

V&V Reference Report

L2 ASCDS Version : 10.8.4

Observation 22341 - L2 Version 1
Chandra X-Ray Center

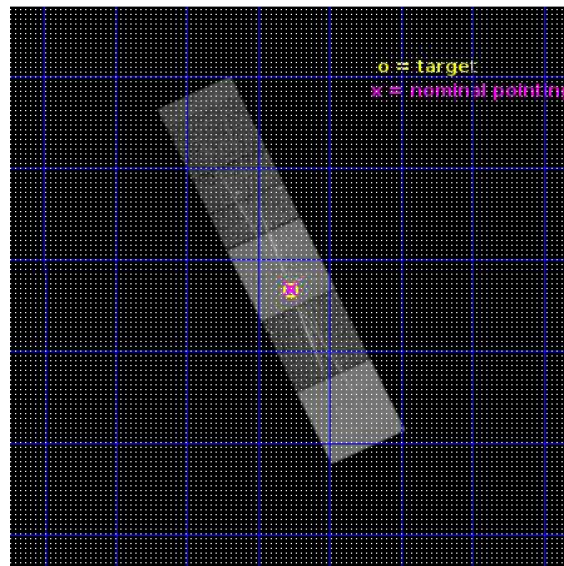
L2 Processing Date : Apr 30 2020

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1 Front

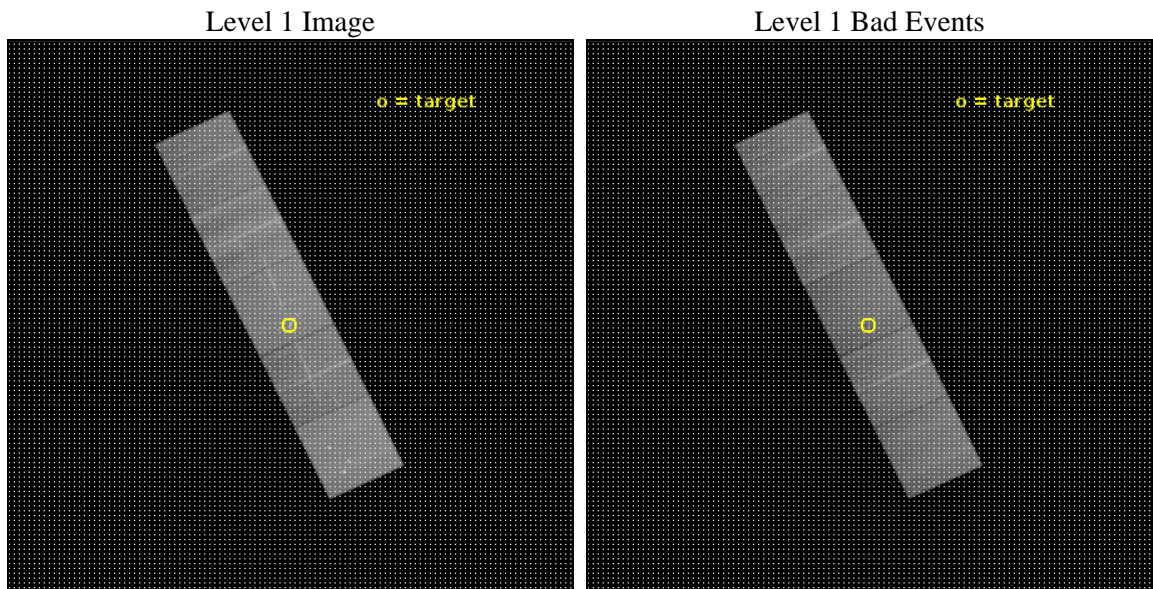
seq_num	201298	Sequence number
obs_id	22341	Observation id
title	THE TRUE NATURE OF X-RAYS FROM THE ORION TRAPEZIUM	Proposal title
observer	Norbert Schulz	Principal investigator
object	Orion Nebula Cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.8173703805	Nominal RA [deg]
dec_nom	-5.38671044773	Nominal Dec [deg]
roll_nom	244.659092895	Nominal Roll [deg]
revision	1	Processing version of data
ontime	32548.916224599	Sum of GTIs [s]
livetime	32123.640671961	Livetime [s]
ontime5	32548.875184655	Sum of GTIs [s]
ontime6	32548.834144592	Sum of GTIs [s]
ontime7	32548.916224599	Sum of GTIs [s]
ontime8	32542.511184096	Sum of GTIs [s]
ontime9	32548.752064586	Sum of GTIs [s]
l2events	512126	Number of level 2 events



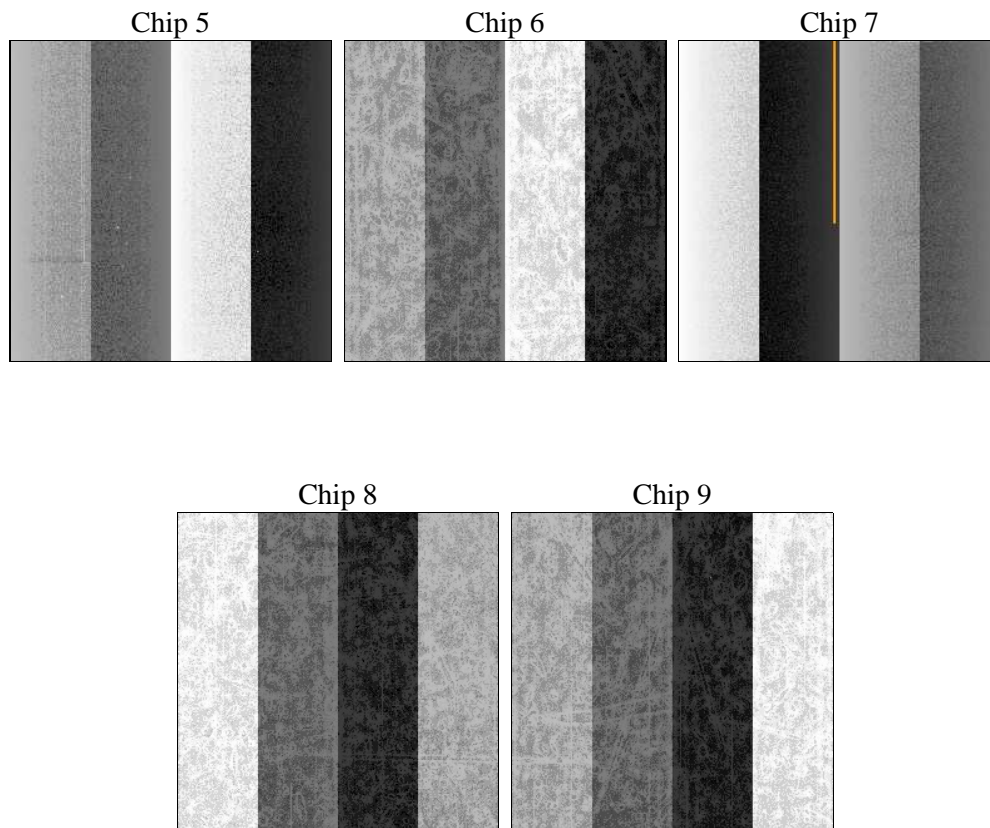
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32500.000000	[s] Scheduled observation exposure time
ascdsver	10.8.4	Processing system revision	ontime	32548.916224599	Sum of GTIs [s]
caldbver	4.9.1	 	ontime5	32548.875184655	Sum of GTIs [s]
date	2020-04-30T03:10:42	Date and time of file creation	ontime6	32548.834144592	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	32548.916224599	Sum of GTIs [s]
			ontime8	32542.511184096	Sum of GTIs [s]
			ontime9	32548.752064586	Sum of GTIs [s]
			l1events	1758065	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zo_pos	(4088.22, 4073.42)	src1a sky pixel position

2.1.4 Events

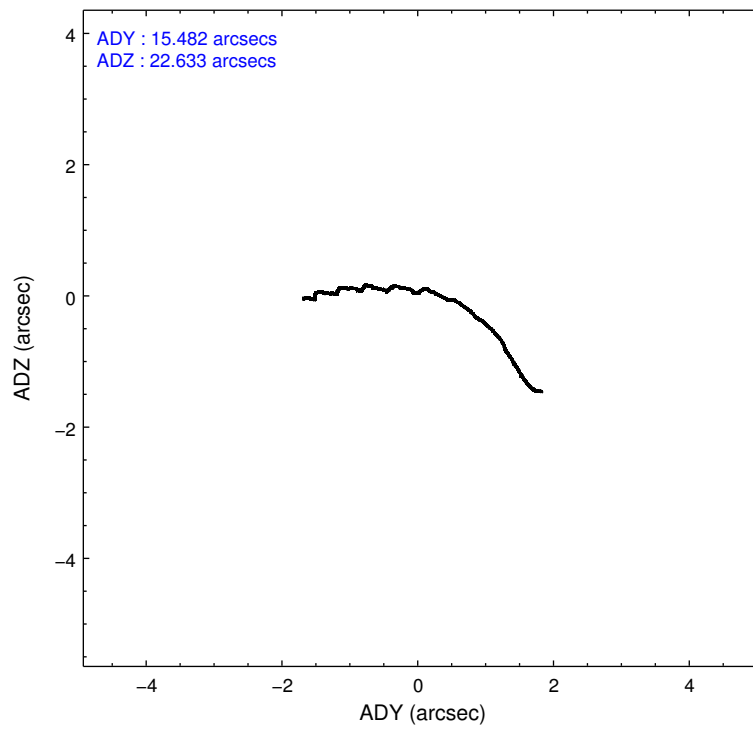
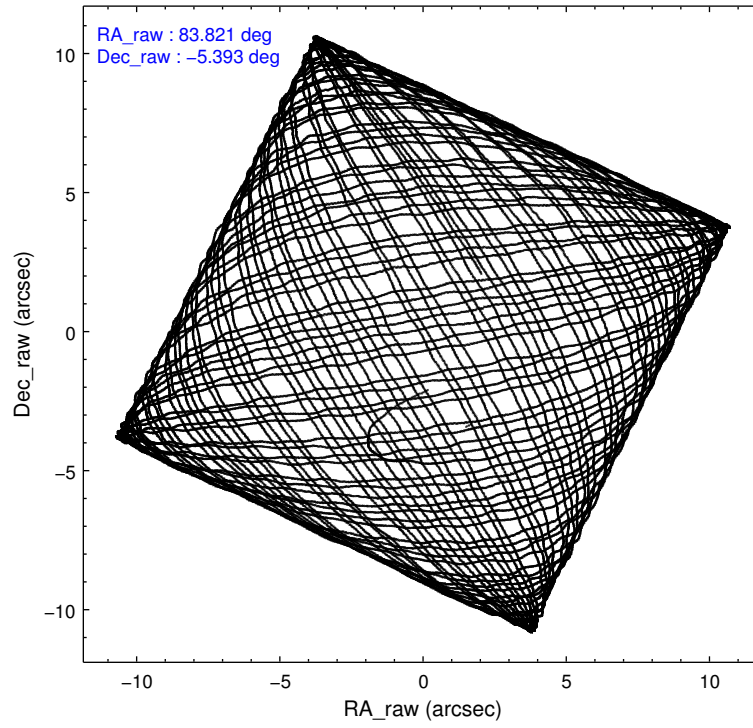
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	430818	296398	393227	361487	276135
rejected events	219401	242688	195739	253786	240690
rejected %	50%	81%	49%	70%	87%

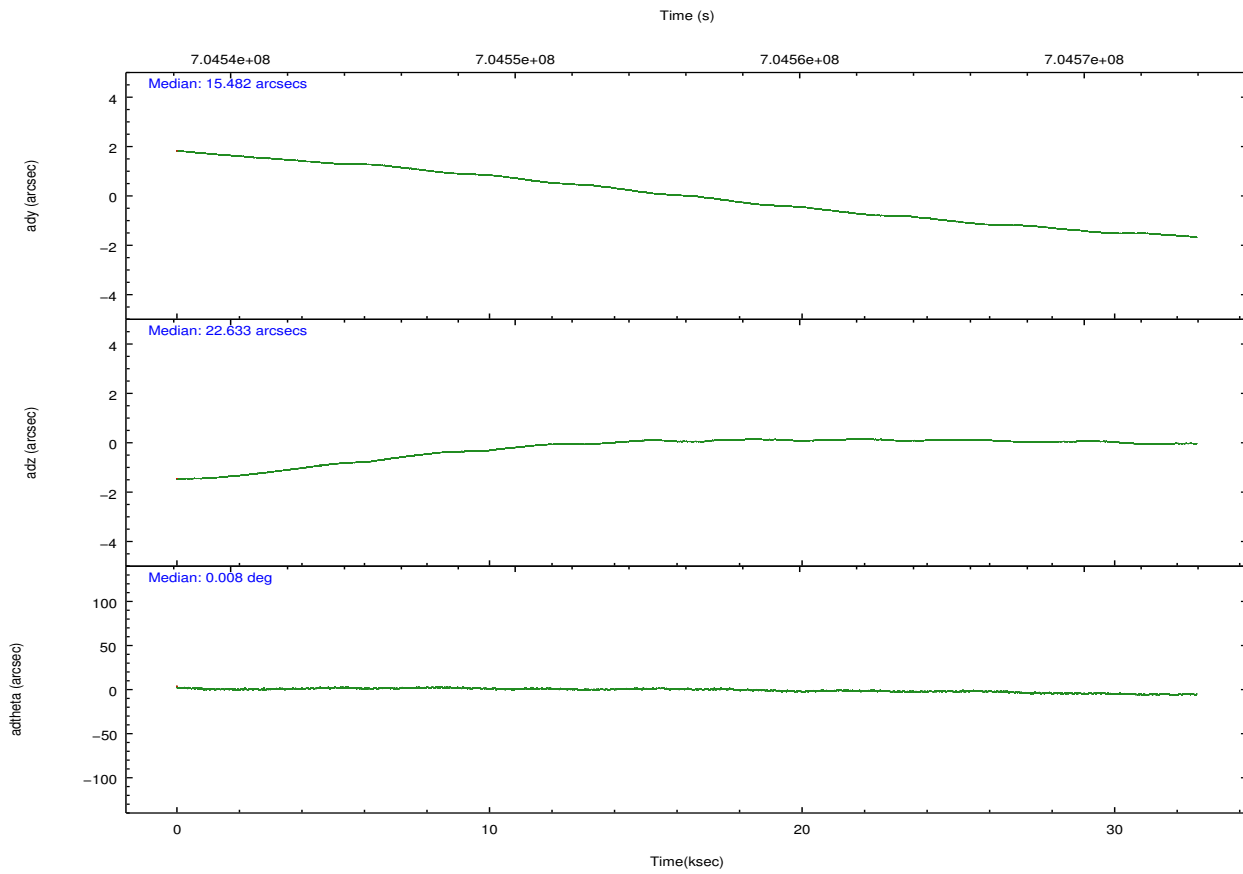
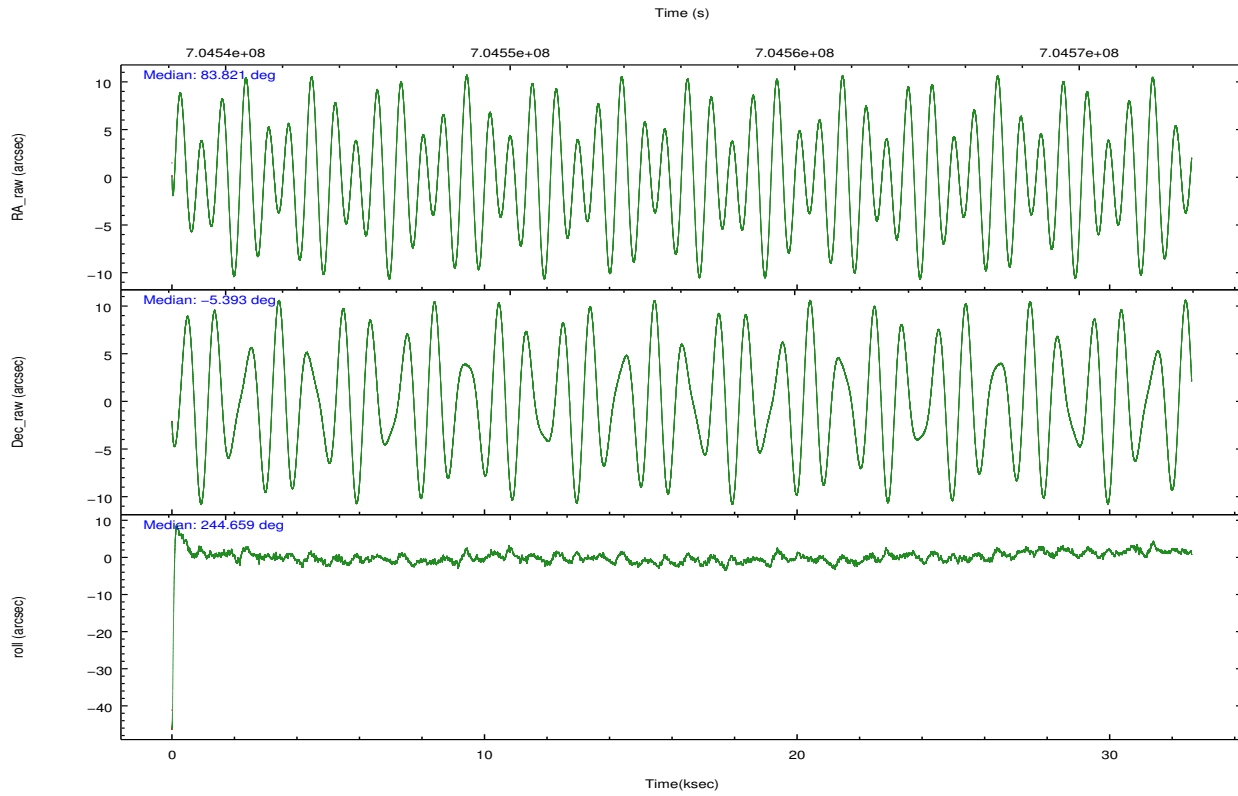
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	18657	27535	22828	37645	13556
	4%	9%	5%	10%	4%
grade 1 events	1387	206	707	351	177
	0%	0%	0%	0%	0%
grade 2 events	66871	10897	44972	24617	7992
	15%	3%	11%	6%	2%
grade 3 events	6586	3485	16659	9748	3296
	1%	1%	4%	2%	1%
grade 4 events	6309	3414	16362	9260	3146
	1%	1%	4%	2%	1%
grade 5 events	27767	11726	33584	18240	13657
	6%	3%	8%	5%	4%
grade 6 events	113020	8384	96691	26435	7466
	26%	2%	24%	7%	2%
grade 7 events	190221	230751	161424	235191	226845
	44%	77%	41%	65%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	83.818639	83.81737038049999	CCD I2 on	N	N
[deg] Pointing Dec	-5.366282	-5.38671044773	CCD I3 on	N	N
[deg] Pointing Roll	244.499987	244.659092895	CCD S0 on	O1	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	704539851.184000	704538517.75542	CCD S5 on	O2	Y
Observation start date	2020-04-29T09:29:42	2020-04-29T09:08:37	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	704572351.184000	704573442.58254	On-chip summing requested	N	N
Observation end date	2020-04-29T18:31:22	2020-04-29T18:50:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





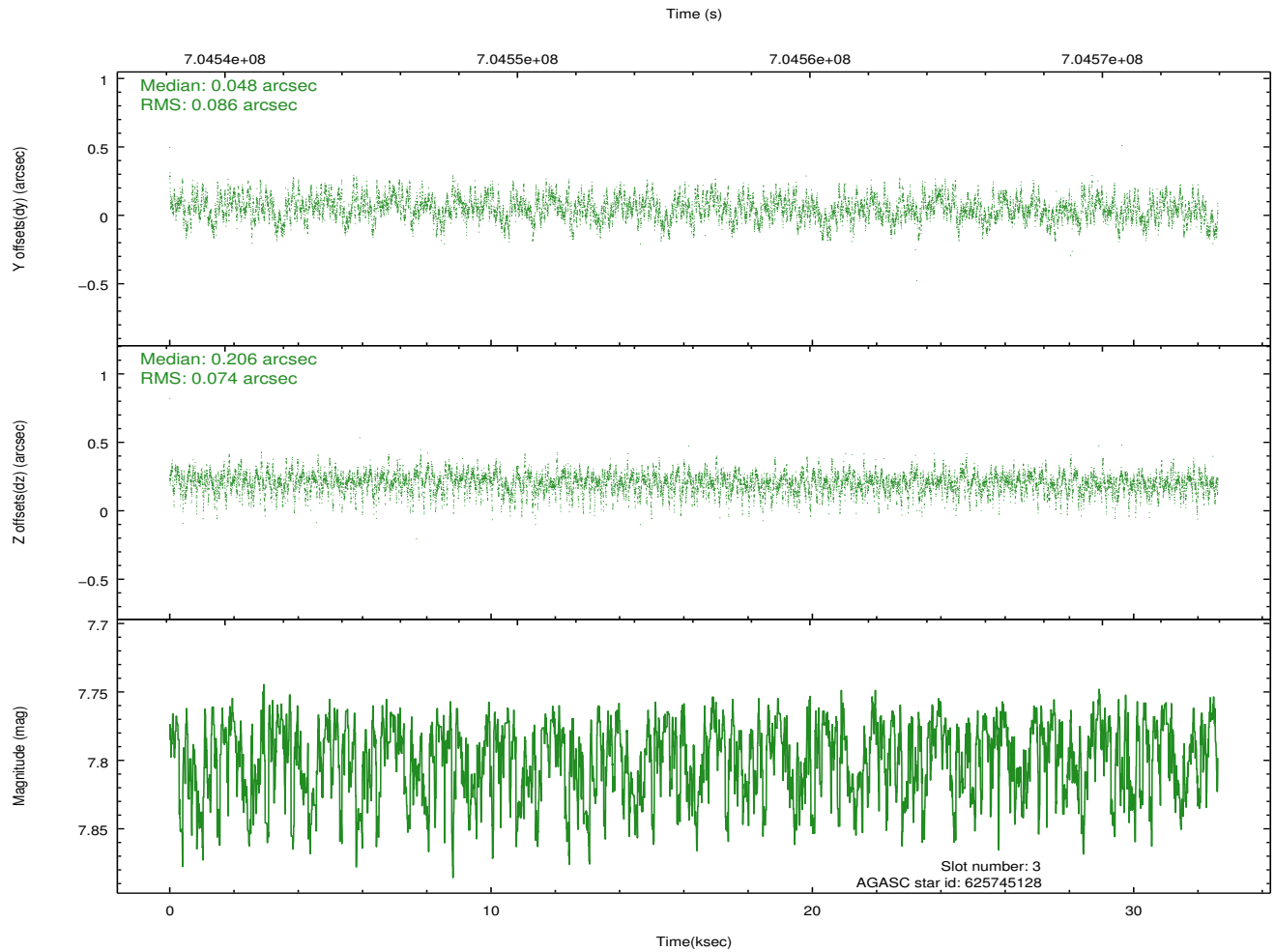
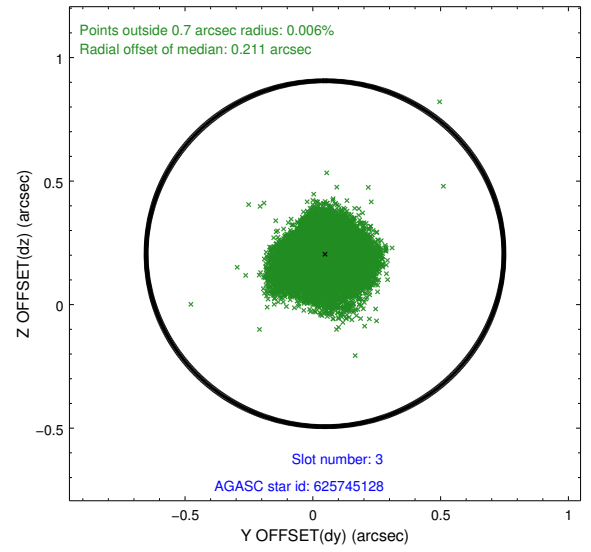
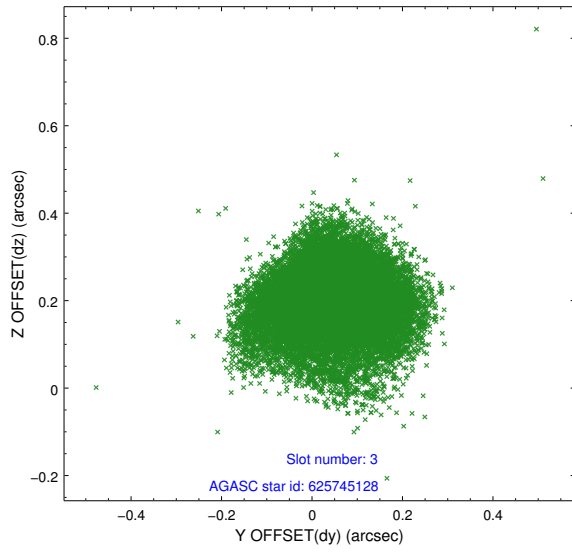
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.05	7958	1.000	0.218	-0.132	0.032	0.050	0.000000	0.000000	-768.63	-1743
1	FID		ACIS-S-4	7.17	7956	1.000	0.091	-0.070	0.036	0.051	0.000000	0.000000	2144.88	163
2	FID		ACIS-S-5	7.14	7957	1.000	-0.346	0.212	0.019	0.027	0.000000	0.000000	-1821.58	158
3	GUIDE	used	625745128	7.80	15910	1.000	0.048	0.206	0.122	0.195	83.769930	-4.731835	-1985.83	-1140
4	GUIDE	used	625745136	7.20	15845	1.000	0.200	-0.075	0.125	0.192	83.600341	-4.804339	-1488.54	-1577
5	GUIDE	used	625874672	7.67	15911	1.000	-0.360	0.041	0.110	0.200	84.403143	-4.934124	-2305.54	1223
6	GUIDE	used	626272880	7.68	15909	1.000	0.012	-0.094	0.085	0.135	83.815609	-6.032748	2170.90	1023
7	GUIDE	used	626272976	7.96	15902	1.000	0.102	-0.080	0.098	0.189	83.795875	-5.926912	1857.75	795

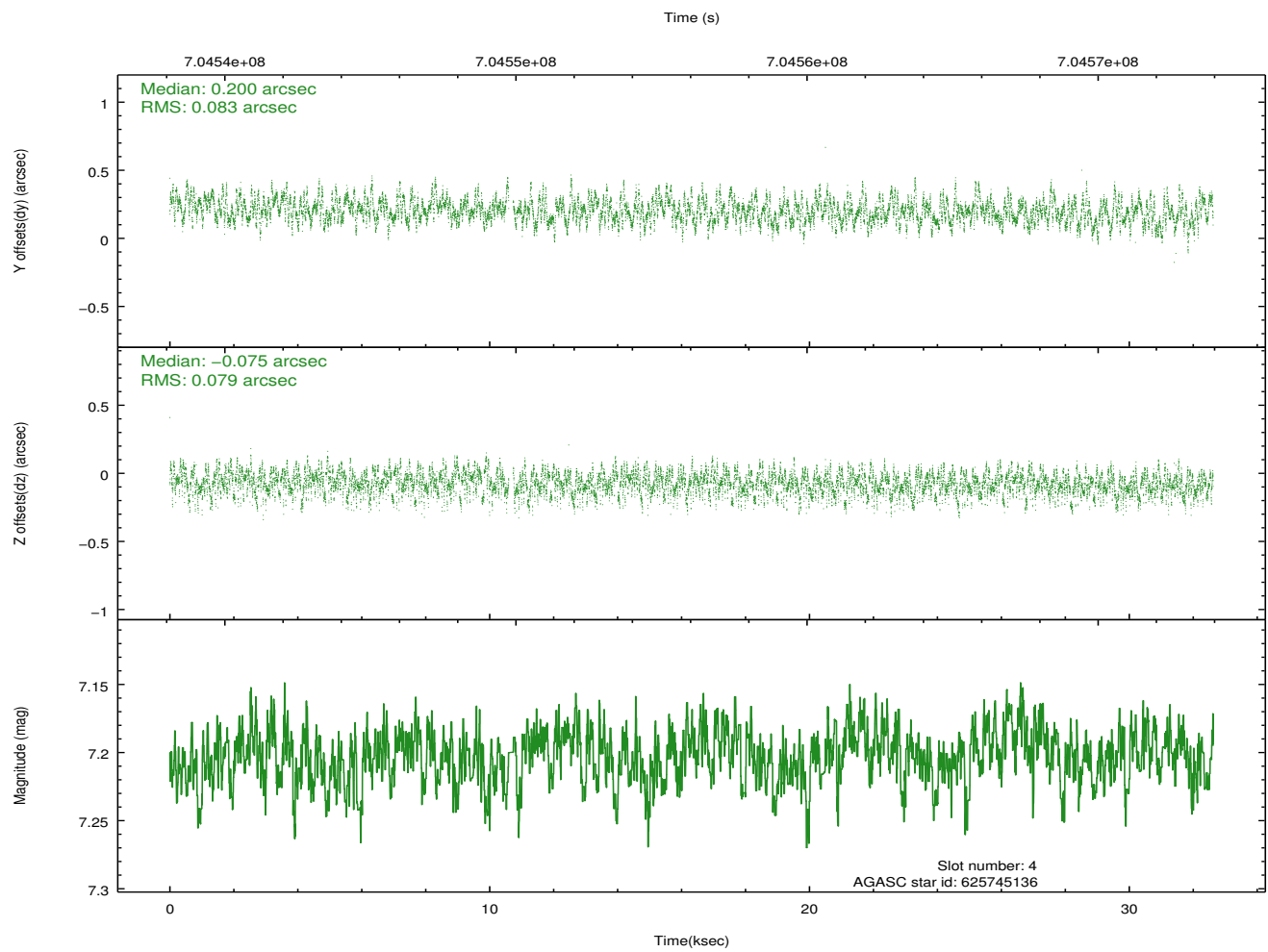
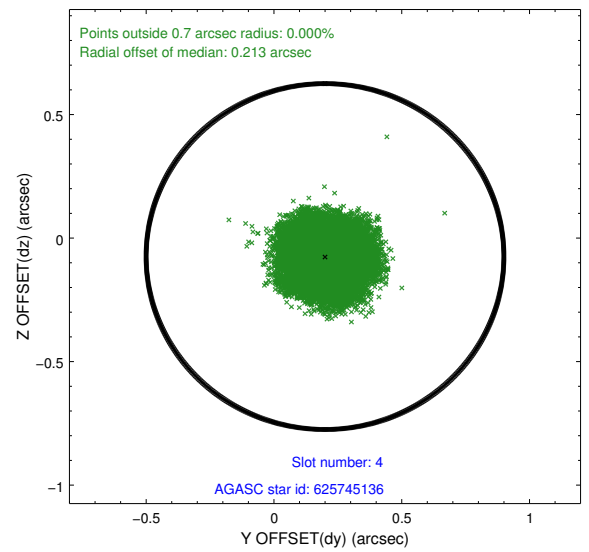
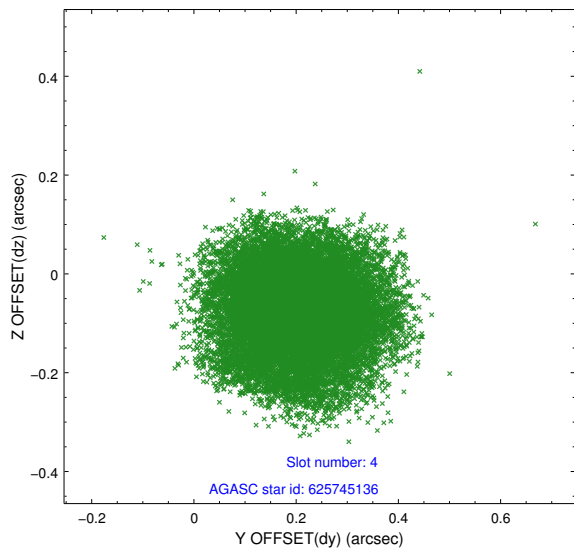
∞

2.4 Star Slots

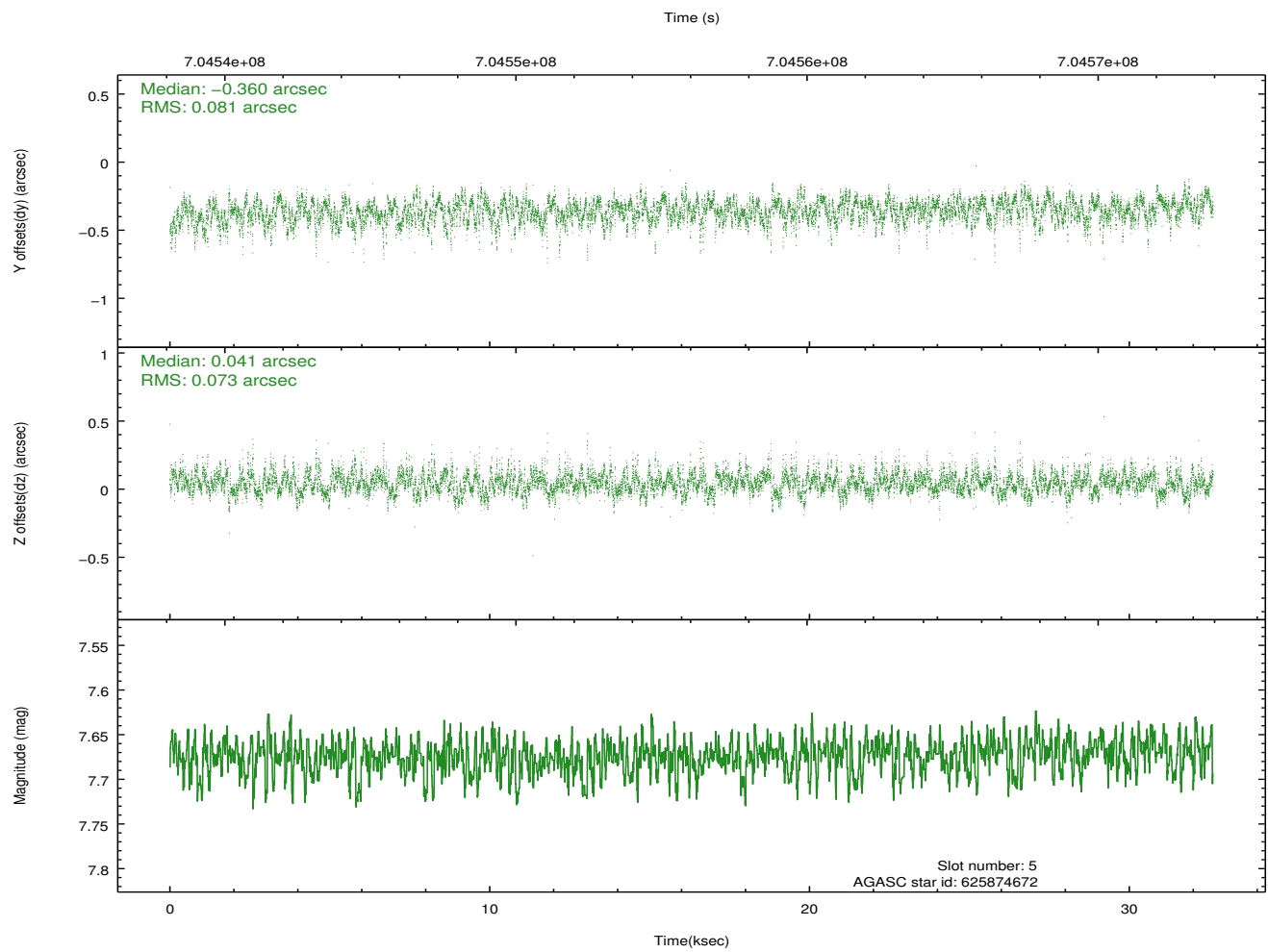
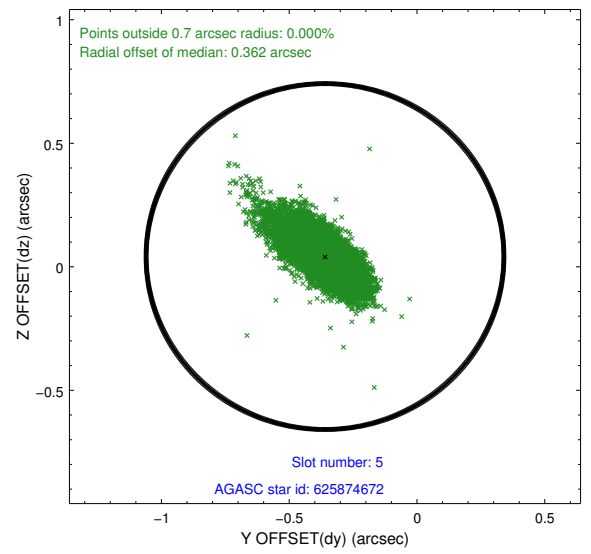
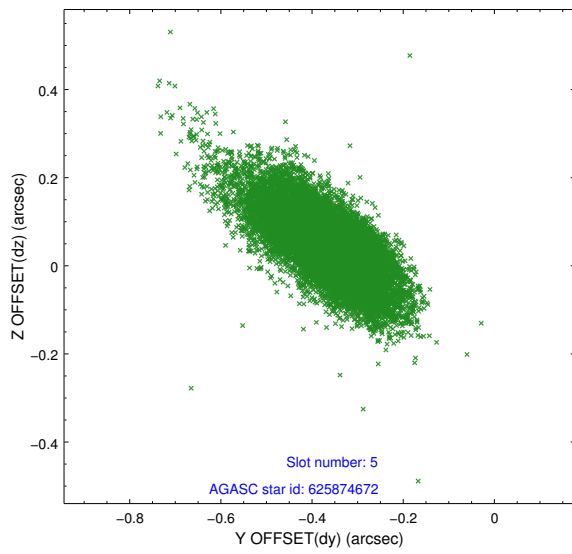
2.4.1 Slot 3



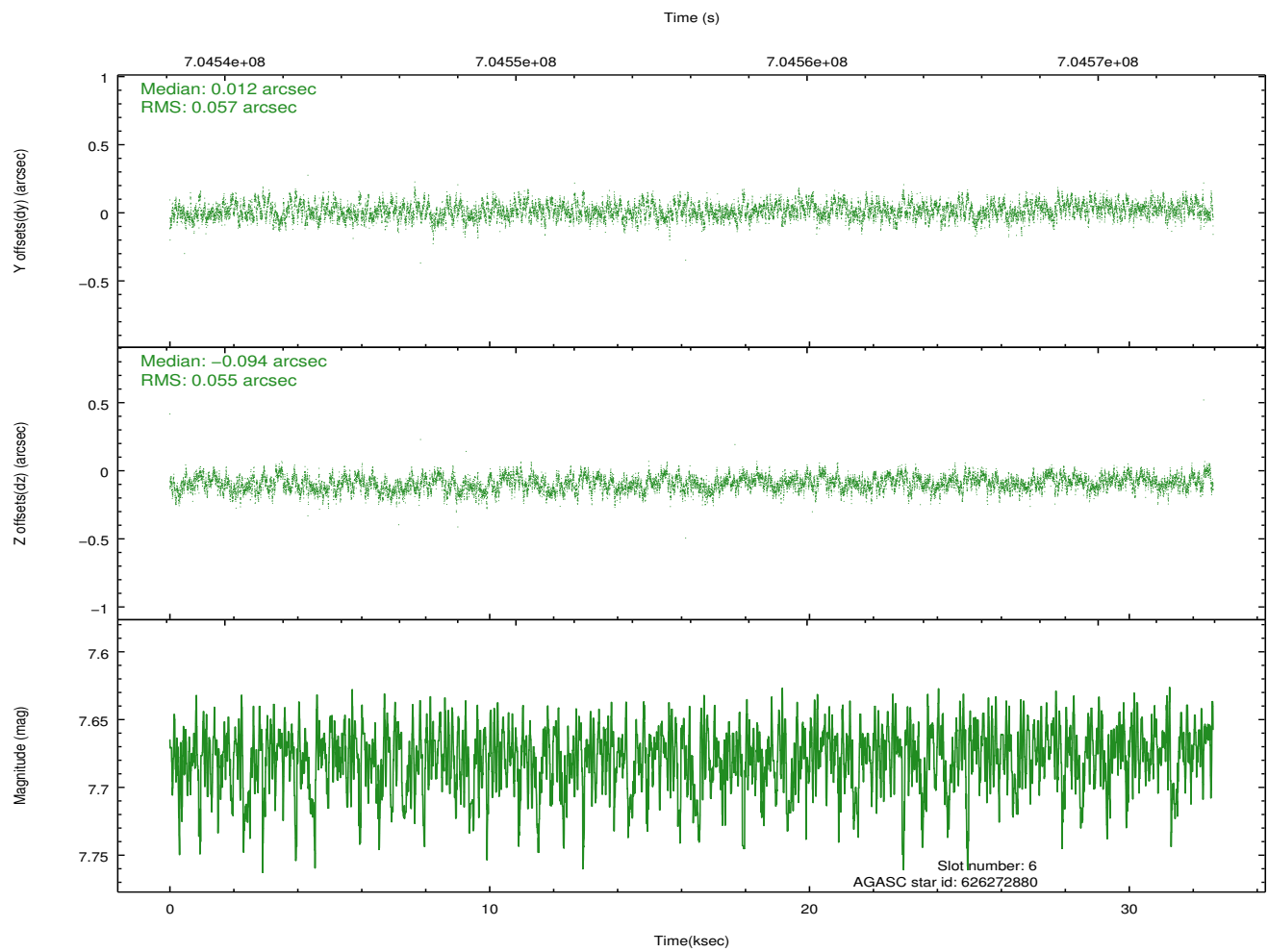
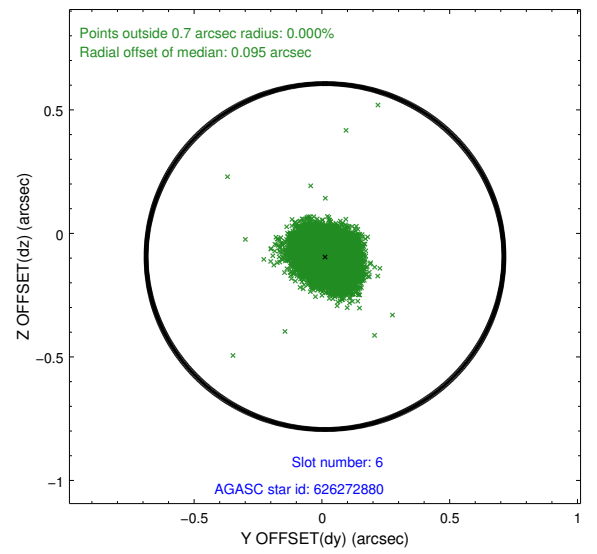
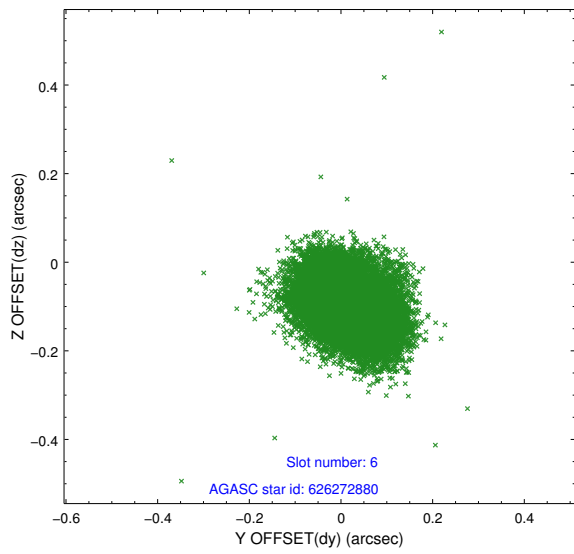
2.4.2 Slot 4



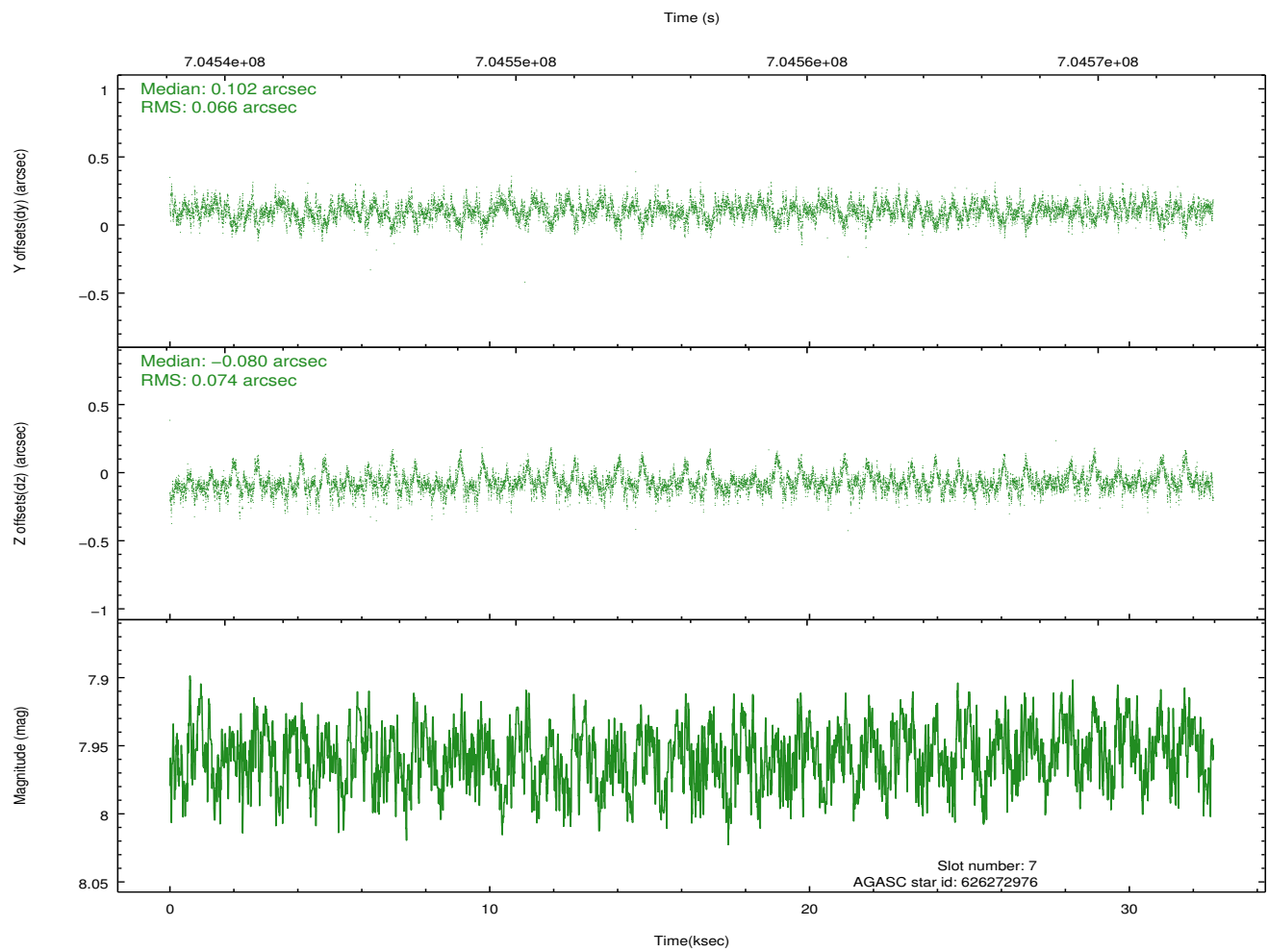
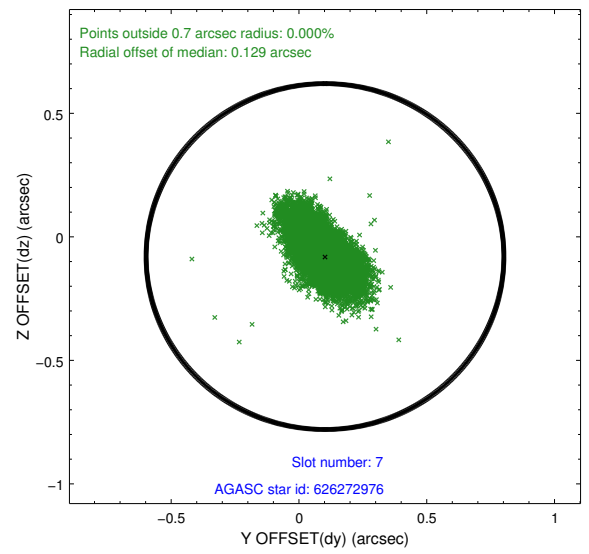
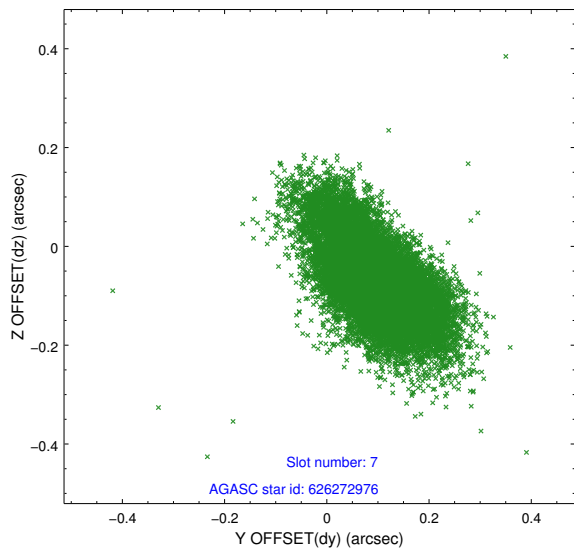
2.4.3 Slot 5



2.4.4 Slot 6

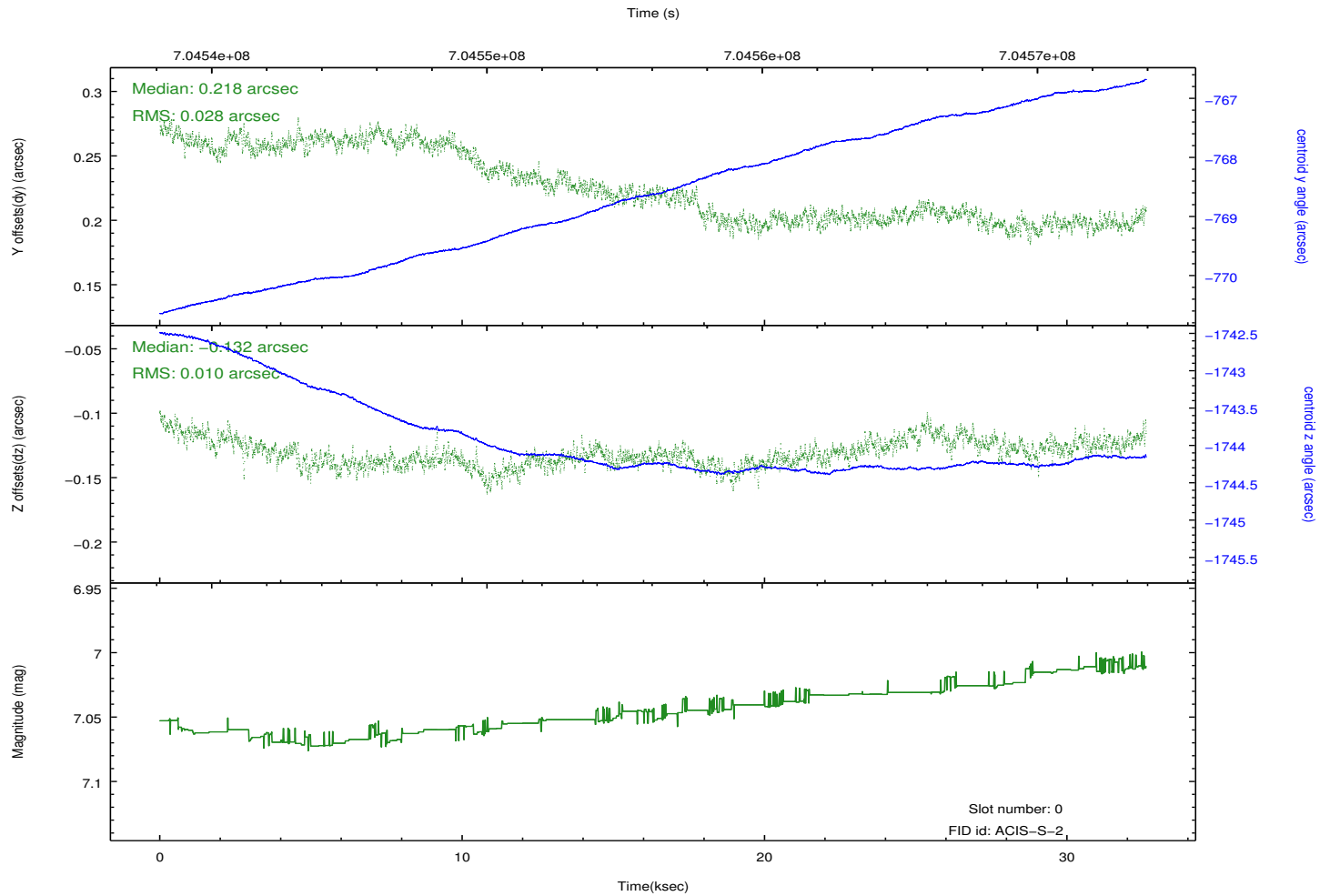
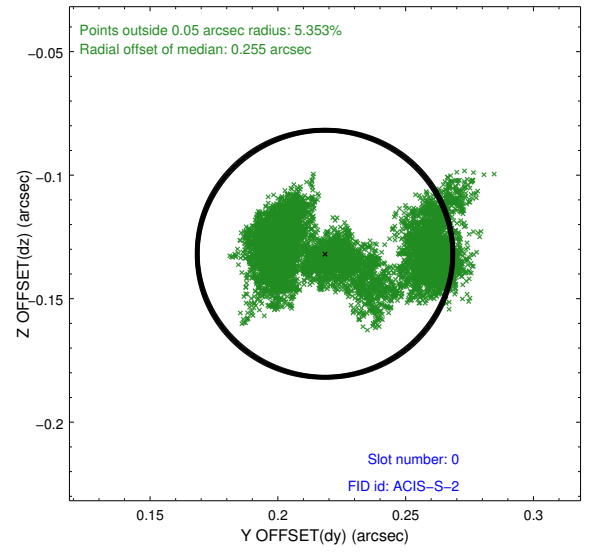
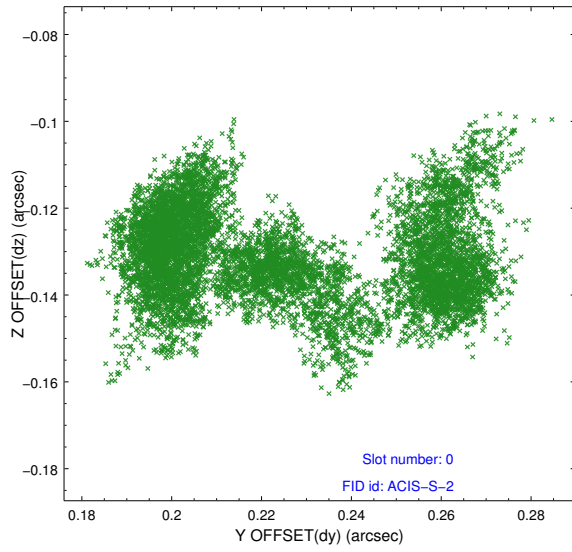


2.4.5 Slot 7

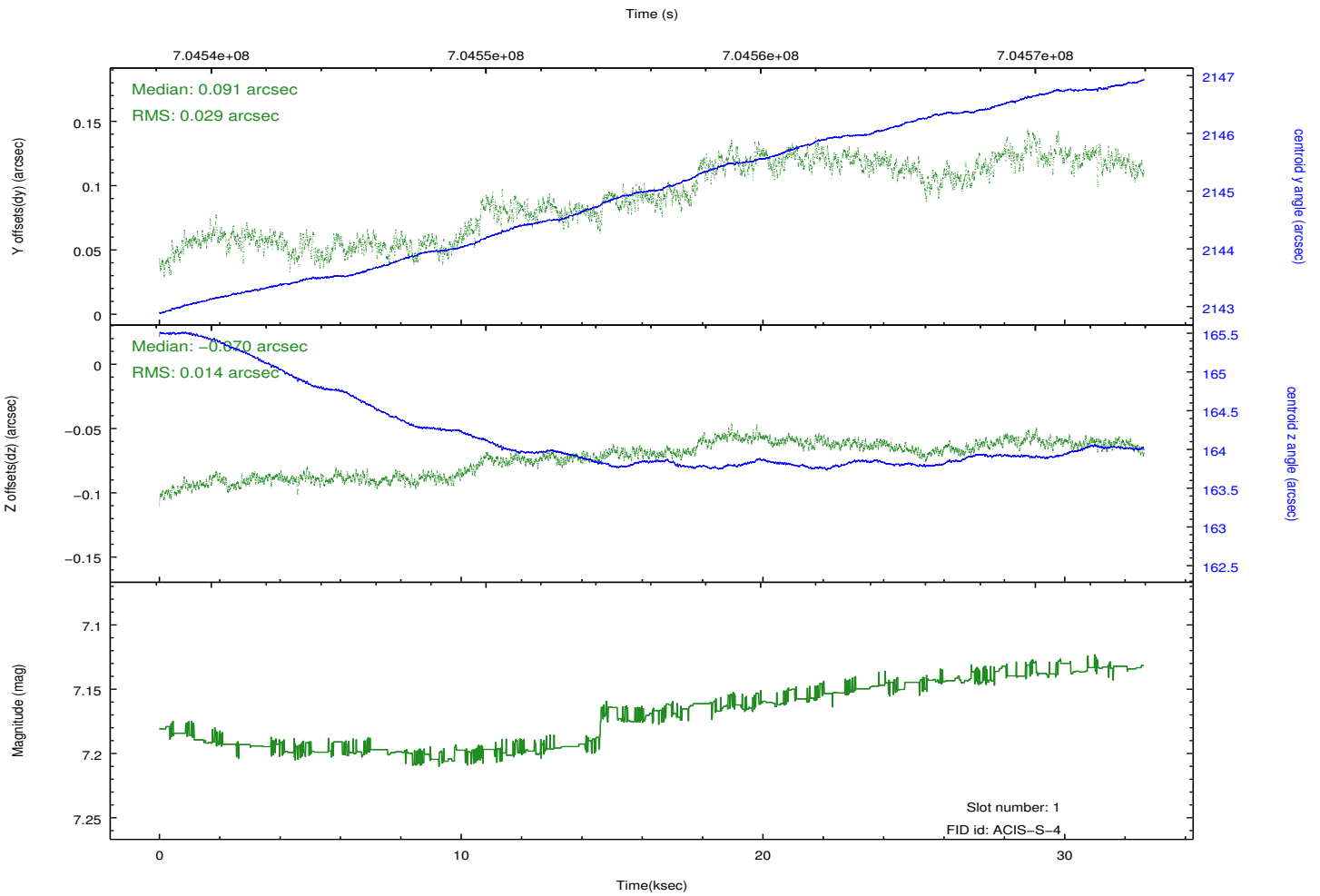
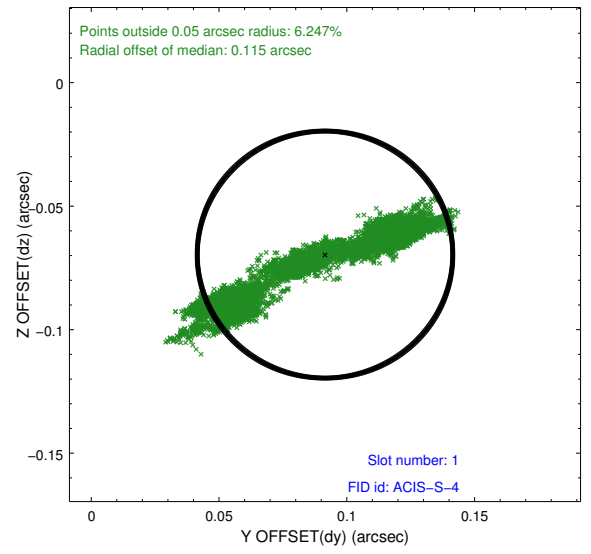
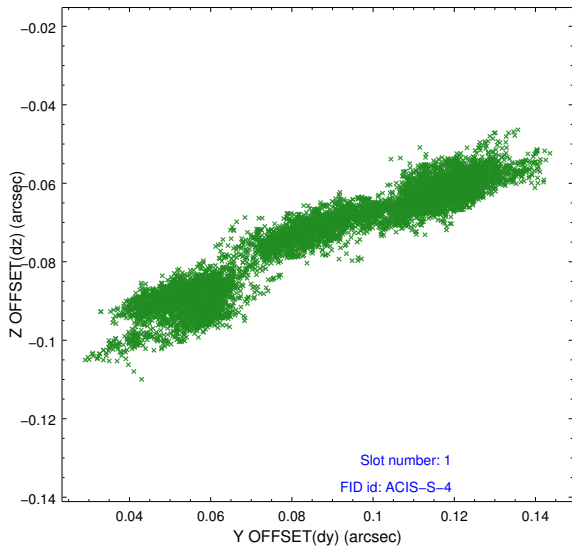


2.5 FID Slots

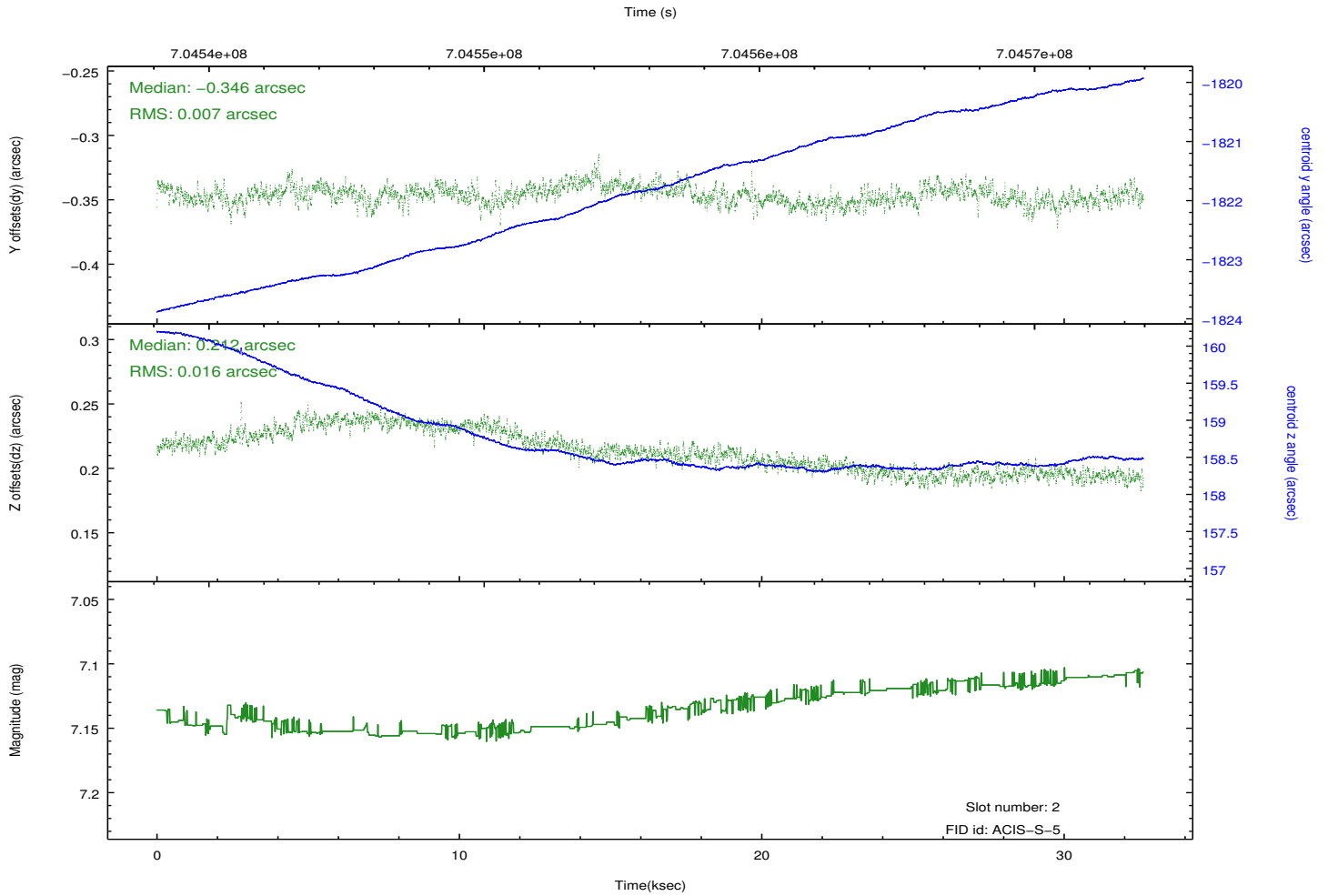
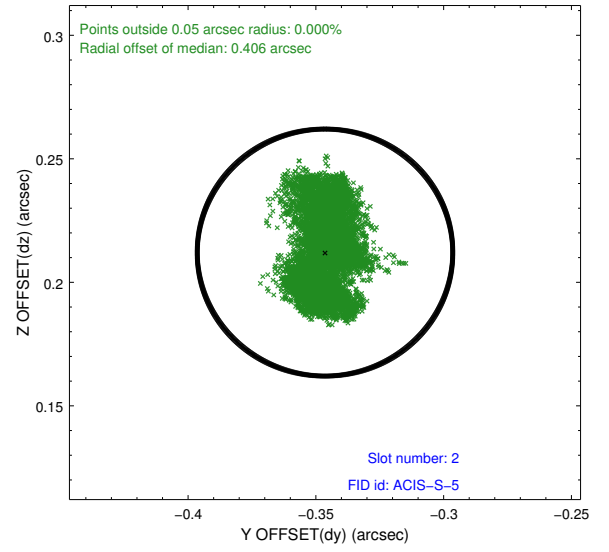
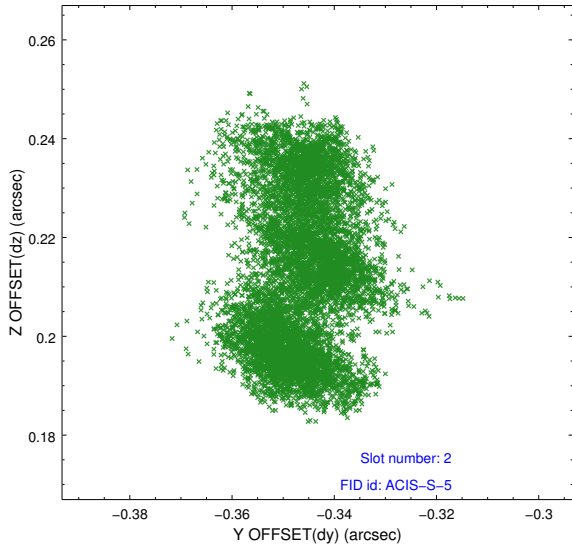
2.5.1 Slot 0



2.5.2 Slot 1

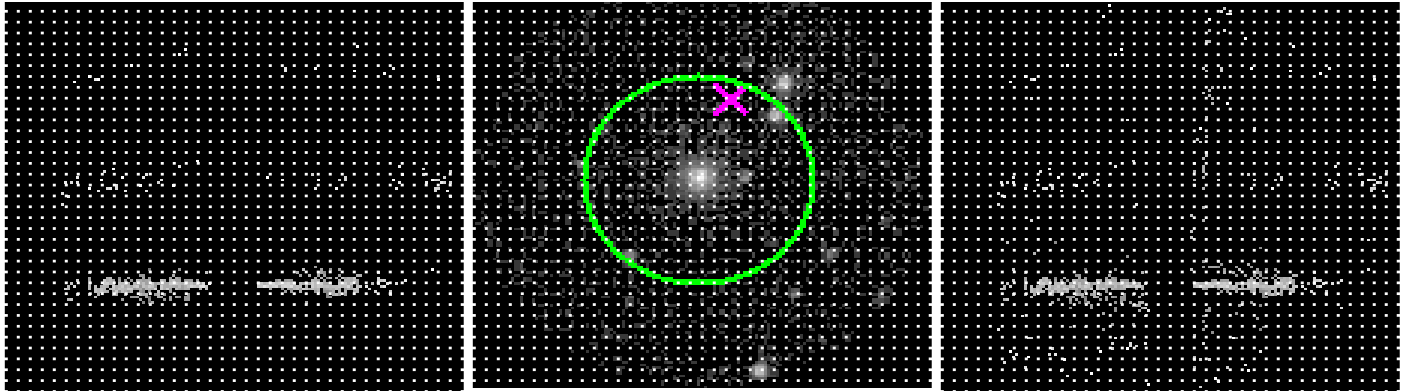


2.5.3 Slot 2



3 Gratings

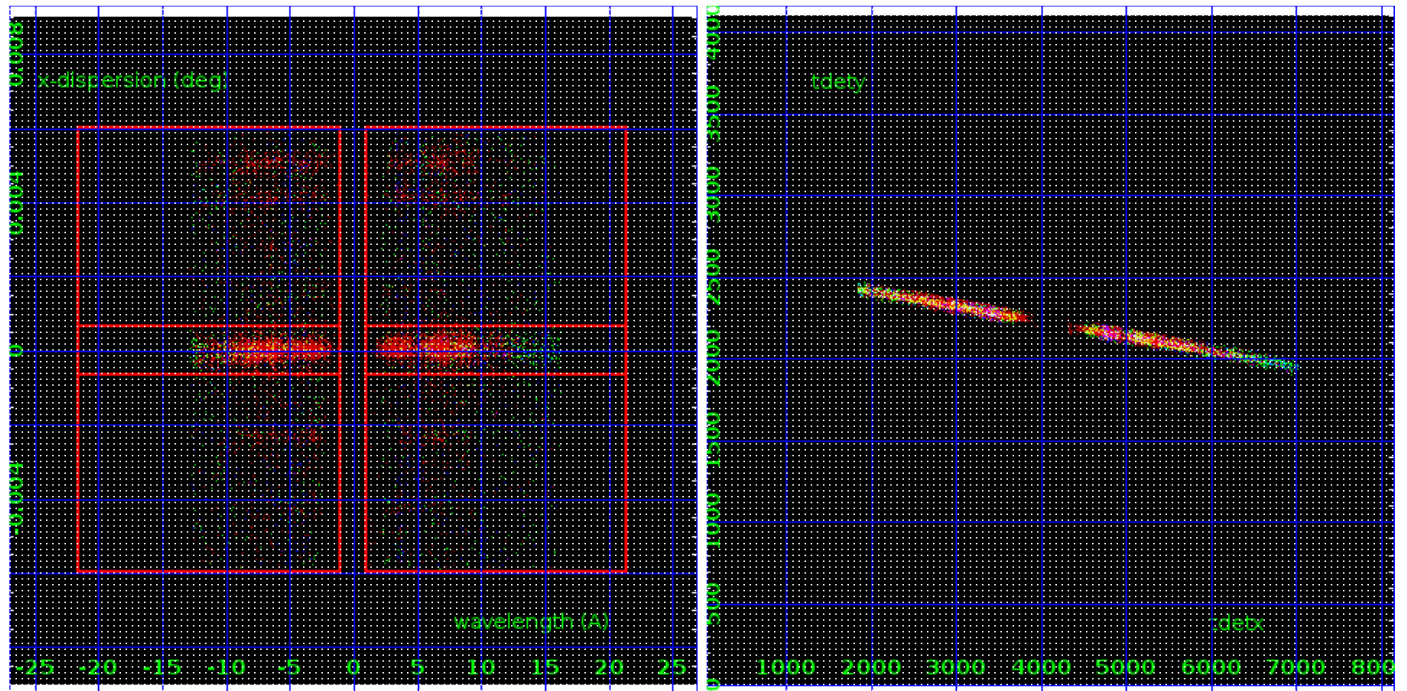
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

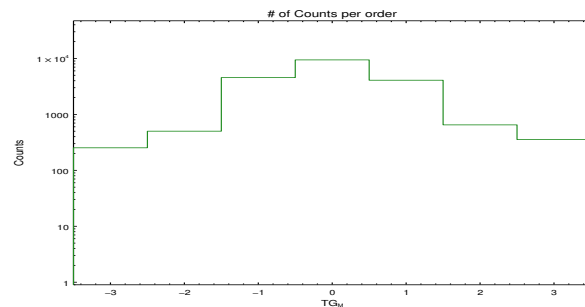
HEG Order Sort ALL



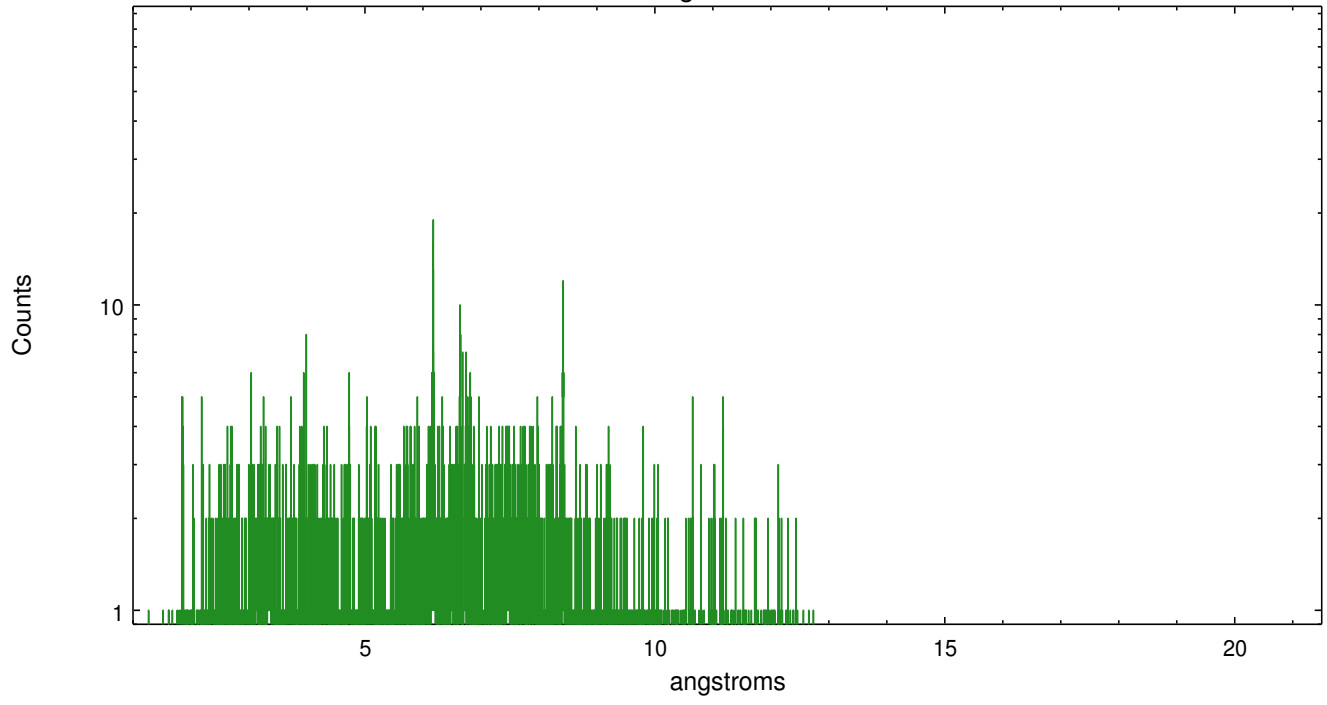
Spot Image HEG

Full Detector HEG

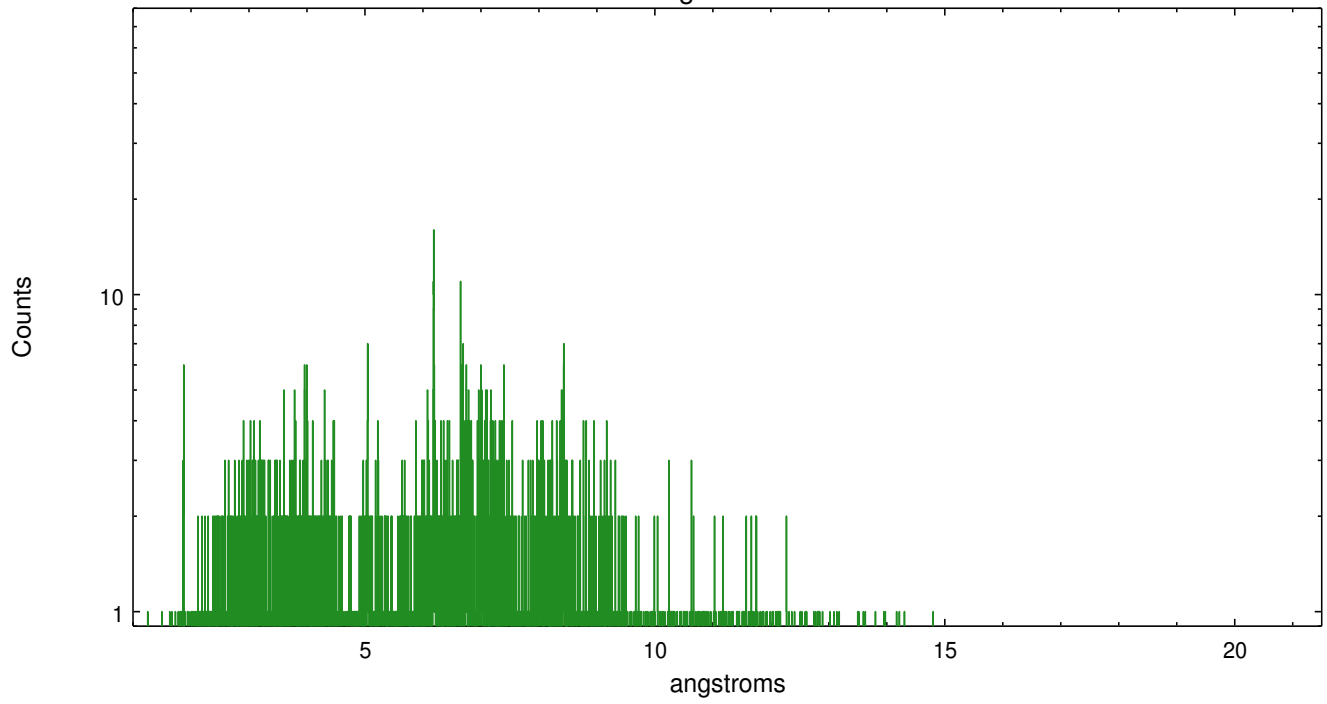
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	253	501	4548	9429	4080	650	355



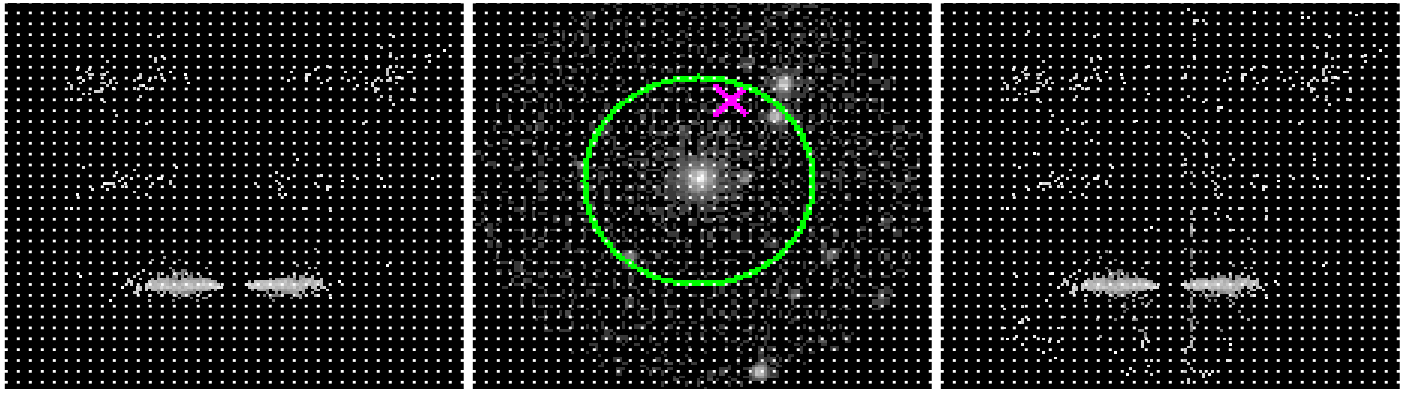
heg order -1



heg order +1



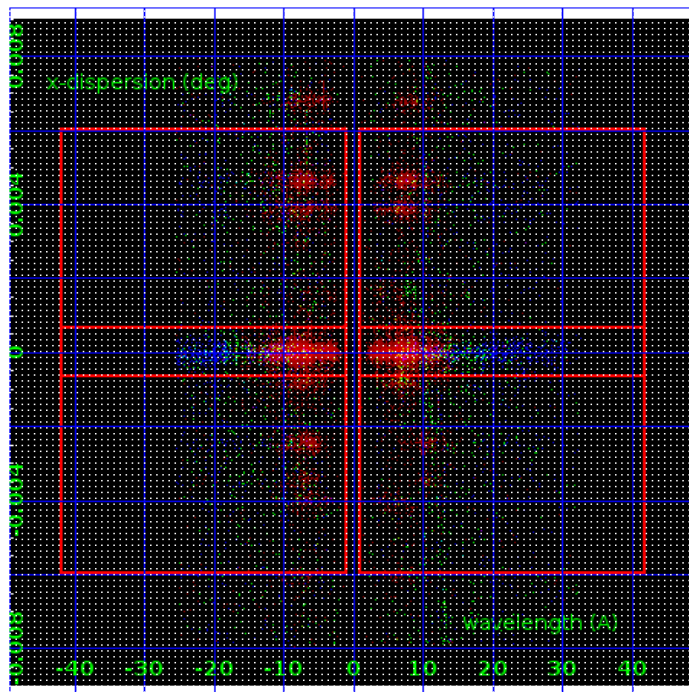
3.2 MEG Arm



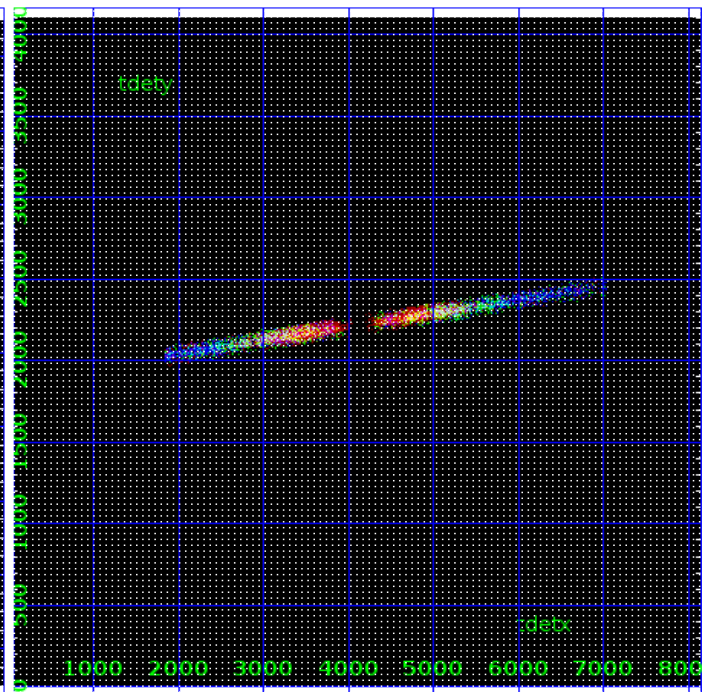
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

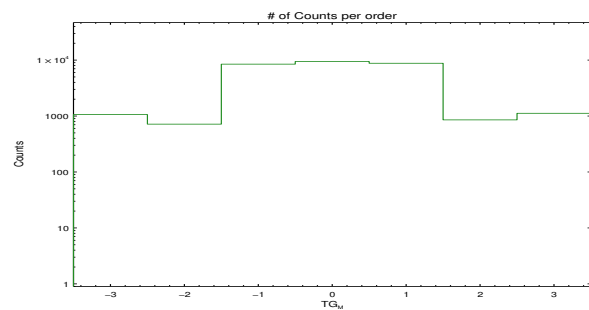


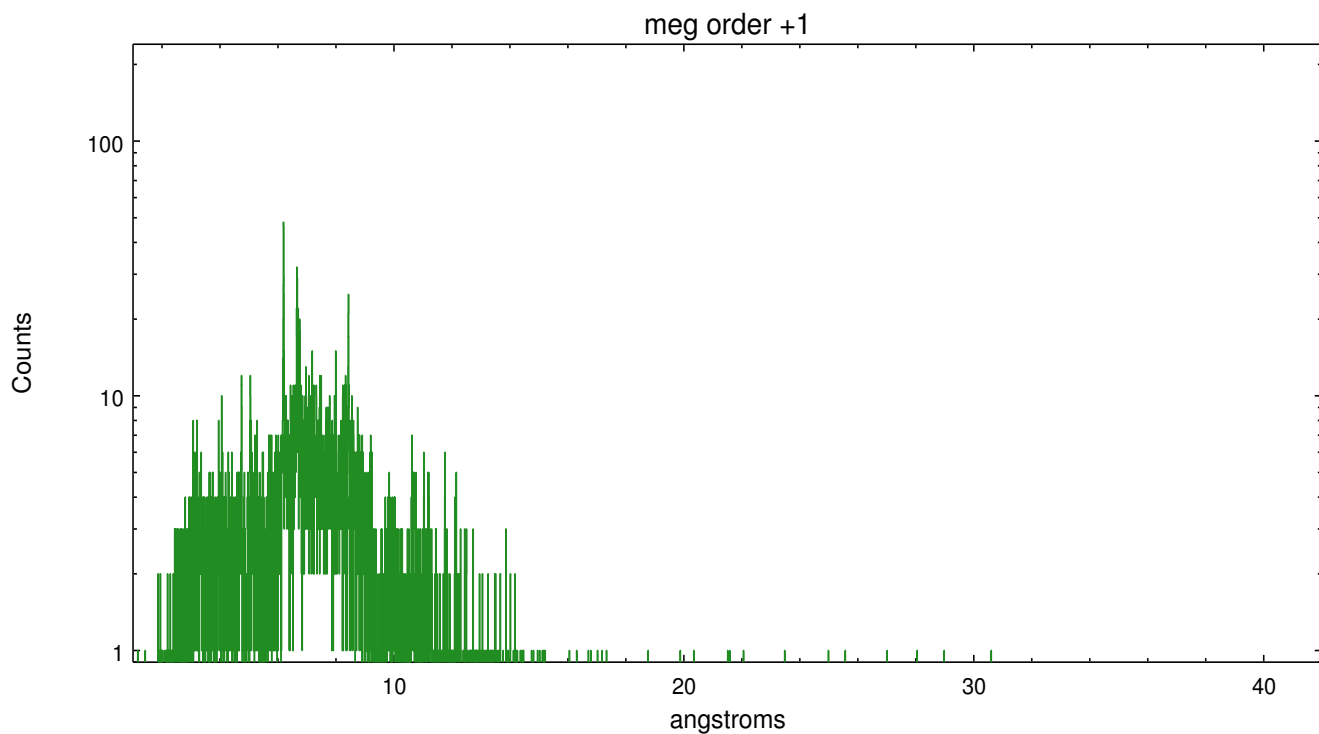
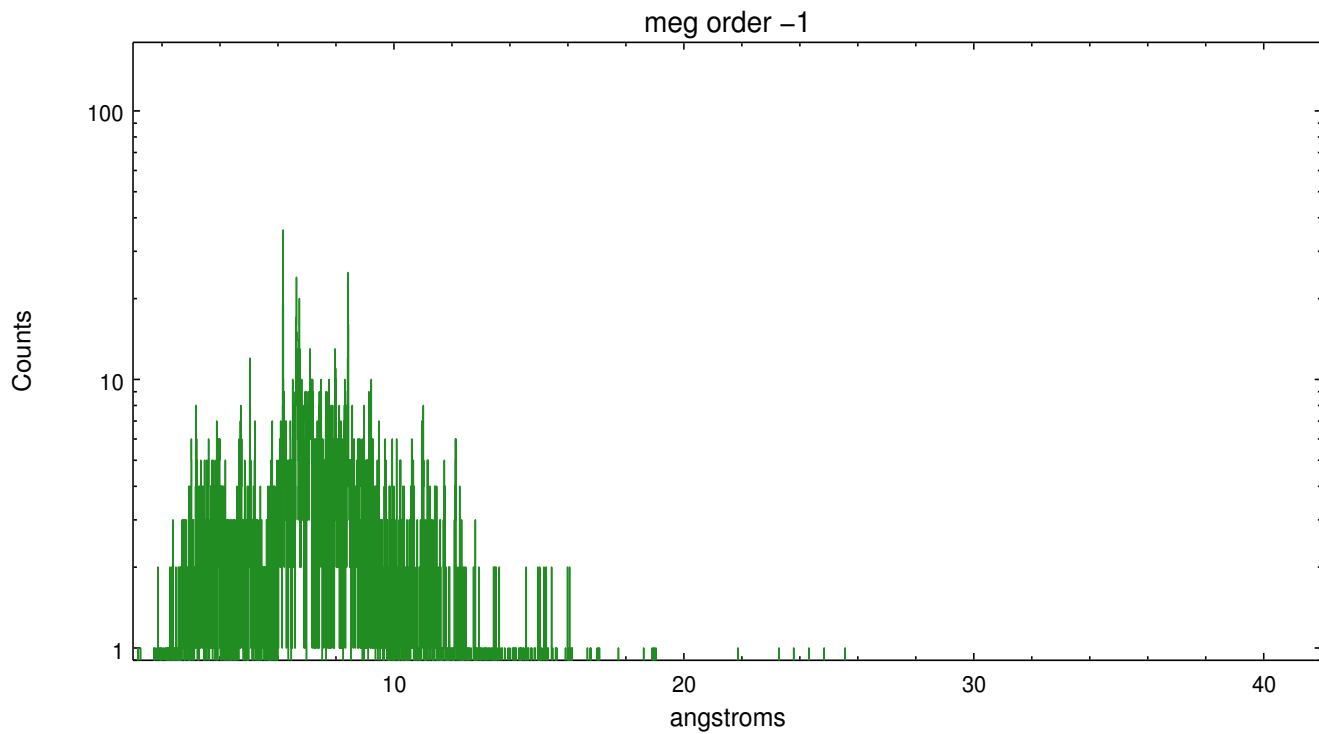
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1062	716	8462	9429	8774	854	1119





A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.04.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.548916224599

A.2 Comments