

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2570 - L2 Version 3  
Chandra X-Ray Center

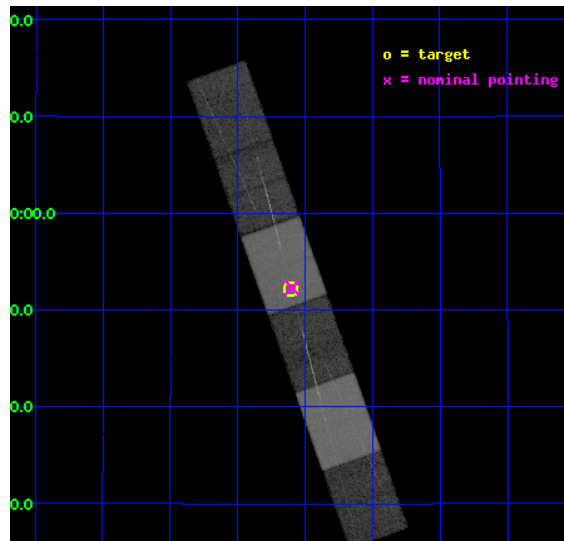
L2 Processing Date : Oct 8 2012

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# 1 Front

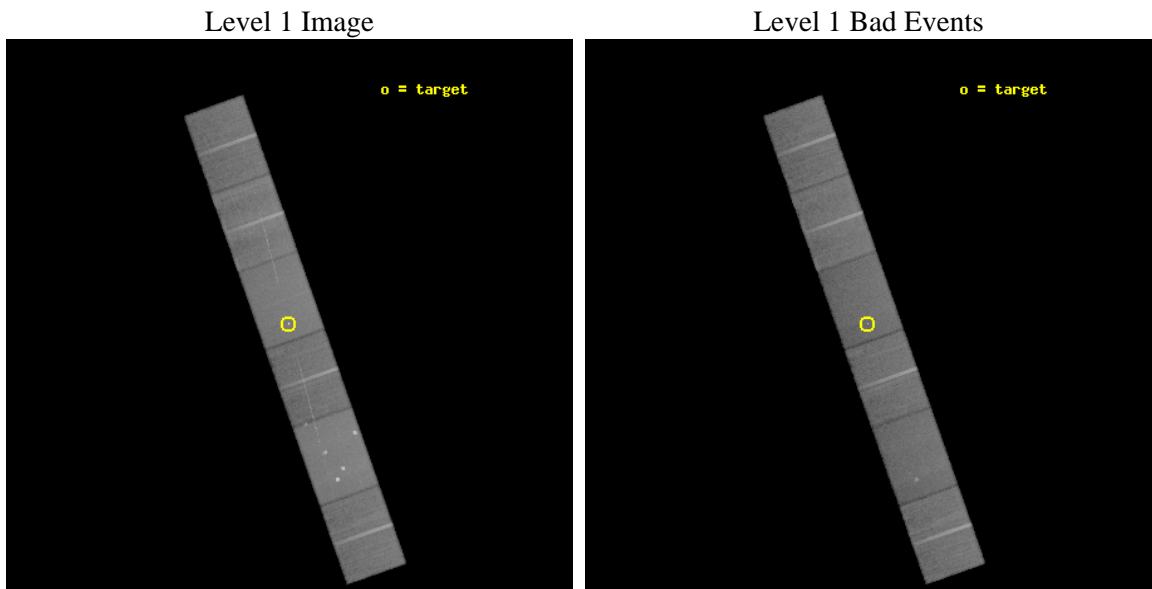
seq_num	200178	Sequence number
obs_id	2570	Observation id
title	CORONAL DYNAMICS AND THE COMPLETE FLARE ENERGY BUDGET FOR THE M DWARF FLARE STAR AD LEO	Proposal title
observer	Dr. Alexander Brown	Principal investigator
object	AD_LEO	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	154.900917	Observer's specified target RA [deg]
dec_targ	19.869889	Observer's specified target Dec [deg]
ra_nom	154.89974745008	Nominal RA [deg]
dec_nom	19.871822005398	Nominal Dec [deg]
roll_nom	250.53653319985	Nominal Roll [deg]
revision	3	Processing version of data
ontime	45897.5	Sum of GTIs [s]
livetime	45156.21556528	Livetime [s]
ontime4	45897.5	Sum of GTIs [s]
ontime5	45897.5	Sum of GTIs [s]
ontime6	45897.5	Sum of GTIs [s]
ontime7	45897.5	Sum of GTIs [s]
ontime8	45894.959009826	Sum of GTIs [s]
ontime9	45894.959009826	Sum of GTIs [s]
l2events	370848	Number of level 2 events



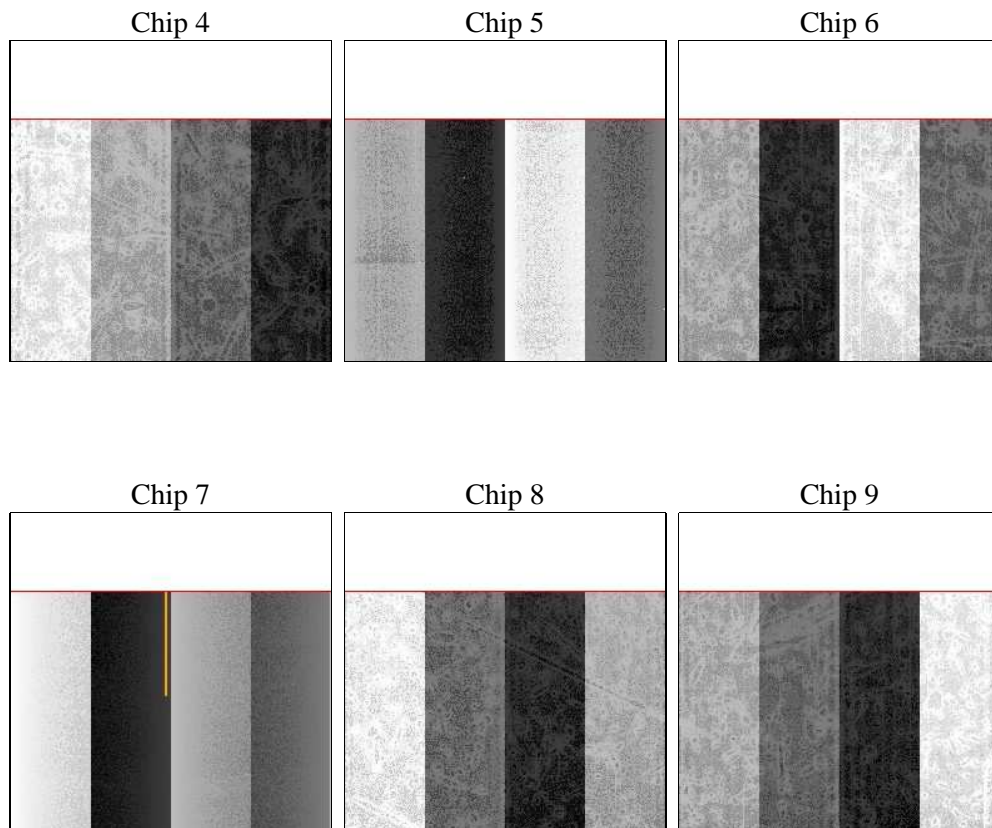
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	46000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	45897.5	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime4	45897.5	Sum of GTIs [s]
date	2012-10-08T09:01:56	Date and time of file creation	ontime5	45897.5	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	45897.5	Sum of GTIs [s]
			ontime7	45897.5	Sum of GTIs [s]
			ontime8	45894.959009826	Sum of GTIs [s]
			ontime9	45894.959009826	Sum of GTIs [s]
			l1events	1647751	Number of level 1 events

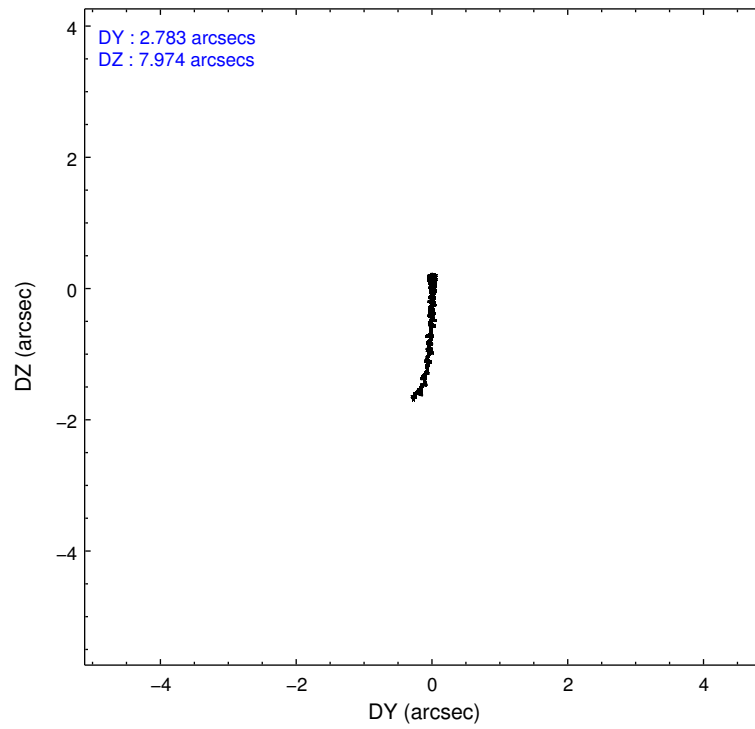
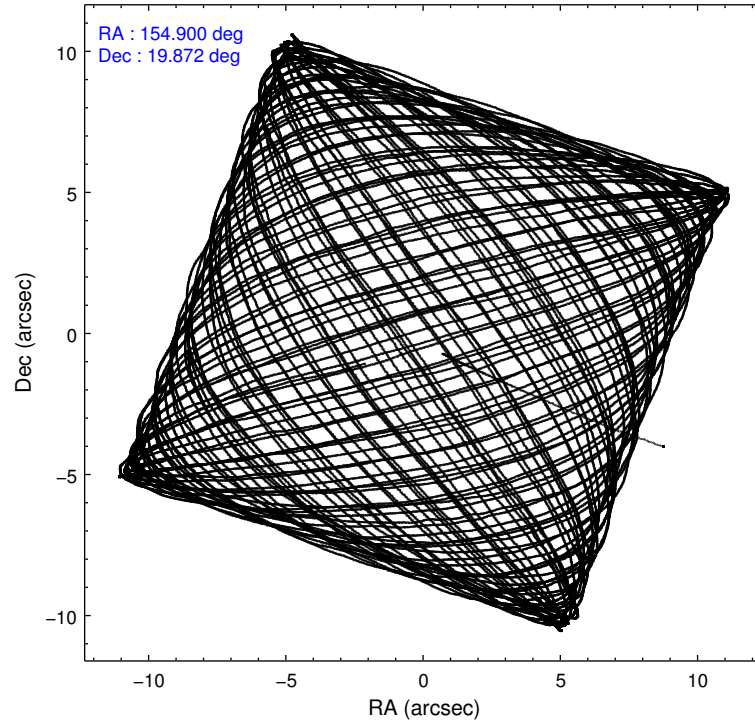
### 2.1.4 Events

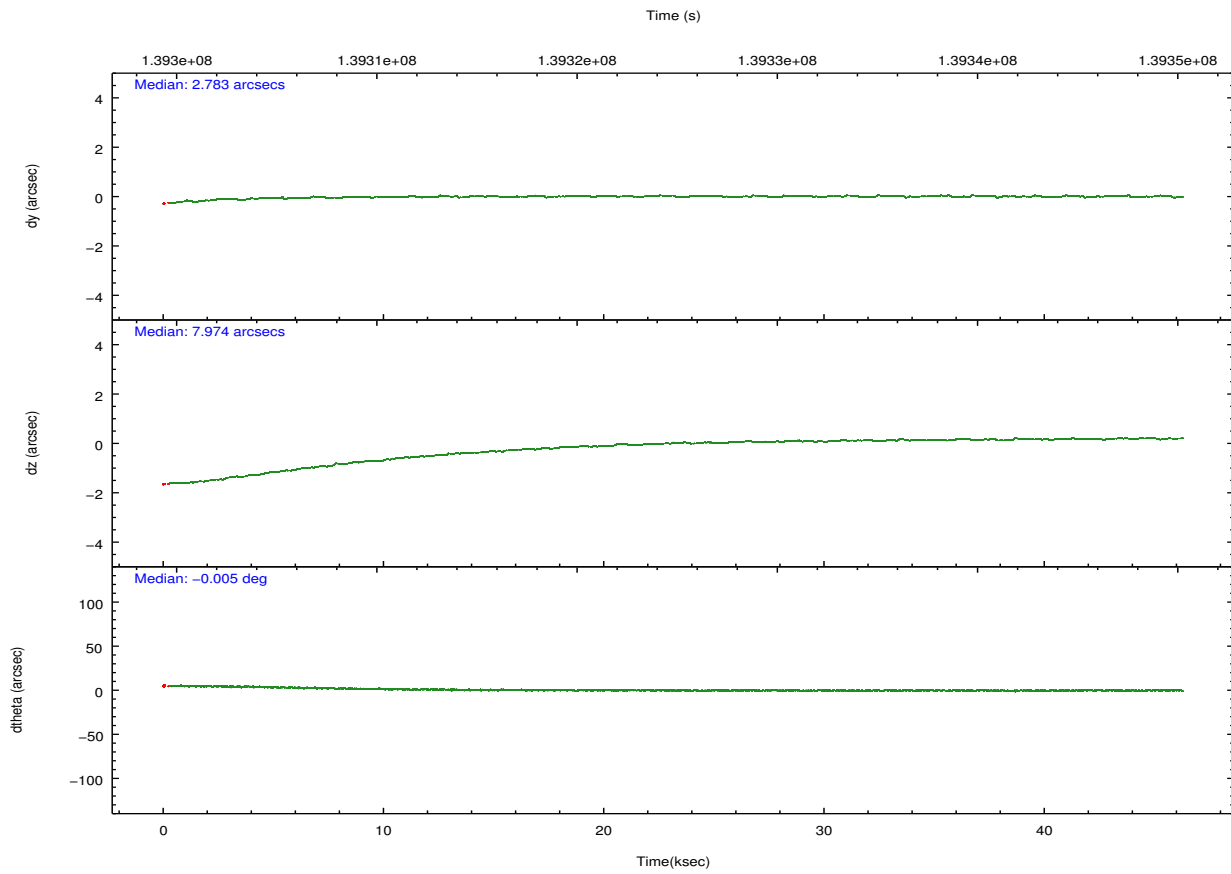
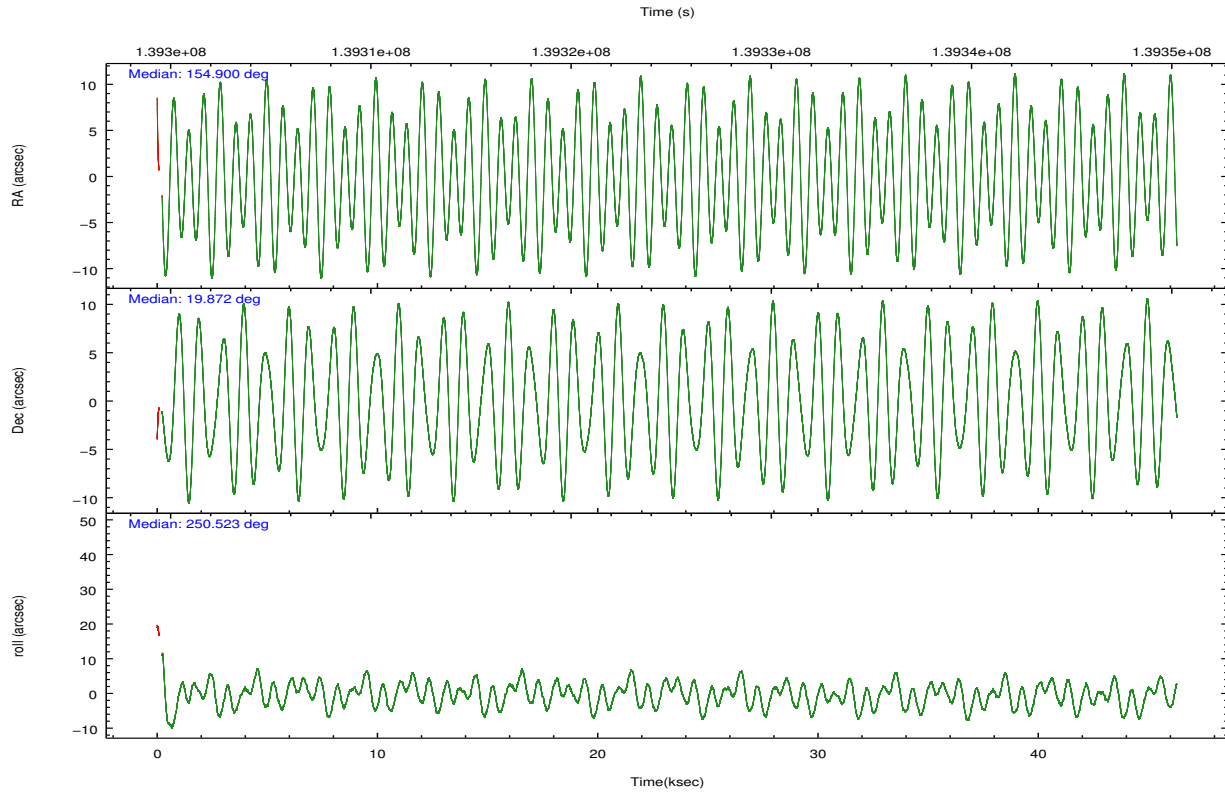
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	250202	344865	231960	301795	292961	225968	grade 0 events	11331	33940	13247	13711	21461	11350
rejected events	221857	176719	201975	170151	228988	198068		4%	9%	5%	4%	7%	5%
rejected %	88%	51%	87%	56%	78%	87%	grade 1 events	104	1448	103	440	151	70
								0%	0%	0%	0%	0%	0%
							grade 2 events	6637	43558	5650	26599	13369	5553
								2%	12%	2%	8%	4%	2%
							grade 3 events	2699	7242	3007	12314	6800	2942
								1%	2%	1%	4%	2%	1%
							grade 4 events	2726	6967	2880	12129	6324	2818
								1%	2%	1%	4%	2%	1%
							grade 5 events	8435	24881	9685	28320	12271	9809
								3%	7%	4%	9%	4%	4%
							grade 6 events	4956	76454	5201	66906	16022	5239
								1%	22%	2%	22%	5%	2%
							grade 7 events	213314	150375	192187	141376	216563	188187
								85%	43%	82%	46%	73%	83%

## 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	154.894086	154.8997474500799	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	19.898541	19.87182200539822	Subarray start row	1	1
[deg] Pointing Roll	250.381828	250.5365331998512	Subarray row count	774	774
[s] Window start time (MET)	138844924.184000	138844924.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	139449604.184000	139449604.184000	[s] Primary exposure time	0.000000	2.5
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	139301945.184000	139300918.80388			
Observation start date	2002-06-01T06:58:01	2002-06-01T06:41:58			
[s] Observation end time (MET)	139347945.184000	139348519.29332			
Observation end date	2002-06-01T19:44:41	2002-06-01T19:55:19			
Read mode	TIMED	TIMED			

## 2.3 Aspect



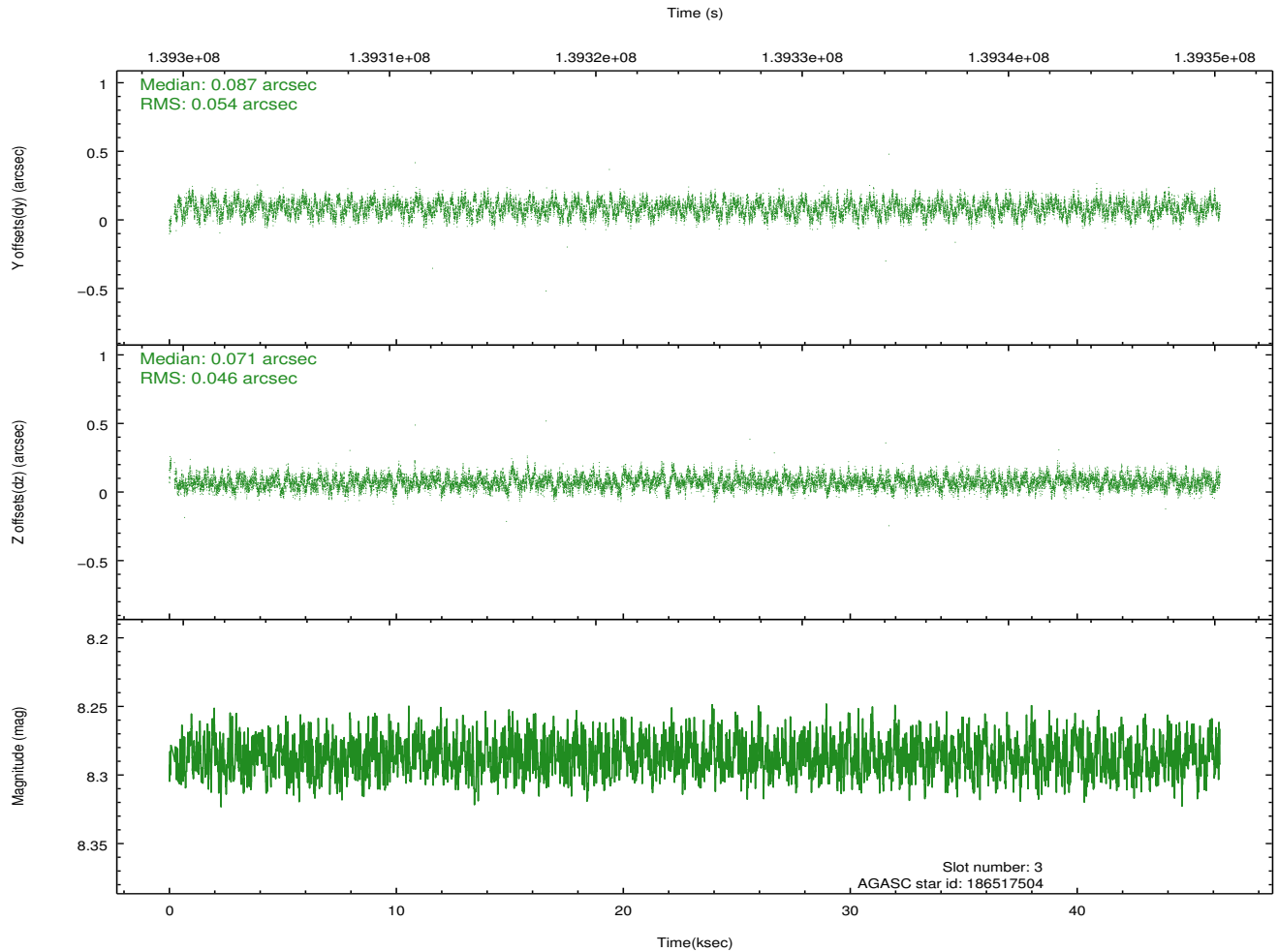
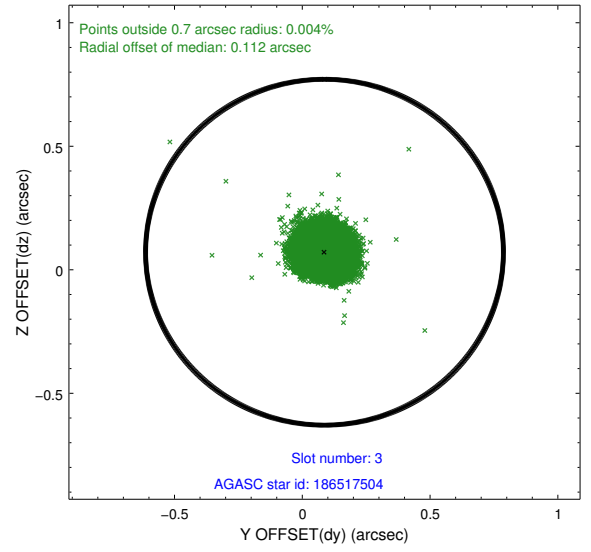
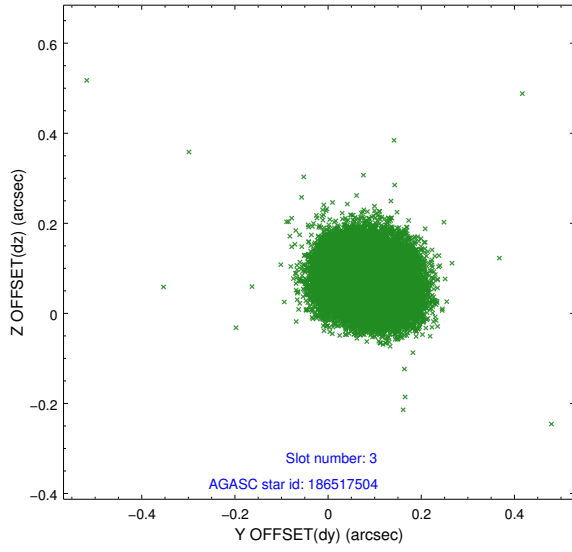


### Slot Statistics

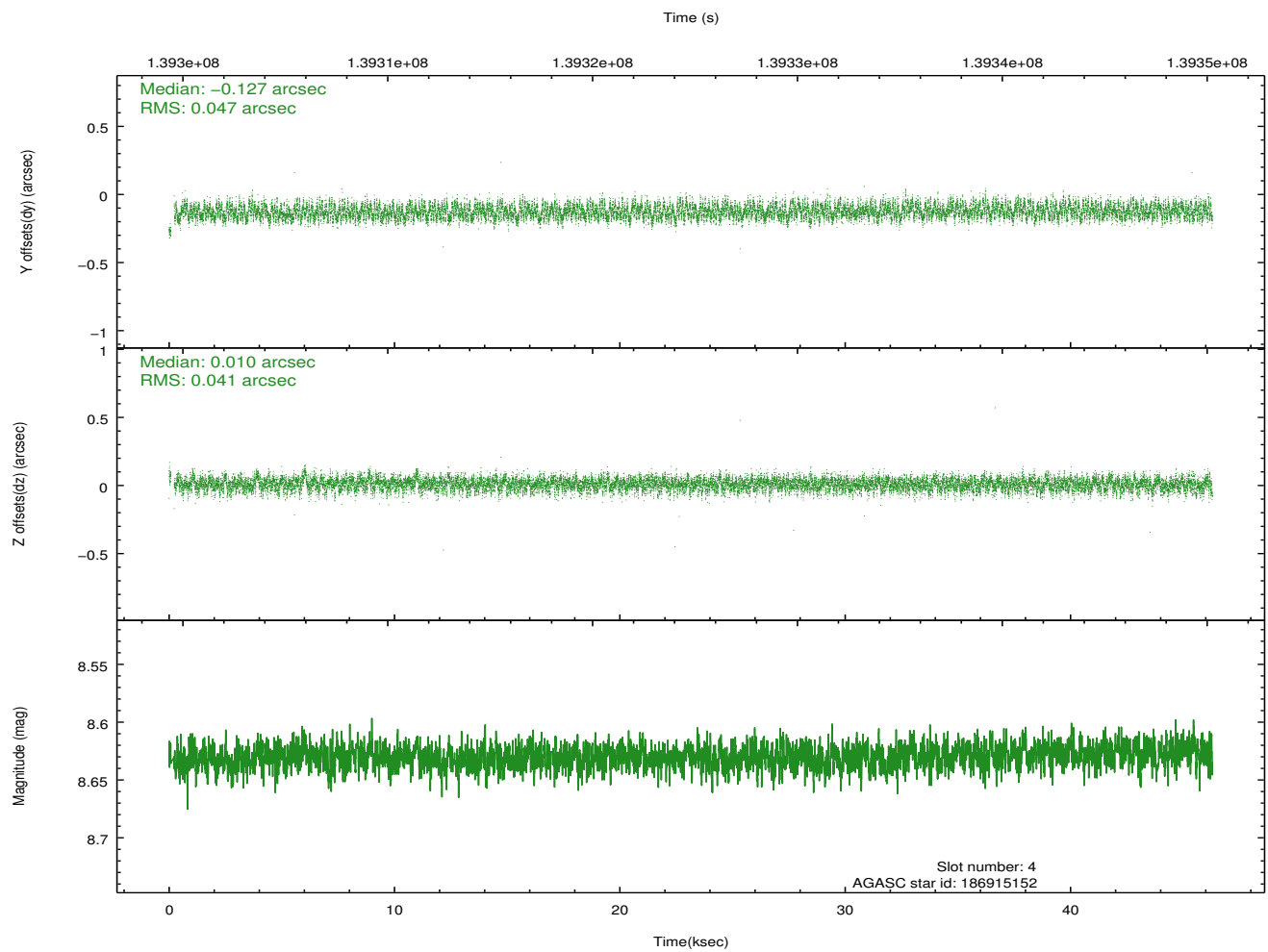
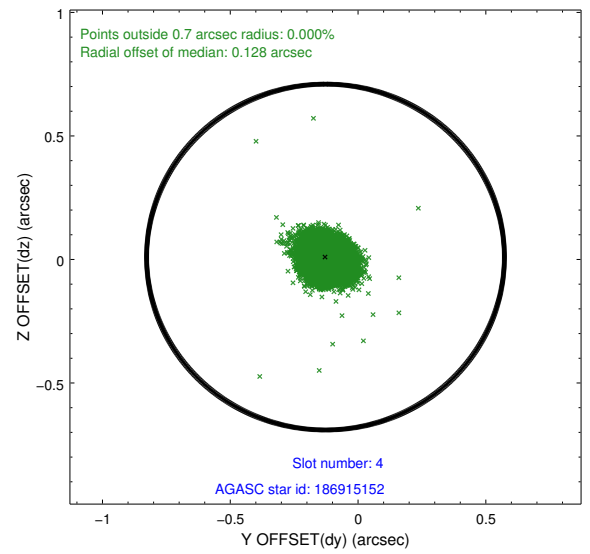
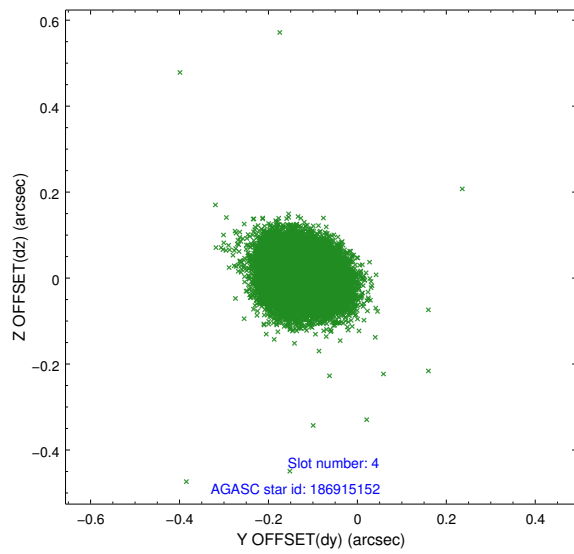
	status	id	mag	n_pts	med_dy	med_dz	dr1
	FID	ACIS-S-2	7.10	11254	-0.053	-0.024	0.011
	FID	ACIS-S-4	7.20	11252	-0.001	0.032	0.007
	FID	ACIS-S-5	7.23	11255	0.022	-0.000	0.011
	GUIDE	186517504	8.29	22508	0.087	0.071	0.077
	GUIDE	186915152	8.63	22506	-0.127	0.010	0.066
	GUIDE	186517264	9.02	22504	0.026	0.055	0.093
	GUIDE	186390704	9.30	22508	0.014	-0.135	0.083
0.000	0.000	0.000	0.000000	0.000000	0.00	0.00	

## 2.4 Star Slots

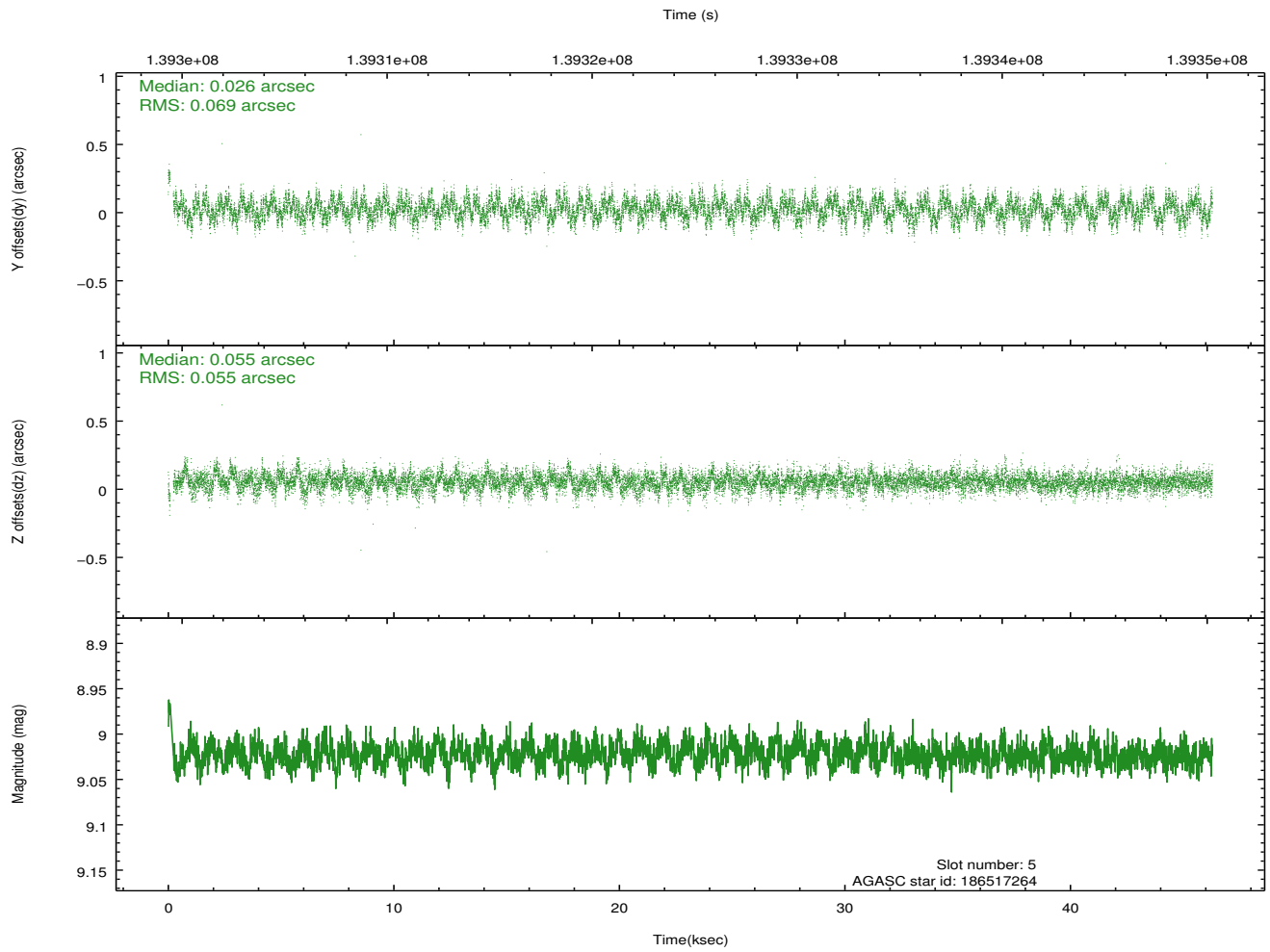
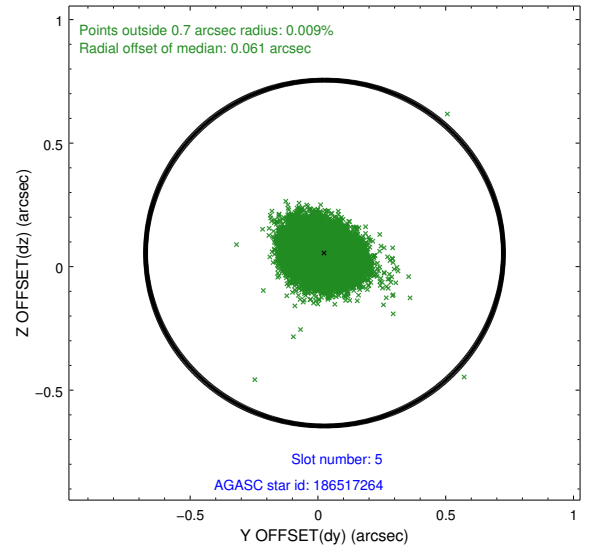
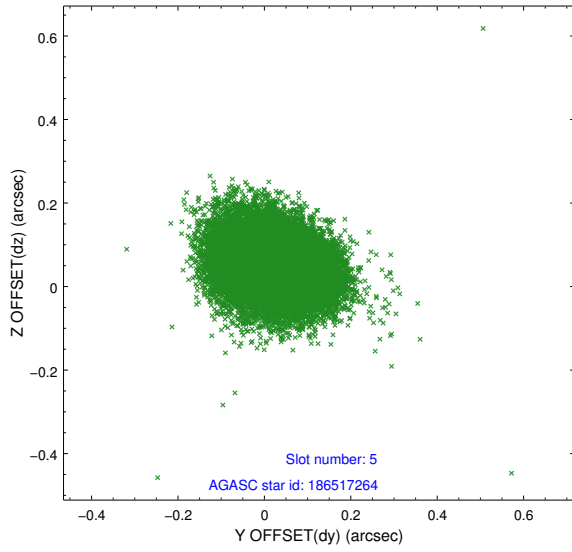
### 2.4.1 Slot 3



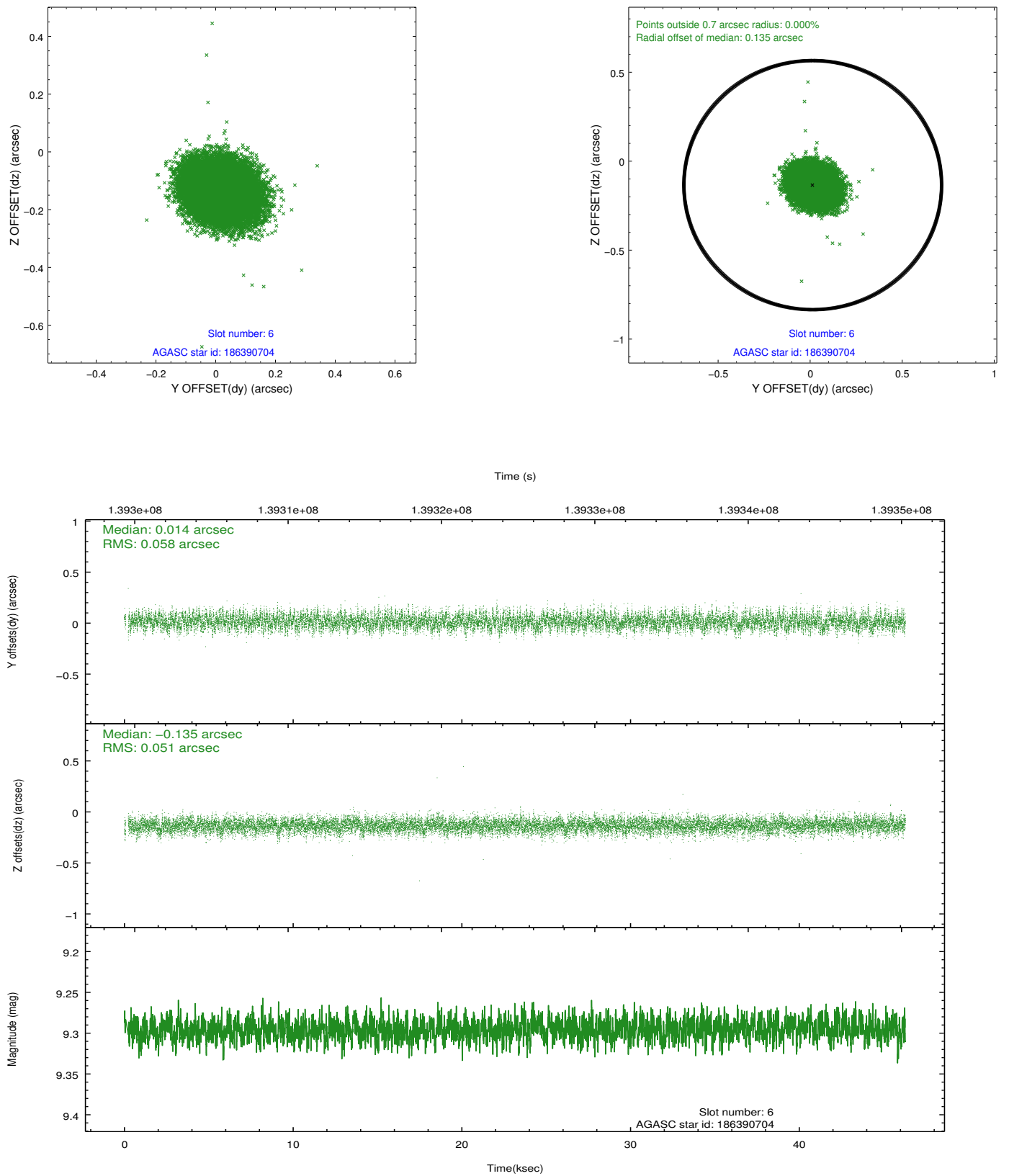
## 2.4.2 Slot 4



### 2.4.3 Slot 5

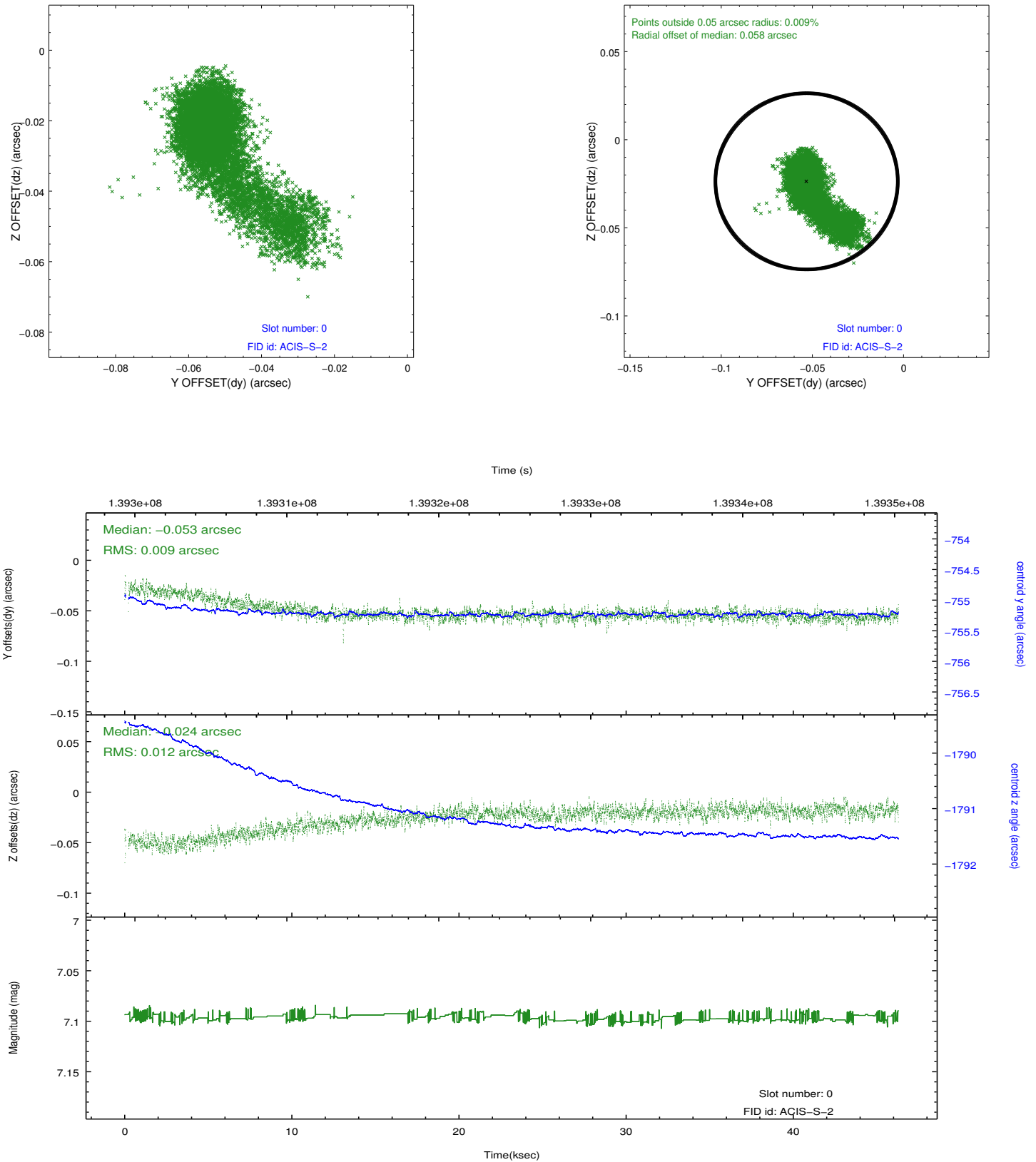


## 2.4.4 Slot 6

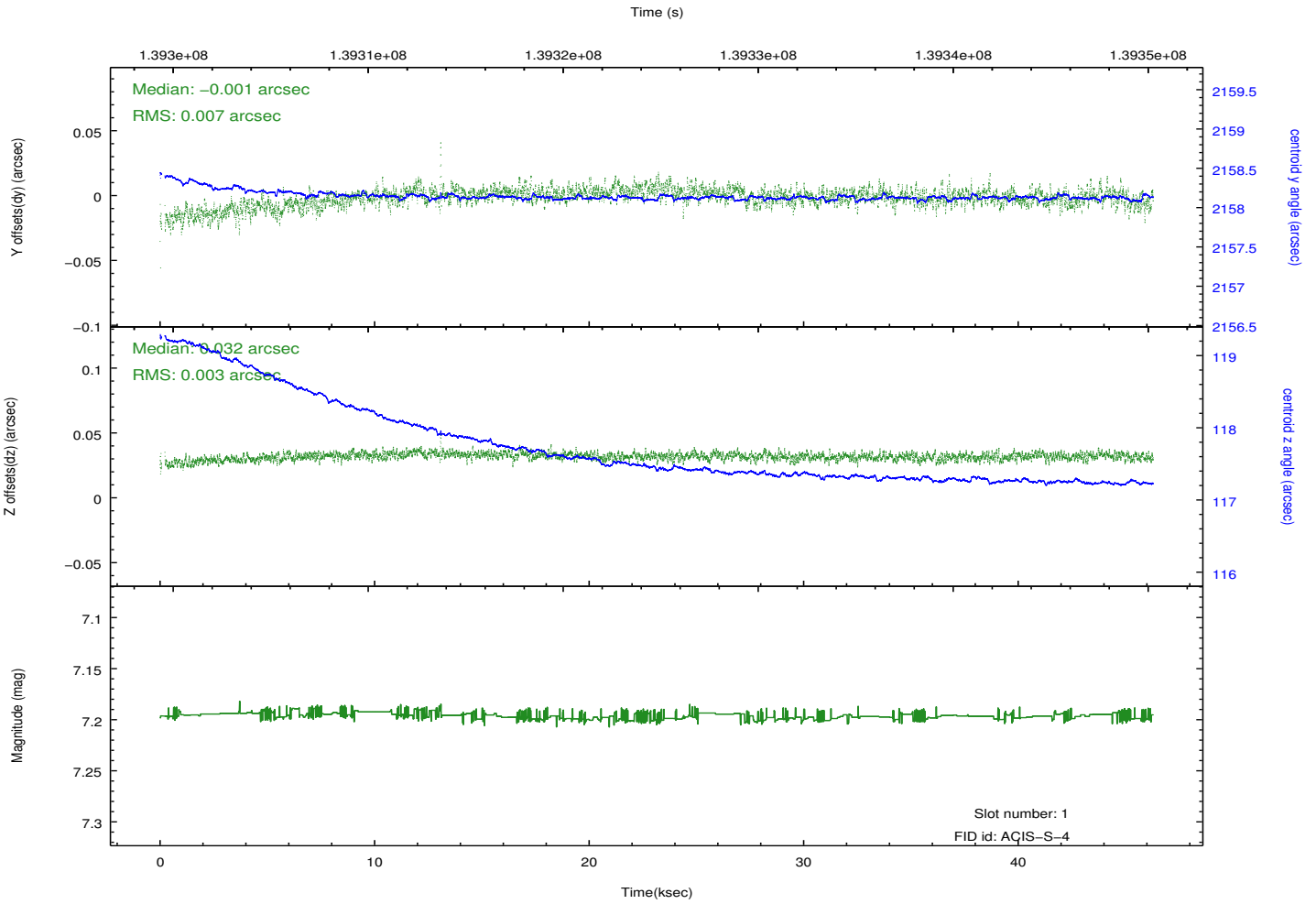
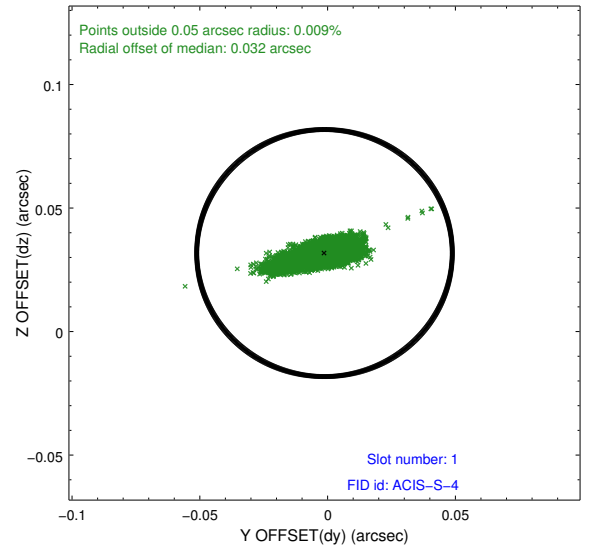
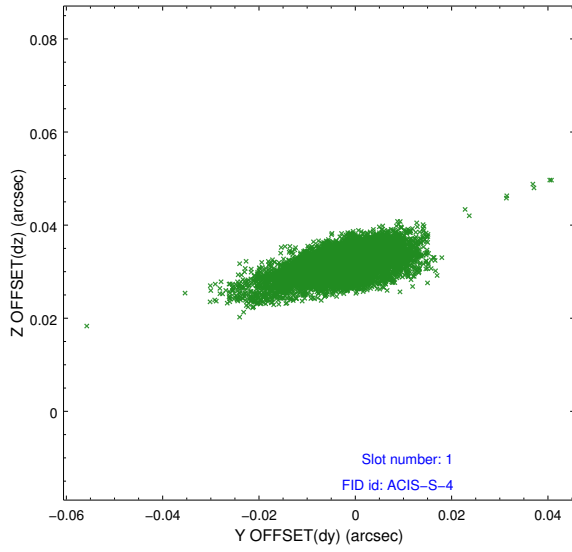


## 2.5 FID Slots

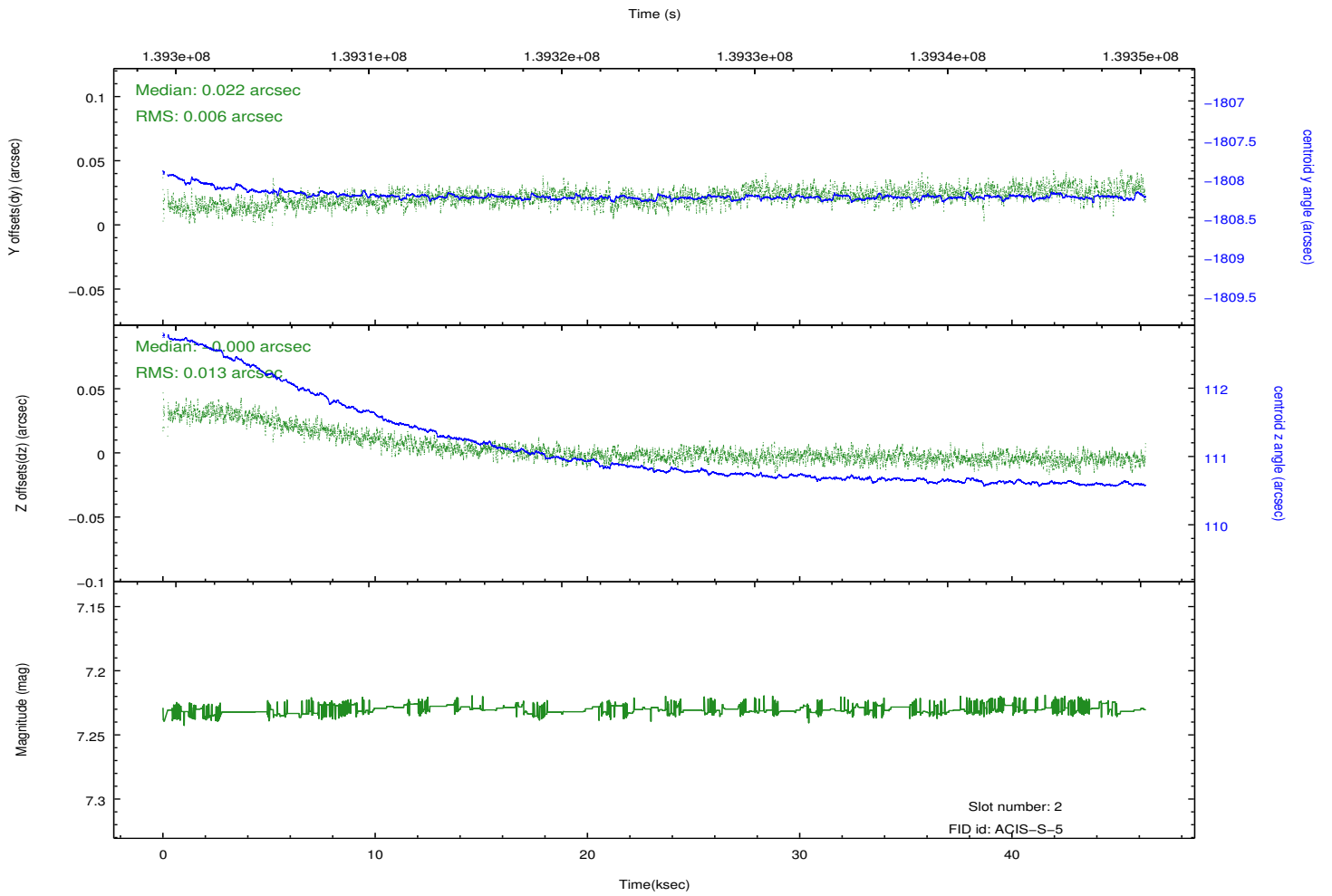
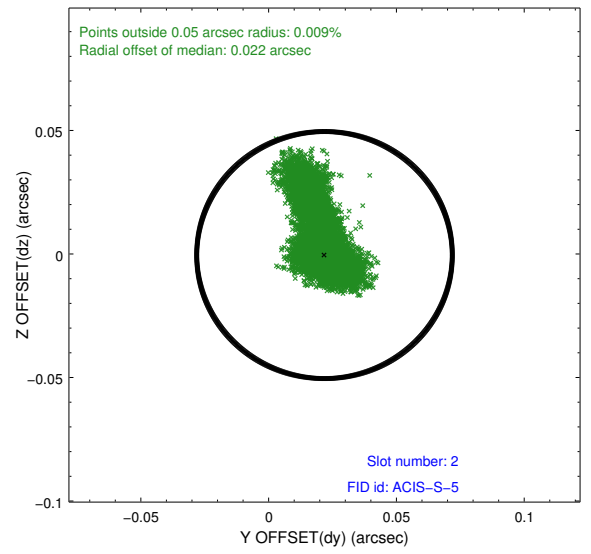
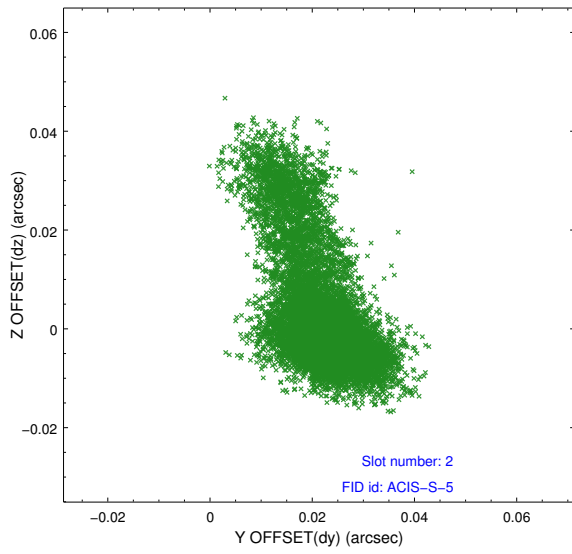
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

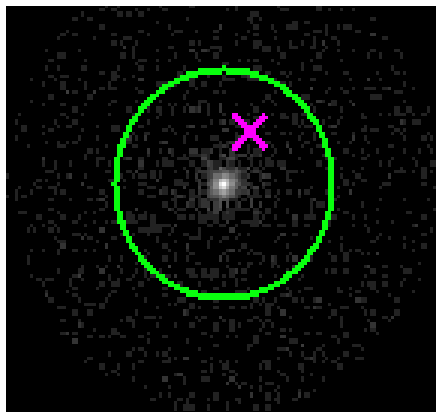


### 3 Gratings

#### 3.1 HEG Arm



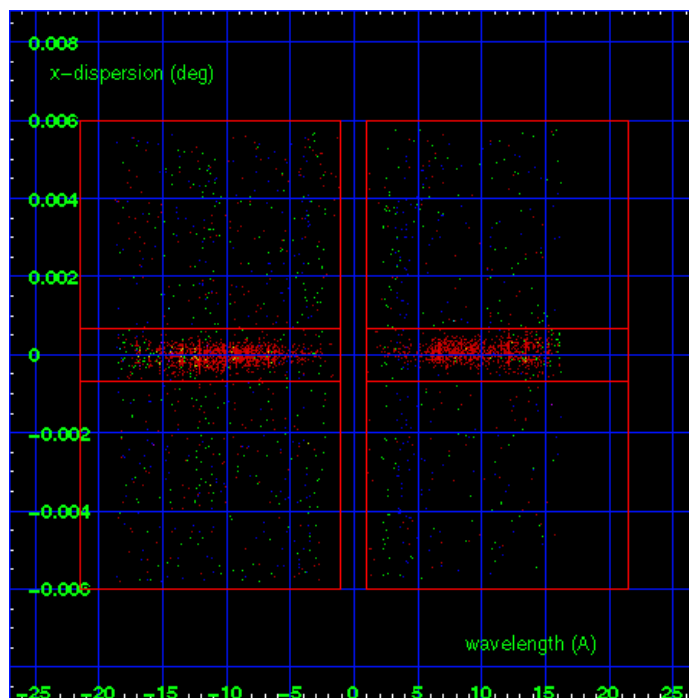
HEG Order Sort 123



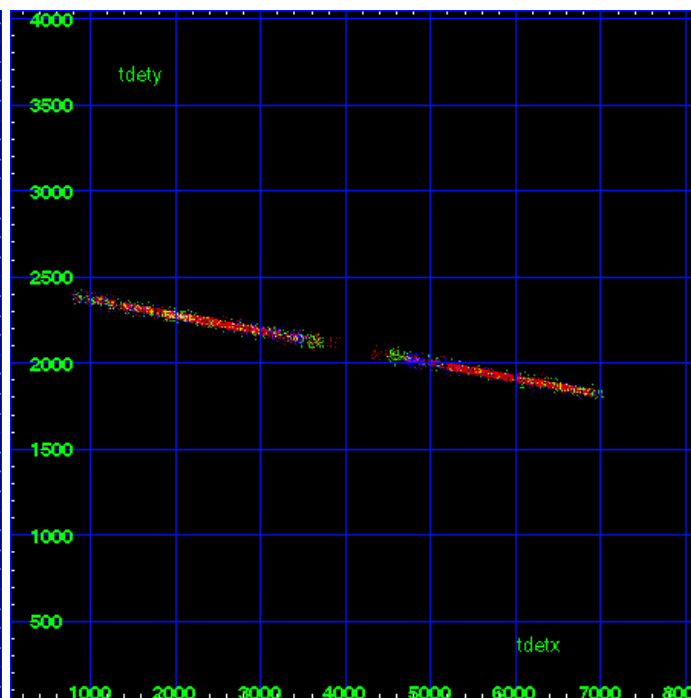
HEG Zero Order



HEG Order Sort ALL

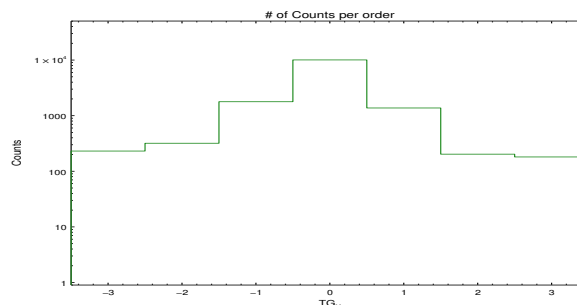


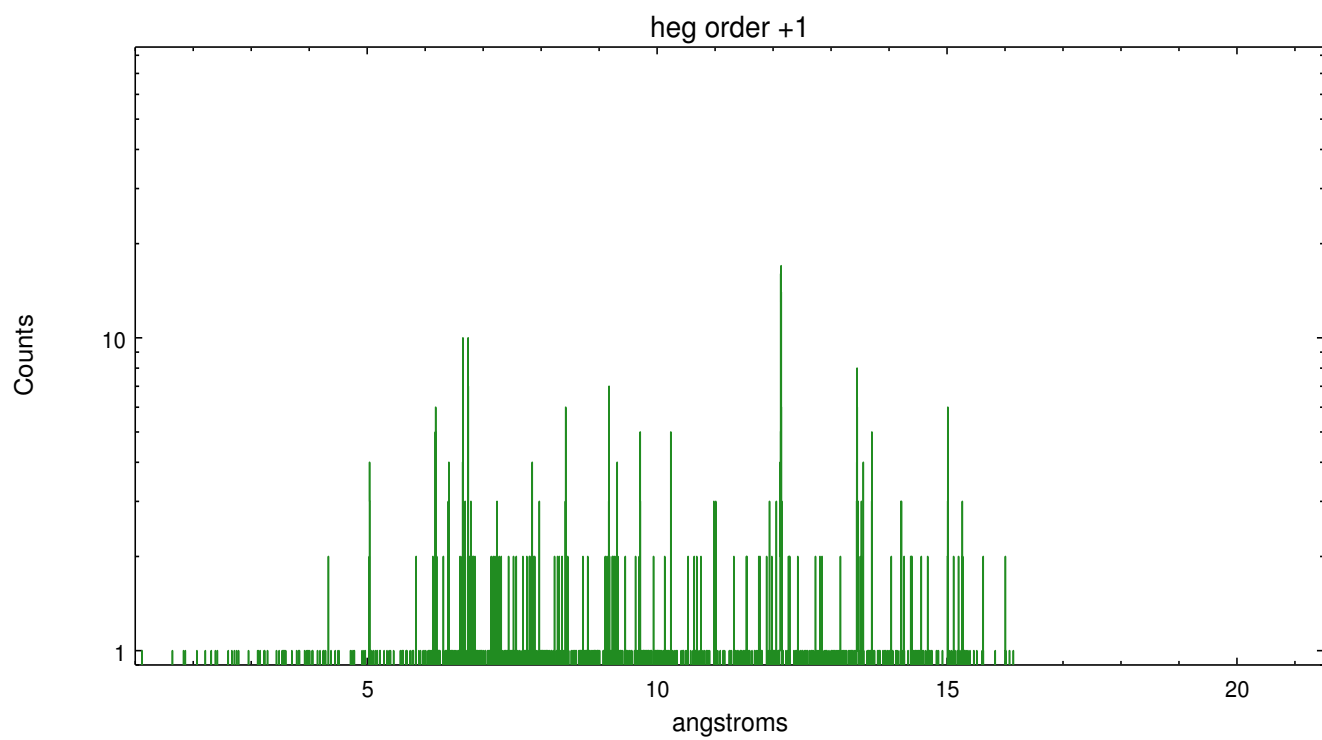
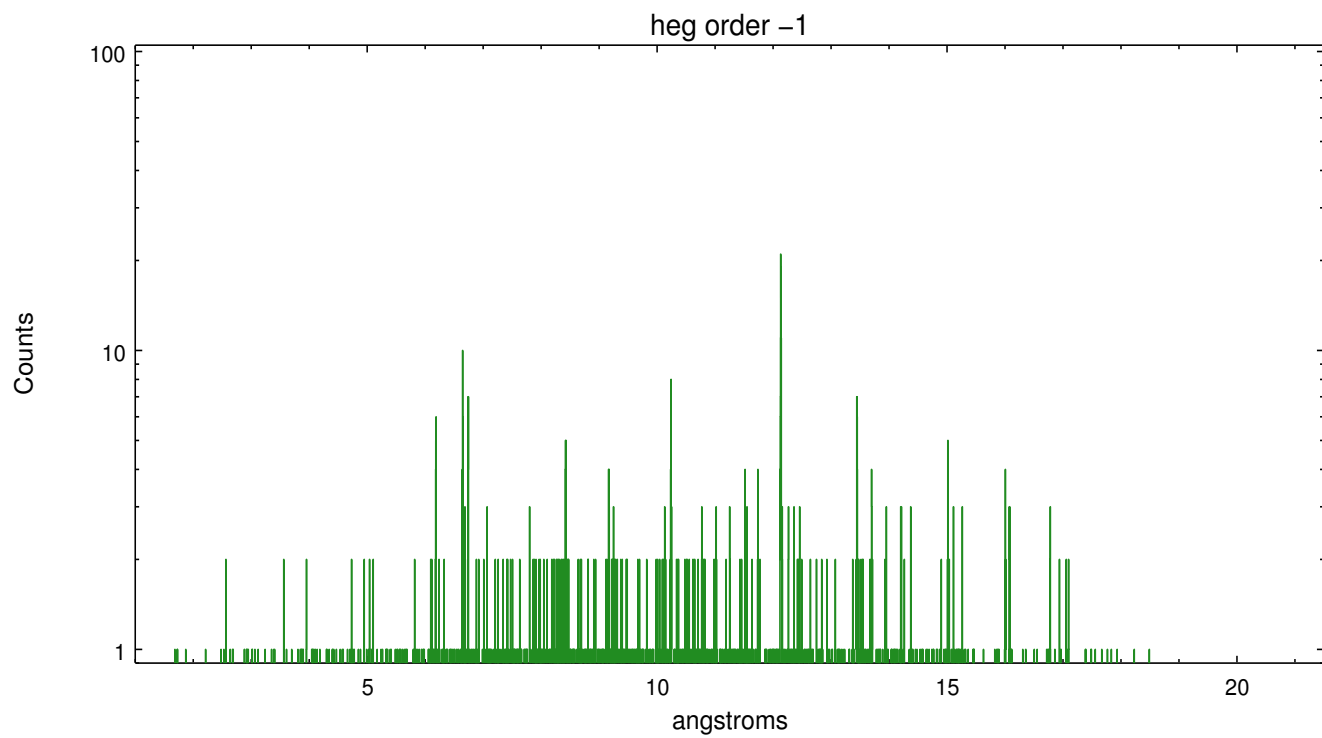
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	231	319	1782	10057	1375	203	181

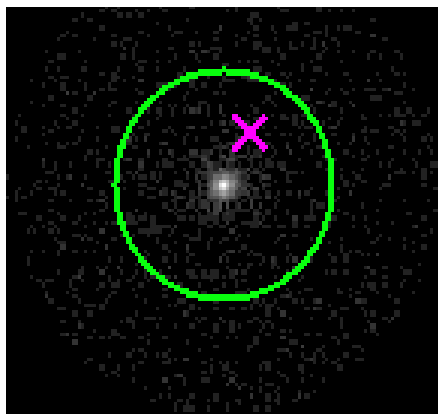




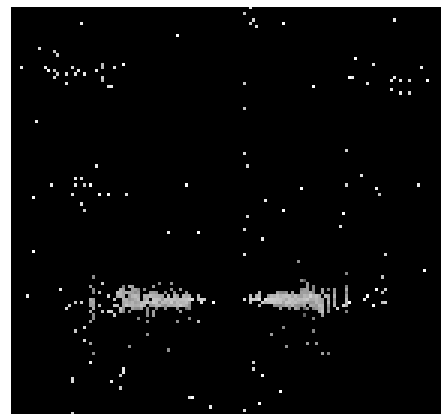
### 3.2 MEG Arm



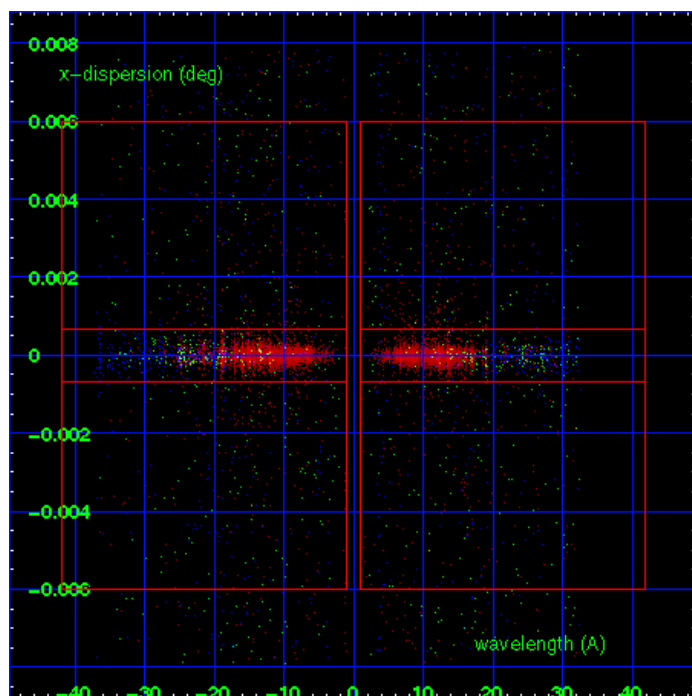
MEG Order Sort 123



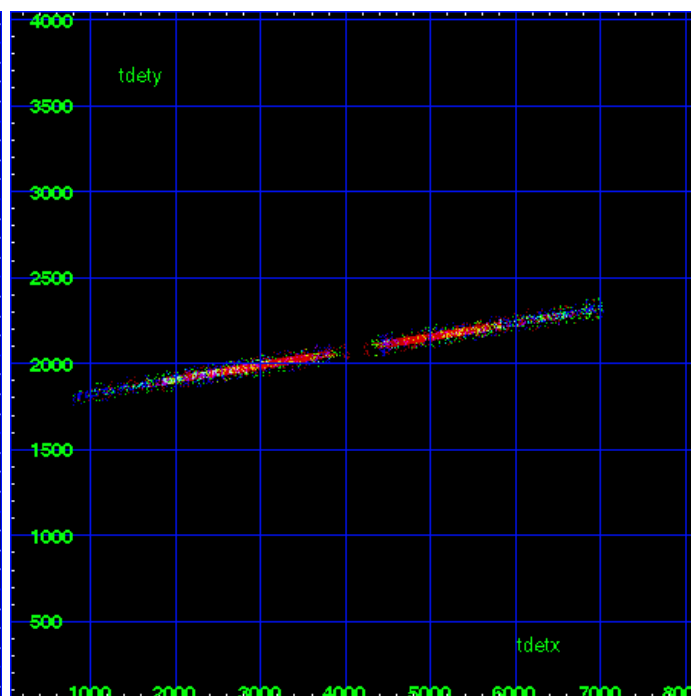
MEG Zero Order



MEG Order Sort ALL

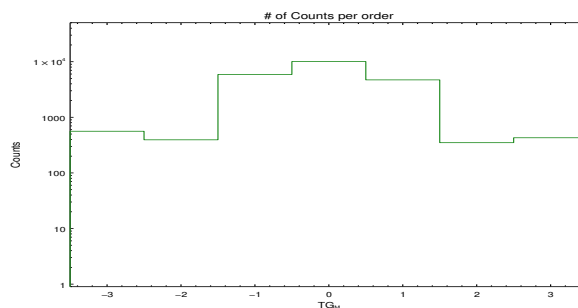


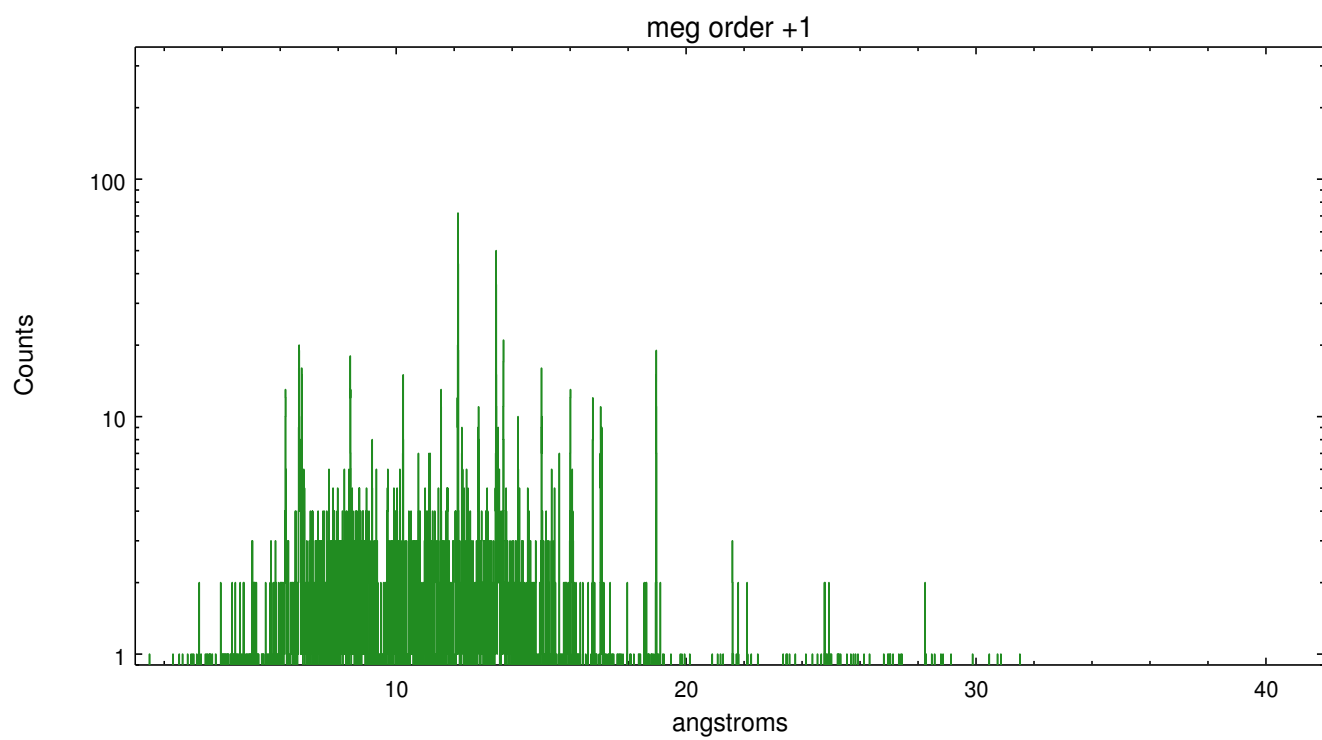
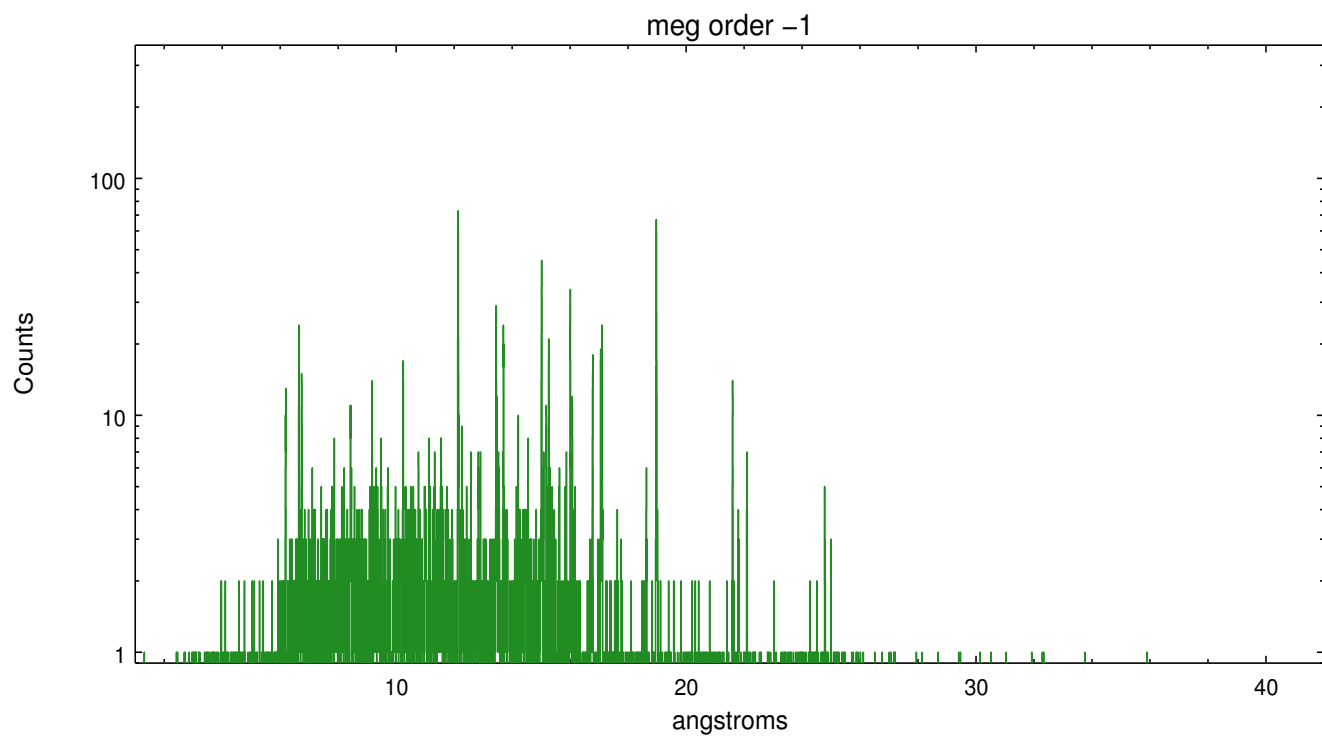
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	561	394	5888	10057	4711	350	429





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.9

## A.2 Comments

Optical photometry of target in slot 7. Time constraint met.  
Coordinated with HST and FUSE.