

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2689 - L2 Version 3  
Chandra X-Ray Center

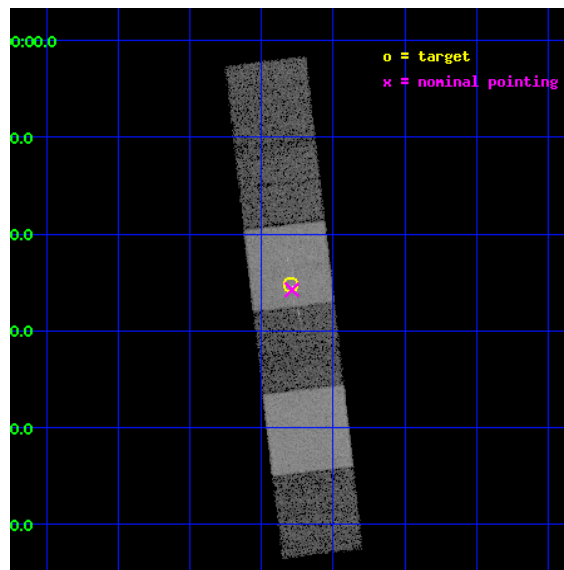
L2 Processing Date : Oct 13 2012

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# 1 Front

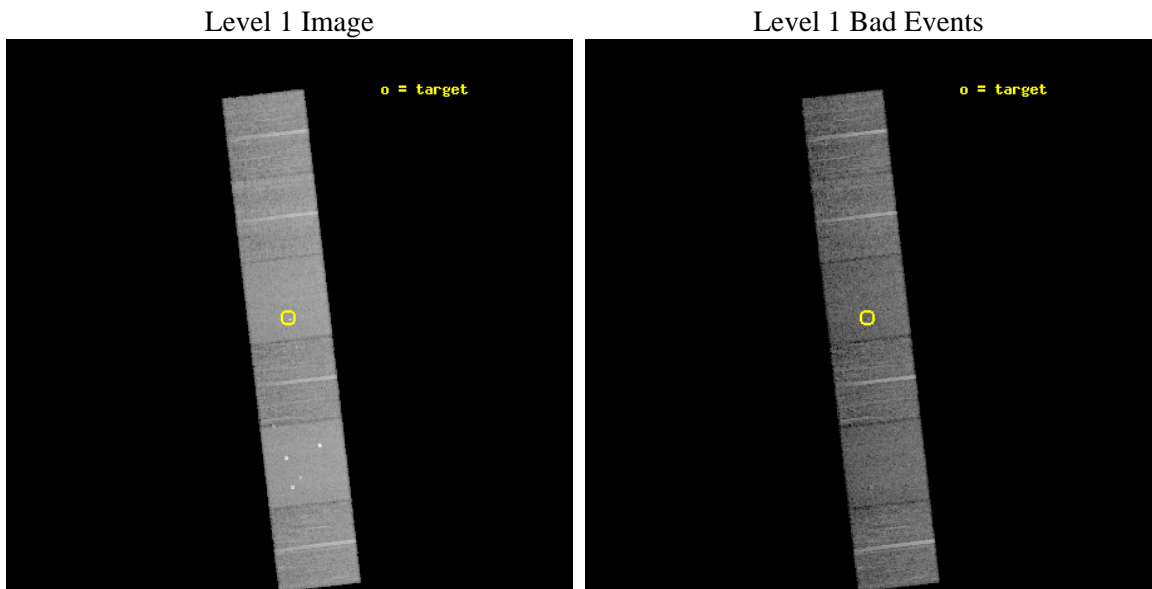
seq_num	400169	Sequence number
obs_id	2689	Observation id
title	OBSERVATIONS OF THE TRANSIENT X-RAY PULSAR 2S 1845-024	Proposal ti
observer	Dr. Mark Finger	Principal investigator
object	2S 1845-024	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	282.075	Observer's specified target RA [deg]
dec_targ	-2.42	Observer's specified target Dec [deg]
ra_nom	282.0722078642	Nominal RA [deg]
dec_nom	-2.429307729541	Nominal Dec [deg]
roll_nom	263.30133229404	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14801.859998733	Sum of GTIs [s]
livetime	14614.429934819	Livetime [s]
ontime4	14801.901038736	Sum of GTIs [s]
ontime5	14801.81895873	Sum of GTIs [s]
ontime6	14801.777918726	Sum of GTIs [s]
ontime7	14801.859998733	Sum of GTIs [s]
ontime8	14801.736878723	Sum of GTIs [s]
ontime9	14801.695838749	Sum of GTIs [s]
l2events	142689	Number of level 2 events



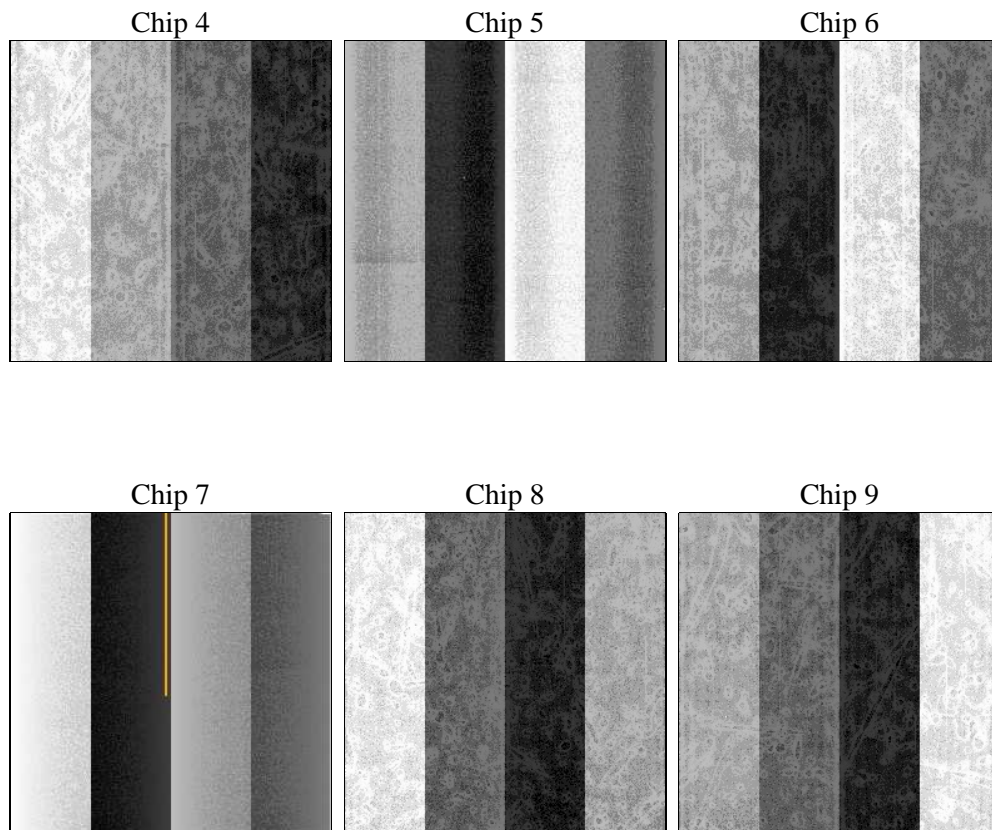
## 2 OBI

### 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	8.4.5	Processing system revision	ontime	14801.859998733	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime4	14801.901038736	Sum of GTIs [s]
date	2012-10-13T05:19:24	Date and time of file creation	ontime5	14801.81895873	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	14801.777918726	Sum of GTIs [s]
			ontime7	14801.859998733	Sum of GTIs [s]
			ontime8	14801.736878723	Sum of GTIs [s]
			ontime9	14801.695838749	Sum of GTIs [s]
			l1events	649529	Number of level 1 events

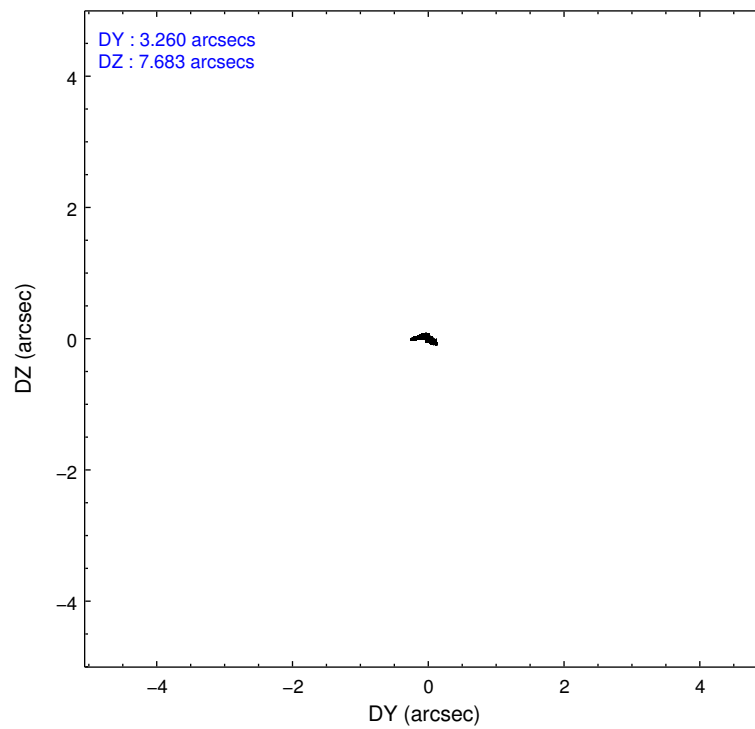
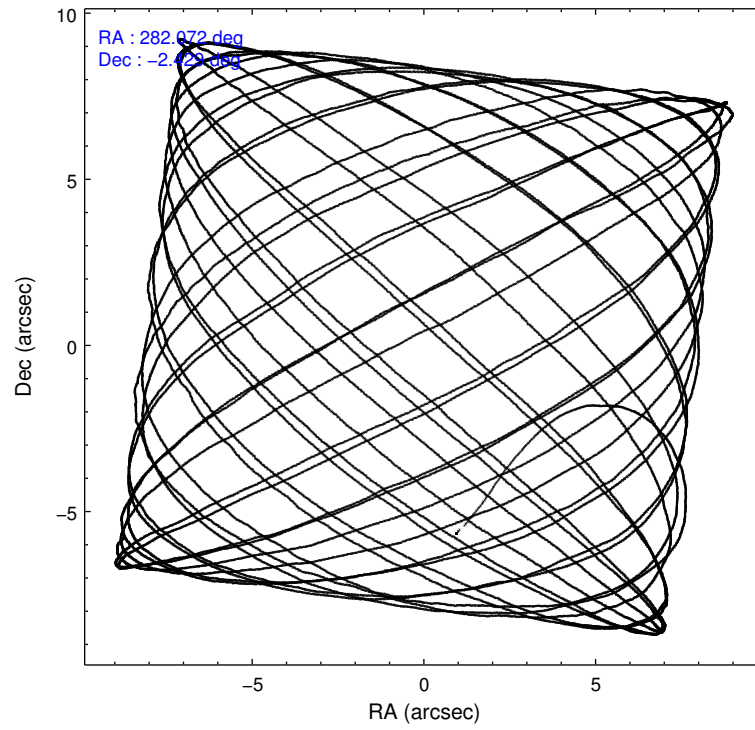
### 2.1.4 Events

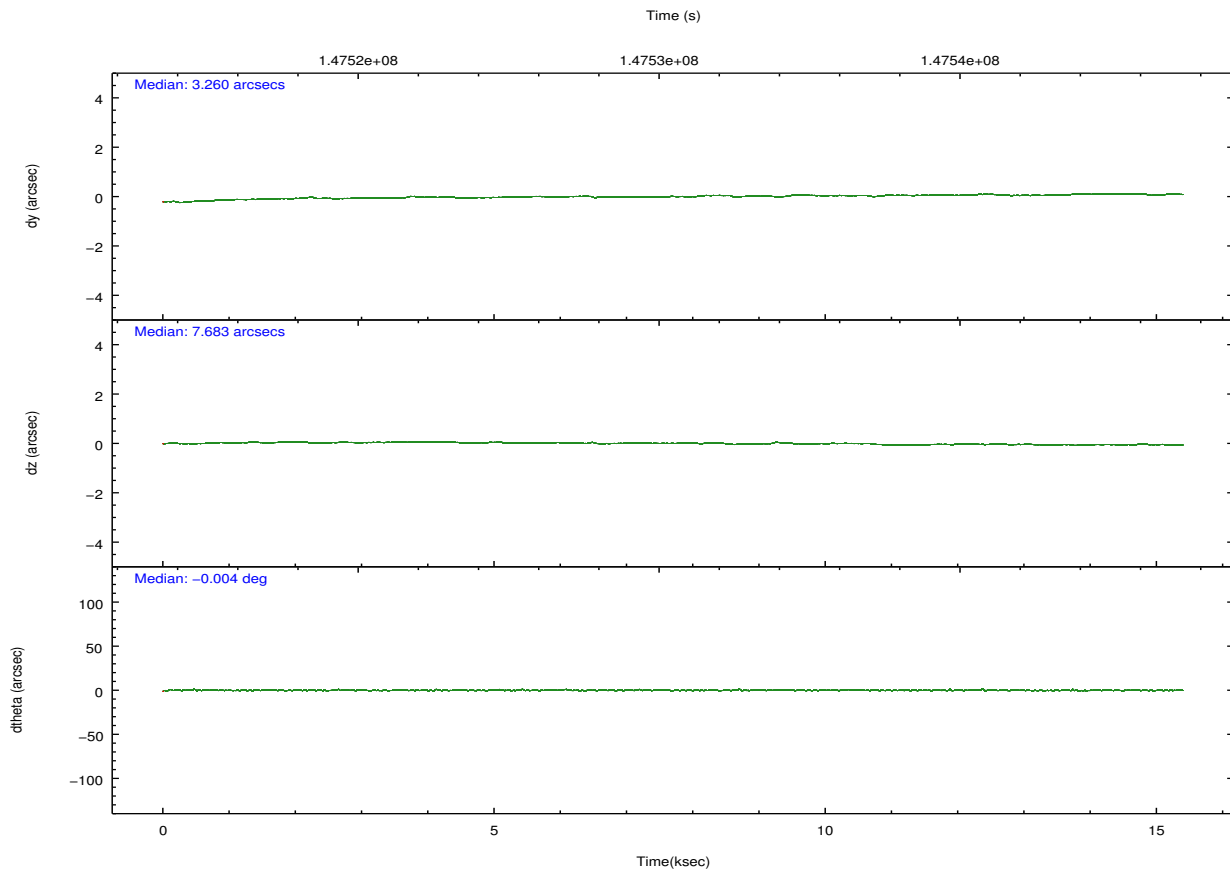
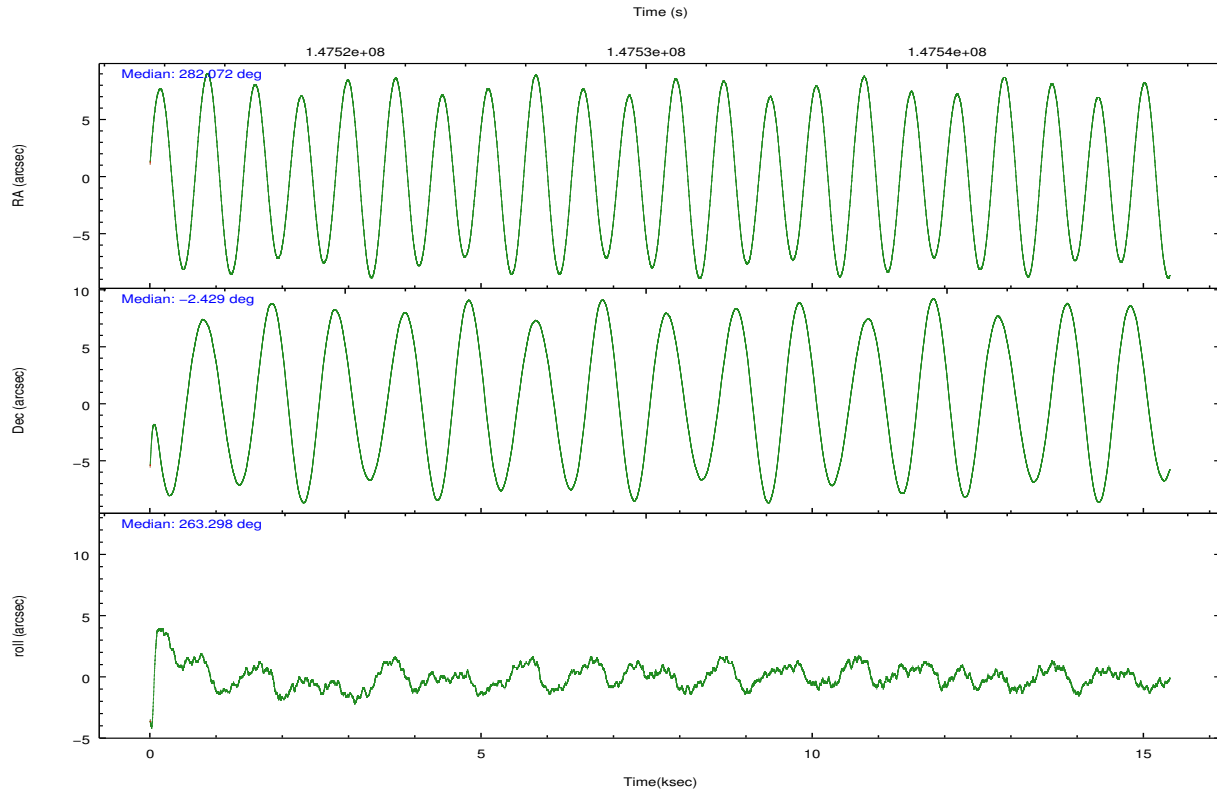
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	98977	135141	89500	120944	113537	91430	grade 0 events	5028	11007	4196	4814	7296	4642
rejected events	87861	71299	78821	70236	90334	80473		5%	8%	4%	3%	6%	5%
rejected %	88%	52%	88%	58%	79%	88%	grade 1 events	89	278	44	124	77	52
								0%	0%	0%	0%	0%	0%
							grade 2 events	2134	17018	2208	10138	4993	2044
								2%	12%	2%	8%	4%	2%
							grade 3 events	1150	2480	1079	4615	2573	1157
								1%	1%	1%	3%	2%	1%
							grade 4 events	1053	2350	1033	4510	2439	1112
								1%	1%	1%	3%	2%	1%
							grade 5 events	3799	9939	4097	11492	5175	4296
								3%	7%	4%	9%	4%	4%
							grade 6 events	1753	31016	2165	26656	5906	2006
								1%	22%	2%	22%	5%	2%
							grade 7 events	83971	61053	74678	58595	85078	76121
								84%	45%	83%	48%	74%	83%

## 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	282.061086	282.072207864202	Subarray requested	NONE	NONE
[deg] Pointing Dec	-2.404391	-2.429307729540957	Alternating exposures requested	N	N
[deg] Pointing Roll	263.144239	263.3013322940424	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	147497464.184000	147497464.184000			
[s] Window stop time (MET)	147583864.184000	147583864.184000			
[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)	147522929.184000	147521865.52908			
Observation start date	2002-09-04T10:34:25	2002-09-04T10:17:45			
[s] Observation end time (MET)	147537929.184000	147538492.56727			
Observation end date	2002-09-04T14:44:25	2002-09-04T14:54:52			
Read mode	TIMED	TIMED			

## 2.3 Aspect



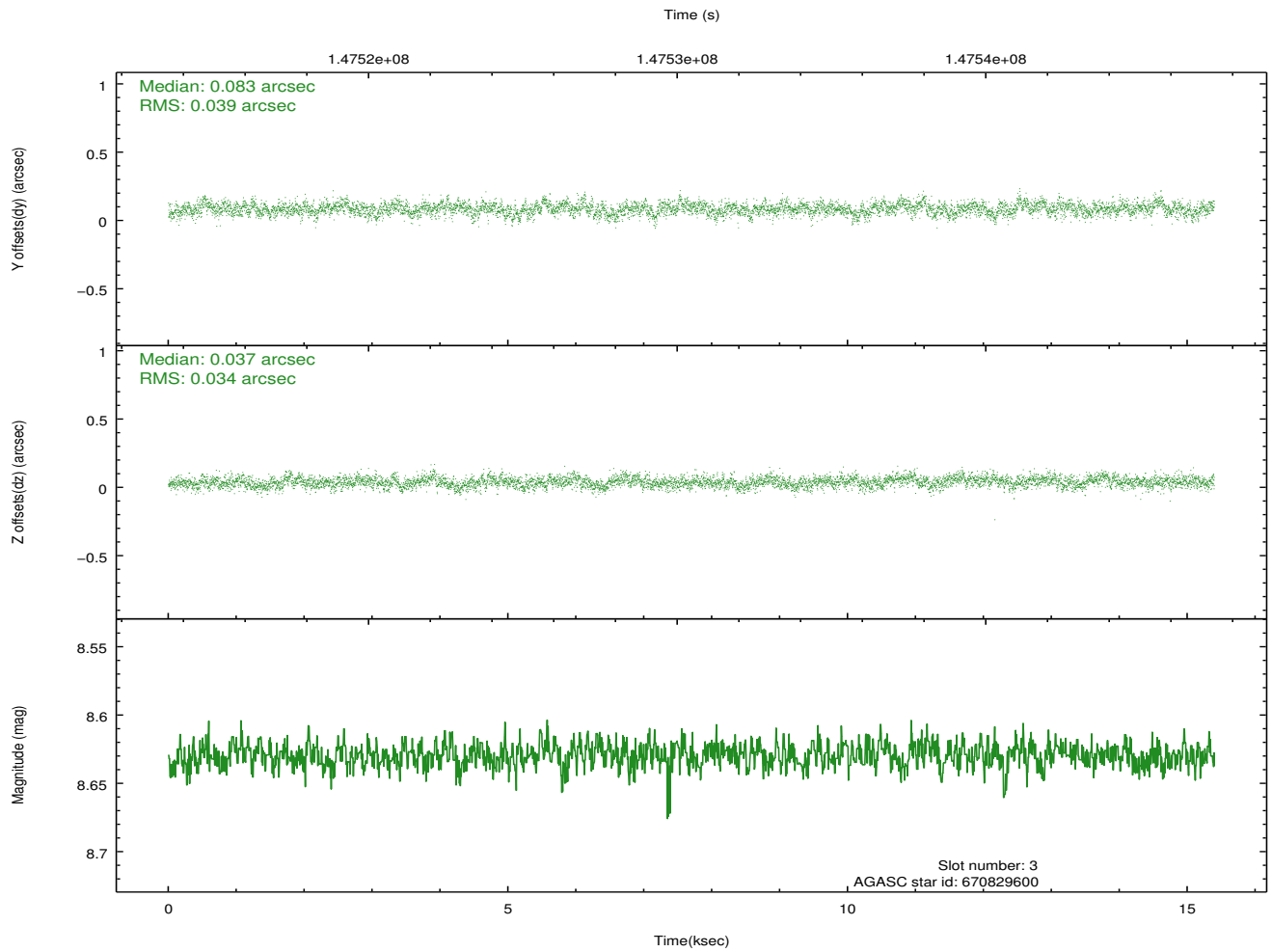
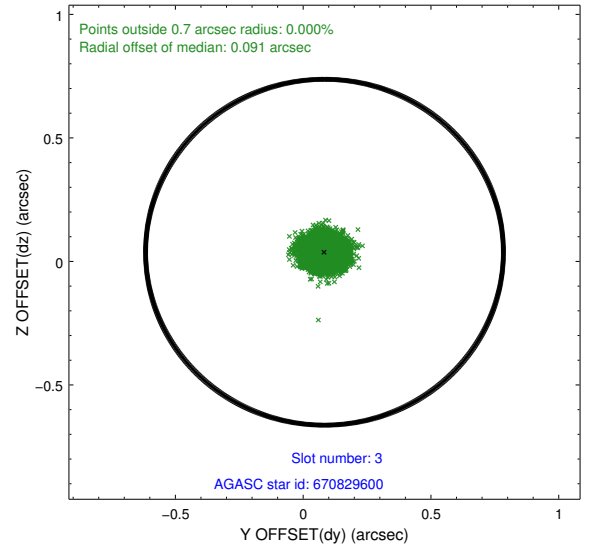
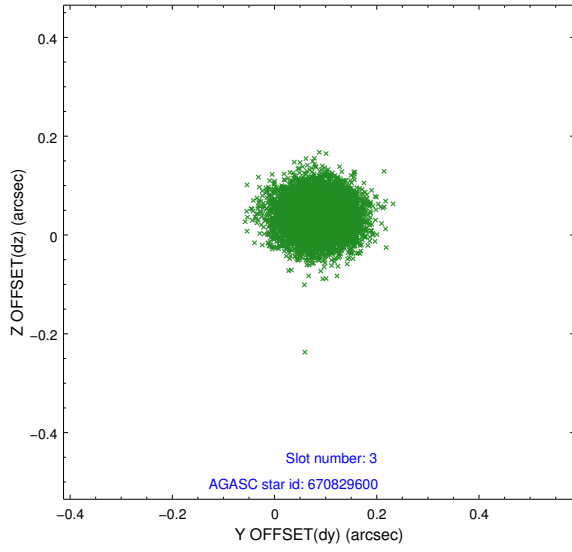


### Slot Statistics

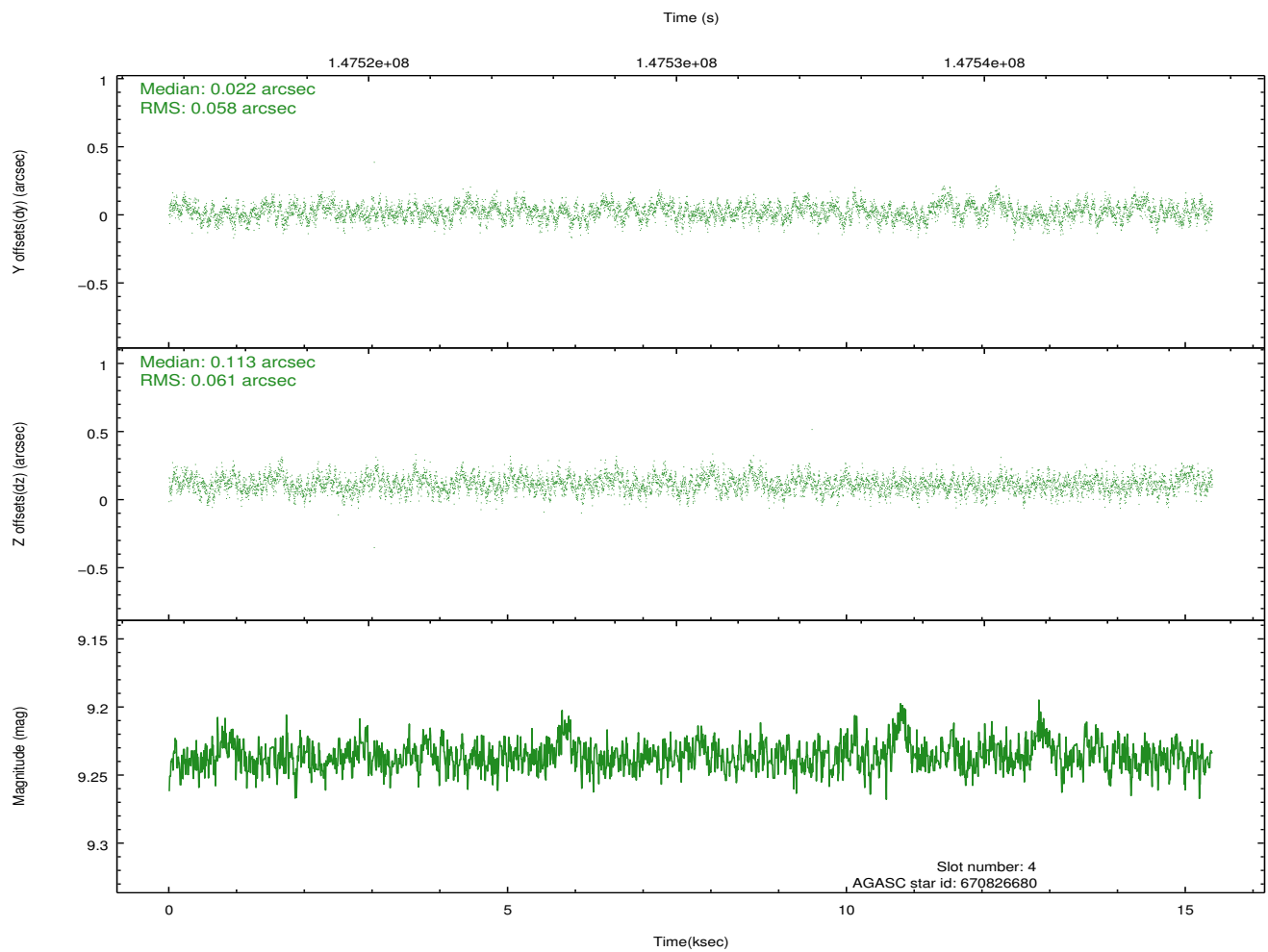
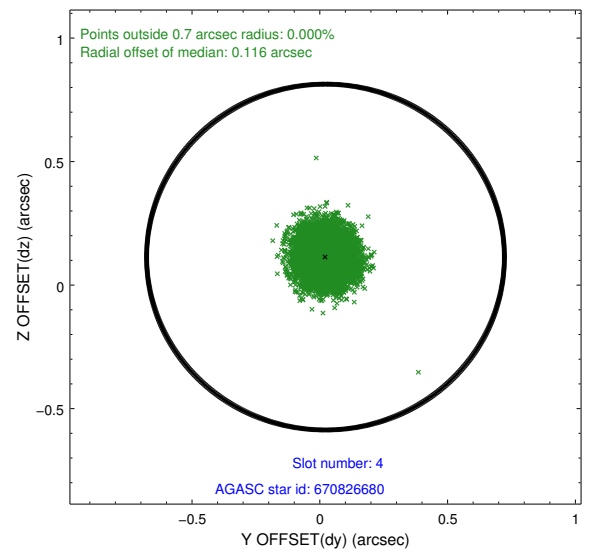
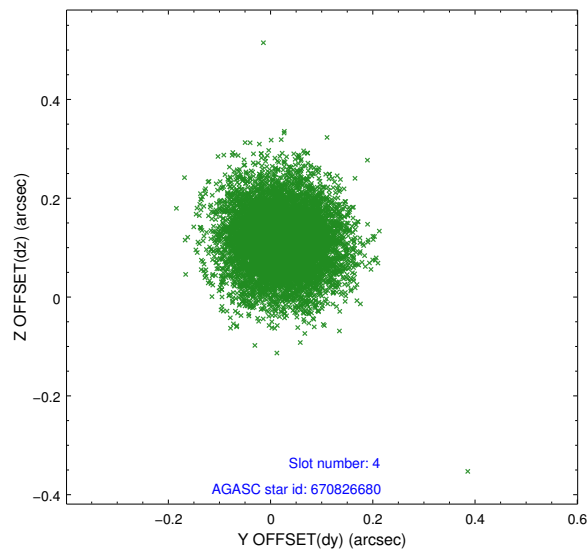
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	3756	-0.011	-0.006	0.006	0.011	0.000000	0.000000	-755.93	-1728.86
1	FID	ACIS-S-4	7.20	3756	0.003	0.007	0.006	0.011	0.000000	0.000000	2157.24	179.31
2	FID	ACIS-S-5	7.24	3755	-0.023	0.008	0.007	0.012	0.000000	0.000000	-1808.40	173.34
3	GUIDE	670829600	8.63	7510	0.083	0.037	0.054	0.089	282.227270	-3.031765	2171.82	863.66
4	GUIDE	670826680	9.24	7506	0.022	0.113	0.090	0.145	282.619566	-2.432067	-139.61	2007.20
5	GUIDE	670829768	7.55	7510	-0.106	0.031	0.052	0.082	281.927934	-2.010470	-1350.21	-644.01
6	GUIDE	670827744	9.52	7505	0.066	-0.108	0.083	0.137	281.699180	-2.020401	-1216.29	-1457.34
7	GUIDE	670827280	9.41	7506	-0.064	-0.075	0.118	0.183	281.434708	-1.976010	-1260.91	-2421.34

## 2.4 Star Slots

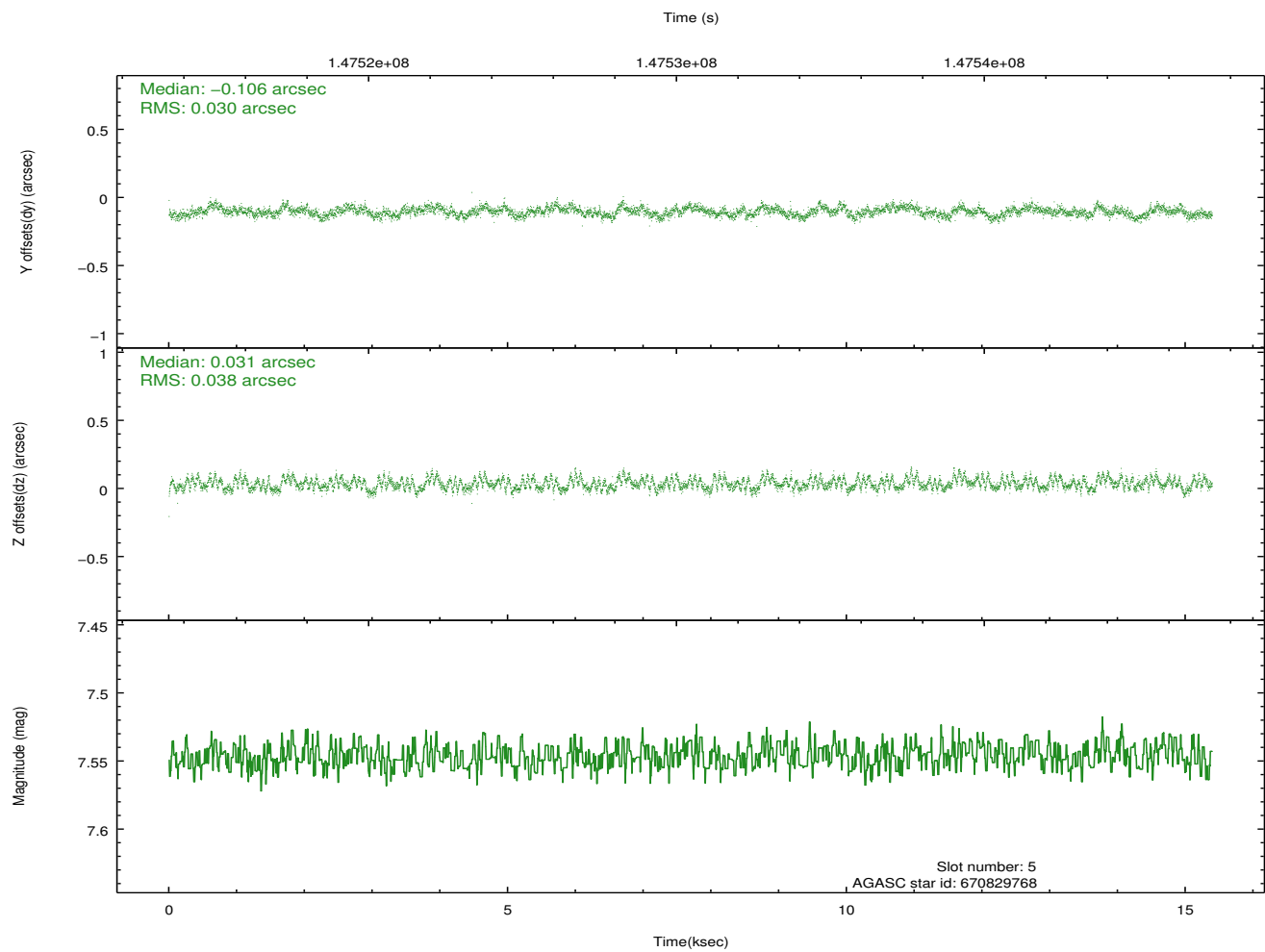
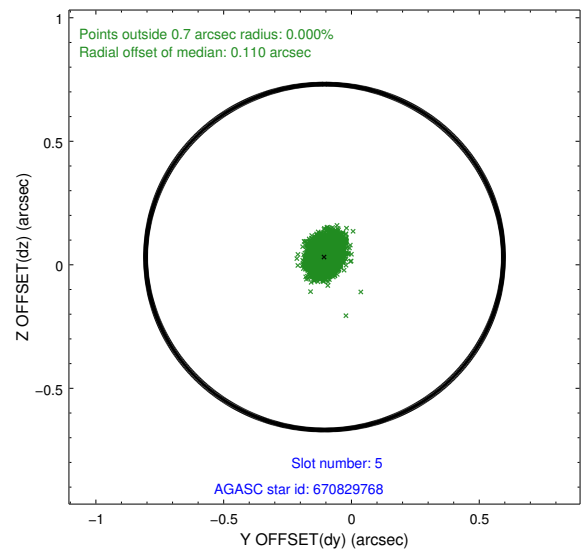
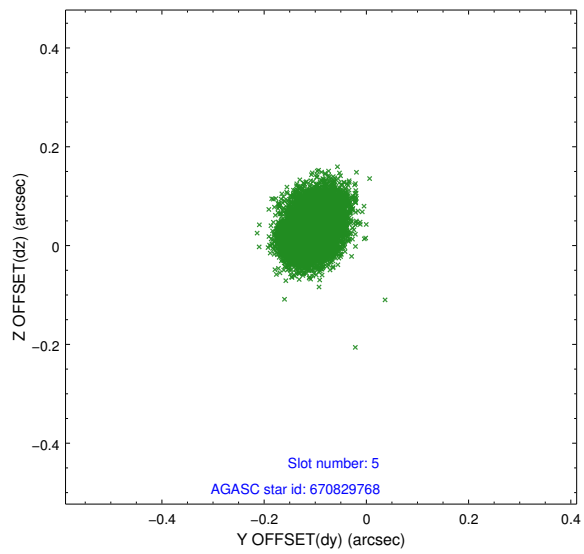
### 2.4.1 Slot 3



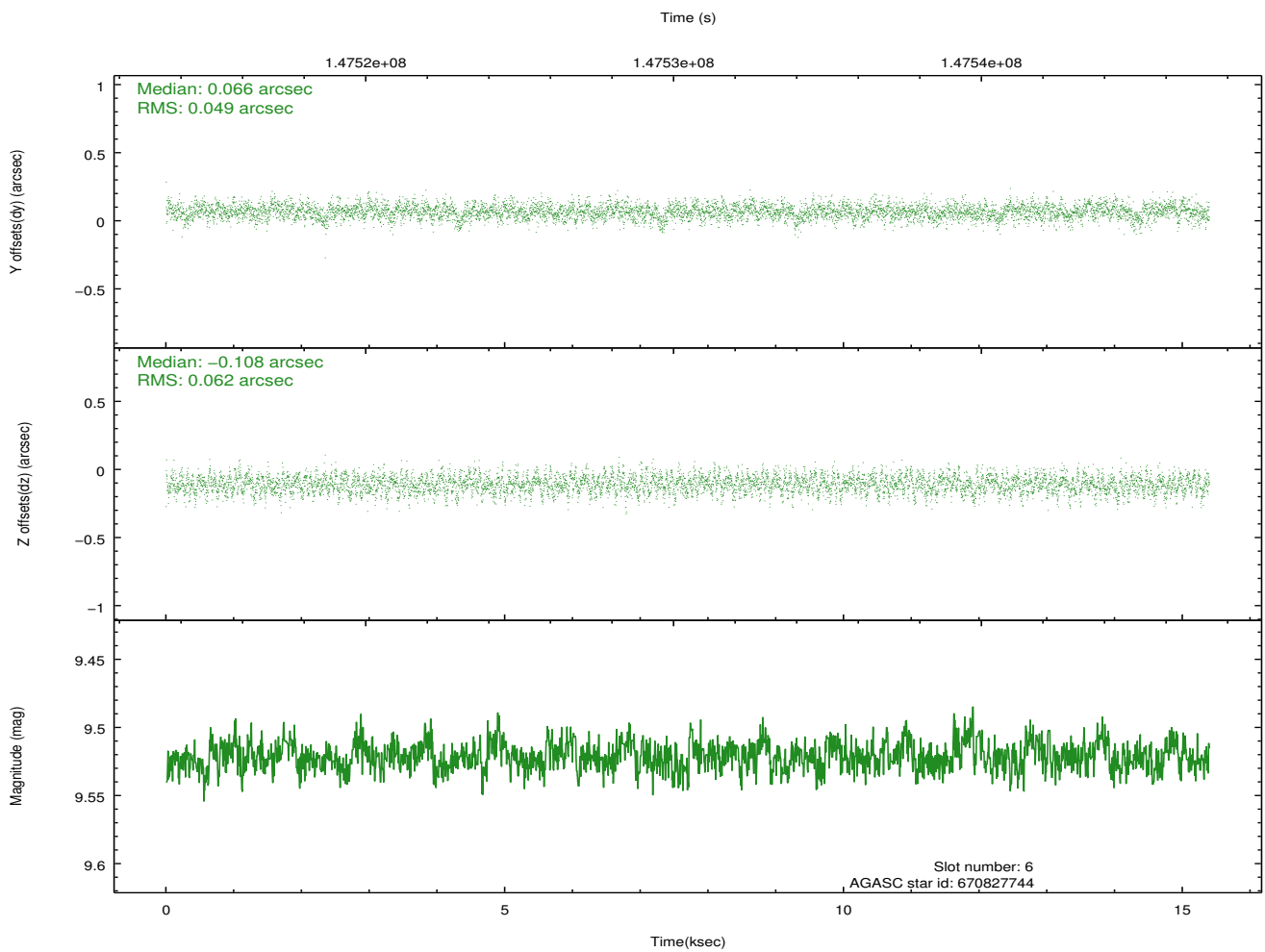
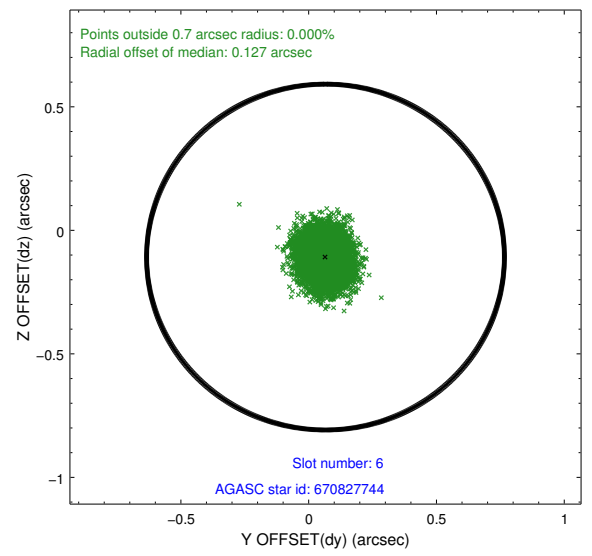
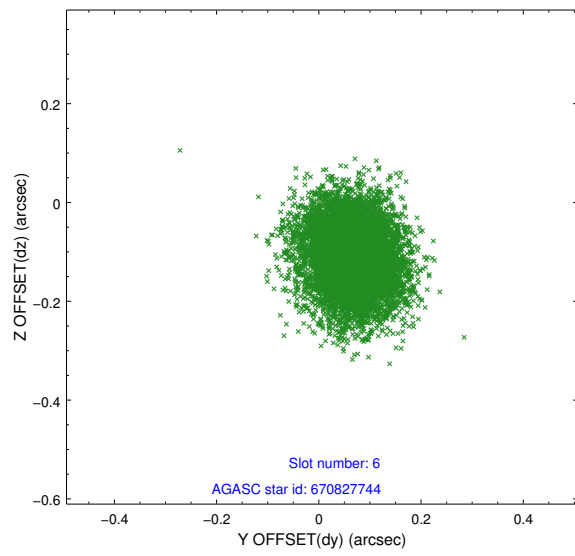
## 2.4.2 Slot 4



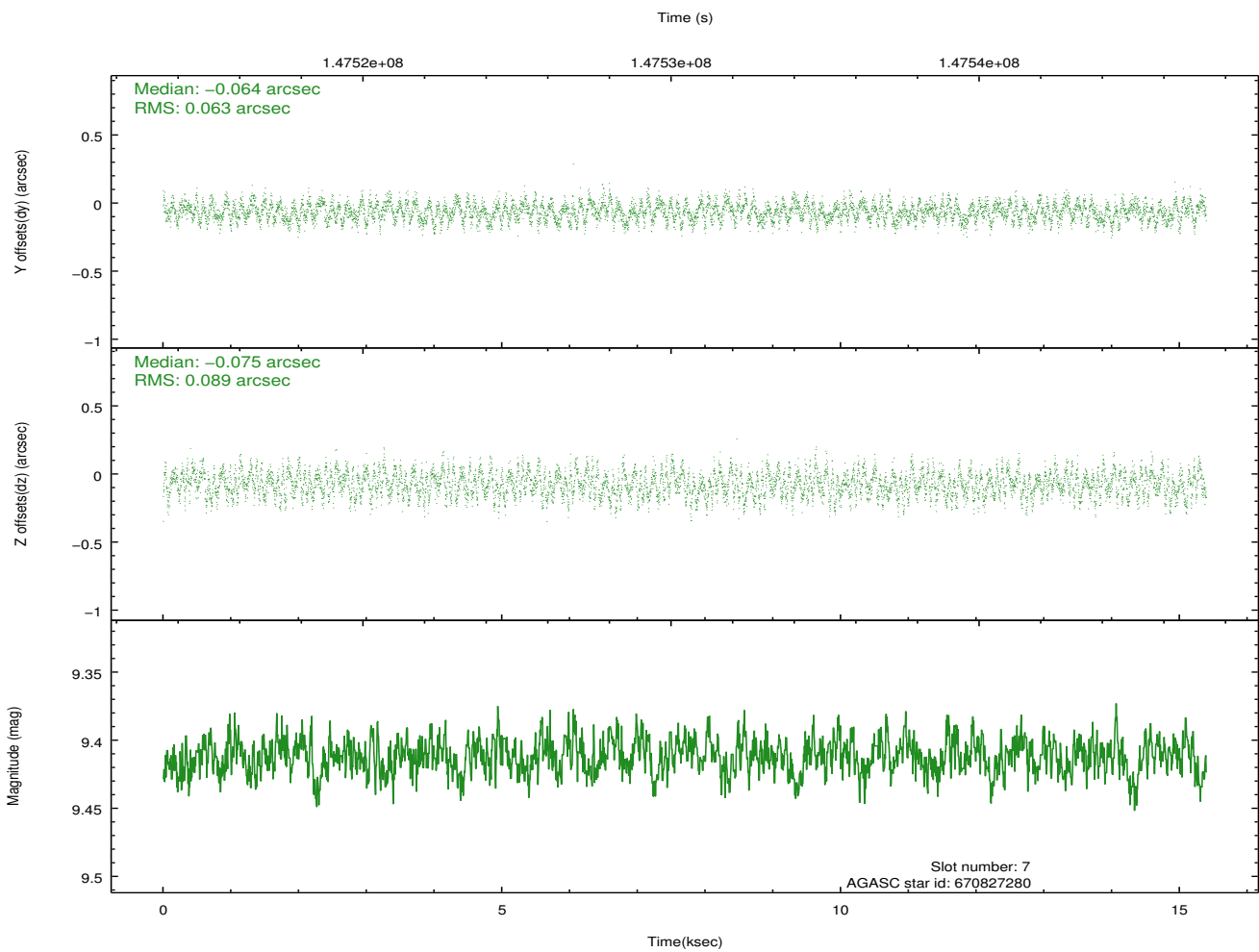
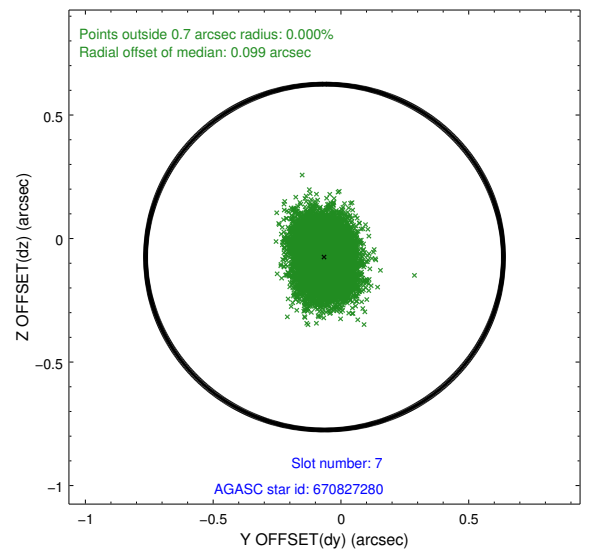
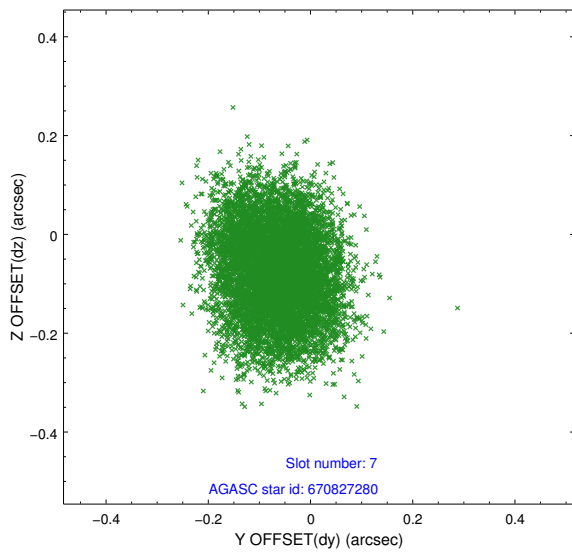
### 2.4.3 Slot 5



## 2.4.4 Slot 6

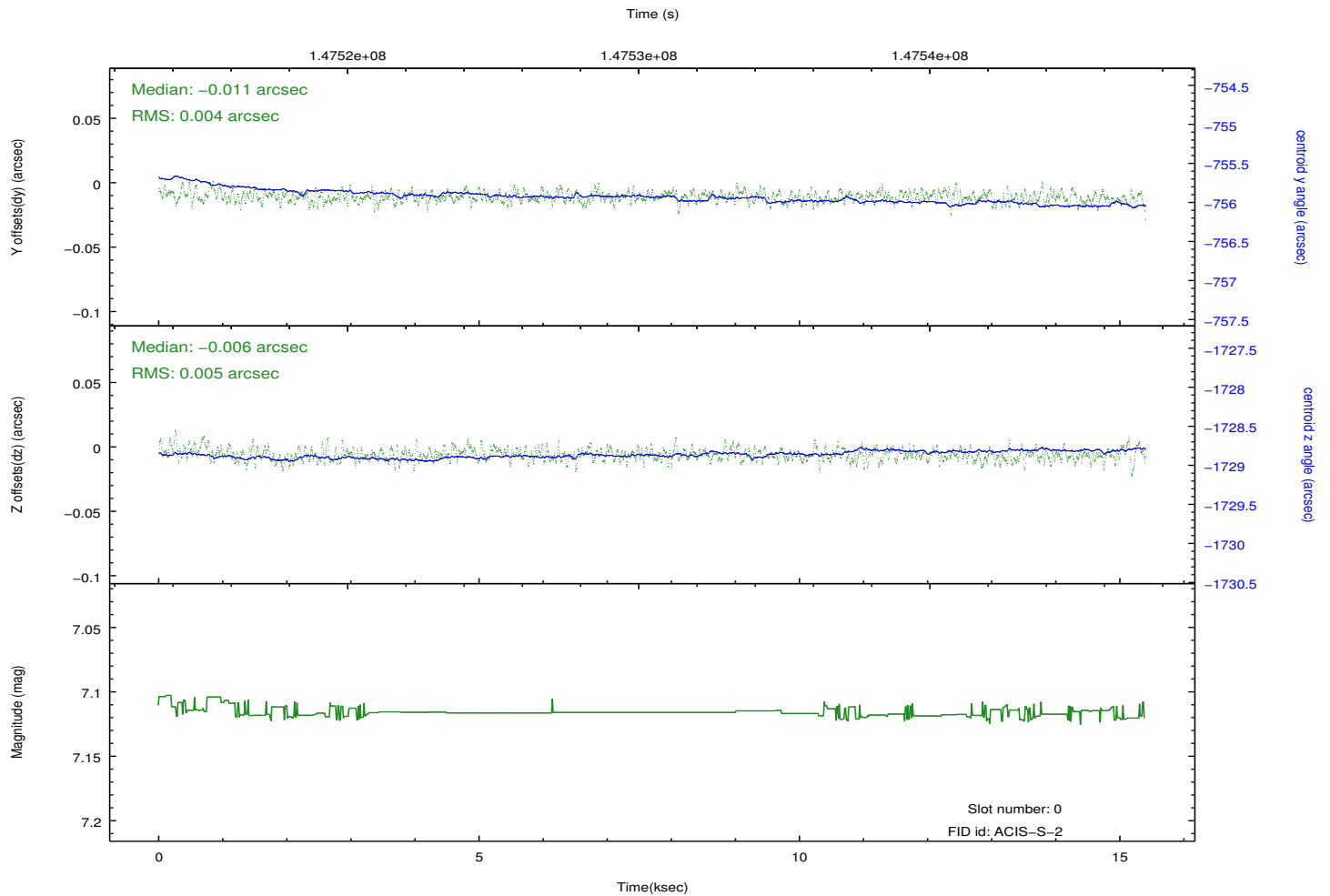
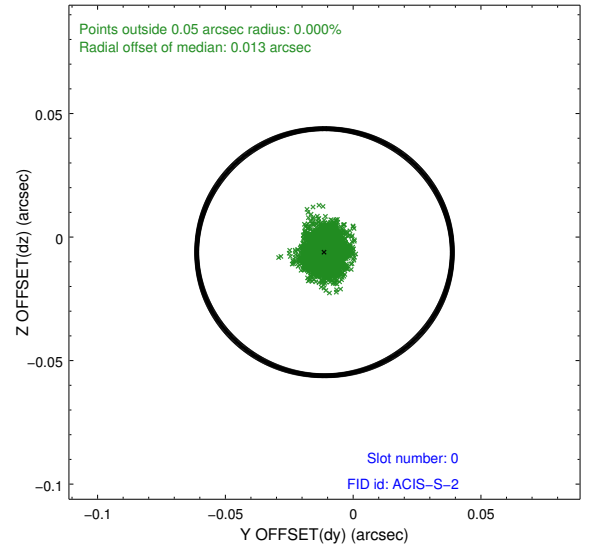
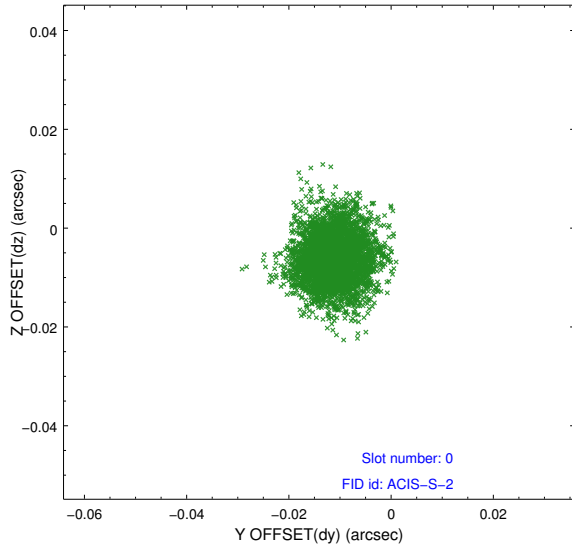


## 2.4.5 Slot 7

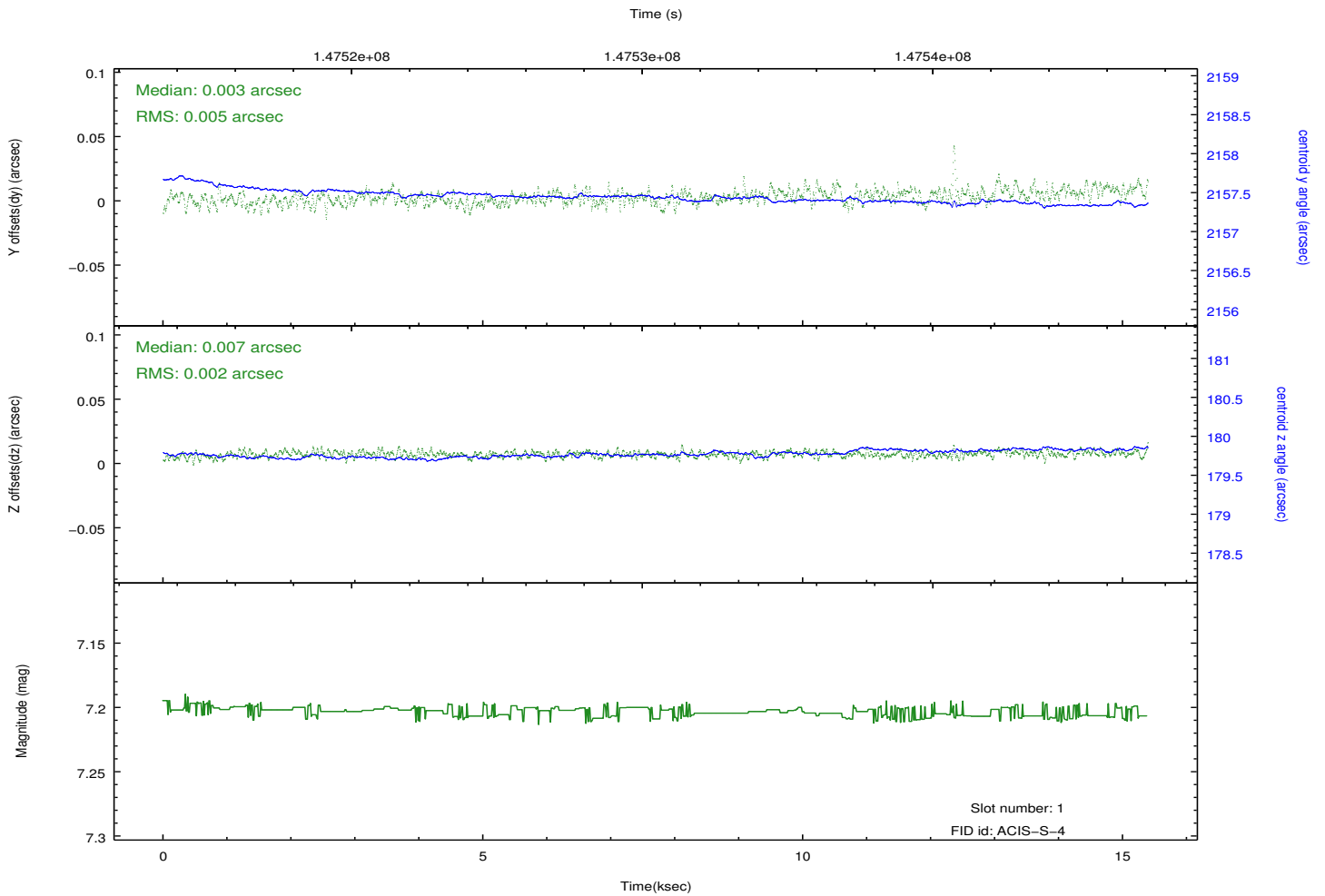
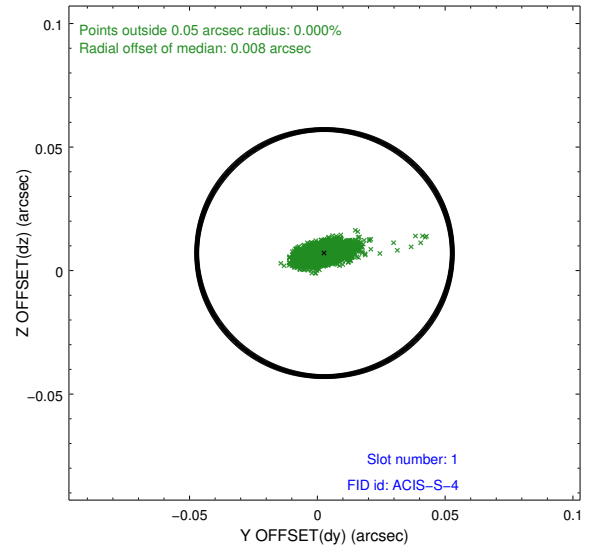
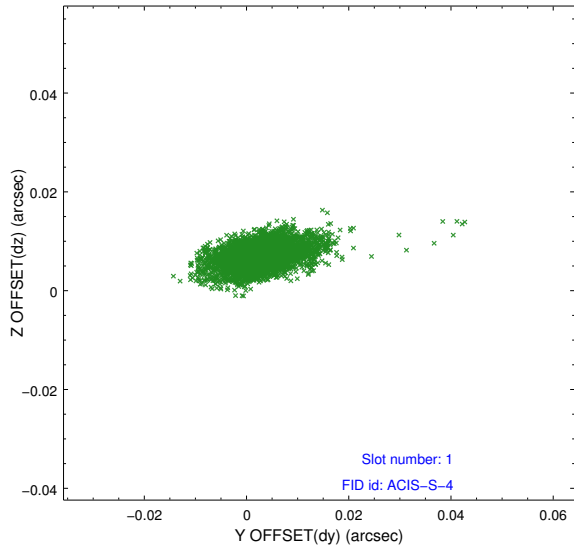


## 2.5 FID Slots

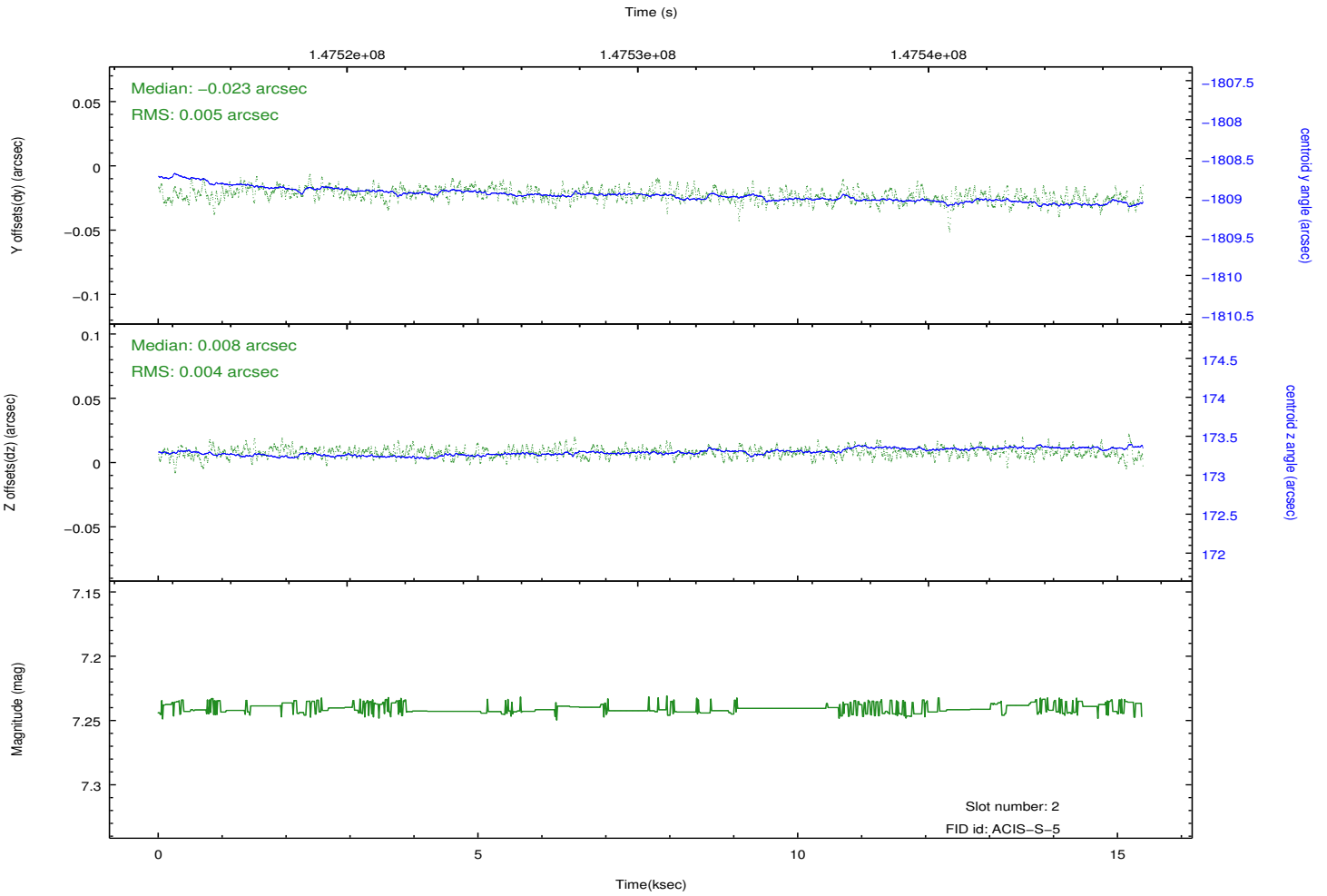
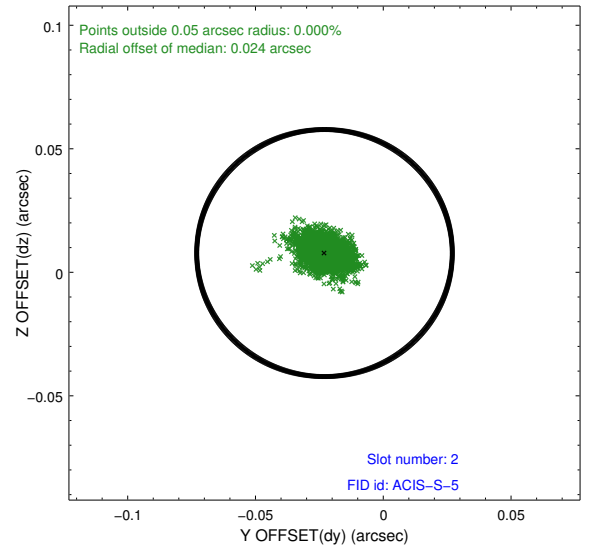
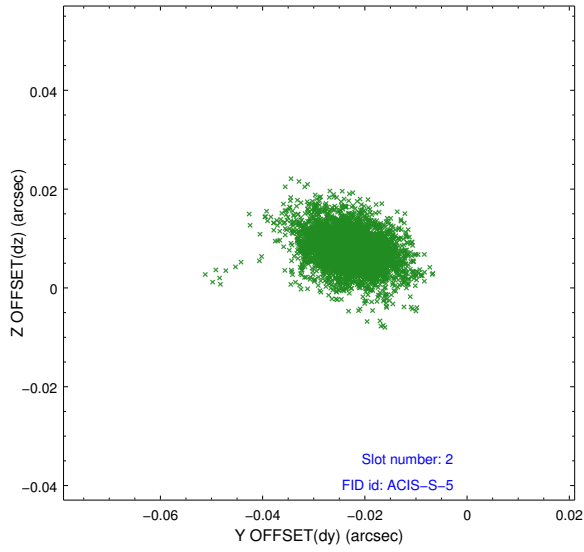
### 2.5.1 Slot 0



## 2.5.2 Slot 1

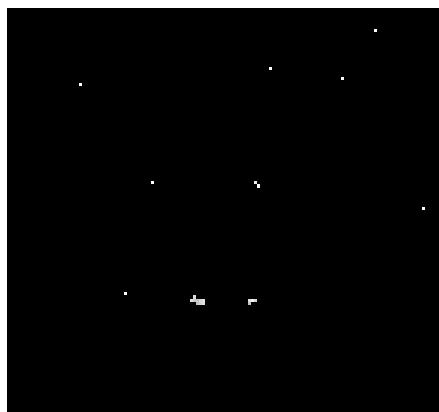


### 2.5.3 Slot 2

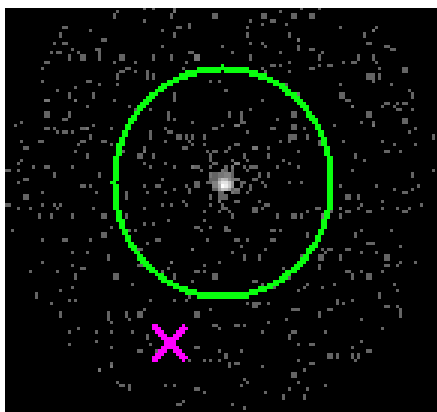


### 3 Gratings

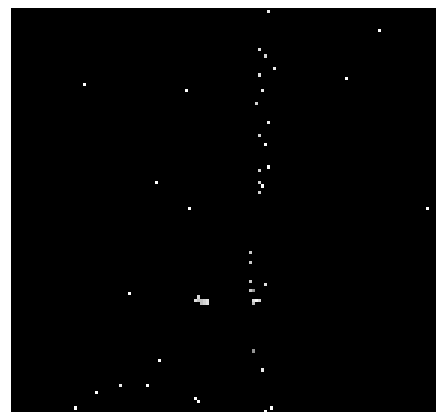
#### 3.1 HEG Arm



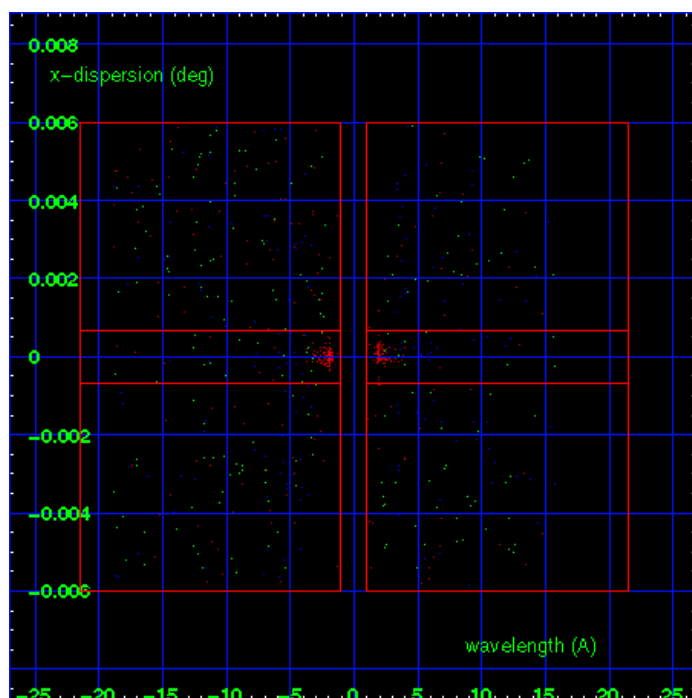
HEG Order Sort 123



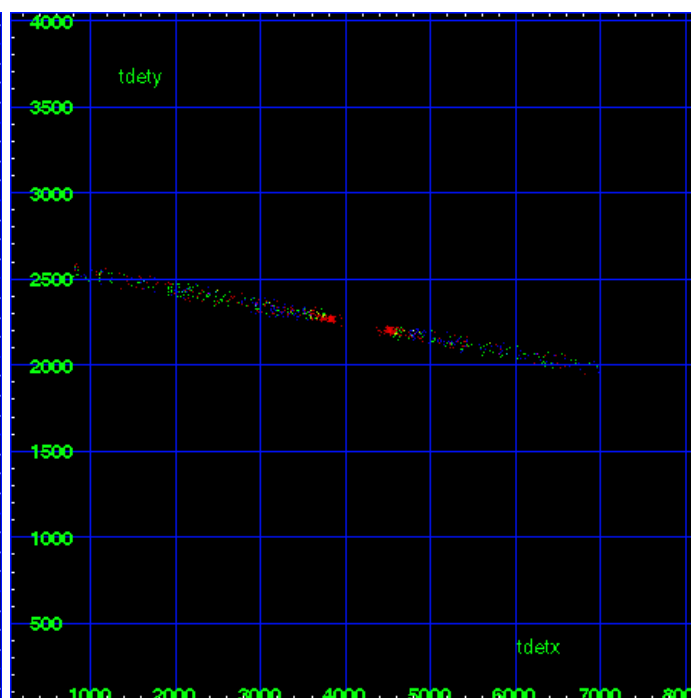
HEG Zero Order



HEG Order Sort ALL

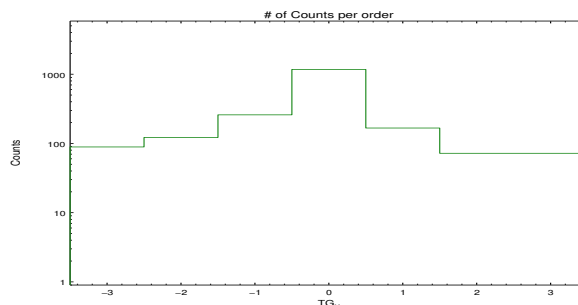


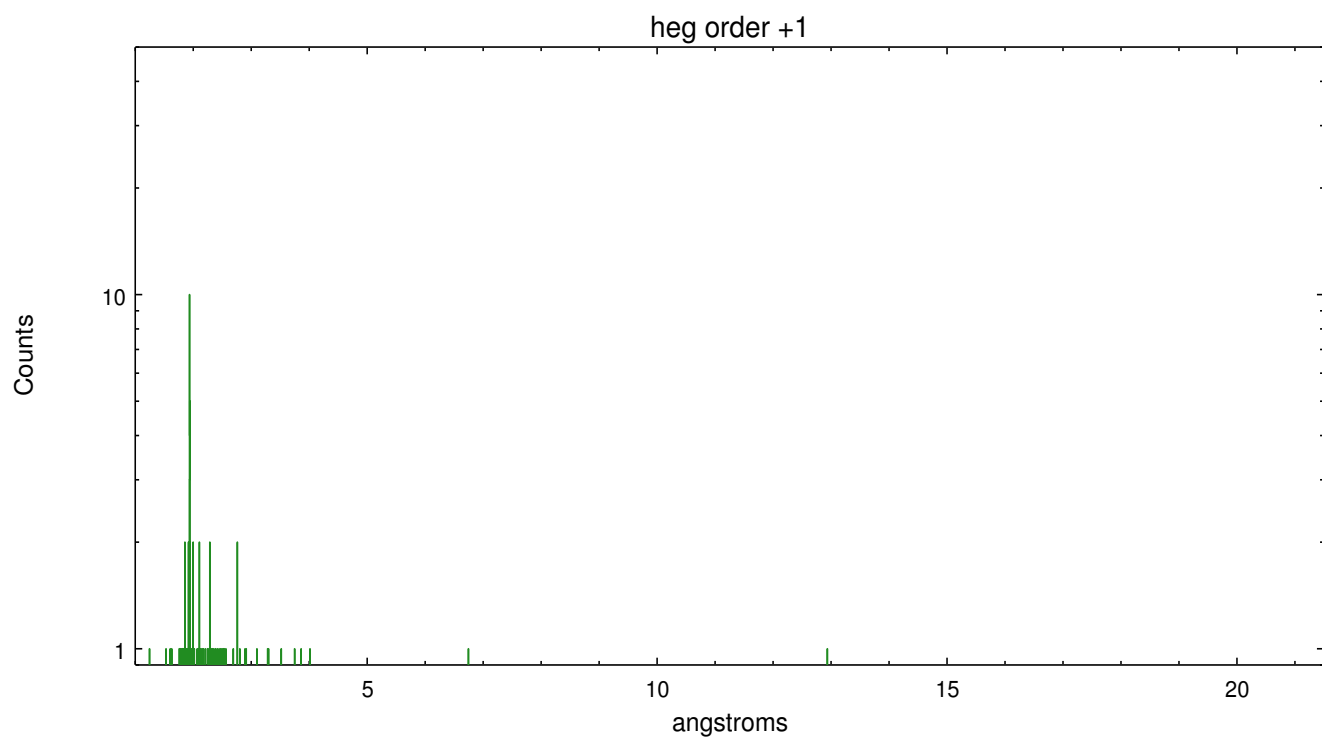
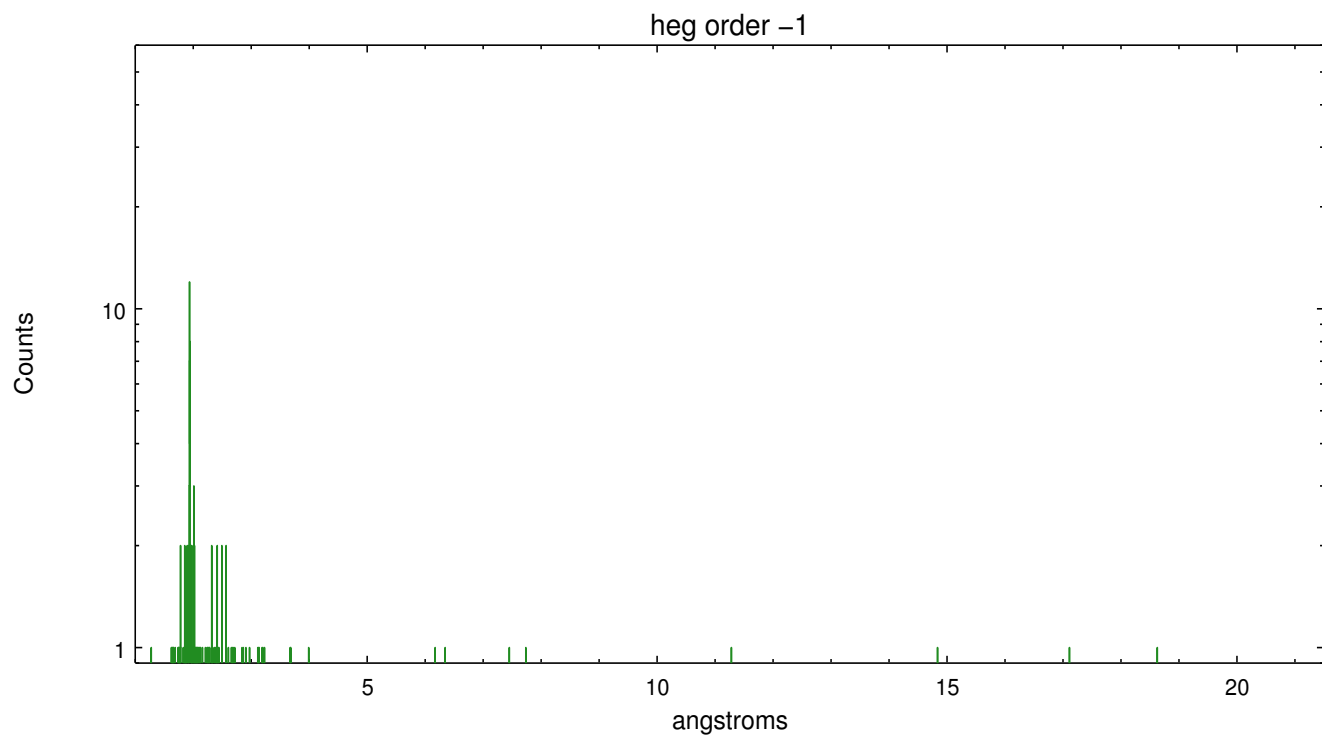
Spot Image HEG



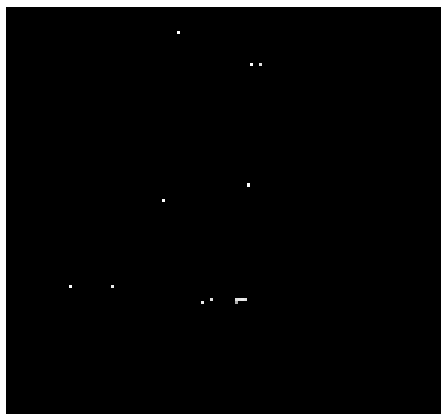
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	89	122	259	1173	167	72	72

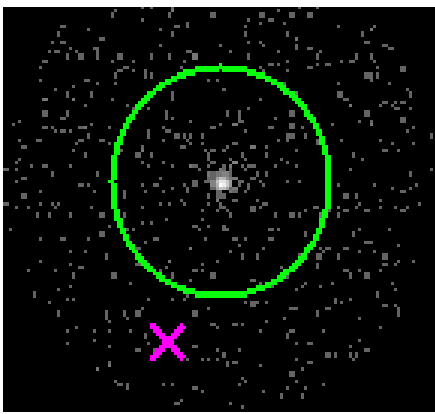




### 3.2 MEG Arm



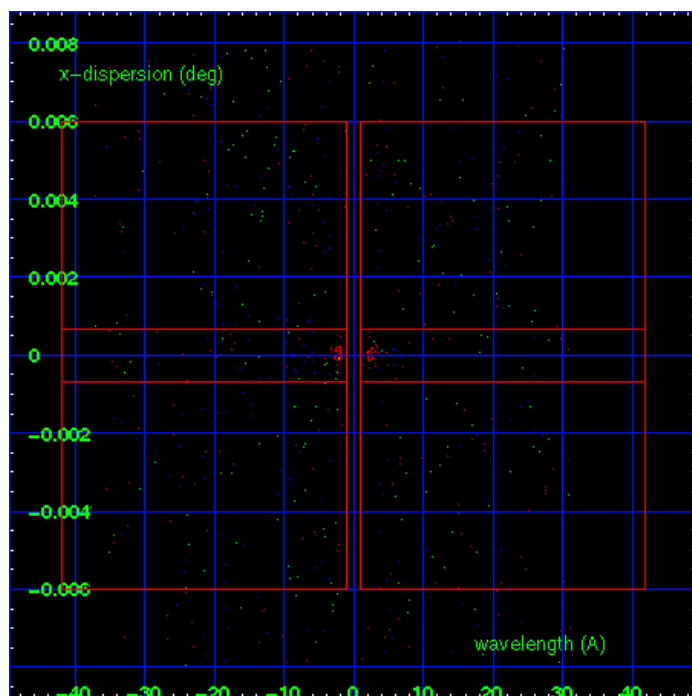
MEG Order Sort 123



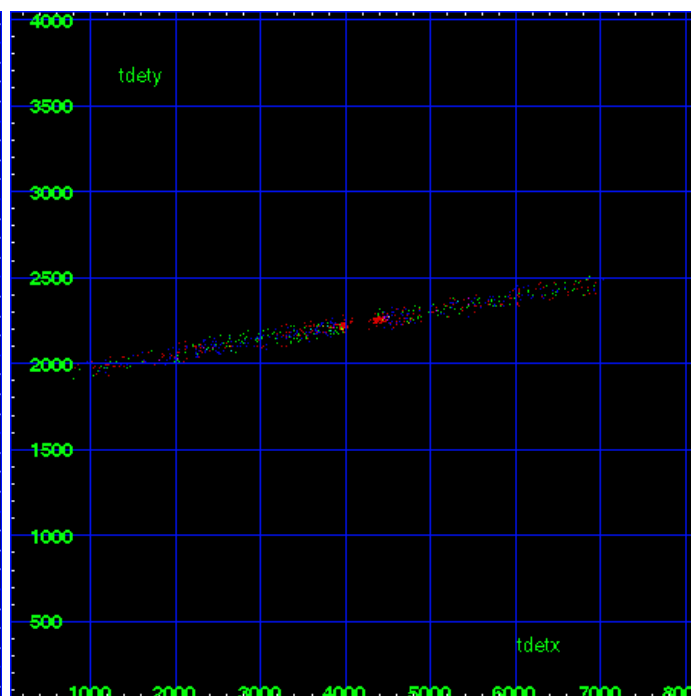
MEG Zero Order



MEG Order Sort ALL

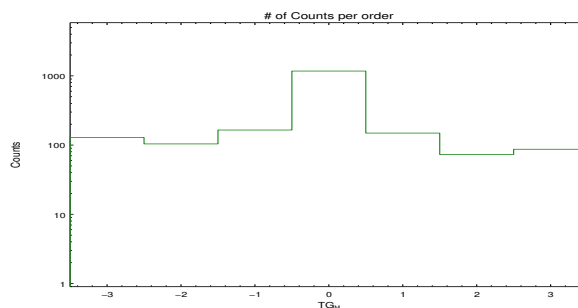


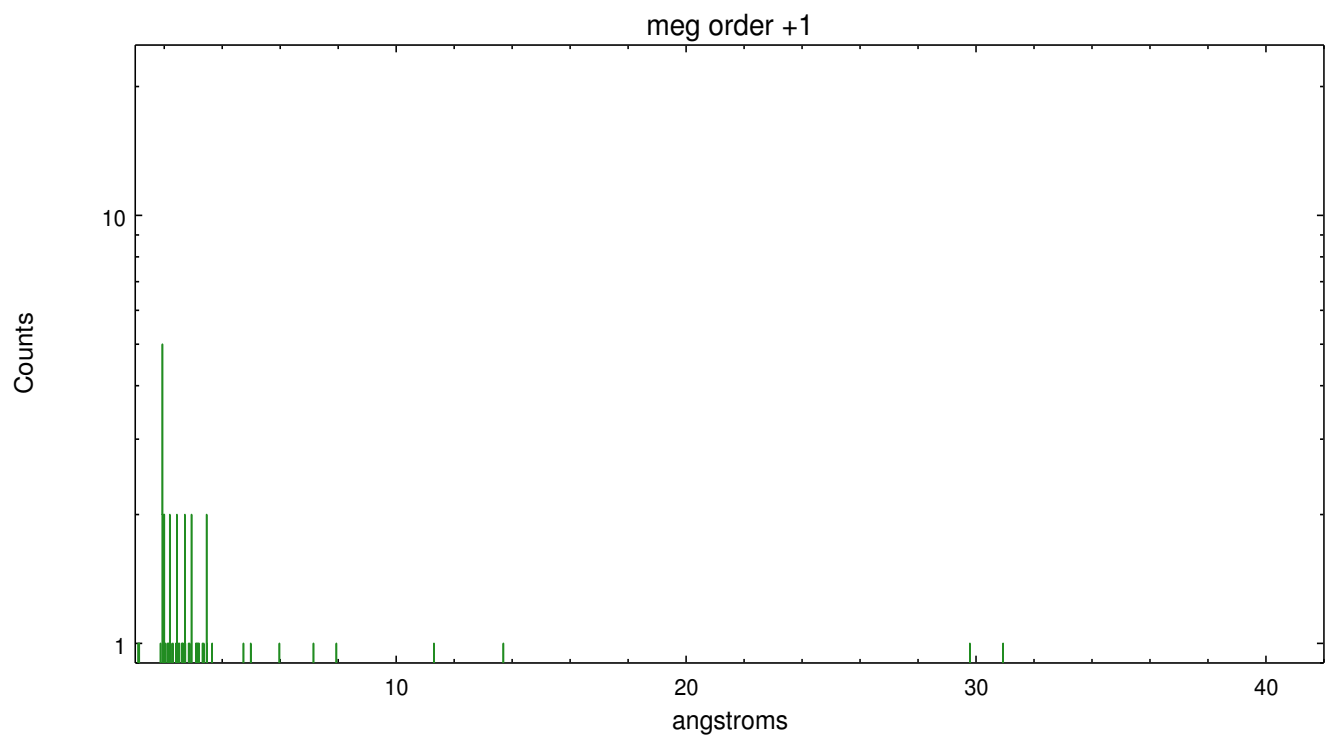
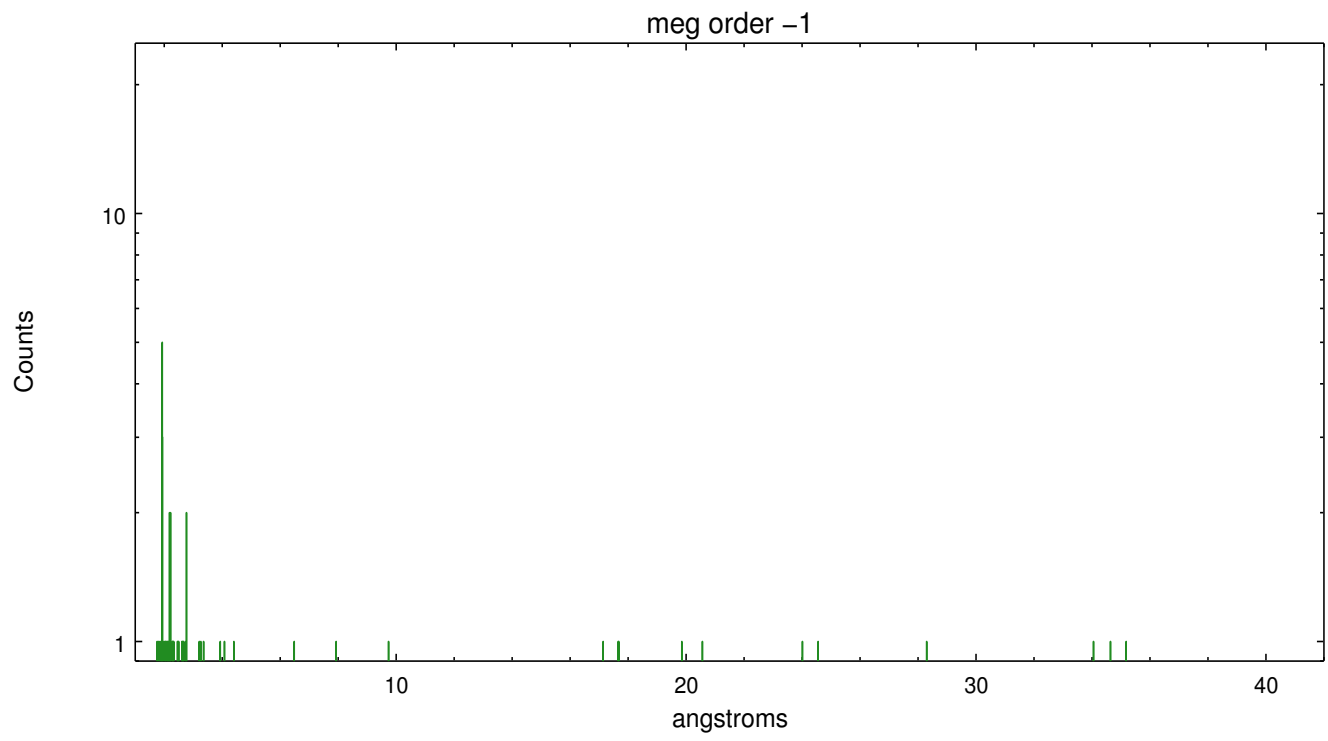
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	129	104	165	1173	149	73	87





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.803

## A.2 Comments