

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11818 - L2 Version 2  
Chandra X-Ray Center

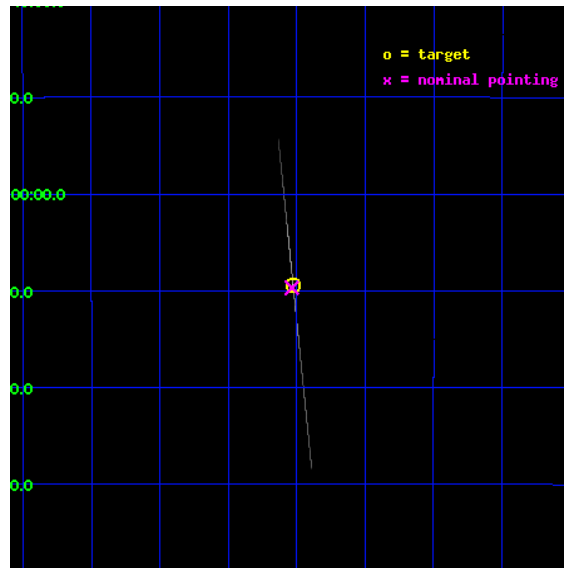
L2 Processing Date : Jul 1 2012

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# 1 Front

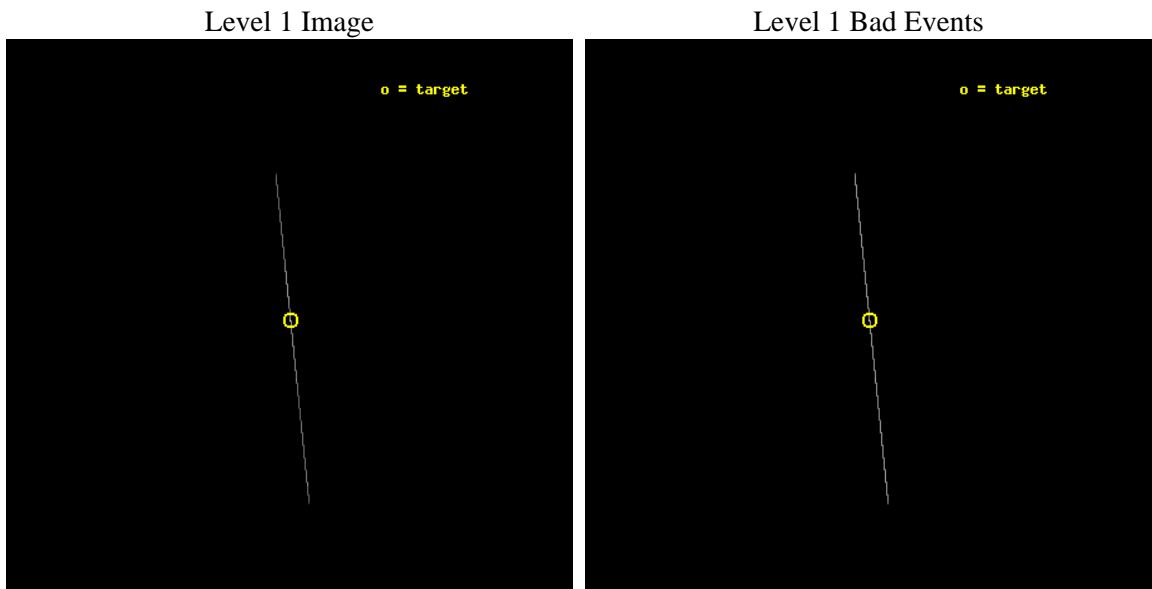
seq_num	401134	Sequence number
obs_id	11818	Observation id
title	Observe Bright Atol Sources at High Mass Accretion Rates	Proposal
observer	Prof Claude Canizares	Principal investigator
object	GX 13+1	Source name
ra_targ	273.631667	Observer's specified target RA [deg]
dec_targ	-17.157417	Observer's specified target Dec [deg]
ra_nom	273.63386051594	Nominal RA [deg]
dec_nom	-17.161792465435	Nominal Dec [deg]
roll_nom	264.11607013247	Nominal Roll [deg]
revision	2	Processing version of data
ontime	24510.159047902	Sum of GTIs [s]
livetime	24414.416239121	Livetime [s]
ontime5	30128.0	Sum of GTIs [s]
ontime6	17575.470538378	Sum of GTIs [s]
ontime7	24510.159047902	Sum of GTIs [s]
ontime8	20250.117153406	Sum of GTIs [s]
l2events	3599207	Number of level 2 events



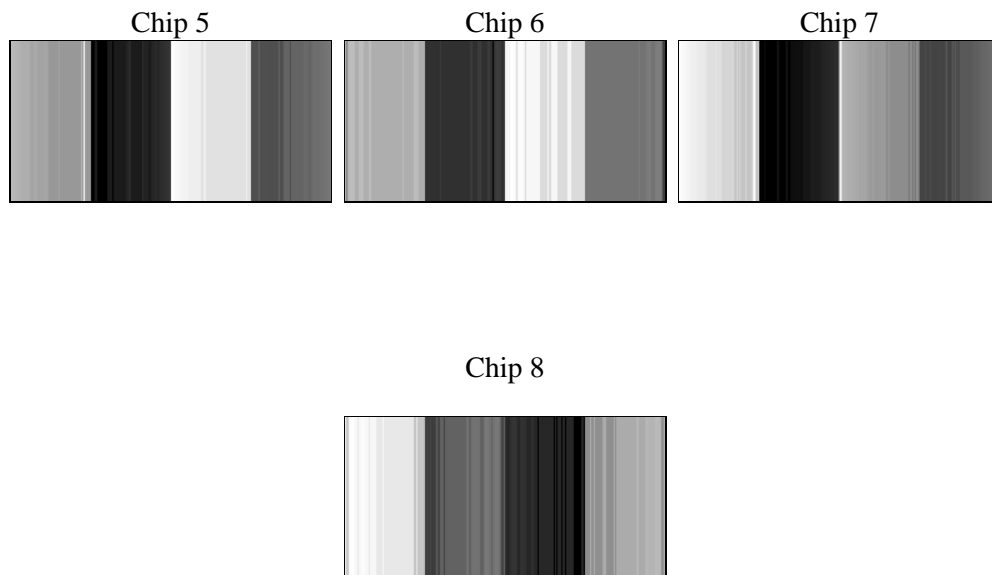
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	24510.159047902	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime5	30128.0	Sum of GTIs [s]
date	2012-07-01T03:44:38	Date and time of file creation	ontime6	17575.470538378	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	24510.159047902	Sum of GTIs [s]
			ontime8	20250.117153406	Sum of GTIs [s]
			l1events	5278610	Number of level 1 events

### 2.1.4 Events

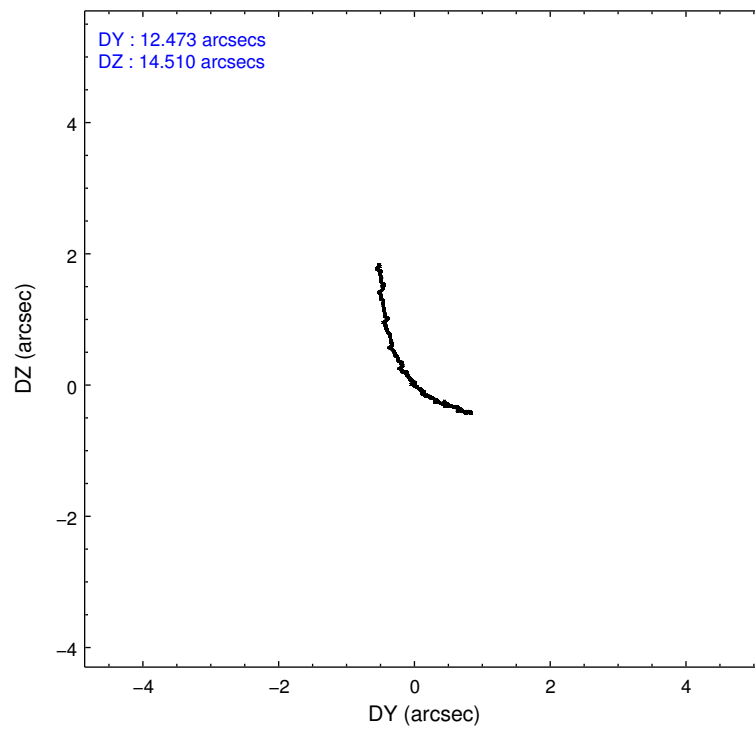
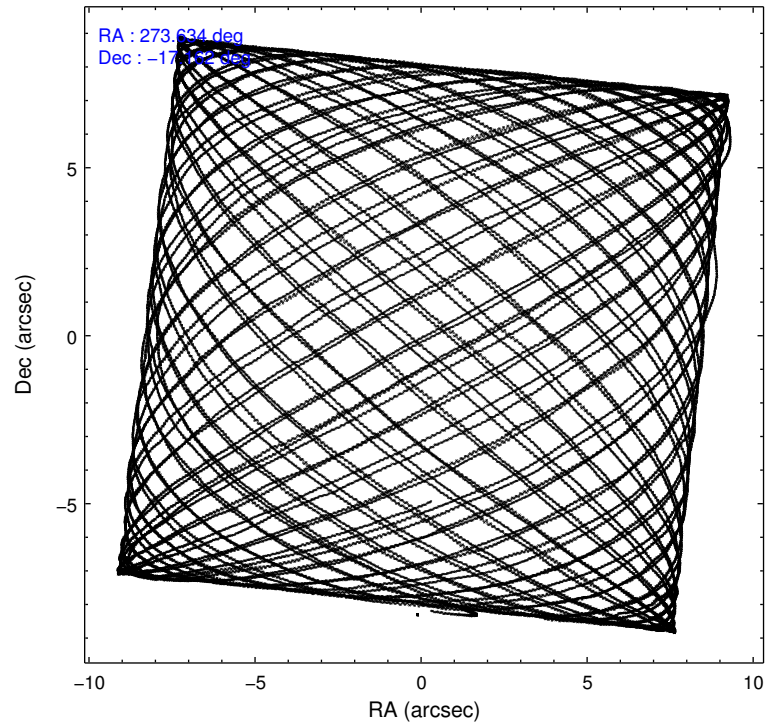
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	613615	861811	3263182	540002
rejected events	290083	244959	619564	318274
rejected %	47%	28%	18%	58%

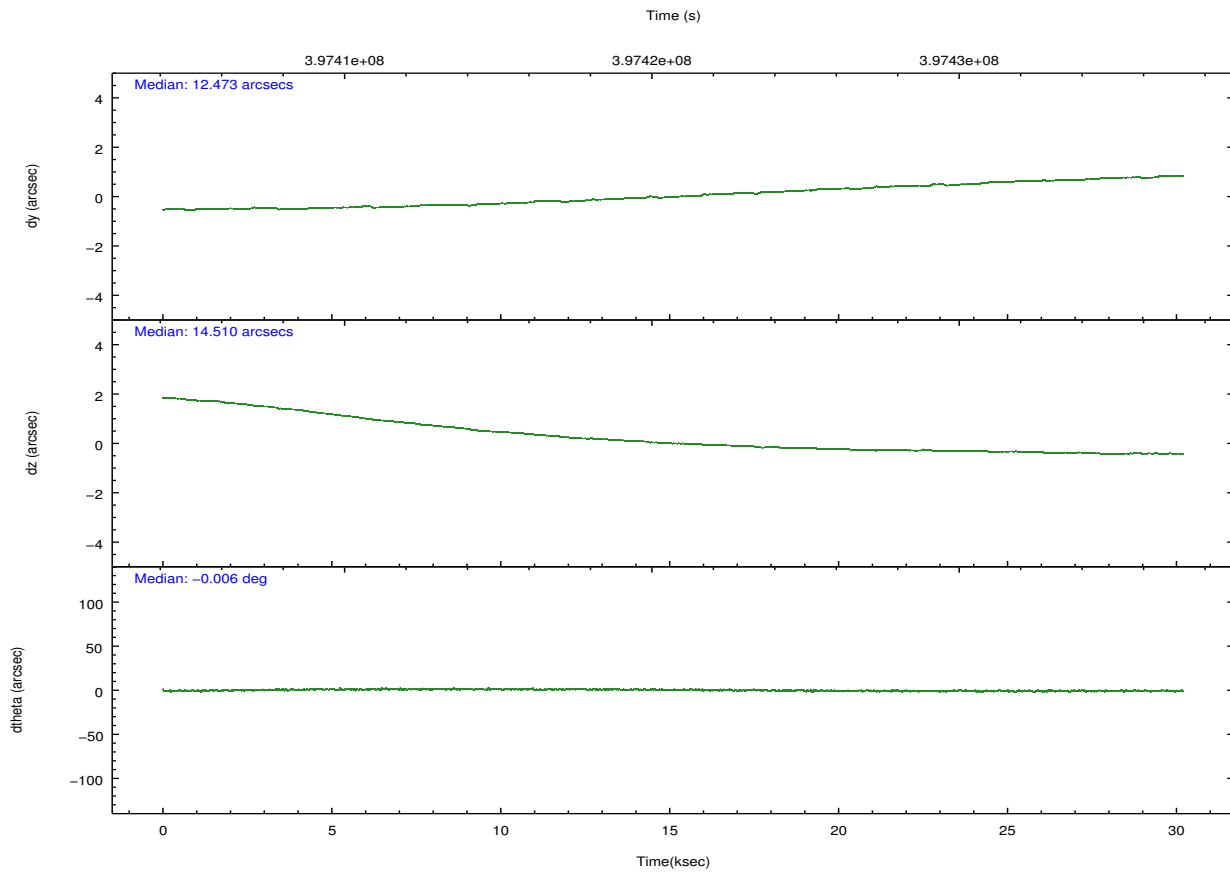
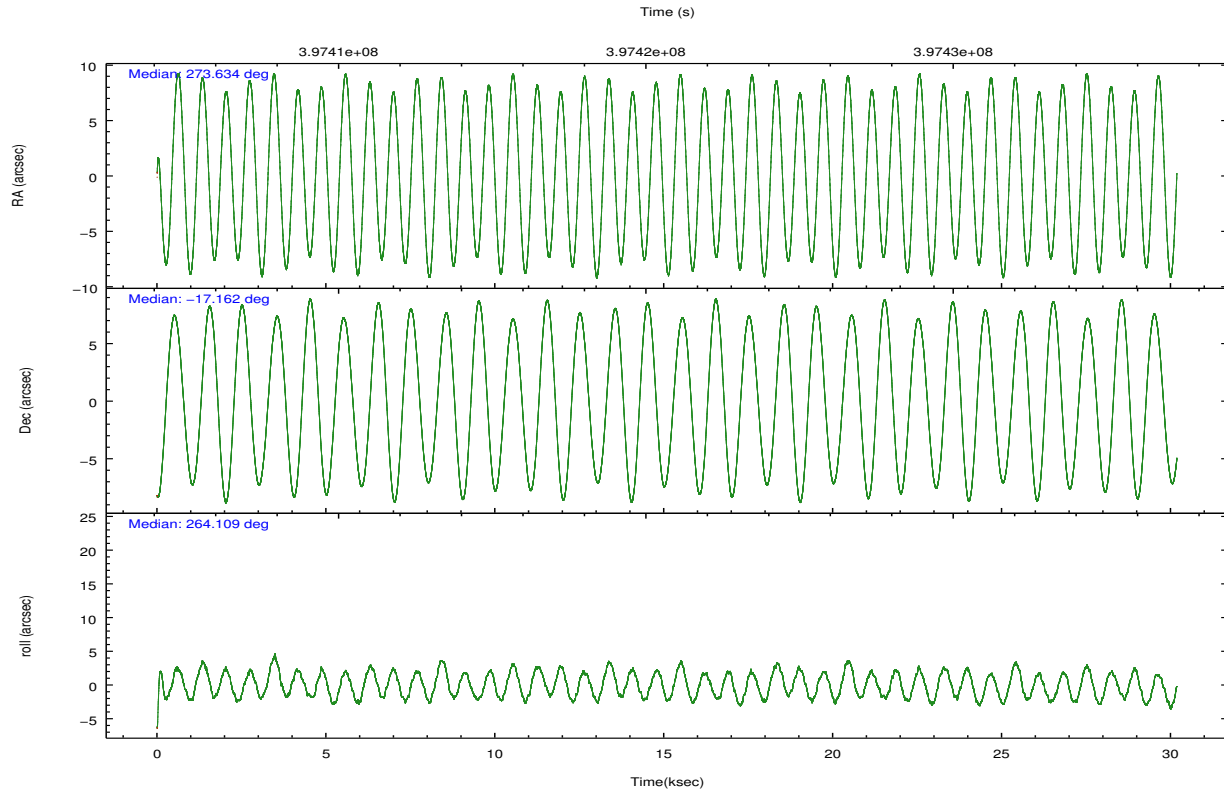
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	70918	113119	435584	100652
	11%	13%	13%	18%
grade 1 events	427	472	27148	590
	0%	0%	0%	0%
grade 2 events	109272	416686	707449	72212
	17%	48%	21%	13%
grade 3 events	8276	8813	244518	11743
	1%	1%	7%	2%
grade 4 events	8138	8759	237868	11781
	1%	1%	7%	2%
grade 5 events	23299	9347	139190	10500
	3%	1%	4%	1%
grade 6 events	126976	69488	1018502	25368
	20%	8%	31%	4%
grade 7 events	266309	235127	452923	307156
	43%	27%	13%	56%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	273.621824	273.6338605159393	Subarray requested	NONE	NONE
[deg] Pointing Dec	-17.136978	-17.16179246543487	Alternating exposures requested	N	N
[deg] Pointing Roll	263.955894	264.1160701324704	[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	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	397405792.184000	397404645.13825			
Observation start date	2010-08-05T14:28:46	2010-08-05T14:10:45			
[s] Observation end time (MET)	397435792.184000	397436577.98988			
Observation end date	2010-08-05T22:48:46	2010-08-05T23:02:57			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



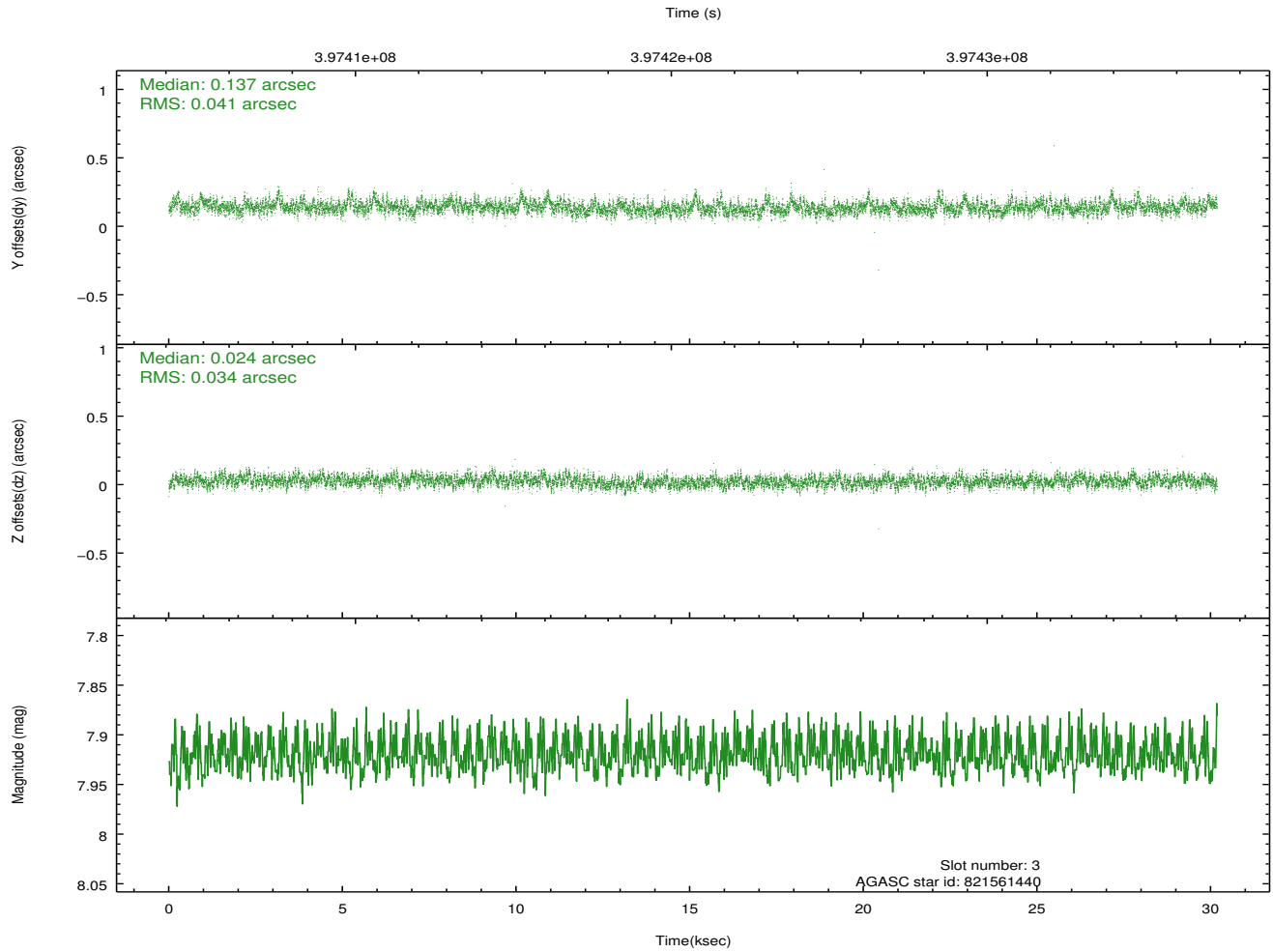
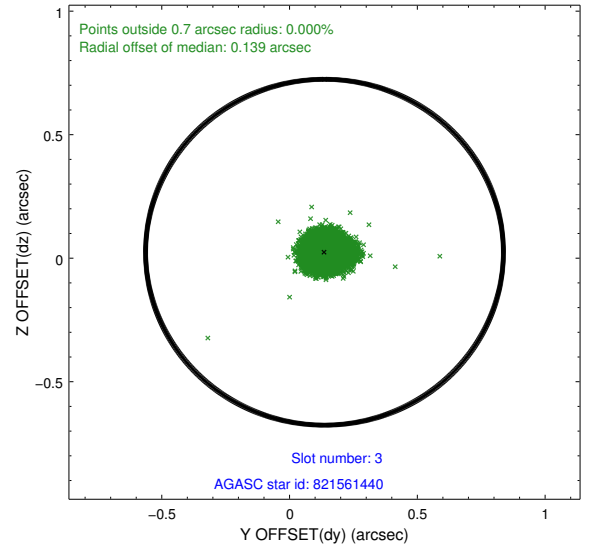
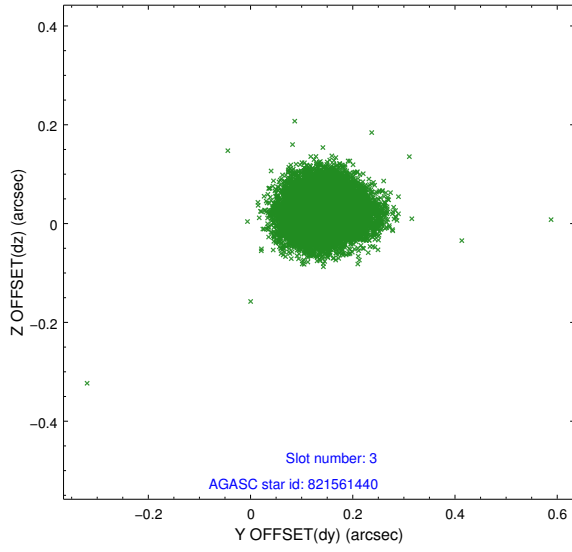


### Slot Statistics

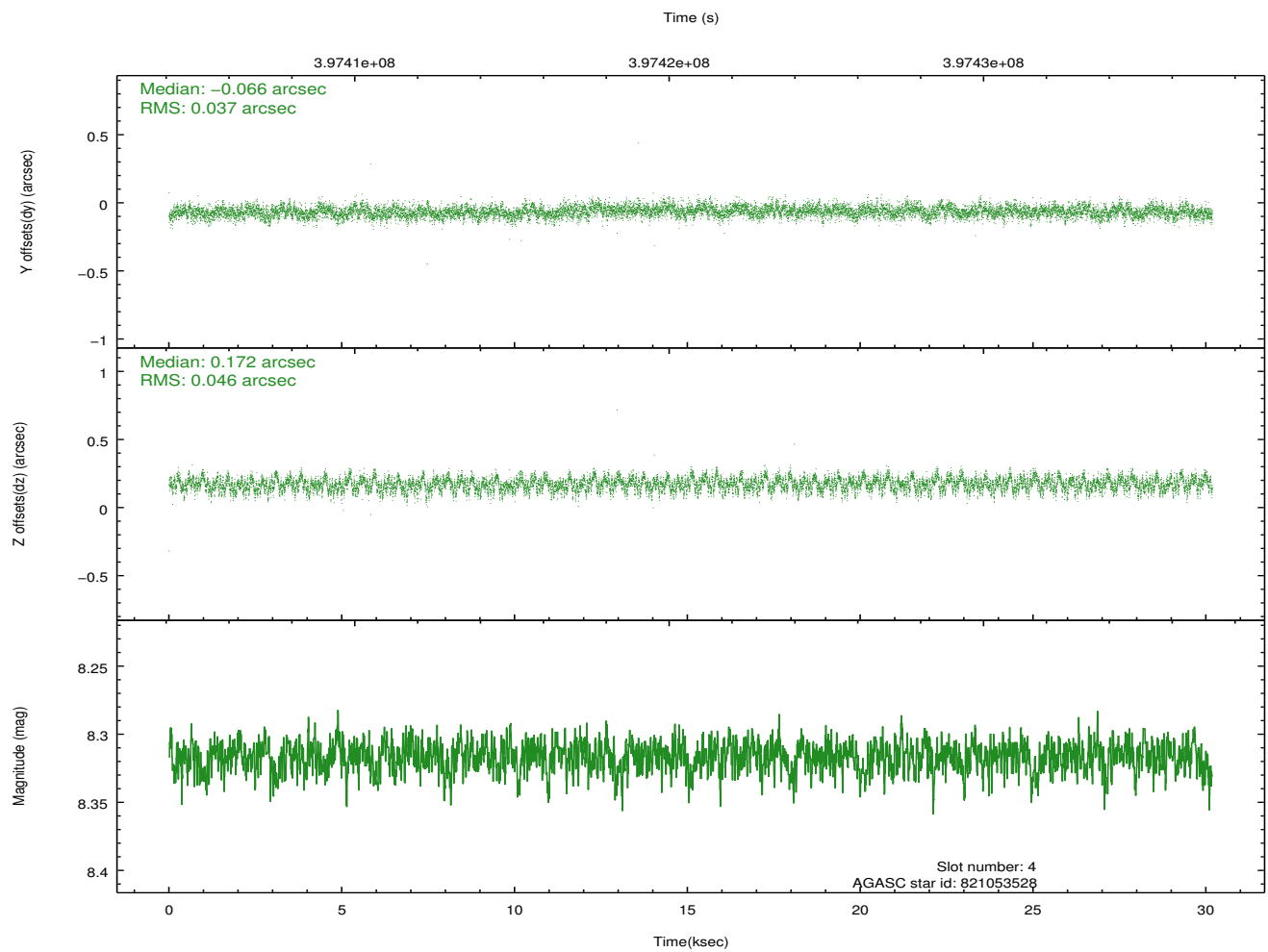
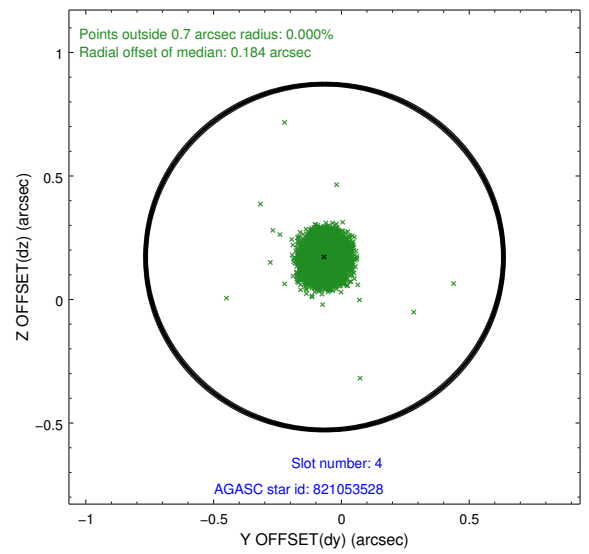
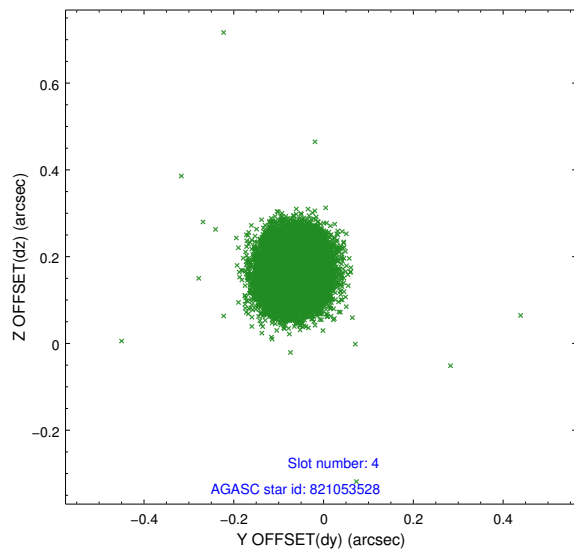
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.97	7362	0.071	0.137	0.016	0.025	0.000000	0.000000	931.28	-1896.37
1	FID	ACIS-S-2	6.89	7362	-0.149	-0.080	0.016	0.044	0.000000	0.000000	-764.80	-1901.26
2	FID	ACIS-S-6	7.17	7362	0.057	-0.058	0.029	0.055	0.000000	0.000000	396.86	644.67
3	GUIDE	821561440	7.92	14717	0.137	0.024	0.055	0.090	273.991252	-17.607934	1553.96	1439.75
4	GUIDE	821053528	8.32	14719	-0.066	0.172	0.063	0.101	273.625019	-16.498449	-2286.62	-230.95
5	GUIDE	821566976	8.45	14718	0.050	-0.088	0.085	0.130	272.948338	-16.893938	-621.46	-2398.64
6	GUIDE	821570064	6.64	14725	-0.039	0.086	0.045	0.071	273.185111	-17.414521	1153.56	-1386.08
7	GUIDE	821707704	8.95	14721	-0.085	-0.199	0.079	0.129	274.330077	-16.988328	-784.62	2368.91

## 2.4 Star Slots

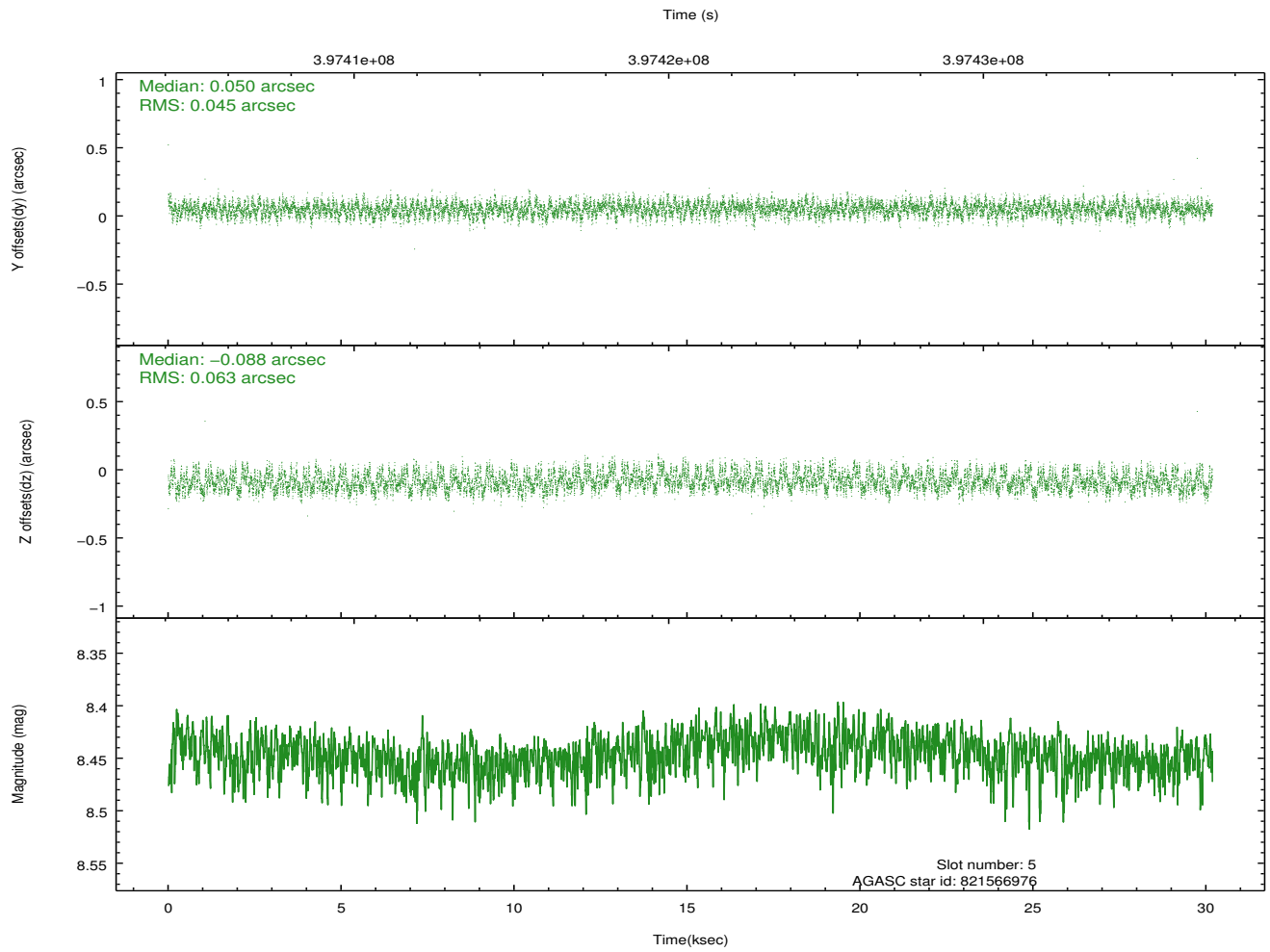
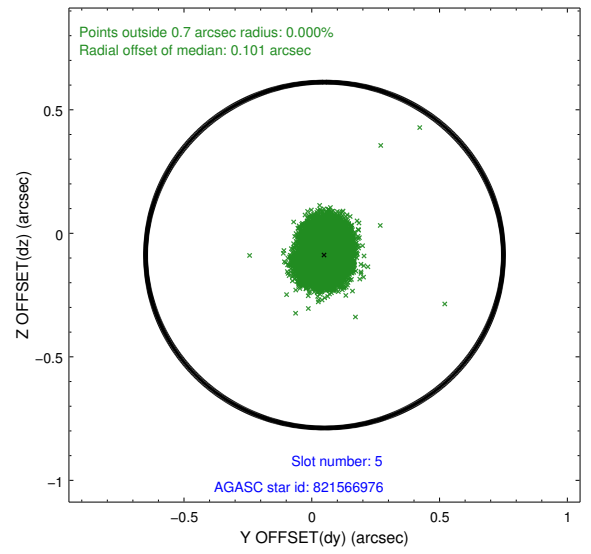
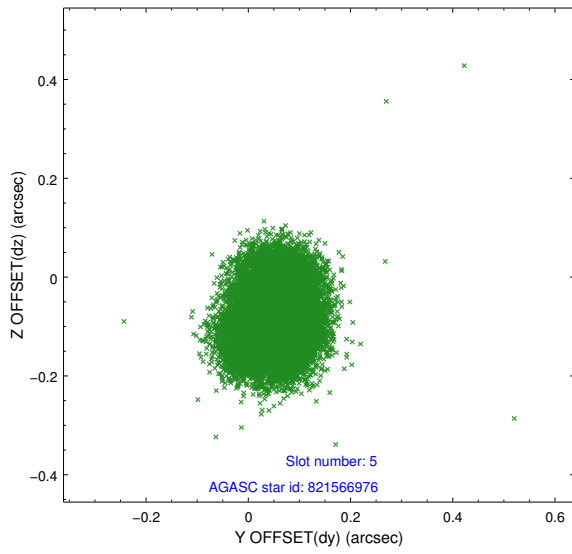
### 2.4.1 Slot 3



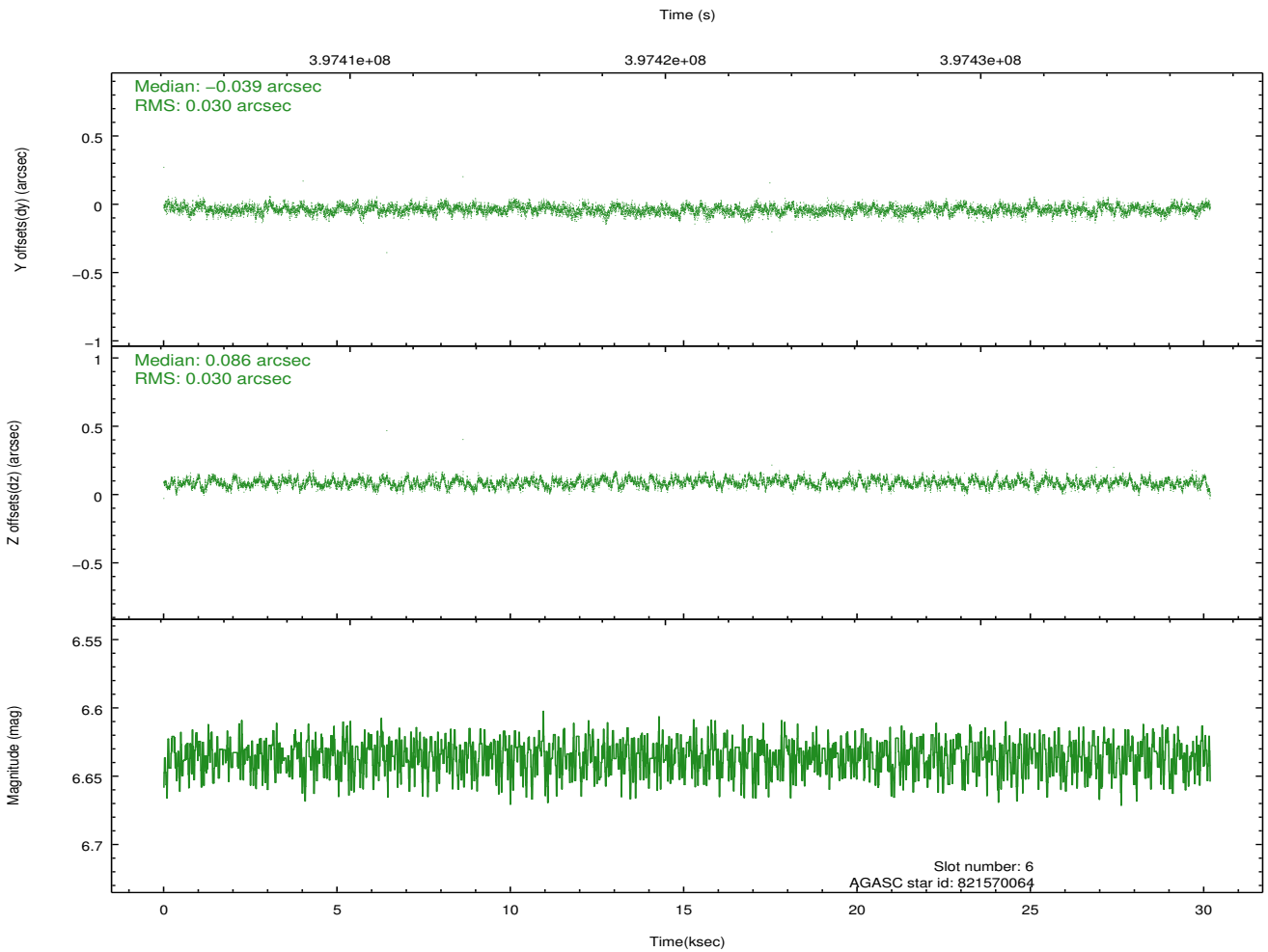
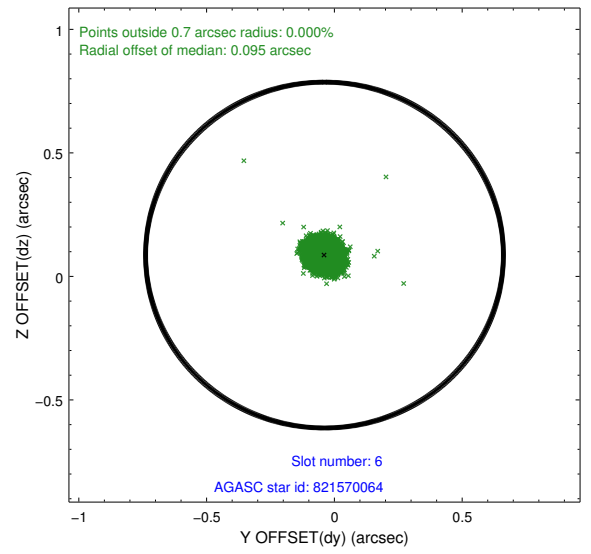
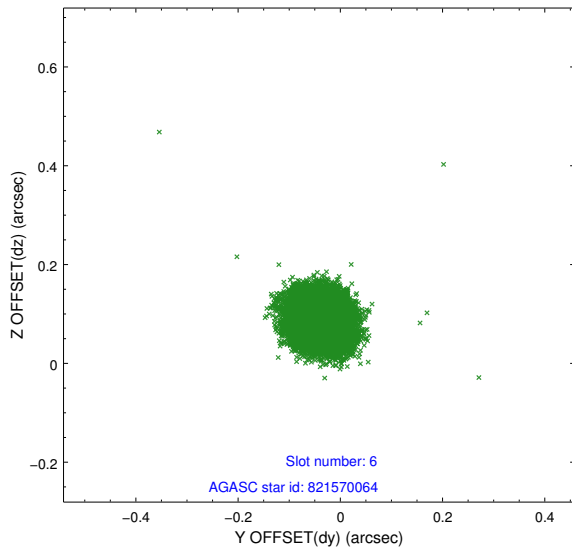
## 2.4.2 Slot 4



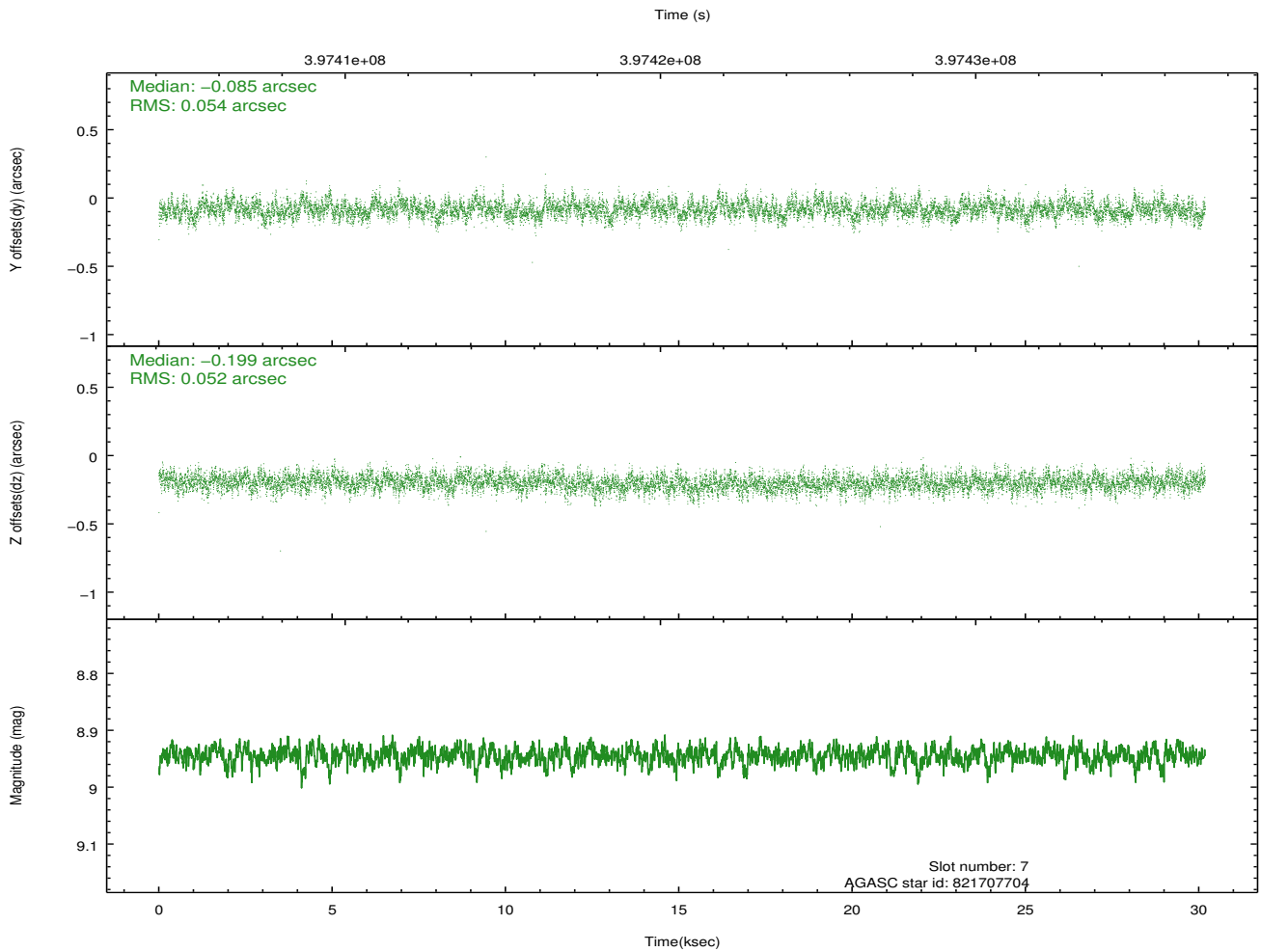
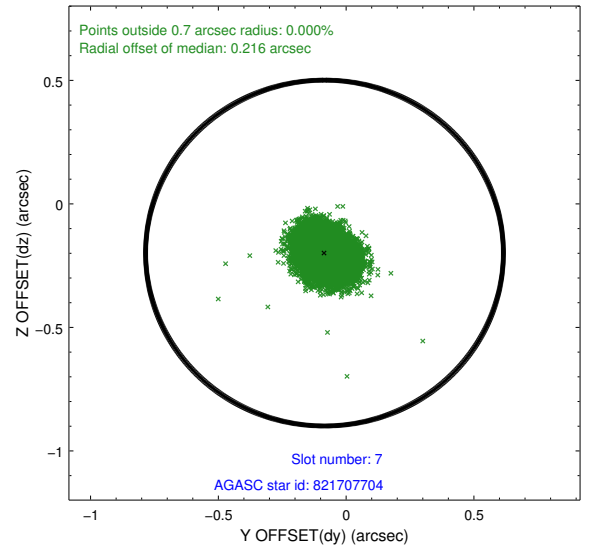
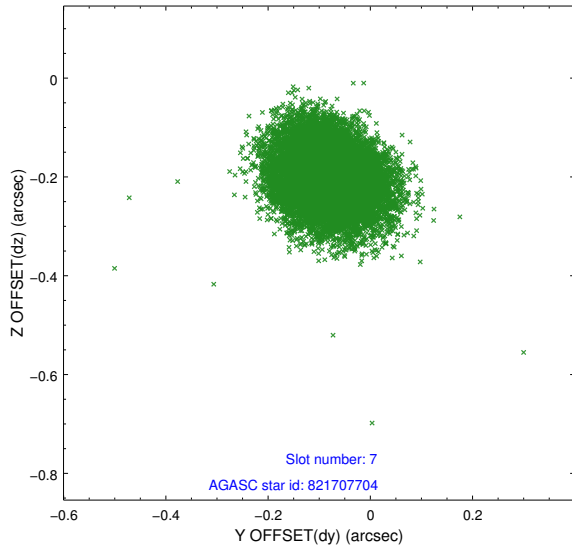
### 2.4.3 Slot 5



### 2.4.4 Slot 6

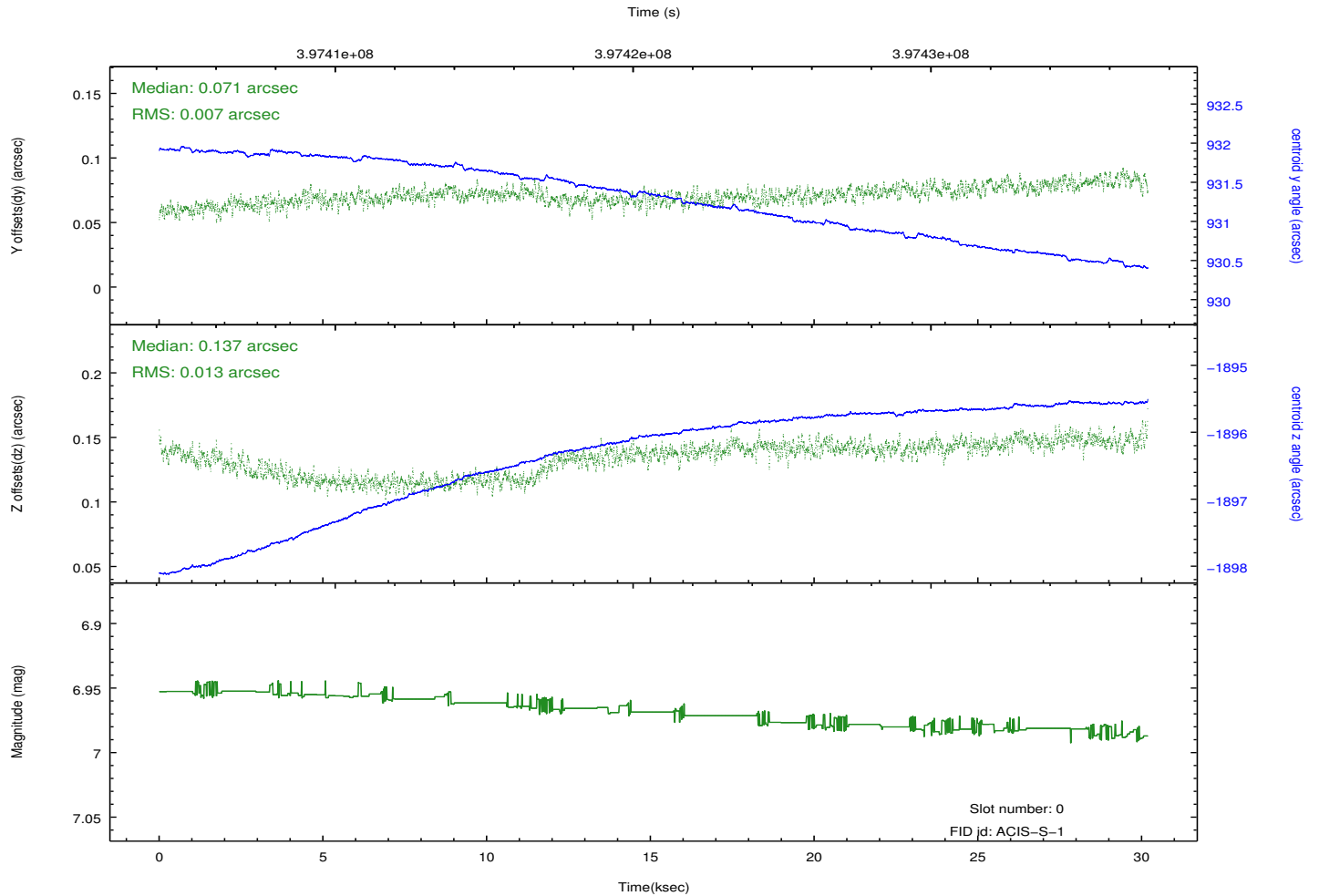
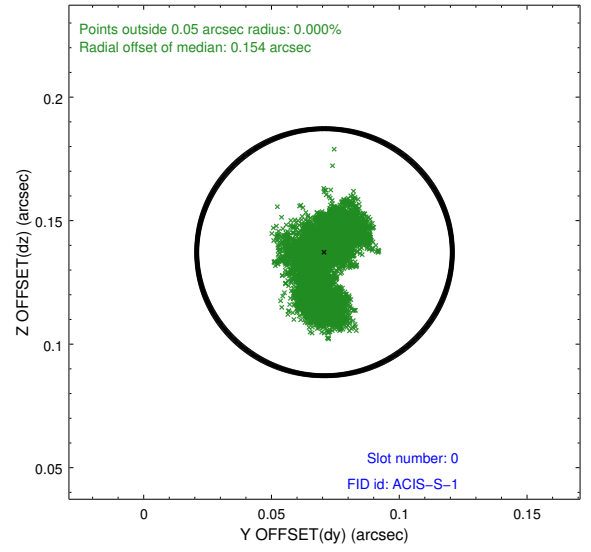
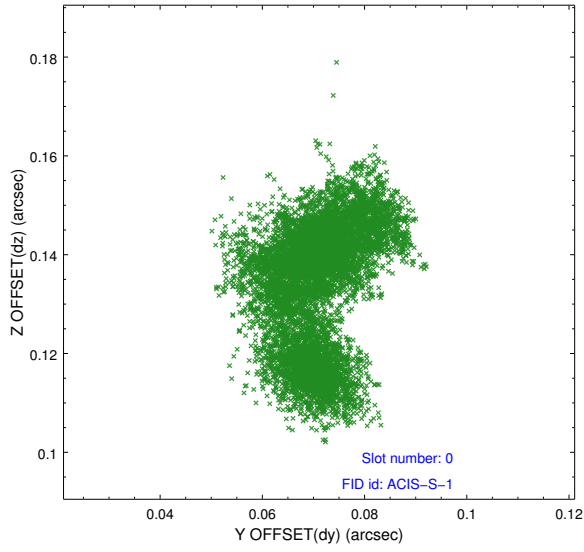


### 2.4.5 Slot 7

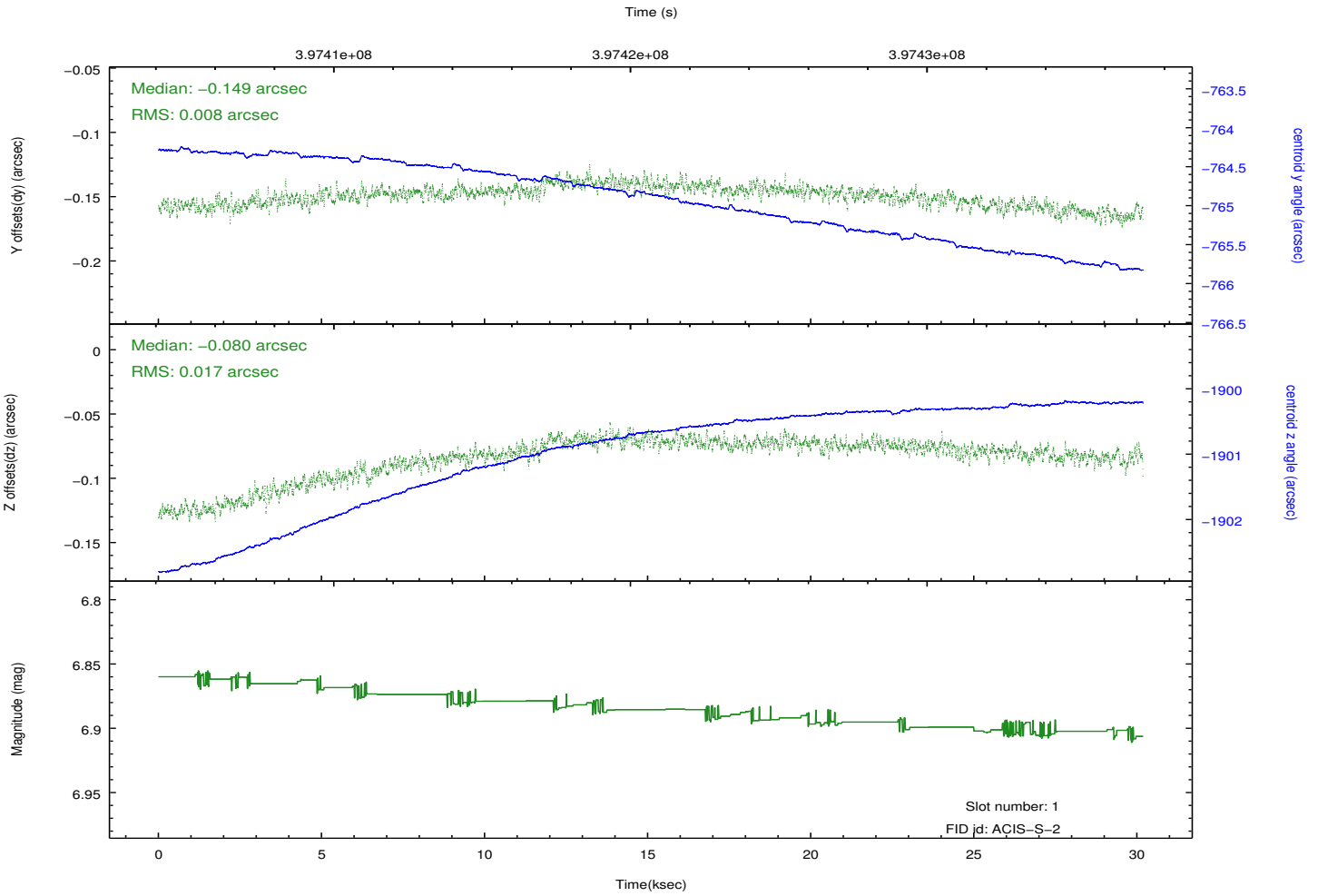
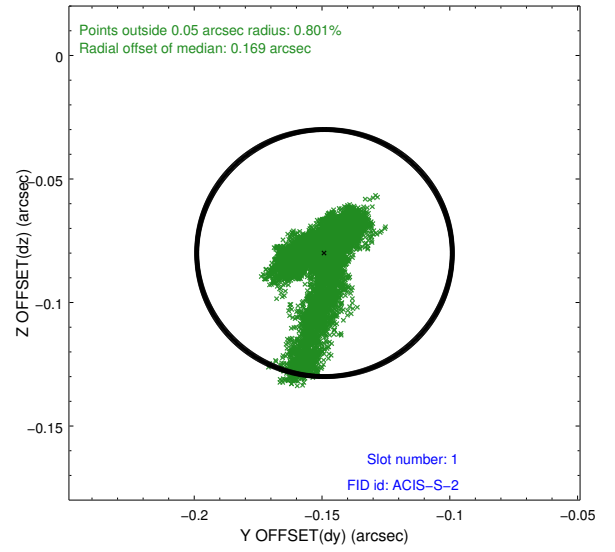
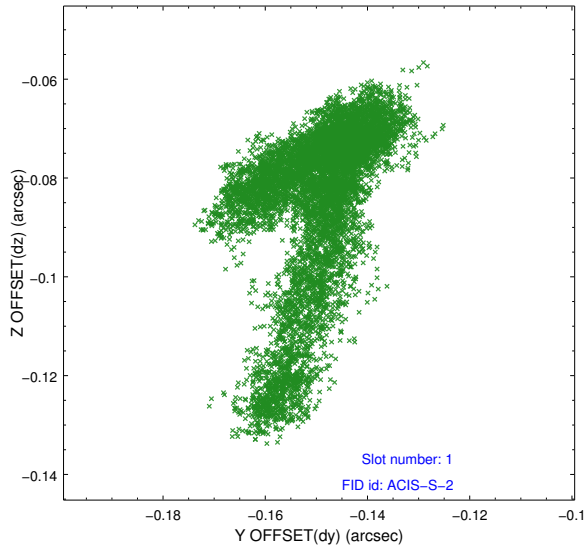


## 2.5 FID Slots

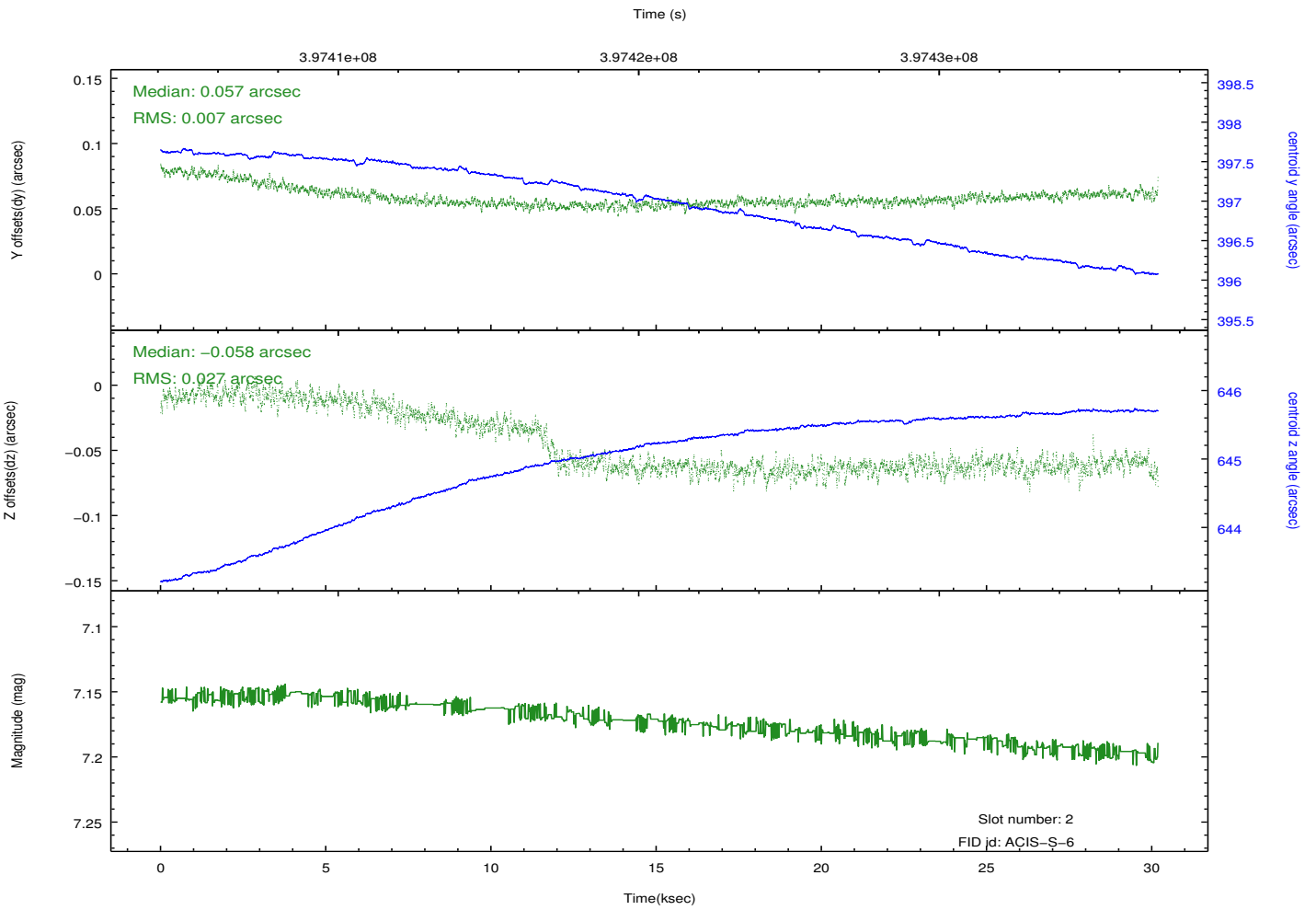
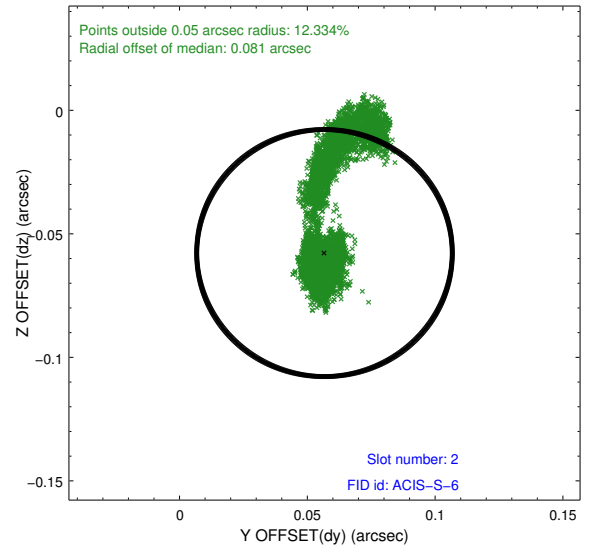
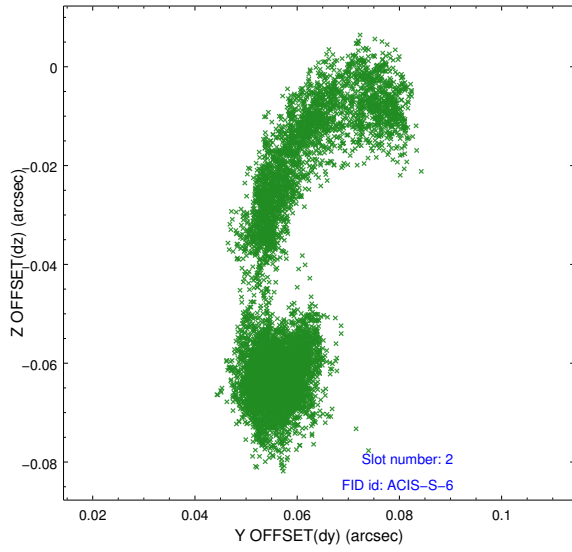
### 2.5.1 Slot 0



## 2.5.2 Slot 1

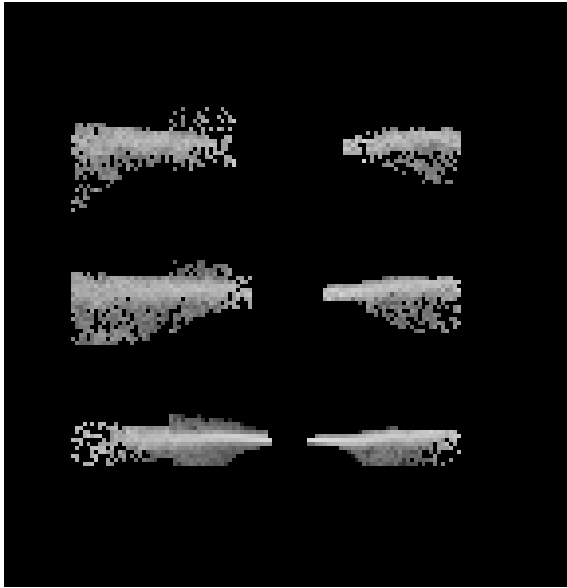


### 2.5.3 Slot 2

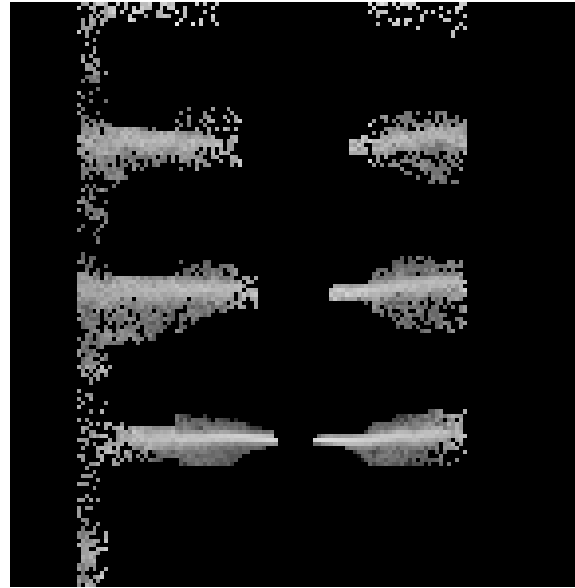


# 3 Gratings

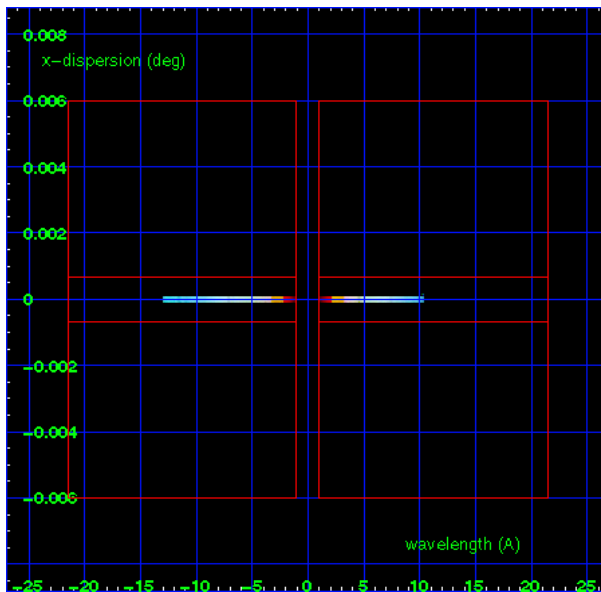
## 3.1 HEG Arm



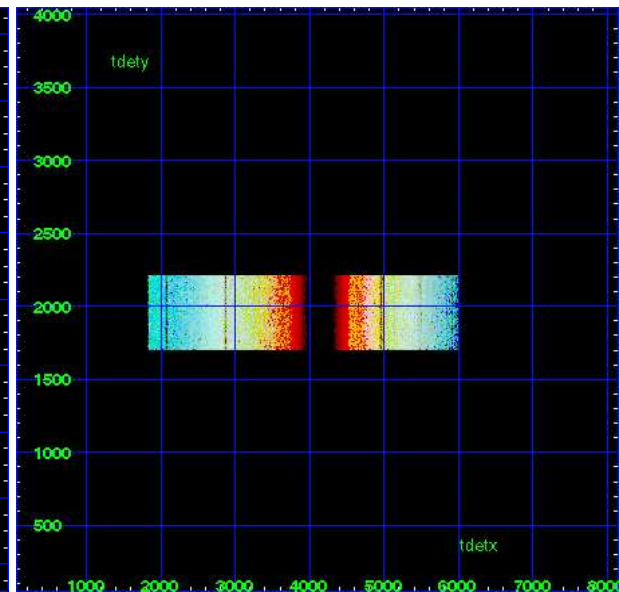
HEG Order Sort 123



HEG Order Sort ALL

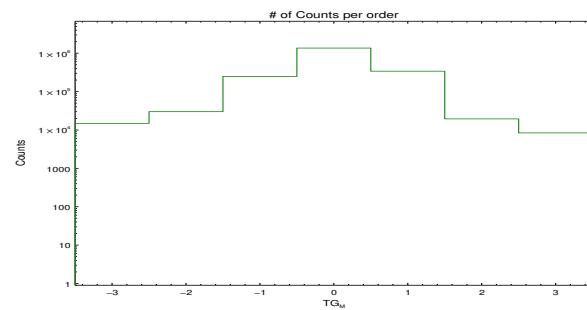


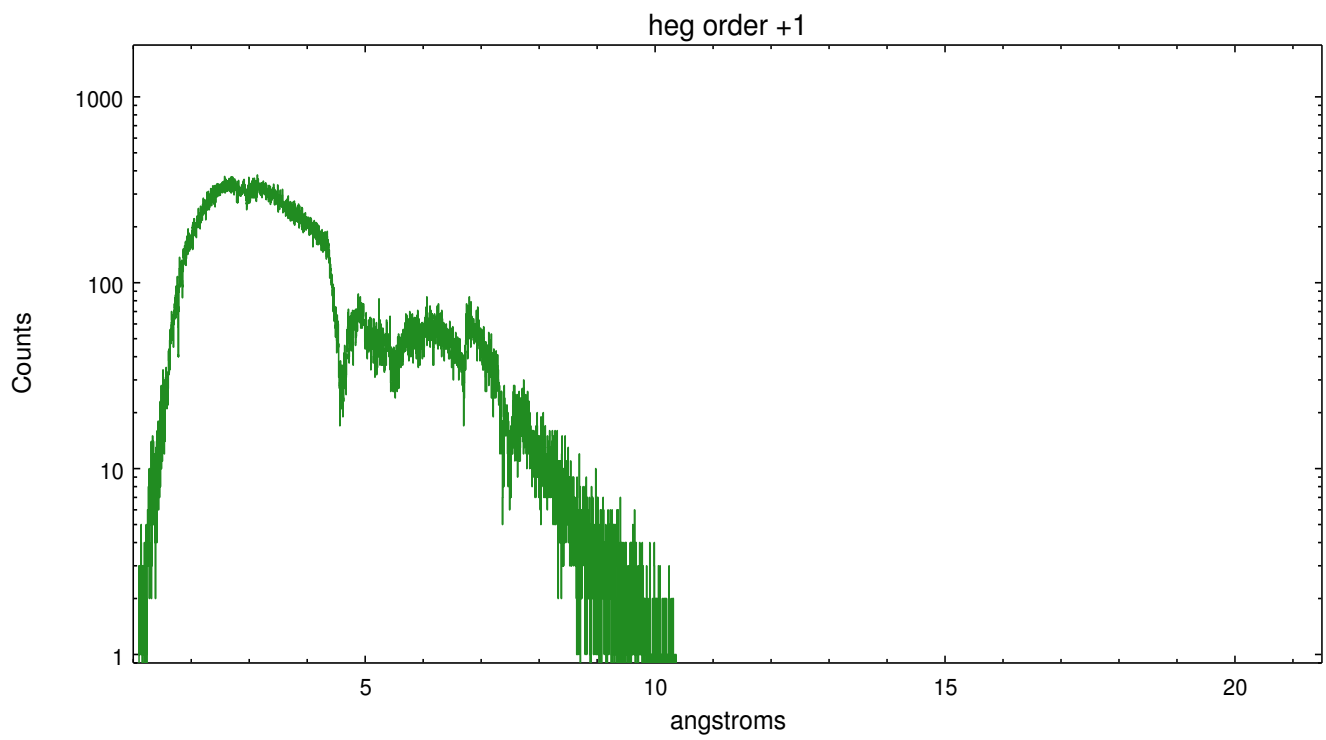
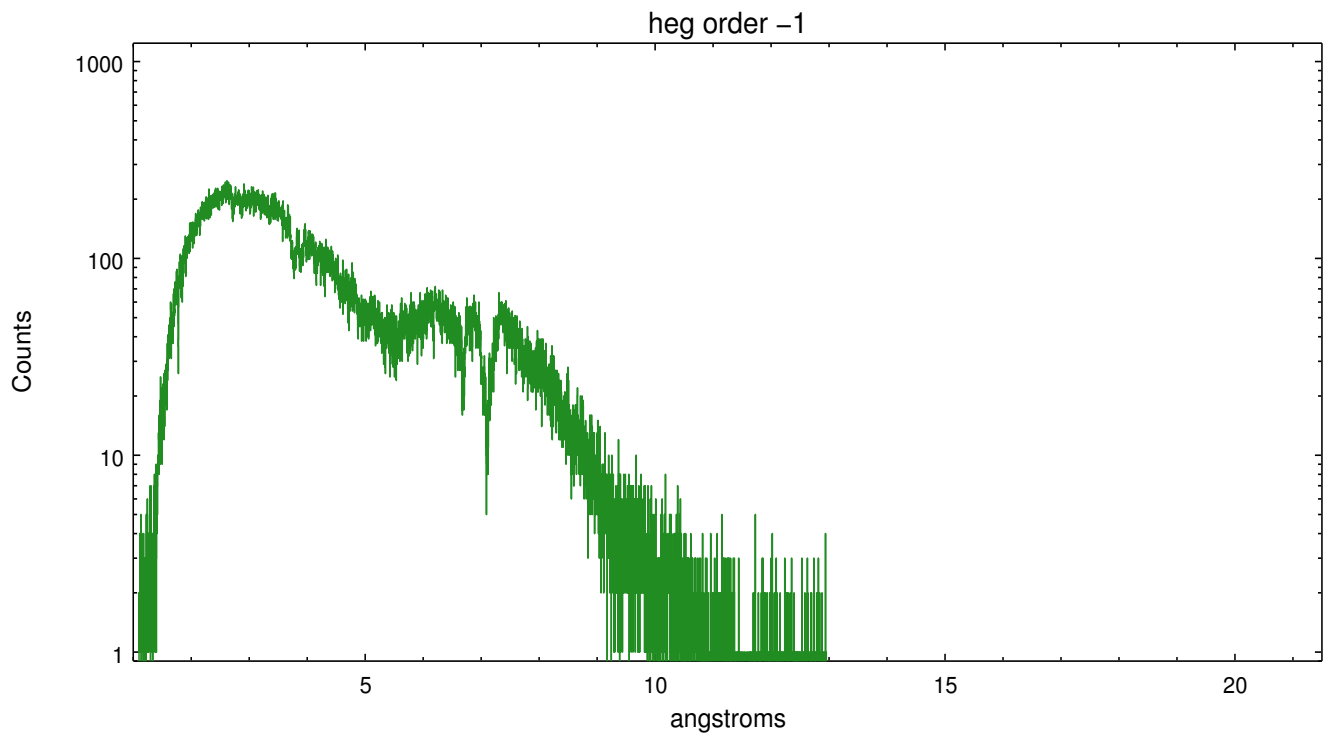
Spot Image HEG



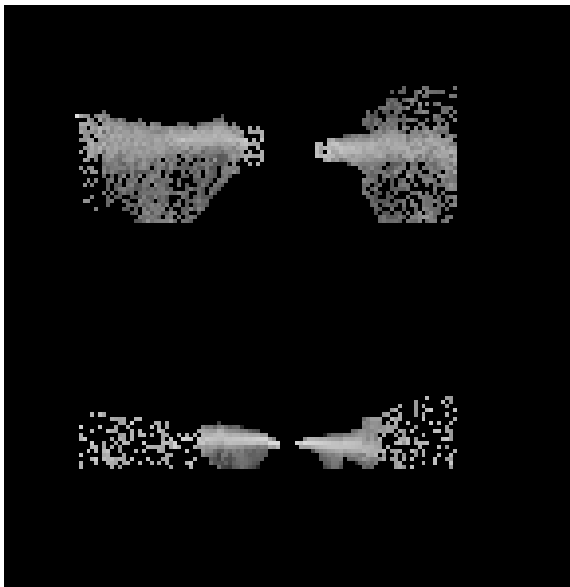
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	14858	30037	248237	1361569	339906	19460	8393





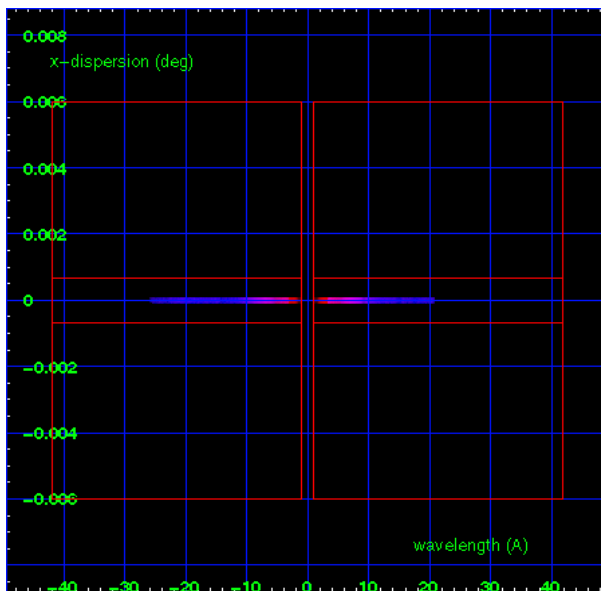
### 3.2 MEG Arm



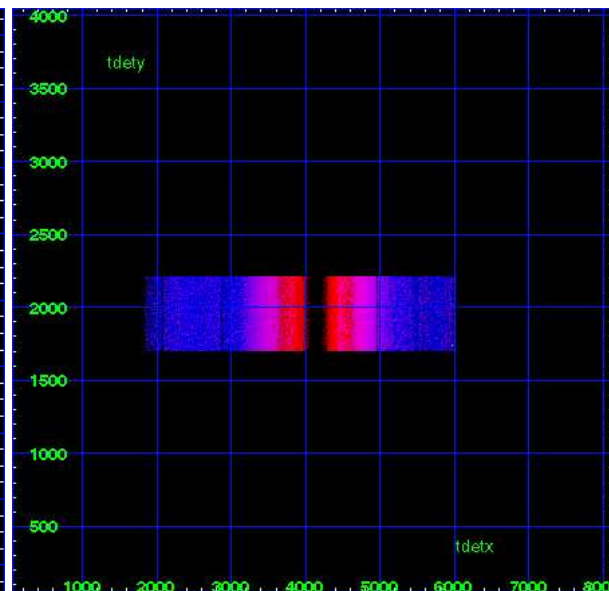
MEG Order Sort 123



MEG Order Sort ALL

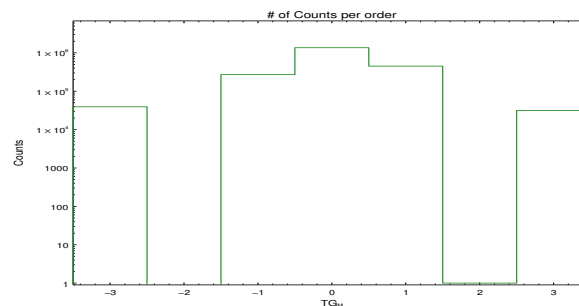


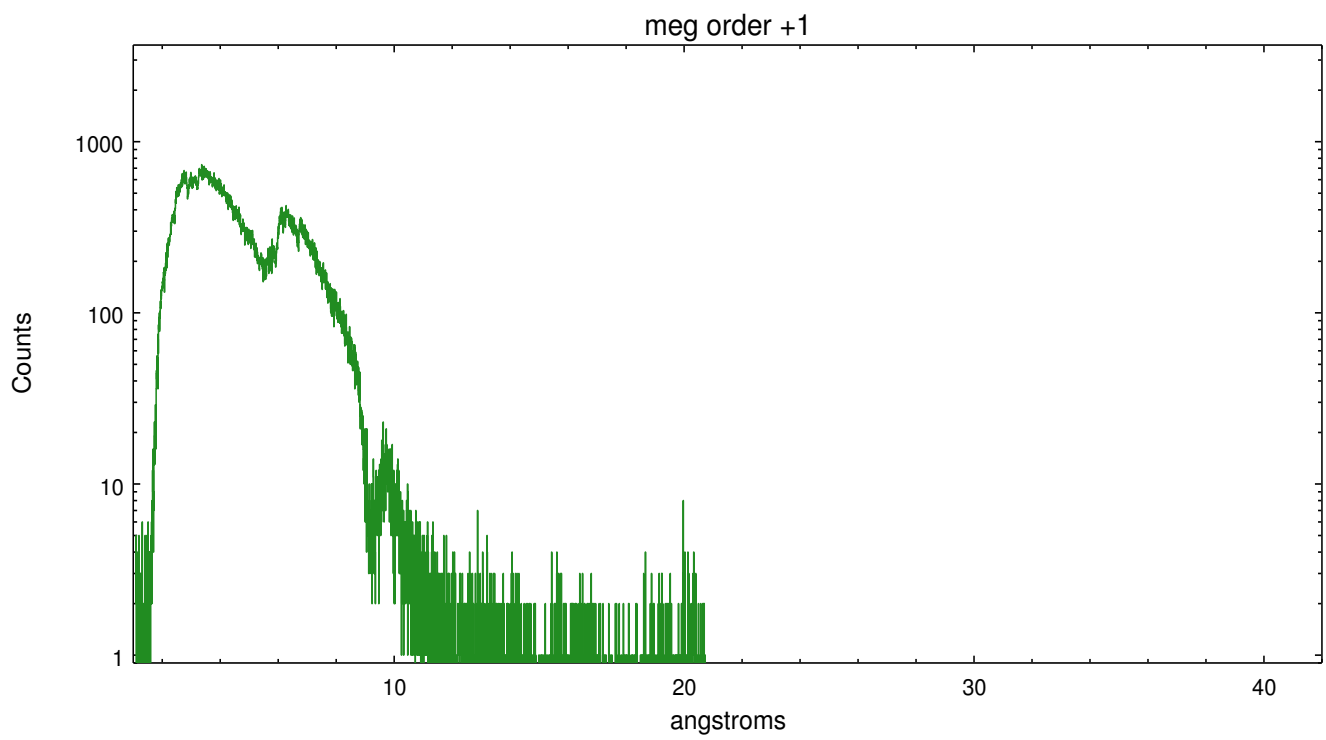
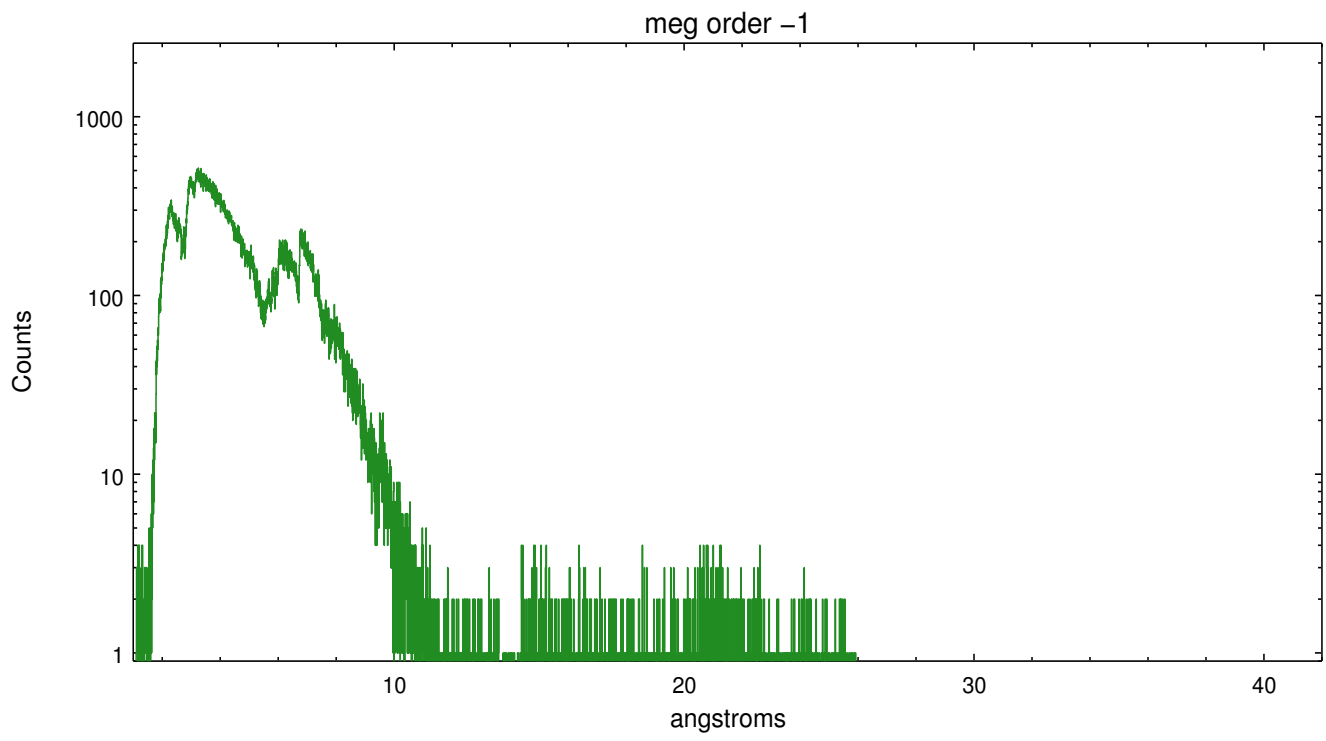
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	39319	0	270973	1361569	450692	1	31428





## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.07.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.128

### A.2 Comments