

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 6635 - L2 Version 3  
Chandra X-Ray Center

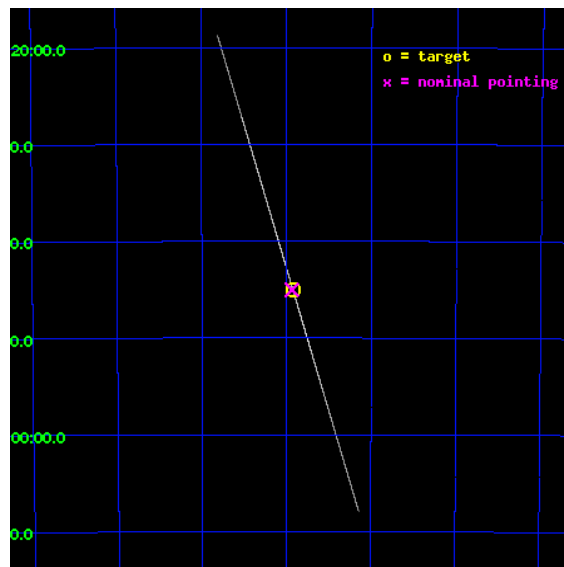
L2 Processing Date : Mar 28 2012

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# 1 Front

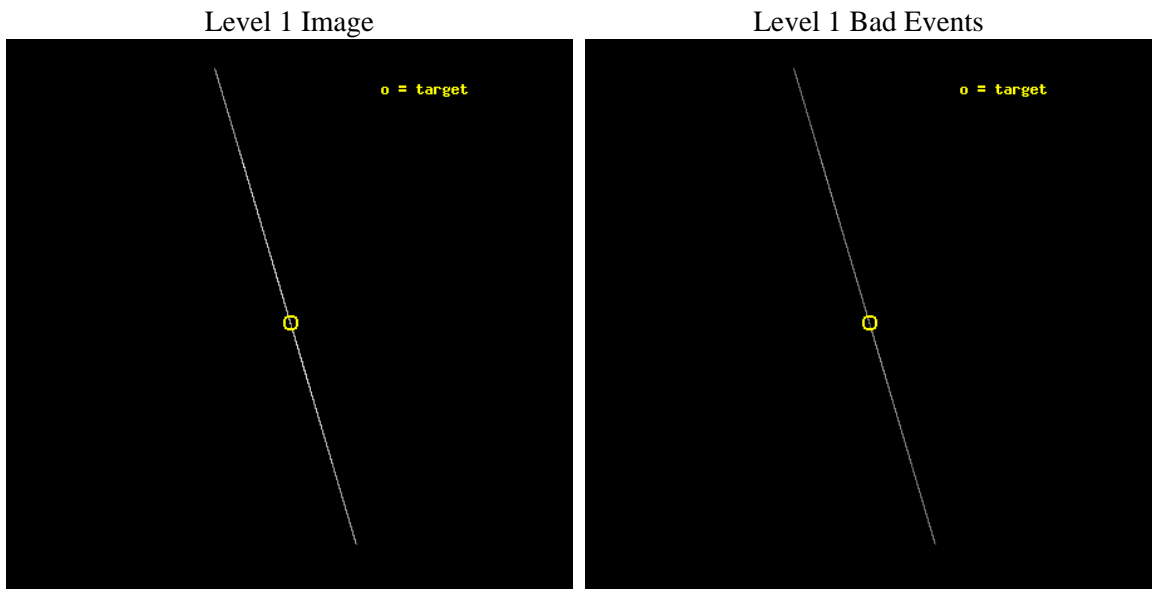
seq_num	400540	Sequence number
obs_id	6635	Observation id
title	CHAZSS: The Chandra HETGS Atoll/Z Spectroscopic Survey	Proposal ti
observer	Dr Jon Miller	Principal investigator
object	4U 1636-53	Source name
ra_targ	250.23125	Observer's specified target RA [deg]
dec_targ	-53.751389	Observer's specified target Dec [deg]
ra_nom	250.234567046	Nominal RA [deg]
dec_nom	-53.750683450028	Nominal Dec [deg]
roll_nom	73.245299496777	Nominal Roll [deg]
revision	3	Processing version of data
ontime	23161.75	Sum of GTIs [s]
livetime	23071.274414062	Livetime [s]
ontime4	23161.75	Sum of GTIs [s]
ontime5	23161.75	Sum of GTIs [s]
ontime6	23161.75	Sum of GTIs [s]
ontime7	23161.75	Sum of GTIs [s]
ontime8	23161.75	Sum of GTIs [s]
ontime9	23161.75	Sum of GTIs [s]
l2events	949712	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	23161.75	Sum of GTIs [s]
caldbver	4.4.8	&#160	ontime4	23161.75	Sum of GTIs [s]
date	2012-03-28T21:45:11	Date and time of file creation	ontime5	23161.75	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	23161.75	Sum of GTIs [s]
			ontime7	23161.75	Sum of GTIs [s]
			ontime8	23161.75	Sum of GTIs [s]
			ontime9	23161.75	Sum of GTIs [s]
			l1events	1185189	Number of level 1 events

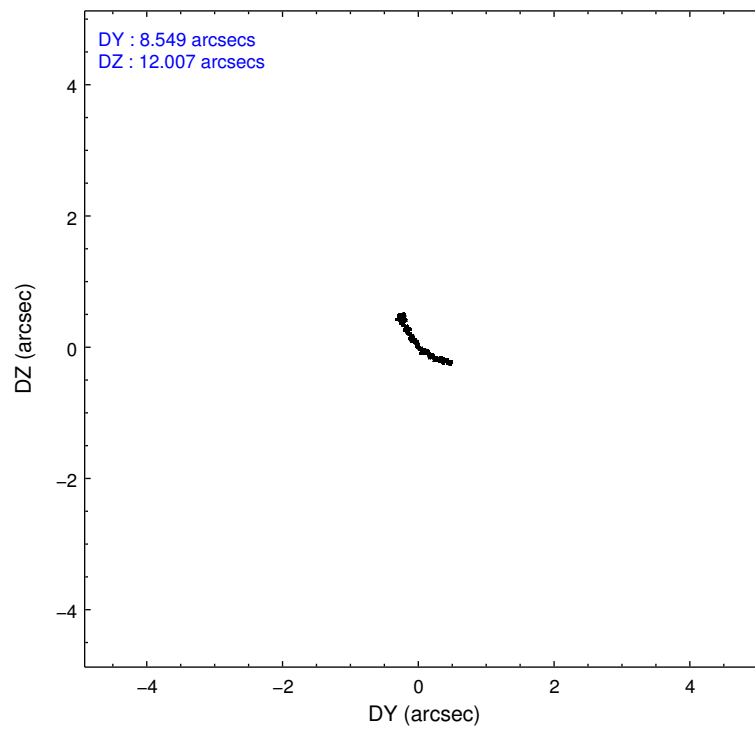
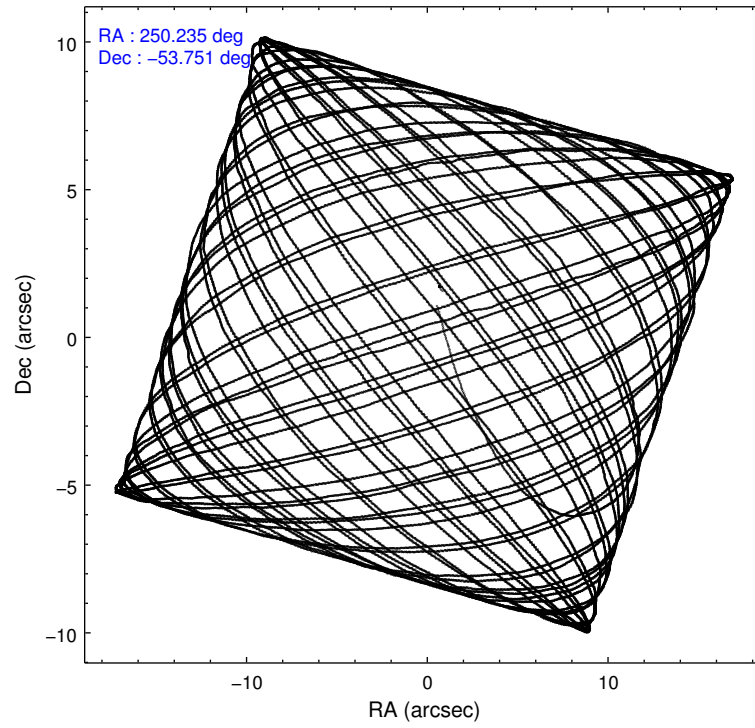
### 2.1.3 Events

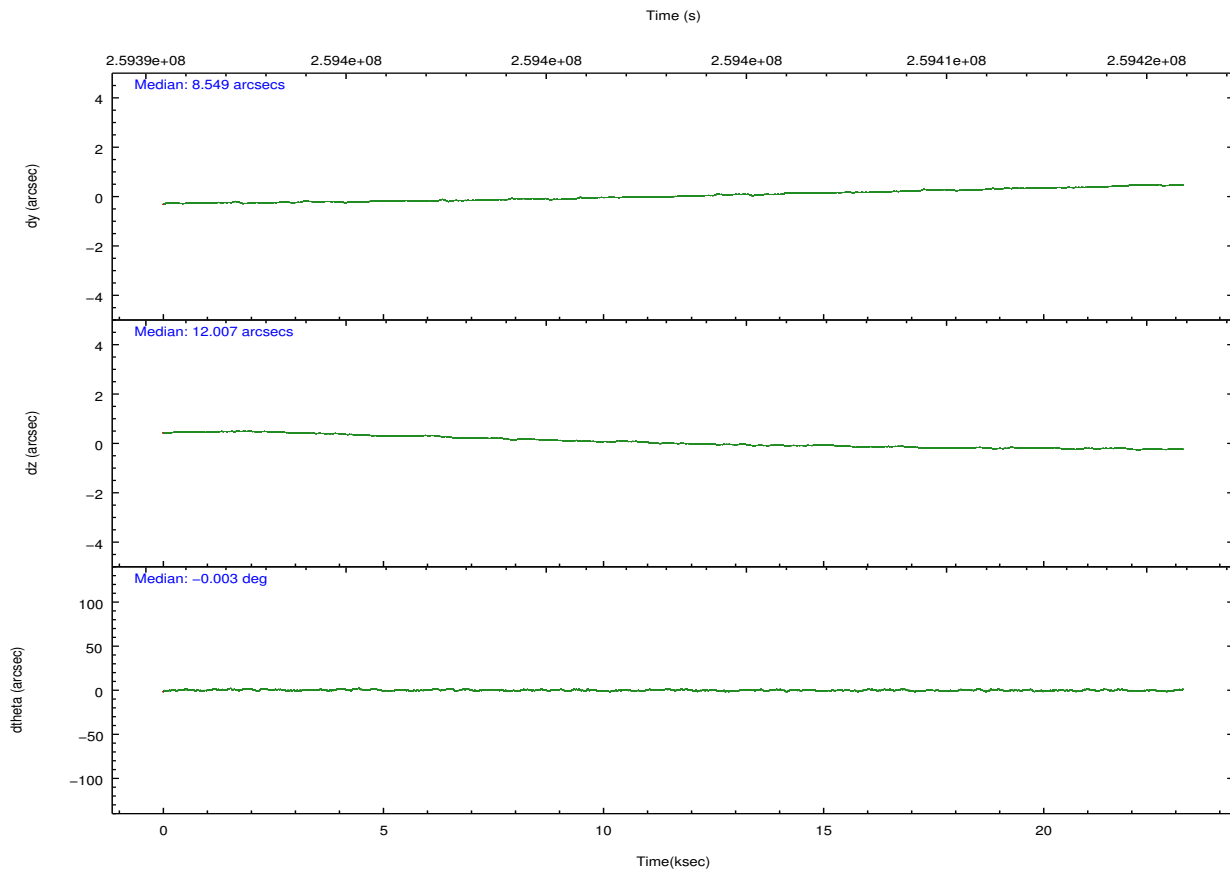
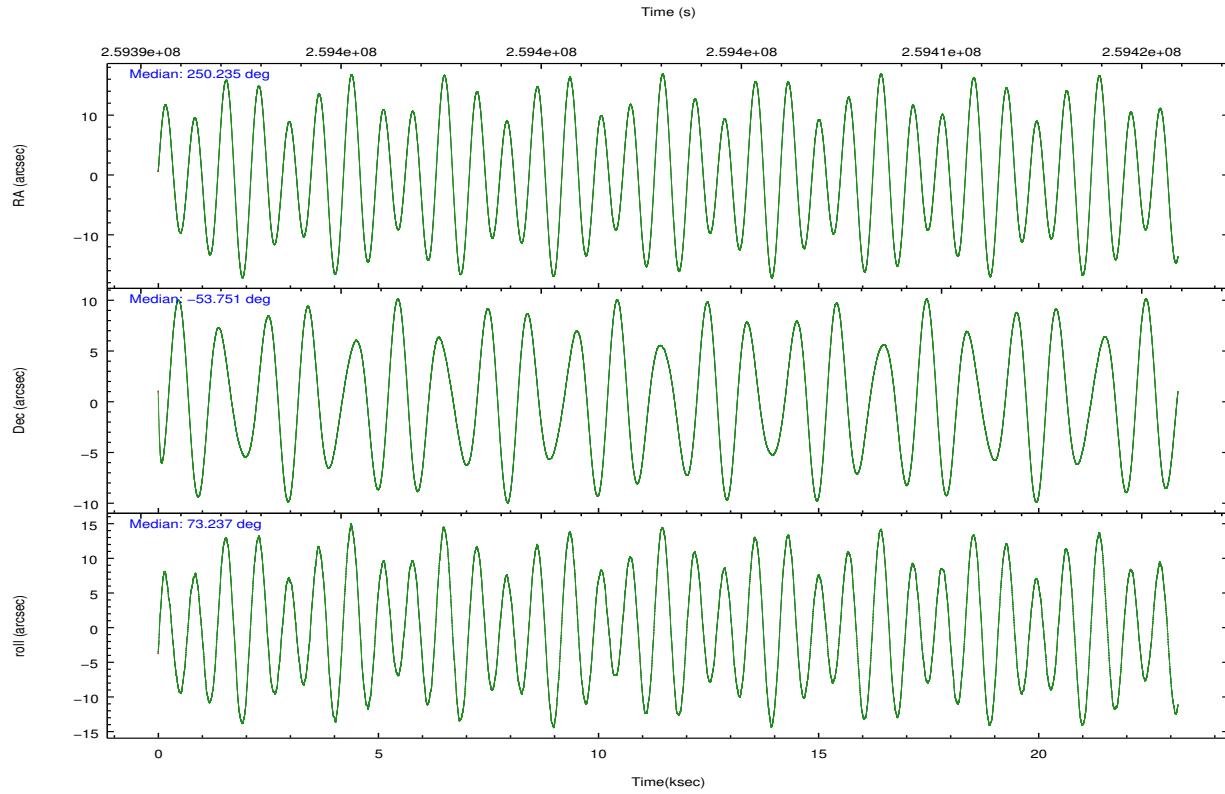
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	51965	252743	273455	367100	182021	57905	grade 0 events	4389	51165	88664	49633	78483	6100
rejected events	8494	21325	12385	23891	14878	10032		8%	20%	32%	13%	43%	10%
rejected %	16%	8%	4%	6%	8%	17%	grade 1 events	138	218	334	365	431	147
								0%	0%	0%	0%	0%	0%
							grade 2 events	20964	72802	131687	101328	45435	22657
								40%	28%	48%	27%	24%	39%
							grade 3 events	4951	5958	8383	26094	10896	4571
								9%	2%	3%	7%	5%	7%
							grade 4 events	5088	5726	8228	26234	10656	4849
								9%	2%	3%	7%	5%	8%
							grade 5 events	7545	16988	9950	19727	12342	9021
								14%	6%	3%	5%	6%	15%
							grade 6 events	8890	99886	26209	143719	23778	10560
								17%	39%	9%	39%	13%	18%
							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	250.245721	250.2345670459992	Subarray requested	NONE	NONE
[deg] Pointing Dec	-53.777097	-53.75068345002806	Alternating exposures requested	N	N
[deg] Pointing Roll	73.097675	73.24529949677705	[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)	259391746.184000	259390834.78767			
Observation start date	2006-03-22T05:14:41	2006-03-22T05:00:34			
[s] Observation end time (MET)	259414746.184000	259415414.80131			
Observation end date	2006-03-22T11:38:01	2006-03-22T11:50:14			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



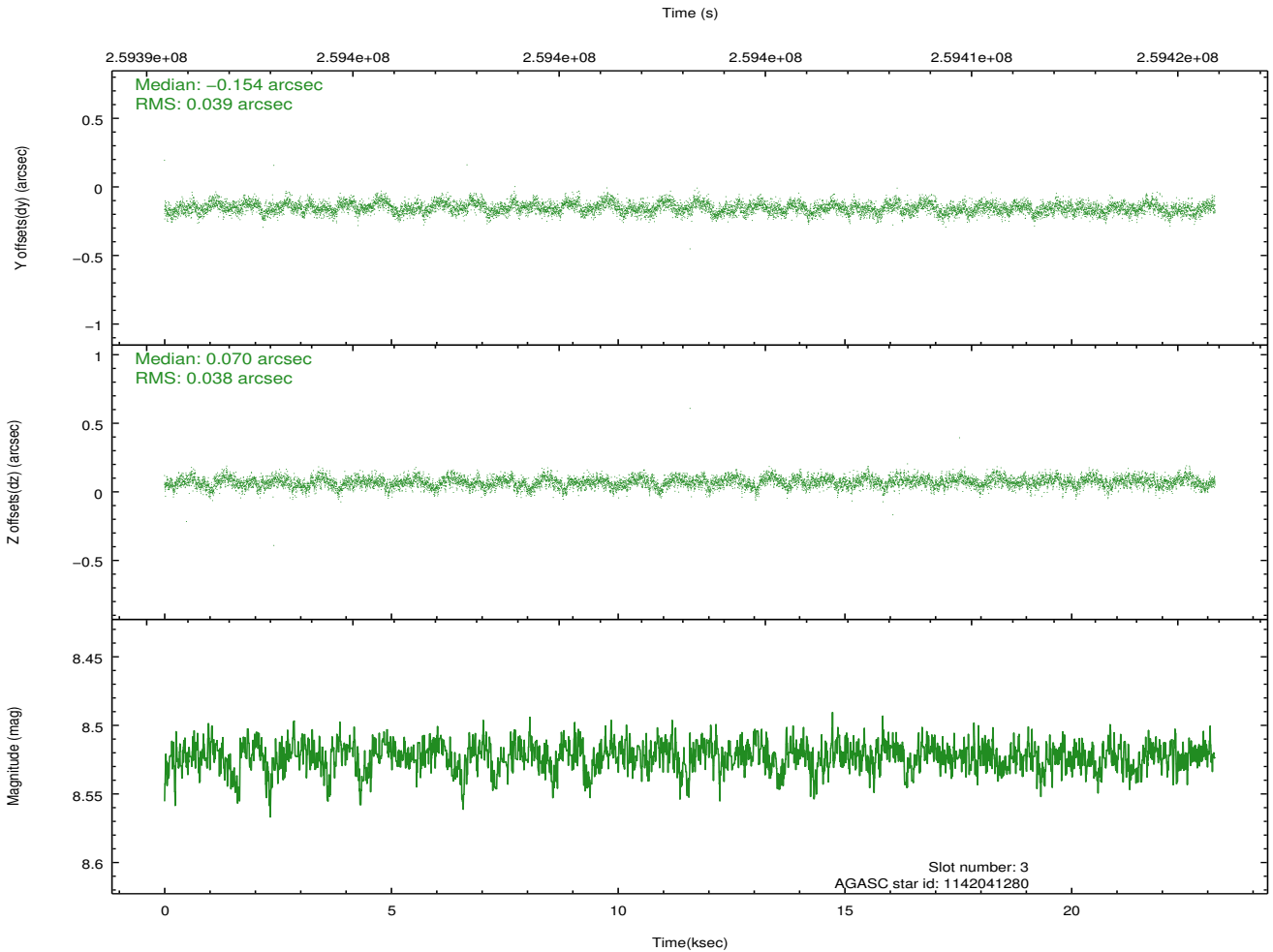
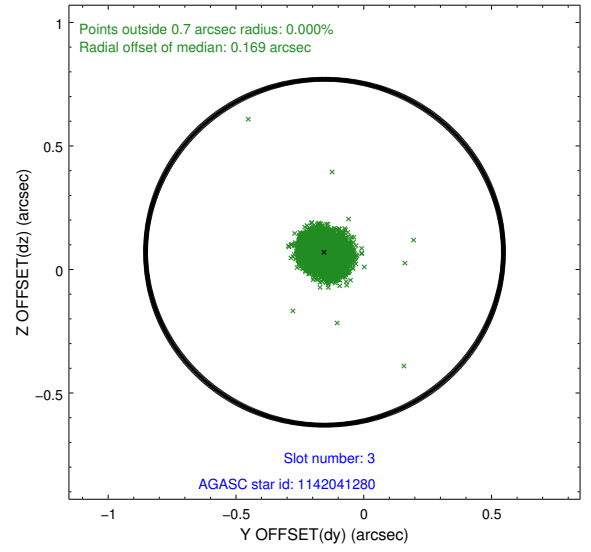
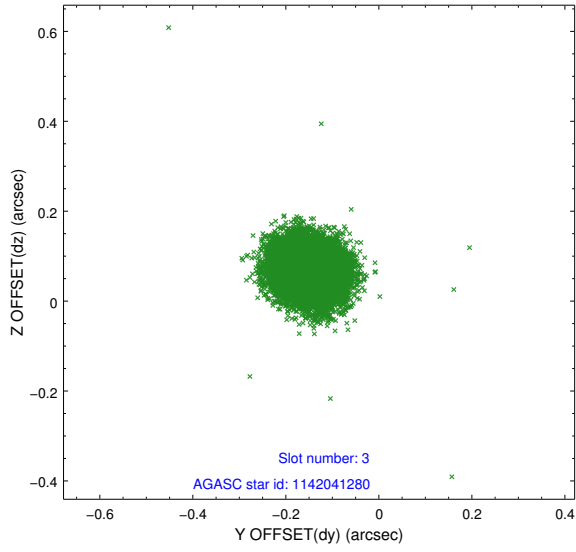


### Slot Statistics

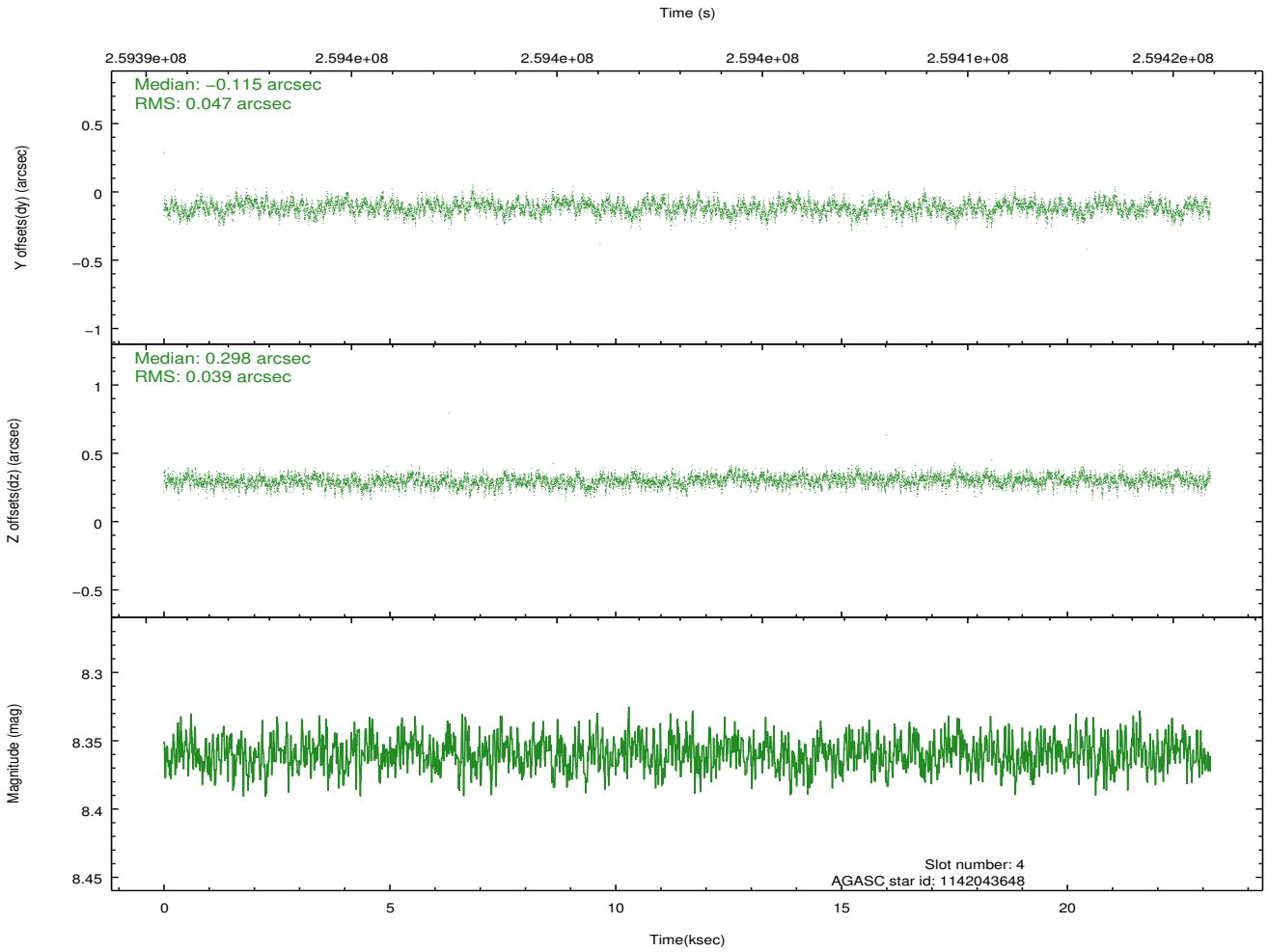
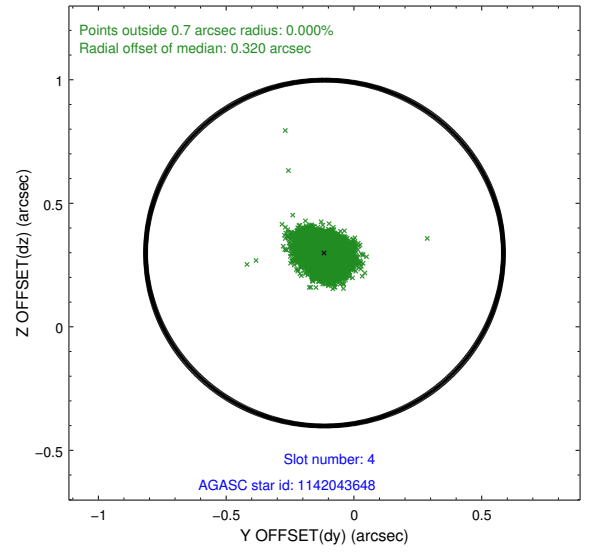
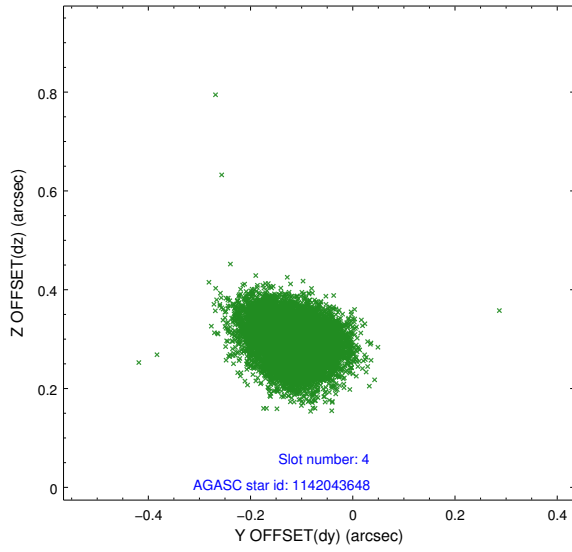
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.08	5650	-0.082	-0.148	0.019	0.027	0.000000	0.000000	-760.96	-1887.89
1	FID	ACIS-S-4	7.17	5649	0.125	0.080	0.012	0.021	0.000000	0.000000	2152.49	20.59
2	FID	ACIS-S-5	7.23	5651	-0.073	0.078	0.016	0.022	0.000000	0.000000	-1813.59	14.49
3	GUIDE	1142041280	8.52	11299	-0.154	0.070	0.057	0.092	250.607191	-53.463271	1304.52	-413.02
4	GUIDE	1142043648	8.36	11301	-0.115	0.298	0.064	0.104	250.954624	-53.491932	1416.78	-1155.90
5	GUIDE	1142047448	8.71	11295	-0.166	0.083	0.092	0.149	250.987986	-53.236686	2318.80	-966.62
6	GUIDE	1141906056	8.65	11297	0.192	-0.223	0.090	0.151	248.981002	-53.983893	-1513.18	2337.63
7	GUIDE	1141915632	8.01	11301	0.238	-0.226	0.059	0.096	249.175229	-53.921117	-1172.20	2015.54

## 2.4 Star Slots

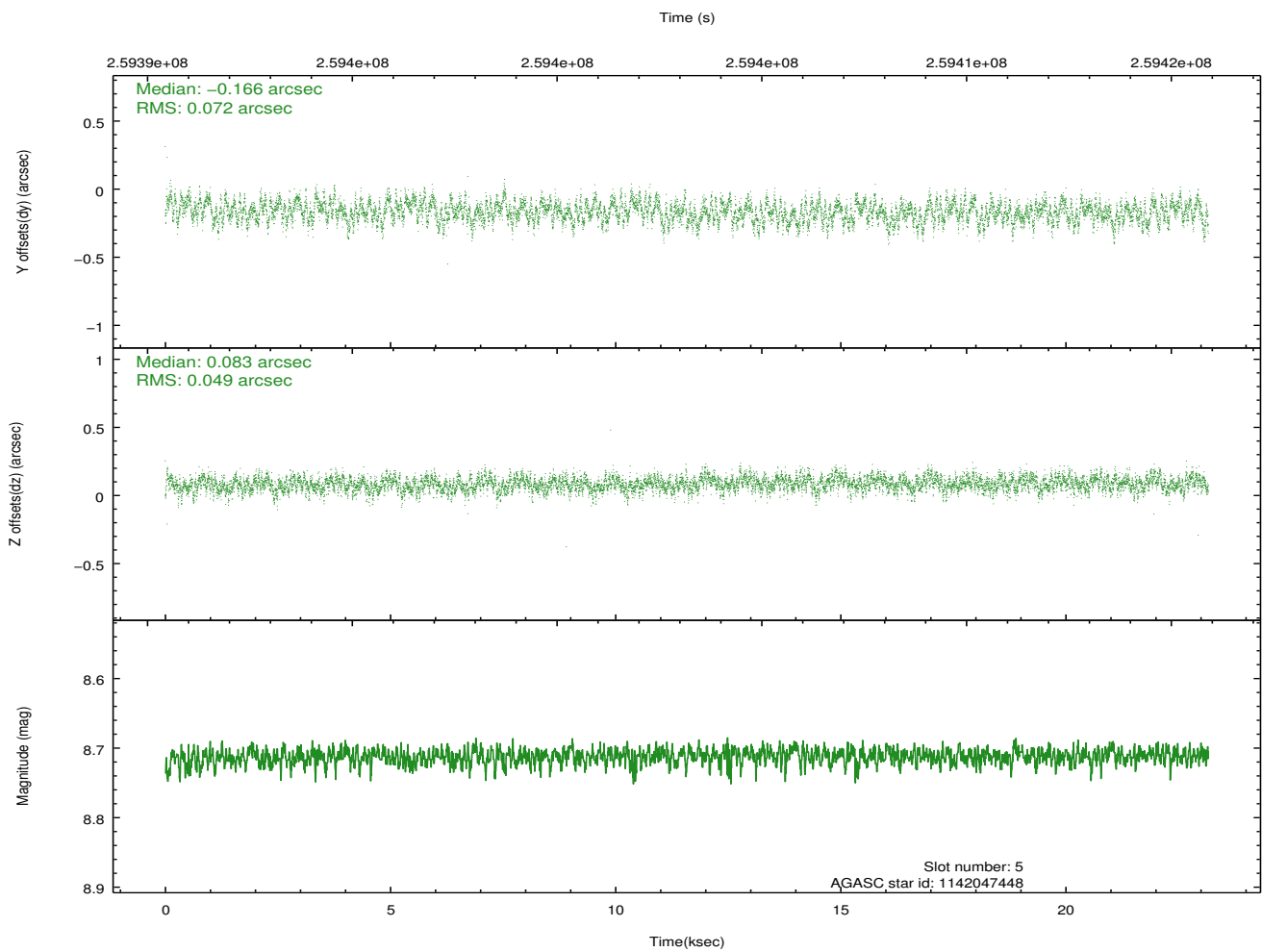
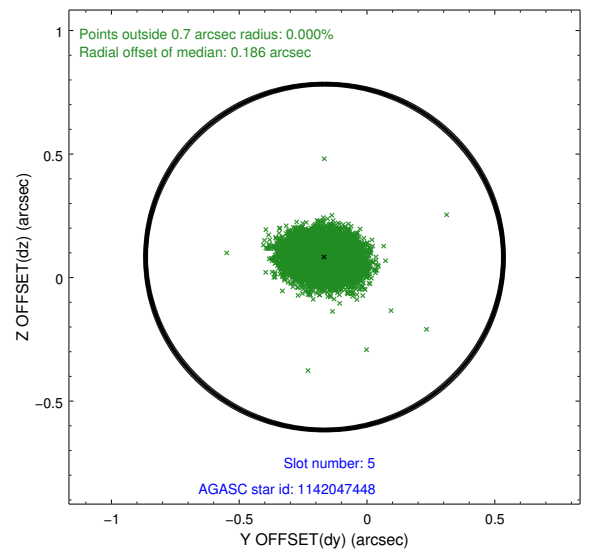
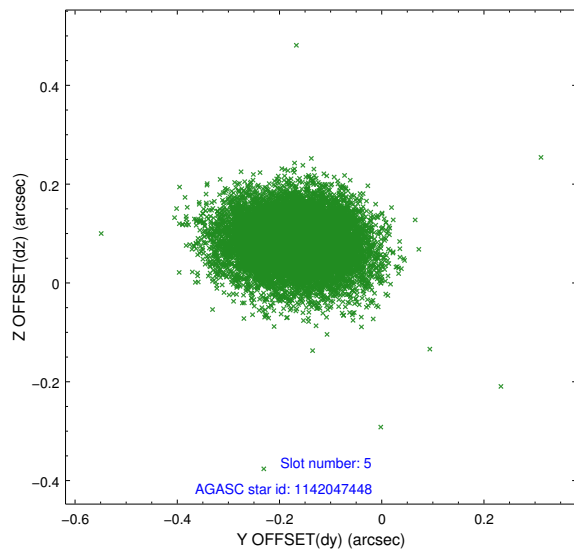
### 2.4.1 Slot 3



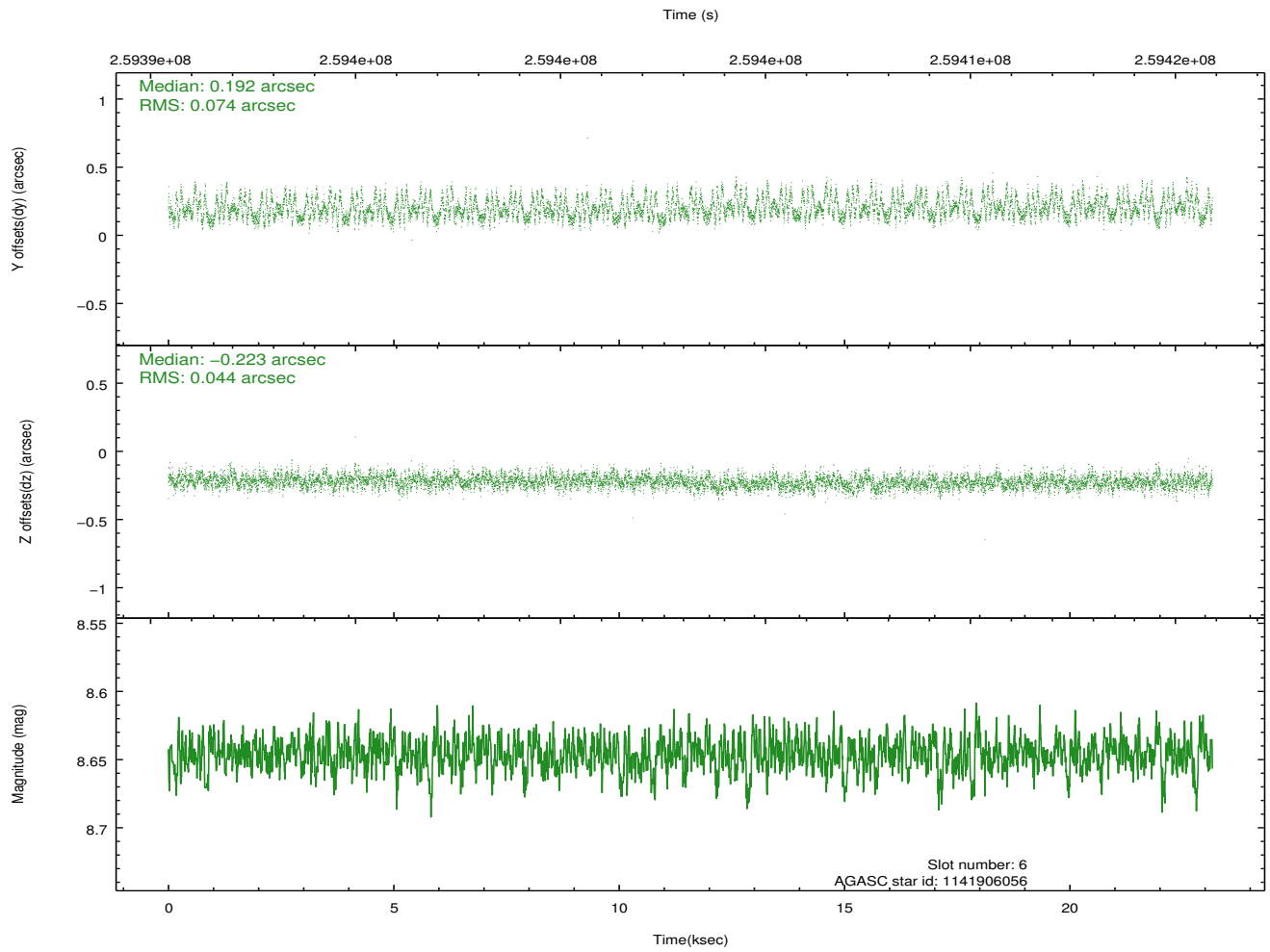
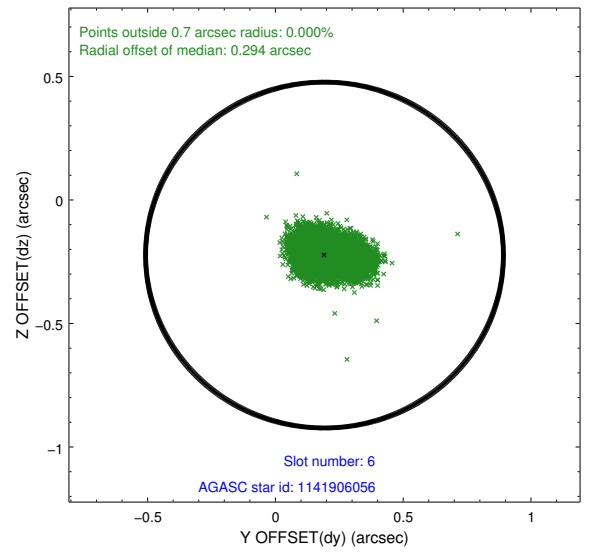
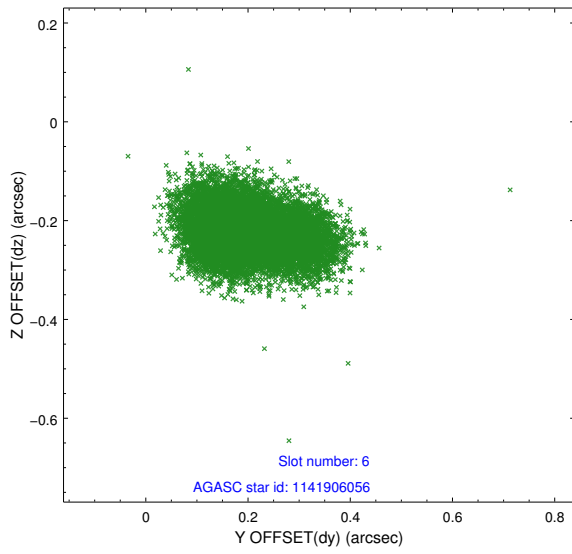
## 2.4.2 Slot 4



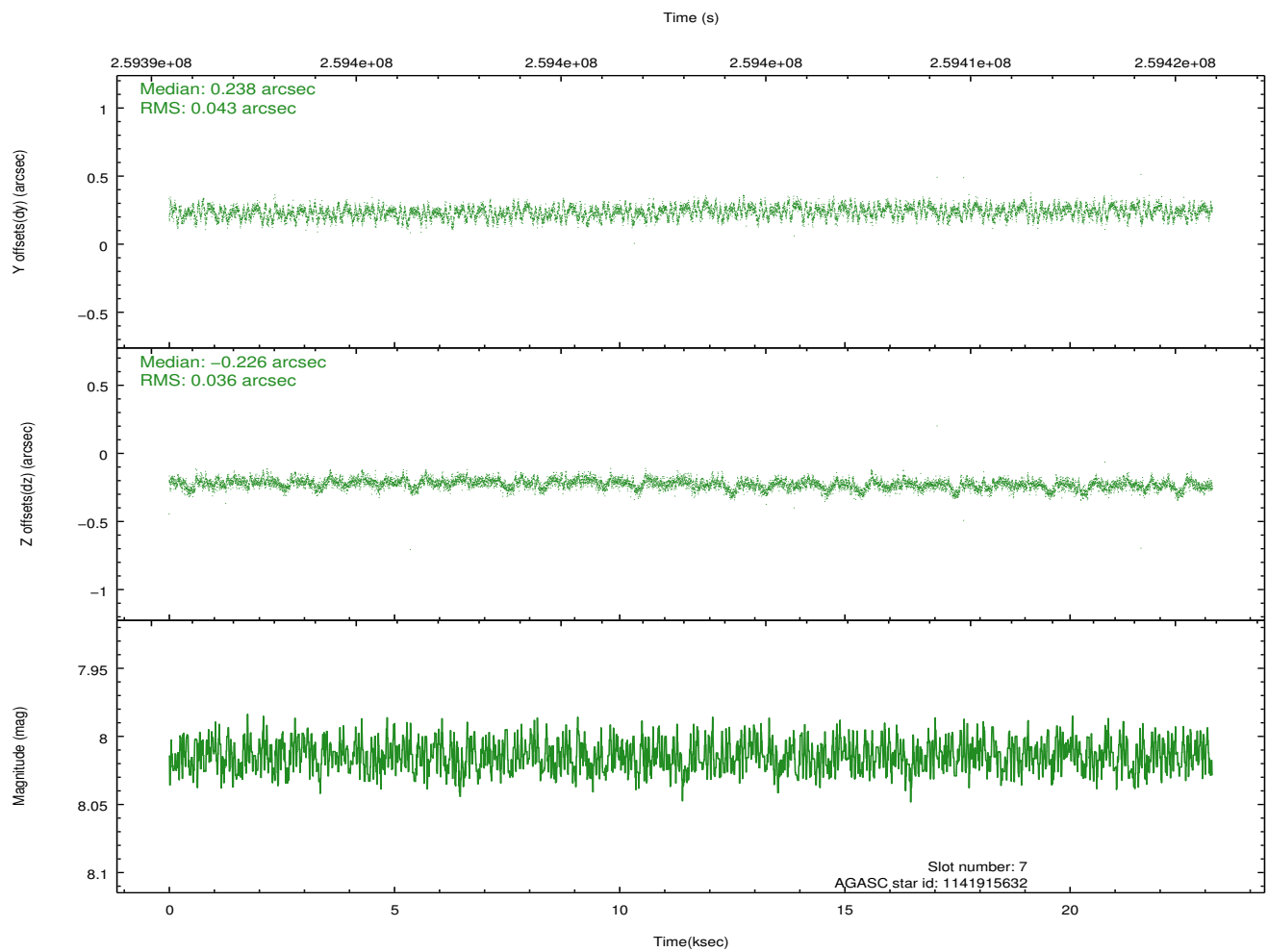
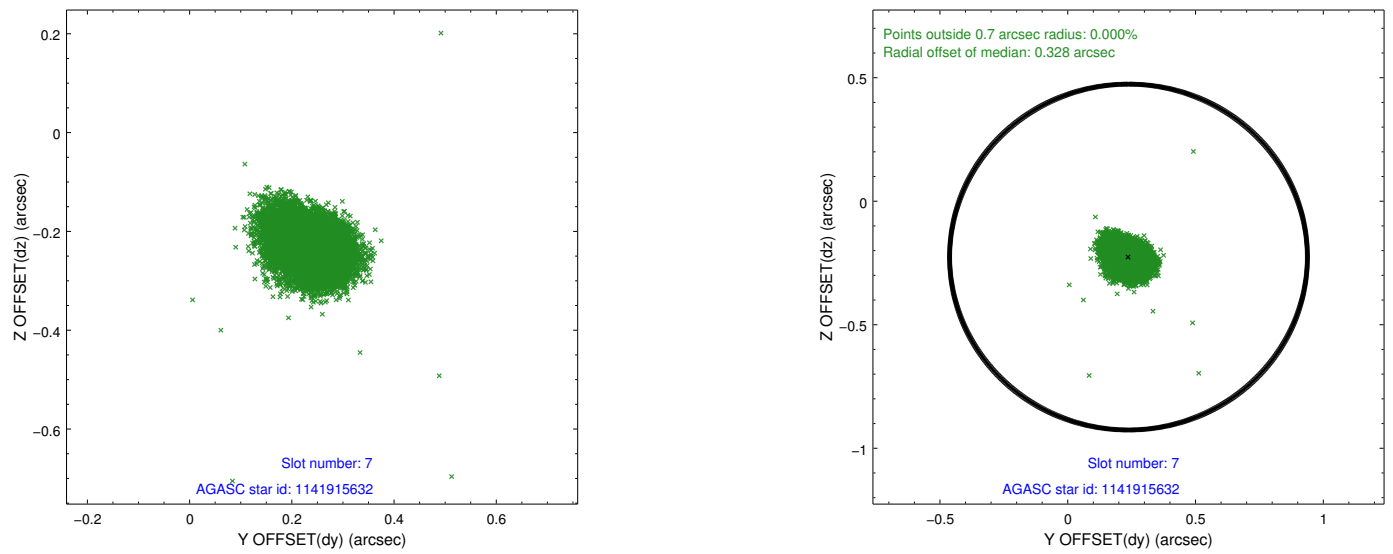
### 2.4.3 Slot 5



## 2.4.4 Slot 6

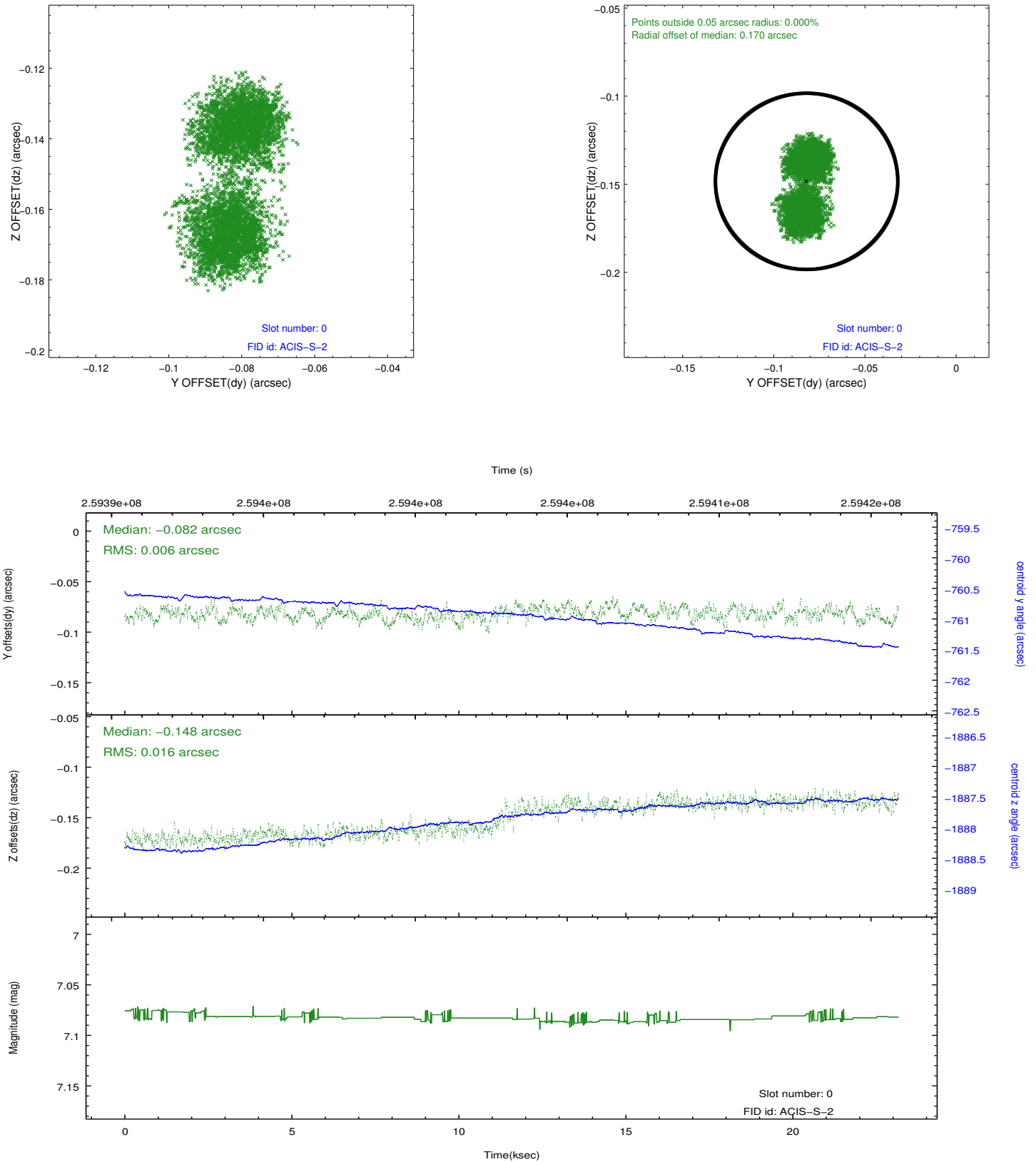


## 2.4.5 Slot 7

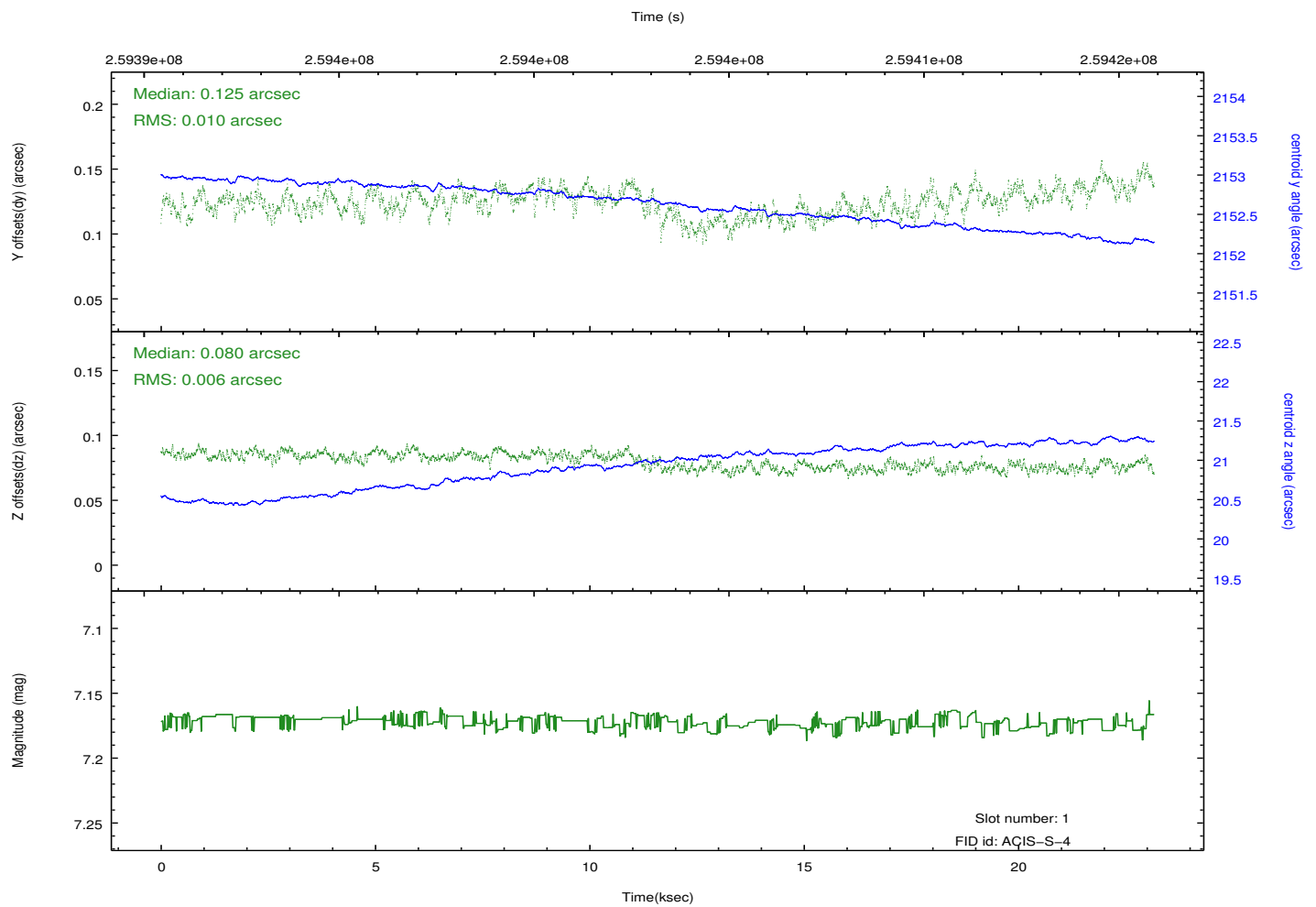
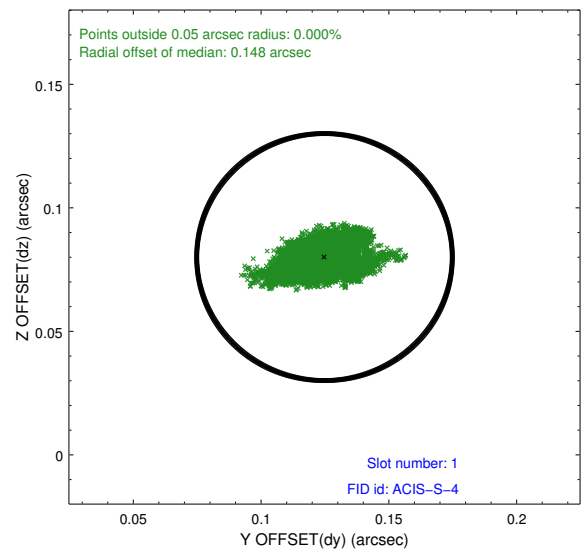
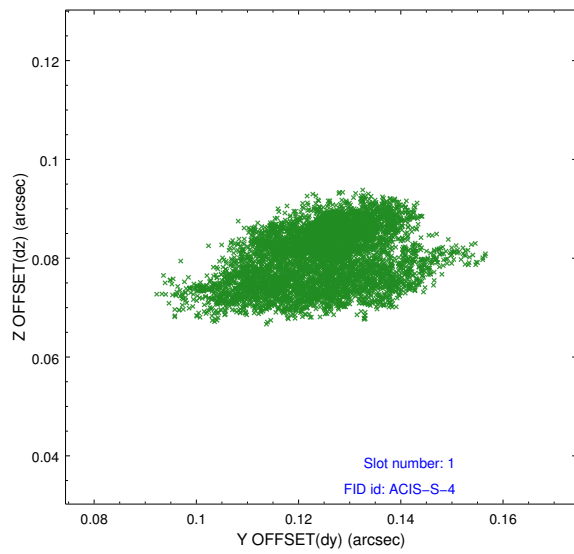


## 2.5 FID Slots

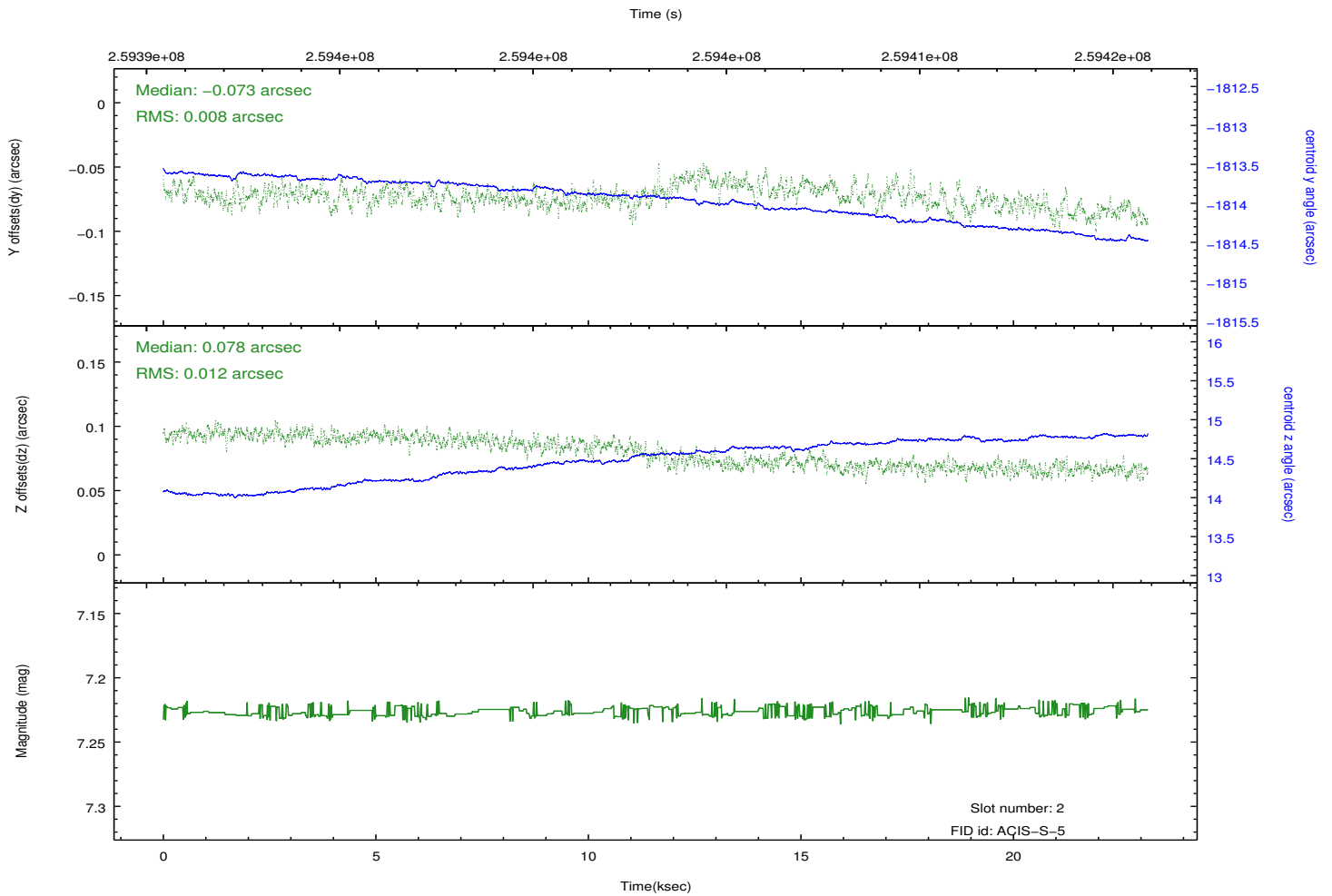
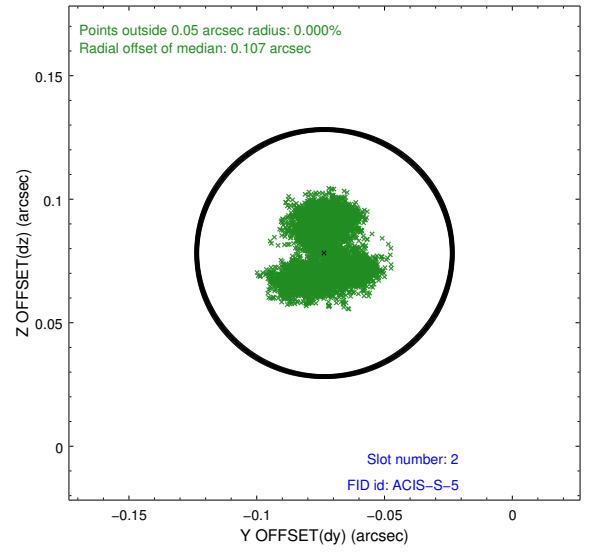
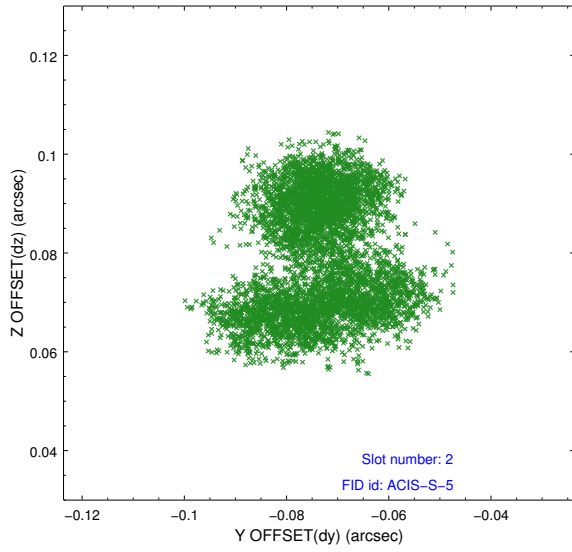
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

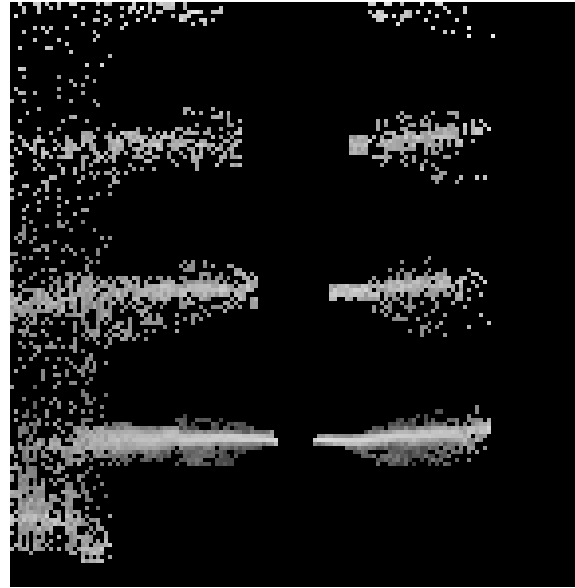


# 3 Gratings

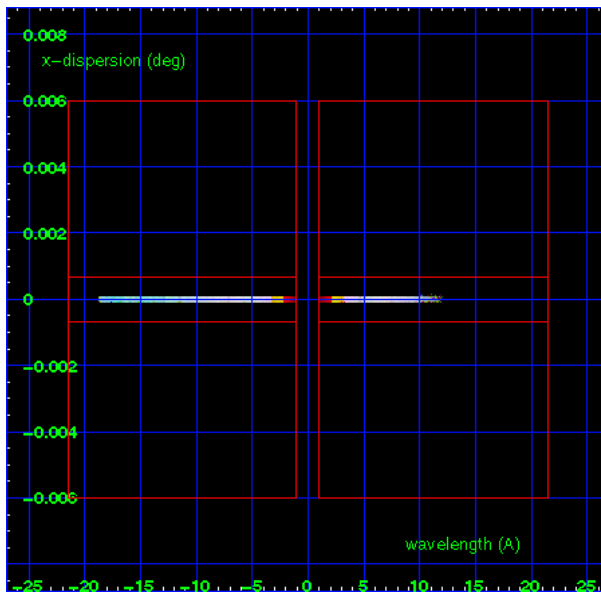
## 3.1 HEG Arm



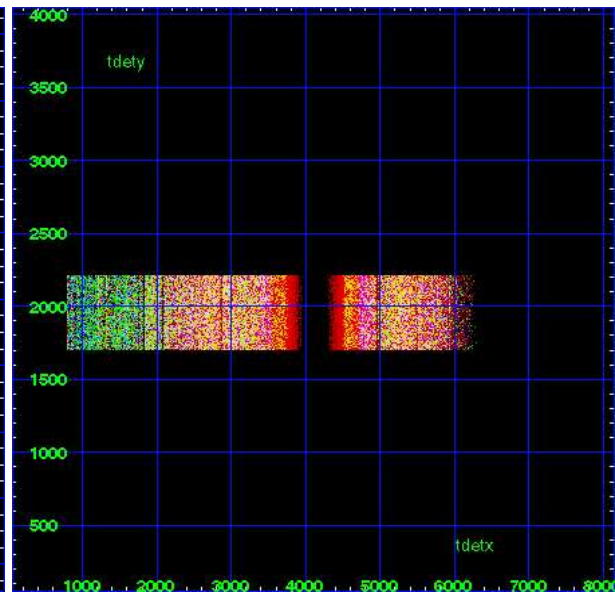
HEG Order Sort 123



HEG Order Sort ALL

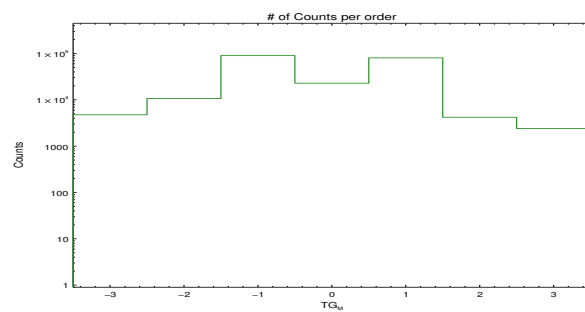


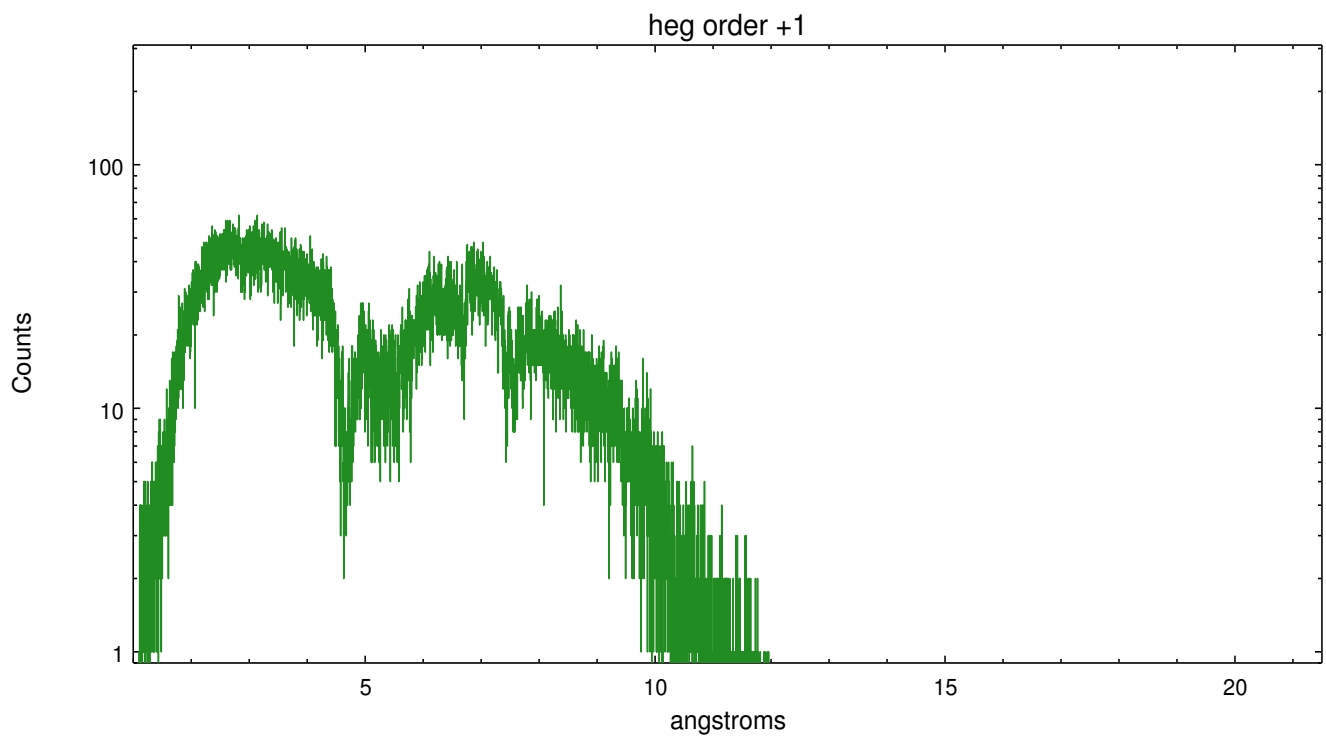
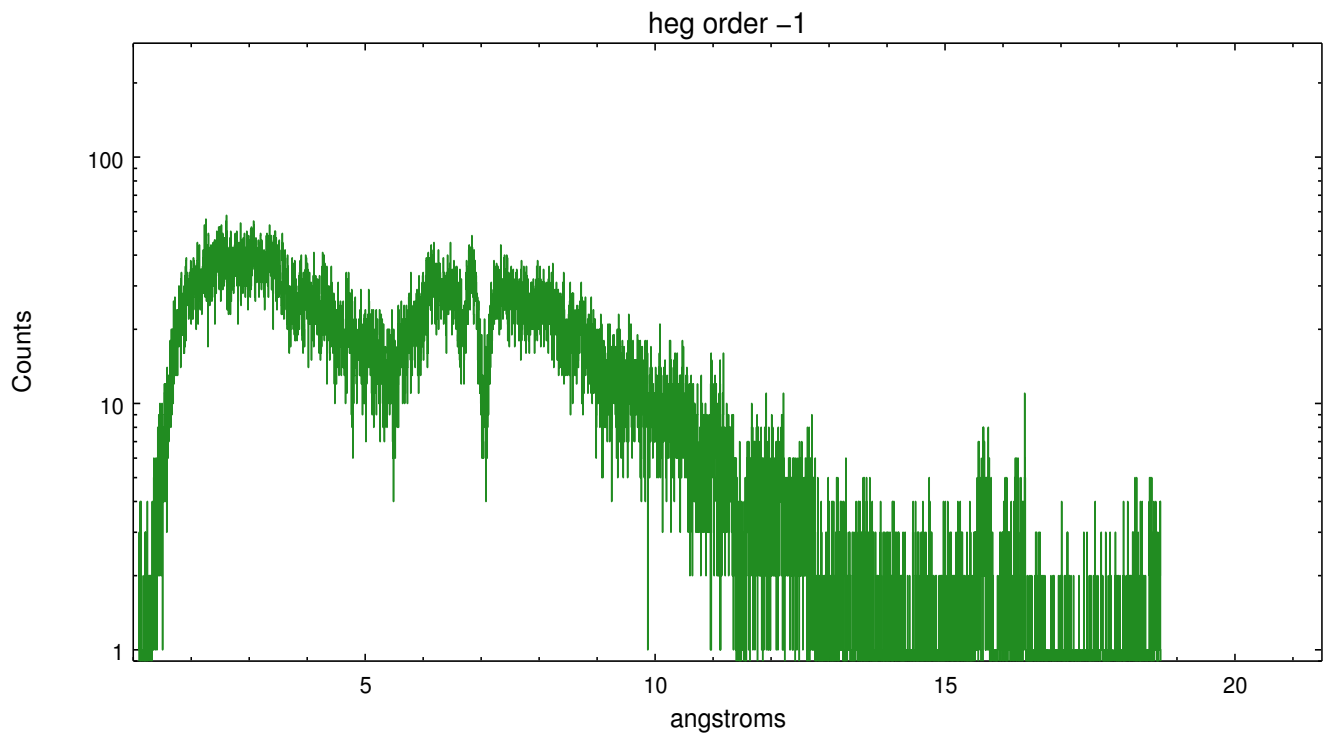
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	4751	10726	90008	22882	80560	4215	2400

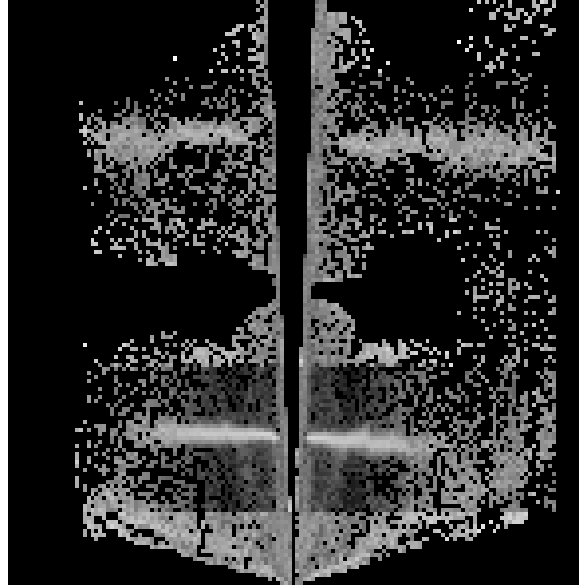




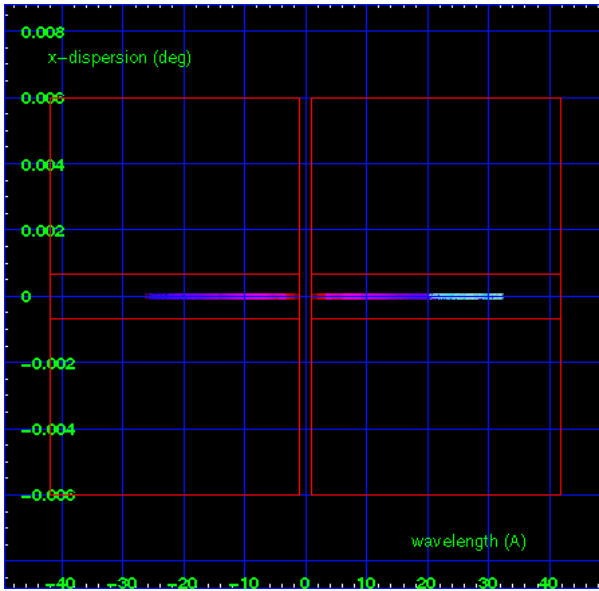
### 3.2 MEG Arm



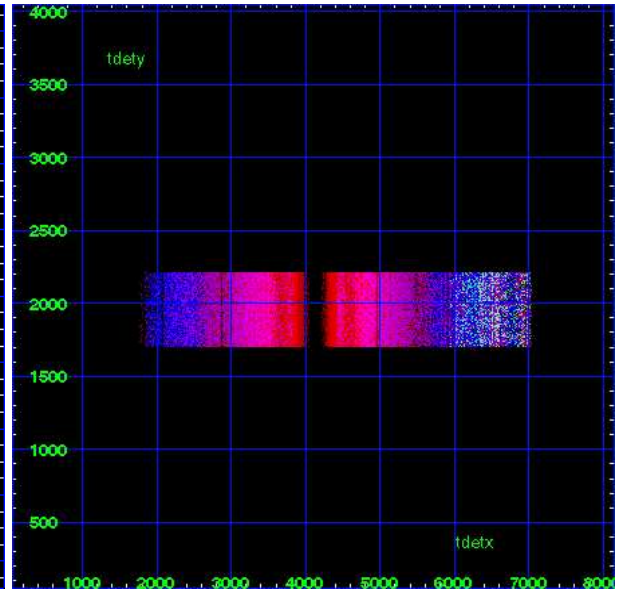
MEG Order Sort 123



MEG Order Sort ALL

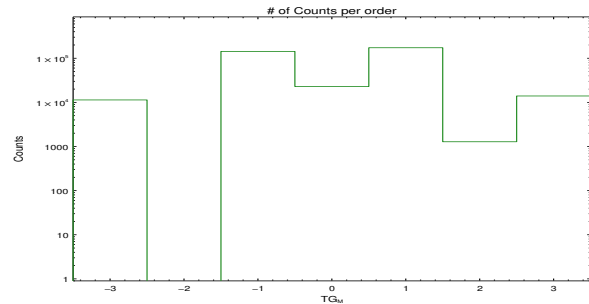


Spot Image MEG

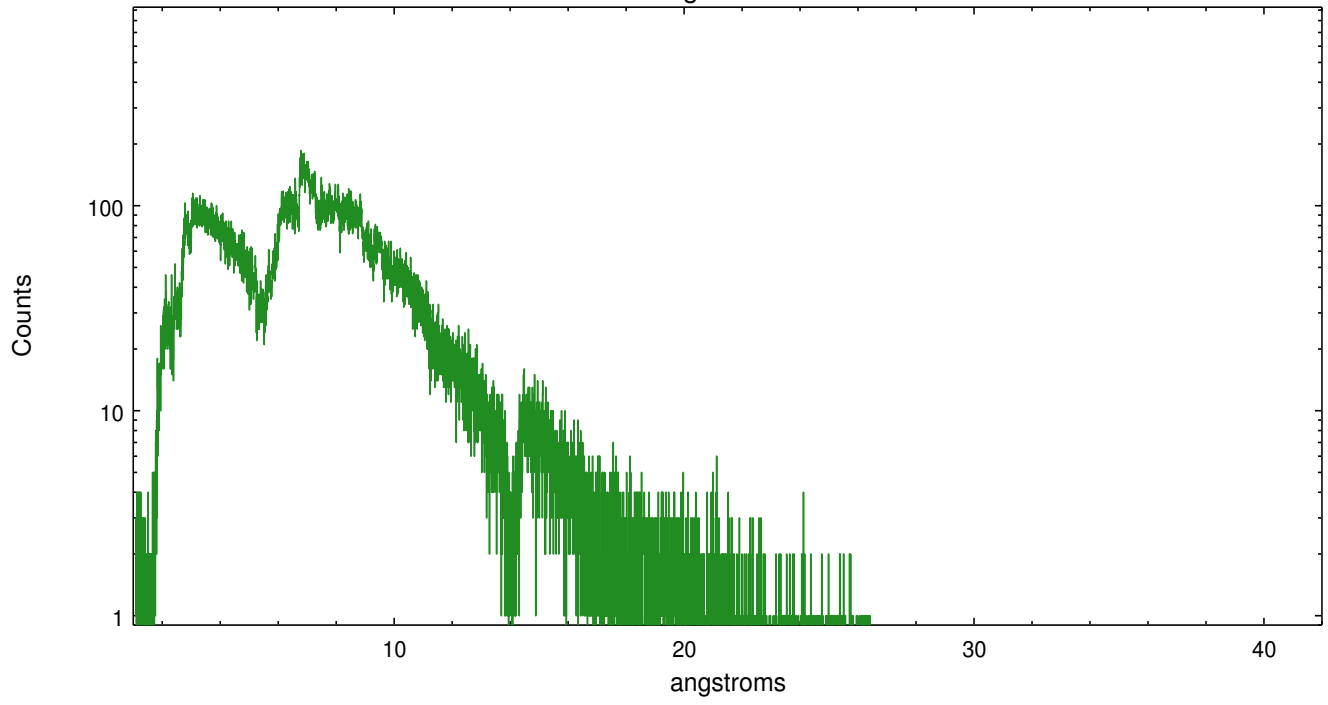


Full Detector MEG

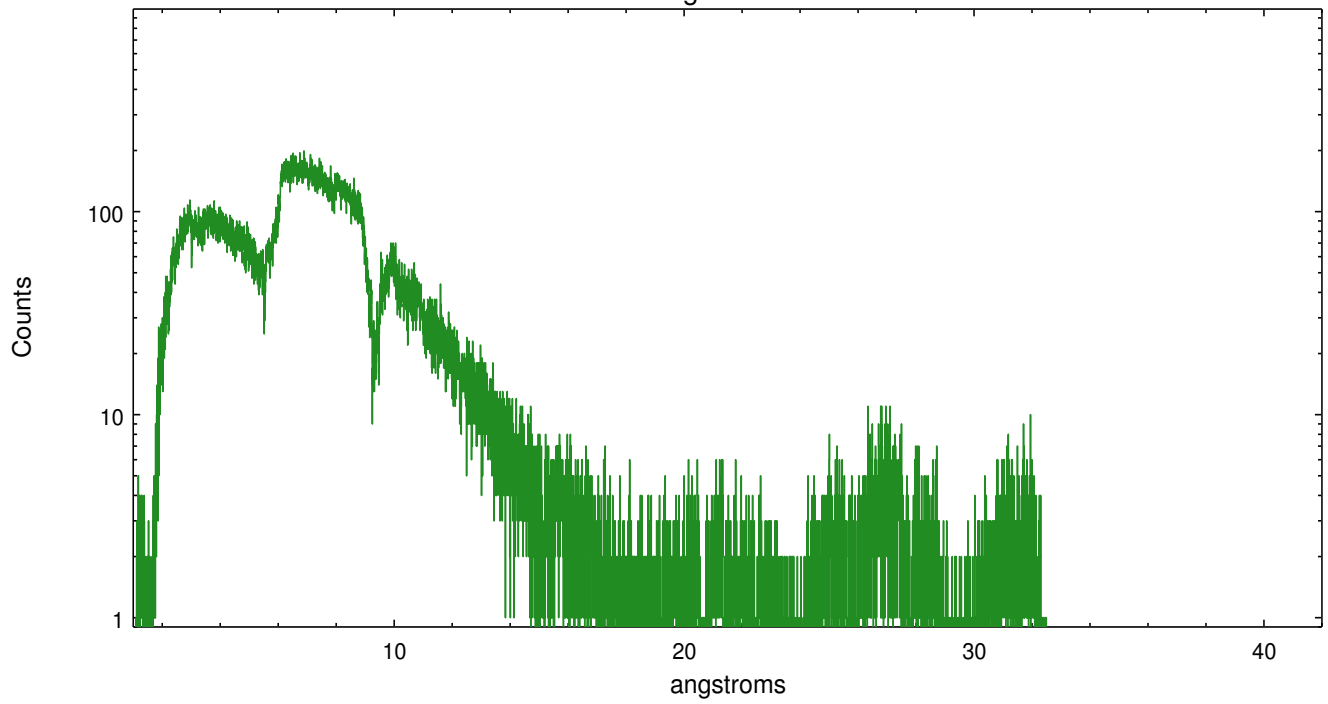
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	11364	0	143064	22882	173327	1282	13973



meg order -1



meg order +1



# A Summary

## A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.03.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.16175

## A.2 Comments