

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2812 - L2 Version 3  
Chandra X-Ray Center

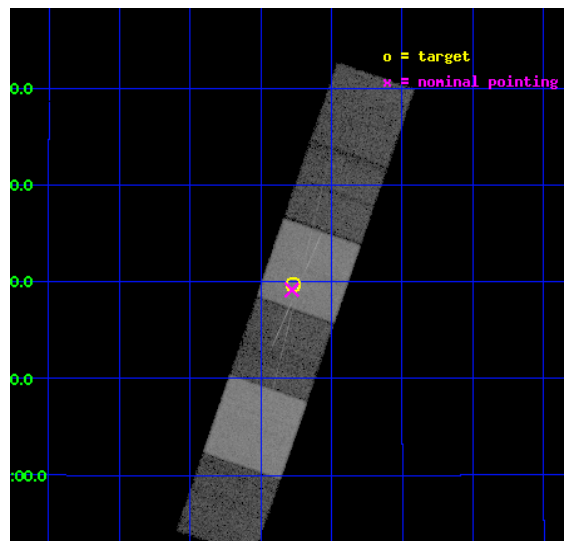
L2 Processing Date : Oct 17 2012

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# 1 Front

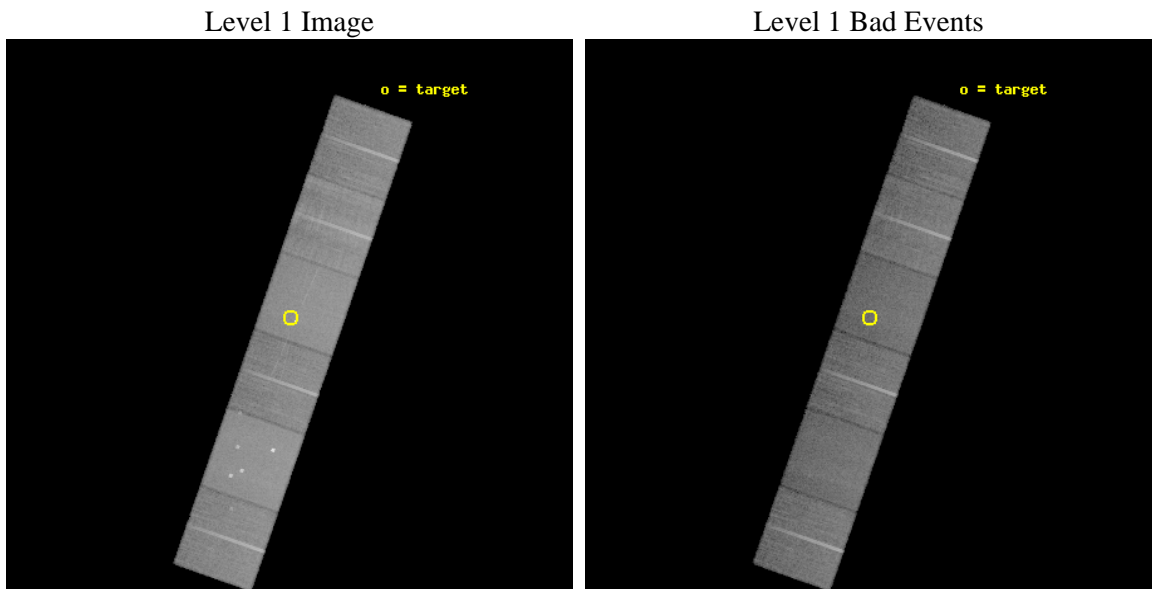
seq_num	500262	Sequence number
obs_id	2812	Observation id
title	SEARCHING FOR PROTON CYCLOTRON FEATURES IN TWO MAGNETAR CANDIDATES	&#160
observer	PROFESSOR LUIGI STELLA	Principal investigator
object	SGR 1900+14	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	286.818333	Observer's specified target RA [deg]
dec_targ	9.328917	Observer's specified target Dec [deg]
ra_nom	286.8198874505	Nominal RA [deg]
dec_nom	9.3193491412099	Nominal Dec [deg]
roll_nom	289.15657766159	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29694.6447061	Sum of GTIs [s]
livetime	29318.633234863	Livetime [s]
ontime4	29694.685746104	Sum of GTIs [s]
ontime5	29694.603666097	Sum of GTIs [s]
ontime6	29694.562626094	Sum of GTIs [s]
ontime7	29694.6447061	Sum of GTIs [s]
ontime8	29694.52158609	Sum of GTIs [s]
ontime9	29694.480546117	Sum of GTIs [s]
l2events	294283	Number of level 2 events



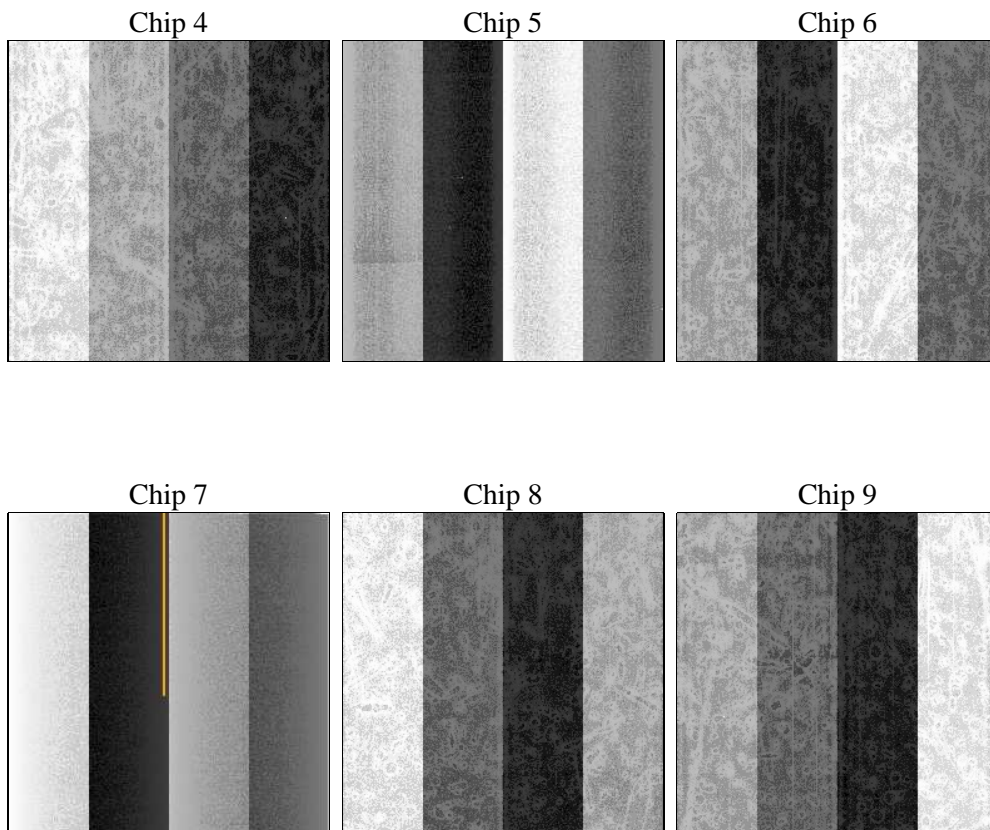
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29694.6447061	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime4	29694.685746104	Sum of GTIs [s]
date	2012-10-17T00:51:44	Date and time of file creation	ontime5	29694.603666097	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	29694.562626094	Sum of GTIs [s]
			ontime7	29694.6447061	Sum of GTIs [s]
			ontime8	29694.52158609	Sum of GTIs [s]
			ontime9	29694.480546117	Sum of GTIs [s]
			l1events	1319465	Number of level 1 events

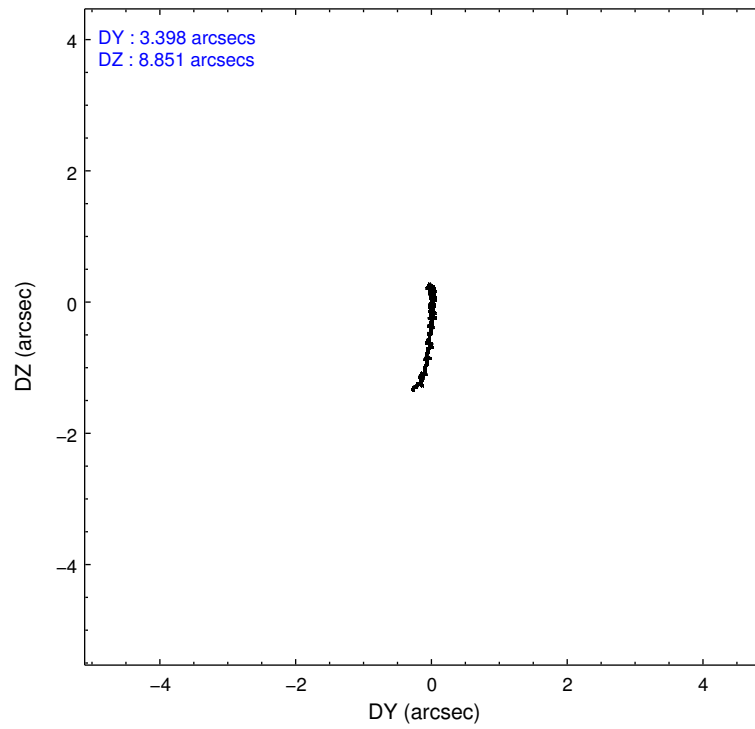
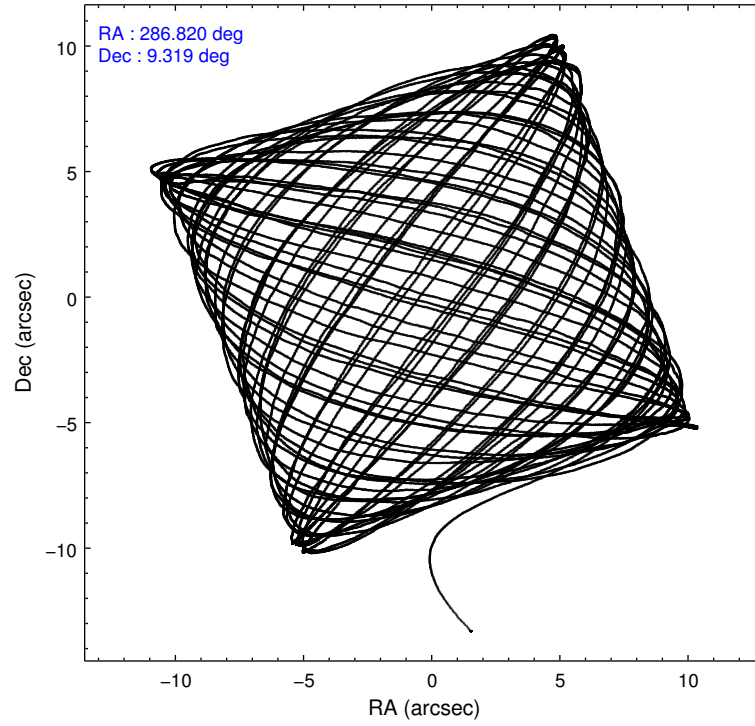
### 2.1.4 Events

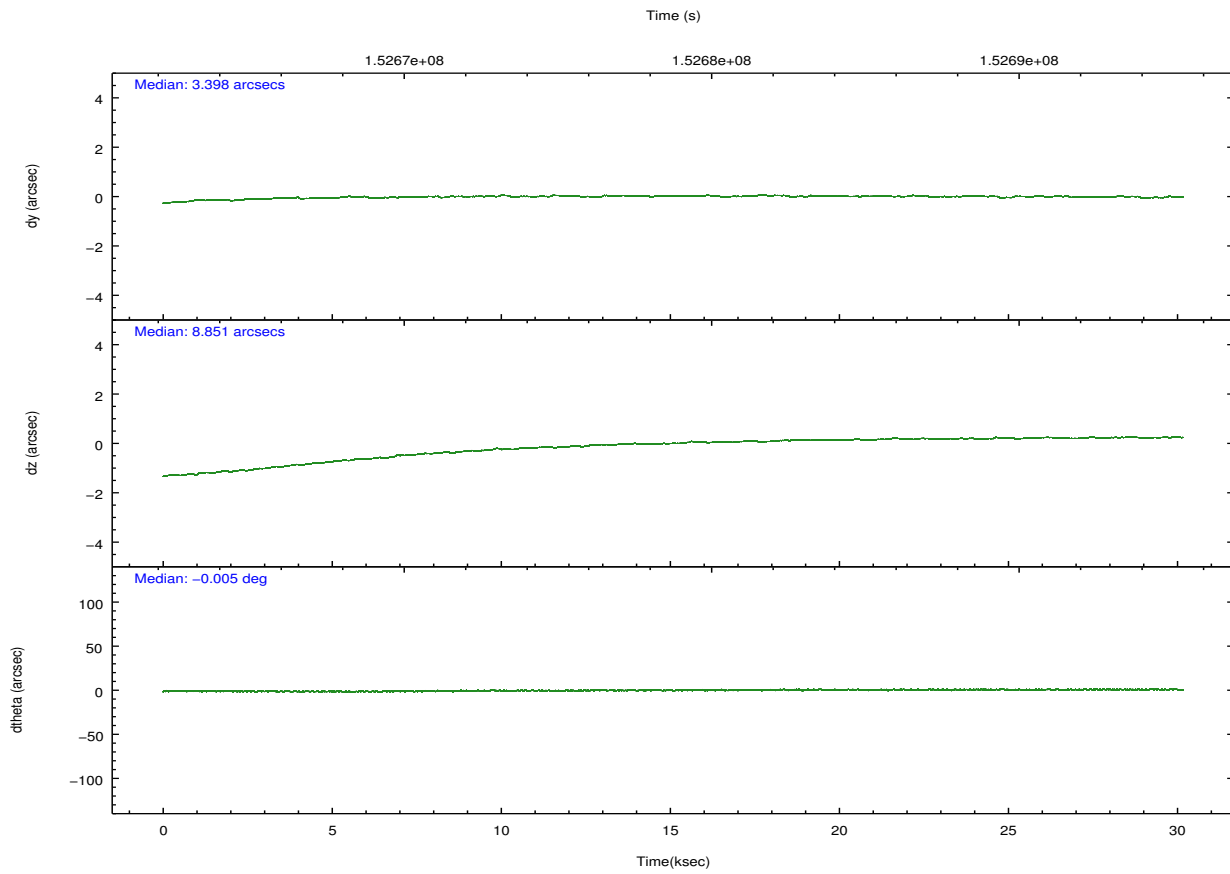
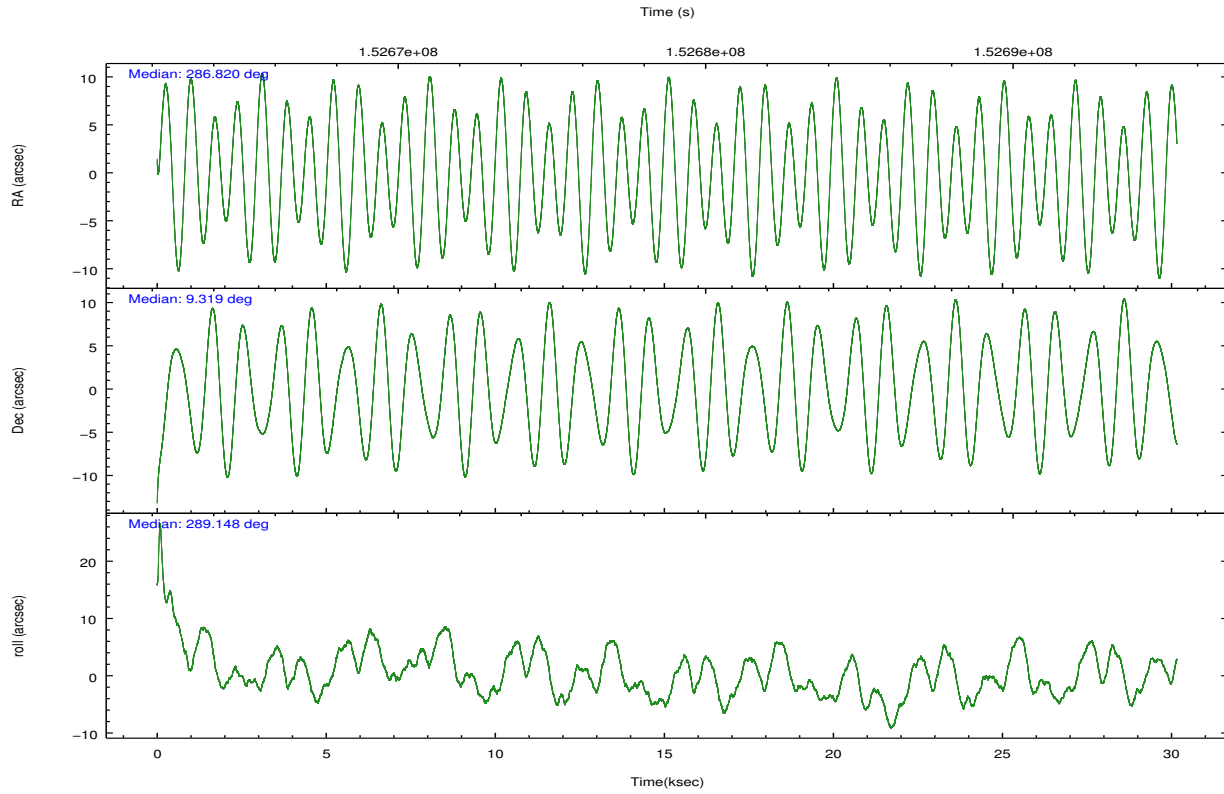
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	199102	270387	185782	244148	237604	182442	grade 0 events	10462	20734	10120	9865	17343	9463
rejected events	175756	142311	161847	139534	183313	159669		5%	7%	5%	4%	7%	5%
rejected %	88%	52%	87%	57%	77%	87%	grade 1 events	186	444	87	237	172	102
								0%	0%	0%	0%	0%	0%
							grade 2 events	4847	34834	4803	20879	11316	4394
								2%	12%	2%	8%	4%	2%
							grade 3 events	2223	4973	2235	9498	6149	2308
								1%	1%	1%	3%	2%	1%
							grade 4 events	2309	4821	2198	9492	5569	2216
								1%	1%	1%	3%	2%	1%
							grade 5 events	7647	19587	7985	22826	10774	8615
								3%	7%	4%	9%	4%	4%
							grade 6 events	3511	62734	4586	54903	13920	4397
								1%	23%	2%	22%	5%	2%
							grade 7 events	167917	122260	153768	116448	172361	150947
								84%	45%	82%	47%	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	286.798751	286.8198874504994	Subarray requested	NONE	NONE
[deg] Pointing Dec	9.336895	9.319349141209894	Alternating exposures requested	N	N
[deg] Pointing Roll	289.003387	289.1565776615902	[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	-187.132523	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
[s] Observation start time (MET)	152663824.184000	152662862.40456			
Observation start date	2002-11-02T22:36:00	2002-11-02T22:21:02			
[s] Observation end time (MET)	152693824.184000	152694454.44337			
Observation end date	2002-11-03T06:56:00	2002-11-03T07:07:34			
Read mode	TIMED	TIMED			

## 2.3 Aspect





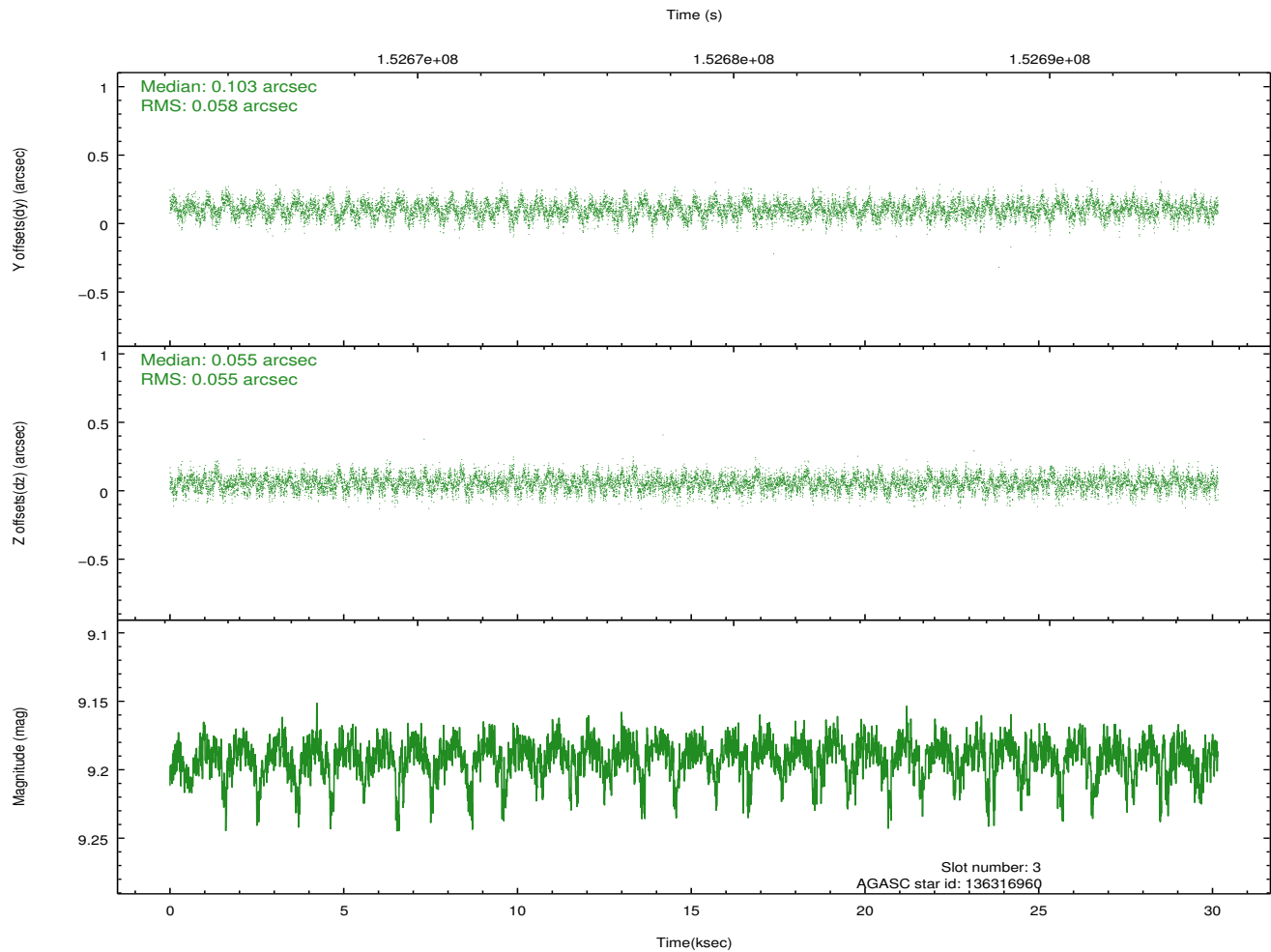
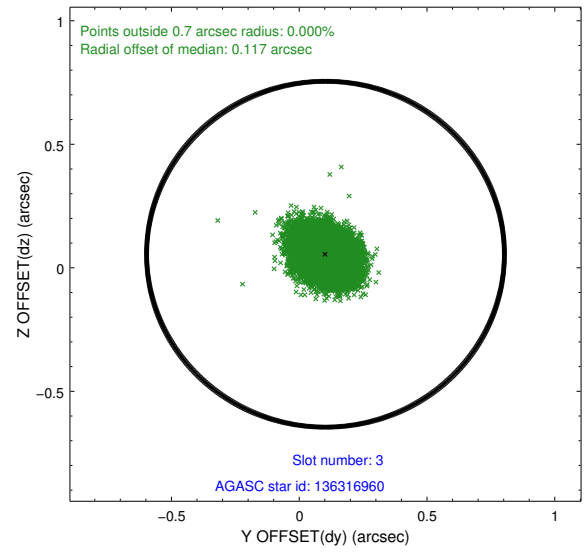
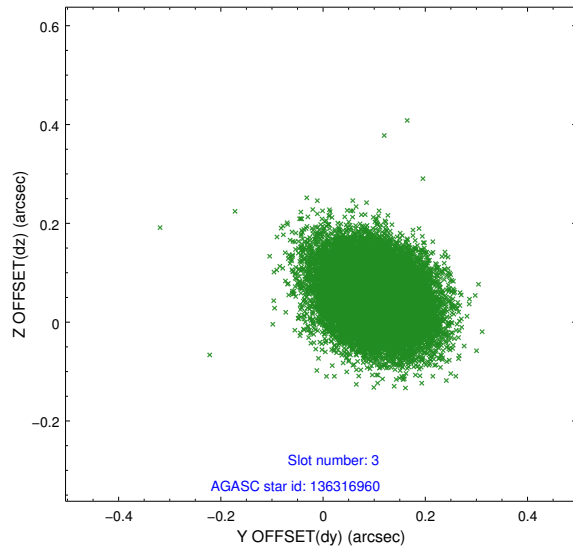
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7354	-0.054	-0.034	0.010	0.014	0.000000	0.000000	-755.84	-1792.06
1	FID	ACIS-S-4	7.20	7355	0.036	0.035	0.008	0.015	0.000000	0.000000	2157.45	116.46
2	FID	ACIS-S-5	7.23	7356	-0.013	0.008	0.008	0.013	0.000000	0.000000	-1808.59	110.11
3	GUIDE	136316960	9.19	14708	0.103	0.055	0.086	0.137	287.104881	9.133555	1045.68	790.82
4	GUIDE	136317768	9.48	14661	0.092	-0.016	0.099	0.160	286.604147	8.690245	1975.45	-1412.47
5	GUIDE	136323720	8.86	14708	0.005	-0.053	0.092	0.151	286.331708	8.774626	1372.03	-2229.96
6	GUIDE	136849008	9.63	14700	-0.094	0.129	0.129	0.207	287.041390	10.029261	-2077.49	1624.81
7	GUIDE	136841600	9.69	14701	-0.103	-0.118	0.114	0.191	286.277350	9.785919	-2132.43	-1222.46

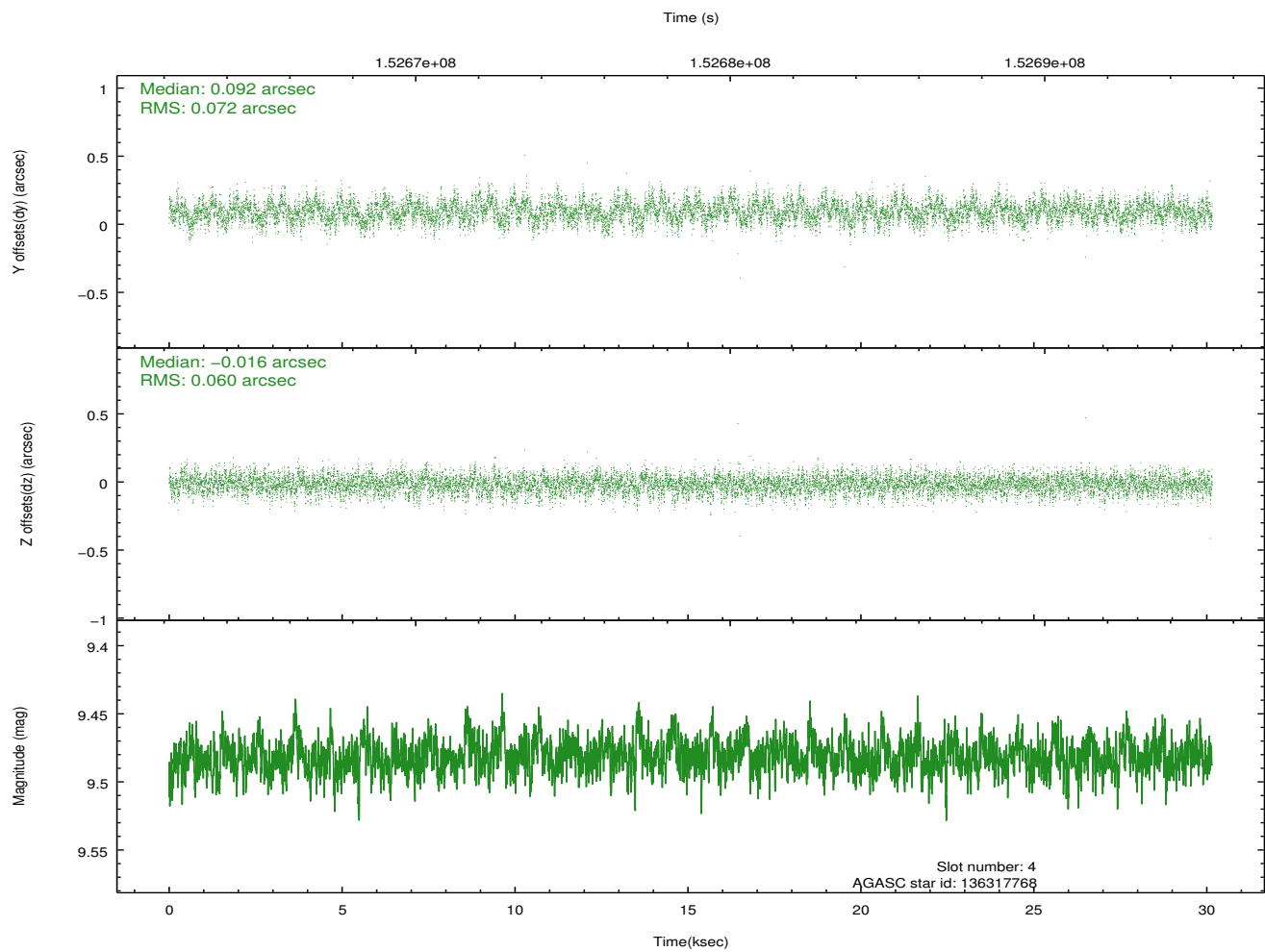
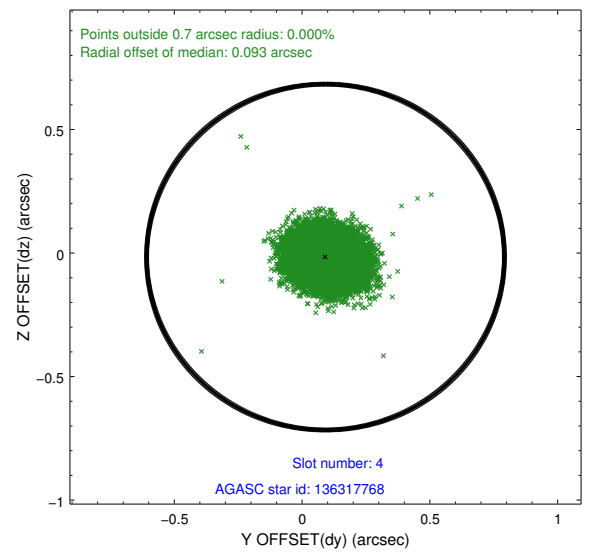
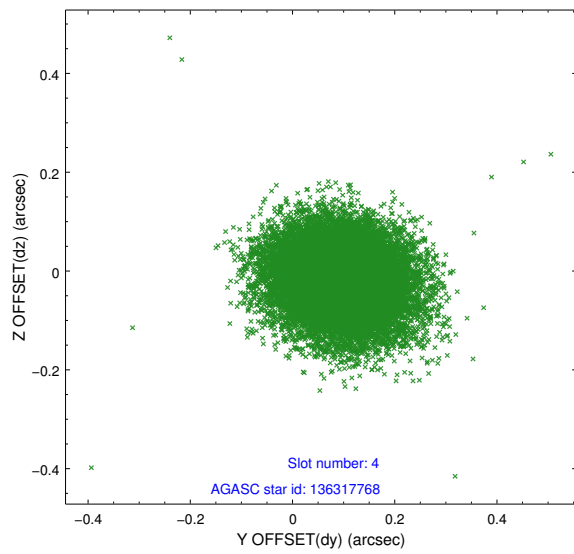
∞

## 2.4 Star Slots

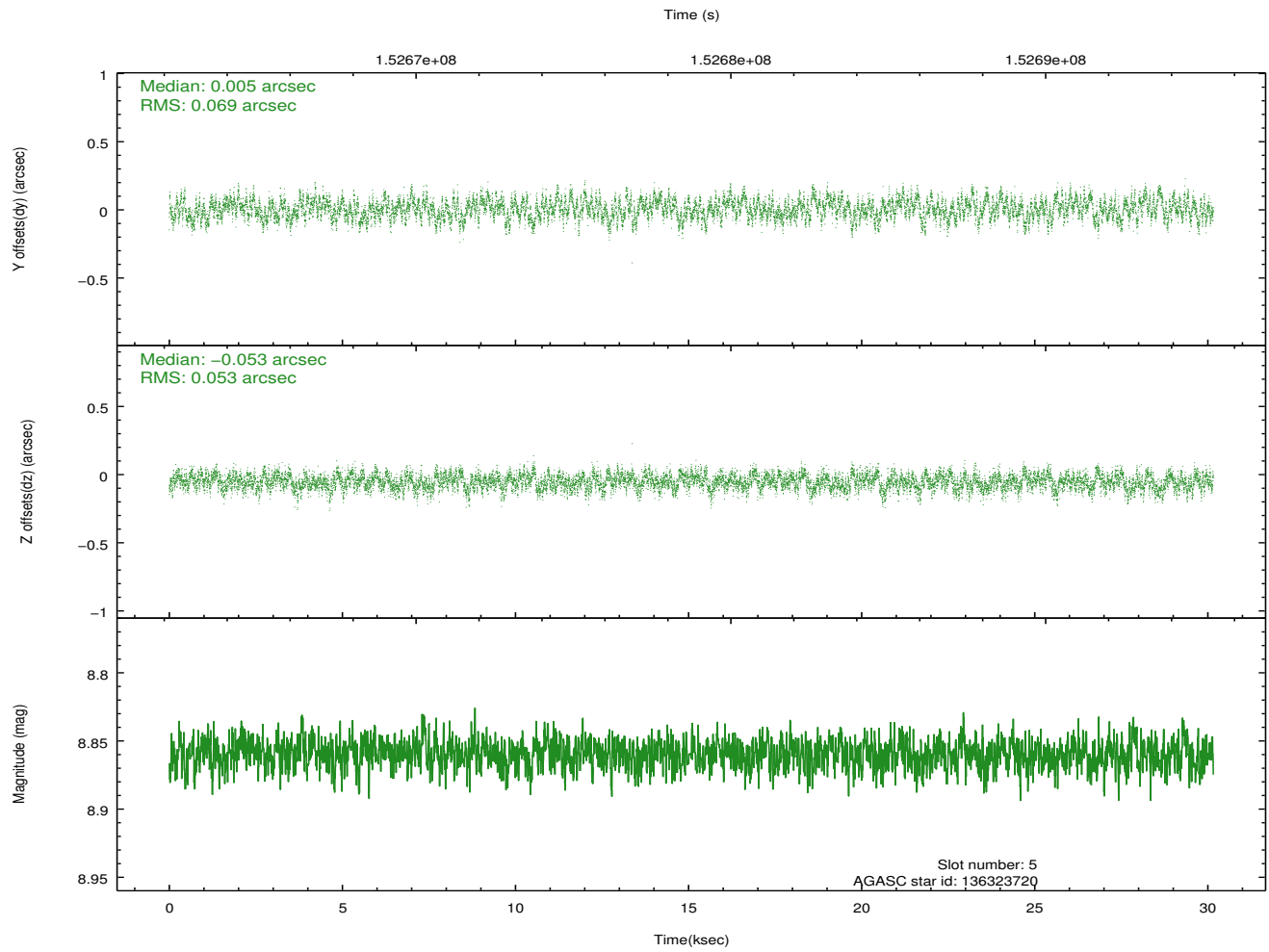
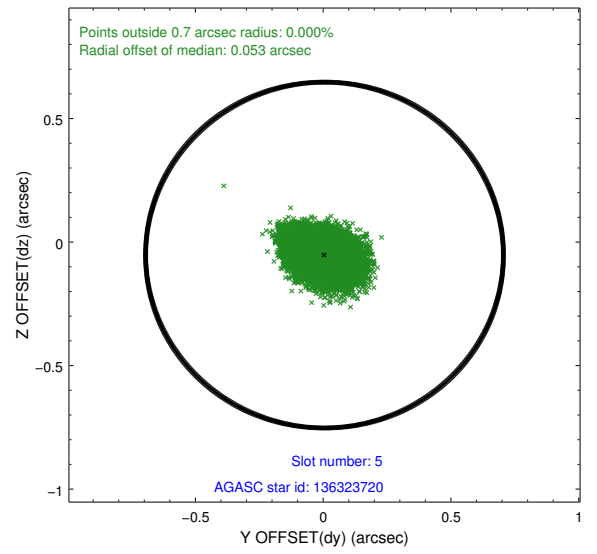
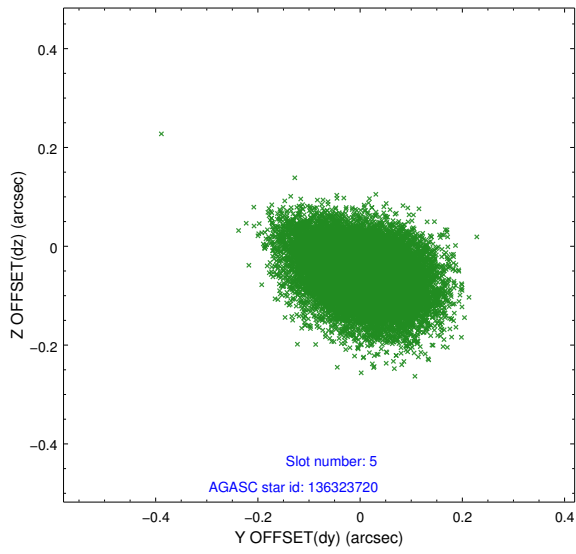
### 2.4.1 Slot 3



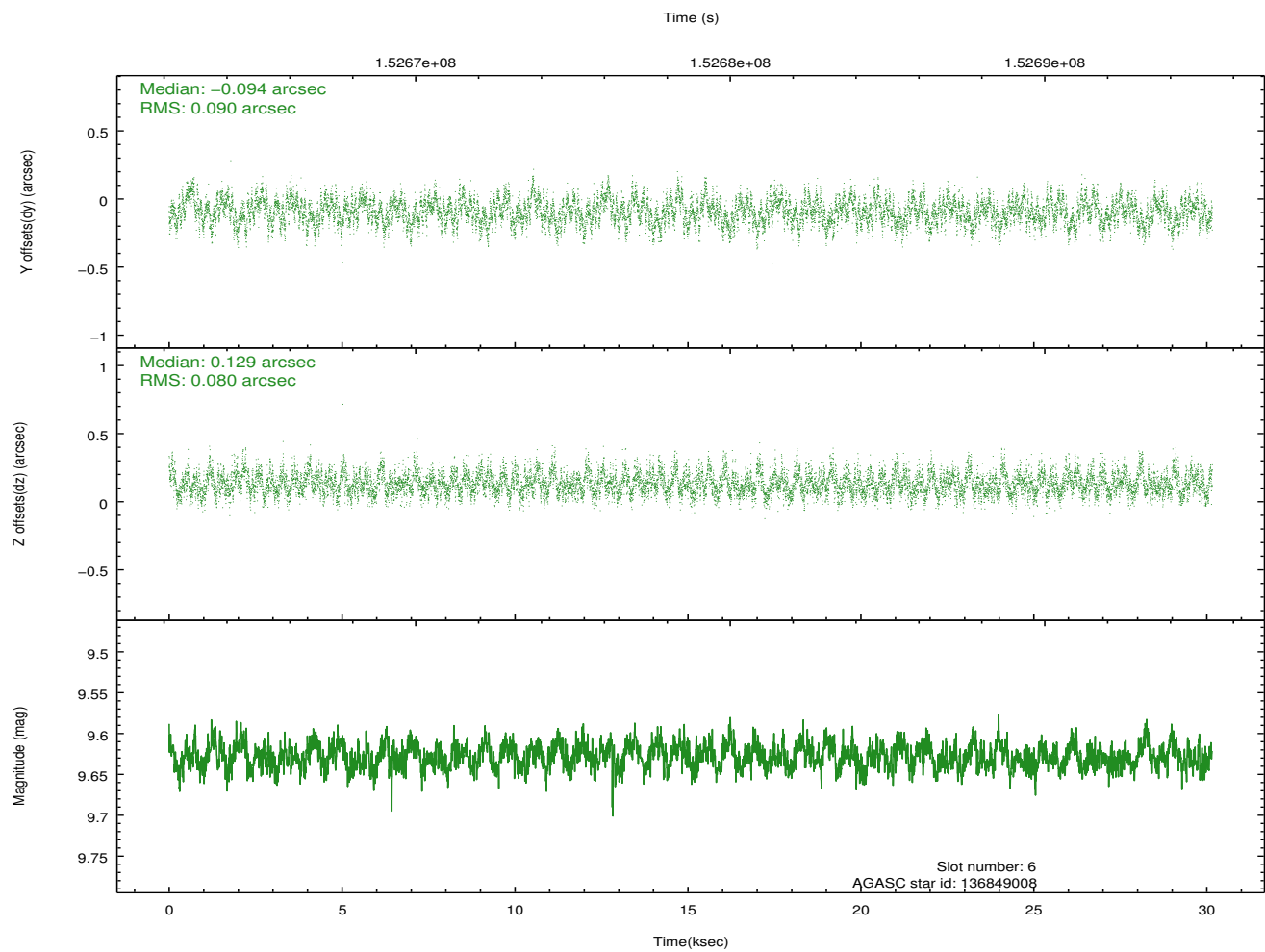
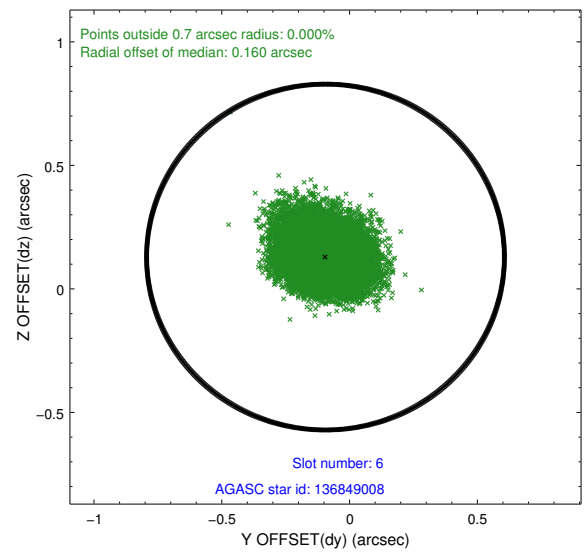
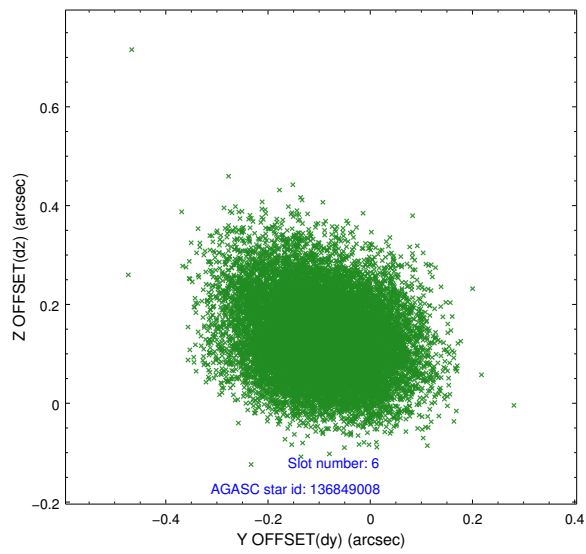
## 2.4.2 Slot 4



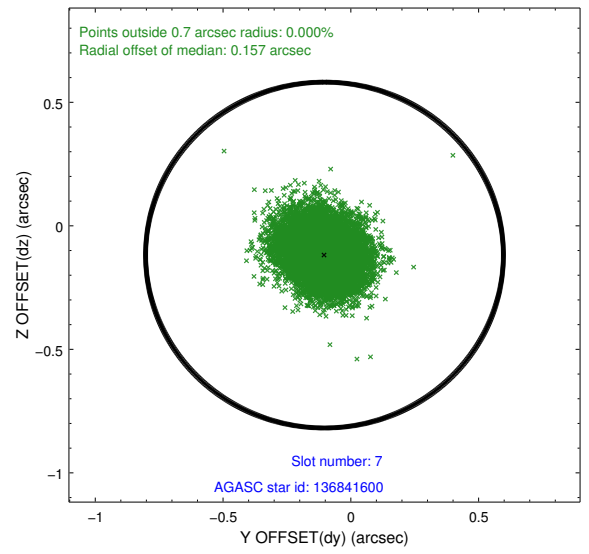
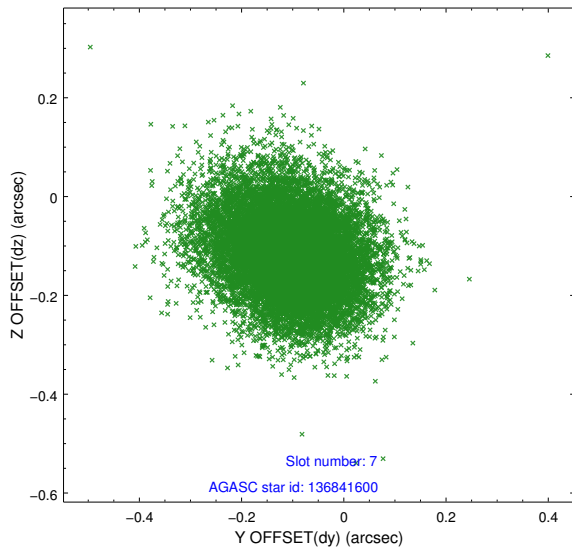
### 2.4.3 Slot 5



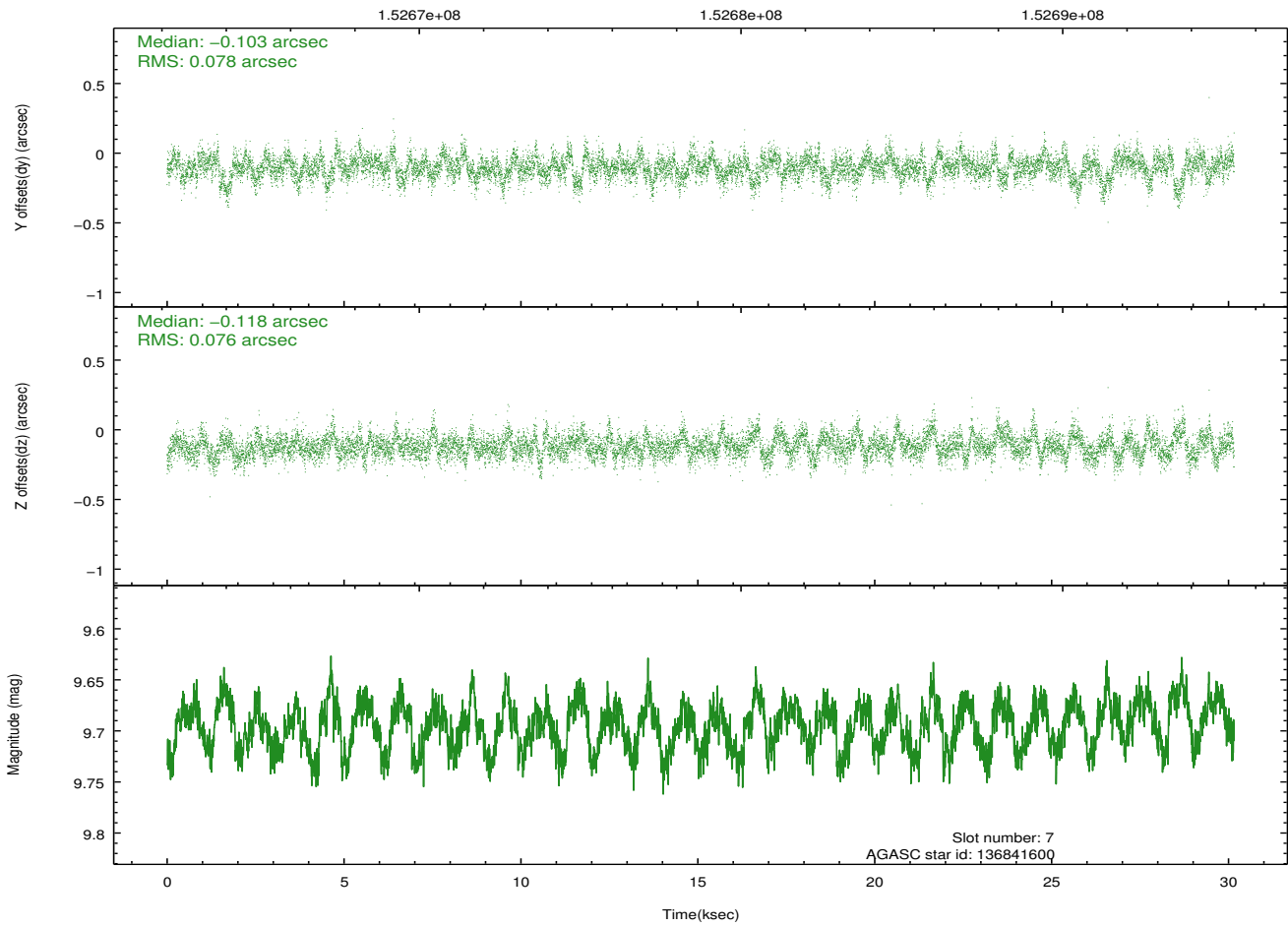
## 2.4.4 Slot 6



## 2.4.5 Slot 7

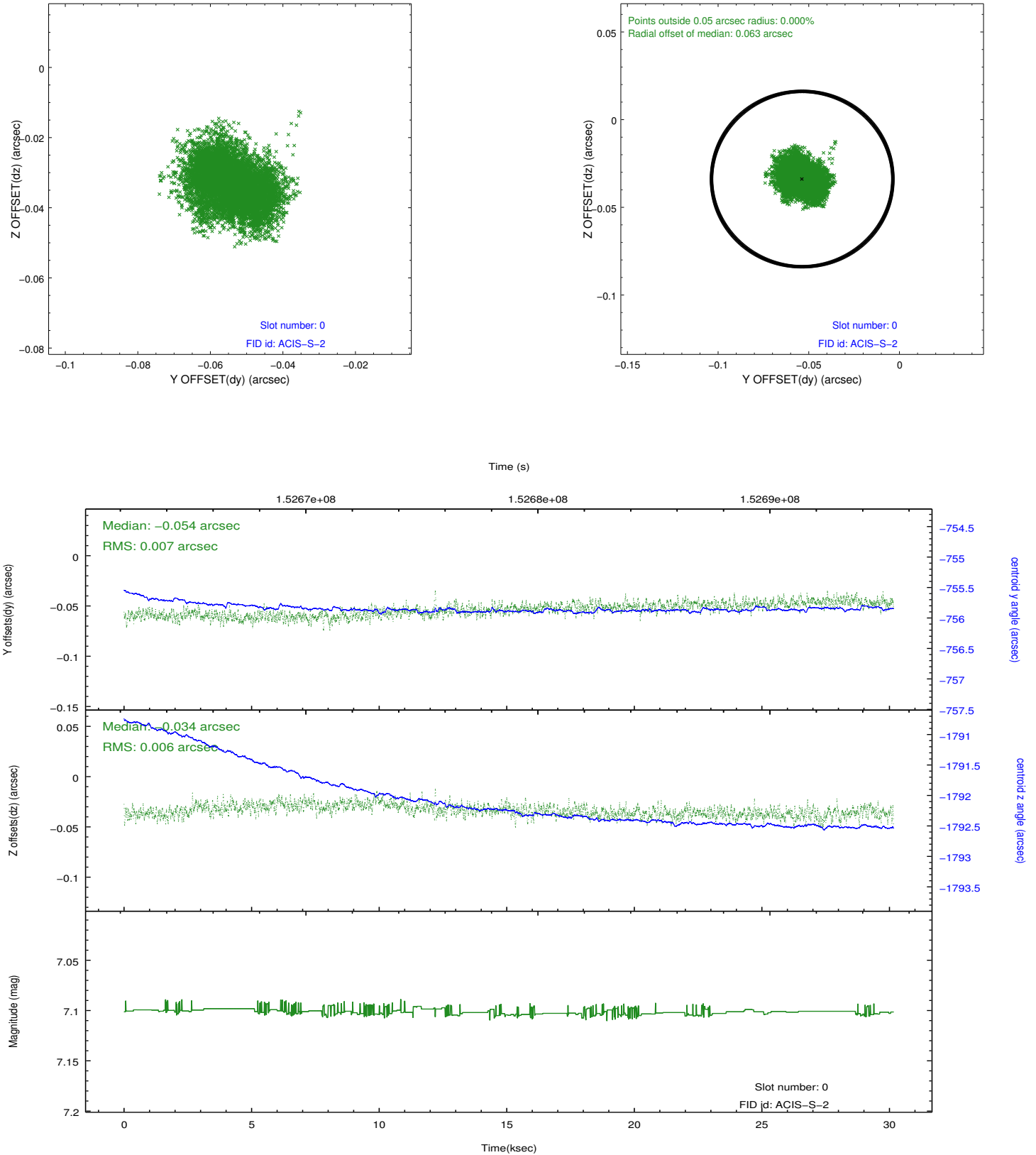


Time (s)

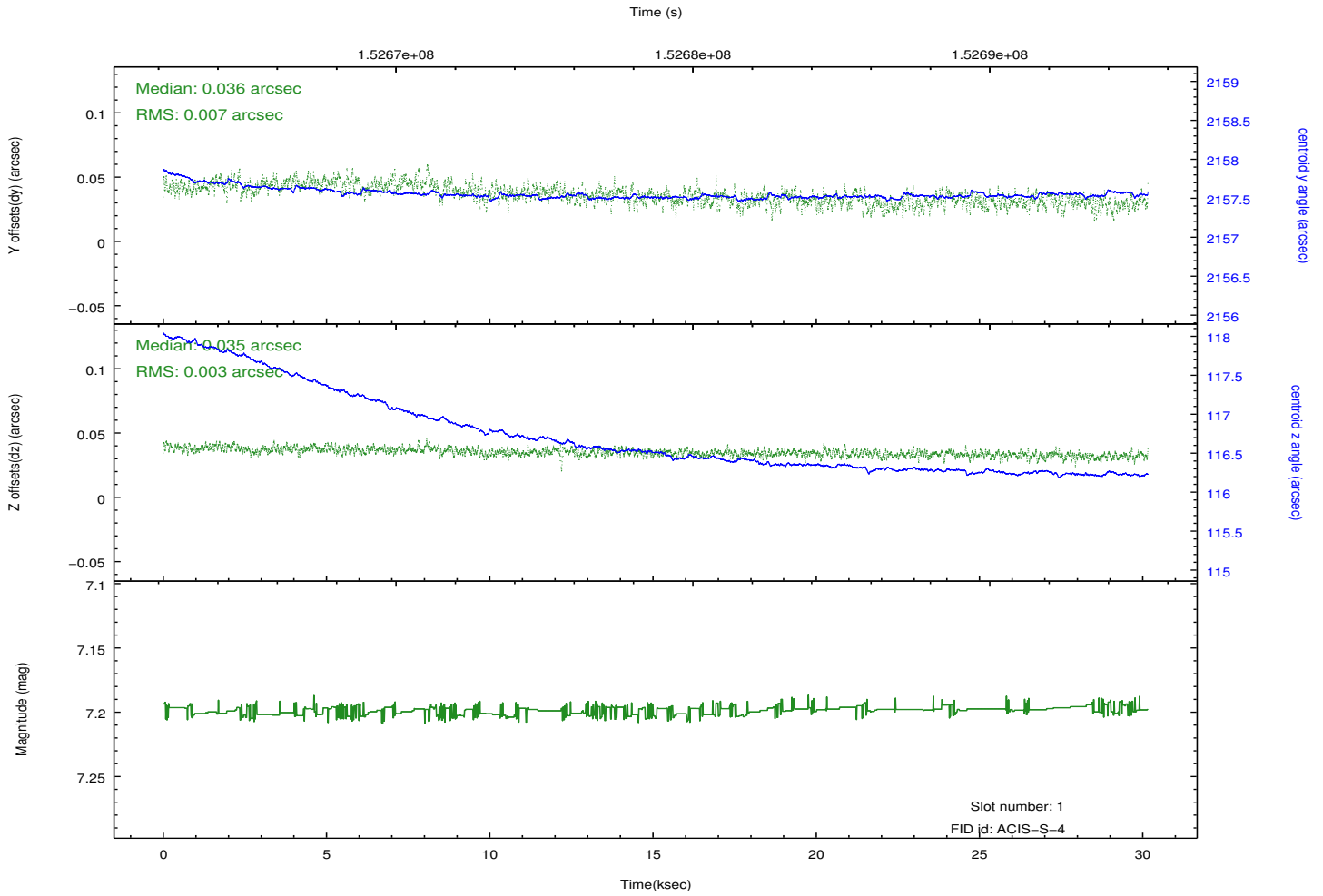
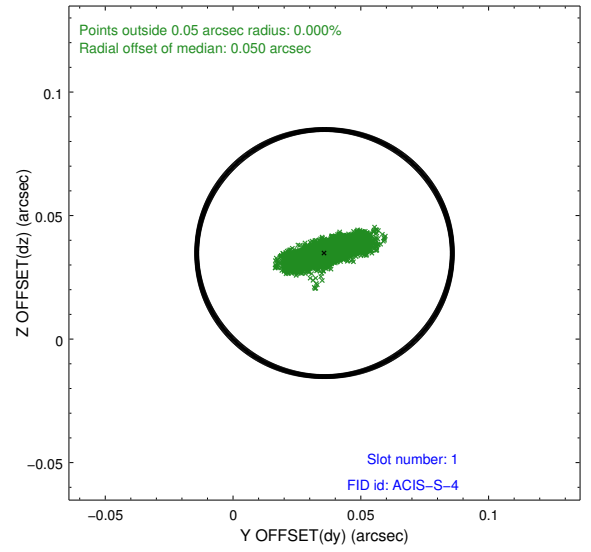
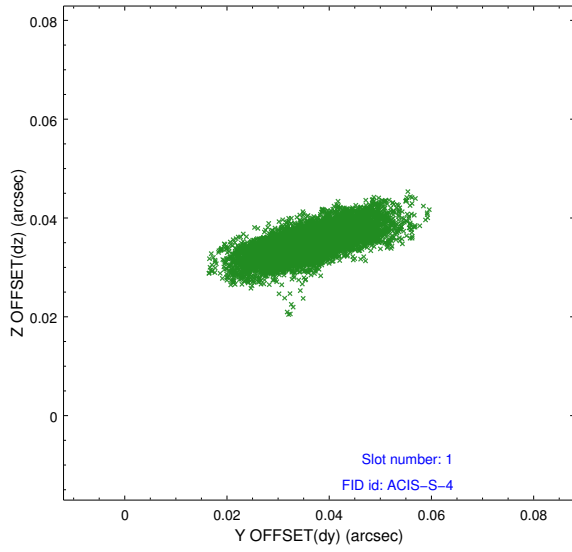


## 2.5 FID Slots

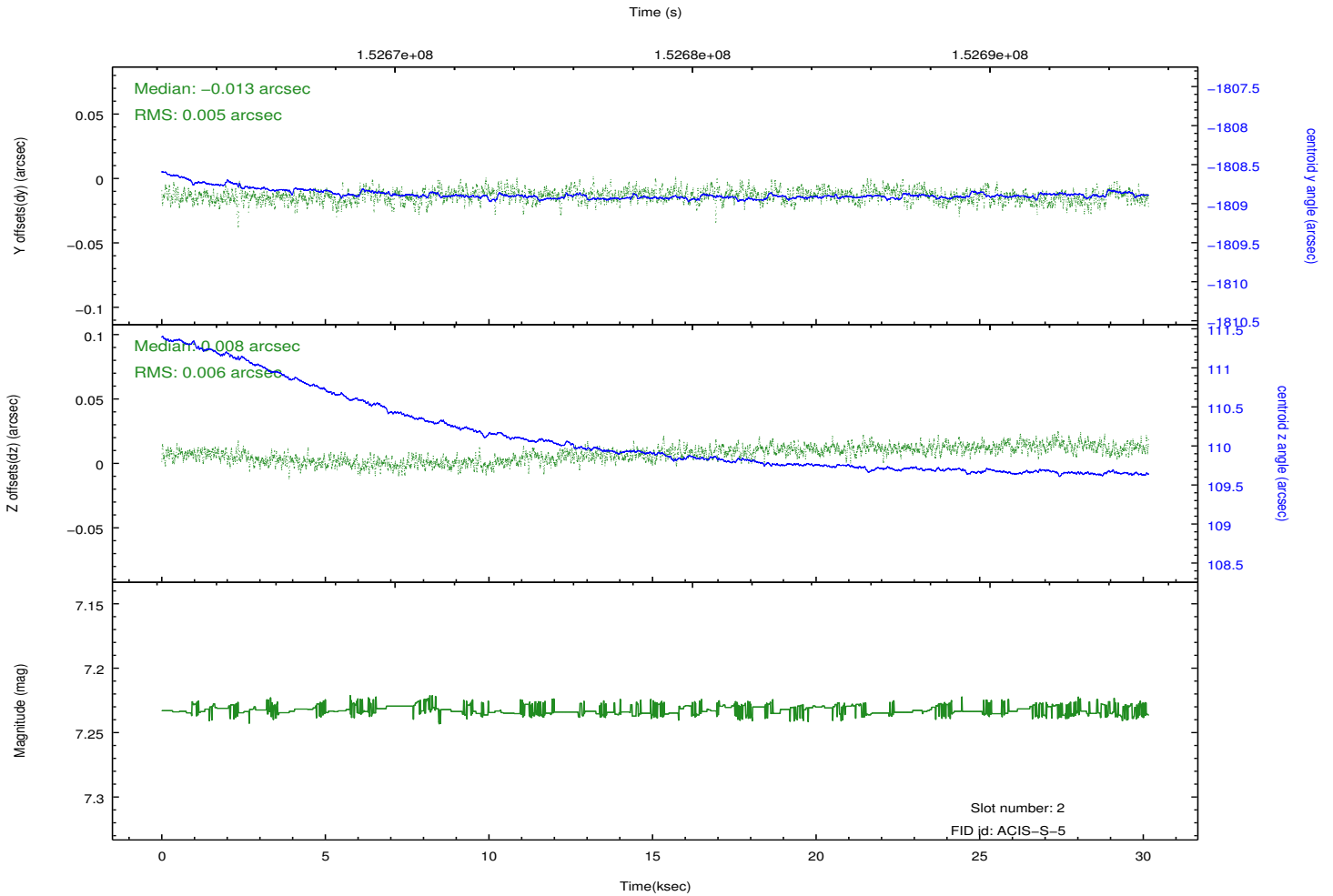
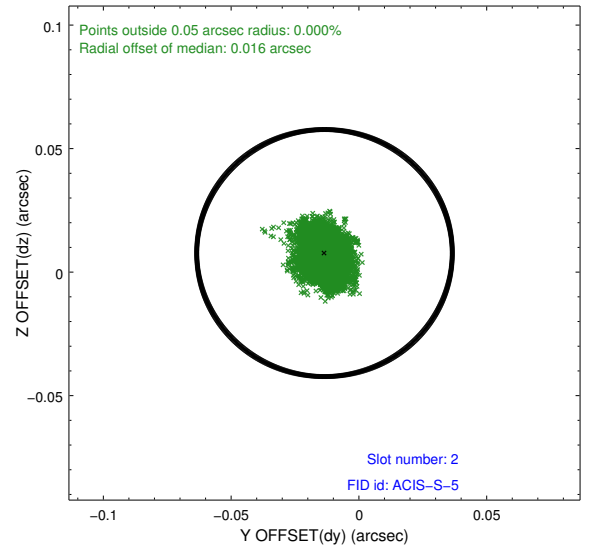
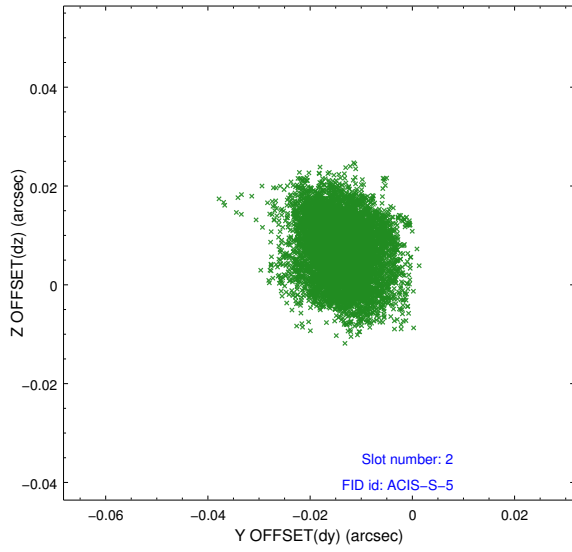
### 2.5.1 Slot 0



## 2.5.2 Slot 1

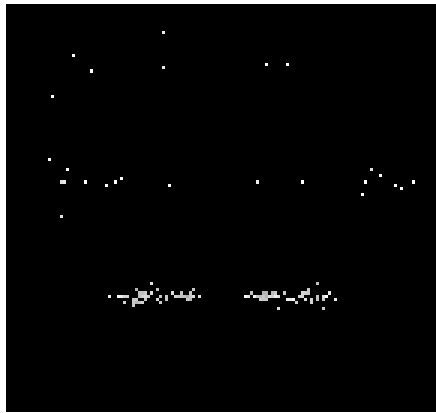


### 2.5.3 Slot 2

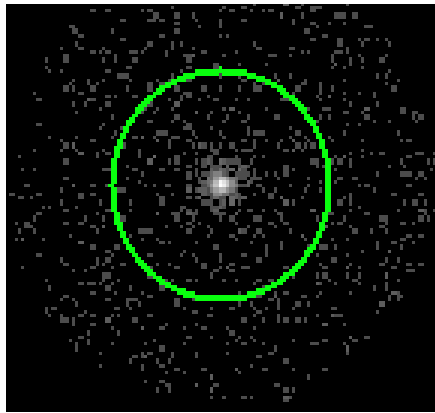


### 3 Gratings

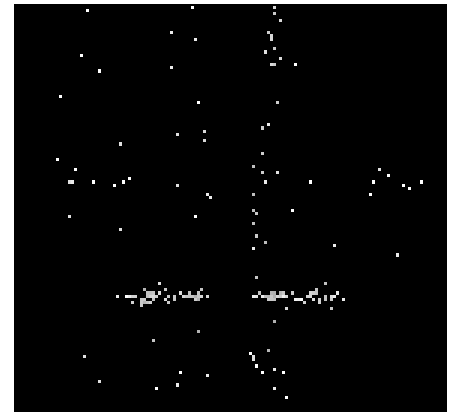
#### 3.1 HEG Arm



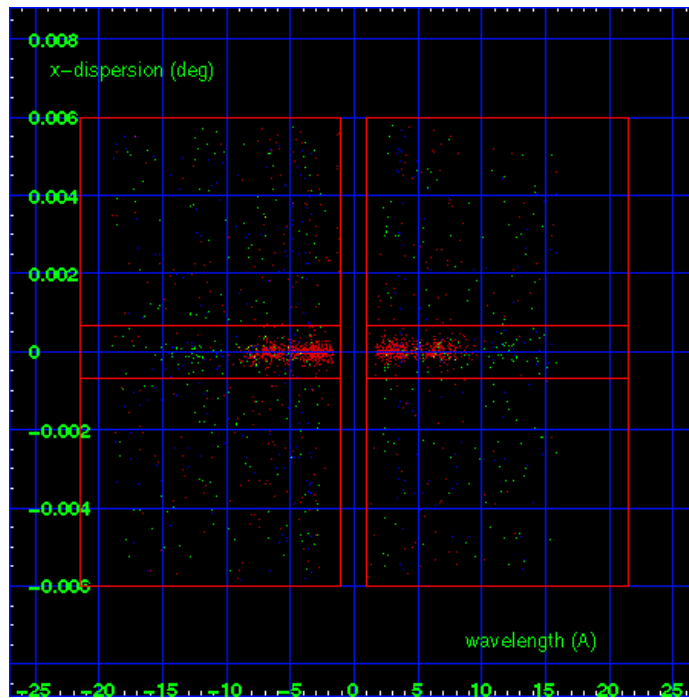
HEG Order Sort 123



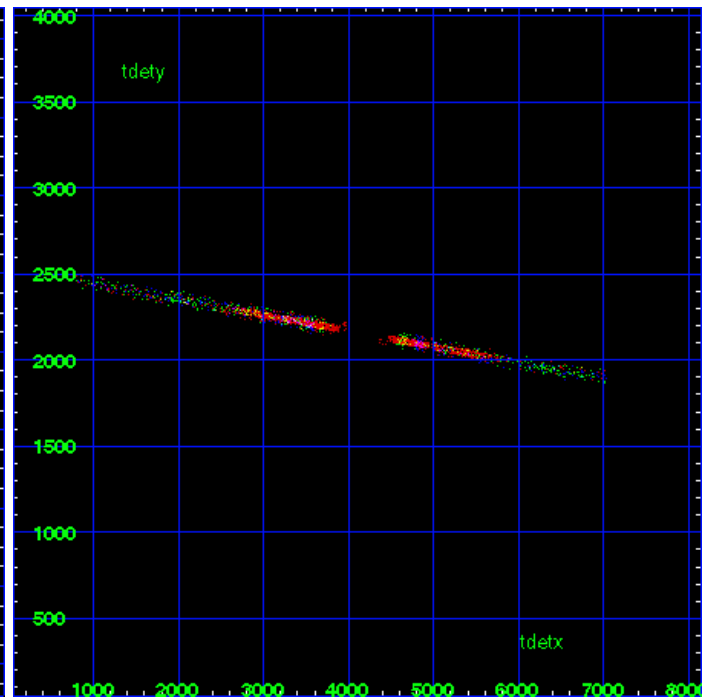
HEG Zero Order



HEG Order Sort ALL

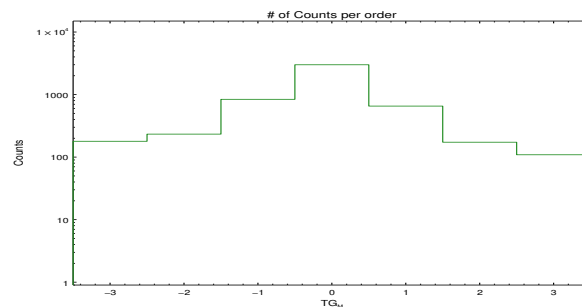


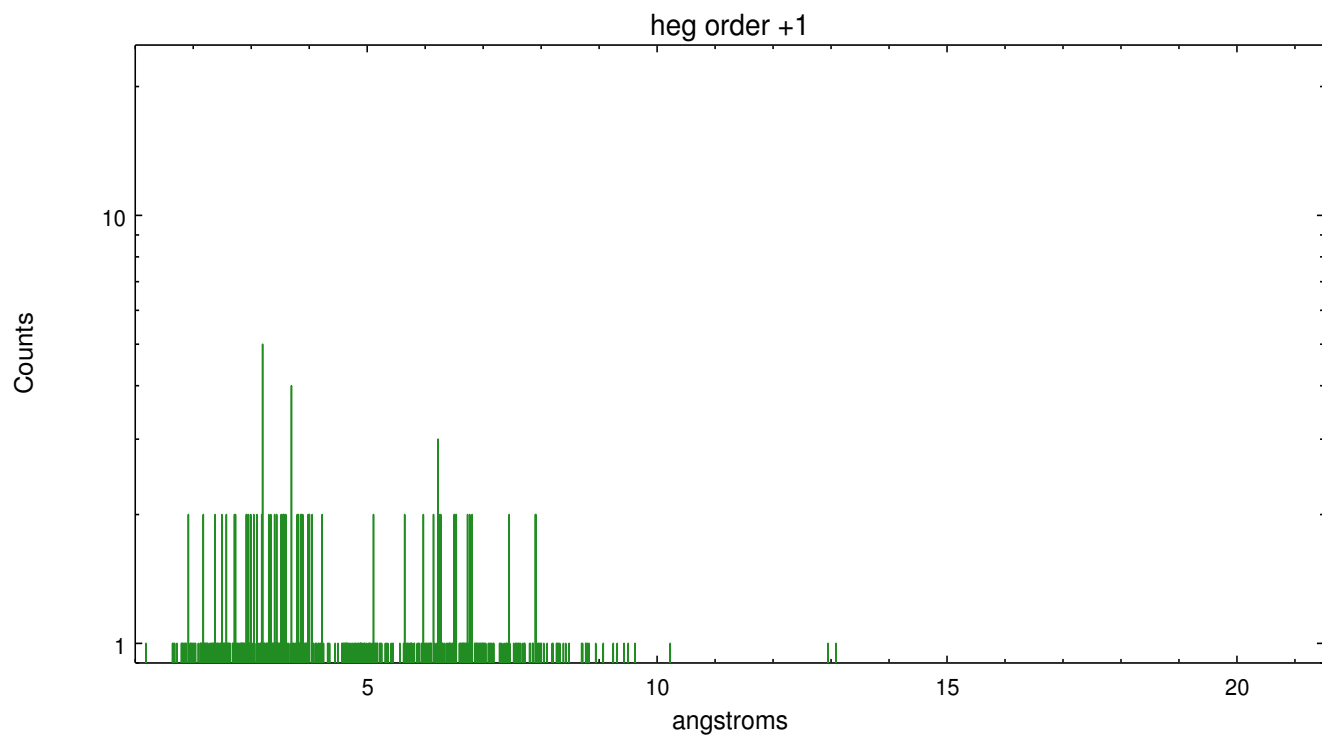
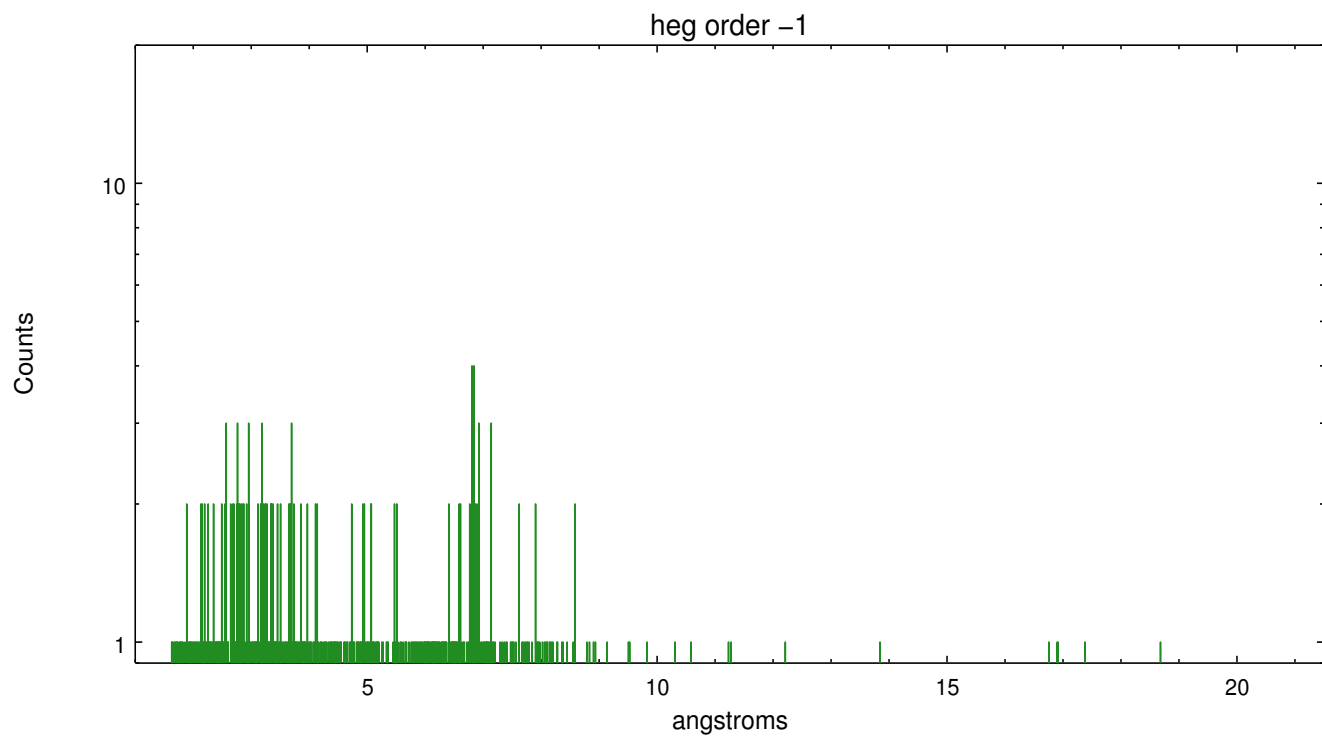
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	179	233	839	2996	654	173	109

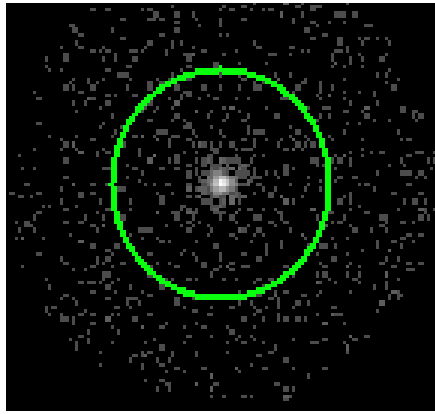




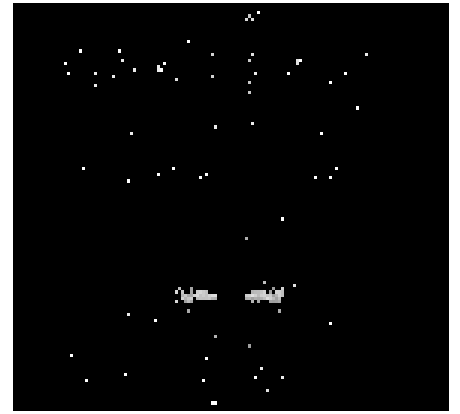
### 3.2 MEG Arm



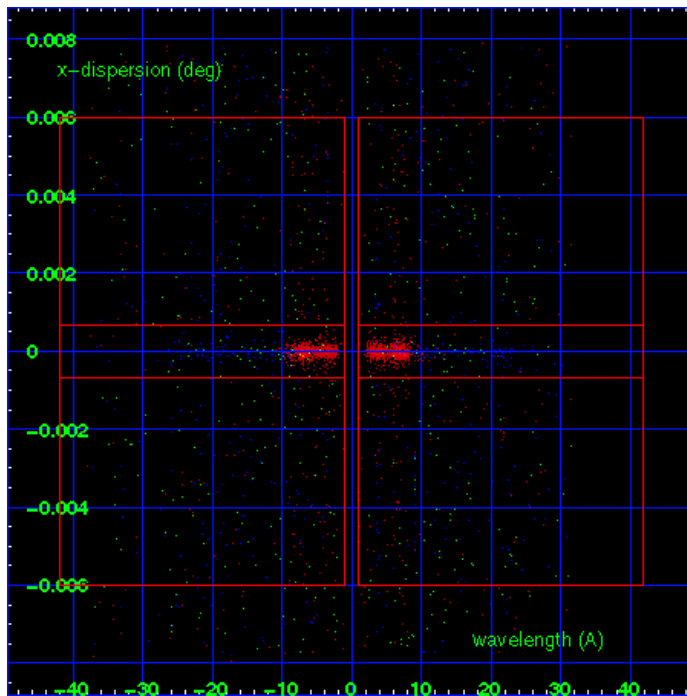
MEG Order Sort 123



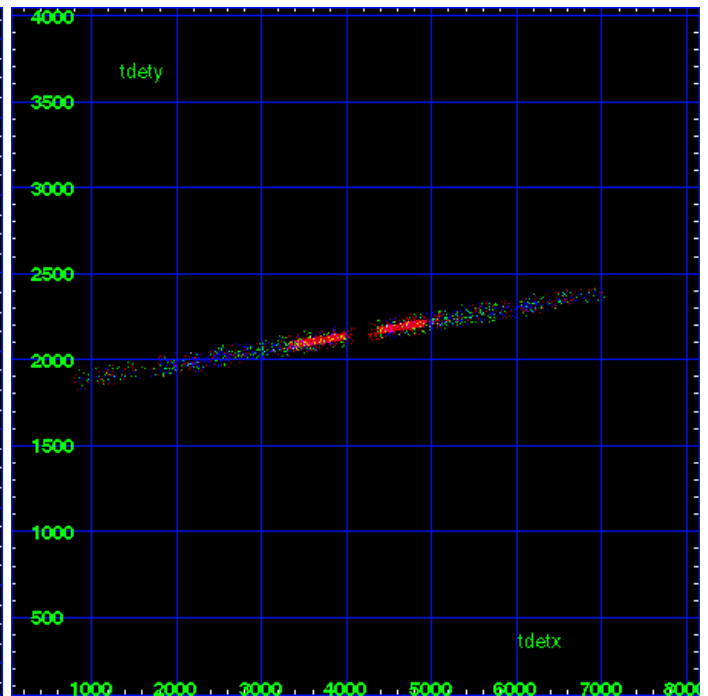
MEG Zero Order



MEG Order Sort ALL

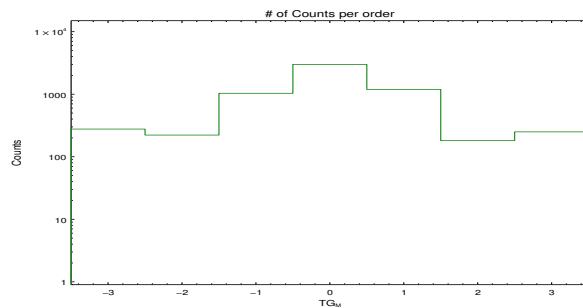


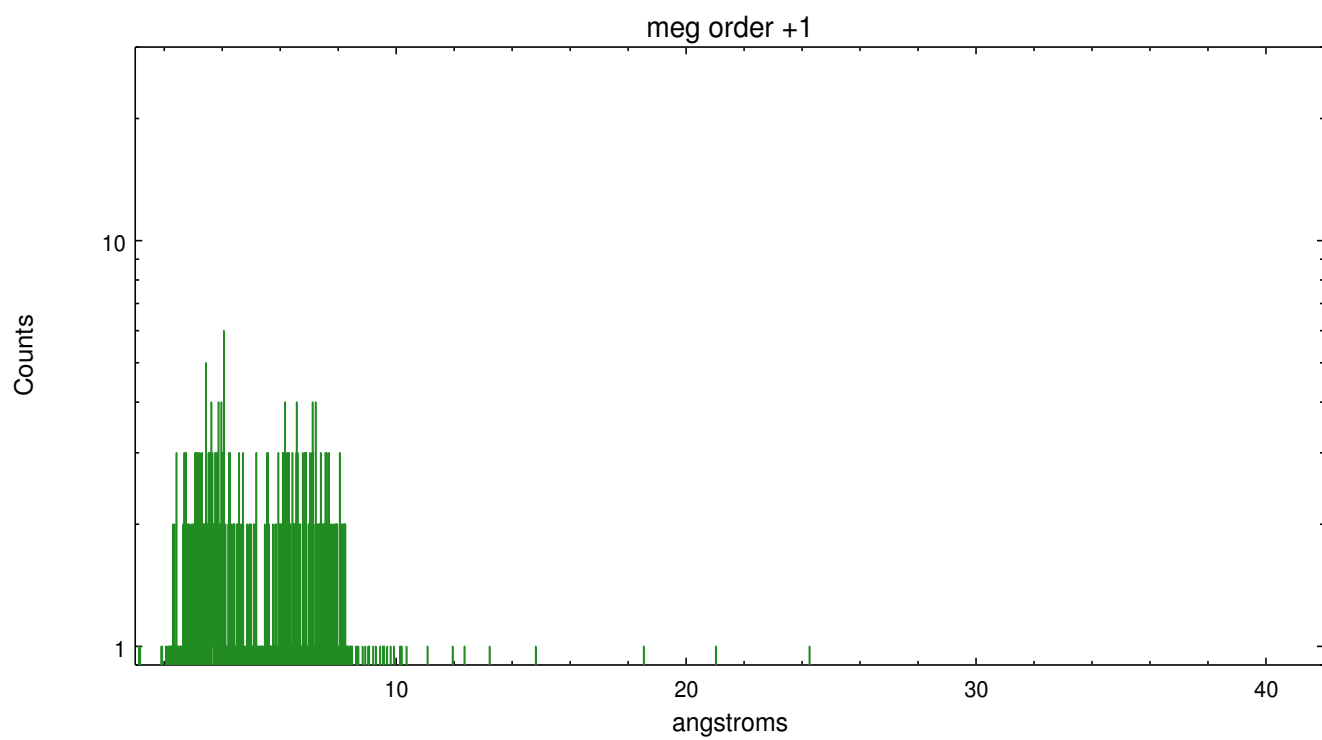
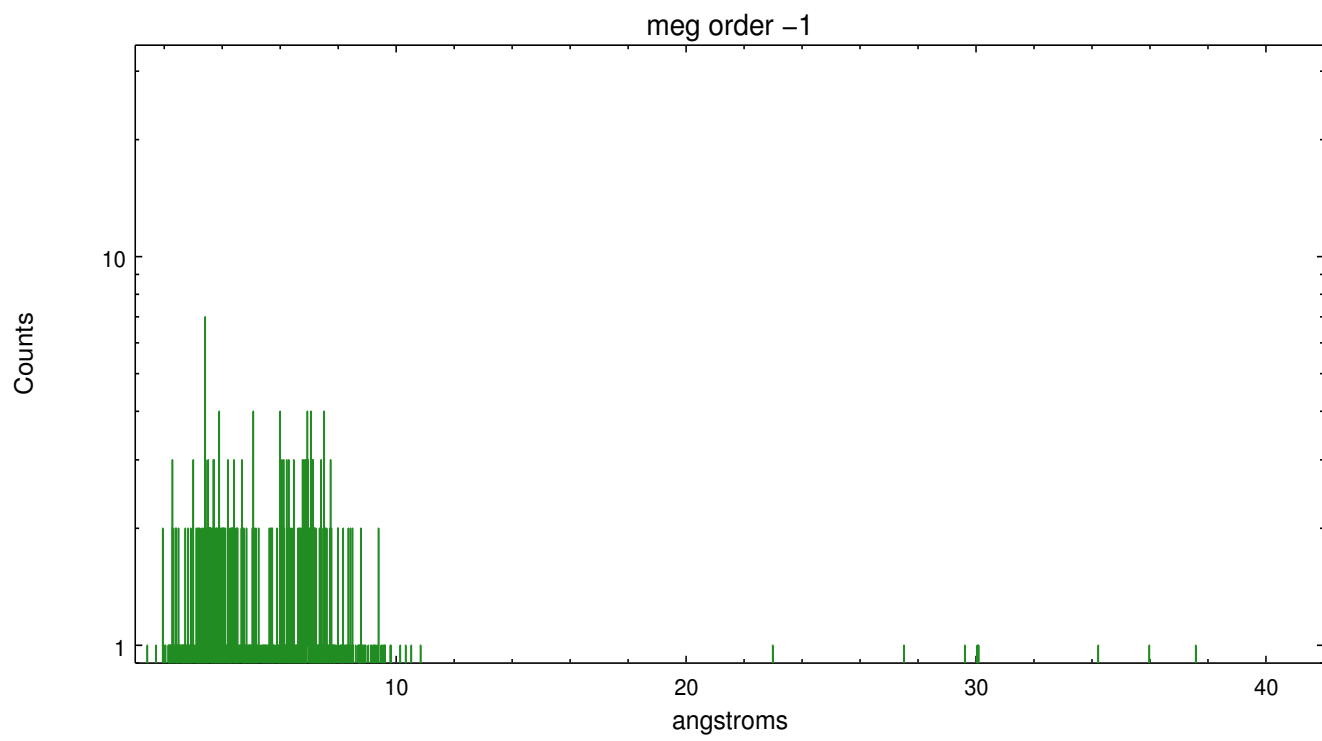
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	277	222	1033	2996	1194	181	250





## 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	29.696

### A.2 Comments