

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2703 - L2 Version 001
Chandra X-Ray Center

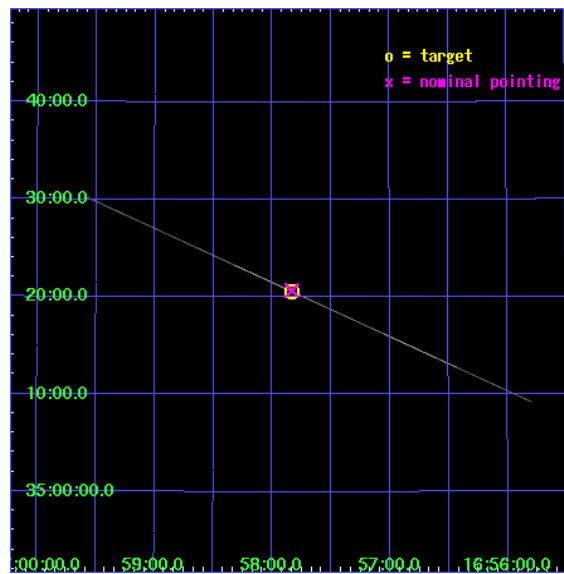
L2 Processing Date : Sep 21 2006

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

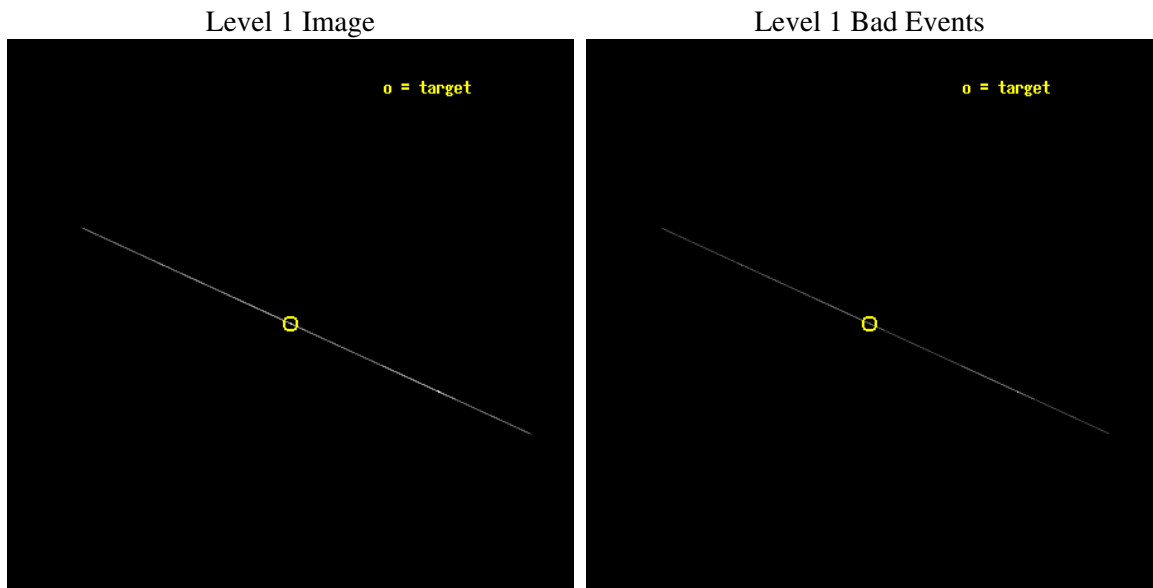
seq_num	400183
obs_id	2703
title	HIGH RESOLUTION SPECTROSCOPY OF HERCULES X-1
observer	Dr. Daniel Scott
object	HER X-1 MAIN HI PEAK
ra_targ	254.4575
dec_targ	35.342472
ra_nom	254.45826774644
dec_nom	35.344566158799
roll_nom	204.3450727336
revision	2
ontime	9145.0
livetime	9109.27734375
ontime4	9145.0
ontime5	9145.0
ontime6	9145.0
ontime7	9145.0
ontime8	9145.0
ontime9	9145.0
l2events	138618



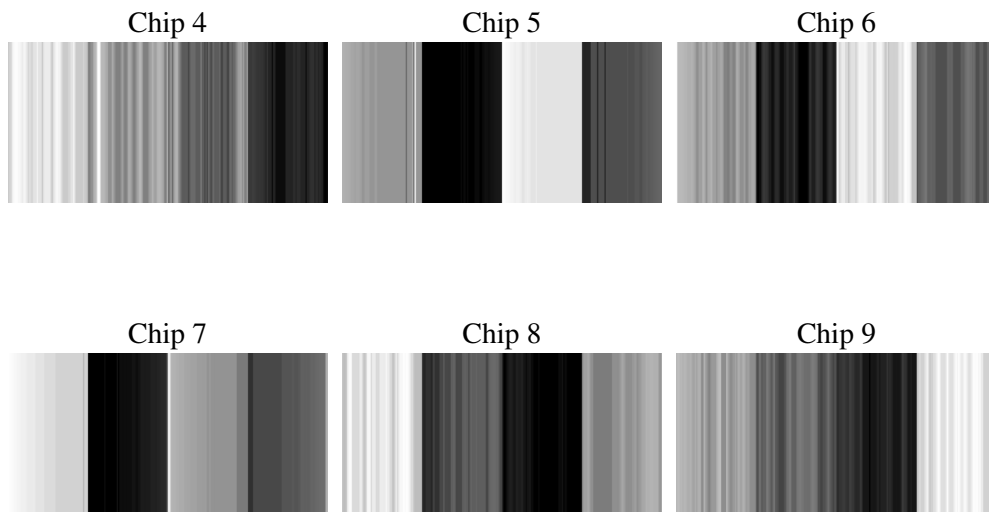
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.3
date	2006-09-21T04:18:32
revision	2

sched_exp_time	9000.000000
ontime	10894.308276474
ontime4	10723.584915519
ontime5	10894.30821085
ontime6	10729.421783447
ontime7	10894.308276474
ontime8	10735.258647531
ontime9	10720.666678637
l1events	236565

2.1.4 Events

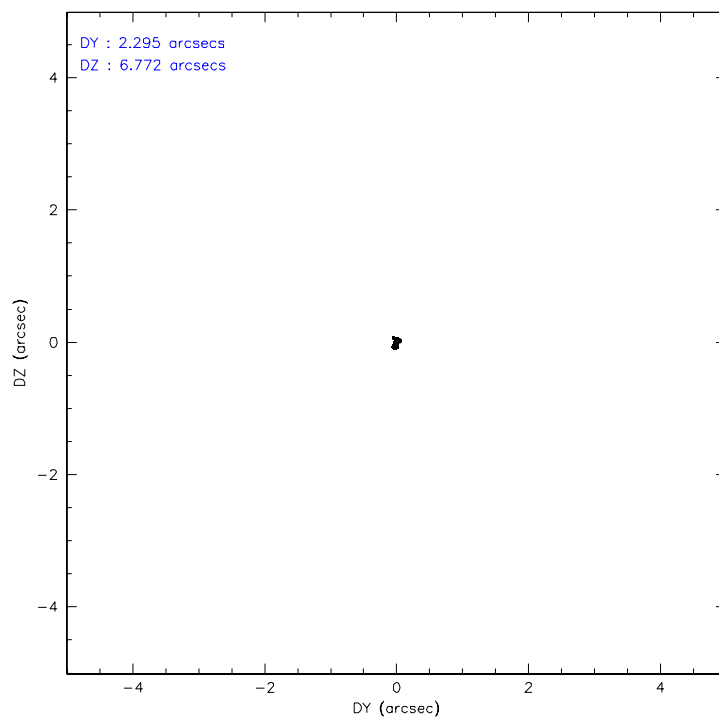
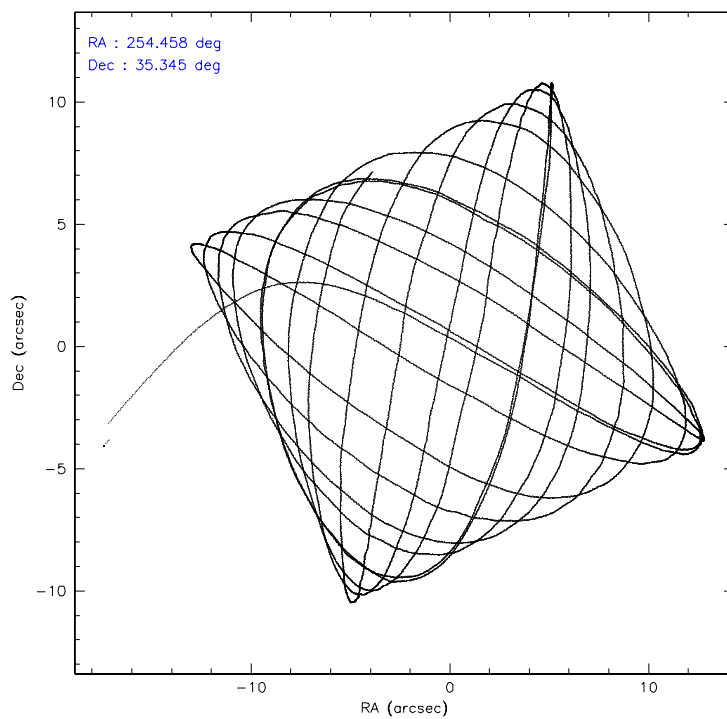
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	15143	83797	20906	69565	30954	16200
rejected events	4287	17844	4733	13011	7365	4848
rejected %	28%	21%	22%	18%	23%	29%

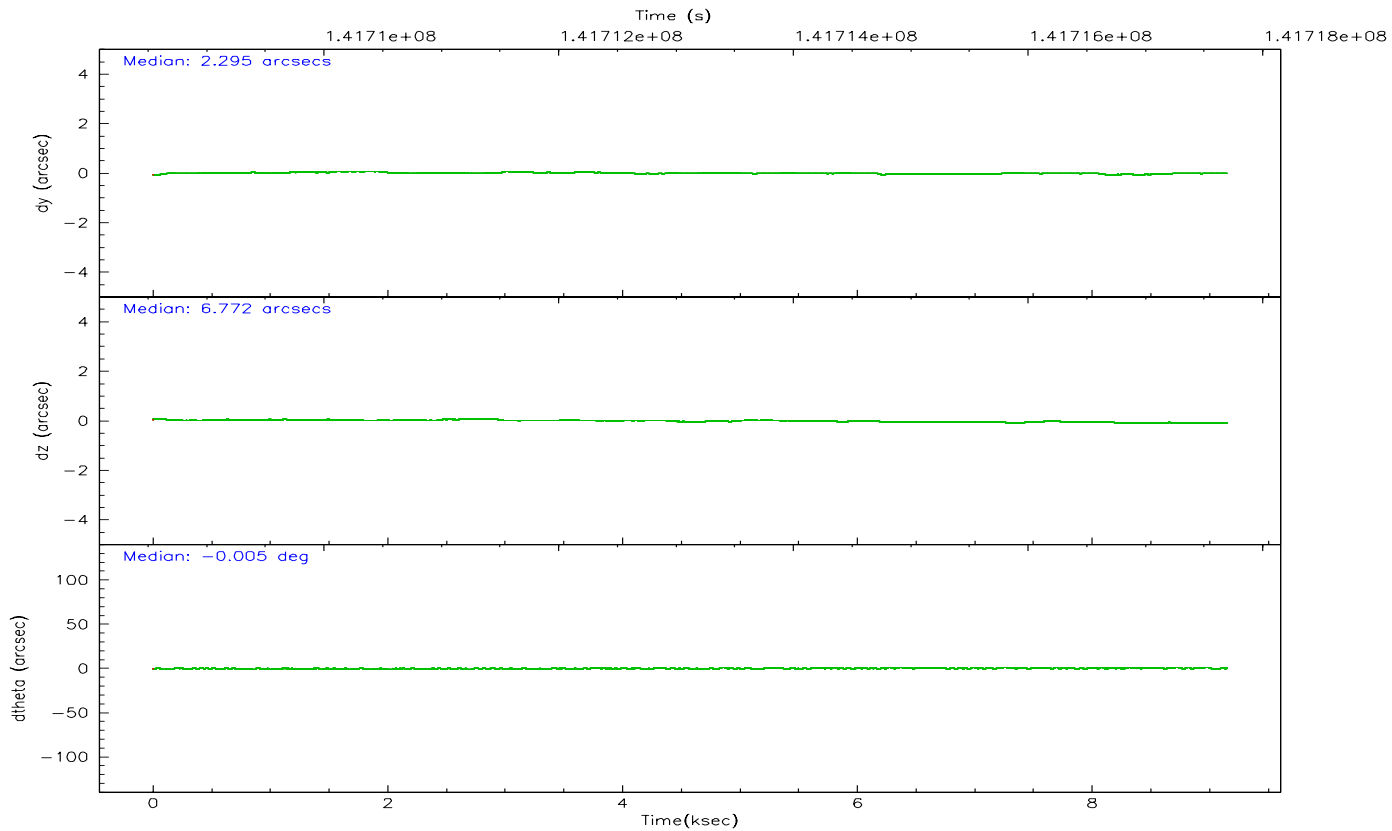
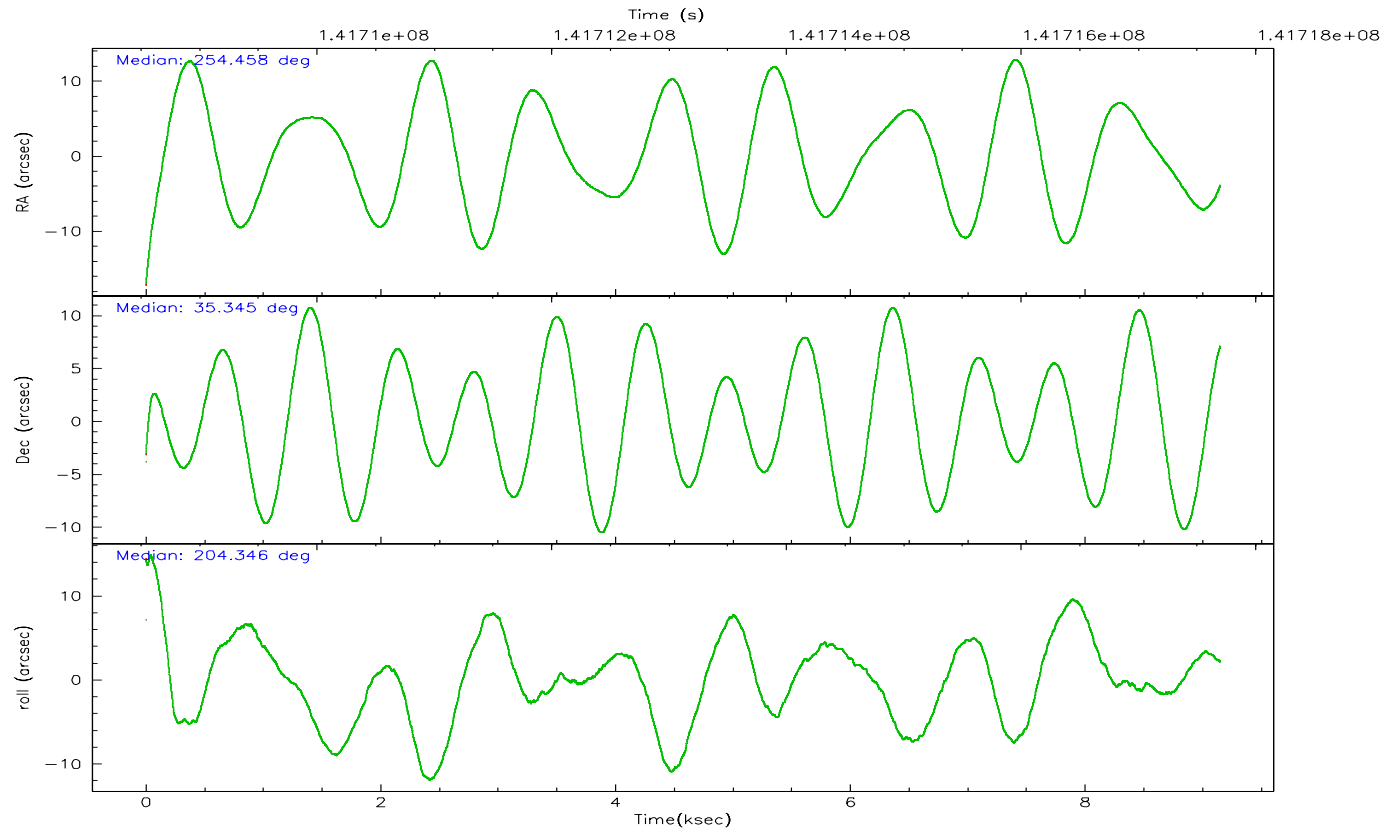
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1552	26148	2006	6393	5419	1749
	10%	31%	9%	9%	17%	10%
grade 1 events	51	68	50	93	88	59
	0%	0%	0%	0%	0%	0%
grade 2 events	4884	19961	8841	17731	8583	4774
	32%	23%	42%	25%	27%	29%
grade 3 events	1772	1179	1713	3442	3050	1652
	11%	1%	8%	4%	9%	10%
grade 4 events	1875	1076	1687	3331	2951	1851
	12%	1%	8%	4%	9%	11%
grade 5 events	2441	5529	2888	6636	3849	2952
	16%	6%	13%	9%	12%	18%
grade 6 events	2568	29836	3721	31939	7014	3163
	16%	35%	17%	45%	22%	19%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

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	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	254.477402	254.4582677464444	Subarray requested	NONE	NONE
Pointing Dec	35.366939	35.34456615879901	Alternating exposures requested	N	N
Pointing Roll	204.177372	204.3450727336002	Primary exposure time	0.000000	0
Window start time	141704584.184000	141704584.184000			
Window stop time	141743344.184000	141743344.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-186.132523	-186.1372760897884			
SIM translation stage offset (mm)	-4	-3.99524649321944			
Phase constraints	Y	Y			
Phase period	34.853430	34.853430			
Phase epoch	52242.791000	52242.791000			
Phase start	0.050000	0.050000			
Phase end	0.100000	0.100000			
Phase start error	0.001000	0.001000			
Phase end error	0.001000	0.001000			
Observation start time	141708695.184000	141706801.97733			
Observation start date	2002-06-29T03:30:31	2002-06-29T03:00:01			
Observation end time	141717695.184000	141718293.2528			
Observation end date	2002-06-29T06:00:31	2002-06-29T06:11:33			

2.3 Aspect



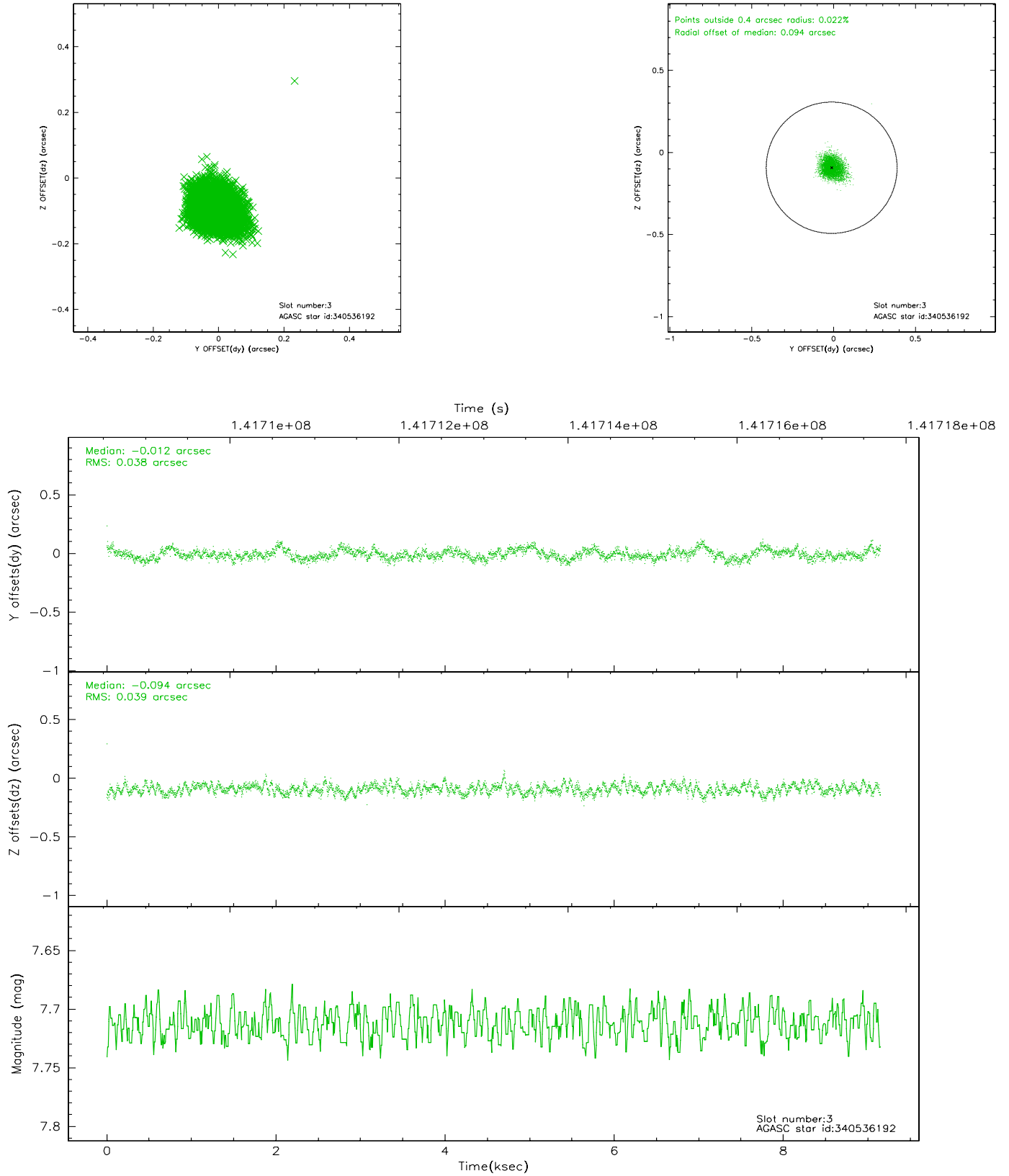


Slot Statistics

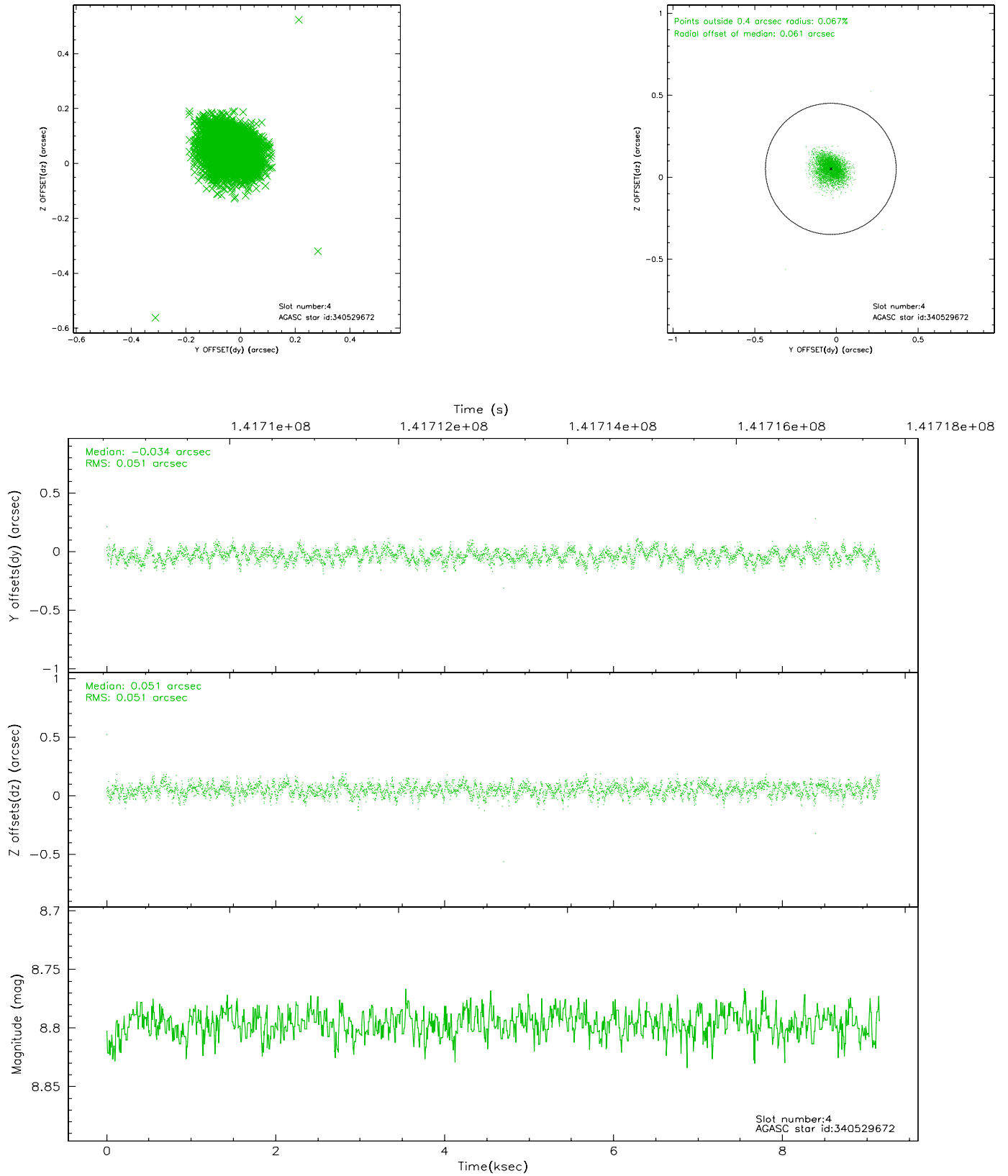
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	2232	-0.038	-0.047	0.007	0.011	0.000000	0.000000	-754.65	-1810.41
1	FID	ACIS-S-4	7.19	2232	-0.015	0.031	0.005	0.008	0.000000	0.000000	2158.35	97.53
2	FID	ACIS-S-5	7.23	2232	0.023	0.025	0.006	0.011	0.000000	0.000000	-1806.69	91.82
3	GUIDE	340536192	7.71	4460	-0.012	-0.094	0.057	0.093	254.294567	35.286536	608.17	44.08
4	GUIDE	340529672	8.80	4463	-0.034	0.051	0.076	0.123	254.827180	34.864332	-202.47	2072.90
5	GUIDE	340534080	8.83	4464	-0.001	-0.013	0.061	0.099	255.228954	35.471551	-2168.19	552.40
6	GUIDE	341060696	9.20	4460	0.013	0.067	0.085	0.146	254.855764	35.681180	-1473.91	-580.83
7	GUIDE	341058456	9.66	4460	0.038	-0.013	0.094	0.152	254.910348	35.836463	-1846.77	-1026.57

2.4 Star Slots

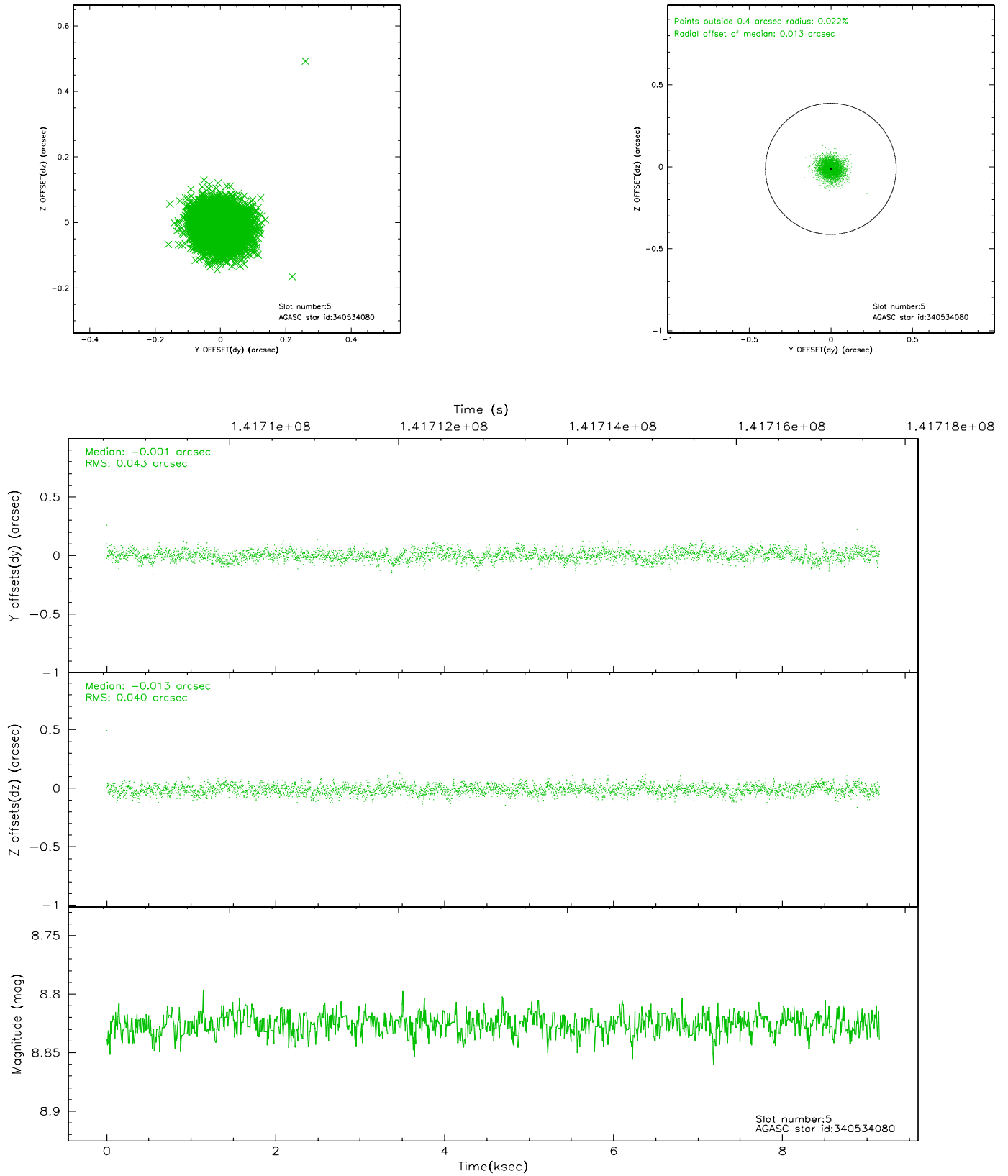
2.4.1 Slot 3



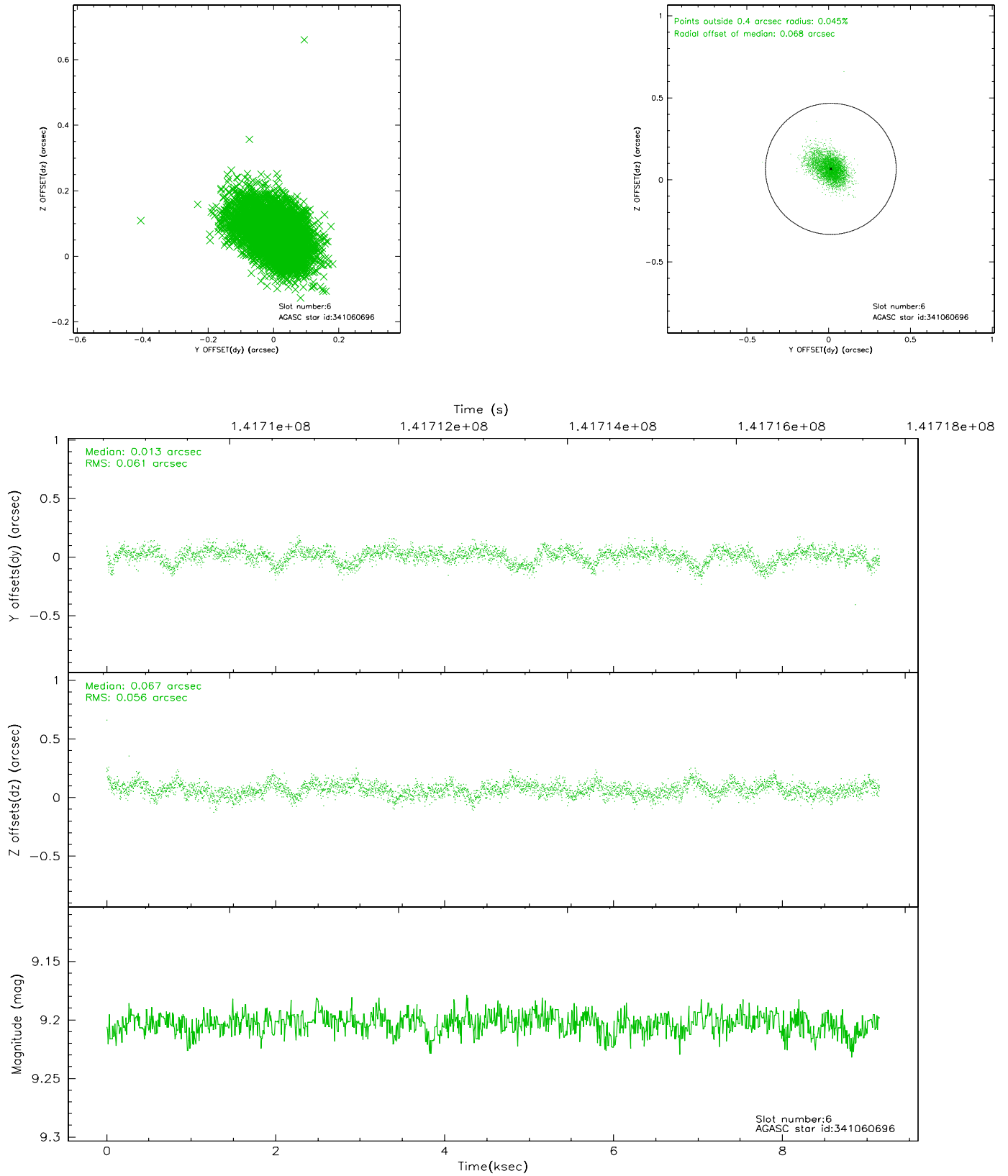
2.4.2 Slot 4



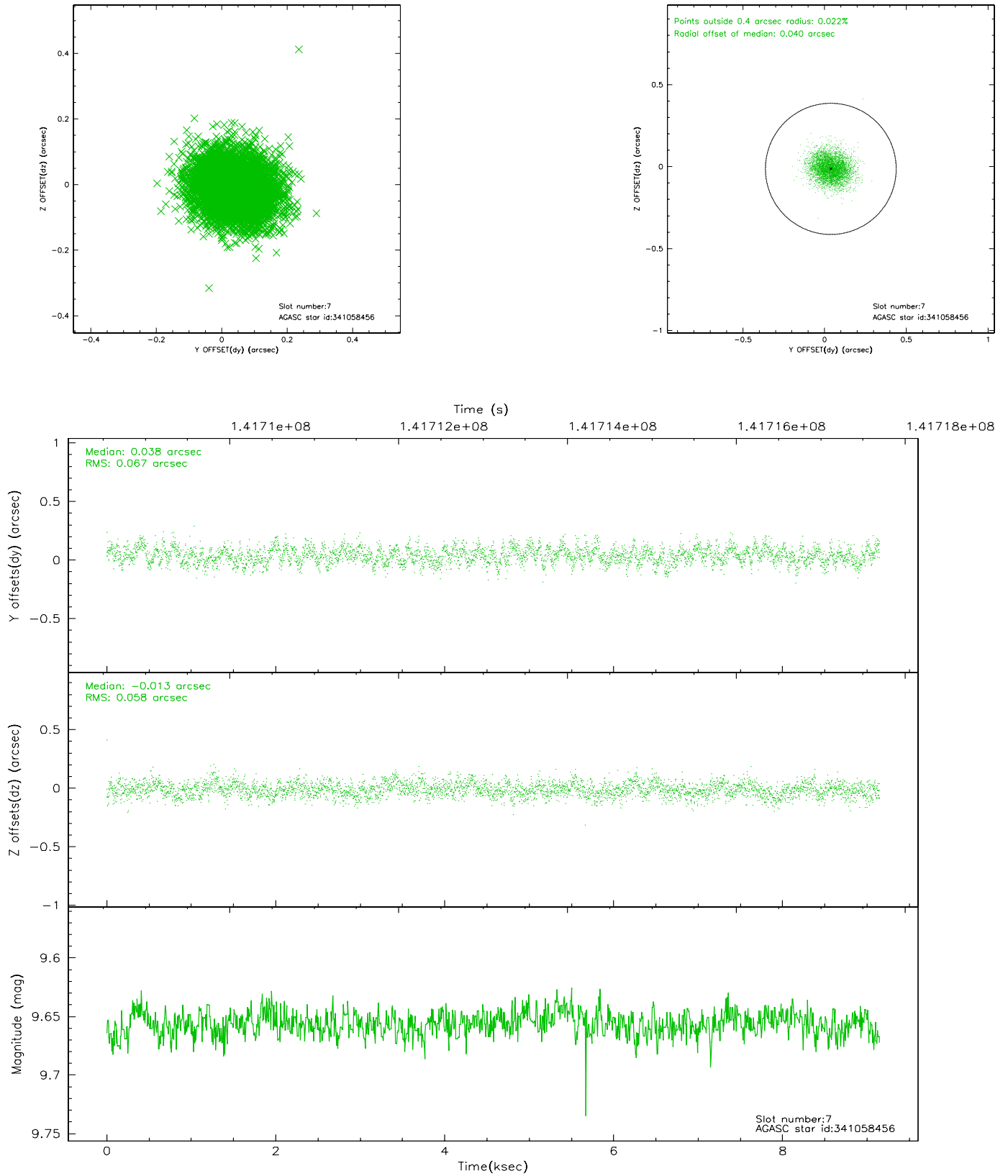
2.4.3 Slot 5



2.4.4 Slot 6

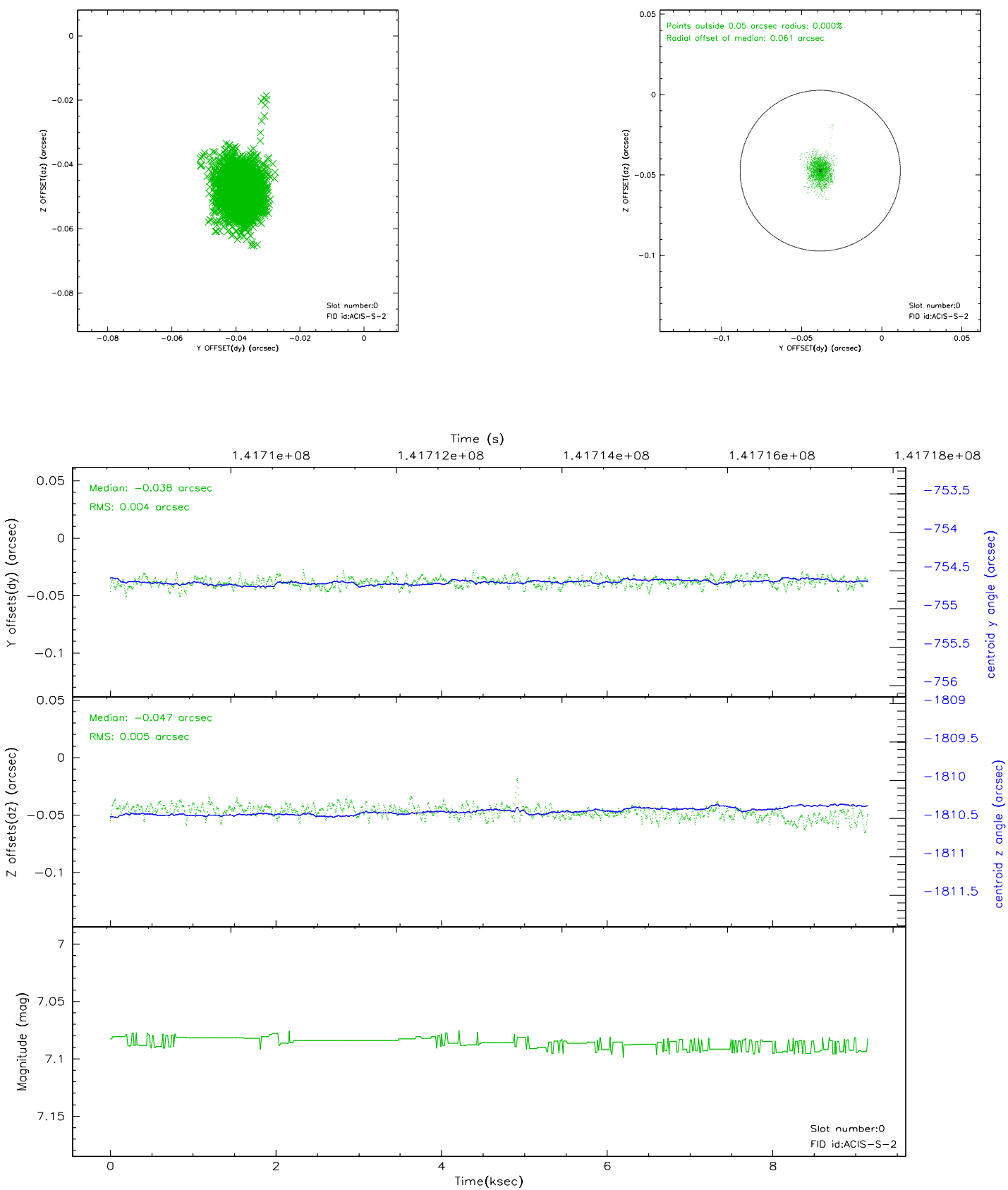


2.4.5 Slot 7

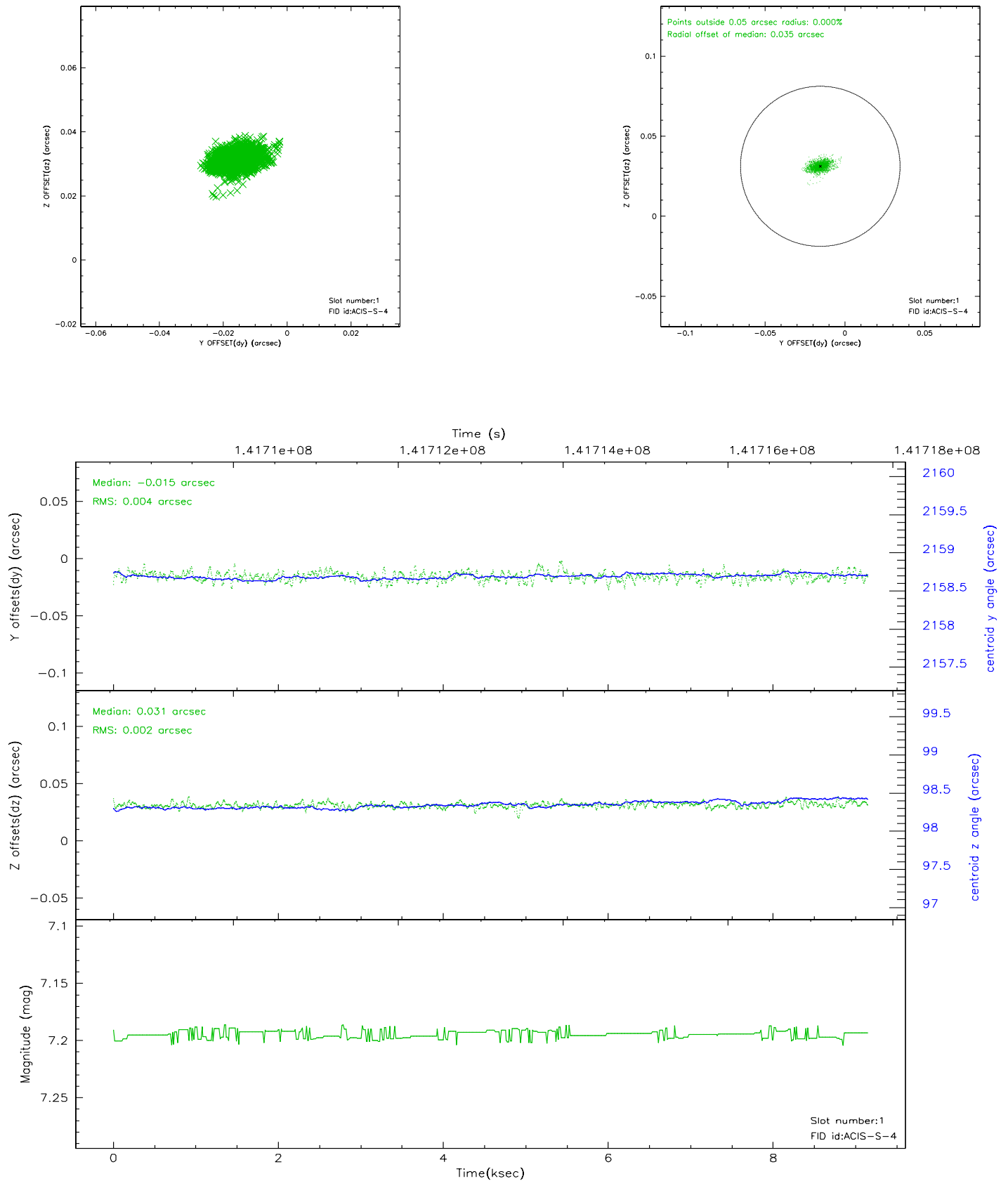


2.5 FID Slots

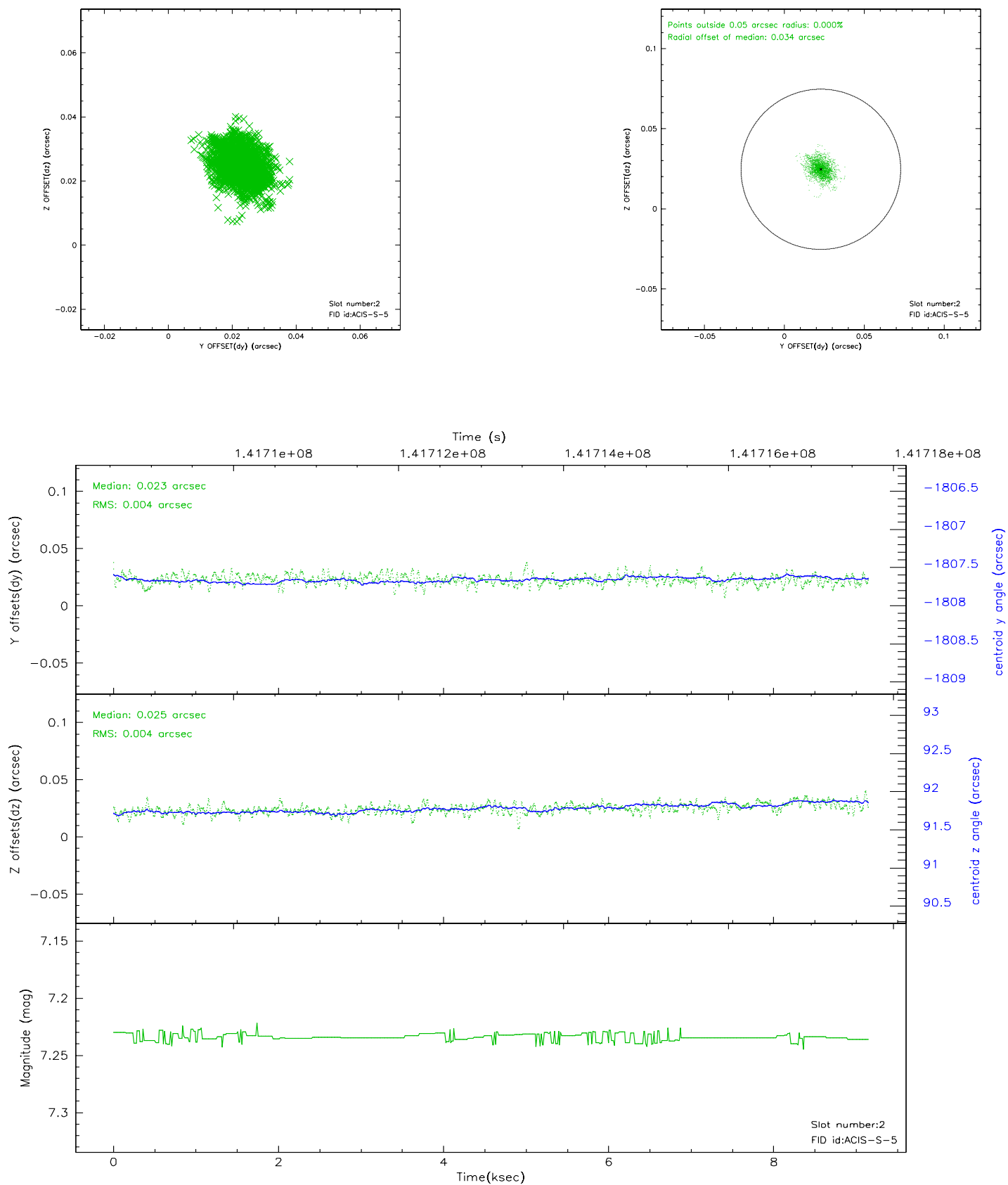
2.5.1 Slot 0



2.5.2 Slot 1

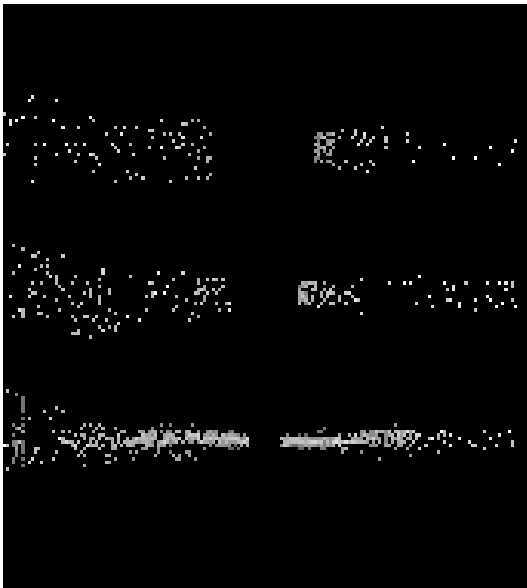


2.5.3 Slot 2

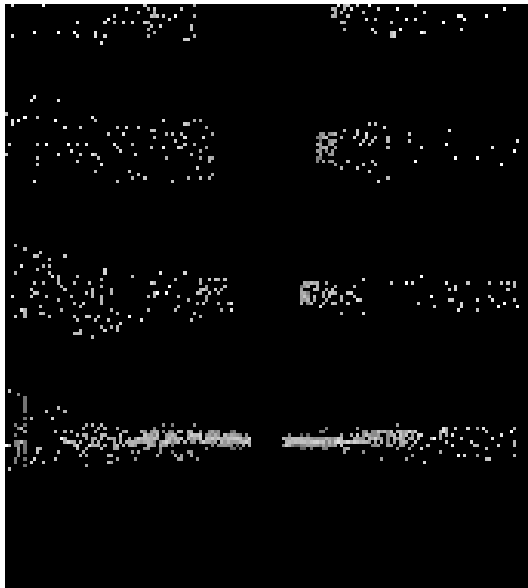


3 Gratings

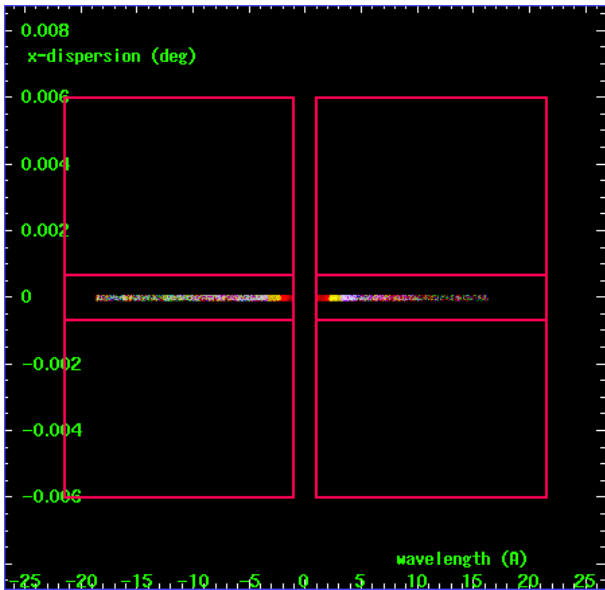
3.1 HEG Arm



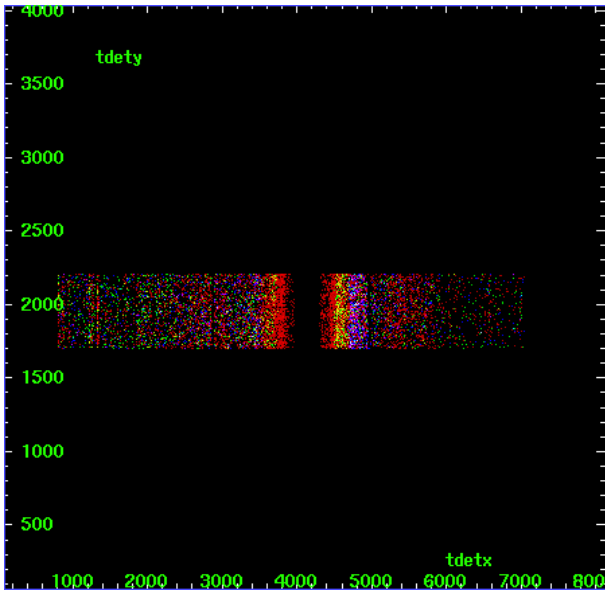
HEG Order Sort 123



HEG Order Sort ALL

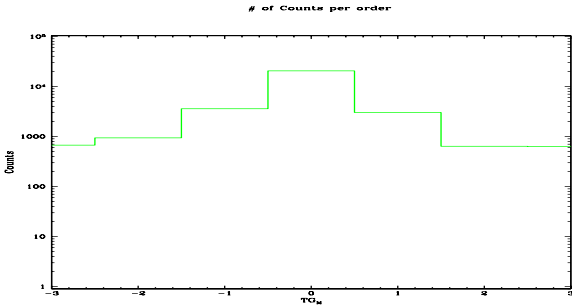


Spot Image HEG

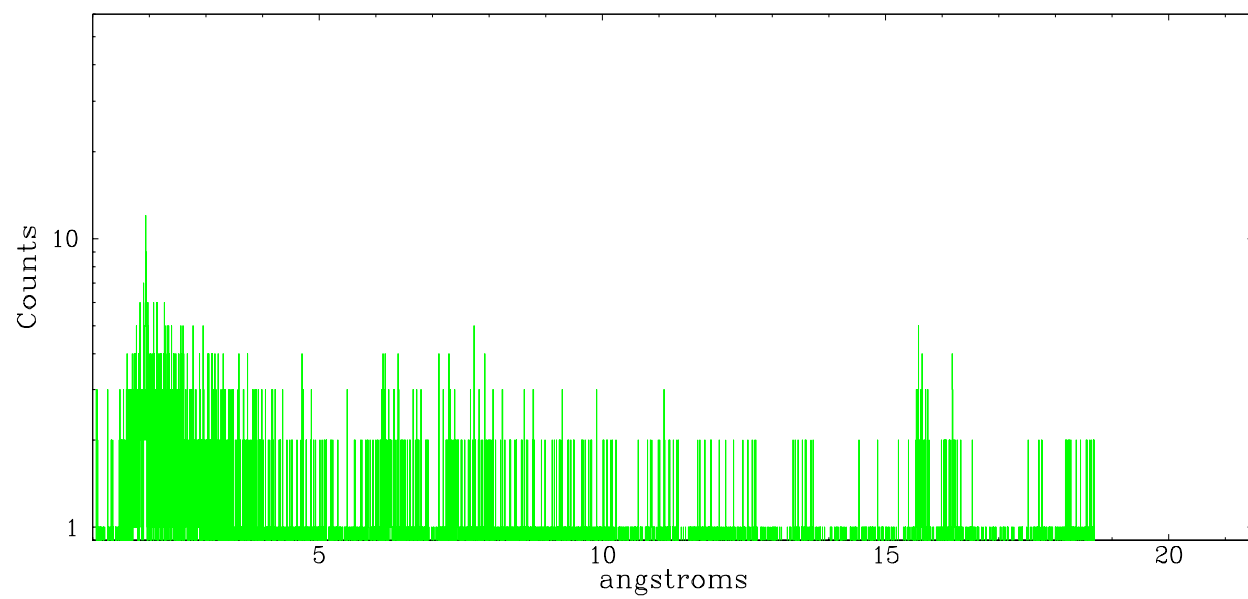


Full Detector HEG

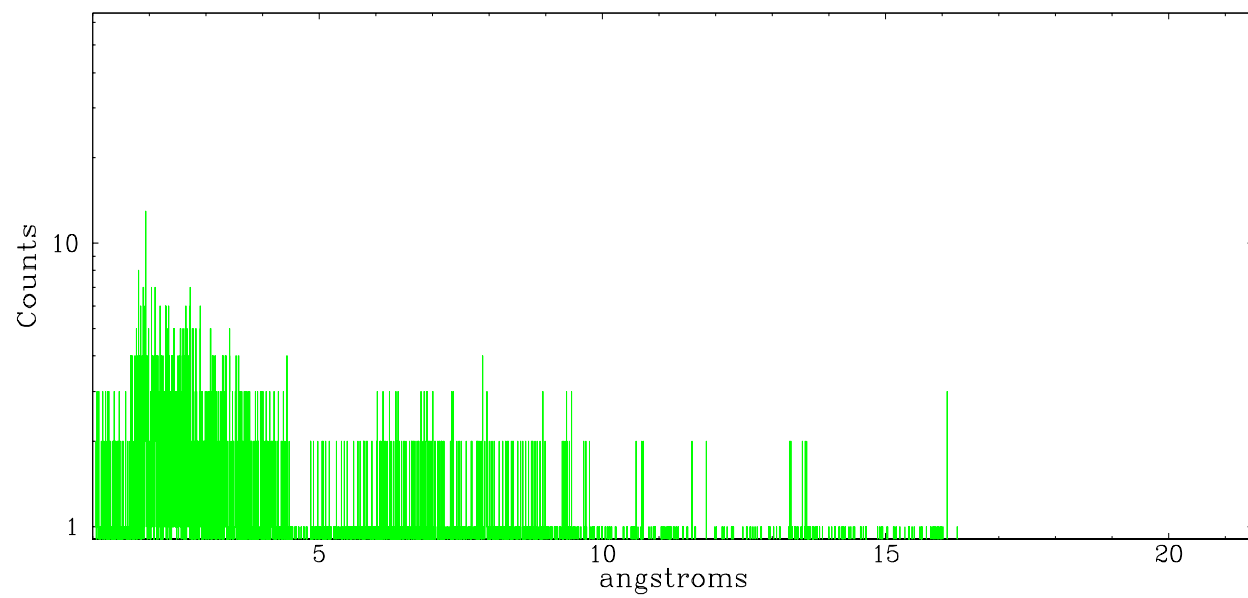
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	669	939	3588	20591	3026	636	626



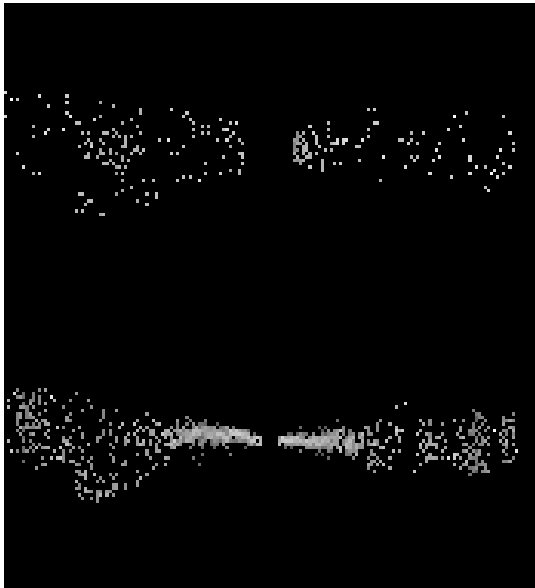
heg order -1



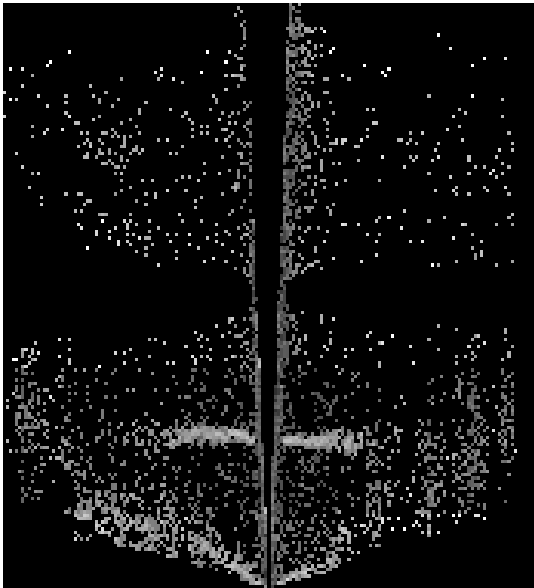
heg order +1



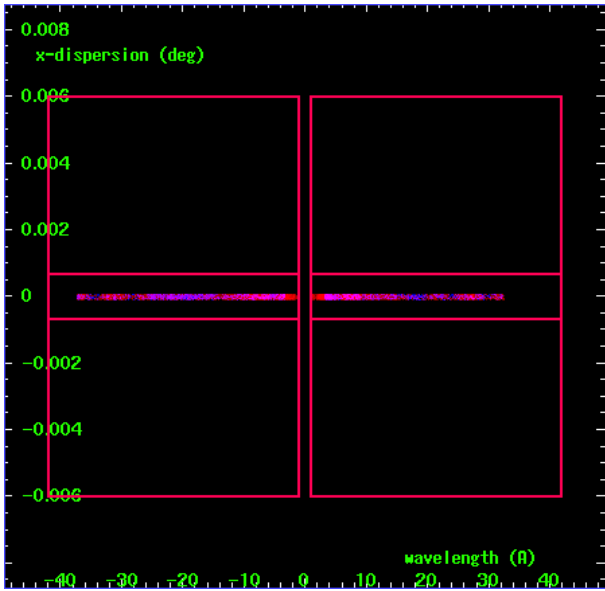
3.2 MEG Arm



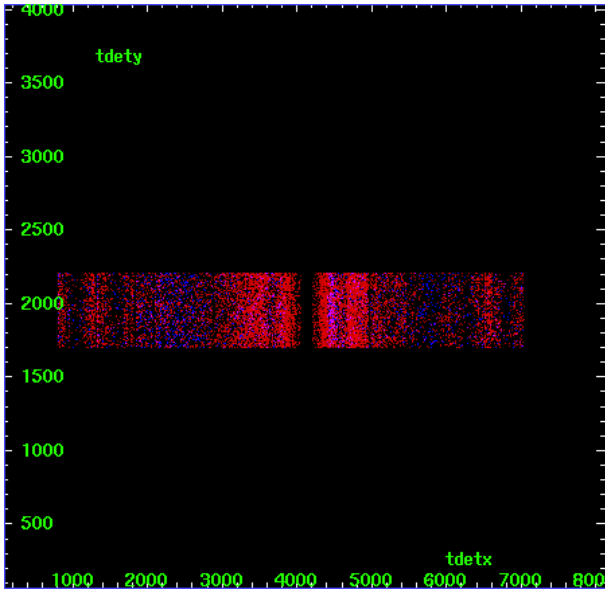
MEG Order Sort 123



MEG Order Sort ALL

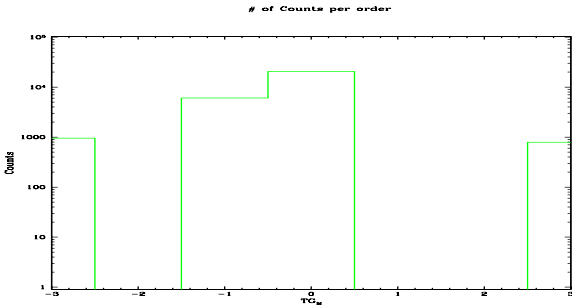


Spot Image MEG

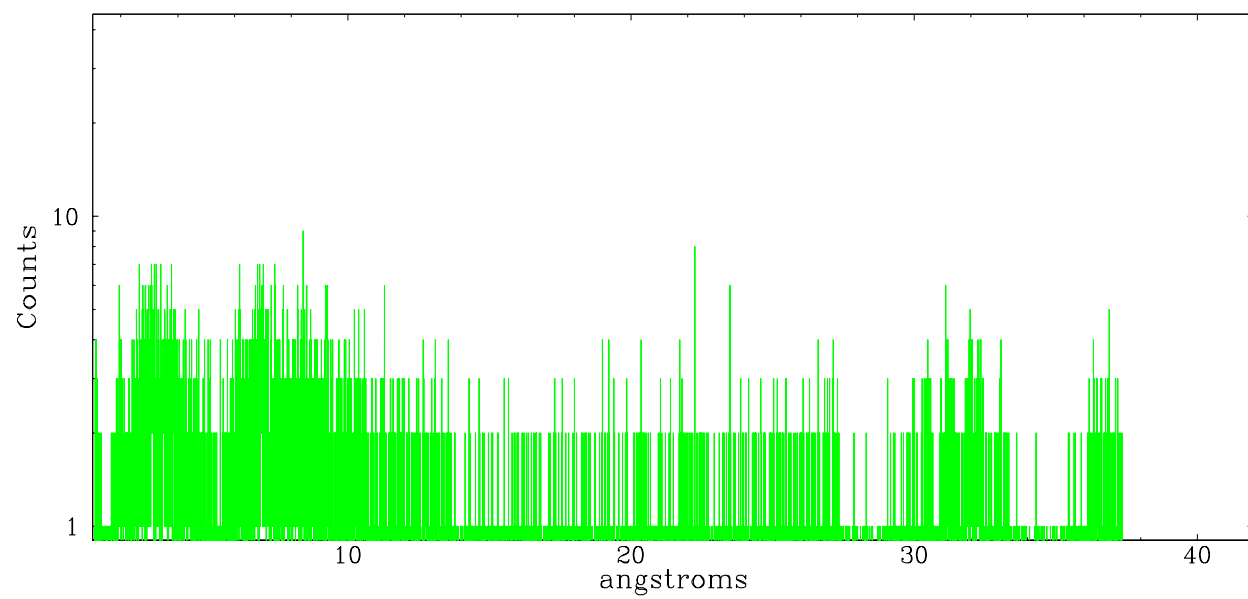


Full Detector MEG

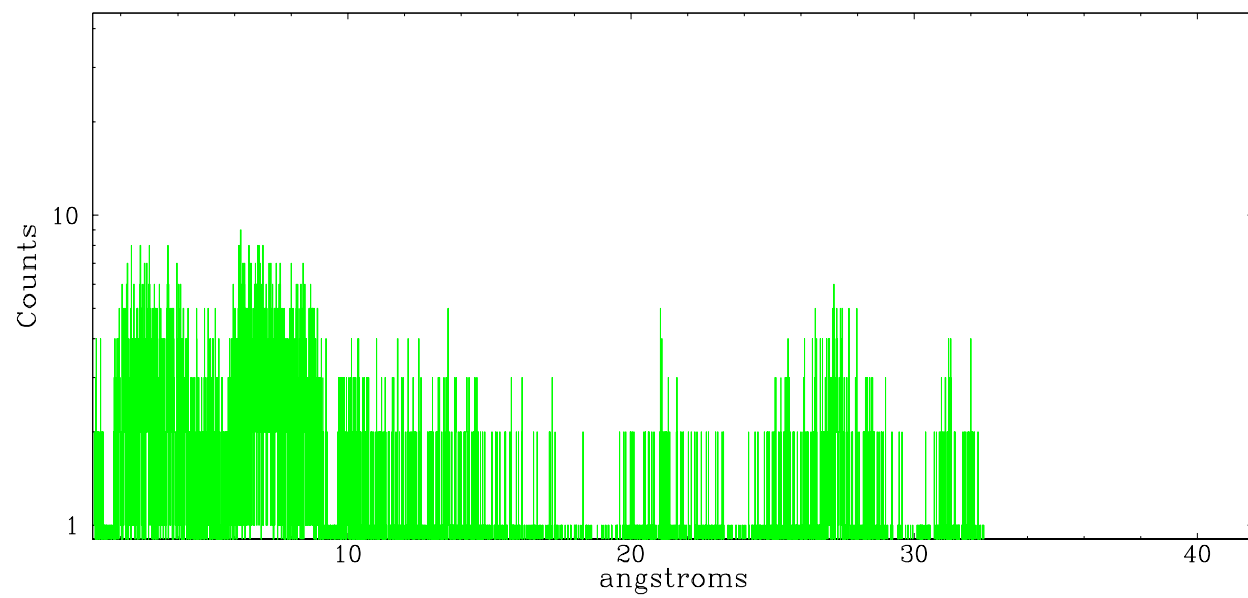
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	955	0	6056	20591	5935	0	790



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2006.09.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.148

A.2 Comments