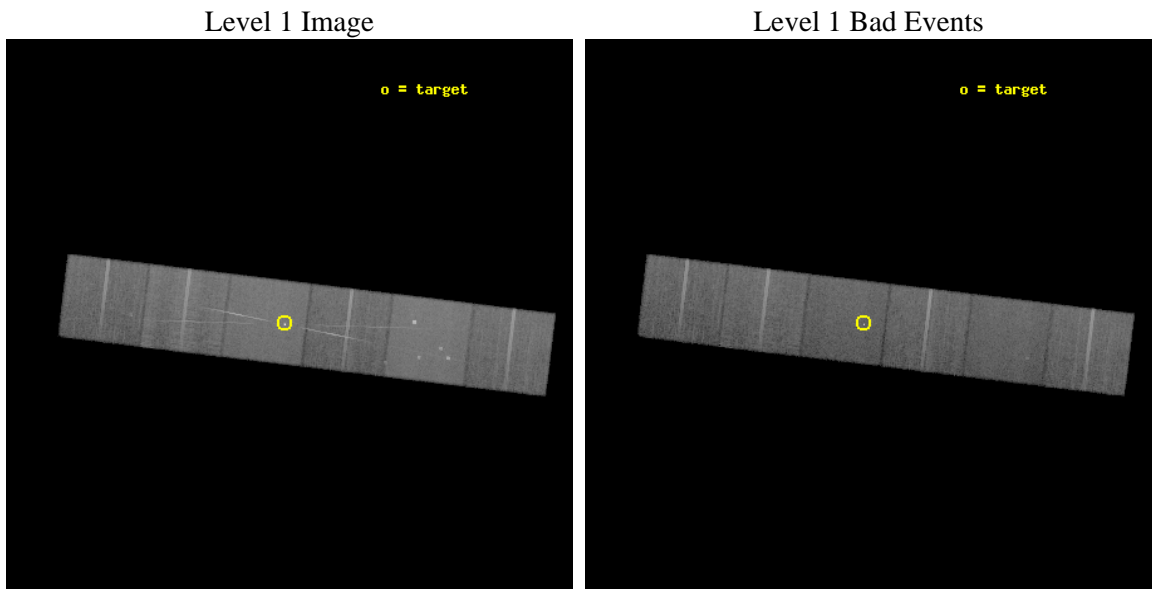
seq_num	500261	Sequence number
obs_id	2811	Observation id
title	SEARCHING FOR PROTON CYCLOTRON FEATURES IN TWO MAGNETAR CANDIDATES	&#160
observer	PROFESSOR LUIGI STELLA	Principal investigator
object	1E1048-59	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.5325	Observer's specified target RA [deg]
dec_targ	-59.8875	Observer's specified target Dec [deg]
ra_nom	162.51323230172	Nominal RA [deg]
dec_nom	-59.886933159564	Nominal Dec [deg]
roll_nom	186.87932987012	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29331.199890733	Sum of GTIs [s]
livetime	28959.790576588	Livetime [s]
ontime4	29331.199890733	Sum of GTIs [s]
ontime5	29331.199890733	Sum of GTIs [s]
ontime6	29331.199890733	Sum of GTIs [s]
ontime7	29331.199890733	Sum of GTIs [s]
ontime8	29331.199890733	Sum of GTIs [s]
ontime9	29331.199890733	Sum of GTIs [s]
l2events	307254	Number of level 2 events



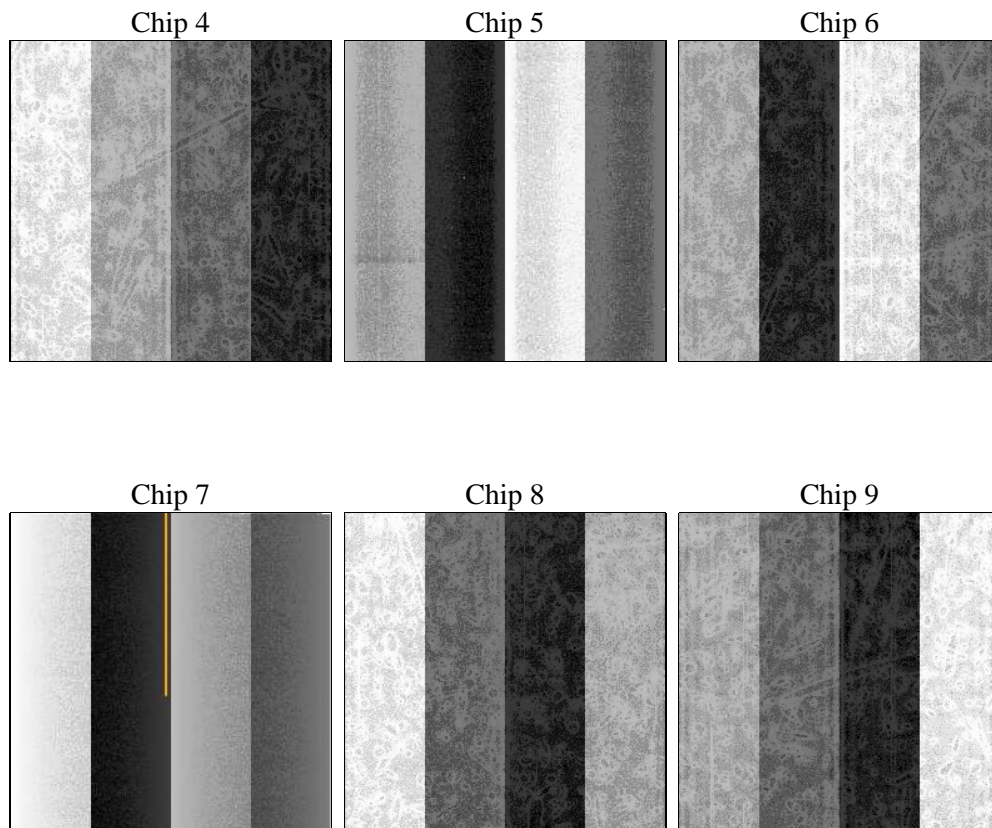
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	29609.037000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29331.199890733	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime4	29331.199890733	Sum of GTIs [s]
date	2012-10-13T05:24:54	Date and time of file creation	ontime5	29331.199890733	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	29331.199890733	Sum of GTIs [s]
			ontime7	29331.199890733	Sum of GTIs [s]
			ontime8	29331.199890733	Sum of GTIs [s]
			ontime9	29331.199890733	Sum of GTIs [s]
			l1events	1289389	Number of level 1 events

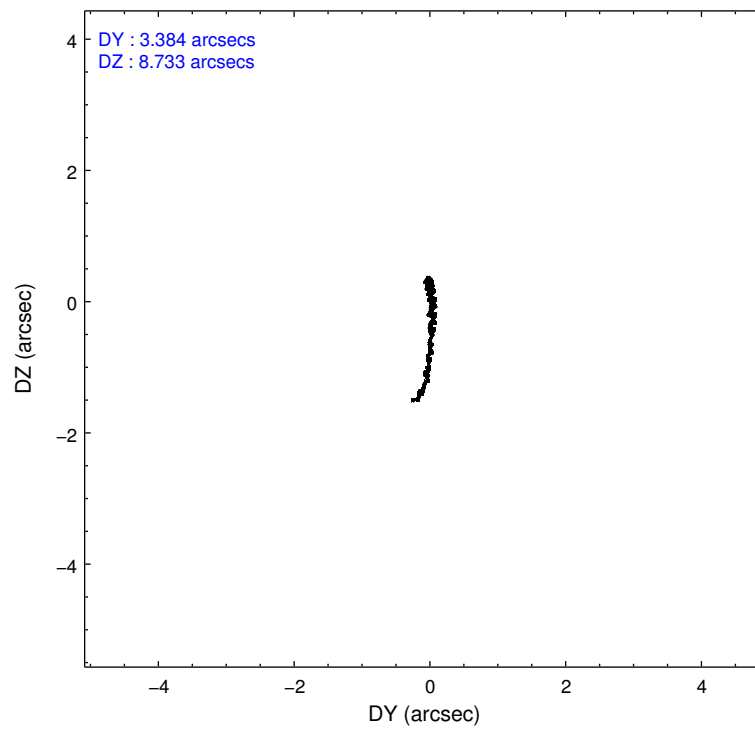
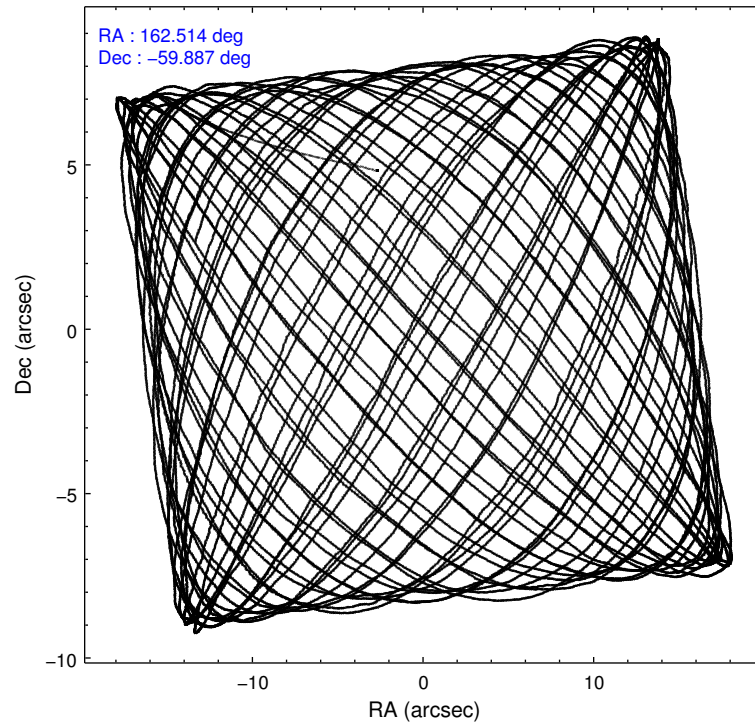
### 2.1.4 Events

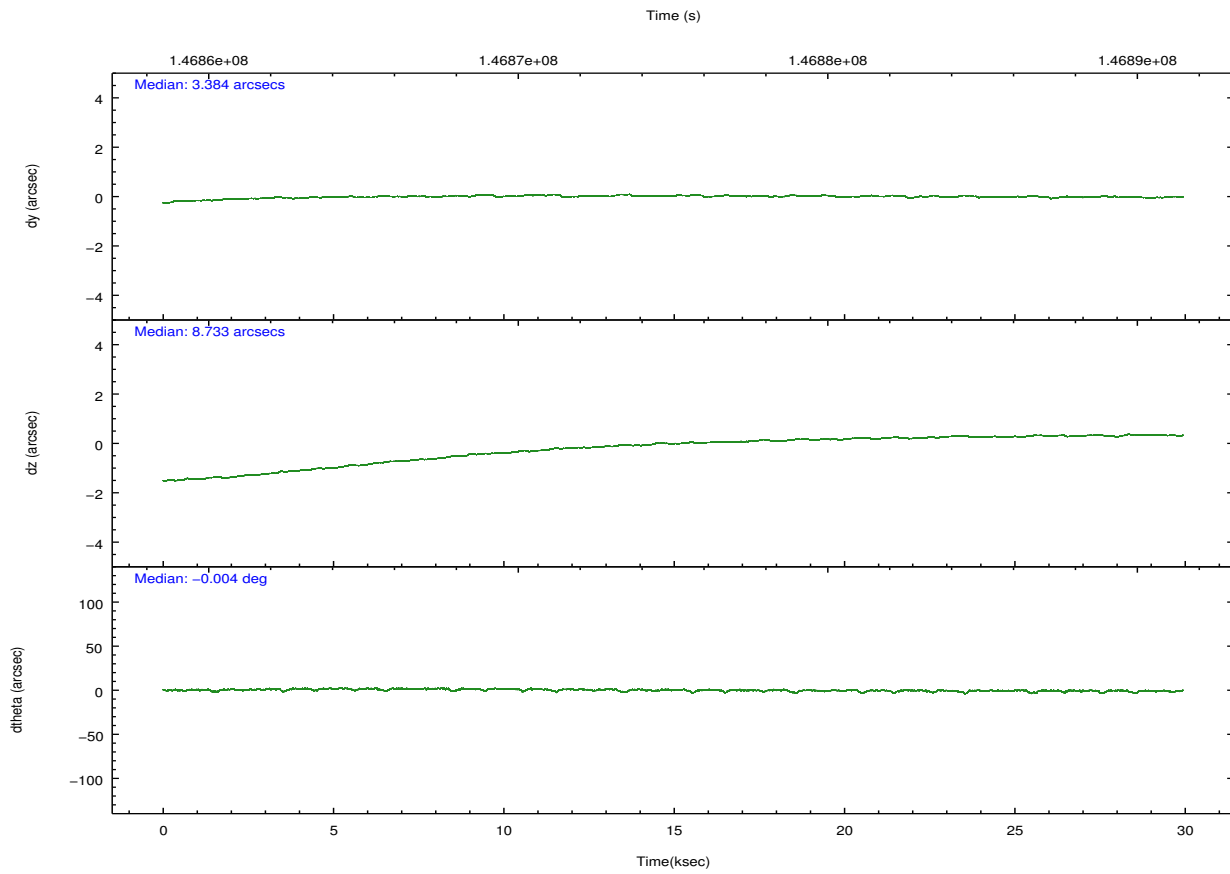
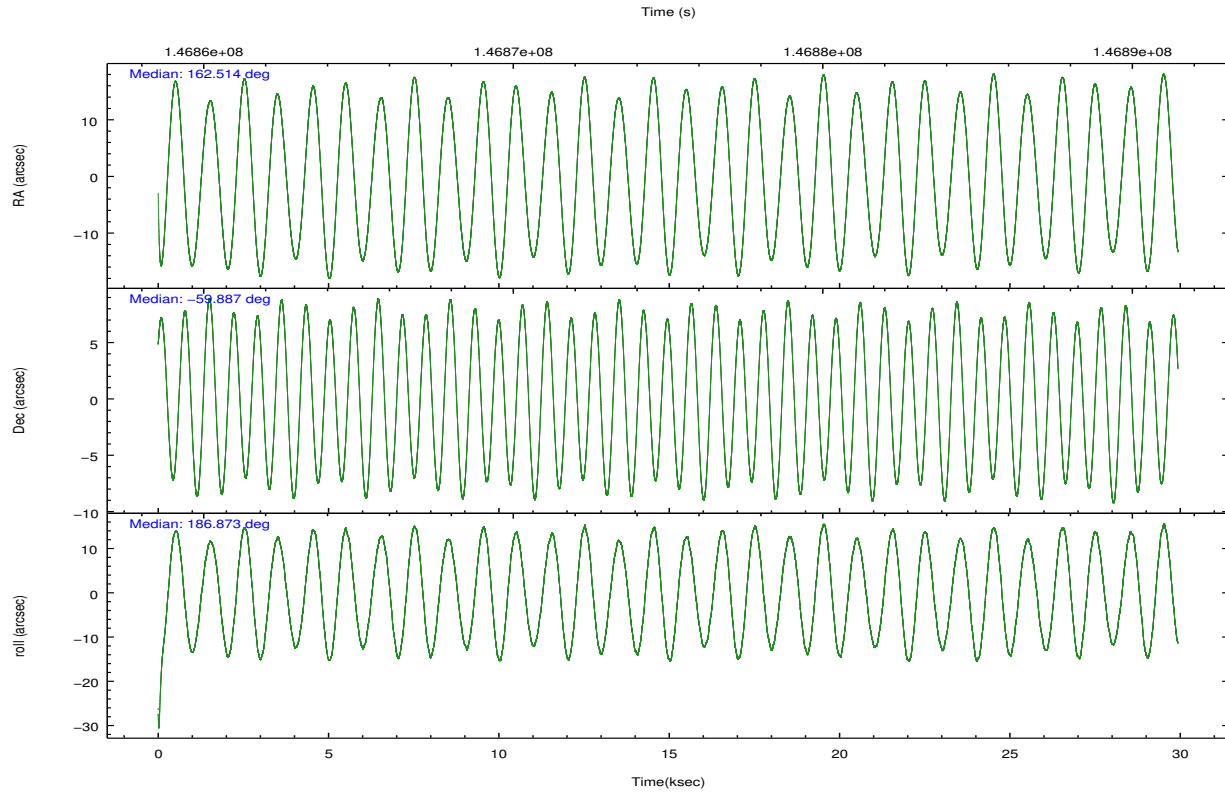
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	195588	257643	188361	245449	230060	172288	grade 0 events	11430	17423	16814	11521	19762	9811
rejected events	171669	135835	157068	135521	175917	149969		5%	6%	8%	4%	8%	5%
rejected %	87%	52%	83%	55%	76%	87%	grade 1 events	165	531	124	339	161	101
								0%	0%	0%	0%	0%	0%
							grade 2 events	4675	34298	5290	22647	10520	4191
								2%	13%	2%	9%	4%	2%
							grade 3 events	2324	5308	2491	10117	5873	2186
								1%	2%	1%	4%	2%	1%
							grade 4 events	2162	5090	2340	10315	5518	2111
								1%	1%	1%	4%	2%	1%
							grade 5 events	7183	18955	7700	22215	10024	8199
								3%	7%	4%	9%	4%	4%
							grade 6 events	3330	59723	4366	55348	12477	4024
								1%	23%	2%	22%	5%	2%
							grade 7 events	164319	116315	149236	112947	165725	141665
								84%	45%	79%	46%	72%	82%

## 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	162.556216	162.5132323017208	Subarray requested	NONE	NONE
[deg] Pointing Dec	-59.870319	-59.88693315956392	Alternating exposures requested	N	N
[deg] Pointing Roll	186.759892	186.8793298701229	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	146860355.184000	146859324.97674			
Observation start date	2002-08-27T18:31:31	2002-08-27T18:15:24			
[s] Observation end time (MET)	146889964.184000	146890278.95302			
Observation end date	2002-08-28T02:45:00	2002-08-28T02:51:18			
Read mode	TIMED	TIMED			

## 2.3 Aspect



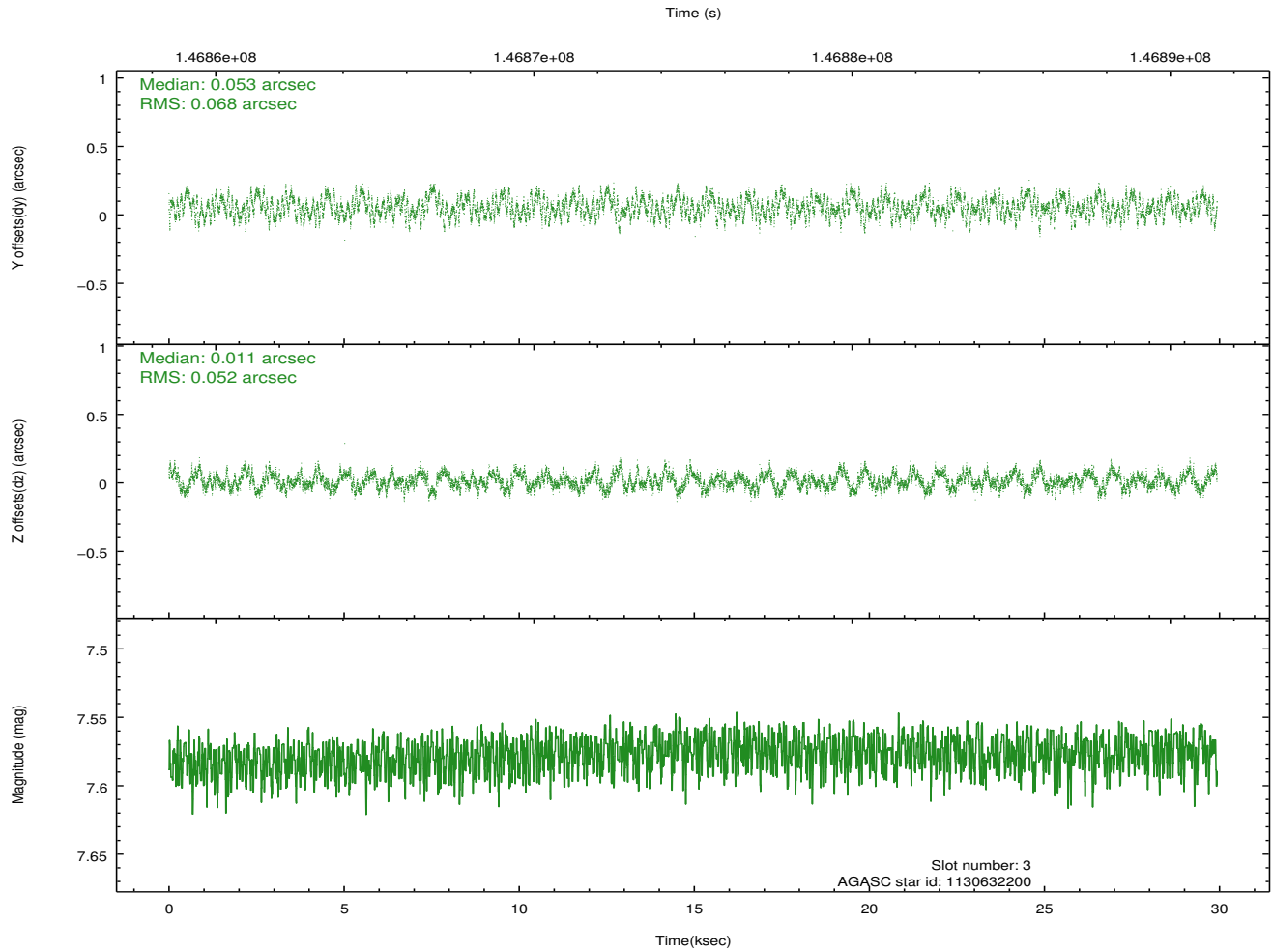
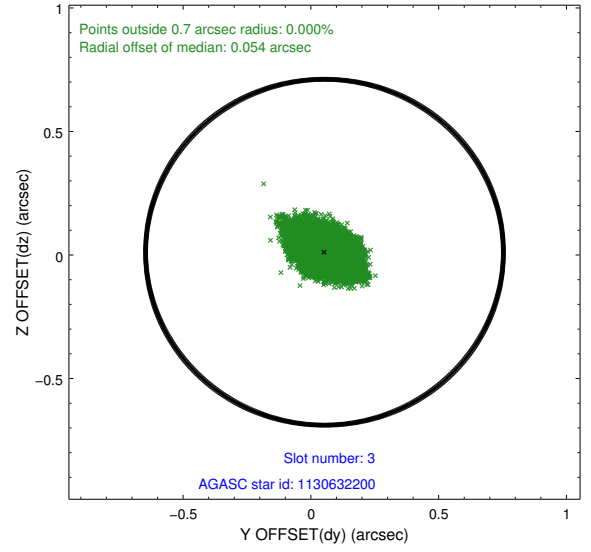
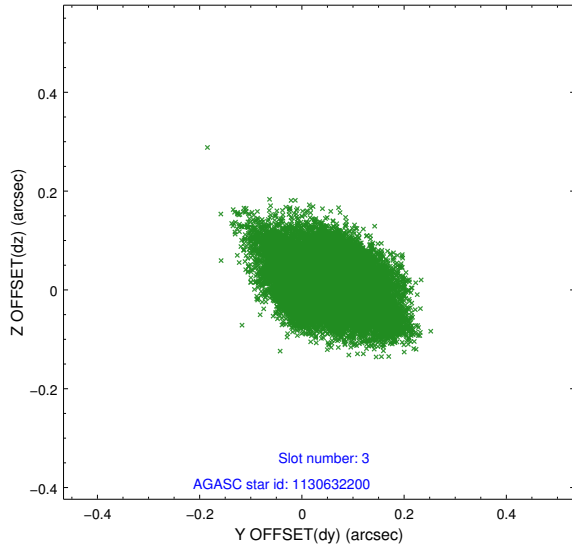


### Slot Statistics

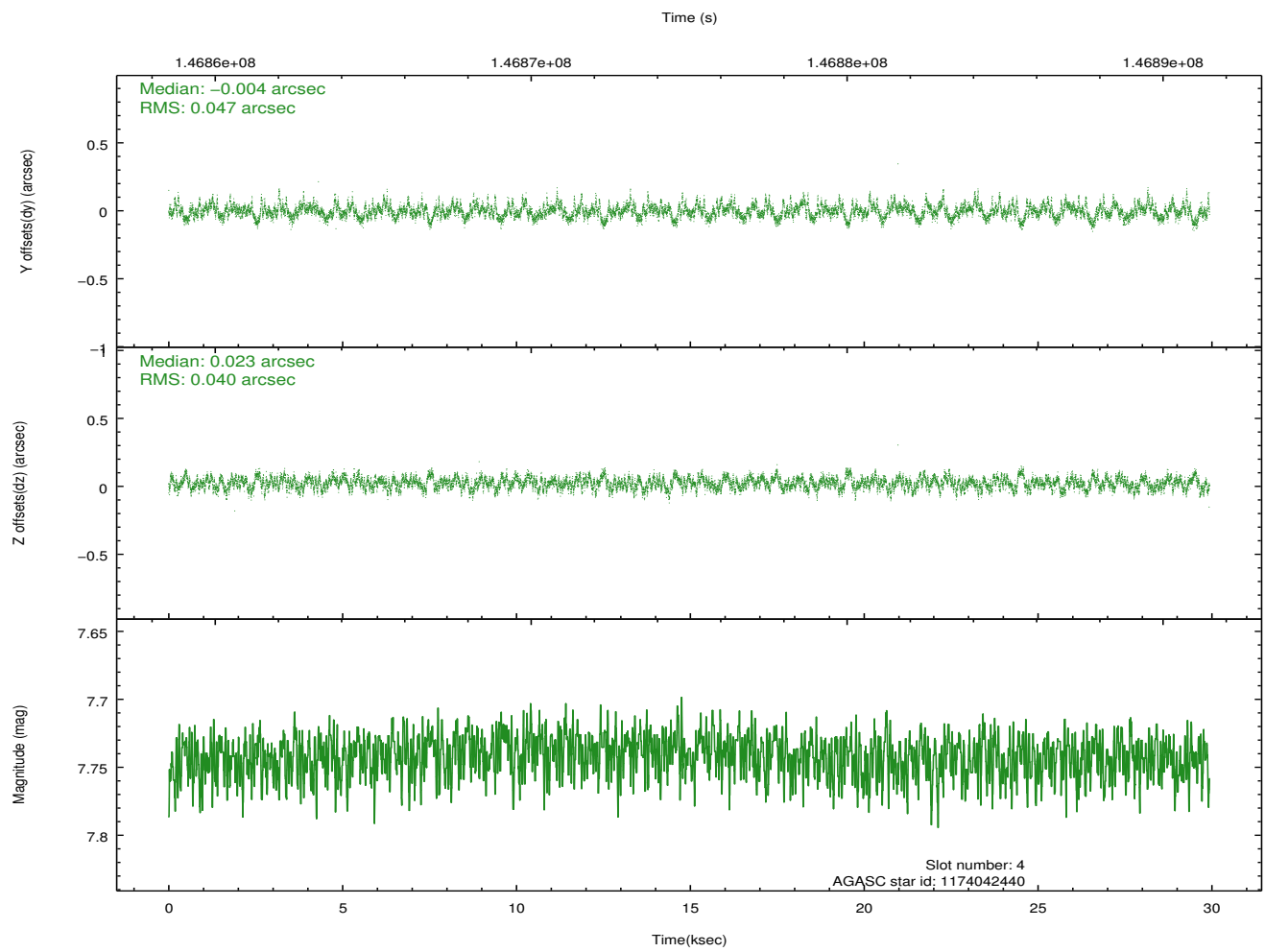
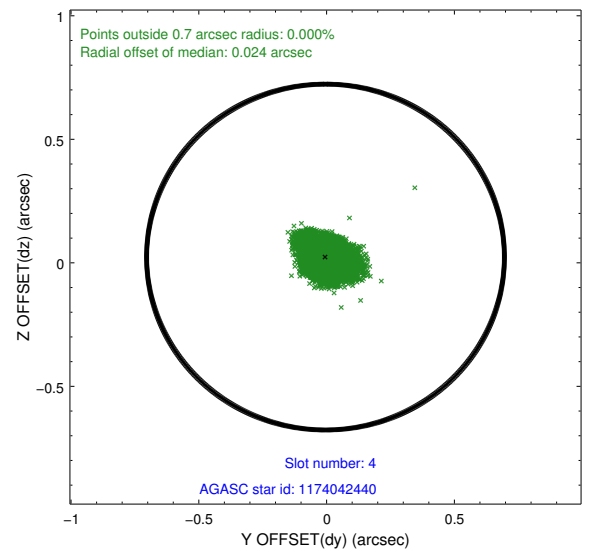
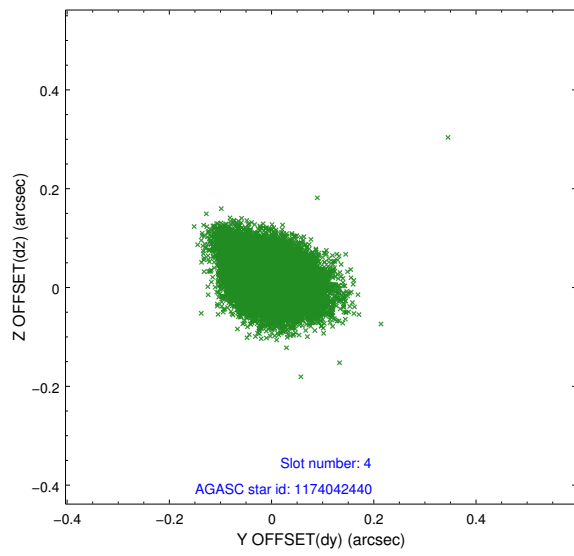
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	7300	-0.019	-0.007	0.014	0.021	0.000000	0.000000	-756.04	-1729.65
1	FID	ACIS-S-4	7.20	7300	0.012	0.011	0.020	0.046	0.000000	0.000000	2157.23	178.78
2	FID	ACIS-S-5	7.23	7301	-0.024	0.005	0.012	0.042	0.000000	0.000000	-1808.80	172.52
3	GUIDE	1130632200	7.58	14601	0.053	0.011	0.091	0.147	161.433843	-59.407820	1849.39	-1877.62
4	GUIDE	1174042440	7.74	14601	-0.004	0.023	0.065	0.109	162.157370	-60.223757	859.16	1182.12
5	GUIDE	1174166216	8.03	14602	-0.088	-0.016	0.084	0.147	163.522199	-60.352910	-1501.36	1940.42
6	GUIDE	1130640208	8.90	14598	-0.097	-0.076	0.090	0.146	163.152122	-59.182387	-1381.28	-2324.84
7	GUIDE	1174025248	8.79	14596	0.127	0.056	0.085	0.139	161.784801	-60.573378	1654.64	2361.25

## 2.4 Star Slots

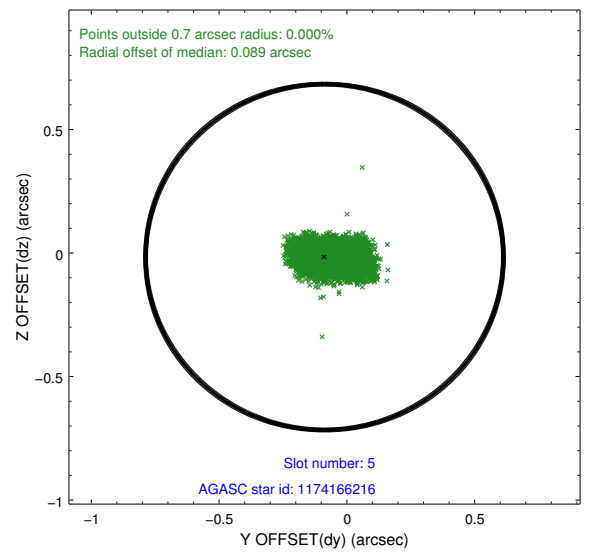
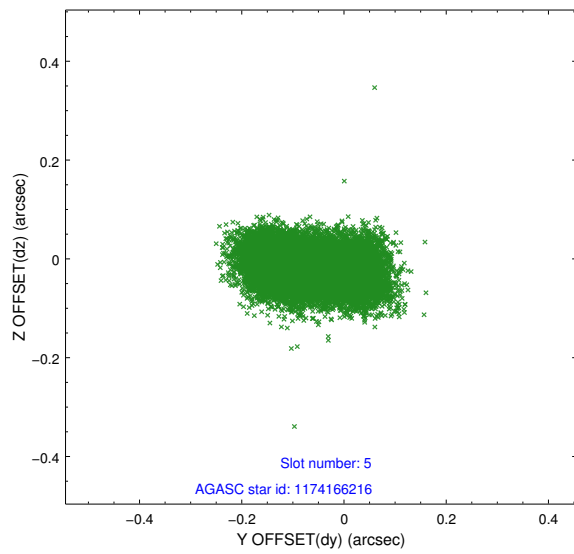
### 2.4.1 Slot 3



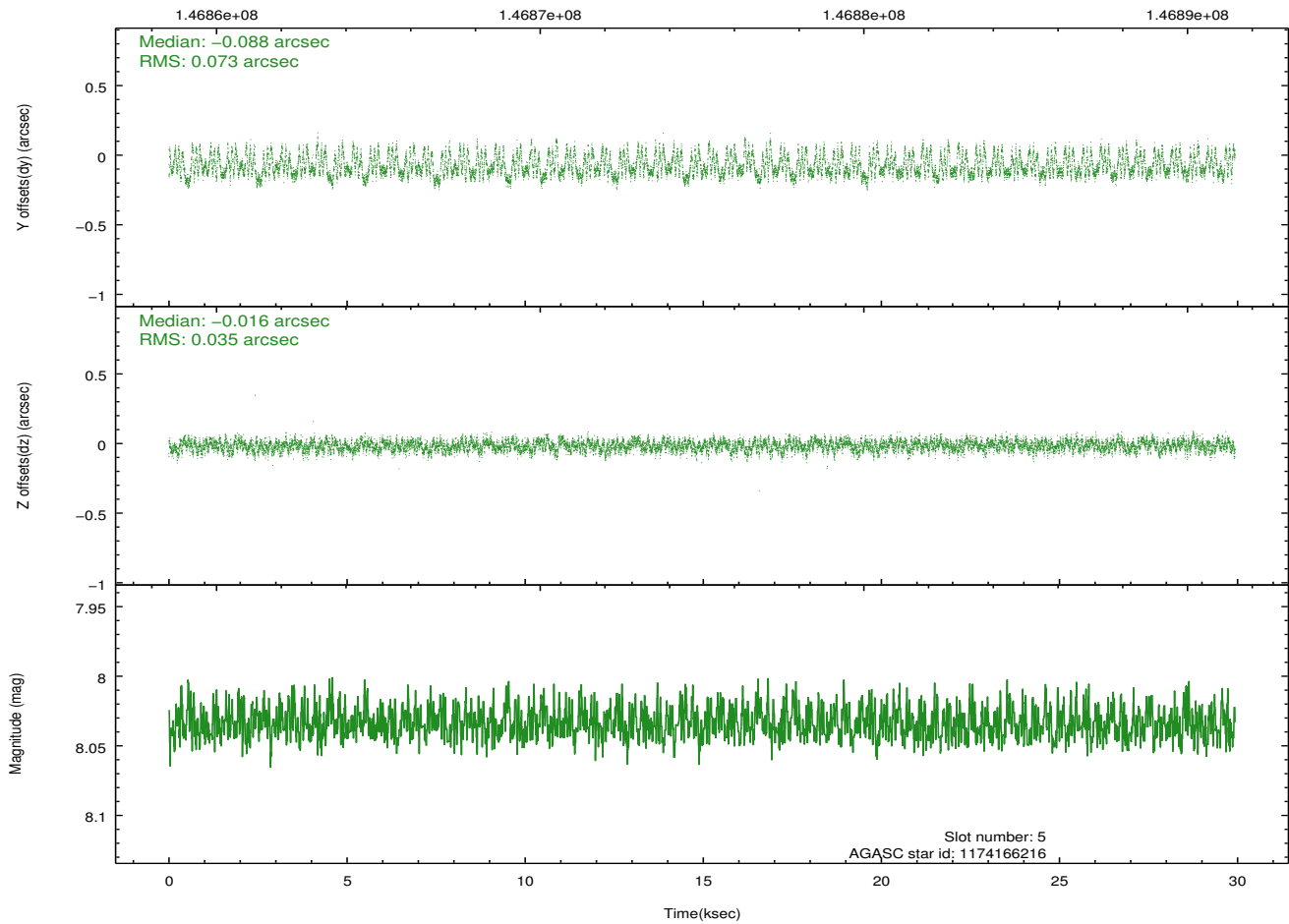
## 2.4.2 Slot 4



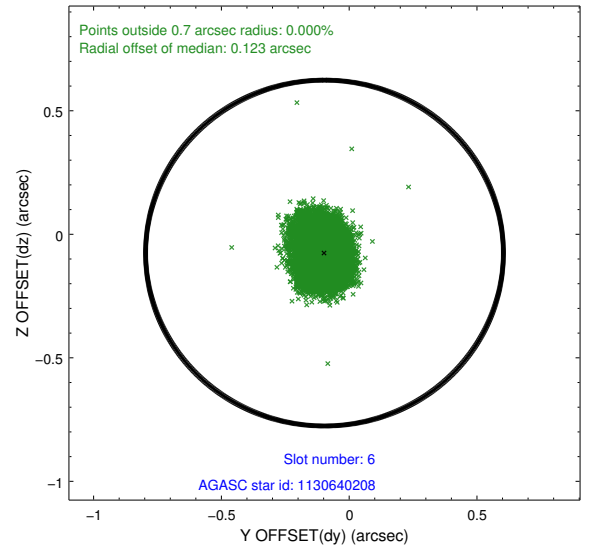
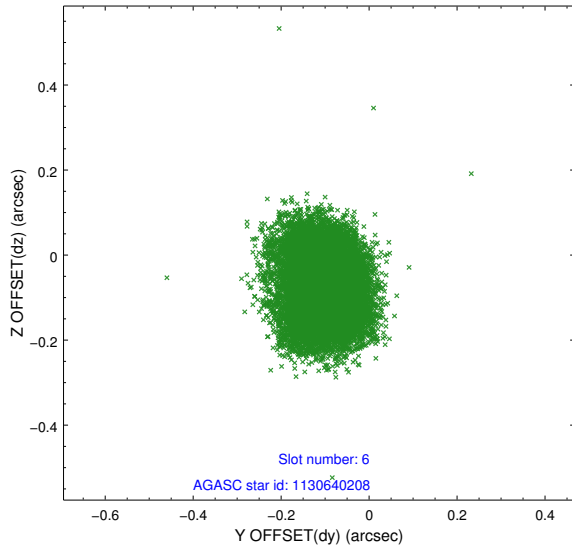
### 2.4.3 Slot 5



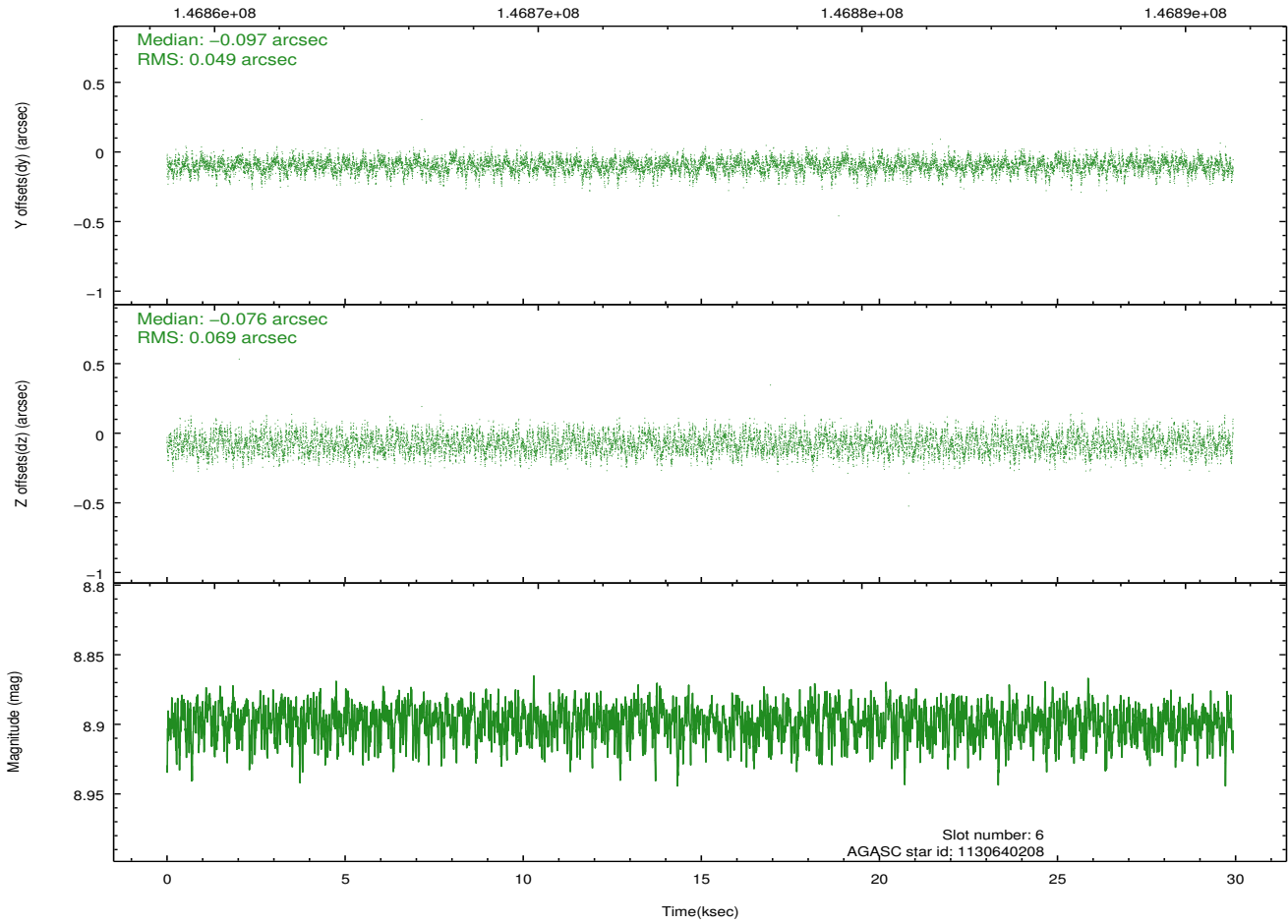
Time (s)



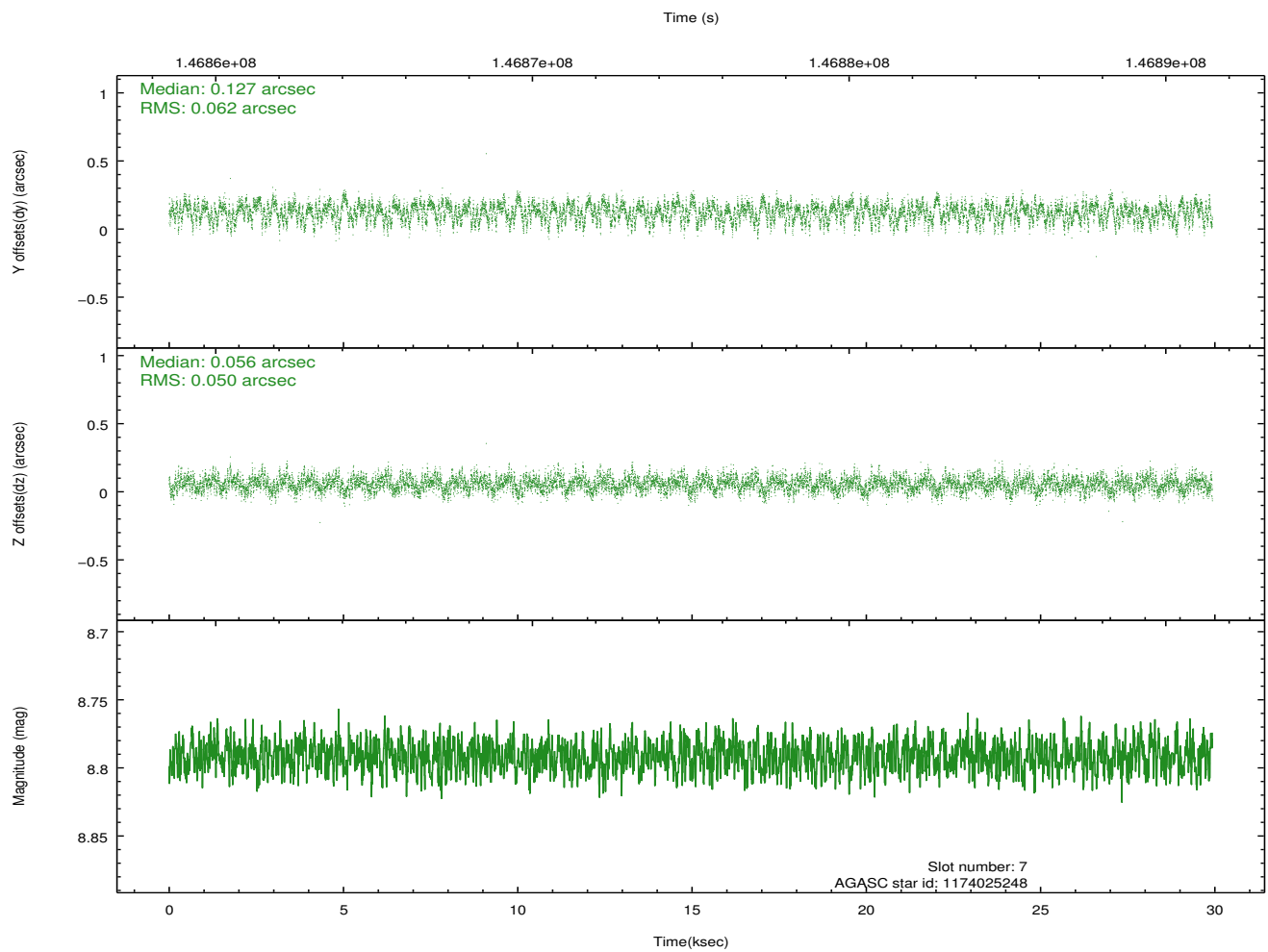
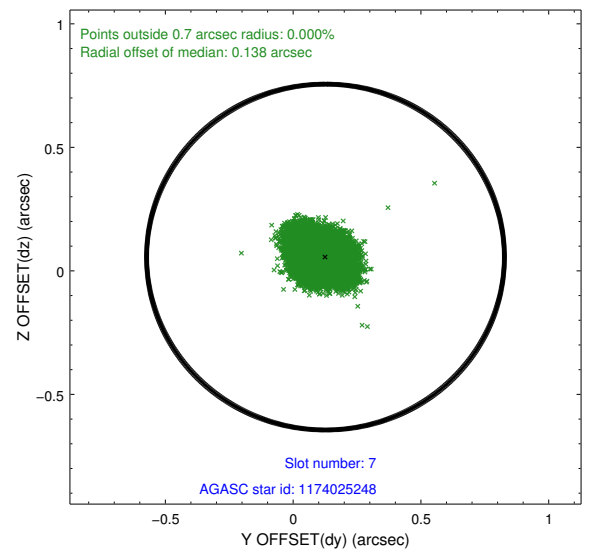
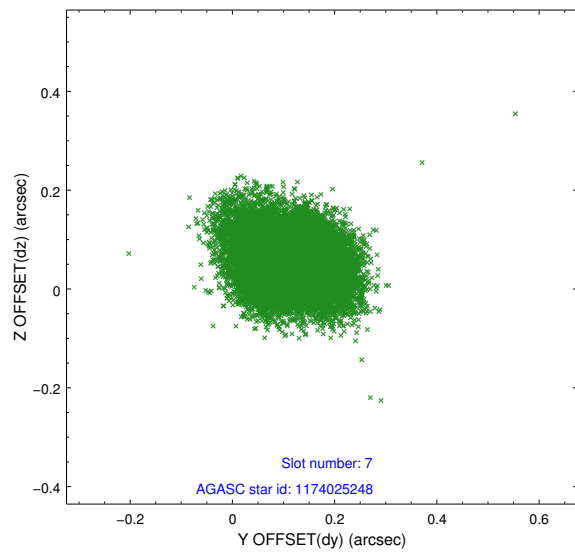
### 2.4.4 Slot 6



Time (s)

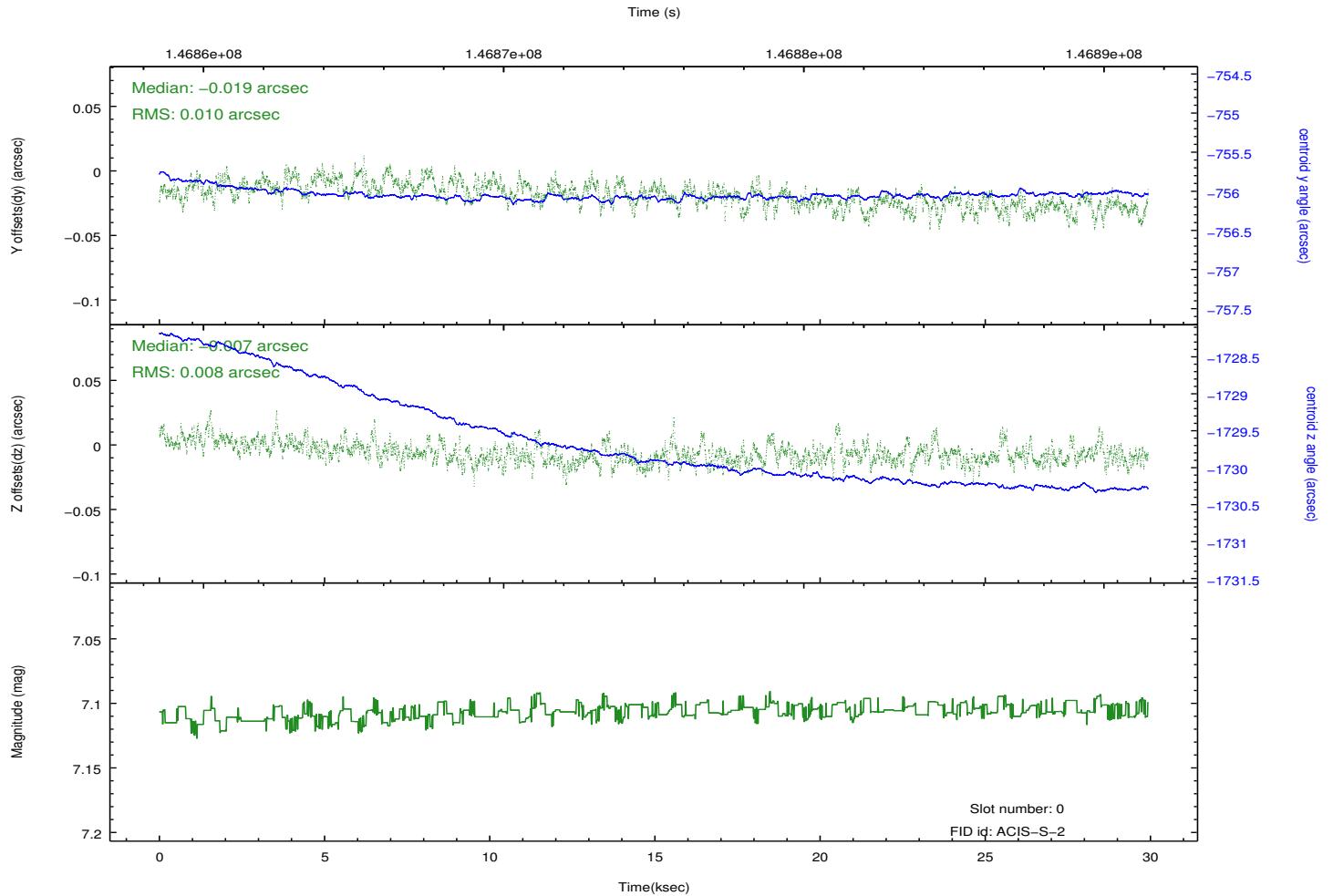
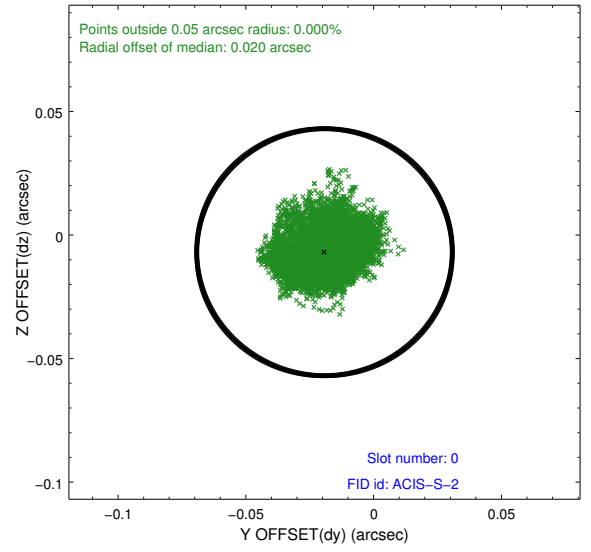
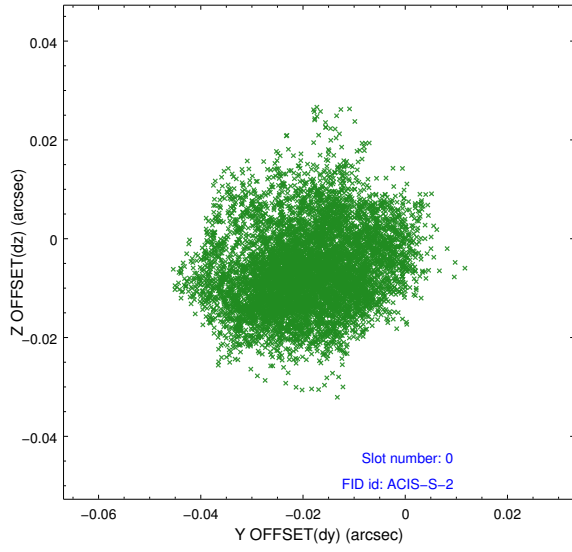


## 2.4.5 Slot 7

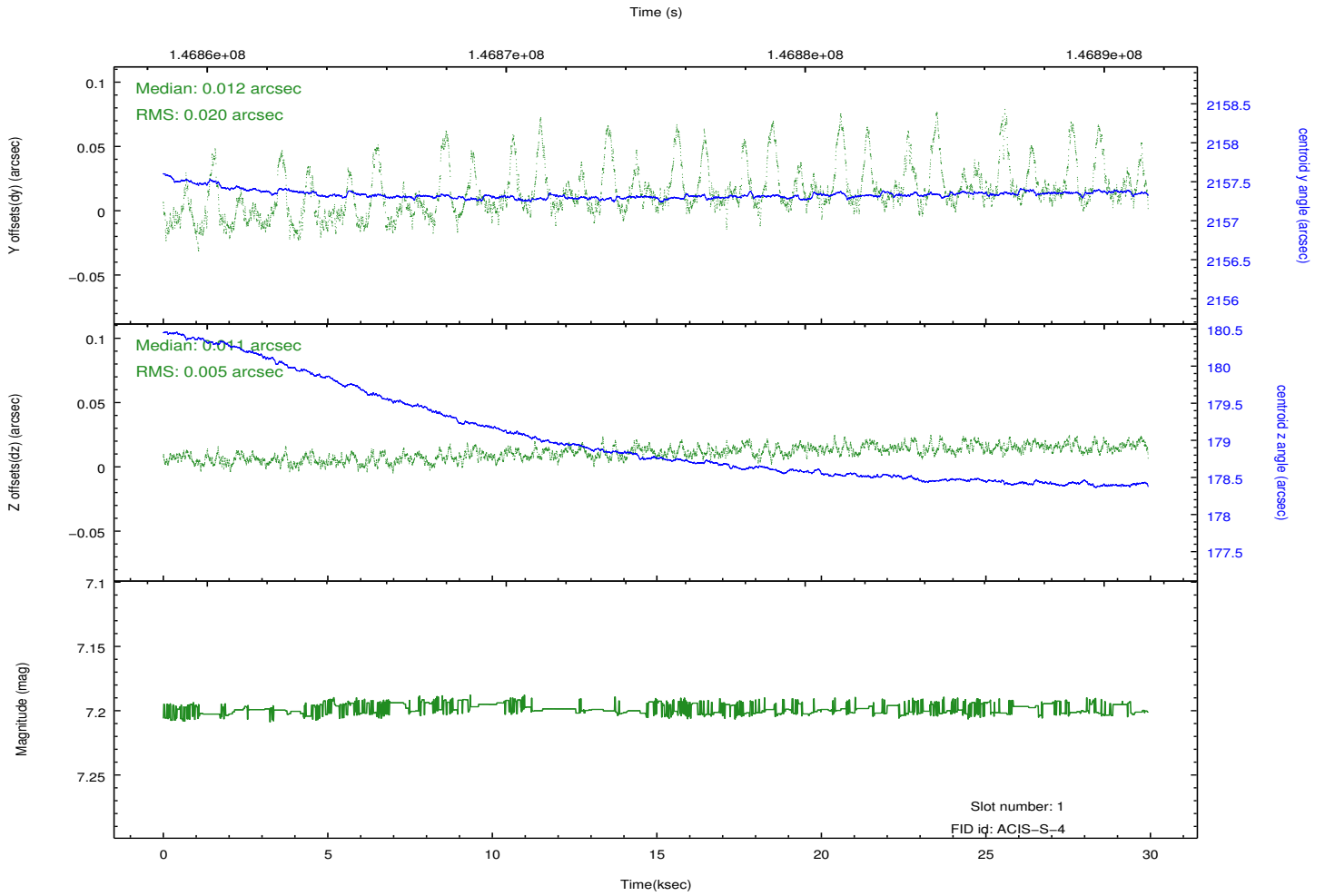
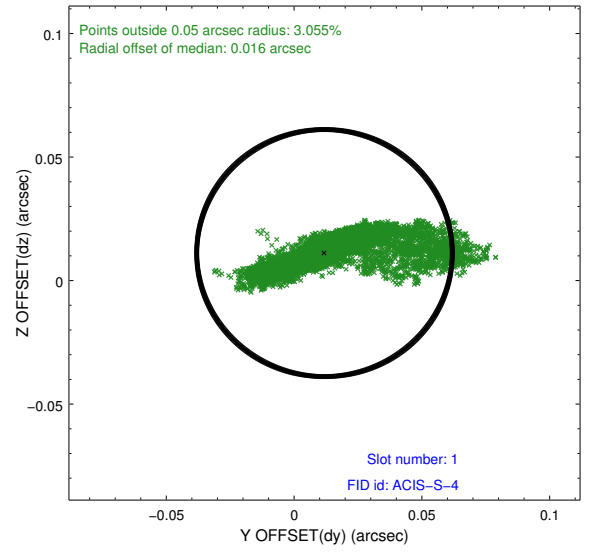
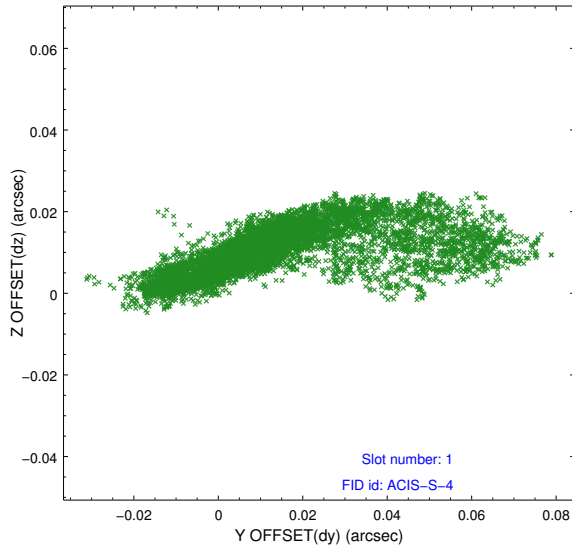


## 2.5 FID Slots

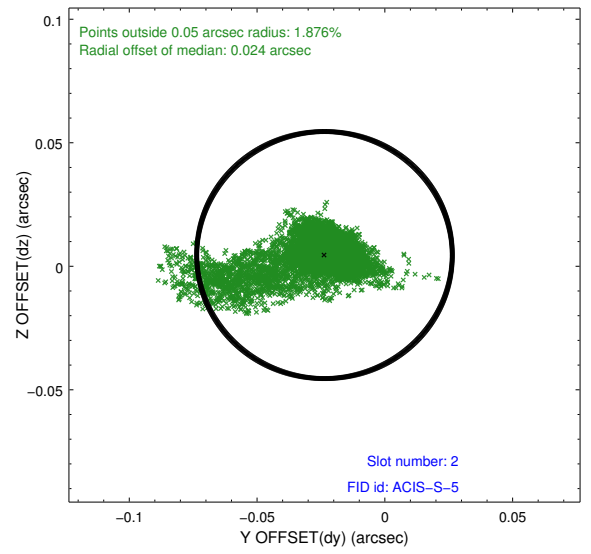
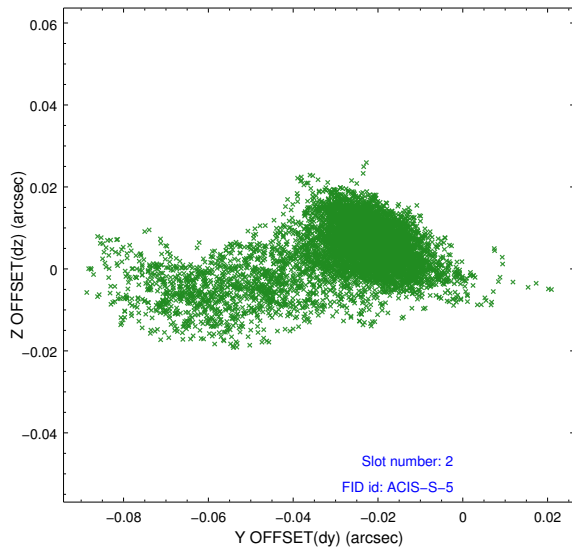
### 2.5.1 Slot 0



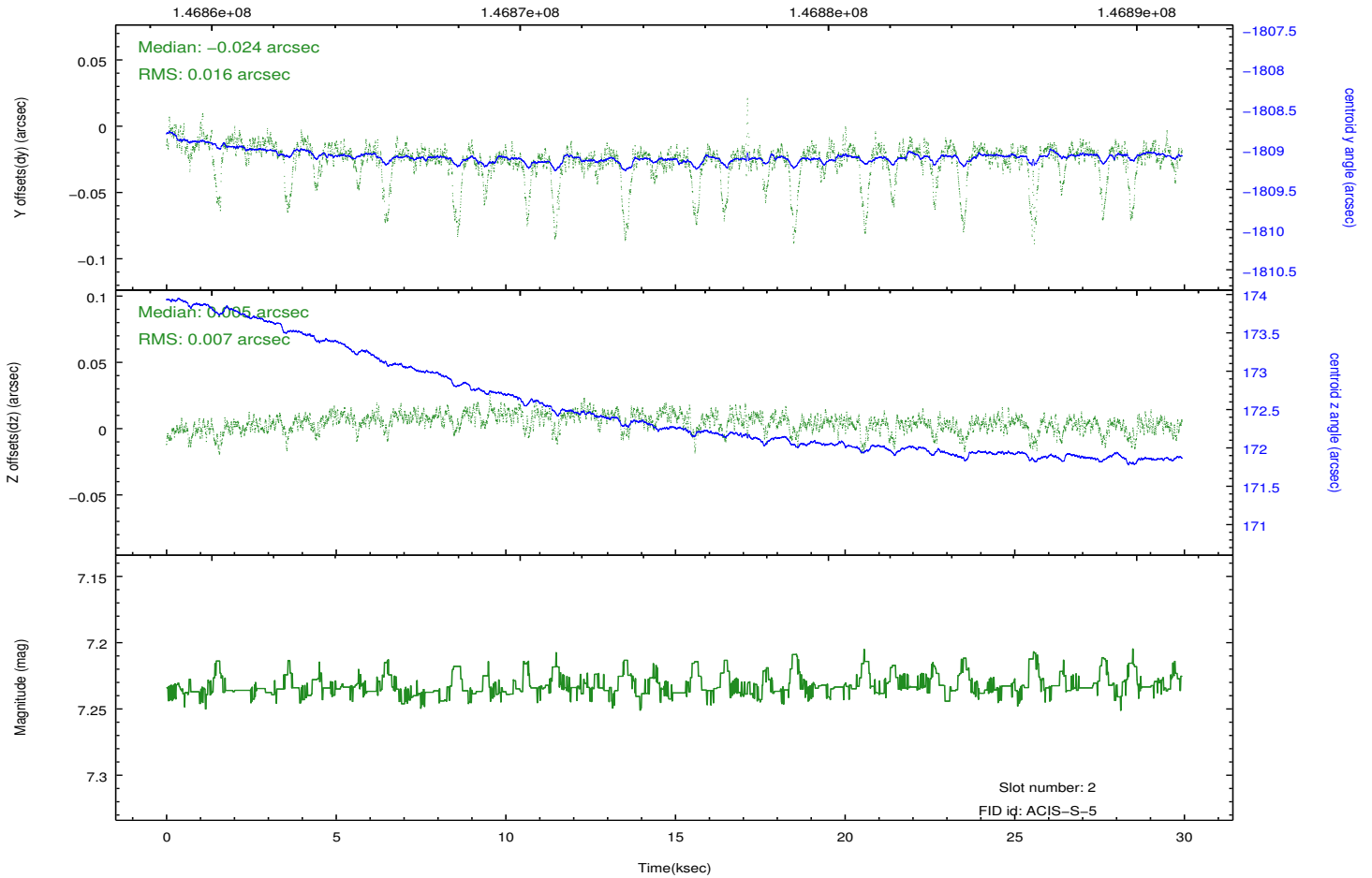
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)

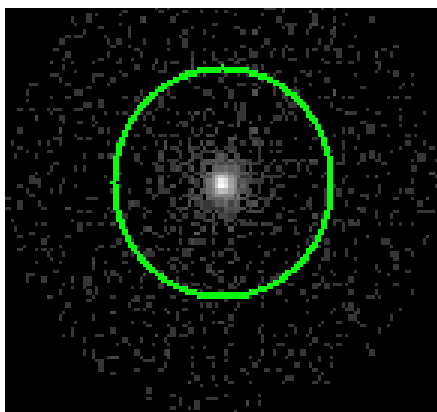


### 3 Gratings

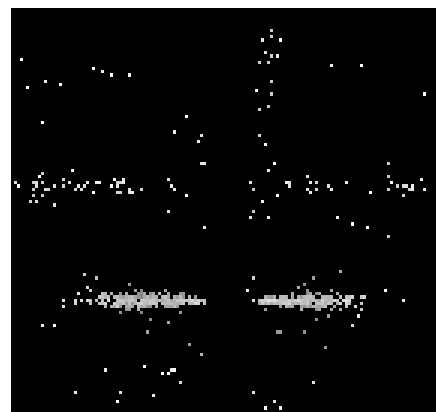
#### 3.1 HEG Arm



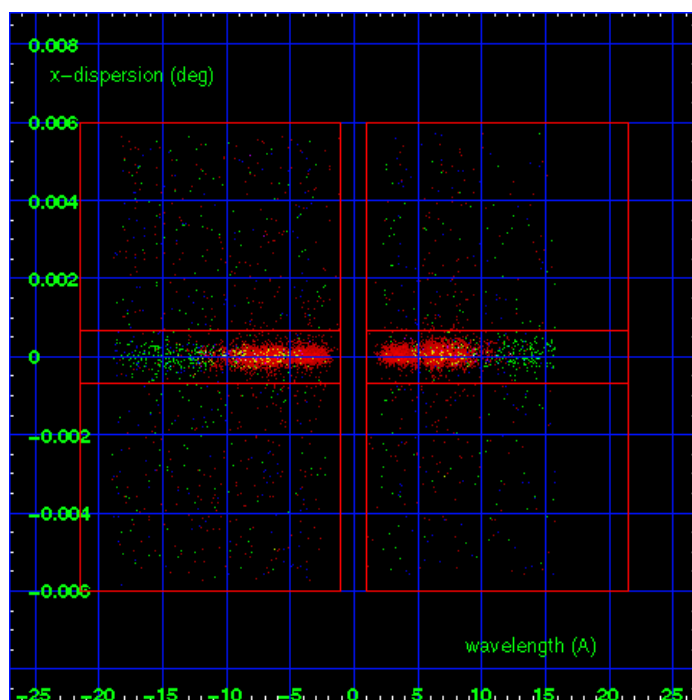
HEG Order Sort 123



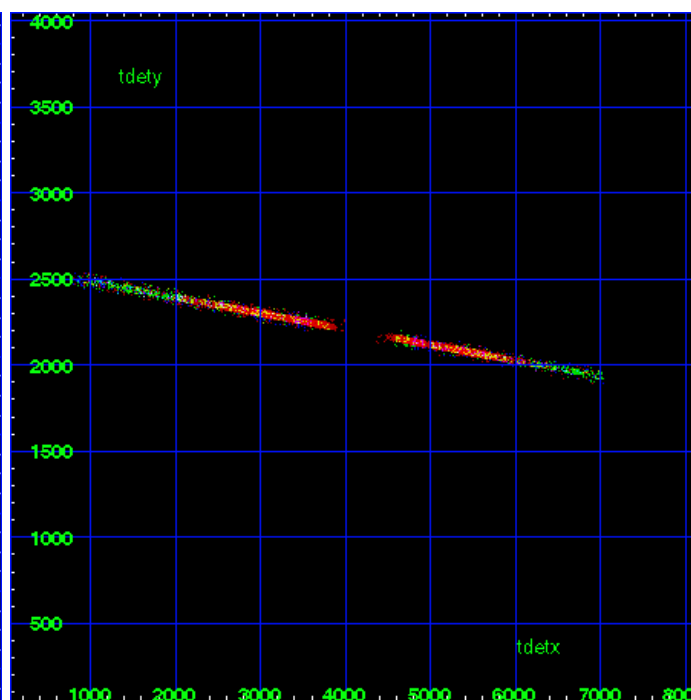
HEG Zero Order



HEG Order Sort ALL

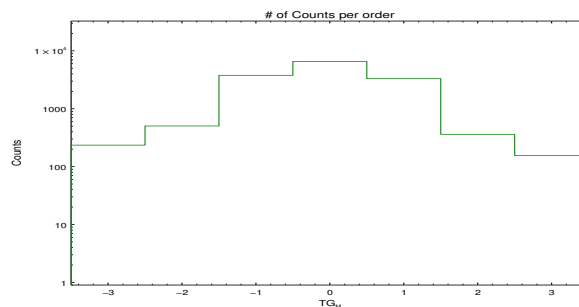


Spot Image HEG

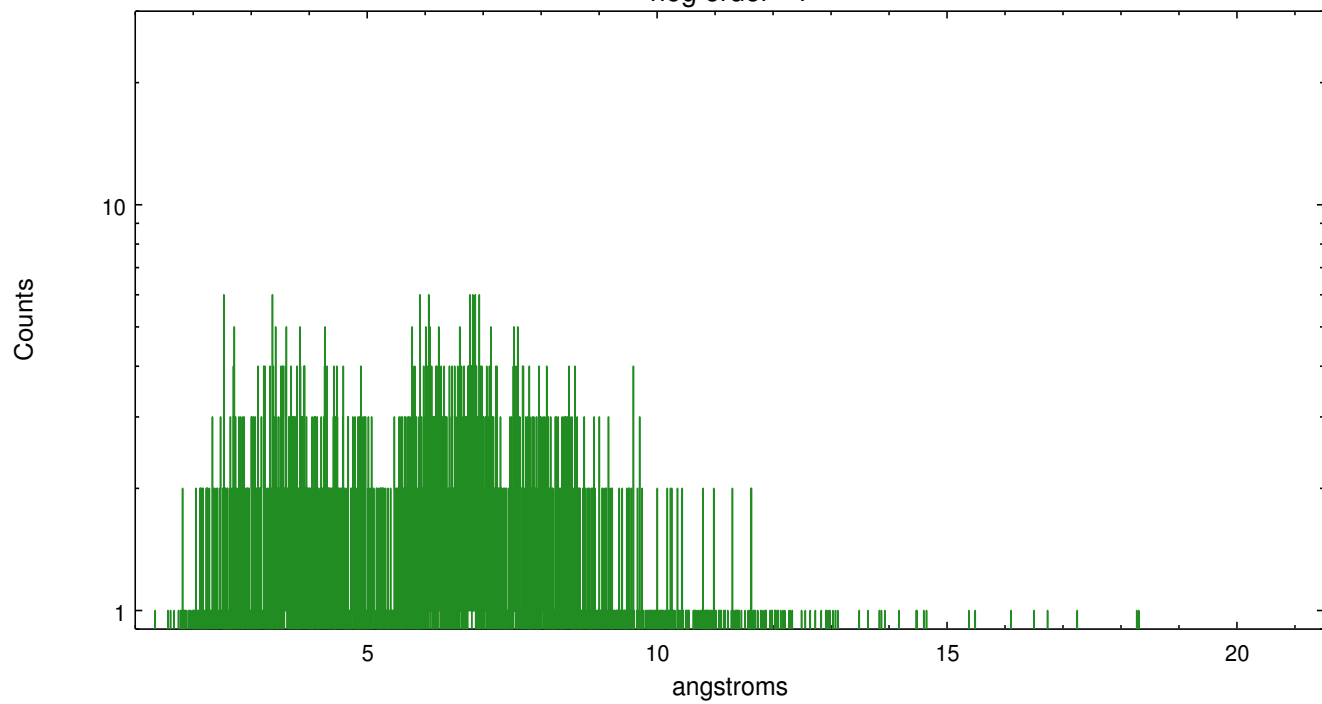


Full Detector HEG

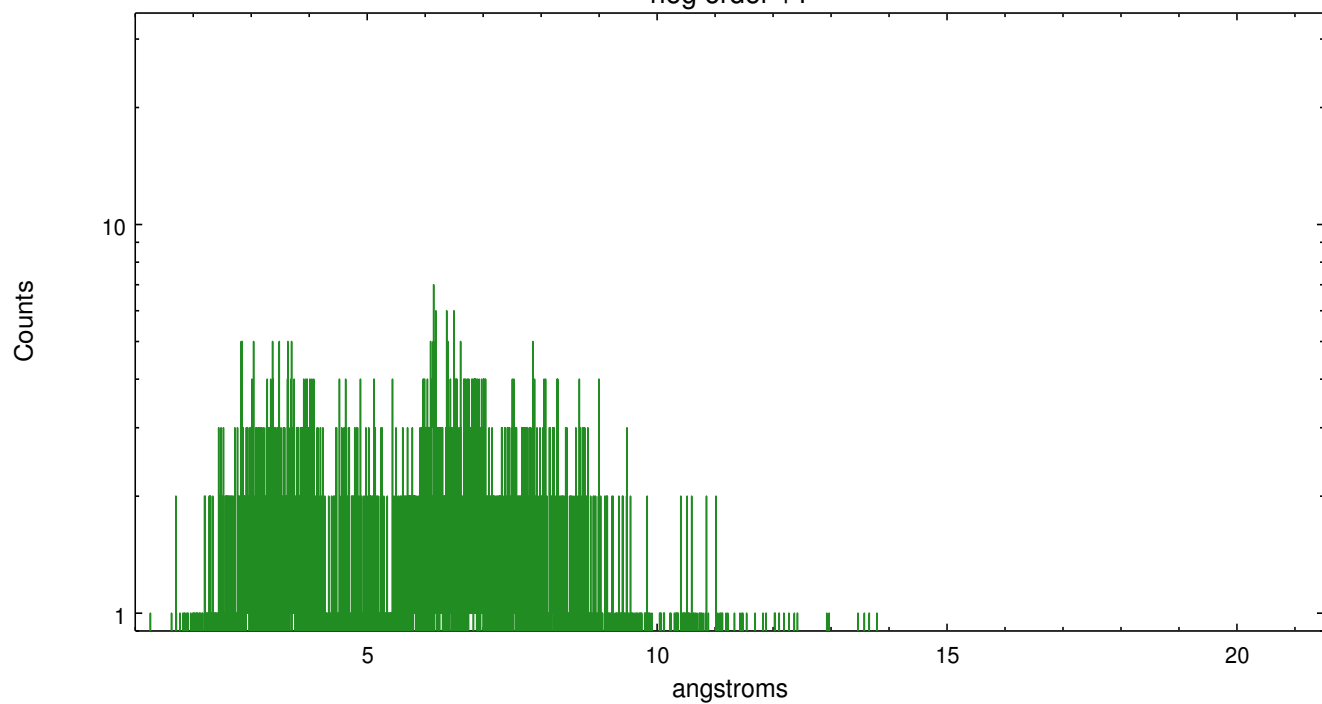
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	235	504	3772	6544	3310	361	155



heg order -1



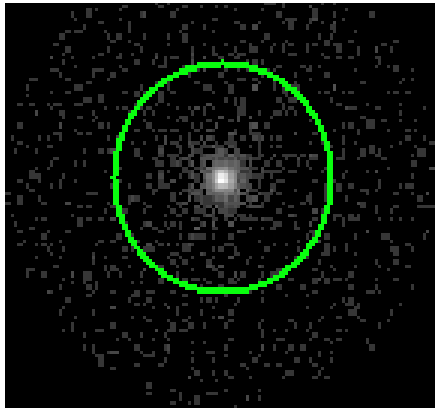
heg order +1



### 3.2 MEG Arm



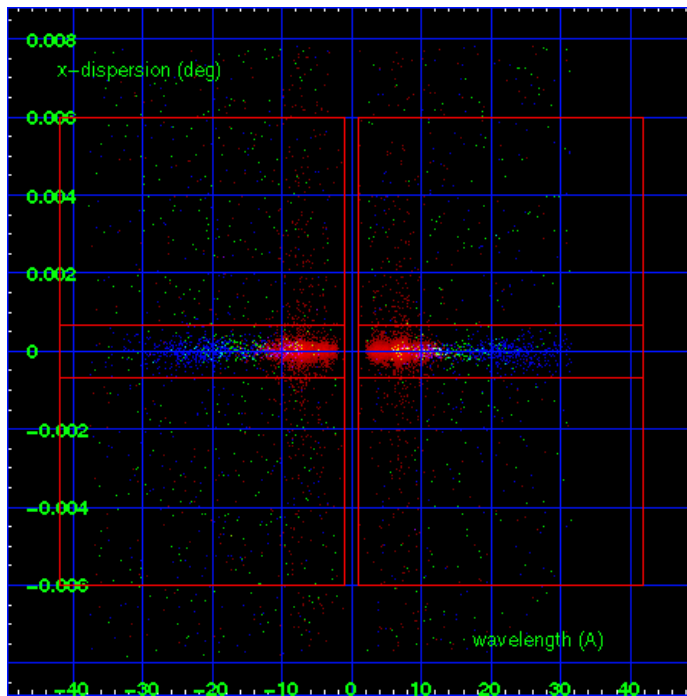
MEG Order Sort 123



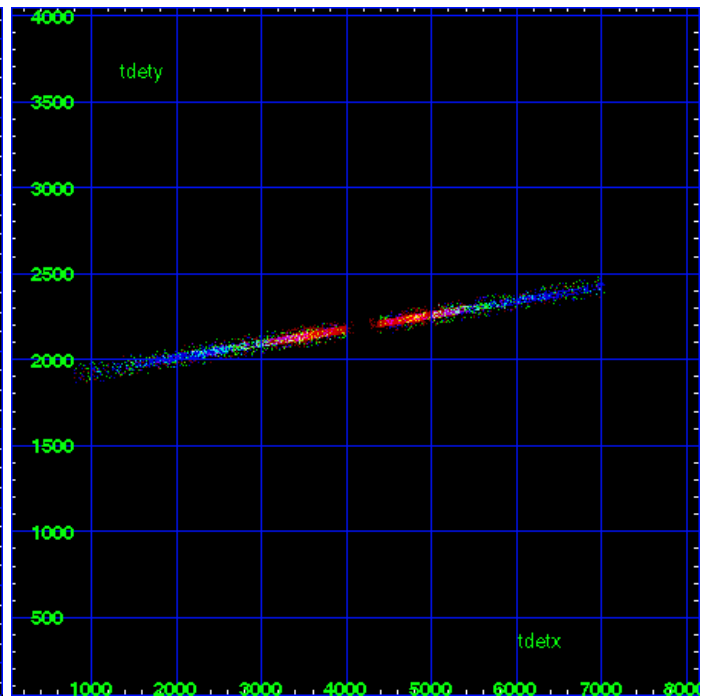
MEG Zero Order



MEG Order Sort ALL

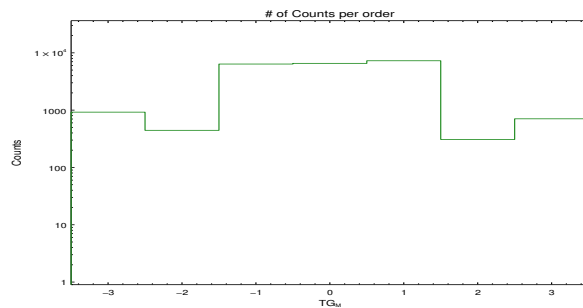


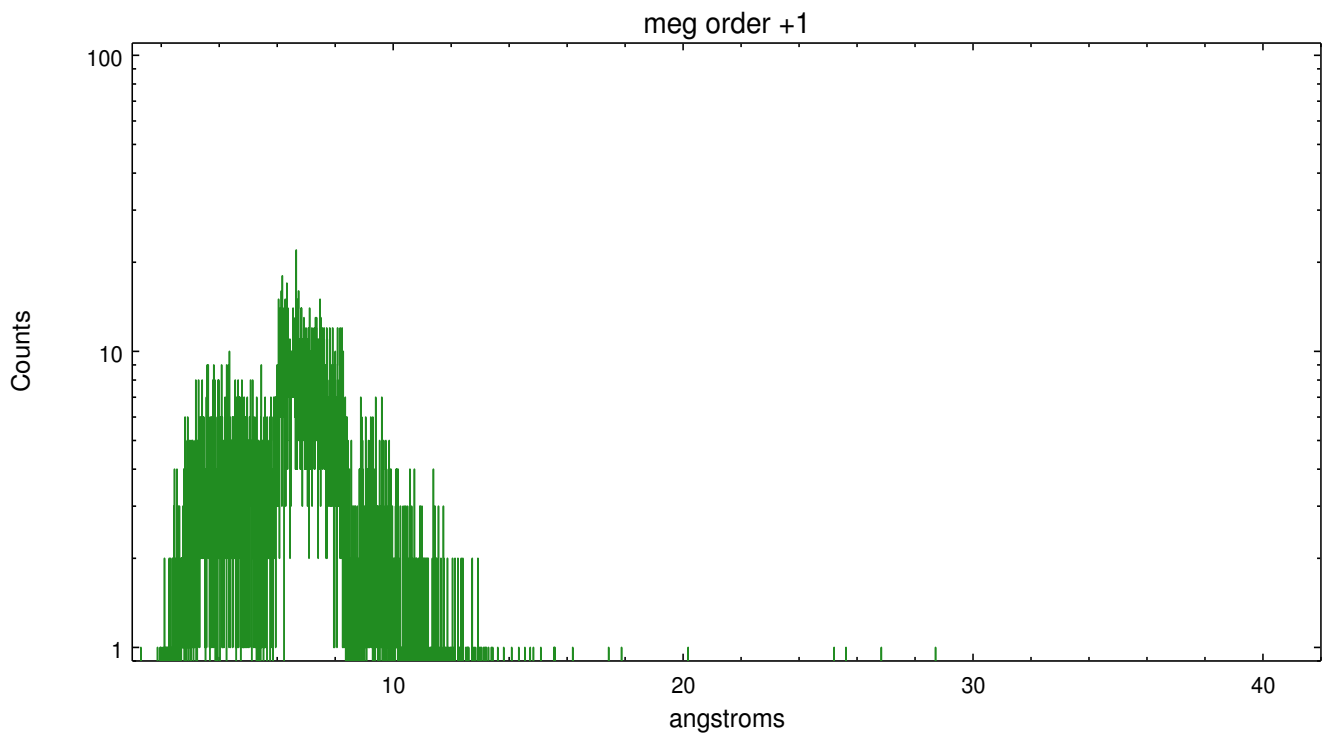
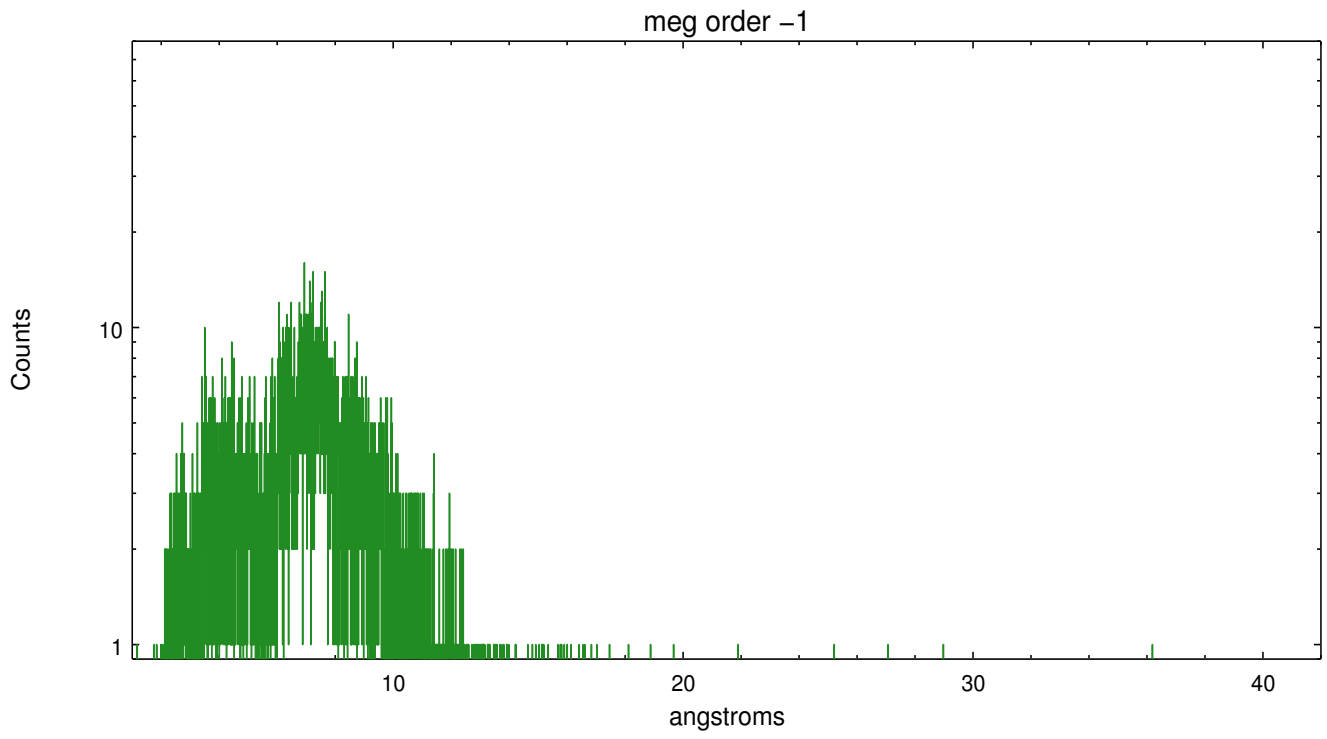
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	922	444	6371	6544	7274	308	706





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.334

### A.2 Comments