

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2699 - L2 Version 001
Chandra X-Ray Center

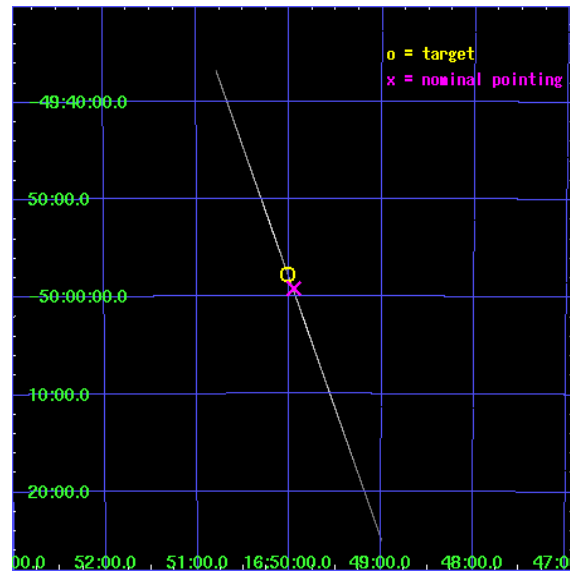
L2 Processing Date : Jan 6 2007

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1 Front

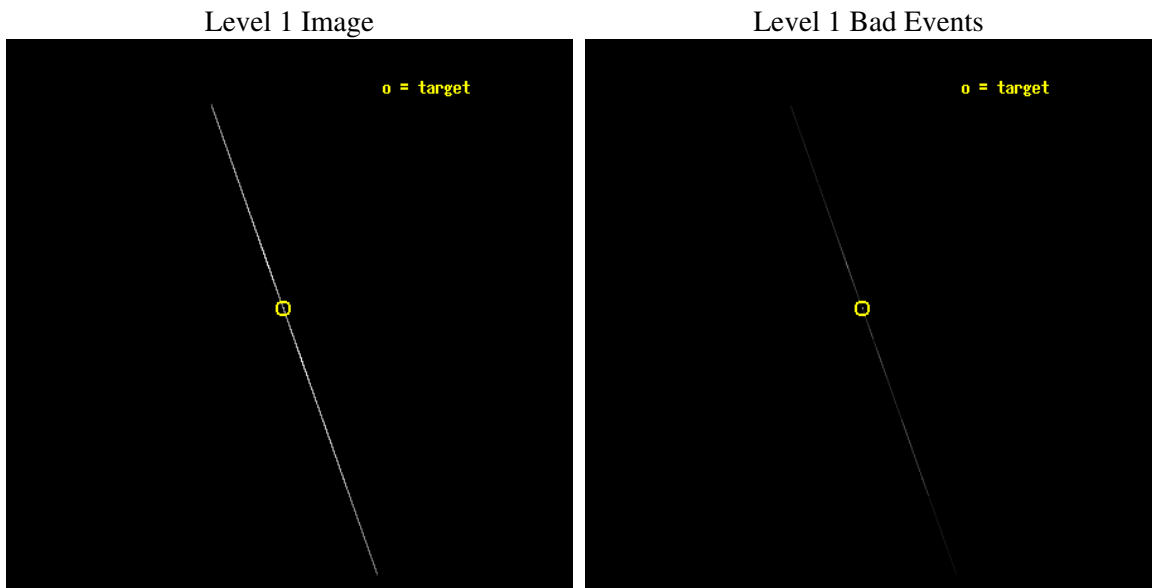
seq_num	400179
obs_id	2699
title	RESOLVING GALACTIC BLACK HOLE ACCRETION GEOMETRY WITH CHANDRA
observer	Prof. Walter Lewin
object	XTE J1650-500
ra_targ	252.504167
dec_targ	-49.9625
ra_nom	252.48776998642
dec_nom	-49.98662315198
roll_nom	250.25957227266
revision	3
ontime	19283.863650709
livetime	19208.536058324
ontime4	26724.188353986
ontime5	30553.0
ontime6	13854.130391419
ontime7	19283.863650709
ontime8	15736.606448859
ontime9	29422.146170795
l2events	10460362



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	1
ascdsver	7.6.9
caldsver	3.2.4
date	2007-01-05T13:30:26
revision	3

sched_exp_time	30000.000000
ontime	19719.543312103
ontime4	27044.591843203
ontime5	30978.465728775
ontime6	14181.976701096
ontime7	19719.543312103
ontime8	16065.764339432
ontime9	29748.385615155
l1events	11472299

2.1.3 Events

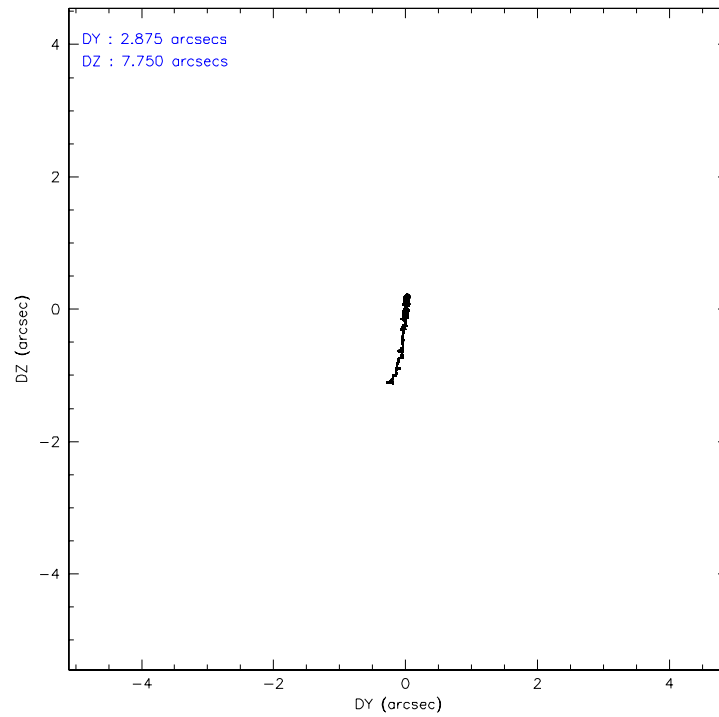
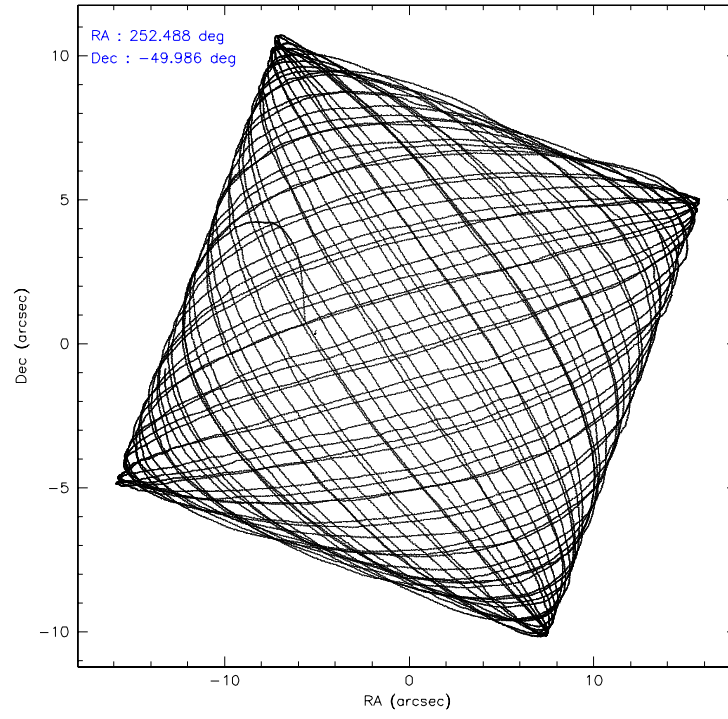
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	418747	1666145	3148516	2370131	2936437	932323
rejected events	8415	47614	33562	77531	32240	13722
rejected %	2%	2%	1%	3%	1%	1%

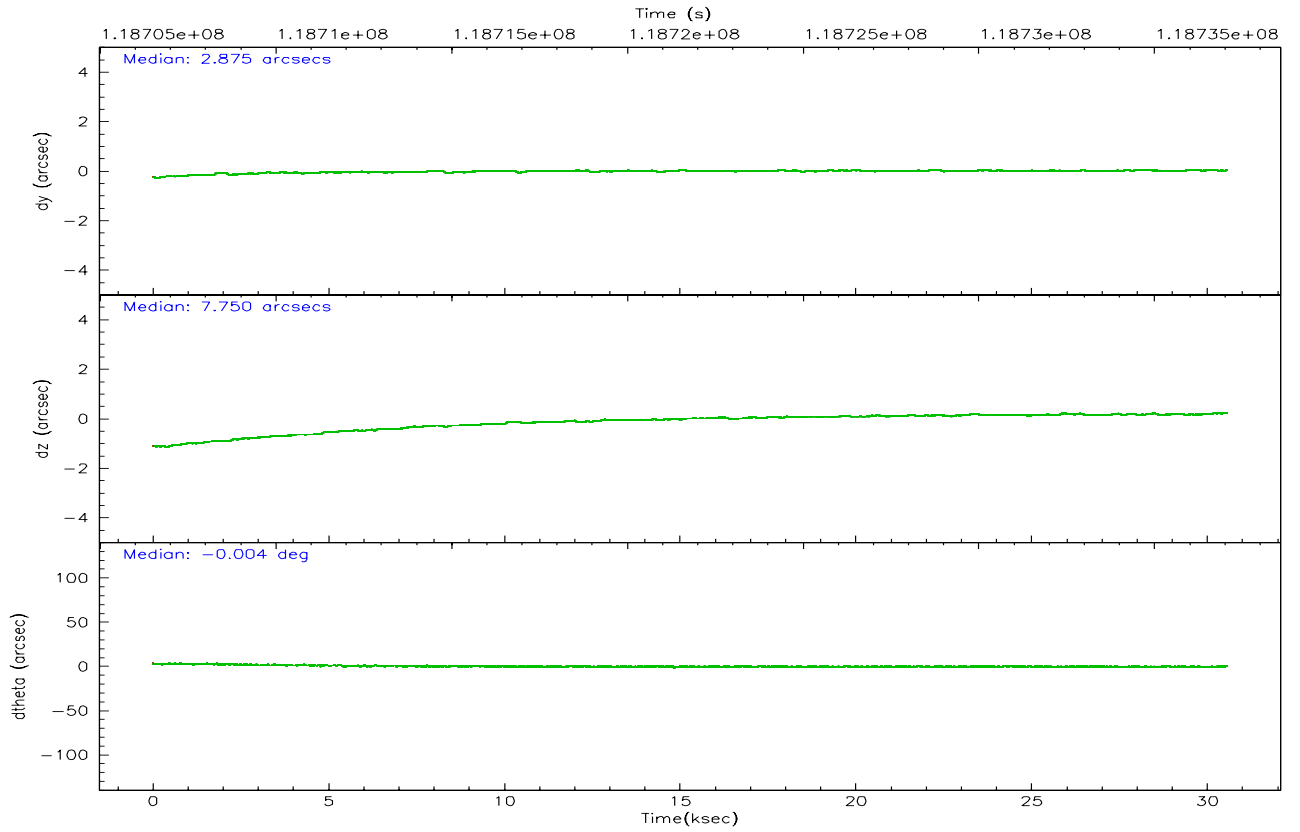
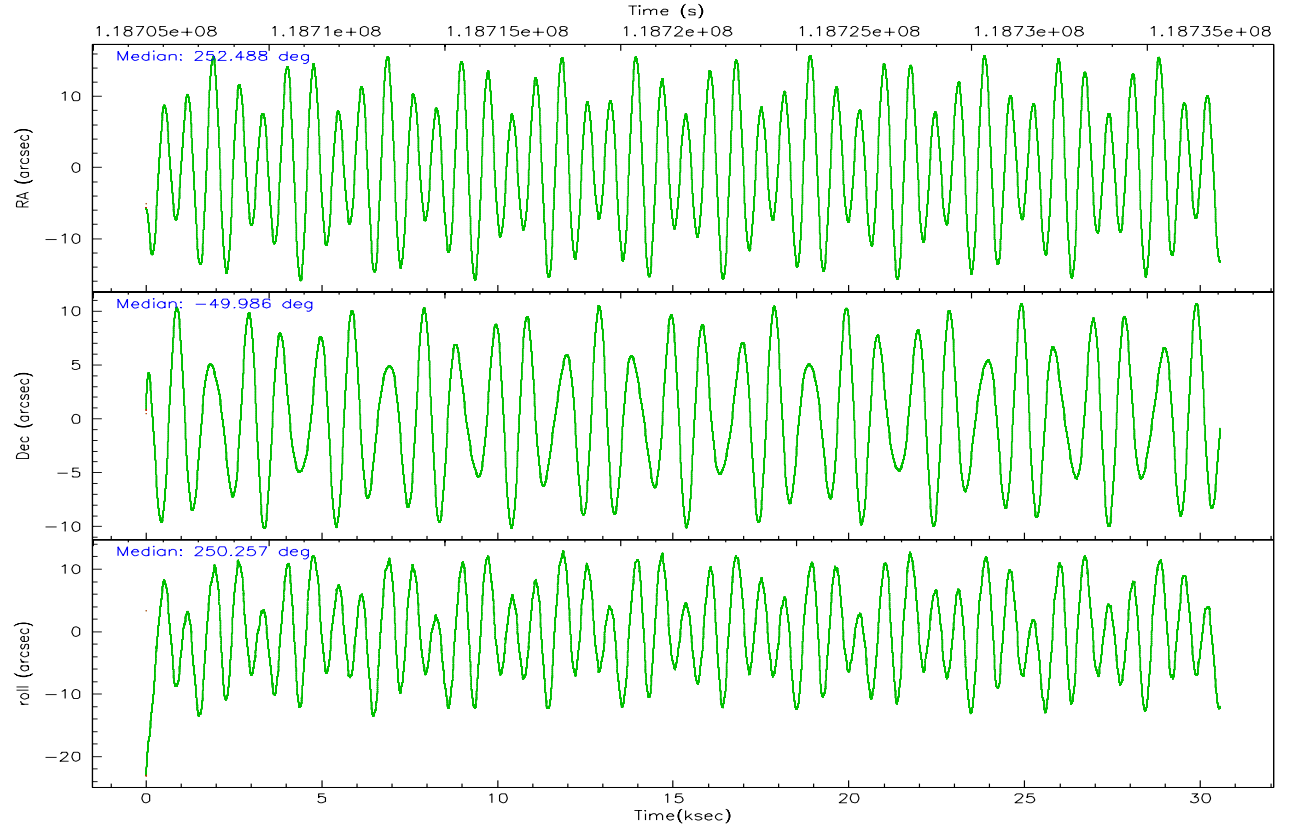
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	5689	190363	16783	250437	41594	81494
	1%	11%	0%	10%	1%	8%
grade 1 events	100	369	132	3961	221	258
	0%	0%	0%	0%	0%	0%
grade 2 events	371244	883150	2890872	843514	2675738	774074
	88%	53%	91%	35%	91%	83%
grade 3 events	4069	41858	2593	145592	8091	6172
	0%	2%	0%	6%	0%	0%
grade 4 events	4305	41298	2539	142460	7914	6266
	1%	2%	0%	6%	0%	0%
grade 5 events	6912	37559	16005	59921	16963	10687
	1%	2%	0%	2%	0%	1%
grade 6 events	26428	471548	219592	924246	185916	53372
	6%	28%	6%	38%	6%	5%
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_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	252.479763	252.4877699864203	Subarray requested	NONE	NONE
Pointing Dec	-49.959844	-49.98662315197952	Alternating exposures requested	N	N
Pointing Roll	250.096814	250.2595722726576	Primary exposure time	0.000000	0
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-194.132523	-194.1227414875429			
SIM translation stage offset (mm)	4	3.990218904535112			
Observation start time	118707066.184000	118705924.56155			
Observation start date	2001-10-05T22:10:02	2001-10-05T21:52:04			
Observation end time	118737066.184000	118737608.8503			
Observation end date	2001-10-06T06:30:02	2001-10-06T06:40:08			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



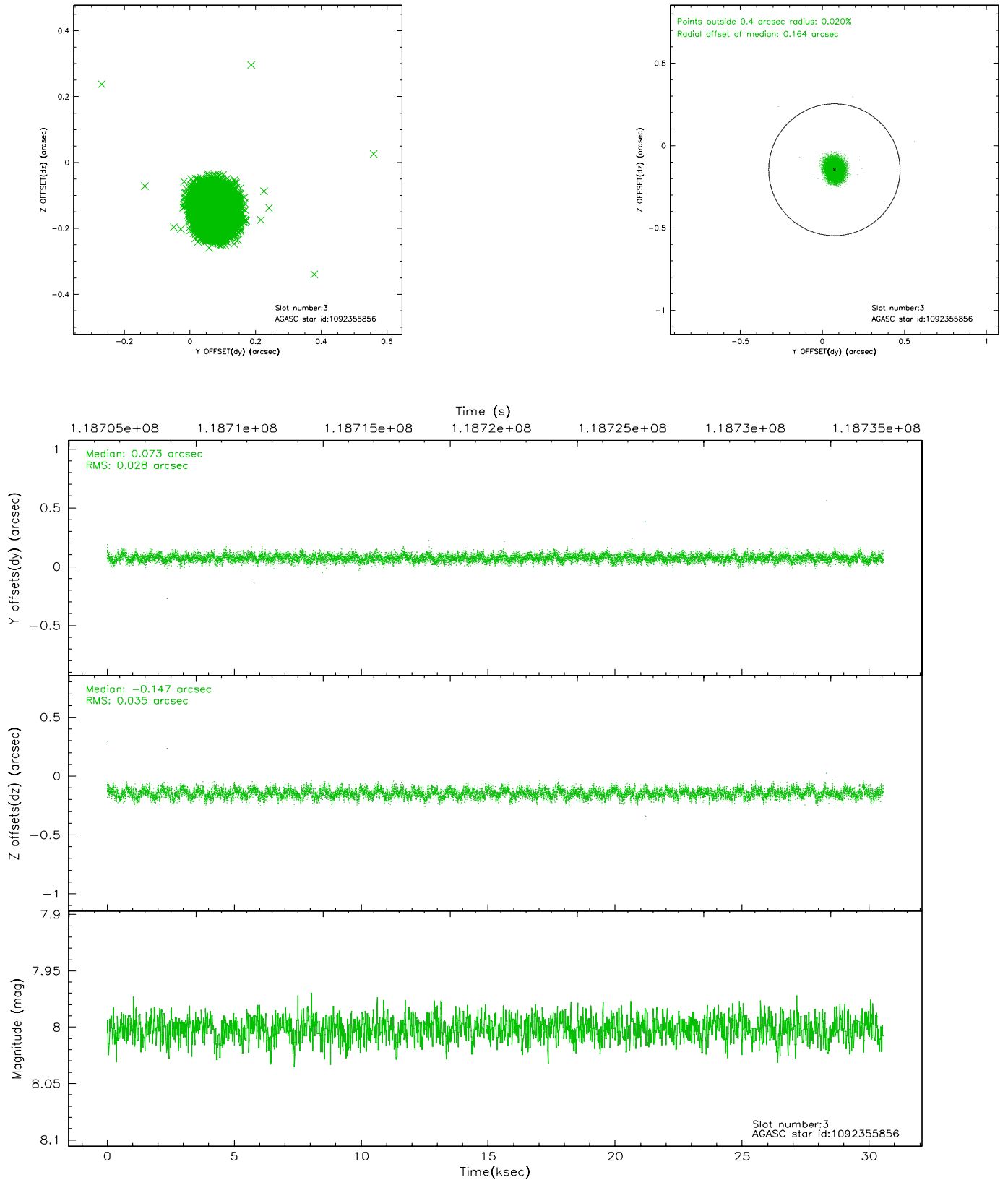


Slot Statistics

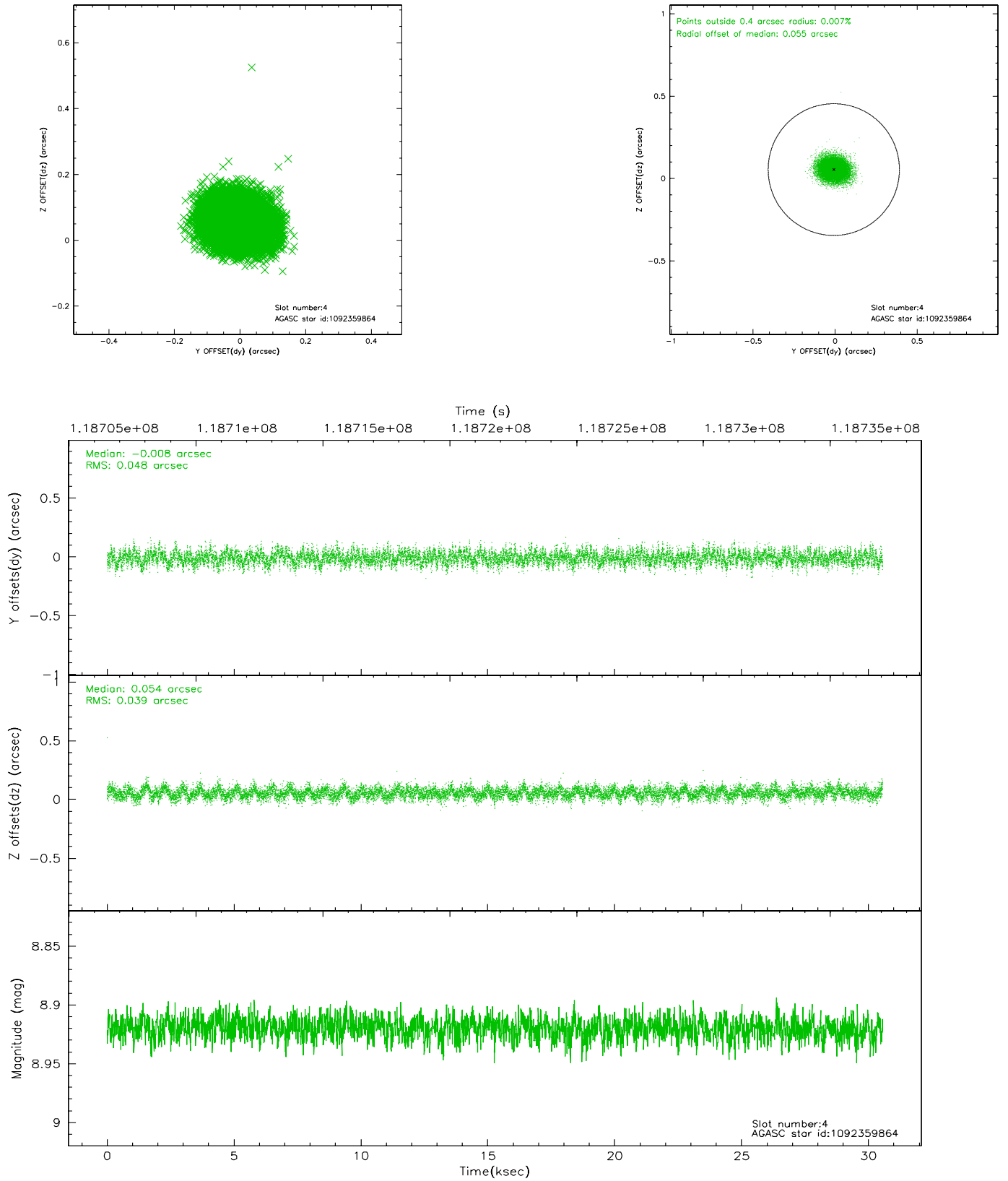
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	7454	0.008	0.071	0.008	0.016	0.000000	0.000000	-755.74	-1646.62
1	FID	ACIS-S-4	7.21	7454	-0.060	-0.023	0.006	0.012	0.000000	0.000000	2157.43	261.72
2	FID	ACIS-S-5	7.24	7452	0.020	-0.039	0.008	0.013	0.000000	0.000000	-1808.49	255.44
3	GUIDE	1092355856	8.00	14906	0.073	-0.147	0.047	0.076	252.380362	-50.402230	1575.71	328.22
4	GUIDE	1092359864	8.92	14903	-0.008	0.054	0.066	0.107	252.576059	-50.620094	2160.65	1016.78
5	GUIDE	1092358808	8.77	14903	0.019	0.156	0.088	0.134	252.937913	-50.296249	783.58	1404.87
6	GUIDE	1092355456	9.92	14893	0.017	-0.114	0.115	0.184	252.219249	-49.433813	-1571.44	-1217.41
7	GUIDE	1092357952	8.64	14903	-0.104	0.049	0.062	0.101	252.624295	-49.307047	-2324.64	-480.59

2.4 Star Slots

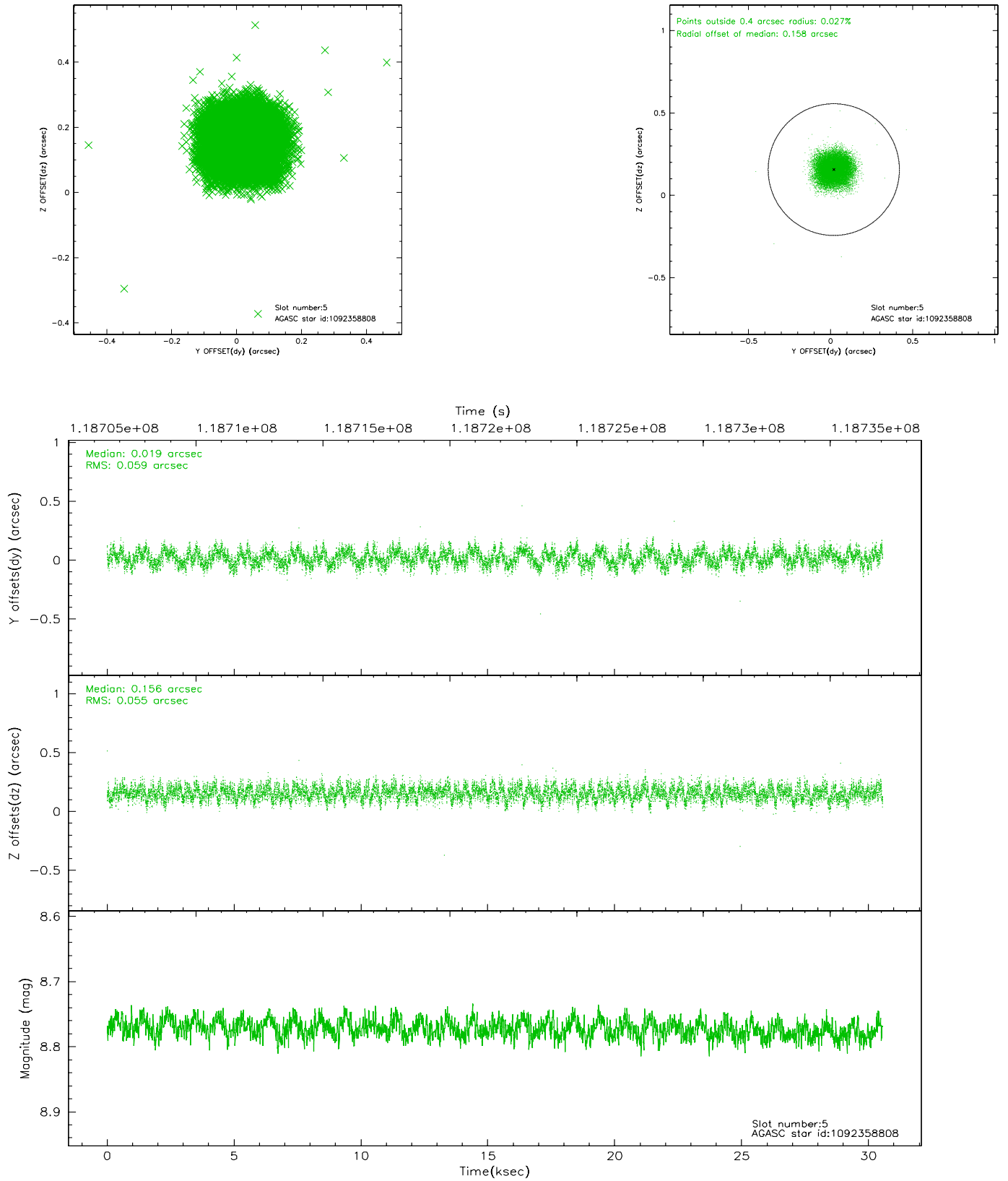
2.4.1 Slot 3



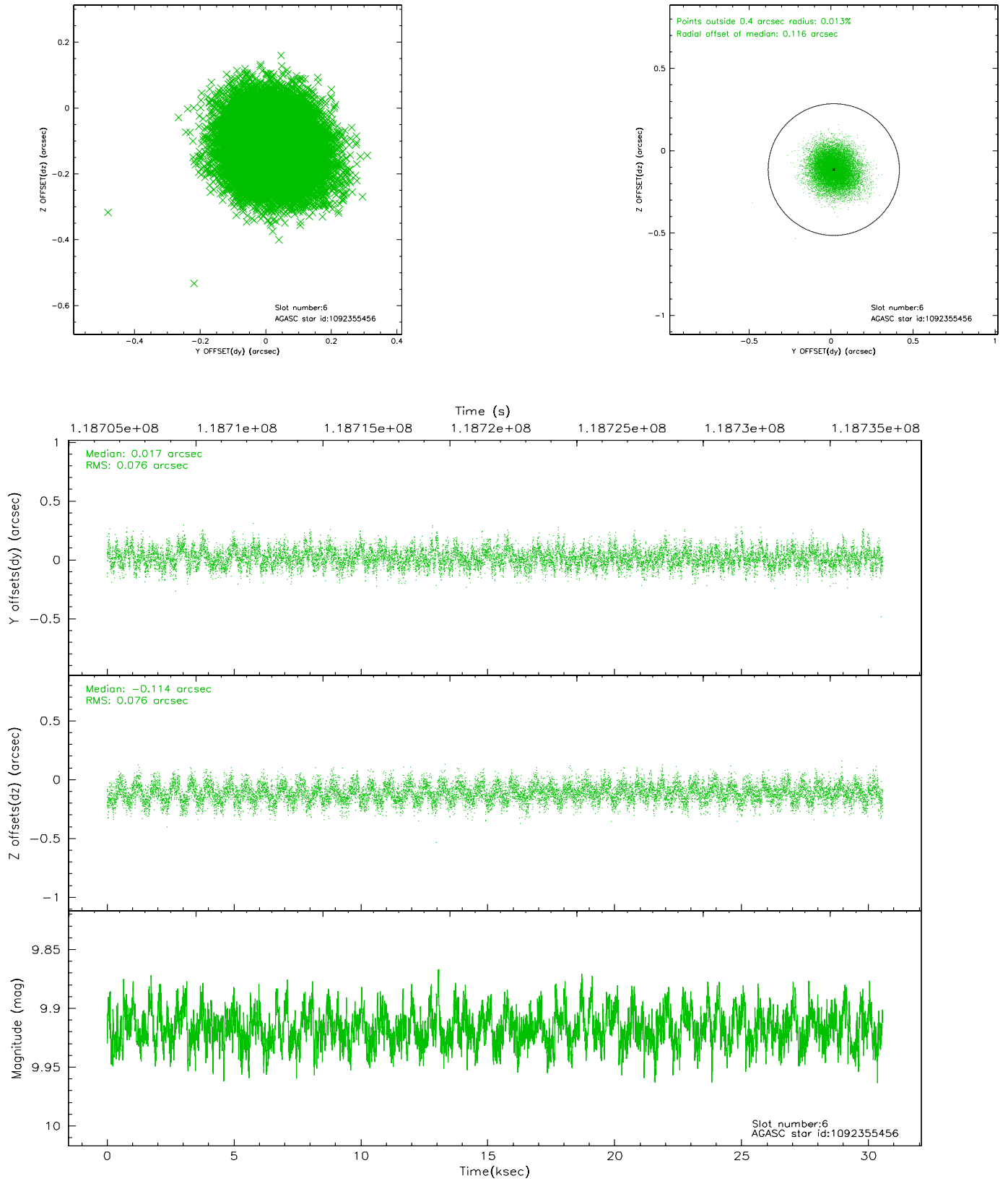
2.4.2 Slot 4



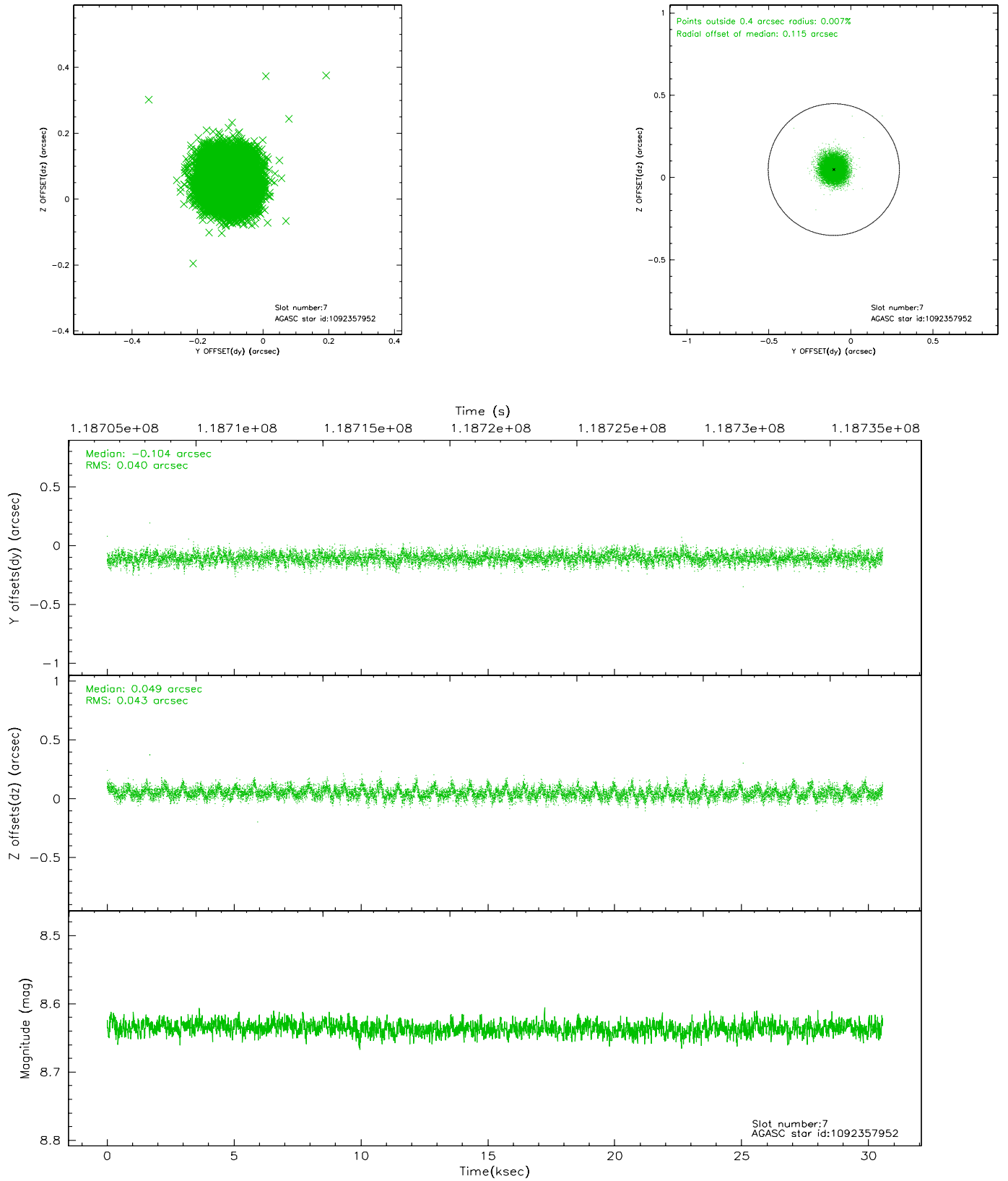
2.4.3 Slot 5



2.4.4 Slot 6

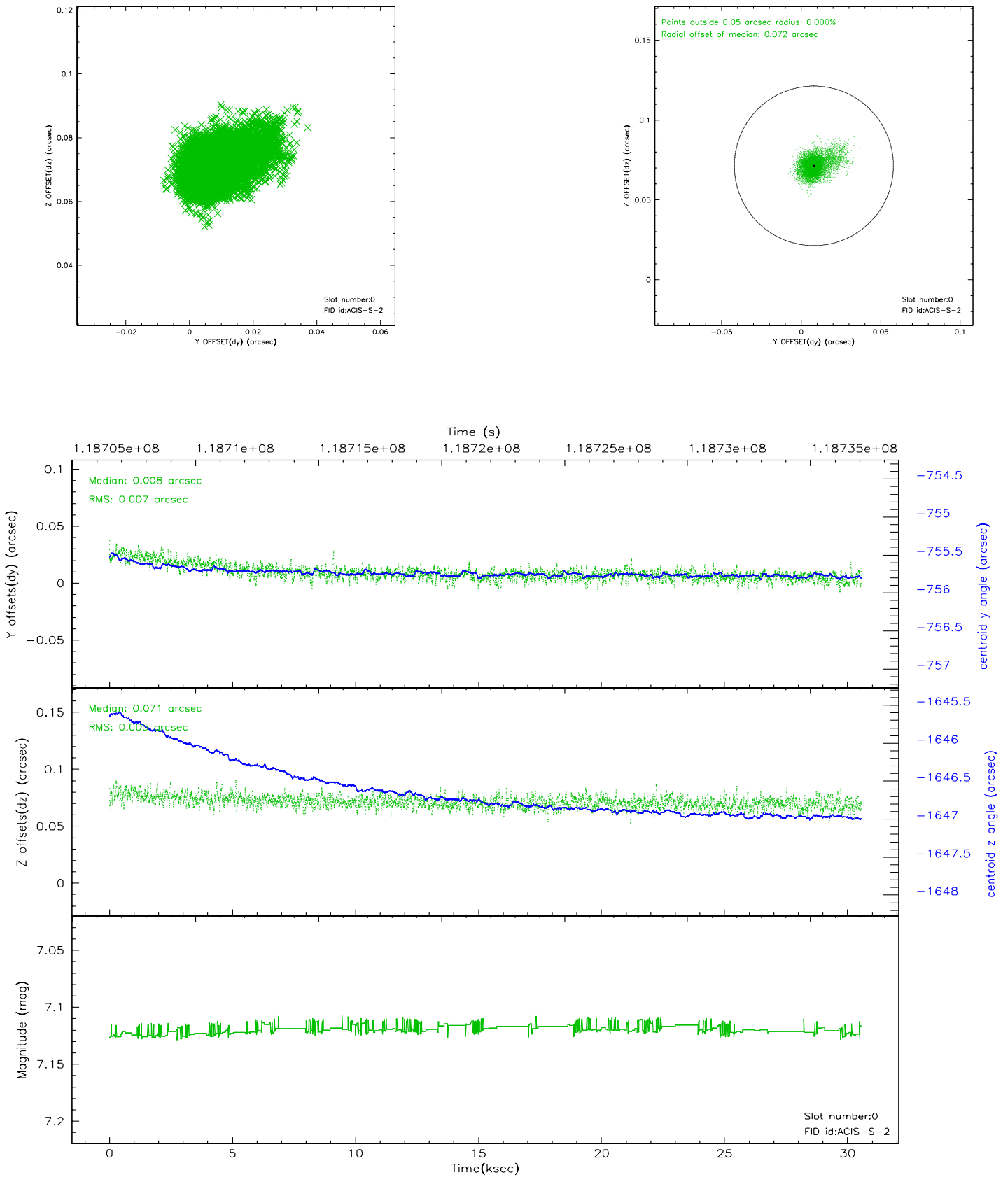


2.4.5 Slot 7

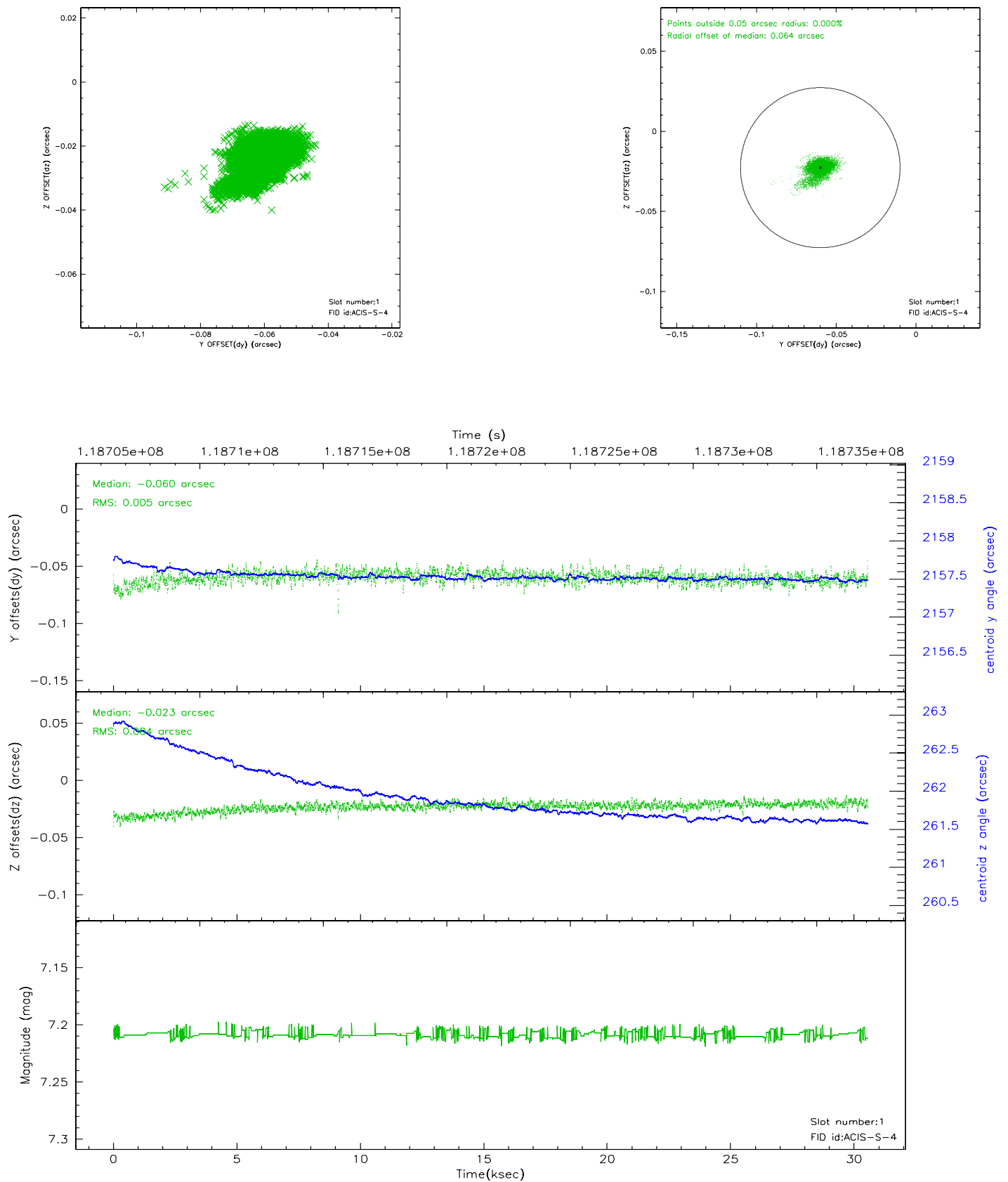


2.5 FID Slots

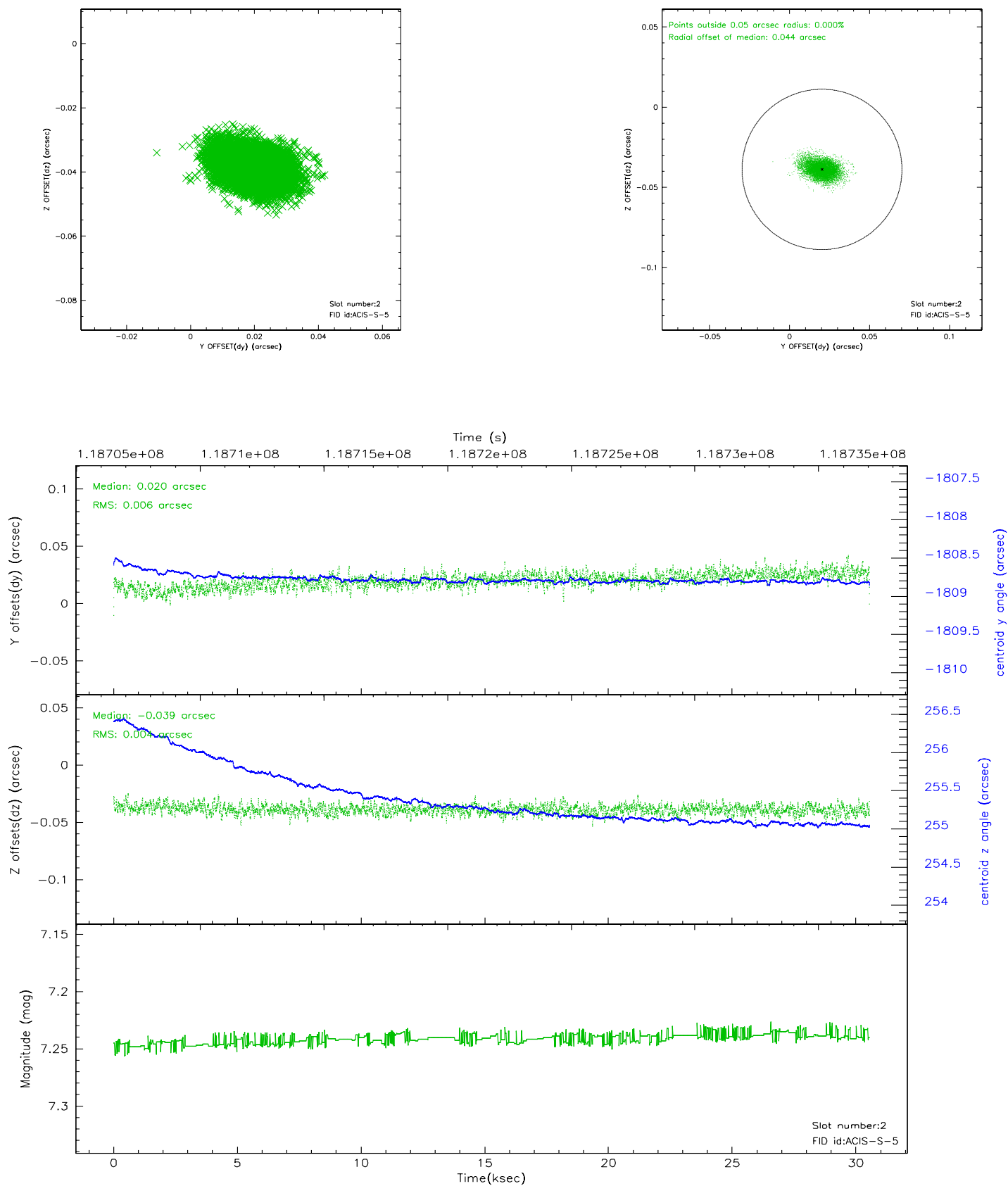
2.5.1 Slot 0



2.5.2 Slot 1

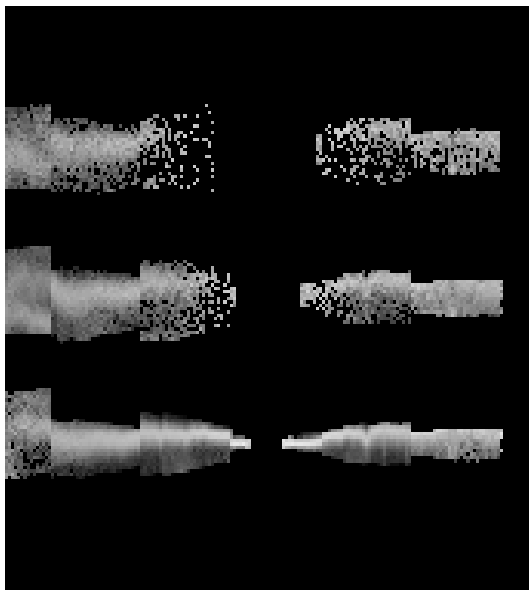


2.5.3 Slot 2

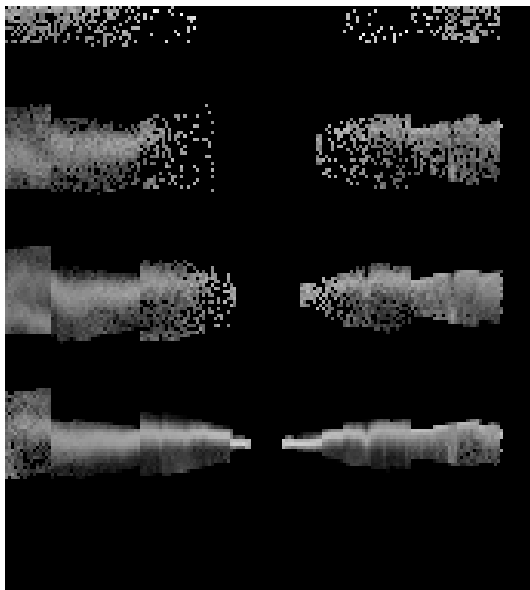


3 Gratings

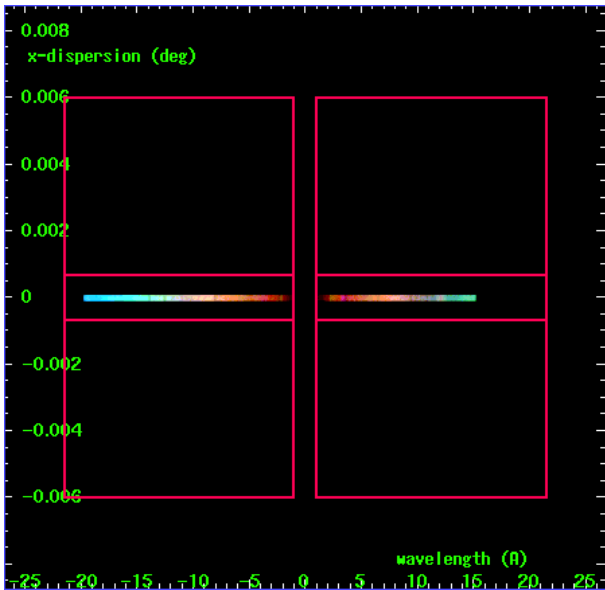
3.1 HEG Arm



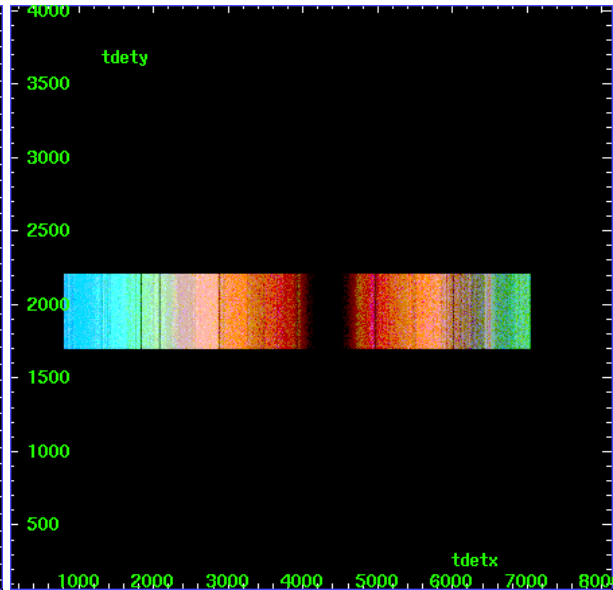
HEG Order Sort 123



HEG Order Sort ALL

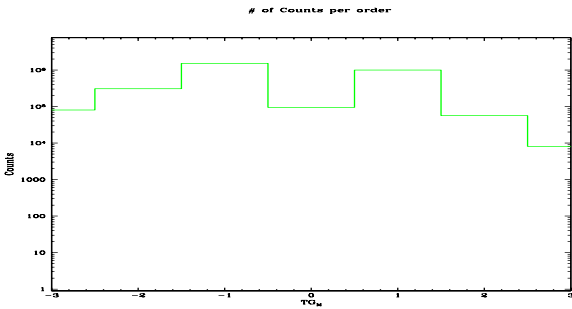


Spot Image HEG

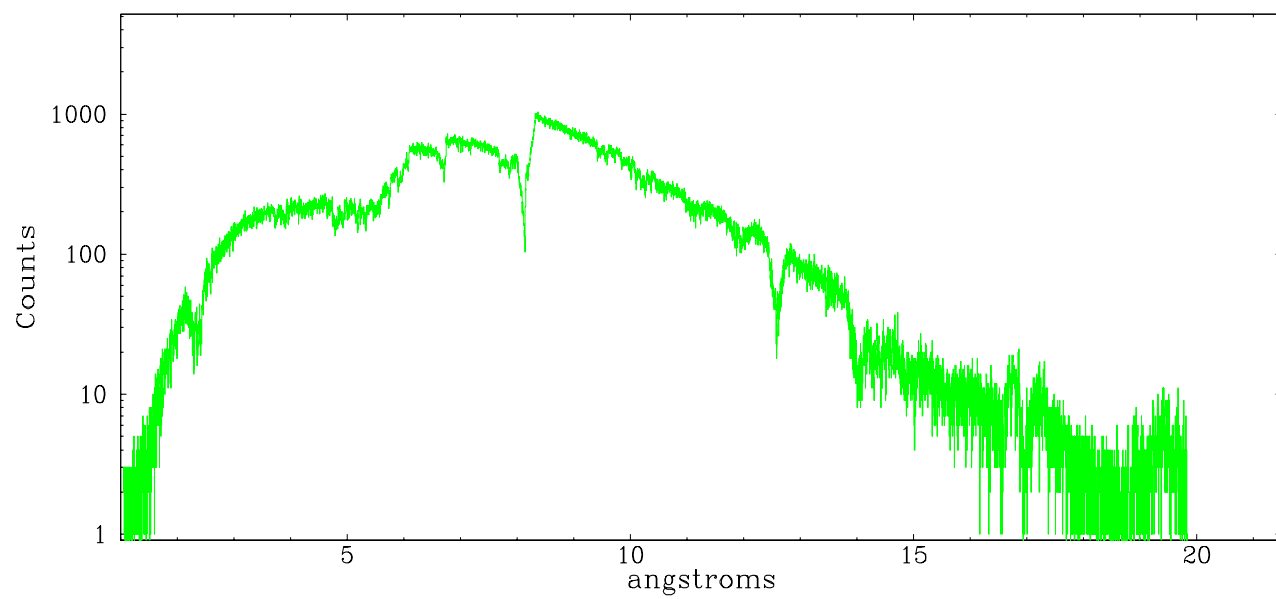


Full Detector HEG

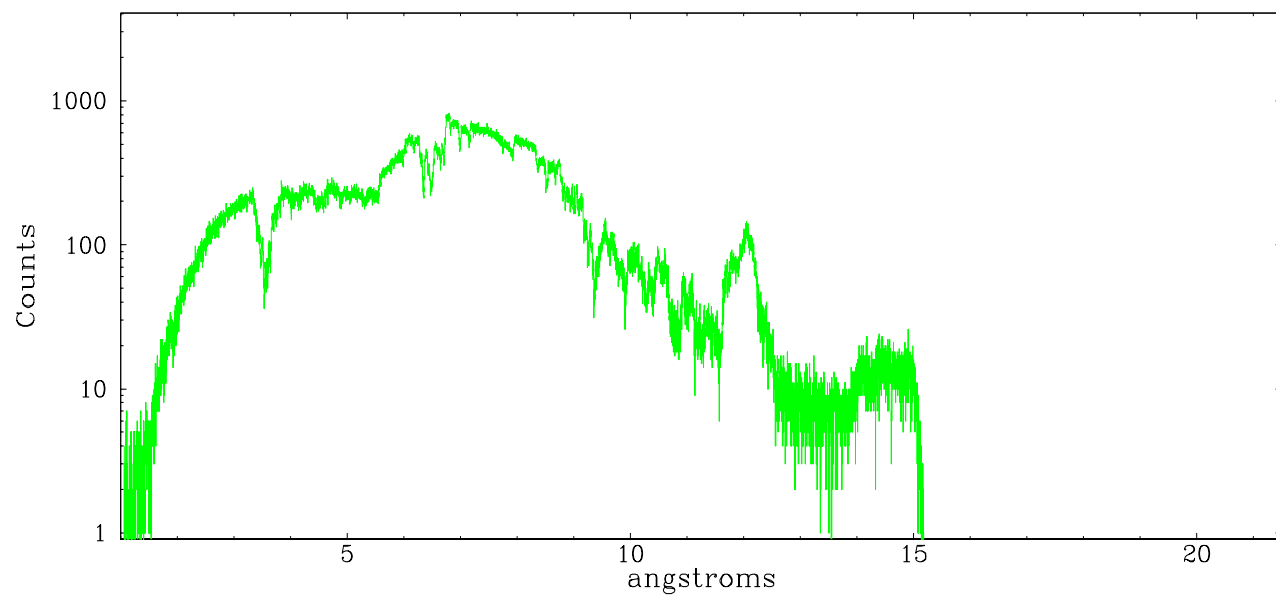
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	80947	307080	1523099	95082	995152	56442	8157



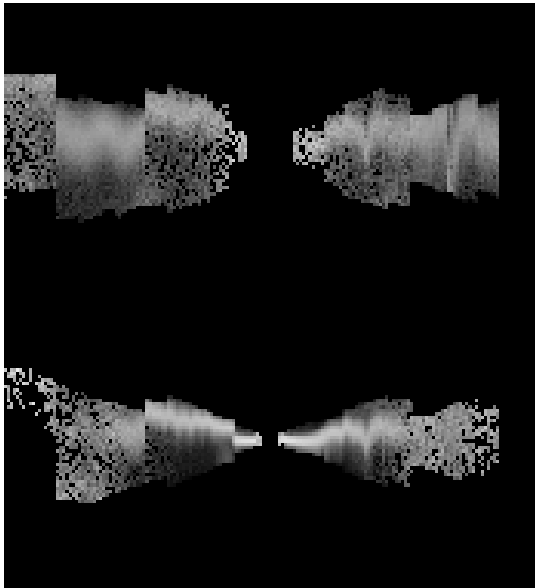
heg order -1



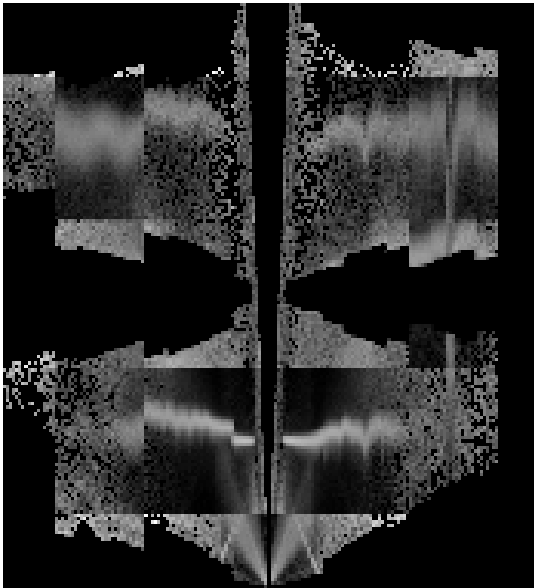
heg order +1



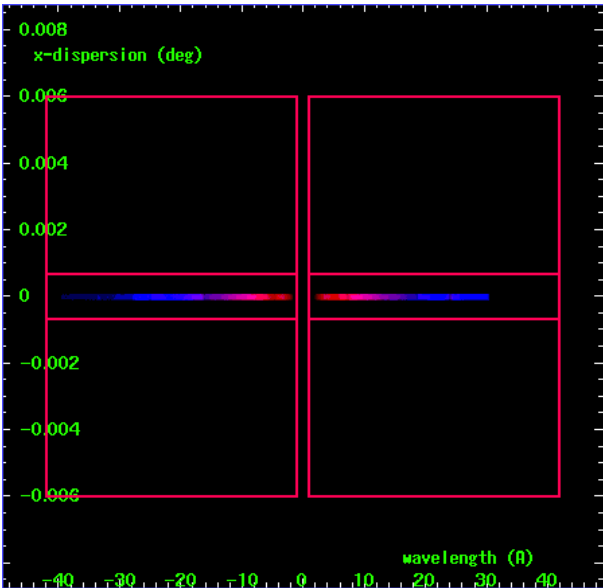
3.2 MEG Arm



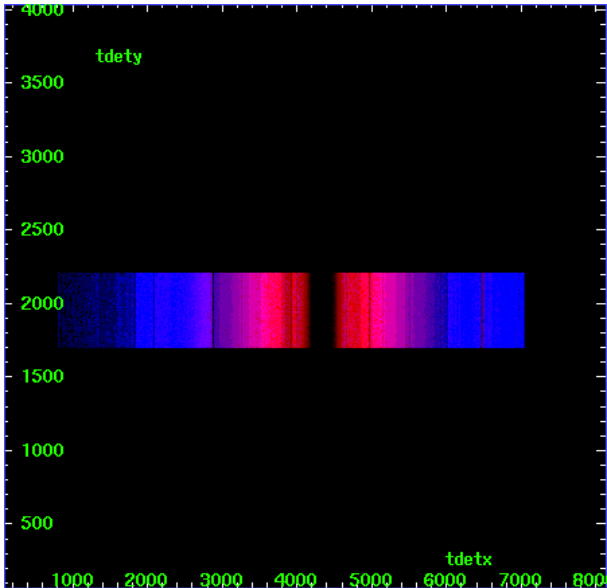
MEG Order Sort 123



MEG Order Sort ALL

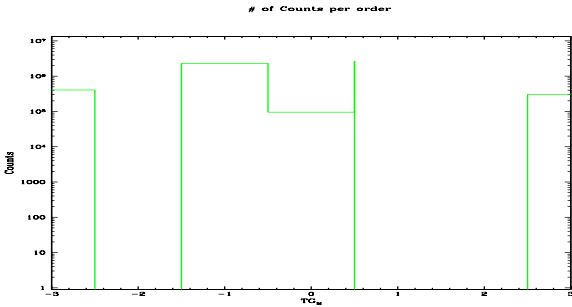


Spot Image MEG

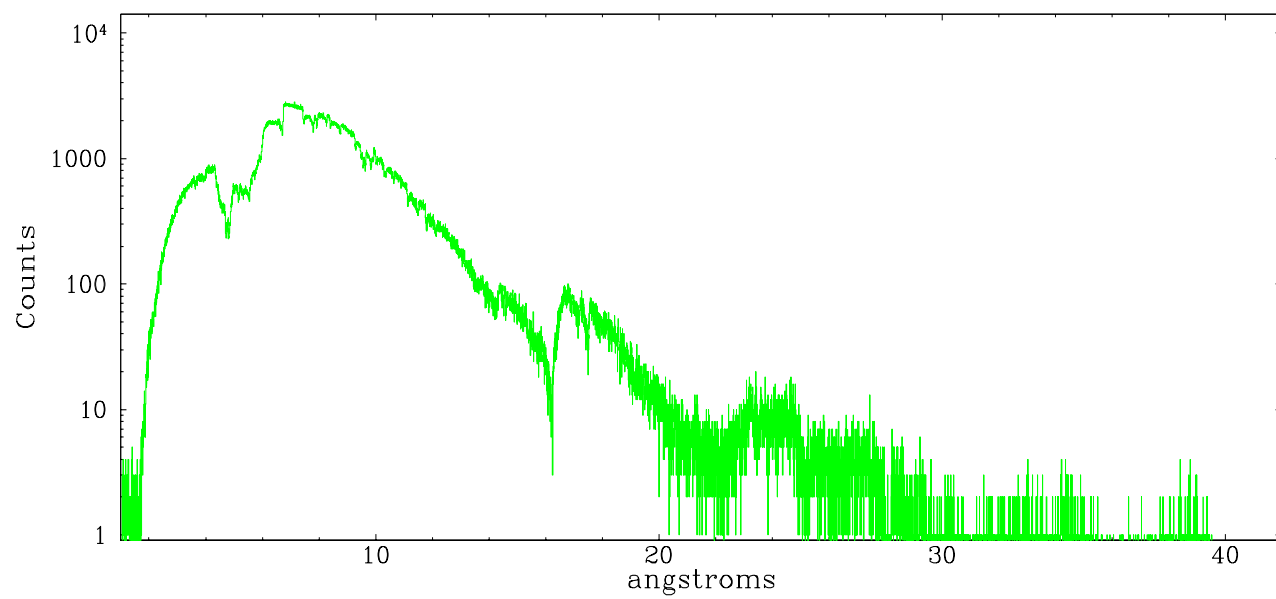


Full Detector MEG

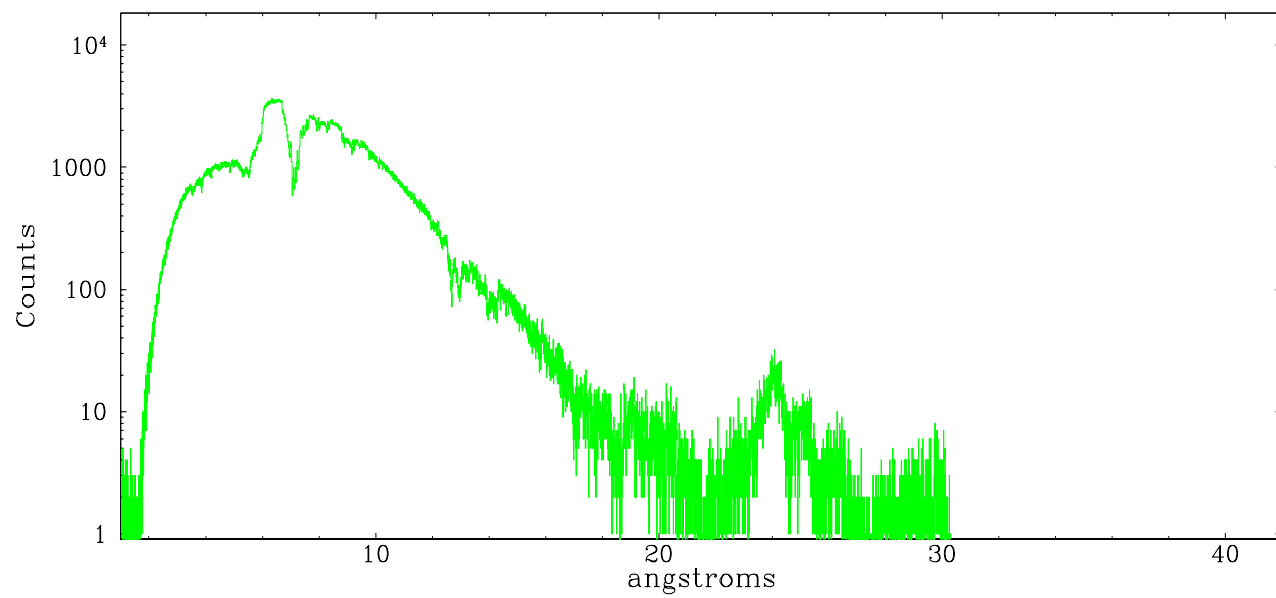
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	408597	0	2289983	95082	2674018	0	305256



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2007.01.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30

A.2 Comments

Charge time for this ObsId remains at original value of 30.00 ks, although with the current processing the charge time would have been 19.284 ksec. Charge time. On-time for the different CCD chips differs significantly due to telemetry saturation resulting in dropped exposures.

For ACIS/CC-mode w/ HETG, there are no MEG even order counts. MEG even orders overlap with HEG orders in energy, but MEG even order efficiencies are very low. Since HEG and MEG cannot be spatially separated, events are preferentially assigned to HEG. (MEG odd orders can be resolved.)