

V&V Reference Report

L2 ASCDS Version : 10.8.4

Observation 23299 - L2 Version 1
Chandra X-Ray Center

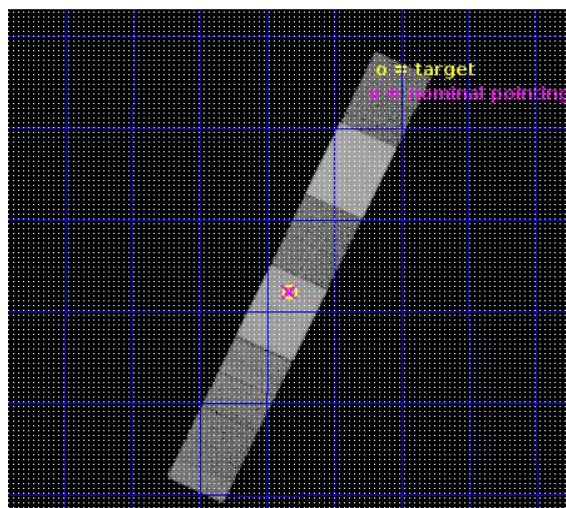
L2 Processing Date : Jul 4 2020

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

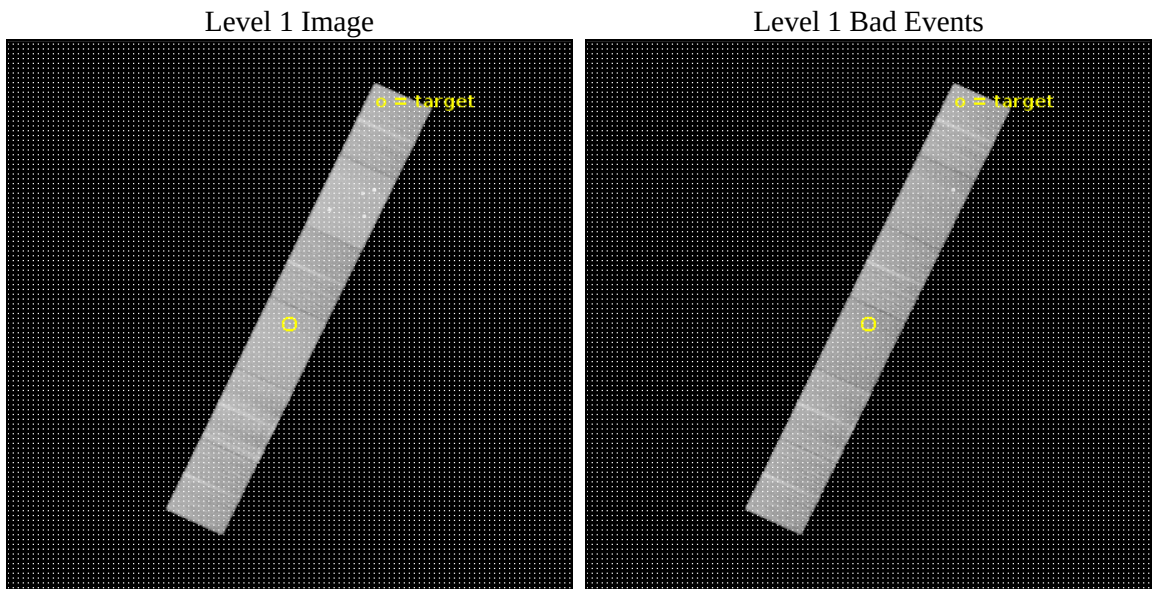
seq_num	704049	Sequence number
obs_id	23299	Observation id
title	INVESTIGATION ON MRK 335 IN AN INTERMEDIATE STATE	Proposal title
observer	Rozenn Boissay-Malaquin	Principal investigator
object	Mrk 335	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	1.581417	Observer's specified target RA [deg]
dec_targ	20.20295	Observer's specified target Dec [deg]
ra_nom	1.58308254733	Nominal RA [deg]
dec_nom	20.2028936934	Nominal Dec [deg]
roll_nom	115.155264309	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30079.172510505	Sum of GTIs [s]
livetime	29593.367784947	Livetime [s]
ontime4	30079.213550448	Sum of GTIs [s]
ontime5	30079.131470442	Sum of GTIs [s]
ontime6	30079.090430498	Sum of GTIs [s]
ontime7	30079.172510505	Sum of GTIs [s]
ontime8	30079.049390435	Sum of GTIs [s]
ontime9	30079.008350492	Sum of GTIs [s]
l2events	314894	Number of level 2 events



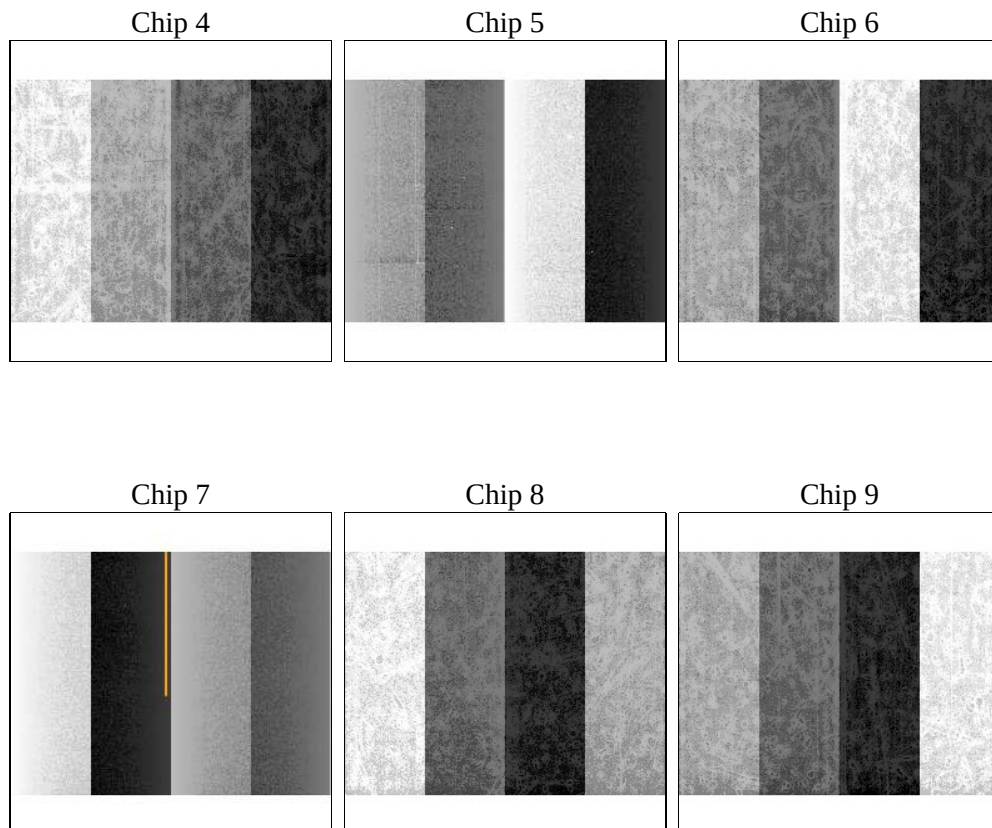
2 OBI

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	30079.172510505	Sum of GTIs [s]
caldsver	4.9.1	 	ontime4	30079.213550448	Sum of GTIs [s]
date	2020-07-04T05:20:11	Date and time of file creation	ontime5	30079.131470442	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	30079.090430498	Sum of GTIs [s]
			ontime7	30079.172510505	Sum of GTIs [s]
			ontime8	30079.049390435	Sum of GTIs [s]
			ontime9	30079.008350492	Sum of GTIs [s]
			l1events	1357031	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			src1a_pos	(4108.02, 4008.26)	src1a sky pixel position

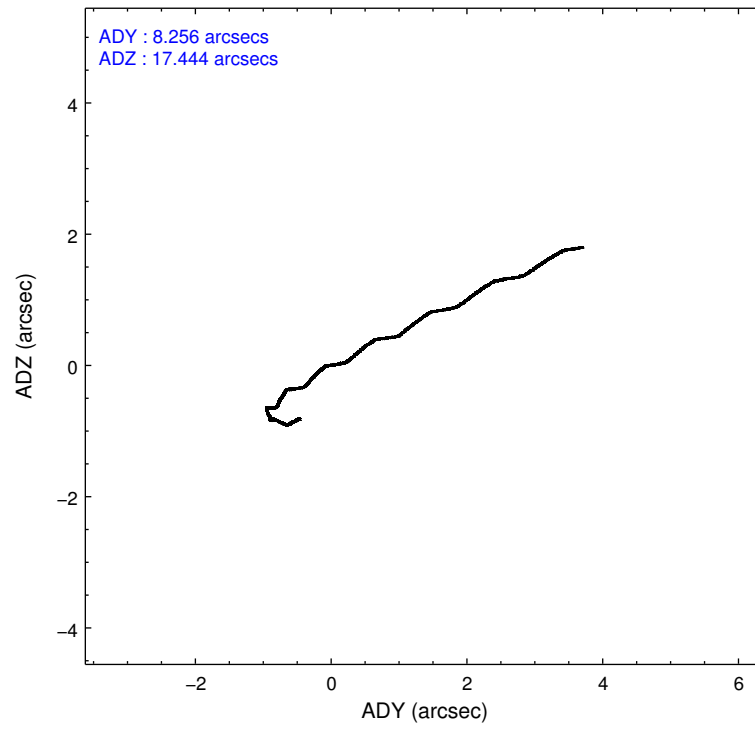
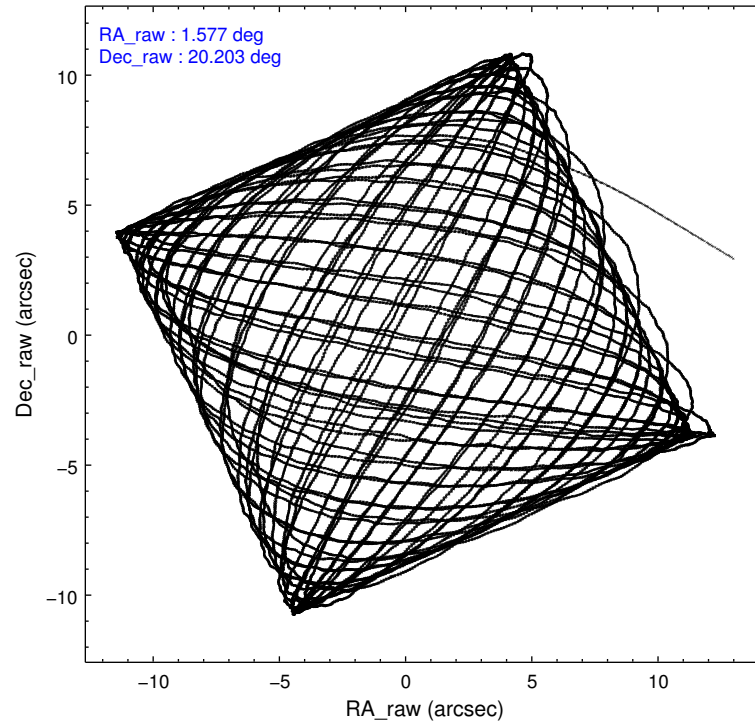
2.1.4 Events

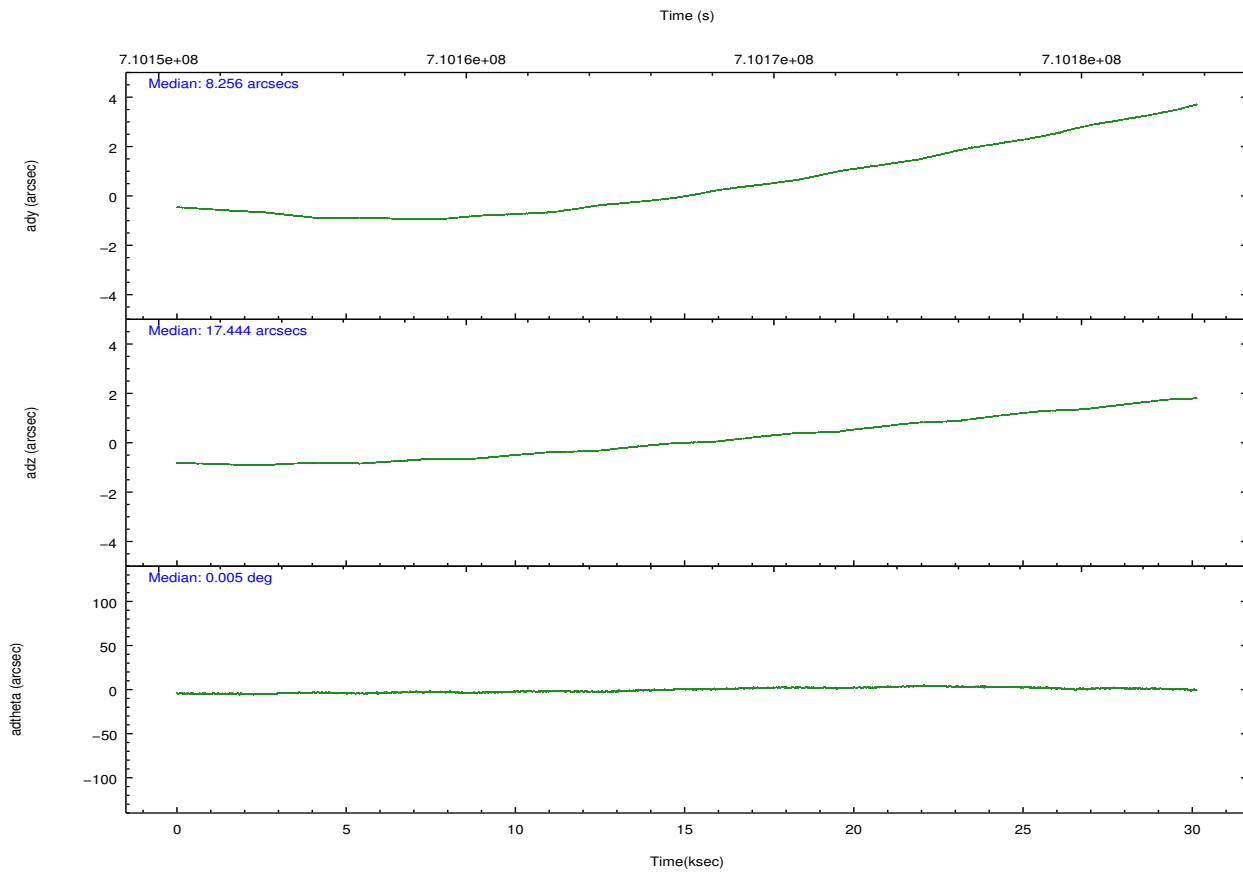
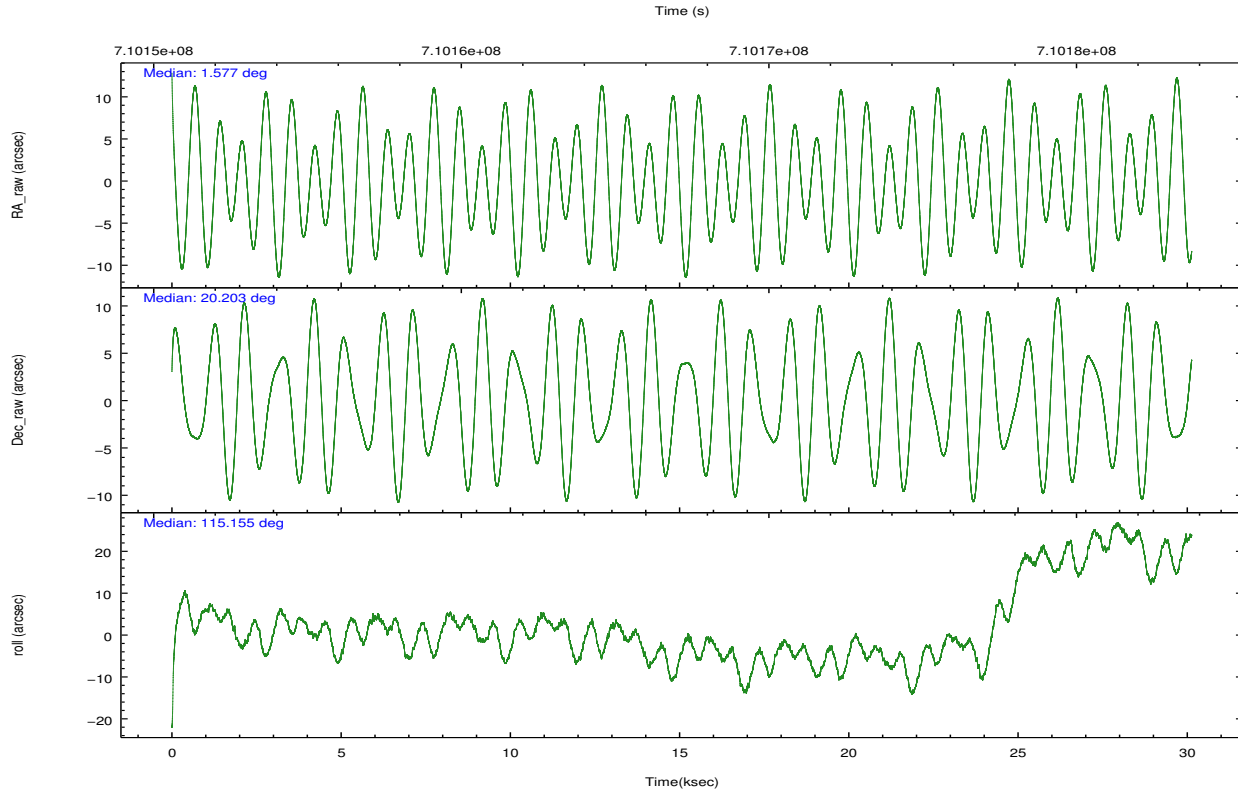
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	210550	300749	184073	237030	240342	184287	grade 0 events	8255	18278	6771	9340	18956	7608
rejected events	188030	151910	162916	132001	174924	162070		3%	6%	3%	3%	7%	4%
rejected %	89%	50%	88%	55%	72%	87%	grade 1 events	182	3394	92	385	170	94
								0%	1%	0%	0%	0%	0%
							grade 2 events	5517	45281	5016	22979	15656	5030
								2%	15%	2%	9%	6%	2%
							grade 3 events	2395	4449	2078	8591	6675	2452
								1%	1%	1%	3%	2%	1%
							grade 4 events	2334	4323	2114	8578	6381	2286
								1%	1%	1%	3%	2%	1%
							grade 5 events	8817	20089	8180	23538	12959	9628
								4%	6%	4%	9%	5%	5%
							grade 6 events	4028	76531	5180	55553	17757	4845
								1%	25%	2%	23%	7%	2%
							grade 7 events	179022	128404	154642	108066	161788	152344
								85%	42%	84%	45%	67%	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	1.601197	1.58308254733	CCD I2 on	N	N
[deg] Pointing Dec	20.187754	20.2028936934	CCD I3 on	N	N
[deg] Pointing Roll	114.993173	115.155264309	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)	710152222.184000	710151143.68182	CCD S5 on	O2	Y
Observation start date	2020-07-03T08:29:13	2020-07-03T08:12:23	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	710182222.184000	710183036.55876	On-chip summing requested	N	N
Observation end date	2020-07-03T16:49:13	2020-07-03T17:03:56	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



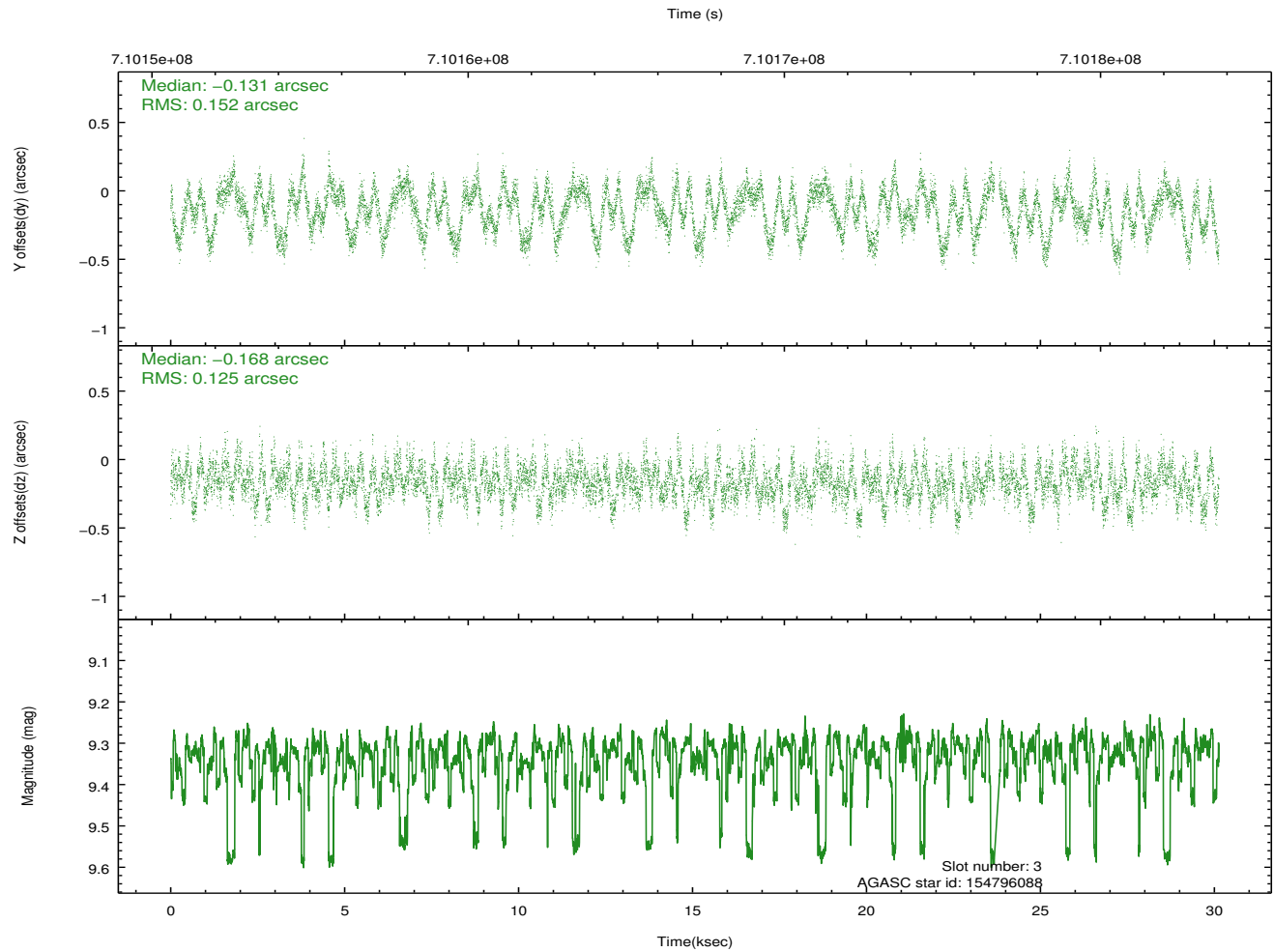
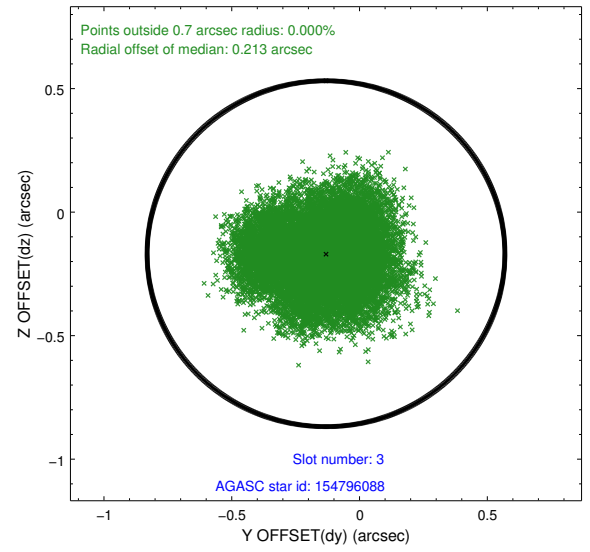
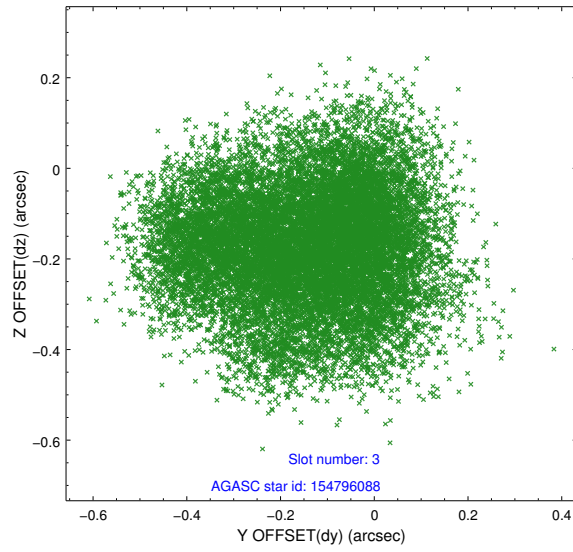


Slot Statistics

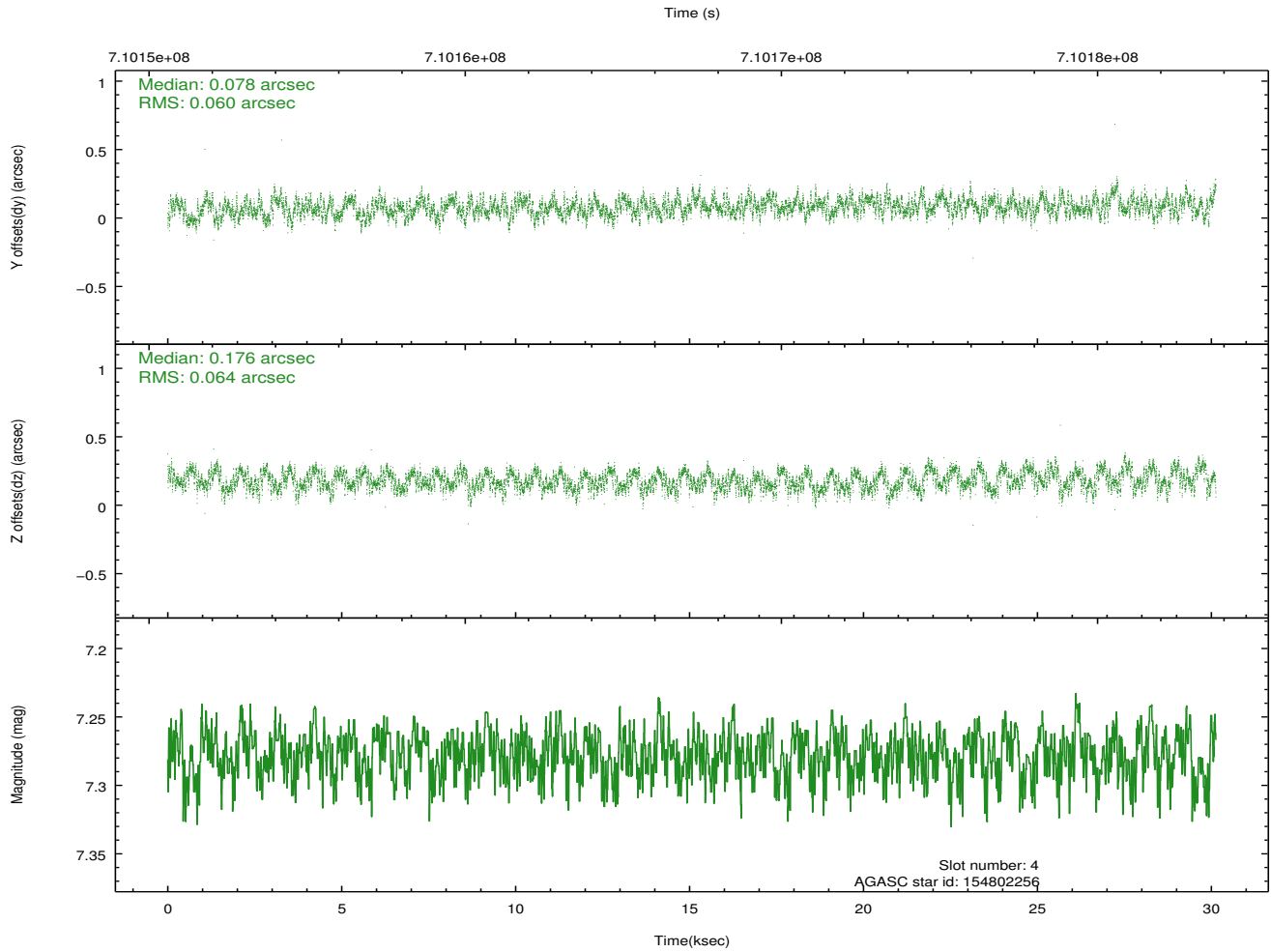
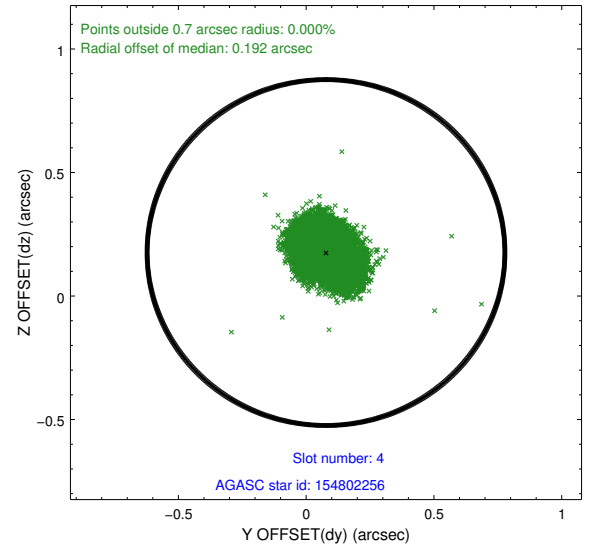
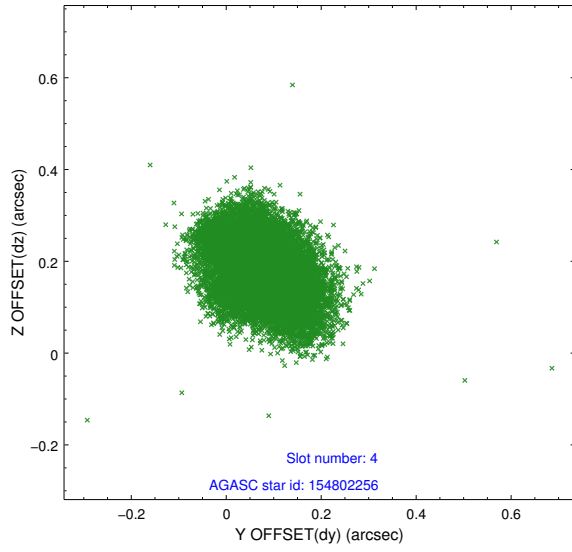
id	status	used	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		7.01	7349	1.000	0.154	-0.077	0.027	0.038	0.000000	0.000000	-761.72	-1738
1	FID		7.13	7349	1.000	0.093	-0.052	0.018	0.032	0.000000	0.000000	2151.76	169
2	FID		7.12	7348	1.000	-0.284	0.139	0.032	0.043	0.000000	0.000000	-1814.62	163
3	GUIDE	used	9.33	14608	1.000	-0.131	-0.168	0.217	0.325	1.327954	19.982770	-277.90	1149
4	GUIDE	used	7.28	14698	1.000	0.078	0.176	0.093	0.149	2.267963	19.924686	-1806.93	-1646
5	GUIDE	used	9.04	14687	1.000	0.196	0.144	0.148	0.236	2.130274	20.267286	-492.95	-1741
6	GUIDE	used	8.09	14696	1.000	-0.047	-0.063	0.113	0.192	1.710987	20.559760	1058.10	-901
7	GUIDE	used	7.52	14696	1.000	-0.073	-0.086	0.082	0.135	1.810289	20.555714	903.64	-1198

2.4 Star Slots

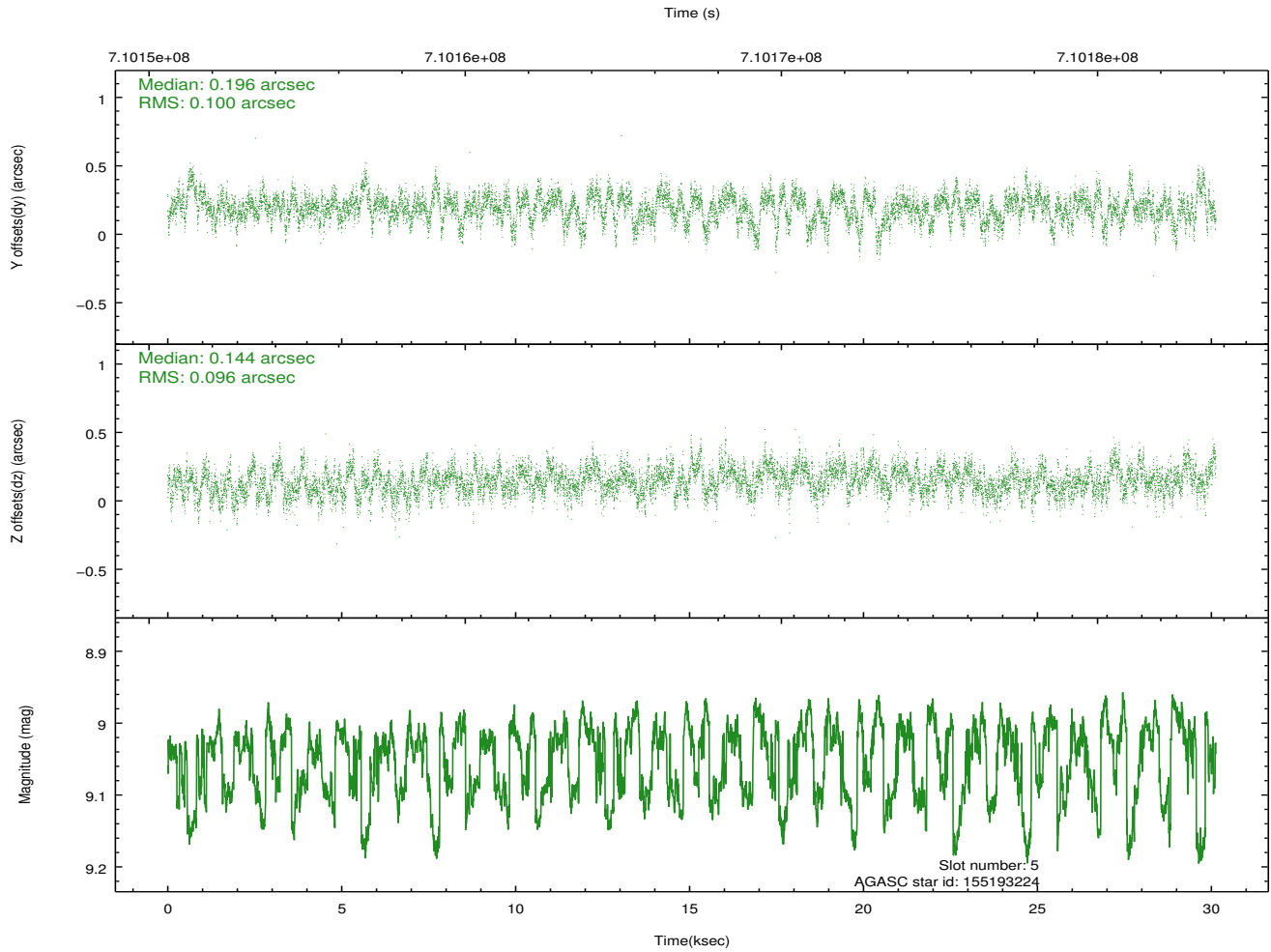
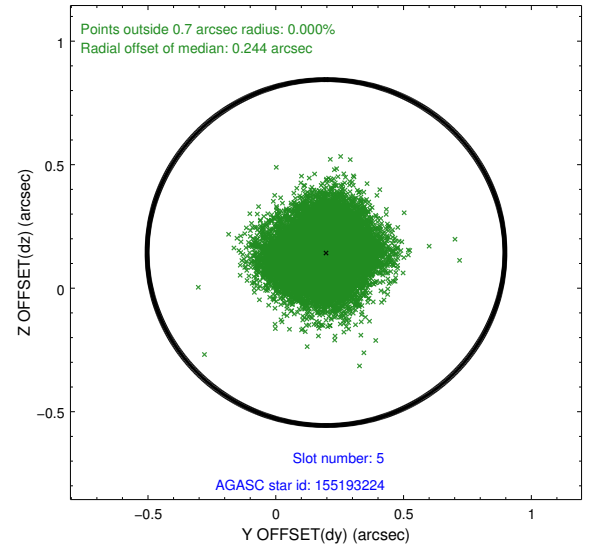
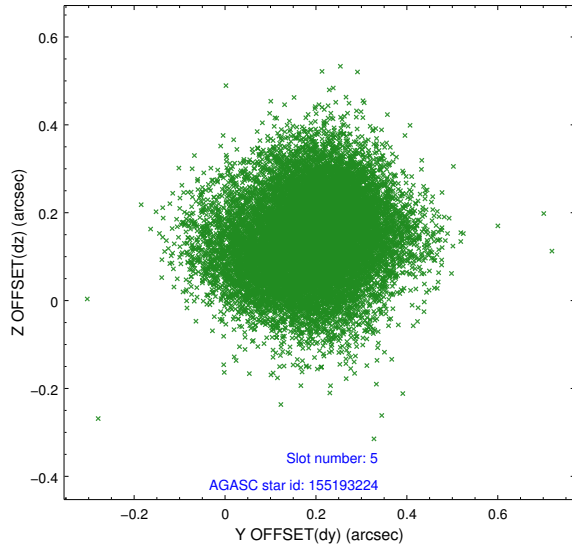
2.4.1 Slot 3



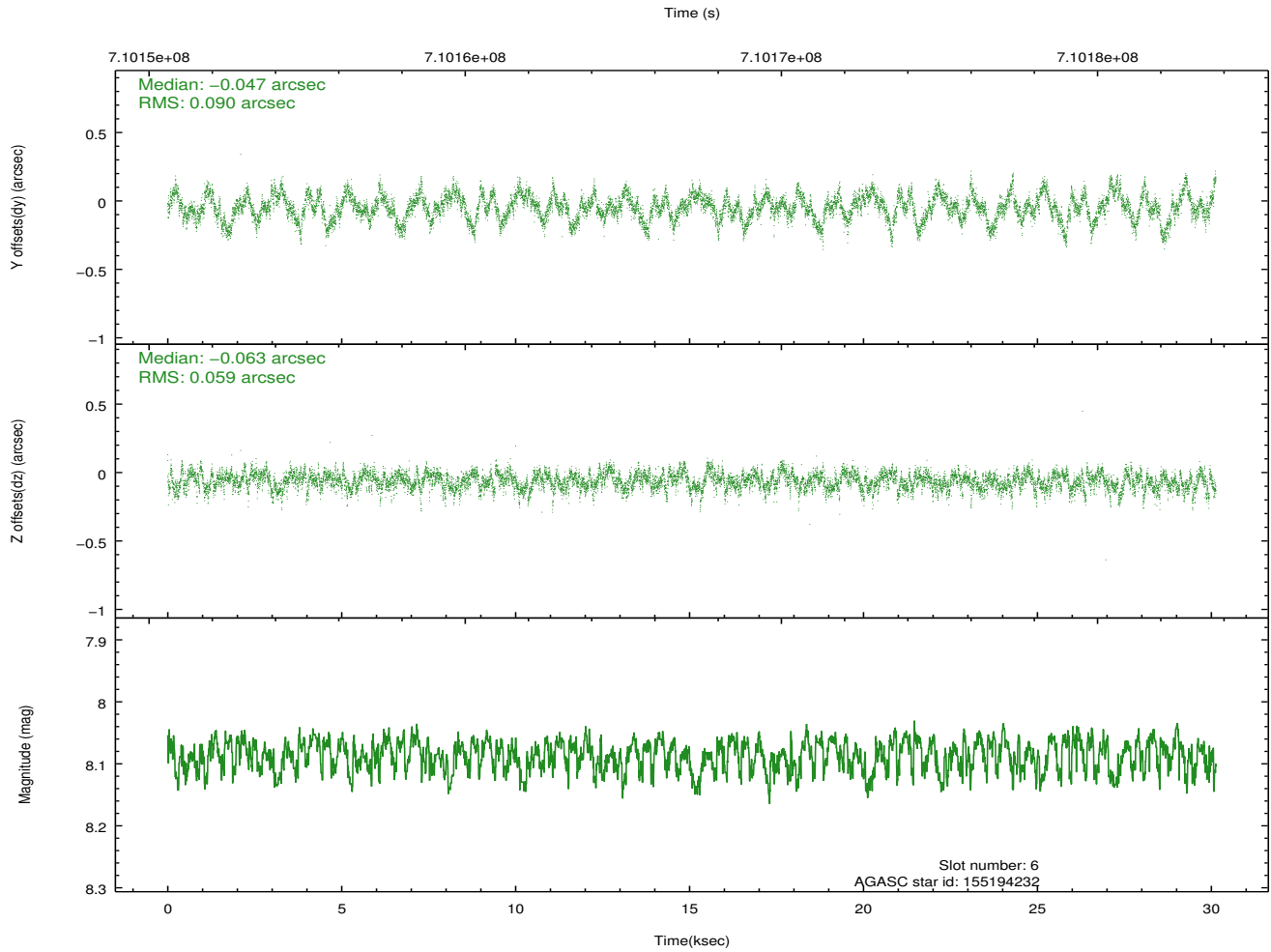
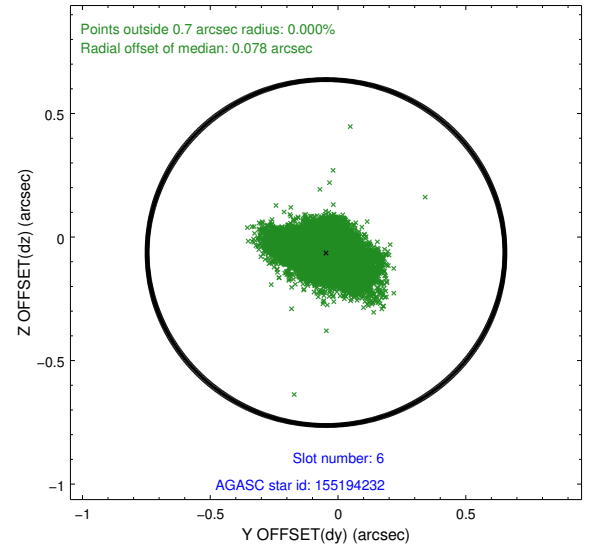
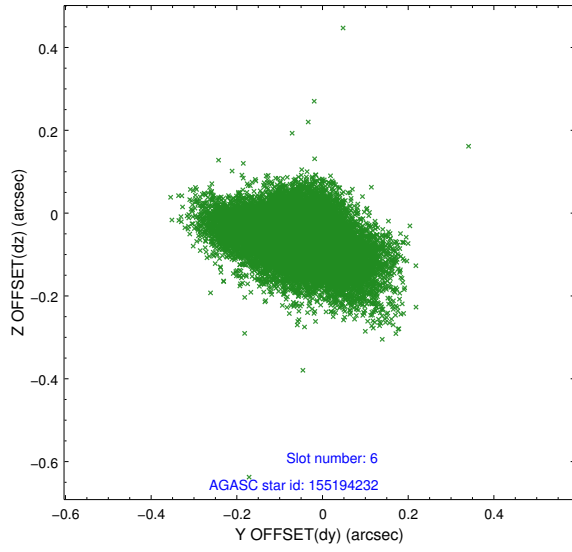
2.4.2 Slot 4



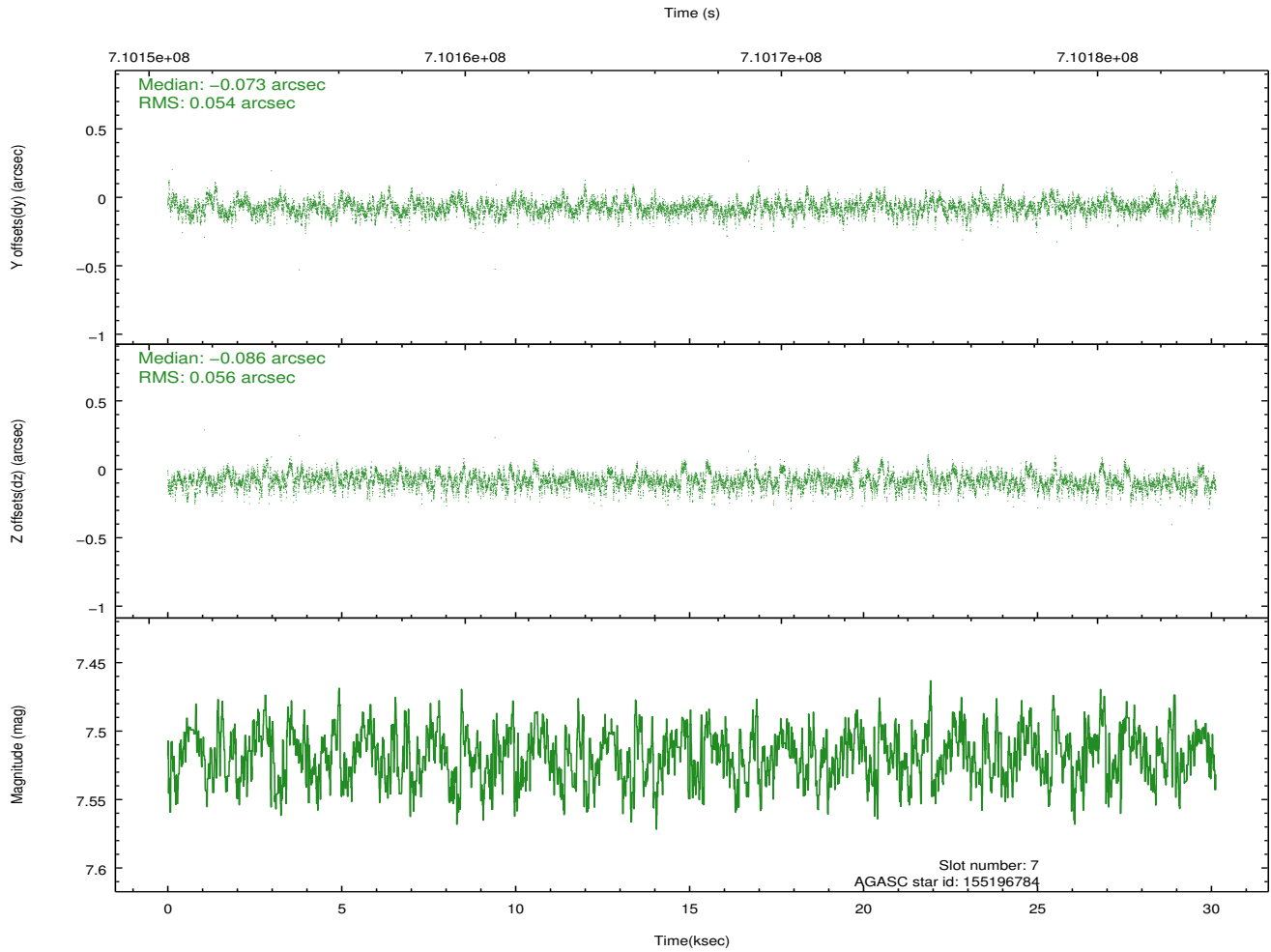
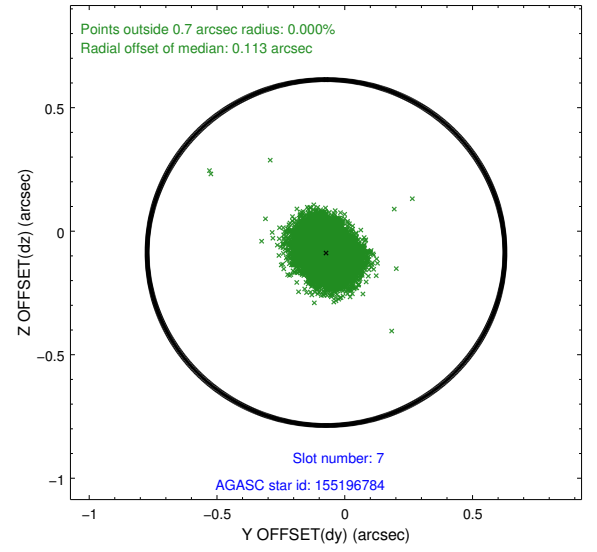
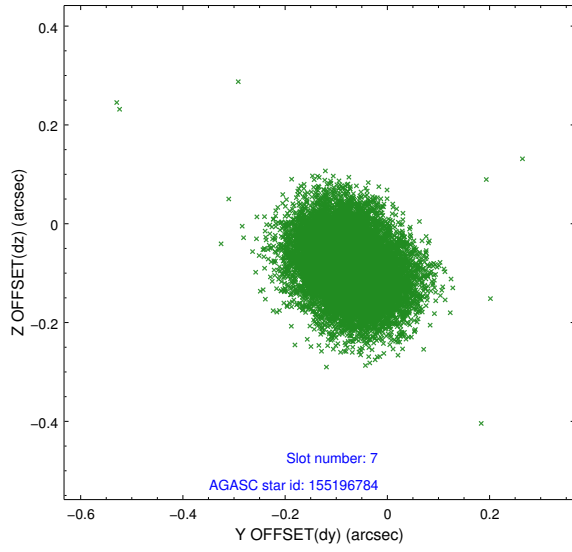
2.4.3 Slot 5



2.4.4 Slot 6

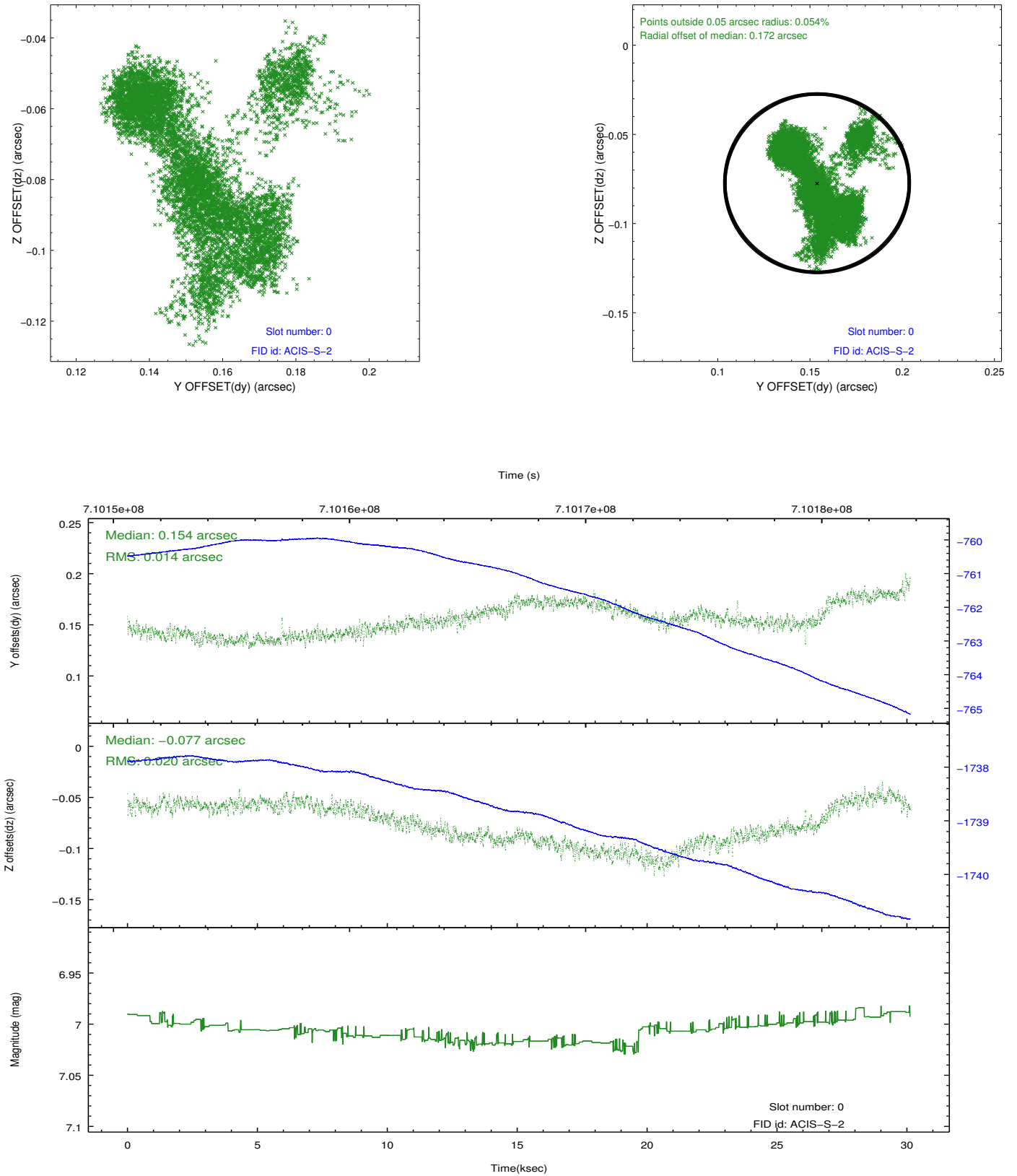


2.4.5 Slot 7

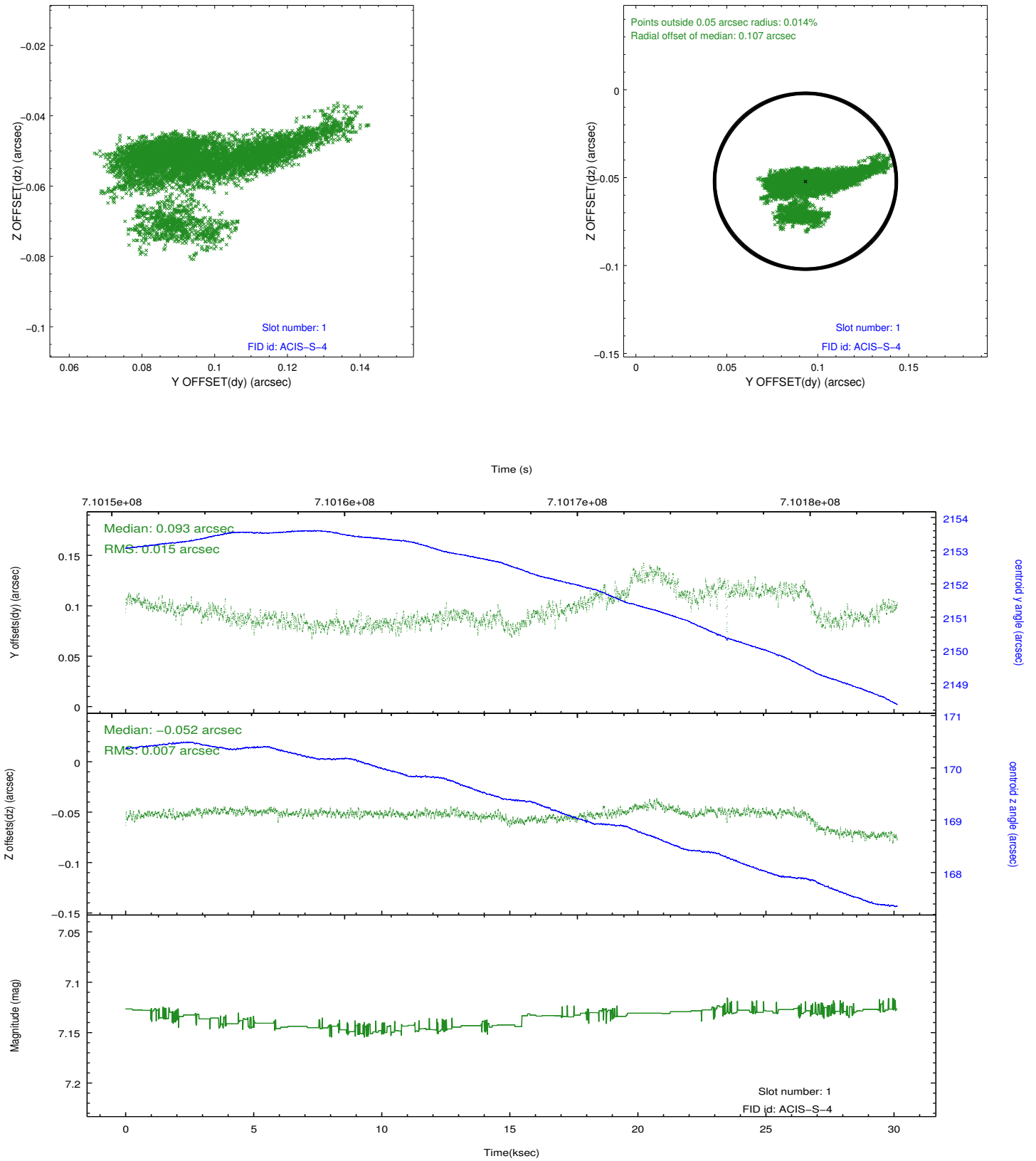


2.5 FID Slots

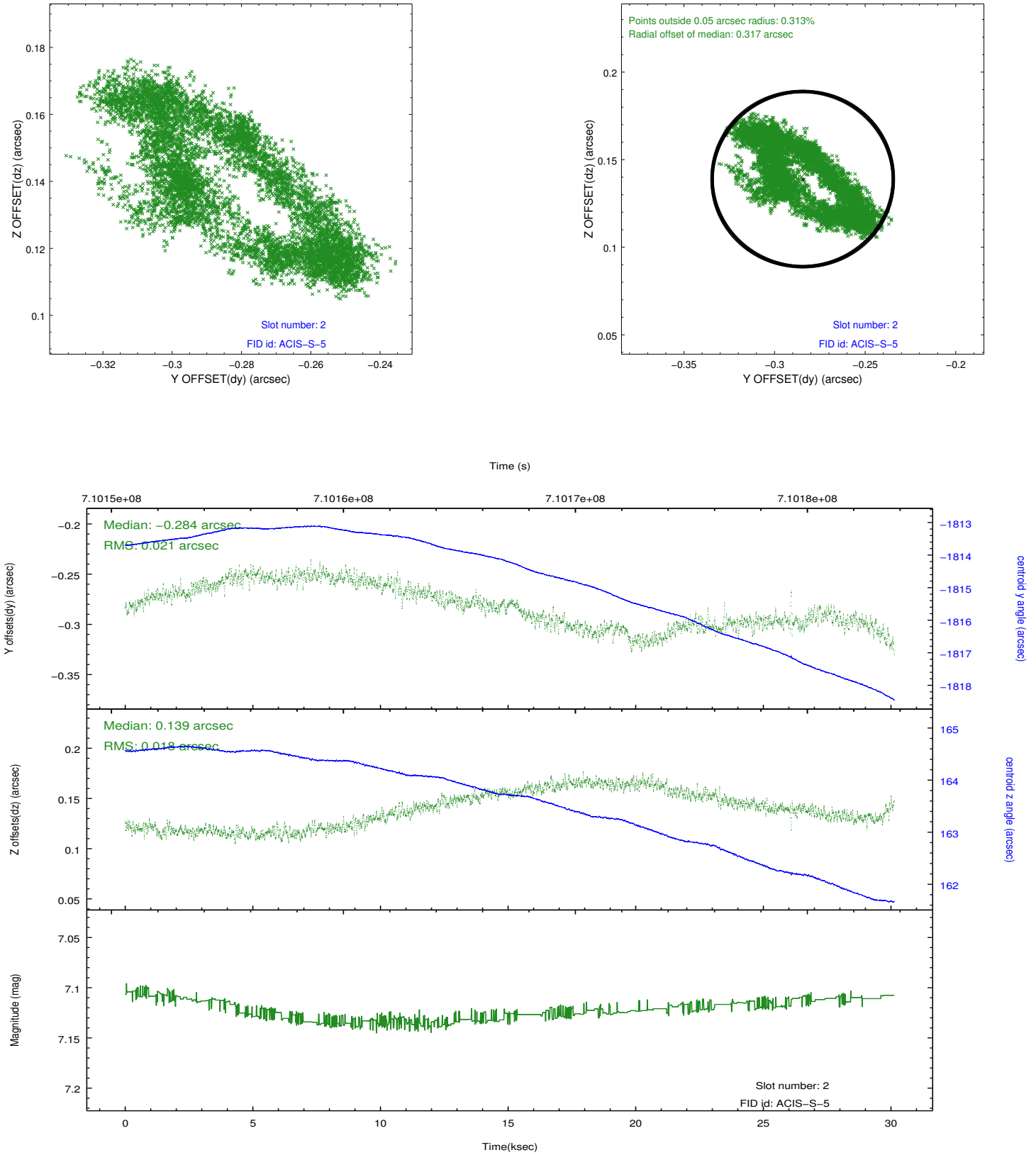
2.5.1 Slot 0



2.5.2 Slot 1

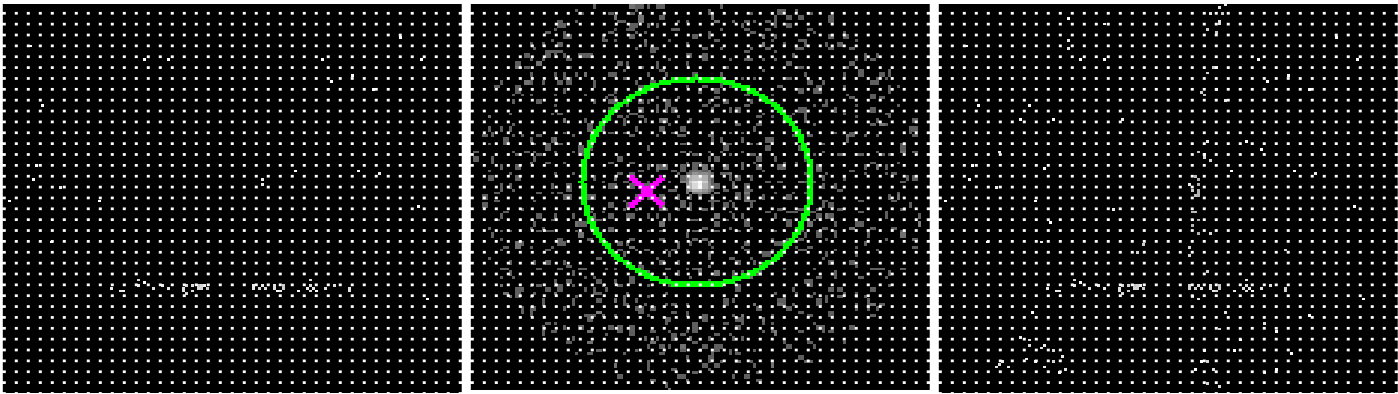


2.5.3 Slot 2



3 Gratings

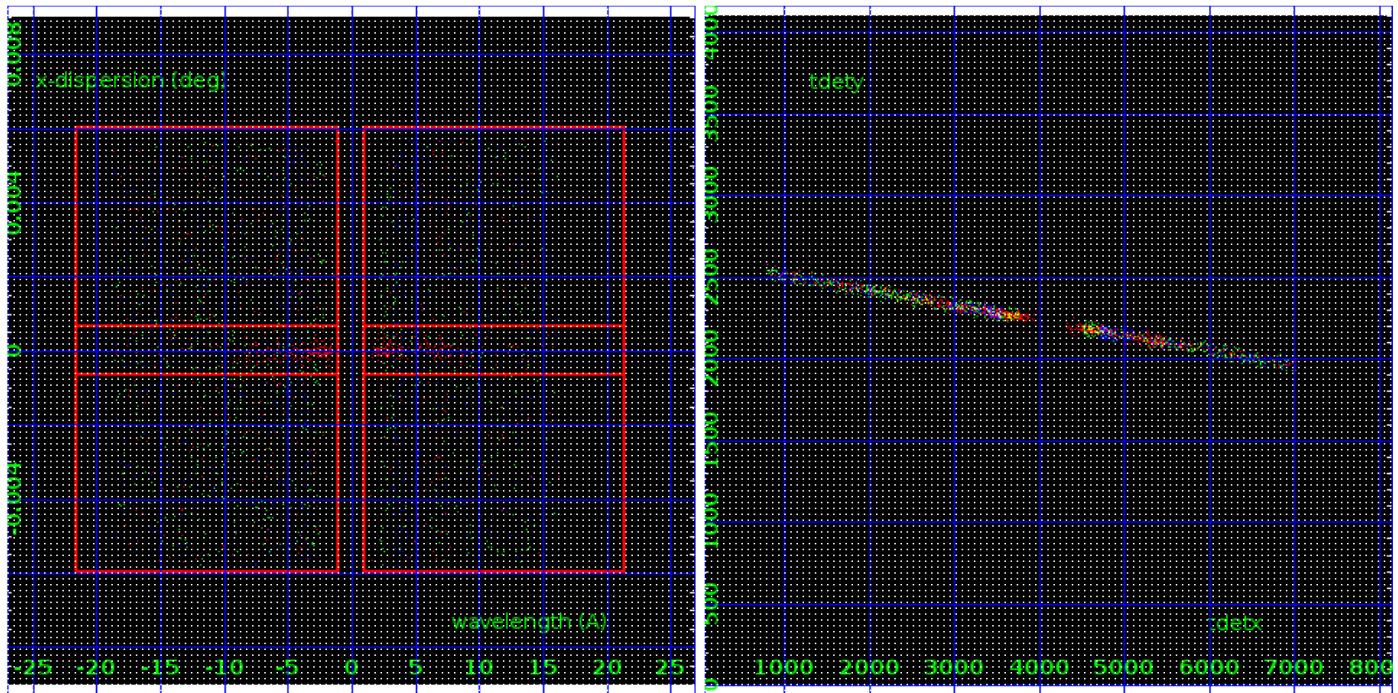
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

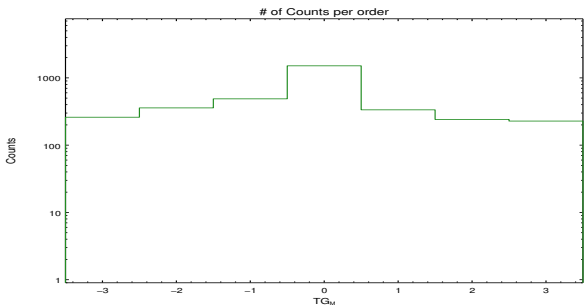
HEG Order Sort ALL

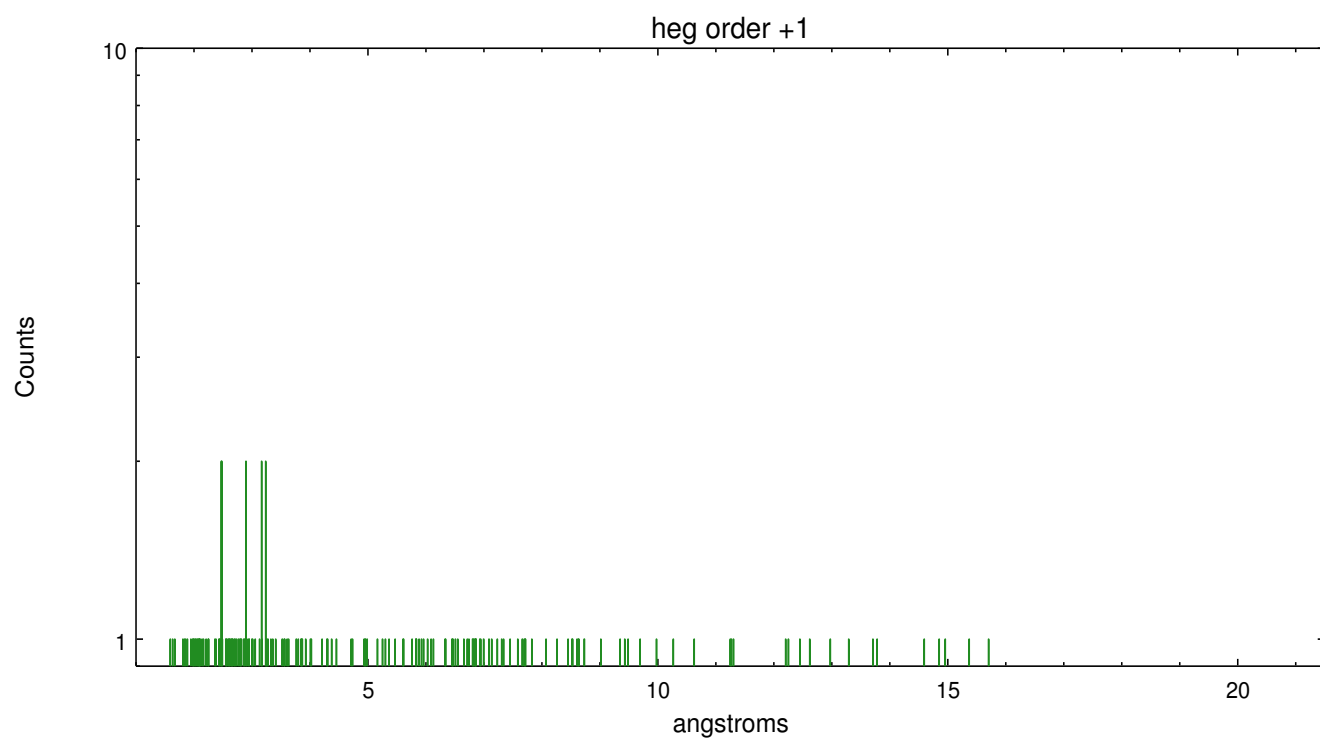
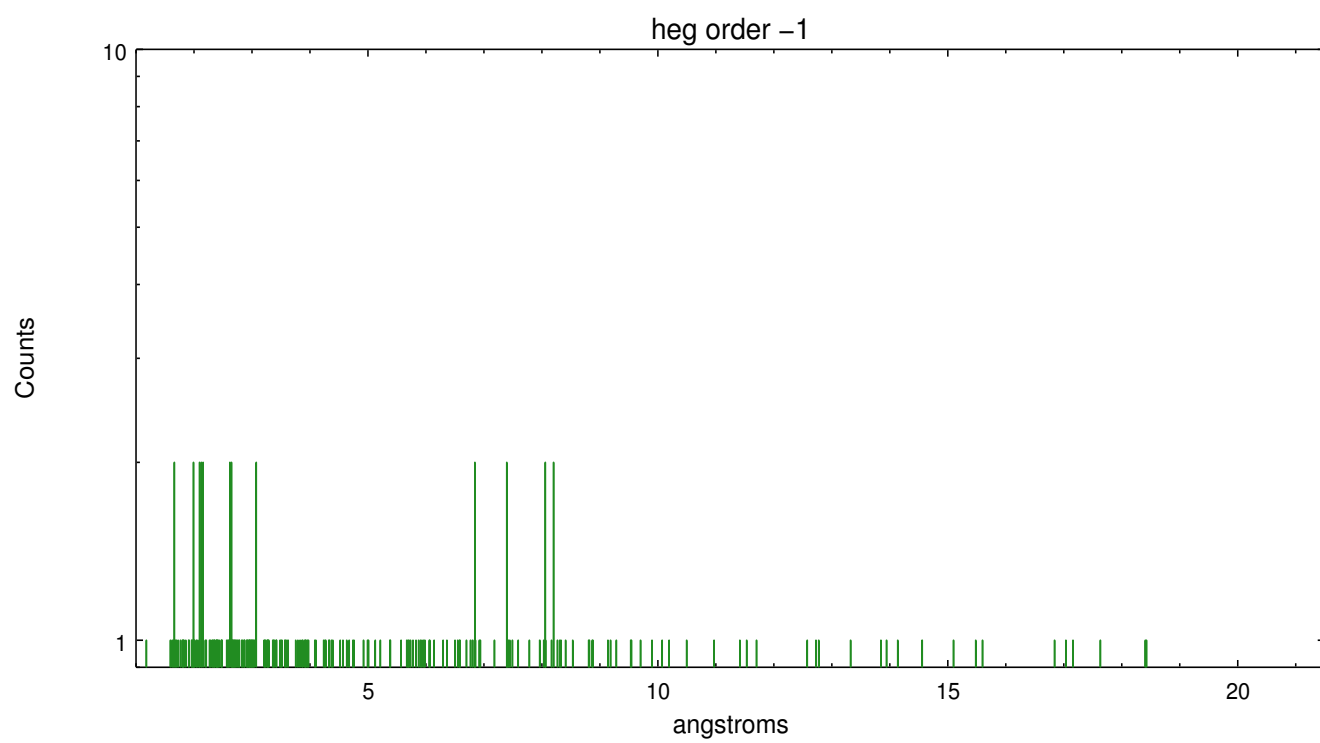


Spot Image HEG

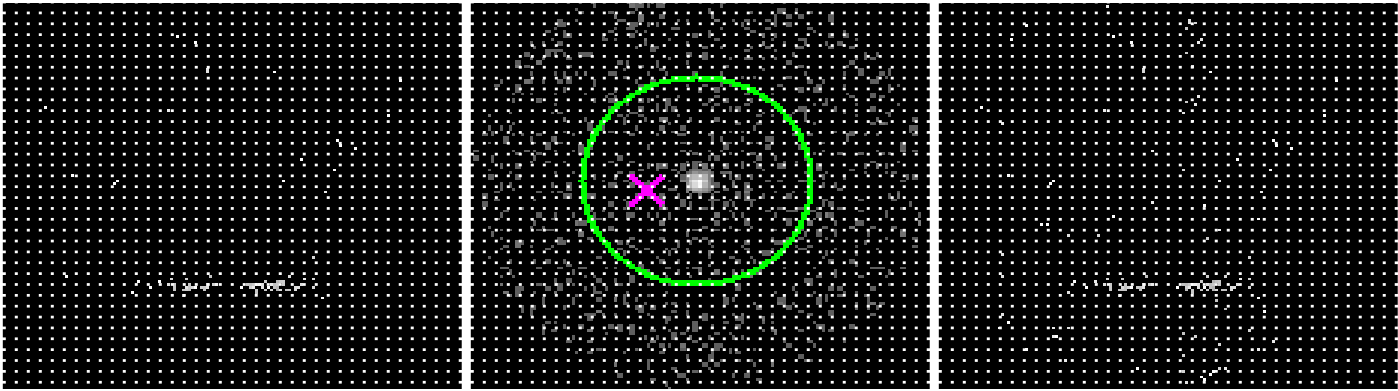
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	260	358	488	1511	335	241	228





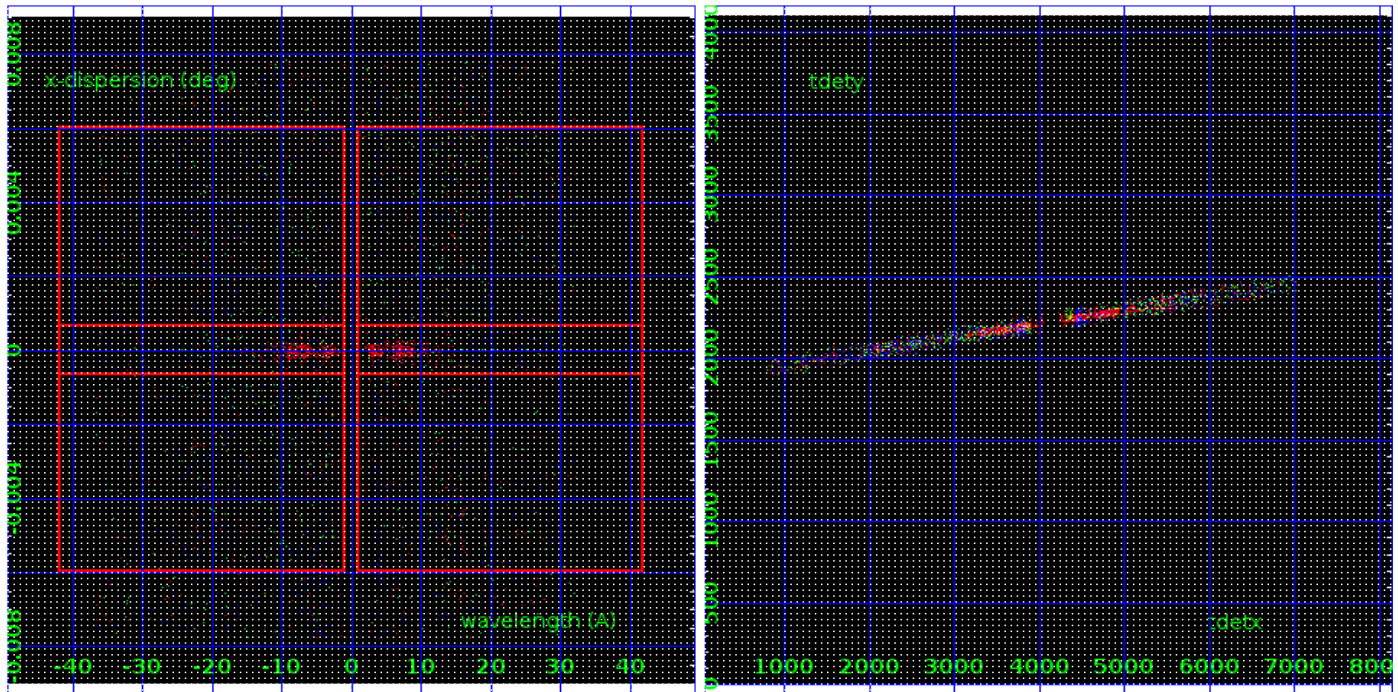
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

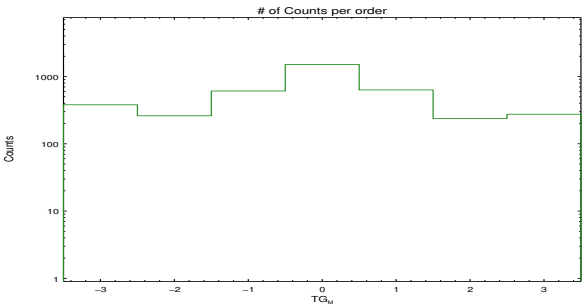
MEG Order Sort ALL

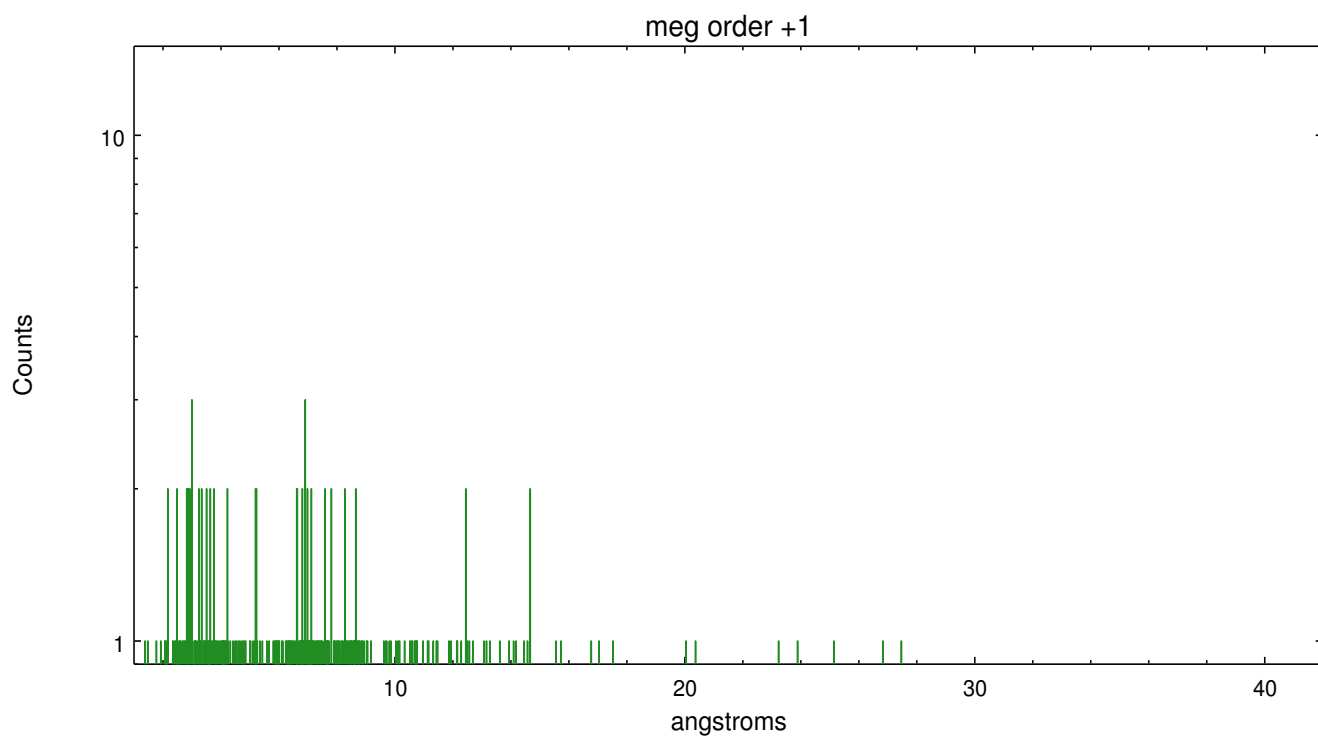
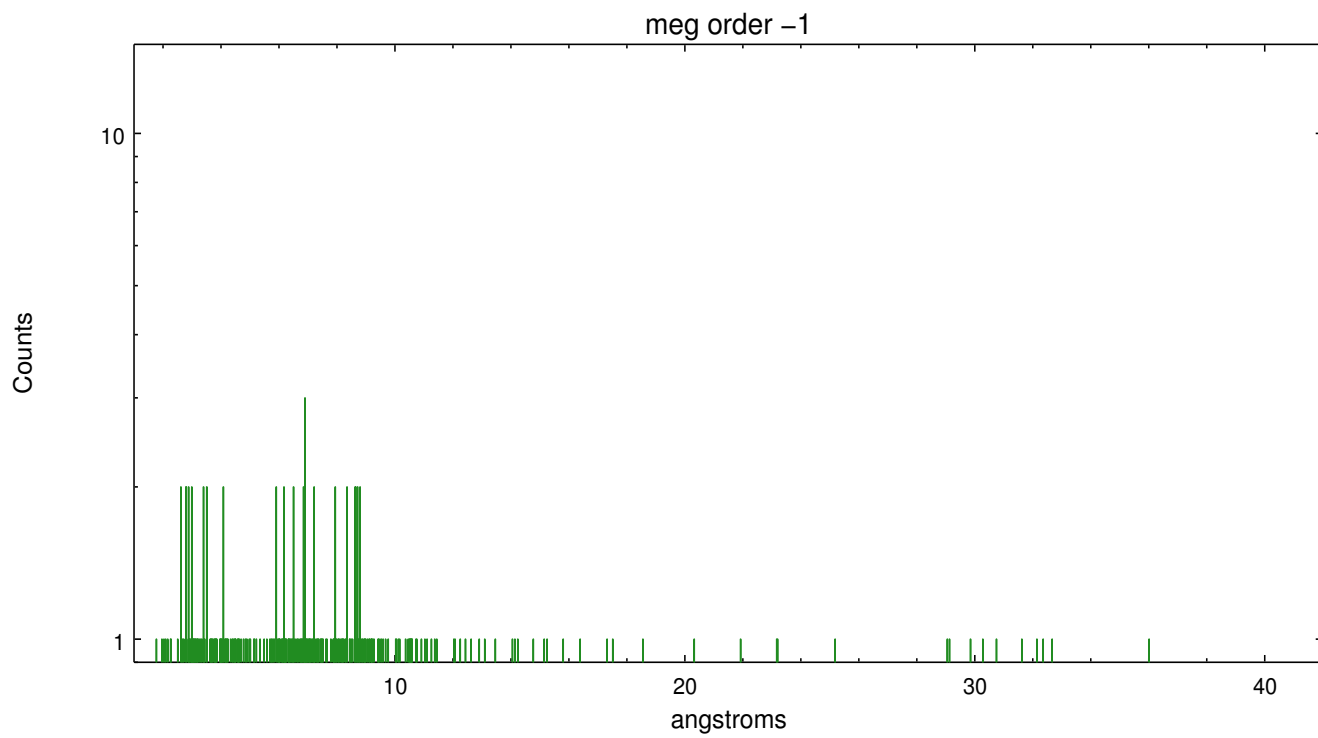


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	380	261	609	1511	632	237	275





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2020.07.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.079172510505

A.2 Comments