

V&V Reference Report

L2 ASCDS Version : 10.8.4

Observation 23292 - L2 Version 1
Chandra X-Ray Center

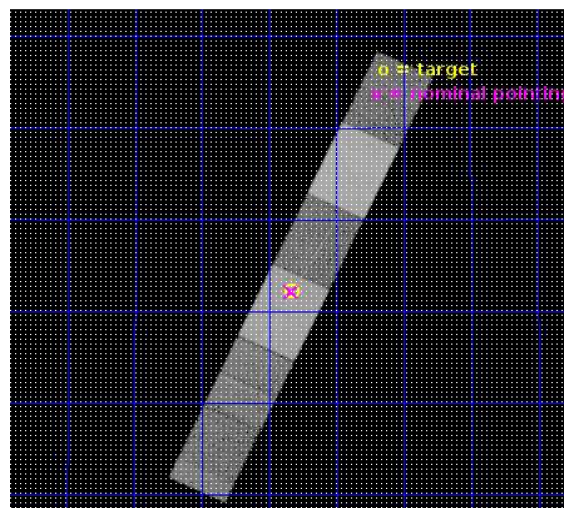
L2 Processing Date : Jul 1 2020

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1 Front

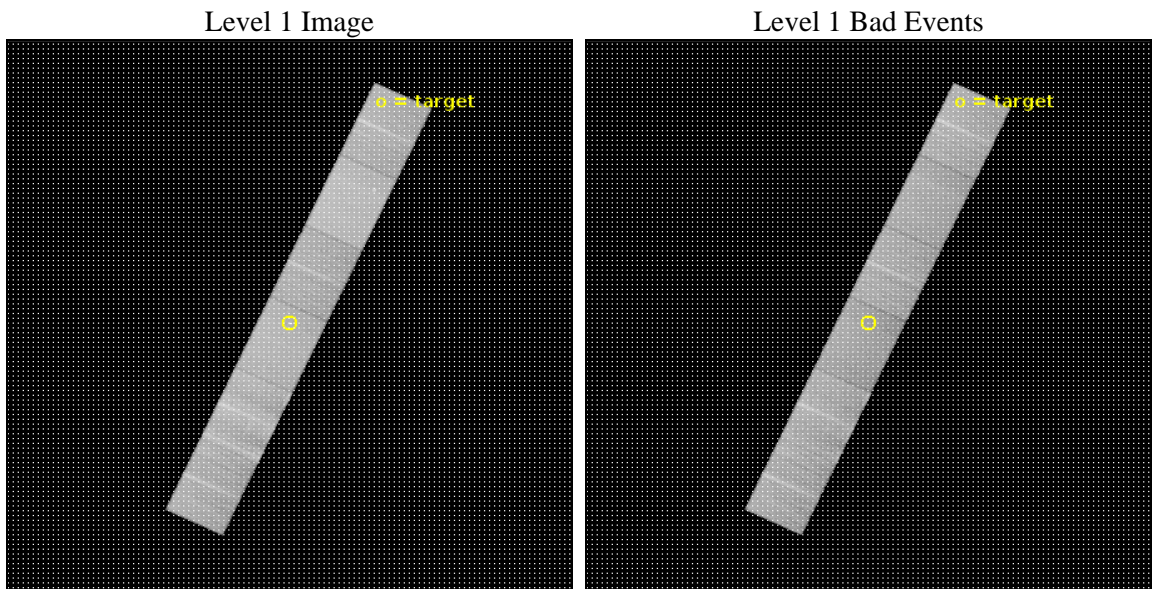
seq_num	704049	Sequence number
obs_id	23292	Observation id
title	INVESTIGATION ON MRK 335 IN AN INTERMEDIATE STATE	Proposal title
observer	Rozenn Boissay-Malaquin	Principal investigator
object	Mrk 335	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	1.581417	Observer's specified target RA [deg]
dec_targ	20.20295	Observer's specified target Dec [deg]
ra_nom	1.58374653912	Nominal RA [deg]
dec_nom	20.2026399369	Nominal Dec [deg]
roll_nom	115.15674065	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30080.0	Sum of GTIs [s]
livetime	29594.181909769	Livetime [s]
ontime4	30080.0	Sum of GTIs [s]
ontime5	30080.0	Sum of GTIs [s]
ontime6	30080.0	Sum of GTIs [s]
ontime7	30080.0	Sum of GTIs [s]
ontime8	30080.0	Sum of GTIs [s]
ontime9	30080.0	Sum of GTIs [s]
l2events	322691	Number of level 2 events



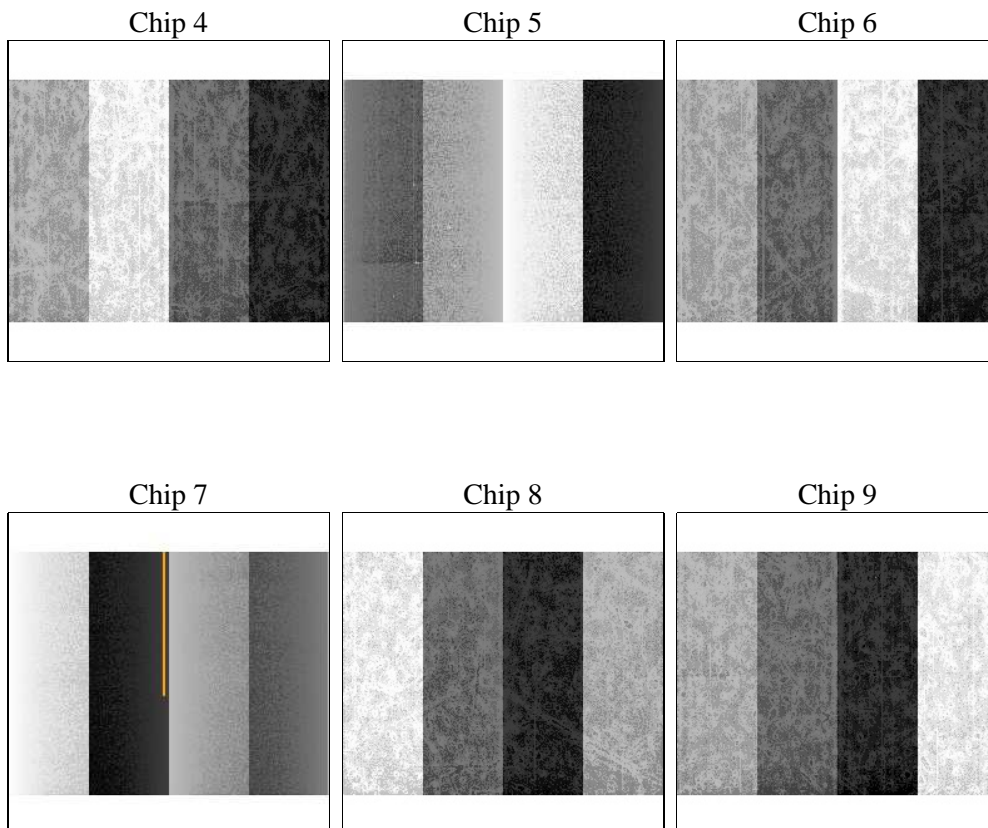
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.4	Processing system revision	ontime	30080.0	Sum of GTIs [s]
caldbver	4.9.1	 	ontime4	30080.0	Sum of GTIs [s]
date	2020-07-01T12:28:24	Date and time of file creation	ontime5	30080.0	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	30080.0	Sum of GTIs [s]
			ontime7	30080.0	Sum of GTIs [s]
			ontime8	30080.0	Sum of GTIs [s]
			ontime9	30080.0	Sum of GTIs [s]
			l1events	1360595	Number of level 1 events
			tgmetho	TGDETECT	Method used to create src1a file
				4112.41	

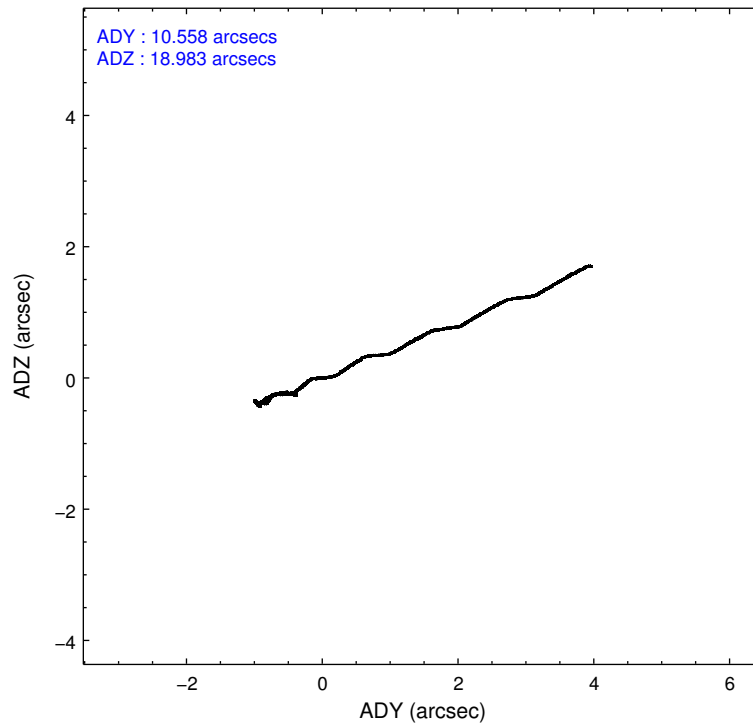
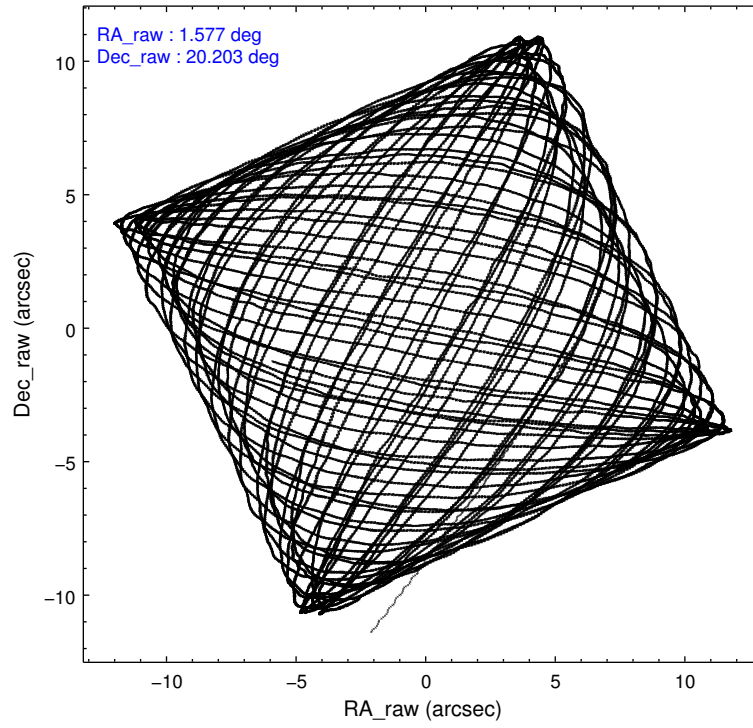
2.1.4 Events

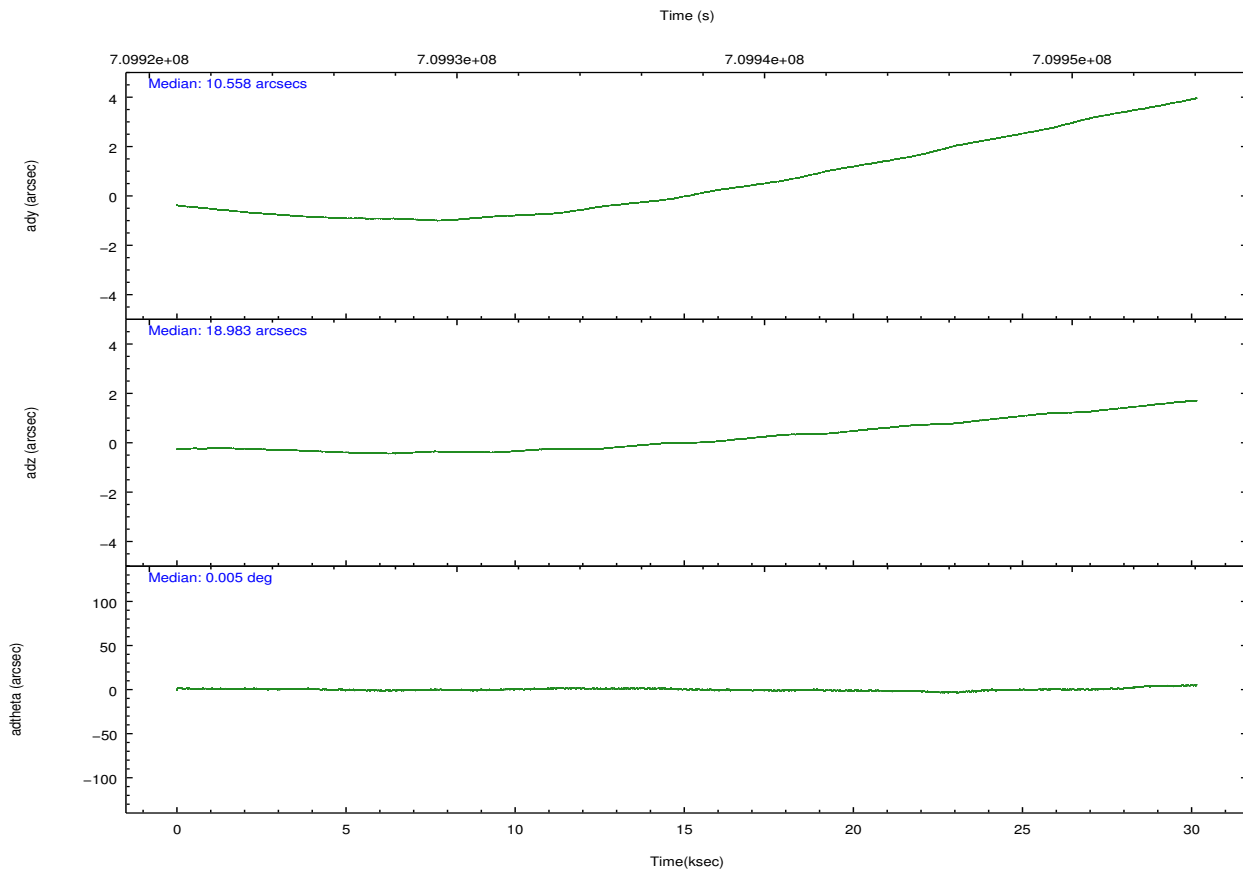
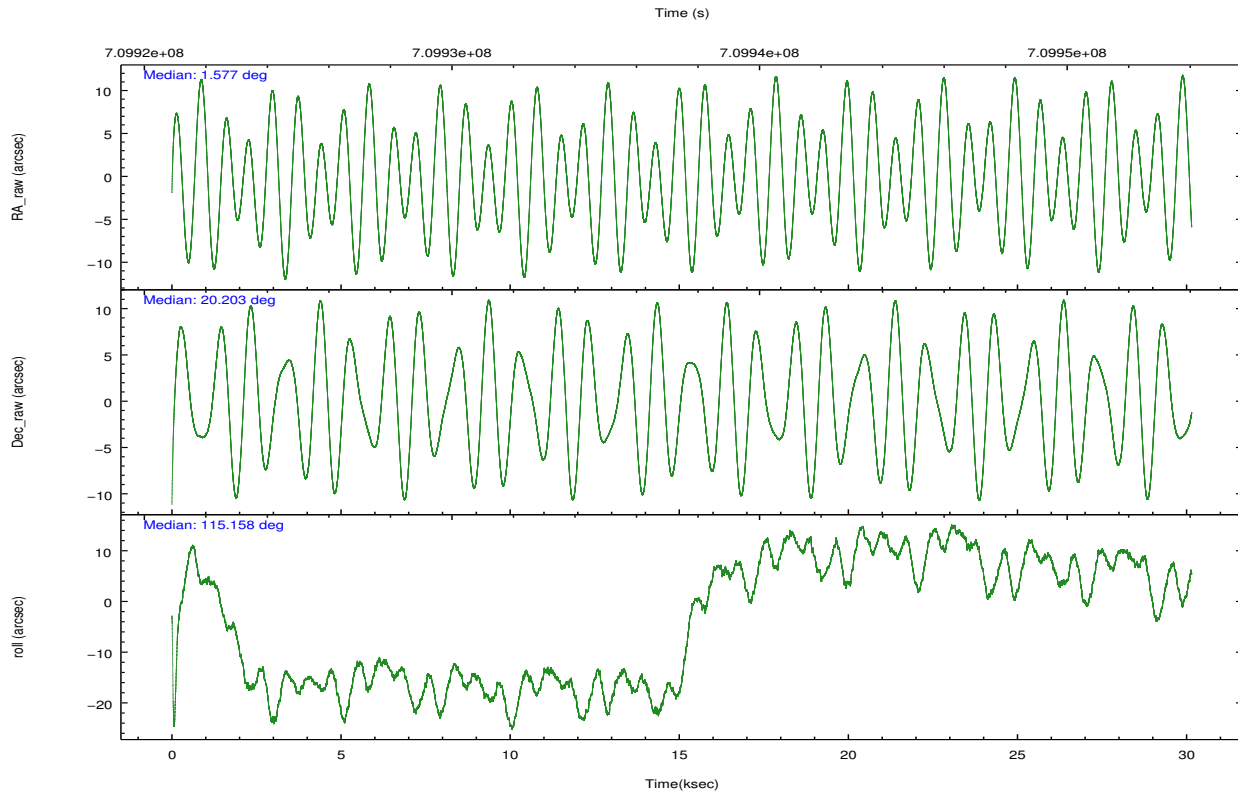
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	213437	291349	189087	237818	245873	183031	grade 0 events	9456	8469	7499	9948	19948	7723
rejected events	189346	151401	167286	129901	176123	160643		4%	2%	3%	4%	8%	4%
rejected %	88%	51%	88%	54%	71%	87%	grade 1 events	135	761	91	368	187	90
								0%	0%	0%	0%	0%	0%
							grade 2 events	5715	45792	5012	23573	16939	5016
								2%	15%	2%	9%	6%	2%
							grade 3 events	2522	4820	2232	9321	7150	2462
								1%	1%	1%	3%	2%	1%
							grade 4 events	2381	4473	2155	9083	6593	2333
								1%	1%	1%	3%	2%	1%
							grade 5 events	8976	21277	8513	24127	13001	9607
								4%	7%	4%	10%	5%	5%
							grade 6 events	4019	76407	4904	55998	19135	4862
								1%	26%	2%	23%	7%	2%
							grade 7 events	180233	129350	158681	105400	162920	150938
								84%	44%	83%	44%	66%	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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	1.601008	1.58374653912	CCD I2 on	N	N
[deg] Pointing Dec	20.187909	20.2026399369	CCD I3 on	N	N
[deg] Pointing Roll	114.993244	115.15674065	CCD S0 on	O1	Y
[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)	709922533.184000	709921684.60532	CCD S5 on	O2	Y
Observation start date	2020-06-30T16:41:04	2020-06-30T16:28:04	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	709952533.184000	709953392.98226	On-chip summing requested	N	N
Observation end date	2020-07-01T01:01:04	2020-07-01T01:16:32	Subarray requested	CUSTOM	CUSTOM
Read mode	TIMED	TIMED	Subarray start row	125	125
			Subarray row count	774	774
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	2.5

2.3 Aspect





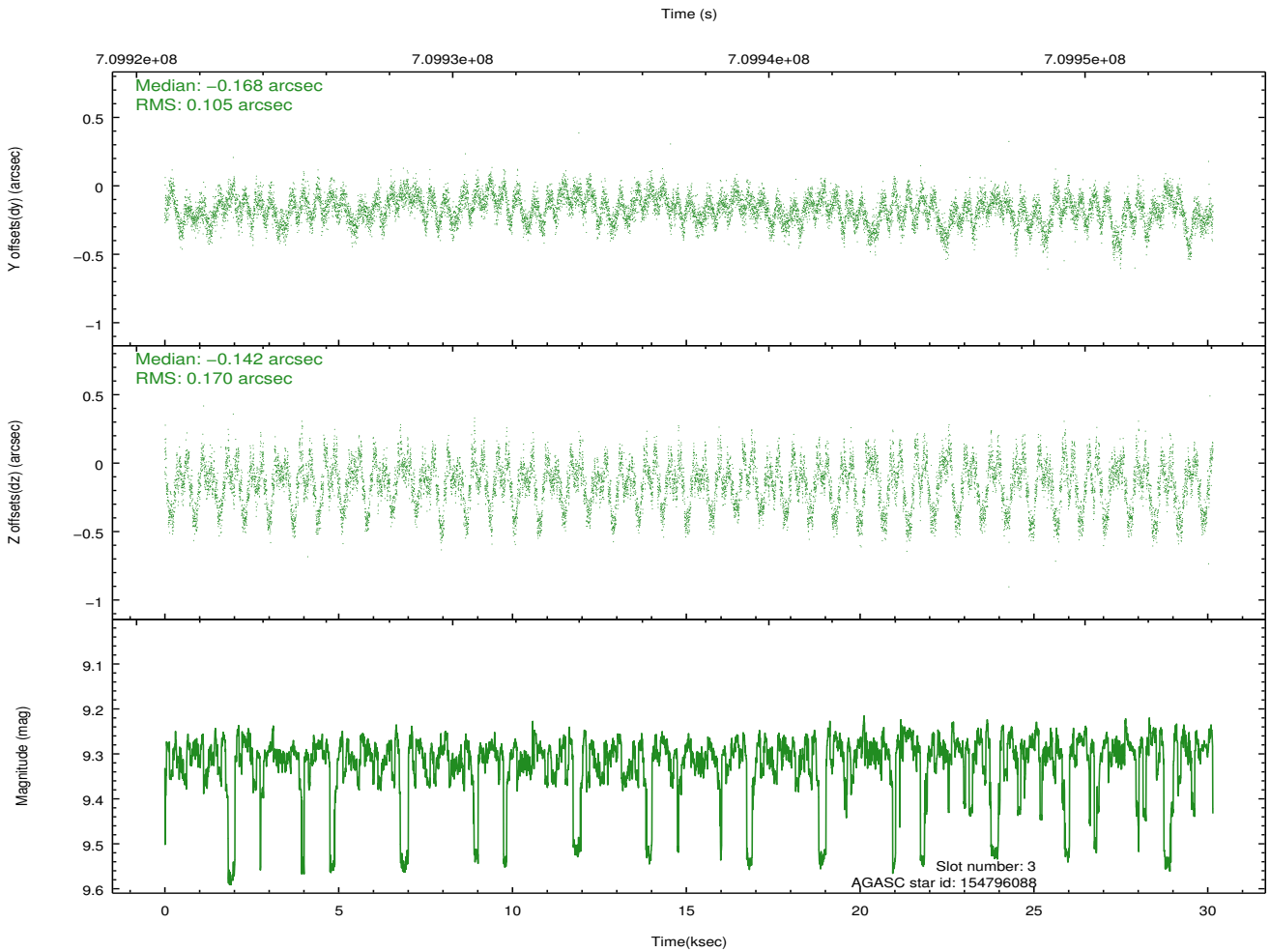
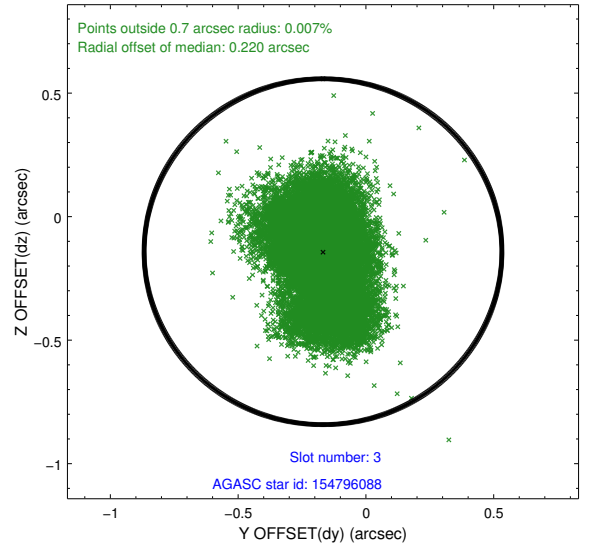
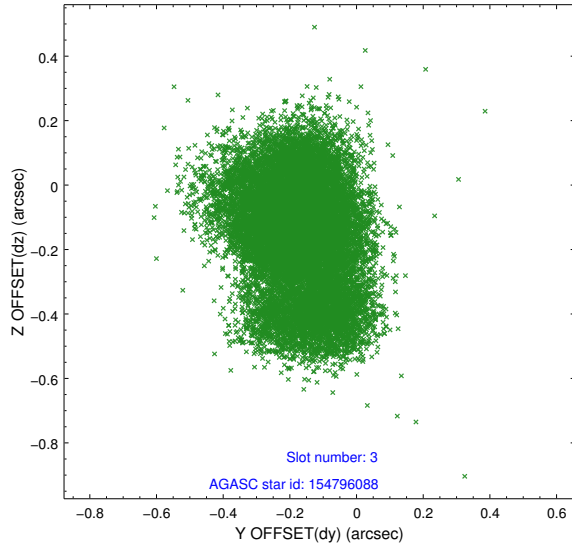
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	6.98	7353	1.000	0.152	-0.065	0.035	0.048	0.000000	0.000000	-764.16	-1740
1	FID		ACIS-S-4	7.12	7354	1.000	0.126	-0.052	0.024	0.039	0.000000	0.000000	2149.35	167
2	FID		ACIS-S-5	7.10	7354	1.000	-0.314	0.136	0.023	0.038	0.000000	0.000000	-1817.09	161
3	GUIDE	used	154796088	9.30	14677	1.000	-0.168	-0.142	0.218	0.344	1.327954	19.982770	-278.50	1149
4	GUIDE	used	154802256	7.28	14641	1.000	0.056	0.181	0.121	0.186	2.267963	19.924686	-1807.68	-1646
5	GUIDE	used	155193224	9.05	14692	1.000	0.238	0.163	0.161	0.264	2.130274	20.267286	-493.62	-1741
6	GUIDE	used	155194232	8.08	14708	1.000	-0.068	-0.076	0.109	0.168	1.710987	20.559760	1057.40	-901
7	GUIDE	used	155196784	7.52	14704	1.000	-0.045	-0.127	0.104	0.162	1.810289	20.555714	902.97	-1198

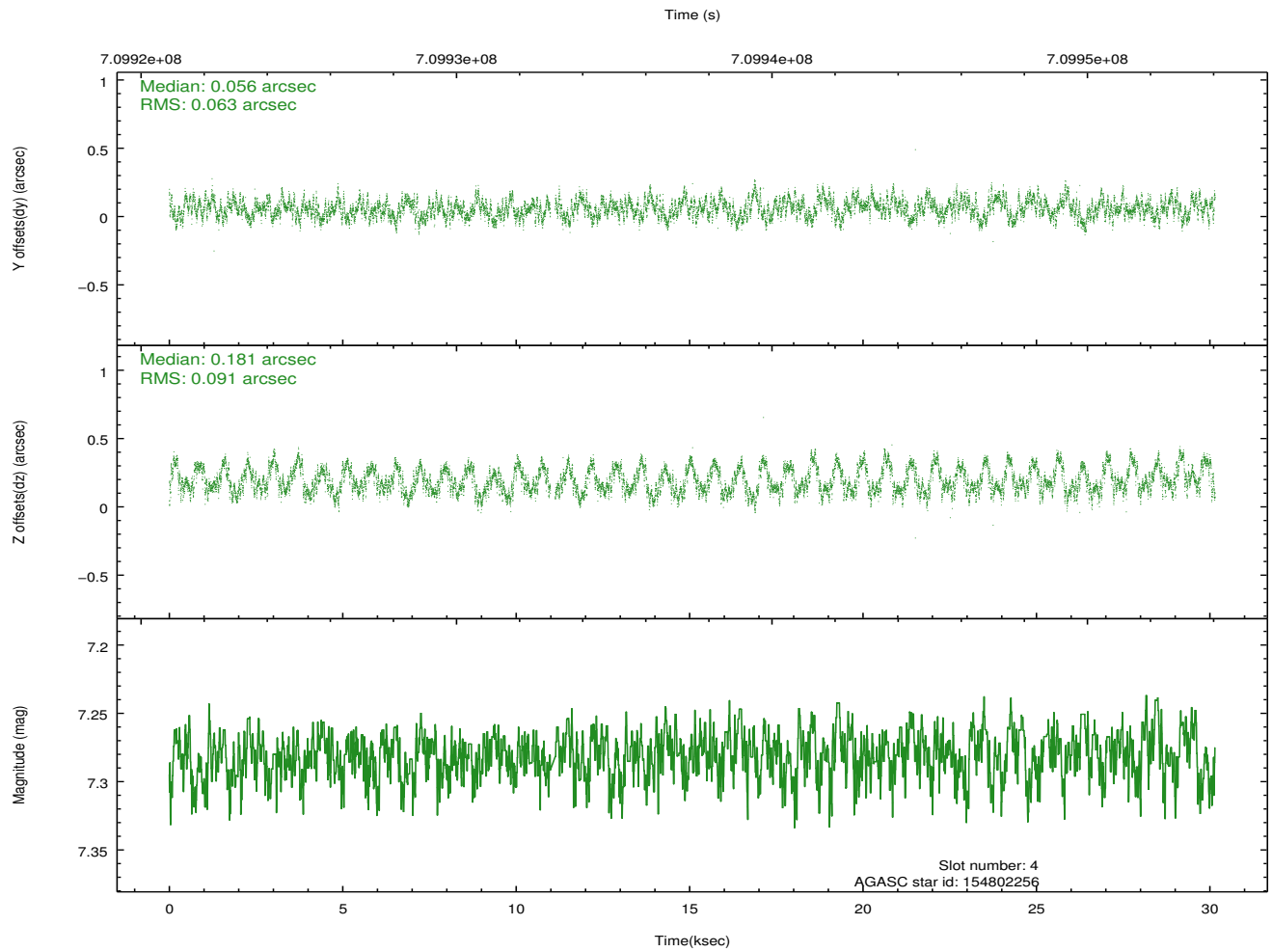
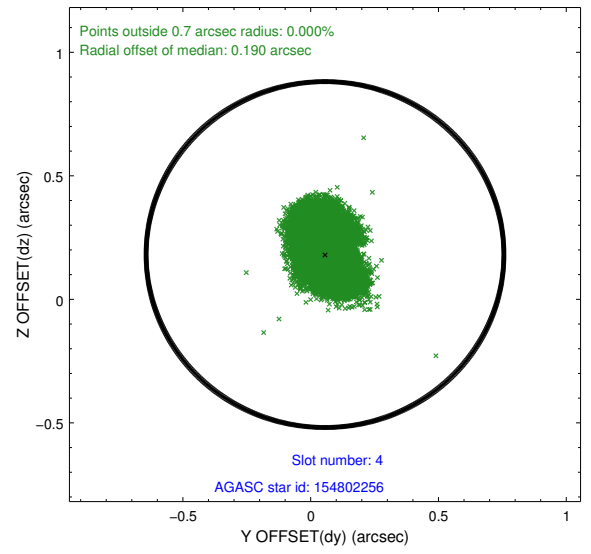
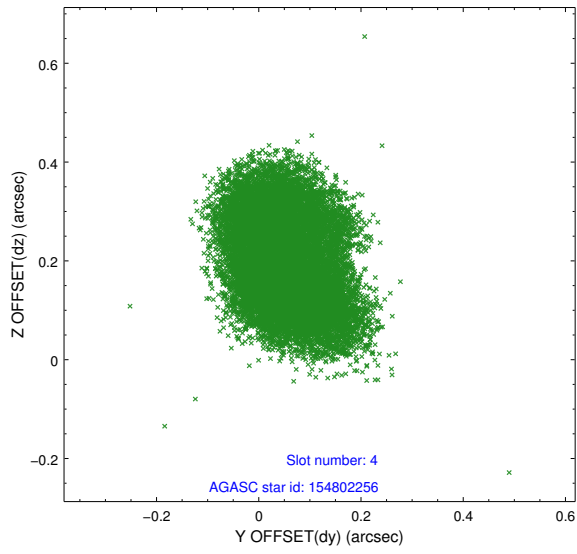
∞

2.4 Star Slots

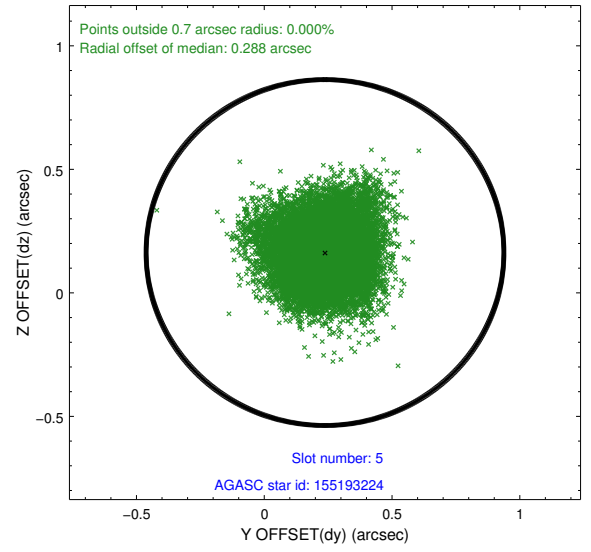
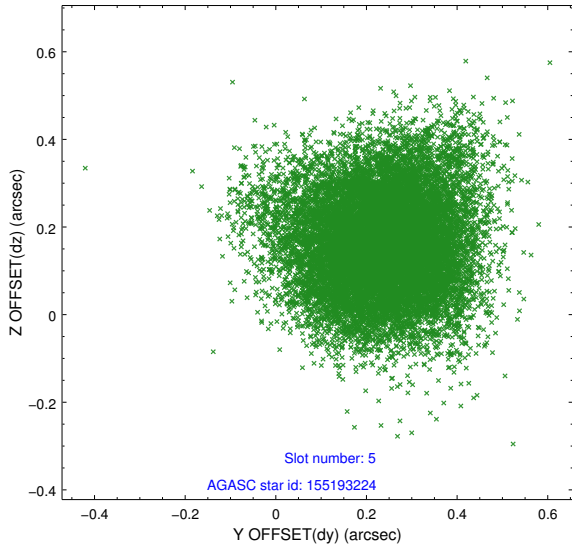
2.4.1 Slot 3



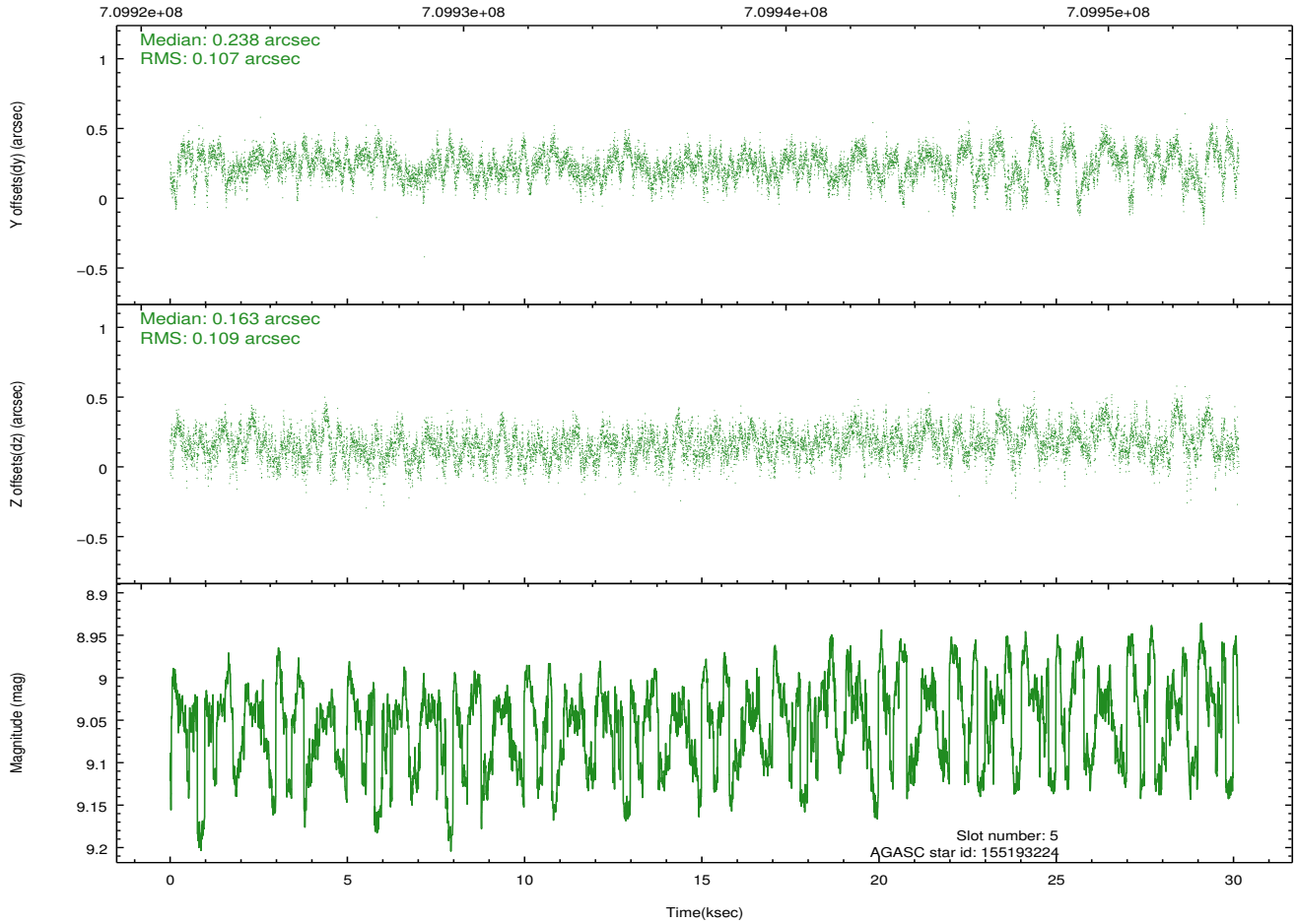
2.4.2 Slot 4



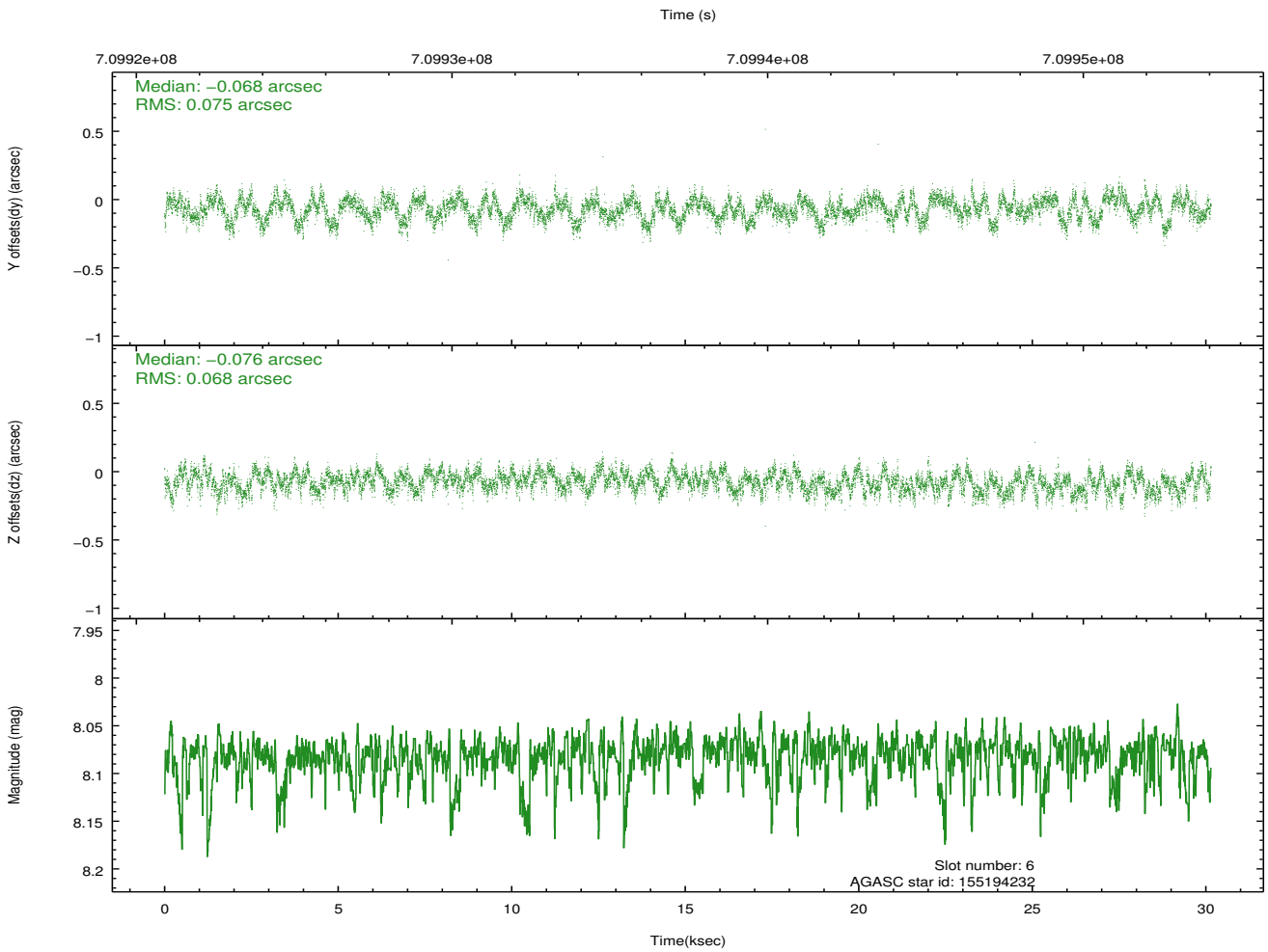
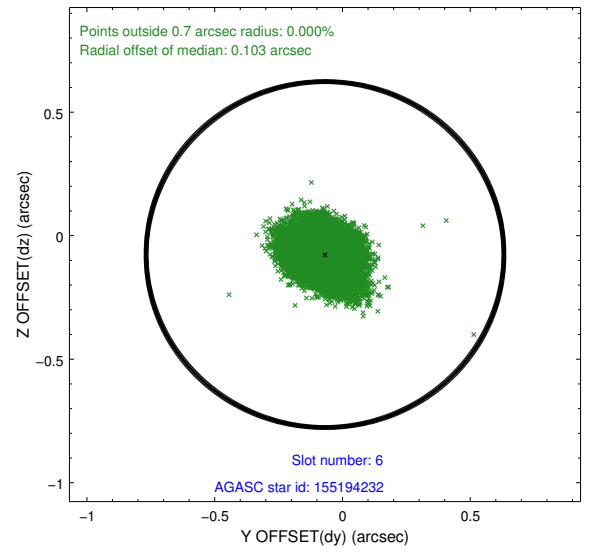
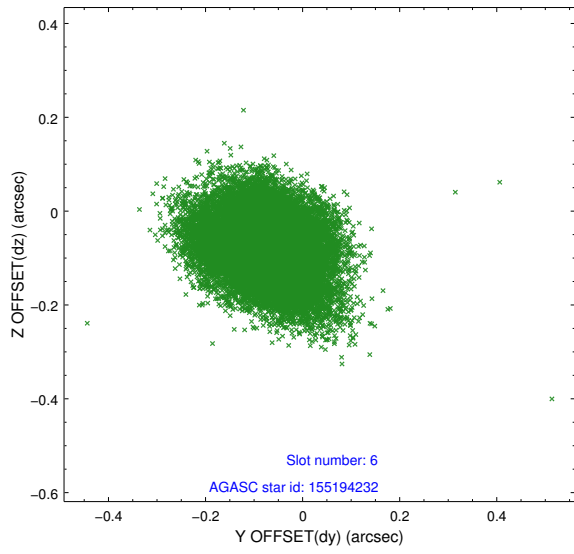
2.4.3 Slot 5



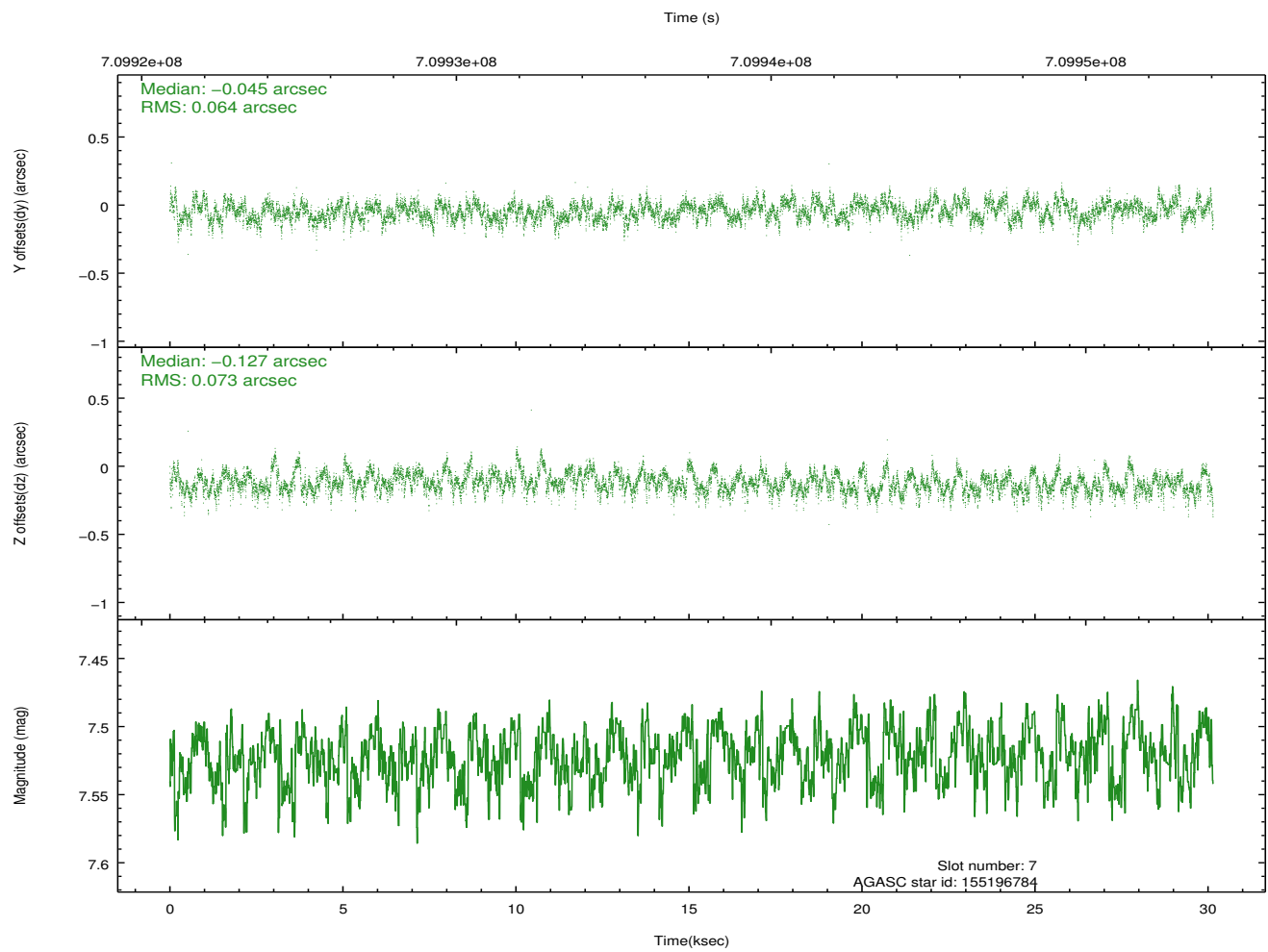
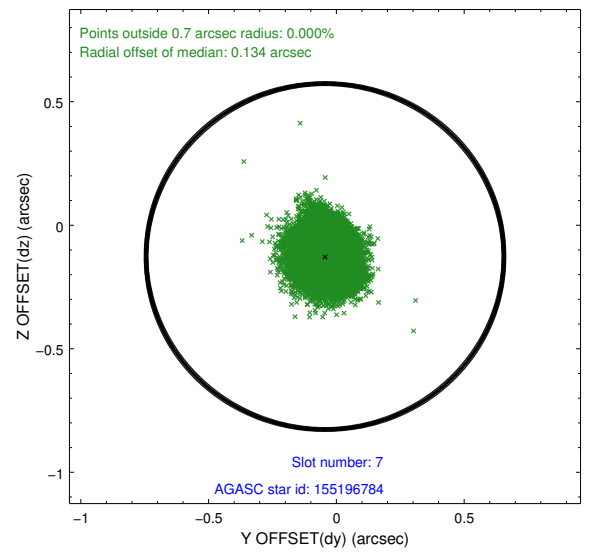
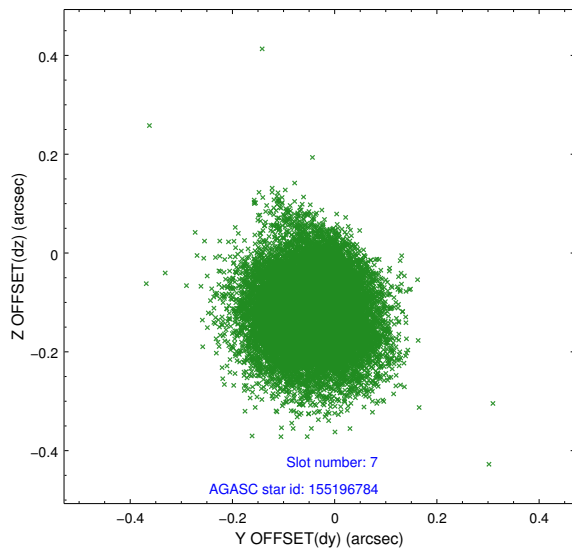
Time (s)



2.4.4 Slot 6

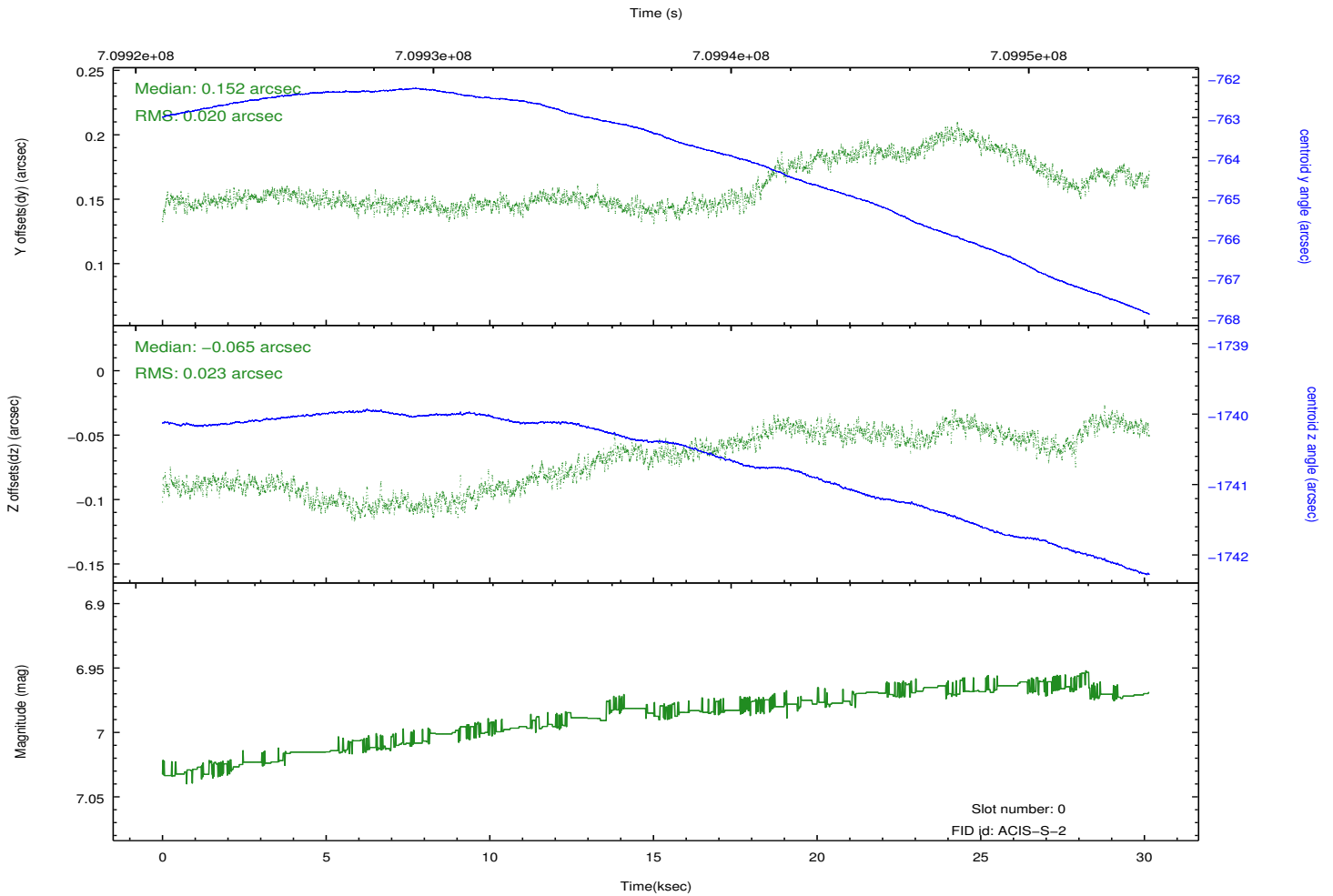
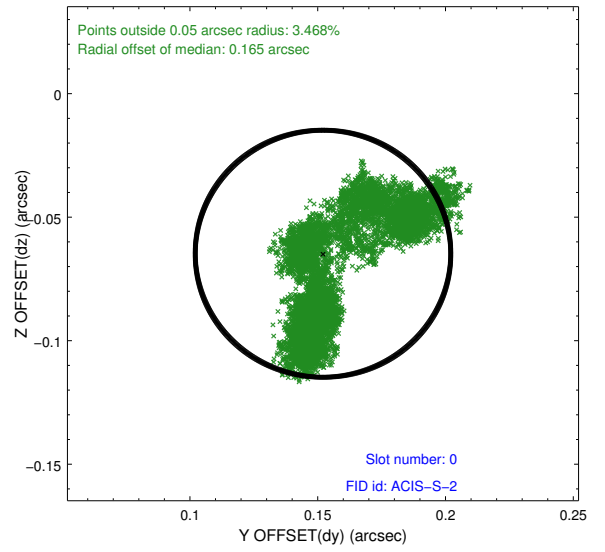
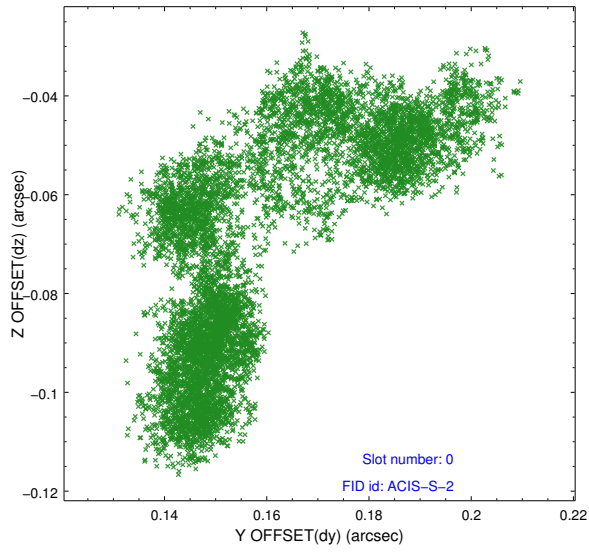


2.4.5 Slot 7

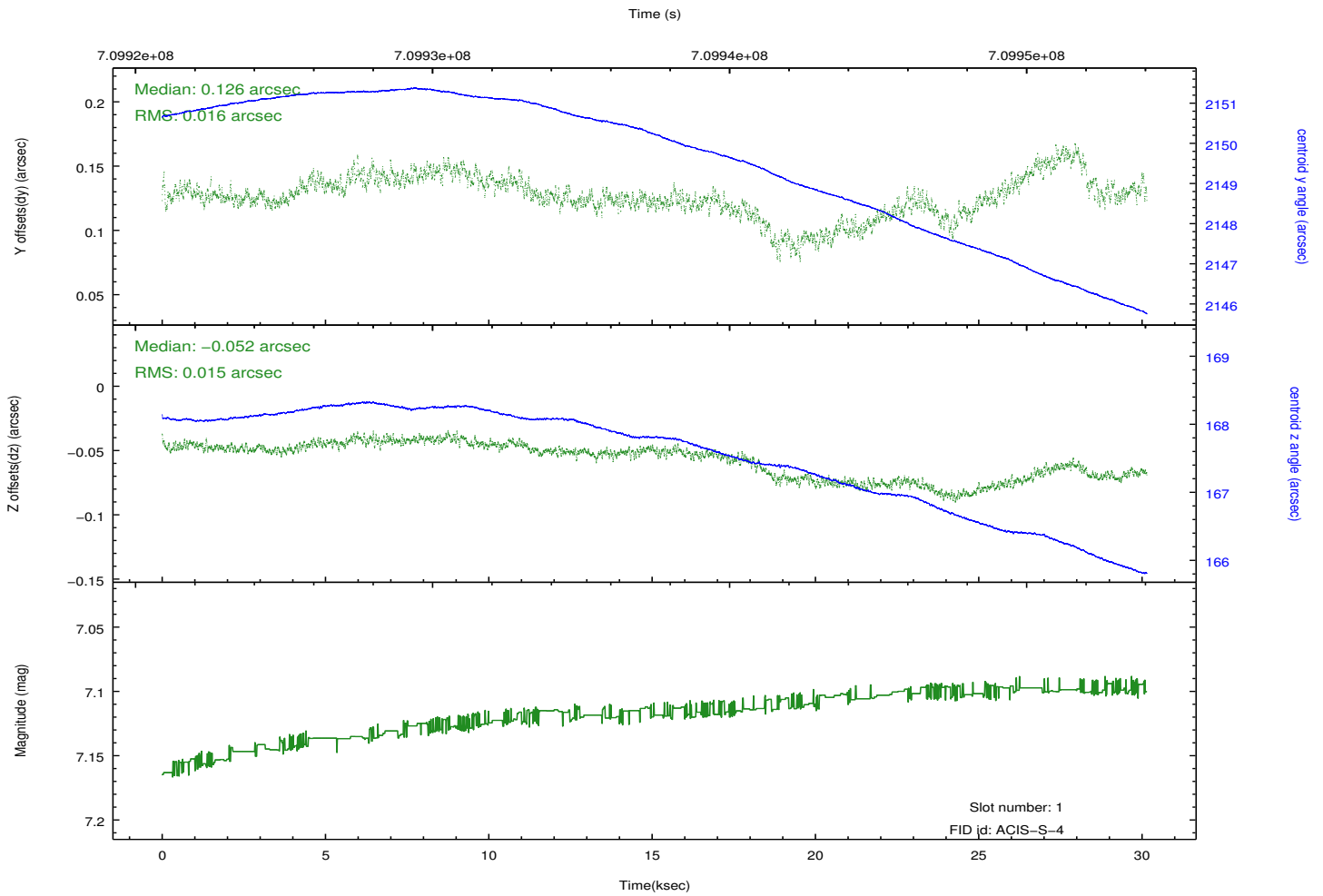
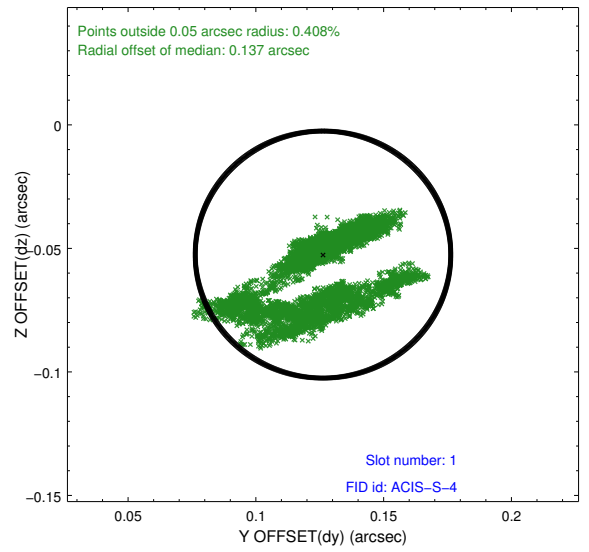
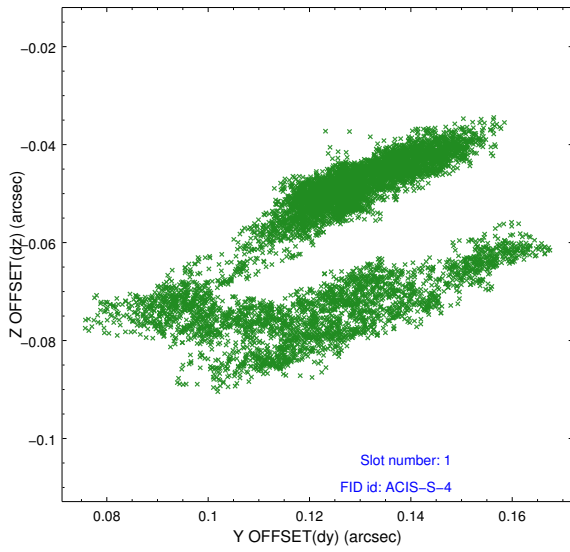


2.5 FID Slots

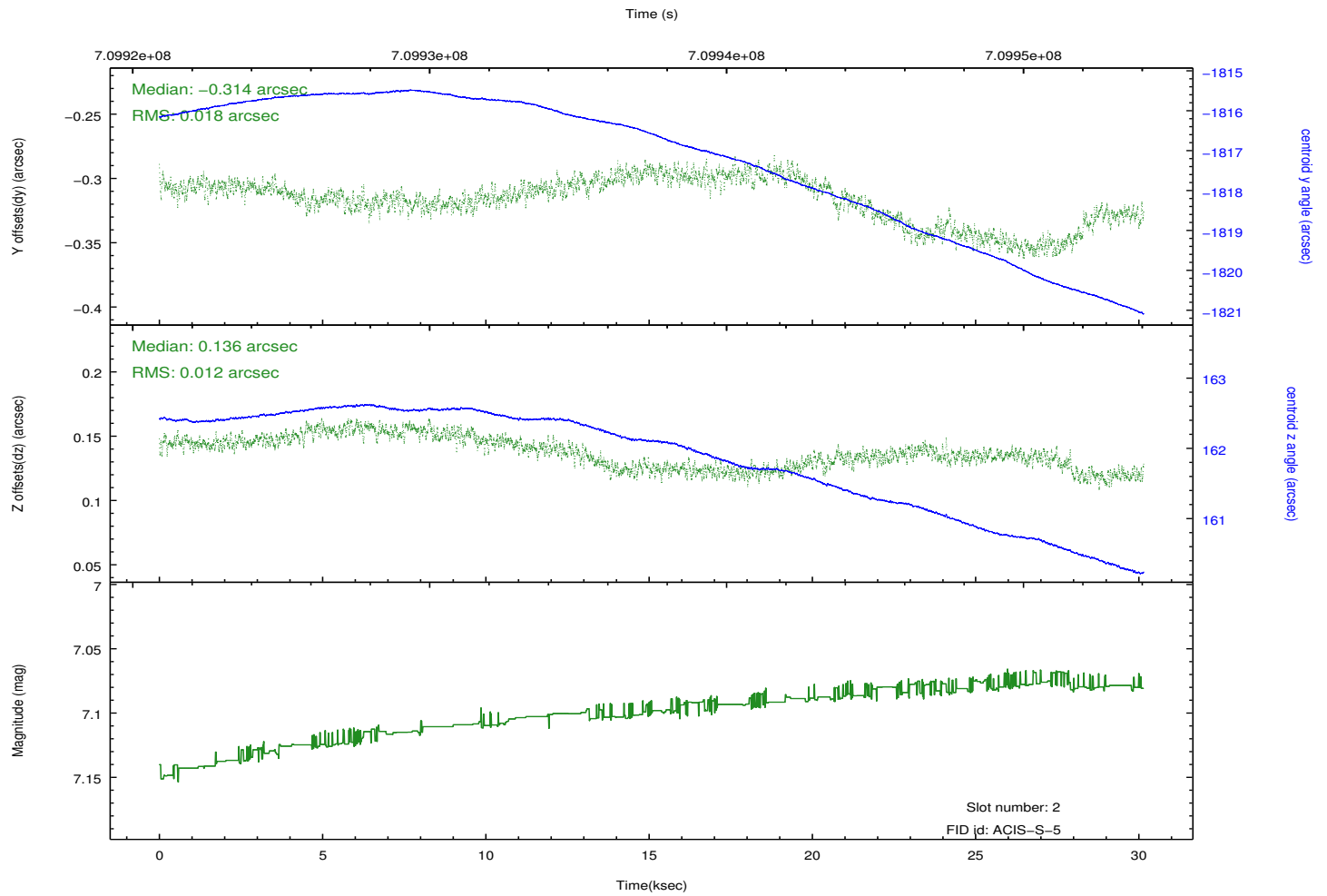
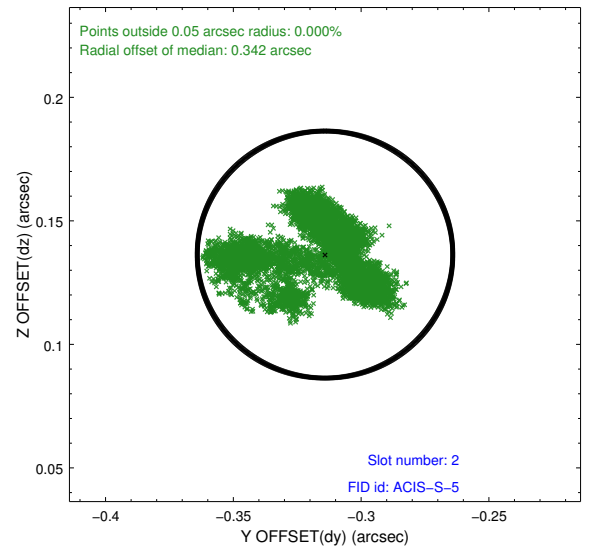
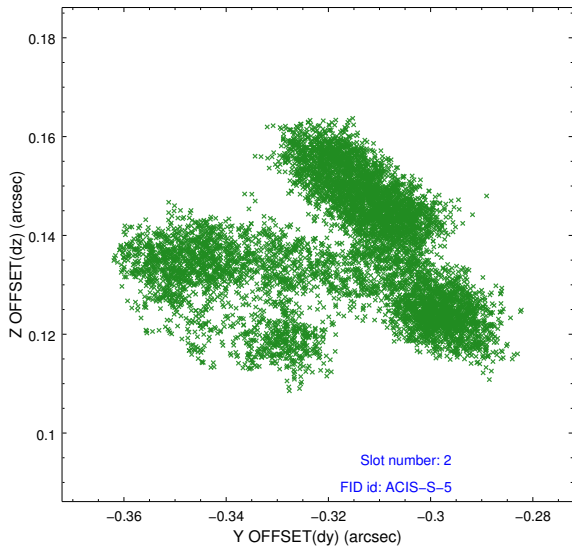
2.5.1 Slot 0



2.5.2 Slot 1

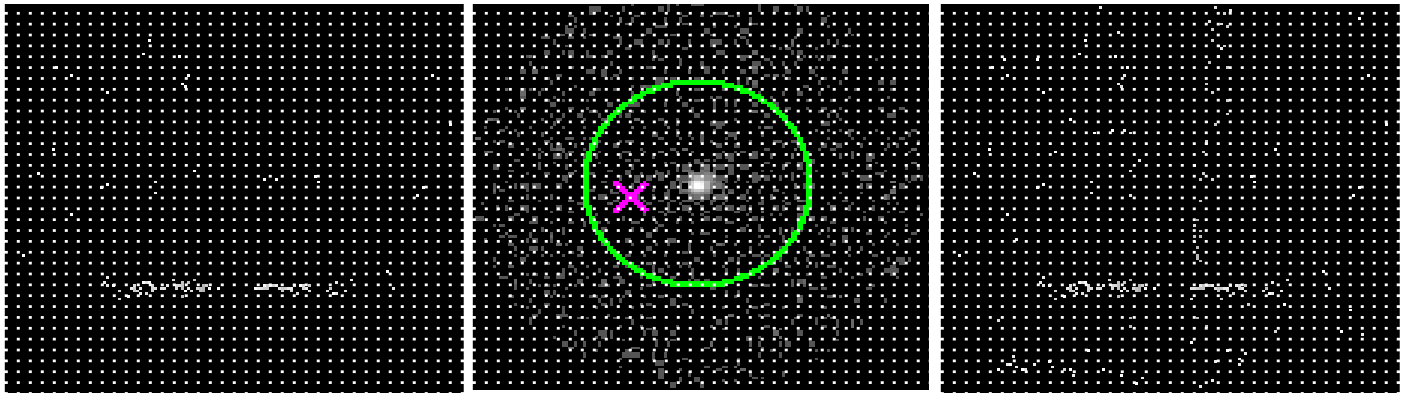


2.5.3 Slot 2



3 Gratings

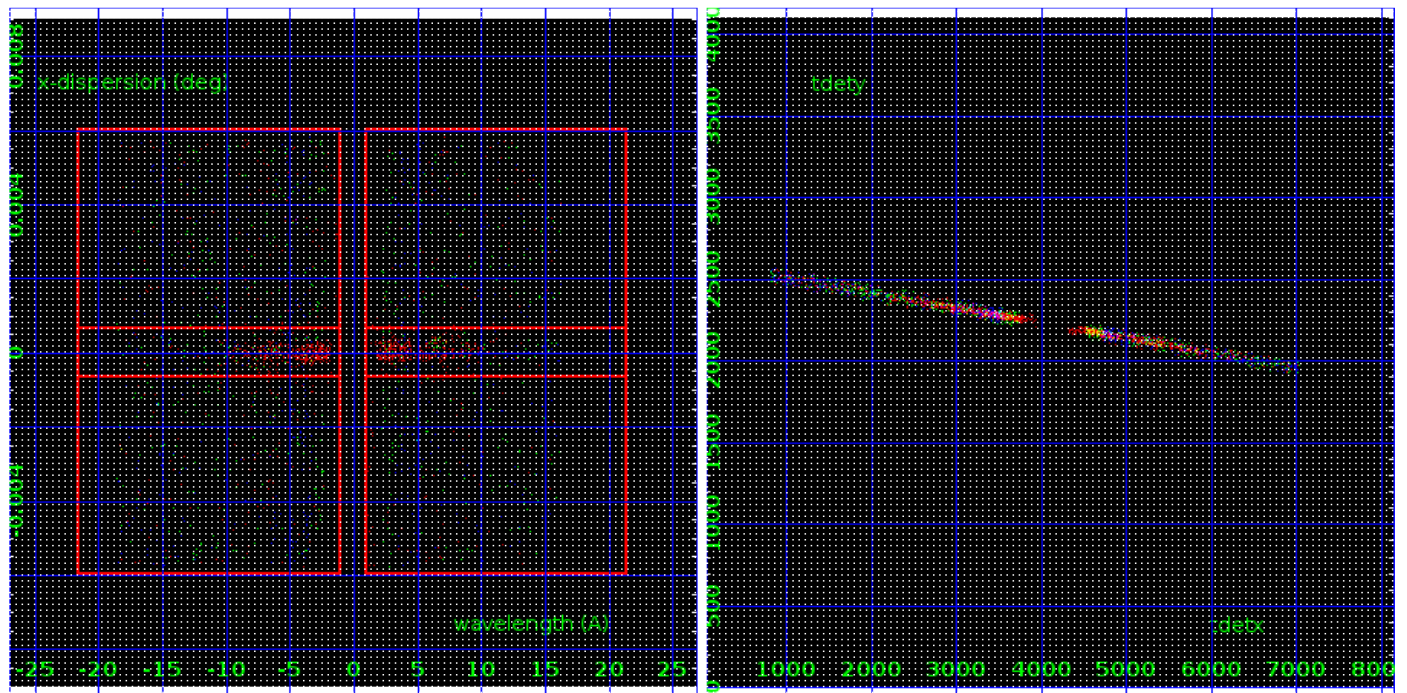
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

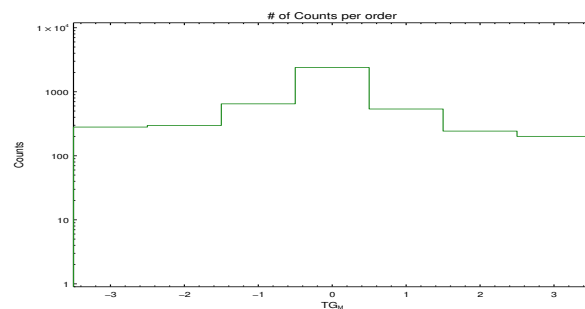
HEG Order Sort ALL

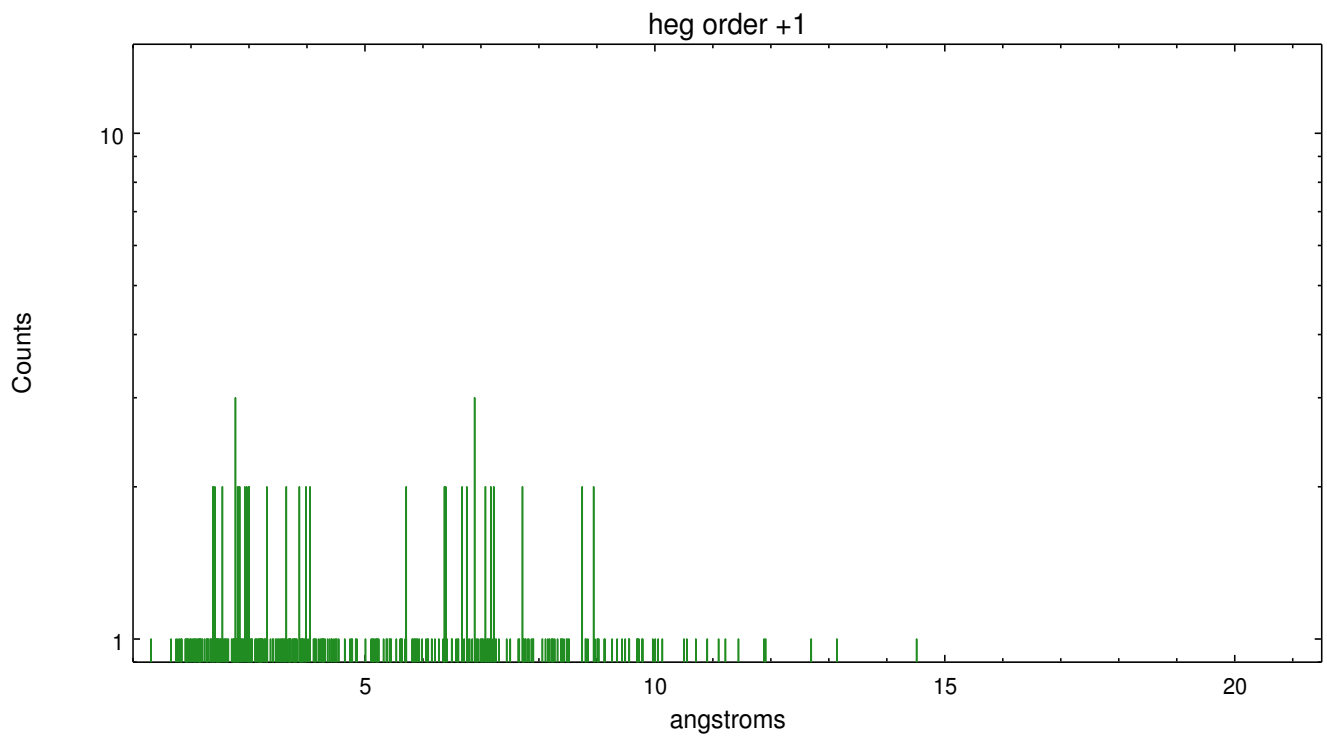
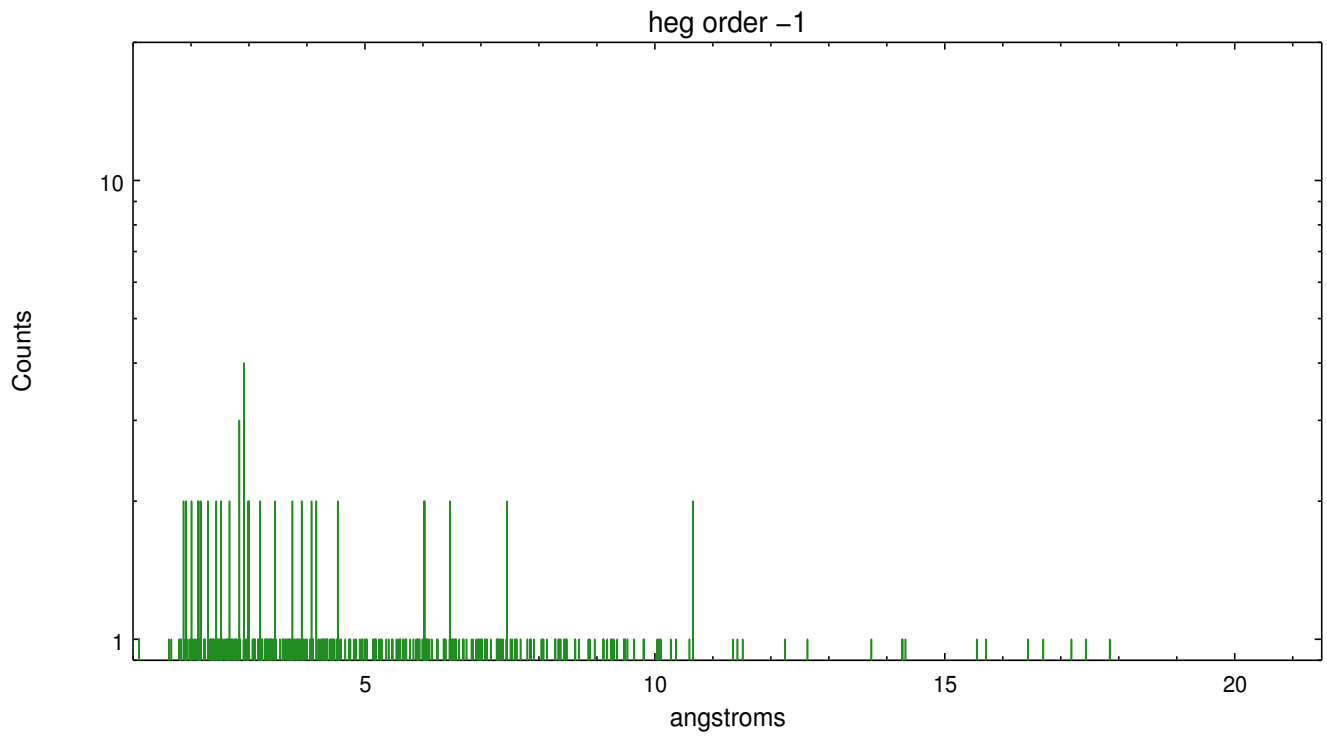


Spot Image HEG

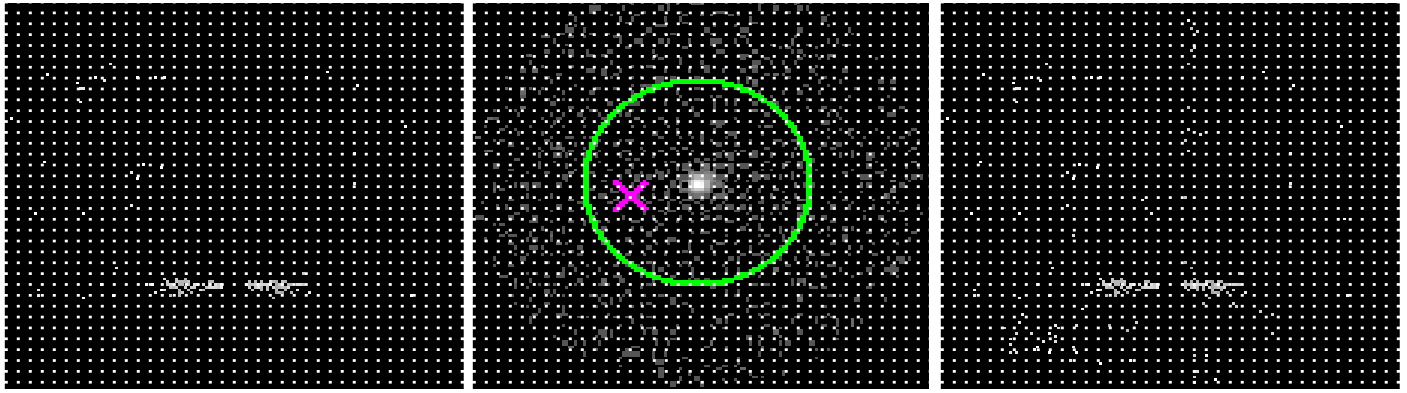
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	281	298	648	2390	538	243	201





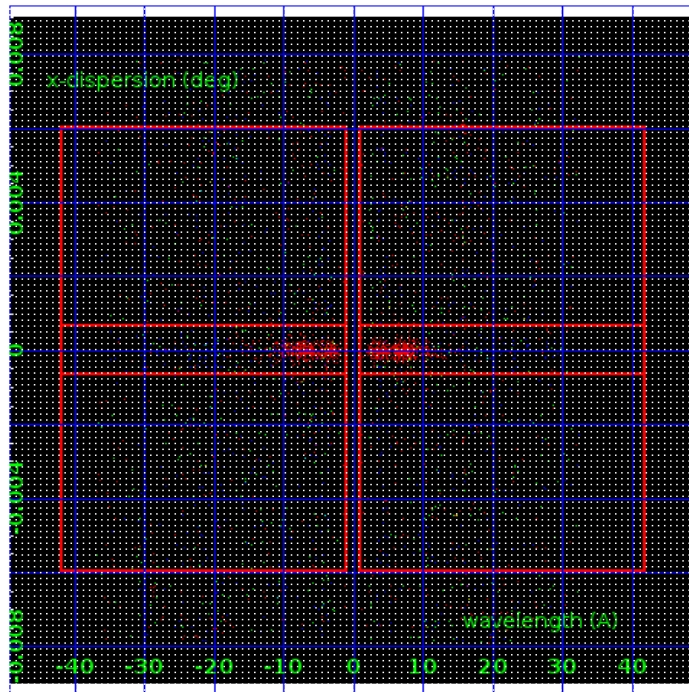
3.2 MEG Arm



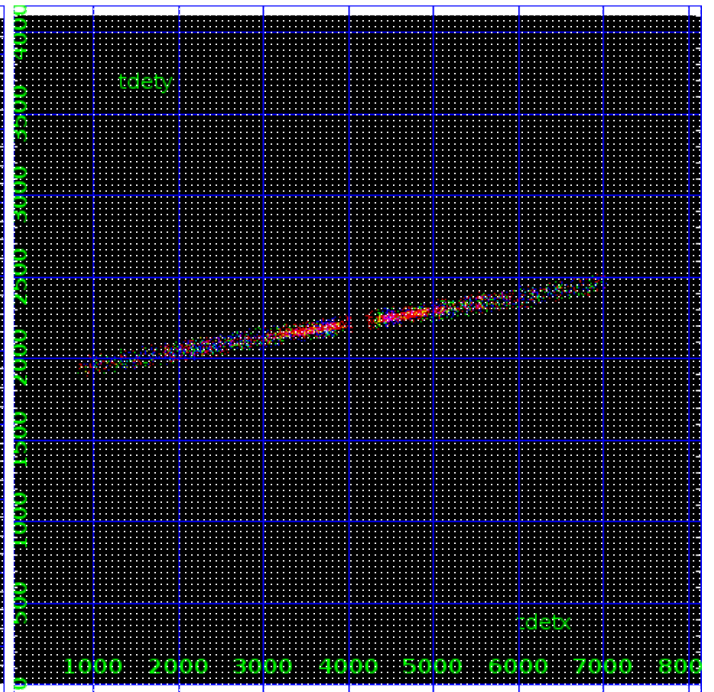
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

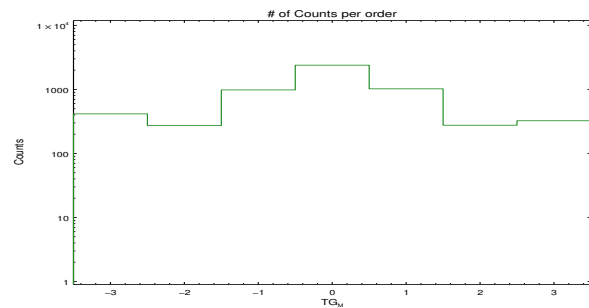


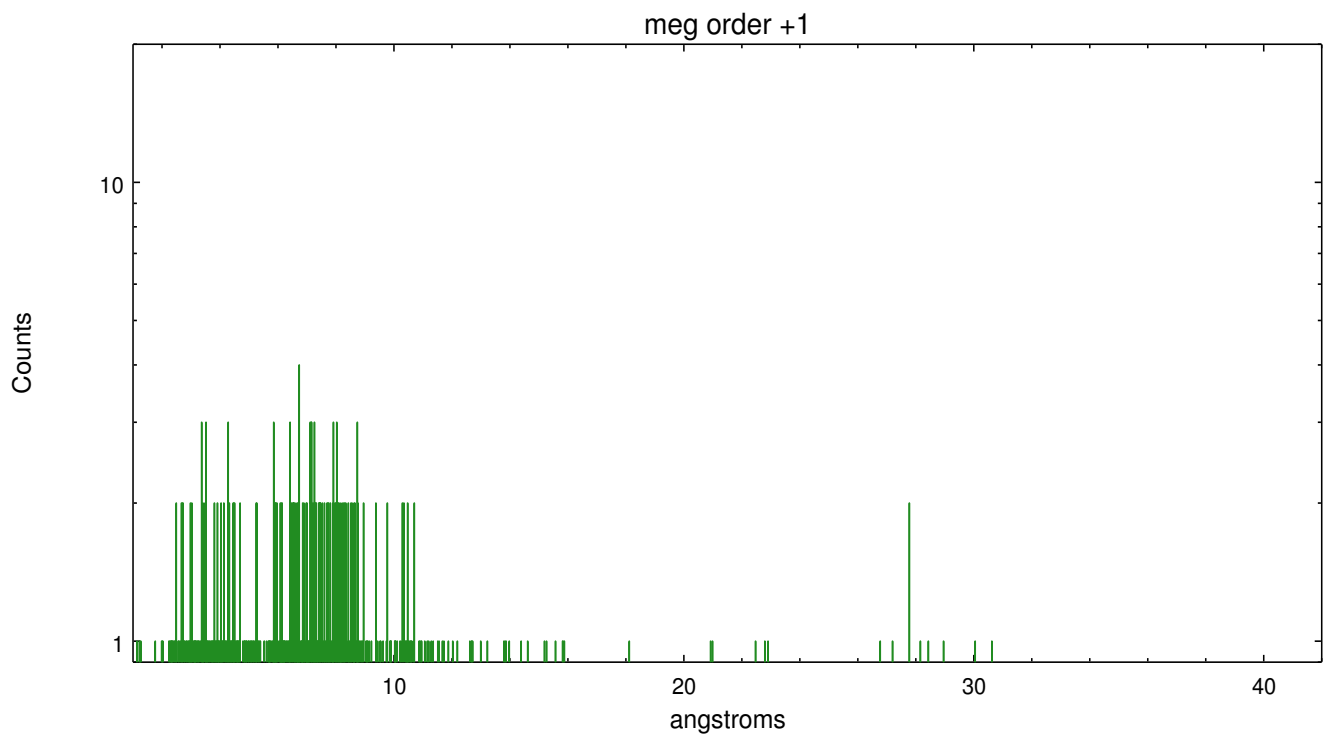
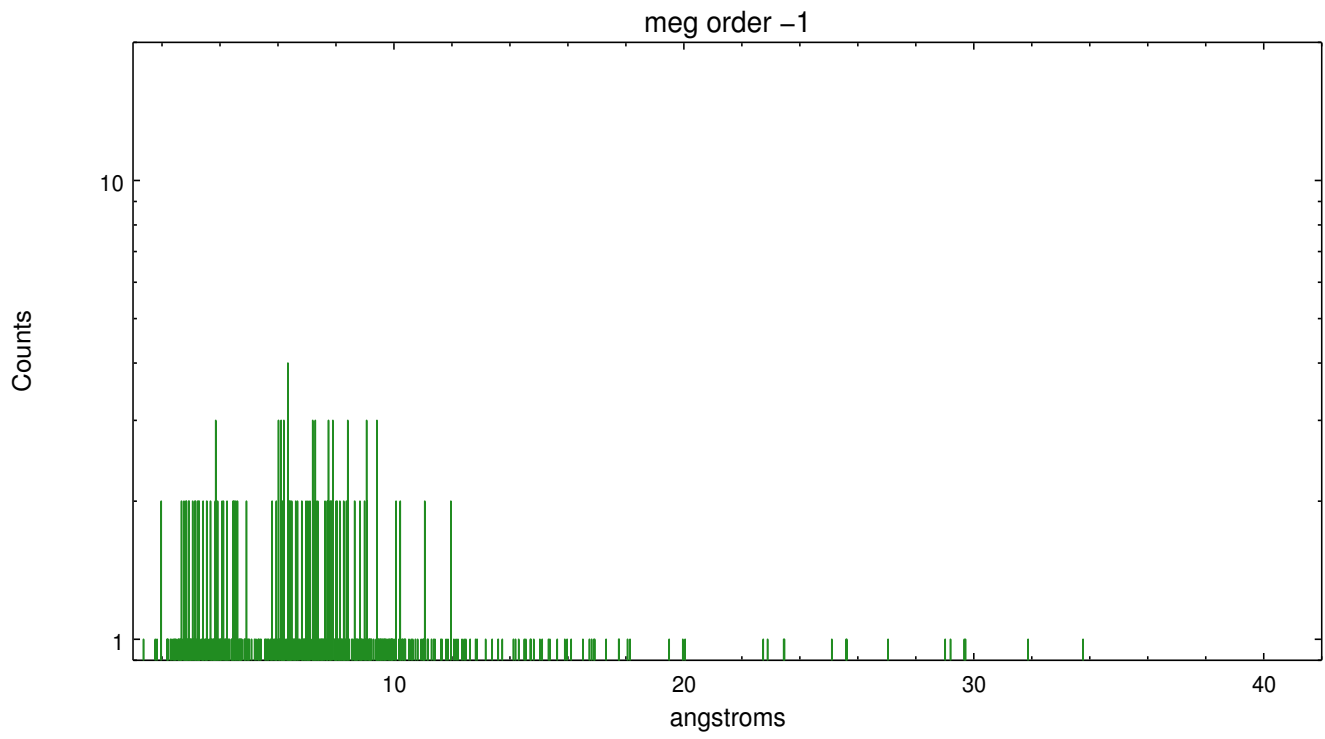
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	415	273	982	2390	1021	276	324





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2020.07.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.08

A.2 Comments