

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 5400 - L2 Version 002  
Chandra X-Ray Center

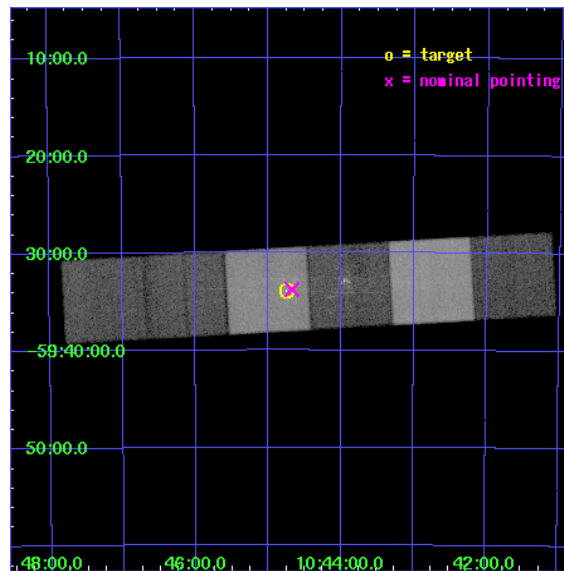
L2 Processing Date : Mar 23 2006

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# 1 Front

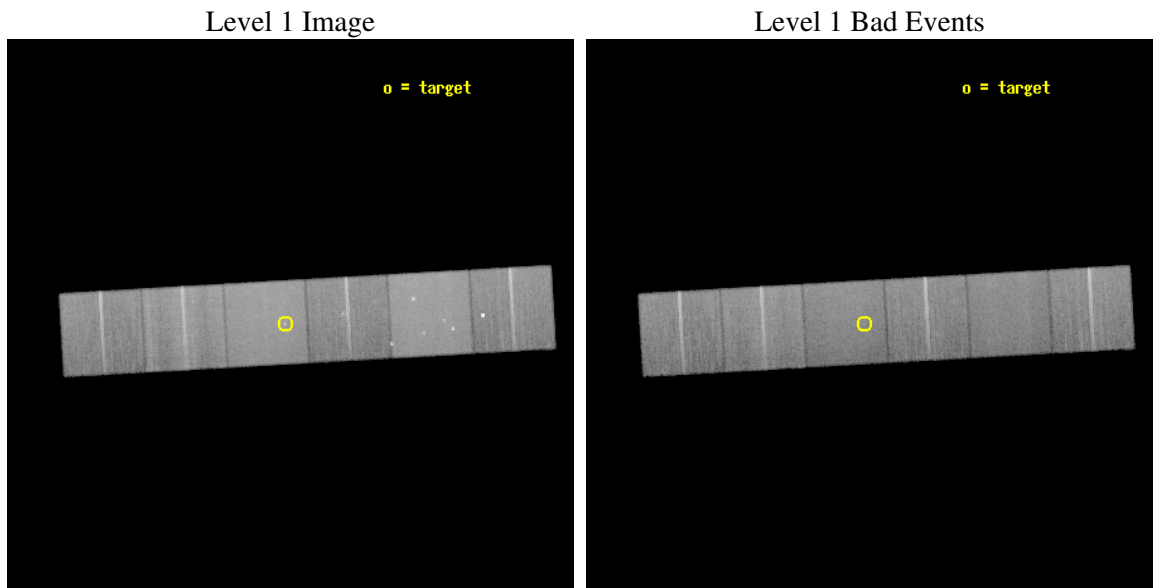
seq_num	200334
obs_id	5400
title	A Chandra HETGS Survey of O-Stars
observer	Dr. Wayne Waldron
object	HD93250
dtcycle	0
cycle	P
ra_targ	161.1875
dec_targ	-59.565194
ra_nom	161.16888047145
dec_nom	-59.56294659827
roll_nom	176.71734760068
revision	2
ontime	34159.958902419
livetime	33727.404934138
ontime4	34163.199872732
ontime5	34159.958902419
ontime6	34163.199872732
ontime7	34159.958902419
ontime8	34163.199872732
ontime9	34159.958902419
l2events	416180



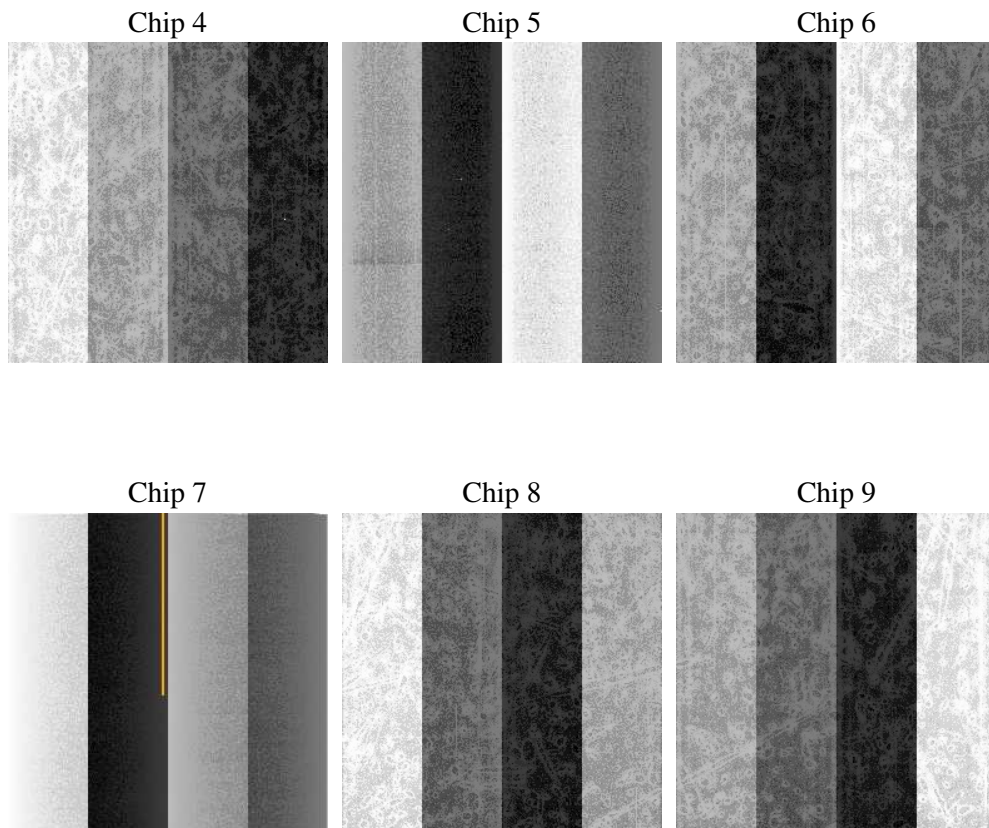
## 2 OBI

### 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	2006-03-23T19:32:14
revision	2

sched_exp_time	34000.000000
ontime	34166.661869258
ontime4	34169.902839571
ontime5	34166.661869258
ontime6	34169.902839571
ontime7	34166.661869258
ontime8	34169.902839571
ontime9	34166.661869258
l1events	1854865

### 2.1.4 Events

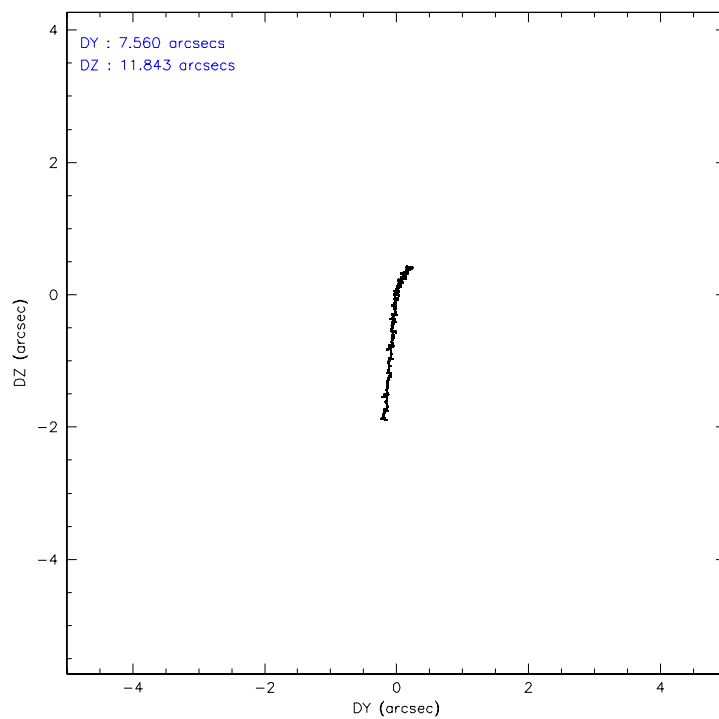
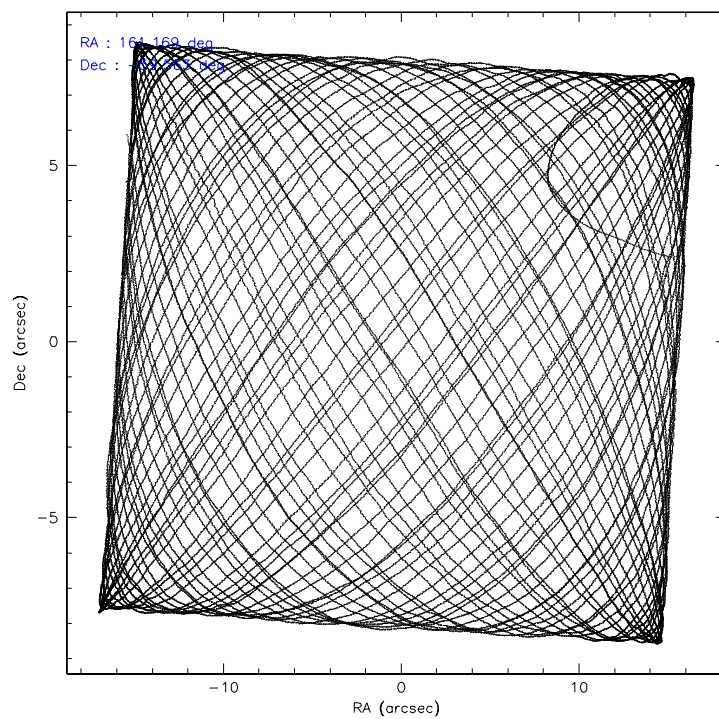
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	283137	380096	261409	349688	327028	253507
rejected events	243601	210824	223808	211765	254897	220364
rejected %	86%	55%	85%	60%	77%	86%

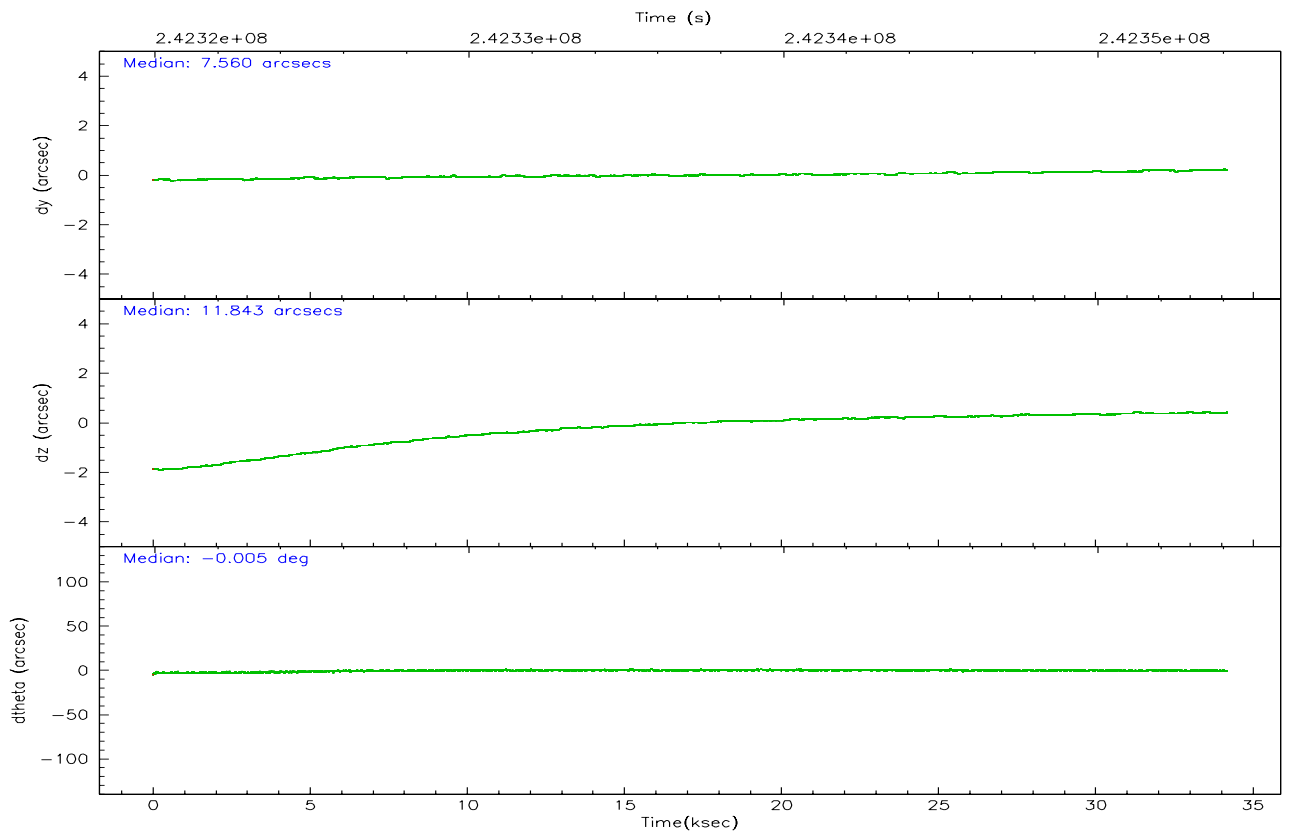
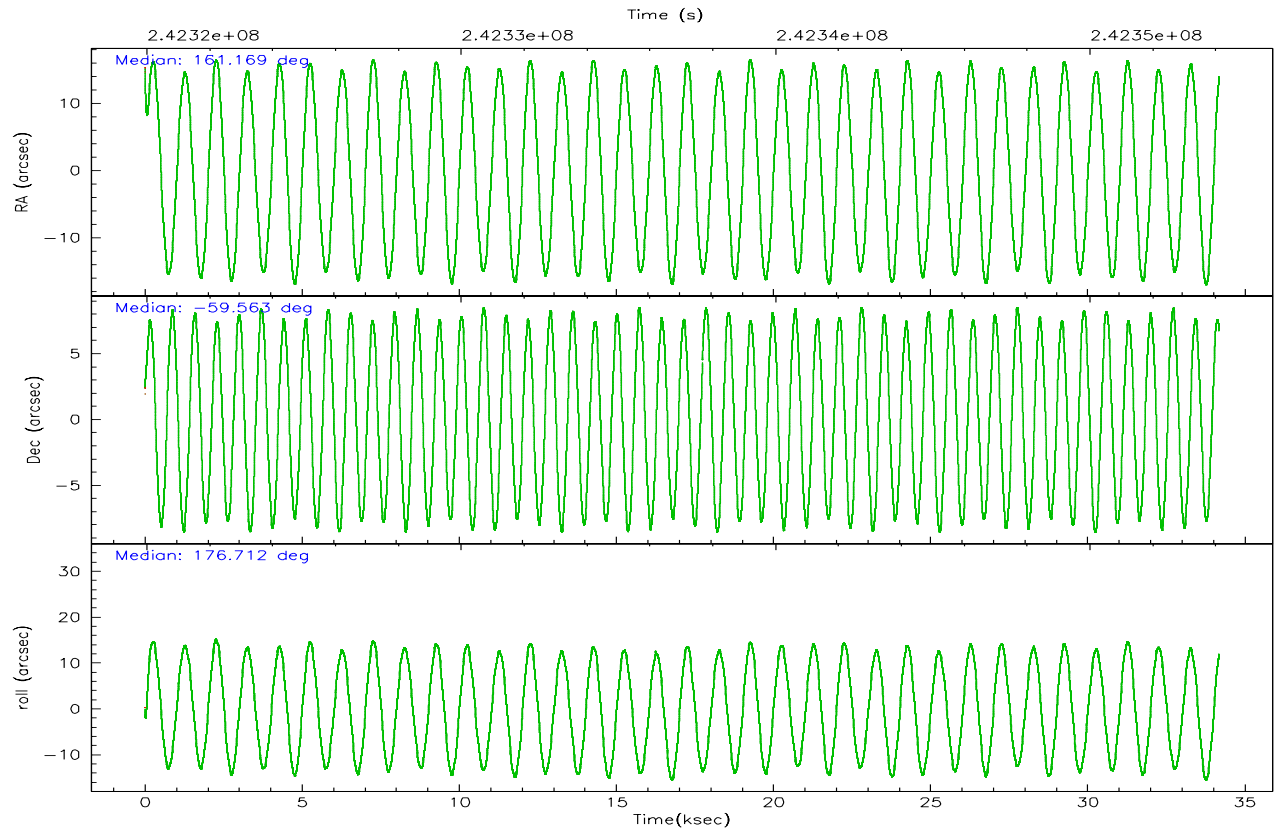
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	21572	12674	17843	8805	24250	14560
	7%	3%	6%	2%	7%	5%
grade 1 events	301	367	167	223	234	157
	0%	0%	0%	0%	0%	0%
grade 2 events	6664	52294	7080	34693	15688	6245
	2%	13%	2%	9%	4%	2%
grade 3 events	3172	3914	3219	7171	7653	3182
	1%	1%	1%	2%	2%	1%
grade 4 events	3096	3653	3197	6877	6930	3025
	1%	0%	1%	1%	2%	1%
grade 5 events	11332	18215	11833	22138	15605	12696
	4%	4%	4%	6%	4%	5%
grade 6 events	5038	96772	6268	80401	17620	6136
	1%	25%	2%	22%	5%	2%
grade 7 events	231962	192207	211802	189380	239048	207506
	81%	50%	81%	54%	73%	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	161.216492	161.168880471455	Alternating exposures requested	N	N
Pointing Dec	-59.550382	-59.56294659827032	Primary exposure time	0.000000	3.2
Pointing Roll	176.601772	176.7173476006782			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
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	242320116.184000	242318996.21069			
Observation start date	2005-09-05T15:07:32	2005-09-05T14:49:56			
Observation end time	242354116.184000	242354994.72484			
Observation end date	2005-09-06T00:34:12	2005-09-06T00:49:54			
Read mode	TIMED	TIMED			

## 2.3 Aspect





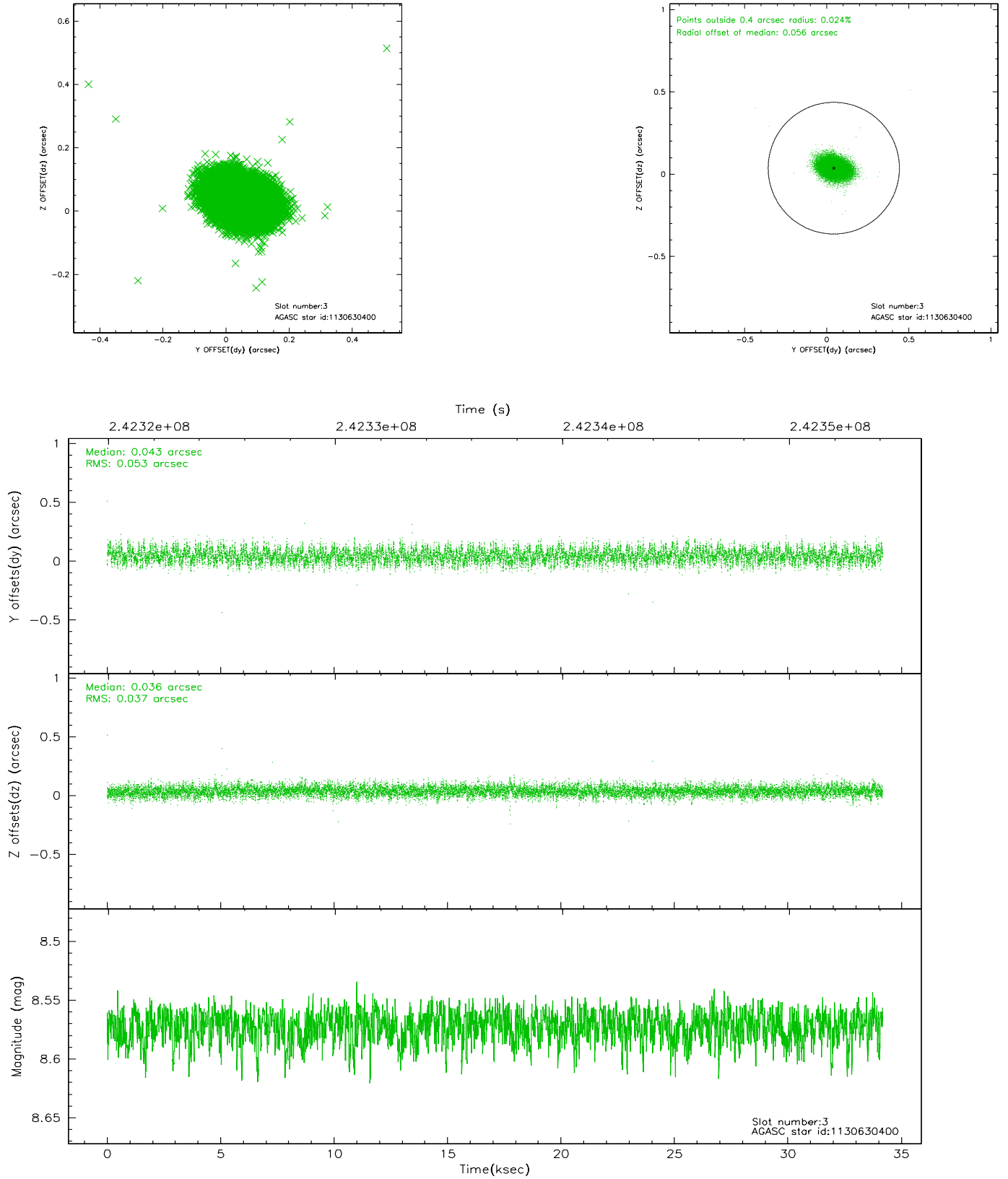
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	8336	0.034	-0.062	0.011	0.053	0.000000	0.000000	935.71	-1728.50
1	FID	ACIS-S-2	7.10	8334	-0.018	0.036	0.013	0.036	0.000000	0.000000	-760.22	-1732.98
2	FID	ACIS-S-6	7.35	8336	-0.038	0.028	0.015	0.032	0.000000	0.000000	401.32	812.89
3	GUIDE	1130630400	8.57	16662	0.043	0.036	0.068	0.111	160.235909	-58.888840	1961.78	-2255.45
4	GUIDE	1130632200	7.55	16669	0.075	0.013	0.067	0.104	161.433843	-59.407820	-366.70	-535.16
5	GUIDE	1130643264	6.65	16673	0.027	-0.144	0.055	0.089	160.322990	-59.676912	1593.58	562.14
6	GUIDE	1130640672	8.33	16667	-0.079	0.148	0.050	0.081	162.096044	-59.540805	-1600.62	-118.67
7	GUIDE	1174033752	8.47	16669	-0.074	-0.057	0.067	0.108	162.418977	-60.164599	-2282.34	2099.19

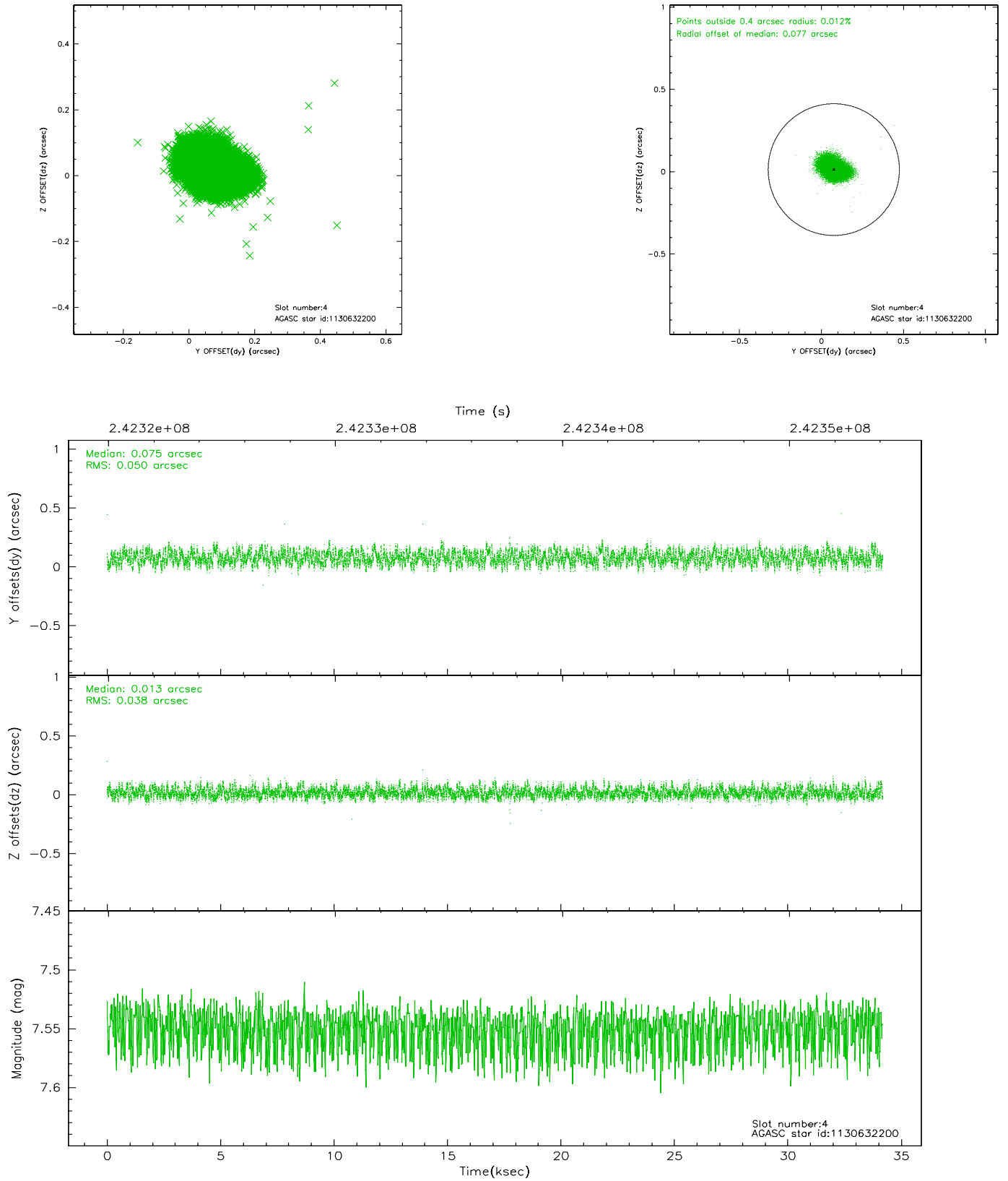


## 2.4 Star Slots

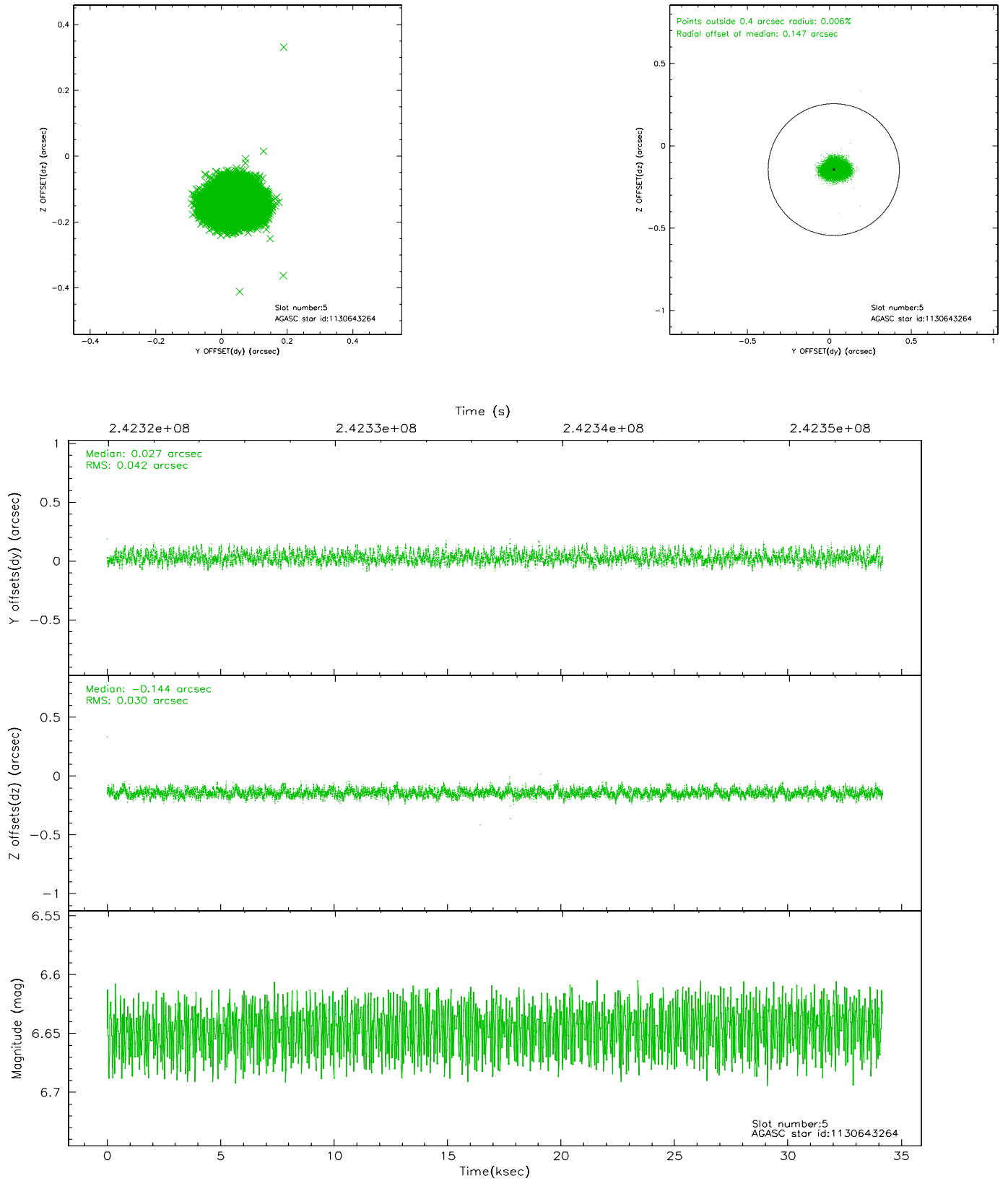
### 2.4.1 Slot 3



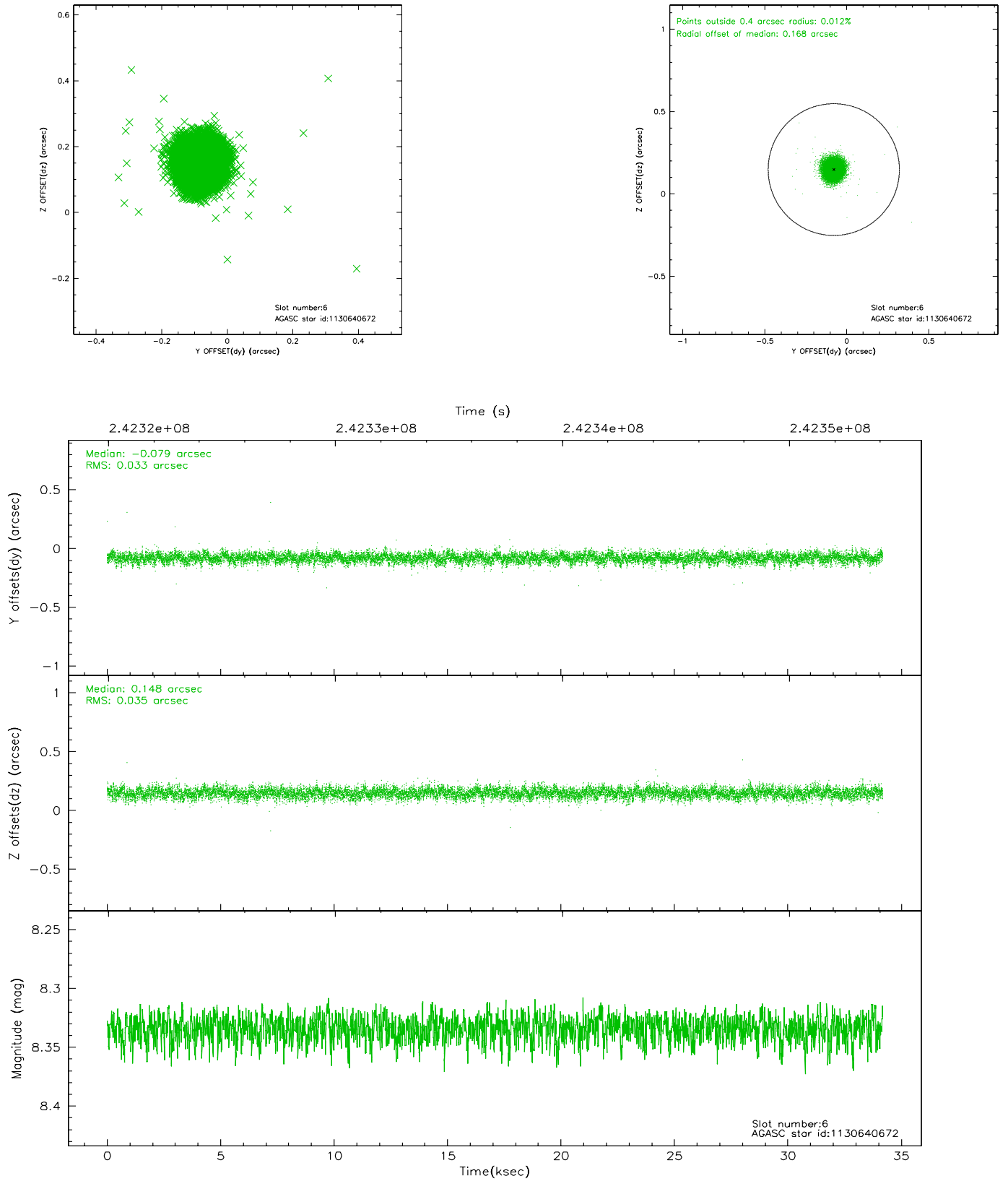
## 2.4.2 Slot 4



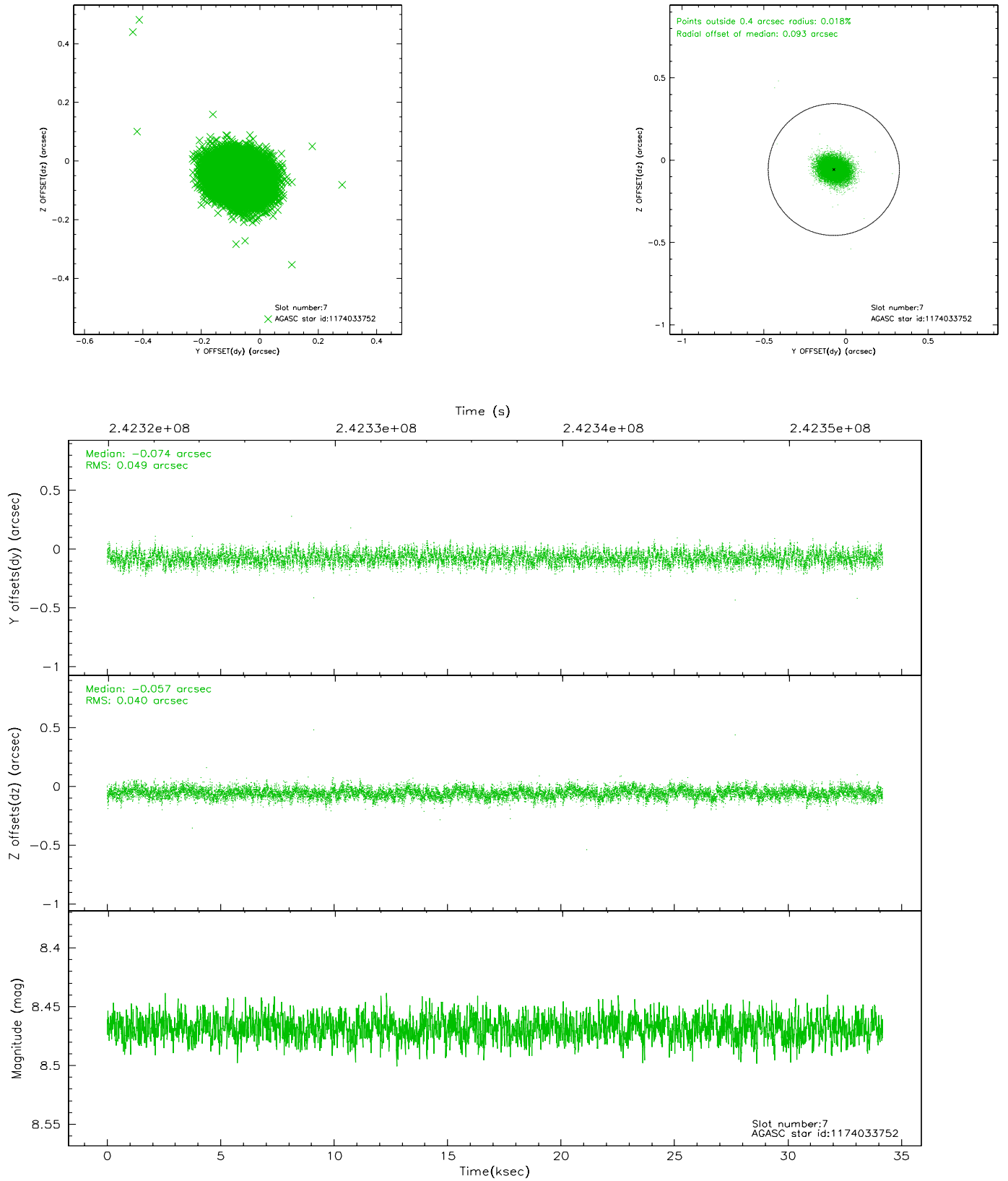
### 2.4.3 Slot 5



## 2.4.4 Slot 6

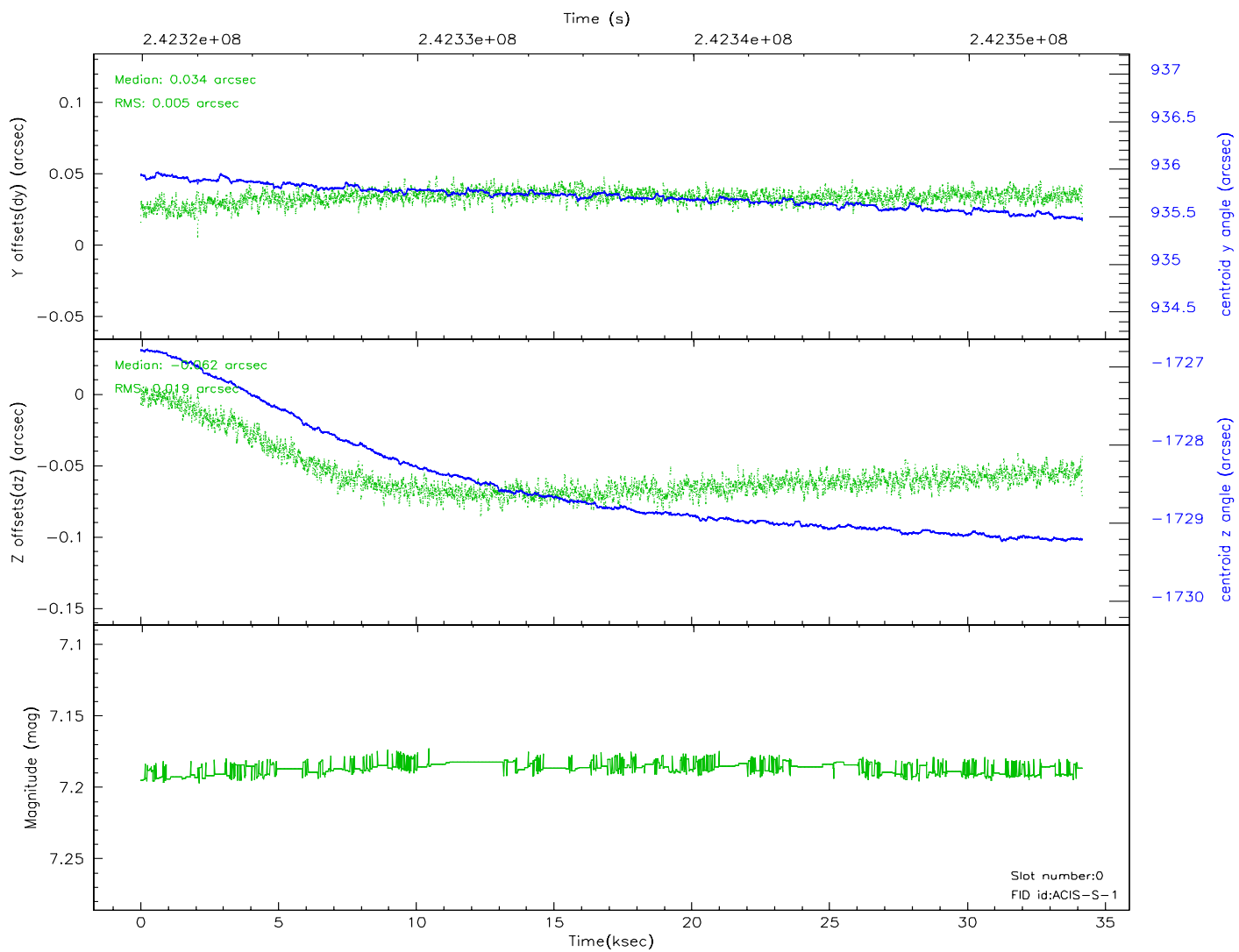
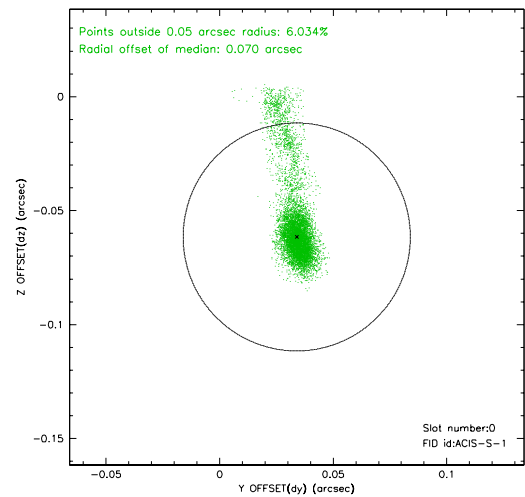
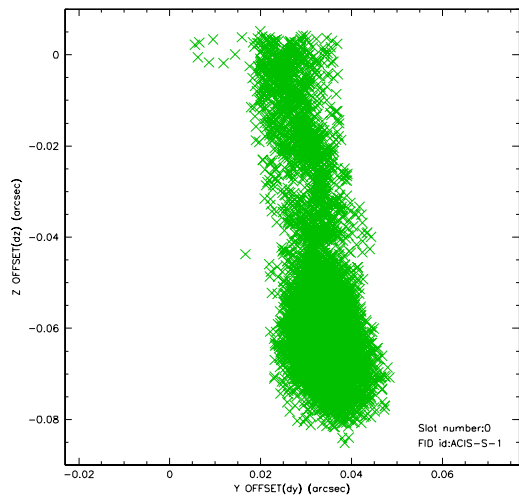


## 2.4.5 Slot 7

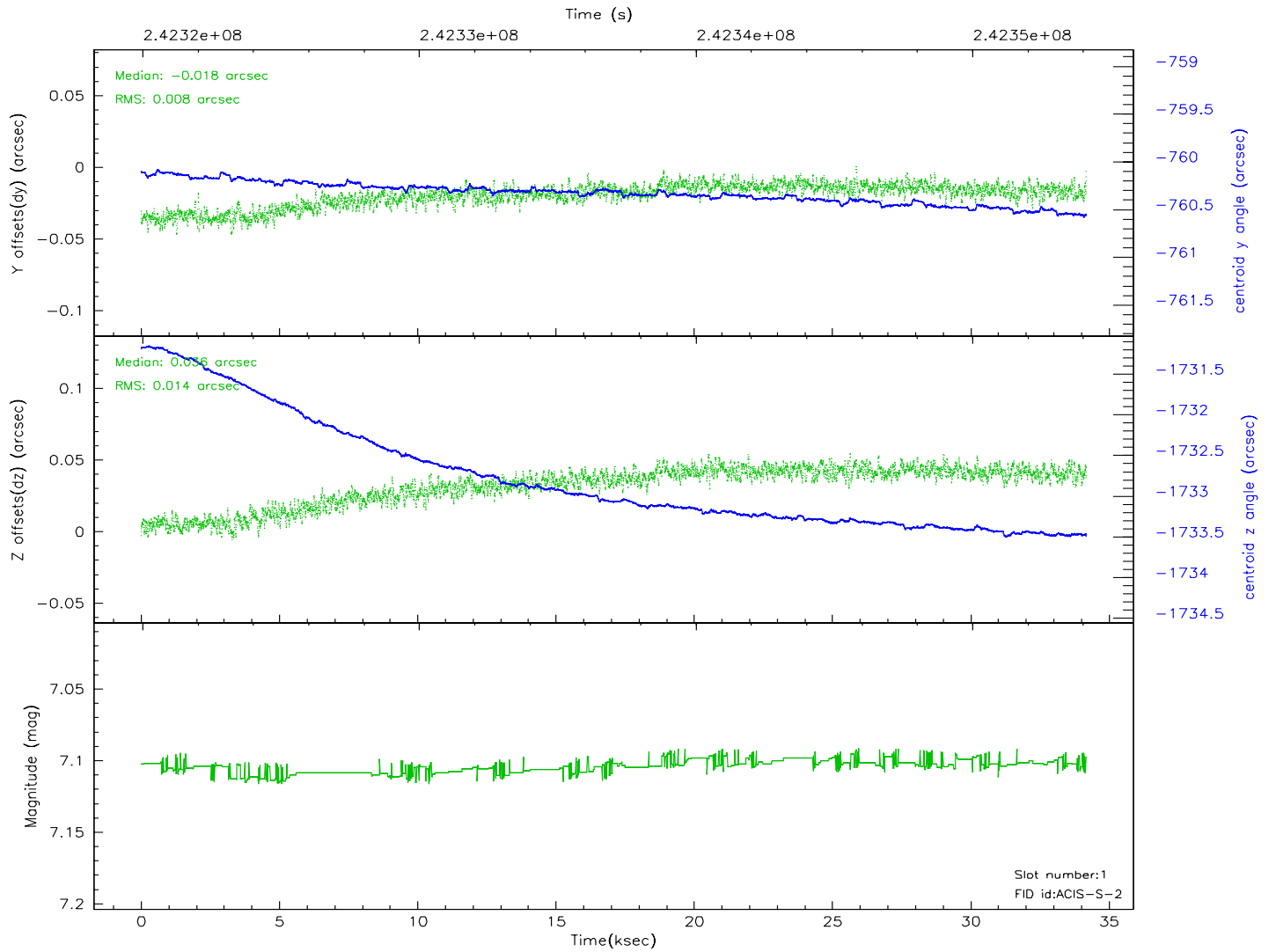
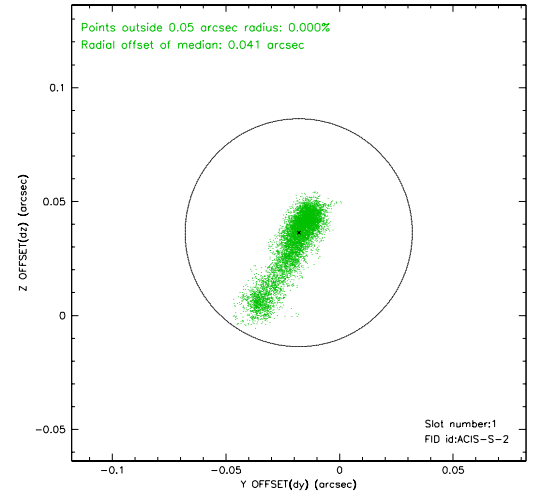
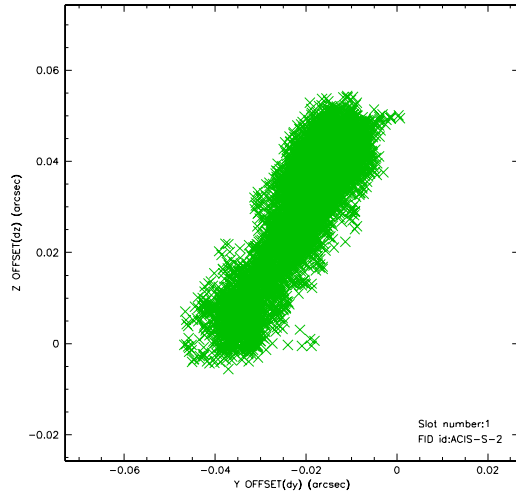


## 2.5 FID Slots

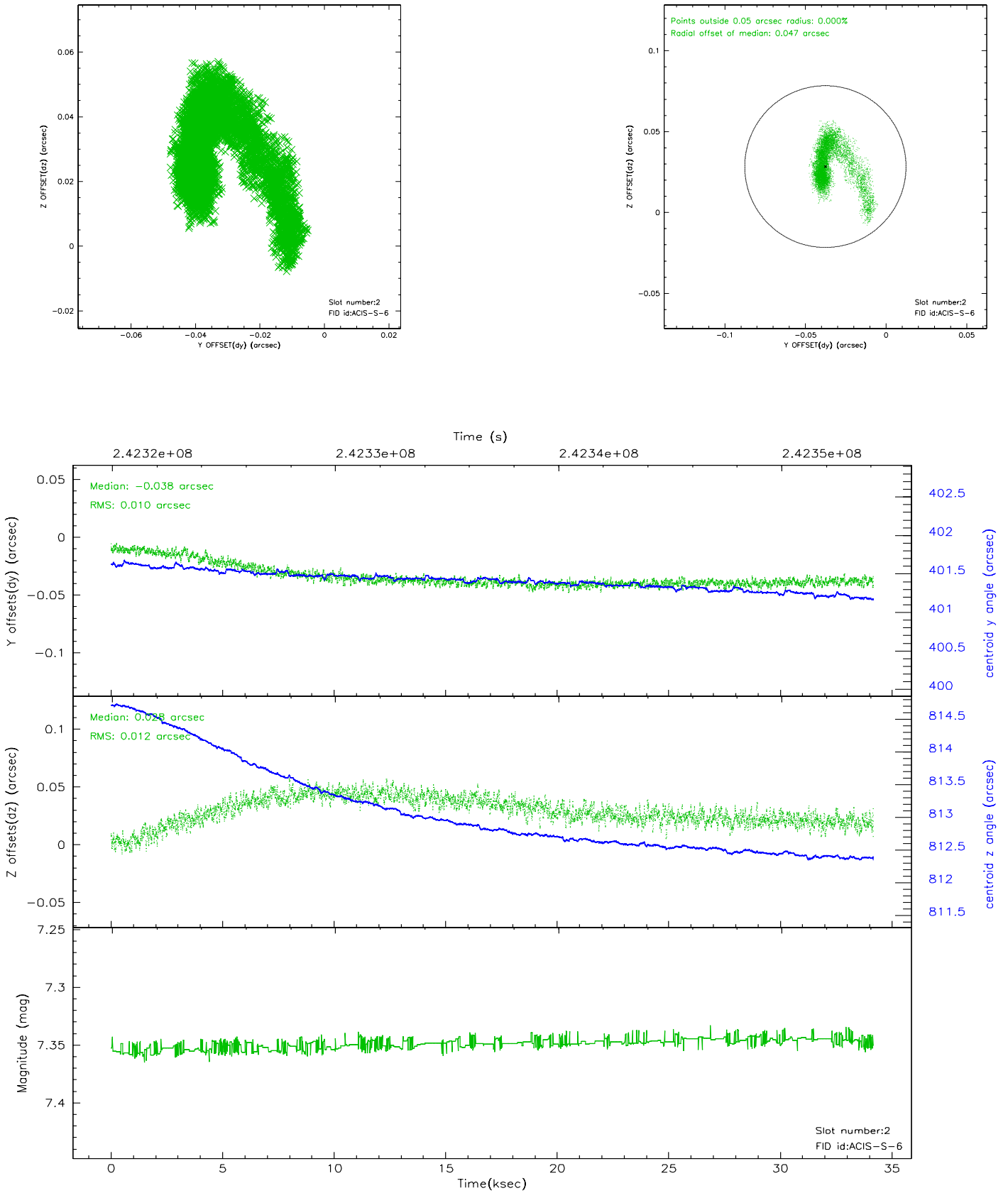
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



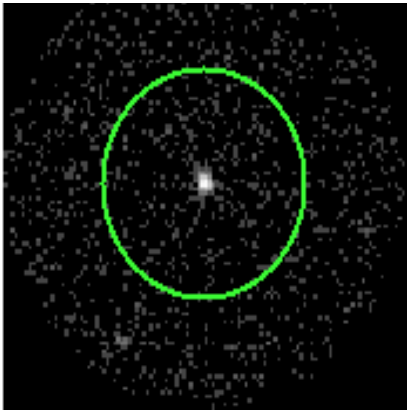


# 3 Gratings

## 3.1 HEG Arm



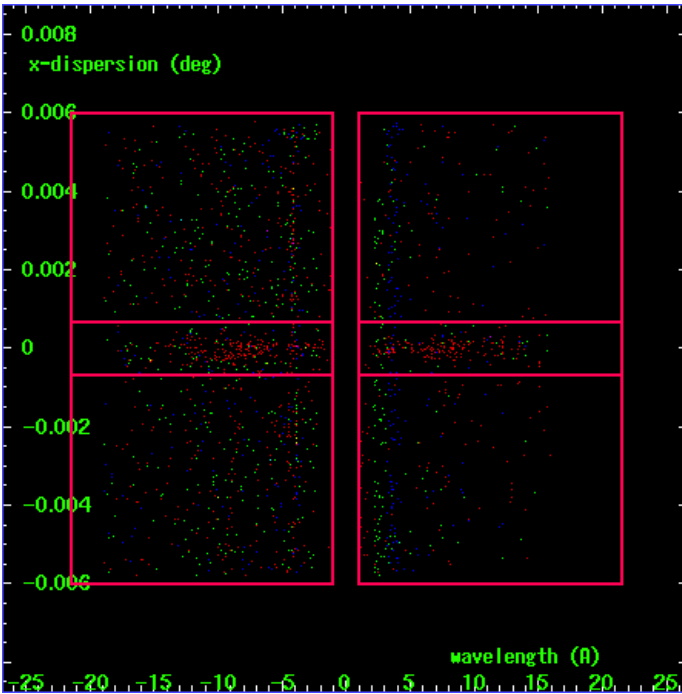
HEG Order Sort 123



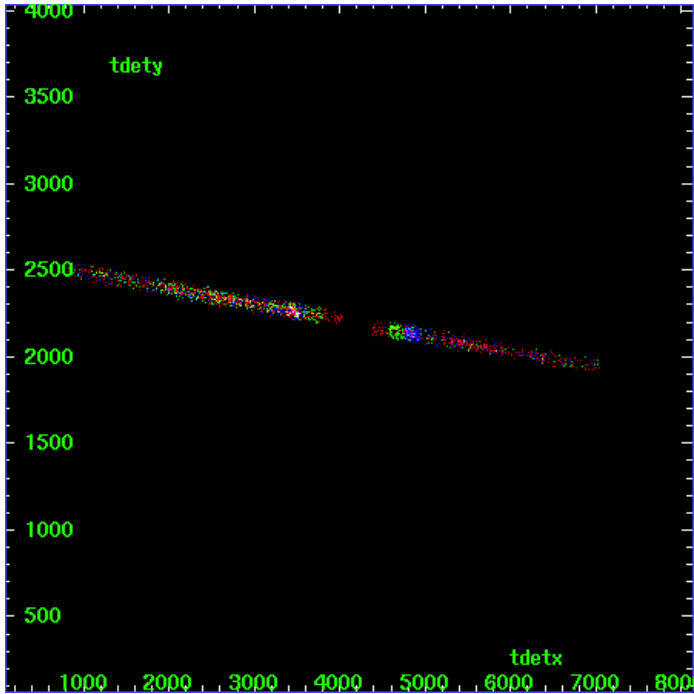
HEG Zero Order



HEG Order Sort ALL

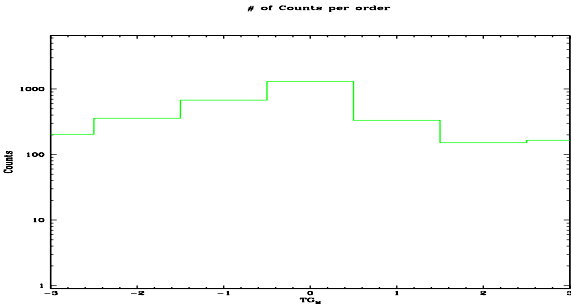


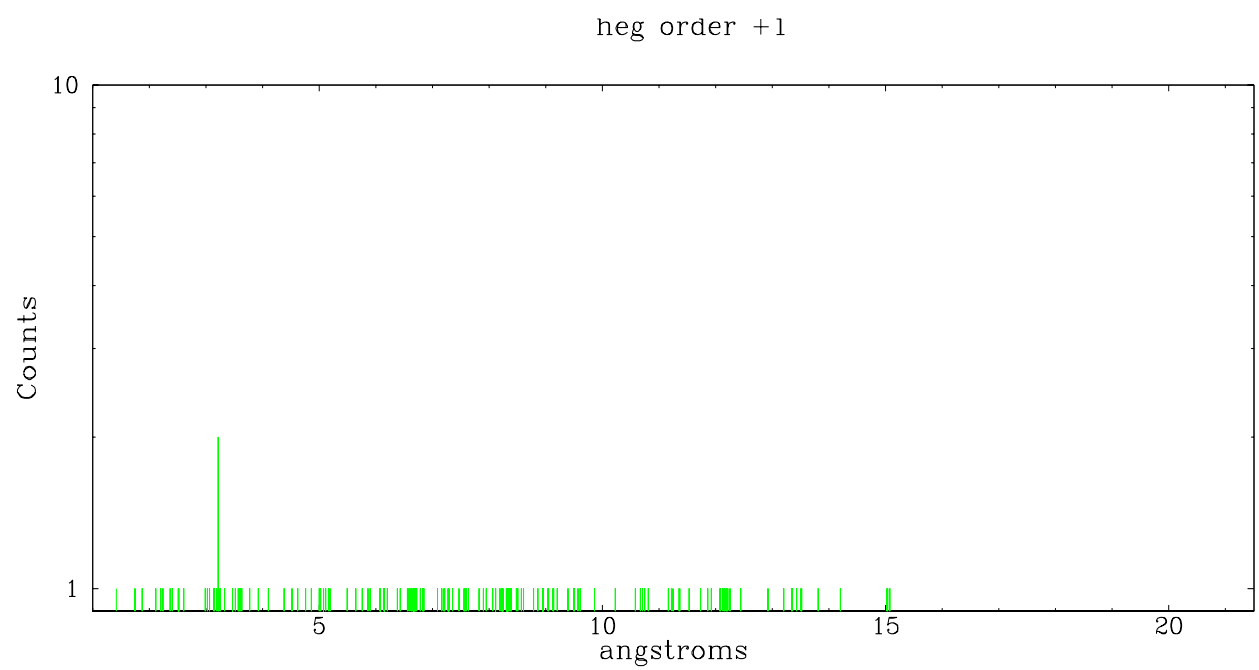
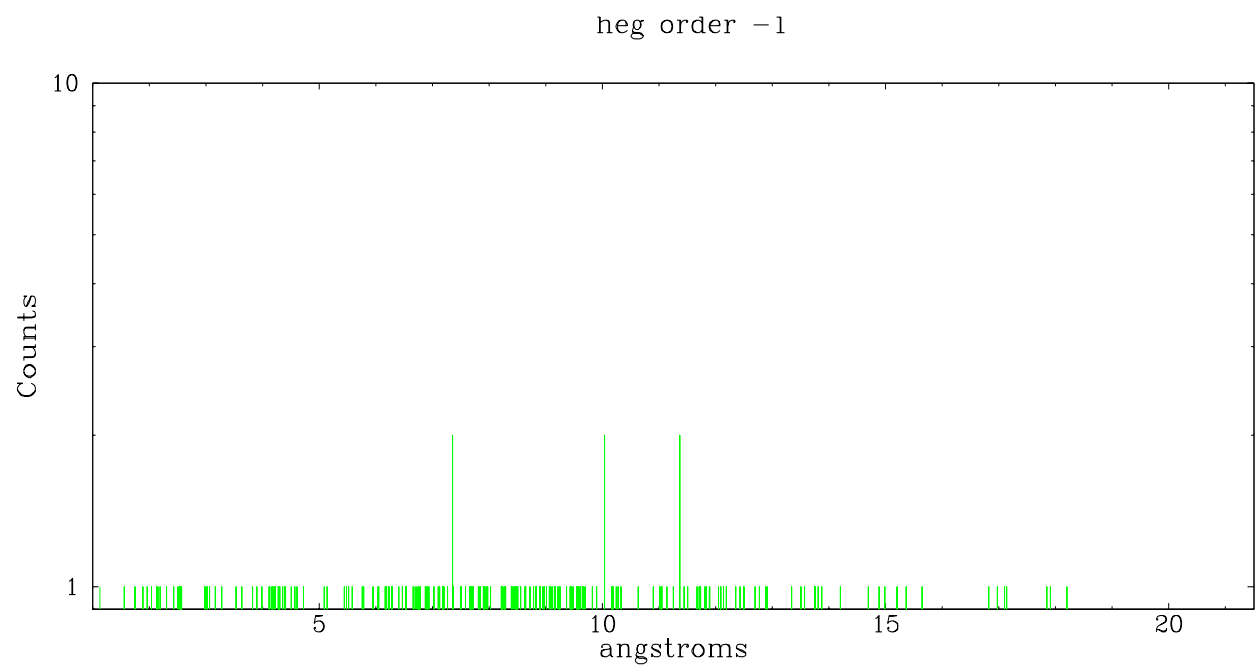
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	203	357	676	1303	332	152	165

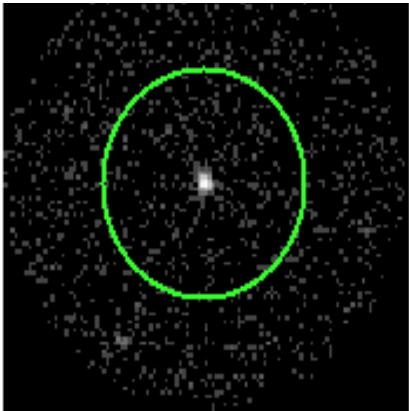




### 3.2 MEG Arm



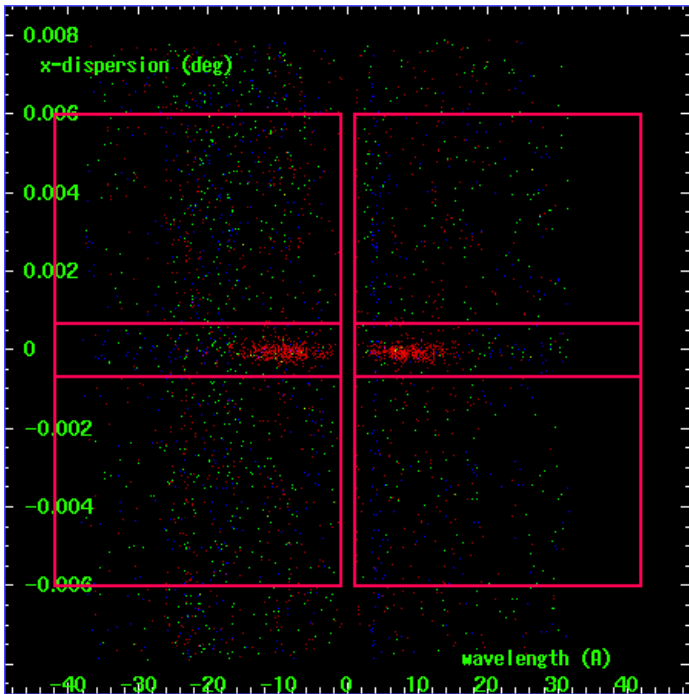
MEG Order Sort 123



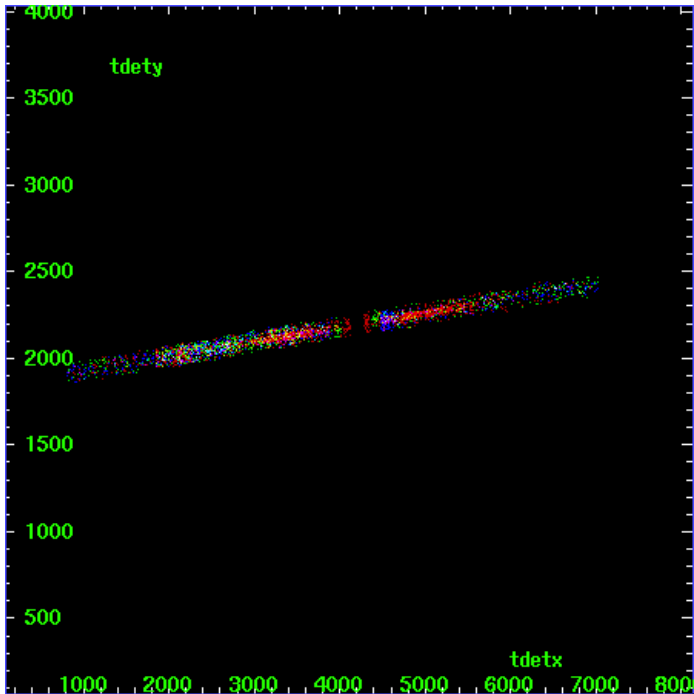
MEG Zero Order



MEG Order Sort ALL

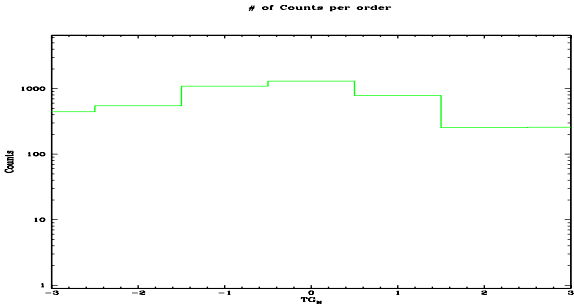


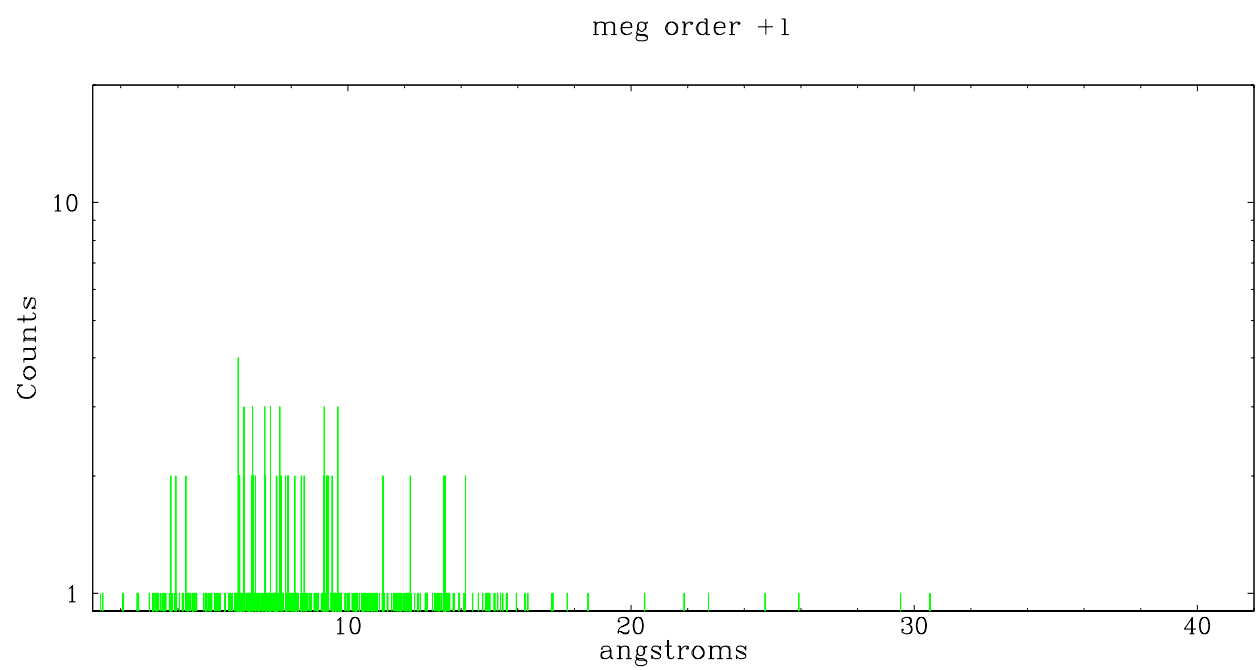
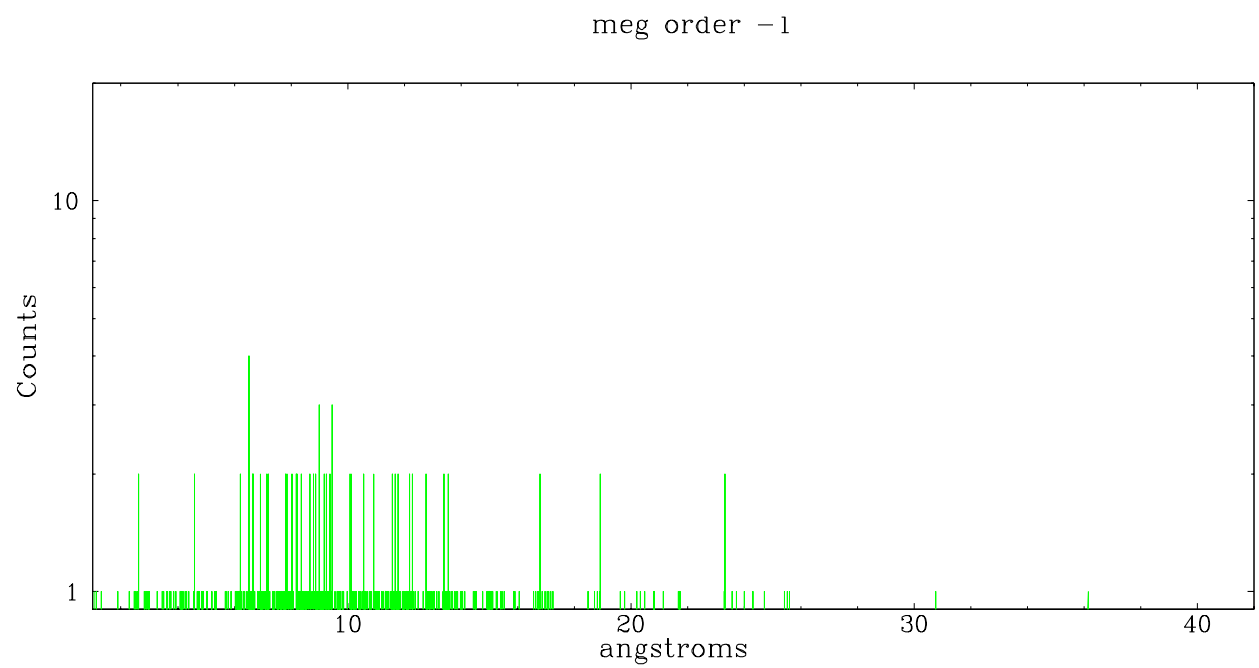
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	444	548	1089	1303	787	255	258





## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.15995

### A.2 Comments