

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 6895 - L2 Version 2  
Chandra X-Ray Center

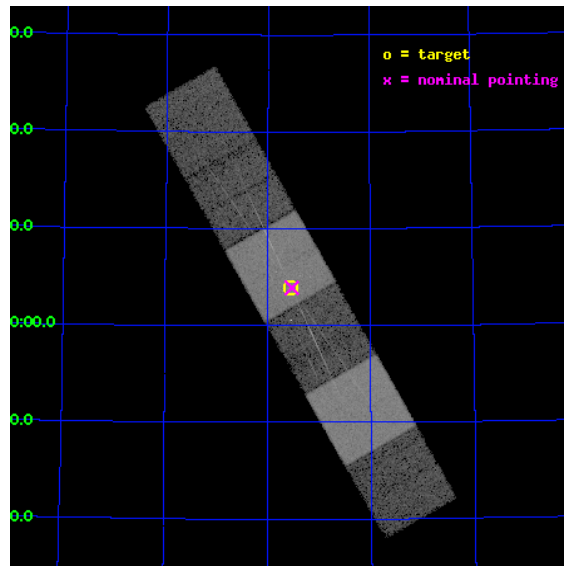
L2 Processing Date : Mar 30 2012

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# 1 Front

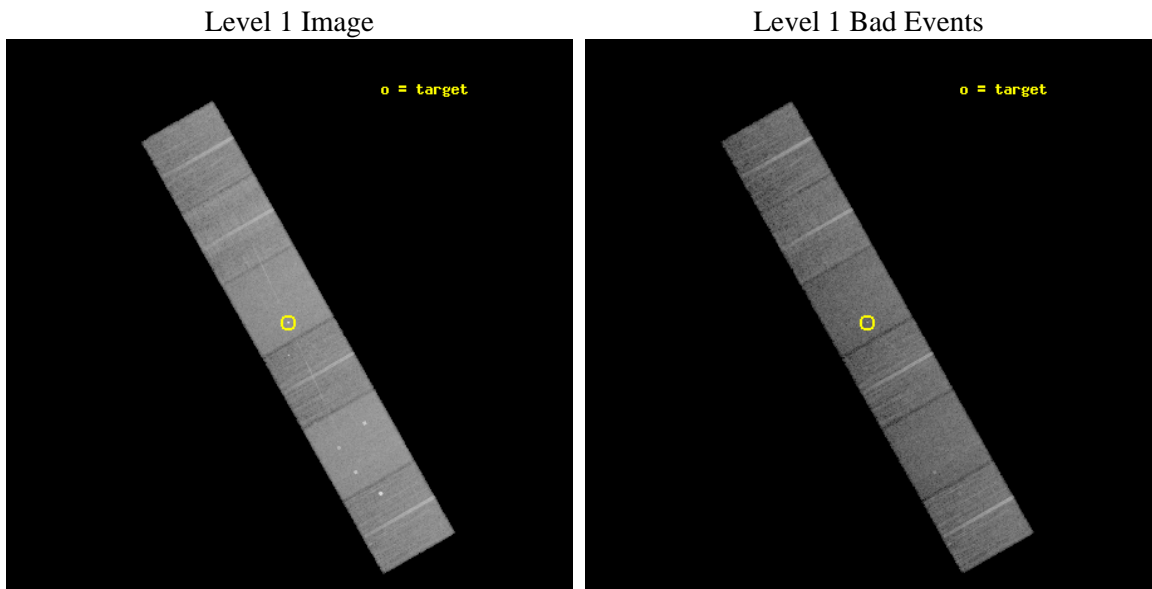
seq_num	701312	Sequence number
obs_id	6895	Observation id
title	Testing Broad-Band Jet-Powered Emission in the LLAGN M81*	Proposal
observer	Dr Jon Miller	Principal investigator
object	M81*	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.888333	Observer's specified target RA [deg]
dec_targ	69.065306	Observer's specified target Dec [deg]
ra_nom	148.88247080967	Nominal RA [deg]
dec_nom	69.065002664783	Nominal Dec [deg]
roll_nom	240.44177617134	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14742.39994508	Sum of GTIs [s]
livetime	14555.722800168	Livetime [s]
ontime4	14742.39994508	Sum of GTIs [s]
ontime5	14742.39994508	Sum of GTIs [s]
ontime6	14742.39994508	Sum of GTIs [s]
ontime7	14742.39994508	Sum of GTIs [s]
ontime8	14742.39994508	Sum of GTIs [s]
ontime9	14742.39994508	Sum of GTIs [s]
l2events	225425	Number of level 2 events



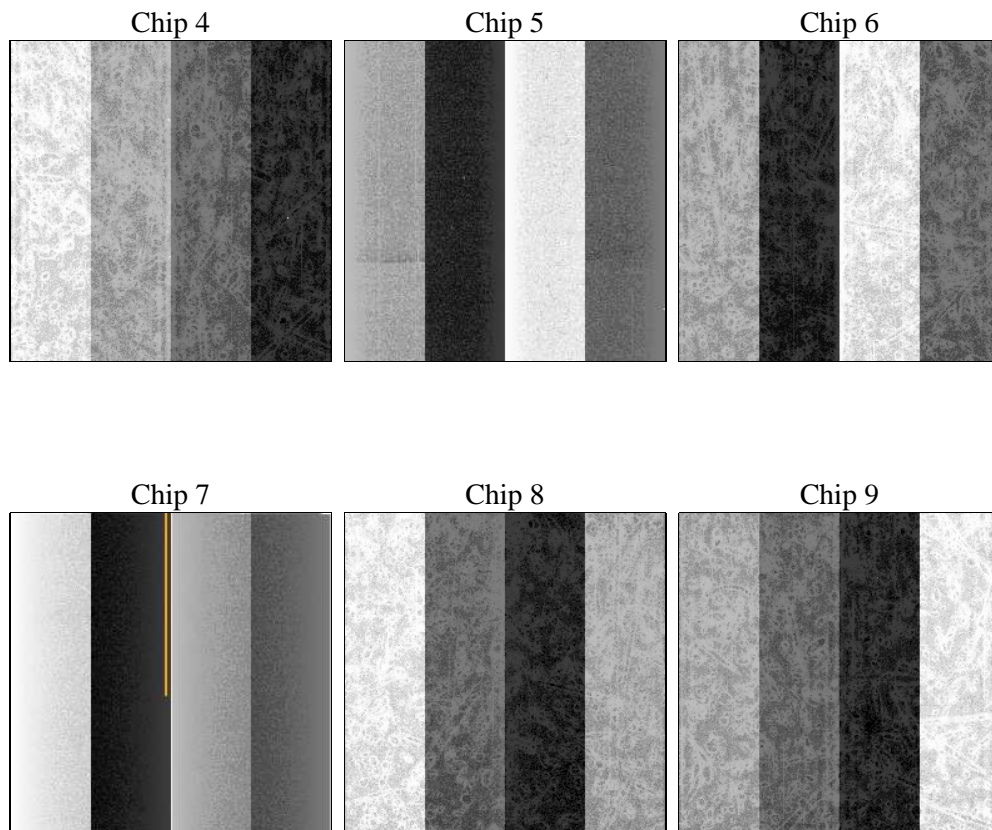
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14794.852000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	14742.39994508	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime4	14742.39994508	Sum of GTIs [s]
date	2012-03-30T18:52:05	Date and time of file creation	ontime5	14742.39994508	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	14742.39994508	Sum of GTIs [s]
			ontime7	14742.39994508	Sum of GTIs [s]
			ontime8	14742.39994508	Sum of GTIs [s]
			ontime9	14742.39994508	Sum of GTIs [s]
			l1events	968369	Number of level 1 events

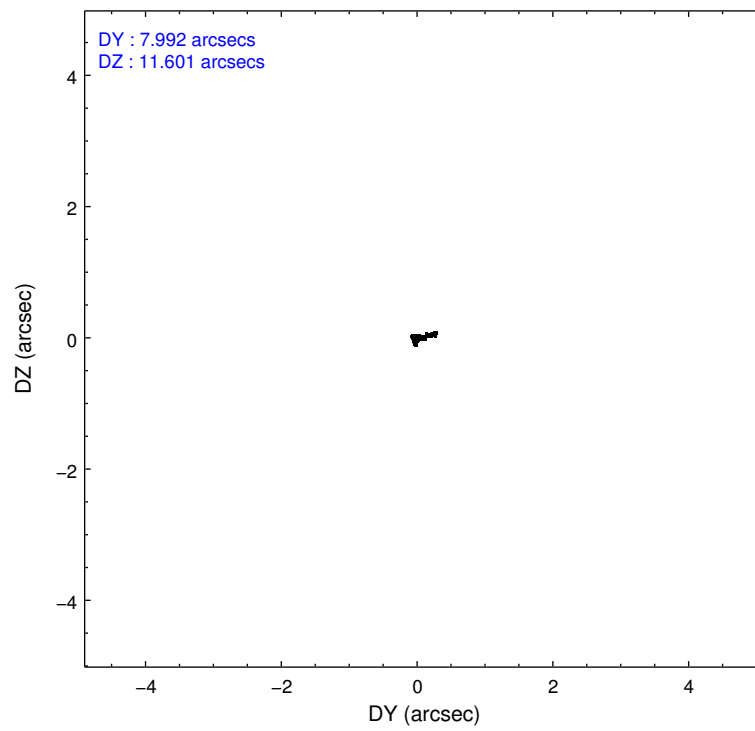
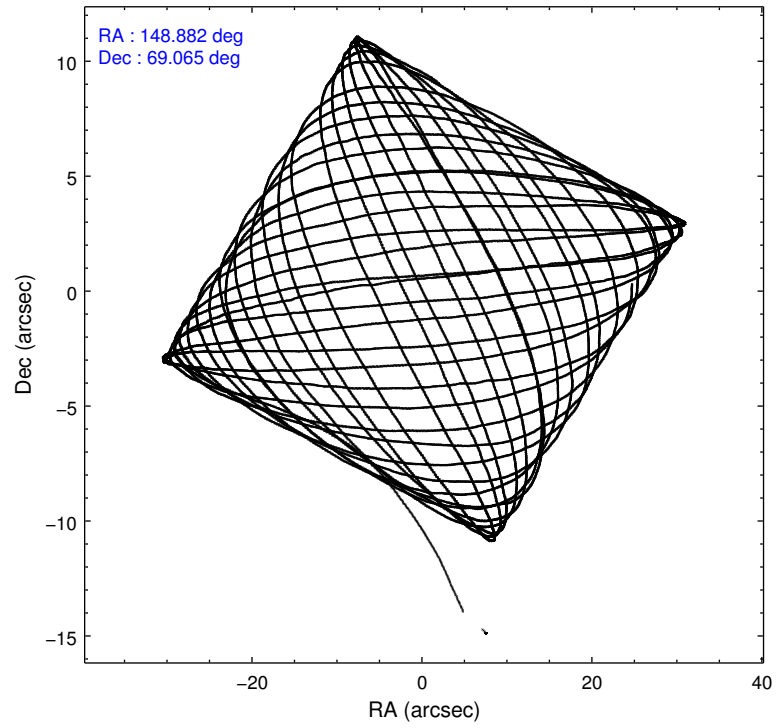
### 2.1.4 Events

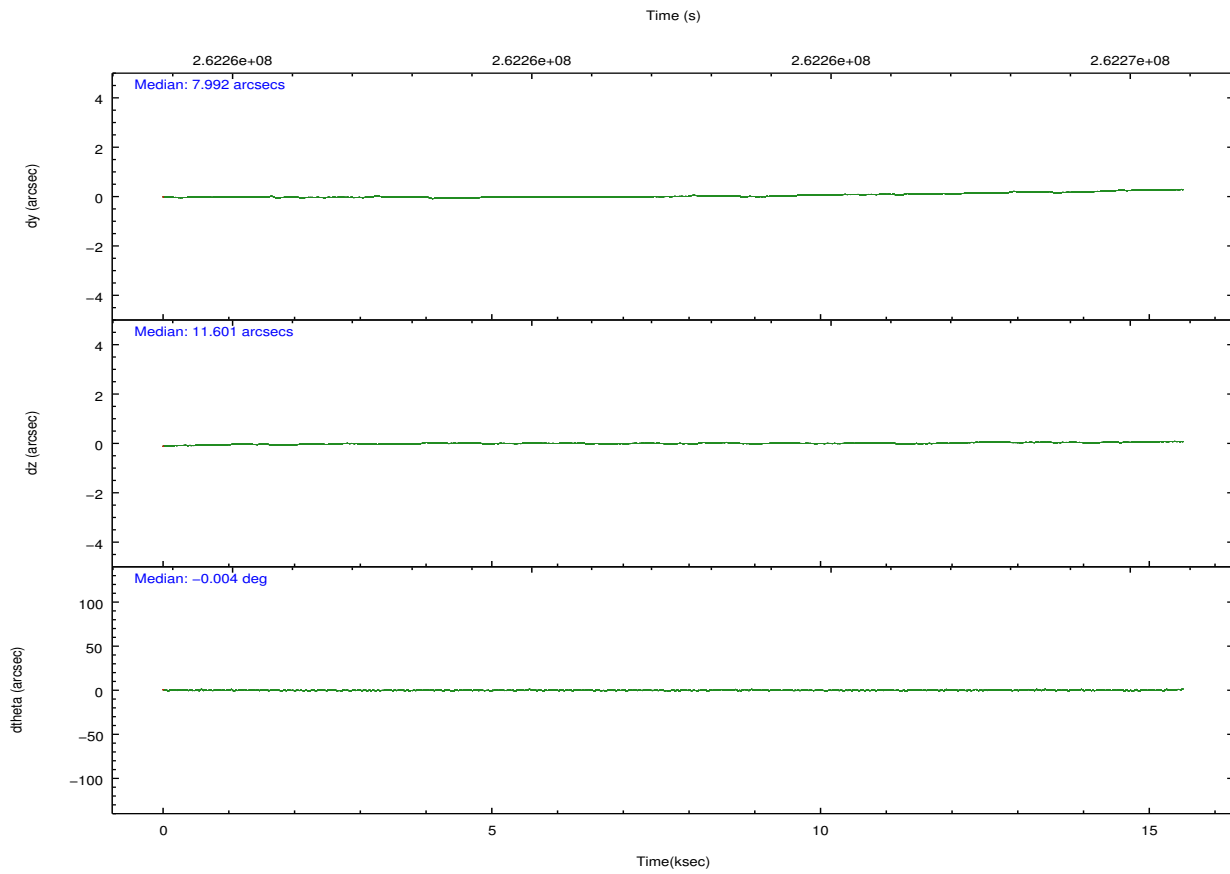
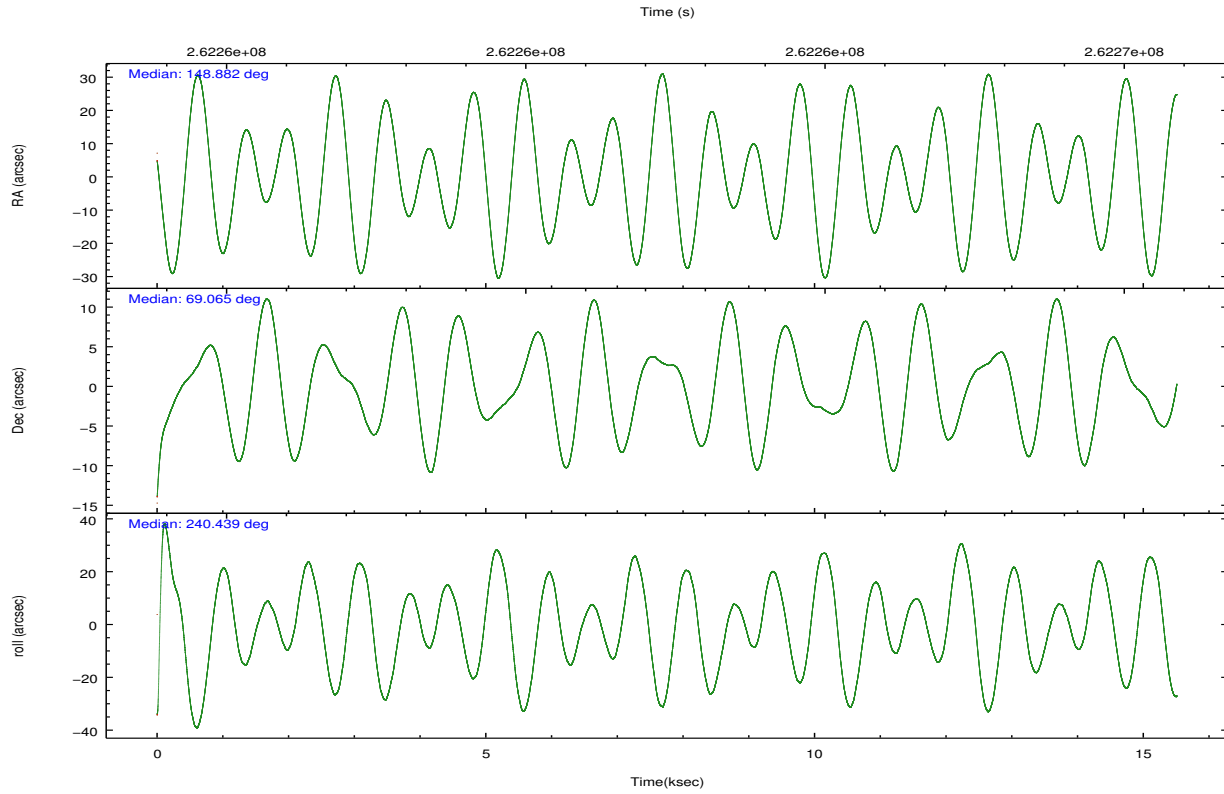
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	152394	198327	134014	184203	170390	129041	grade 0 events	11538	8672	8407	7552	12377	7147
rejected events	131208	106429	115403	104632	131492	112187		7%	4%	6%	4%	7%	5%
rejected %	86%	53%	86%	56%	77%	86%	grade 1 events	209	253	68	227	131	88
								0%	0%	0%	0%	0%	0%
							grade 2 events	3689	28057	3691	16100	8826	3309
								2%	14%	2%	8%	5%	2%
							grade 3 events	1677	3567	1628	7011	3863	1540
								1%	1%	1%	3%	2%	1%
							grade 4 events	1641	3463	1567	6965	3677	1584
								1%	1%	1%	3%	2%	1%
							grade 5 events	5854	14402	6047	17052	8157	6549
								3%	7%	4%	9%	4%	5%
							grade 6 events	2653	48167	3326	41974	10199	3293
								1%	24%	2%	22%	5%	2%
							grade 7 events	125133	91746	109280	87322	123160	105531
								82%	46%	81%	47%	72%	81%

## 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	148.880922	148.8824708096671	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.092262	69.06500266478261	Alternating exposures requested	N	N
[deg] Pointing Roll	240.286639	240.4417761713397	[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)	262255326.184000	262253932.05855			
Observation start date	2006-04-24T08:41:01	2006-04-24T08:18:52			
[s] Observation end time (MET)	262270121.184000	262270346.92182			
Observation end date	2006-04-24T12:47:36	2006-04-24T12:52:26			
Read mode	TIMED	TIMED			

## 2.3 Aspect



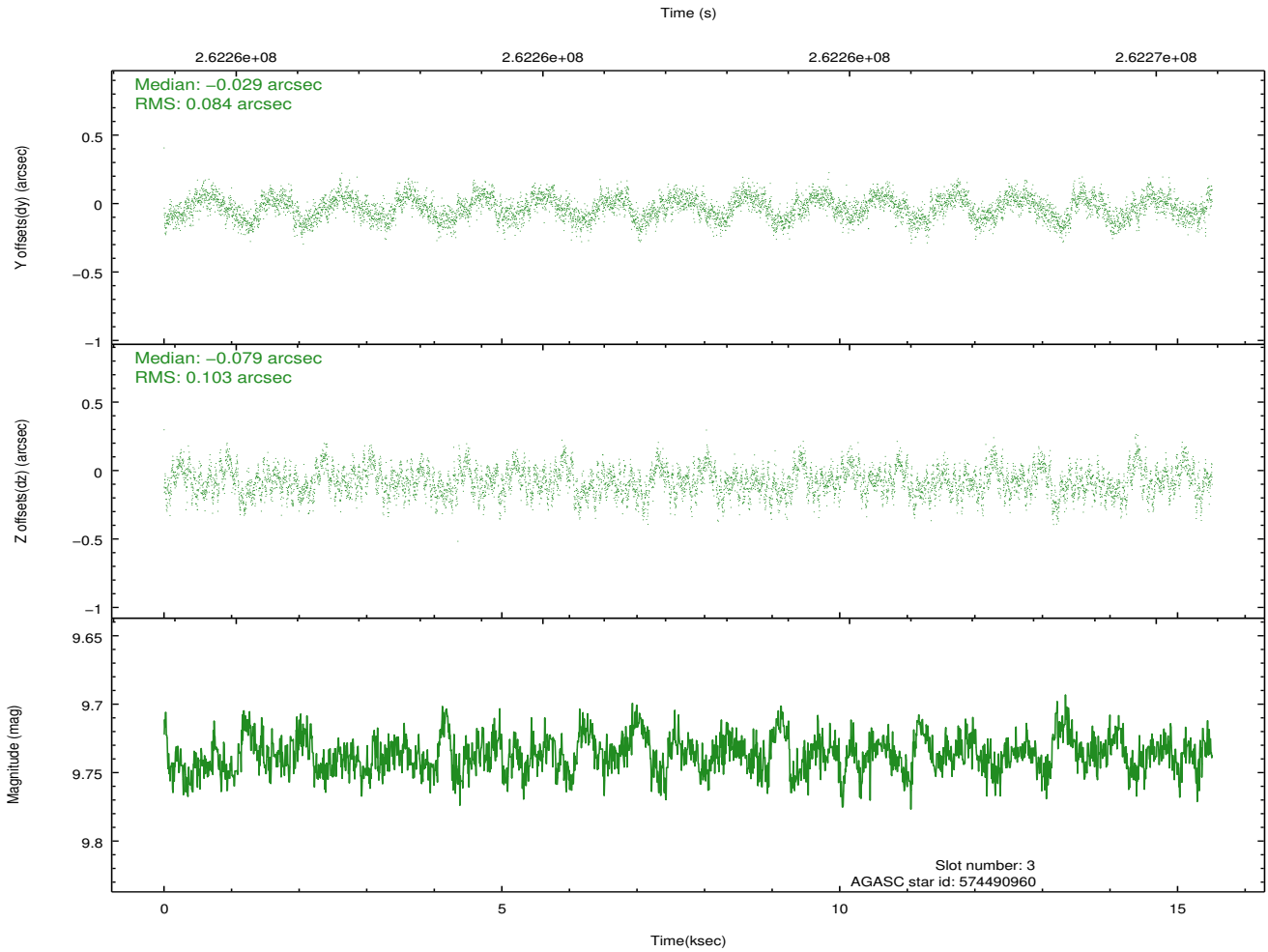
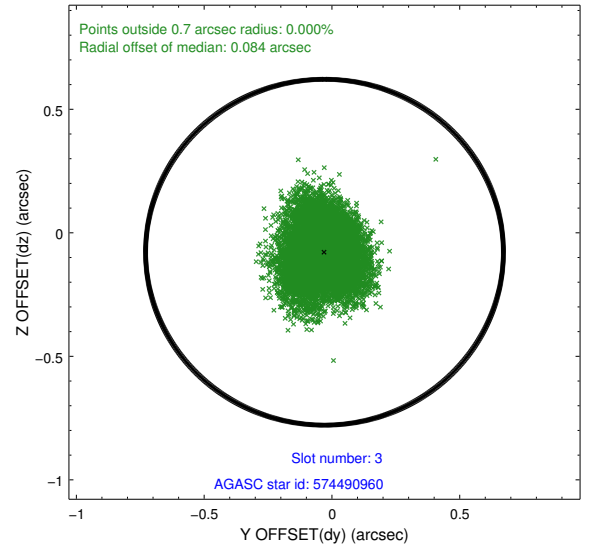
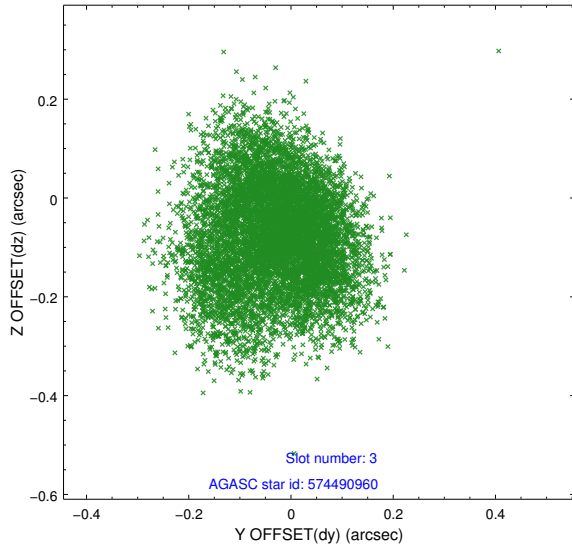


### Slot Statistics

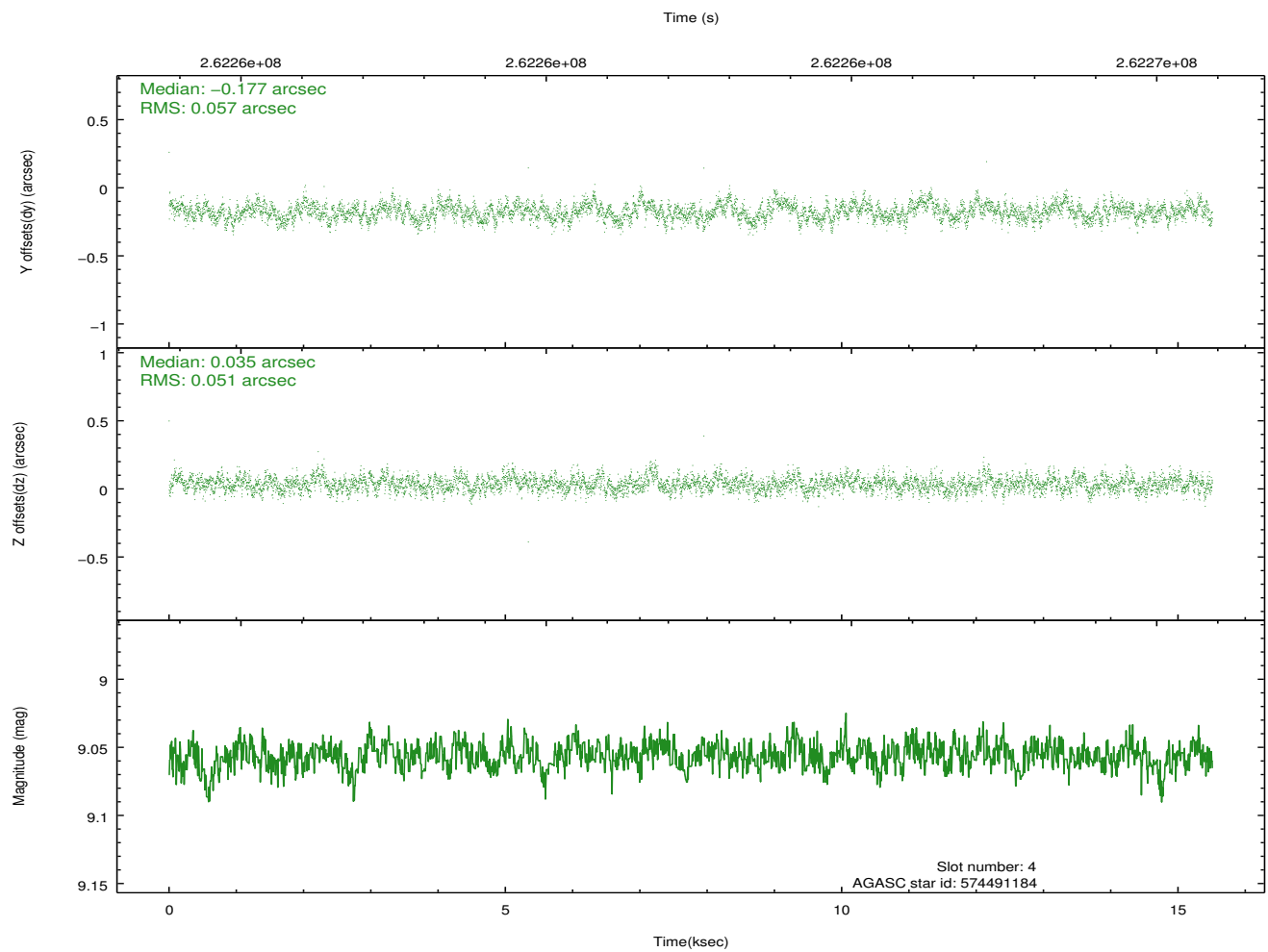
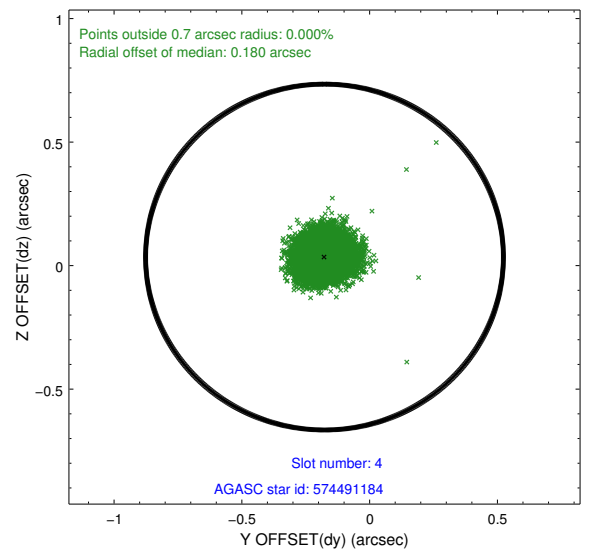
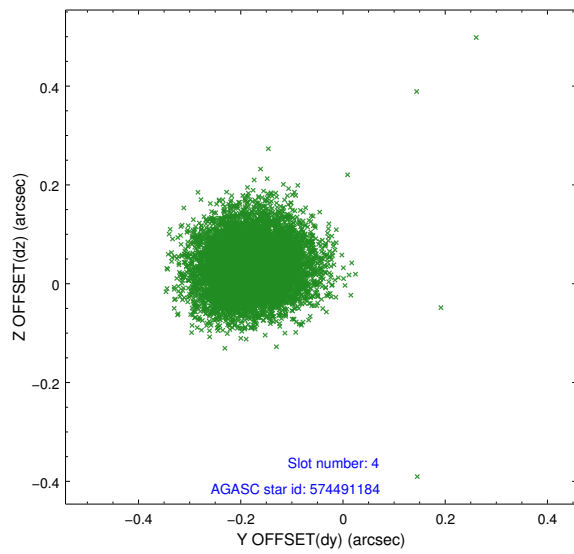
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	3784	-0.023	-0.020	0.008	0.012	0.000000	0.000000	-760.83	-1732.91
1	FID	ACIS-S-4	7.20	3783	0.105	0.017	0.008	0.015	0.000000	0.000000	2152.43	175.32
2	FID	ACIS-S-5	7.23	3783	-0.113	0.012	0.009	0.018	0.000000	0.000000	-1813.41	169.29
3	GUIDE	574490960	9.74	7550	-0.029	-0.079	0.143	0.226	148.185918	69.658768	-1343.70	-1768.39
4	GUIDE	574491184	9.06	7561	-0.177	0.035	0.082	0.130	148.582453	69.768699	-1931.42	-1530.06
5	GUIDE	574491280	9.36	7561	0.031	-0.000	0.098	0.157	148.611567	69.450135	-949.63	-934.73
6	GUIDE	574500920	10.10	7551	0.169	-0.005	0.170	0.281	147.014605	68.742334	2269.82	-1508.91
7	GUIDE	574489568	9.79	7552	0.015	0.047	0.152	0.238	147.223974	69.438157	-66.85	-2450.27

## 2.4 Star Slots

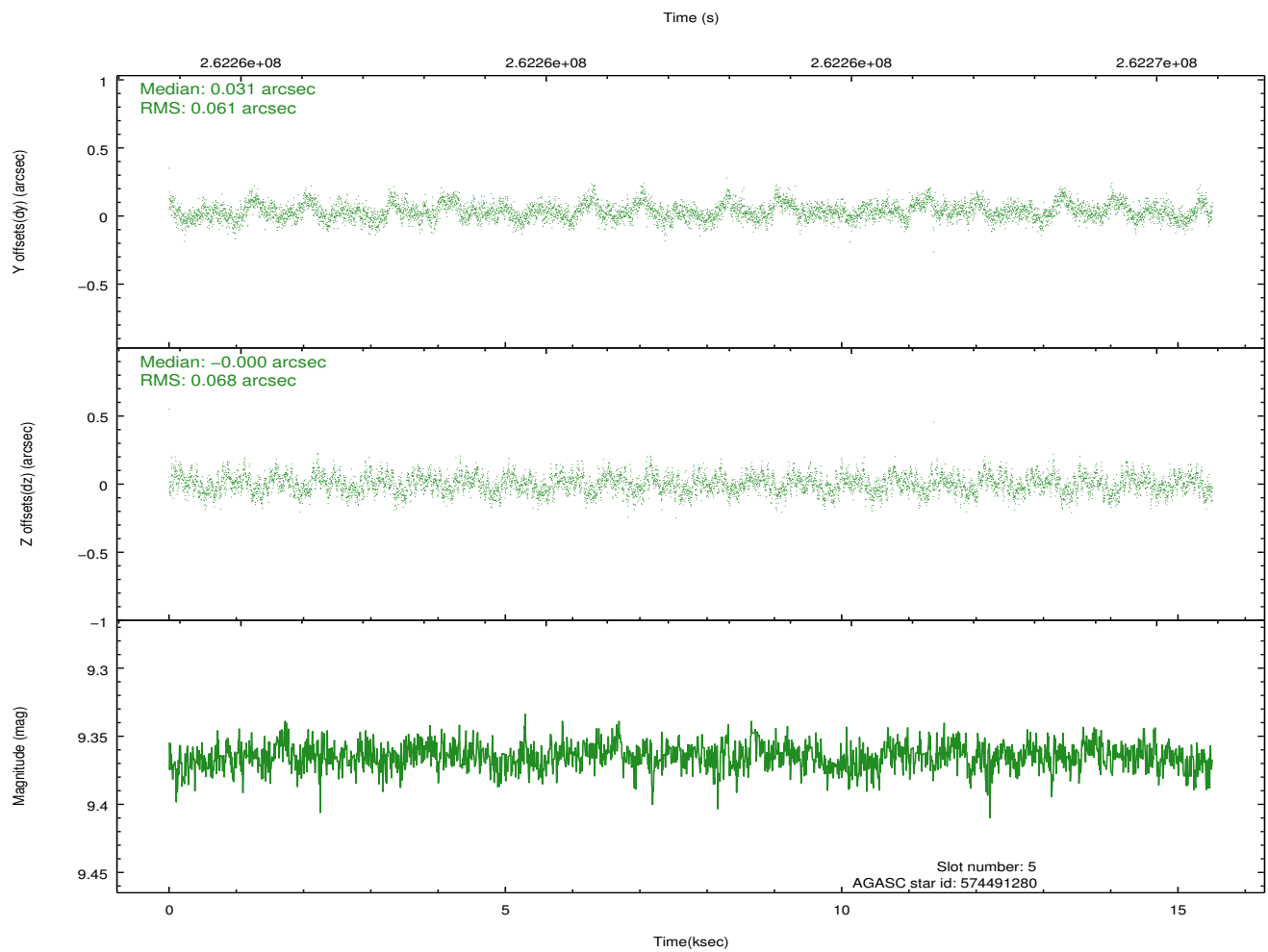
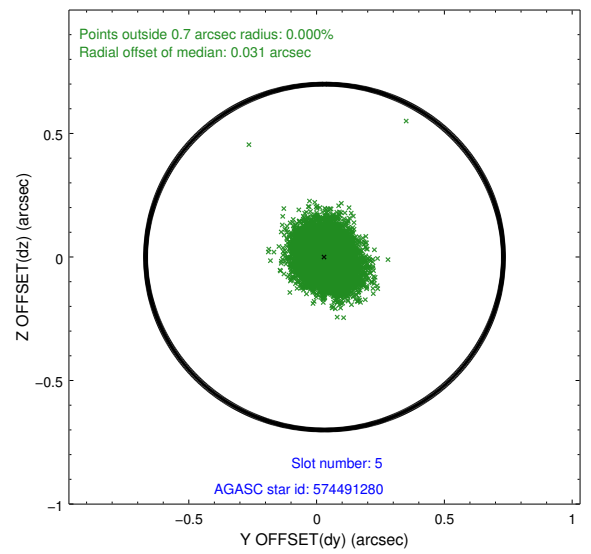
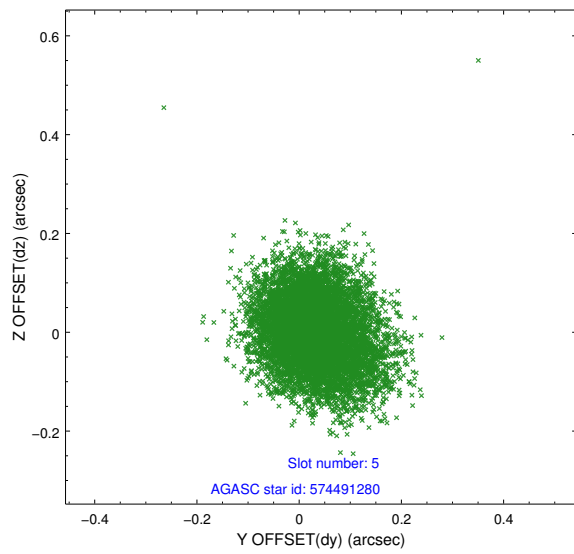
### 2.4.1 Slot 3



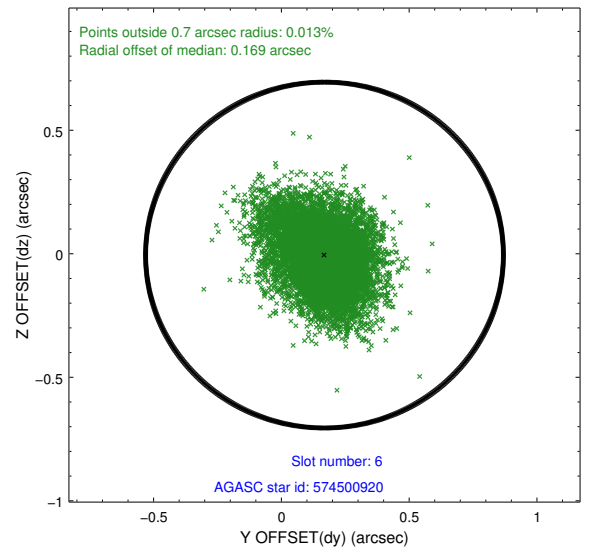
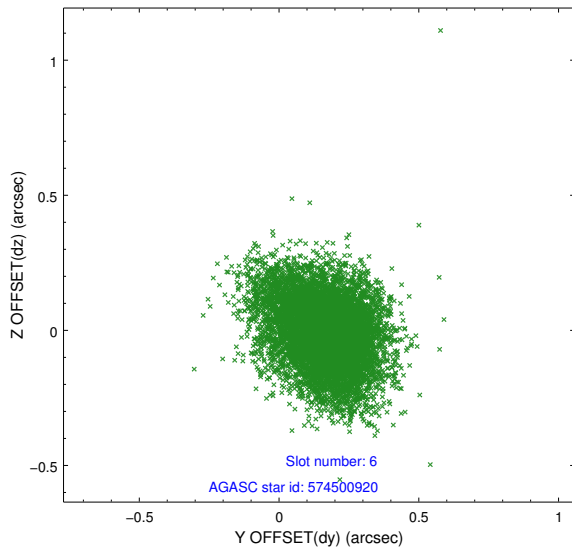
## 2.4.2 Slot 4



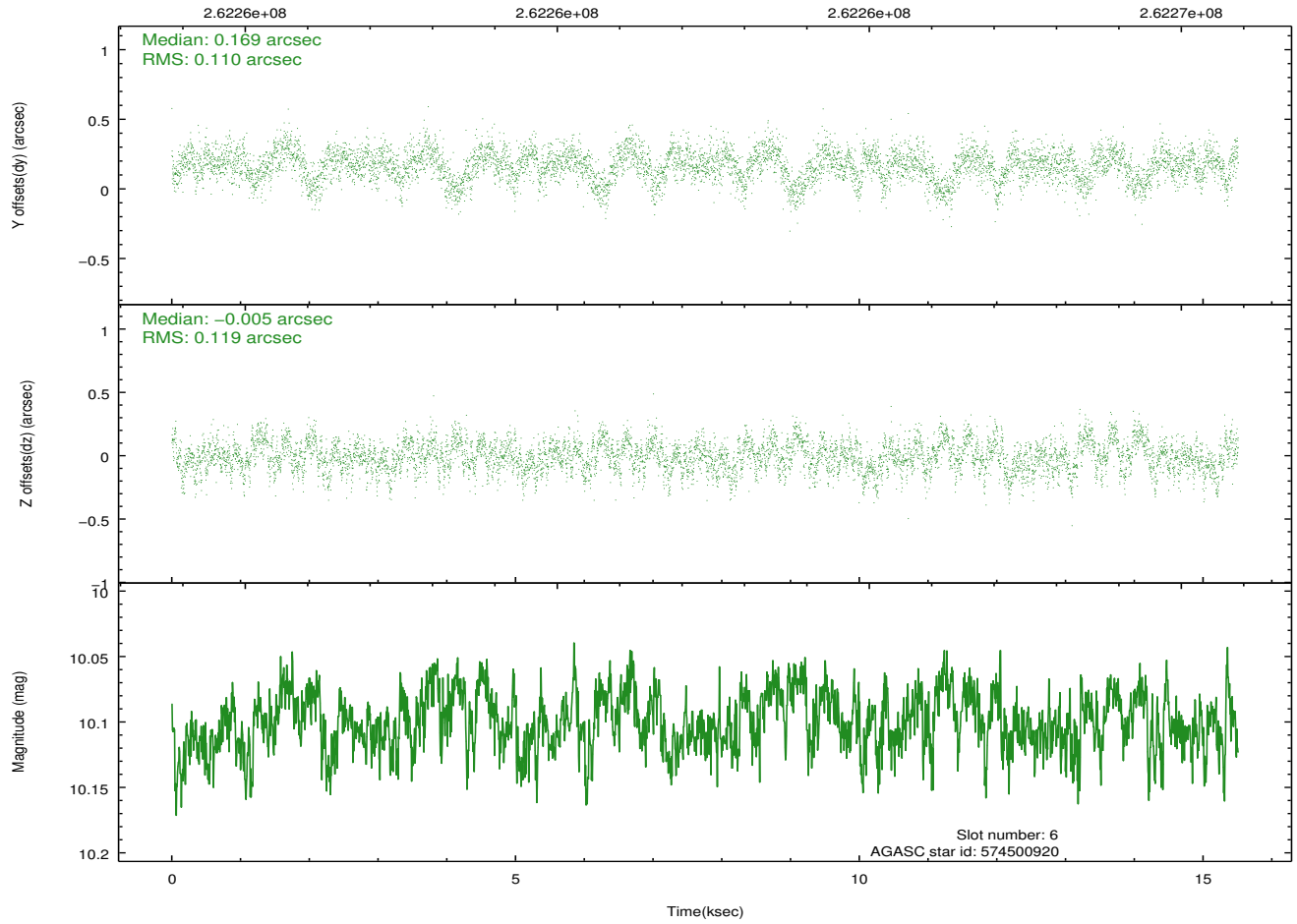
### 2.4.3 Slot 5



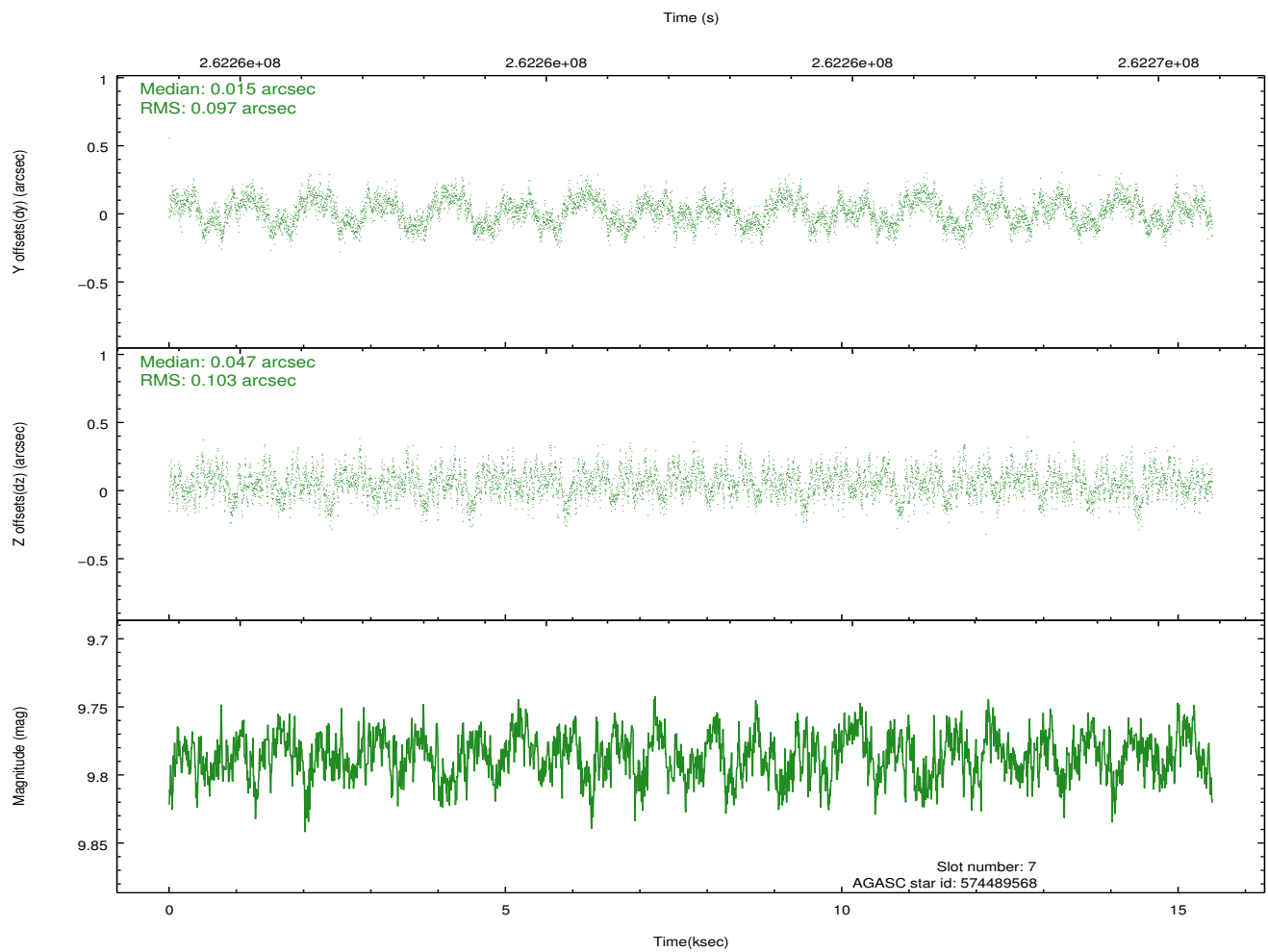
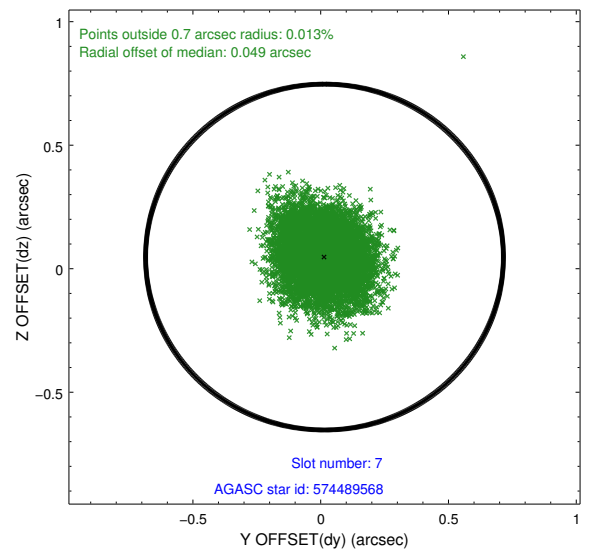
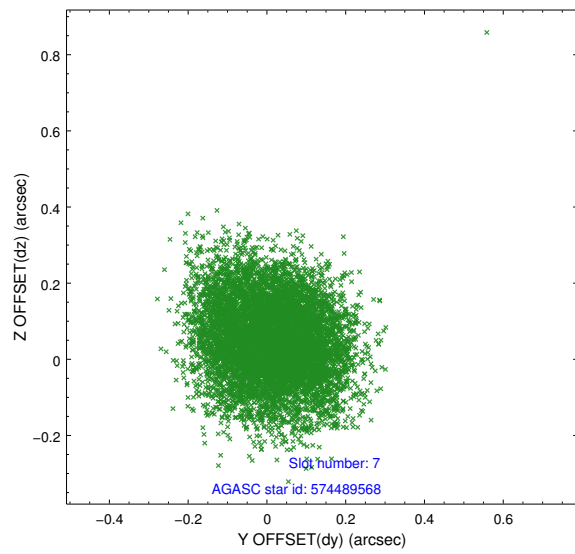
### 2.4.4 Slot 6



Time (s)

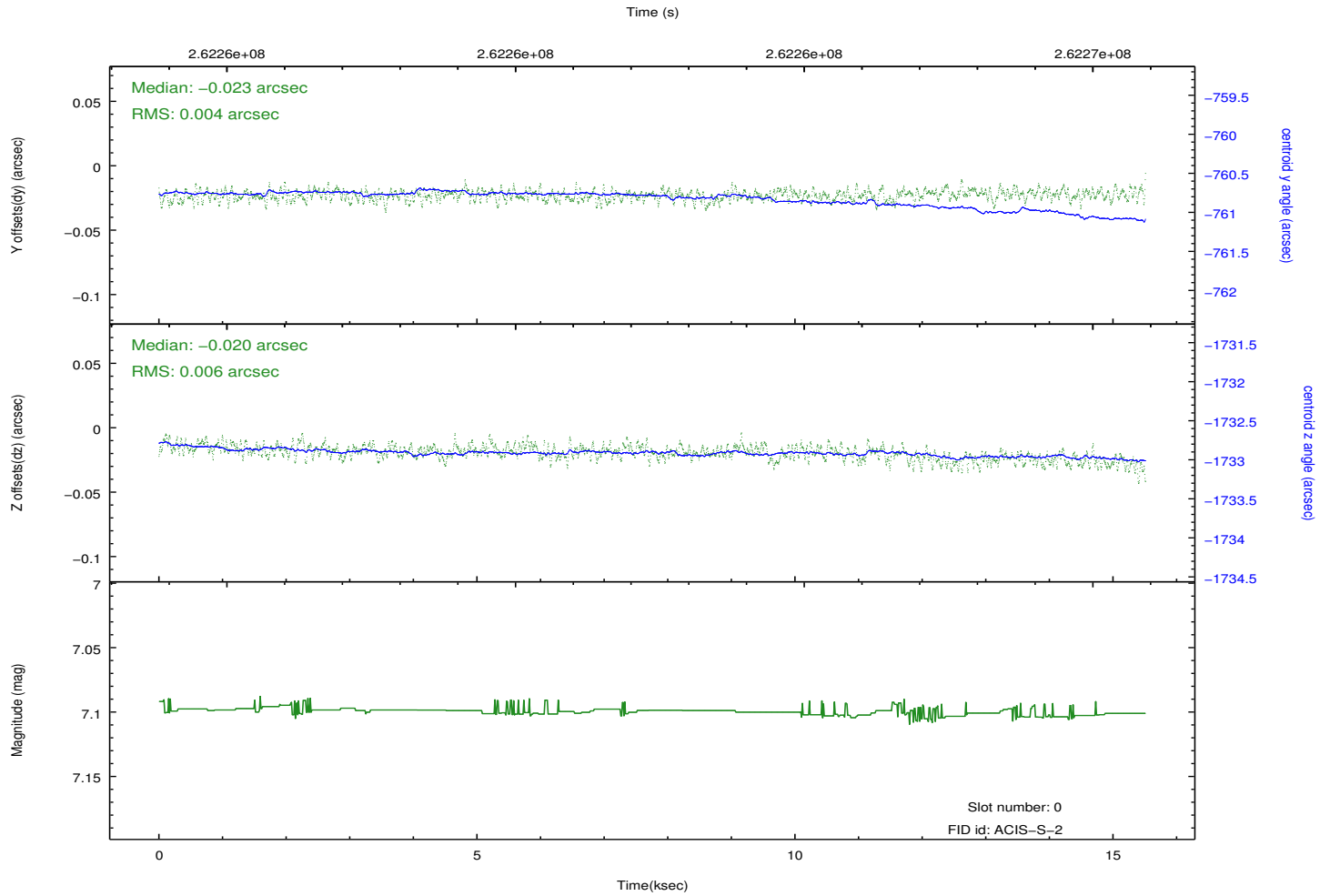
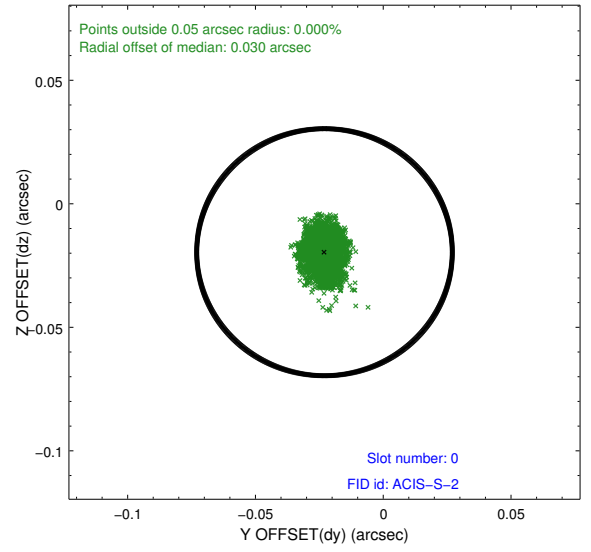
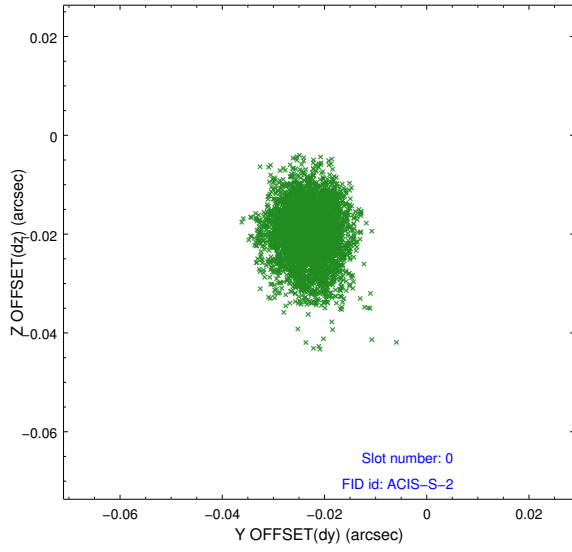


## 2.4.5 Slot 7

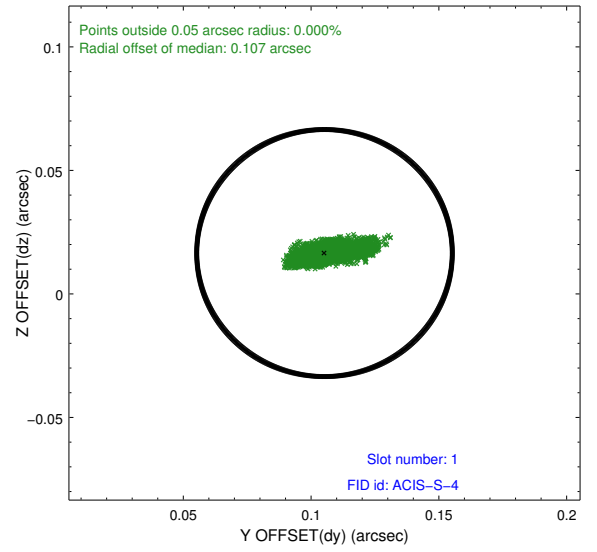
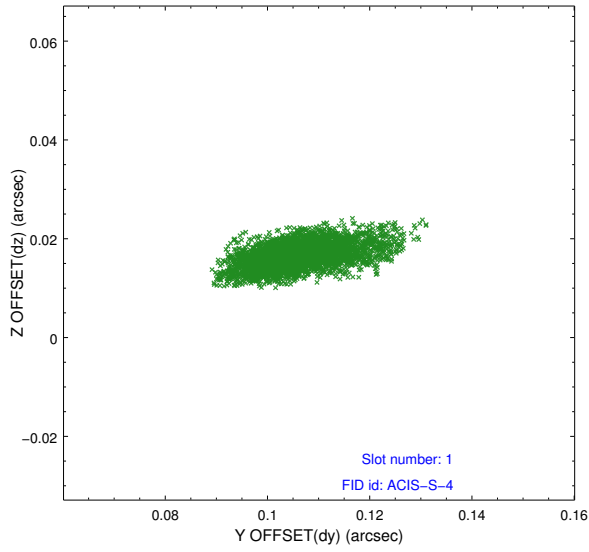


## 2.5 FID Slots

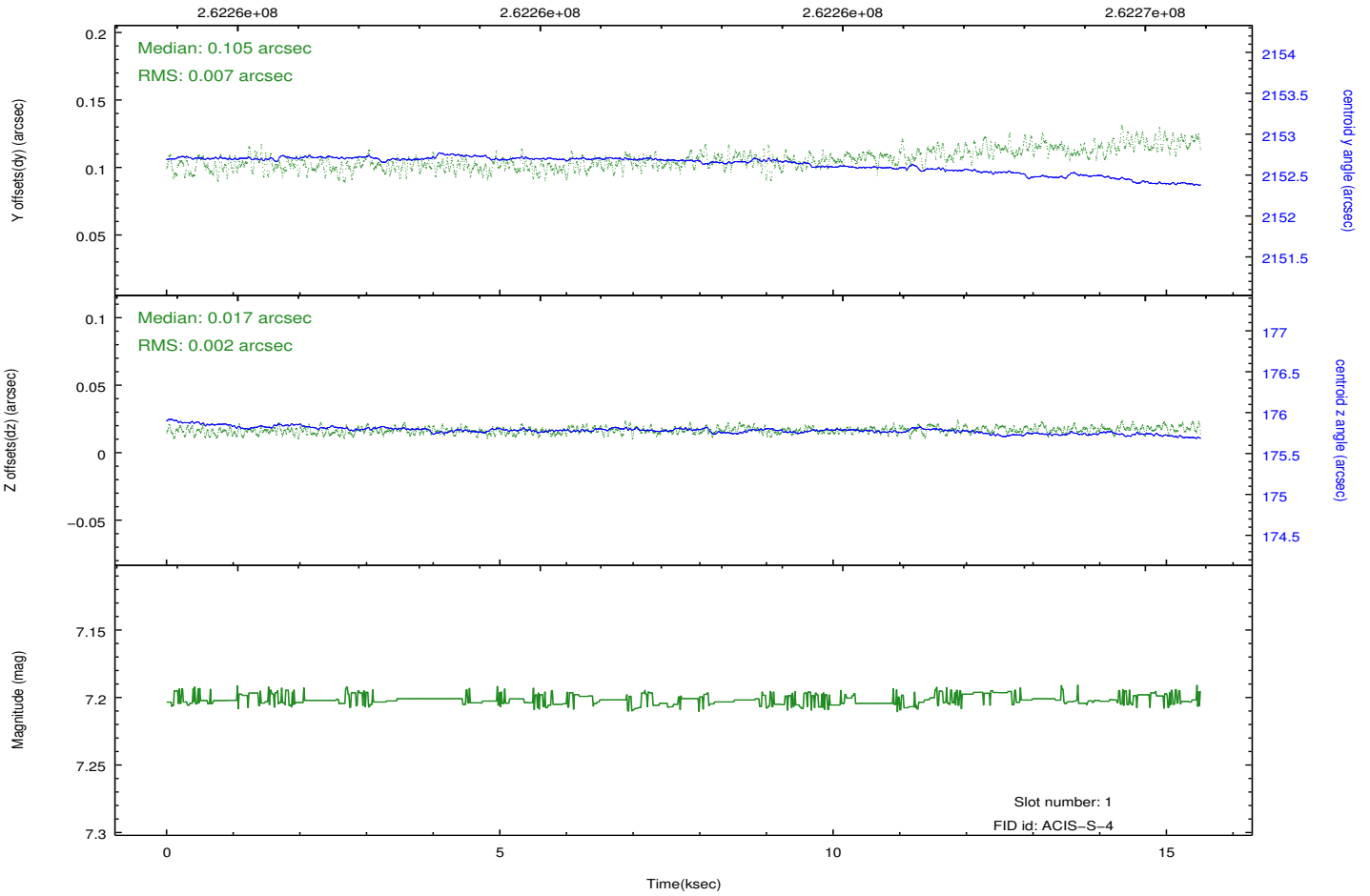
### 2.5.1 Slot 0



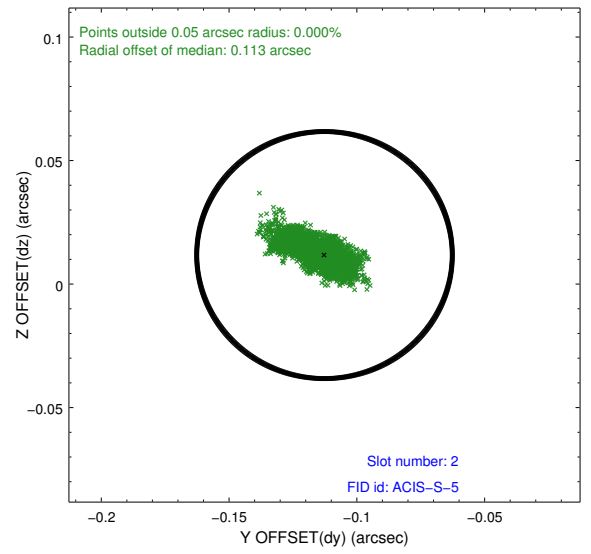
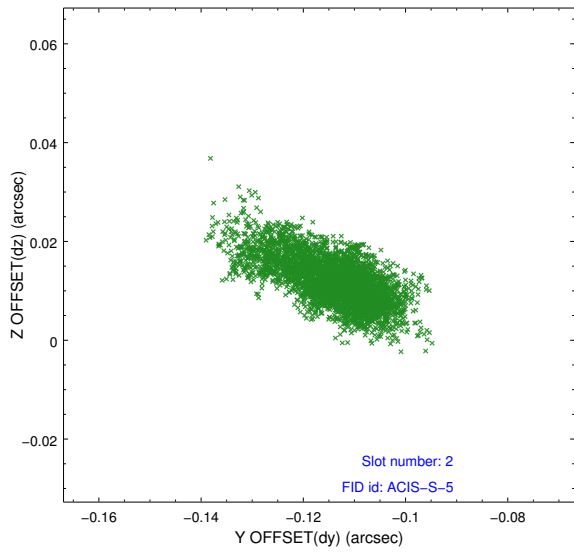
## 2.5.2 Slot 1



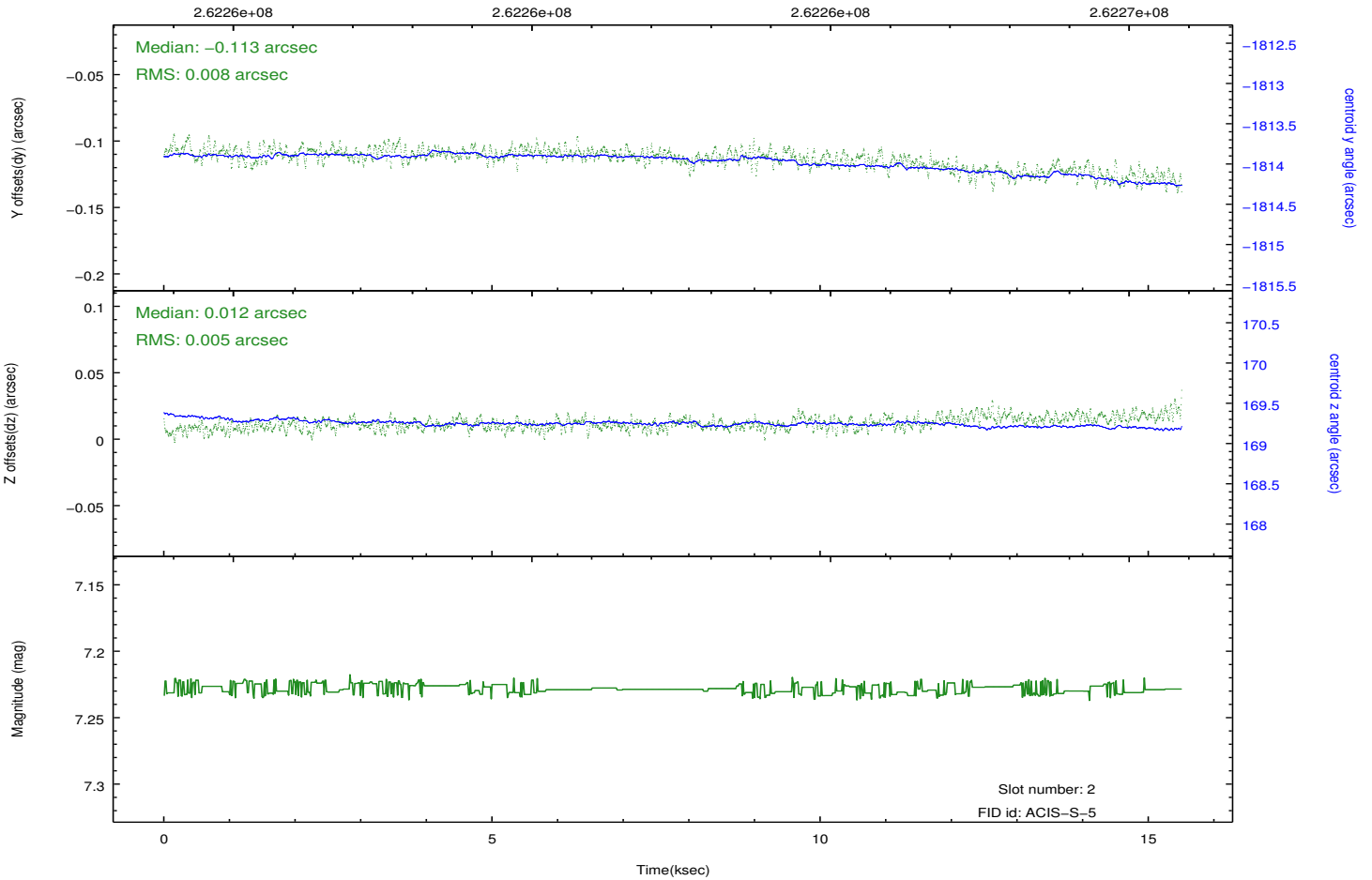
Time (s)



### 2.5.3 Slot 2

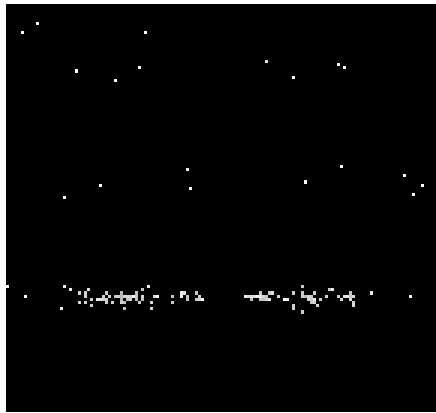


Time (s)

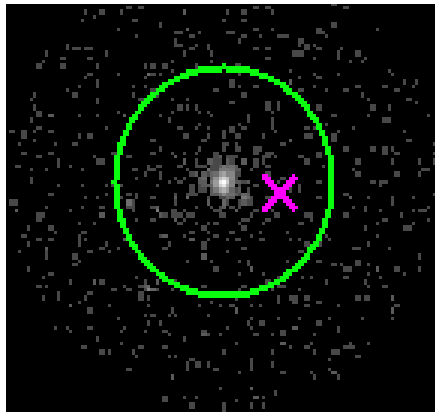


### 3 Gratings

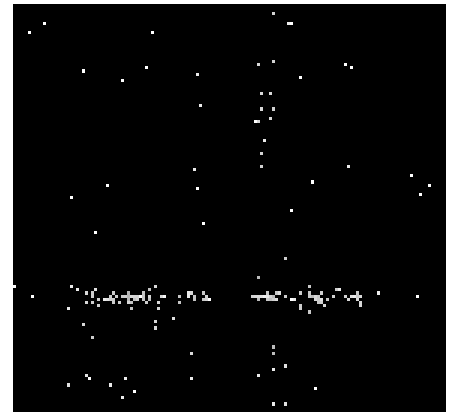
#### 3.1 HEG Arm



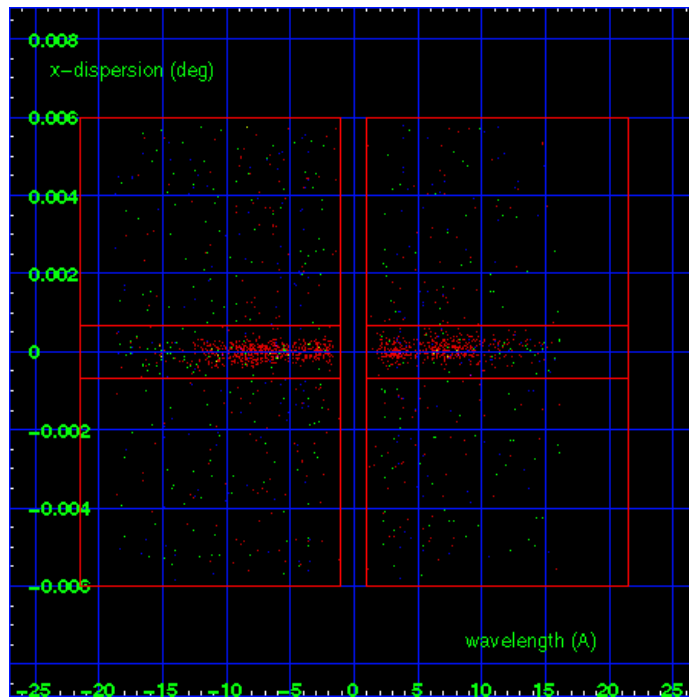
HEG Order Sort 123



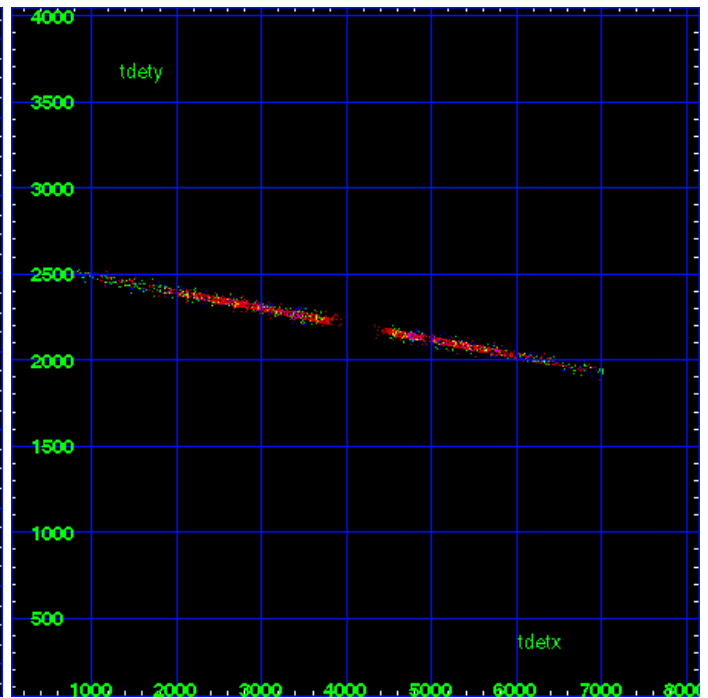
HEG Zero Order



HEG Order Sort ALL

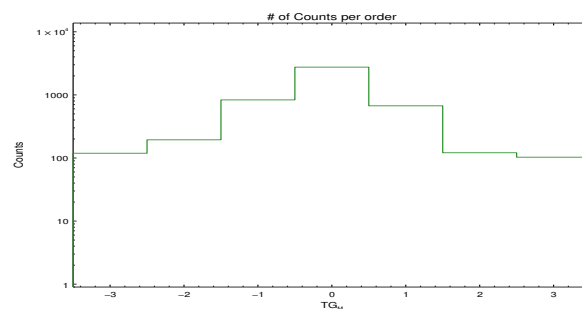


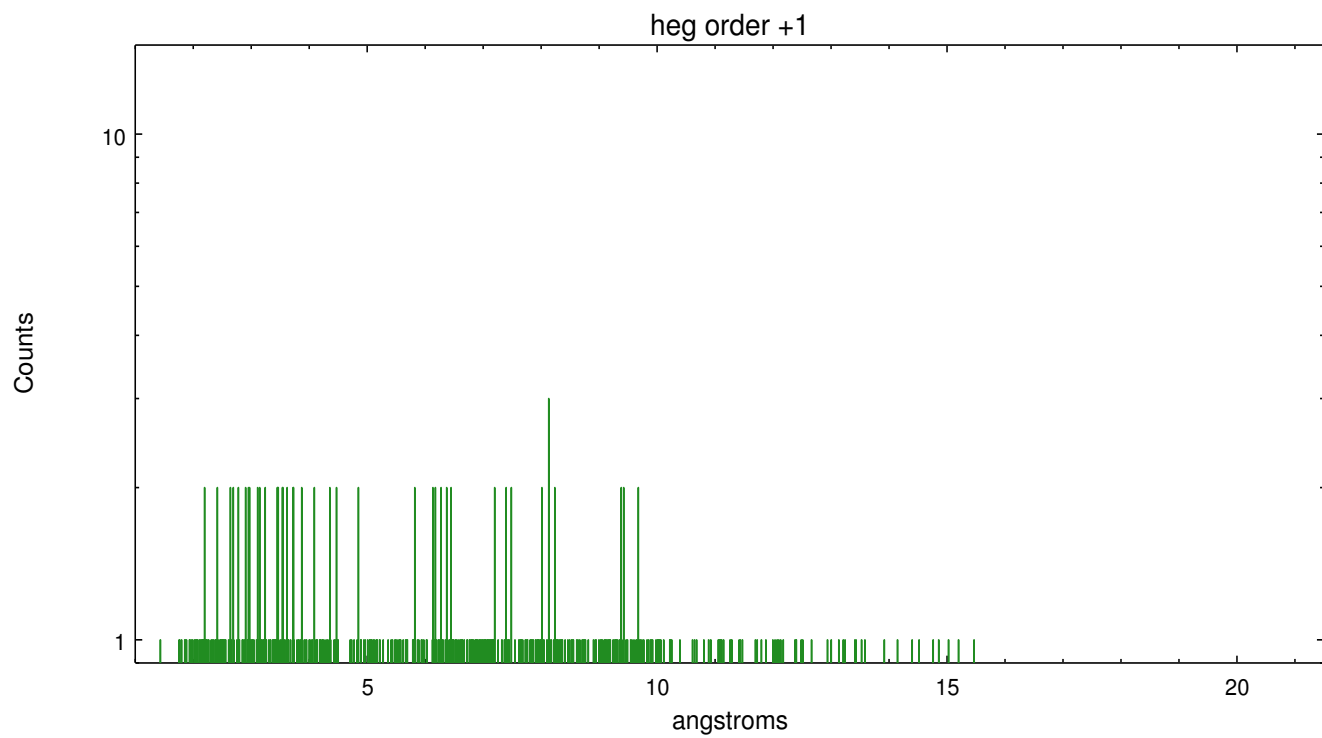
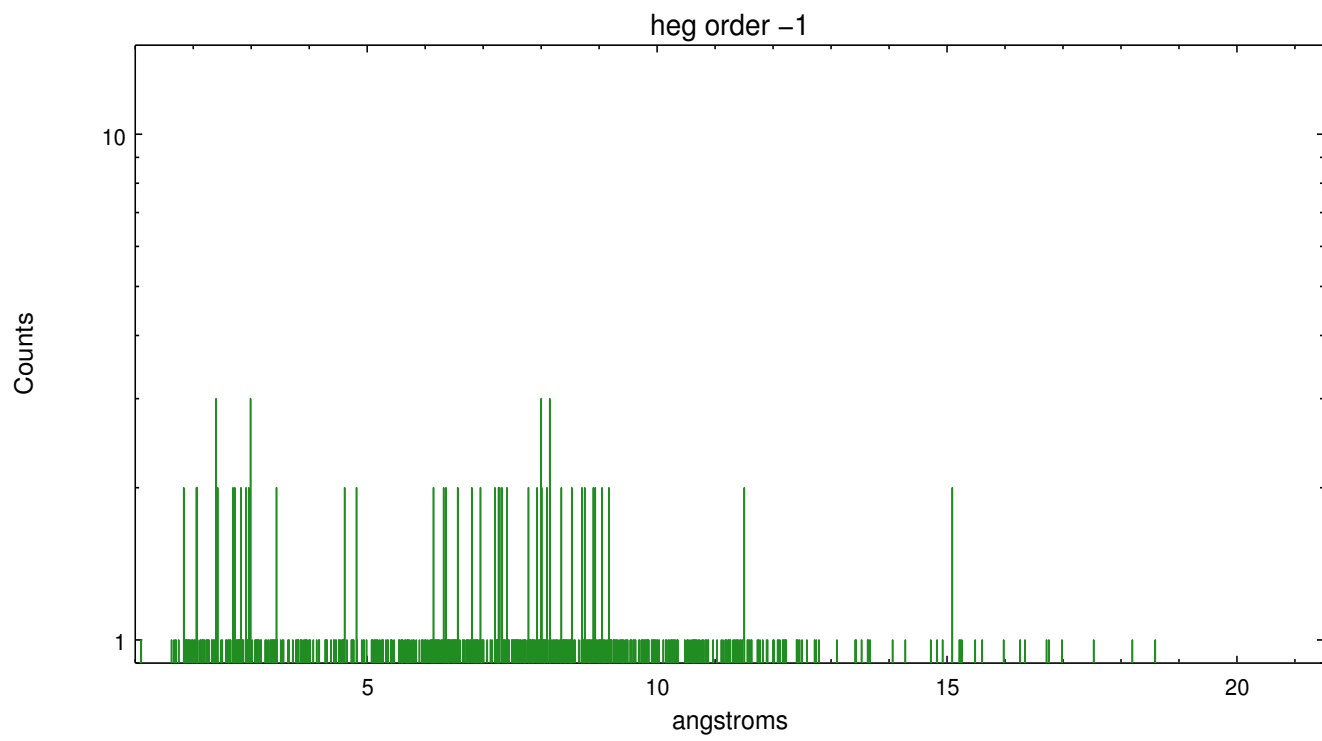
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	119	194	833	2754	671	121	103

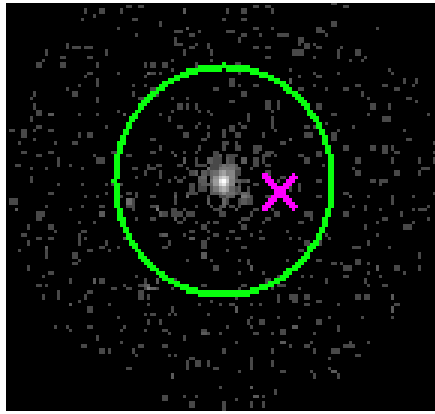




### 3.2 MEG Arm



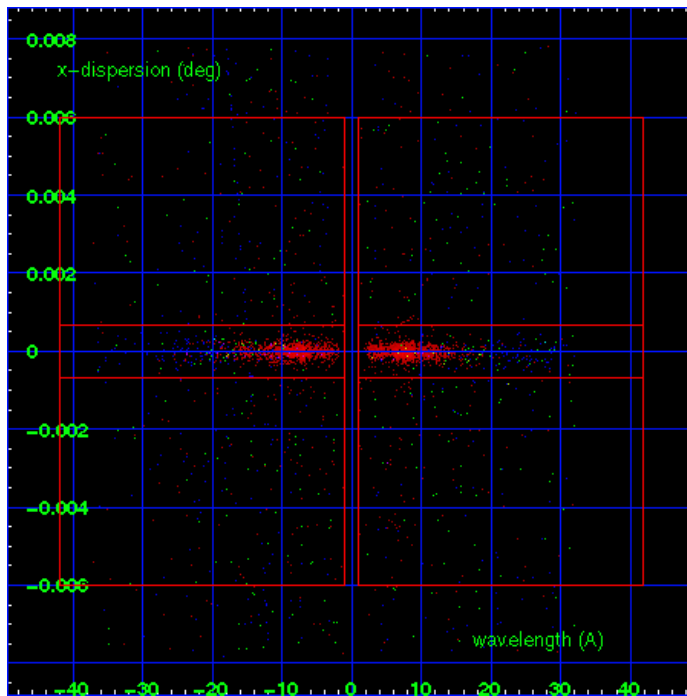
MEG Order Sort 123



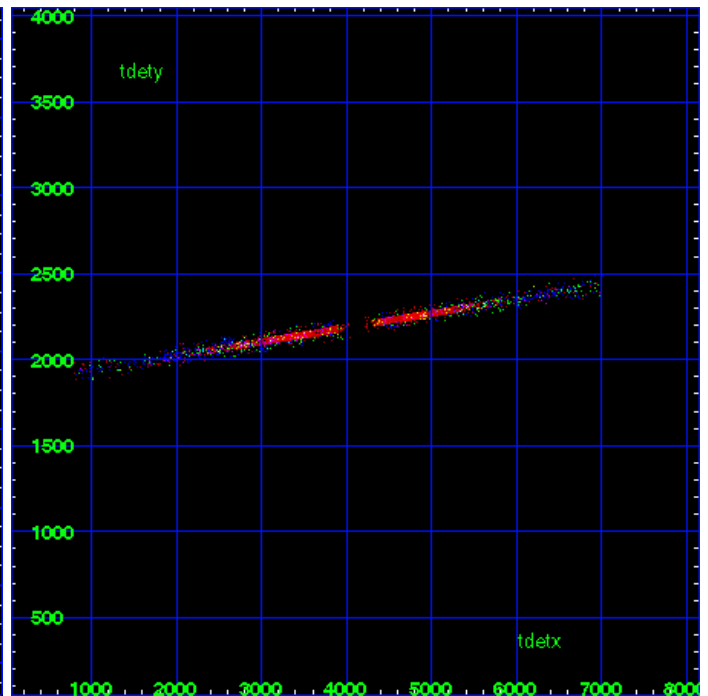
MEG Zero Order



MEG Order Sort ALL

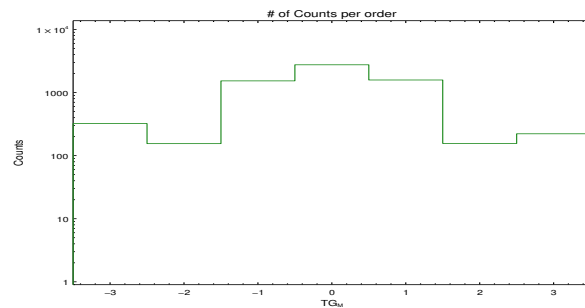


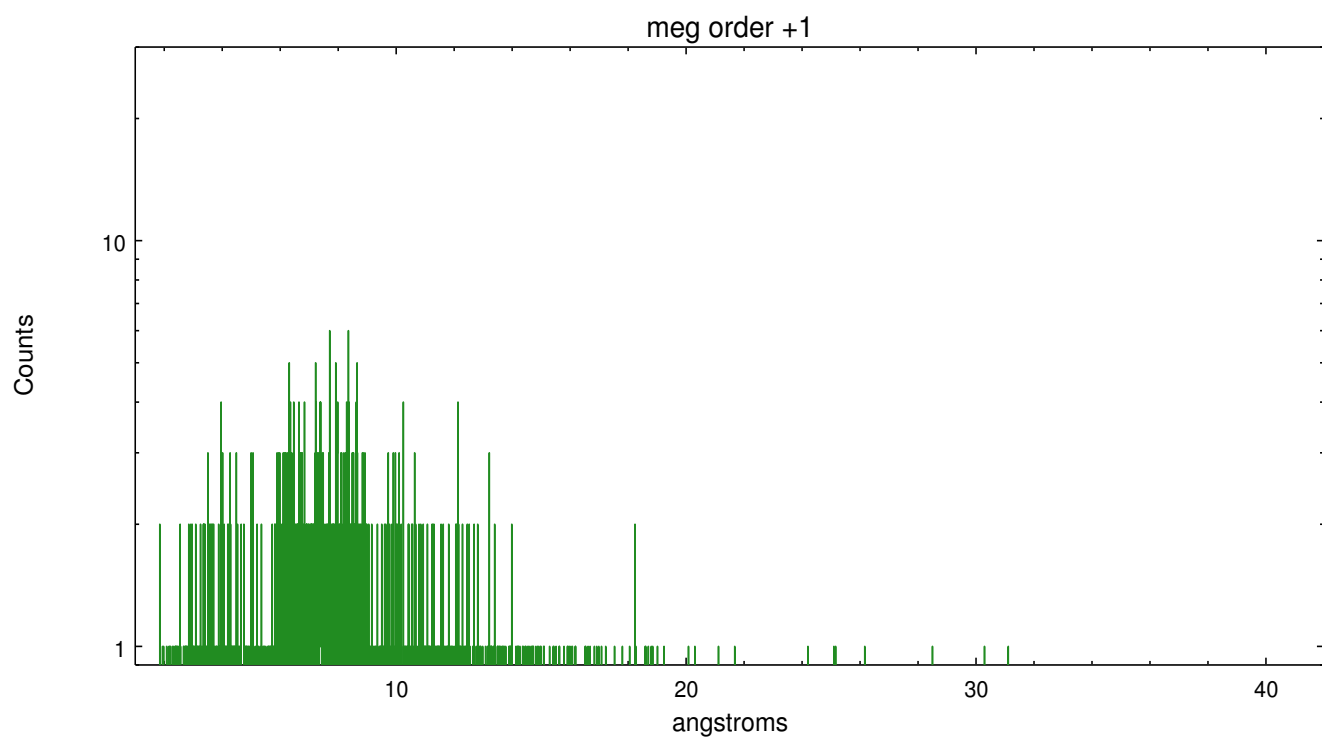
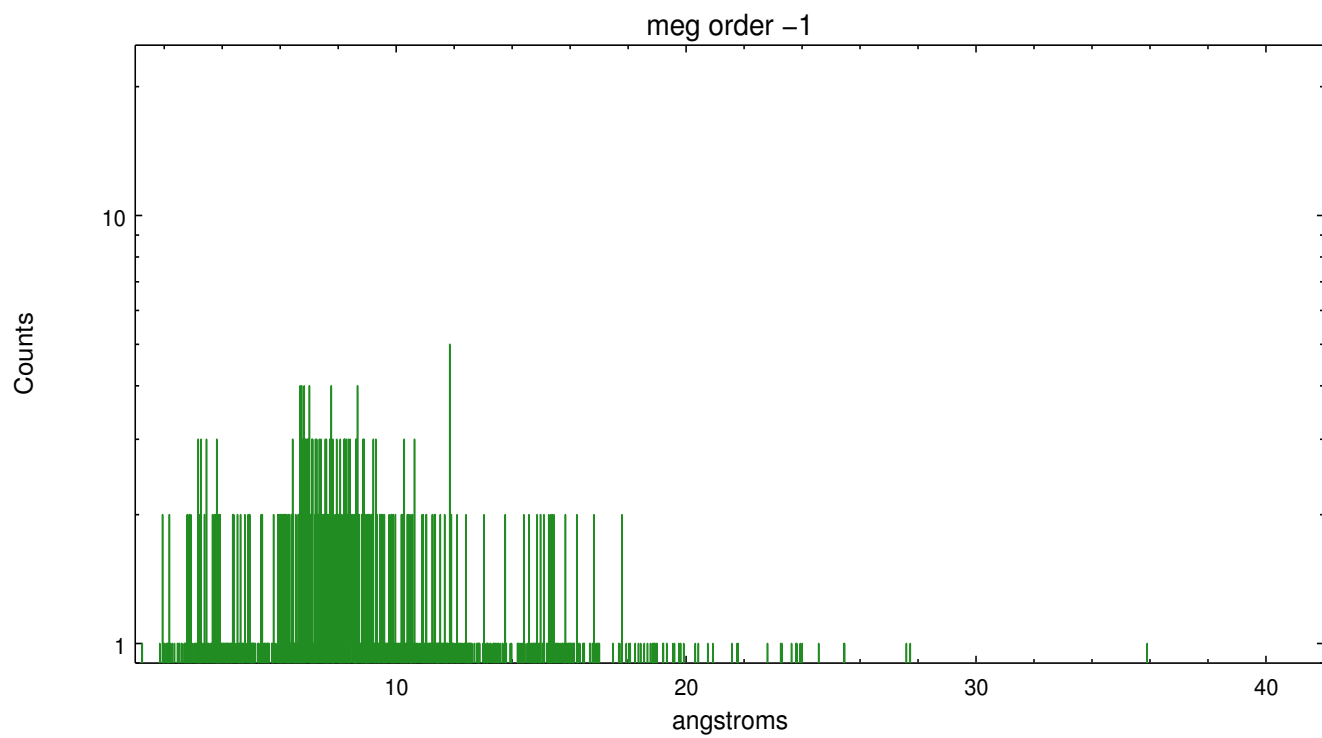
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	322	155	1531	2754	1581	156	222





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.7423999

## A.2 Comments