

V&V Reference Report

L2 ASCDS Version : 7.6.7.1

Observation 4585 - L2 Version 002
Chandra X-Ray Center

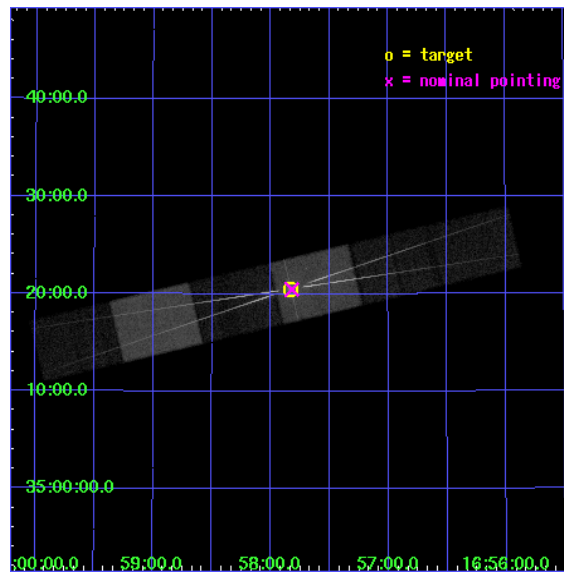
L2 Processing Date : Apr 10 2006

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

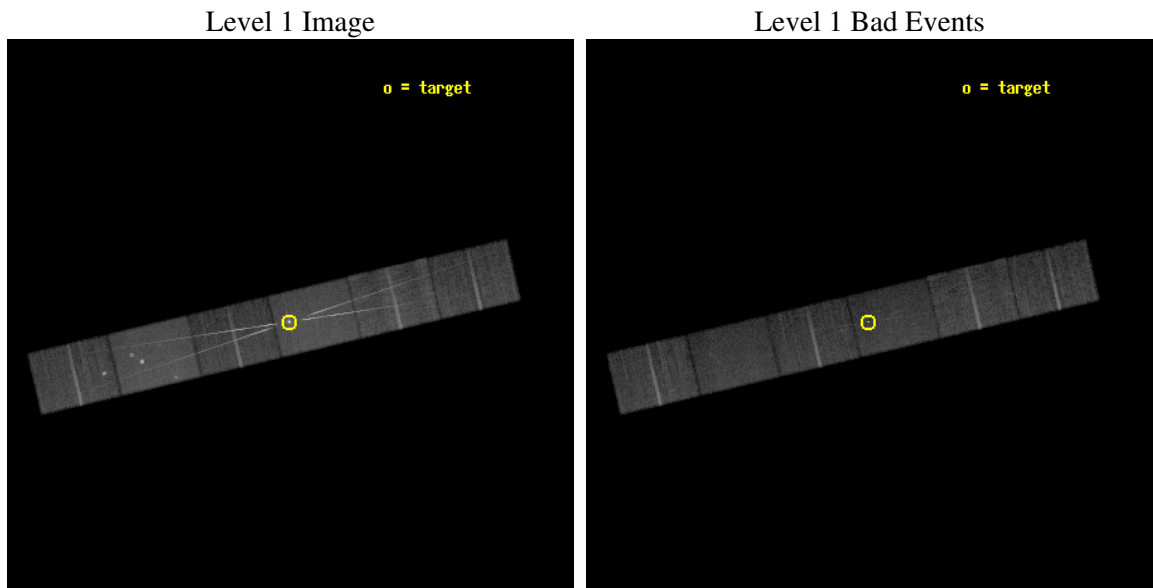
seq_num	400367
obs_id	4585
title	Using the Intensity Dips in Hercules X-1 to Probe the Inner Accretion Disk
observer	Dr. Mario Jimenez-Garate
object	Her X-1
dtcycle	0
cycle	P
ra_targ	254.4575
dec_targ	35.342389
ra_nom	254.45517338724
dec_nom	35.341143710486
roll_nom	346.68772650298
revision	2
ontime	20155.0
livetime	19829.479268331
ontime4	20155.0
ontime5	20155.0
ontime6	20155.0
ontime7	20155.0
ontime8	20155.0
ontime9	20155.0
l2events	267199



2 OBI

2.1 OBI

2.1.1 Images

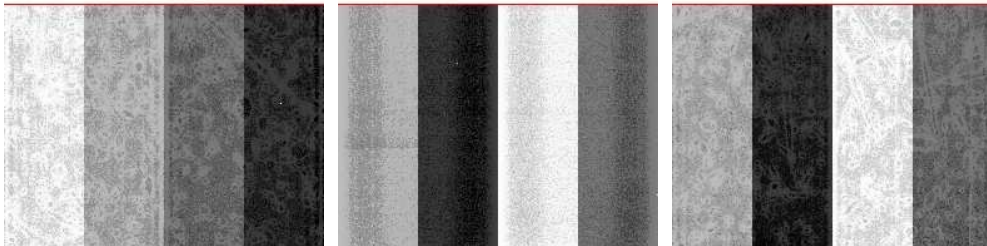


2.1.2 Bias

Chip 4

Chip 5

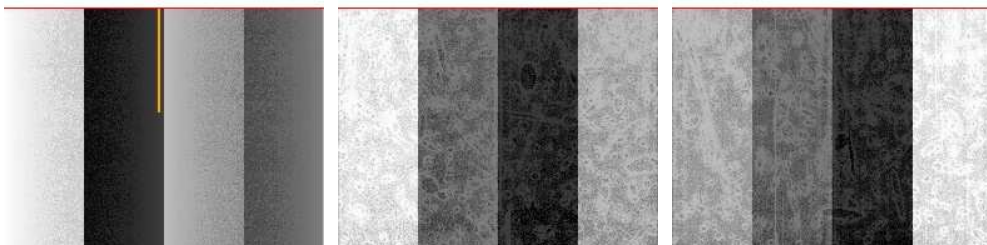
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldsver	3.2.1
date	2006-04-10T19:24:46
revision	2

sched_exp_time	20000.000000
ontime	20241.691999733
ontime4	20241.691979825
ontime5	20241.691999733
ontime6	20241.691979825
ontime7	20241.691999733
ontime8	20241.691999733
ontime9	20241.691999733
l1events	963429

2.1.4 Events

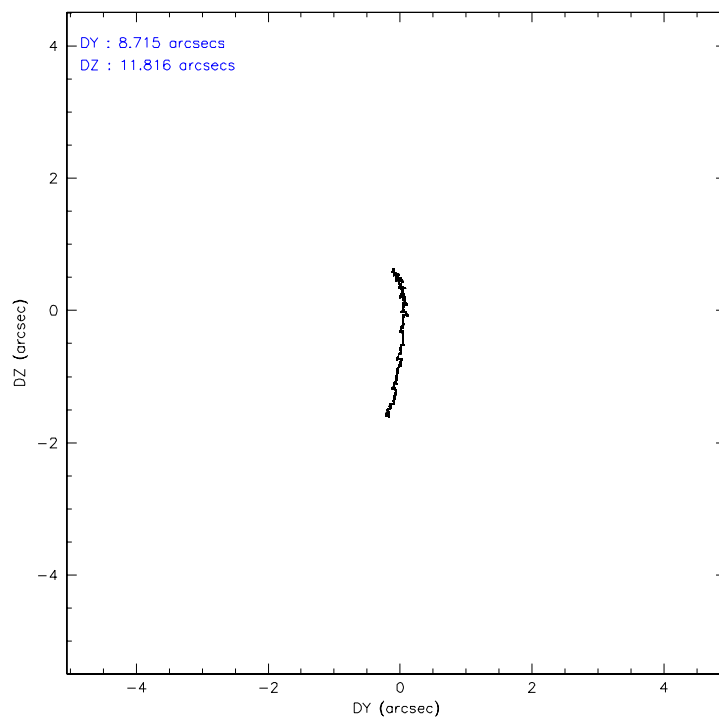
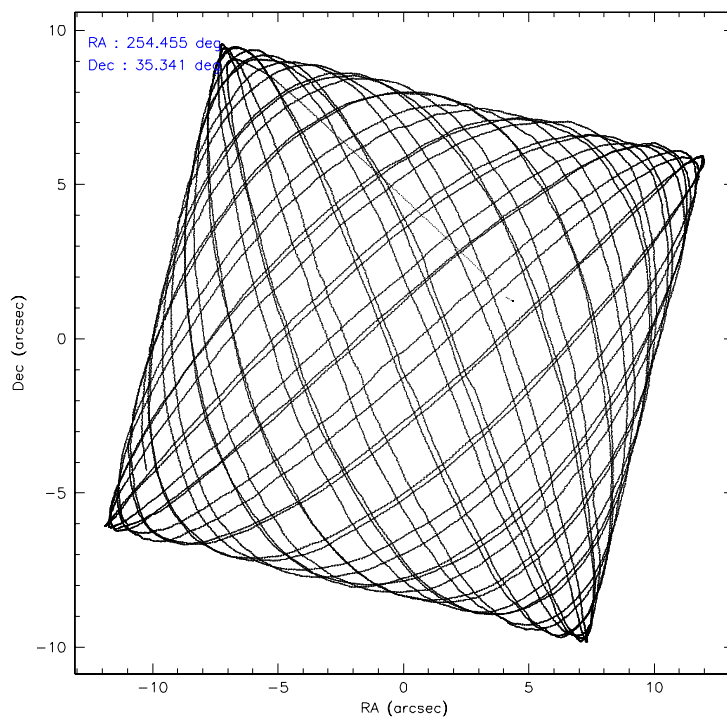
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	138033	186638	148363	203045	163697	123653
rejected events	119143	99112	105990	101855	122898	107074
rejected %	86%	53%	71%	50%	75%	86%

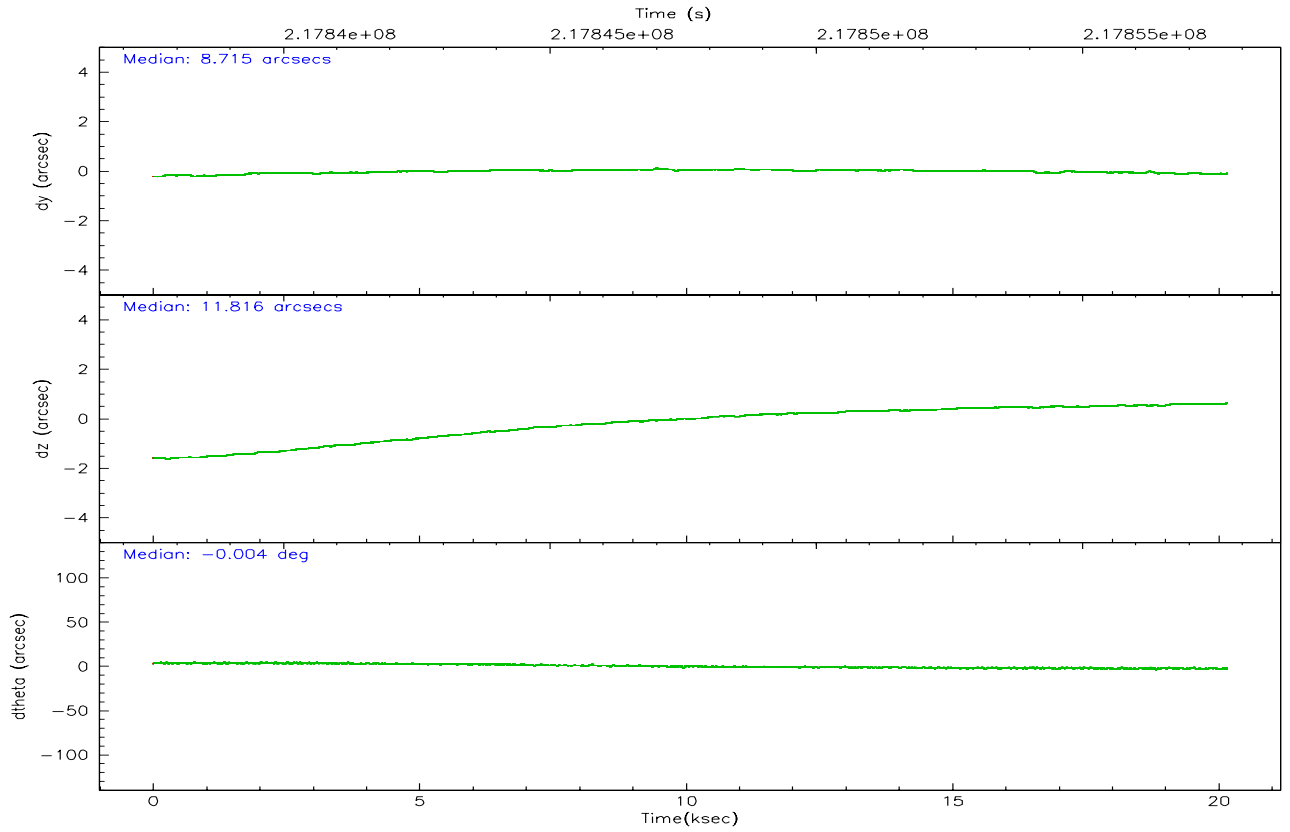
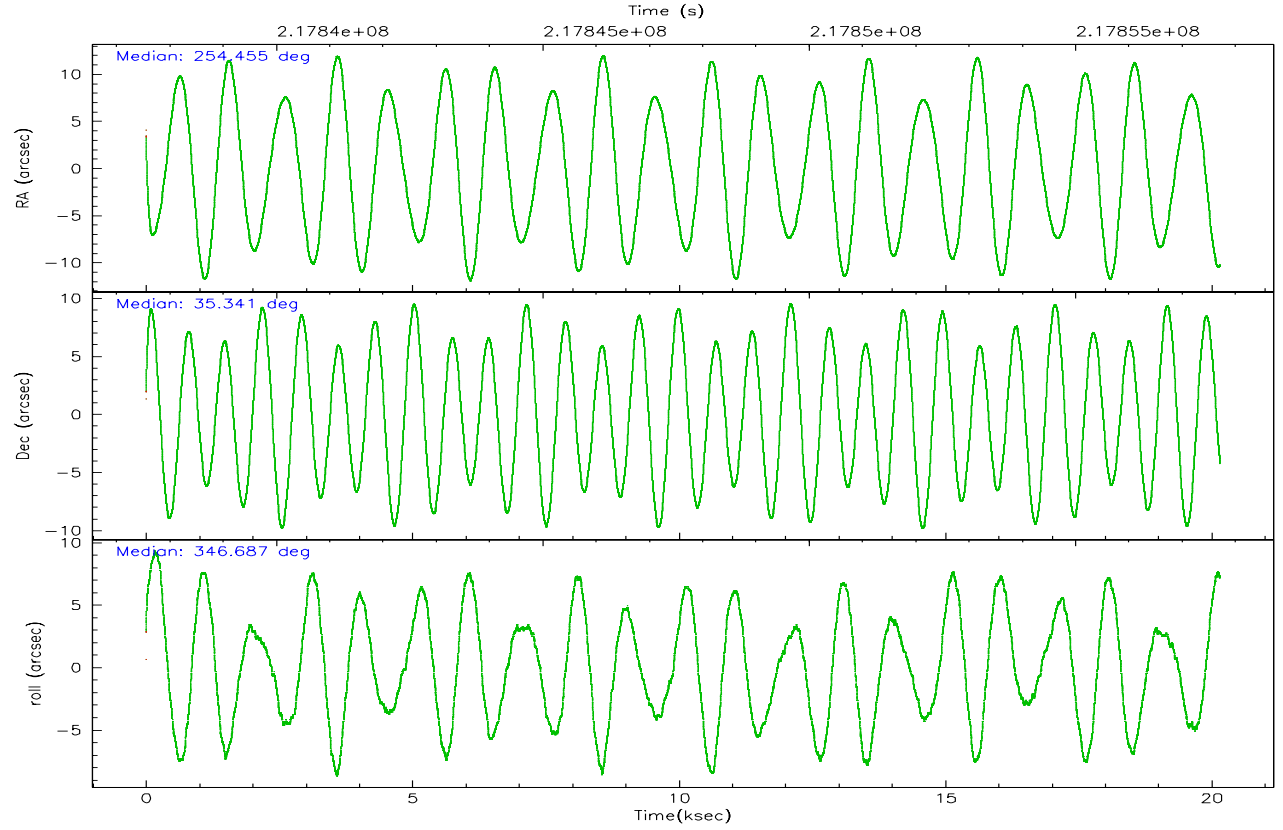
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	9859	11577	24617	10987	16627	7433
	7%	6%	16%	5%	10%	6%
grade 1 events	127	303	215	302	141	72
	0%	0%	0%	0%	0%	0%
grade 2 events	3445	25802	6841	25978	7911	3176
	2%	13%	4%	12%	4%	2%
grade 3 events	1676	2543	2820	7060	3993	1629
	1%	1%	1%	3%	2%	1%
grade 4 events	1501	2400	2794	6816	3636	1527
	1%	1%	1%	3%	2%	1%
grade 5 events	5106	9024	5567	12453	7078	5698
	3%	4%	3%	6%	4%	4%
grade 6 events	2485	45637	5451	50734	8734	2875
	1%	24%	3%	24%	5%	2%
grade 7 events	113834	89352	100058	88715	115577	101243
	82%	47%	67%	43%	70%	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	254.423362	254.4551733872359	Subarray start row	1	1
Pointing Dec	35.332939	35.3411437104856	Subarray row count	774	774
Pointing Roll	346.549496	346.6877265029794	Alternating exposures requested	N	N
Window start time	217831564.184000	217831564.184000	Primary exposure time	0.000000	2.5
Window stop time	217858864.184000	217858864.184000			
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	51310.760000	51310.760000			
Phase start	0.750000	0.750000			
Phase end	0.900000	0.900000			
Phase start error	0.020000	0.020000			
Phase end error	0.010000	0.010000			
Observation start time	217837706.184000	217836560.54801			
Observation start date	2004-11-26T06:27:22	2004-11-26T06:09:20			
Observation end time	217857706.184000	217858609.324			
Observation end date	2004-11-26T12:00:42	2004-11-26T12:16:49			
Read mode	TIMED	TIMED			

2.3 Aspect



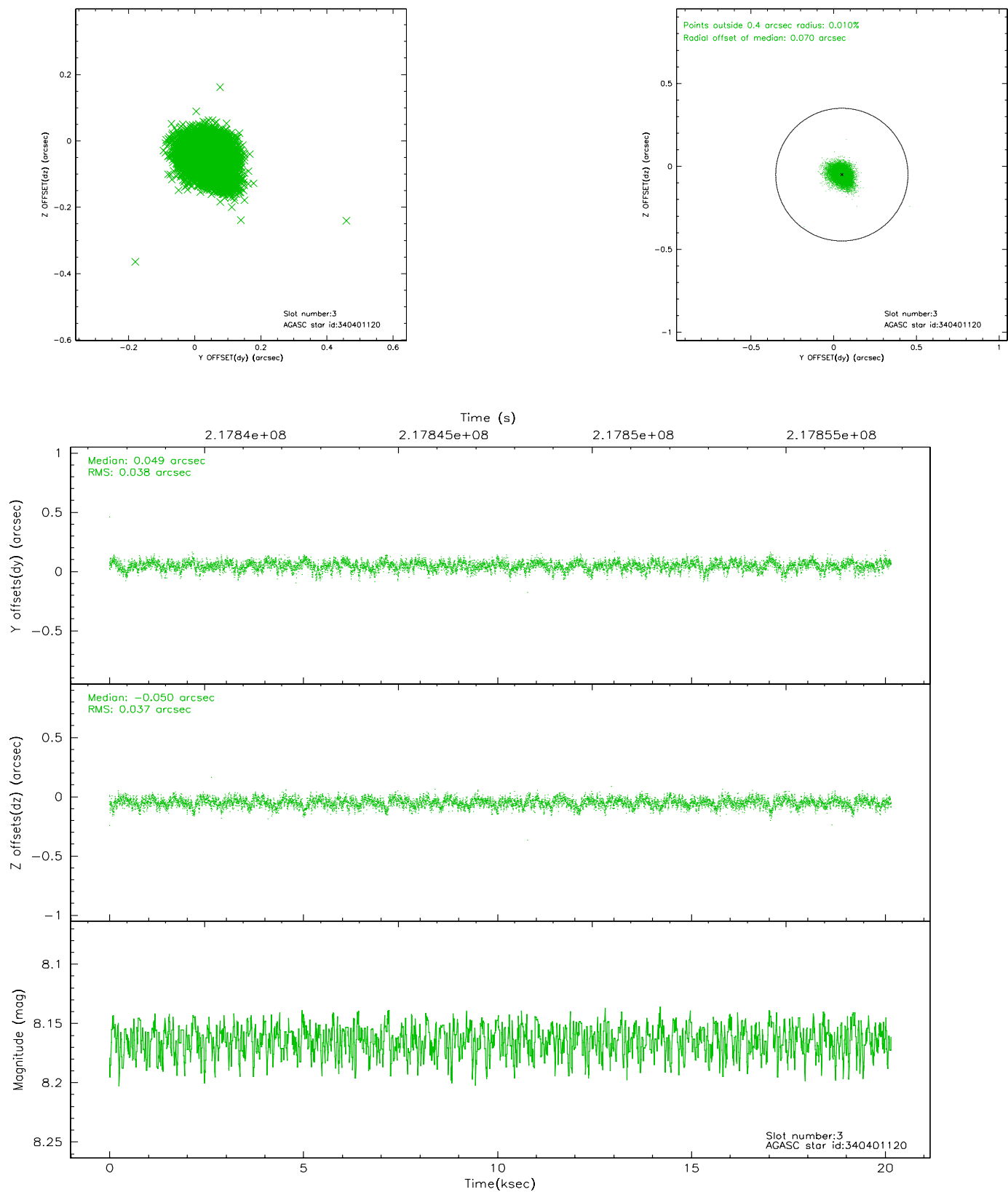


Slot Statistics

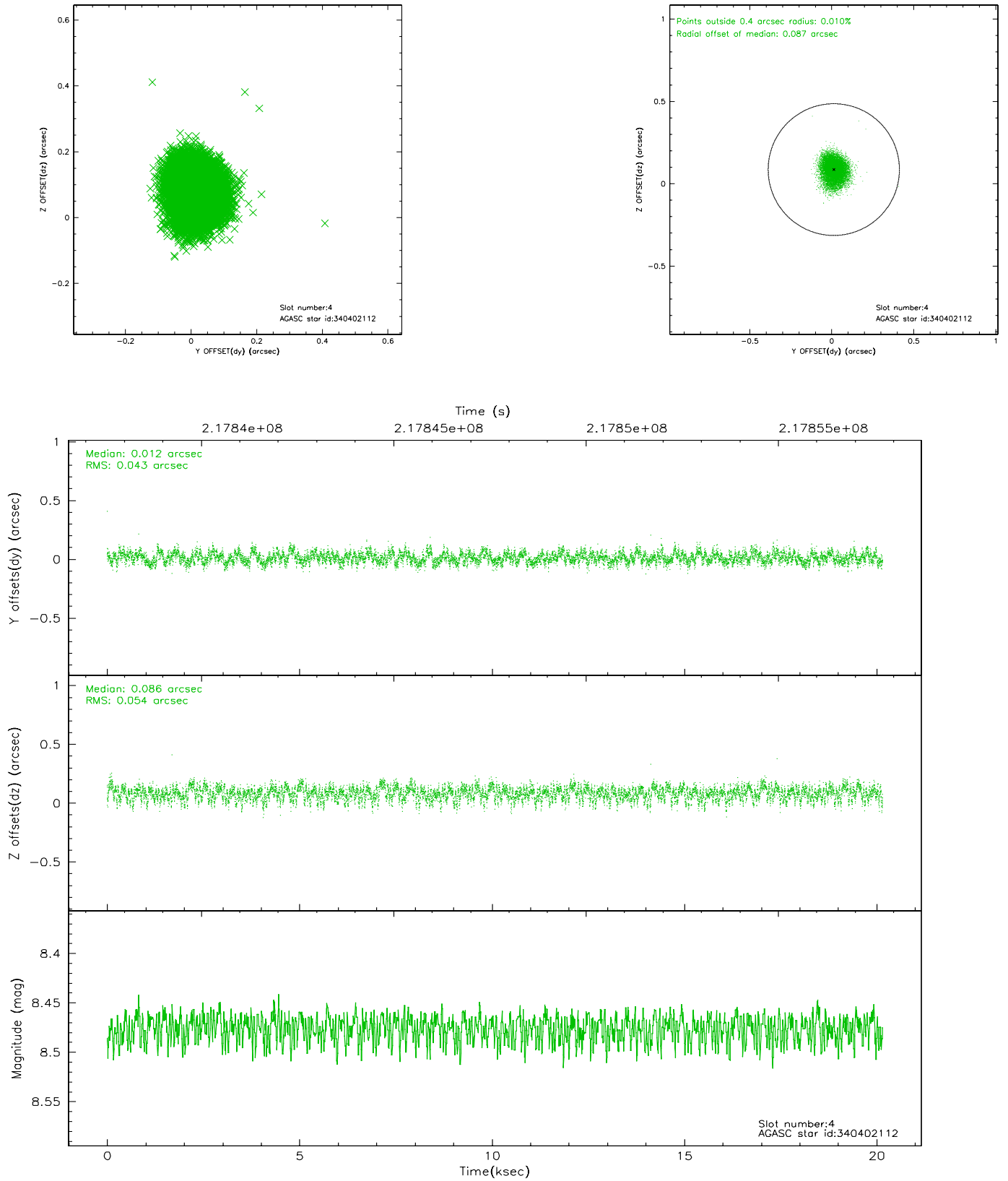
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	4918	-0.050	-0.062	0.022	0.029	0.000000	0.000000	-761.34	-1795.04
1	FID	ACIS-S-4	7.19	4918	0.103	0.039	0.010	0.021	0.000000	0.000000	2152.01	113.32
2	FID	ACIS-S-5	7.23	4918	-0.087	0.030	0.019	0.026	0.000000	0.000000	-1813.98	107.21
3	GUIDE	340401120	8.16	9830	0.049	-0.050	0.055	0.093	253.574895	35.128140	-2260.08	-1287.89
4	GUIDE	340402112	8.48	9830	0.012	0.086	0.074	0.116	253.640936	34.860529	-1854.31	-2182.88
5	GUIDE	340534080	8.83	9833	0.034	-0.034	0.058	0.093	255.228954	35.471551	2179.02	1043.87
6	GUIDE	340534896	8.59	9832	-0.126	-0.046	0.057	0.093	255.288450	35.541682	2287.63	1331.29
7	GUIDE	340536192	7.72	9834	0.030	0.049	0.045	0.073	254.294567	35.286536	-328.69	-250.03

2.4 Star Slots

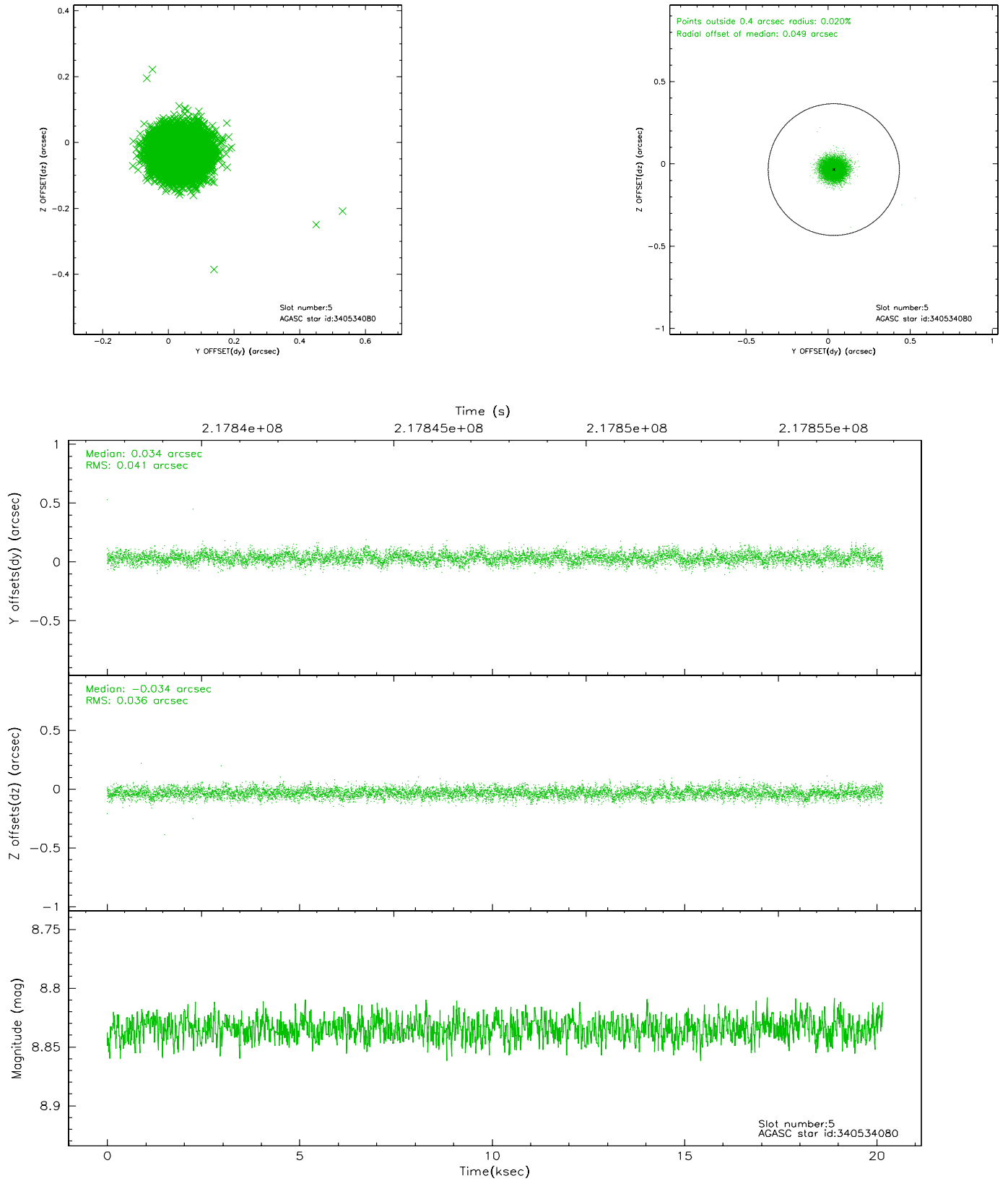
2.4.1 Slot 3



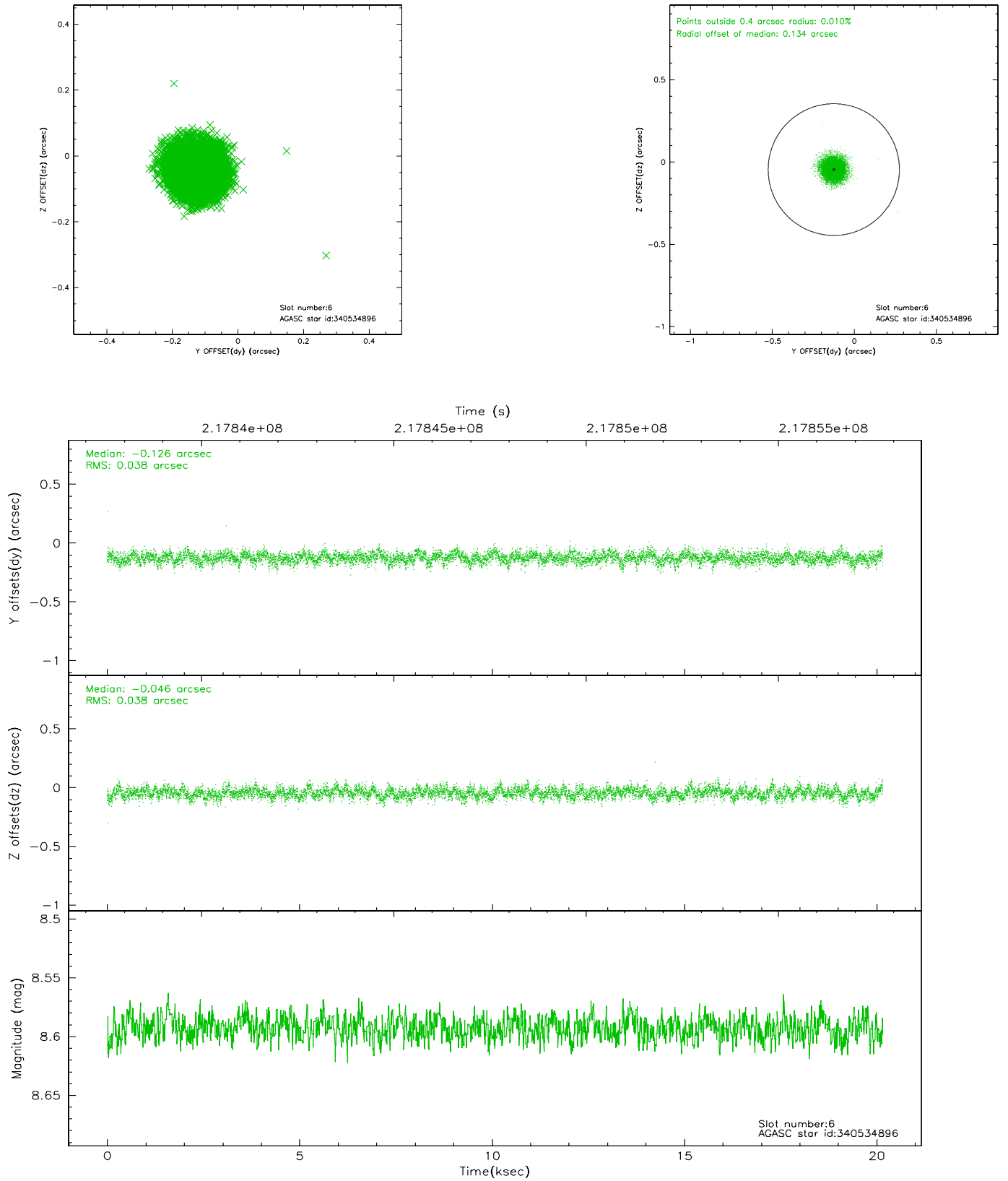
2.4.2 Slot 4



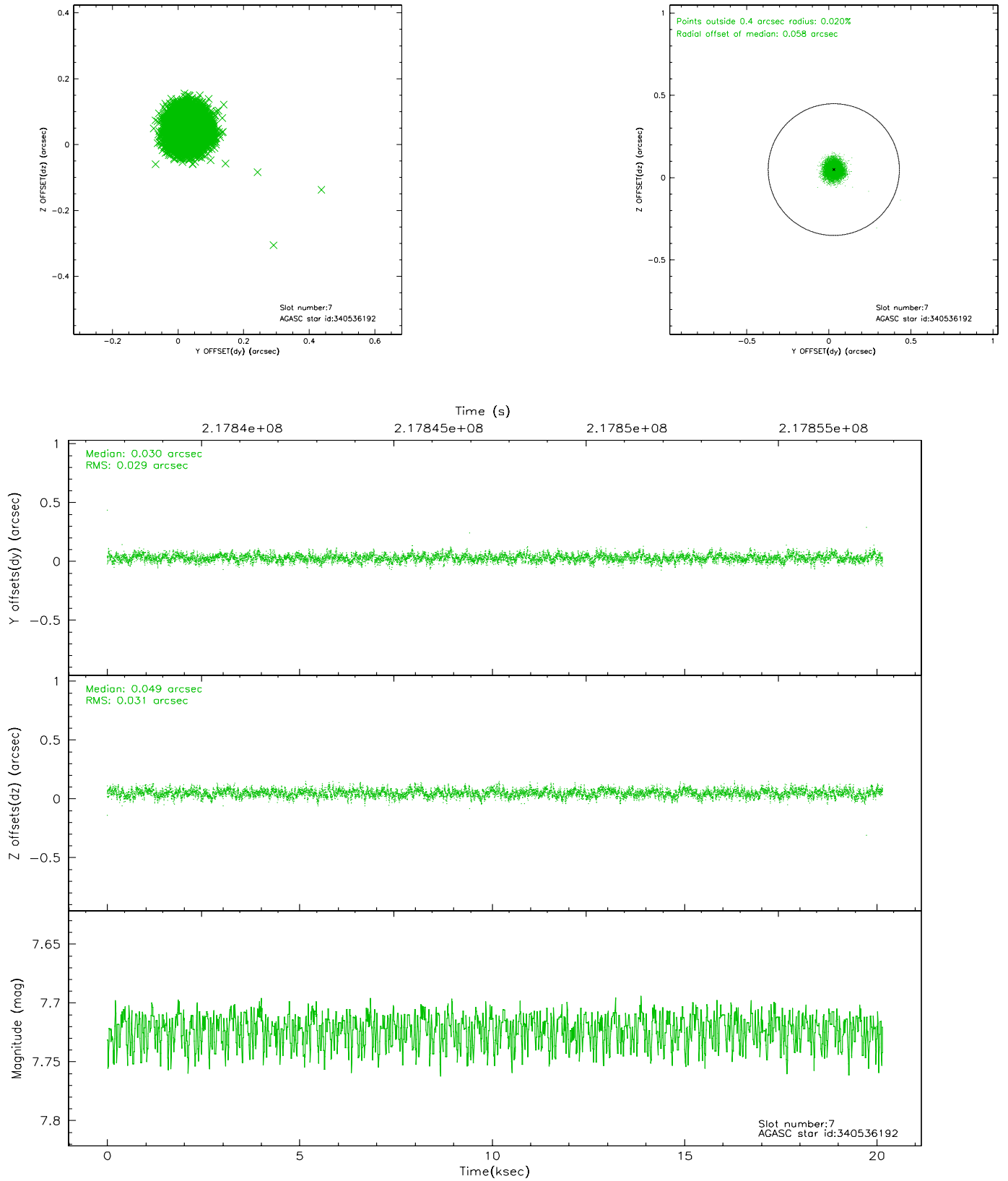
2.4.3 Slot 5



2.4.4 Slot 6

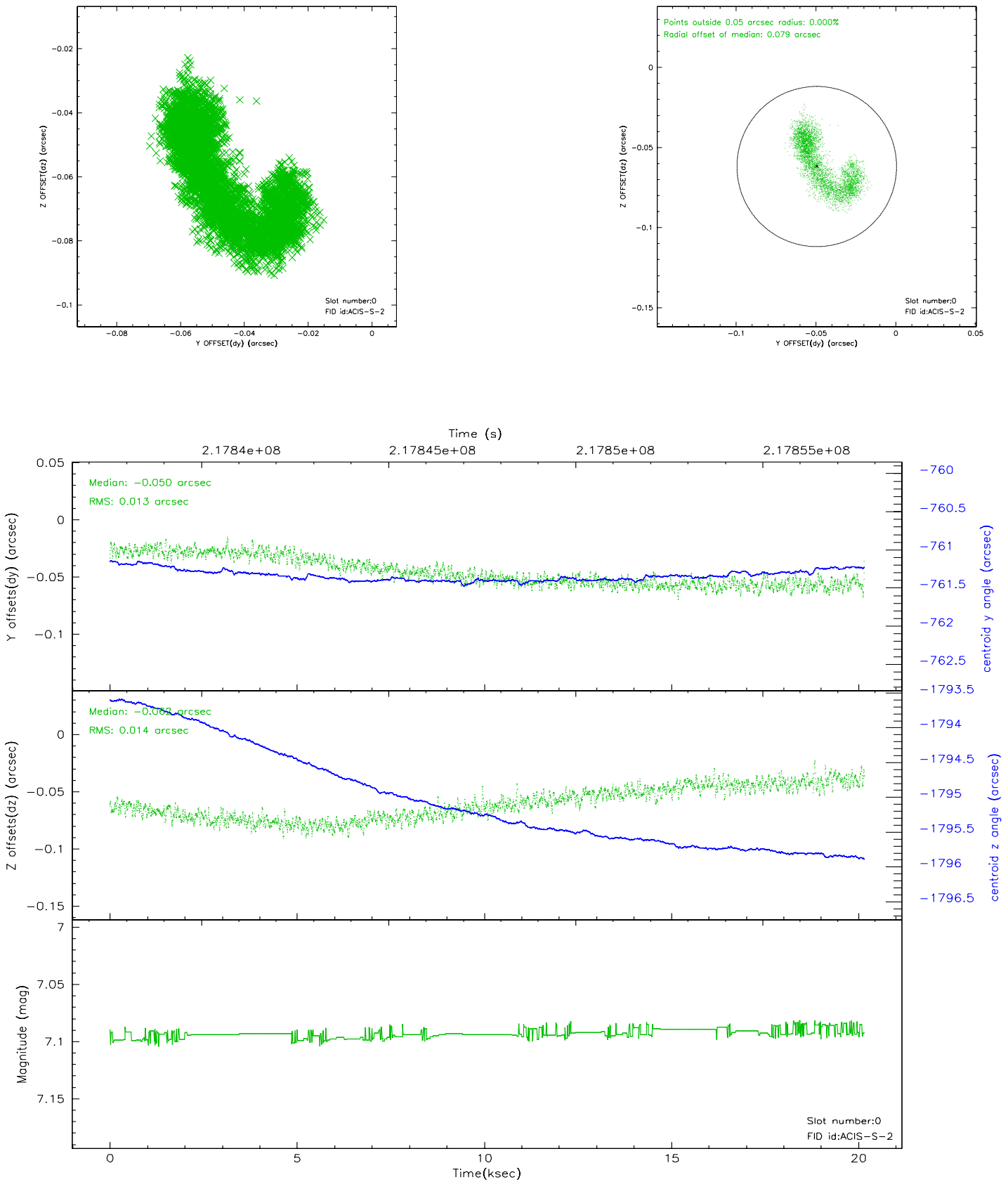


2.4.5 Slot 7

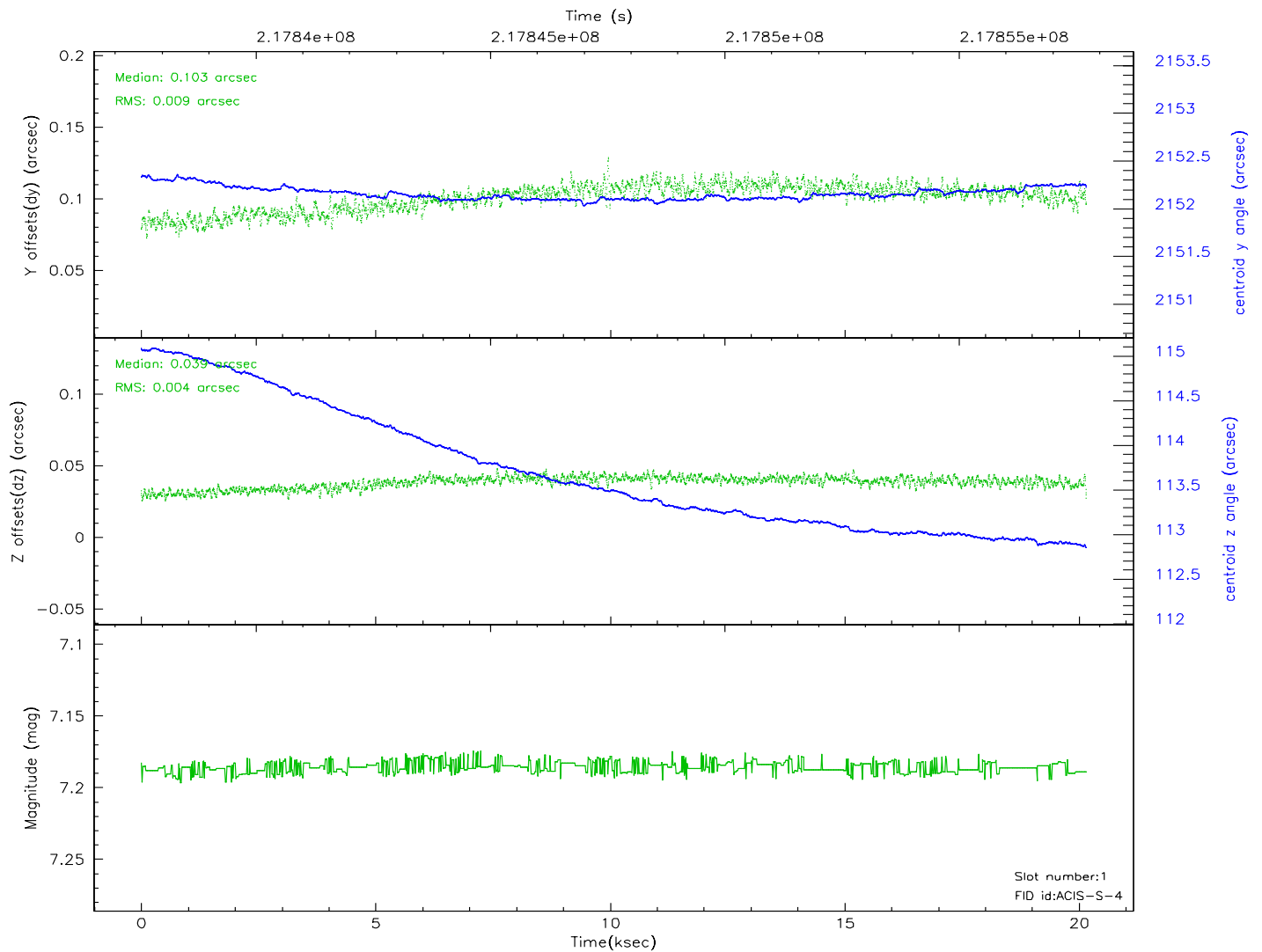
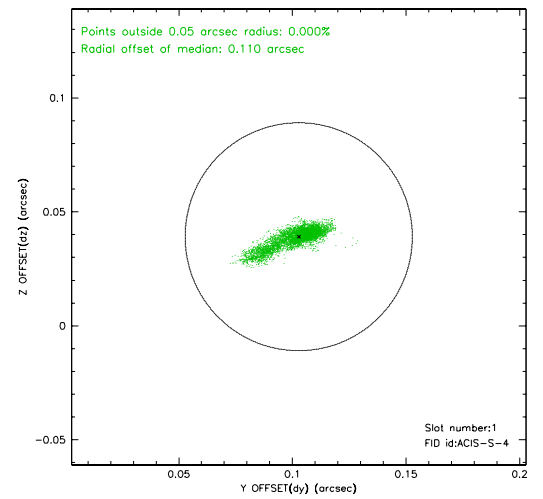
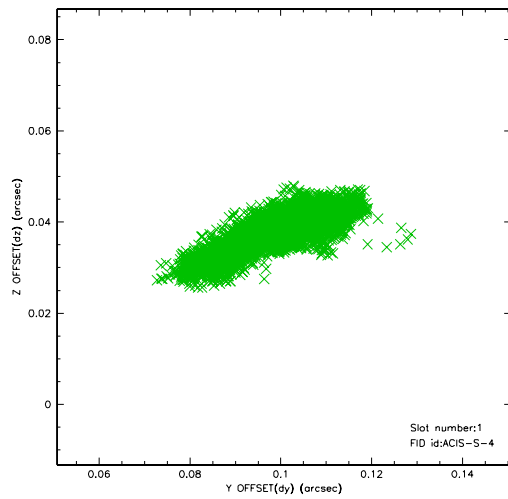


2.5 FID Slots

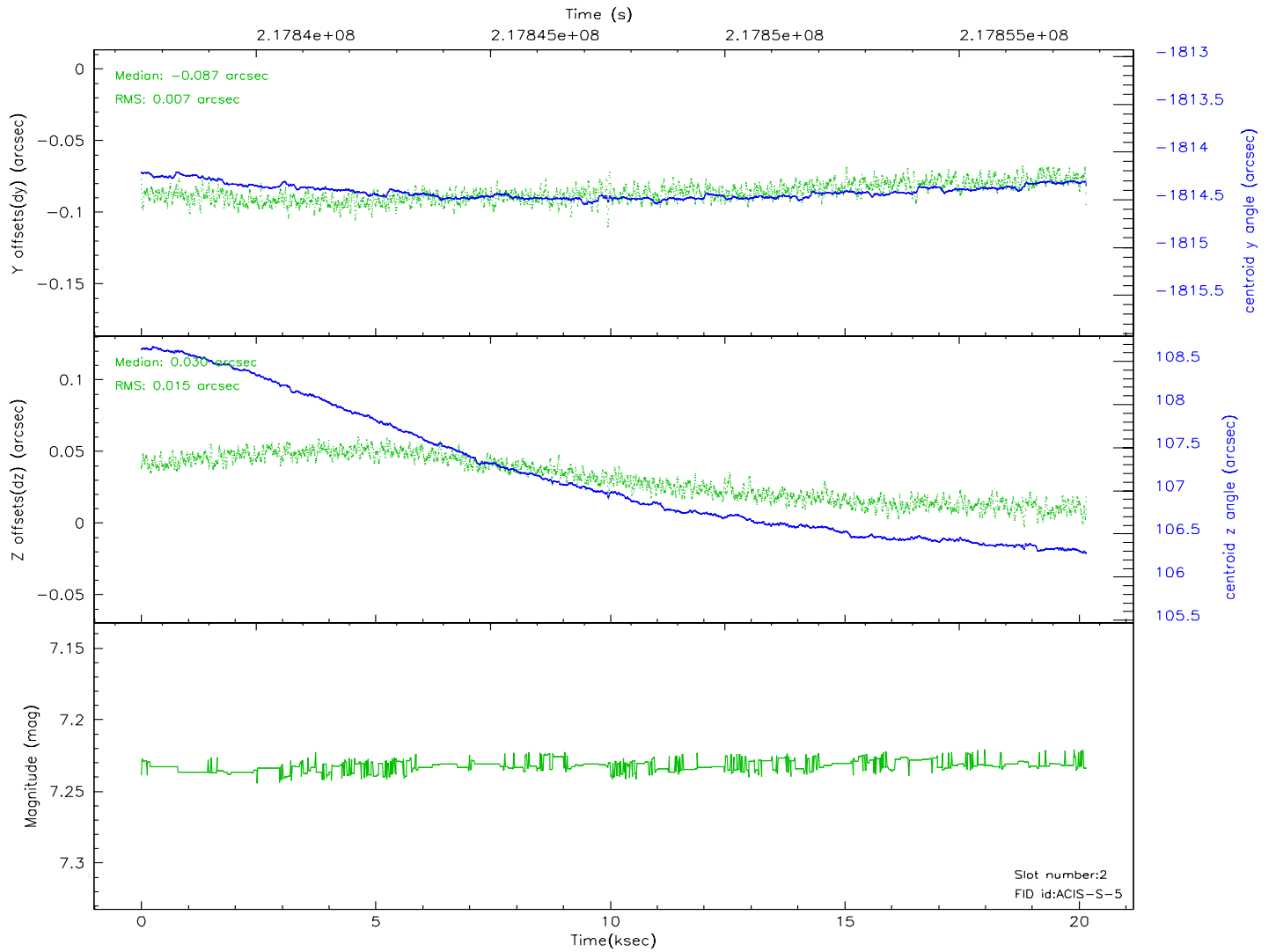
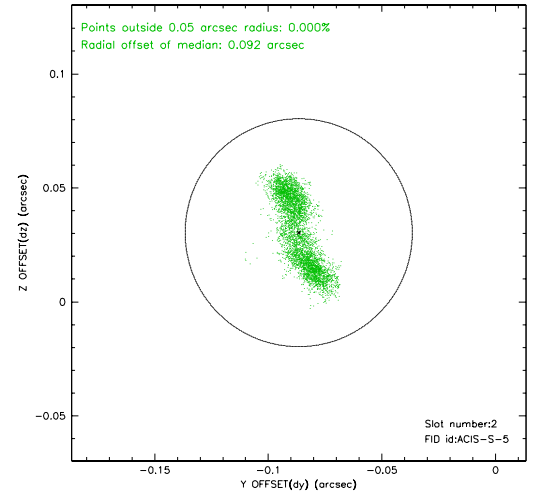
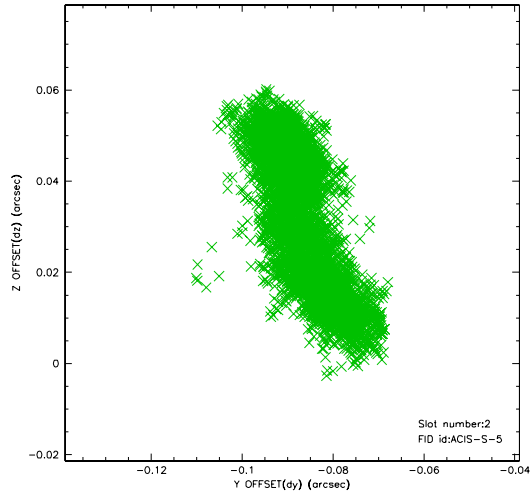
2.5.1 Slot 0



2.5.2 Slot 1

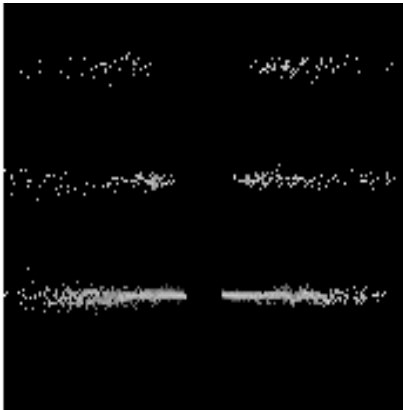


2.5.3 Slot 2

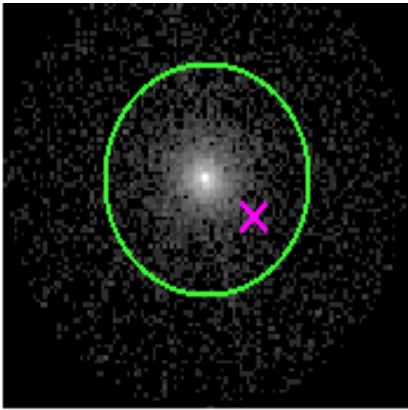


3 Gratings

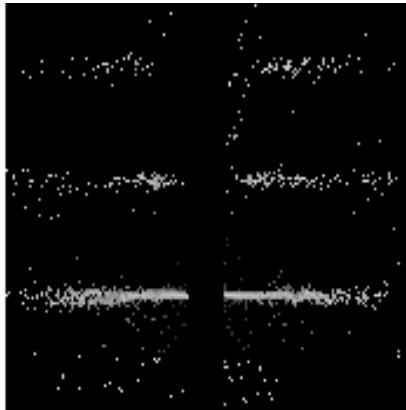
3.1 HEG Arm



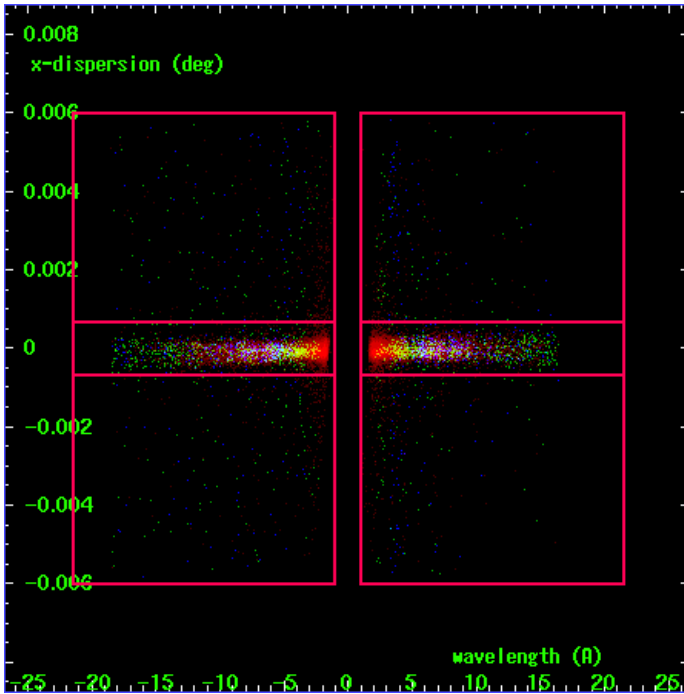
HEG Order Sort 123



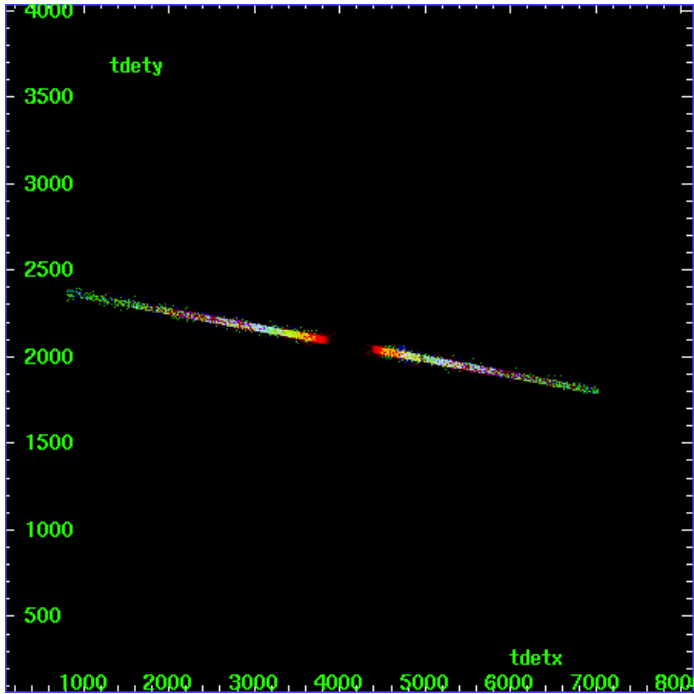
HEG Zero Order



HEG Order Sort ALL

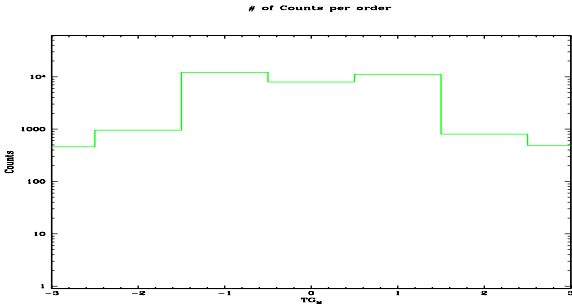


Spot Image HEG

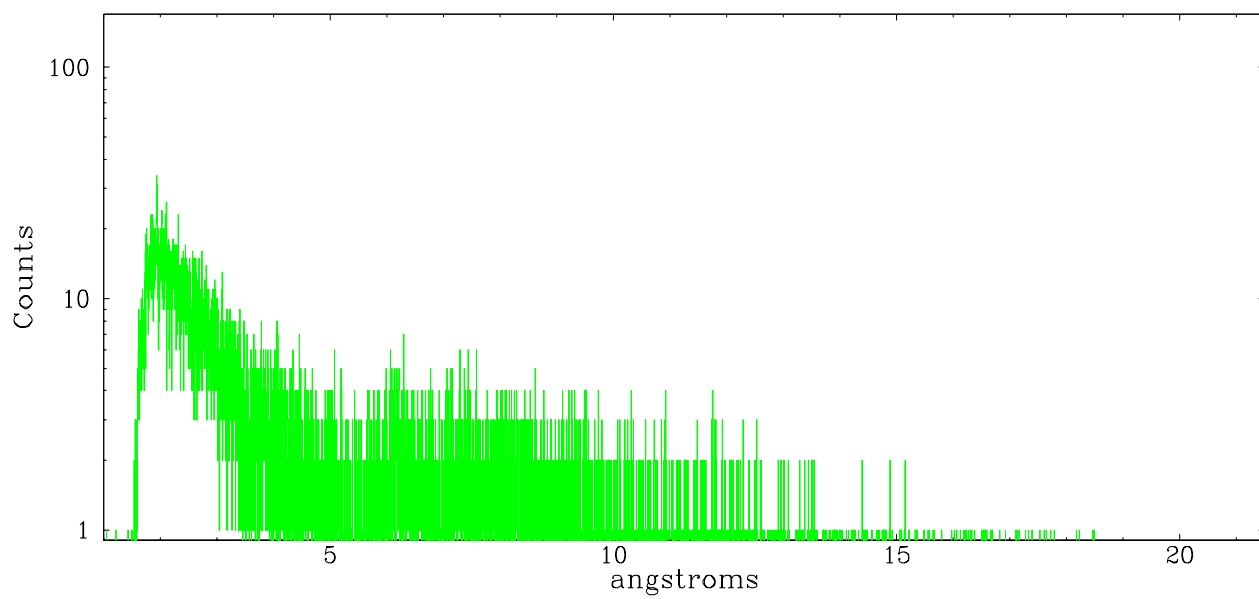


Full Detector HEG

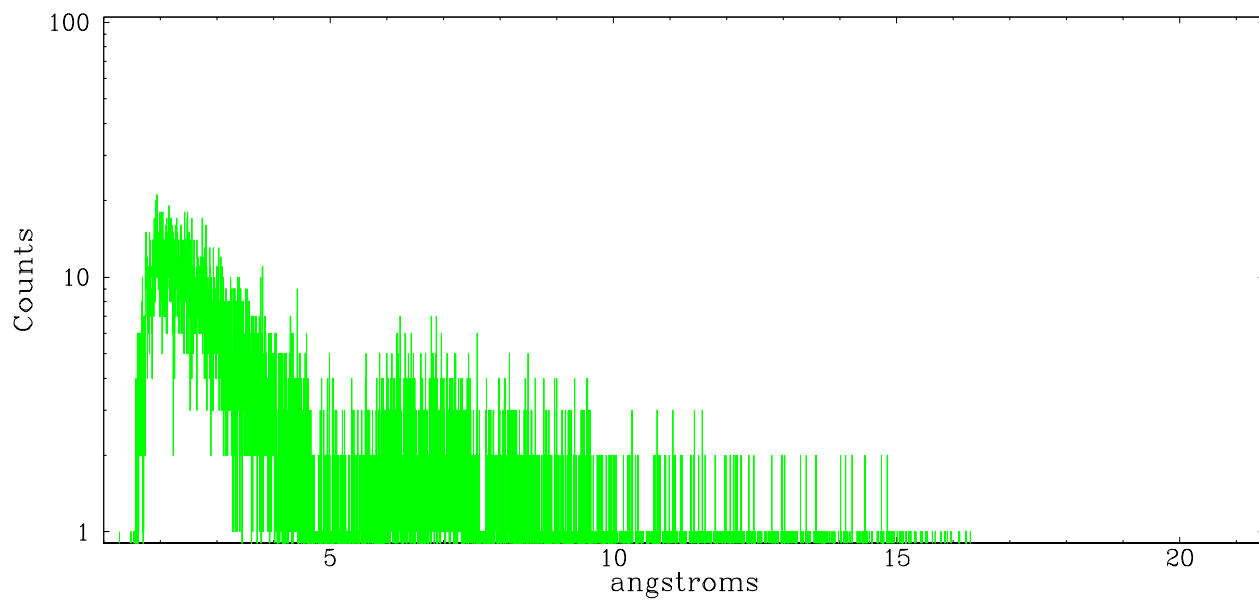
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	461	951	12195	7921	11107	800	486



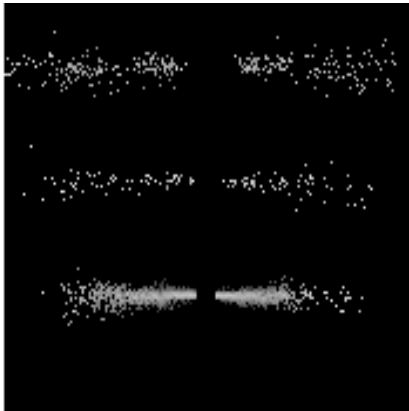
heg order -1



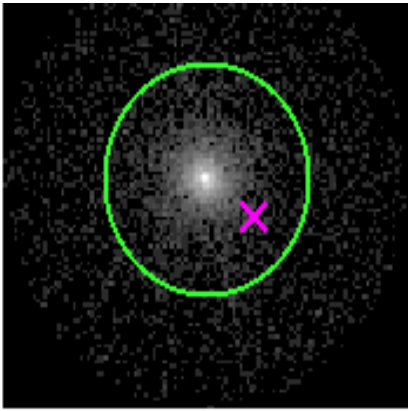
heg order +1



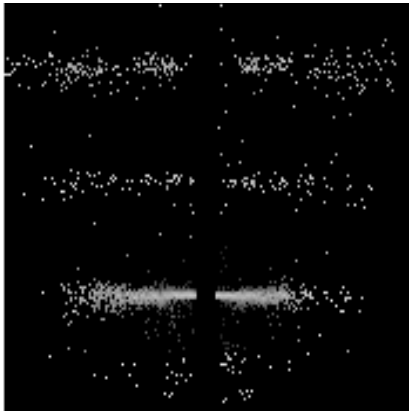
3.2 MEG Arm



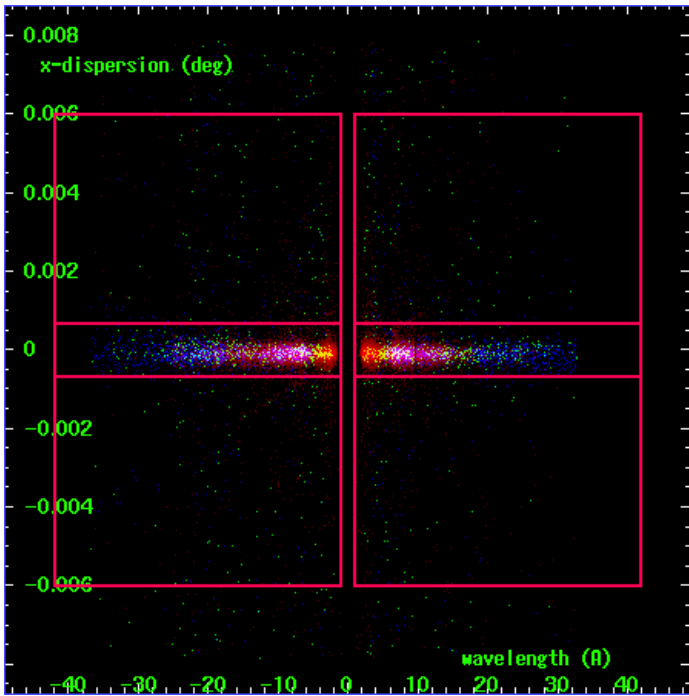
MEG Order Sort 123



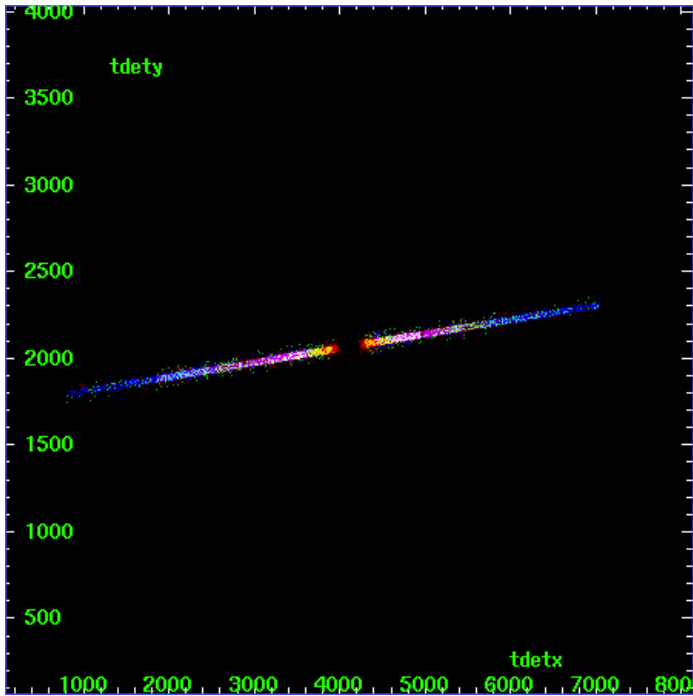
MEG Zero Order



MEG Order Sort ALL

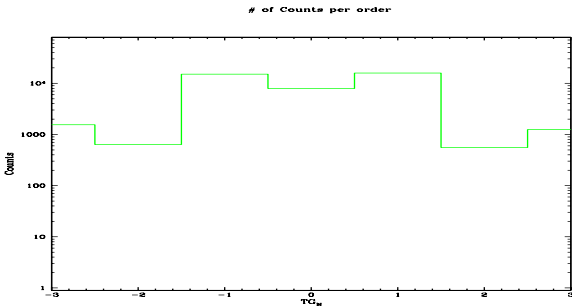


Spot Image MEG

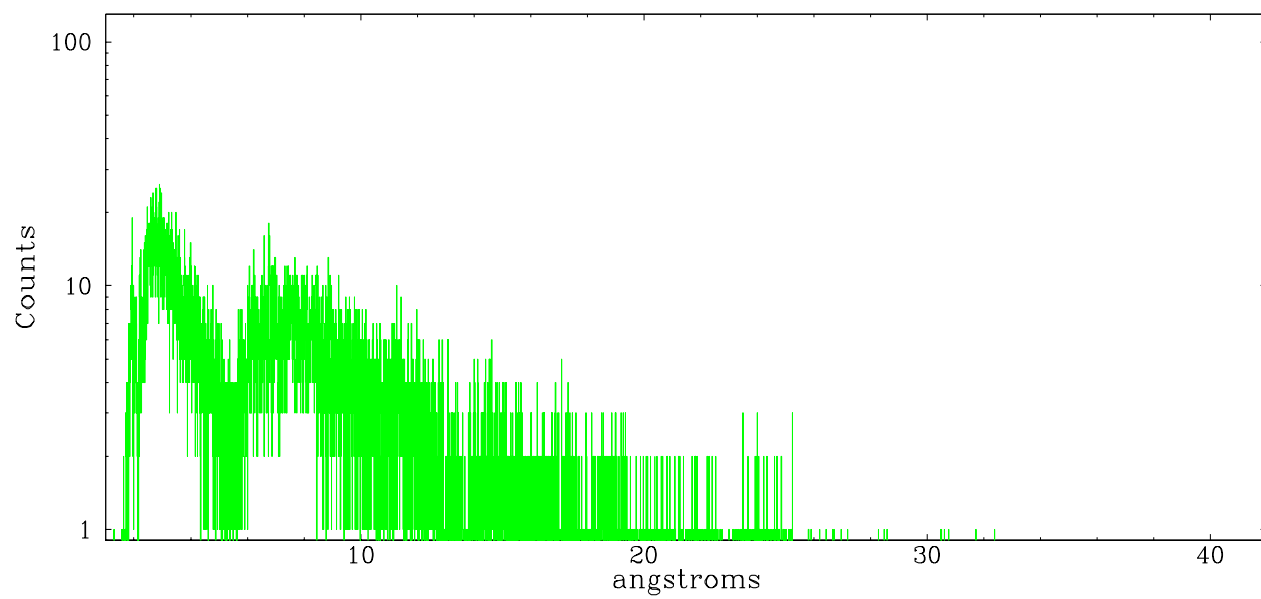


Full Detector MEG

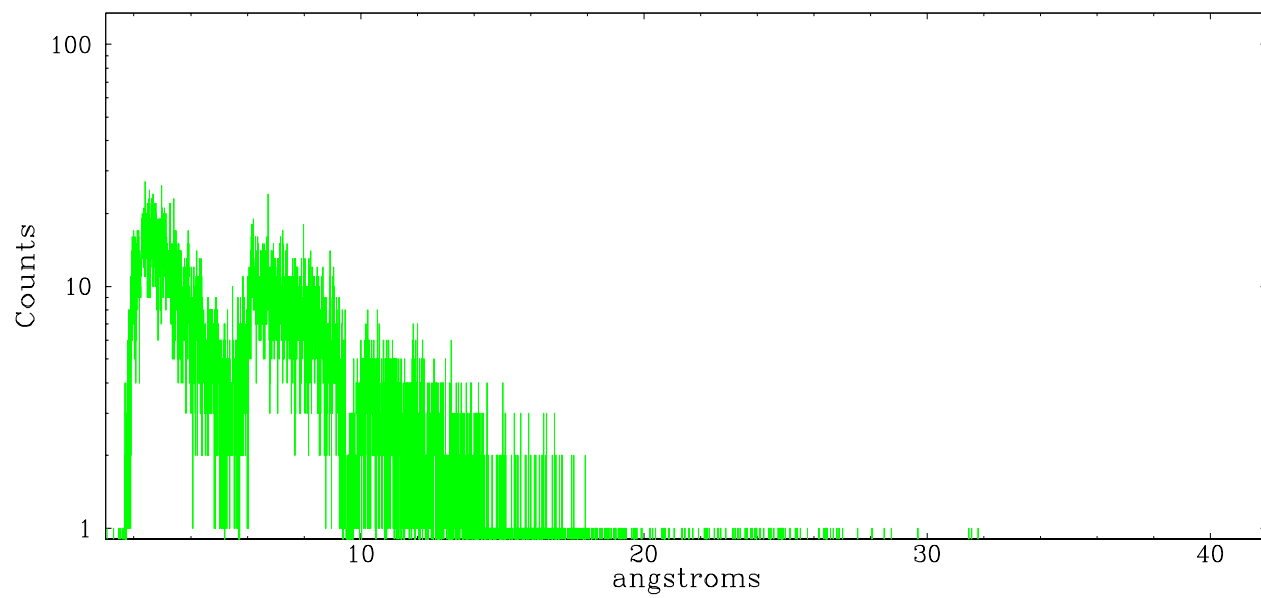
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1549	636	15096	7921	15873	555	1241



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.04.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.155

A.2 Comments

Phase-constrained observation.