

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 1600 - L2 Version 001
Chandra X-Ray Center

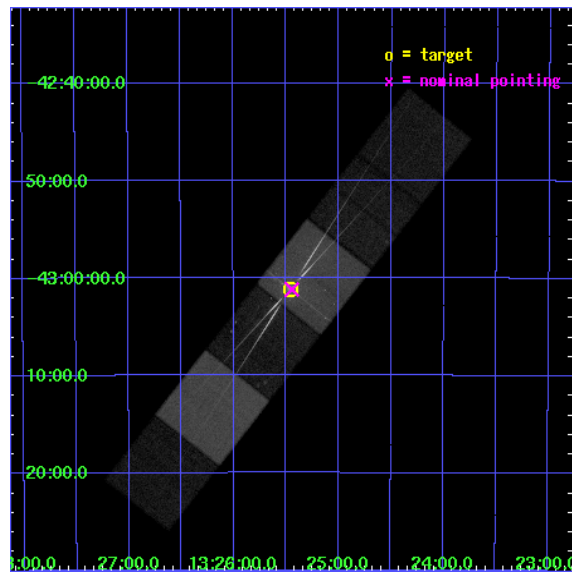
L2 Processing Date : Dec 8 2006

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

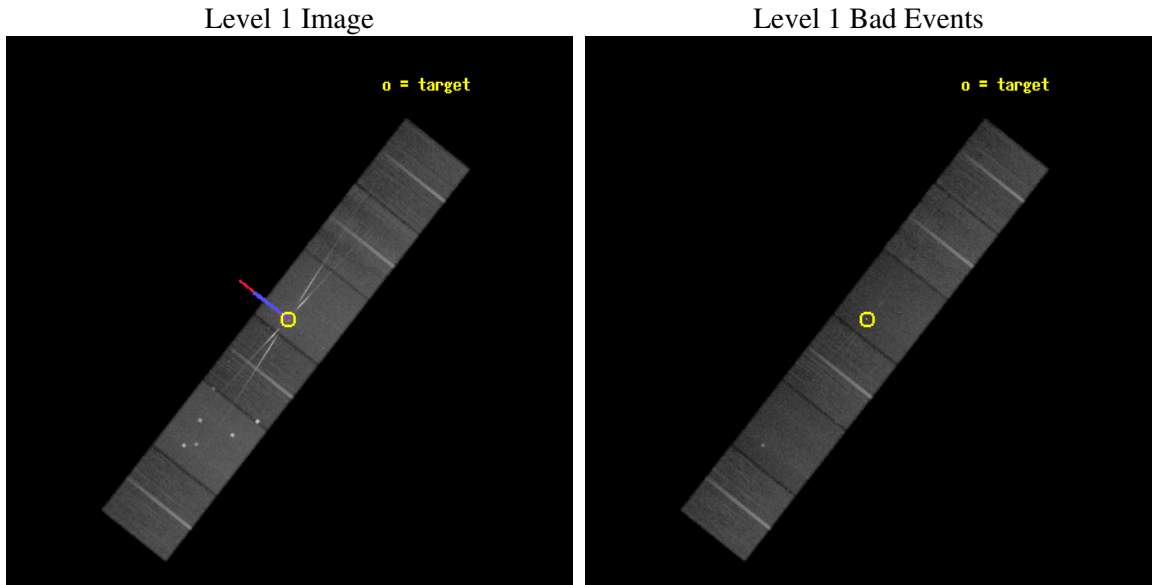
seq_num	700216
obs_id	1600
title	A HIGH RESOLUTION X-RAY SPECTRUM OF THE NUCLEUS OF CENTAURUS A
observer	Dr. Stephen Murray
object	CENTAURUS A
dtcycle	0
cycle	P
ra_targ	201.364167
dec_targ	-43.019722
ra_nom	201.36116223323
dec_nom	-43.019690787502
roll_nom	308.15457852794
revision	2
ontime	47446.400044188
livetime	46845.605158036
ontime4	47436.677143455
ontime5	47446.400044188
ontime6	47443.159054026
ontime7	47446.400044188
ontime8	47446.400044188
ontime9	47446.400044188
l2events	559996



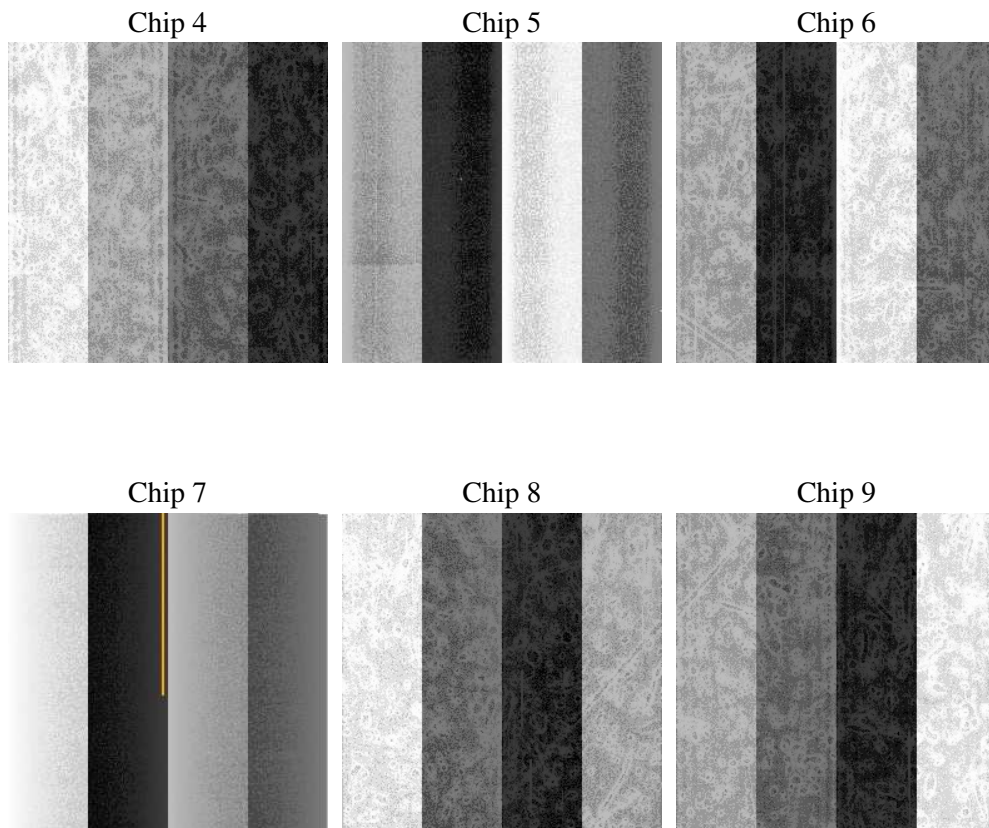
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.4
date	2006-11-29T23:25:34
revision	2

sched_exp_time	47500.000000
ontime	47451.510582373
ontime4	47441.787661716
ontime5	47451.510582373
ontime6	47448.269592211
ontime7	47451.510582373
ontime8	47451.51056245
ontime9	47451.510582373
l1events	2311111

2.1.4 Events

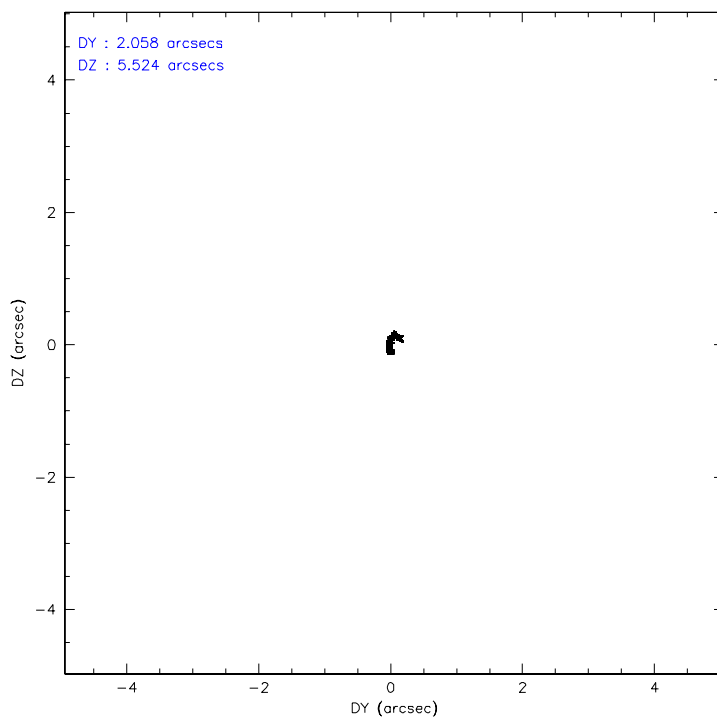
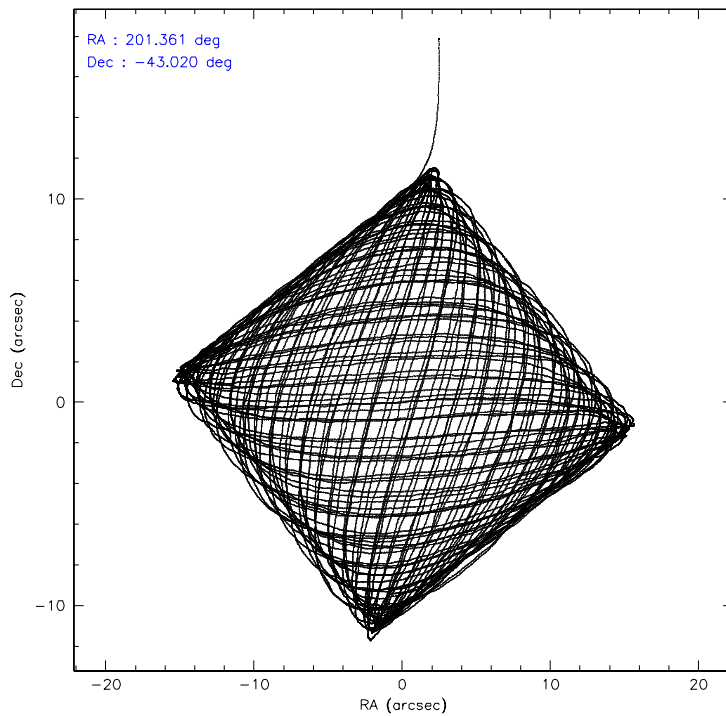
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	338448	442543	369483	464017	387717	308903
rejected events	301935	239087	278256	245359	306208	272718
rejected %	89%	54%	75%	52%	78%	88%

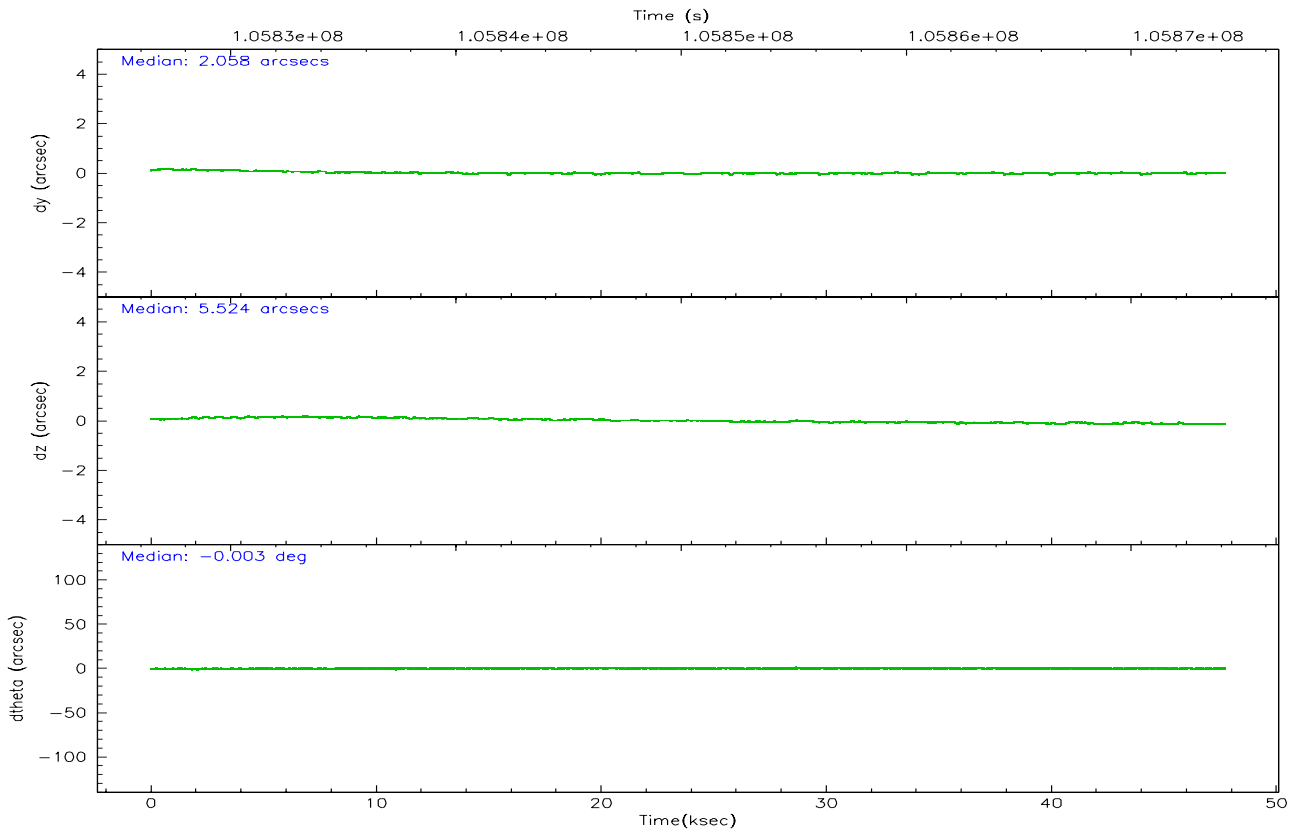
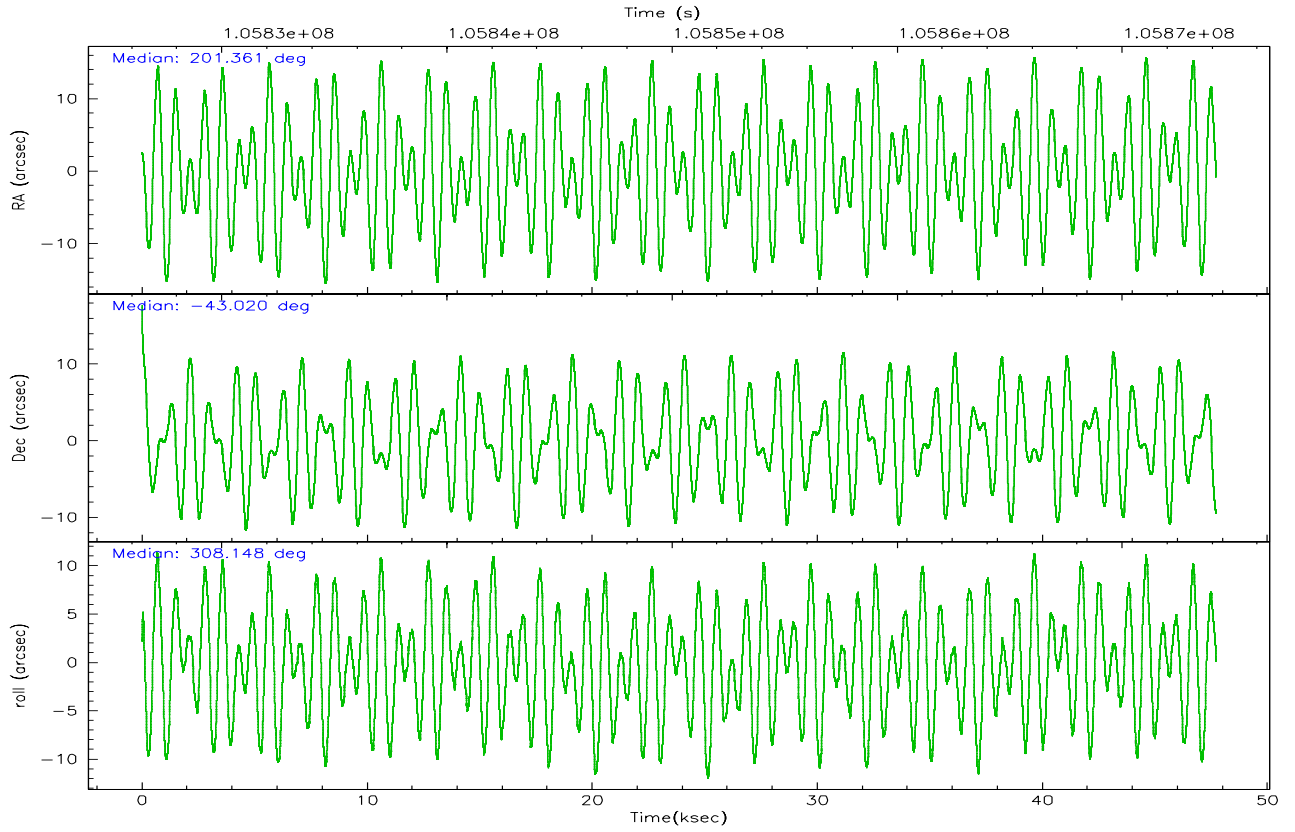
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	15122	28499	55366	21562	27978	14754
	4%	6%	14%	4%	7%	4%
grade 1 events	158	475	375	510	228	123
	0%	0%	0%	0%	0%	0%
grade 2 events	8559	60318	13476	55133	17039	7401
	2%	13%	3%	11%	4%	2%
grade 3 events	3357	4467	5857	14627	8541	3556
	0%	1%	1%	3%	2%	1%
grade 4 events	3284	4083	5654	13790	7797	3440
	0%	0%	1%	2%	2%	1%
grade 5 events	10814	20490	13256	28040	16109	13151
	3%	4%	3%	6%	4%	4%
grade 6 events	6199	106107	10887	113574	20160	7040
	1%	23%	2%	24%	5%	2%
grade 7 events	290955	218104	264612	216781	289865	259438
	85%	49%	71%	46%	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	201.326370	201.3611622332335	Subarray requested	NONE	NONE
Pointing Dec	-43.009793	-43.01969078750199	Alternating exposures requested	N	N
Pointing Roll	307.974219	308.1545785279436	Primary exposure time	0.000000	3.2
Roll angle	307.000000	307.000000			
Roll tolerance	1.000000	1.000000			
Roll constraint allows 180D rotation	N	N			
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	105826678.184000	105825703.84362			
Observation start date	2001-05-09T20:16:54	2001-05-09T20:01:43			
Observation end time	105874178.184000	105875471.18306			
Observation end date	2001-05-10T09:28:34	2001-05-10T09:51:11			
Read mode	TIMED	TIMED			

2.3 Aspect



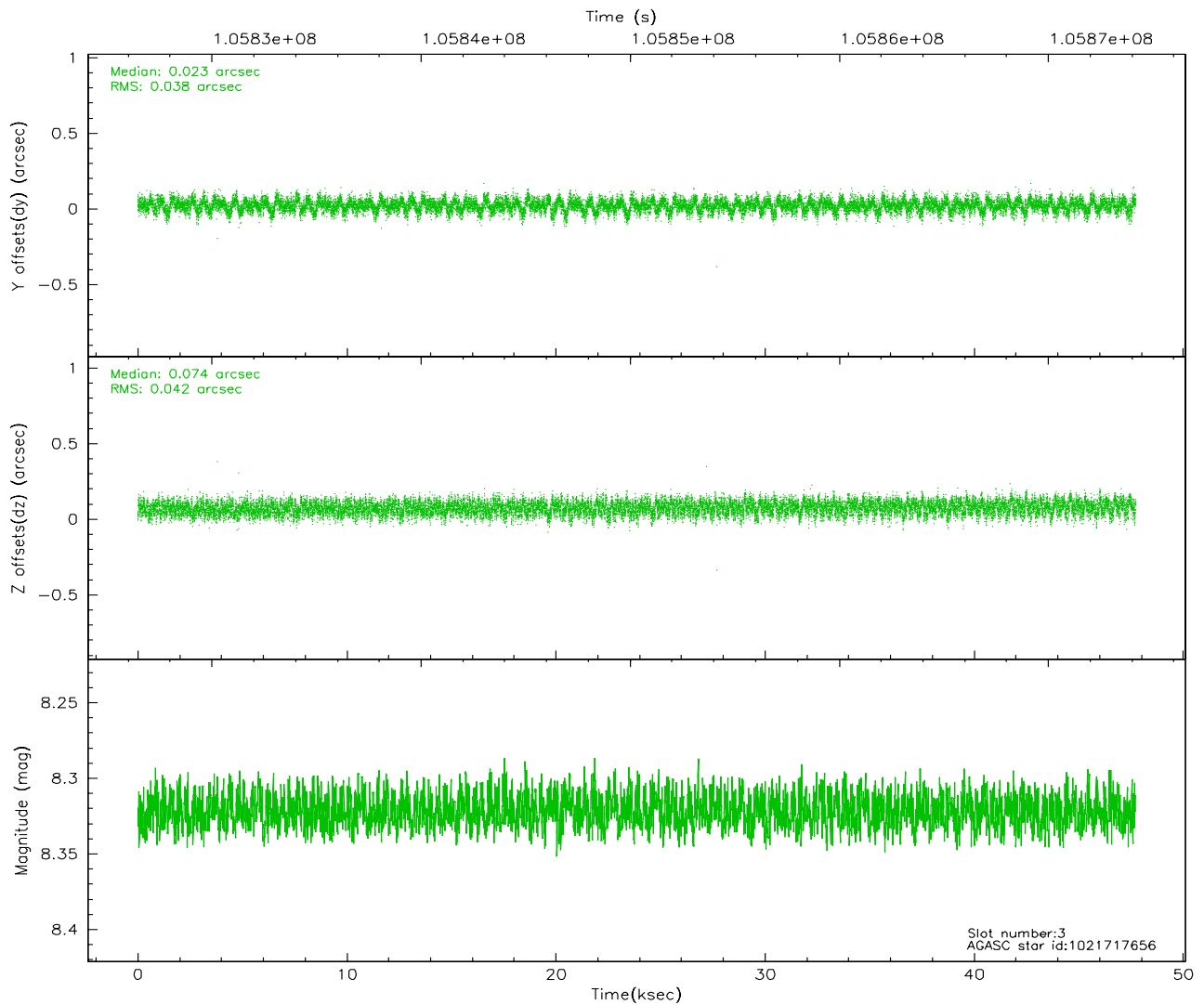
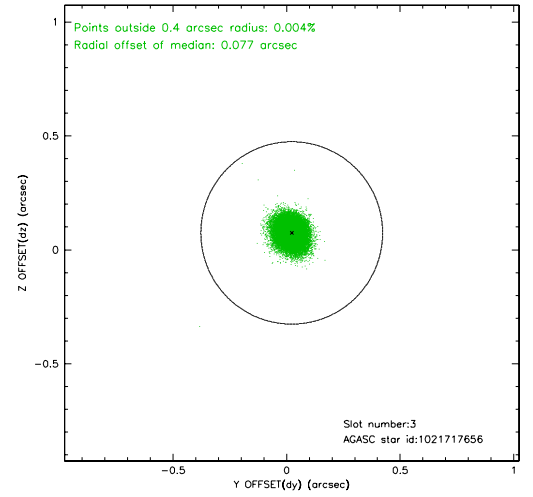
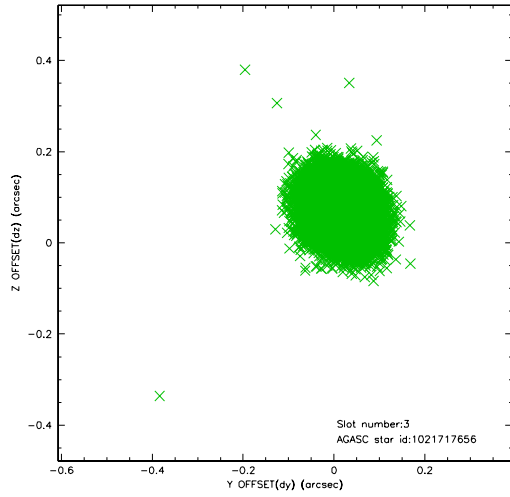


Slot Statistics

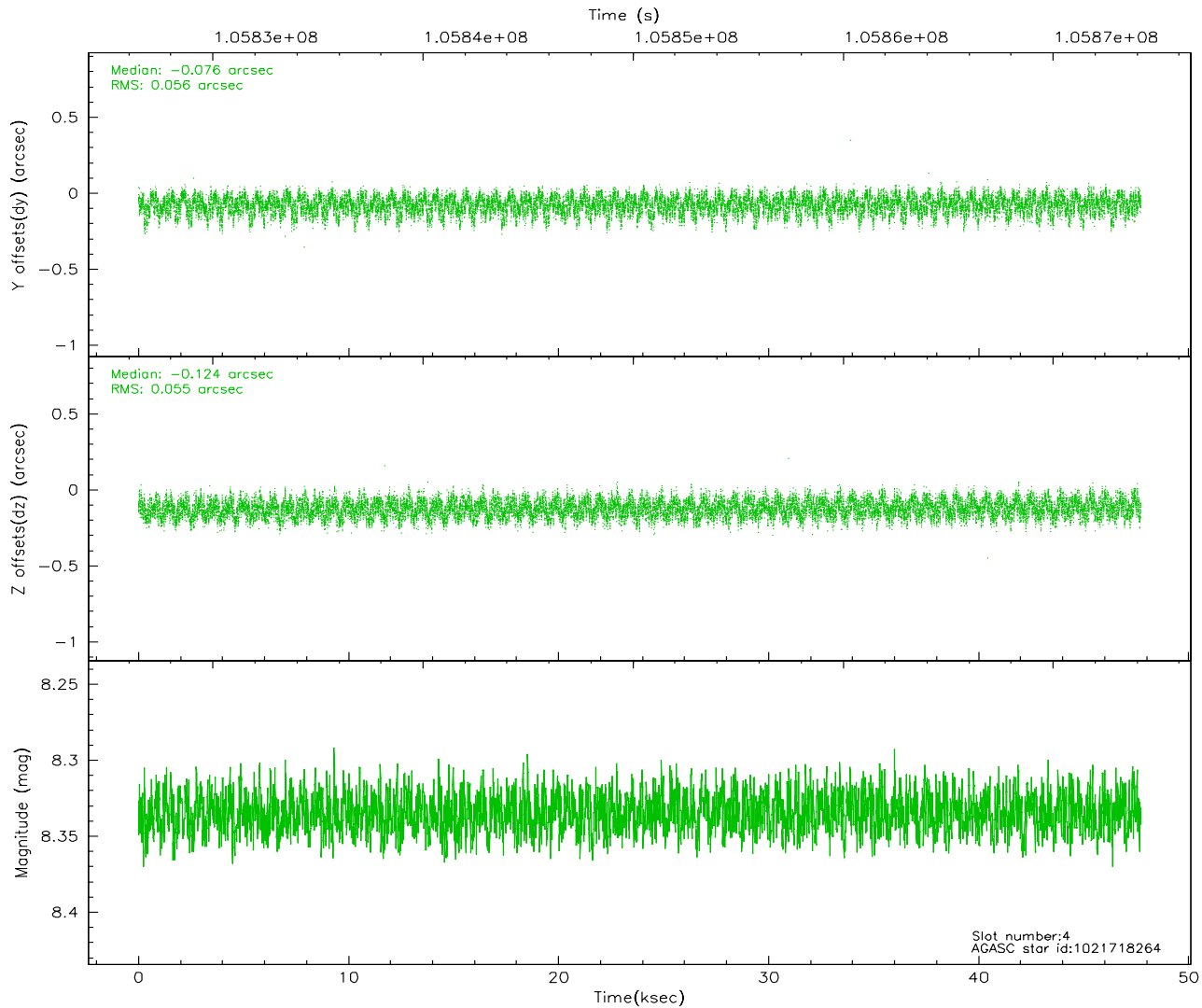
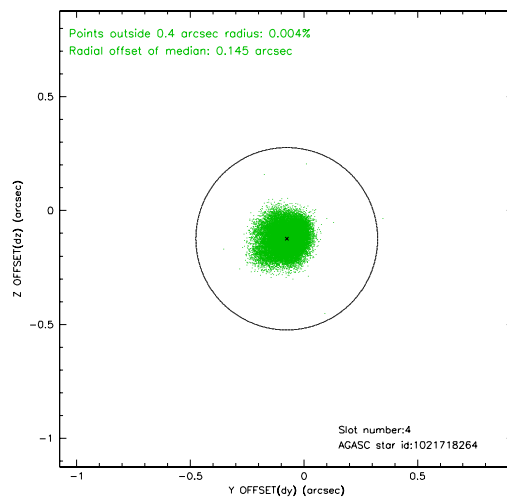
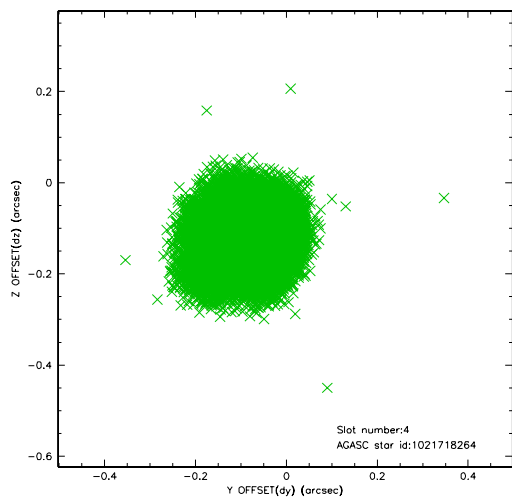
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	11640	-0.017	-0.031	0.007	0.011	0.000000	0.000000	-754.52	-1788.82
1	FID	ACIS-S-4	7.20	11639	-0.057	0.017	0.005	0.009	0.000000	0.000000	2158.74	119.67
2	FID	ACIS-S-5	7.23	11637	0.043	0.023	0.006	0.011	0.000000	0.000000	-1807.29	113.39
3	GUIDE	1021717656	8.32	23275	0.023	0.074	0.060	0.095	201.139642	-43.082878	-93.48	-548.02
4	GUIDE	1021718264	8.33	23273	-0.076	-0.124	0.085	0.132	202.114846	-42.795539	681.67	2111.56
5	GUIDE	1021721304	9.66	23260	-0.011	0.092	0.097	0.156	201.117326	-42.480412	-1842.63	735.87
6	GUIDE	1021716808	8.82	23276	0.047	-0.003	0.062	0.101	200.901189	-42.531395	-2048.76	169.75
7	GUIDE	1022231952	10.51	22913	0.020	-0.040	0.170	0.272	200.514966	-43.318830	-421.56	-2365.12

2.4 Star Slots

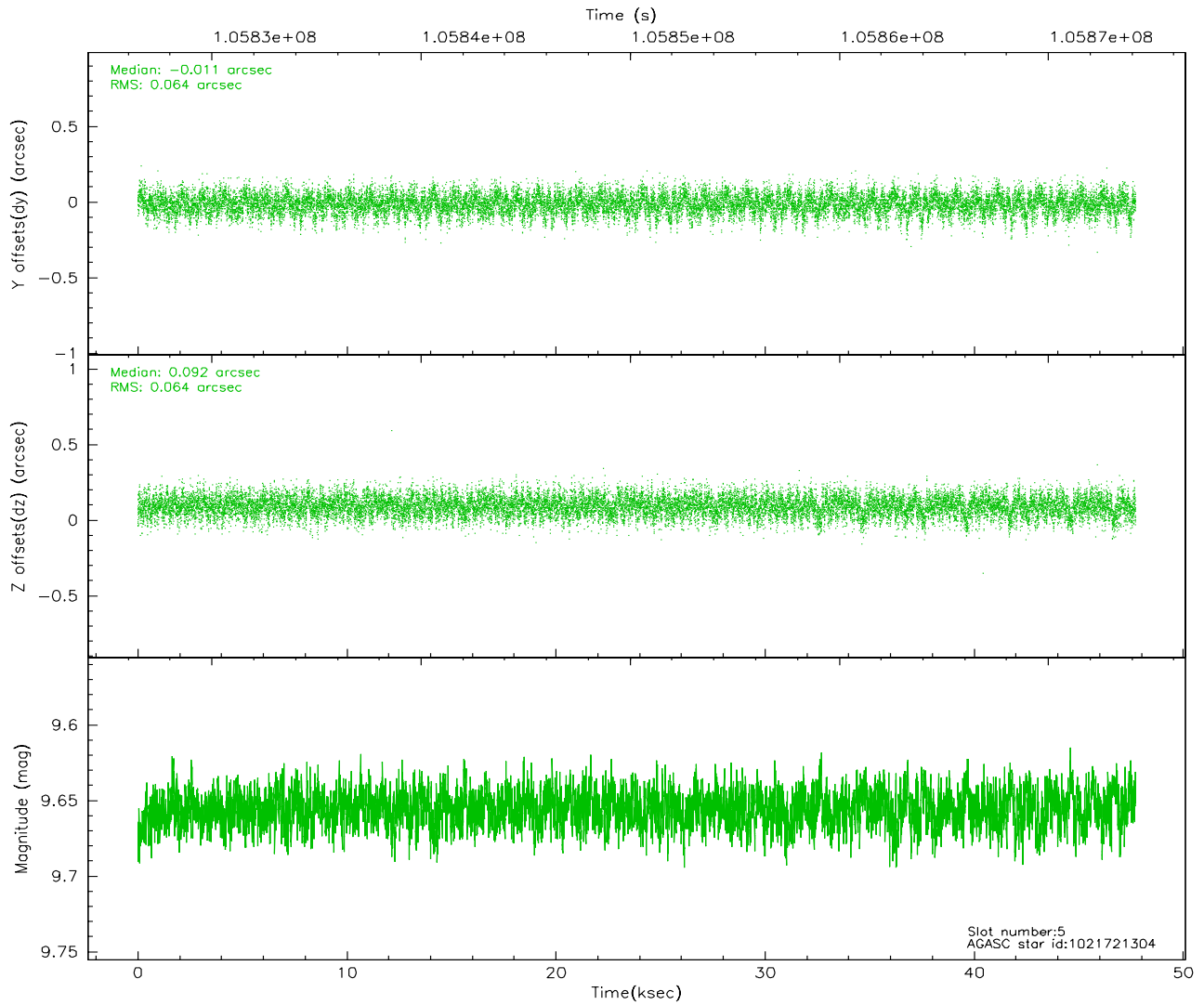
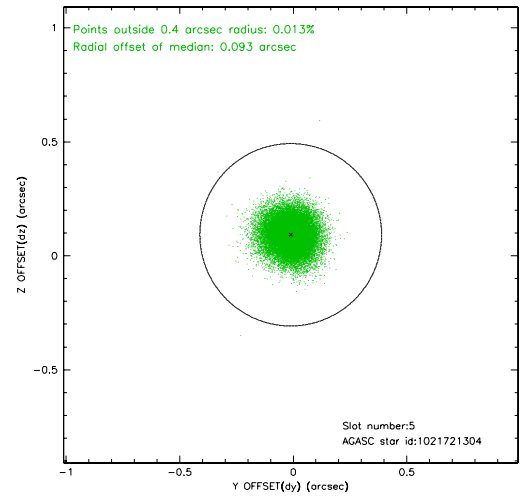
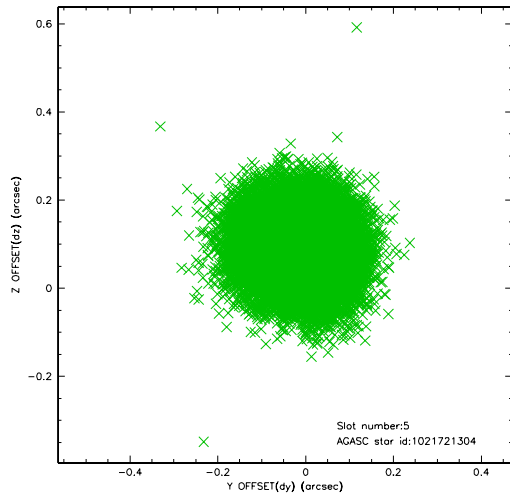
2.4.1 Slot 3



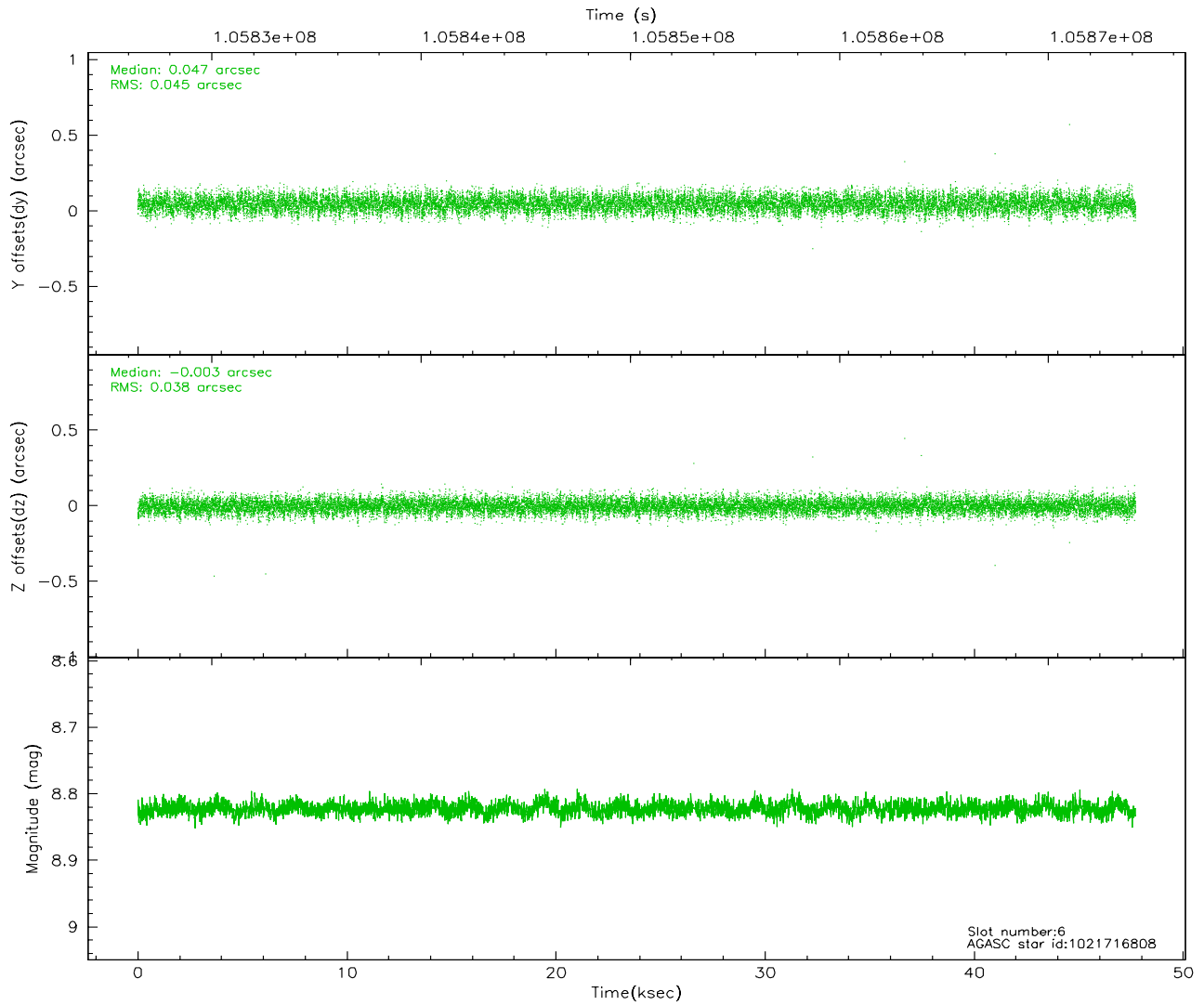
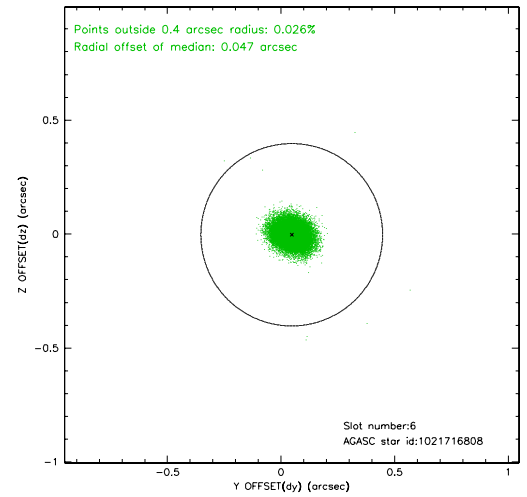
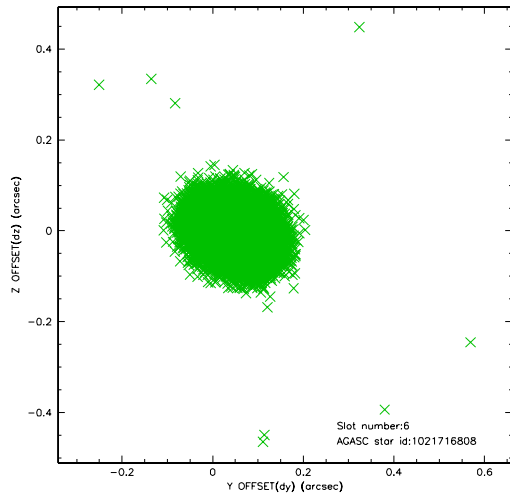
2.4.2 Slot 4



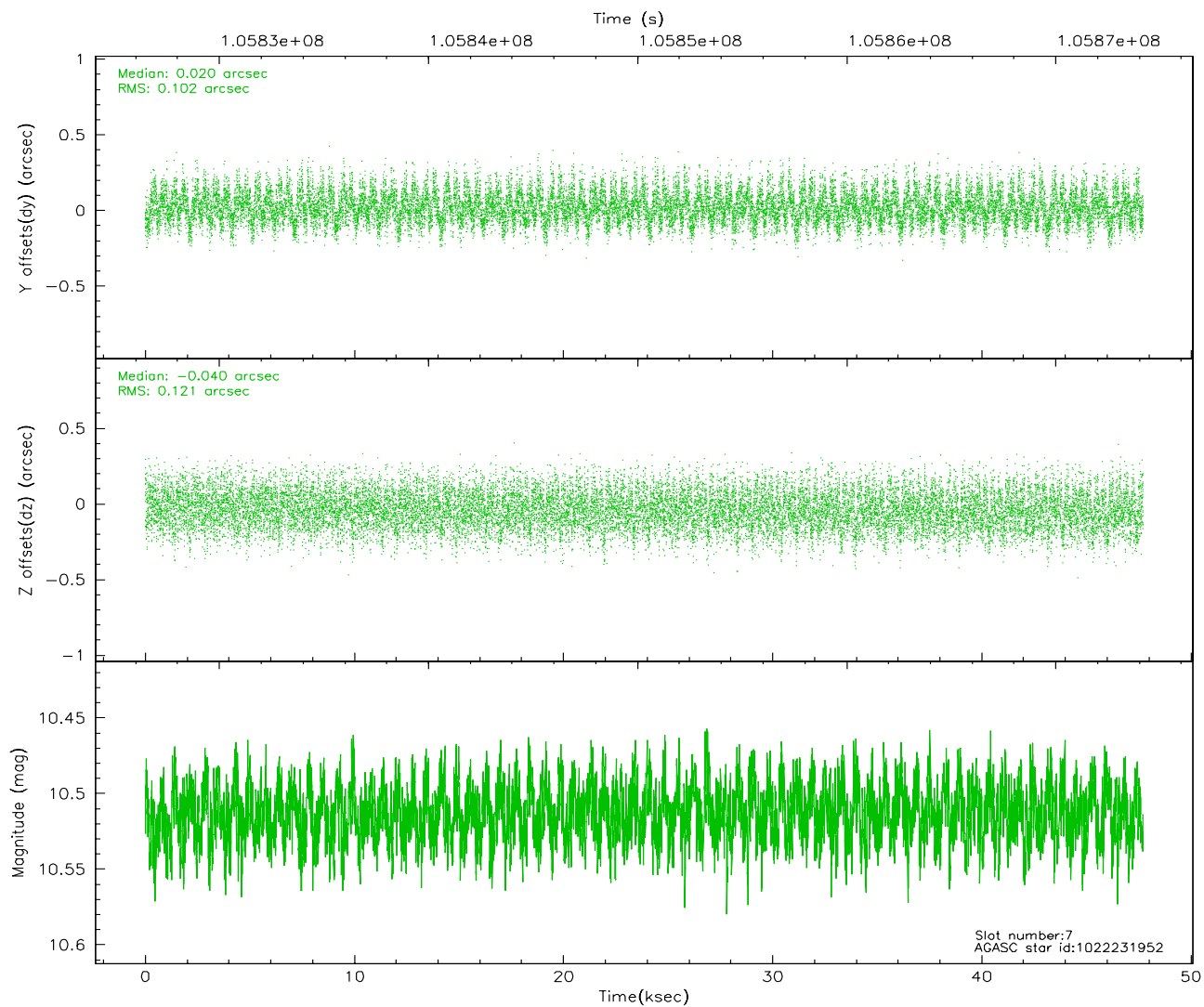
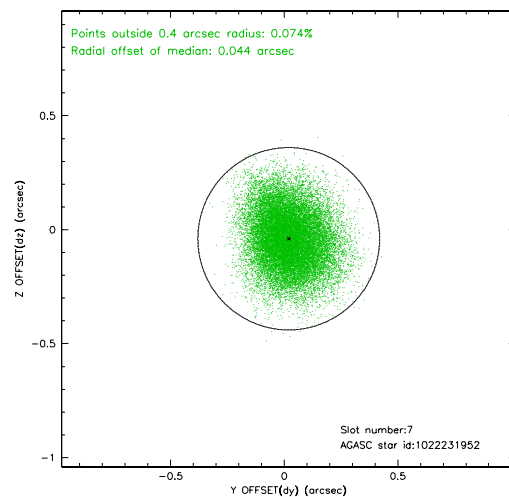
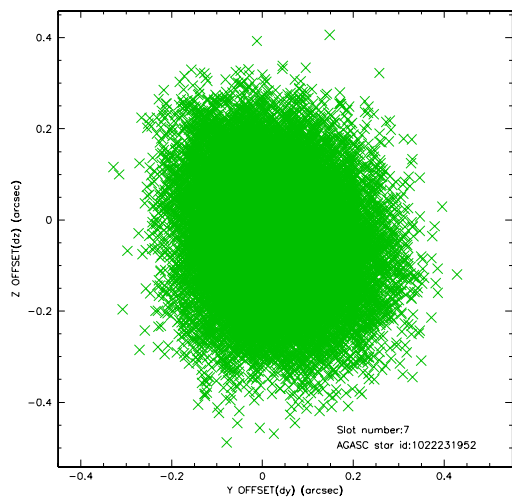
2.4.3 Slot 5



2.4.4 Slot 6

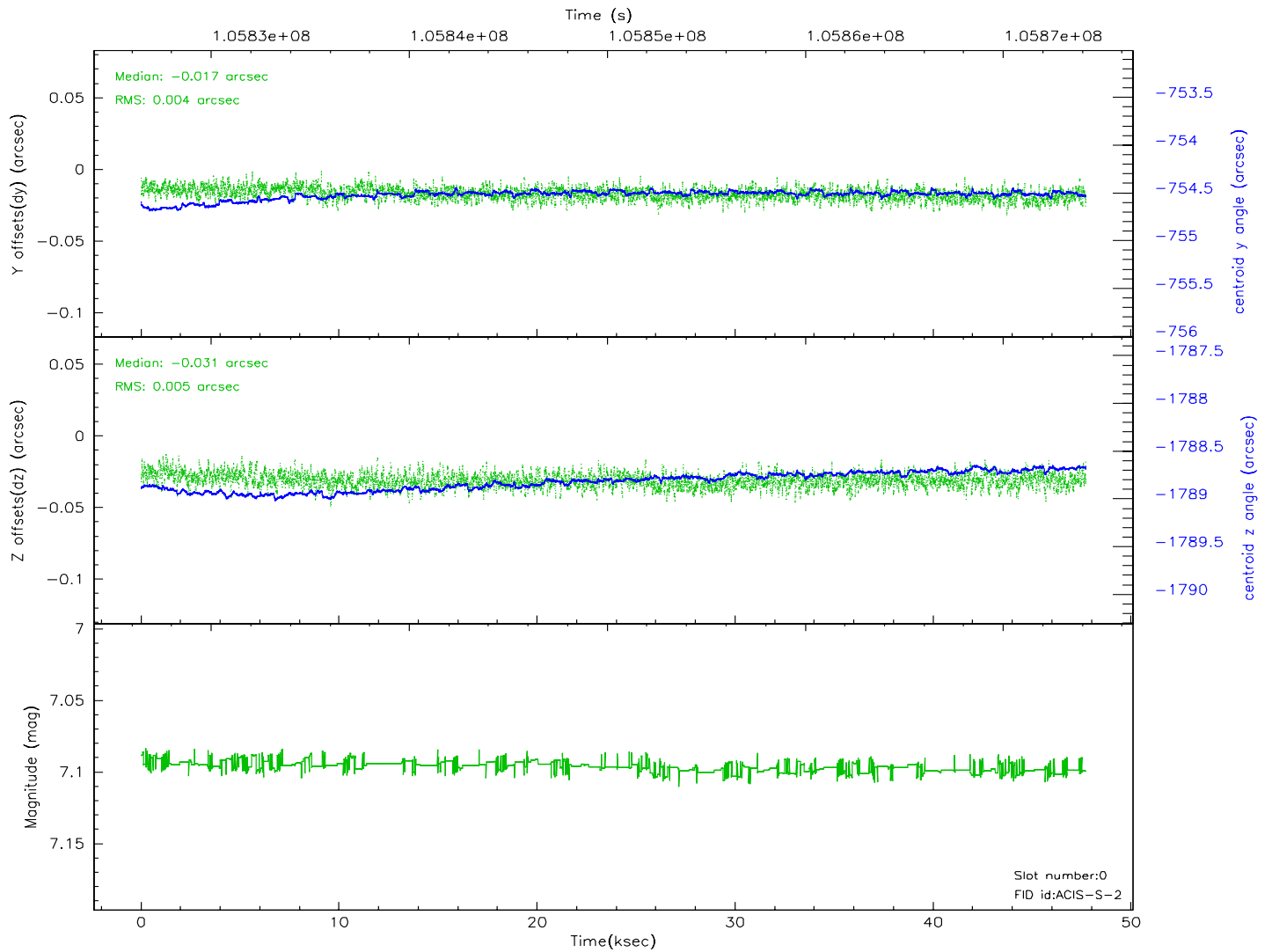
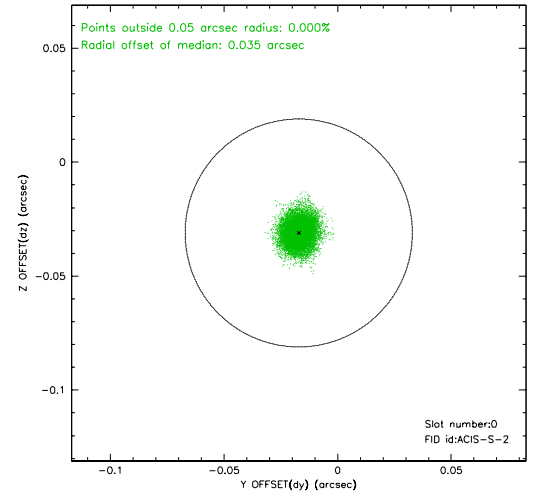
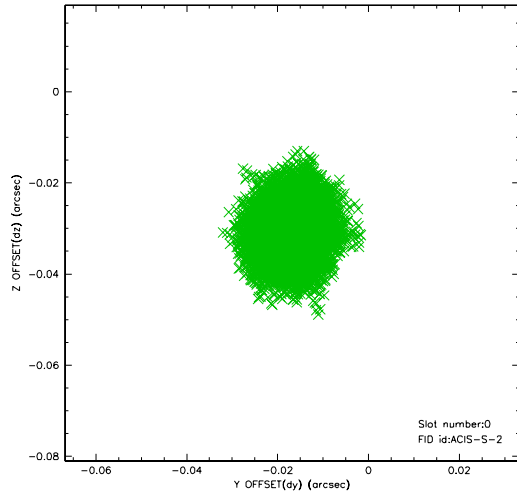


2.4.5 Slot 7

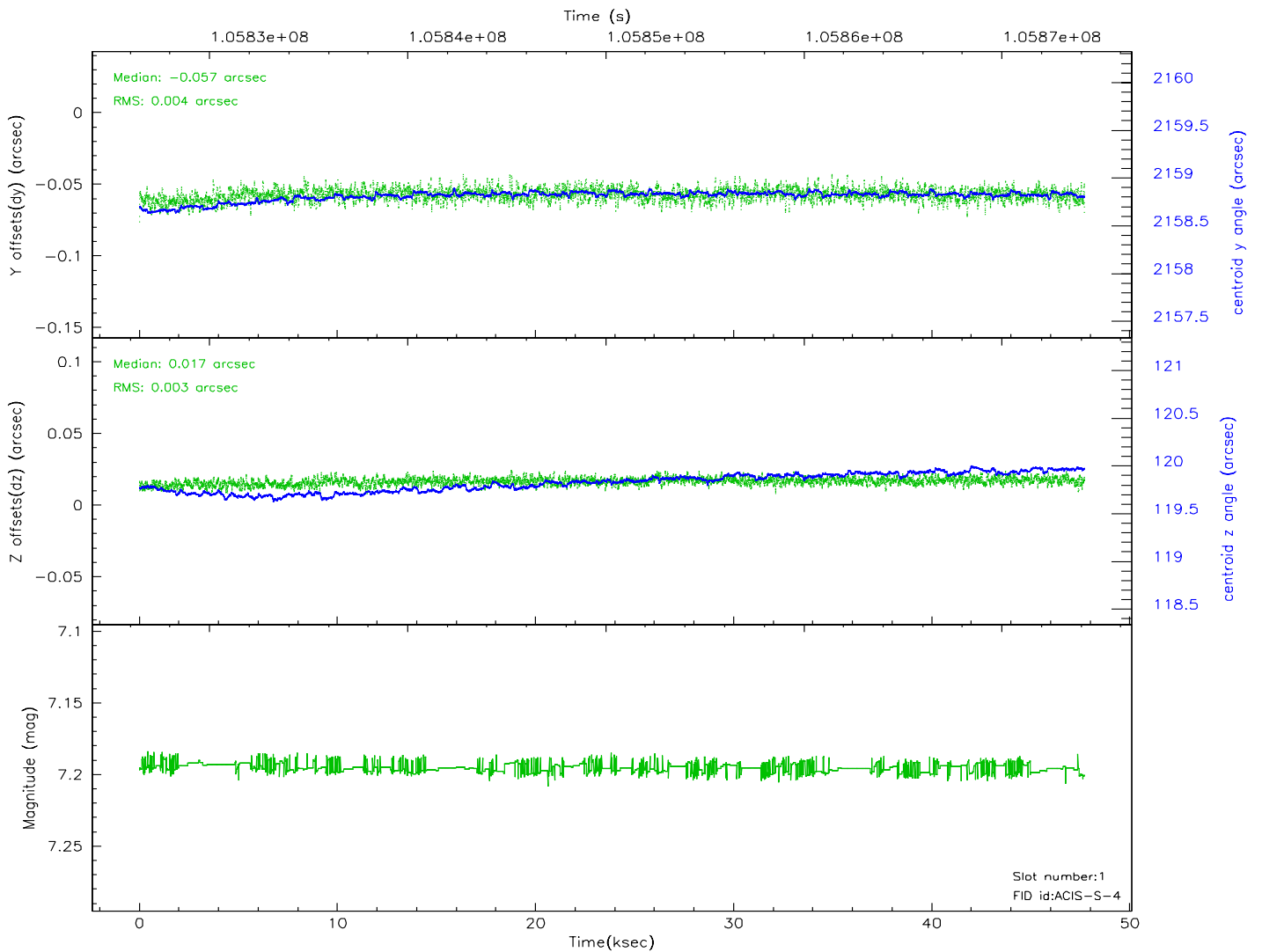
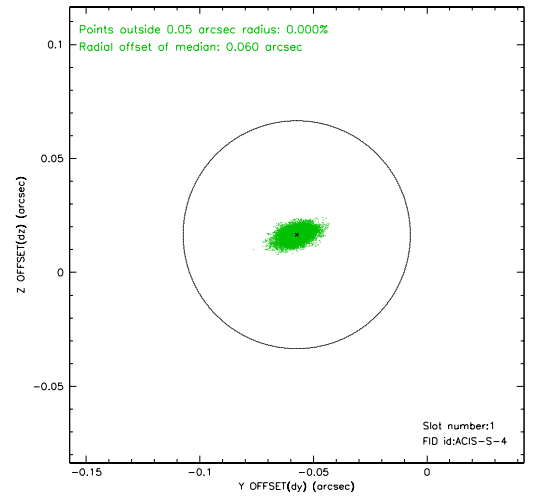
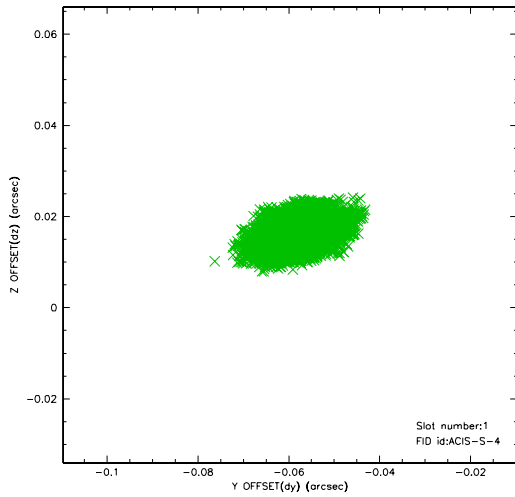


2.5 FID Slots

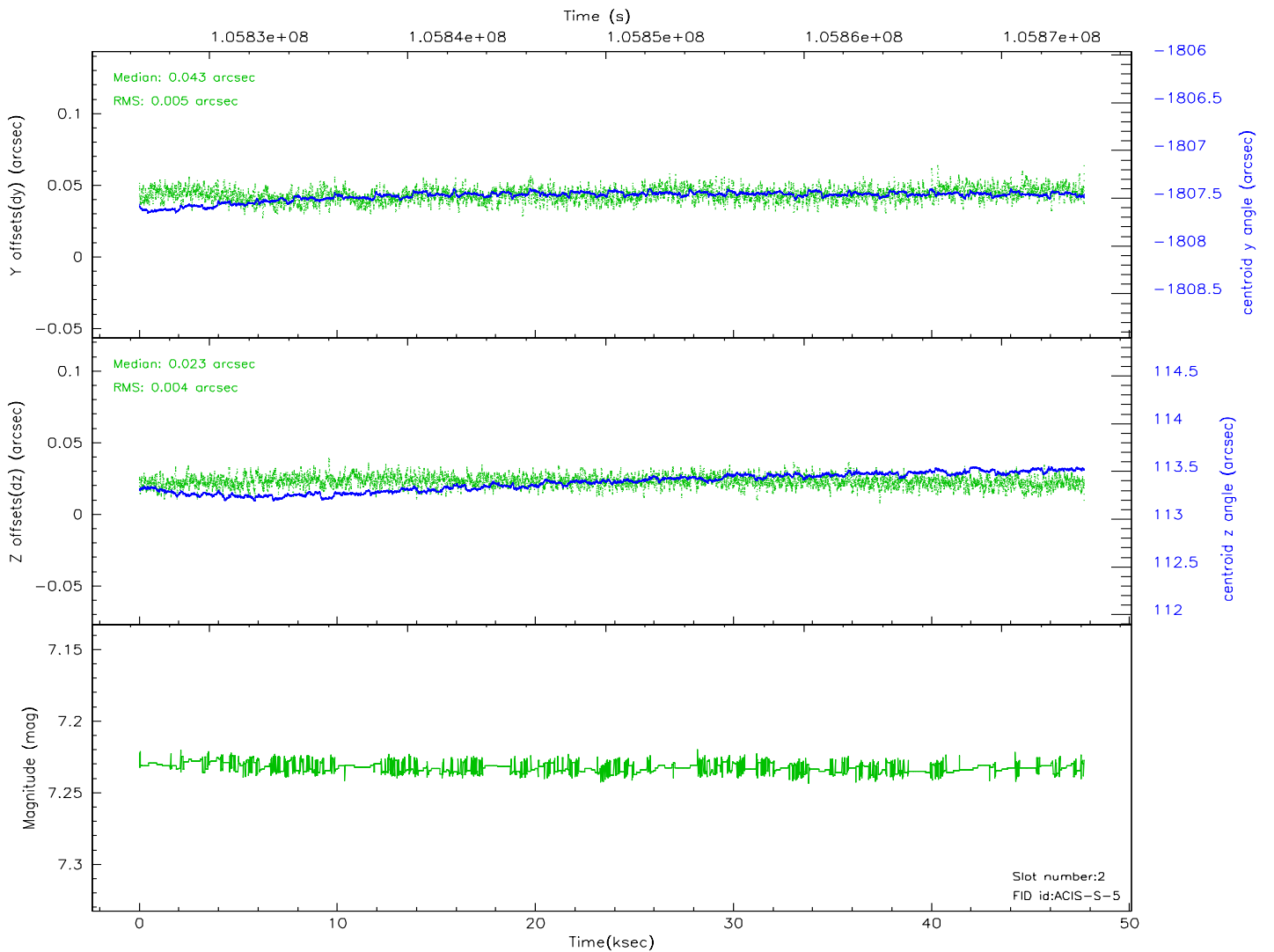
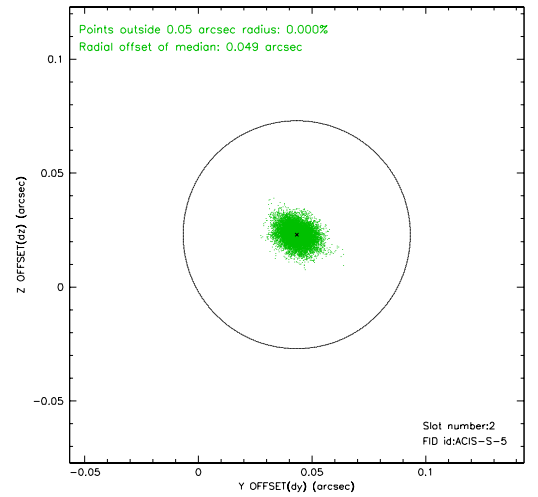
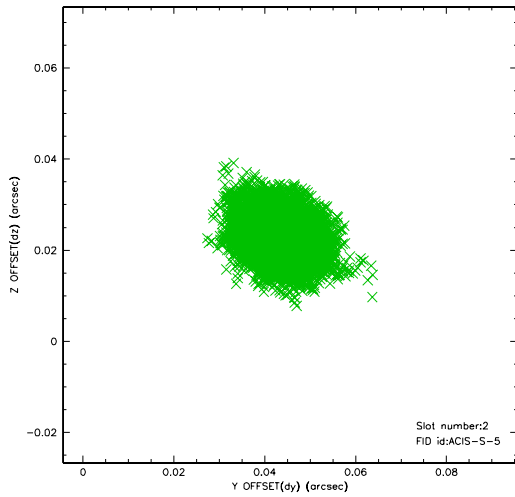
2.5.1 Slot 0



2.5.2 Slot 1

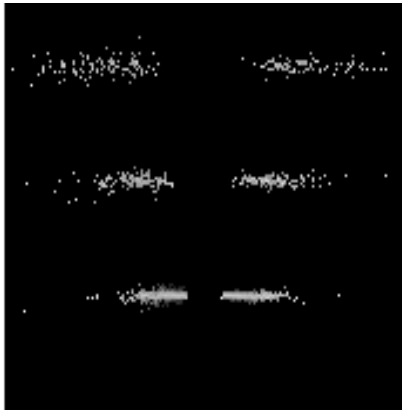


2.5.3 Slot 2

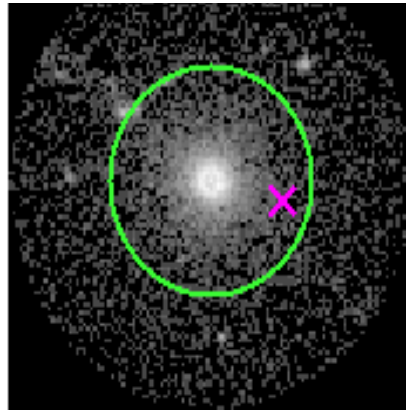


3 Gratings

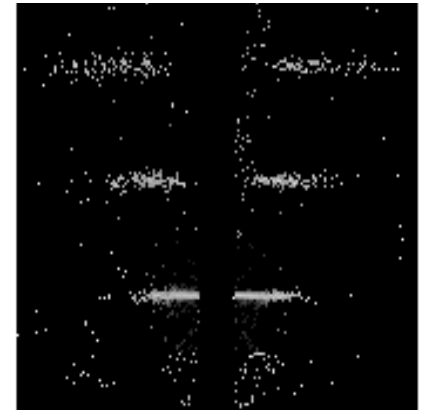
3.1 HEG Arm



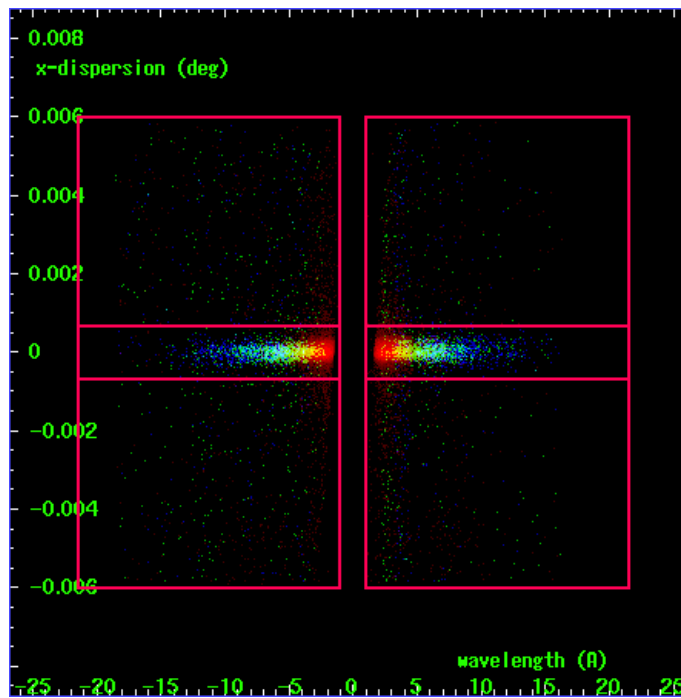
HEG Order Sort 123



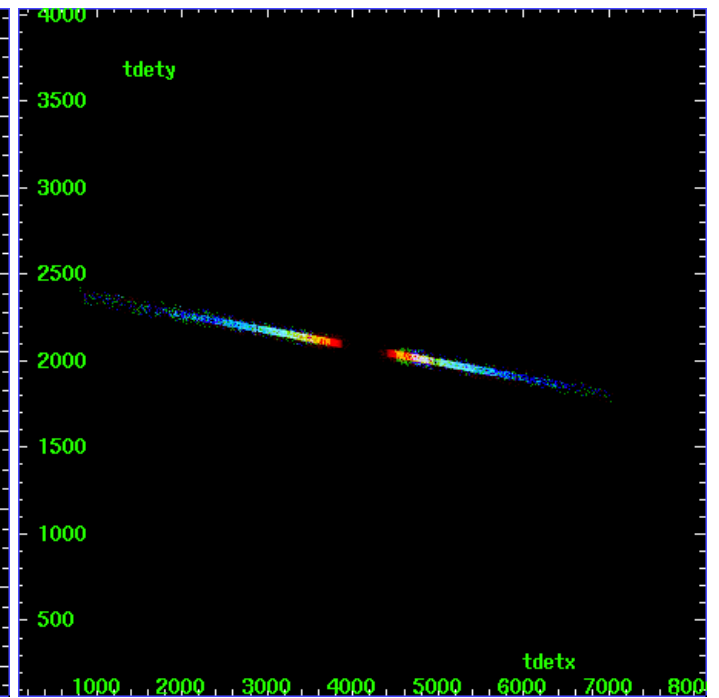
HEG Zero Order



HEG Order Sort ALL

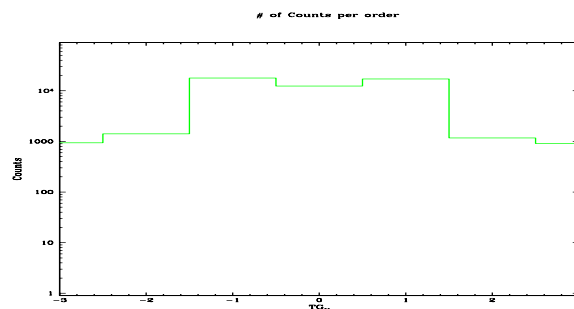


Spot Image HEG

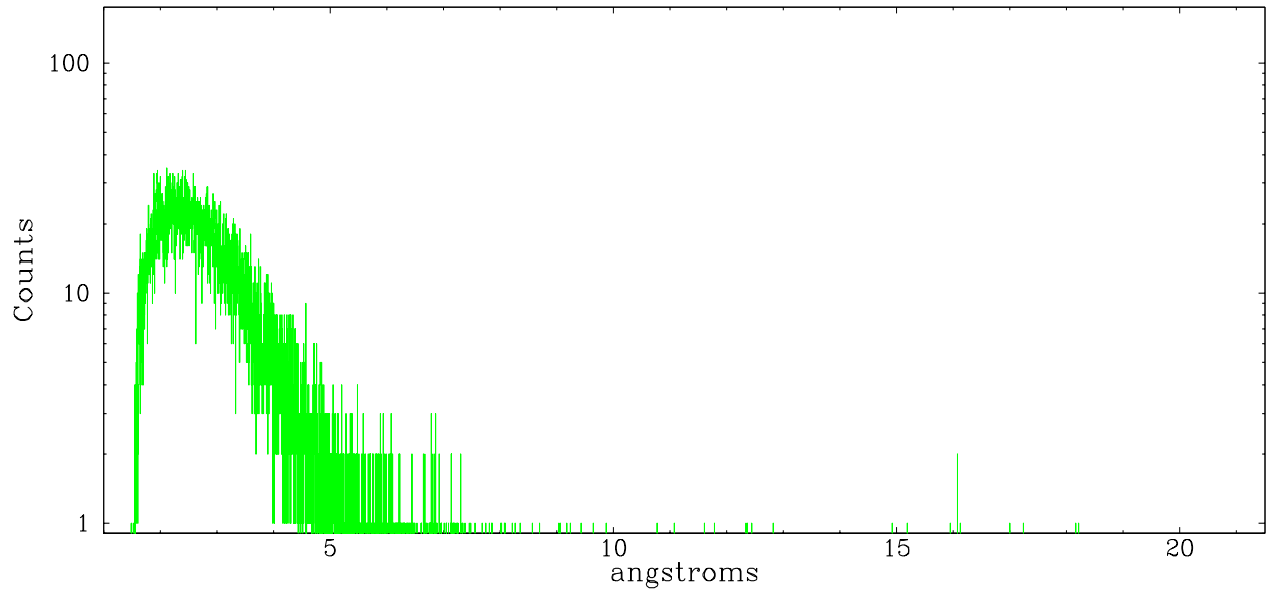


Full Detector HEG

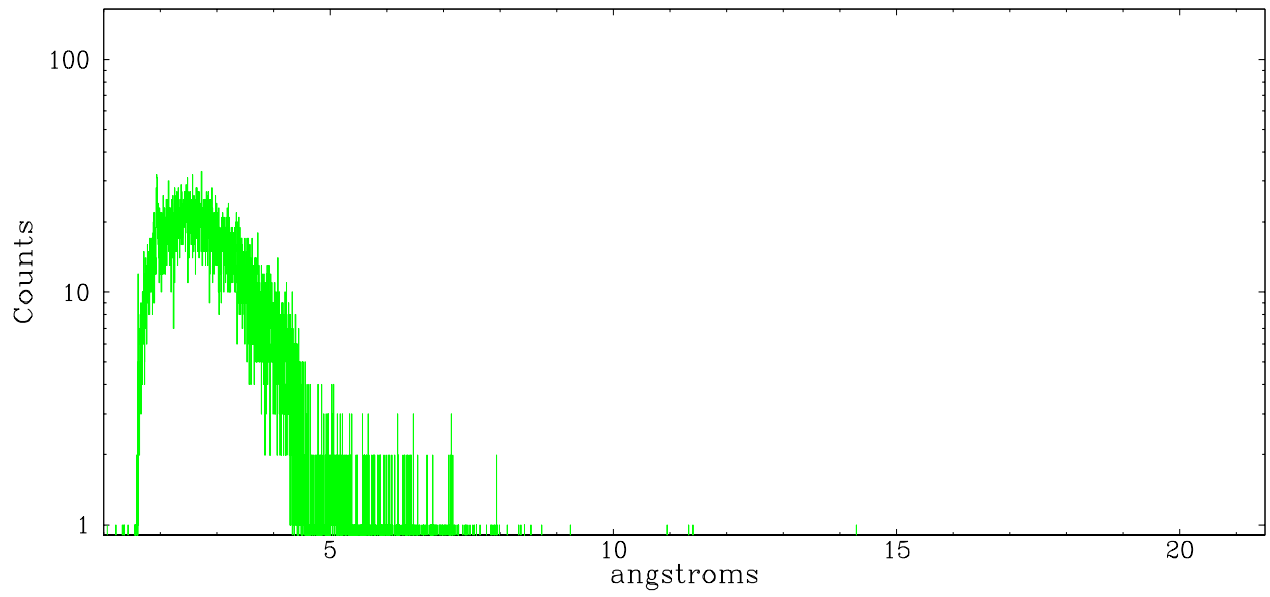
	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	938	1408	17840	12405	17091	1173	909



heg order -1



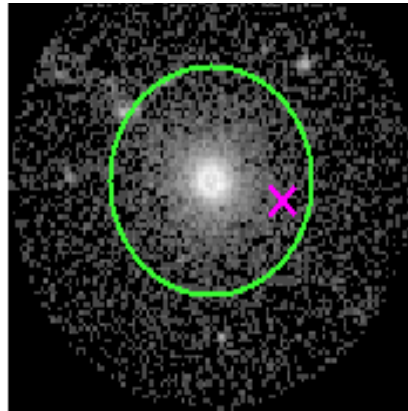
heg order +1



3.2 MEG Arm



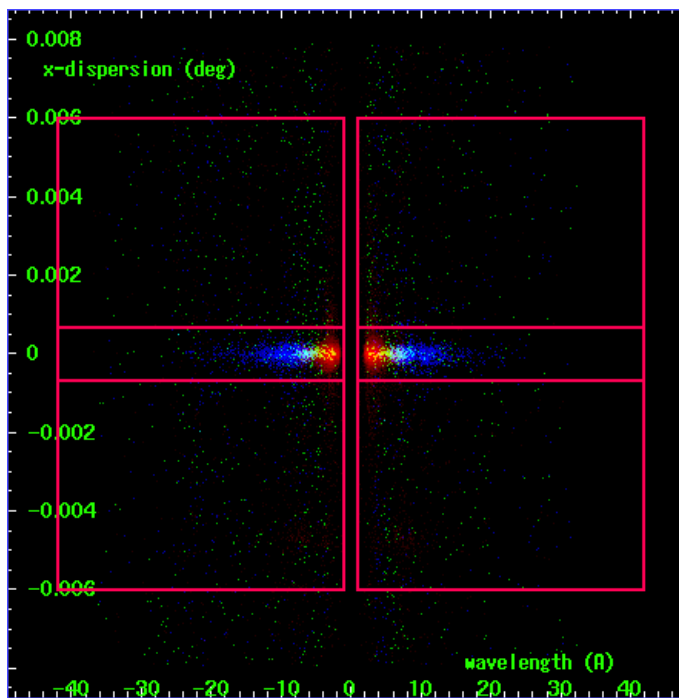
MEG Order Sort 123



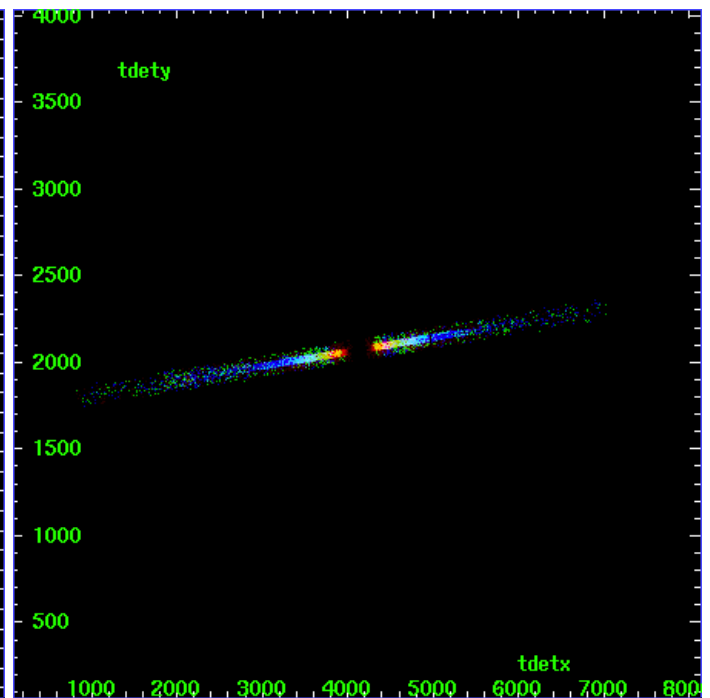
MEG Zero Order



MEG Order Sort ALL

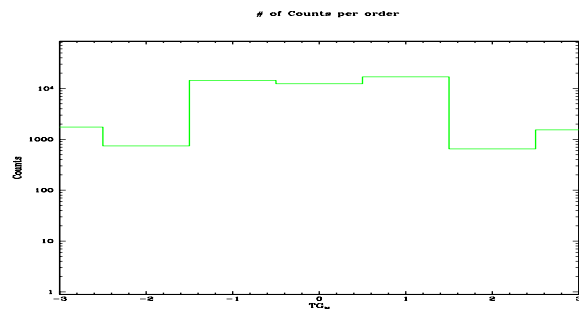


Spot Image MEG

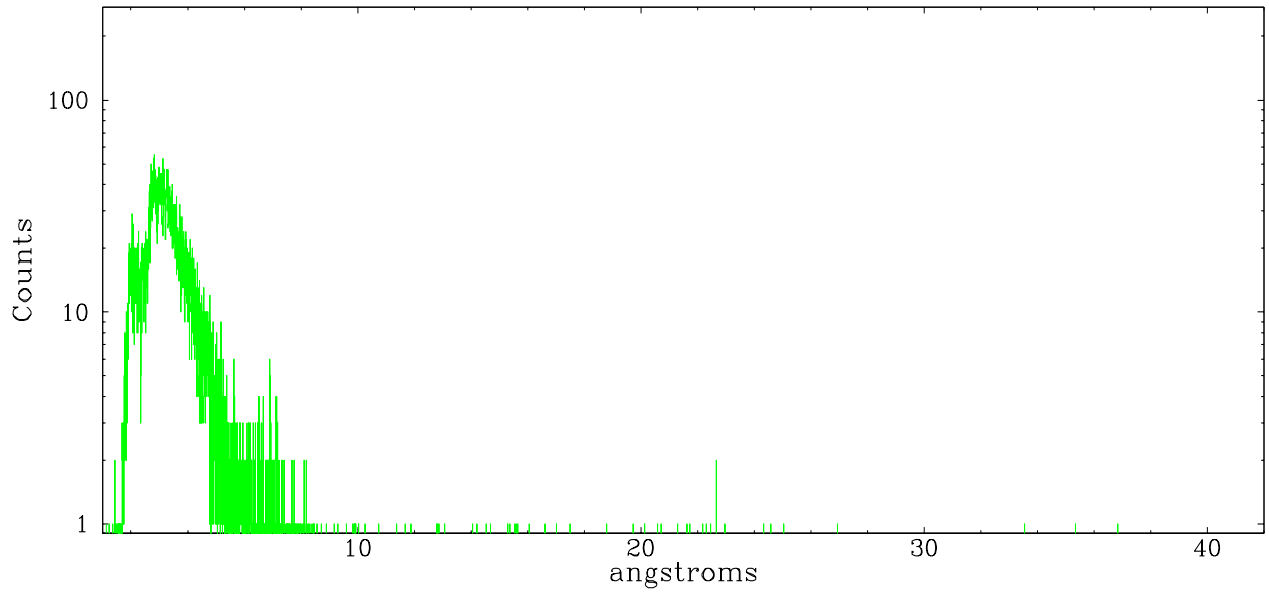


Full Detector MEG

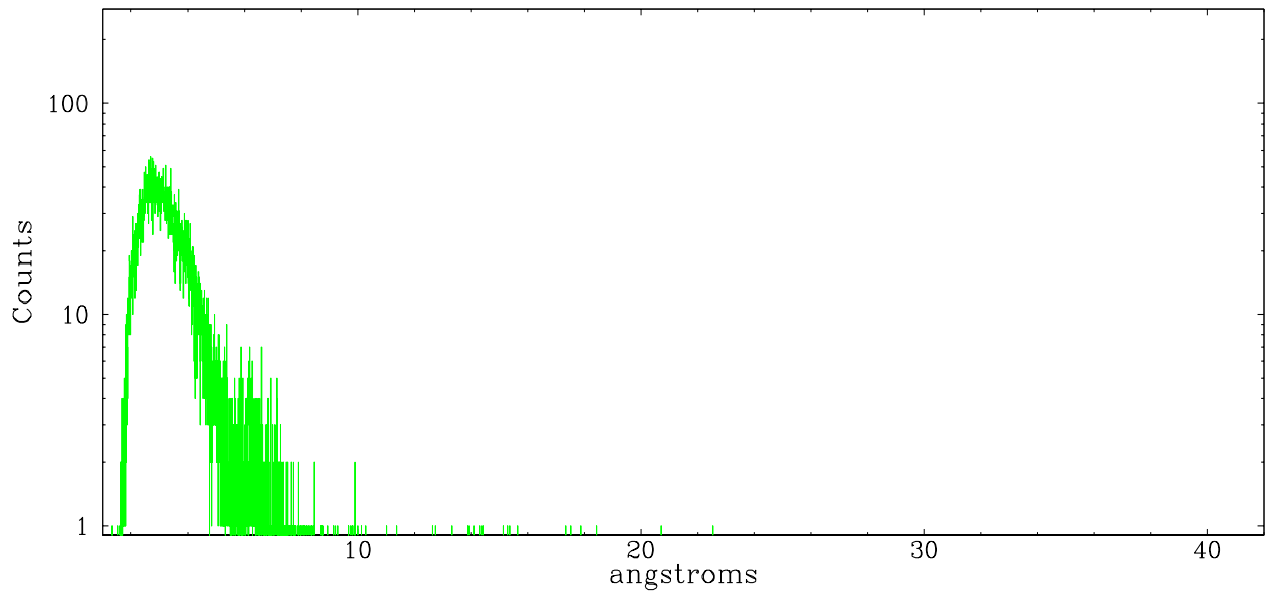
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1742	746	14422	12405	16957	647	1536



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.01.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	47.446

A.2 Comments

Source is piled up and standard software processing technique using the tool

tgdetect did not give an accurate position for the zeroth order. Zeroth order position for this observation has been determined using the known angle between the readout streak and the meg spectral arm. The newly determined

zeroth order coordinates have been placed in the *src1a.fits file, replacing the coordinates determined by tgdetect.

Zeroth order sky coordinates used:

x=4075.43, y=4100.91

ra=13:25:27.624, dec=-43:01:08.72

Roll constraint met.