

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 4924 - L2 Version 001
Chandra X-Ray Center

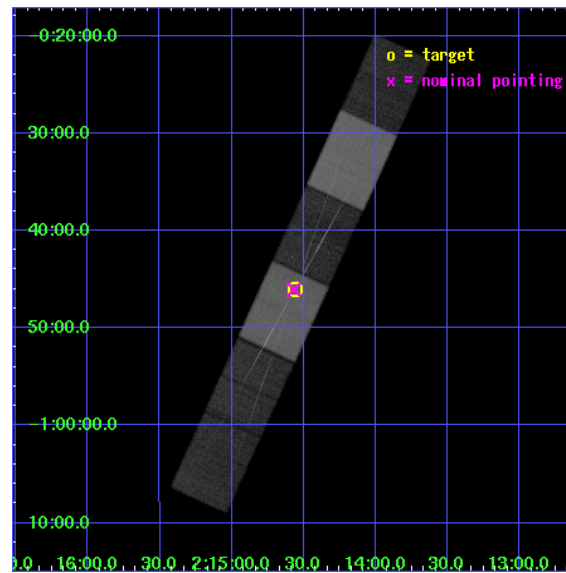
L2 Processing Date : Apr 29 2006

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
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
3	Gratings	16
3.1	HEG Arm	16
3.2	MEG Arm	18
A	Summary	20
A.1	Status	20
A.2	Comments	20

1 Front

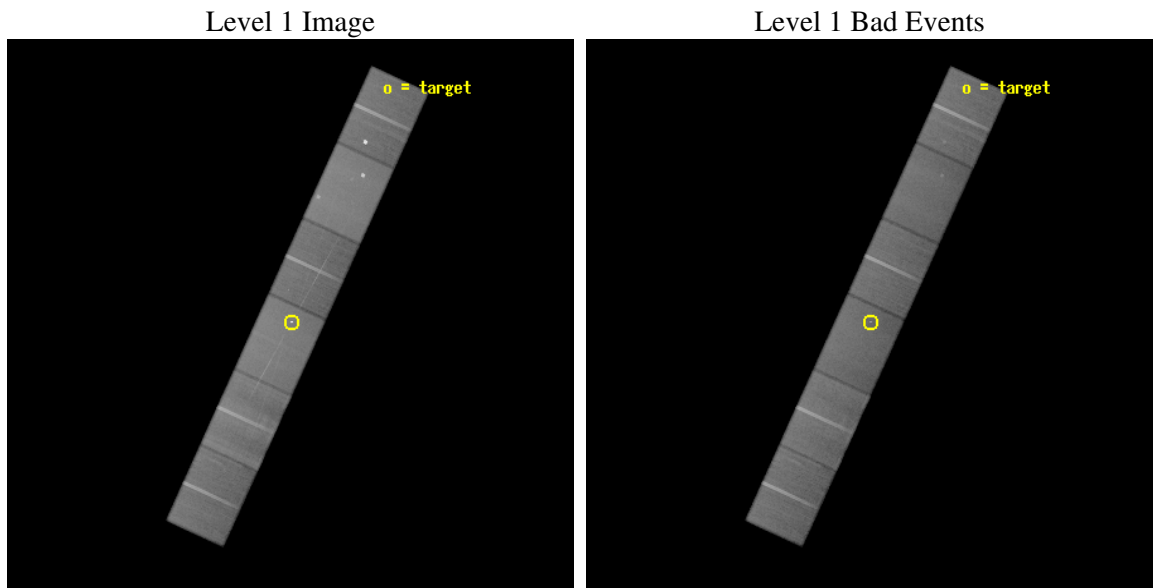
seq_num	701005
obs_id	4924
title	A long X-ray look at the Piccinotti Seyfert 1 galaxy Mkn 590
observer	Dr. Maria Santos-Lleo
object	Mrk 590
dtcycle	0
cycle	P
ra_targ	33.64
dec_targ	-0.766694
ra_nom	33.642139123837
dec_nom	-0.76735707994019
roll_nom	114.59263780804
revision	2
ontime	96790.0
livetime	95226.75754809
ontime4	96790.0
ontime5	96790.0
ontime6	96784.918019652
ontime7	96790.0
ontime8	96787.459009826
ontime9	96787.459009826
l2events	882906



2 OBI

2.1 OBI

2.1.1 Images

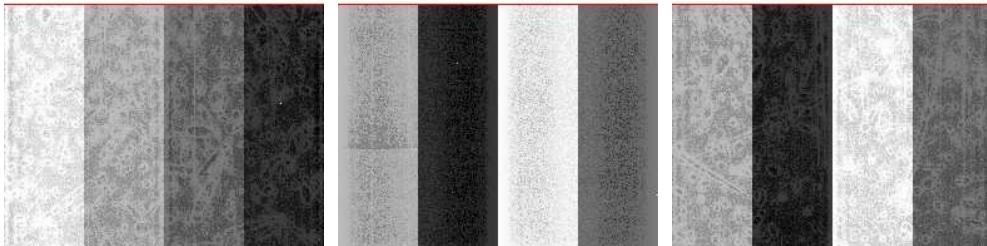


2.1.2 Bias

Chip 4

Chip 5

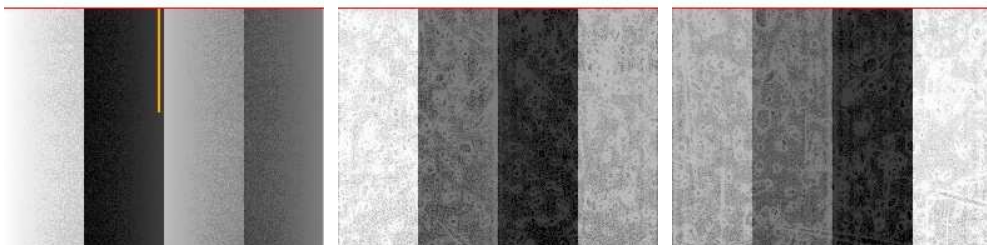
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	1
ascdsver	7.6.7.2
caldsver	3.2.1
date	2006-04-29T10:45:04
revision	2

sched_exp_time	96761.537000
ontime	97114.858915627
ontime4	97114.858915627
ontime5	97114.858915627
ontime6	97109.776935279
ontime7	97114.858915627
ontime8	97112.317925453
ontime9	97112.317925453
l1events	4047793

2.1.4 Events

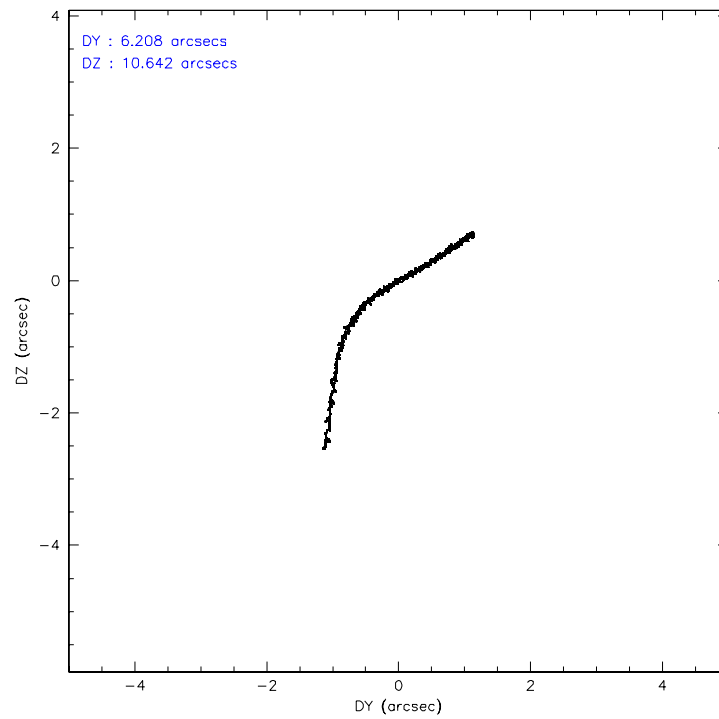
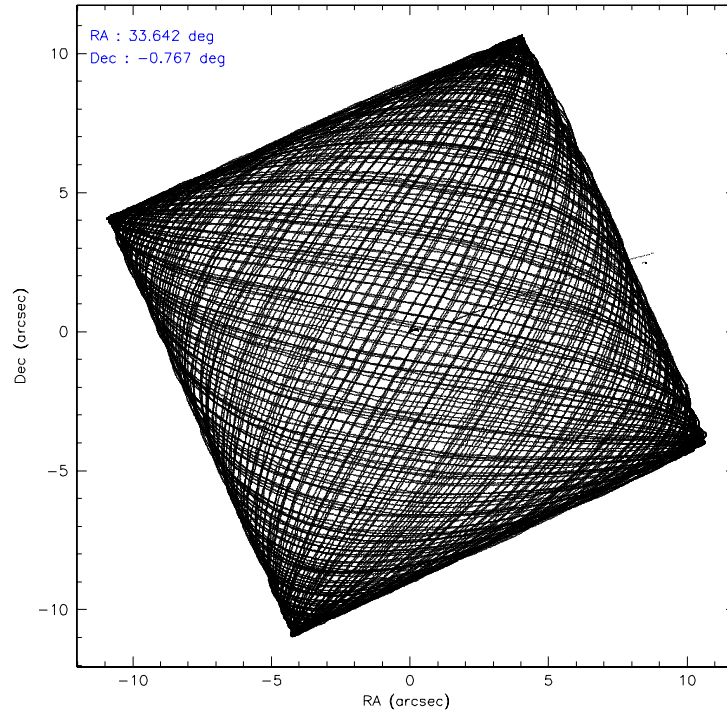
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	636409	818014	568305	759918	712187	552960
rejected events	540794	456044	495369	454714	558244	485676
rejected %	84%	55%	87%	59%	78%	87%

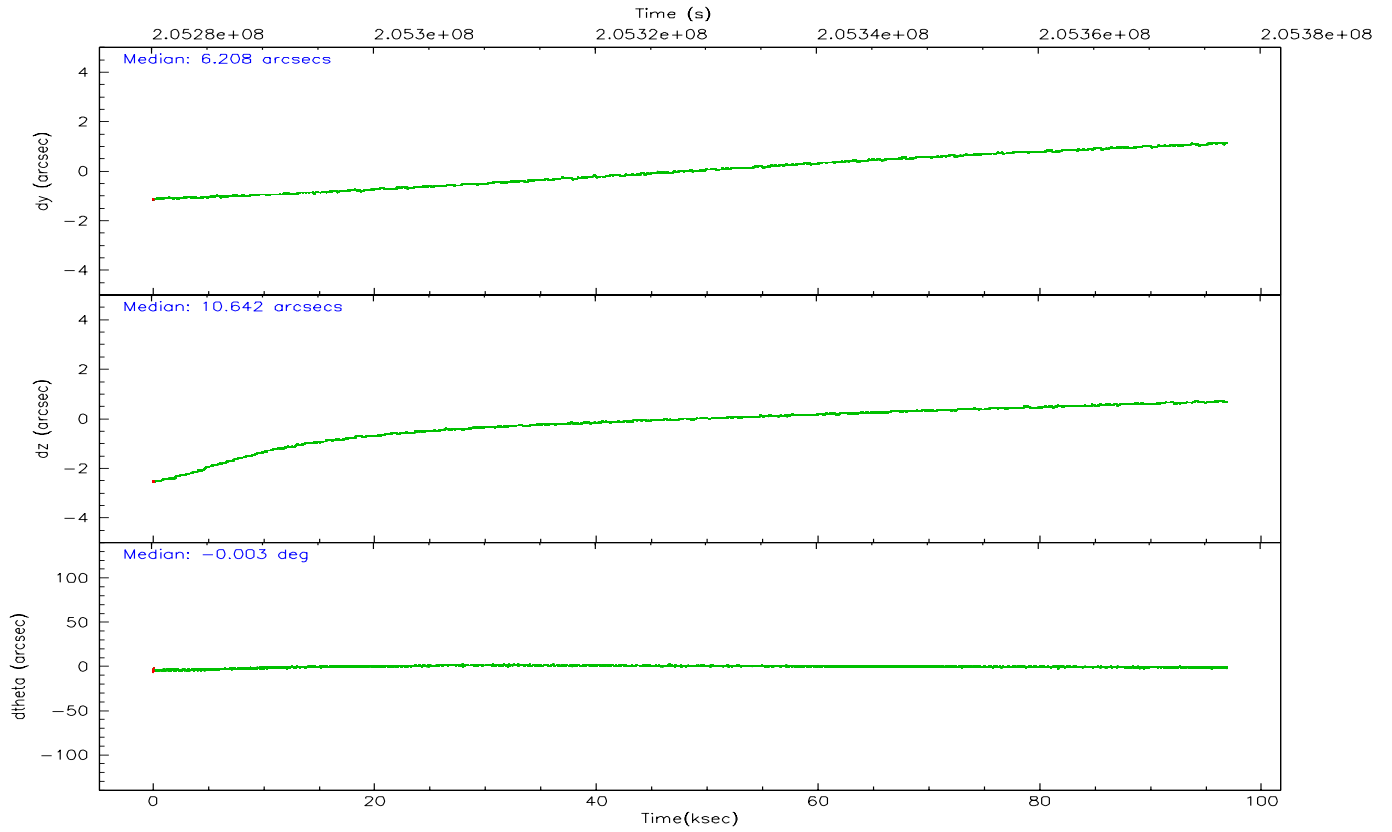
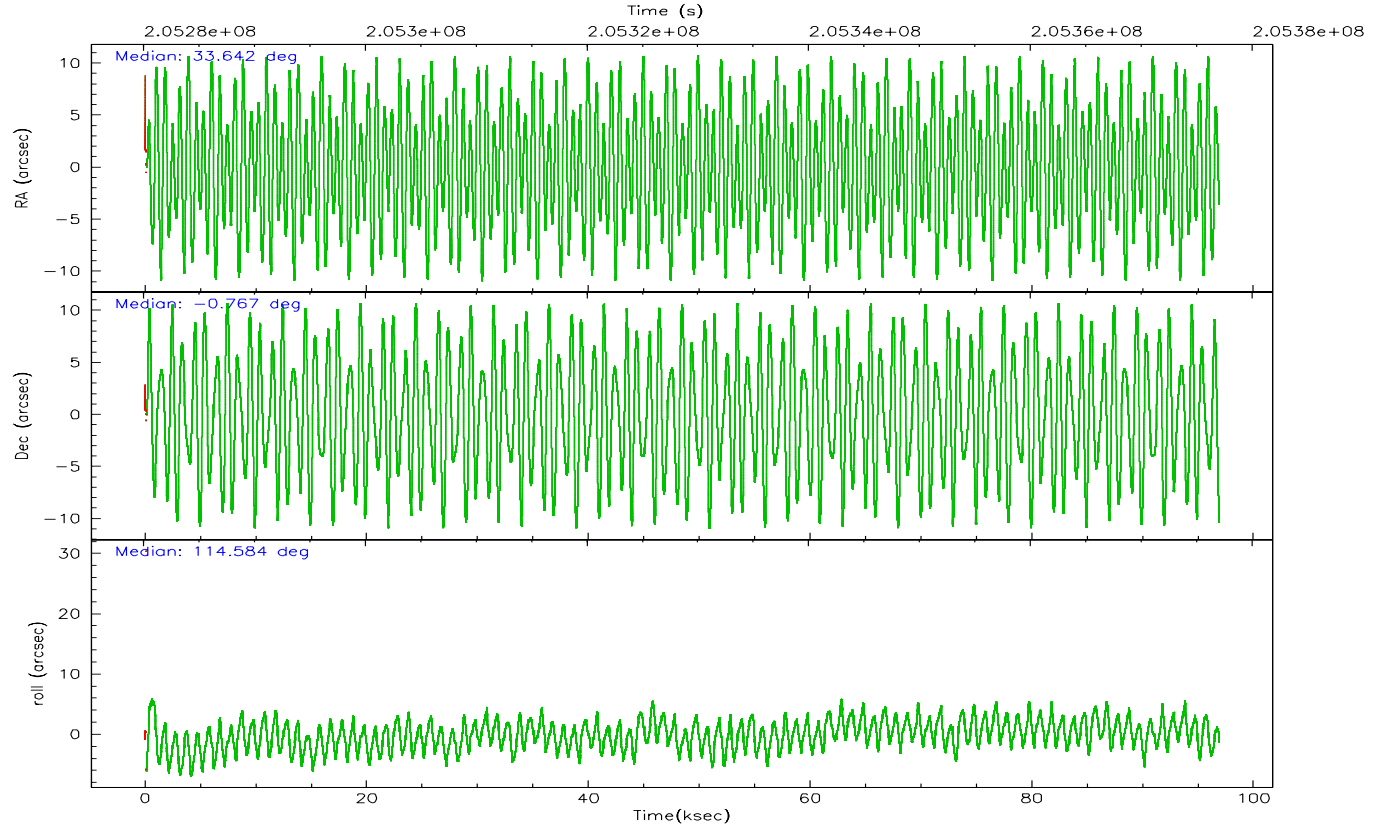
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	56031	27971	31154	20054	49174	27264
	8%	3%	5%	2%	6%	4%
grade 1 events	573	1497	262	535	419	247
	0%	0%	0%	0%	0%	0%
grade 2 events	14903	111422	14127	74742	32706	13139
	2%	13%	2%	9%	4%	2%
grade 3 events	7396	9364	7317	18578	17106	7288
	1%	1%	1%	2%	2%	1%
grade 4 events	6896	8969	7058	18321	16195	7045
	1%	1%	1%	2%	2%	1%
grade 5 events	23467	41152	24864	53651	32905	25975
	3%	5%	4%	7%	4%	4%
grade 6 events	10738	205661	13519	174492	39456	12792
	1%	25%	2%	22%	5%	2%
grade 7 events	516405	411978	470004	399545	524226	459210
	81%	50%	82%	52%	73%	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	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	CUSTOM
Pointing RA	33.664539	33.64213912383701	Subarray start row	1	1
Pointing Dec	-0.782825	-0.7673570799401919	Subarray row count	774	774
Pointing Roll	114.436317	114.592637808042	Alternating exposures requested	N	N
Window start time	205272064.184000	205272064.184000	Primary exposure time	0.000000	2.5
Window stop time	205380064.184000	205380064.184000			
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			
Observation start time	205280283.184000	205279171.72512			
Observation start date	2004-07-03T22:16:59	2004-07-03T21:59:31			
Observation end time	205377045.184000	205377267.30446			
Observation end date	2004-07-05T01:09:41	2004-07-05T01:14:27			
Read mode	TIMED	TIMED			

2.3 Aspect



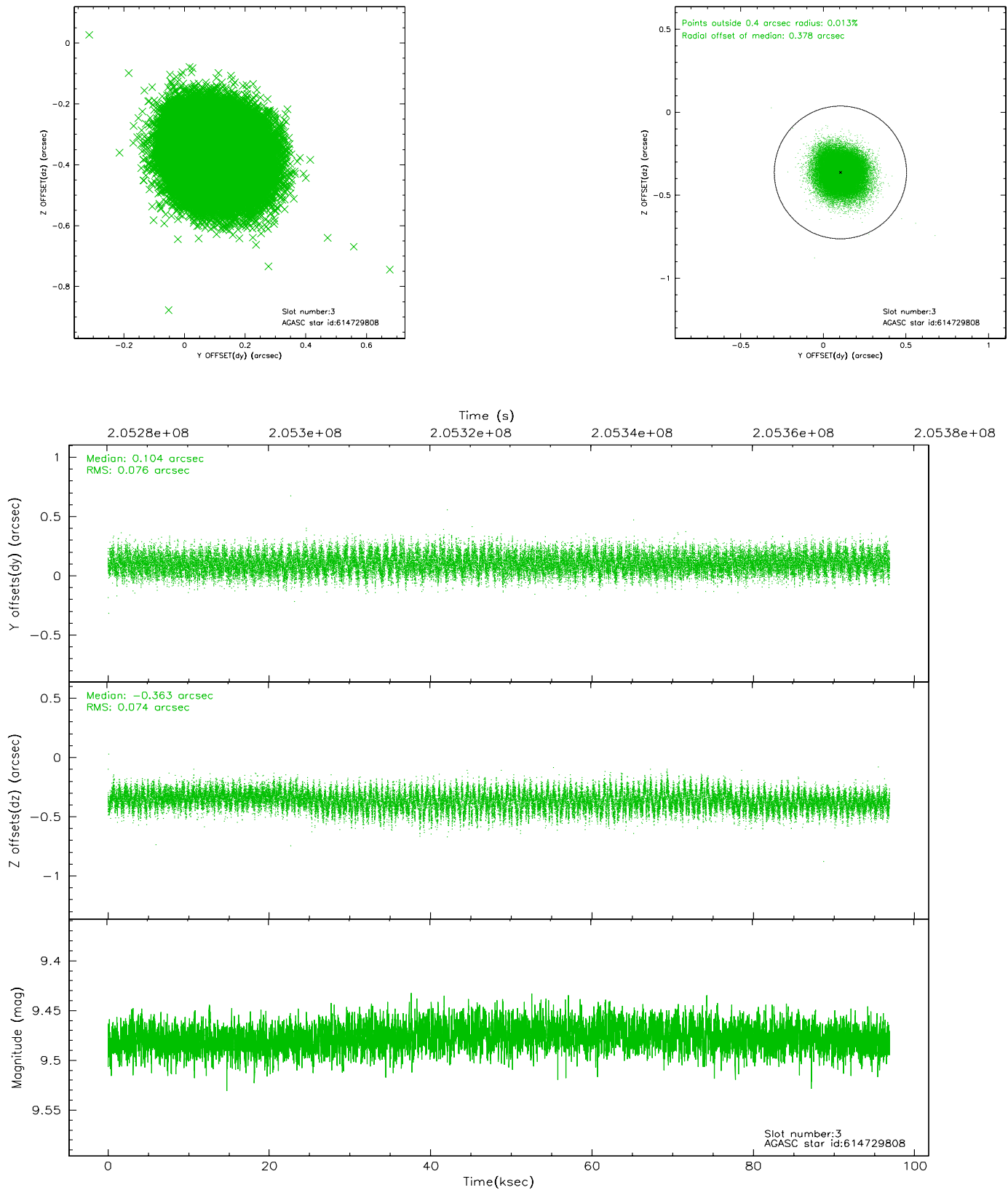


Slot Statistics

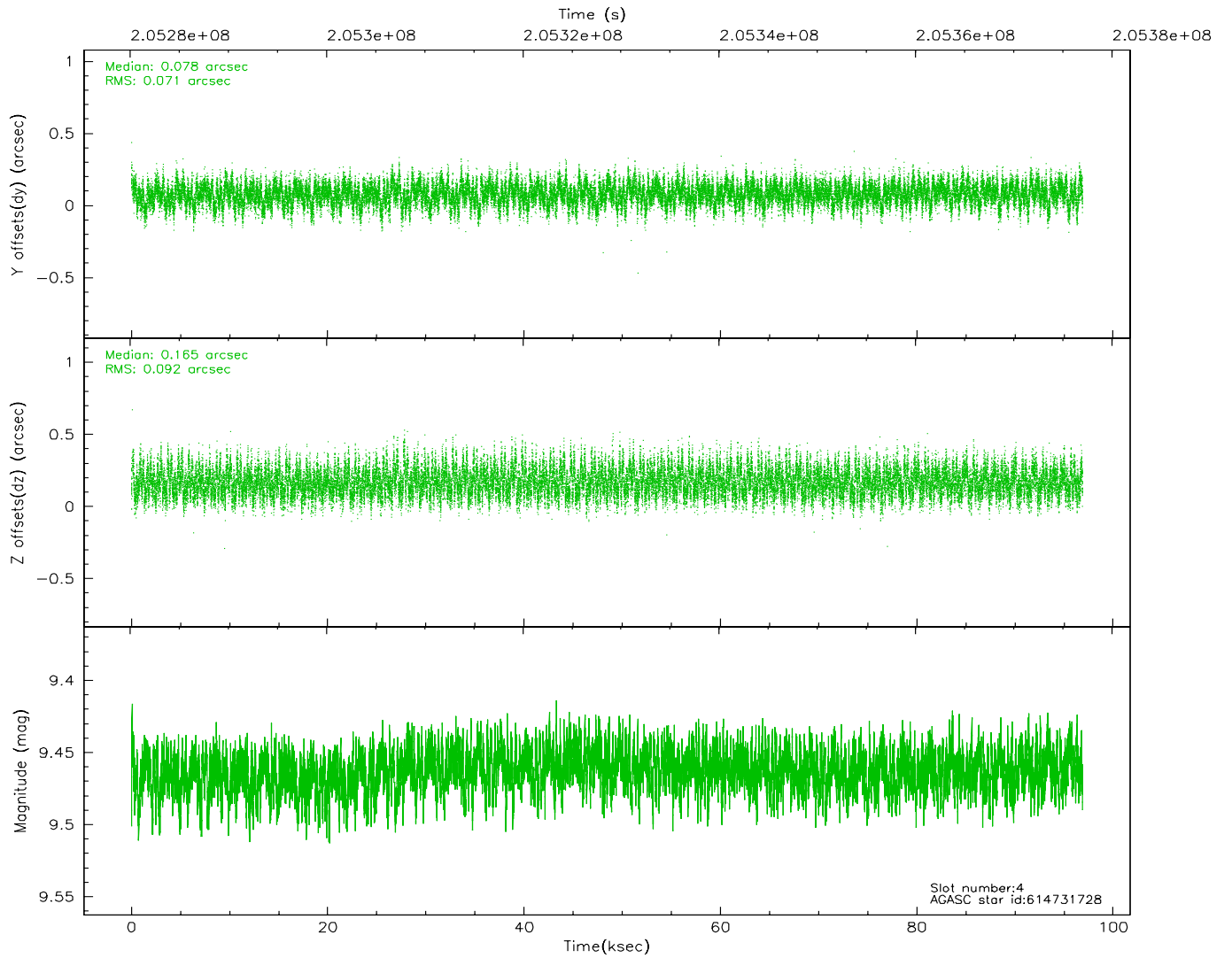
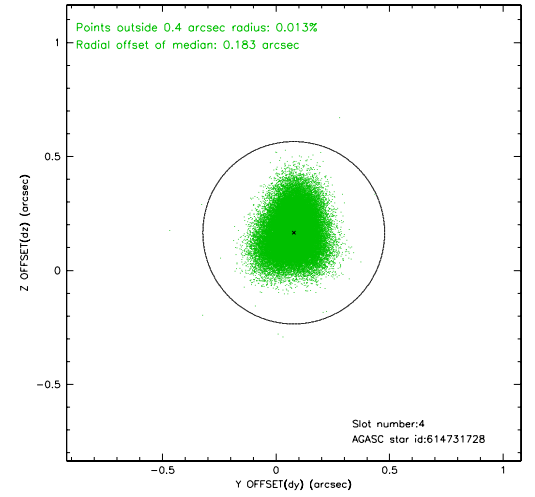
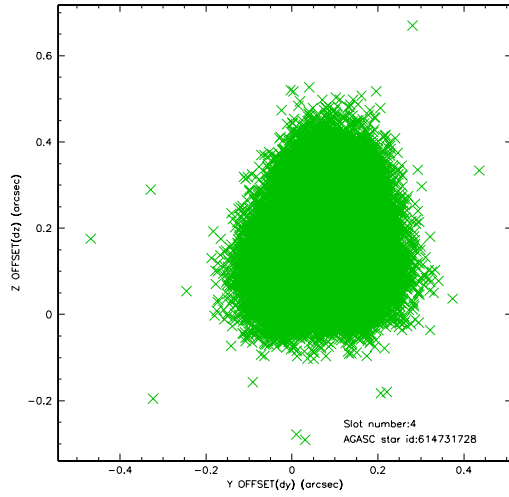
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	23625	-0.047	-0.069	0.013	0.047	0.000000	0.000000	-758.80	-1793.85
1	FID	ACIS-S-4	7.19	23624	0.057	0.042	0.025	0.056	0.000000	0.000000	2154.65	114.80
2	FID	ACIS-S-5	7.23	23624	-0.042	0.037	0.016	0.046	0.000000	0.000000	-1811.73	108.40
3	GUIDE	614729808	9.48	47222	0.104	-0.363	0.115	0.181	33.406423	-1.488100	-1927.42	1896.02
4	GUIDE	614731728	9.46	47129	0.078	0.165	0.125	0.199	34.470092	-0.998742	-1907.05	-2317.82
5	GUIDE	614733136	8.75	47223	0.037	0.077	0.081	0.130	34.330010	-0.958675	-1567.15	-1918.56
6	GUIDE	614733776	9.27	47214	-0.219	0.122	0.115	0.187	34.070767	-0.119925	1567.81	-2317.99
7	MONITOR		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

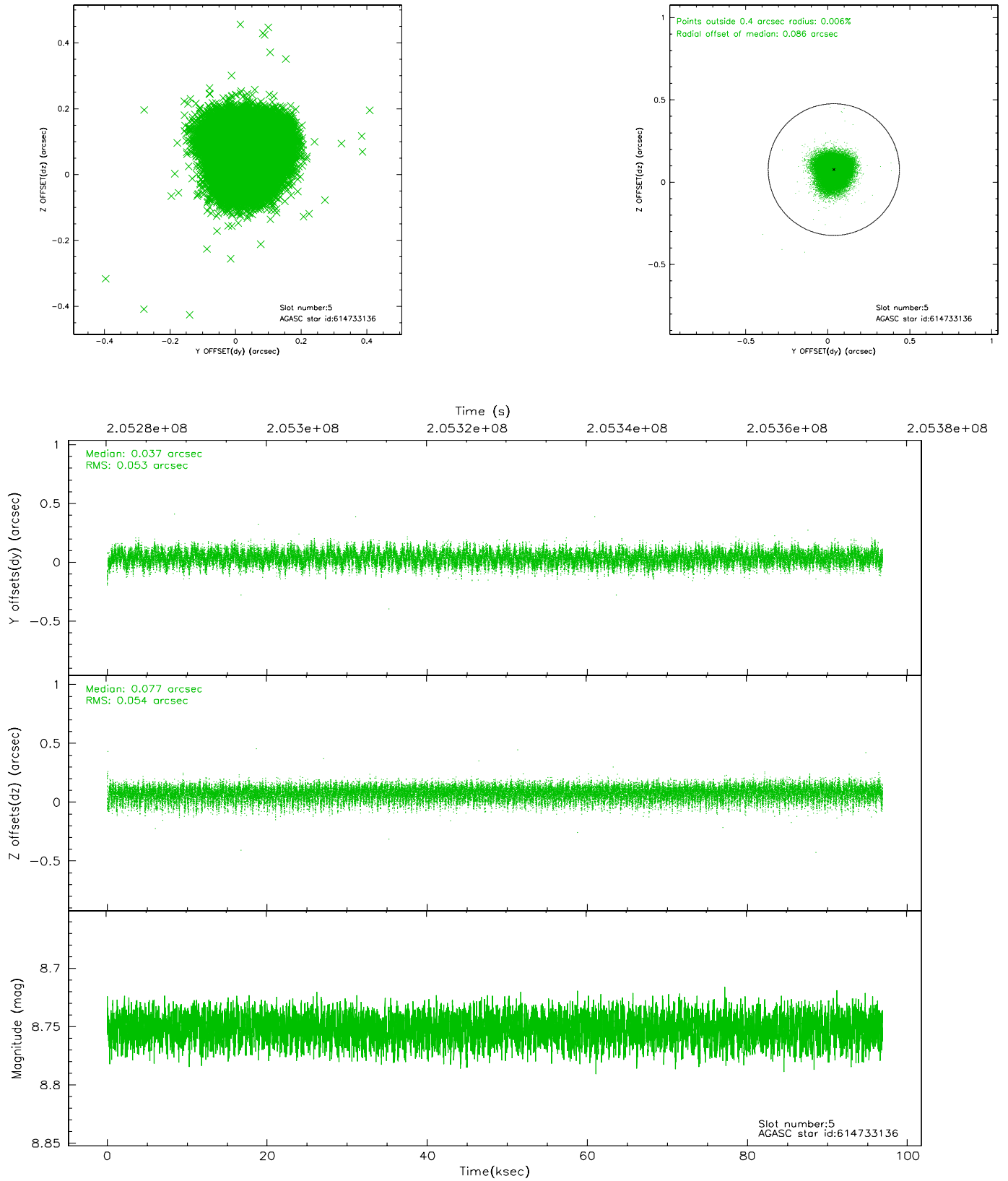
2.4.1 Slot 3



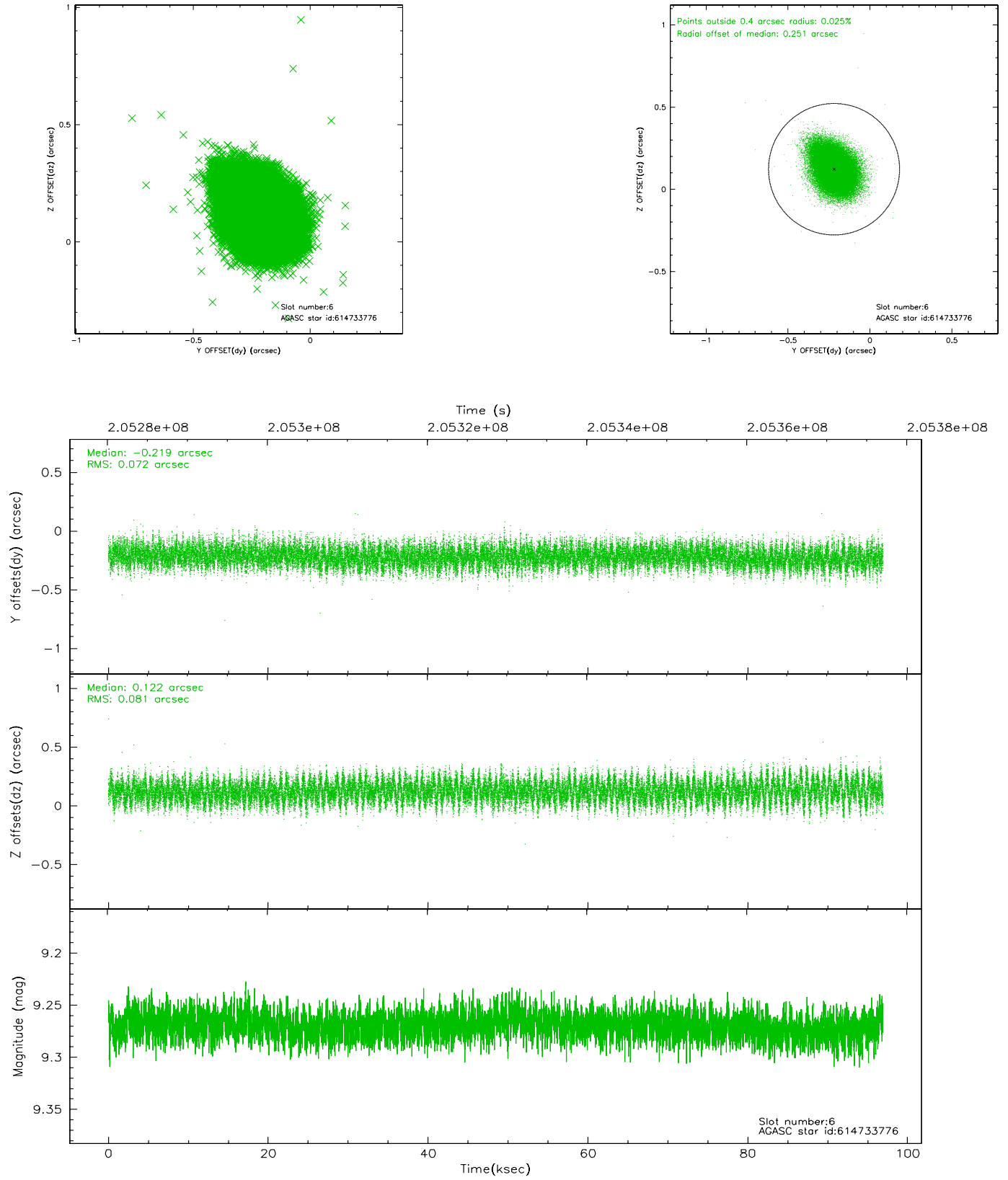
2.4.2 Slot 4



2.4.3 Slot 5

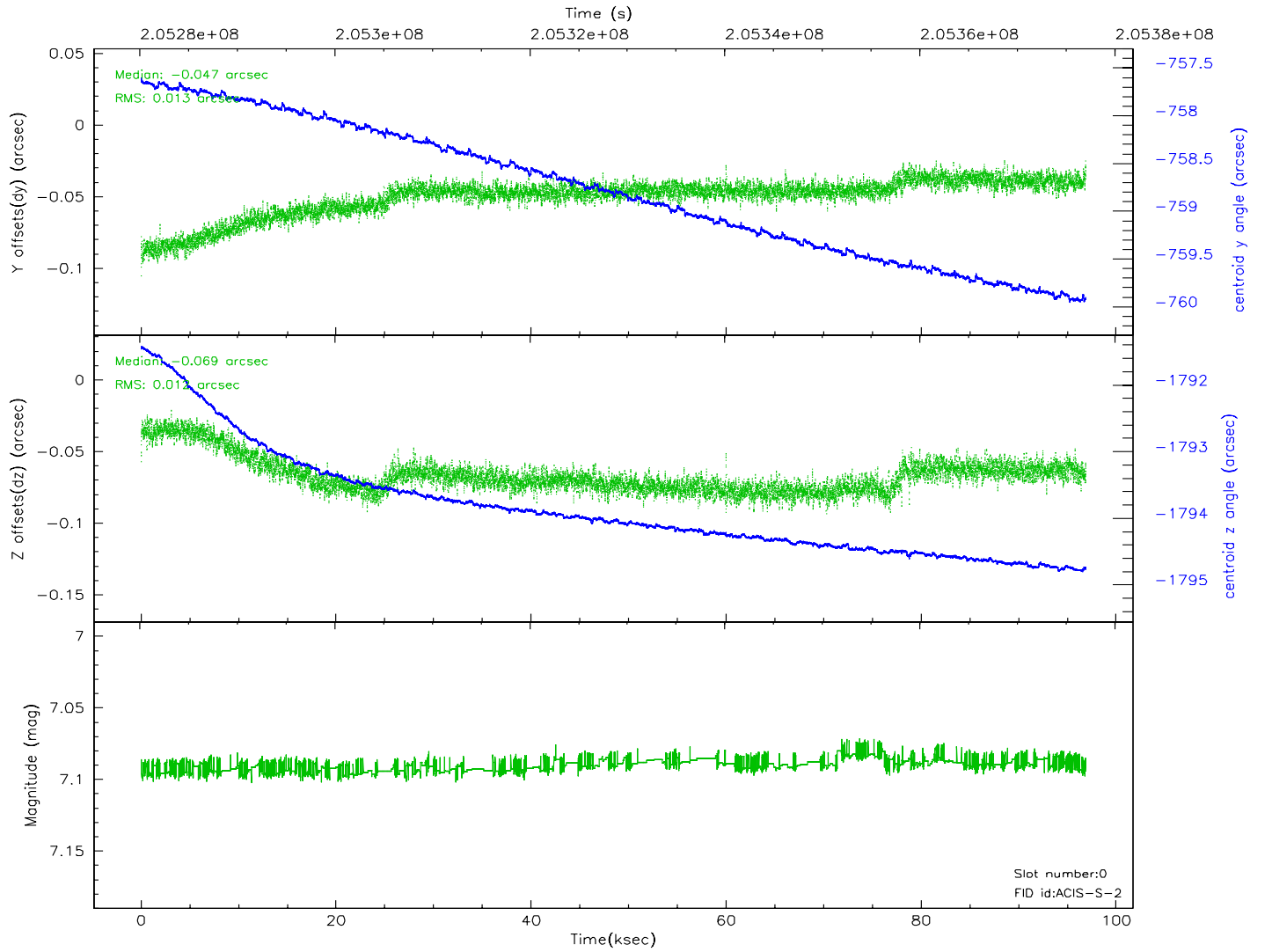
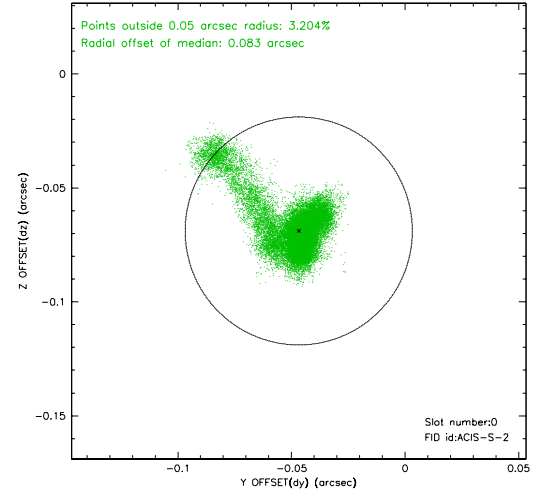
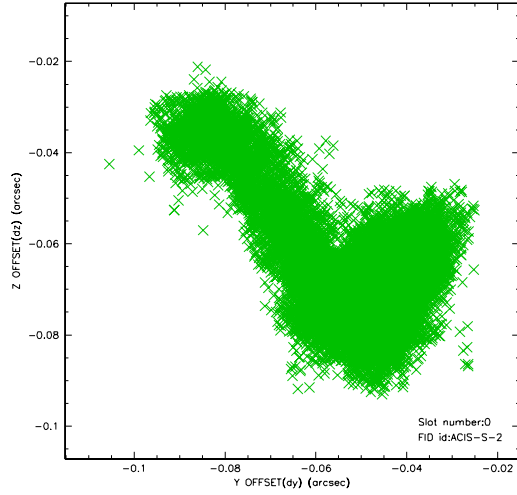


2.4.4 Slot 6

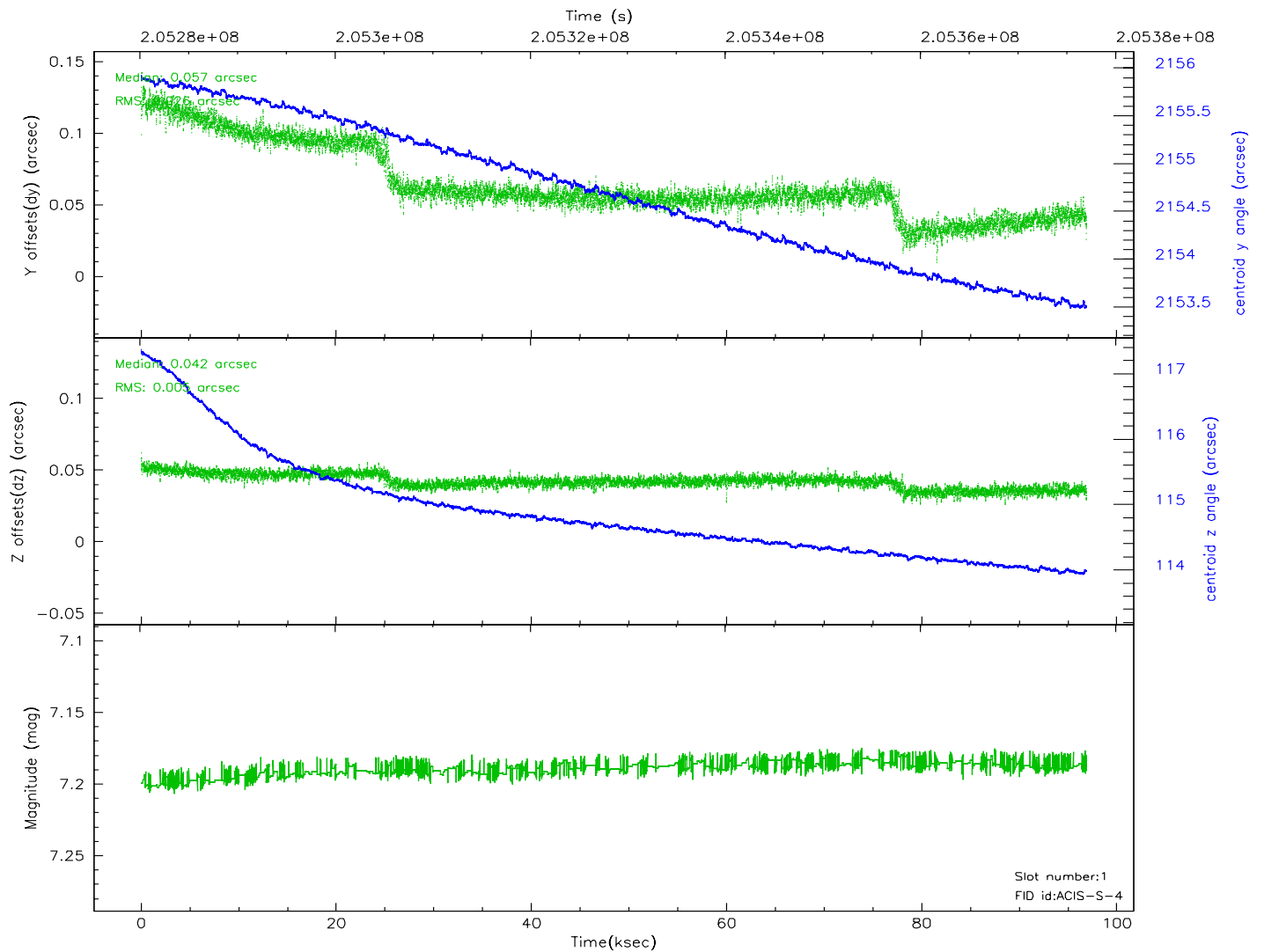
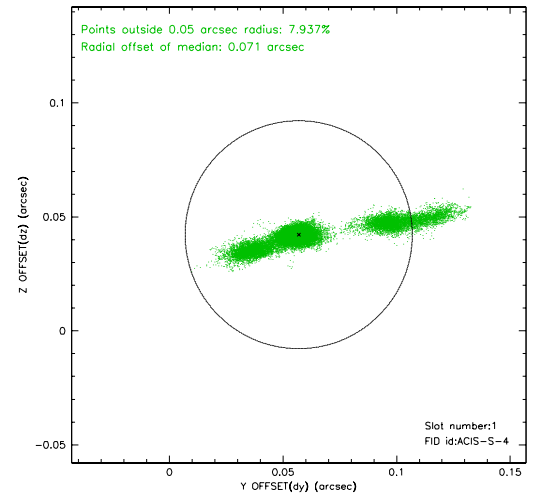
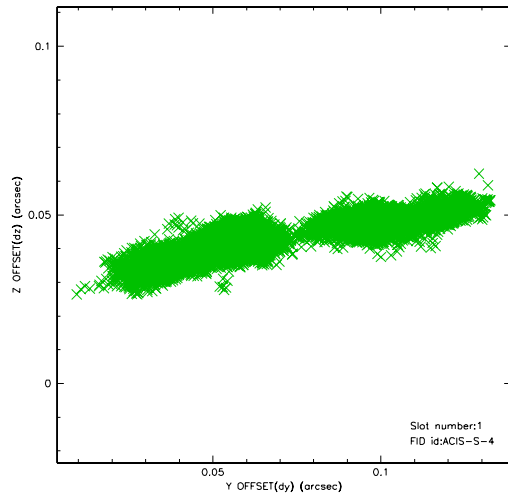


2.5 FID Slots

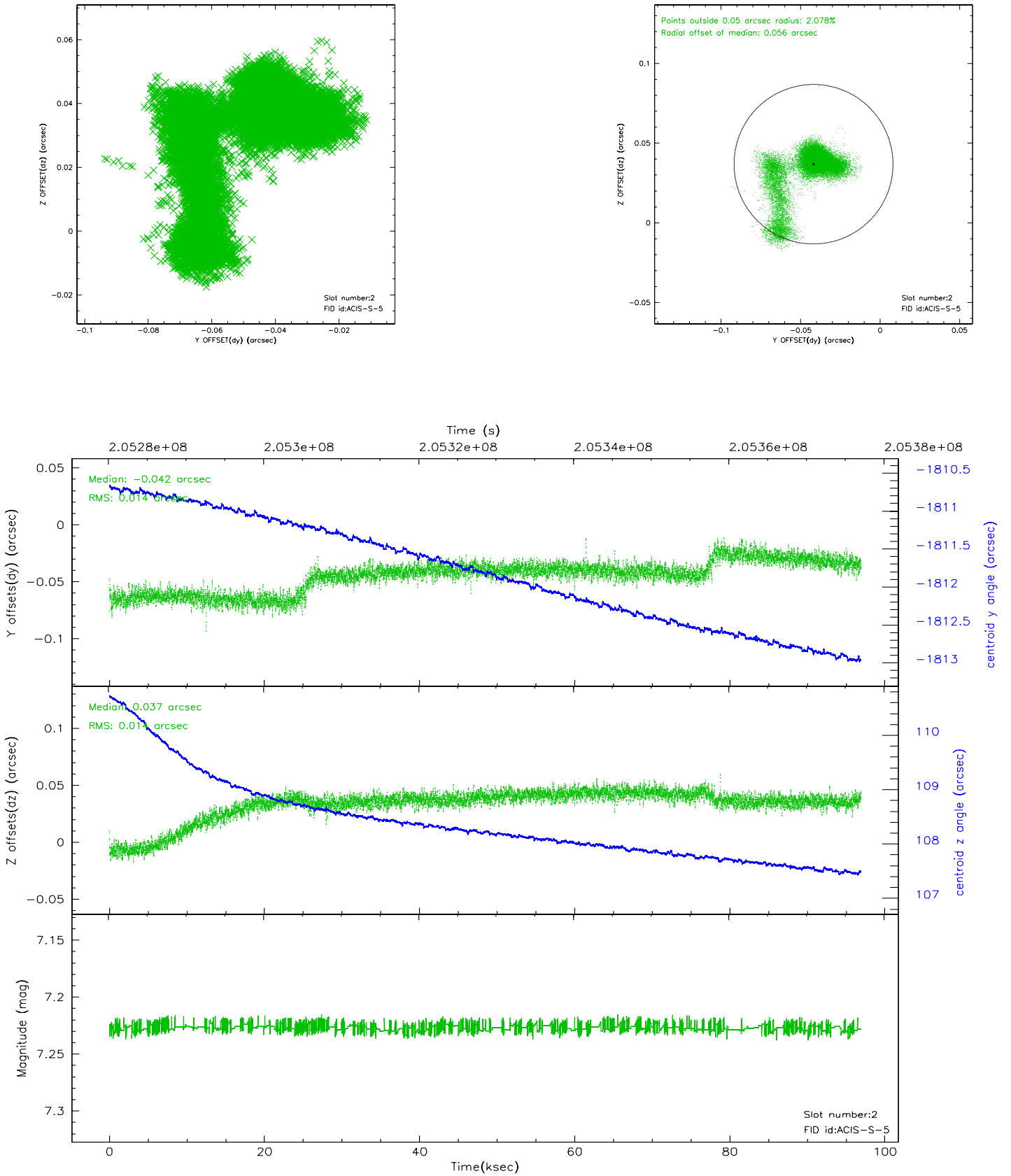
2.5.1 Slot 0



2.5.2 Slot 1

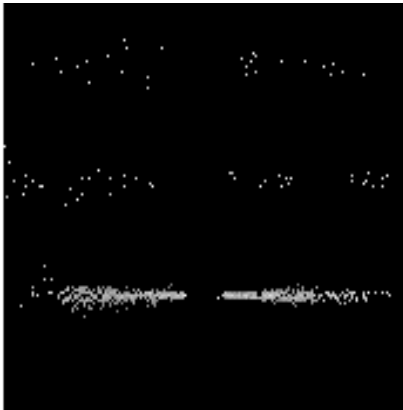


2.5.3 Slot 2

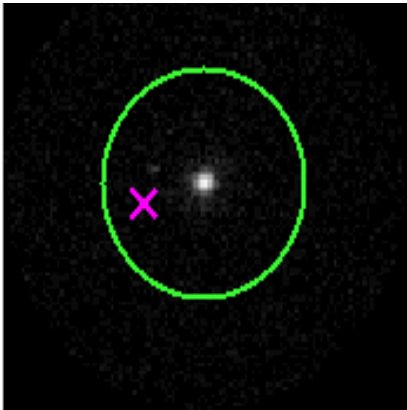


3 Gratings

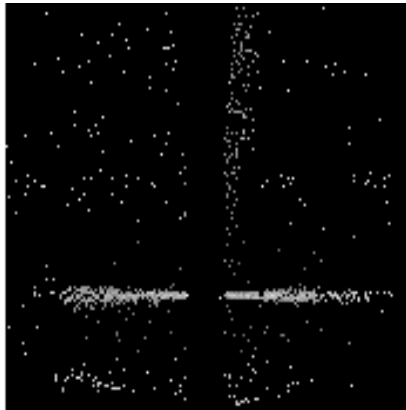
3.1 HEG Arm



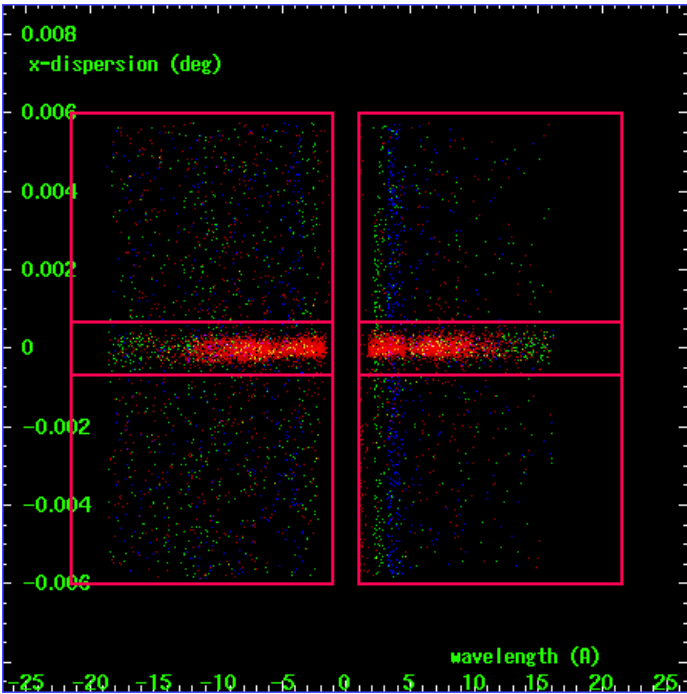
HEG Order Sort 123



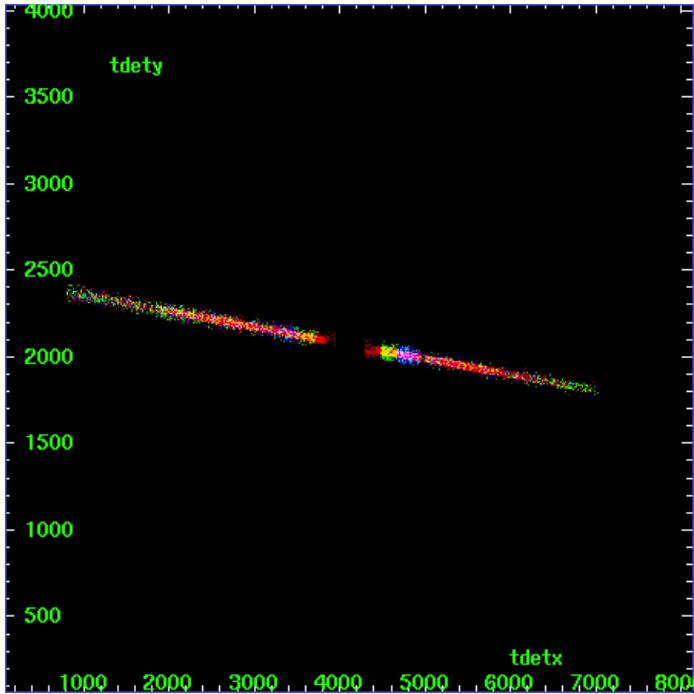
HEG Zero Order



HEG Order Sort ALL

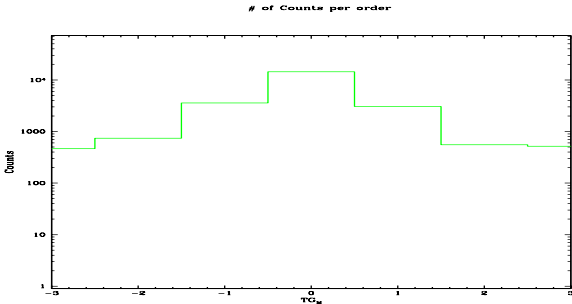


Spot Image HEG

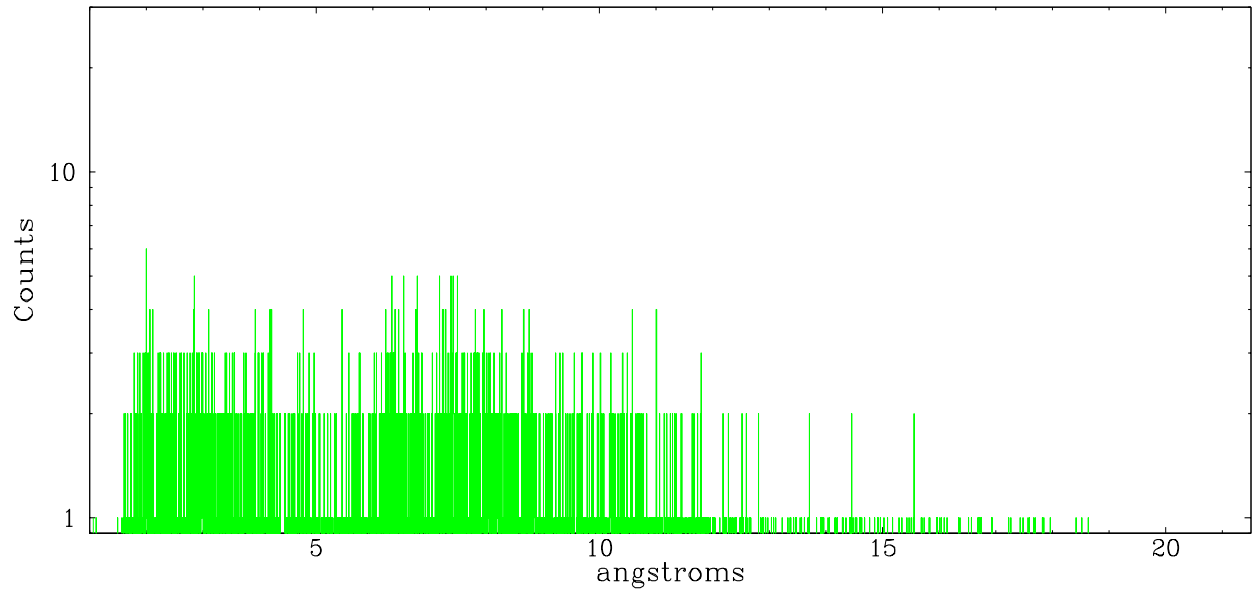


Full Detector HEG

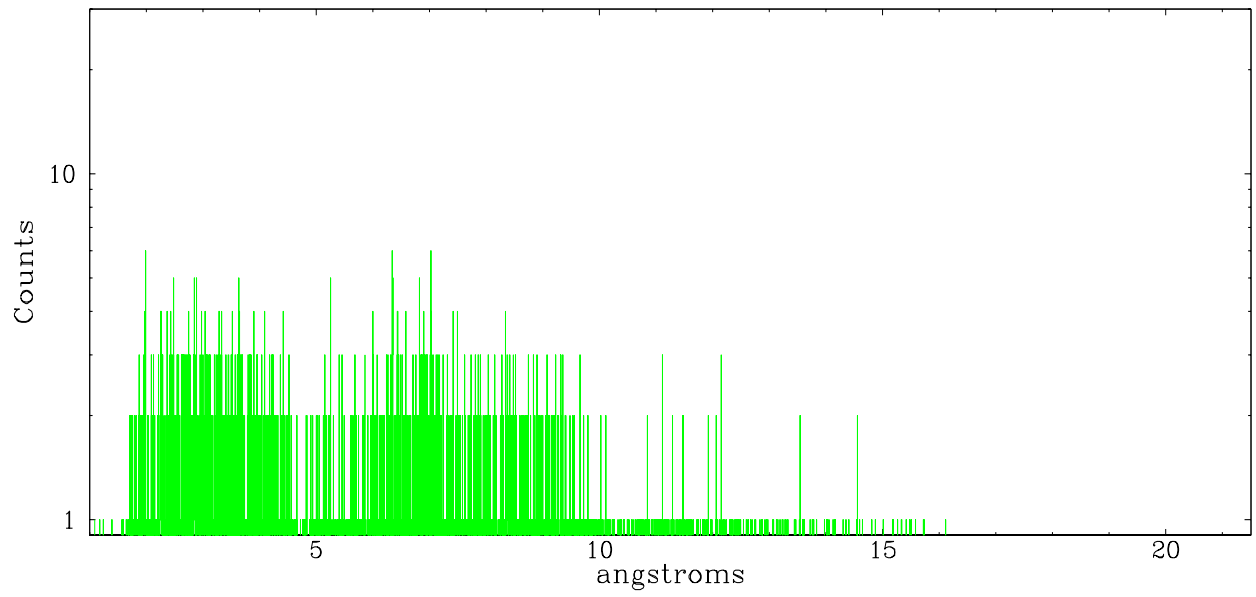
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	466	738	3581	14412	3049	551	516



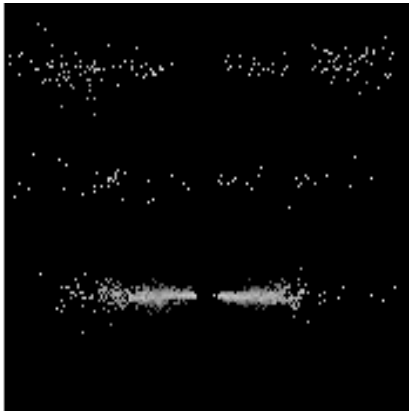
heg order -1



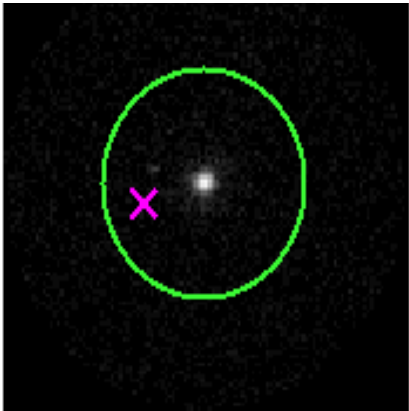
heg order +1



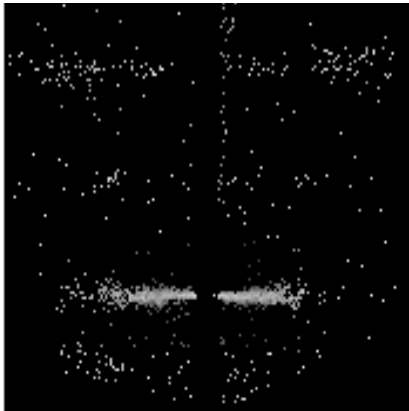
3.2 MEG Arm



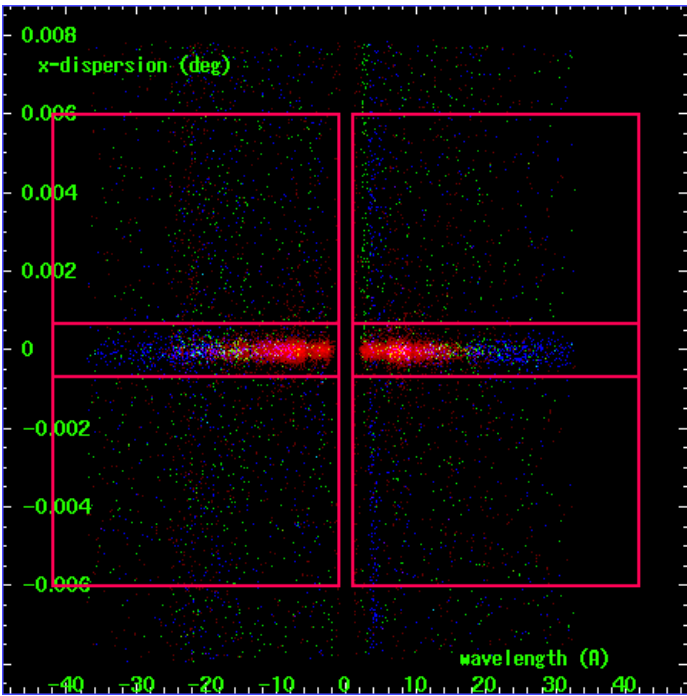
MEG Order Sort 123



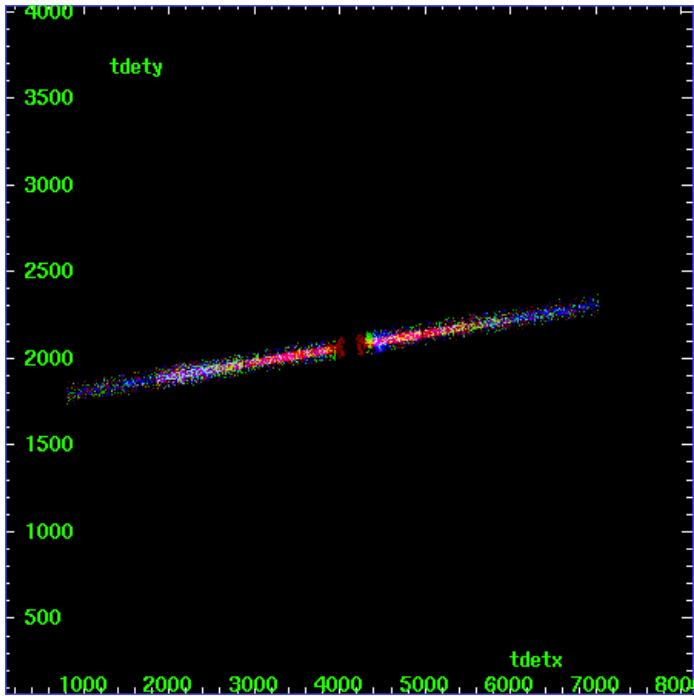
MEG Zero Order



MEG Order Sort ALL

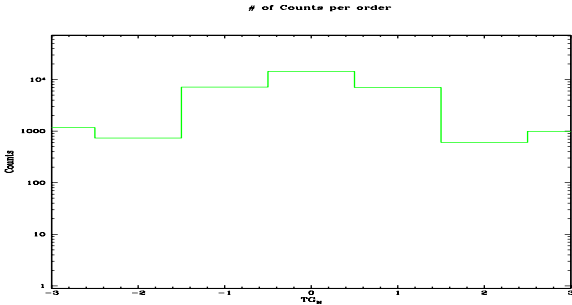


Spot Image MEG

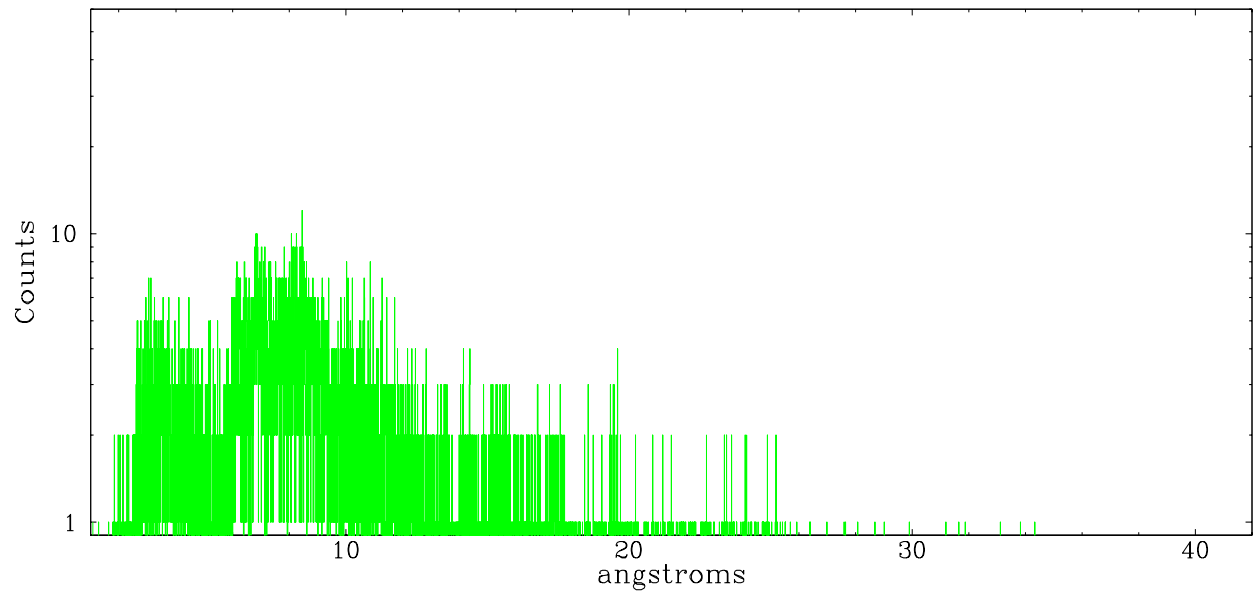


Full Detector MEG

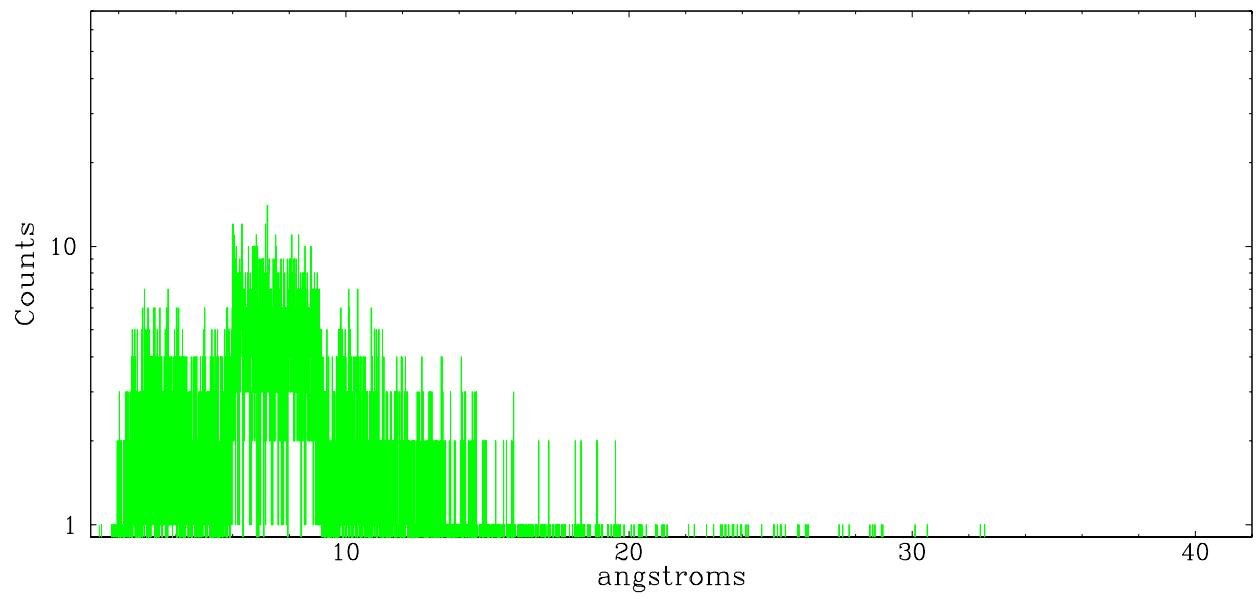
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1166	735	7110	14412	7012	604	988



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.05.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	96.79

A.2 Comments

Window constraint met.