

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 5512 - L2 Version 3  
Chandra X-Ray Center

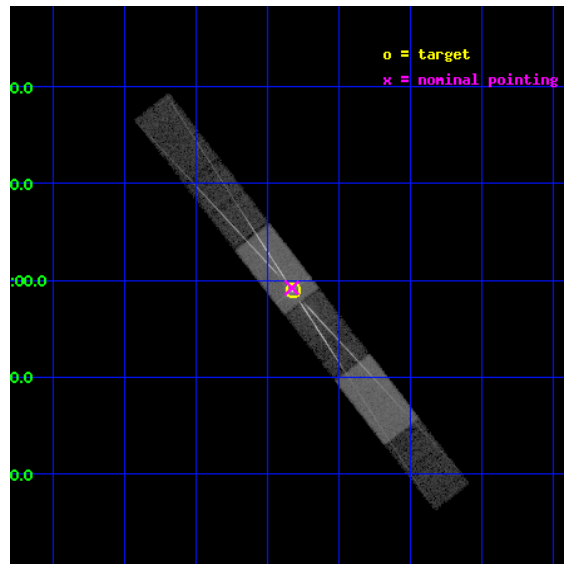
L2 Processing Date : Dec 27 2012

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# 1 Front

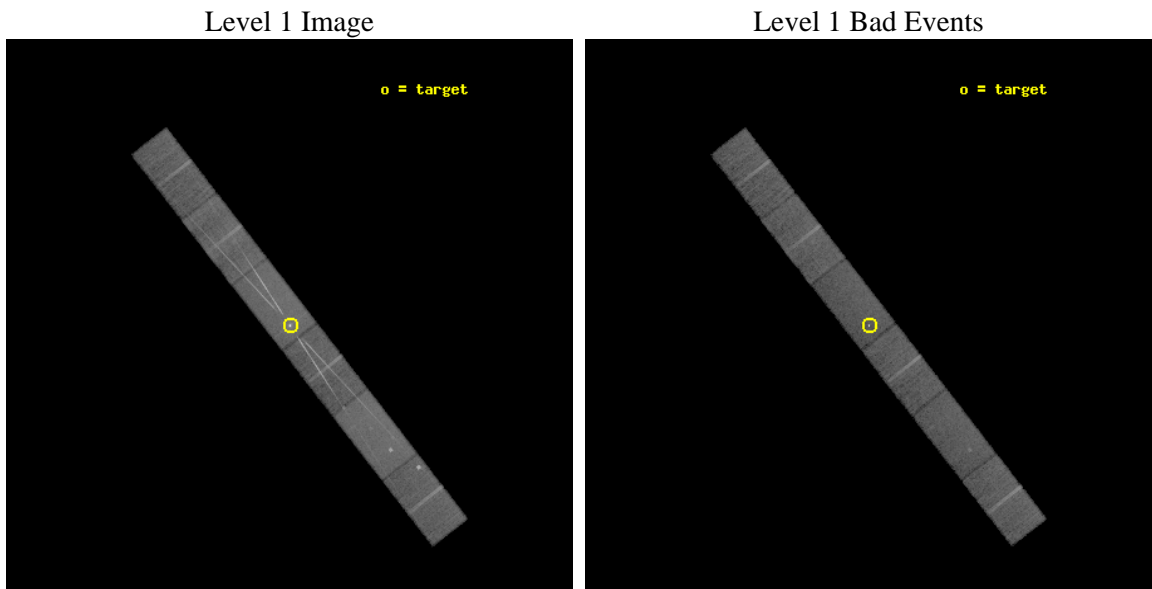
seq_num	400442	Sequence number
obs_id	5512	Observation id
title	Detailed Studies of the Jets in SS 433	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	SS 433	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.95625	Observer's specified target RA [deg]
dec_targ	4.982778	Observer's specified target Dec [deg]
ra_nom	287.95758451383	Nominal RA [deg]
dec_nom	4.987204159854	Nominal Dec [deg]
roll_nom	232.07158797146	Nominal Roll [deg]
revision	3	Processing version of data
ontime	20165.40013355	Sum of GTIs [s]
livetime	19715.878112583	Livetime [s]
ontime4	20165.40013355	Sum of GTIs [s]
ontime5	20165.40013355	Sum of GTIs [s]
ontime6	20165.40013355	Sum of GTIs [s]
ontime7	20165.40013355	Sum of GTIs [s]
ontime8	20165.40013355	Sum of GTIs [s]
ontime9	20165.40013355	Sum of GTIs [s]
l2events	200490	Number of level 2 events



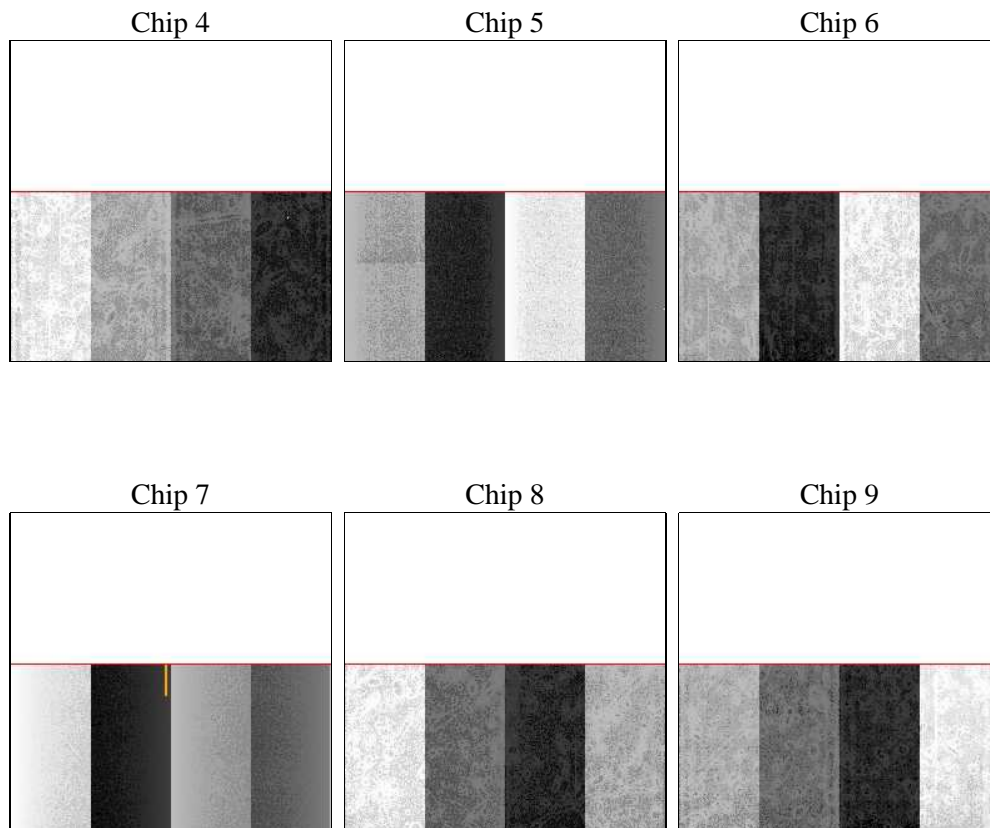
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	20165.40013355	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime4	20165.40013355	Sum of GTIs [s]
date	2012-12-27T03:24:10	Date and time of file creation	ontime5	20165.40013355	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	20165.40013355	Sum of GTIs [s]
			ontime7	20165.40013355	Sum of GTIs [s]
			ontime8	20165.40013355	Sum of GTIs [s]
			ontime9	20165.40013355	Sum of GTIs [s]
			l1events	690494	Number of level 1 events

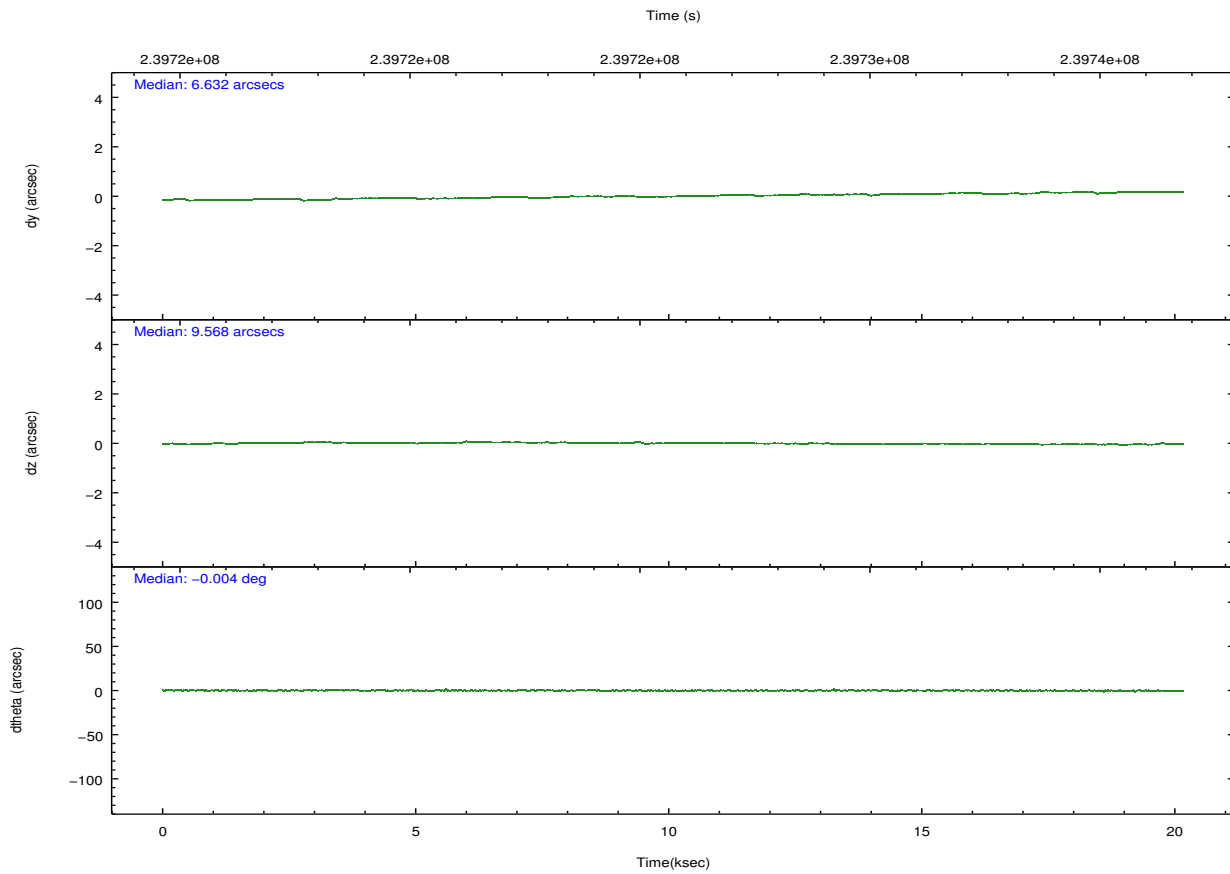
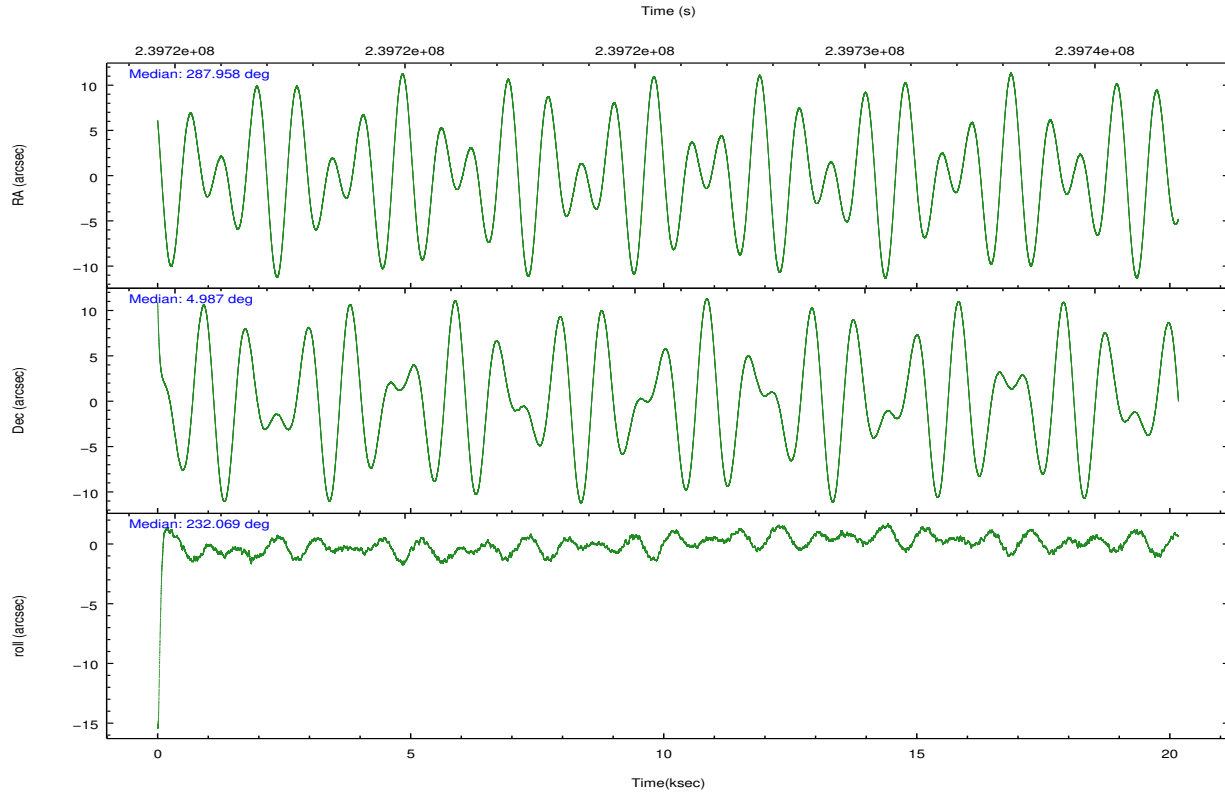
### 2.1.4 Events

	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	98104	128731	111177	154155	112956	85371	grade 0 events	8981	8018	22839	11639	12938	5221
rejected events	83495	71324	75662	72885	83377	74253		9%	6%	20%	7%	11%	6%
rejected %	85%	55%	68%	47%	73%	86%	grade 1 events	80	586	100	351	73	44
								0%	0%	0%	0%	0%	0%
							grade 2 events	2400	17225	5528	18126	5971	2145
								2%	13%	4%	11%	5%	2%
							grade 3 events	1267	3151	2277	8272	2913	1212
								1%	2%	2%	5%	2%	1%
							grade 4 events	1168	2983	2240	8230	2759	1169
								1%	2%	2%	5%	2%	1%
							grade 5 events	3381	9233	3815	11767	4702	3837
								3%	7%	3%	7%	4%	4%
							grade 6 events	1803	30004	3666	38231	6400	2047
								1%	23%	3%	24%	5%	2%
							grade 7 events	79024	57531	70712	57539	77200	69696
								80%	44%	63%	37%	68%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	287.961005	287.957584513828	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	5.014213	4.987204159854023	Subarray start row	1	1
[deg] Pointing Roll	231.914668	232.0715879714629	Subarray row count	542	542
[s] Window start time (MET)	233971264.184000	233971264.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	235094464.184000	235094464.184000	[s] Primary exposure time	0.000000	1.8
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-184.532523	-184.52811429679			
[mm] SIM translation stage offset	-5.6	-5.604408286217847			
[s] Observation start time (MET)	239715802.184000	239714213.81618			
Observation start date	2005-08-06T11:42:18	2005-08-06T11:16:53			
[s] Observation end time (MET)	239735802.184000	239736808.91722			
Observation end date	2005-08-06T17:15:38	2005-08-06T17:33:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect

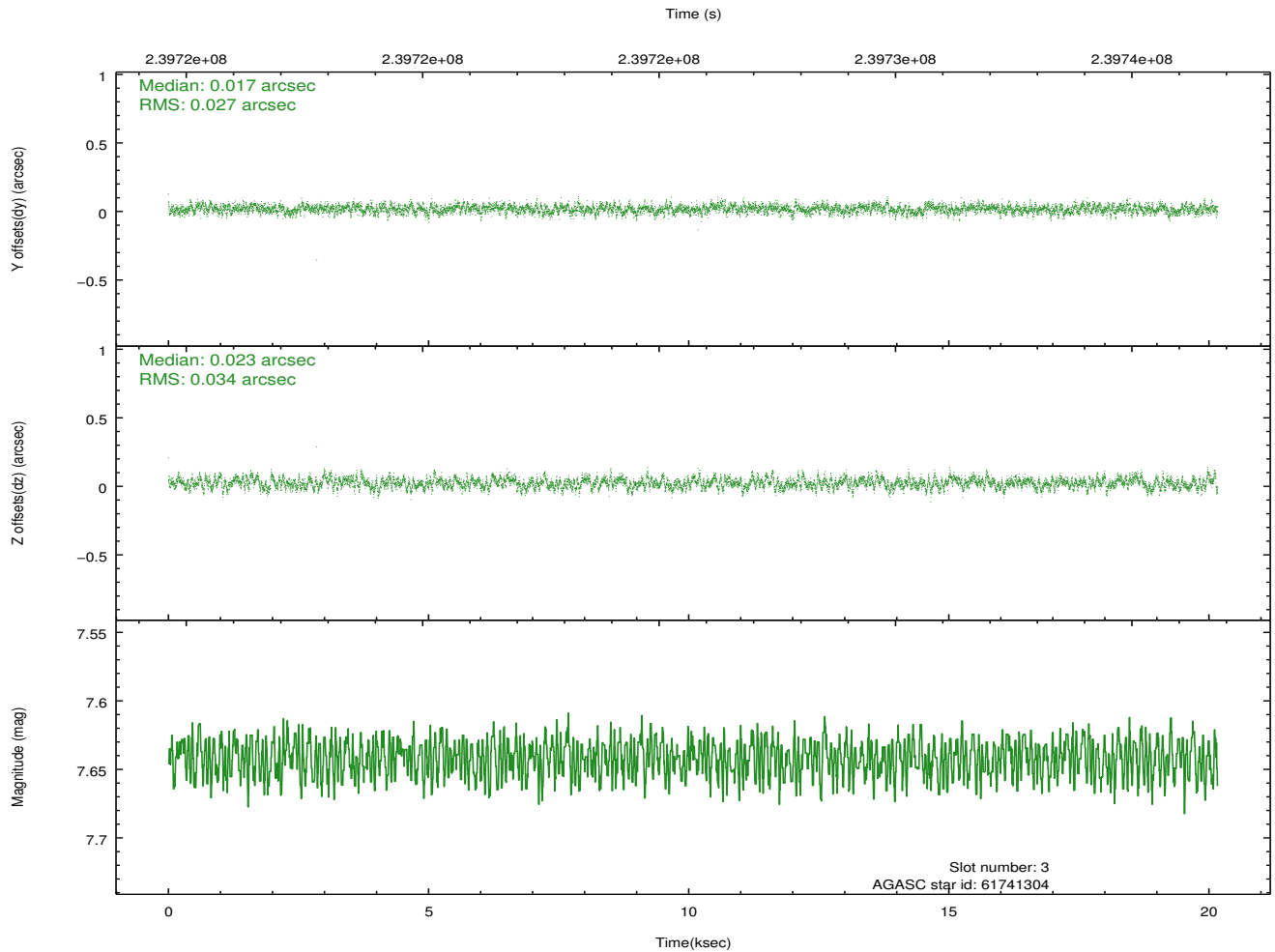
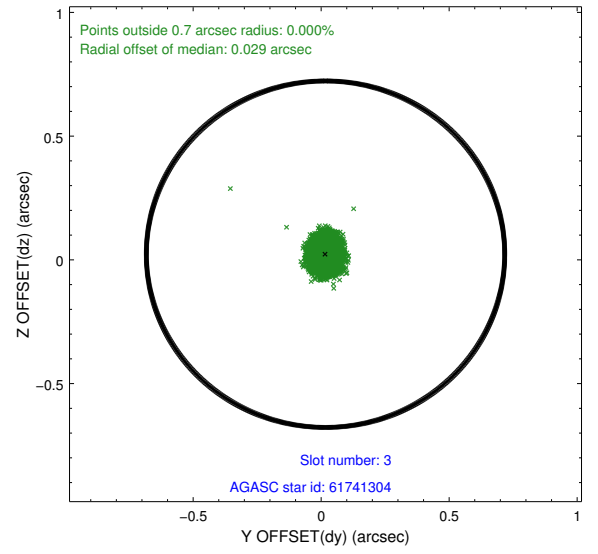
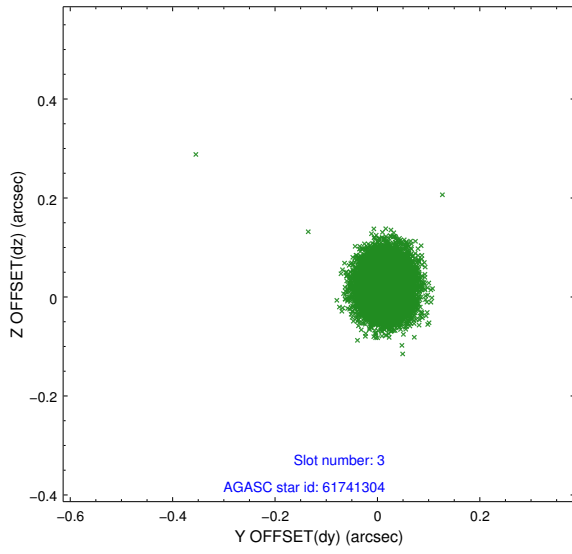


### Slot Statistics

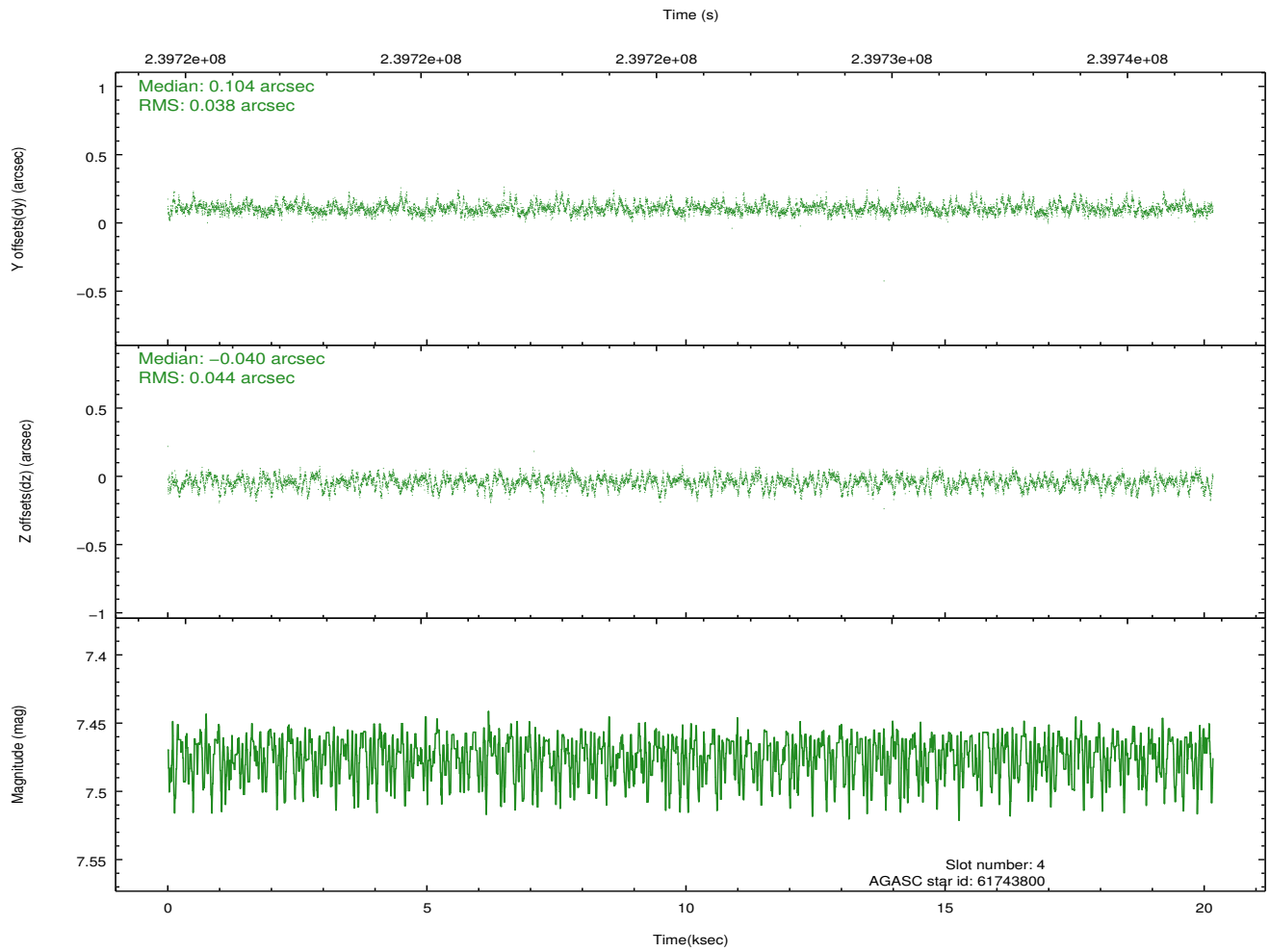
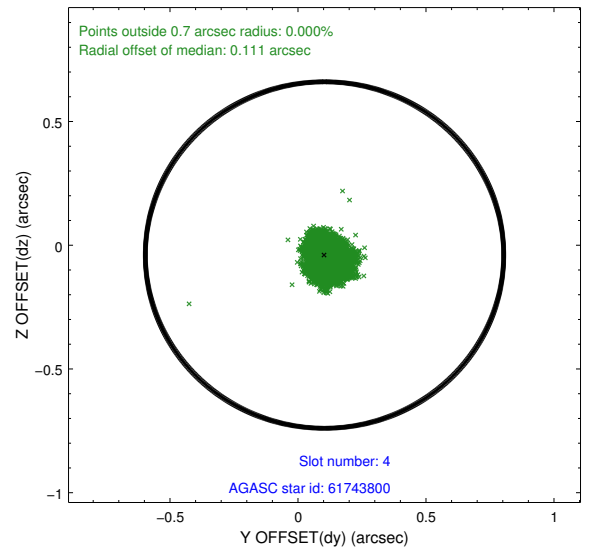
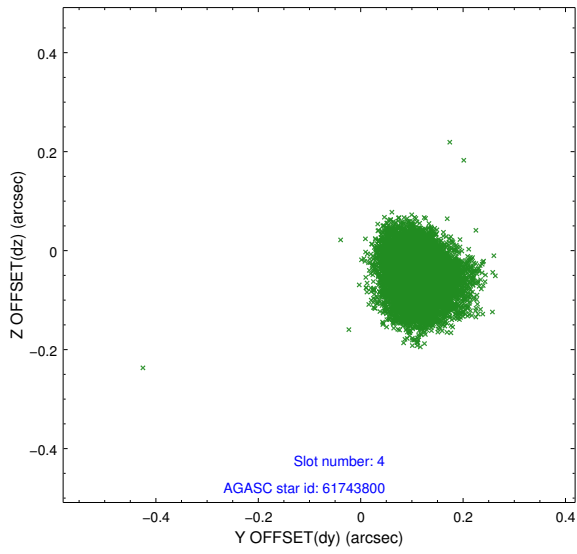
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	4920	-0.087	-0.100	0.007	0.011	0.000000	0.000000	-759.06	-1846.44
1	FID	ACIS-S-4	7.19	4920	0.134	0.069	0.006	0.010	0.000000	0.000000	2154.34	62.00
2	FID	ACIS-S-5	7.22	4920	-0.078	0.039	0.007	0.011	0.000000	0.000000	-1811.67	55.84
3	GUIDE	61741304	7.64	9839	0.017	0.023	0.046	0.075	287.957418	5.377327	-1020.83	-816.15
4	GUIDE	61743800	7.47	9840	0.104	-0.040	0.061	0.102	287.776811	5.274666	-330.52	-1098.00
5	GUIDE	61744976	7.58	9839	-0.027	-0.004	0.042	0.070	288.430364	5.306675	-1866.88	674.51
6	GUIDE	61745024	7.61	9839	-0.144	0.035	0.047	0.075	288.156168	5.297362	-1234.05	-77.86
7	GUIDE	61738240	7.23	9839	0.046	-0.010	0.039	0.068	287.996556	4.354861	1789.66	1565.00

## 2.4 Star Slots

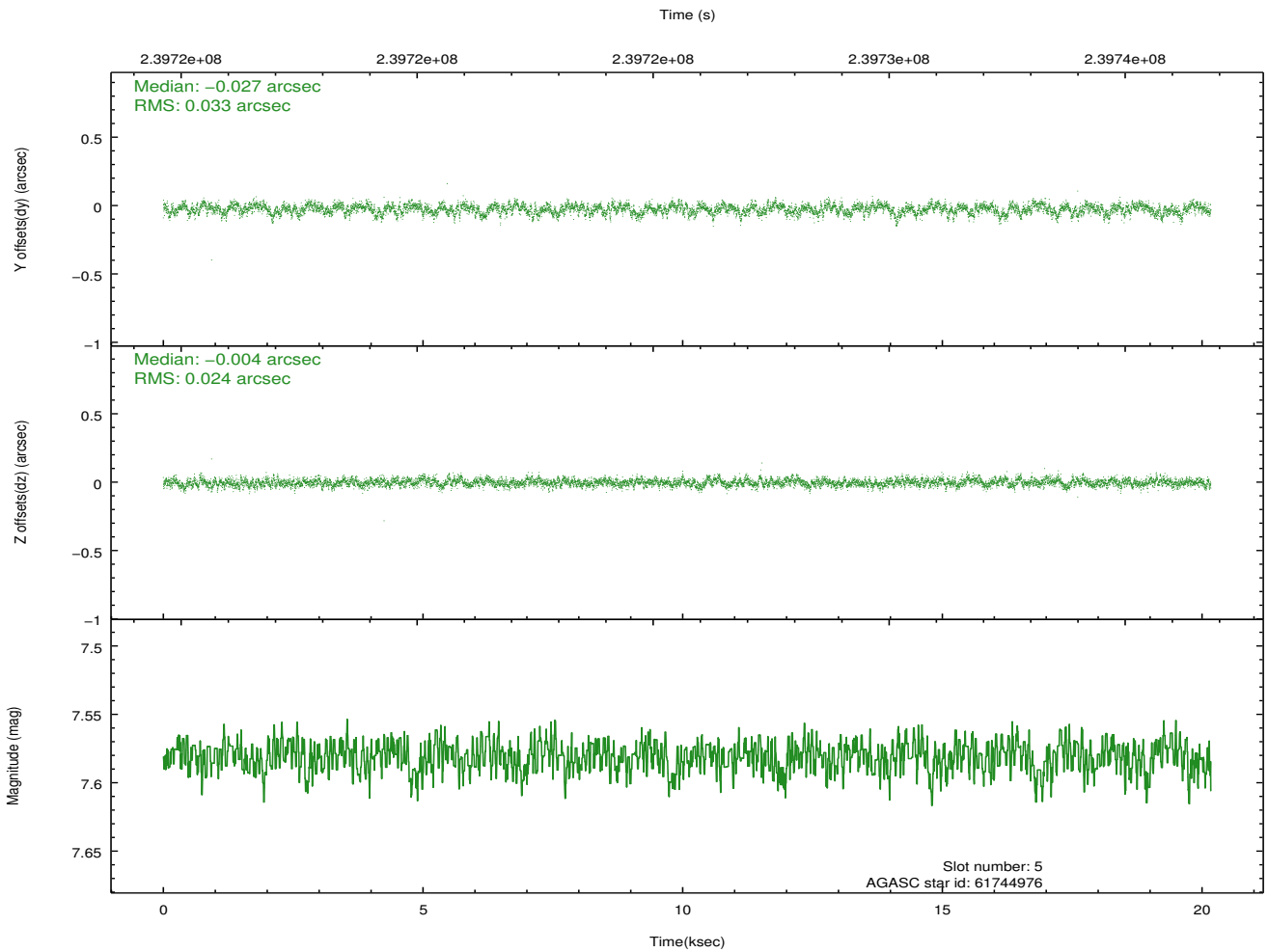
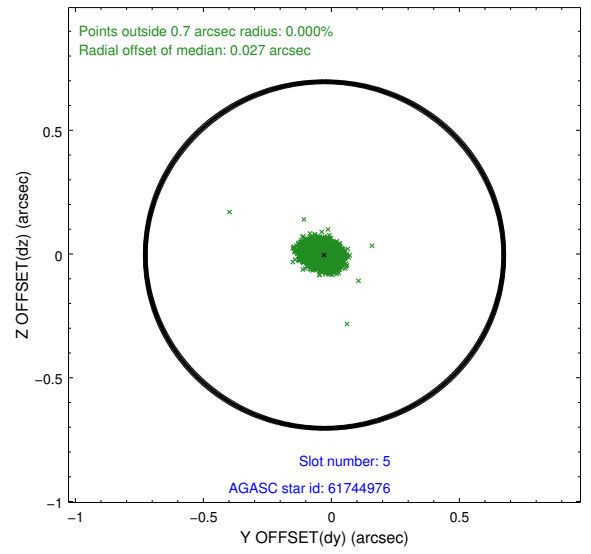
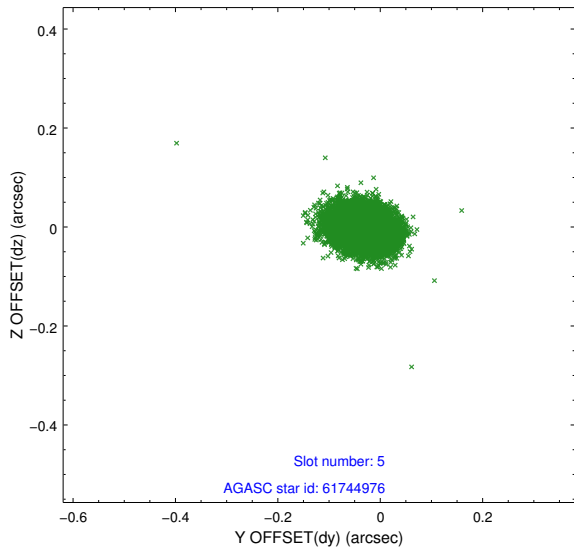
### 2.4.1 Slot 3



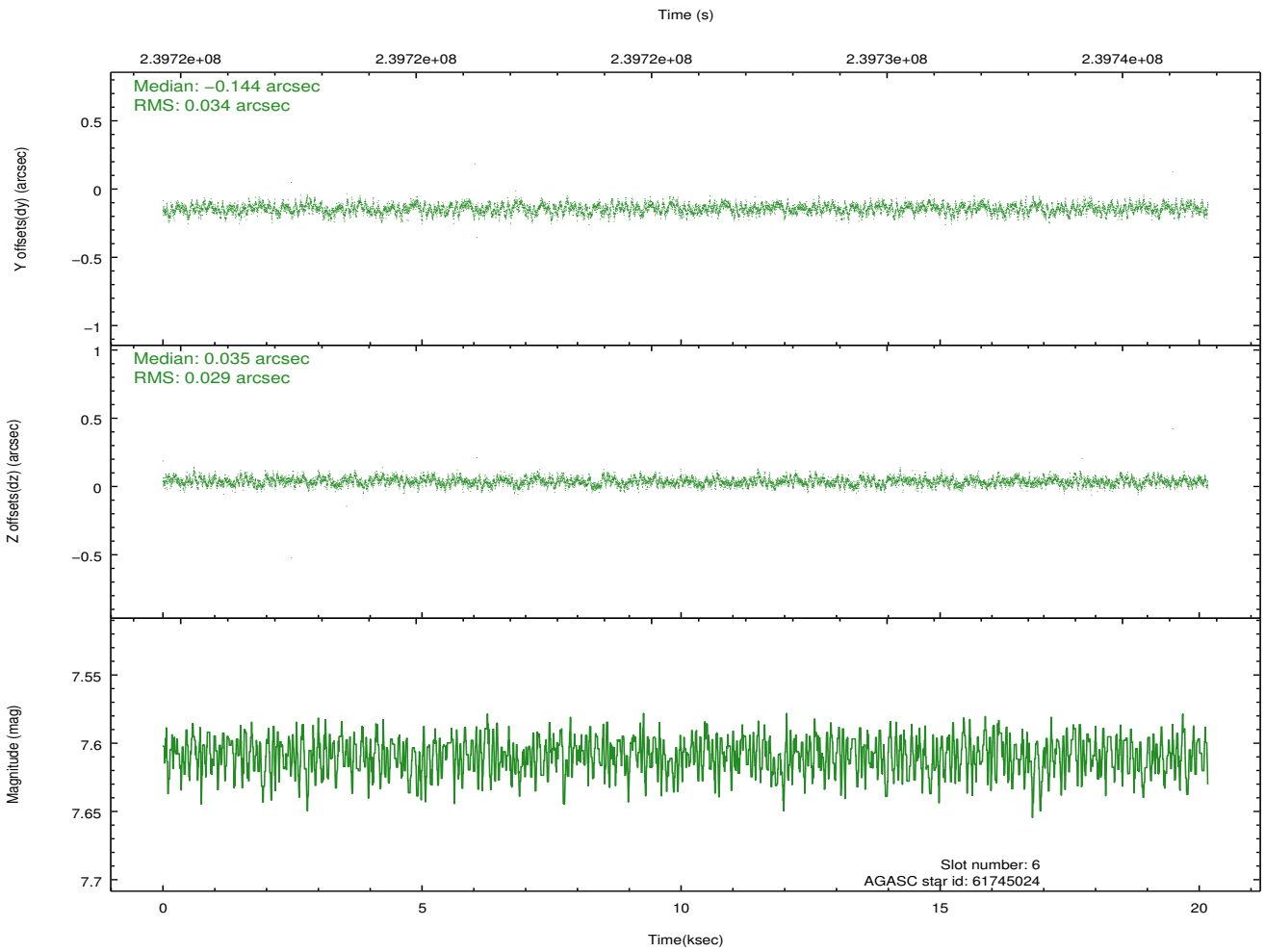
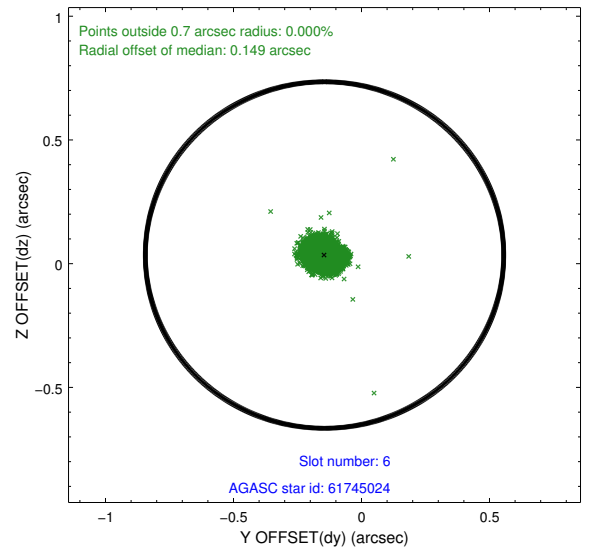
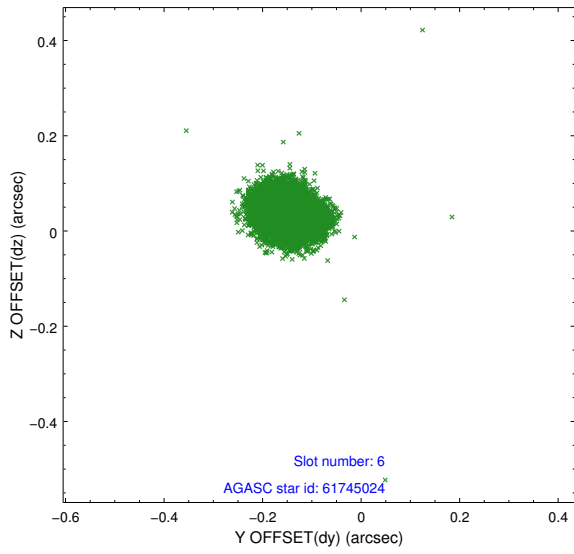
### 2.4.2 Slot 4



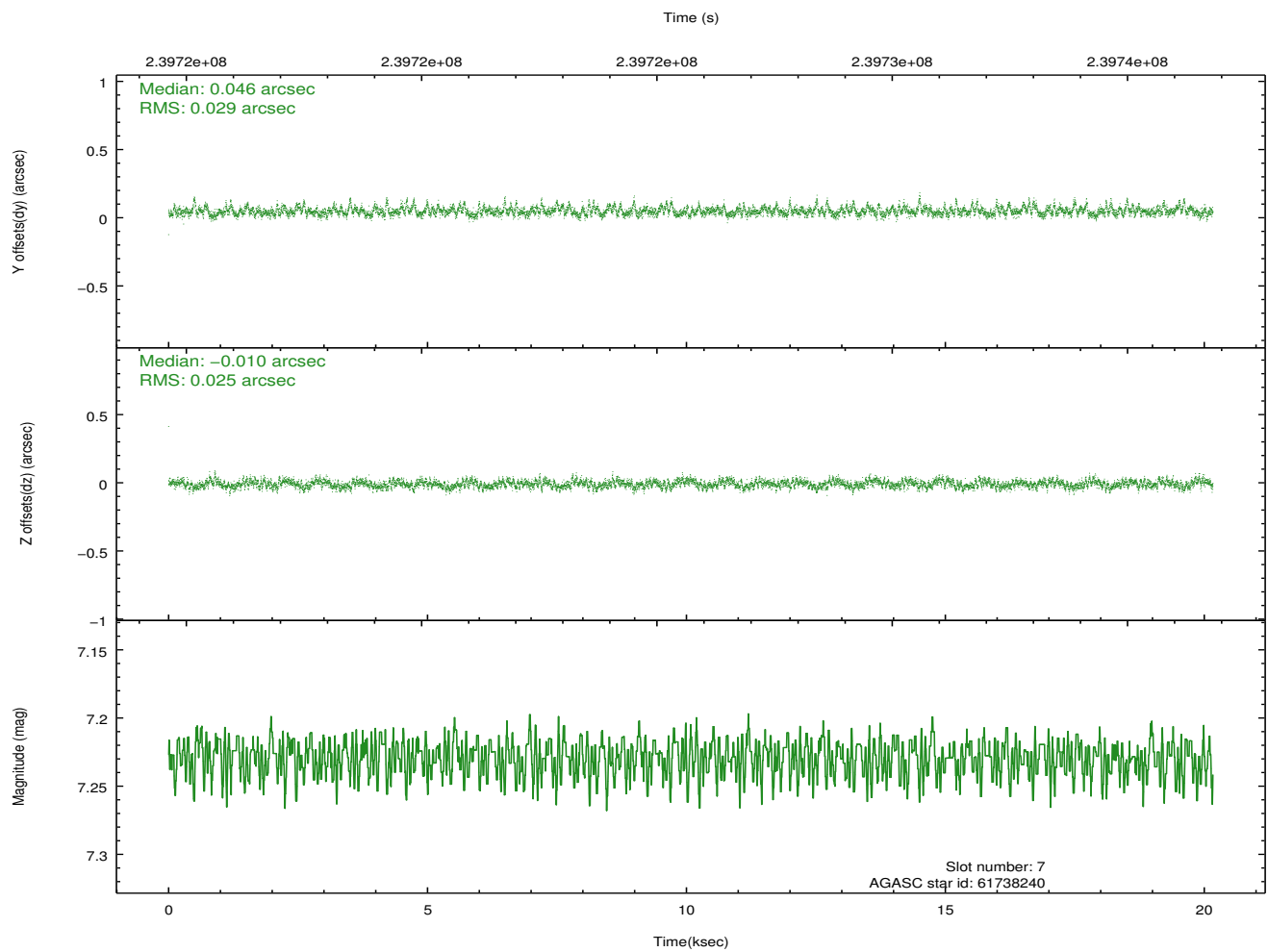
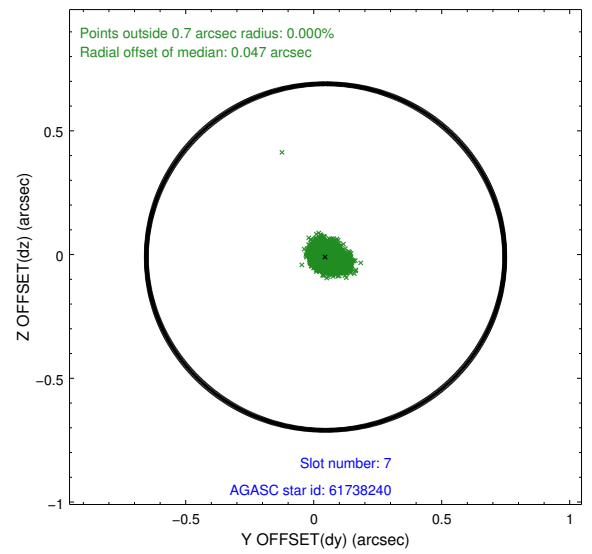
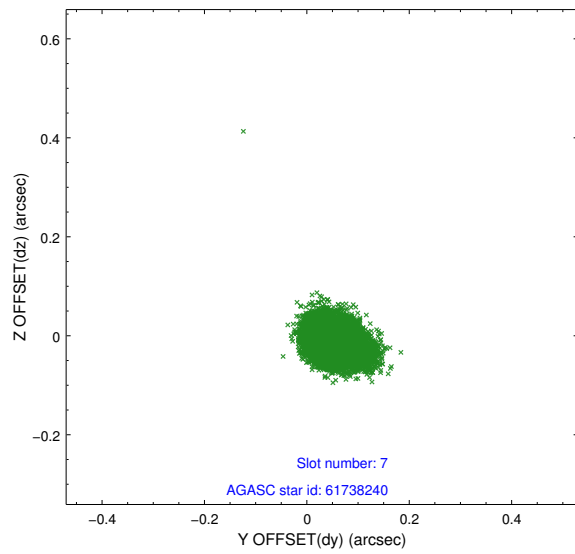
### 2.4.3 Slot 5



### 2.4.4 Slot 6

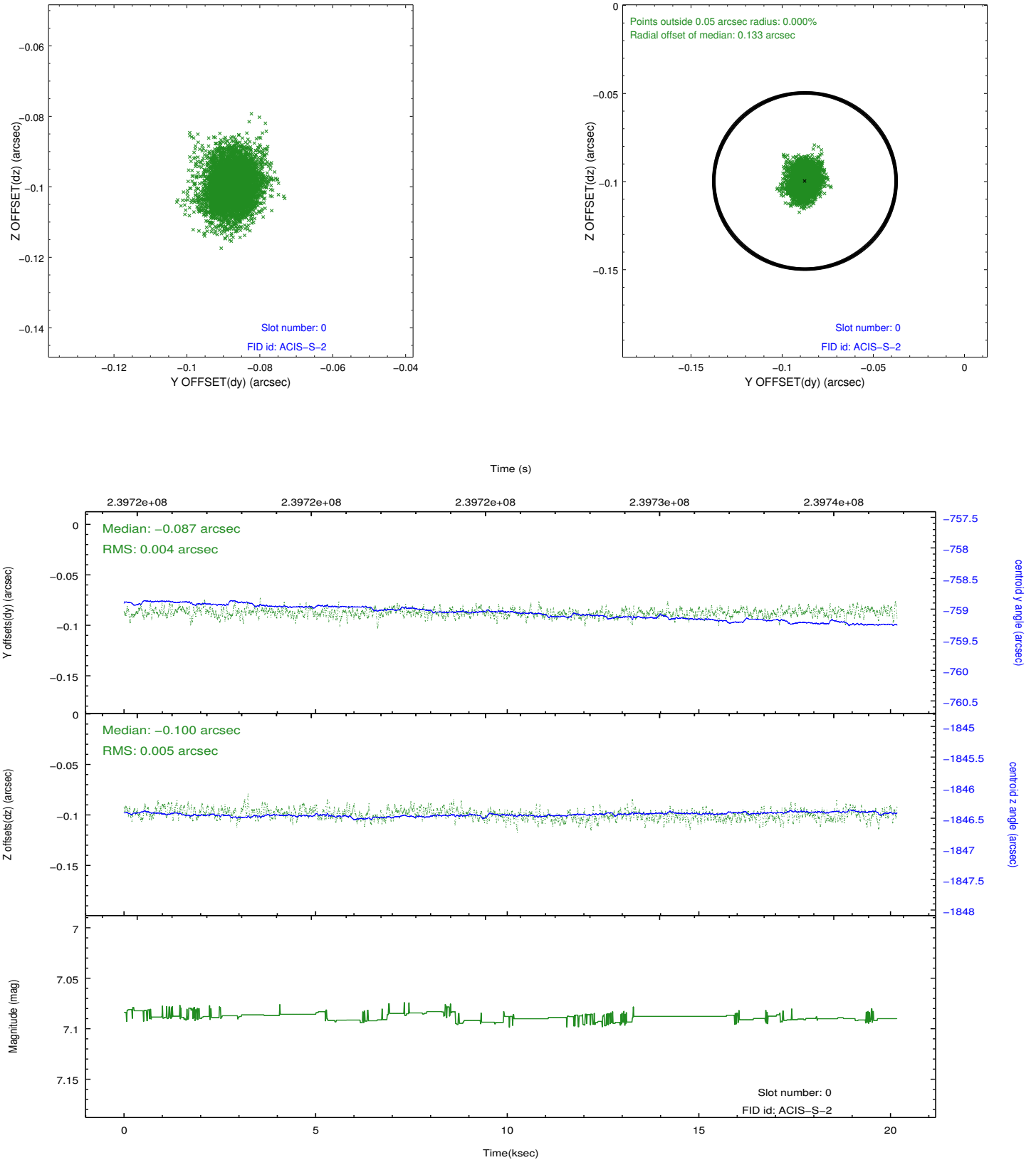


## 2.4.5 Slot 7

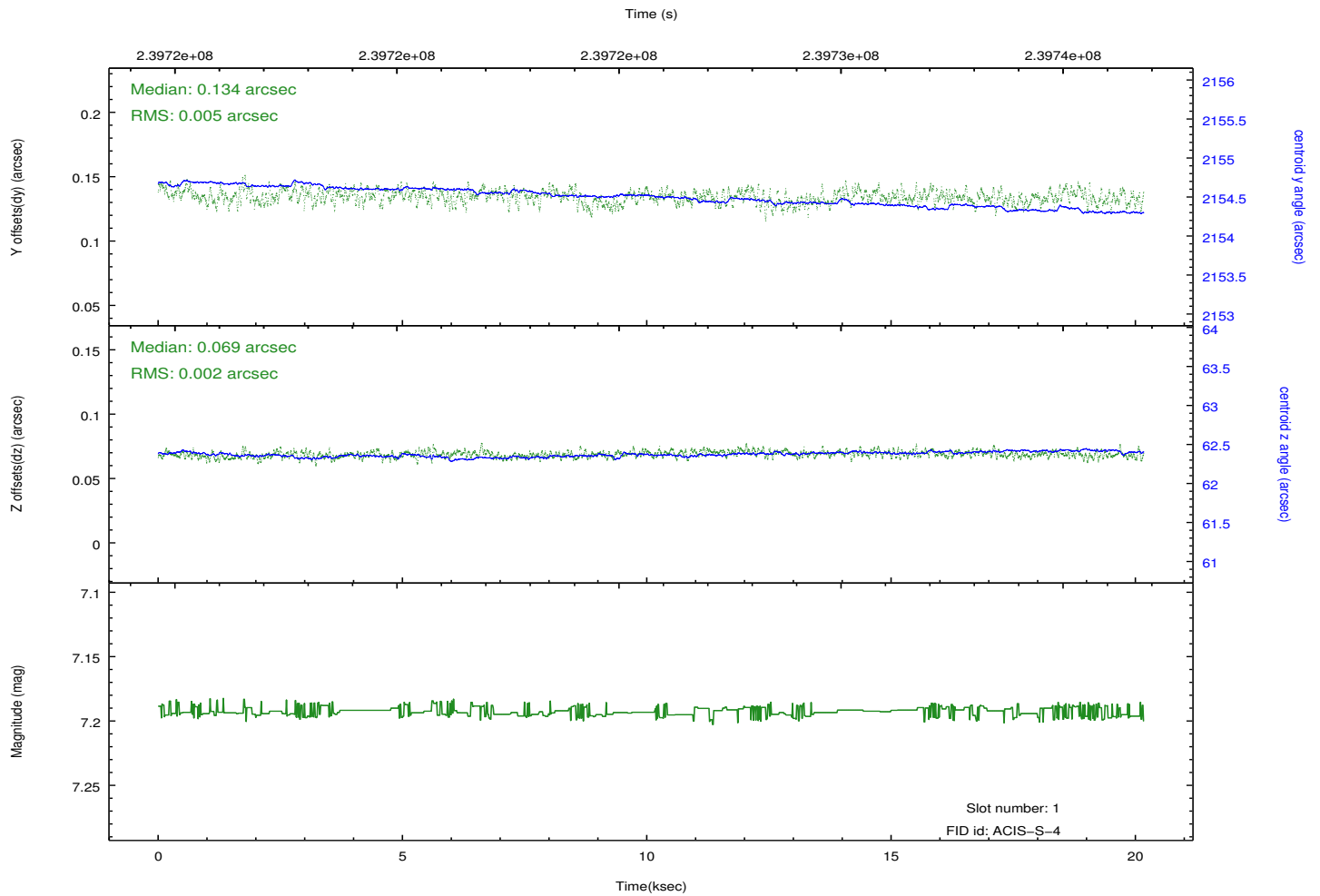
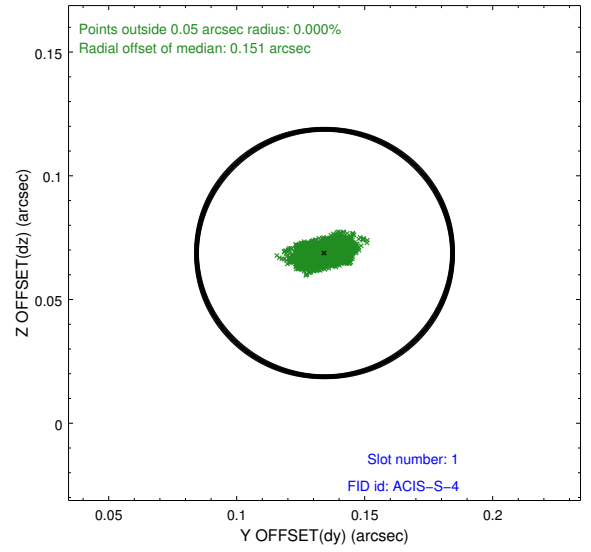
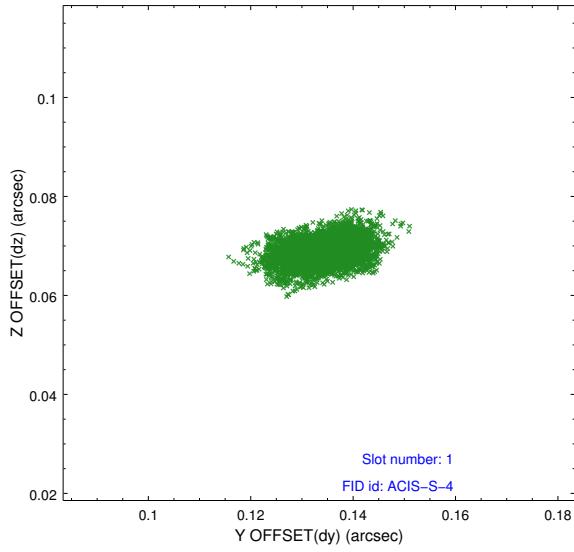


## 2.5 FID Slots

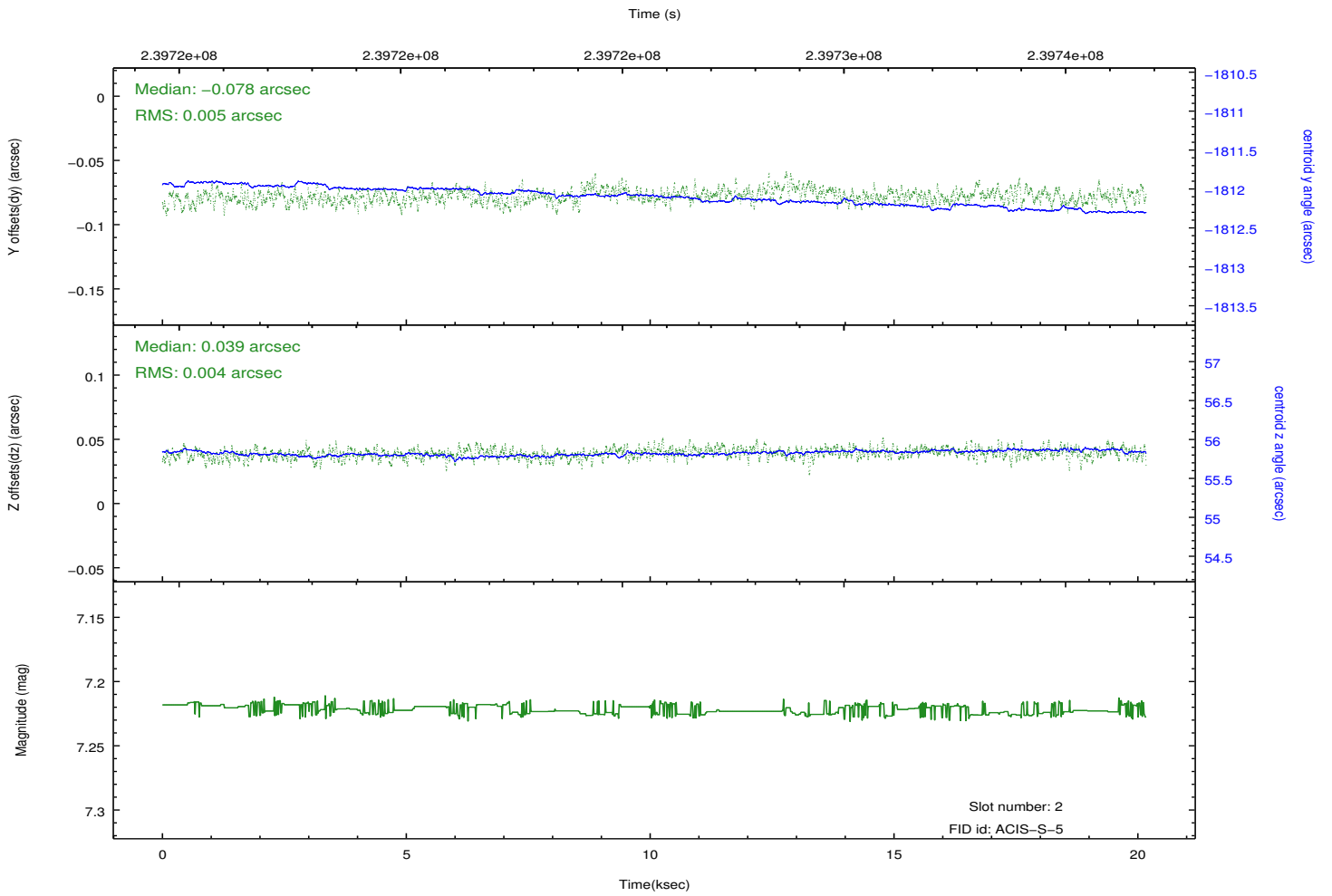
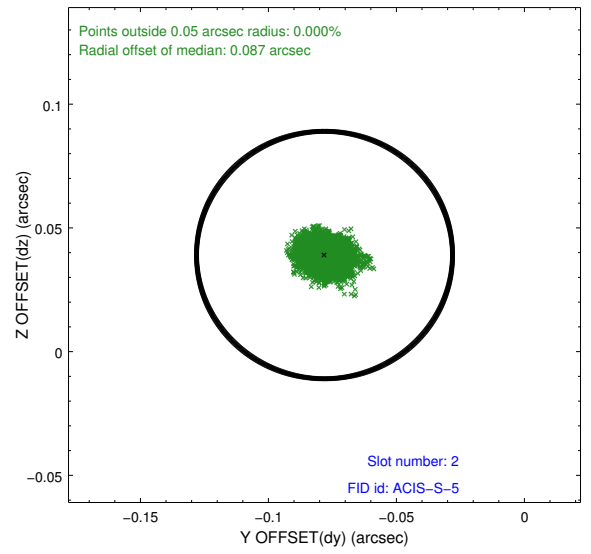
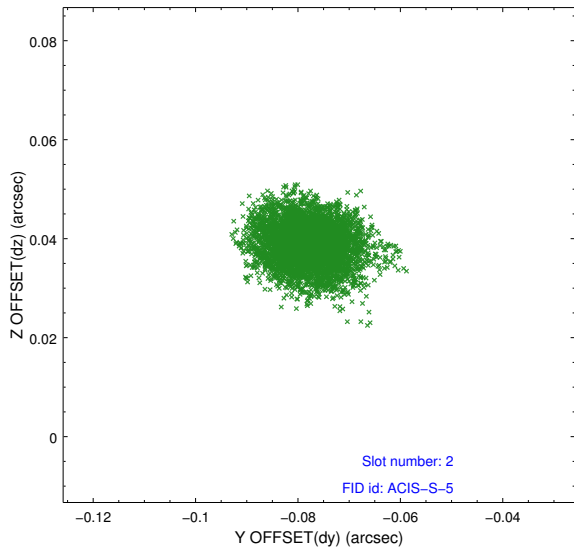
### 2.5.1 Slot 0



## 2.5.2 Slot 1

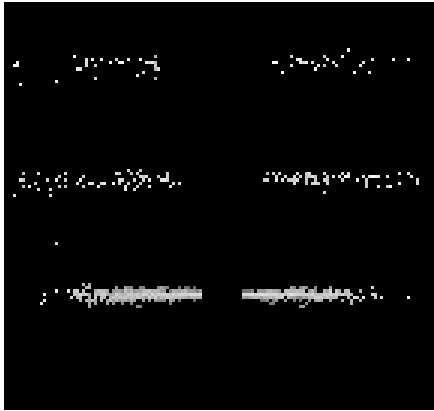


### 2.5.3 Slot 2

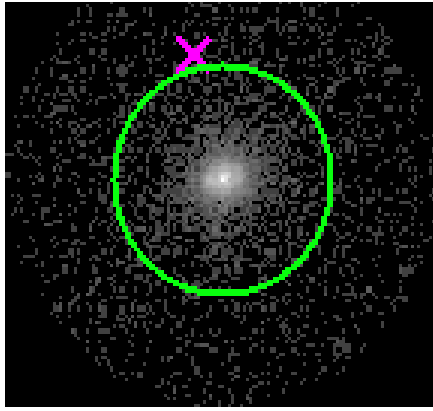


# 3 Gratings

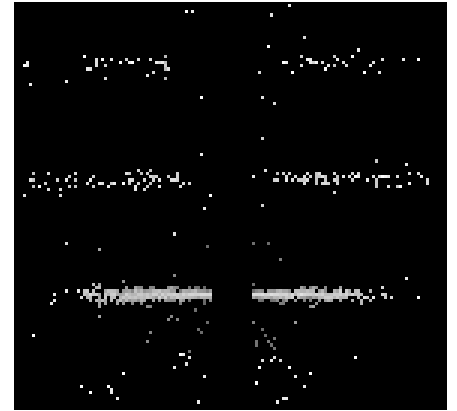
## 3.1 HEG Arm



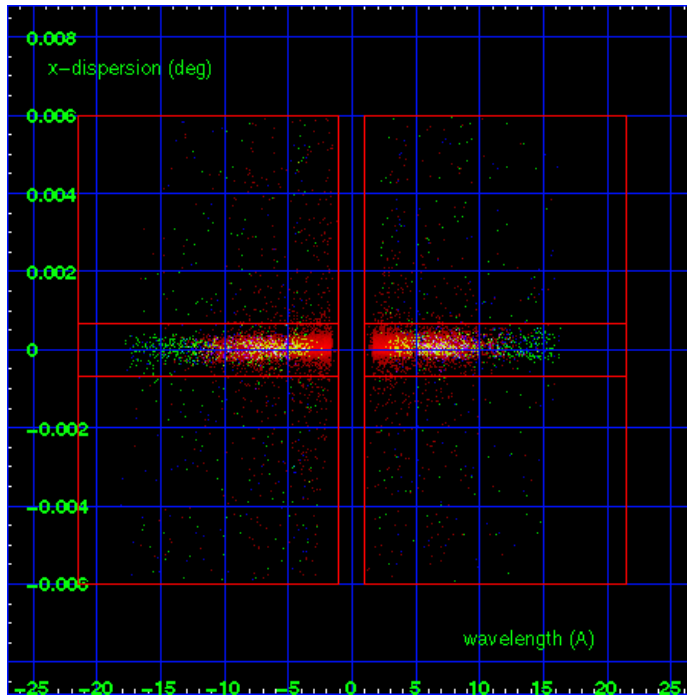
HEG Order Sort 123



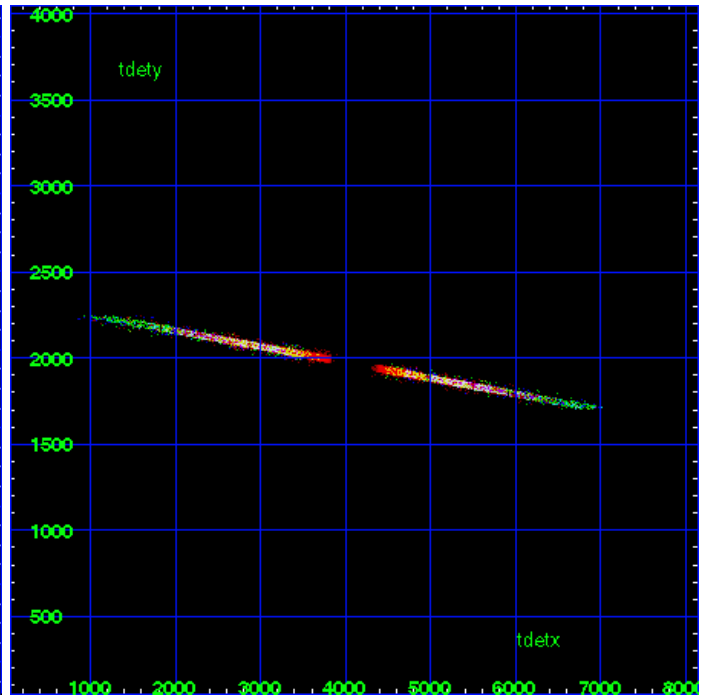
HEG Zero Order



HEG Order Sort ALL

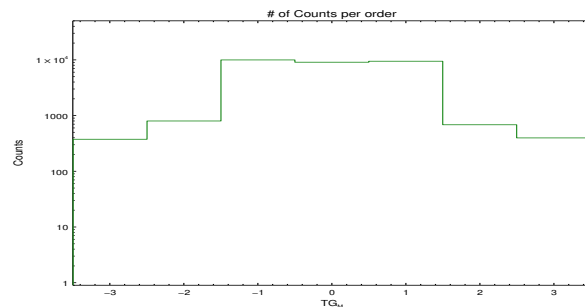


Spot Image HEG

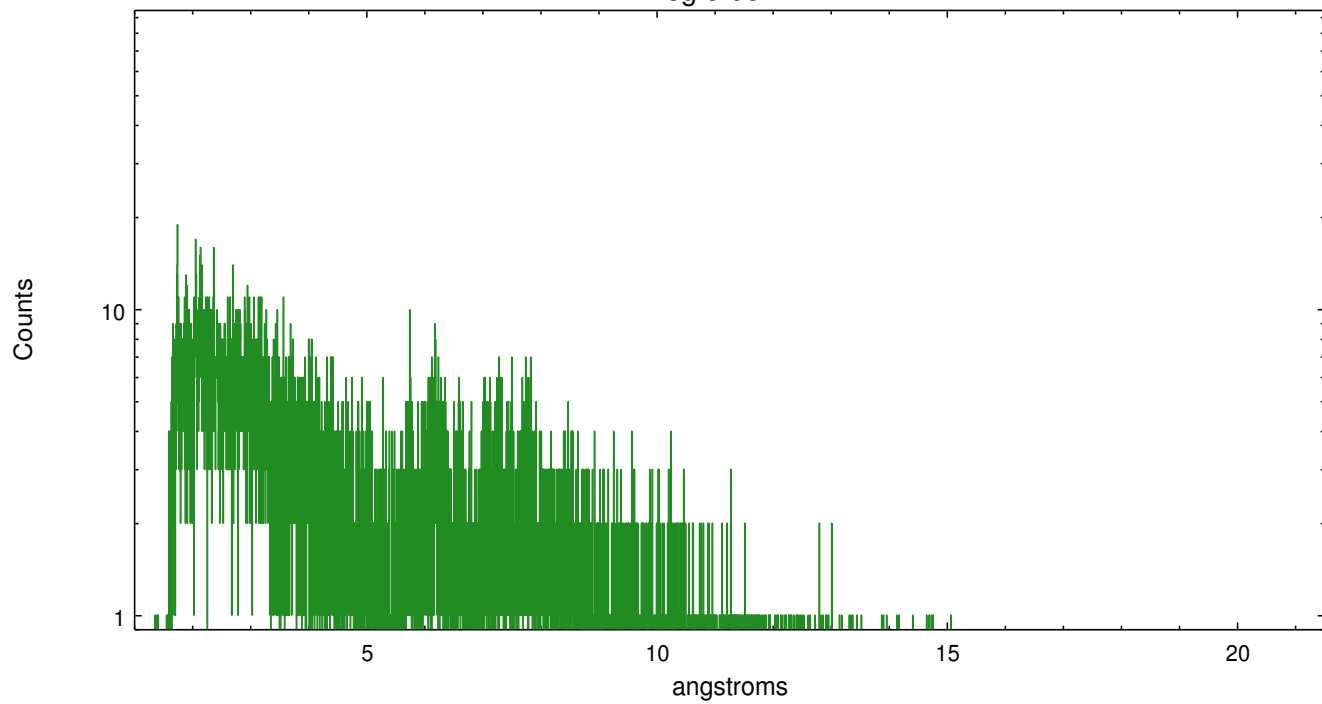


Full Detector HEG

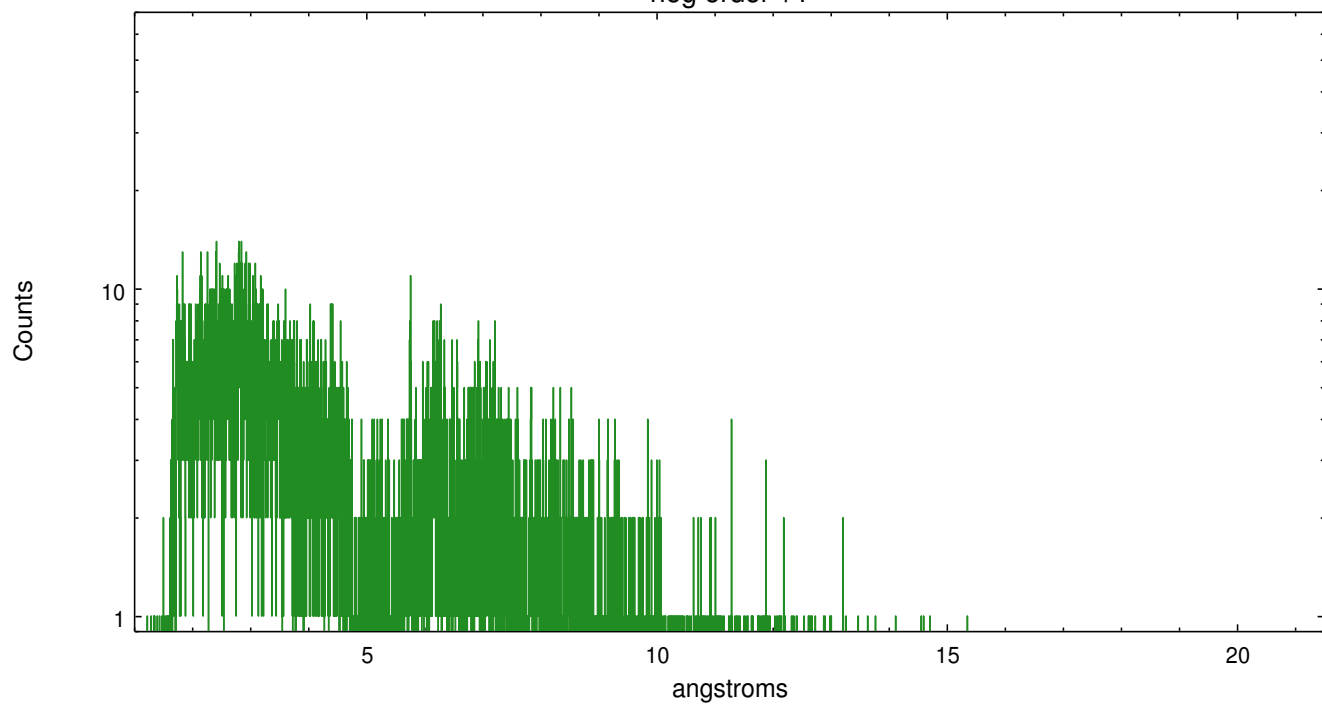
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	376	802	10046	9132	9512	686	398



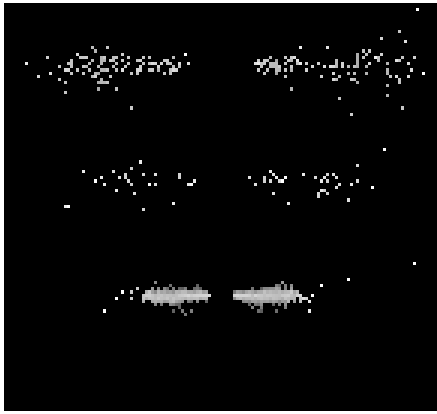
heg order -1



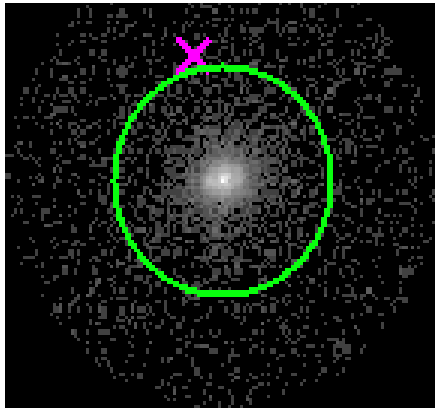
heg order +1



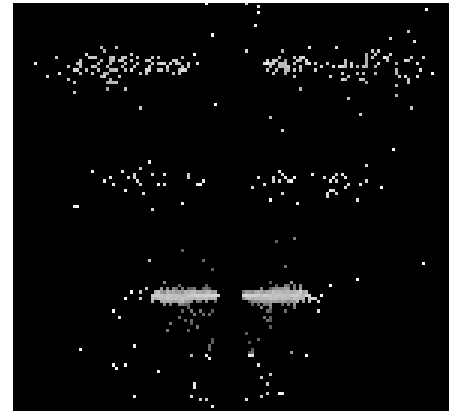
### 3.2 MEG Arm



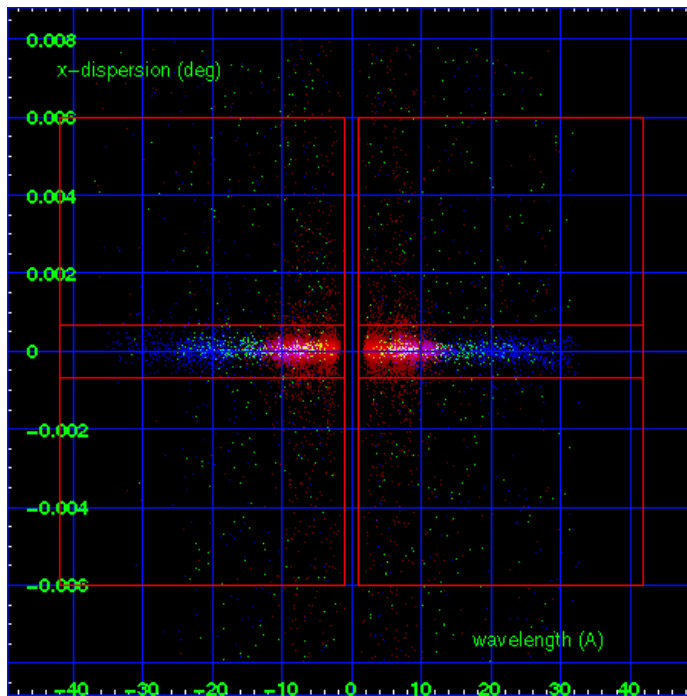
MEG Order Sort 123



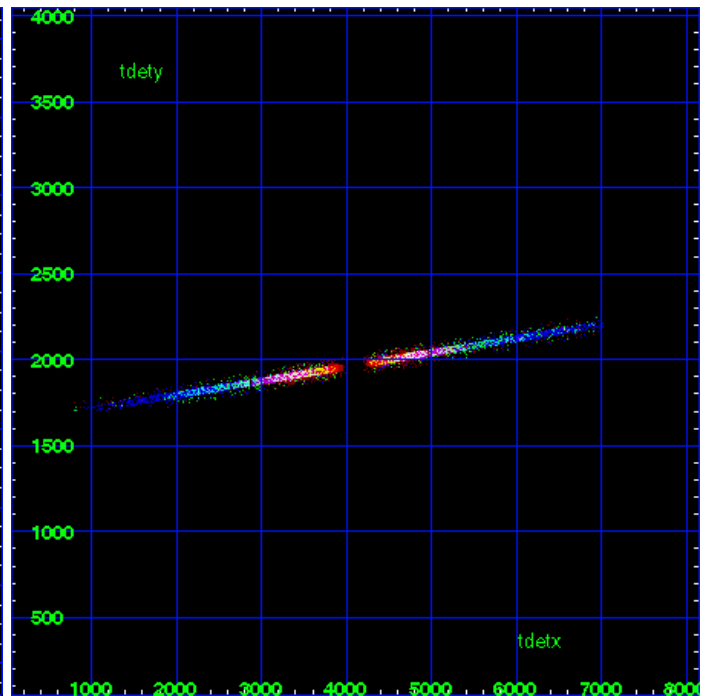
MEG Zero Order



MEG Order Sort ALL

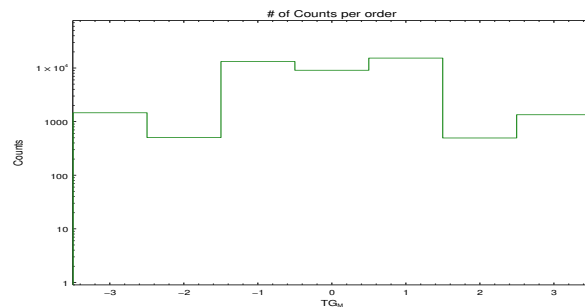


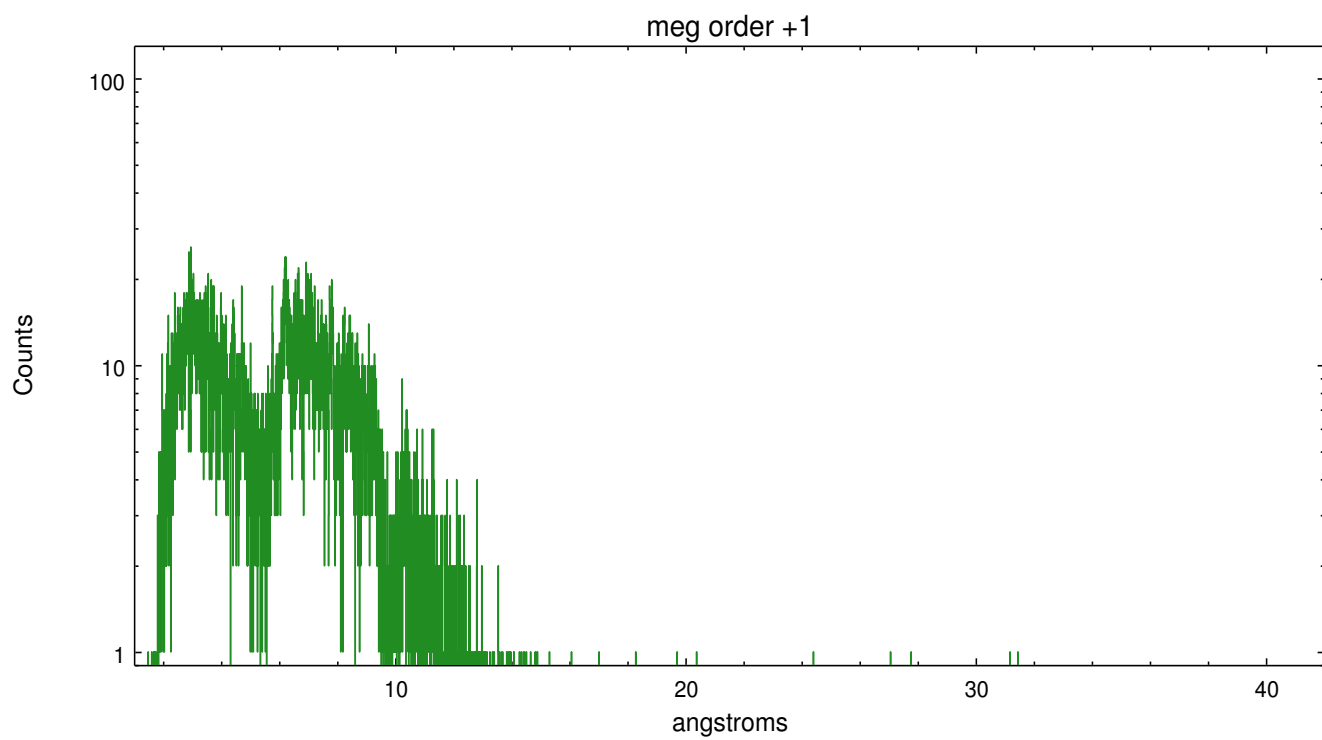
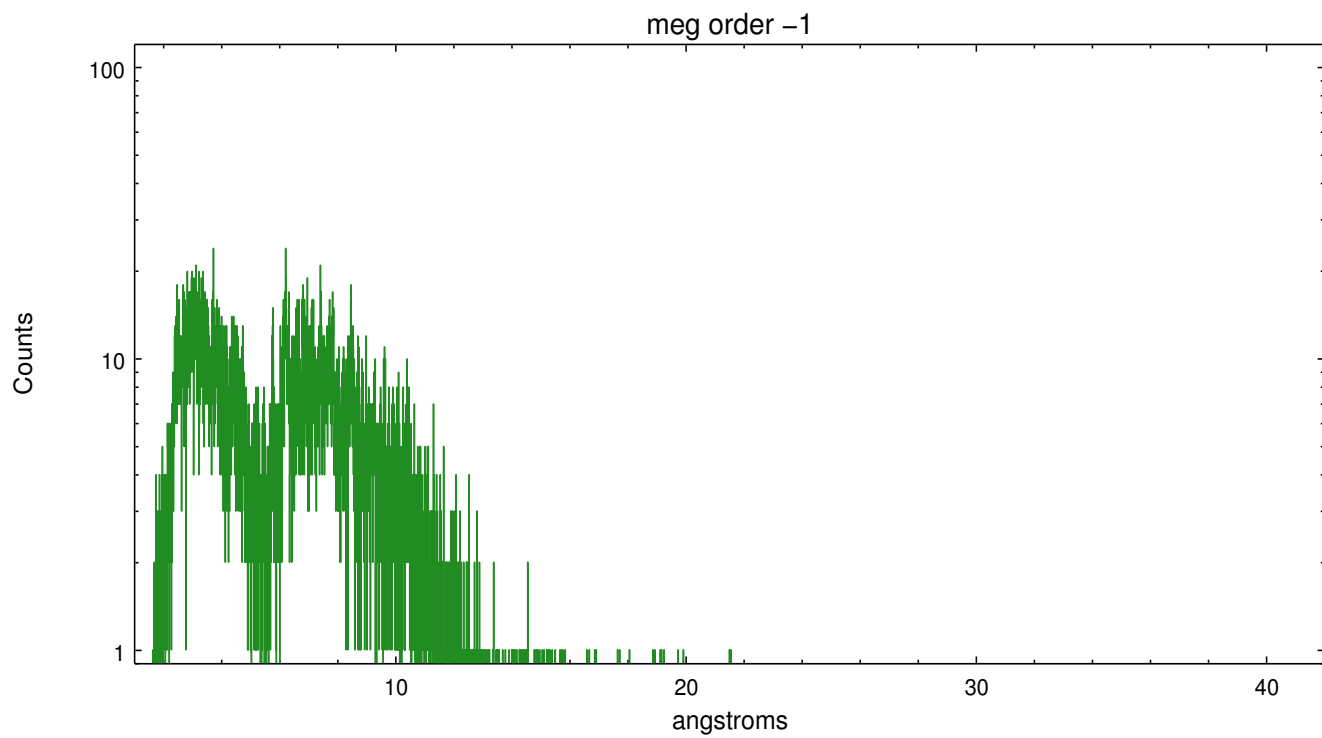
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1468	505	13294	9132	15424	496	1349





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.1654001

## A.2 Comments