

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10846 - L2 Version 2  
Chandra X-Ray Center

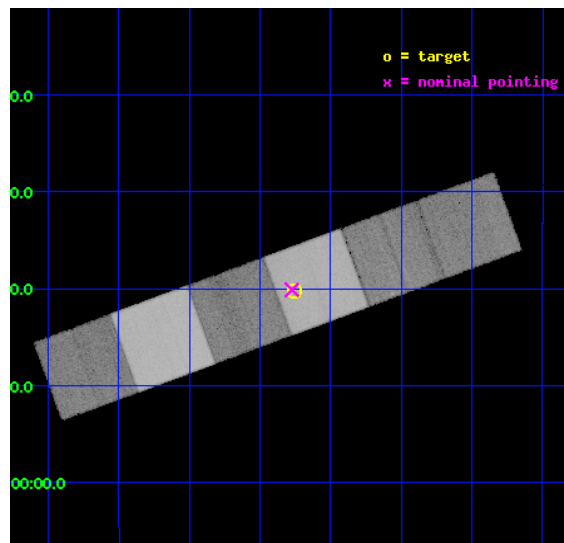
L2 Processing Date : May 30 2012

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# 1 Front

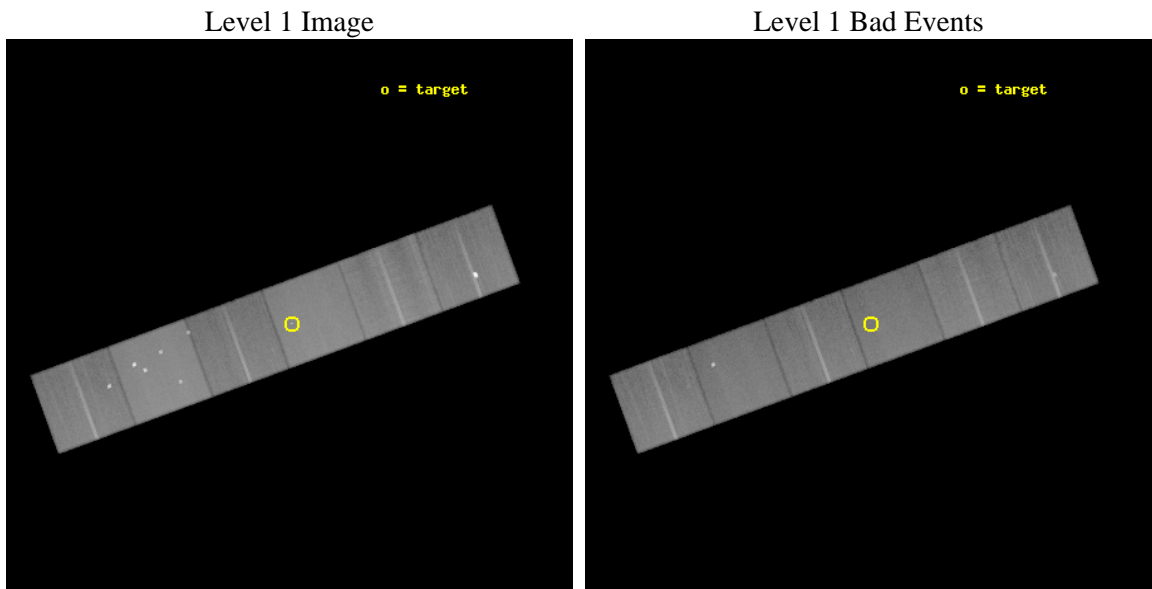
seq_num	200555	Sequence number
obs_id	10846	Observation id
title	Using a Cool B Supergiant to Probe the Deepest X-Ray Emitting Layers of a Dense Stellar Wind	Proposal title
observer	Dr Wayne Waldron	Principal investigator
object	Kappa Ori	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	86.93875	Observer's specified target RA [deg]
dec_targ	-9.669722	Observer's specified target Dec [deg]
ra_nom	86.943559063371	Nominal RA [deg]
dec_nom	-9.6687514145234	Nominal Dec [deg]
roll_nom	339.86979961743	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39836.799851656	Sum of GTIs [s]
livetime	39332.362305093	Livetime [s]
ontime4	39833.55882144	Sum of GTIs [s]
ontime5	39836.799851656	Sum of GTIs [s]
ontime6	39836.799851656	Sum of GTIs [s]
ontime7	39836.799851656	Sum of GTIs [s]
ontime8	39836.799851656	Sum of GTIs [s]
ontime9	39836.799851656	Sum of GTIs [s]
l2events	685506	Number of level 2 events



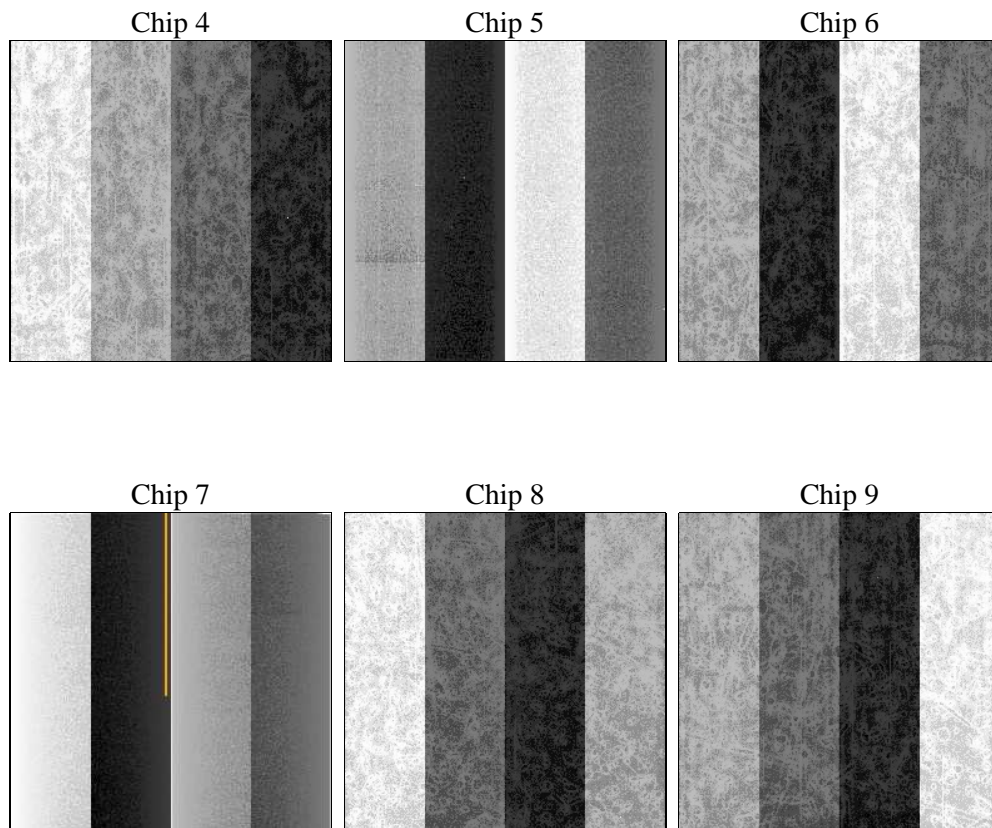
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	39694.230000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	39836.799851656	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime4	39833.55882144	Sum of GTIs [s]
date	2012-05-29T19:06:00	Date and time of file creation	ontime5	39836.799851656	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	39836.799851656	Sum of GTIs [s]
			ontime7	39836.799851656	Sum of GTIs [s]
			ontime8	39836.799851656	Sum of GTIs [s]
			ontime9	39836.799851656	Sum of GTIs [s]
			l1events	3143885	Number of level 1 events

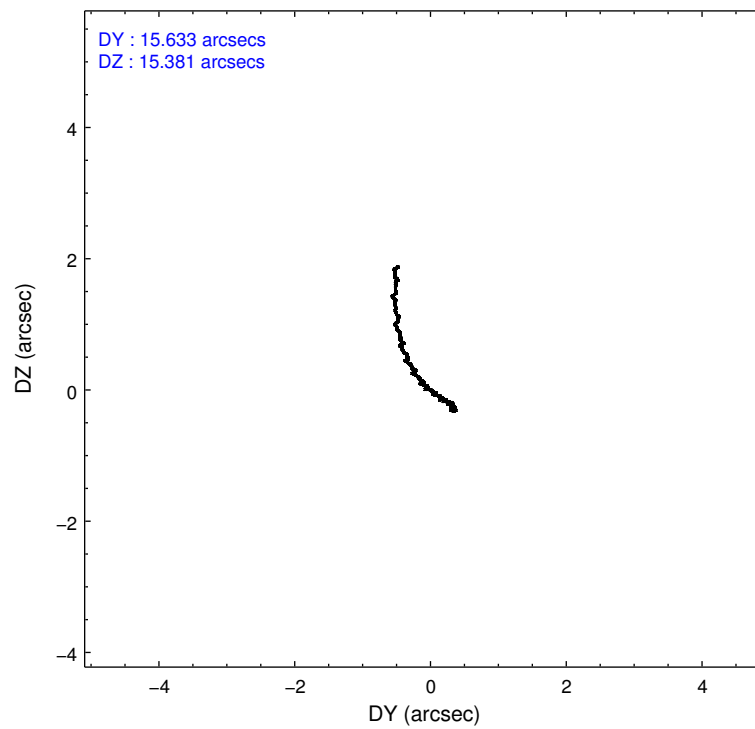
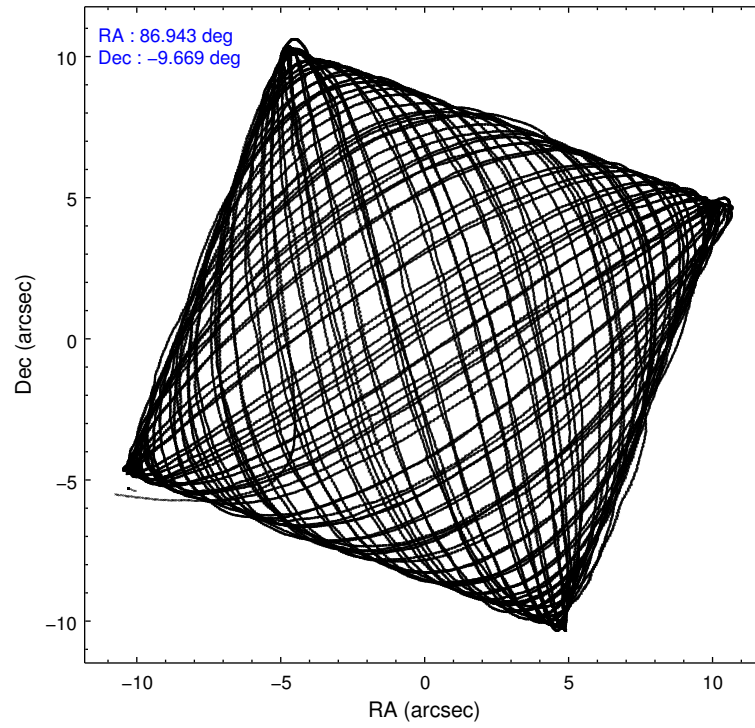
### 2.1.4 Events

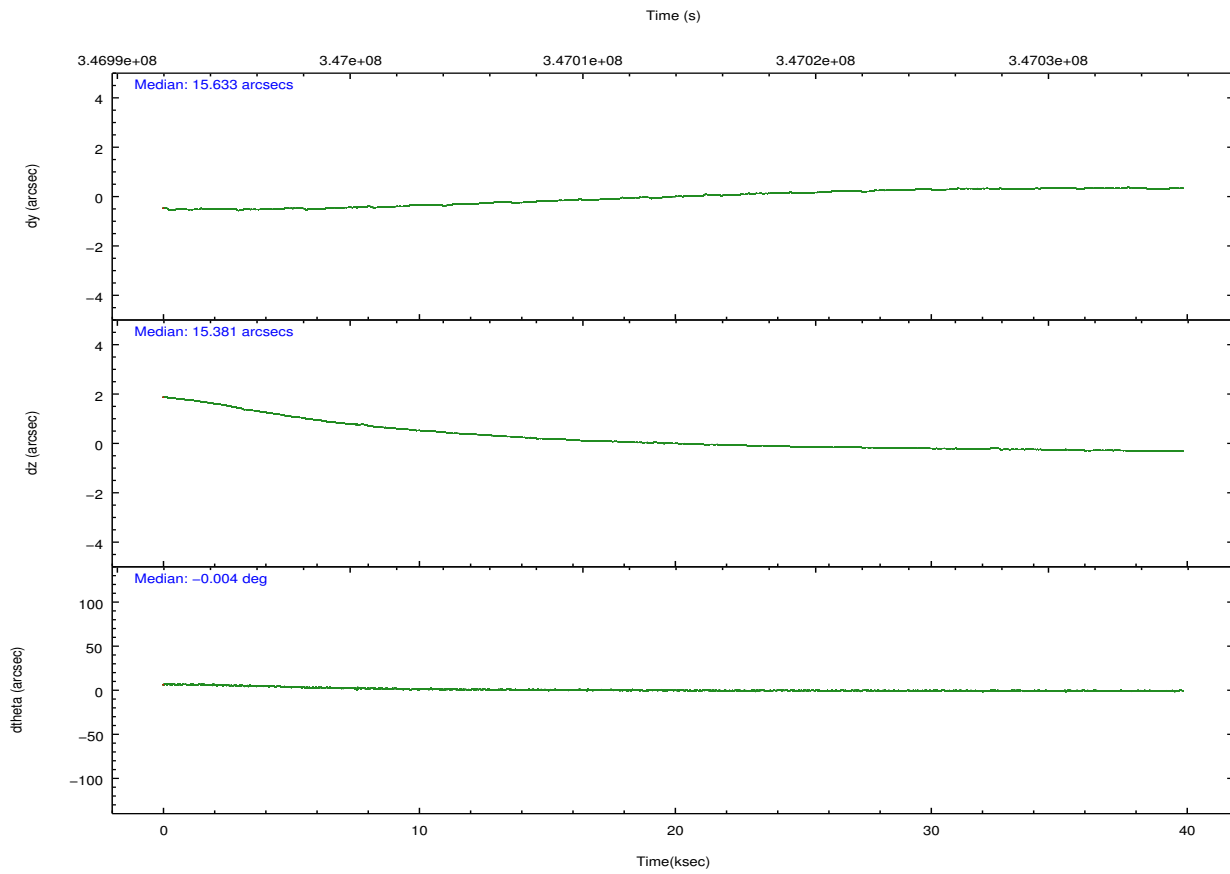
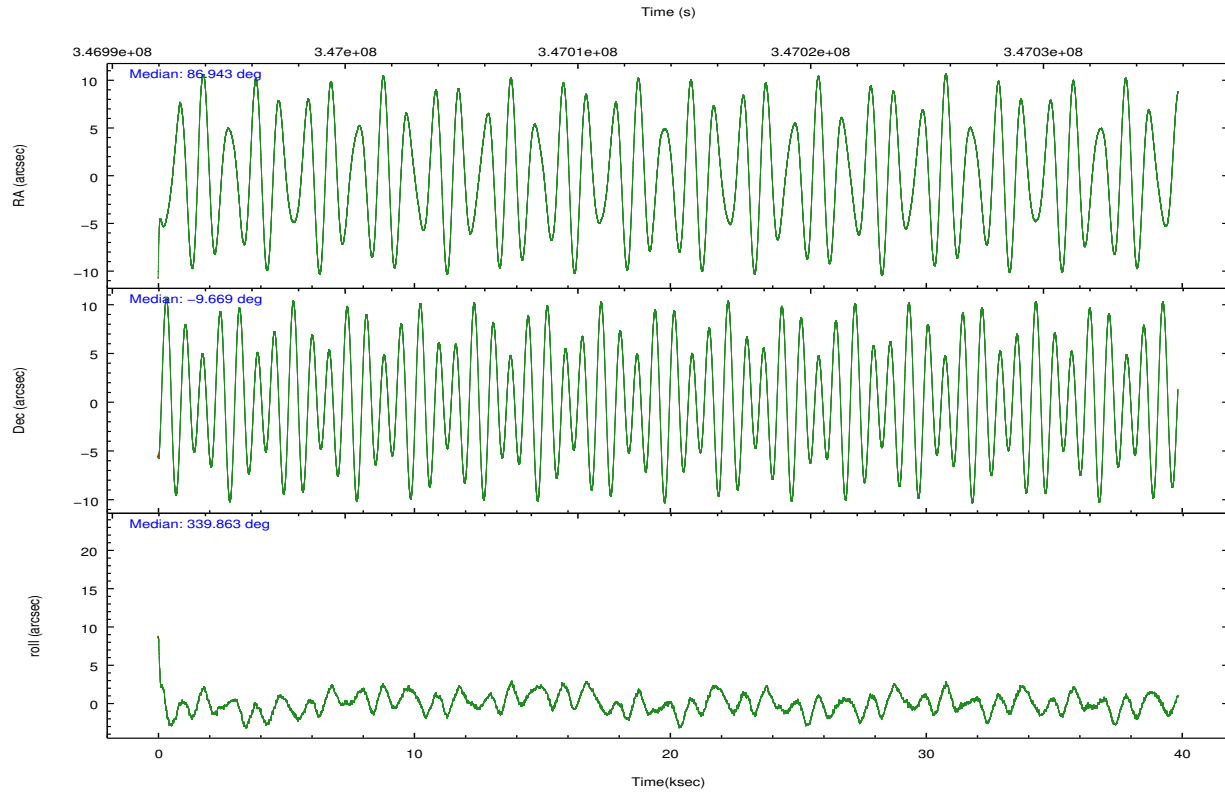
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	466568	674177	413567	575523	531095	482955	grade 0 events	33674	44937	19052	20175	37440	20886
rejected events	403520	358378	364404	339387	411161	369853		7%	6%	4%	3%	7%	4%
rejected %	86%	53%	88%	58%	77%	76%	grade 1 events	609	963	218	620	459	265
								0%	0%	0%	0%	0%	0%
							grade 2 events	11266	92254	11185	48891	27871	72937
								2%	13%	2%	8%	5%	15%
							grade 3 events	5185	13547	4576	20092	12297	4951
								1%	2%	1%	3%	2%	1%
							grade 4 events	4942	10572	4584	19645	11443	4866
								1%	1%	1%	3%	2%	1%
							grade 5 events	19834	47003	19896	54660	26928	21981
								4%	6%	4%	9%	5%	4%
							grade 6 events	8510	157302	10180	129413	31961	10406
								1%	23%	2%	22%	6%	2%
							grade 7 events	382548	307599	343876	282027	382696	346663
								81%	45%	83%	49%	72%	71%

## 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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	86.916314	86.94355906337141	CCD I2 on	N	N
[deg] Pointing Dec	-9.673802	-9.668751414523431	CCD I3 on	N	N
[deg] Pointing Roll	339.708593	339.8697996174301	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	346994089.184000	346992862.48966	CCD S5 on	O2	Y
Observation start date	2008-12-30T03:13:44	2008-12-30T02:54:22	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	347033783.184000	347034002.91669	On-chip summing requested	N	N
Observation end date	2008-12-30T14:15:18	2008-12-30T14:20:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



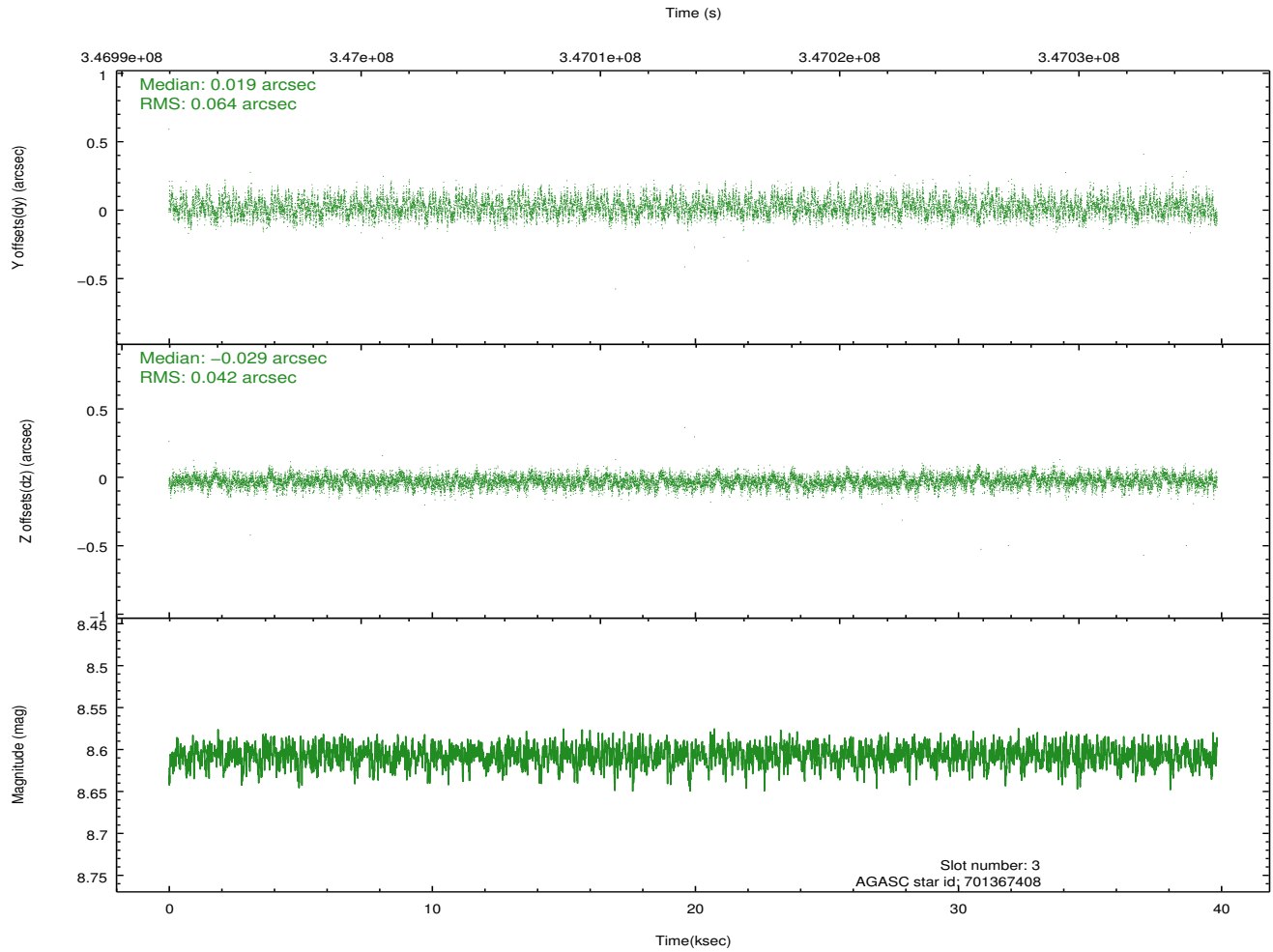
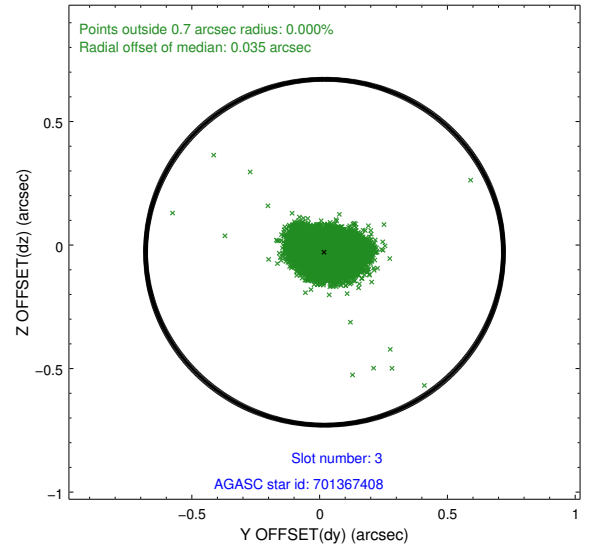
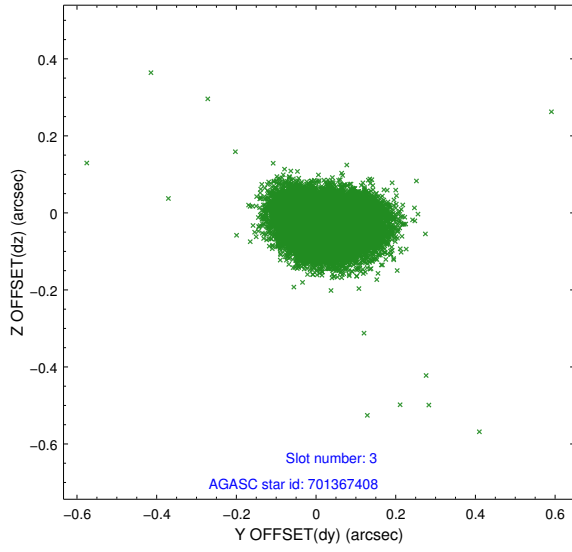


### Slot Statistics

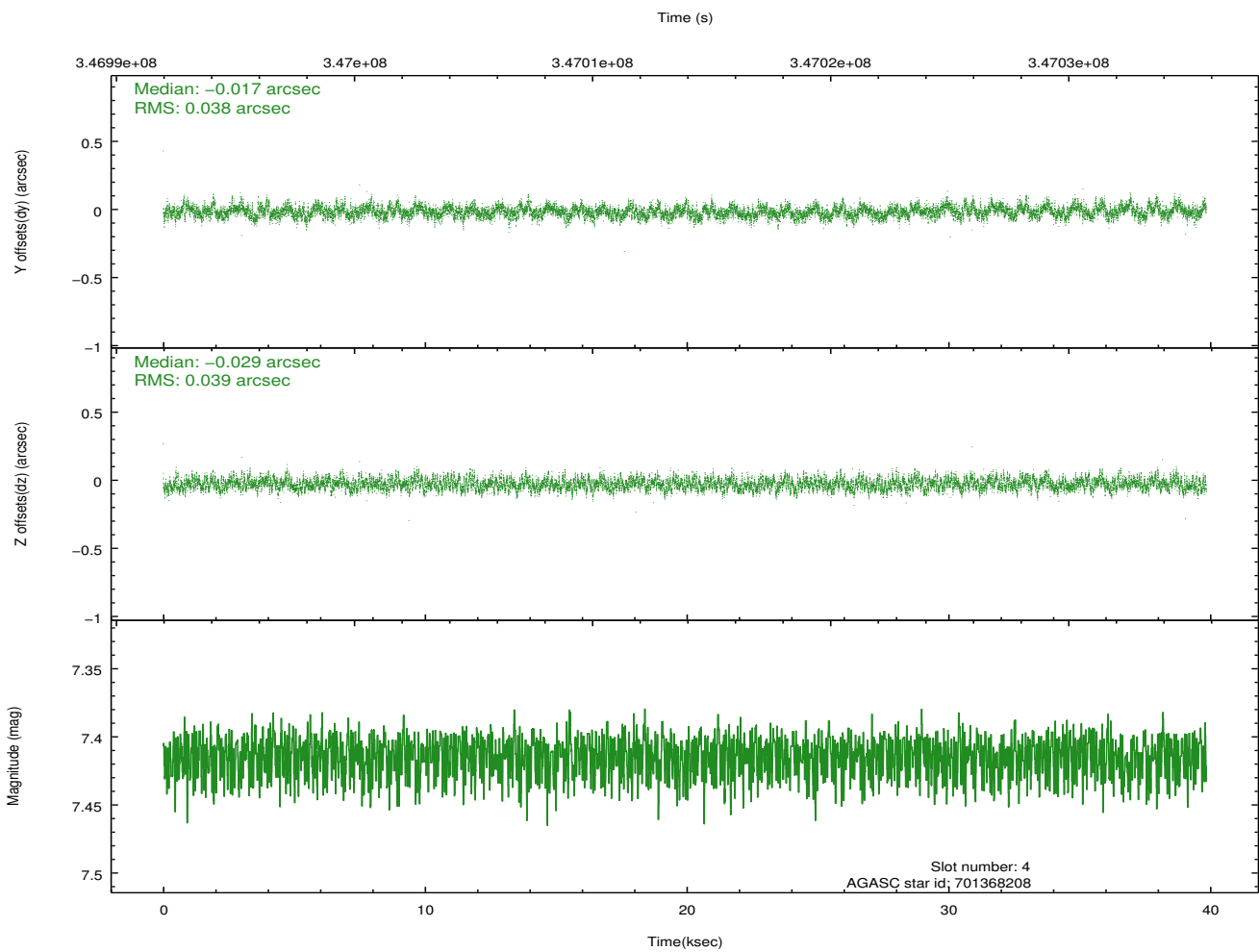
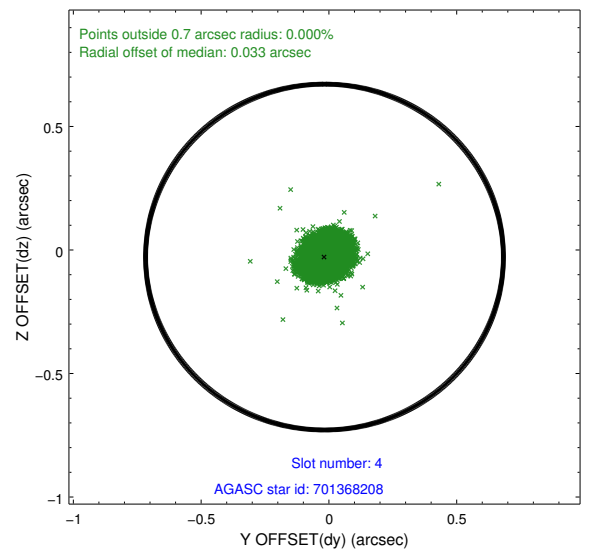
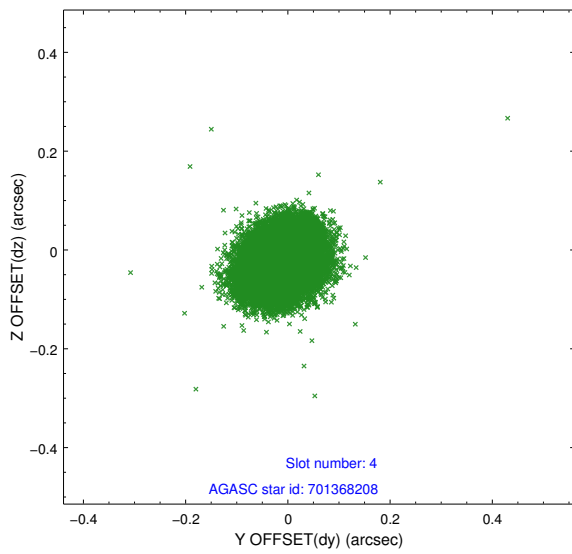
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	9719	-0.093	-0.011	0.013	0.034	0.000000	0.000000	-768.66	-1737.04
1	FID	ACIS-S-4	7.02	9719	0.177	0.046	0.012	0.025	0.000000	0.000000	2144.87	171.49
2	FID	ACIS-S-5	7.05	9718	-0.114	-0.028	0.021	0.043	0.000000	0.000000	-1821.51	165.10
3	GUIDE	701367408	8.61	19423	0.019	-0.029	0.080	0.130	87.317763	-10.299239	2115.87	-1618.89
4	GUIDE	701368208	7.41	19436	-0.017	-0.029	0.058	0.094	86.739759	-9.838895	-380.52	-774.93
5	GUIDE	701369896	8.97	19420	-0.106	0.109	0.093	0.150	87.316713	-9.377889	964.90	1491.92
6	GUIDE	701371368	8.51	19422	-0.010	0.009	0.071	0.115	87.172717	-10.269772	1596.41	-1697.00
7	GUIDE	701369032	8.62	19416	0.110	-0.061	0.099	0.145	87.612873	-9.684453	2333.18	819.20

## 2.4 Star Slots

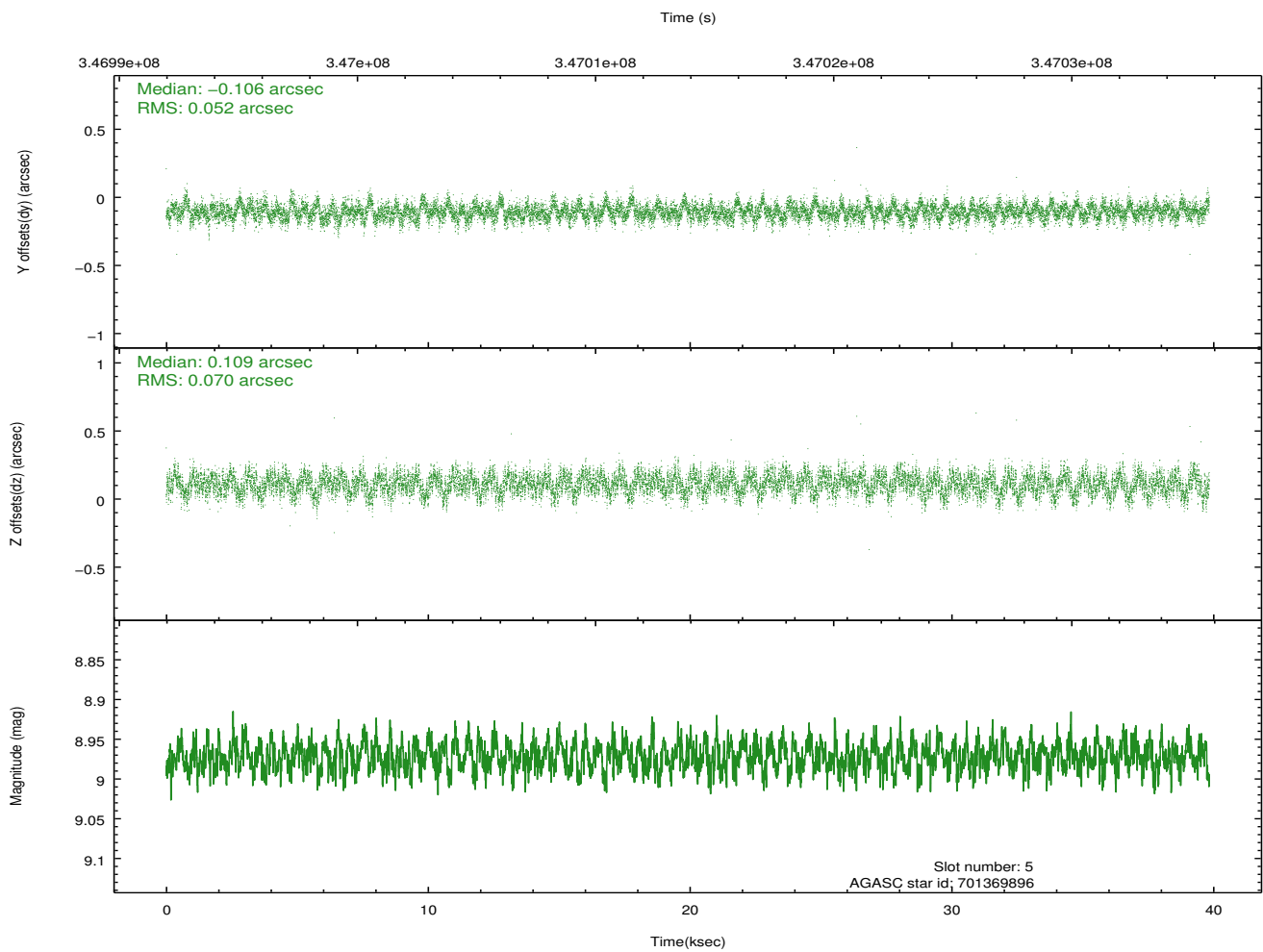
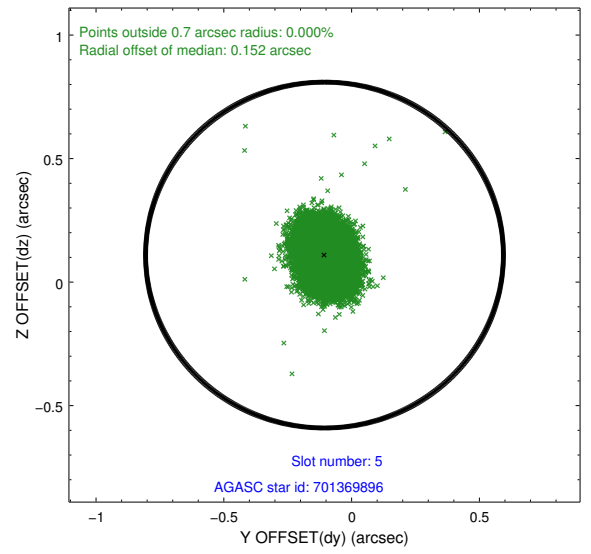
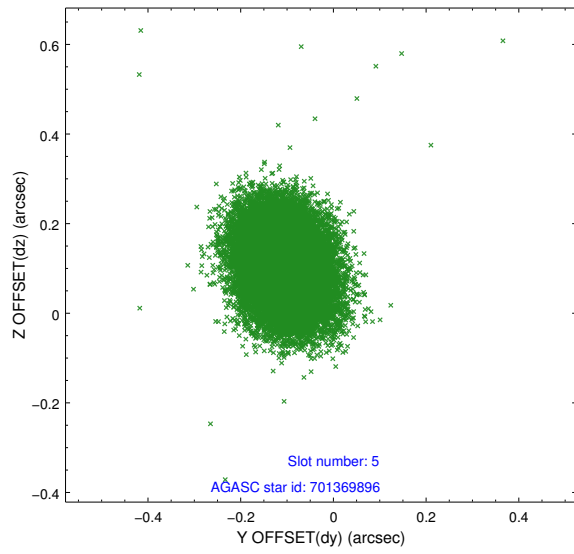
### 2.4.1 Slot 3



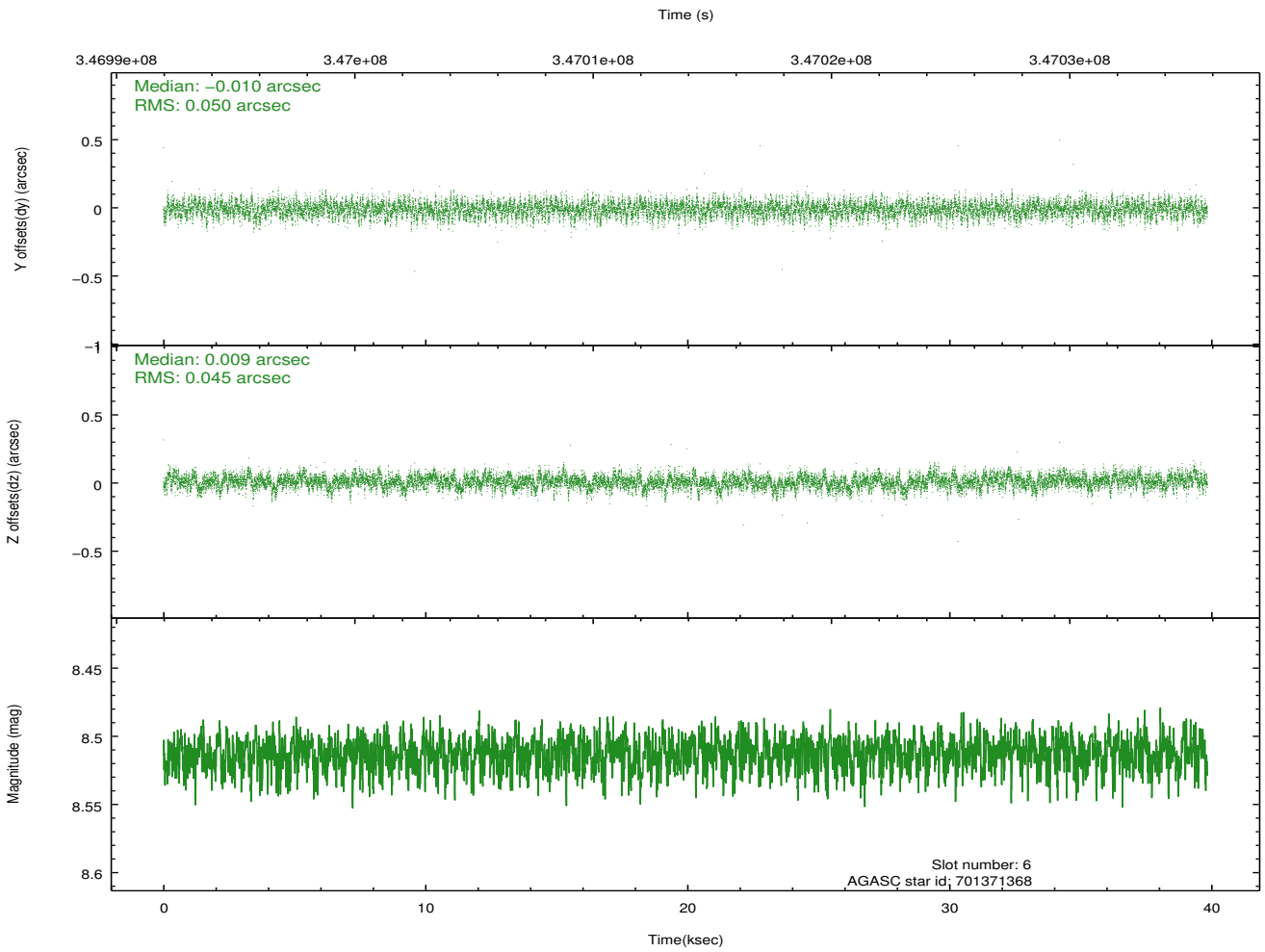
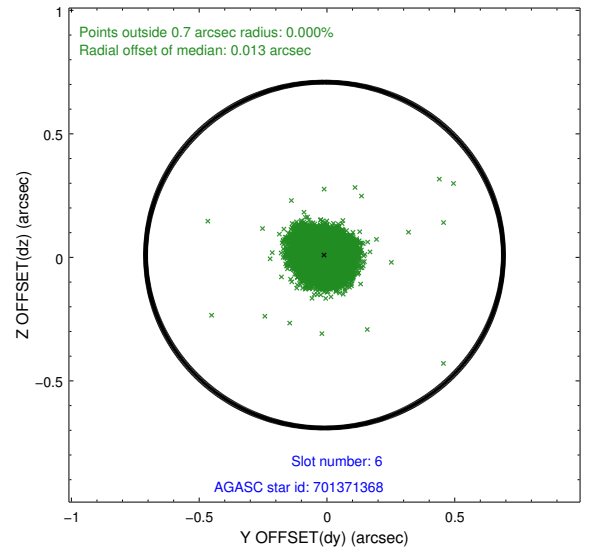
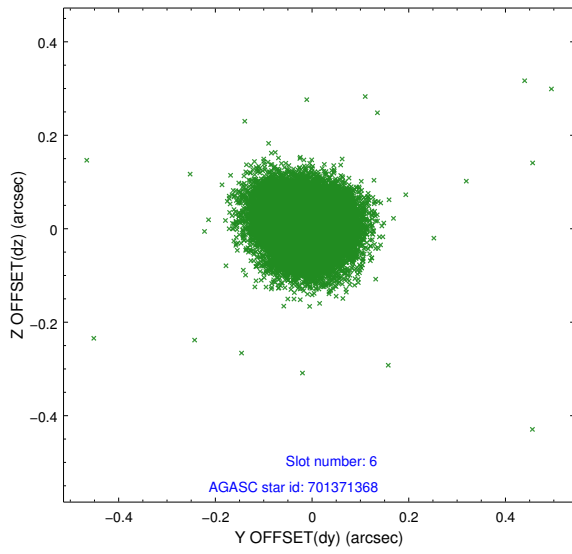
## 2.4.2 Slot 4



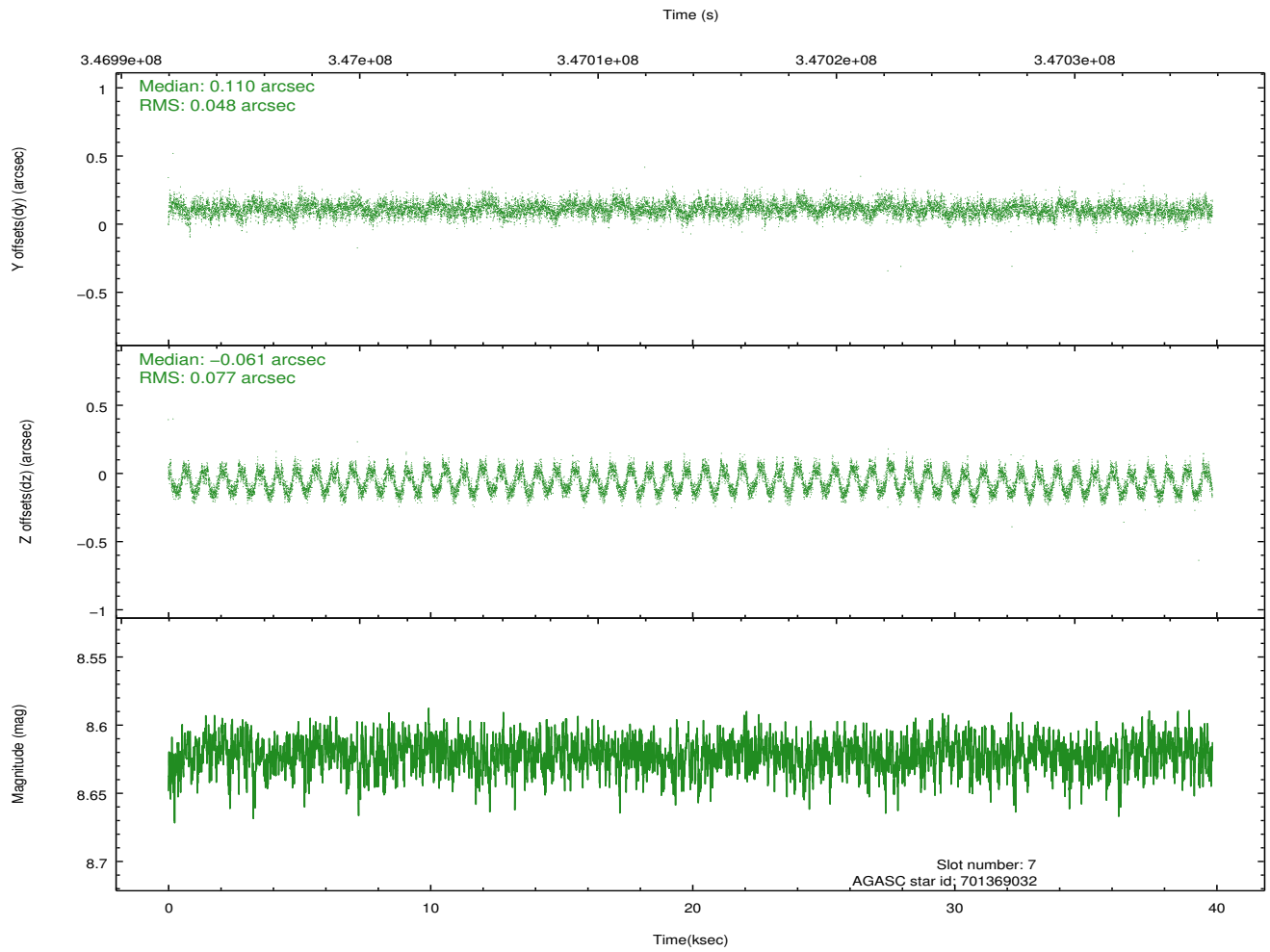
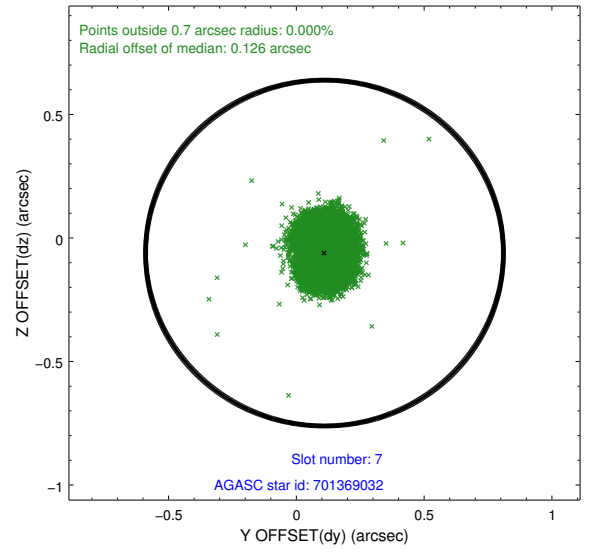
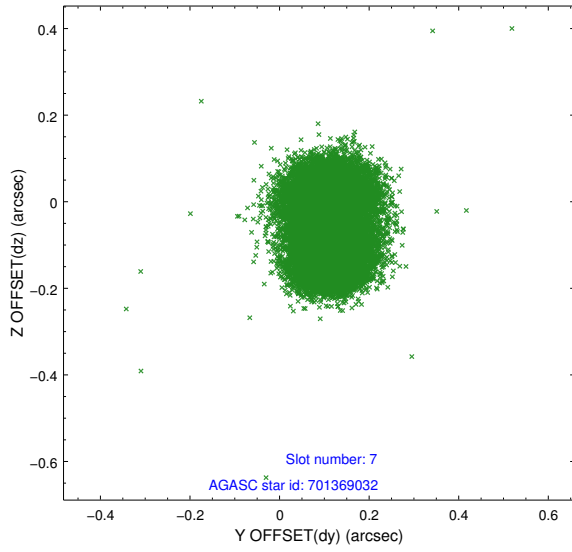
### 2.4.3 Slot 5



### 2.4.4 Slot 6

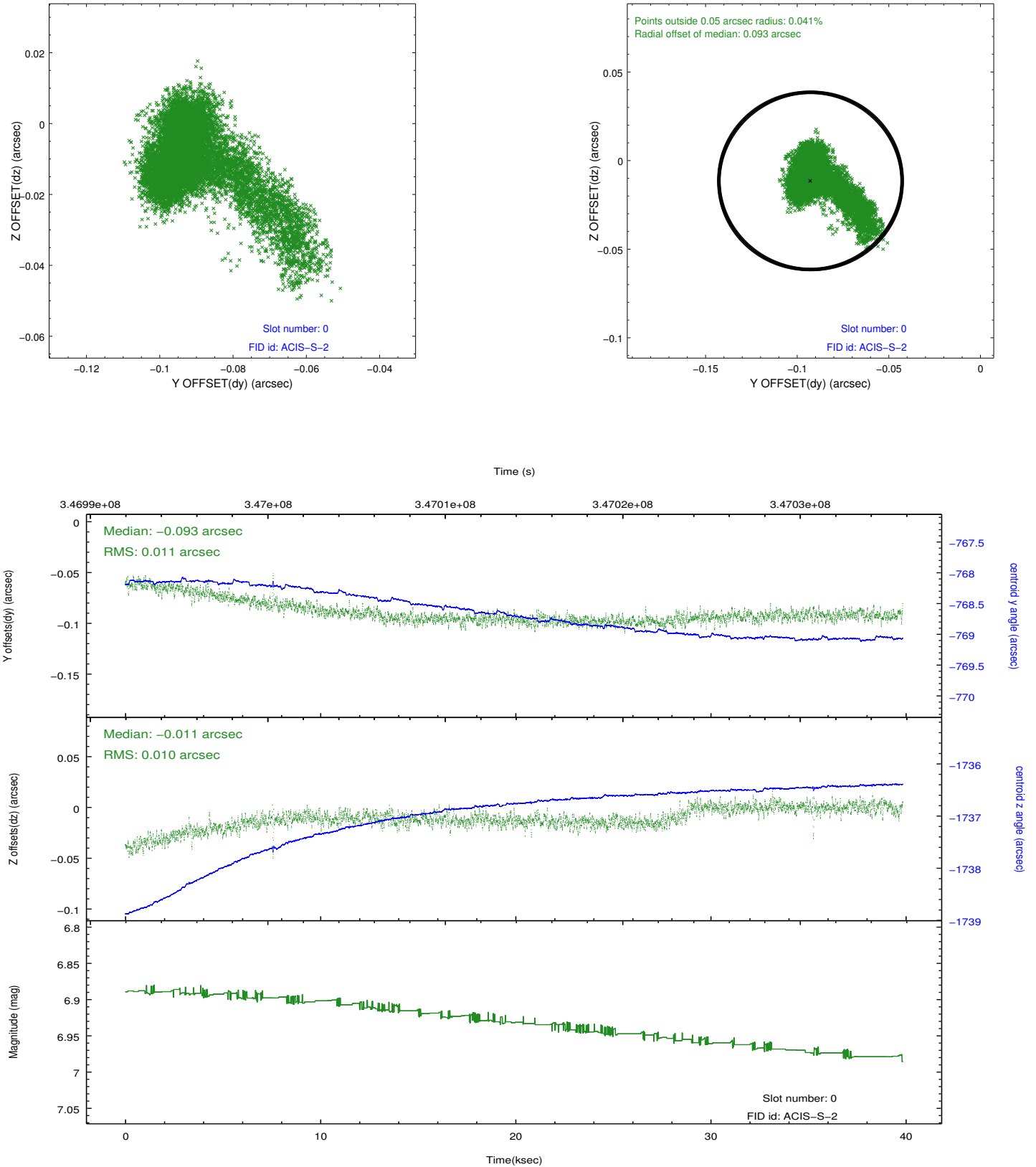


### 2.4.5 Slot 7

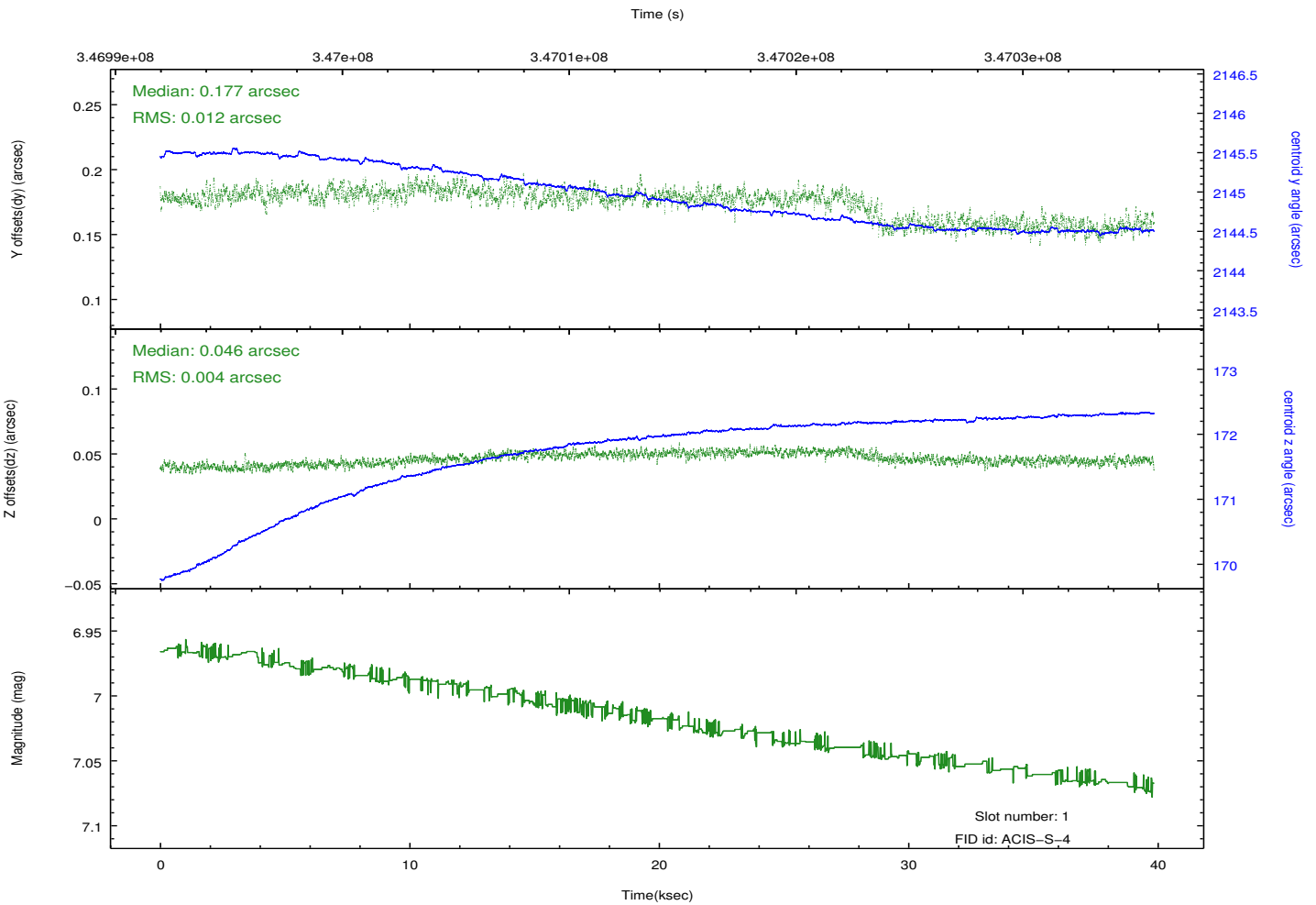
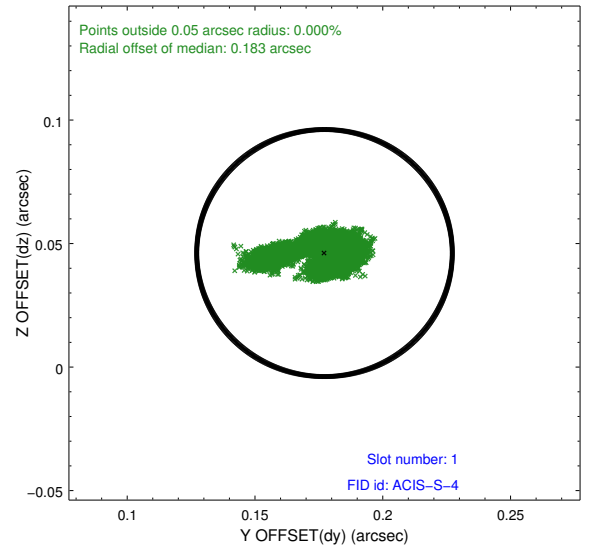
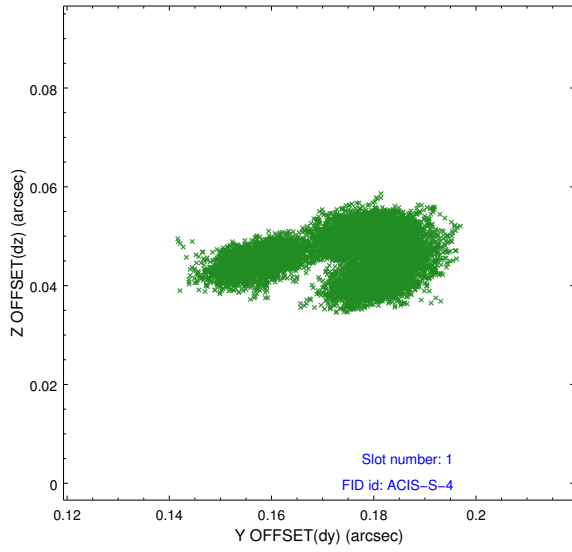


## 2.5 FID Slots

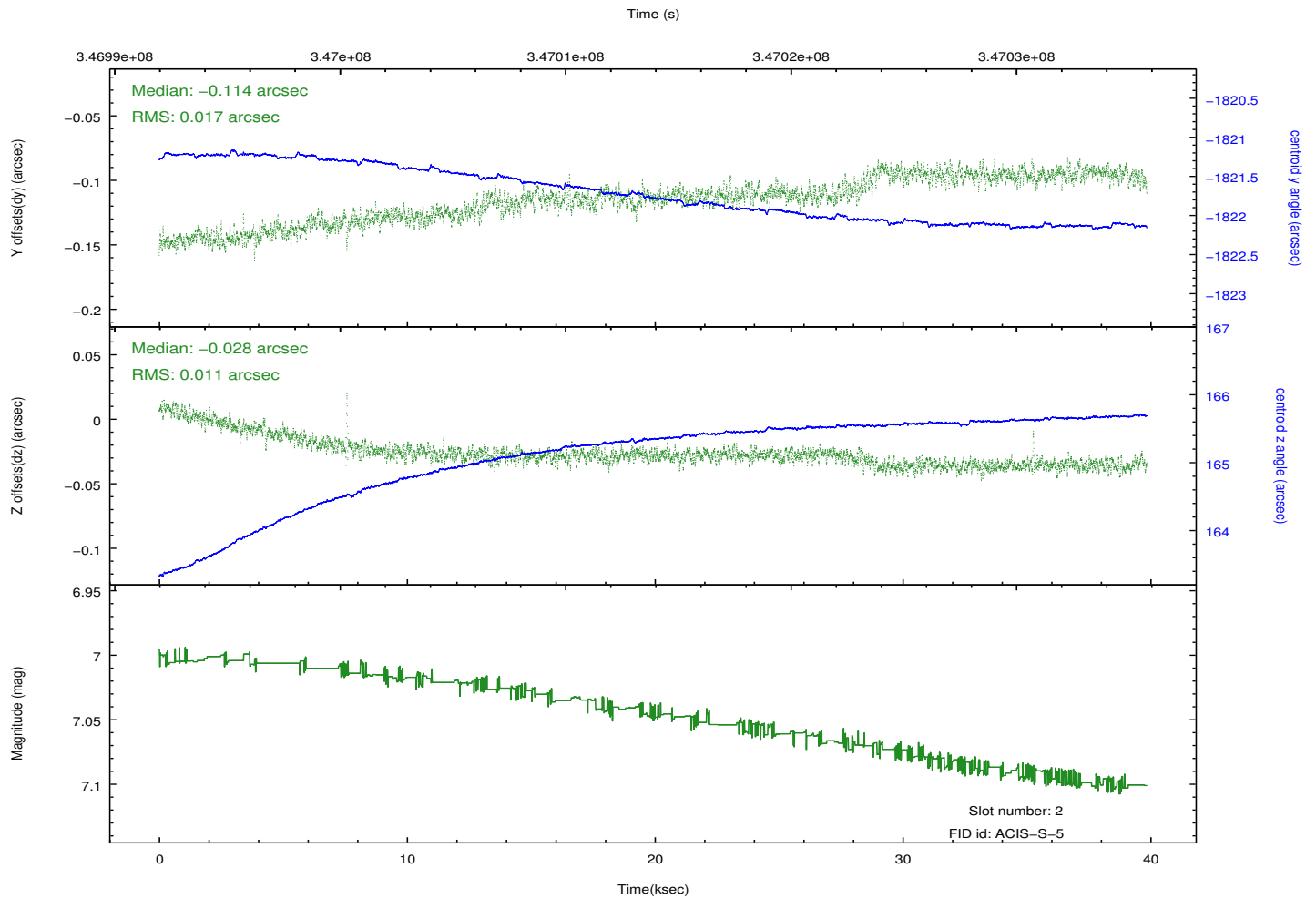
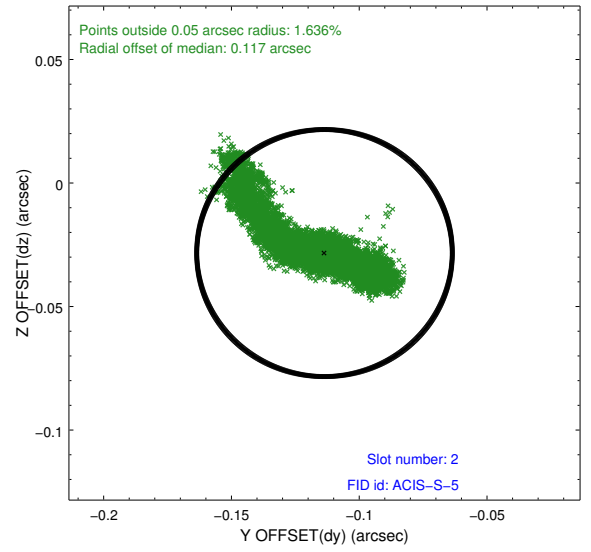
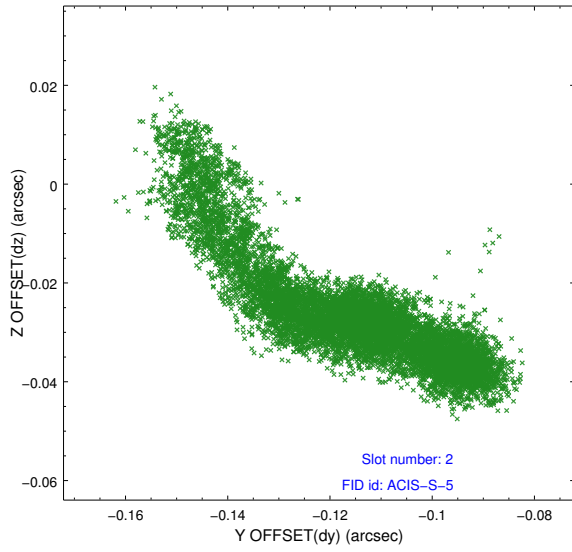
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

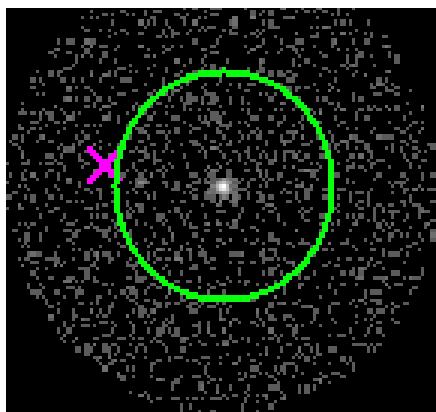


### 3 Gratings

#### 3.1 HEG Arm



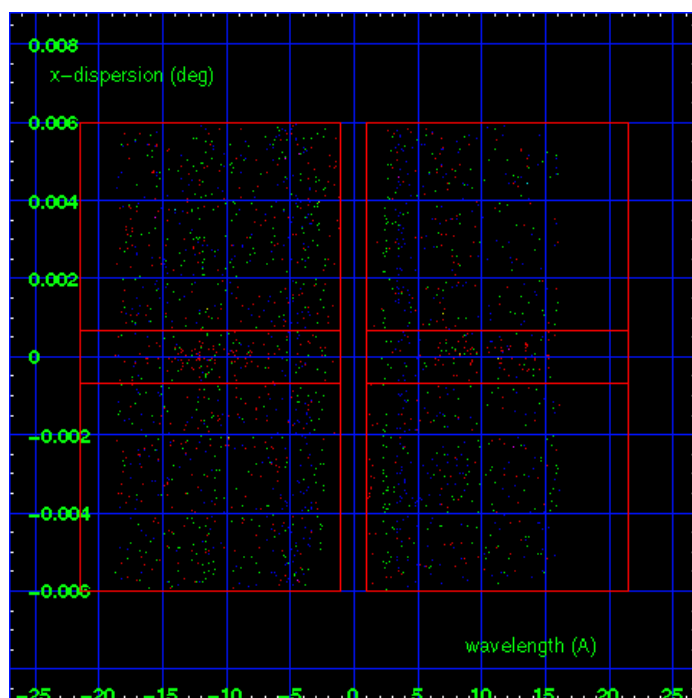
HEG Order Sort 123



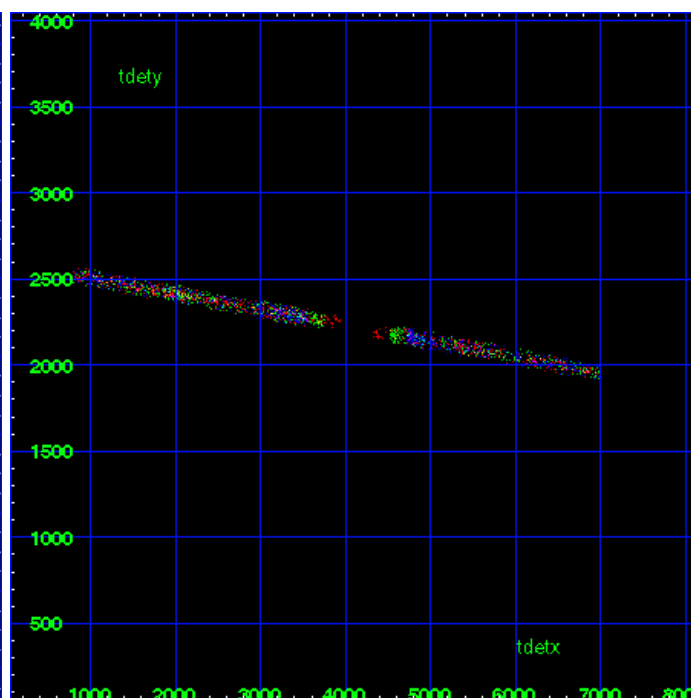
HEG Zero Order



HEG Order Sort ALL

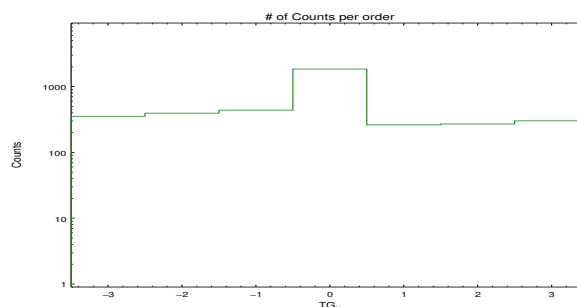


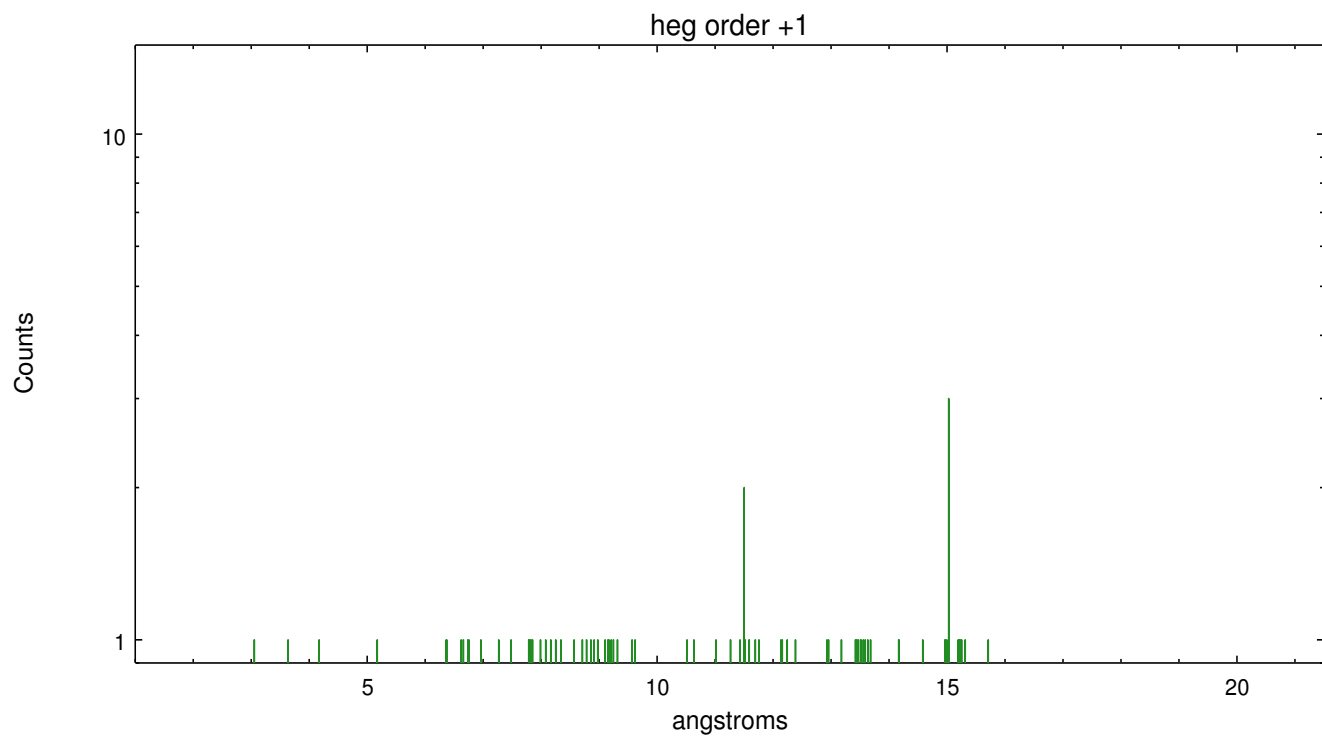
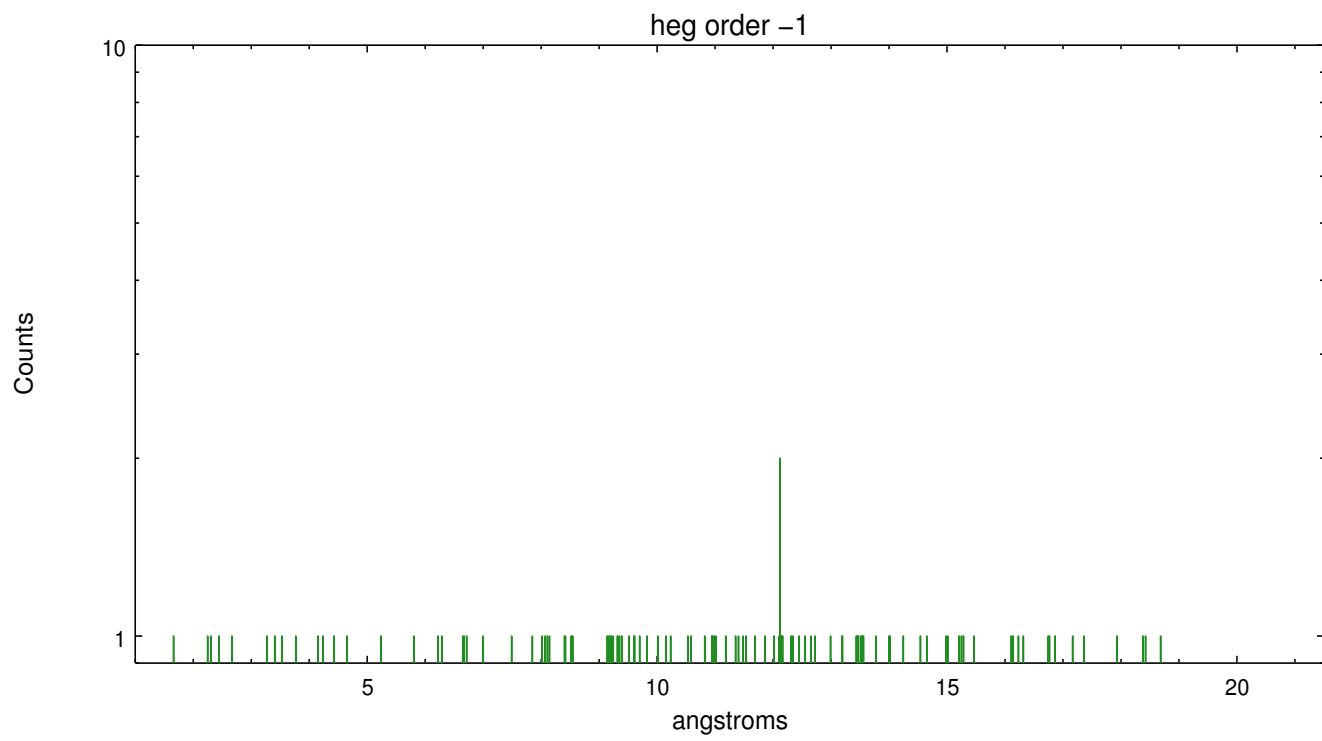
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	354	395	439	1849	262	270	302

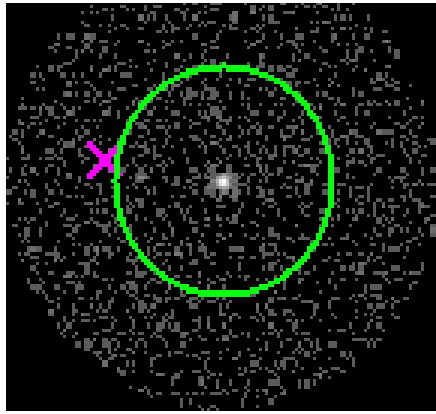




### 3.2 MEG Arm



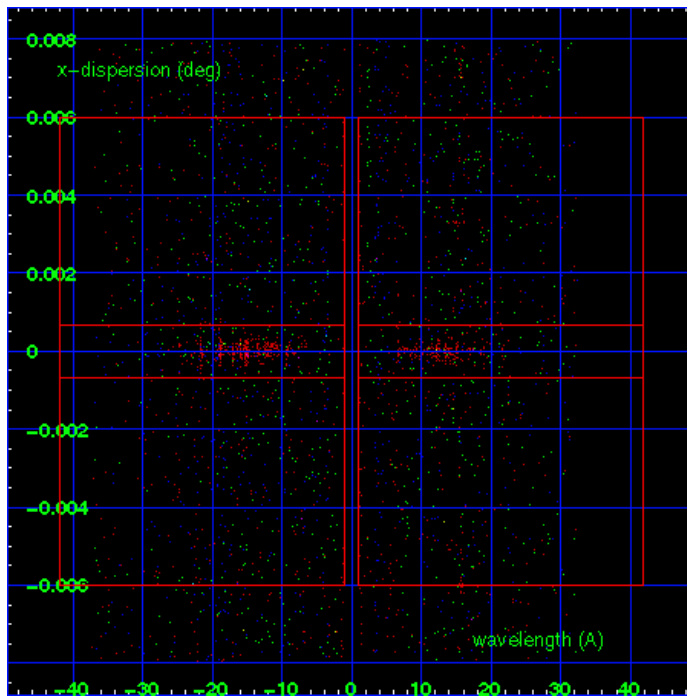
MEG Order Sort 123



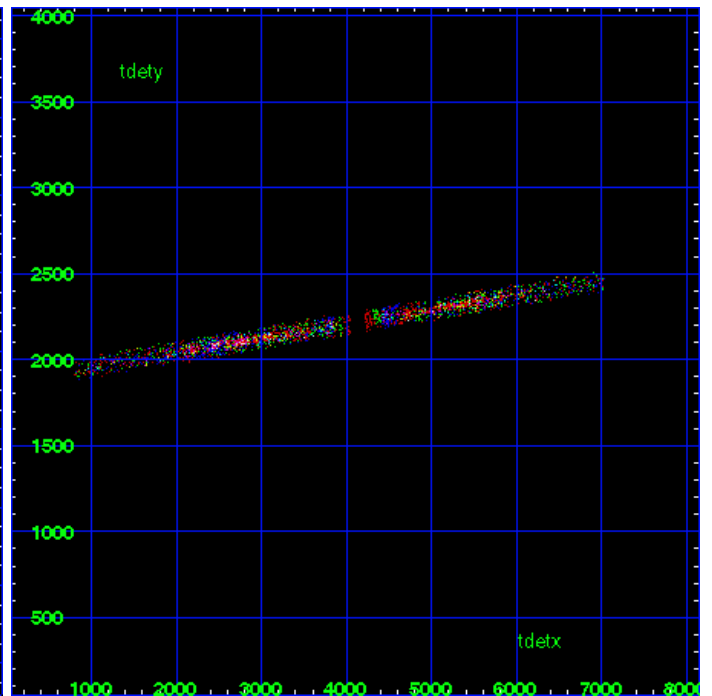
MEG Zero Order



MEG Order Sort ALL

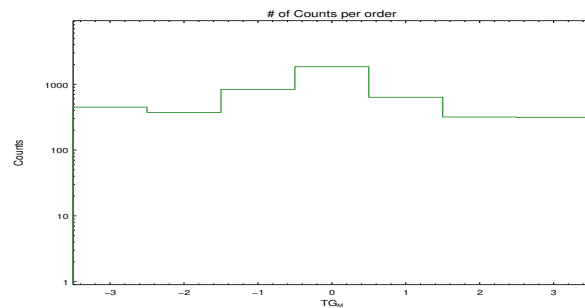


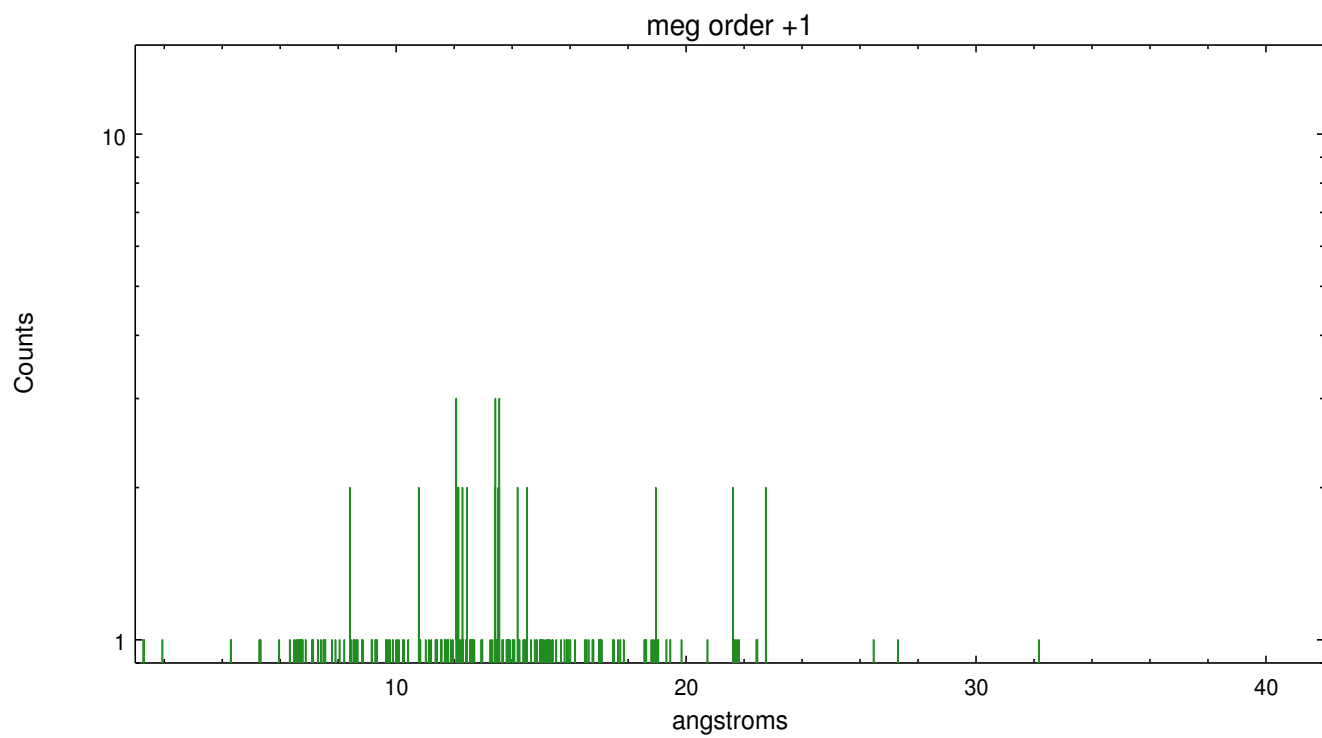
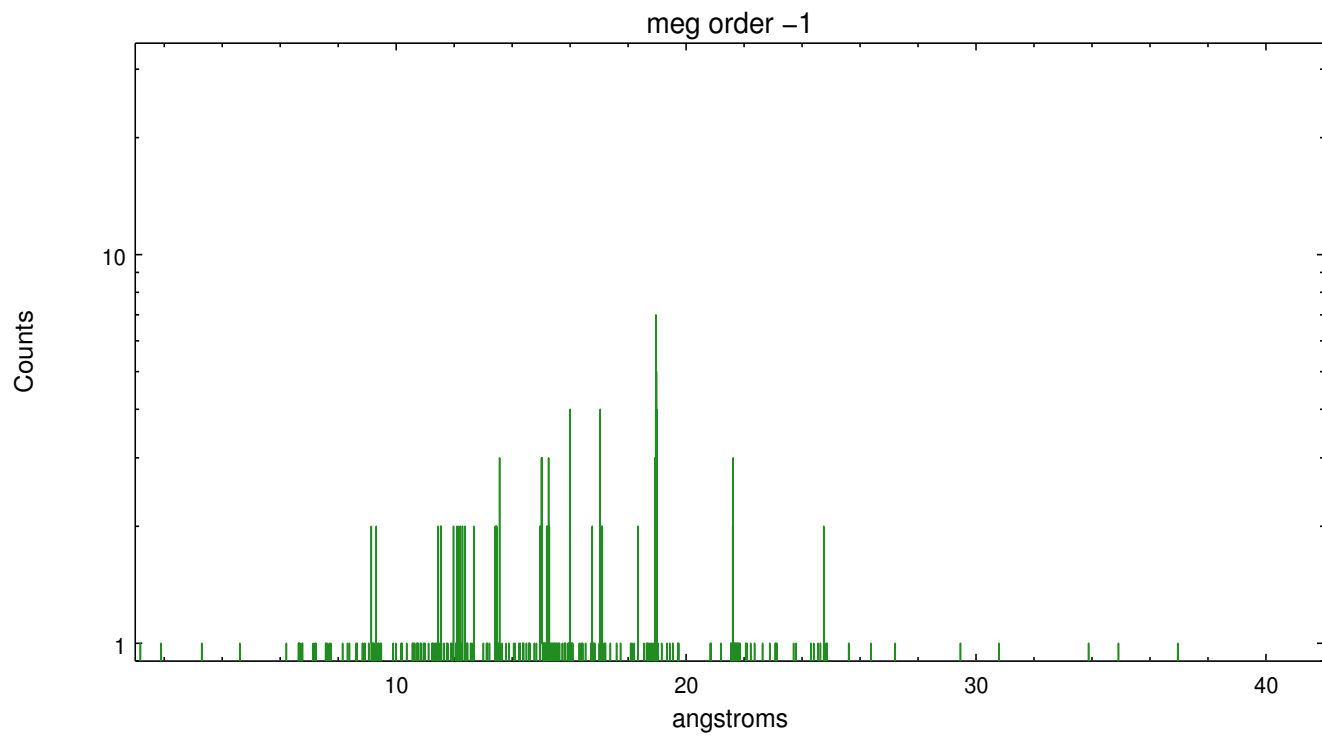
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	449	372	835	1849	634	318	314





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.8367998

### A.2 Comments