

V&V Reference Report

L2 ASCDS Version : 7.6.7.1

Observation 5513 - L2 Version 002
Chandra X-Ray Center

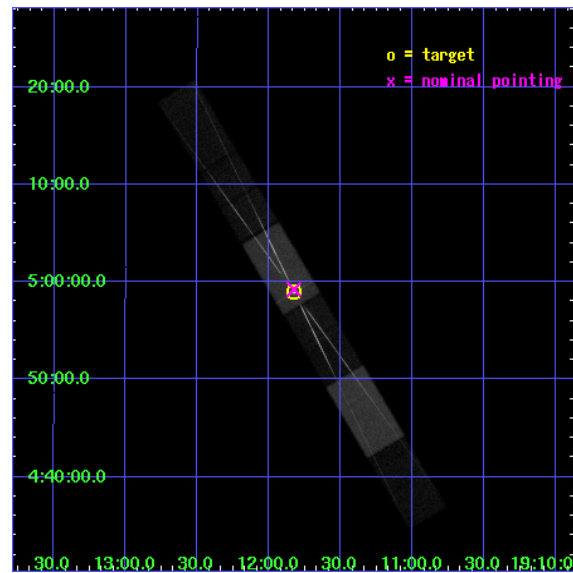
L2 Processing Date : Mar 19 2006

Contents

1	Front	2
2	OBI	3
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
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

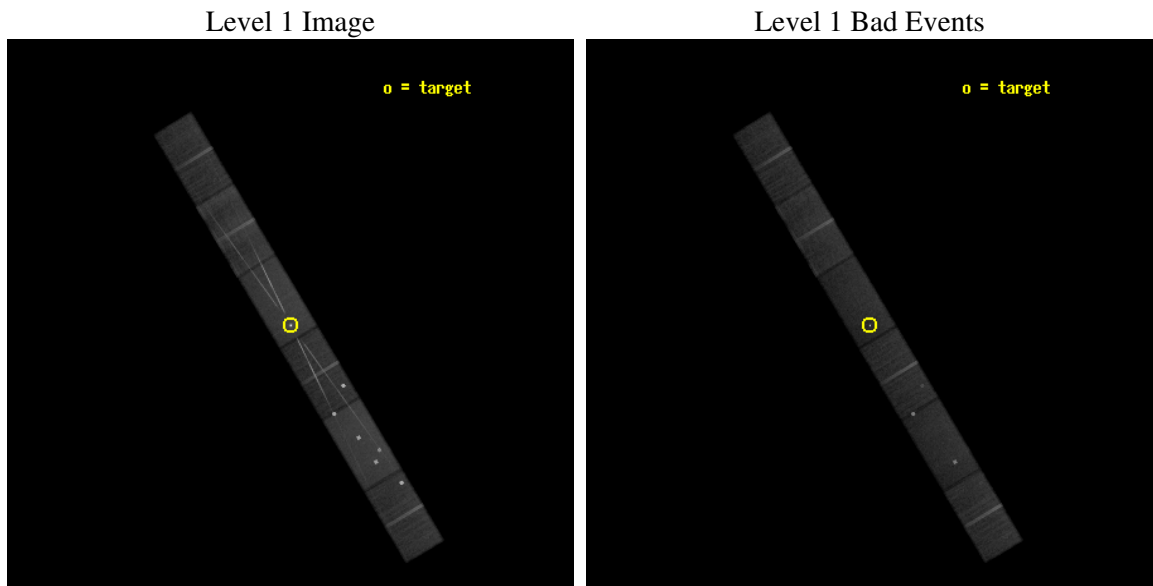
seq_num	400443
obs_id	5513
title	Detailed Studies of the Jets in SS 433
observer	Dr. Claude Canizares
object	SS 433
dtcycle	0
cycle	P
ra_targ	287.95625
dec_targ	4.982778
ra_nom	287.95705203222
dec_nom	4.9873399333527
roll_nom	239.09197873947
revision	2
ontime	49177.800325692
livetime	48081.541186637
ontime4	49176.91939792
ontime5	49177.800325692
ontime6	49174.118275553
ontime7	49177.800325692
ontime8	49177.800325692
ontime9	49175.959315538
l2events	453058



2 OBI

2.1 OBI

2.1.1 Images

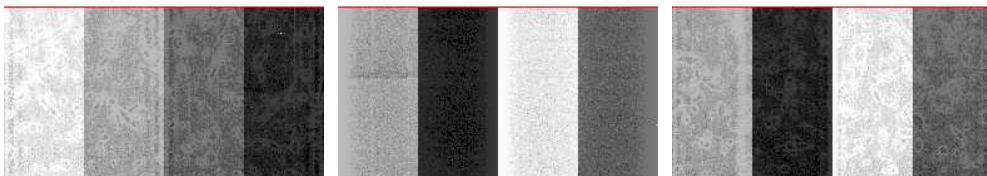


2.1.2 Bias

Chip 4

Chip 5

Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldsver	3.2.1
date	2006-03-19T06:40:34
revision	2

sched_exp_time	49000.000000
ontime	49264.01537922
ontime4	49262.174349159
ontime5	49264.01537922
ontime6	49260.333329082
ontime7	49264.01537922
ontime8	49264.01537922
ontime9	49262.174369067
l1events	1695092

2.1.4 Events

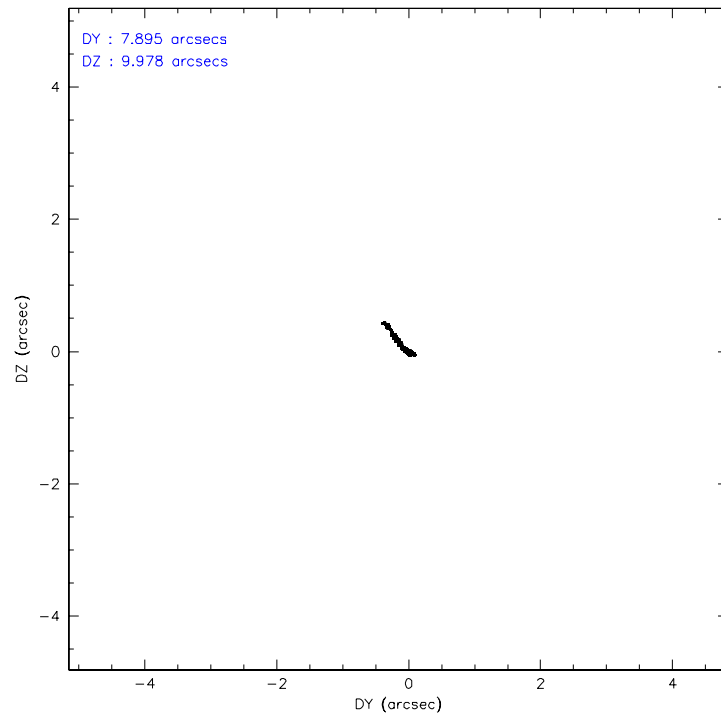
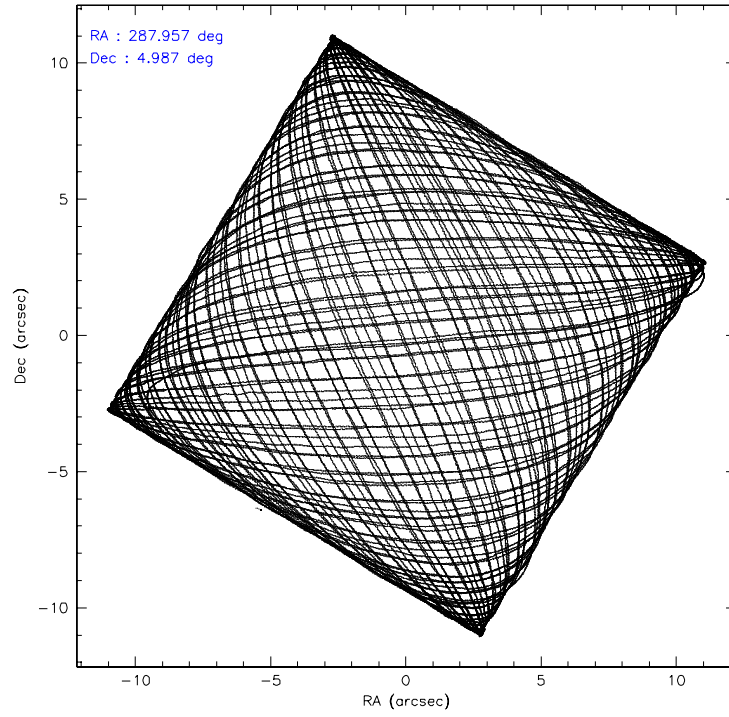
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	246872	352674	277214	349674	269817	198841
rejected events	194338	173001	180372	172390	200838	170900
rejected %	78%	49%	65%	49%	74%	85%

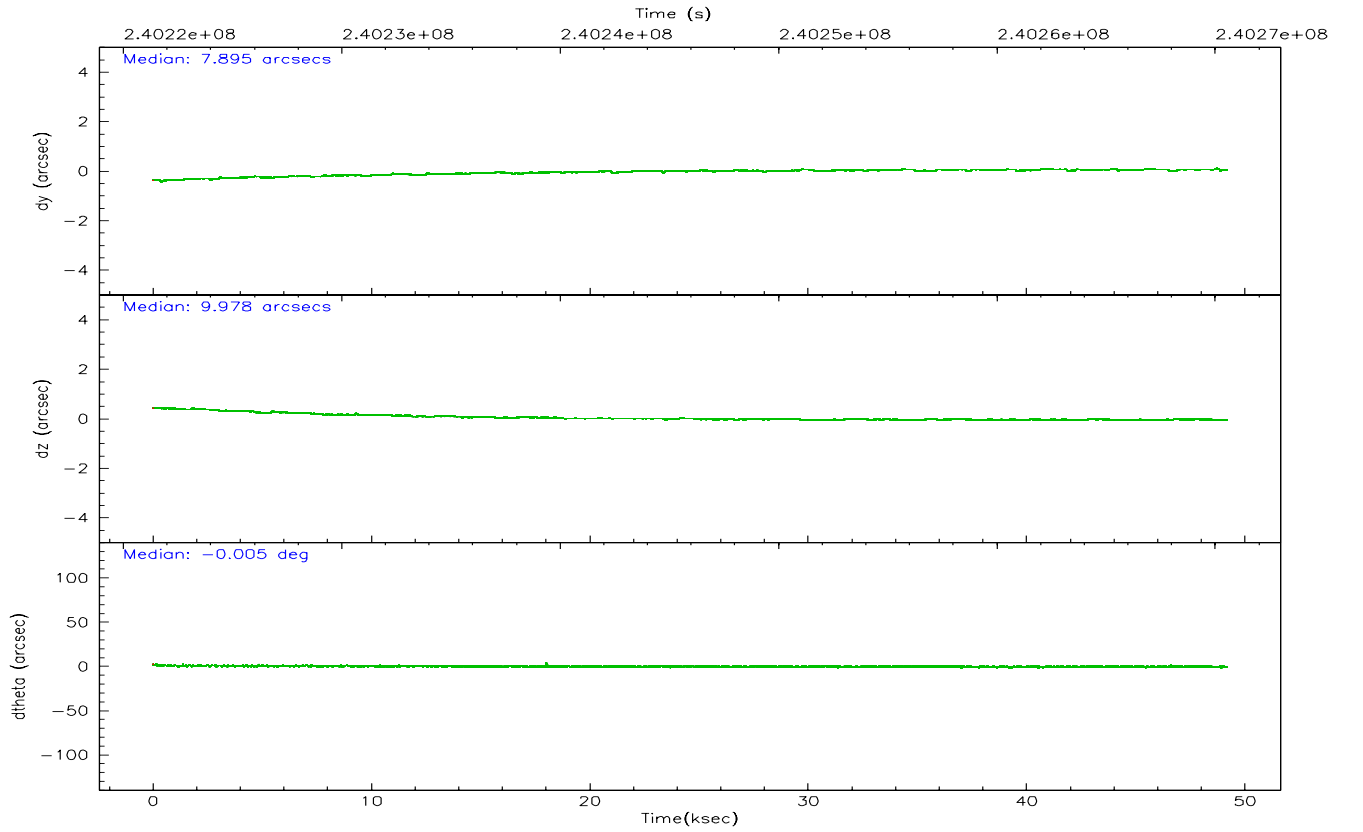
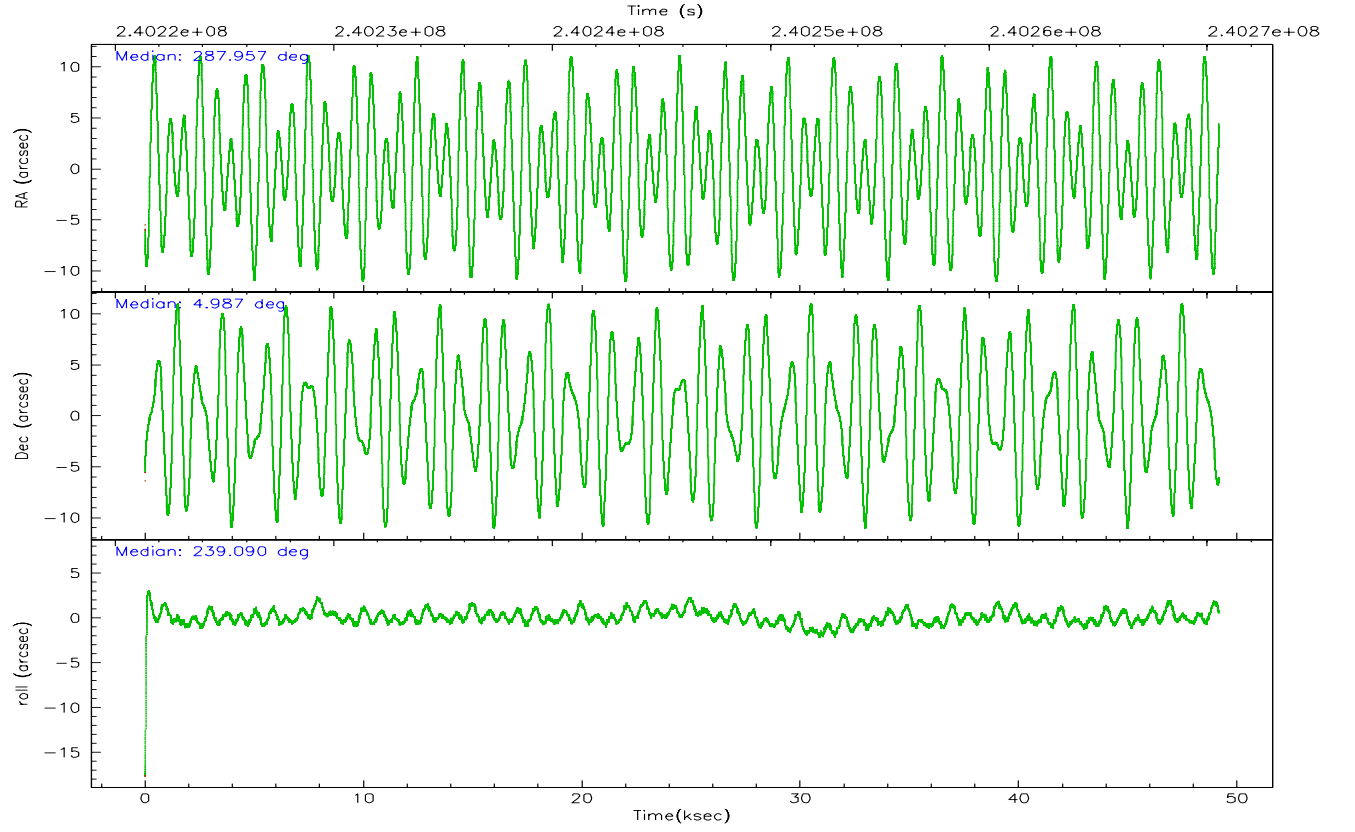
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	36892	37935	44470	19106	28394	12257
	14%	10%	16%	5%	10%	6%
grade 1 events	226	2489	184	563	193	81
	0%	0%	0%	0%	0%	0%
grade 2 events	5722	48655	36143	43100	13128	5242
	2%	13%	13%	12%	4%	2%
grade 3 events	2926	7145	4728	13902	6522	2939
	1%	2%	1%	3%	2%	1%
grade 4 events	2889	6697	4540	13709	6110	2836
	1%	1%	1%	3%	2%	1%
grade 5 events	8148	21948	9426	22935	11284	9198
	3%	6%	3%	6%	4%	4%
grade 6 events	4173	79510	7125	87780	14916	4719
	1%	22%	2%	25%	5%	2%
grade 7 events	185896	148295	170598	148579	189270	161569
	75%	42%	61%	42%	70%	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	CUSTOM	CUSTOM
Pointing RA	287.957108	287.9570520322181	Subarray start row	1	1
Pointing Dec	5.014565	4.987339933352729	Subarray row count	542	542
Pointing Roll	238.935346	239.0919787394677	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	1.8
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-184.532523	-184.5306286120915			
SIM translation stage offset (mm)	-5.6	-5.601893970916279			
Phase constraints	Y	Y			
Phase period	13.082110	13.082110			
Phase epoch	52377.900000	52377.900000			
Phase start	0.000000	0.000000			
Phase end	0.020000	0.020000			
Phase start error	0.050000	0.050000			
Phase end error	0.050000	0.050000			
Observation start time	240221544.184000	240220497.21439			
Observation start date	2005-08-12T08:11:20	2005-08-12T07:54:57			
Observation end time	240270544.184000	240272287.90426			
Observation end date	2005-08-12T21:48:00	2005-08-12T22:18:07			
Read mode	TIMED	TIMED			

2.3 Aspect



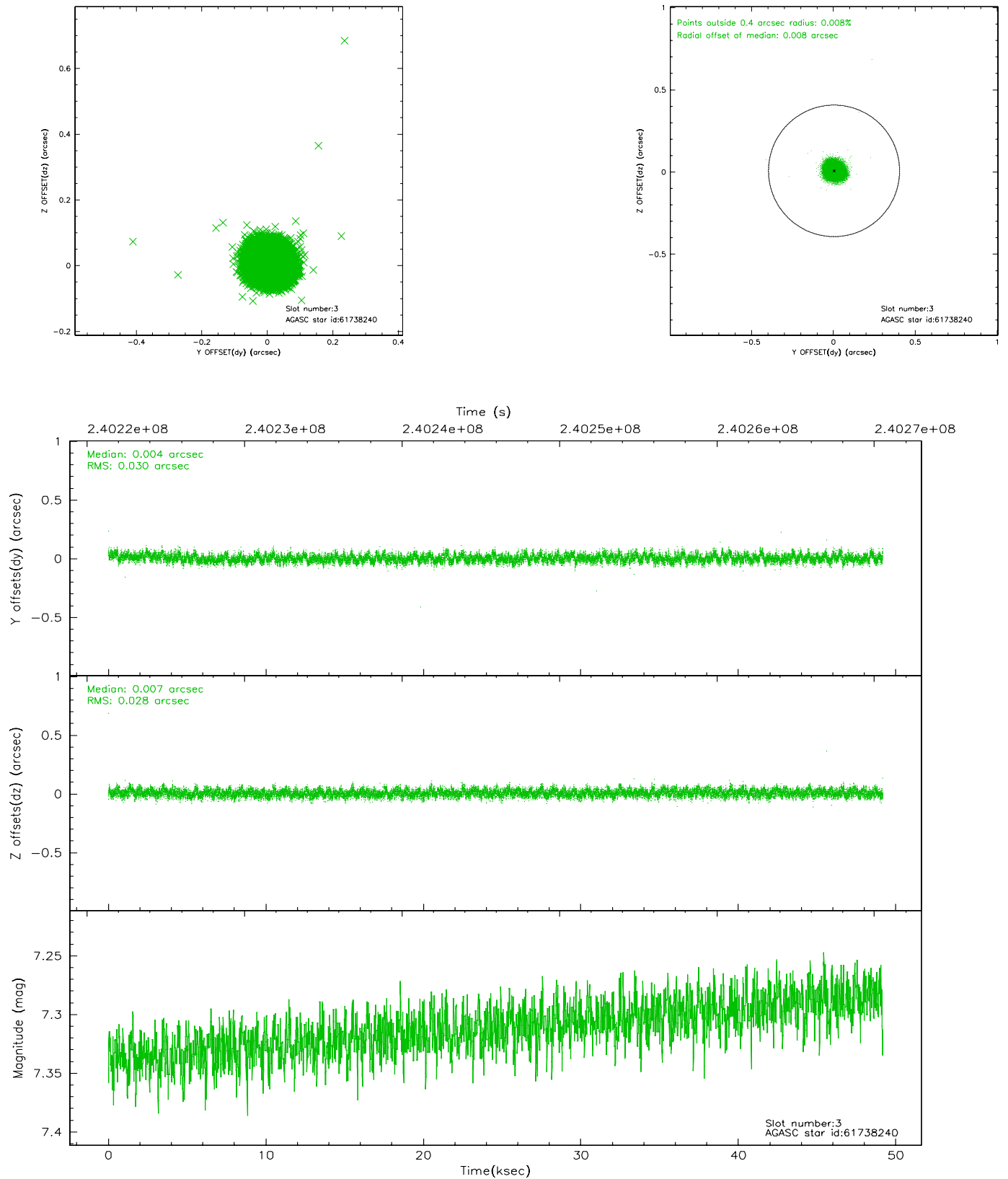


Slot Statistics

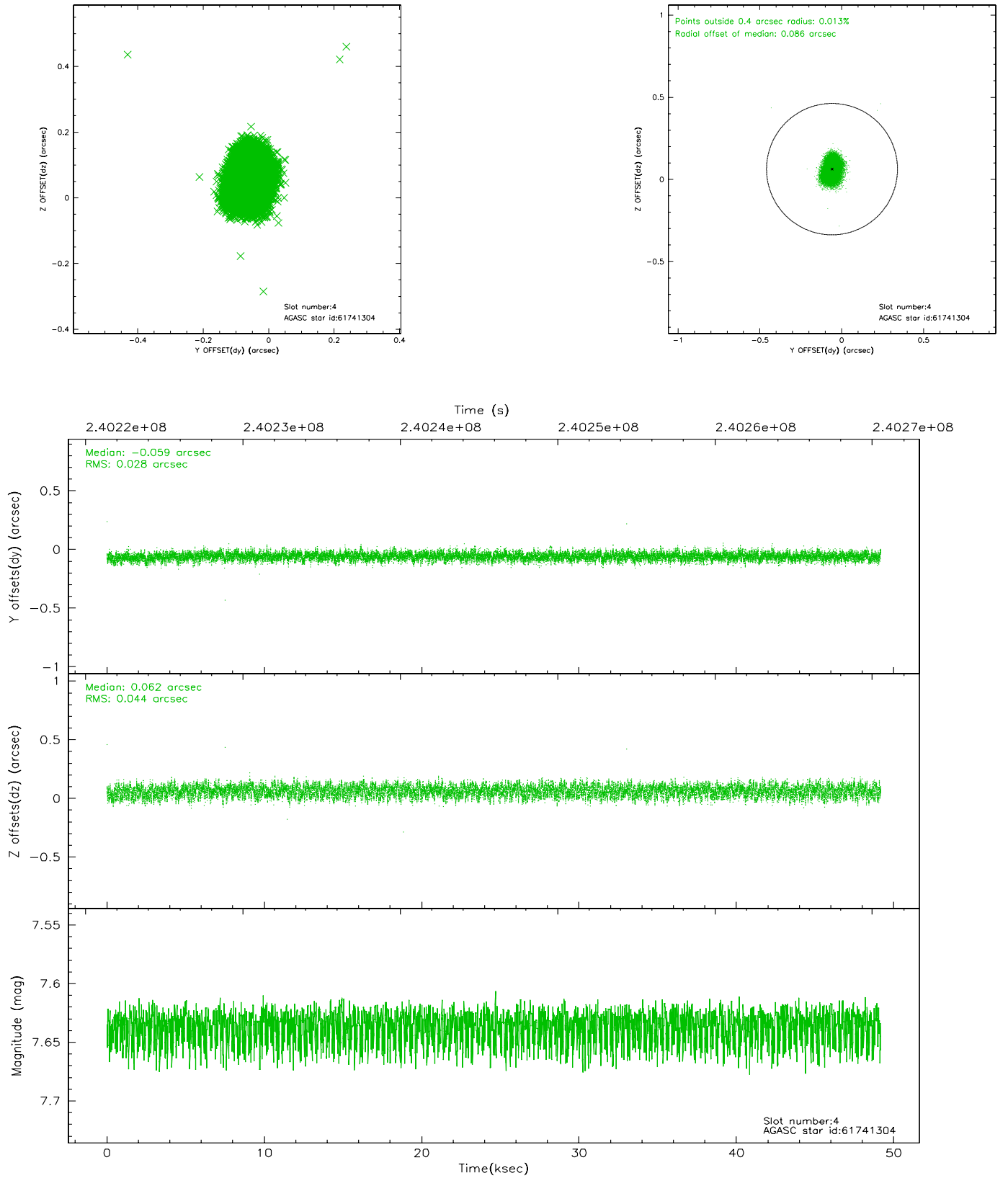
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	11995	0.041	0.031	0.007	0.013	0.000000	0.000000	935.85	-1842.37
1	FID	ACIS-S-5	7.23	11990	-0.075	0.045	0.008	0.014	0.000000	0.000000	-1813.26	55.20
2	FID	ACIS-S-6	7.39	11992	0.012	-0.065	0.007	0.013	0.000000	0.000000	401.40	699.03
3	GUIDE	61738240	7.31	23984	0.004	0.007	0.044	0.070	287.996556	4.354861	1961.40	1347.04
4	GUIDE	61741304	7.64	23987	-0.059	0.062	0.056	0.089	287.957418	5.377327	-1119.15	-672.63
5	GUIDE	61743800	7.48	23986	0.076	-0.094	0.061	0.094	287.776811	5.274666	-468.44	-1036.83
6	GUIDE	61744976	7.58	23989	-0.102	0.007	0.050	0.079	288.430364	5.306675	-1776.70	910.26
7	GUIDE	61745016	8.65	23984	0.079	0.017	0.060	0.096	288.113628	4.368816	1701.49	1681.35

2.4 Star Slots

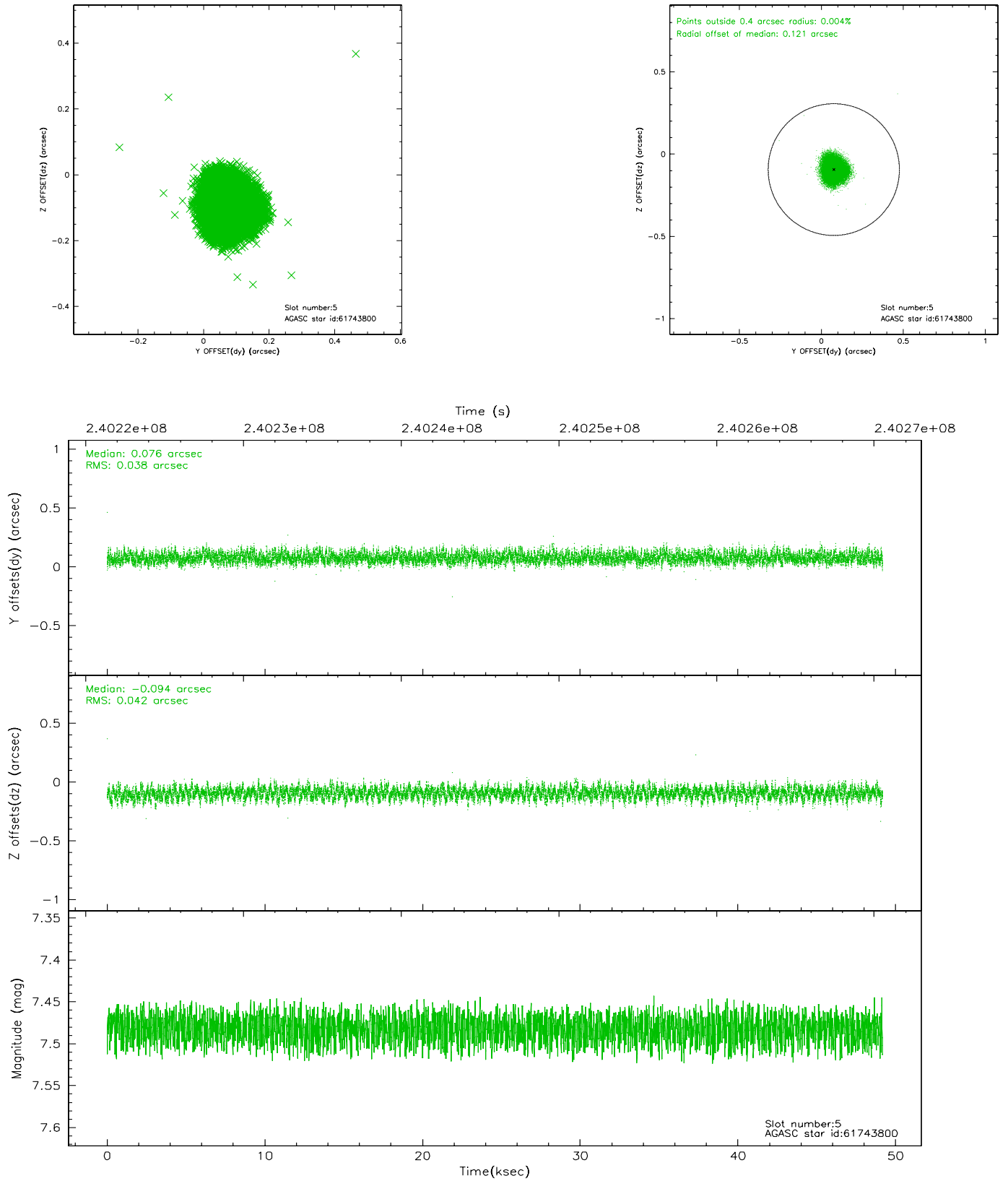
2.4.1 Slot 3



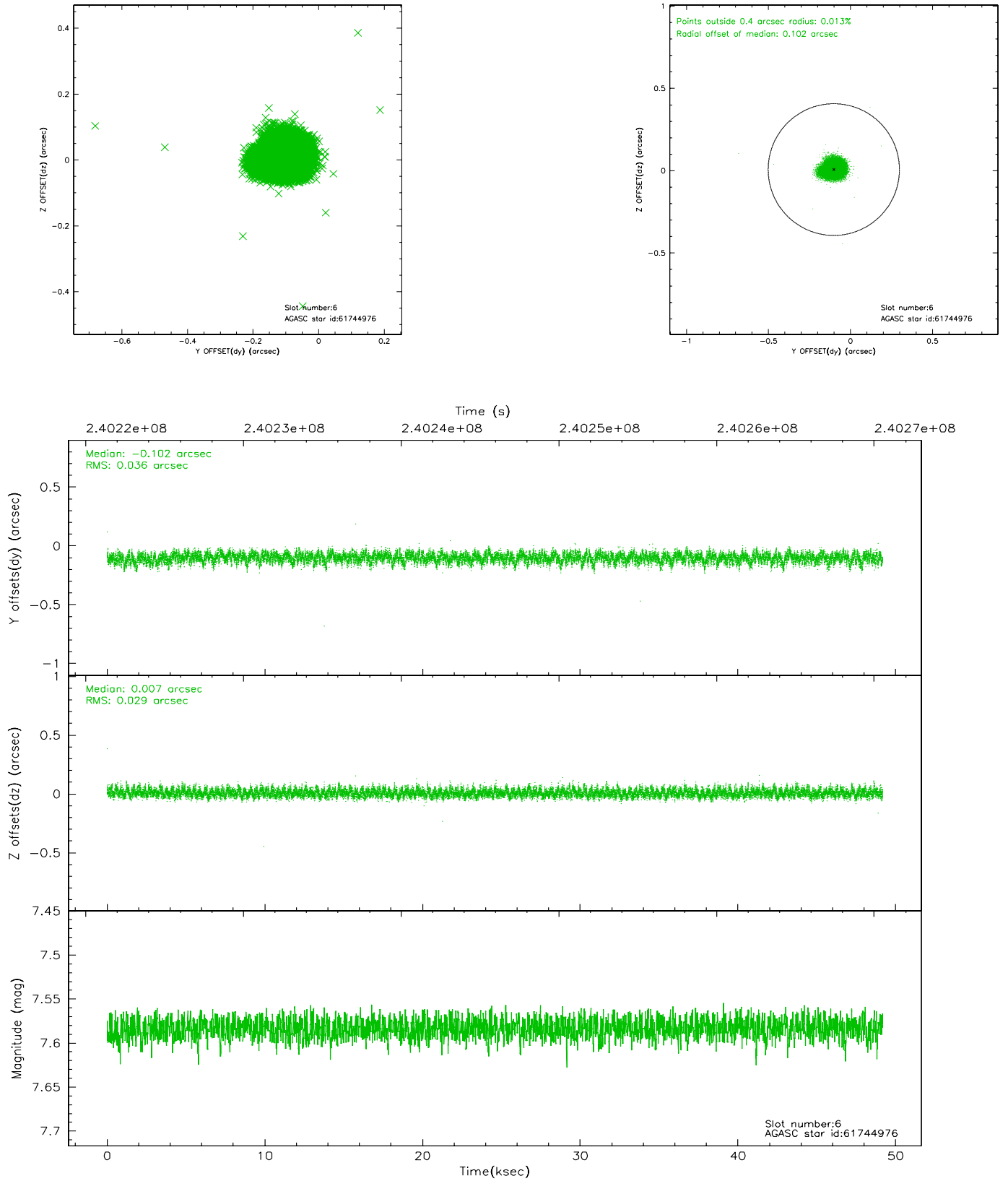
2.4.2 Slot 4



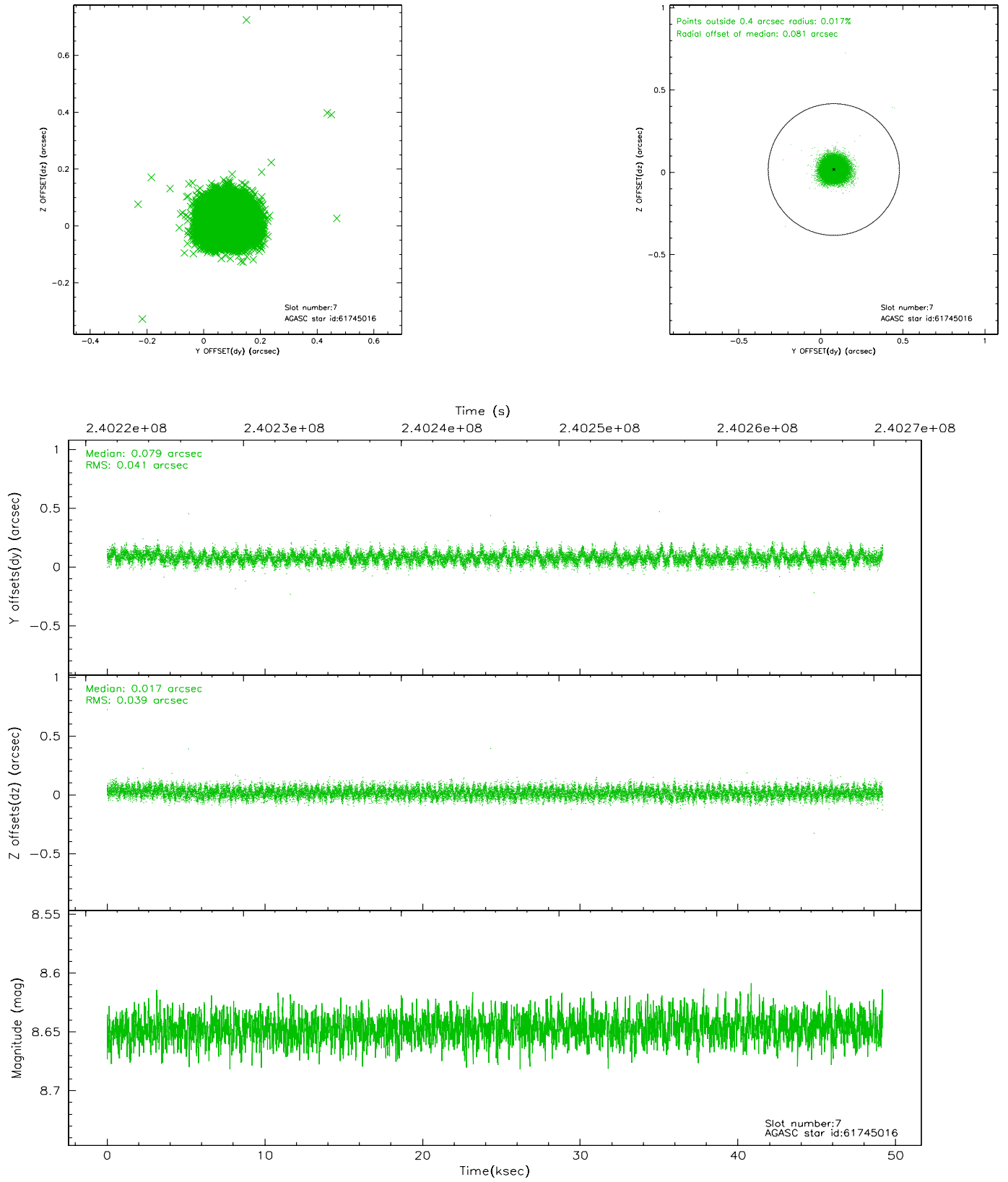
2.4.3 Slot 5



2.4.4 Slot 6

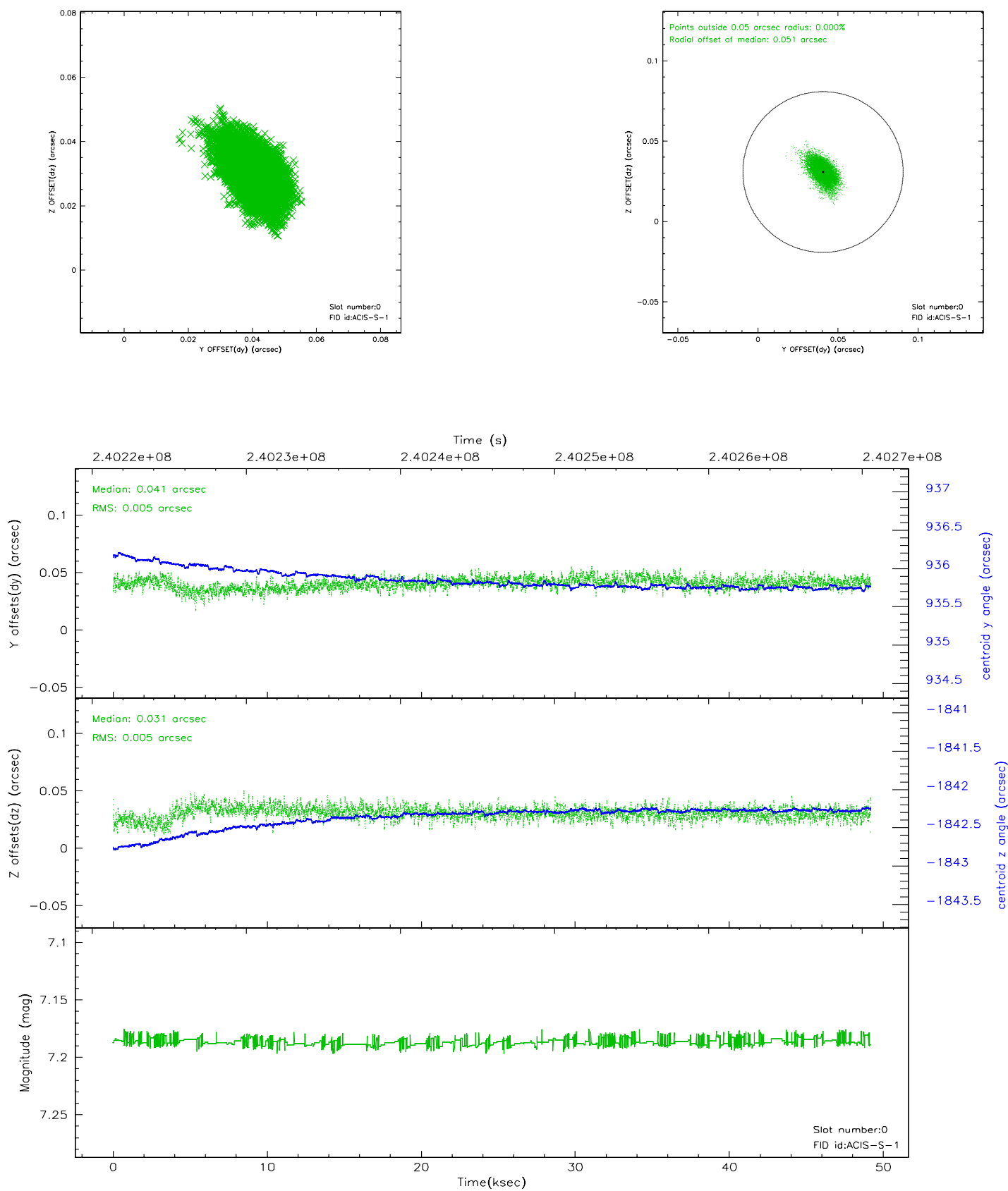


2.4.5 Slot 7

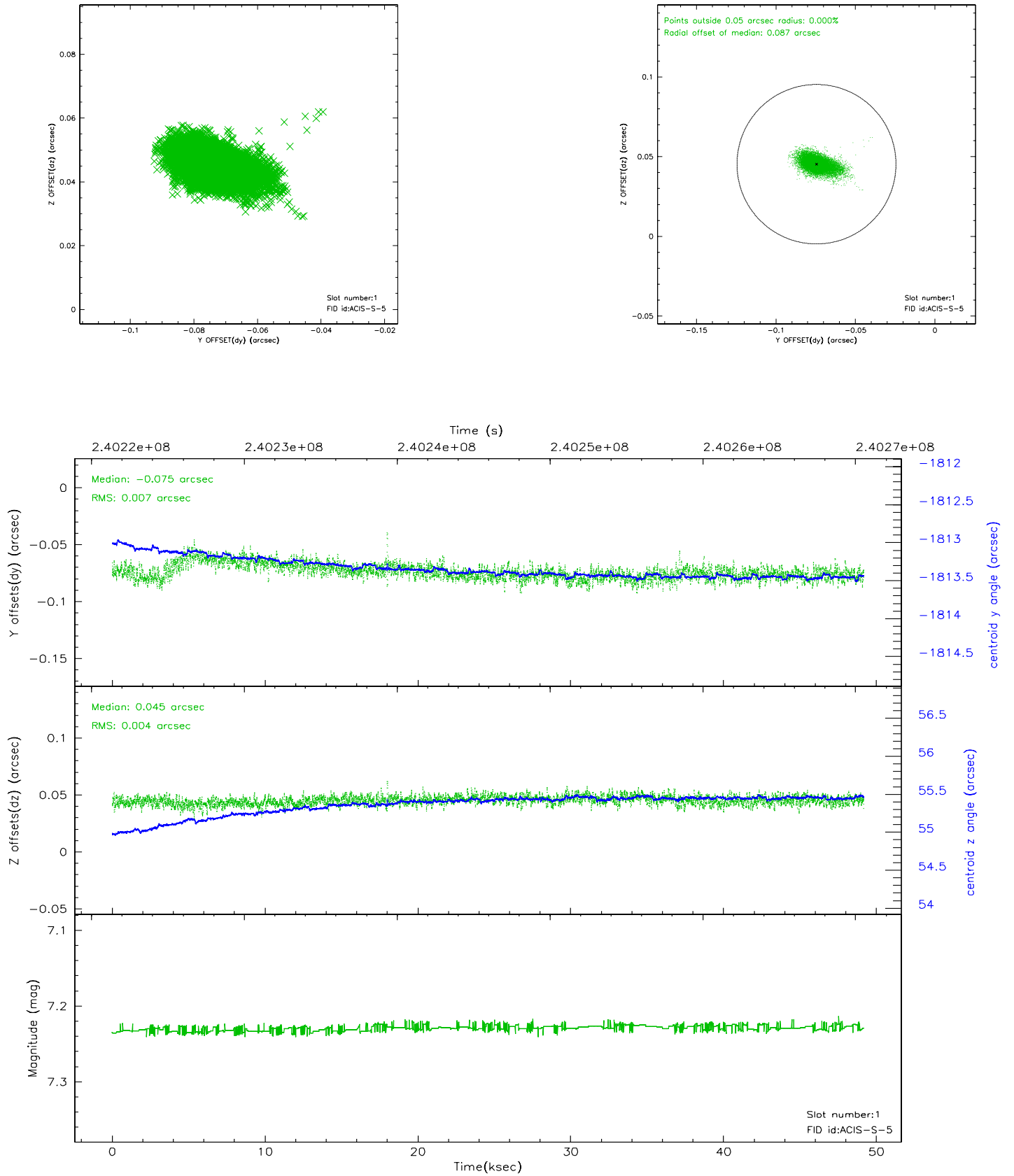


2.5 FID Slots

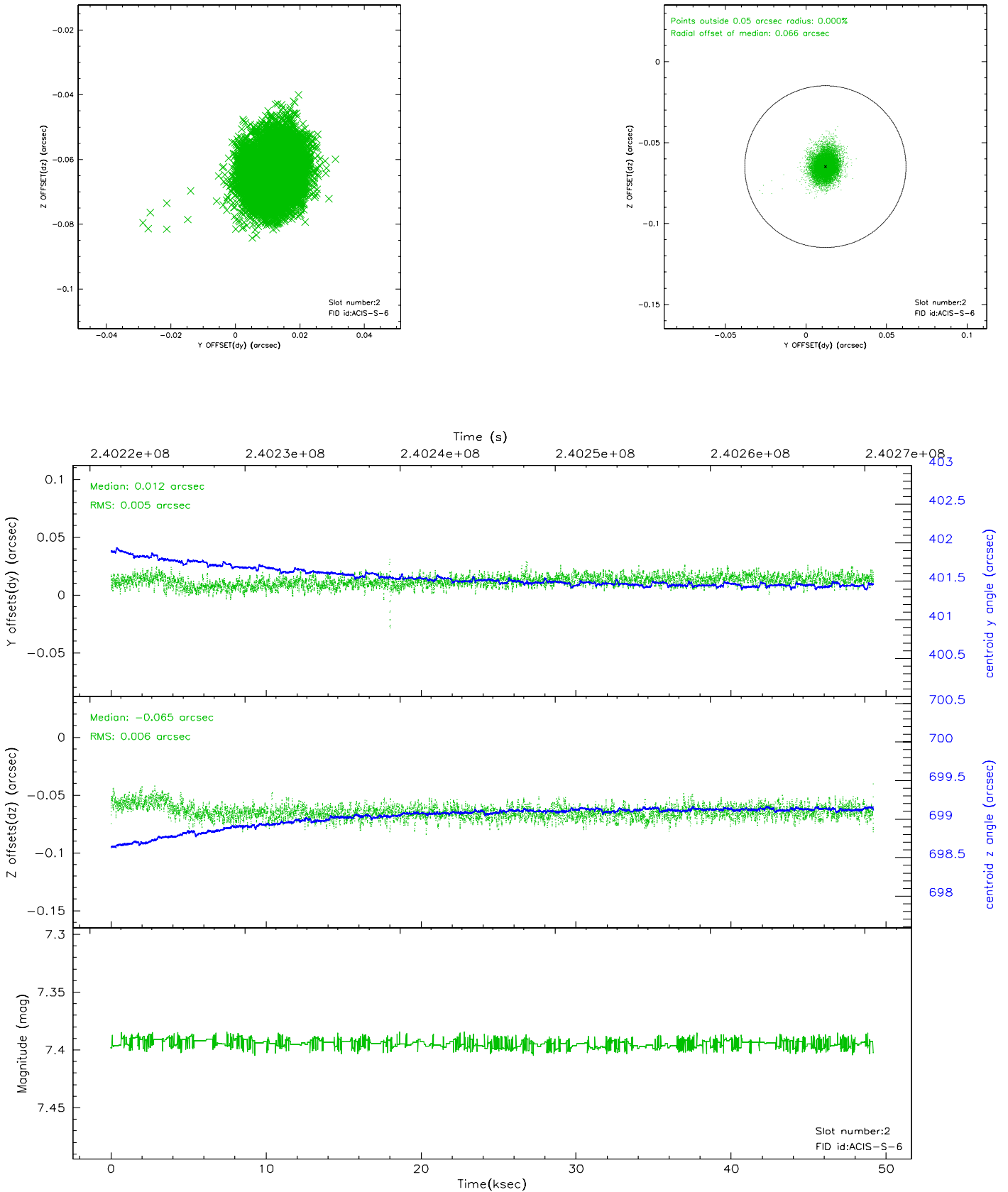
2.5.1 Slot 0



2.5.2 Slot 1

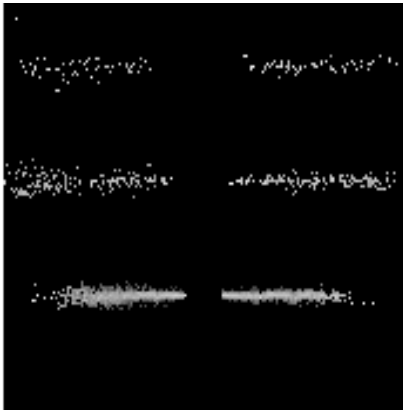


2.5.3 Slot 2

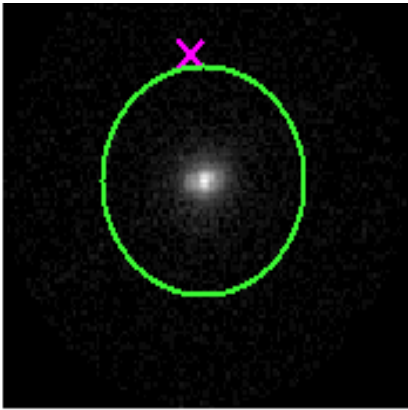


3 Gratings

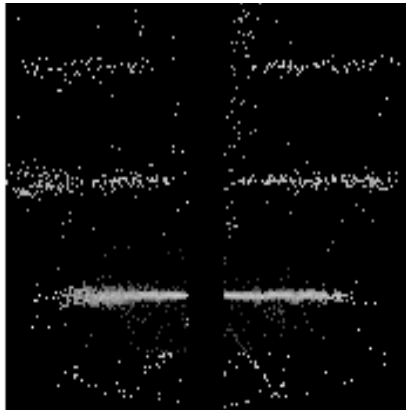
3.1 HEG Arm



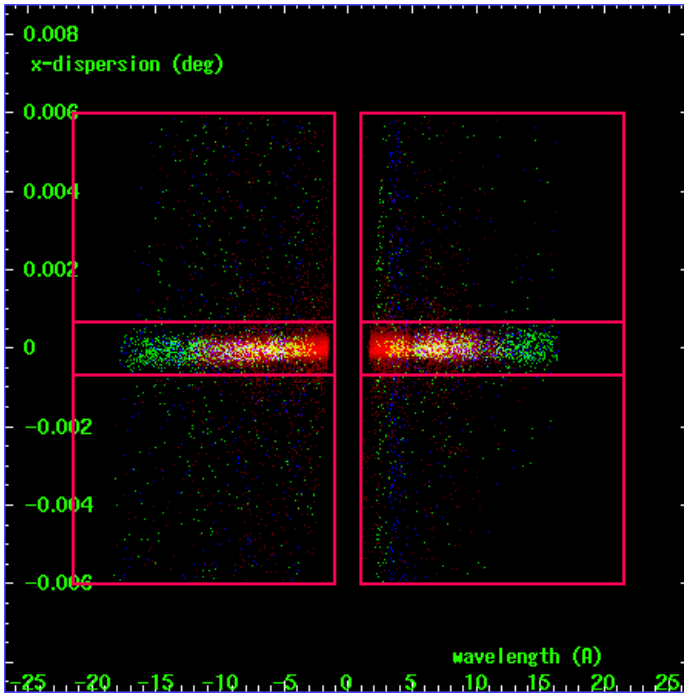
HEG Order Sort 123



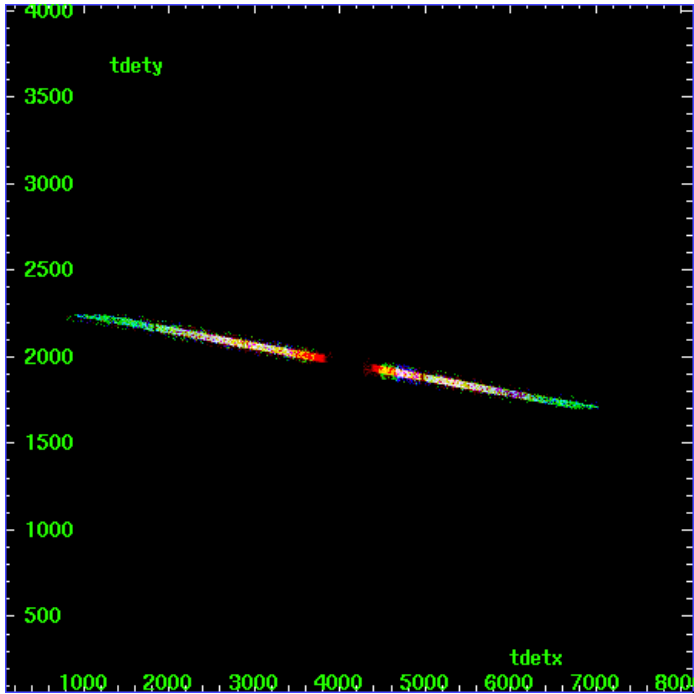
HEG Zero Order



HEG Order Sort ALL

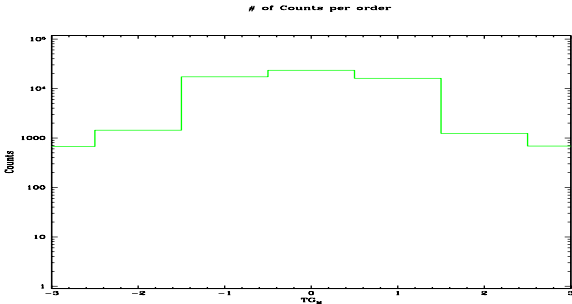


Spot Image HEG

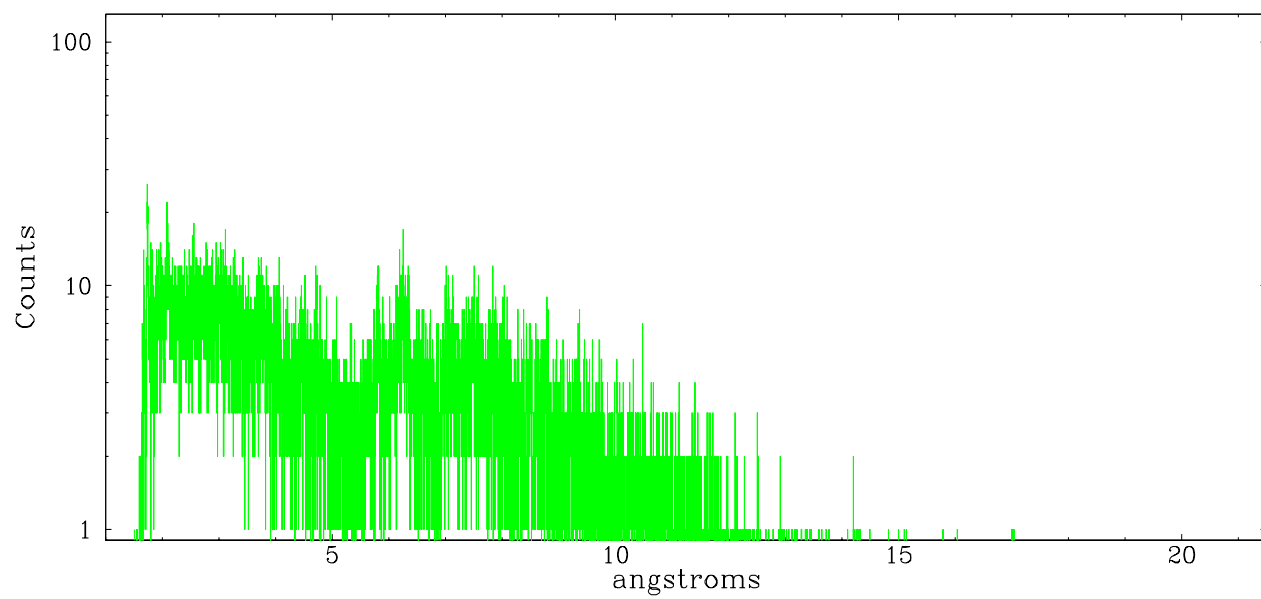


Full Detector HEG

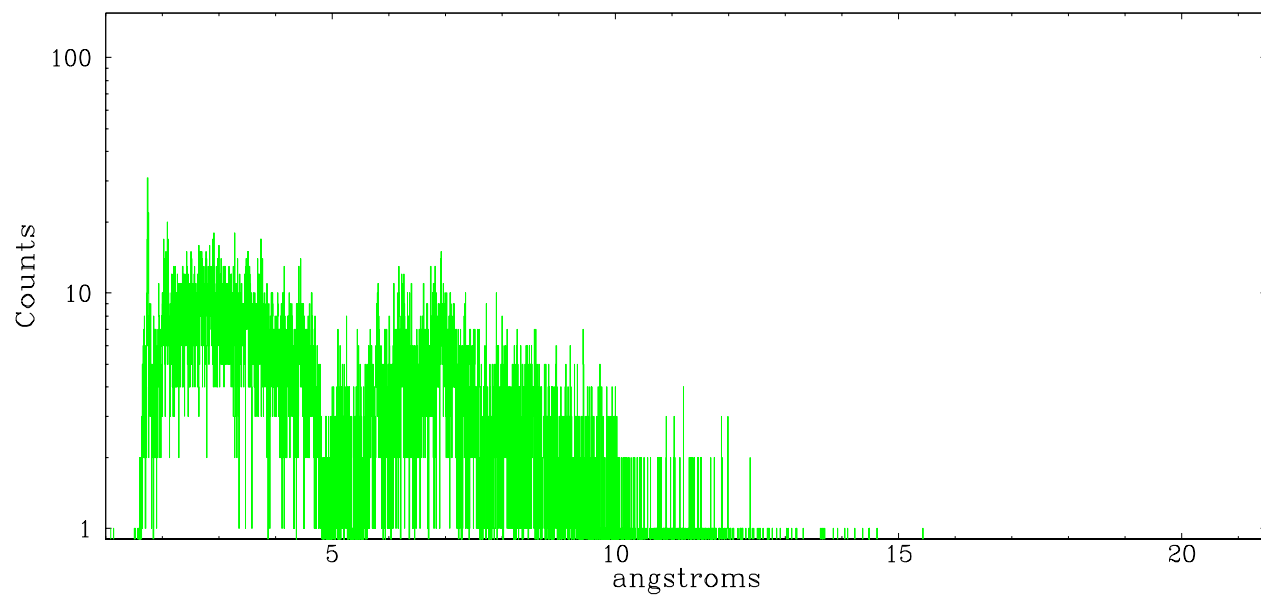
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	674	1435	17152	23399	16034	1234	686



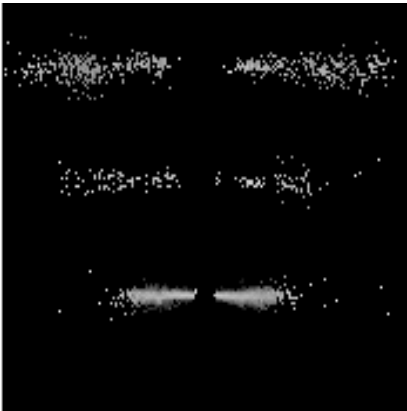
heg order -1



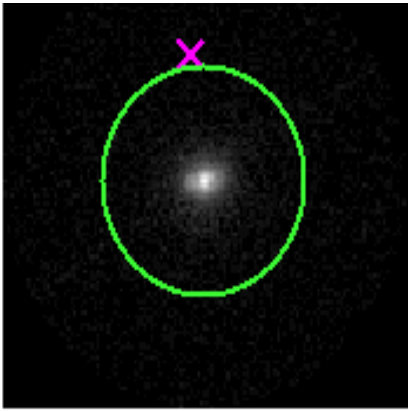
heg order +1



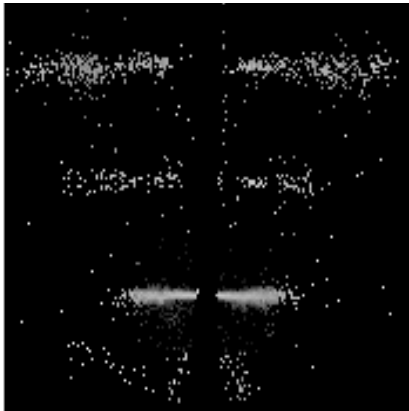
3.2 MEG Arm



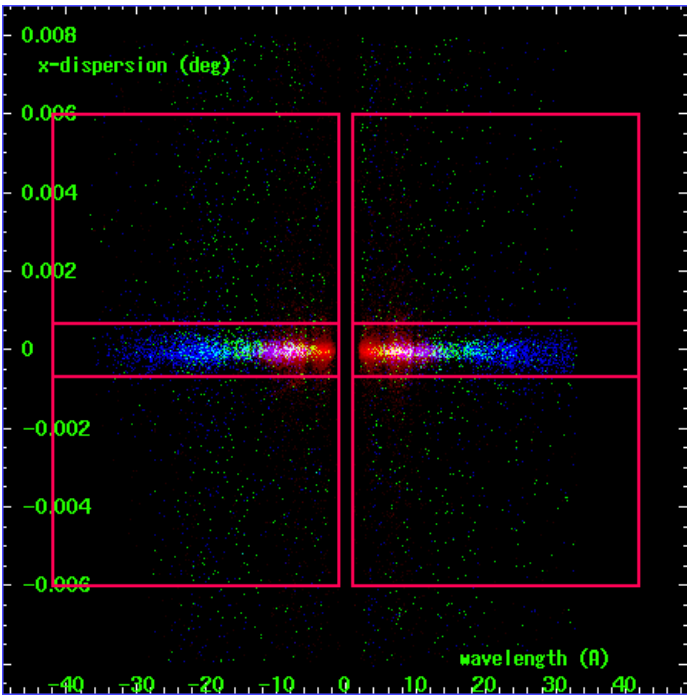
MEG Order Sort 123



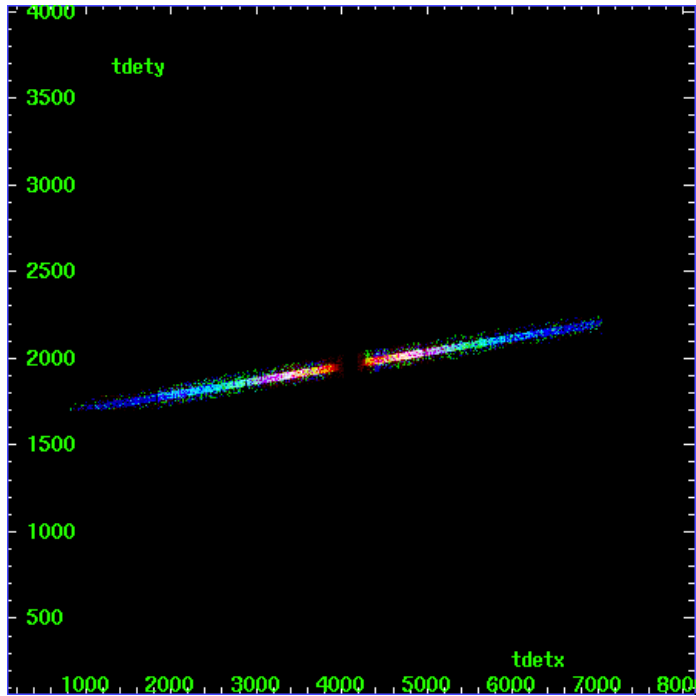
MEG Zero Order



MEG Order Sort ALL

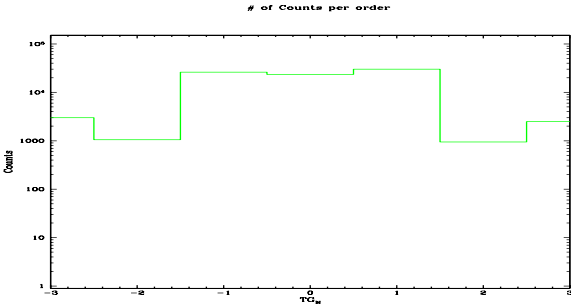


Spot Image MEG

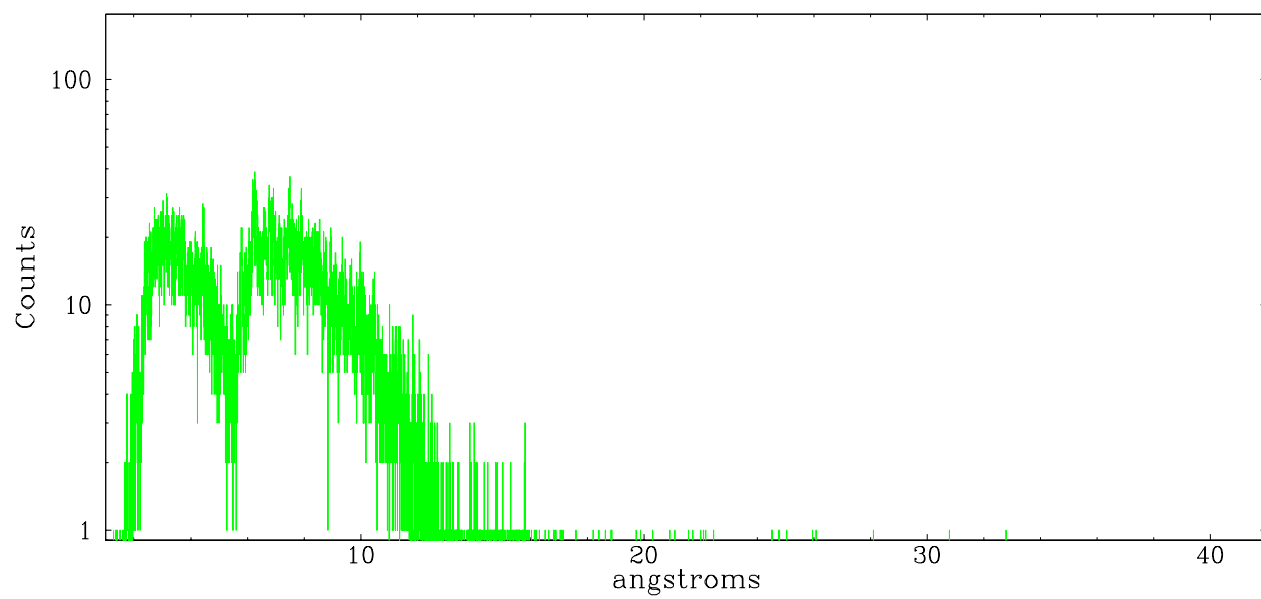


Full Detector MEG

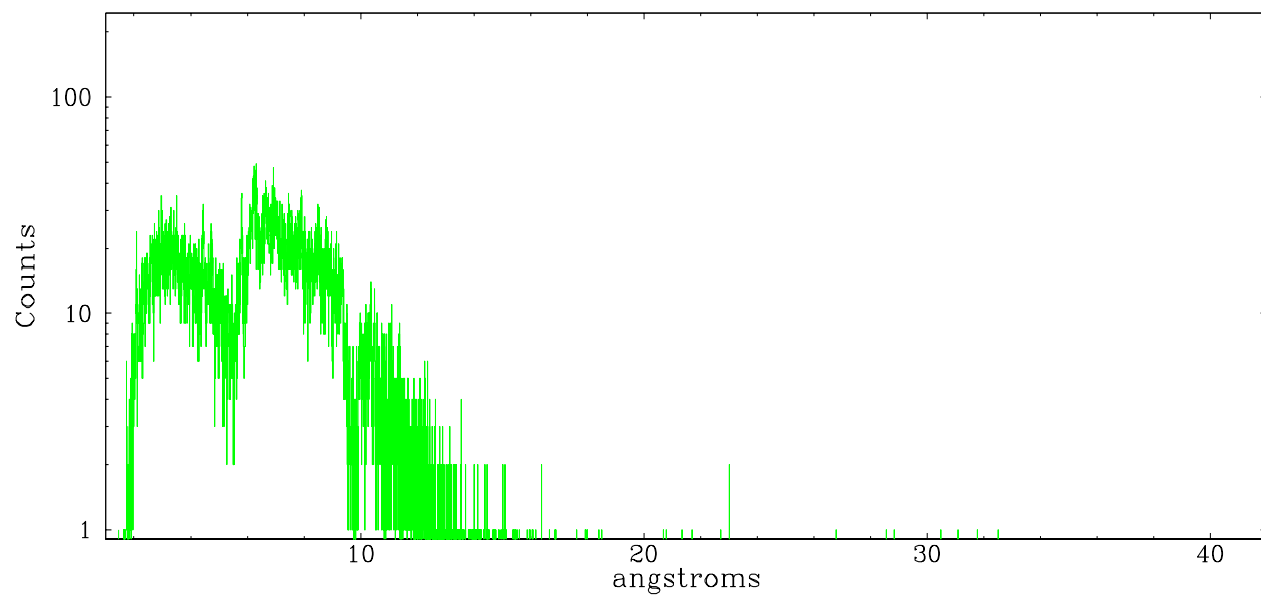
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2987	1052	26179	23399	30143	946	2495



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.1778

A.2 Comments

Bad pixel falls on spectral order of HETG on the plus arm near chip boundary; de-dithering causes several pixels on the spectrum to be marked bad due to this hot pixel. Phase constraint met.