

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11994 - L2 Version 2  
Chandra X-Ray Center

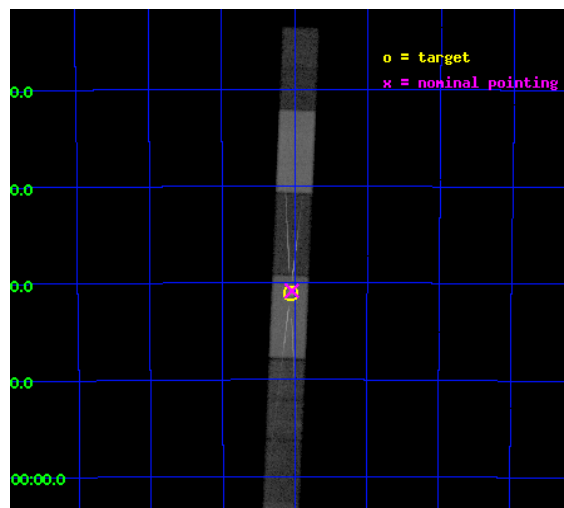
L2 Processing Date : Jul 7 2012

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# 1 Front

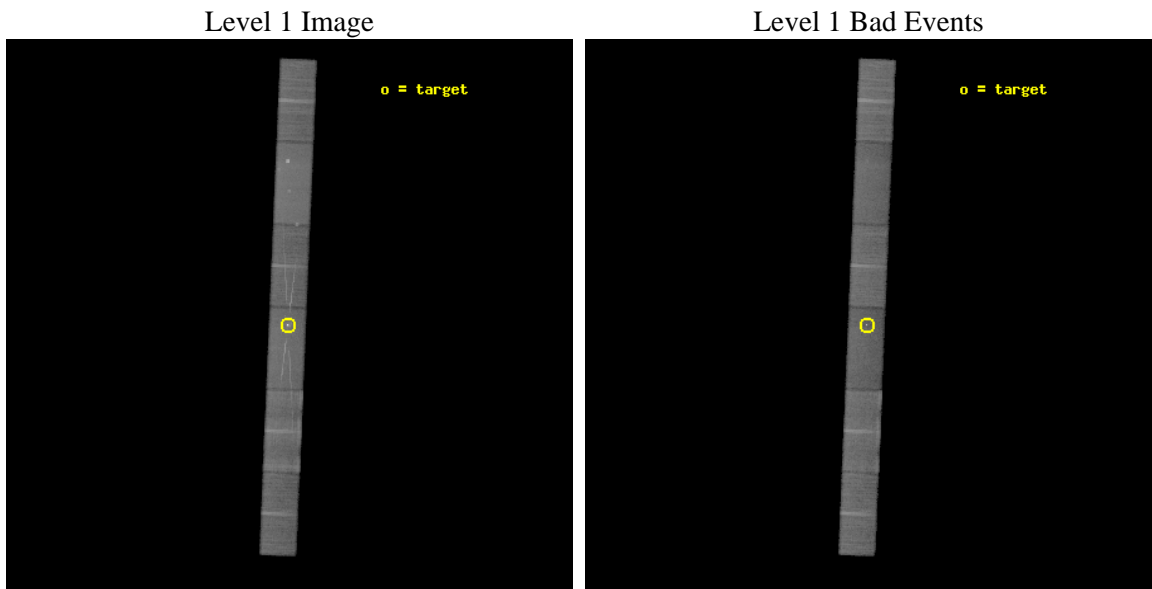
seq_num	200646	Sequence number
obs_id	11994	Observation id
title	Monitoring Dynamical Mass Loss from Eta Car with the HETG	Proposal
observer	Dr Michael Corcoran	Principal investigator
object	Eta Car	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.265	Observer's specified target RA [deg]
dec_targ	-59.684528	Observer's specified target Dec [deg]
ra_nom	161.25964963805	Nominal RA [deg]
dec_nom	-59.680499729455	Nominal Dec [deg]
roll_nom	92.374527926057	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40441.251326382	Sum of GTIs [s]
livetime	39364.245567651	Livetime [s]
ontime4	40441.292366385	Sum of GTIs [s]
ontime5	40441.210286379	Sum of GTIs [s]
ontime6	40441.169246376	Sum of GTIs [s]
ontime7	40441.251326382	Sum of GTIs [s]
ontime8	40441.128206372	Sum of GTIs [s]
ontime9	40441.087166369	Sum of GTIs [s]
l2events	276014	Number of level 2 events



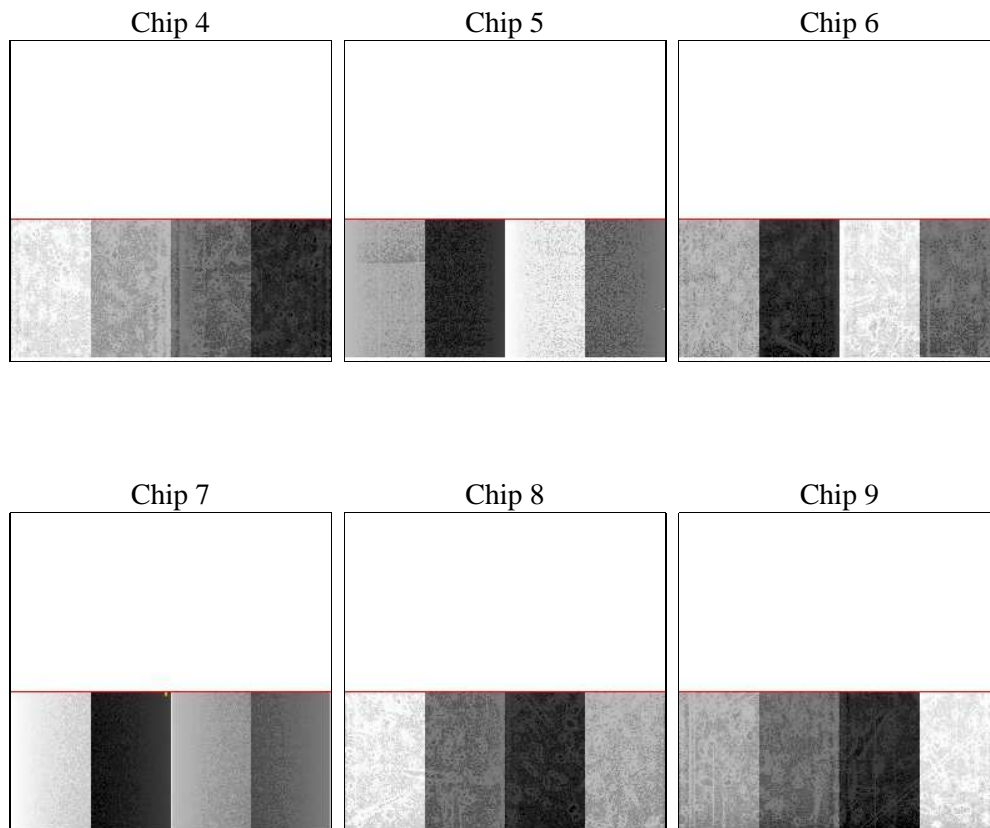
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40350.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	40441.251326382	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime4	40441.292366385	Sum of GTIs [s]
date	2012-07-07T04:33:36	Date and time of file creation	ontime5	40441.210286379	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	40441.169246376	Sum of GTIs [s]
			ontime7	40441.251326382	Sum of GTIs [s]
			ontime8	40441.128206372	Sum of GTIs [s]
			ontime9	40441.087166369	Sum of GTIs [s]
			l1events	1012456	Number of level 1 events

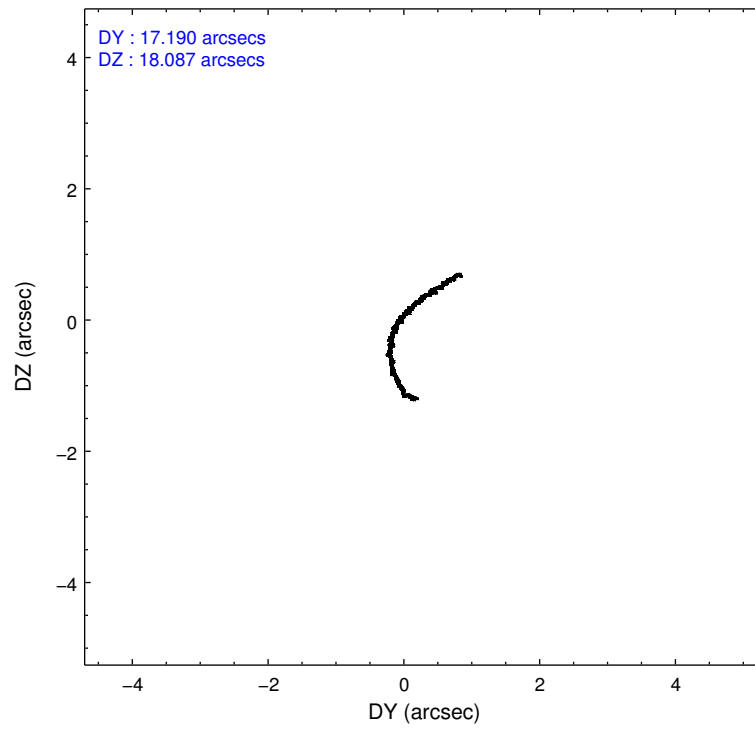
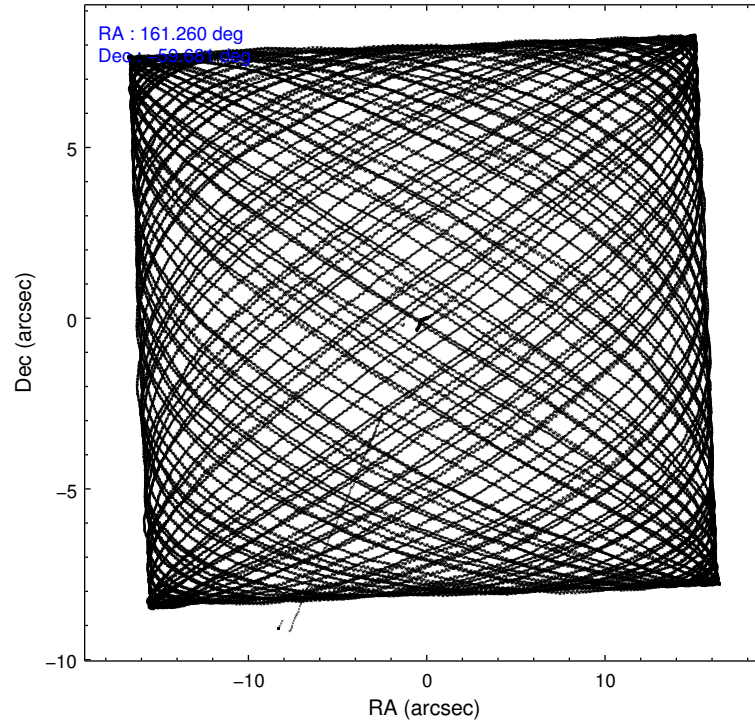
### 2.1.4 Events

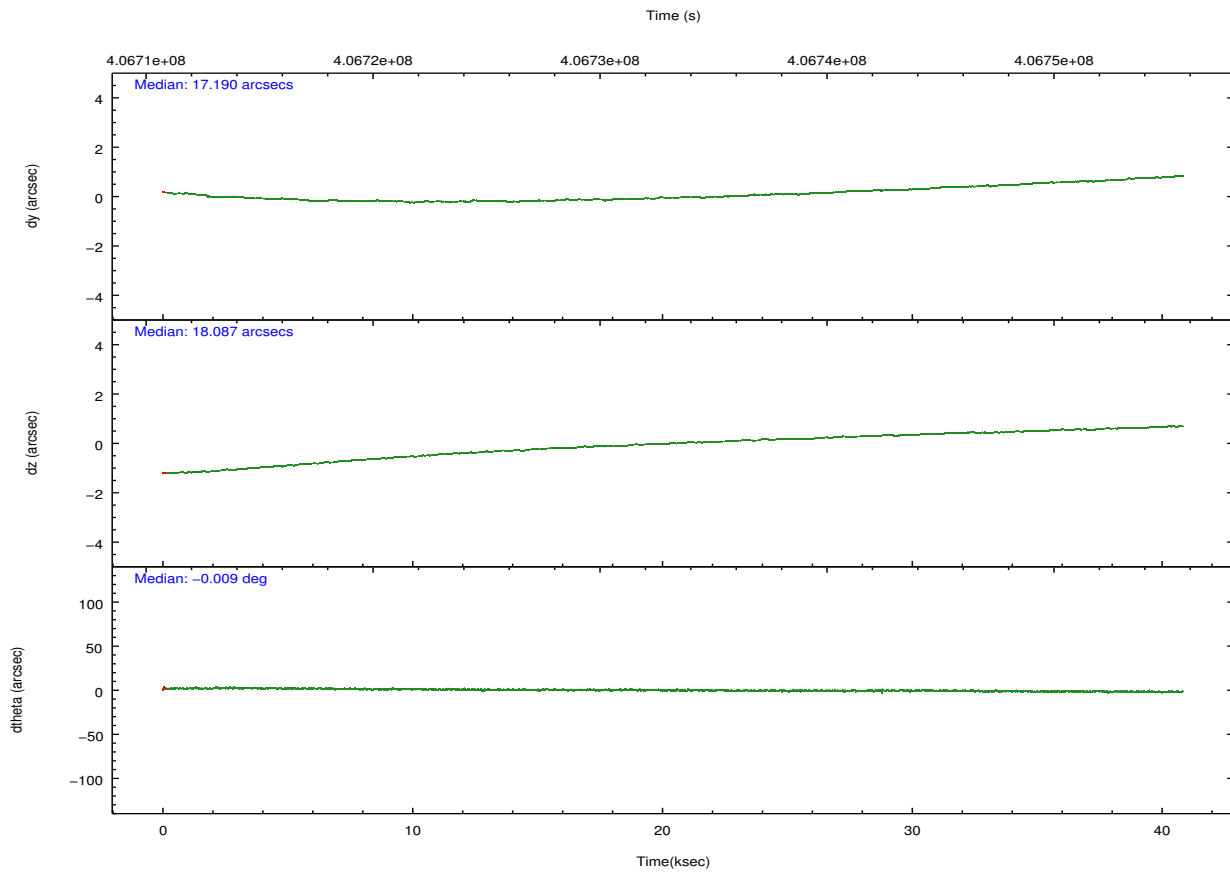
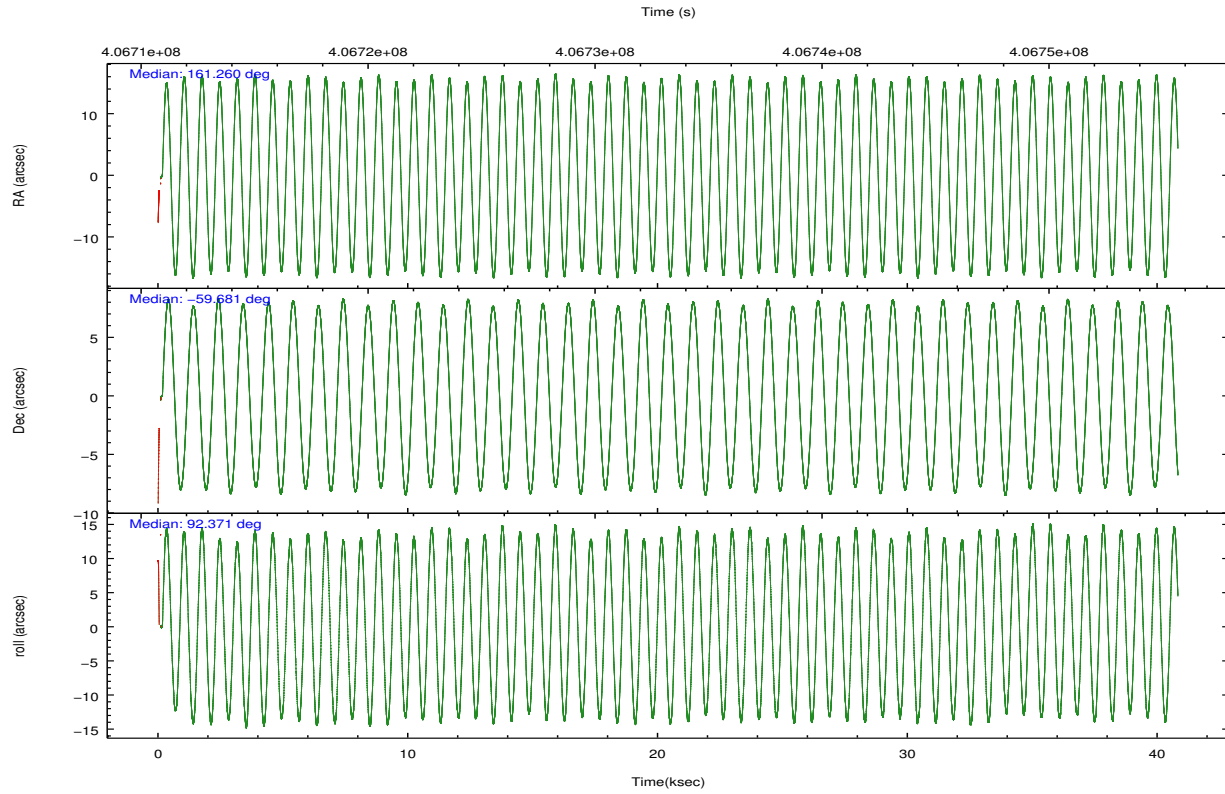
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	155670	200447	148249	191388	184468	132234	grade 0 events	7572	15115	14465	13176	18188	7377
rejected events	136827	95473	119944	85809	131433	113803		4%	7%	9%	6%	9%	5%
rejected %	87%	47%	80%	44%	71%	86%	grade 1 events	67	565	86	369	112	69
								0%	0%	0%	0%	0%	0%
							grade 2 events	4193	28373	4964	23252	11035	3646
								2%	14%	3%	12%	5%	2%
							grade 3 events	2143	6379	2520	10836	5343	2147
								1%	3%	1%	5%	2%	1%
							grade 4 events	1948	6029	2480	10688	4966	2072
								1%	3%	1%	5%	2%	1%
							grade 5 events	5341	16708	5538	17213	8083	5891
								3%	8%	3%	8%	4%	4%
							grade 6 events	2987	49085	3876	47633	13507	3189
								1%	24%	2%	24%	7%	2%
							grade 7 events	131419	78193	114320	68221	123234	107843
								84%	39%	77%	35%	66%	81%

## 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	161.289274	161.2596496380502	CCD I2 on	N	N
[deg] Pointing Dec	-59.703393	-59.68049972945481	CCD I3 on	N	N
[deg] Pointing Roll	92.243471	92.37452792605708	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	-183.332523	-183.3212429520412	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-6.8	-6.811279630966652	CCD S4 on	Y	Y
[s] Observation start time (MET)	406713284.184000	406711600.51623	CCD S5 on	O2	Y
Observation start date	2010-11-21T07:53:38	2010-11-21T07:26:40	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	406753634.184000	406754616.69345	On-chip summing requested	N	N
Observation end date	2010-11-21T19:06:08	2010-11-21T19:23:36	Subarray requested	CUSTOM	CUSTOM
Read mode	TIMED	TIMED	Subarray start row	15	15
			Subarray row count	440	440
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.5

## 2.3 Aspect



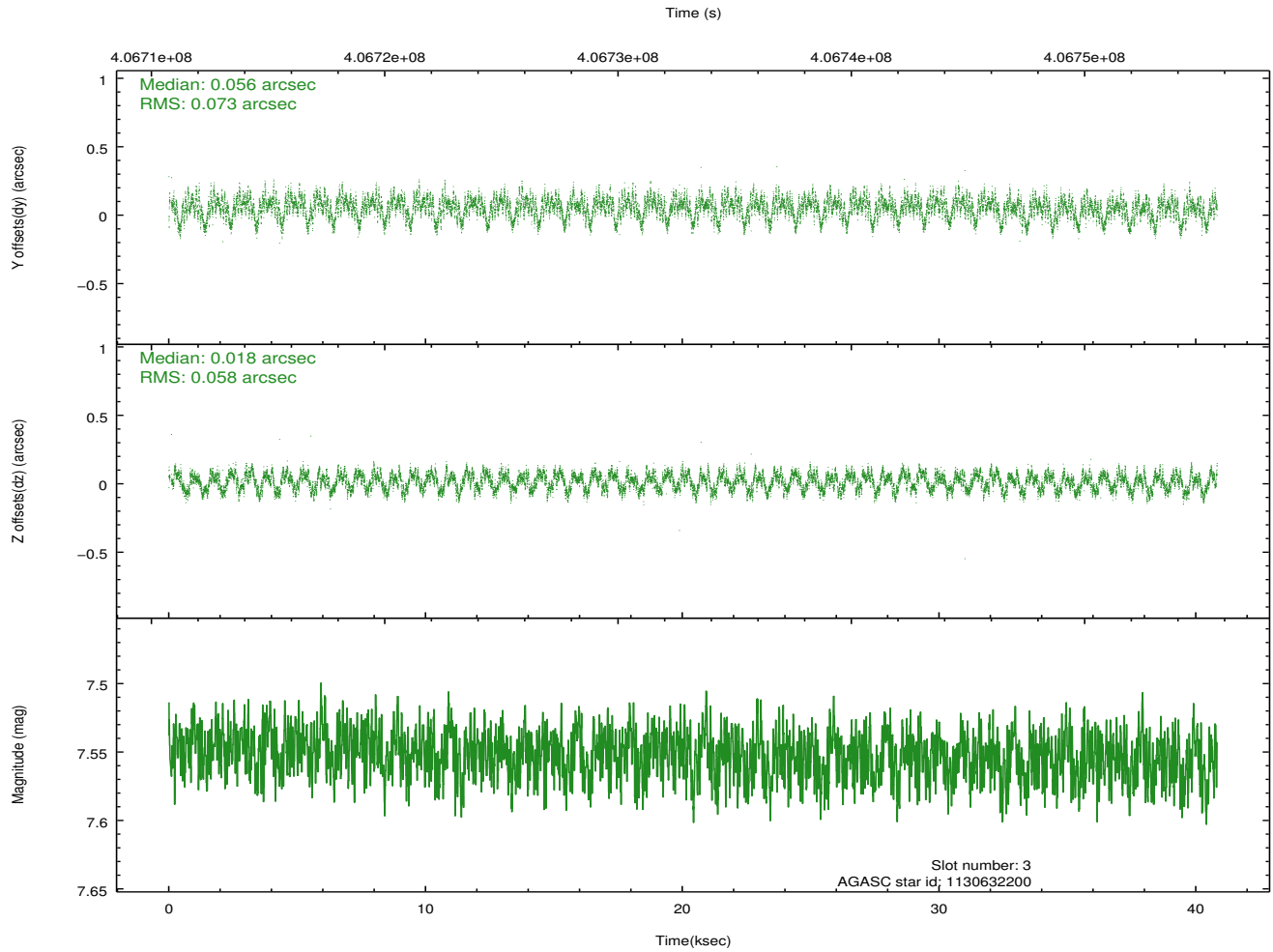
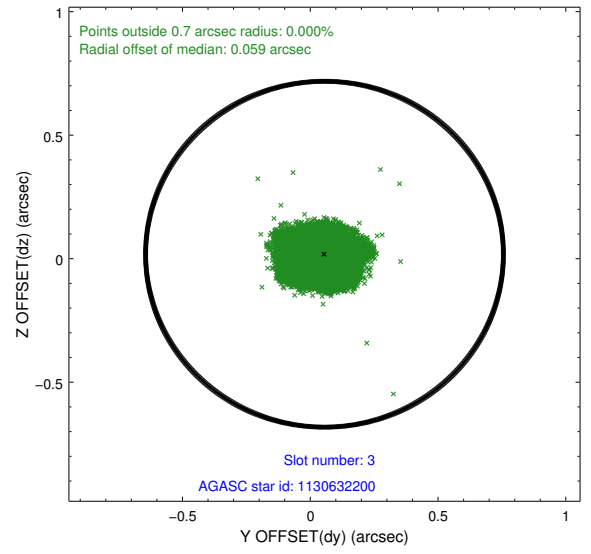
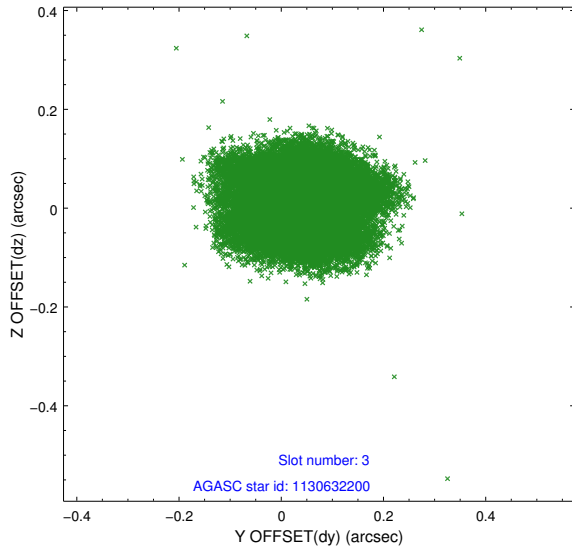


### Slot Statistics

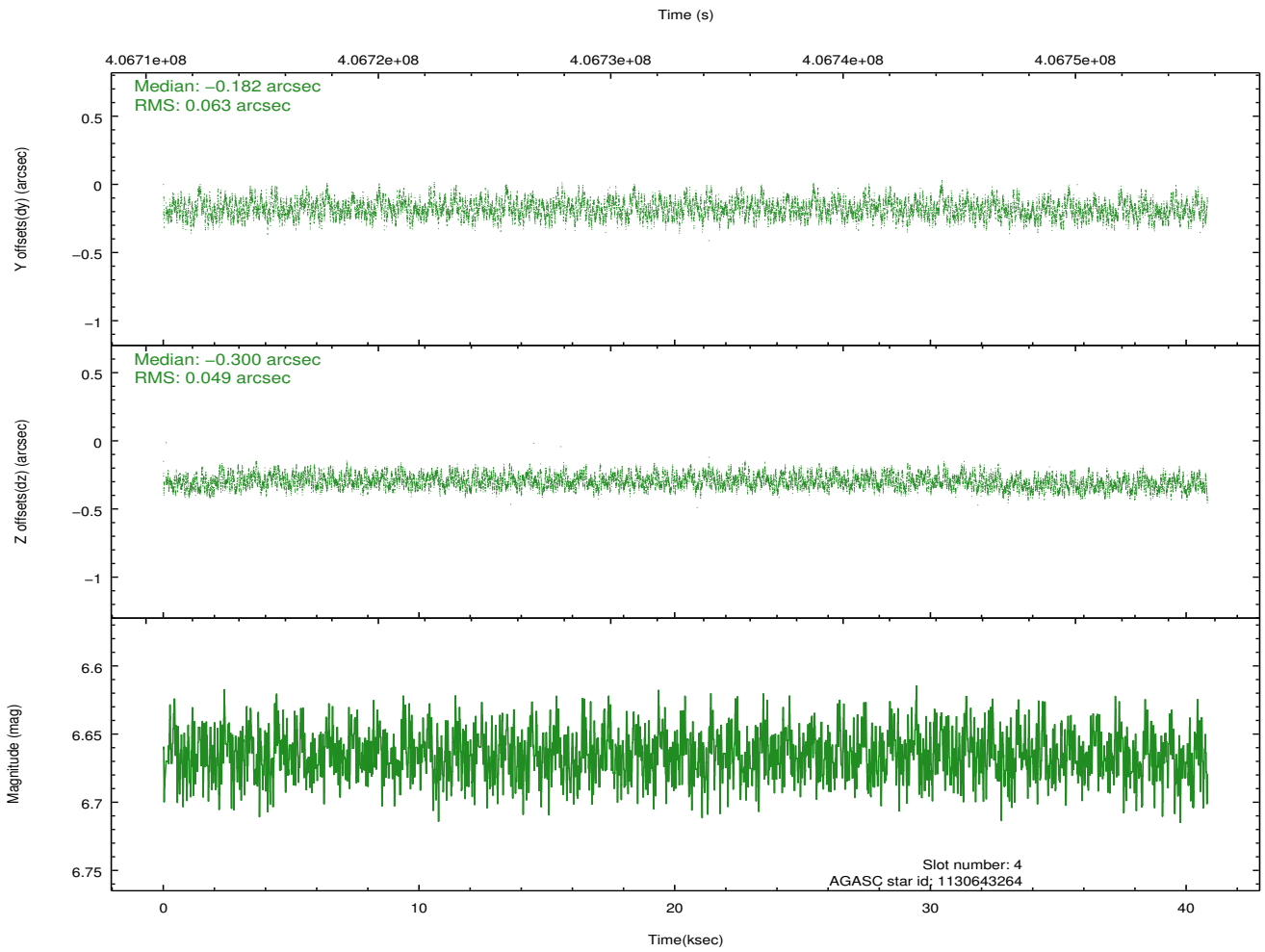
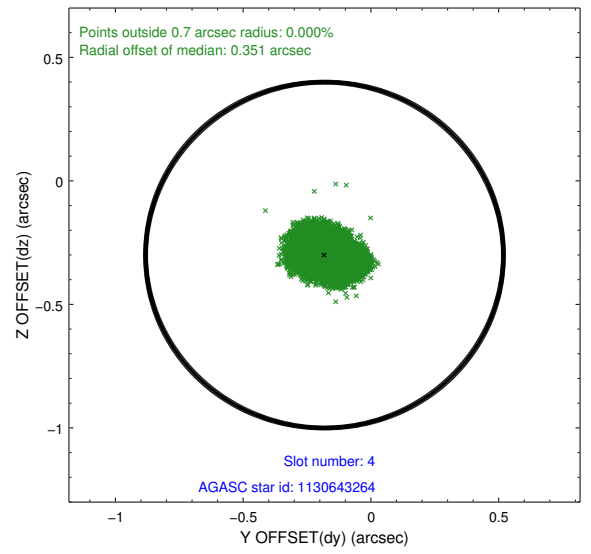
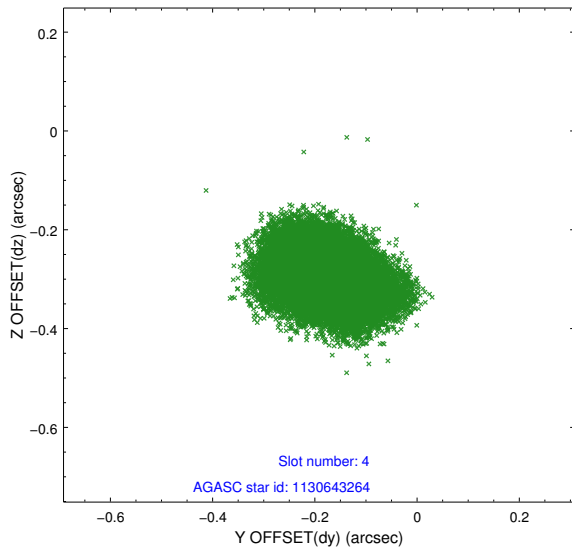
	status	id	mag	n_pts	med_dy	med_dz	dr1
	FID	ACIS-S-1	6.92	9945	0.081	0.069	0.018
	FID	ACIS-S-2	6.86	9945	-0.128	-0.115	0.043
	FID	ACIS-S-5	6.97	9944	0.023	0.051	0.025
	GUIDE	1130632200	7.55	19885	0.056	0.018	0.101
	GUIDE	1130643264	6.66	19889	-0.182	-0.300	0.087
	GUIDE	1174020728	8.15	19885	0.023	0.101	0.057
	GUIDE	1174033752	8.45	19882	0.108	0.185	0.073
0.000	0.000	0.000	0.000000	0.000000	0.00	0.00	

## 2.4 Star Slots

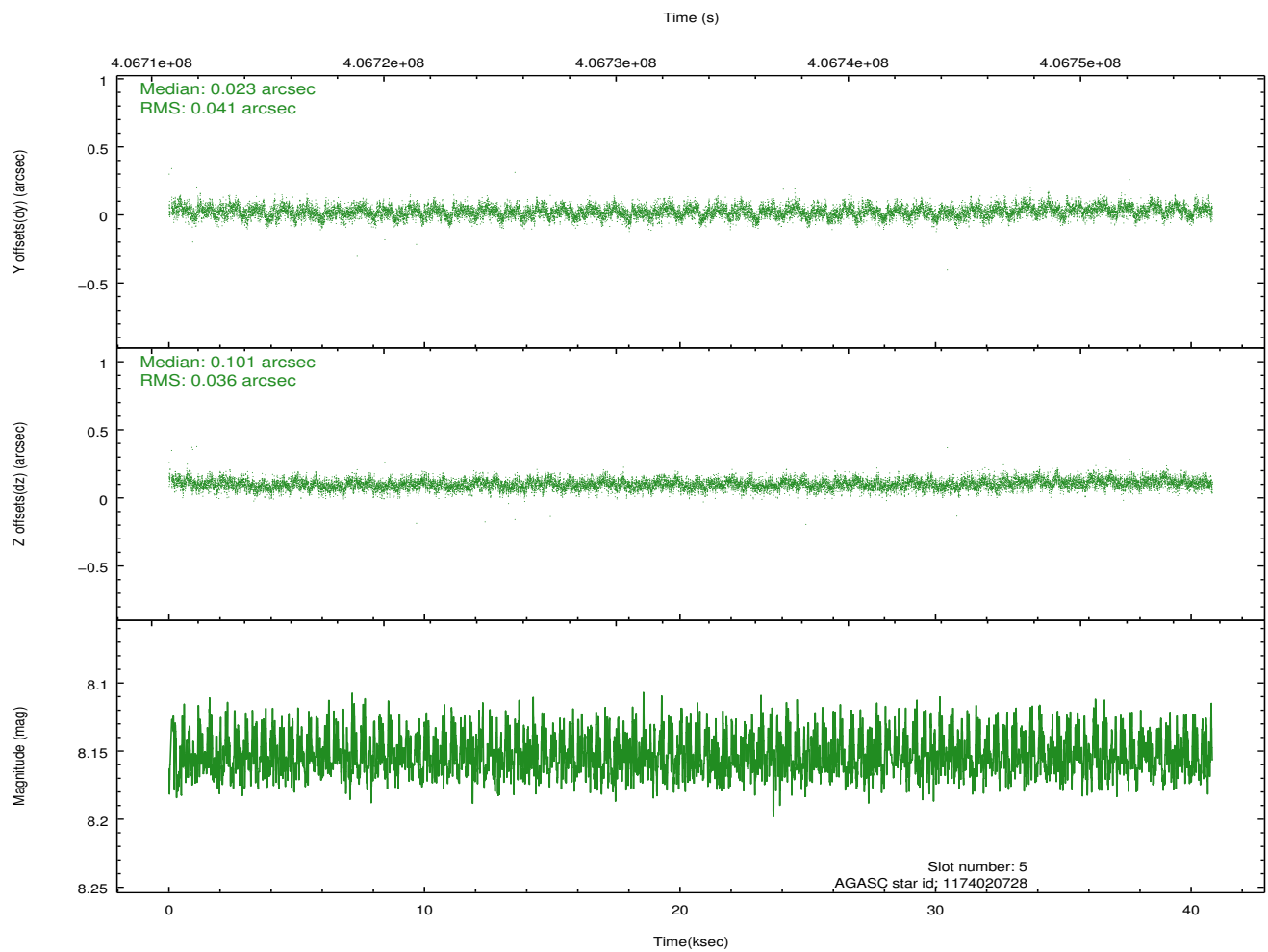
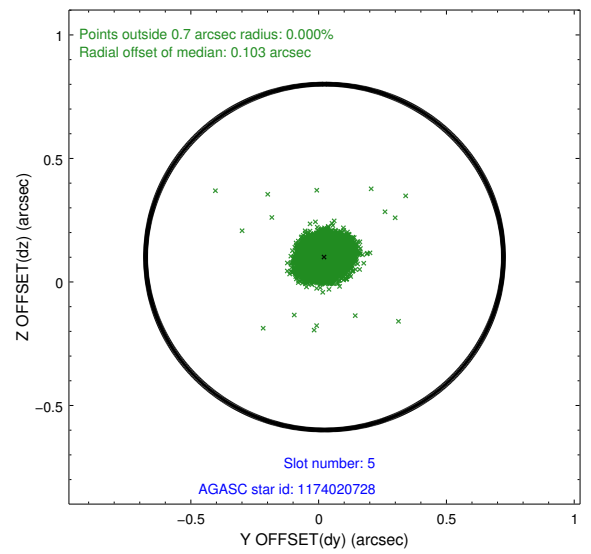
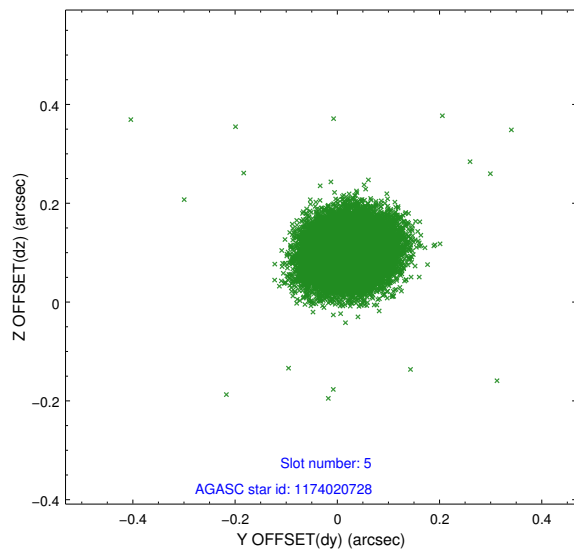
### 2.4.1 Slot 3



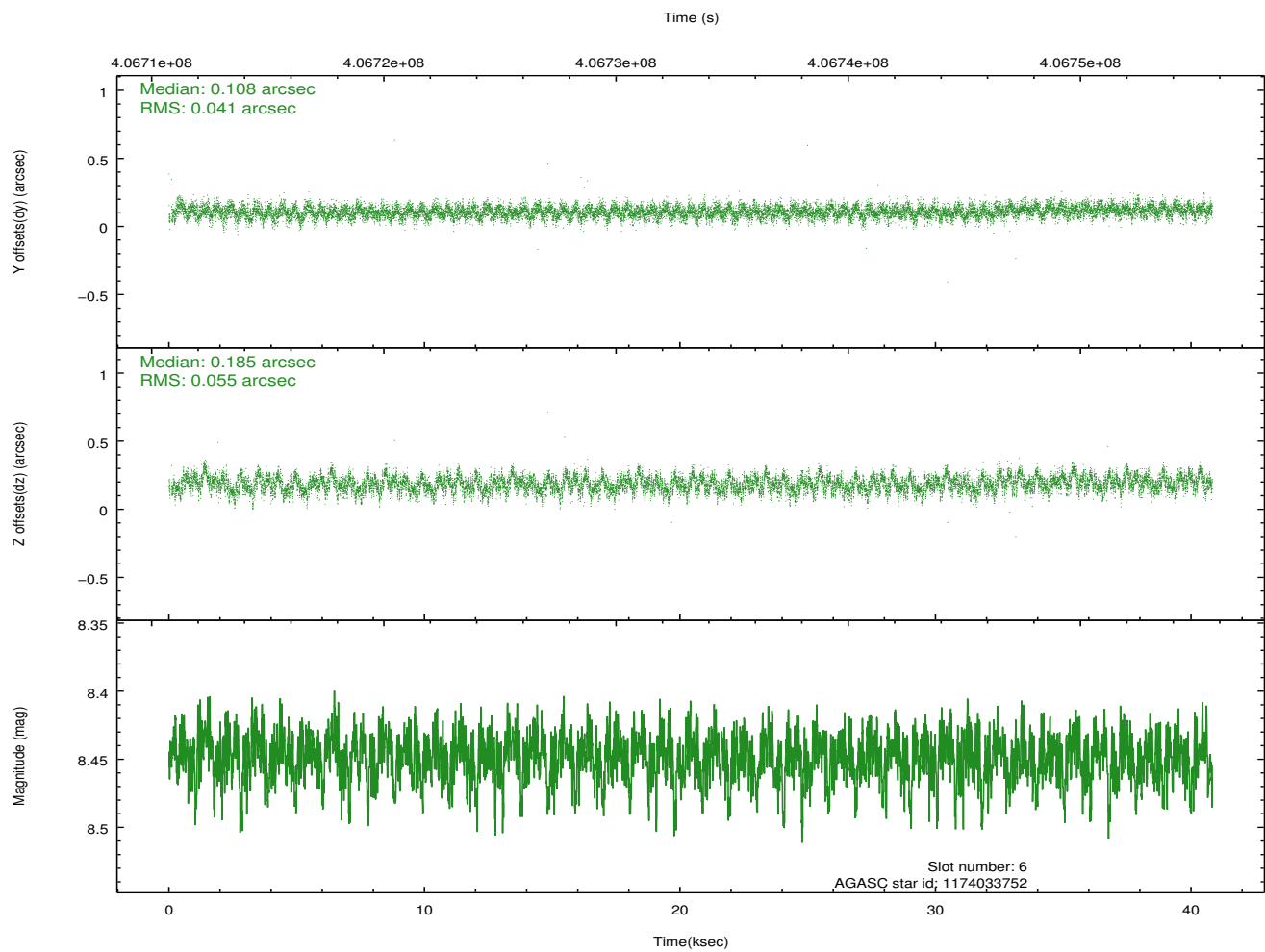
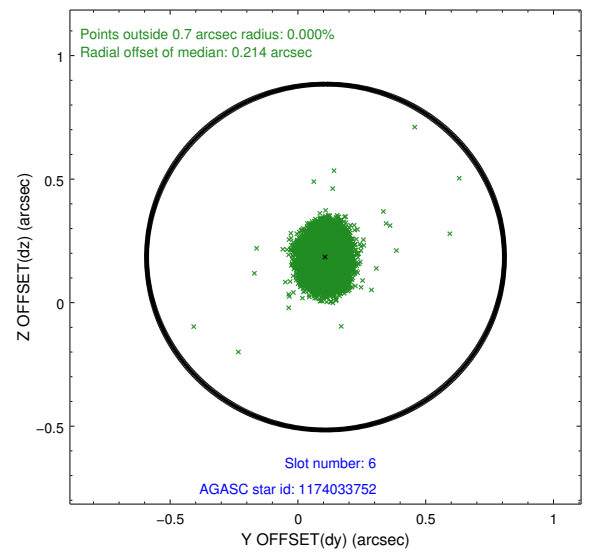
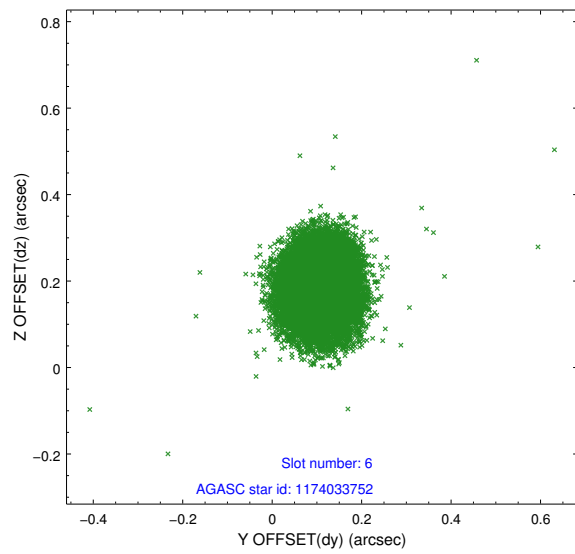
### 2.4.2 Slot 4



### 2.4.3 Slot 5

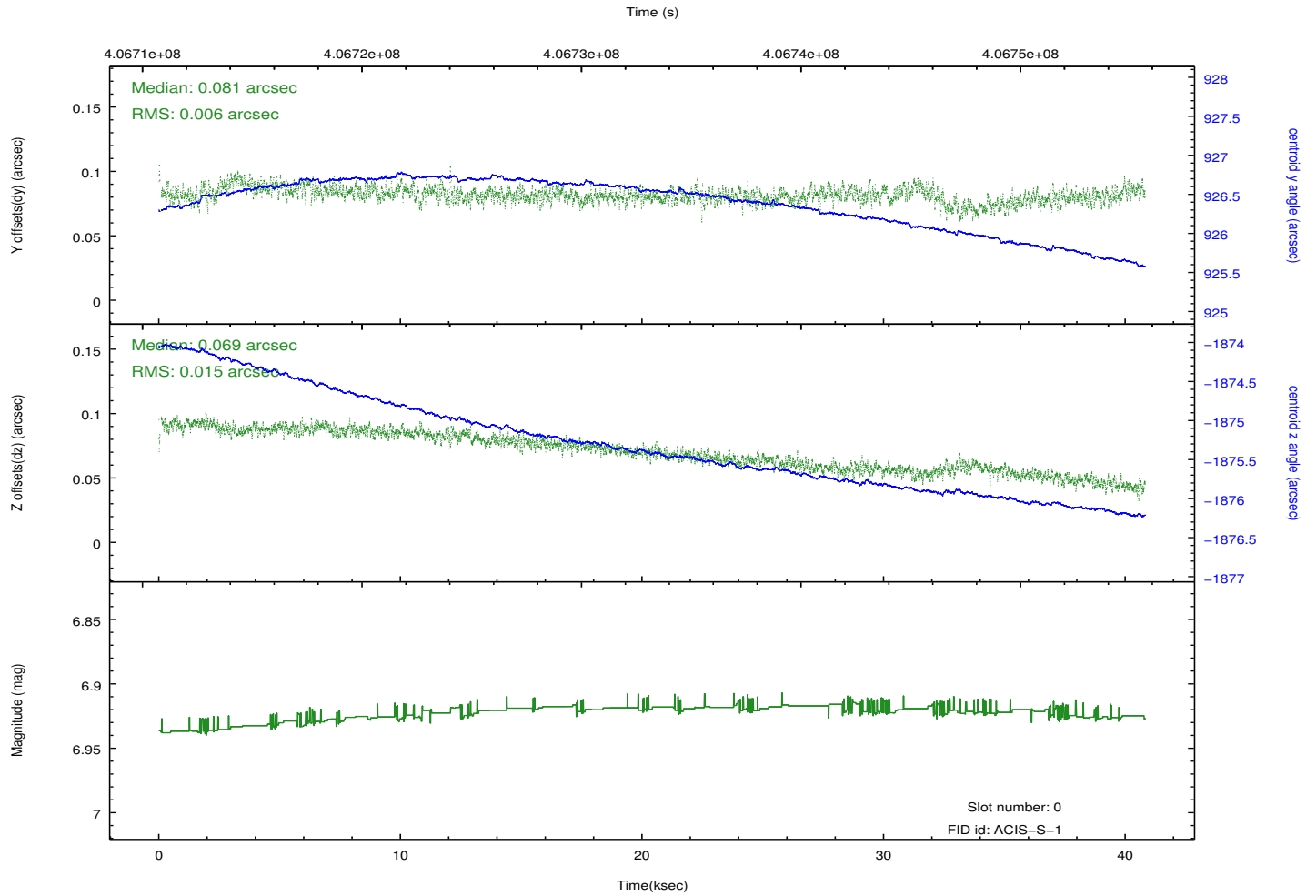
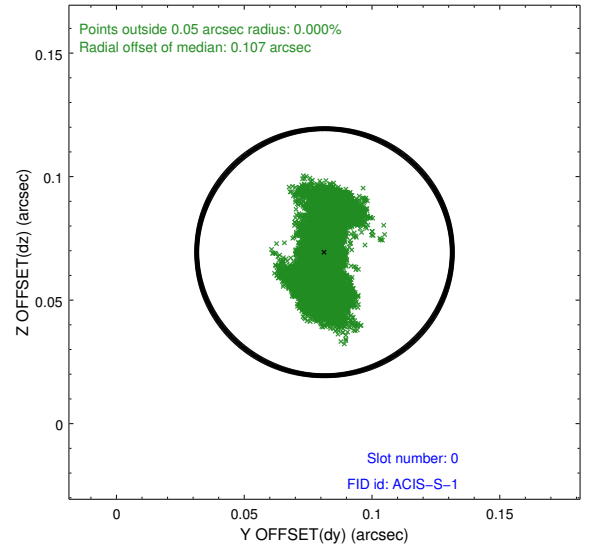
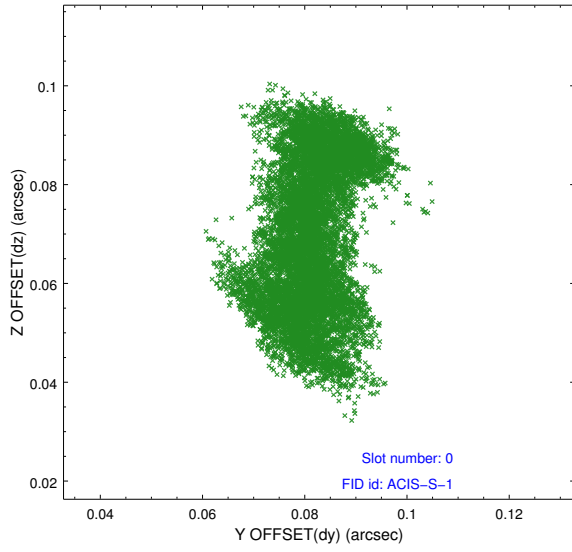


## 2.4.4 Slot 6

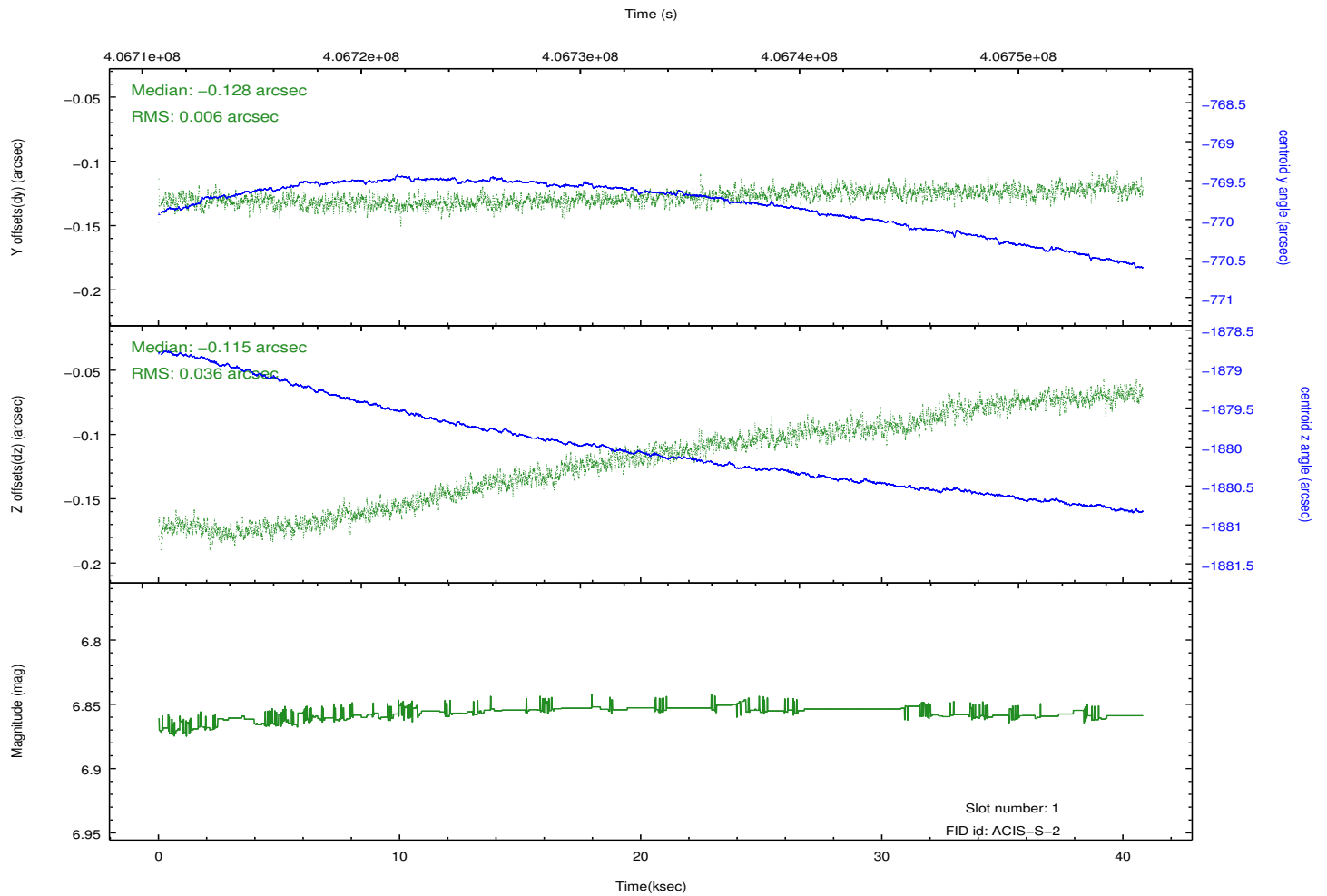
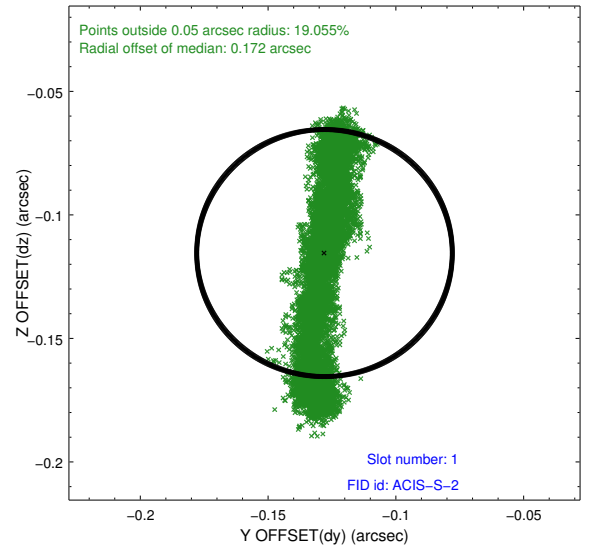
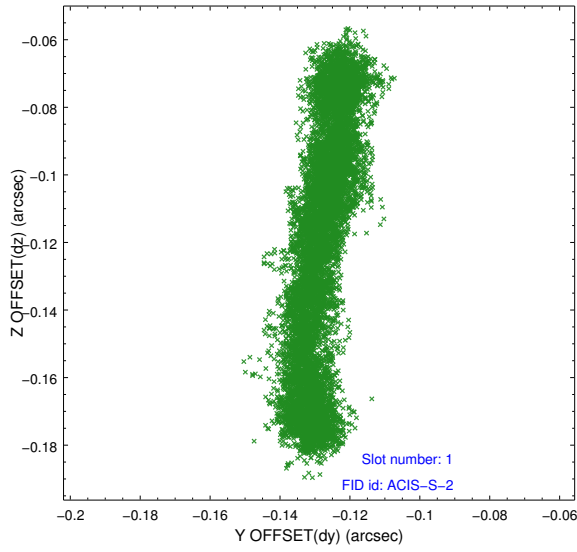


## 2.5 FID Slots

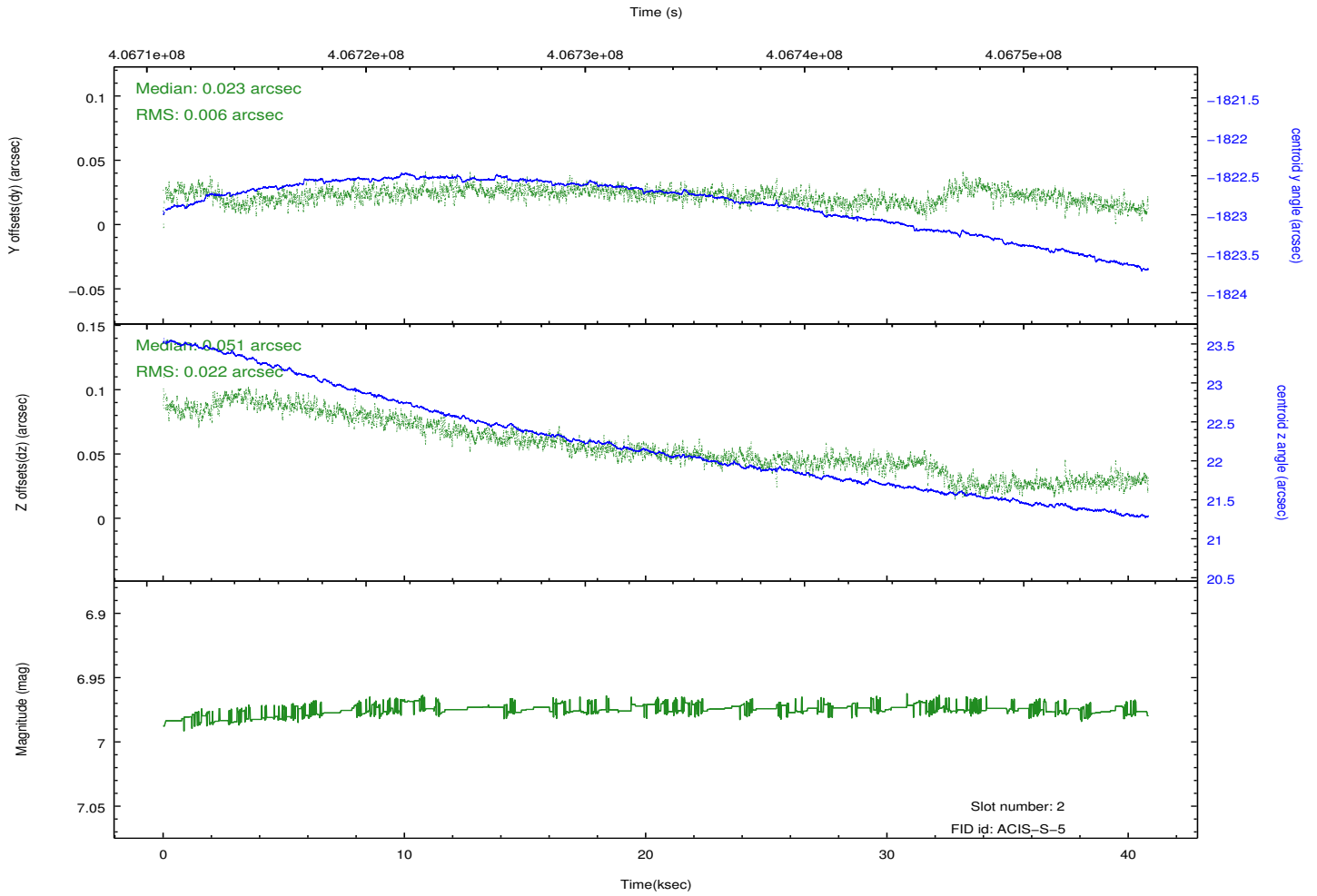
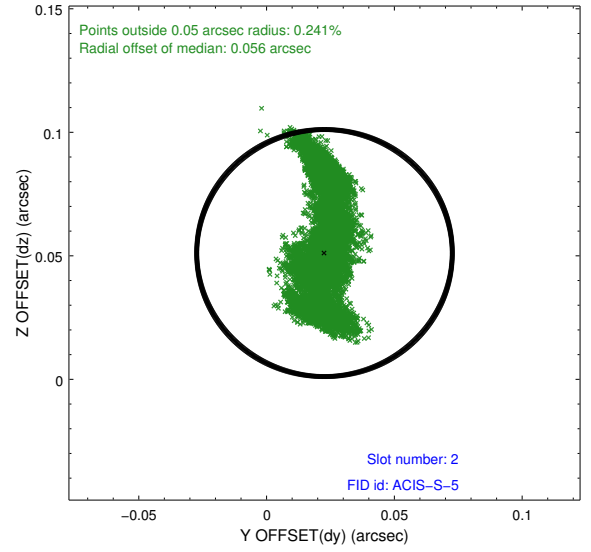
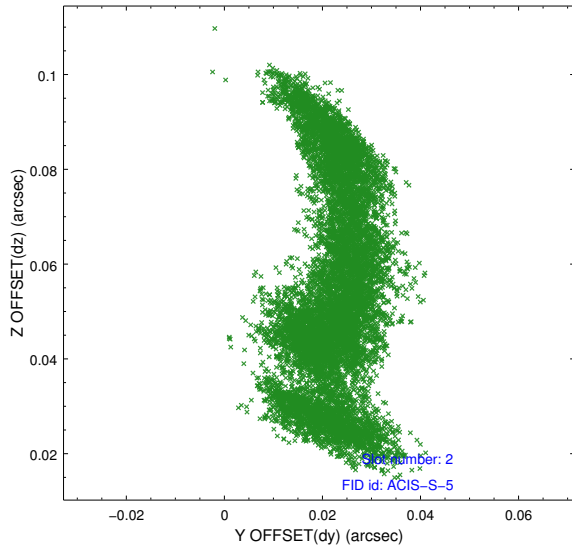
### 2.5.1 Slot 0



## 2.5.2 Slot 1

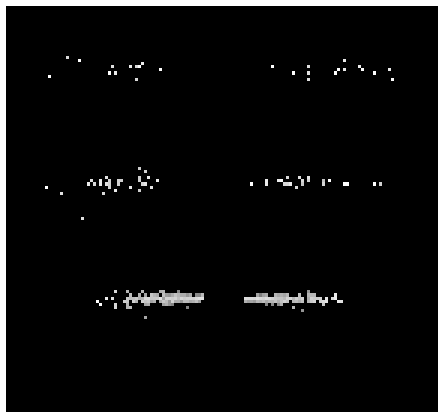


### 2.5.3 Slot 2

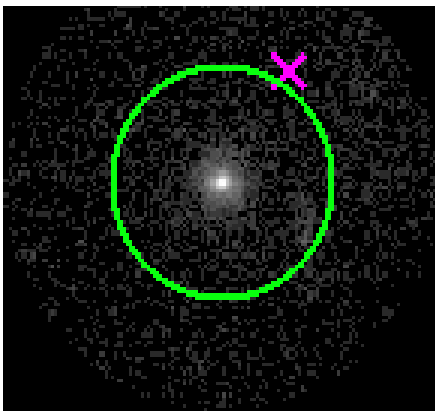


### 3 Gratings

#### 3.1 HEG Arm



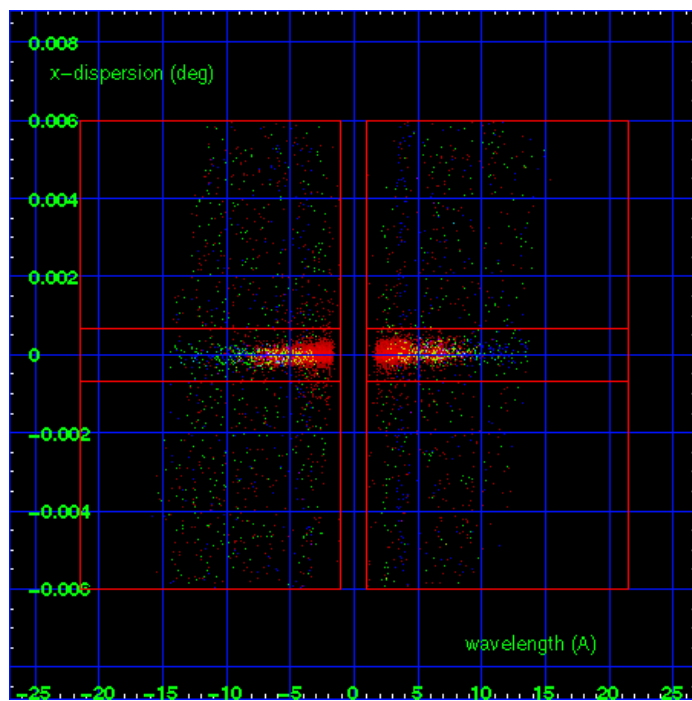
HEG Order Sort 123



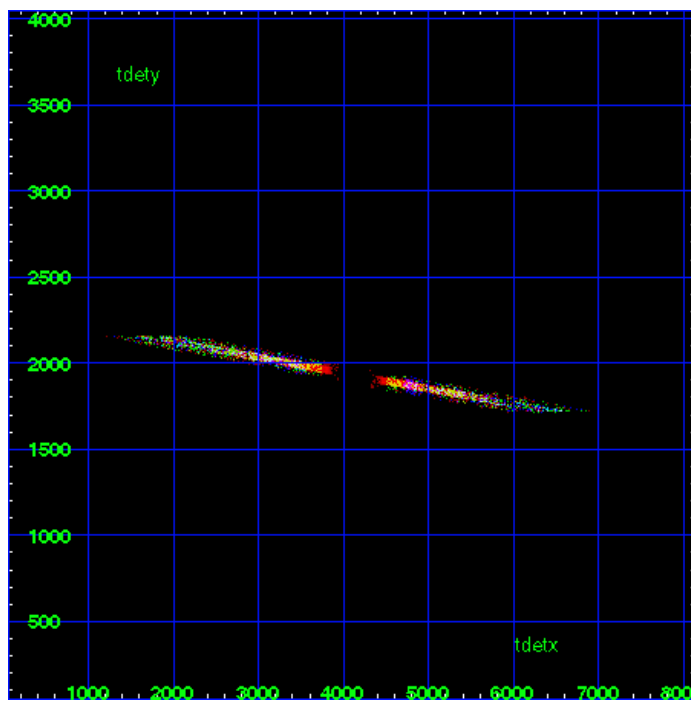
HEG Zero Order



HEG Order Sort ALL

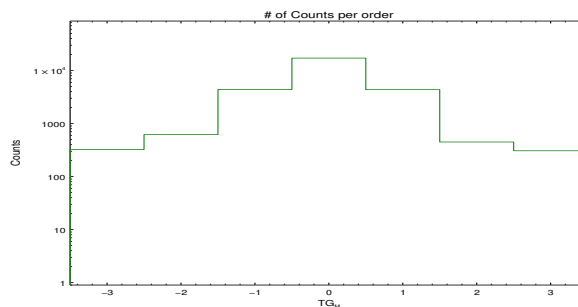


Spot Image HEG

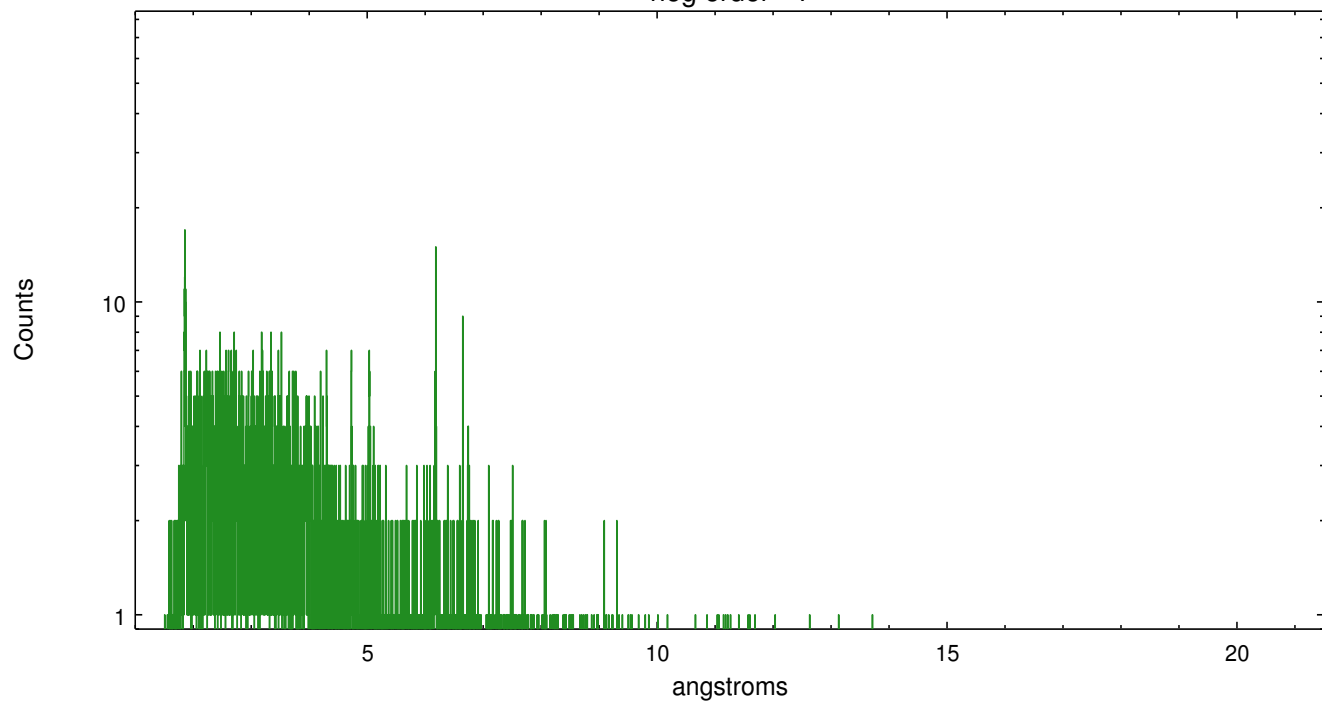


Full Detector HEG

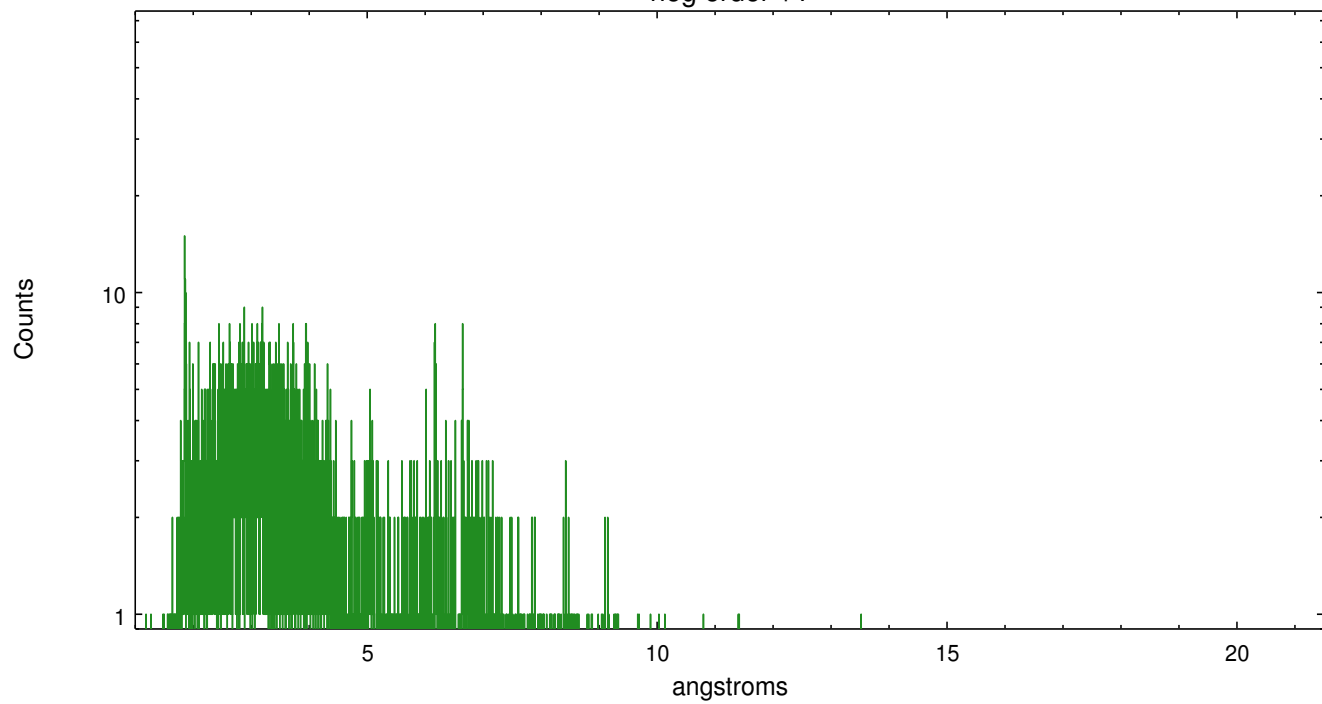
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	324	619	4385	17164	4364	449	307



heg order -1



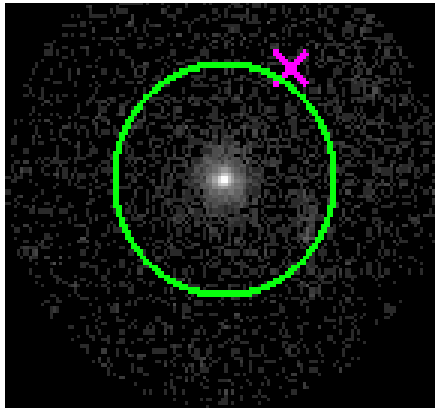
heg order +1



### 3.2 MEG Arm



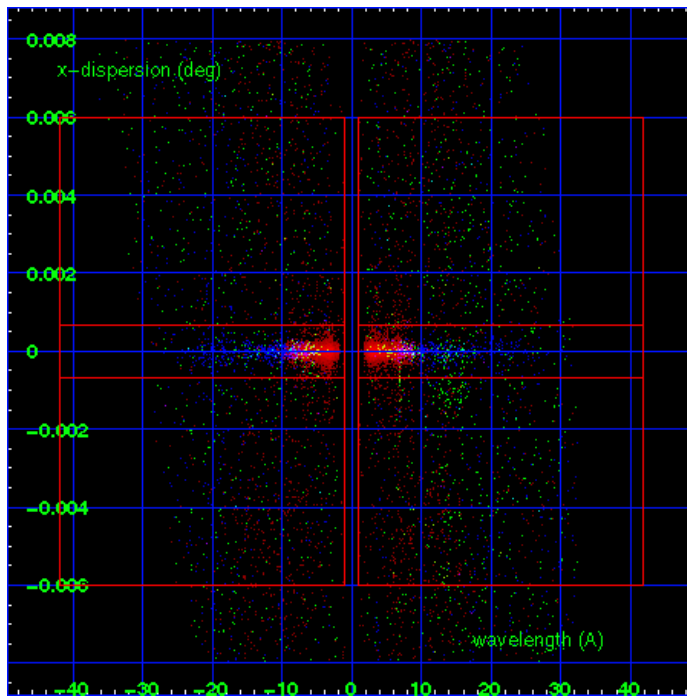
MEG Order Sort 123



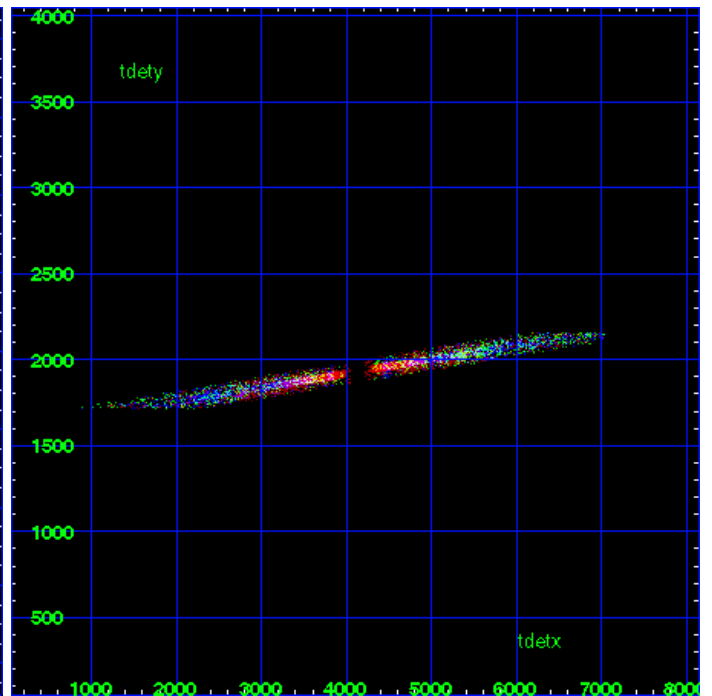
MEG Zero Order



MEG Order Sort ALL

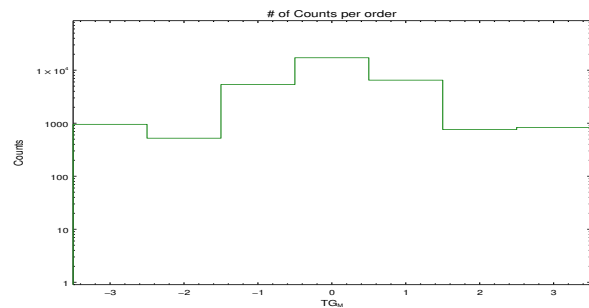


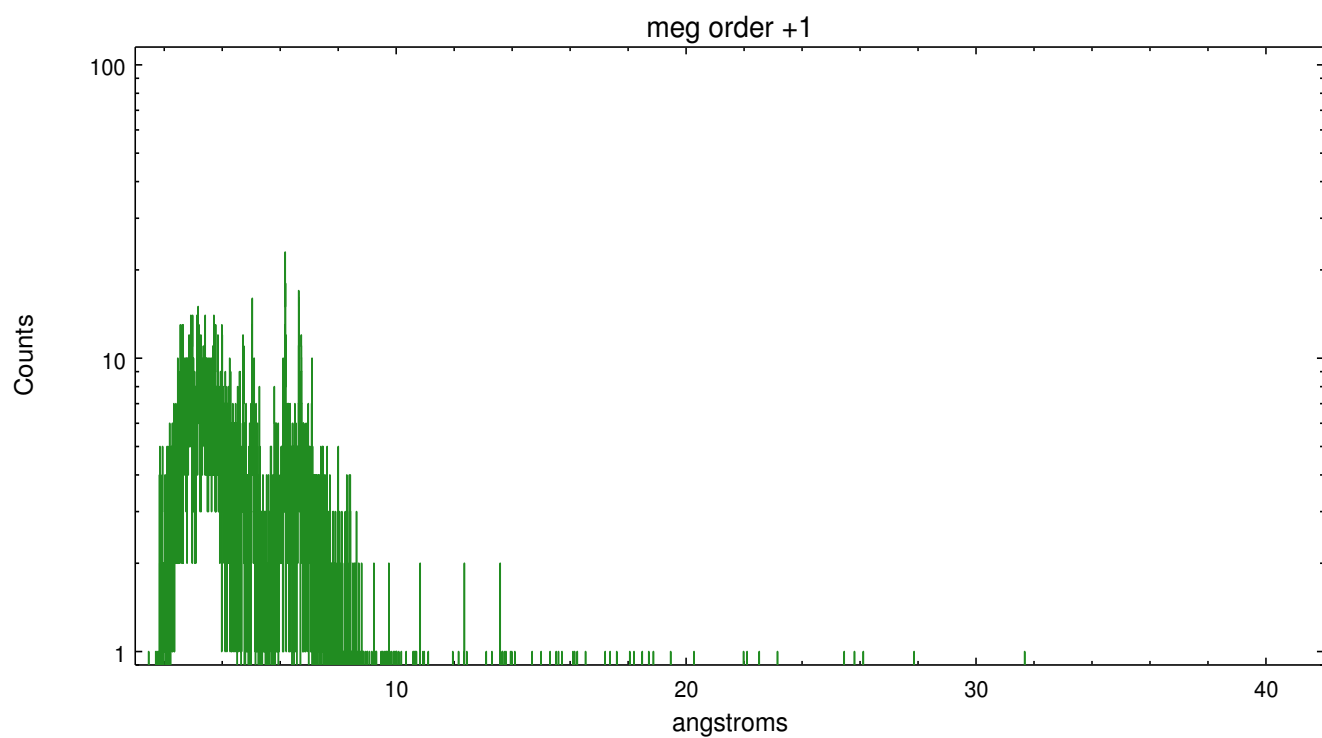
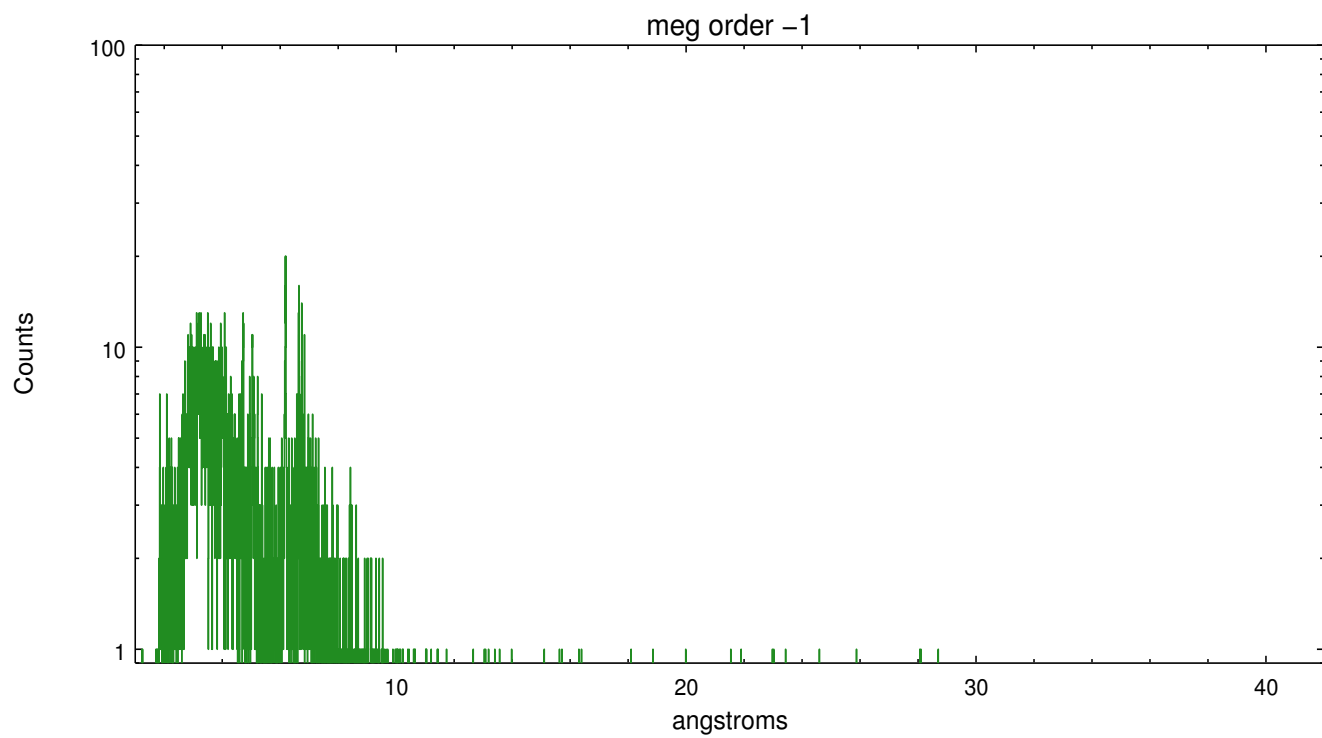
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	951	521	5360	17164	6482	759	833





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.07.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.441251327634

### A.2 Comments

Optical monitoring of target during observation is available in slot 7.