

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2333 - L2 Version 001
Chandra X-Ray Center

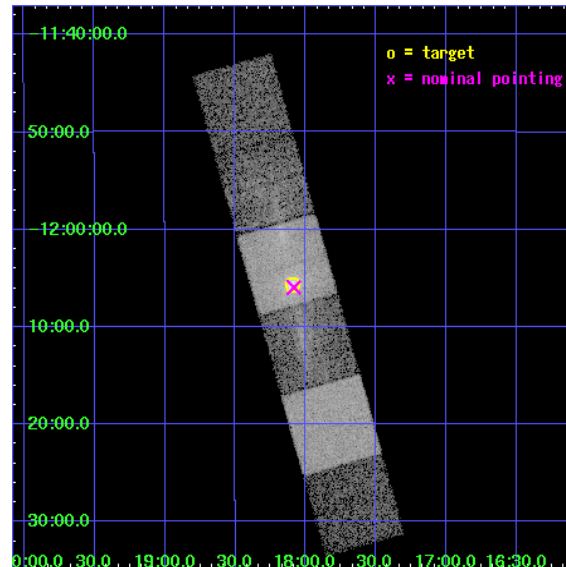
L2 Processing Date : Dec 28 2006

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1 Front

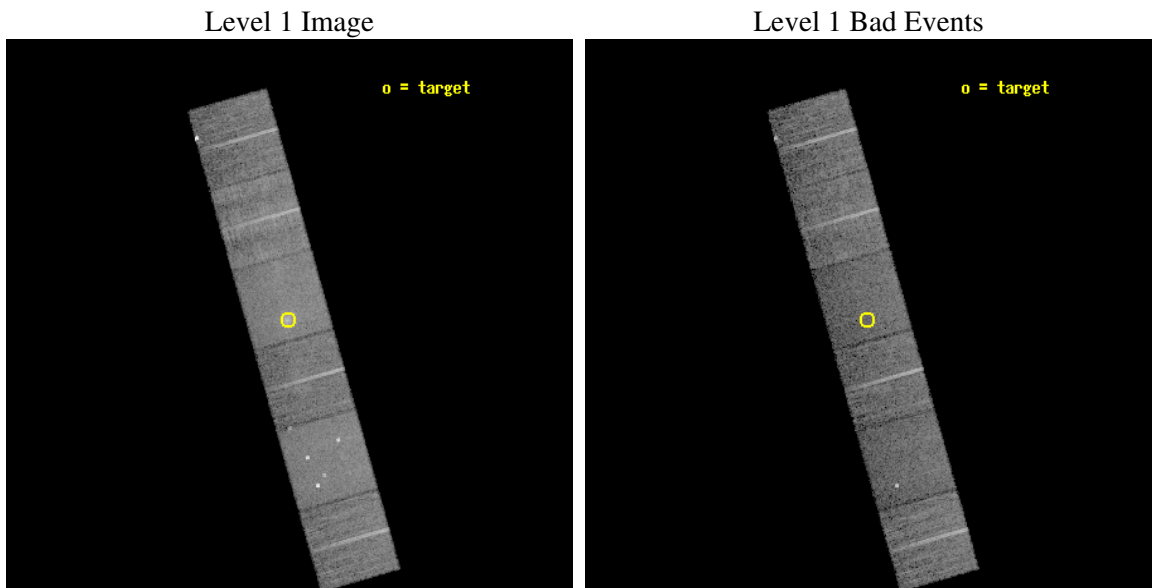
seq_num	800176
obs_id	2333
title	ACIS-S/HETG OBSERVATIONS OF THE CENTRAL REGION OF THE HYDRA A CLUSTER OF GALAXIES
observer	Dr. J. Jernigan
object	HYDRA A
dtcycle	0
cycle	P
ra_targ	139.52375
dec_targ	-12.095833
ra_nom	139.52095236128
dec_nom	-12.099327926346
roll_nom	254.23119220444
revision	3
ontime	10051.200009361
livetime	9923.9256627363
ontime4	10051.200009361
ontime5	10051.200009361
ontime6	10051.200009361
ontime7	10051.200009361
ontime8	10051.200009361
ontime9	10051.200009361
l2events	117746



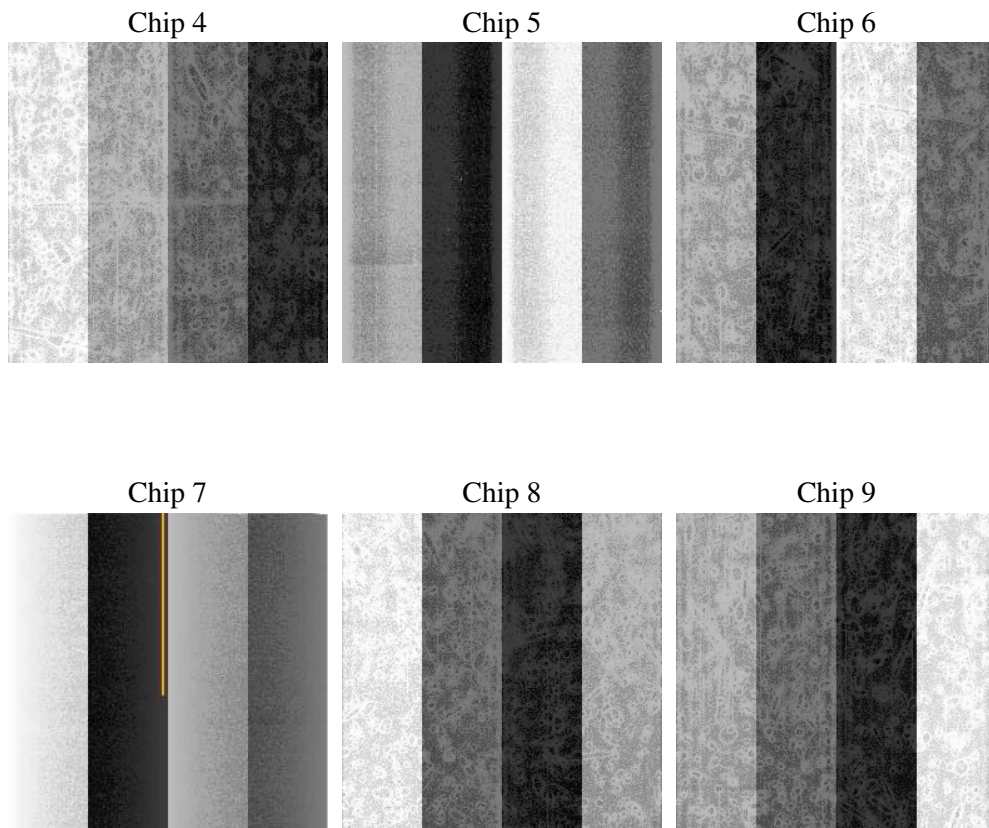
2 OBI

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	2006-11-29T19:57:55
revision	2

sched_exp_time	10000.000000
ontime	10053.5782305
ontime4	10053.5782305
ontime5	10053.5782305
ontime6	10053.5782305
ontime7	10053.5782305
ontime8	10053.5782305
ontime9	10053.5782305
l1events	506074

2.1.4 Events

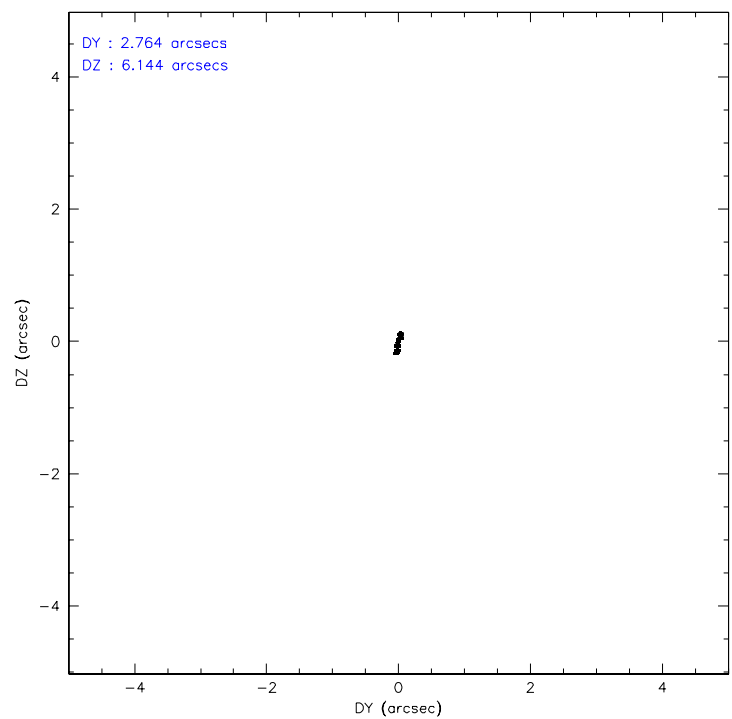
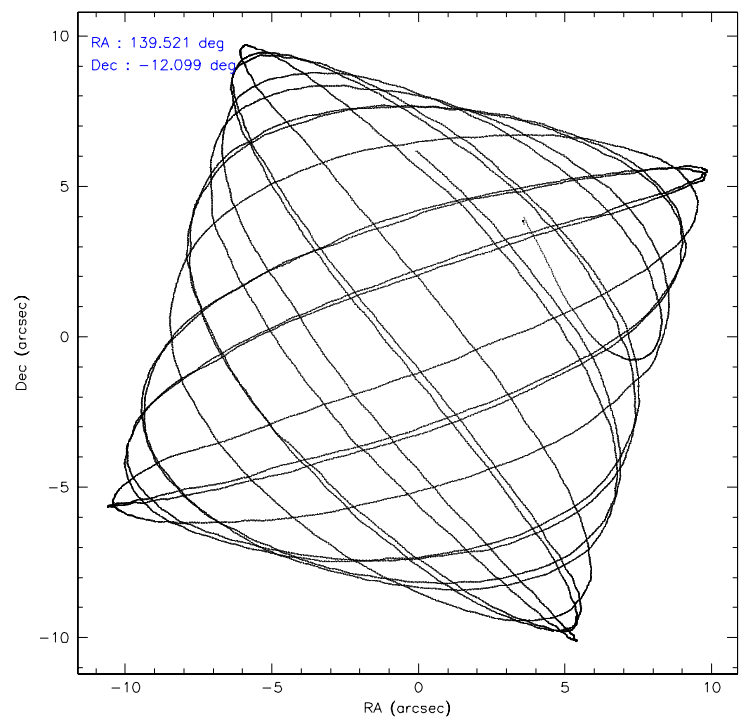
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	77395	95955	72704	95009	93468	71543
rejected events	69101	51827	59601	51064	67265	60706
rejected %	89%	54%	81%	53%	71%	84%

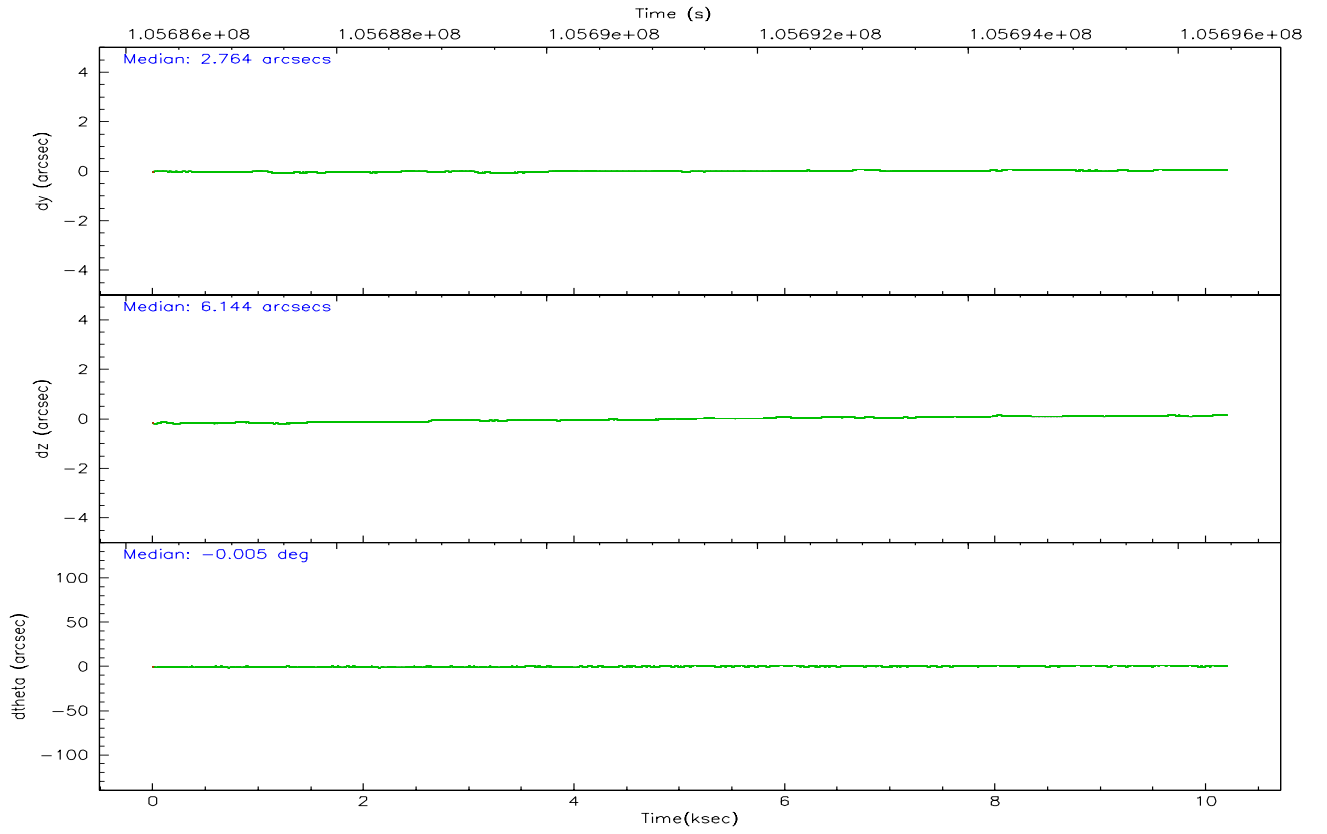
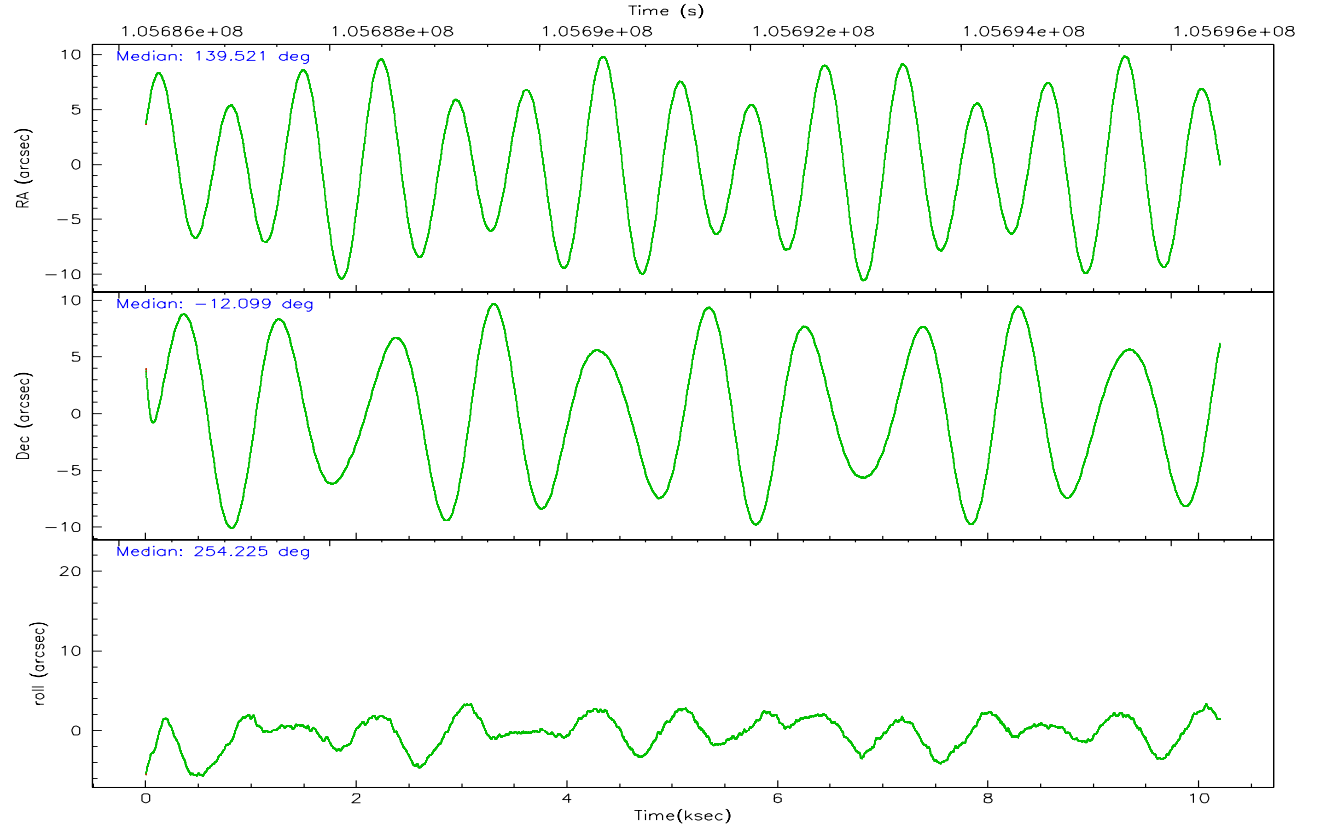
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	3421	6403	7412	4624	9043	6068
	4%	6%	10%	4%	9%	8%
grade 1 events	35	1082	43	50	74	537
	0%	1%	0%	0%	0%	0%
grade 2 events	2080	12743	2127	11163	5032	1662
	2%	13%	2%	11%	5%	2%
grade 3 events	748	1101	958	3040	2851	828
	0%	1%	1%	3%	3%	1%
grade 4 events	659	1197	901	2975	2669	743
	0%	1%	1%	3%	2%	1%
grade 5 events	2424	4527	2809	5869	3706	2796
	3%	4%	3%	6%	3%	3%
grade 6 events	1387	22698	1709	22158	6613	1540
	1%	23%	2%	23%	7%	2%
grade 7 events	66641	46204	56745	45130	63480	57369
	86%	48%	78%	47%	67%	80%

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	139.513769	139.5209523612785	Subarray requested	NONE	NONE
Pointing Dec	-12.072937	-12.0993279263464	Alternating exposures requested	N	N
Pointing Roll	254.073060	254.2311922044395	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	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	105686461.184000	105685450.52568			
Observation start date	2001-05-08T05:19:57	2001-05-08T05:04:10			
Observation end time	105696461.184000	105697348.21364			
Observation end date	2001-05-08T08:06:37	2001-05-08T08:22:28			
Read mode	TIMED	TIMED			

2.3 Aspect



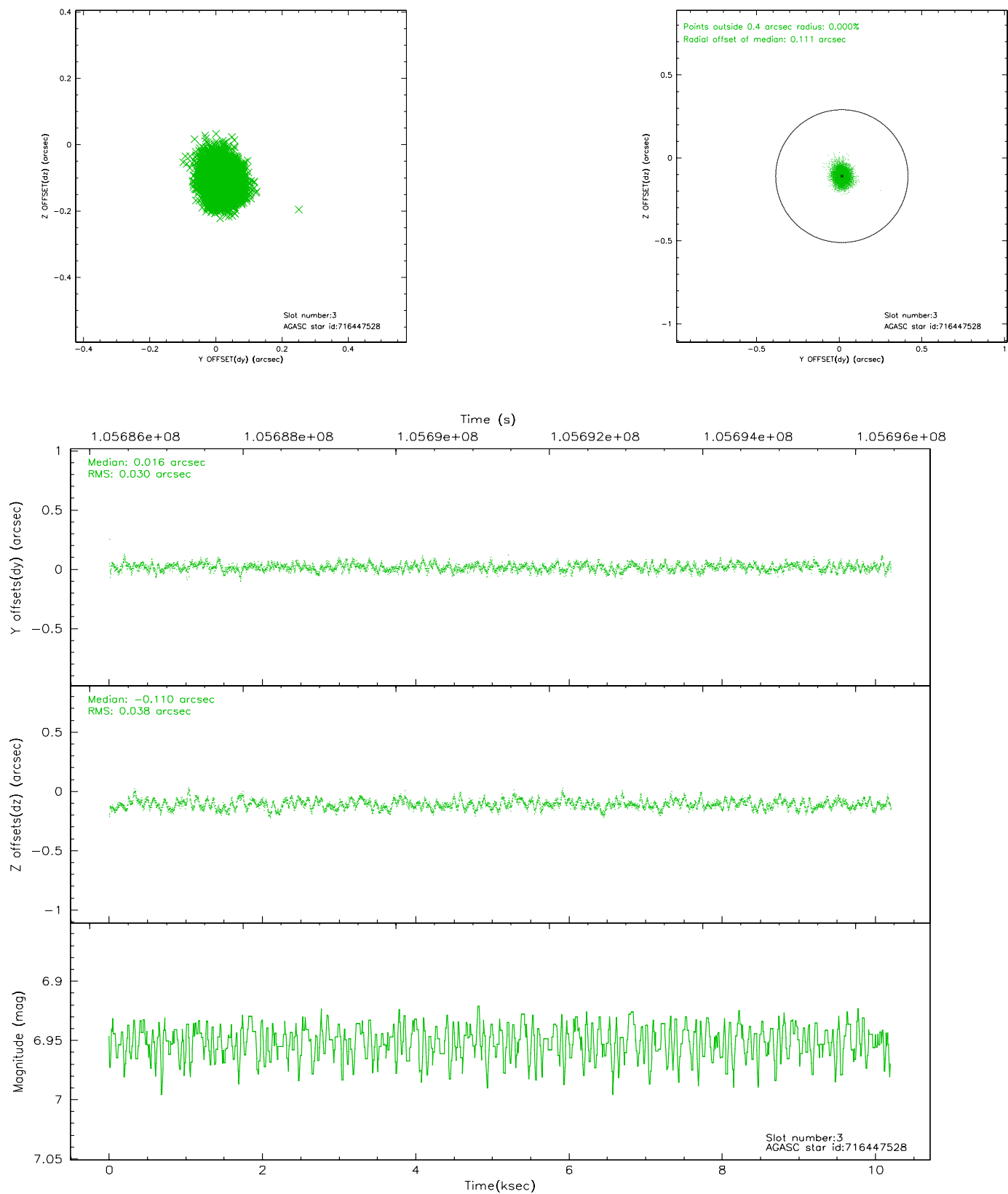


Slot Statistics

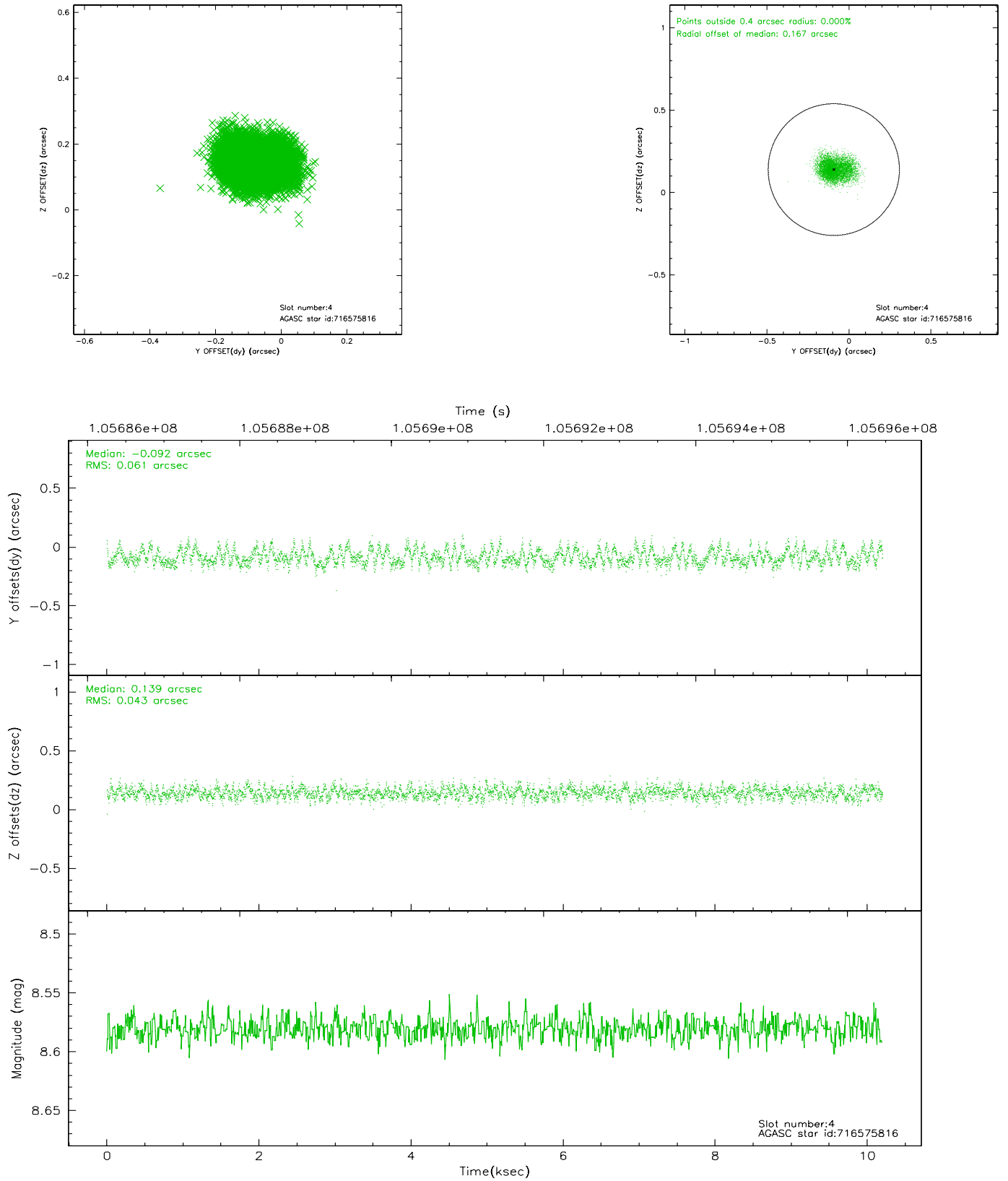
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2489	-0.010	0.040	0.006	0.010	0.000000	0.000000	-755.38	-1727.25
1	FID	ACIS-S-4	7.20	2489	-0.092	-0.006	0.005	0.009	0.000000	0.000000	2157.55	180.71
2	FID	ACIS-S-5	7.24	2489	0.071	-0.025	0.006	0.010	0.000000	0.000000	-1807.50	174.88
3	GUIDE	716447528	6.95	4977	0.016	-0.110	0.052	0.082	139.371683	-11.961966	-246.05	-590.84
4	GUIDE	716575816	8.58	4976	-0.092	0.139	0.080	0.128	140.229272	-11.600909	-2323.10	1961.00
5	GUIDE	716578888	9.25	4972	-0.002	-0.048	0.075	0.121	139.858876	-11.605741	-1950.61	709.21
6	GUIDE	716454552	9.01	4977	0.022	0.244	0.062	0.101	139.524204	-12.319370	843.18	279.33
7	GUIDE	716452328	8.78	4977	0.047	-0.228	0.076	0.122	138.982178	-12.235590	1079.12	-1637.33

2.4 Star Slots

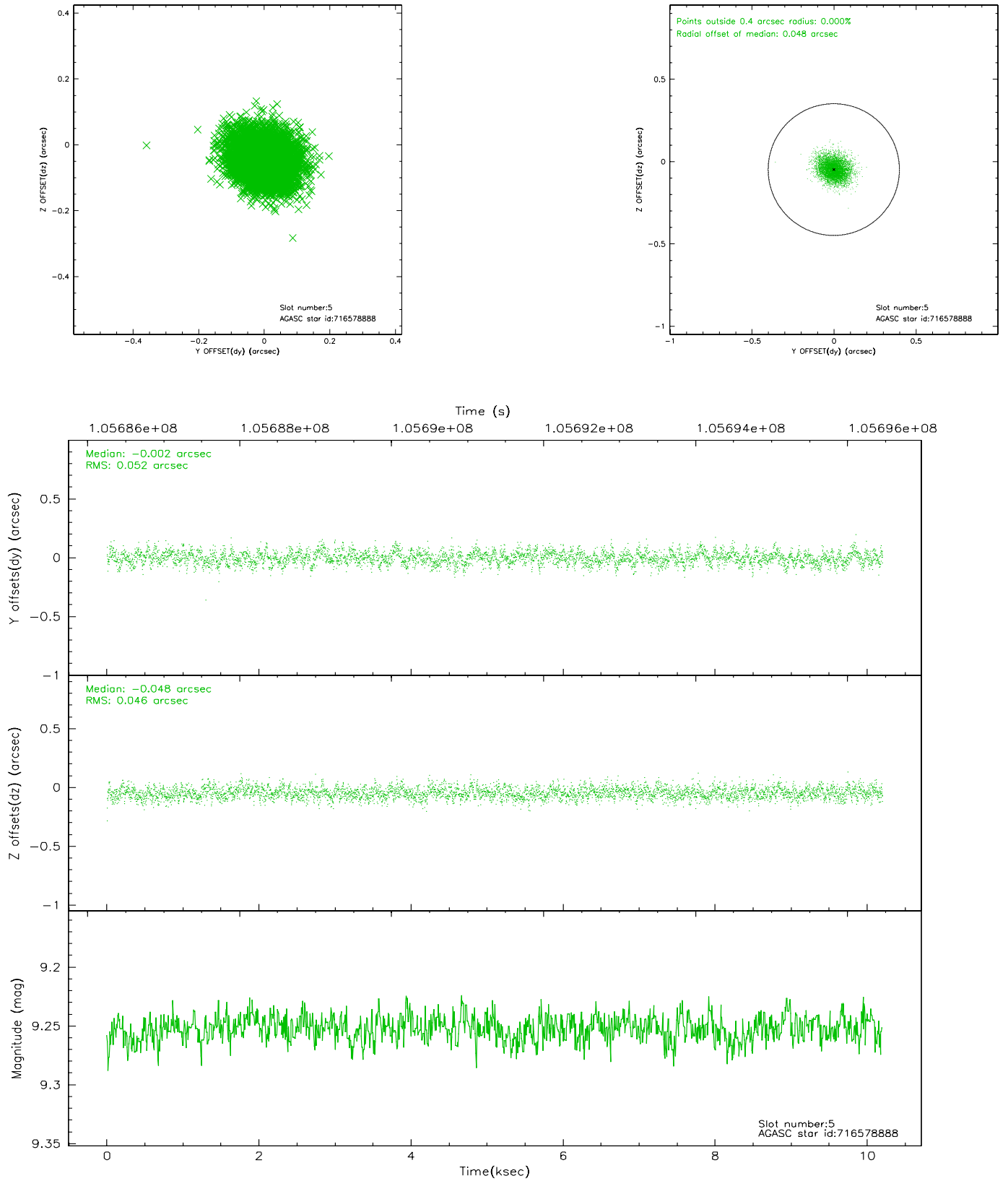
2.4.1 Slot 3



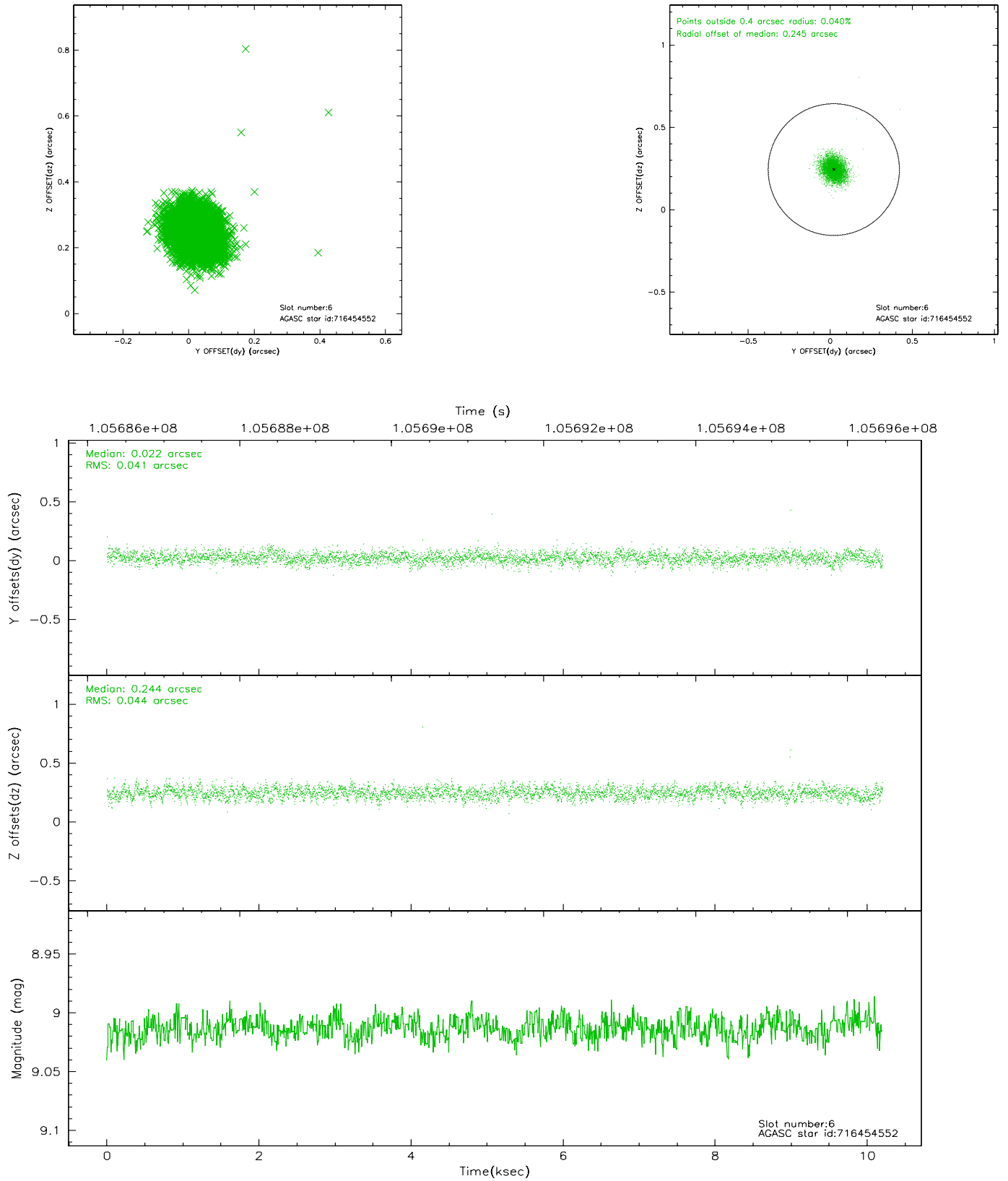
2.4.2 Slot 4



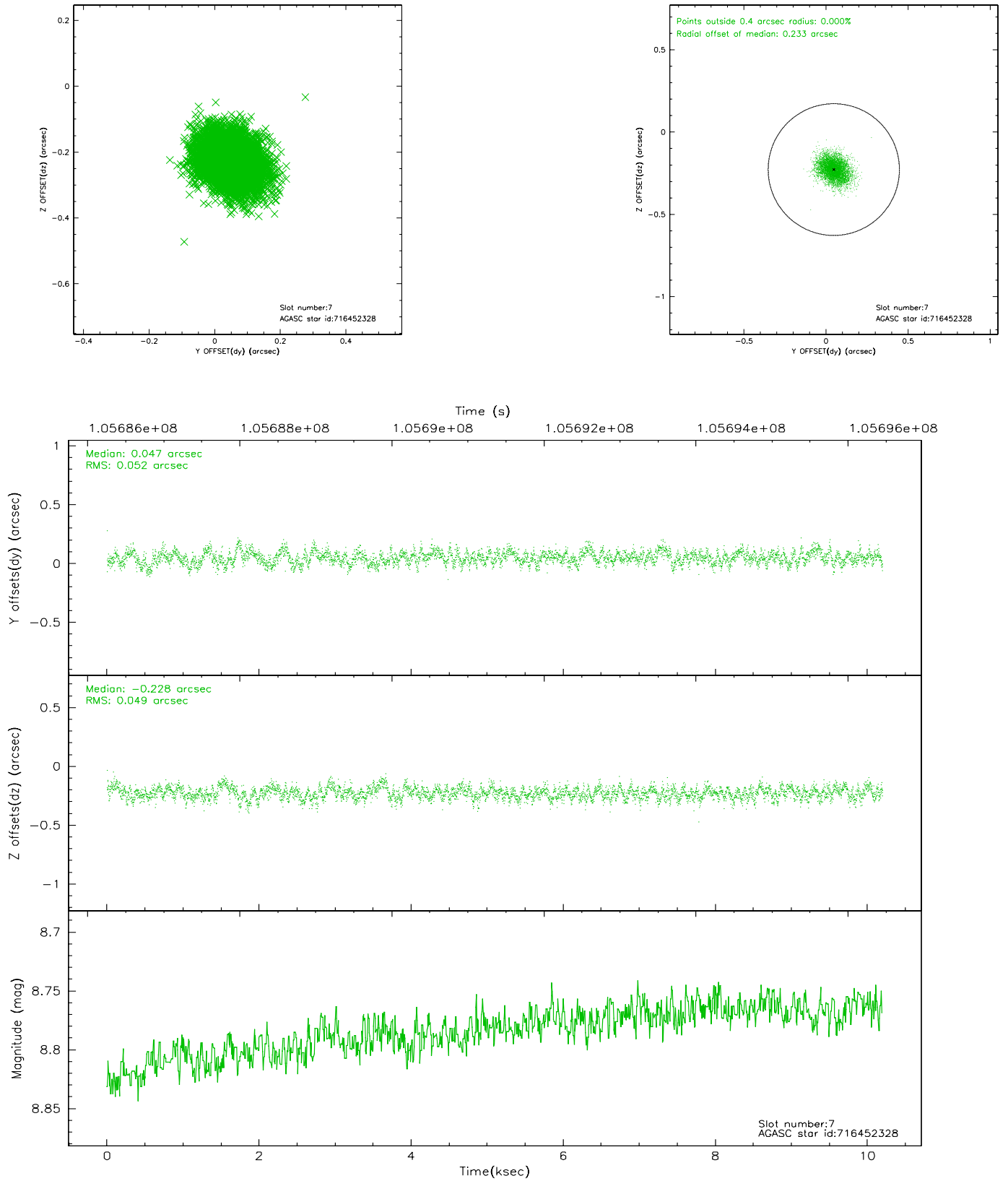
2.4.3 Slot 5



2.4.4 Slot 6

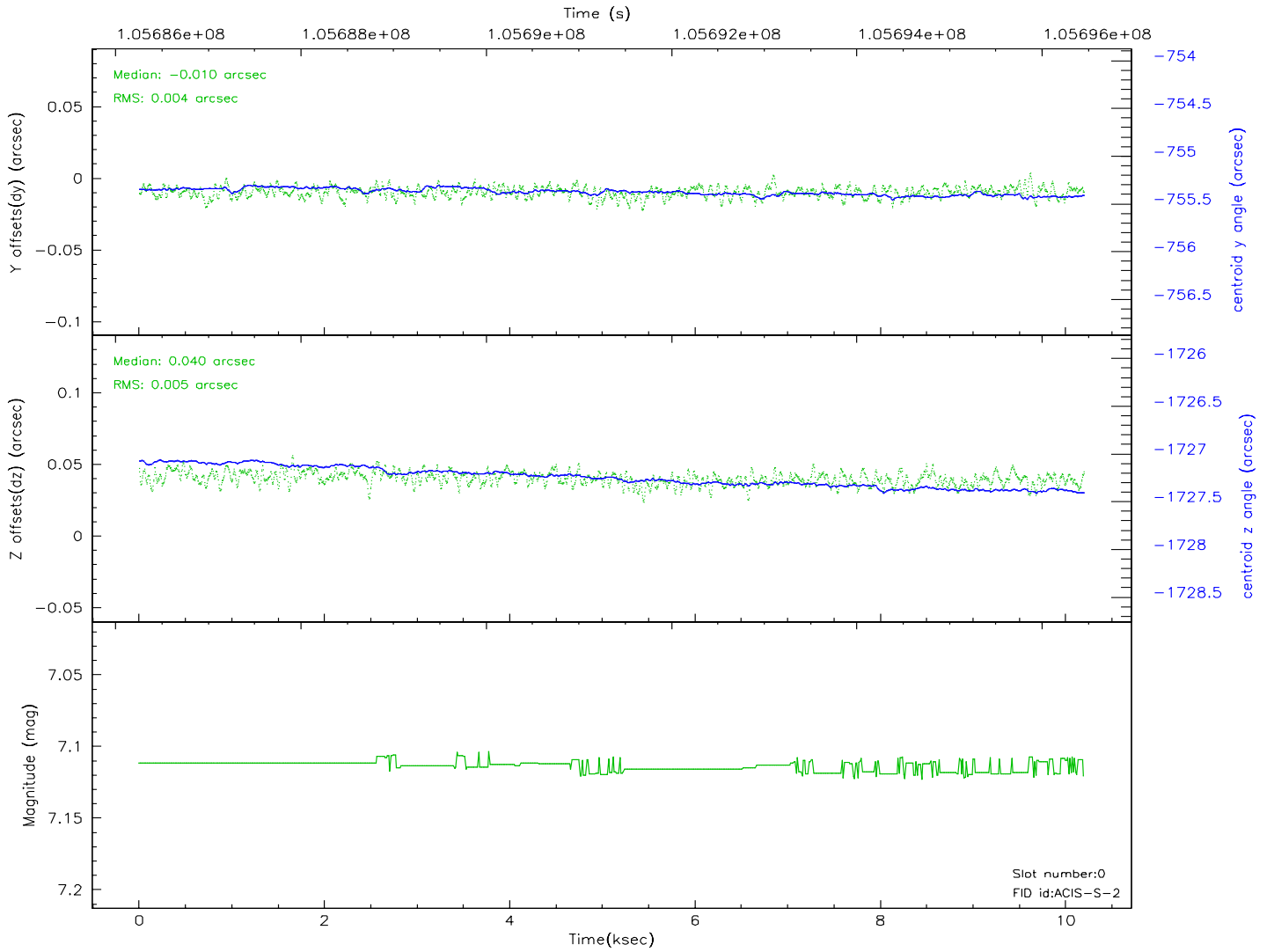
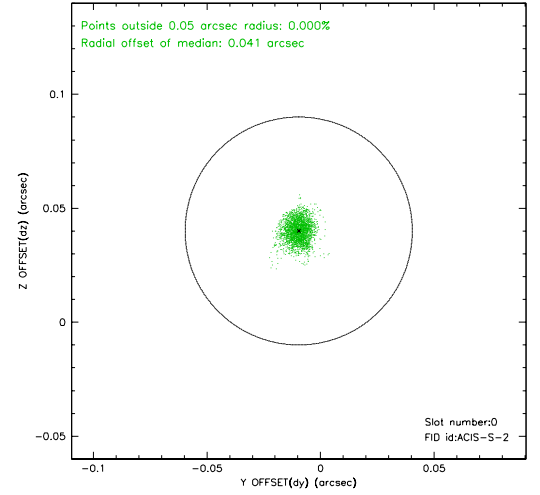
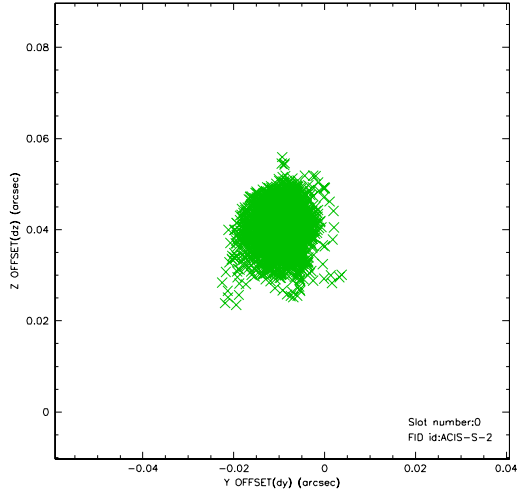


2.4.5 Slot 7

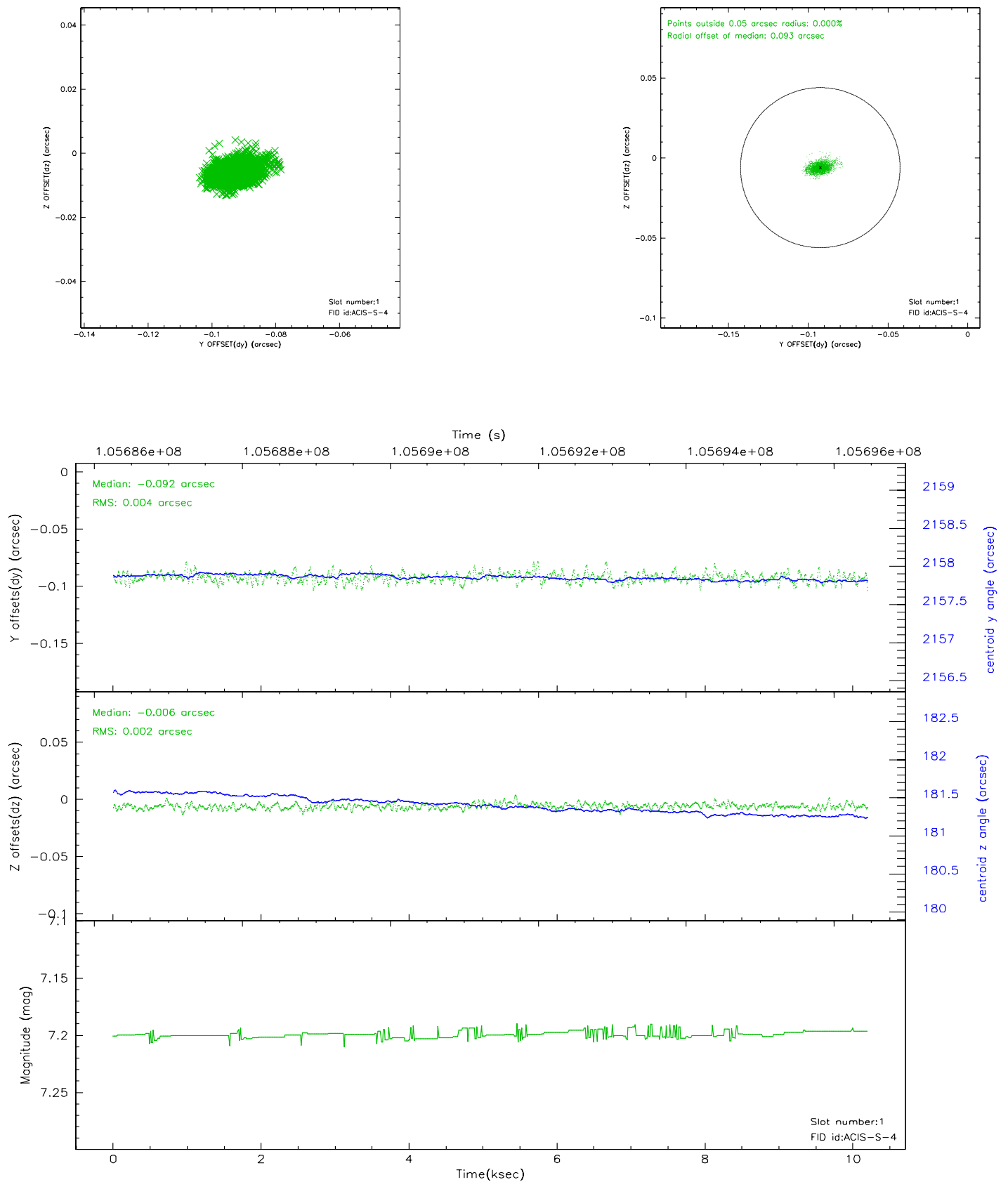


2.5 FID Slots

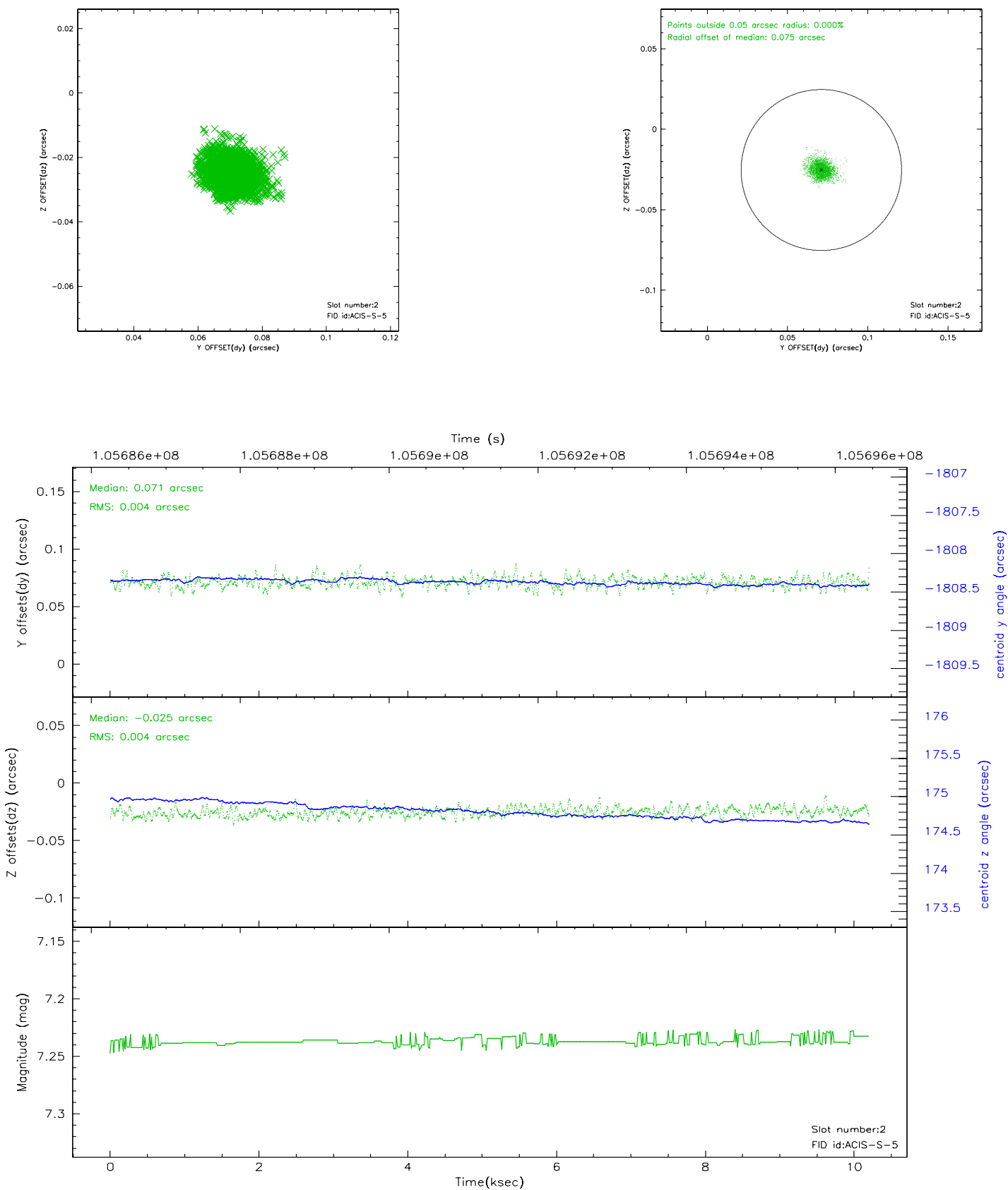
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

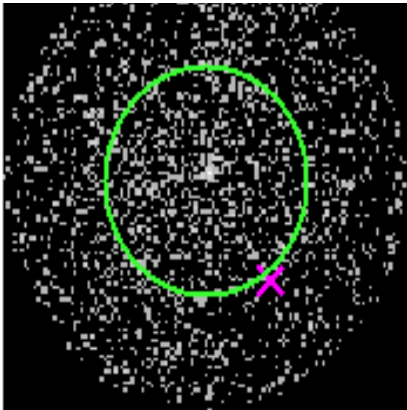


3 Gratings

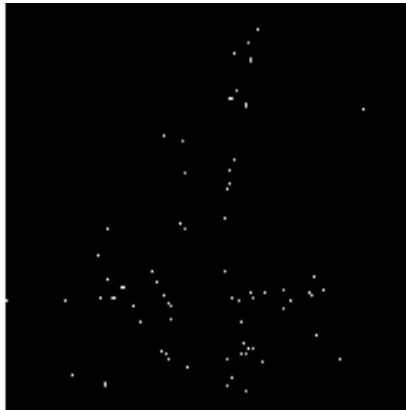
3.1 HEG Arm



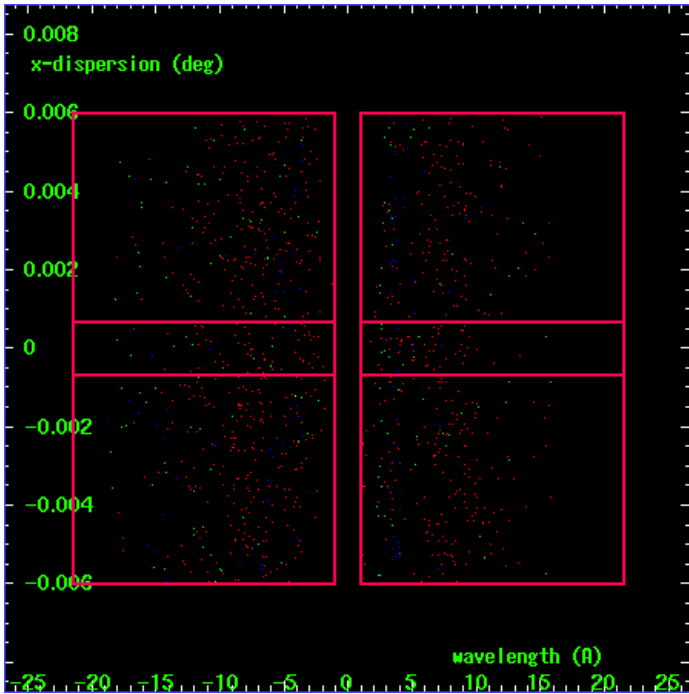
HEG Order Sort 123



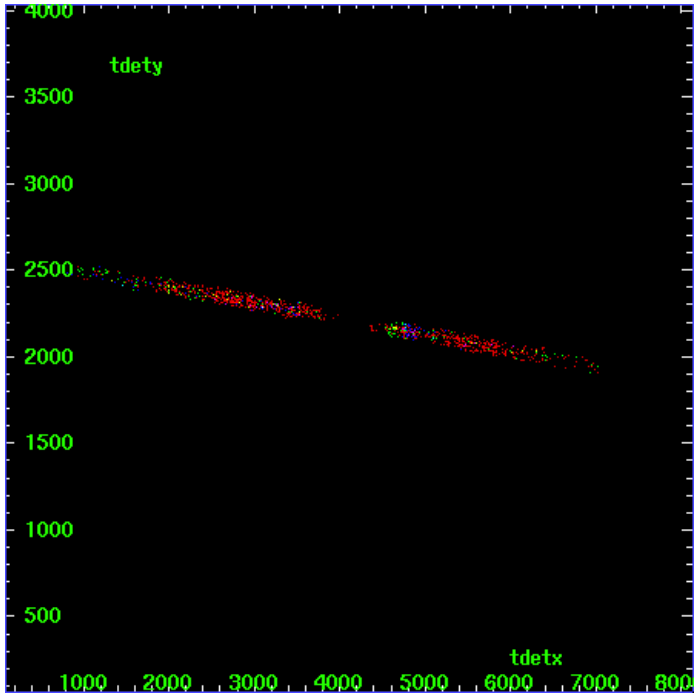
HEG Zero Order



HEG Order Sort ALL

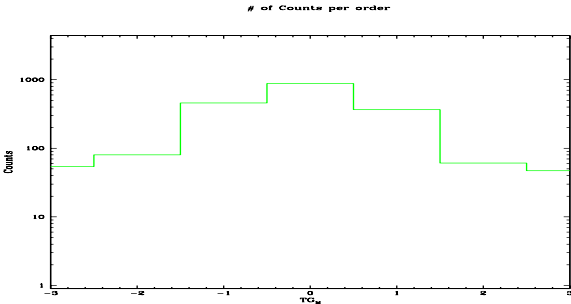


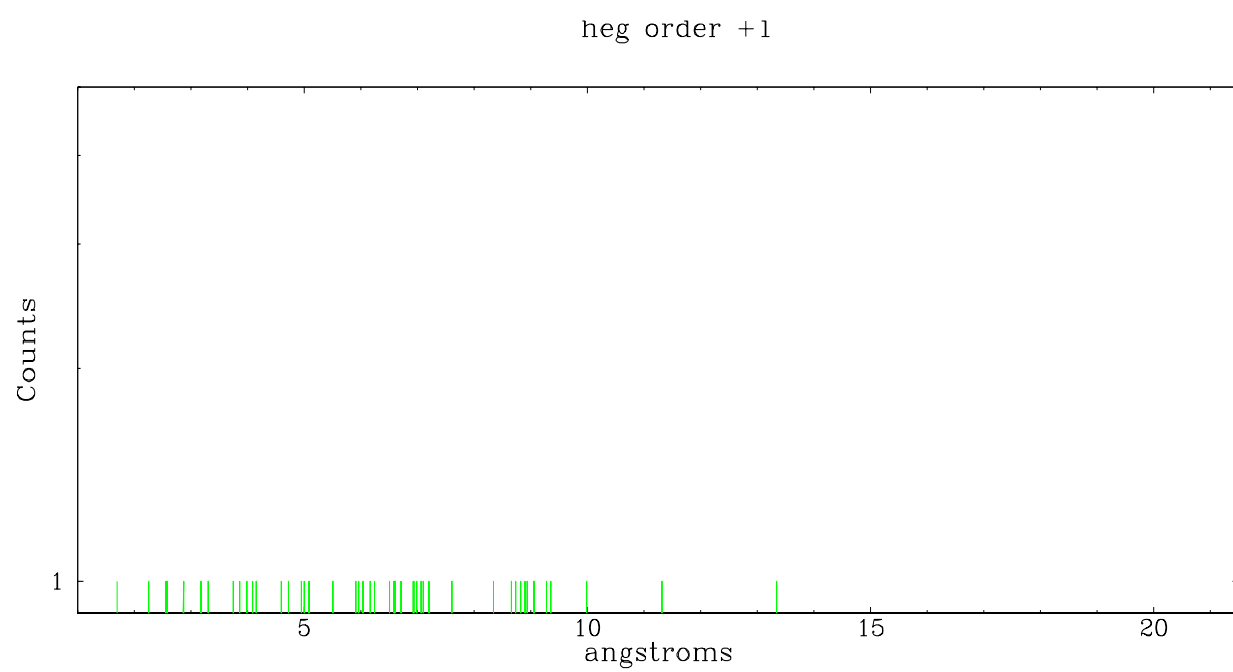
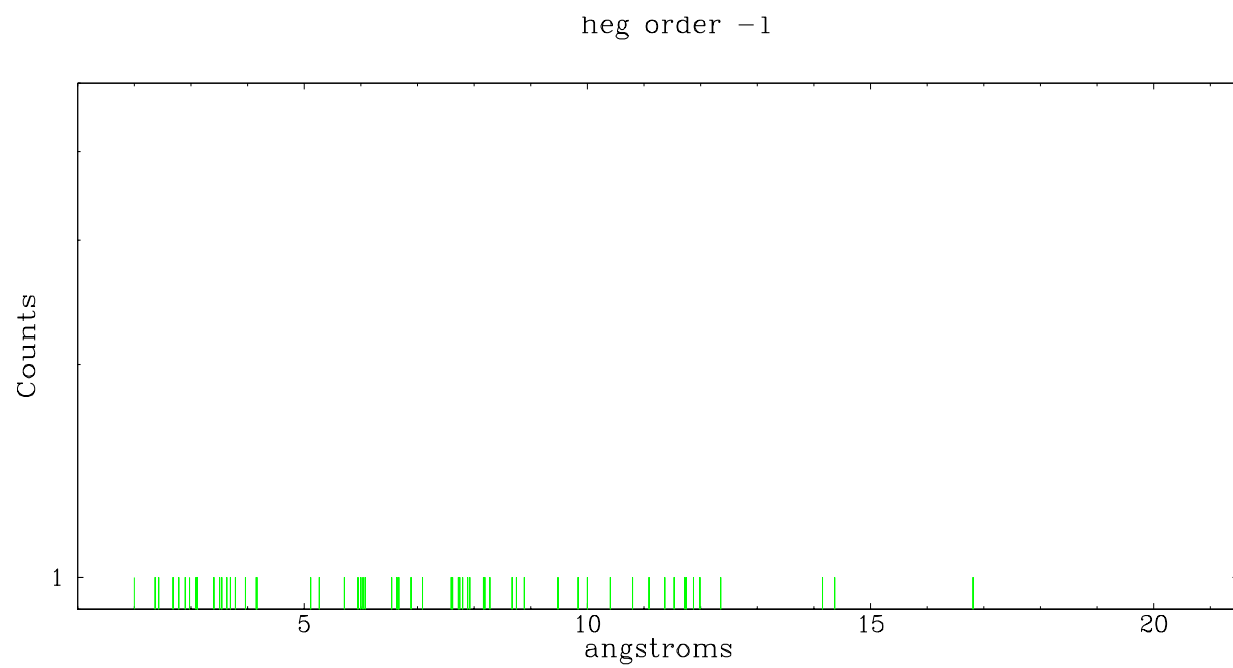
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	54	80	457	877	365	61	47

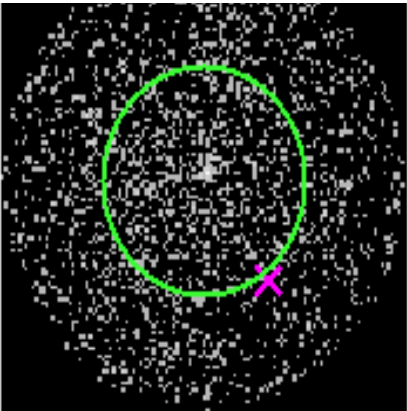




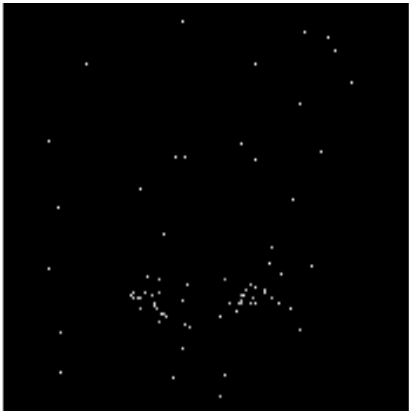
3.2 MEG Arm



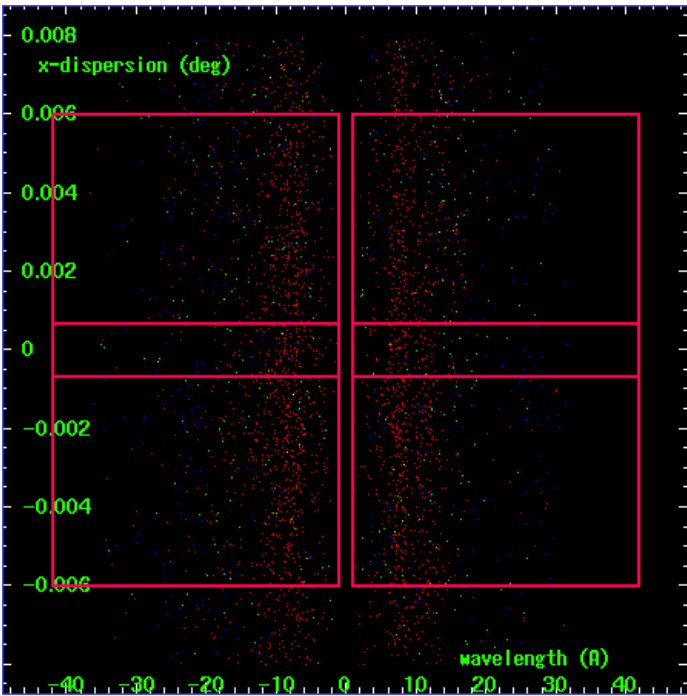
MEG Order Sort 123



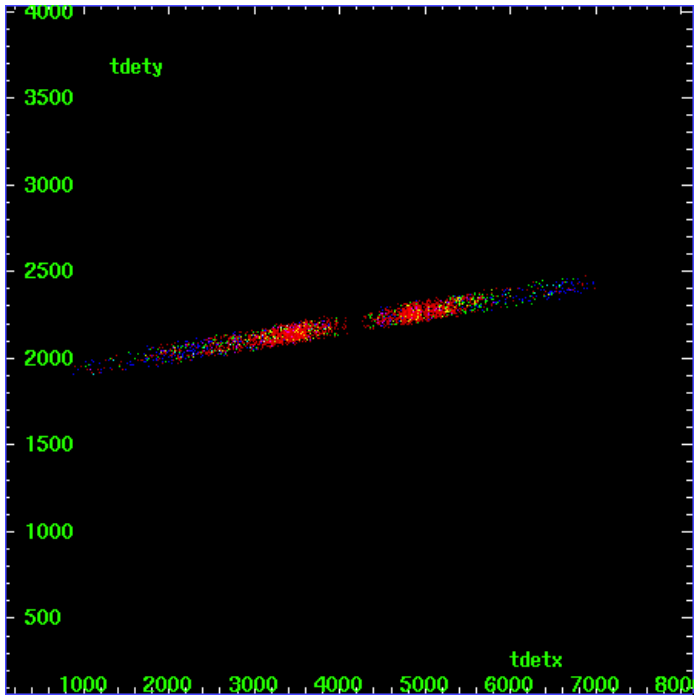
MEG Zero Order



MEG Order Sort ALL

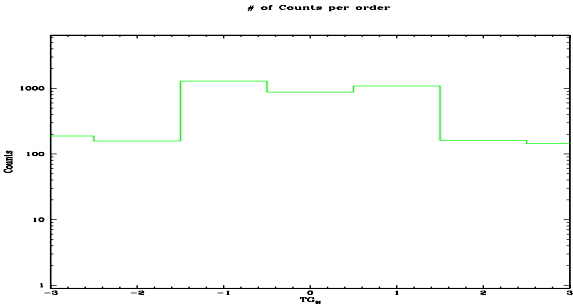


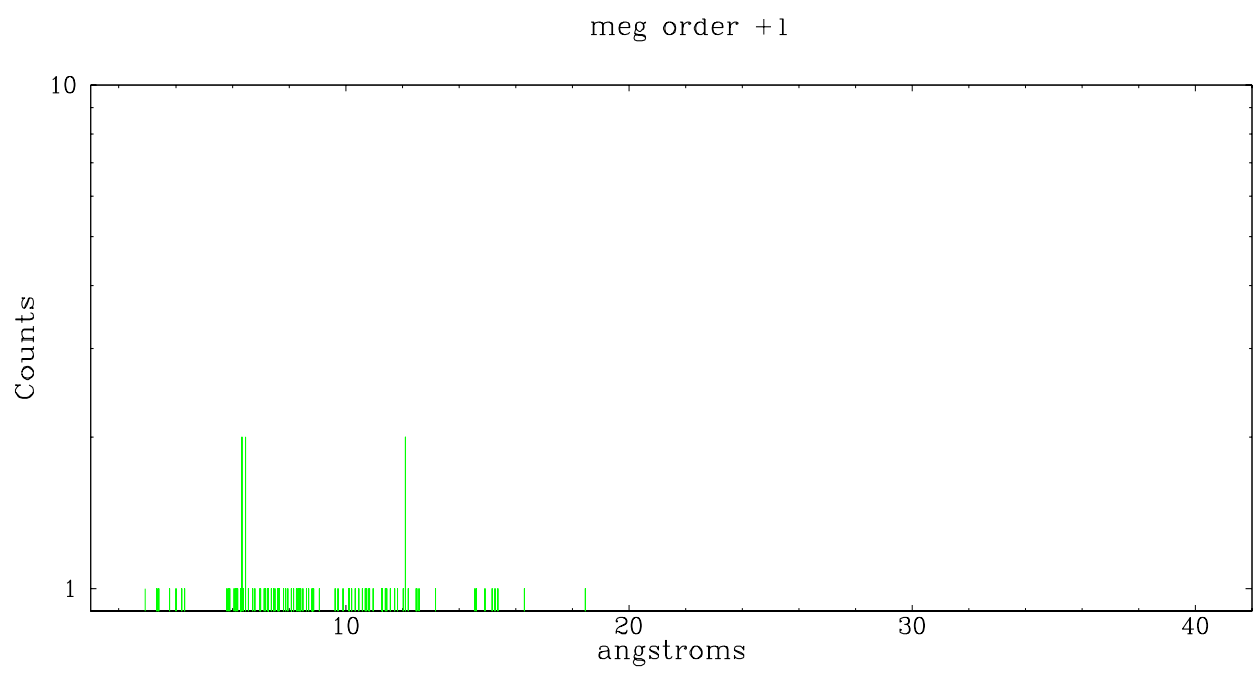
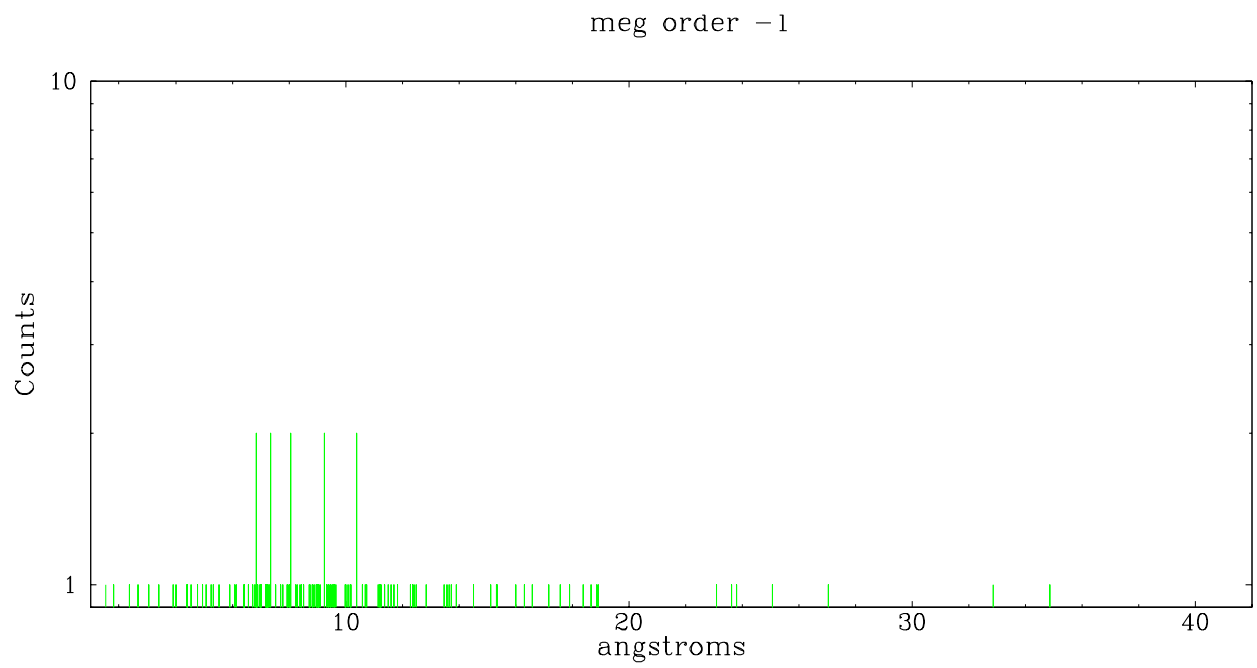
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	188	157	1287	877	1089	161	144





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	10.051

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=09:18:05.700, dec=-12:05:45.00