

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1100 - L2 Version 3

Chandra X-Ray Center

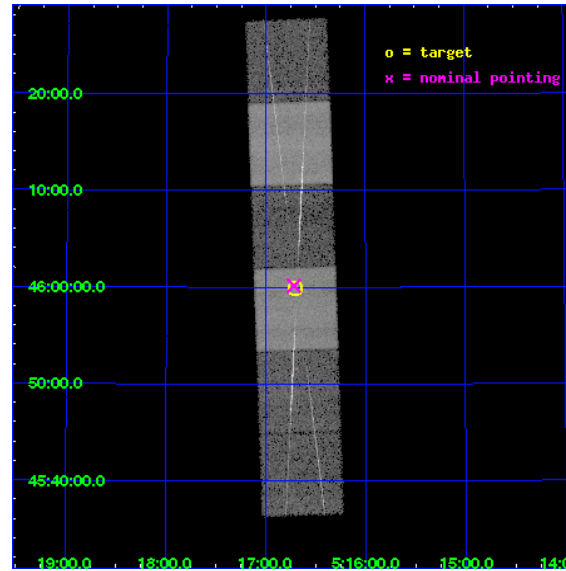
L2 Processing Date : Dec 17 2009

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# 1 Front

seq_num	280050	Sequence number
obs_id	1100	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	CAPELLA	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	79.17625	Observer's specified target RA
dec_targ	45.997889	Observer's specified target Dec
ra_nom	79.179651894169	Nominal RA
dec_nom	46.002589259394	Nominal Dec
roll_nom	88.025303614419	Nominal Roll
revision	3	Processing version of data
ontime	14757.549561724	Sum of GTIs [s]
livetime	14570.680583244	Livetime [s]
ontime4	14757.467481725	Sum of GTIs [s]
ontime5	14757.50855165	Sum of GTIs [s]
ontime6	14757.344361722	Sum of GTIs [s]
ontime7	14757.549561724	Sum of GTIs [s]
ontime8	14757.426471651	Sum of GTIs [s]
ontime9	14757.385401726	Sum of GTIs [s]
l2events	220013	Number of level 2 events

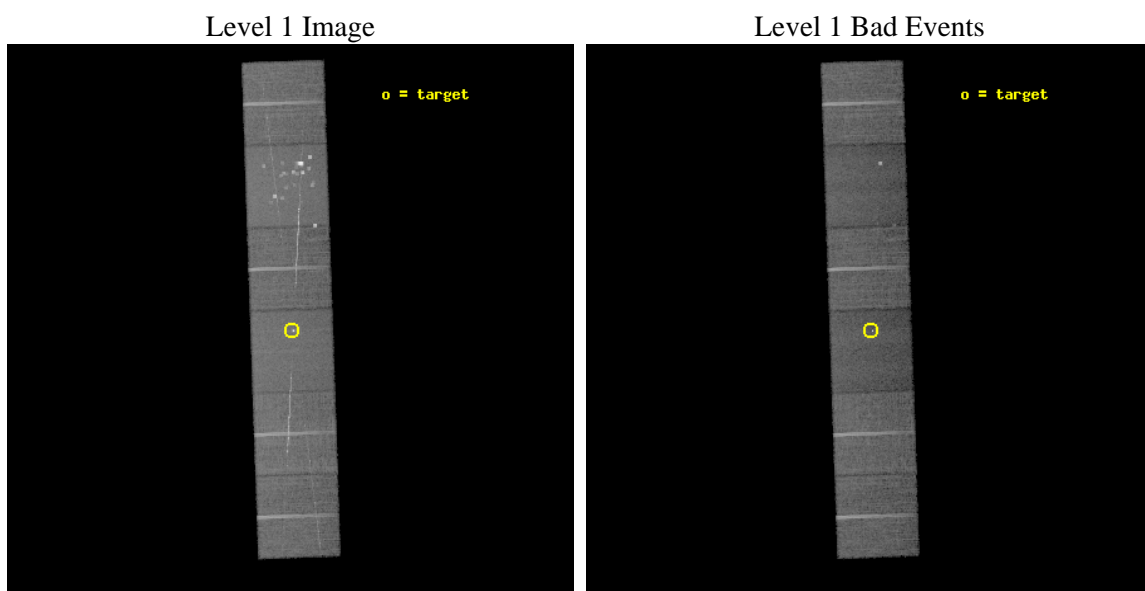




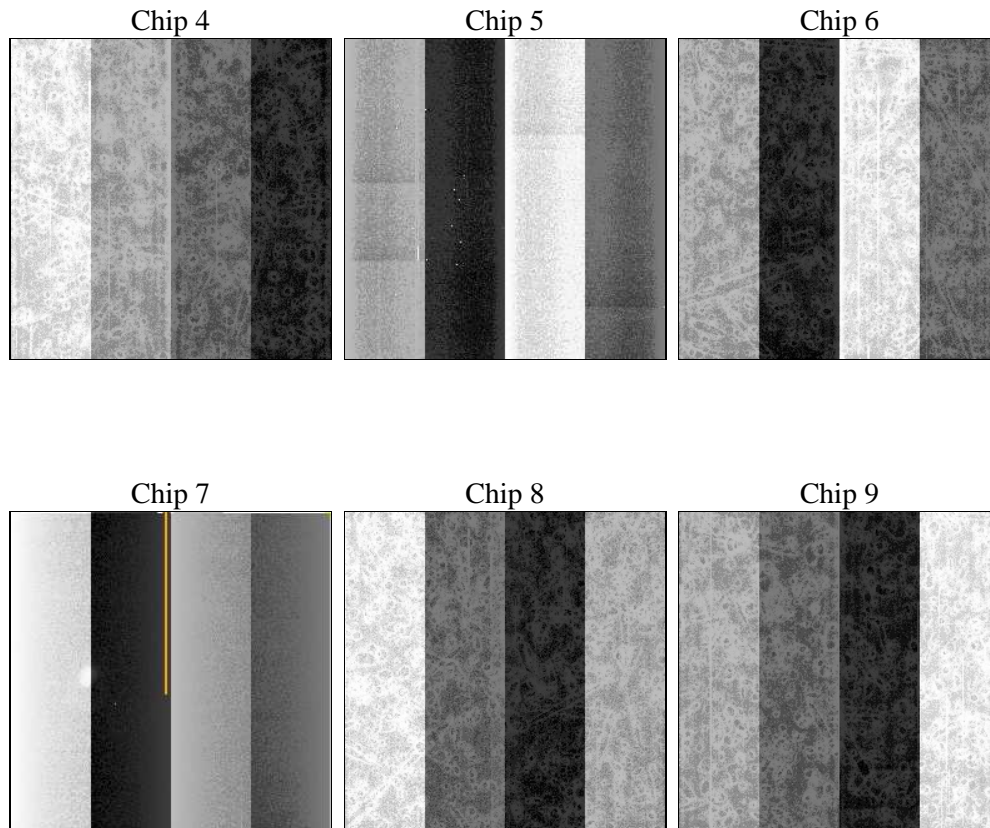
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	15000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	14757.549561724	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime4	14757.467481725	Sum of GTIs [s]
date	2009-12-17T12:18:03	Date and time of file creation	ontime5	14757.50855165	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	14757.344361722	Sum of GTIs [s]
			ontime7	14757.549561724	Sum of GTIs [s]
			ontime8	14757.426471651	Sum of GTIs [s]
			ontime9	14757.385401726	Sum of GTIs [s]
			l1events	1055065	Number of level 1 events

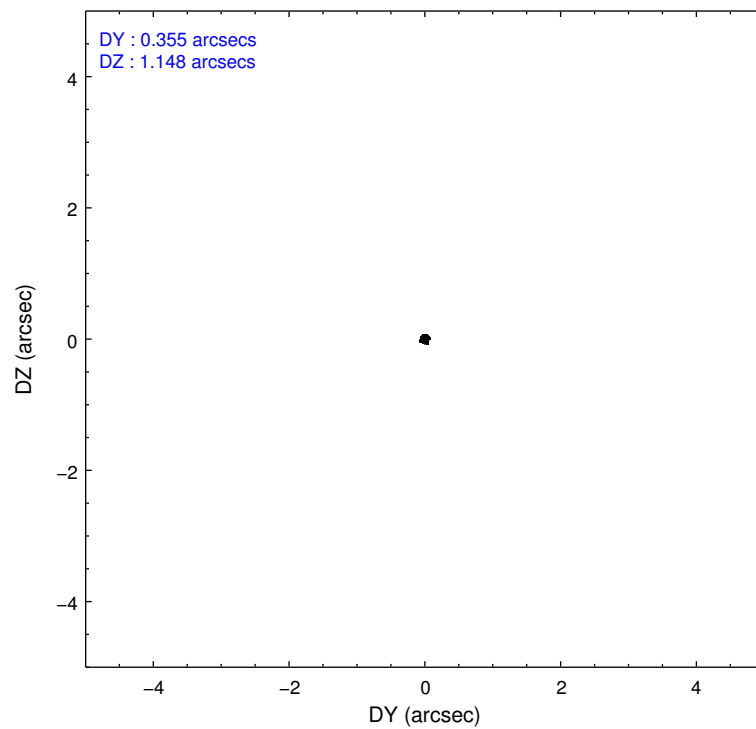
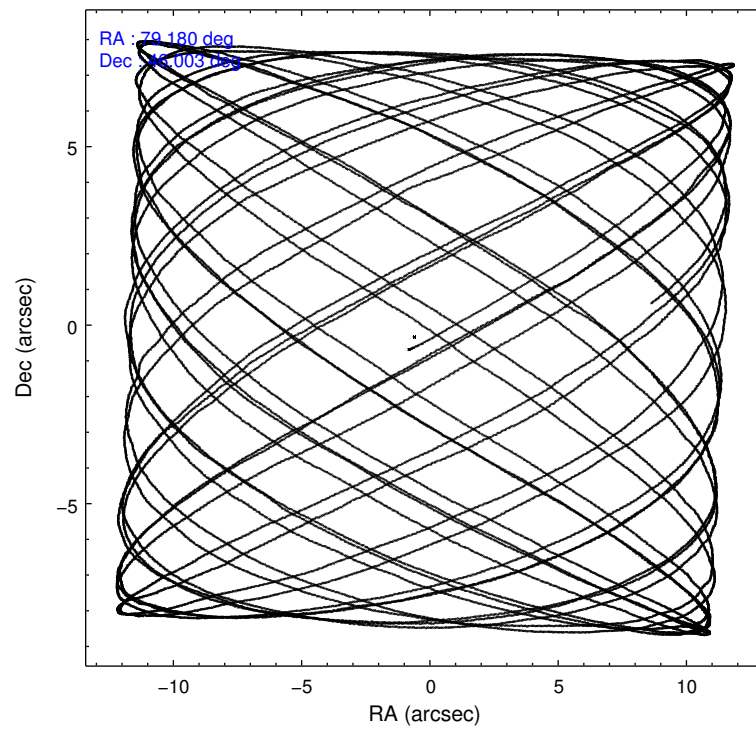
### 2.1.4 Events

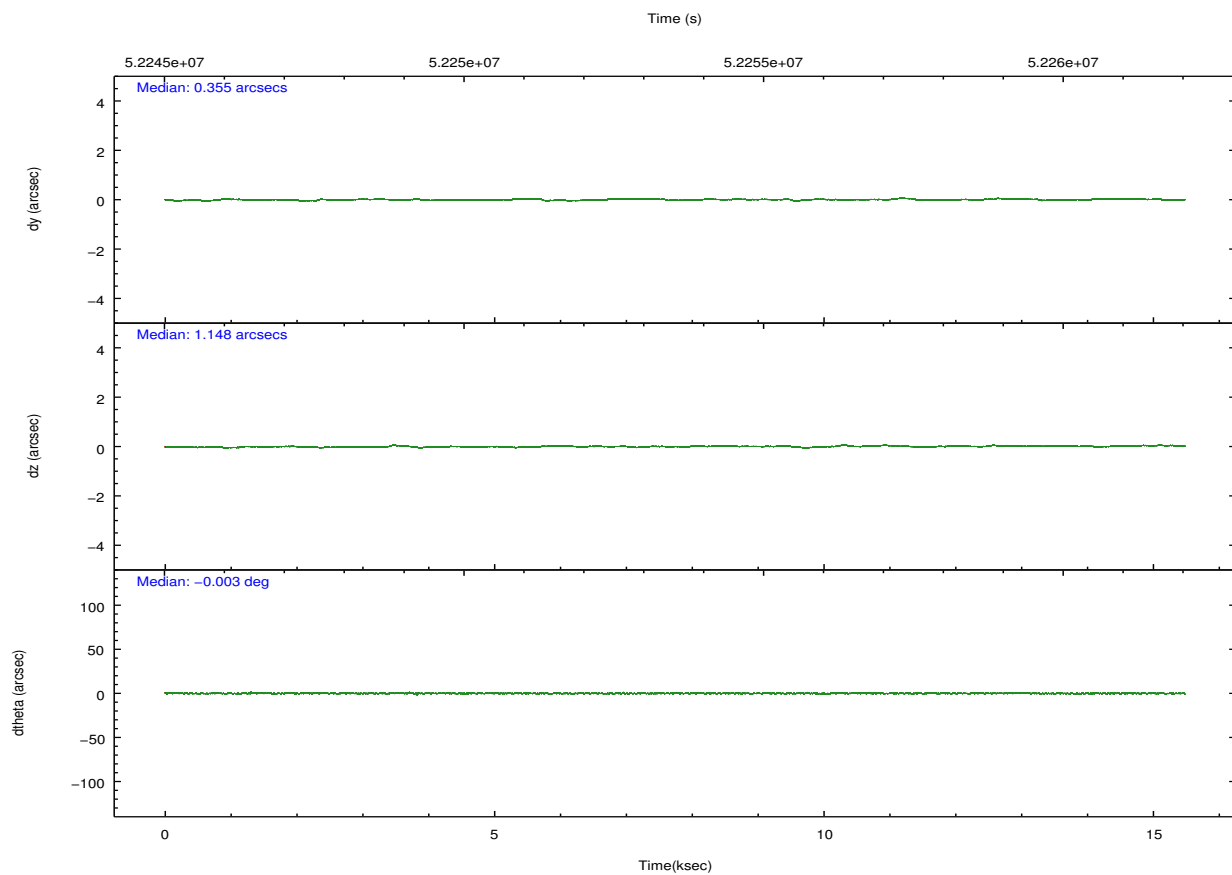
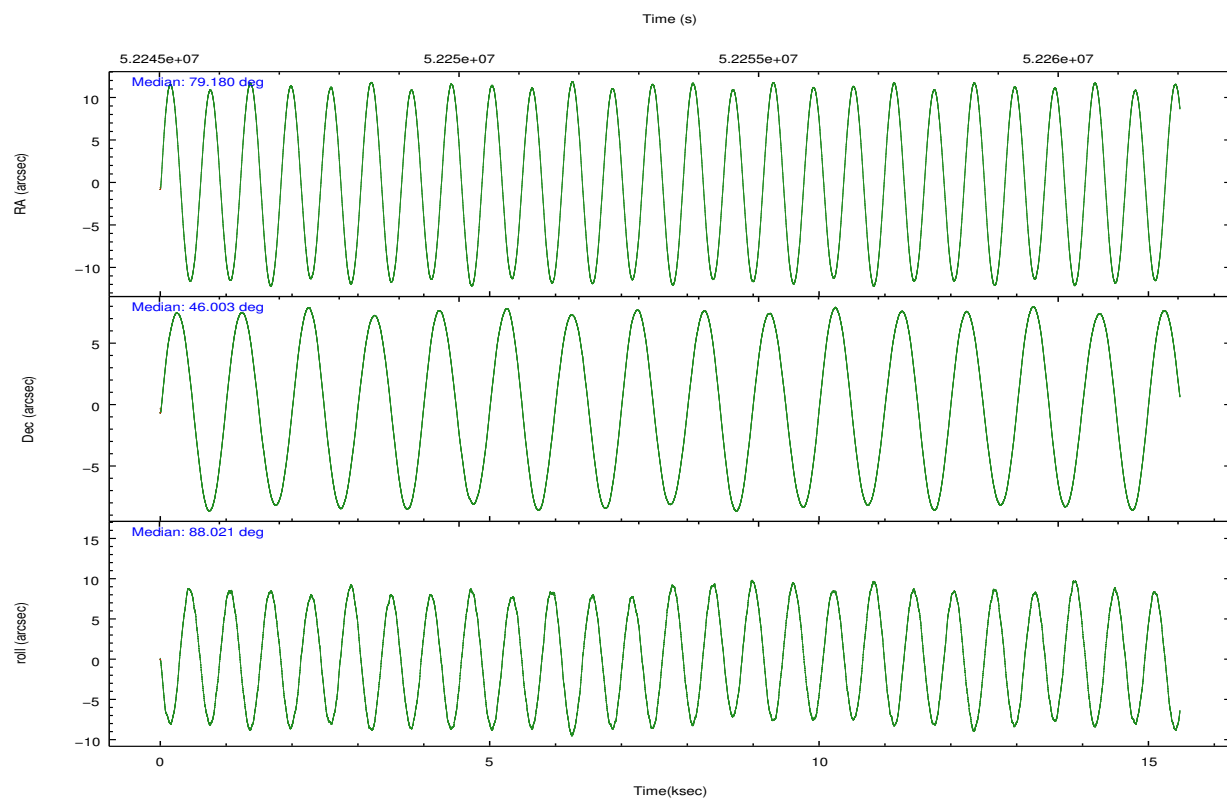
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	162845	233138	157113	162982	190166	148821	grade 0 events	5966	44728	11296	5244	17027	6463
rejected events	146912	99664	134327	95814	152556	131870		3%	19%	7%	3%	8%	4%
rejected %	90%	42%	85%	58%	80%	88%	grade 1 events	40	987	97	202	162	50
								0%	0%	0%	0%	0%	0%
							grade 2 events	4822	26995	5129	11308	8870	4519
								2%	11%	3%	6%	4%	3%
							grade 3 events	1149	7129	1359	6733	2517	1255
								0%	3%	0%	4%	1%	0%
							grade 4 events	1169	6640	1356	5557	2357	1246
								0%	2%	0%	3%	1%	0%
							grade 5 events	2962	8672	3480	11003	4752	3766
								1%	3%	2%	6%	2%	2%
							grade 6 events	2844	48041	3654	38373	6859	3475
								1%	20%	2%	23%	3%	2%
							grade 7 events	143893	89946	130742	84562	147622	128047
								88%	38%	83%	51%	77%	86%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
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
Pointing RA	79.197739	79.17965189416935	Subarray requested	NONE	NONE
Pointing Dec	45.977981	46.00258925939379	Alternating exposures requested	N	N
Pointing Roll	87.855662	88.02530361441906	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.884267	-0.9302499541415544			
SIM defocus (mm)	-0.2	-0.2459824928416582			
SIM translation stage pos (mm)	-190.132523	-190.1425803651734			
SIM translation stage offset (mm)	0	0.01005778216563158			
Observation start time	52246264.184000	52245597.477065			
Observation start date	1999-08-28T16:50:00	1999-08-28T16:39:57			
Observation end time	52261264.184000	52261397.340133			
Observation end date	1999-08-28T21:00:00	1999-08-28T21:03:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect



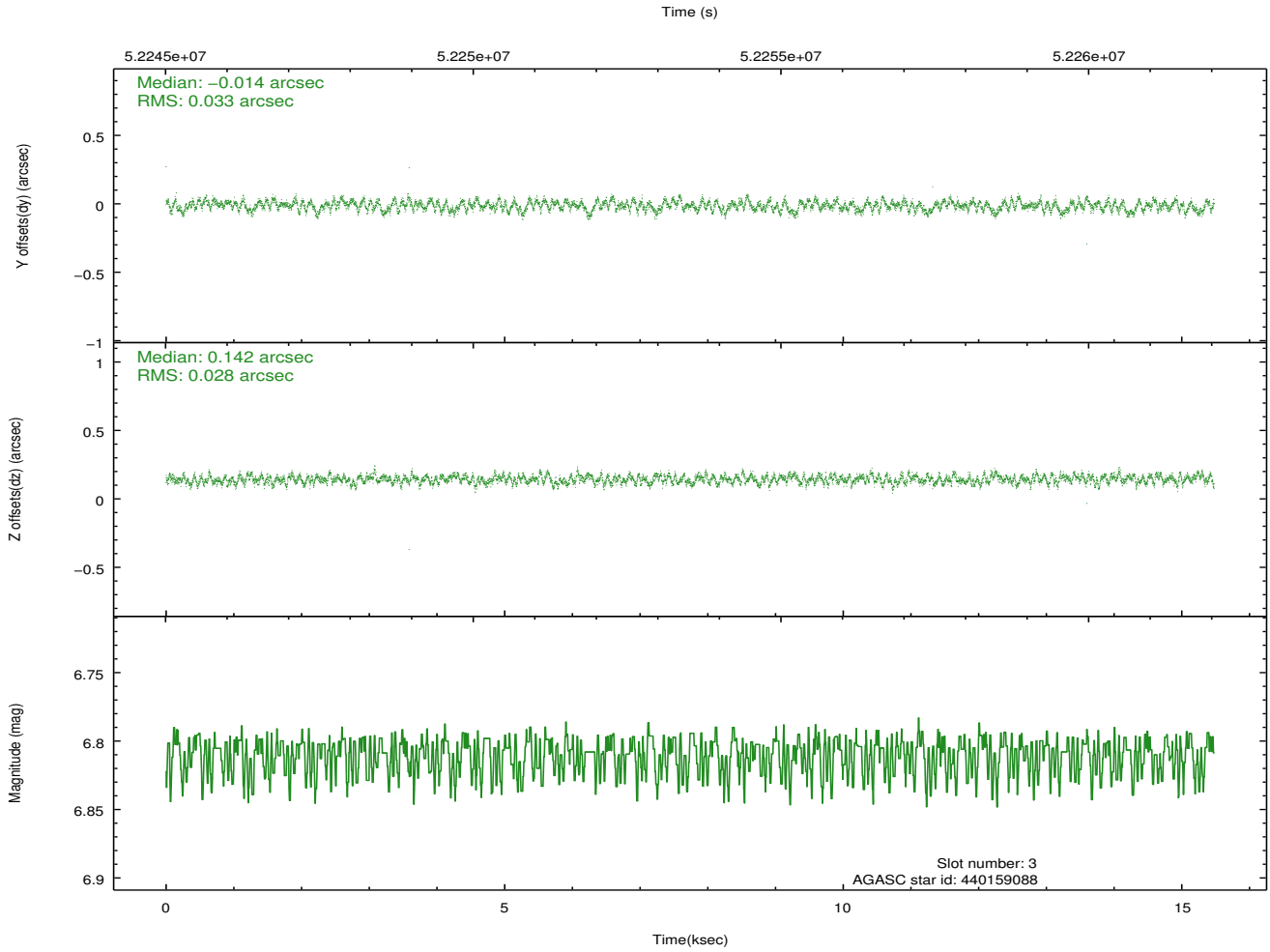
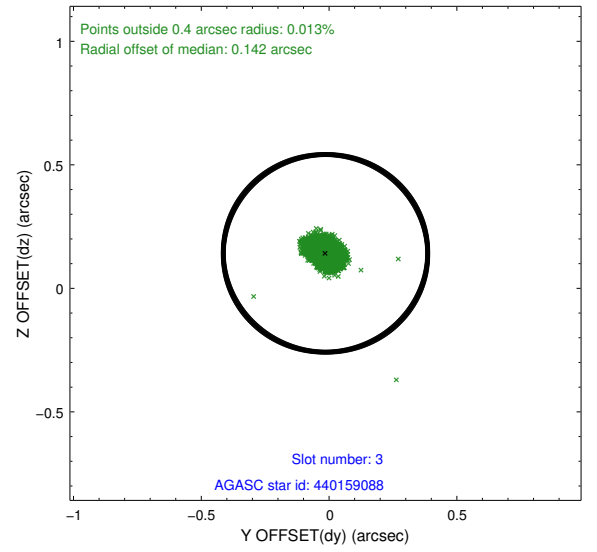
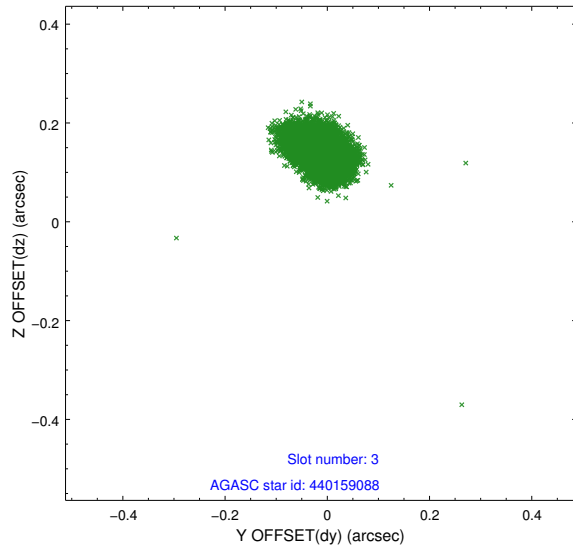


Slot Statistics

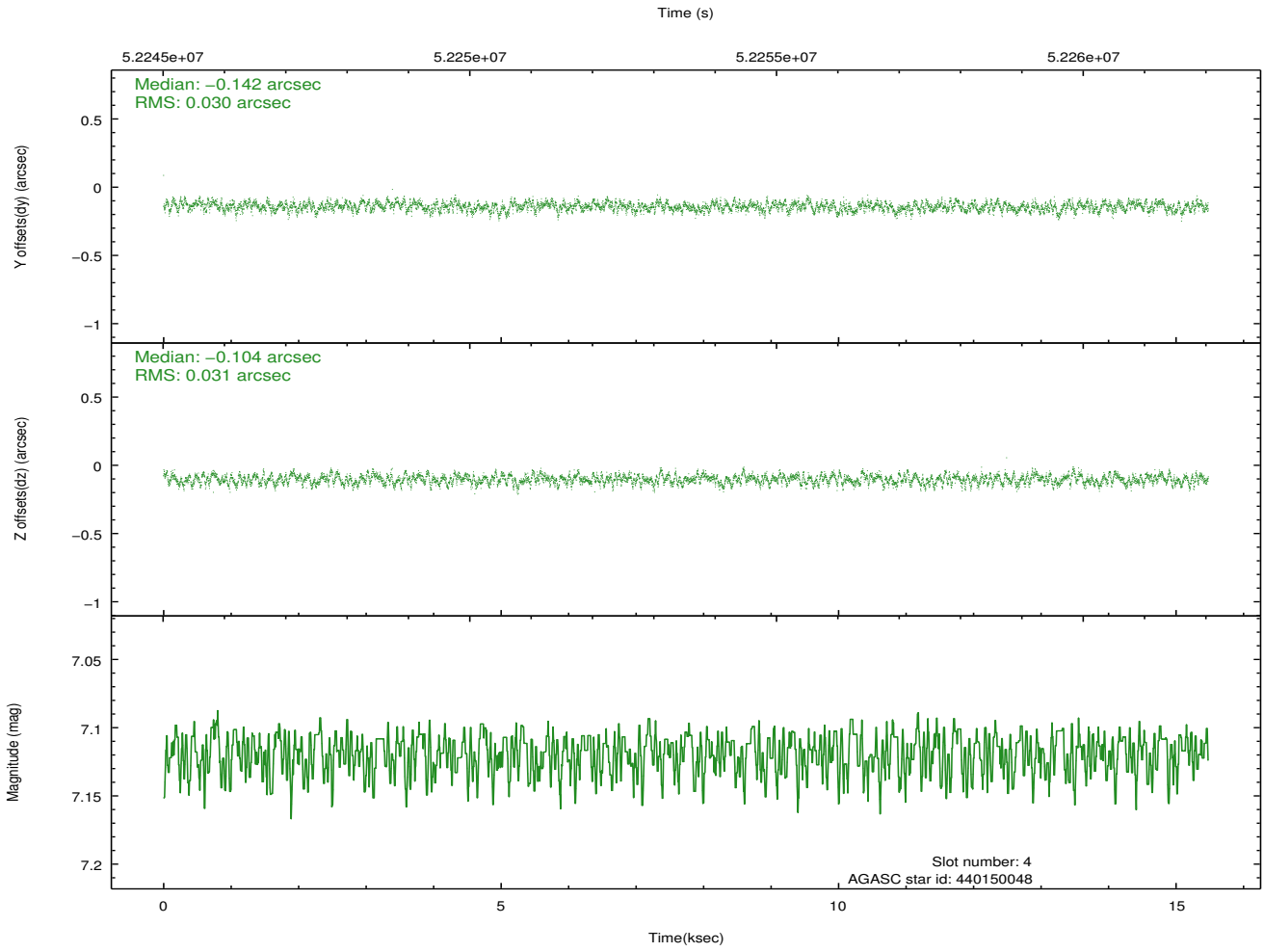
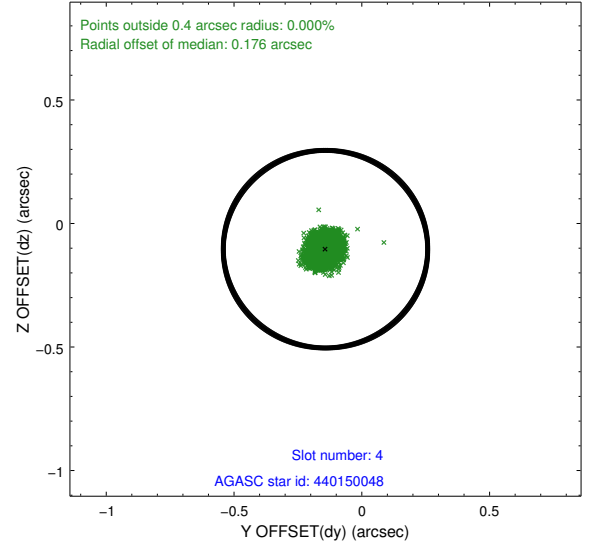
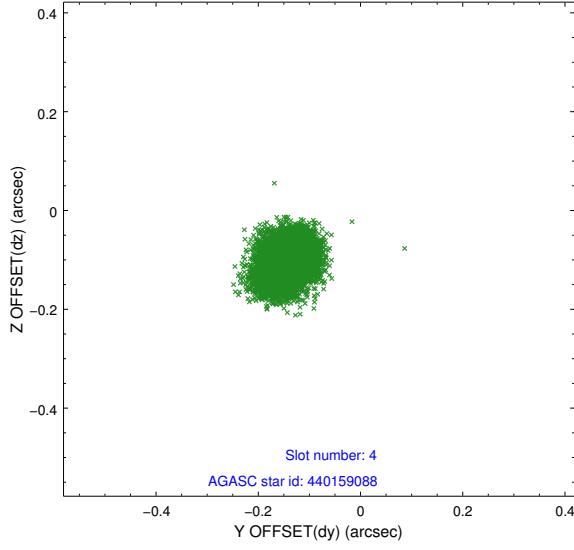
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	7551	-0.019	0.001	0.007	0.011	0.000000	0.000000	-752.96	-1722.04
1	FID	ACIS-S-4	7.22	7552	0.081	0.009	0.006	0.010	0.000000	0.000000	2160.35	186.28
2	FID	ACIS-S-5	7.25	7552	-0.094	-0.001	0.006	0.011	0.000000	0.000000	-1805.73	180.09
3	GUIDE	440159088	6.81	7552	-0.014	0.142	0.046	0.072	79.453034	46.128063	564.26	-615.67
4	GUIDE	440150048	7.12	7552	-0.142	-0.104	0.046	0.073	79.112838	46.416060	1567.57	269.92
5	GUIDE	440149808	8.77	7547	-0.055	-0.014	0.063	0.103	78.873930	46.405955	1510.73	861.51
6	GUIDE	438460832	8.99	7547	0.101	-0.222	0.096	0.145	78.414614	45.554782	-1587.06	1916.29
7	GUIDE	440145944	9.09	7544	0.110	0.202	0.074	0.121	80.083717	45.428844	-1879.91	-2309.66

## 2.4 Star Slots

### 2.4.1 Slot 3

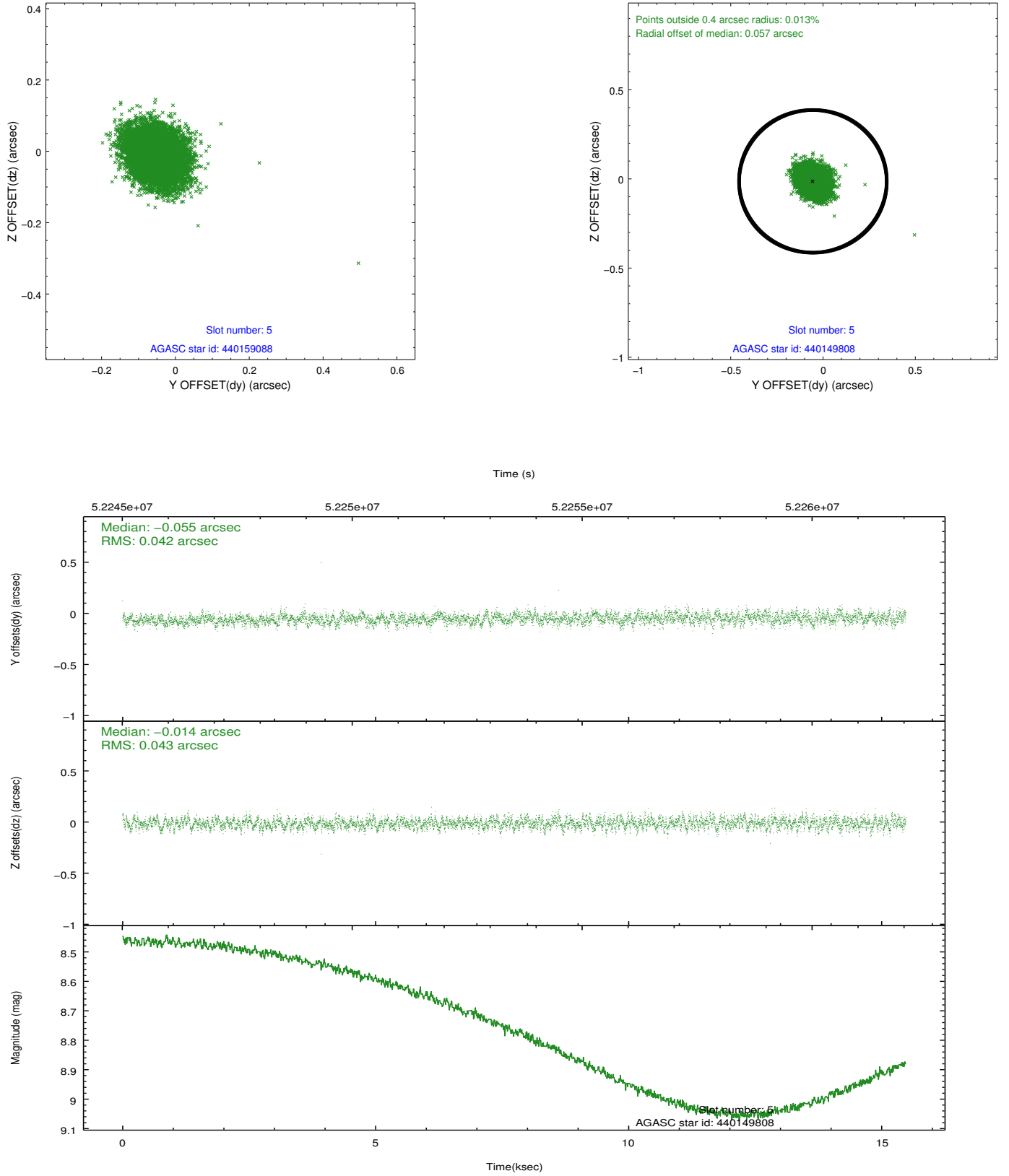


## 2.4.2 Slot 4

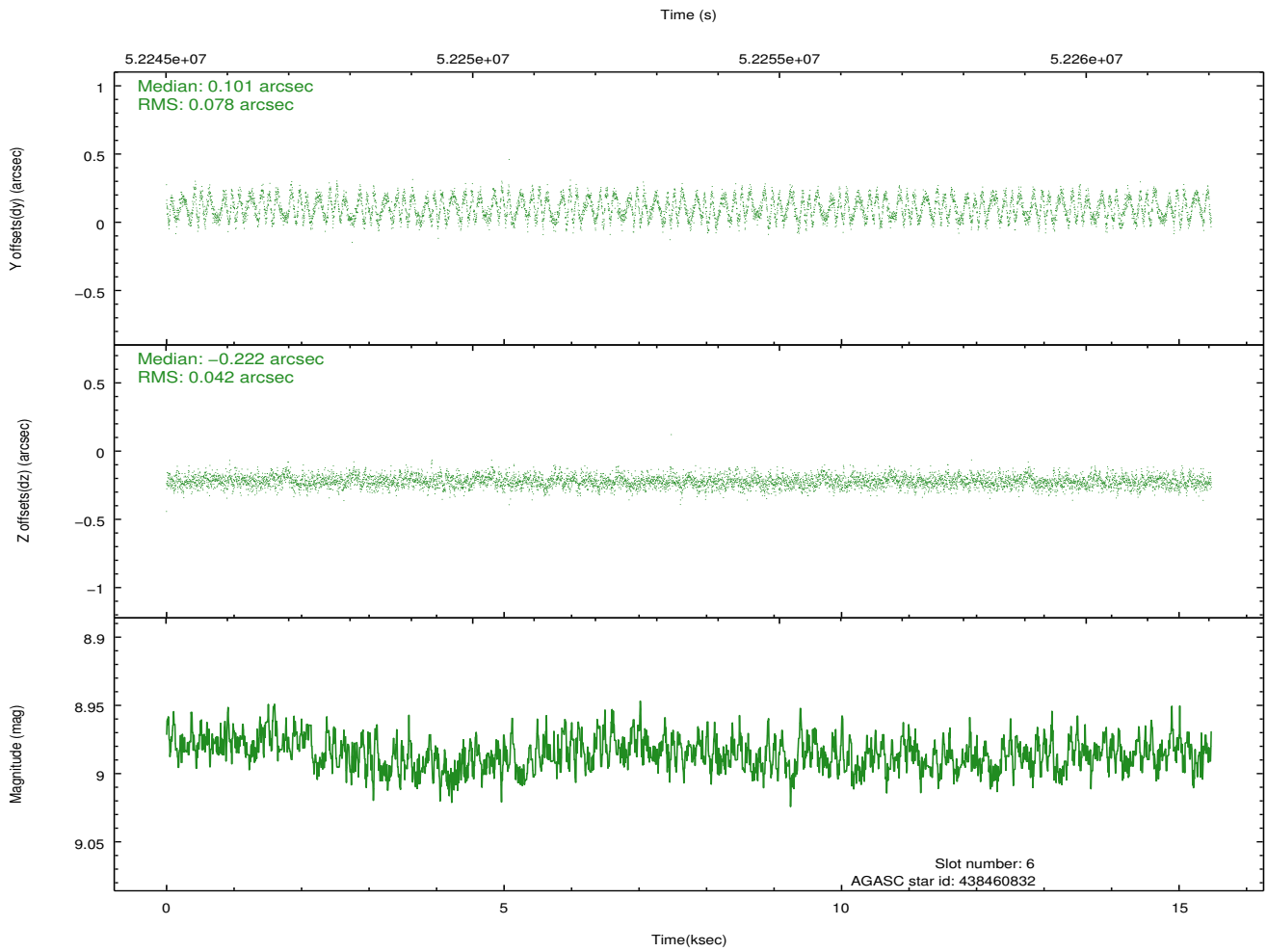
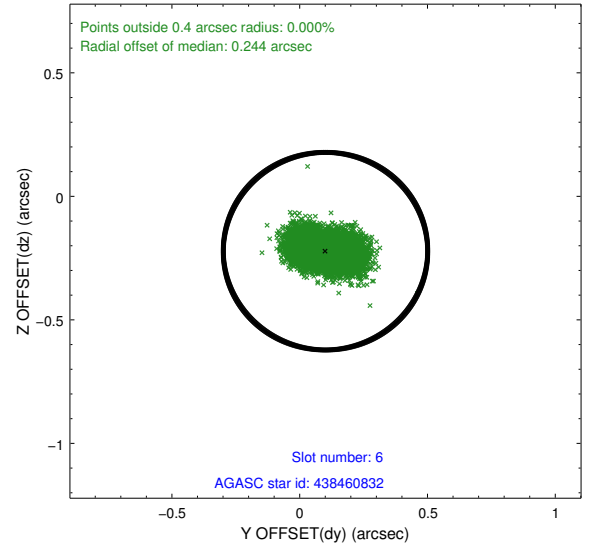
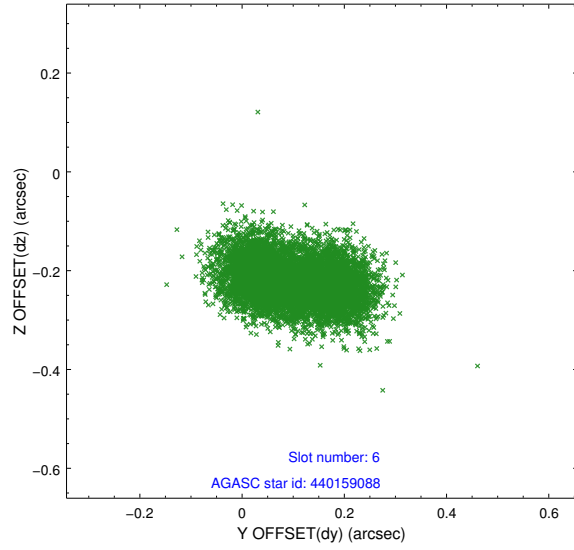




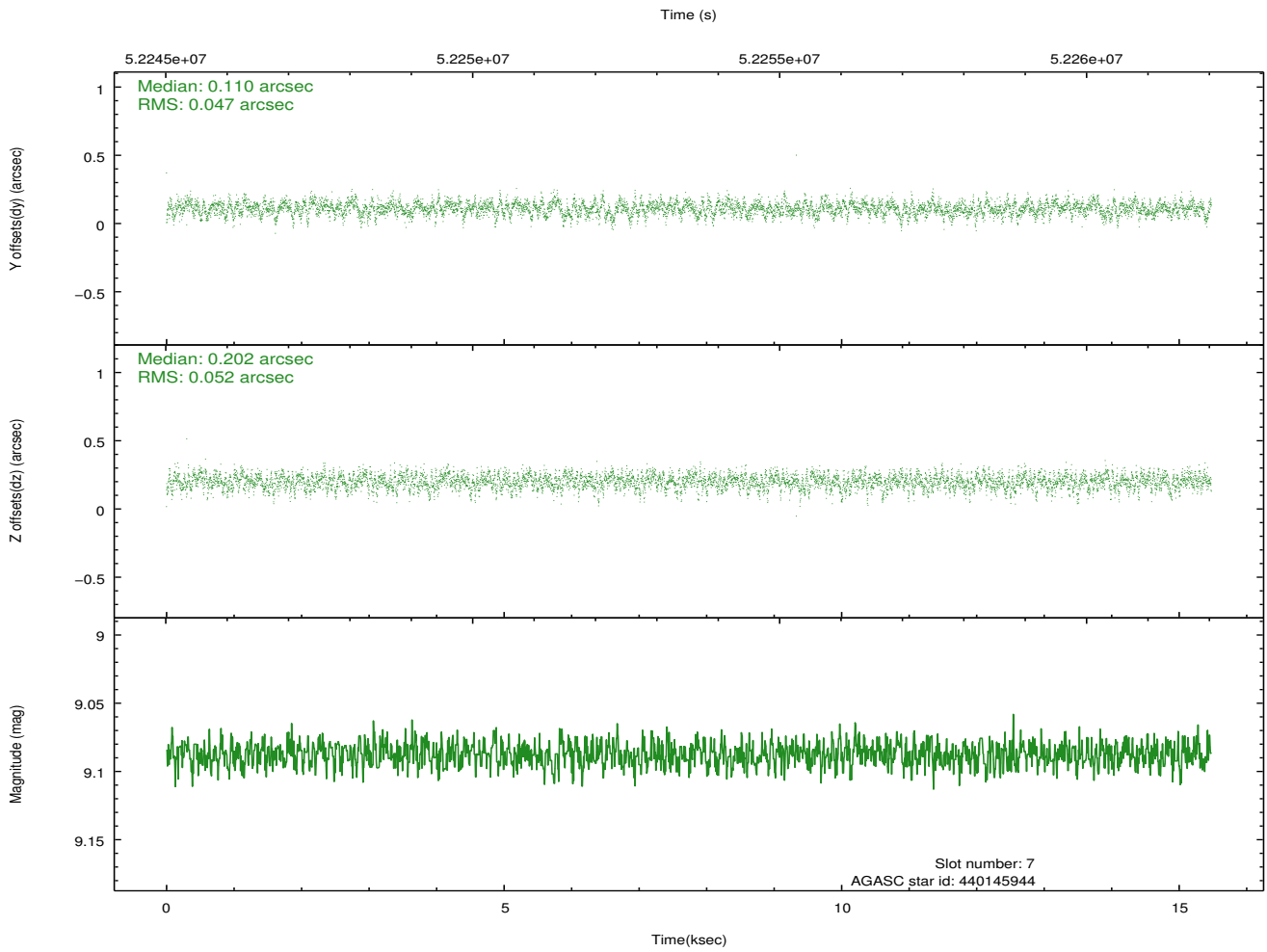
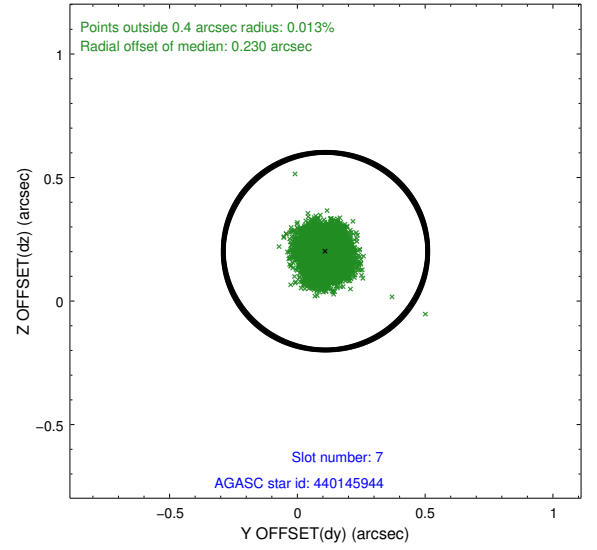
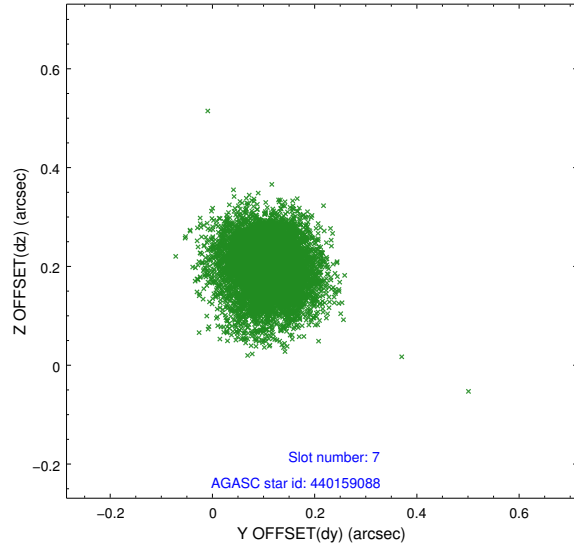
### 2.4.3 Slot 5



## 2.4.4 Slot 6

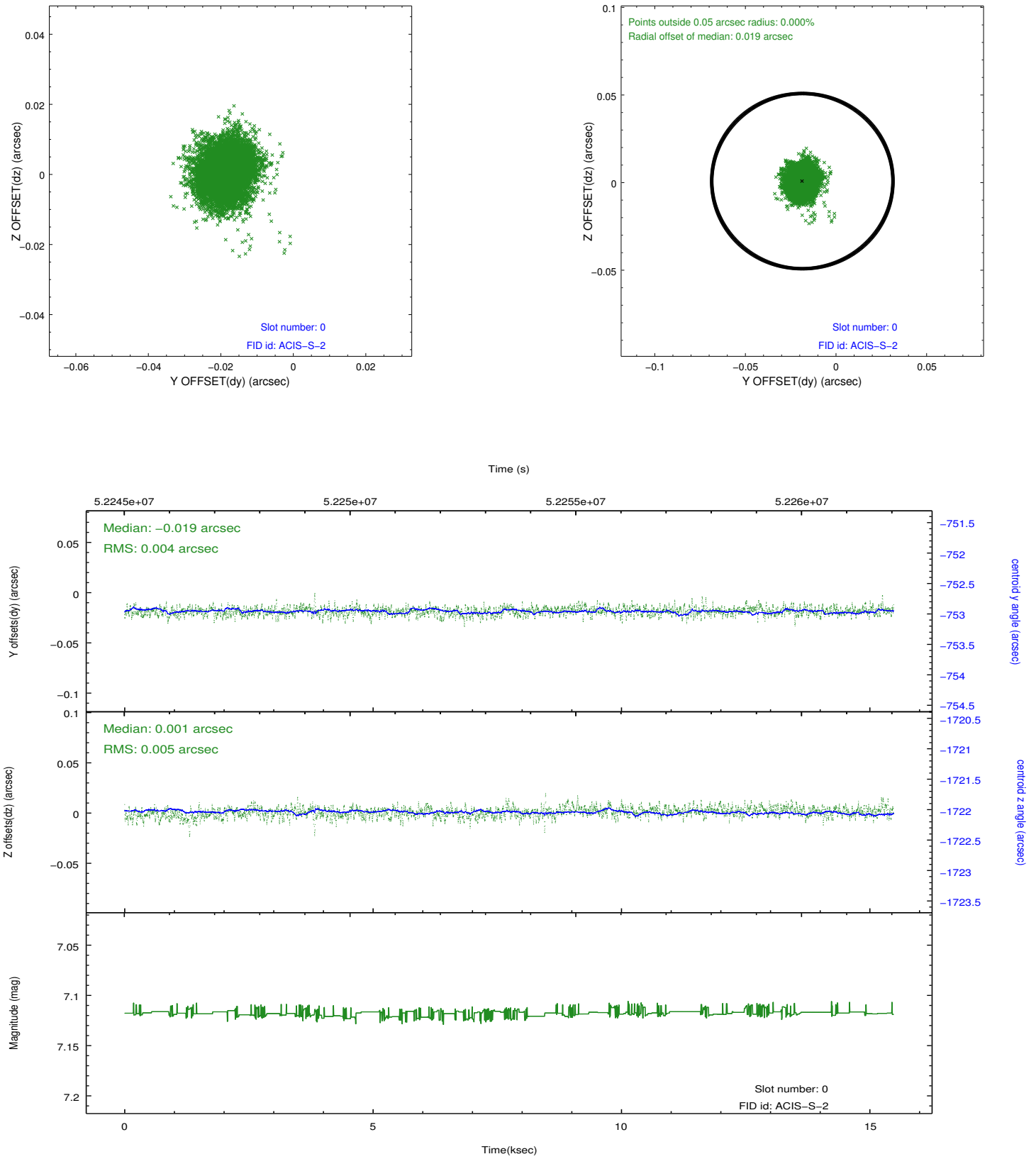


## 2.4.5 Slot 7

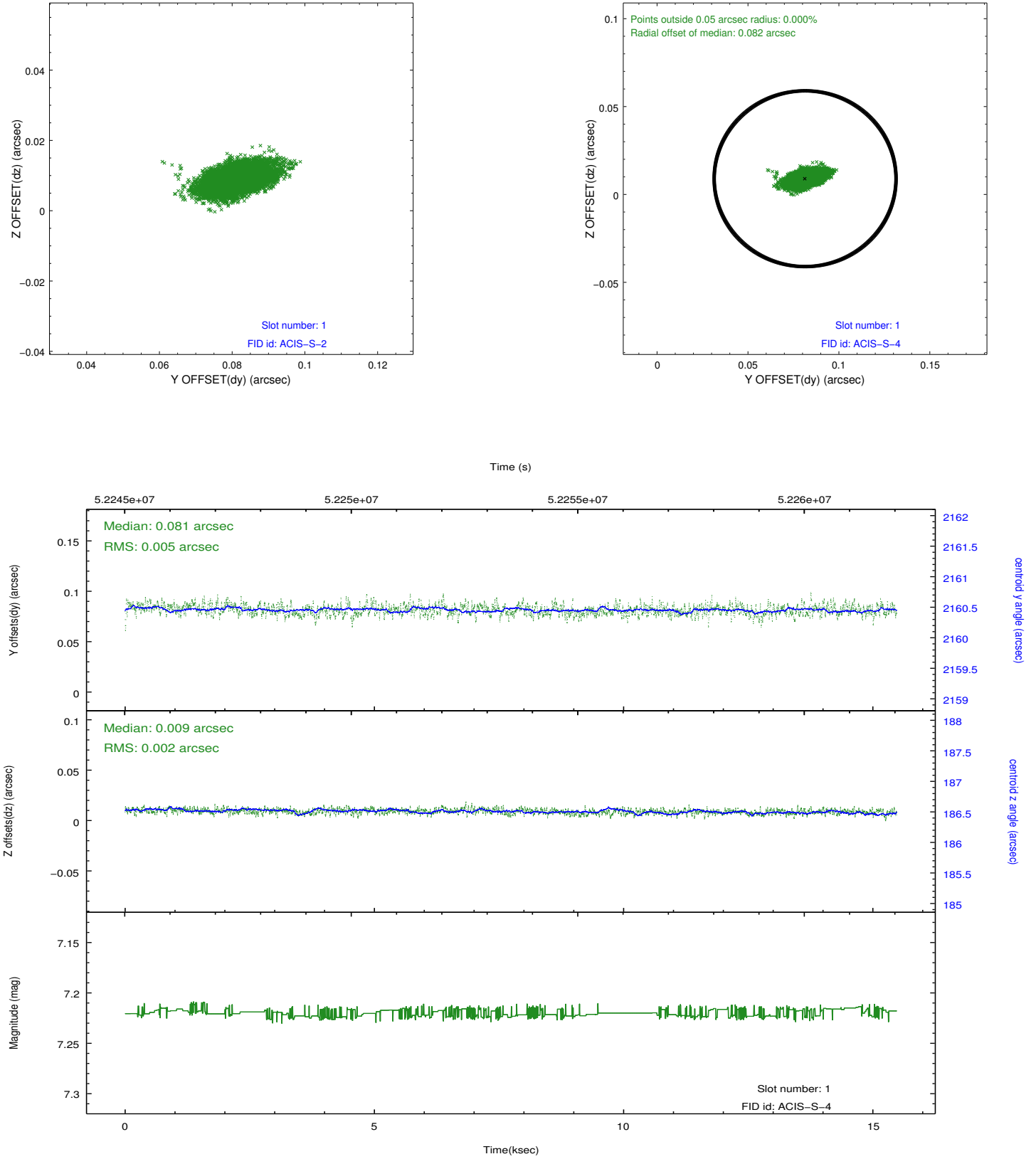


## 2.5 FID Slots

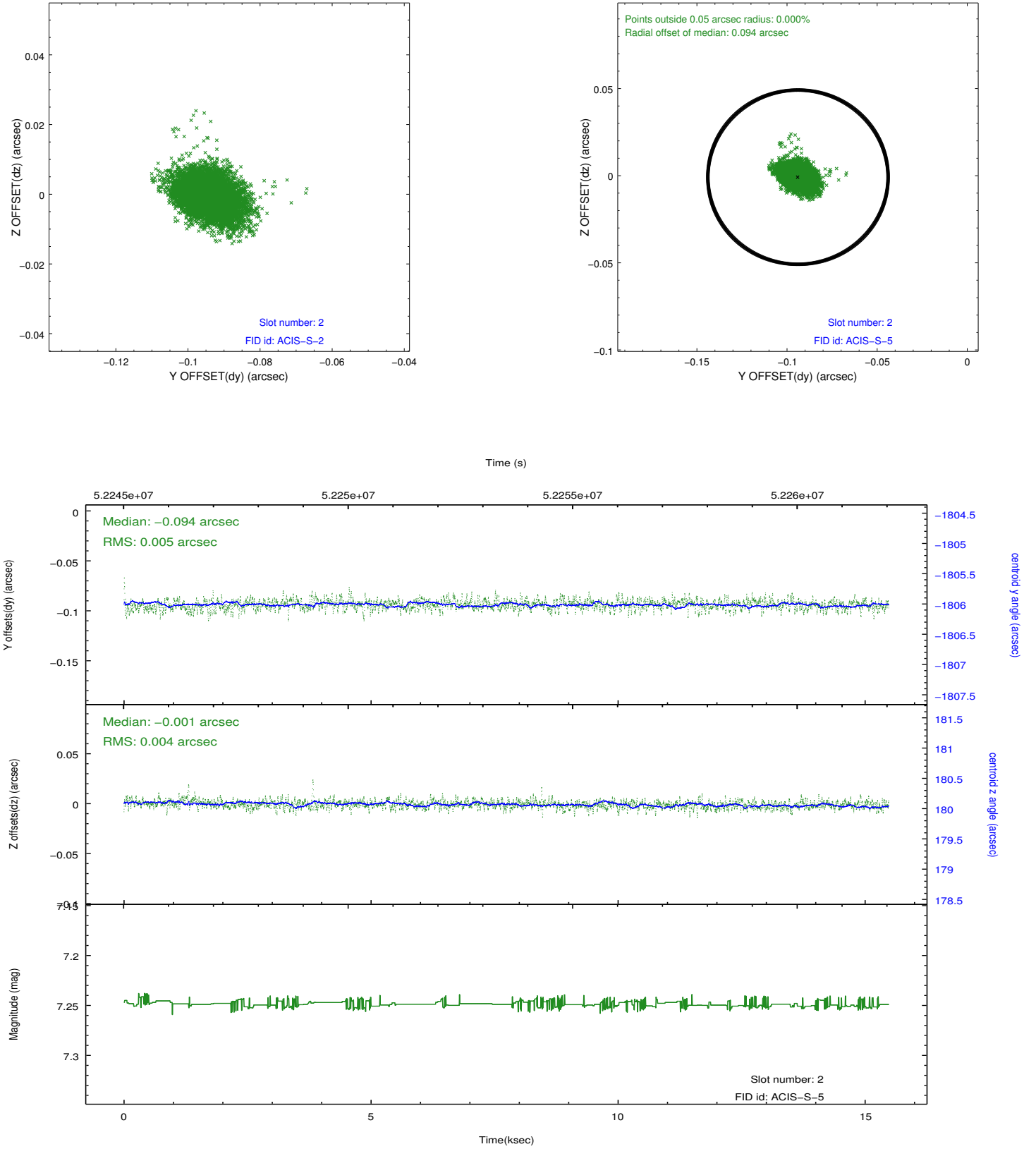
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

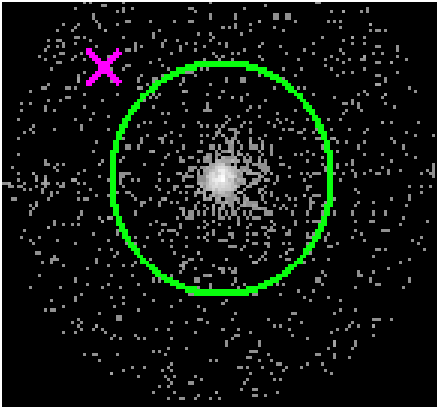


# 3 Gratings

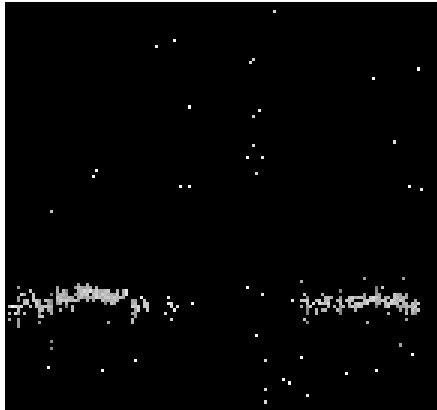
## 3.1 HEG Arm



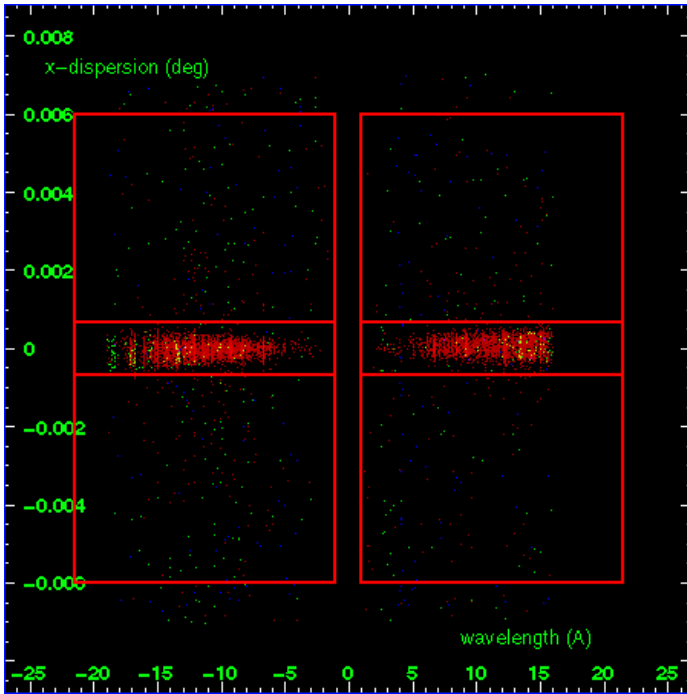
HEG Order Sort 123



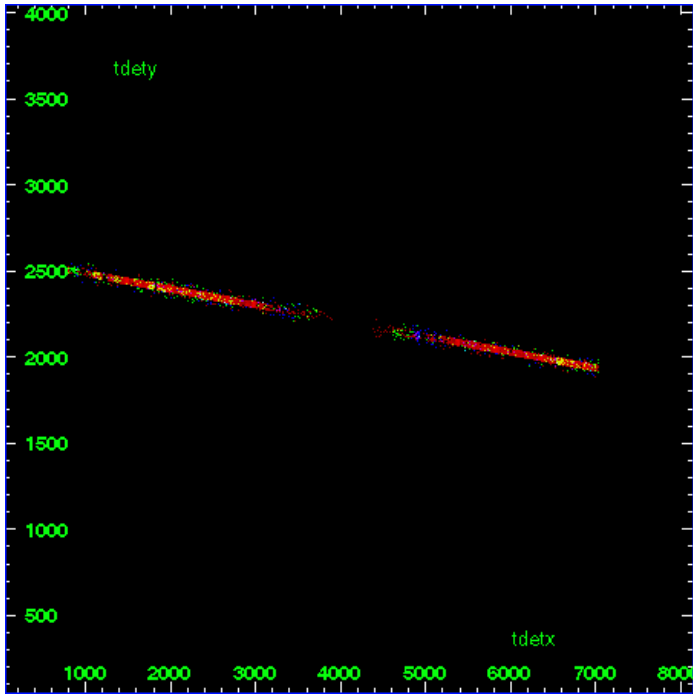
HEG Zero Order



HEG Order Sort ALL

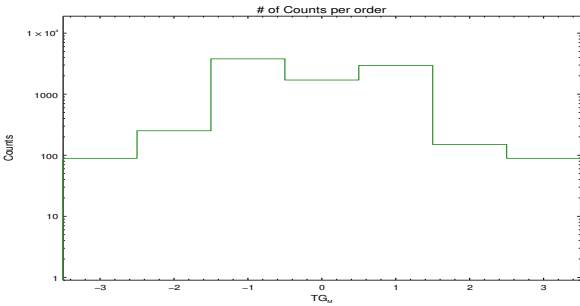


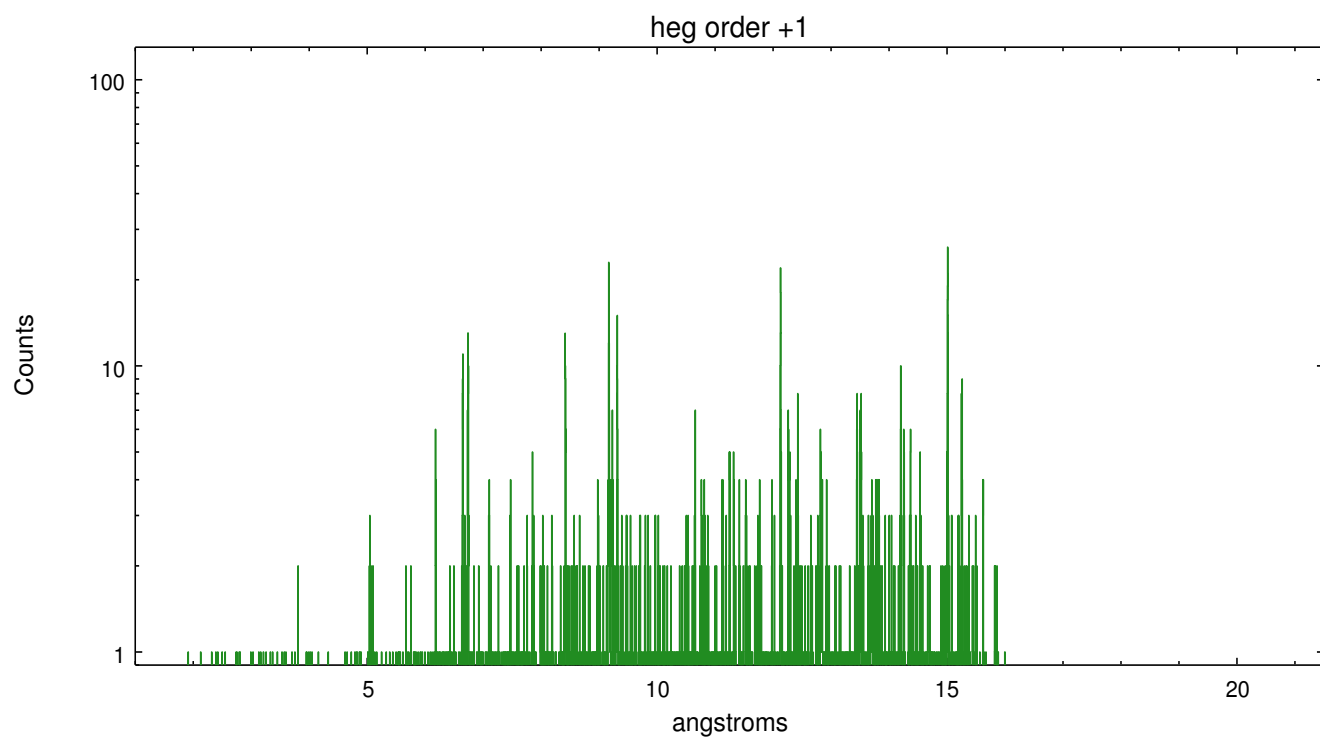
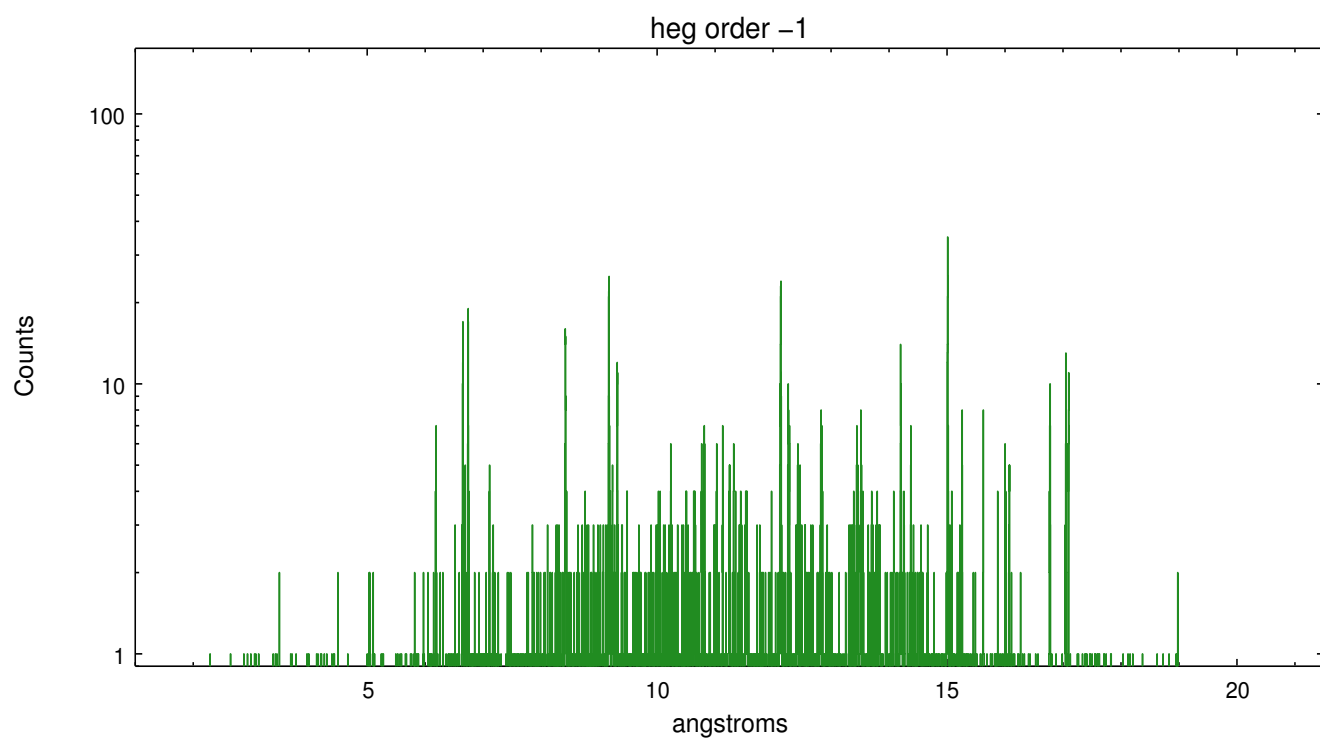
Spot Image HEG



Full Detector HEG

	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	89	252	3794	1706	2948	150	89



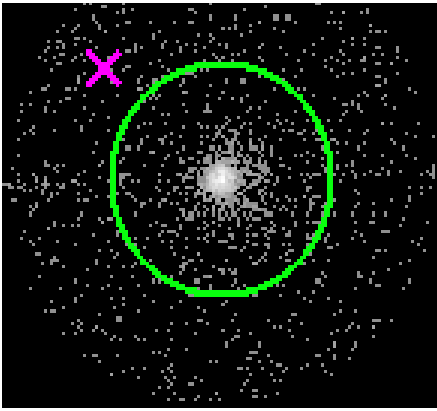




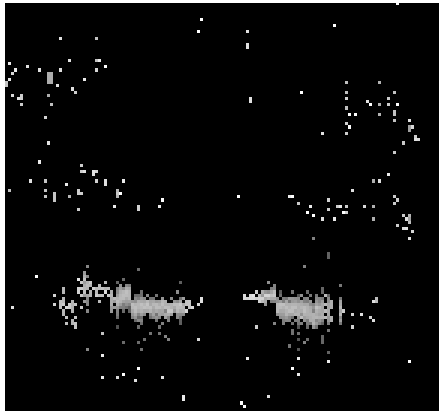
3.2 MEG Arm



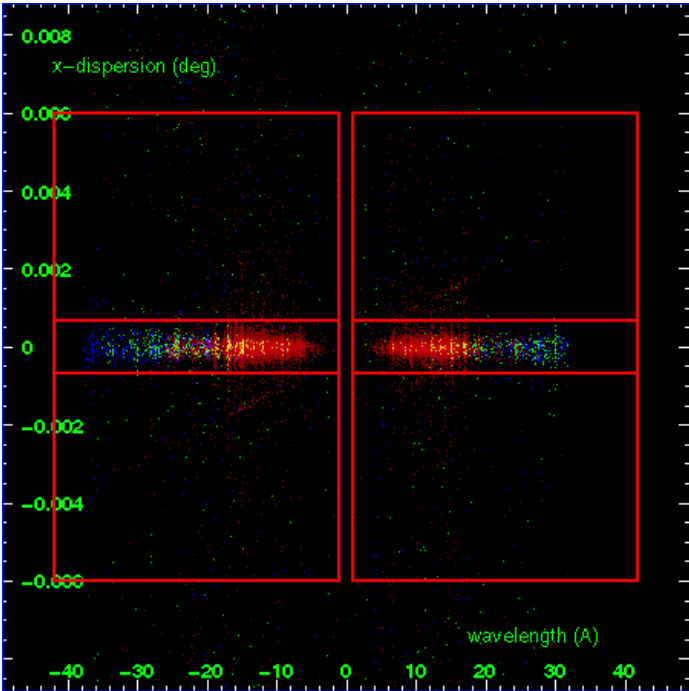
MEG Order Sort 123



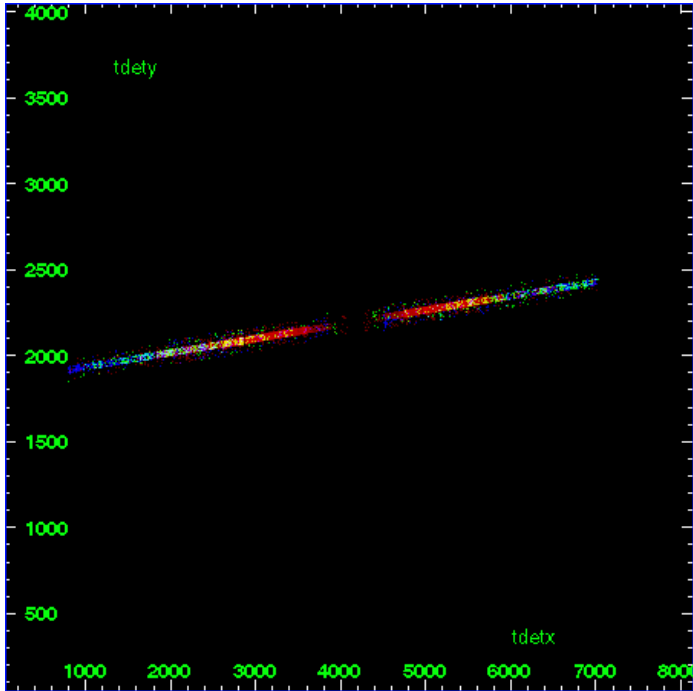
MEG Zero Order



MEG Order Sort ALL

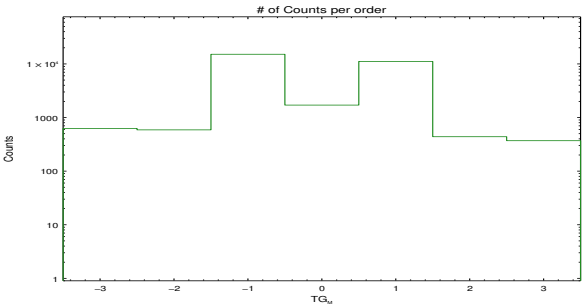


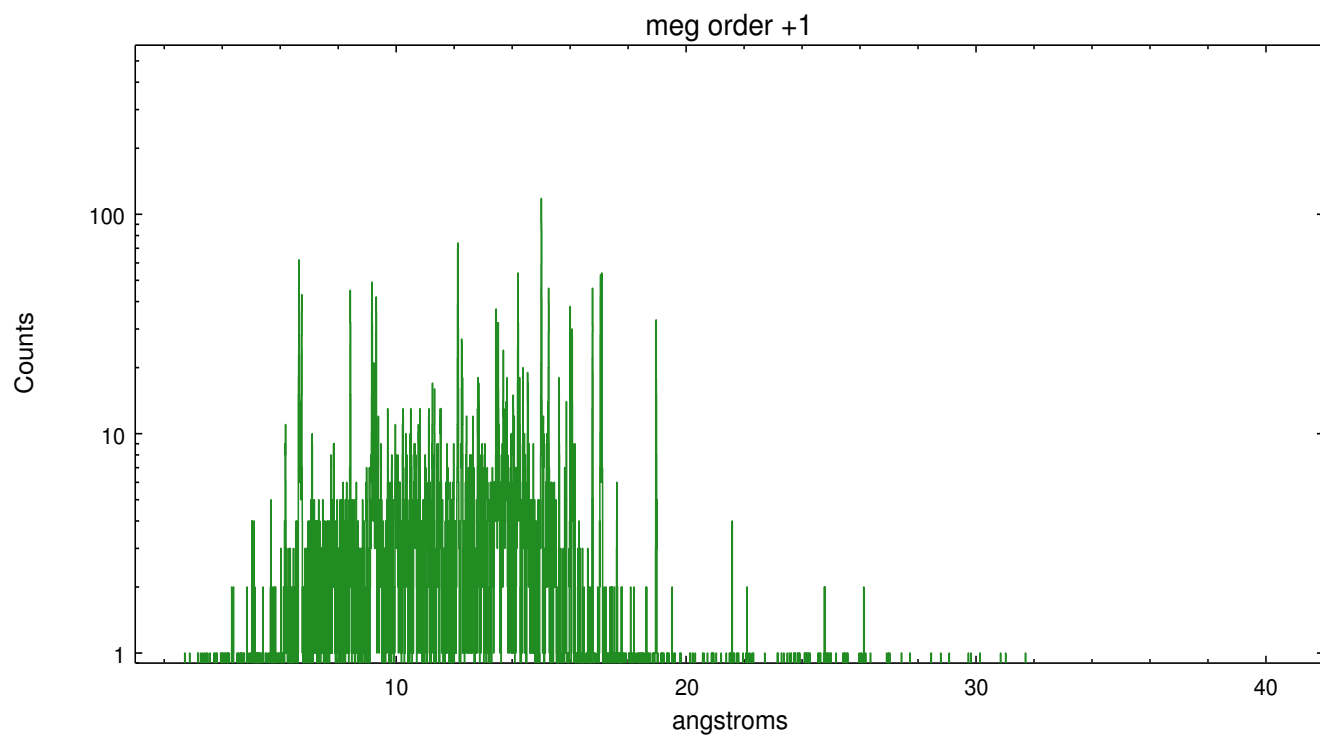
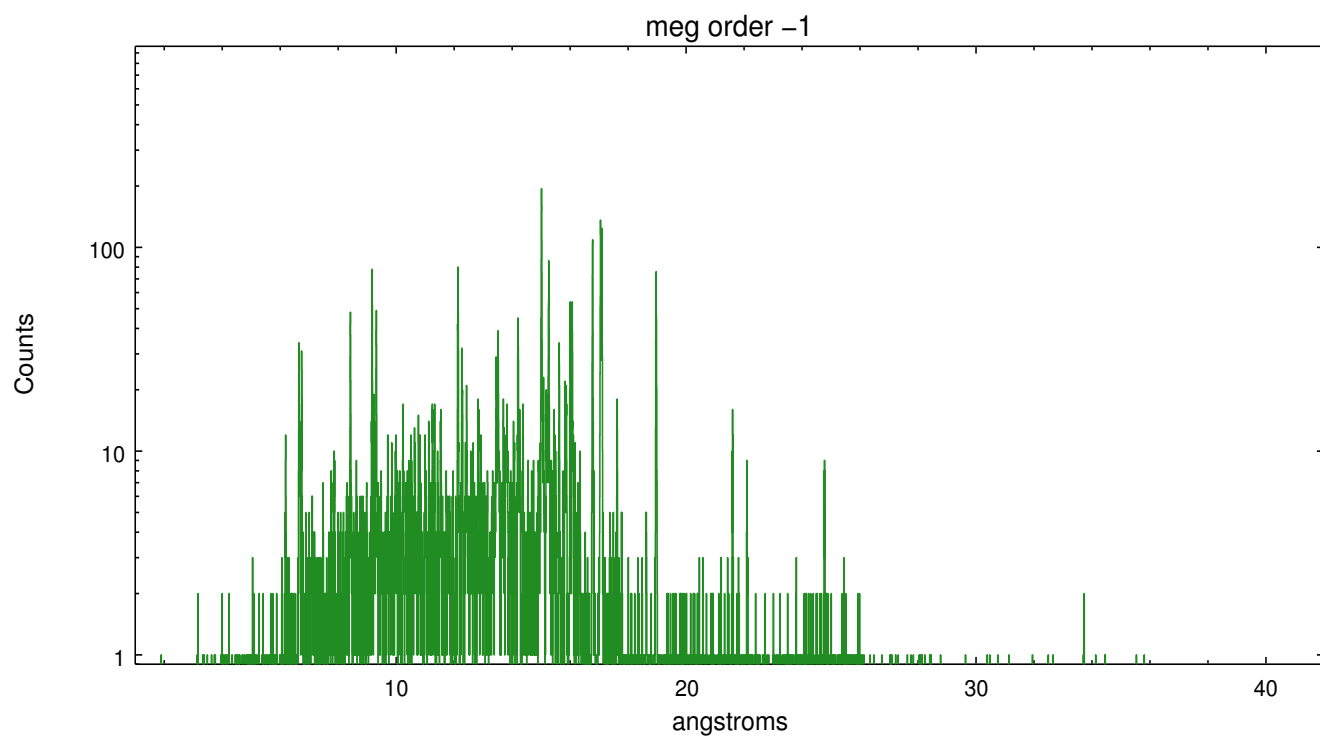
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	626	589	15138	1706	11145	439	370





## A Summary

### A.1 Status

V&V Scientist	Mike Nowak
V&V Date (YYYY-MM-DD)	2010.03.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.758

### A.2 Comments