

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 6893 - L2 Version 2  
Chandra X-Ray Center

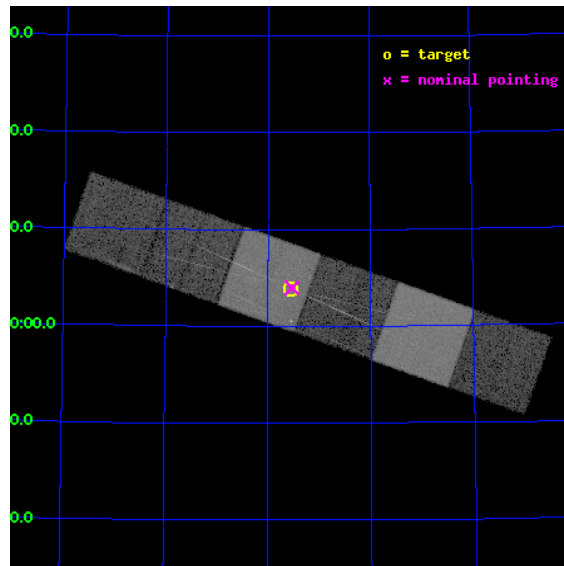
L2 Processing Date : Mar 27 2012

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# 1 Front

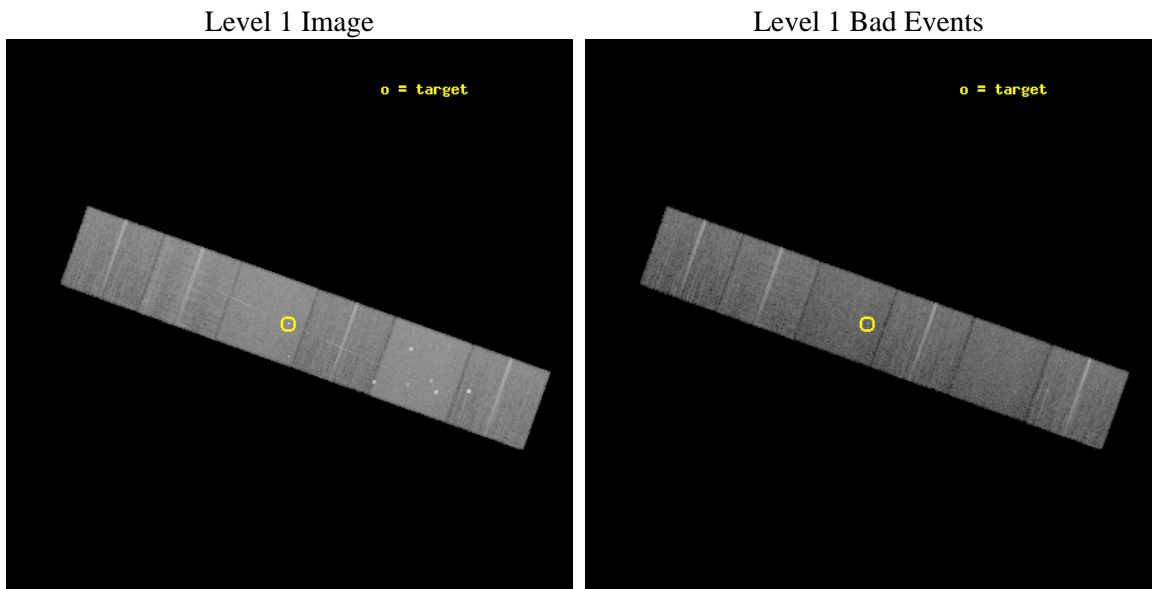
seq_num	701310	Sequence number
obs_id	6893	Observation id
title	Testing Broad-Band Jet-Powered Emission in the LLAGN M81*	Proposal
observer	Dr Jon Miller	Principal investigator
object	M81*	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.888333	Observer's specified target RA [deg]
dec_targ	69.065306	Observer's specified target Dec [deg]
ra_nom	148.88336428282	Nominal RA [deg]
dec_nom	69.066443622384	Nominal Dec [deg]
roll_nom	199.50910721743	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14948.903874874	Sum of GTIs [s]
livetime	14759.611852861	Livetime [s]
ontime4	14948.944914877	Sum of GTIs [s]
ontime5	14948.862834871	Sum of GTIs [s]
ontime6	14945.580804586	Sum of GTIs [s]
ontime7	14948.903874874	Sum of GTIs [s]
ontime8	14948.780754864	Sum of GTIs [s]
ontime9	14948.739714891	Sum of GTIs [s]
l2events	223239	Number of level 2 events



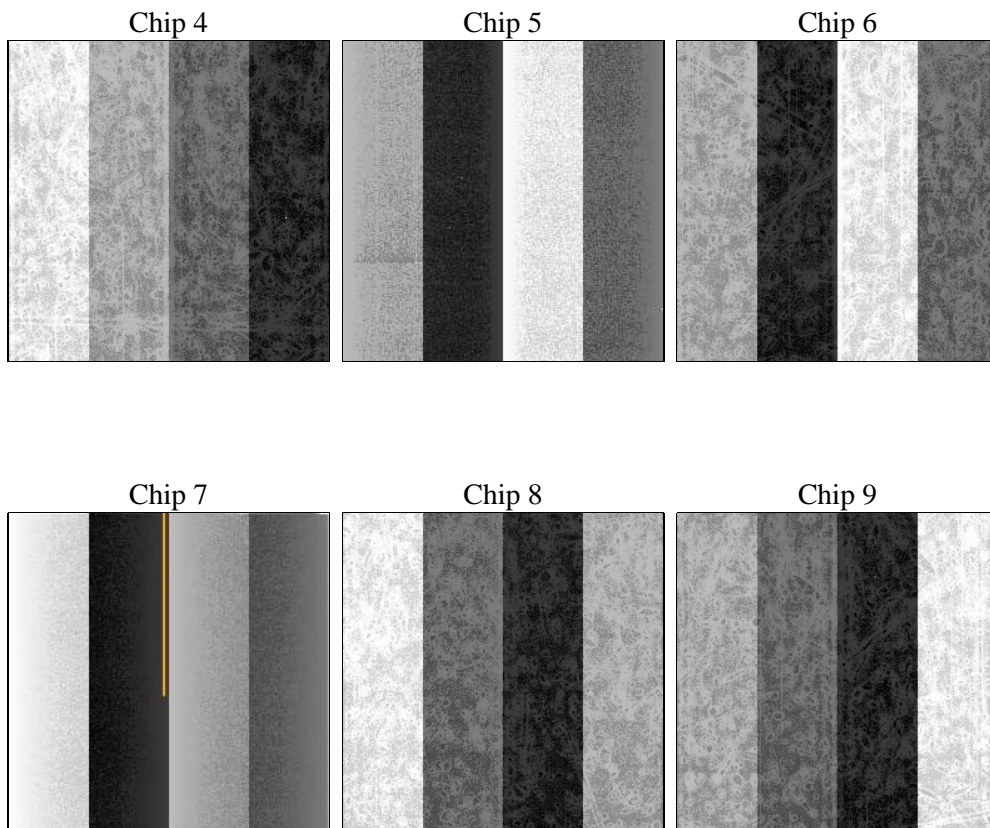
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	14948.903874874	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime4	14948.944914877	Sum of GTIs [s]
date	2012-03-27T03:48:57	Date and time of file creation	ontime5	14948.862834871	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	14945.580804586	Sum of GTIs [s]
			ontime7	14948.903874874	Sum of GTIs [s]
			ontime8	14948.780754864	Sum of GTIs [s]
			ontime9	14948.739714891	Sum of GTIs [s]
			l1events	976805	Number of level 1 events

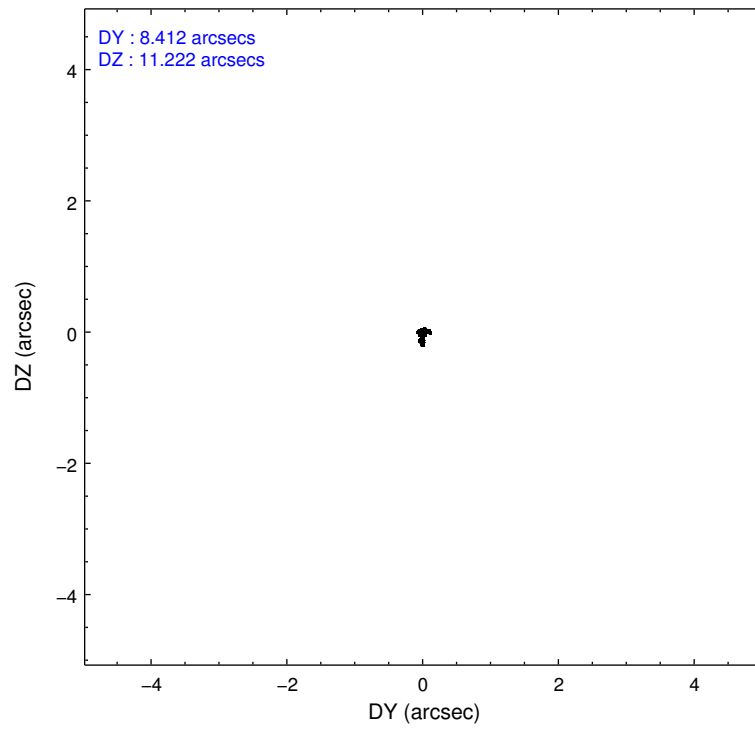
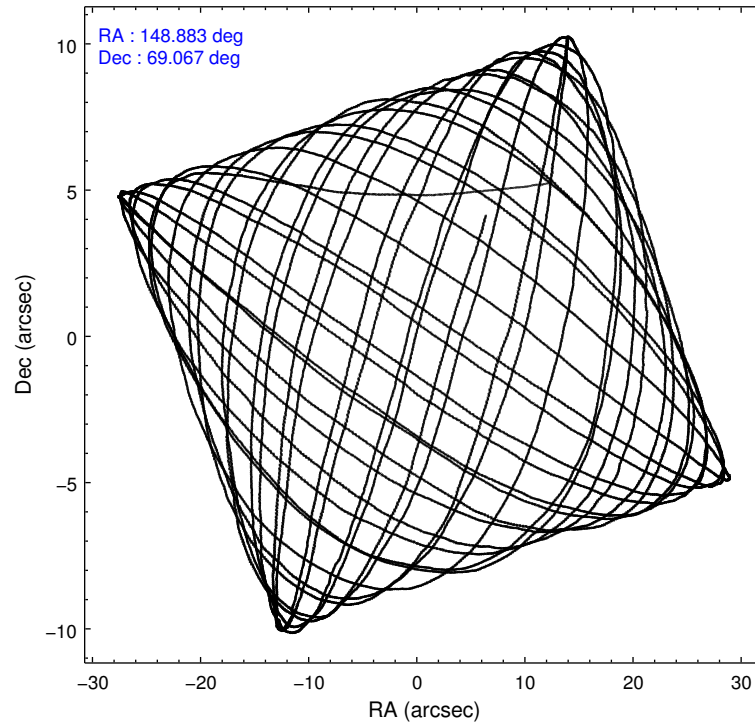
### 2.1.4 Events

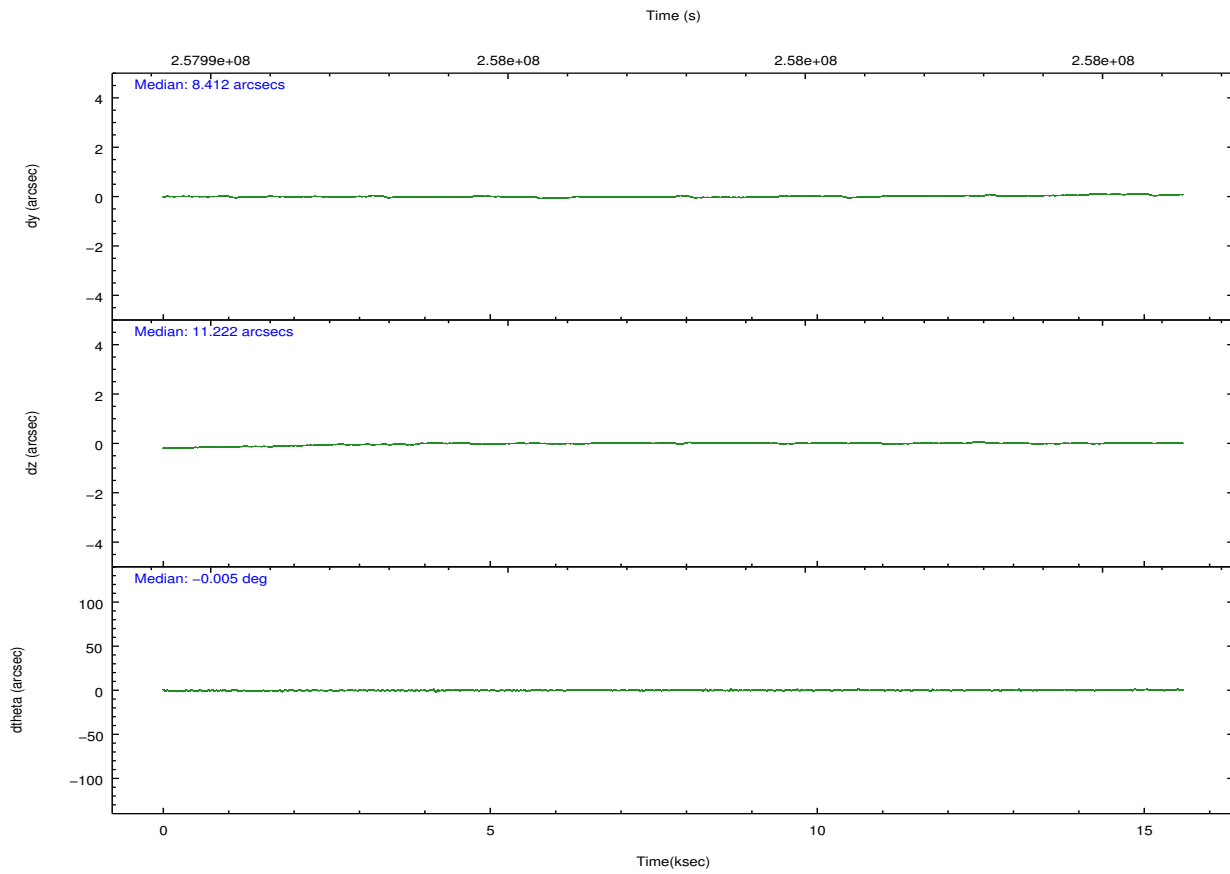
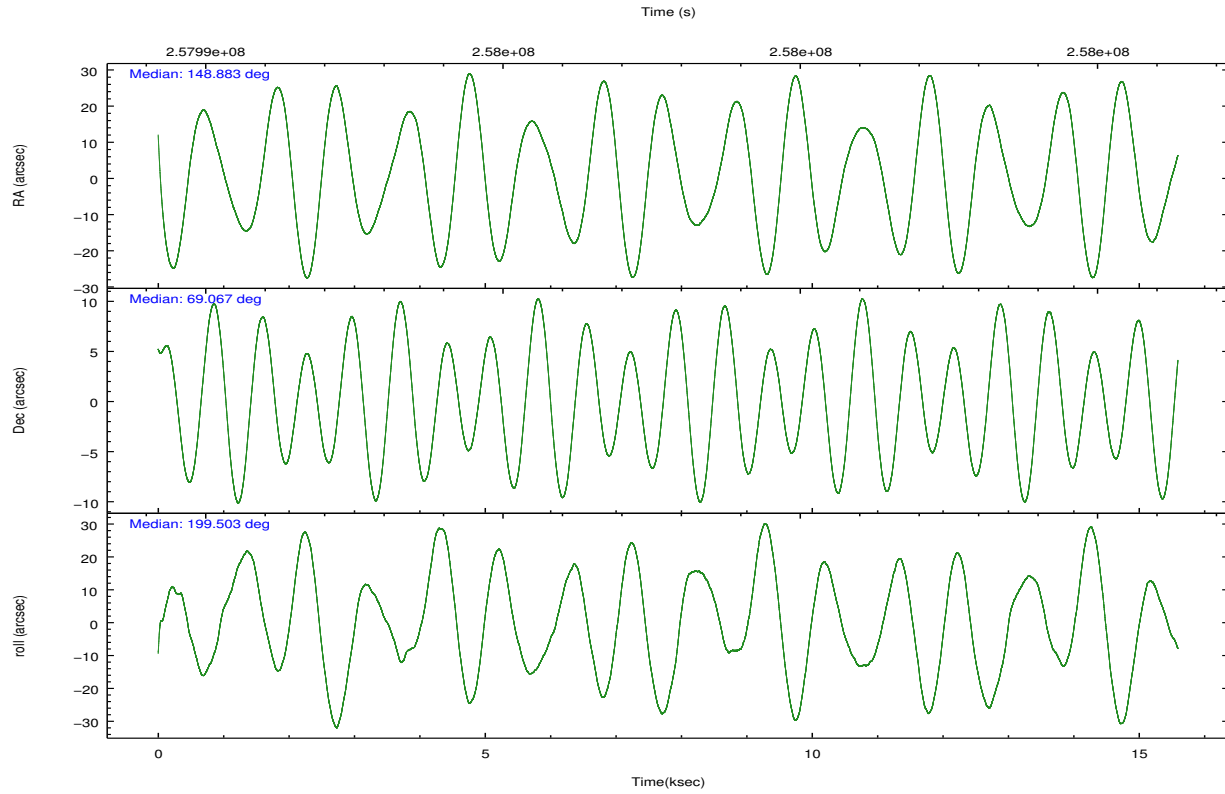
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	151330	202880	133239	184858	170213	134285	grade 0 events	11204	11751	7768	7569	12324	6979
rejected events	130953	107215	115482	105455	131792	117812		7%	5%	5%	4%	7%	5%
rejected %	86%	52%	86%	57%	77%	87%	grade 1 events	155	412	91	198	145	103
								0%	0%	0%	0%	0%	0%
							grade 2 events	3449	28684	3581	16221	8565	3227
								2%	14%	2%	8%	5%	2%
							grade 3 events	1682	3521	1600	7119	3826	1579
								1%	1%	1%	3%	2%	1%
							grade 4 events	1612	3329	1569	6807	3497	1564
								1%	1%	1%	3%	2%	1%
							grade 5 events	5820	14417	6149	17118	8252	6514
								3%	7%	4%	9%	4%	4%
							grade 6 events	2436	48426	3243	41726	10223	3133
								1%	23%	2%	22%	6%	2%
							grade 7 events	124972	92340	109238	88100	123381	111186
								82%	45%	81%	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	148.932257	148.8833642828174	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.087405	69.06644362238417	Alternating exposures requested	N	N
[deg] Pointing Roll	199.306801	199.509107217431	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	257990575.184000	257989353.2475			
Observation start date	2006-03-06T00:01:50	2006-03-05T23:42:33			
[s] Observation end time (MET)	258005575.184000	258006140.18578			
Observation end date	2006-03-06T04:11:50	2006-03-06T04:22:20			
Read mode	TIMED	TIMED			

## 2.3 Aspect



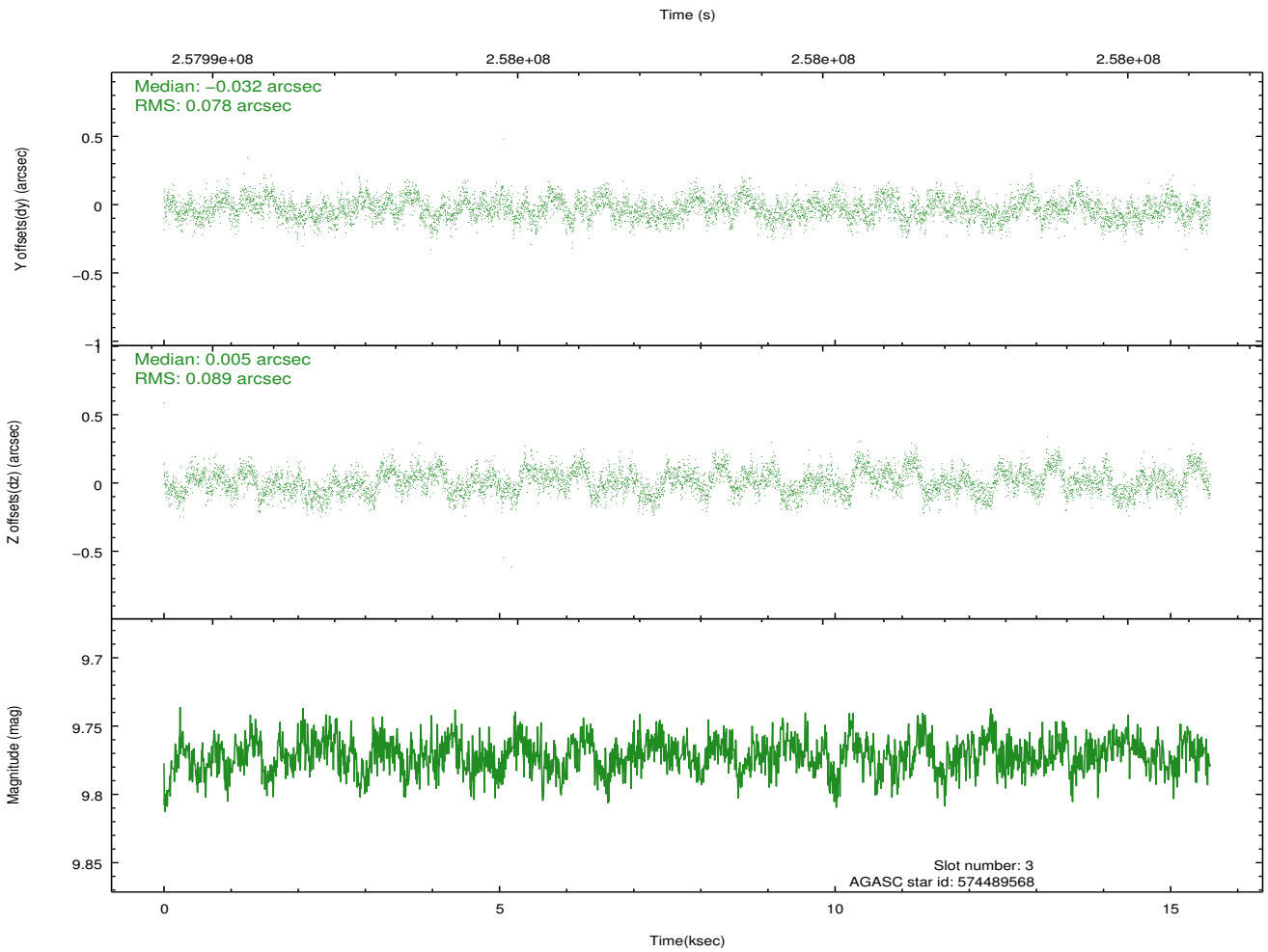
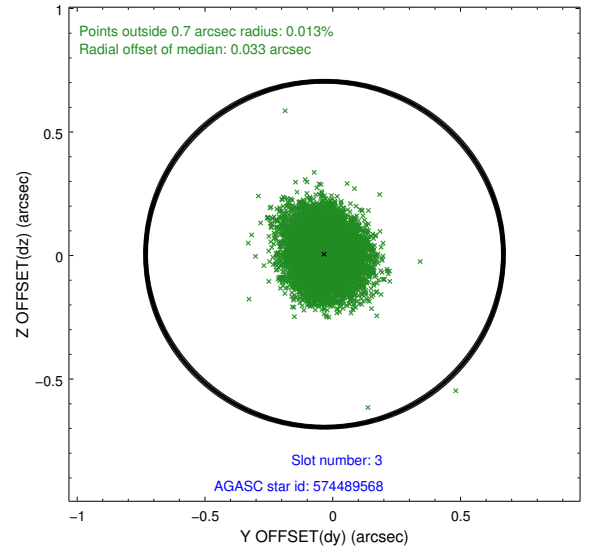
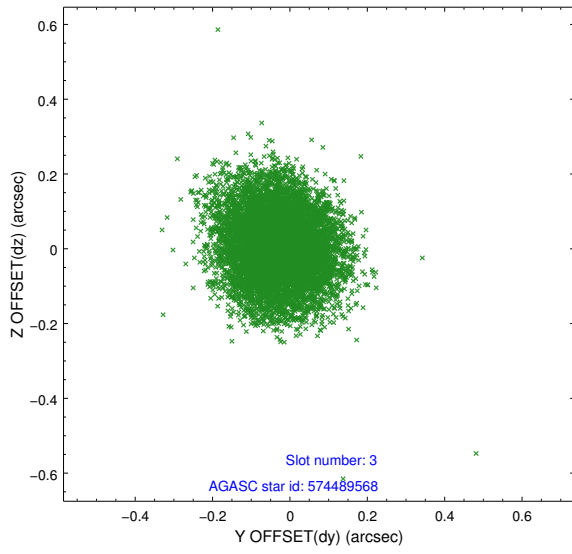


### Slot Statistics

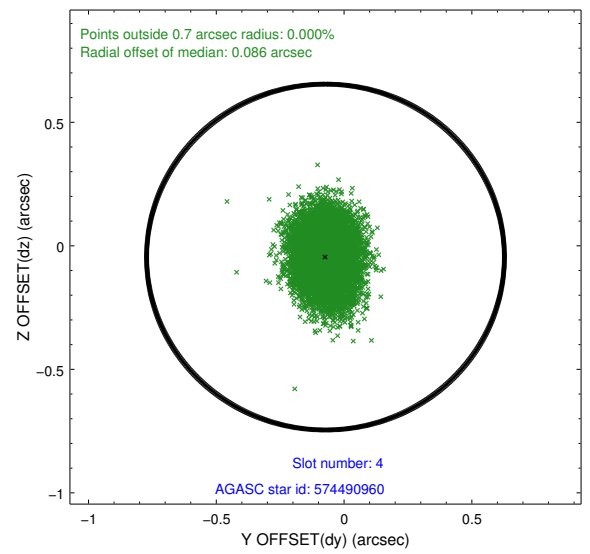
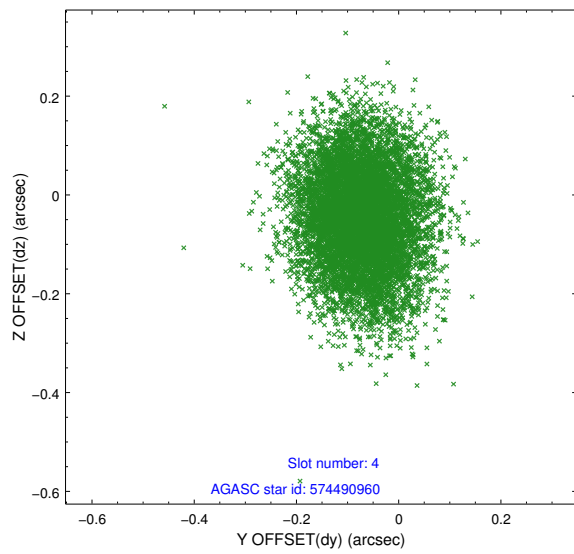
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	3803	-0.039	-0.024	0.008	0.018	0.000000	0.000000	-761.22	-1732.51
1	FID	ACIS-S-4	7.21	3803	0.143	0.025	0.008	0.022	0.000000	0.000000	2152.08	175.77
2	FID	ACIS-S-5	7.23	3804	-0.134	0.007	0.009	0.016	0.000000	0.000000	-1813.82	169.69
3	GUIDE	574489568	9.77	7597	-0.032	0.005	0.128	0.199	147.223974	69.438157	1611.06	-1933.73
4	GUIDE	574490960	9.74	7603	-0.073	-0.046	0.124	0.202	148.185918	69.658768	200.14	-2255.26
5	GUIDE	574491280	9.35	7604	0.105	-0.130	0.109	0.177	148.611567	69.450135	-48.37	-1367.20
6	GUIDE	574491184	9.07	7603	-0.089	-0.032	0.113	0.178	148.582453	69.768699	-400.11	-2459.87
7	GUIDE	574497600	10.43	7580	0.096	0.205	0.214	0.333	147.824120	68.451903	2134.97	1662.69

## 2.4 Star Slots

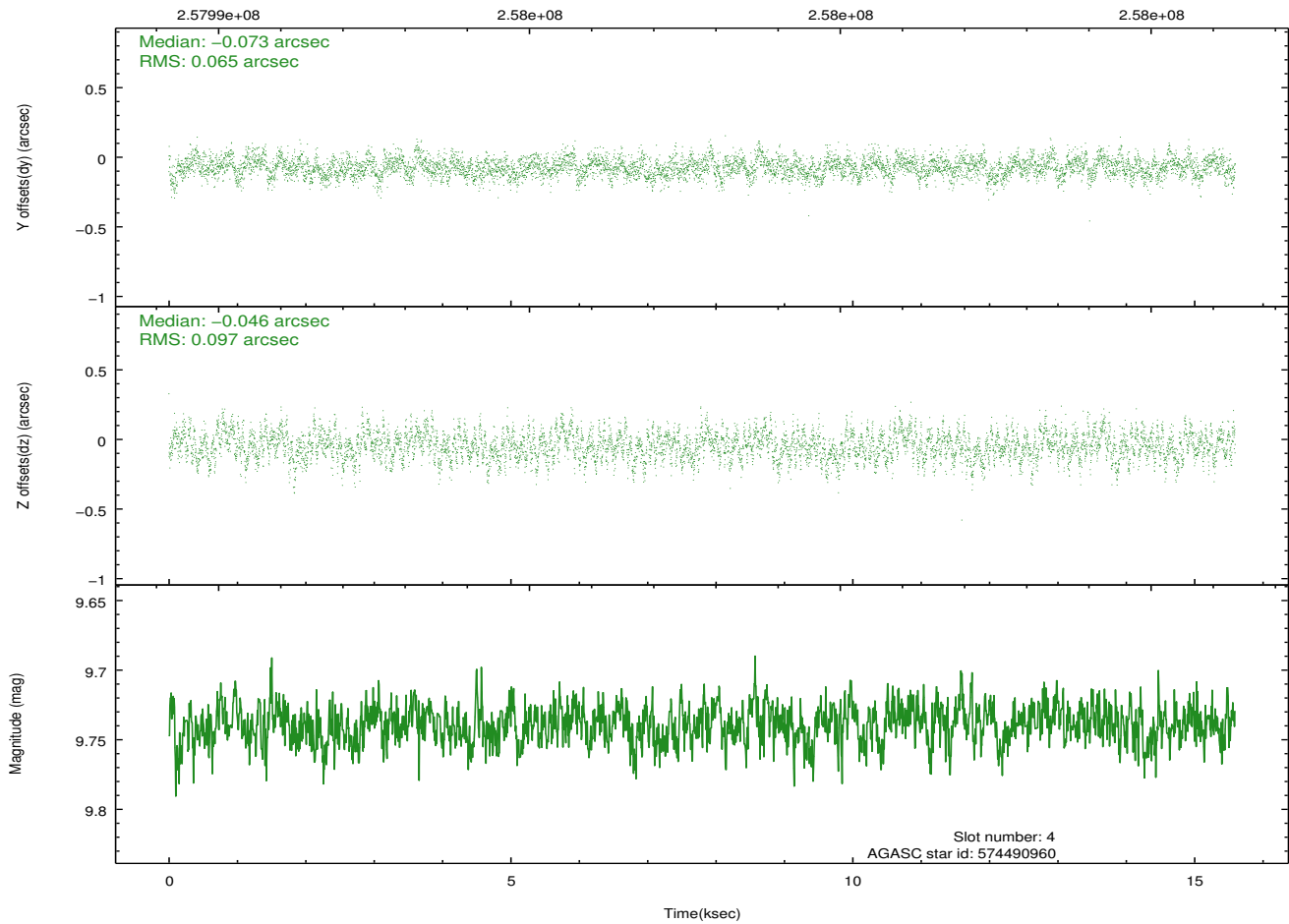
### 2.4.1 Slot 3



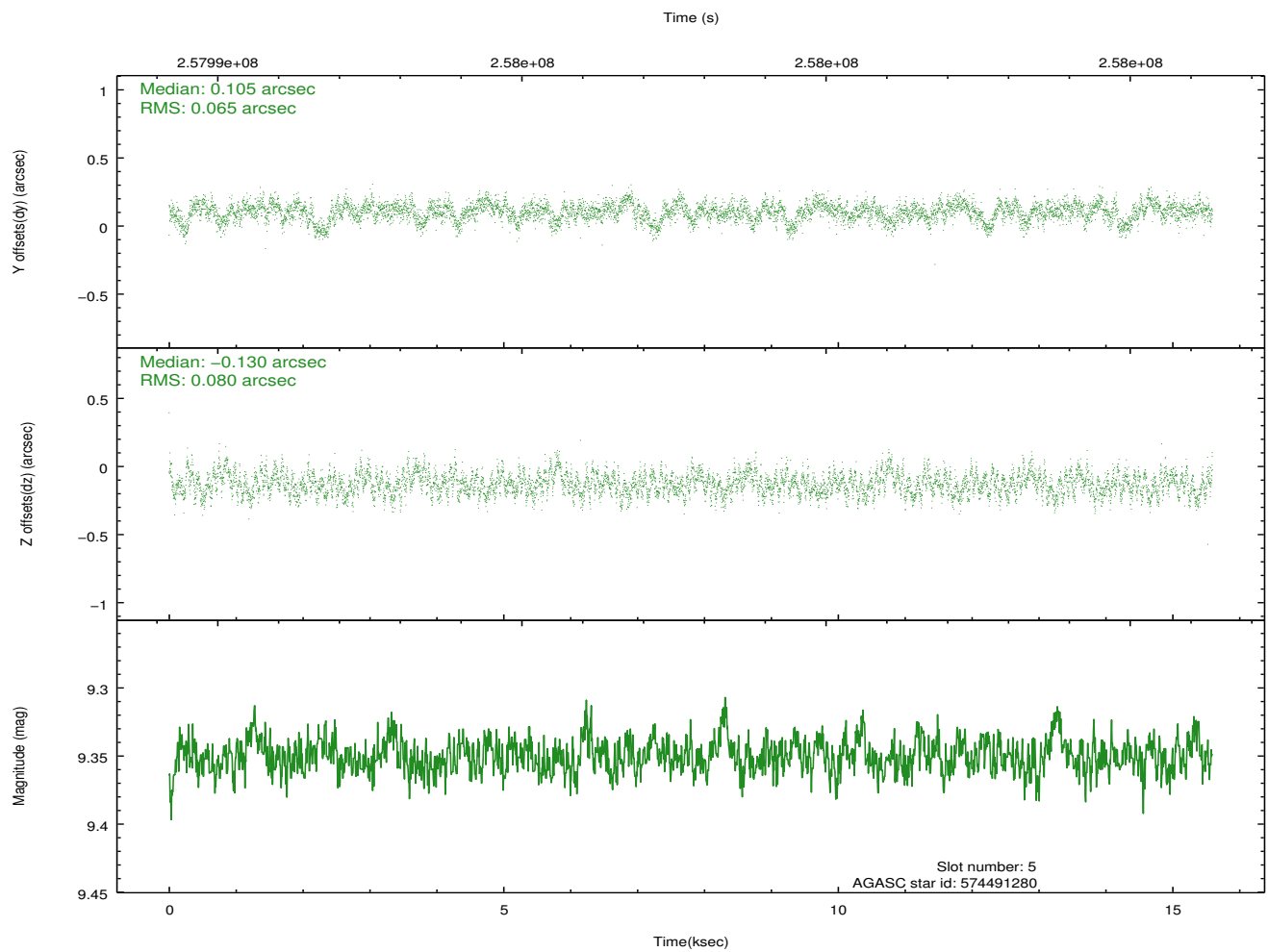
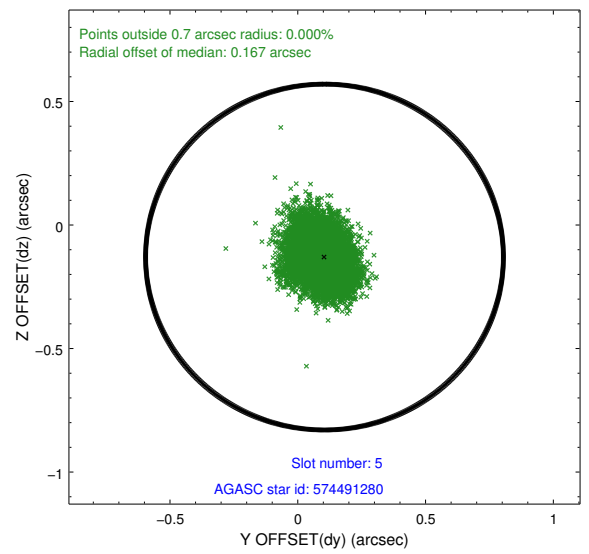
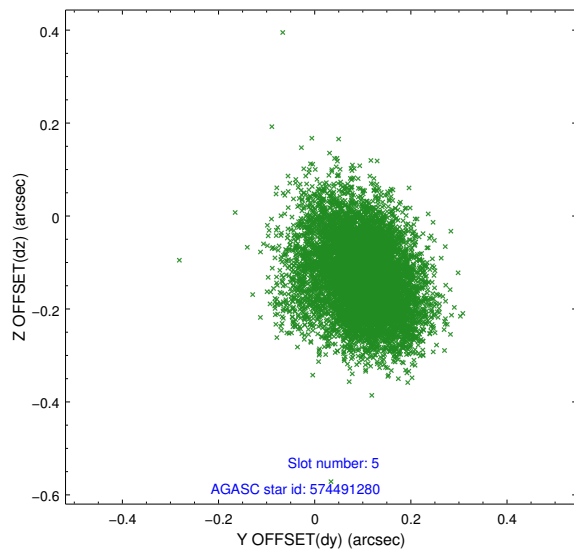
## 2.4.2 Slot 4



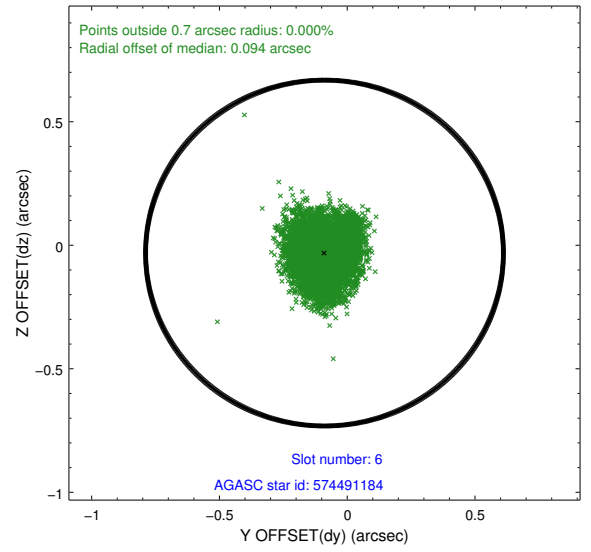
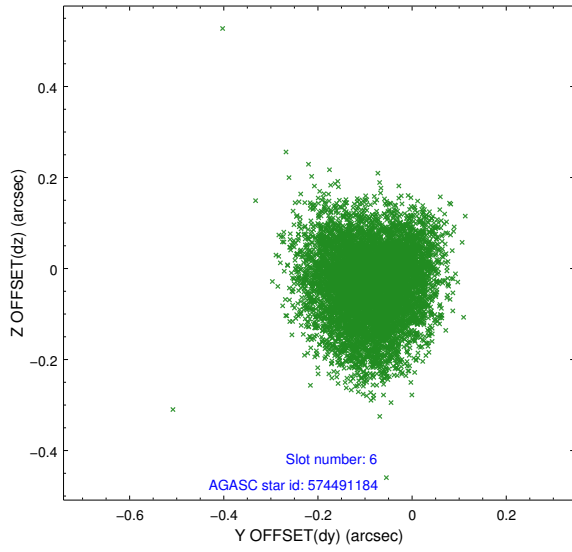
Time (s)



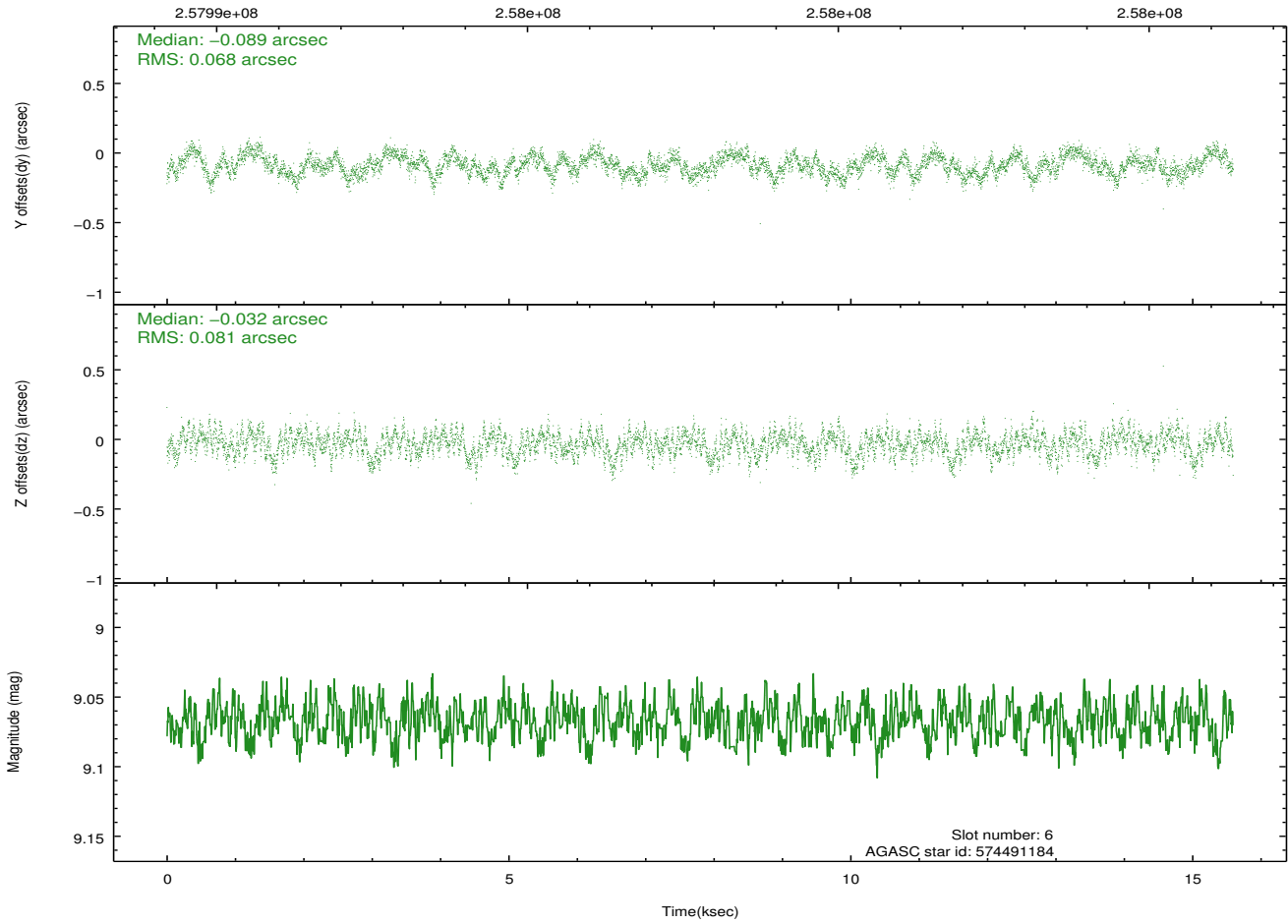
### 2.4.3 Slot 5



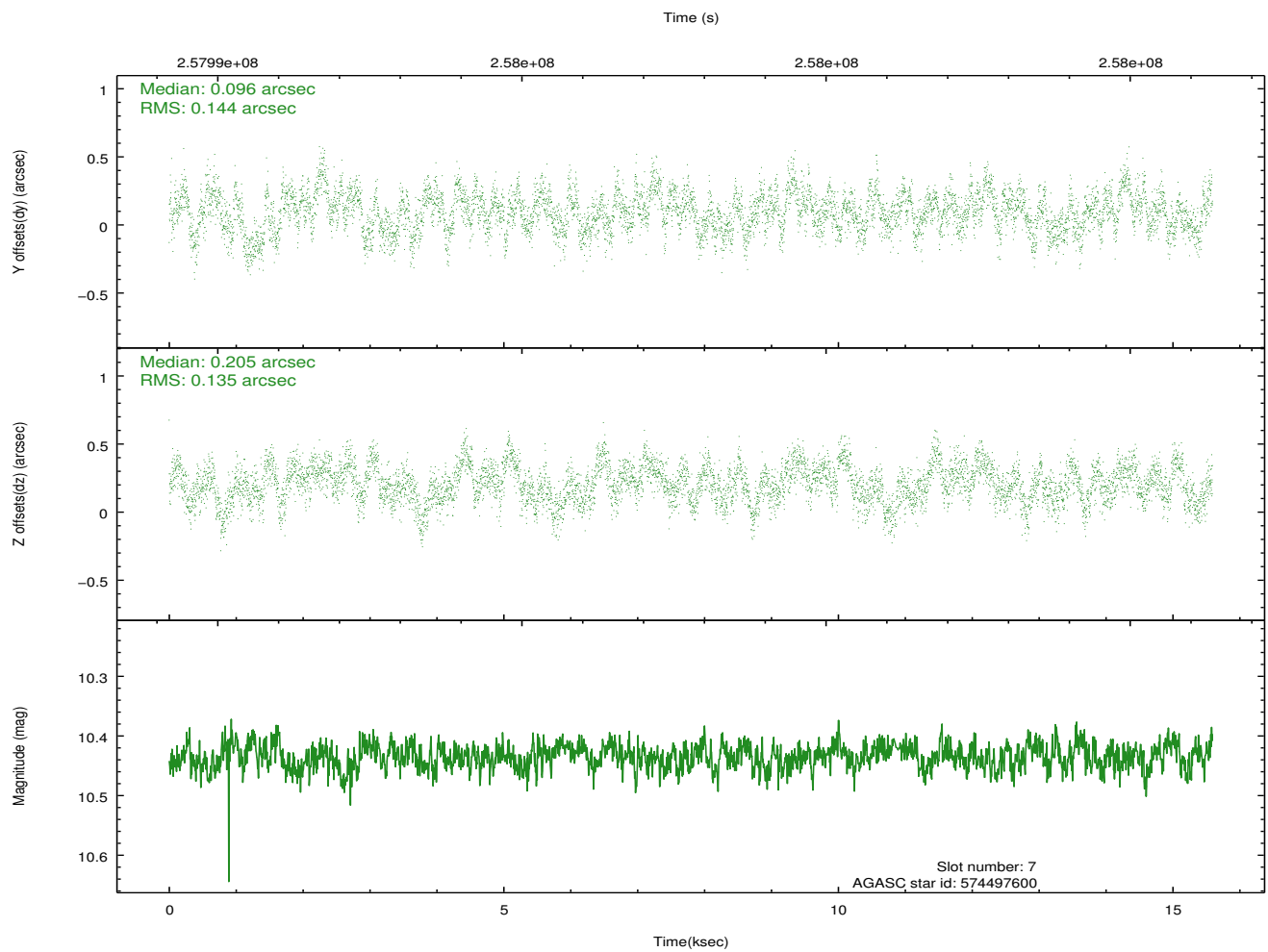
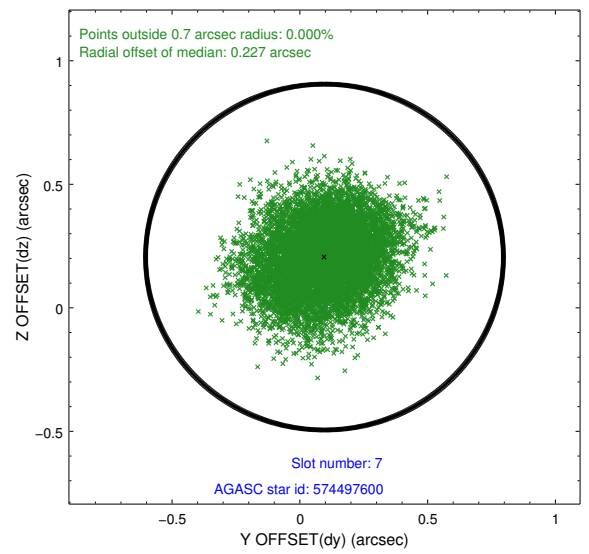
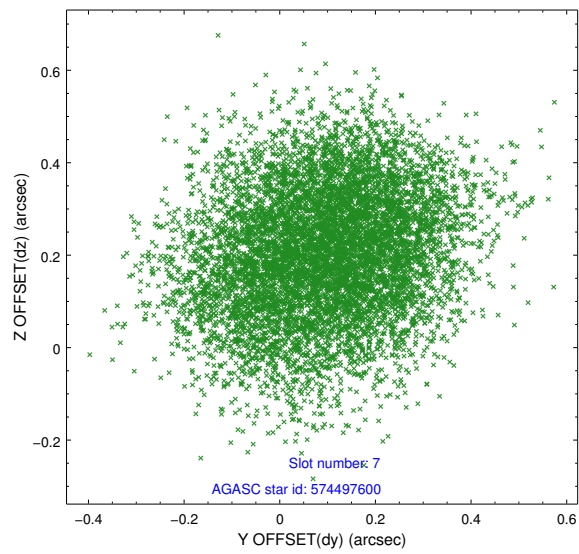
## 2.4.4 Slot 6



Time (s)

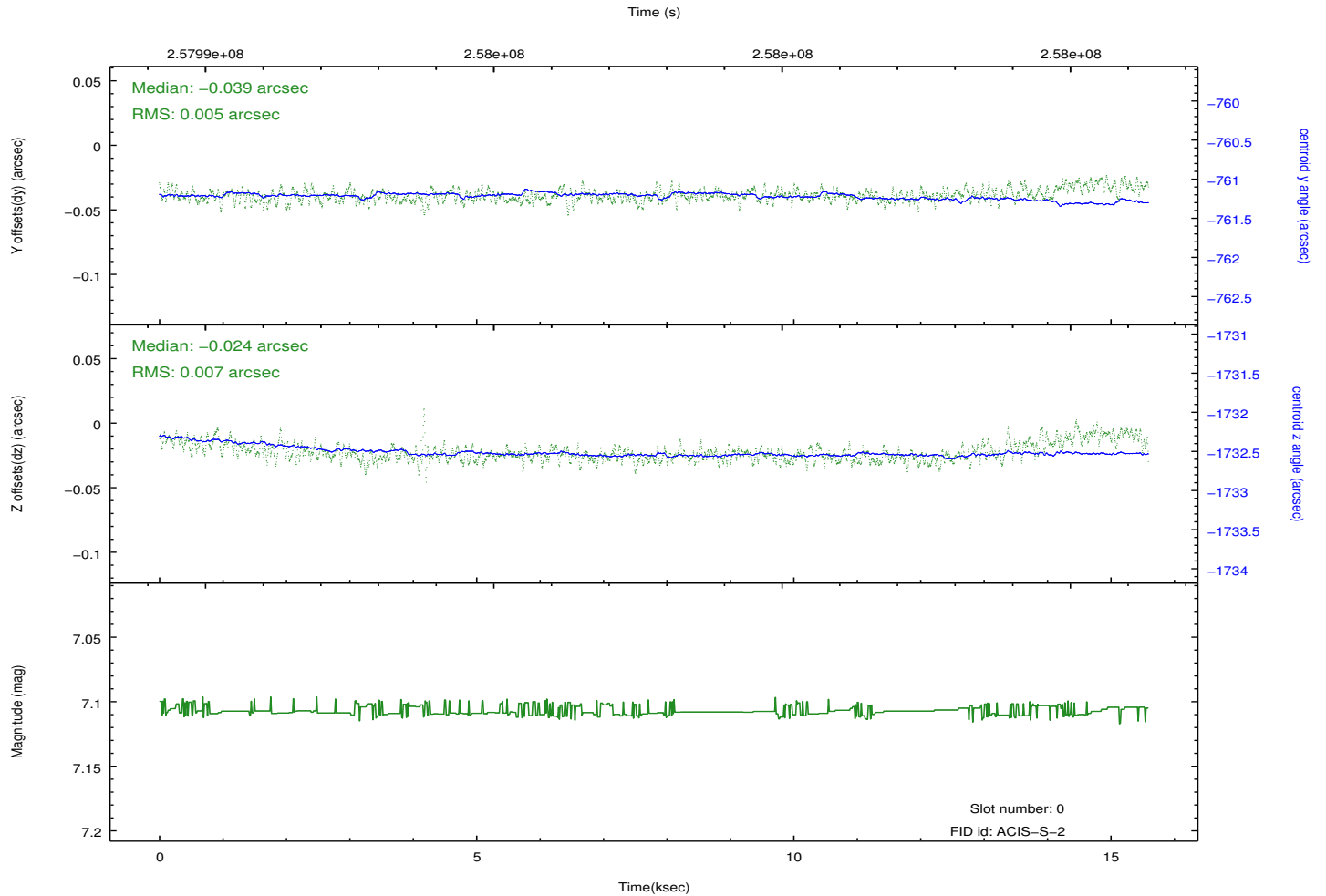
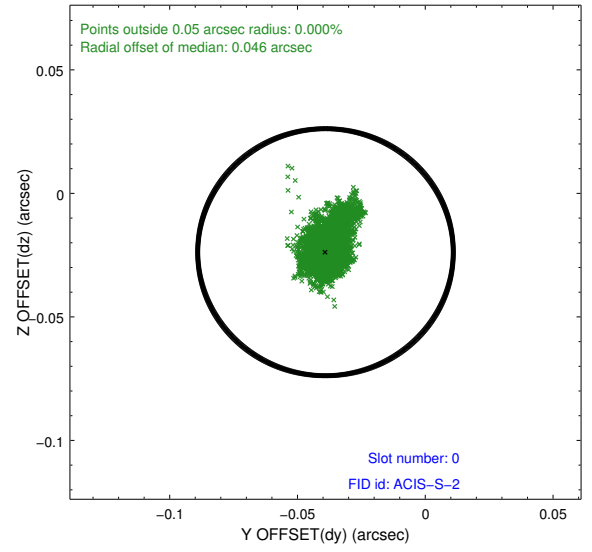
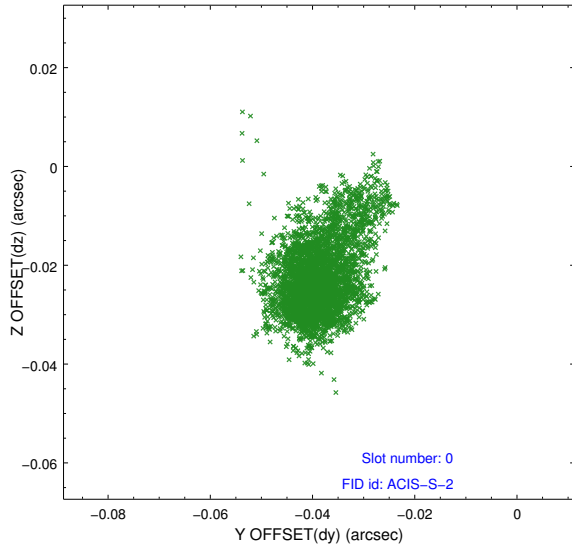


## 2.4.5 Slot 7

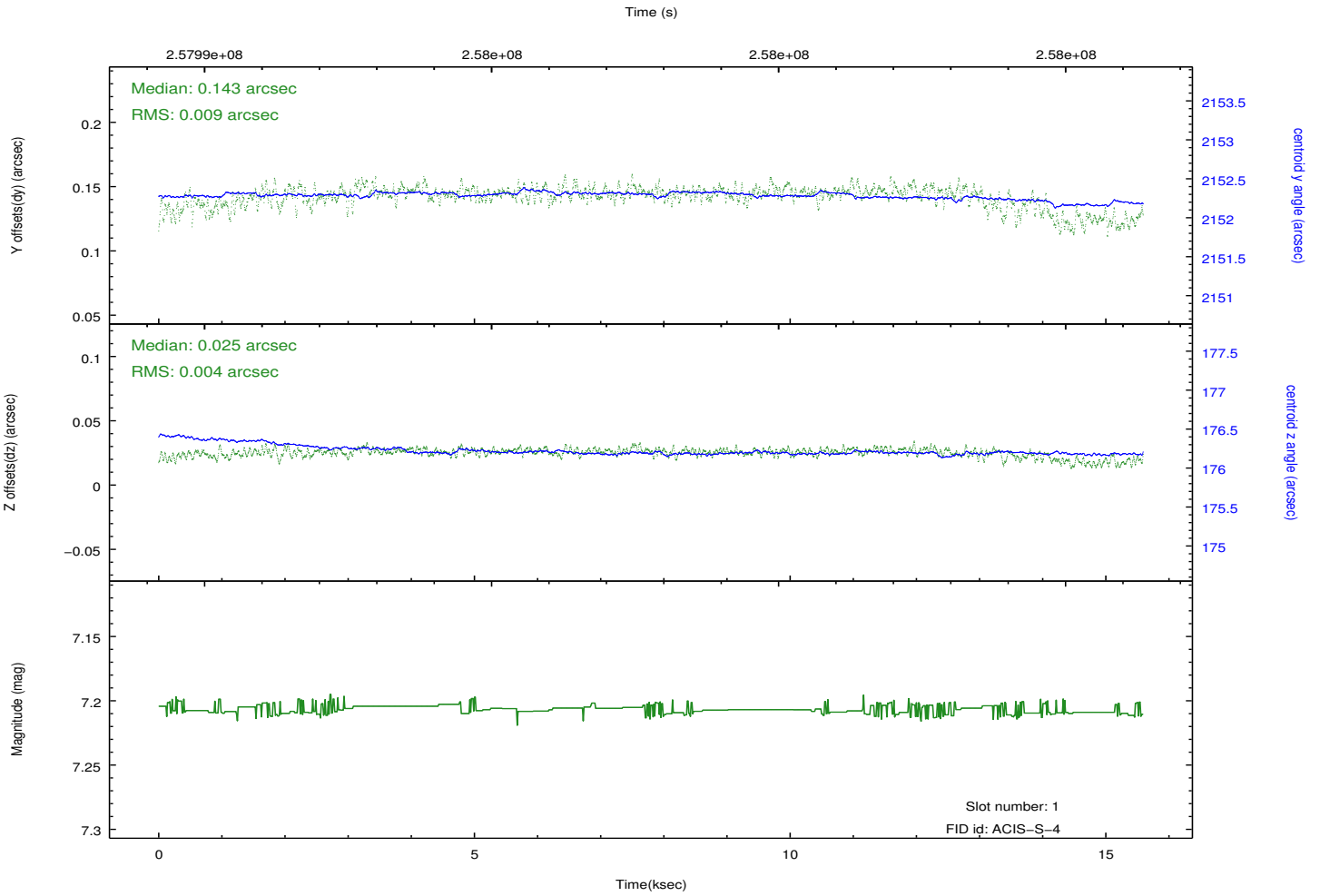
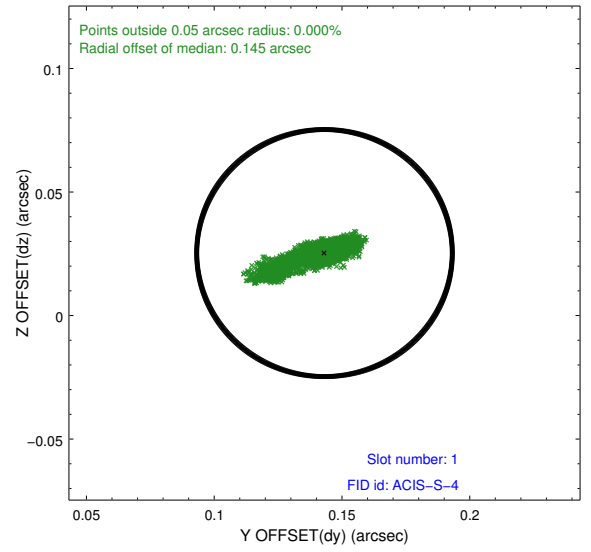
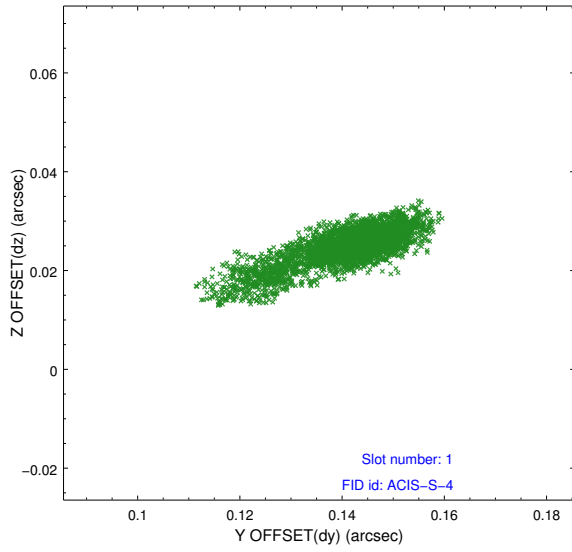


## 2.5 FID Slots

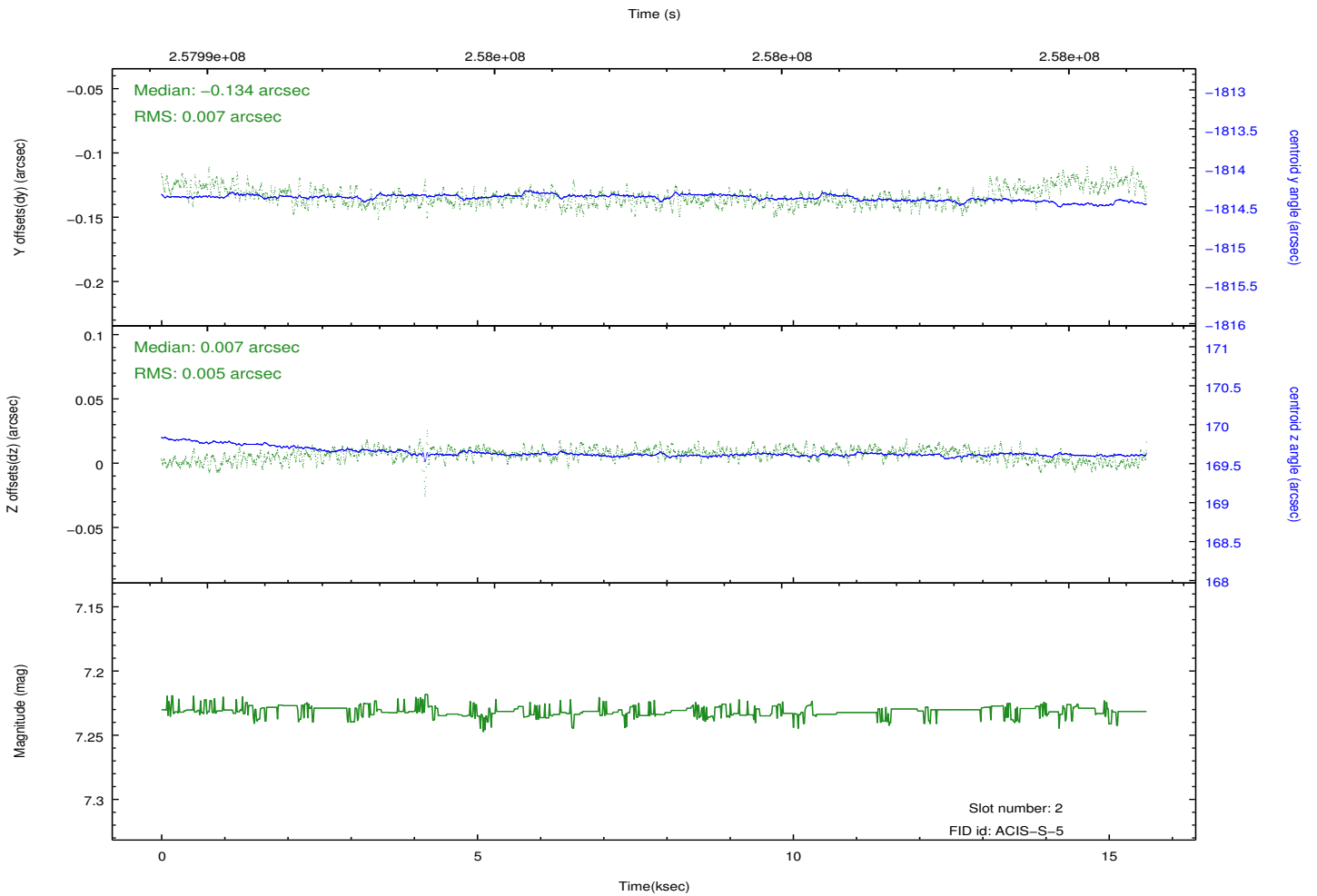
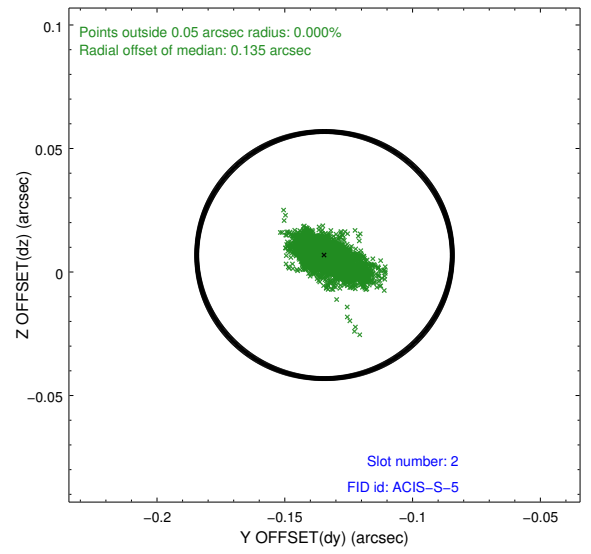
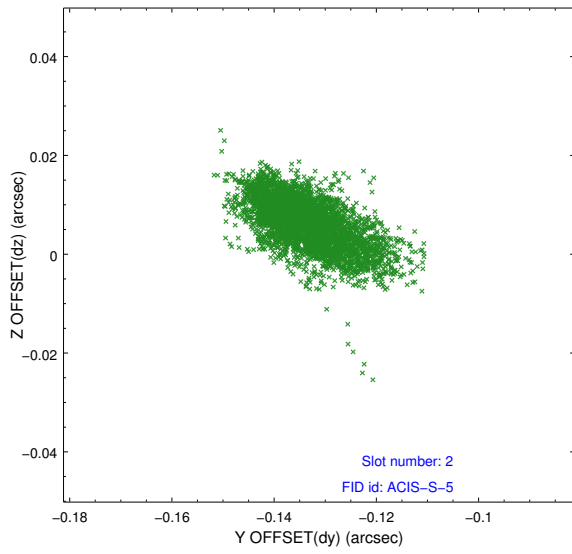
### 2.5.1 Slot 0



## 2.5.2 Slot 1

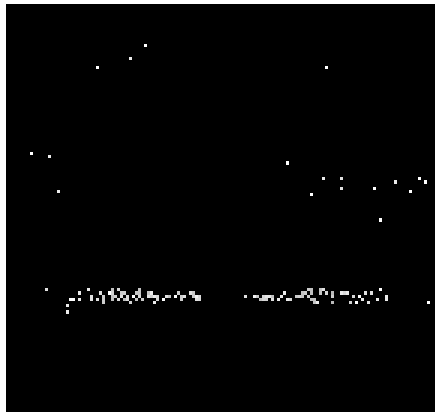


### 2.5.3 Slot 2

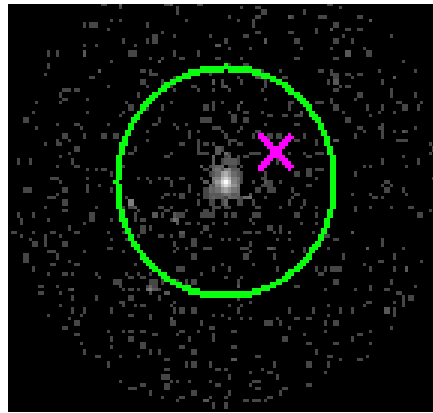


### 3 Gratings

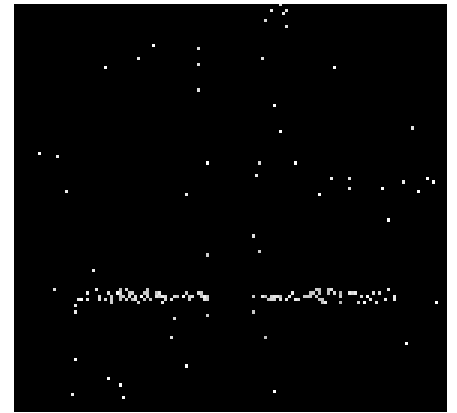
#### 3.1 HEG Arm



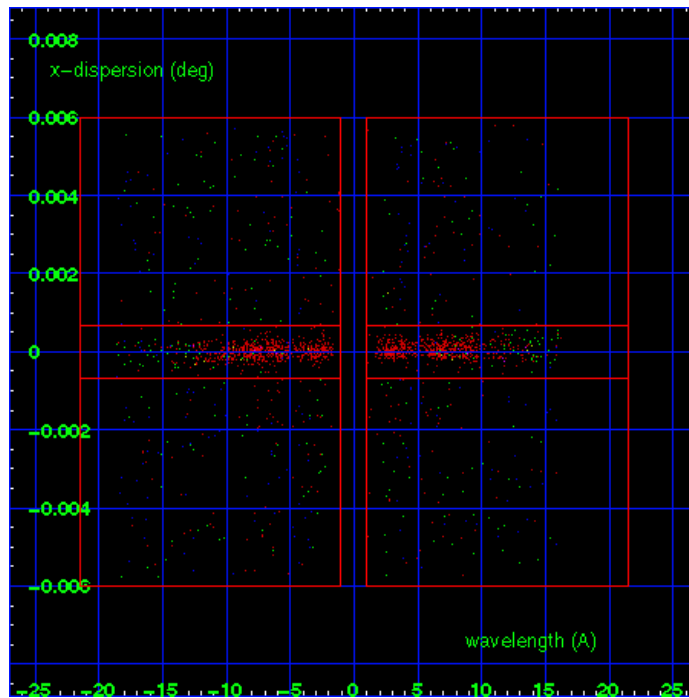
HEG Order Sort 123



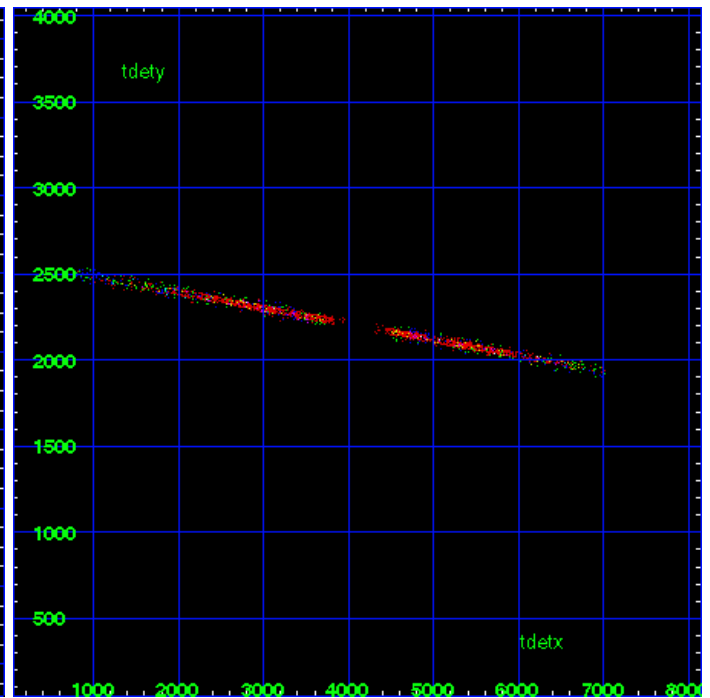
HEG Zero Order



HEG Order Sort ALL

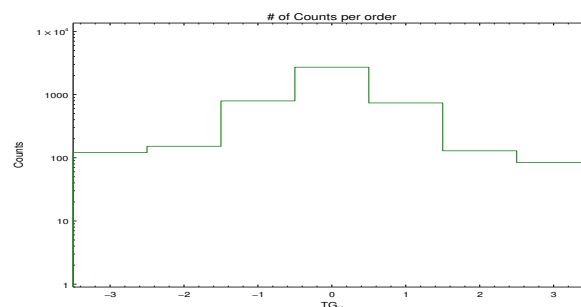


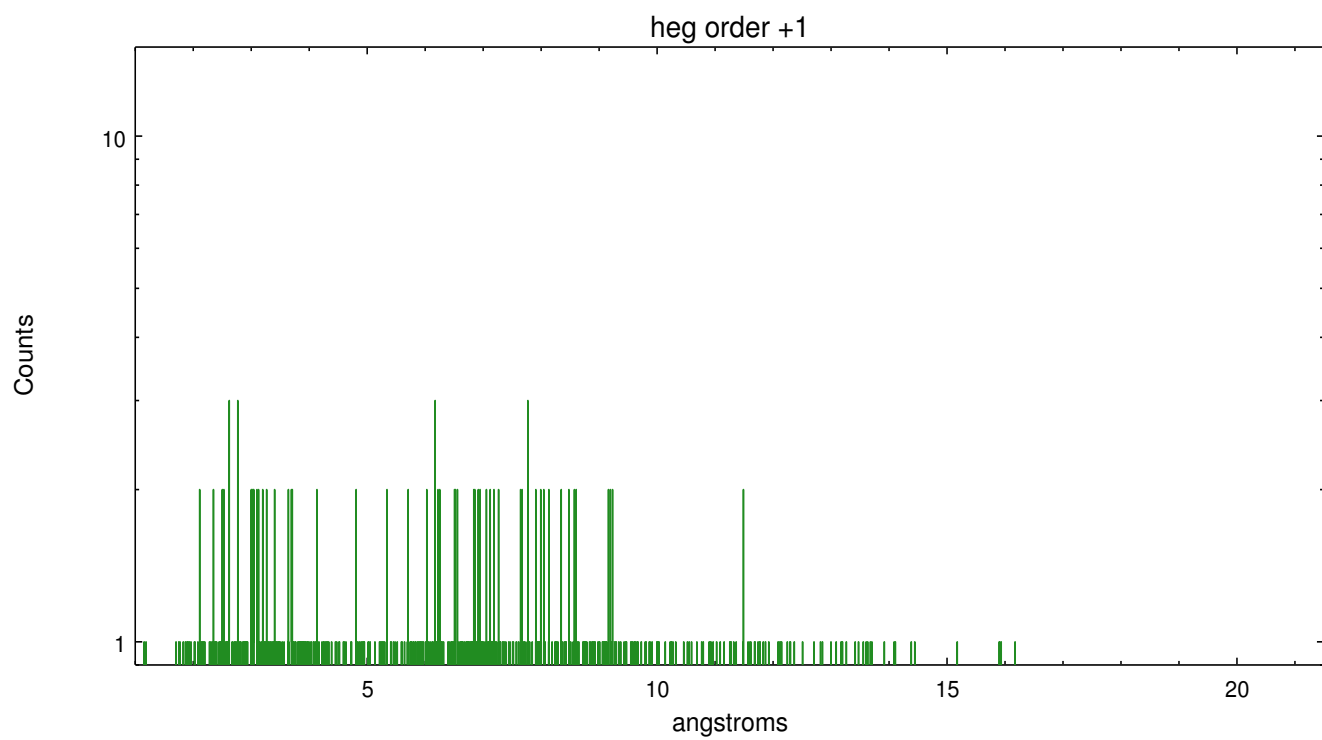
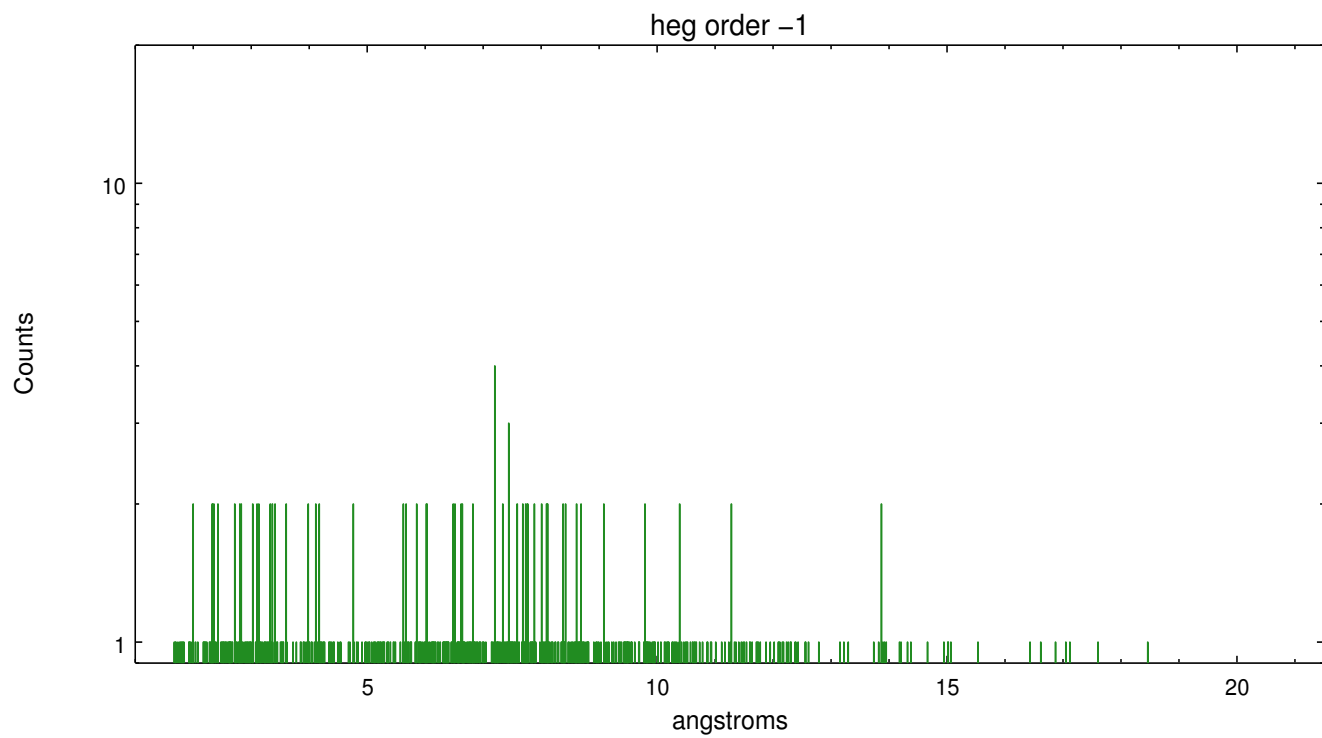
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	121	152	794	2711	738	129	84

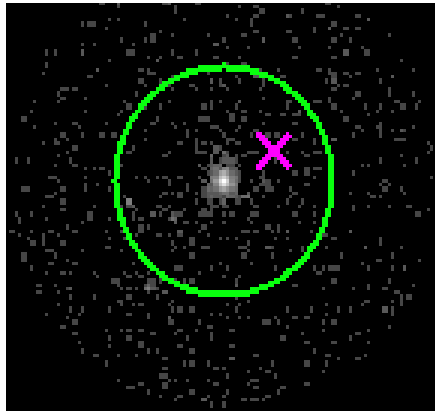




### 3.2 MEG Arm



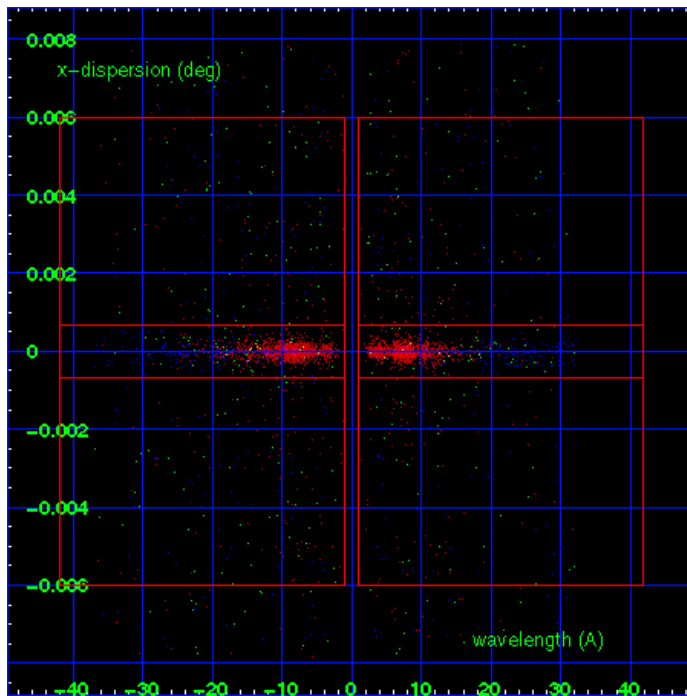
MEG Order Sort 123



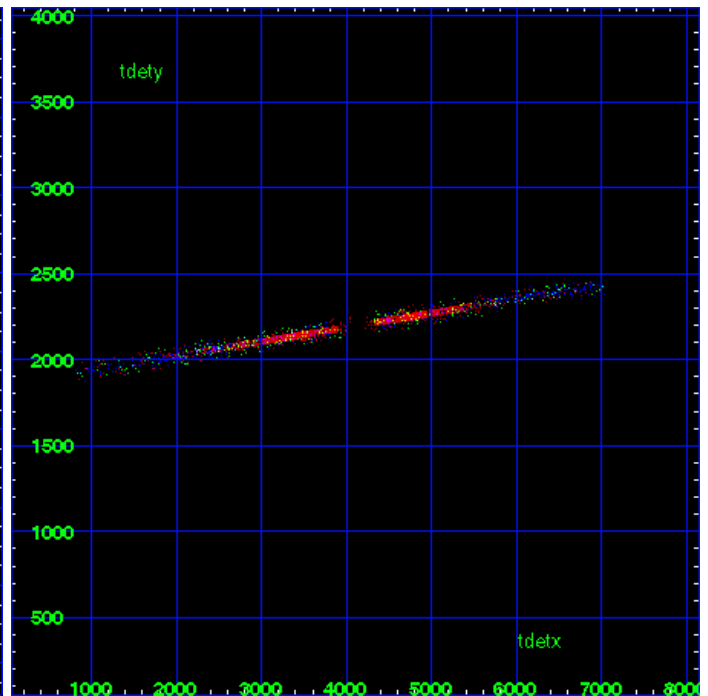
MEG Zero Order



MEG Order Sort ALL

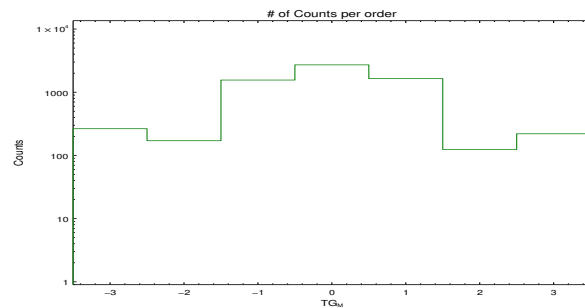


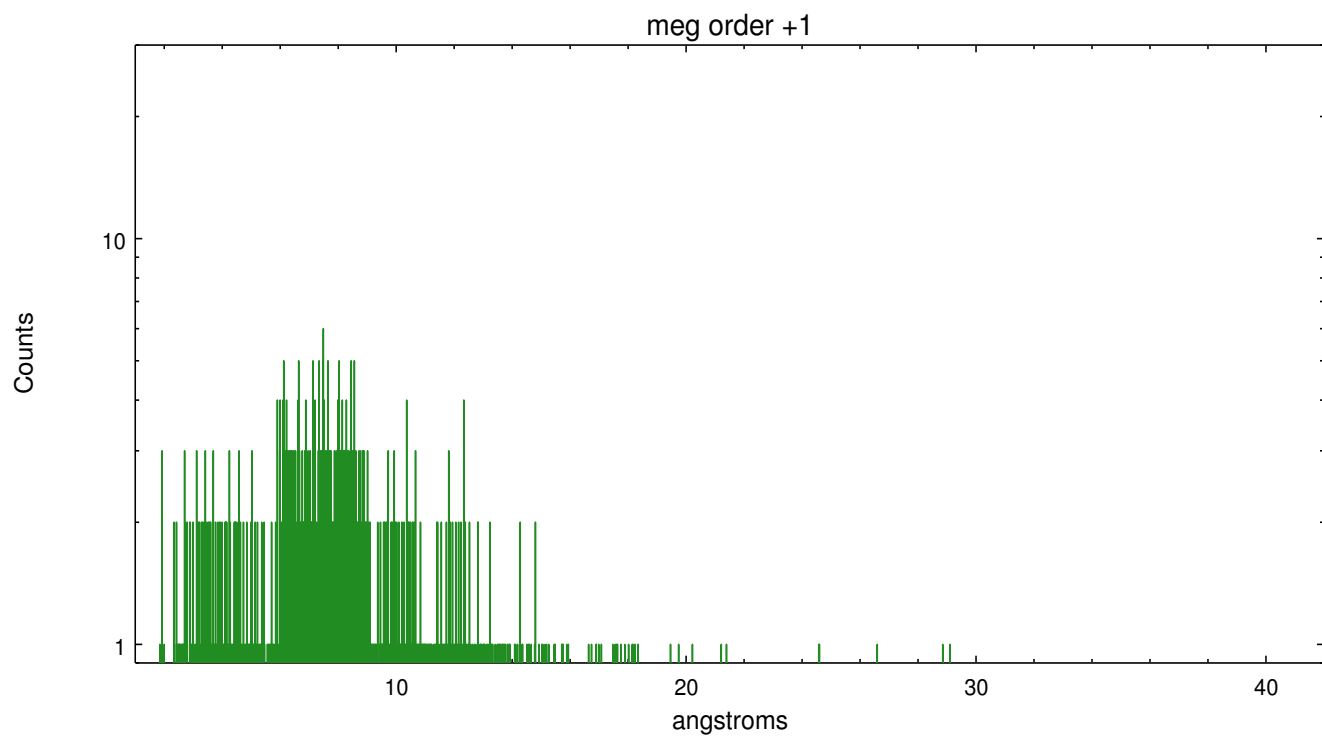
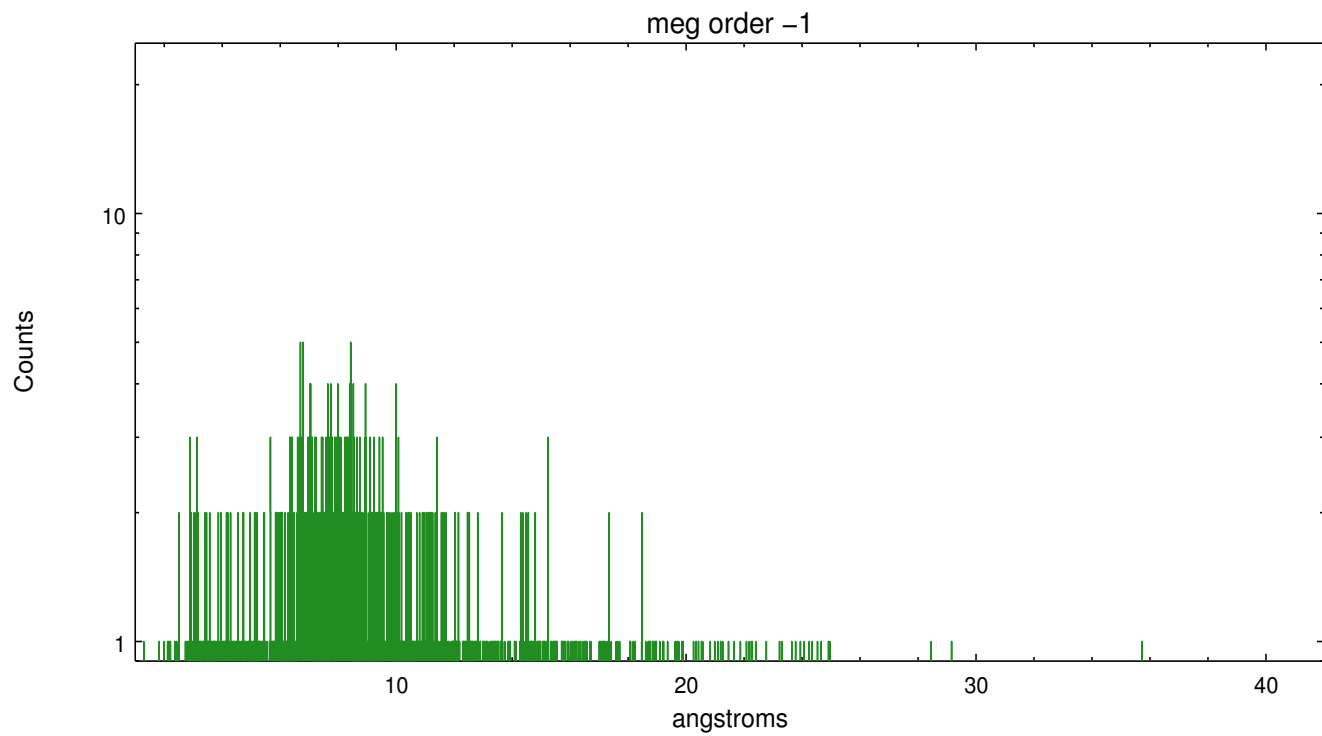
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	265	171	1558	2711	1642	124	220





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.03.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.9503999

## A.2 Comments