

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 1906 - L2 Version 001
Chandra X-Ray Center

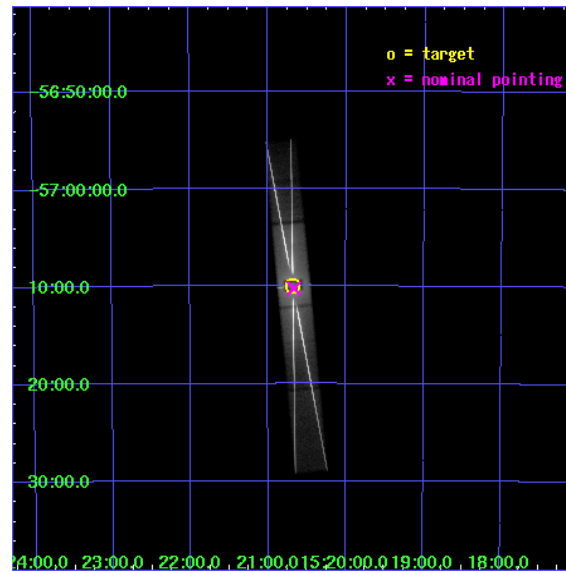
L2 Processing Date : Dec 27 2006

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1 Front

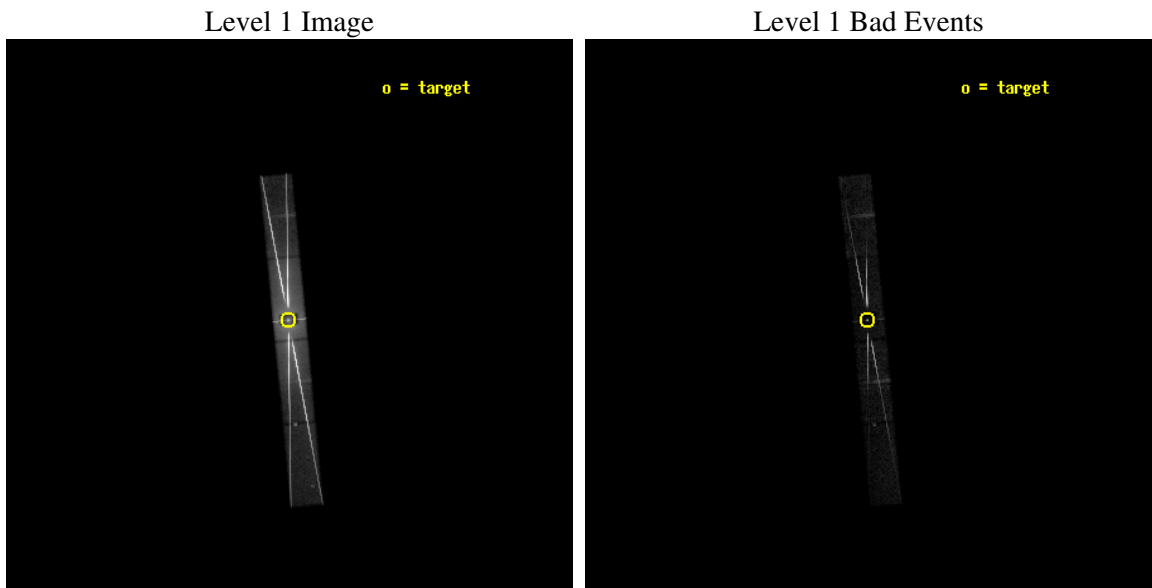
seq_num	400119
obs_id	1906
title	PHASE RESOLVED SPECTROSCOPY OF THE X-RAY P-CYGNI PROFILES FROM CIRCINUS X-1
observer	Prof. William Brandt
object	CIR X-1
dtcycle	0
cycle	P
ra_targ	230.170833
dec_targ	-57.166667
ra_nom	230.16694536876
dec_nom	-57.170585808427
roll_nom	264.48154255947
revision	4
ontime	8131.4999813586
livetime	7882.6507604294
ontime5	8131.4999813586
ontime6	8131.4999813586
ontime7	8131.4999813586
ontime8	8131.4999813586
l2events	1602272



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0
ascdsver	7.6.9
caldbver	3.2.4
date	2006-12-19T10:22:14
revision	4

sched_exp_time	8000.000000
ontime	9054.5851777345
ontime5	9086.7701377571
ontime6	9007.6487777382
ontime7	9054.5851777345
ontime8	9026.4233377427
llevents	1904753

2.1.3 Events

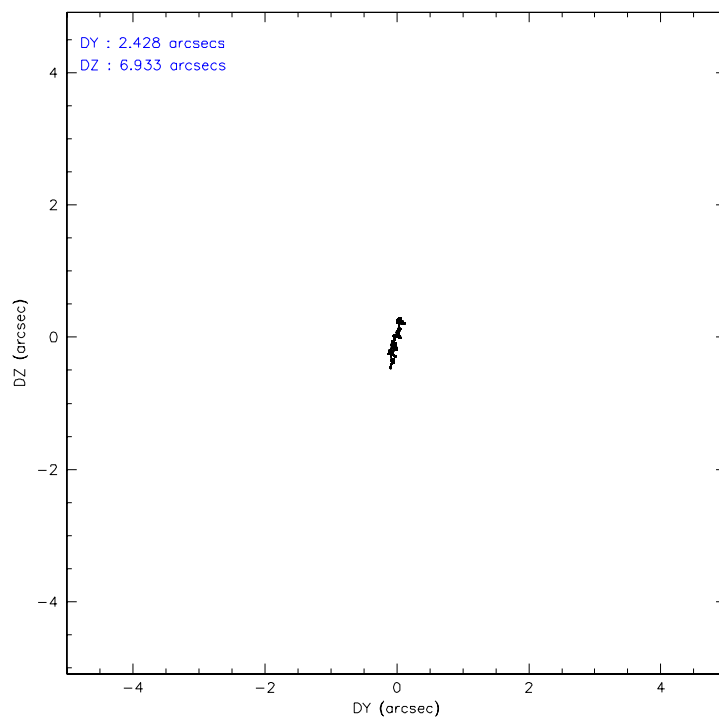
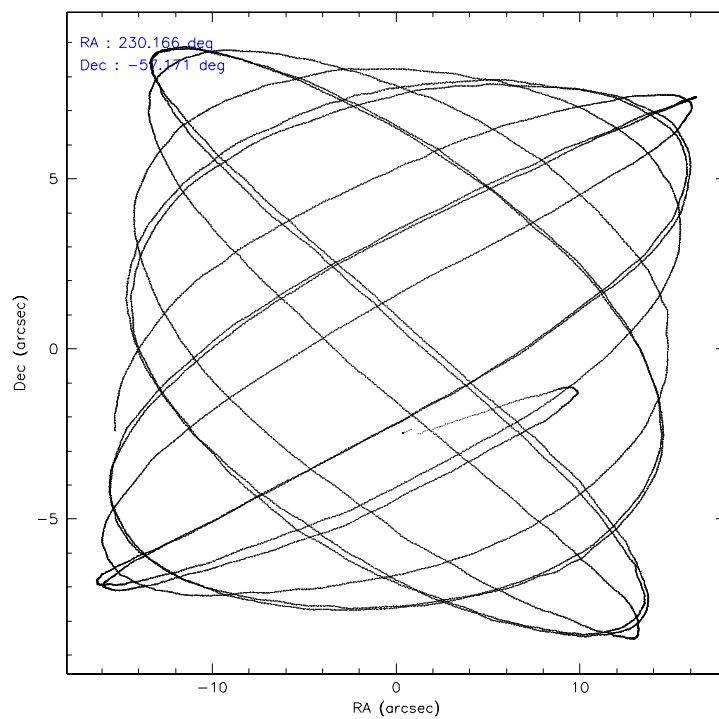
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	108272	702135	888117	206229
rejected events	24343	74125	113458	33251
rejected %	22%	10%	12%	16%

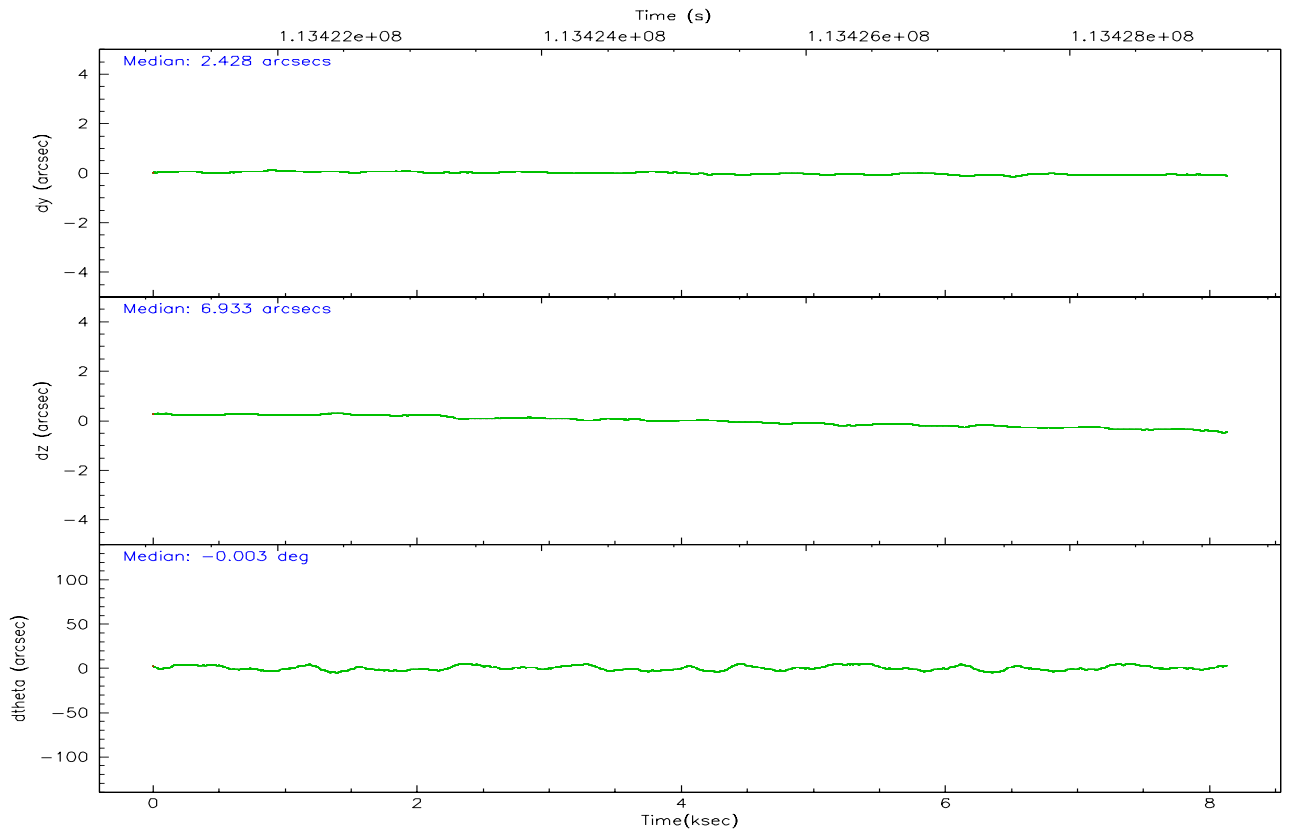
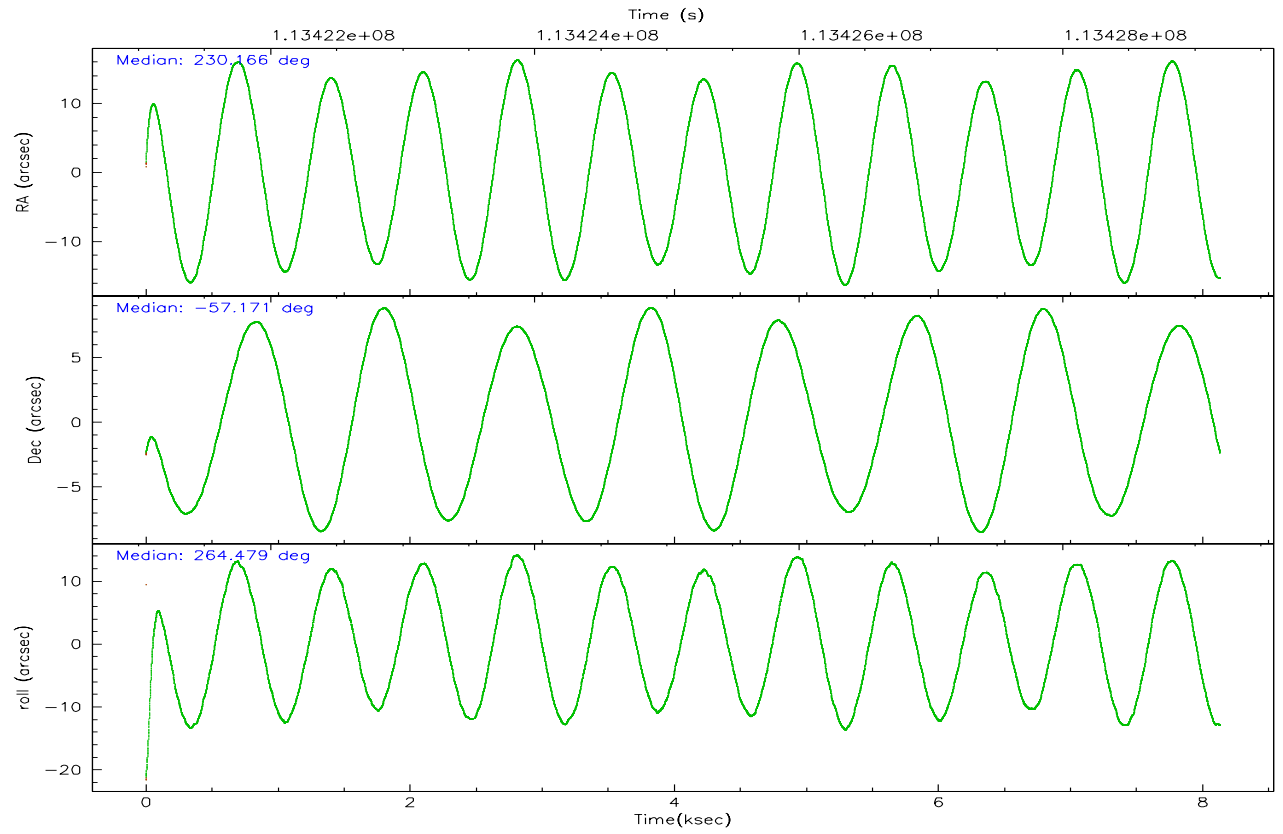
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	20211	436573	131519	131424
	18%	62%	14%	63%
grade 1 events	301	15672	5207	1189
	0%	2%	0%	0%
grade 2 events	29560	90763	198968	21660
	27%	12%	22%	10%
grade 3 events	6543	33521	76539	7419
	6%	4%	8%	3%
grade 4 events	6623	32530	75550	7662
	6%	4%	8%	3%
grade 5 events	3013	14637	28289	1867
	2%	2%	3%	0%
grade 6 events	24572	44035	309653	7983
	22%	6%	34%	3%
grade 7 events	17449	34404	62392	27025
	16%	4%	7%	13%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	230.145621	230.1669453687571	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-57.145881	-57.17058580842692	Subarray start row	15	15
Pointing Roll	264.307033	264.4815425594746	Subarray row count	400	400
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	1.3
SIM translation stage pos (mm)	-182.832523	-182.8410087294432			
SIM translation stage offset (mm)	-7.3	-7.291513853564595			
Phase constraints	Y	Y			
Phase period	16.536700	16.536700			
Phase epoch	52100.241000	52100.241000			
Phase start	0.600000	0.600000			
Phase end	0.610000	0.610000			
Phase start error	0.010000	0.010000			
Phase end error	0.010000	0.010000			
Observation start time	113421190.184000	113419989.61515			
Observation start date	2001-08-05T17:52:06	2001-08-05T17:33:09			
Observation end time	113429190.184000	113430813.61557			
Observation end date	2001-08-05T20:05:26	2001-08-05T20:33:33			
Read mode	TIMED	TIMED			

2.3 Aspect



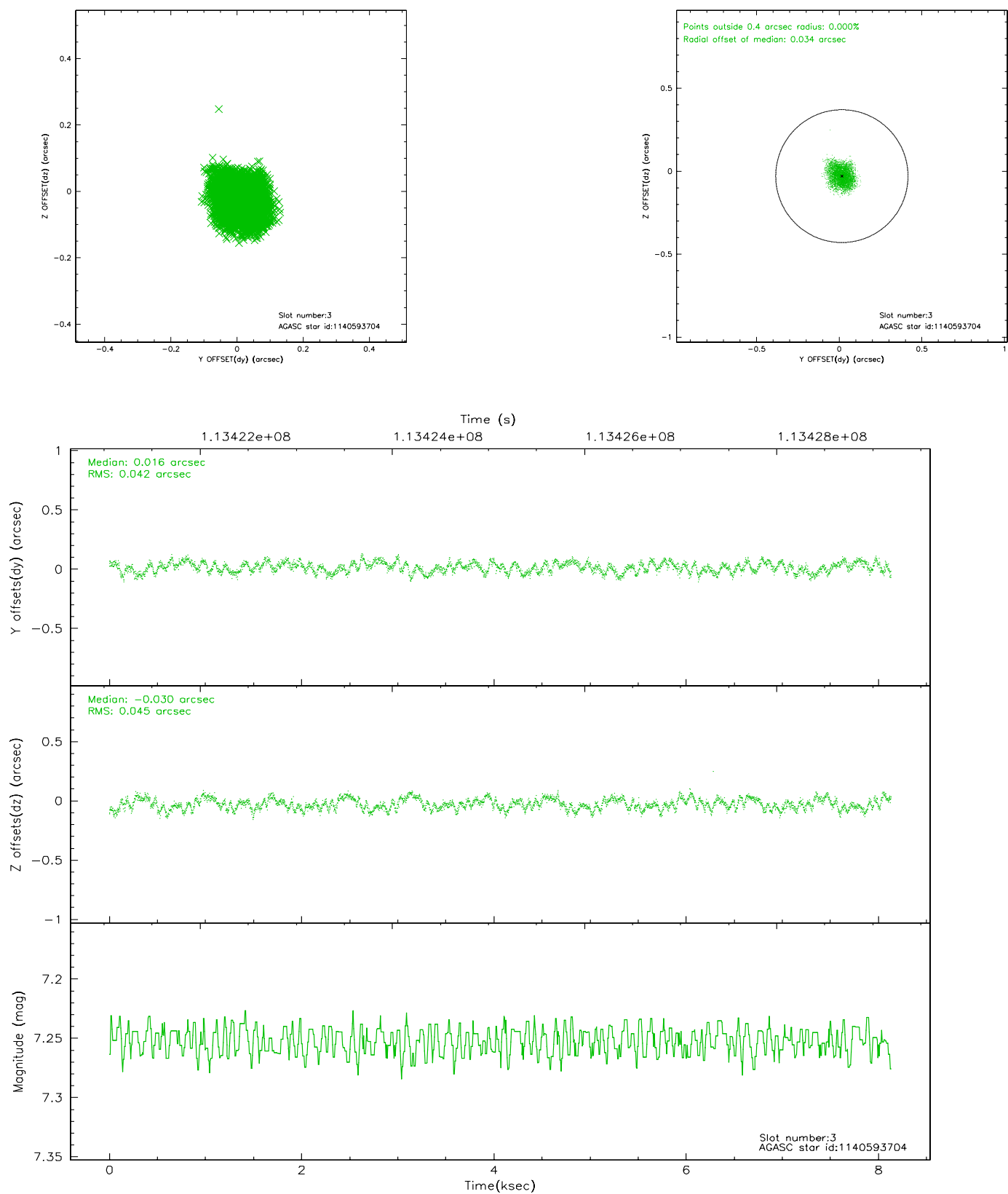


Slot Statistics

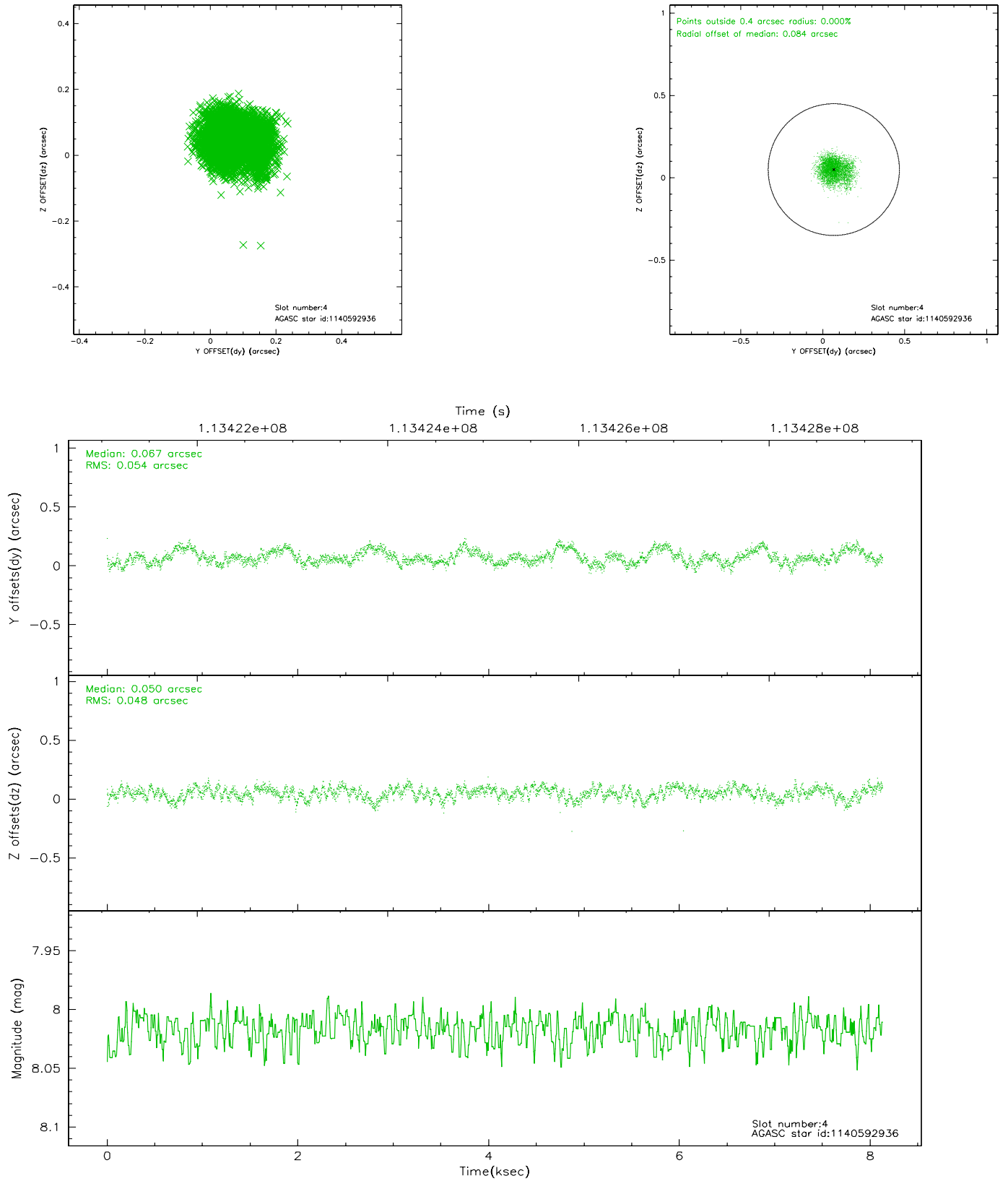
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	1984	-0.035	-0.102	0.040	0.067	0.000000	0.000000	-754.60	-1878.40
1	FID	ACIS-S-4	7.18	1984	-0.078	0.046	0.022	0.042	0.000000	0.000000	2158.36	29.38
2	FID	ACIS-S-5	7.21	1984	0.089	0.066	0.043	0.066	0.000000	0.000000	-1806.39	23.93
3	GUIDE	1140593704	7.25	3968	0.016	-0.030	0.067	0.101	229.741417	-57.540991	1495.32	-634.81
4	GUIDE	1140592936	8.02	3968	0.067	0.050	0.077	0.122	228.953111	-57.013969	-219.69	-2369.92
5	GUIDE	1140722888	8.10	3968	0.003	-0.051	0.057	0.091	230.457489	-57.599243	1565.79	761.06
6	GUIDE	1140723840	8.56	3967	0.004	-0.089	0.179	0.236	230.379592	-56.994965	-584.85	403.76
7	GUIDE	1140726312	8.89	3964	-0.089	0.125	0.094	0.149	231.010622	-56.676215	-1841.52	1536.71

2.4 Star Slots

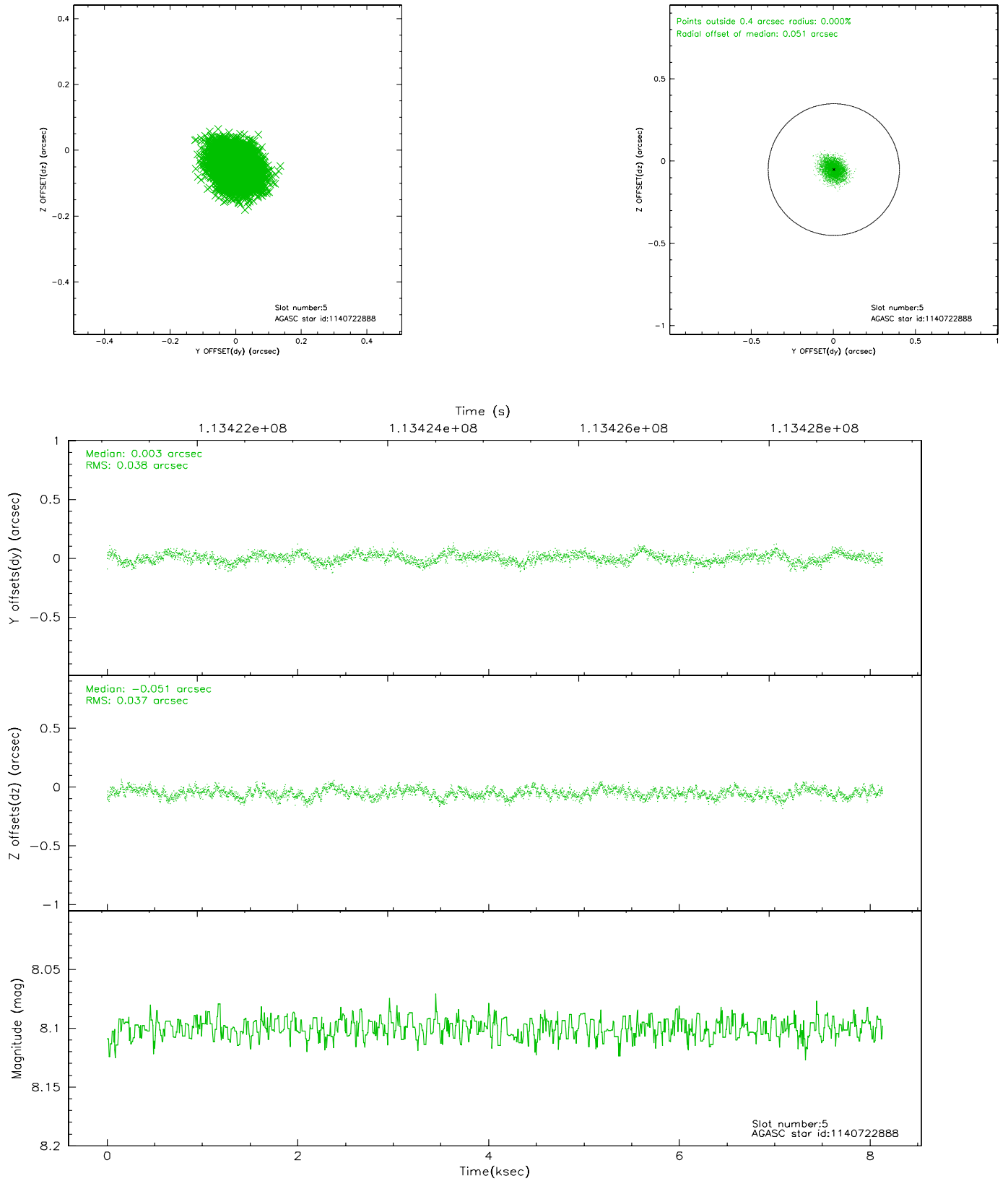
2.4.1 Slot 3



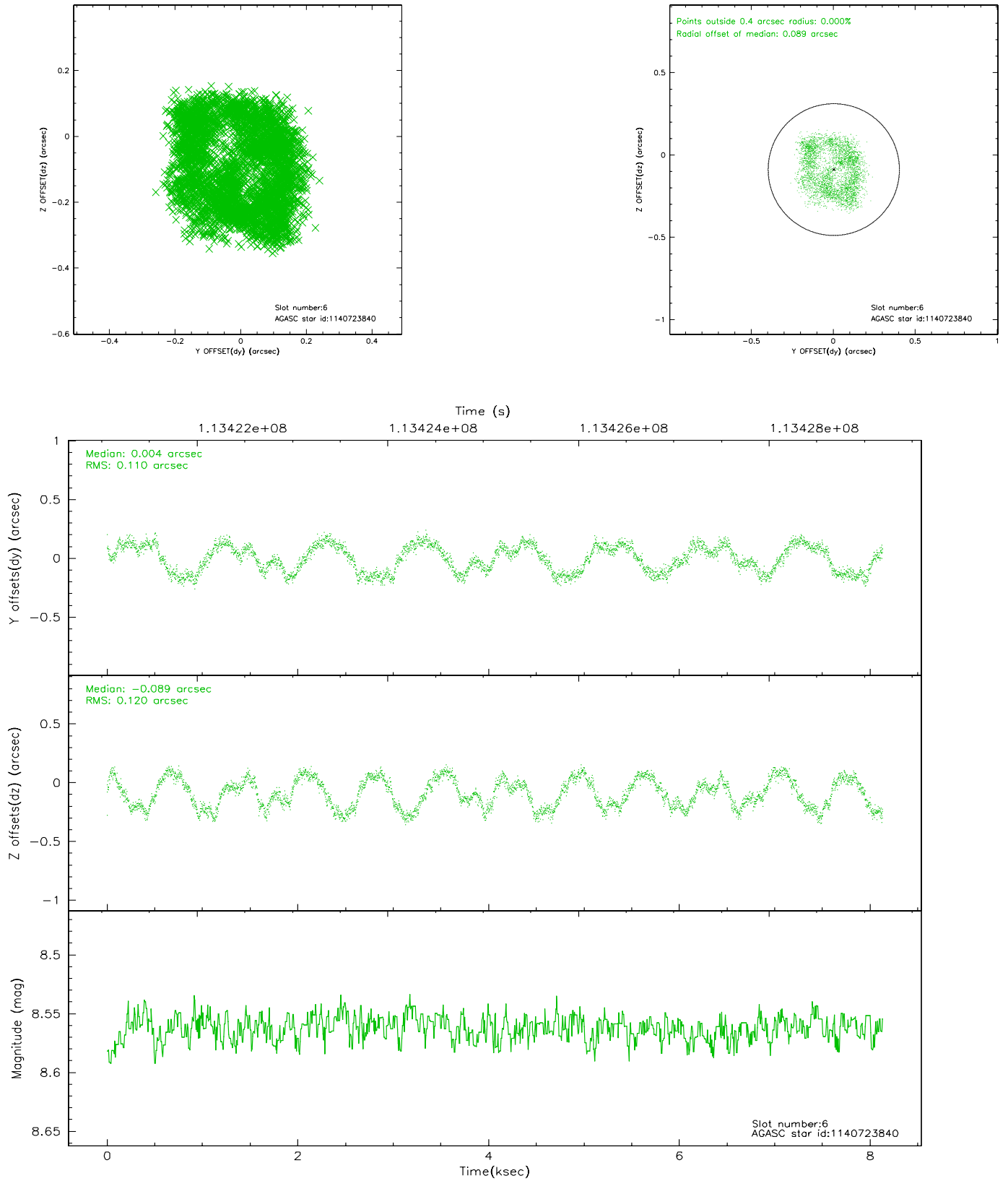
2.4.2 Slot 4



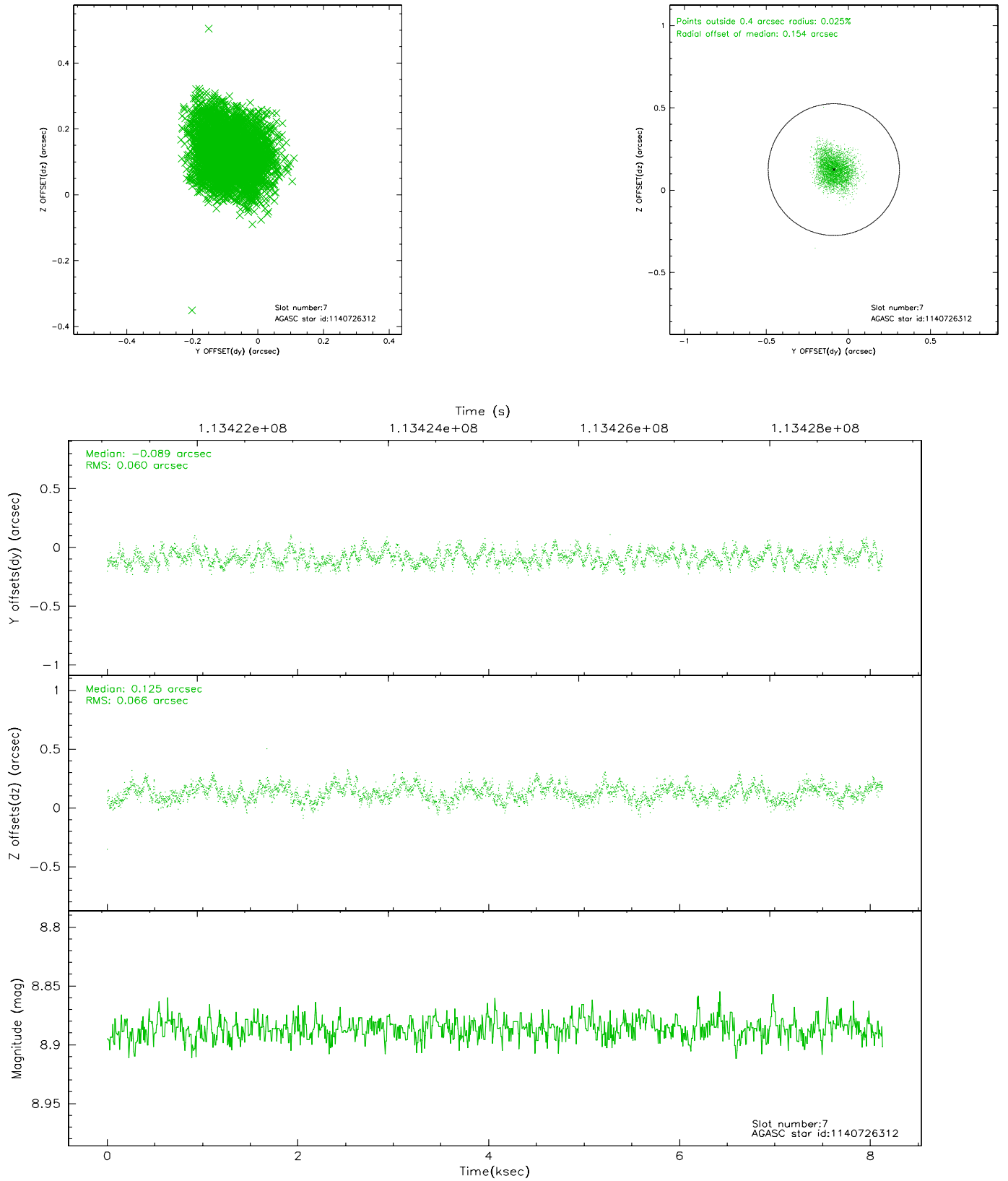
2.4.3 Slot 5



2.4.4 Slot 6

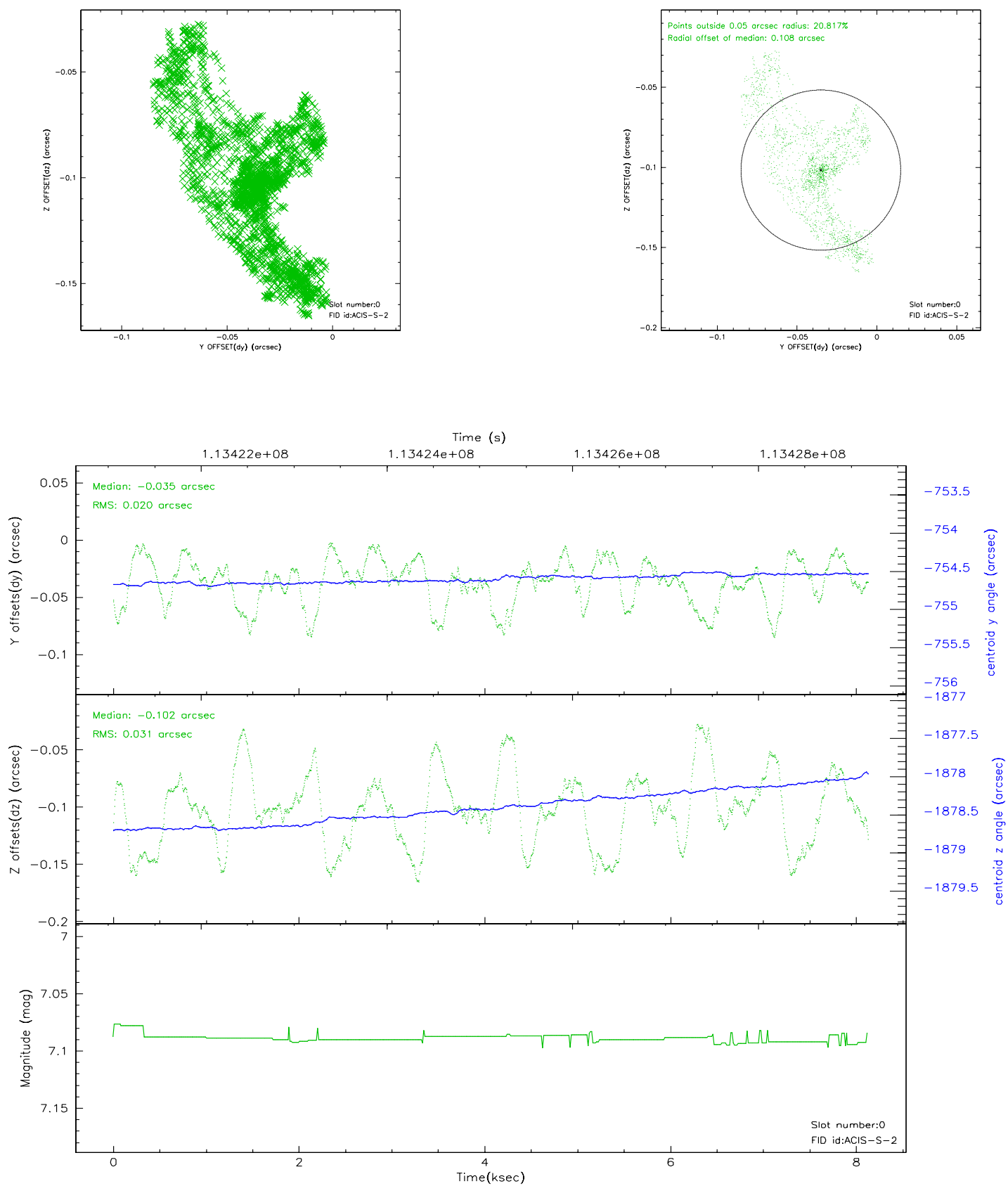


2.4.5 Slot 7

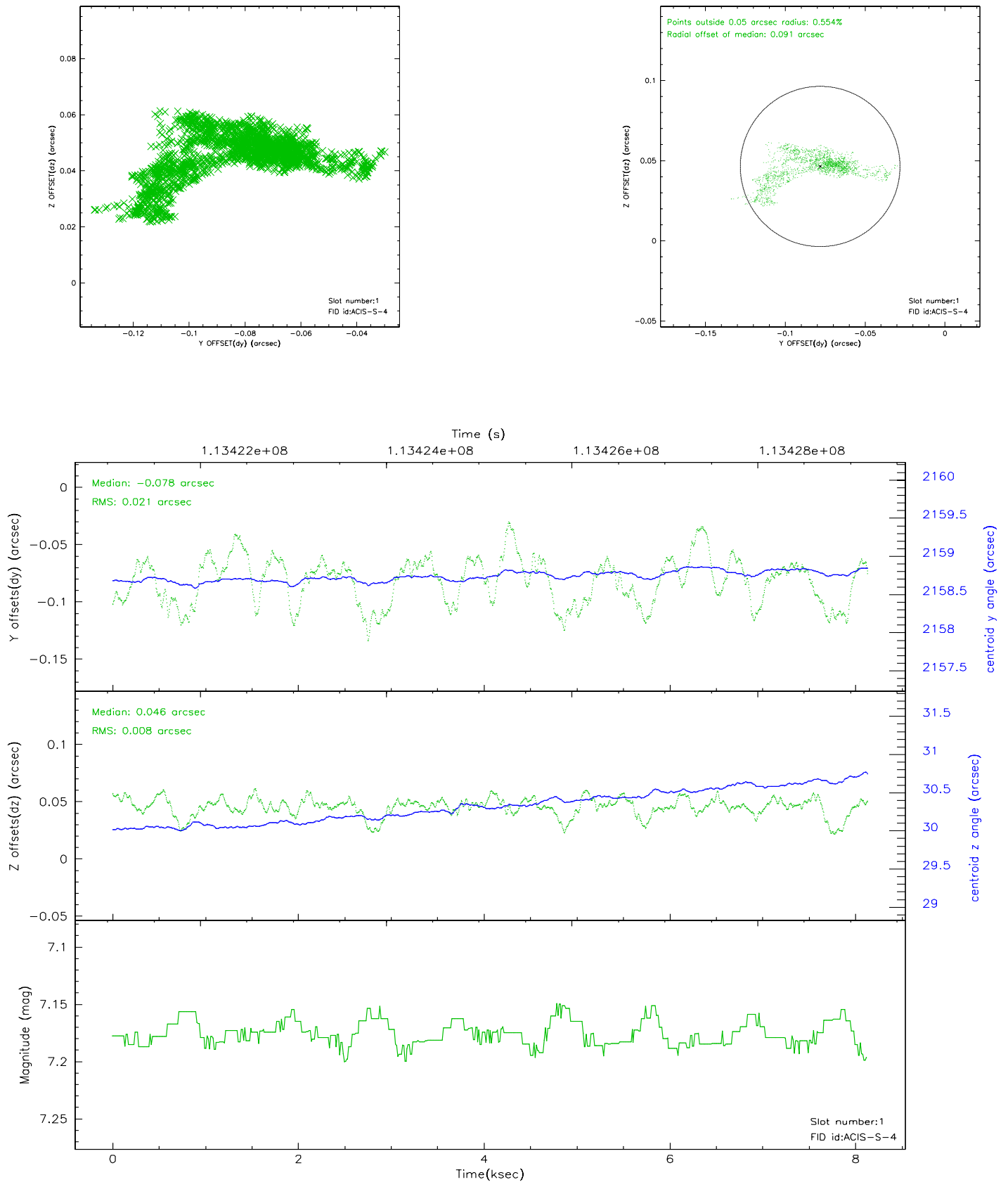


2.5 FID Slots

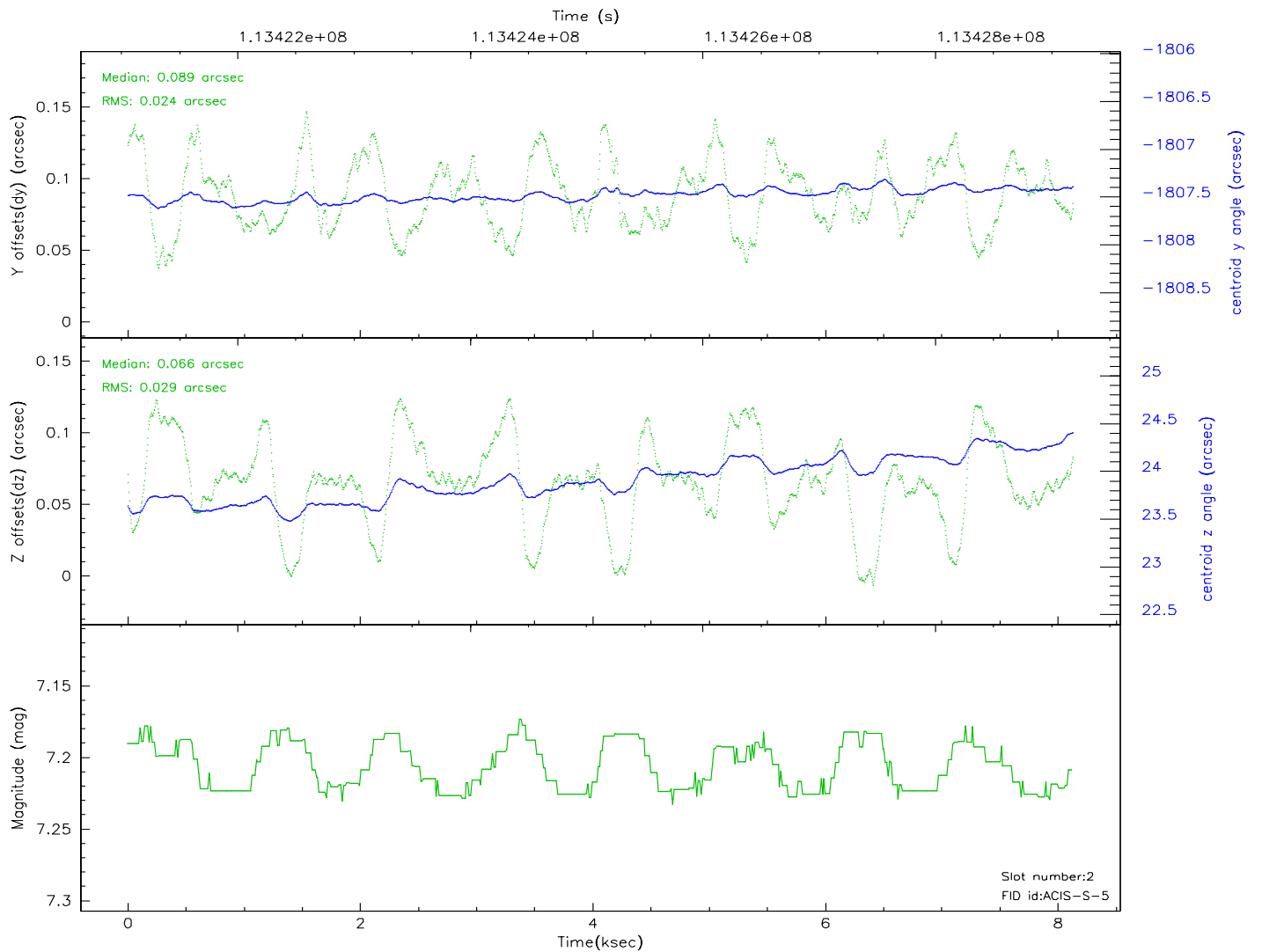
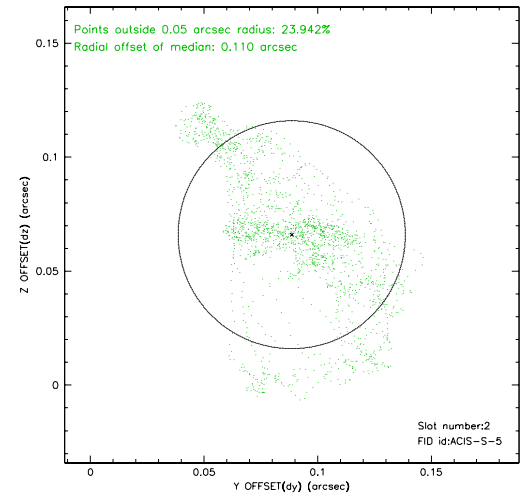
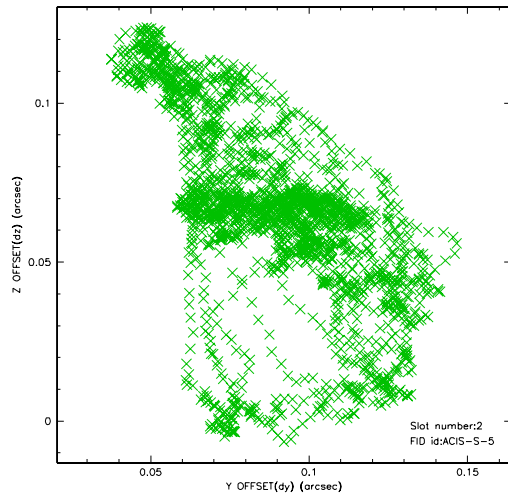
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

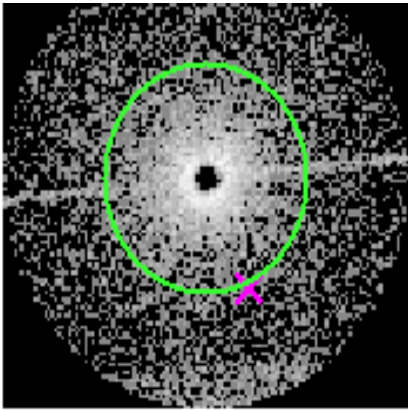


3 Gratings

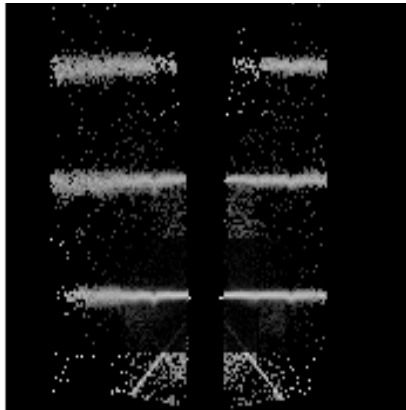
3.1 HEG Arm



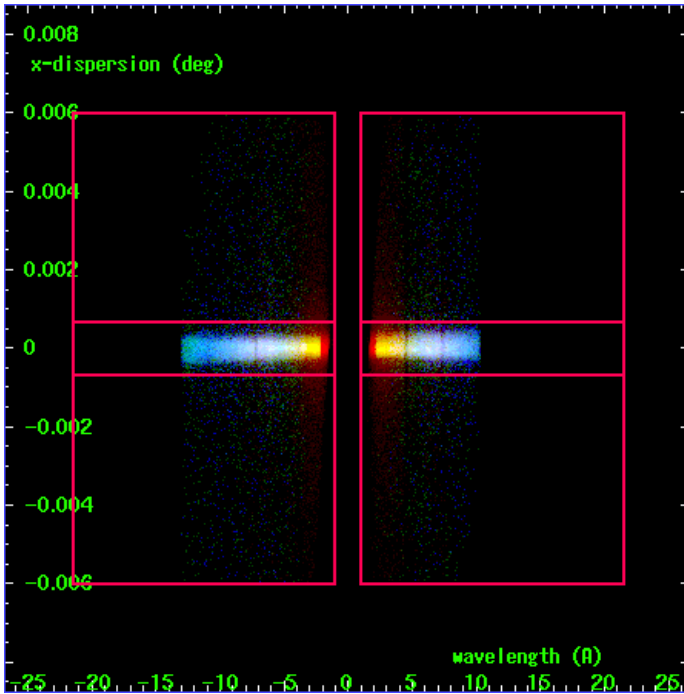
HEG Order Sort 123



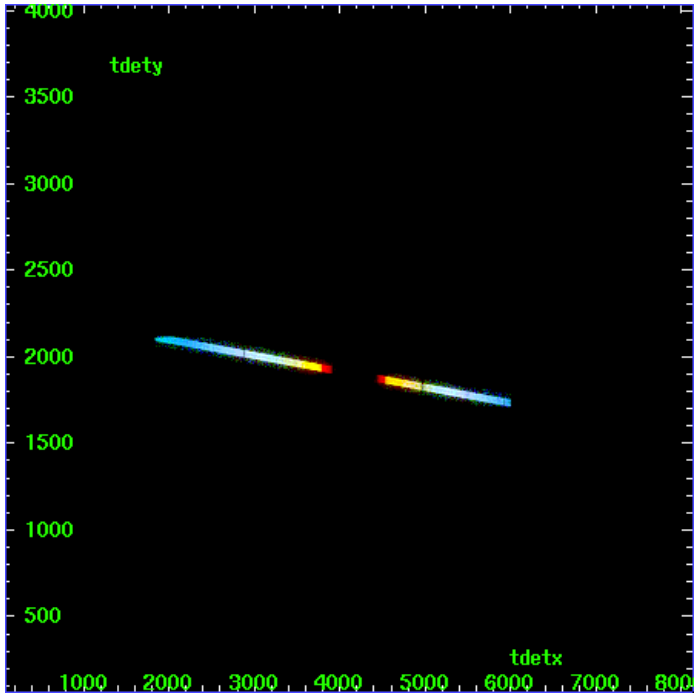
HEG Zero Order



HEG Order Sort ALL

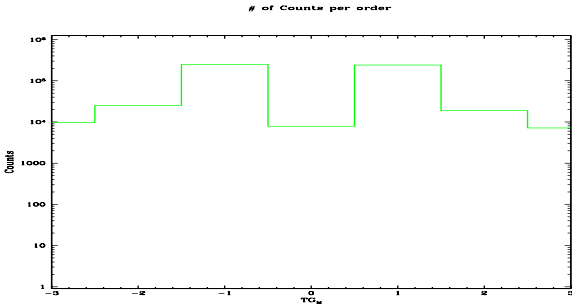


Spot Image HEG

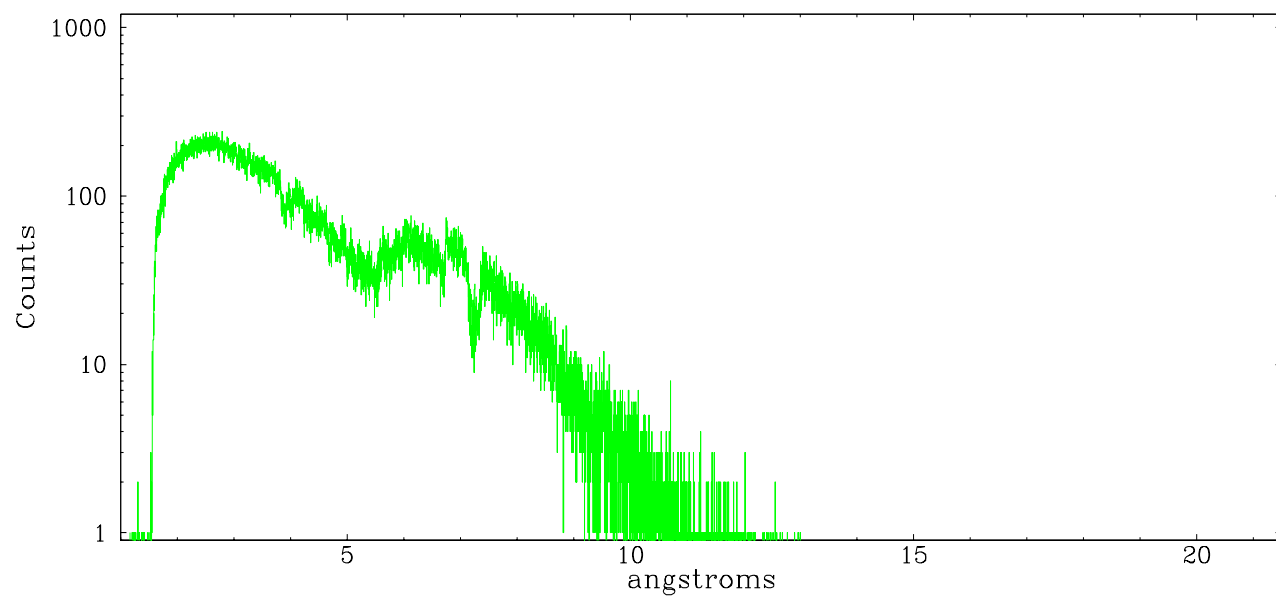


Full Detector HEG

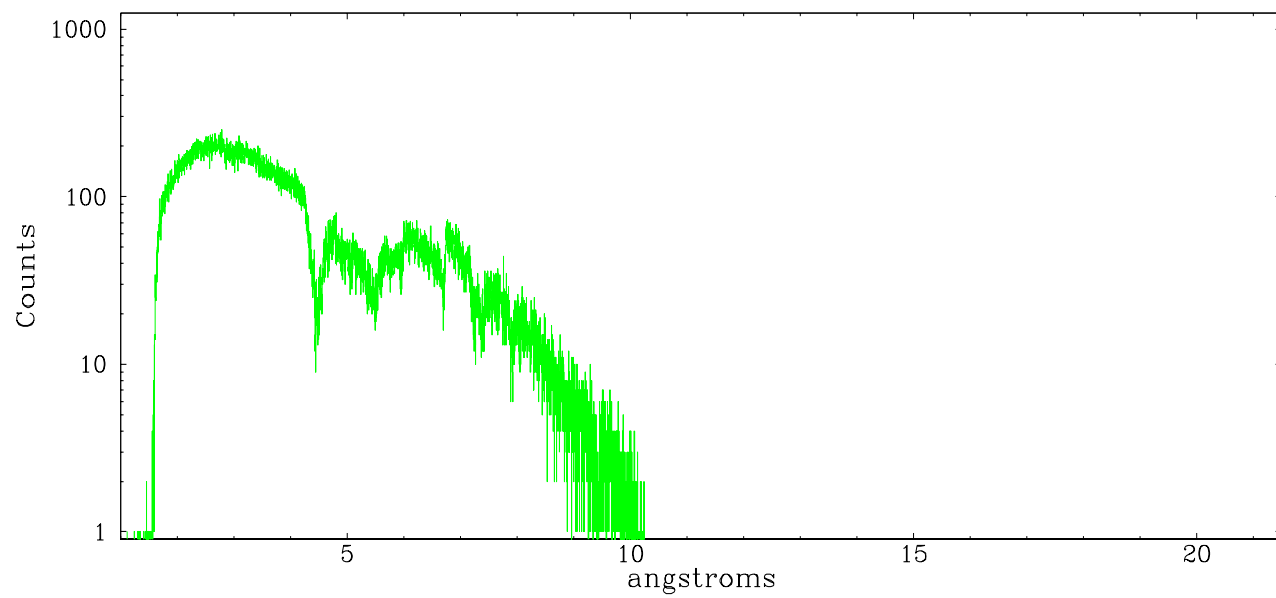
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	9676	25099	249343	7869	241628	18949	7150



heg order -1



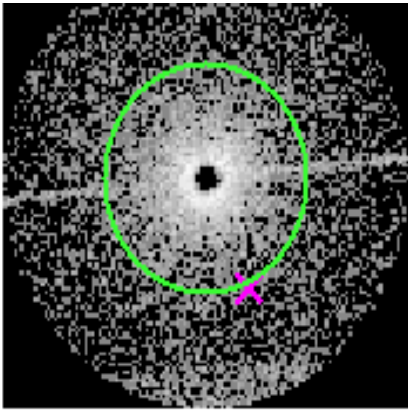
heg order +1



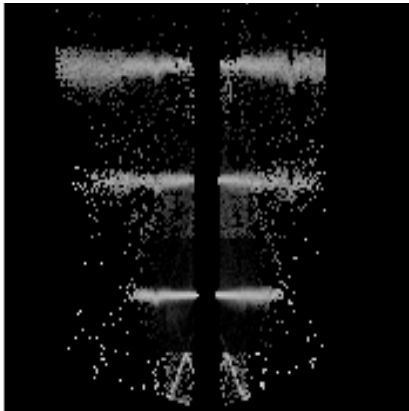
3.2 MEG Arm



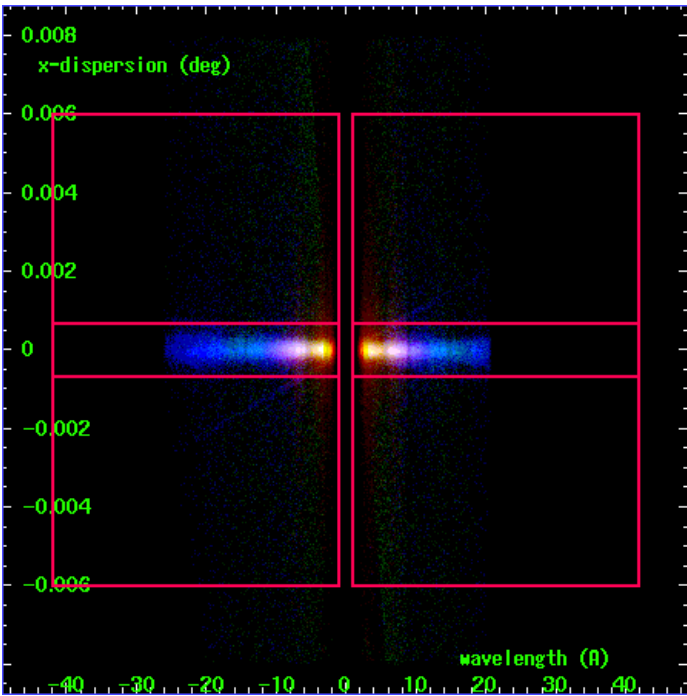
MEG Order Sort 123



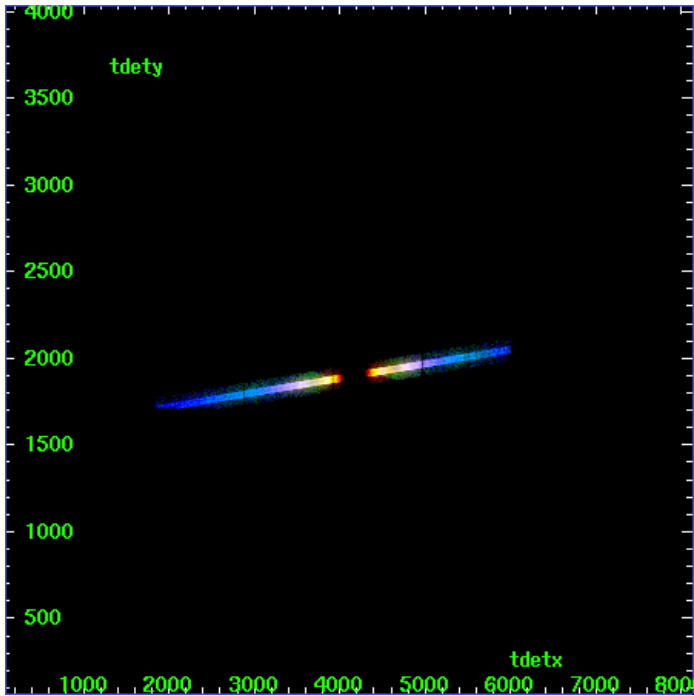
MEG Zero Order



MEG Order Sort ALL

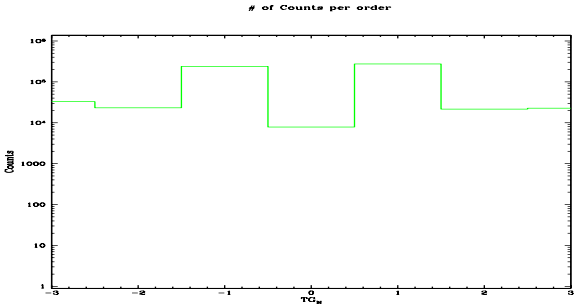


Spot Image MEG

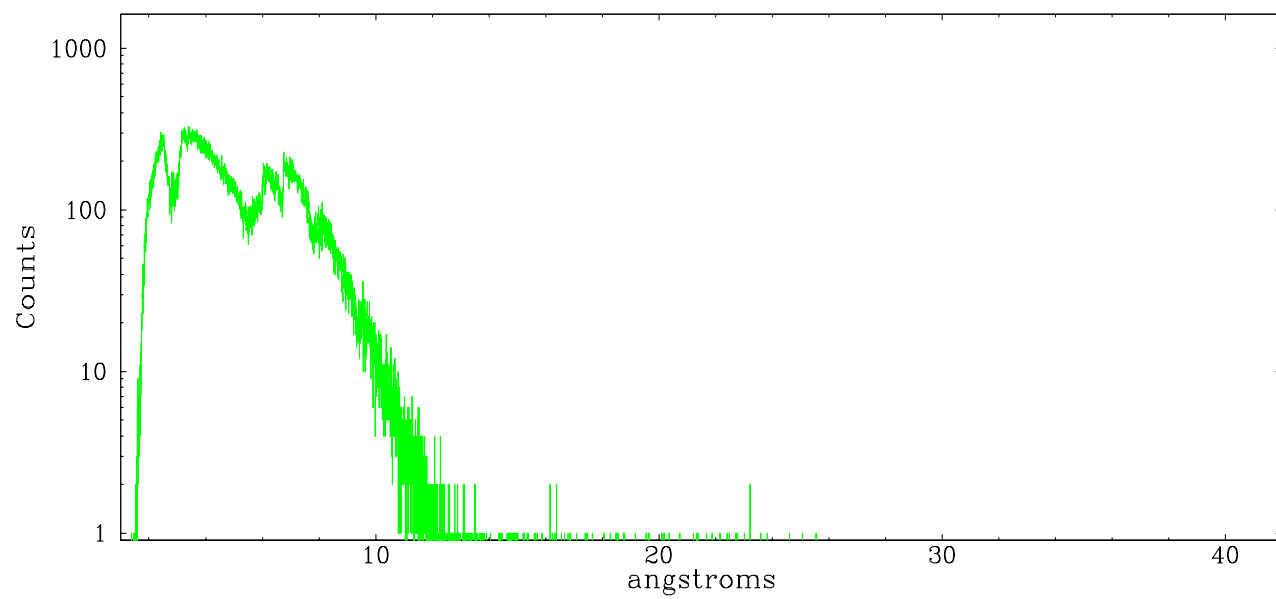


Full Detector MEG

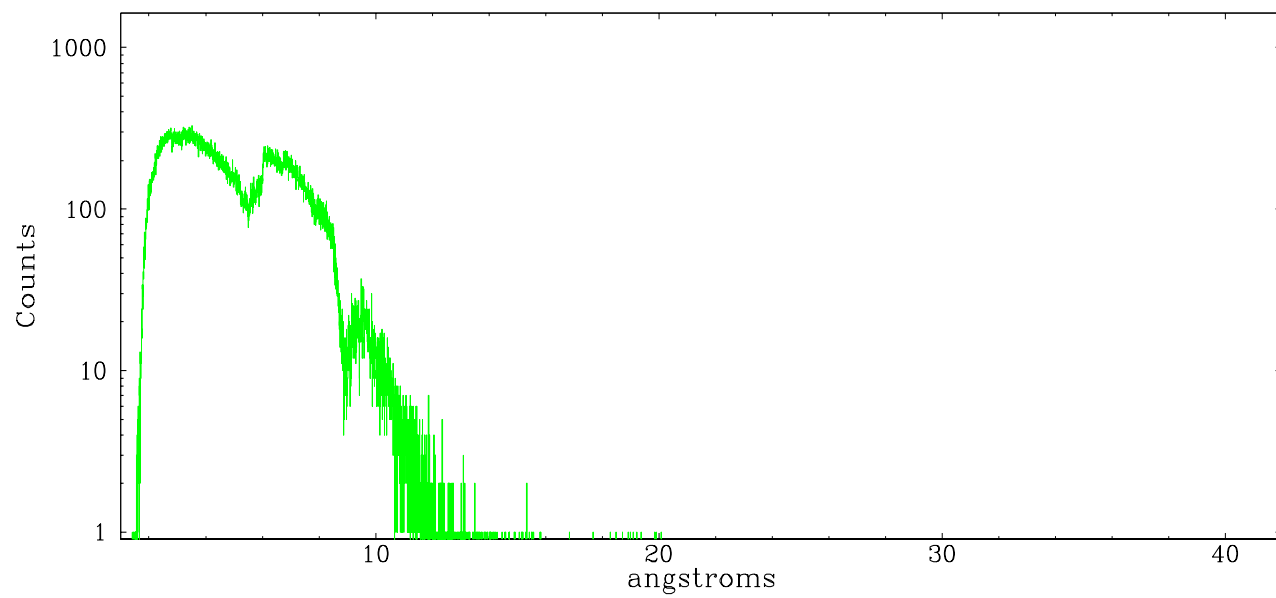
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	32860	23150	239346	7869	274942	21499	22688



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2006.12.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.131

A.2 Comments

Due to pileup of the zeroth order, tgdetect did not appear to give the correct position. Findzero results for meg of x0=4083.30; y0=4124.82 were used as the zeroth order position.

The grating spectra are probably piled, since they show in an image of bad events.