

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2526 - L2 Version 3  
Chandra X-Ray Center

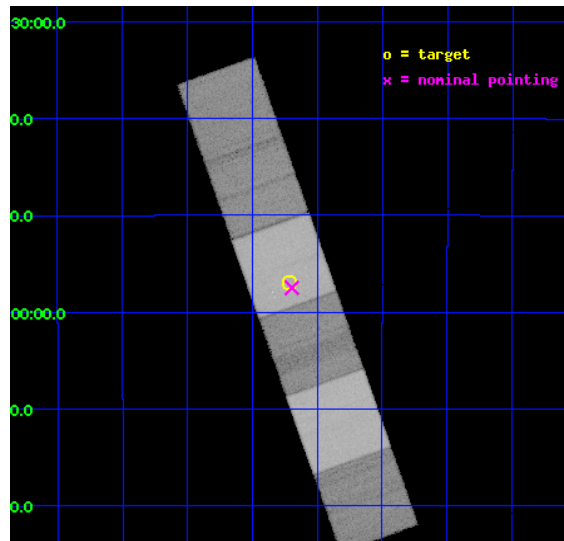
L2 Processing Date : Oct 5 2012

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# 1 Front

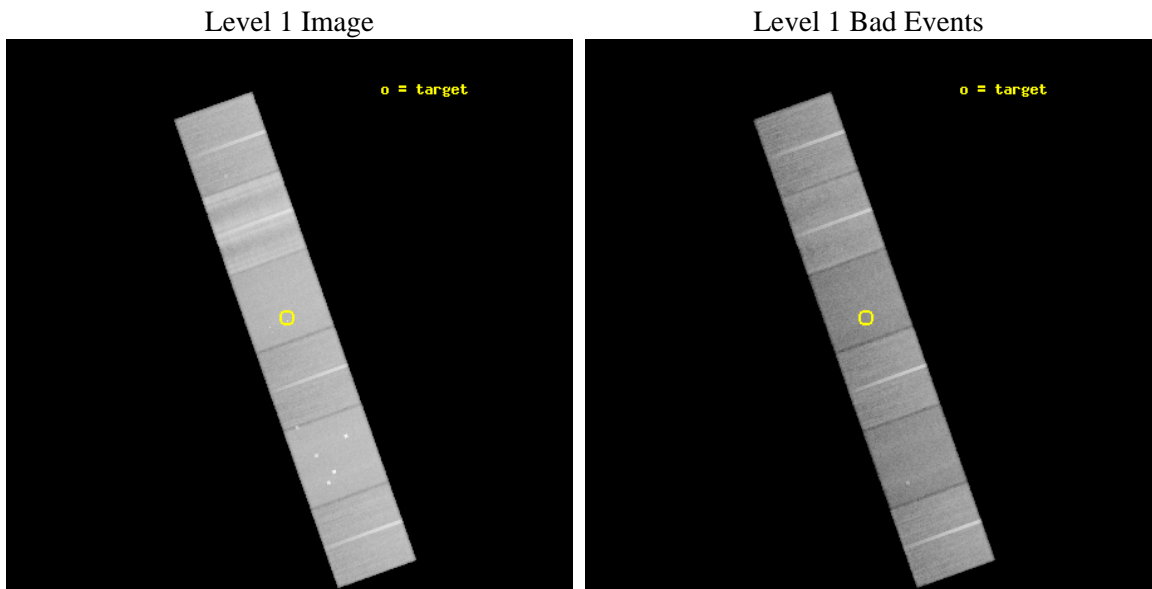
seq_num	200134	Sequence number
obs_id	2526	Observation id
title	HIGH RESOLUTION SPECTROSCOPY OF THE YOUNG STELLAR CLUSTER NGC 2362	&#160
observer	Prof Claude Canizares	Principal investigator
object	NGC2362	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	109.679167	Observer's specified target RA [deg]
dec_targ	-24.949972	Observer's specified target Dec [deg]
ra_nom	109.67385617419	Nominal RA [deg]
dec_nom	-24.958392072959	Nominal Dec [deg]
roll_nom	250.45438651343	Nominal Roll [deg]
revision	3	Processing version of data
ontime	44454.399834394	Sum of GTIs [s]
livetime	43891.491456465	Livetime [s]
ontime4	44454.399834394	Sum of GTIs [s]
ontime5	44454.399834394	Sum of GTIs [s]
ontime6	44454.399834394	Sum of GTIs [s]
ontime7	44454.399834394	Sum of GTIs [s]
ontime8	44447.917963743	Sum of GTIs [s]
ontime9	44454.399834394	Sum of GTIs [s]
l2events	630990	Number of level 2 events



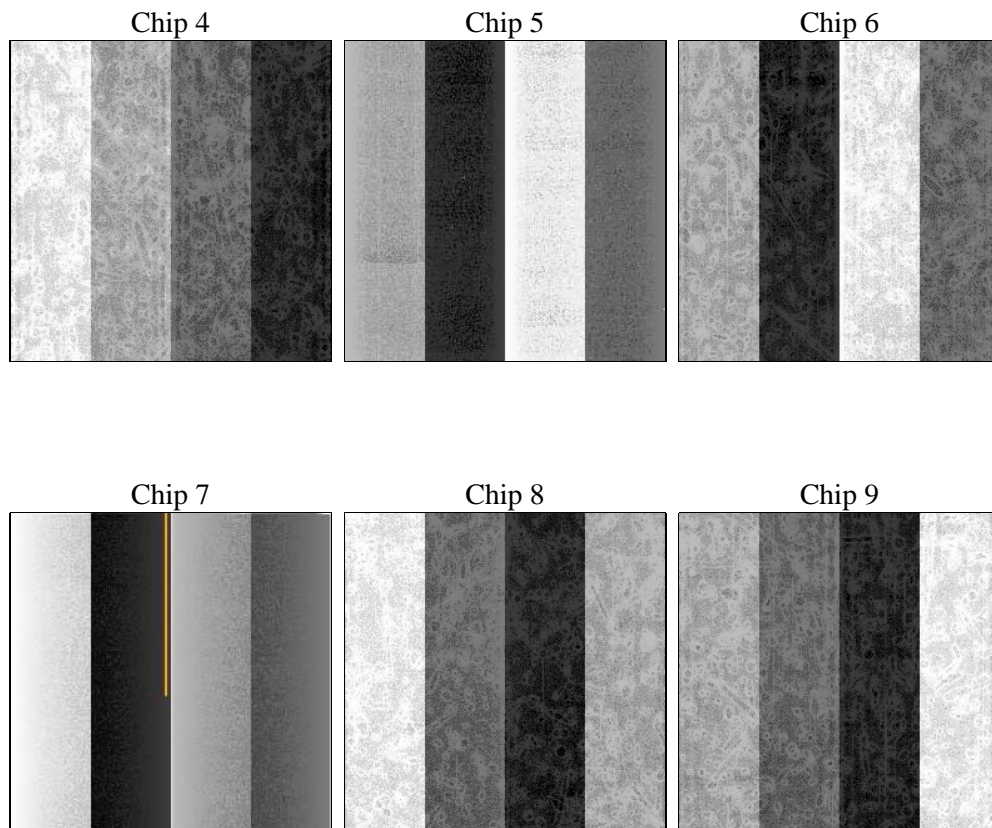
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	44500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	44454.399834394	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime4	44454.399834394	Sum of GTIs [s]
date	2012-10-05T18:03:02	Date and time of file creation	ontime5	44454.399834394	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	44454.399834394	Sum of GTIs [s]
			ontime7	44454.399834394	Sum of GTIs [s]
			ontime8	44447.917963743	Sum of GTIs [s]
			ontime9	44454.399834394	Sum of GTIs [s]
			l1events	2570509	Number of level 1 events

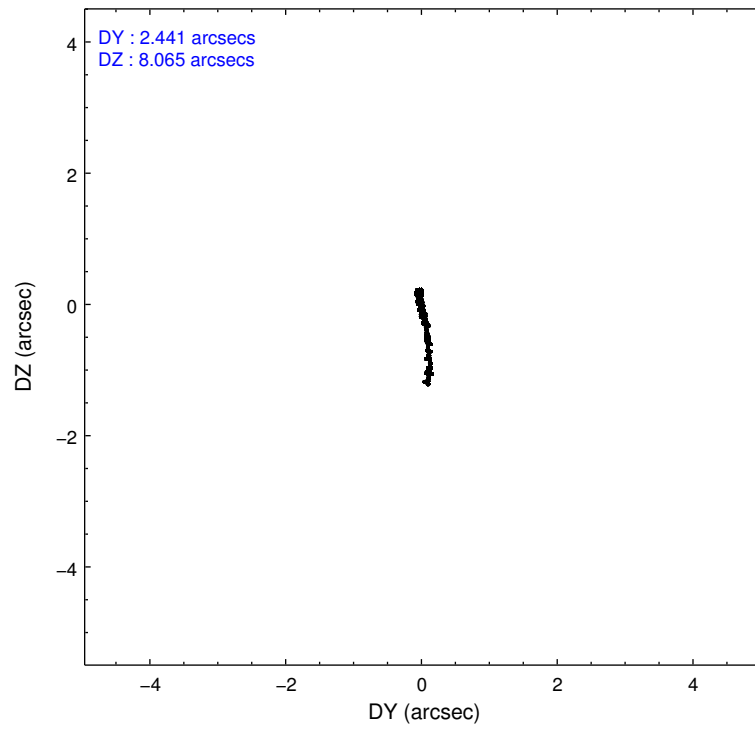
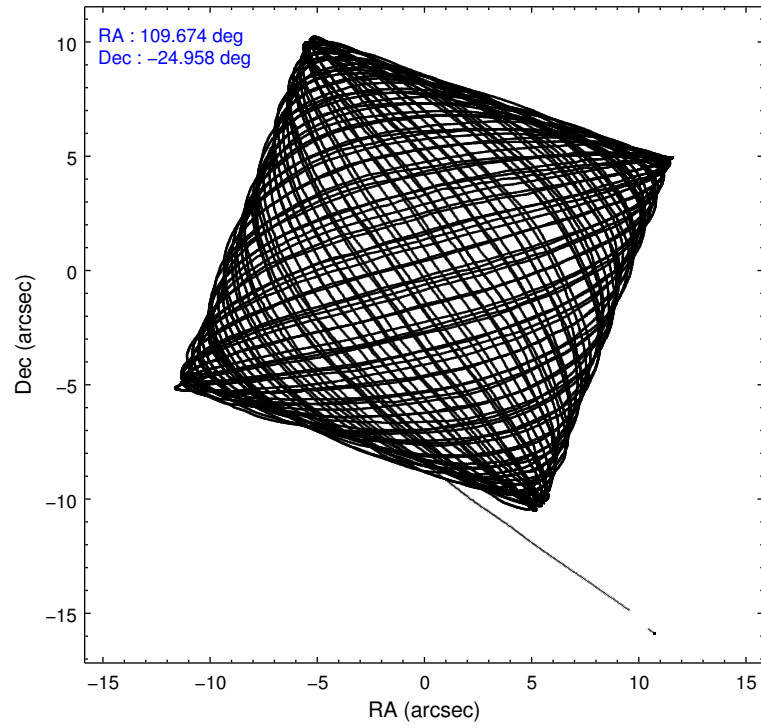
### 2.1.4 Events

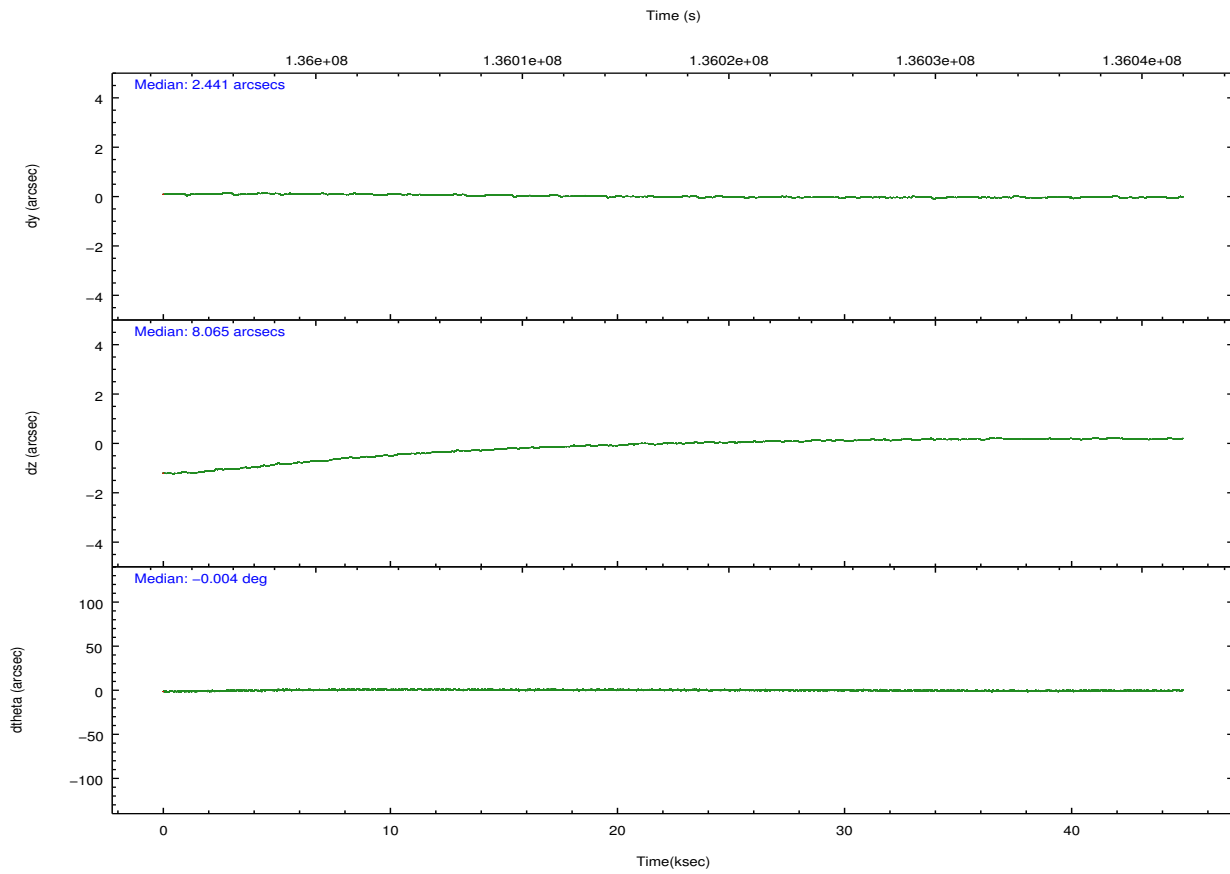
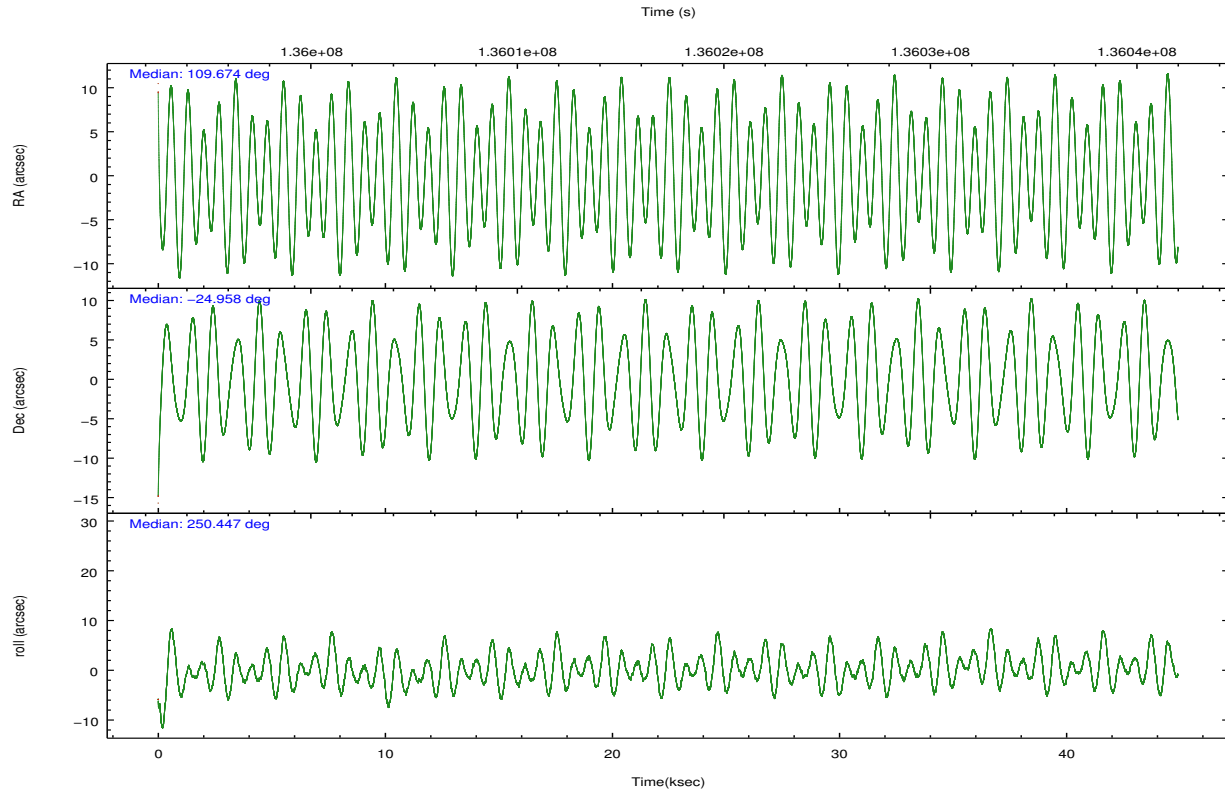
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	400240	462911	367981	419277	564227	355873	grade 0 events	34557	30645	32402	20145	84756	31979
rejected events	331554	226610	306005	217264	331913	294130		8%	6%	8%	4%	15%	8%
rejected %	82%	48%	83%	51%	58%	82%	grade 1 events	300	566	231	388	643	207
								0%	0%	0%	0%	0%	0%
							grade 2 events	16838	70199	11844	40720	36372	11751
								4%	15%	3%	9%	6%	3%
							grade 3 events	4320	11194	4213	17766	33791	4379
								1%	2%	1%	4%	5%	1%
							grade 4 events	4162	10395	4122	17800	29938	4185
								1%	2%	1%	4%	5%	1%
							grade 5 events	10320	31629	12173	35945	17489	12538
								2%	6%	3%	8%	3%	3%
							grade 6 events	8813	113893	9401	105602	47465	9459
								2%	24%	2%	25%	8%	2%
							grade 7 events	320930	194390	293595	180911	313773	281375
								80%	41%	79%	43%	55%	79%

## 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	109.668047	109.673856174188	Subarray requested	NONE	NONE
[deg] Pointing Dec	-24.931666	-24.95839207295895	Alternating exposures requested	N	N
[deg] Pointing Roll	250.295311	250.454386513429	[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)	135995250.184000	135994176.41903			
Observation start date	2002-04-24T00:26:26	2002-04-24T00:09:36			
[s] Observation end time (MET)	136039750.184000	136040498.22091			
Observation end date	2002-04-24T12:48:06	2002-04-24T13:01:38			
Read mode	TIMED	TIMED			

## 2.3 Aspect



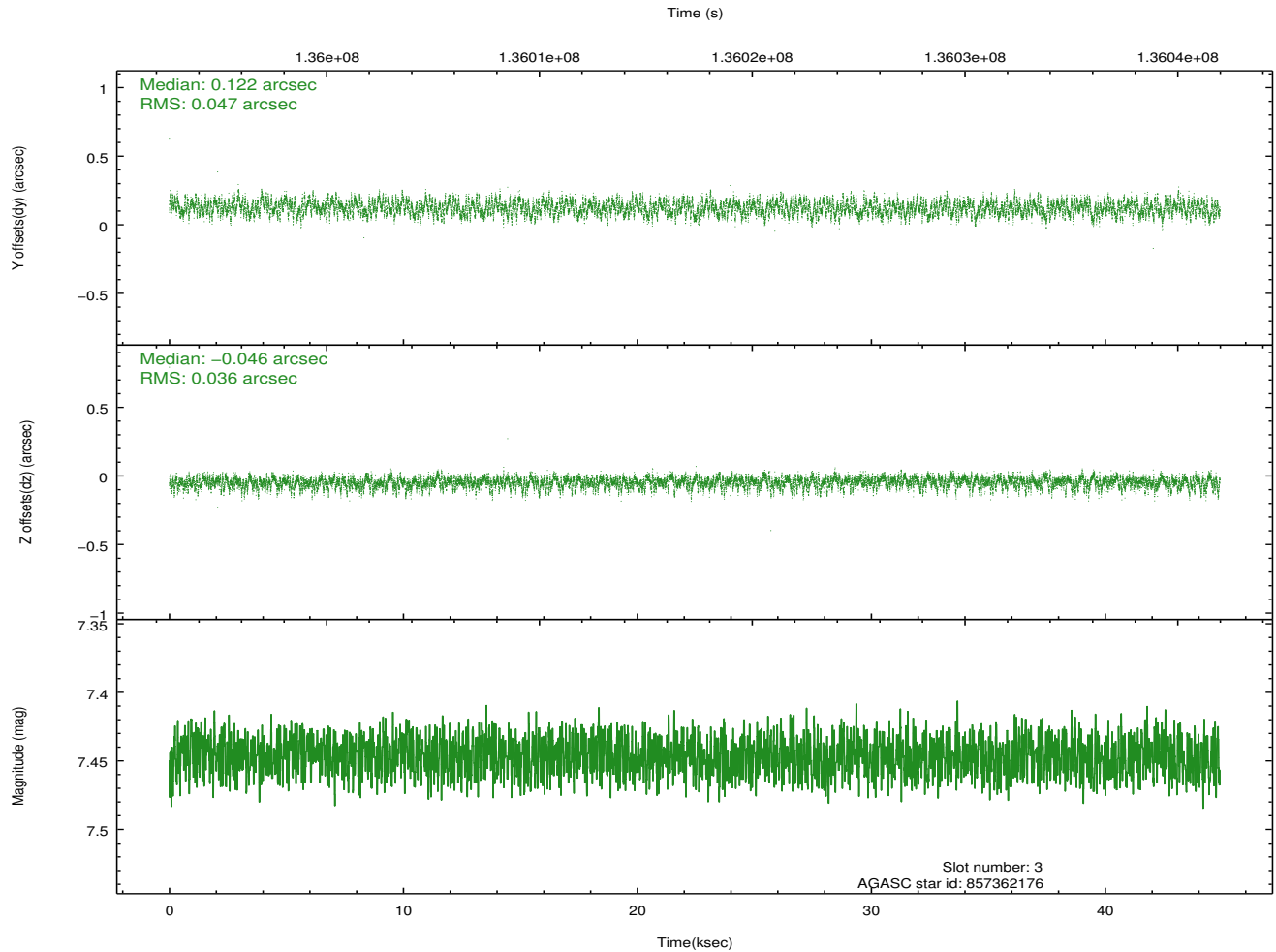
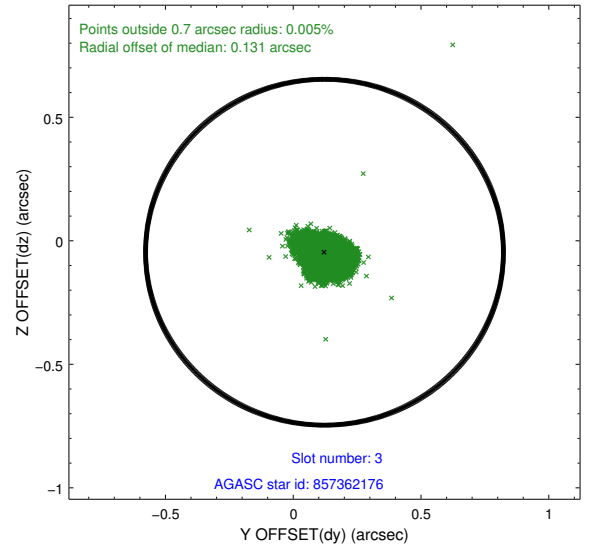
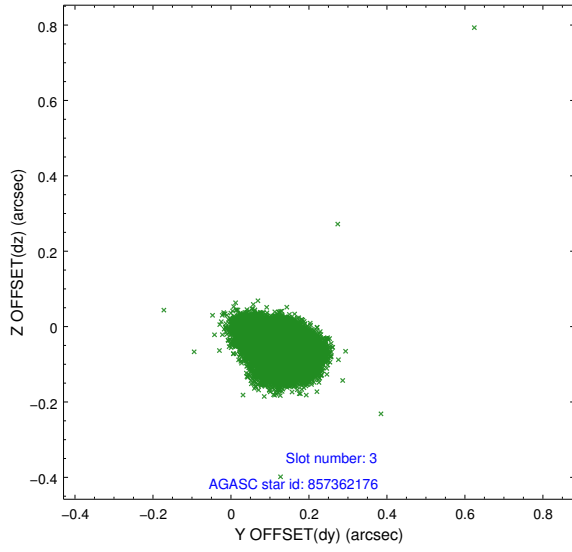


### Slot Statistics

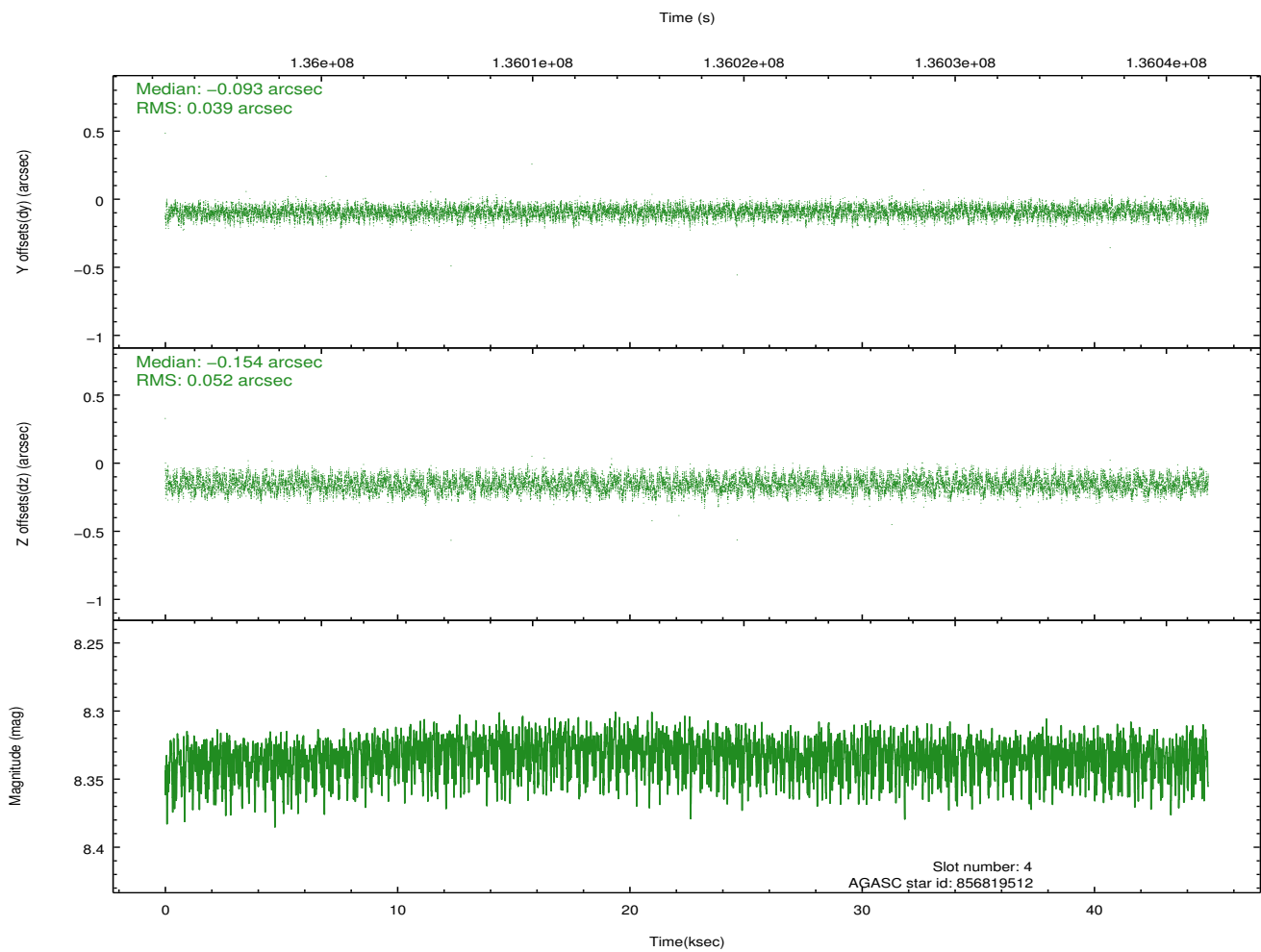
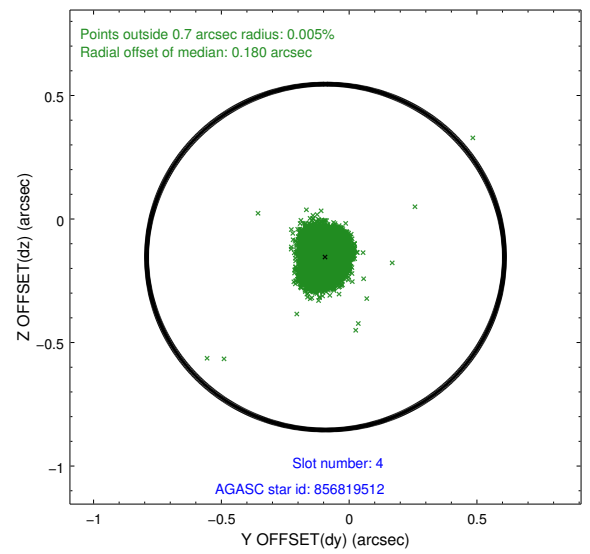
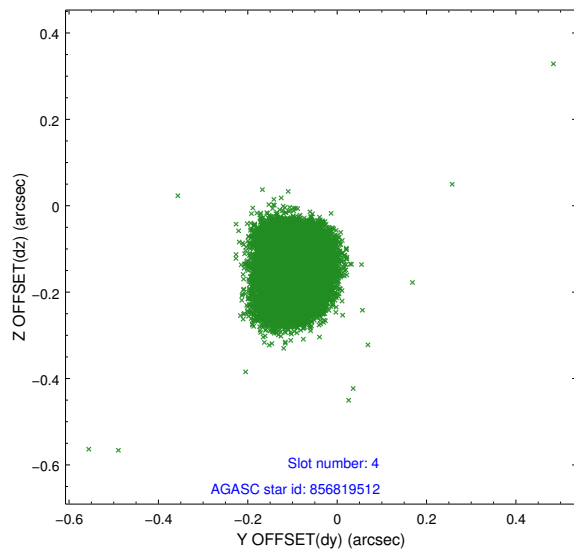
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	10954	0.029	-0.009	0.015	0.039	0.000000	0.000000	940.95	-1724.73
1	FID	ACIS-S-5	7.24	10954	0.004	0.045	0.007	0.015	0.000000	0.000000	-1808.04	172.93
2	FID	ACIS-S-6	7.36	10953	-0.054	-0.025	0.016	0.053	0.000000	0.000000	406.47	816.79
3	GUIDE	857362176	7.45	21906	0.122	-0.046	0.064	0.101	109.209415	-25.159020	1277.57	-1129.64
4	GUIDE	856819512	8.33	21905	-0.093	-0.154	0.069	0.111	109.292794	-24.352083	-1547.13	-1861.66
5	GUIDE	857351440	9.06	21901	-0.008	-0.039	0.071	0.116	109.072756	-25.276289	1826.01	-1404.21
6	GUIDE	857371208	9.30	21899	-0.081	0.103	0.095	0.155	110.071536	-24.829278	-789.32	1117.80
7	GUIDE	857369368	9.36	21893	0.058	0.140	0.101	0.164	110.148795	-25.173974	296.02	1770.26

## 2.4 Star Slots

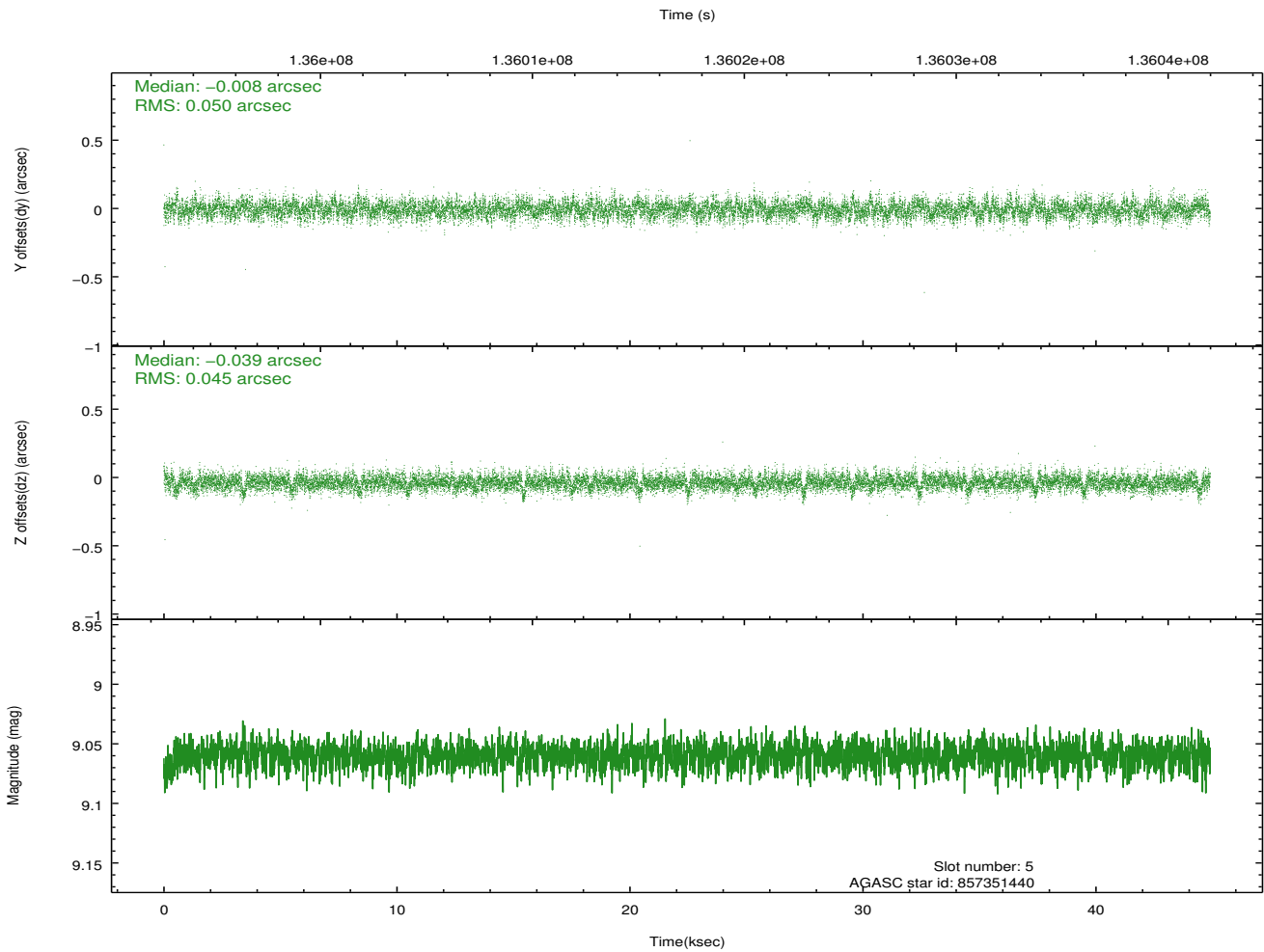
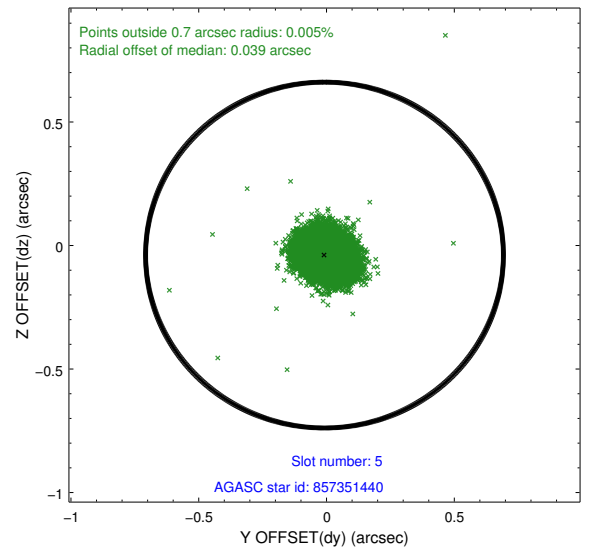
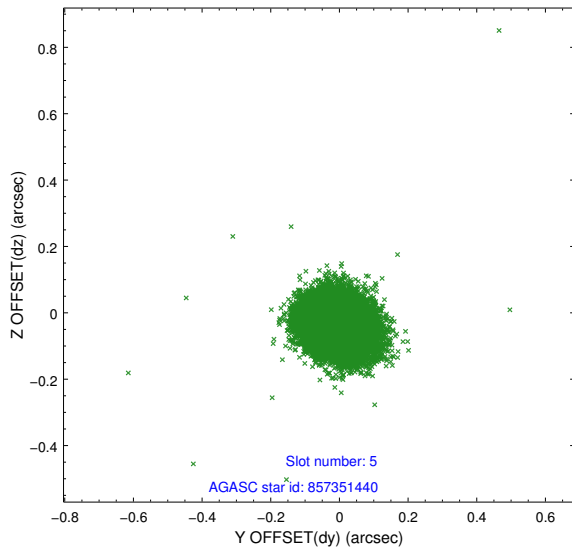
### 2.4.1 Slot 3



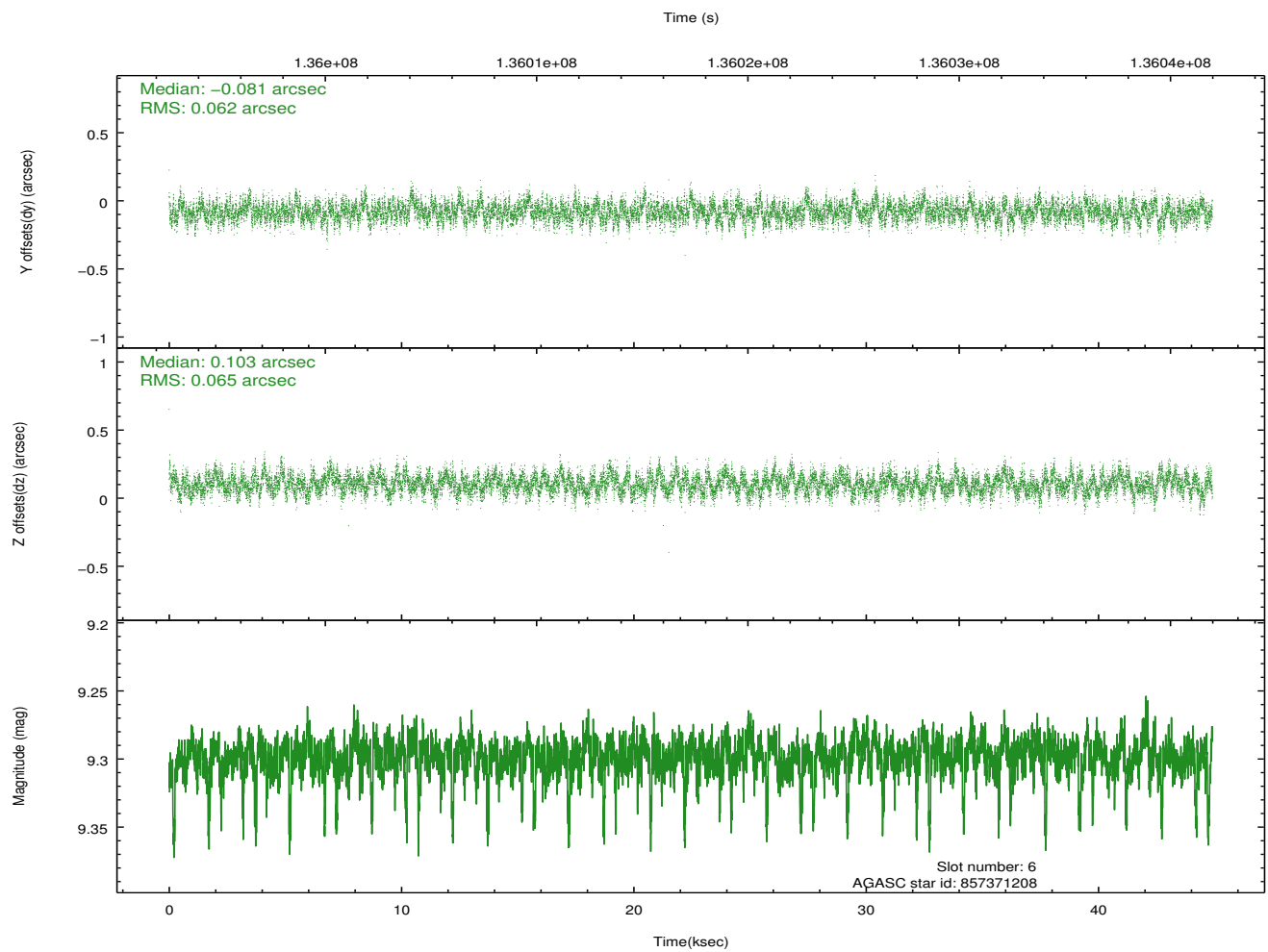
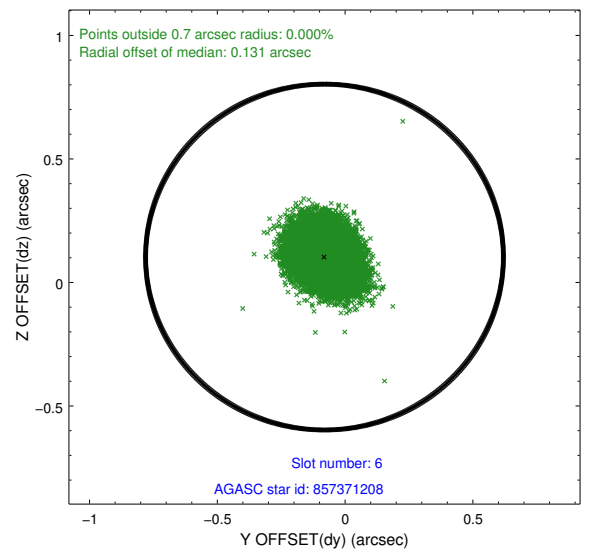
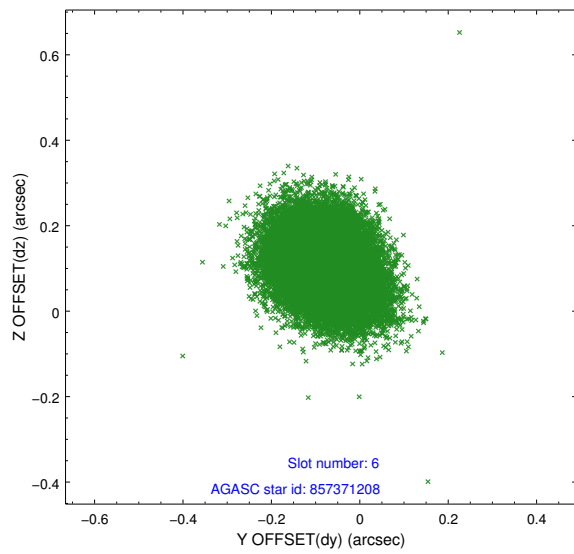
## 2.4.2 Slot 4



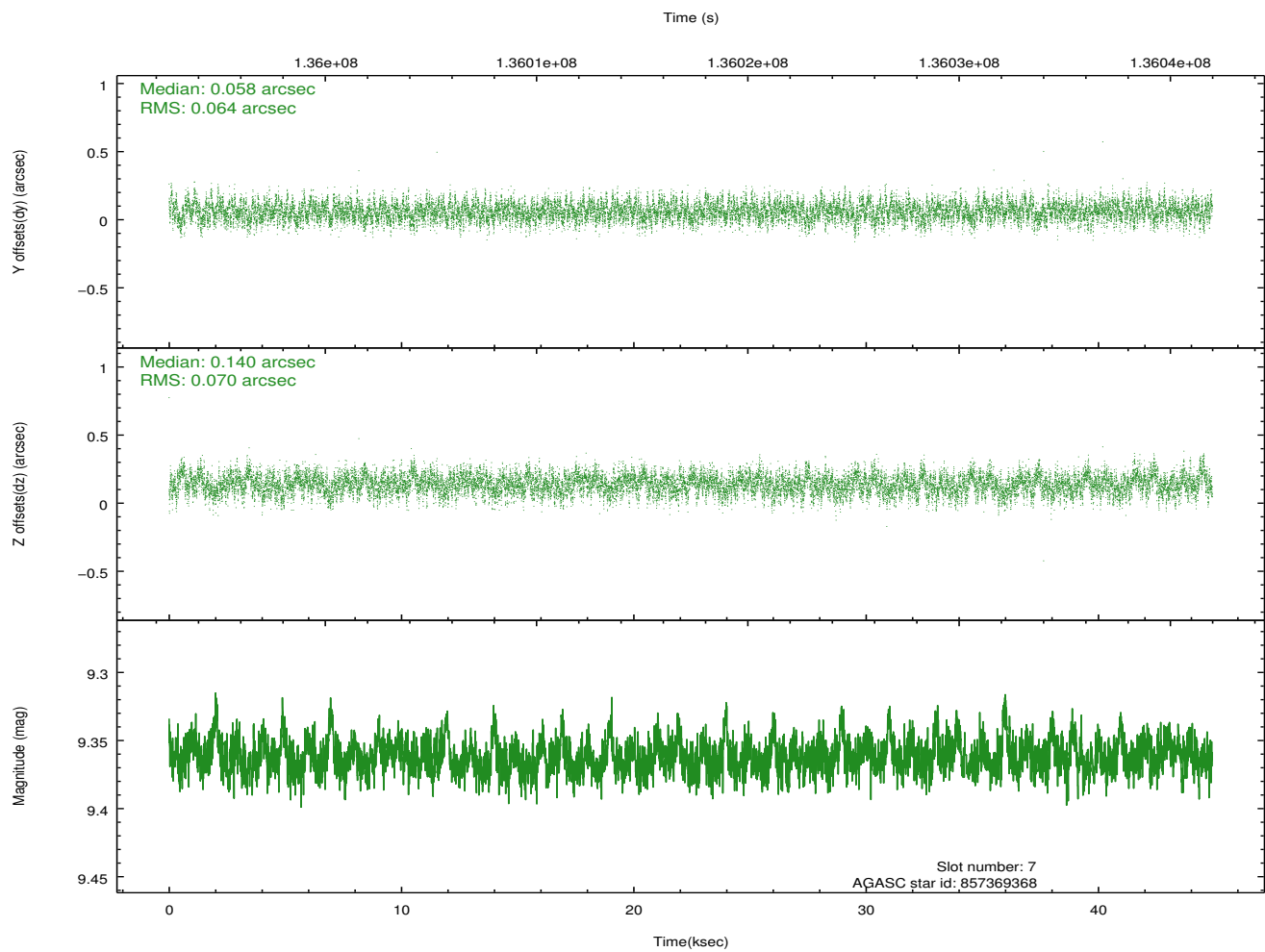
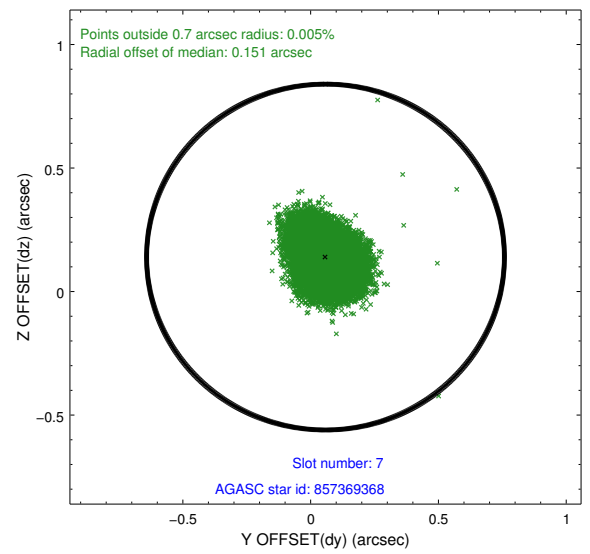
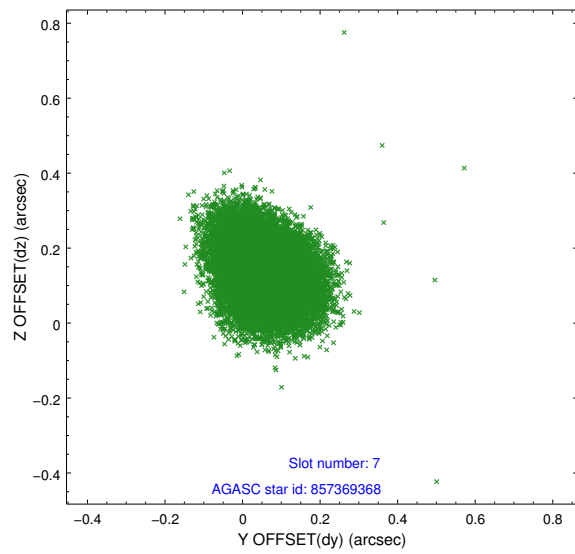
### 2.4.3 Slot 5



## 2.4.4 Slot 6

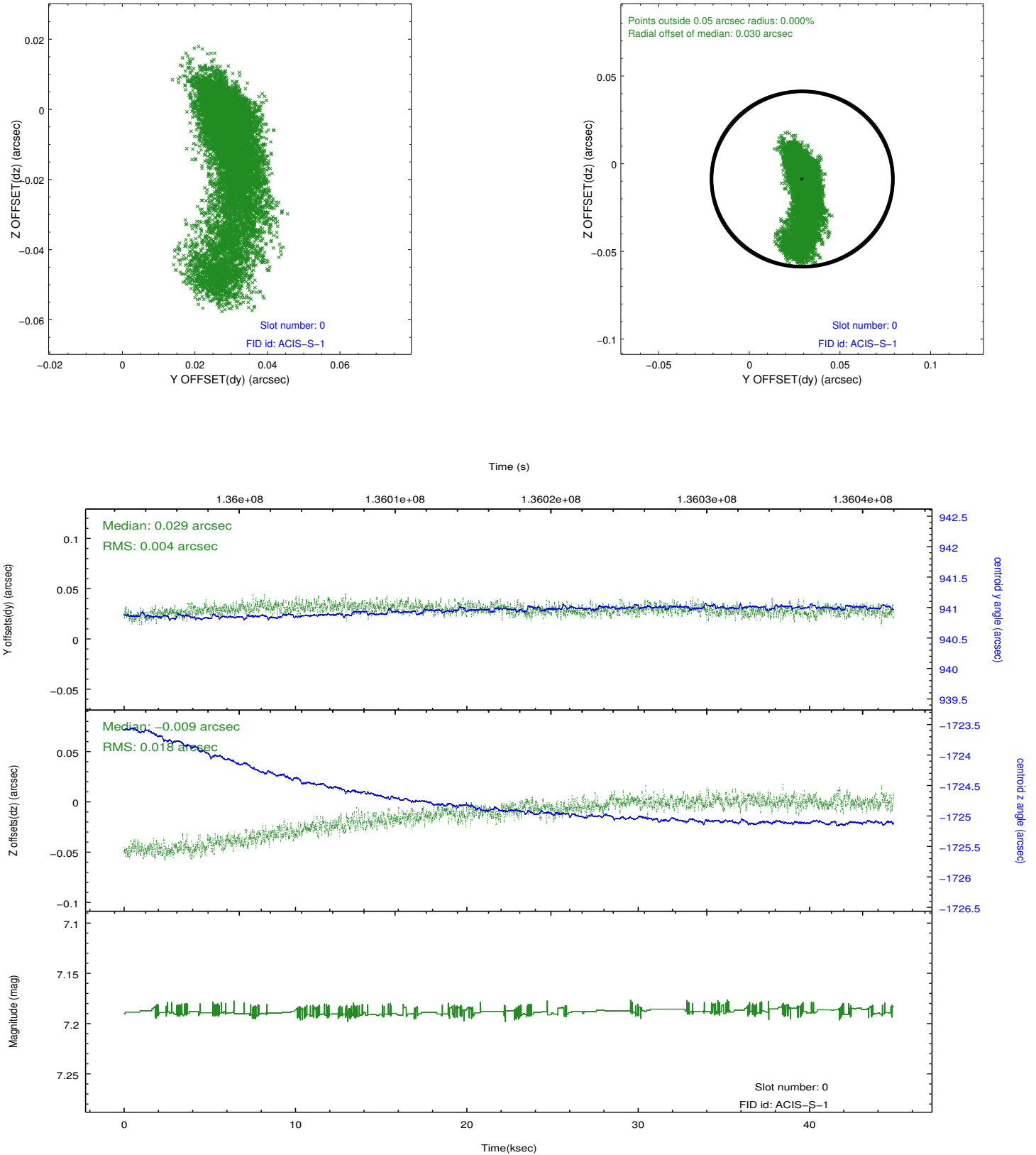


## 2.4.5 Slot 7

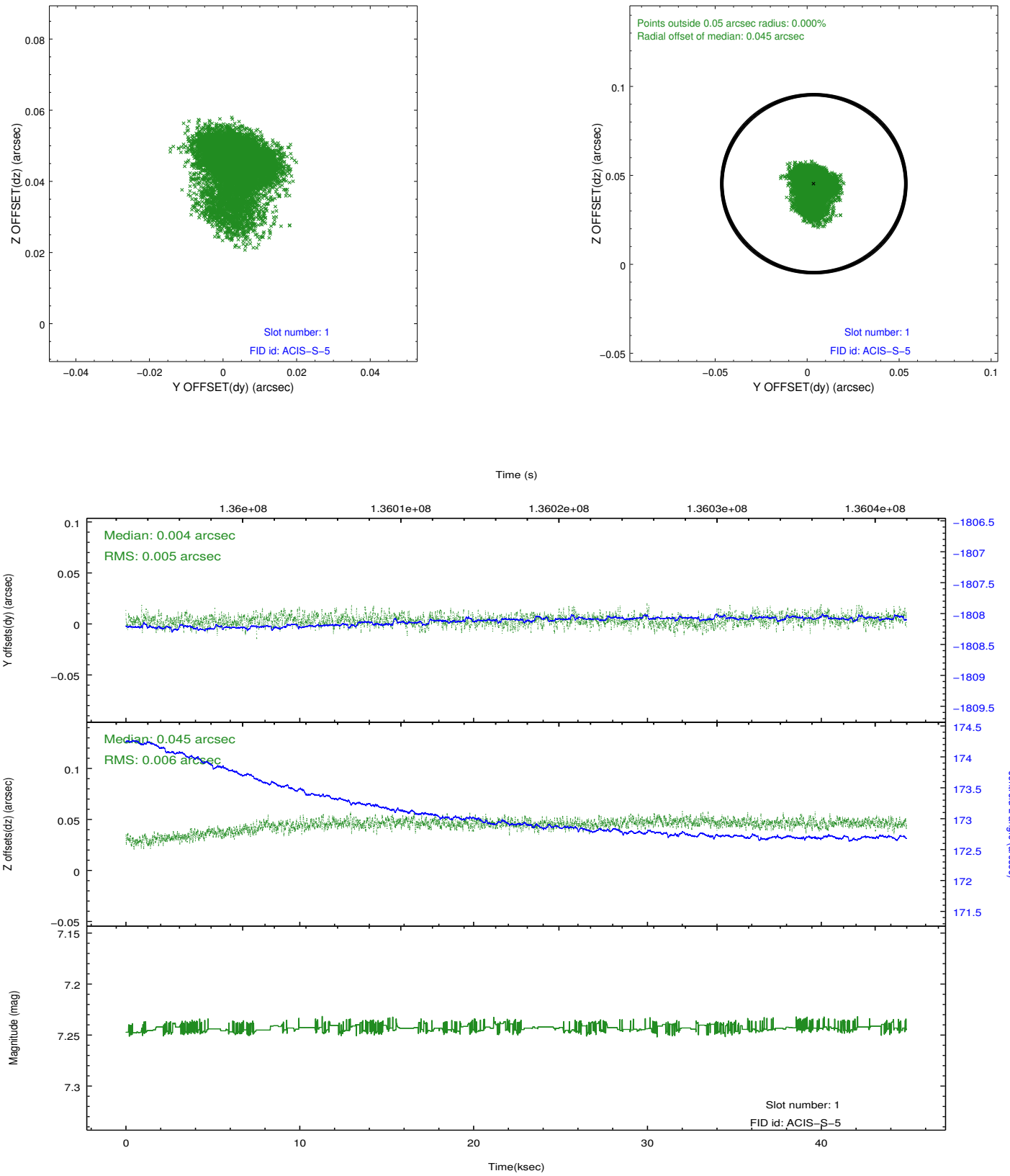


## 2.5 FID Slots

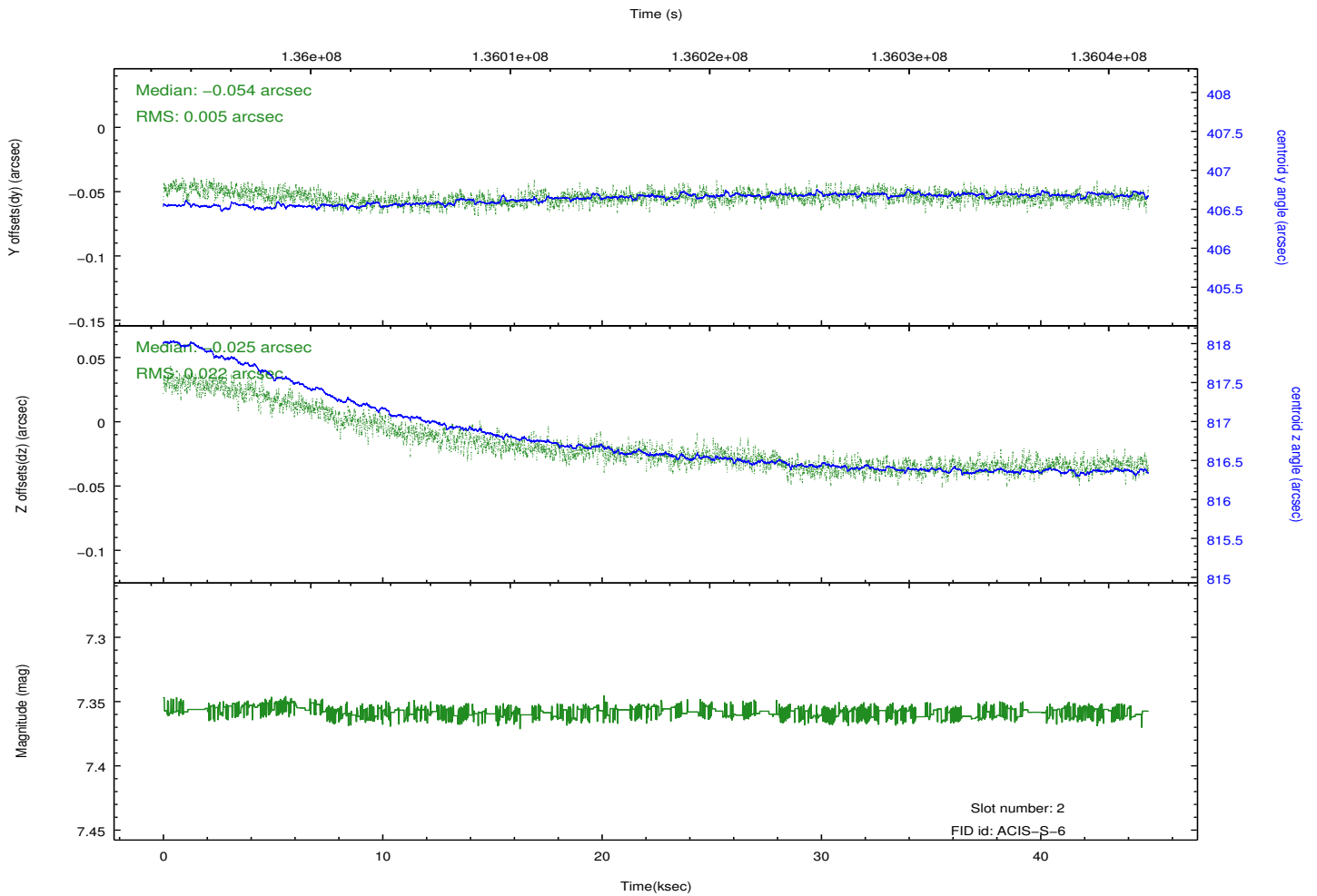
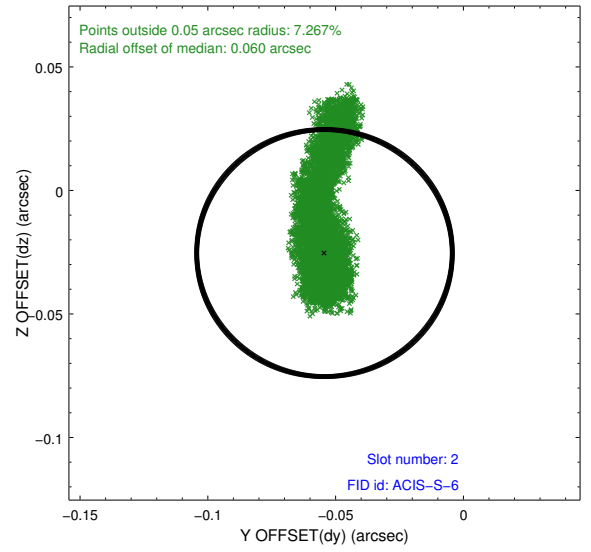
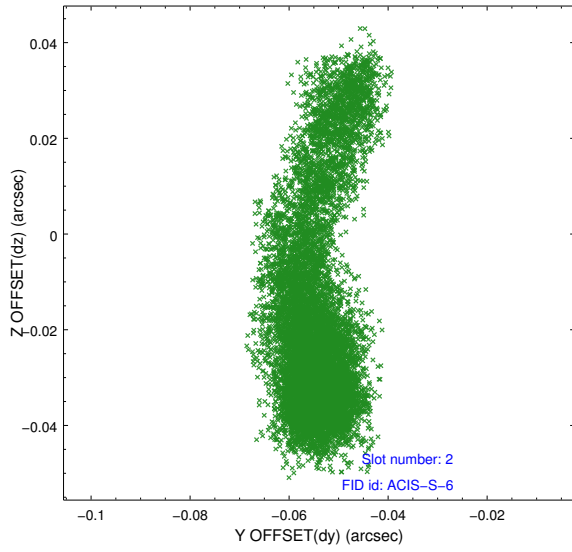
### 2.5.1 Slot 0



## 2.5.2 Slot 1

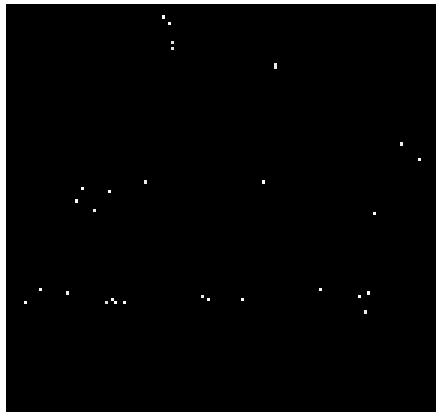


### 2.5.3 Slot 2

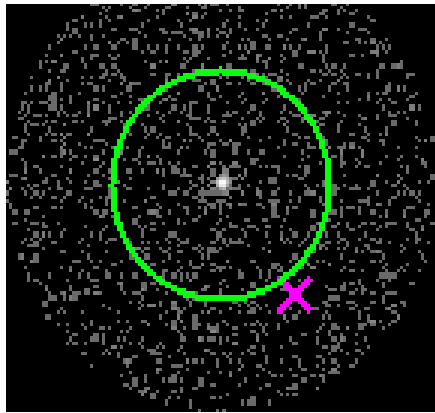


### 3 Gratings

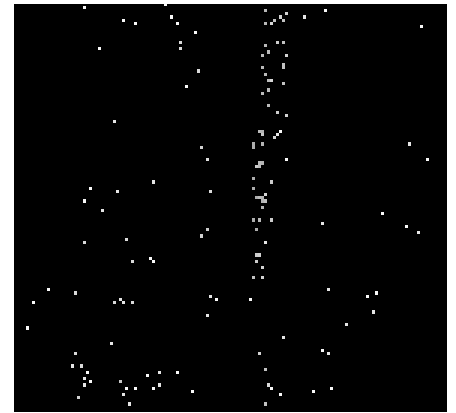
#### 3.1 HEG Arm



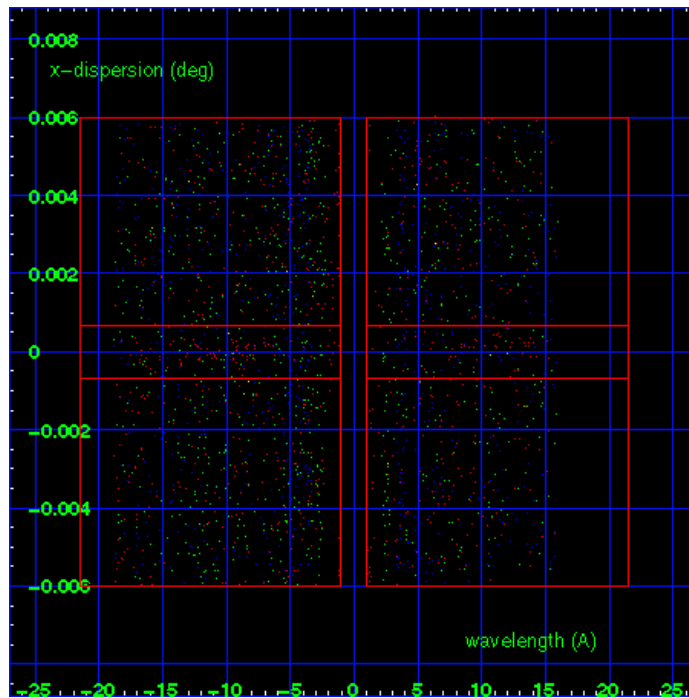
HEG Order Sort 123



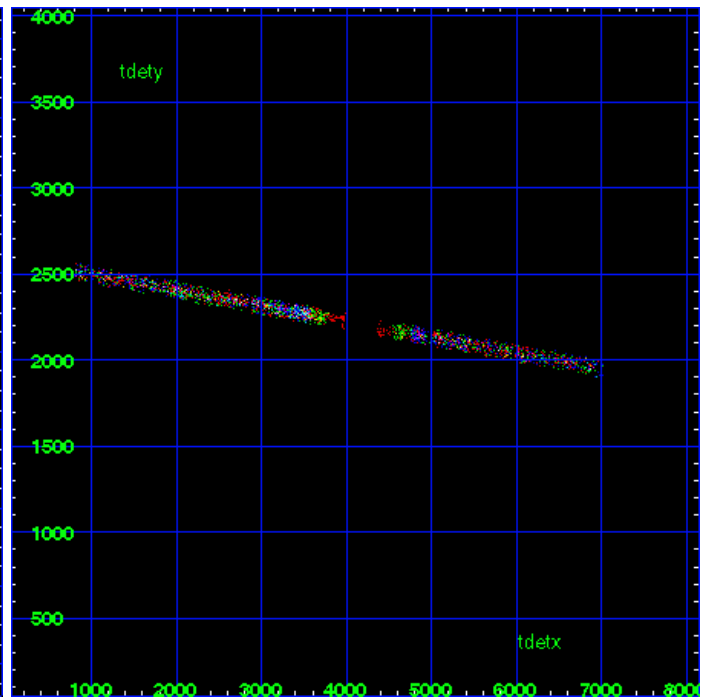
HEG Zero Order



HEG Order Sort ALL

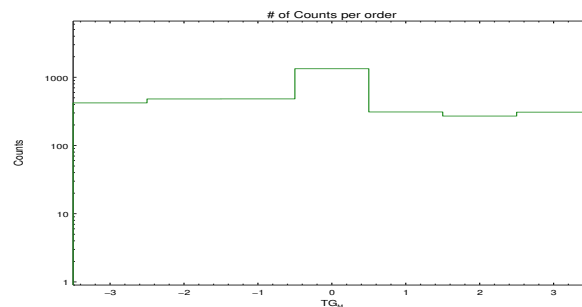


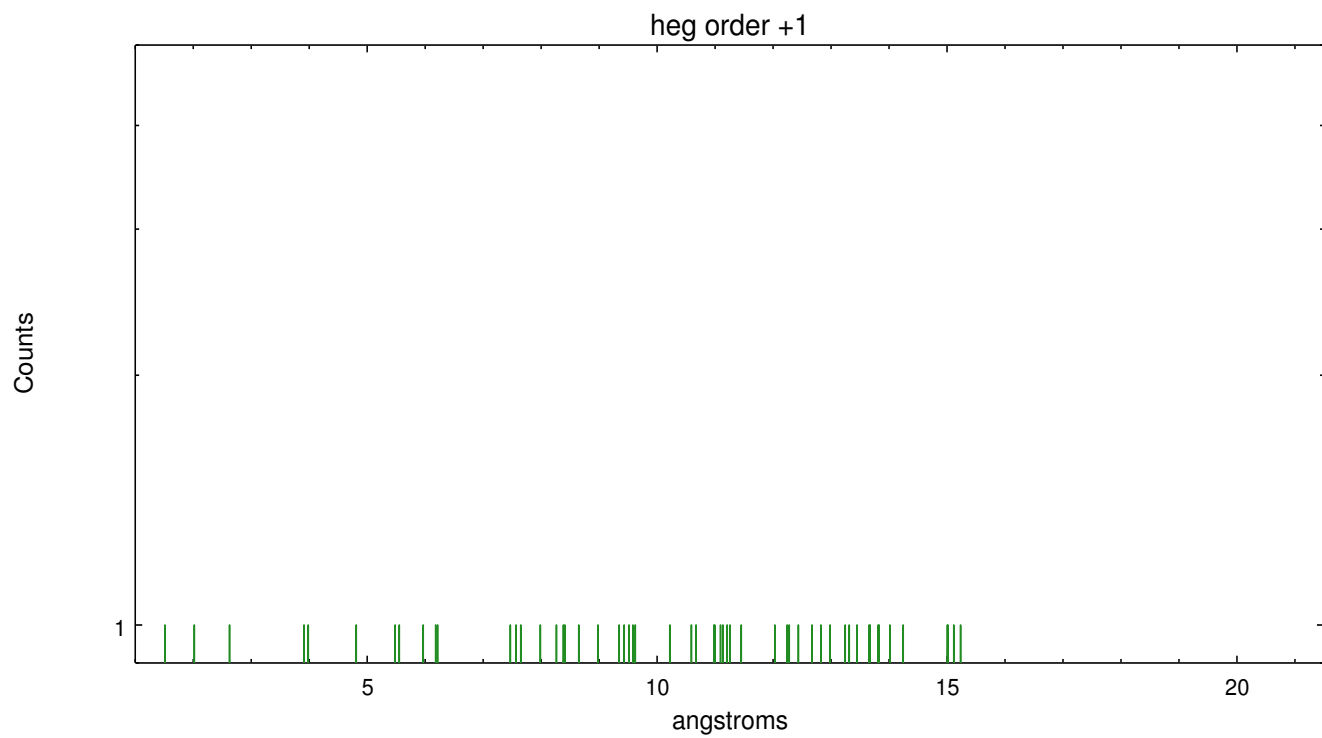
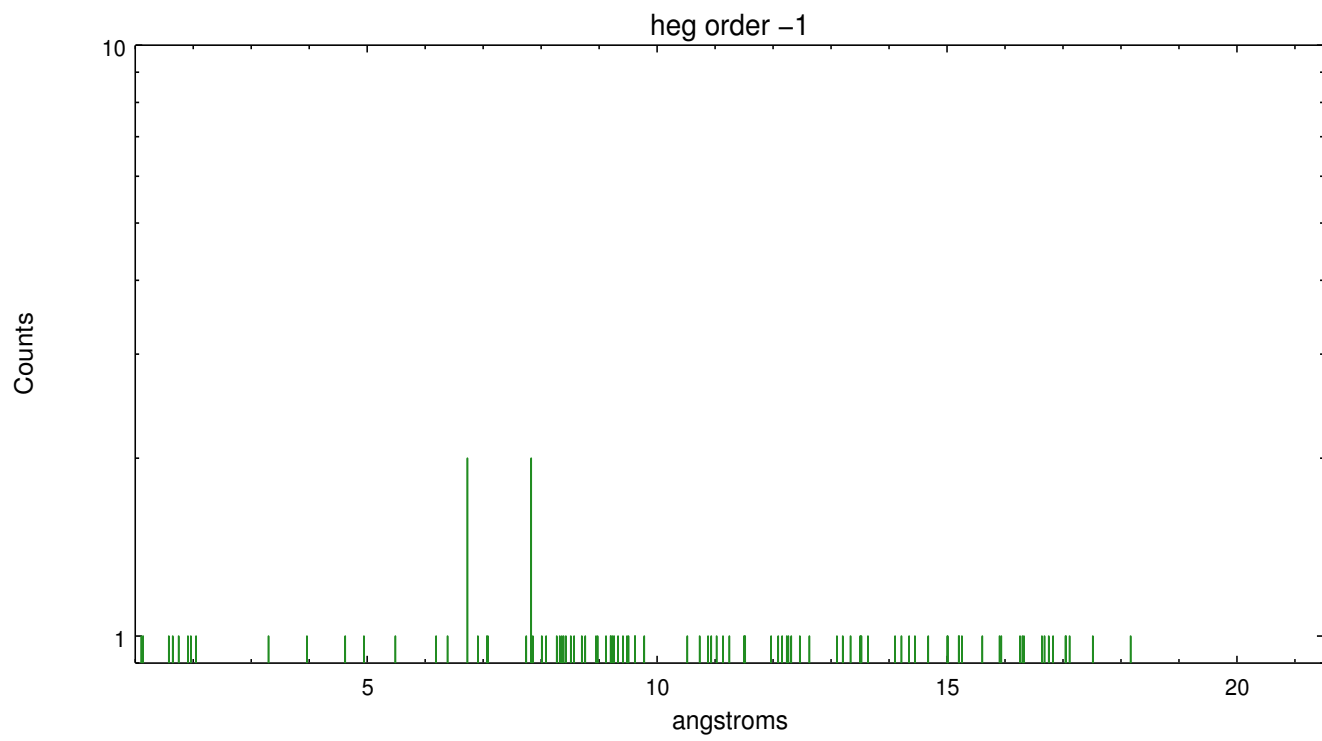
Spot Image HEG



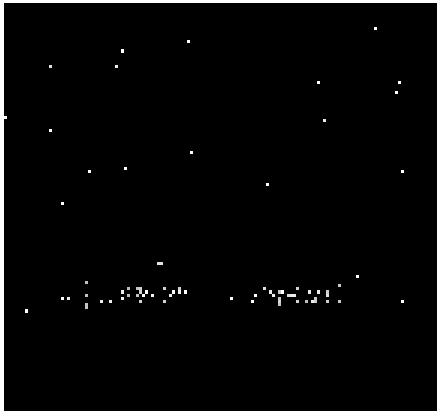
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	421	481	482	1334	310	270	308

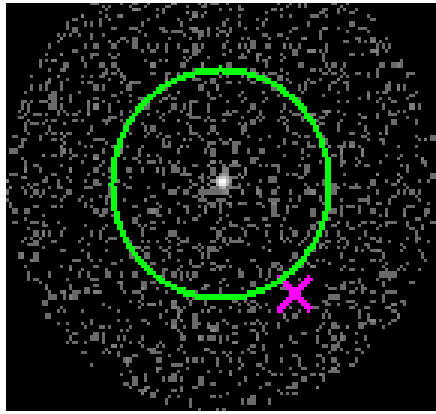




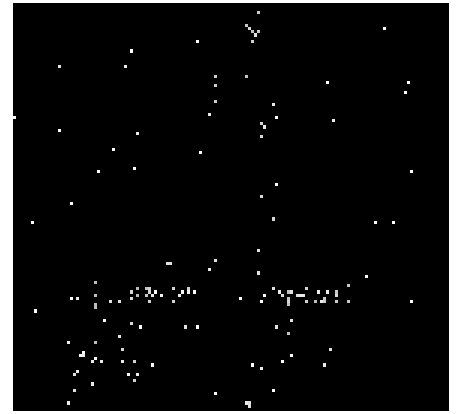
### 3.2 MEG Arm



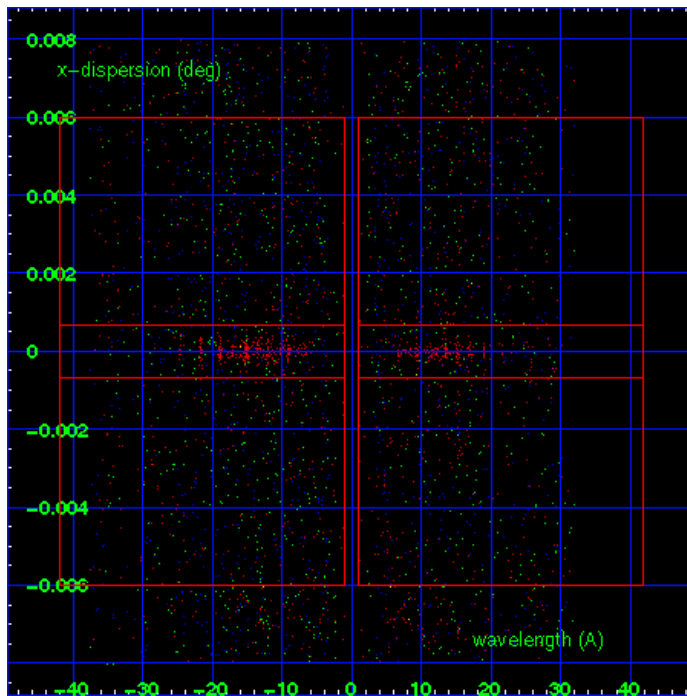
MEG Order Sort 123



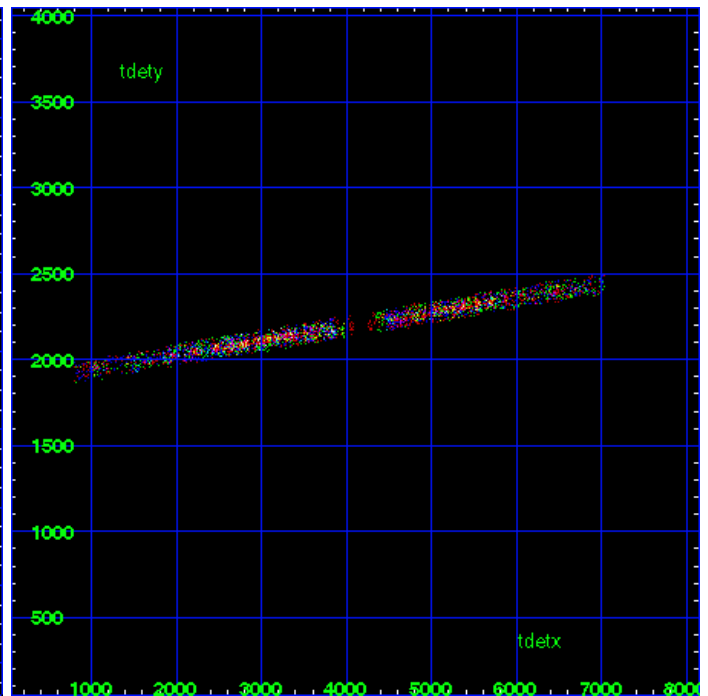
MEG Zero Order



MEG Order Sort ALL

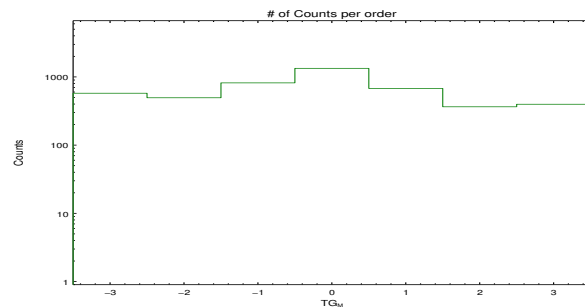


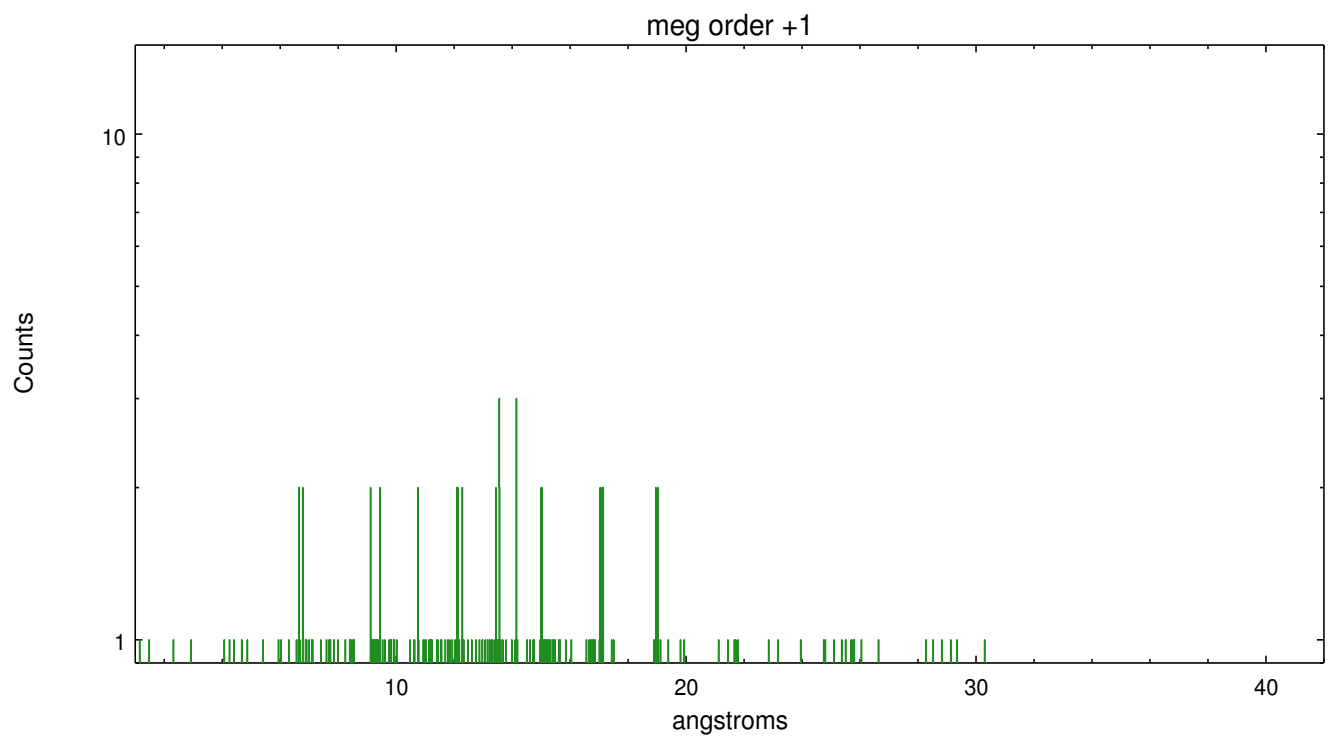
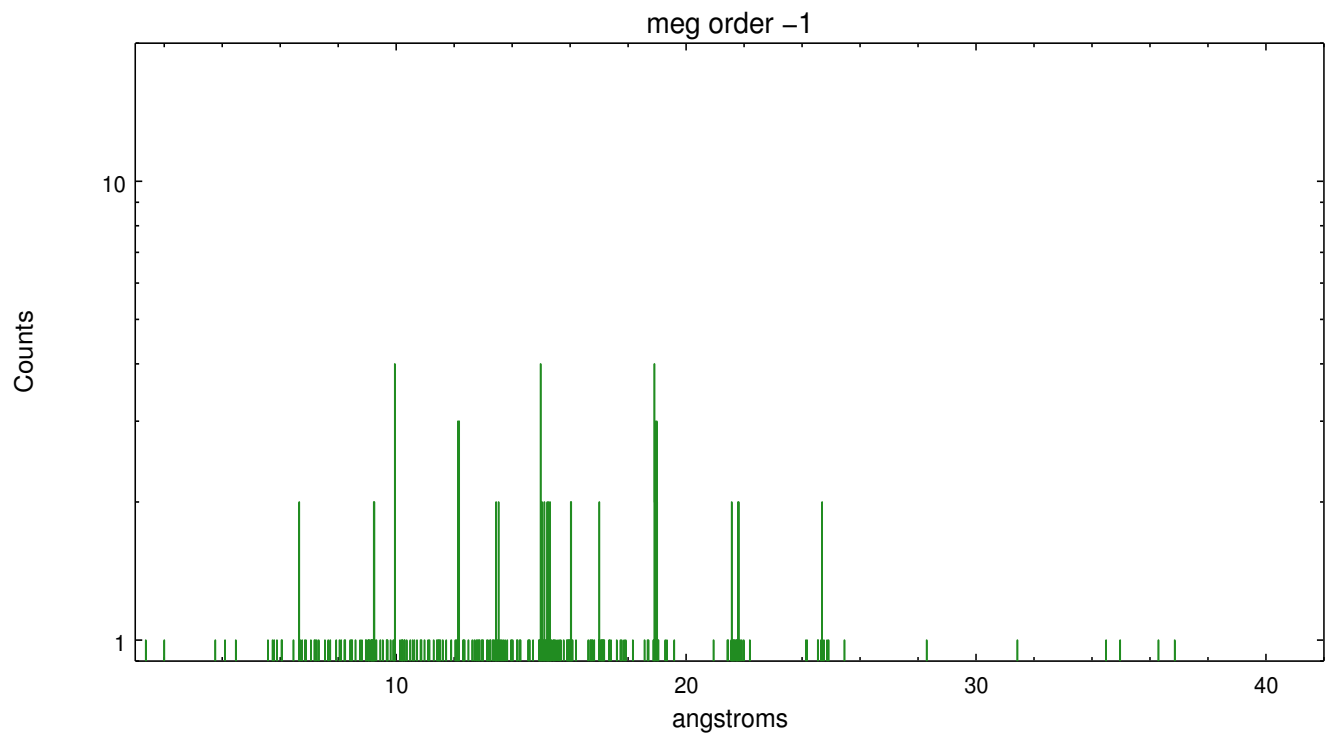
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	576	495	818	1334	678	365	397





# 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	44.457

## A.2 Comments

Multiple sources. Extraction is of tau CMa. Multiple sources in the field may cause contamination of the primary extraction at some wavelengths. Additional sources in field (zeroth order only).