

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 5169 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : May 23 2006

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1 Front

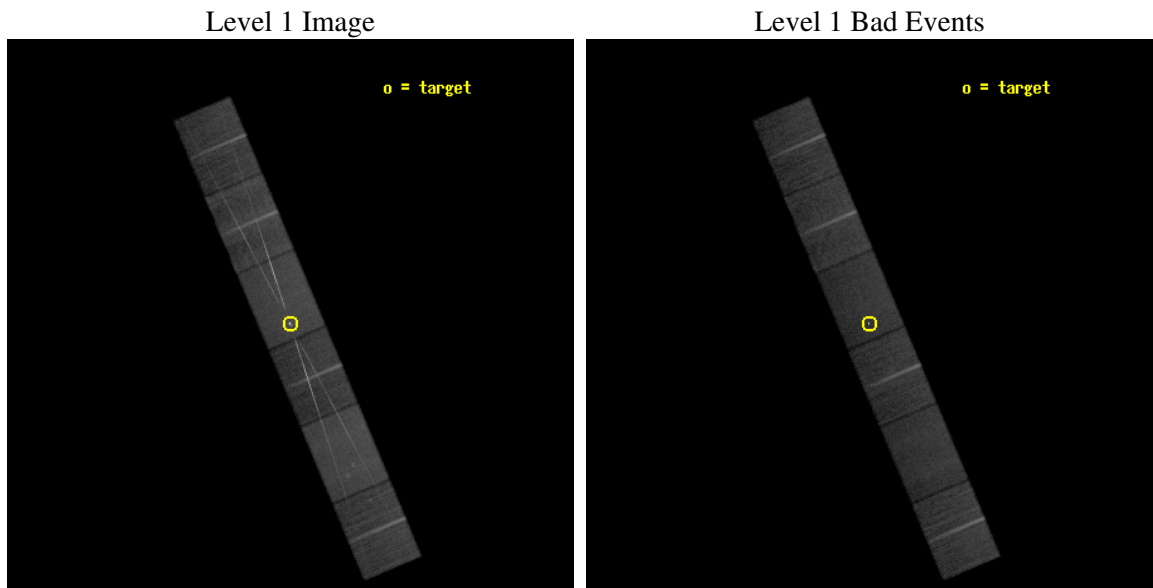
seq_num	790089
obs_id	5169
title	AO5 Calibration Observations of 3C273
observer	Dr. CXC Calibration
object	3C273
dtcycle	0
cycle	P
ra_targ	187.277917
dec_targ	2.052389
ra_nom	187.27696817676
dec_nom	2.0544032111953
roll_nom	247.10675945798
revision	2
ontime	30167.5
livetime	29680.268708875
ontime4	30167.5
ontime5	30167.5
ontime6	30164.959009826
ontime7	30167.5
ontime8	30167.5
ontime9	30167.5
l2events	345791



2 OBI

2.1 OBI

2.1.1 Images

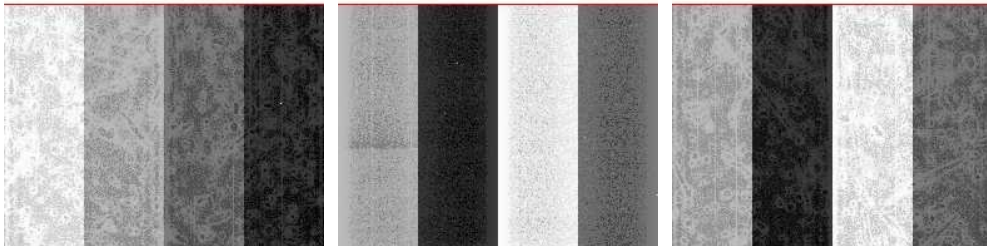


2.1.2 Bias

Chip 4

Chip 5

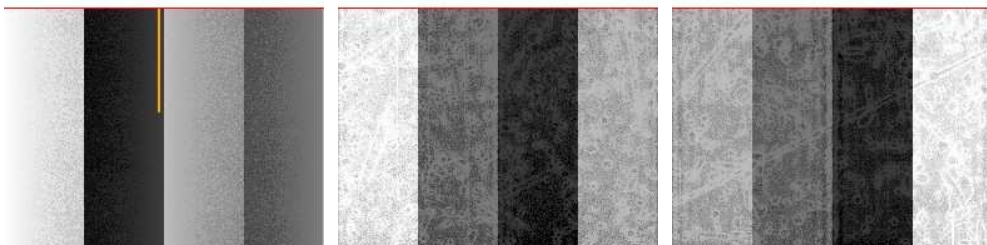
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	1
ascdsver	7.6.7.2
caldbver	3.2.2
date	2006-05-23T22:55:26
revision	2

sched_exp_time	30000.000000
ontime	30352.363285542
ontime4	30352.363285542
ontime5	30352.36330542
ontime6	30349.822295368
ontime7	30352.363285542
ontime8	30352.363285542
ontime9	30352.363285542
l1events	1331788

2.1.4 Events

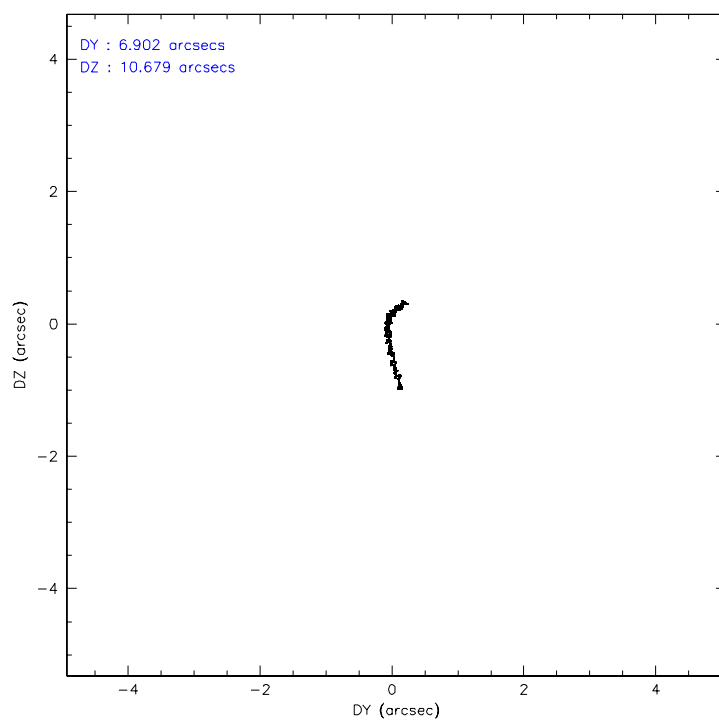
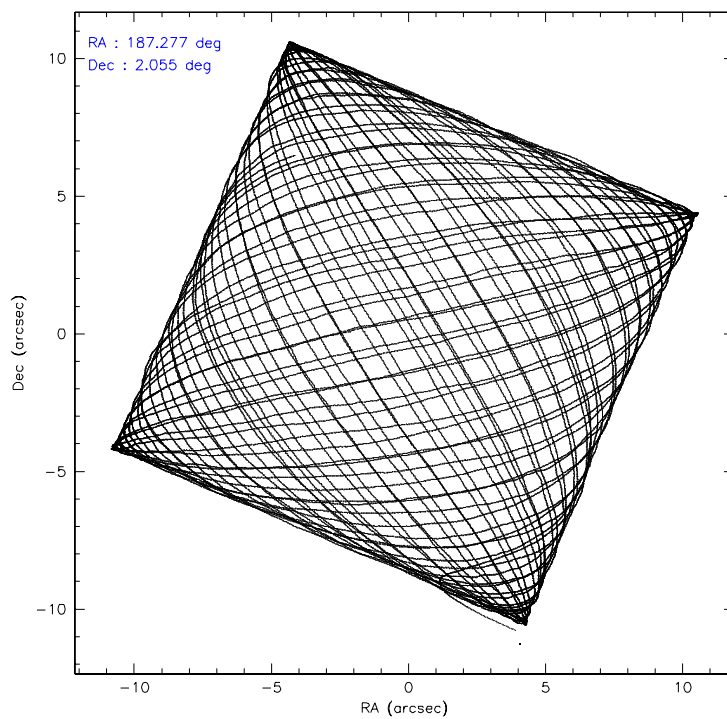
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	196950	258486	202203	267959	231687	174503
rejected events	173259	142628	155170	147728	172072	150788
rejected %	87%	55%	76%	55%	74%	86%

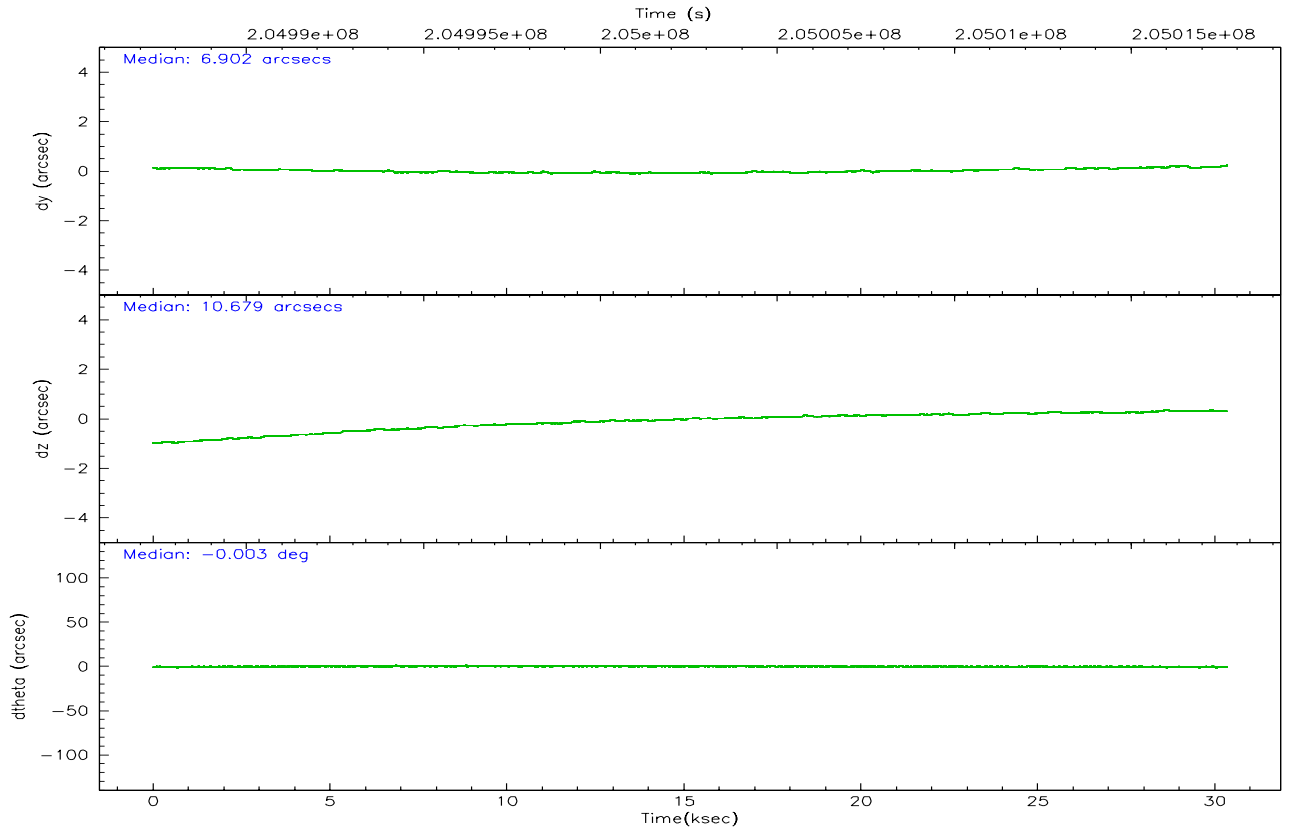
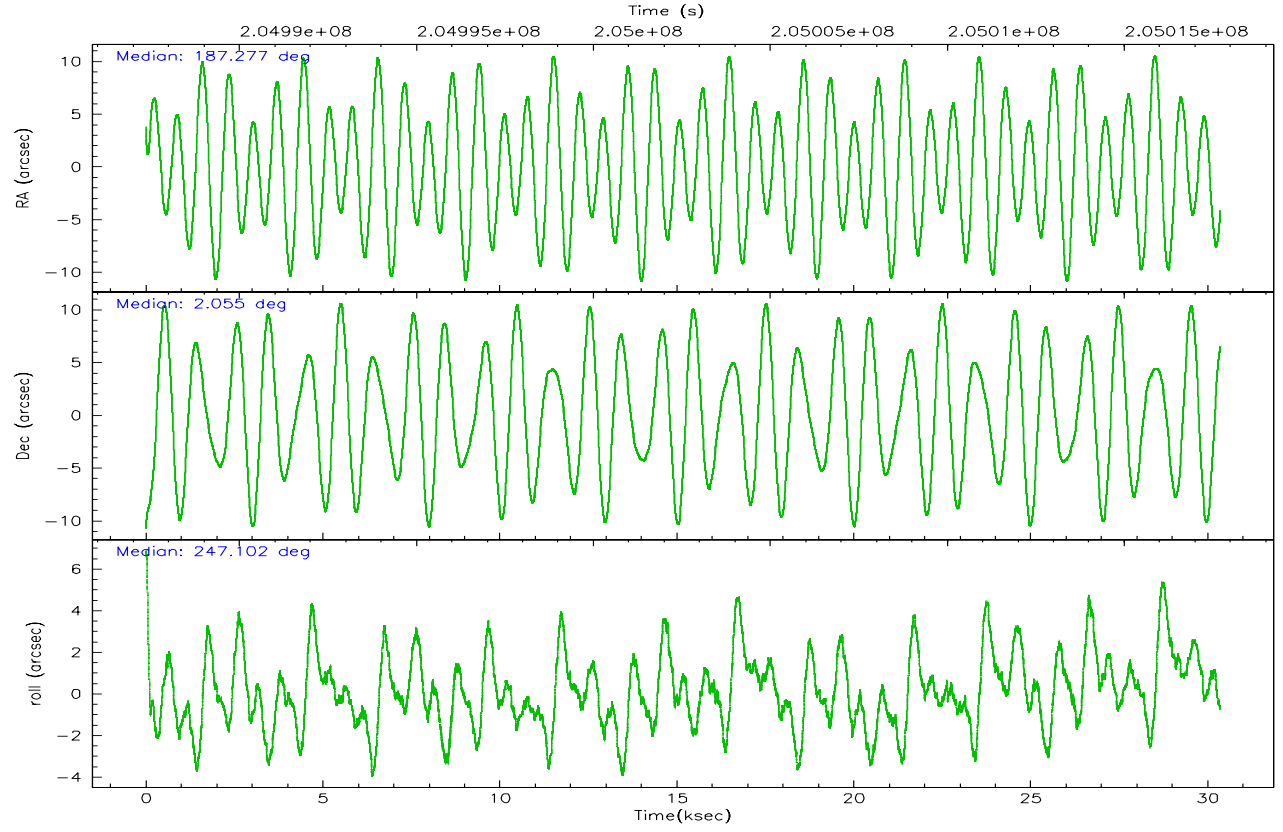
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	11136	8574	29069	11333	25255	10737
	5%	3%	14%	4%	10%	6%
grade 1 events	139	365	162	362	176	89
	0%	0%	0%	0%	0%	0%
grade 2 events	4698	36509	7116	29562	11484	4372
	2%	14%	3%	11%	4%	2%
grade 3 events	2433	3555	3143	8262	5436	2340
	1%	1%	1%	3%	2%	1%
grade 4 events	2183	3415	3070	7977	5270	2280
	1%	1%	1%	2%	2%	1%
grade 5 events	7285	12856	7867	17485	10057	7957
	3%	4%	3%	6%	4%	4%
grade 6 events	3453	64679	4902	63789	12510	4130
	1%	25%	2%	23%	5%	2%
grade 7 events	165623	128533	146874	129189	161499	142598
	84%	49%	72%	48%	69%	81%

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	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	CUSTOM
Pointing RA	187.273217	187.27696817676	Subarray start row	1	1
Pointing Dec	2.081375	2.054403211195324	Subarray row count	774	774
Pointing Roll	246.950265	247.1067594579805	Alternating exposures requested	N	N
Window start time	202435264.184000	202435264.184000	Primary exposure time	0.000000	2.5
Window stop time	207619264.184000	207619264.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-187.132523	-187.1228876879999			
SIM translation stage offset (mm)	-3	-3.009634895007935			
Observation start time	204987533.184000	204986422.48714			
Observation start date	2004-06-30T12:57:49	2004-06-30T12:40:22			
Observation end time	205017533.184000	205017714.20103			
Observation end date	2004-06-30T21:17:49	2004-06-30T21:21:54			
Read mode	TIMED	TIMED			

2.3 Aspect



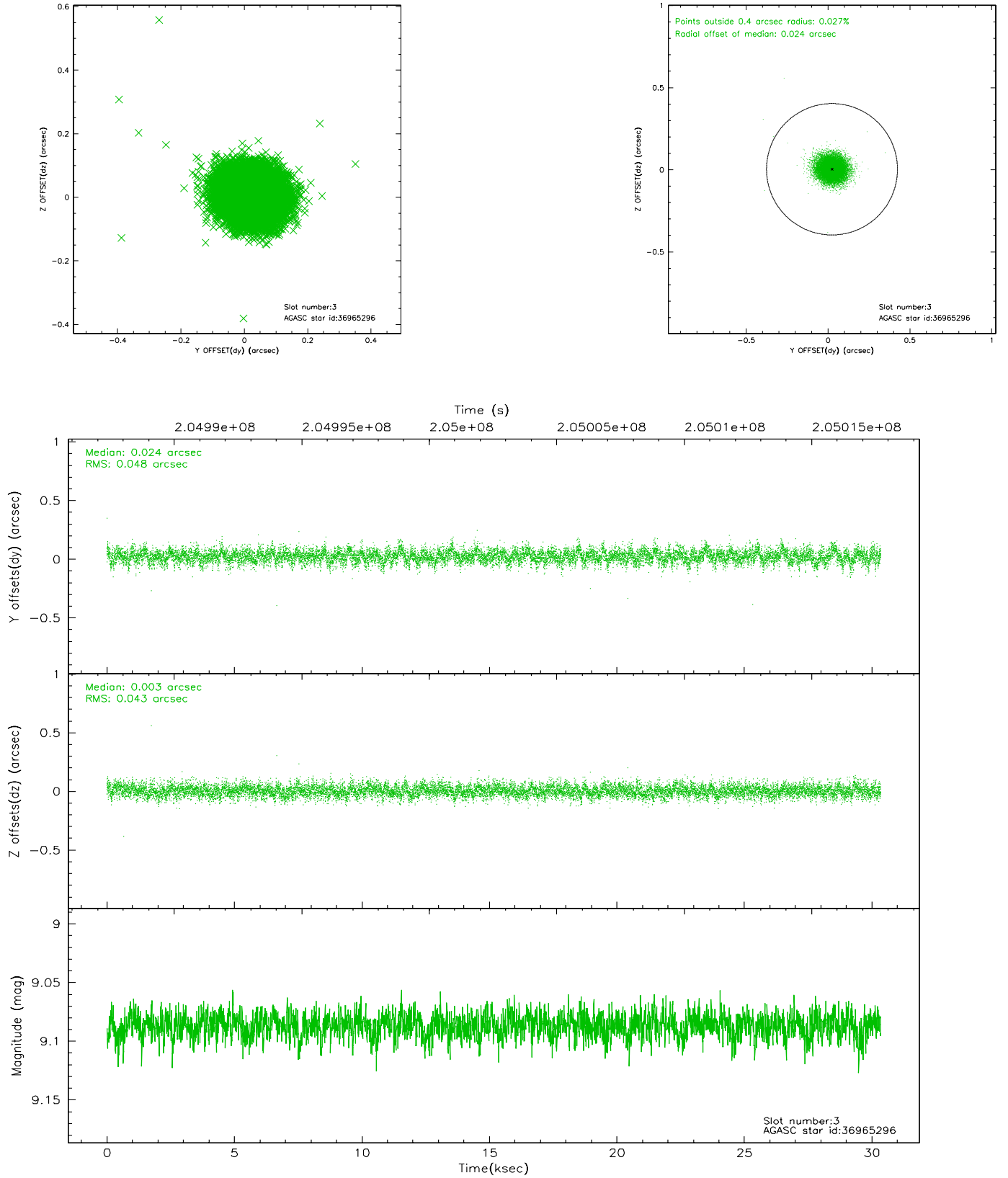


Slot Statistics

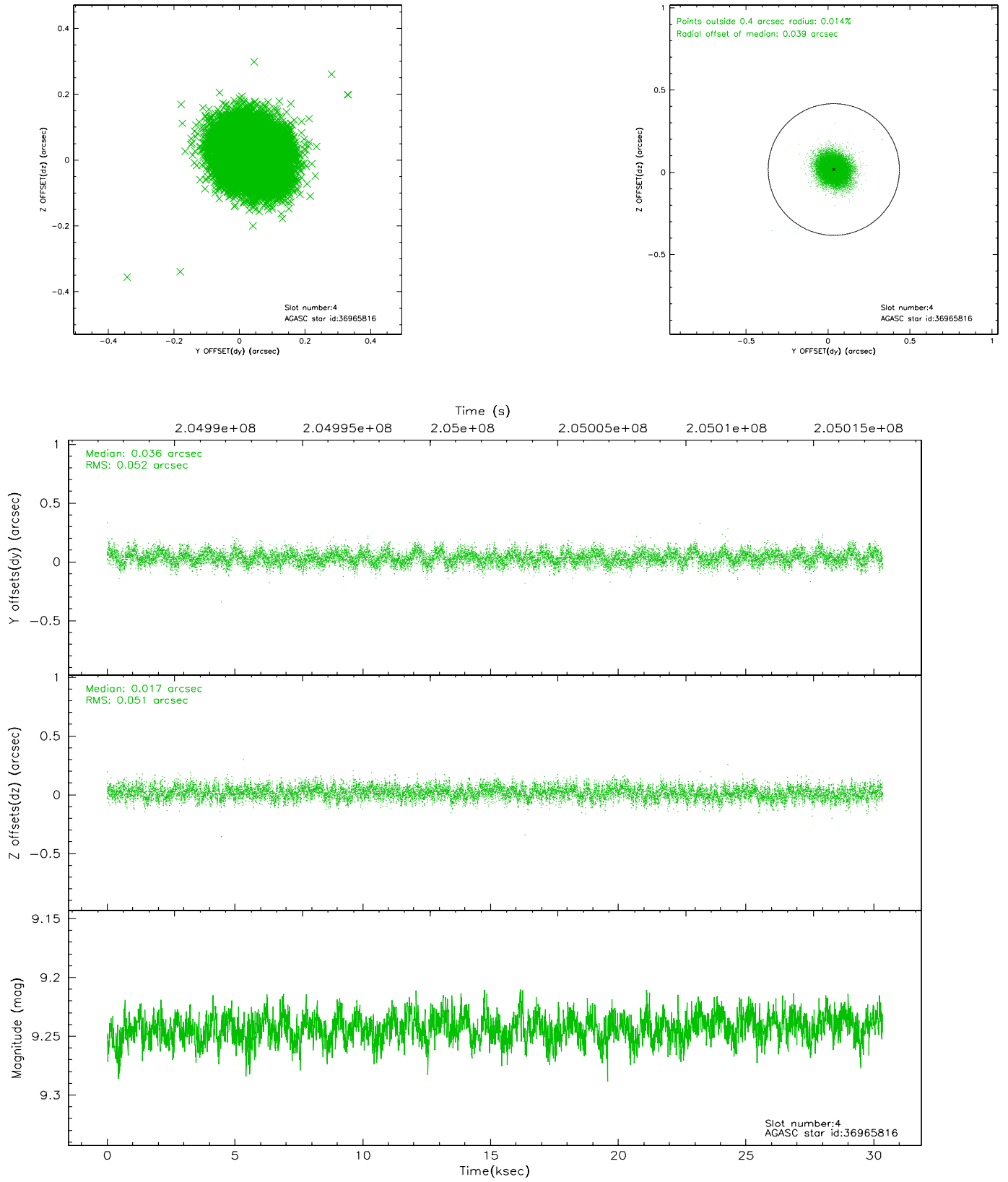
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7403	-0.037	-0.063	0.009	0.019	0.000000	0.000000	-759.52	-1794.01
1	FID	ACIS-S-4	7.19	7402	0.041	0.034	0.005	0.009	0.000000	0.000000	2153.82	114.45
2	FID	ACIS-S-5	7.23	7402	-0.034	0.037	0.008	0.017	0.000000	0.000000	-1812.25	108.25
3	GUIDE	36965296	9.09	14799	0.024	0.003	0.068	0.111	186.926292	1.837429	1297.16	-804.76
4	GUIDE	36965816	9.24	14794	0.036	0.017	0.078	0.124	186.823353	1.771455	1660.79	-1052.59
5	GUIDE	36965896	9.72	14795	0.045	-0.095	0.099	0.163	187.153754	1.617178	1706.49	258.78
6	GUIDE	37356352	7.66	14806	-0.350	-0.121	0.058	0.094	187.433784	2.618460	-2005.13	-225.87
7	GUIDE	37883040	9.98	14789	0.244	0.189	0.135	0.221	187.575516	1.280402	2227.68	2130.66

2.4 Star Slots

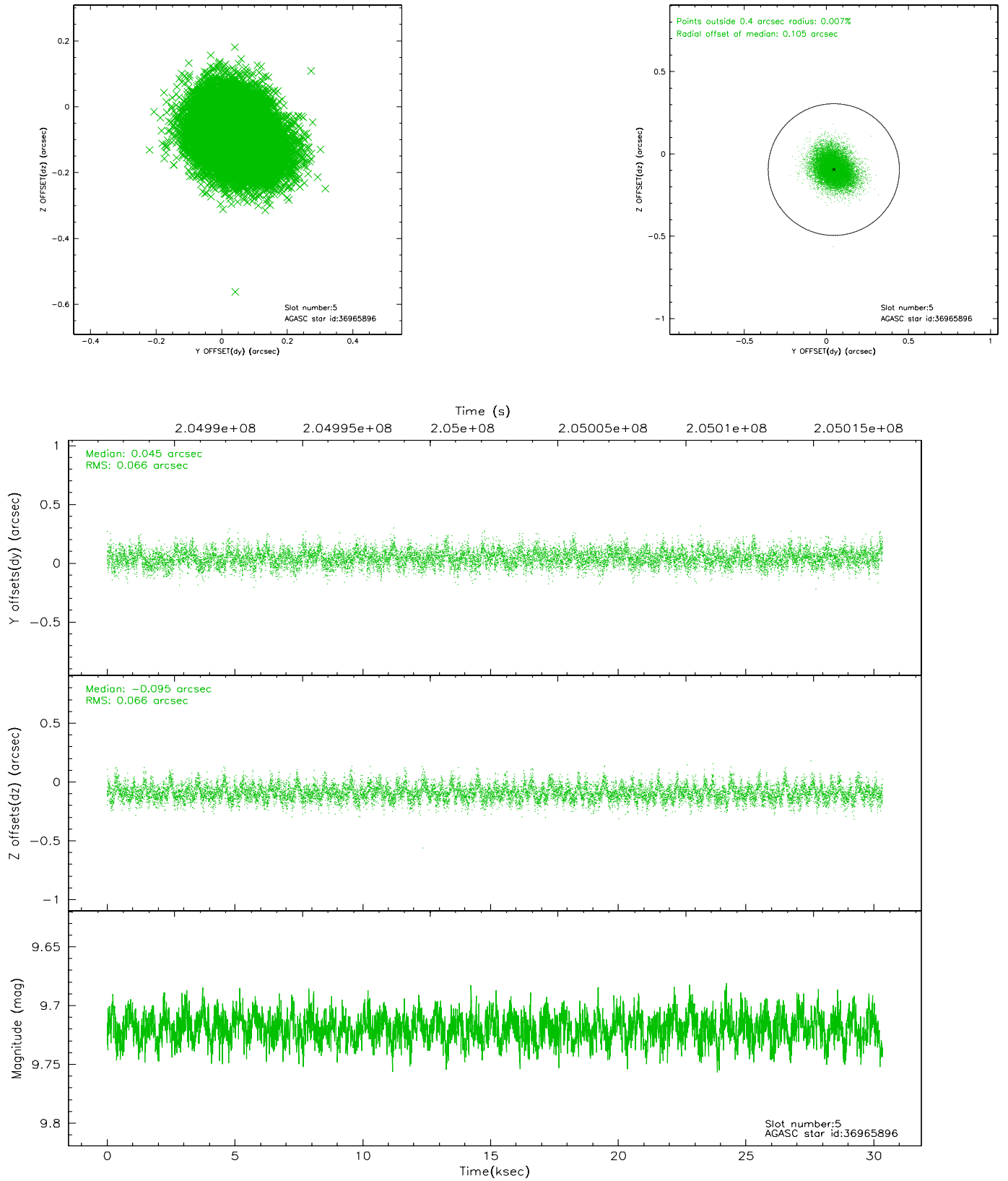
2.4.1 Slot 3



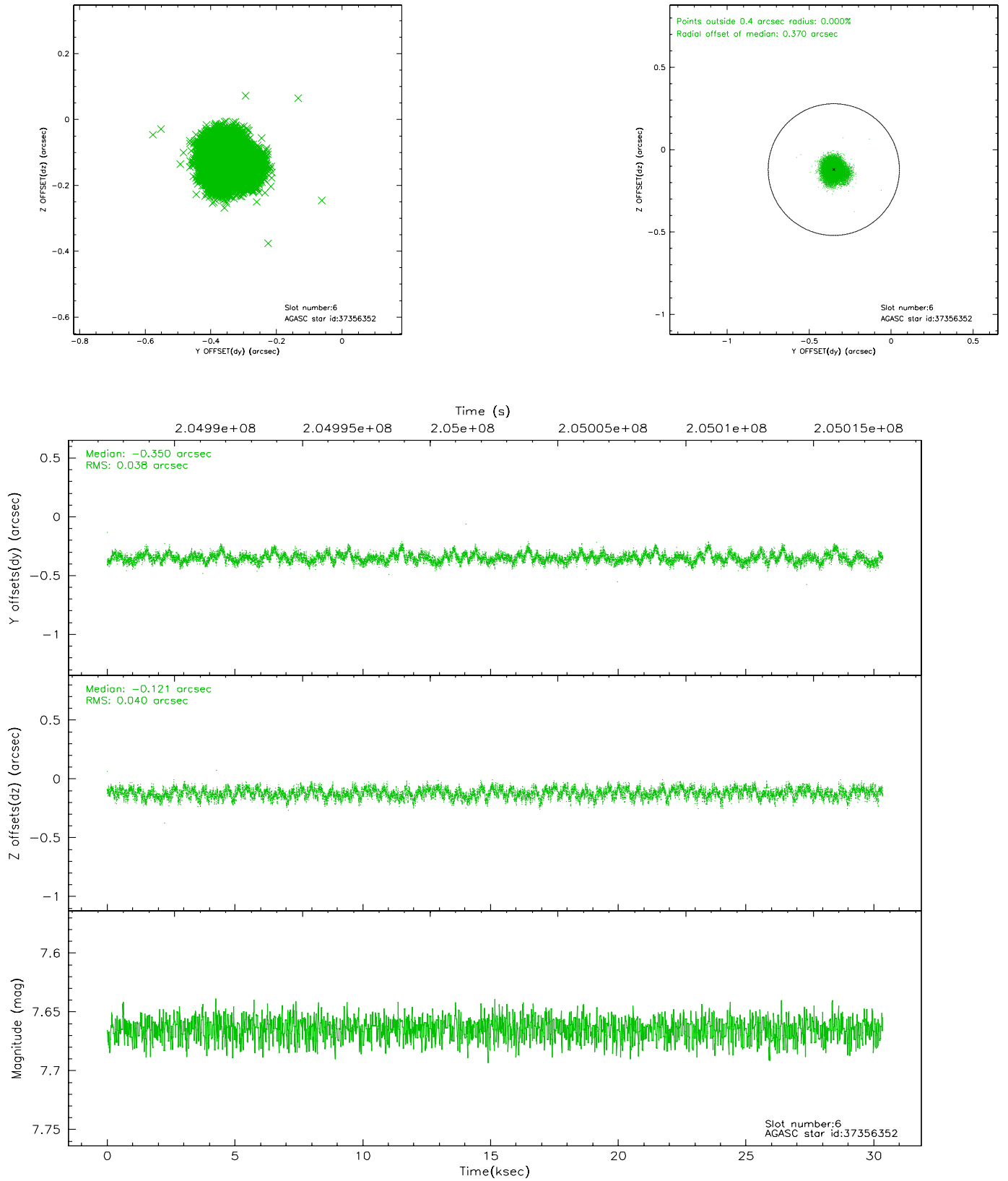
2.4.2 Slot 4



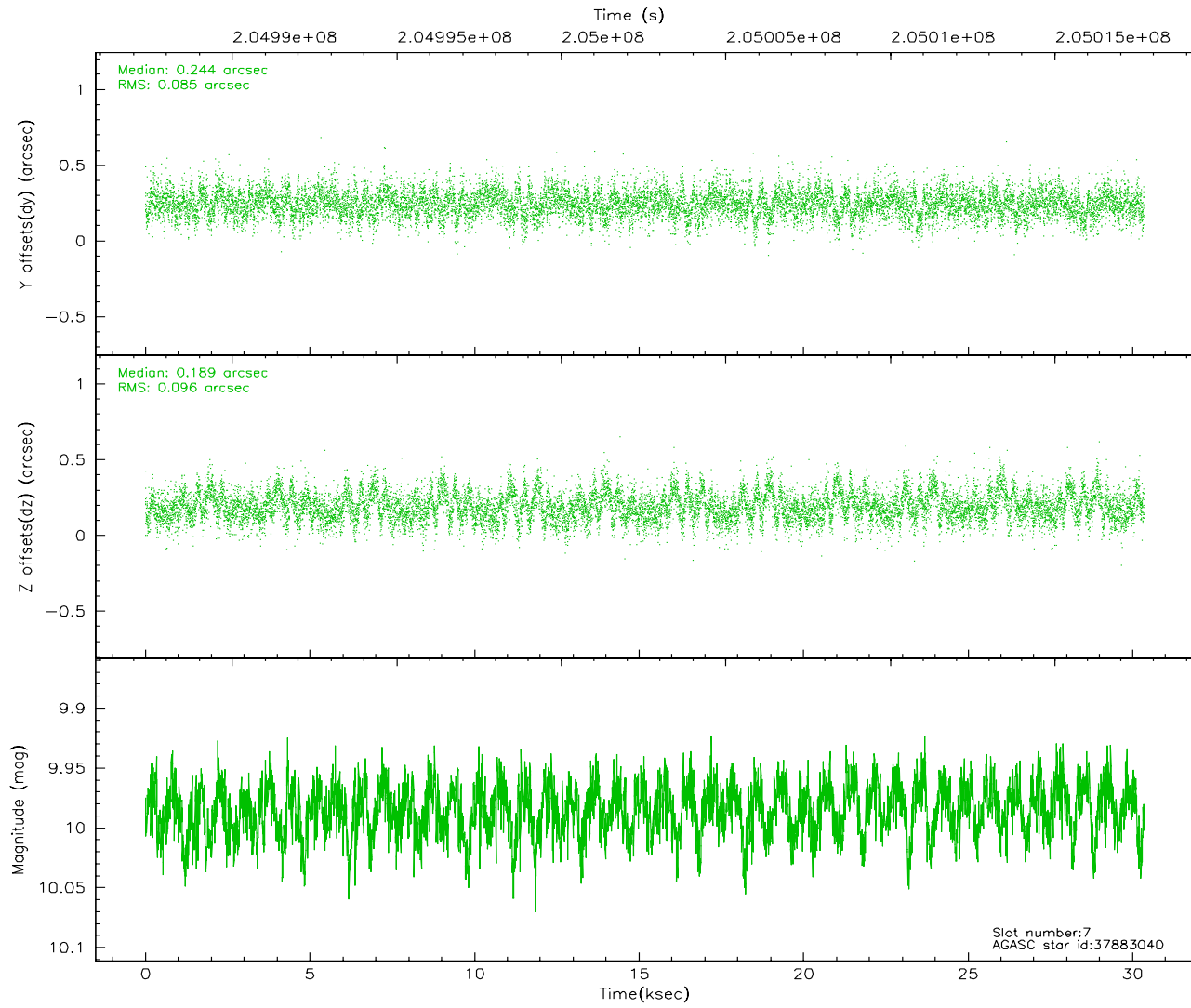
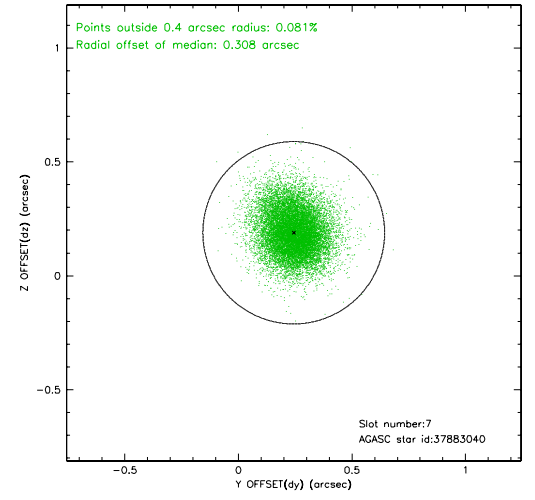
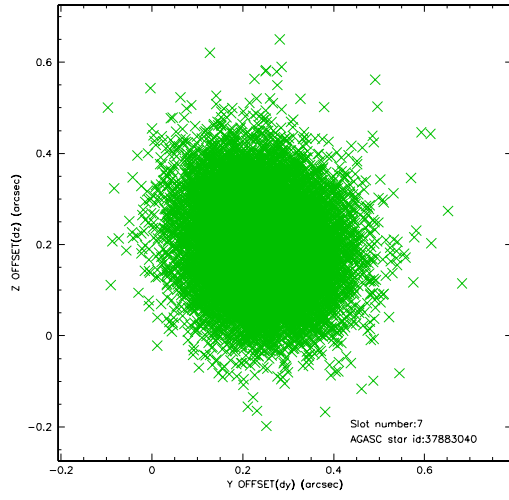
2.4.3 Slot 5



2.4.4 Slot 6

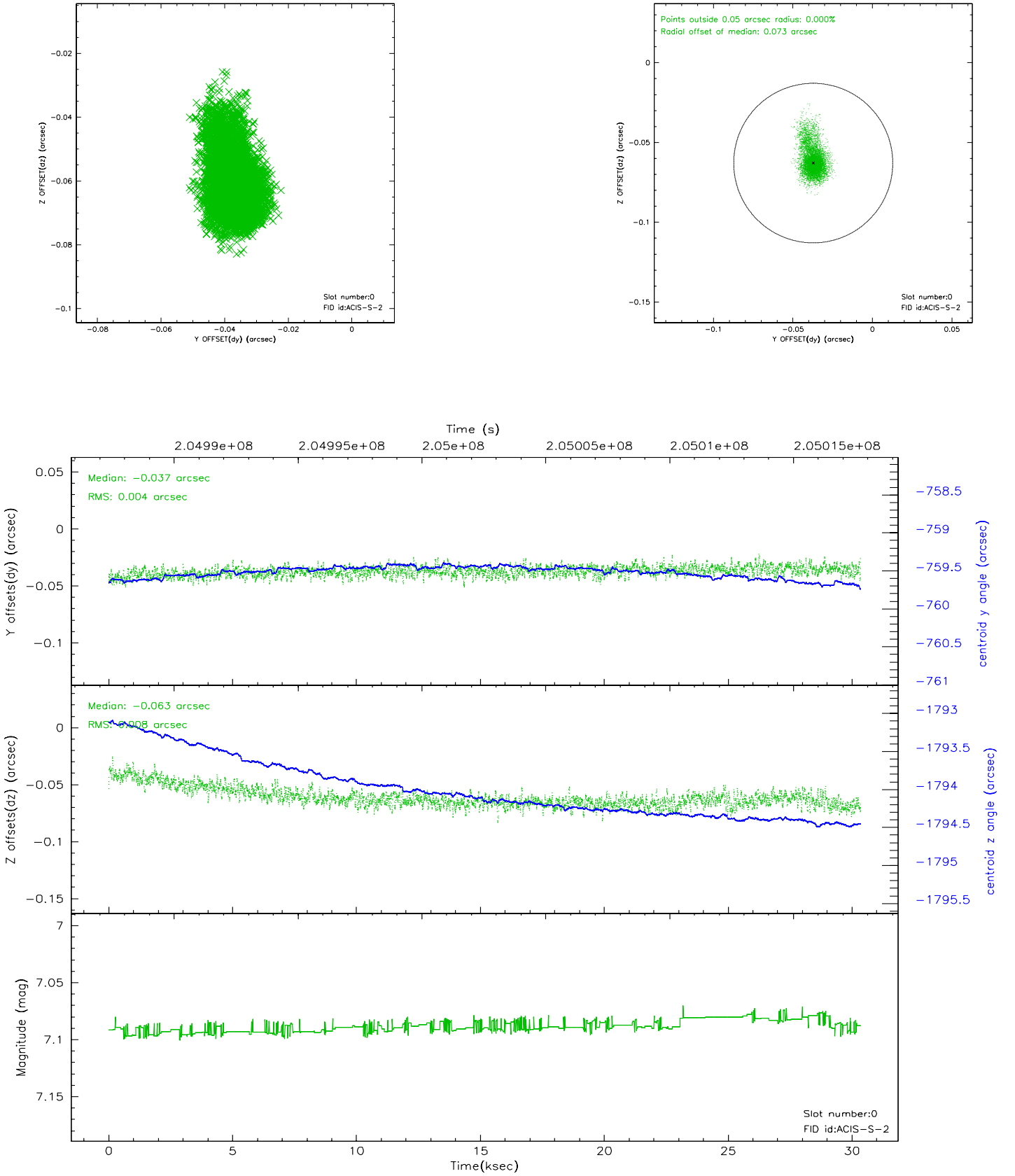


2.4.5 Slot 7

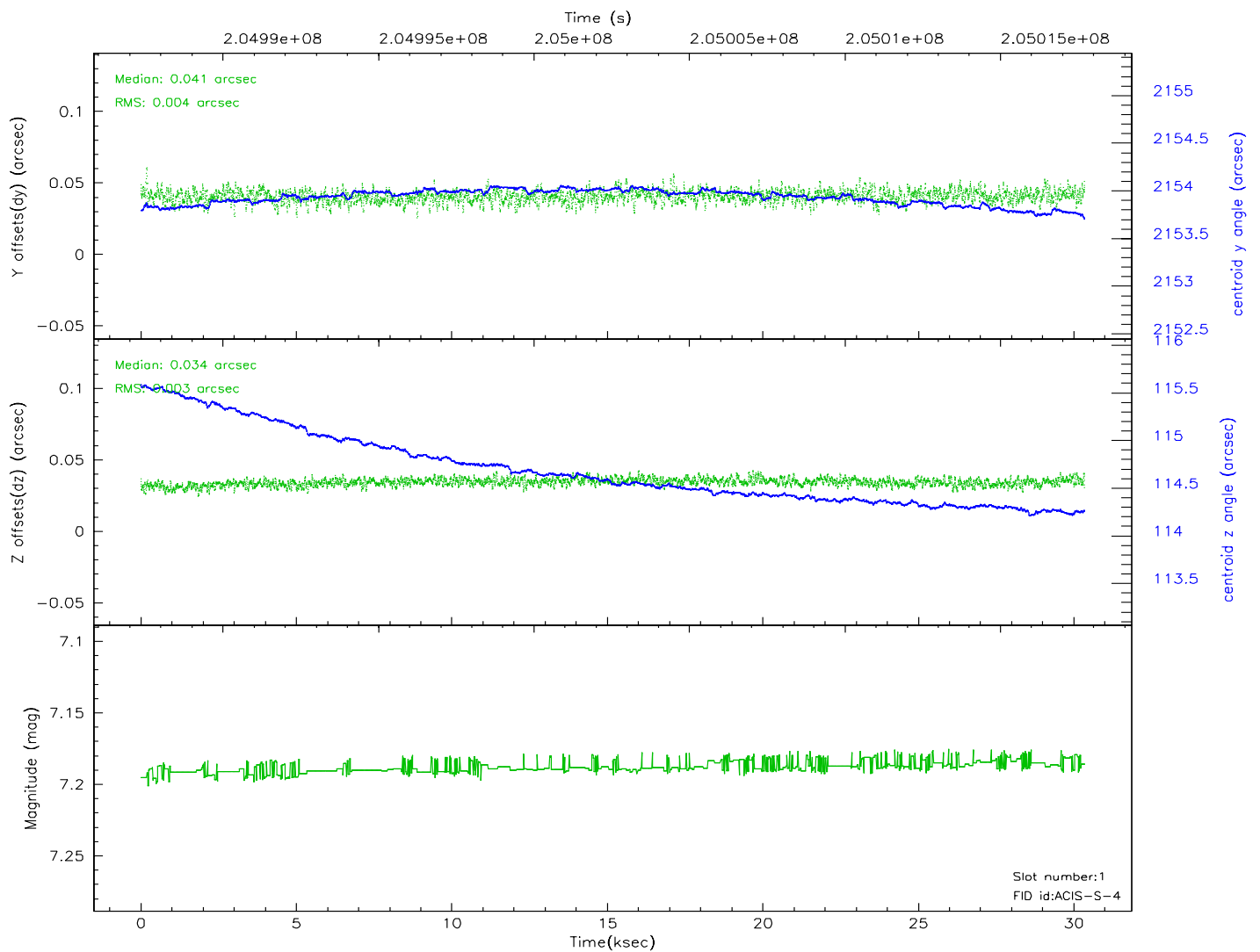
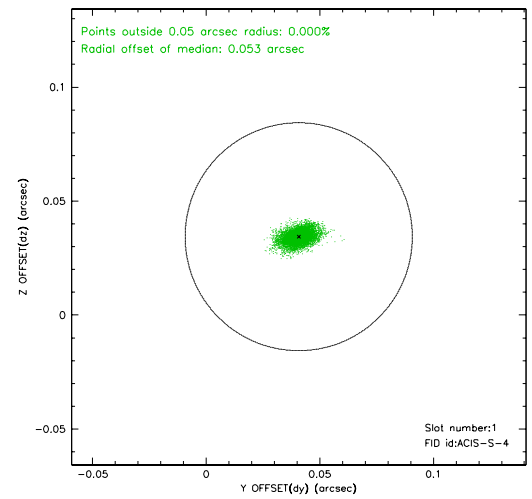
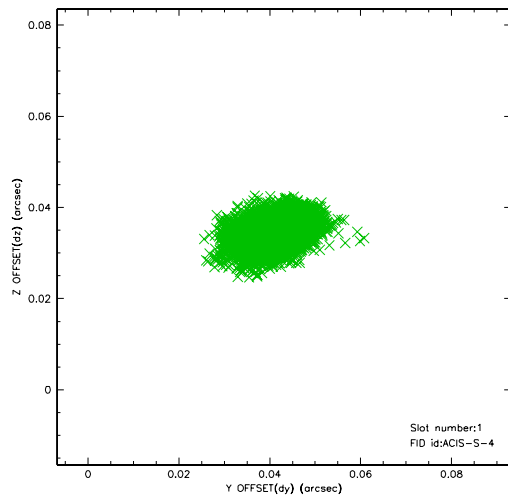


2.5 FID Slots

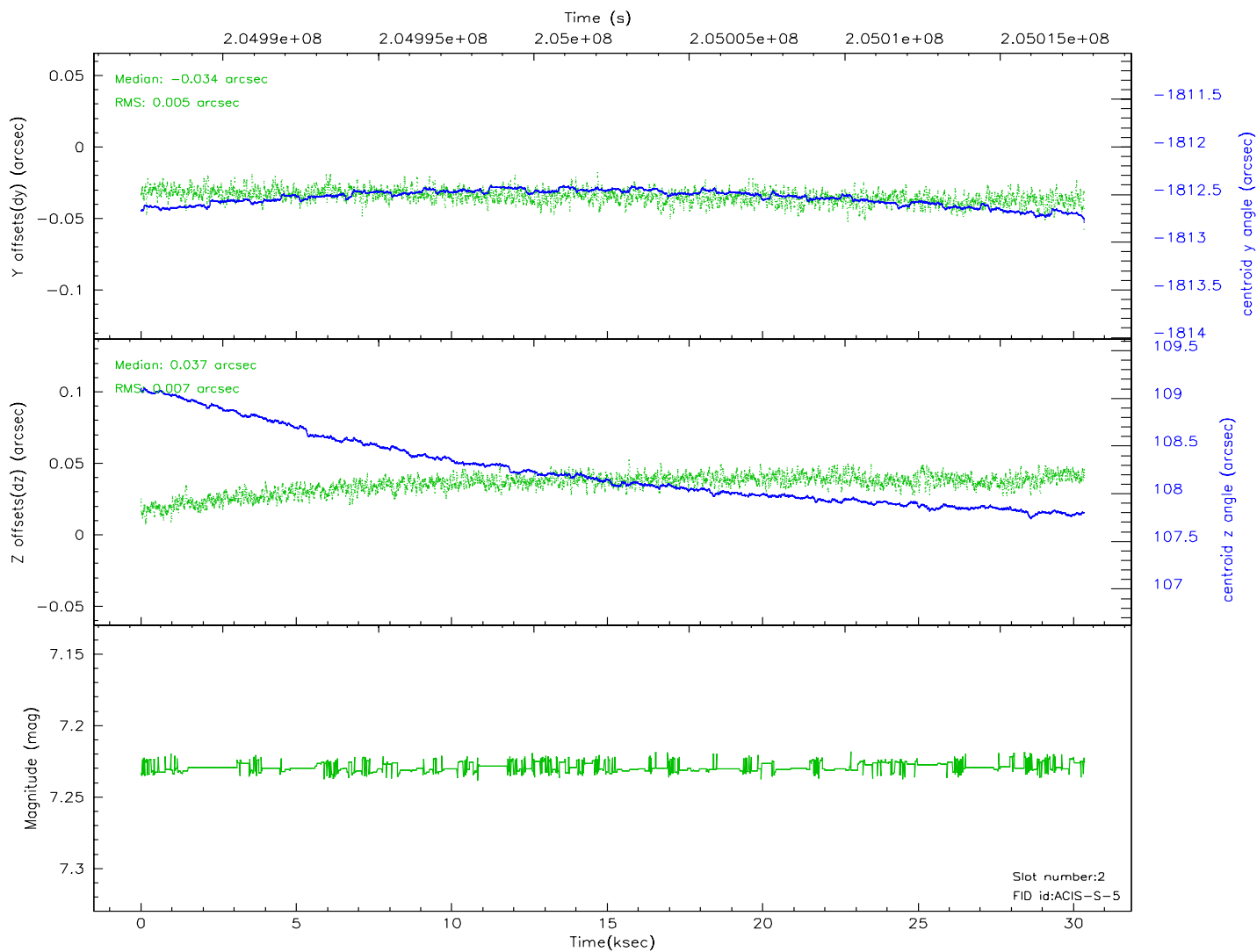
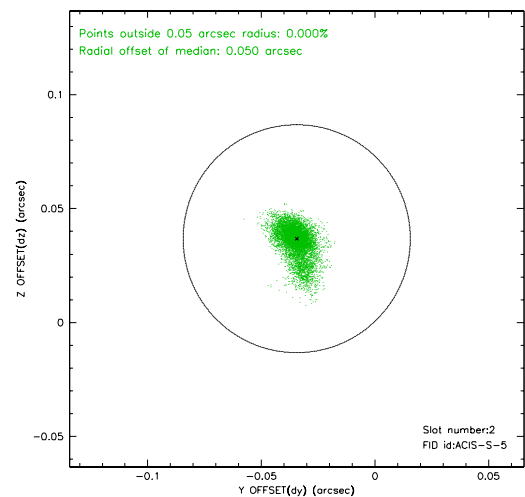
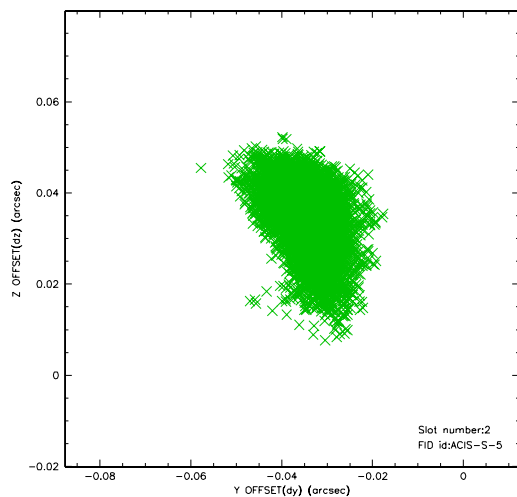
2.5.1 Slot 0



2.5.2 Slot 1

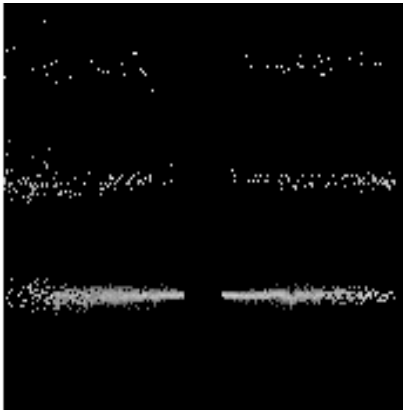


2.5.3 Slot 2

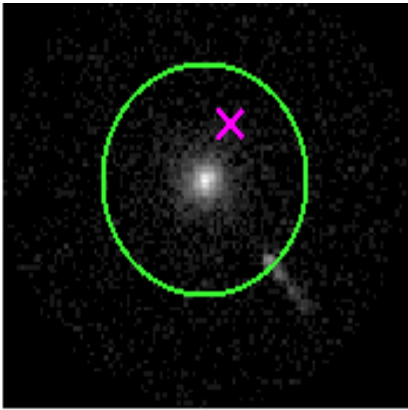


3 Gratings

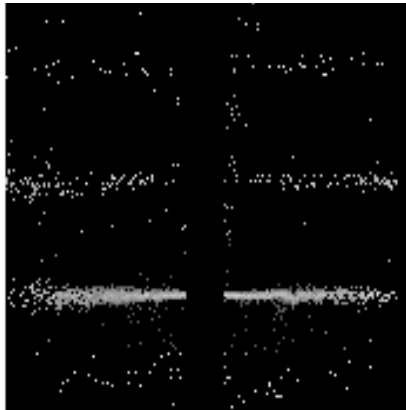
3.1 HEG Arm



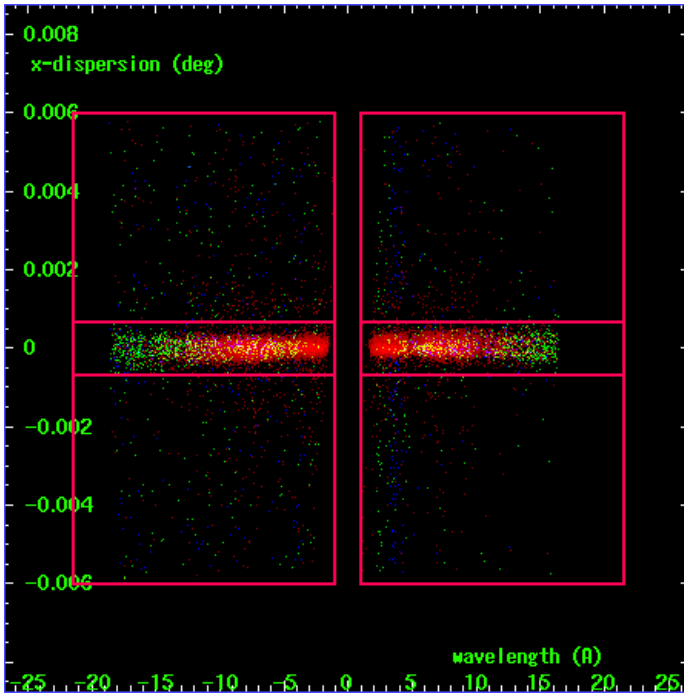
HEG Order Sort 123



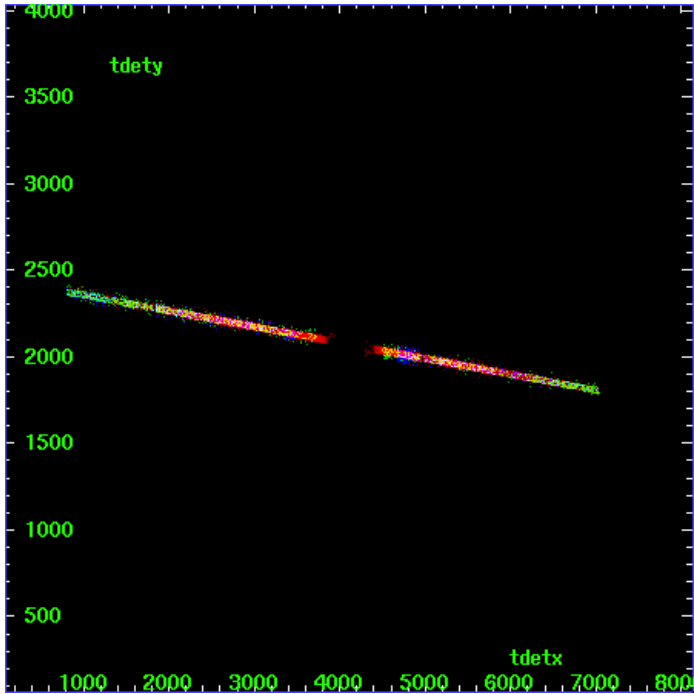
HEG Zero Order



HEG Order Sort ALL

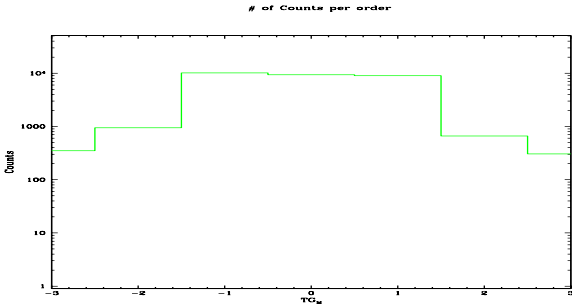


Spot Image HEG

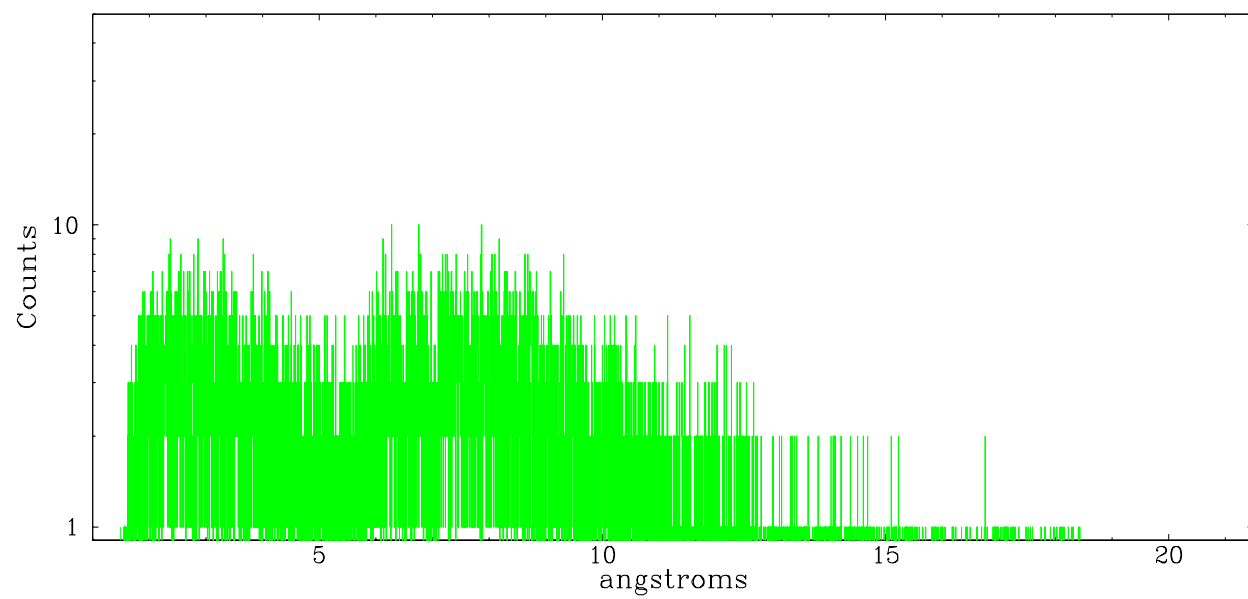


Full Detector HEG

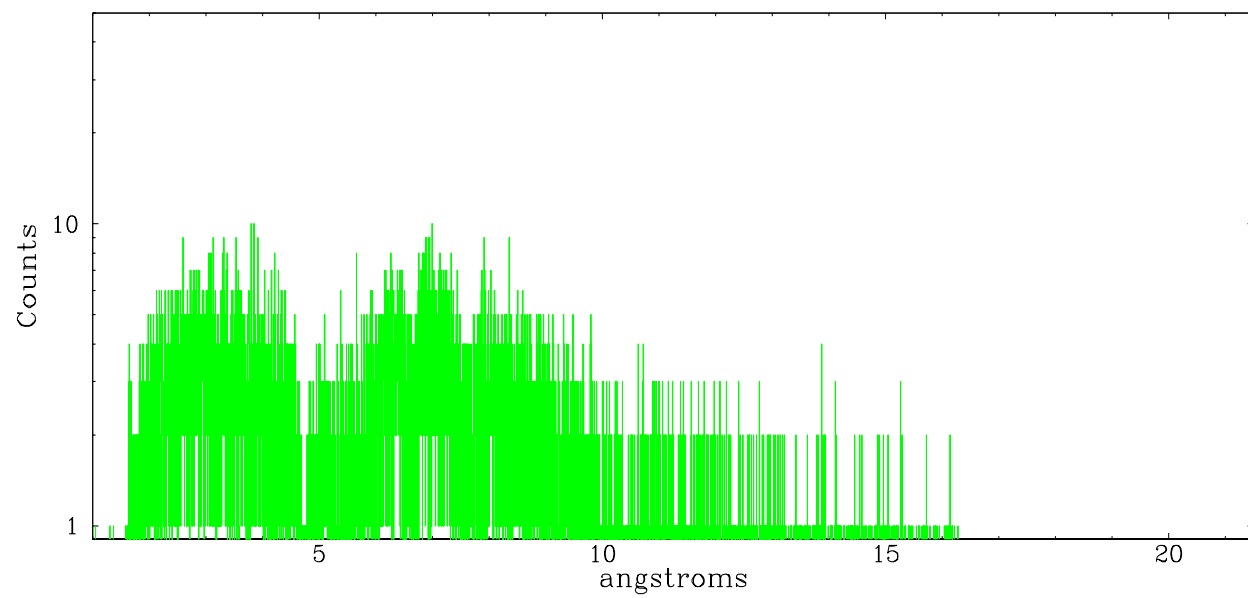
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	351	941	10151	9324	9015	663	305



heg order -1



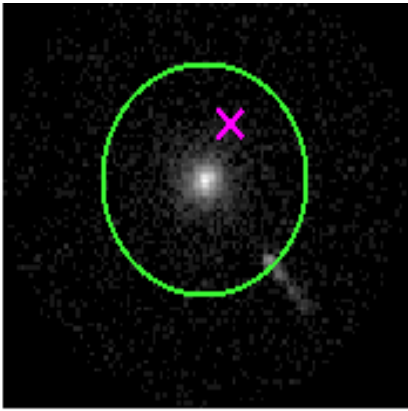
heg order +1



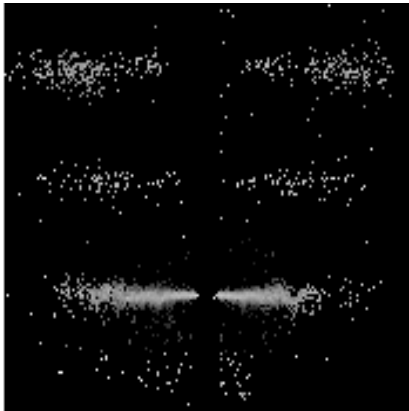
3.2 MEG Arm



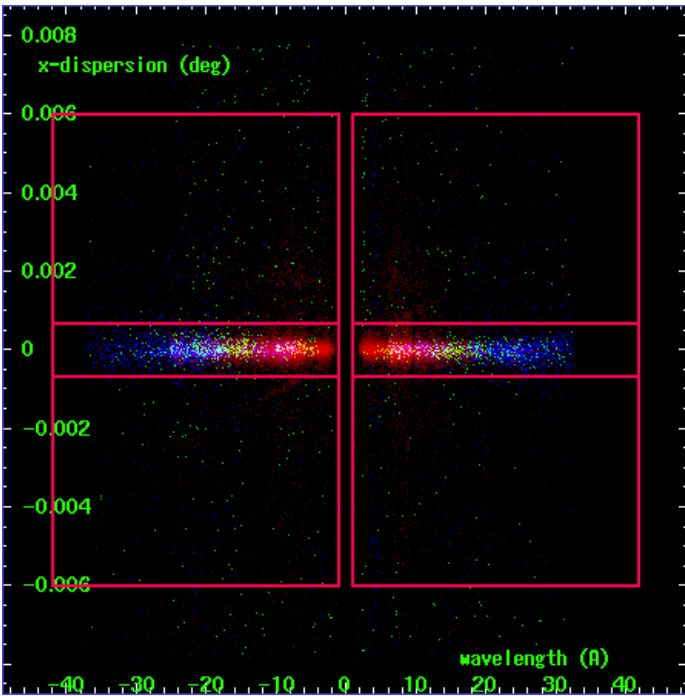
MEG Order Sort 123



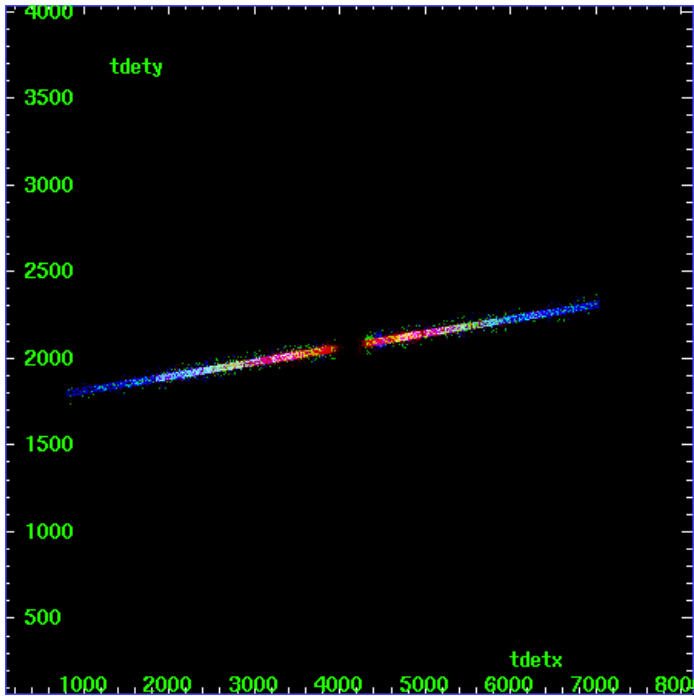
MEG Zero Order



MEG Order Sort ALL

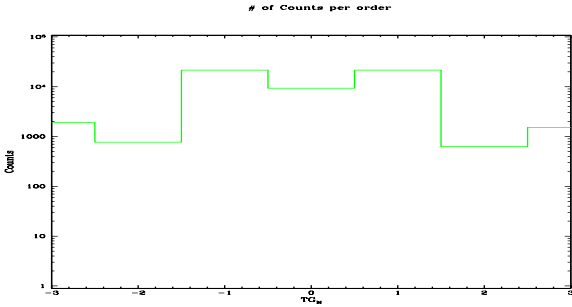


Spot Image MEG

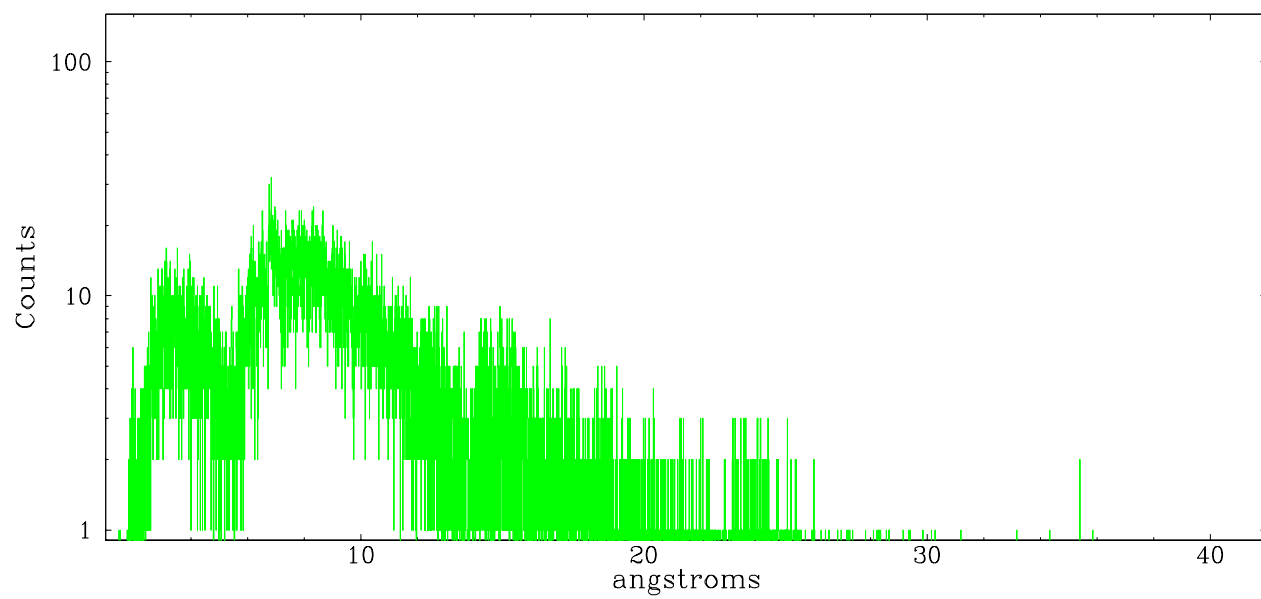


Full Detector MEG

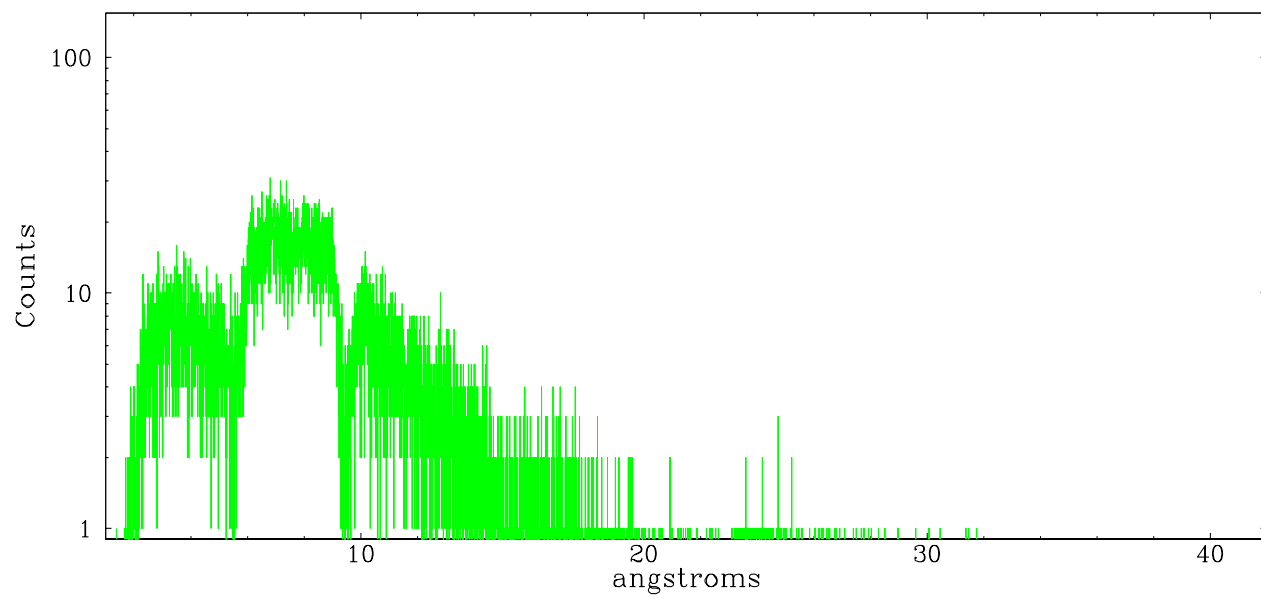
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1913	769	21474	9324	21529	625	1529



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.05.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.167

A.2 Comments

Window constraint satisfied.

Focal plane temperature is elevated during initial ~2 ksec of observation.