

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2338 - L2 Version 3  
Chandra X-Ray Center

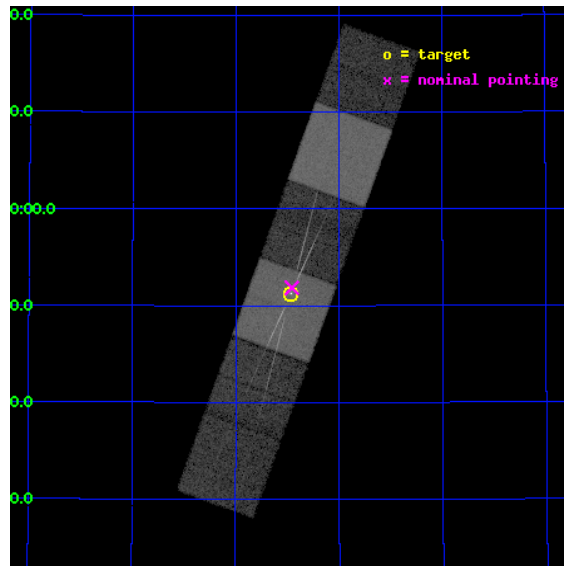
L2 Processing Date : Sep 19 2012

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# 1 Front

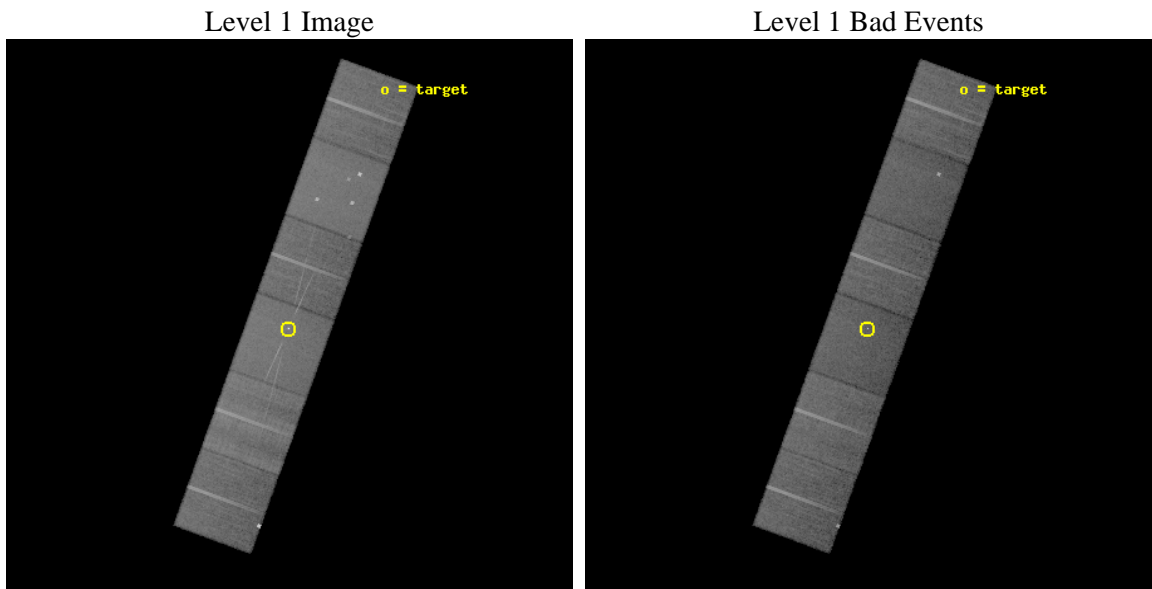
seq_num	200125	Sequence number
obs_id	2338	Observation id
title	CAPTURING WR140 AT PERIASTRON WITH THE CHANDRA HETG	Proposal title
observer	Dr Andrew Pollock	Principal investigator
object	WR140	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	305.116667	Observer's specified target RA [deg]
dec_targ	43.854528	Observer's specified target Dec [deg]
ra_nom	305.11437451779	Nominal RA [deg]
dec_nom	43.864169225274	Nominal Dec [deg]
roll_nom	109.90524529219	Nominal Roll [deg]
revision	3	Processing version of data
ontime	24847.406010702	Sum of GTIs [s]
livetime	24532.773194483	Livetime [s]
ontime4	24847.447050706	Sum of GTIs [s]
ontime5	24847.364970699	Sum of GTIs [s]
ontime6	24847.323930711	Sum of GTIs [s]
ontime7	24847.406010702	Sum of GTIs [s]
ontime8	24847.282781035	Sum of GTIs [s]
ontime9	24847.241850704	Sum of GTIs [s]
l2events	259022	Number of level 2 events



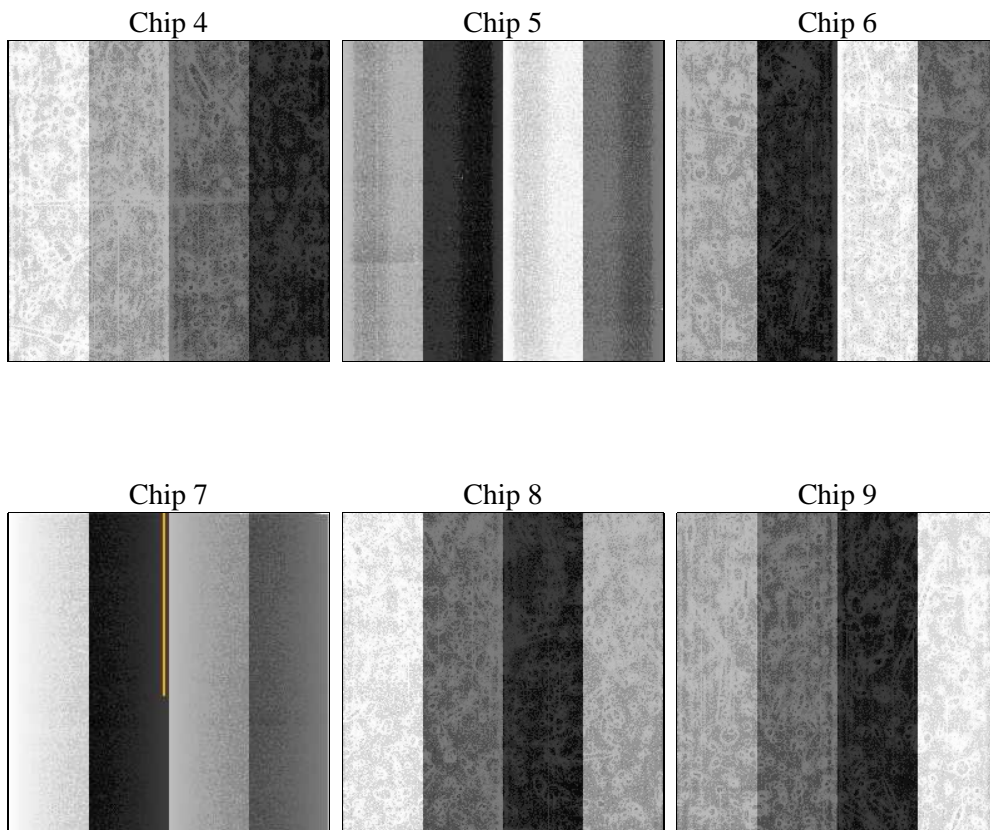
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25089.551000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	24847.406010702	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime4	24847.447050706	Sum of GTIs [s]
date	2012-09-18T23:17:12	Date and time of file creation	ontime5	24847.364970699	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	24847.323930711	Sum of GTIs [s]
			ontime7	24847.406010702	Sum of GTIs [s]
			ontime8	24847.282781035	Sum of GTIs [s]
			ontime9	24847.241850704	Sum of GTIs [s]
			l1events	1200930	Number of level 1 events

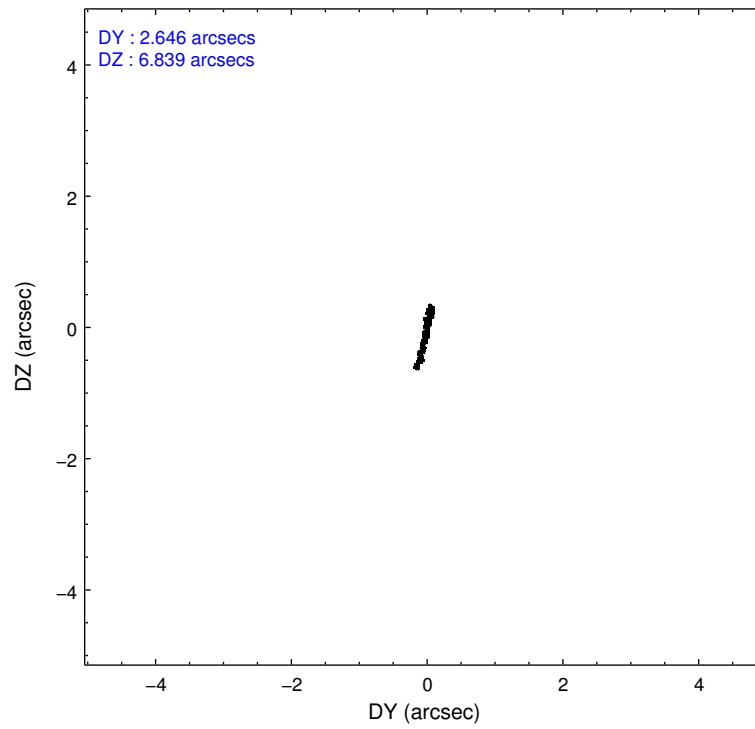
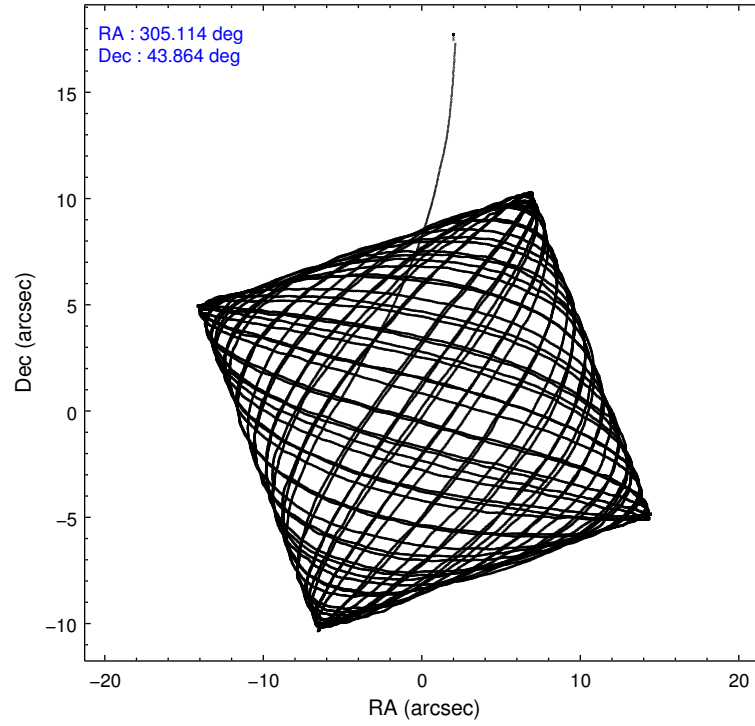
### 2.1.4 Events

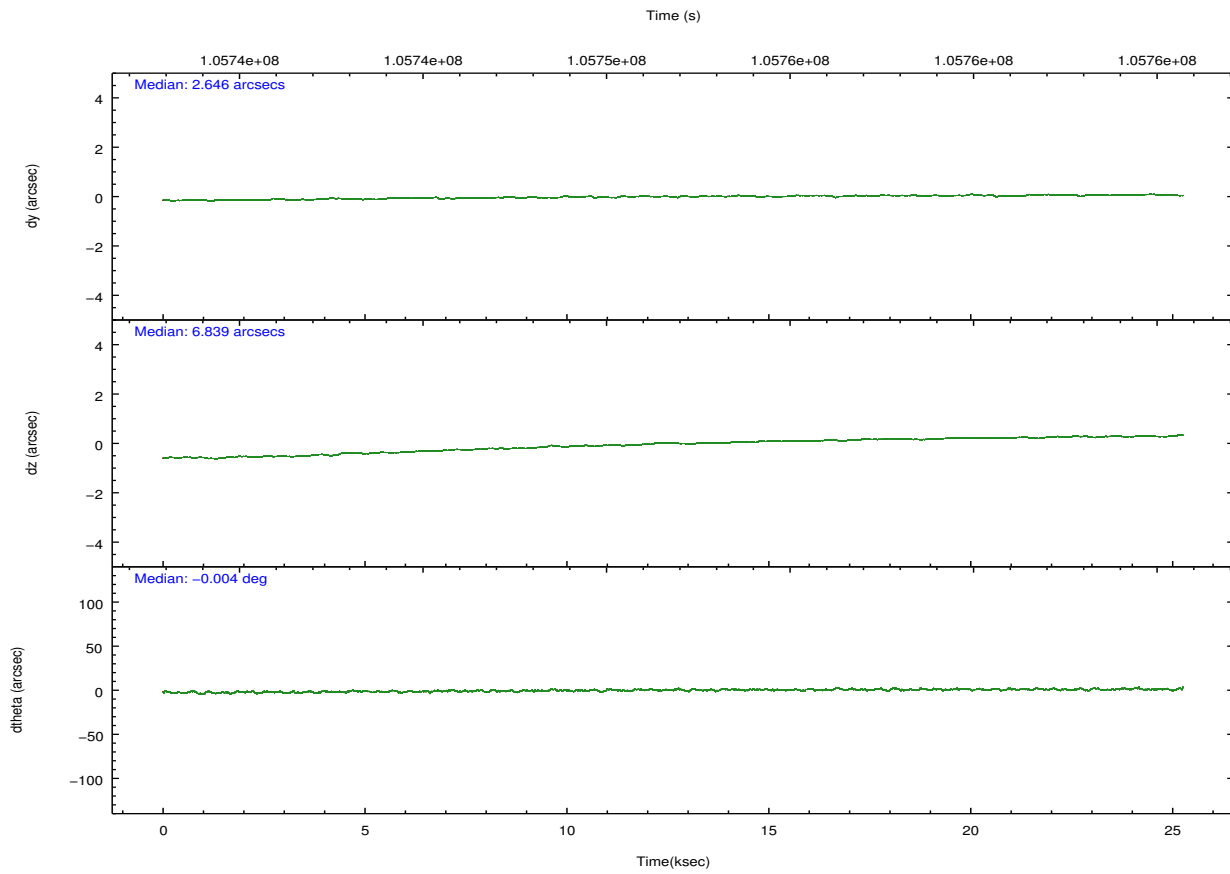
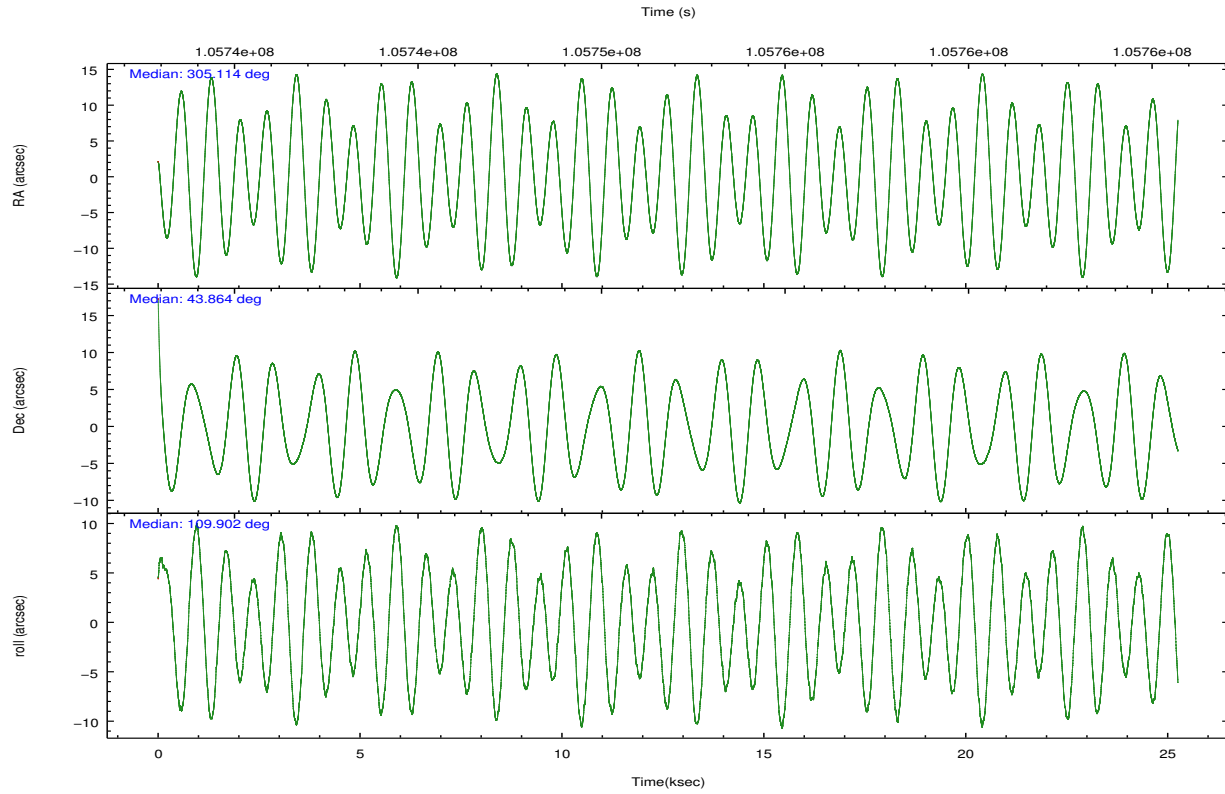
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	183906	230029	171217	214791	230138	170849	grade 0 events	8027	16111	10936	9728	17387	13859
rejected events	163487	122675	147682	120008	170783	145460		4%	7%	6%	4%	7%	8%
rejected %	88%	53%	86%	55%	74%	85%	grade 1 events	93	2450	96	337	160	1343
								0%	1%	0%	0%	0%	0%
							grade 2 events	5401	29576	4647	18962	11750	4019
								2%	12%	2%	8%	5%	2%
							grade 3 events	1862	4684	2020	8933	7232	1842
								1%	2%	1%	4%	3%	1%
							grade 4 events	1722	4654	1975	8786	6579	1892
								0%	2%	1%	4%	2%	1%
							grade 5 events	5739	16773	6639	20146	8942	7081
								3%	7%	3%	9%	3%	4%
							grade 6 events	3410	52345	3958	48383	16433	3778
								1%	22%	2%	22%	7%	2%
							grade 7 events	157652	103436	140946	99516	161655	137035
								85%	44%	82%	46%	70%	80%

## 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	305.143595	305.1143745177903	Subarray requested	NONE	NONE
[deg] Pointing Dec	43.846799	43.86416922527449	Alternating exposures requested	N	N
[deg] Pointing Roll	109.728374	109.9052452921889	[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)	105739349.184000	105738481.97774			
Observation start date	2001-05-08T20:01:25	2001-05-08T19:48:01			
[s] Observation end time (MET)	105764438.184000	105764752.72876			
Observation end date	2001-05-09T02:59:34	2001-05-09T03:05:52			
Read mode	TIMED	TIMED			

## 2.3 Aspect



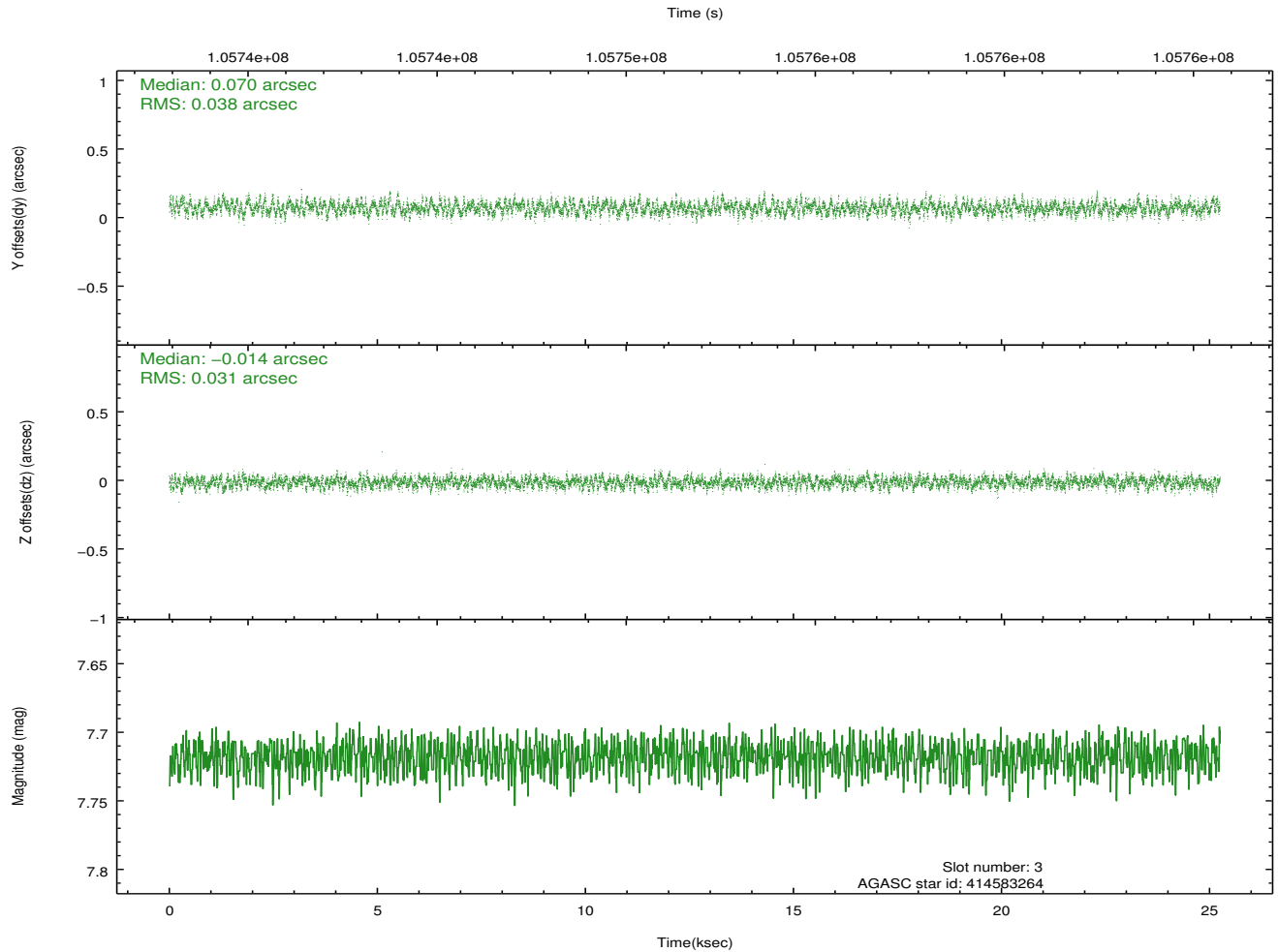
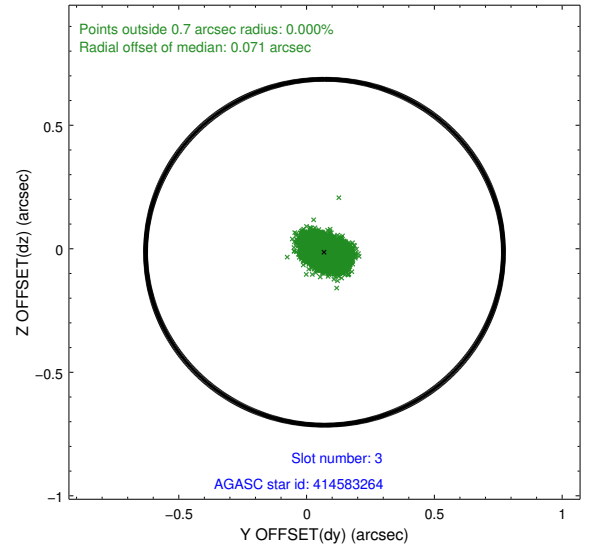
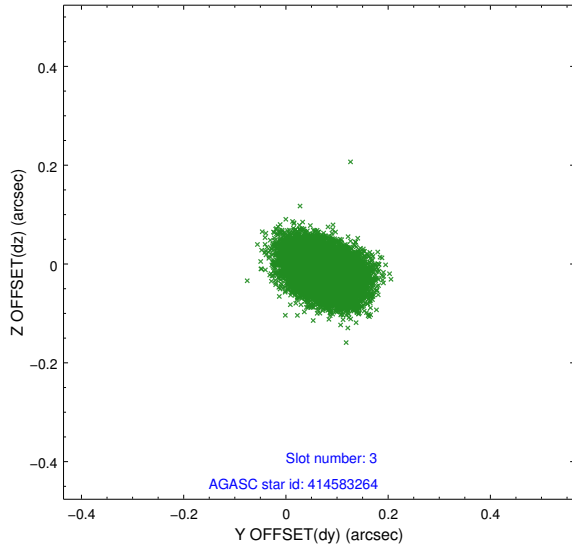


### Slot Statistics

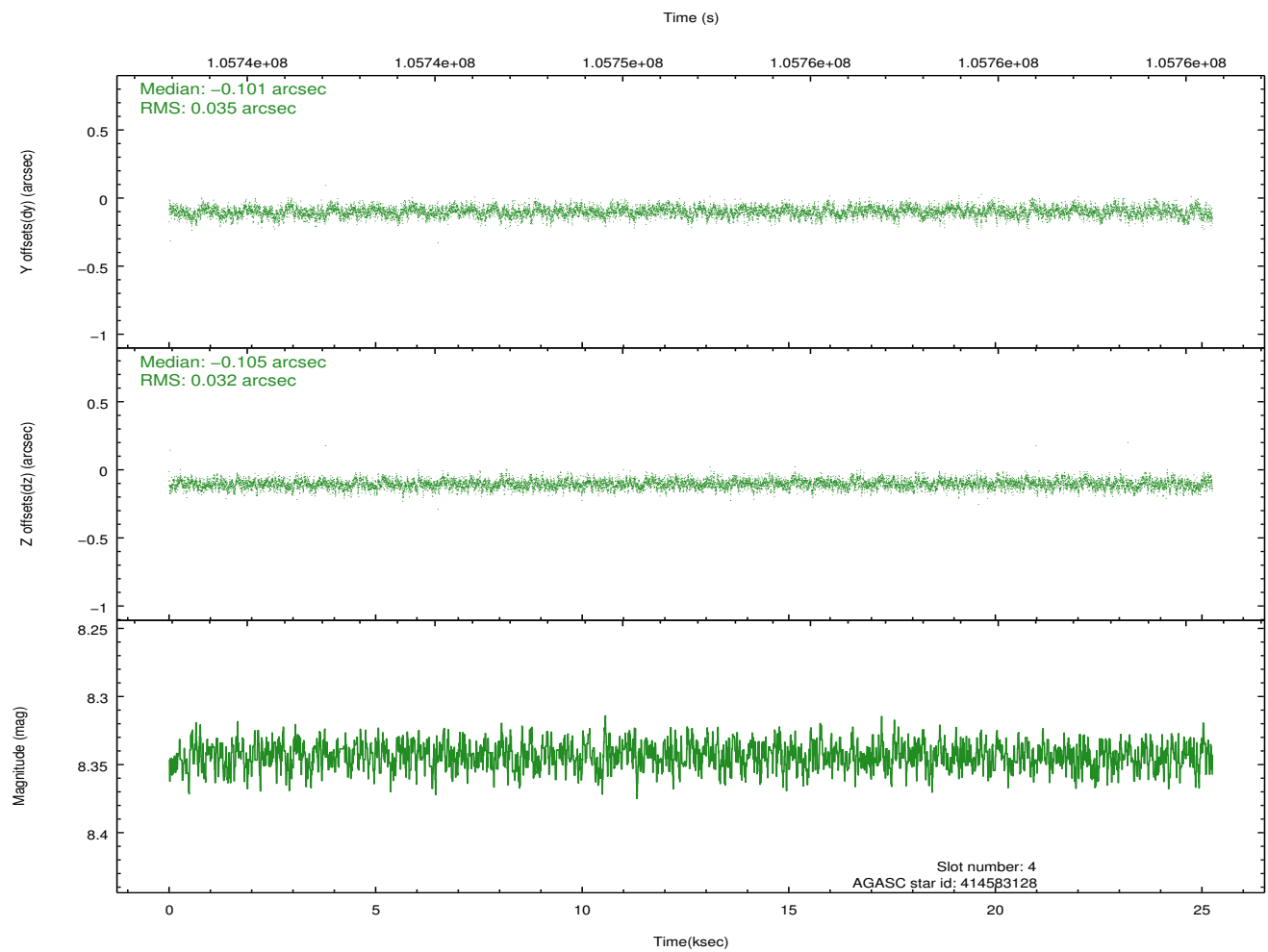
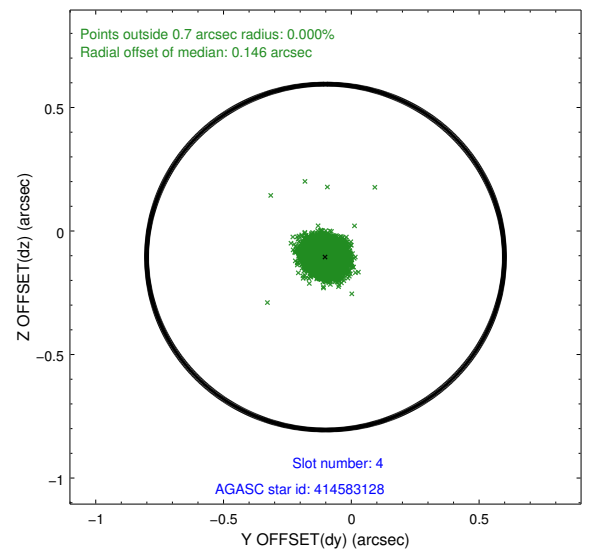
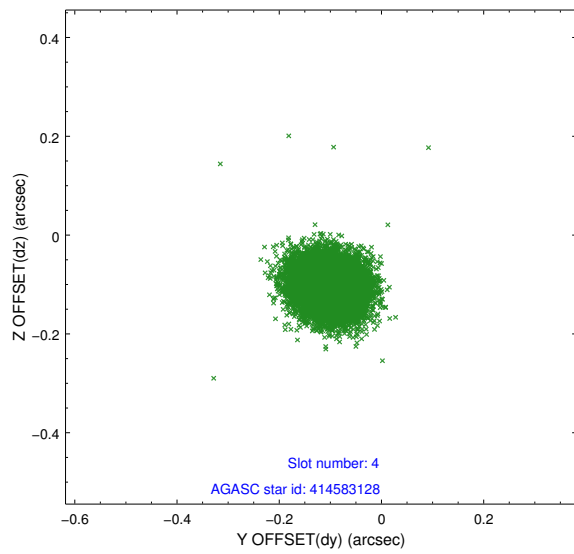
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	6159	0.028	-0.071	0.013	0.024	0.000000	0.000000	940.77	-1723.64
1	FID	ACIS-S-5	7.23	6158	0.004	0.029	0.017	0.029	0.000000	0.000000	-1808.15	173.95
2	FID	ACIS-S-6	7.35	6159	-0.053	0.055	0.013	0.024	0.000000	0.000000	406.17	818.02
3	GUIDE	414583264	7.72	12313	0.070	-0.014	0.052	0.086	304.893328	43.496153	-966.67	1040.39
4	GUIDE	414583128	8.34	12315	-0.101	-0.105	0.051	0.083	304.426562	44.225700	1915.58	1277.70
5	GUIDE	414723776	9.32	12310	0.209	0.098	0.080	0.129	305.795174	43.432480	-1972.41	-1102.61
6	GUIDE	414718744	8.15	12314	-0.158	0.137	0.072	0.114	305.210228	44.542005	2297.84	-1006.16
7	GUIDE	414583848	8.38	12296	-0.017	-0.116	0.057	0.093	304.983045	43.966065	545.00	245.87

## 2.4 Star Slots

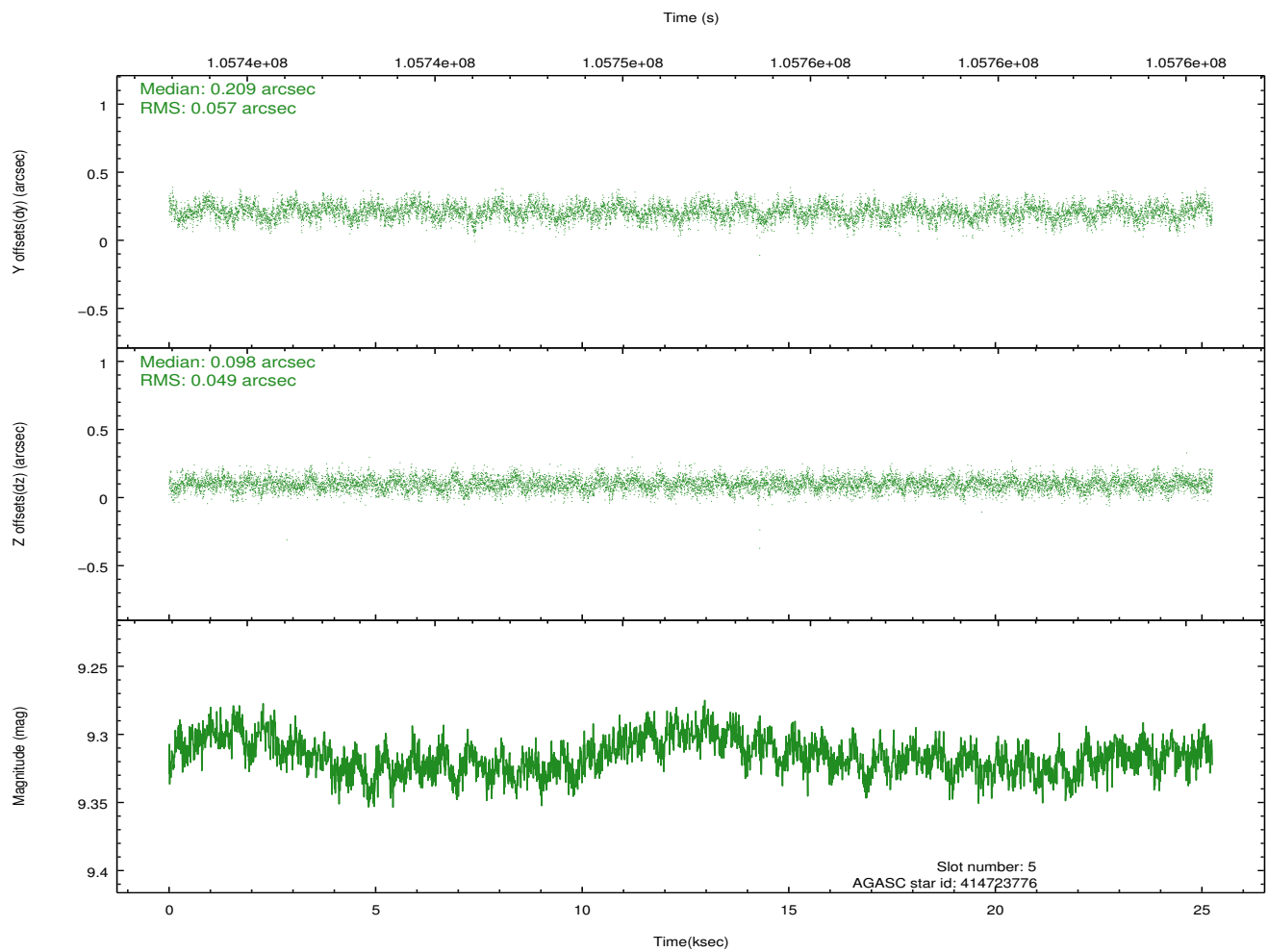
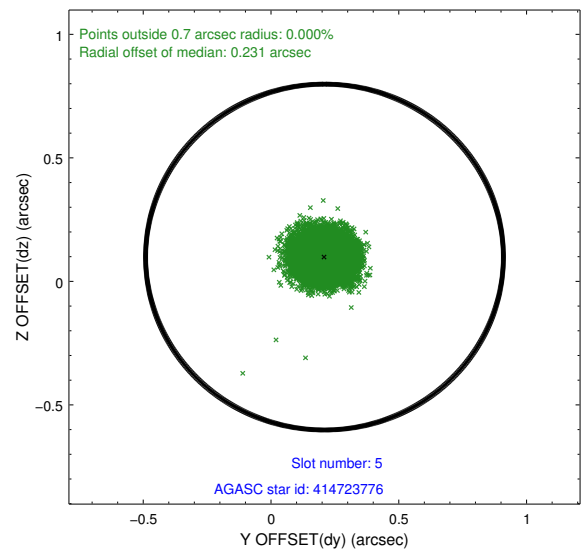
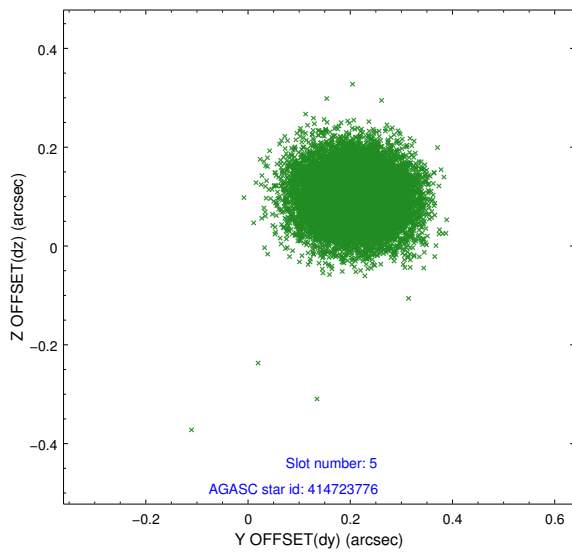
### 2.4.1 Slot 3



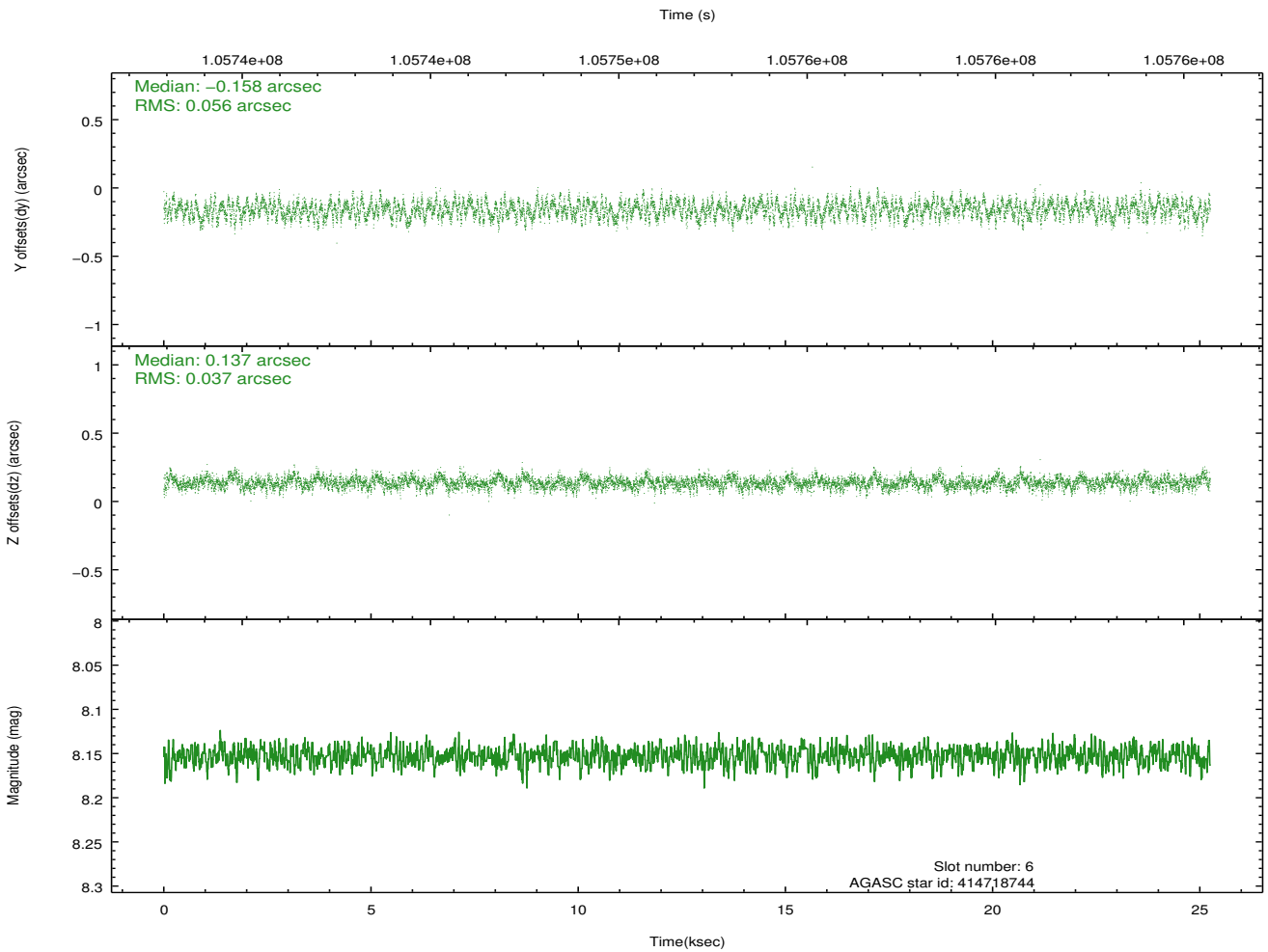
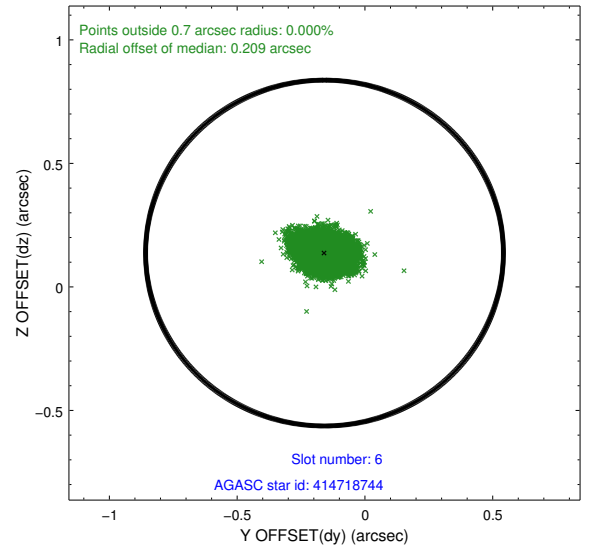
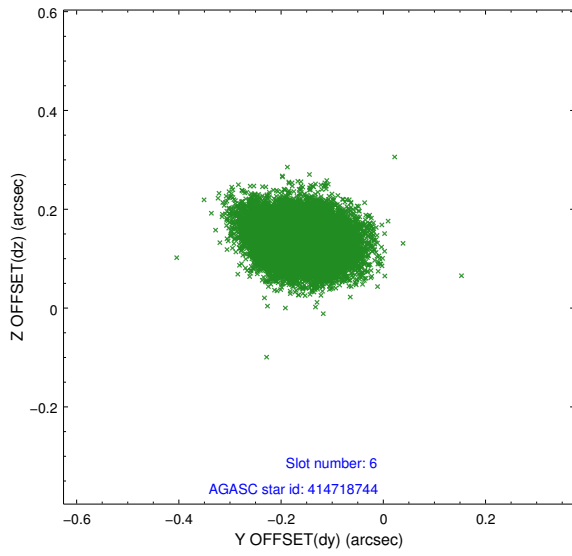
## 2.4.2 Slot 4



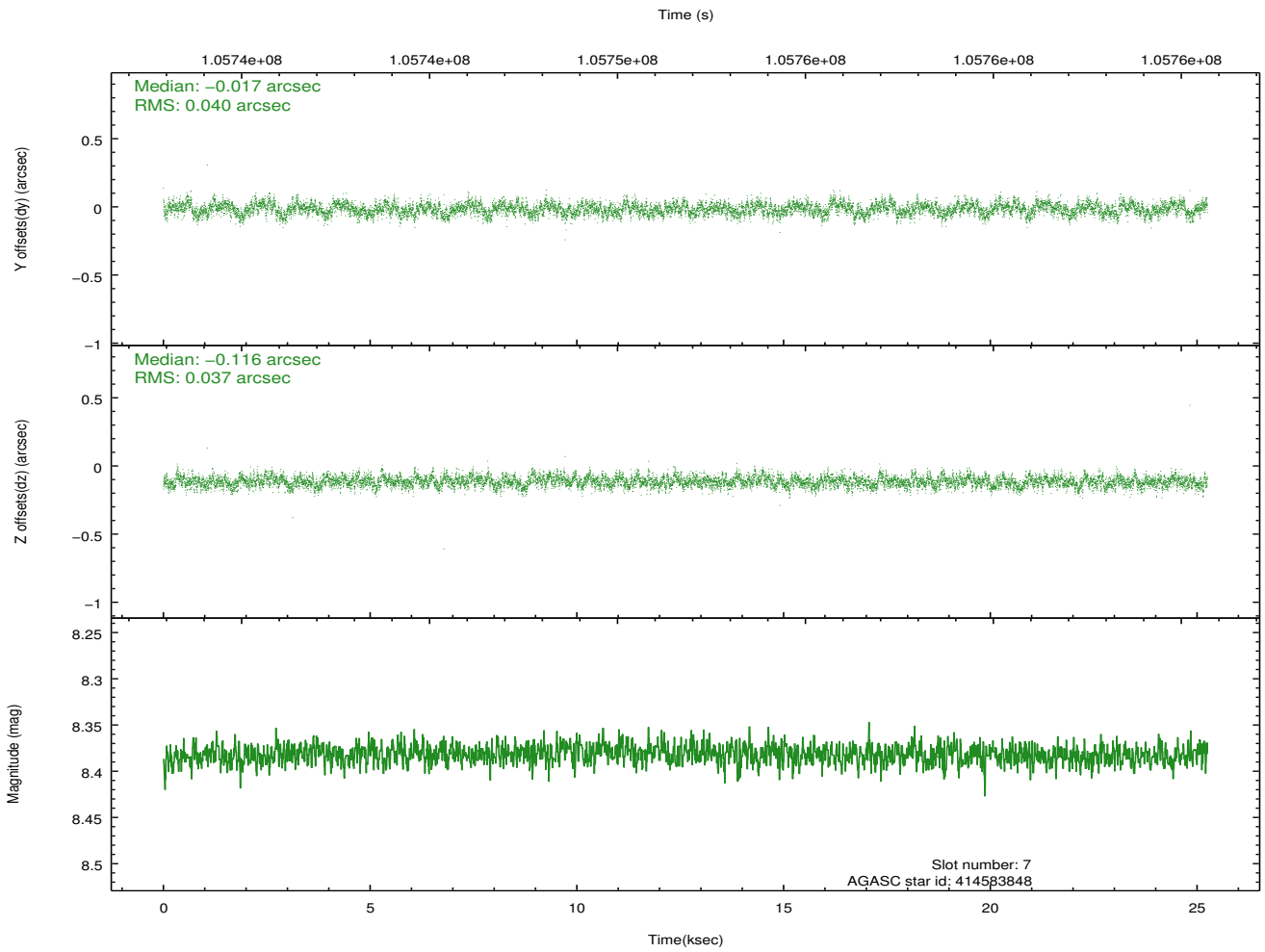
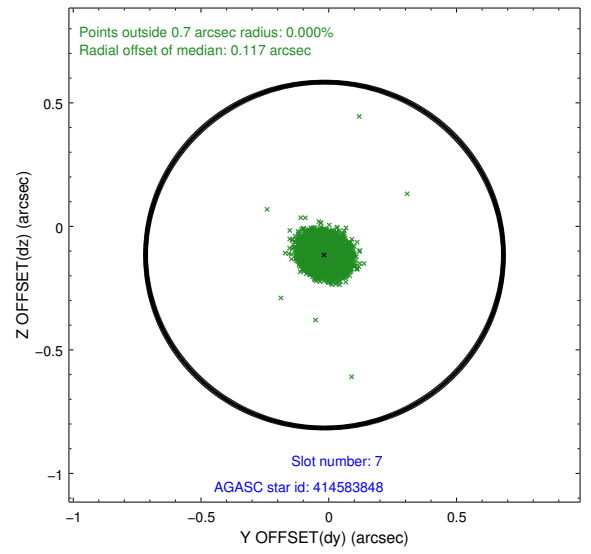
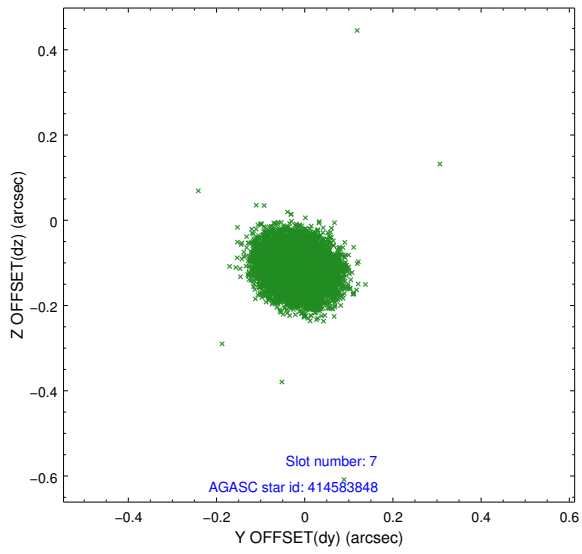
### 2.4.3 Slot 5



### 2.4.4 Slot 6

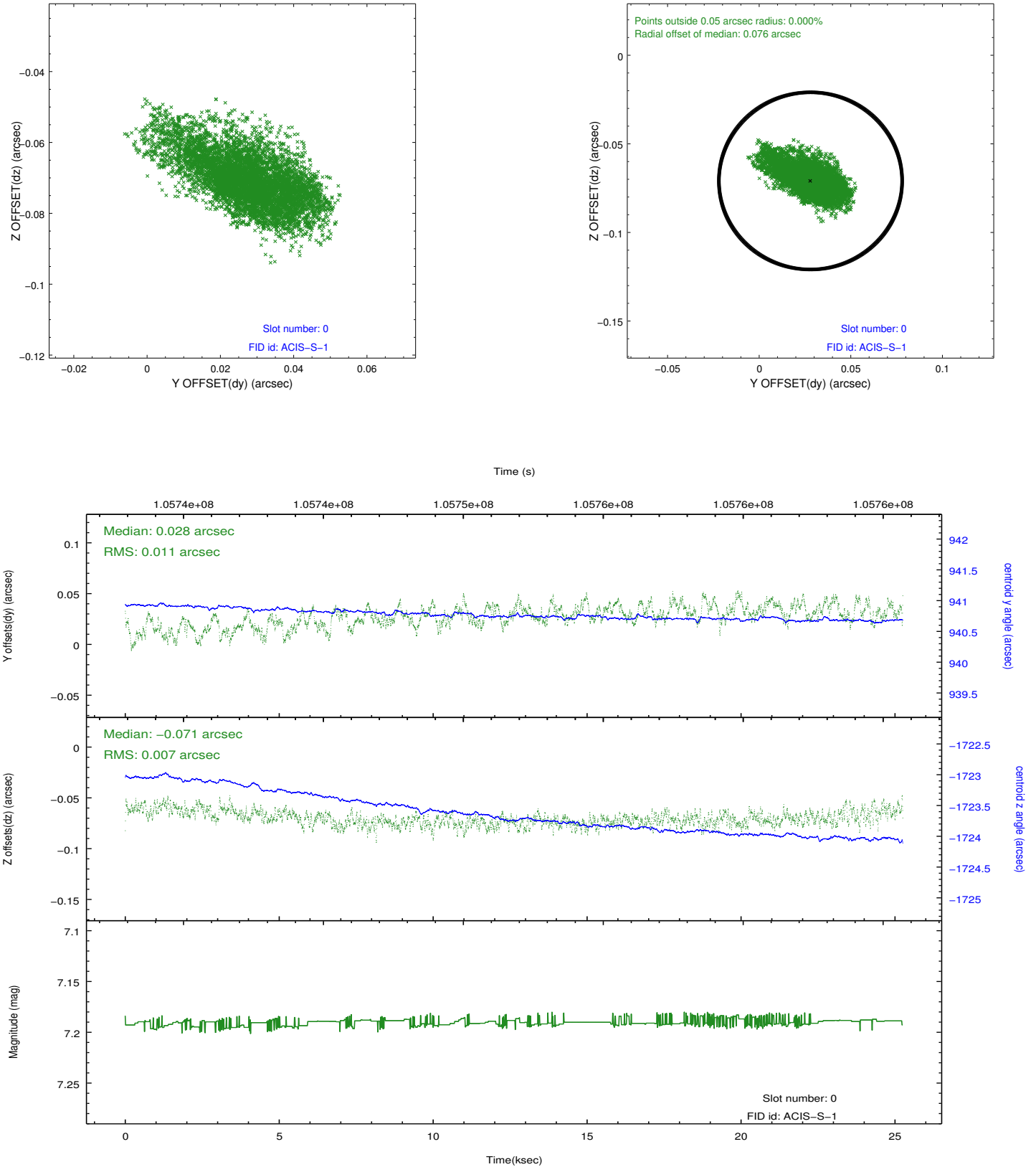


### 2.4.5 Slot 7

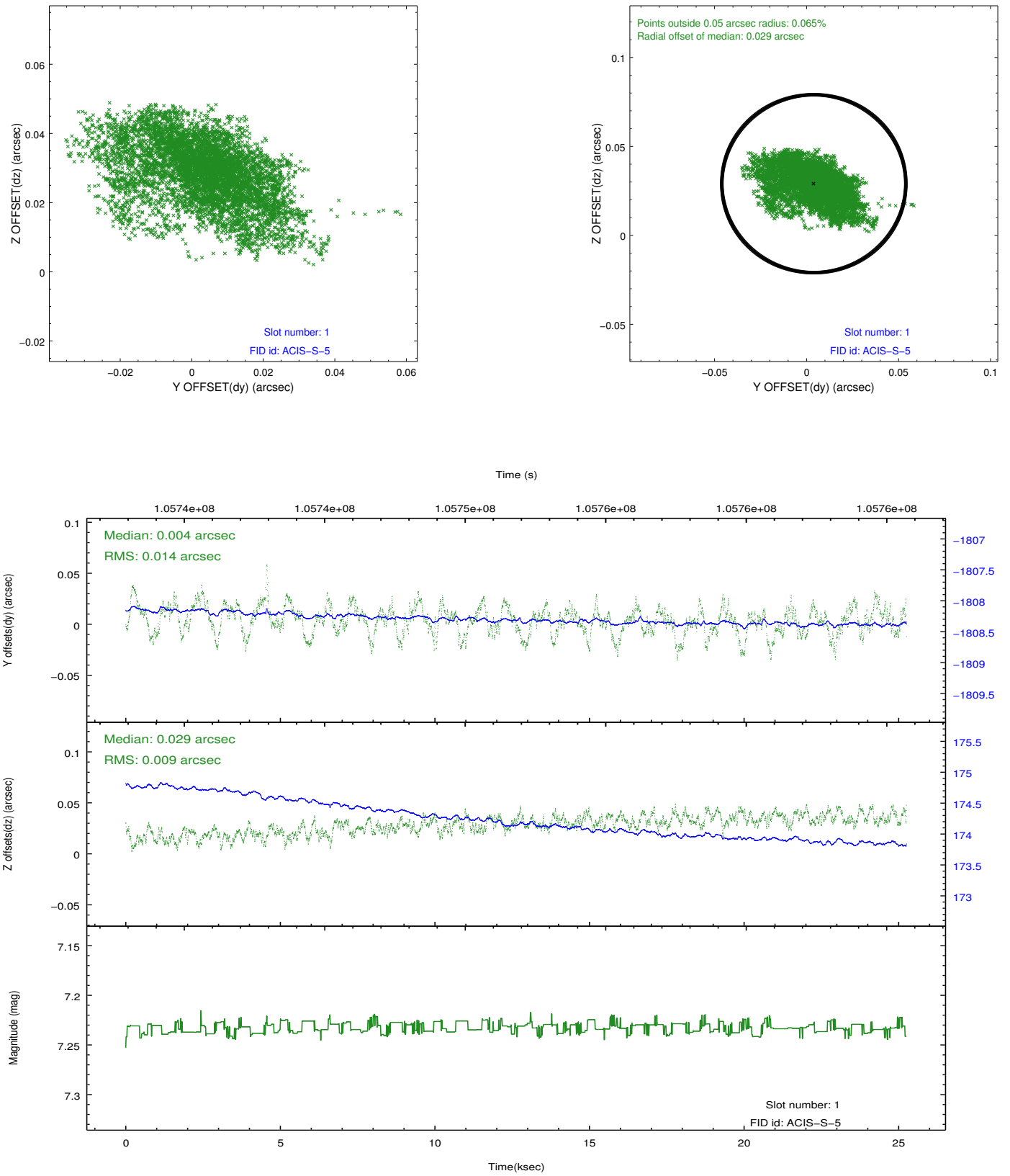


## 2.5 FID Slots

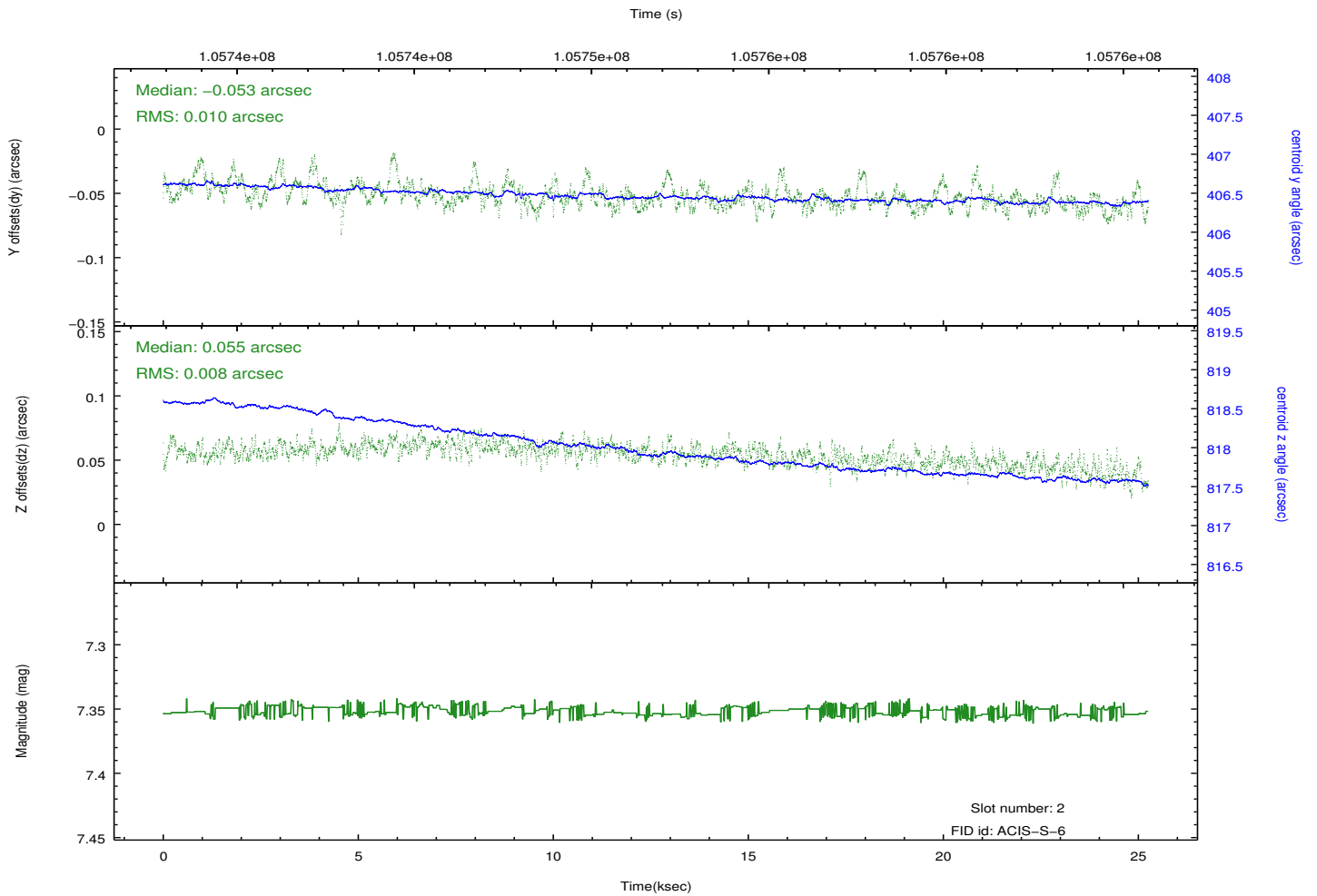
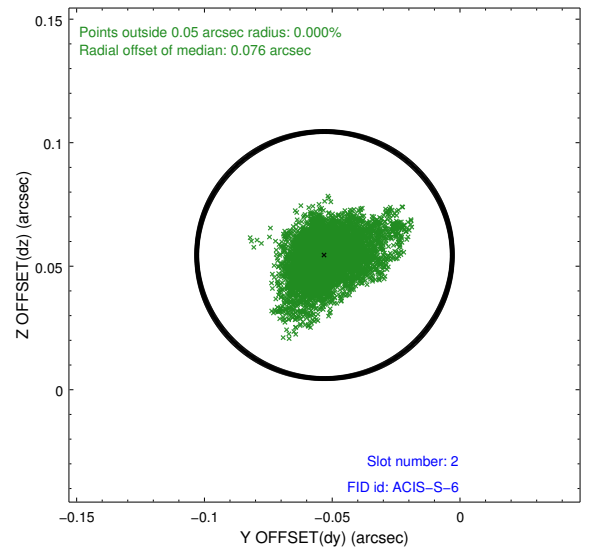
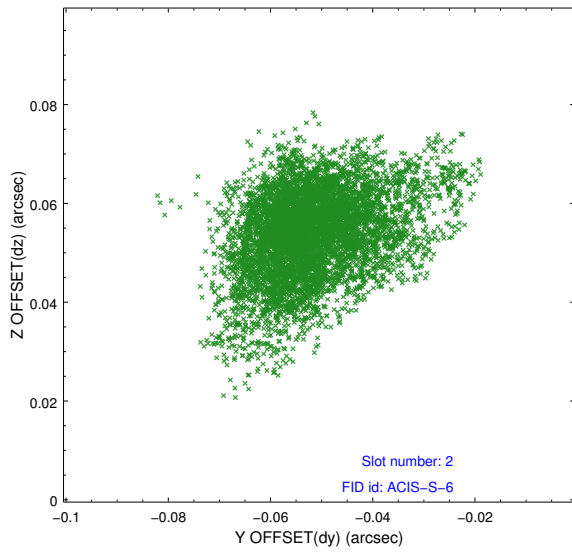
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

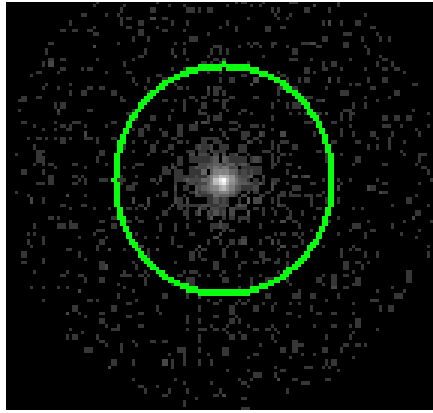


### 3 Gratings

#### 3.1 HEG Arm



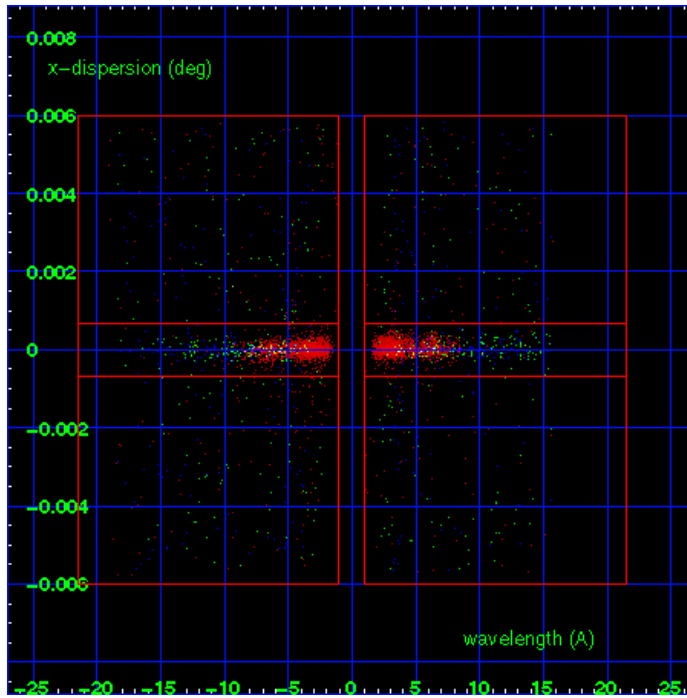
HEG Order Sort 123



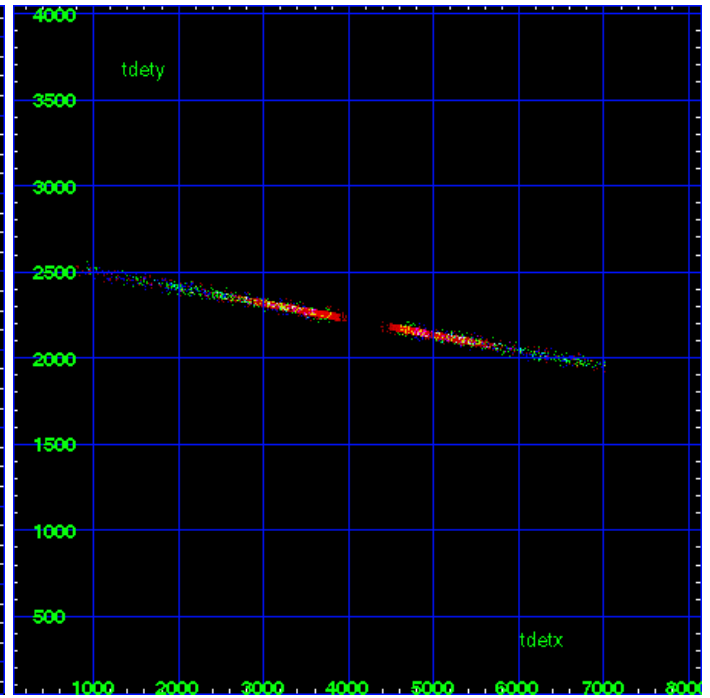
HEG Zero Order



HEG Order Sort ALL

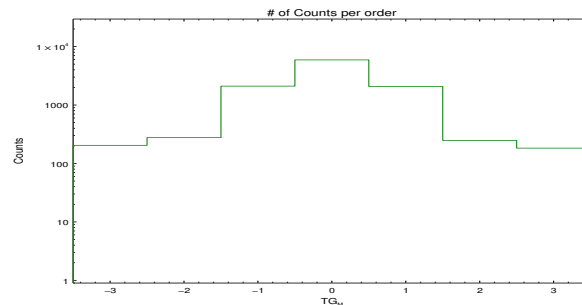


Spot Image HEG

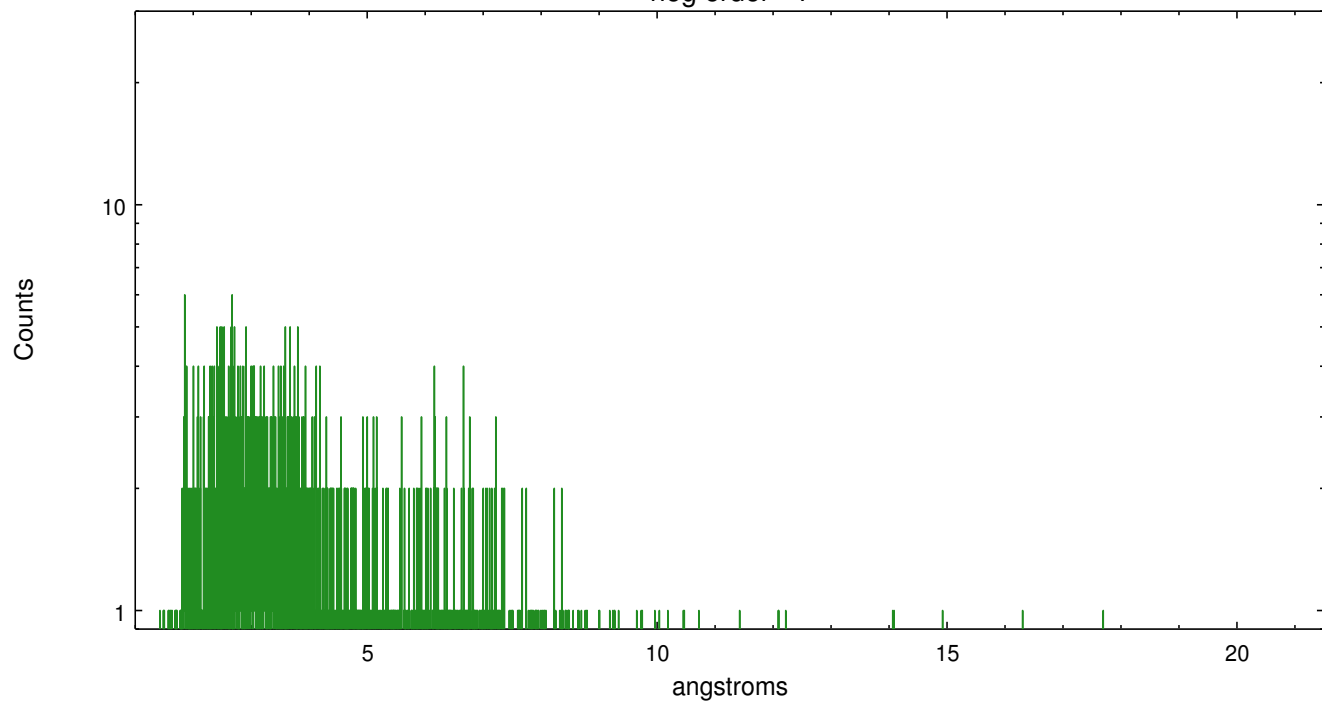


Full Detector HEG

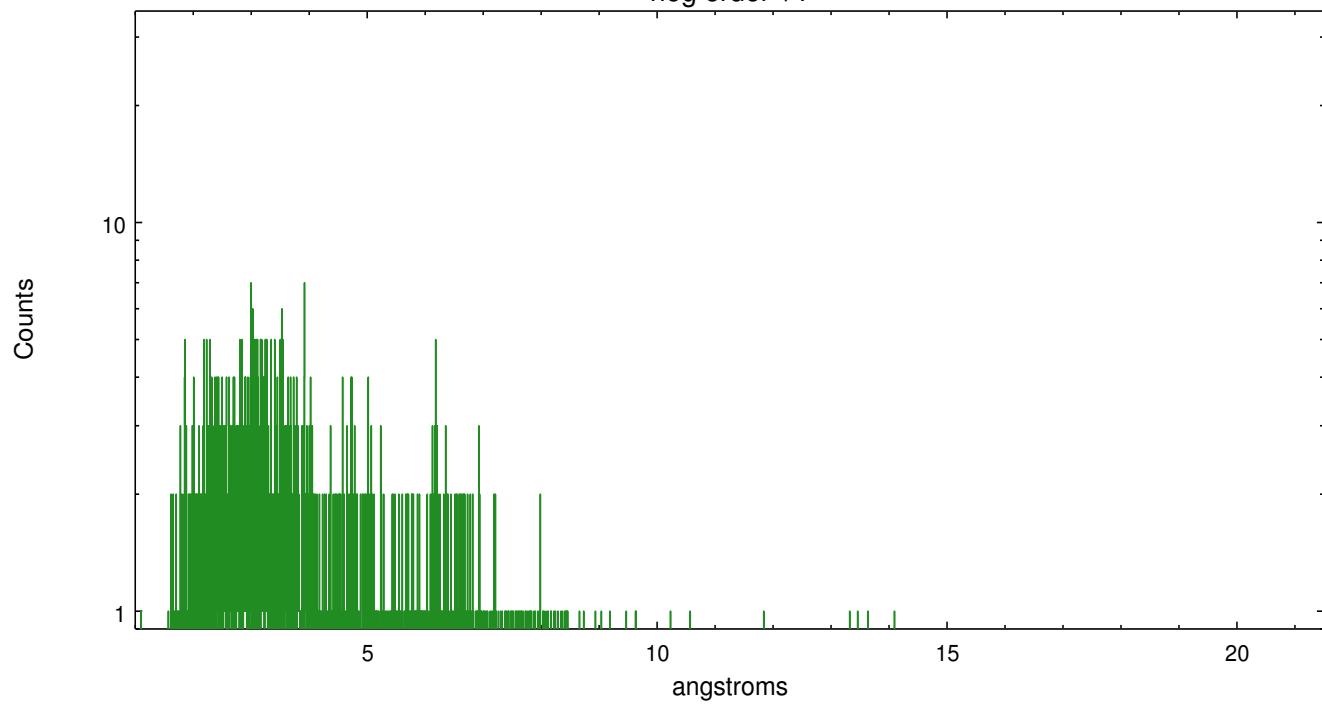
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	204	277	2104	5914	2079	248	183



heg order -1



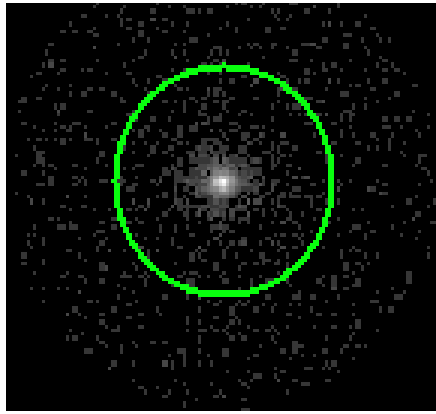
heg order +1



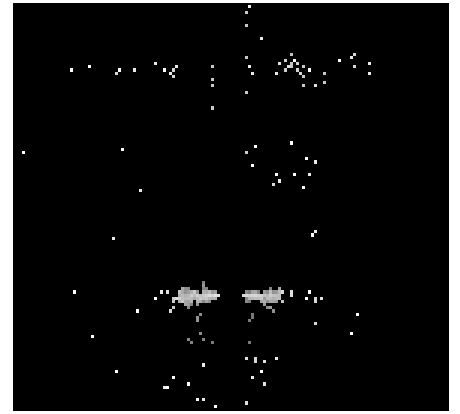
### 3.2 MEG Arm



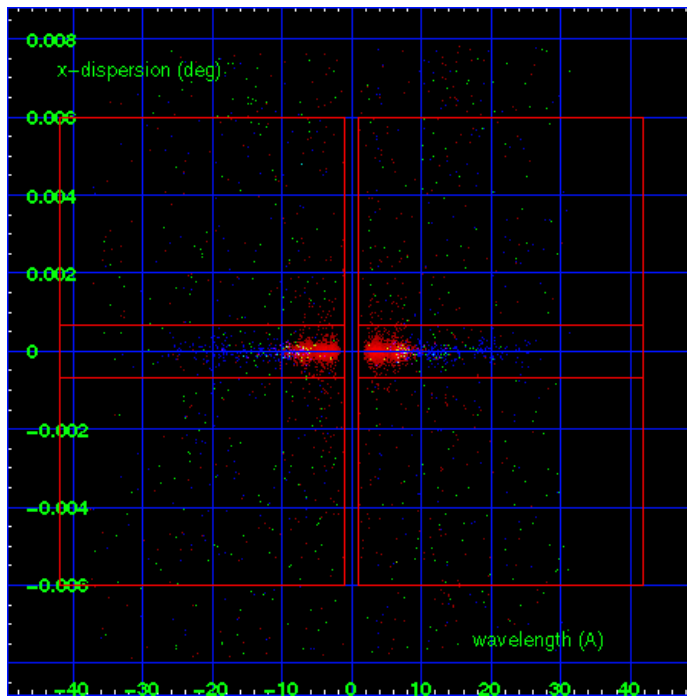
MEG Order Sort 123



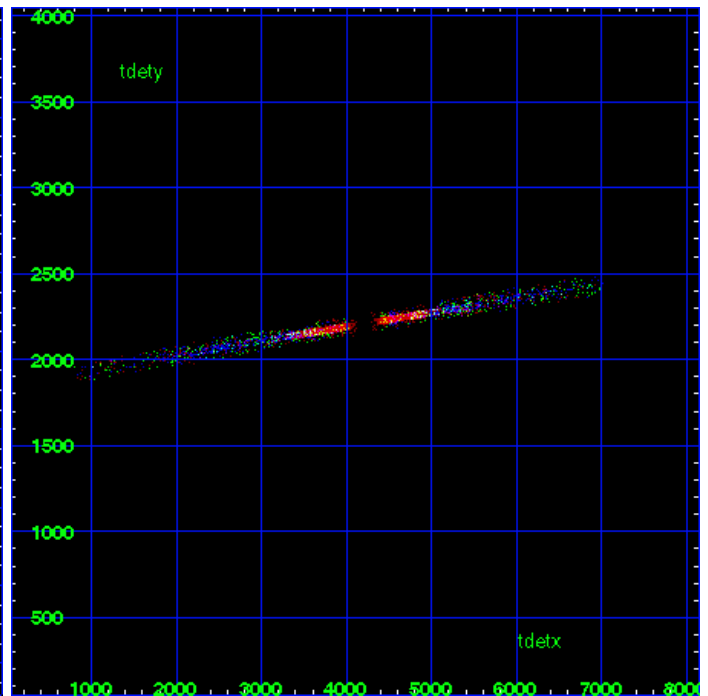
MEG Zero Order



MEG Order Sort ALL

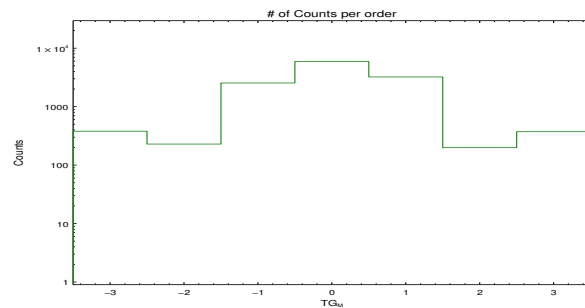


Spot Image MEG

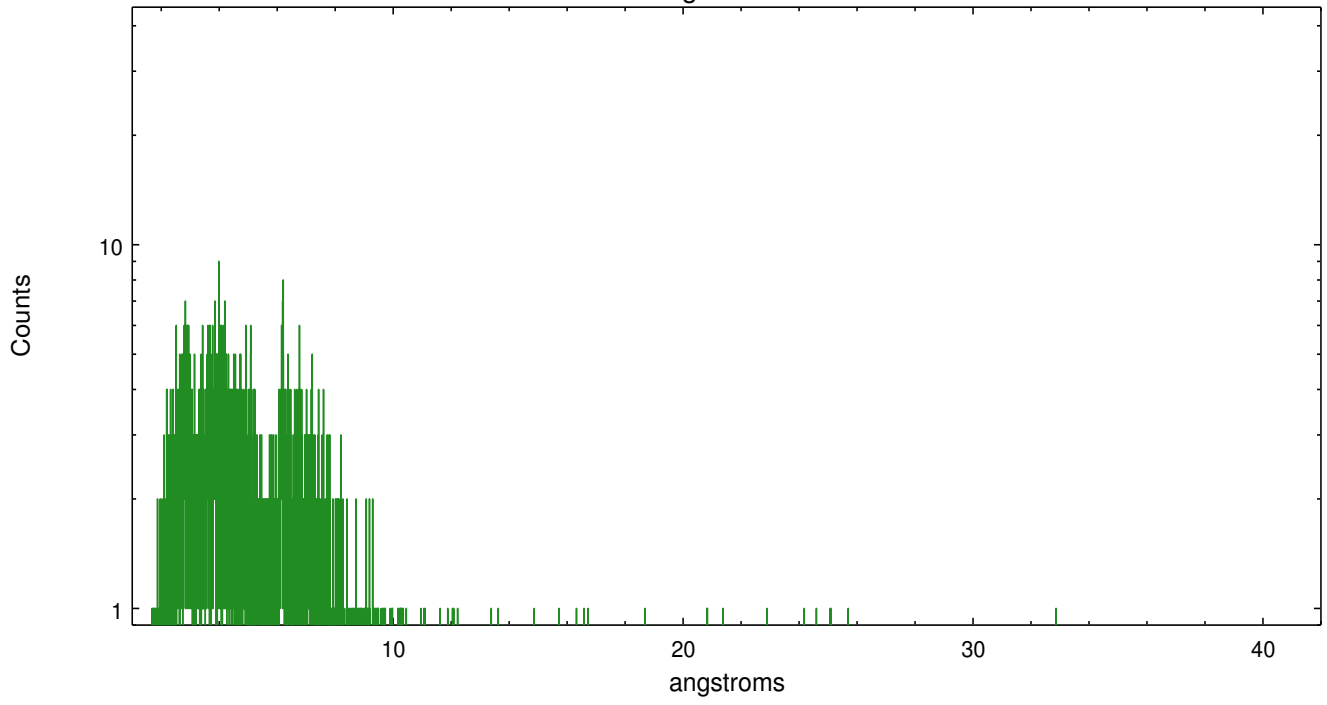


Full Detector MEG

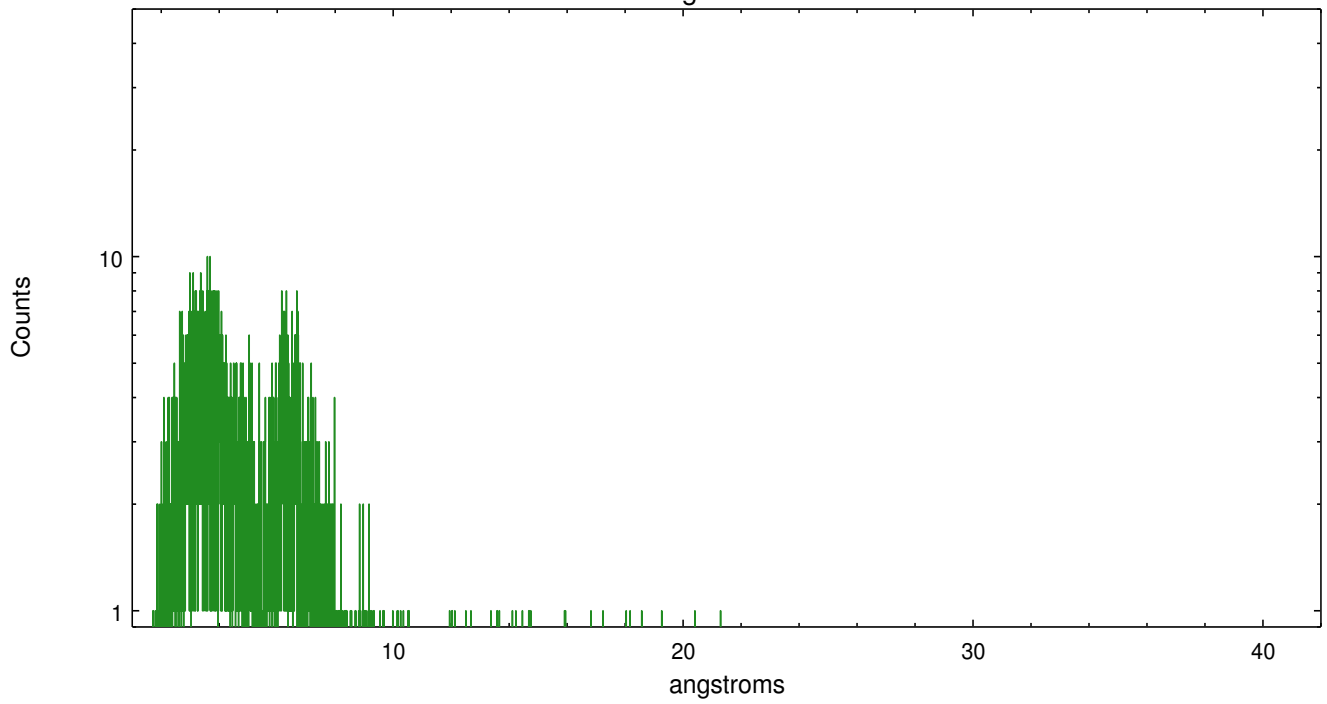
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	380	229	2541	5914	3223	199	373



meg order -1



meg order +1



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.838

## A.2 Comments