

V&V Reference Report

L2 ASCDS Version : 7.6.8.1

Observation 3814 - L2 Version 001
Chandra X-Ray Center

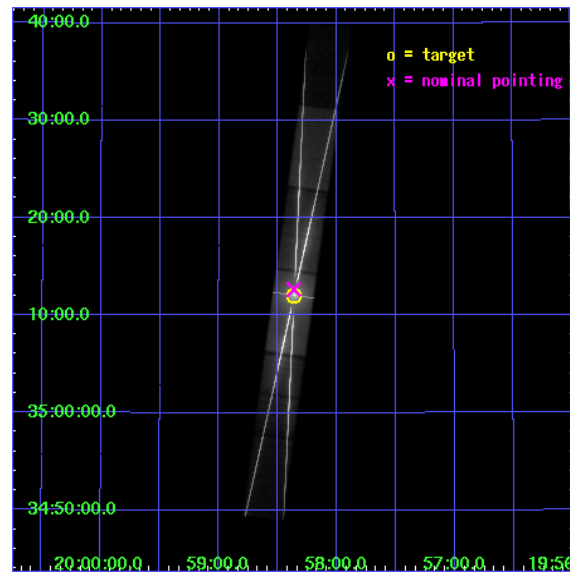
L2 Processing Date : Aug 5 2006

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1 Front

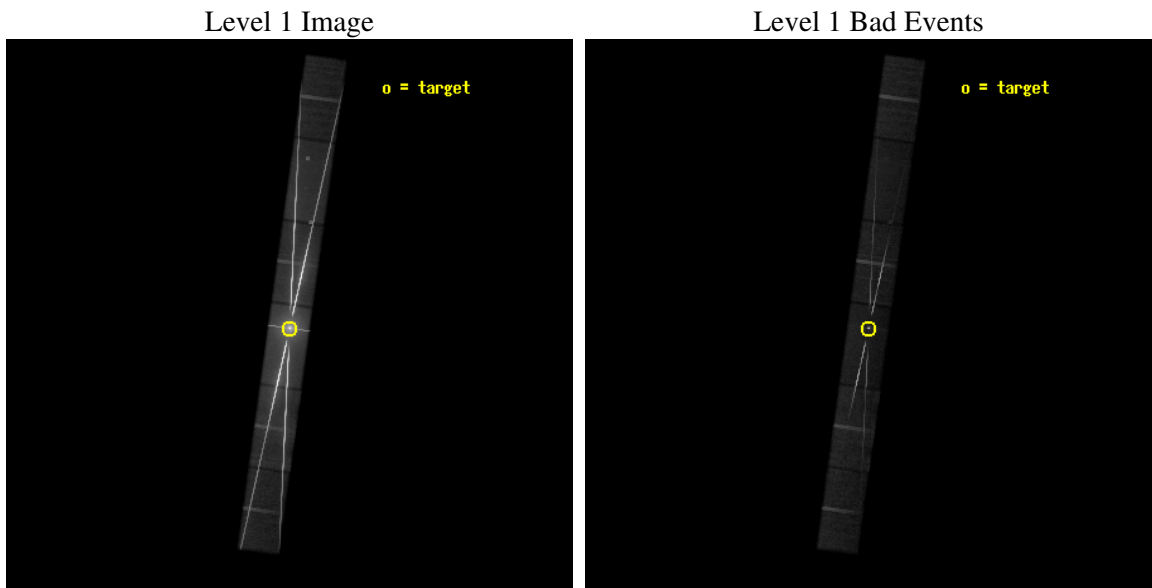
seq_num	400301
obs_id	3814
title	CYGNUS X-1: X-RAY DIPS, DISTANCE, AND THE X-RAY HALO
observer	Dr. Katja Pottschmidt
object	CYG X-1
dtcycle	0
cycle	P
ra_targ	299.590417
dec_targ	35.20175
ra_nom	299.59087262178
dec_nom	35.211411929199
roll_nom	97.9463174529
revision	2
ontime	48324.199661136
livetime	47185.095933425
ontime4	48324.199661136
ontime5	48324.199661136
ontime6	48324.199661136
ontime7	48324.199661136
ontime8	48322.458641022
ontime9	48324.199661136
l2events	5354454



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	1
ascdsver	7.6.8.1
caldsver	3.2.2
date	2006-08-04T23:53:44
revision	2

sched_exp_time	48000.000000
ontime	48327.200633526
ontime4	48327.200633526
ontime5	48327.200633526
ontime6	48327.200633526
ontime7	48327.200633526
ontime8	48325.459613413
ontime9	48327.200633526
l1events	6724131

2.1.3 Events

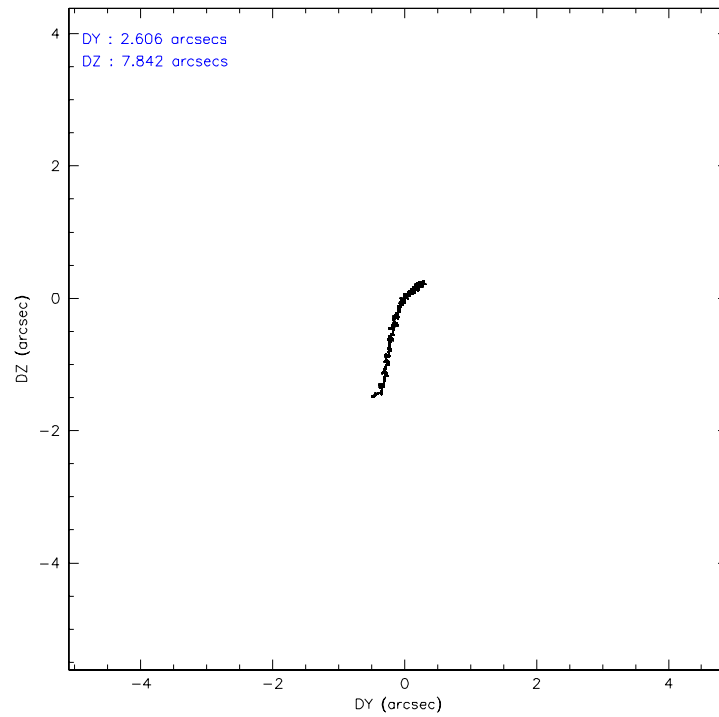
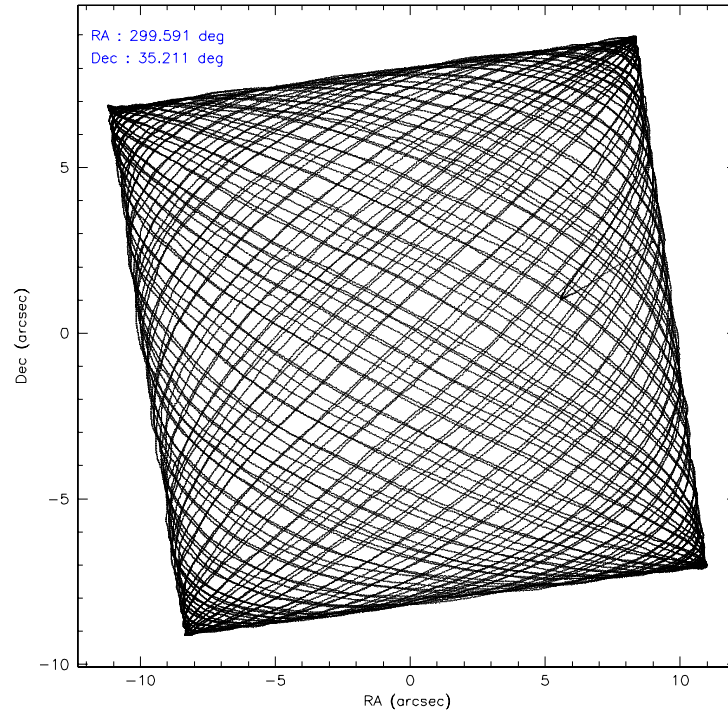
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	239933	608305	2031761	2433626	1095007	315499
rejected events	158907	136039	219647	266445	183341	140355
rejected %	66%	22%	10%	10%	16%	44%

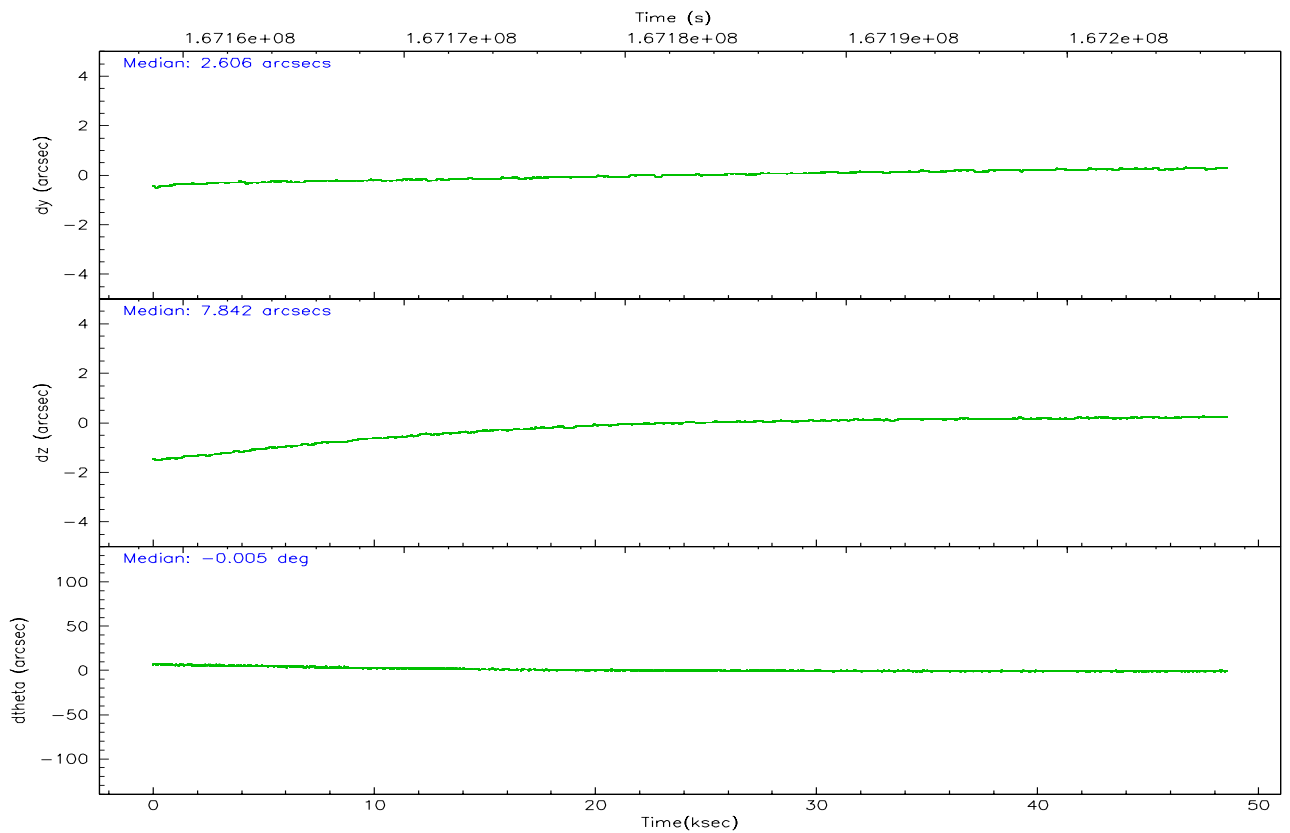
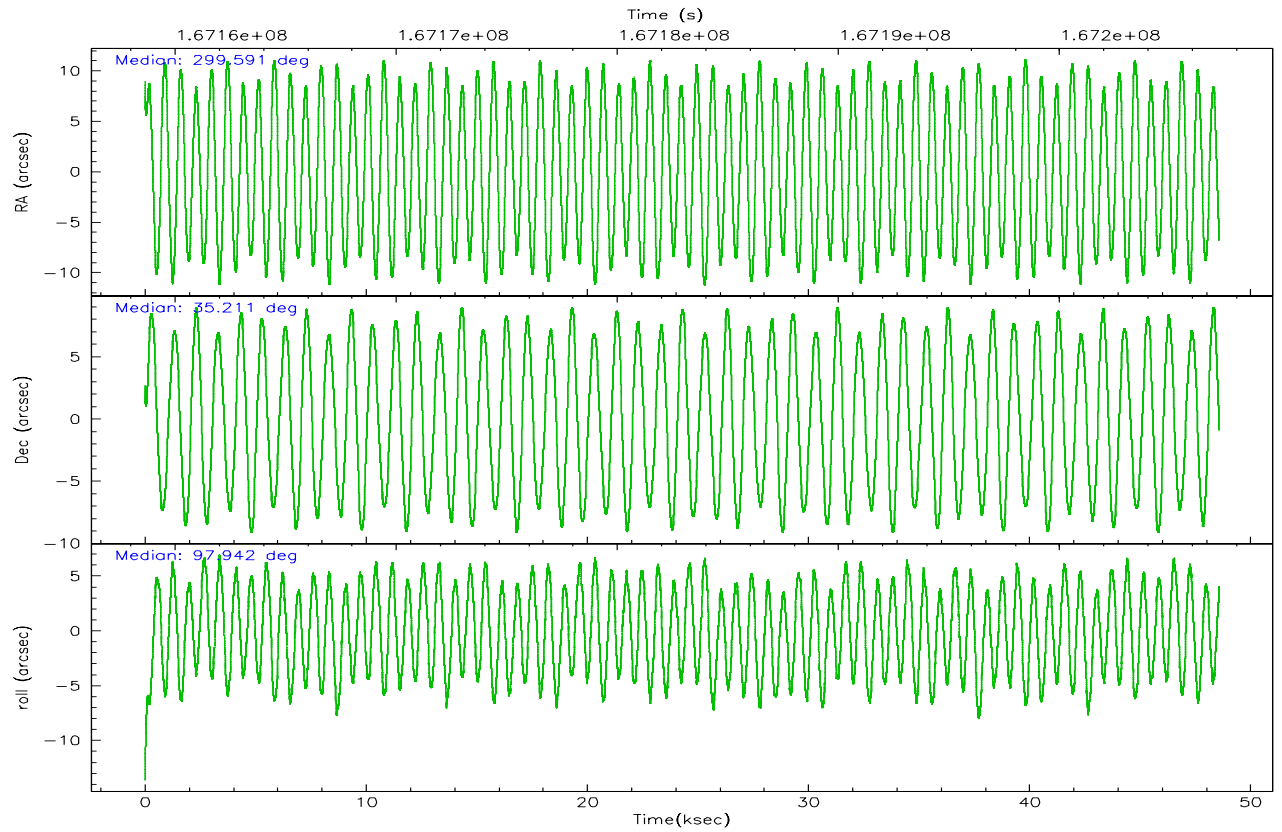
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	55202	121611	1339118	397961	710368	132113
	23%	19%	65%	16%	64%	41%
grade 1 events	183	927	32780	10578	9348	425
	0%	0%	1%	0%	0%	0%
grade 2 events	12645	157737	232319	566578	101837	21247
	5%	25%	11%	23%	9%	6%
grade 3 events	4146	34942	80062	214582	34766	7207
	1%	5%	3%	8%	3%	2%
grade 4 events	3781	34959	78327	212581	34158	7106
	1%	5%	3%	8%	3%	2%
grade 5 events	5332	16637	29099	67073	12892	6641
	2%	2%	1%	2%	1%	2%
grade 6 events	5256	123049	82430	775647	30628	7479
	2%	20%	4%	31%	2%	2%
grade 7 events	153388	118443	157626	188626	161010	133281
	63%	19%	7%	7%	14%	42%

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	GRADED	GRADED	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	1/2
Pointing RA	299.611707	299.59087262178	Subarray start row	1	1
Pointing Dec	35.190162	35.21141192919887	Subarray row count	512	512
Pointing Roll	97.777683	97.9463174529001	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	1.7
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-183.992523	-183.9875365069546			
SIM translation stage offset (mm)	-6.14	-6.144986076053243			
Phase constraints	Y	Y			
Phase period	5.599829	5.599829			
Phase epoch	51242.721000	51242.721000			
Phase start	0.900000	0.900000			
Phase end	1.000000	1.000000			
Phase start error	0.050000	0.050000			
Phase end error	0.050000	0.050000			
Observation start time	167159211.184000	167158051.18707			
Observation start date	2003-04-19T17:05:47	2003-04-19T16:47:31			
Observation end time	167207211.184000	167208102.96418			
Observation end date	2003-04-20T06:25:47	2003-04-20T06:41:42			
Read mode	TIMED	TIMED			

2.3 Aspect



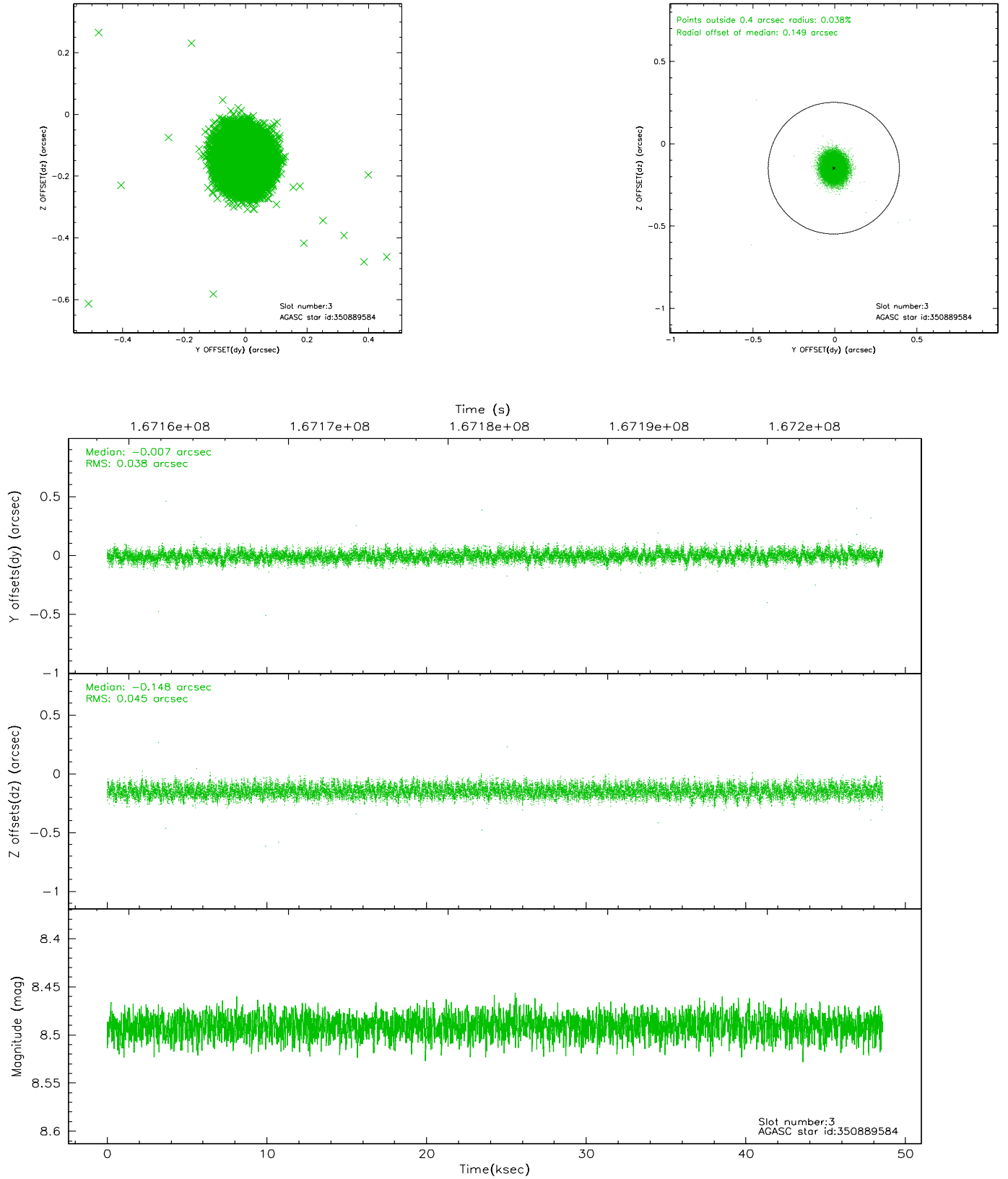


Slot Statistics

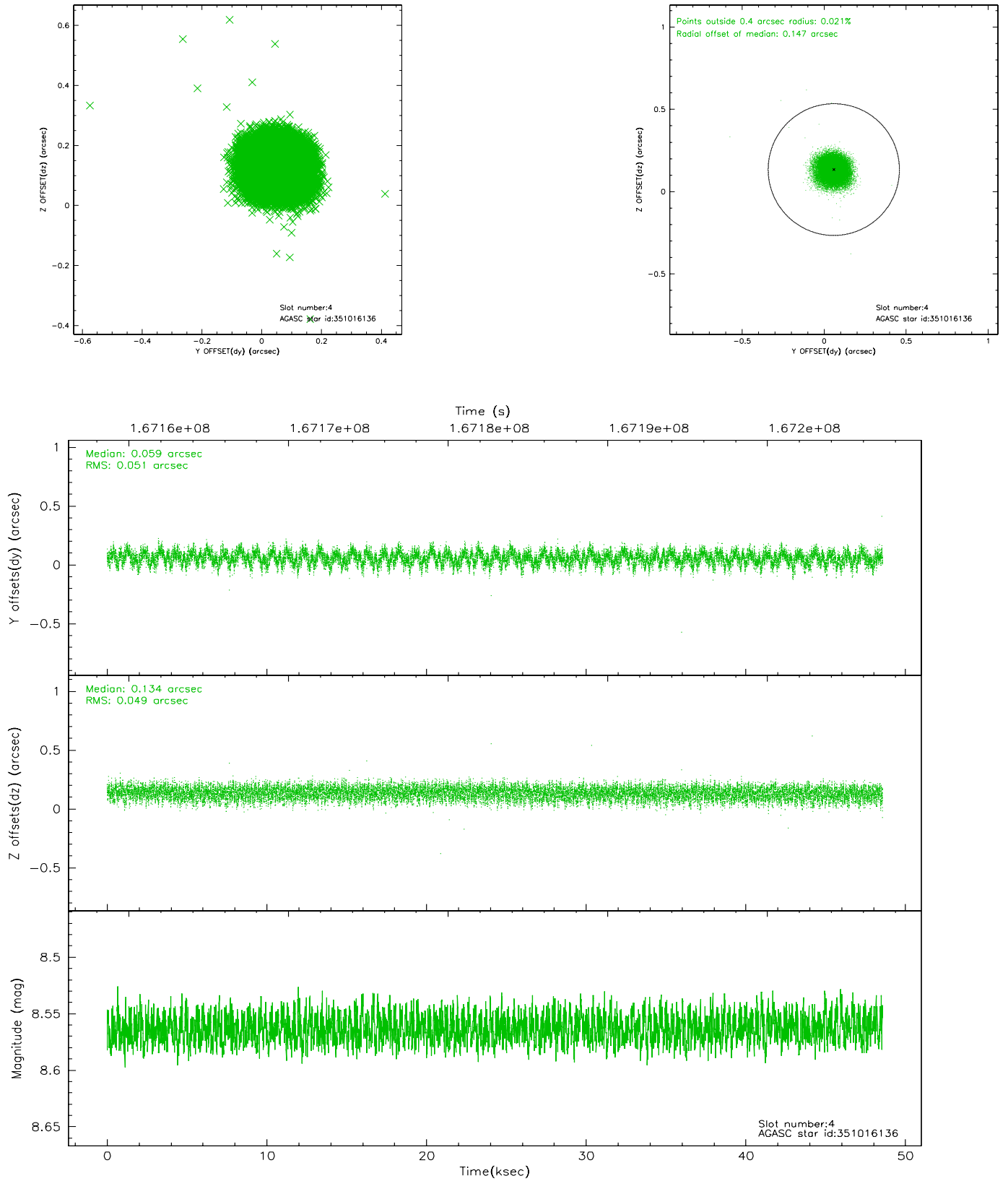
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	11847	-0.056	-0.030	0.015	0.063	0.000000	0.000000	-754.81	-1855.51
1	FID	ACIS-S-4	7.18	11848	-0.013	0.036	0.008	0.014	0.000000	0.000000	2158.48	53.09
2	FID	ACIS-S-5	7.23	11847	0.037	0.003	0.013	0.054	0.000000	0.000000	-1807.61	46.65
3	GUIDE	350889584	8.49	23692	-0.007	-0.148	0.063	0.100	299.222293	35.536921	1393.50	961.20
4	GUIDE	351016136	8.56	23693	0.059	0.134	0.076	0.120	300.302636	34.786391	-1709.41	-1828.04
5	GUIDE	351018080	8.33	23690	0.121	-0.127	0.055	0.088	299.327312	34.581247	-2056.70	1131.59
6	GUIDE	351024856	8.54	23689	0.053	0.205	0.077	0.128	300.374482	35.139033	-477.65	-2200.64
7	GUIDE	351406096	8.90	23685	-0.224	-0.054	0.067	0.110	299.076637	35.711249	2074.21	1295.54

2.4 Star Slots

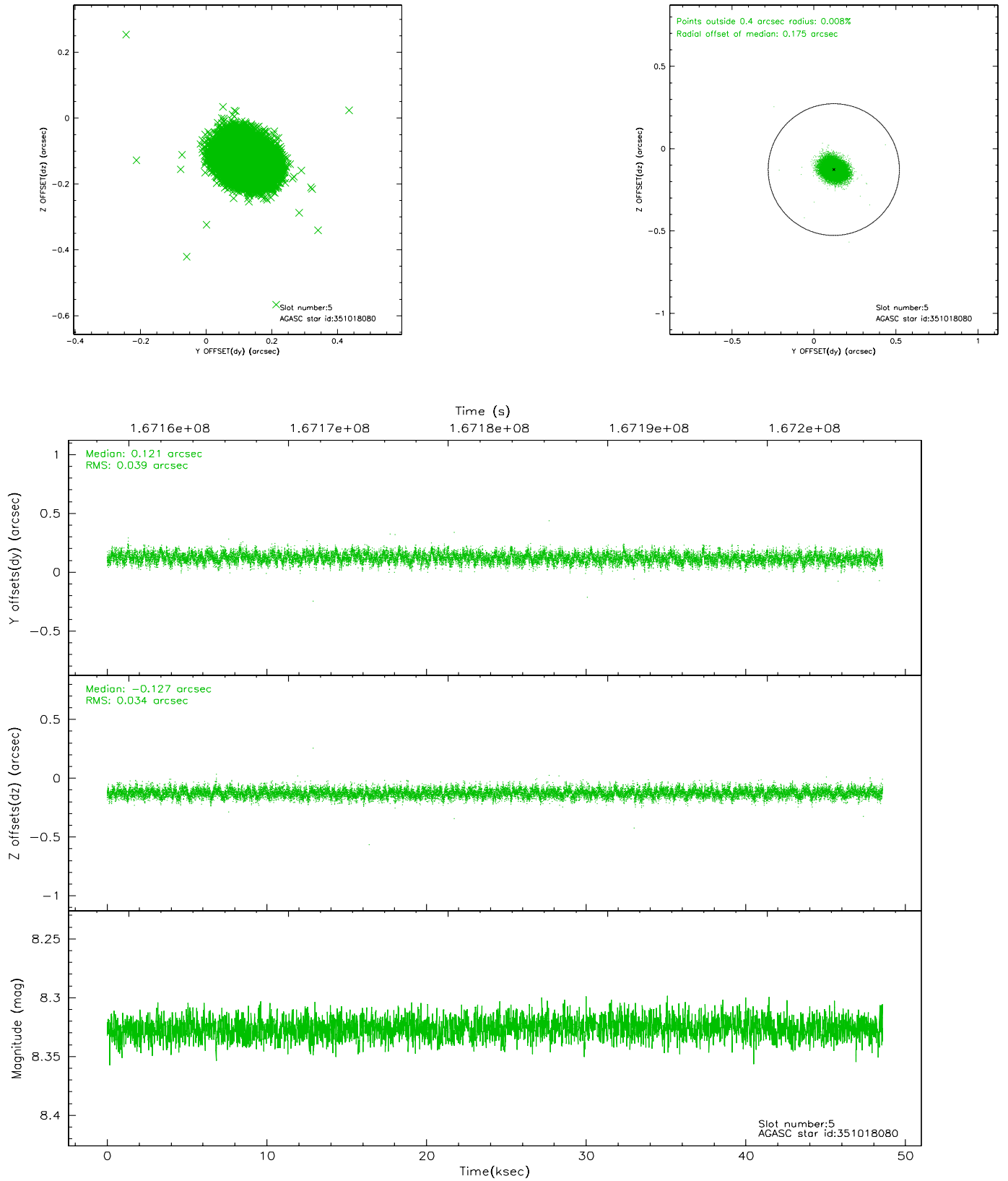
2.4.1 Slot 3



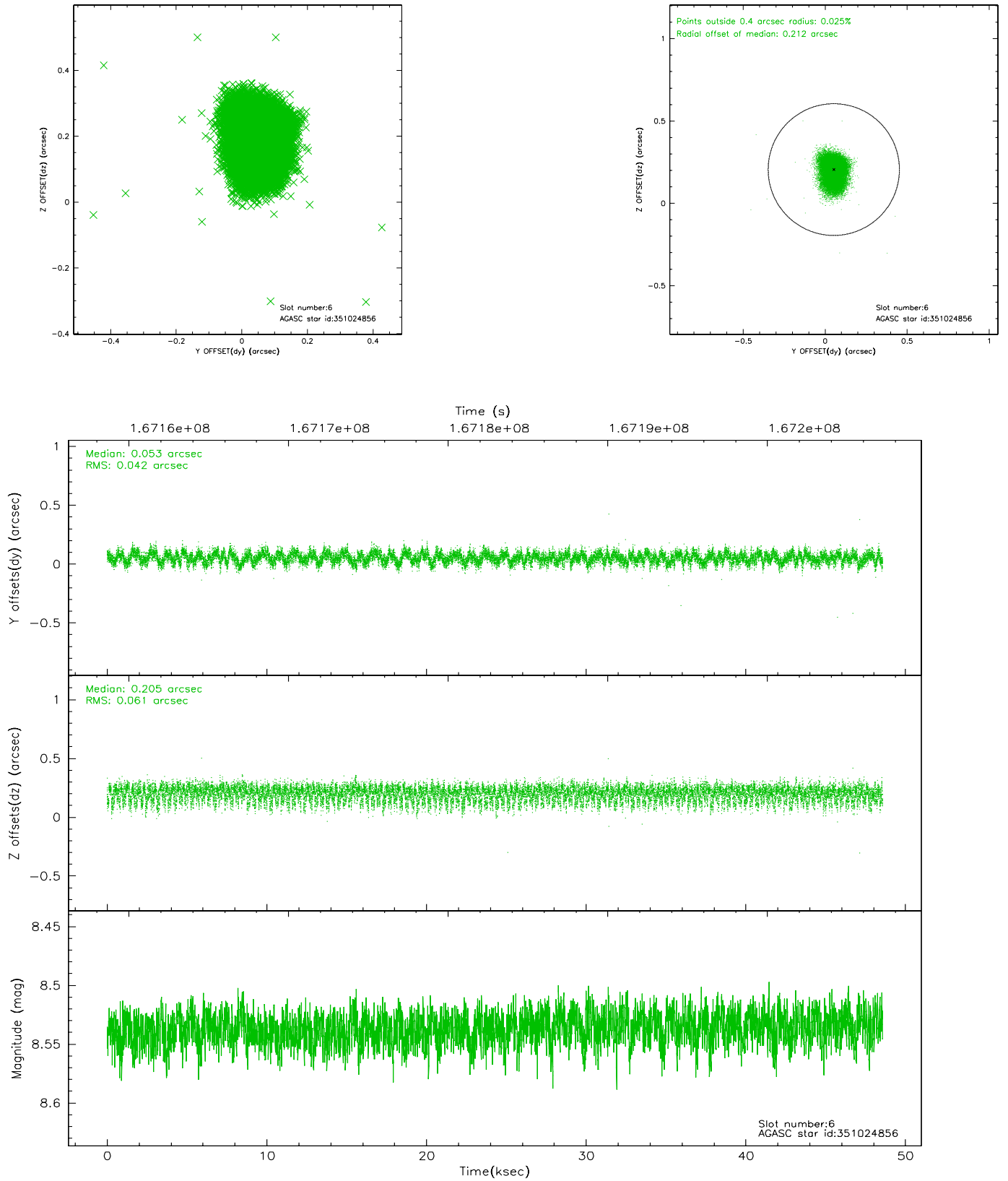
2.4.2 Slot 4



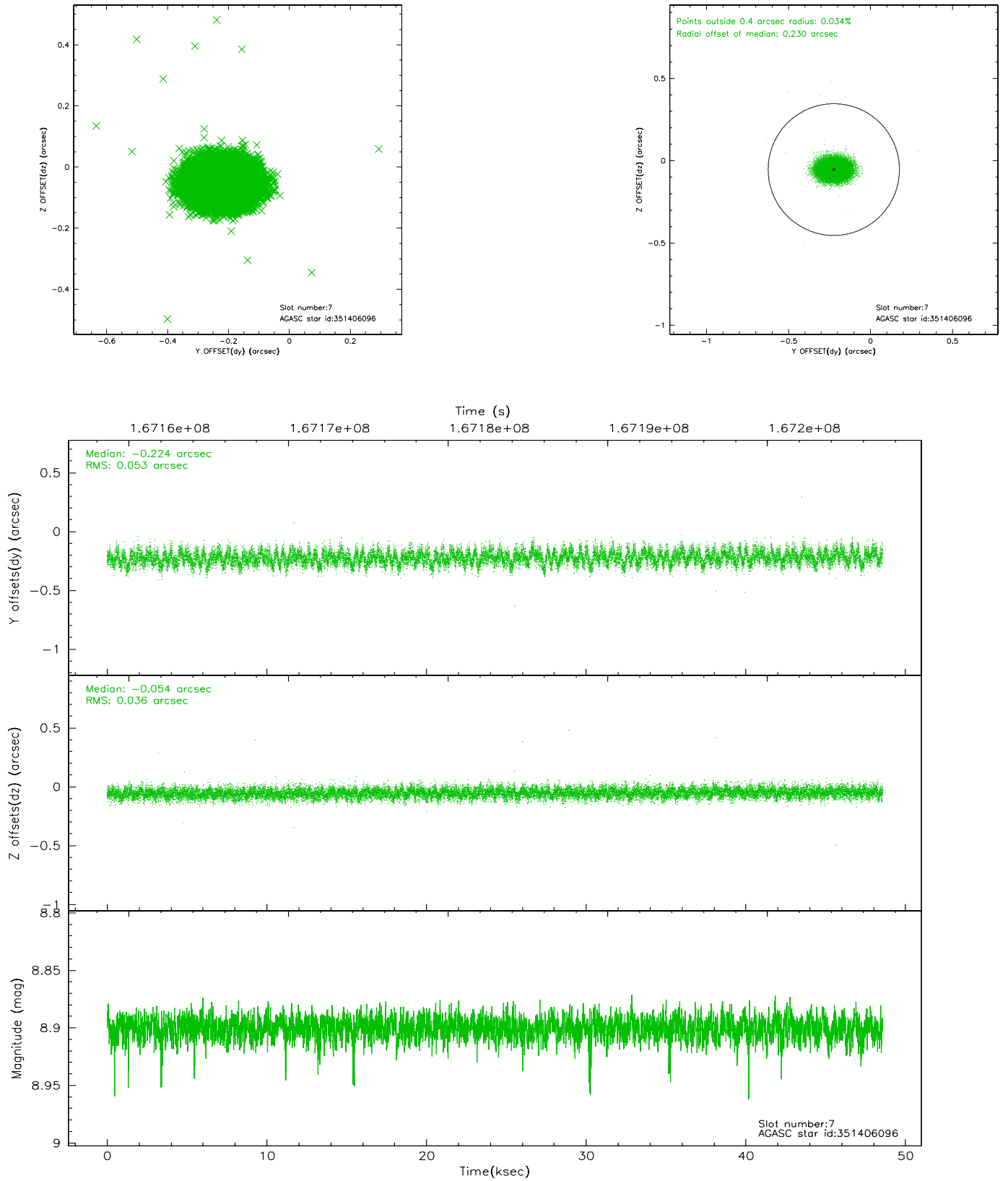
2.4.3 Slot 5



2.4.4 Slot 6

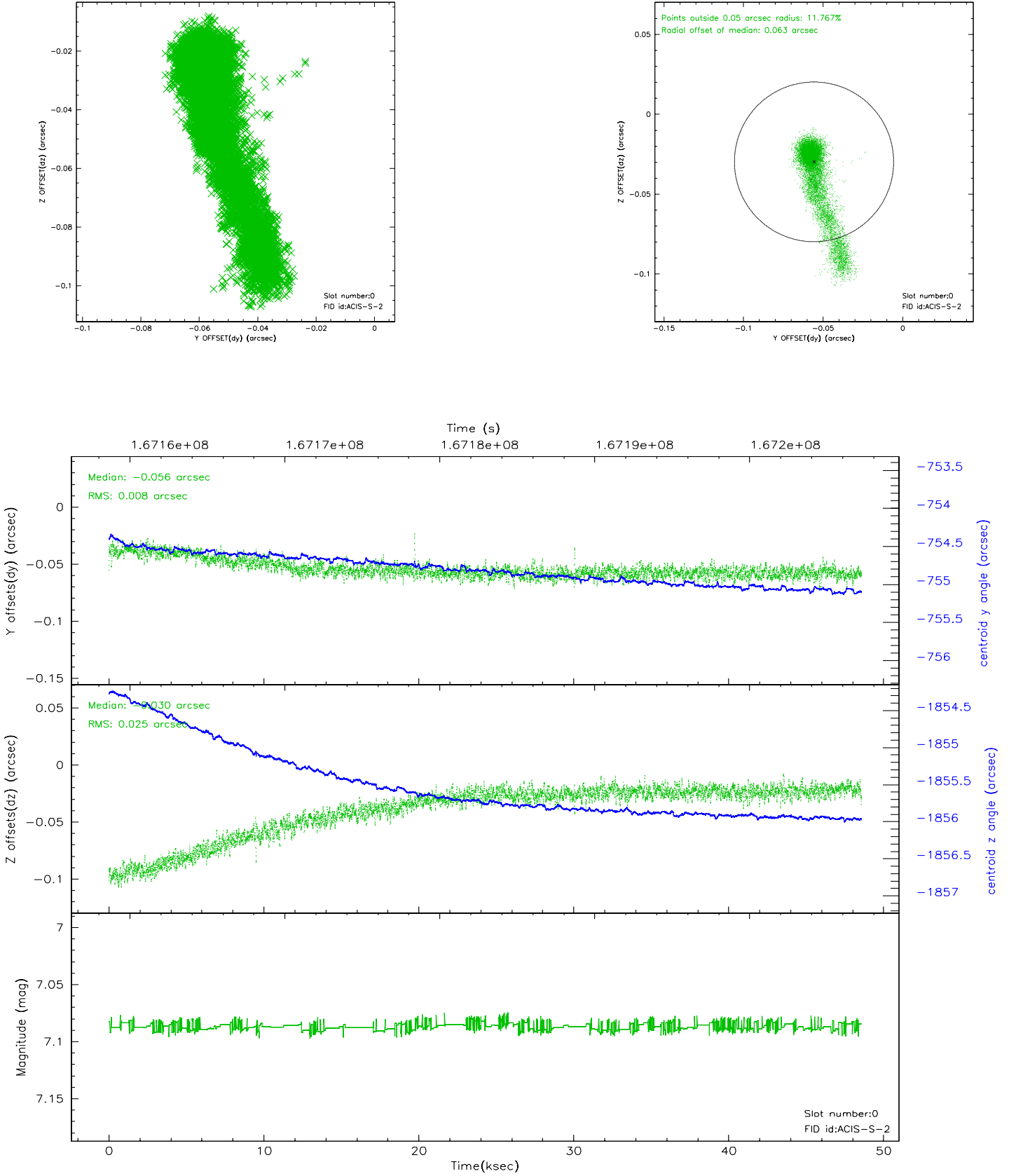


2.4.5 Slot 7

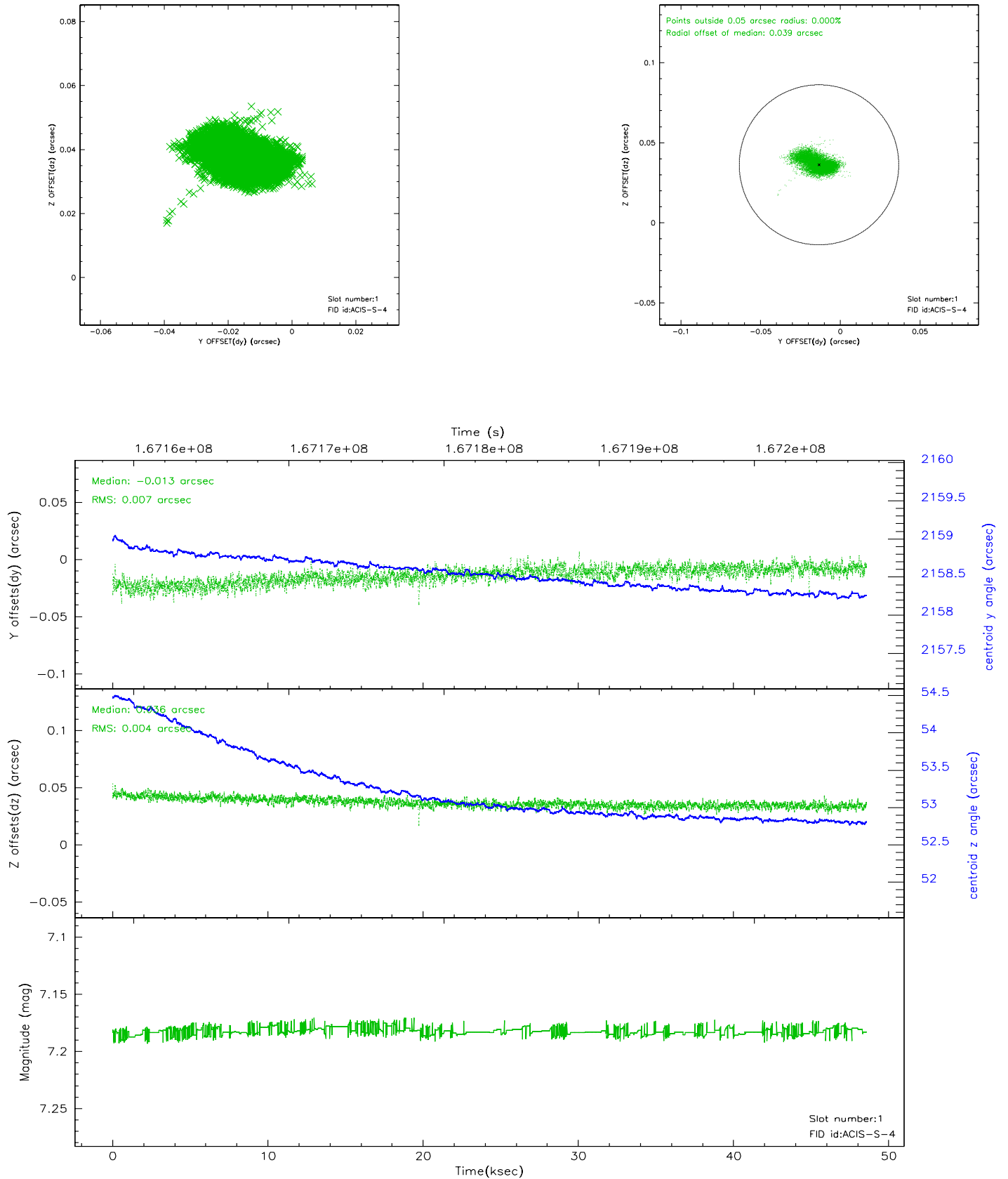


2.5 FID Slots

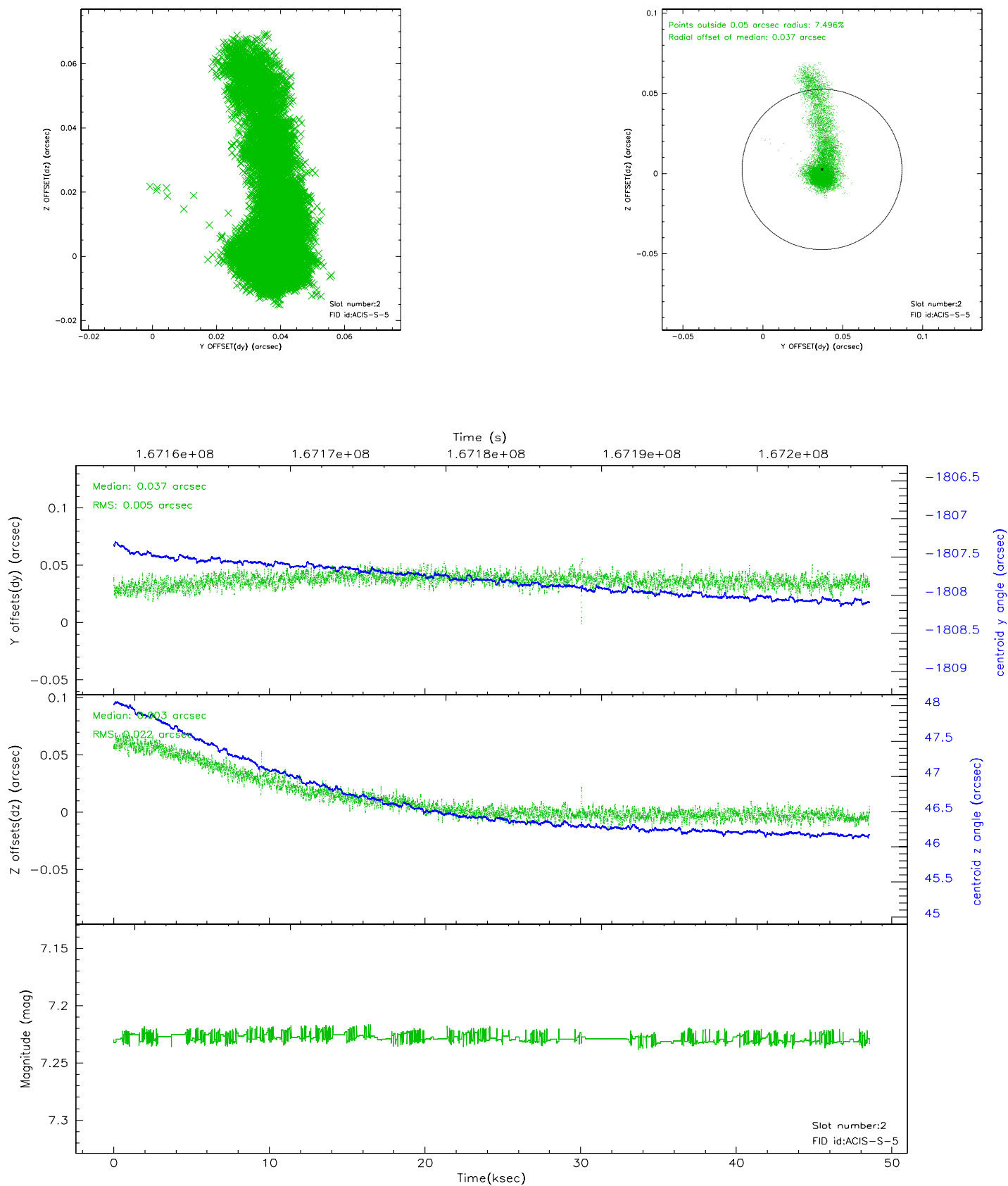
2.5.1 Slot 0



2.5.2 Slot 1

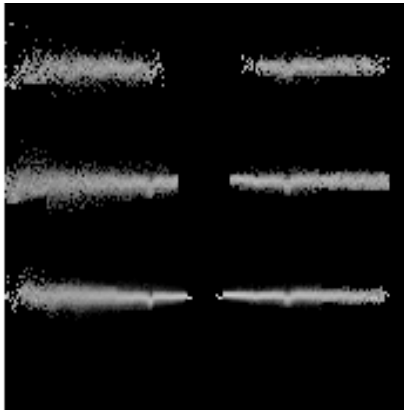


2.5.3 Slot 2

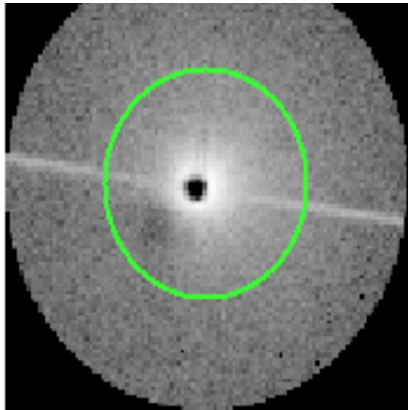


3 Gratings

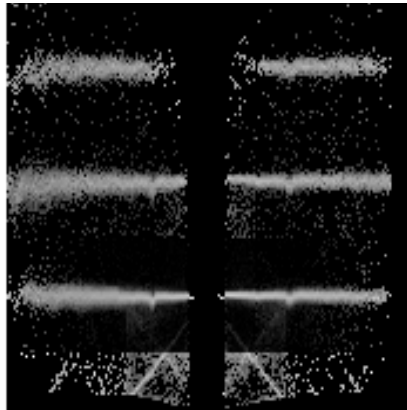
3.1 HEG Arm



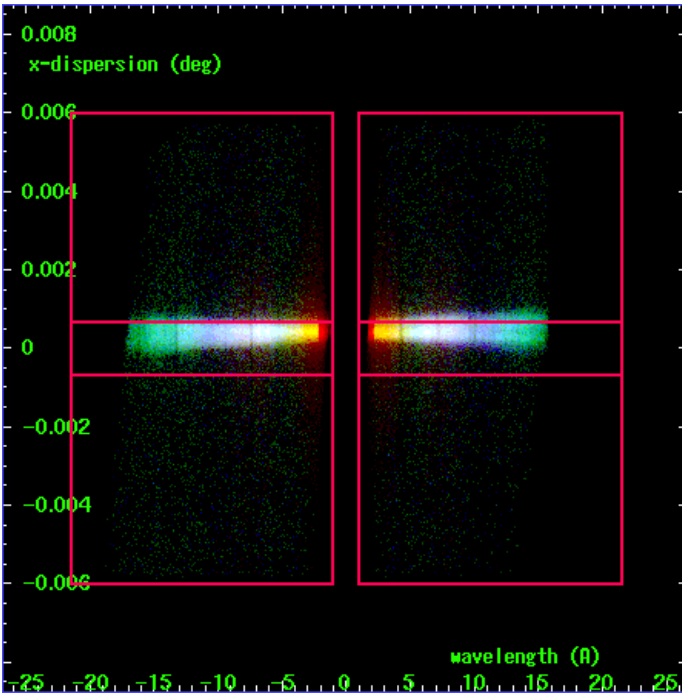
HEG Order Sort 123



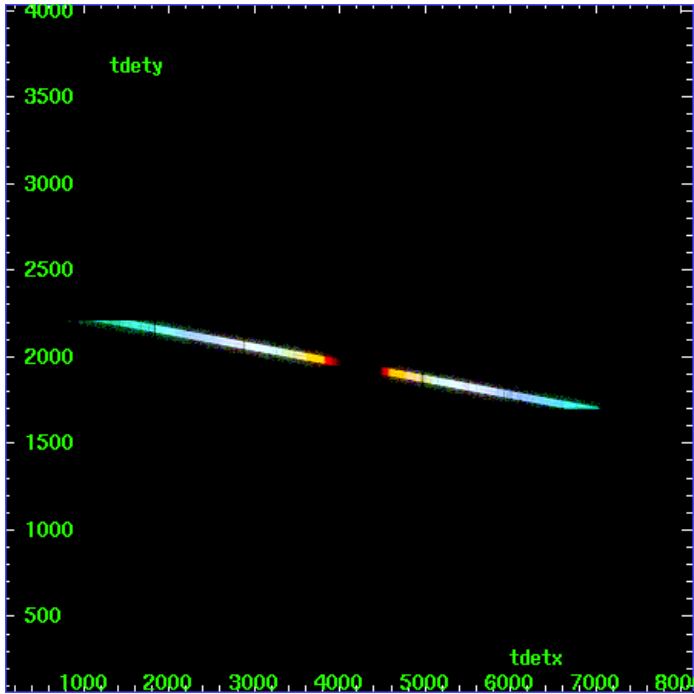
HEG Zero Order



HEG Order Sort ALL

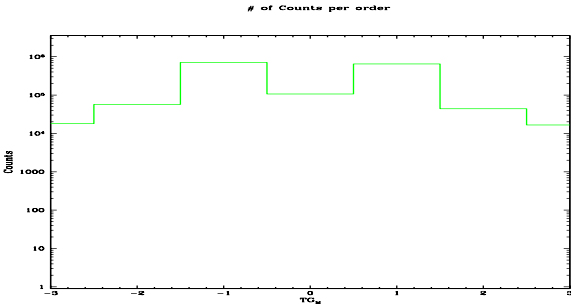


Spot Image HEG

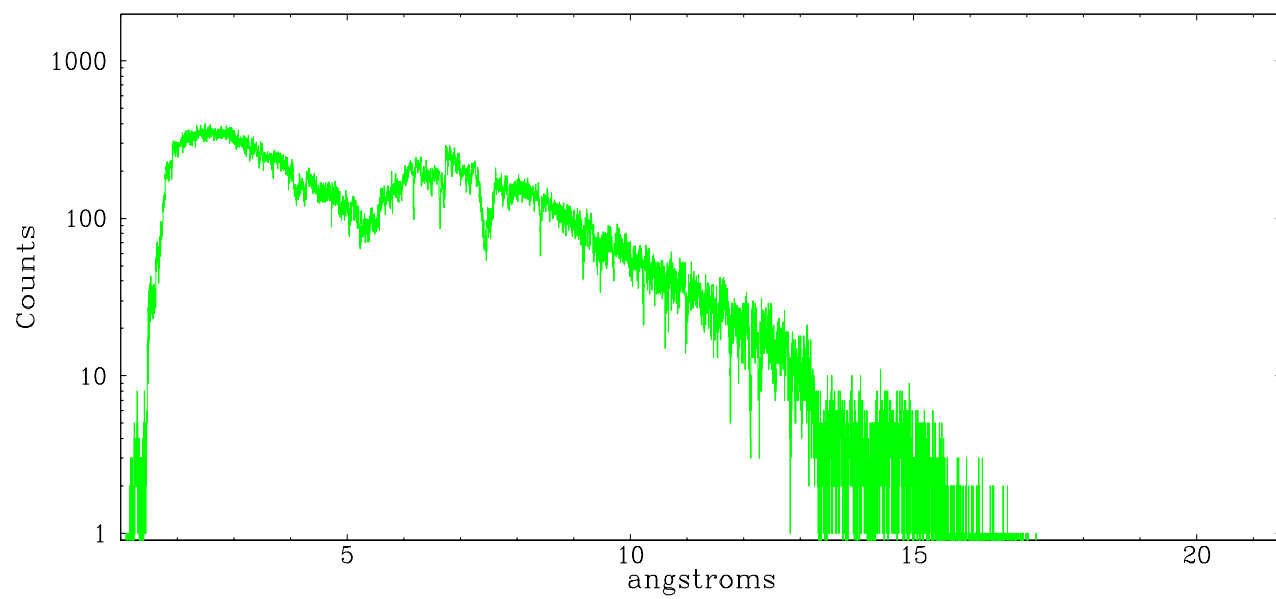


Full Detector HEG

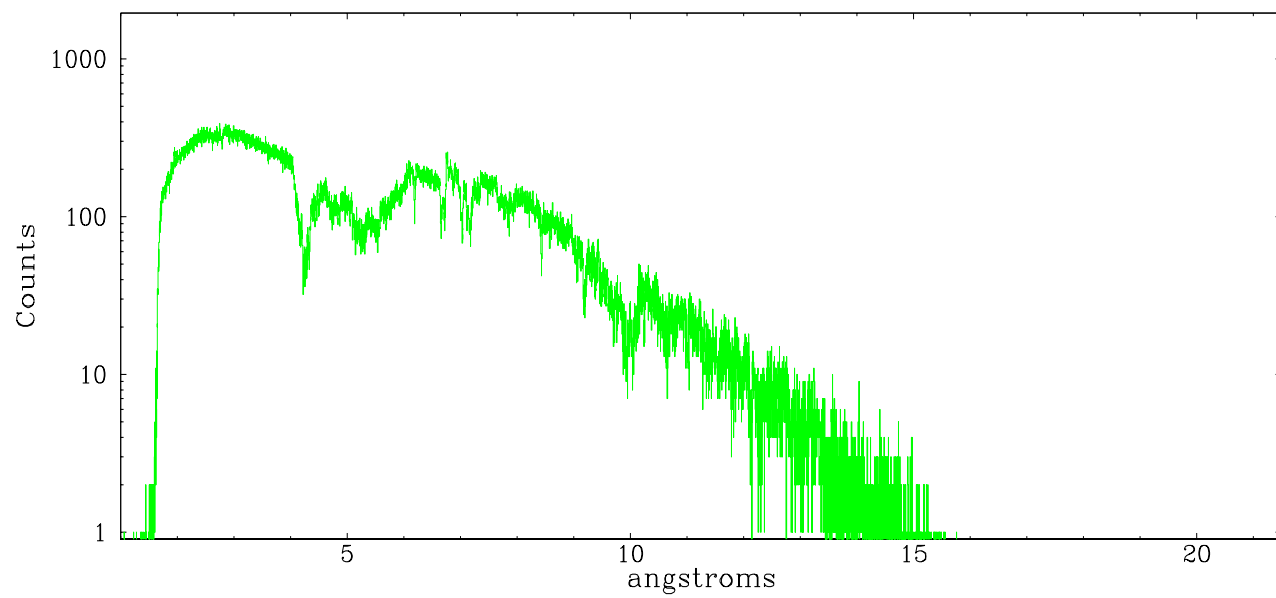
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	17993	57152	708859	106355	651407	44060	16678



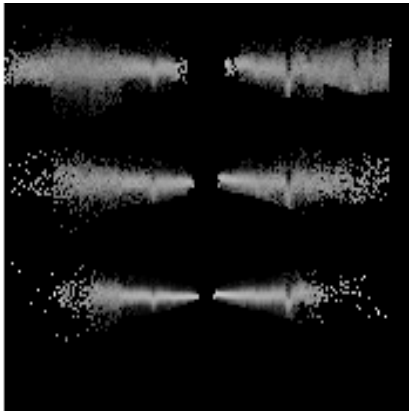
heg order -1



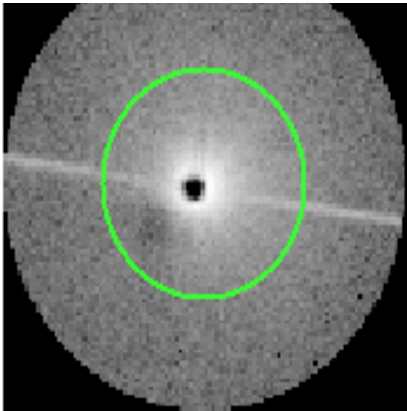
heg order +1



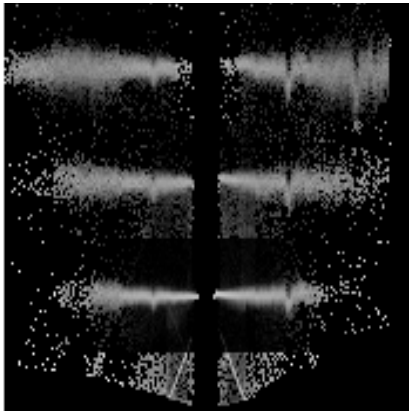
3.2 MEG Arm



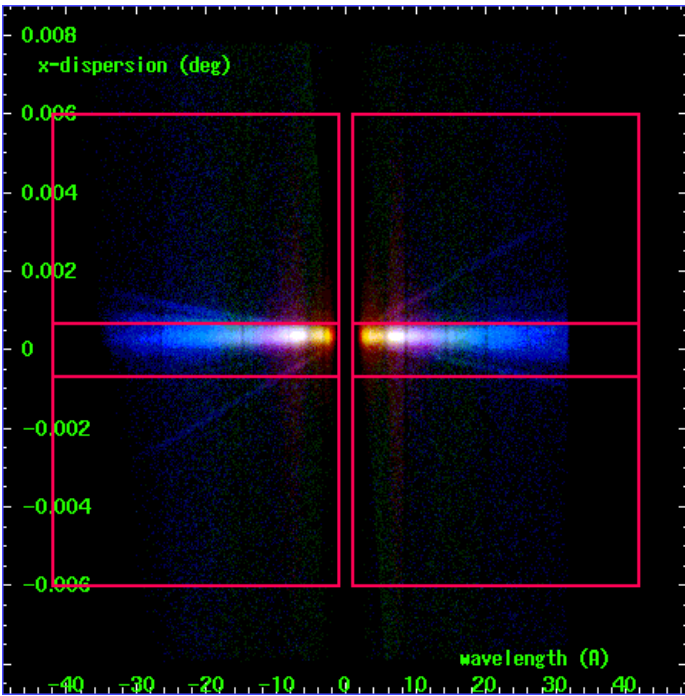
MEG Order Sort 123



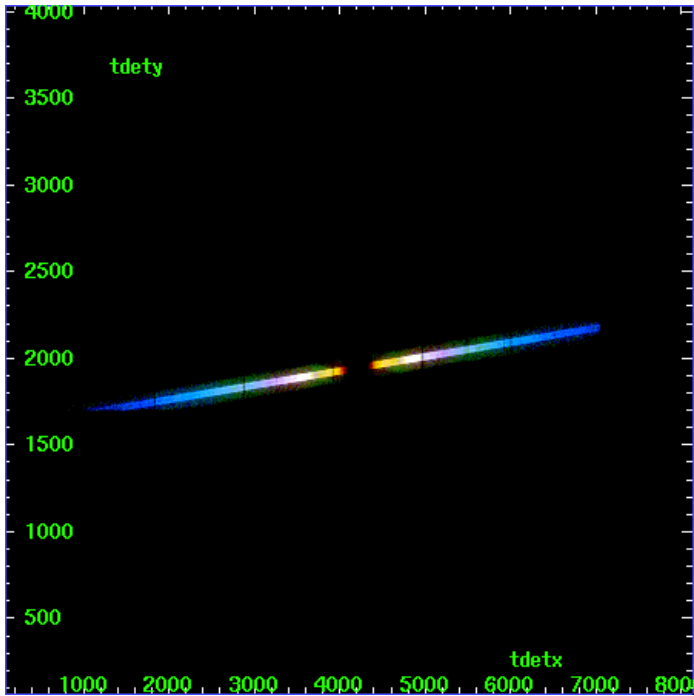
MEG Zero Order



MEG Order Sort ALL

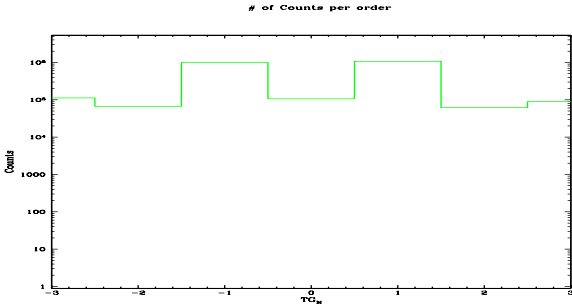


Spot Image MEG

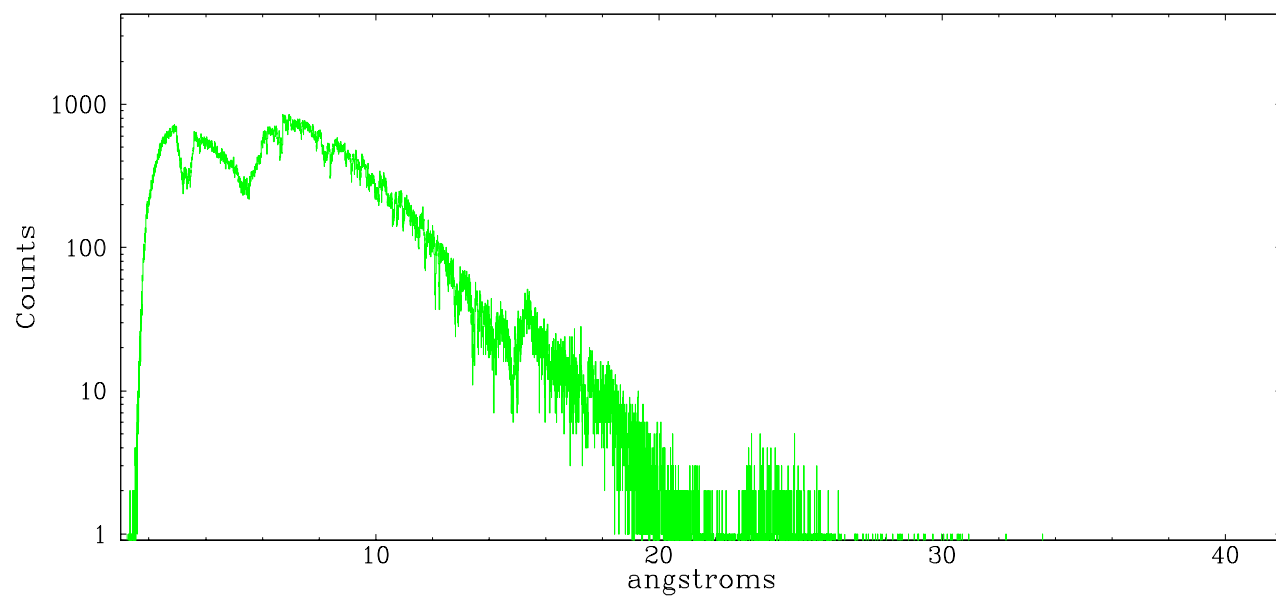


Full Detector MEG

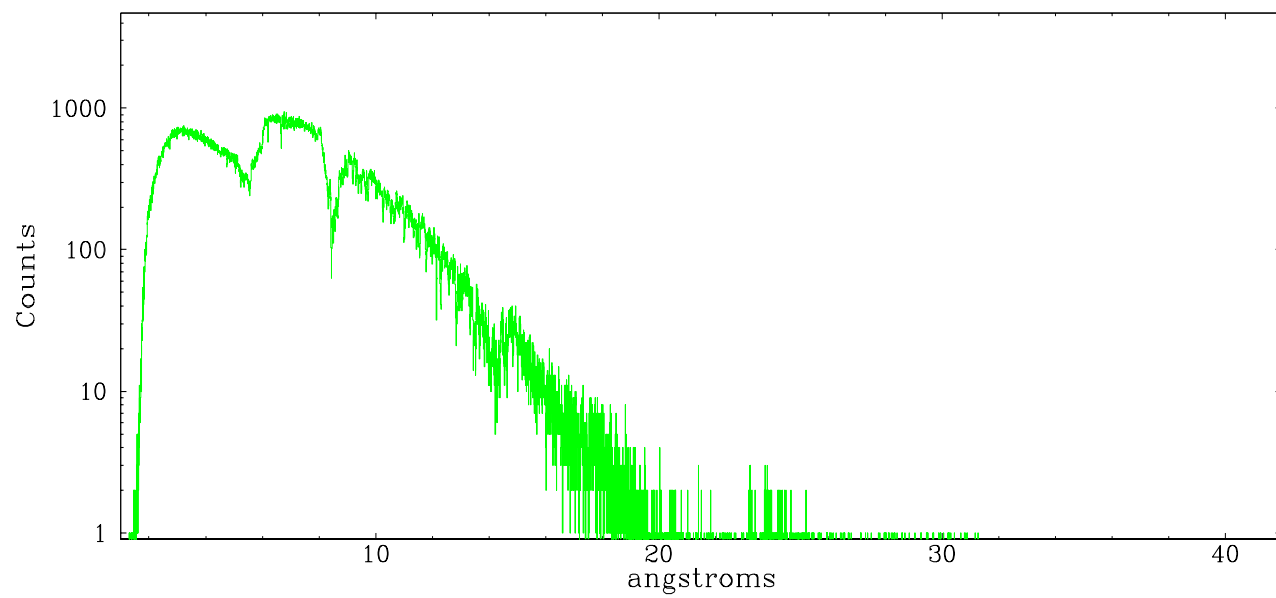
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	112210	66759	995694	106355	1066045	61432	89247



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.08.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	48.325

A.2 Comments