

V&V Reference Report

L2 ASCDS Version : 8.1.1

Observation 337 - L2 Version 4
Chandra X-Ray Center

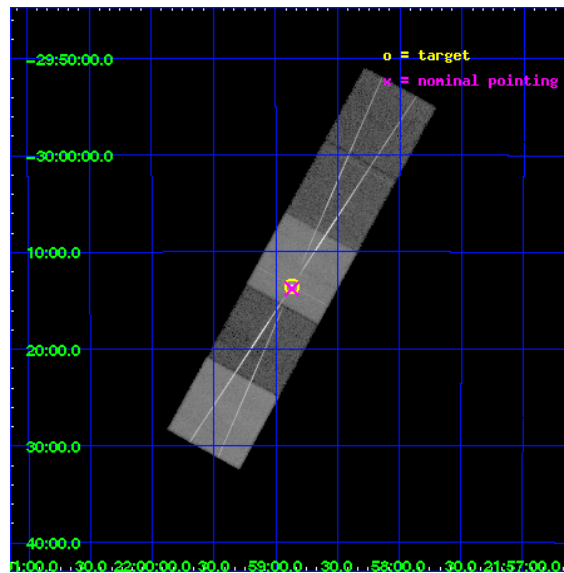
L2 Processing Date : Nov 20 2009

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1 Front

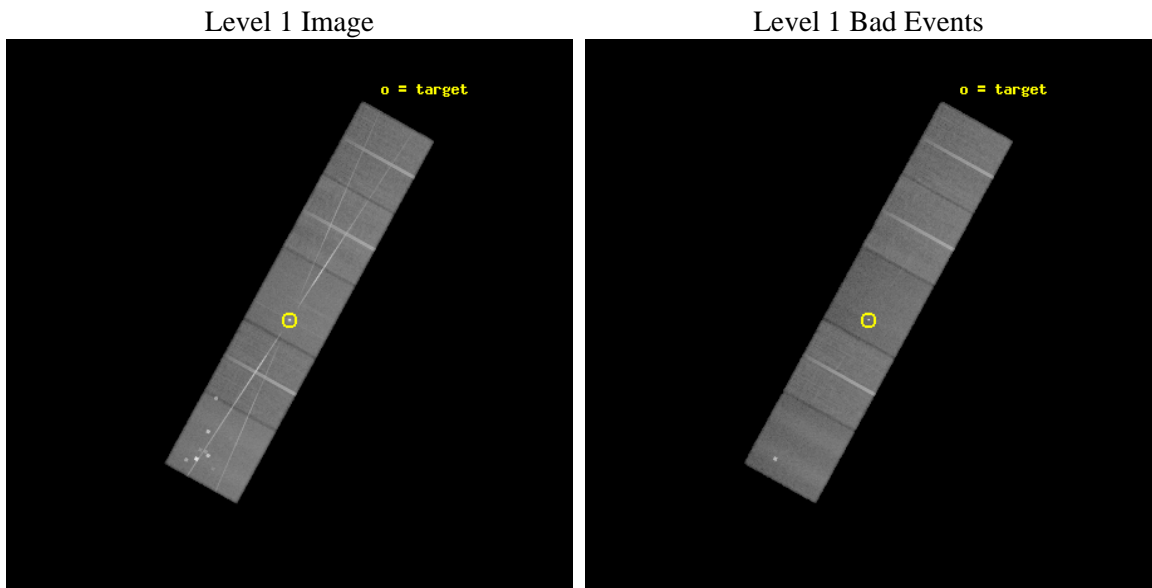
seq_num	700009	Sequence number
obs_id	337	Observation id
title	HETG OBSERVATIONS OF VARIOUS ACTIVE GALACTIC NUCLEI	Proposal title
observer	Prof. Claude Canizares	Principal investigator
object	PKS 2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA
dec_targ	-30.225556	Observer's specified target Dec
ra_nom	329.71727414522	Nominal RA
dec_nom	-30.23052945118	Nominal Dec
roll_nom	298.83151101041	Nominal Roll
revision	4	Processing version of data
ontime	39151.768787086	Sum of GTIs [s]
liveltime	38656.005516339	Livetime [s]
ontime5	39151.727747083	Sum of GTIs [s]
ontime6	39148.445726931	Sum of GTIs [s]
ontime7	39151.768787086	Sum of GTIs [s]
ontime8	39145.163567163	Sum of GTIs [s]
ontime9	39148.363646932	Sum of GTIs [s]
l2events	538603	Number of level 2 events



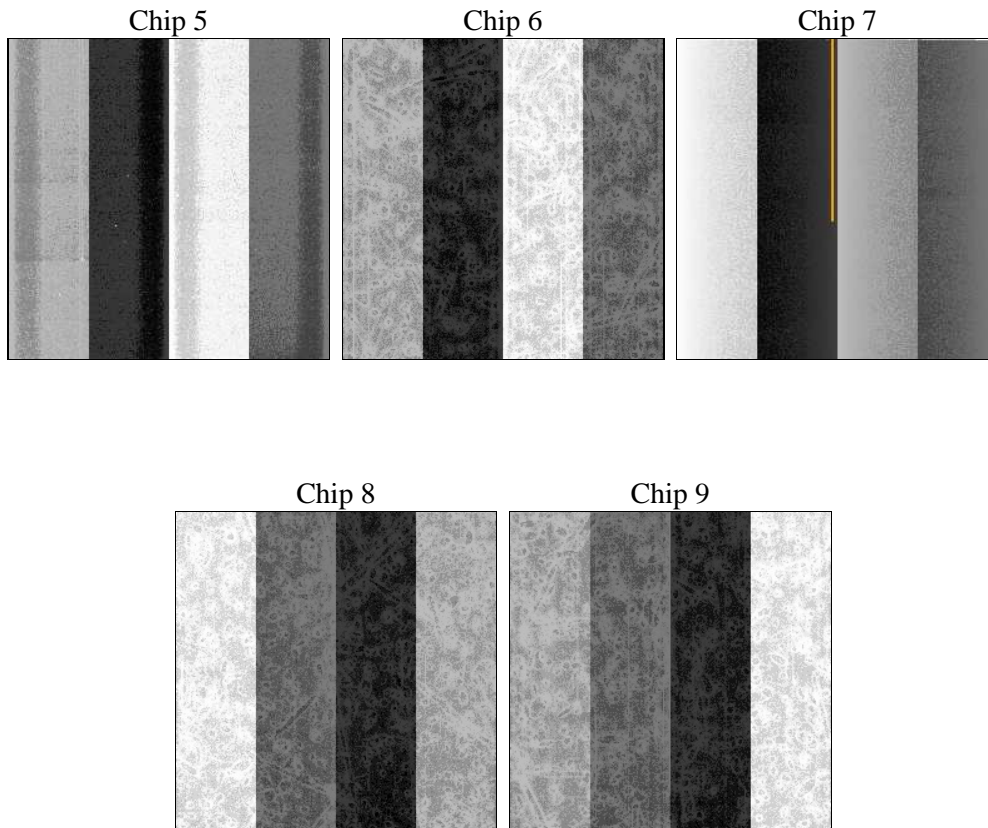
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	40000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	39151.768787086	Sum of GTIs [s]
caldbver	4.1.4	 	ontime5	39151.727747083	Sum of GTIs [s]
date	2009-11-20T13:50:53	Date and time of file creation	ontime6	39148.445726931	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	39151.768787086	Sum of GTIs [s]
			ontime8	39145.163567163	Sum of GTIs [s]
			ontime9	39148.363646932	Sum of GTIs [s]
			l1events	2101616	Number of level 1 events

2.1.4 Events

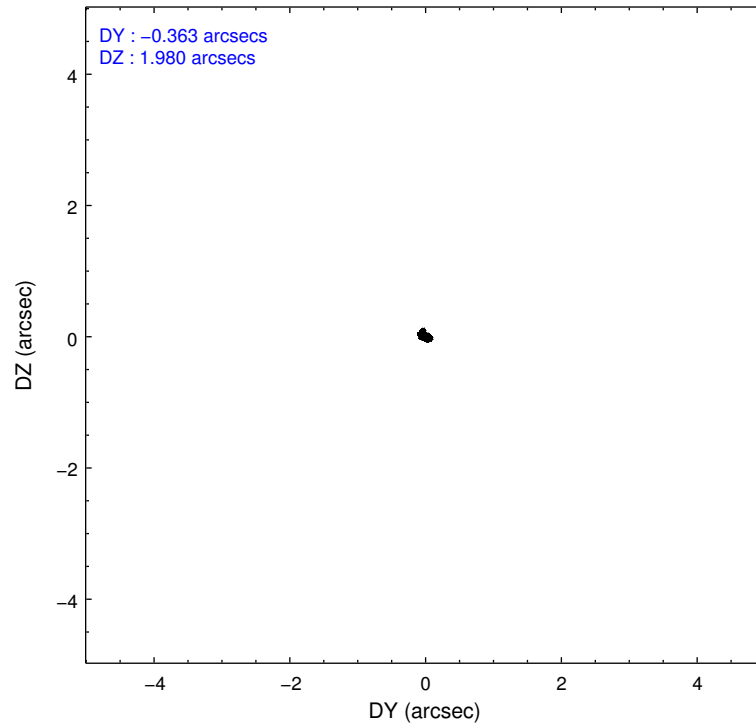
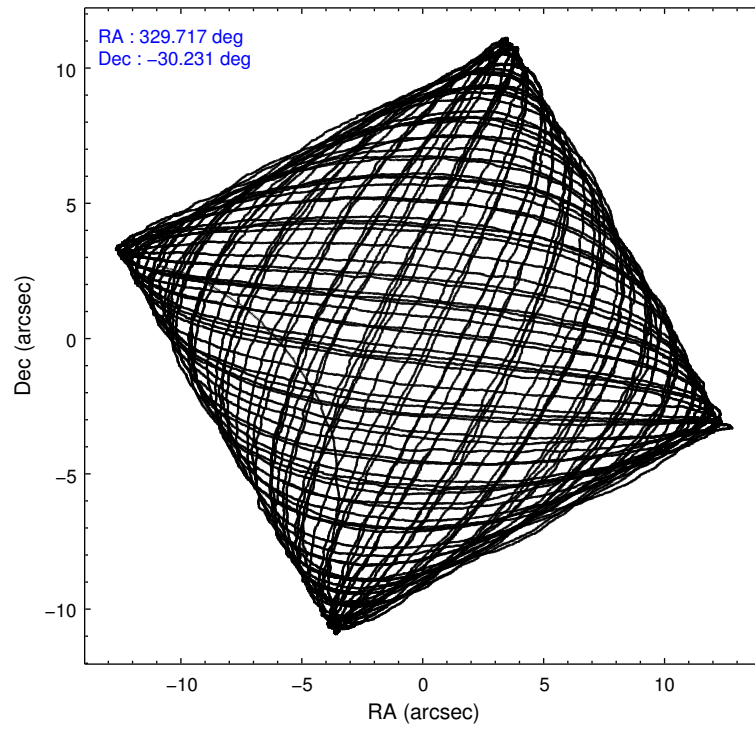
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	488449	404051	409517	451150	348449
rejected events	250383	324070	233420	347624	306659
rejected %	51%	80%	56%	77%	88%

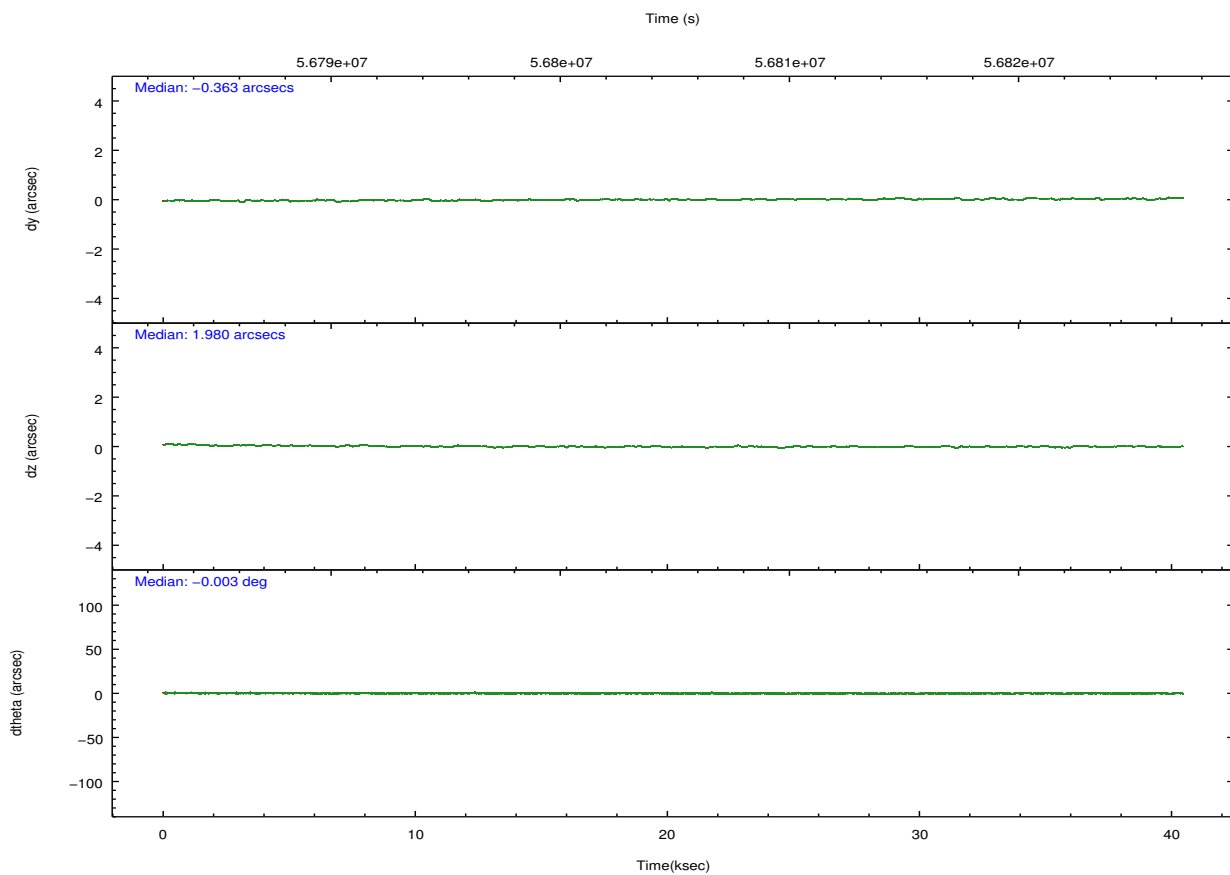
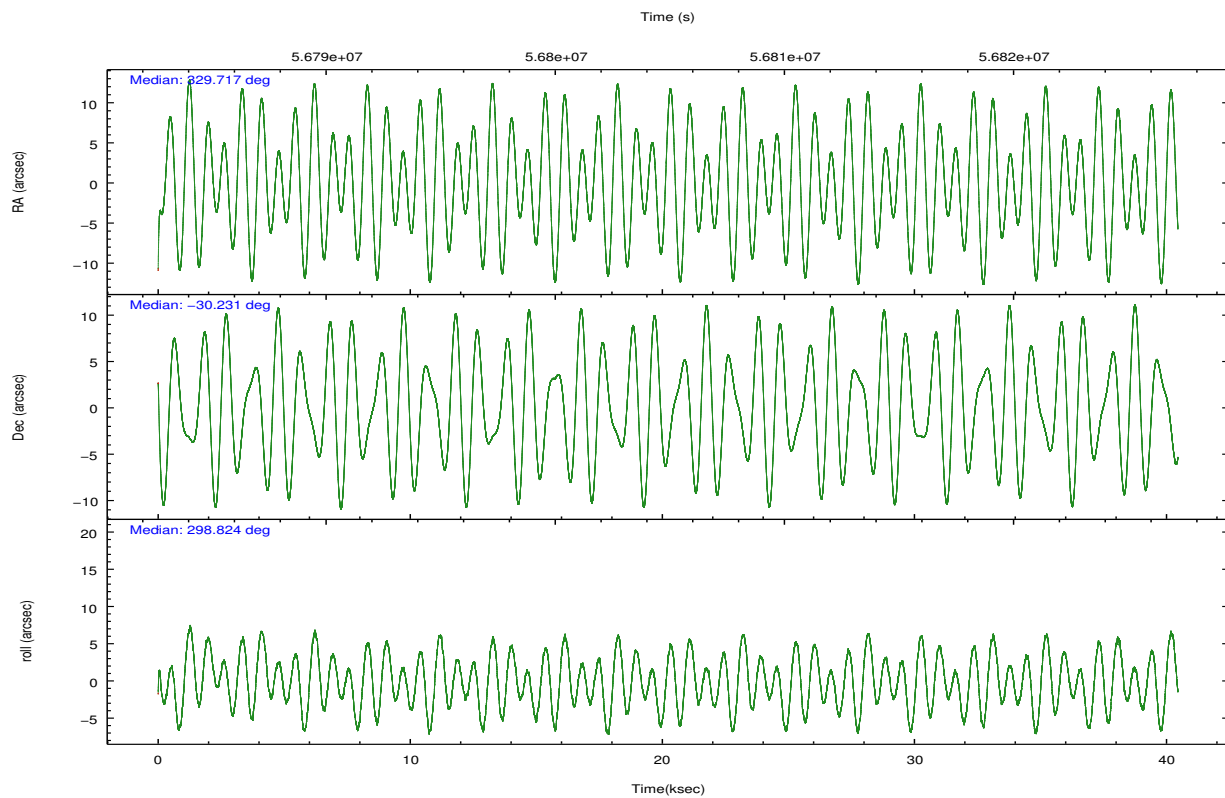
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	50831	38334	16292	43961	12984
	10%	9%	3%	9%	3%
grade 1 events	4421	190	402	232	72
	0%	0%	0%	0%	0%
grade 2 events	58779	24327	39443	26598	14707
	12%	6%	9%	5%	4%
grade 3 events	9478	3344	12109	6324	2351
	1%	0%	2%	1%	0%
grade 4 events	7919	3341	11065	5948	2235
	1%	0%	2%	1%	0%
grade 5 events	17690	7366	22836	9937	7434
	3%	1%	5%	2%	2%
grade 6 events	111104	10644	97214	20718	9519
	22%	2%	23%	4%	2%
grade 7 events	228227	316505	210156	337432	299147
	46%	78%	51%	74%	85%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-56789	ACIS-56789	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	329.690030	329.7172741452185	Subarray requested	NONE	NONE
Pointing Dec	-30.216106	-30.23052945118032	Alternating exposures requested	N	N
Pointing Roll	298.661167	298.8315110104073	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.145094680475			
SIM translation stage offset (mm)	0	0.01257209746719923			
Observation start time	56785148.184000	56783740.045563			
Observation start date	1999-10-20T05:38:04	1999-10-20T05:15:40			
Observation end time	56825148.184000	56825892.659582			
Observation end date	1999-10-20T16:44:44	1999-10-20T16:58:12			
Read mode	TIMED	TIMED			

2.3 Aspect



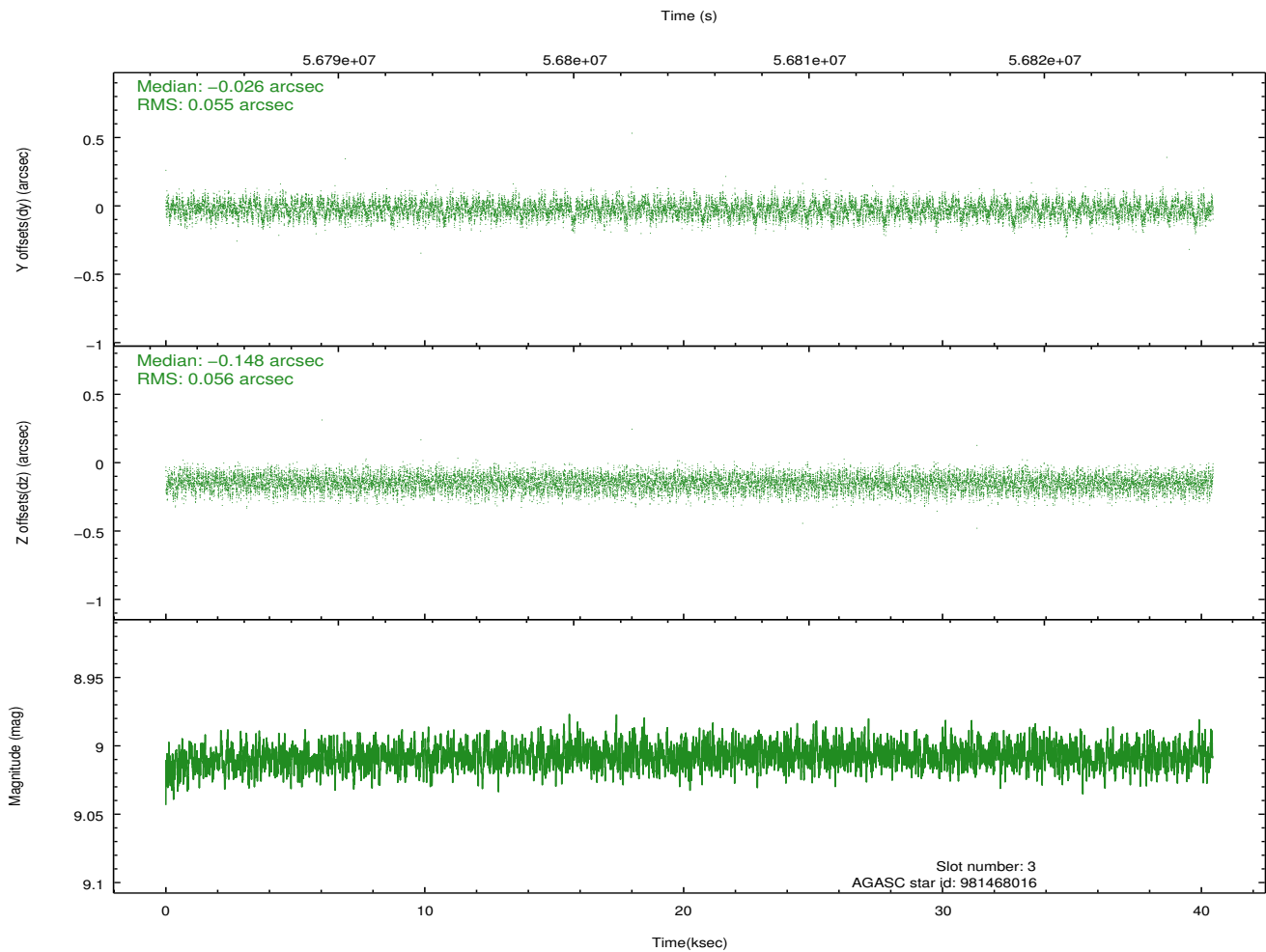
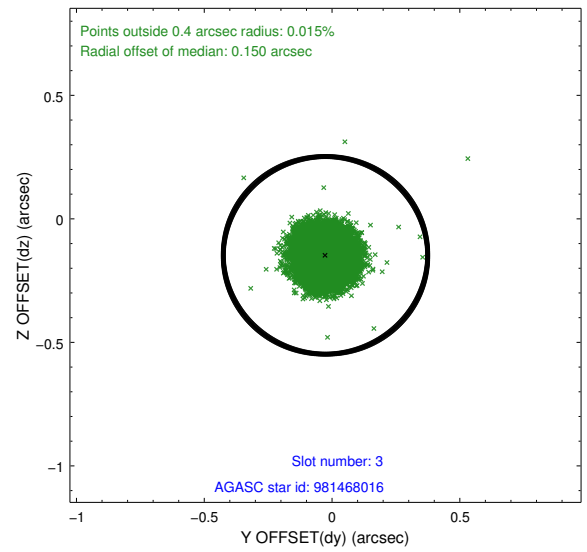
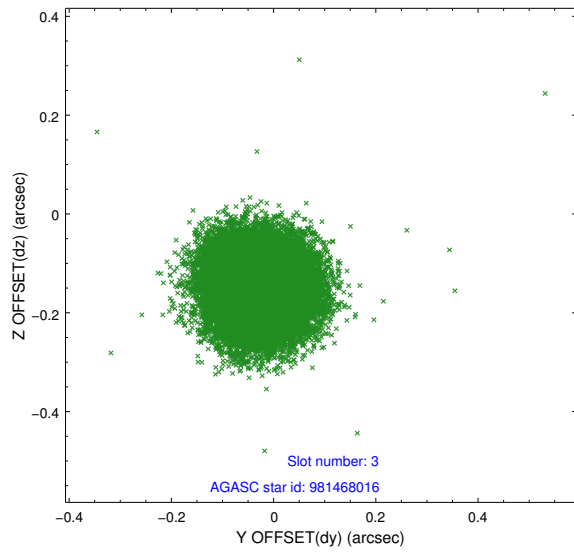


Slot Statistics

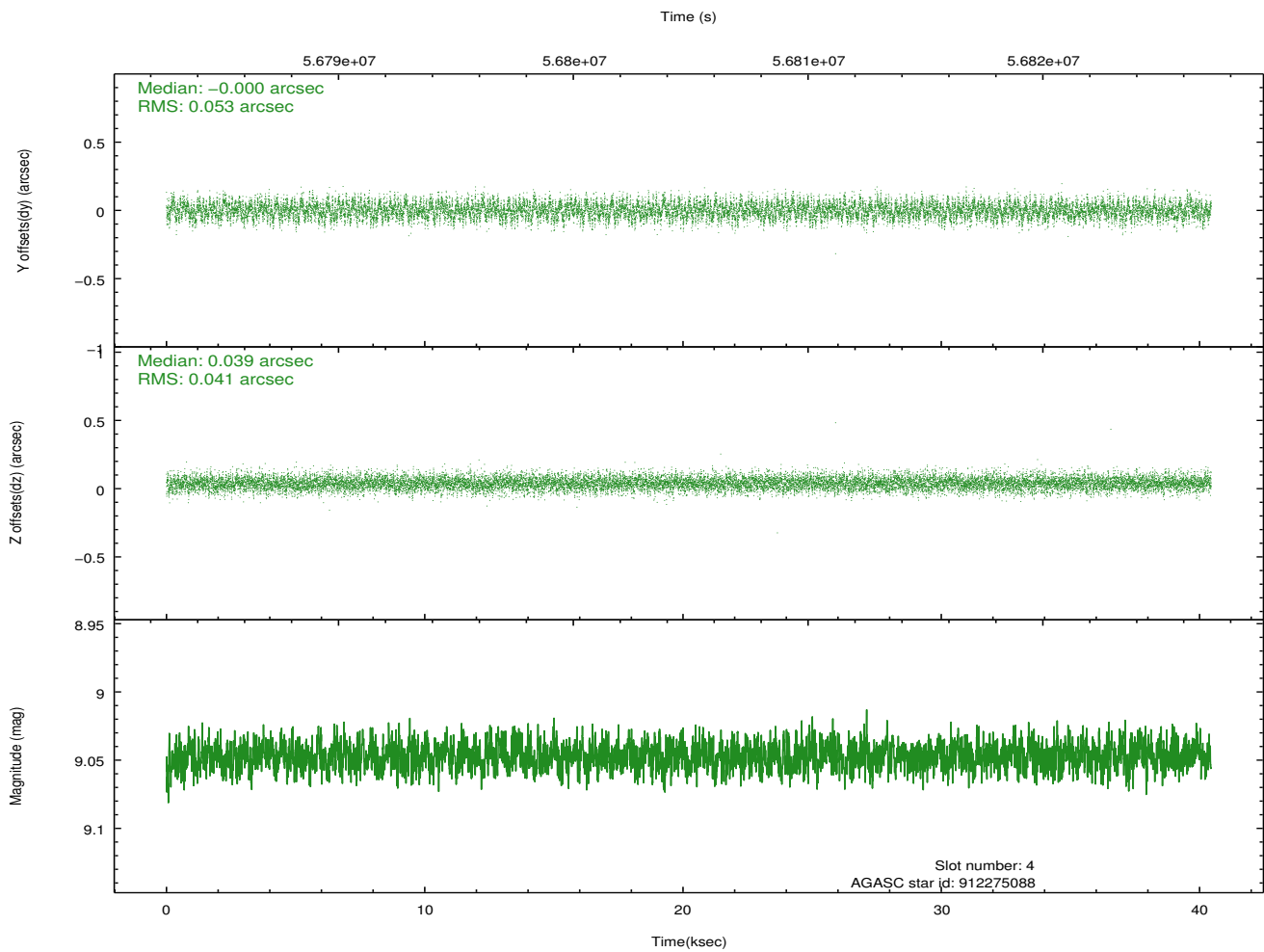
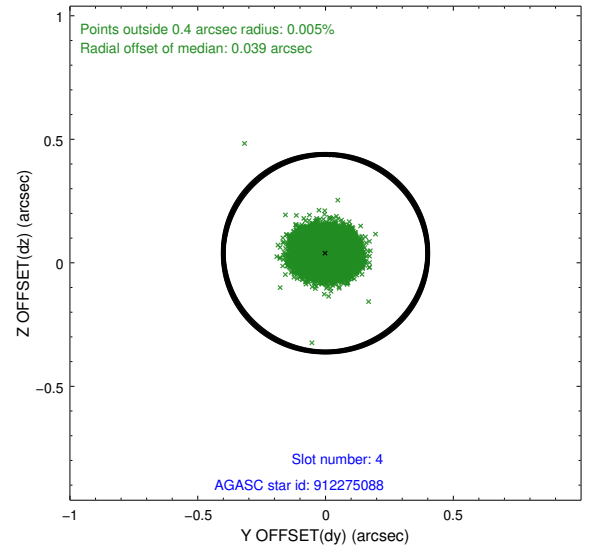
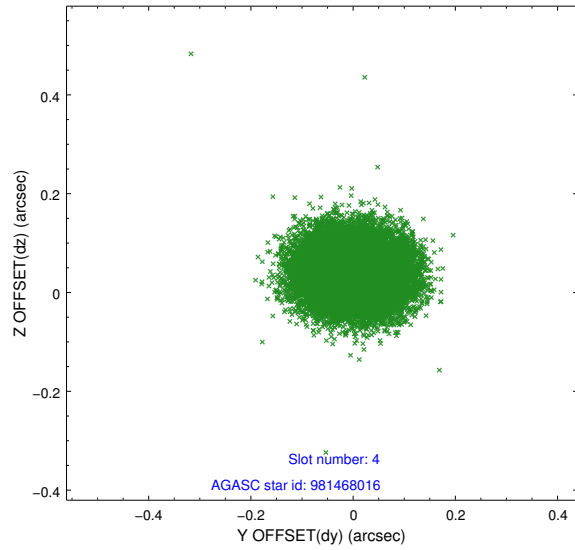
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	19726	-0.000	0.008	0.006	0.010	0.000000	0.000000	-752.22	-1722.89
1	FID	ACIS-S-4	7.21	19726	0.057	-0.002	0.006	0.011	0.000000	0.000000	2161.18	185.61
2	FID	ACIS-S-5	7.24	19727	-0.088	0.003	0.007	0.011	0.000000	0.000000	-1805.21	179.28
3	GUIDE	981468016	9.01	19719	-0.026	-0.148	0.085	0.130	328.842457	-30.034984	-1830.38	-2009.65
4	GUIDE	912275088	9.05	19717	-0.000	0.039	0.072	0.115	329.619228	-29.738698	-1614.41	630.45
5	GUIDE	981478152	9.41	19722	0.112	0.103	0.076	0.123	329.415589	-30.057192	-911.21	-475.82
6	GUIDE	912276032	9.61	19708	0.008	0.179	0.082	0.134	329.395967	-29.803466	-1743.13	-93.58
7	GUIDE	912131856	9.76	19715	-0.095	-0.172	0.091	0.149	328.758728	-29.933690	-2275.33	-2067.41

2.4 Star Slots

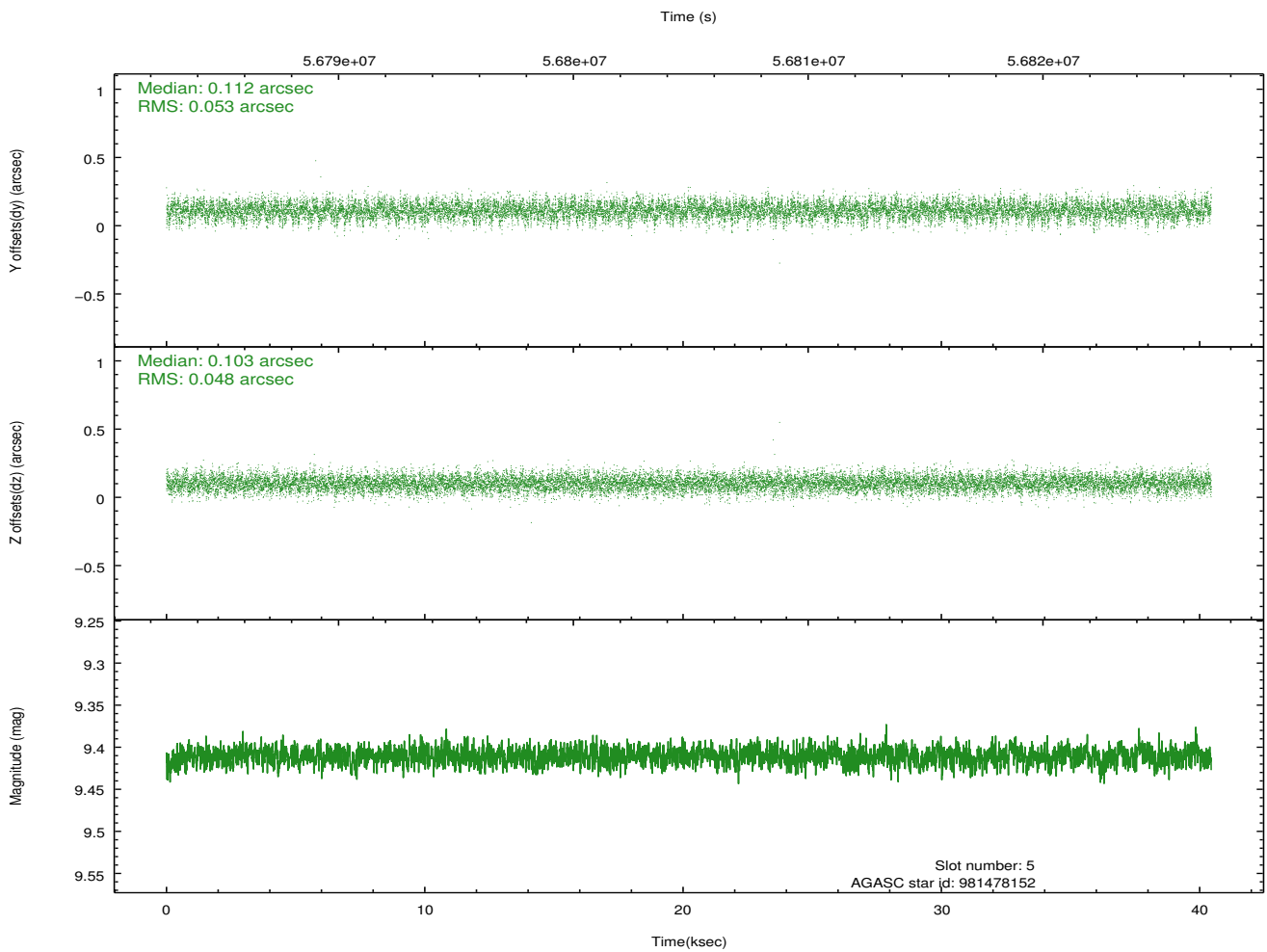
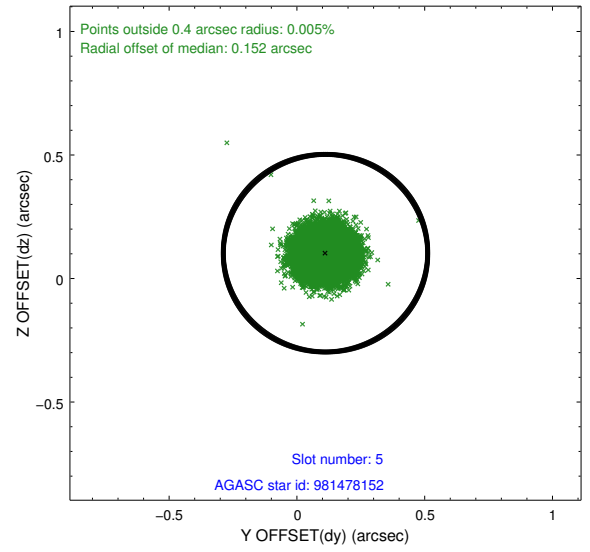
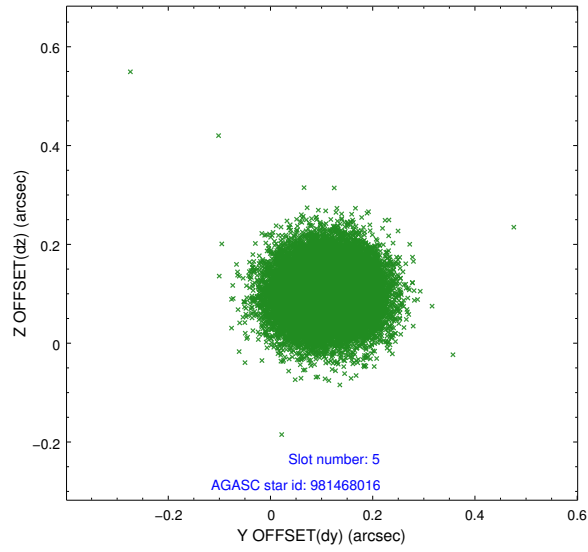
2.4.1 Slot 3



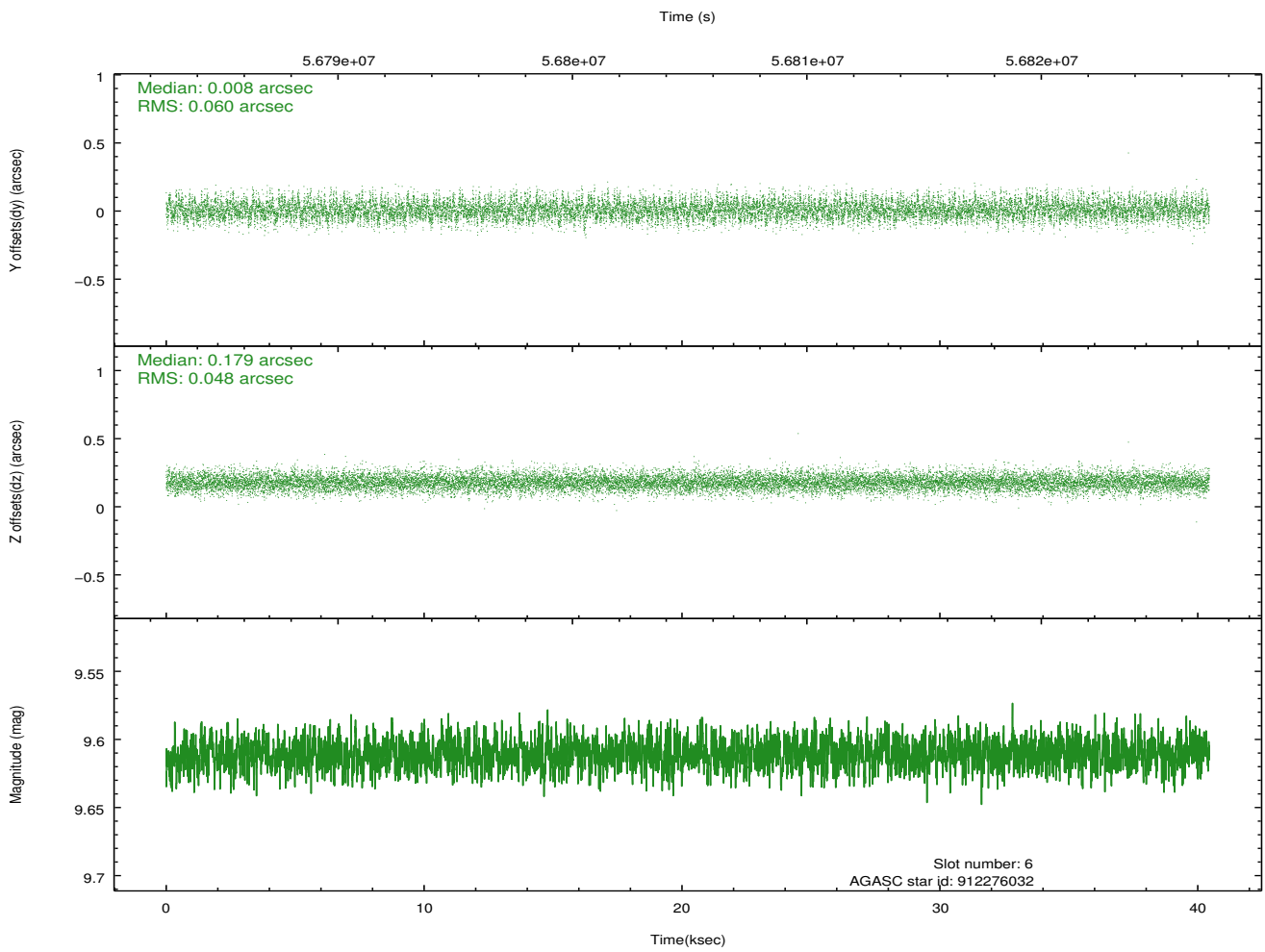
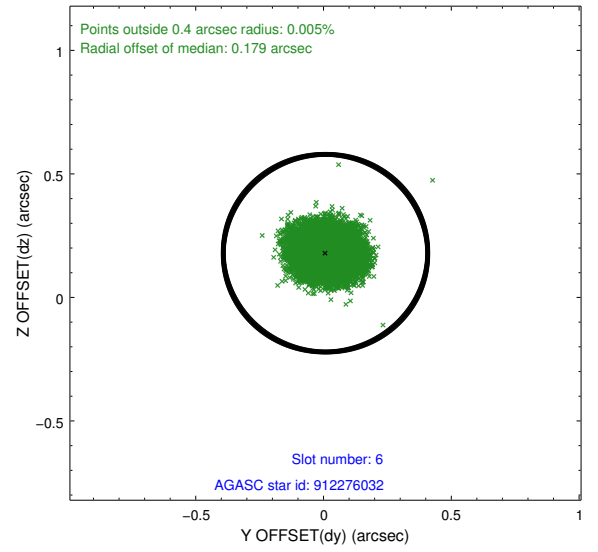
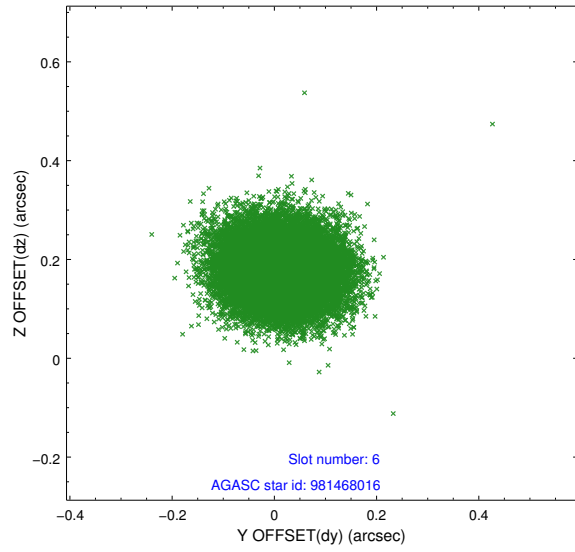
2.4.2 Slot 4



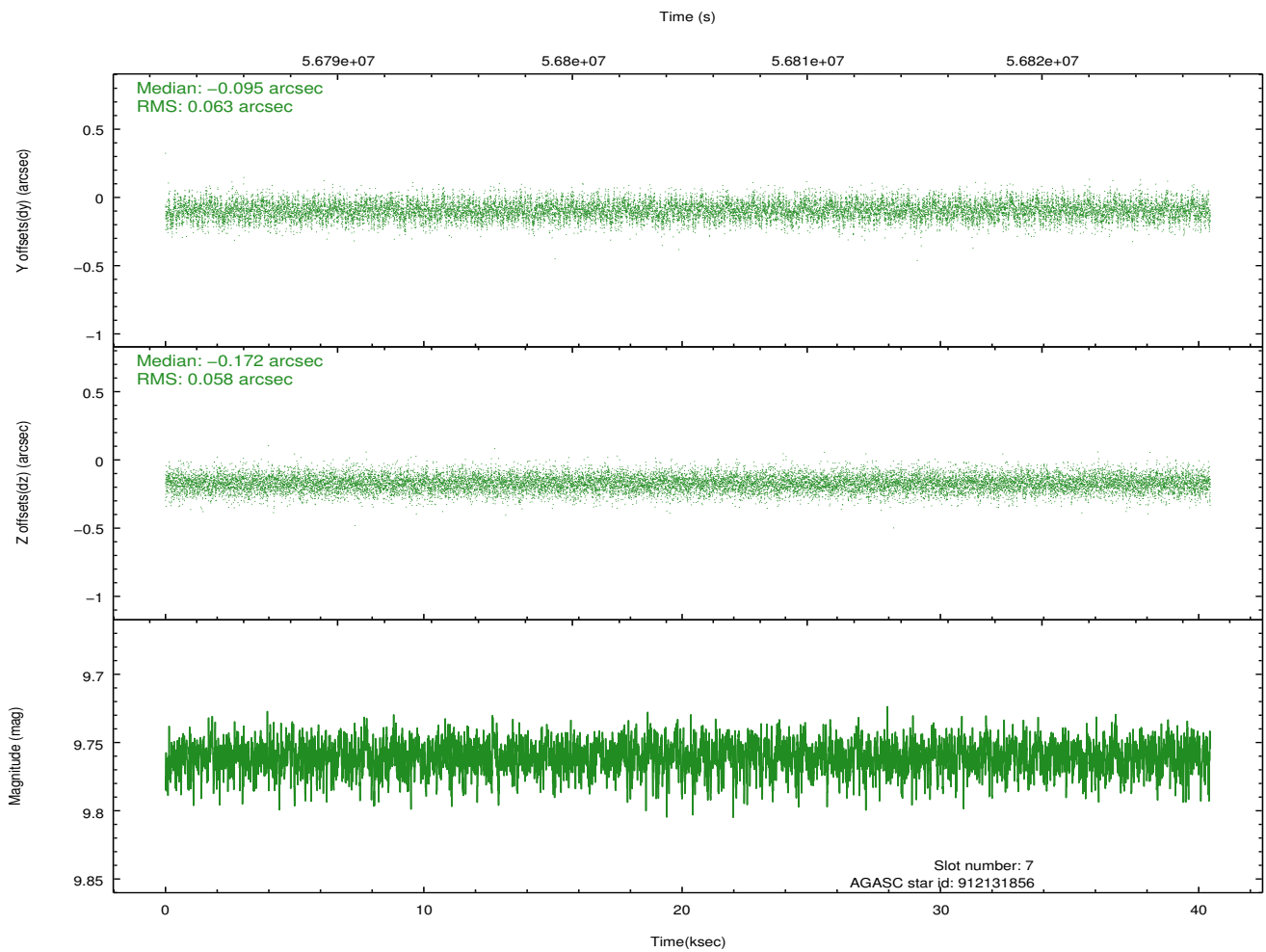
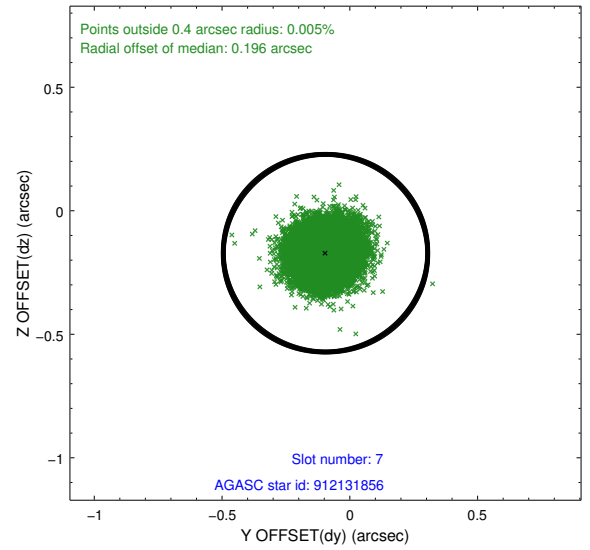
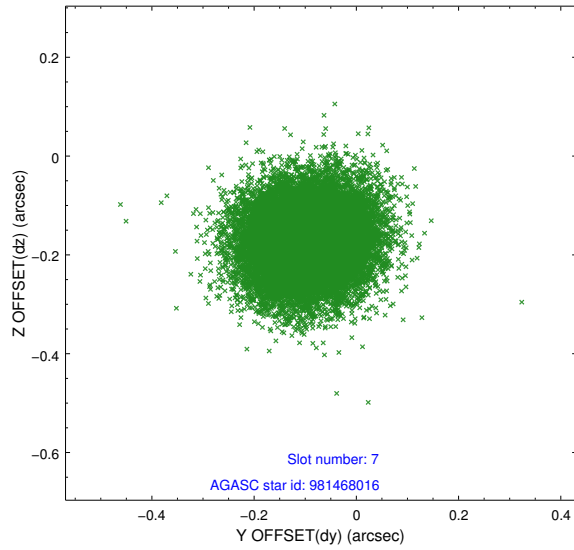
2.4.3 Slot 5



2.4.4 Slot 6

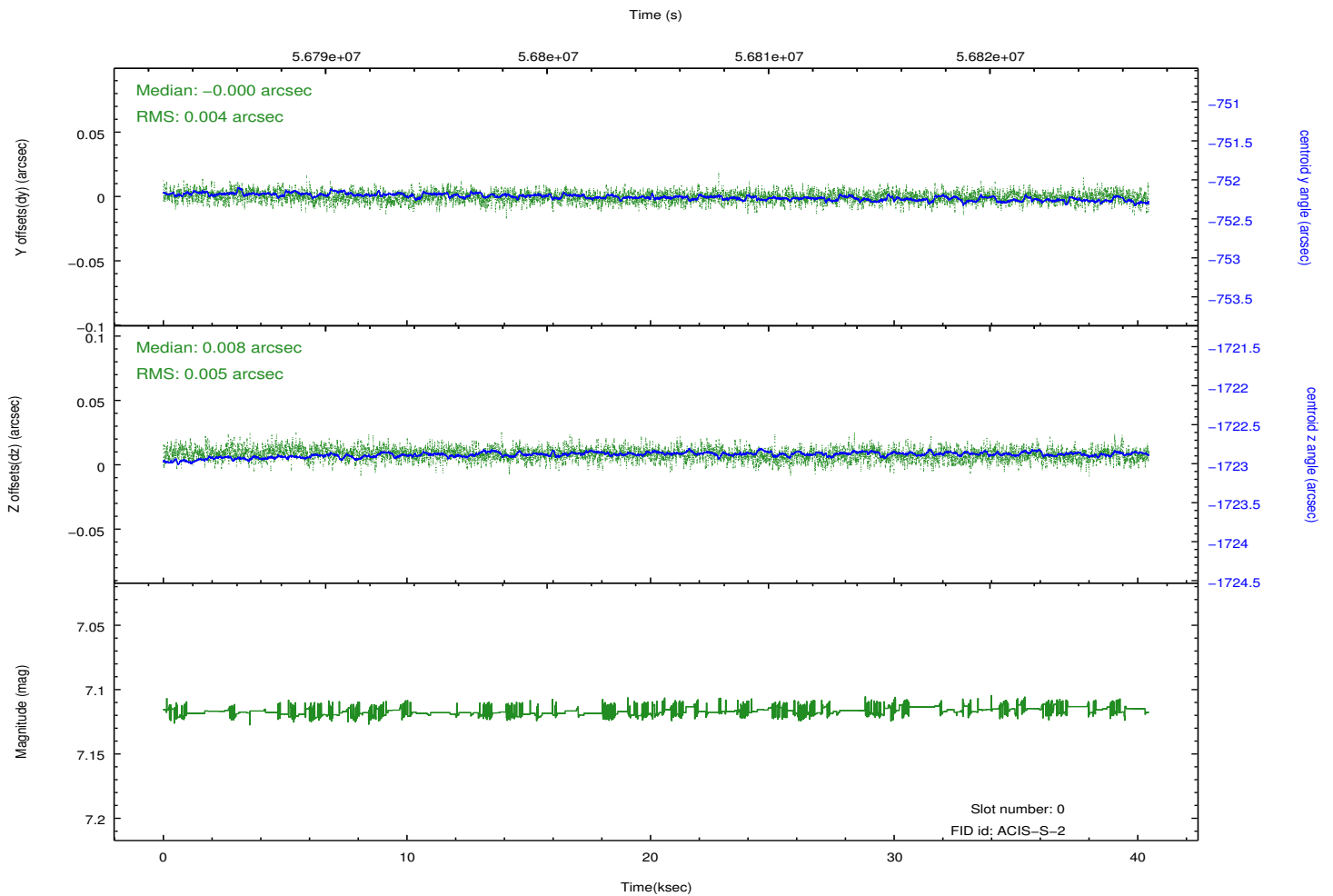
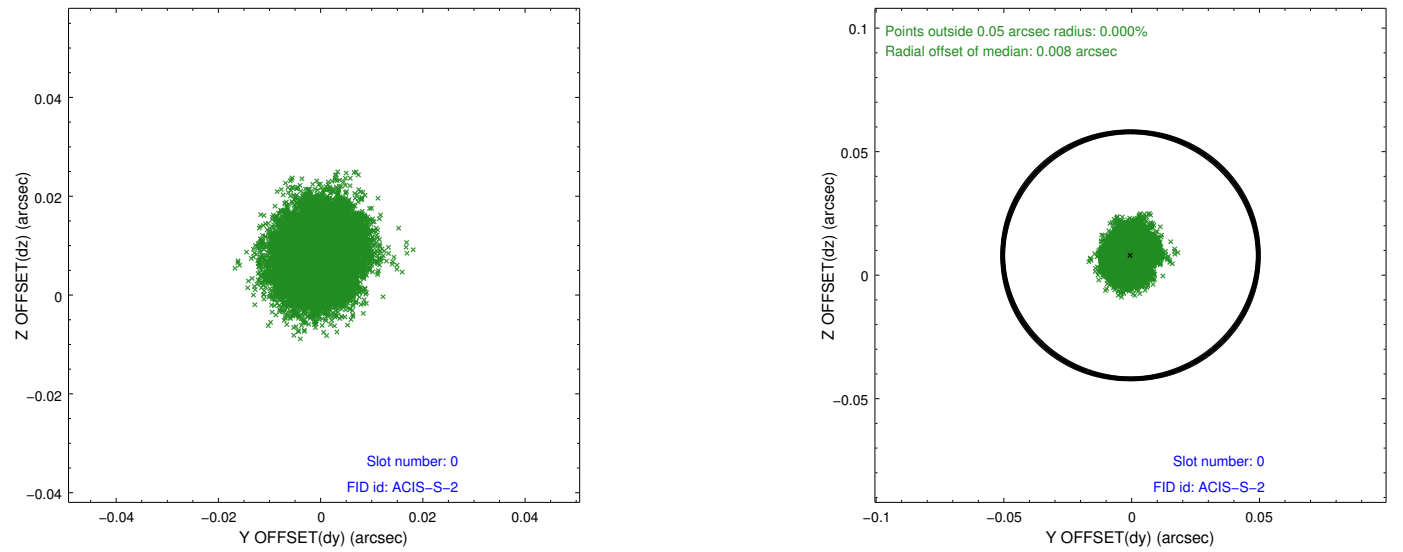


2.4.5 Slot 7

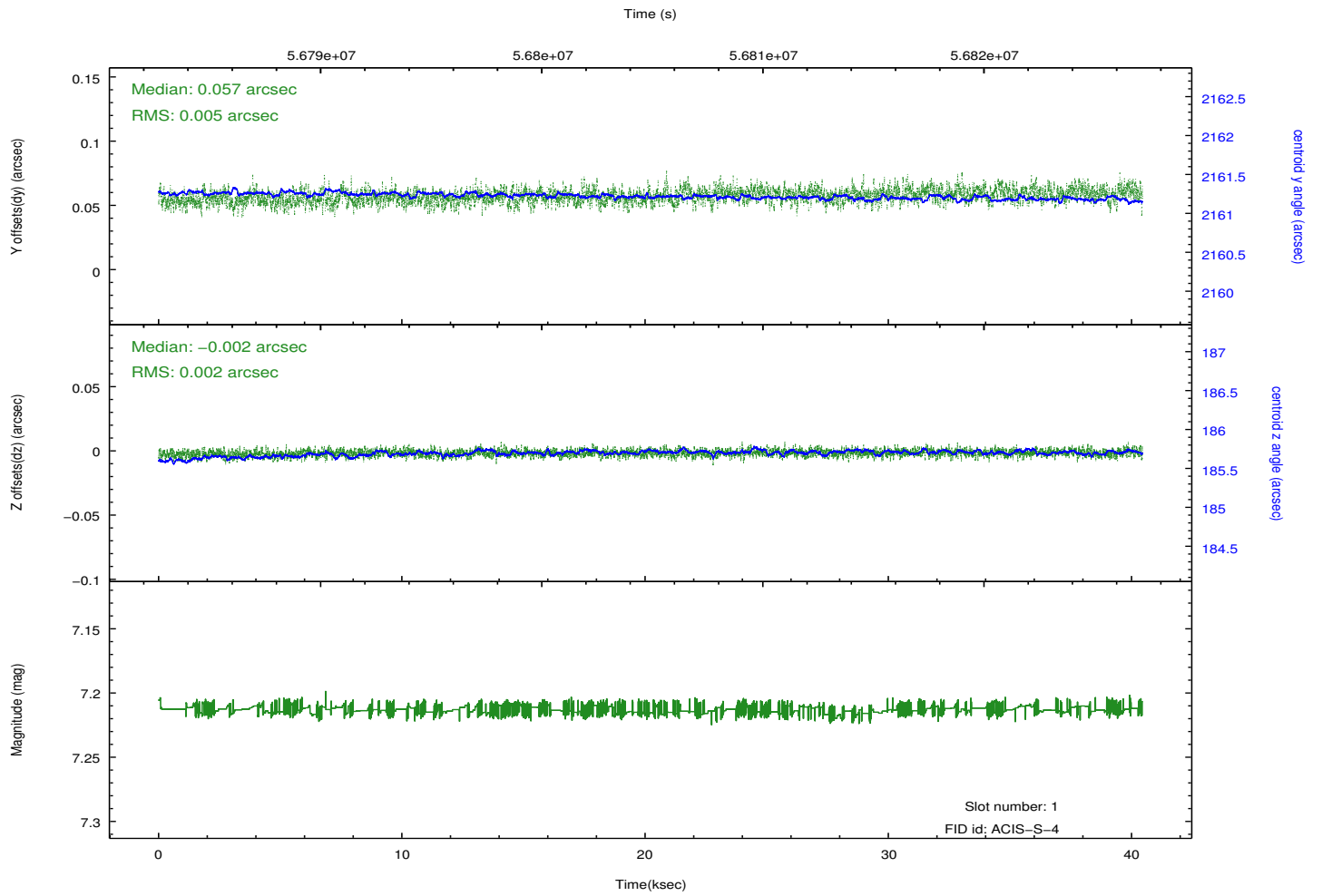
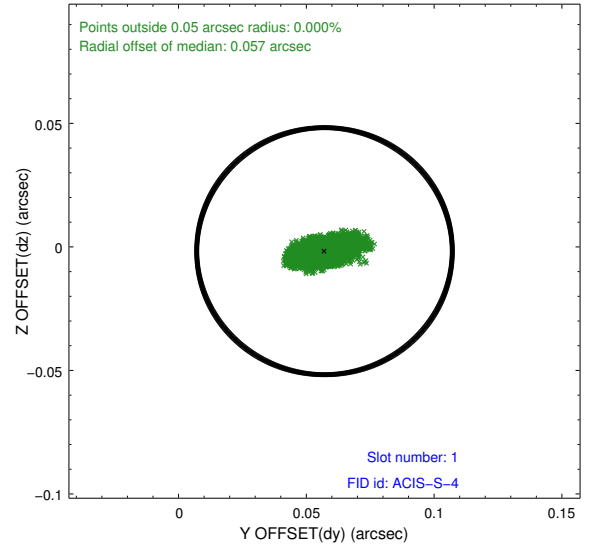
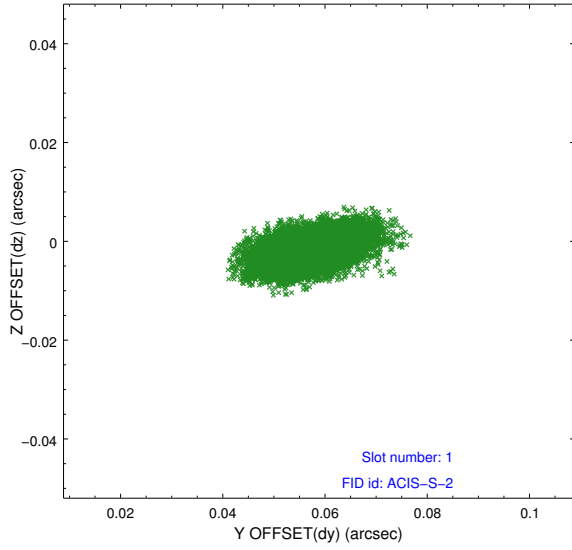


2.5 FID Slots

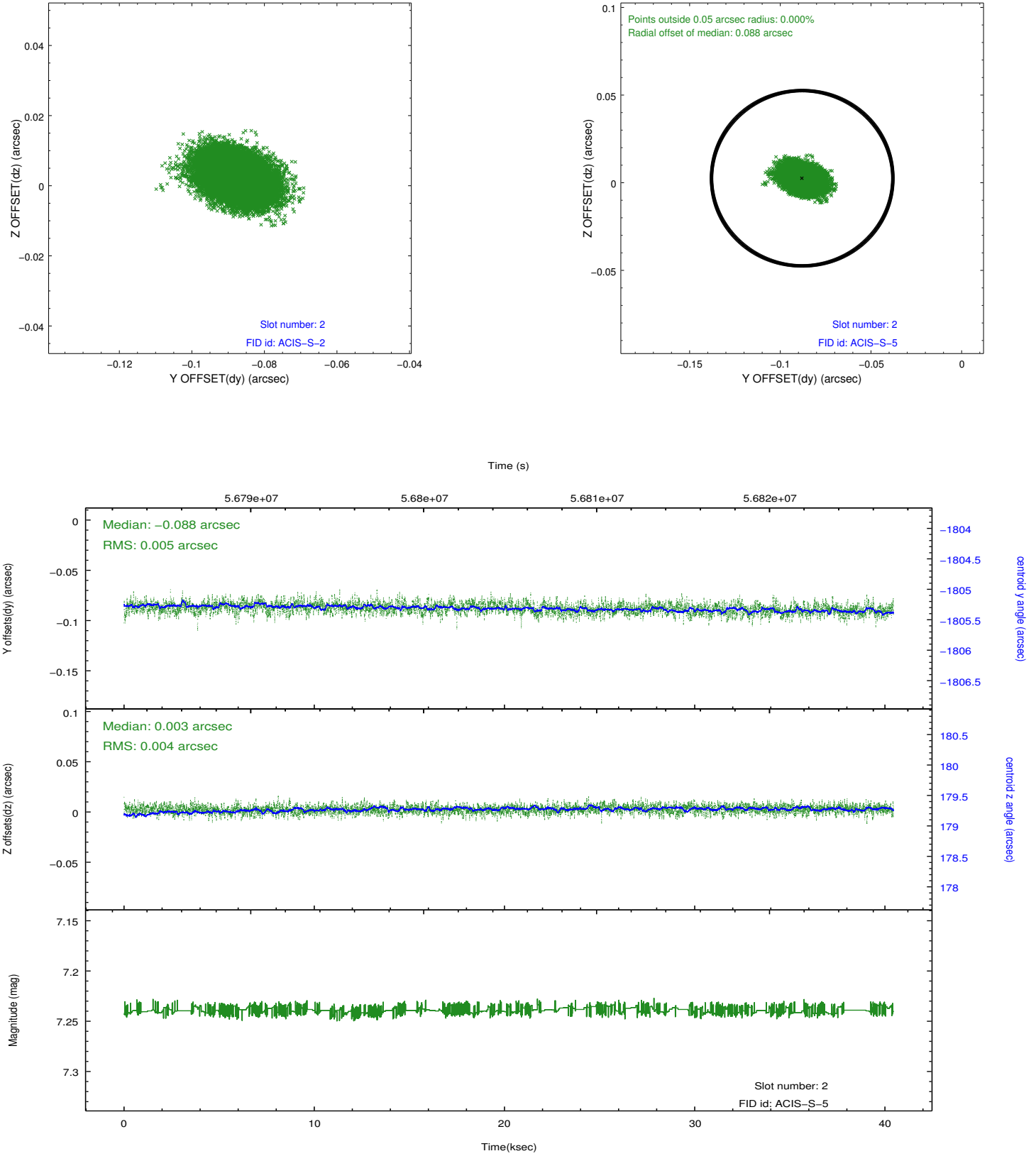
2.5.1 Slot 0



2.5.2 Slot 1

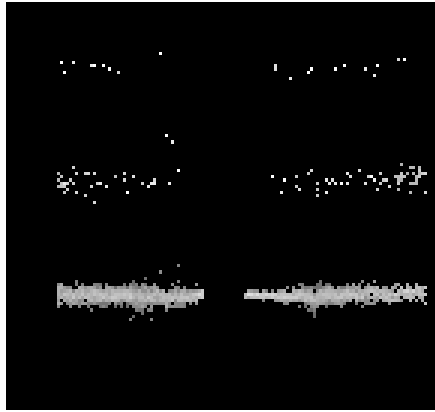


2.5.3 Slot 2

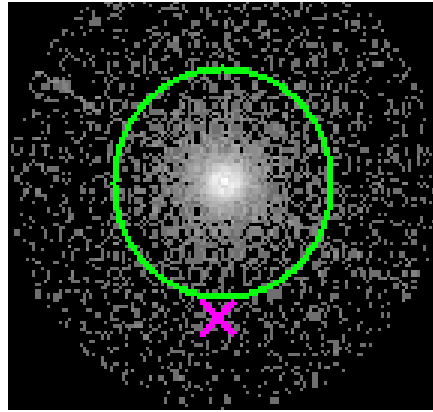


3 Gratings

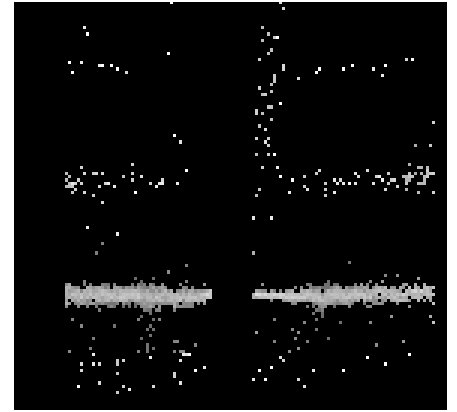
3.1 HEG Arm



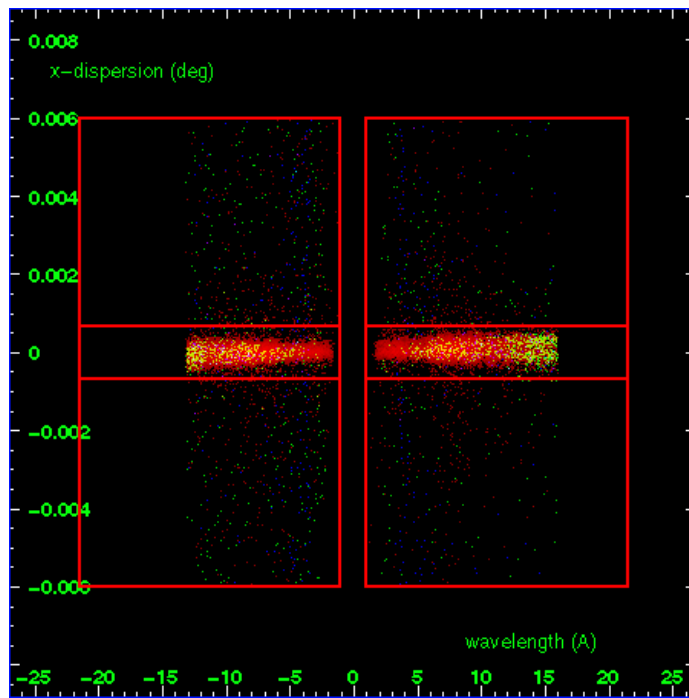
HEG Order Sort 123



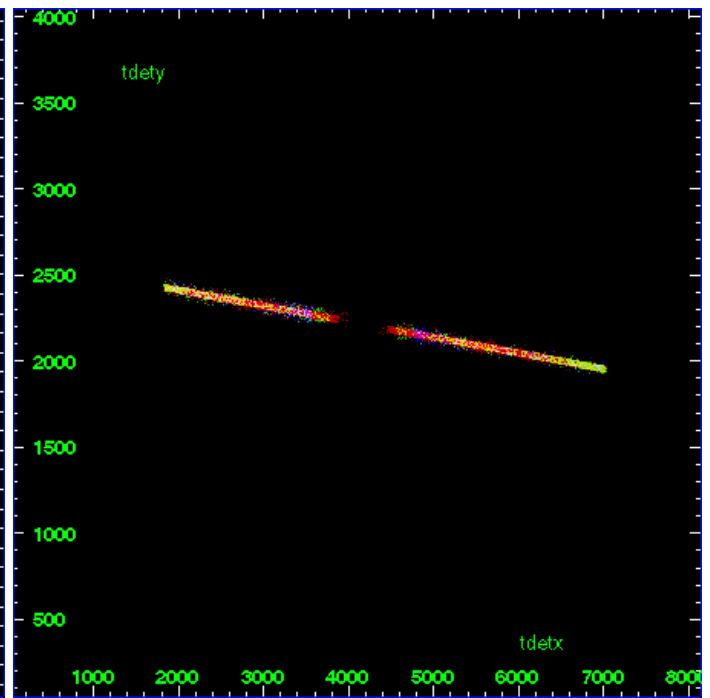
HEG Zero Order



HEG Order Sort ALL

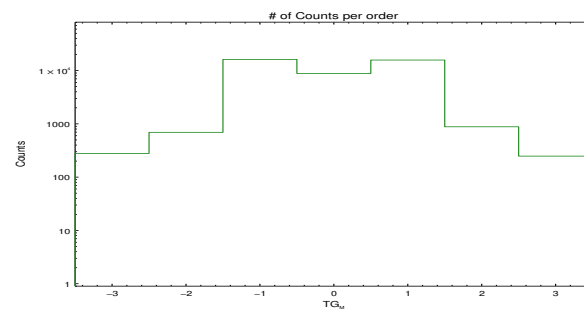


Spot Image HEG

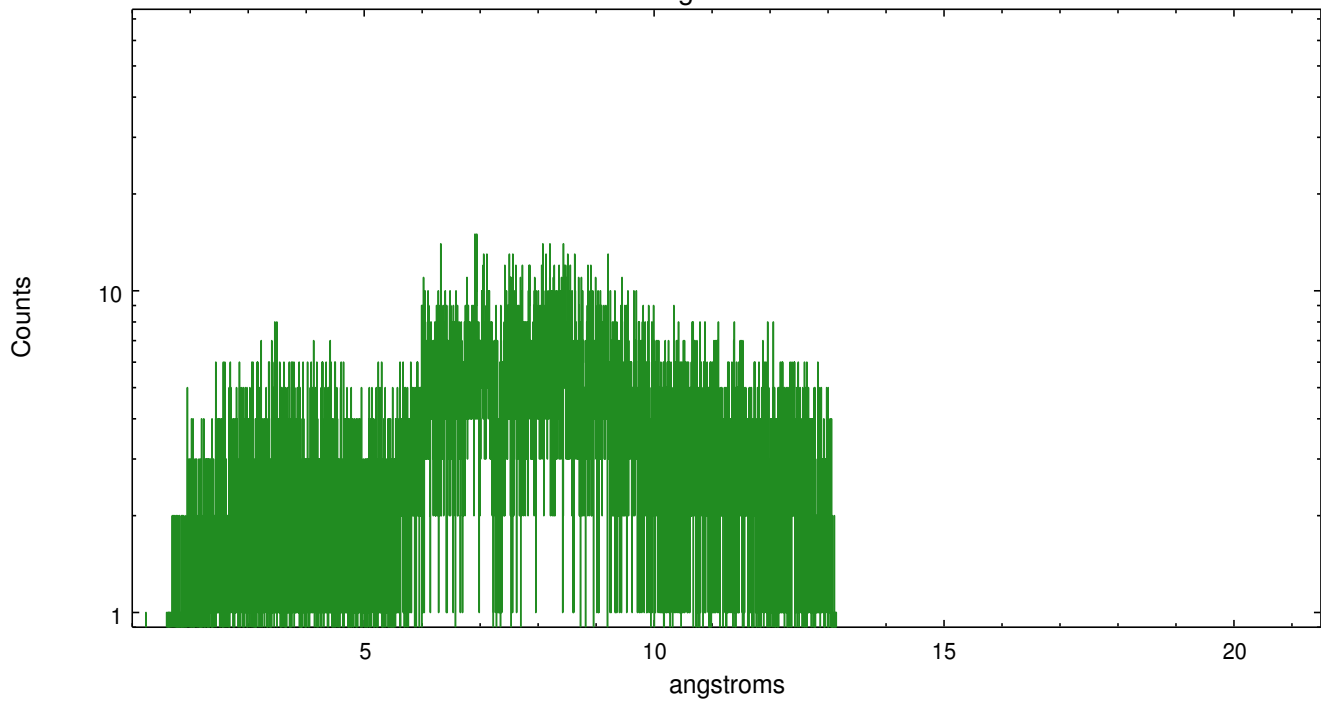


Full Detector HEG

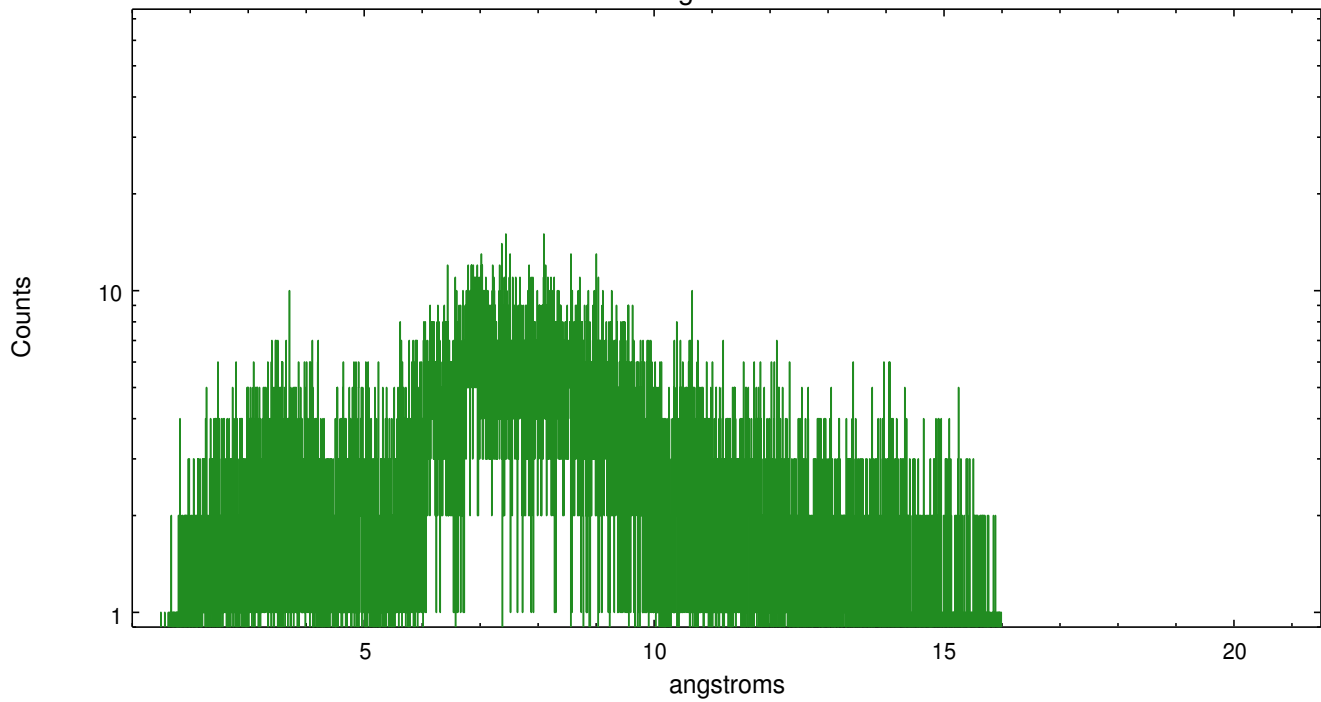
	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	279	693	16203	8838	15765	882	248



heg order -1



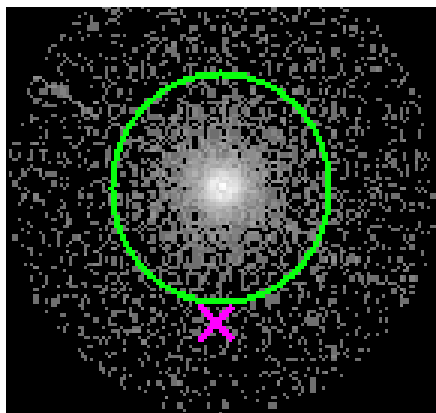
heg order +1



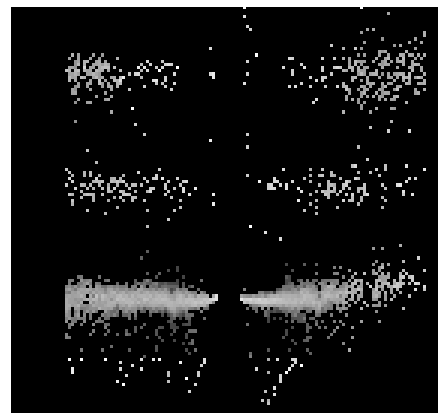
3.2 MEG Arm



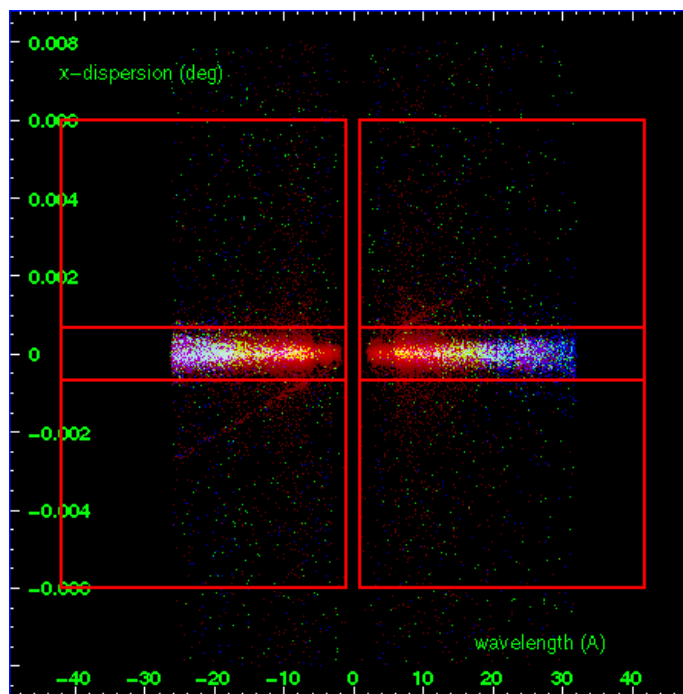
MEG Order Sort 123



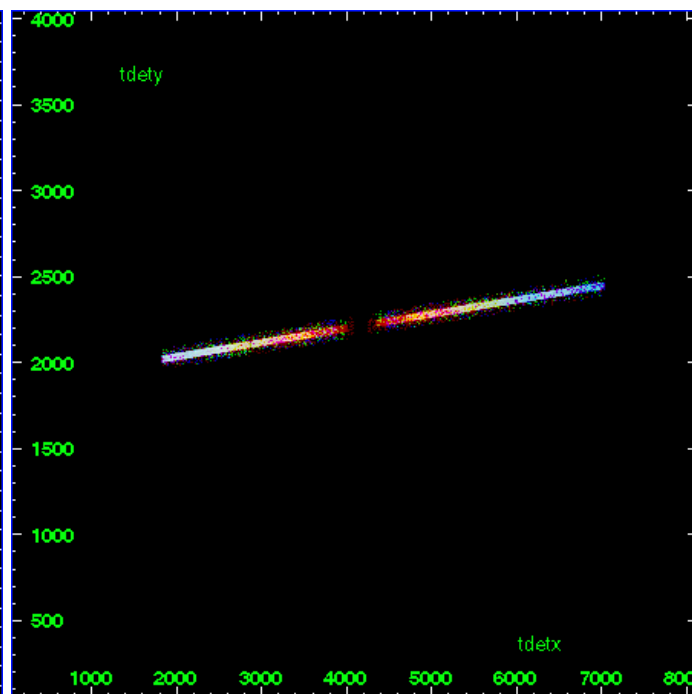
MEG Zero Order



MEG Order Sort ALL

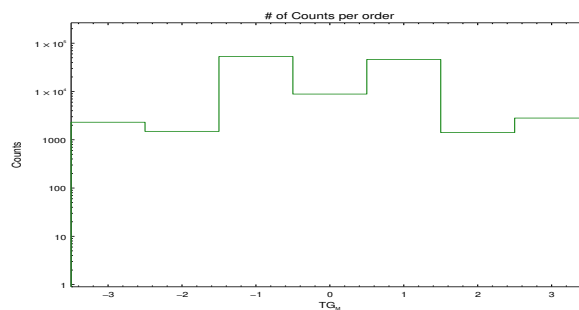


Spot Image MEG

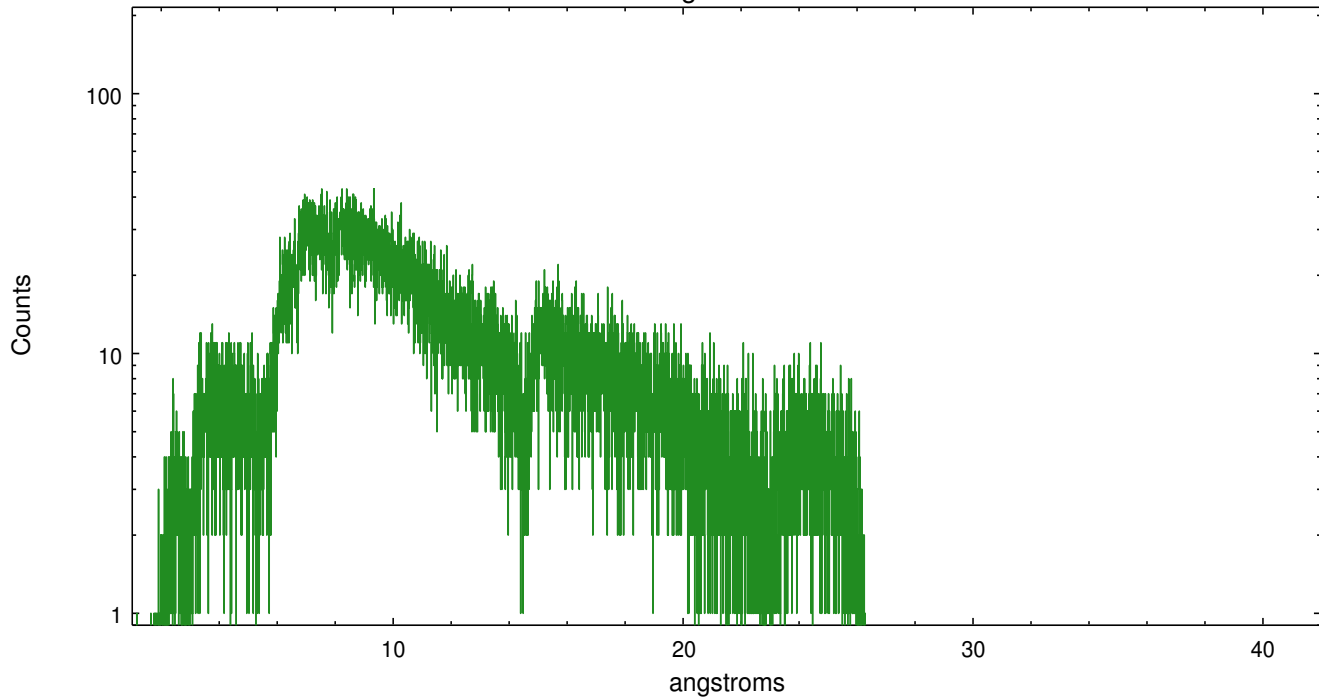


Full Detector MEG

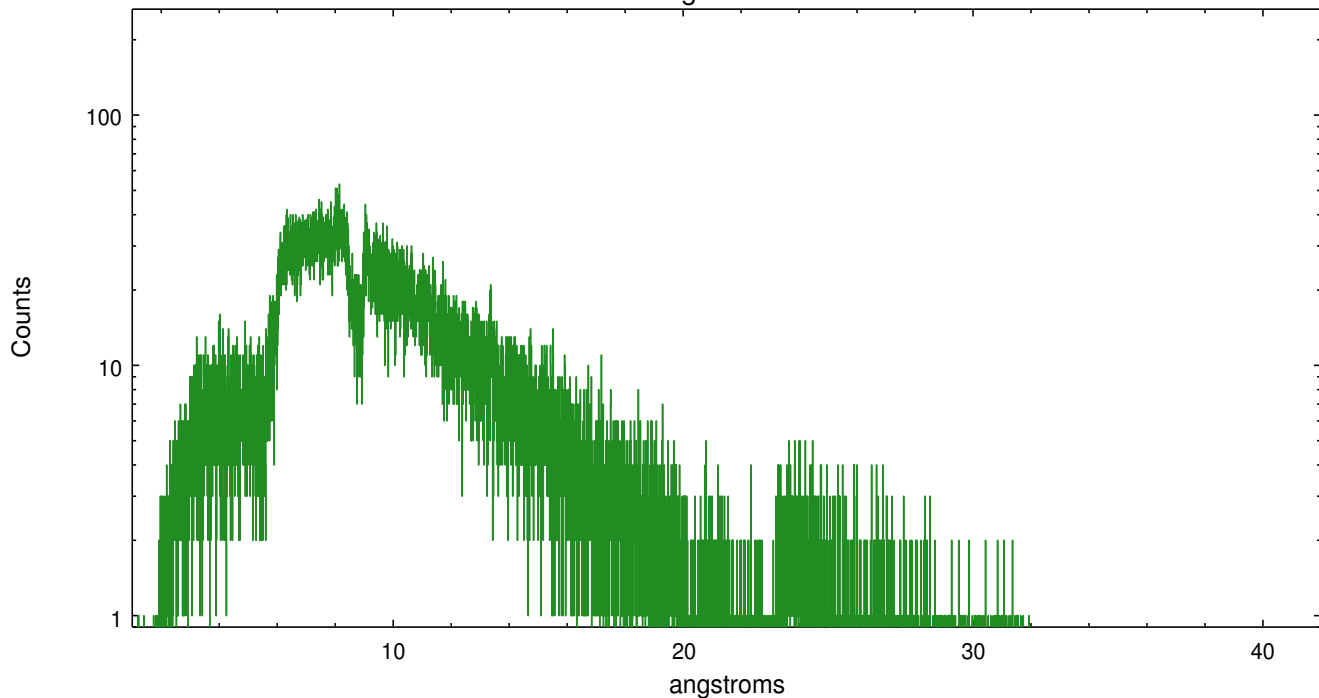
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2306	1491	52940	8838	46029	1410	2815



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Mike Nowak
V&V Date (YYYY-MM-DD)	2010.03.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.152

A.2 Comments