

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 334 - L2 Version 3

Chandra X-Ray Center

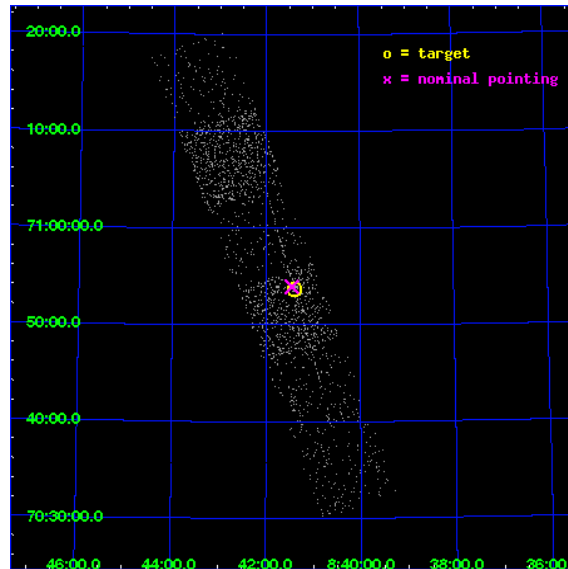
L2 Processing Date : Nov 19 2009

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# 1 Front

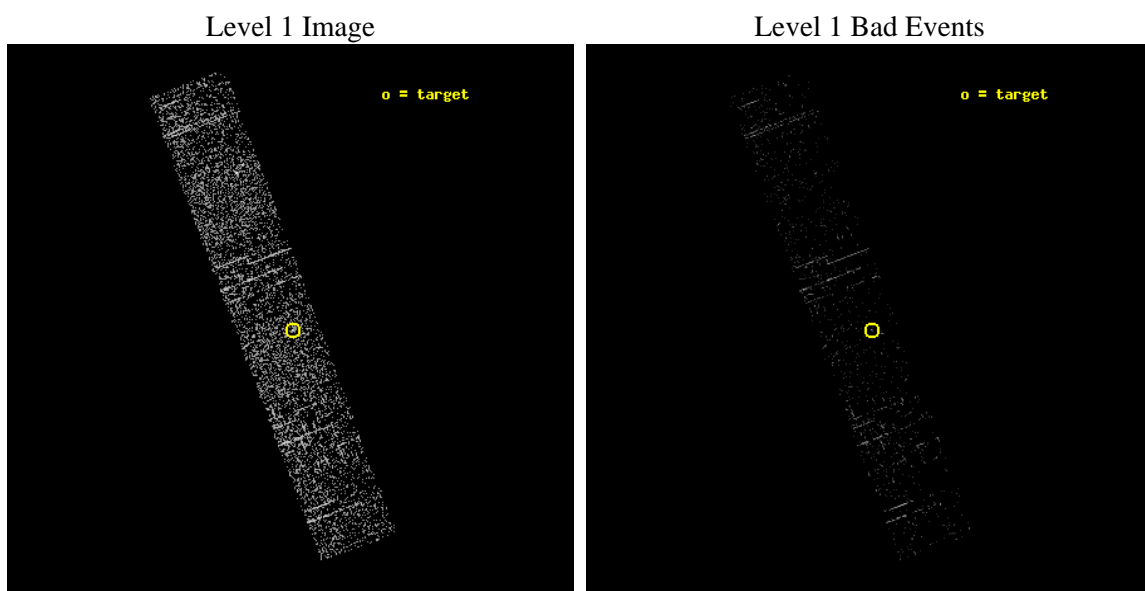
seq_num	700006	Sequence number
obs_id	334	Observation id
title	HETG OBSERVATIONS OF VARIOUS ACTIVE GALACTIC NUCLEI	Proposal title
observer	Prof. Claude Canizares	Principal investigator
object	Q0836+7104	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	130.35125	Observer's specified target RA
dec_targ	70.895	Observer's specified target Dec
ra_nom	130.36276431643	Nominal RA
dec_nom	70.89885635606	Nominal Dec
roll_nom	69.399351659439	Nominal Roll
revision	3	Processing version of data
ontime	184.37414698303	Sum of GTIs [s]
livetime	182.03949051715	Livetime [s]
ontime4	184.29206698388	Sum of GTIs [s]
ontime5	184.33310697973	Sum of GTIs [s]
ontime6	184.16894698143	Sum of GTIs [s]
ontime7	184.37414698303	Sum of GTIs [s]
ontime8	184.25102698058	Sum of GTIs [s]
ontime9	184.20998698473	Sum of GTIs [s]
l2events	1999	Number of level 2 events



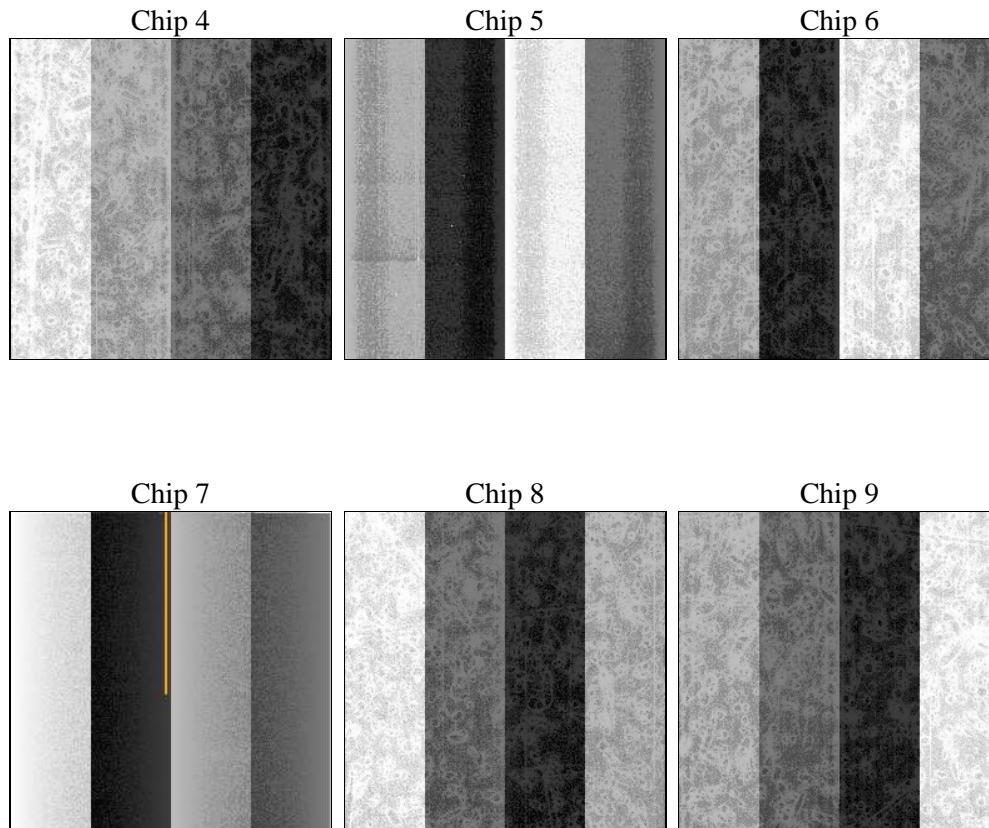
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	3	Obi number	sched_exp_time	1140.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	184.37414698303	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime4	184.29206698388	Sum of GTIs [s]
date	2009-11-19T22:03:11	Date and time of file creation	ontime5	184.33310697973	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	184.16894698143	Sum of GTIs [s]
			ontime7	184.37414698303	Sum of GTIs [s]
			ontime8	184.25102698058	Sum of GTIs [s]
			ontime9	184.20998698473	Sum of GTIs [s]
			l1events	10980	Number of level 1 events

### 2.1.4 Events

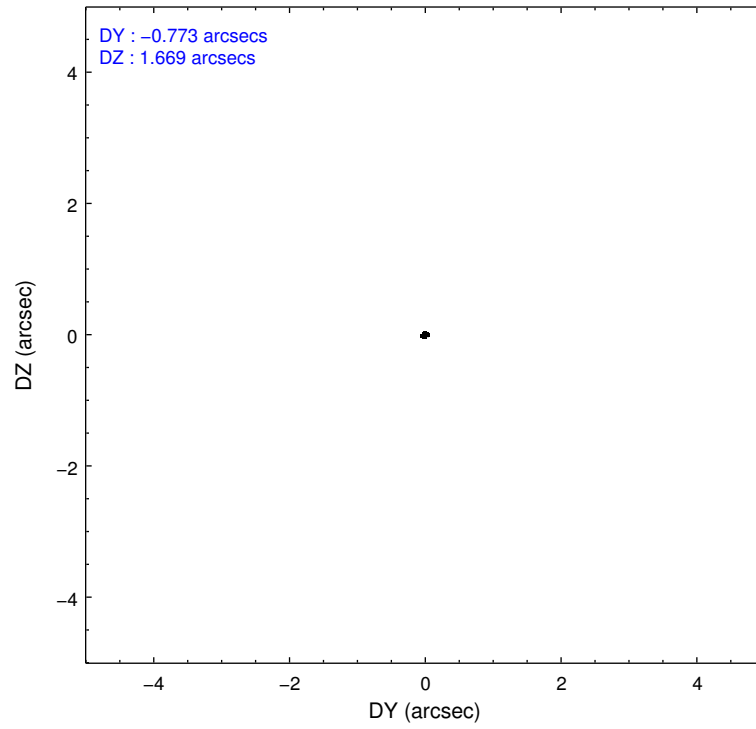
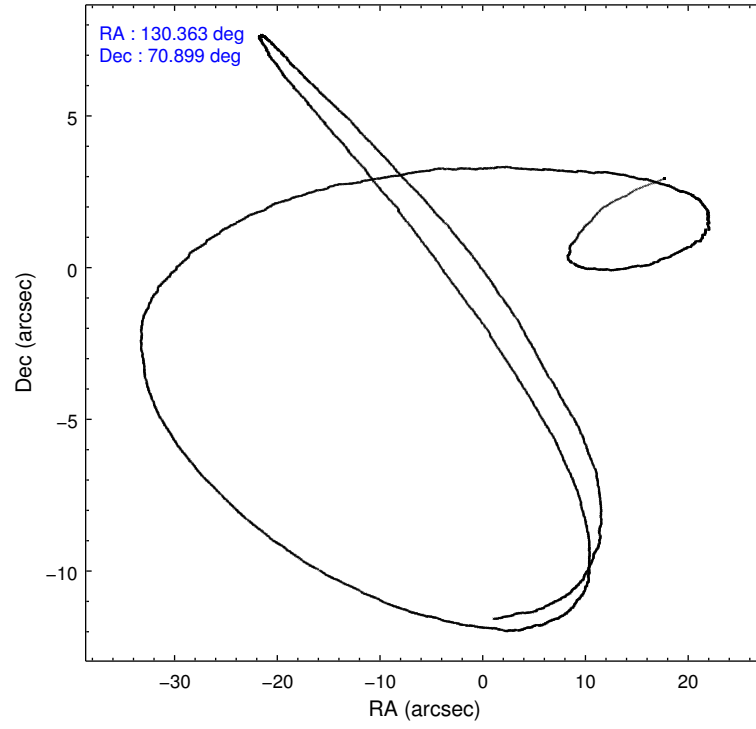
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	1720	2089	1835	1825	2066	1445
rejected events	1578	1145	1661	1130	1799	1287
rejected %	91%	54%	90%	61%	87%	89%

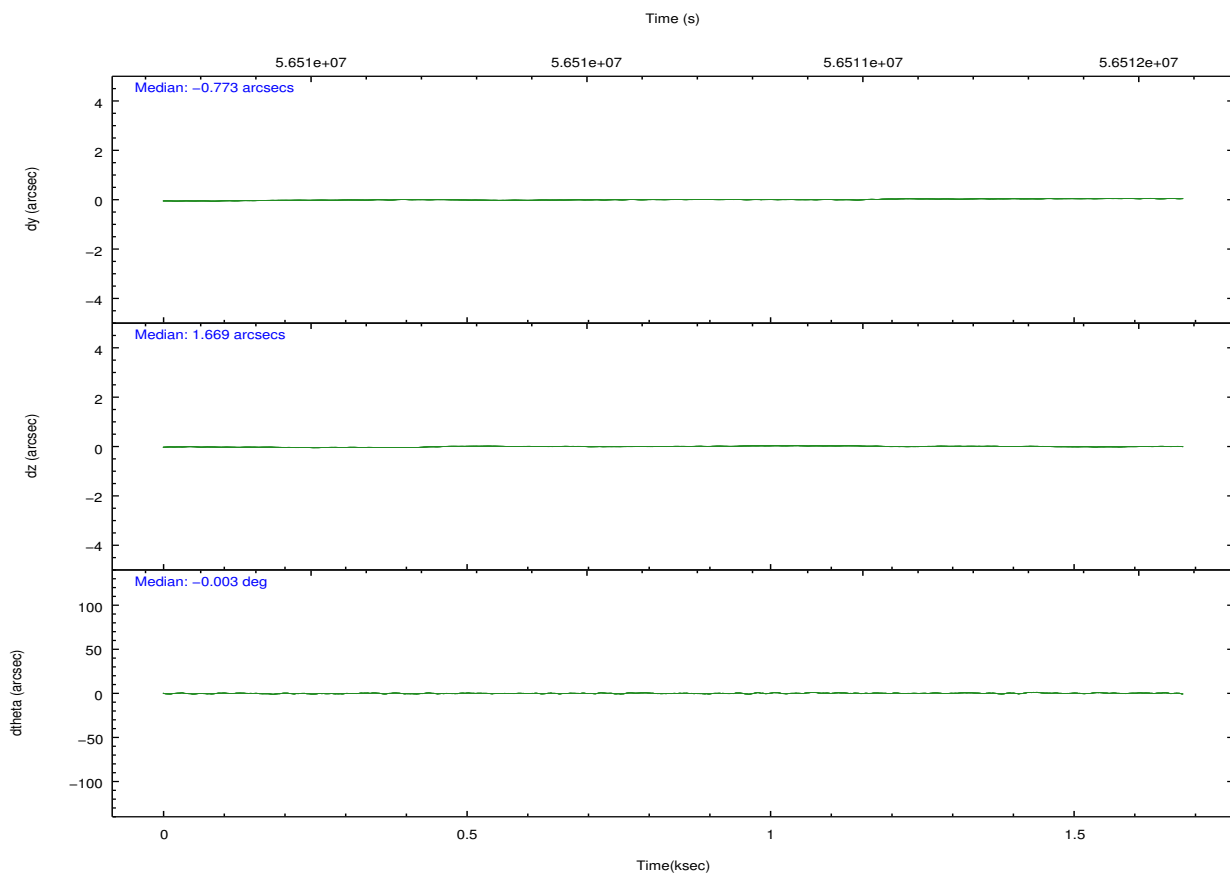
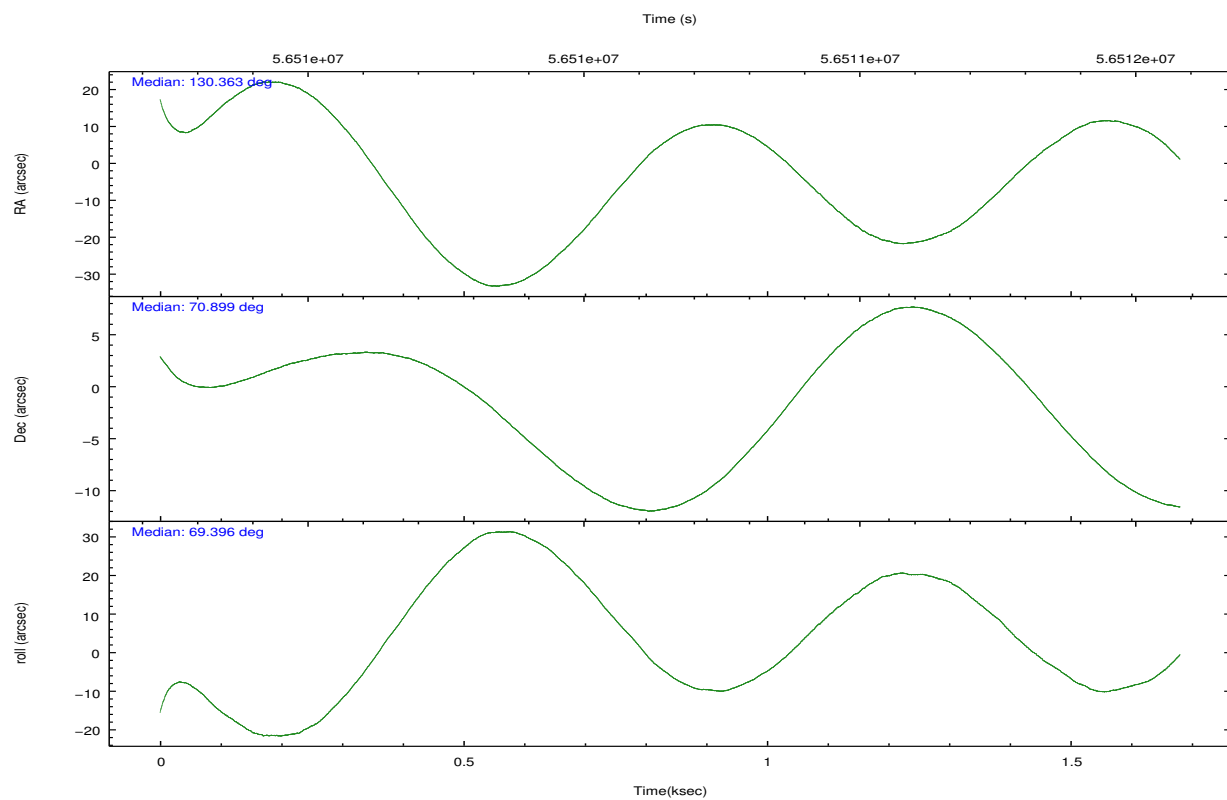
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	24	215	58	48	72	36
	1%	10%	3%	2%	3%	2%
grade 1 events	0	14	0	1	0	0
	0%	0%	0%	0%	0%	0%
grade 2 events	72	216	57	150	88	57
	4%	10%	3%	8%	4%	3%
grade 3 events	7	25	14	48	23	11
	0%	1%	0%	2%	1%	0%
grade 4 events	6	23	7	39	22	7
	0%	1%	0%	2%	1%	0%
grade 5 events	28	92	32	94	60	33
	1%	4%	1%	5%	2%	2%
grade 6 events	35	478	42	418	67	51
	2%	22%	2%	22%	3%	3%
grade 7 events	1548	1026	1625	1027	1734	1250
	90%	49%	88%	56%	83%	86%

## 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	130.375086	130.3627643164252	Subarray requested	NONE	NONE
Pointing Dec	70.871372	70.89885635605971	Alternating exposures requested	N	N
Pointing Roll	69.231042	69.39935165943888	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-186.2428773324539			
SIM translation stage offset (mm)	0	-3.889645250553912			
Observation start time	56510256.184000	56508850.923159			
Observation start date	1999-10-17T01:16:32	1999-10-17T00:54:10			
Observation end time	56511396.184000	56511497.473255			
Observation end date	1999-10-17T01:35:32	1999-10-17T01:38:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect





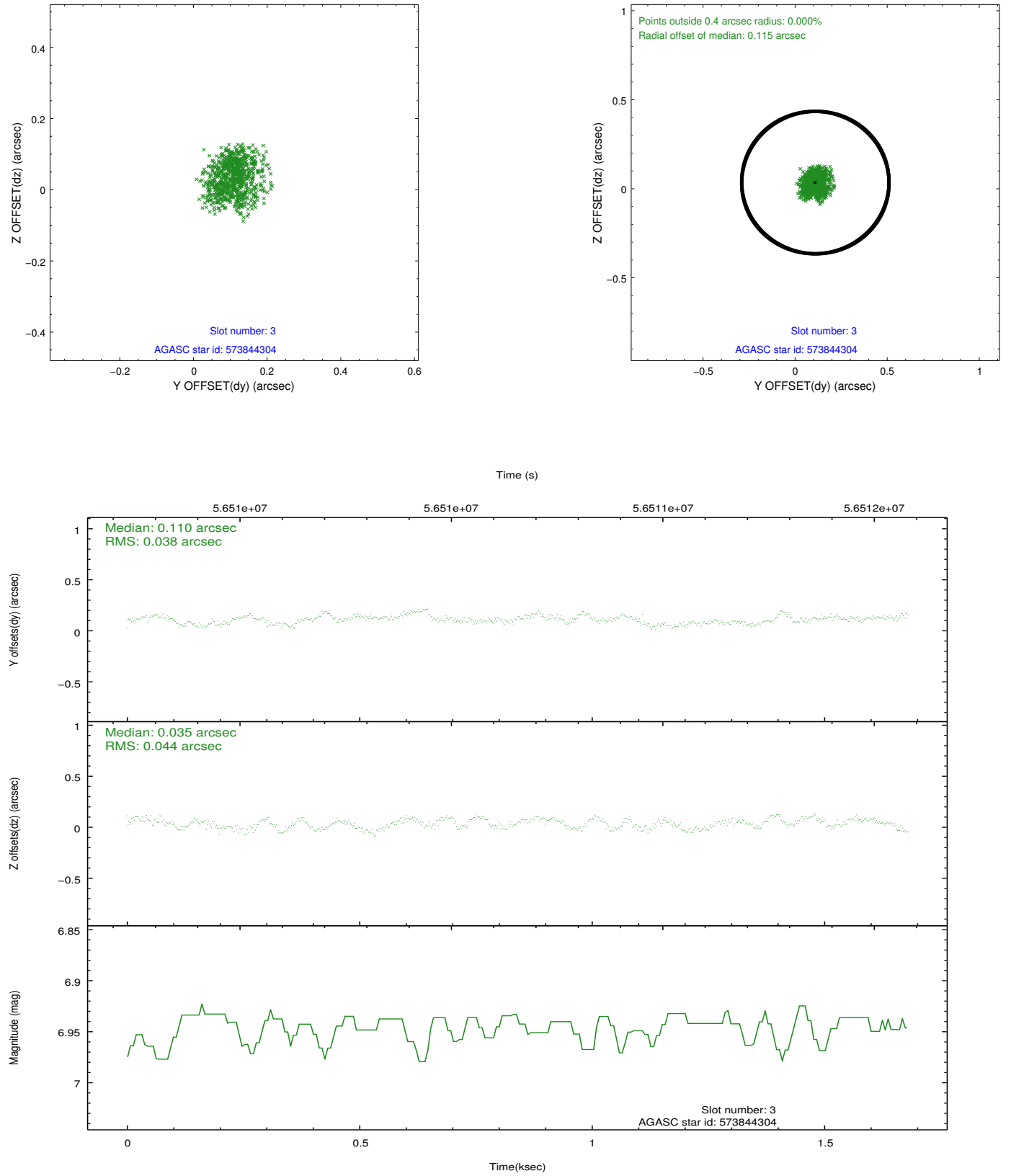
Slot Statistics

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	821	-0.011	-0.040	0.007	0.011	0.000000	0.000000	-751.55	-1802.96
1	FID	ACIS-S-4	7.20	821	0.042	0.016	0.006	0.010	0.000000	0.000000	2160.98	103.47
2	FID	ACIS-S-5	7.24	821	-0.064	0.033	0.007	0.010	0.000000	0.000000	-1801.97	99.40
3	GUIDE	573844304	6.95	821	0.110	0.035	0.065	0.097	130.752295	70.164537	-2213.75	-1331.82
4	GUIDE	573841952	8.40	821	-0.123	0.113	0.062	0.100	131.342455	71.292757	1820.63	-503.68
5	GUIDE	573841008	8.91	820	-0.140	0.206	0.072	0.121	132.267939	70.909036	952.32	-2022.54
6	GUIDE	573837432	9.08	820	-0.082	-0.214	0.076	0.122	129.030538	71.508955	1619.35	2253.71
7	GUIDE	573842336	9.32	817	0.237	-0.133	0.099	0.158	128.692933	70.382522	-2337.32	1290.27

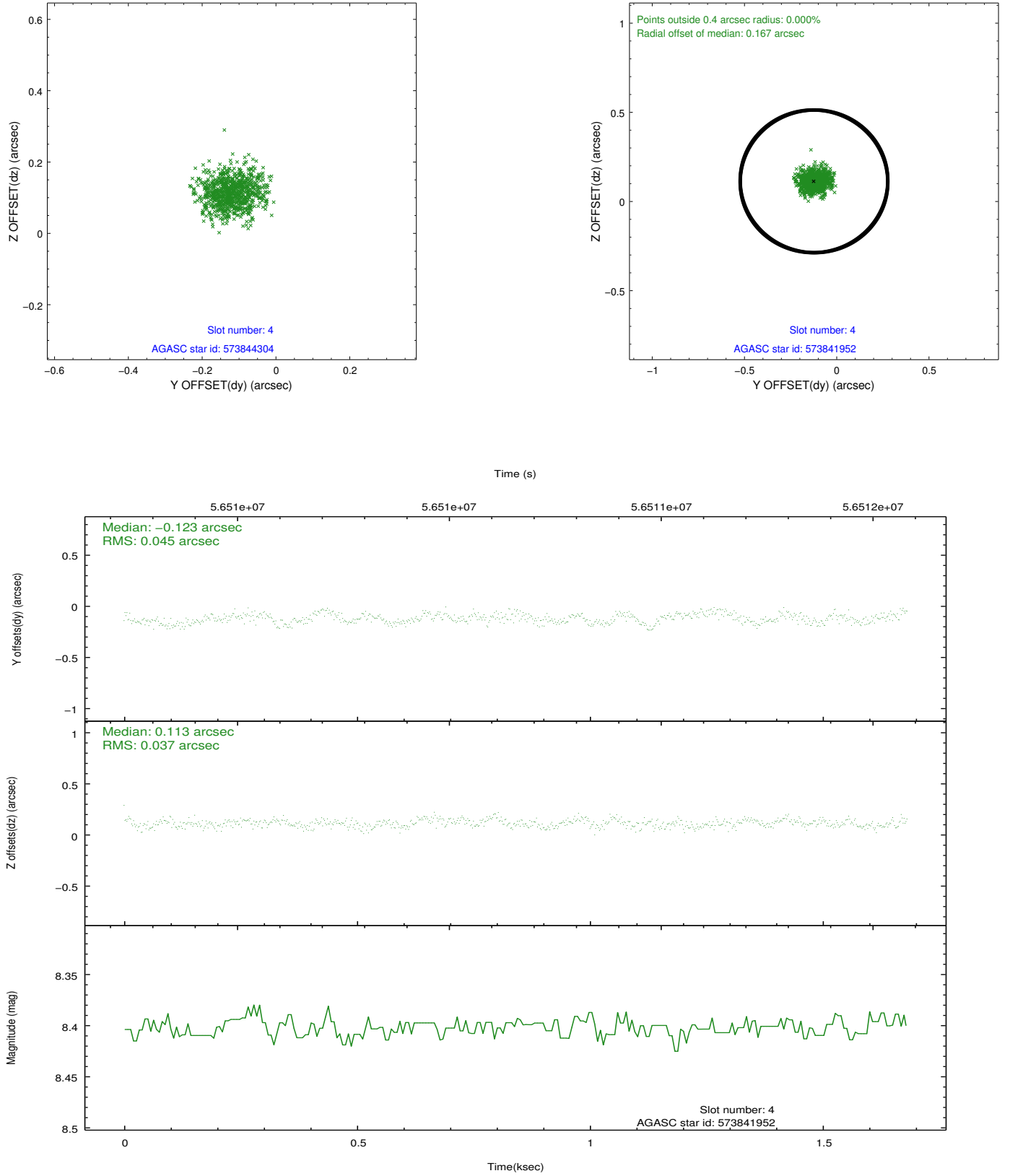


## 2.4 Star Slots

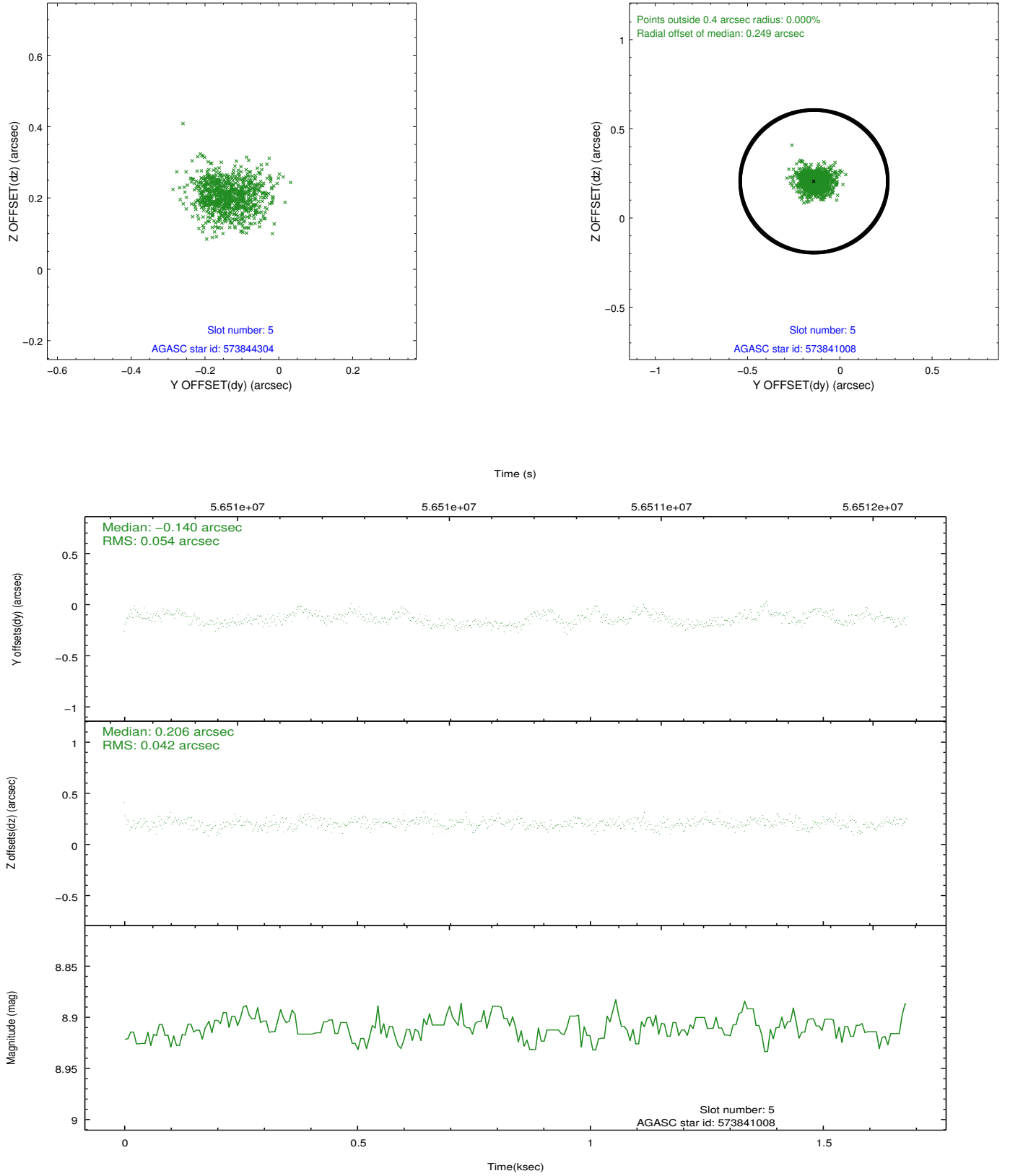
### 2.4.1 Slot 3



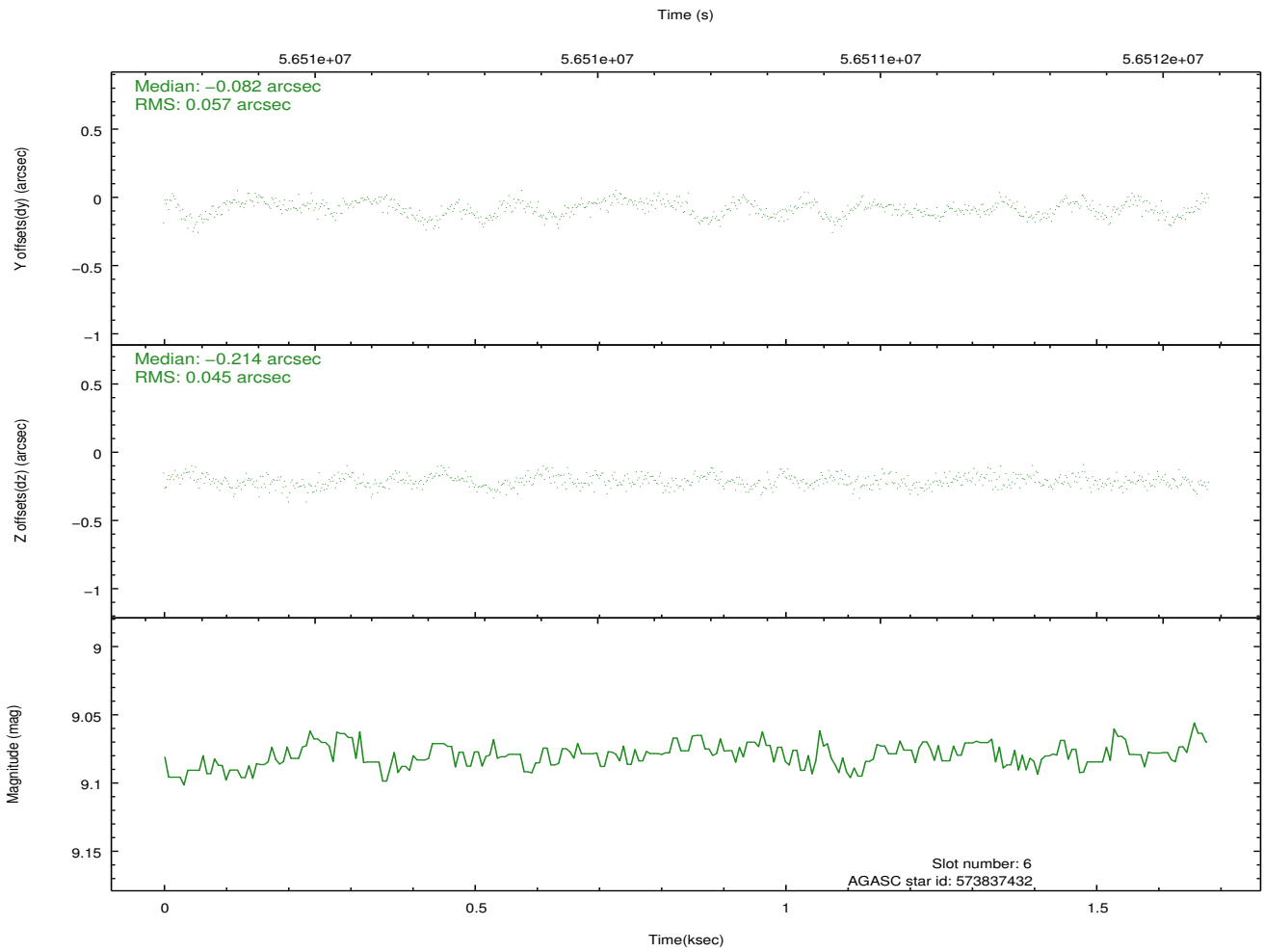
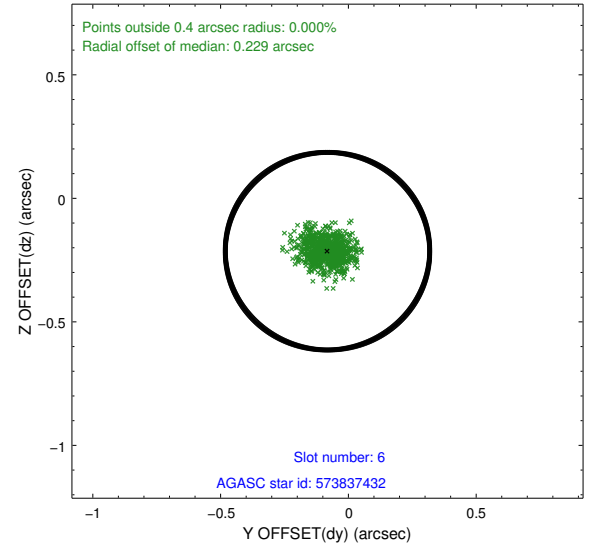
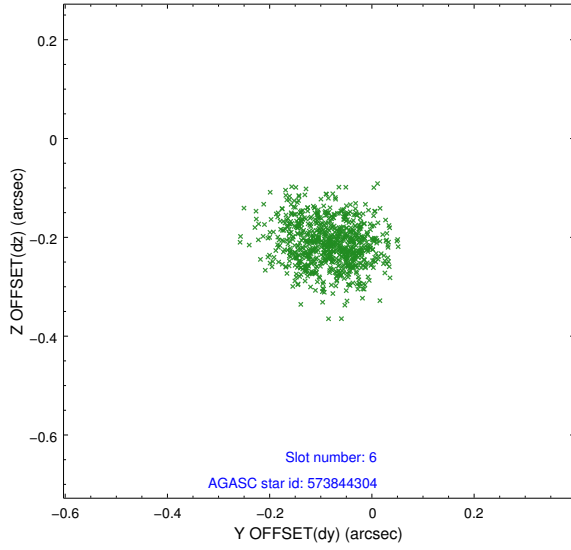
## 2.4.2 Slot 4



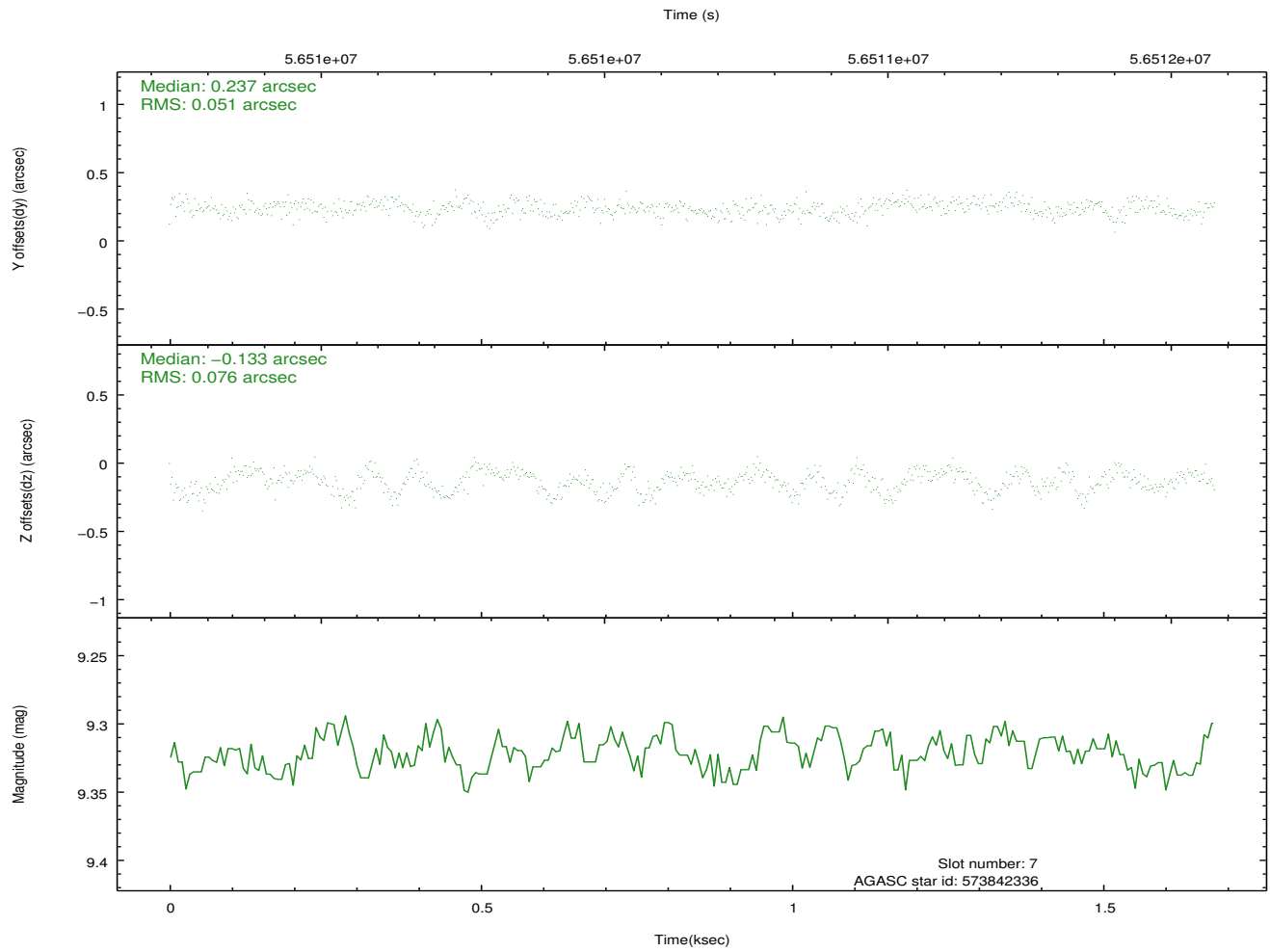
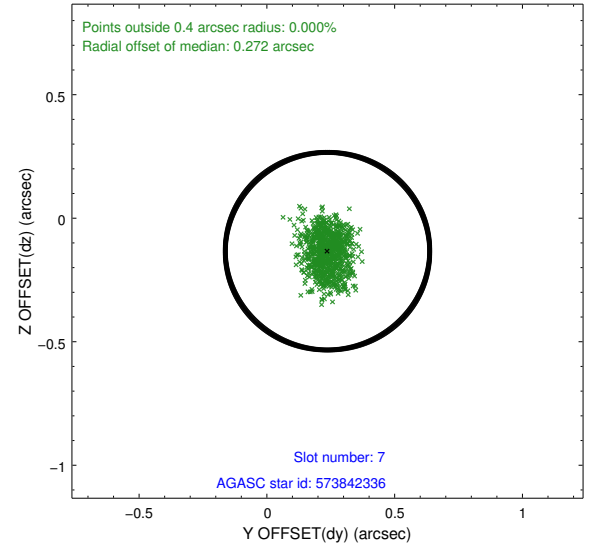
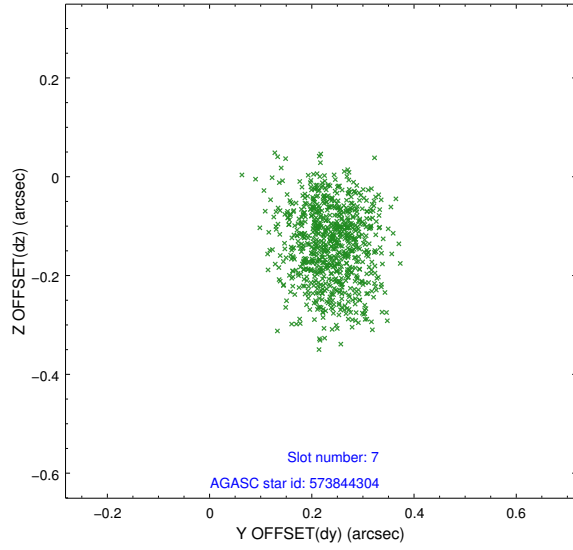
### 2.4.3 Slot 5



## 2.4.4 Slot 6

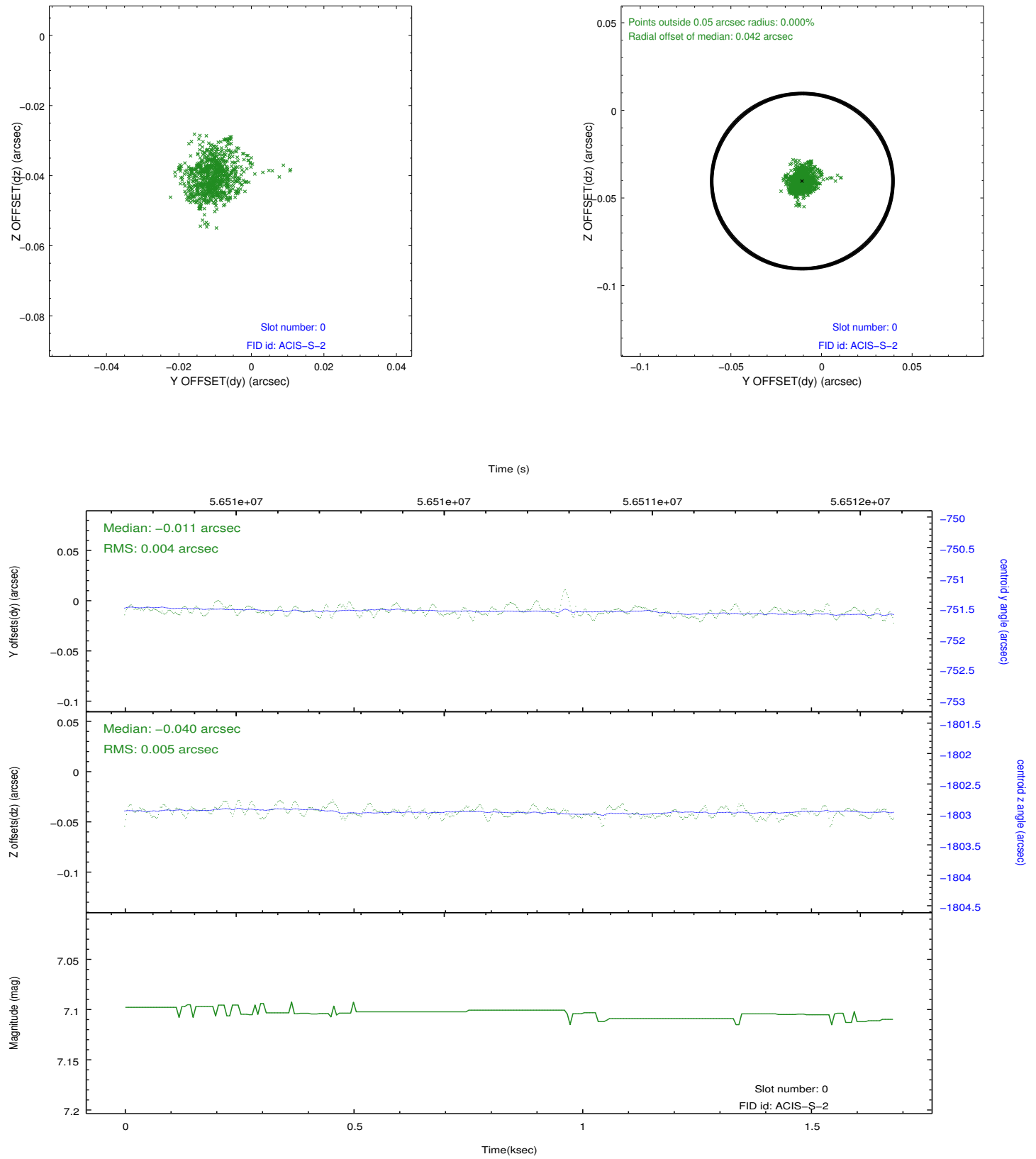


## 2.4.5 Slot 7

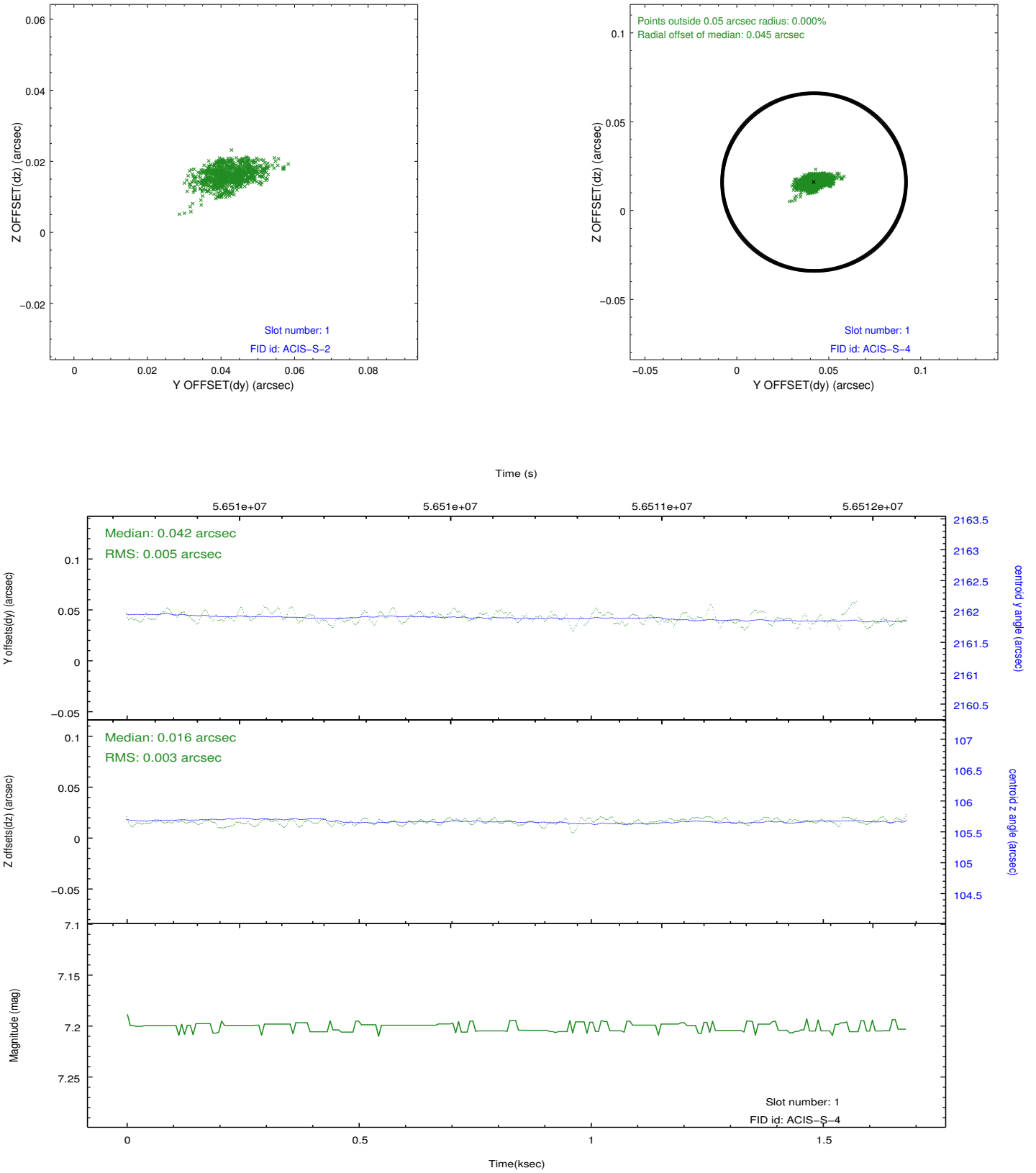


## 2.5 FID Slots

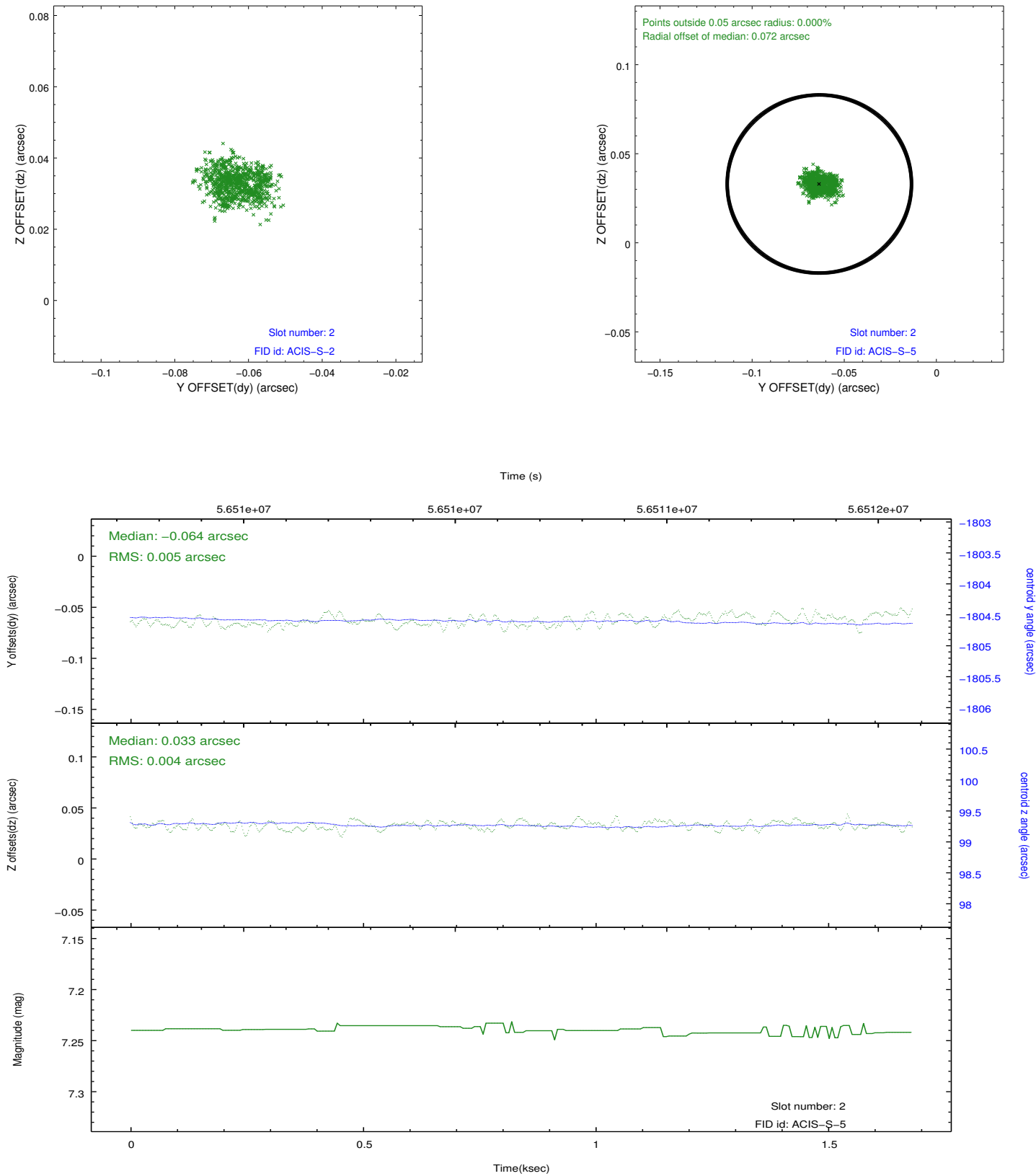
### 2.5.1 Slot 0



## 2.5.2 Slot 1



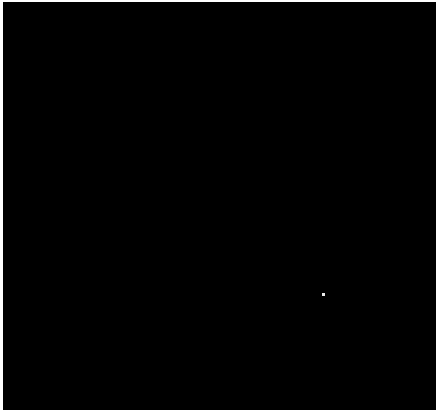
## 2.5.3 Slot 2



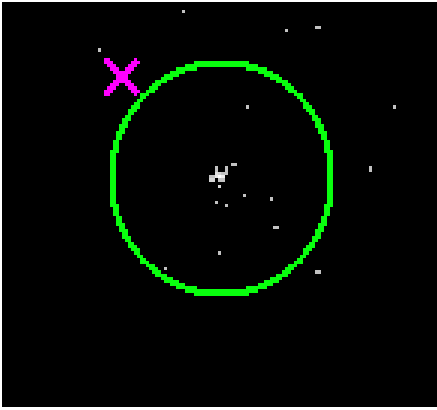


# 3 Gratings

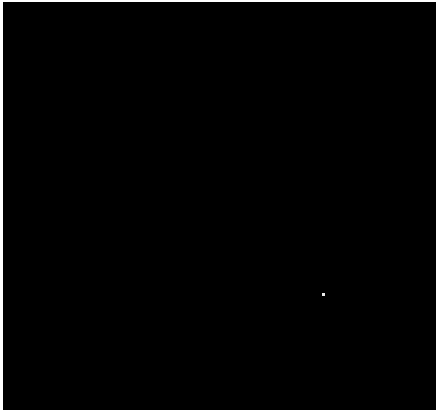
## 3.1 HEG Arm



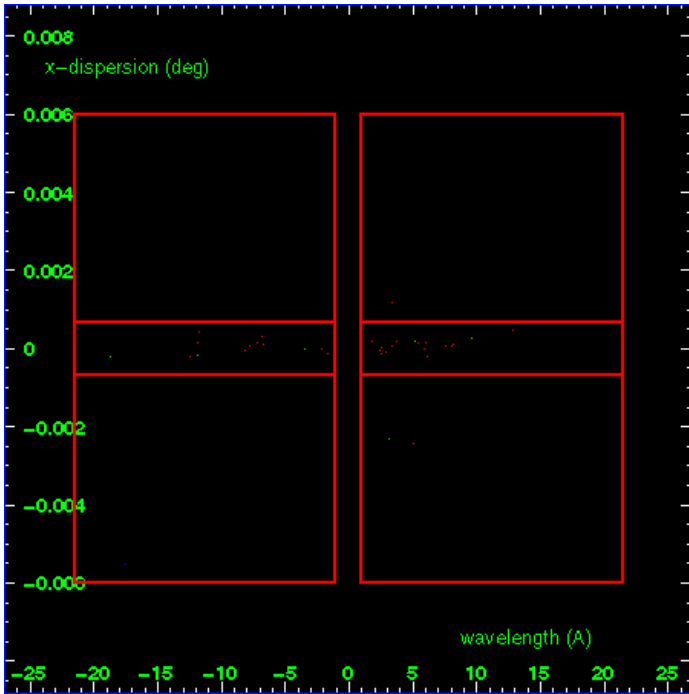
HEG Order Sort 123



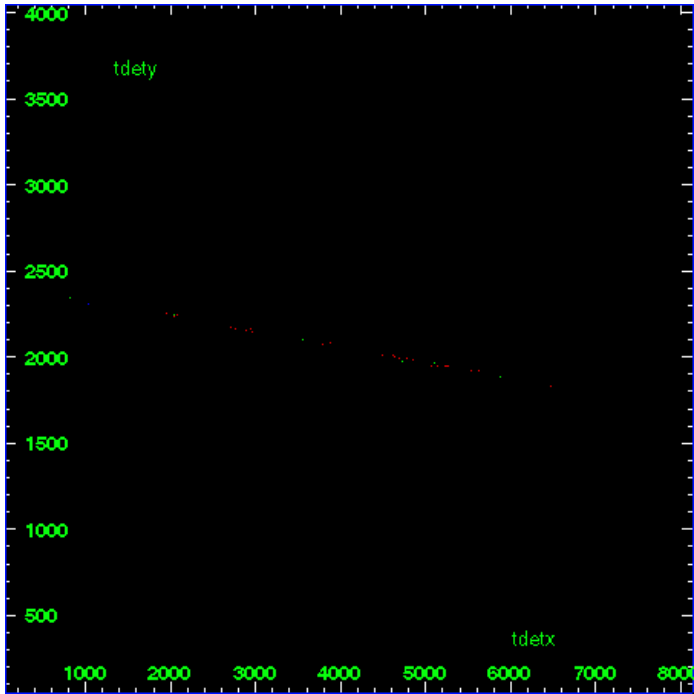
HEG Zero Order



HEG Order Sort ALL

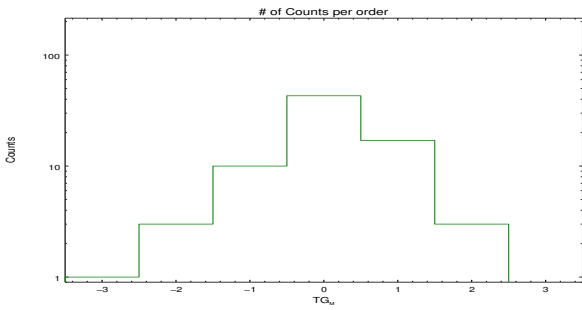


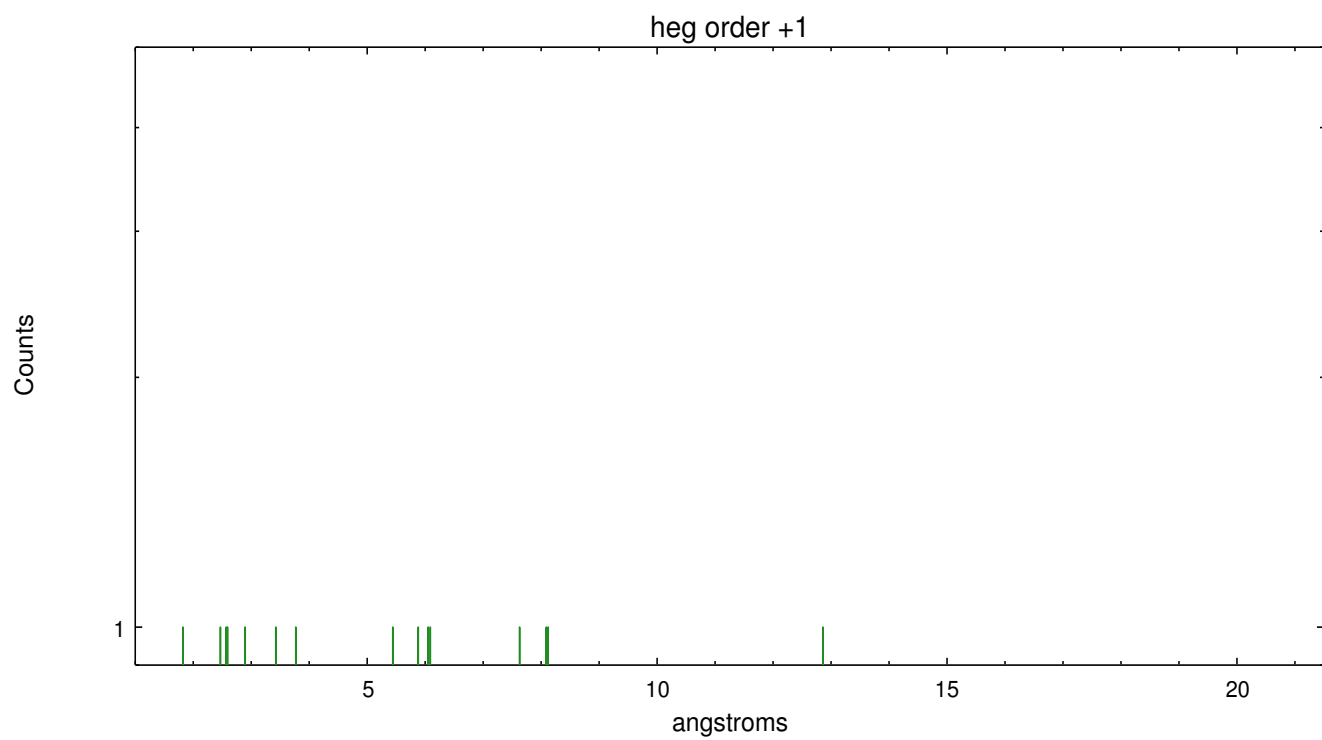
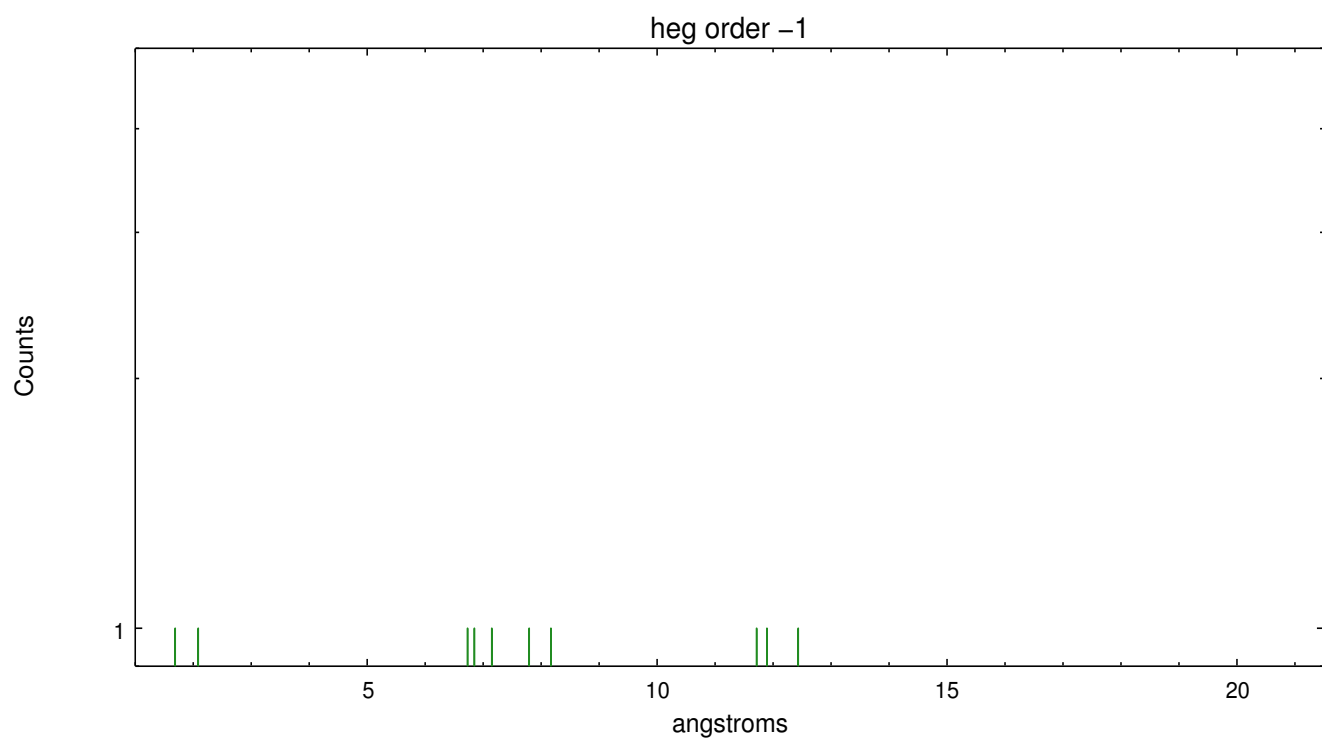
Spot Image HEG



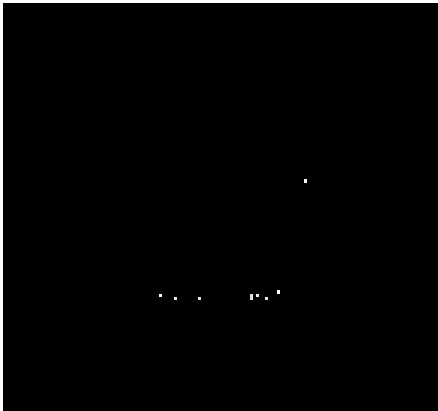
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1	3	10	43	17	3	0

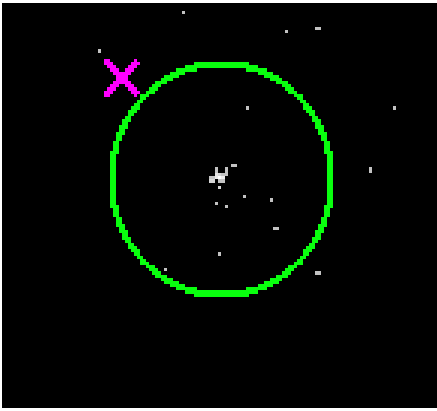




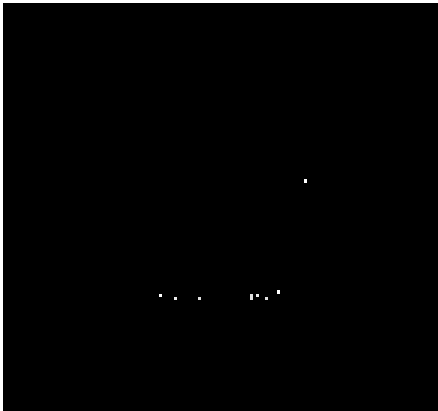
3.2 MEG Arm



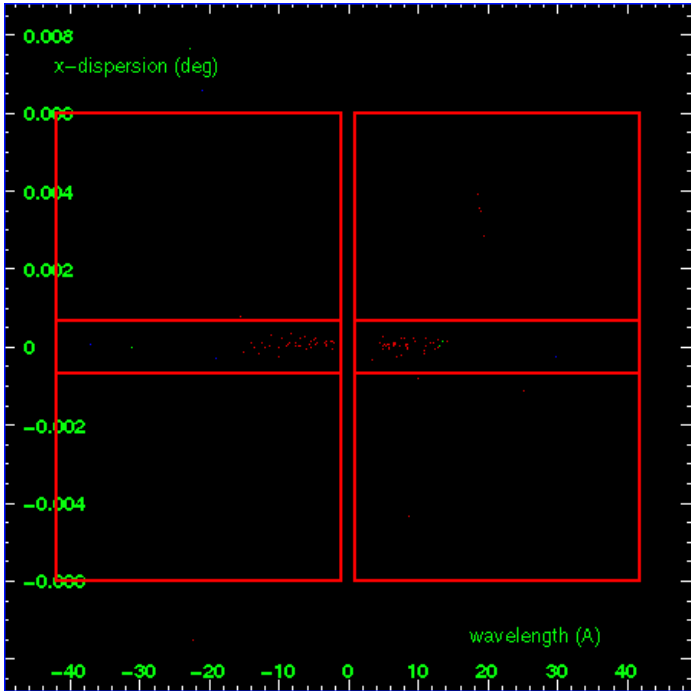
MEG Order Sort 123



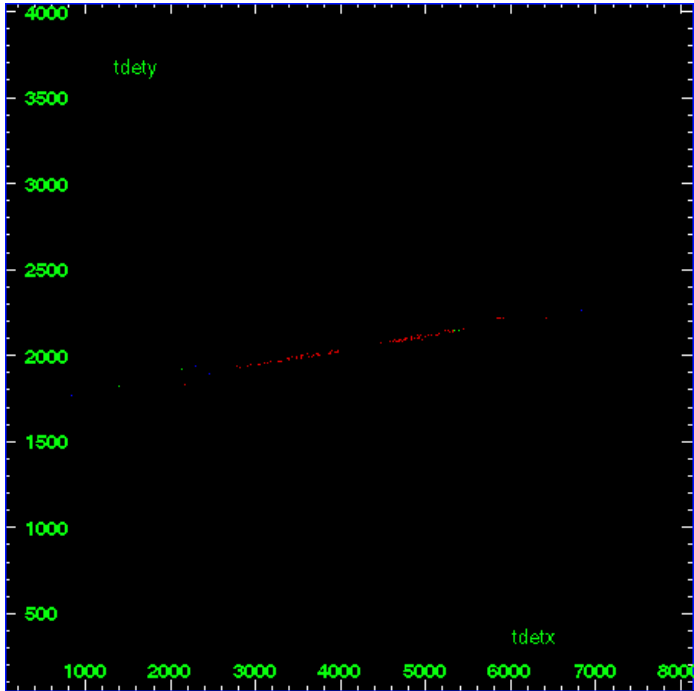
MEG Zero Order



MEG Order Sort ALL

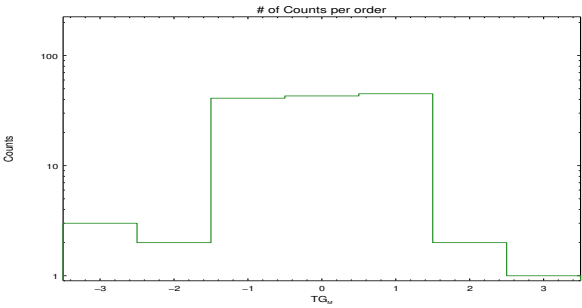


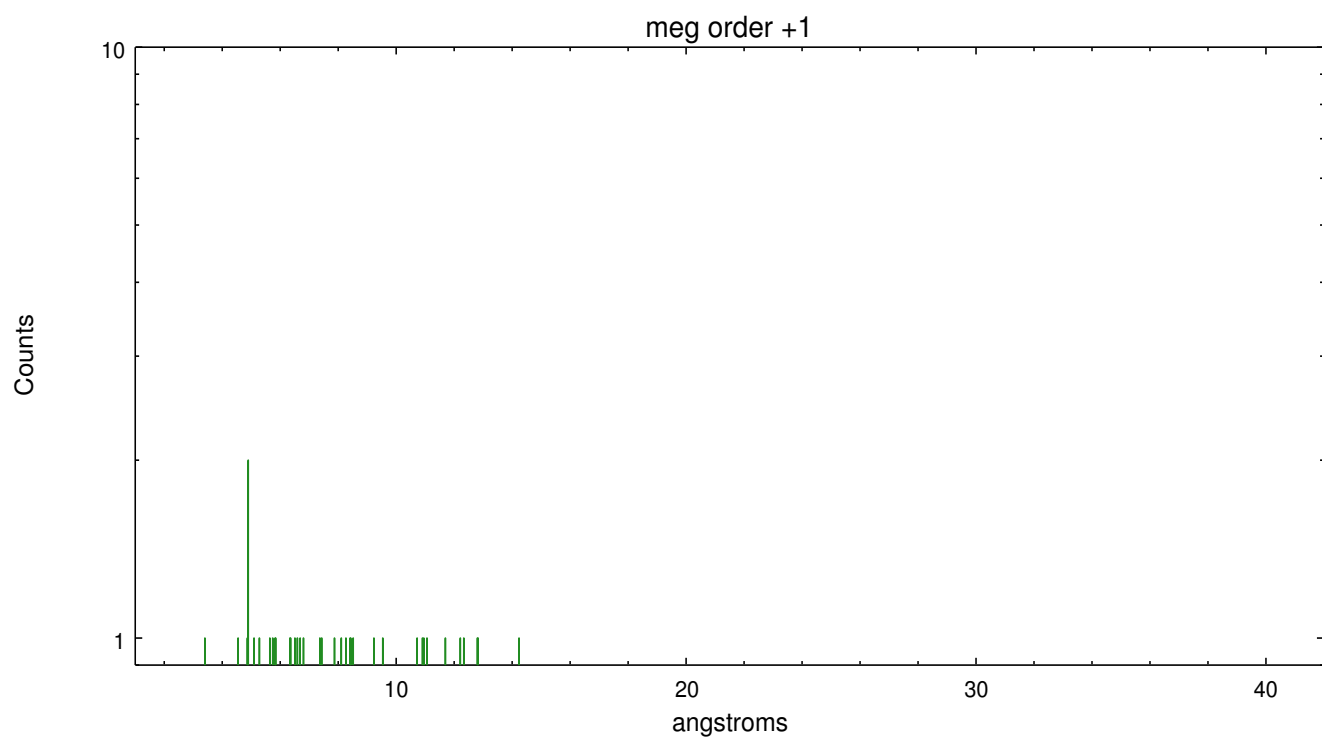
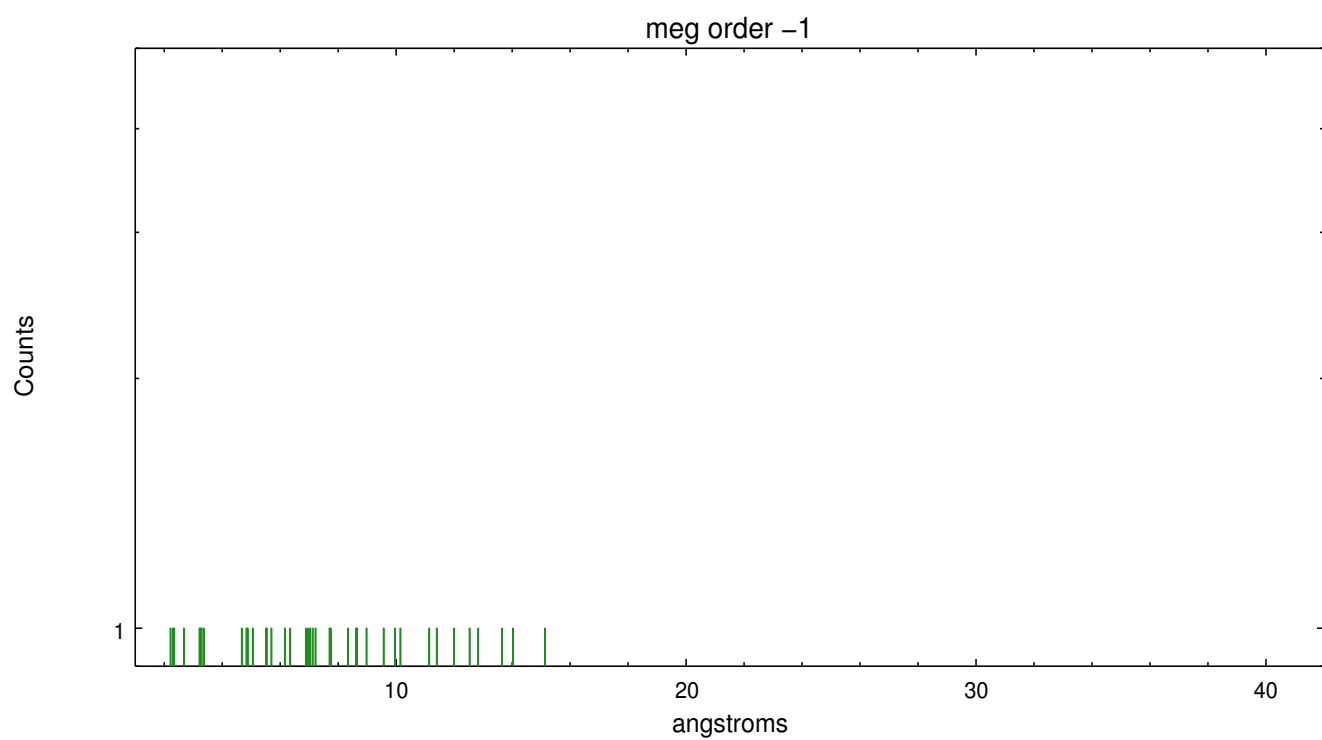
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3	2	41	43	45	2	1





# A Summary

## A.1 Status

V&V Scientist	John Houck
V&V Date (YYYY-MM-DD)	2009.11.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	0.185

## A.2 Comments

Charge time:

Charge time for this ObsId remains at previous value of 0.185 ks.