

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 4473 - L2 Version 001  
Chandra X-Ray Center

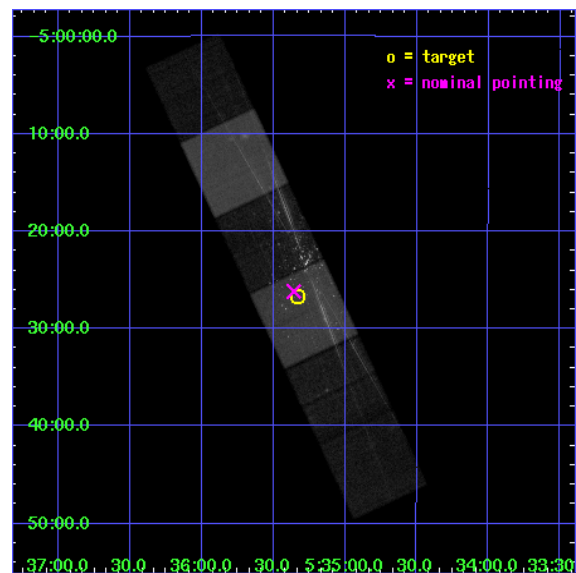
L2 Processing Date : Apr 13 2006

## 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

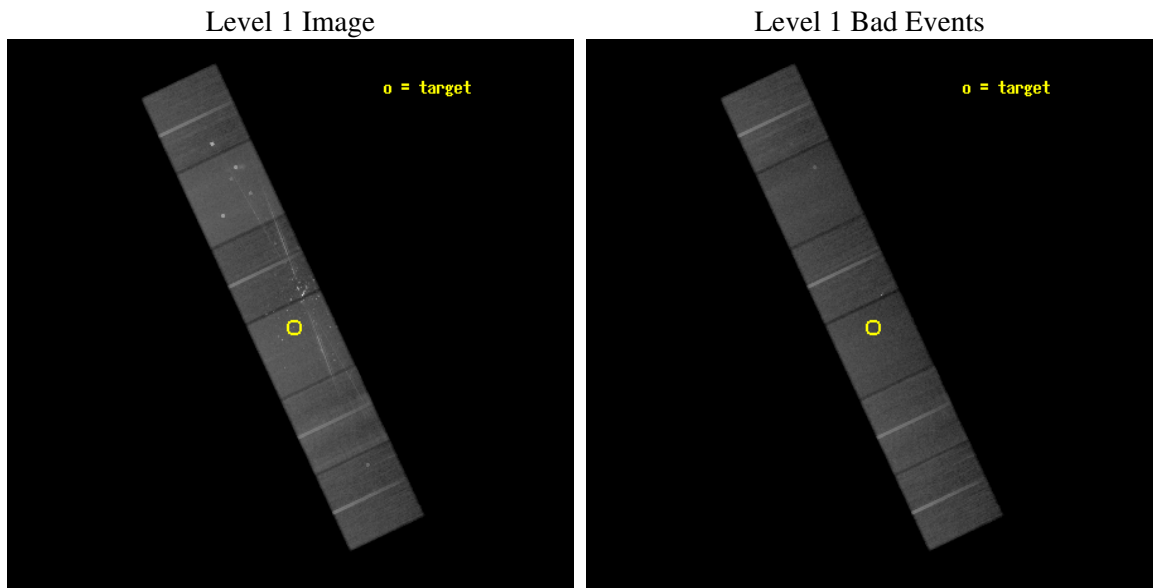
seq_num	200242
obs_id	4473
title	Study of Pre-Main Sequence Stars Near the Beginning of their Accretion Phase
observer	Prof. Claude Canizares
object	Orion Nebula Cluster
dtcycle	0
cycle	P
ra_targ	83.83375
dec_targ	-5.444194
ra_nom	83.839340121309
dec_nom	-5.4363126746087
roll_nom	64.881945887863
revision	2
ontime	49750.399814665
livetime	49120.430296118
ontime4	49747.158824384
ontime5	49750.399814665
ontime6	49750.399814665
ontime7	49750.399814665
ontime8	49750.399814665
ontime9	49743.917863995
l2events	777492



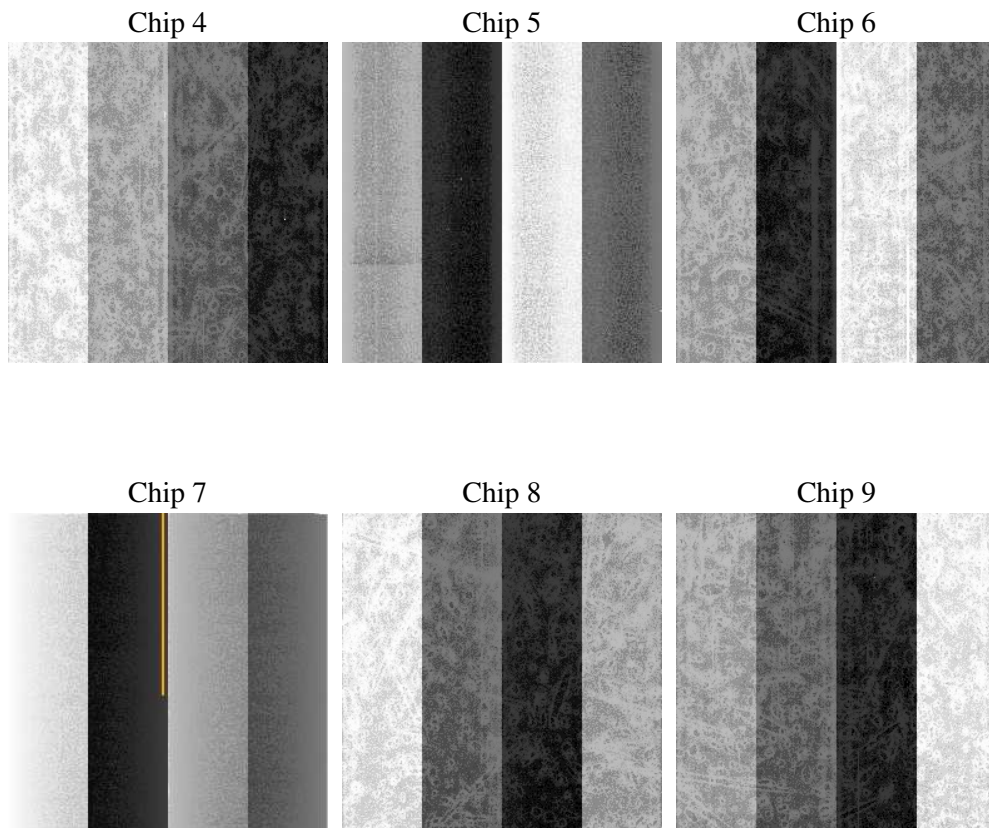
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldsver	3.2.1
date	2006-04-13T15:07:12
revision	2

sched_exp_time	49726.373000
ontime	49755.995740116
ontime4	49752.754749835
ontime5	49755.995740116
ontime6	49755.995740116
ontime7	49755.995740116
ontime8	49755.995740116
ontime9	49749.513789445
l1events	3065724

### 2.1.4 Events

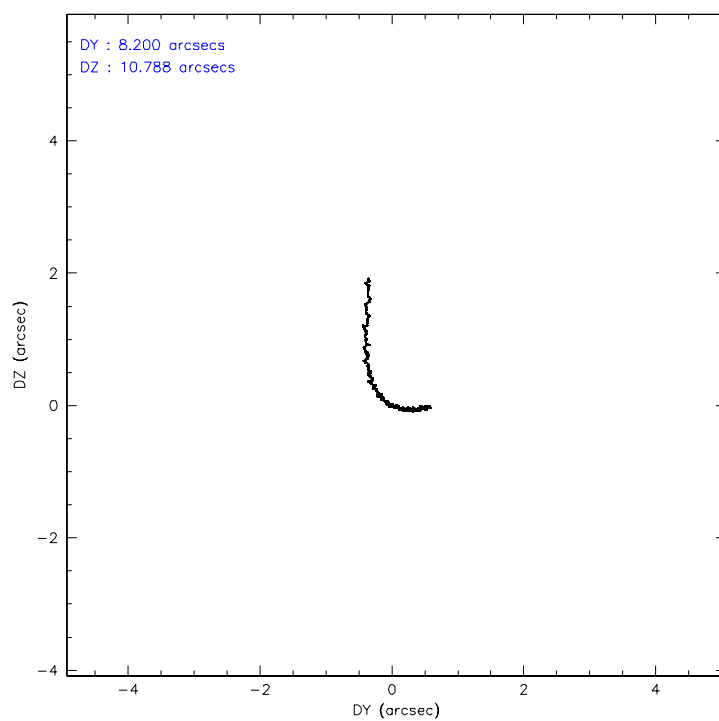
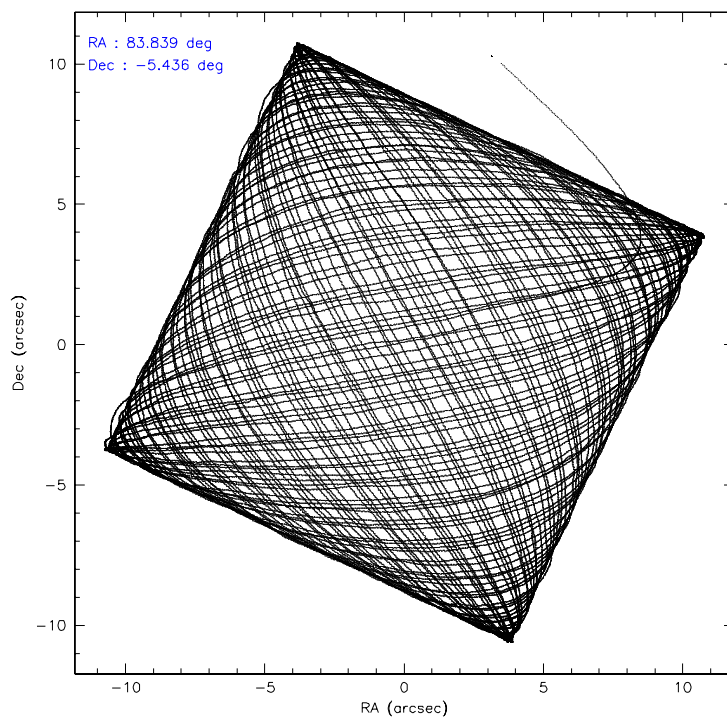
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	462637	612062	472329	586759	524849	407088
rejected events	397279	326059	355763	329842	400590	352667
rejected %	85%	53%	75%	56%	76%	86%

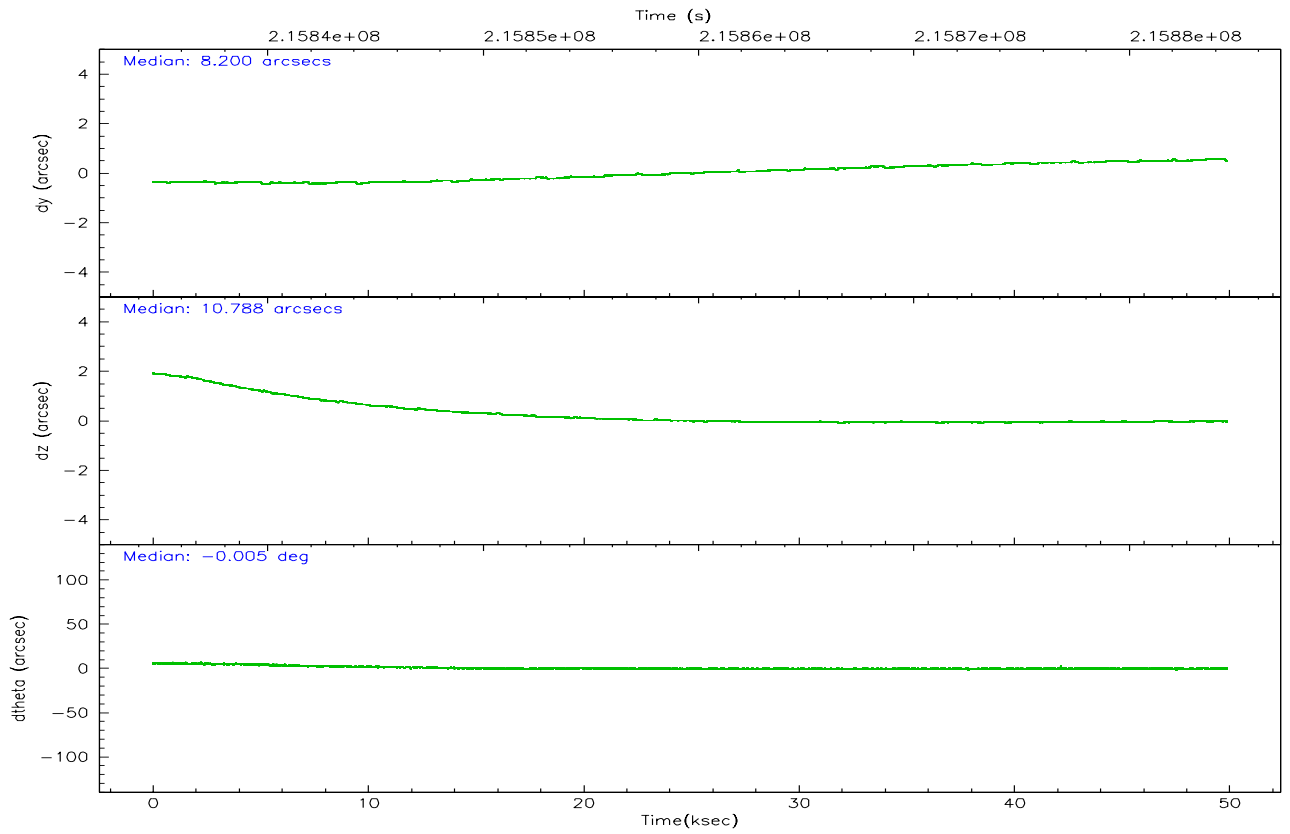
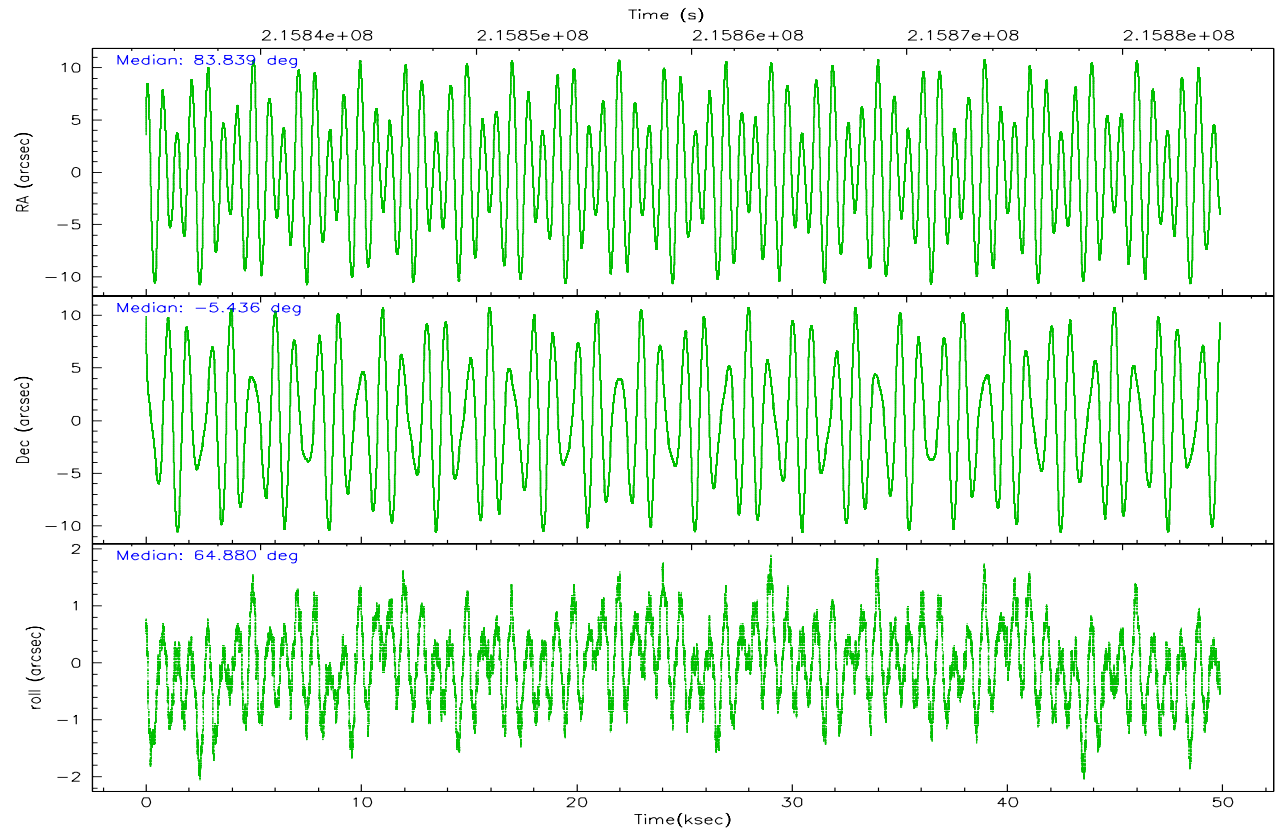
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	36655	27644	70793	22917	46771	25152
	7%	4%	14%	3%	8%	6%
grade 1 events	519	483	1078	348	405	244
	0%	0%	0%	0%	0%	0%
grade 2 events	10799	90618	18180	65517	25675	9863
	2%	14%	3%	11%	4%	2%
grade 3 events	5086	7862	7380	16350	12066	5065
	1%	1%	1%	2%	2%	1%
grade 4 events	5057	7450	7256	16013	11352	4876
	1%	1%	1%	2%	2%	1%
grade 5 events	17221	28992	18886	36177	24292	19427
	3%	4%	3%	6%	4%	4%
grade 6 events	7765	152453	12960	136172	28401	9468
	1%	24%	2%	23%	5%	2%
grade 7 events	379535	296560	335796	293265	375887	332993
	82%	48%	71%	49%	71%	81%

## 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	NONE	NONE
Pointing RA	83.842050	83.83934012130852	Alternating exposures requested	N	N
Pointing Dec	-5.463388	-5.436312674608695	Primary exposure time	0.000000	3.2
Pointing Roll	64.725575	64.88194588786344			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	215834826.184000	215833684.32066			
Observation start date	2004-11-03T02:06:02	2004-11-03T01:48:04			
Observation end time	215884552.184000	215884769.81045			
Observation end date	2004-11-03T15:54:48	2004-11-03T15:59:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect



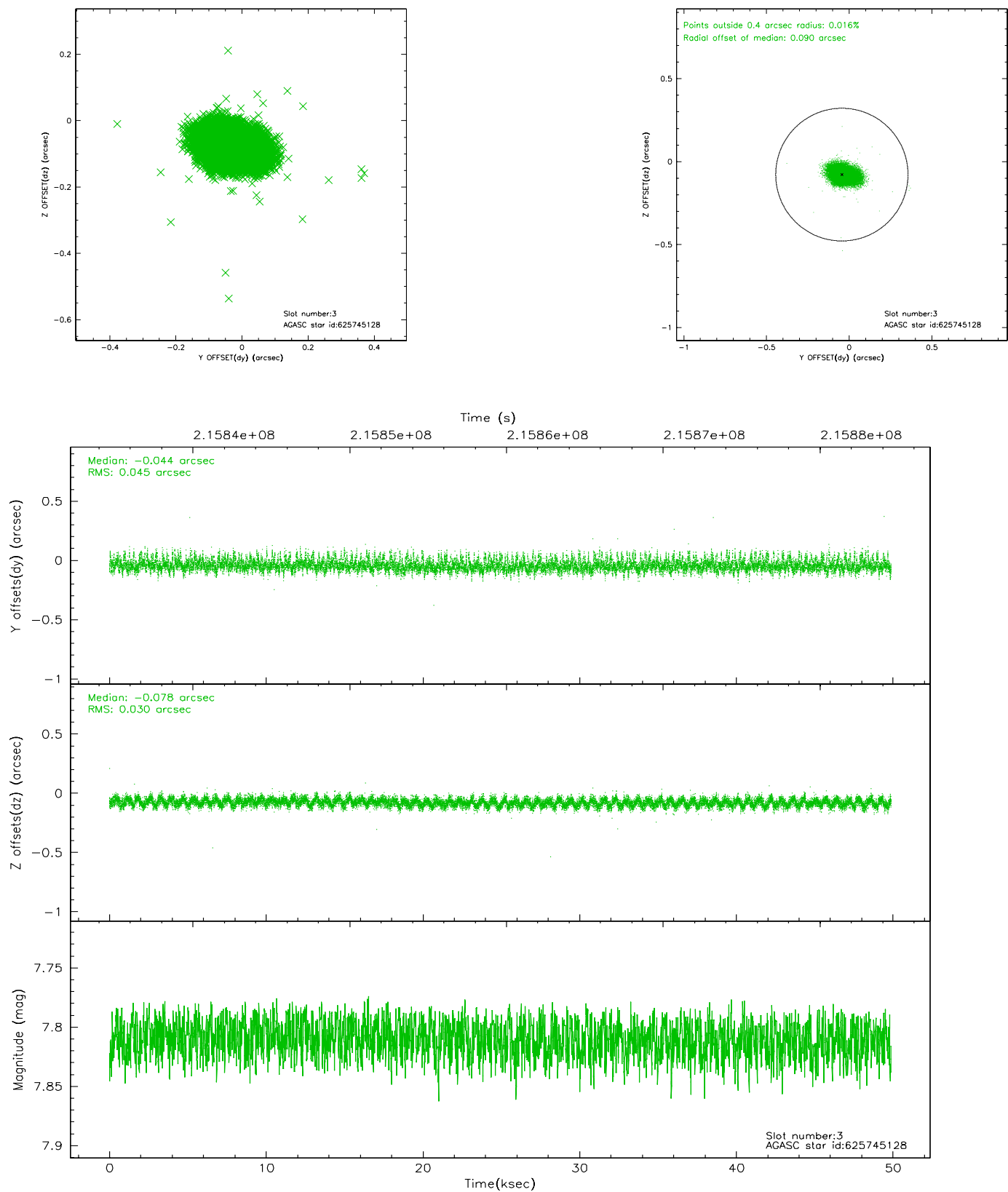


### Slot Statistics

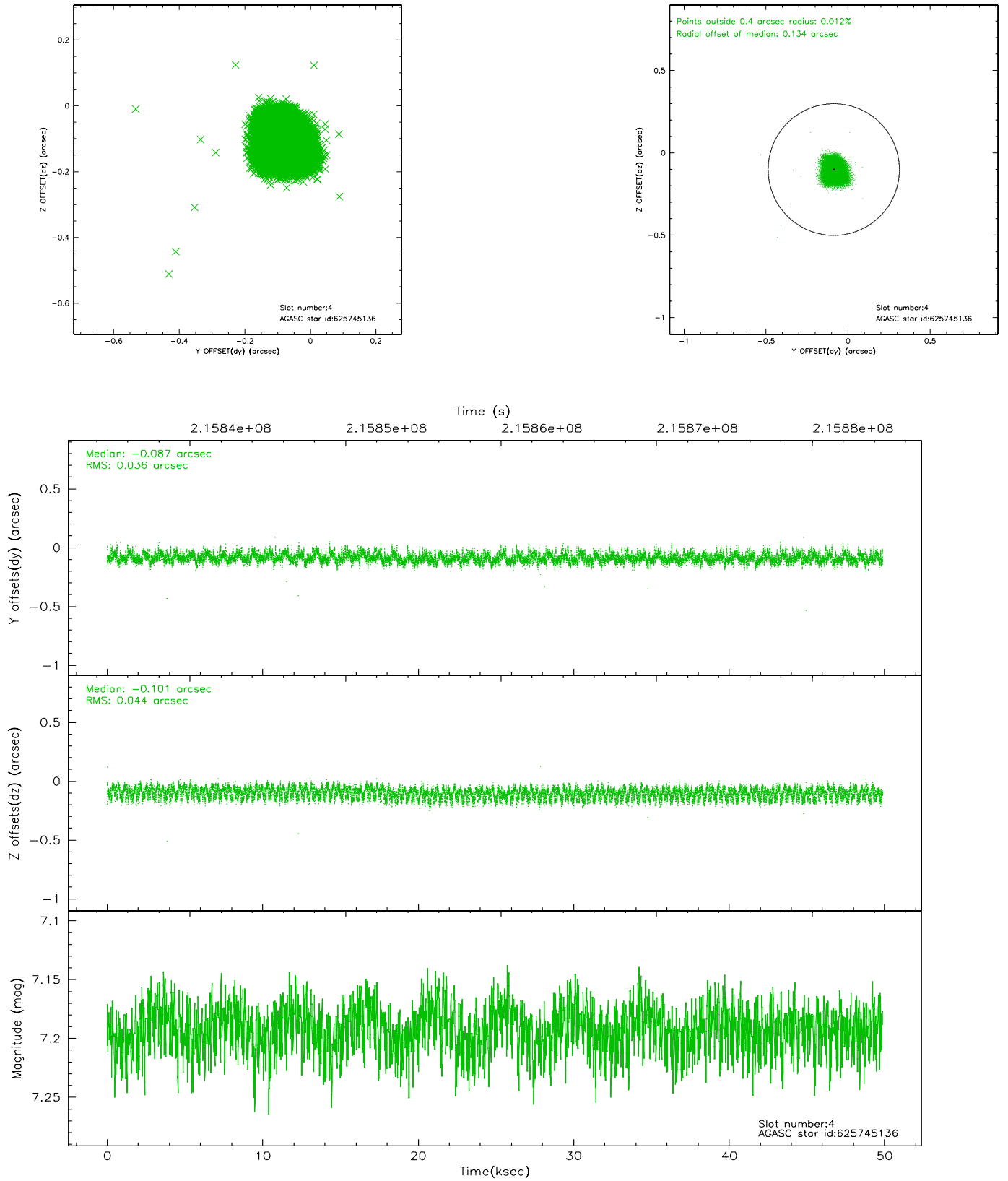
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	12166	-0.023	0.008	0.010	0.032	0.000000	0.000000	-760.99	-1732.37
1	FID	ACIS-S-4	7.21	12166	0.063	0.009	0.022	0.034	0.000000	0.000000	2152.34	176.19
2	FID	ACIS-S-5	7.23	12167	-0.071	-0.008	0.018	0.029	0.000000	0.000000	-1813.94	169.75
3	GUIDE	625745128	7.81	24332	-0.044	-0.078	0.055	0.099	83.769930	-4.731835	2271.14	1358.46
4	GUIDE	625745136	7.19	24332	-0.087	-0.101	0.061	0.095	83.600341	-4.804339	1775.33	1797.04
5	GUIDE	625745144	7.84	24332	-0.077	0.008	0.056	0.090	83.888985	-4.837539	2109.43	809.89
6	GUIDE	626272976	7.92	24334	0.142	0.015	0.062	0.102	83.795875	-5.926912	-1579.10	-562.97
7	GUIDE	626272760	6.60	24334	0.058	0.159	0.066	0.103	84.363987	-5.938389	-748.87	-2420.36

## 2.4 Star Slots

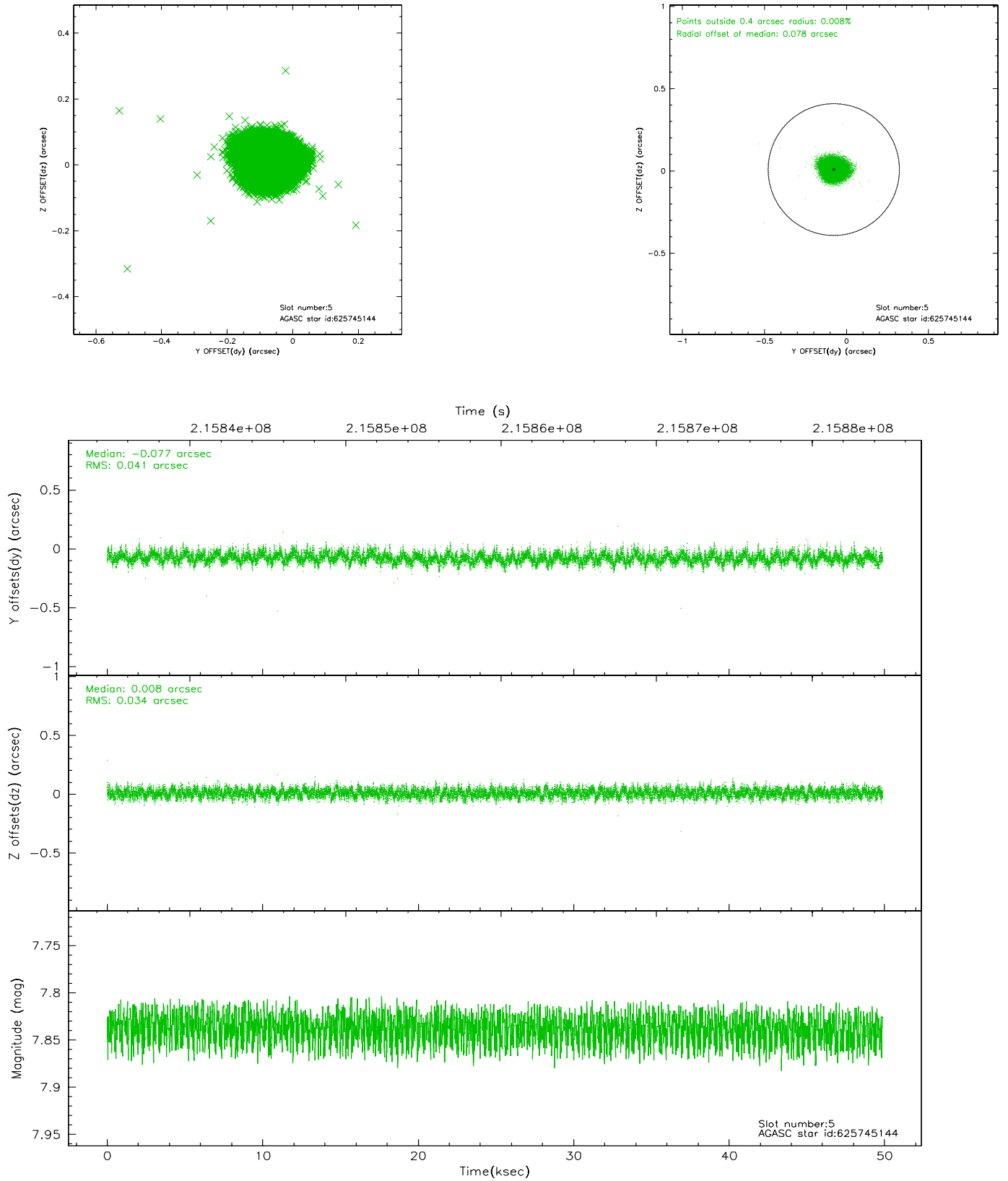
### 2.4.1 Slot 3



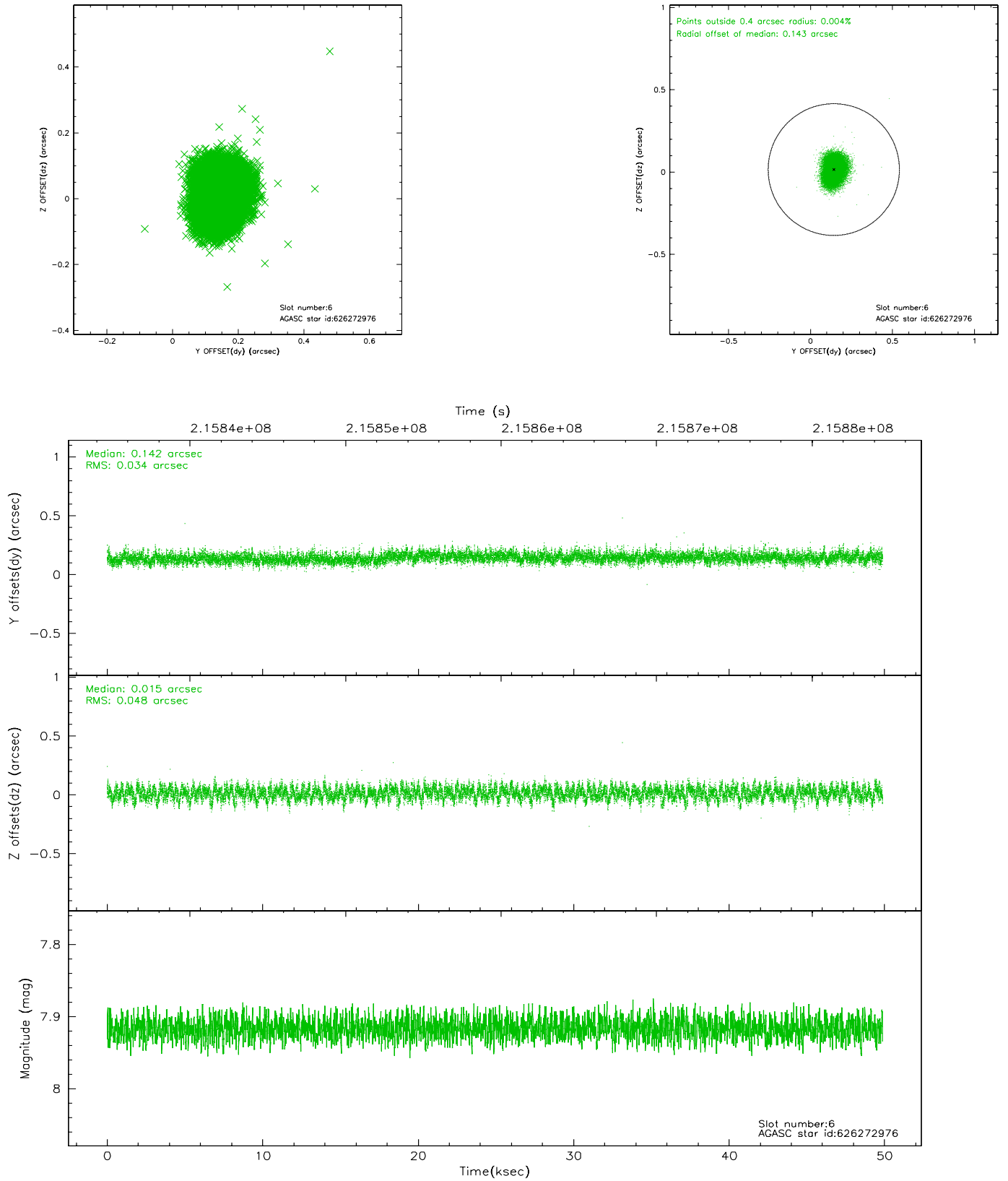
## 2.4.2 Slot 4



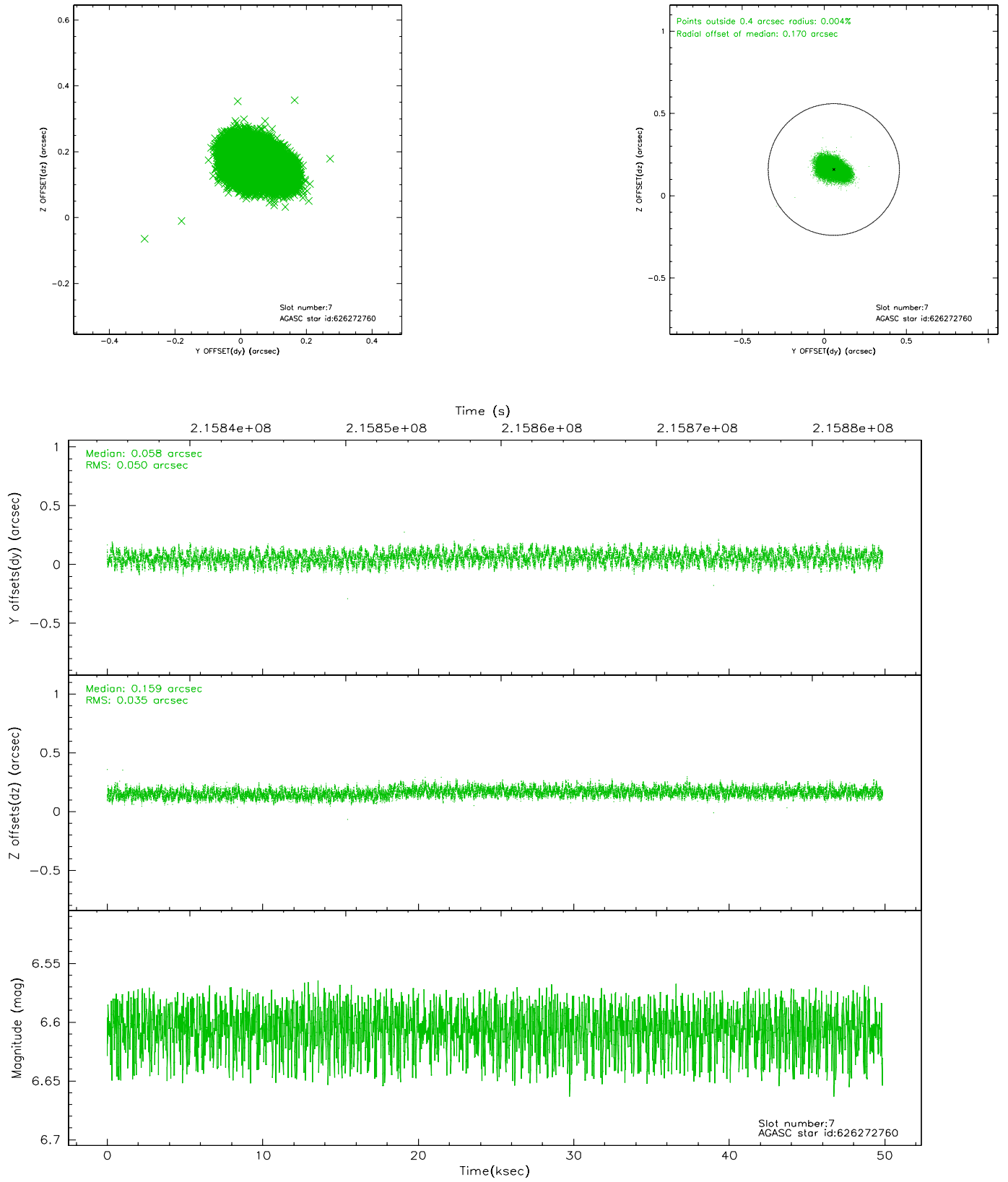
### 2.4.3 Slot 5



## 2.4.4 Slot 6

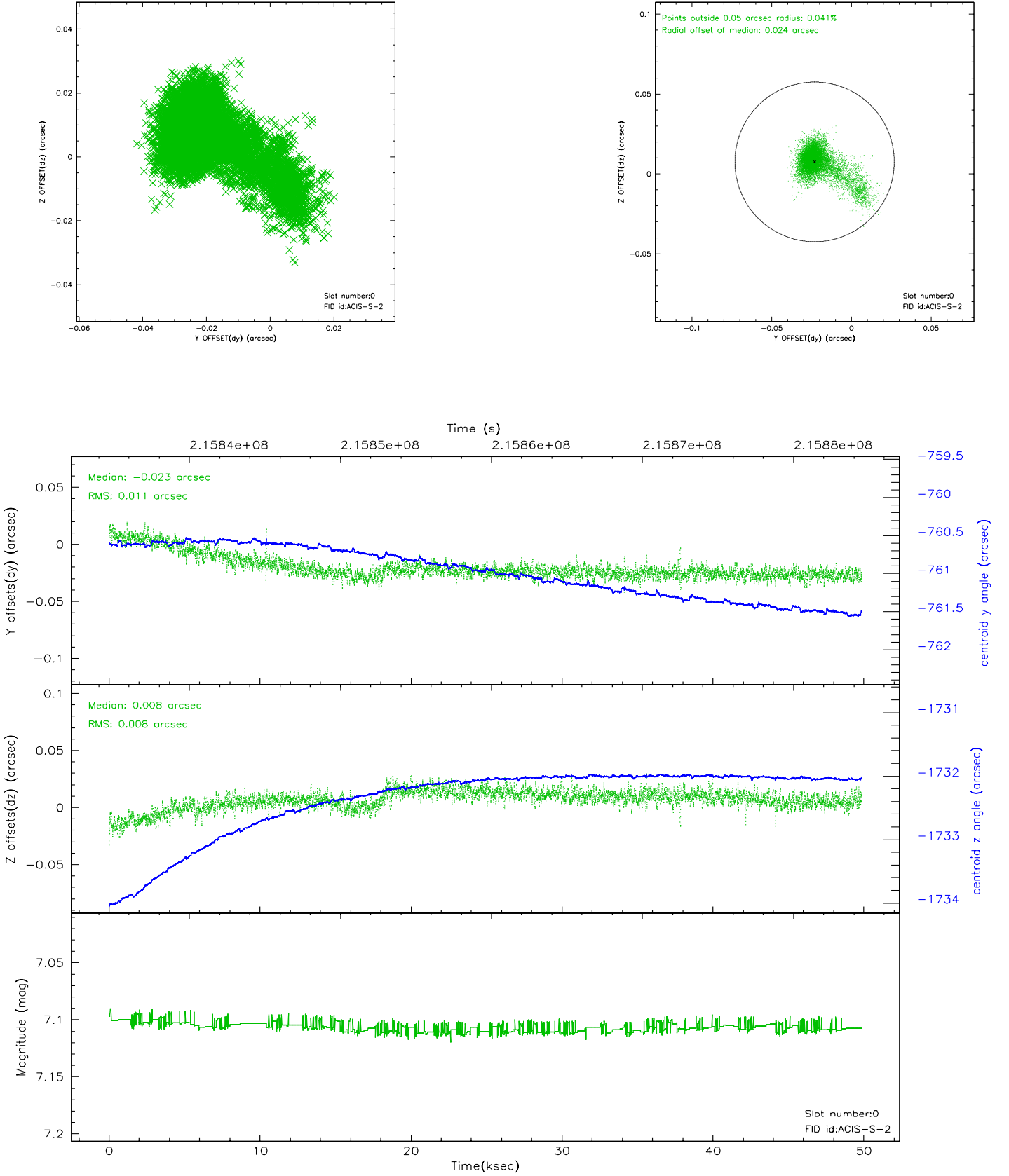


## 2.4.5 Slot 7

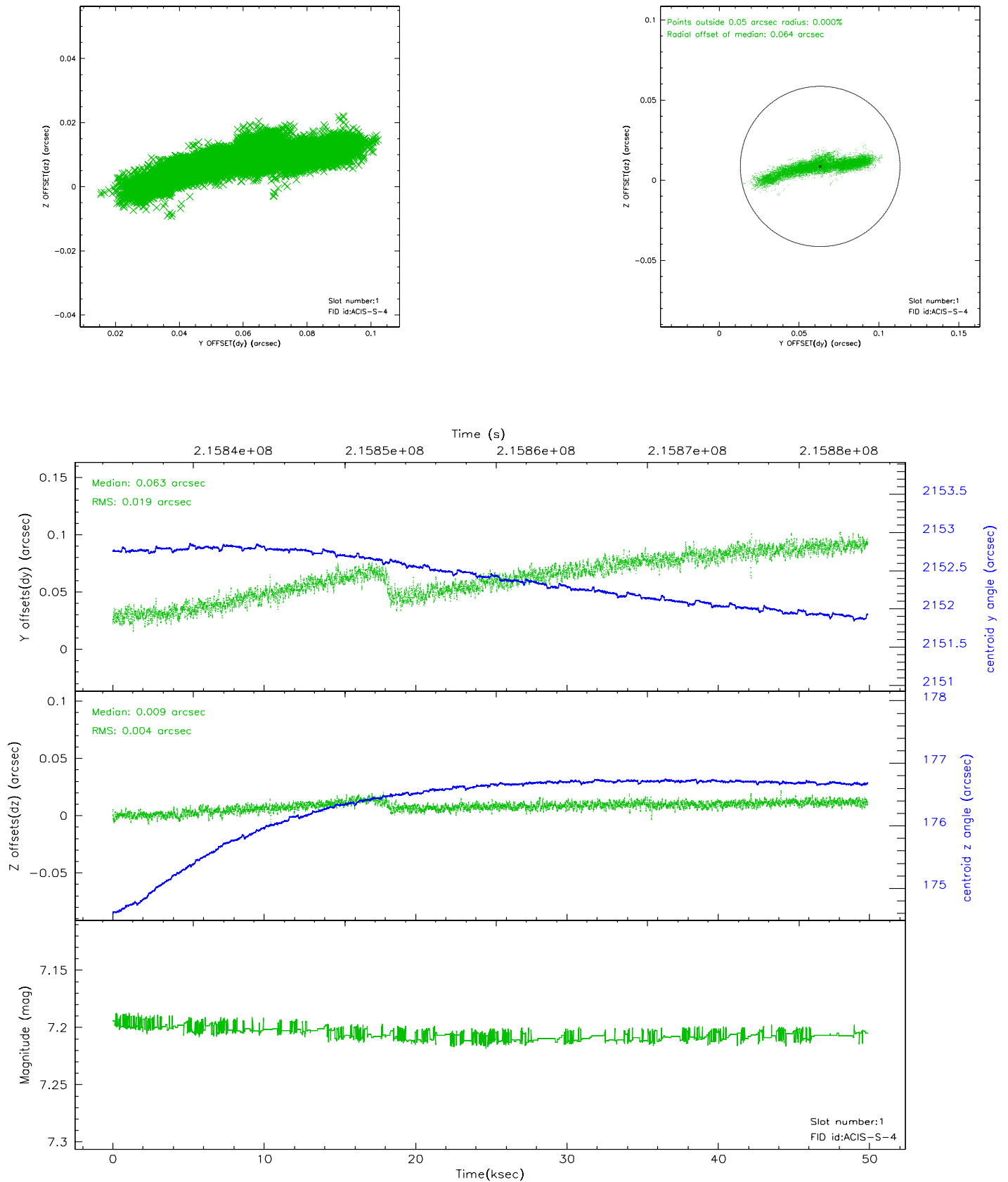


## 2.5 FID Slots

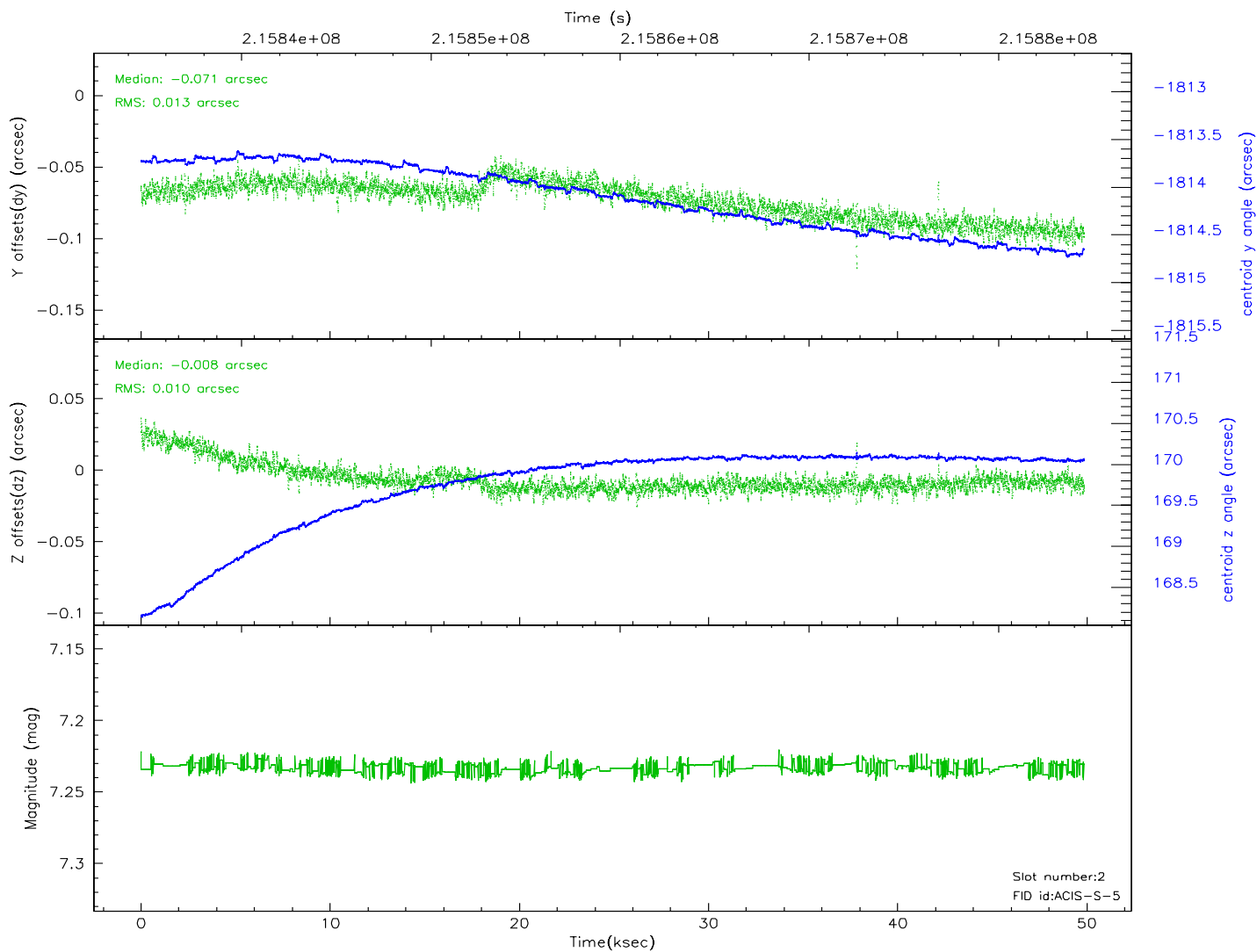
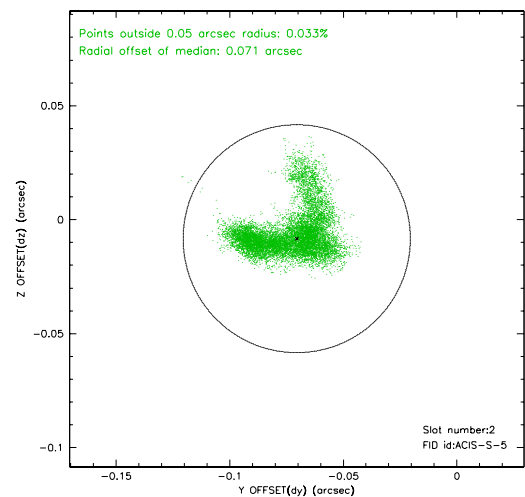
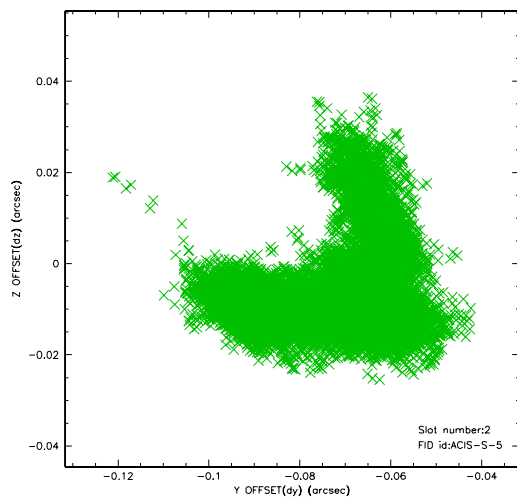
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

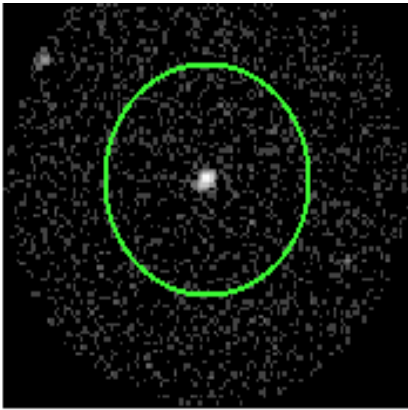


# 3 Gratings

## 3.1 HEG Arm



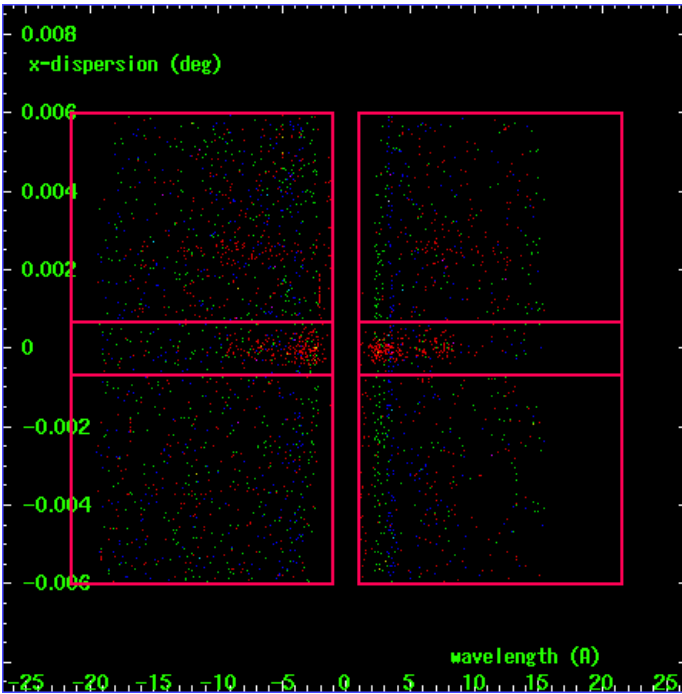
HEG Order Sort 123



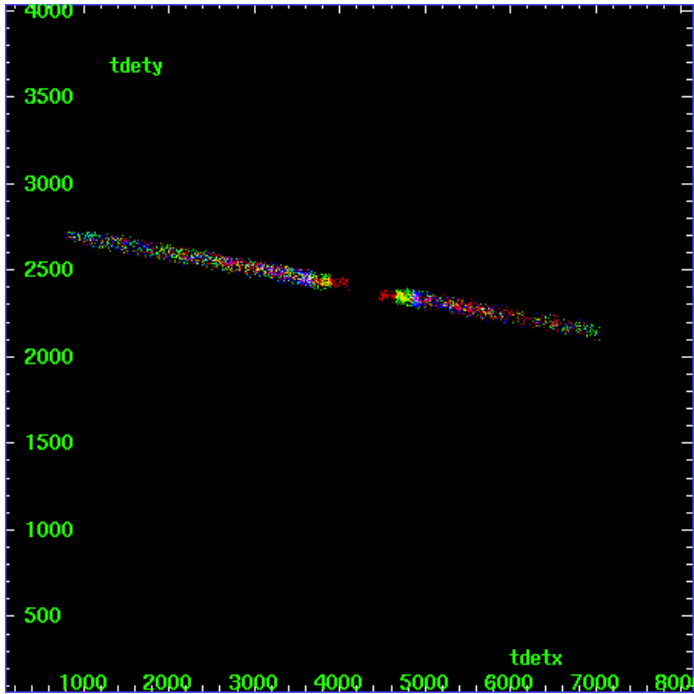
HEG Zero Order



HEG Order Sort ALL

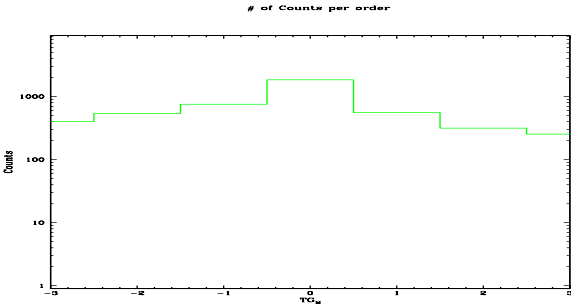


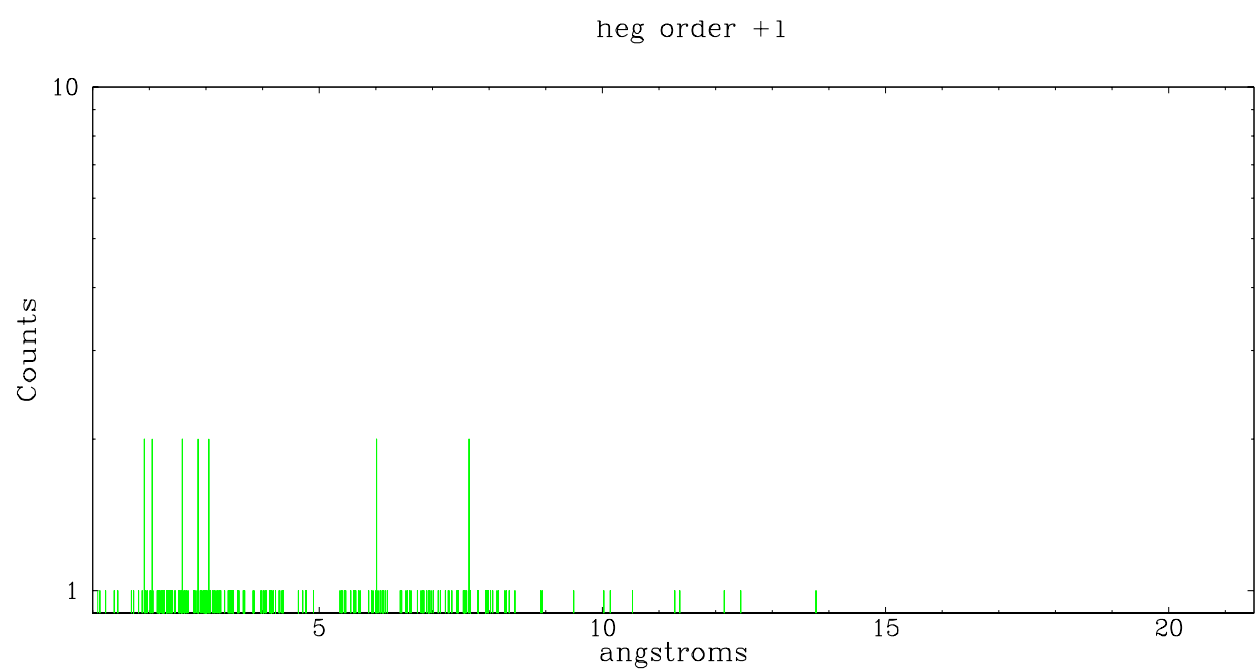
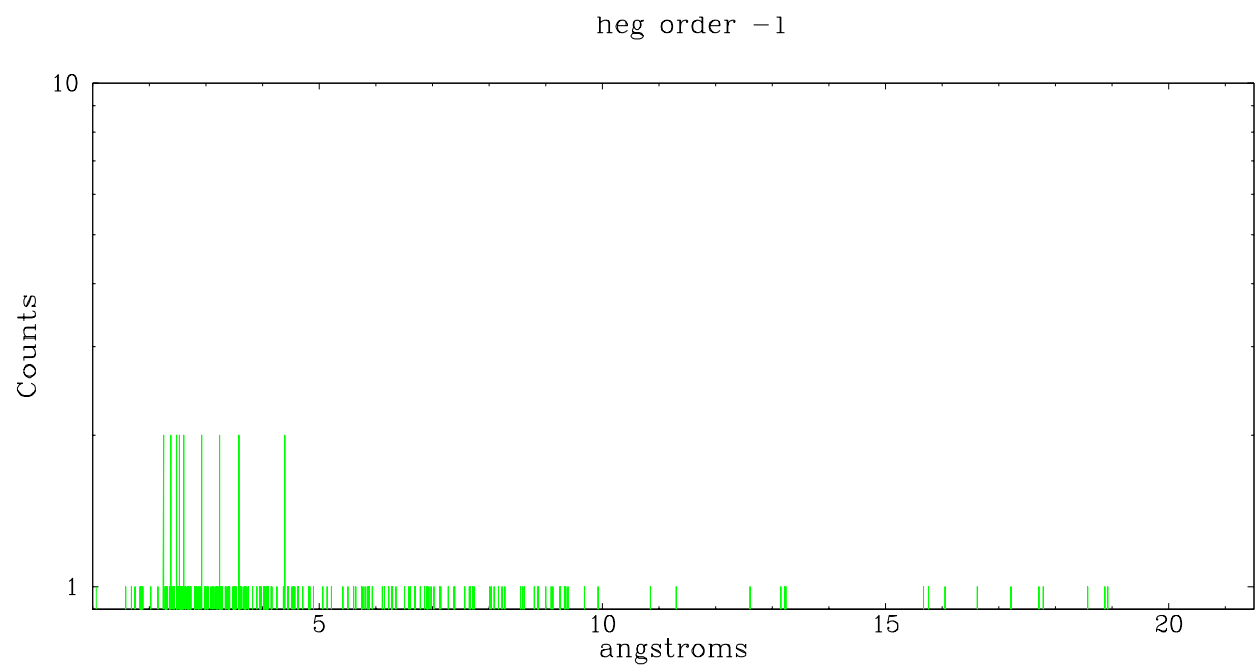
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	401	537	754	1847	557	315	254

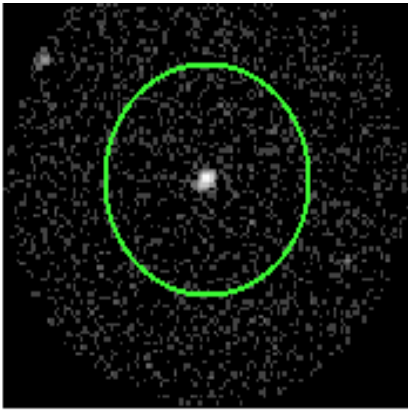




3.2 MEG Arm



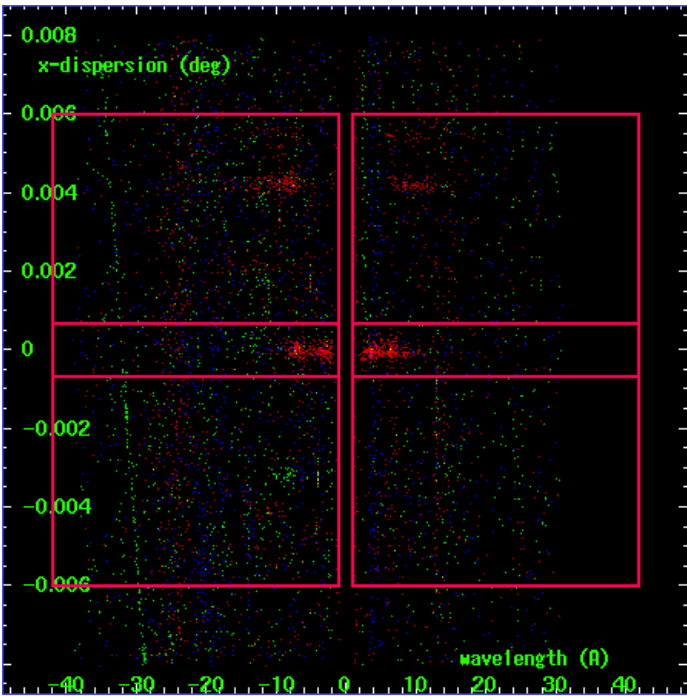
MEG Order Sort 123



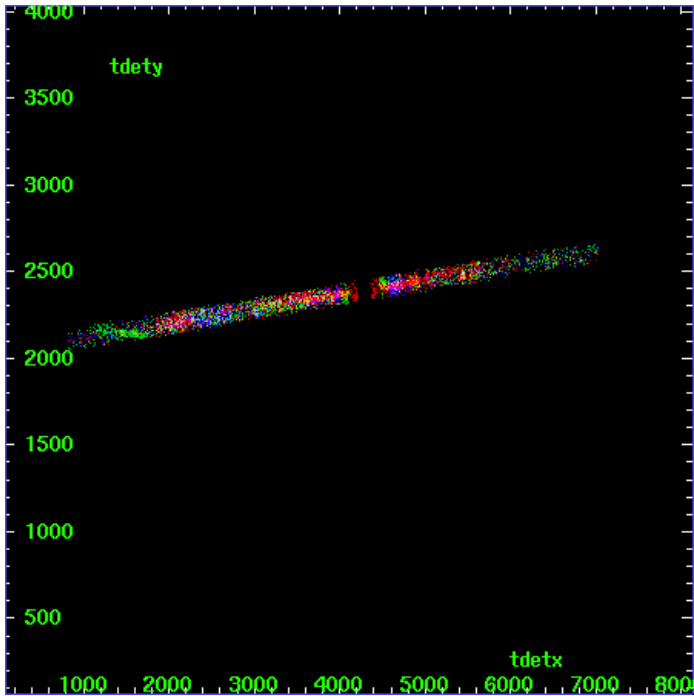
MEG Zero Order



MEG Order Sort ALL

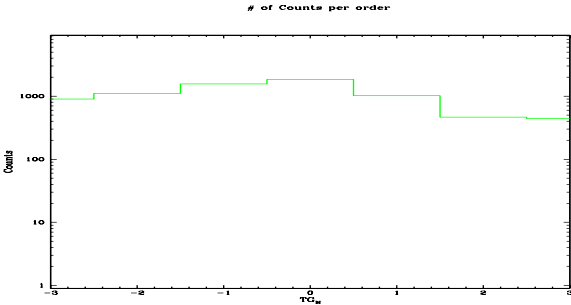


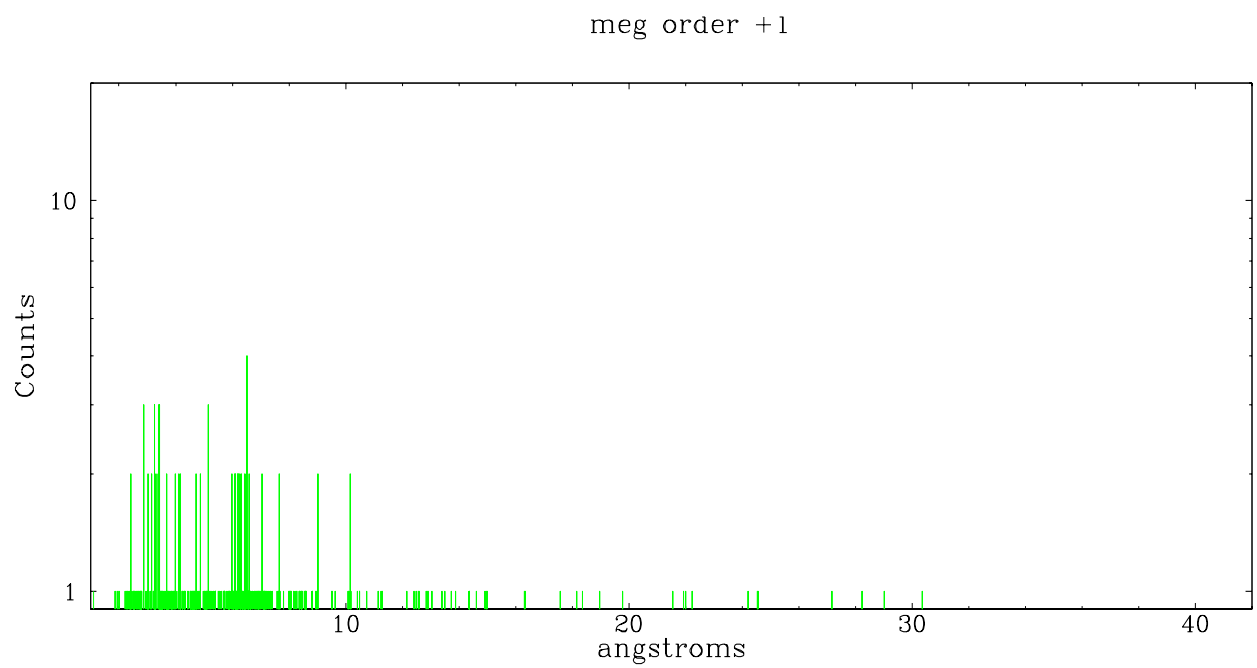
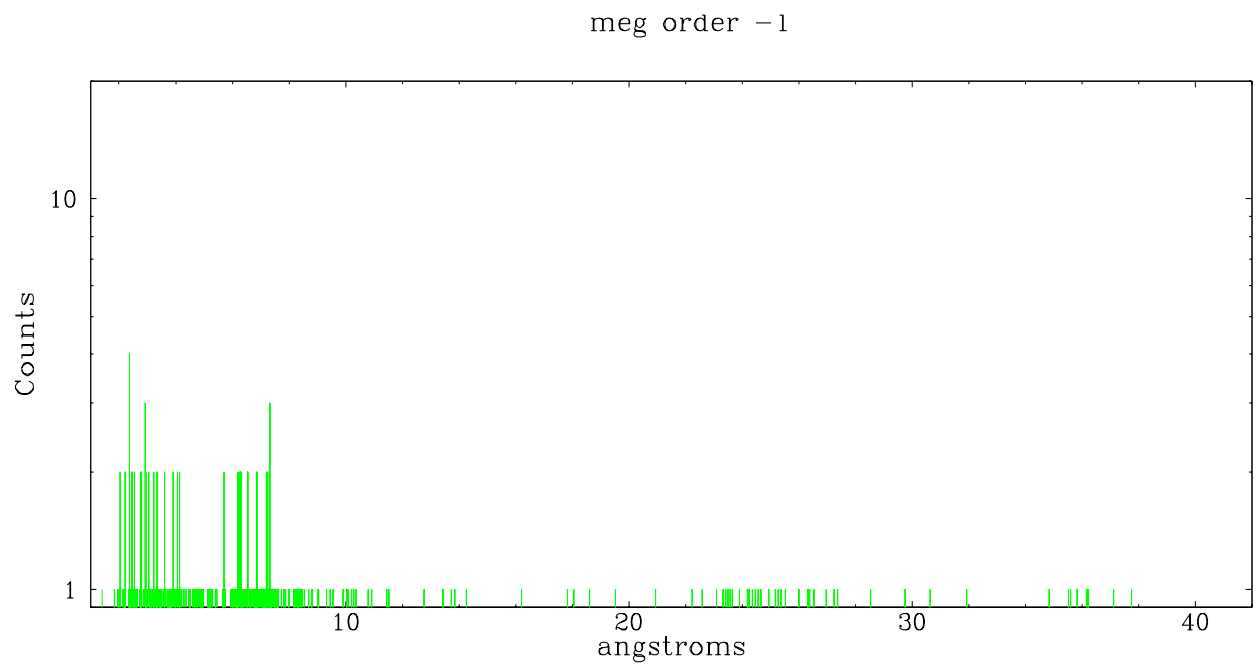
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	900	1102	1564	1847	1017	466	444





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.04.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.75

## A.2 Comments

Multiple sources and dispersed spectra present. Only one spectrum is extracted in standard data processing - the source at 05:35:24.7, -05:28:00. Spectra of other sources can be extracted using CIAO threads.

Preferred roll angle range met.

Software version is actually 7.6.7.2