

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 6282 - L2 Version 3  
Chandra X-Ray Center

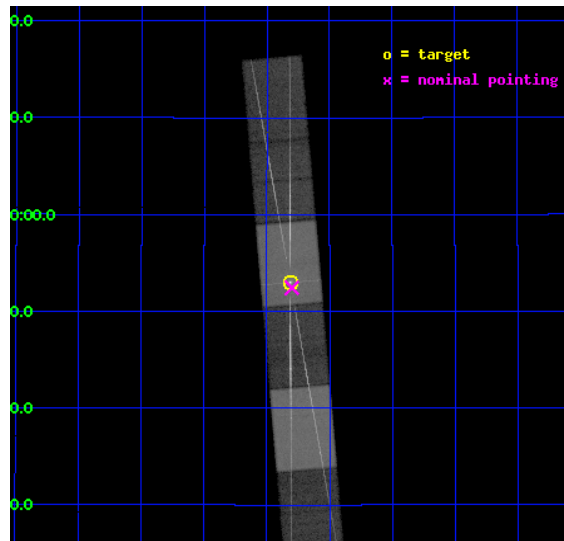
L2 Processing Date : Dec 23 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>3</b>	<b>Gratings</b>	<b>17</b>
3.1	HEG Arm . . . . .	17
3.2	MEG Arm . . . . .	19
<b>A</b>	<b>Summary</b>	<b>21</b>
A.1	Status . . . . .	21
A.2	Comments . . . . .	21

# 1 Front

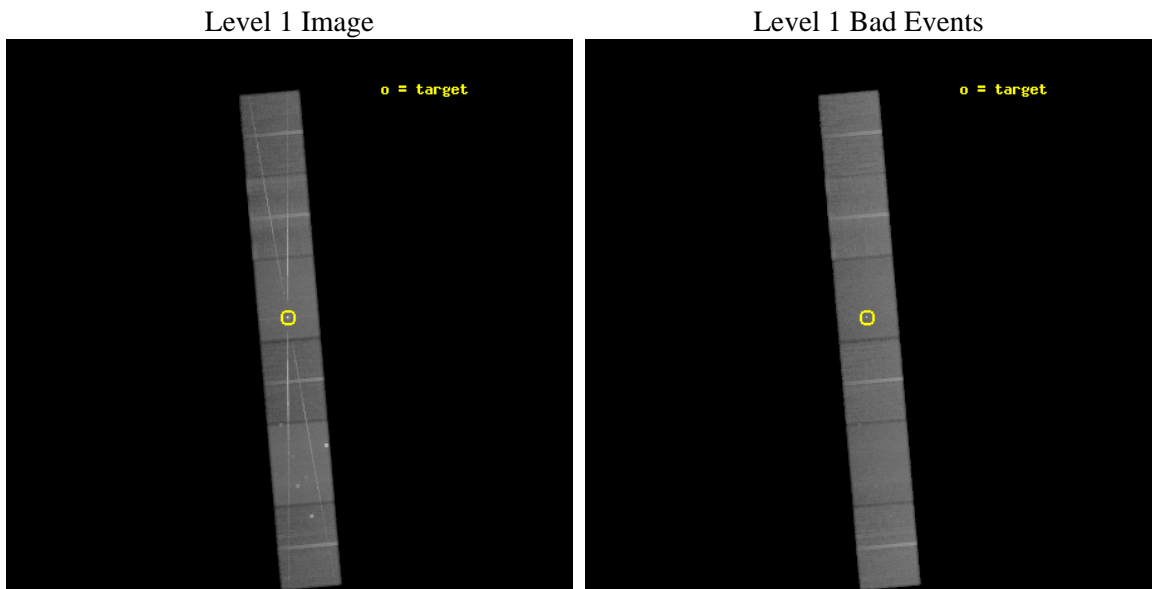
seq_num	200355	Sequence number
obs_id	6282	Observation id
title	CORONAL FLARING AND THE NEUPERT EFFECT ON THE ACTIVE BINARY SIGMA GEM	Proposal title
observer	Dr. Alexander Brown	Principal investigator
object	SIGMA GEM	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	115.827917	Observer's specified target RA [deg]
dec_targ	28.88325	Observer's specified target Dec [deg]
ra_nom	115.82505472595	Nominal RA [deg]
dec_nom	28.873902499635	Nominal Dec [deg]
roll_nom	265.05801098439	Nominal Roll [deg]
revision	3	Processing version of data
ontime	58875.0	Sum of GTIs [s]
livetime	57924.117684098	Livetime [s]
ontime4	58872.459009796	Sum of GTIs [s]
ontime5	58875.0	Sum of GTIs [s]
ontime6	58875.0	Sum of GTIs [s]
ontime7	58875.0	Sum of GTIs [s]
ontime8	58875.0	Sum of GTIs [s]
ontime9	58875.0	Sum of GTIs [s]
l2events	688652	Number of level 2 events



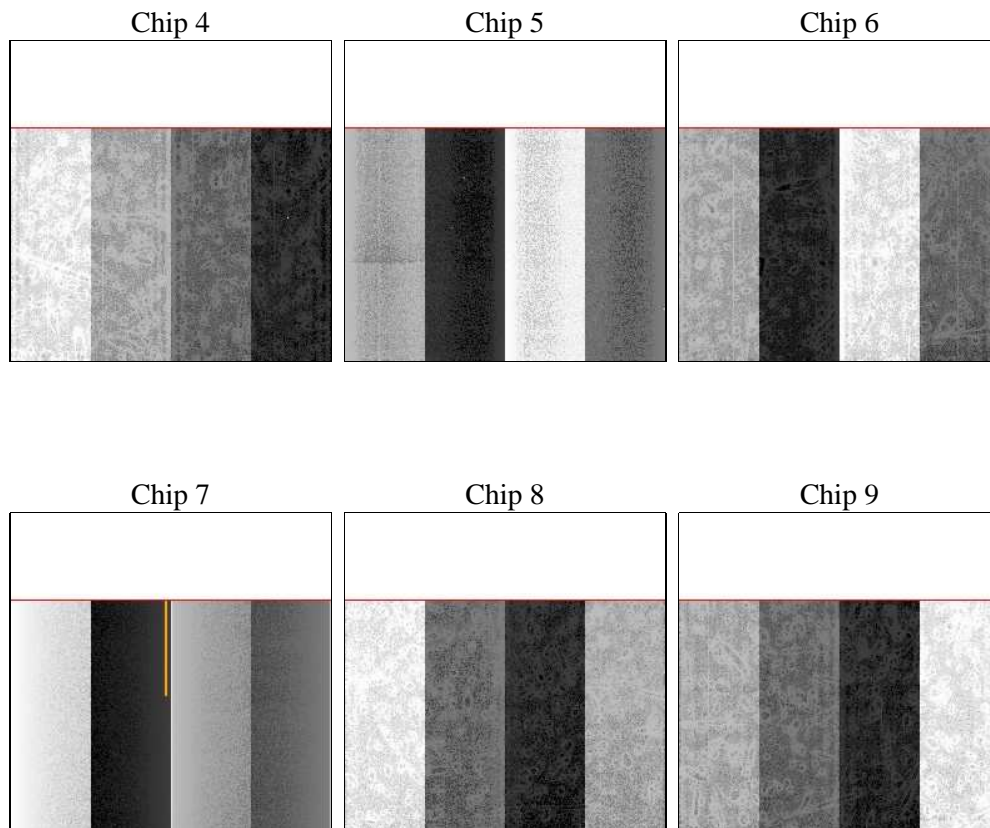
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	58714.478000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	58875.0	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime4	58872.459009796	Sum of GTIs [s]
date	2012-12-23T17:04:20	Date and time of file creation	ontime5	58875.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	58875.0	Sum of GTIs [s]
			ontime7	58875.0	Sum of GTIs [s]
			ontime8	58875.0	Sum of GTIs [s]
			ontime9	58875.0	Sum of GTIs [s]
			l1events	2349369	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	325219	474235	359178	466851	430971	292915	grade 0 events	26958	41572	72834	27462	71725	24062
rejected events	275688	234962	252125	245738	291158	245432		8%	8%	20%	5%	16%	8%
rejected %	84%	49%	70%	52%	67%	83%	grade 1 events	240	1048	369	921	414	158
								0%	0%	0%	0%	0%	0%
							grade 2 events	8761	68941	14621	46920	22892	8174
								2%	14%	4%	10%	5%	2%
							grade 3 events	4187	11612	5902	20966	11732	4045
								1%	2%	1%	4%	2%	1%
							grade 4 events	3993	11396	5640	20990	10742	4025
								1%	2%	1%	4%	2%	1%
							grade 5 events	12569	33912	13224	40446	17732	14000
								3%	7%	3%	8%	4%	4%
							grade 6 events	5871	106788	8402	105666	23384	7364
								1%	22%	2%	22%	5%	2%
							grade 7 events	262640	198966	238186	203480	272350	231087
								80%	41%	66%	43%	63%	78%

## 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	115.811498	115.8250547259479	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	28.898419	28.8739024996347	Subarray start row	1	1
[deg] Pointing Roll	264.907938	265.0580109843905	Subarray row count	747	747
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	2.5
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	232739144.184000	232737934.8599			
Observation start date	2005-05-17T17:44:40	2005-05-17T17:25:34			
[s] Observation end time (MET)	232797859.184000	232798083.91264			
Observation end date	2005-05-18T10:03:15	2005-05-18T10:08:03			
Read mode	TIMED	TIMED			

## 2.3 Aspect

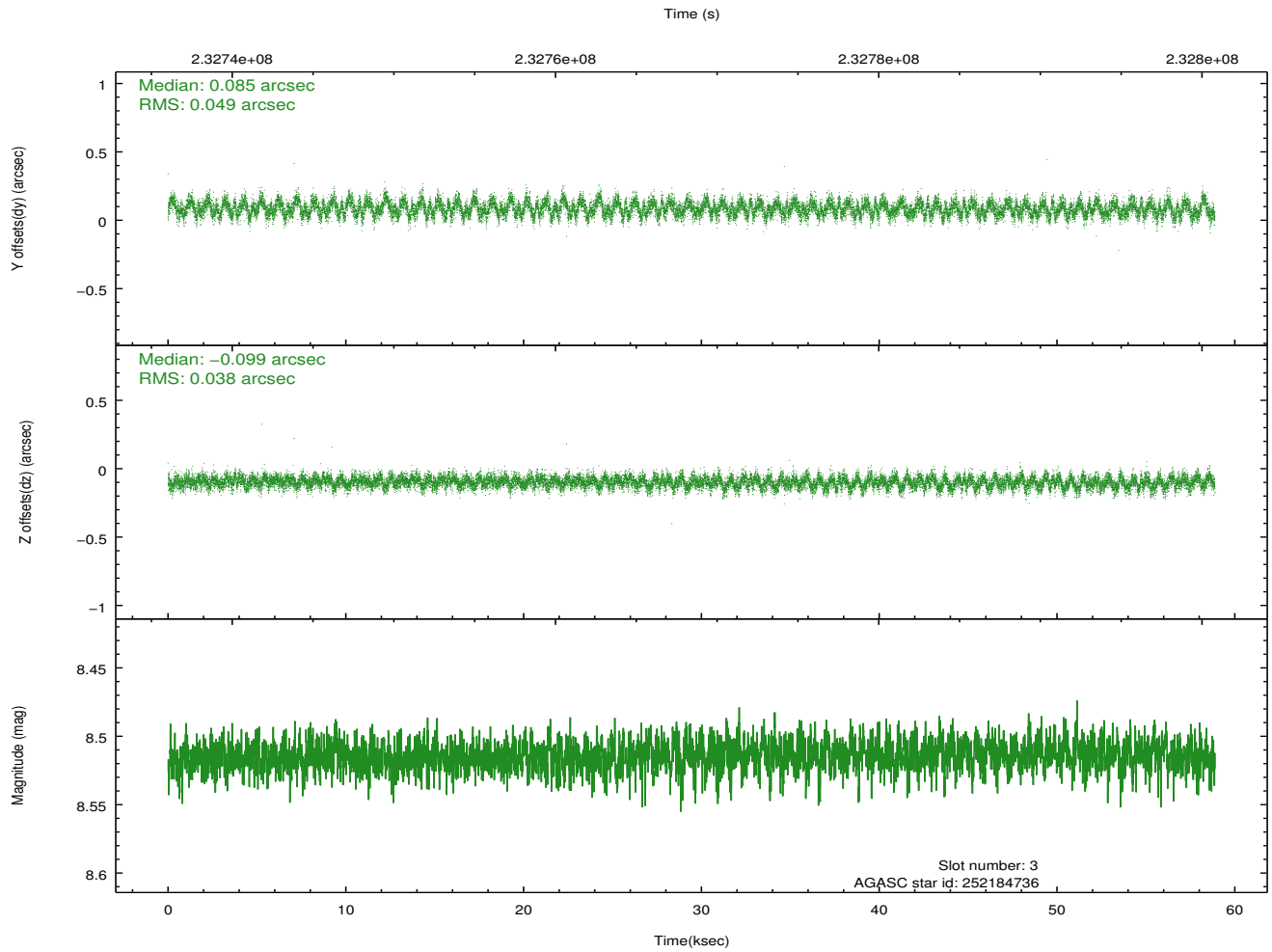
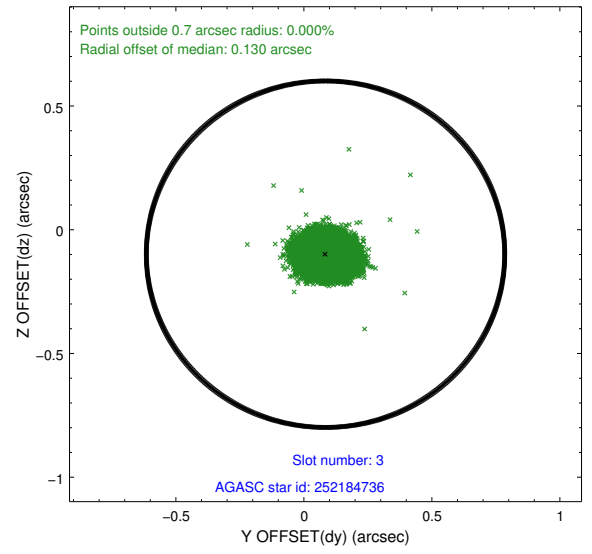
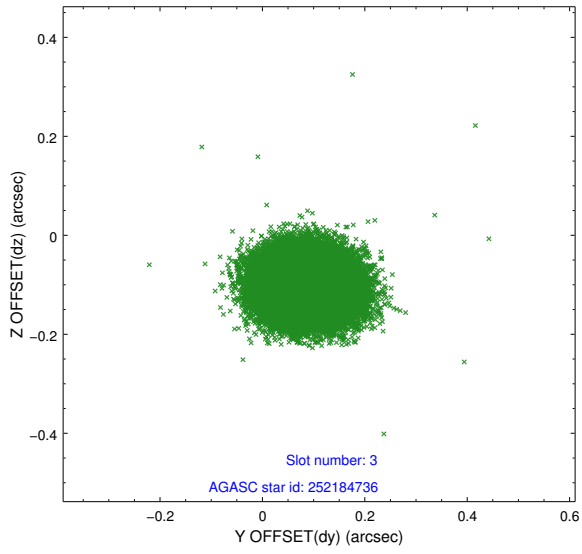


### Slot Statistics

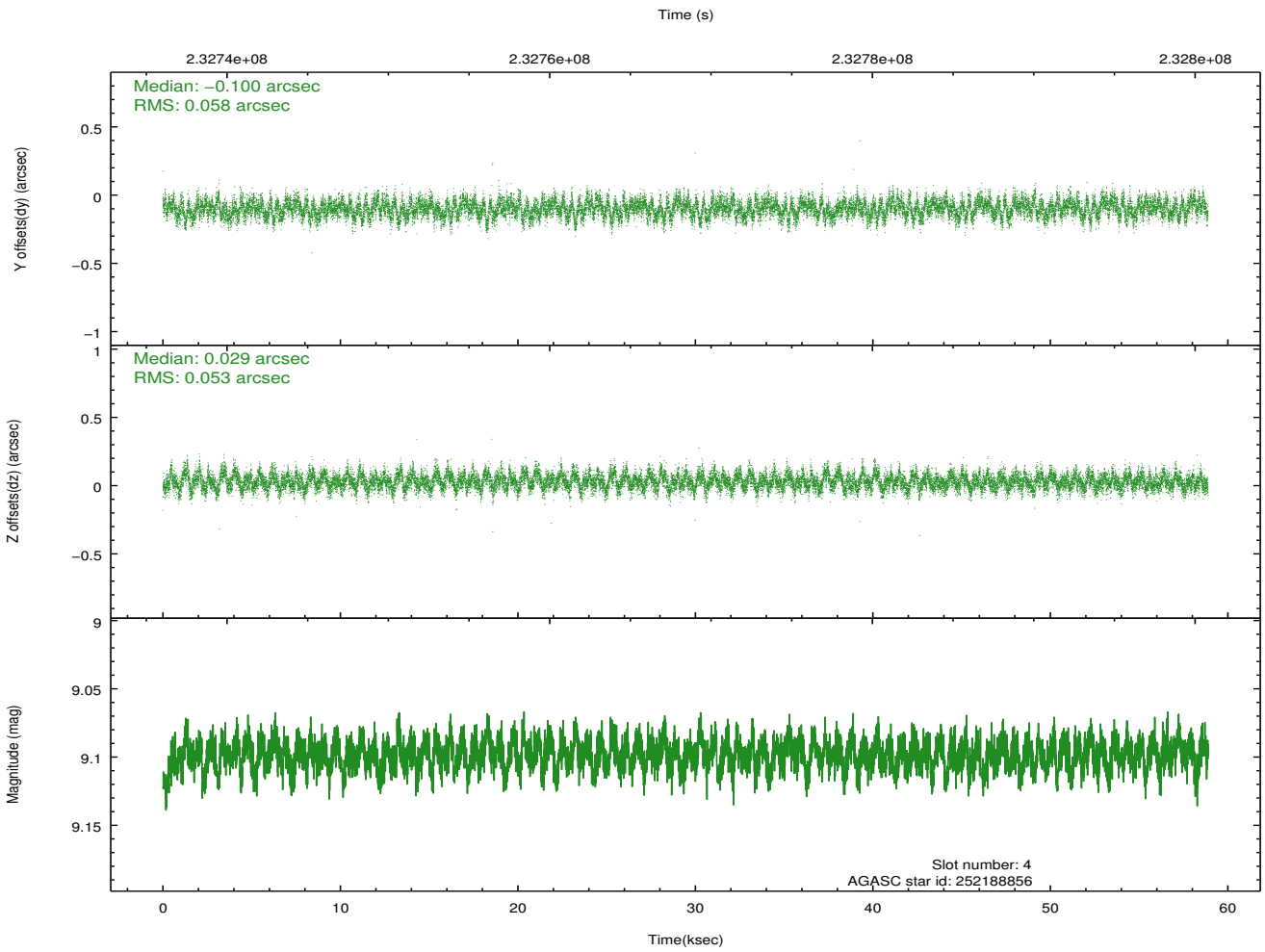
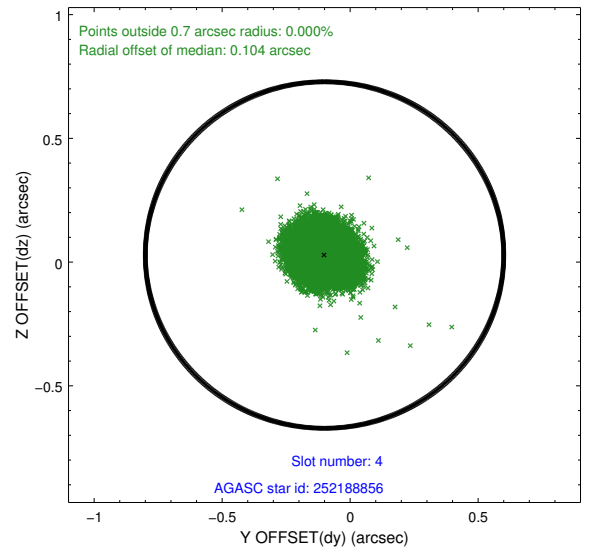
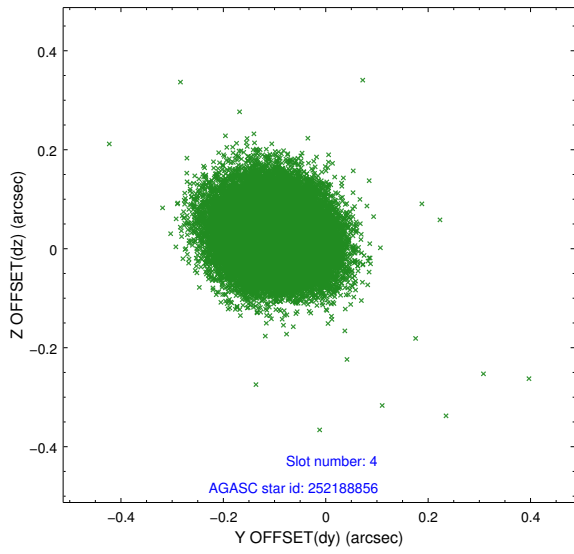
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	14361	0.064	0.038	0.010	0.042	0.000000	0.000000	936.83	-1790.51
1	FID	ACIS-S-2	7.09	14362	-0.077	-0.092	0.015	0.034	0.000000	0.000000	-759.24	-1795.17
2	FID	ACIS-S-5	7.23	14362	-0.009	0.060	0.016	0.036	0.000000	0.000000	-1812.41	107.08
3	GUIDE	252184736	8.51	28709	0.085	-0.099	0.066	0.106	115.841049	28.337104	2004.77	272.90
4	GUIDE	252188856	9.10	28709	-0.100	0.029	0.084	0.133	115.995799	29.406043	-1871.75	413.67
5	GUIDE	252192288	9.05	28706	-0.011	0.101	0.164	0.238	116.362333	28.752504	365.05	1778.30
6	GUIDE	252194776	9.30	28711	0.056	-0.058	0.100	0.171	115.244419	29.434716	-1769.02	-1942.60
7	GUIDE	252196488	7.03	28722	-0.034	0.033	0.059	0.093	115.667880	28.833856	271.76	-430.23

## 2.4 Star Slots

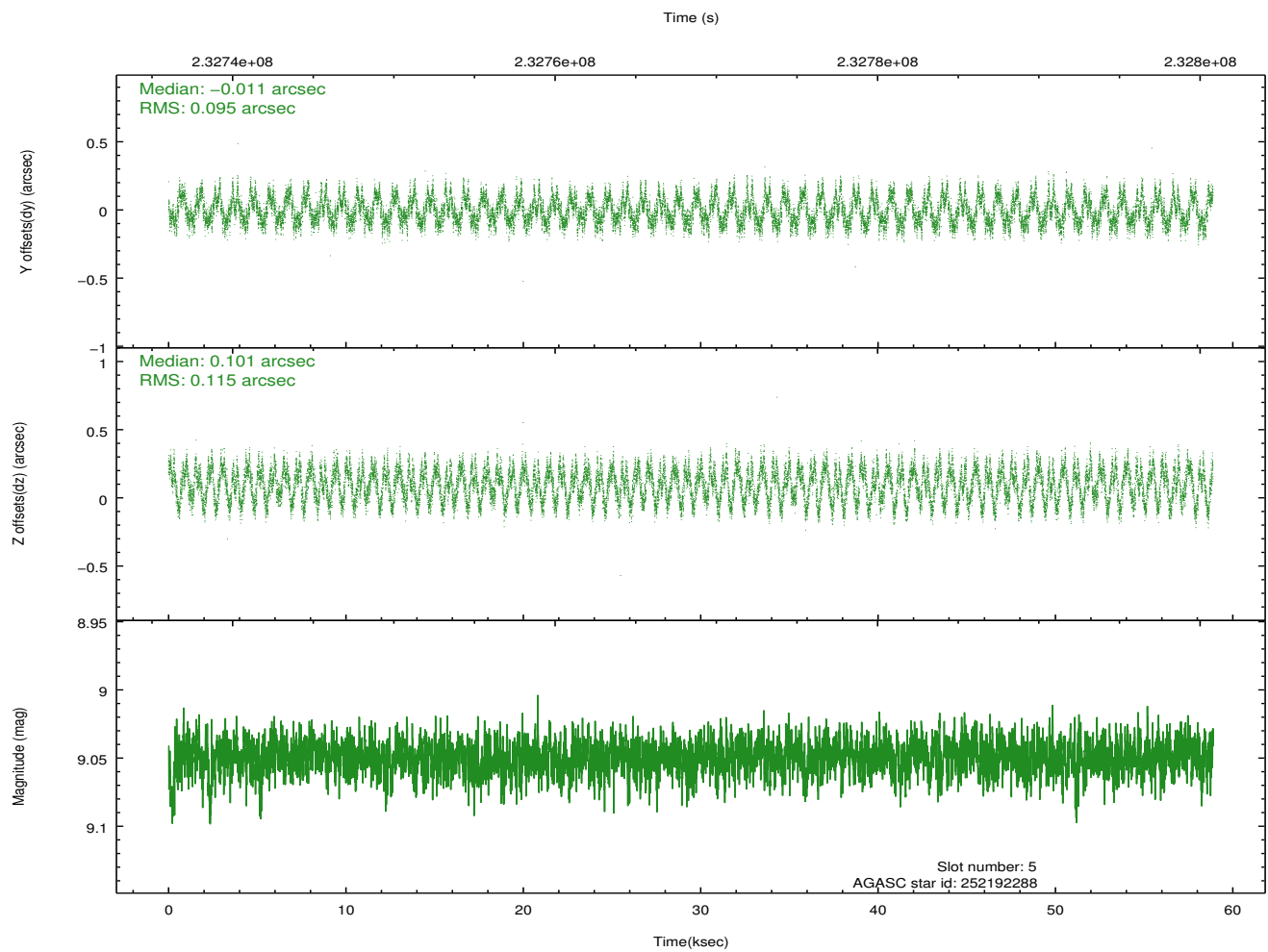
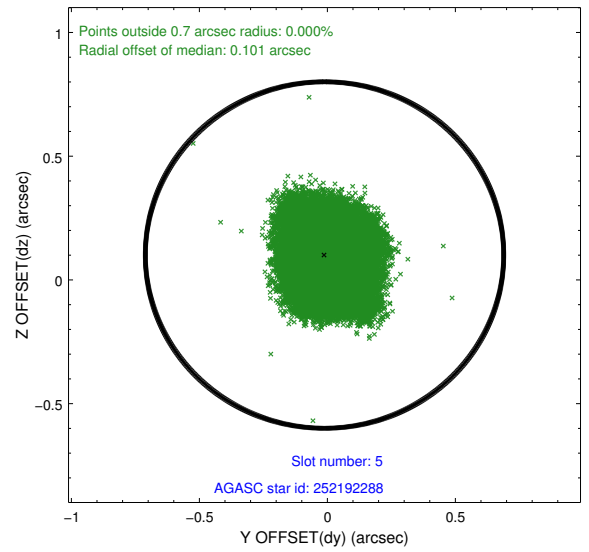
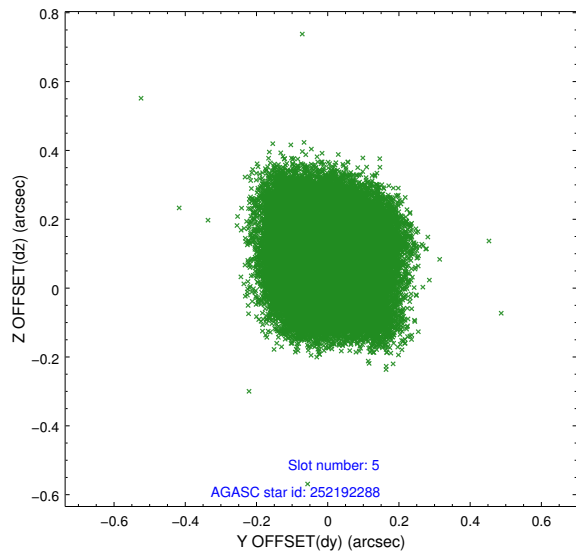
### 2.4.1 Slot 3



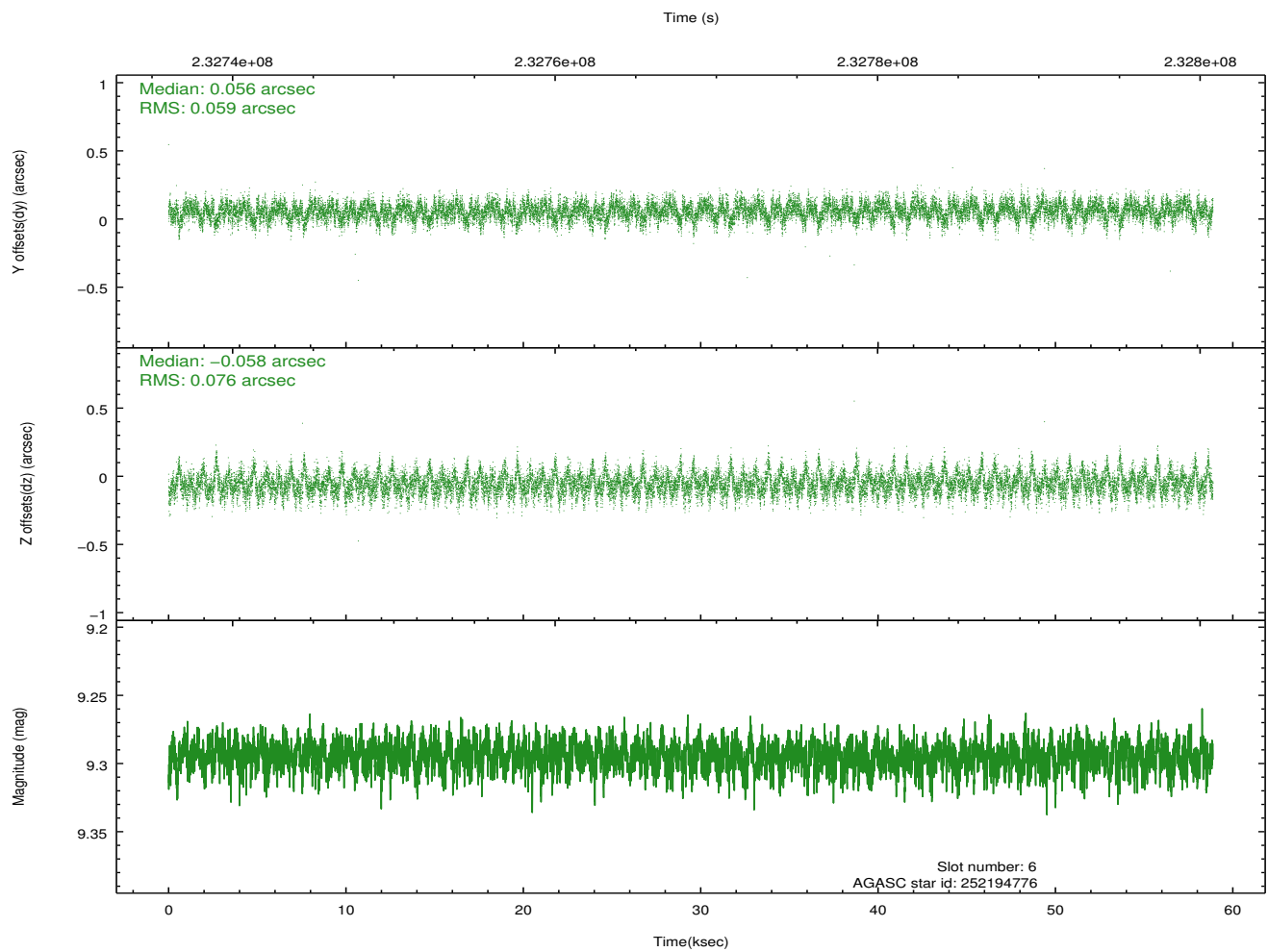
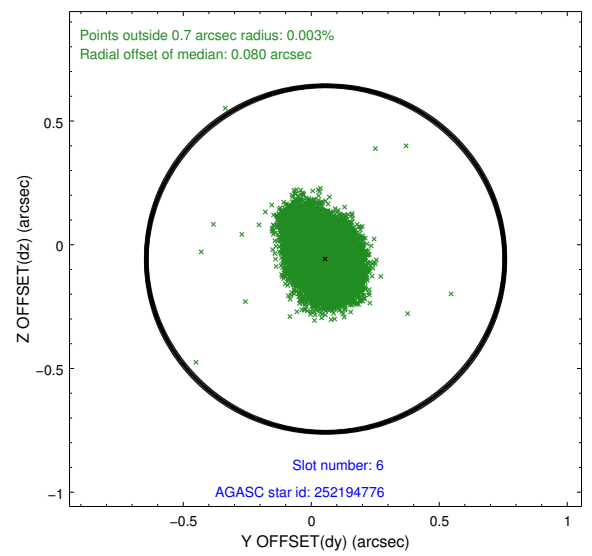
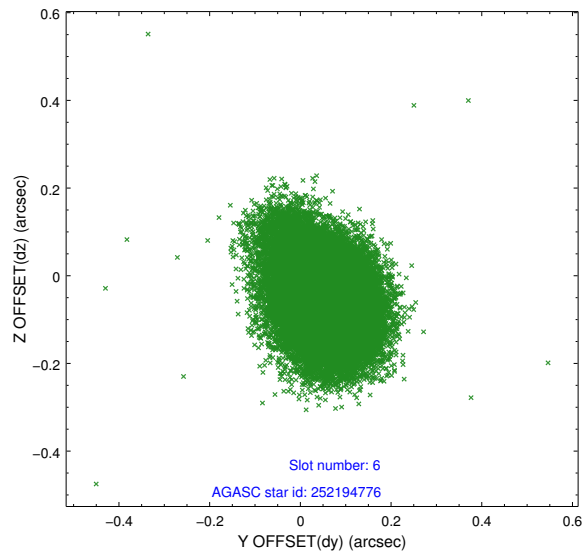
## 2.4.2 Slot 4



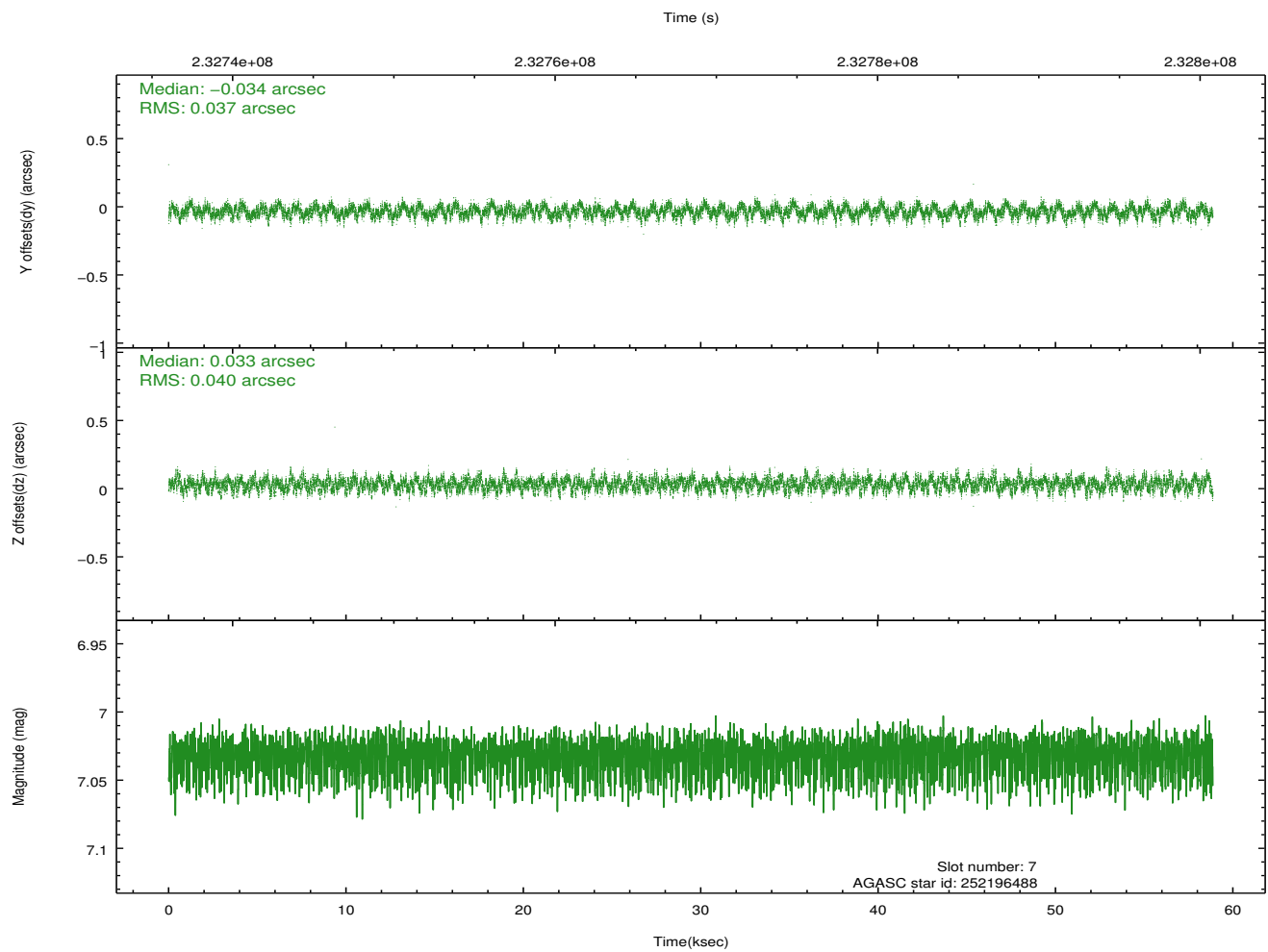
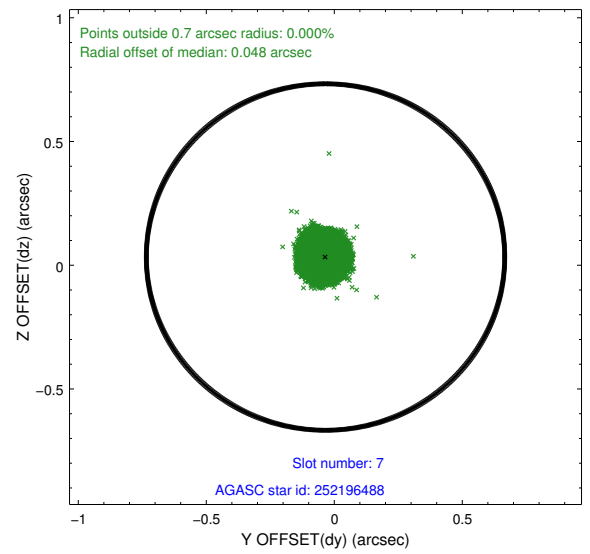
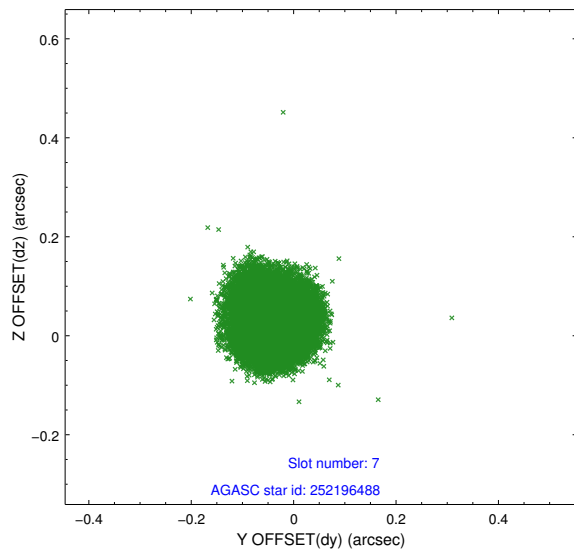
### 2.4.3 Slot 5



## 2.4.4 Slot 6

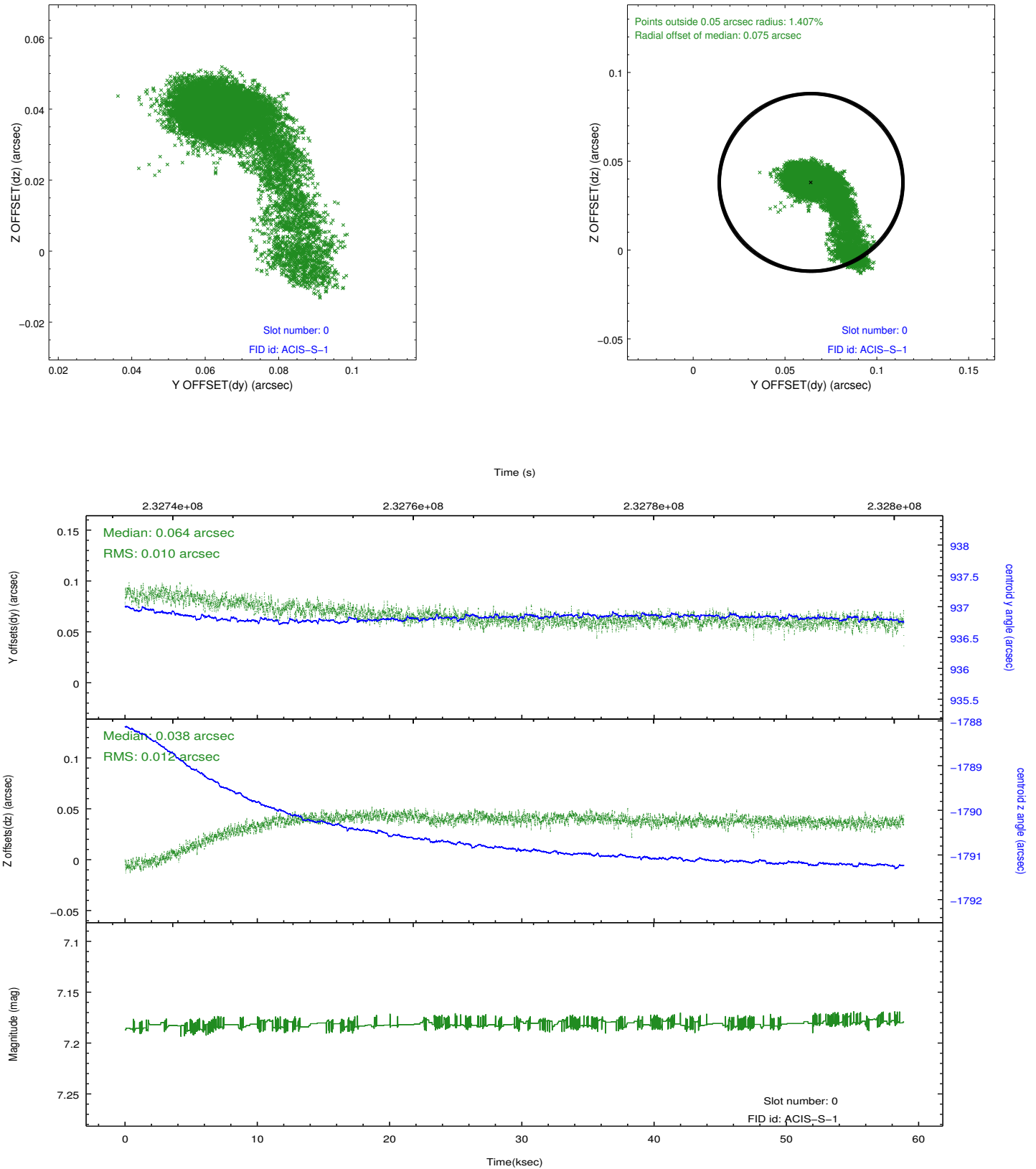


## 2.4.5 Slot 7

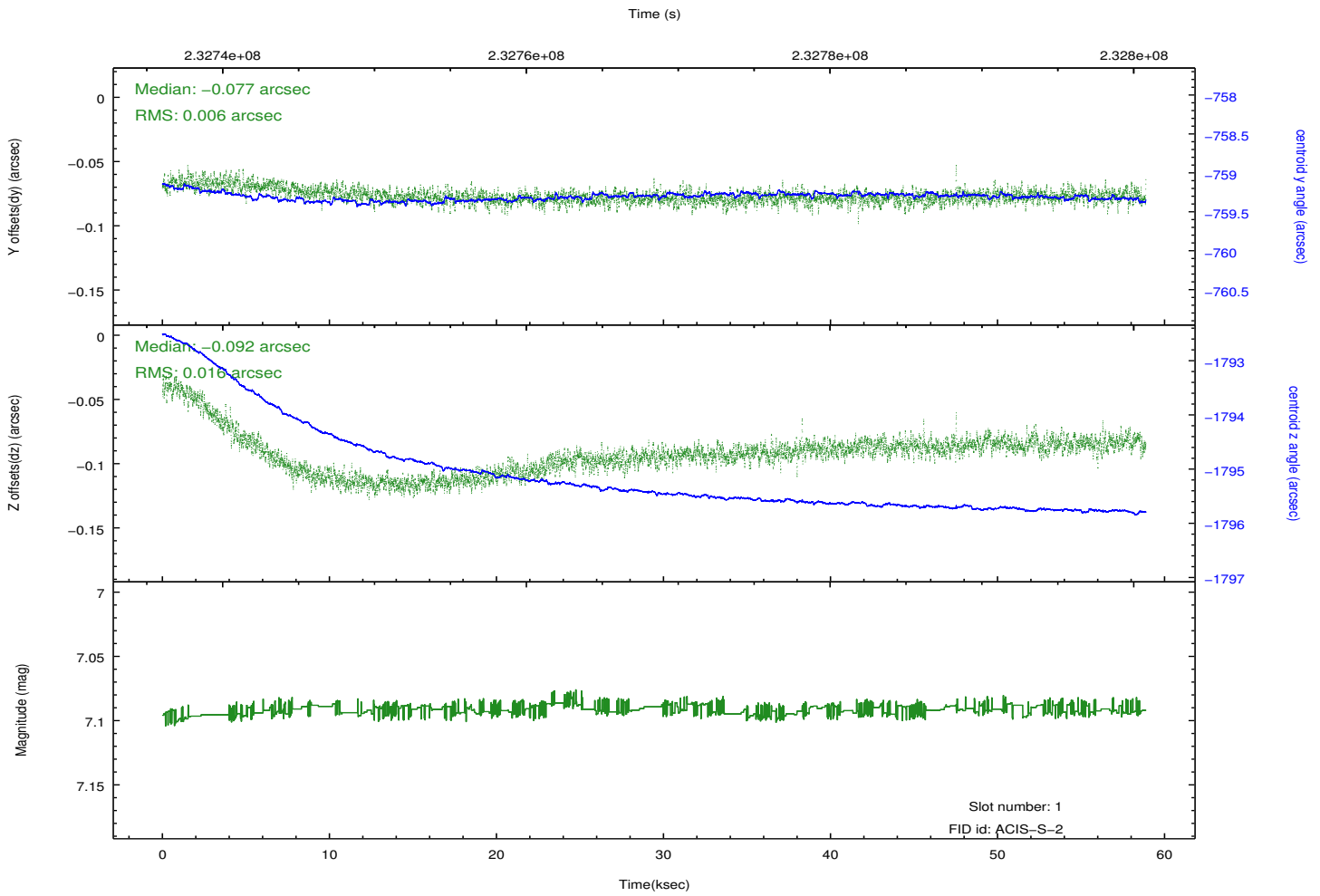
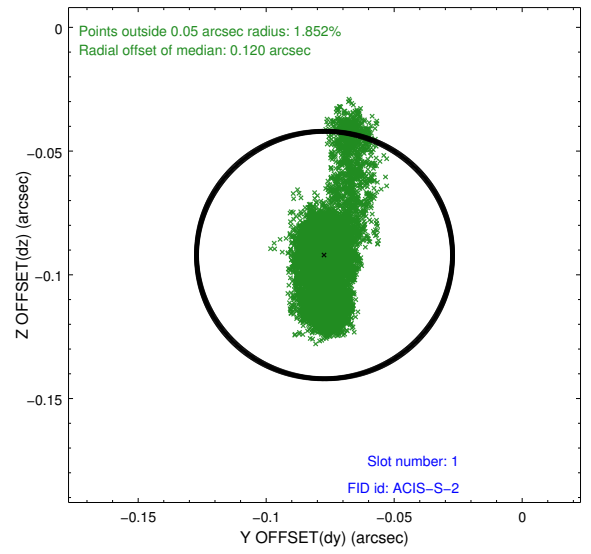
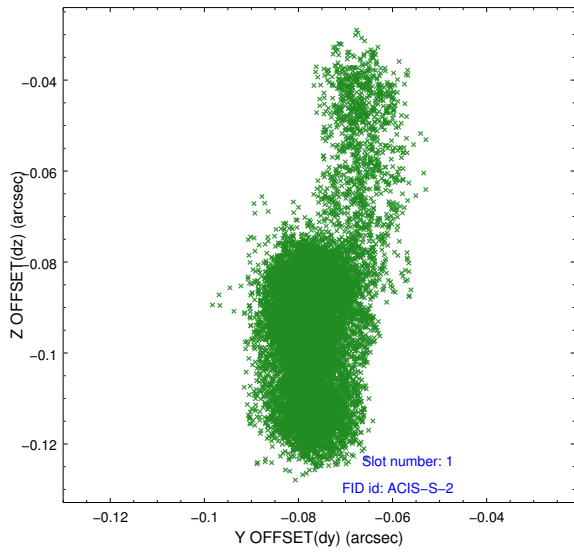


## 2.5 FID Slots

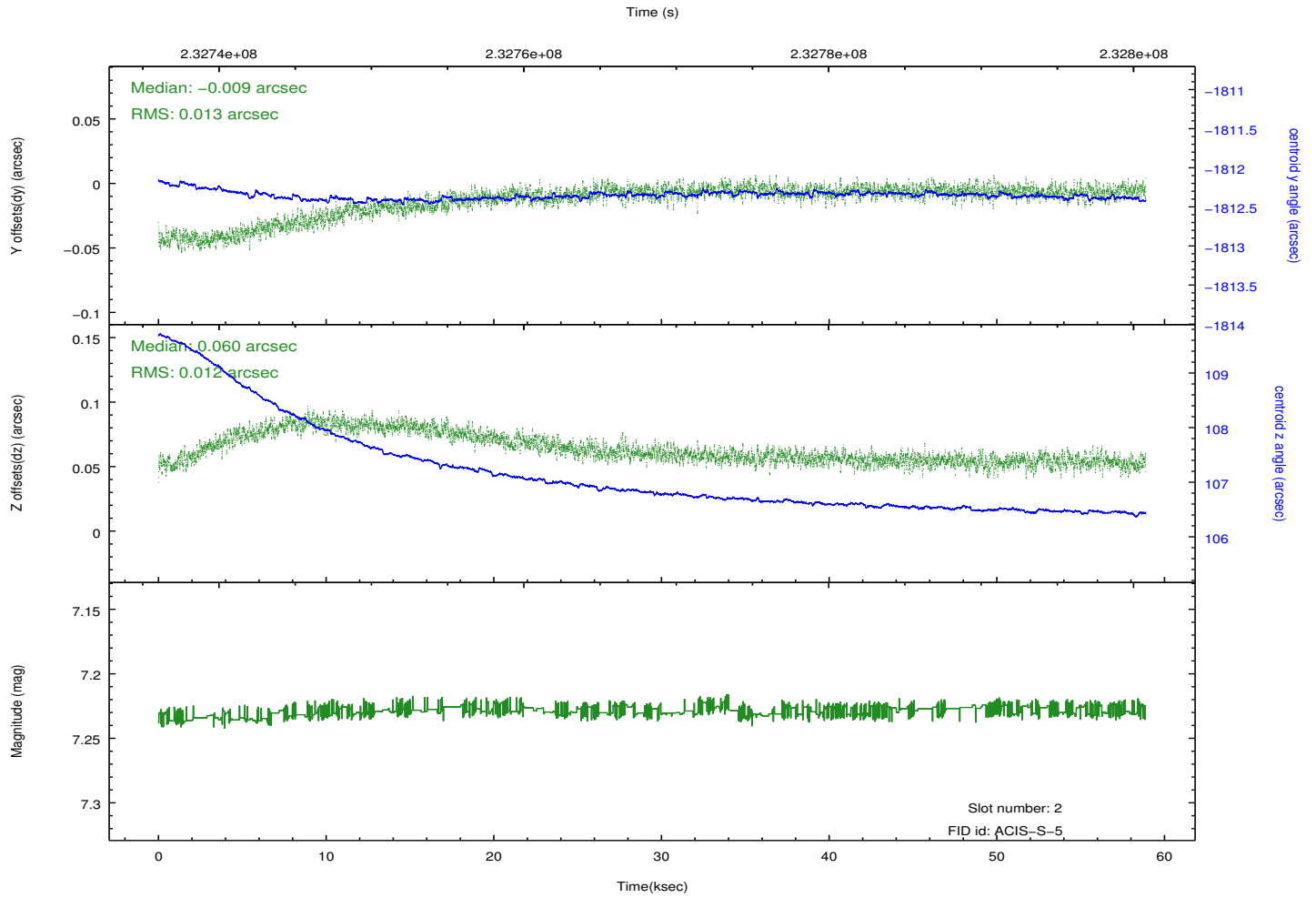
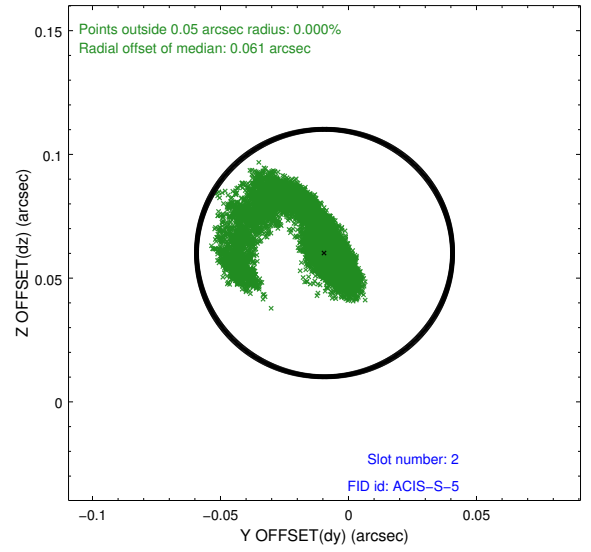
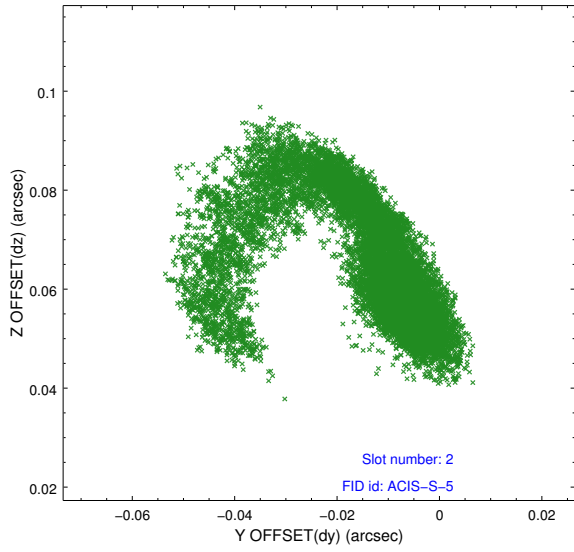
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

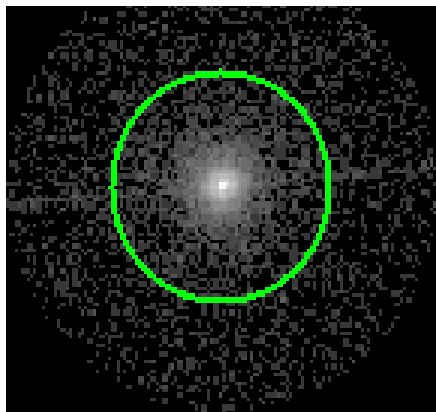


### 3 Gratings

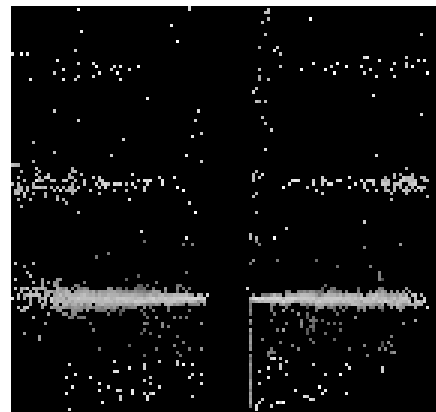
#### 3.1 HEG Arm



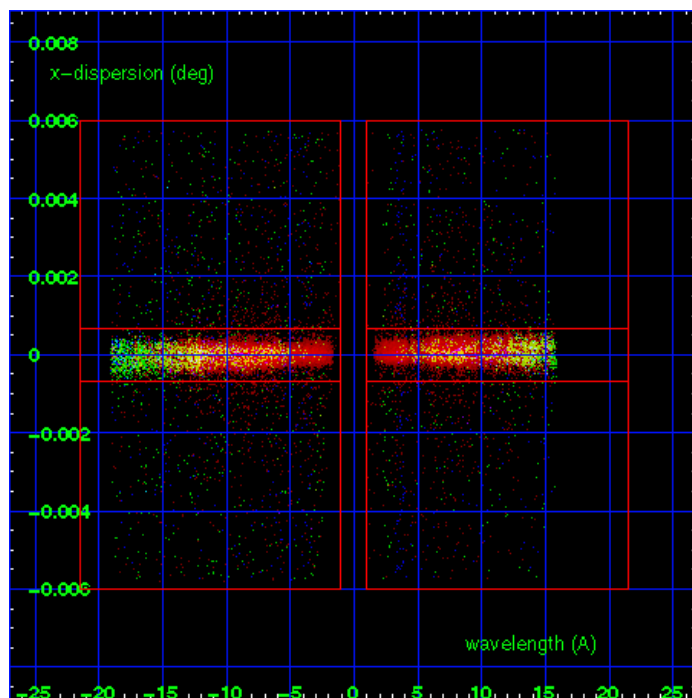
HEG Order Sort 123



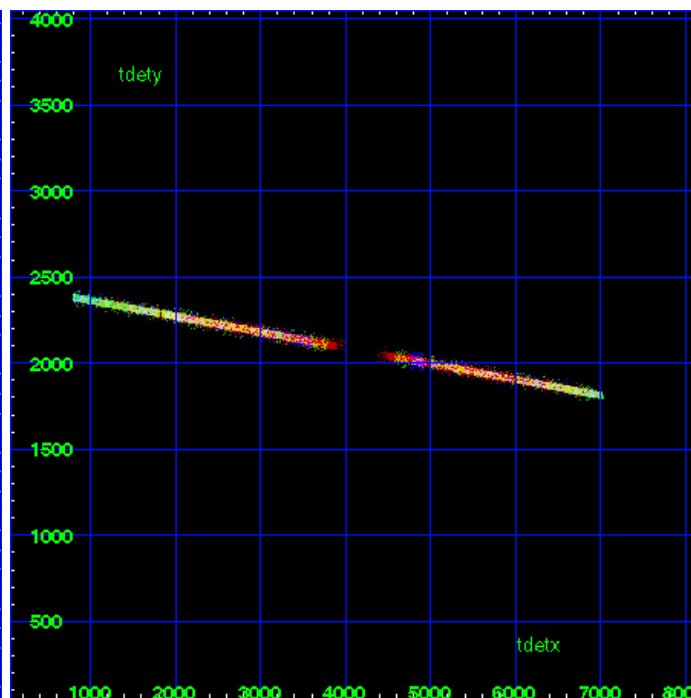
HEG Zero Order



HEG Order Sort ALL

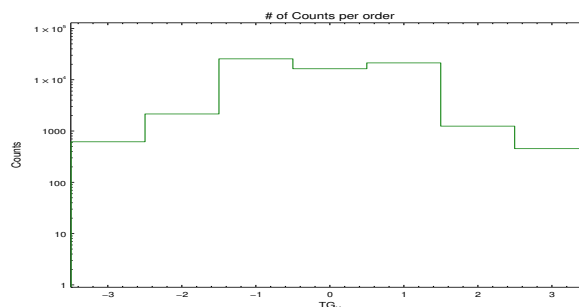


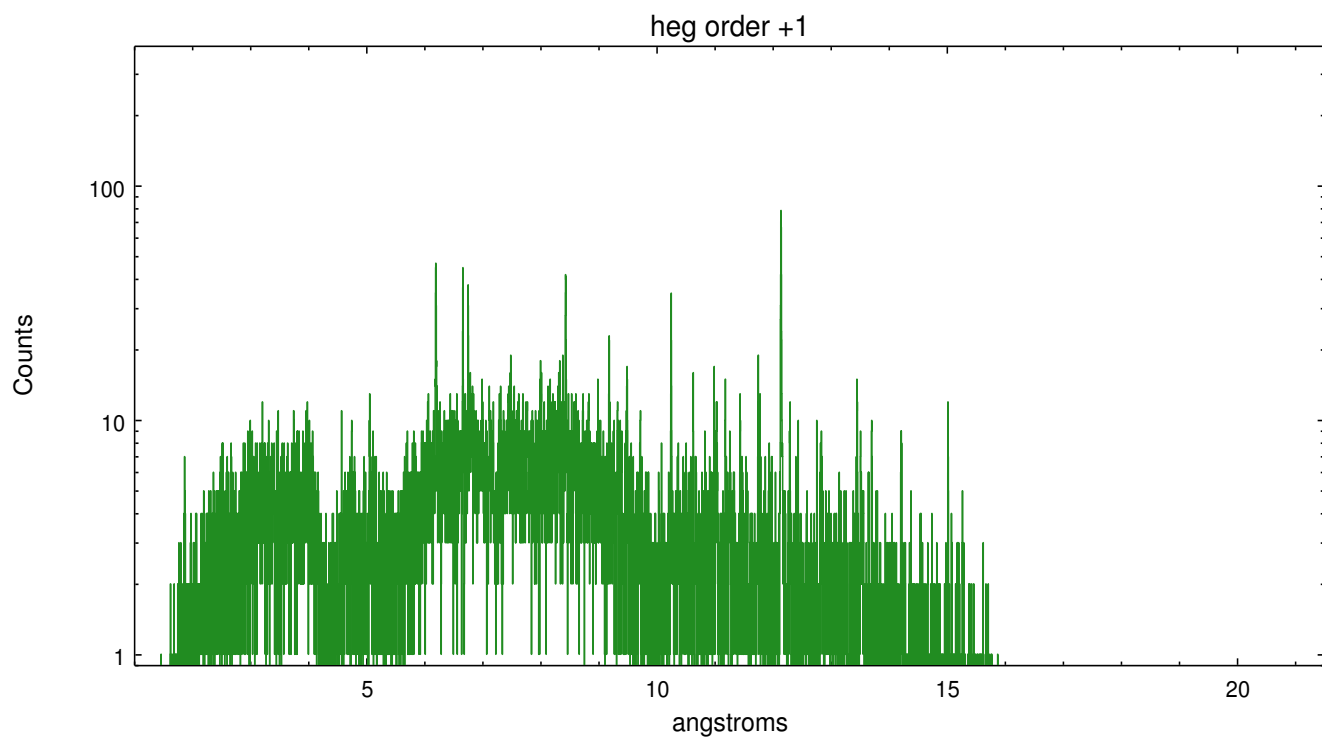
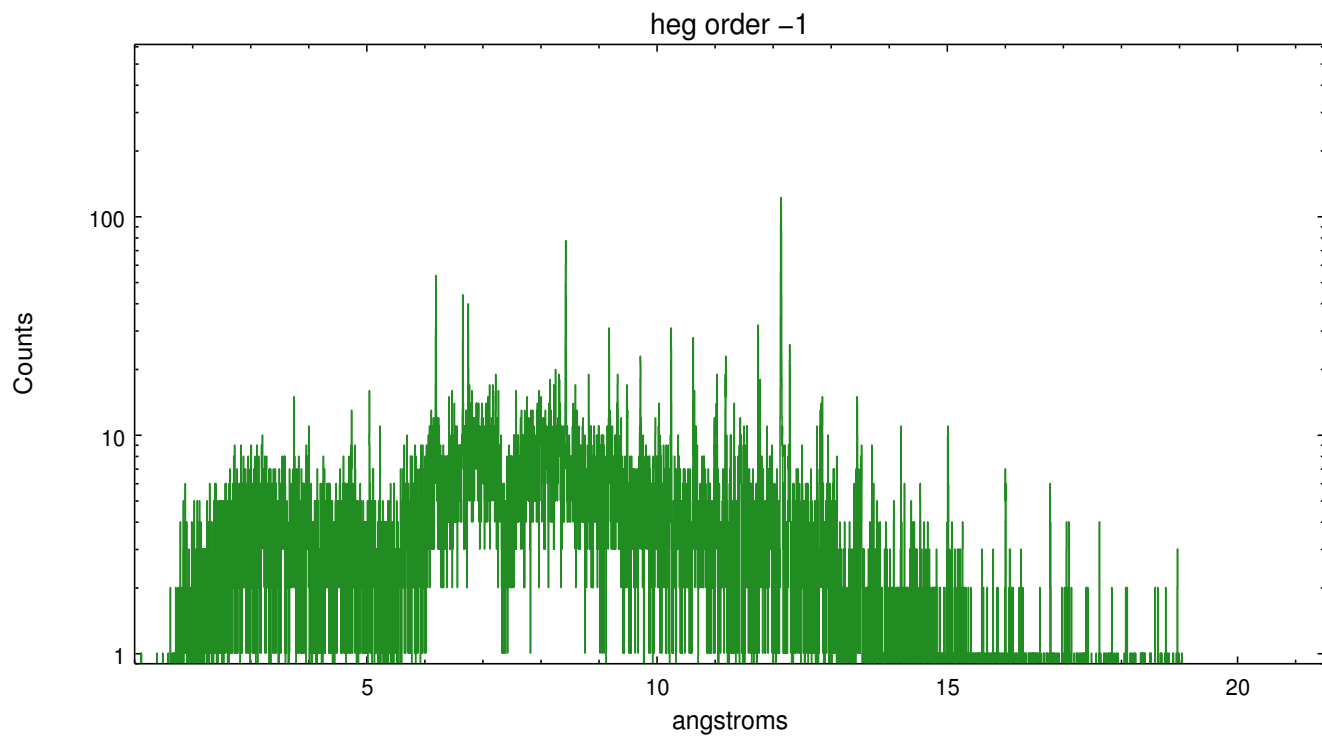
Spot Image HEG



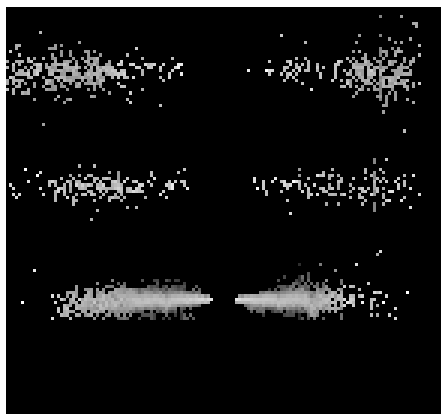
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	618	2159	25740	16495	21457	1248	454

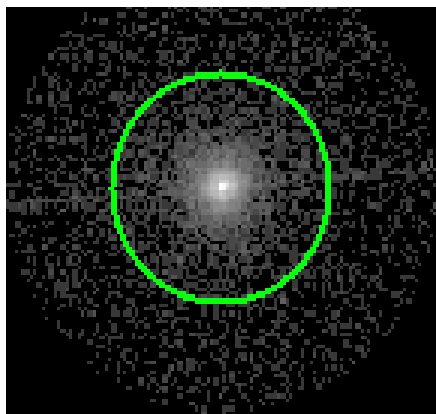




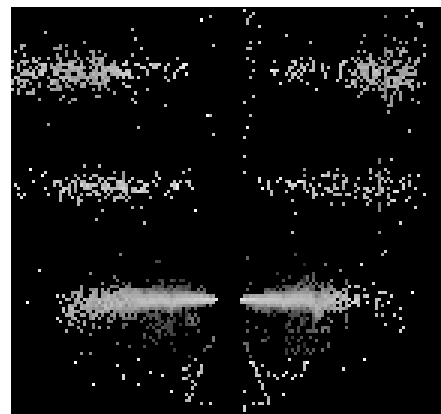
### 3.2 MEG Arm



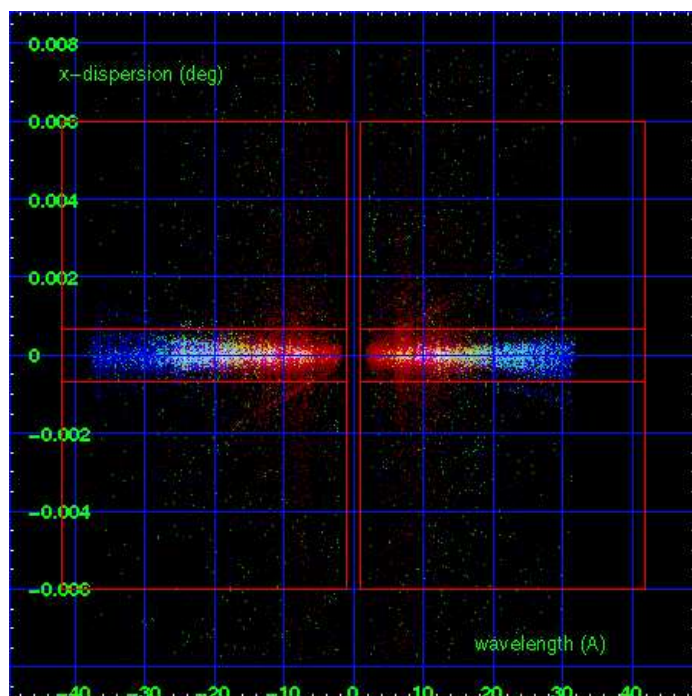
MEG Order Sort 123



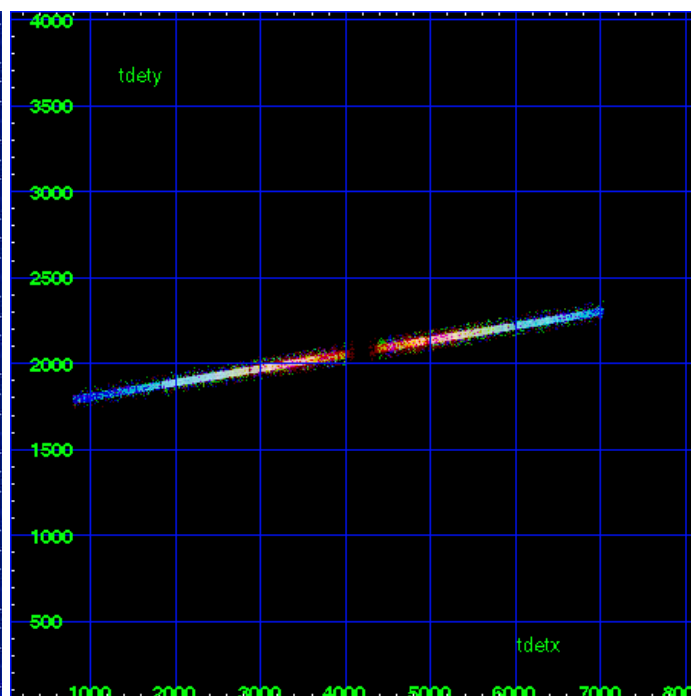
MEG Zero Order



MEG Order Sort ALL

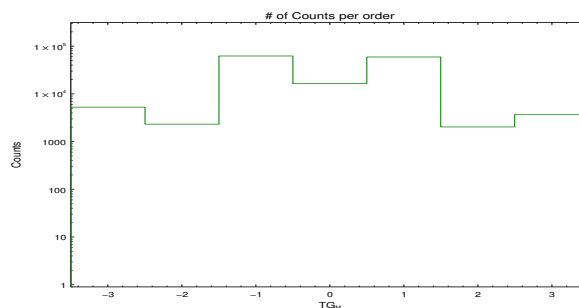


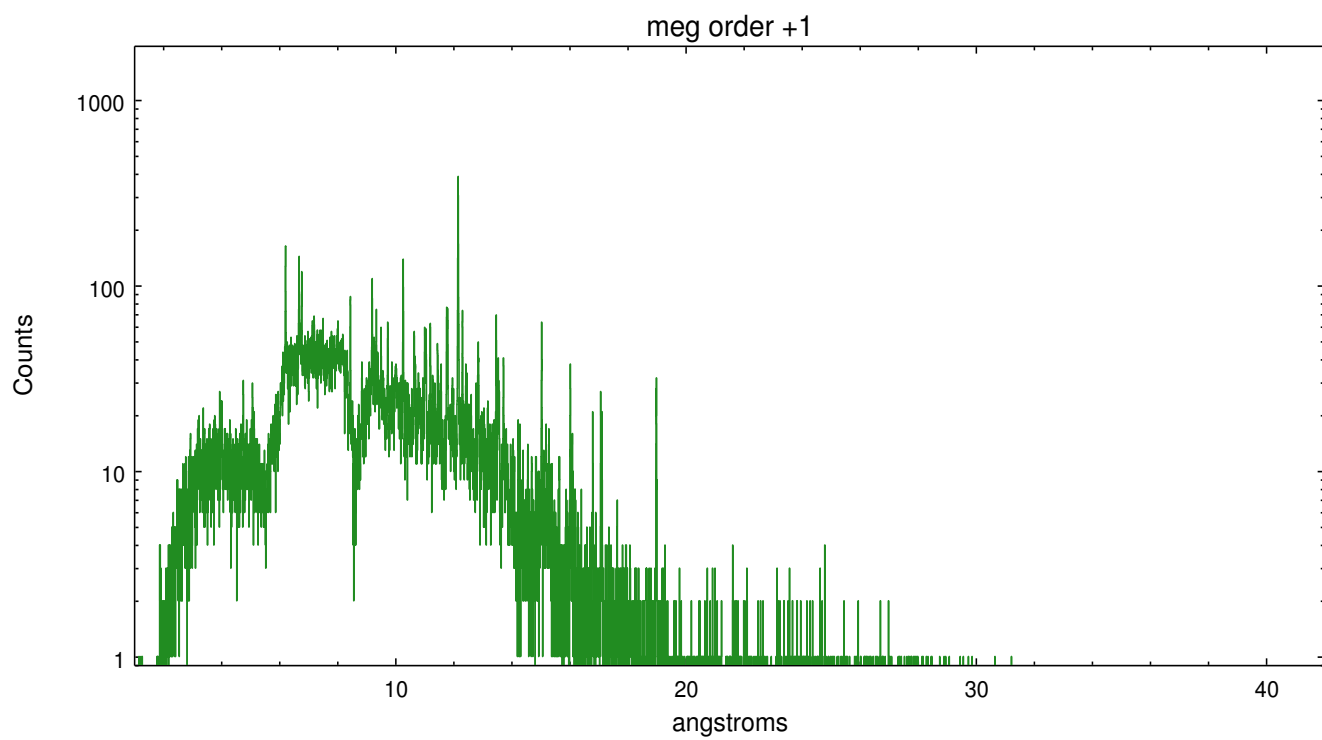
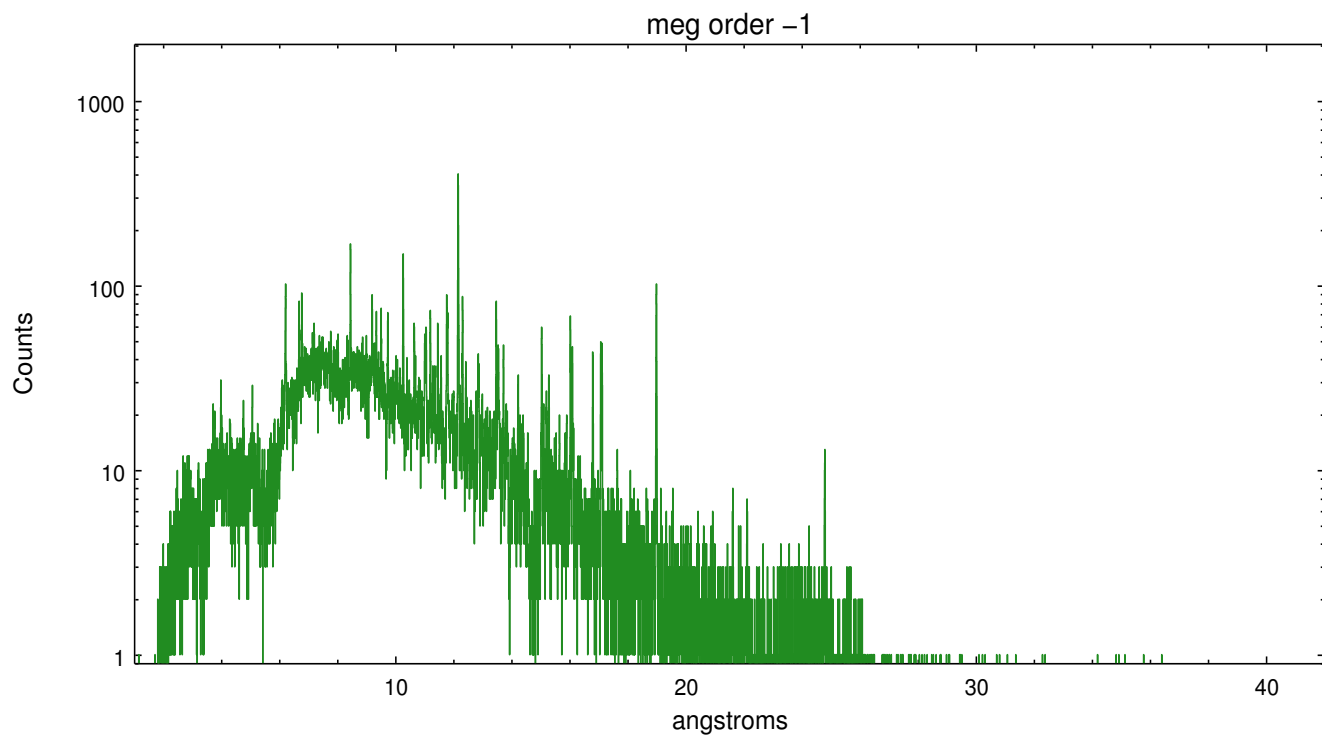
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	5289	2326	62842	16495	59850	2034	3683





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	58.875

## A.2 Comments

Zeroth order piled up.