

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2749 - L2 Version 001
Chandra X-Ray Center

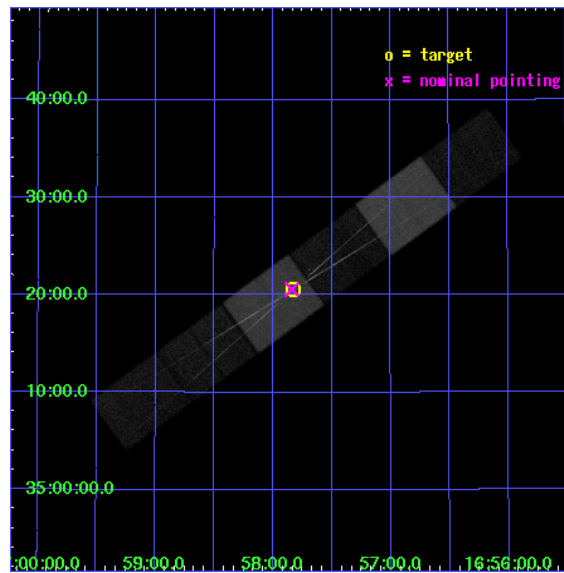
L2 Processing Date : Sep 15 2006

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1 Front

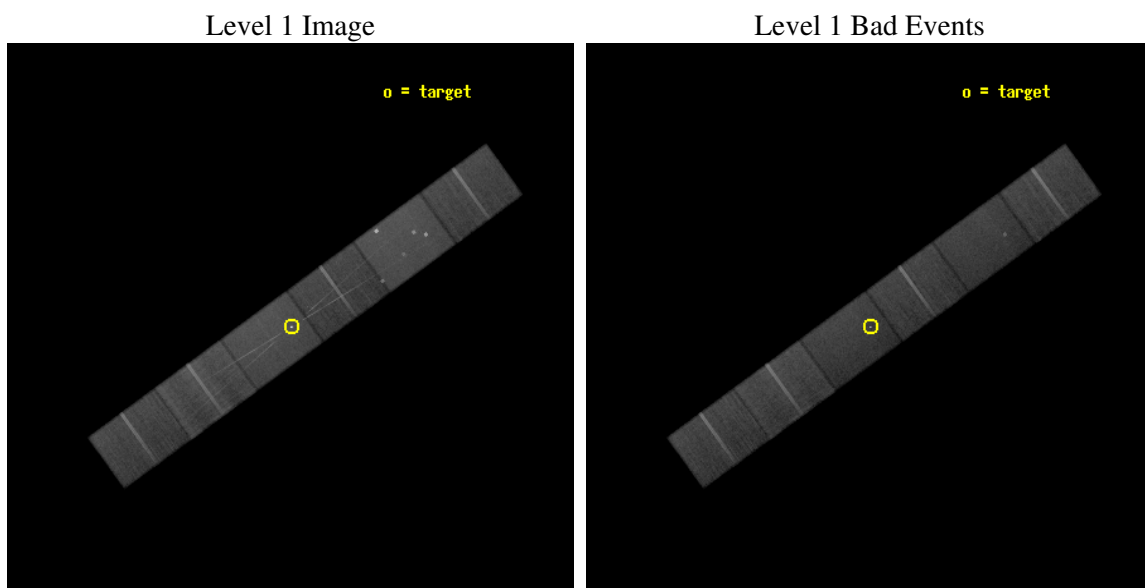
seq_num	400229
obs_id	2749
title	SPECTRAL SIGNATURES OF A PRECESSING ACCRETION DISK IN HER X-1
observer	PROFESSOR CHARLES HAILEY
object	HER X-1
dtcycle	0
cycle	P
ra_targ	254.4575
dec_targ	35.342389
ra_nom	254.4601494826
dec_nom	35.34289869926
roll_nom	143.91136740119
revision	2
ontime	50175.0
livetime	49364.630230142
ontime4	50175.0
ontime5	50175.0
ontime6	50175.0
ontime7	50175.0
ontime8	50172.459009826
ontime9	50175.0
l2events	414976



2 OBI

2.1 OBI

2.1.1 Images

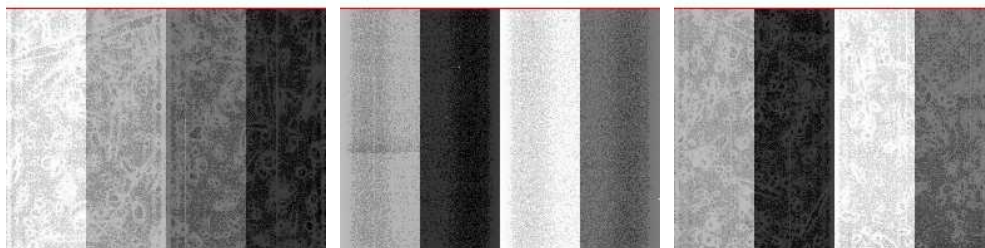


2.1.2 Bias

Chip 4

Chip 5

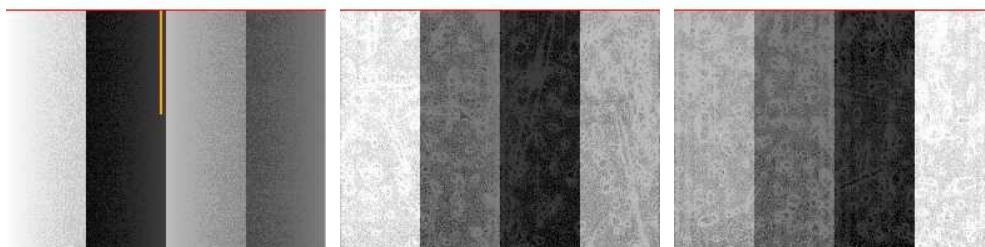
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.3
date	2006-09-15T03:30:04
revision	2

sched_exp_time	50000.000000
ontime	50601.692752659
ontime4	50477.181842476
ontime5	50601.692752659
ontime6	50497.510112643
ontime7	50601.692752659
ontime8	50494.972021699
ontime9	50494.971951991
l1events	1873005

2.1.4 Events

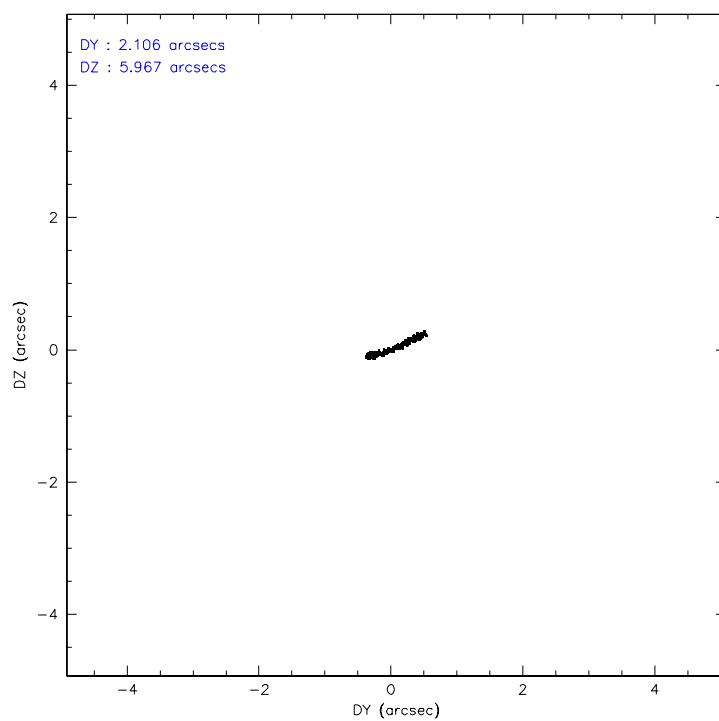
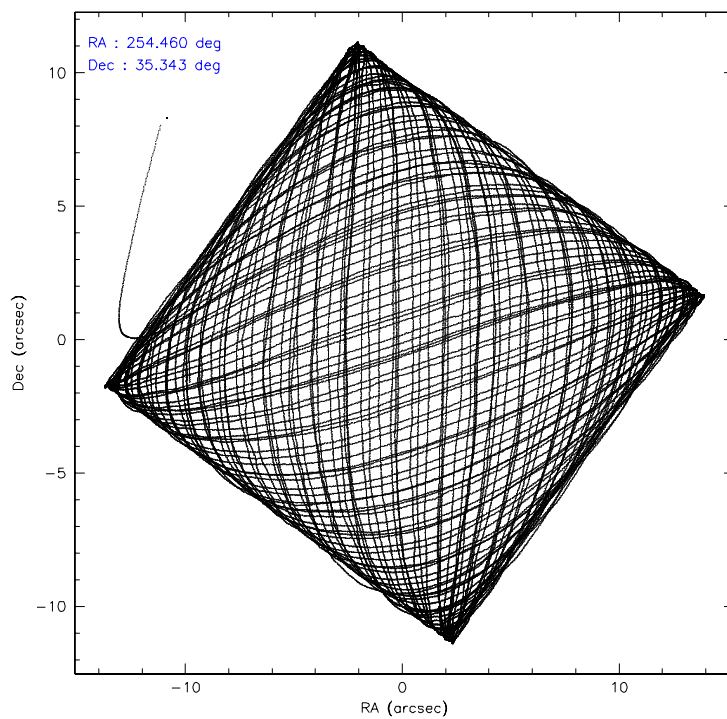
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	278440	379418	267088	354775	334215	259069
rejected events	247085	203710	228291	204442	263101	228258
rejected %	88%	53%	85%	57%	78%	88%

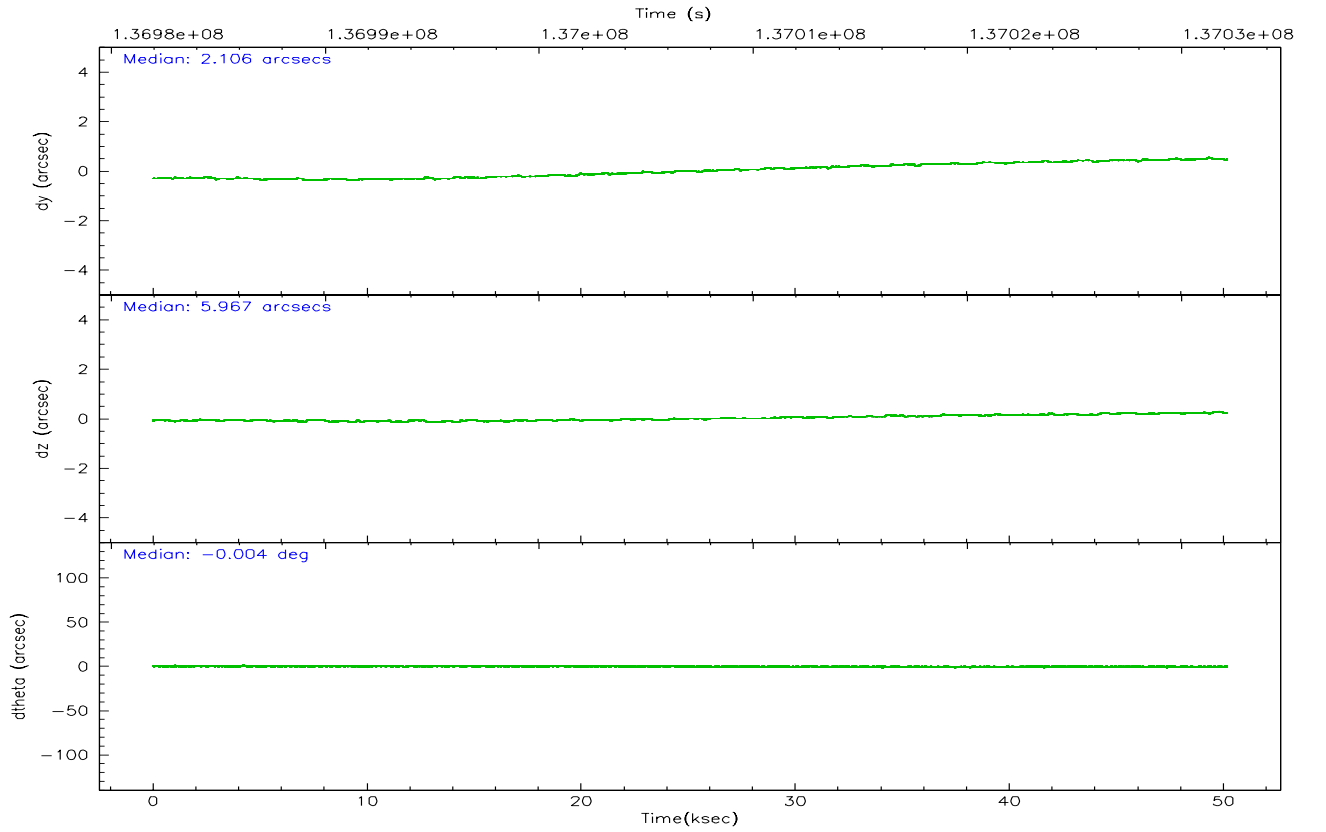
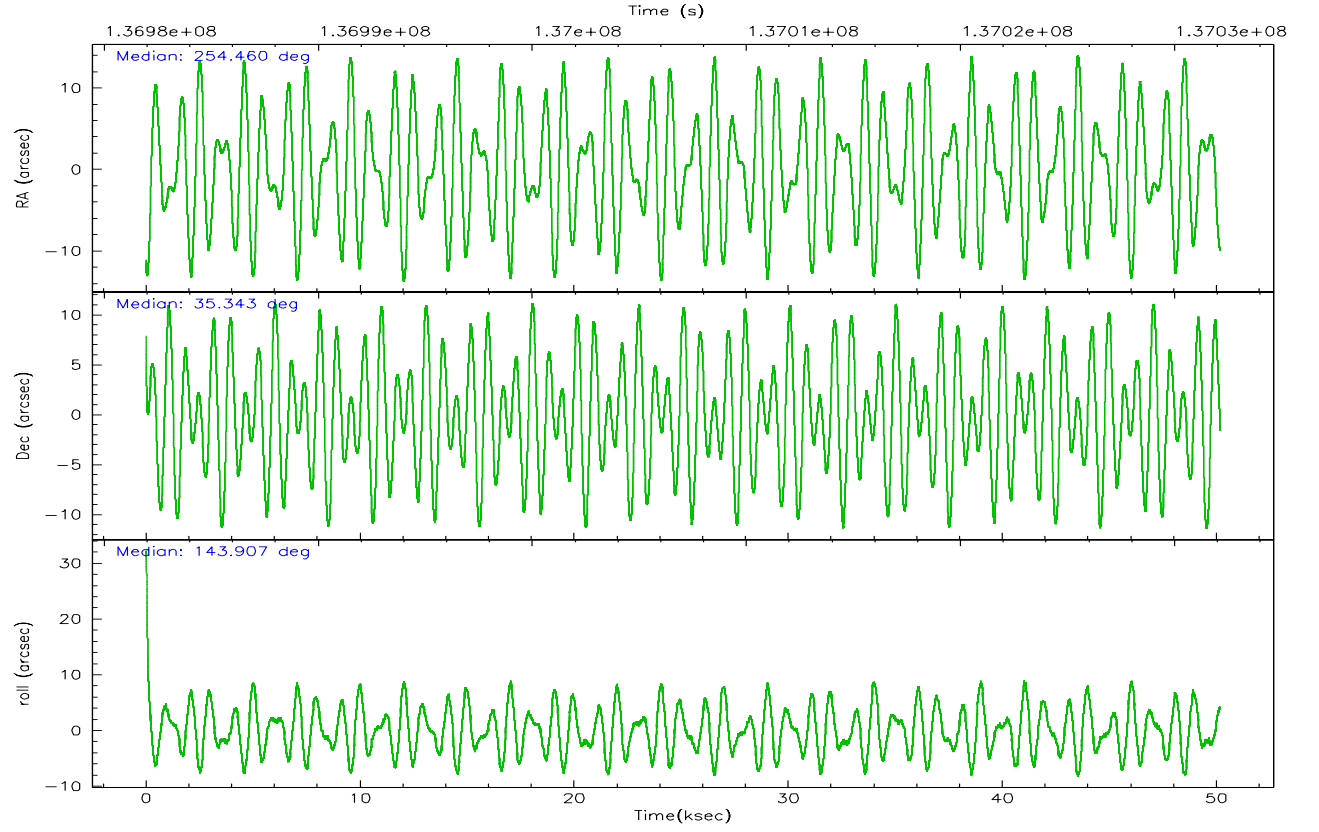
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	12442	29824	18084	11919	23459	12269
	4%	7%	6%	3%	7%	4%
grade 1 events	112	1363	114	444	172	99
	0%	0%	0%	0%	0%	0%
grade 2 events	7582	48038	7328	36999	14980	6348
	2%	12%	2%	10%	4%	2%
grade 3 events	3136	4563	3604	9655	8035	3247
	1%	1%	1%	2%	2%	1%
grade 4 events	2939	4384	3485	9603	7317	3069
	1%	1%	1%	2%	2%	1%
grade 5 events	9144	18408	10610	24948	13910	11211
	3%	4%	3%	7%	4%	4%
grade 6 events	5464	90491	6523	83333	17865	6071
	1%	23%	2%	23%	5%	2%
grade 7 events	237621	182347	217340	177874	248477	216755
	85%	48%	81%	50%	74%	83%

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	254.493416	254.4601494825994	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	35.340339	35.3428986992603	Subarray start row	1	1
Pointing Roll	143.735496	143.9113674011896	Subarray row count	774	774
Window start time	136961884.184000	136961884.184000	Alternating exposures requested	N	N
Window stop time	137064724.184000	137064724.184000	Primary exposure time	0.000000	2.5
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-187.132523	-187.1254020033014			
SIM translation stage offset (mm)	-3	-3.007120579706367			
Phase constraints	Y	Y			
Phase period	1.700167	1.700167			
Phase epoch	50290.659249	50290.659249			
Phase start	0.200000	0.200000			
Phase end	0.900000	0.900000			
Phase start error	0.050000	0.050000			
Phase end error	0.010000	0.010000			
Observation start time	136982133.184000	136980953.18425			
Observation start date	2002-05-05T10:34:29	2002-05-05T10:15:53			
Observation end time	137032133.184000	137033199.99888			
Observation end date	2002-05-06T00:27:49	2002-05-06T00:46:39			

2.3 Aspect



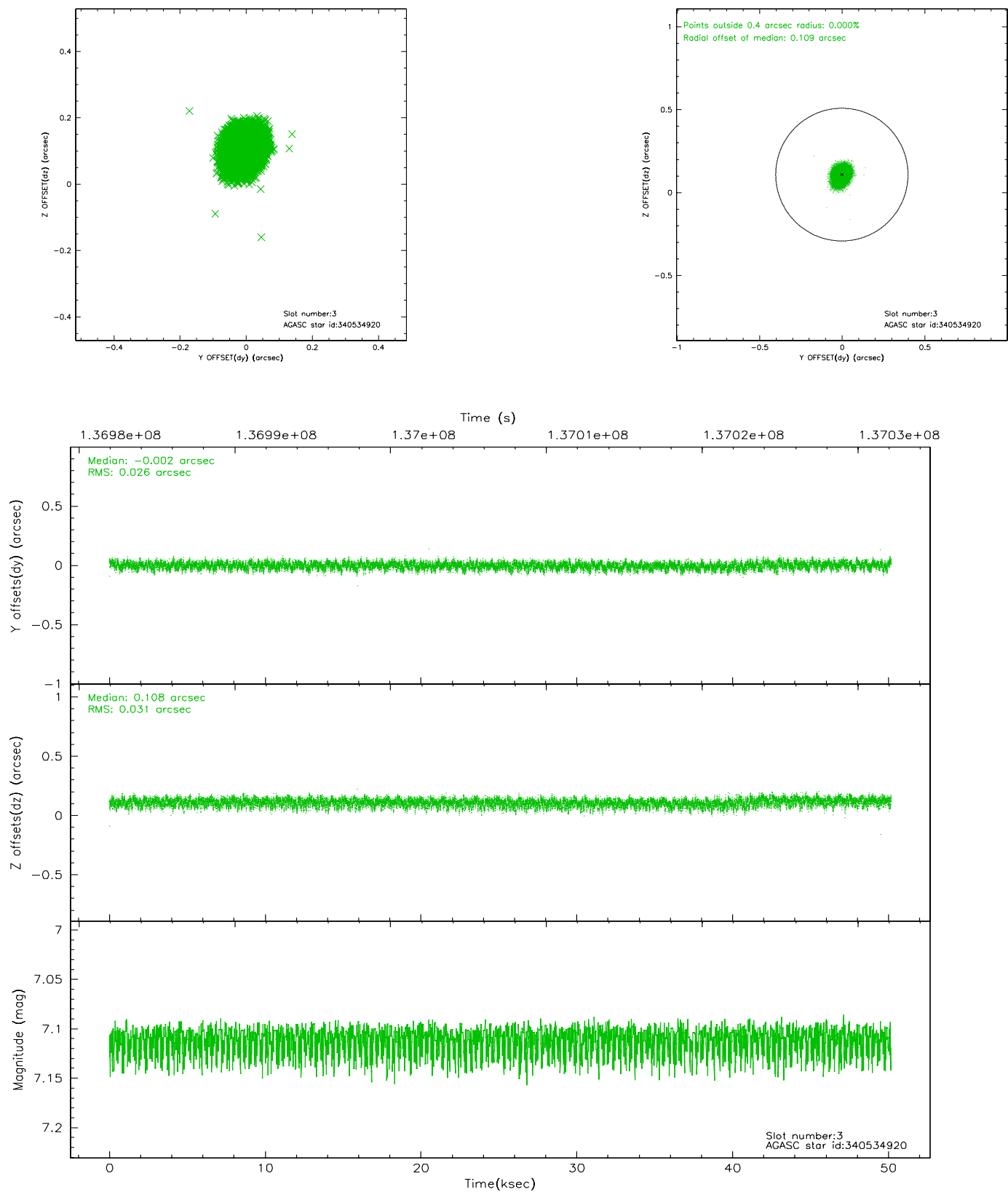


Slot Statistics

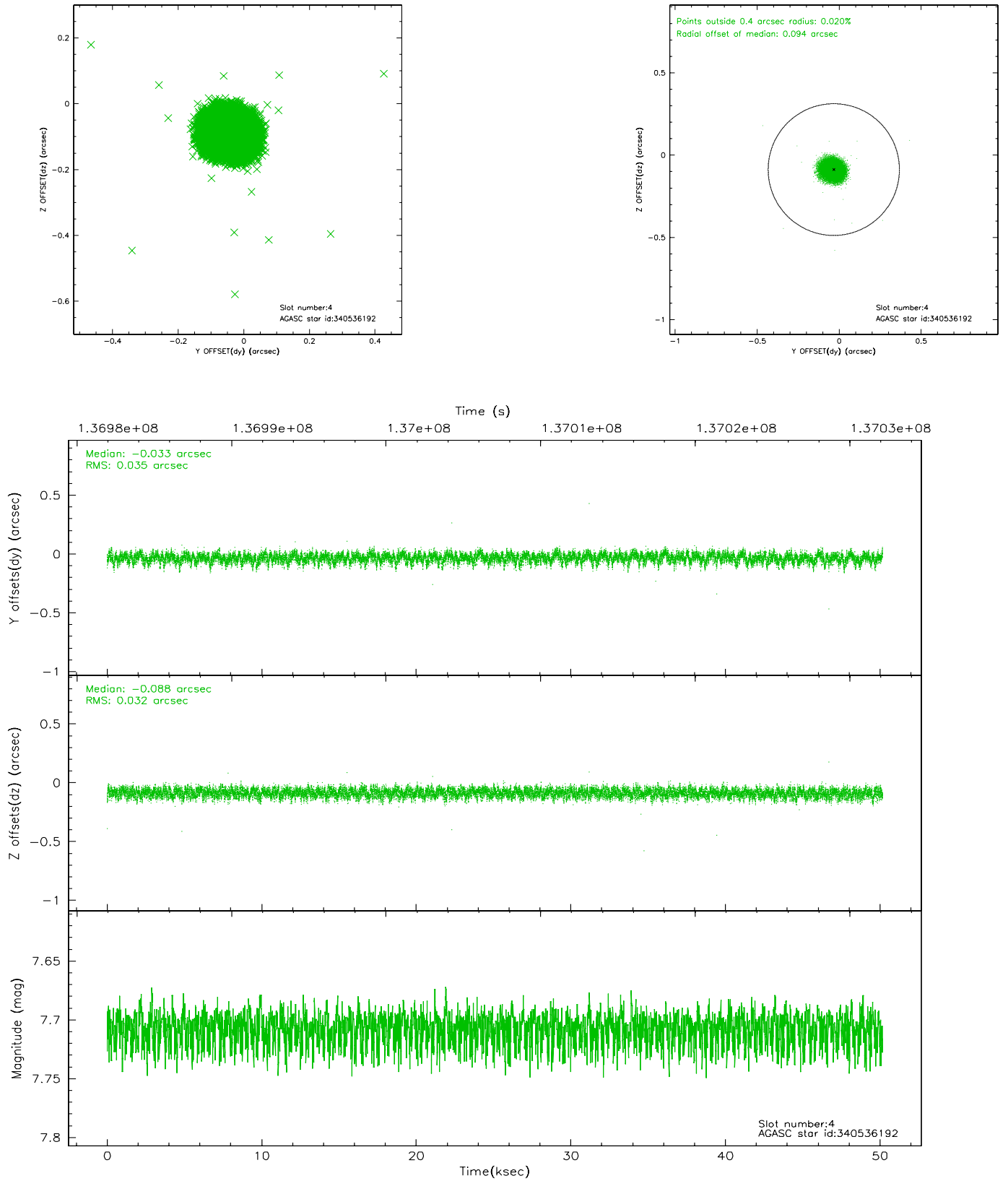
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	12238	-0.023	-0.042	0.008	0.020	0.000000	0.000000	-754.58	-1789.26
1	FID	ACIS-S-4	7.19	12237	-0.041	0.023	0.007	0.025	0.000000	0.000000	2158.70	119.28
2	FID	ACIS-S-5	7.23	12237	0.034	0.028	0.008	0.014	0.000000	0.000000	-1807.37	112.96
3	GUIDE	340534920	7.11	24473	-0.002	0.108	0.043	0.069	255.403139	35.543291	-1709.55	-2175.10
4	GUIDE	340536192	7.71	24471	-0.033	-0.088	0.050	0.080	254.294567	35.286536	356.28	501.39
5	GUIDE	340401120	8.18	24473	-0.054	-0.037	0.070	0.112	253.574895	35.128140	1735.35	2205.90
6	GUIDE	340534896	8.60	24476	0.092	0.125	0.074	0.117	255.288450	35.541682	-1443.69	-1969.27
7	GUIDE	340533352	8.46	24477	-0.001	-0.102	0.079	0.127	254.563691	34.717962	-1493.66	1683.48

2.4 Star Slots

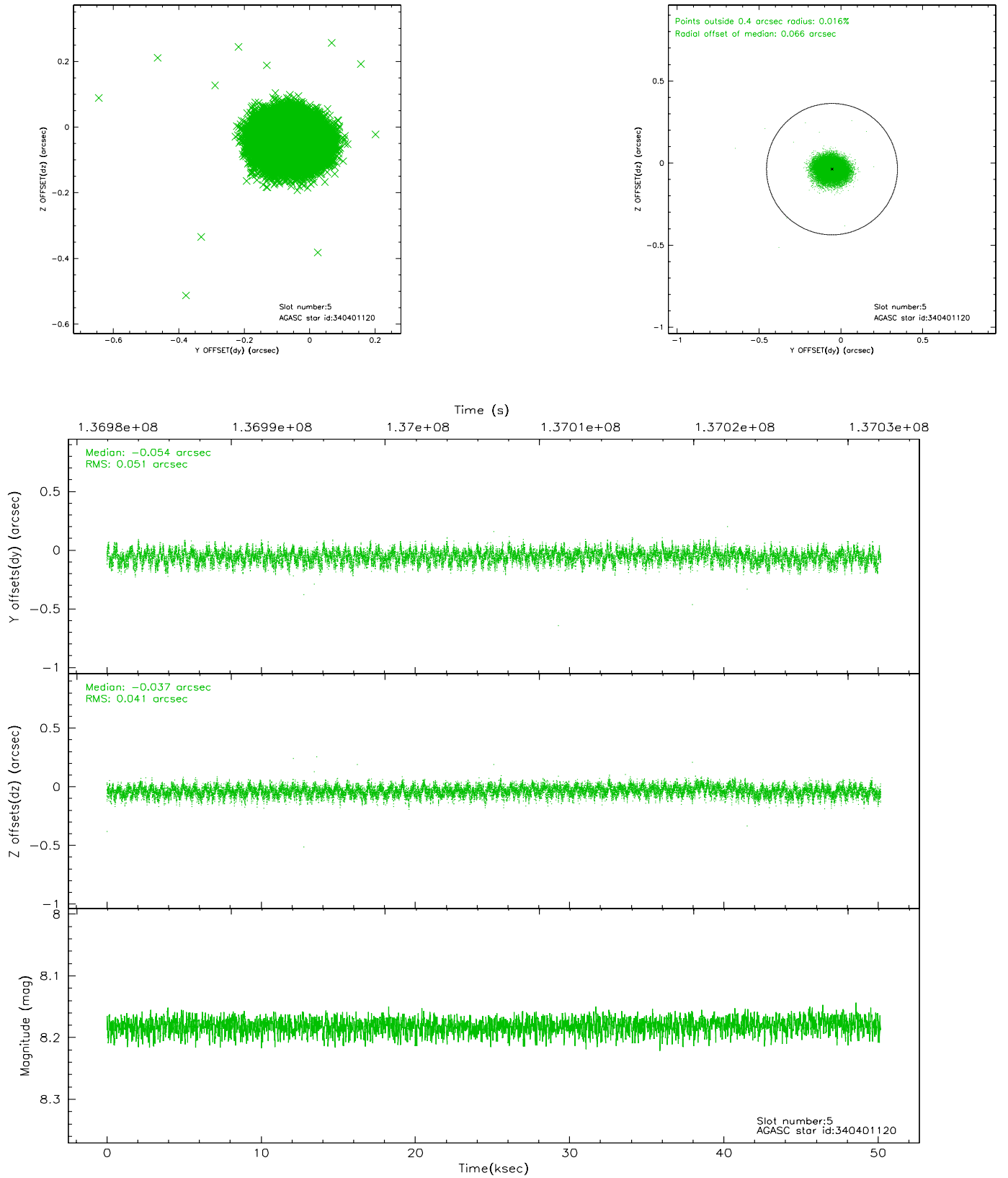
2.4.1 Slot 3



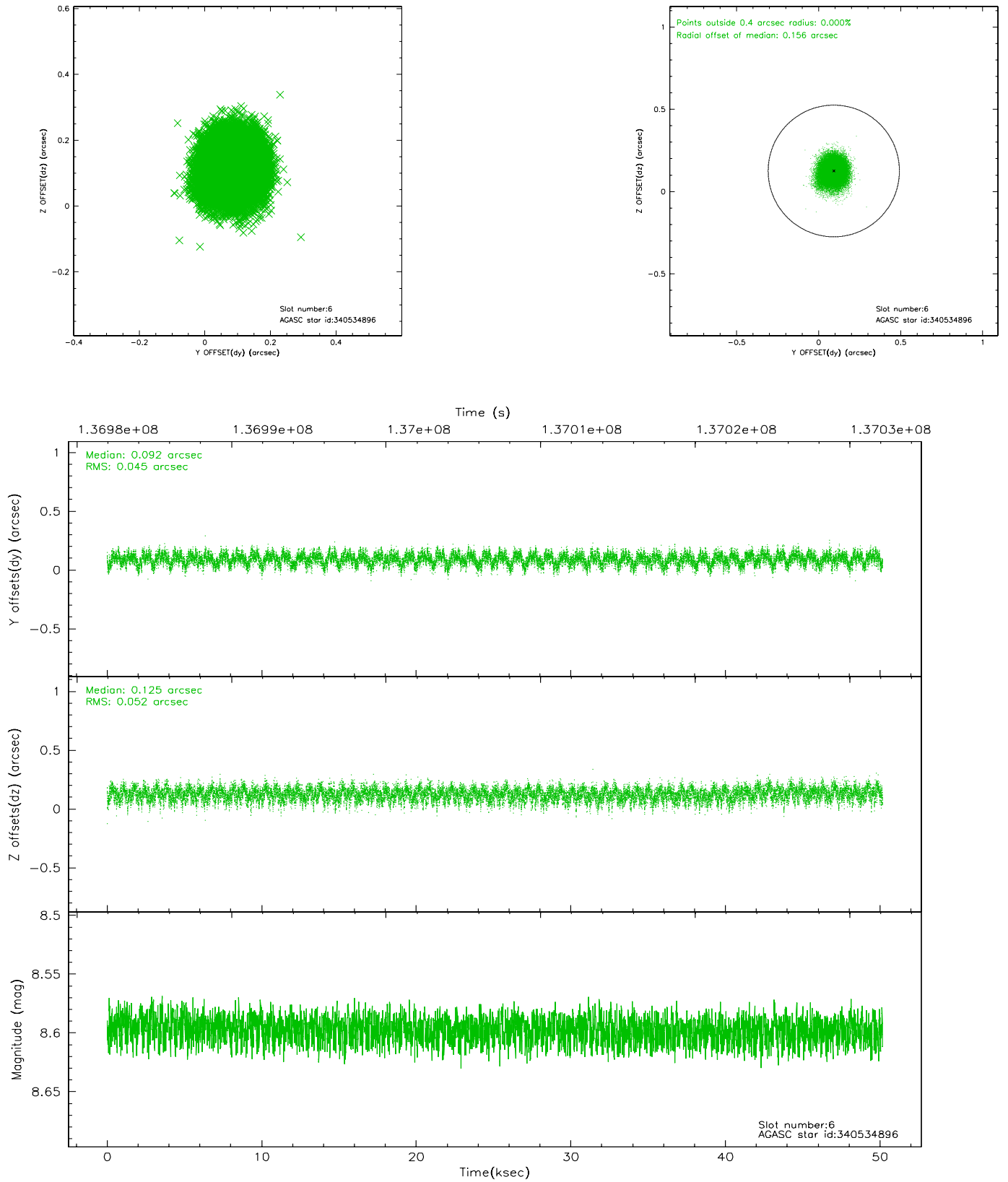
2.4.2 Slot 4



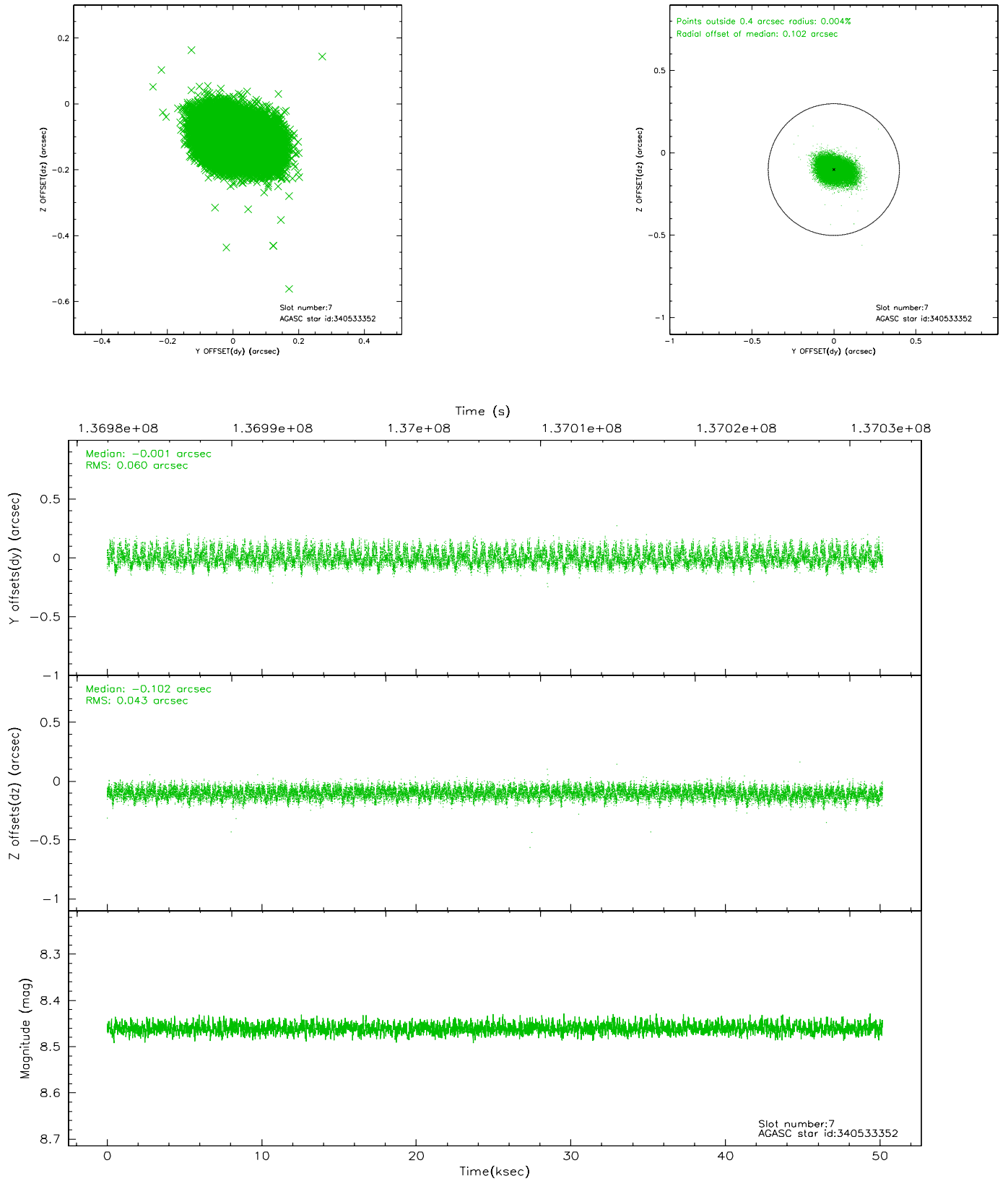
2.4.3 Slot 5



2.4.4 Slot 6

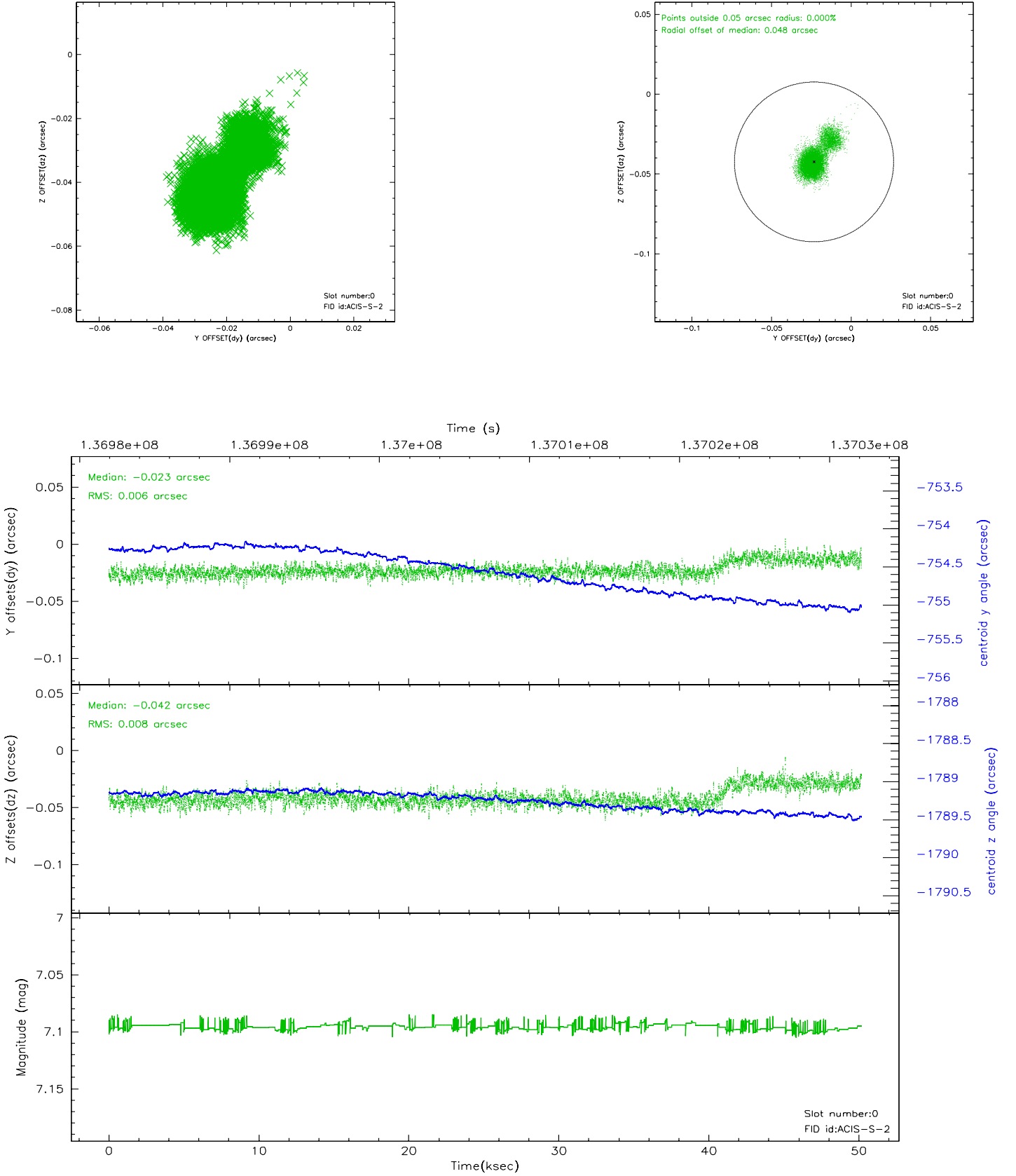


2.4.5 Slot 7

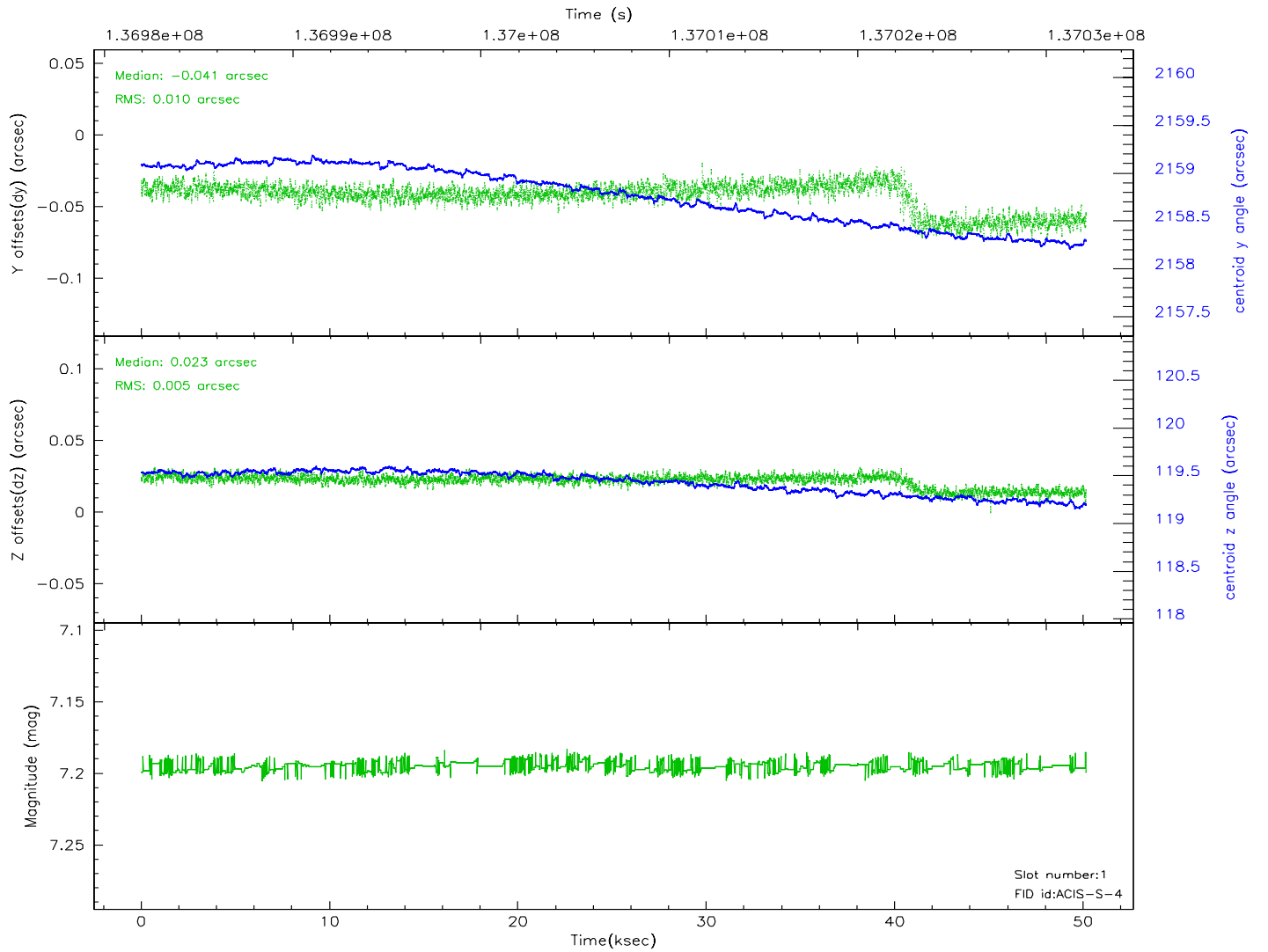
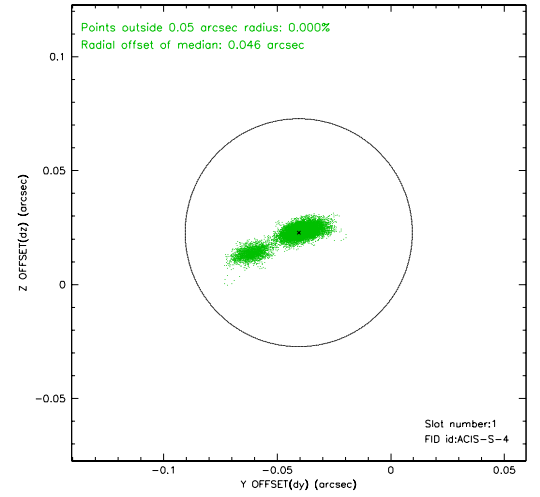
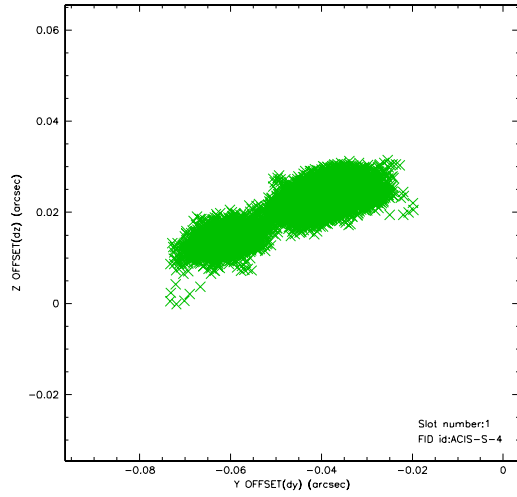


2.5 FID Slots

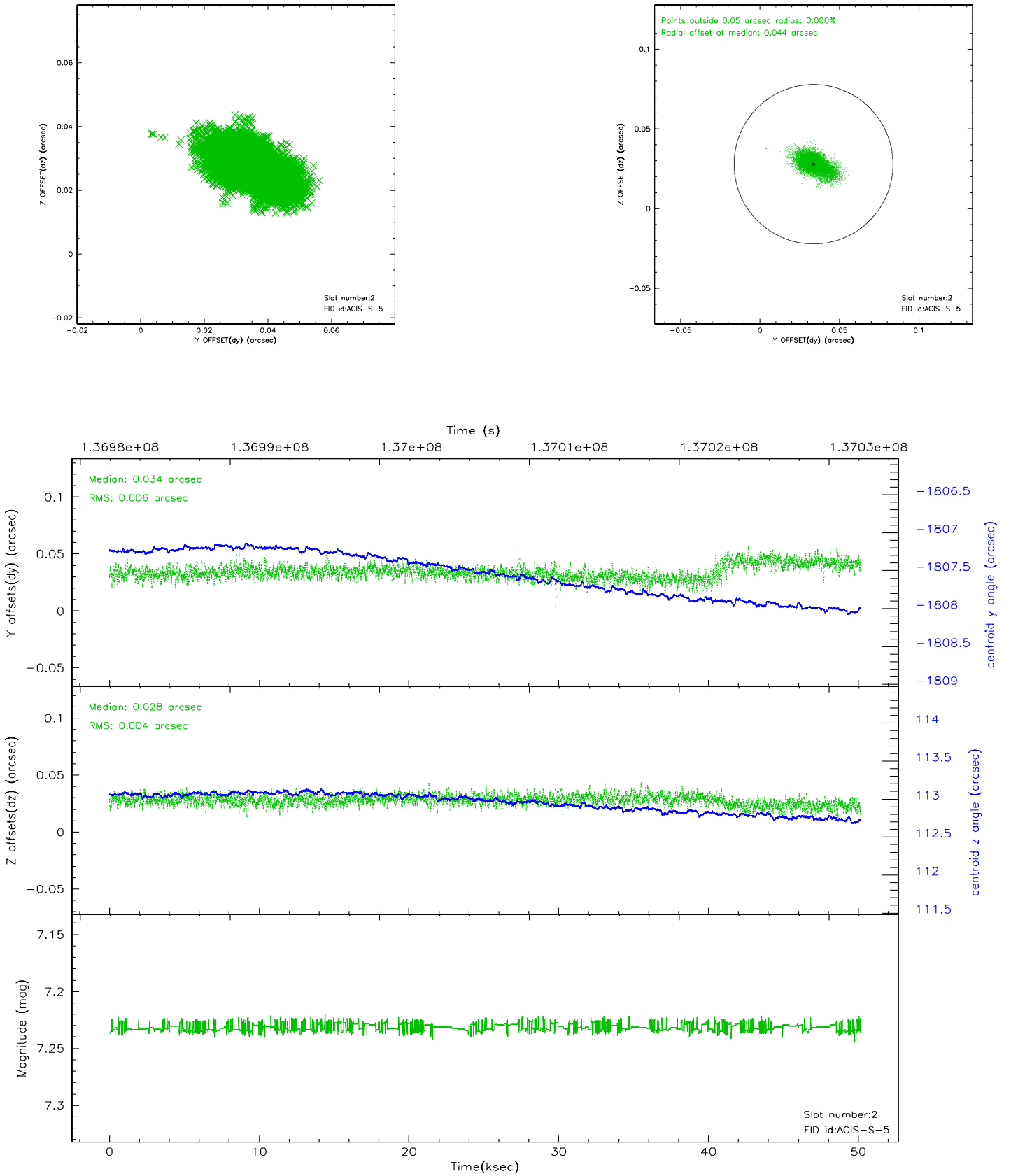
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

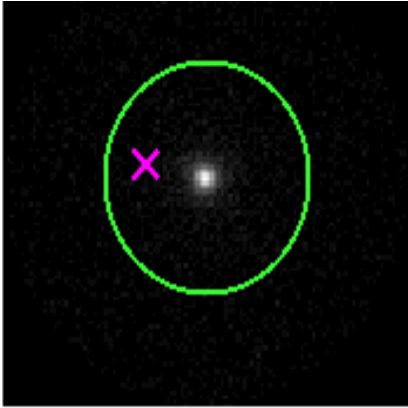


3 Gratings

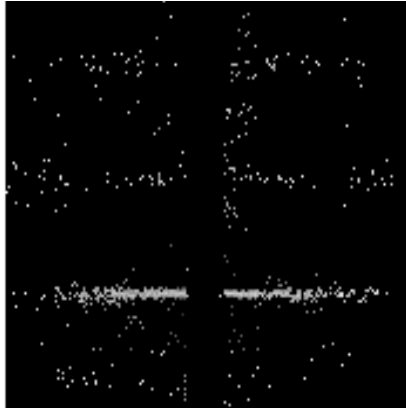
3.1 HEG Arm



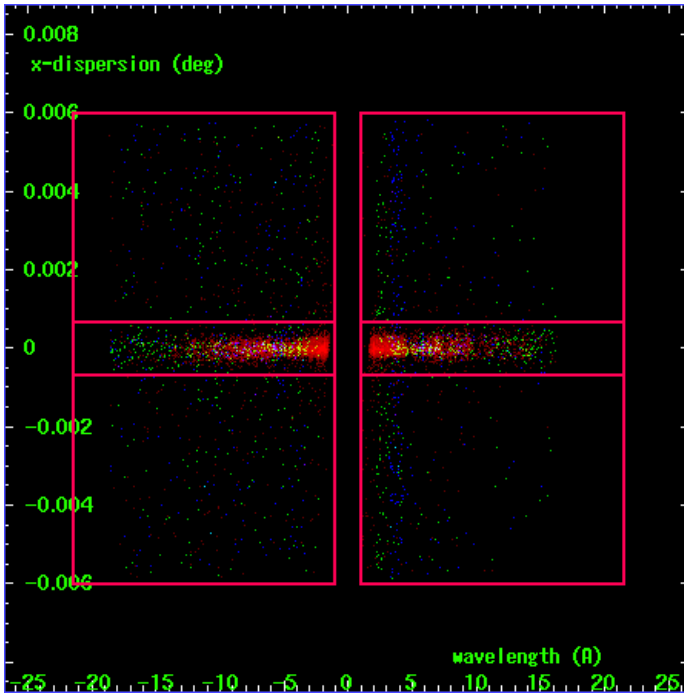
HEG Order Sort 123



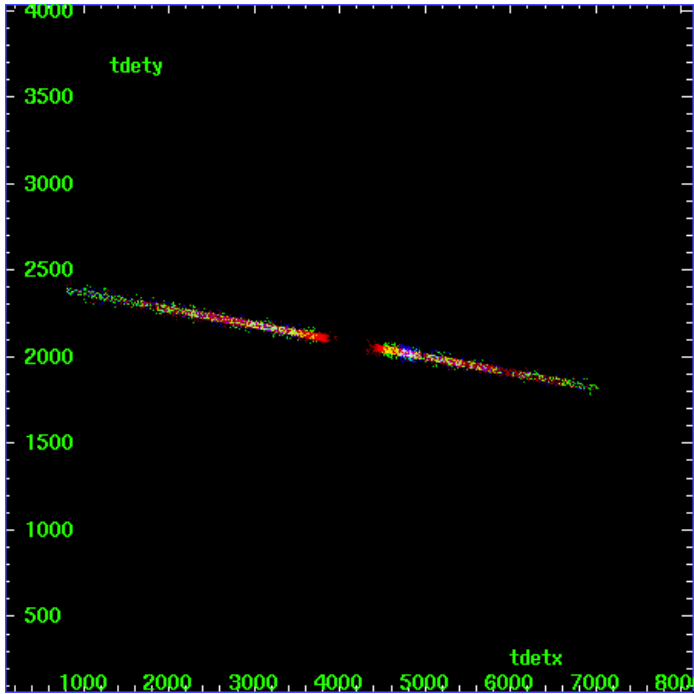
HEG Zero Order



HEG Order Sort ALL

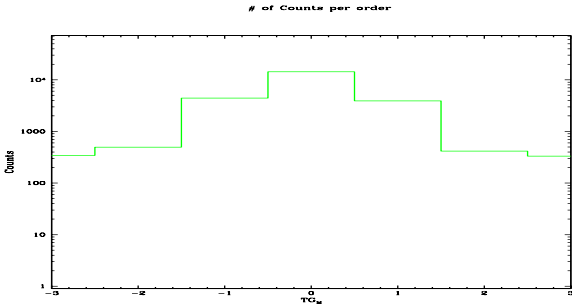


Spot Image HEG

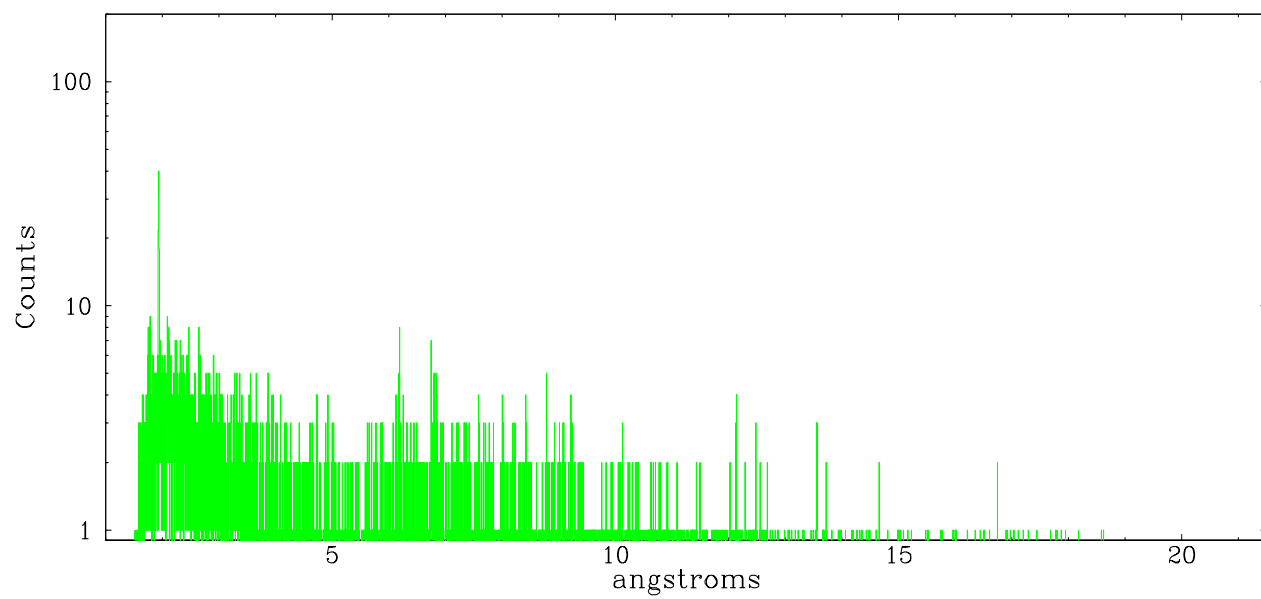


Full Detector HEG

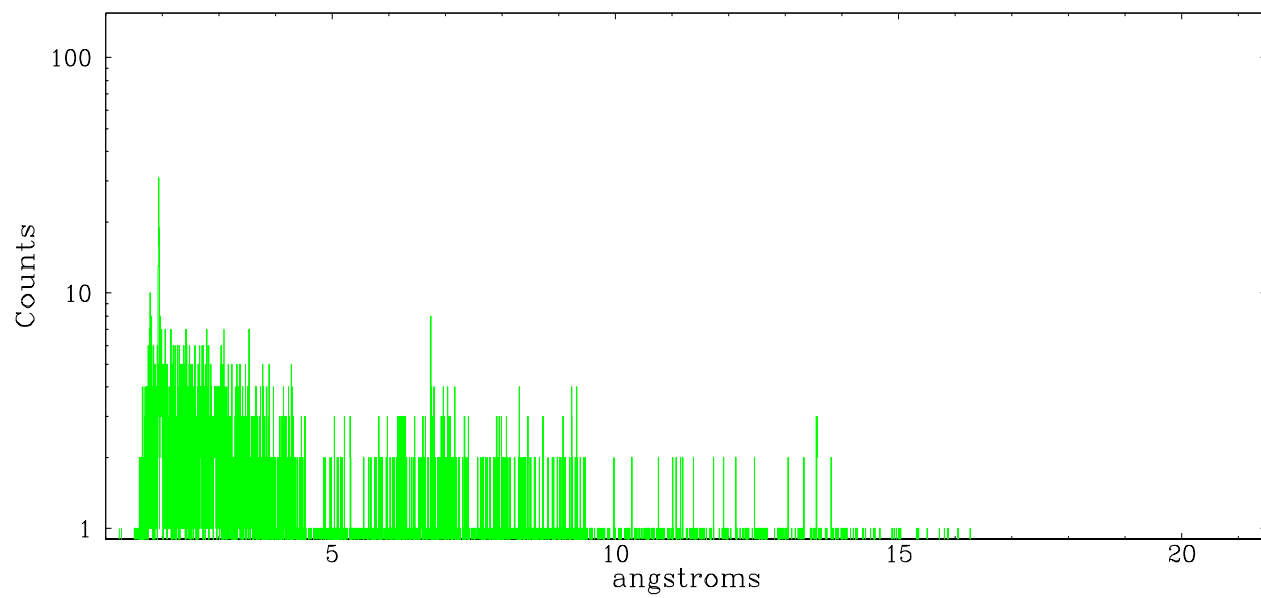
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	343	496	4423	14337	3906	415	332



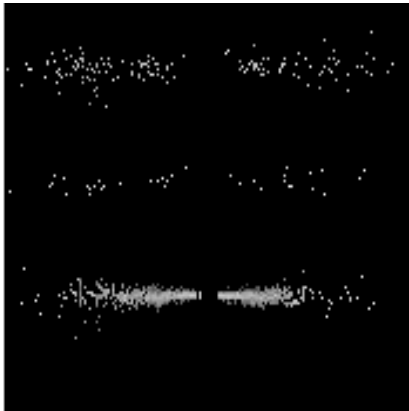
heg order -1



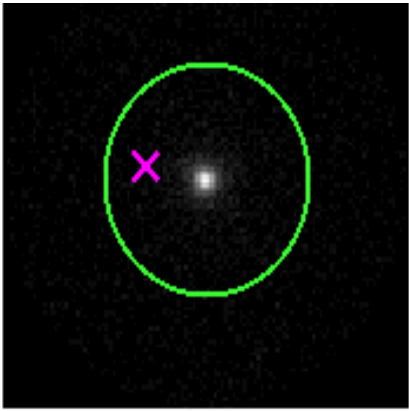
heg order +1



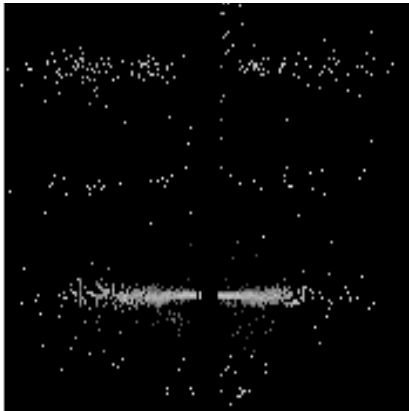
3.2 MEG Arm



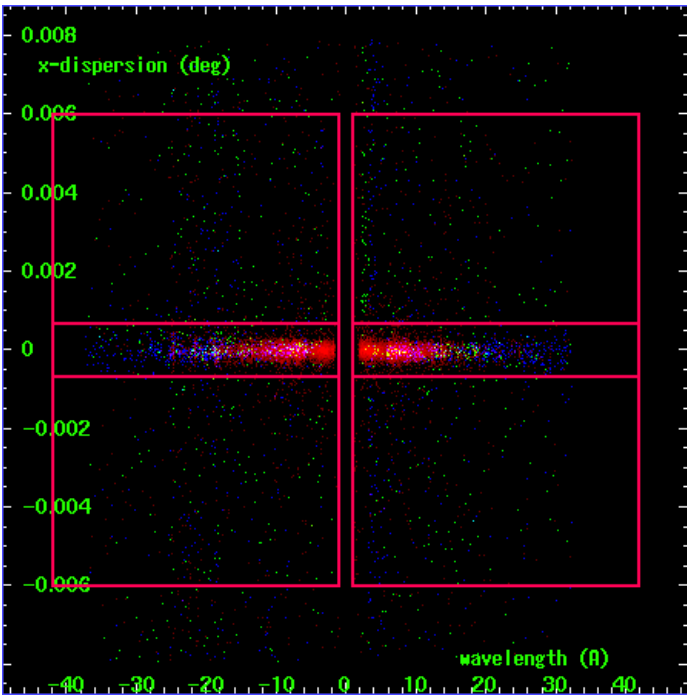
MEG Order Sort 123



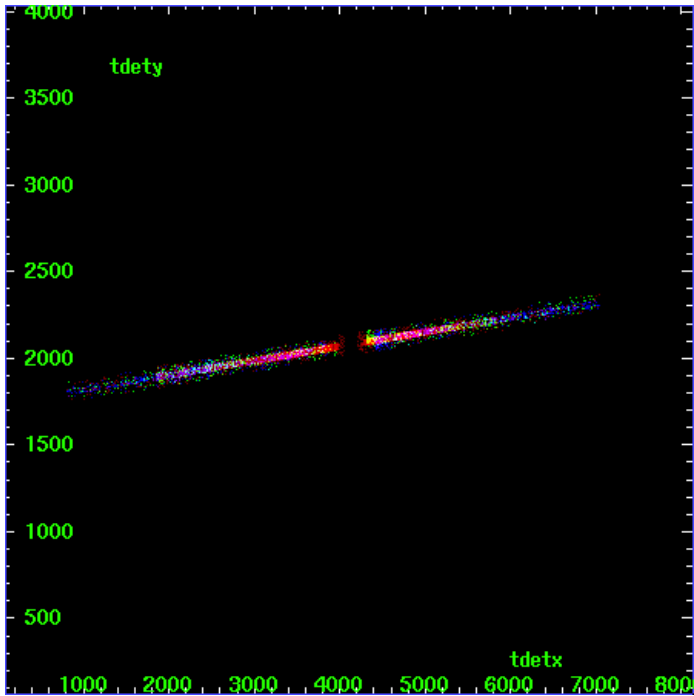
MEG Zero Order



MEG Order Sort ALL

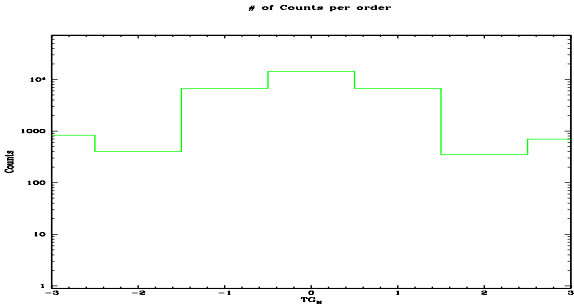


Spot Image MEG

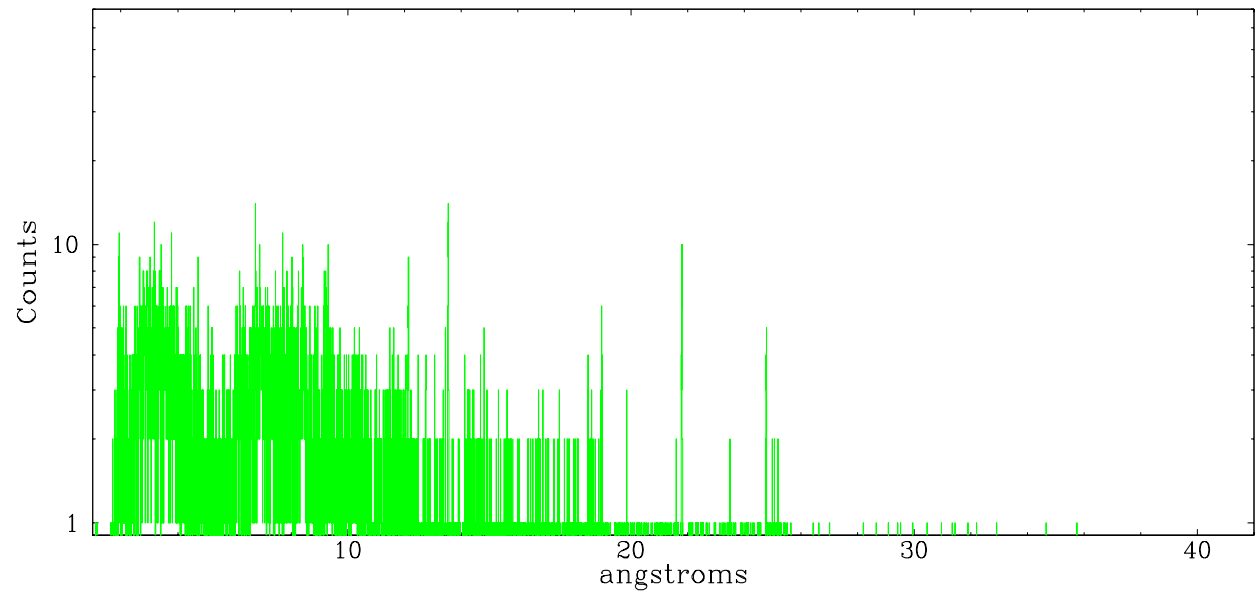


Full Detector MEG

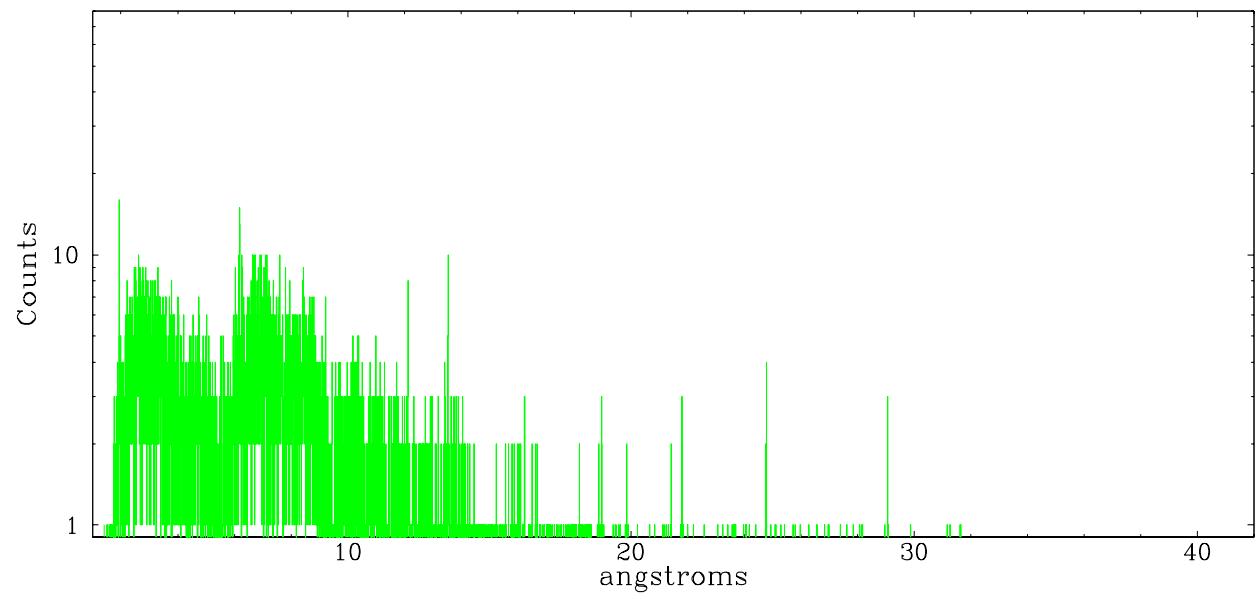
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	826	401	6690	14337	6710	351	697



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.09.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.175

A.2 Comments

Phase constraint met. Preferred roll angle met within 1 degree.