

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 6899 - L2 Version 2  
Chandra X-Ray Center

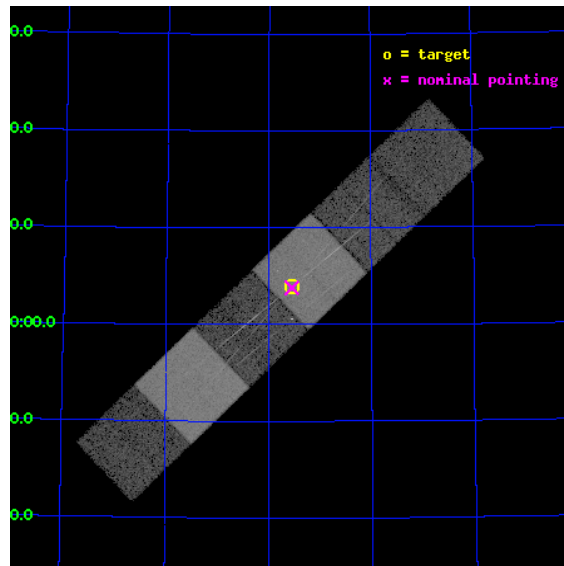
L2 Processing Date : Apr 5 2012

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# 1 Front

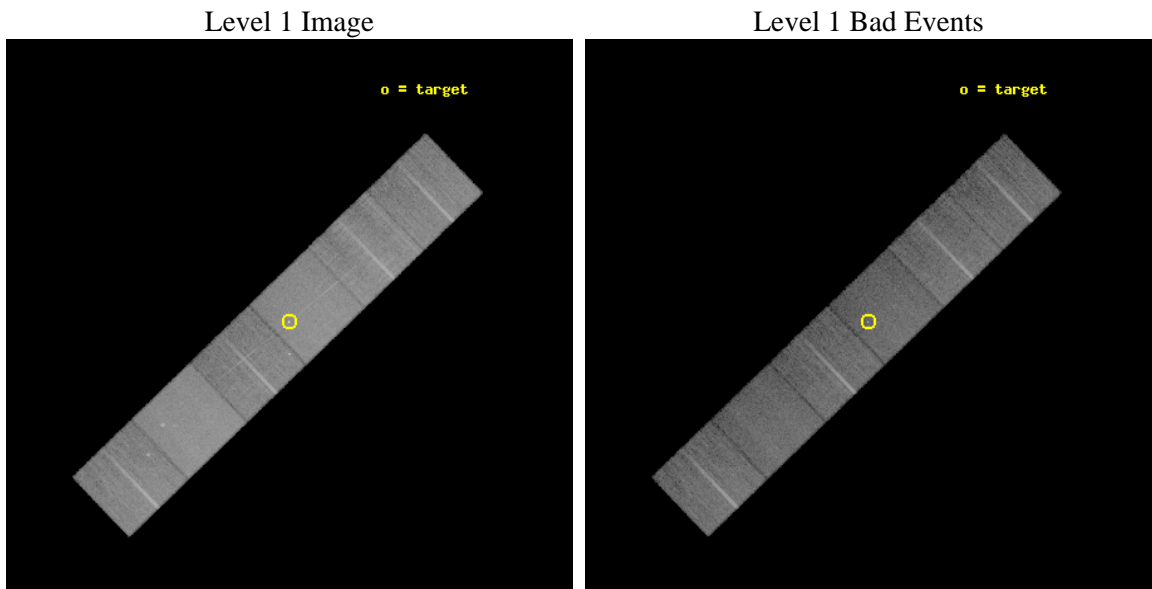
seq_num	701316	Sequence number
obs_id	6899	Observation id
title	Testing Broad-Band Jet-Powered Emission in the LLAGN M81*	Proposal
observer	Dr Jon Miller	Principal investigator
object	M81*	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.888333	Observer's specified target RA [deg]
dec_targ	69.065306	Observer's specified target Dec [deg]
ra_nom	148.88754558275	Nominal RA [deg]
dec_nom	69.06321166195	Nominal Dec [deg]
roll_nom	316.06696138816	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15132.799943686	Sum of GTIs [s]
livetime	14941.17931892	Livetime [s]
ontime4	15132.799943686	Sum of GTIs [s]
ontime5	15132.799943686	Sum of GTIs [s]
ontime6	15132.799943686	Sum of GTIs [s]
ontime7	15132.799943686	Sum of GTIs [s]
ontime8	15132.799943686	Sum of GTIs [s]
ontime9	15132.799943686	Sum of GTIs [s]
l2events	225867	Number of level 2 events



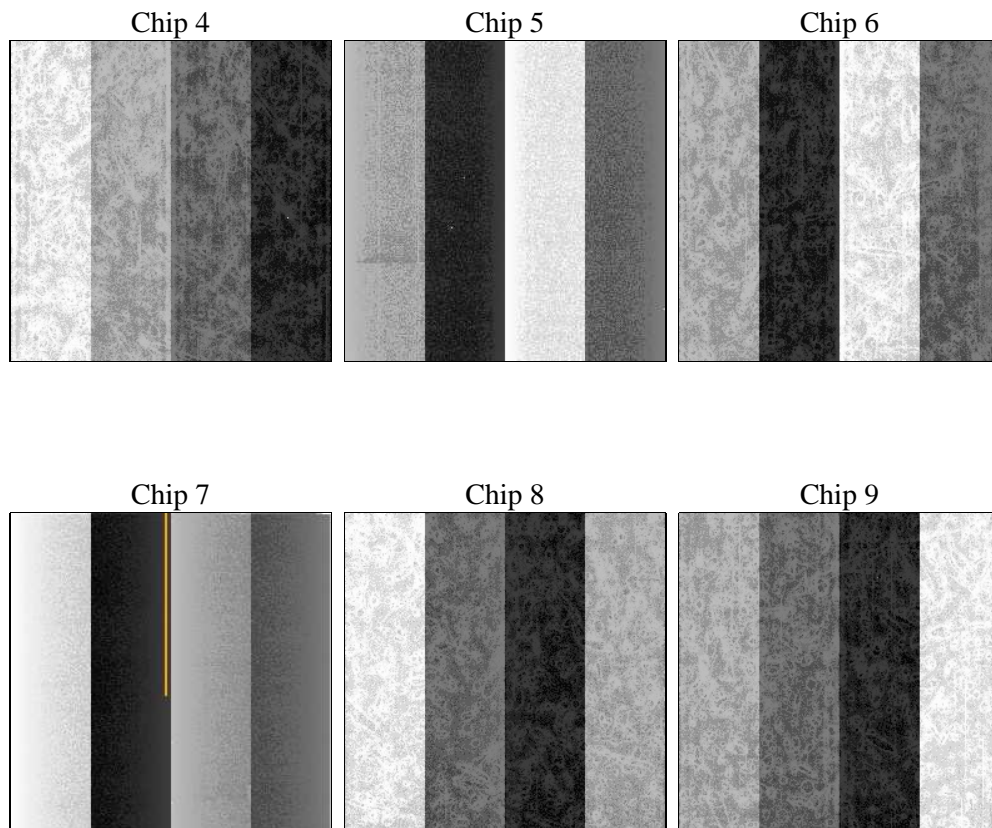
## 2 OBI

### 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	8.4.3.1	Processing system revision	ontime	15132.799943686	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime4	15132.799943686	Sum of GTIs [s]
date	2012-04-05T11:08:10	Date and time of file creation	ontime5	15132.799943686	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	15132.799943686	Sum of GTIs [s]
			ontime7	15132.799943686	Sum of GTIs [s]
			ontime8	15132.799943686	Sum of GTIs [s]
			ontime9	15132.799943686	Sum of GTIs [s]
			l1events	995006	Number of level 1 events

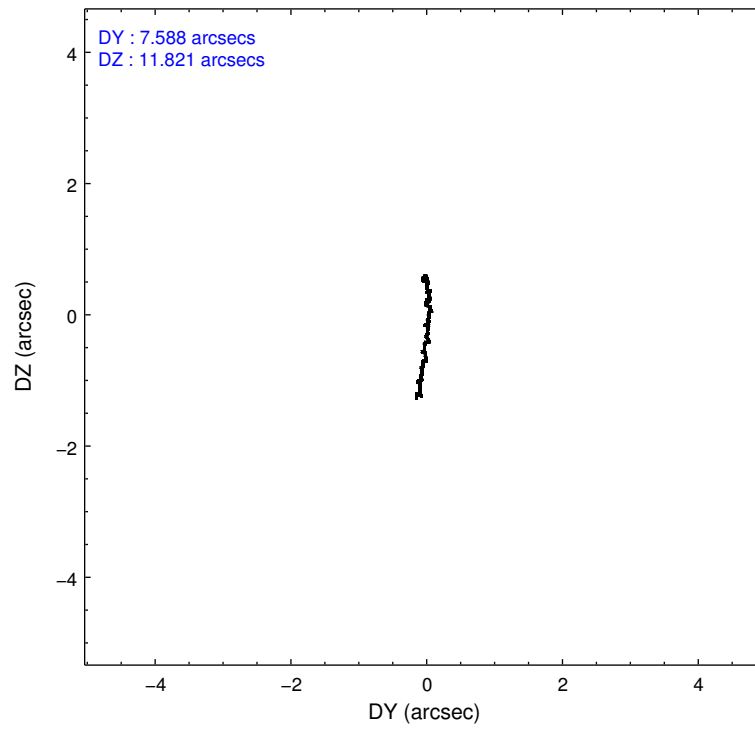
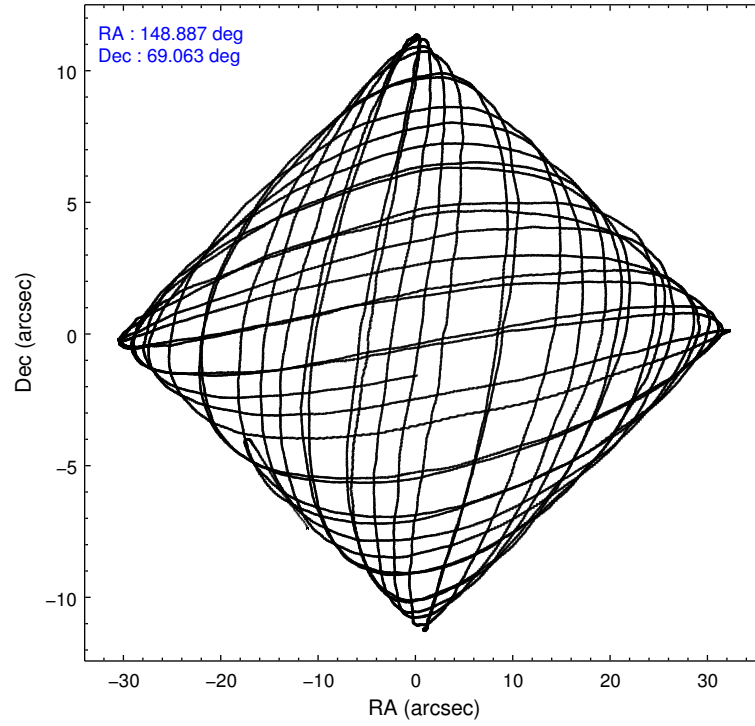
### 2.1.4 Events

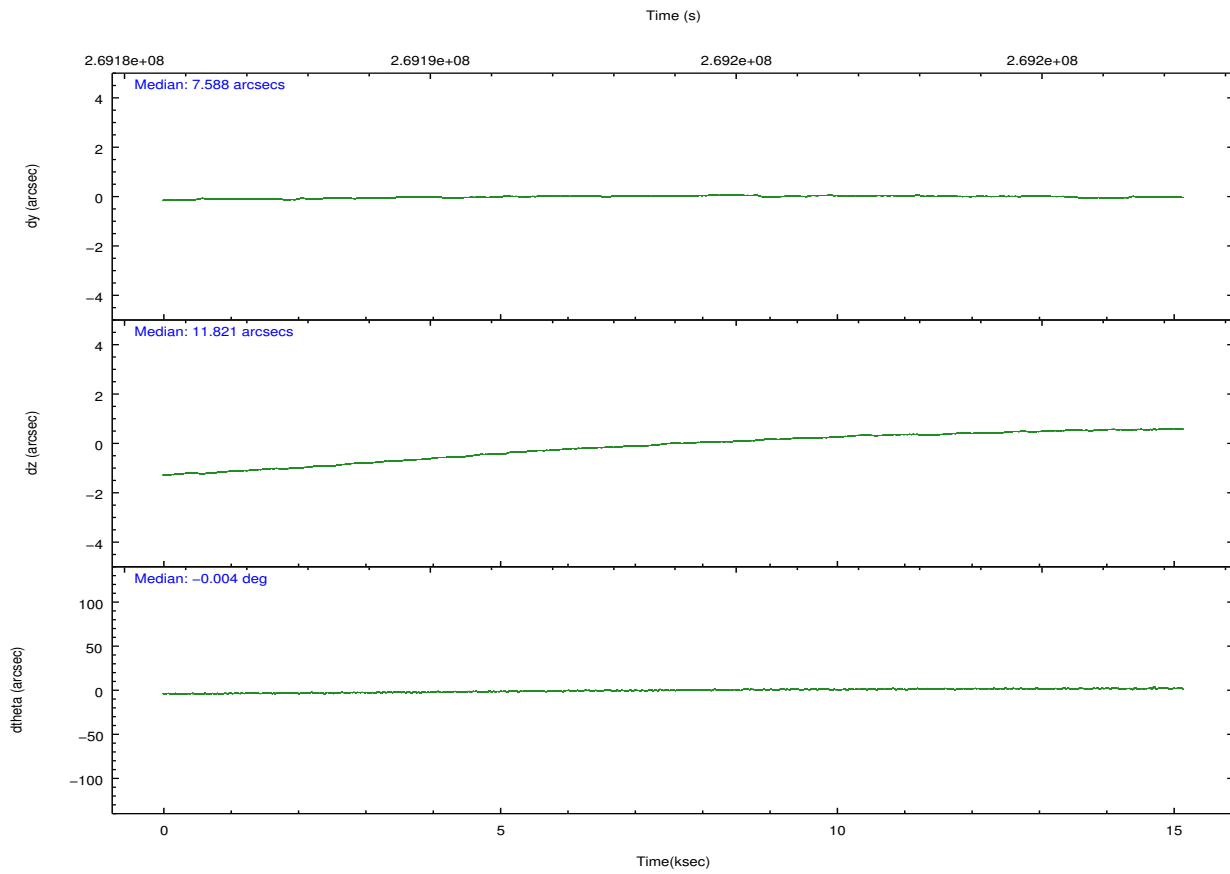
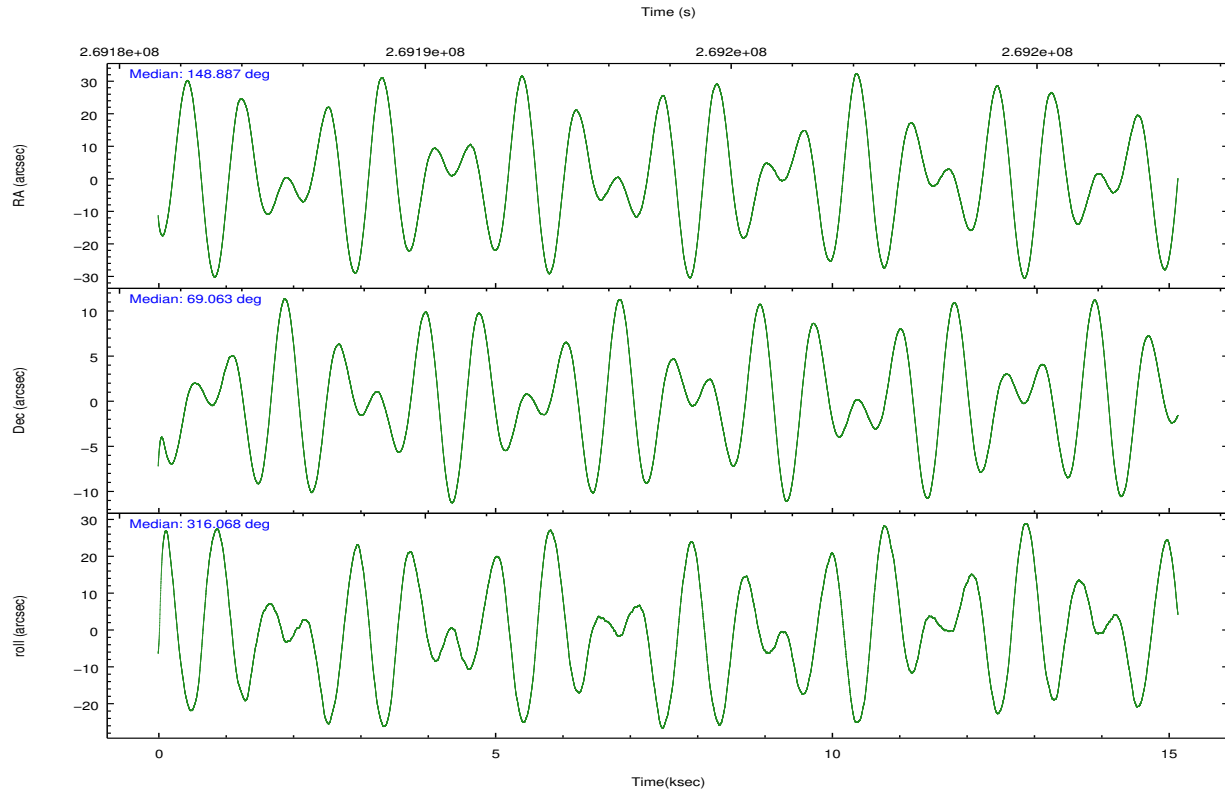
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	153275	201291	139081	190166	174524	136669	grade 0 events	8138	6056	8625	7709	12306	6848
rejected events	136062	112567	120118	109704	136971	120401		5%	3%	6%	4%	7%	5%
rejected %	88%	55%	86%	57%	78%	88%	grade 1 events	146	359	84	213	123	76
								0%	0%	0%	0%	0%	0%
							grade 2 events	3485	27944	3967	16884	8488	3266
								2%	13%	2%	8%	4%	2%
							grade 3 events	1742	3289	1598	7193	3914	1608
								1%	1%	1%	3%	2%	1%
							grade 4 events	1637	3137	1607	6991	3627	1569
								1%	1%	1%	3%	2%	1%
							grade 5 events	6046	13902	6296	17424	8138	6607
								3%	6%	4%	9%	4%	4%
							grade 6 events	2554	50003	3485	43060	10049	3266
								1%	24%	2%	22%	5%	2%
							grade 7 events	129527	96601	113419	90692	127879	113429
								84%	47%	81%	47%	73%	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	148.813350	148.8875455827474	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.069418	69.06321166194982	Alternating exposures requested	N	N
[deg] Pointing Roll	315.979665	316.0669613881587	[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)	269186530.184000	269185293.98244			
Observation start date	2006-07-13T14:01:05	2006-07-13T13:41:33			
[s] Observation end time (MET)	269201530.184000	269202519.62075			
Observation end date	2006-07-13T18:11:05	2006-07-13T18:28:39			
Read mode	TIMED	TIMED			

## 2.3 Aspect



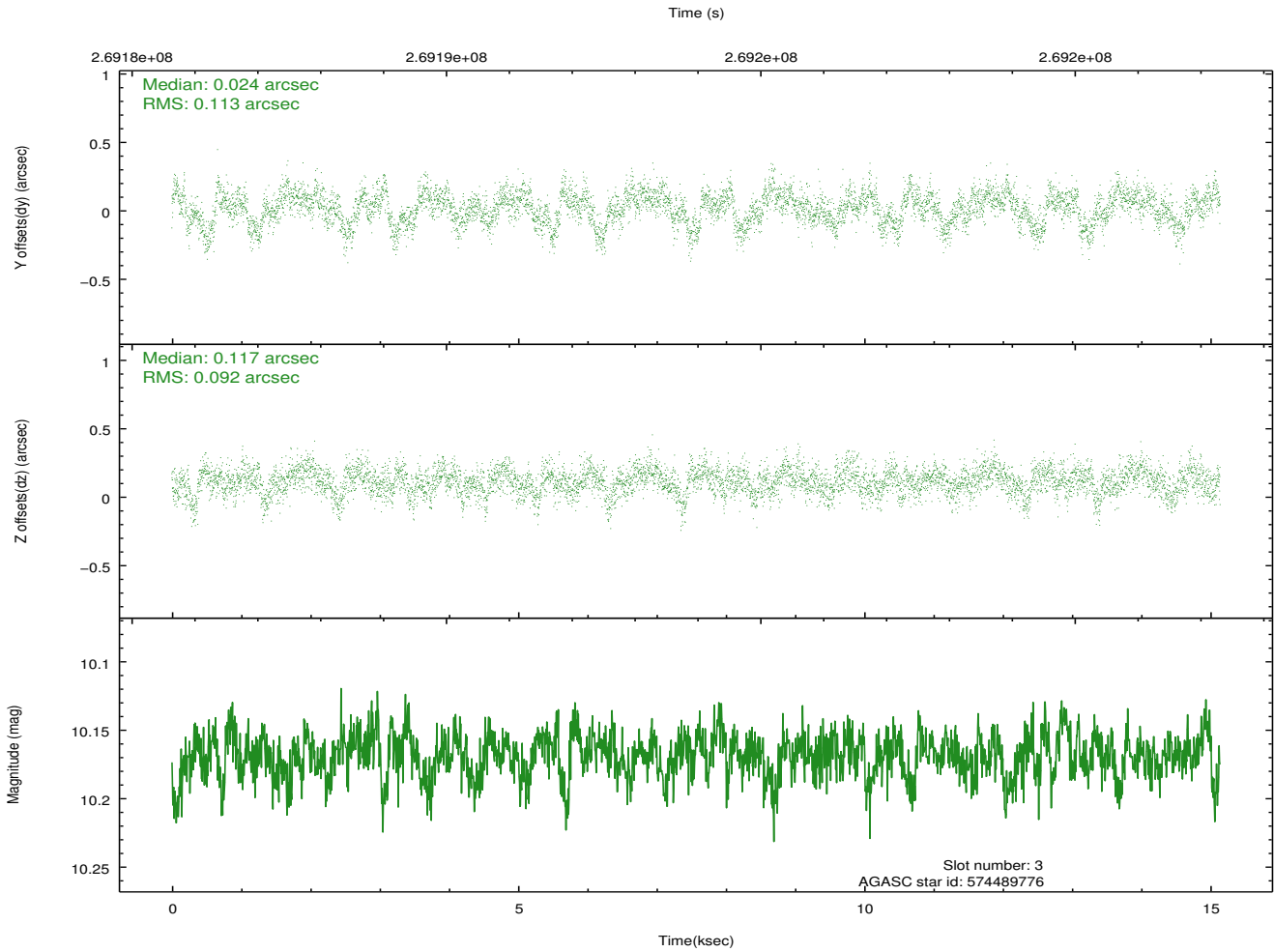
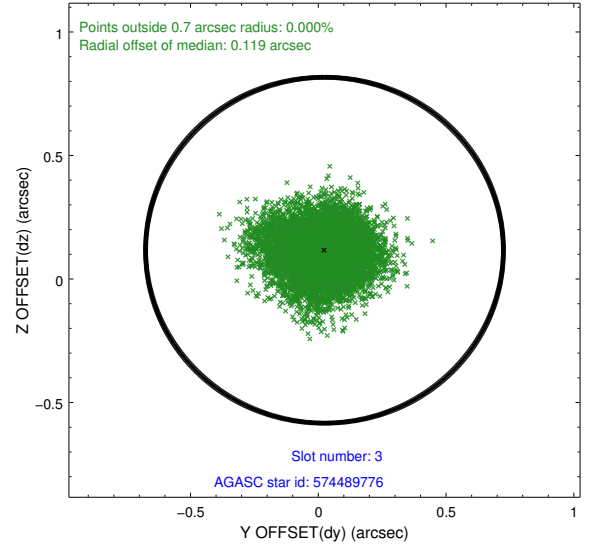
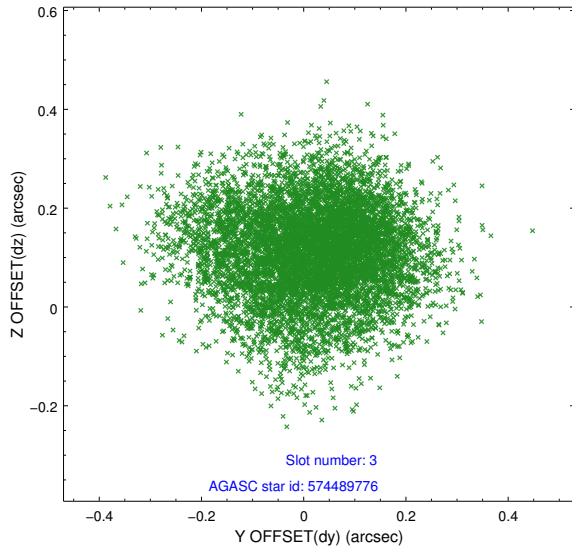


### Slot Statistics

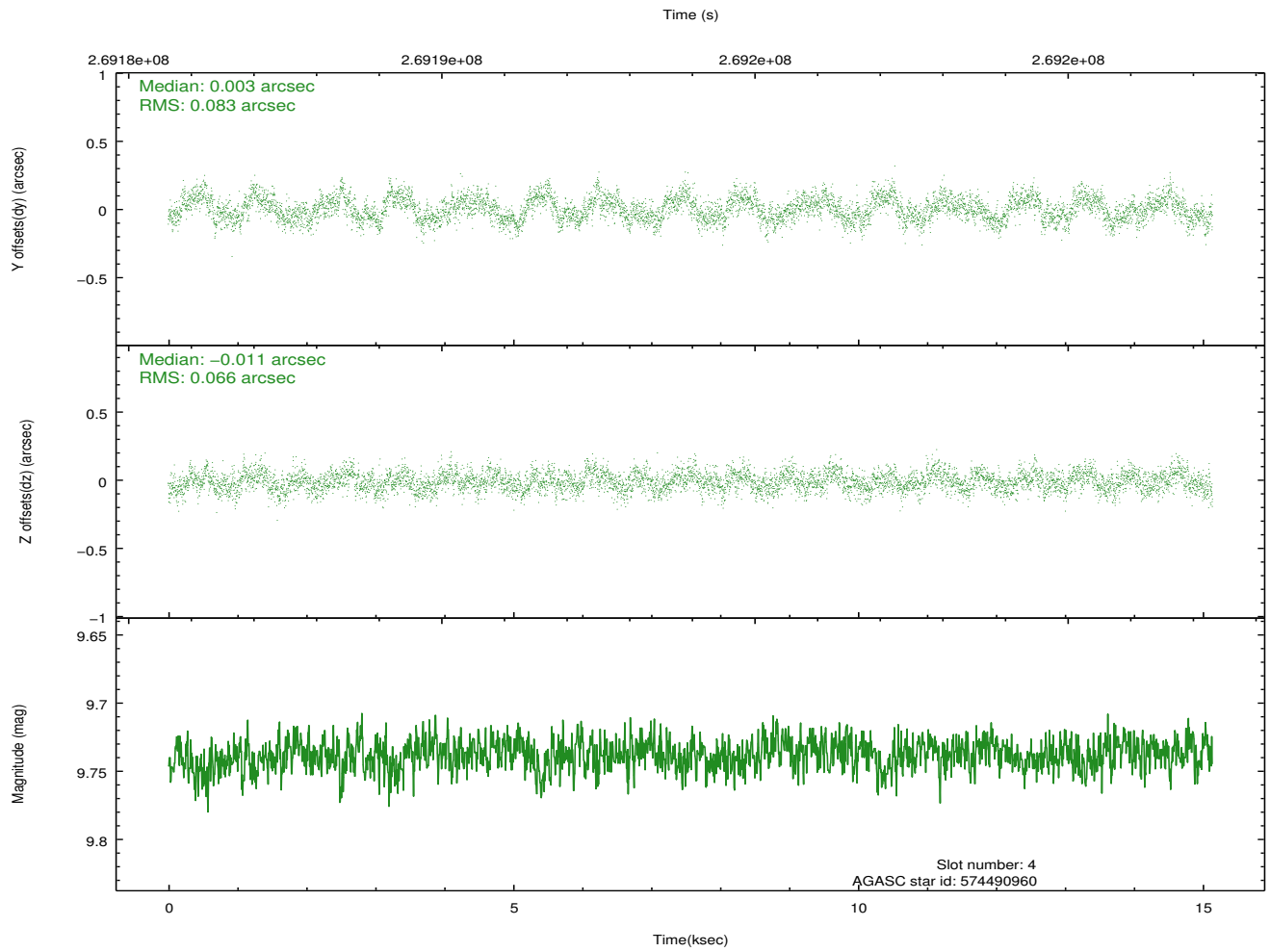
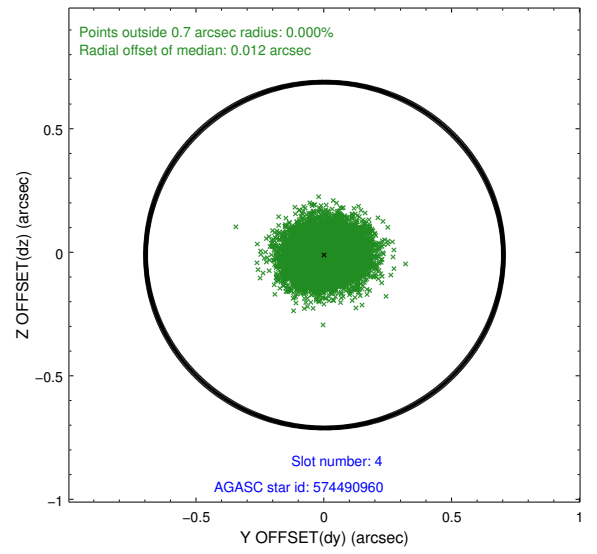
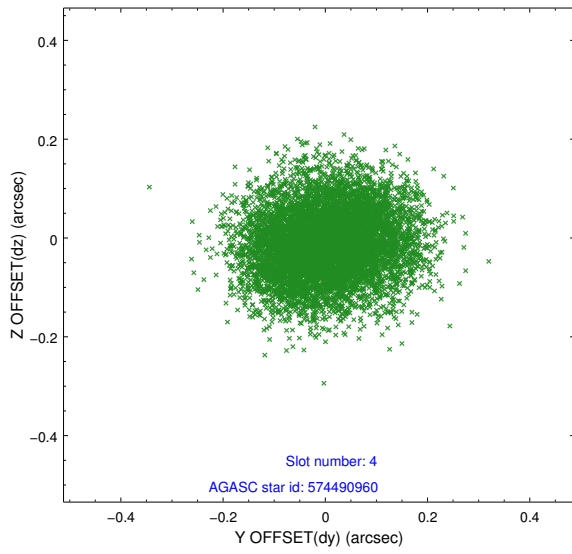
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	3693	-0.030	-0.028	0.018	0.026	0.000000	0.000000	-760.36	-1732.99
1	FID	ACIS-S-4	7.21	3693	0.098	0.023	0.013	0.020	0.000000	0.000000	2152.90	175.25
2	FID	ACIS-S-5	7.23	3693	-0.098	0.015	0.015	0.022	0.000000	0.000000	-1812.90	169.22
3	GUIDE	574489776	10.17	7365	0.024	0.117	0.157	0.251	148.323662	69.046710	-398.04	-494.55
4	GUIDE	574490960	9.74	7384	0.003	-0.011	0.115	0.181	148.185918	69.658768	-2041.59	983.05
5	GUIDE	574491184	9.05	7380	0.062	-0.014	0.094	0.151	148.582453	69.768699	-1956.50	1611.46
6	GUIDE	574491280	9.33	7379	-0.041	-0.079	0.087	0.141	148.611567	69.450135	-1136.31	808.19
7	GUIDE	574493848	10.21	7369	-0.034	-0.007	0.124	0.203	147.355161	69.035593	-1281.37	-1376.09

## 2.4 Star Slots

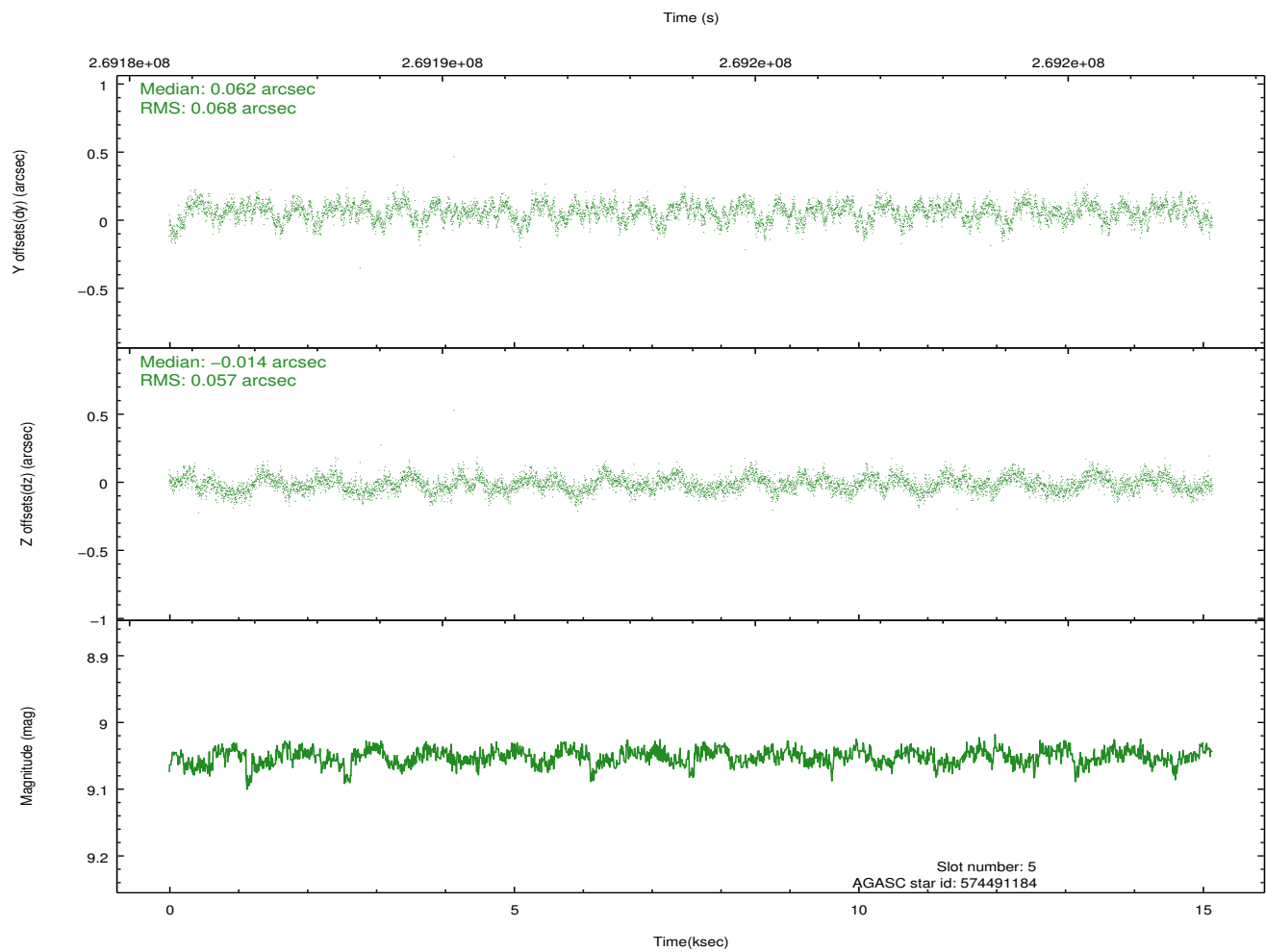
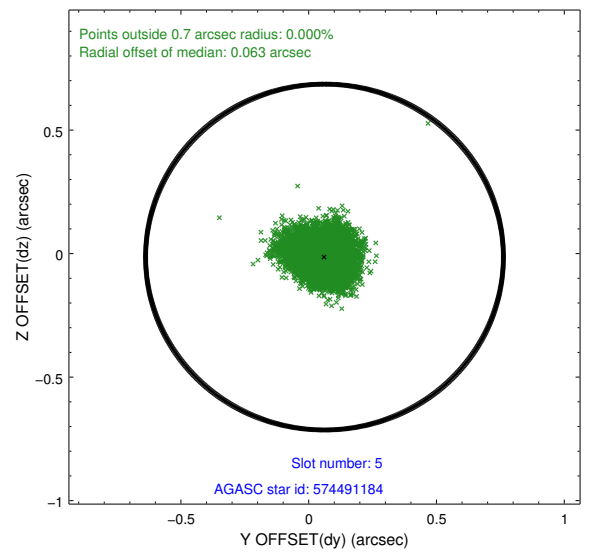
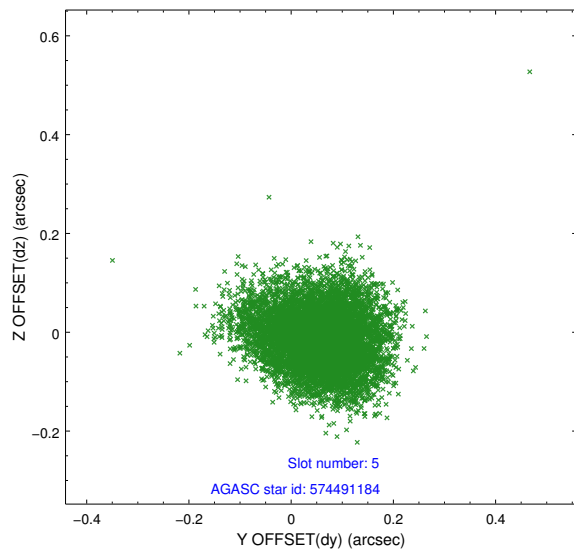
### 2.4.1 Slot 3



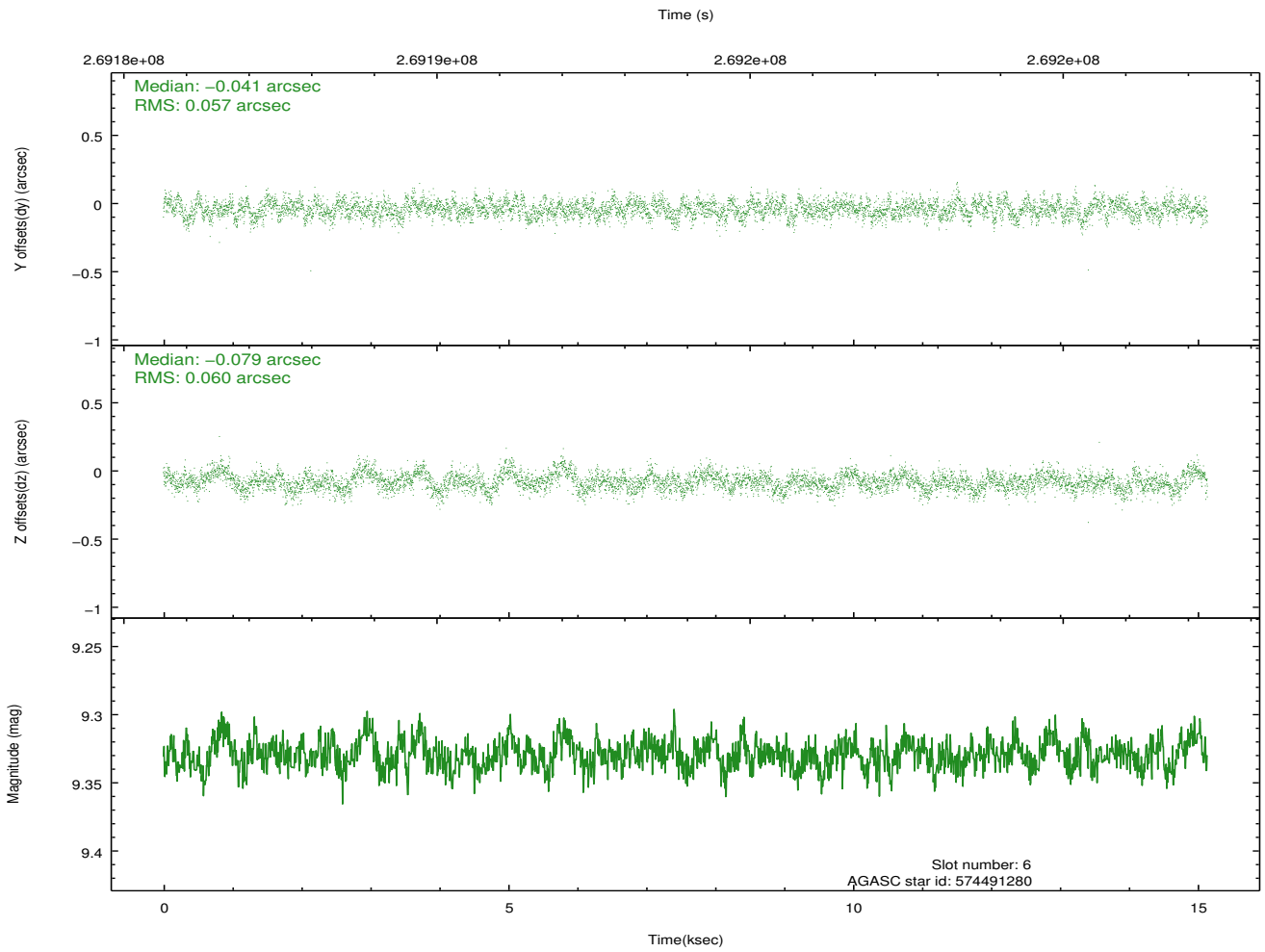
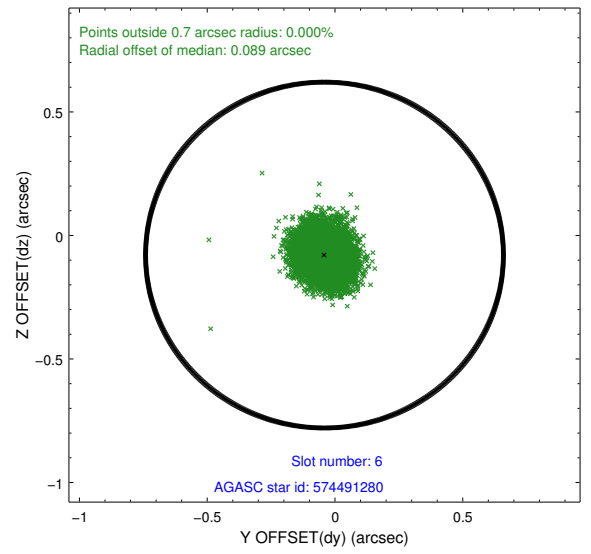
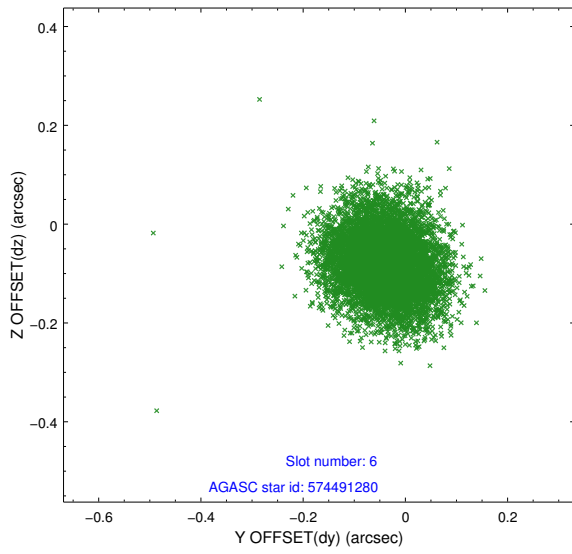
## 2.4.2 Slot 4



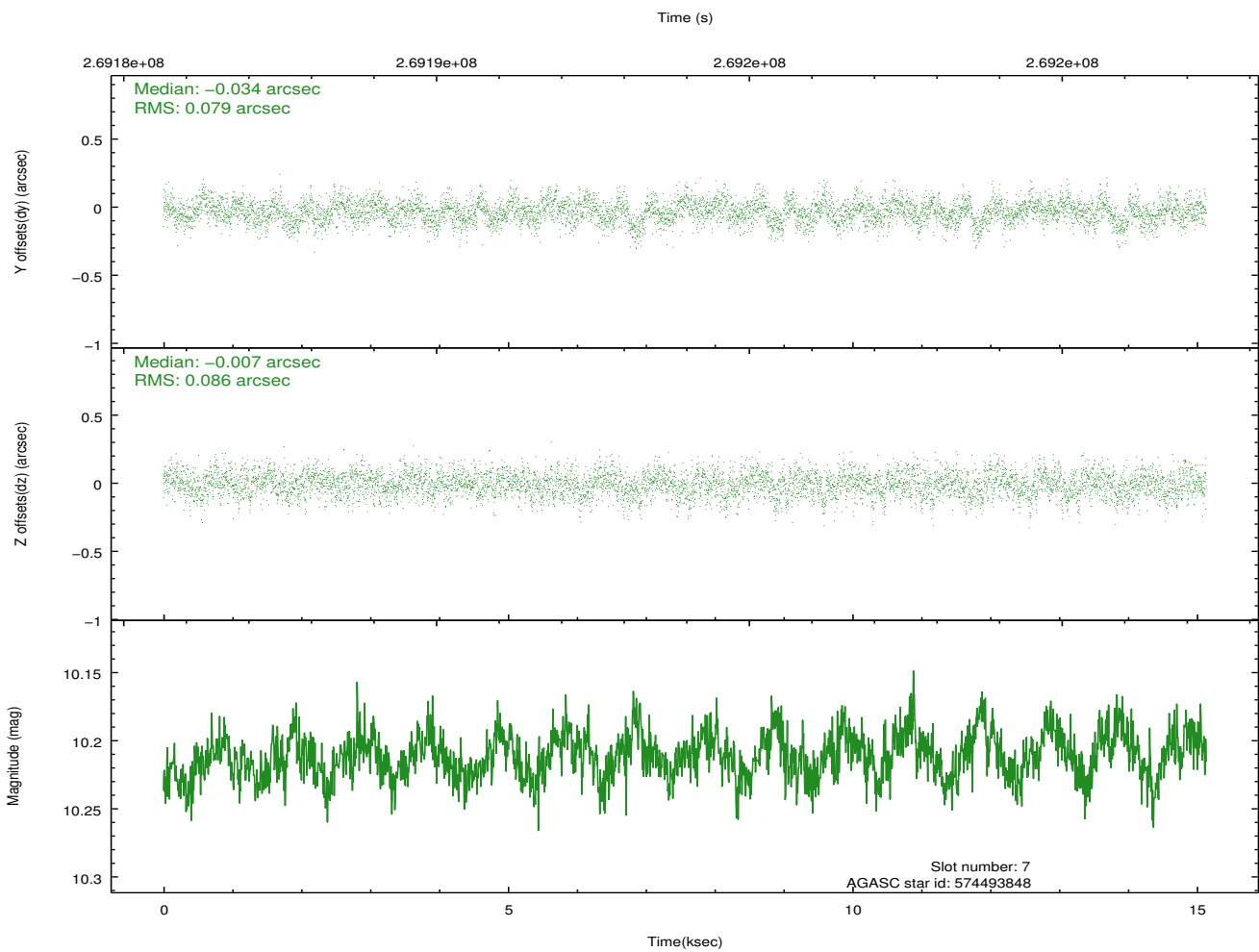
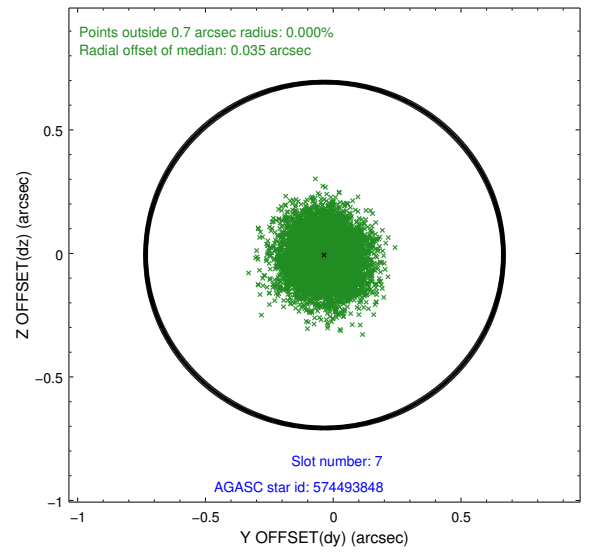
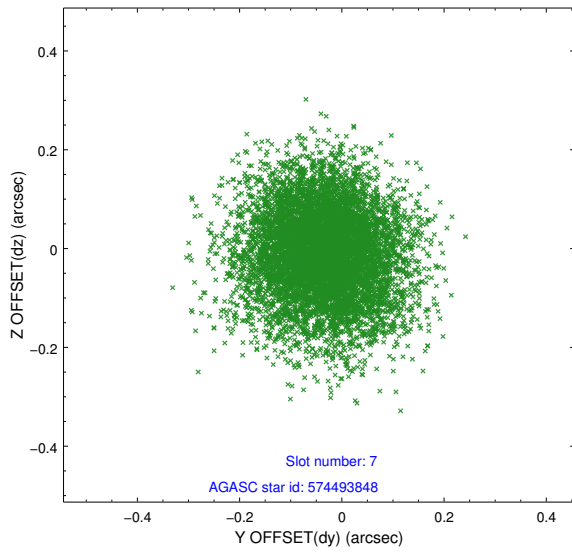
### 2.4.3 Slot 5



### 2.4.4 Slot 6

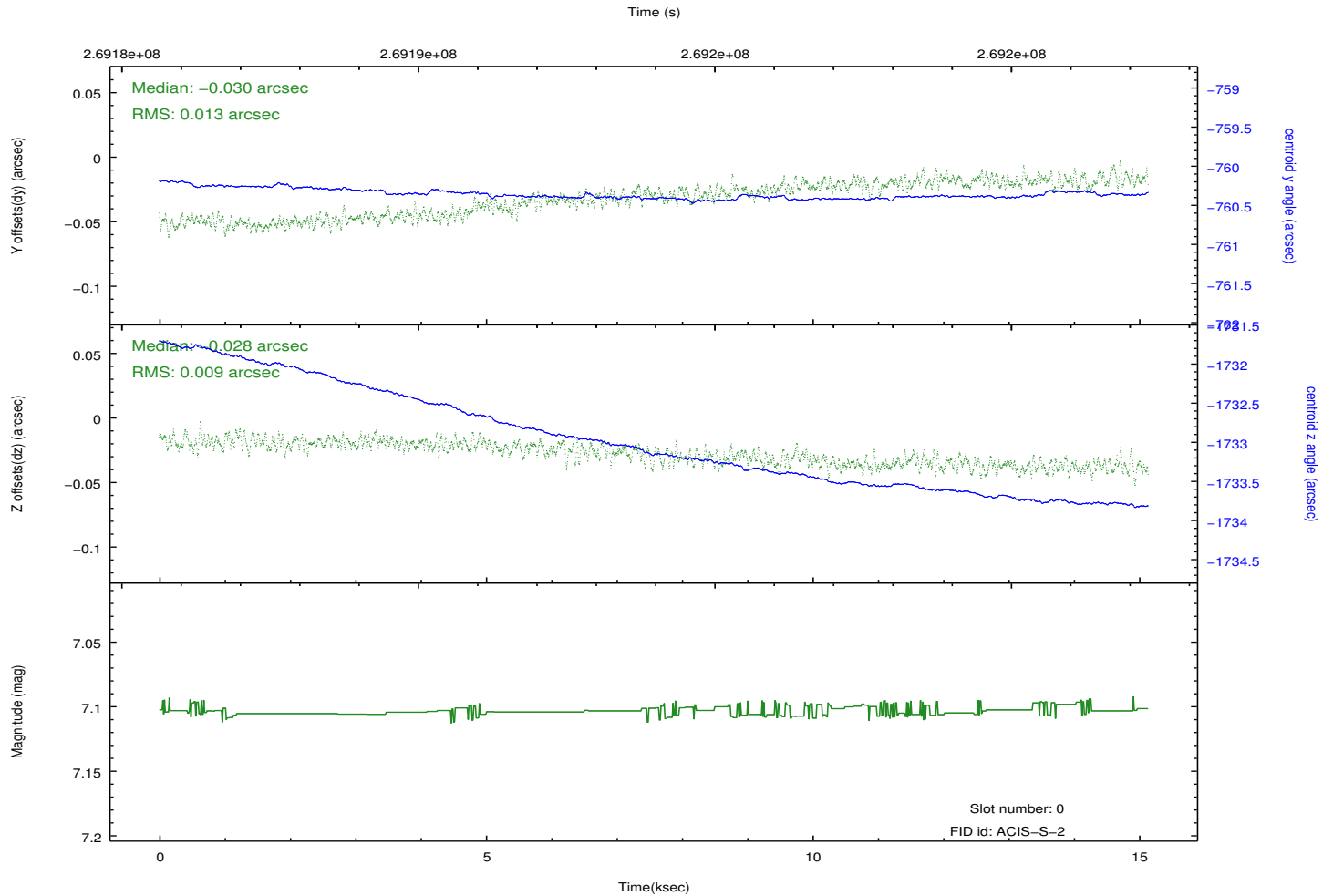
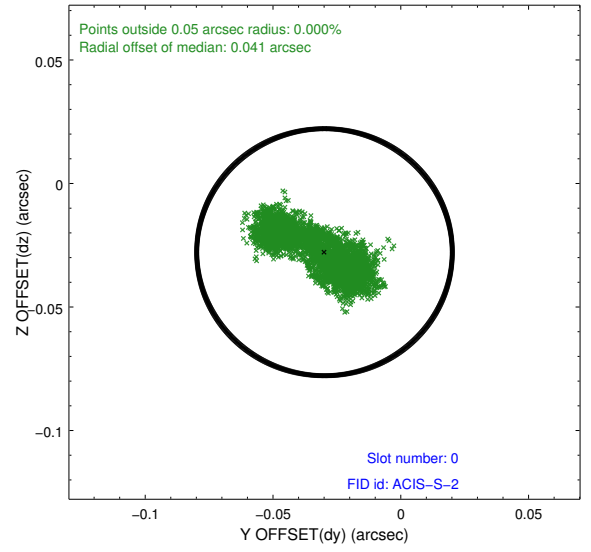
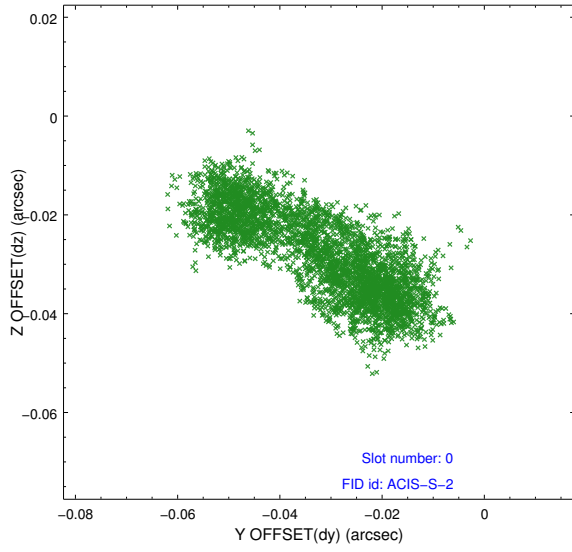


## 2.4.5 Slot 7

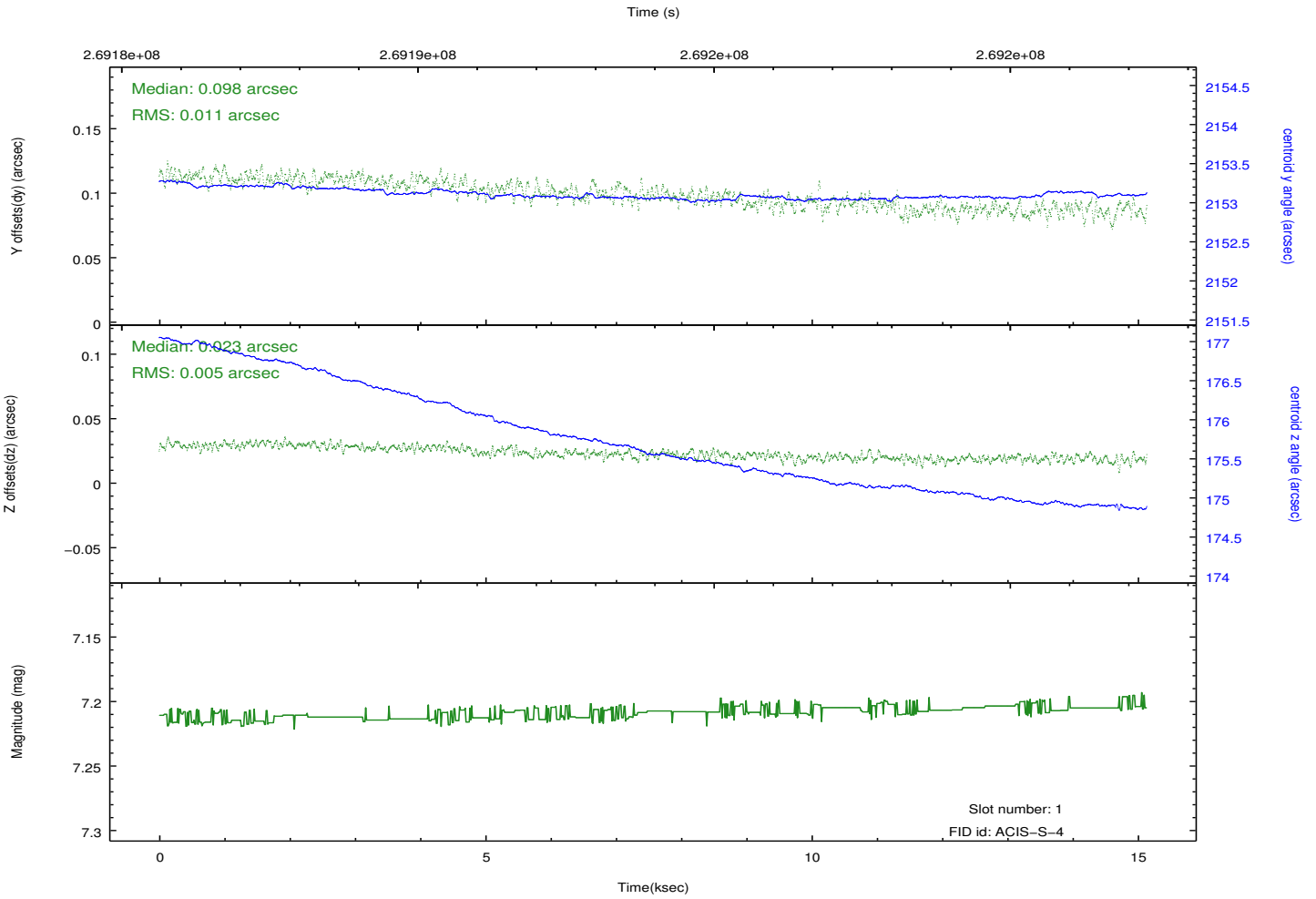
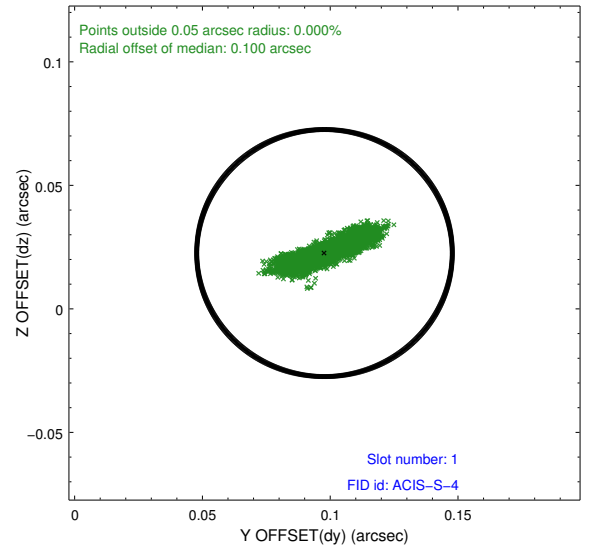
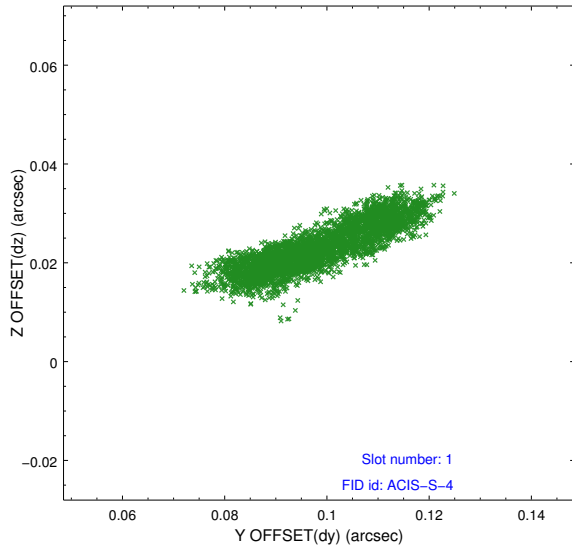


## 2.5 FID Slots

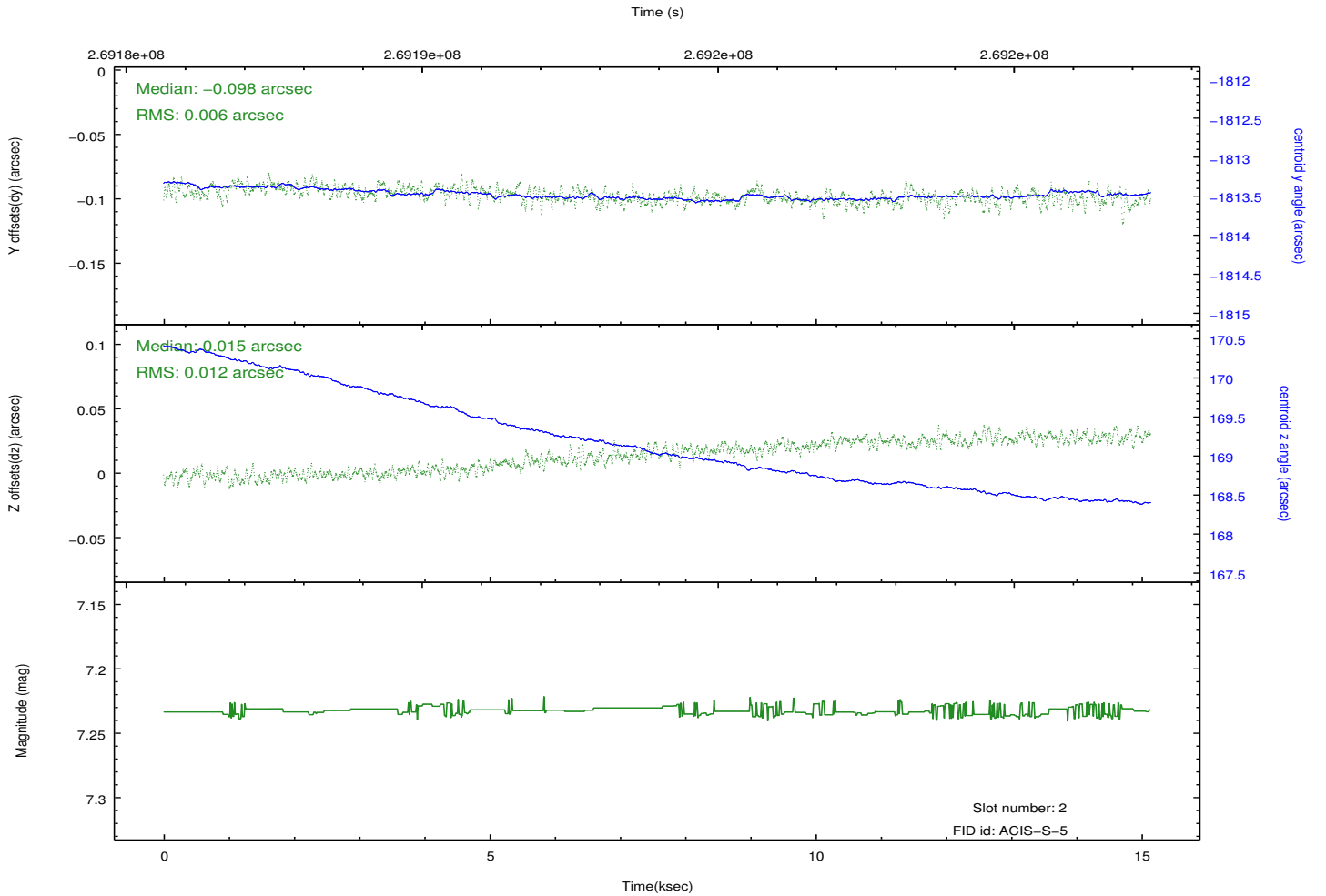
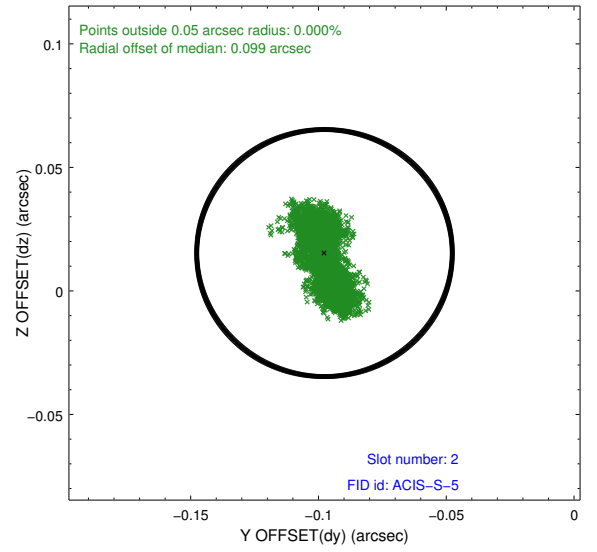
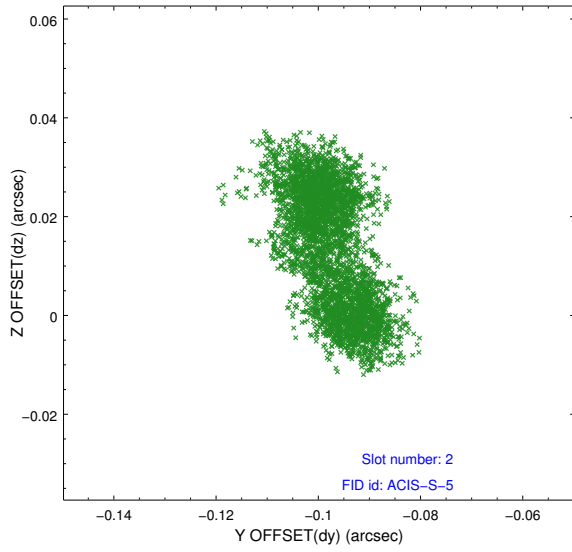
### 2.5.1 Slot 0



## 2.5.2 Slot 1

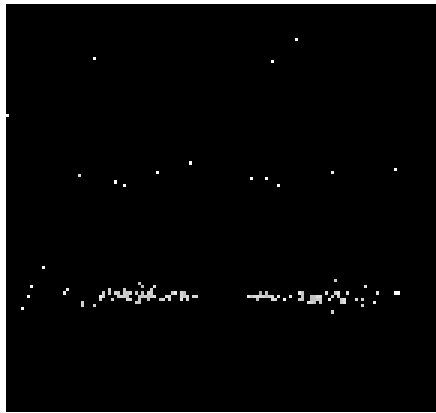


### 2.5.3 Slot 2

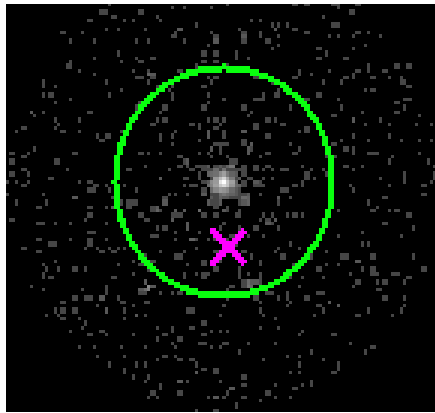


### 3 Gratings

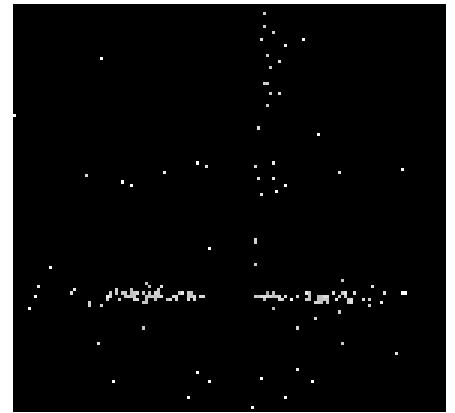
#### 3.1 HEG Arm



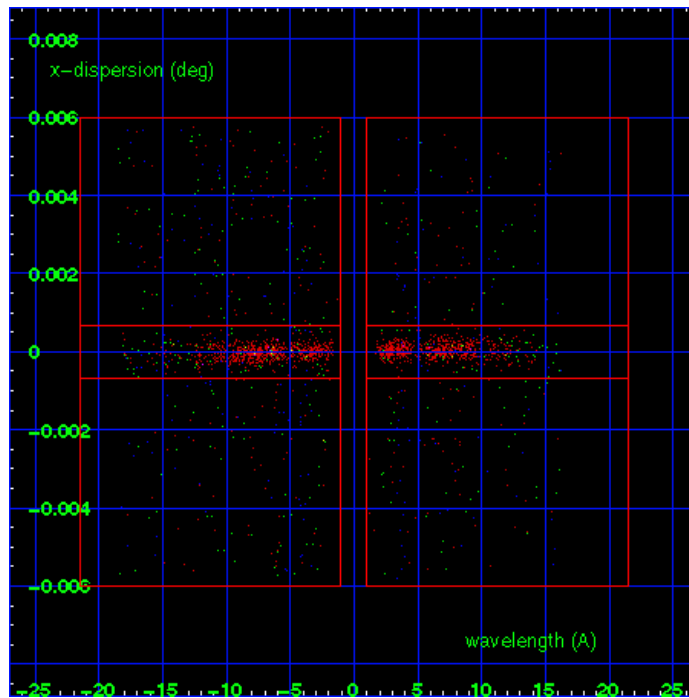
HEG Order Sort 123



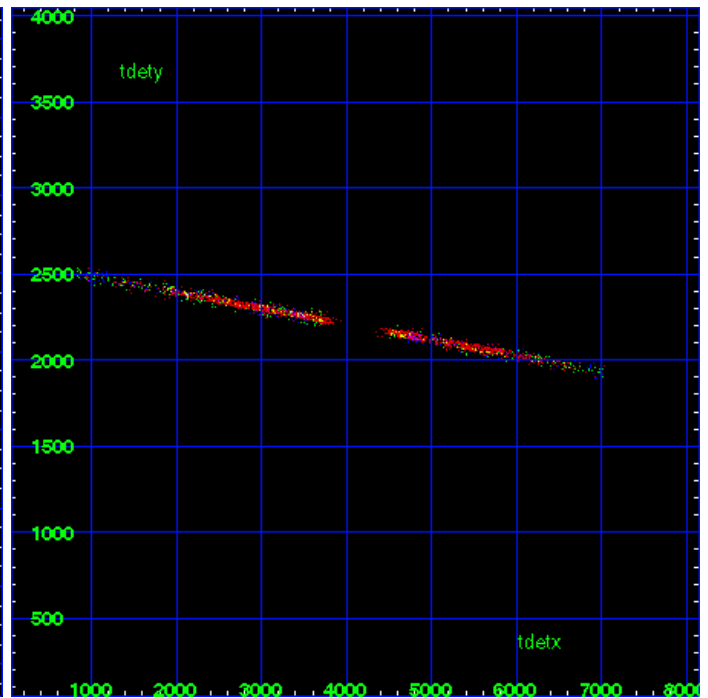
HEG Zero Order



HEG Order Sort ALL

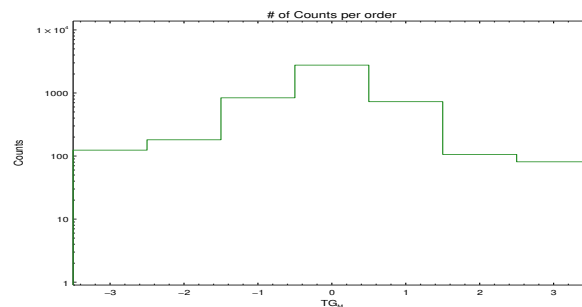


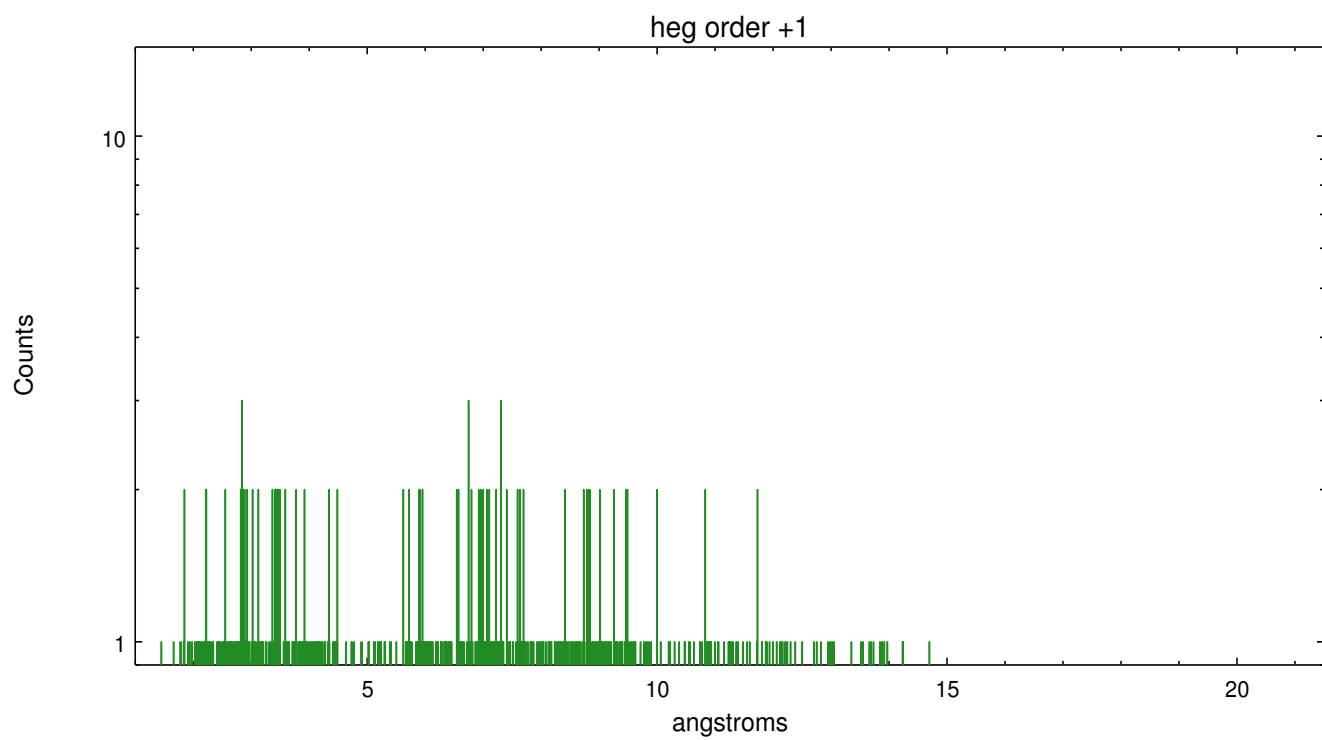
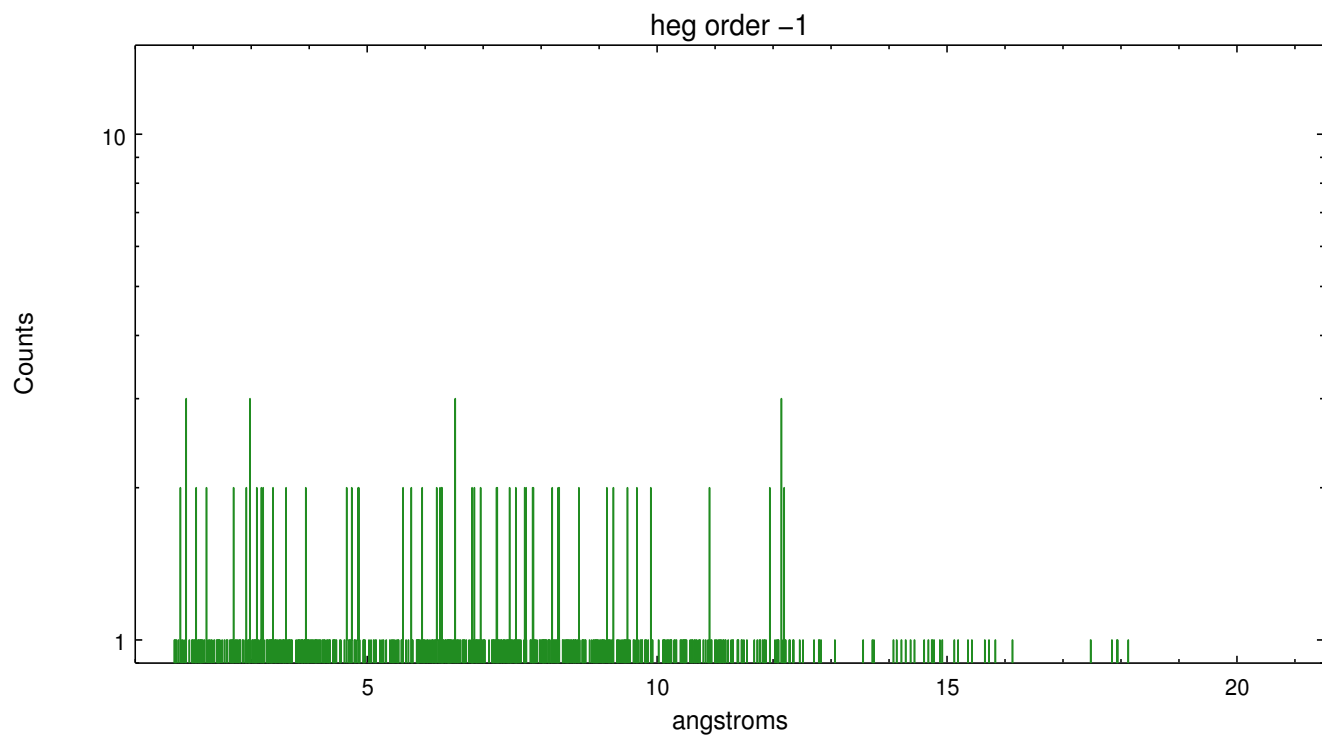
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	124	181	838	2765	728	106	81

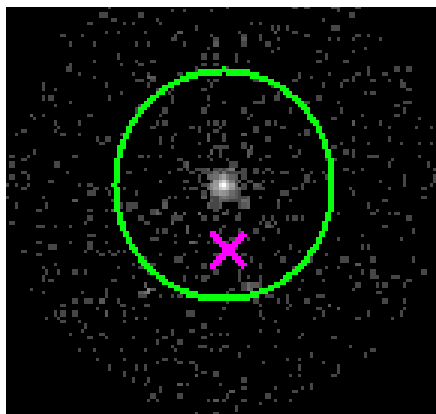




### 3.2 MEG Arm



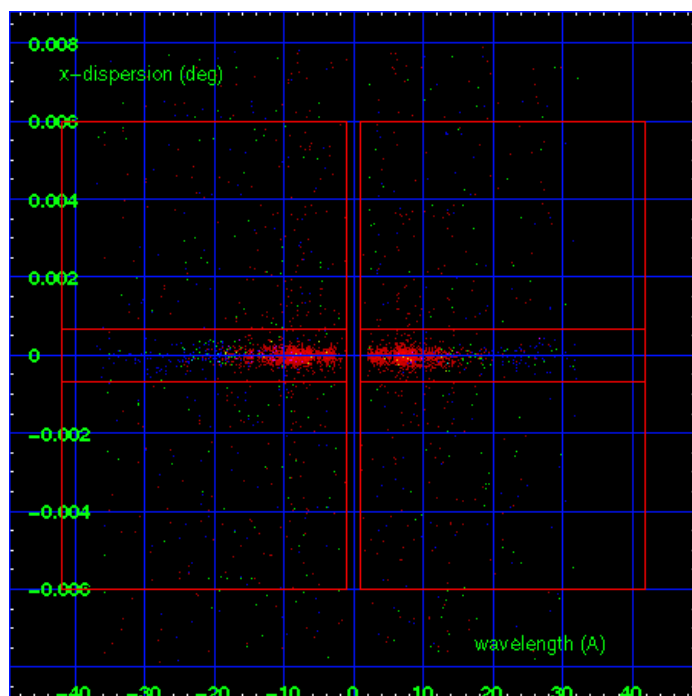
MEG Order Sort 123



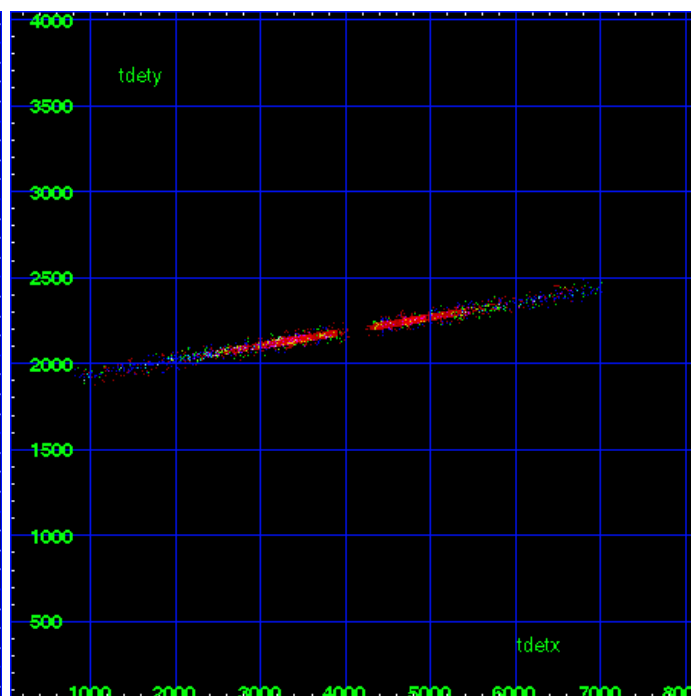
MEG Zero Order



MEG Order Sort ALL

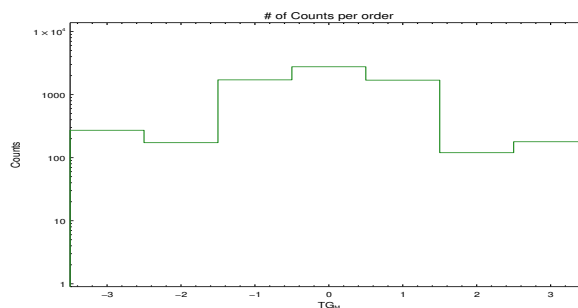


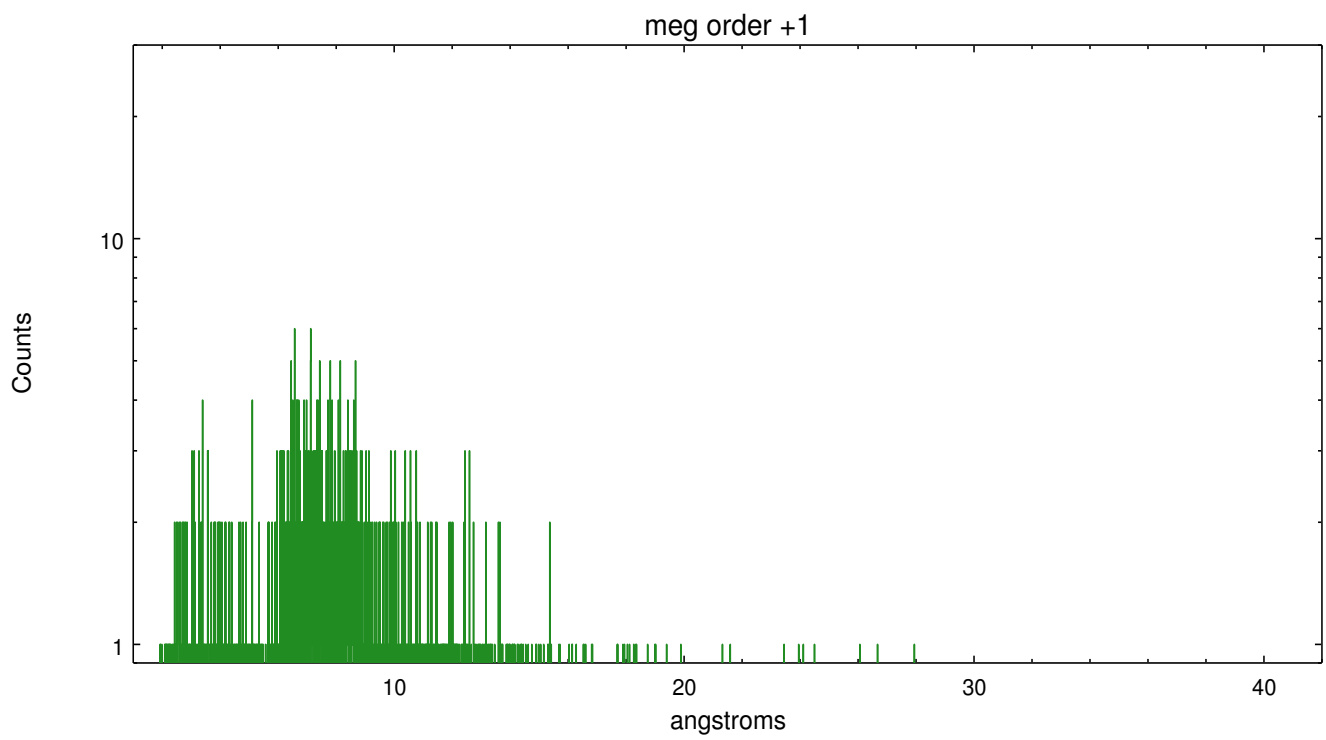
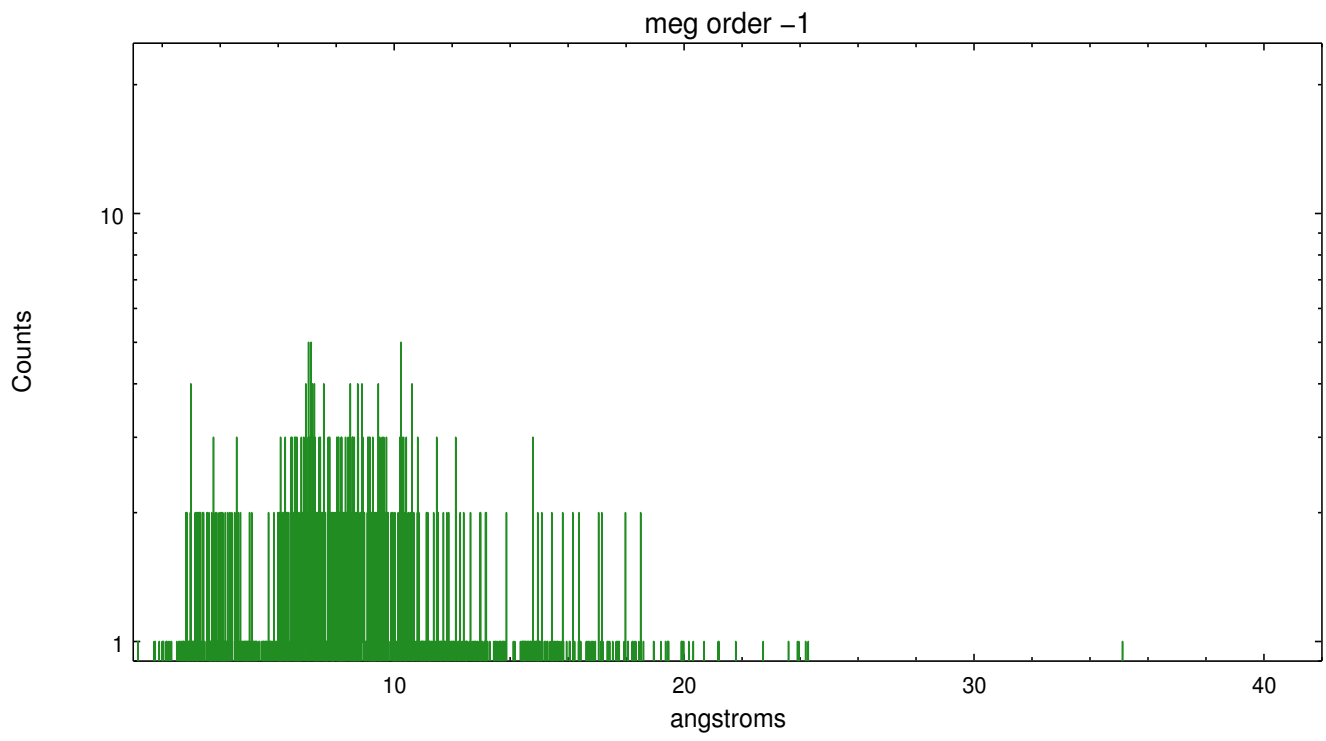
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	272	173	1714	2765	1695	120	179





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.1327999

## A.2 Comments

A bonus source at ra=09:55:32.8 and dec = +69:00:31.8 shows a dispersed spectrum.