

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2334 - L2 Version 001
Chandra X-Ray Center

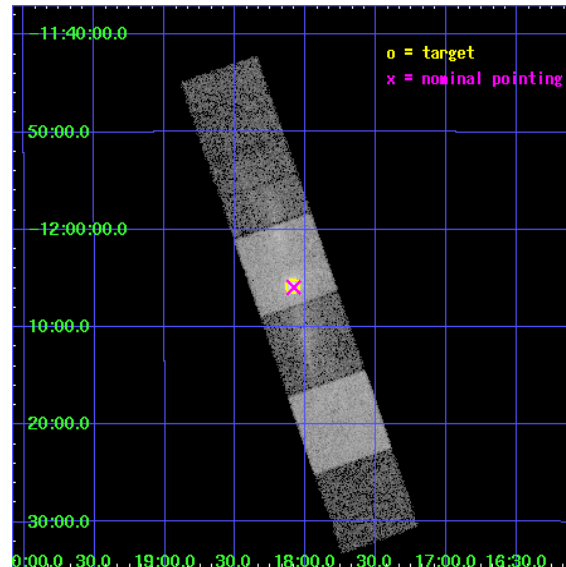
L2 Processing Date : Dec 28 2006

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1 Front

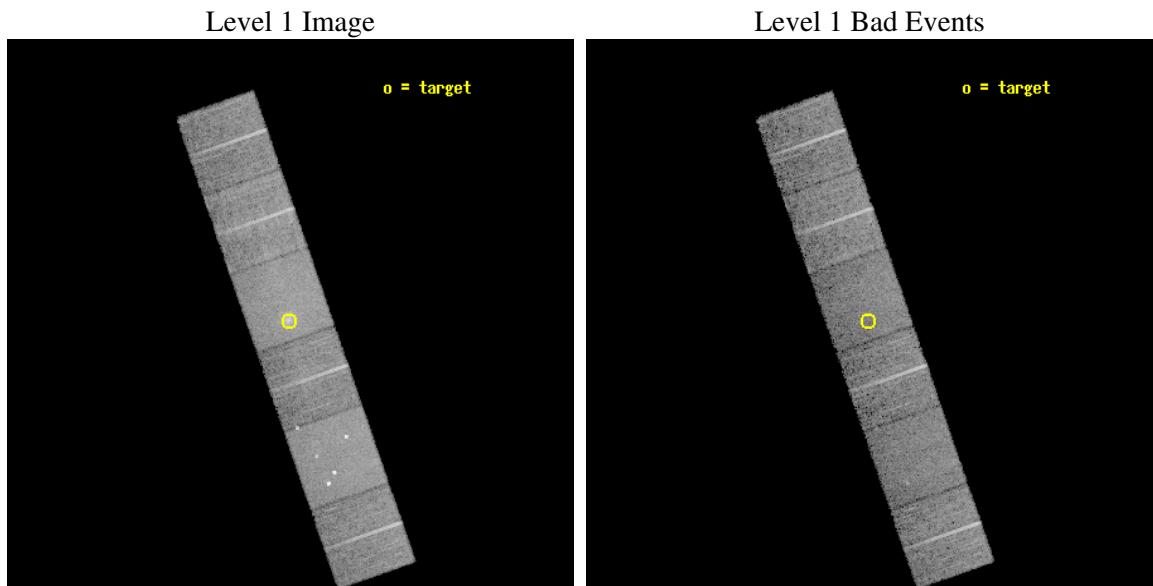
seq_num	800177
obs_id	2334
title	ACIS-S/HETG OBSERVATIONS OF THE CENTRAL REGION OF THE HYDRA A CLUSTER OF GALAXIES
observer	Dr. J. Jernigan
object	HYDRA A
dtcycle	0
cycle	P
ra_targ	139.52375
dec_targ	-12.095833
ra_nom	139.52072853764
dec_nom	-12.099191576033
roll_nom	250.75486495017
revision	2
ontime	10150.400009453
livetime	10021.869532696
ontime4	10150.400009453
ontime5	10150.400009453
ontime6	10150.400009453
ontime7	10150.400009453
ontime8	10150.400009453
ontime9	10150.400009453
l2events	115159



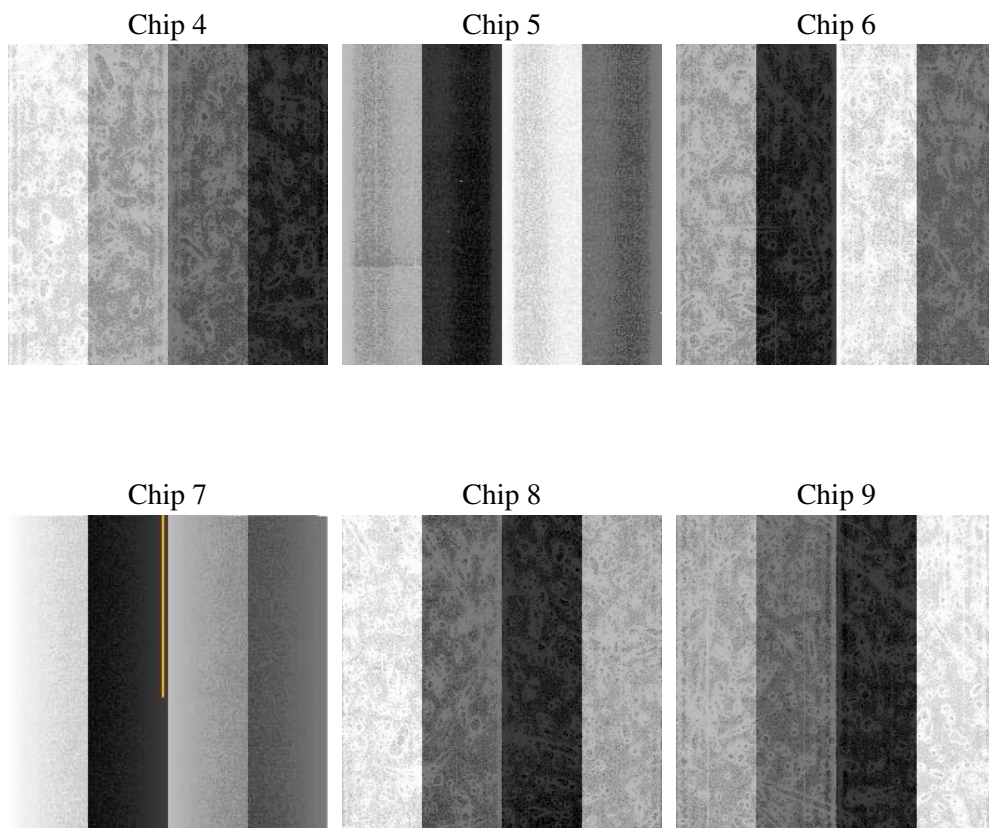
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldbver	3.2.4
date	2006-11-21T14:11:29
revision	2

sched_exp_time	10000.000000
ontime	10154.047234729
ontime4	10154.047234729
ontime5	10154.047234729
ontime6	10154.047234729
ontime7	10154.047234729
ontime8	10154.047234729
ontime9	10154.047234729
l1events	477877

2.1.4 Events

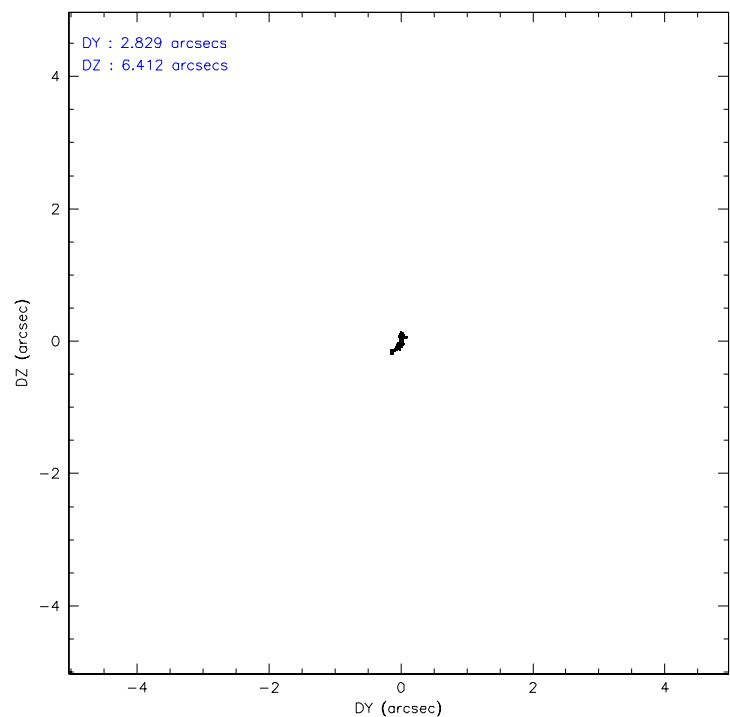
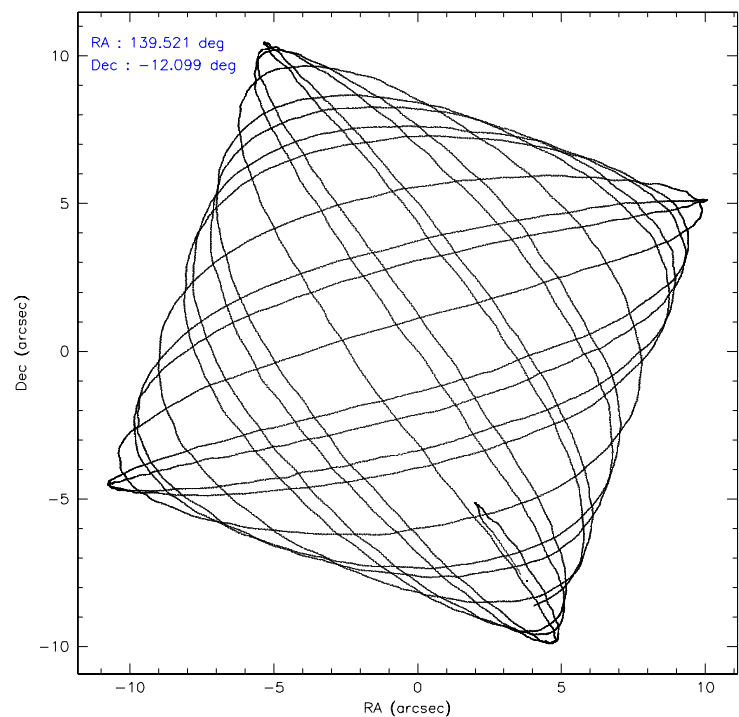
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	69825	95401	69647	94640	83530	64834
rejected events	61892	51144	56999	51205	64575	56777
rejected %	88%	53%	81%	54%	77%	87%

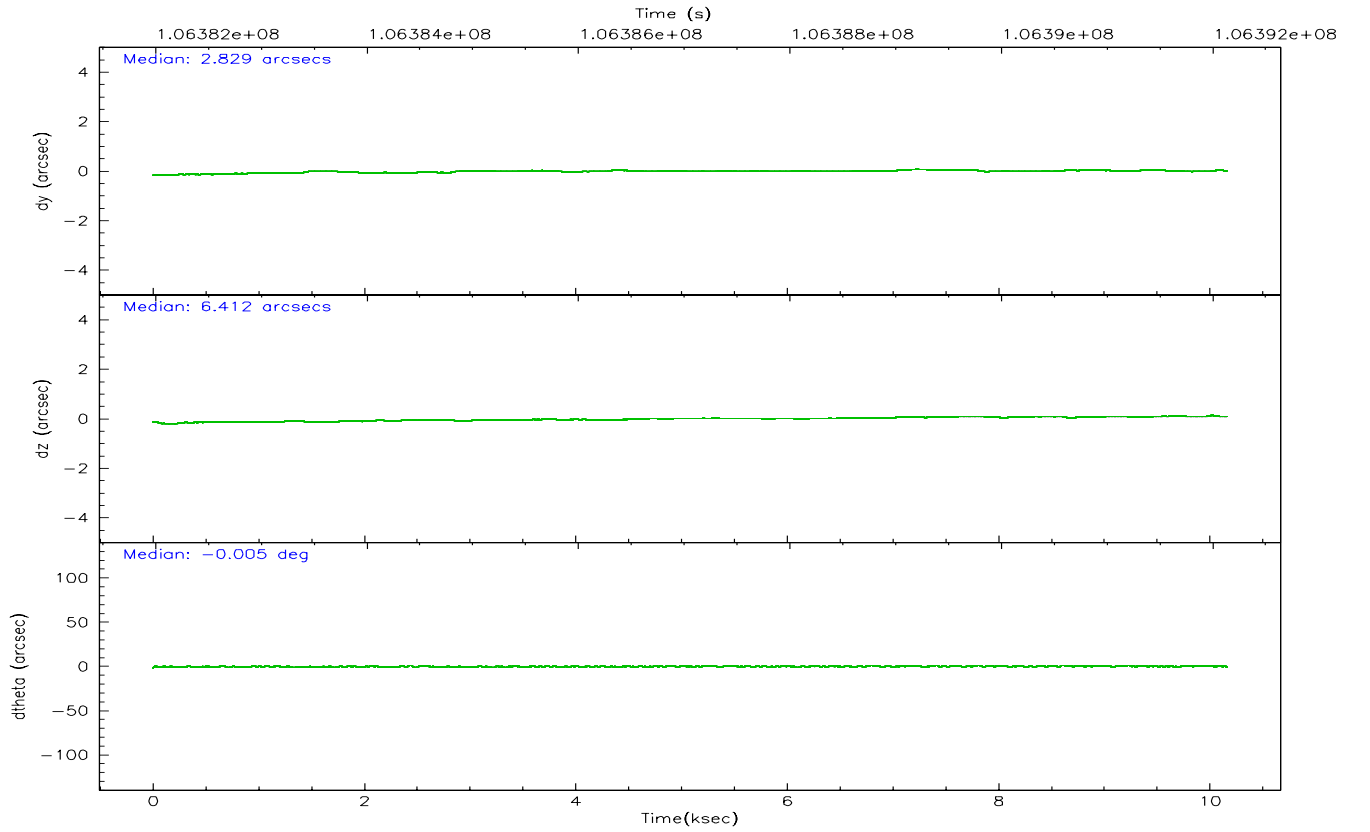
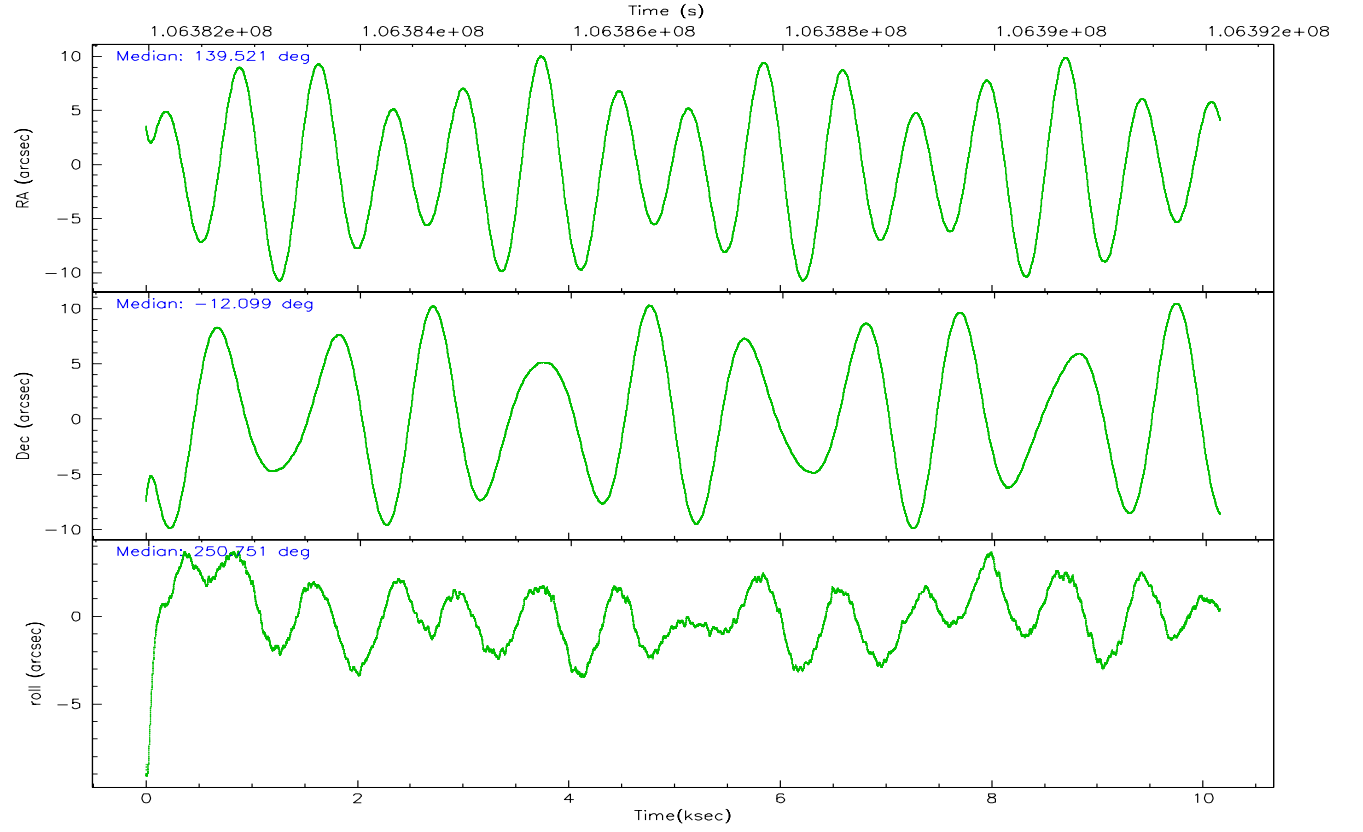
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	3325	6532	7227	4524	7443	3404
	4%	6%	10%	4%	8%	5%
grade 1 events	39	211	53	49	64	25
	0%	0%	0%	0%	0%	0%
grade 2 events	1832	13080	2055	11060	3700	1585
	2%	13%	2%	11%	4%	2%
grade 3 events	719	1012	916	3007	1836	785
	1%	1%	1%	3%	2%	1%
grade 4 events	681	930	925	2957	1765	758
	0%	0%	1%	3%	2%	1%
grade 5 events	2365	4450	2725	5830	3449	2735
	3%	4%	3%	6%	4%	4%
grade 6 events	1377	22715	1526	21902	4213	1526
	1%	23%	2%	23%	5%	2%
grade 7 events	59487	46471	54220	45311	61060	54016
	85%	48%	77%	47%	73%	83%

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	139.515208	139.5207285376422	Subarray requested	NONE	NONE
Pointing Dec	-12.072395	-12.09919157603331	Alternating exposures requested	N	N
Pointing Roll	250.597092	250.7548649501705	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	-190.145094680475			
SIM translation stage offset (mm)	0	0.01257209746719923			
Observation start time	106382139.184000	106380963.79019			
Observation start date	2001-05-16T06:34:35	2001-05-16T06:16:03			
Observation end time	106392139.184000	106392838.41565			
Observation end date	2001-05-16T09:21:15	2001-05-16T09:33:58			
Read mode	TIMED	TIMED			

2.3 Aspect



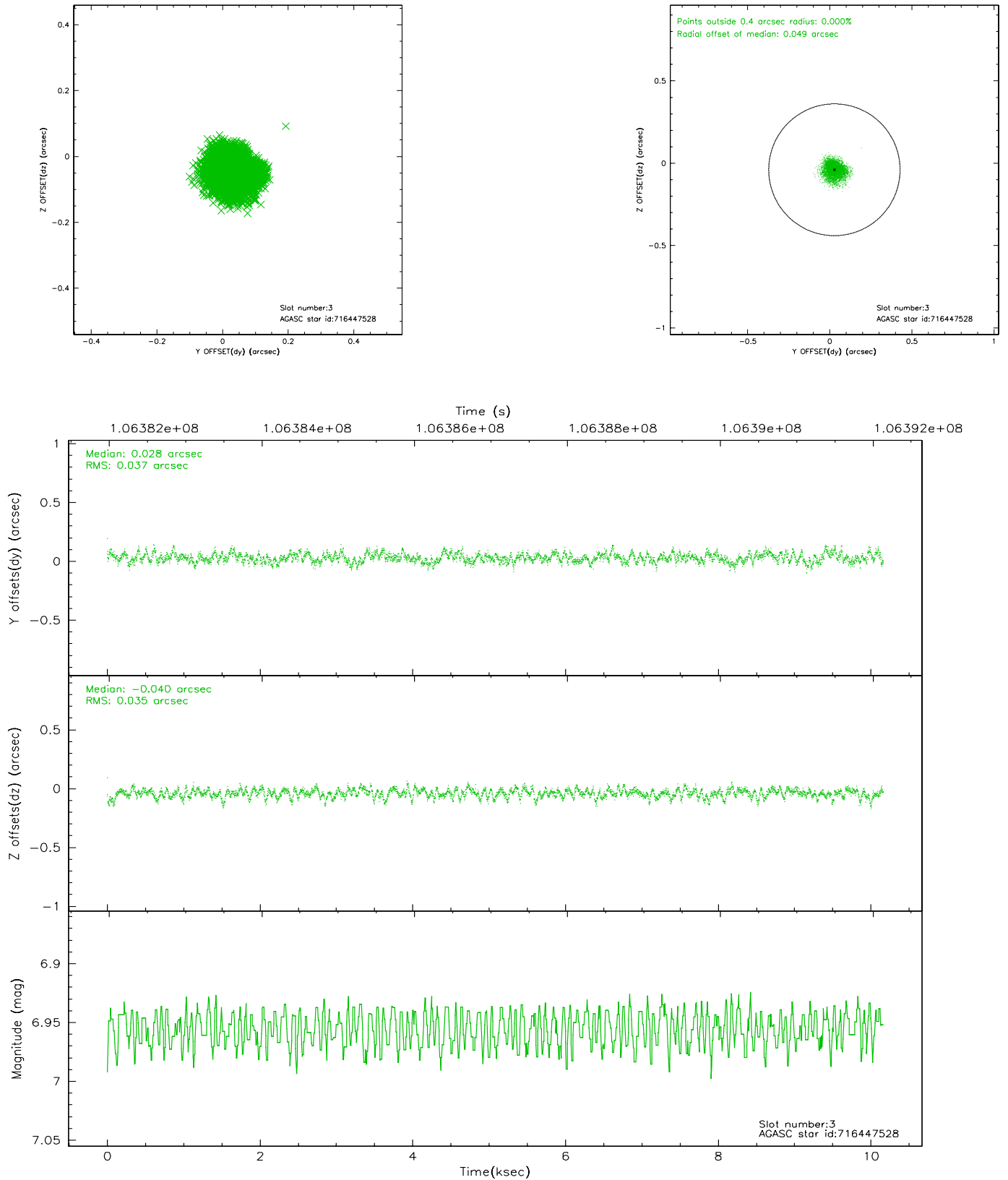


Slot Statistics

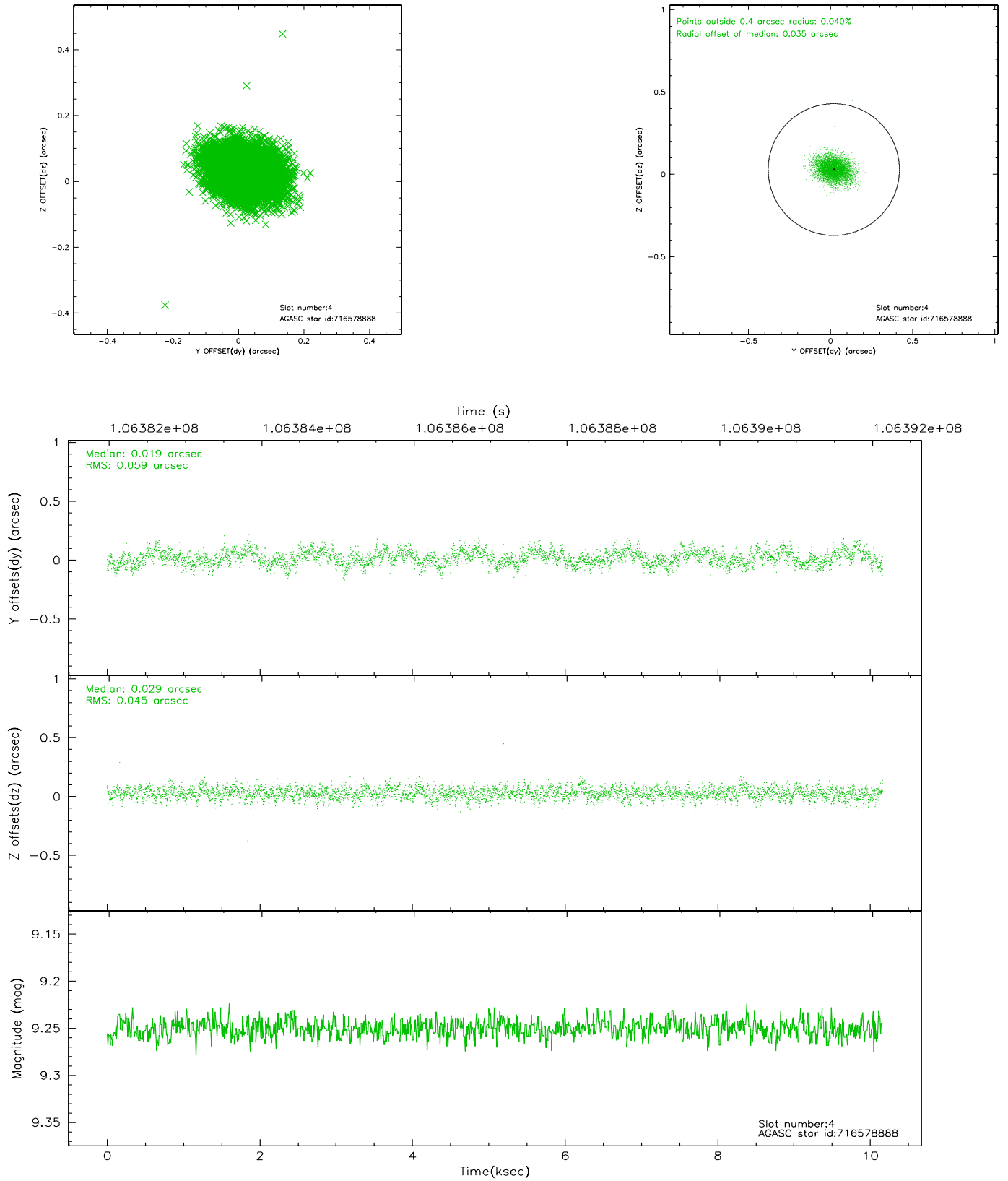
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	2479	-0.008	0.036	0.007	0.012	0.000000	0.000000	-755.43	-1727.42
1	FID	ACIS-S-4	7.20	2479	-0.097	-0.006	0.005	0.009	0.000000	0.000000	2157.49	180.53
2	FID	ACIS-S-5	7.24	2479	0.073	-0.022	0.007	0.011	0.000000	0.000000	-1807.55	174.71
3	GUIDE	716447528	6.96	4959	0.028	-0.040	0.054	0.088	139.371683	-11.961966	-206.07	-608.80
4	GUIDE	716578888	9.25	4957	0.019	0.029	0.078	0.130	139.858876	-11.605741	-1985.81	585.09
5	GUIDE	716454552	9.00	4956	0.002	0.298	0.066	0.106	139.524204	-12.319370	828.41	325.76
6	GUIDE	716452328	8.86	4957	0.062	-0.134	0.067	0.111	138.982178	-12.235590	1180.08	-1573.05
7	GUIDE	716450872	9.39	4949	-0.116	-0.157	0.116	0.183	138.962522	-11.640040	-817.86	-2354.97

2.4 Star Slots

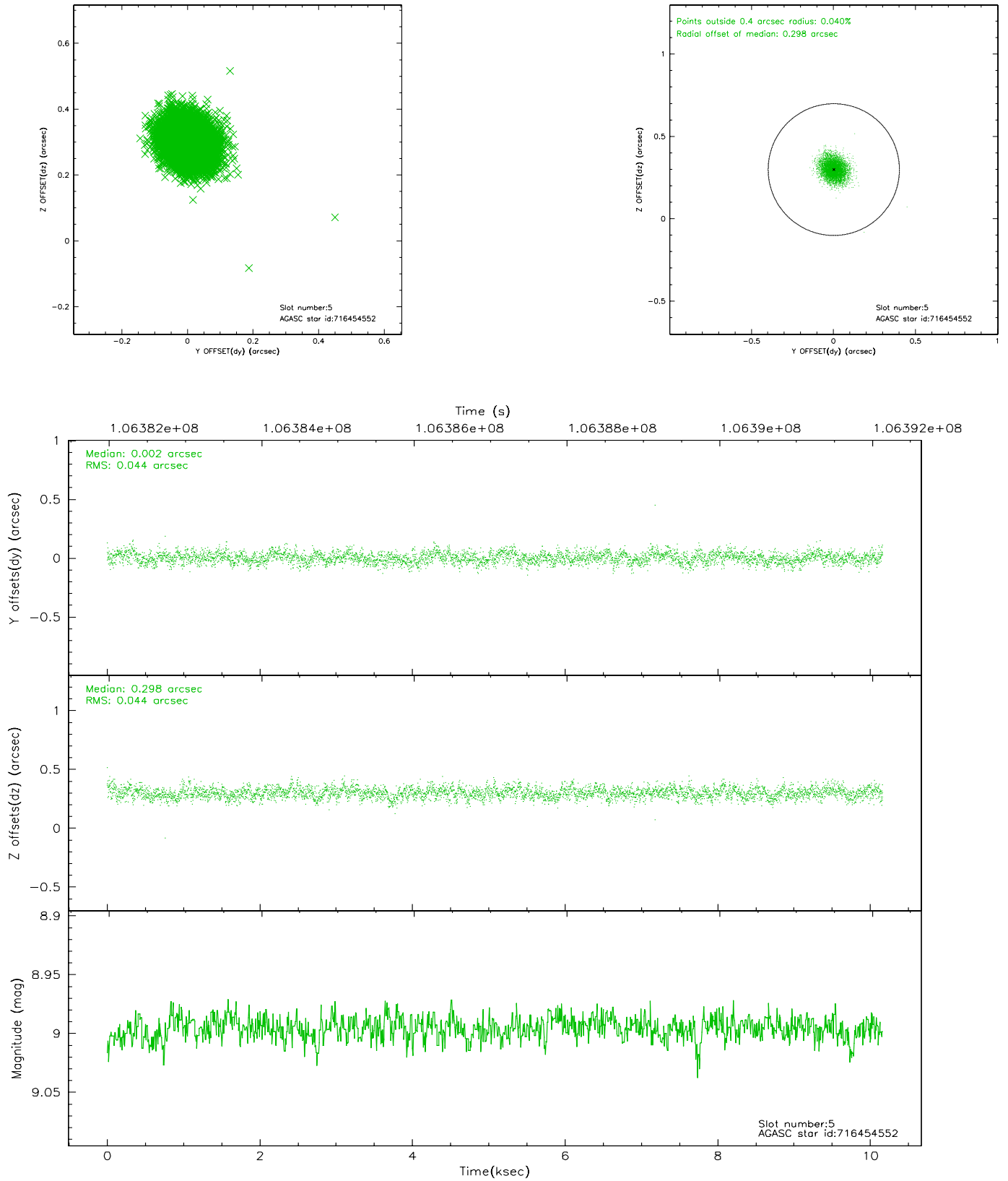
2.4.1 Slot 3



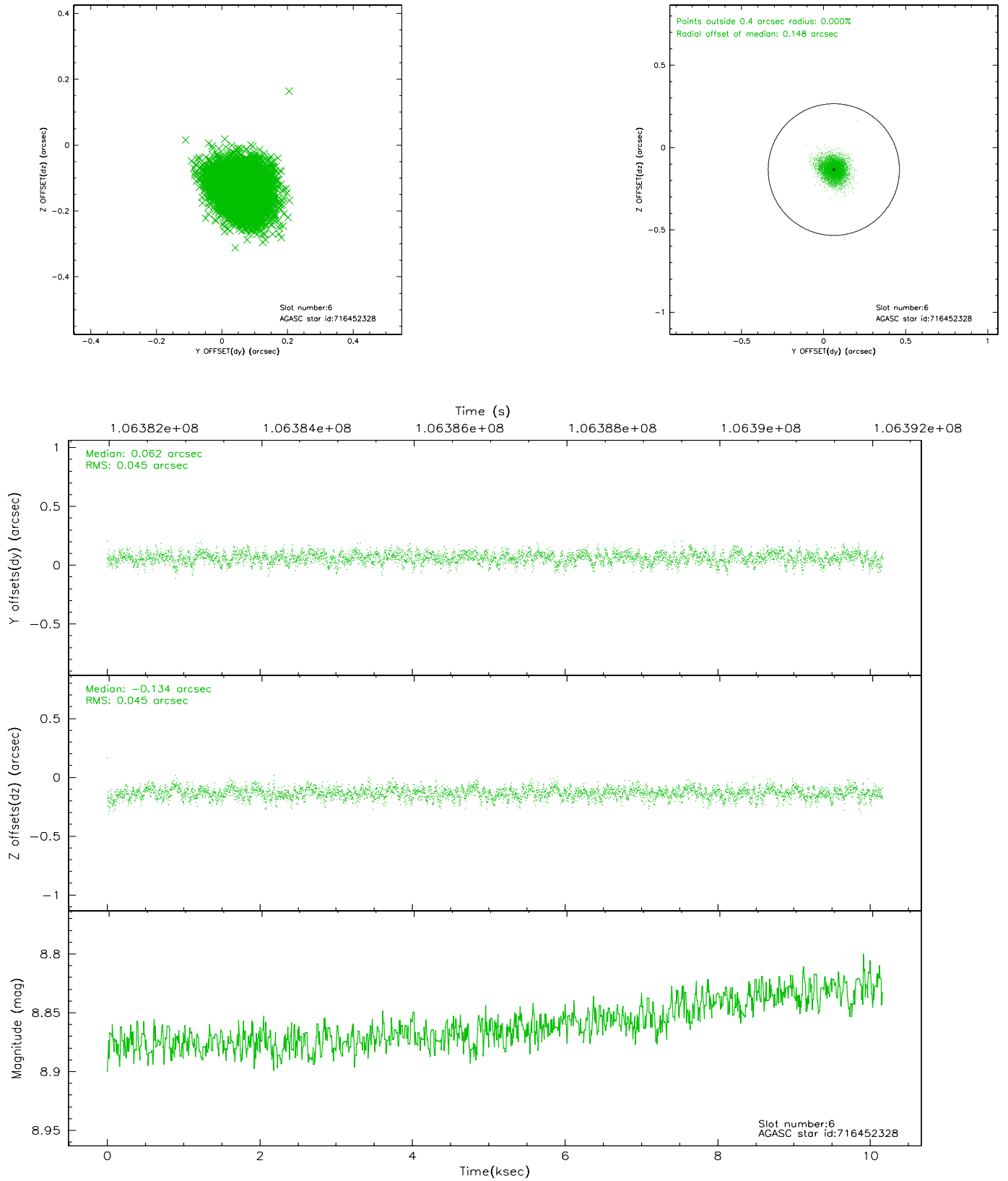
2.4.2 Slot 4



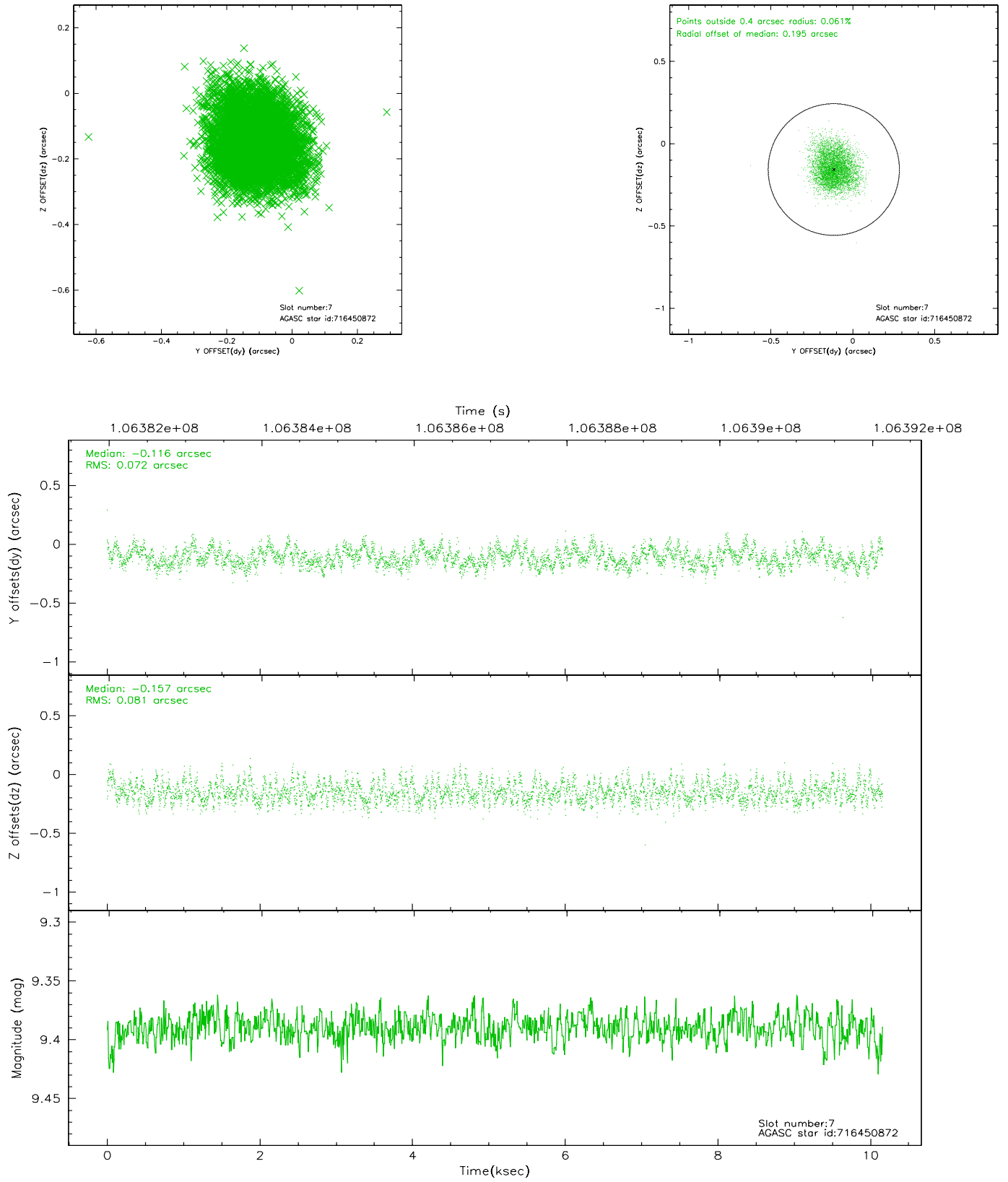
2.4.3 Slot 5



2.4.4 Slot 6

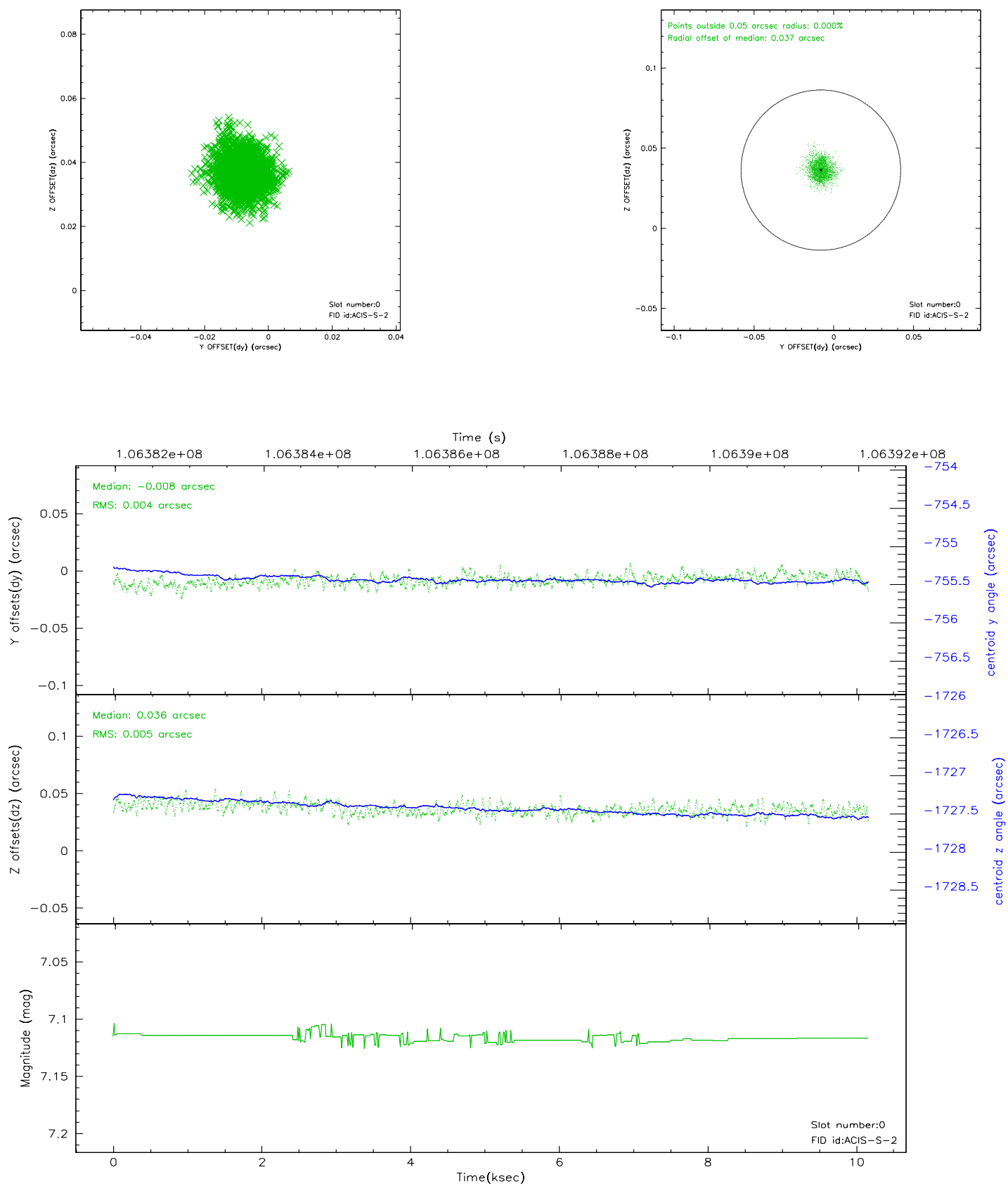


2.4.5 Slot 7

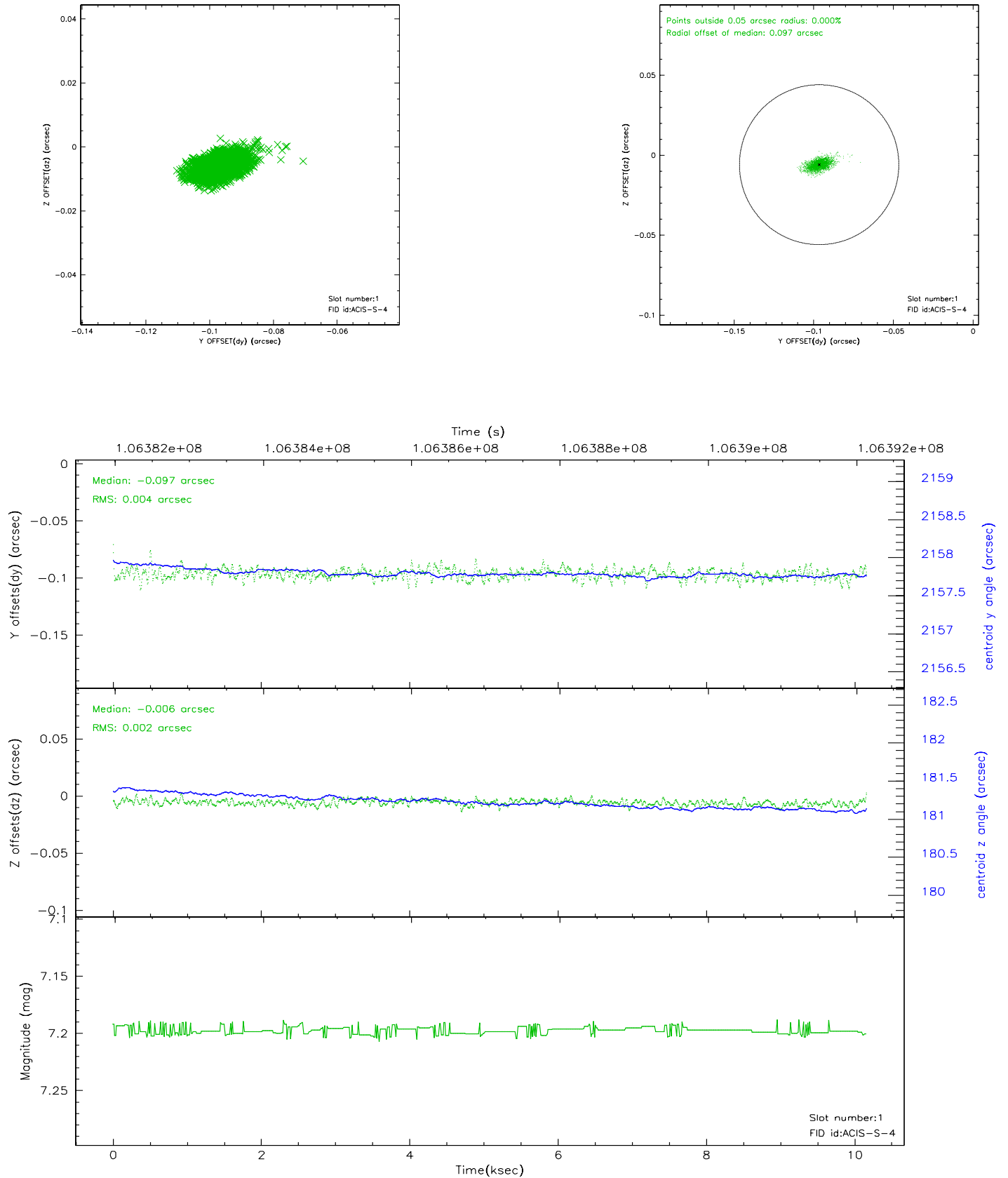


2.5 FID Slots

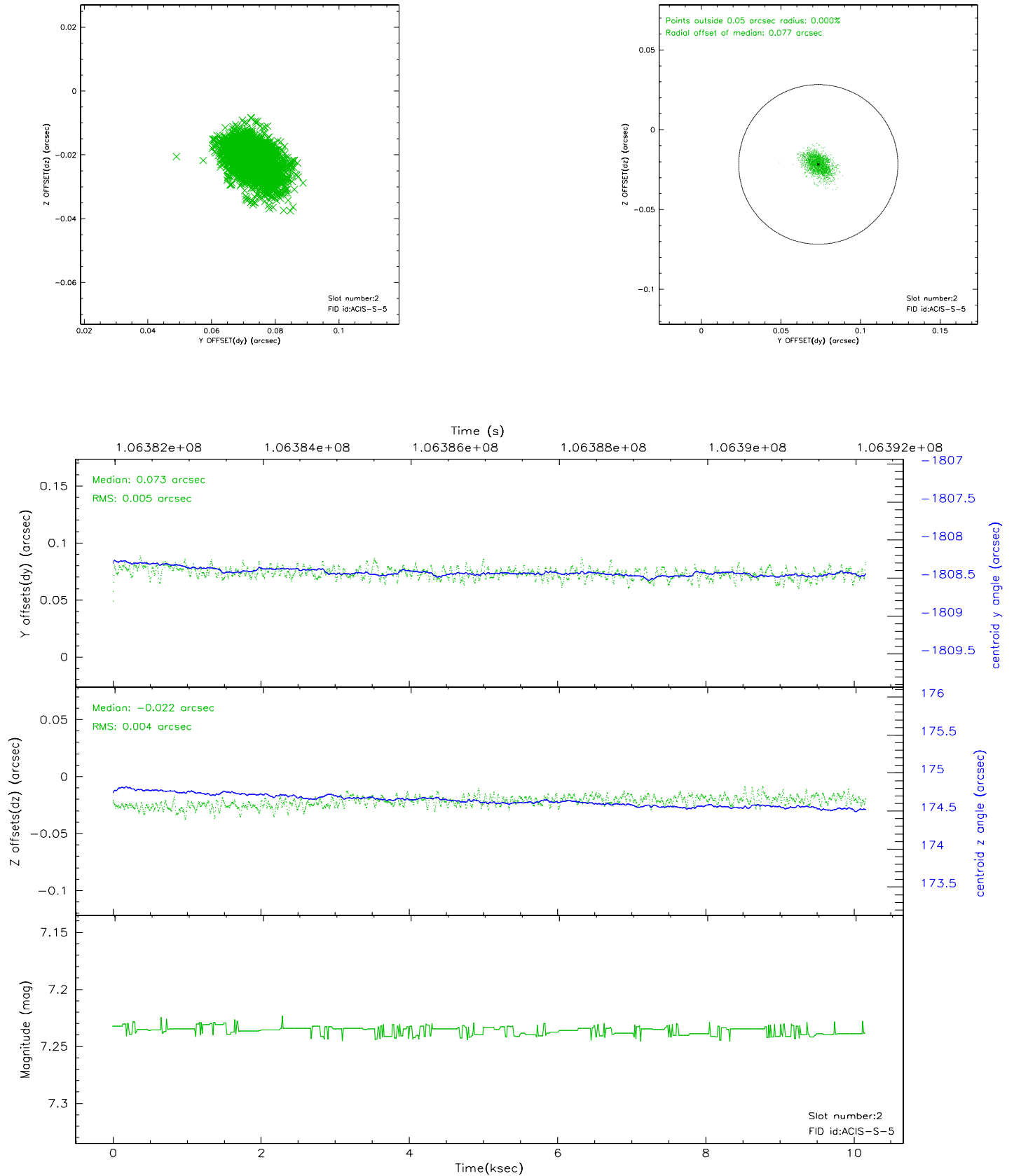
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

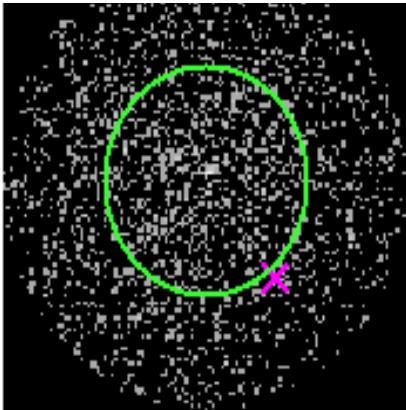


3 Gratings

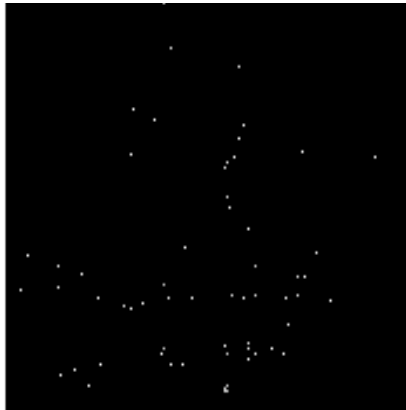
3.1 HEG Arm



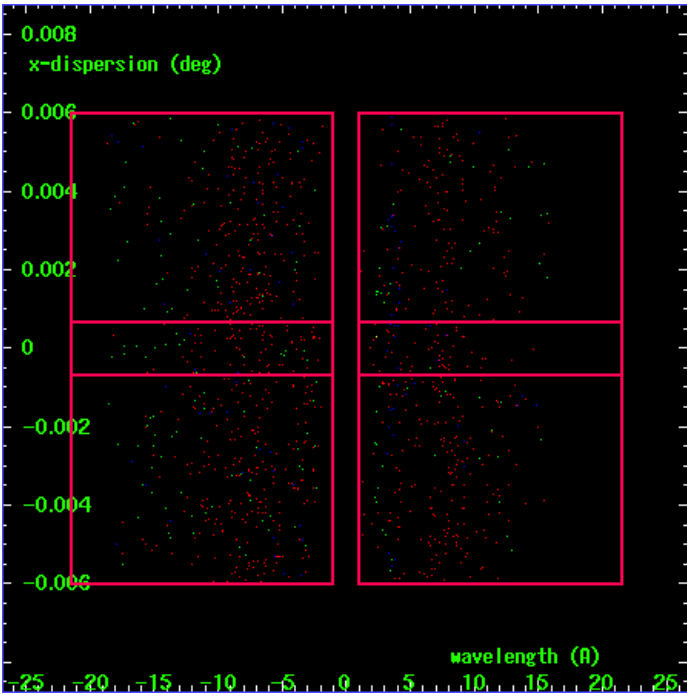
HEG Order Sort 123



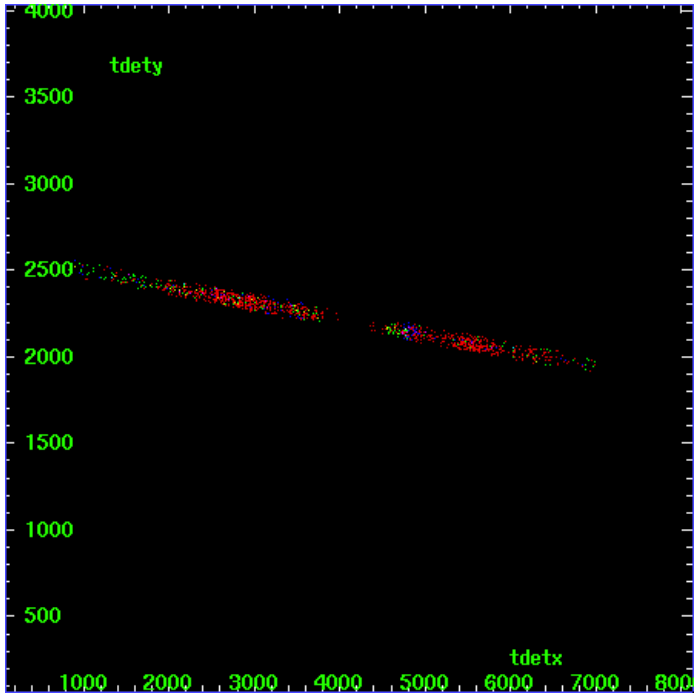
HEG Zero Order



HEG Order Sort ALL

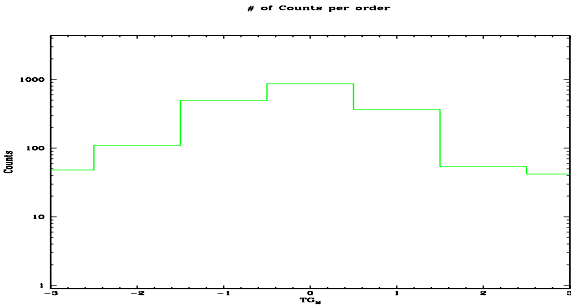


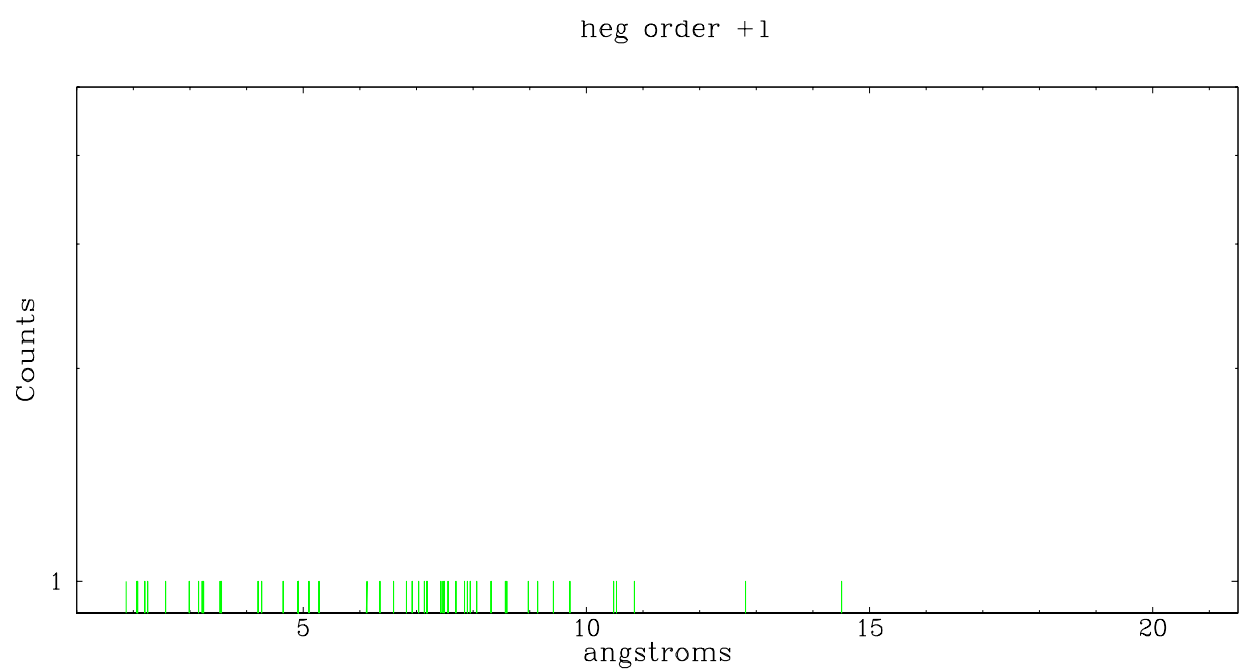
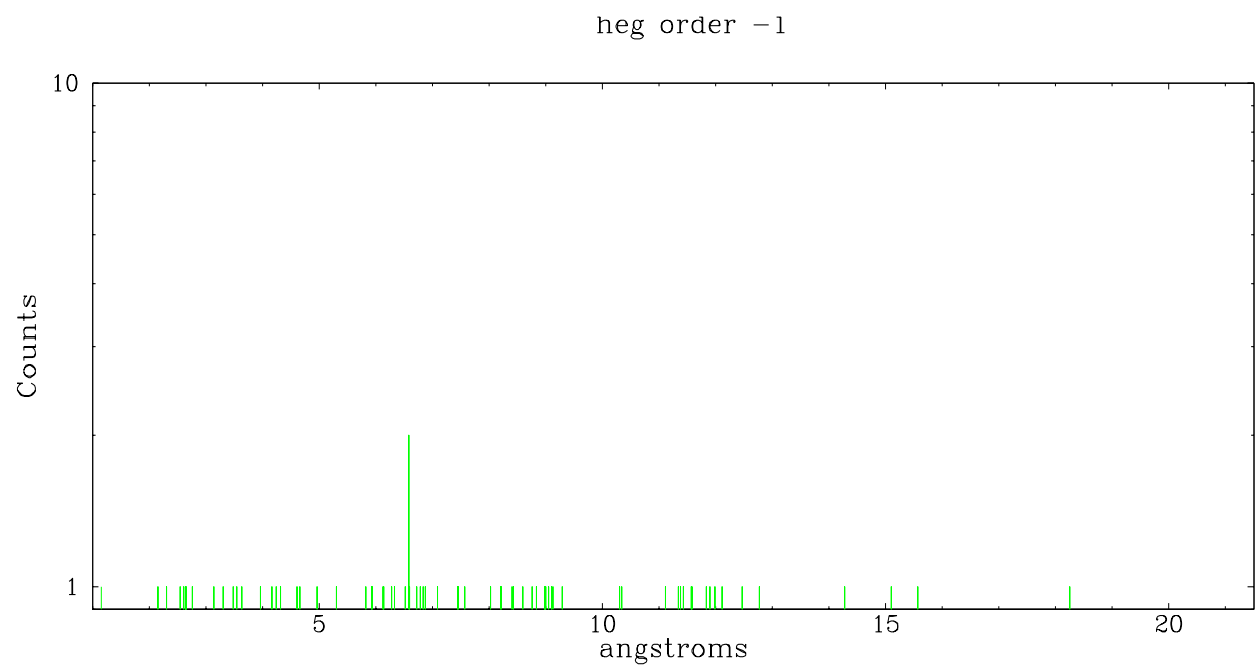
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	48	109	493	871	367	54	42

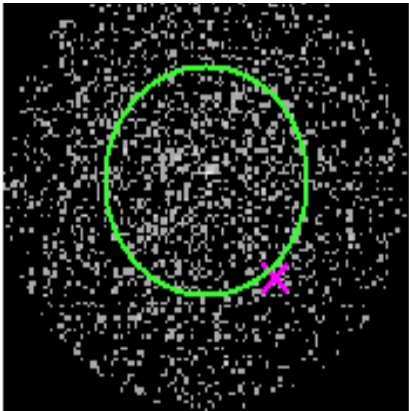




3.2 MEG Arm



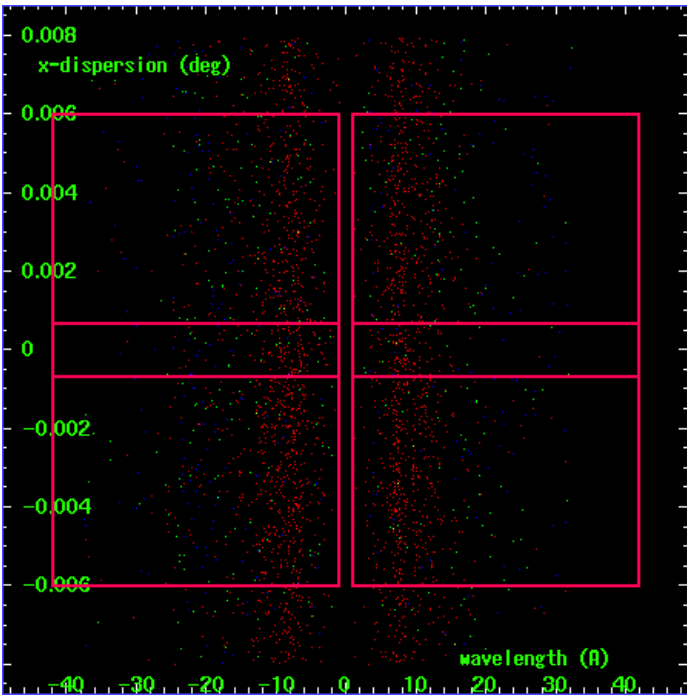
MEG Order Sort 123



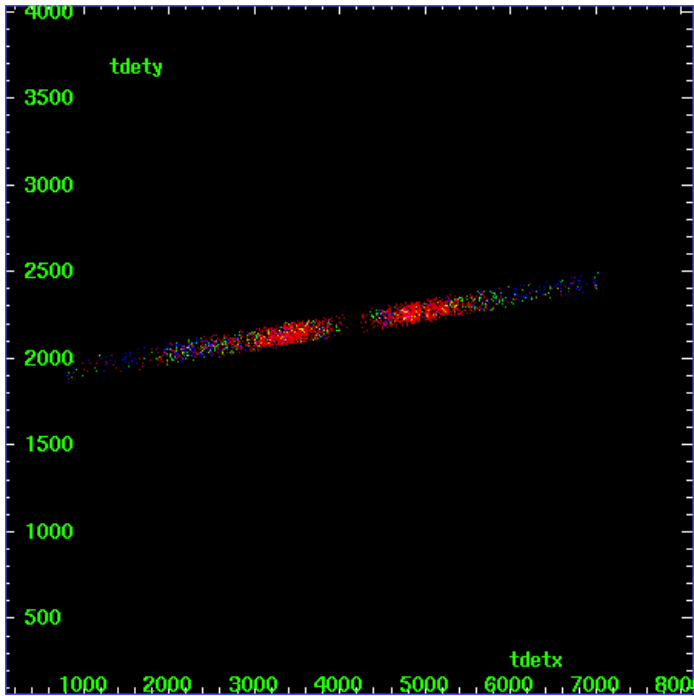
MEG Zero Order



MEG Order Sort ALL

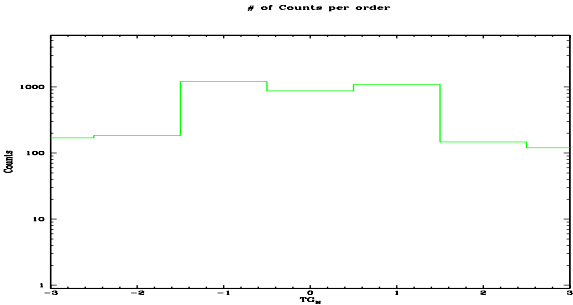


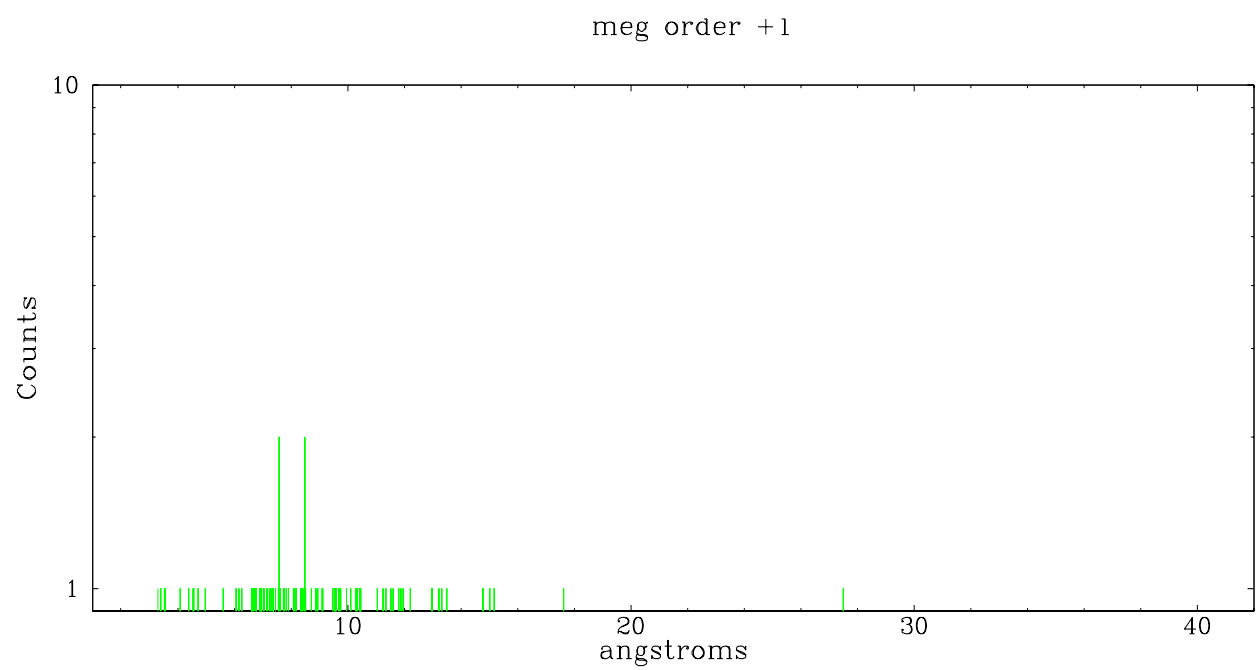
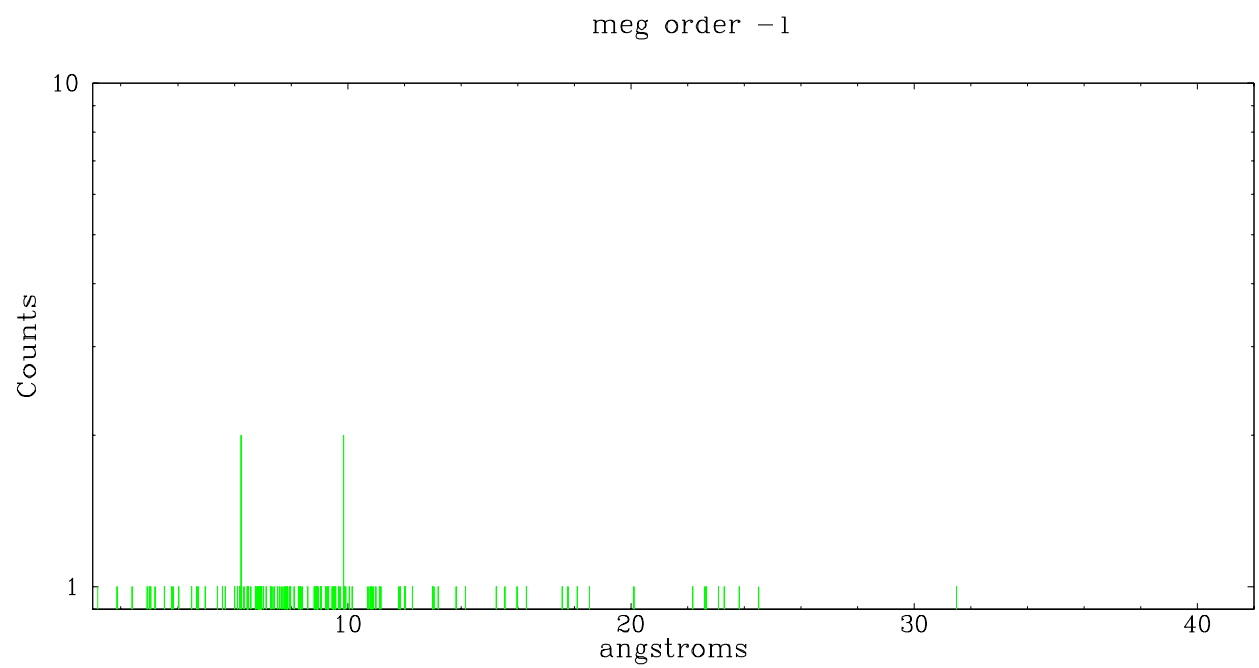
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	170	184	1207	871	1086	147	120





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.01.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.15

A.2 Comments

Standard software processing technique using the tool tgdetect failed to determine an accurate position for the zeroth order for this observation. The source is extended and assymmetric. The processing software defaulted to the coordinates supplied by the user as the position of the zeroth order for the grating spectral extraction. For grating analysis of localized X-ray emission withing the extended emission, the investigator will need to extract one or more dispersed spectra using user-defined zeroth order positions for all positions of interest.

Coordinates used as zeroth order position for extracting dispersed spectra
in this processing:

ra=09:18:05.698, dec=-12:05:45.00