

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 23005 - L2 Version 1
Chandra X-Ray Center

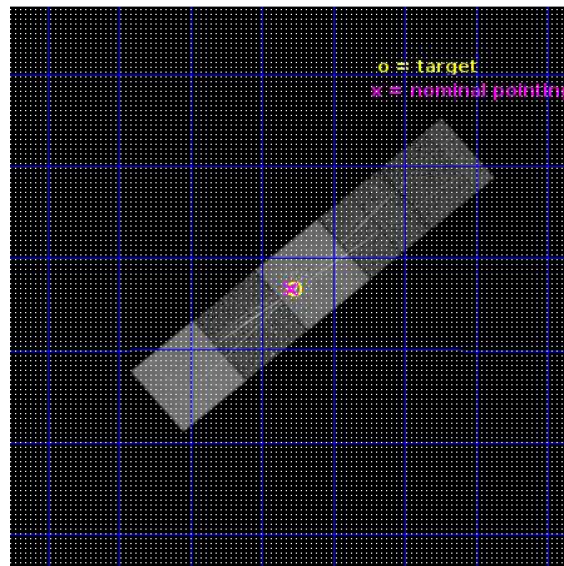
L2 Processing Date : Jan 8 2020

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1 Front

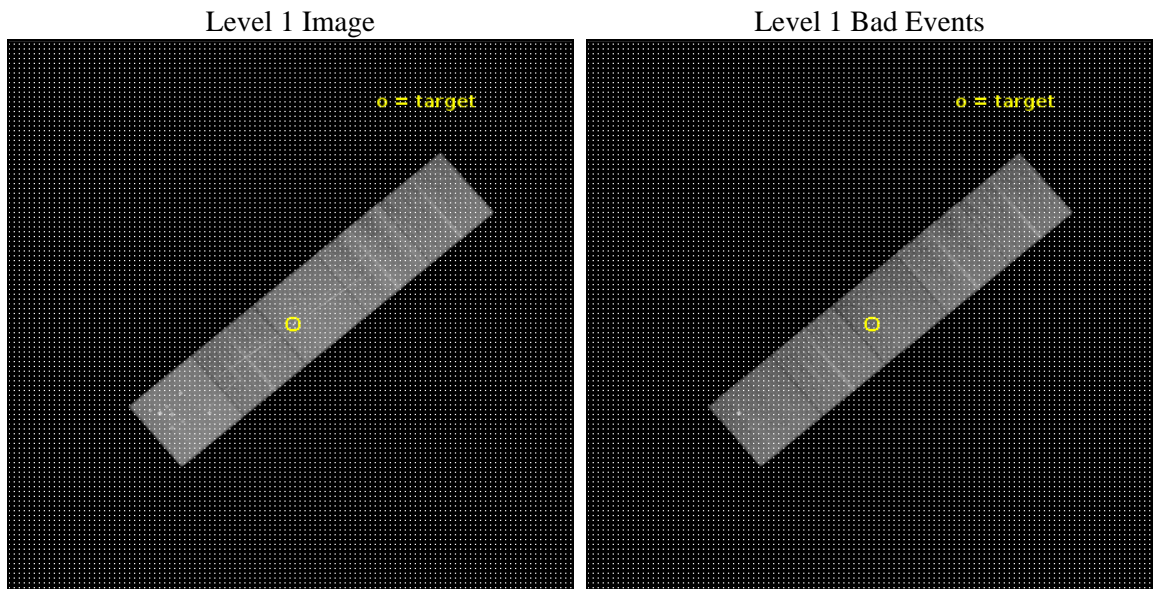
seq_num	201298	Sequence number
obs_id	23005	Observation id
title	THE TRUE NATURE OF X-RAYS FROM THE ORION TRAPEZIUM	Proposal title
observer	Norbert Schulz	Principal investigator
object	Orion Nebula Cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.823751562635	Nominal RA [deg]
dec_nom	-5.3885381186716	Nominal Dec [deg]
roll_nom	319.65154489575	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25055.953670859	Sum of GTIs [s]
livetime	24728.579190225	Livetime [s]
ontime5	25055.912630916	Sum of GTIs [s]
ontime6	25052.73050046	Sum of GTIs [s]
ontime7	25055.953670859	Sum of GTIs [s]
ontime8	25055.830550909	Sum of GTIs [s]
ontime9	25055.789510846	Sum of GTIs [s]
l2events	376206	Number of level 2 events



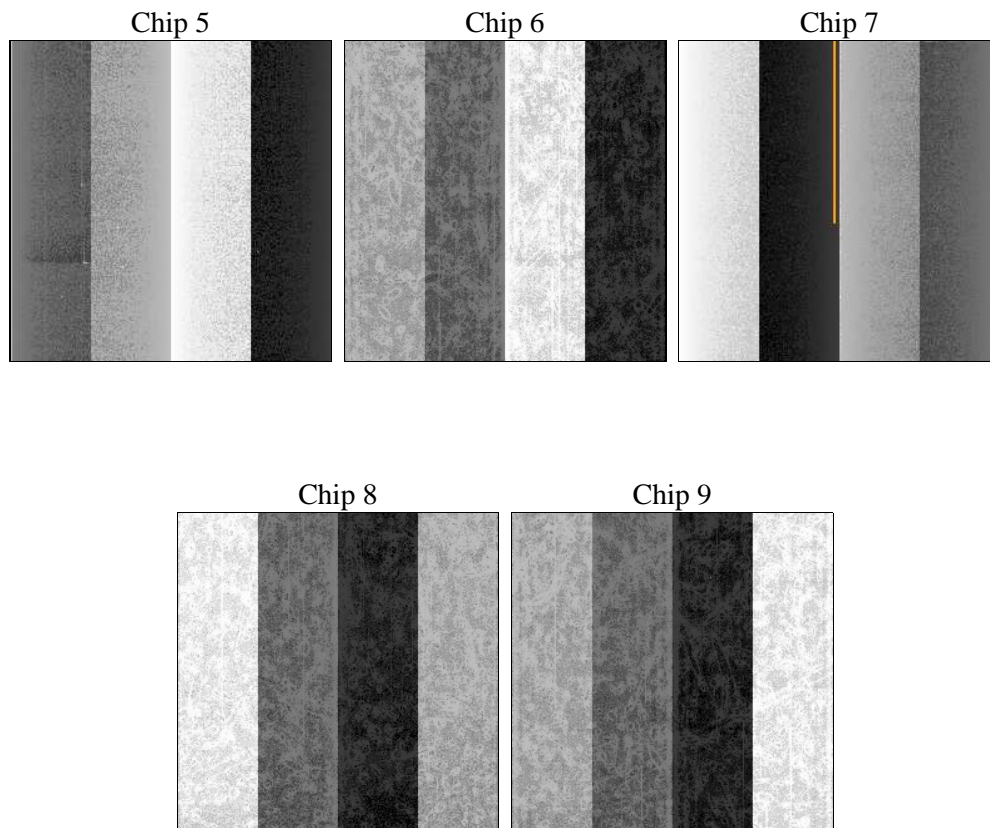
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	25055.953670859	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime5	25055.912630916	Sum of GTIs [s]
date	2020-01-08T23:51:44	Date and time of file creation	ontime6	25052.73050046	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	25055.953670859	Sum of GTIs [s]
			ontime8	25055.830550909	Sum of GTIs [s]
			ontime9	25055.789510846	Sum of GTIs [s]
			l1events	1299821	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4134.17, 4087.50)	src1a sky pixel position

2.1.4 Events

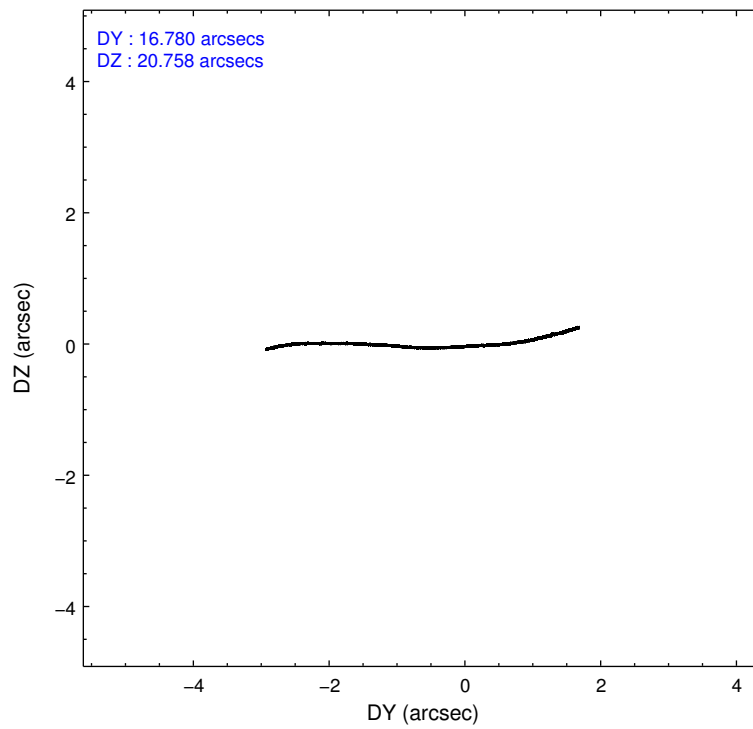
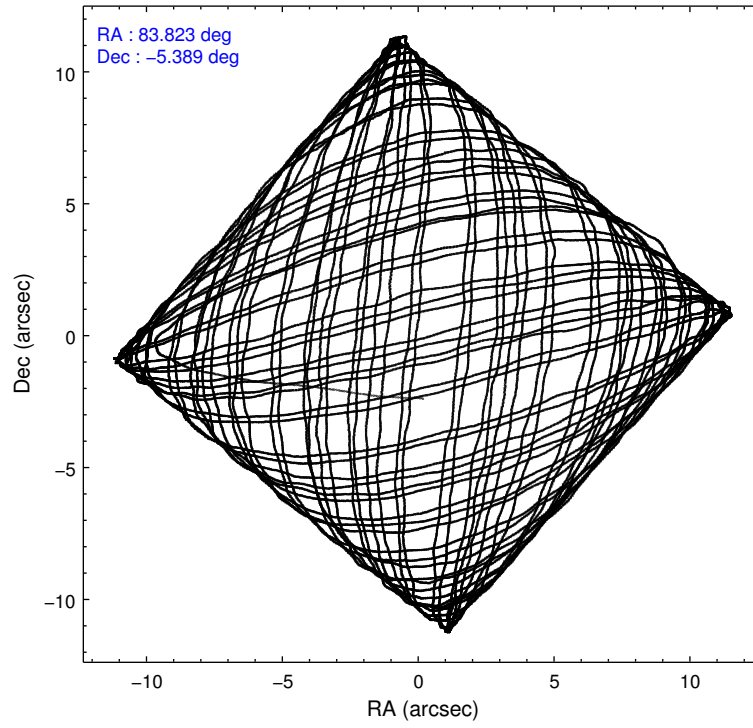
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	334028	215267	288636	262485	199405
rejected events	166751	175057	144184	185540	174351
rejected %	49%	81%	49%	70%	87%

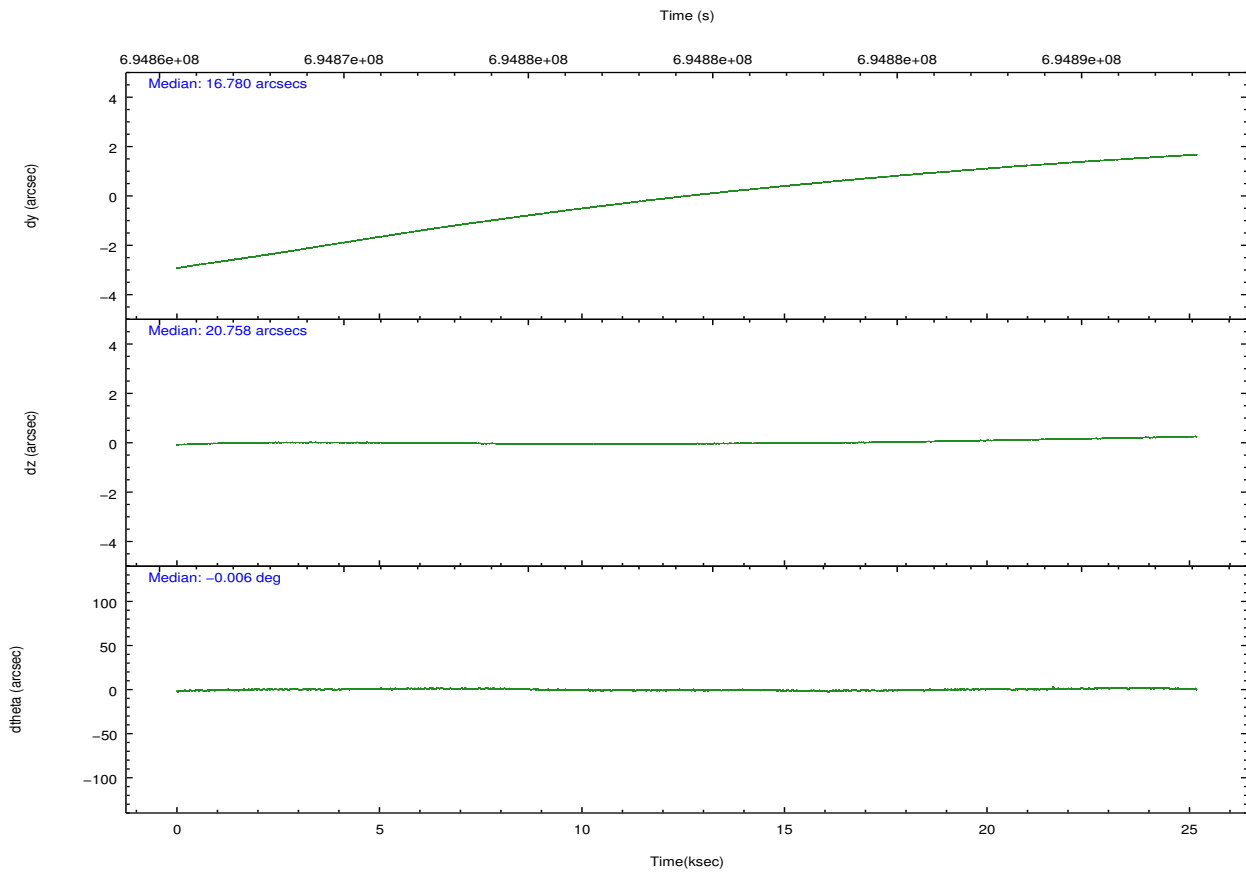
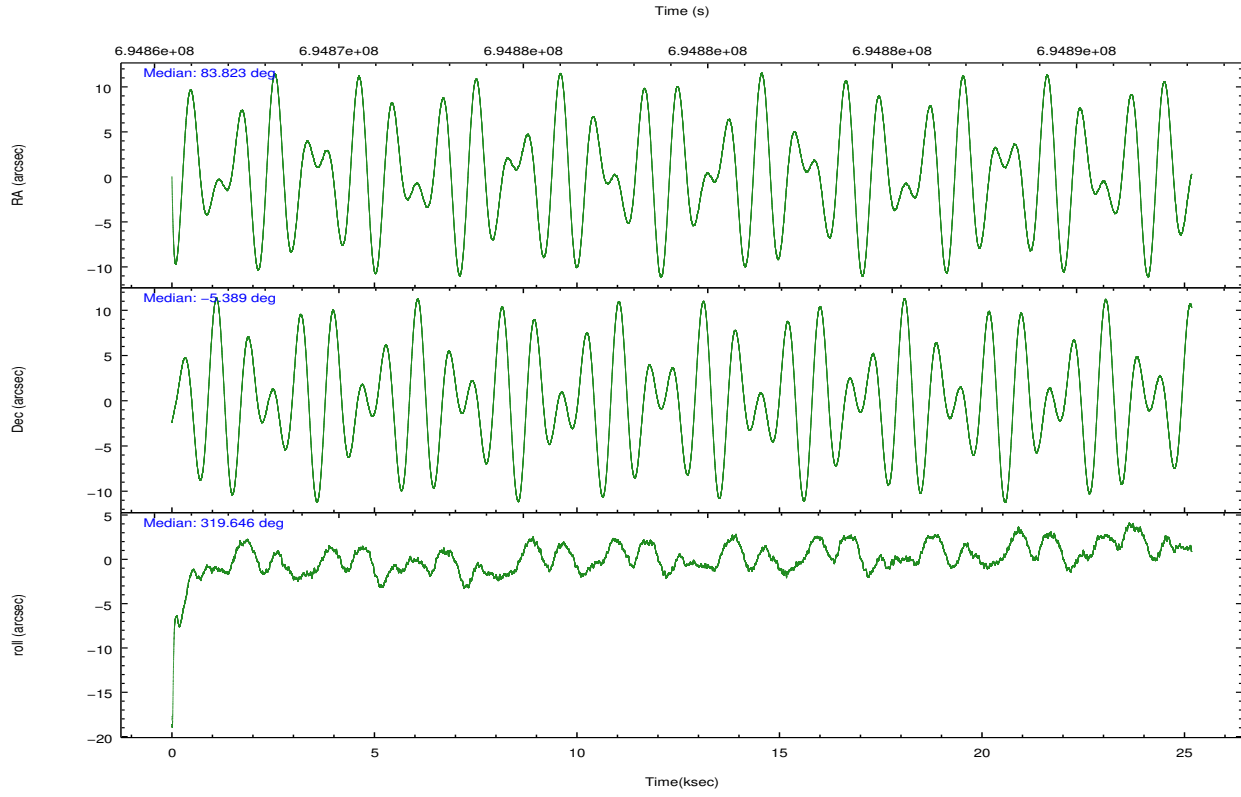
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	22120	21146	16852	25717	9322
	6%	9%	5%	9%	4%
grade 1 events	746	171	495	212	136
	0%	0%	0%	0%	0%
grade 2 events	52513	7576	32755	17429	5668
	15%	3%	11%	6%	2%
grade 3 events	4864	2684	12299	7487	2338
	1%	1%	4%	2%	1%
grade 4 events	4386	2677	11865	7145	2347
	1%	1%	4%	2%	1%
grade 5 events	20669	8945	25276	13901	10109
	6%	4%	8%	5%	5%
grade 6 events	83420	6132	70706	19168	5384
	24%	2%	24%	7%	2%
grade 7 events	145310	165936	118388	171426	164101
	43%	77%	41%	65%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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	83.796575	83.82375156263497	CCD I2 on	N	N
[deg] Pointing Dec	-5.383979	-5.388538118671633	CCD I3 on	N	N
[deg] Pointing Roll	319.492375	319.6515448957487	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)	694866884.184000	694865728.49435	CCD S5 on	O2	Y
Observation start date	2020-01-08T10:33:35	2020-01-08T10:15:28	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	694891884.184000	694892808.48349	On-chip summing requested	N	N
Observation end date	2020-01-08T17:30:15	2020-01-08T17:46:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





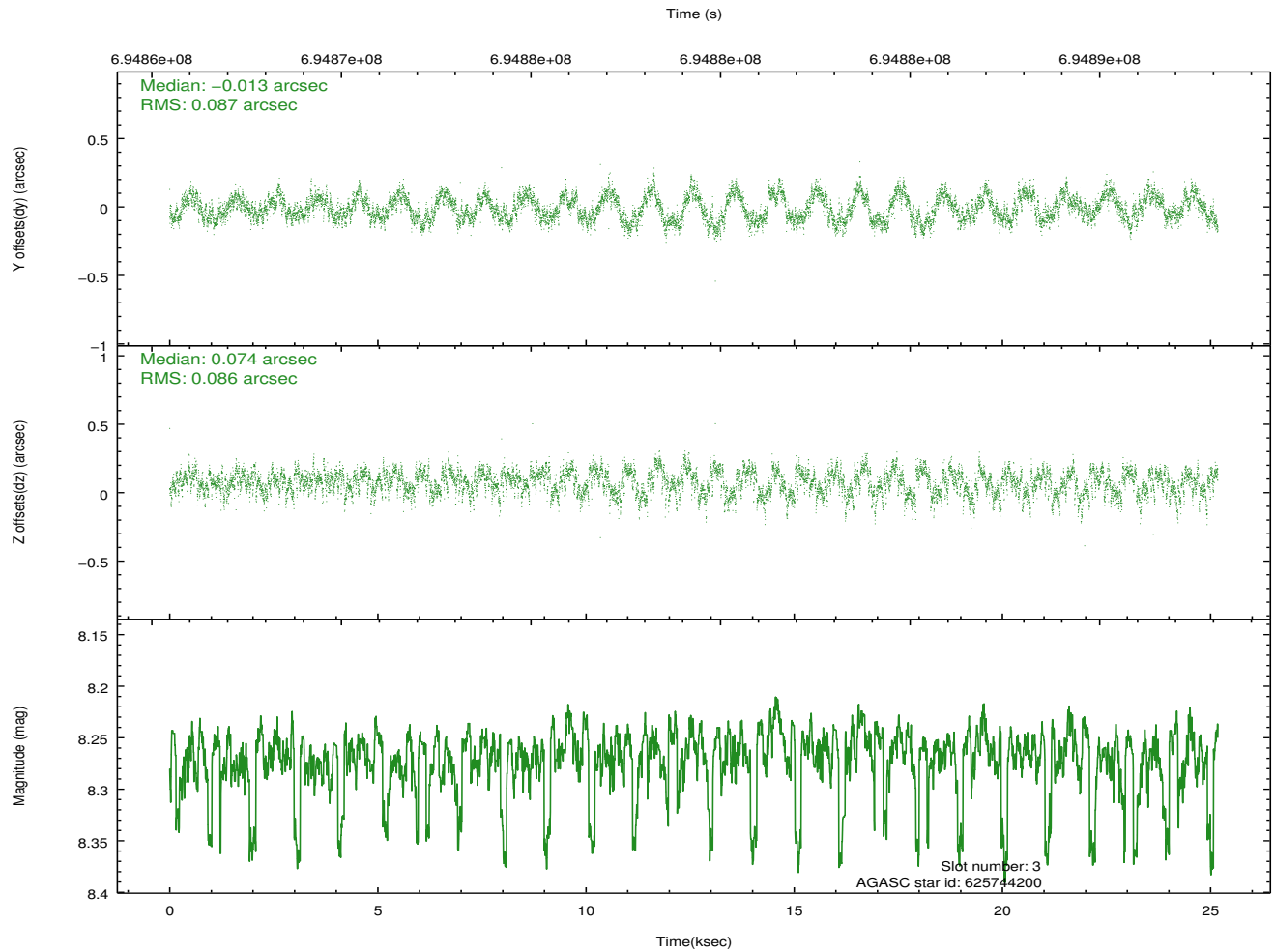
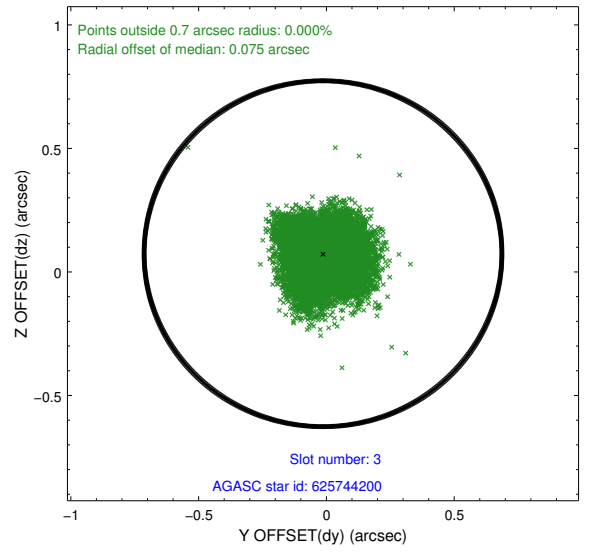
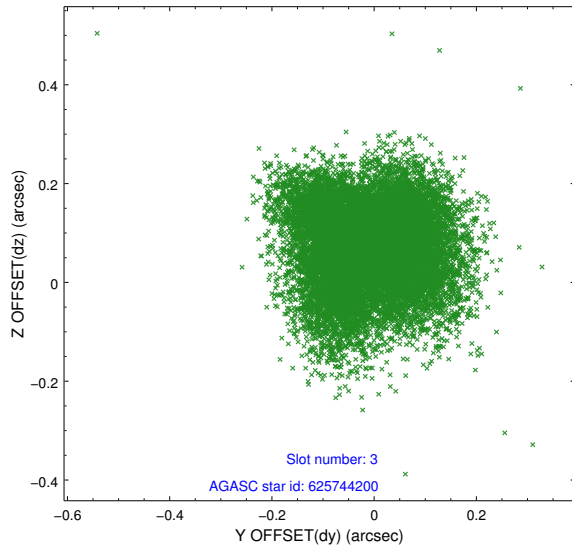
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.06	6141	1.000	-0.321	-0.231	0.036	0.060	0.000000	0.000000	-769.81	-1742
1	FID		ACIS-S-4	7.19	6141	1.000	0.805	0.216	0.016	0.030	0.000000	0.000000	2144.46	166
2	FID		ACIS-S-5	7.13	6141	1.000	-0.516	0.025	0.028	0.037	0.000000	0.000000	-1822.77	159
3	GUIDE	used	625744200	8.27	12274	1.000	-0.013	0.074	0.132	0.201	83.695760	-5.570729	162.73	-745
4	GUIDE	used	625745128	7.79	12278	1.000	-0.019	0.049	0.112	0.177	83.769930	-4.731835	-1597.27	1723
5	GUIDE	used	625745136	7.18	12281	1.000	-0.191	0.108	0.124	0.206	83.600341	-4.804339	-1890.36	1130
6	GUIDE	used	626272880	7.68	12274	1.000	0.113	-0.151	0.114	0.195	83.815609	-6.032748	1569.65	-1730
7	GUIDE	used	626272976	7.95	12274	1.000	0.106	-0.071	0.135	0.213	83.795875	-5.926912	1268.68	-1487

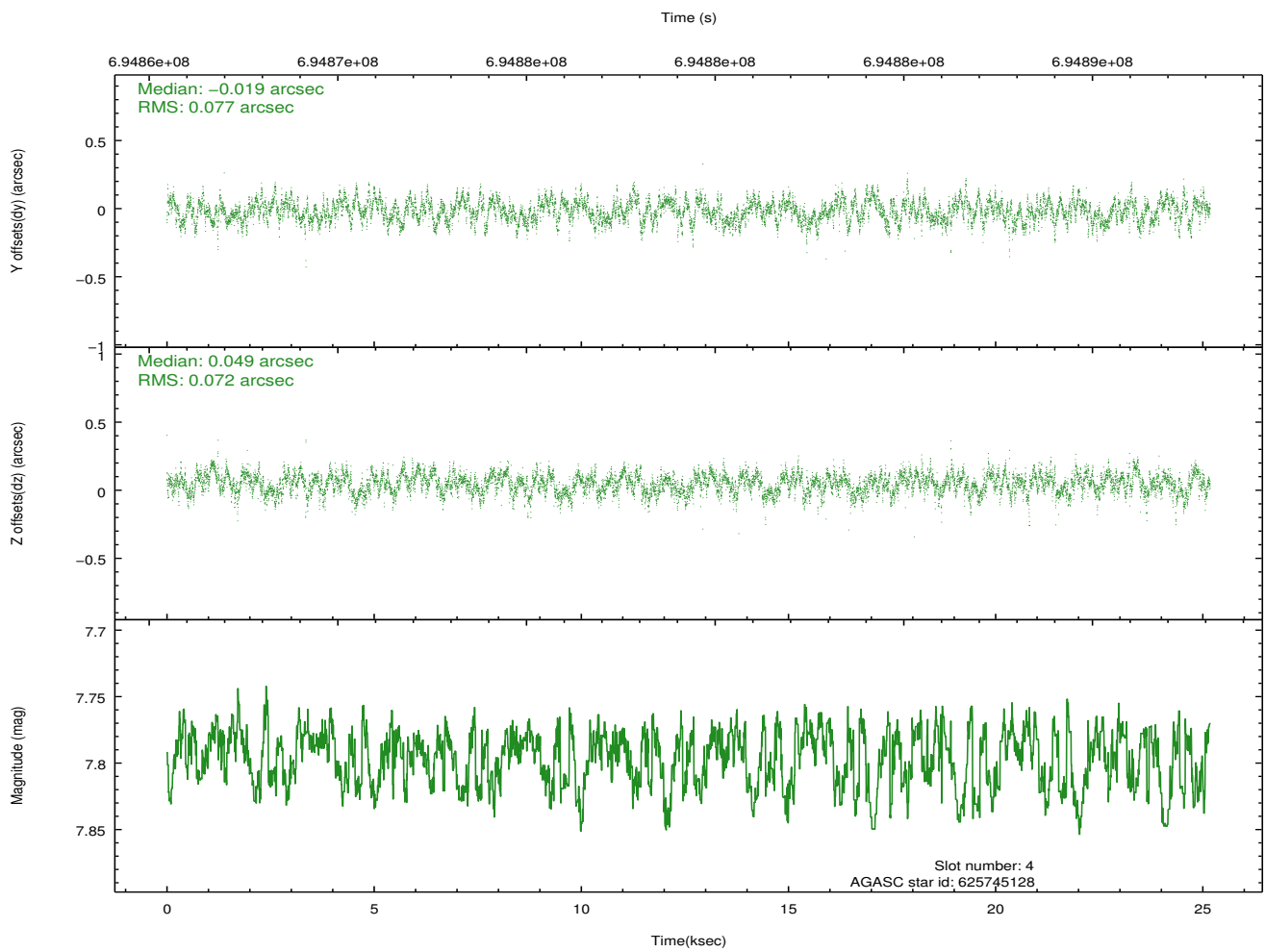
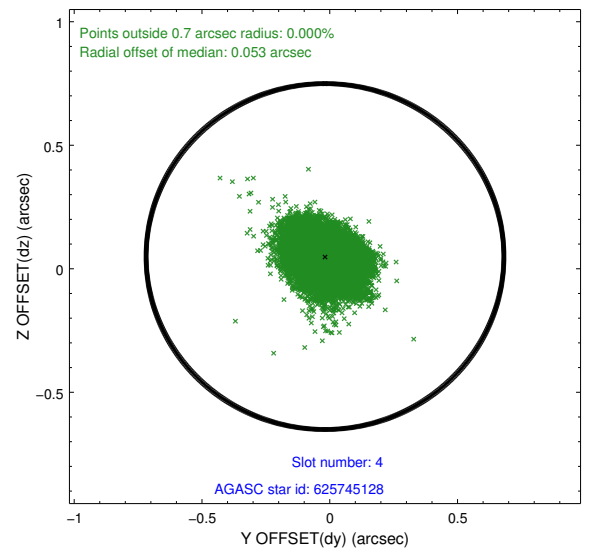
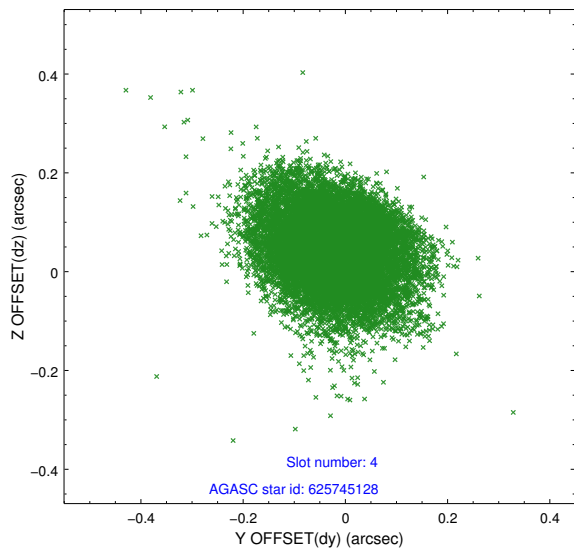
∞

2.4 Star Slots

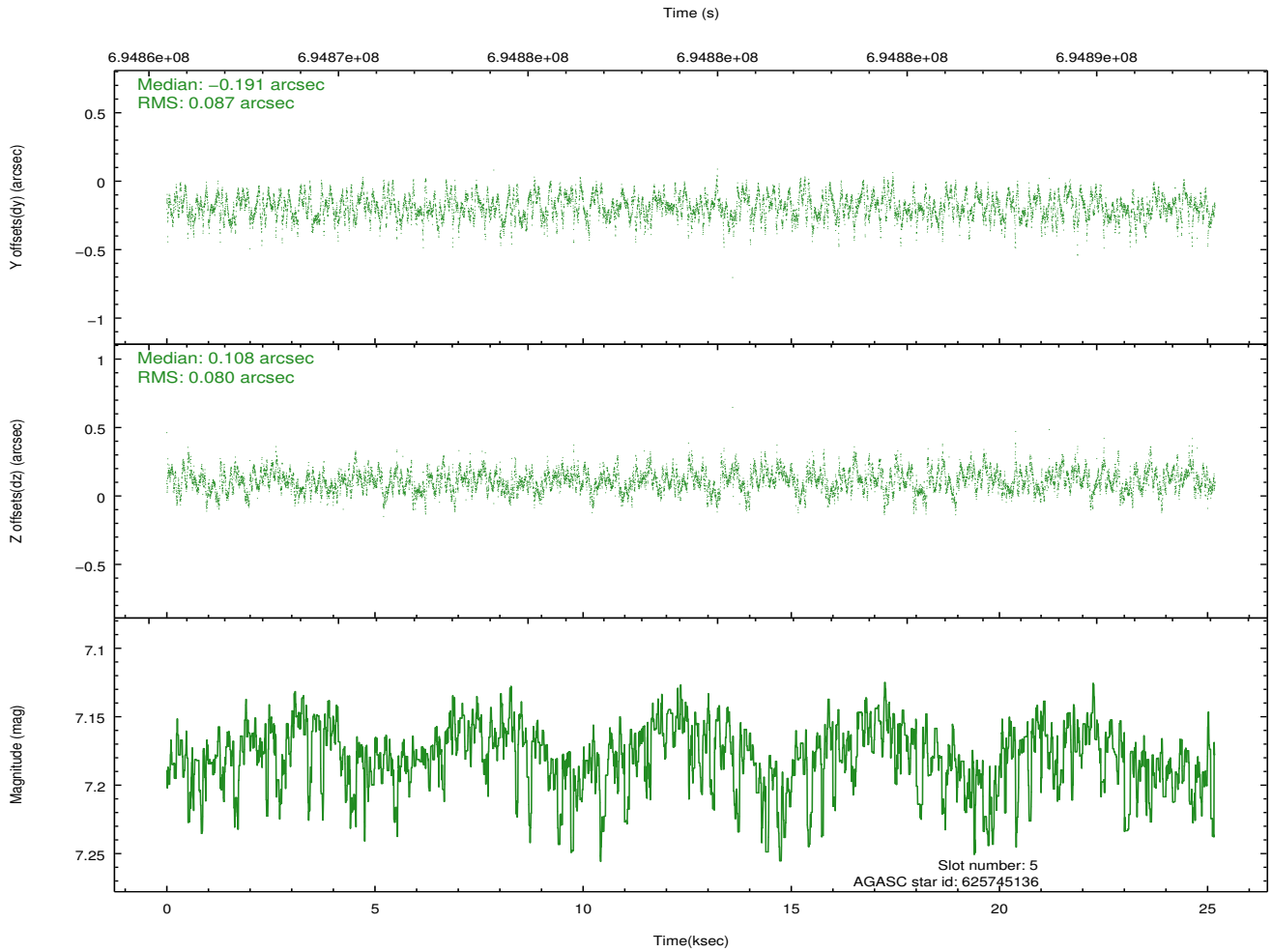
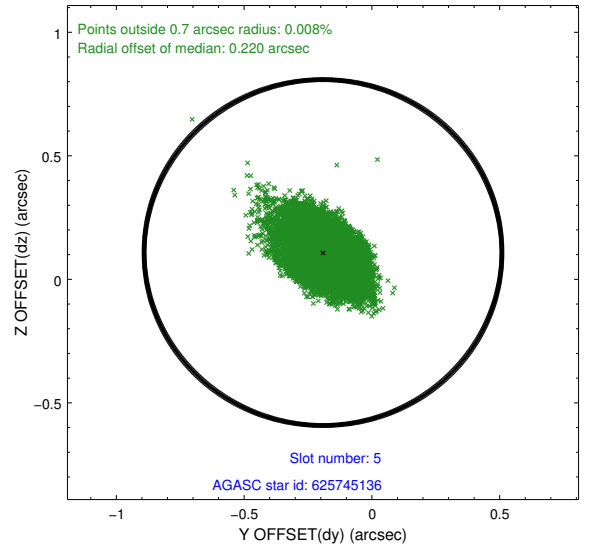
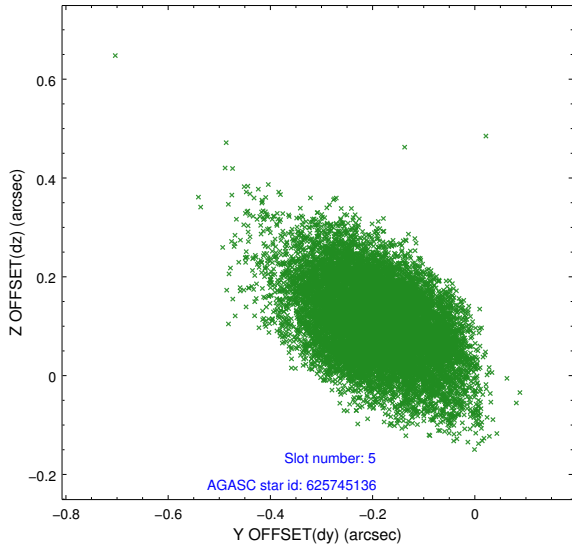
2.4.1 Slot 3



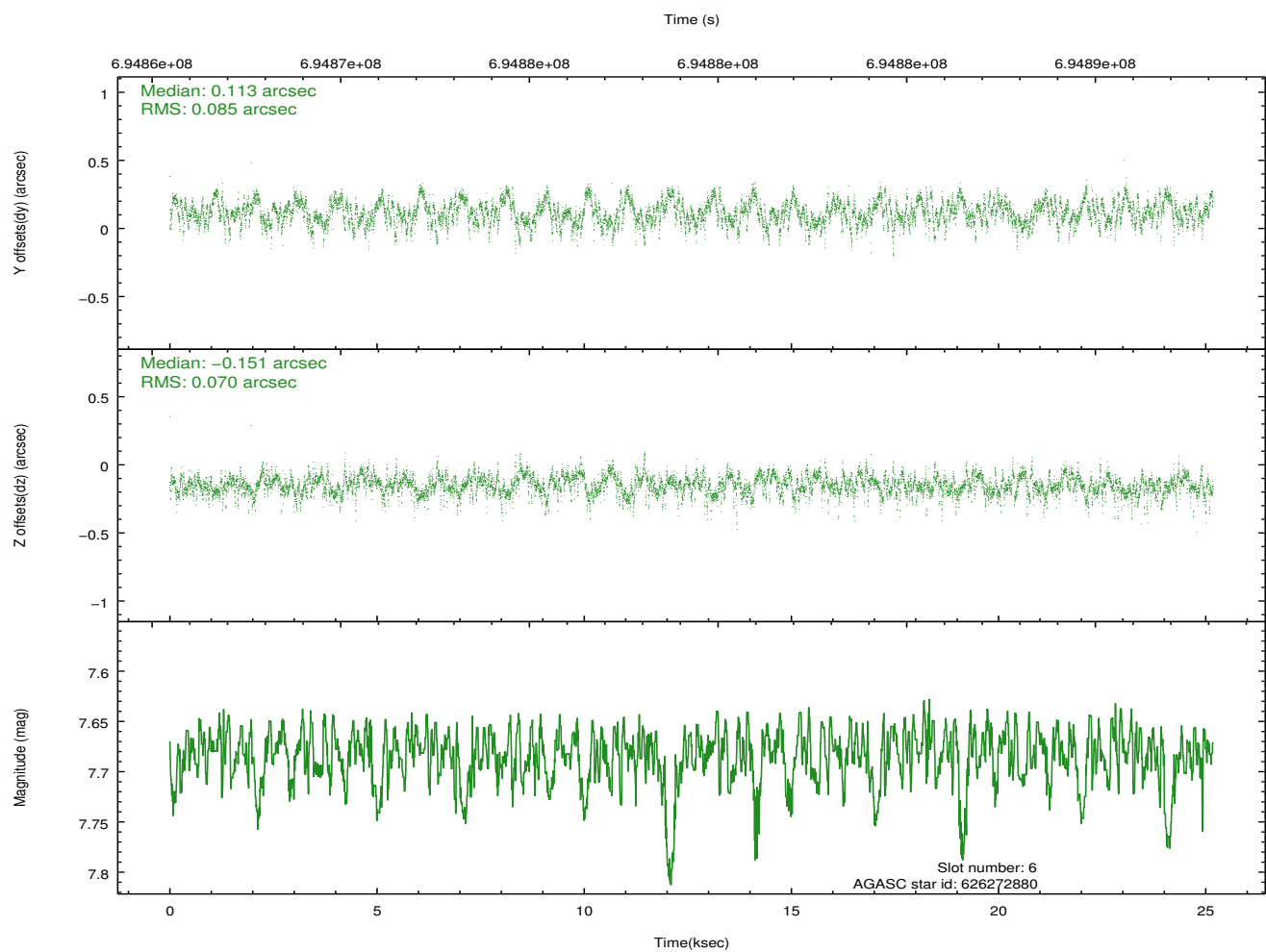
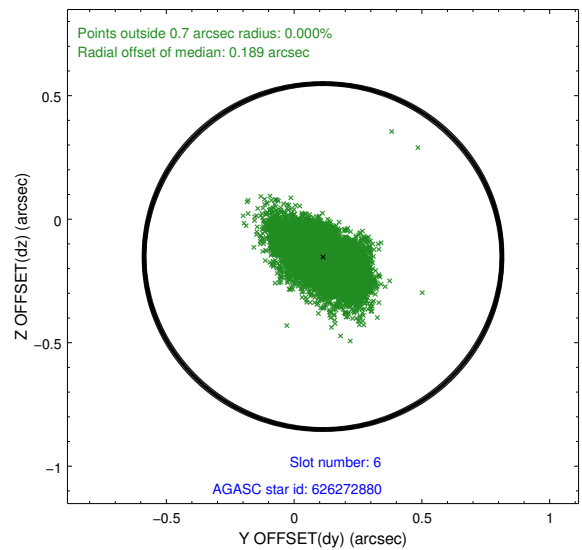
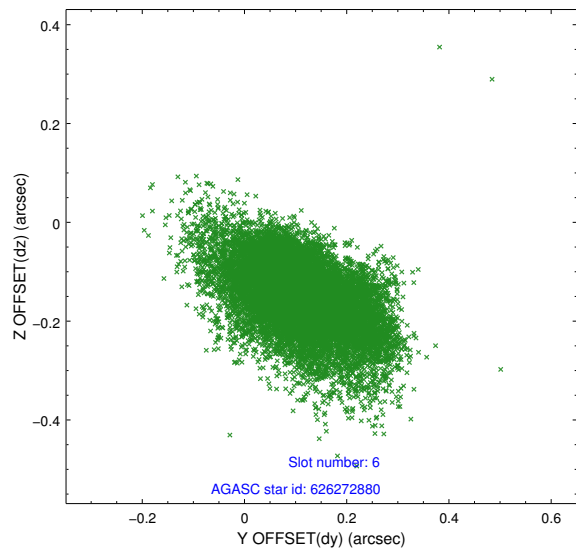
2.4.2 Slot 4



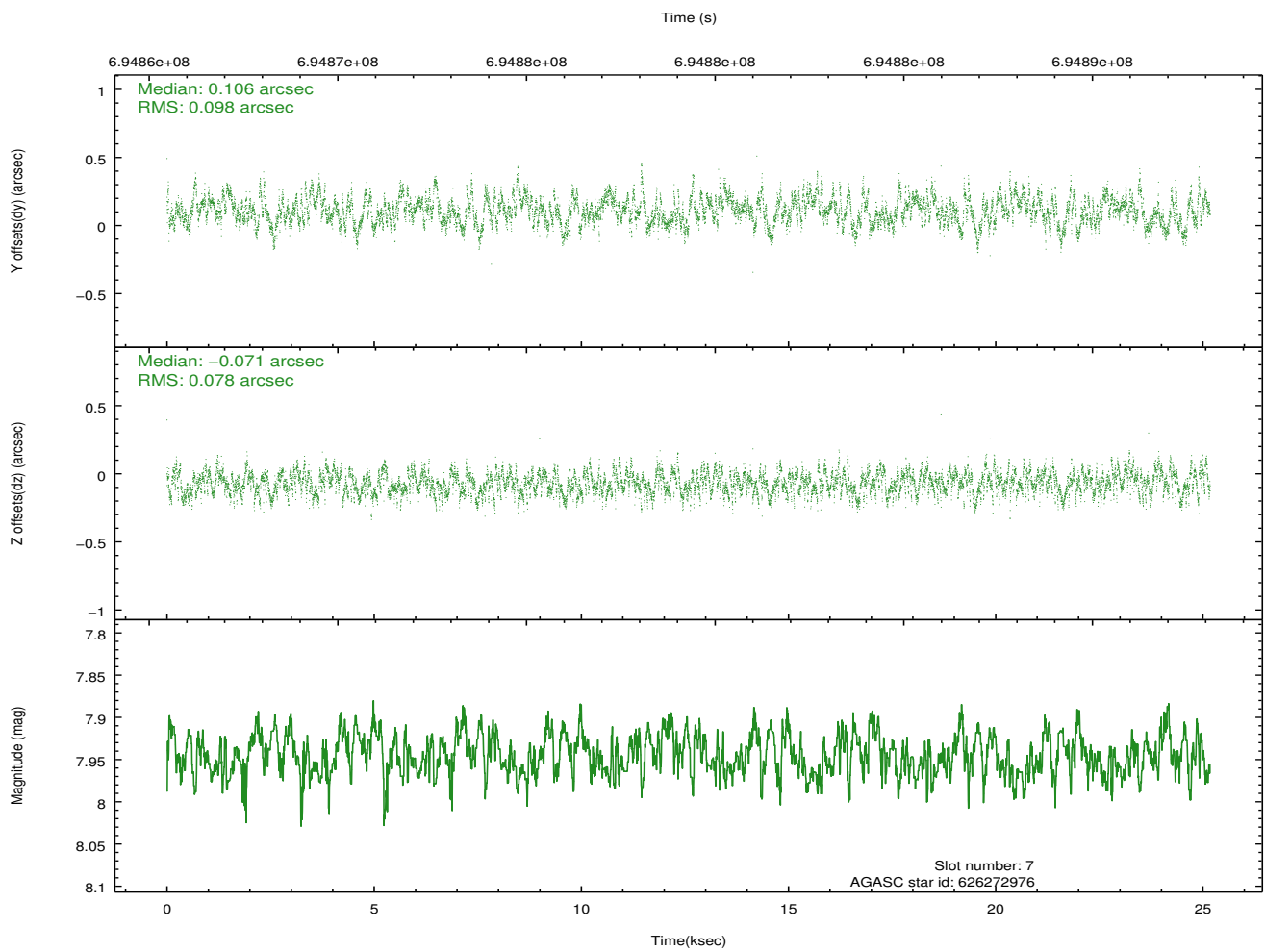
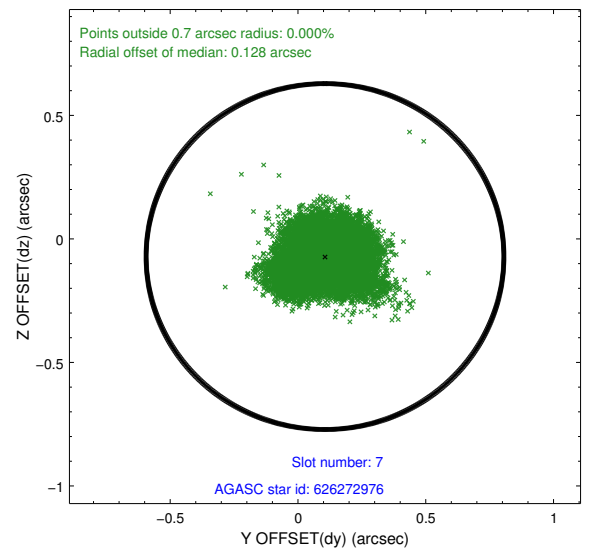
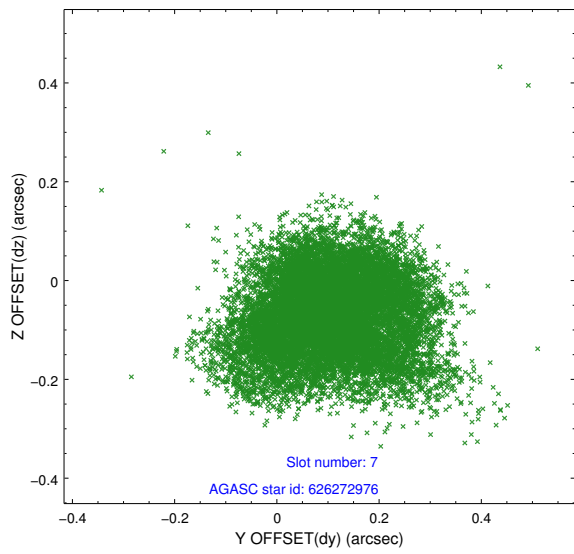
2.4.3 Slot 5



2.4.4 Slot 6

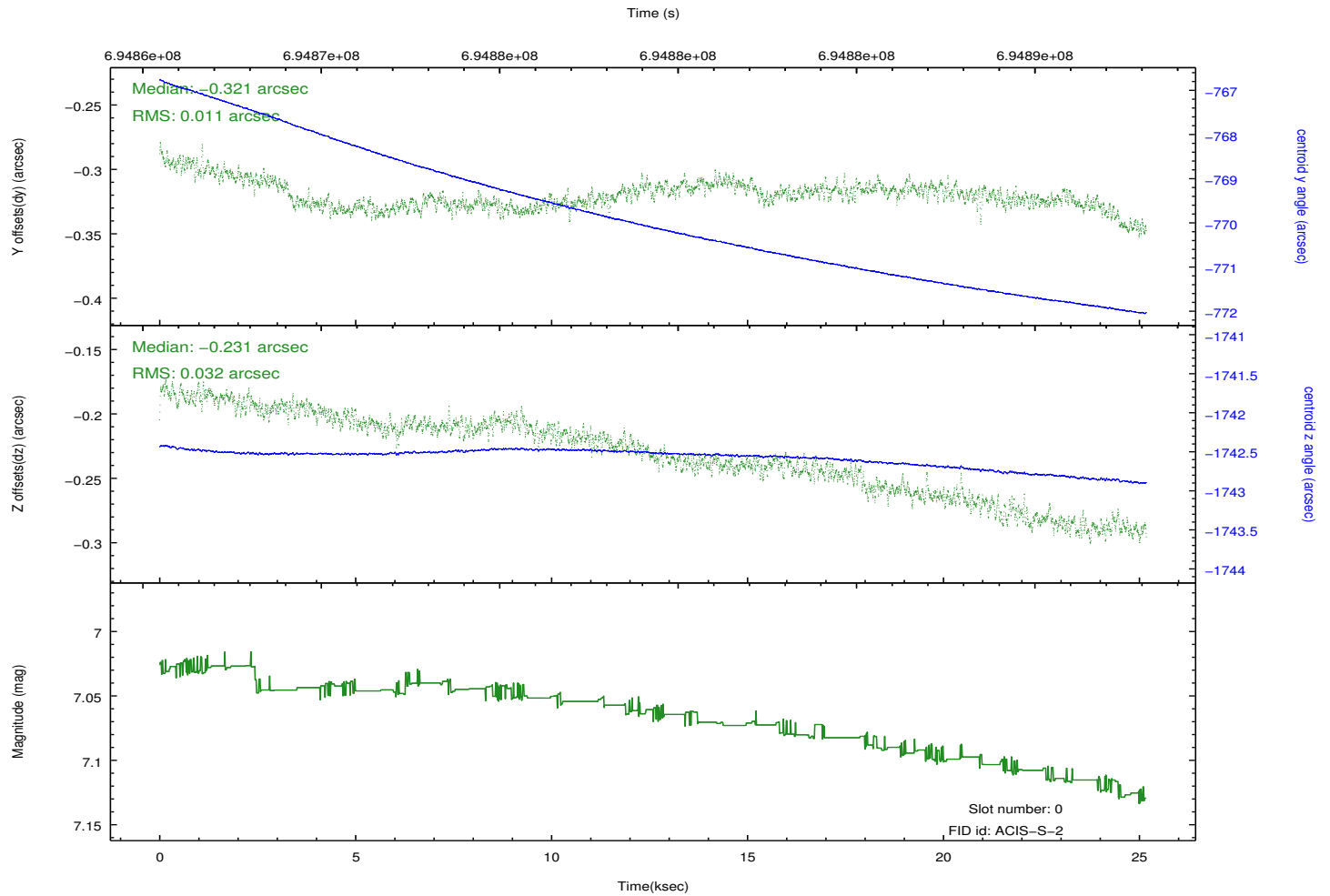
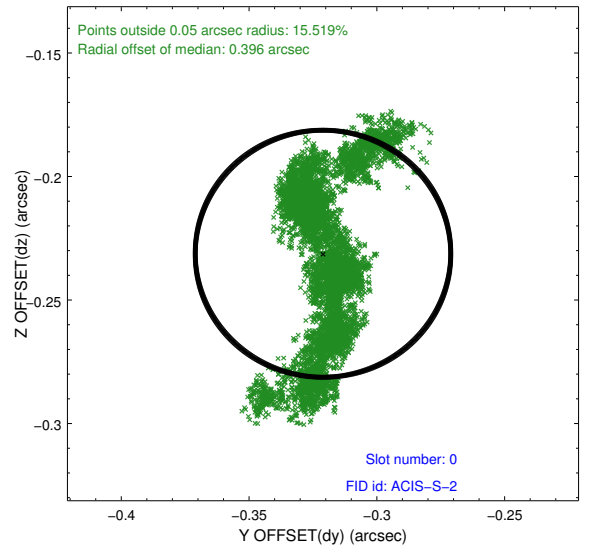
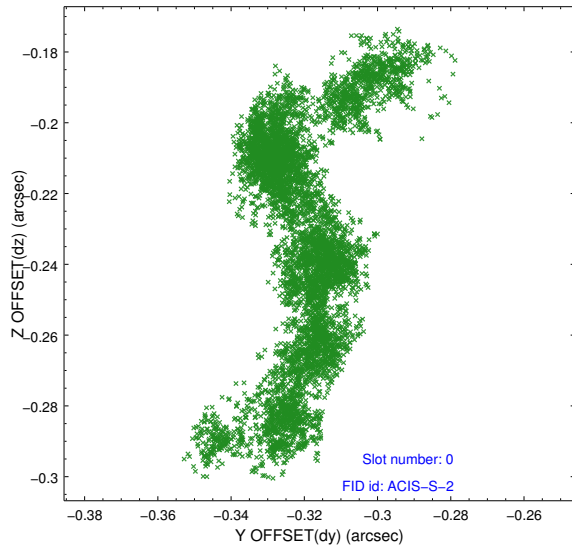


2.4.5 Slot 7

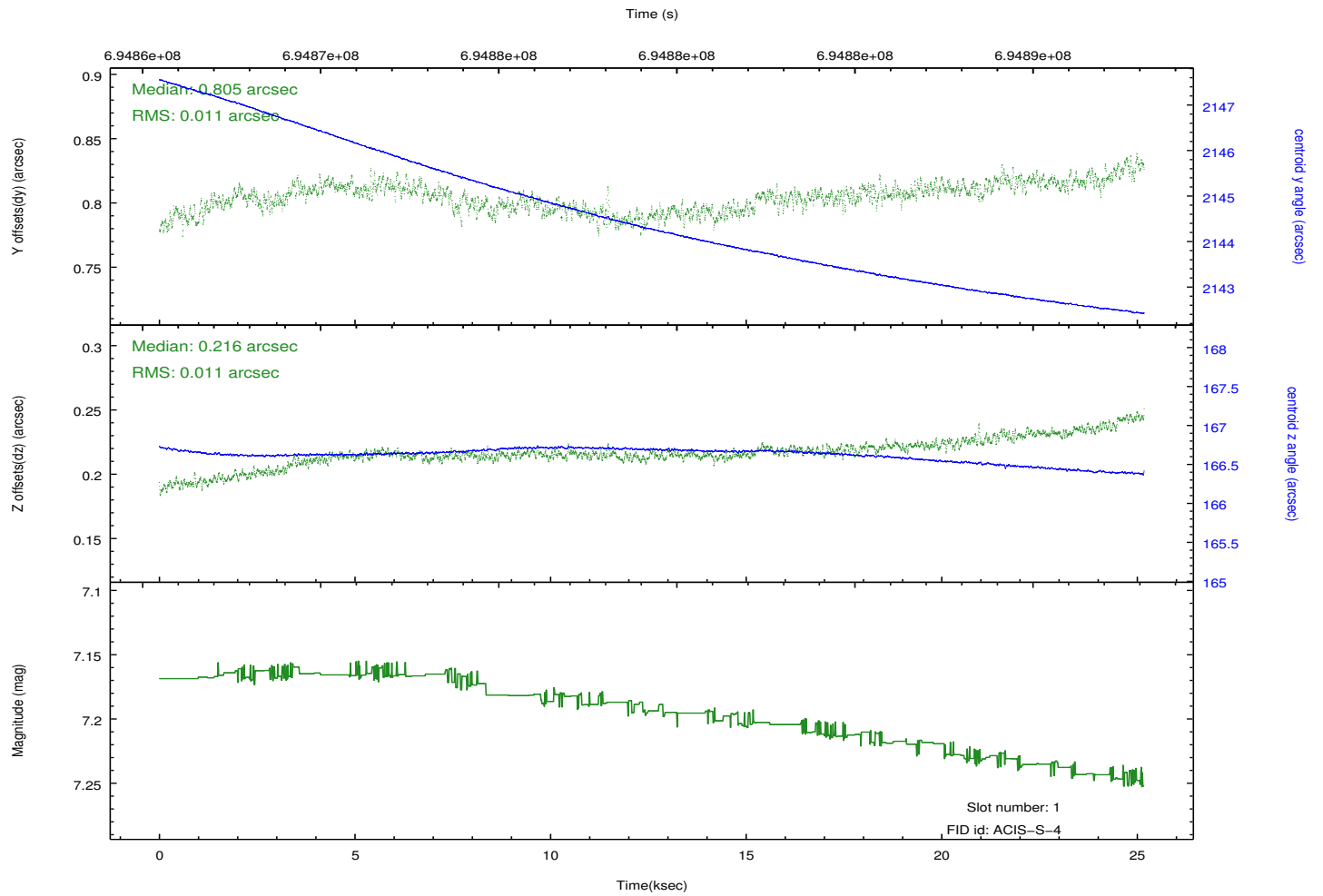
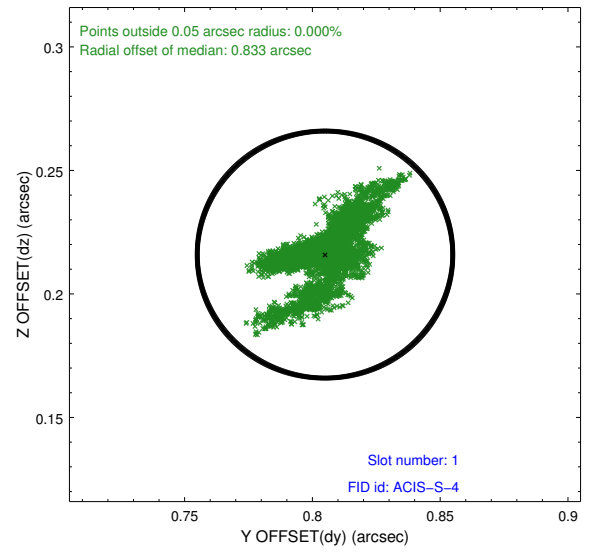
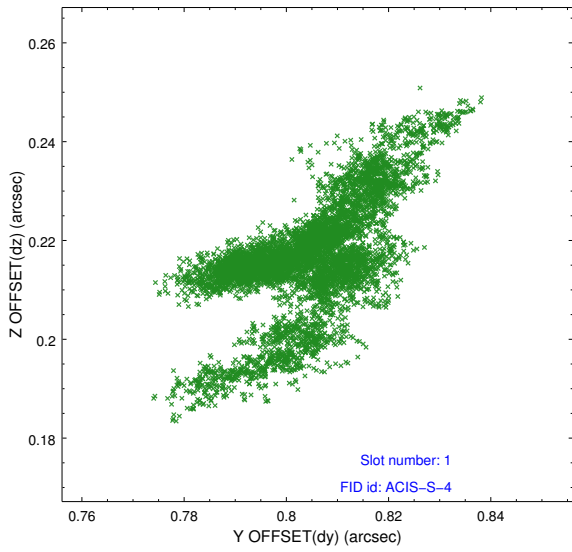


2.5 FID Slots

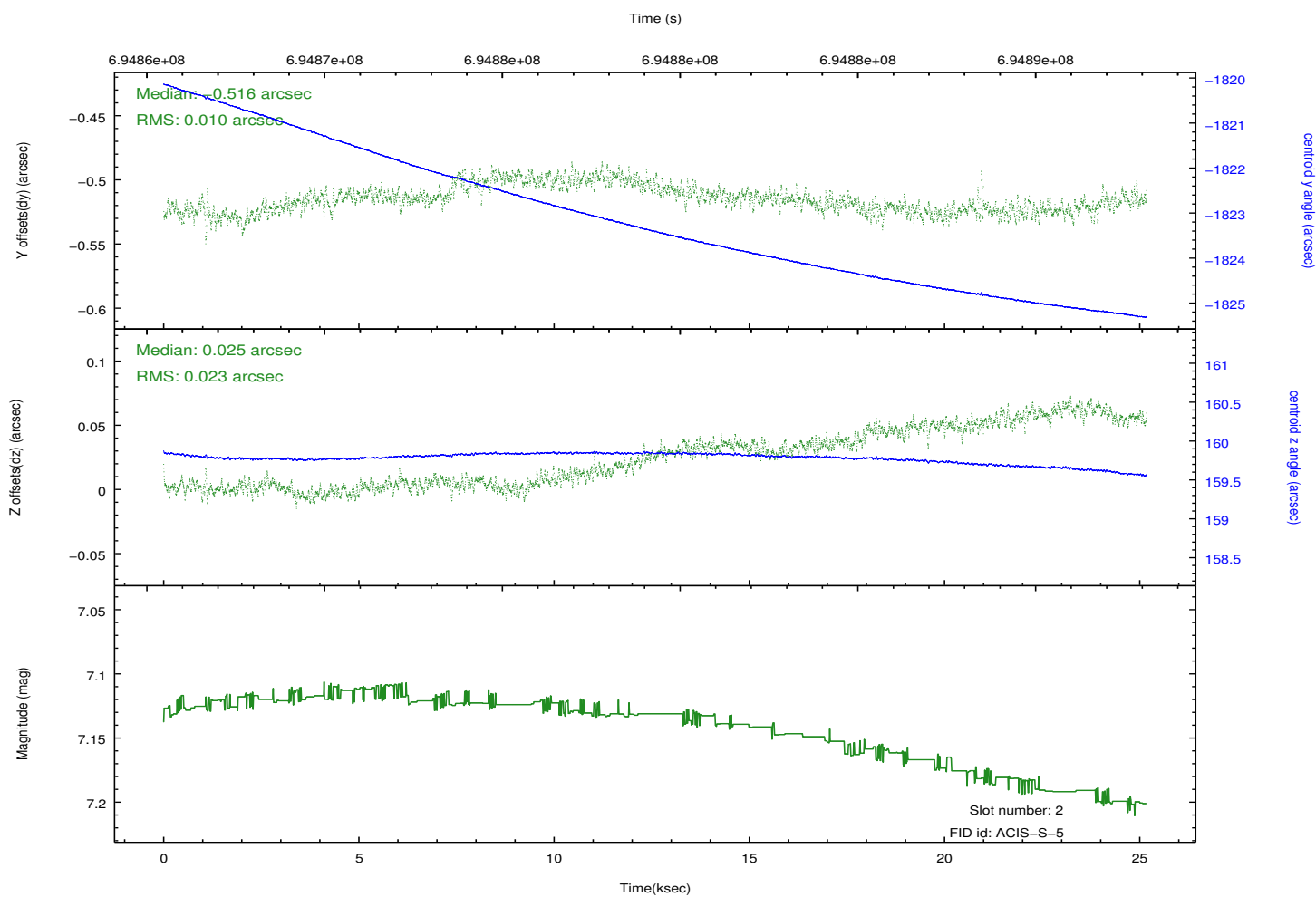
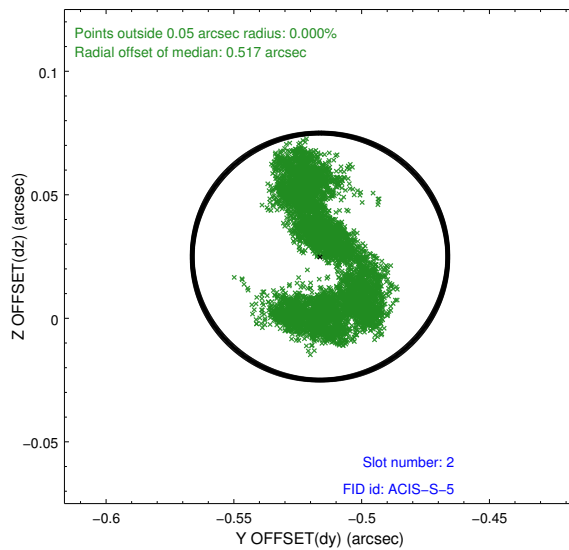
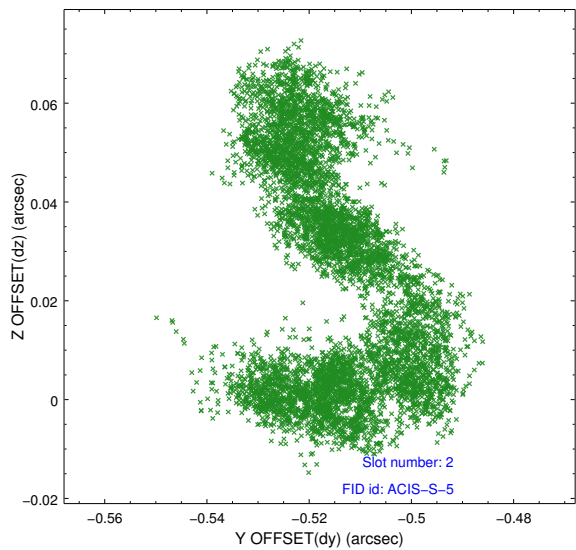
2.5.1 Slot 0



2.5.2 Slot 1

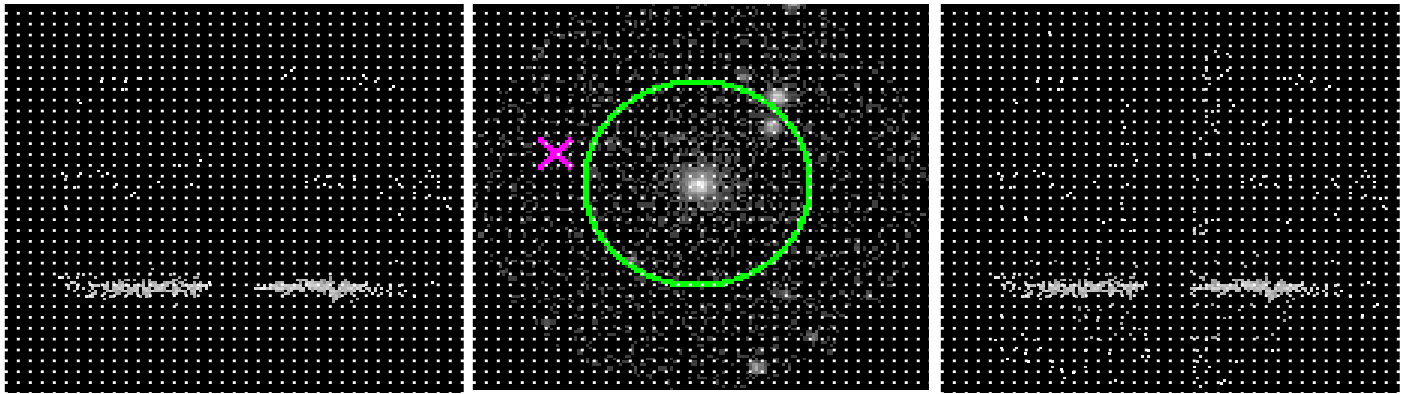


2.5.3 Slot 2



3 Gratings

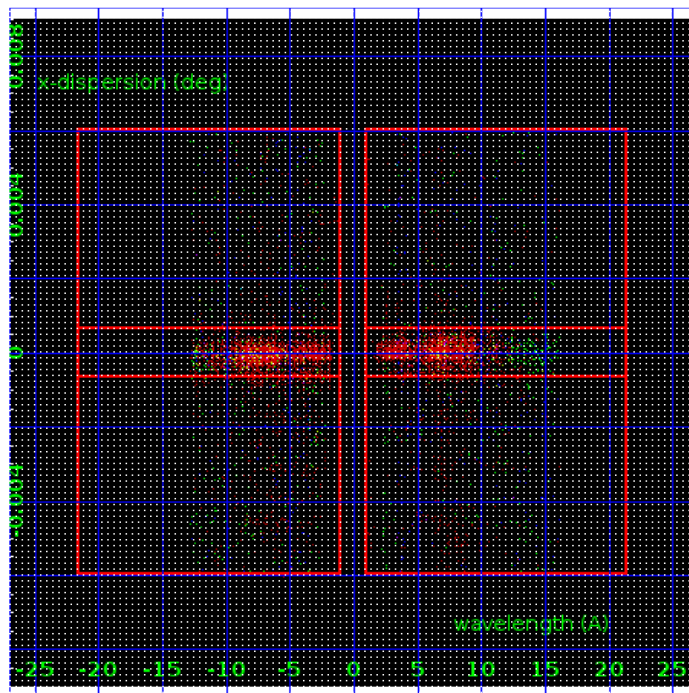
3.1 HEG Arm



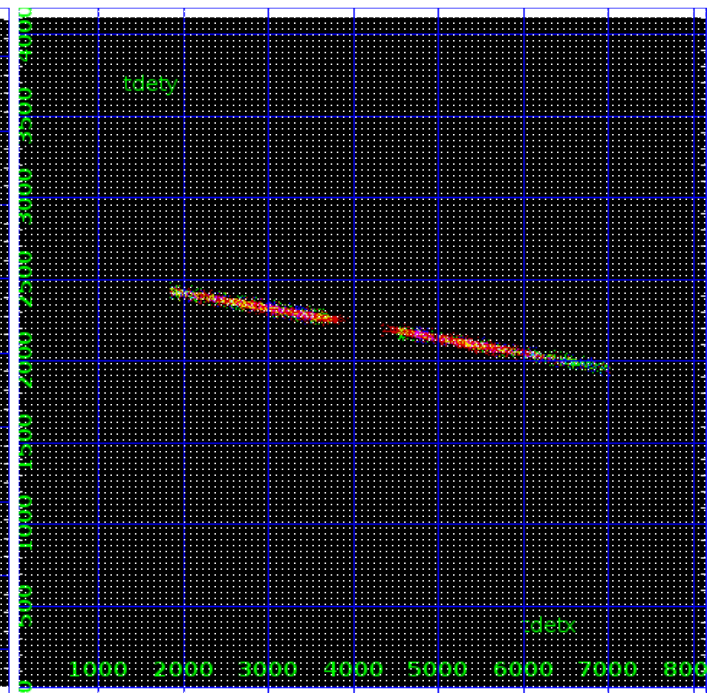
HEG Order Sort 123

HEG Zero Order

HEG Order Sort ALL

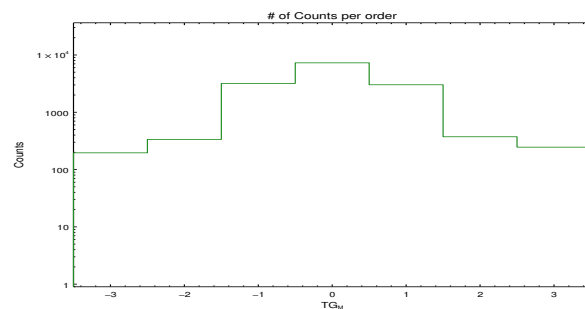


Spot Image HEG

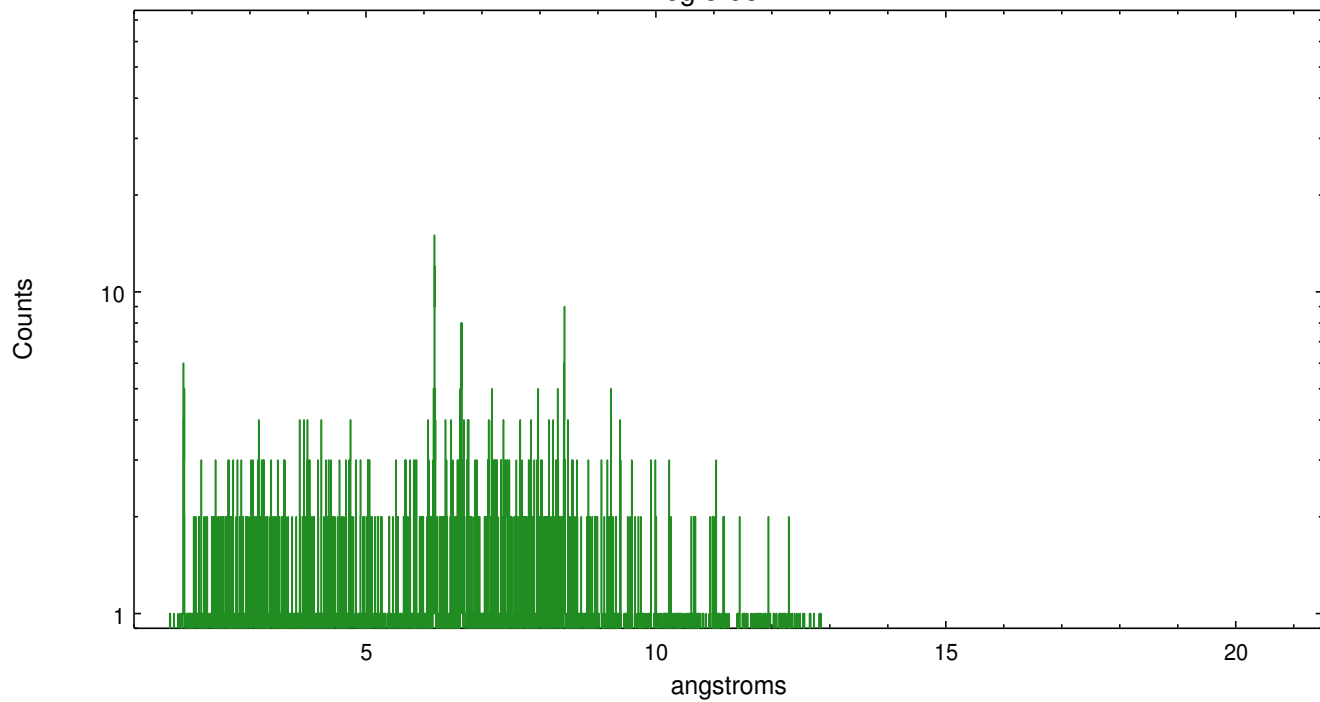


Full Detector HEG

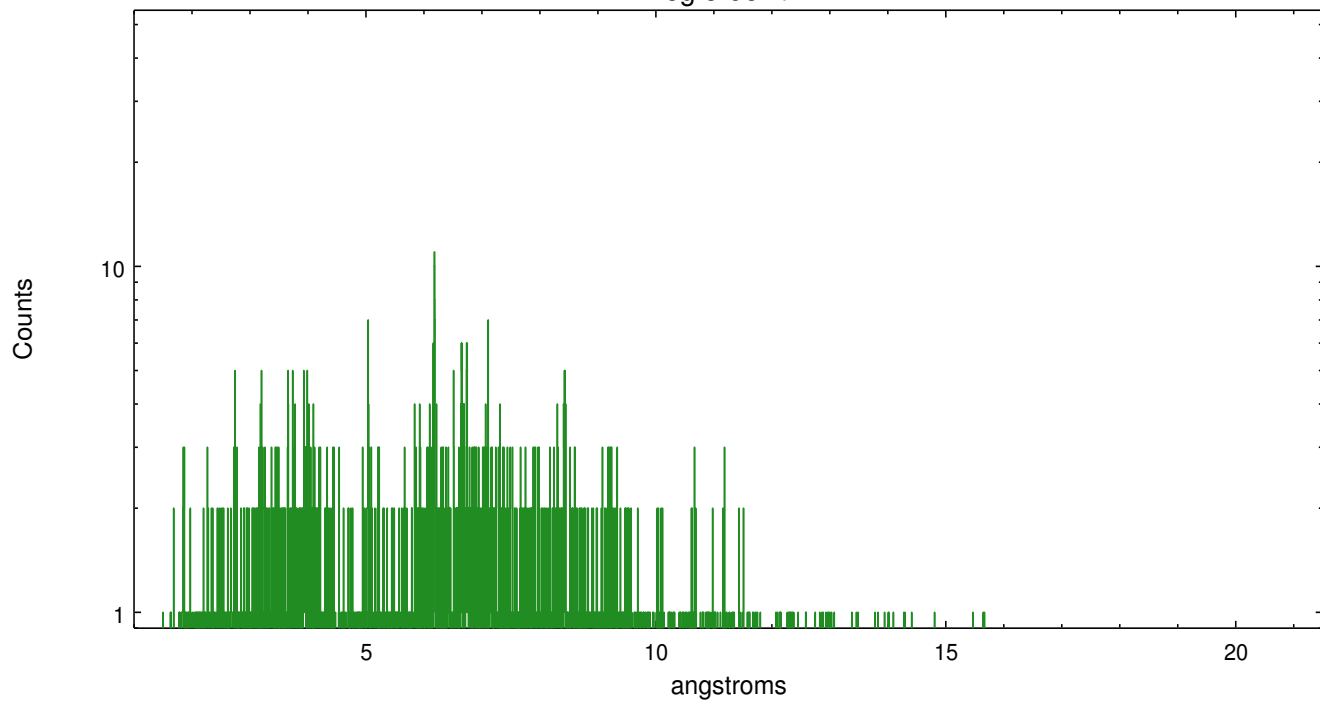
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	196	336	3186	7290	3021	374	246



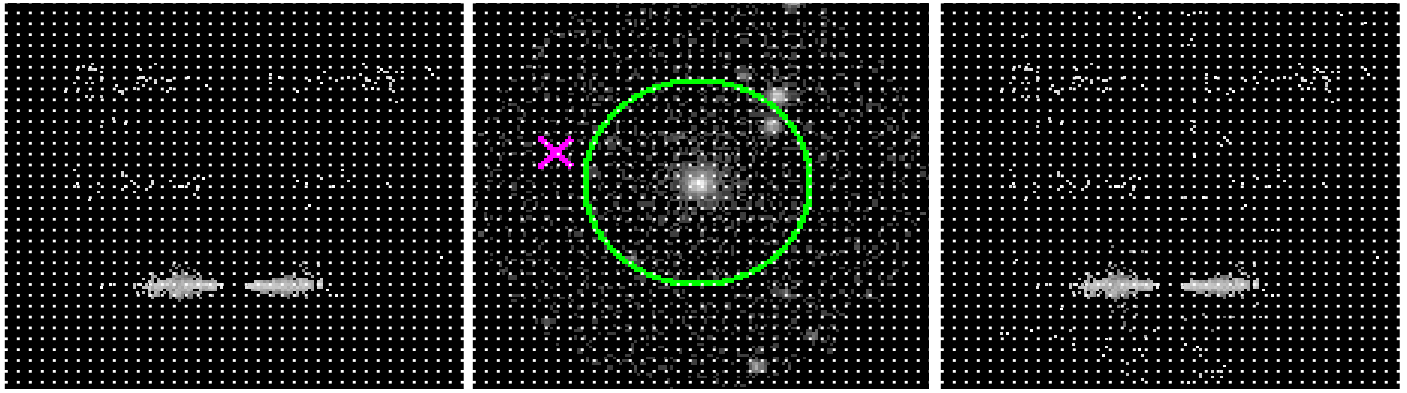
heg order -1



heg order +1



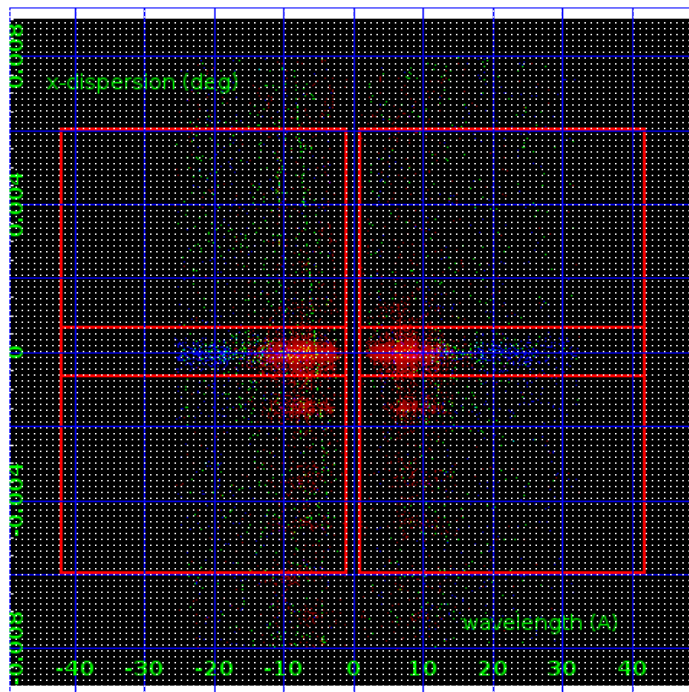
3.2 MEG Arm



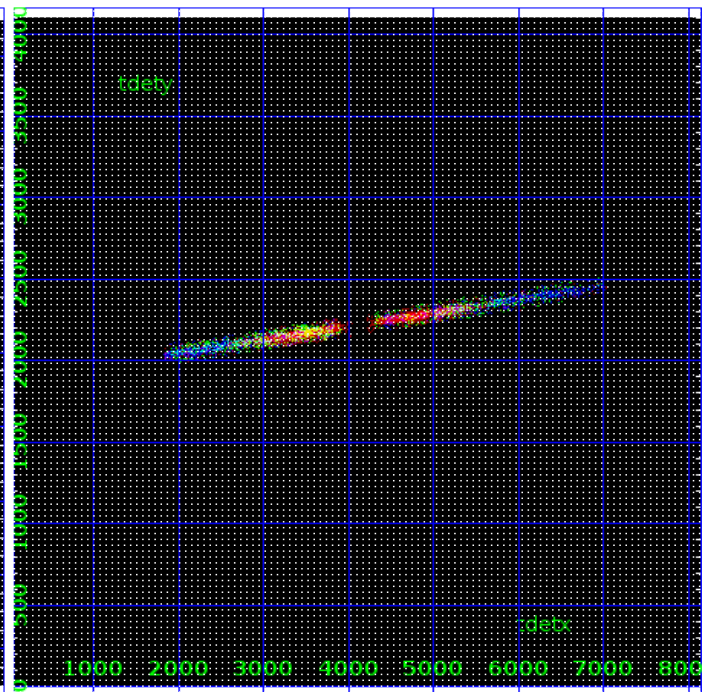
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

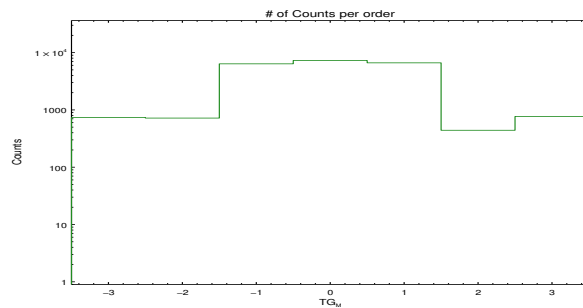


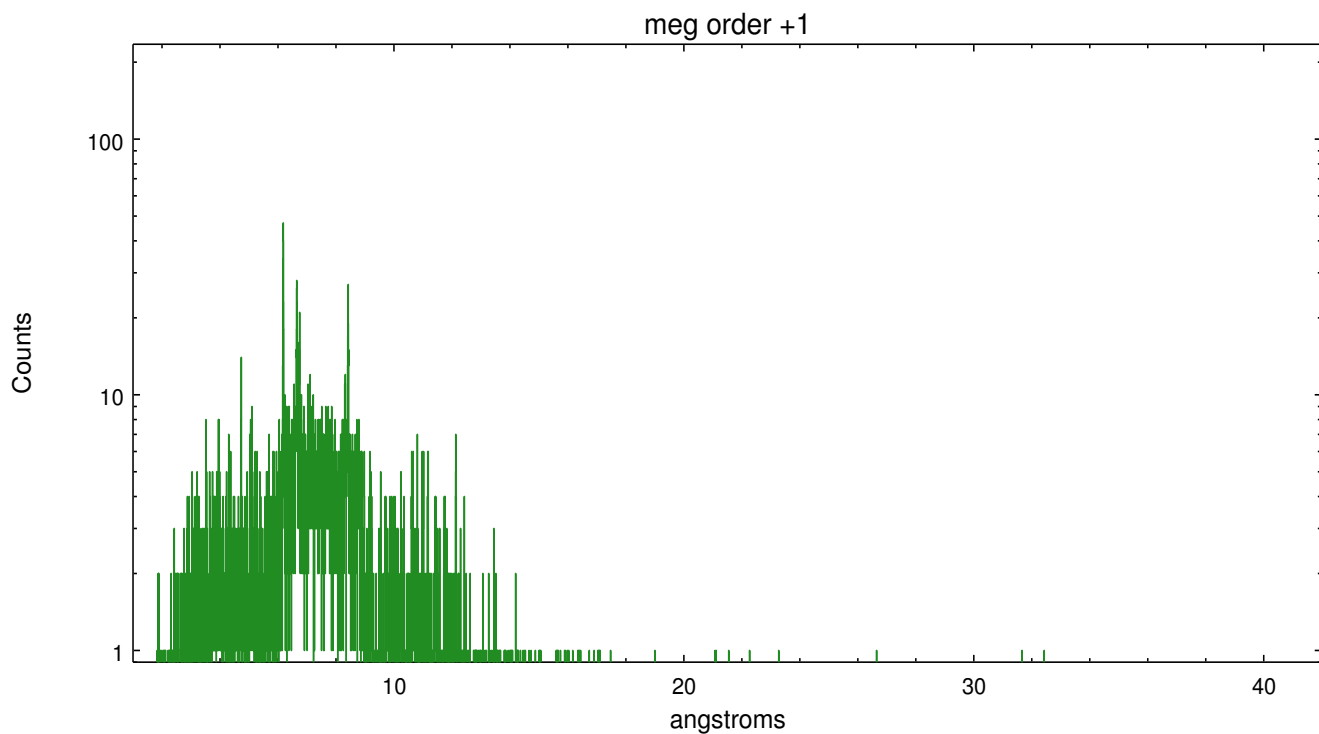
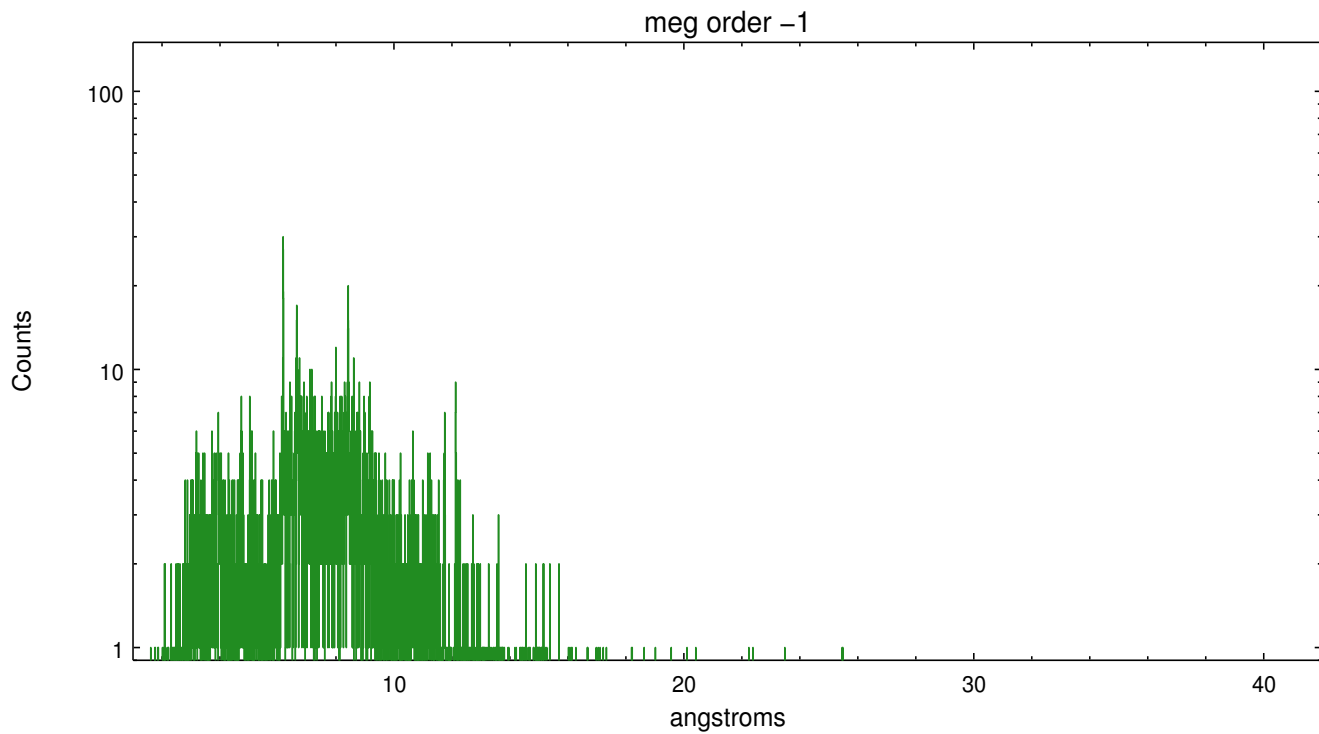
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	736	720	6373	7290	6631	441	768





A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.01.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.055953670859

A.2 Comments