

# V&V Reference Report

## L2 ASCDS Version : 7.6.7

Observation 5450 - L2 Version 002  
Chandra X-Ray Center

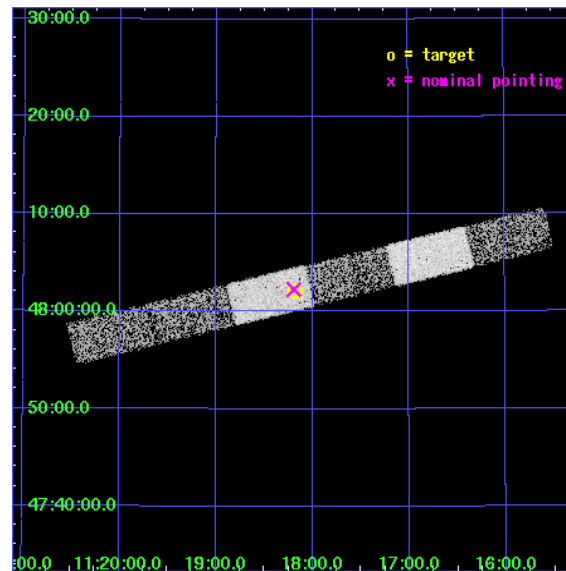
L2 Processing Date: Feb 25 2006

## 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

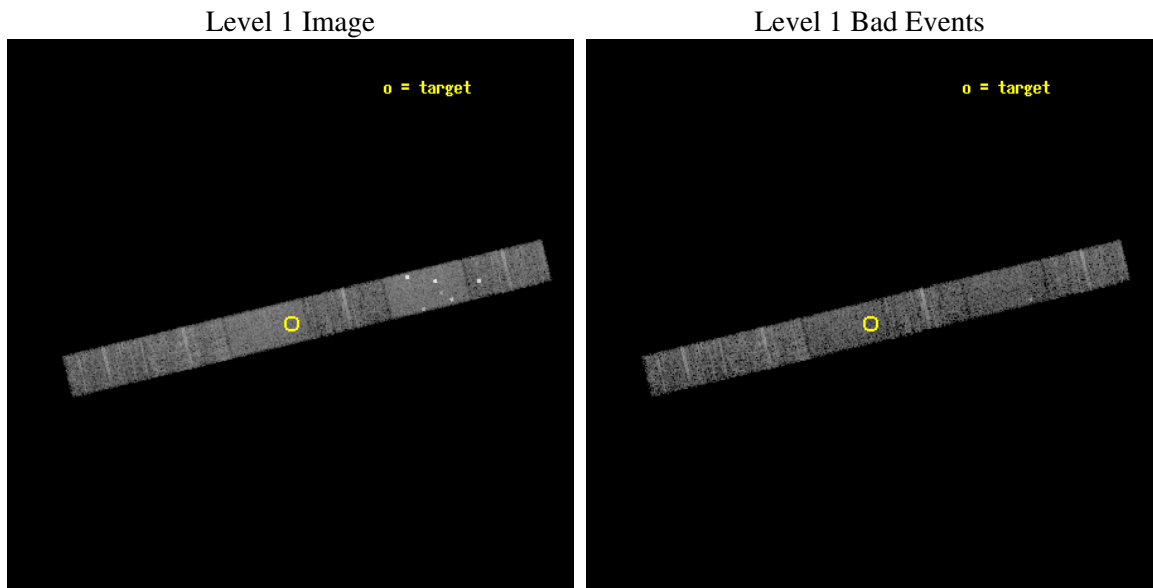
seq_num	400380
obs_id	5450
title	Following a black hole candidate soft X-ray transient returning to quiescence
observer	Dr Peter Jonker
object	XTE J1118+480
dtcycle	0
cycle	P
ra_targ	169.545417
dec_targ	48.036944
ra_nom	169.54813298821
dec_nom	48.038118531582
roll_nom	166.43200803484
revision	2
ontime	5094.0000337362
livetime	4980.4458679471
ontime4	5094.0000337362
ontime5	5094.0000337362
ontime6	5094.0000337362
ontime7	5094.0000337362
ontime8	5094.0000337362
ontime9	5094.0000337362
l2events	30444



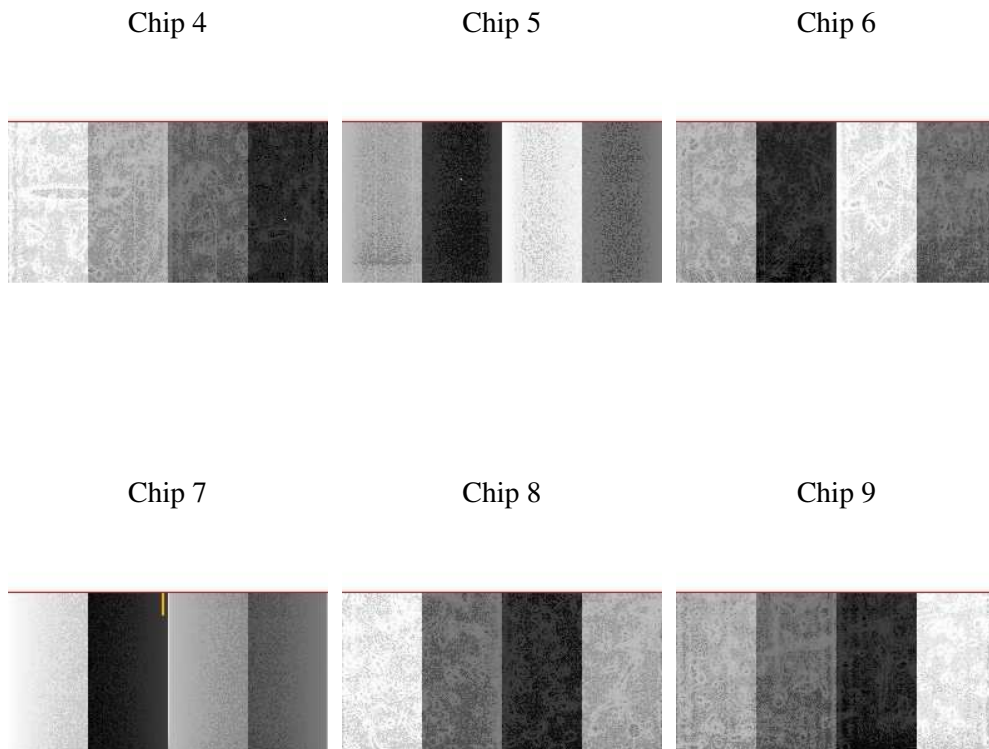
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.7
caldsver	3.2.1
date	2006-02-25T09:07:35
revision	2

sched_exp_time	5000.000000
ontime	5097.7956708968
ontime4	5097.7956610024
ontime5	5097.7956708968
ontime6	5097.7956610024
ontime7	5097.7956708968
ontime8	5097.7956610024
ontime9	5097.7956610024
l1events	153304

### 2.1.4 Events

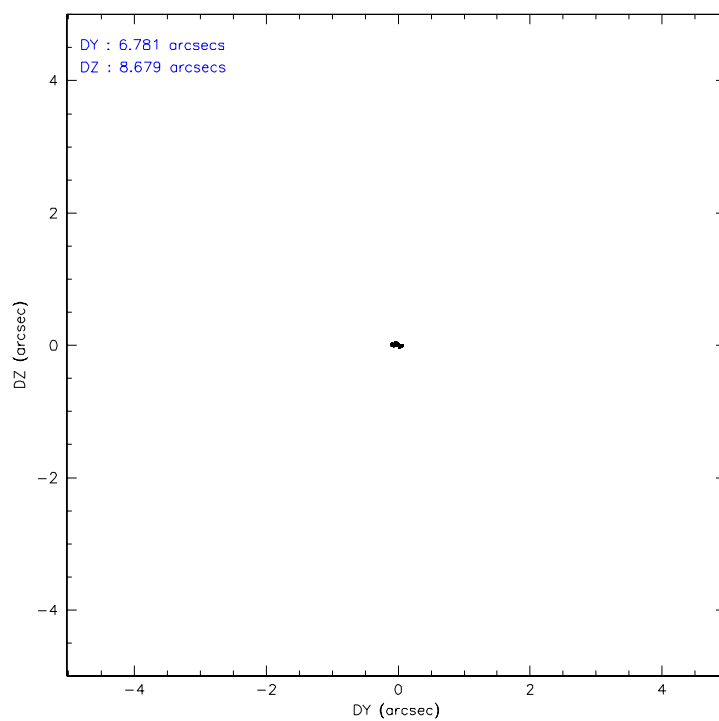
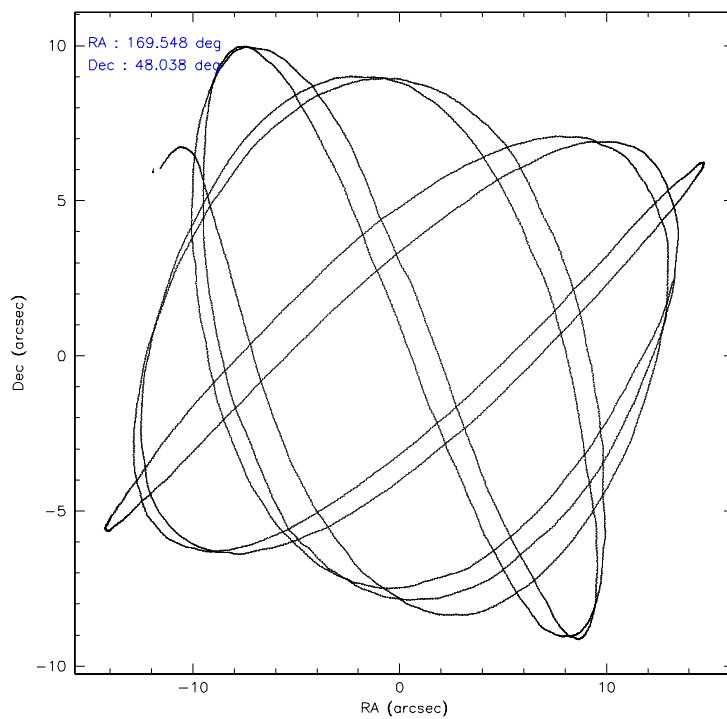
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	25105	34744	20502	26573	26334	20046
rejected events	20514	16253	18117	16222	21253	17545
rejected %	81%	46%	88%	61%	80%	87%

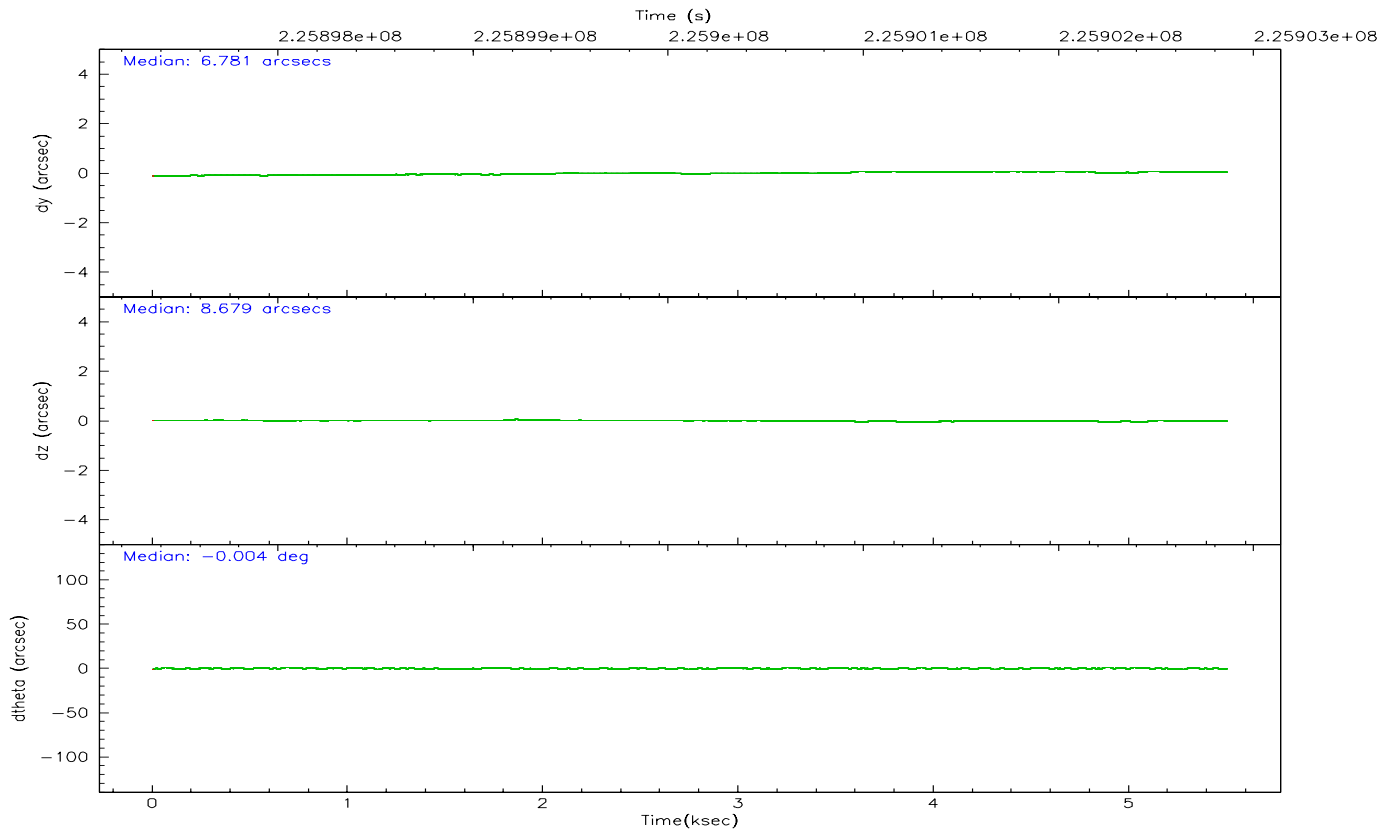
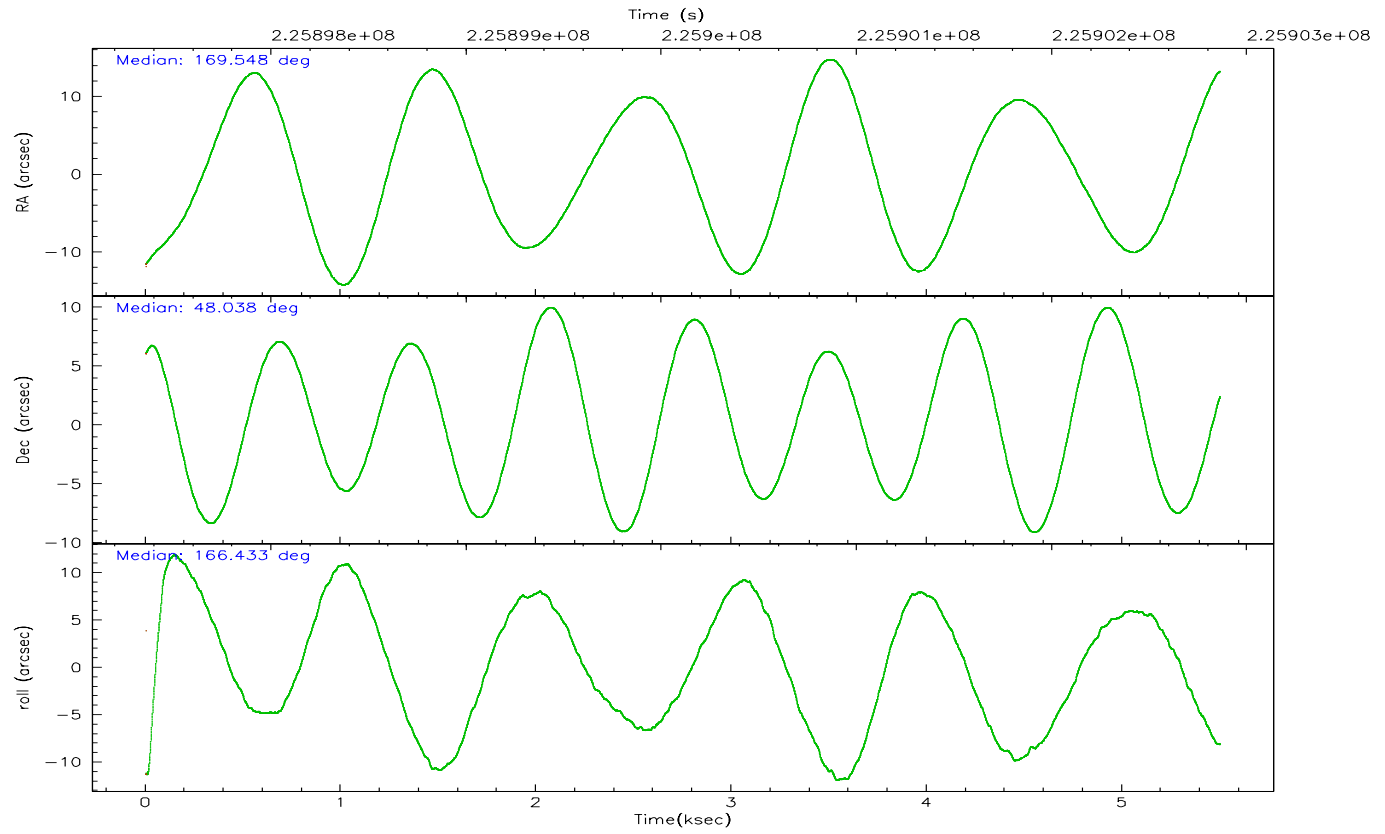
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	3041	6173	870	569	1515	968
	12%	17%	4%	2%	5%	4%
grade 1 events	21	32	9	25	14	12
	0%	0%	0%	0%	0%	0%
grade 2 events	577	4404	522	2633	1081	474
	2%	12%	2%	9%	4%	2%
grade 3 events	295	362	253	649	564	295
	1%	1%	1%	2%	2%	1%
grade 4 events	297	290	268	601	555	265
	1%	0%	1%	2%	2%	1%
grade 5 events	922	1476	883	1796	1134	957
	3%	4%	4%	6%	4%	4%
grade 6 events	387	7274	473	5905	1369	503
	1%	20%	2%	22%	5%	2%
grade 7 events	19565	14733	17224	14395	20102	16572
	77%	42%	84%	54%	76%	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	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	1/2	1/2
Pointing RA	169.587064	169.5481329882074	Subarray start row	0	257
Pointing Dec	48.046260	48.0381185315818	Subarray row count	1024	512
Pointing Roll	166.246482	166.4320080348356	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	1.8
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1425803651734			
SIM translation stage offset (mm)	0	0.01005778216563158			
Observation start time	225897866.184000	225896753.47412			
Observation start date	2005-02-27T13:23:22	2005-02-27T13:05:53			
Observation end time	225902866.184000	225903523.59943			
Observation end date	2005-02-27T14:46:42	2005-02-27T14:58:43			
Read mode	TIMED	TIMED			

## 2.3 Aspect





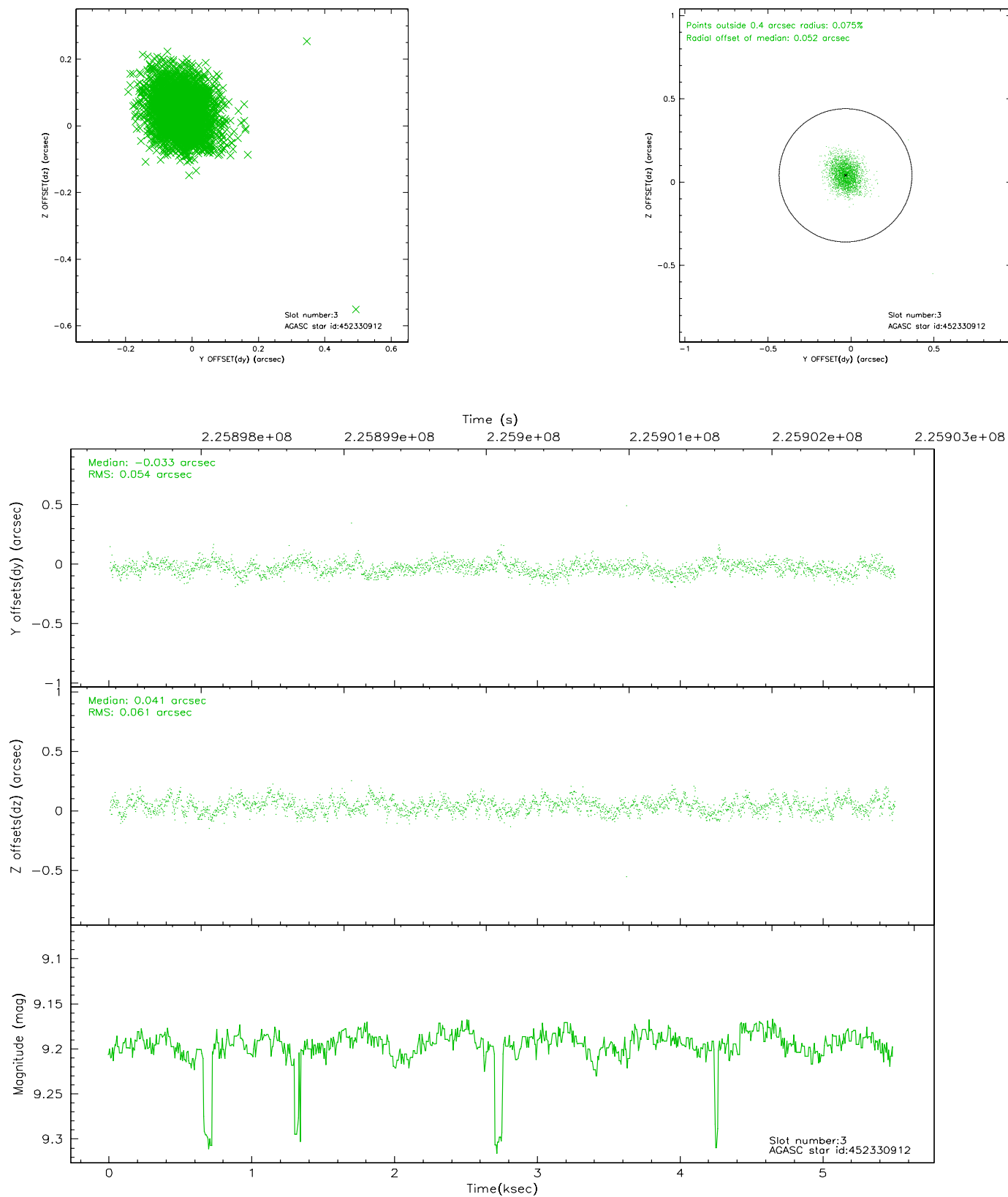
### Slot Statistics

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	1342	-0.019	-0.019	0.006	0.011	0.000000	0.000000	-759.53	-1729.86
1	FID	ACIS-S-4	7.21	1342	0.029	0.015	0.005	0.008	0.000000	0.000000	2153.29	177.53
2	FID	ACIS-S-5	7.23	1342	-0.041	0.014	0.006	0.011	0.000000	0.000000	-1810.99	172.44
3	GUIDE	452330912	9.19	2671	-0.033	0.041	0.084	0.137	170.294974	48.205150	-1511.68	-966.86
4	GUIDE	452332560	9.12	2683	-0.093	-0.157	0.076	0.125	168.907013	48.101061	1636.22	189.49
5	GUIDE	452333480	8.71	2684	0.081	0.029	0.076	0.124	170.336265	47.786774	-1979.29	468.12
6	GUIDE	452335632	7.67	2684	-0.060	-0.061	0.065	0.100	169.329594	47.936340	508.77	531.20
7	GUIDE	451813480	9.72	2683	0.103	0.149	0.173	0.264	168.679971	48.384979	2399.93	-681.02

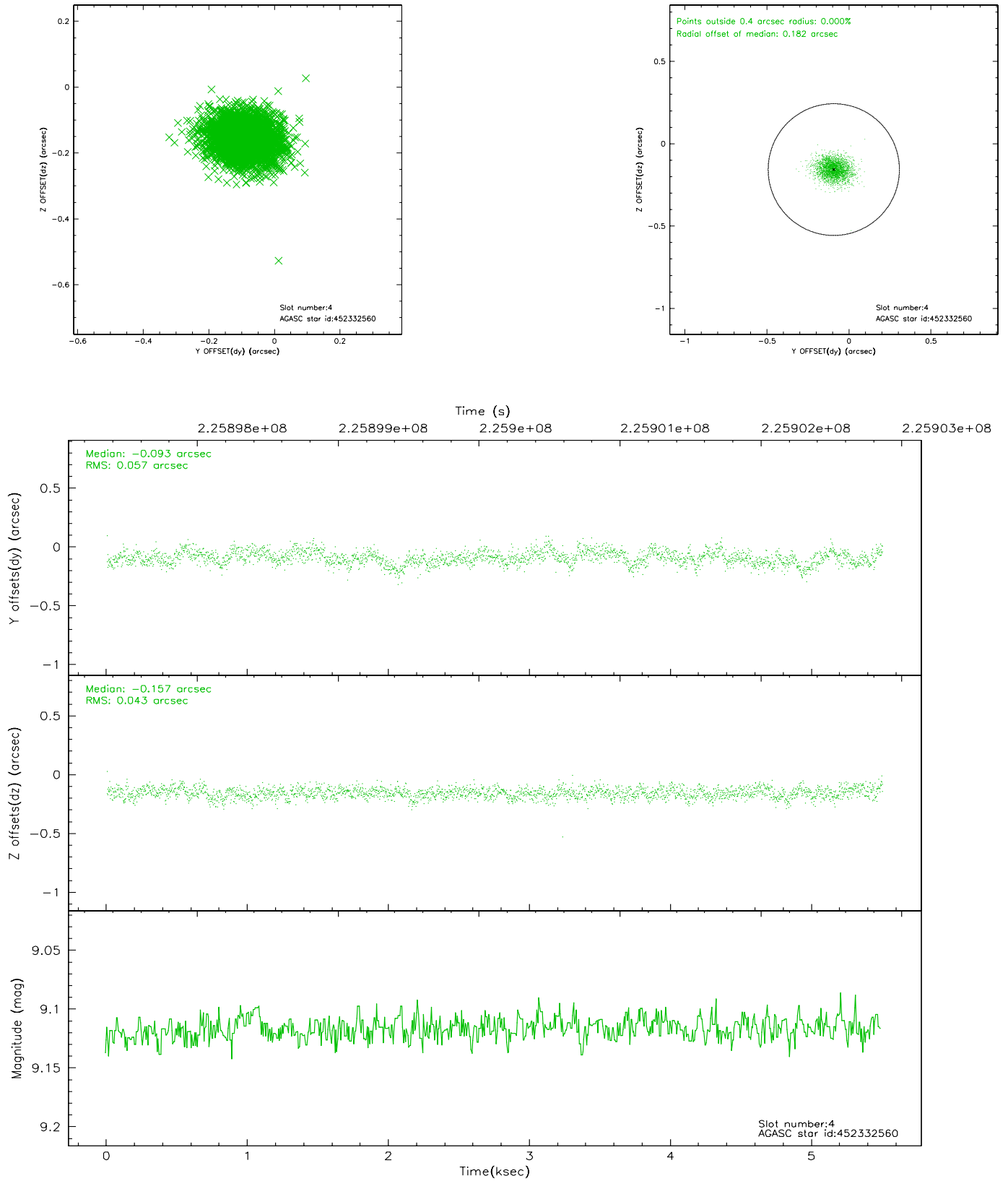


## 2.4 Star Slots

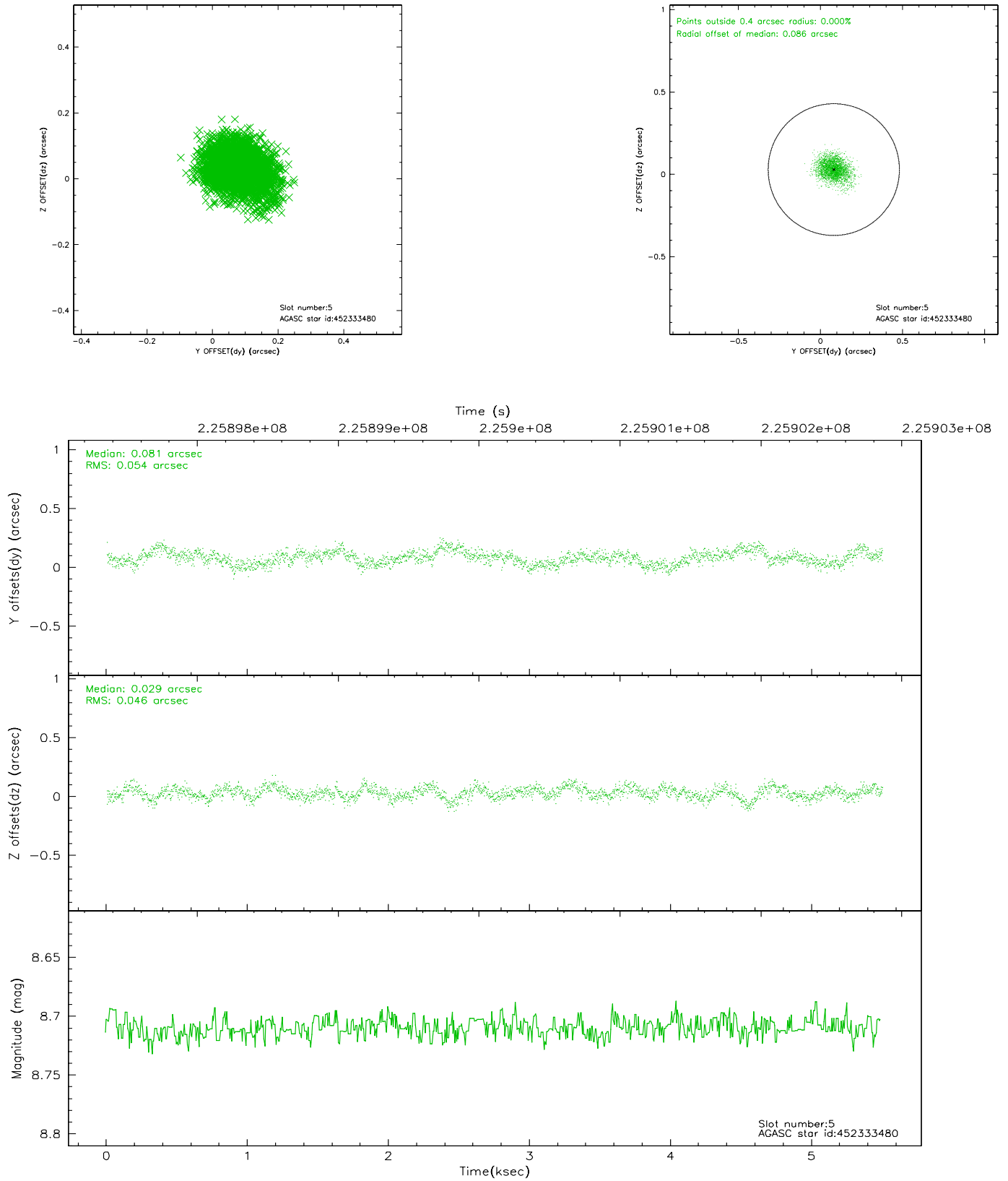
### 2.4.1 Slot 3



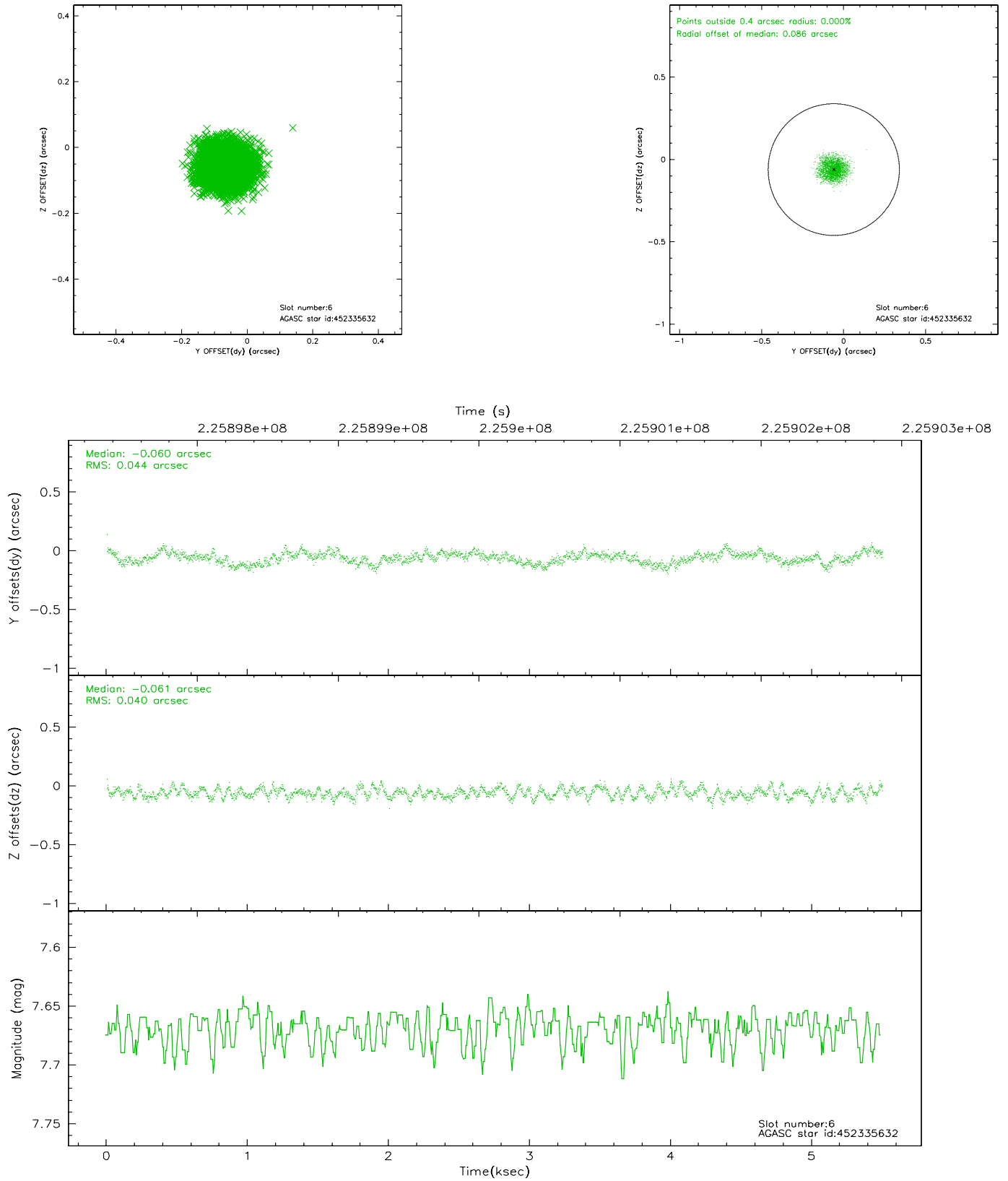
## 2.4.2 Slot 4



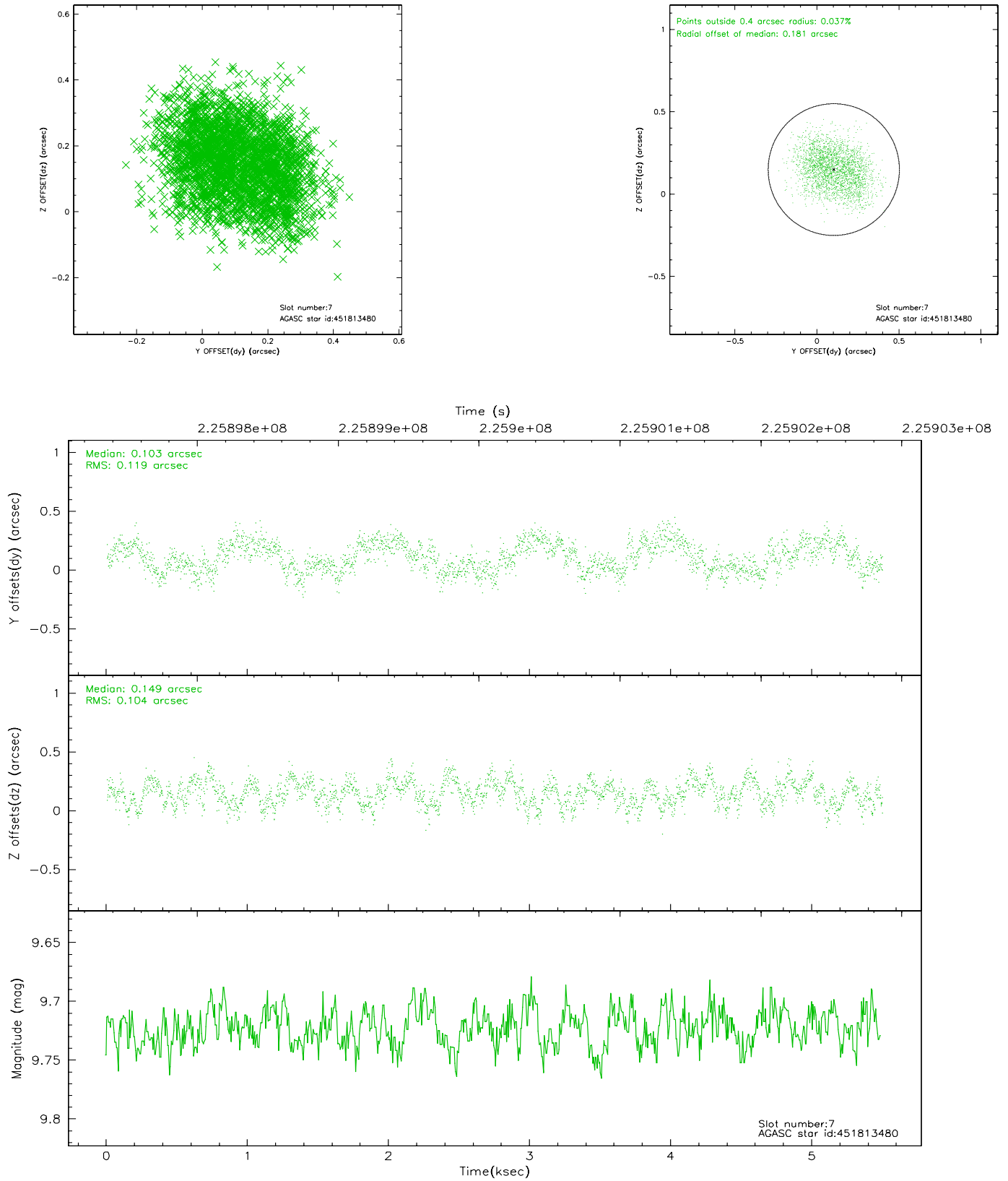
### 2.4.3 Slot 5



## 2.4.4 Slot 6

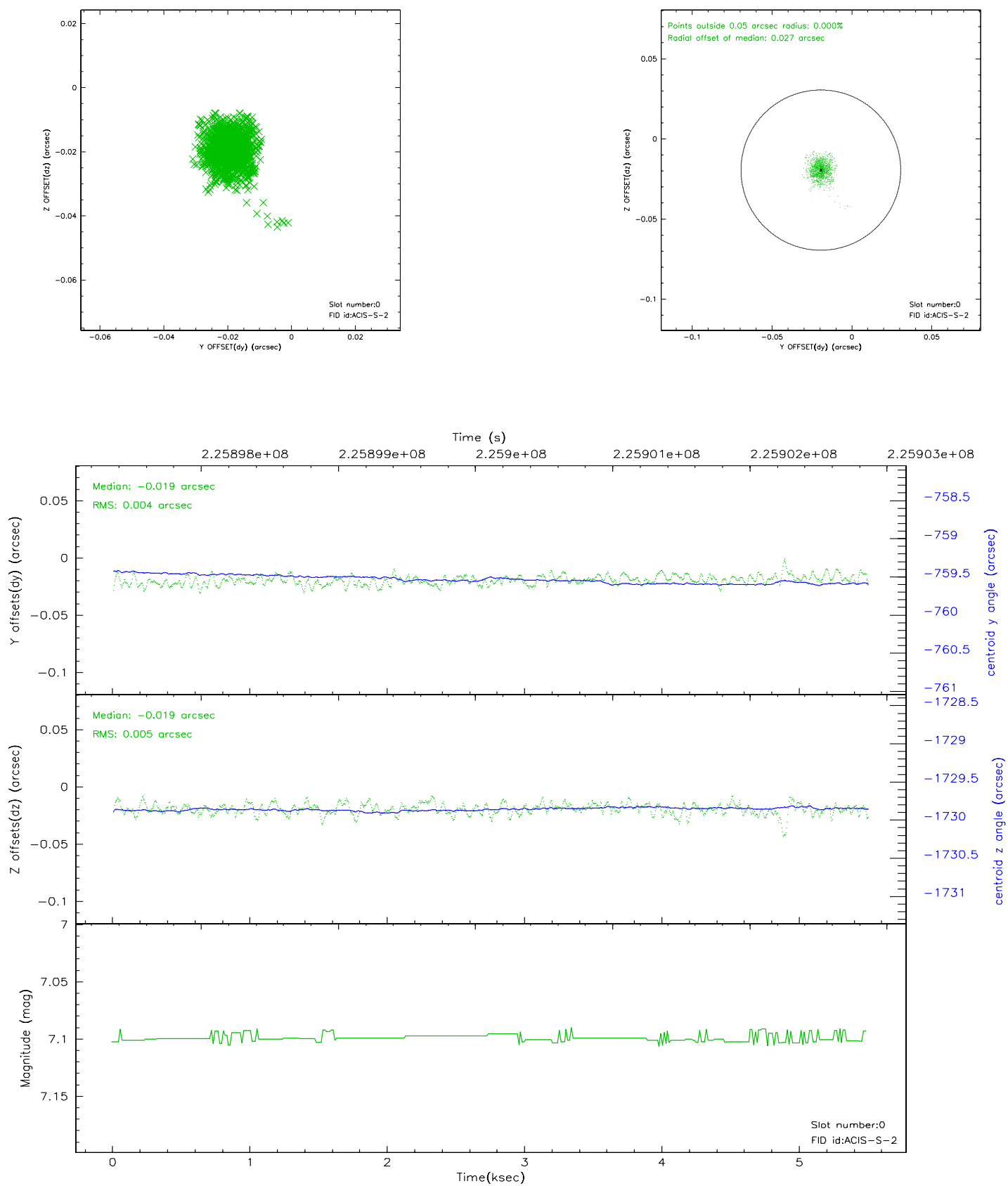


## 2.4.5 Slot 7

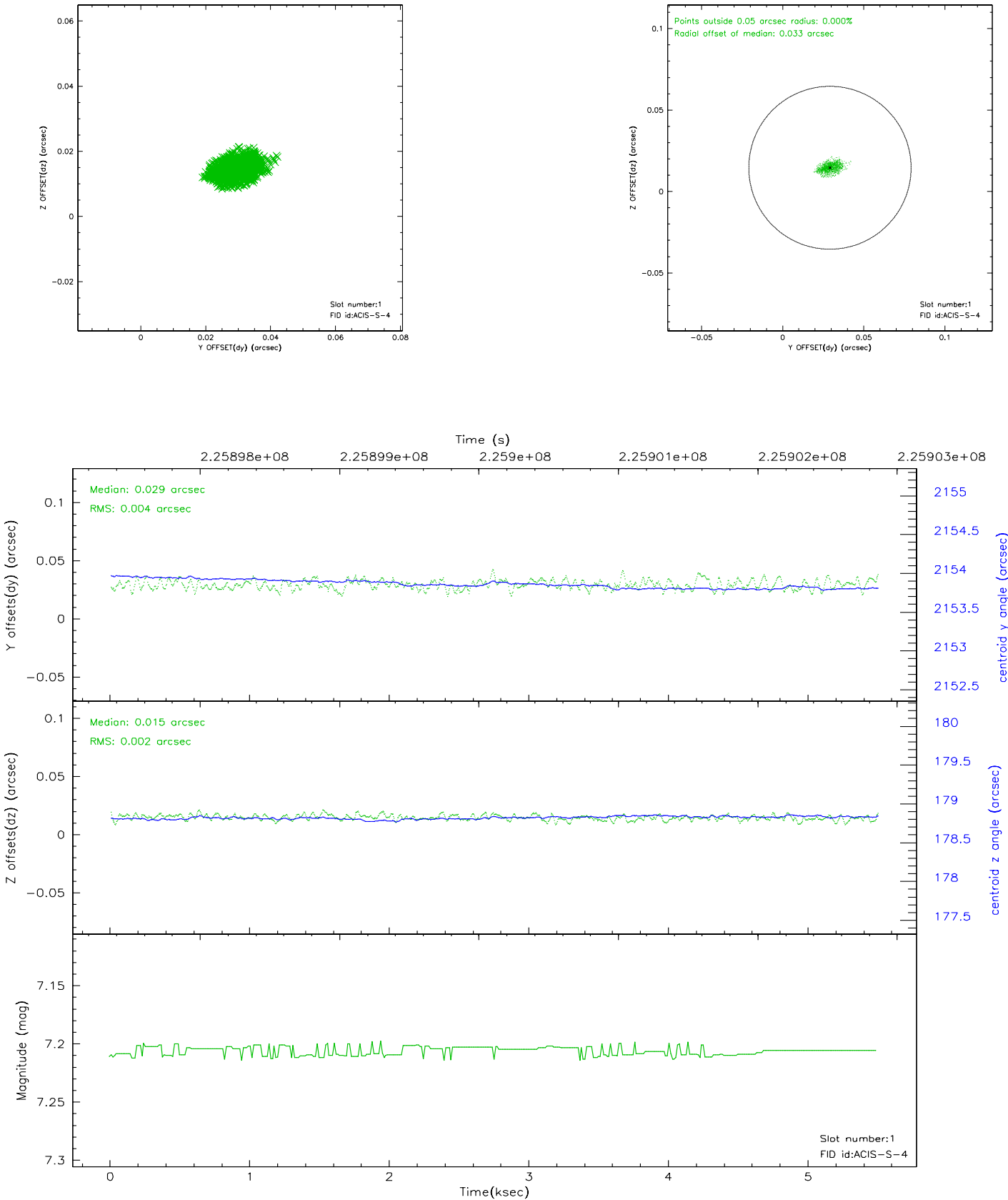


## 2.5 FID Slots

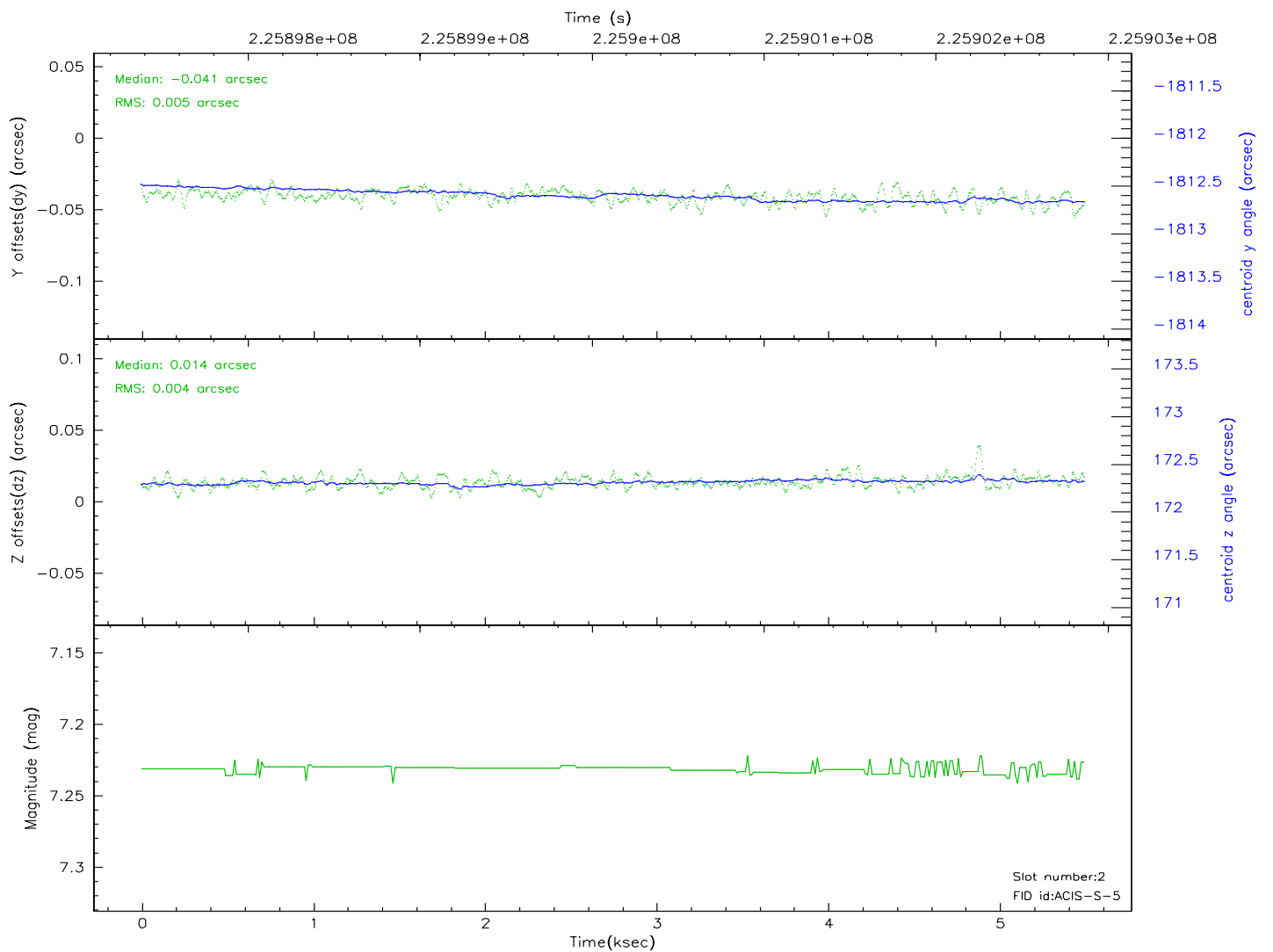
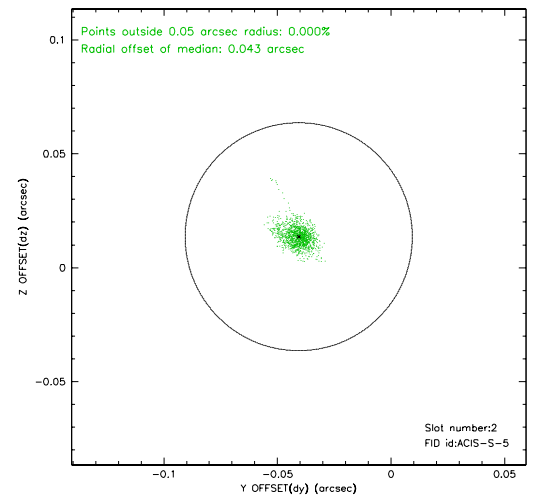
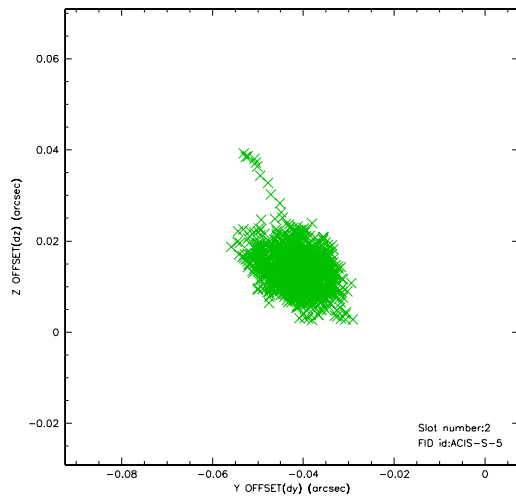
### 2.5.1 Slot 0



2.5.2 Slot 1



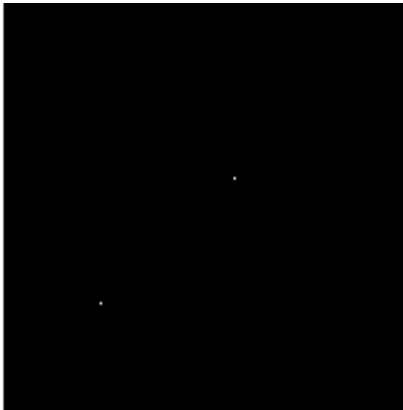
### 2.5.3 Slot 2



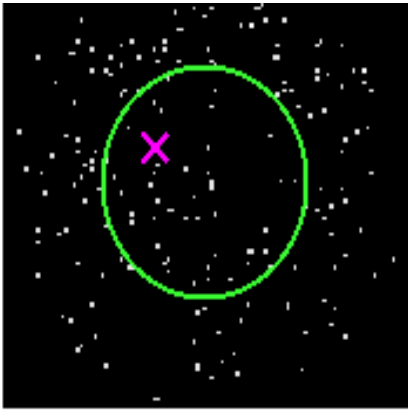


# 3 Gratings

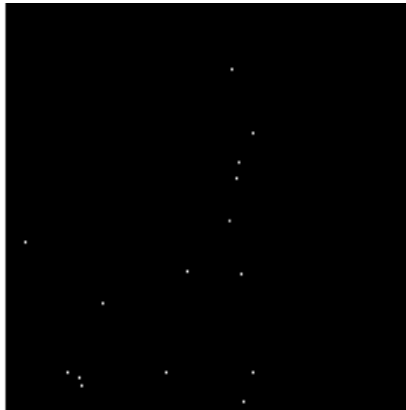
## 3.1 HEG Arm



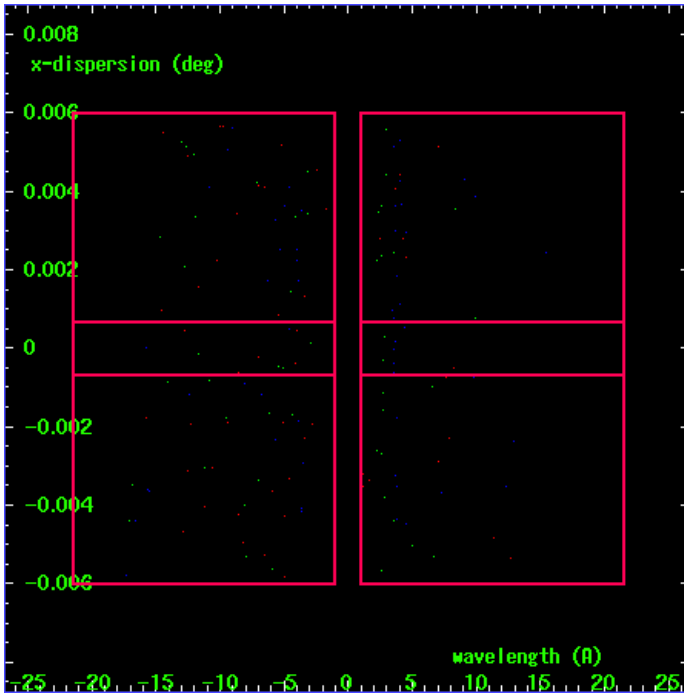
HEG Order Sort 123



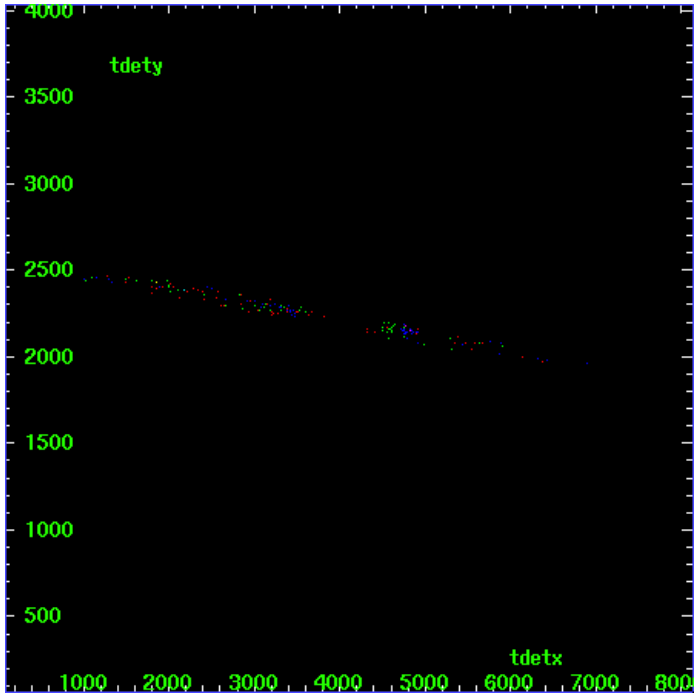
HEG Zero Order



HEG Order Sort ALL

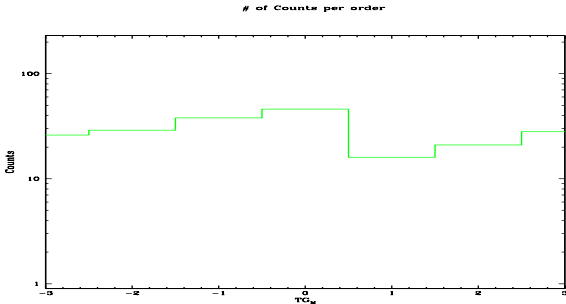


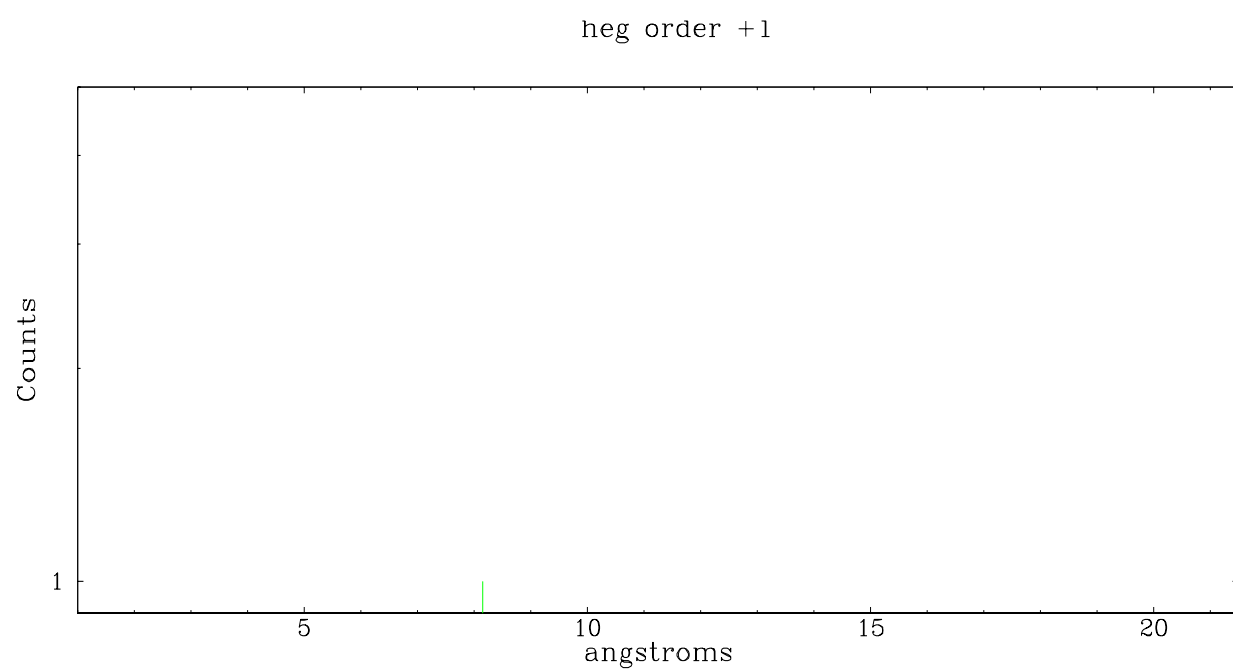
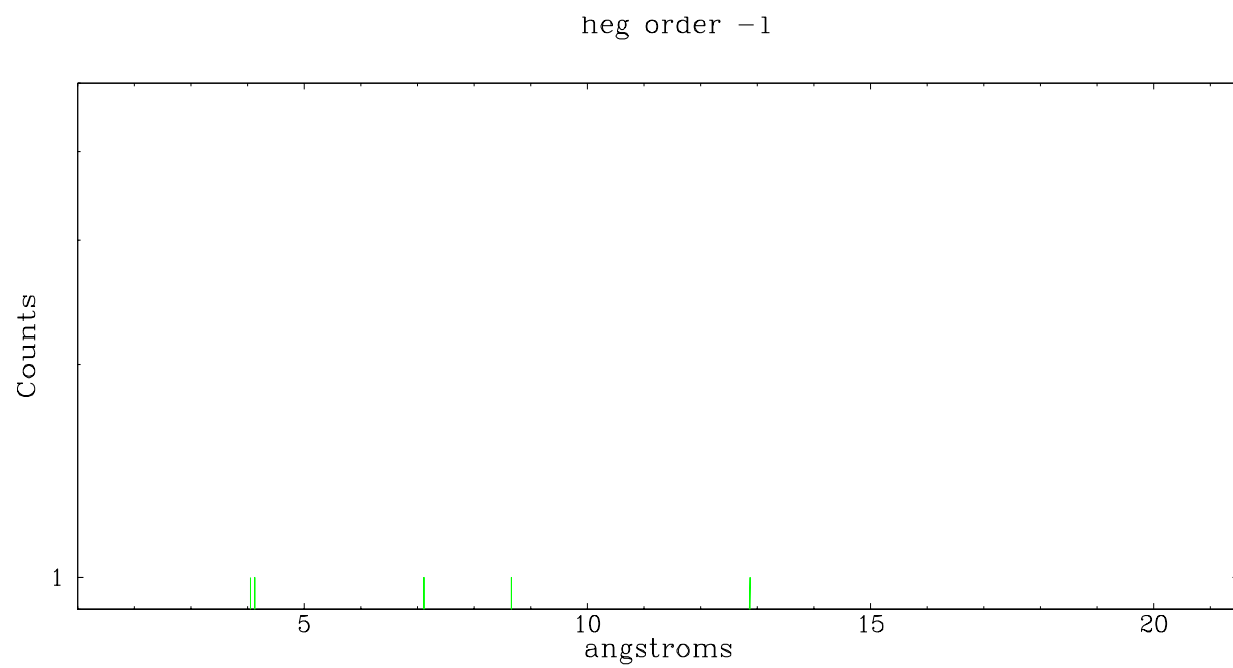
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	26	29	38	46	16	21	28

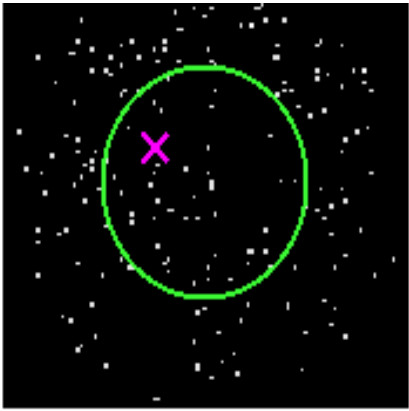




3.2 MEG Arm



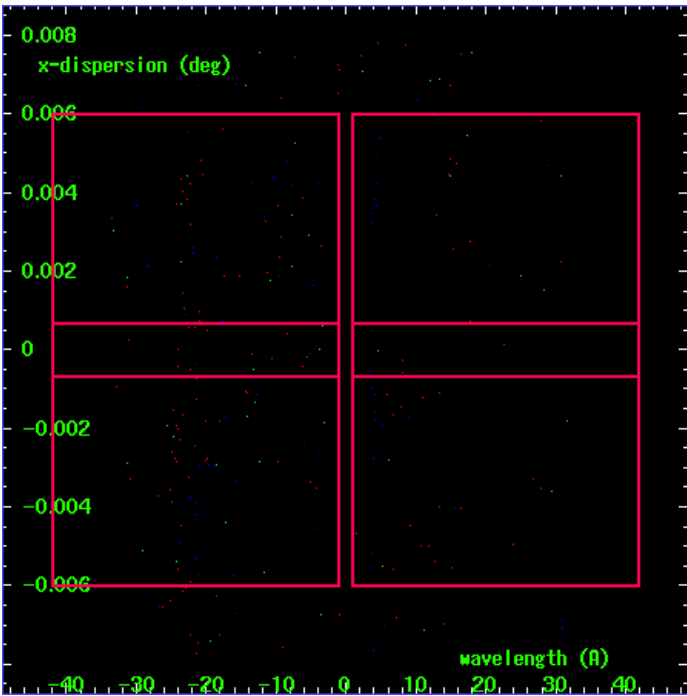
MEG Order Sort 123



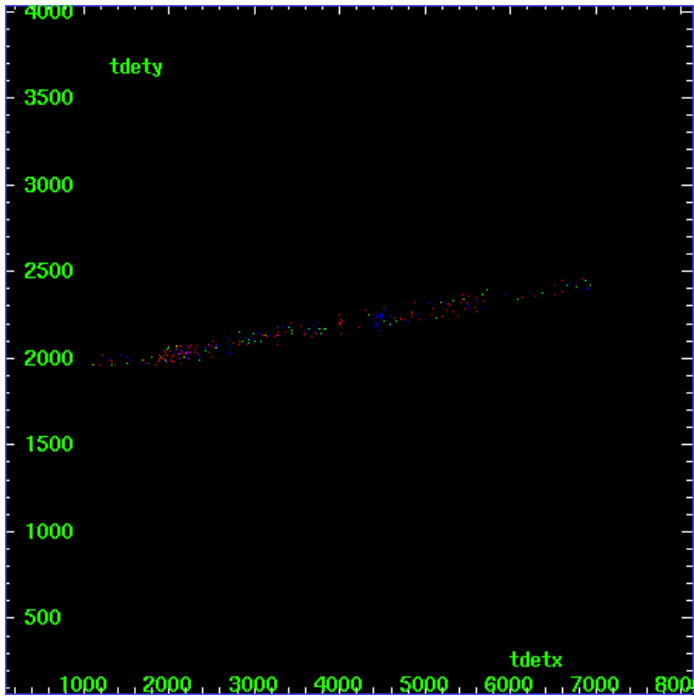
MEG Zero Order



MEG Order Sort ALL

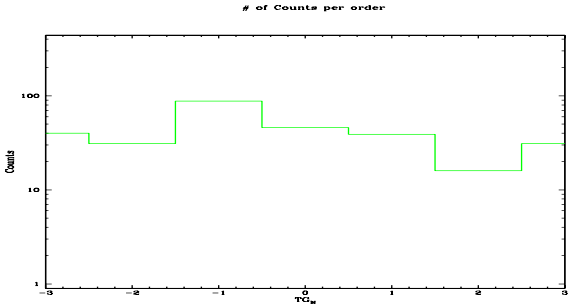


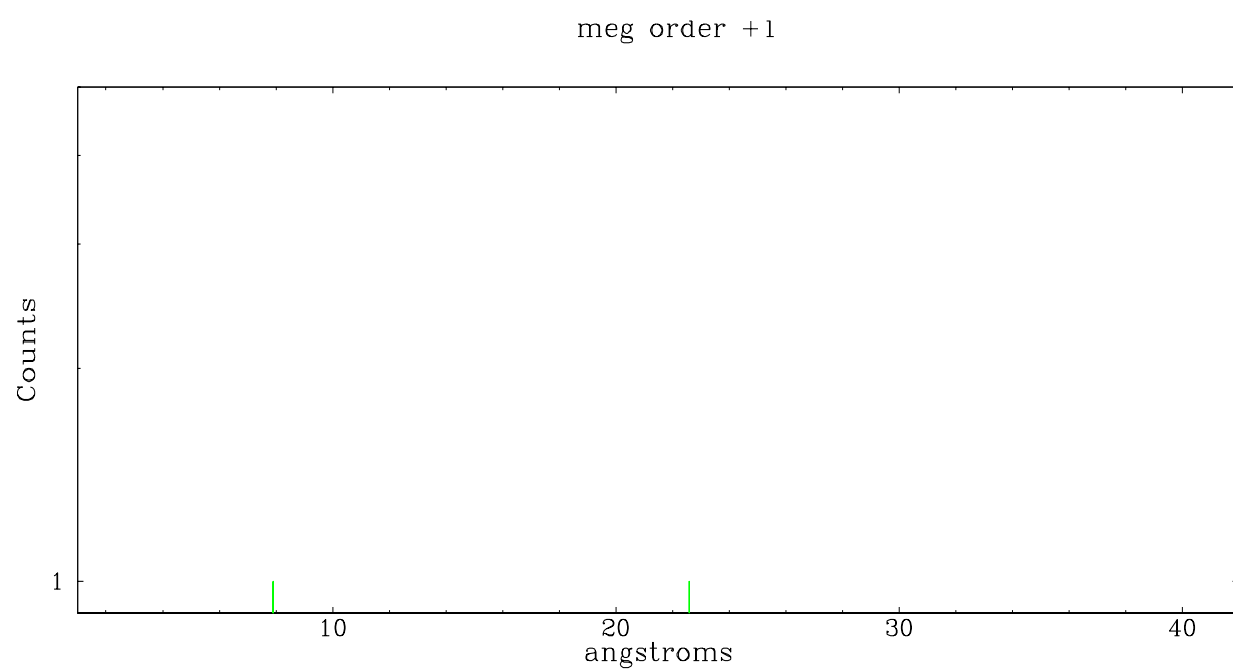
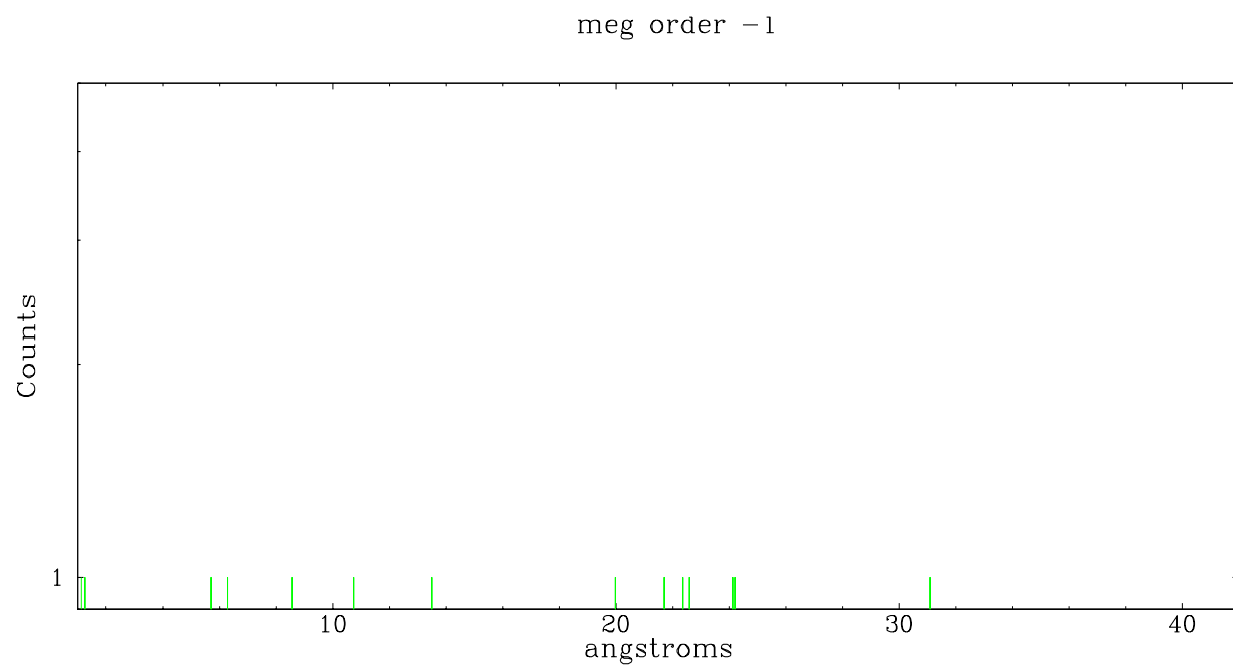
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	40	31	88	46	39	16	31





## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.02.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.094

### A.2 Comments