

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 6631 - L2 Version 3  
Chandra X-Ray Center

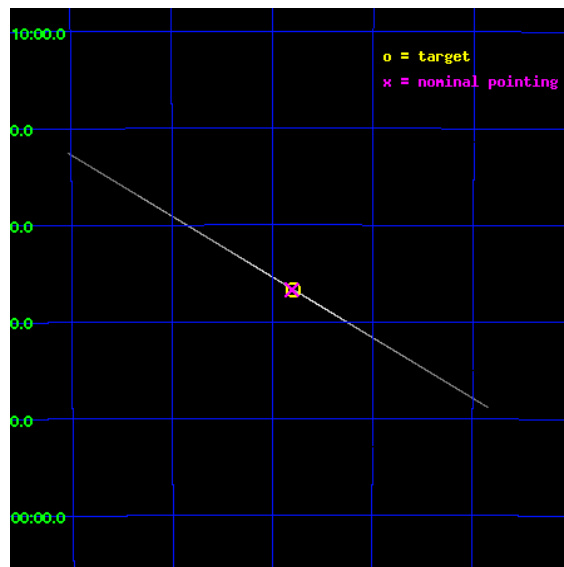
L2 Processing Date : Apr 1 2012

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# 1 Front

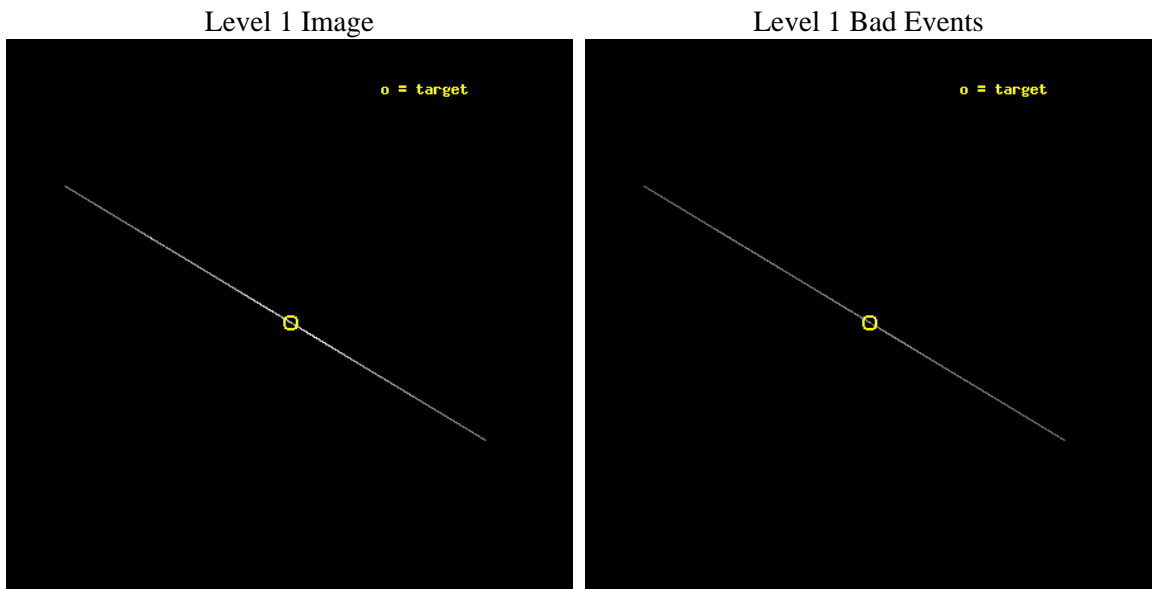
seq_num	400536	Sequence number
obs_id	6631	Observation id
title	CHAZSS: The Chandra HETGS Atoll/Z Spectroscopic Survey	Proposal ti
observer	Dr Jon Miller	Principal investigator
object	GX 340+0	Source name
ra_targ	251.44875	Observer's specified target RA [deg]
dec_targ	-45.611111	Observer's specified target Dec [deg]
ra_nom	251.45148908089	Nominal RA [deg]
dec_nom	-45.611881171295	Nominal Dec [deg]
roll_nom	30.831134334819	Nominal Roll [deg]
revision	3	Processing version of data
ontime	25131.75	Sum of GTIs [s]
livetime	25033.579101562	Livetime [s]
ontime4	25131.75	Sum of GTIs [s]
ontime5	25131.75	Sum of GTIs [s]
ontime6	25131.75	Sum of GTIs [s]
ontime7	25131.75	Sum of GTIs [s]
ontime8	25131.75	Sum of GTIs [s]
ontime9	25131.75	Sum of GTIs [s]
l2events	3058405	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	25131.75	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime4	25131.75	Sum of GTIs [s]
date	2012-04-01T06:54:56	Date and time of file creation	ontime5	25131.75	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	25131.75	Sum of GTIs [s]
			ontime7	25131.75	Sum of GTIs [s]
			ontime8	25131.75	Sum of GTIs [s]
			ontime9	25131.75	Sum of GTIs [s]
			l1events	3456559	Number of level 1 events

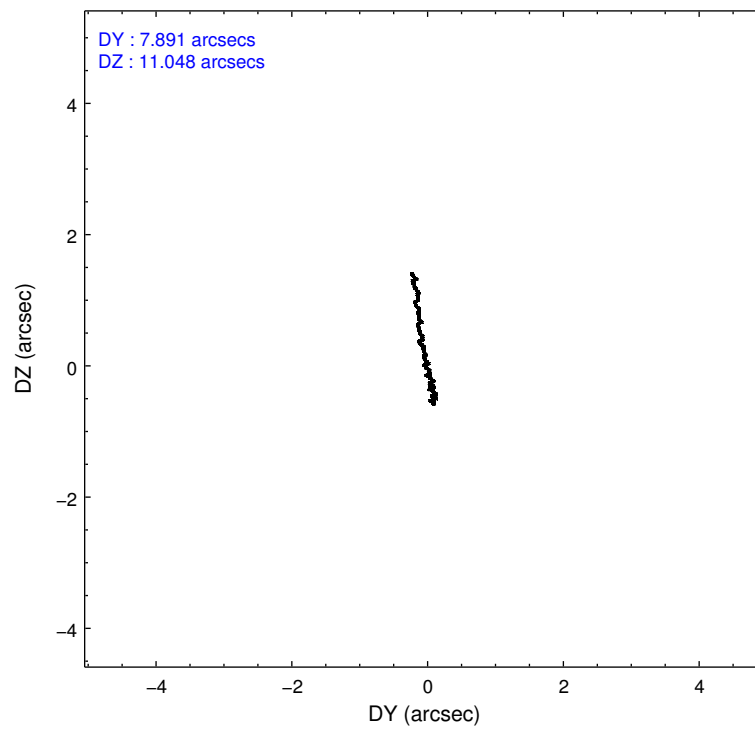
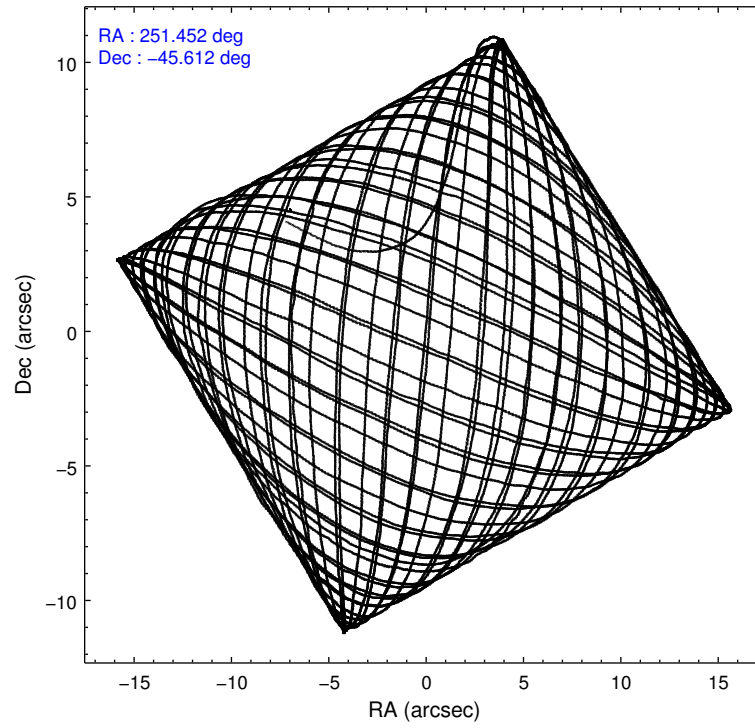
### 2.1.3 Events

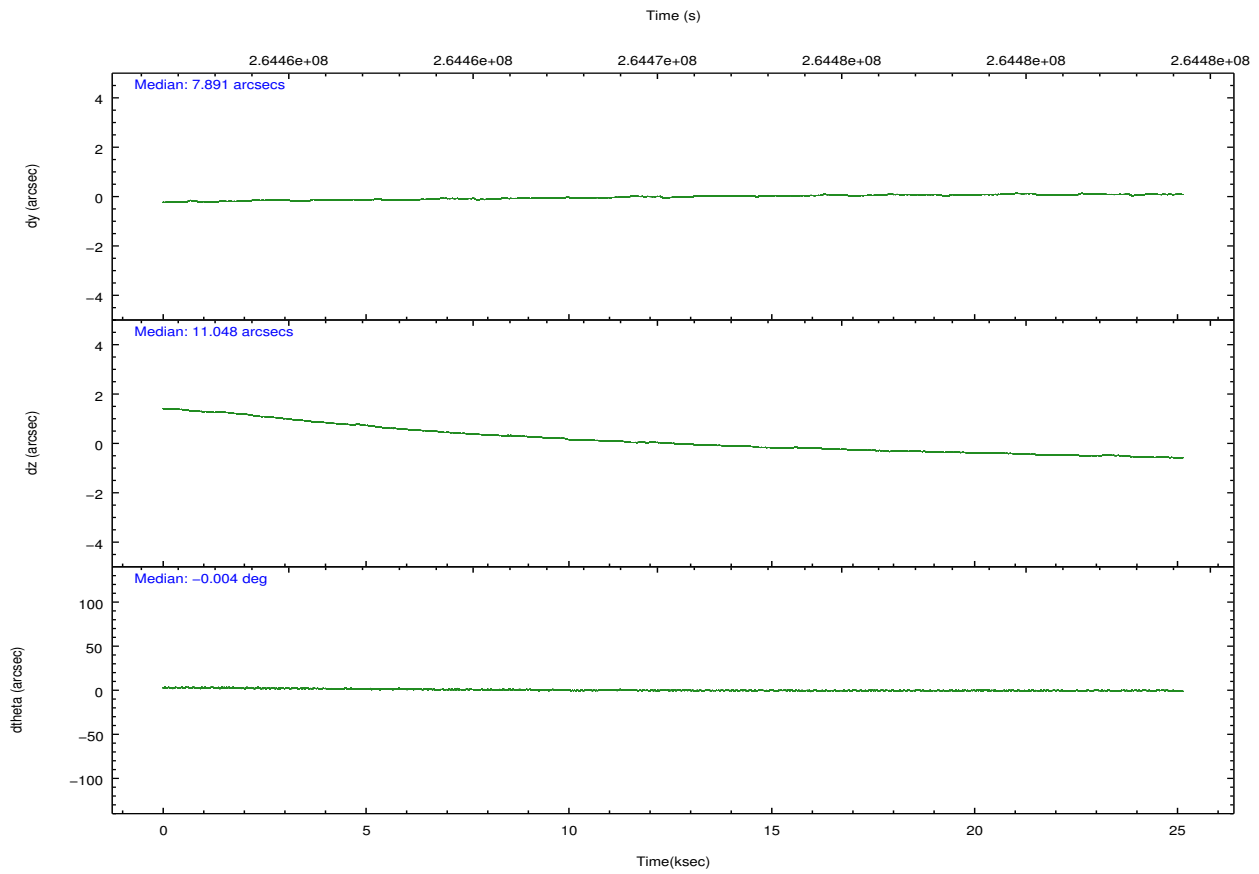
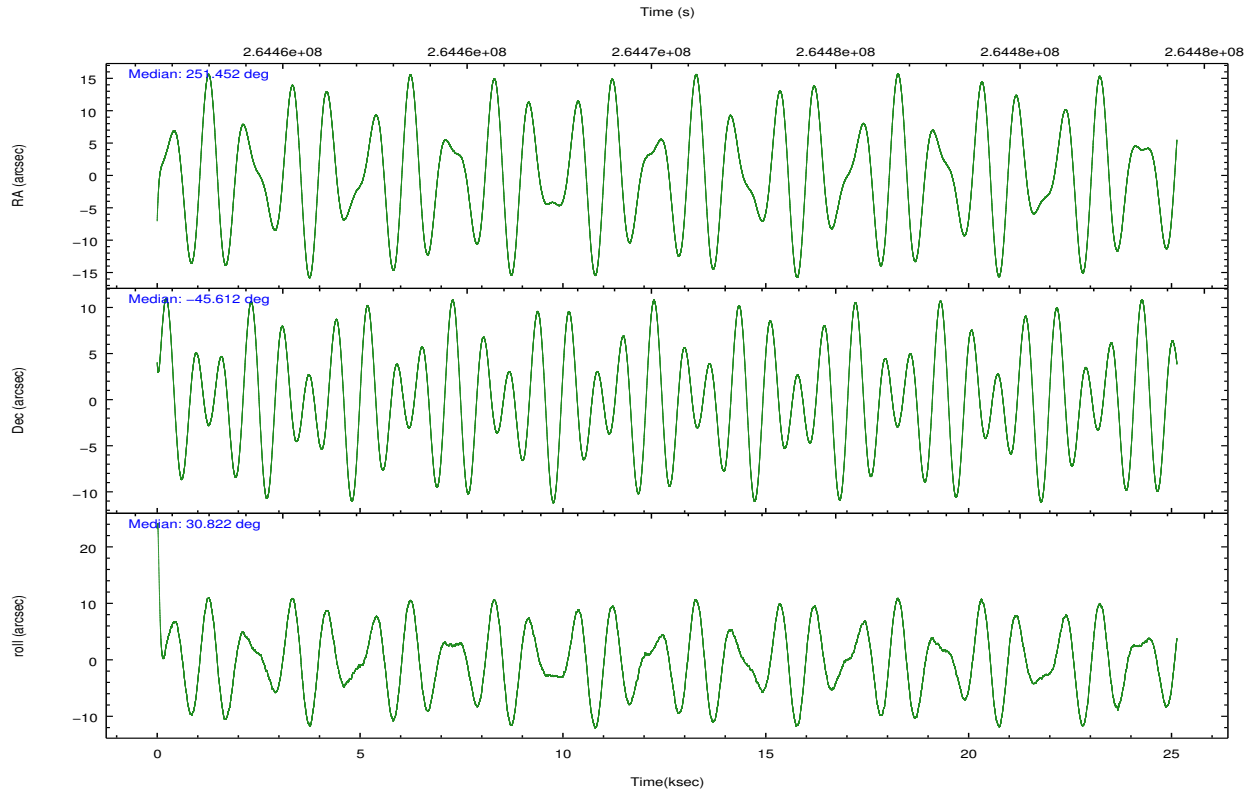
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	65433	306128	1041494	1708236	262673	72595	grade 0 events	5492	60147	142358	226411	90191	8266
rejected events	10683	27731	26172	58522	19873	12149		8%	19%	13%	13%	34%	11%
rejected %	16%	9%	2%	3%	7%	16%	grade 1 events	165	262	704	2327	628	167
								0%	0%	0%	0%	0%	0%
							grade 2 events	28745	92017	713648	503479	94453	30210
								43%	30%	68%	29%	35%	41%
							grade 3 events	5798	5229	14013	131188	14090	5212
								8%	1%	1%	7%	5%	7%
							grade 4 events	5937	5148	13873	130115	13516	5790
								9%	1%	1%	7%	5%	7%
							grade 5 events	8611	18963	16214	39031	14467	10130
								13%	6%	1%	2%	5%	13%
							grade 6 events	10685	124362	140684	675685	35328	12820
								16%	40%	13%	39%	13%	17%
							grade 7 events	0	0	0	0	0	0
								0%	0%	0%	0%	0%	0%

## 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	CC33_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	251.432968	251.4514890808904	Subarray requested	NONE	NONE
[deg] Pointing Dec	-45.635861	-45.61188117129477	Alternating exposures requested	N	N
[deg] Pointing Roll	30.661254	30.83113433481868	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-182.632523	-182.6398635053184			
[mm] SIM translation stage offset	-7.5	-7.49265907768941			
[s] Observation start time (MET)	264457990.184000	264456782.72379			
Observation start date	2006-05-19T20:32:05	2006-05-19T20:13:02			
[s] Observation end time (MET)	264482990.184000	264483890.90006			
Observation end date	2006-05-20T03:28:45	2006-05-20T03:44:50			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



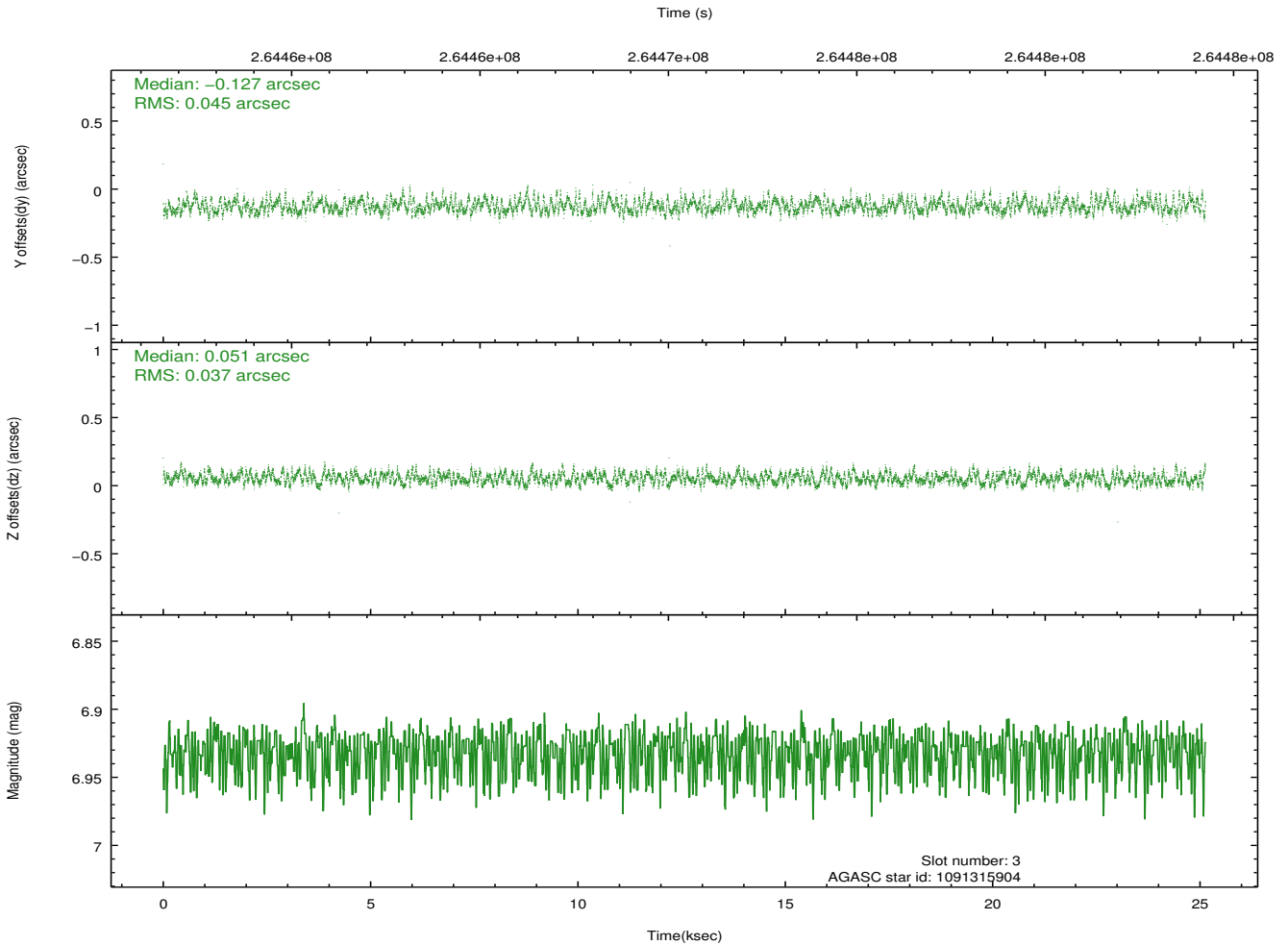
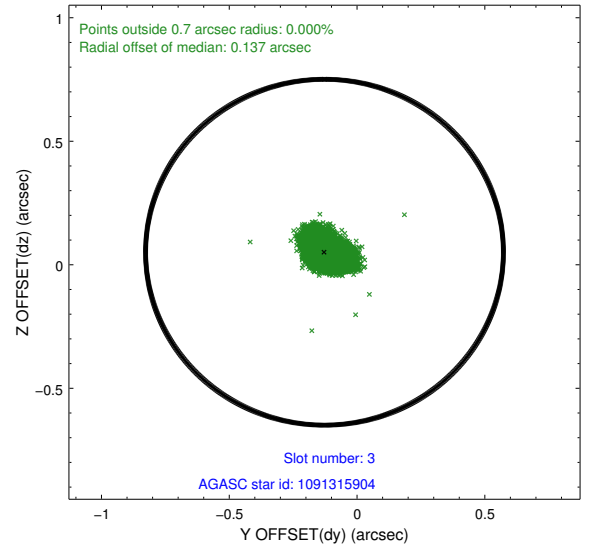
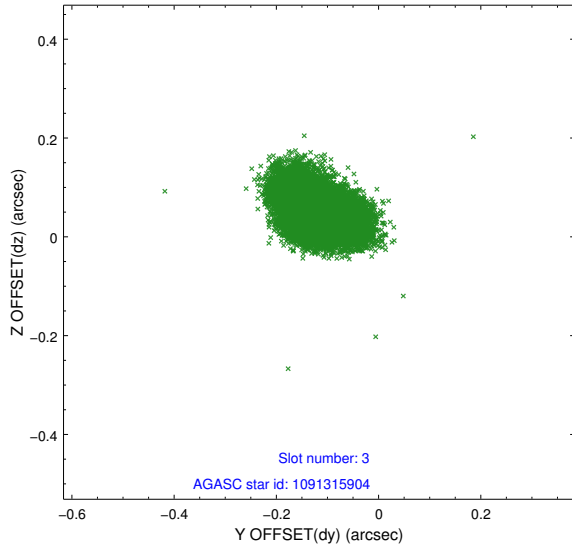


### Slot Statistics

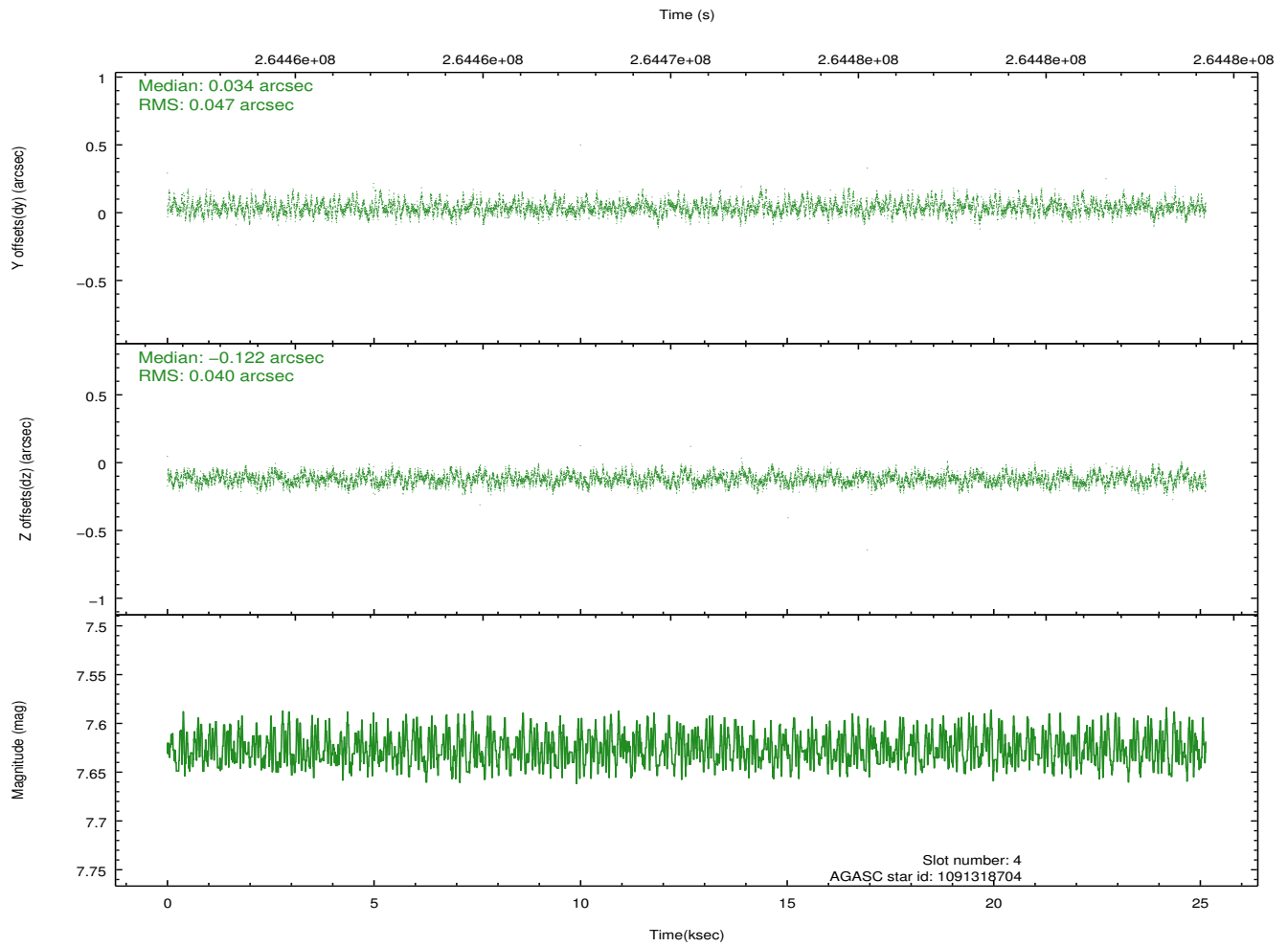
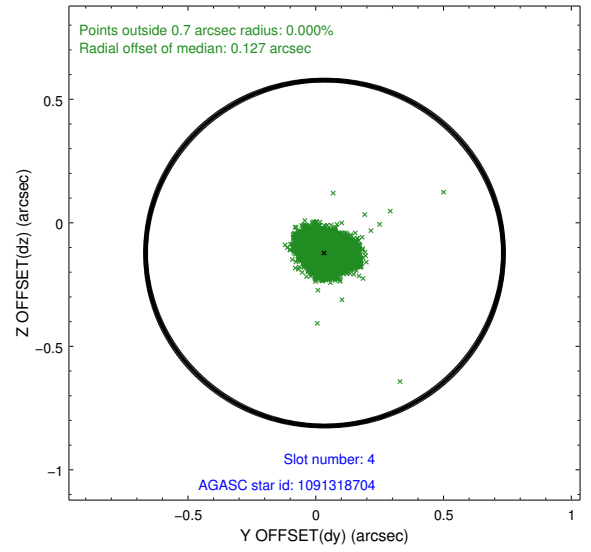
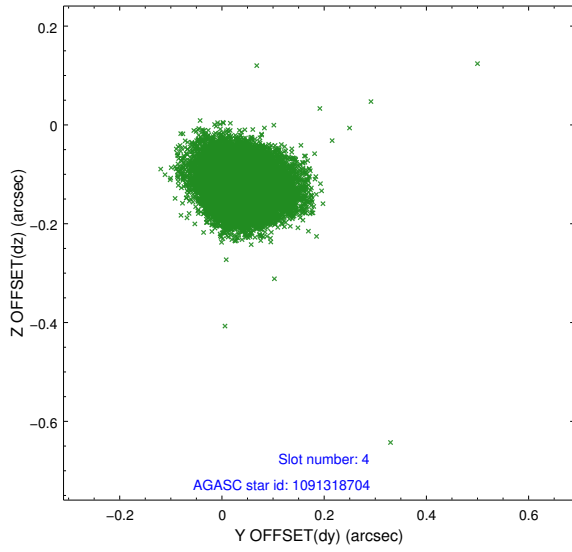
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.08	6131	-0.094	-0.093	0.019	0.056	0.000000	0.000000	-760.20	-1886.94
1	FID	ACIS-S-4	7.18	6131	0.110	0.071	0.013	0.022	0.000000	0.000000	2153.23	21.55
2	FID	ACIS-S-5	7.23	6131	-0.047	0.030	0.018	0.047	0.000000	0.000000	-1812.84	15.33
3	GUIDE	1091315904	6.93	12262	-0.127	0.051	0.061	0.100	252.023077	-45.944918	700.83	-1714.80
4	GUIDE	1091318704	7.63	12254	0.034	-0.122	0.065	0.104	251.955714	-45.390313	1585.66	82.81
5	GUIDE	1091321136	8.56	12257	-0.019	0.191	0.084	0.139	252.629031	-45.865288	2147.15	-2258.10
6	GUIDE	1091322272	8.81	12258	0.123	0.037	0.076	0.120	250.346731	-45.544106	-2196.66	1664.43
7	GUIDE	1091331456	7.12	12220	-0.019	-0.156	0.067	0.111	250.457488	-45.368726	-1639.81	2071.59

## 2.4 Star Slots

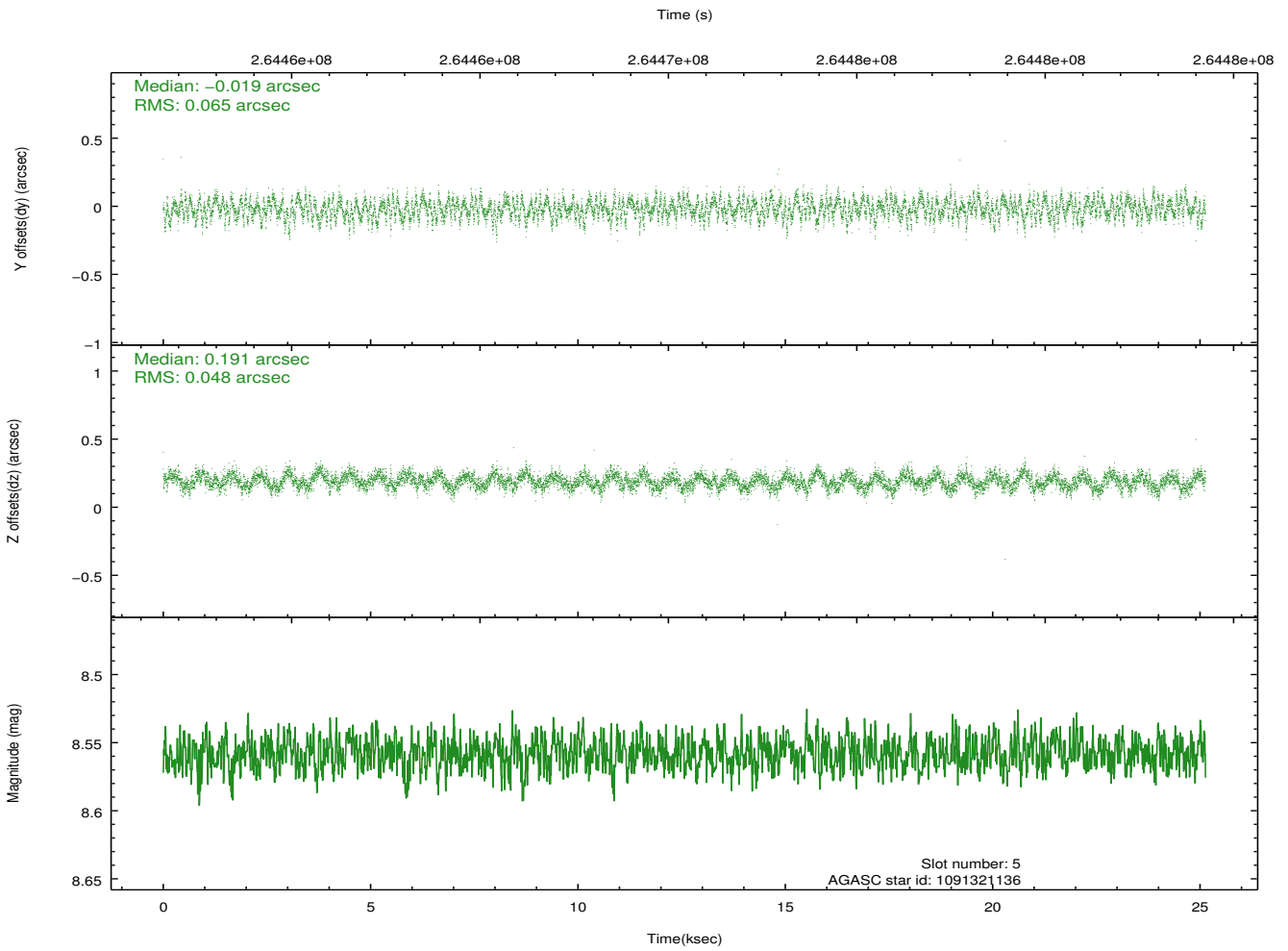
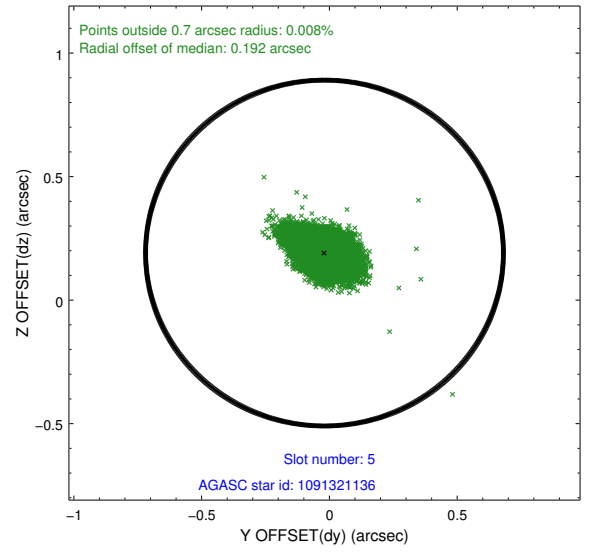
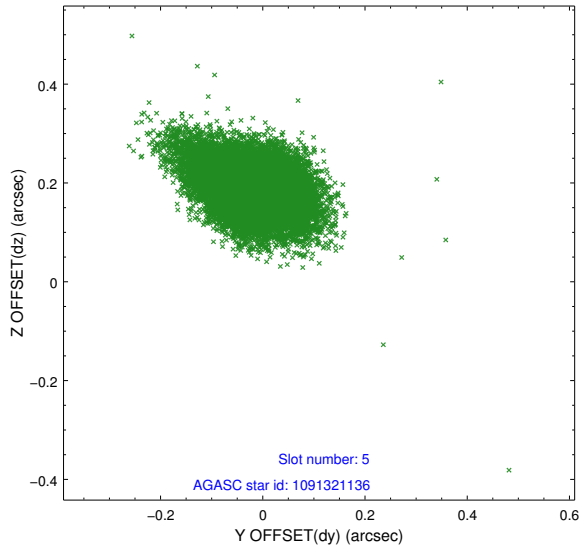
### 2.4.1 Slot 3



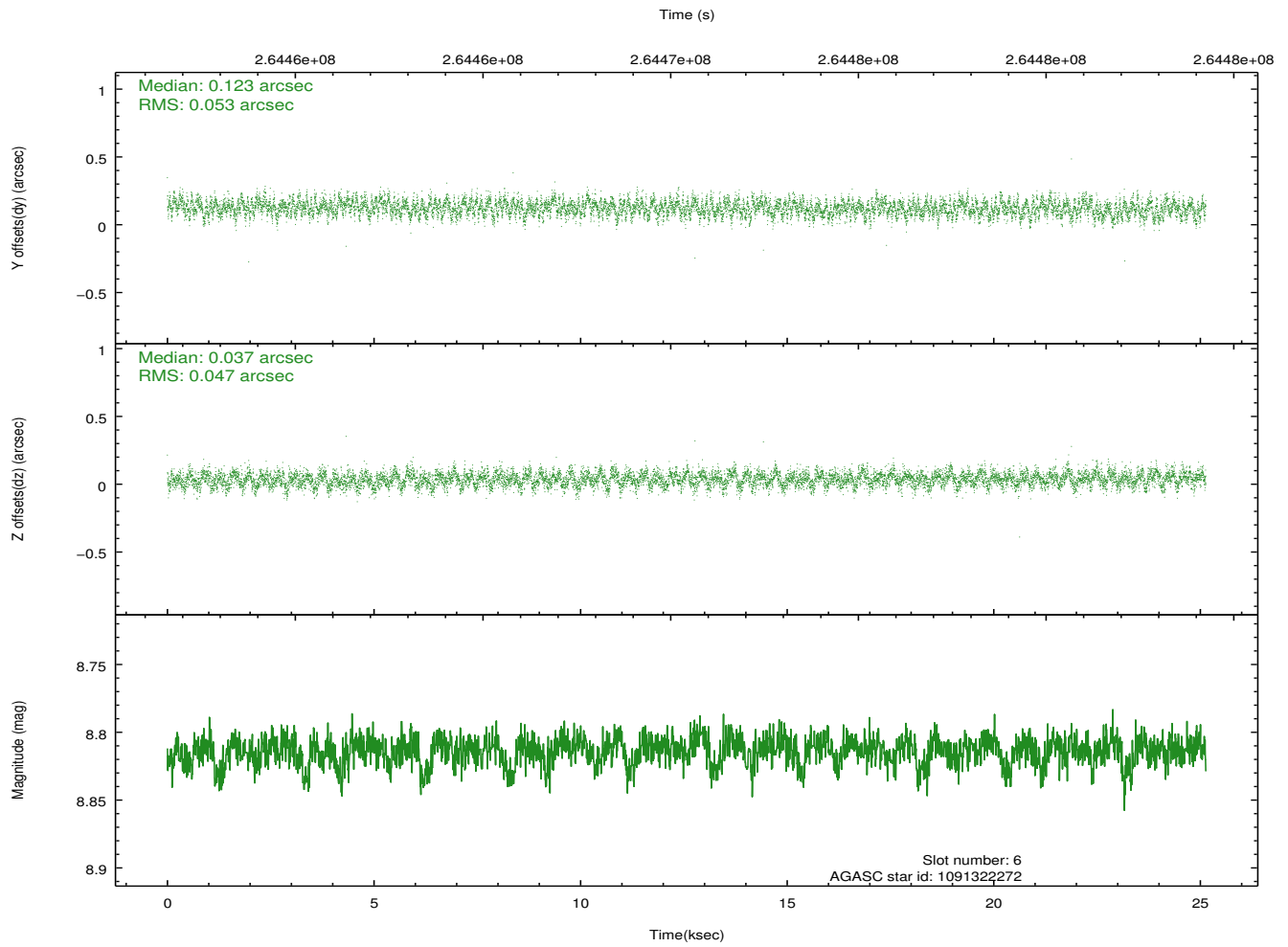
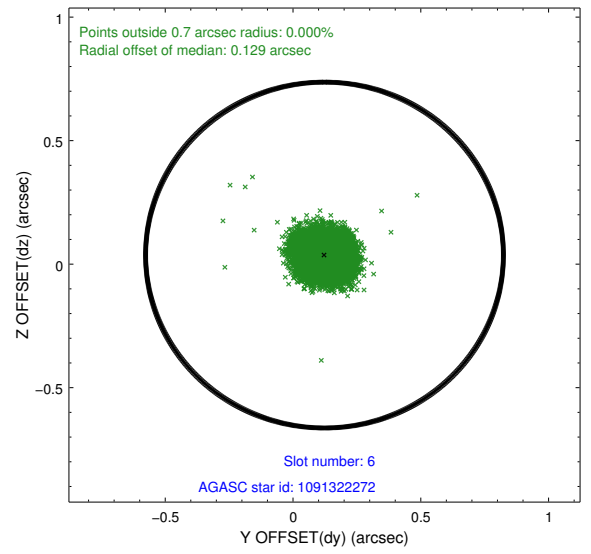
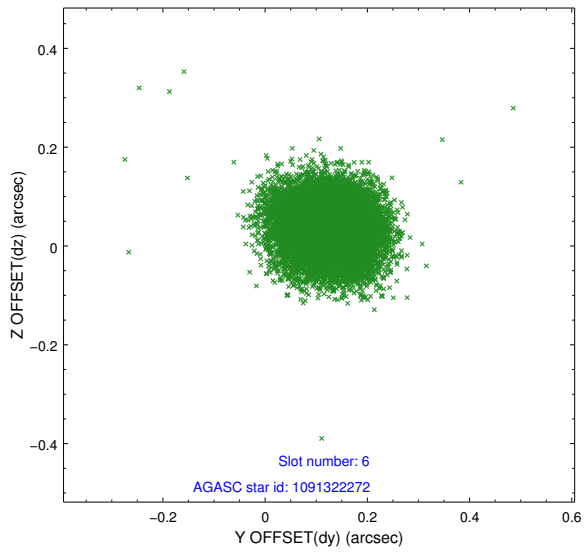
## 2.4.2 Slot 4



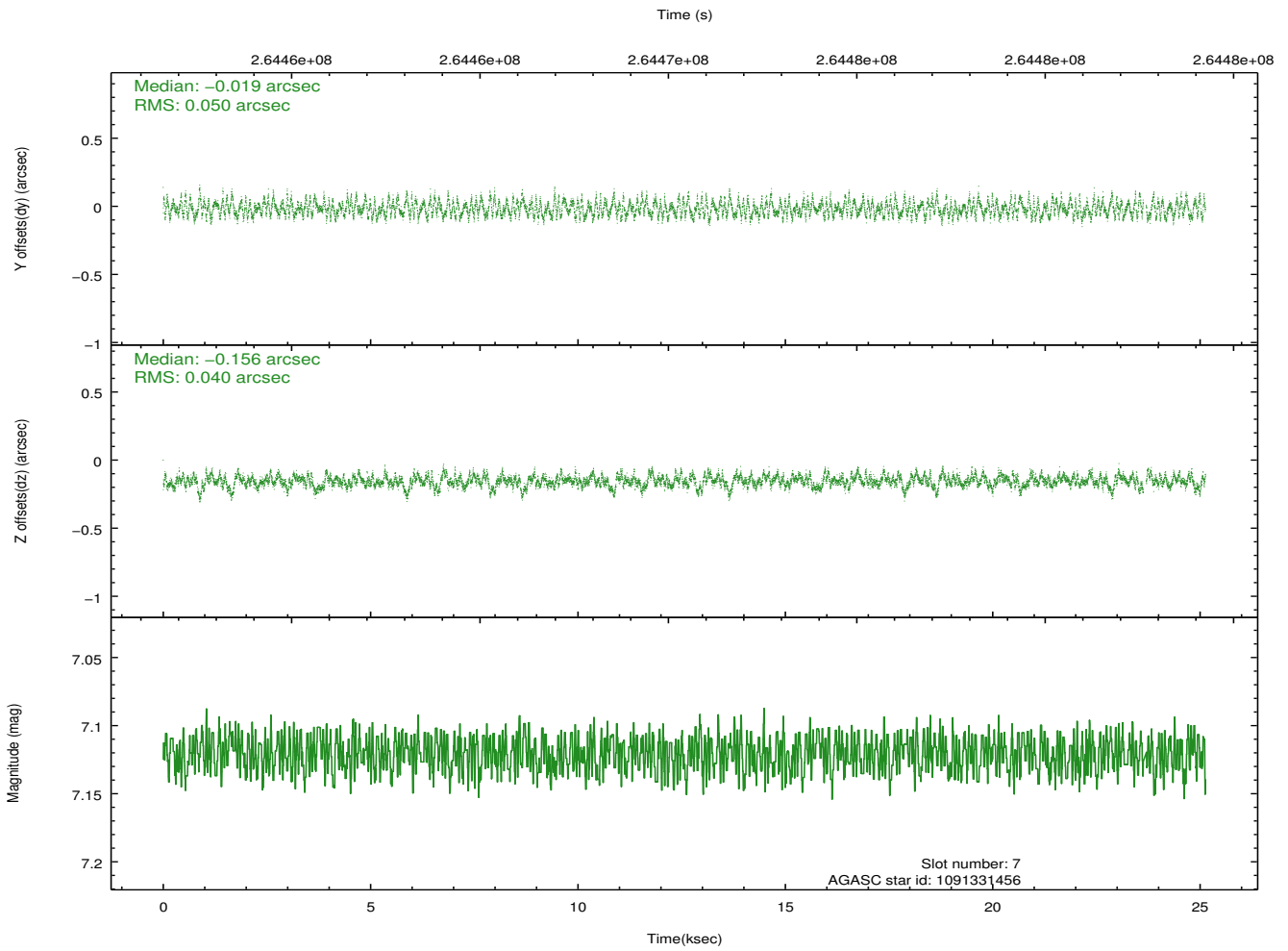
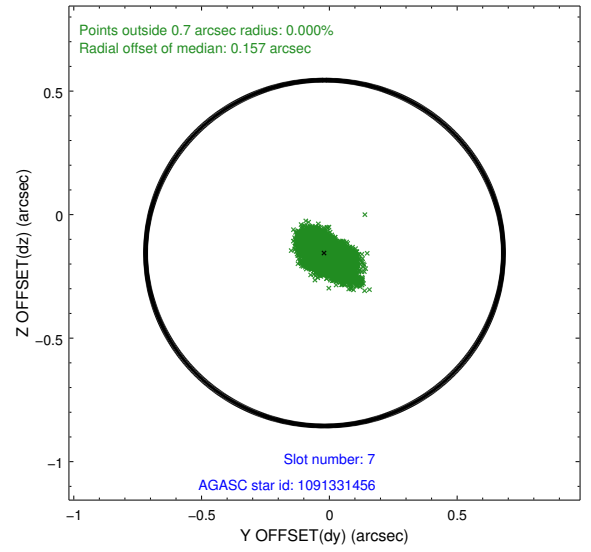
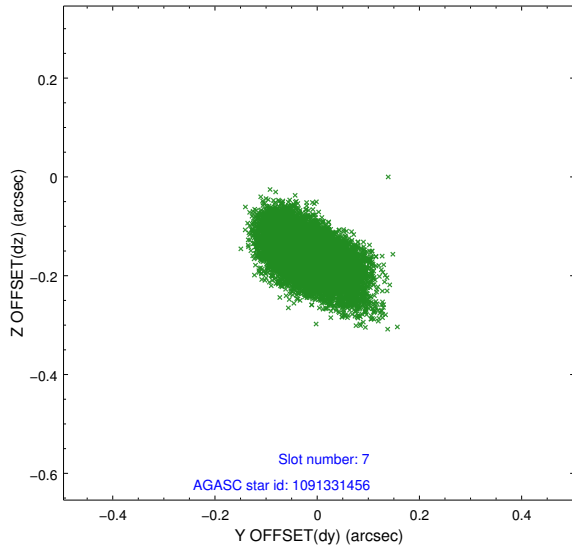
### 2.4.3 Slot 5



## 2.4.4 Slot 6

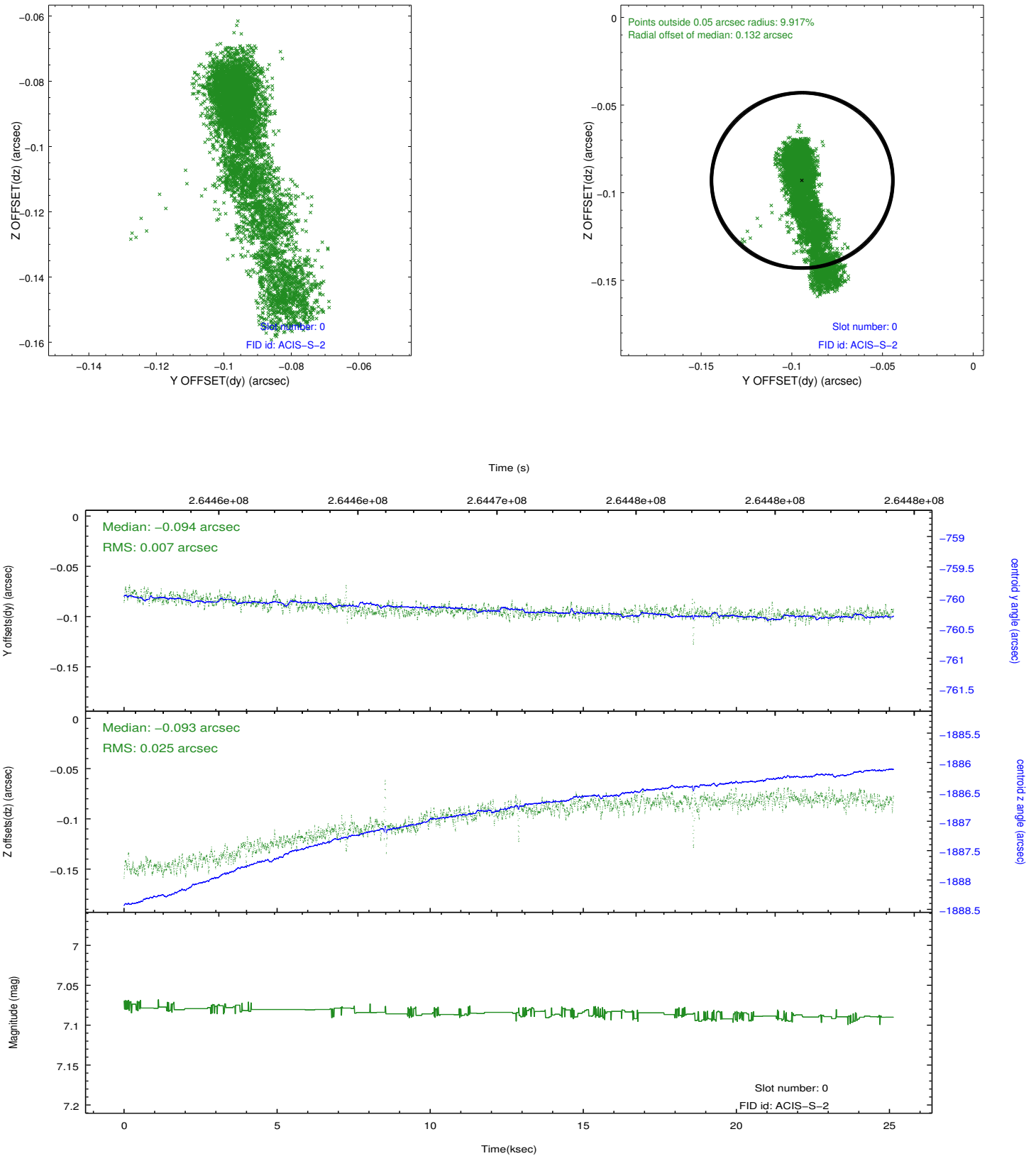


## 2.4.5 Slot 7

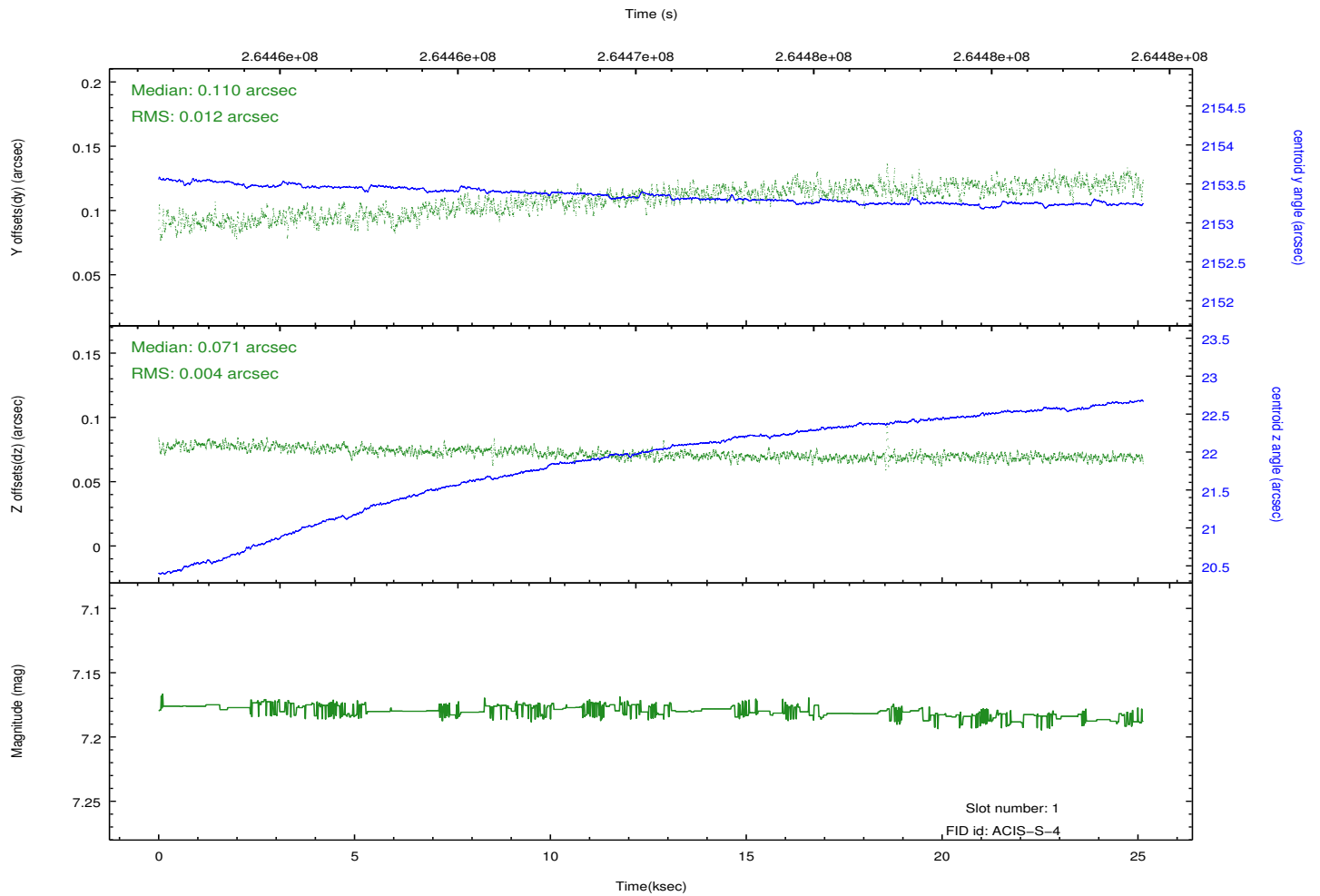
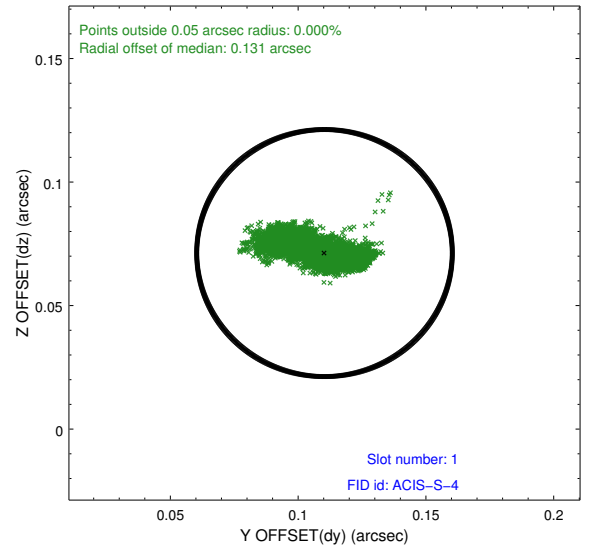
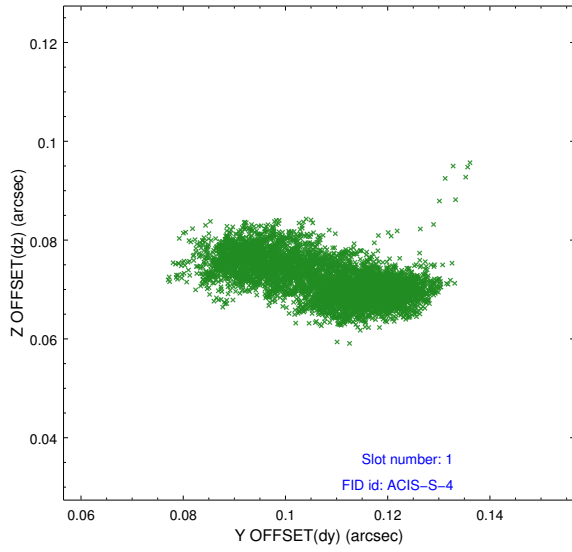


## 2.5 FID Slots

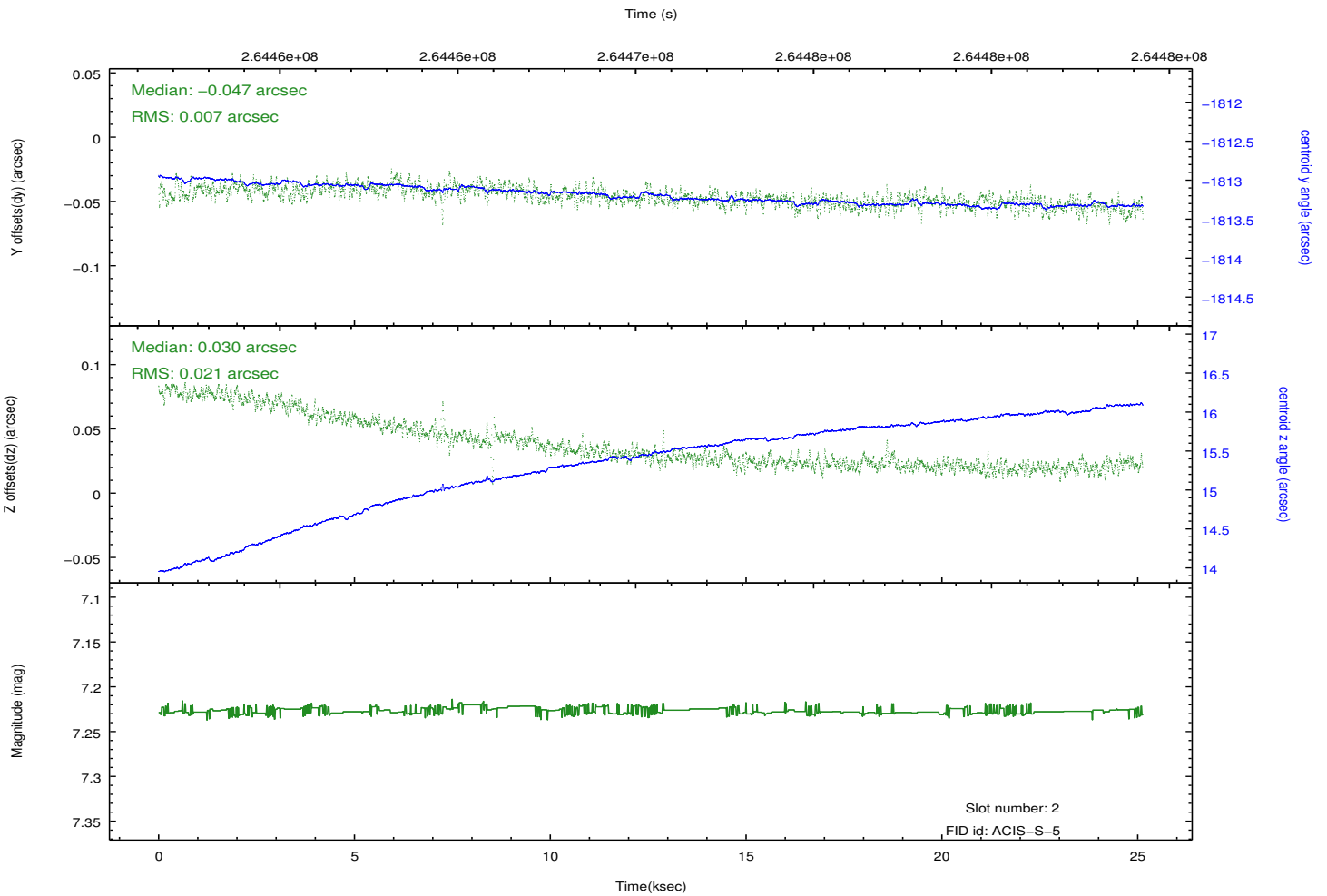
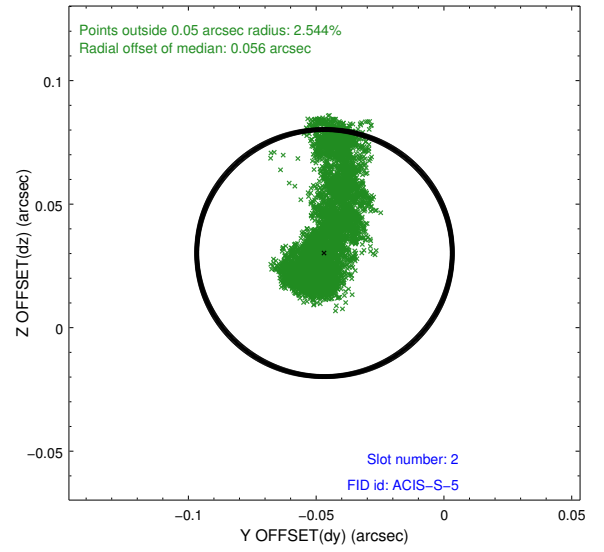
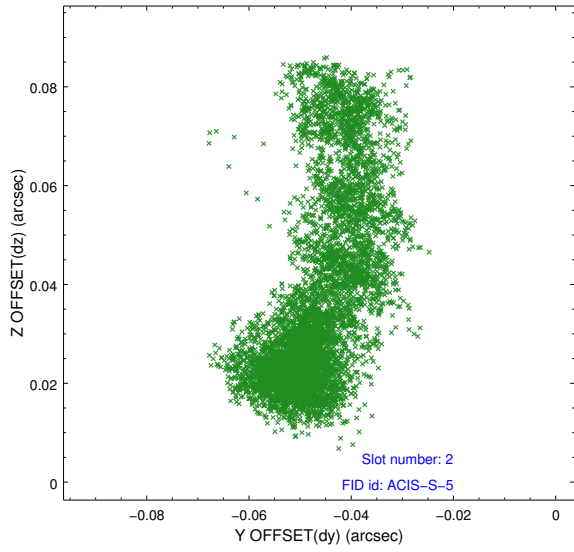
### 2.5.1 Slot 0



## 2.5.2 Slot 1

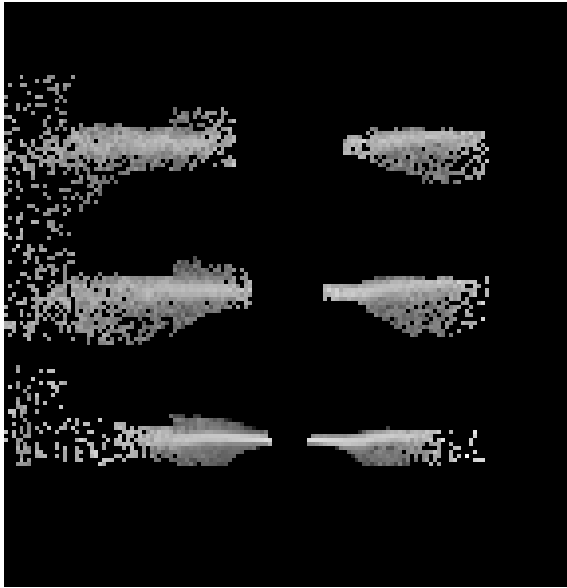


### 2.5.3 Slot 2

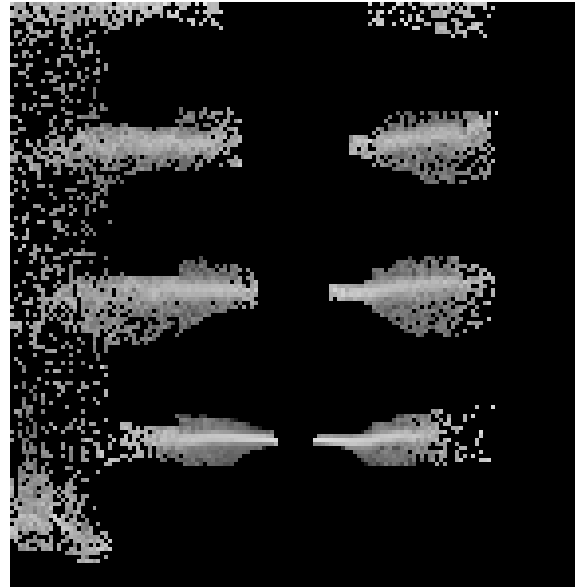


# 3 Gratings

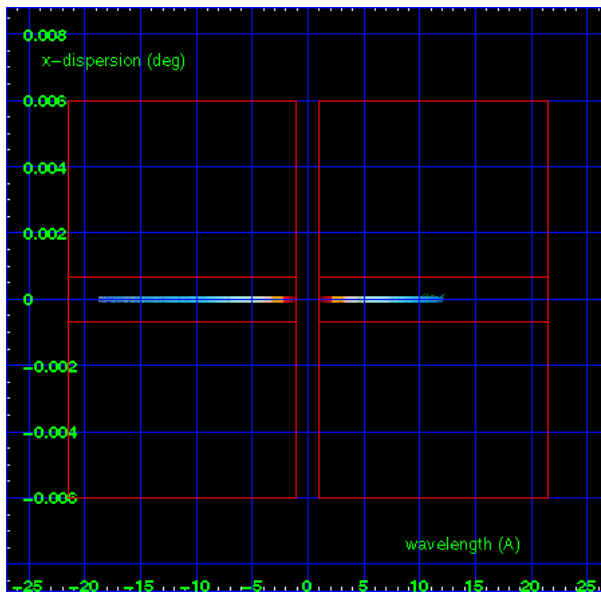
## 3.1 HEG Arm



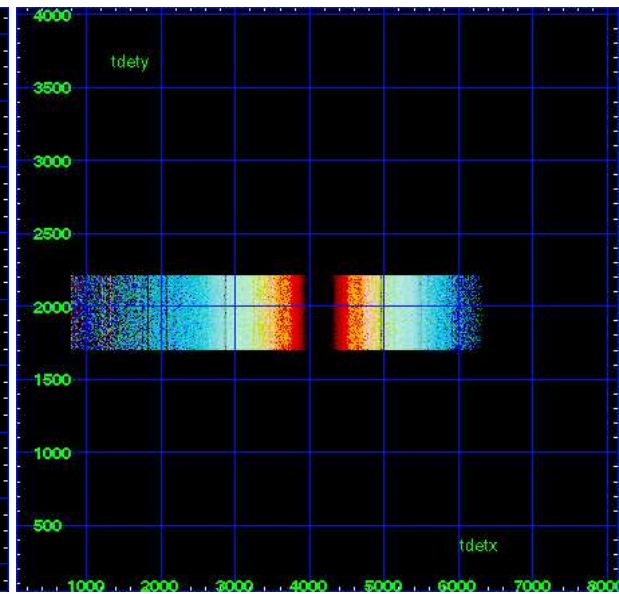
HEG Order Sort 123



HEG Order Sort ALL

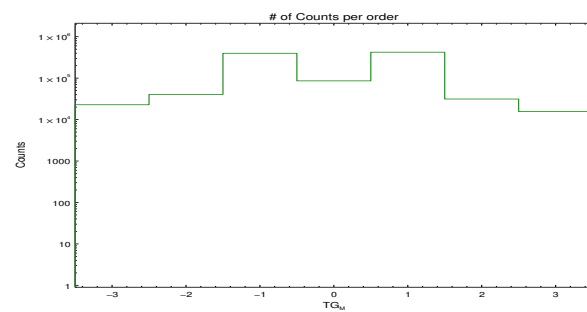


Spot Image HEG

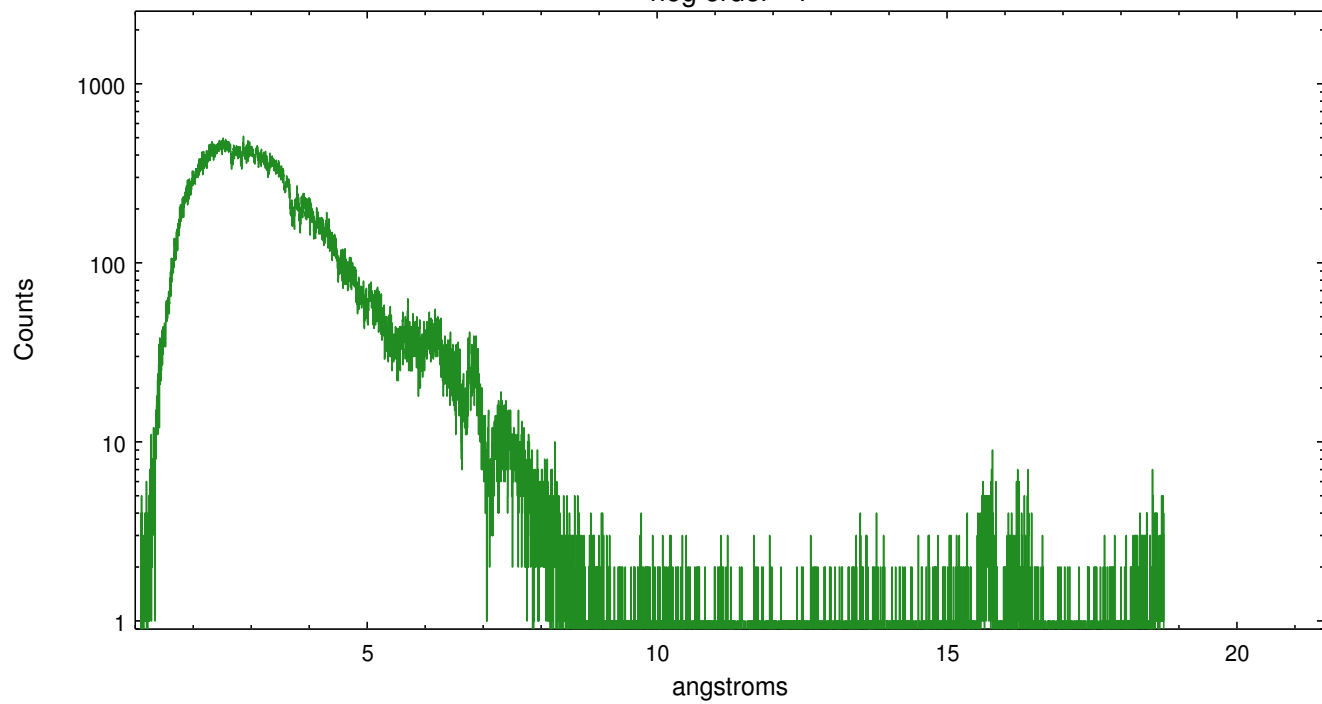


Full Detector HEG

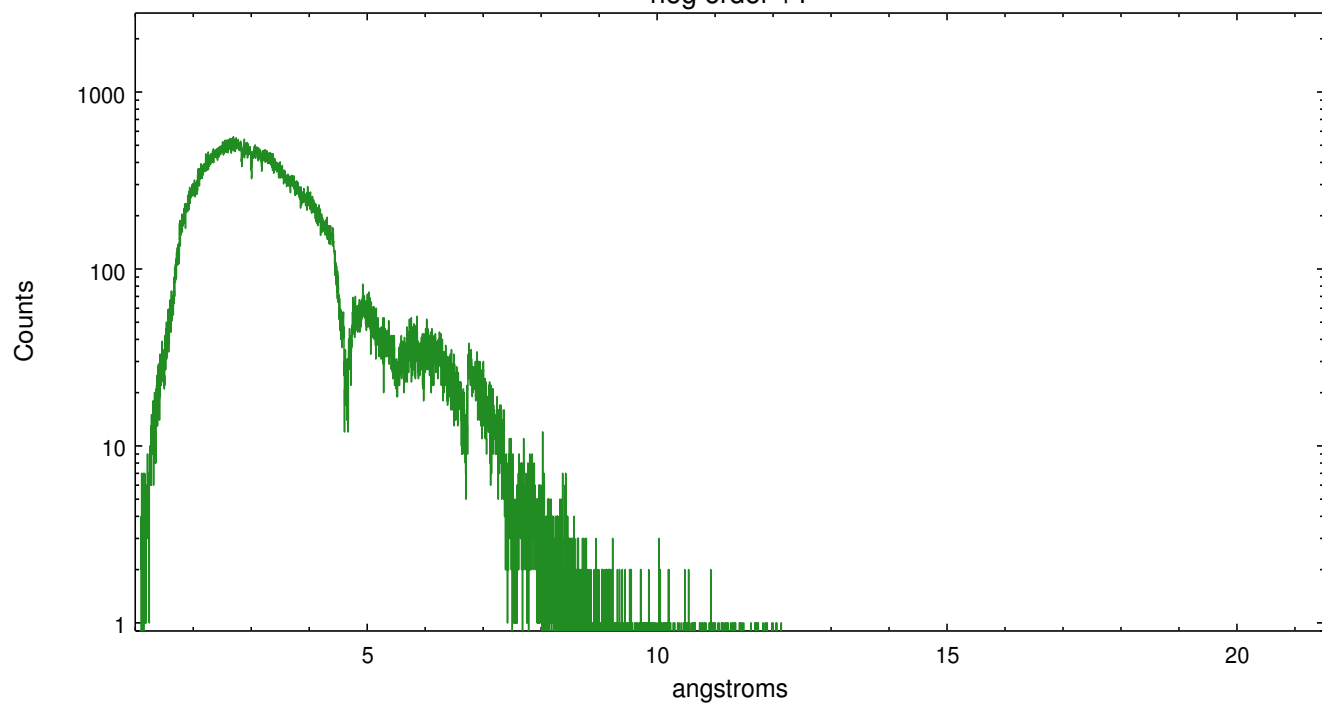
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	22828	40484	397440	86037	422448	31331	15637



heg order -1



heg order +1



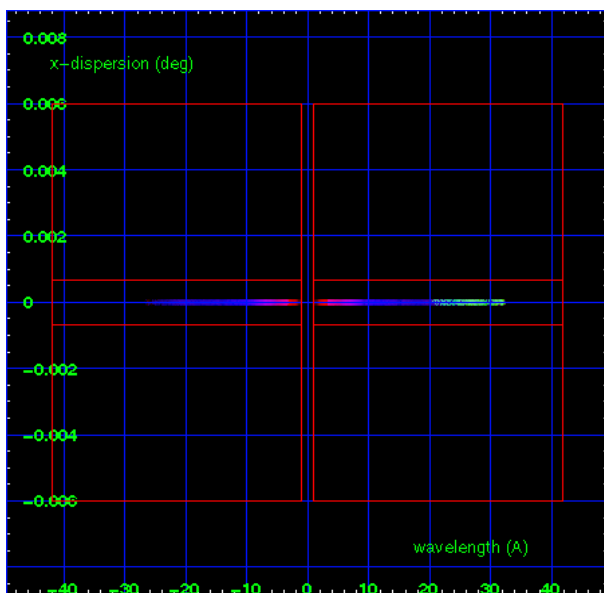
### 3.2 MEG Arm



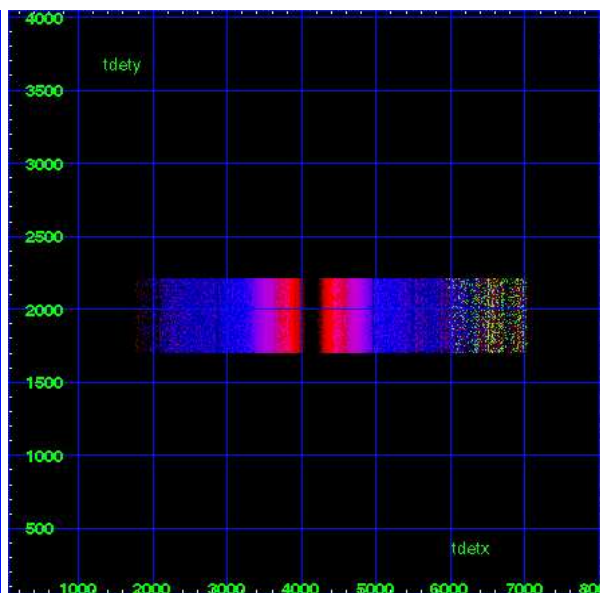
MEG Order Sort 123



MEG Order Sort ALL

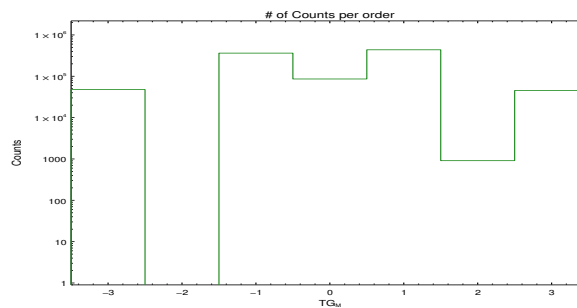


Spot Image MEG

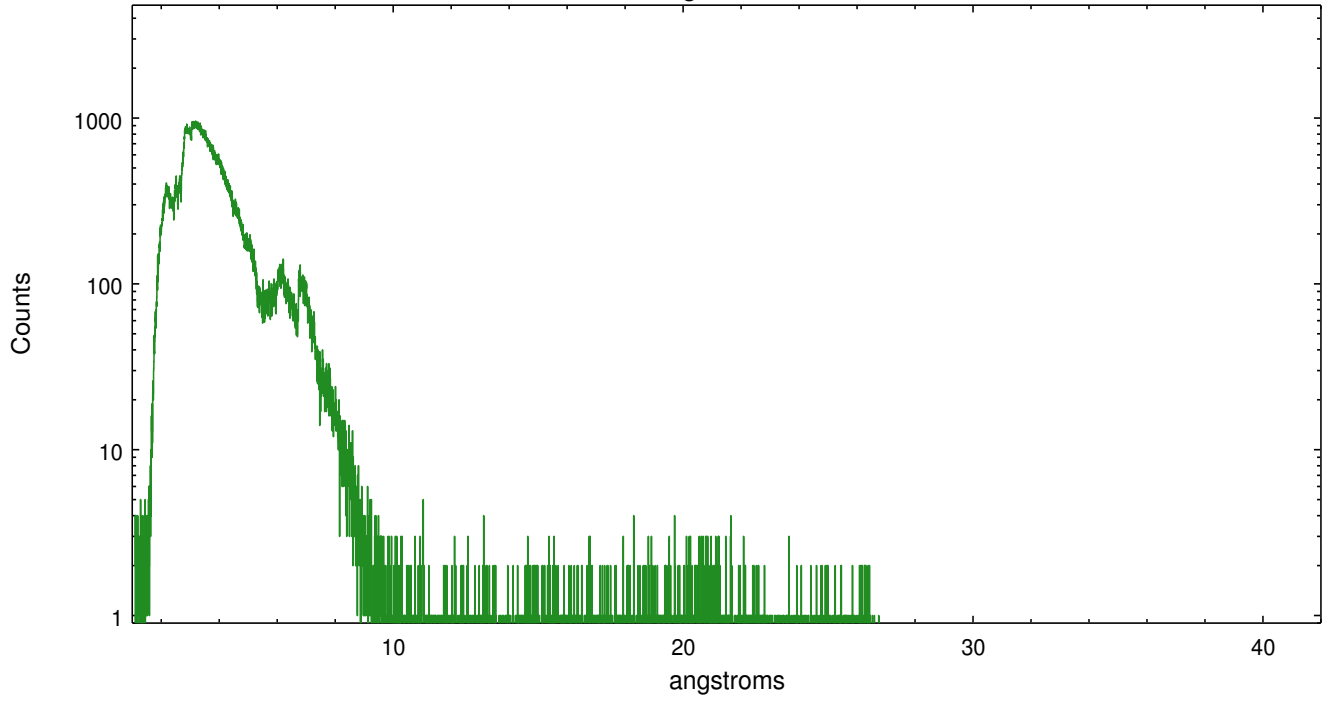


Full Detector MEG

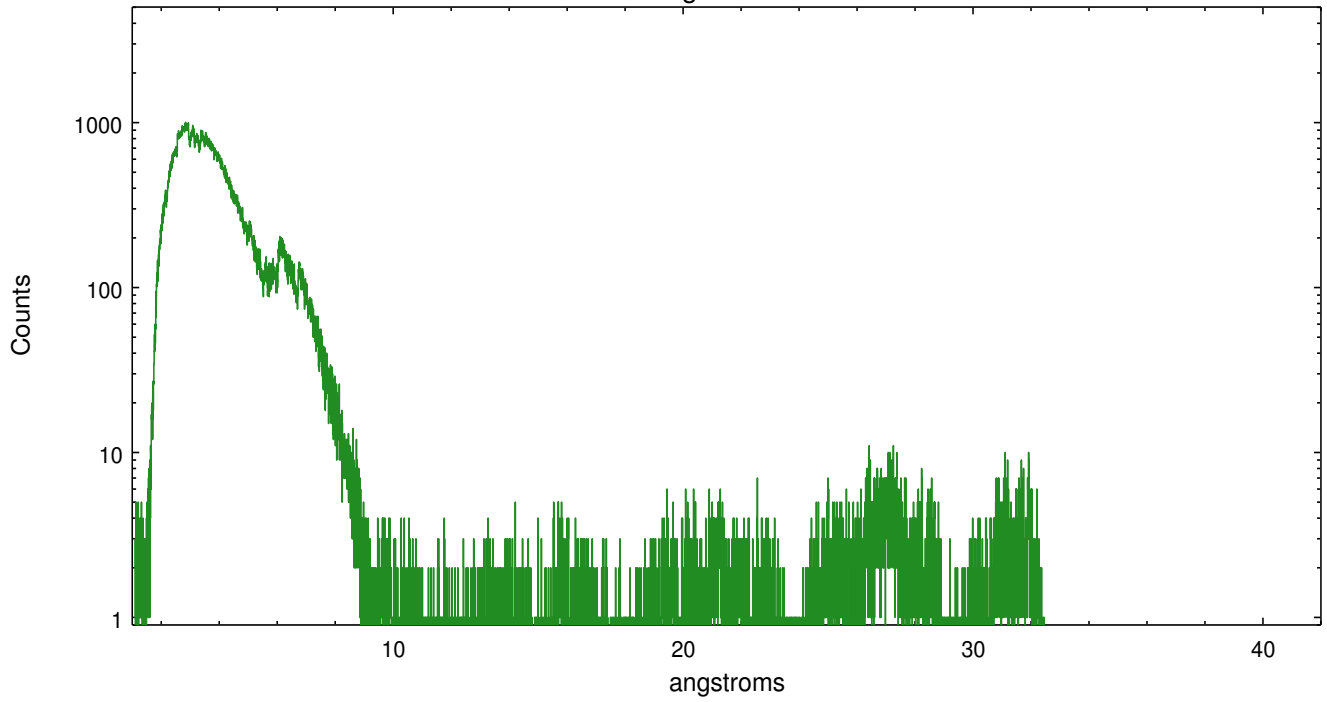
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	47619	0	362884	86037	437325	910	45194



meg order -1



meg order +1



## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.04.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.13175

### A.2 Comments