

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4585 - L2 Version 4
Chandra X-Ray Center

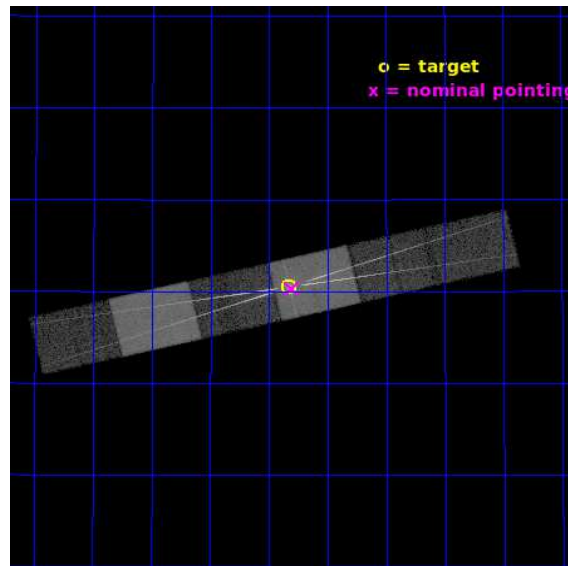
L2 Processing Date : Oct 5 2020

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1 Front

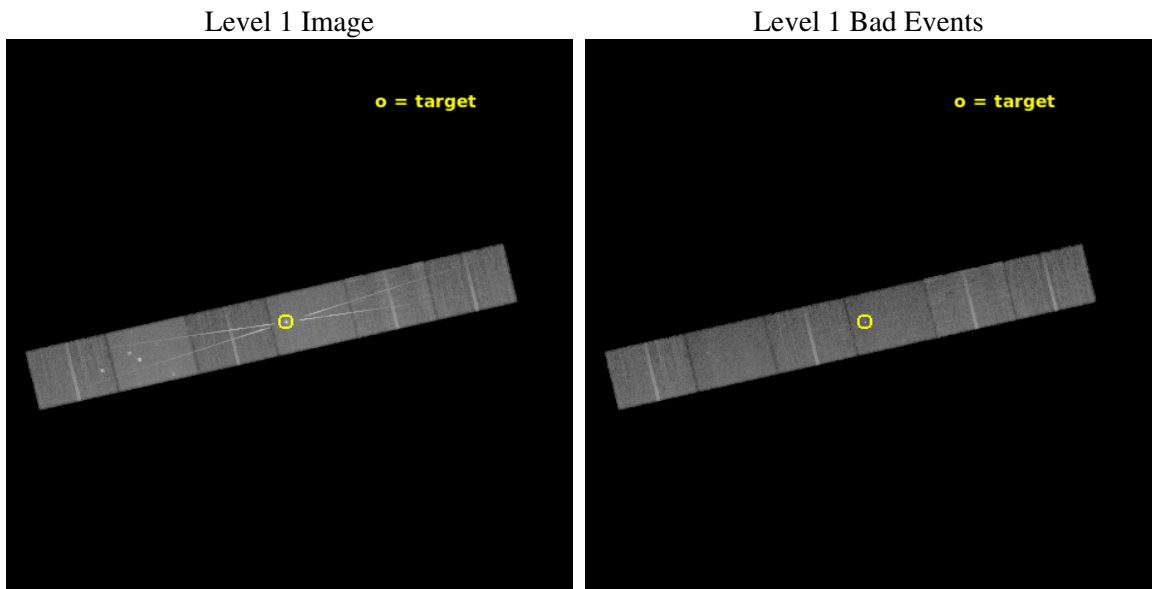
seq_num	400367	Sequence number
obs_id	4585	Observation id
title	Using the Intensity Dips in Hercules X-1 to Probe the Inner Accretion Disk	Proposal title
observer	Dr. Mario Jimenez-Garate	Principal investigator
object	Her X-1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	254.4575	Observer's specified target RA [deg]
dec_targ	35.342389	Observer's specified target Dec [deg]
ra_nom	254.45120586579	Nominal RA [deg]
dec_nom	35.338467912826	Nominal Dec [deg]
roll_nom	346.69113083372	Nominal Roll [deg]
revision	4	Processing version of data
ontime	20155.0	Sum of GTIs [s]
livetime	19829.479268331	Livetime [s]
ontime4	20155.0	Sum of GTIs [s]
ontime5	20155.0	Sum of GTIs [s]
ontime6	20155.0	Sum of GTIs [s]
ontime7	20155.0	Sum of GTIs [s]
ontime8	20155.0	Sum of GTIs [s]
ontime9	20155.0	Sum of GTIs [s]
l2events	273354	Number of level 2 events



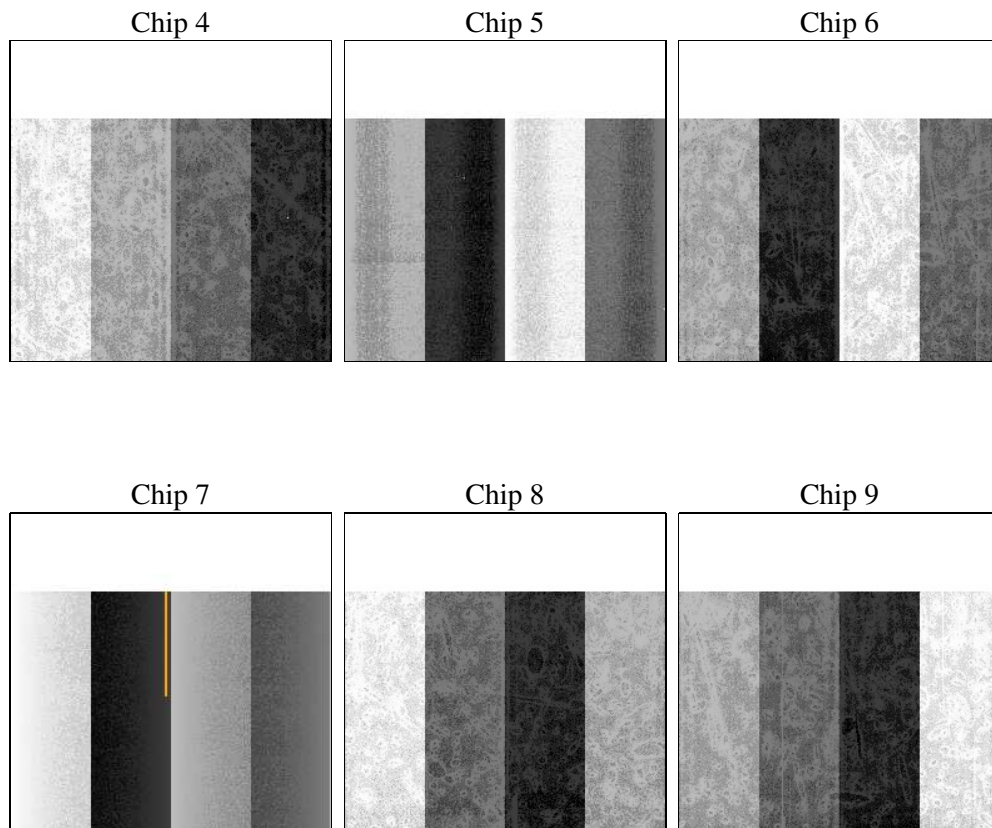
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	20155.0	Sum of GTIs [s]
caldsver	4.9.2	 	ontime4	20155.0	Sum of GTIs [s]
date	2020-10-05T07:13:14	Date and time of file creation	ontime5	20155.0	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	20155.0	Sum of GTIs [s]
			ontime7	20155.0	Sum of GTIs [s]
			ontime8	20155.0	Sum of GTIs [s]
			ontime9	20155.0	Sum of GTIs [s]
			l1events	963429	Number of level 1 events
			tgmetho	FINDZO	Method used to create src1a file
				14058.66	

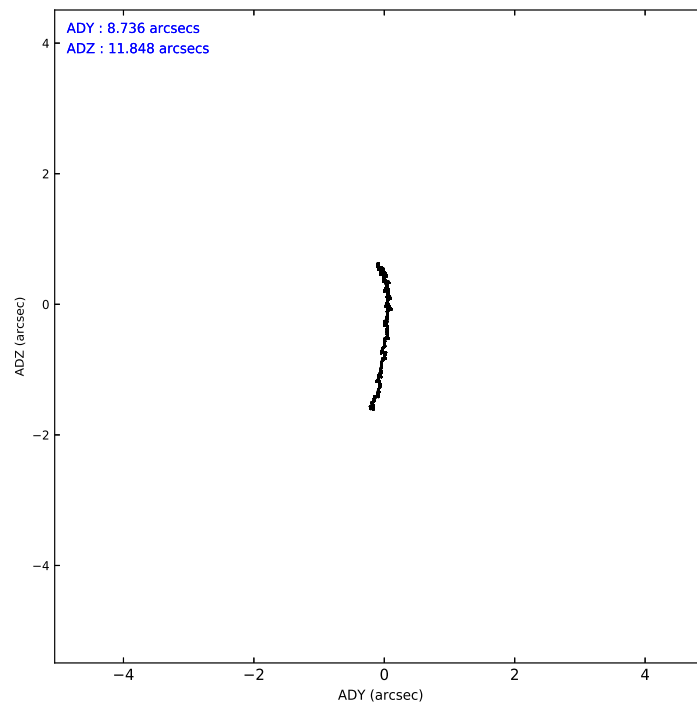
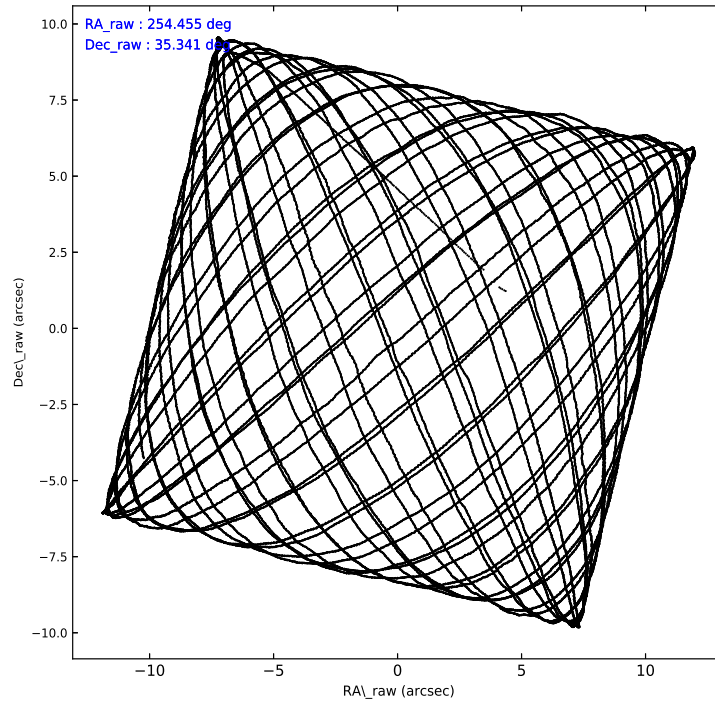
2.1.4 Events

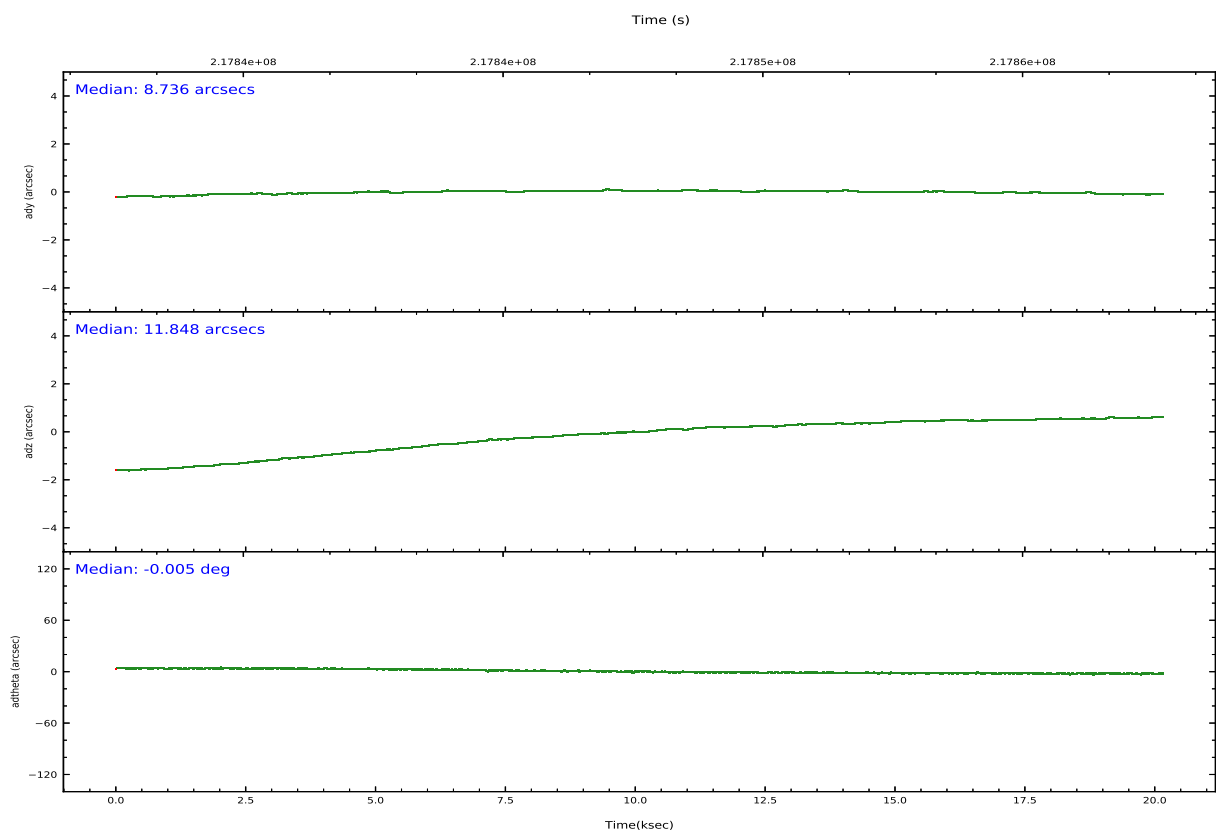
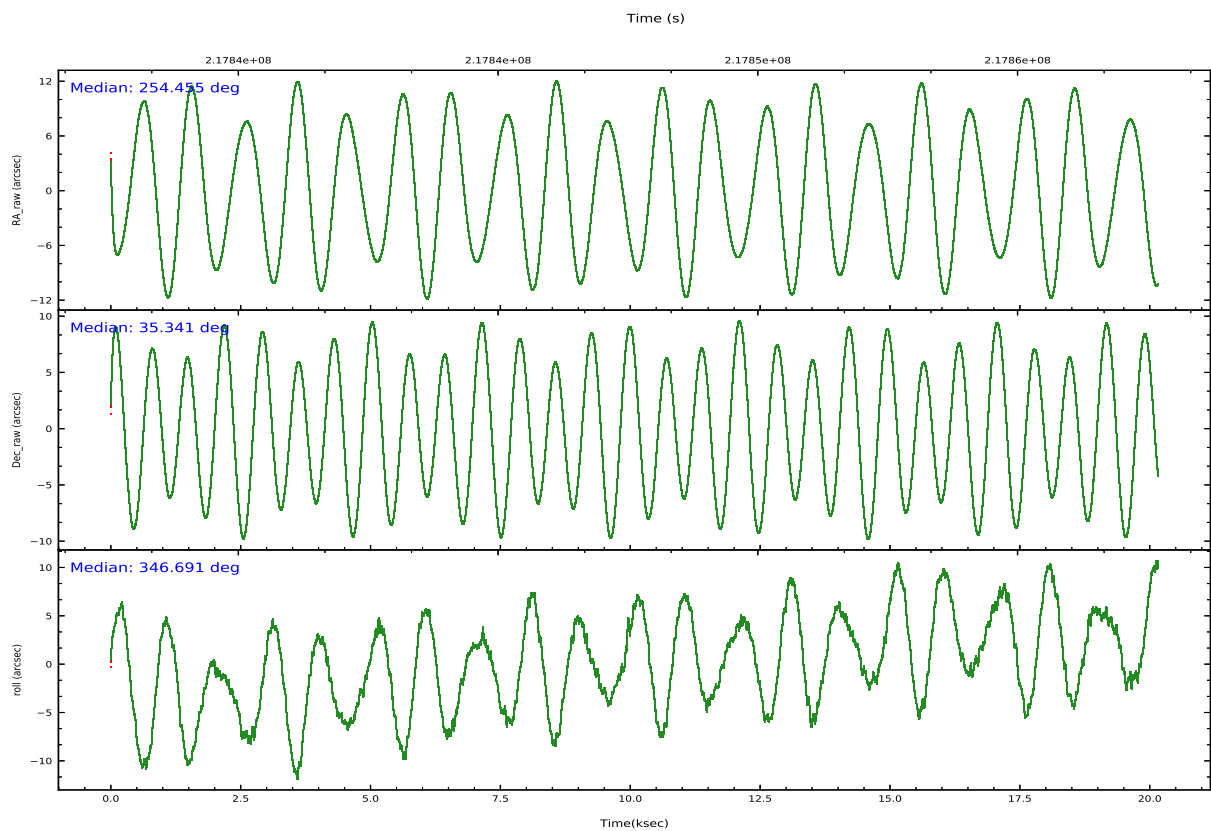
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	138033	186638	148363	203045	163697	123653	grade 0 events	9859	14153	24617	15000	16629	7433
rejected events	119142	96215	105991	96729	122898	107074		7%	7%	16%	7%	10%	6%
rejected %	86%	51%	71%	47%	75%	86%	grade 1 events	127	359	215	437	141	72
								0%	0%	0%	0%	0%	0%
							grade 2 events	3445	24885	6841	22671	7909	3176
								2%	13%	4%	11%	4%	2%
							grade 3 events	1677	4405	2821	10200	3993	1629
								1%	2%	1%	5%	2%	1%
							grade 4 events	1501	4209	2794	10132	3636	1527
								1%	2%	1%	4%	2%	1%
							grade 5 events	5106	13713	5569	16408	7078	5698
								3%	7%	3%	8%	4%	4%
							grade 6 events	2485	43217	5449	48711	8734	2875
								1%	23%	3%	23%	5%	2%
							grade 7 events	113833	81697	100057	79486	115577	101243
								82%	43%	67%	39%	70%	81%

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	254.423362	254.45120586579	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	35.332939	35.338467912826	Subarray start row	1	1
[deg] Pointing Roll	346.549496	346.69113083372	Subarray row count	774	774
[s] Window start time (MET)	217831564.184000	217831564.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	217858864.184000	217858864.184000	[s] Primary exposure time	0.000000	2.5
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
Phase constraints	Y	Y			
[d] Phase period	1.700167	1.700167			
[d] Phase epoch (MJD)	51310.760000	51310.760000			
Phase start	0.750000	0.750000			
Phase end	0.900000	0.900000			
Phase start error	0.020000	0.020000			
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	217837706.184000	217836560.54801			
Observation start date	2004-11-26T06:27:22	2004-11-26T06:09:20			
[s] Observation end time (MET)	217857706.184000	217858609.324			

2.3 Aspect



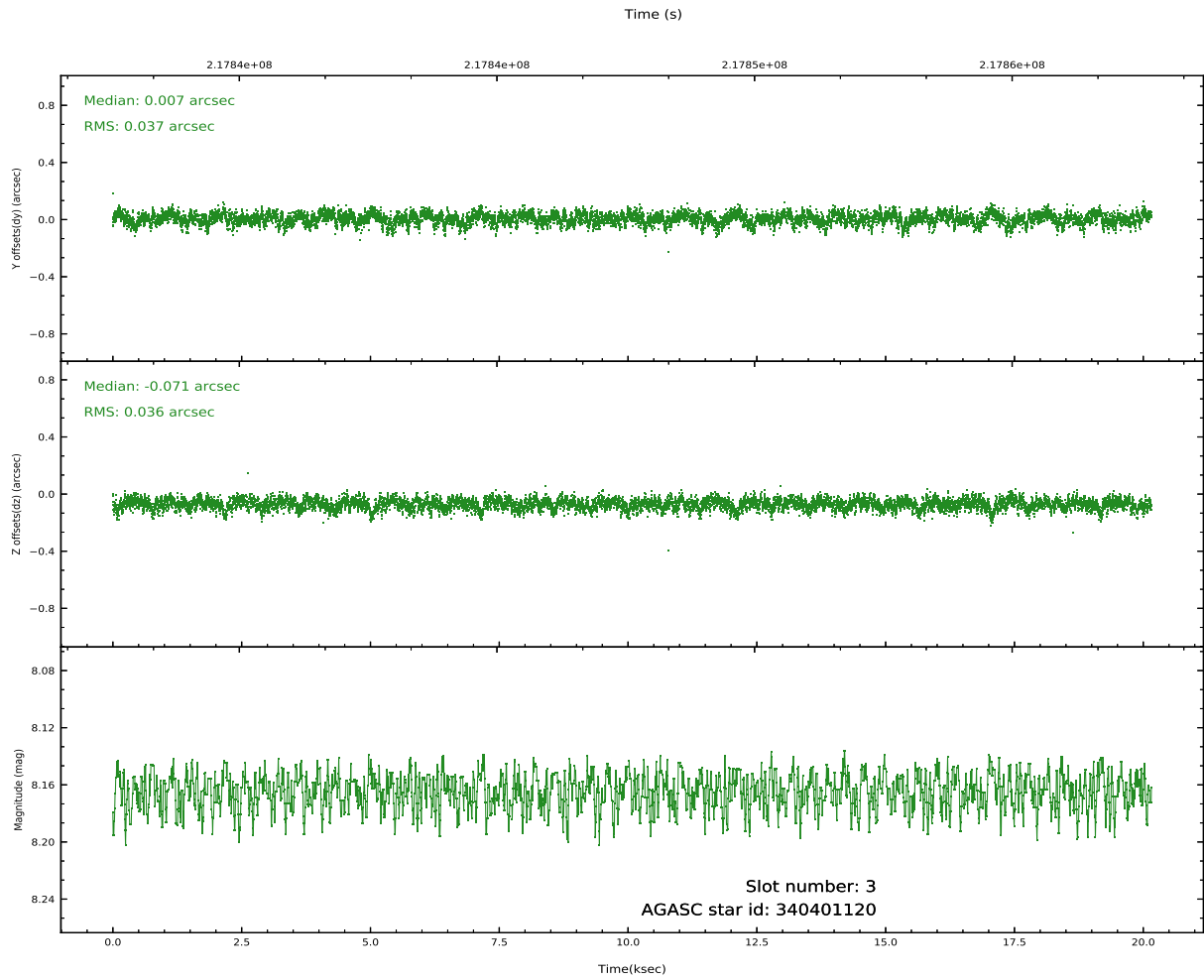
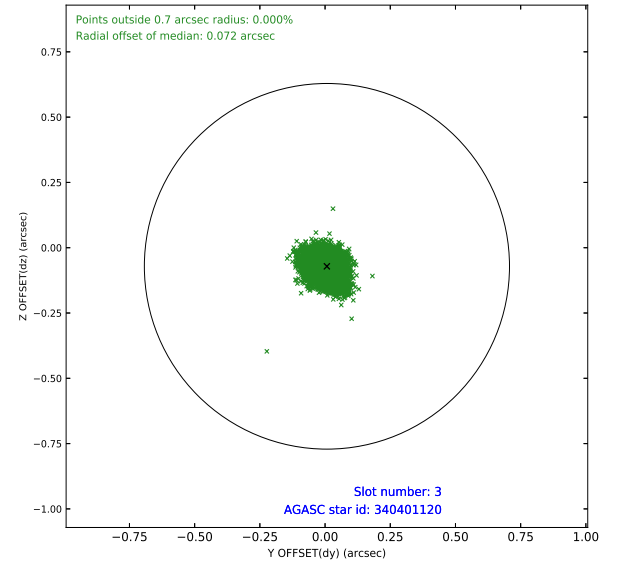
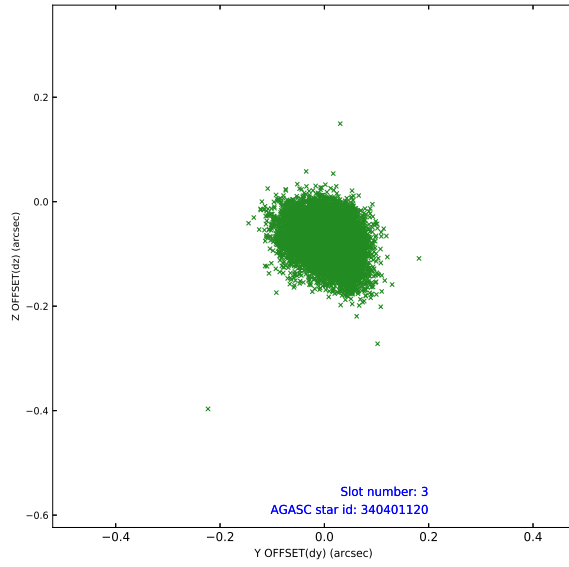


Slot Statistics

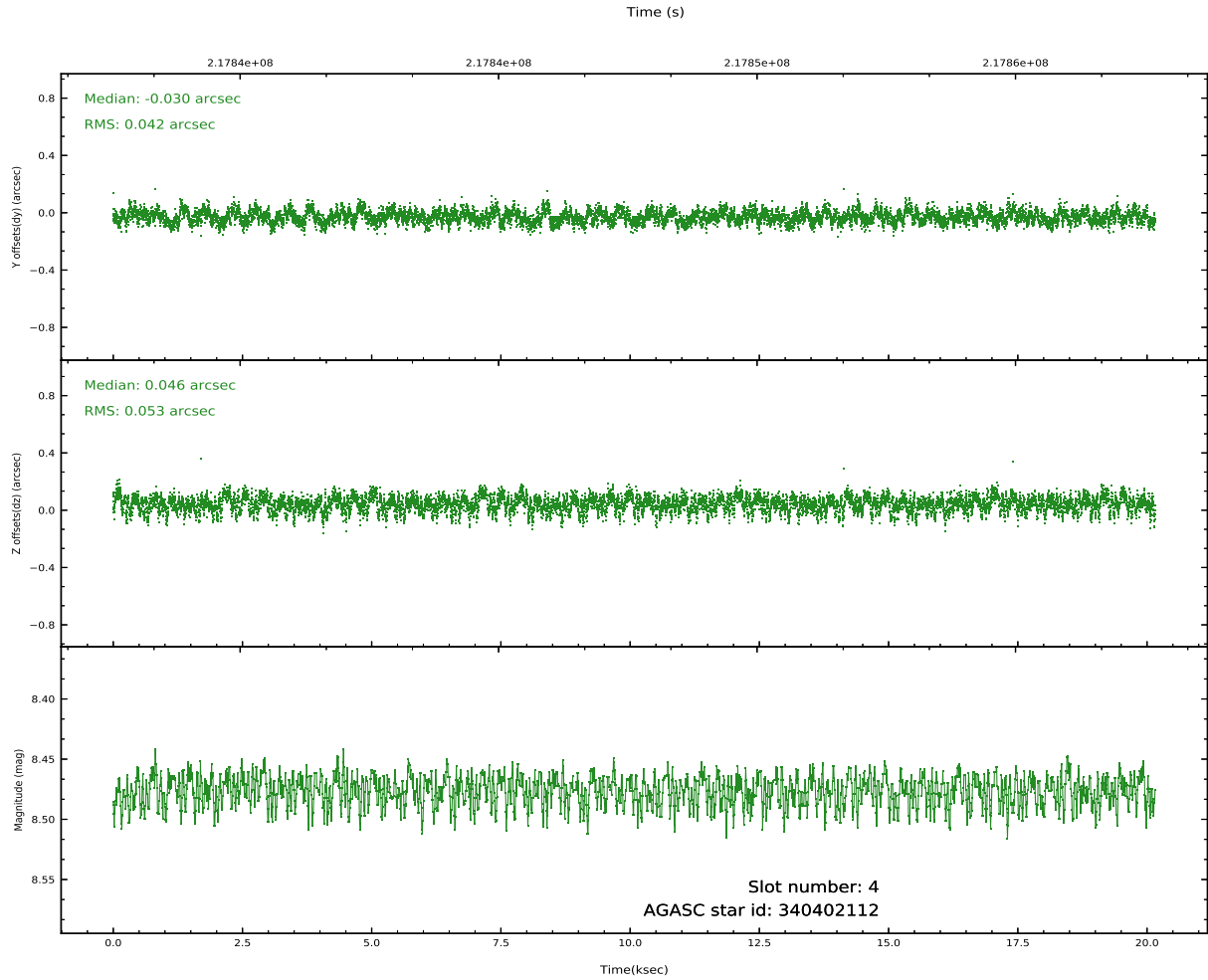
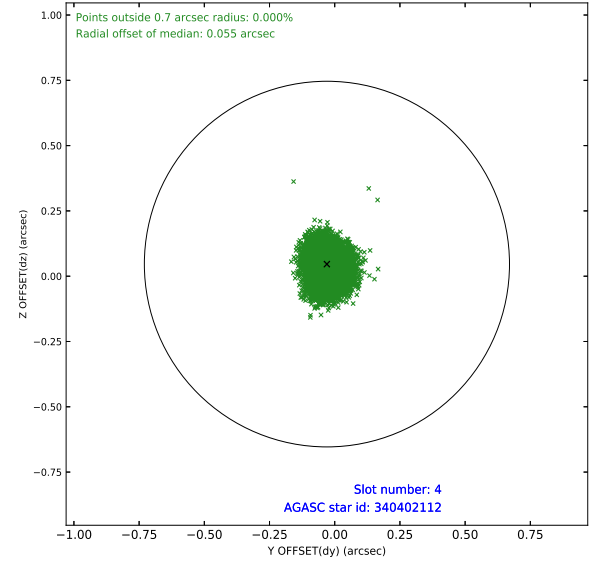
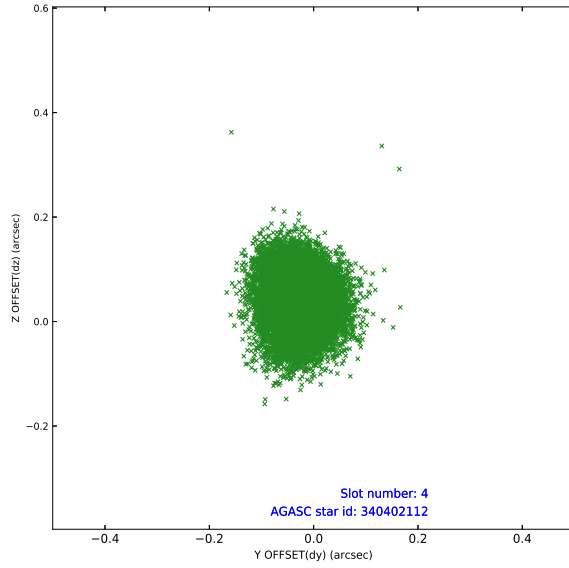
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	4918	1.000	-0.093	-0.126	0.022	0.029	0.000000	0.000000	-761.37	-1795
1	FID		ACIS-S-4	7.19	4918	1.000	0.211	0.077	0.011	0.026	0.000000	0.000000	2152.09	113
2	FID		ACIS-S-5	7.23	4918	1.000	-0.151	0.057	0.018	0.025	0.000000	0.000000	-1814.06	107
3	GUIDE	used	340401120	8.16	9830	1.000	0.007	-0.071	0.054	0.092	253.574895	35.128140	-2260.11	-1287
4	GUIDE	used	340402112	8.48	9830	1.000	-0.030	0.046	0.073	0.115	253.640936	34.860529	-1854.33	-2182
5	GUIDE	used	340534080	8.83	9833	1.000	0.078	-0.008	0.057	0.093	255.228954	35.471551	2179.06	1043
6	GUIDE	used	340534896	8.59	9832	1.000	-0.075	-0.010	0.057	0.091	255.288450	35.541682	2287.67	1331
7	GUIDE	used	340536192	7.72	9834	1.000	0.020	0.049	0.043	0.071	254.294567	35.286536	-328.70	-250

2.4 Star Slots

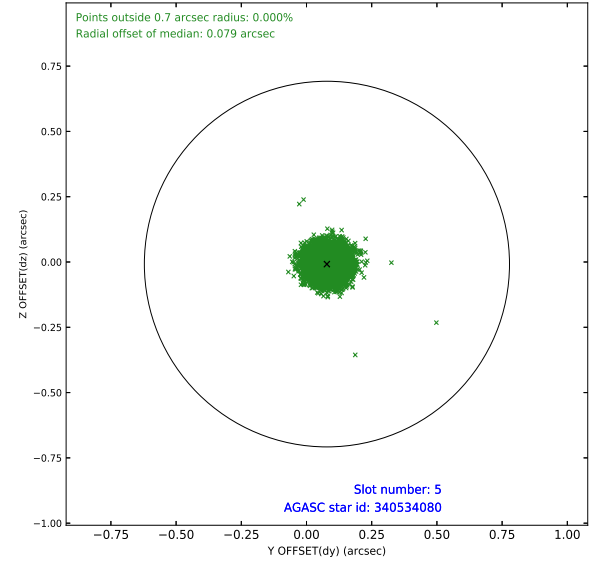
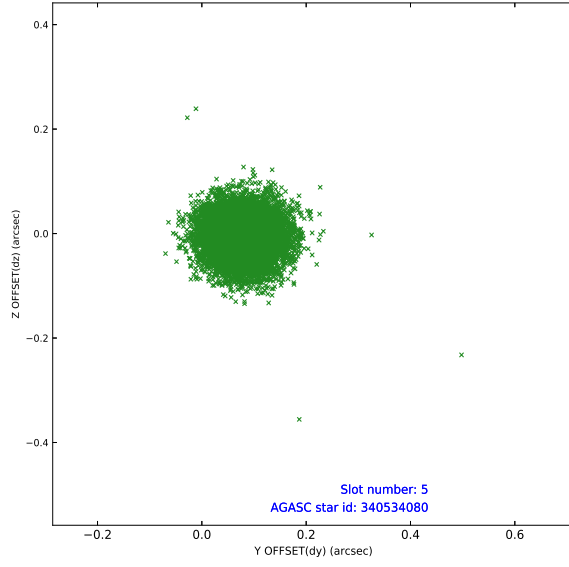
2.4.1 Slot 3



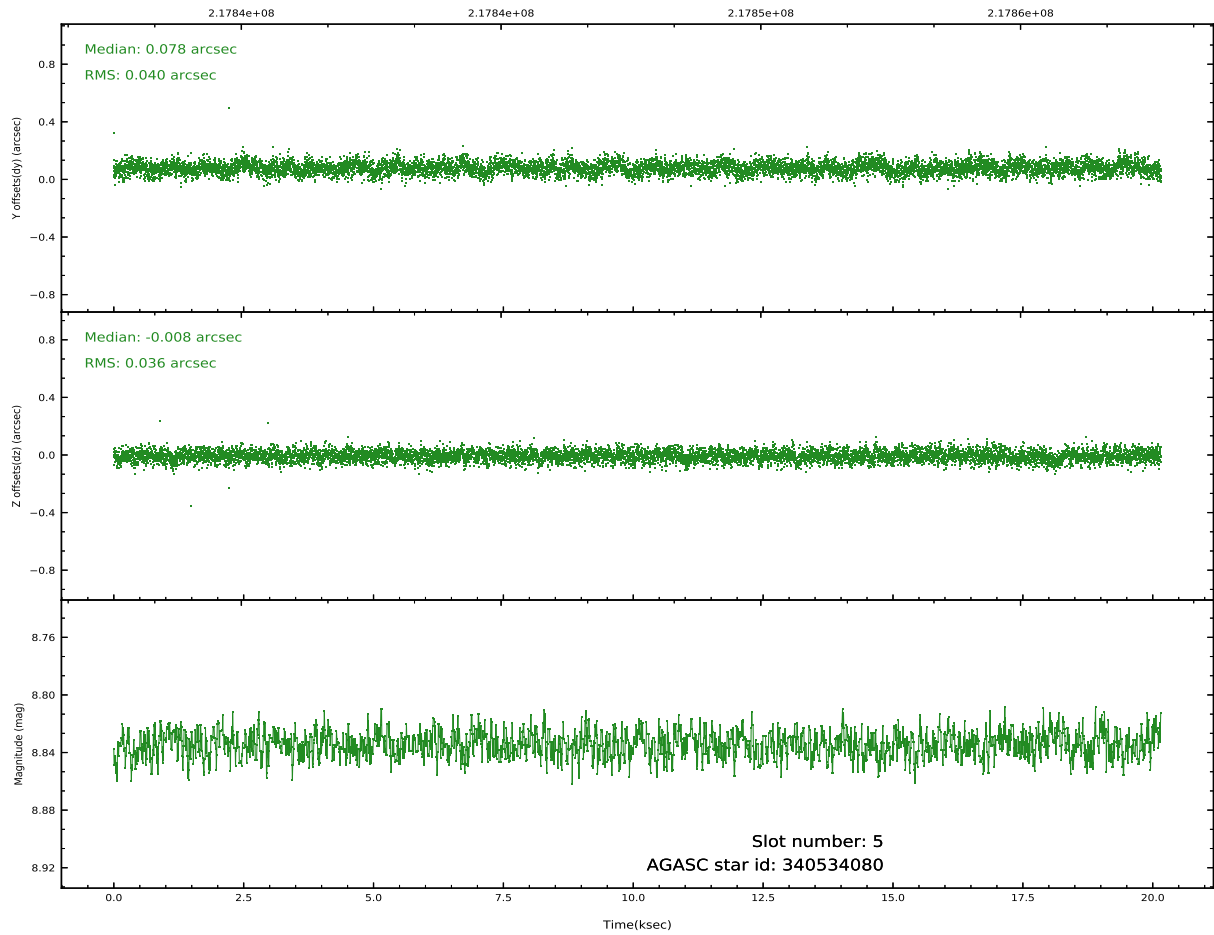
2.4.2 Slot 4



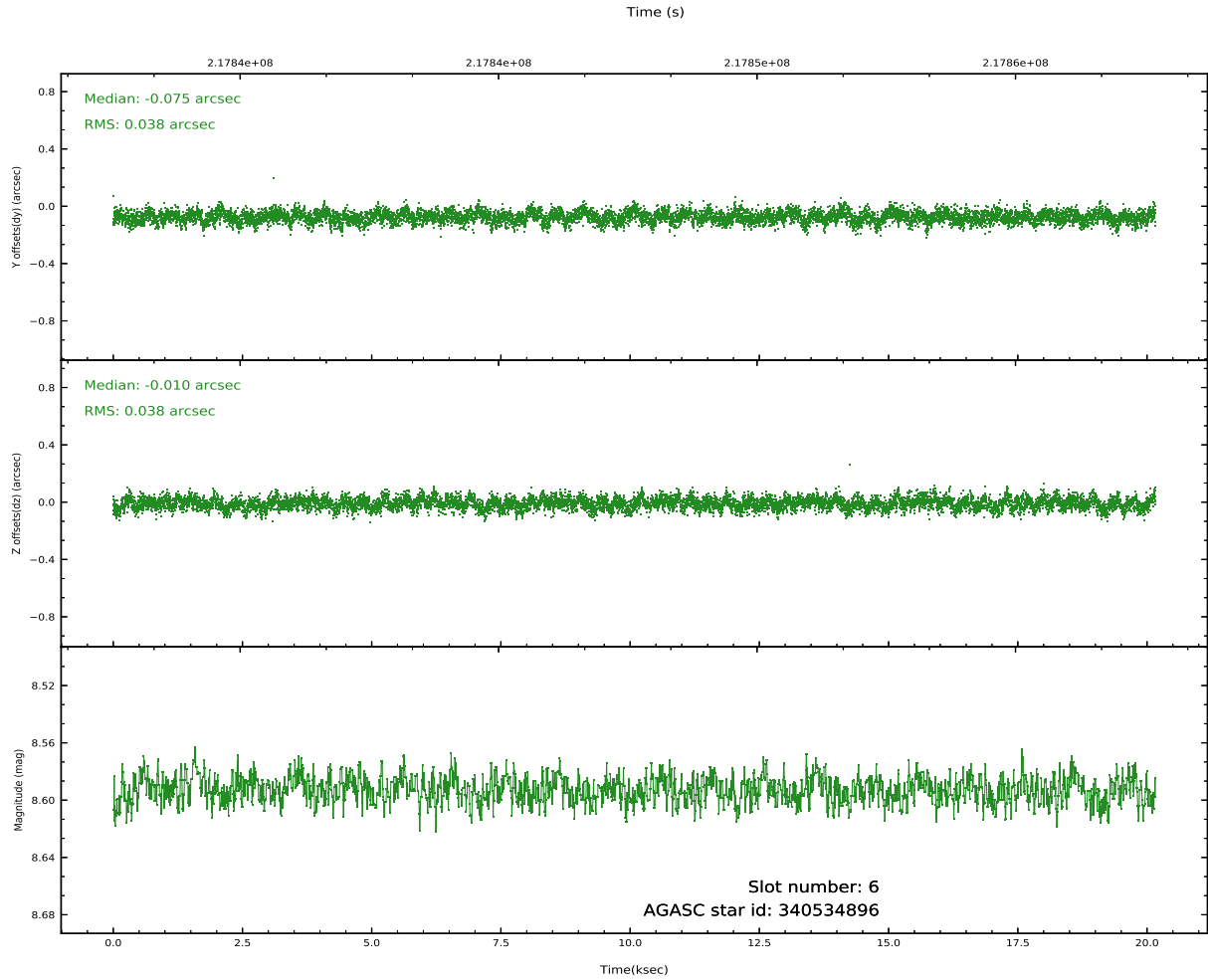
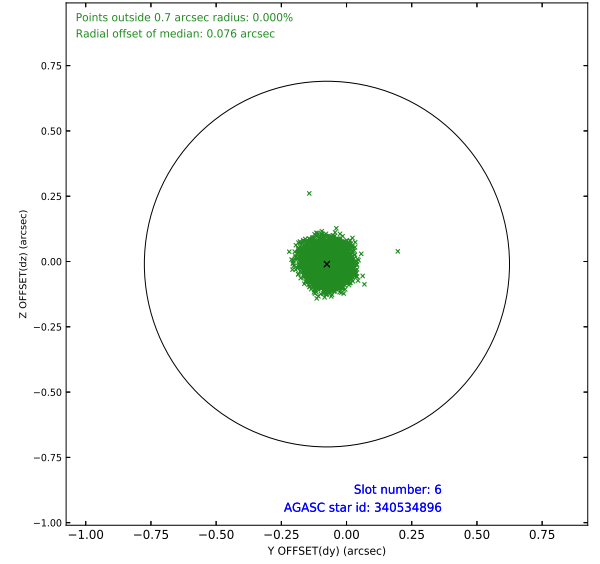
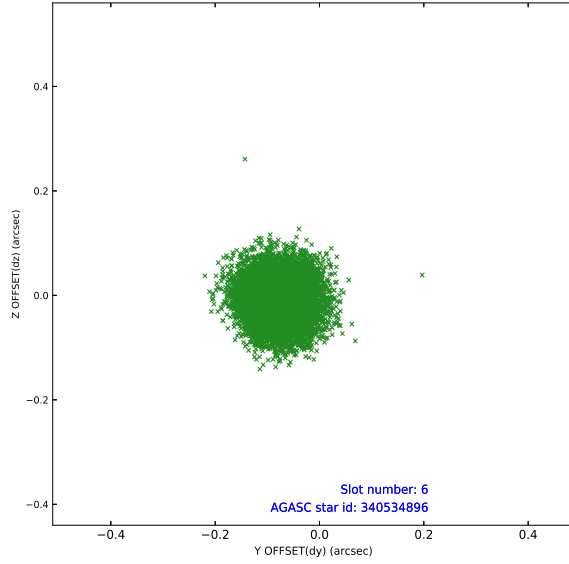
2.4.3 Slot 5



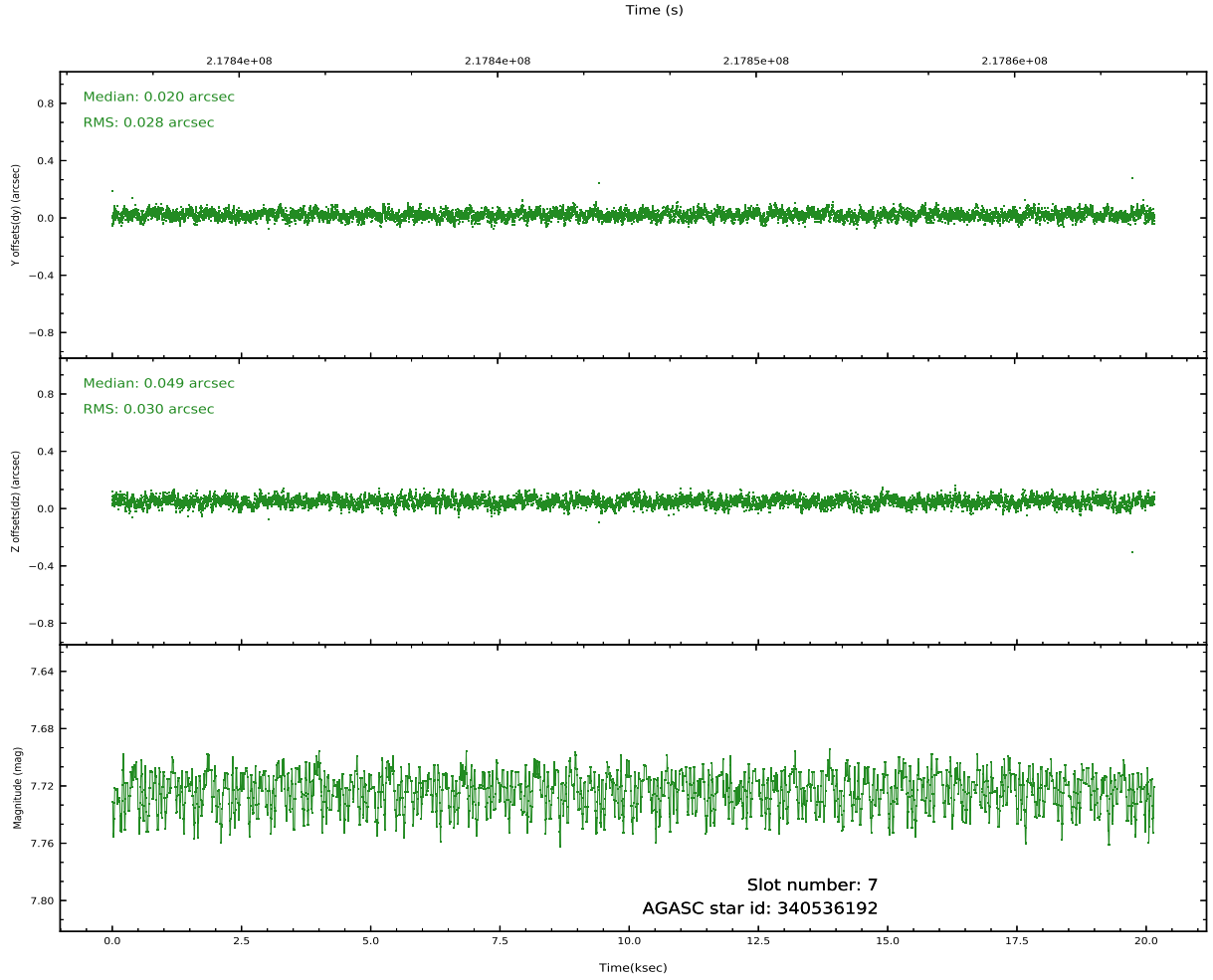
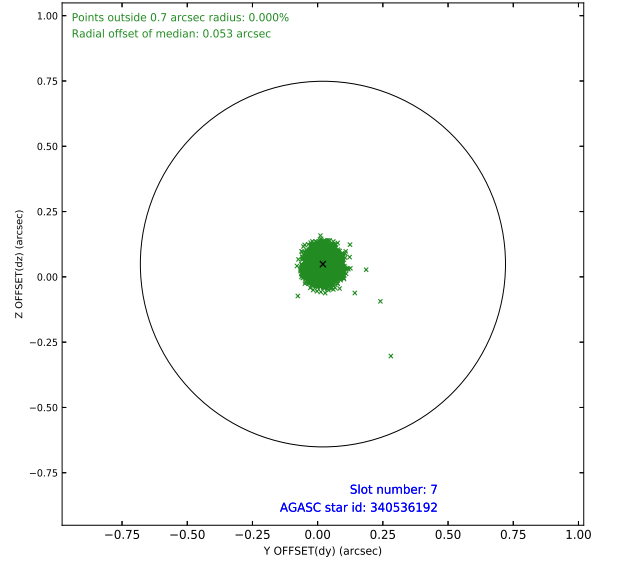
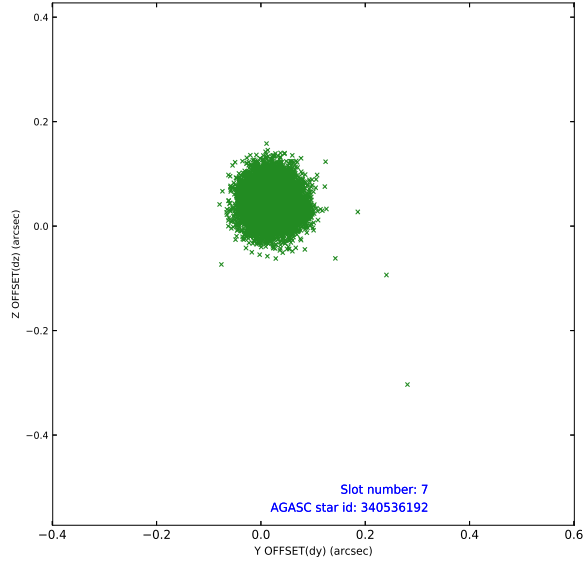
Time (s)



2.4.4 Slot 6

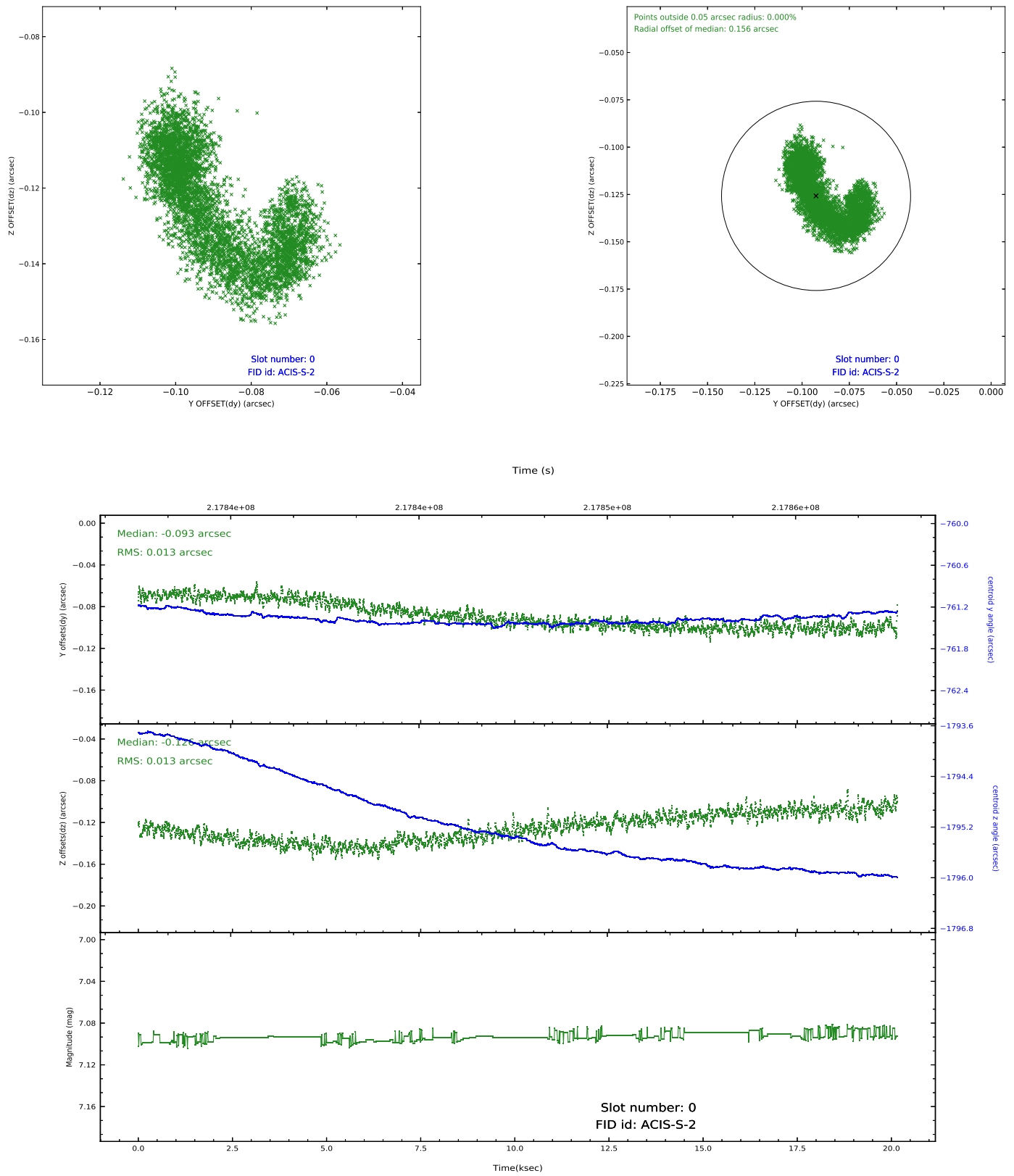


2.4.5 Slot 7

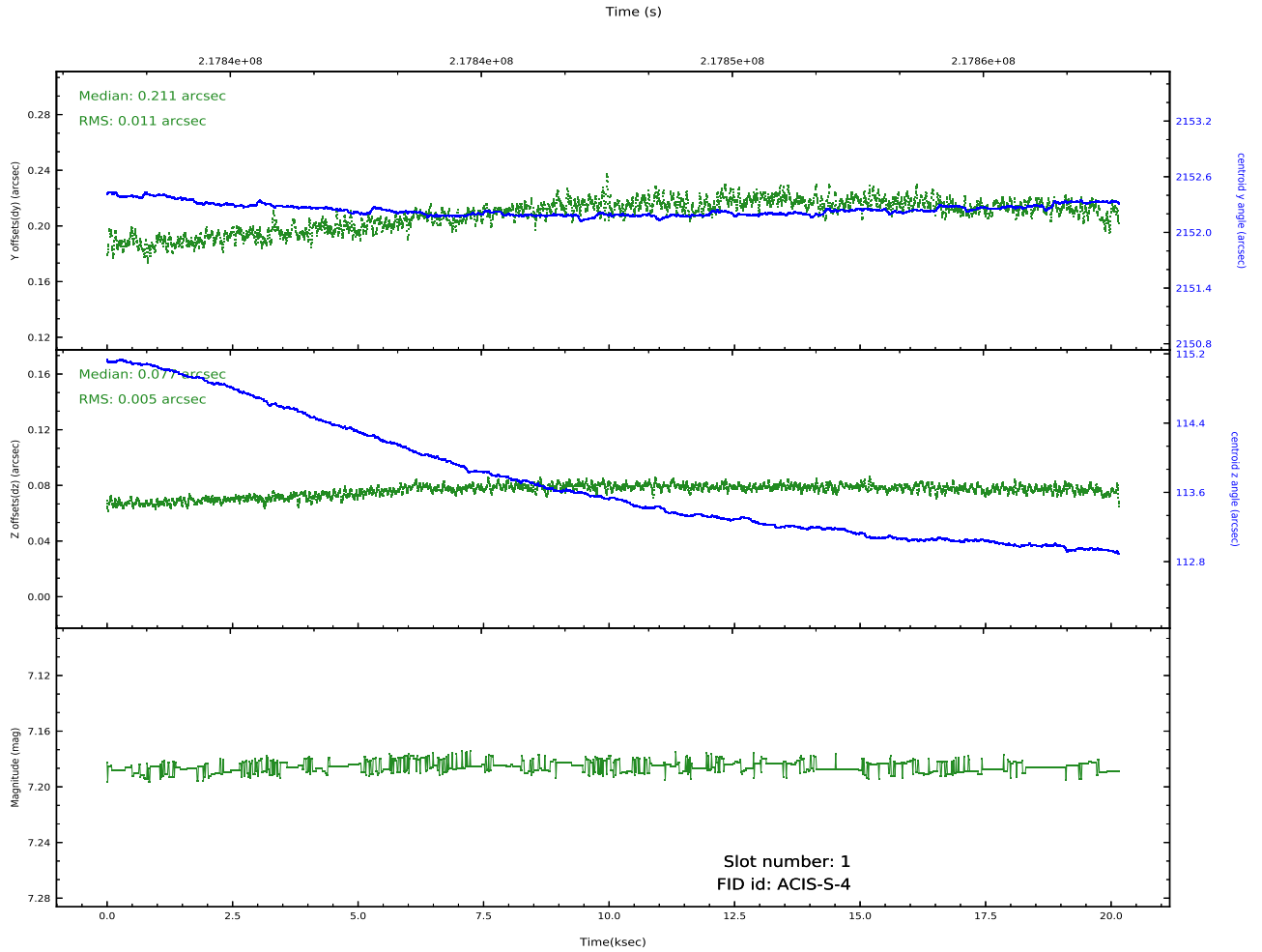
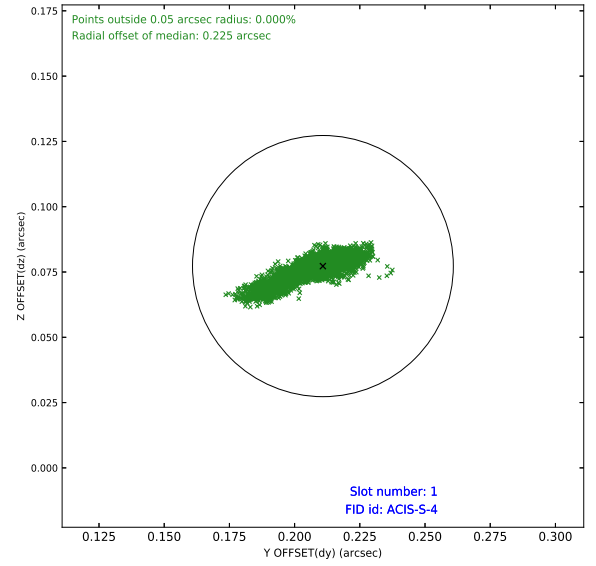
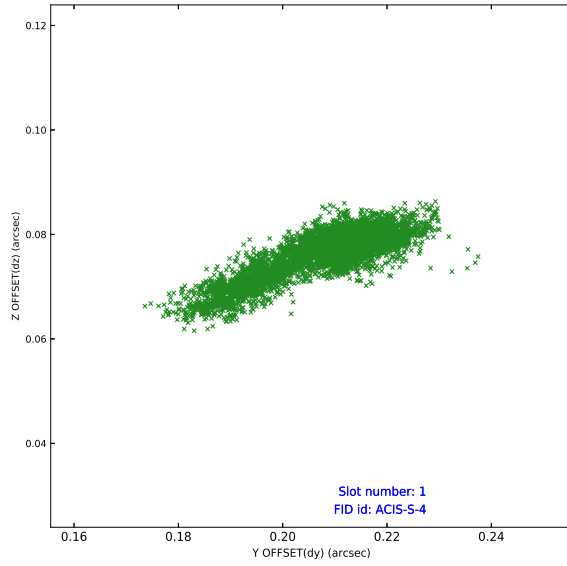


2.5 FID Slots

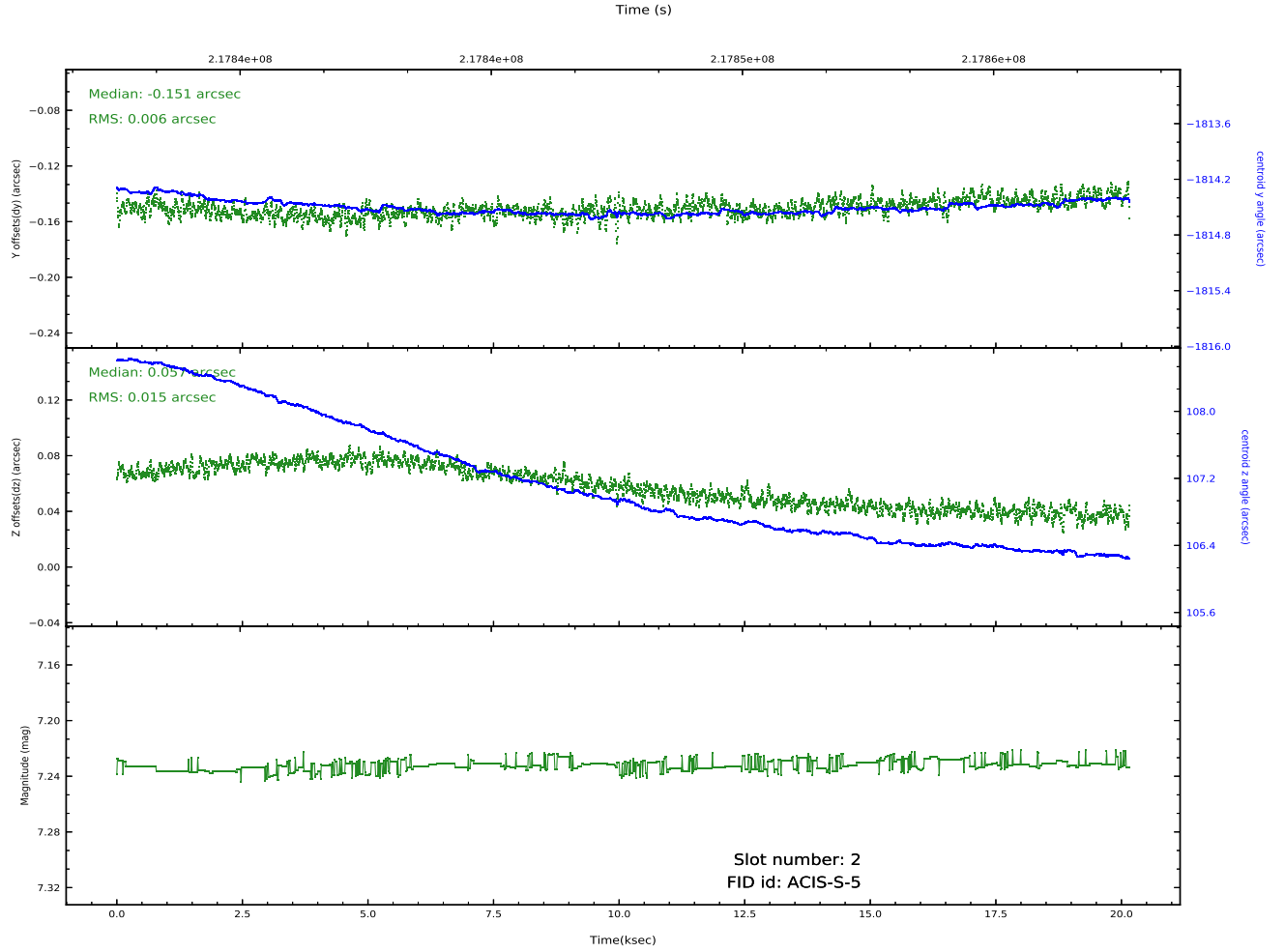
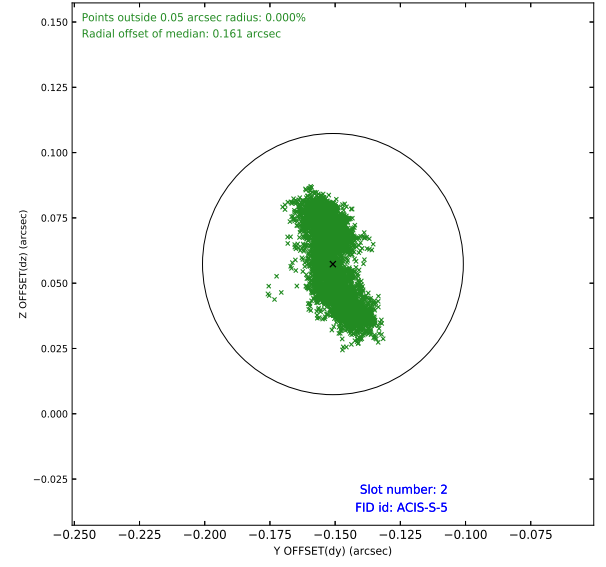
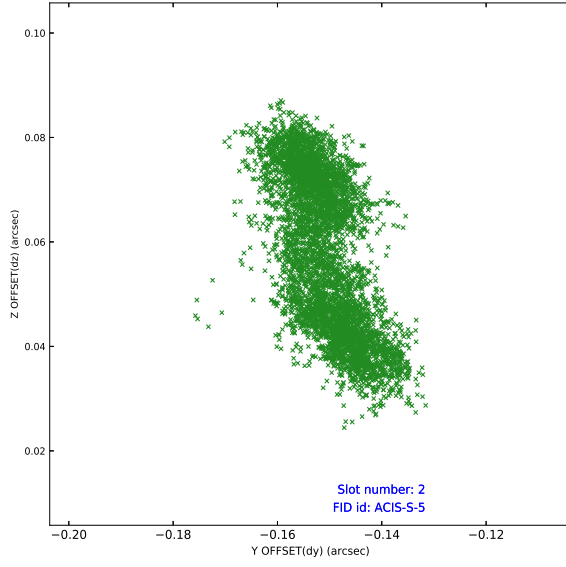
2.5.1 Slot 0



2.5.2 Slot 1

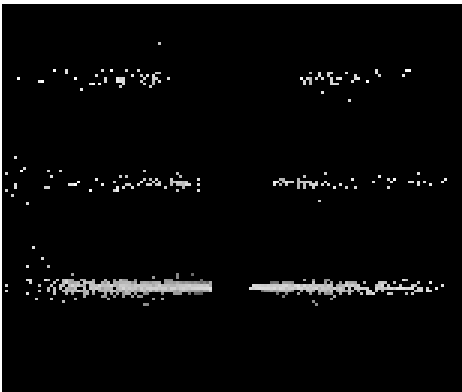


2.5.3 Slot 2

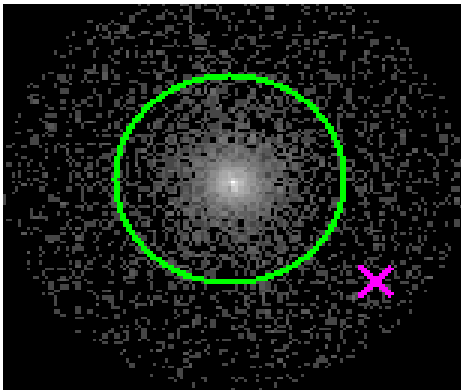


3 Gratings

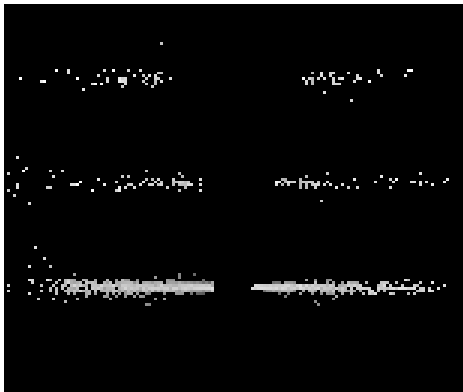
3.1 HEG Arm



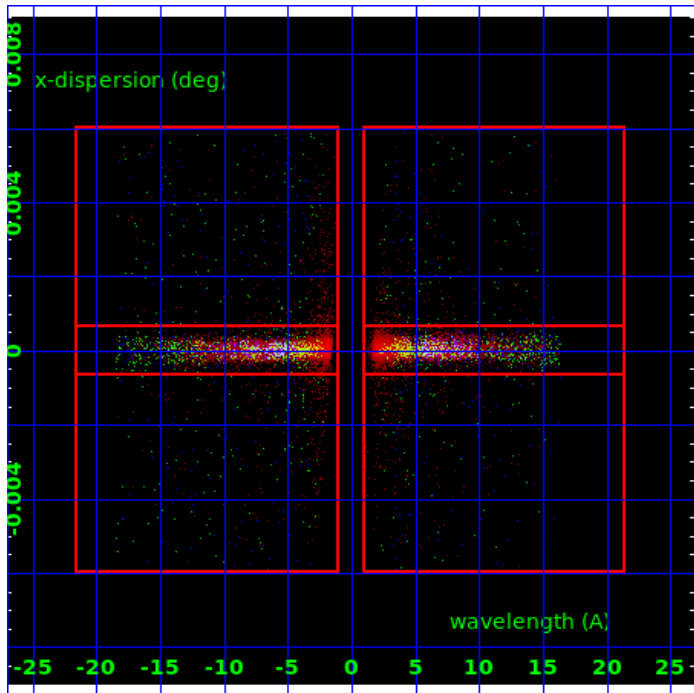
HEG Order Sort 123



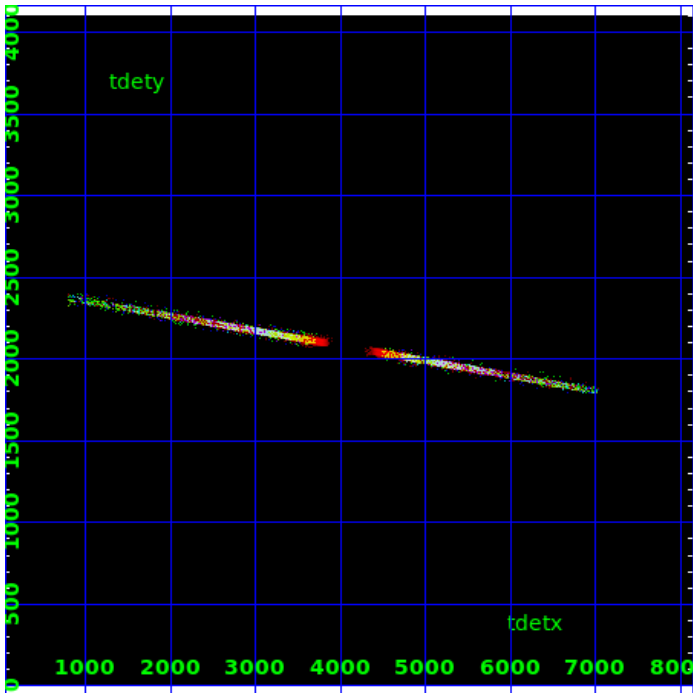
HEG Zero Order



HEG Order Sort ALL

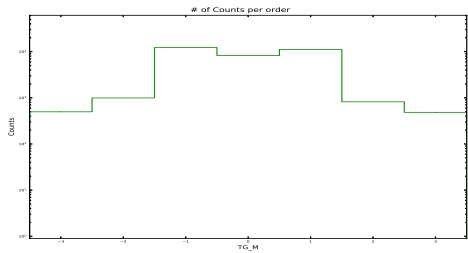


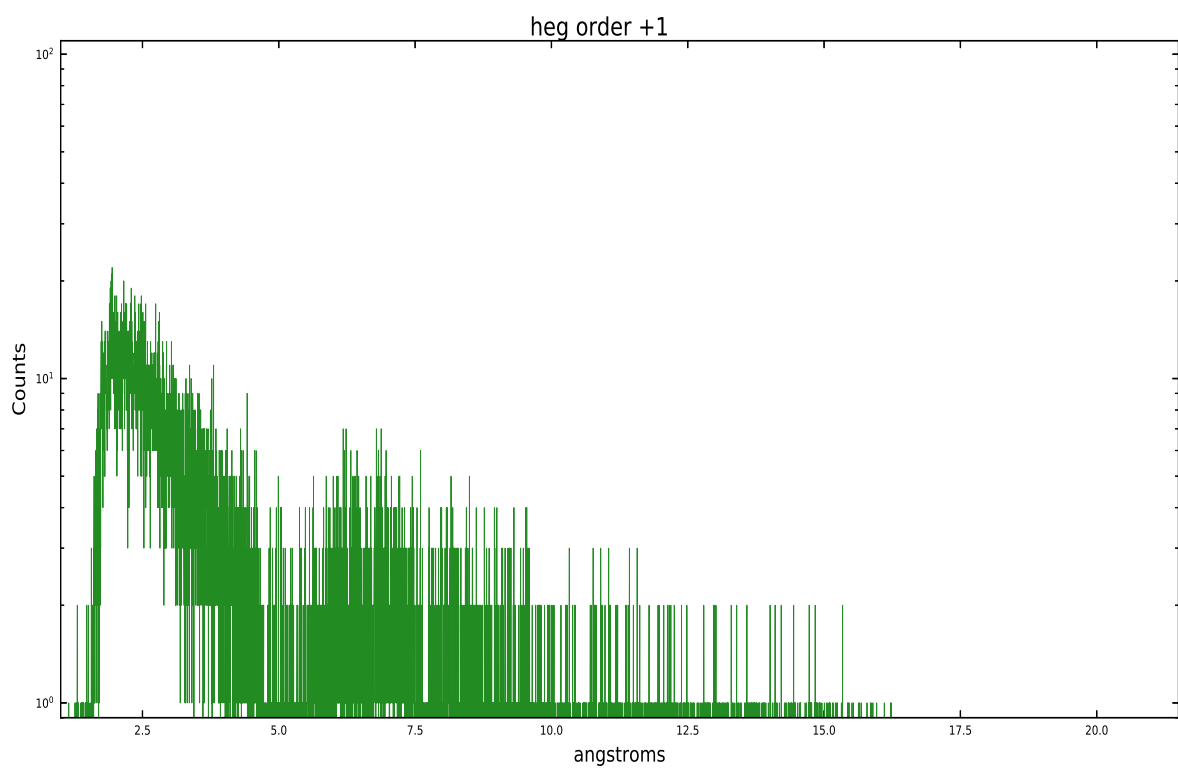
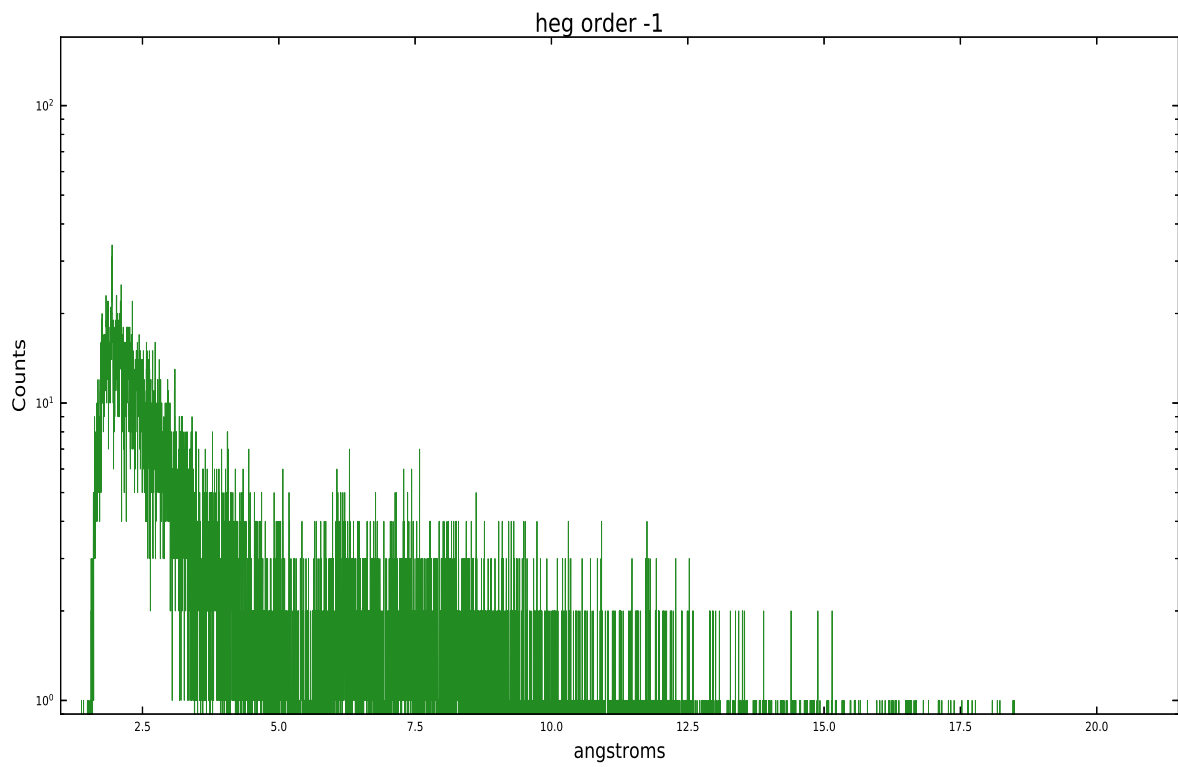
Spot Image HEG



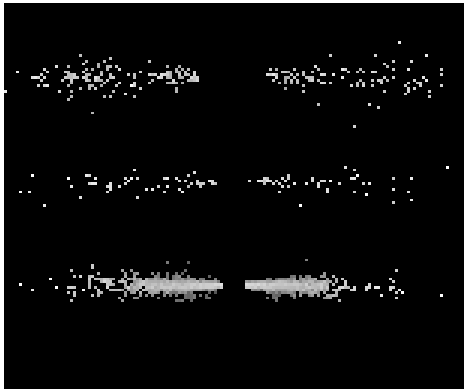
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	498	993	12272	8224	11148	819	484

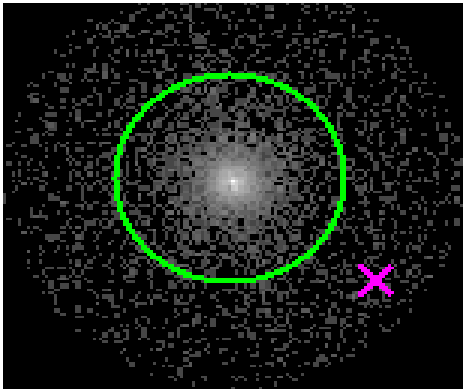




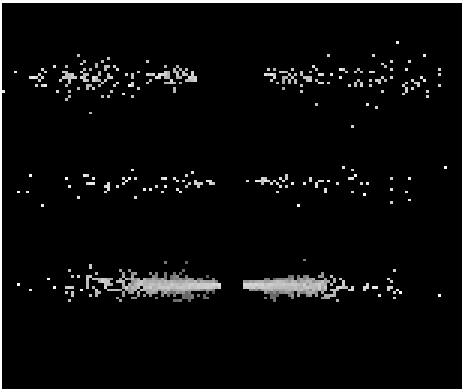
3.2 MEG Arm



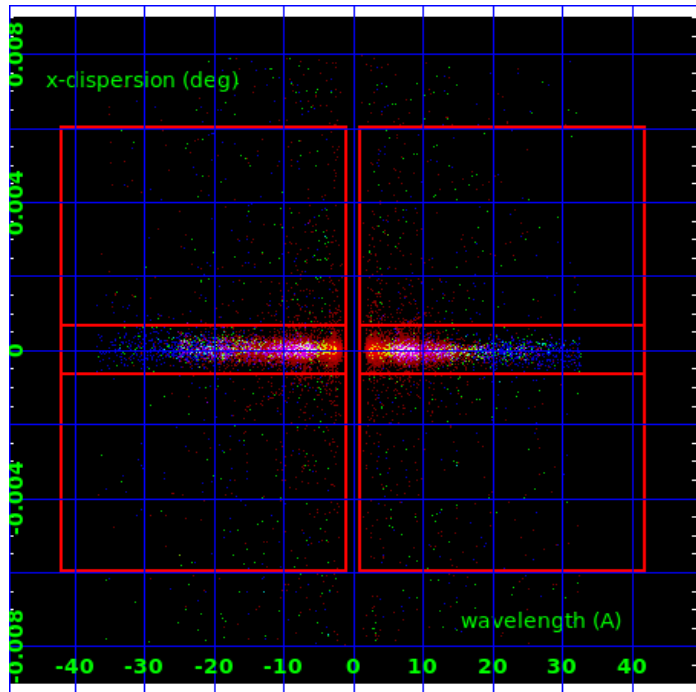
MEG Order Sort 123



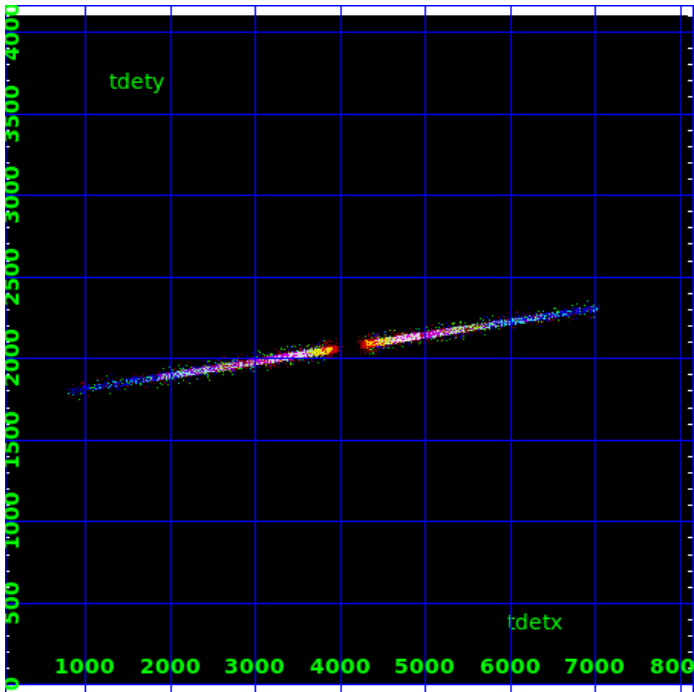
MEG Zero Order



MEG Order Sort ALL

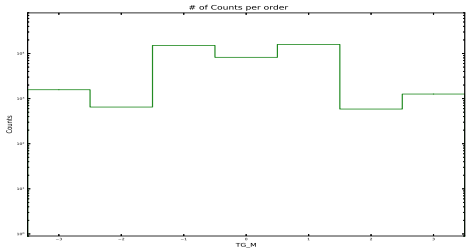


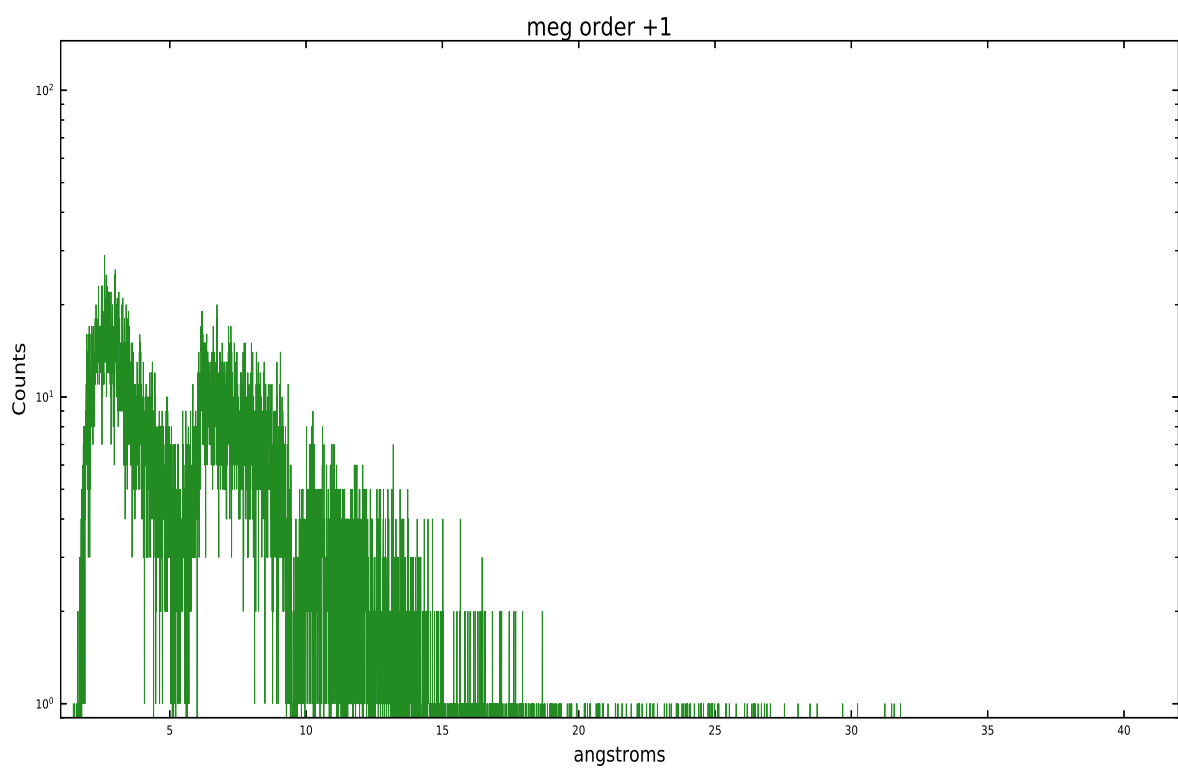
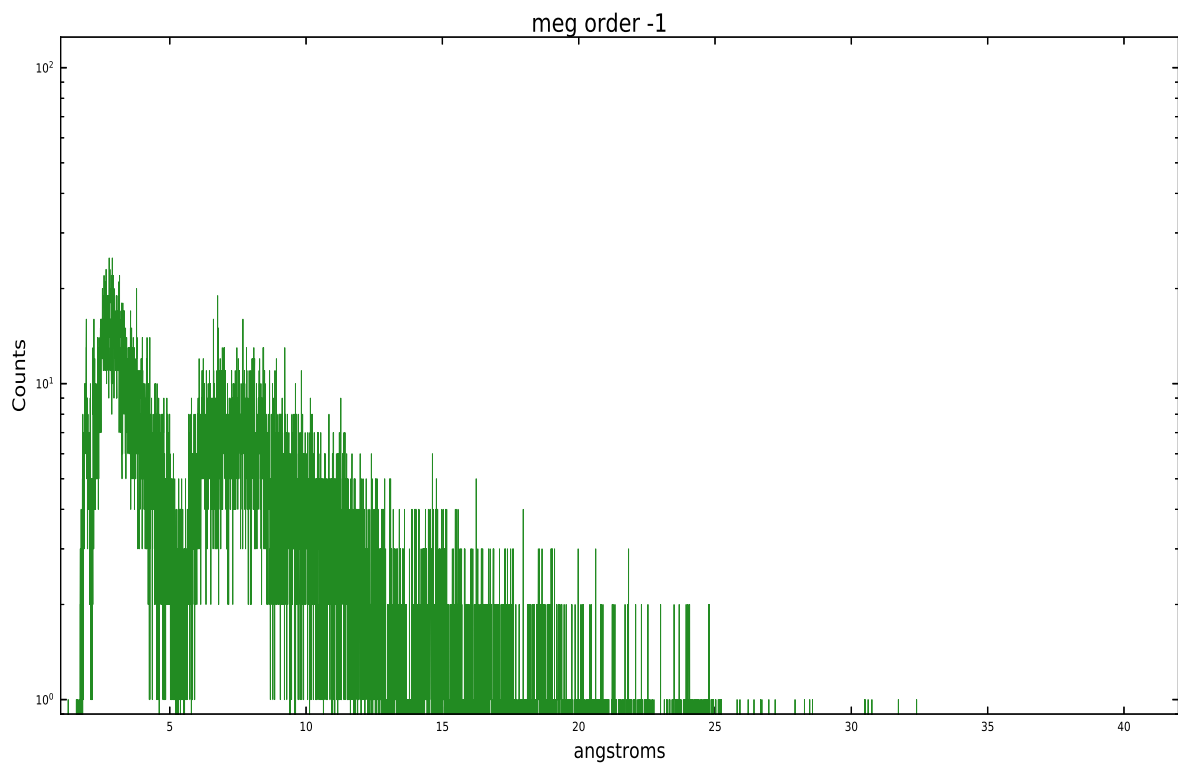
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1576	650	15087	8224	15899	587	1263





A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.155

A.2 Comments