

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6285 - L2 Version 4
Chandra X-Ray Center

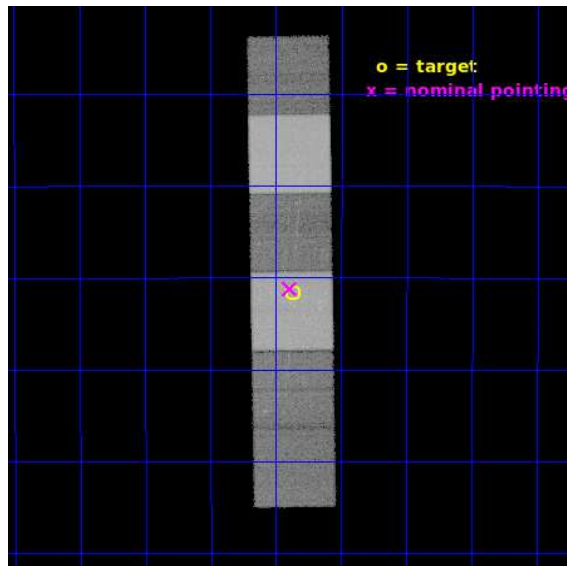
L2 Processing Date : Oct 8 2020

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

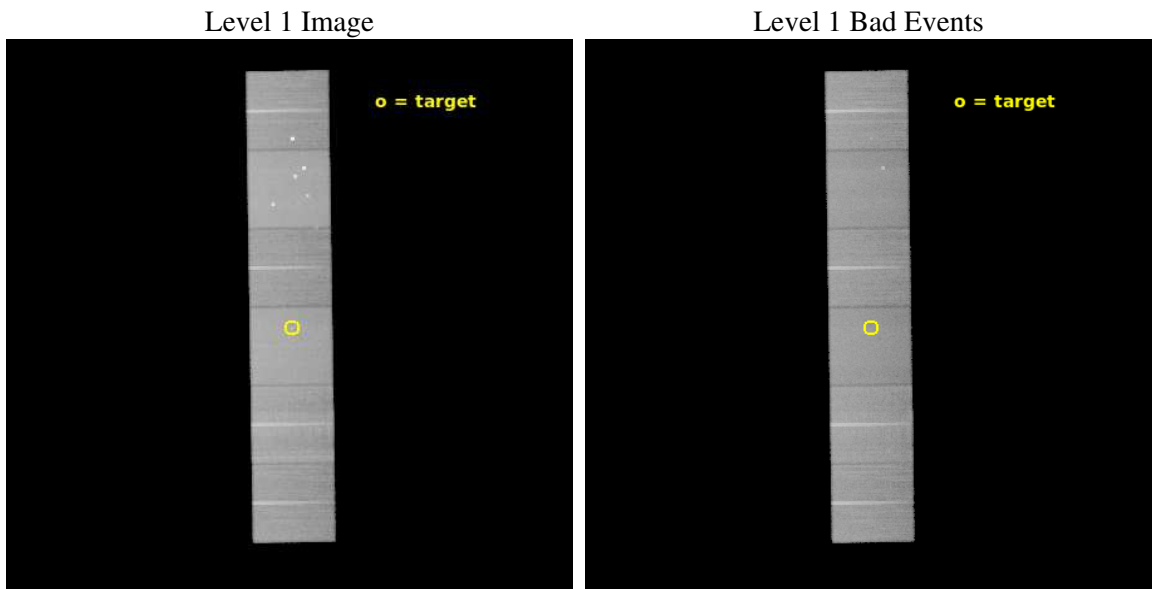
seq_num	200333	Sequence number
obs_id	6285	Observation id
title	A Chandra HETGS Survey of O-Stars	Proposal title
observer	Wayne Waldron	Principal investigator
object	9 Sgr	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	270.968333	Observer's specified target RA [deg]
dec_targ	-24.360722	Observer's specified target Dec [deg]
ra_nom	270.97330727724	Nominal RA [deg]
dec_nom	-24.353223078724	Nominal Dec [deg]
roll_nom	89.152707148602	Nominal Roll [deg]
revision	4	Processing version of data
ontime	45174.399831712	Sum of GTIs [s]
livetime	44602.374380285	Livetime [s]
ontime4	45174.399831712	Sum of GTIs [s]
ontime5	45174.399831712	Sum of GTIs [s]
ontime6	45174.399831712	Sum of GTIs [s]
ontime7	45174.399831712	Sum of GTIs [s]
ontime8	45174.399831712	Sum of GTIs [s]
ontime9	45174.399831712	Sum of GTIs [s]
l2events	573558	Number of level 2 events



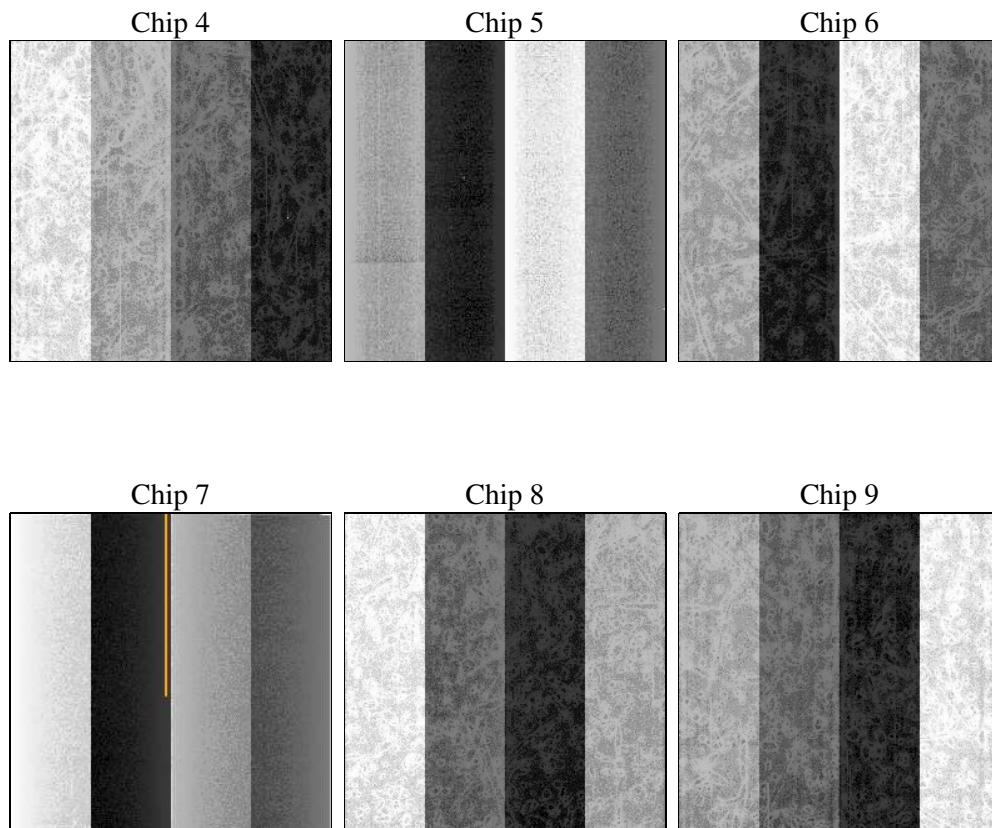
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	45174.399831712	Sum of GTIs [s]
caldbver	4.9.2	 	ontime4	45174.399831712	Sum of GTIs [s]
date	2020-10-08T19:14:29	Date and time of file creation	ontime5	45174.399831712	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	45174.399831712	Sum of GTIs [s]
			ontime7	45174.399831712	Sum of GTIs [s]
			ontime8	45174.399831712	Sum of GTIs [s]
			ontime9	45174.399831712	Sum of GTIs [s]
			l1events	2584278	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			z0_pos	(4128.22 4041.78)	src1a sky central position

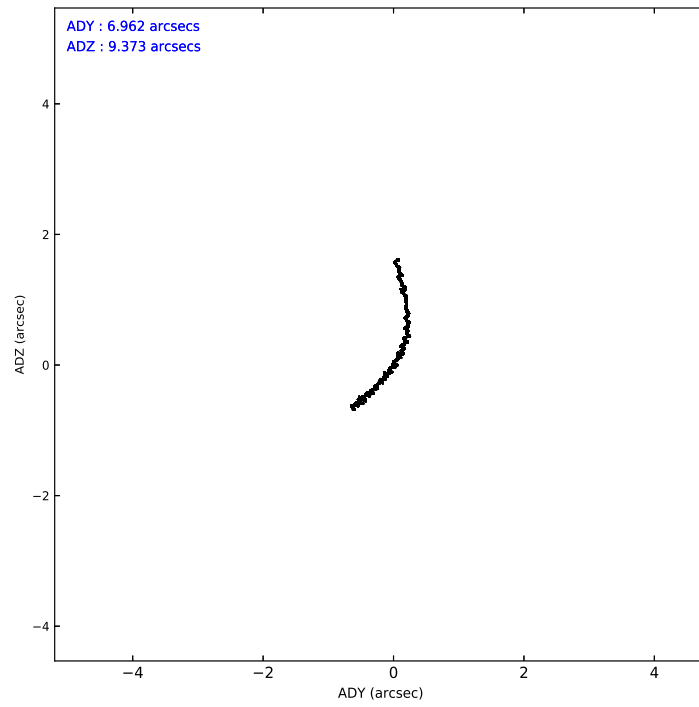
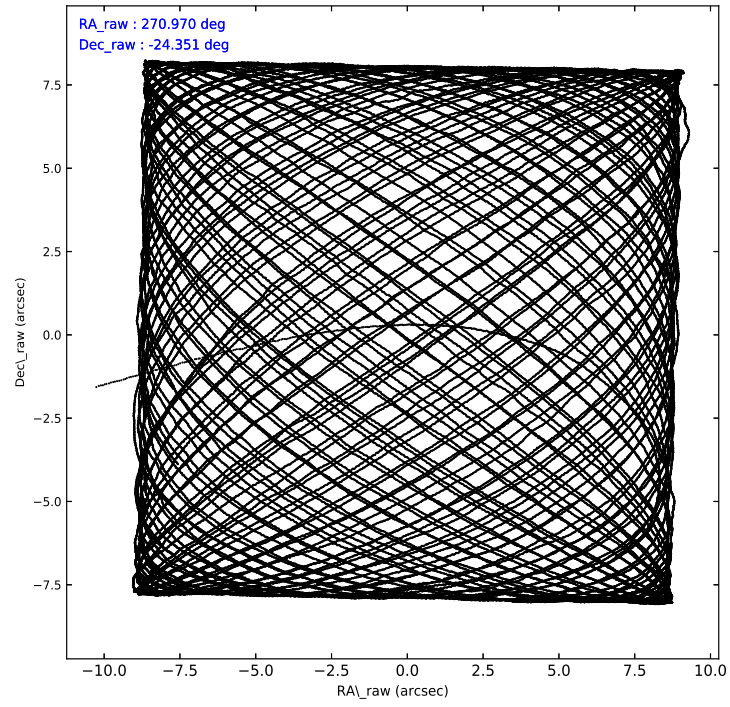
2.1.4 Events

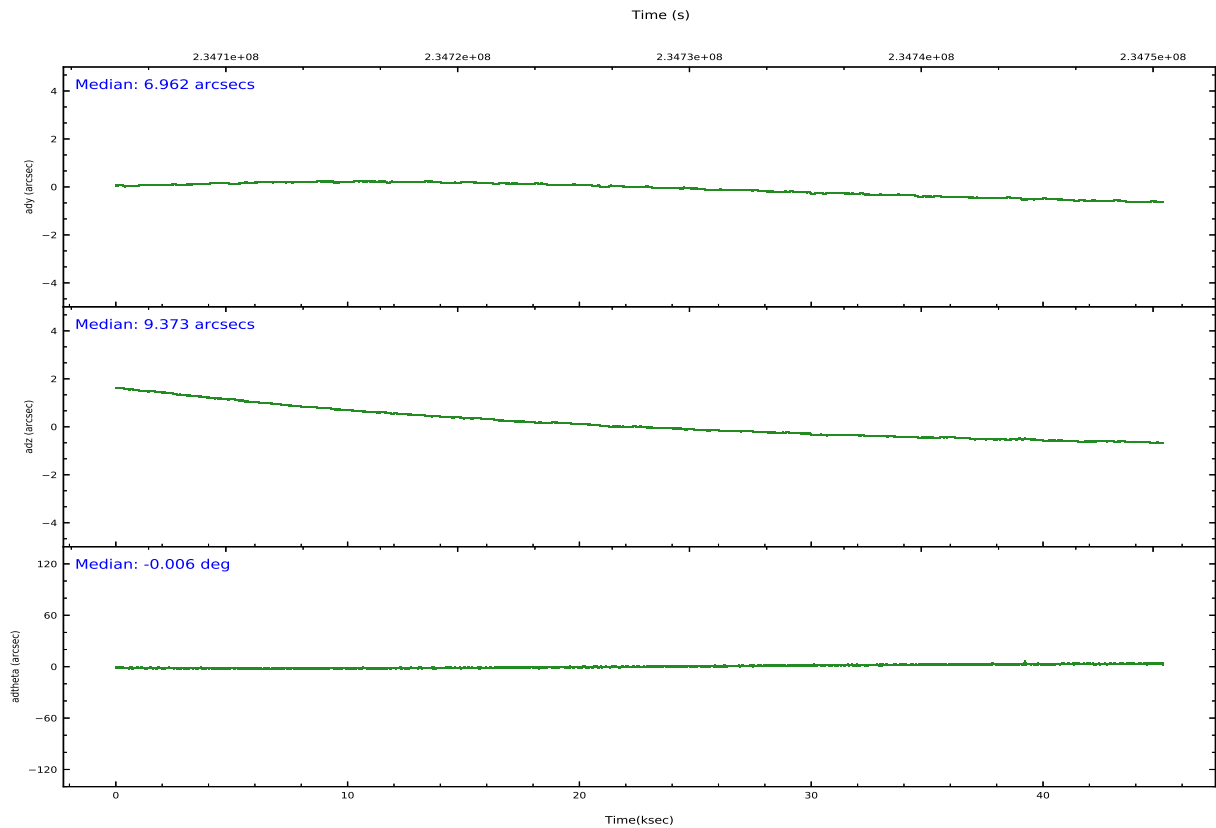
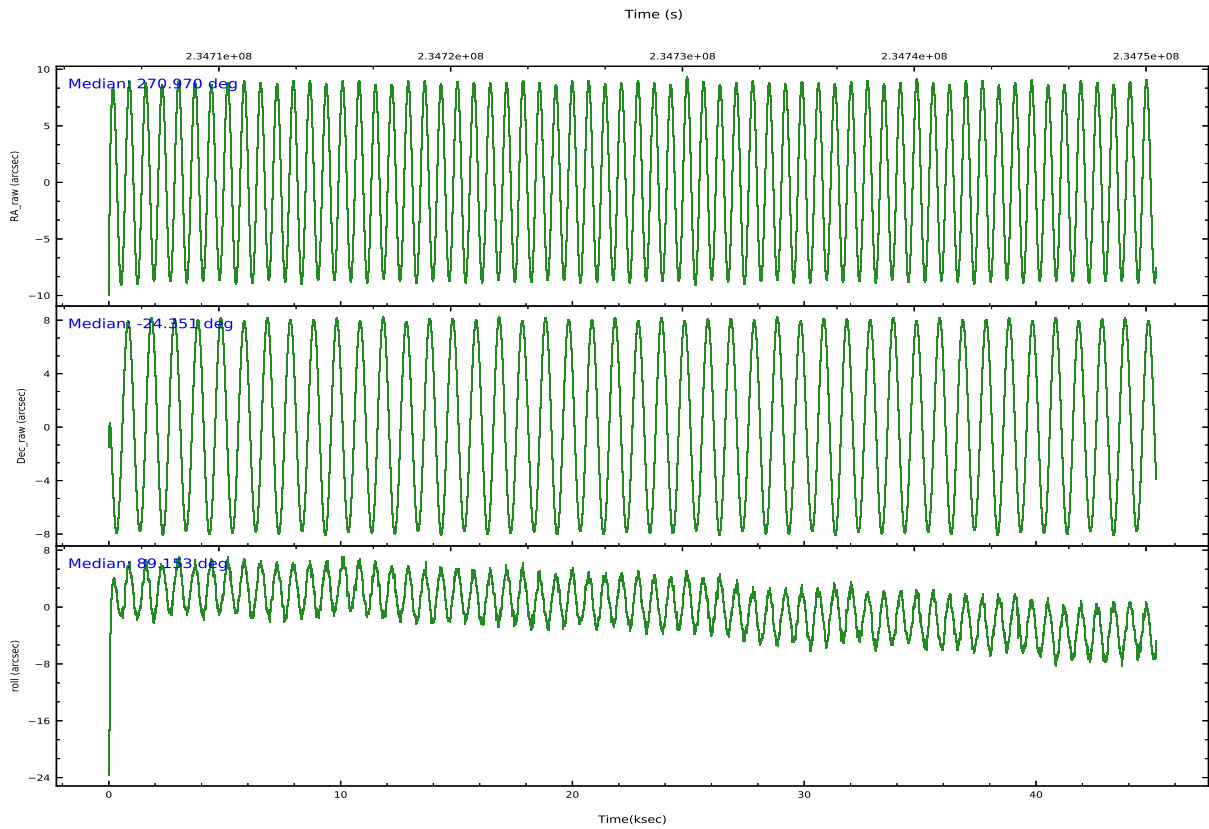
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	402276	537574	356413	482476	451984	353555	grade 0 events	32820	31308	19047	18249	33196	18694
rejected events	345232	289716	311575	281776	353565	309648		8%	5%	5%	3%	7%	5%
rejected %	85%	53%	87%	58%	78%	87%	grade 1 events	438	1092	183	480	323	220
								0%	0%	0%	0%	0%	0%
							grade 2 events	9145	73191	9029	40722	21382	8673
								2%	13%	2%	8%	4%	2%
							grade 3 events	4497	9592	4305	18301	10549	4413
								1%	1%	1%	3%	2%	1%
							grade 4 events	4353	9459	4227	17777	9821	4190
								1%	1%	1%	3%	2%	1%
							grade 5 events	15998	38898	16149	45748	21533	17152
								3%	7%	4%	9%	4%	4%
							grade 6 events	6791	126837	8648	107672	24305	8378
								1%	23%	2%	22%	5%	2%
							grade 7 events	328234	247197	294825	233527	330875	291835
								81%	45%	82%	48%	73%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
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
[deg] Pointing RA	270.985268	270.97330727724	Subarray requested	NONE	NONE
[deg] Pointing Dec	-24.374780	-24.353223078724	Alternating exposures requested	N	N
[deg] Pointing Roll	89.006987	89.152707148602	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	234705433.184000	234704083.79957			
Observation start date	2005-06-09T11:56:09	2005-06-09T11:34:43			
[s] Observation end time (MET)	234750433.184000	234750990.36421			
Observation end date	2005-06-10T00:26:09	2005-06-10T00:36:30			
Read mode	TIMED	TIMED			

2.3 Aspect





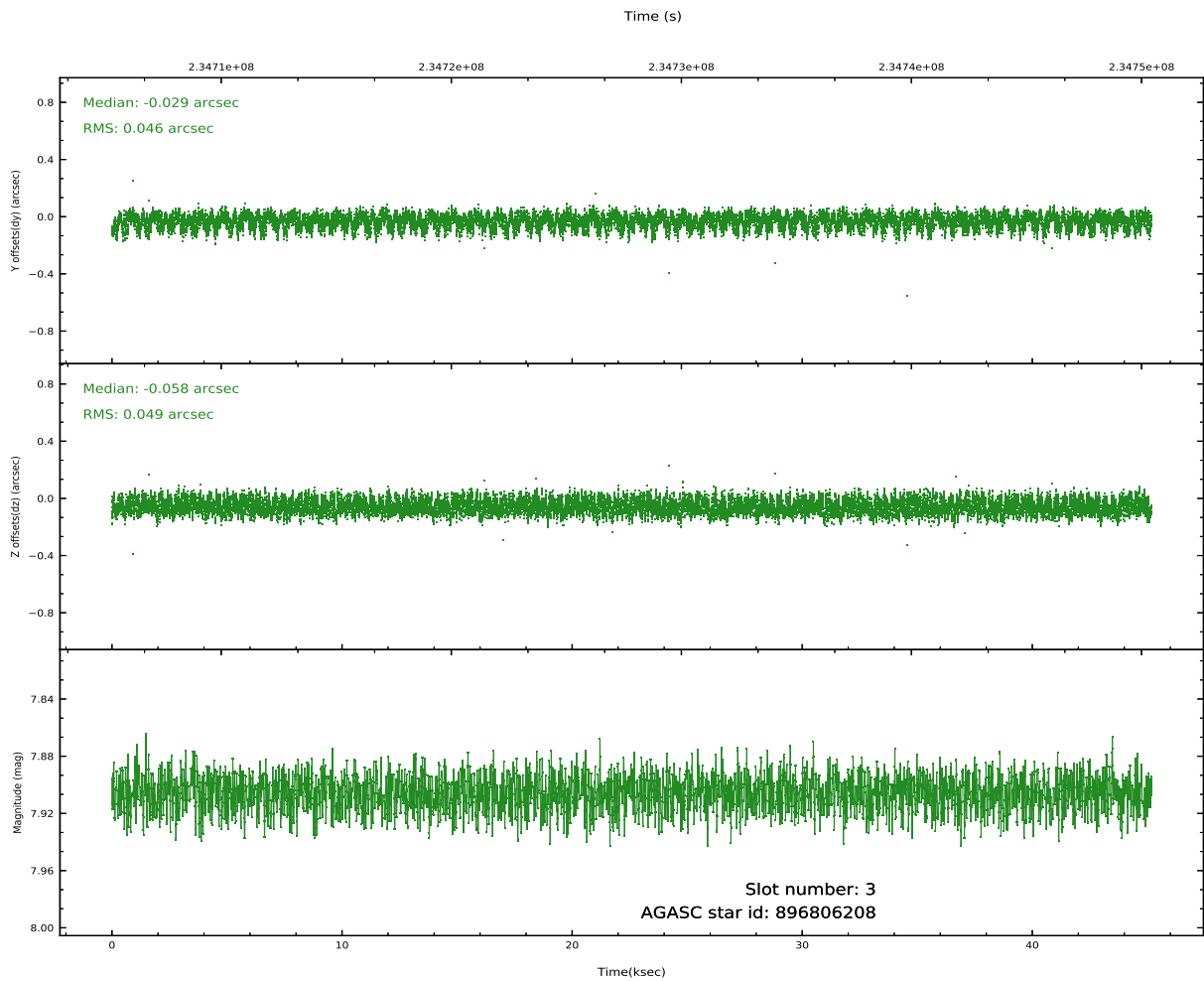
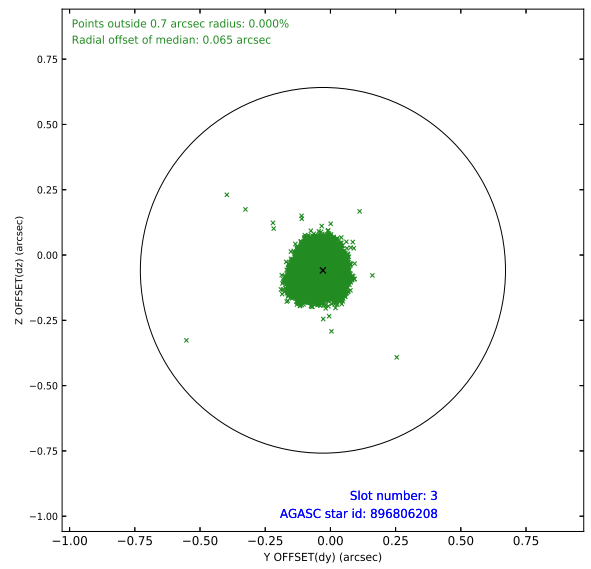
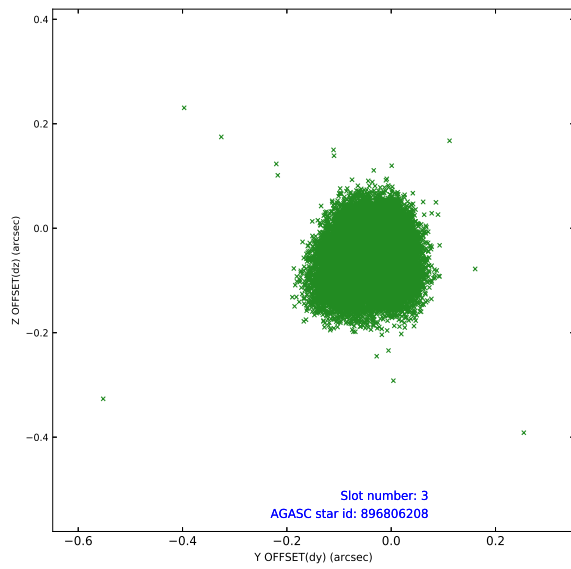
Slot Statistics

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	7.10	11020	1.000	-0.080	-0.078	0.013	0.023	0.000000	0.000000	-759.64	-1730
1	FID		ACIS-S-4	7.21	11020	1.000	0.154	0.059	0.007	0.012	0.000000	0.000000	2153.82	177
2	FID		ACIS-S-5	7.23	11019	1.000	-0.106	0.028	0.012	0.022	0.000000	0.000000	-1812.57	171
3	GUIDE	used	896806208	7.91	22035	1.000	-0.029	-0.058	0.072	0.112	270.466849	-24.367317	-6.02	1700
4	GUIDE	used	896807960	7.96	22037	1.000	-0.131	0.129	0.058	0.093	271.641091	-23.945331	1578.64	-2130
5	GUIDE	used	897319440	7.77	22038	1.000	0.003	0.034	0.054	0.088	271.242462	-24.680808	-1087.30	-860
6	GUIDE	used	897327936	7.21	22041	1.000	0.135	-0.067	0.071	0.110	271.293962	-24.398569	-68.73	-1013
7	GUIDE	used	896809544	8.95	22024	1.000	0.019	-0.042	0.101	0.153	270.254038	-24.153966	746.71	2415

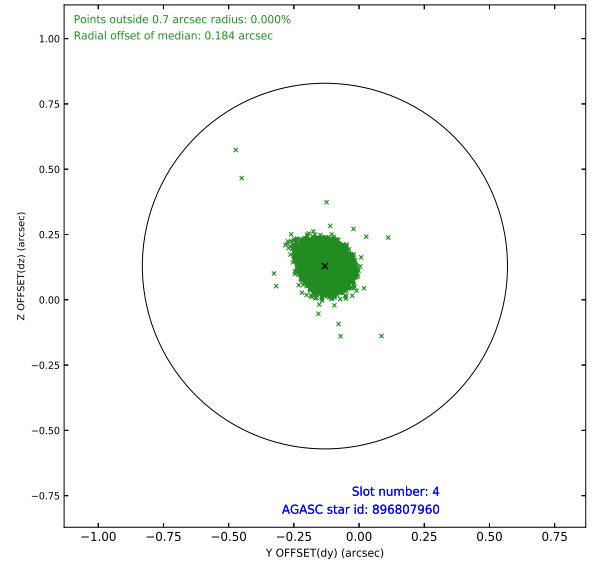
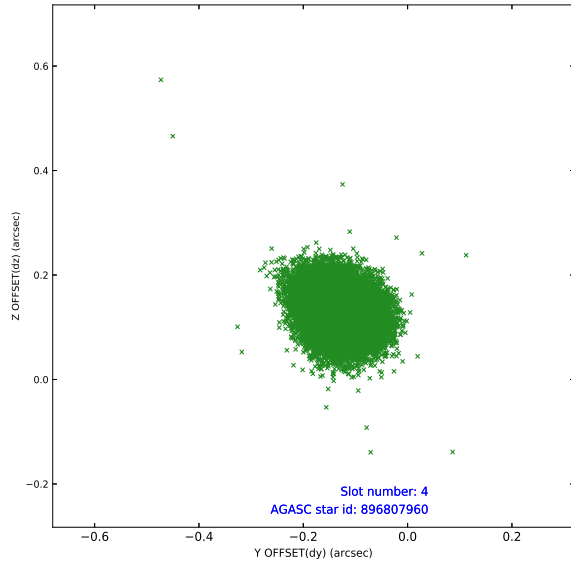
∞

2.4 Star Slots

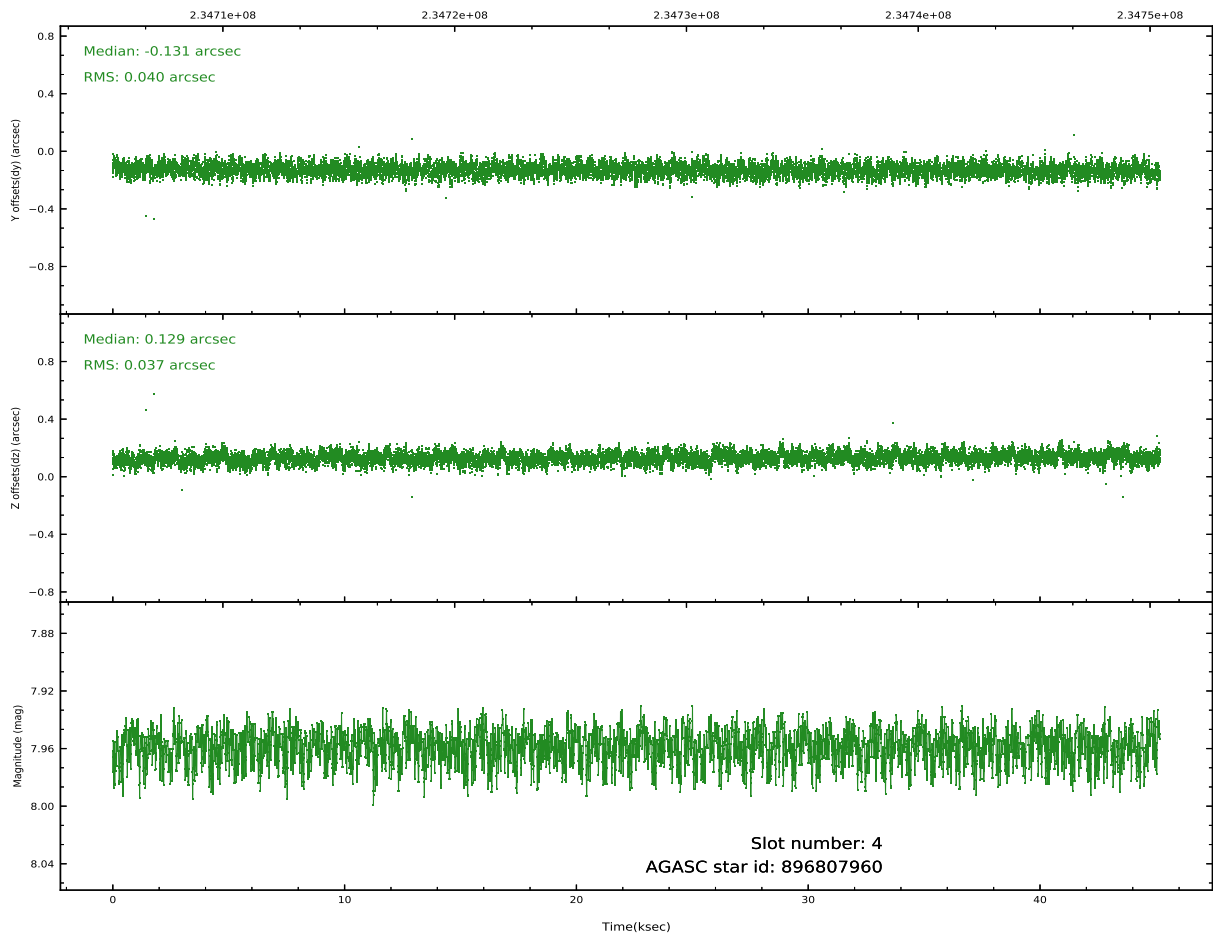
2.4.1 Slot 3



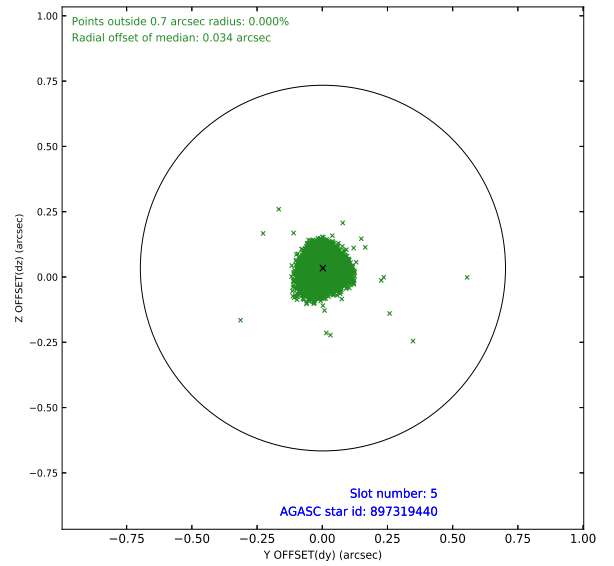
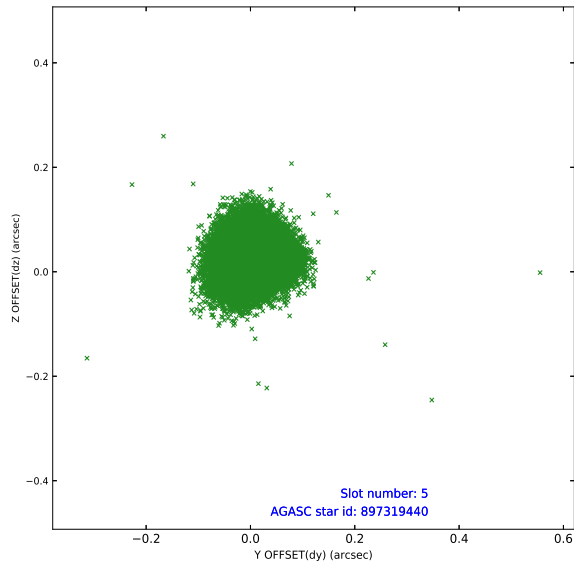
2.4.2 Slot 4



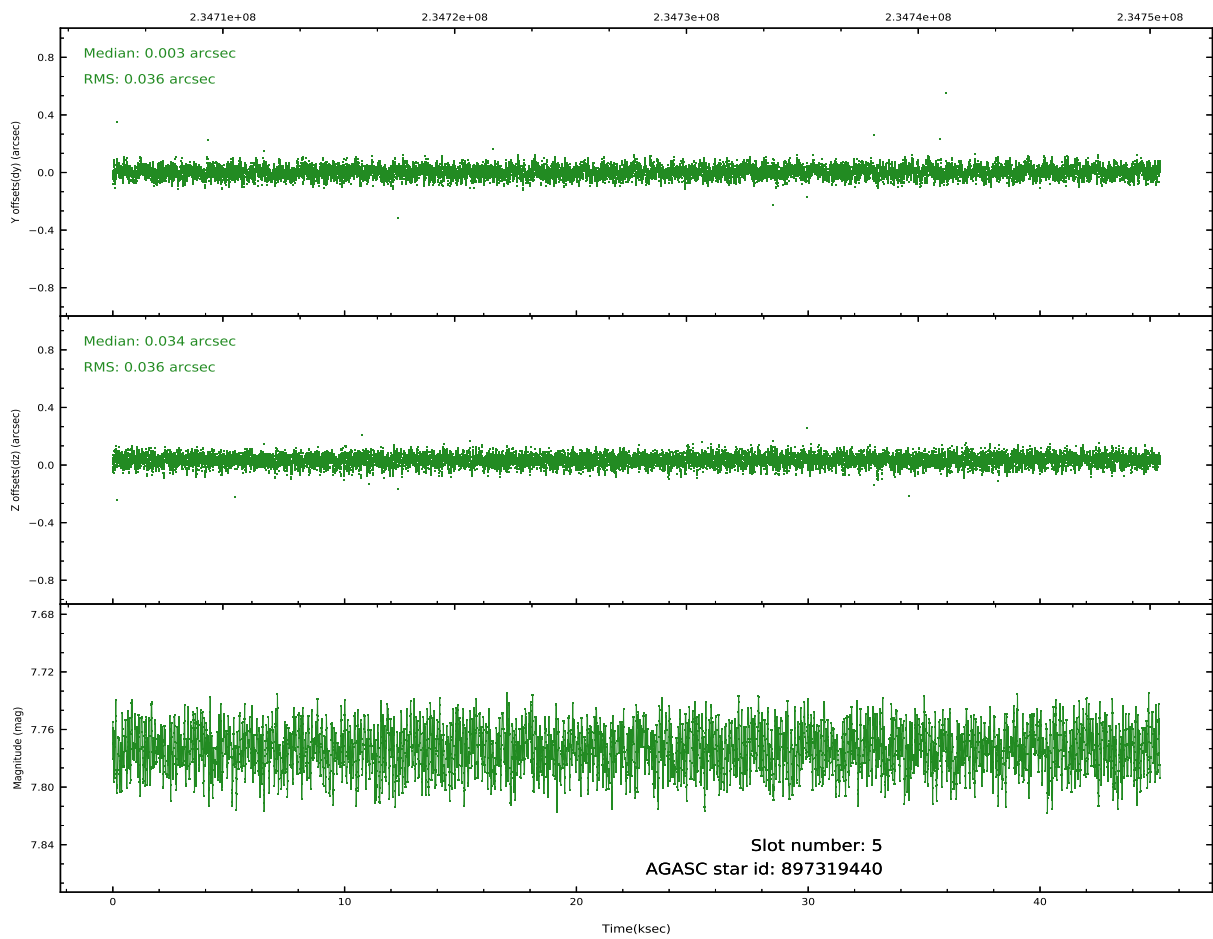
Time (s)



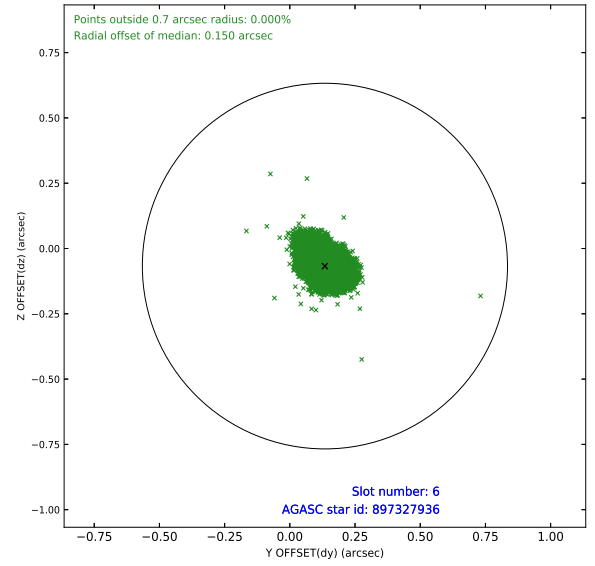
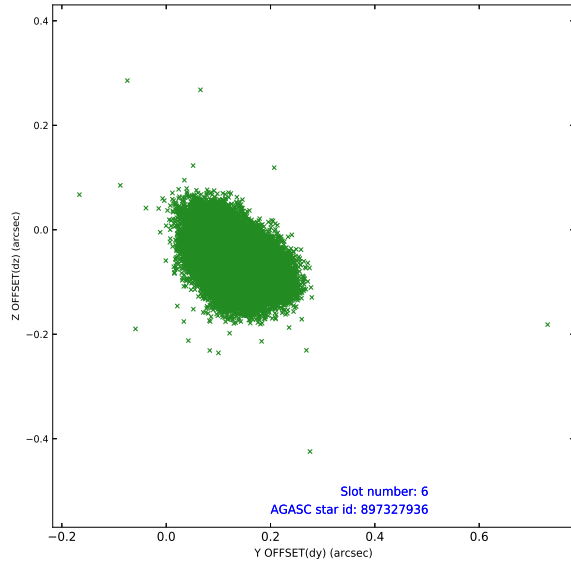
2.4.3 Slot 5



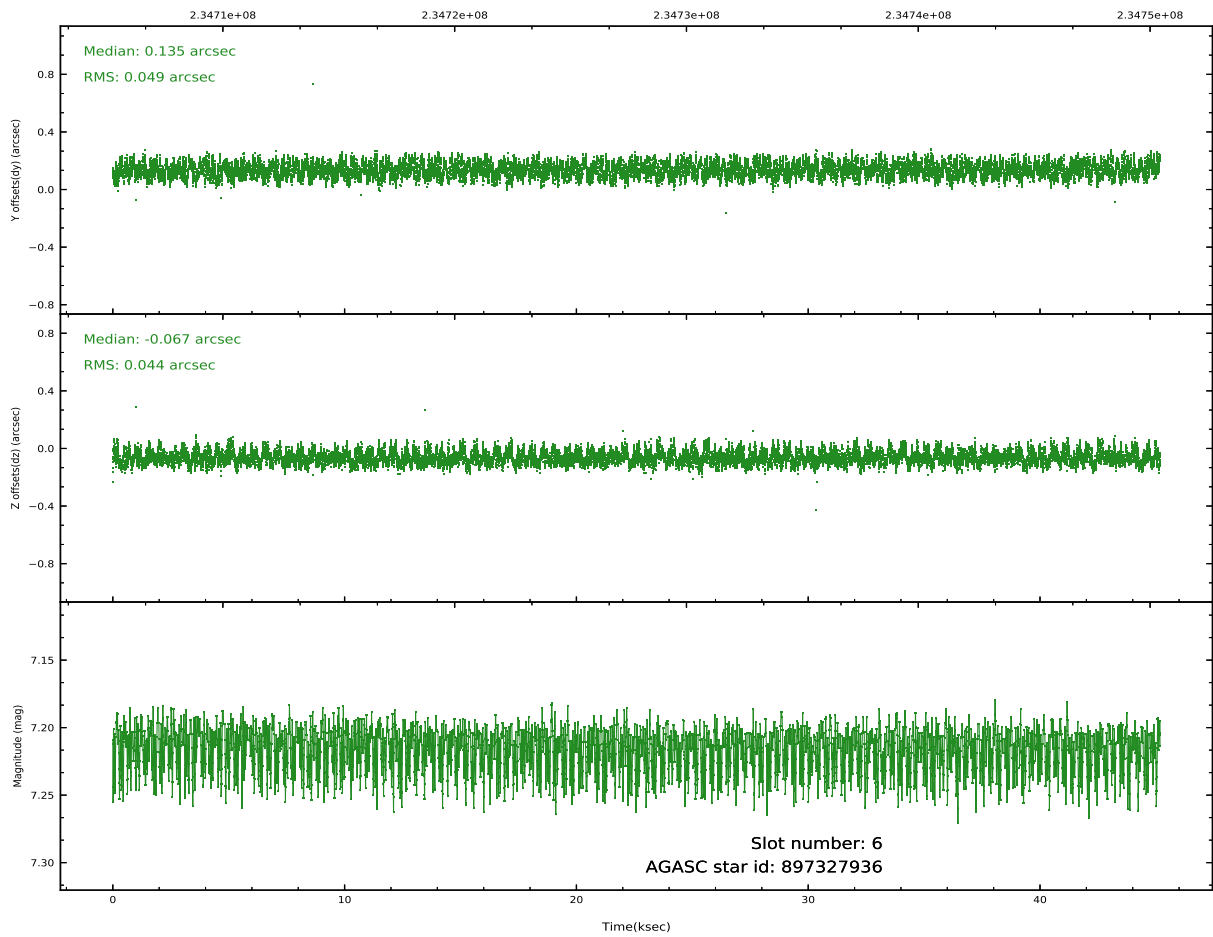
Time (s)



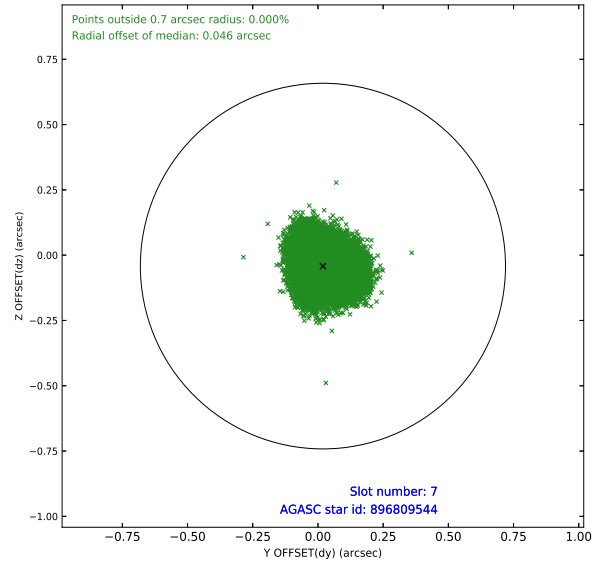
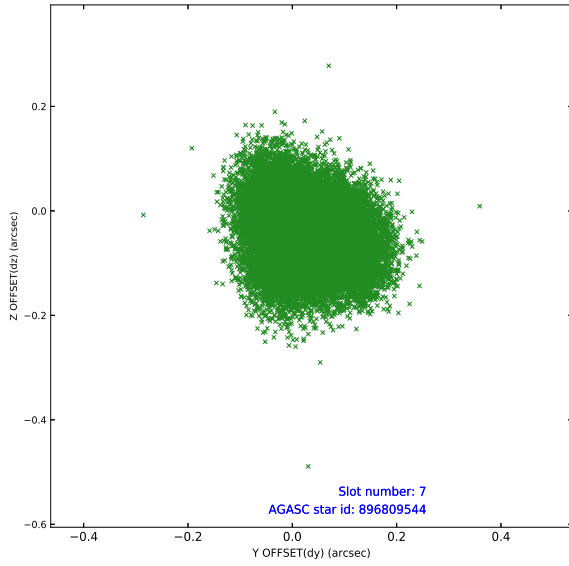
2.4.4 Slot 6



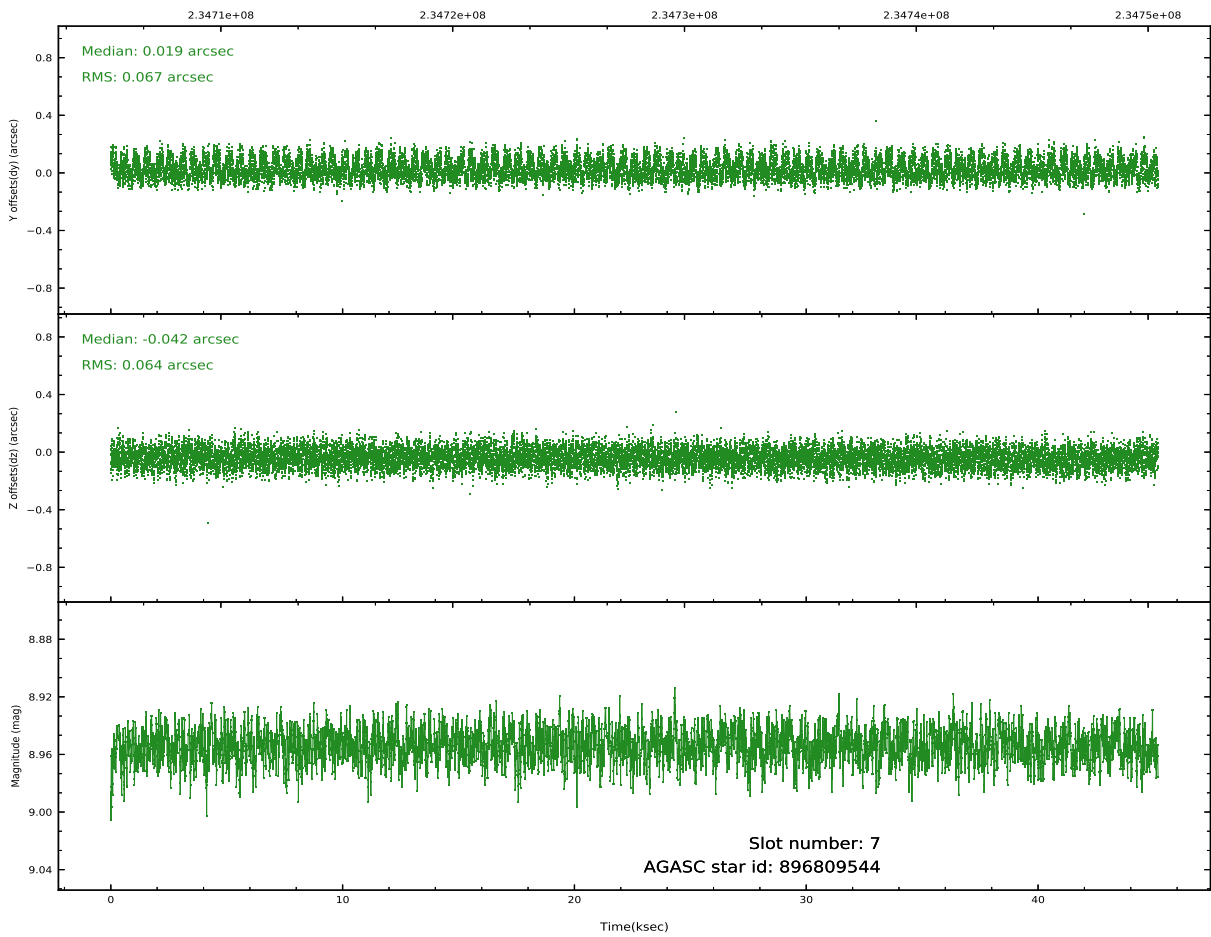
Time (s)



2.4.5 Slot 7

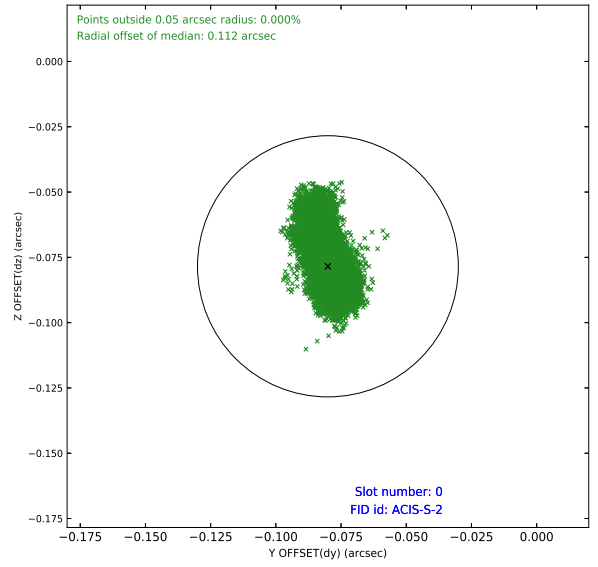
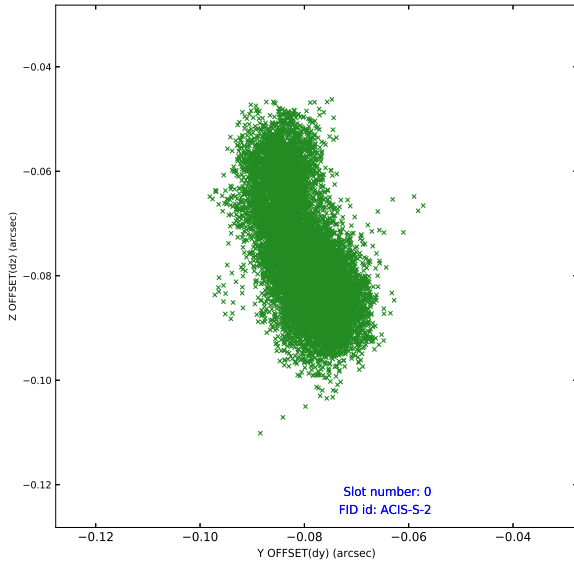


Time (s)

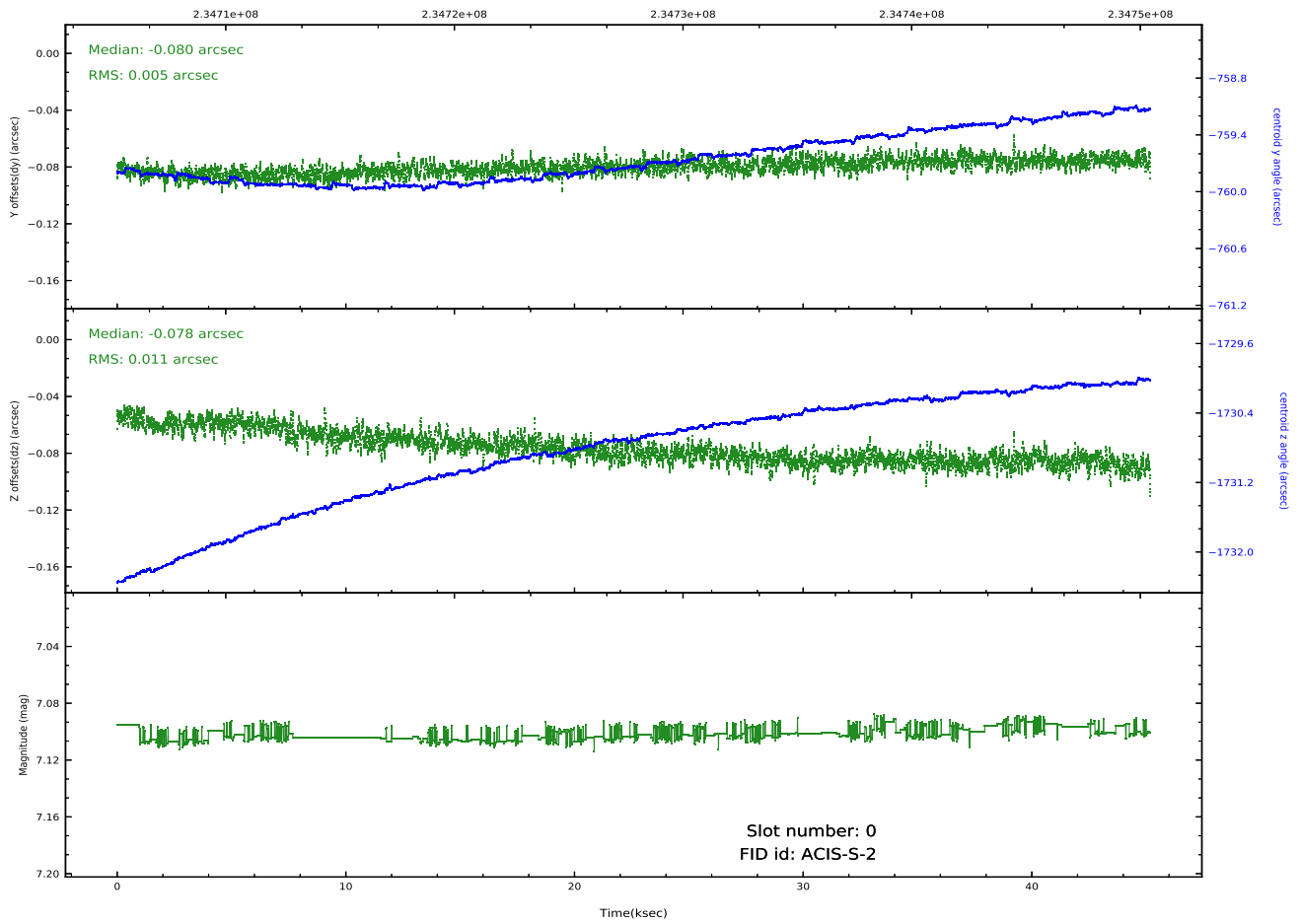


2.5 FID Slots

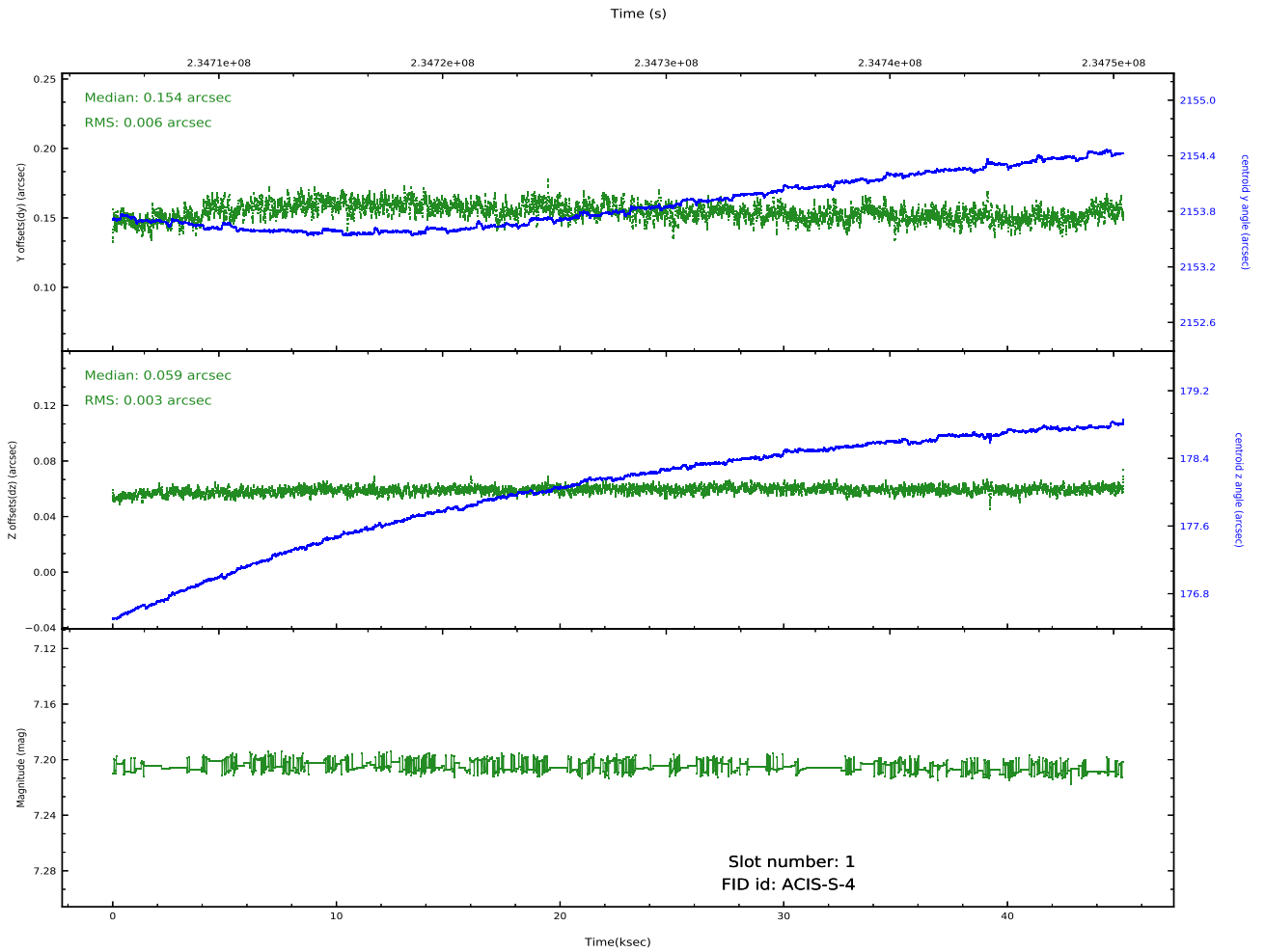
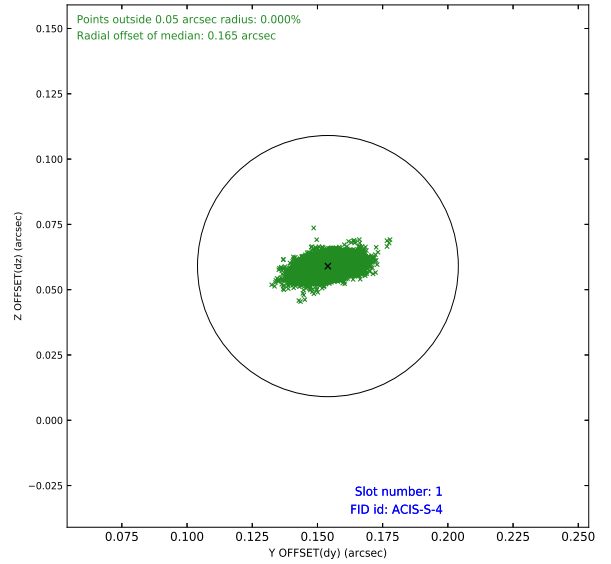
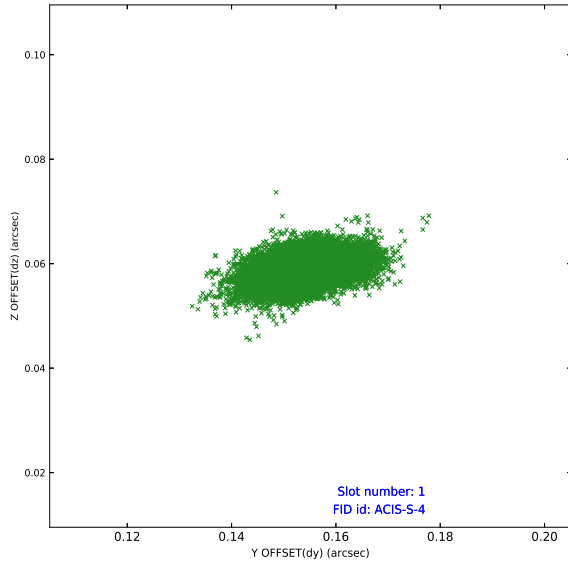
2.5.1 Slot 0



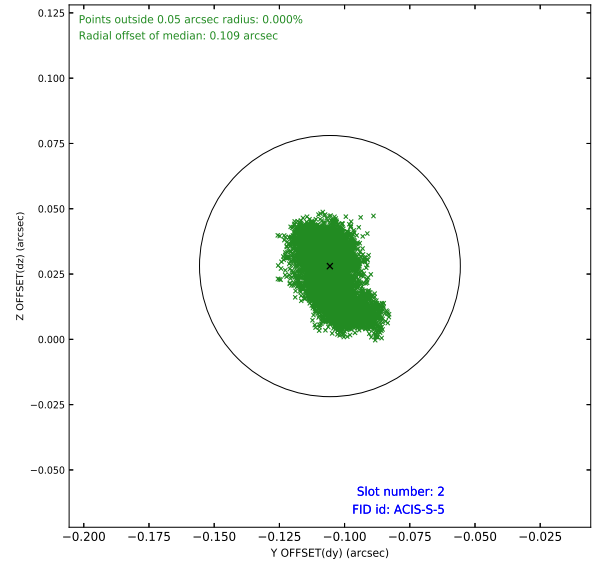
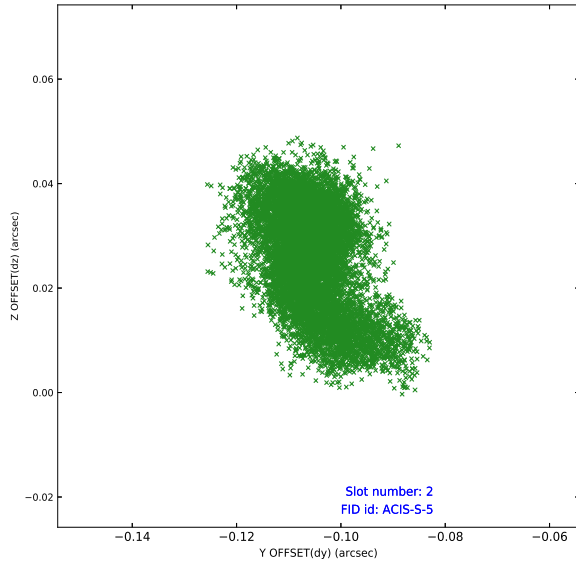
Time (s)



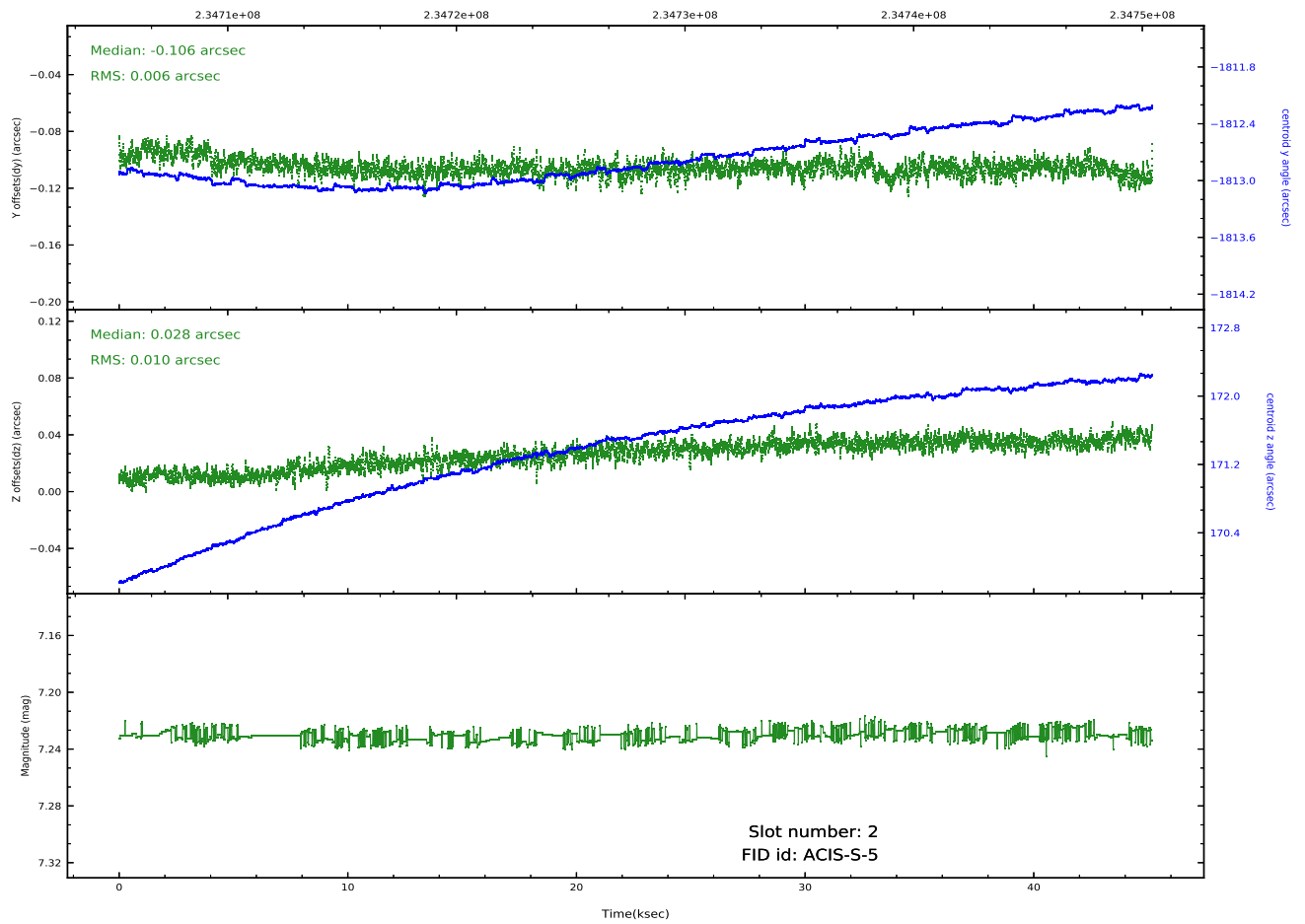
2.5.2 Slot 1



2.5.3 Slot 2

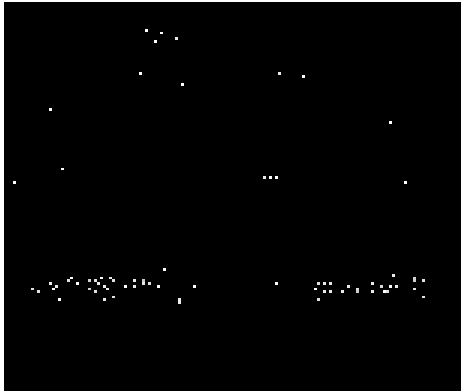


Time (s)

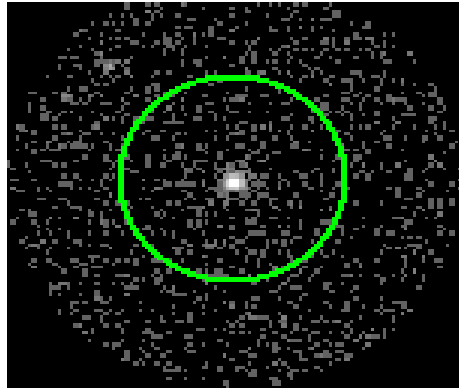


3 Gratings

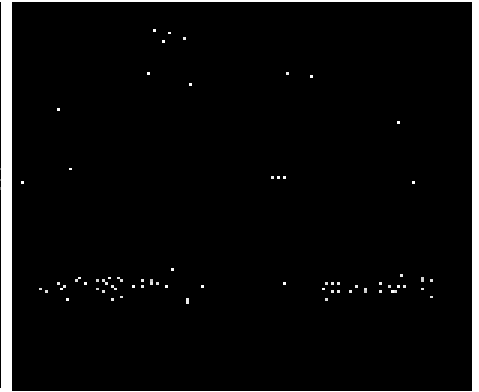
3.1 HEG Arm



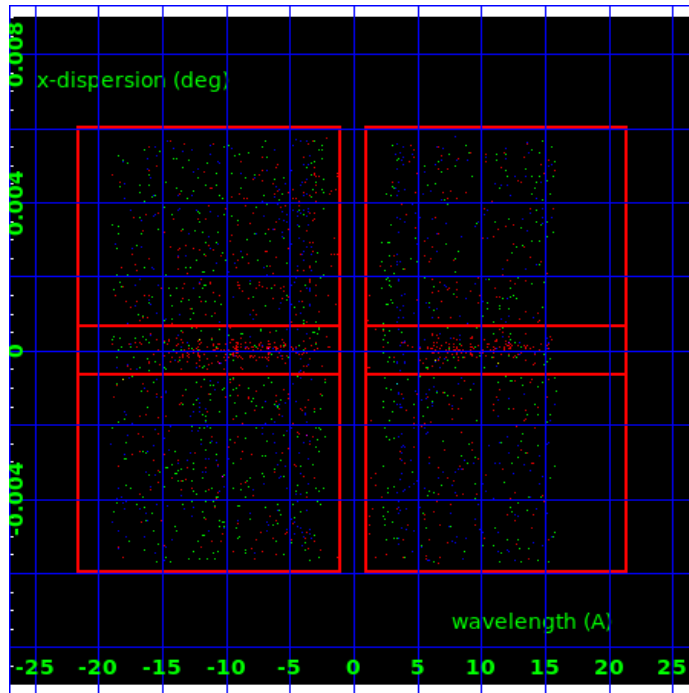
HEG Order Sort 123



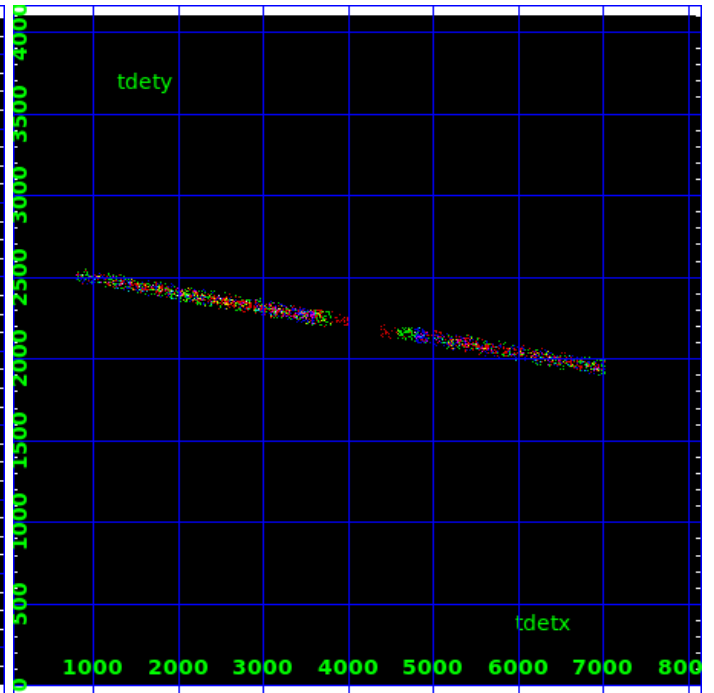
HEG Zero Order



HEG Order Sort ALL

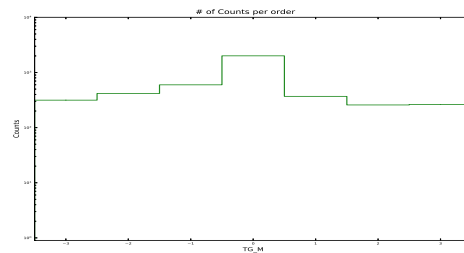


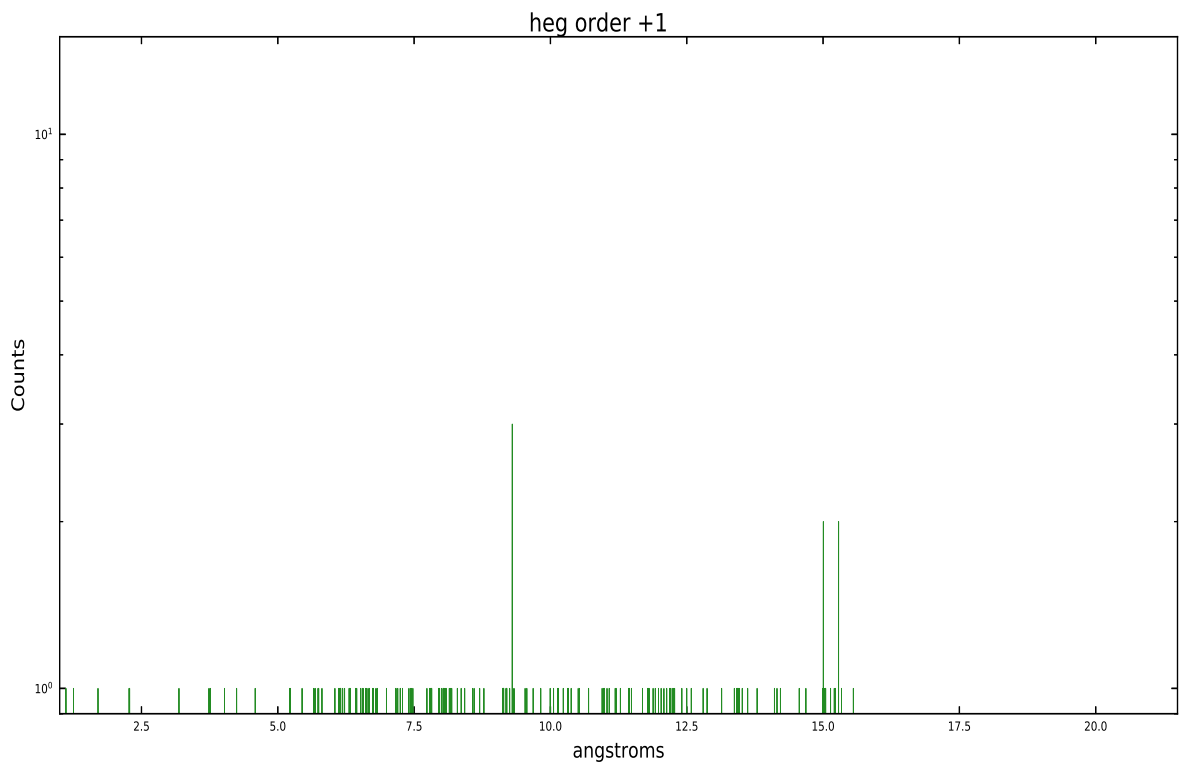
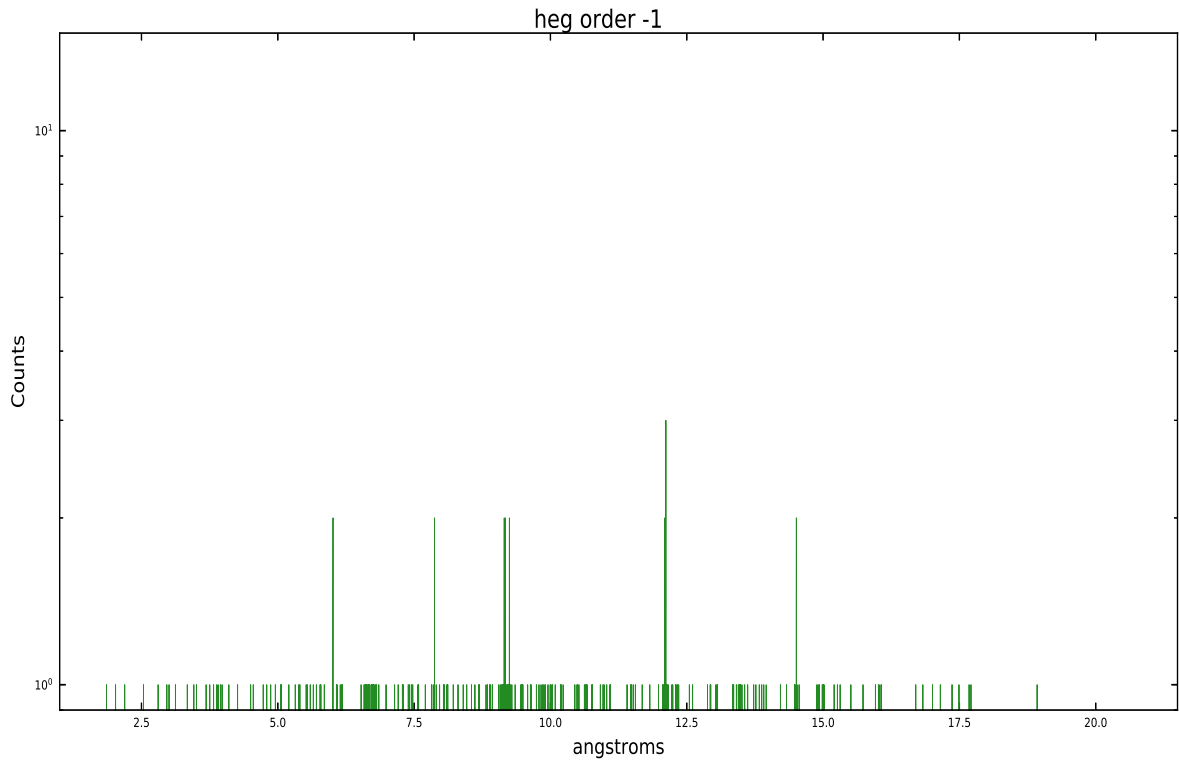
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	315	417	598	2008	369	258	263

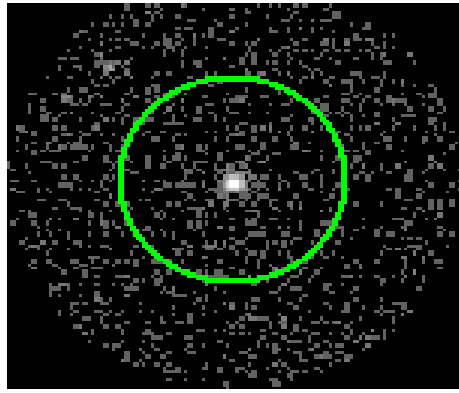




3.2 MEG Arm



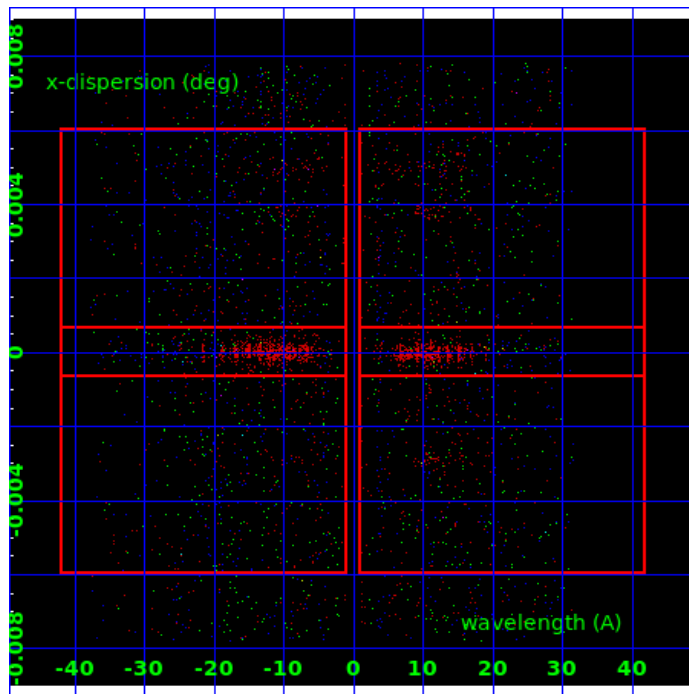
MEG Order Sort 123



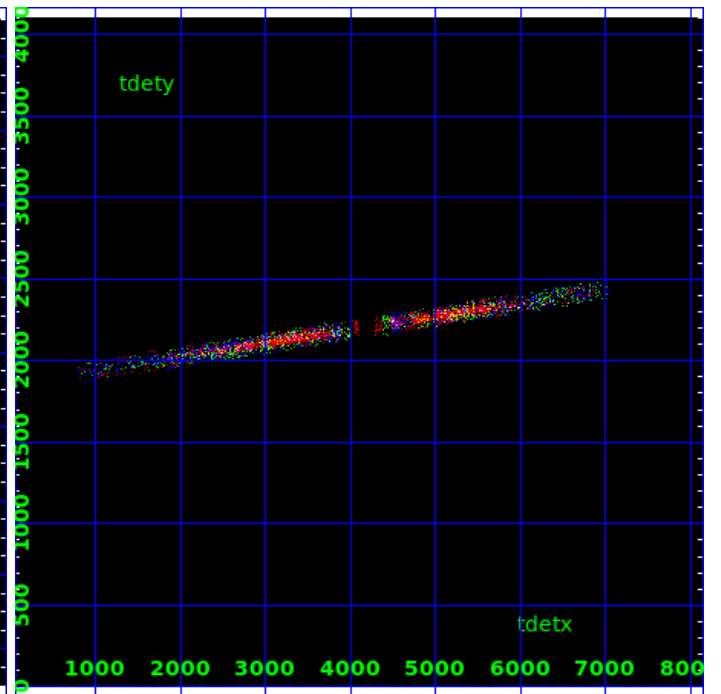
MEG Zero Order



MEG Order Sort ALL

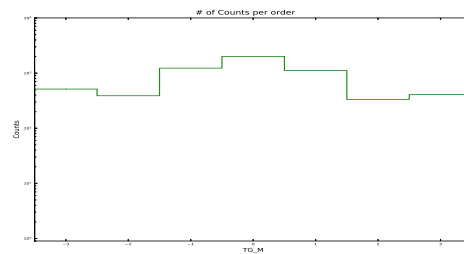


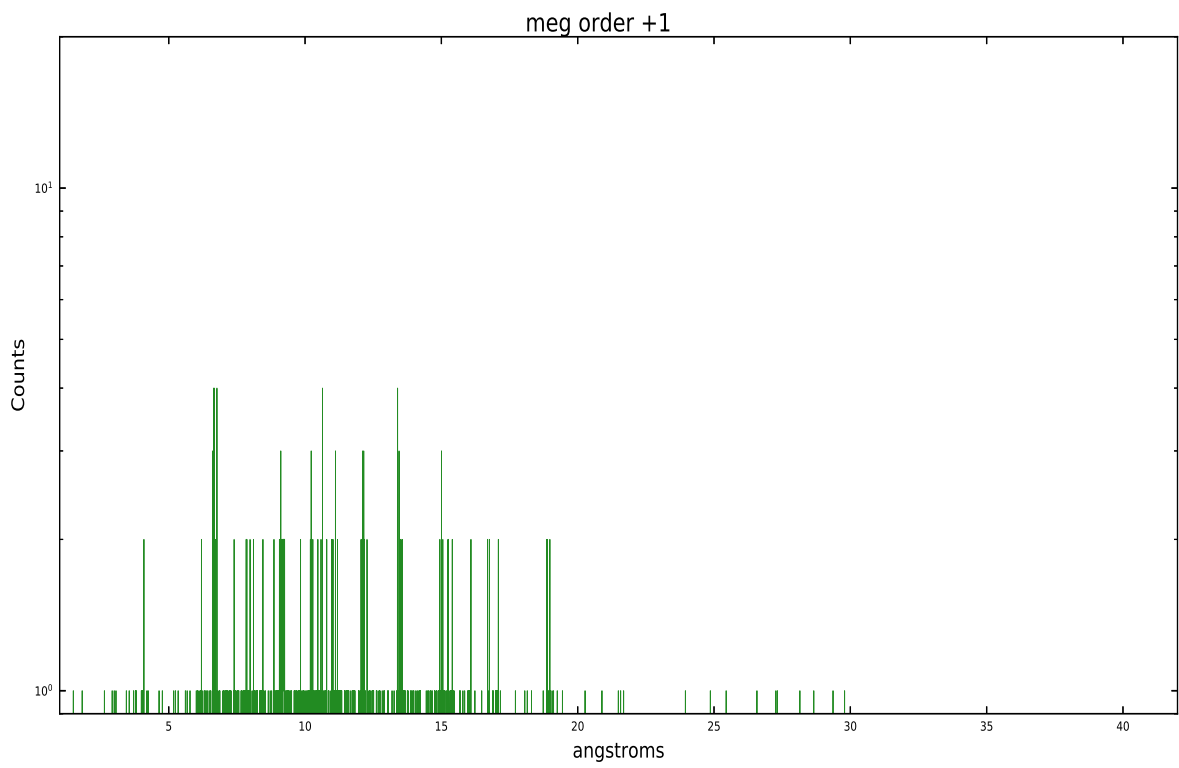
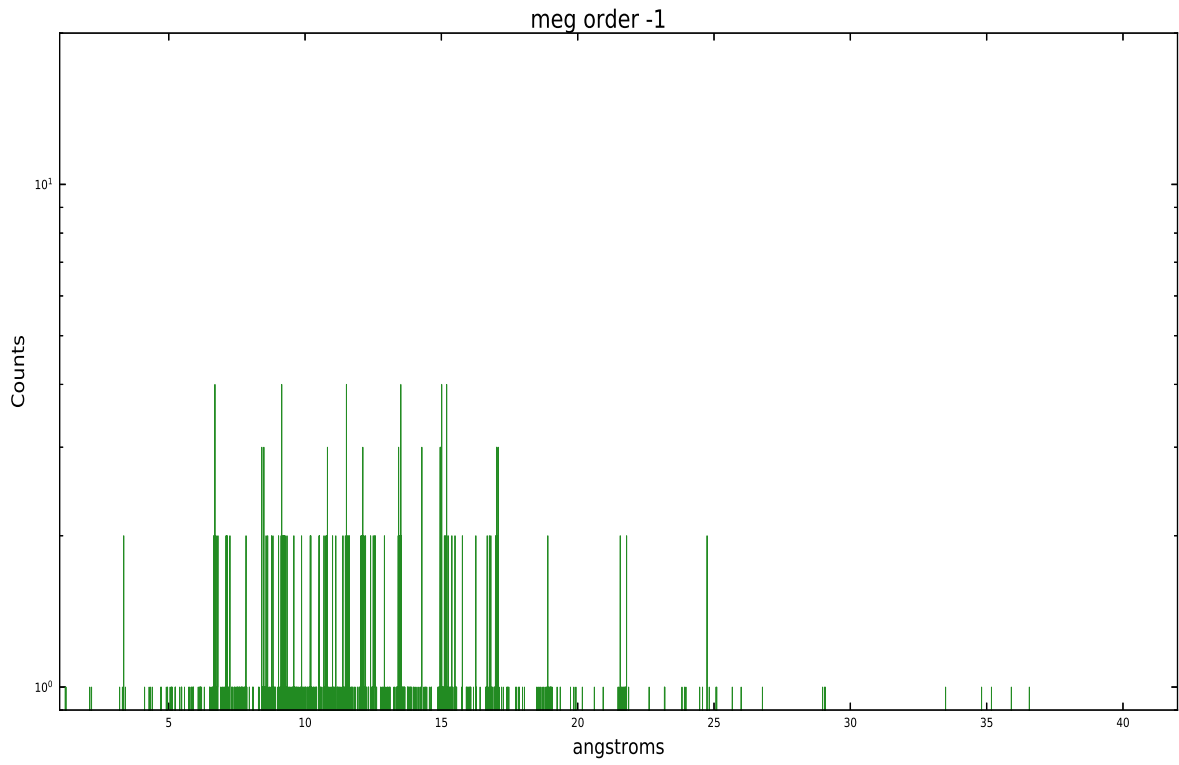
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	514	389	1231	2008	1119	334	408





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.17439

A.2 Comments

Note: crowded field. Analysis should assess possible spectral confusion.