

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 2734 - L2 Version 001
Chandra X-Ray Center

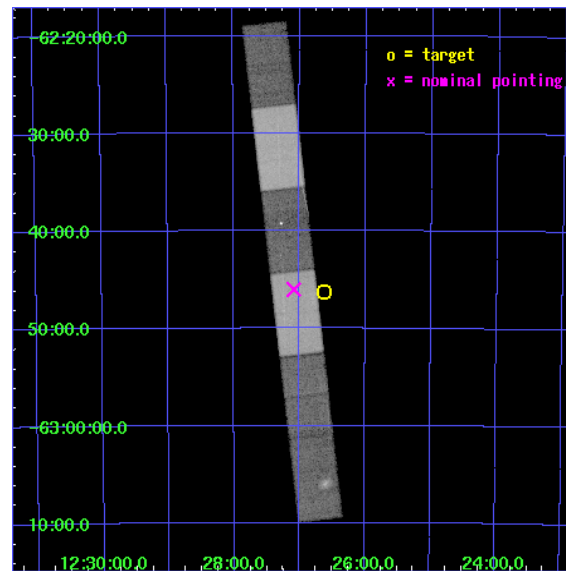
L2 Processing Date : Jun 5 2007

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1 Front

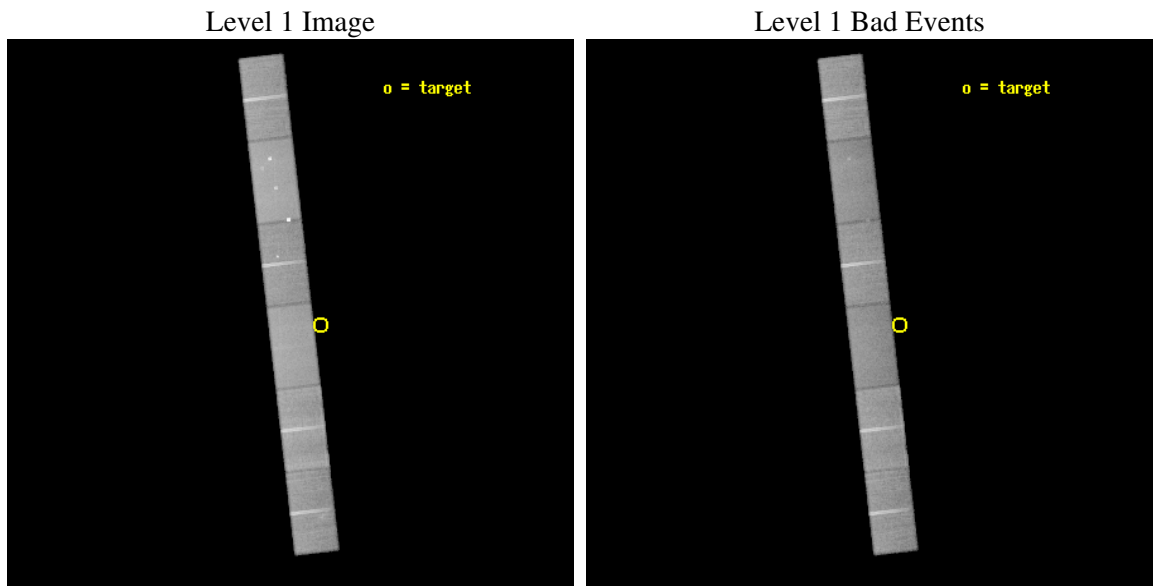
seq_num	400214
obs_id	2734
title	PROBING THE CIRCUMSTELLAR MATERIAL IN GX 301-2
observer	Dr. Masao Sako
object	GX 301-2
dtcycle	0
cycle	P
ra_targ	186.656667
dec_targ	-62.770278
ra_nom	186.77134728901
dec_nom	-62.766897976529
roll_nom	83.393200334566
revision	2
ontime	60375.599900037
livetime	59029.722233122
ontime4	60371.917899787
ontime5	60373.758909866
ontime6	60375.599900037
ontime7	60375.599900037
ontime8	60375.599900037
ontime9	60368.235929415
l2events	352979



2 OBI

2.1 OBI

2.1.1 Images

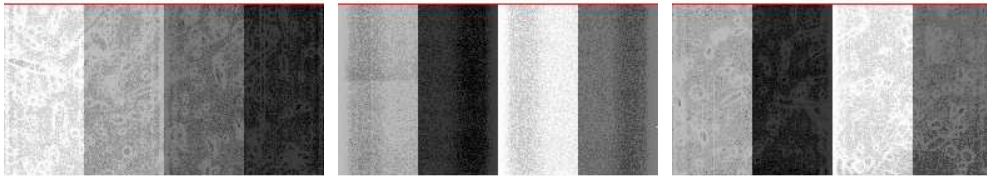


2.1.2 Bias

Chip 4

Chip 5

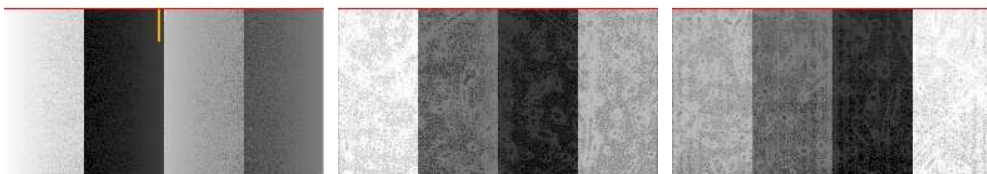
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	0
ascdsver	7.6.10
caldsver	3.4.0
date	2007-06-05T01:54:42
revision	2

sched_exp_time	60000.000000
ontime	60375.599900037
ontime4	60371.917899787
ontime5	60373.758909866
ontime6	60375.599900037
ontime7	60375.599900037
ontime8	60375.599900037
ontime9	60368.235929415
l1events	1601525

2.1.4 Events

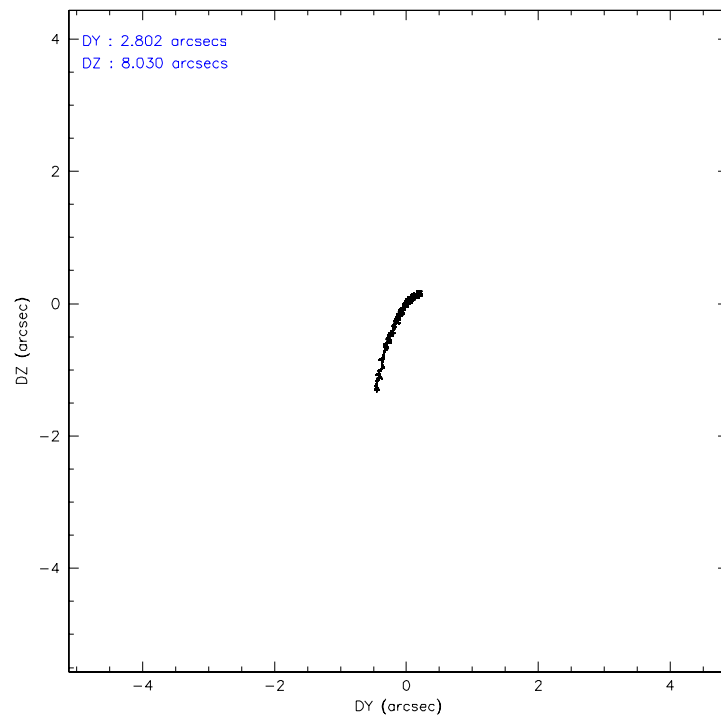
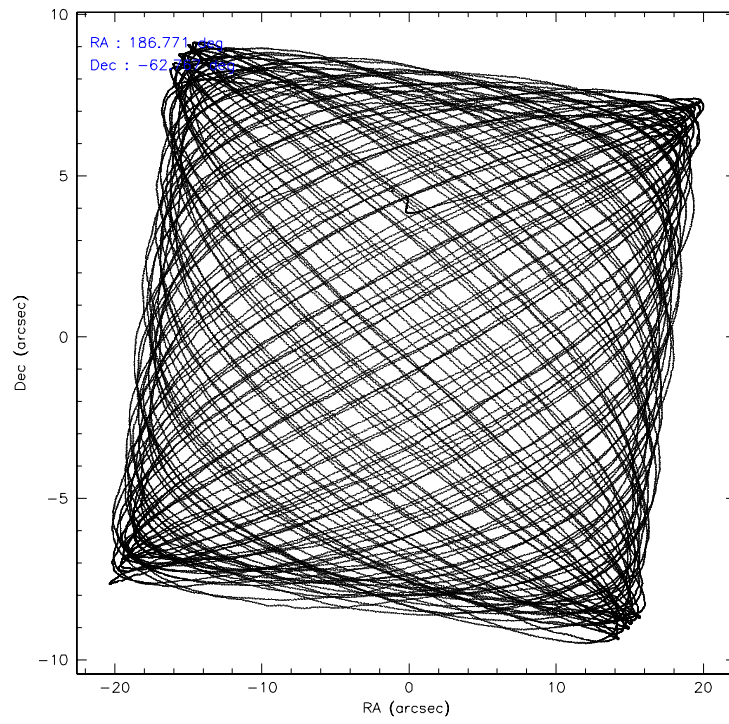
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	253270	319996	234326	282400	288640	222893
rejected events	225092	167143	204622	161145	229286	193981
rejected %	88%	52%	87%	57%	79%	87%

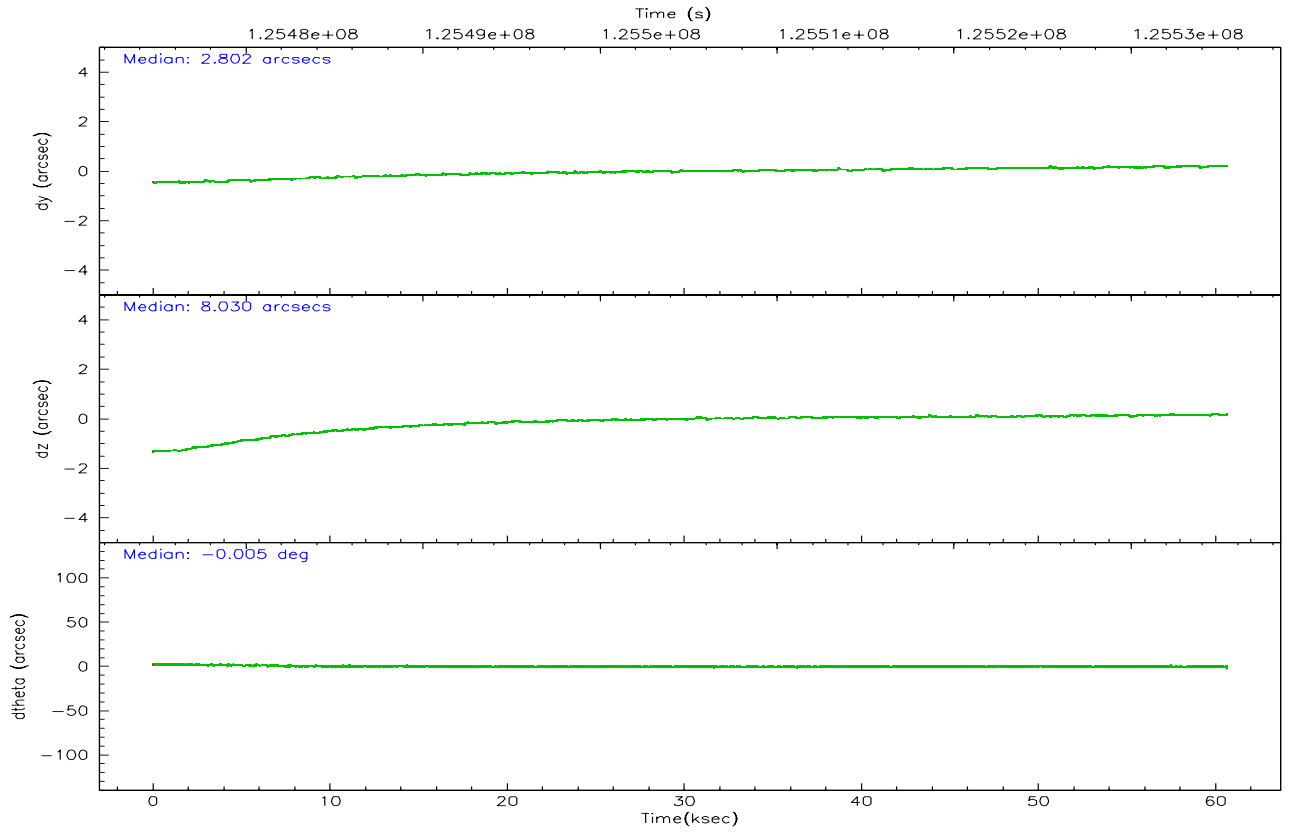
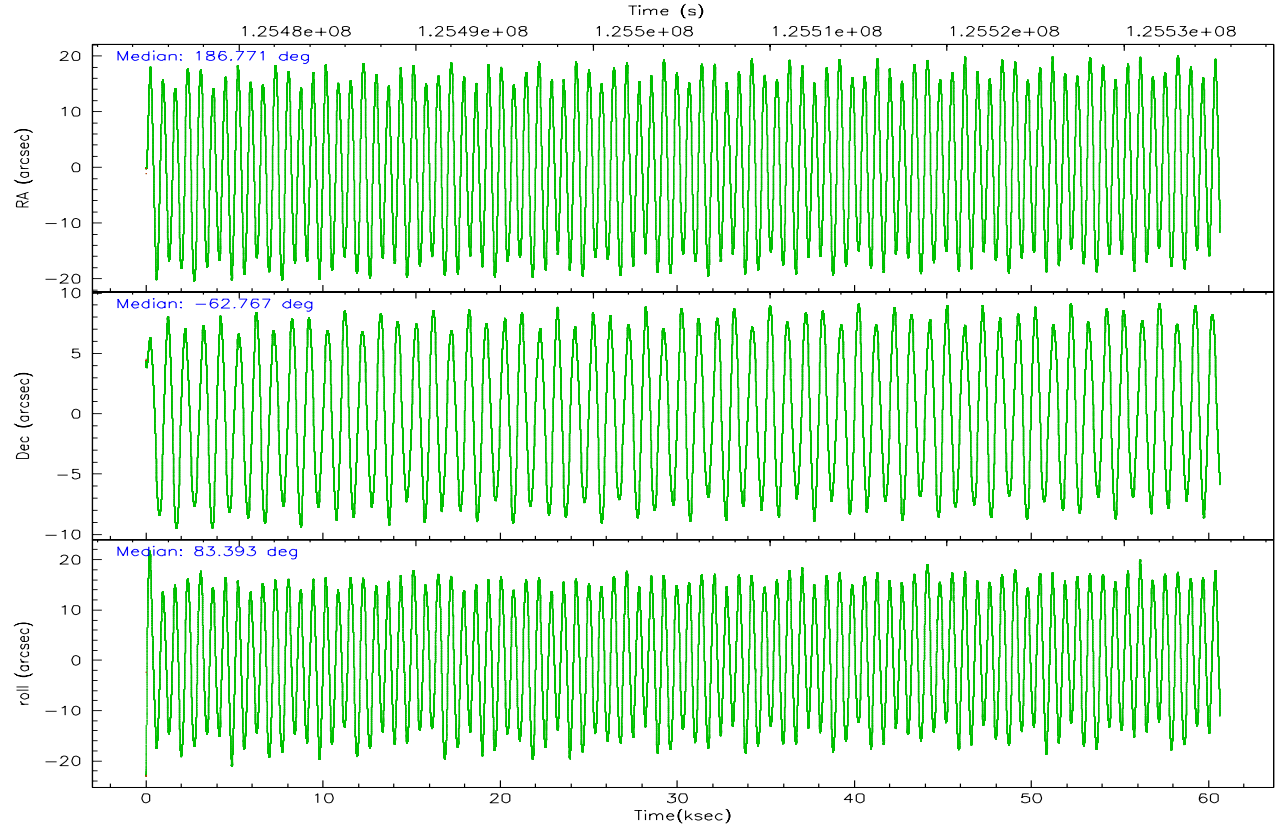
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	11007	24251	12105	11725	18319	12252
	4%	7%	5%	4%	6%	5%
grade 1 events	87	1040	73	243	131	79
	0%	0%	0%	0%	0%	0%
grade 2 events	6359	38984	5662	24319	12095	5388
	2%	12%	2%	8%	4%	2%
grade 3 events	3155	8361	3323	11653	6879	3149
	1%	2%	1%	4%	2%	1%
grade 4 events	2911	9069	3172	11276	6580	3006
	1%	2%	1%	3%	2%	1%
grade 5 events	7700	25246	9029	25898	11285	9212
	3%	7%	3%	9%	3%	4%
grade 6 events	4748	72194	5442	62291	15482	5121
	1%	22%	2%	22%	5%	2%
grade 7 events	217303	140851	195520	134995	217869	184686
	85%	44%	83%	47%	75%	82%

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	186.795646	186.7713472890059	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-62.791796	-62.76689797652857	Subarray start row	15	15
Pointing Roll	83.258187	83.3932003345658	Subarray row count	542	542
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	1.8
SIM translation stage pos (mm)	-184.708523	-184.7091449985023			
SIM translation stage offset (mm)	-5.424	-5.423377584505516			
Phase constraints	Y	Y			
Phase period	41.498000	41.498000			
Phase epoch	50130.726000	50130.726000			
Phase start	0.470000	0.470000			
Phase end	0.480000	0.480000			
Phase start error	0.010000	0.010000			
Phase end error	0.010000	0.010000			
Observation start time	125475417.184000	125474222.76899			
Observation start date	2001-12-23T06:15:53	2001-12-23T05:57:02			
Observation end time	125535417.184000	125536068.70897			
Observation end date	2001-12-23T22:55:53	2001-12-23T23:07:48			
Read mode	TIMED	TIMED			

2.3 Aspect



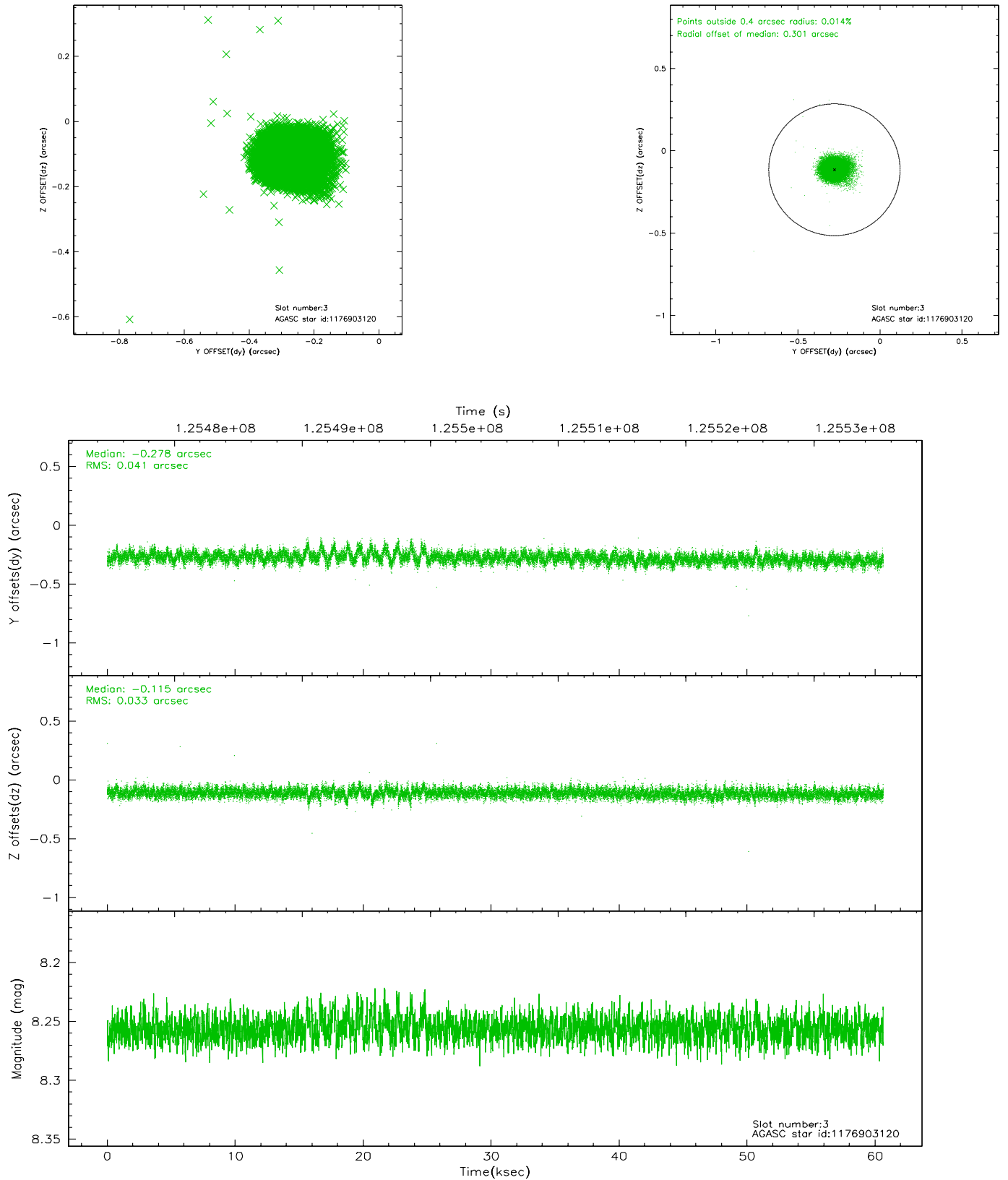


Slot Statistics

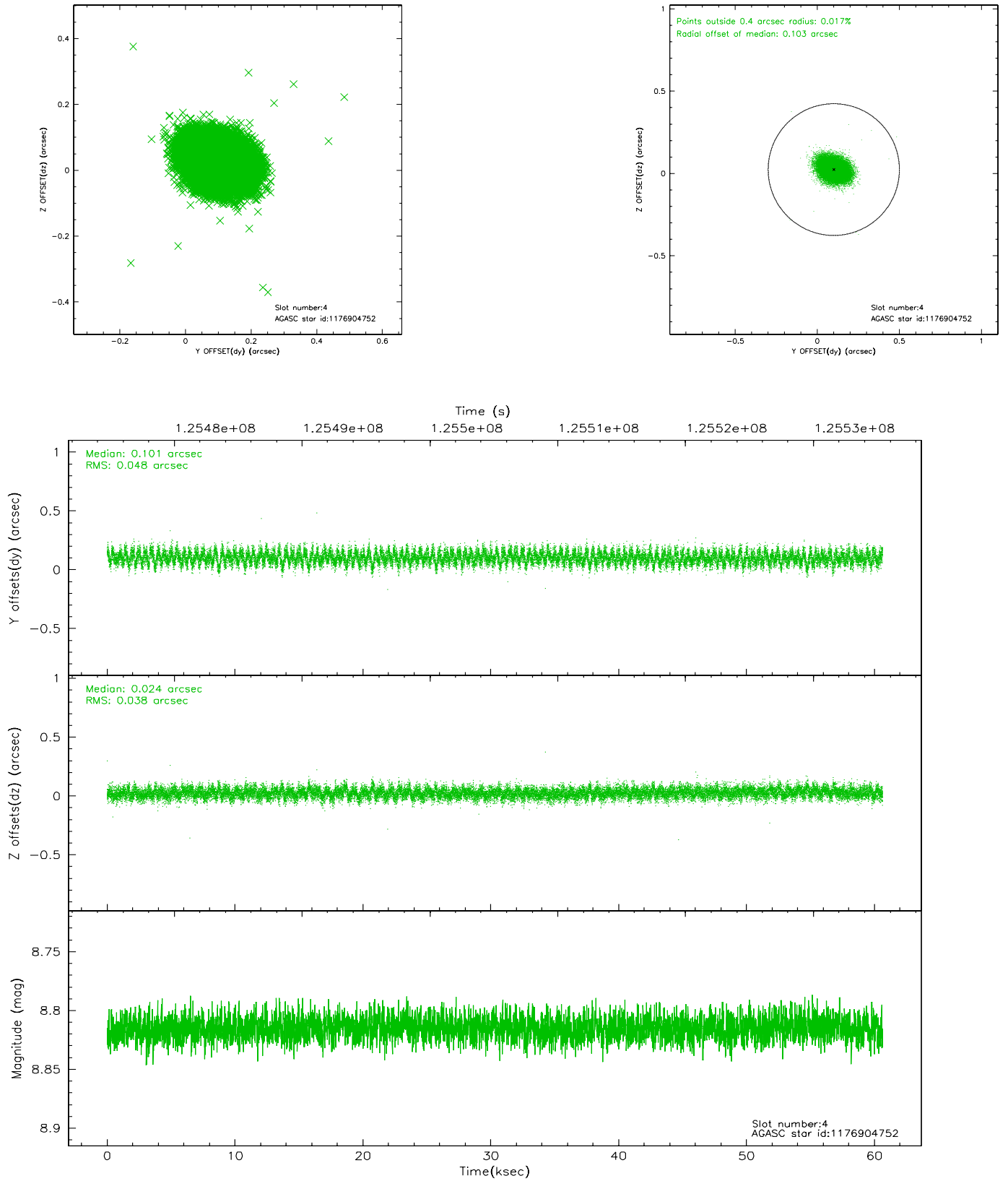
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	14790	-0.037	-0.015	0.018	0.031	0.000000	0.000000	-755.00	-1840.90
1	FID	ACIS-S-4	7.19	14786	-0.011	0.036	0.013	0.023	0.000000	0.000000	2158.27	67.73
2	FID	ACIS-S-6	7.39	14788	0.019	-0.017	0.009	0.014	0.000000	0.000000	406.92	704.98
3	GUIDE	1176903120	8.26	29573	-0.278	-0.115	0.054	0.094	186.056854	-62.258063	1755.63	1453.34
4	GUIDE	1176904752	8.82	29574	0.101	0.024	0.065	0.106	187.035955	-62.645951	567.59	-333.91
5	GUIDE	1176911752	7.82	29572	0.100	0.257	0.066	0.107	187.933962	-63.406025	-1996.57	-2083.83
6	GUIDE	1176896096	8.74	29565	-0.048	-0.060	0.072	0.115	185.653077	-62.215982	1816.72	2144.52
7	GUIDE	1176909928	9.30	29524	0.125	-0.109	0.113	0.181	185.710247	-63.375063	-2305.24	1489.99

2.4 Star Slots

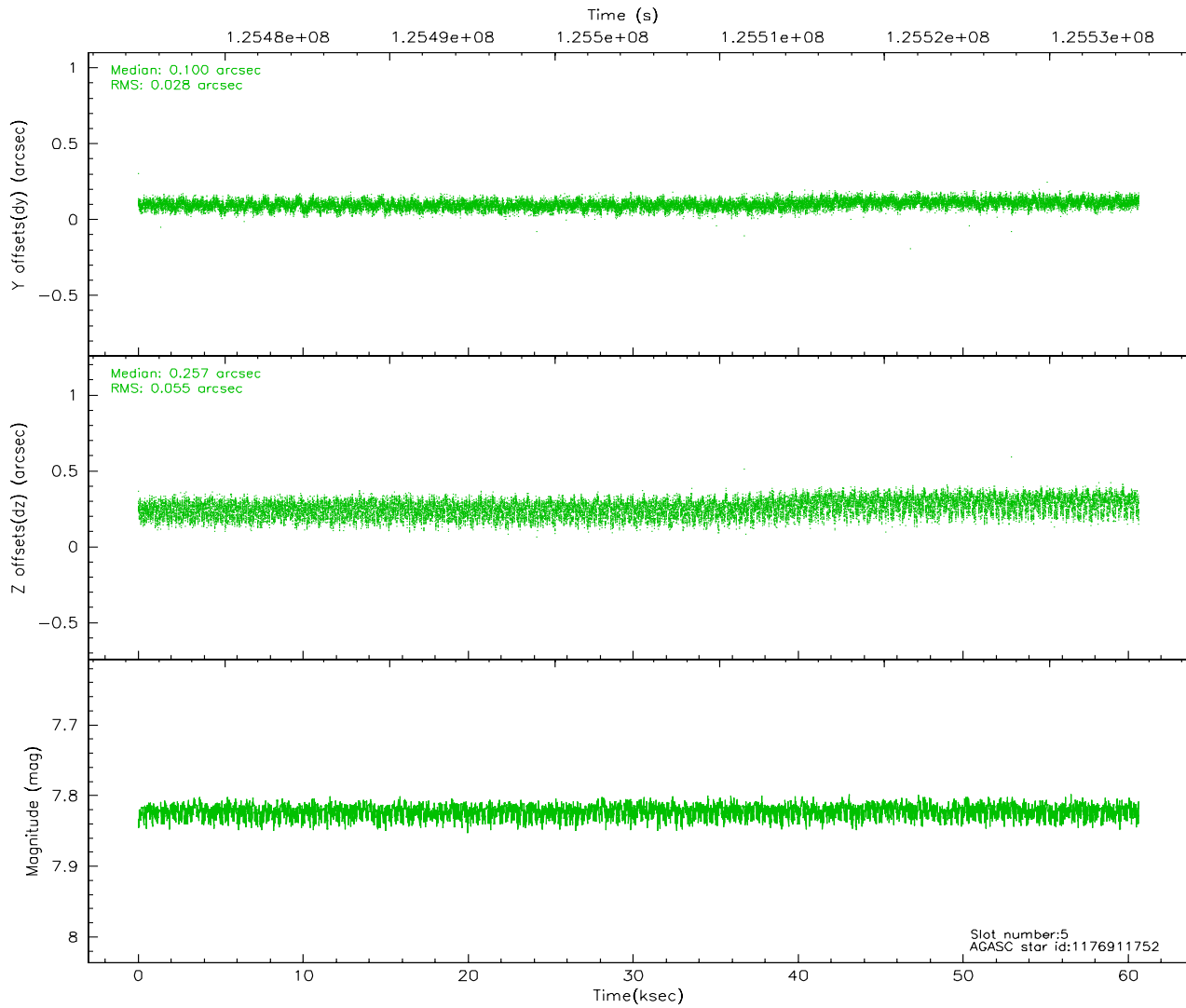
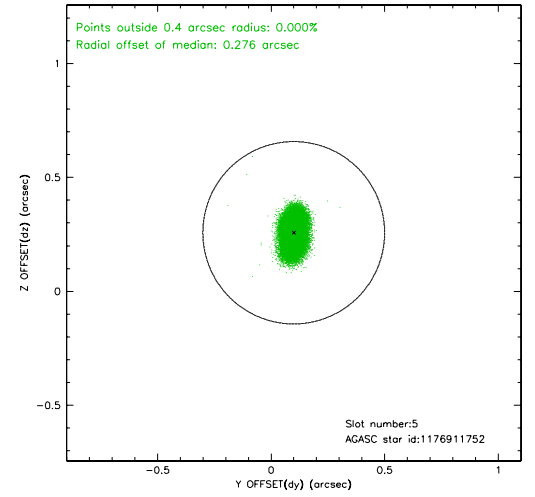
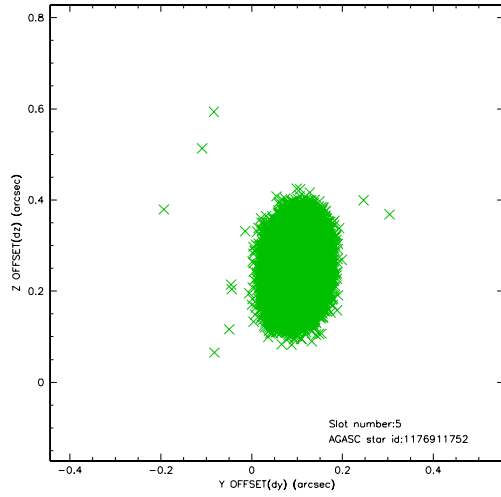
2.4.1 Slot 3



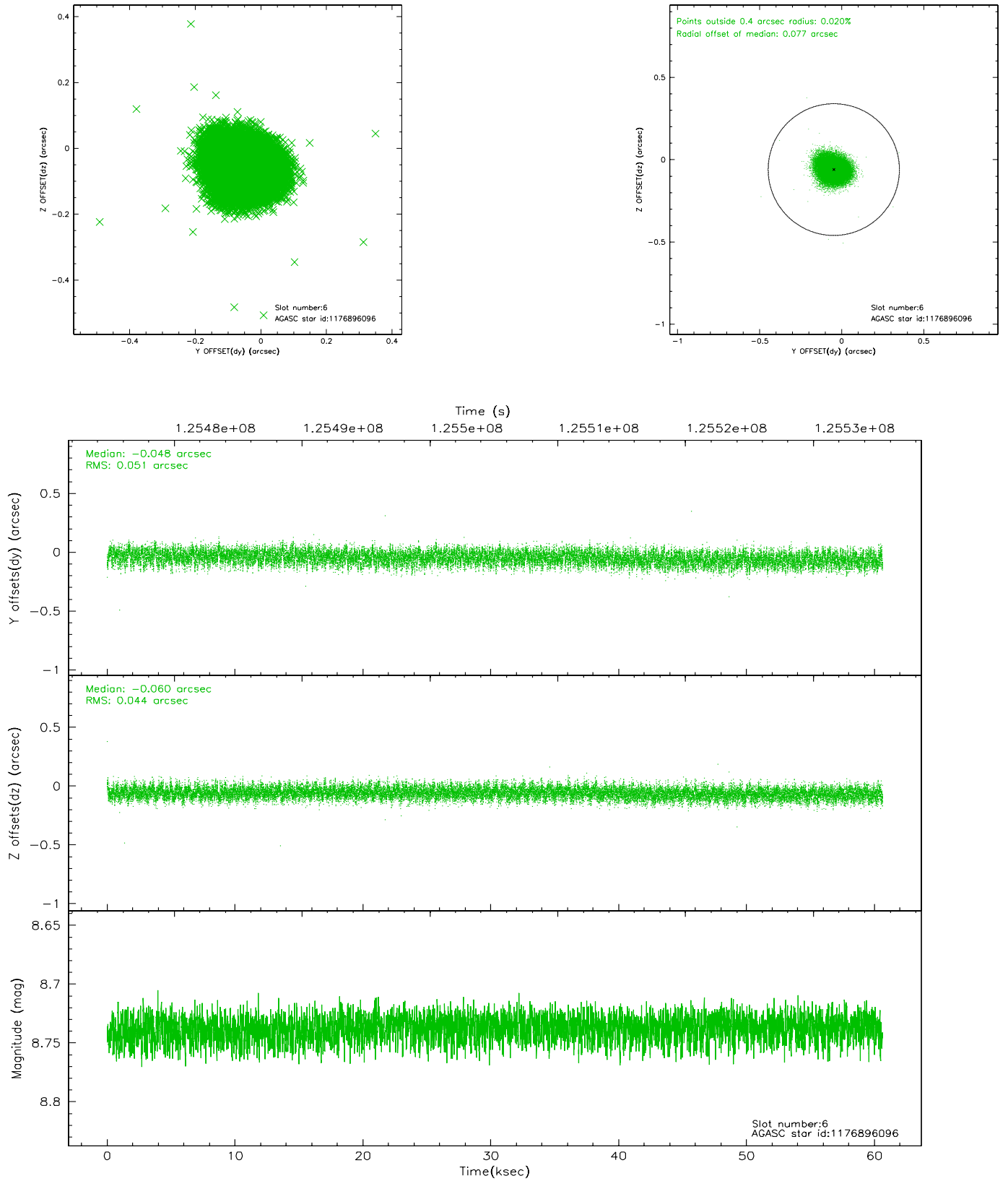
2.4.2 Slot 4



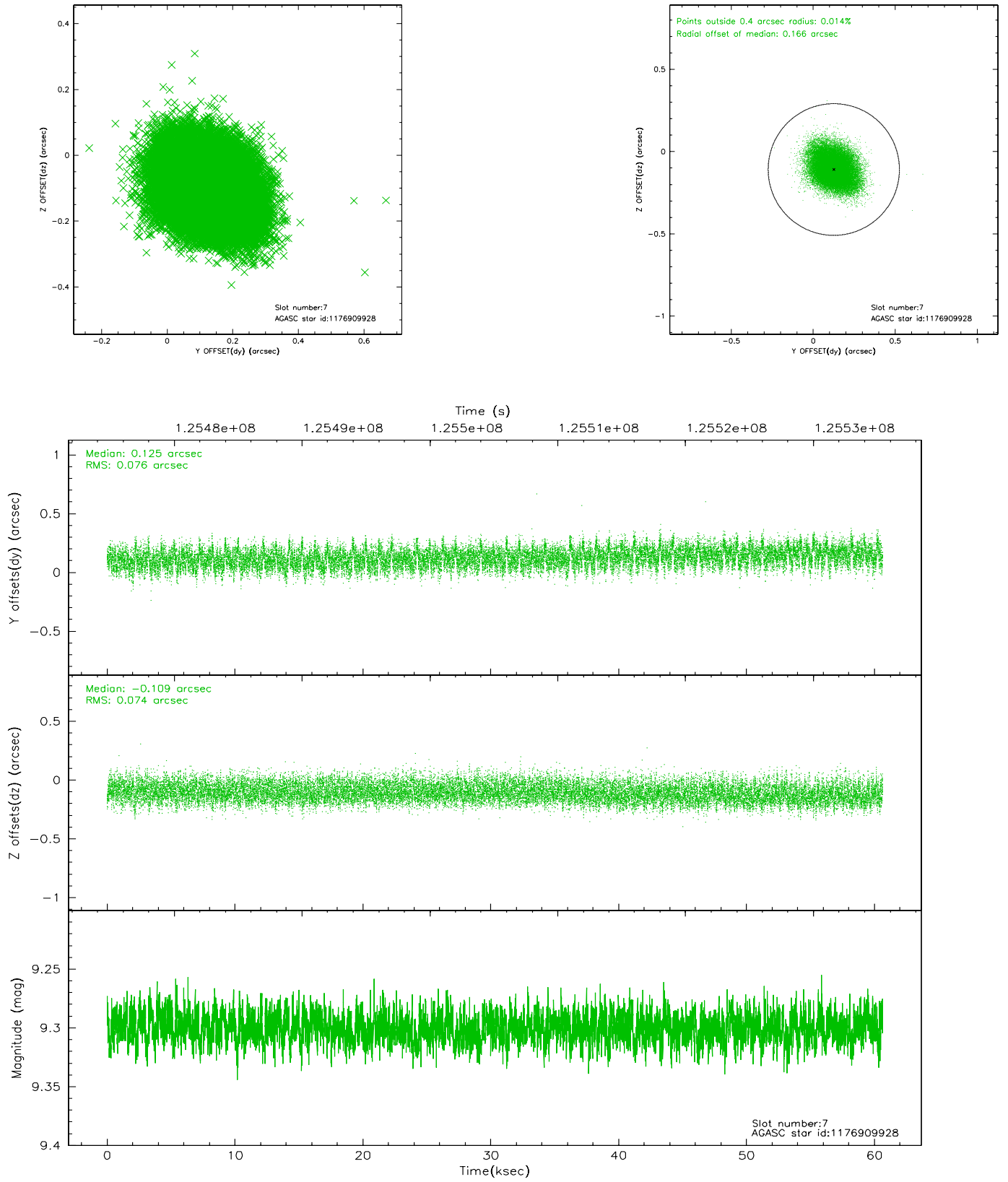
2.4.3 Slot 5



2.4.4 Slot 6

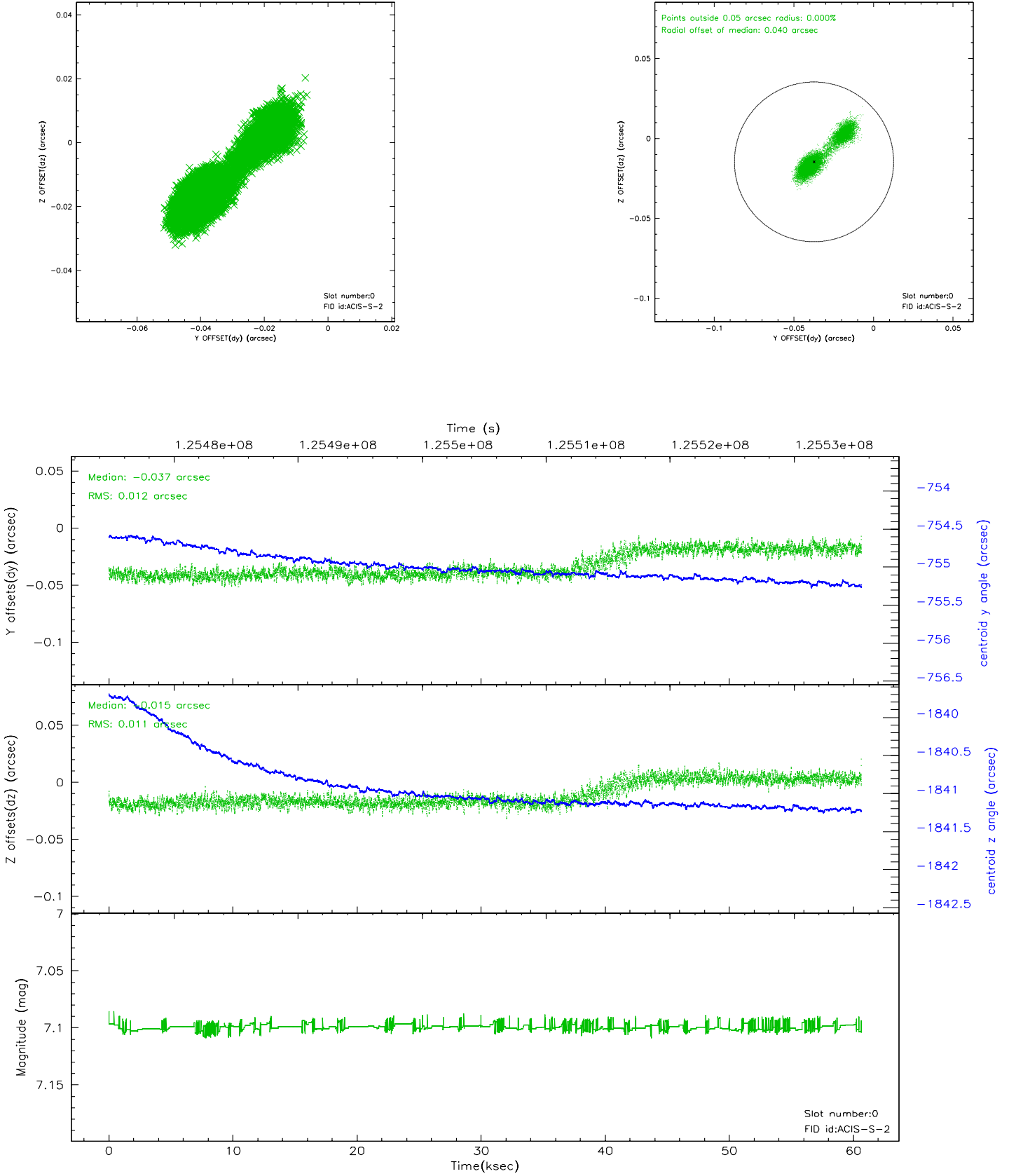


2.4.5 Slot 7

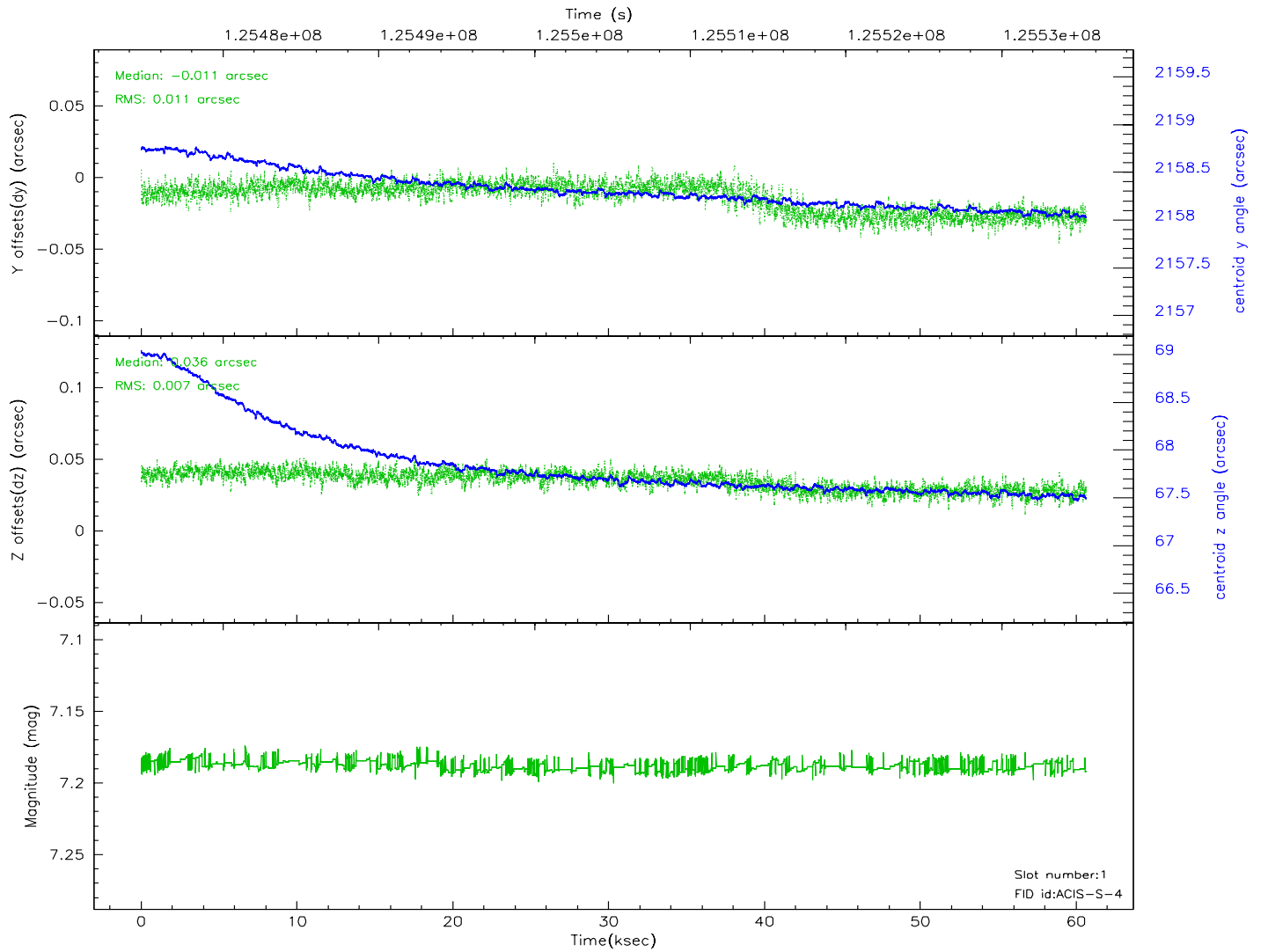
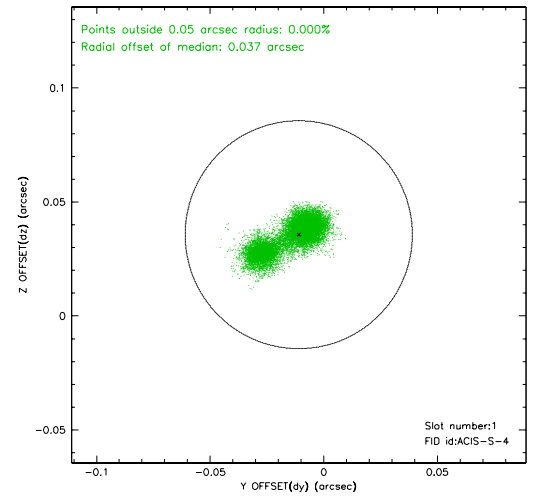
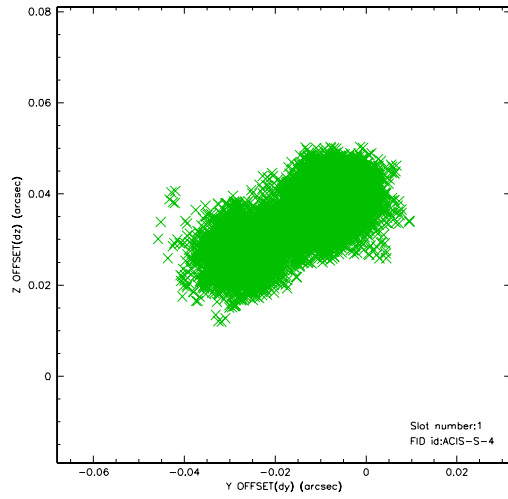


2.5 FID Slots

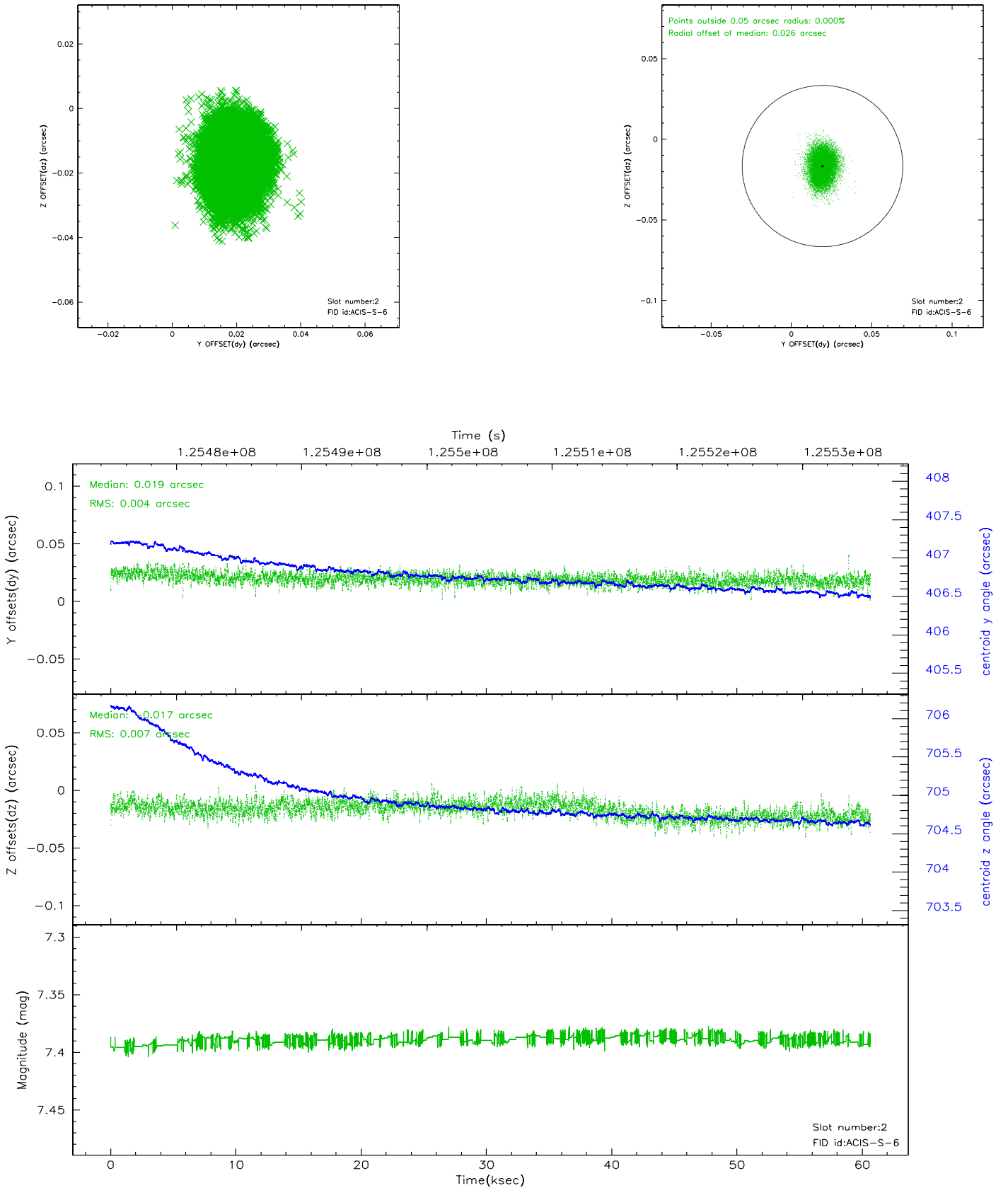
2.5.1 Slot 0



2.5.2 Slot 1

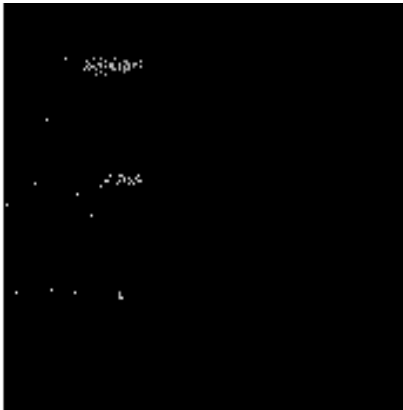


2.5.3 Slot 2

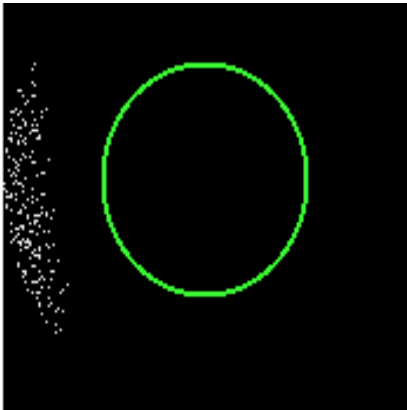


3 Gratings

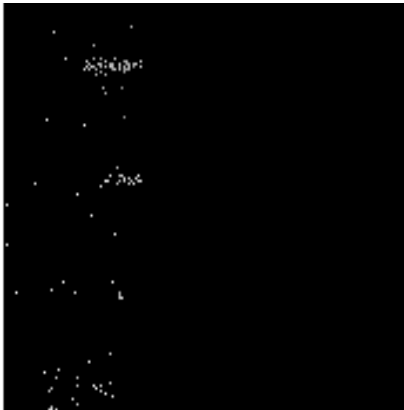
3.1 HEG Arm



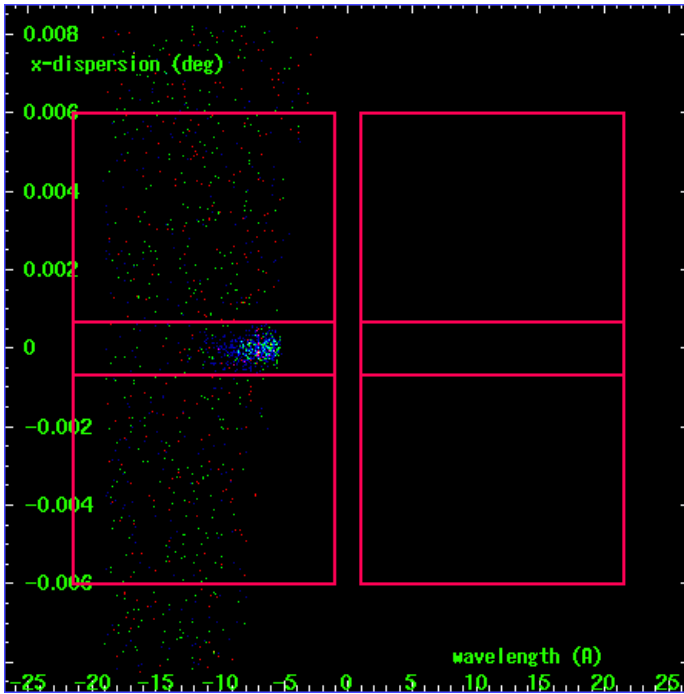
HEG Order Sort 123



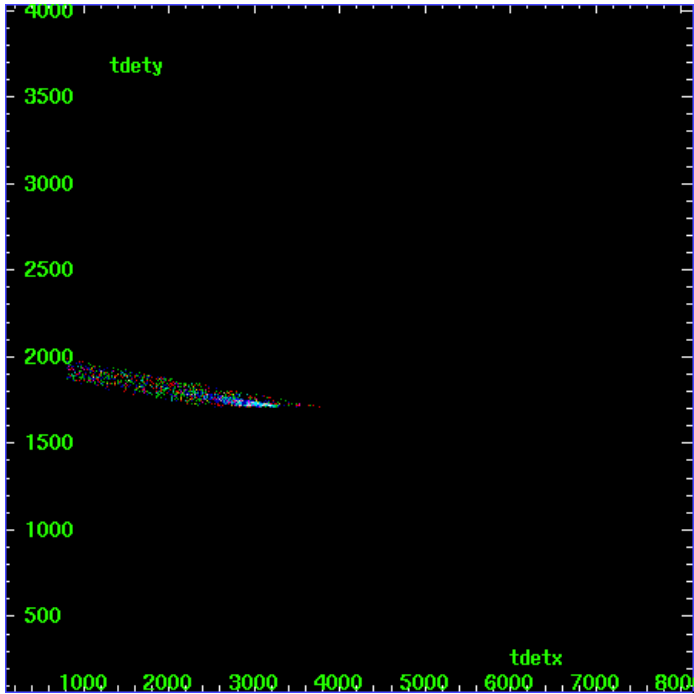
HEG Zero Order



HEG Order Sort ALL

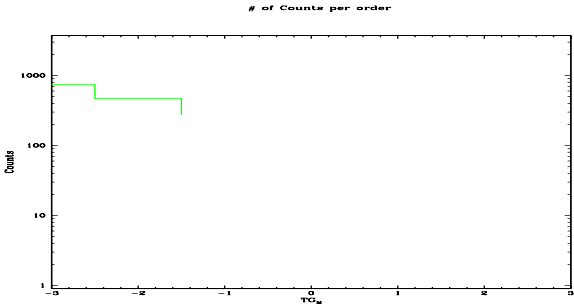


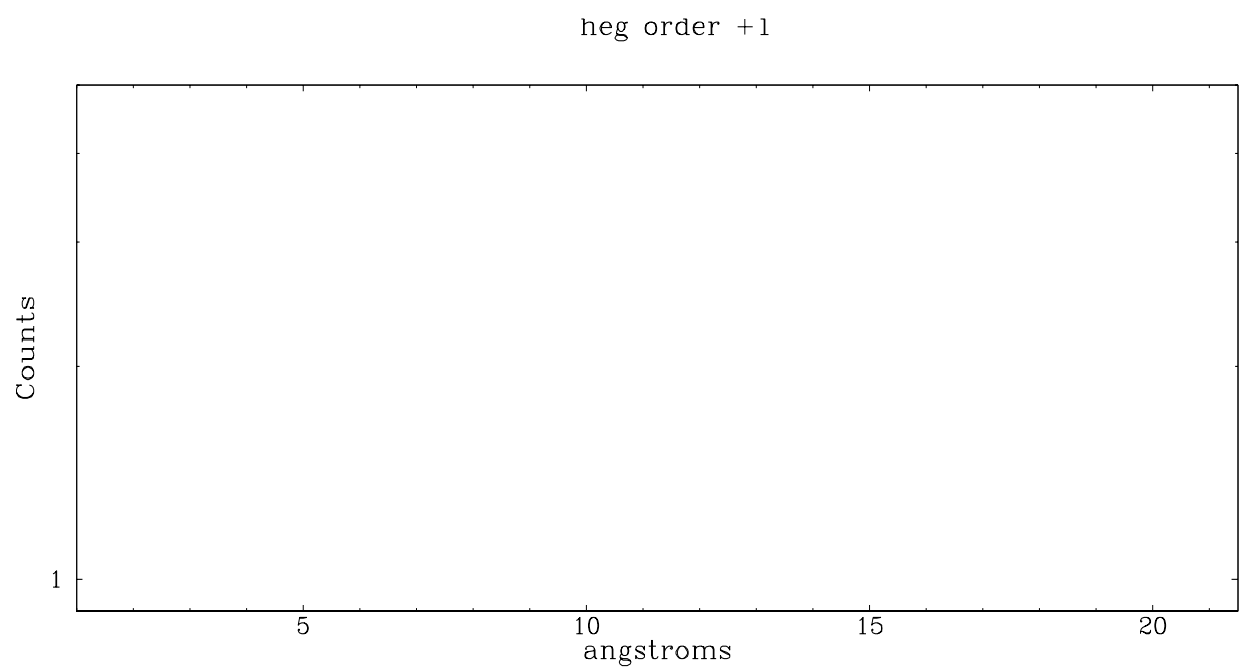
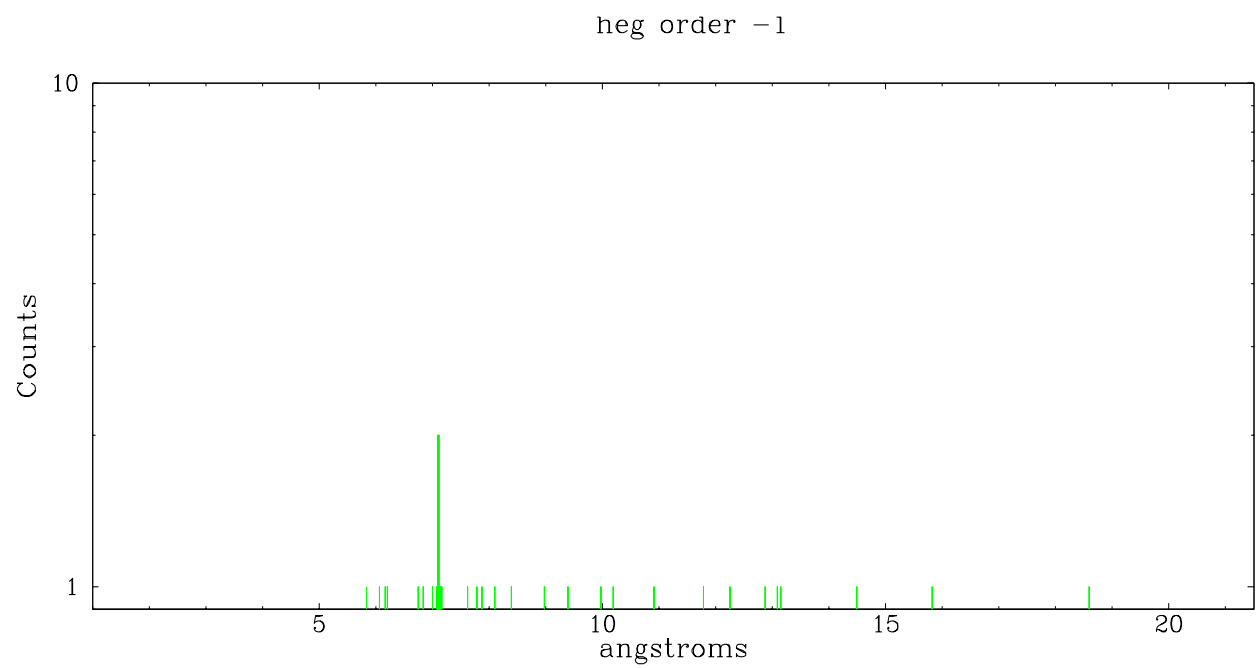
Spot Image HEG



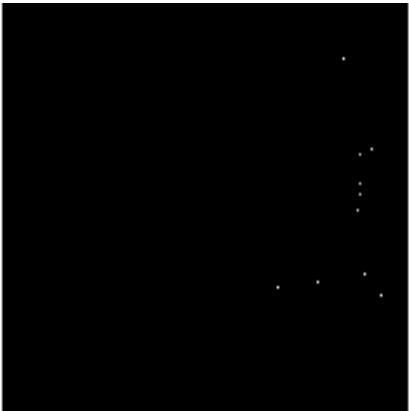
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	741	470	274	0	0	0	0

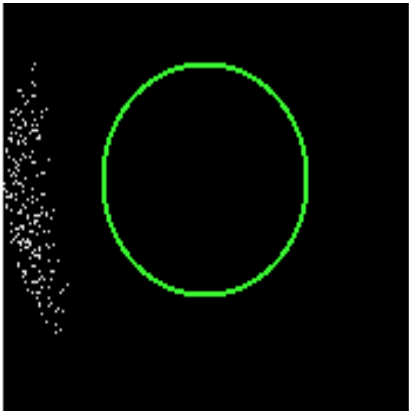




3.2 MEG Arm



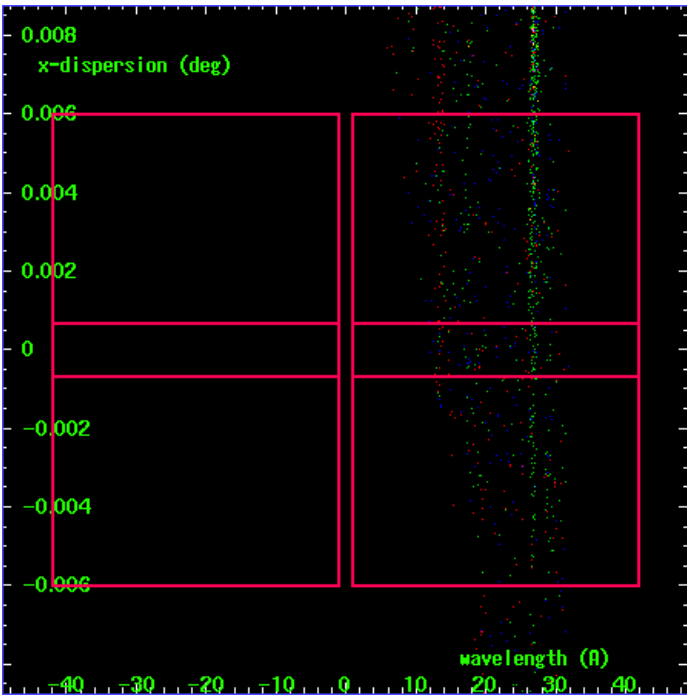
MEG Order Sort 123



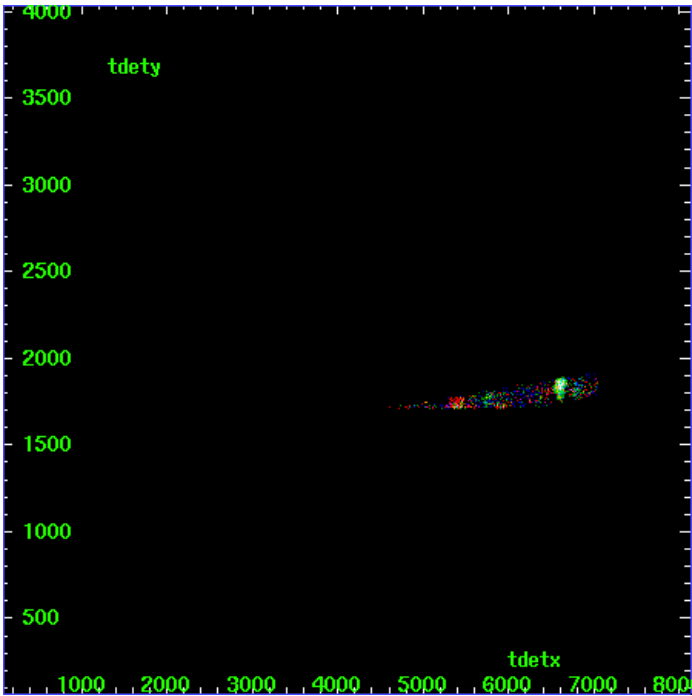
MEG Zero Order



MEG Order Sort ALL

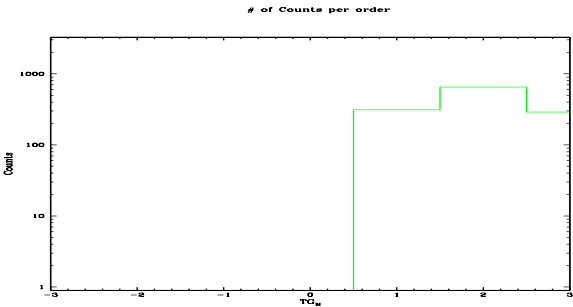


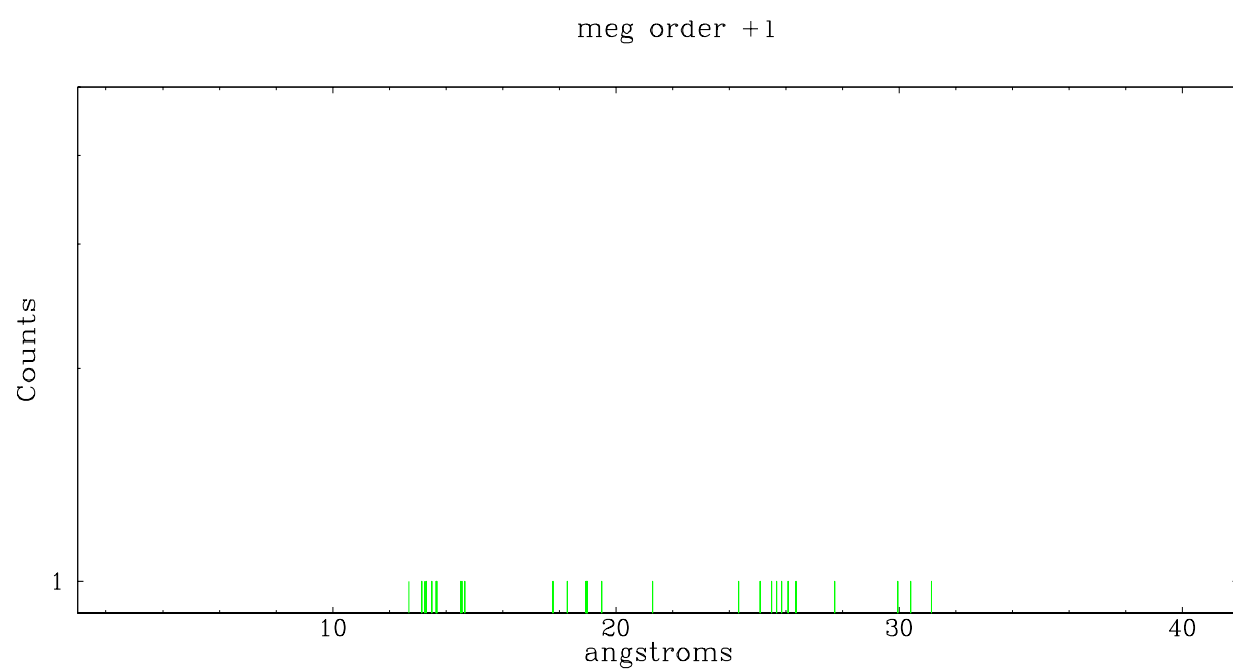
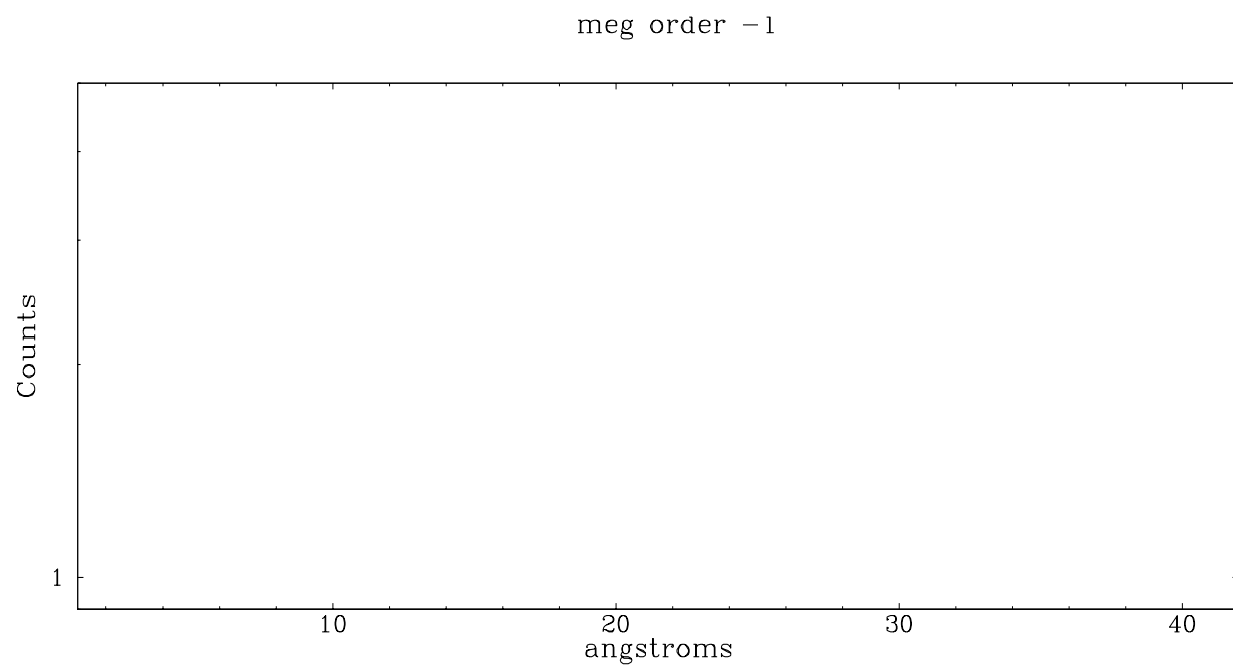
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	0	312	653	290





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.06.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	60.377

A.2 Comments

Due to a pointing error, the intended target, GX 301-2, was placed off the detector. Small segments of the dispersed spectral arms from the source GX 301.2 are visible very near the edge of the CCD subarray, and some third HEG events are present at longer wavelengths. The observation of this target was repeated as obsid 3433. There is a bright X-ray source on chip S2, AX J1227.2-6239. The HETG spectral arms from this source are faint but present.

A CCD bias map was incomplete because of data gaps in telemetry. Bias map for chip 7 was reconstructed using scaled data from a comparable bias map for another observation to fill the data gaps.