

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 3062 - L2 Version 001  
Chandra X-Ray Center

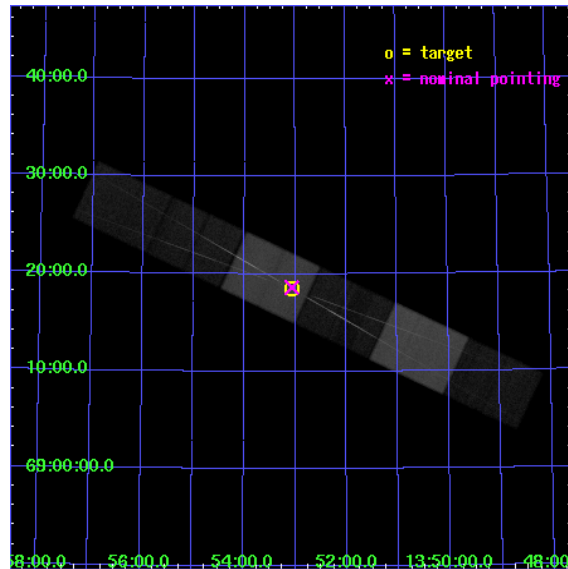
L2 Processing Date : Sep 16 2006

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>3</b>	<b>Gratings</b>	<b>17</b>
3.1	HEG Arm . . . . .	17
3.2	MEG Arm . . . . .	19
<b>A</b>	<b>Summary</b>	<b>21</b>
A.1	Status . . . . .	21
A.2	Comments . . . . .	21

# 1 Front

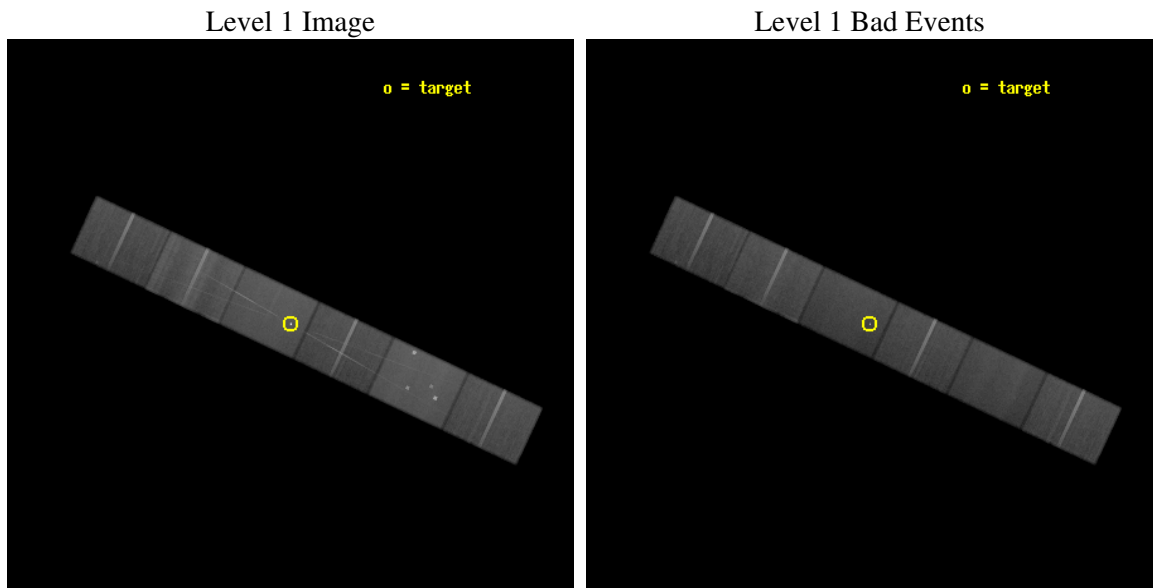
seq_num	700501
obs_id	3062
title	SIMULTANEOUS CHANDRA, HST AND FUSE OBSERVATIONS OF WARM ABSORBERS IN AGN
observer	DR. GERARD KRISS
object	MRK279
dtcycle	0
cycle	P
ra_targ	208.264167
dec_targ	69.308306
ra_nom	208.26588132001
dec_nom	69.310451465875
roll_nom	205.110230782
revision	2
ontime	116060.0
livetime	114185.53033404
ontime4	116057.45900983
ontime5	116060.0
ontime6	116060.0
ontime7	116060.0
ontime8	116057.45898989
ontime9	116057.45903975
l2events	916594



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

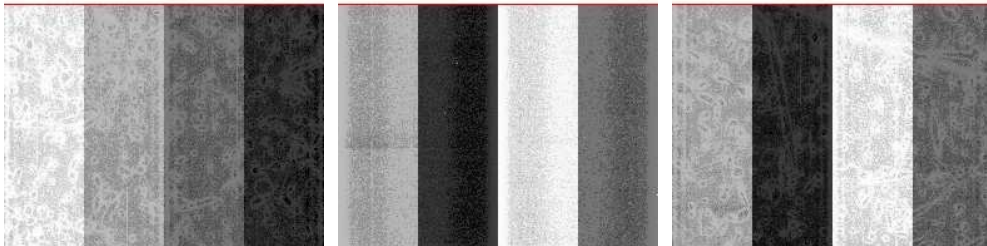


#### 2.1.2 Bias

Chip 4

Chip 5

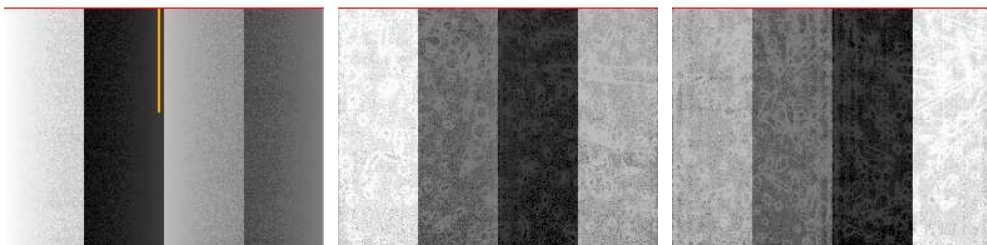
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	1
ascdsver	7.6.9
caldsver	3.2.3
date	2006-09-16T19:48:51
revision	2

sched_exp_time	116161.309000
ontime	116063.08395752
ontime4	116060.54293743
ontime5	116065.6249676
ontime6	116065.6249676
ontime7	116063.08395752
ontime8	116063.08395749
ontime9	116063.08400735
l1events	4117179

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	625454	820205	590793	758032	763651	559044
rejected events	548486	444743	504488	442627	566746	484949
rejected %	87%	54%	85%	58%	74%	86%

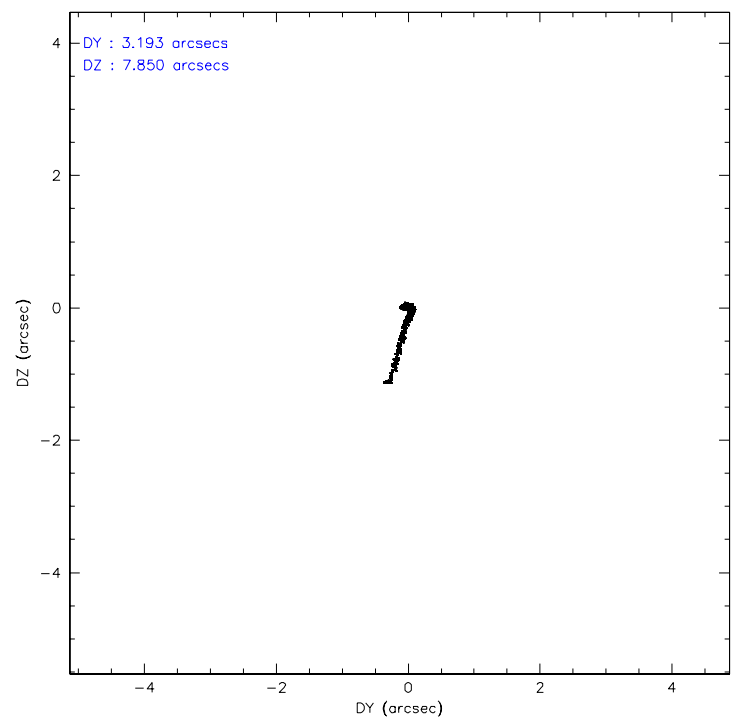
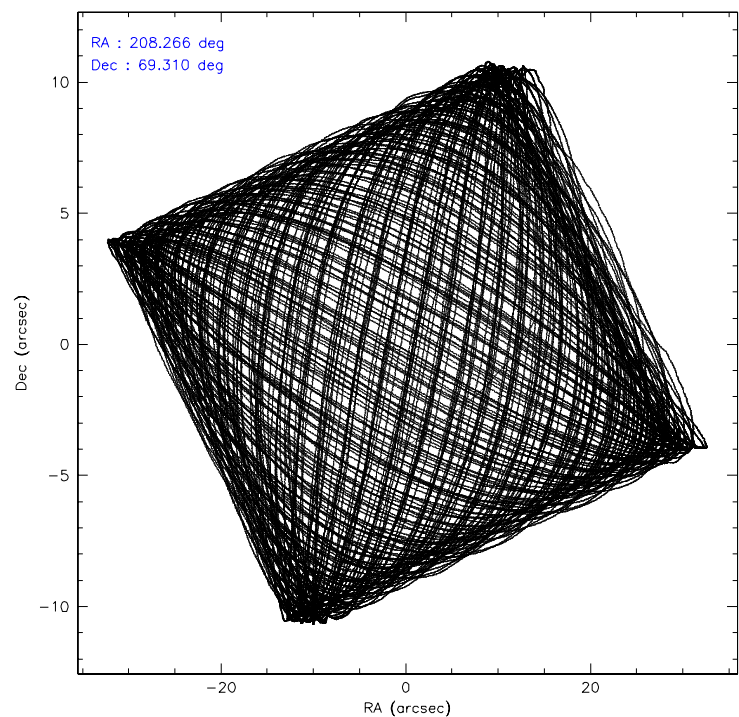
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	30856	47075	39478	23713	69367	29333
	4%	5%	6%	3%	9%	5%
grade 1 events	273	889	275	697	530	272
	0%	0%	0%	0%	0%	0%
grade 2 events	18867	110332	16814	76847	35283	15829
	3%	13%	2%	10%	4%	2%
grade 3 events	6862	10238	7734	20377	26303	7222
	1%	1%	1%	2%	3%	1%
grade 4 events	6727	9741	7506	19984	24113	6889
	1%	1%	1%	2%	3%	1%
grade 5 events	20430	40817	23556	52808	30790	24601
	3%	4%	3%	6%	4%	4%
grade 6 events	13664	198102	14777	174497	41842	14822
	2%	24%	2%	23%	5%	2%
grade 7 events	527775	403011	480653	389109	535423	460076
	84%	49%	81%	51%	70%	82%

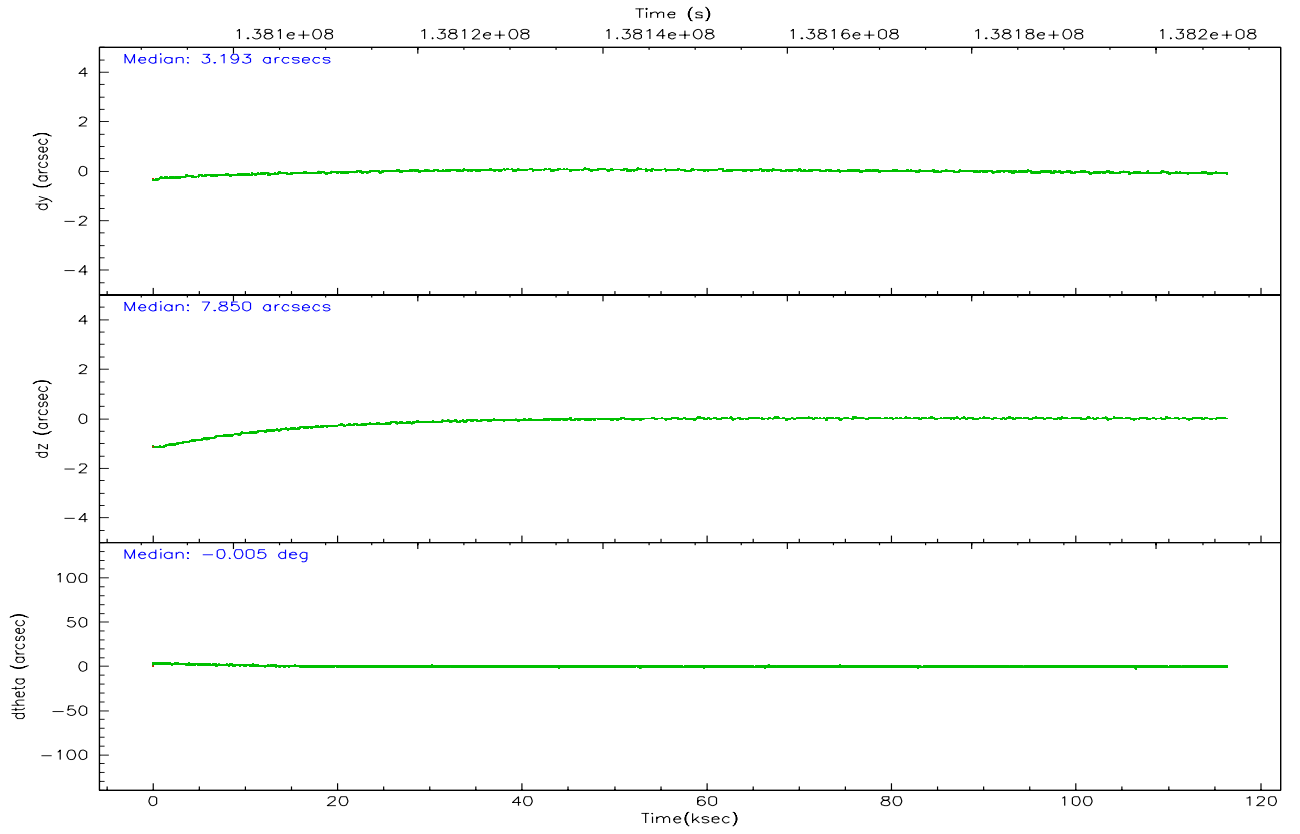
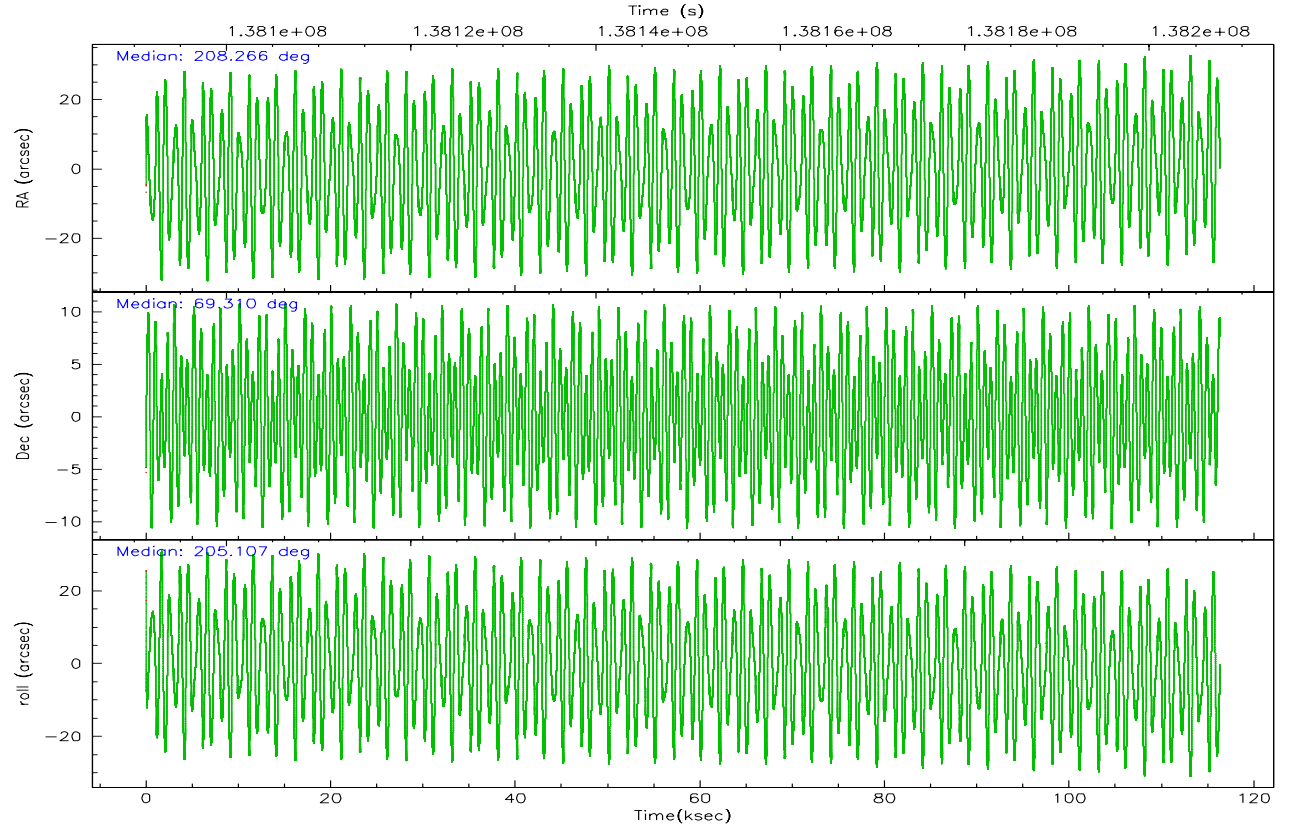


## 2.2 Compared Parameters

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	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
Pointing RA	208.309220	208.2658813200118	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	69.332974	69.31045146587503	Subarray start row	1	1
Pointing Roll	204.913053	205.1102307820003	Subarray row count	774	774
Window start time	138086164.184000	138086164.184000	Alternating exposures requested	N	N
Window stop time	138207664.184000	138207664.184000	Primary exposure time	0.000000	2.5
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-187.132523	-187.1254020033014			
SIM translation stage offset (mm)	-3	-3.007120579706367			
Observation start time	138091502.184000	138090517.77949			
Observation start date	2002-05-18T06:43:58	2002-05-18T06:28:37			
Observation end time	138207664.184000	138208179.58429			
Observation end date	2002-05-19T15:00:00	2002-05-19T15:09:39			
Read mode	TIMED	TIMED			

2.3 Aspect



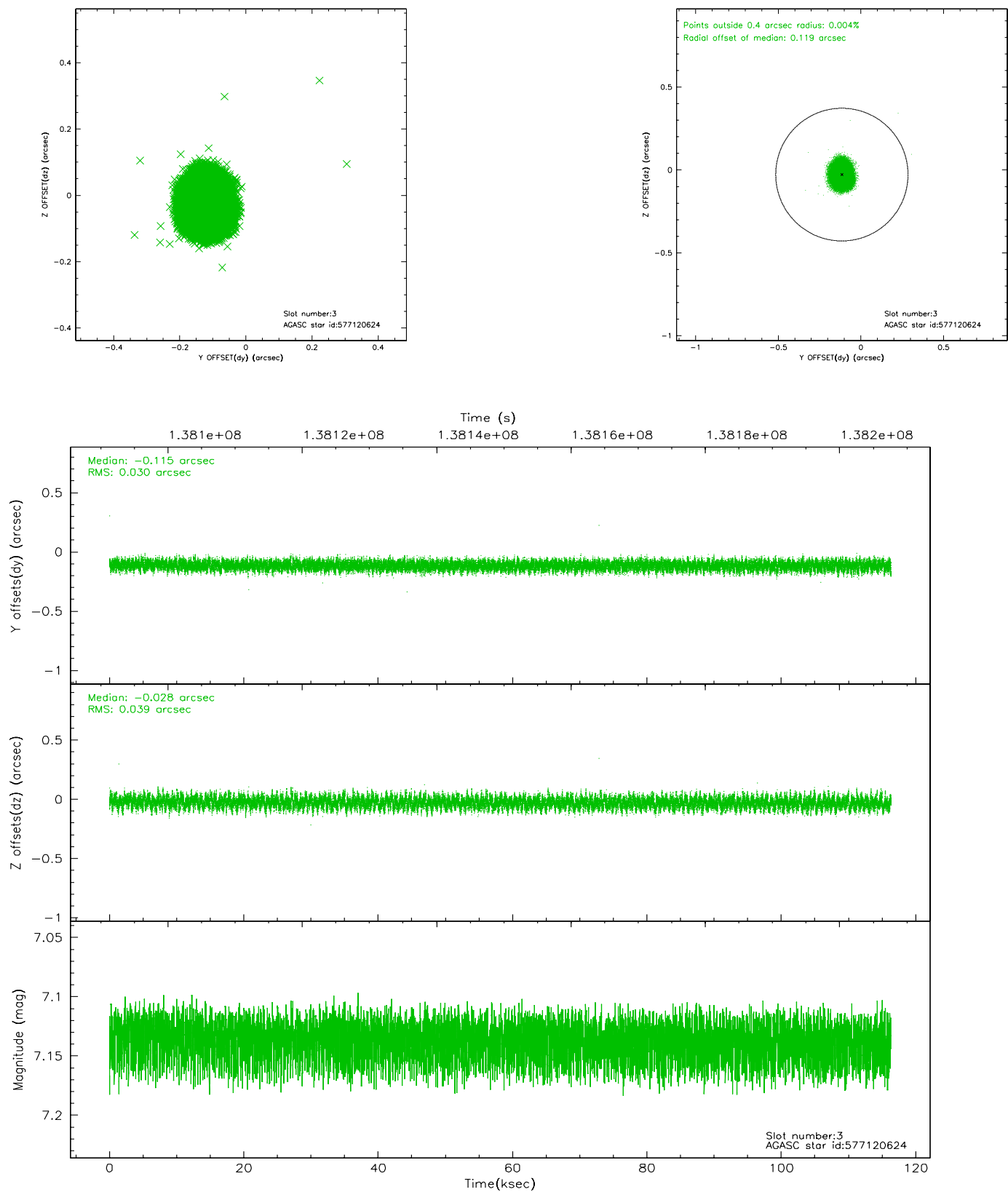


### Slot Statistics

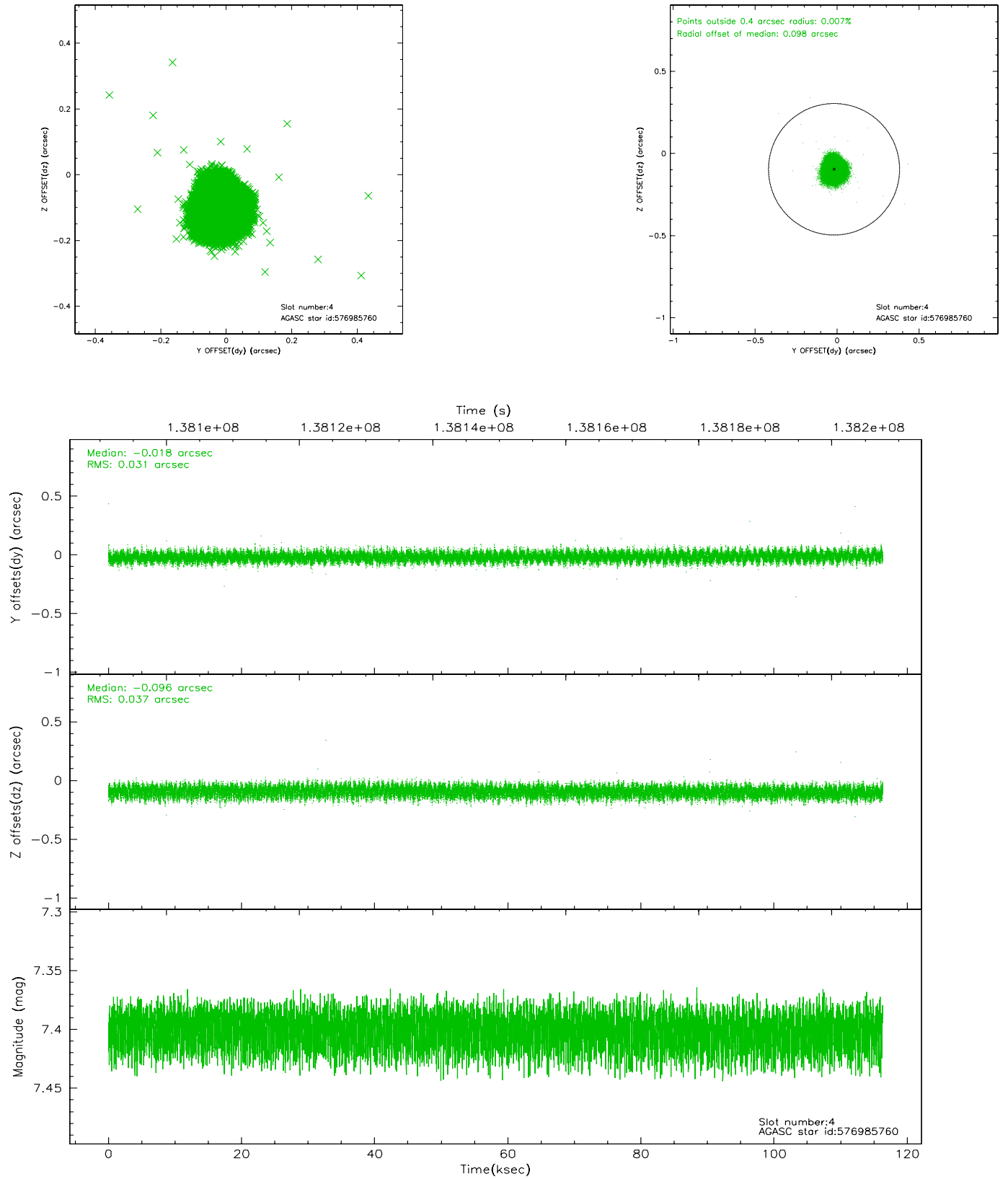
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	28381	-0.044	-0.006	0.008	0.020	0.000000	0.000000	-755.62	-1791.02
1	FID	ACIS-S-4	7.20	28379	-0.021	0.023	0.006	0.015	0.000000	0.000000	2157.68	117.65
2	FID	ACIS-S-5	7.23	28378	0.034	-0.009	0.008	0.019	0.000000	0.000000	-1808.55	111.09
3	GUIDE	577120624	7.14	56756	-0.115	-0.028	0.053	0.084	208.865374	69.935124	-1537.38	-1679.70
4	GUIDE	576985760	7.40	56755	-0.018	-0.096	0.052	0.082	207.721529	69.153363	953.71	265.99
5	GUIDE	577121192	7.87	56750	-0.034	0.059	0.061	0.099	208.693523	69.547622	-764.47	-498.53
6	GUIDE	576991928	8.80	56747	0.099	-0.059	0.076	0.122	207.496448	69.653826	433.57	-1482.37
7	GUIDE	576993432	9.54	56726	0.071	0.128	0.097	0.154	207.256317	68.646298	2288.24	1650.13

## 2.4 Star Slots

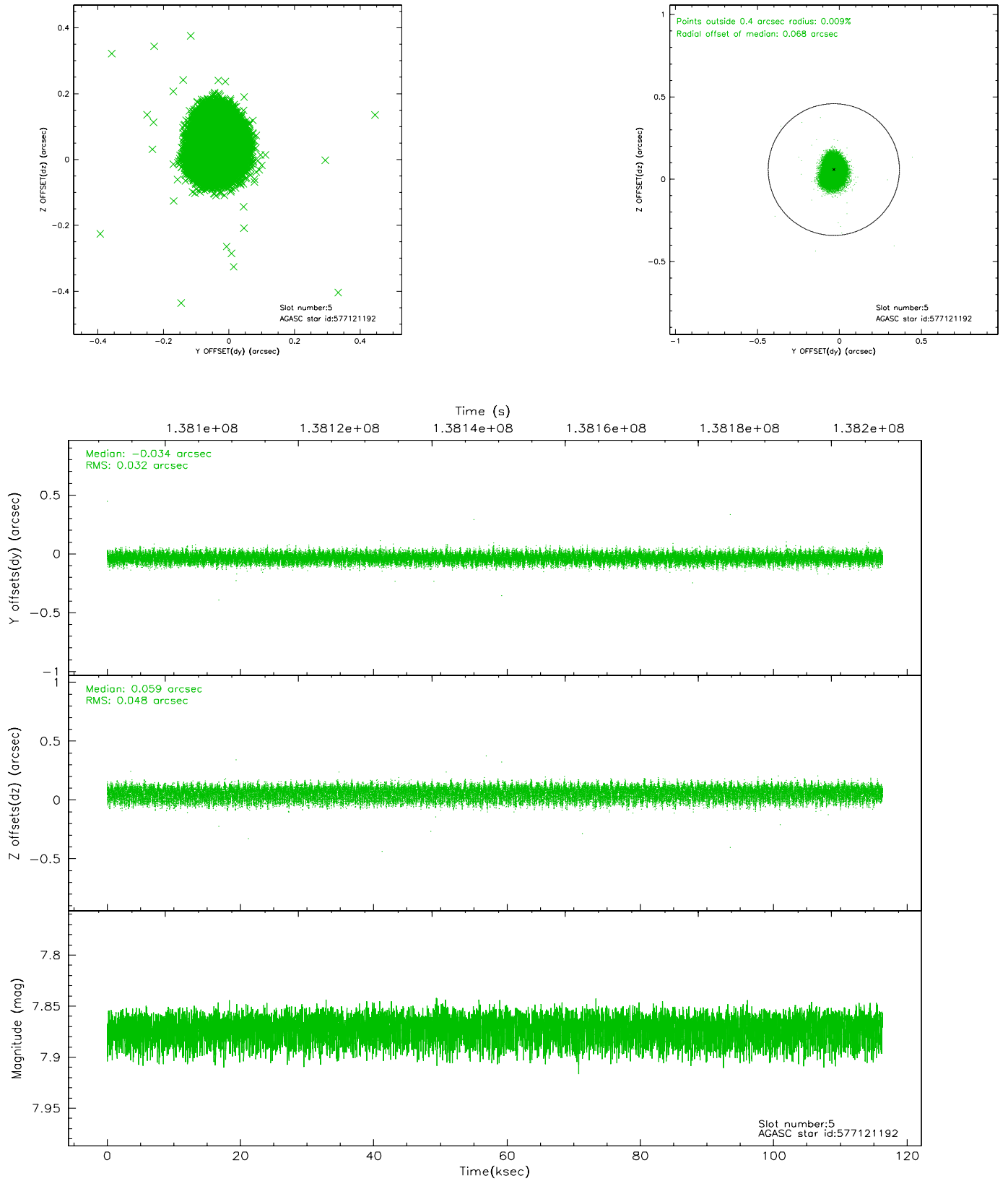
### 2.4.1 Slot 3



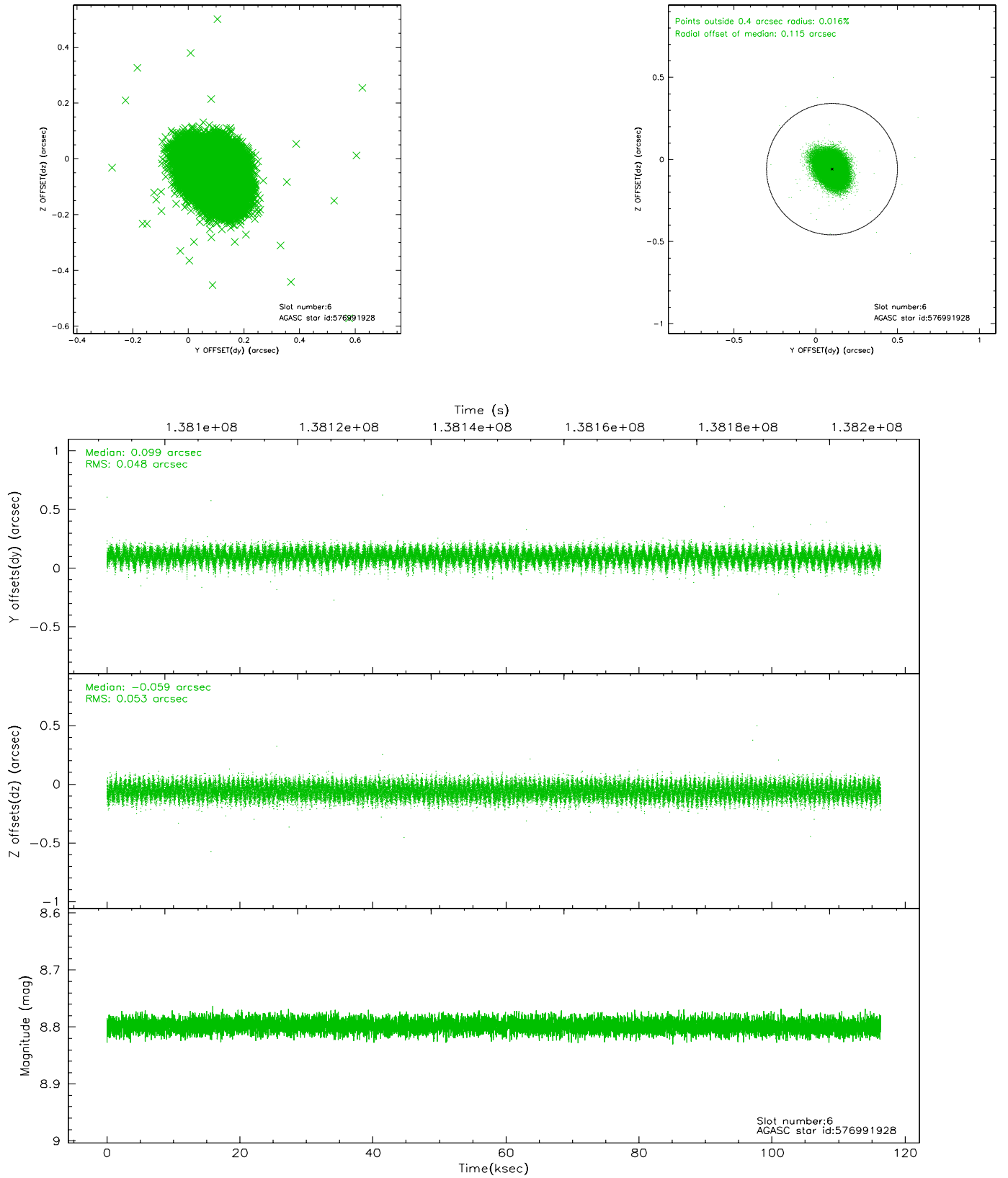
## 2.4.2 Slot 4



### 2.4.3 Slot 5

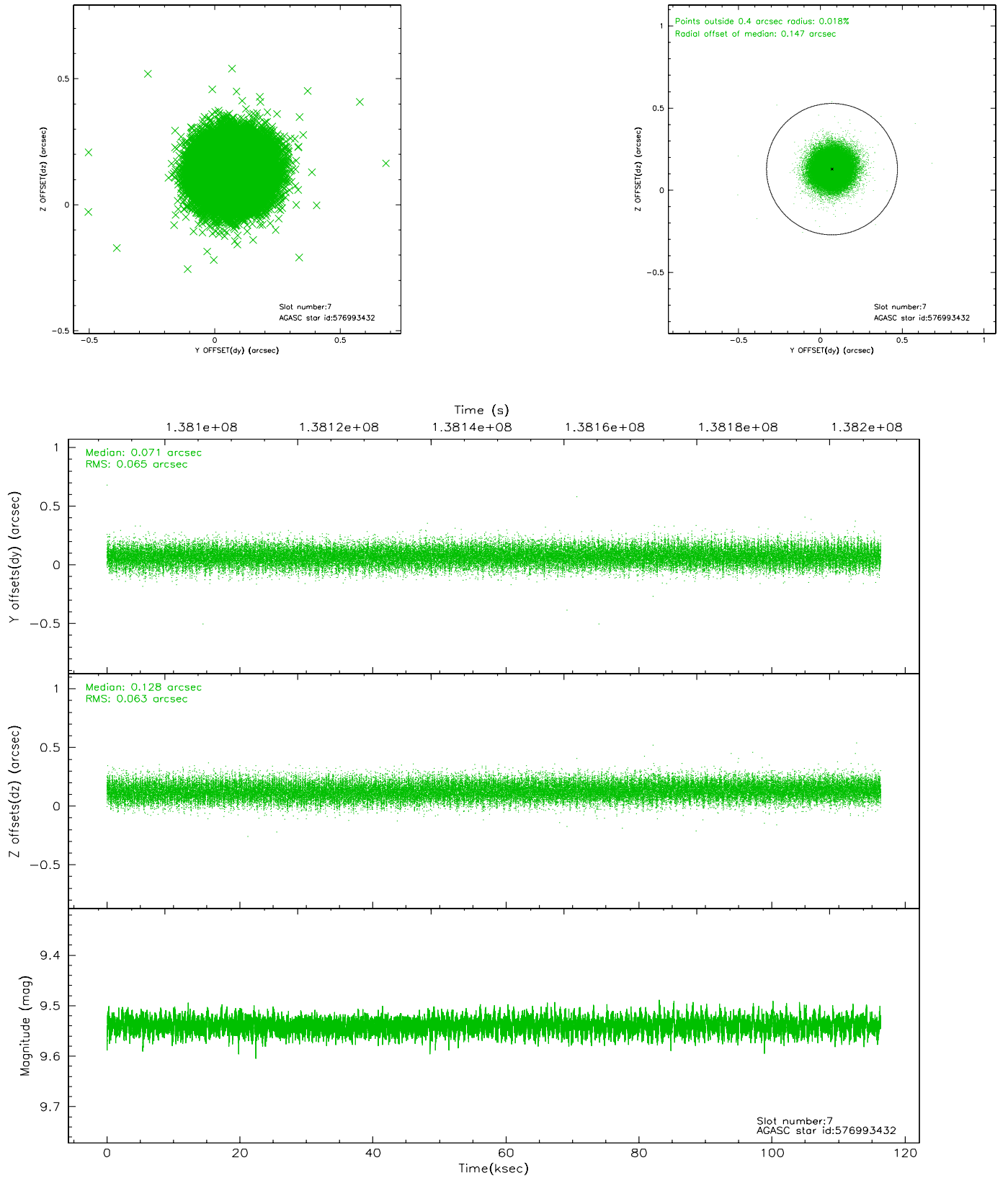


## 2.4.4 Slot 6



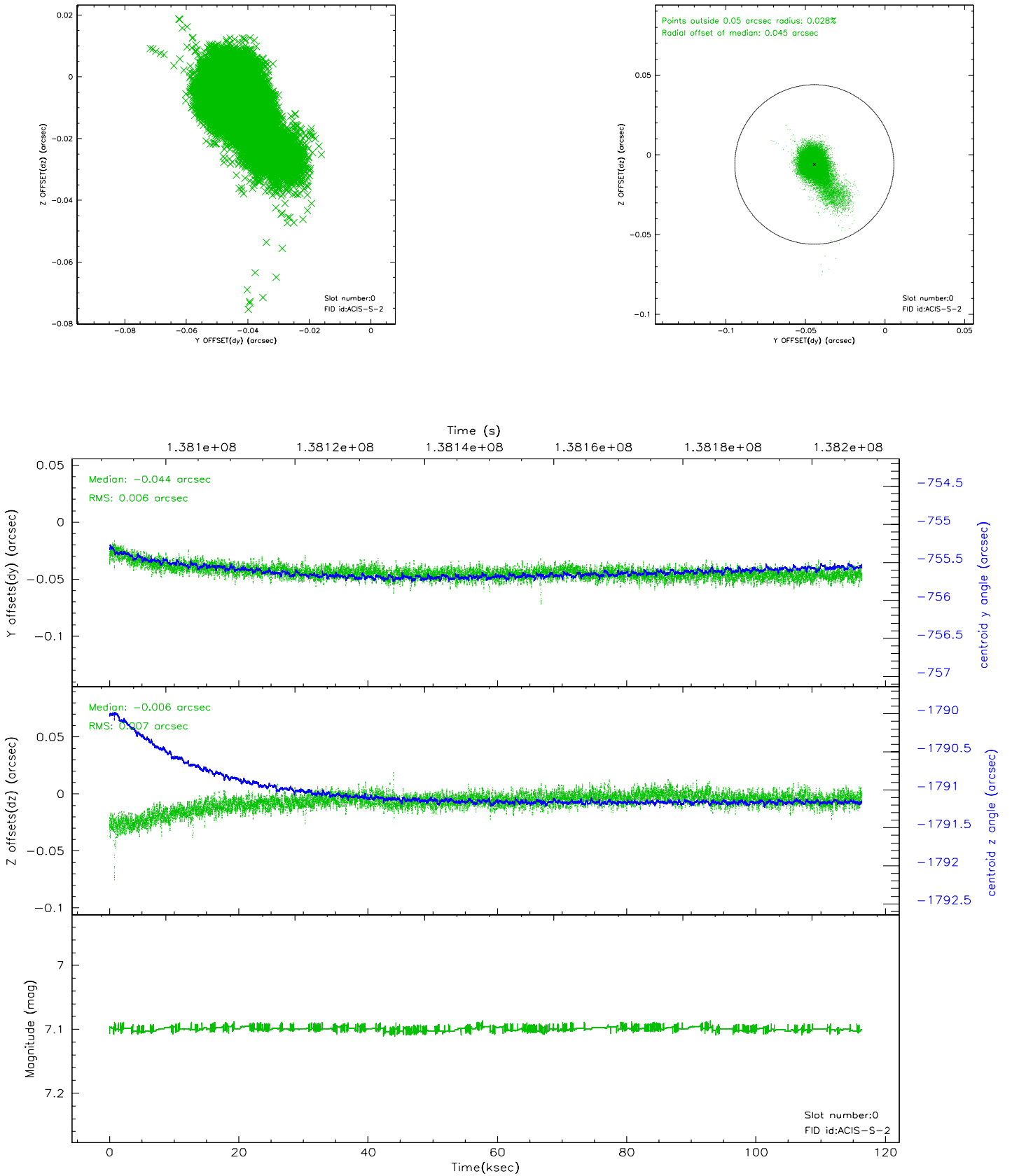


## 2.4.5 Slot 7

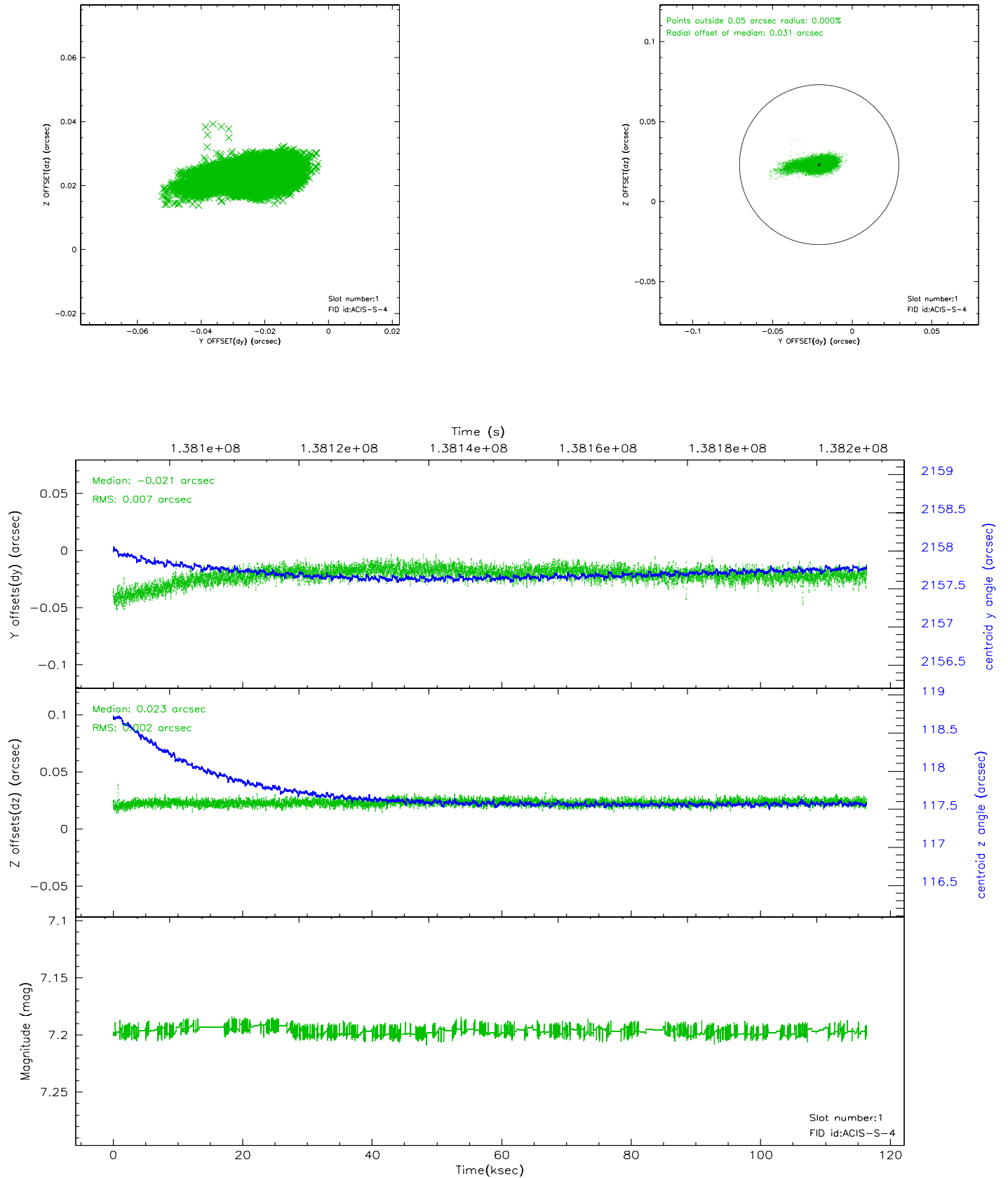


## 2.5 FID Slots

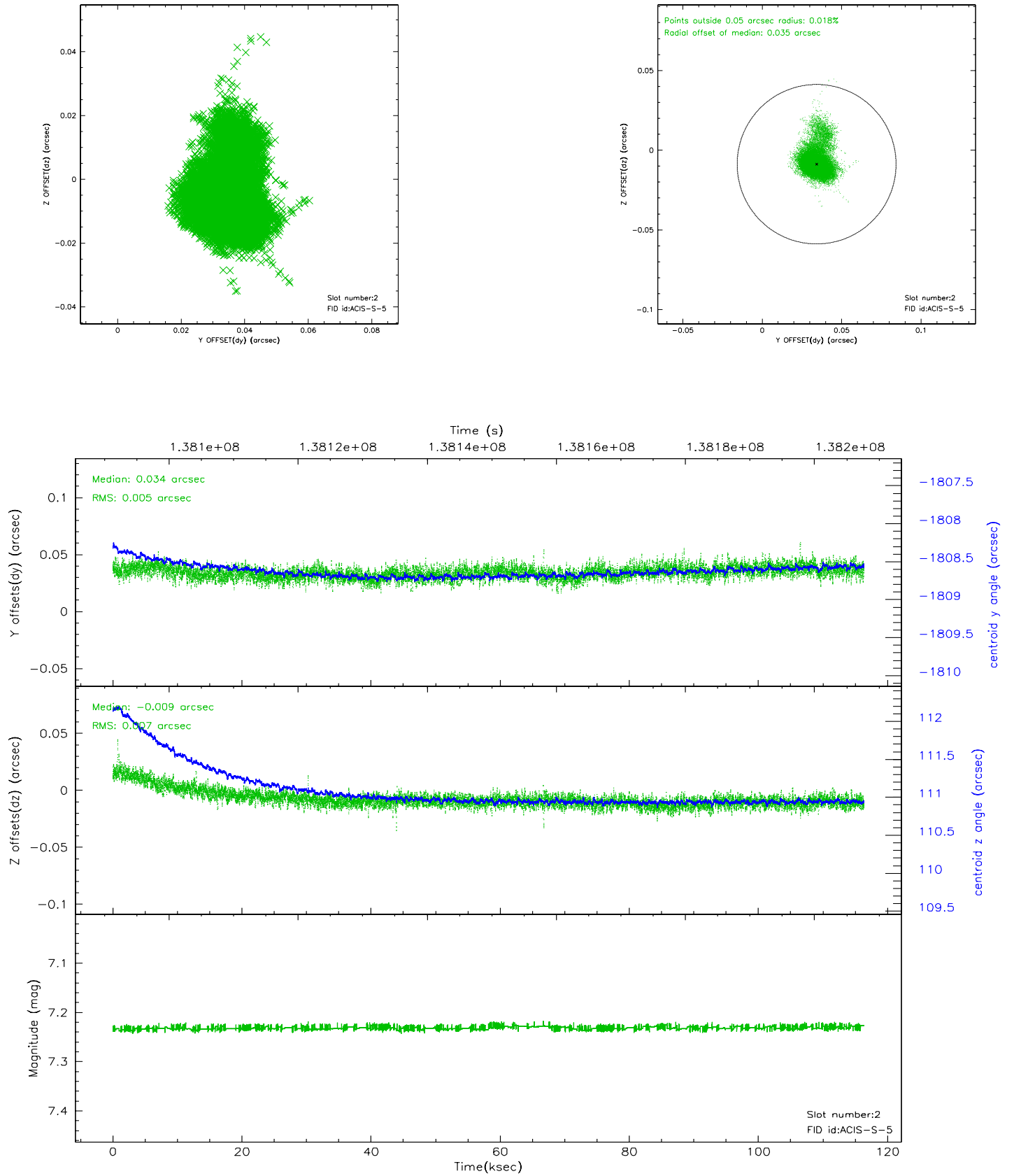
### 2.5.1 Slot 0



## 2.5.2 Slot 1

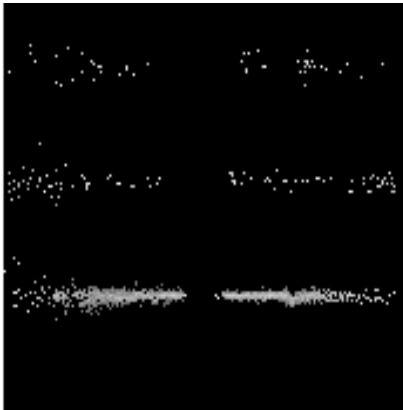


### 2.5.3 Slot 2

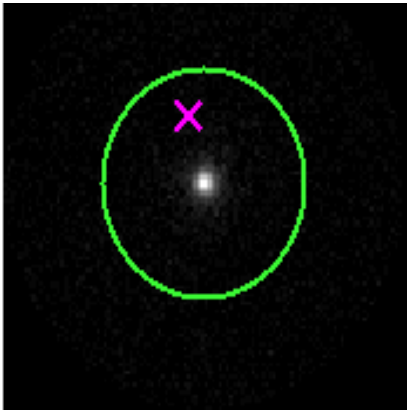


# 3 Gratings

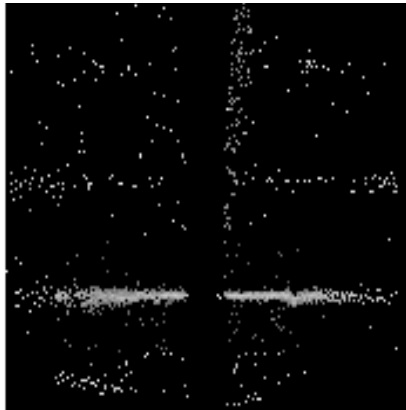
## 3.1 HEG Arm



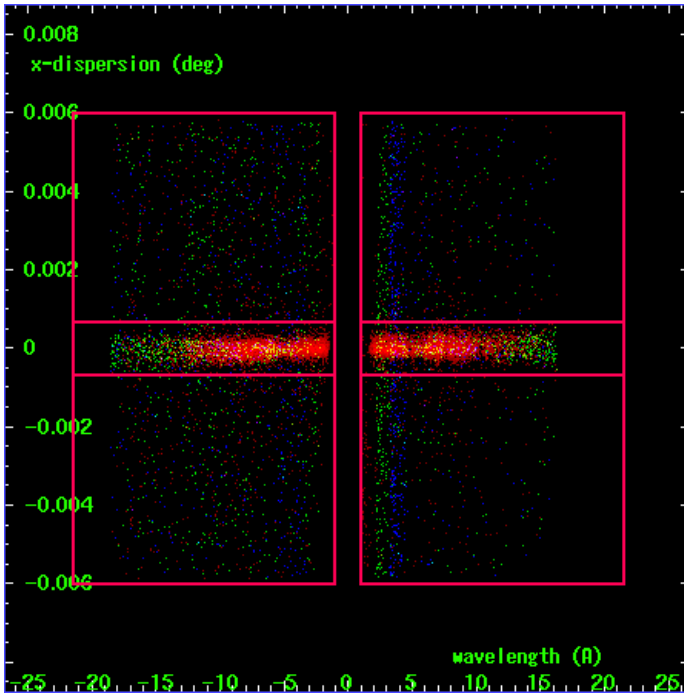
HEG Order Sort 123



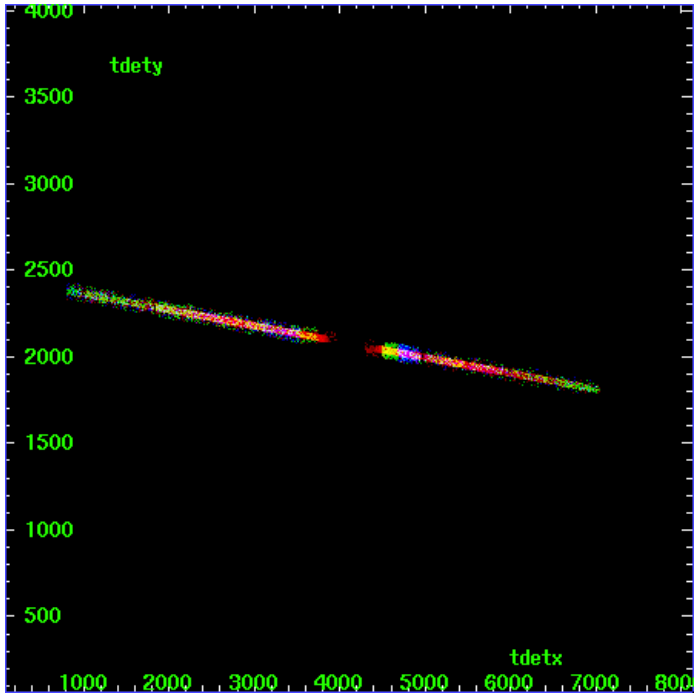
HEG Zero Order



HEG Order Sort ALL

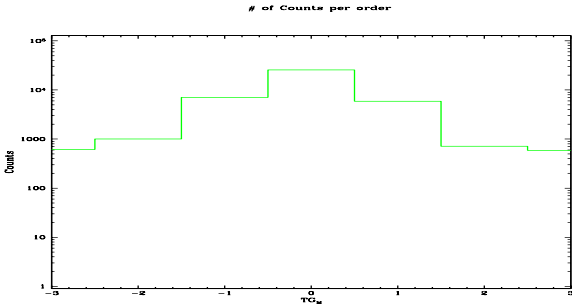


Spot Image HEG

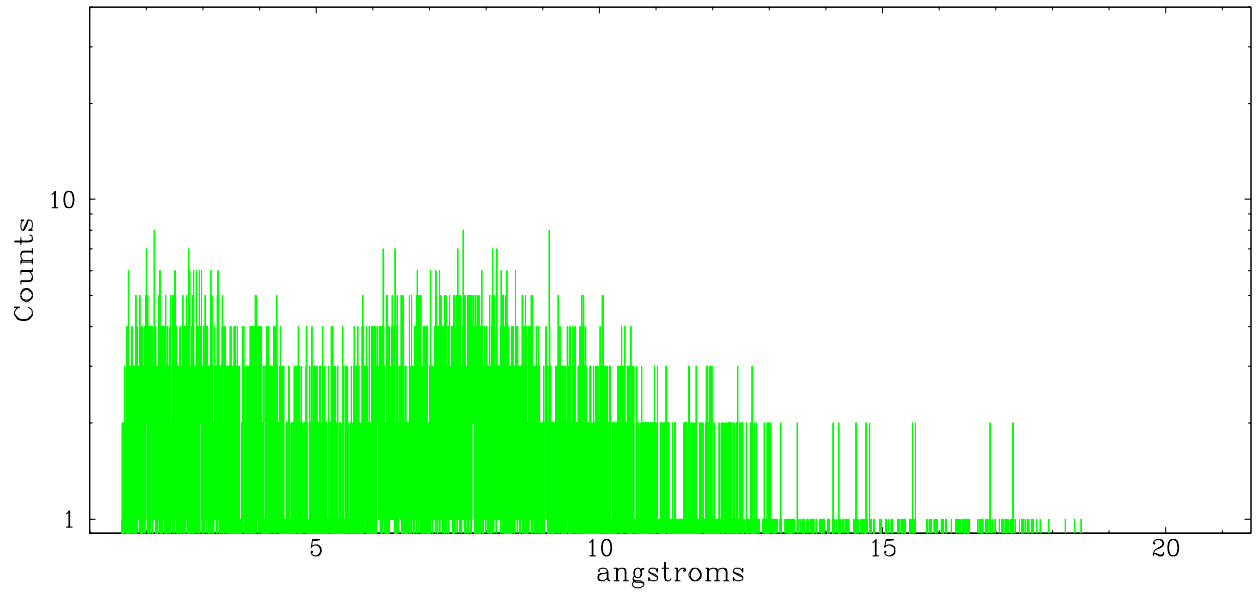


Full Detector HEG

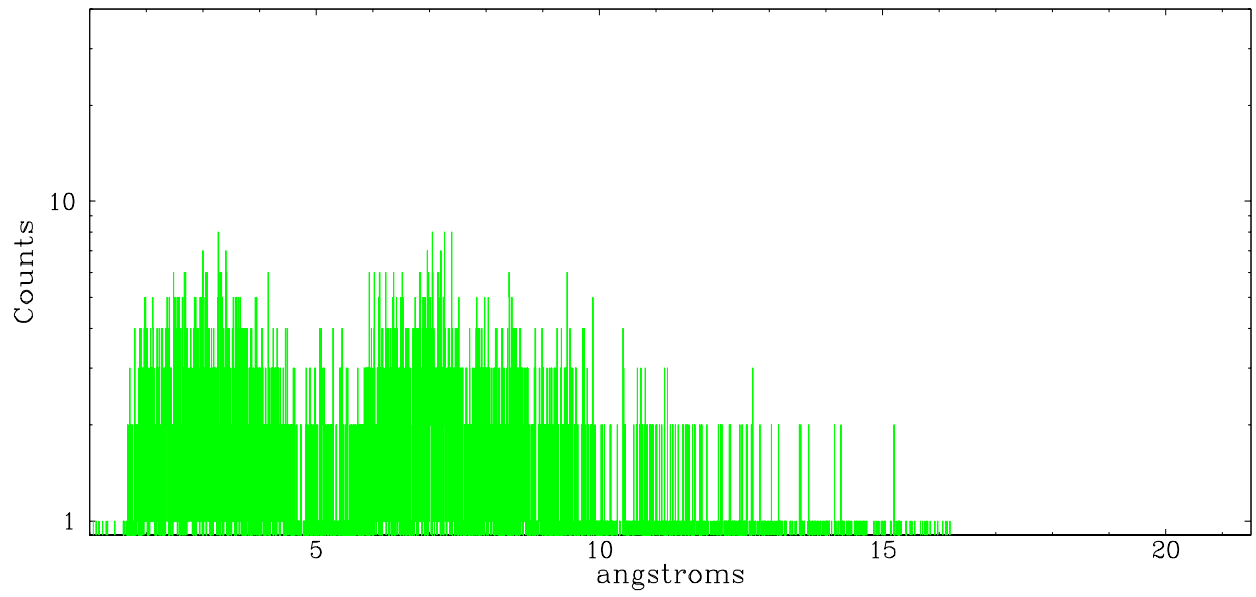
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	615	1003	7098	25543	5897	712	590



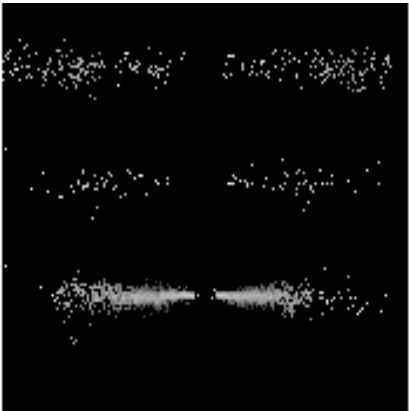
neg order -1



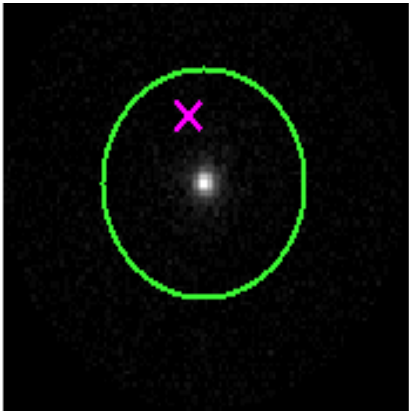
neg order +1



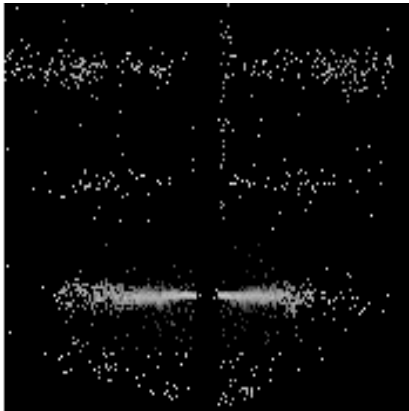
### 3.2 MEG Arm



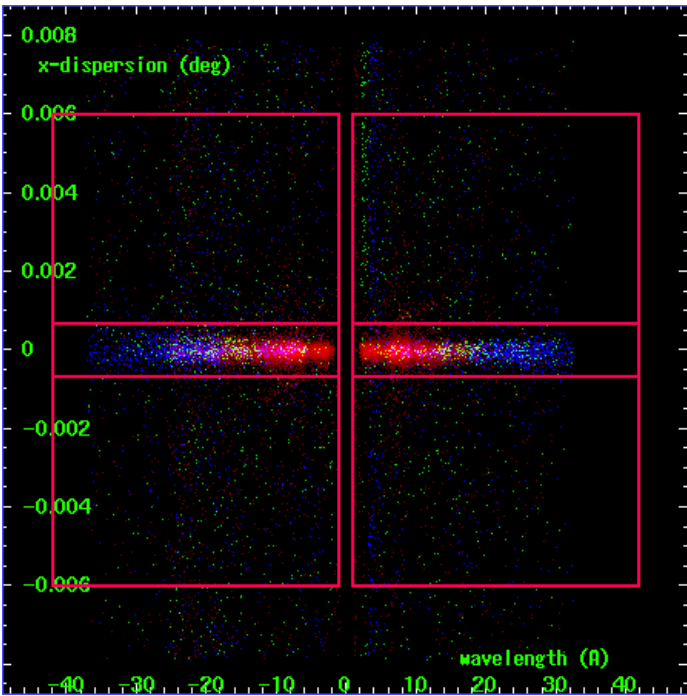
MEG Order Sort 123



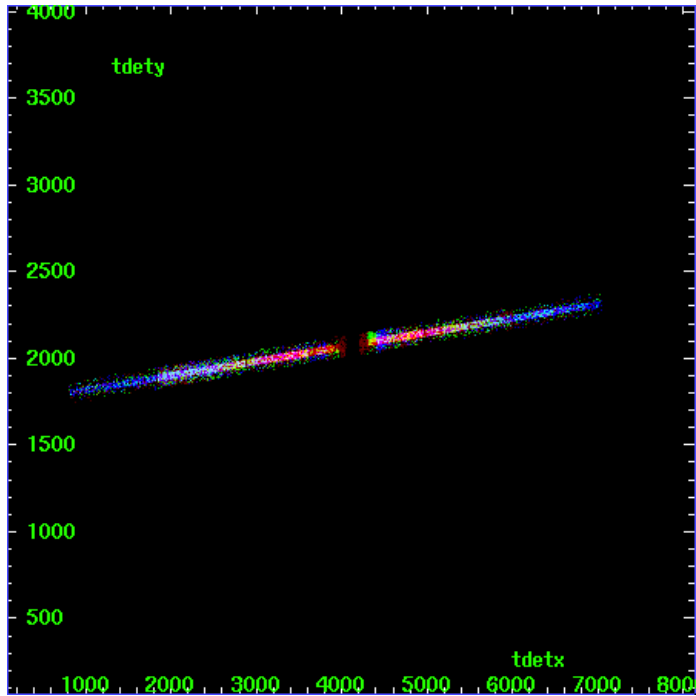
MEG Zero Order



MEG Order Sort ALL

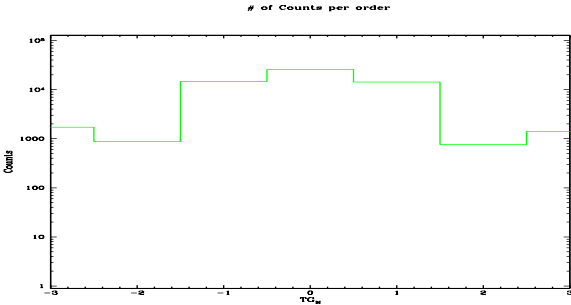


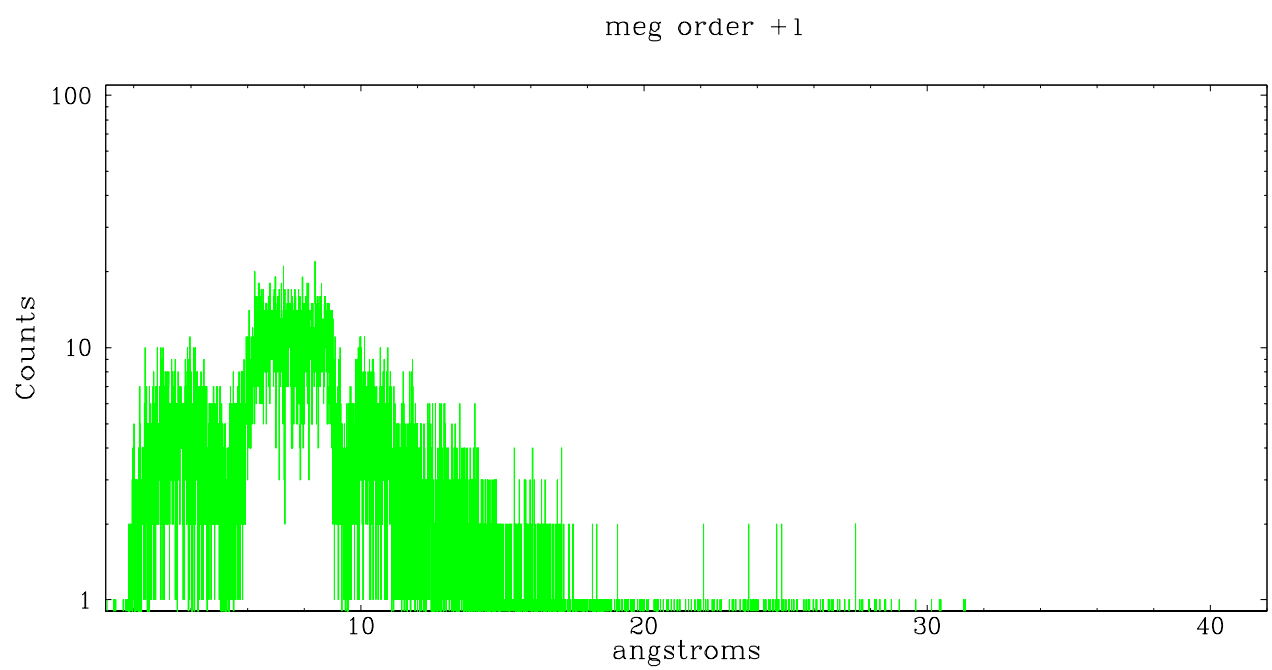
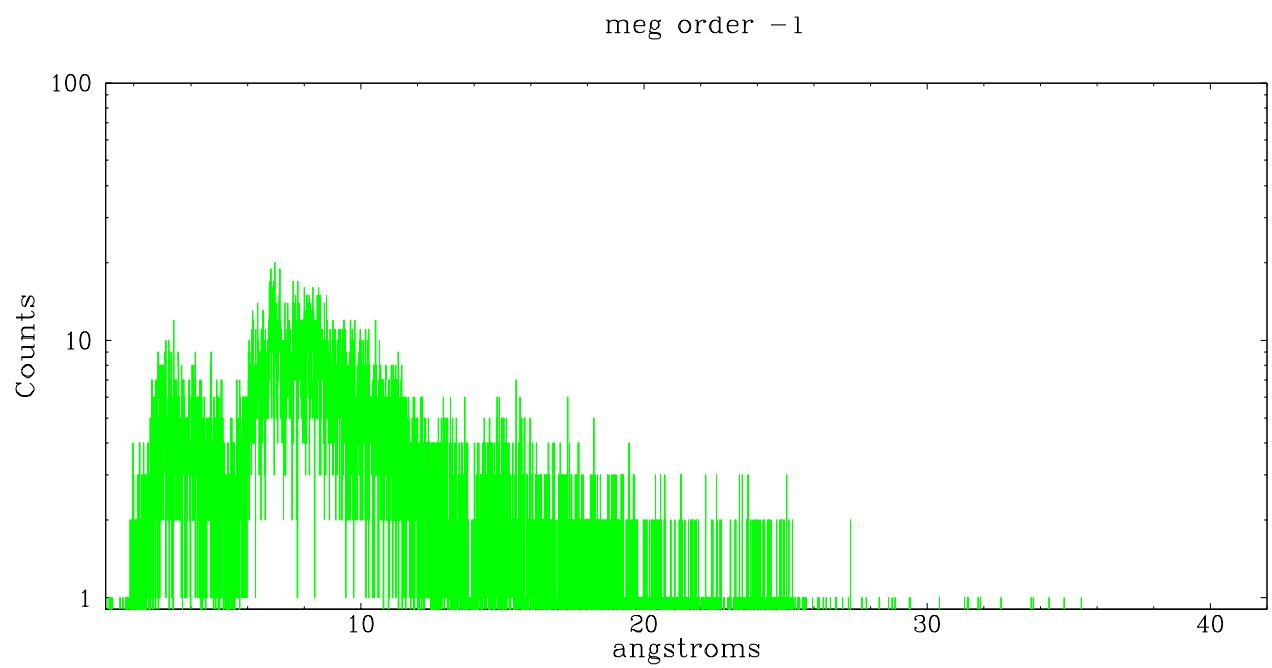
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1712	871	14619	25543	14286	757	1402







## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.09.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	116.062

### A.2 Comments

Coordinated with HST and FUSE.