

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 632 - L2 Version 4
Chandra X-Ray Center

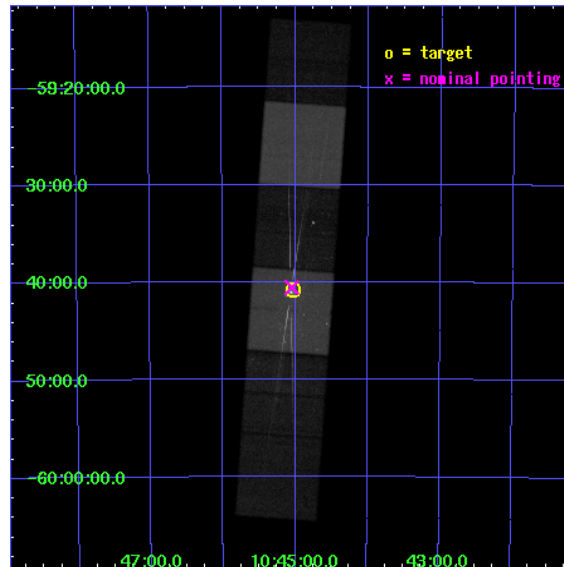
L2 Processing Date : Aug 7 2007

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1 Front

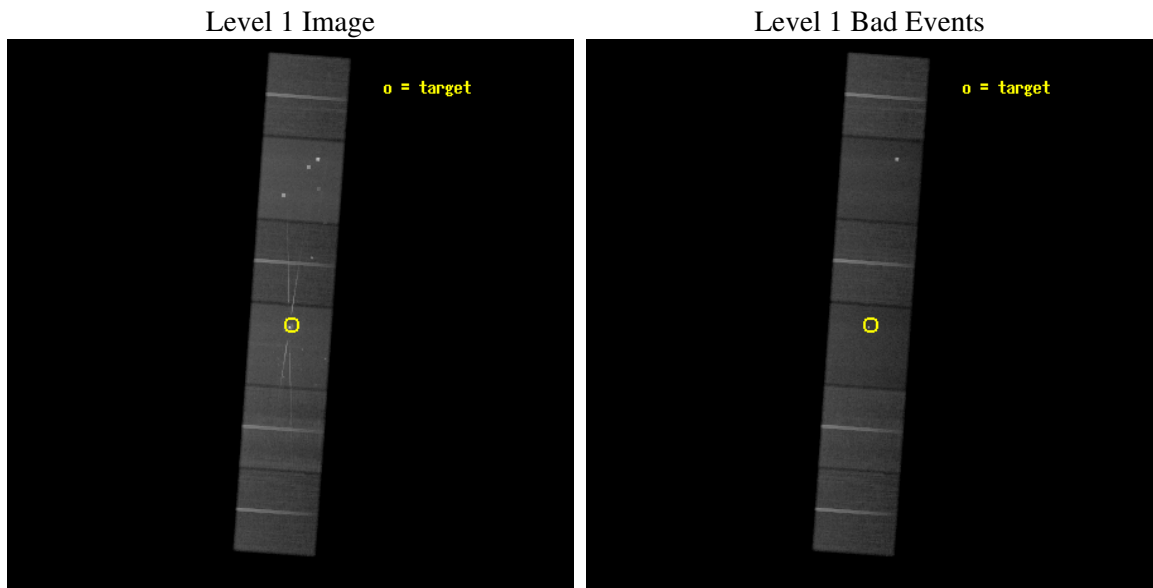
seq_num	200057
obs_id	632
title	RESOLVING THE X-RAY SPECTRUM OF THE EXTREMELY MASSIVE, SUPERLUMINOUS STAR ETA CARINAE WITH AXAF
observer	Dr Michael Corcoran
object	ETA CAR
dtcycle	0
cycle	P
ra_targ	161.258333
dec_targ	-59.680278
ra_nom	161.26122755715
dec_nom	-59.675956723587
roll_nom	94.101427446558
revision	4
ontime	90694.236064047
livetime	89545.811037491
ontime4	90694.236263484
ontime5	90687.754263237
ontime6	90687.754343003
ontime7	90694.236064047
ontime8	90684.513243169
ontime9	90687.754263222
l2events	1018862



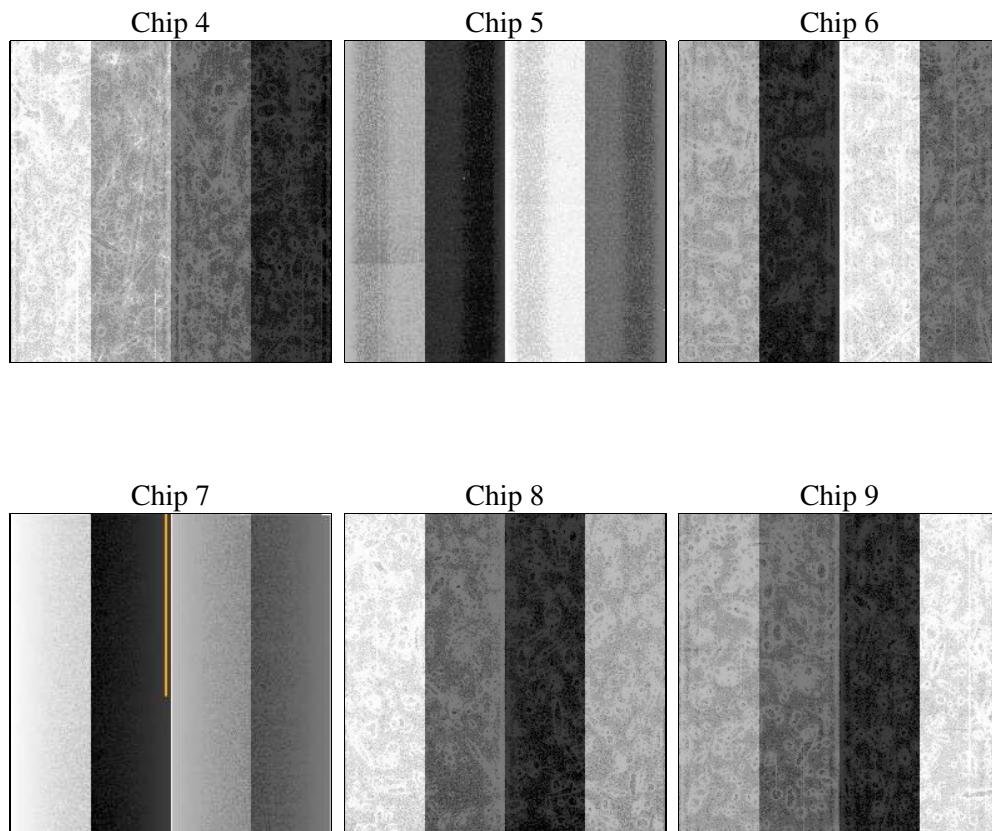
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1
ascdsver	7.6.10
caldsver	3.4.0
date	2007-06-16T22:53:18
revision	3

sched_exp_time	90974.724000
ontime	90694.236064047
ontime4	90694.236263484
ontime5	90687.754263237
ontime6	90687.754343003
ontime7	90694.236064047
ontime8	90684.513243169
ontime9	90687.754263222
l1events	4086802

2.1.4 Events

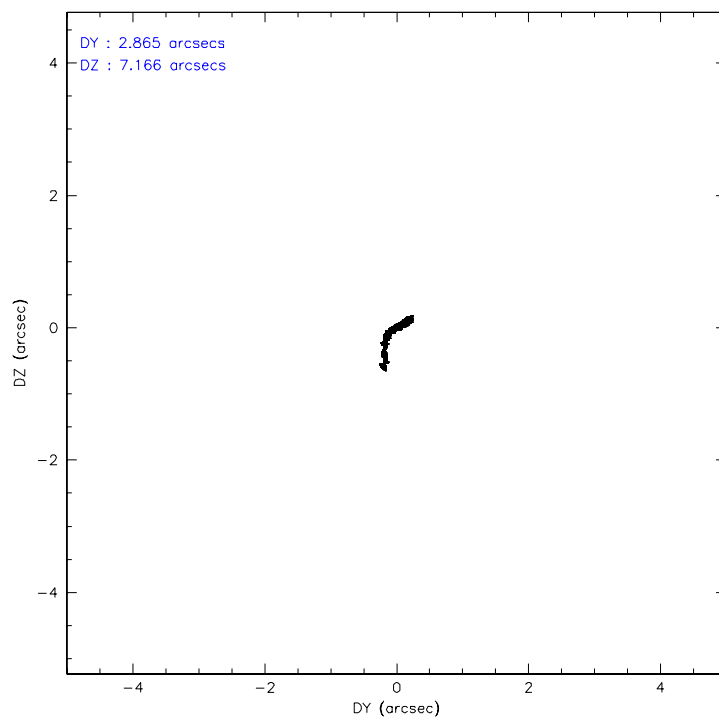
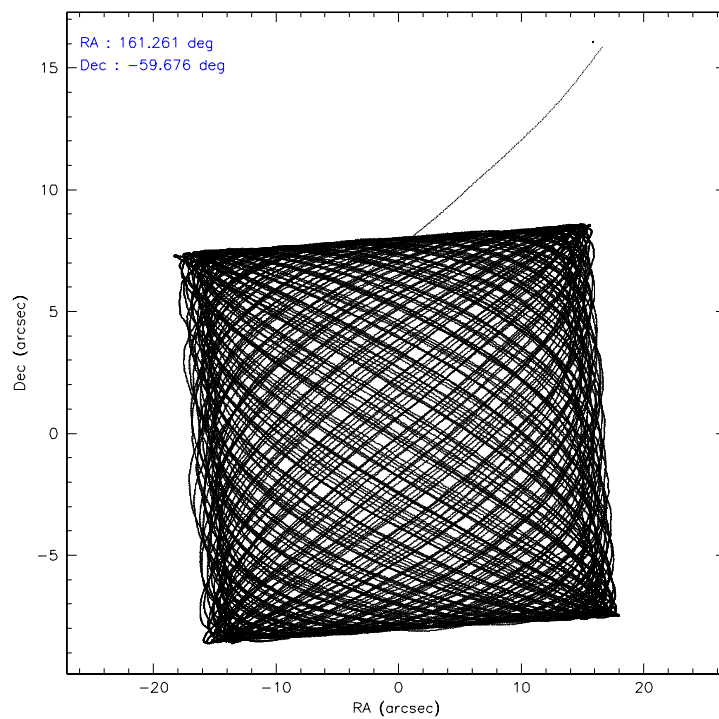
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	611015	803859	597188	794439	722415	557886
rejected events	539455	421697	494489	413692	556425	480525
rejected %	88%	52%	82%	52%	77%	86%

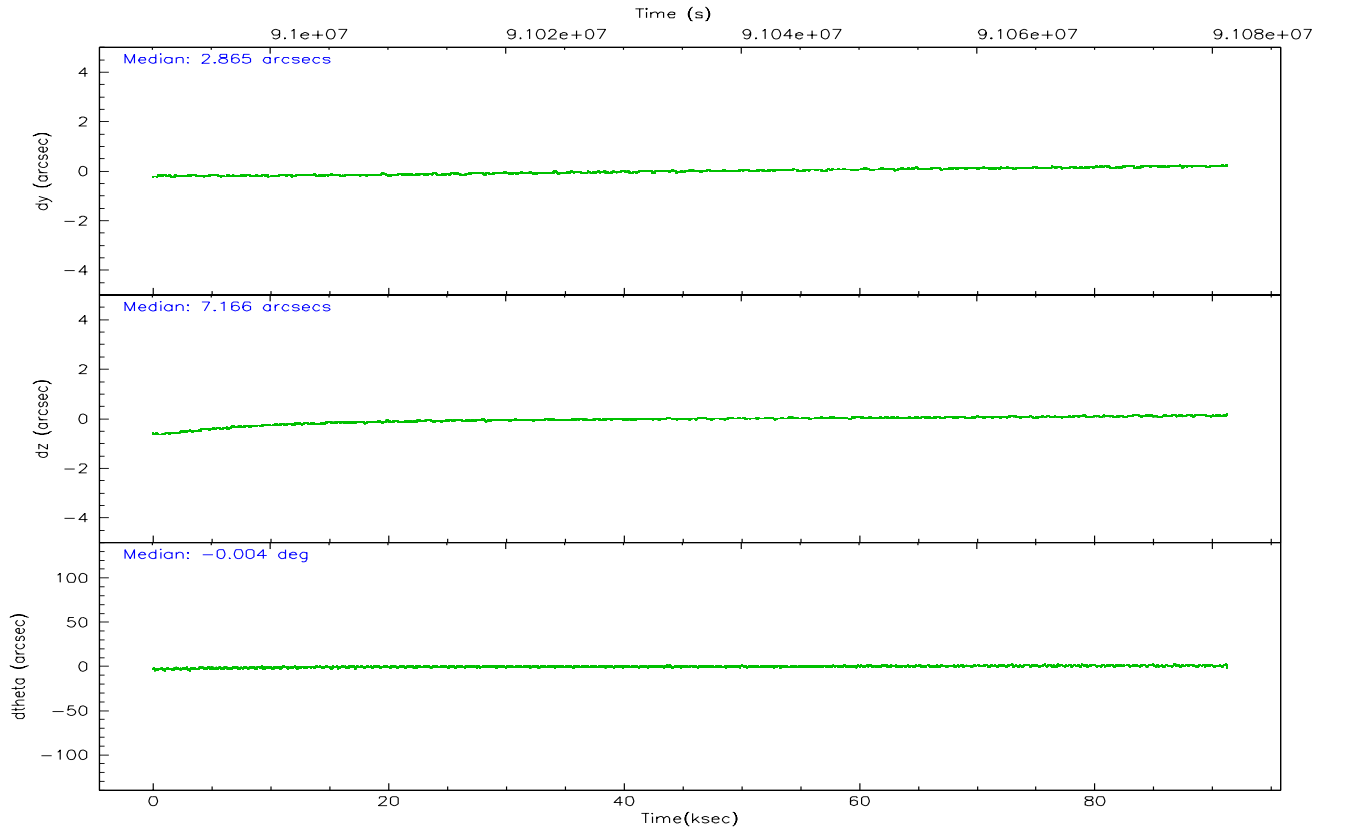
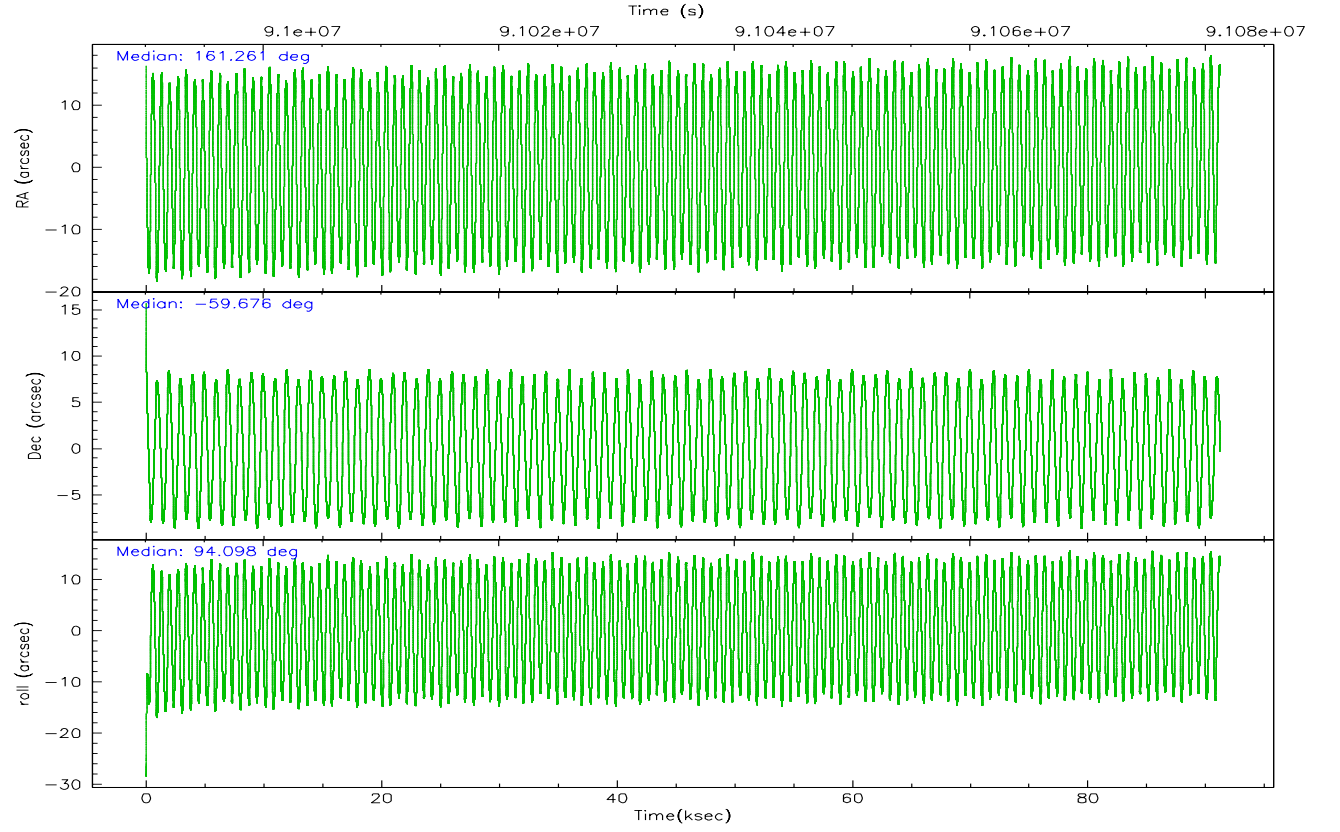
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	31413	55023	56050	47833	65819	37009
	5%	6%	9%	6%	9%	6%
grade 1 events	315	887	359	1225	508	247
	0%	0%	0%	0%	0%	0%
grade 2 events	16240	112891	17073	78328	32392	14127
	2%	14%	2%	9%	4%	2%
grade 3 events	6332	16629	7687	36396	15762	6764
	1%	2%	1%	4%	2%	1%
grade 4 events	6132	15464	7574	35972	14478	6475
	1%	1%	1%	4%	2%	1%
grade 5 events	19346	62095	22578	69397	28959	23229
	3%	7%	3%	8%	4%	4%
grade 6 events	11446	182173	14321	182235	37570	12990
	1%	22%	2%	22%	5%	2%
grade 7 events	519791	358697	471546	343053	526927	457045
	85%	44%	78%	43%	72%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	161.291951	161.2612275571461	Subarray requested	NONE	NONE
Pointing Dec	-59.698473	-59.67595672358721	Alternating exposures requested	N	N
Pointing Roll	93.971329	94.10142744655812	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	90990284.184000	90989263.897136			
Observation start date	2000-11-19T03:03:40	2000-11-19T02:47:43			
Observation end time	91081258.184000	91082122.23818199			
Observation end date	2000-11-20T04:19:54	2000-11-20T04:35:22			
Read mode	TIMED	TIMED			

2.3 Aspect



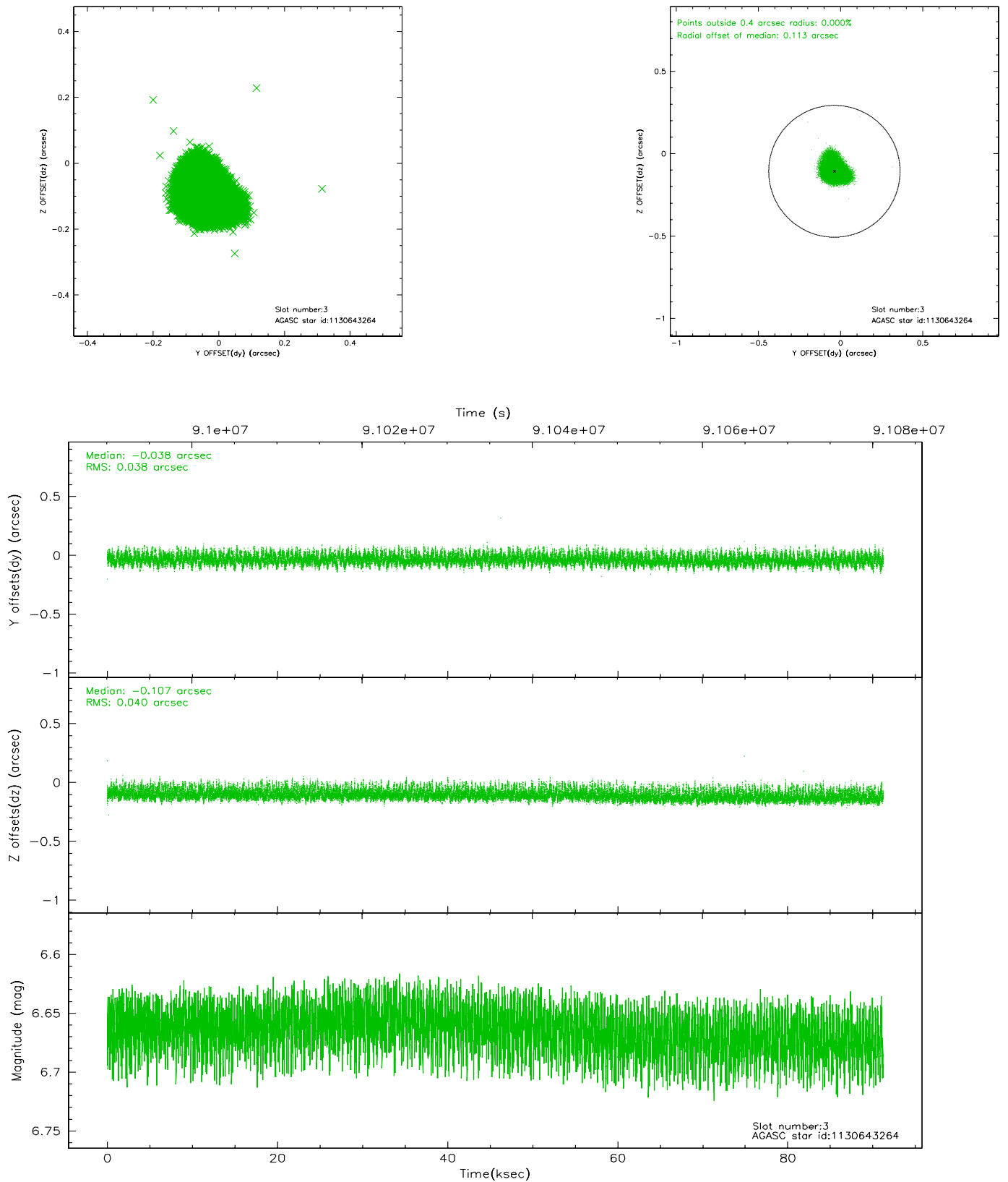


Slot Statistics

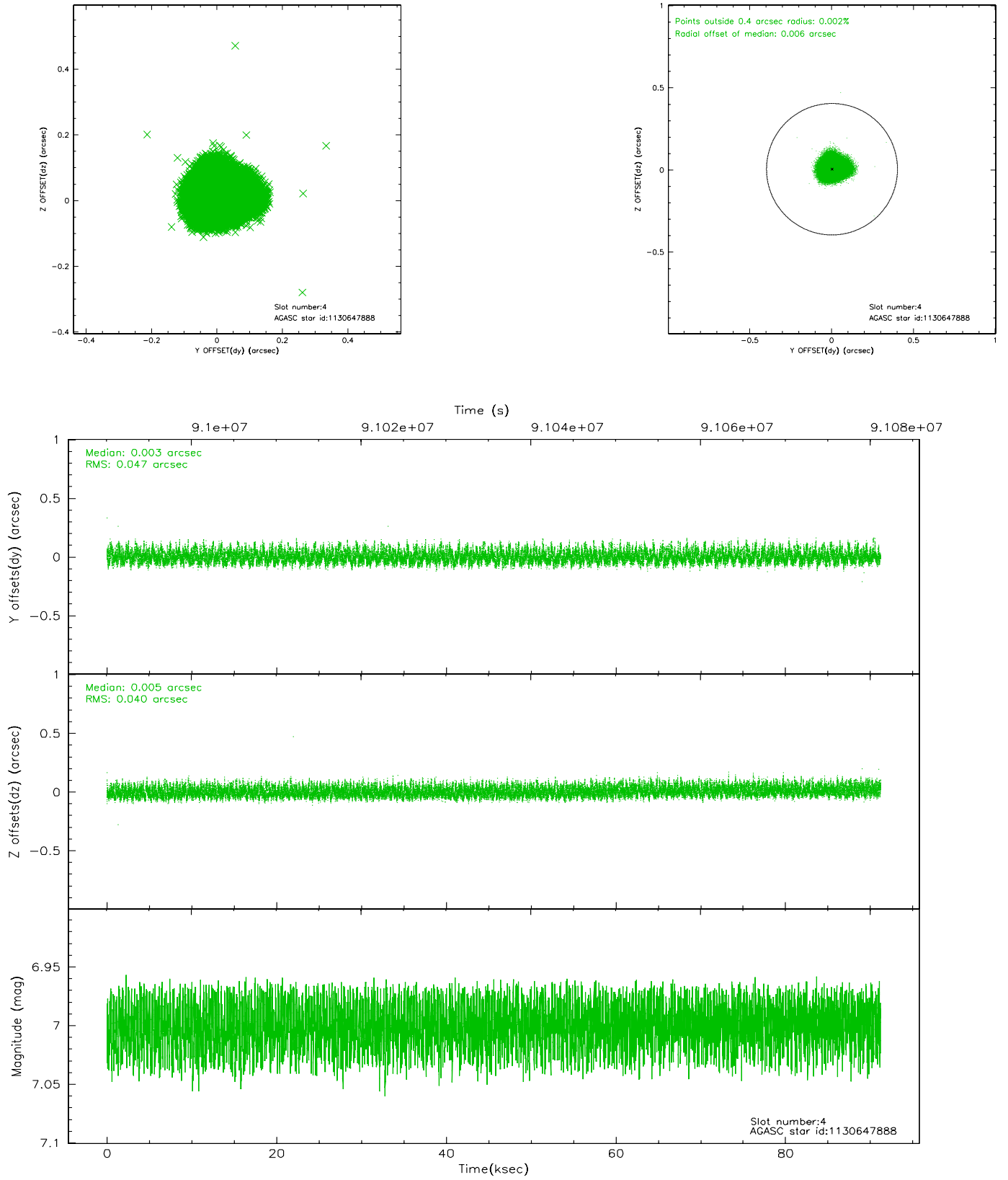
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	22244	0.023	-0.015	0.014	0.023	0.000000	0.000000	940.50	-1723.96
1	FID	ACIS-S-4	7.20	22245	-0.076	0.003	0.017	0.026	0.000000	0.000000	2157.81	180.27
2	FID	ACIS-S-5	7.23	22245	0.027	0.023	0.014	0.025	0.000000	0.000000	-1808.42	173.89
3	GUIDE	1130643264	6.66	44494	-0.038	-0.107	0.060	0.095	160.322990	-59.676912	186.19	1752.45
4	GUIDE	1130647888	7.00	44498	0.003	0.005	0.066	0.101	161.934651	-59.875257	-721.10	-1113.77
5	GUIDE	1130647256	6.51	44495	-0.034	-0.066	0.063	0.097	161.095457	-59.993321	-1035.25	426.49
6	GUIDE	1130632200	7.53	44492	0.080	0.066	0.071	0.109	161.433843	-59.407820	1025.39	-331.47
7	GUIDE	1174042440	7.75	44493	-0.020	0.099	0.058	0.095	162.157370	-60.223757	-2003.90	-1411.70

2.4 Star Slots

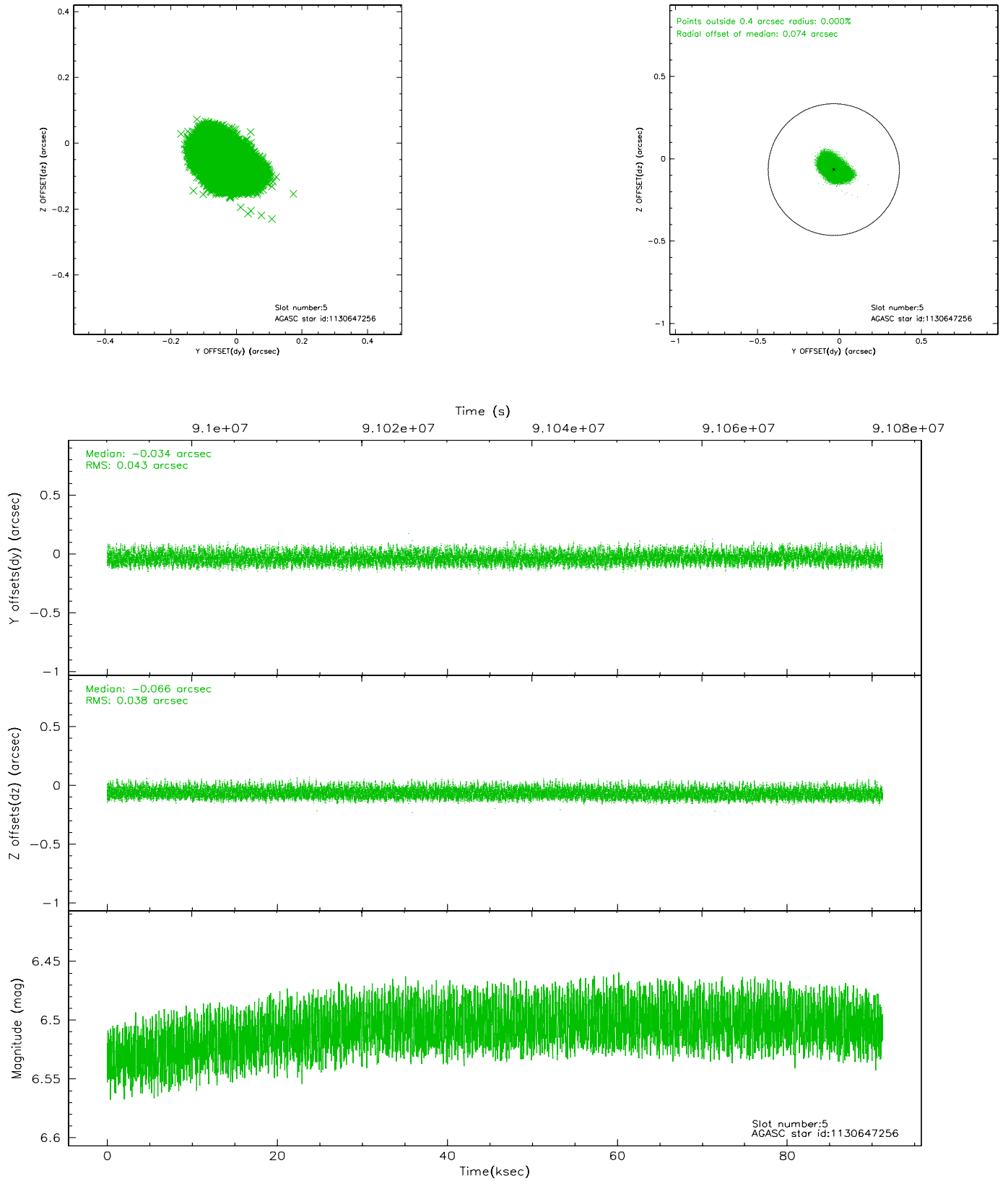
2.4.1 Slot 3



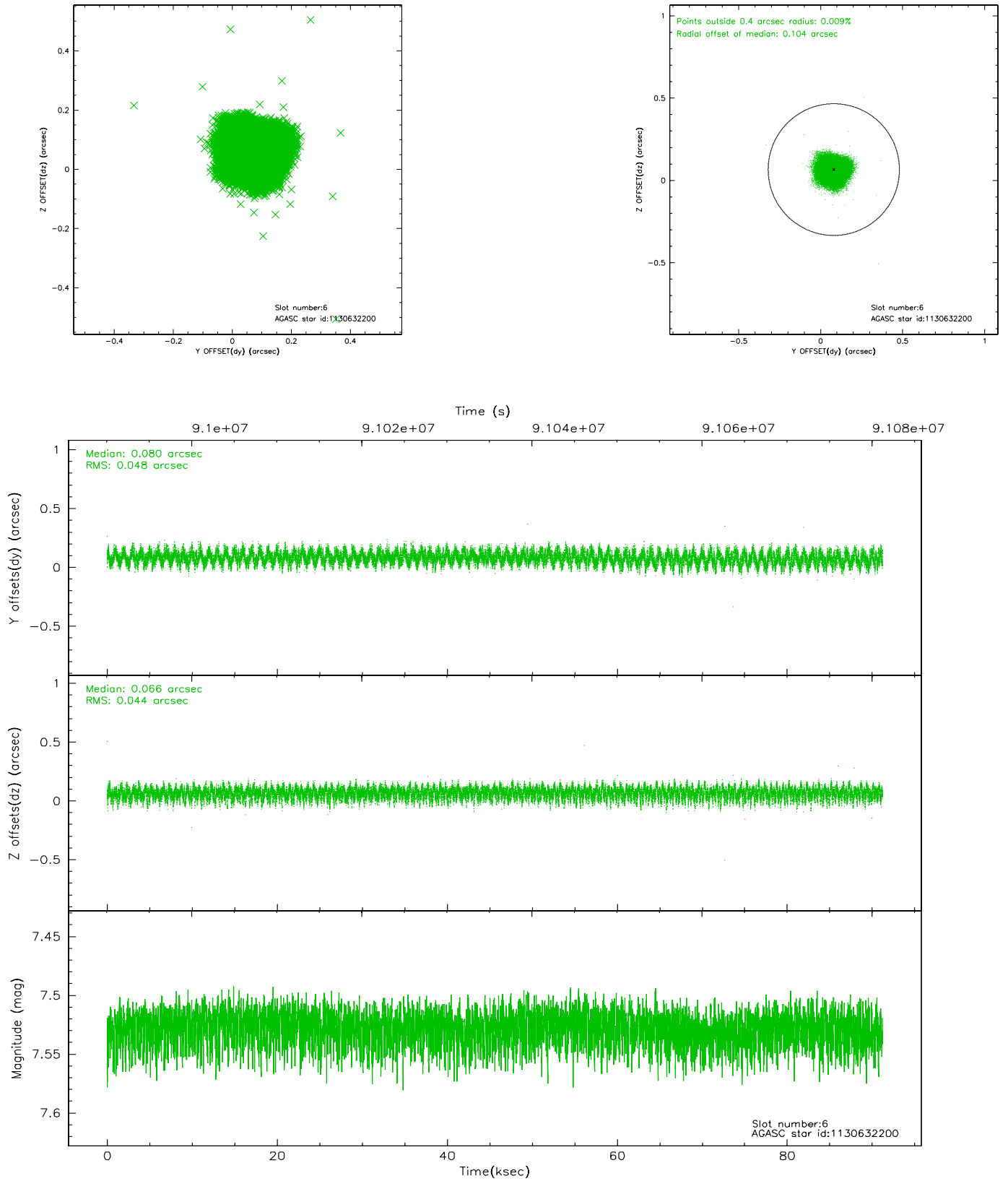
2.4.2 Slot 4



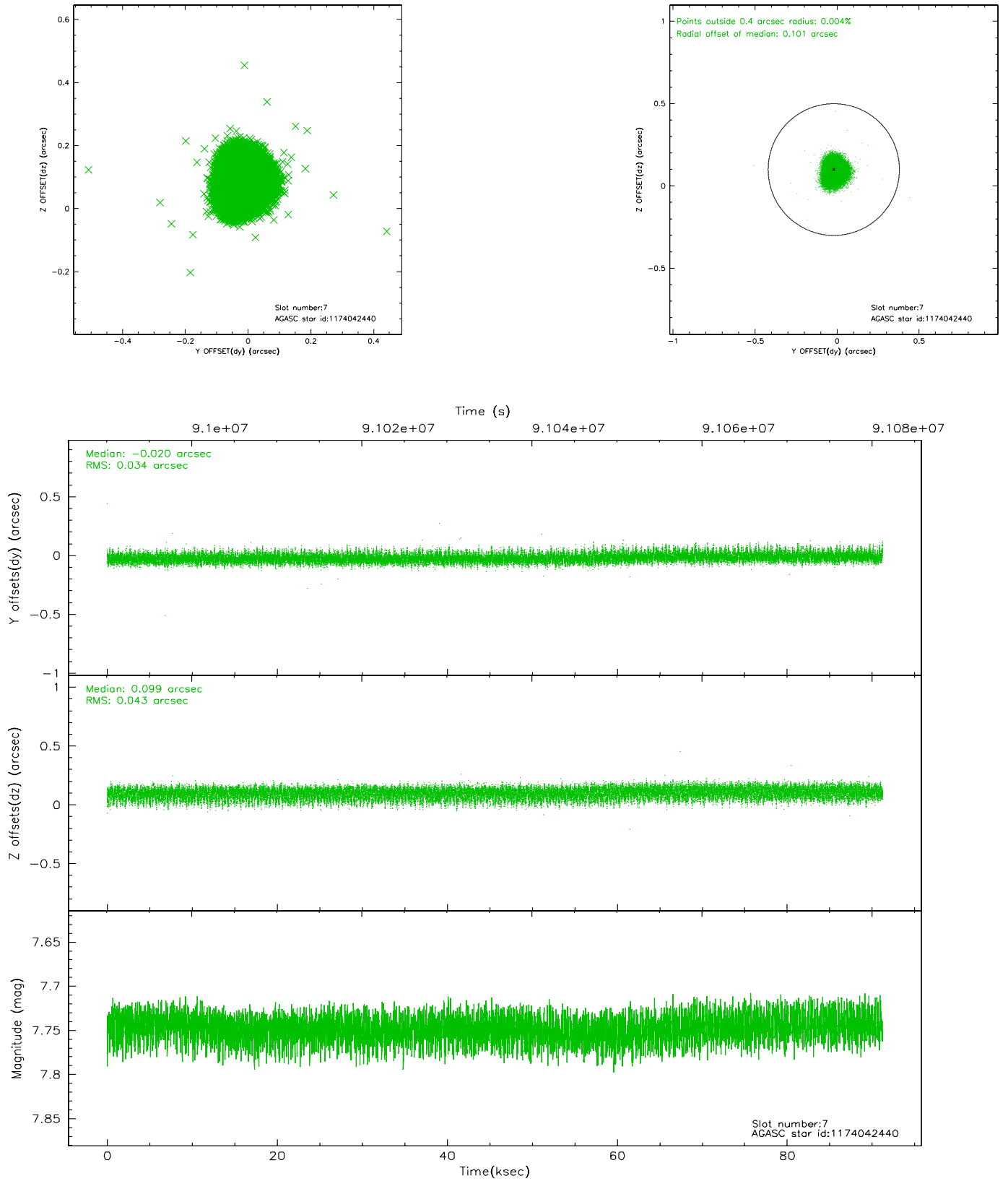
2.4.3 Slot 5



2.4.4 Slot 6

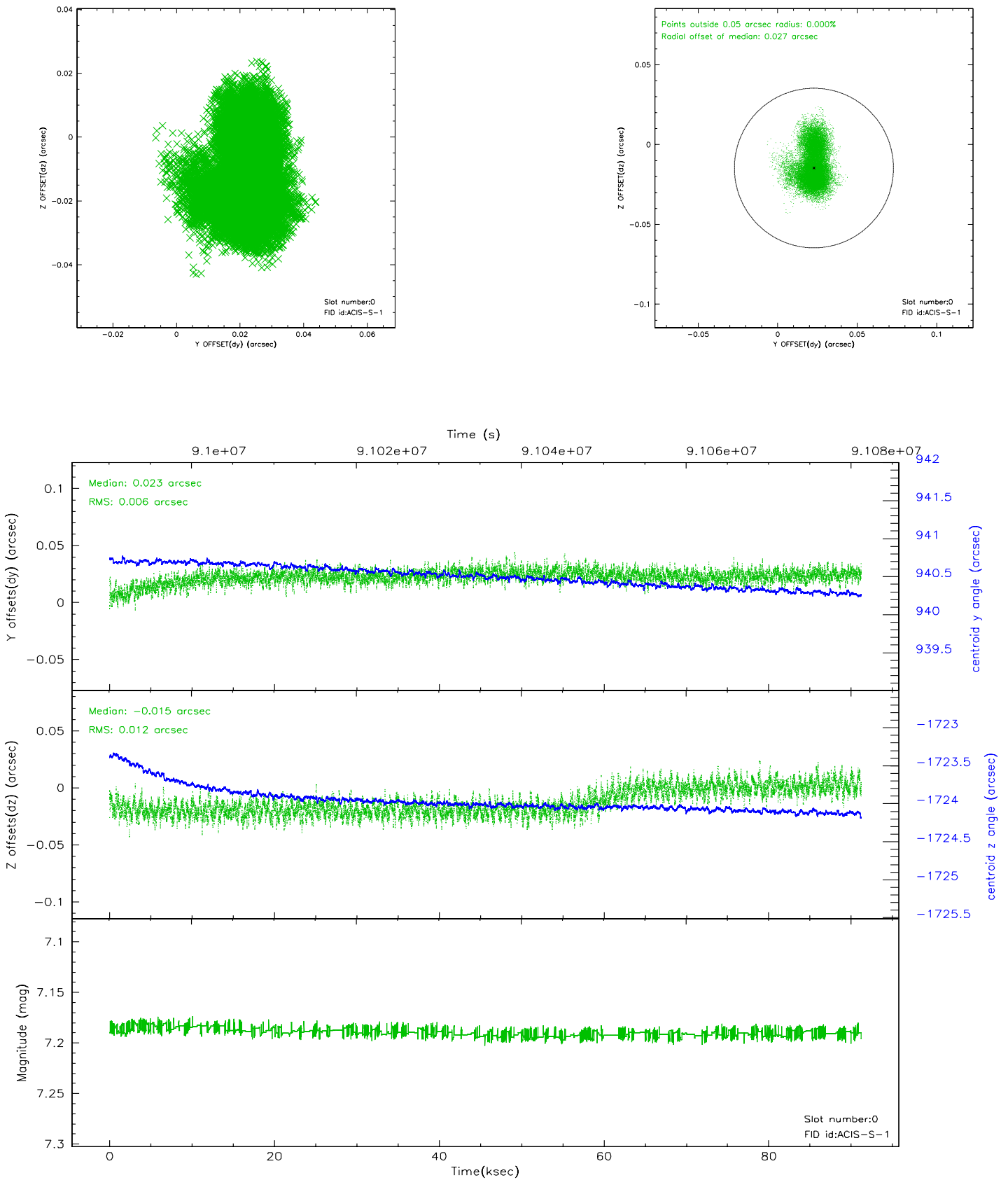


2.4.5 Slot 7

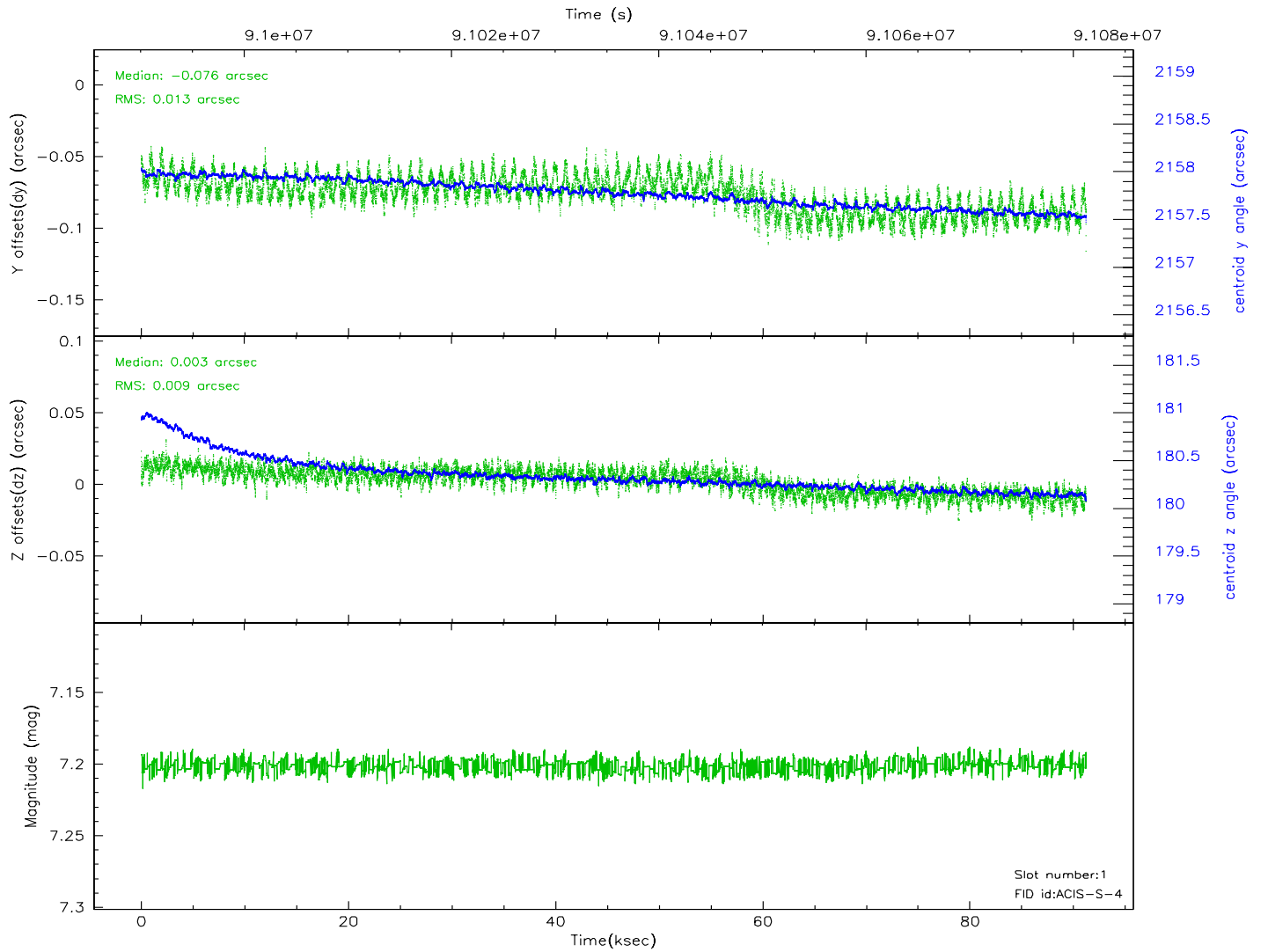
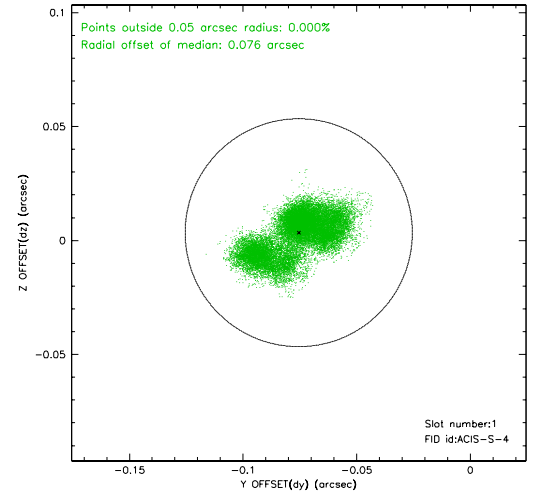
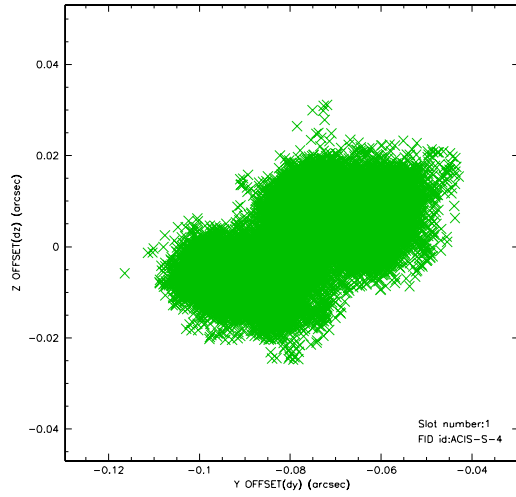


2.5 FID Slots

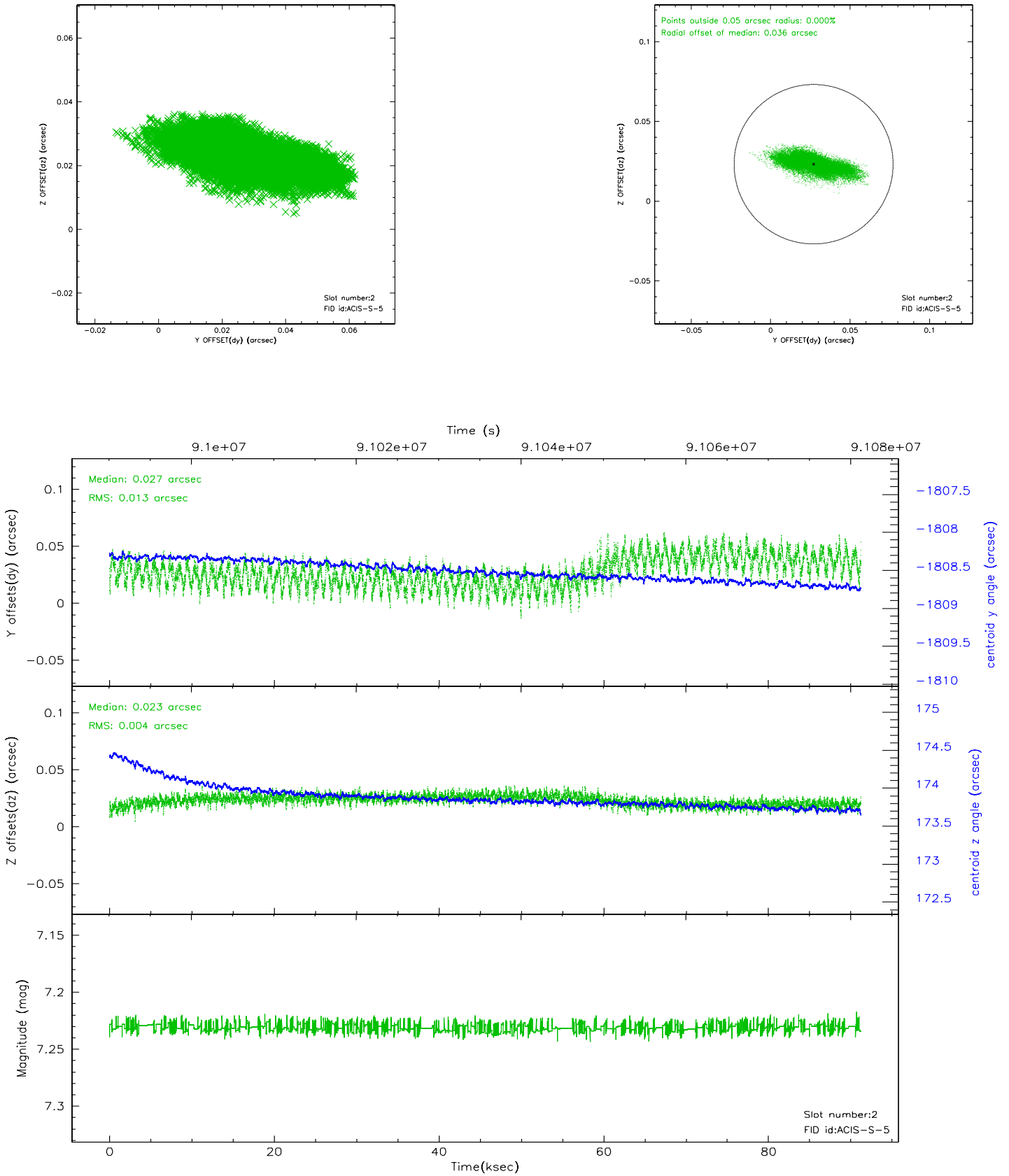
2.5.1 Slot 0



2.5.2 Slot 1

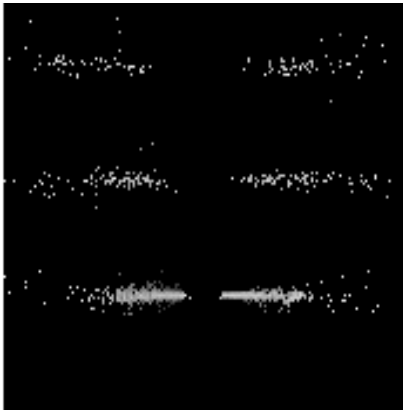


2.5.3 Slot 2

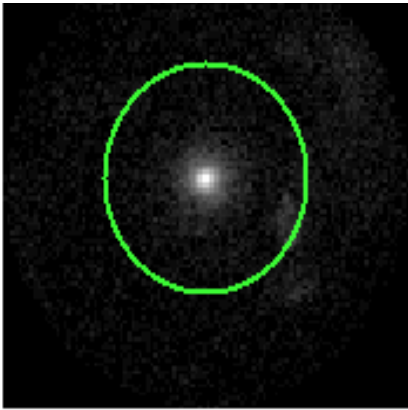


3 Gratings

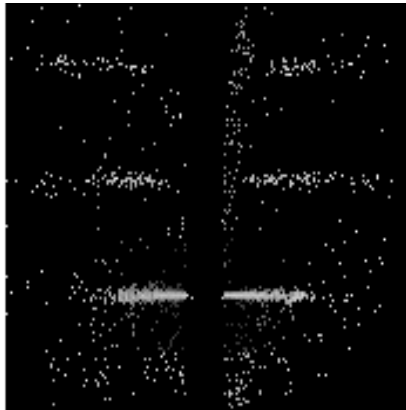
3.1 HEG Arm



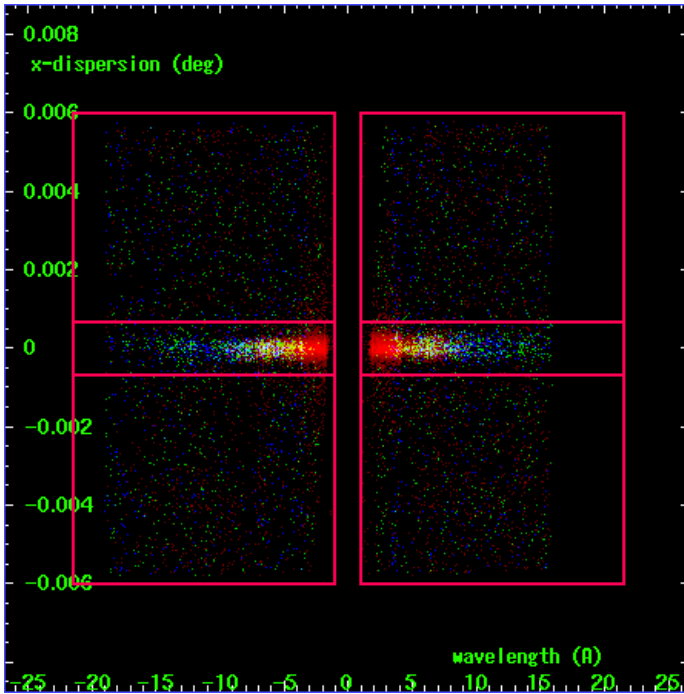
HEG Order Sort 123



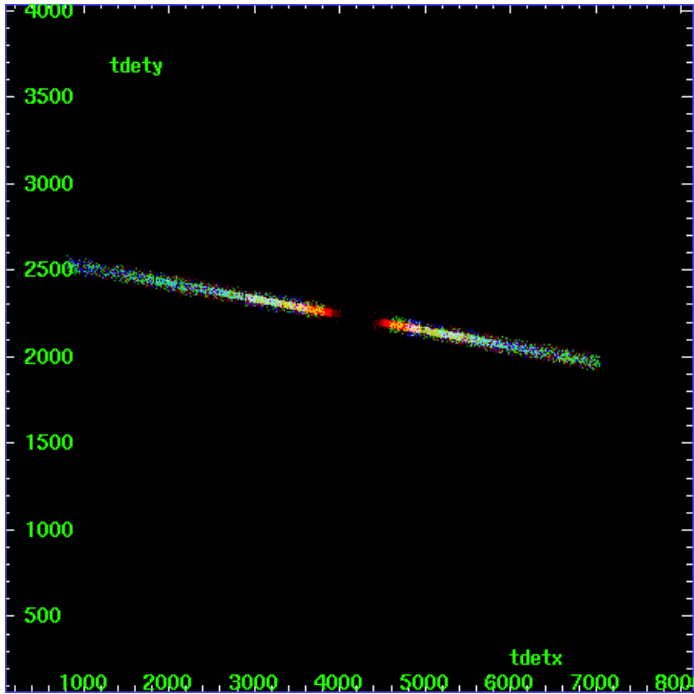
HEG Zero Order



HEG Order Sort ALL

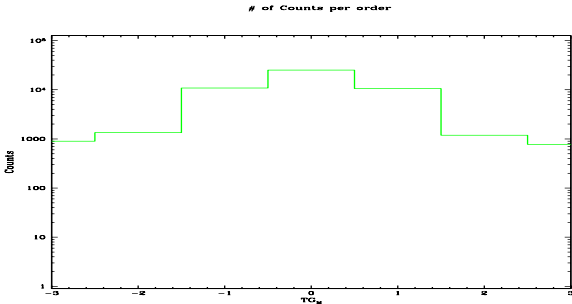


Spot Image HEG

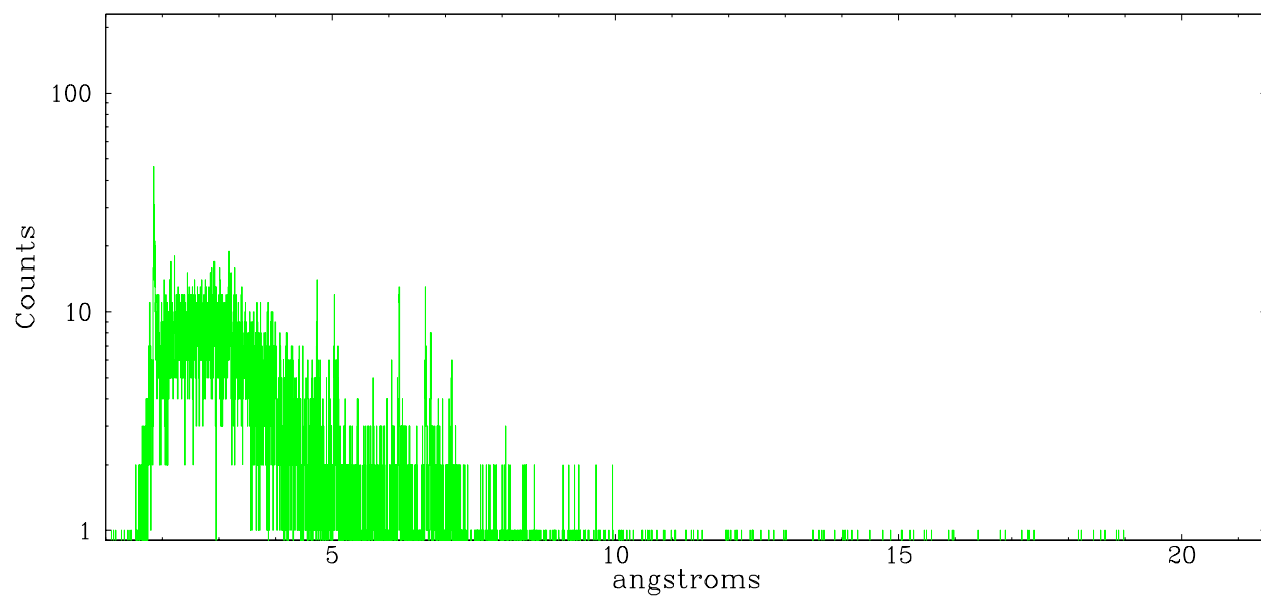


Full Detector HEG

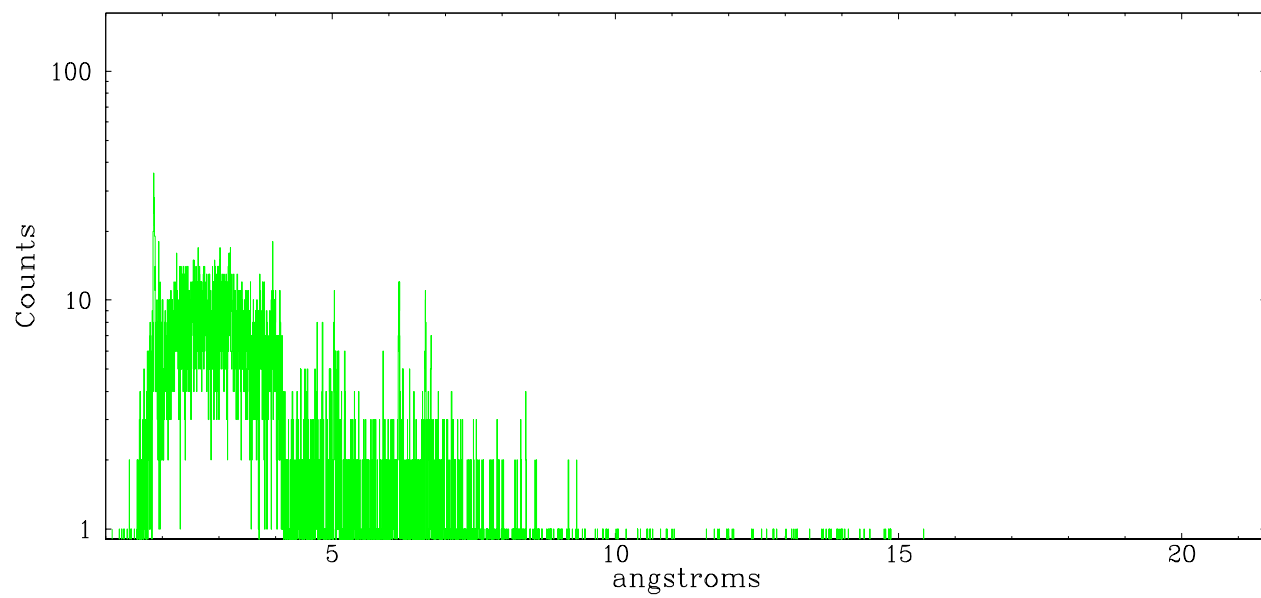
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	896	1338	10828	25231	10593	1186	771



heg order -1



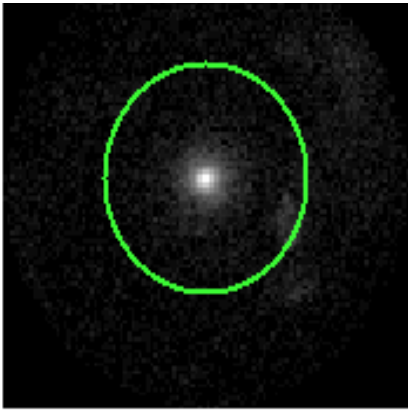
heg order +1



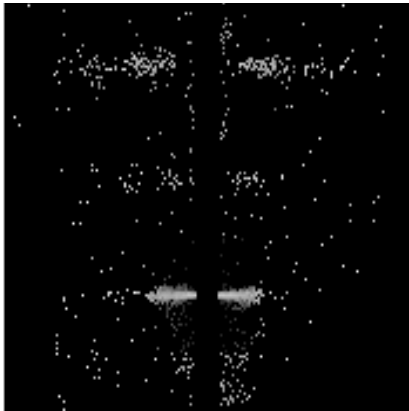
3.2 MEG Arm



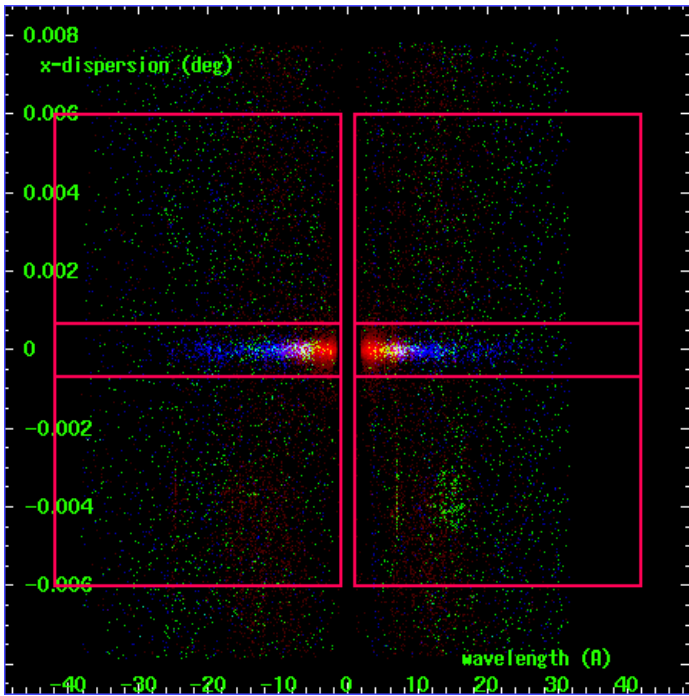
MEG Order Sort 123



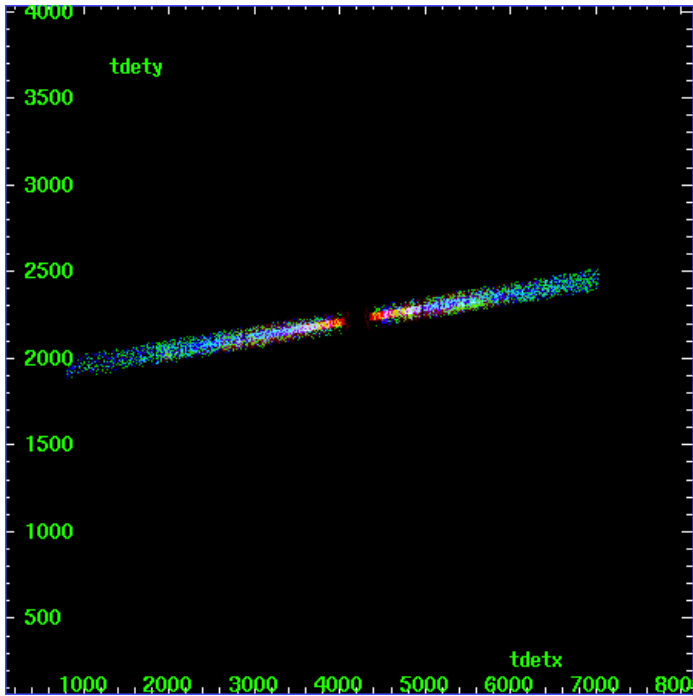
MEG Zero Order



MEG Order Sort ALL

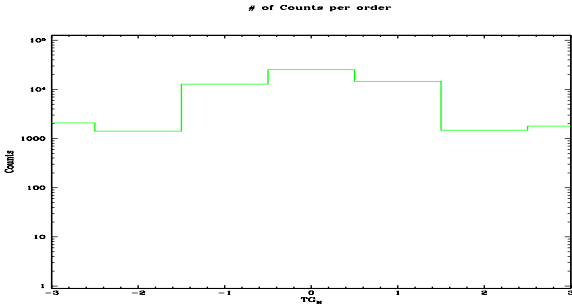


Spot Image MEG

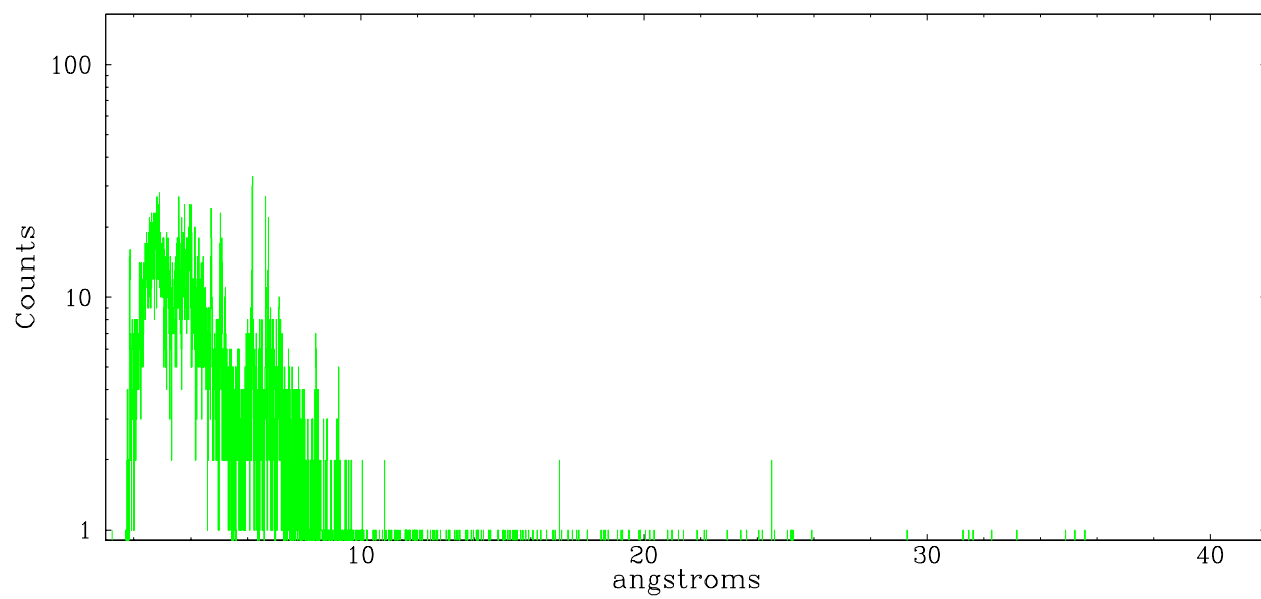


Full Detector MEG

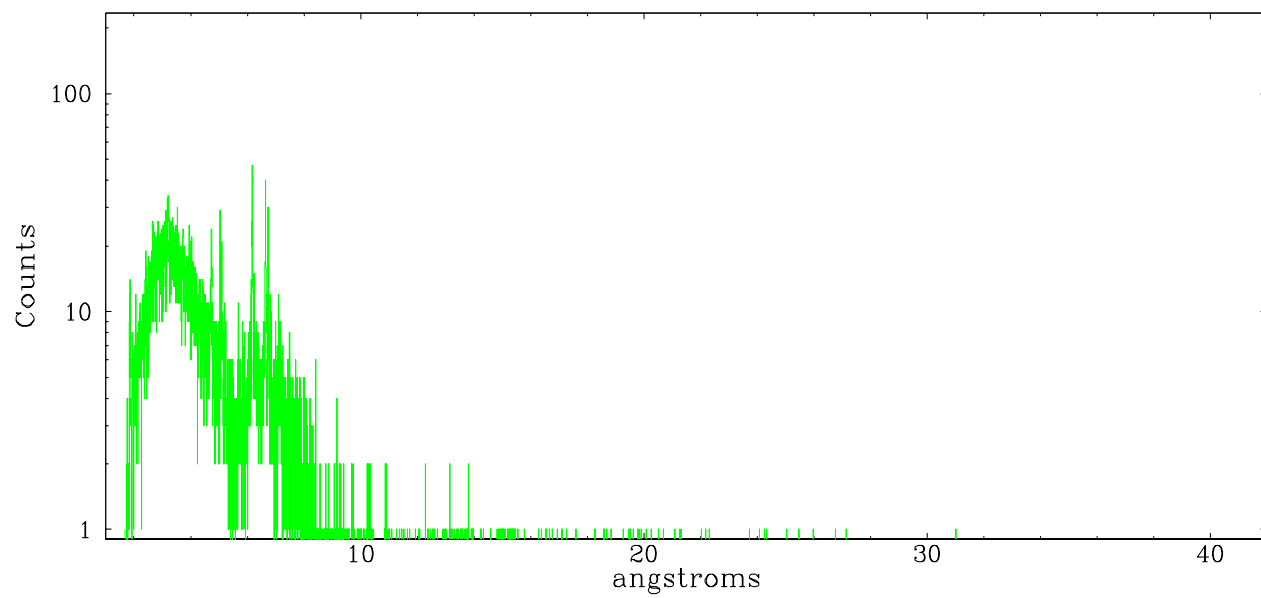
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2083	1413	12770	25231	14612	1480	1788



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.08.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	90.694

A.2 Comments

Zeroth order piled up. Standard data processing software did not correctly locate the zeroth order due to pileup. Manual intervention was used to input the correct sky coordinates (x=4083.25; y=4034.32) into the *src1a.fits file table. These corrected coordinates were determined using a software tool developed by CXC called findzero, which is expected to be released in CIAO (currently in ISIS). The tool calculates the point of intersection of the readout streak and the meg arm (preferred position), or the readout streak and the heg arm. The zeroth order source position determined by the standard pipeline processing using the tool tgdetect was not used in this processing. The newly determined zeroth order coordinates have been placed in the *src1a.fits file, replacing the coordinates determined by tgdetect. Note that these corrected coordinates of the zeroth order cannot be reproduced by running tgdetect on the data.