

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 4432 - L2 Version 001  
Chandra X-Ray Center

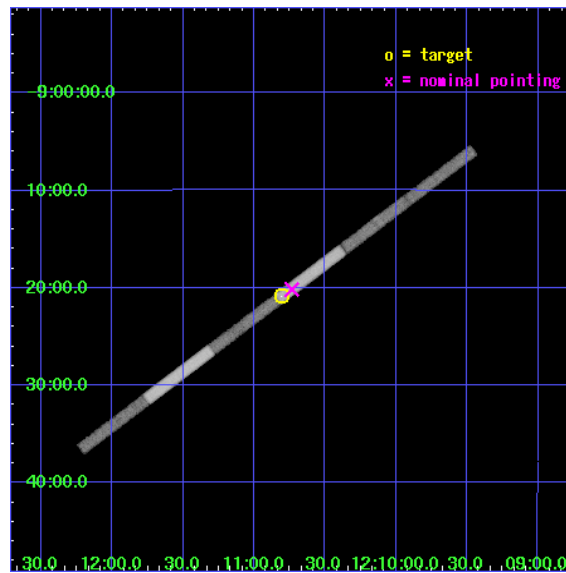
L2 Processing Date : Jul 29 2006

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# 1 Front

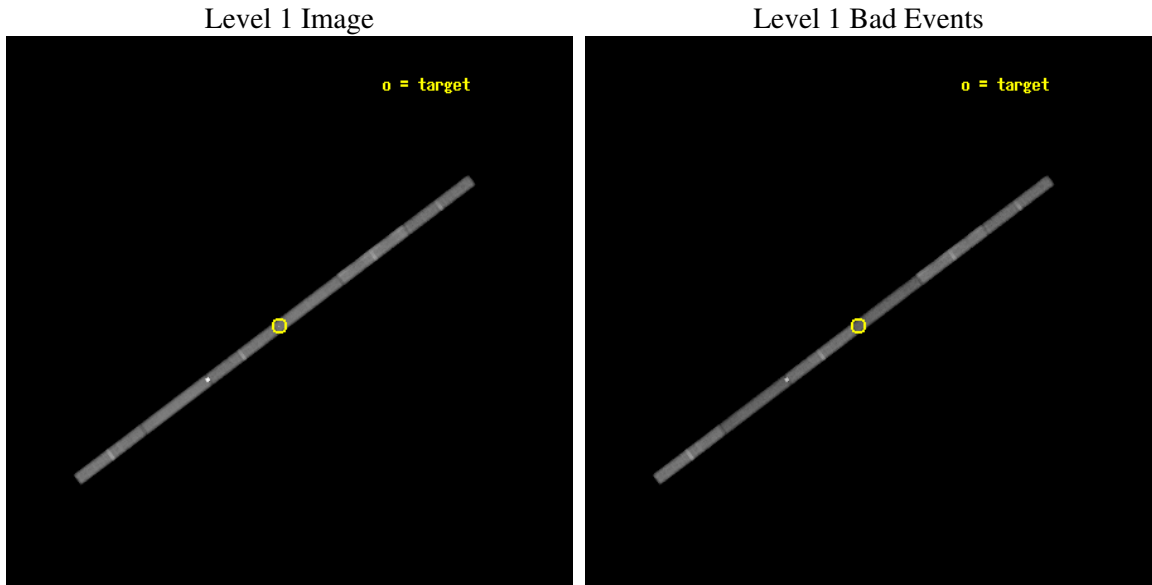
seq_num	500411
obs_id	4432
title	Chandra LETG/ACIS Observation of H2650 (=GRB030328)
observer	Dr. george Ricker
object	H2650
dtcycle	0
cycle	P
ra_targ	182.701667
dec_targ	-9.347583
ra_nom	182.68367875172
dec_nom	-9.3362525376913
roll_nom	323.07385797795
revision	2
ontime	98100.716269225
livetime	92667.739107818
ontime4	98099.23420912
ontime5	98100.716269225
ontime6	98100.716269225
ontime7	98100.716269225
ontime8	98099.975249141
ontime9	98099.975249141
l2events	130425



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 4

Chip 5

Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8
caldbver	3.2.2
date	2006-07-29T20:36:41
revision	2

sched_exp_time	97933.330000
ontime	99493.260313988
ontime4	99491.778253883
ontime5	99493.260313988
ontime6	99493.260313988
ontime7	99493.260313988
ontime8	99492.519293904
ontime9	99492.519293904
l1events	748181

### 2.1.4 Events

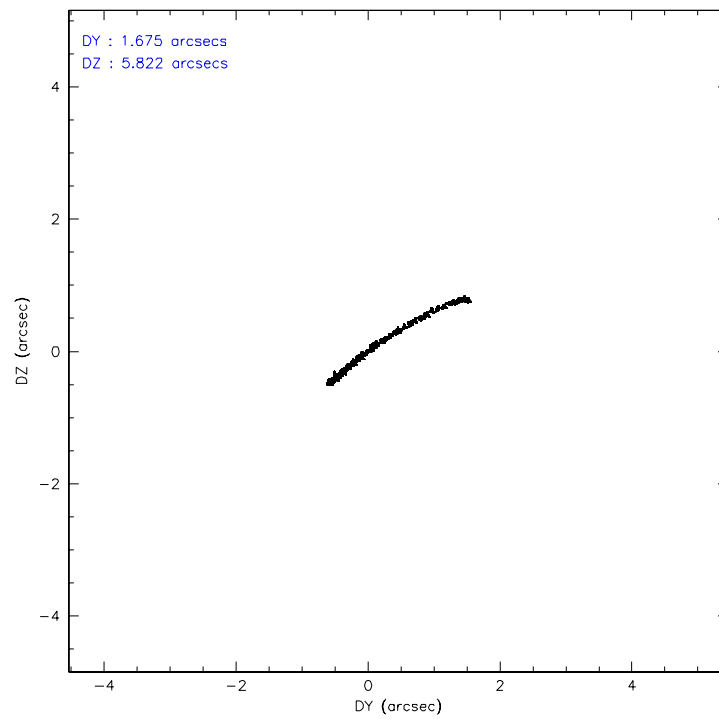
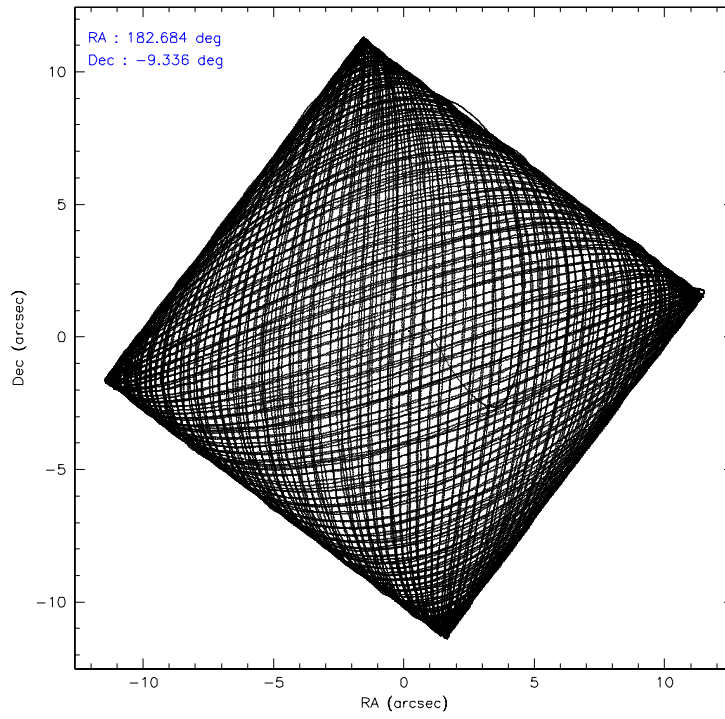
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	120267	174477	106937	107998	143197	95305
rejected events	107997	78313	95464	63575	117907	84241
rejected %	89%	44%	89%	58%	82%	88%

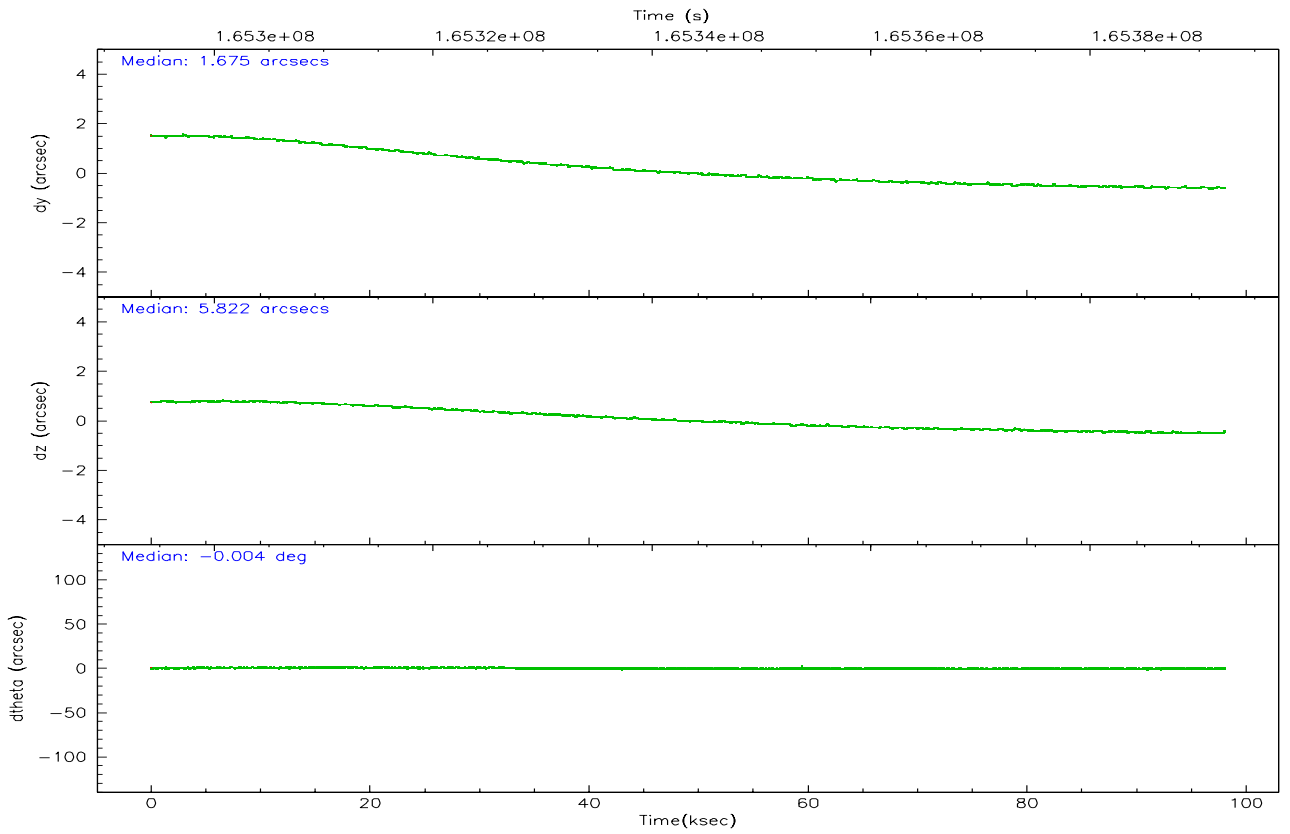
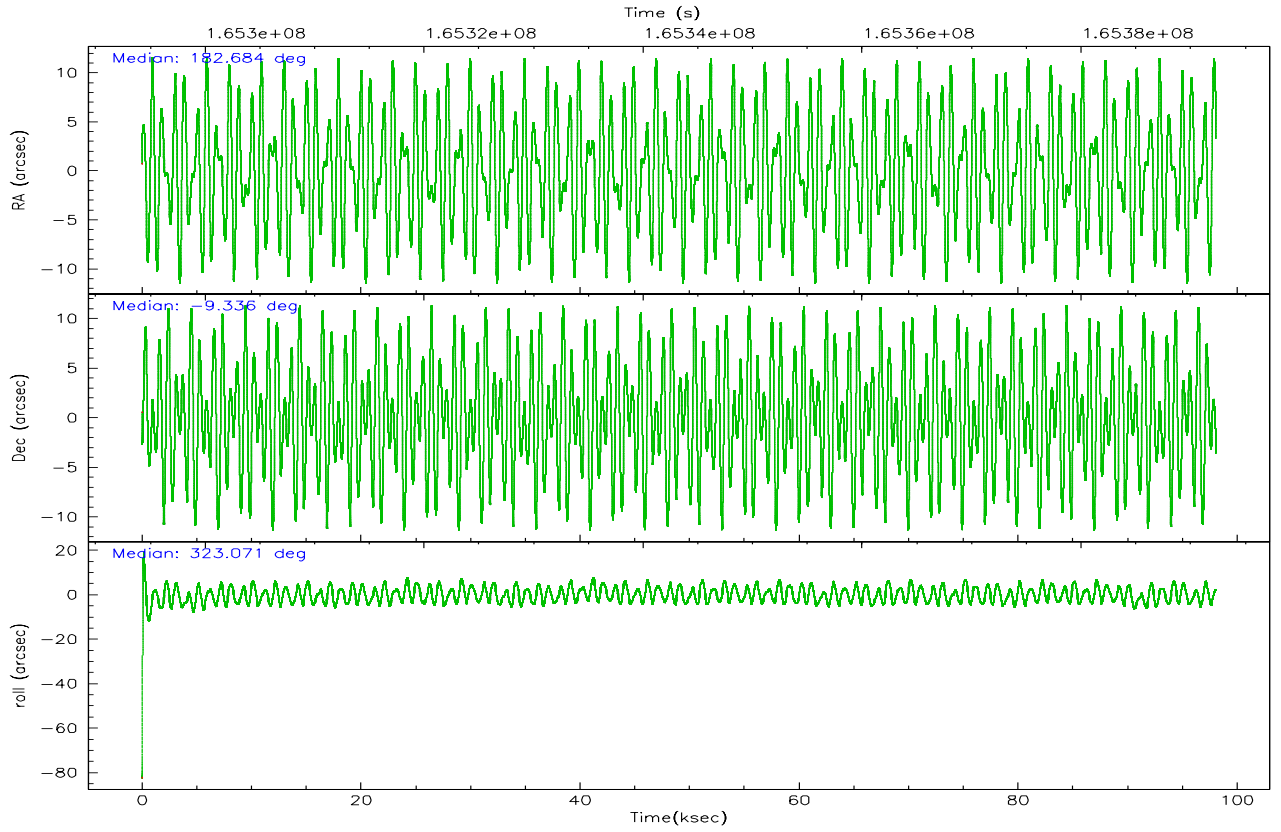
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	4252	23355	3838	3472	6288	3673
	3%	13%	3%	3%	4%	3%
grade 1 events	34	6373	22	89	41	28
	0%	3%	0%	0%	0%	0%
grade 2 events	2383	30448	1974	9660	4984	1866
	1%	17%	1%	8%	3%	1%
grade 3 events	1915	4394	1928	4459	3163	2024
	1%	2%	1%	4%	2%	2%
grade 4 events	1929	6400	1911	4164	3109	1769
	1%	3%	1%	3%	2%	1%
grade 5 events	3182	13271	3351	8508	4212	3246
	2%	7%	3%	7%	2%	3%
grade 6 events	1992	33593	1991	23277	8199	1901
	1%	19%	1%	21%	5%	1%
grade 7 events	104580	56643	91922	54369	113201	80798
	86%	32%	85%	50%	79%	84%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	1/8
Pointing RA	182.656255	182.6836787517199	Subarray start row	113	113
Pointing Dec	-9.333351	-9.336252537691337	Subarray row count	128	128
Pointing Roll	322.912798	323.073857977953	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	0.7
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-182.132523	-182.1370004450064			
SIM translation stage offset (mm)	-8	-7.995522138001405			
Observation start time	165294405.184000	165292844.25832			
Observation start date	2003-03-29T03:05:41	2003-03-29T02:40:44			
Observation end time	165392338.184000	165393624.31257			
Observation end date	2003-03-30T06:17:54	2003-03-30T06:40:24			
Read mode	TIMED	TIMED			

## 2.3 Aspect



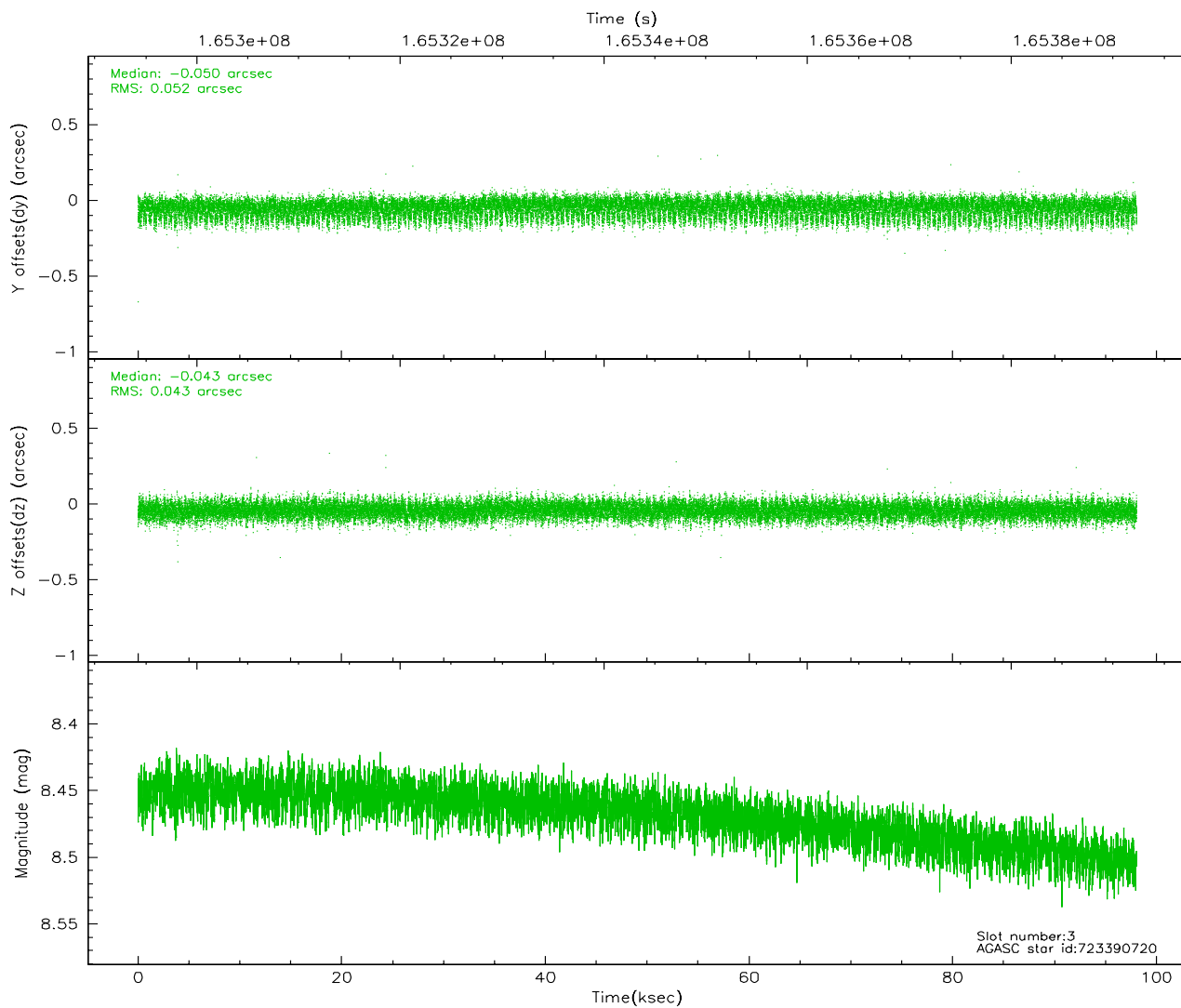
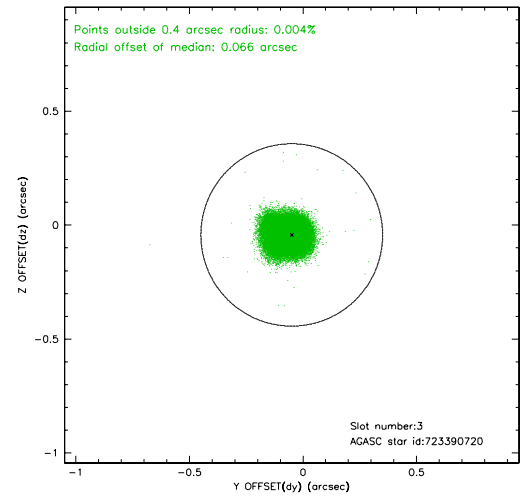
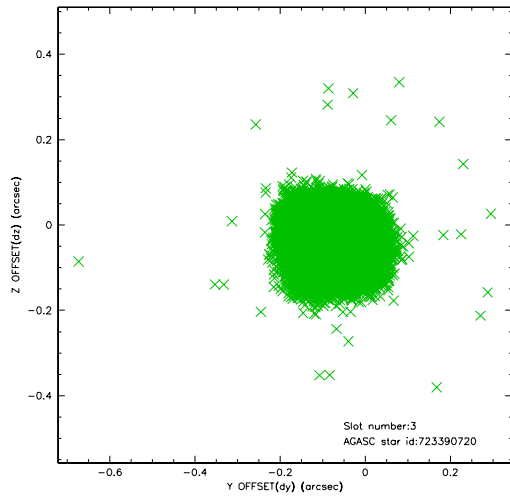


### Slot Statistics

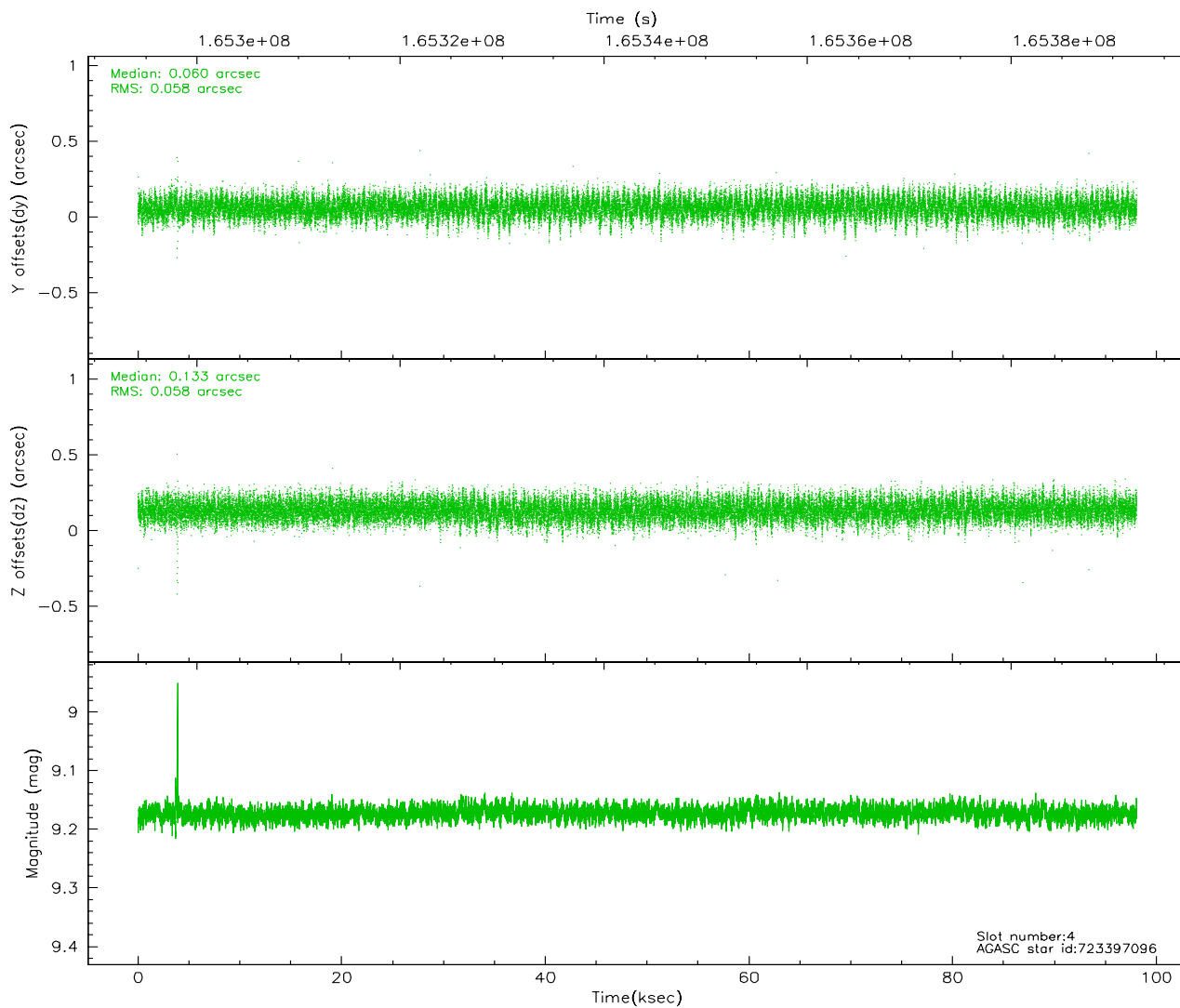
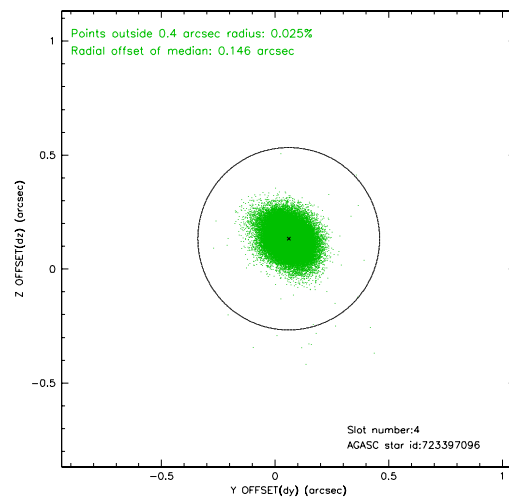
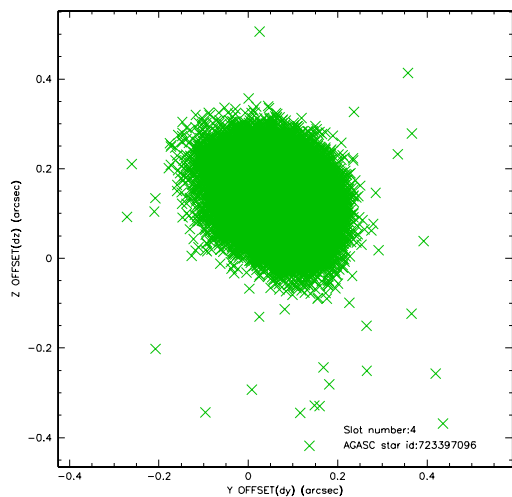
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	23928	-0.064	-0.080	0.022	0.039	0.000000	0.000000	-754.00	-1891.83
1	FID	ACIS-S-4	7.18	23927	0.073	0.049	0.029	0.041	0.000000	0.000000	2159.45	16.83
2	FID	ACIS-S-5	7.23	23924	-0.038	0.036	0.020	0.033	0.000000	0.000000	-1806.92	10.42
3	GUIDE	723390720	8.47	47811	-0.050	-0.043	0.071	0.119	183.336224	-9.079685	1378.95	2184.31
4	GUIDE	723397096	9.17	47835	0.060	0.133	0.087	0.142	182.603339	-9.527607	272.06	-671.01
5	GUIDE	723397592	9.43	47841	0.053	-0.008	0.087	0.144	182.443900	-8.820794	-1715.13	1016.11
6	GUIDE	723399016	7.92	47853	-0.036	0.067	0.061	0.094	182.671747	-9.401915	192.76	-163.66
7	GUIDE	723389736	9.50	47765	-0.022	-0.148	0.111	0.174	183.305417	-8.982221	1080.51	2398.56

## 2.4 Star Slots

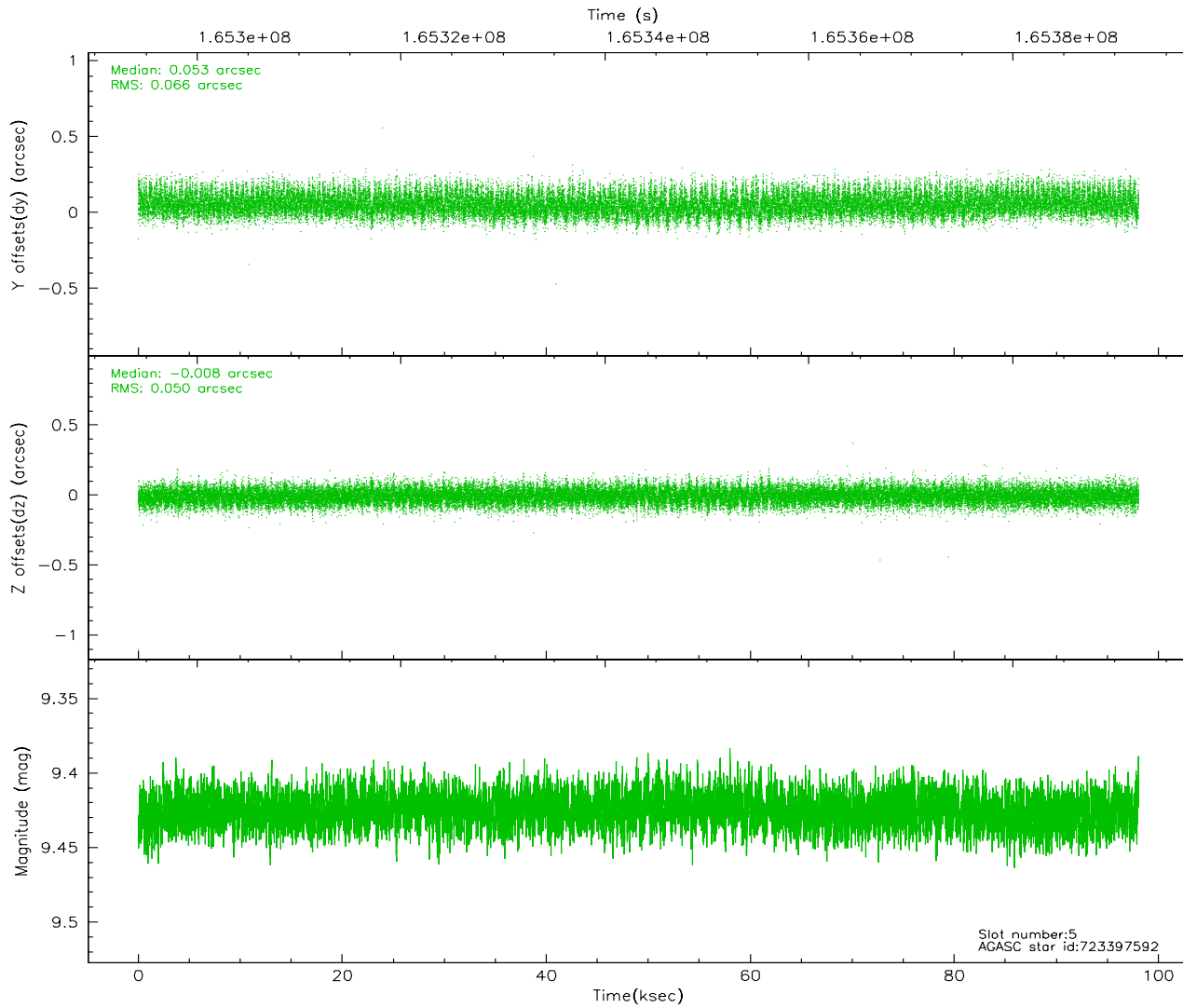
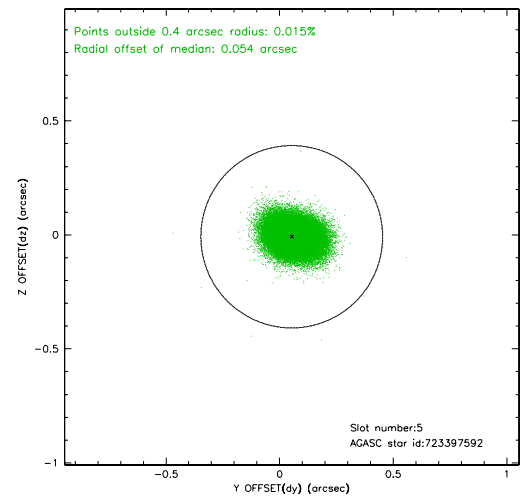
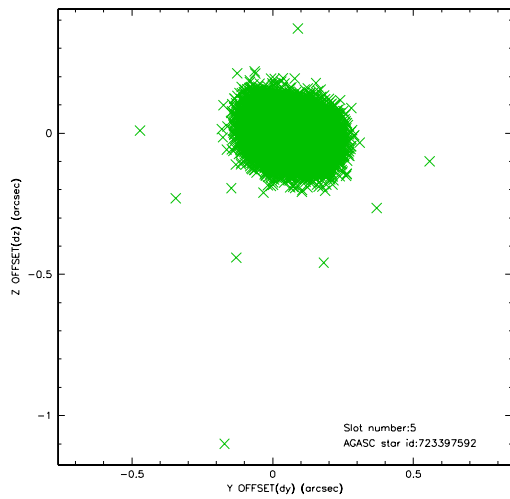
### 2.4.1 Slot 3



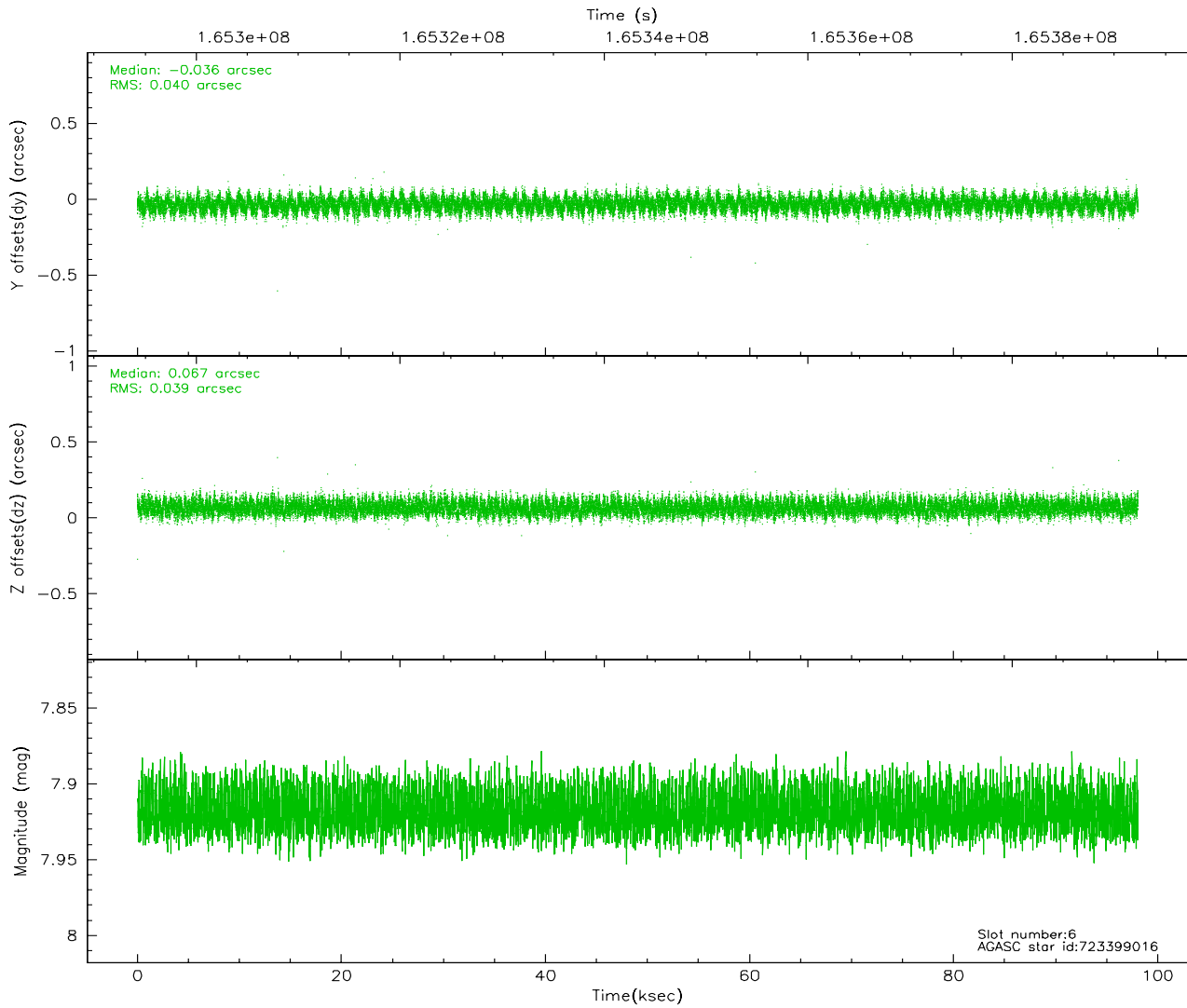
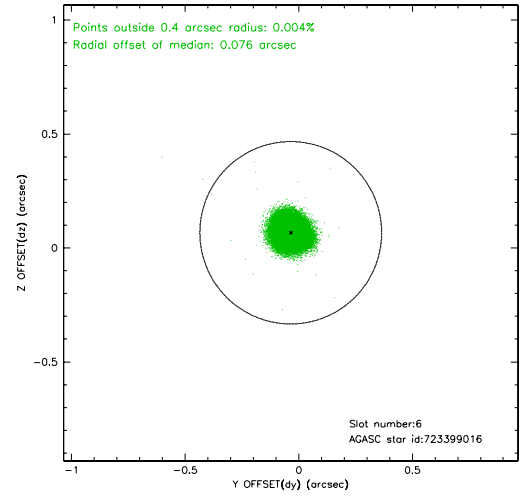
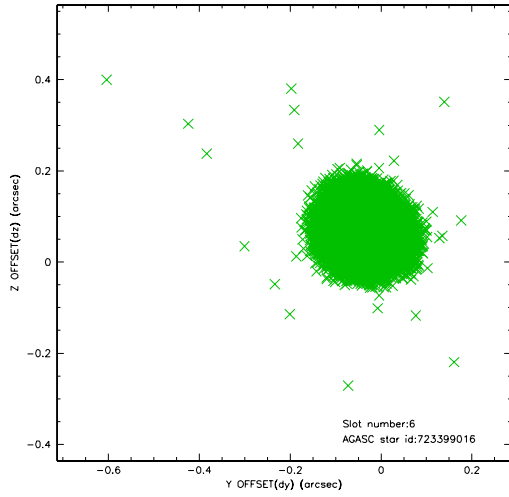
## 2.4.2 Slot 4



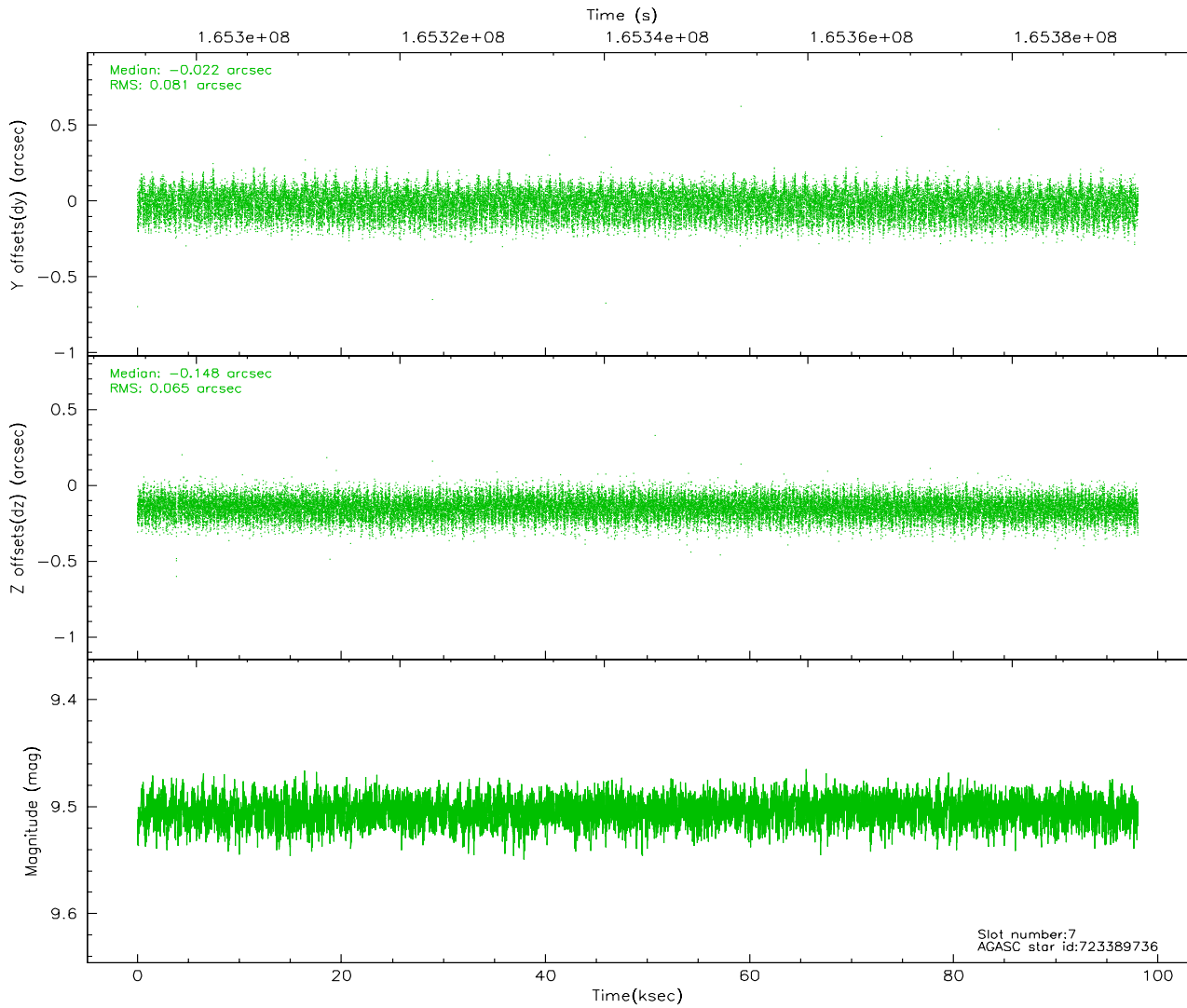
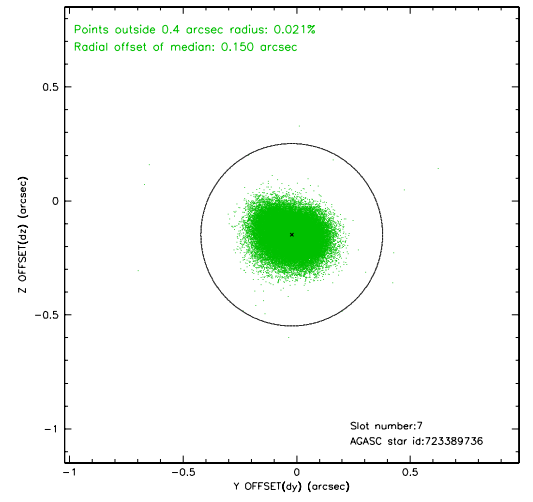
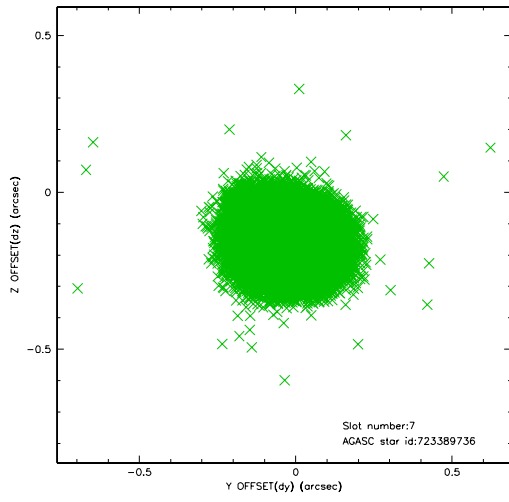
### 2.4.3 Slot 5



### 2.4.4 Slot 6

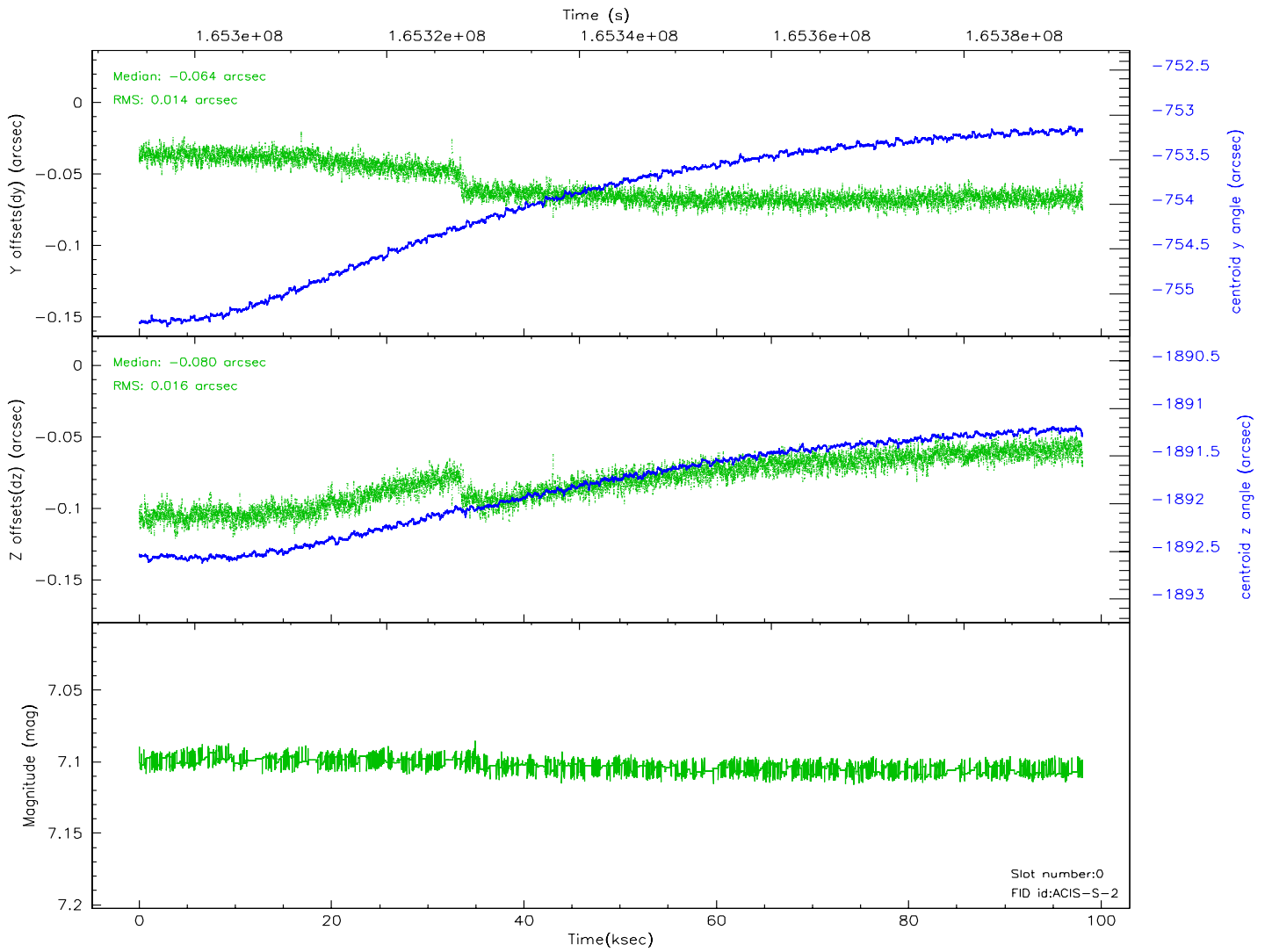
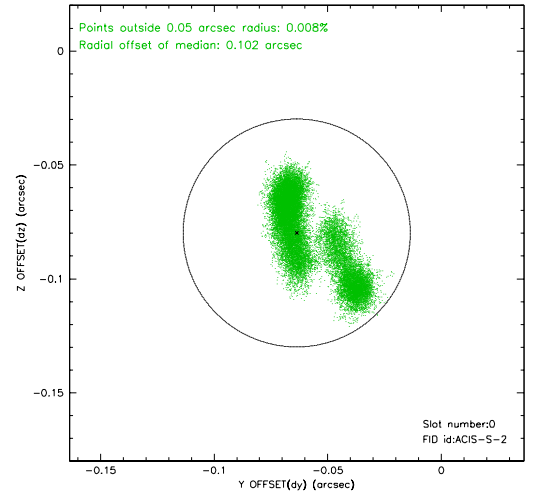
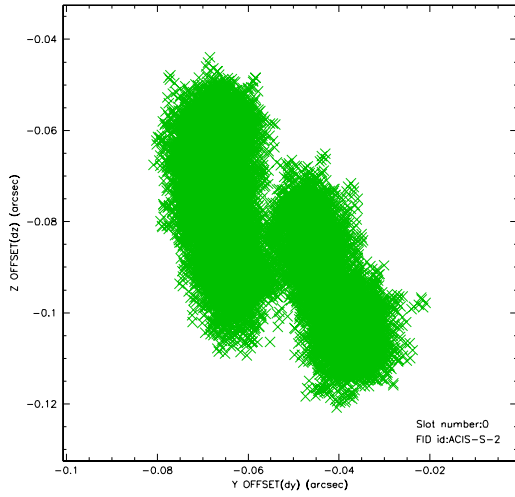


## 2.4.5 Slot 7

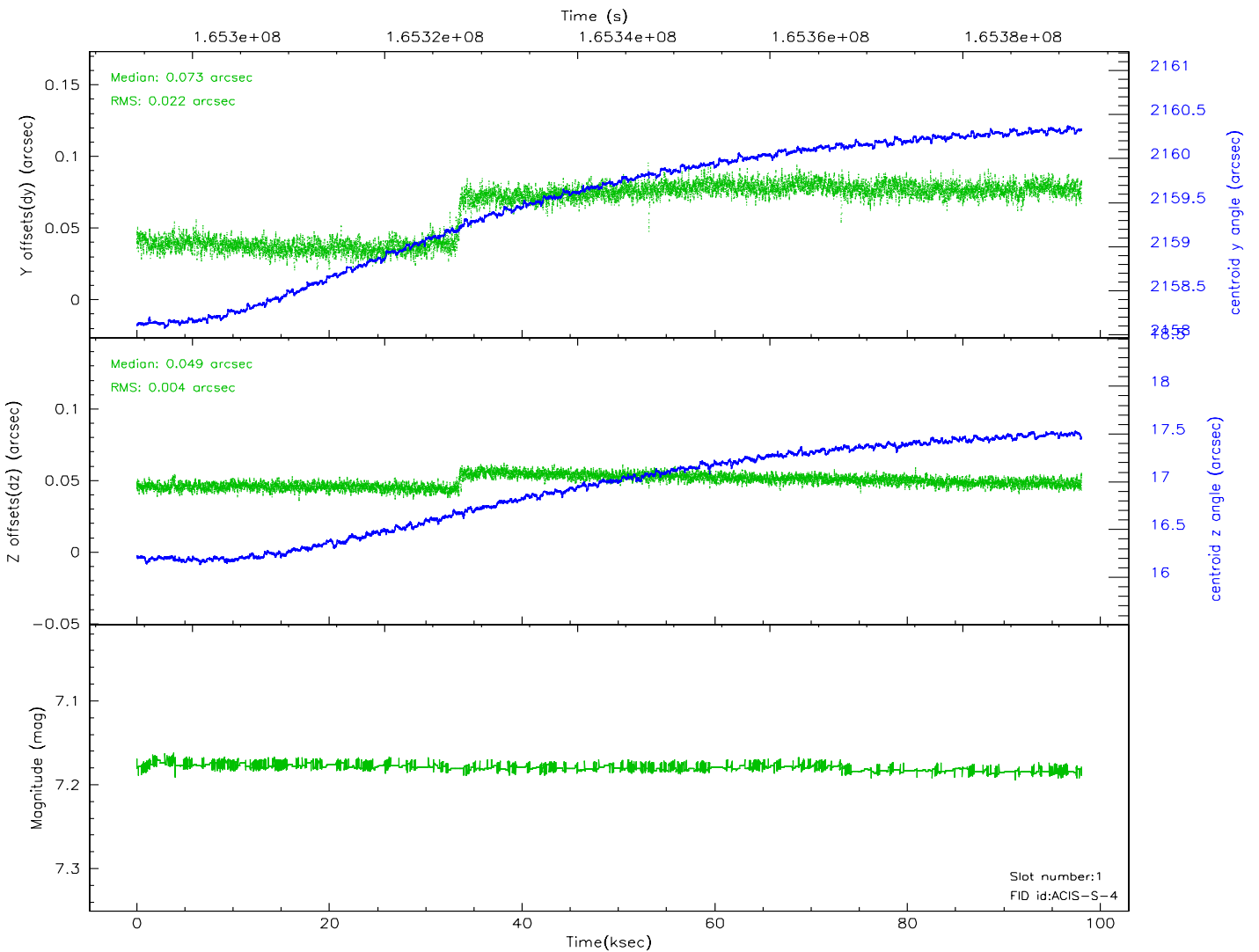
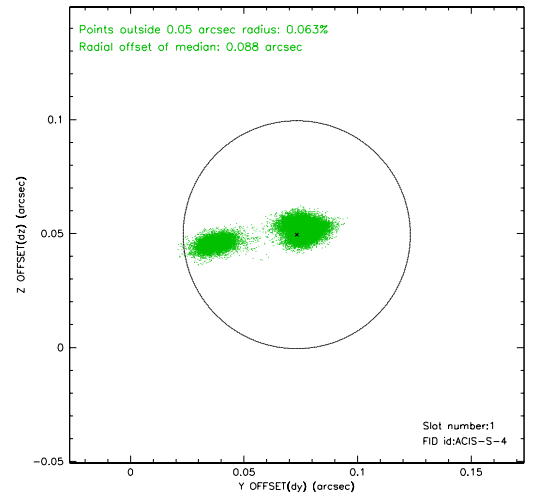
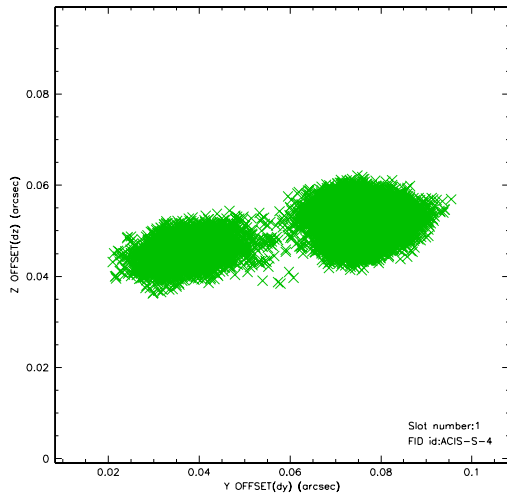


## 2.5 FID Slots

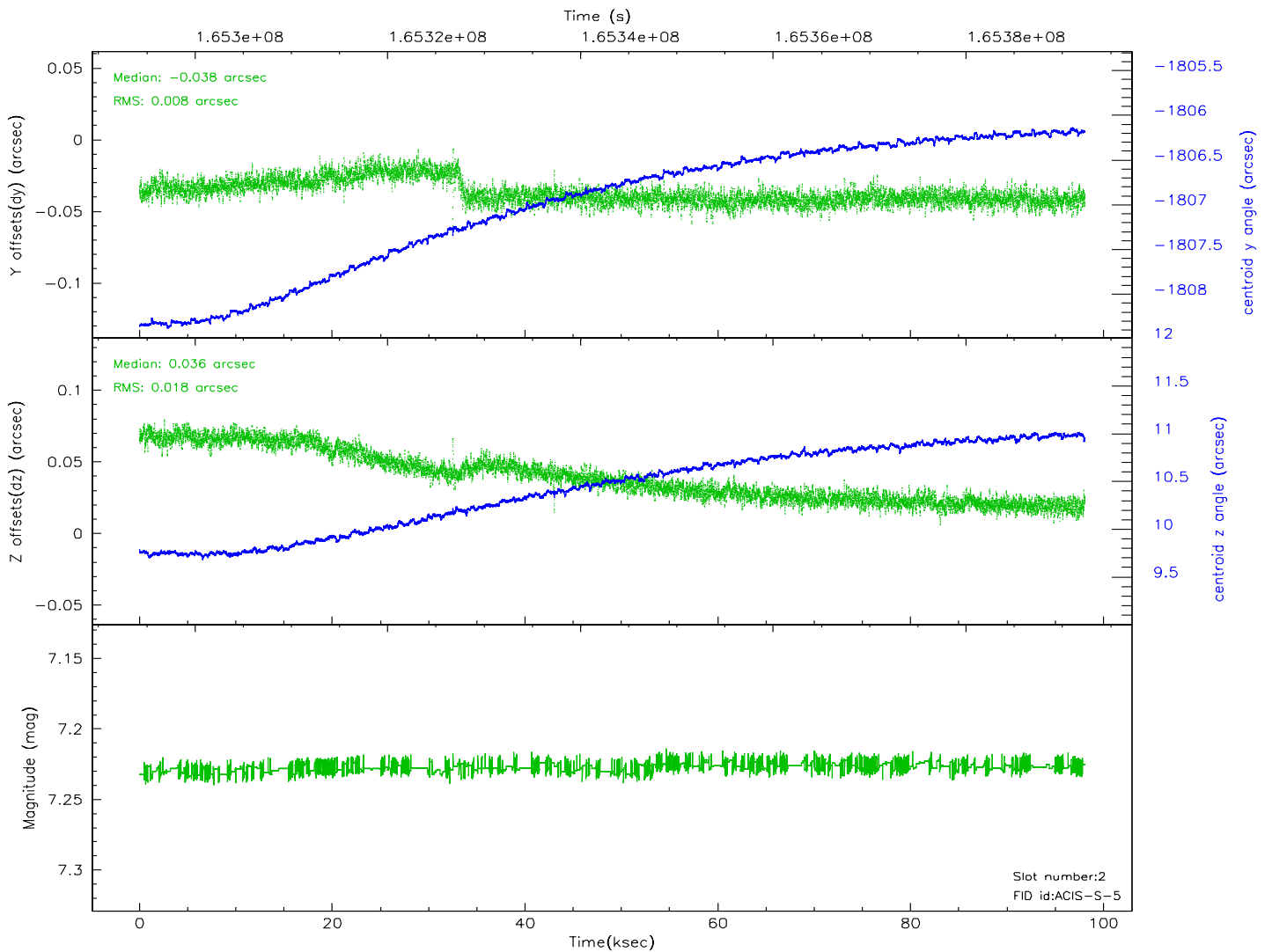
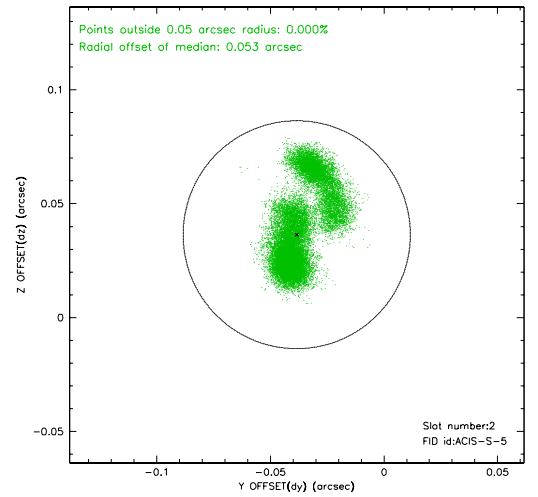
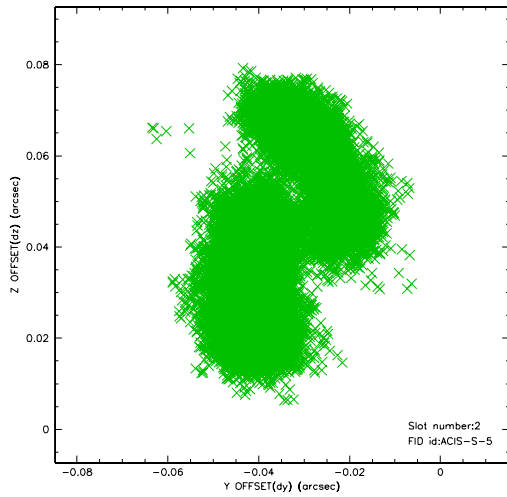
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

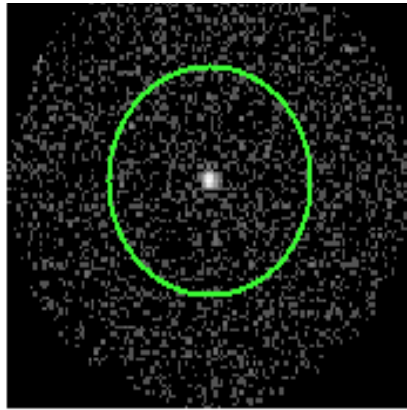


# 3 Gratings

## 3.1 LETG Arm



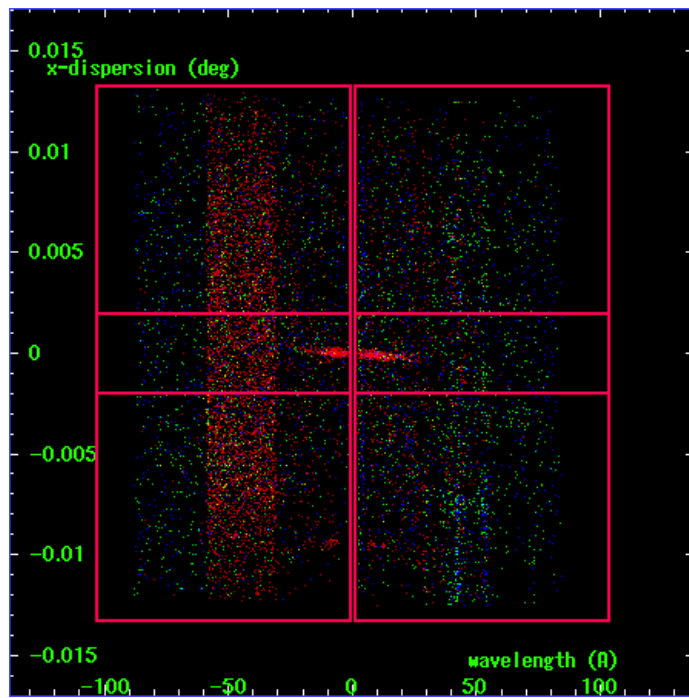
LETG Order Sort 123



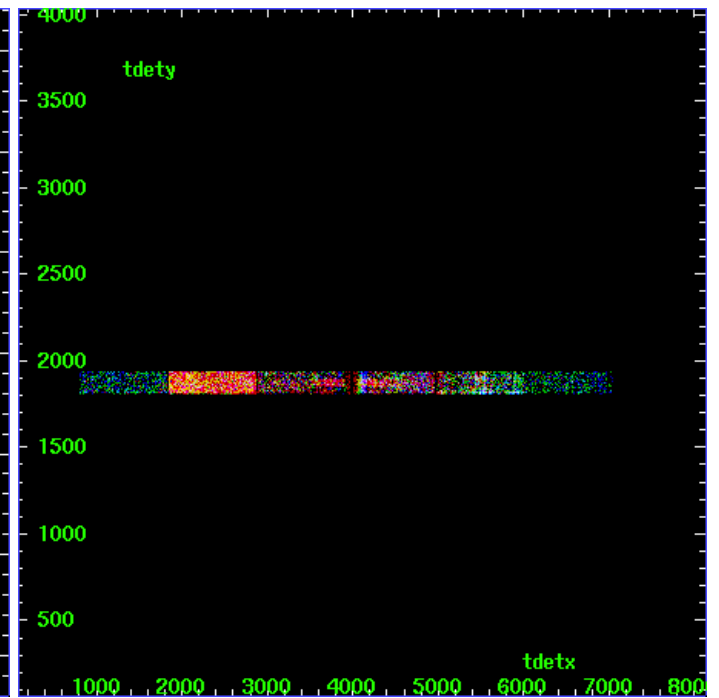
LETG Zero Order



LETG Order Sort ALL

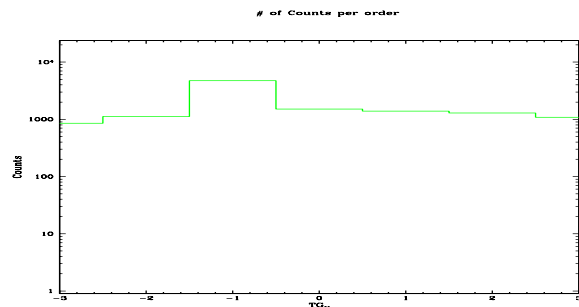


Spot Image LETG

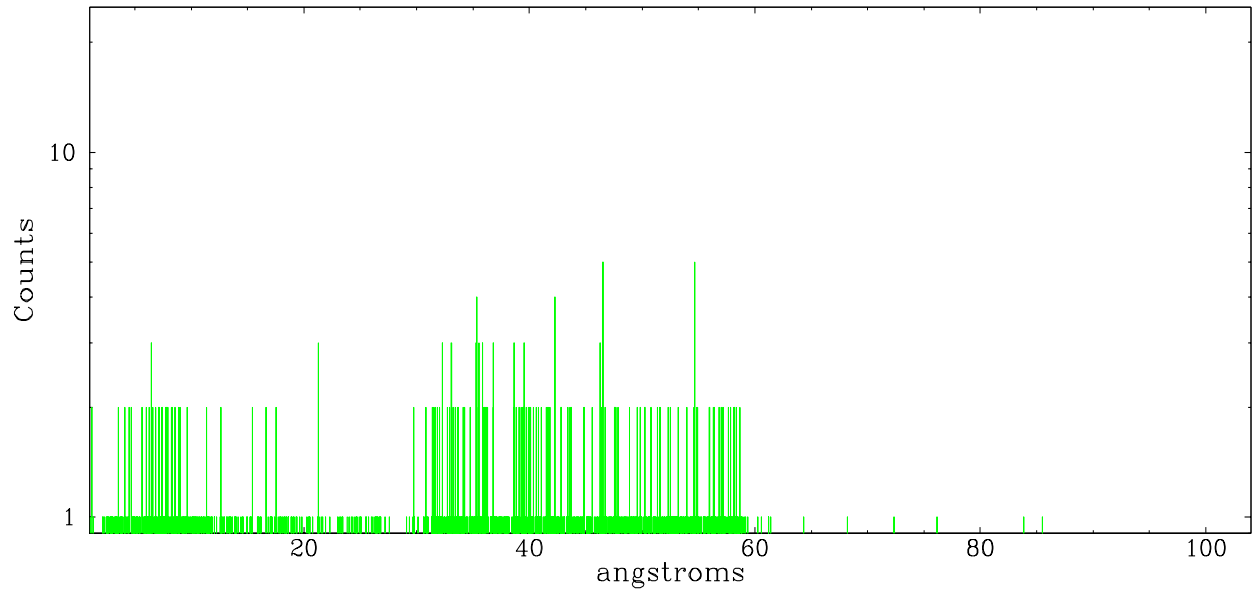


Full Detector LETG

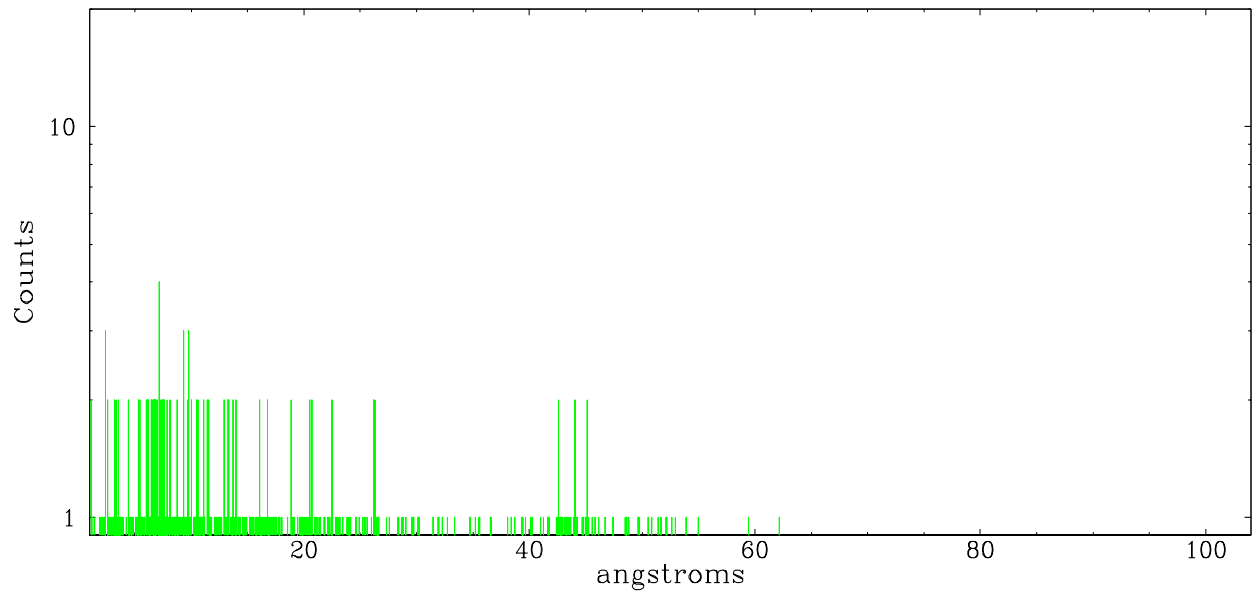
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	856	1122	4739	1512	1395	1292	1086



leg order -1



leg order +1



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.07.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	98.1

## A.2 Comments