

V&V Reference Report

L2 ASCDS Version : 10.8.4

Observation 23302 - L2 Version 1
Chandra X-Ray Center

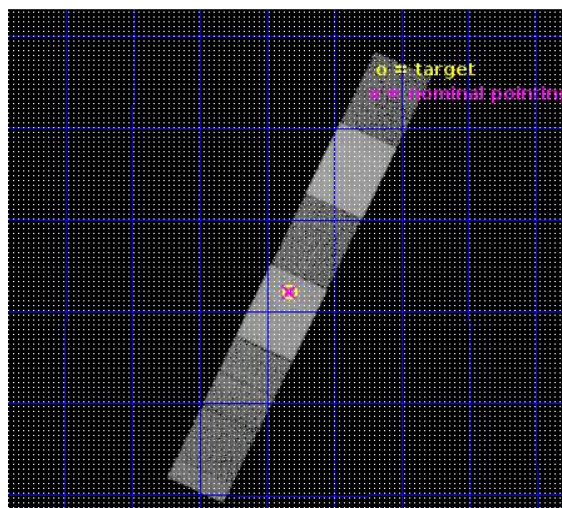
L2 Processing Date : Jul 5 2020

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1 Front

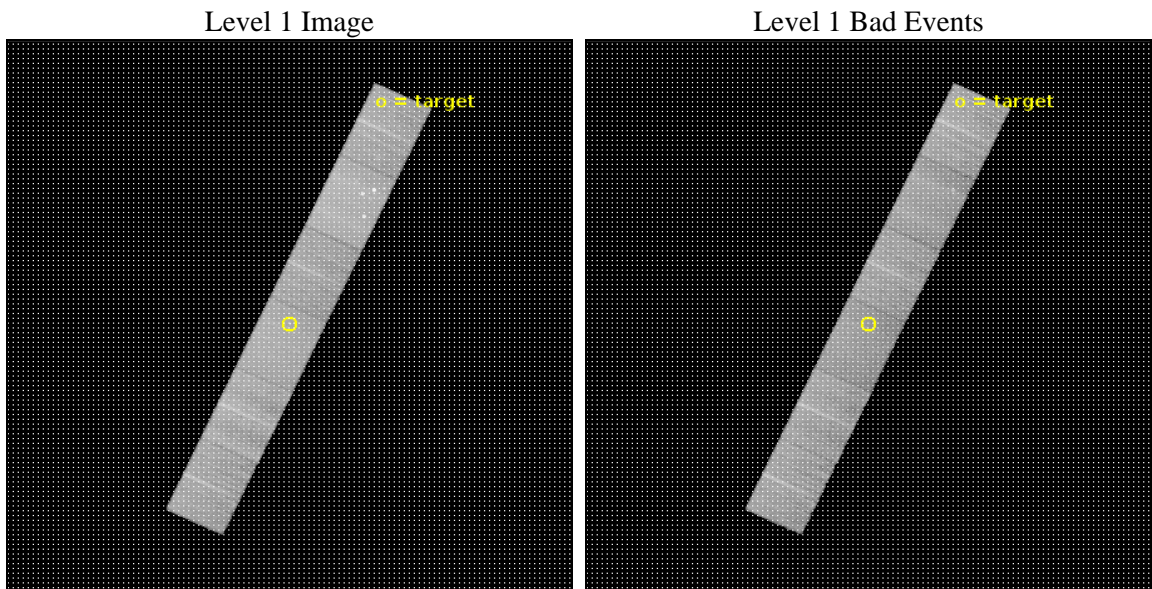
seq_num	704050	Sequence number
obs_id	23302	Observation id
title	INVESTIGATION ON MRK 335 IN AN INTERMEDIATE STATE	Proposal title
observer	Dr. Claude Canizares	Principal investigator
object	Mrk 335	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	1.581417	Observer's specified target RA [deg]
dec_targ	20.20295	Observer's specified target Dec [deg]
ra_nom	1.58313959551	Nominal RA [deg]
dec_nom	20.2029179883	Nominal Dec [deg]
roll_nom	115.158881246	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20077.5	Sum of GTIs [s]
livetime	19753.230960551	Livetime [s]
ontime4	20077.5	Sum of GTIs [s]
ontime5	20077.5	Sum of GTIs [s]
ontime6	20077.5	Sum of GTIs [s]
ontime7	20077.5	Sum of GTIs [s]
ontime8	20077.5	Sum of GTIs [s]
ontime9	20077.5	Sum of GTIs [s]
l2events	204470	Number of level 2 events



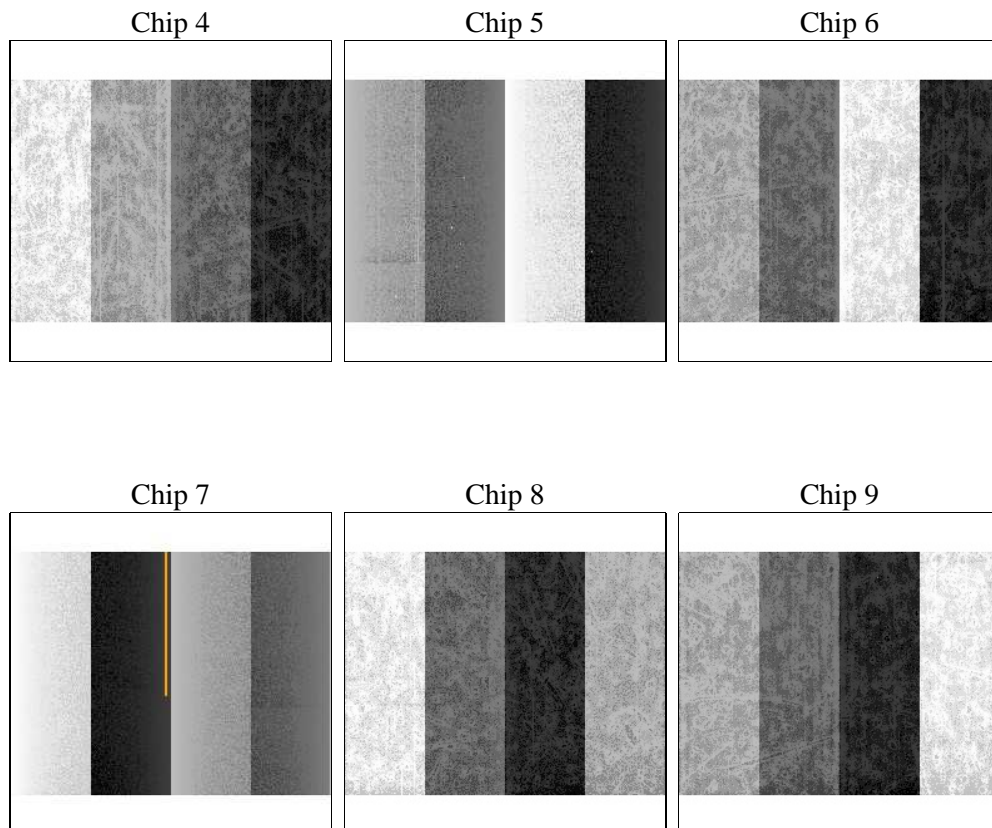
2 OBI

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	10.8.4	Processing system revision	ontime	20077.5	Sum of GTIs [s]
caldsver	4.9.1	 	ontime4	20077.5	Sum of GTIs [s]
date	2020-07-05T15:49:32	Date and time of file creation	ontime5	20077.5	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	20077.5	Sum of GTIs [s]
			ontime7	20077.5	Sum of GTIs [s]
			ontime8	20077.5	Sum of GTIs [s]
			ontime9	20077.5	Sum of GTIs [s]
			l1events	926696	Number of level 1 events
			tgmetho	TGDETECT	Method used to create src1a file
				41108.00	

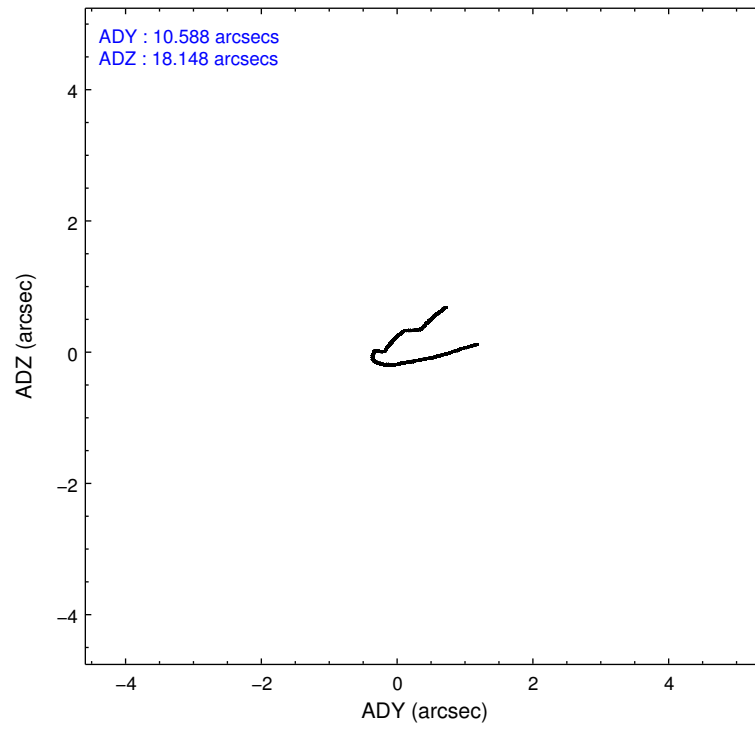
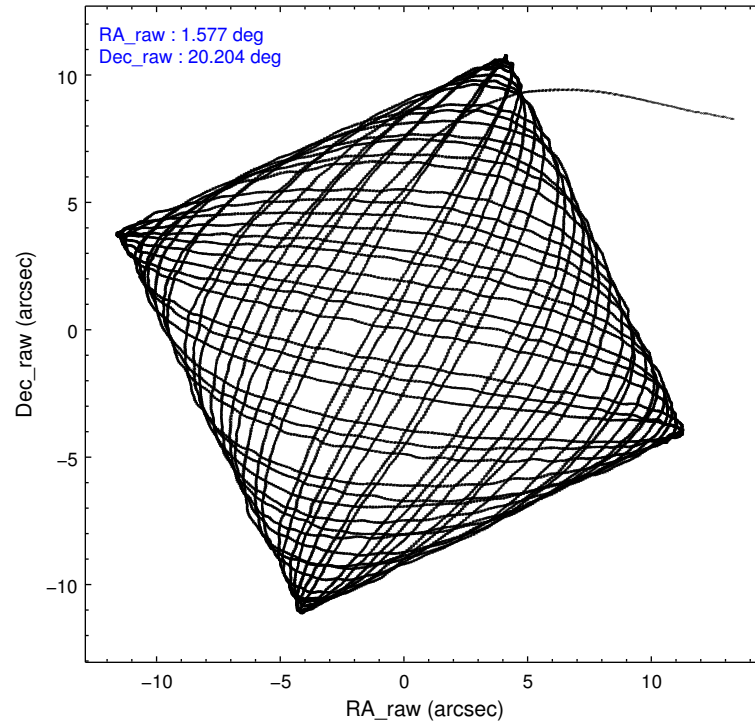
2.1.4 Events

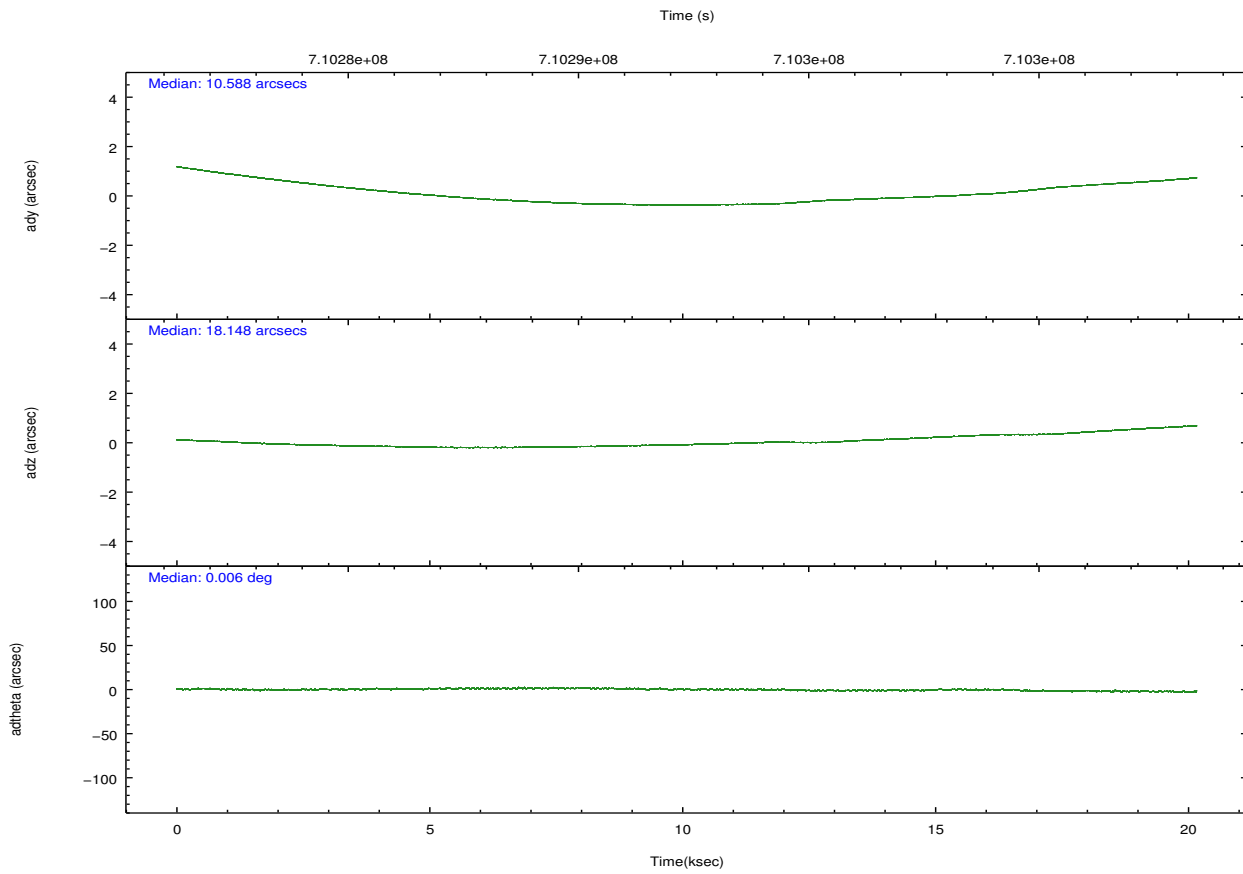
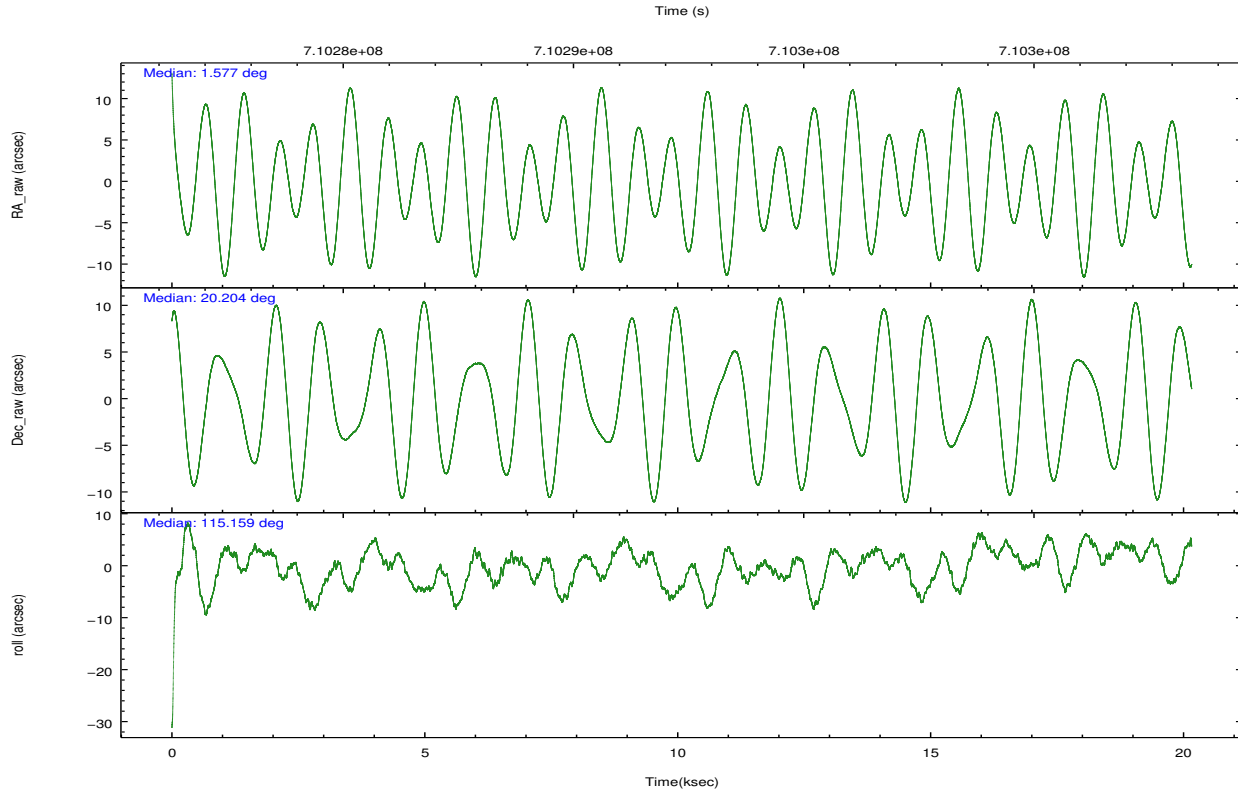
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	146929	204571	129197	157529	158524	129946	grade 0 events	5042	12970	4014	5919	10936	4570
rejected events	132726	103723	115289	89015	117997	115466		3%	6%	3%	3%	6%	3%
rejected %	90%	50%	89%	56%	74%	88%	grade 1 events	121	984	54	238	96	55
								0%	0%	0%	0%	0%	0%
							grade 2 events	3391	31011	3760	14577	10157	3586
								2%	15%	2%	9%	6%	2%
							grade 3 events	1637	2995	1230	5625	3907	1504
								1%	1%	0%	3%	2%	1%
							grade 4 events	1573	2725	1253	5488	3779	1371
								1%	1%	0%	3%	2%	1%
							grade 5 events	5738	12338	5081	14949	8102	5871
								3%	6%	3%	9%	5%	4%
							grade 6 events	2561	51173	3652	36921	11753	3452
								1%	25%	2%	23%	7%	2%
							grade 7 events	126866	90375	110153	73812	109794	109537
								86%	44%	85%	46%	69%	84%

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	1.600670	1.58313959551	CCD I2 on	N	N
[deg] Pointing Dec	20.188167	20.2029179883	CCD I3 on	N	N
[deg] Pointing Roll	114.993353	115.158881246	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	710282445.184000	710281386.85226	CCD S5 on	O2	Y
Observation start date	2020-07-04T20:39:36	2020-07-04T20:23:06	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	710302445.184000	710303261.3786	On-chip summing requested	N	N
Observation end date	2020-07-05T02:12:56	2020-07-05T02:27:41	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



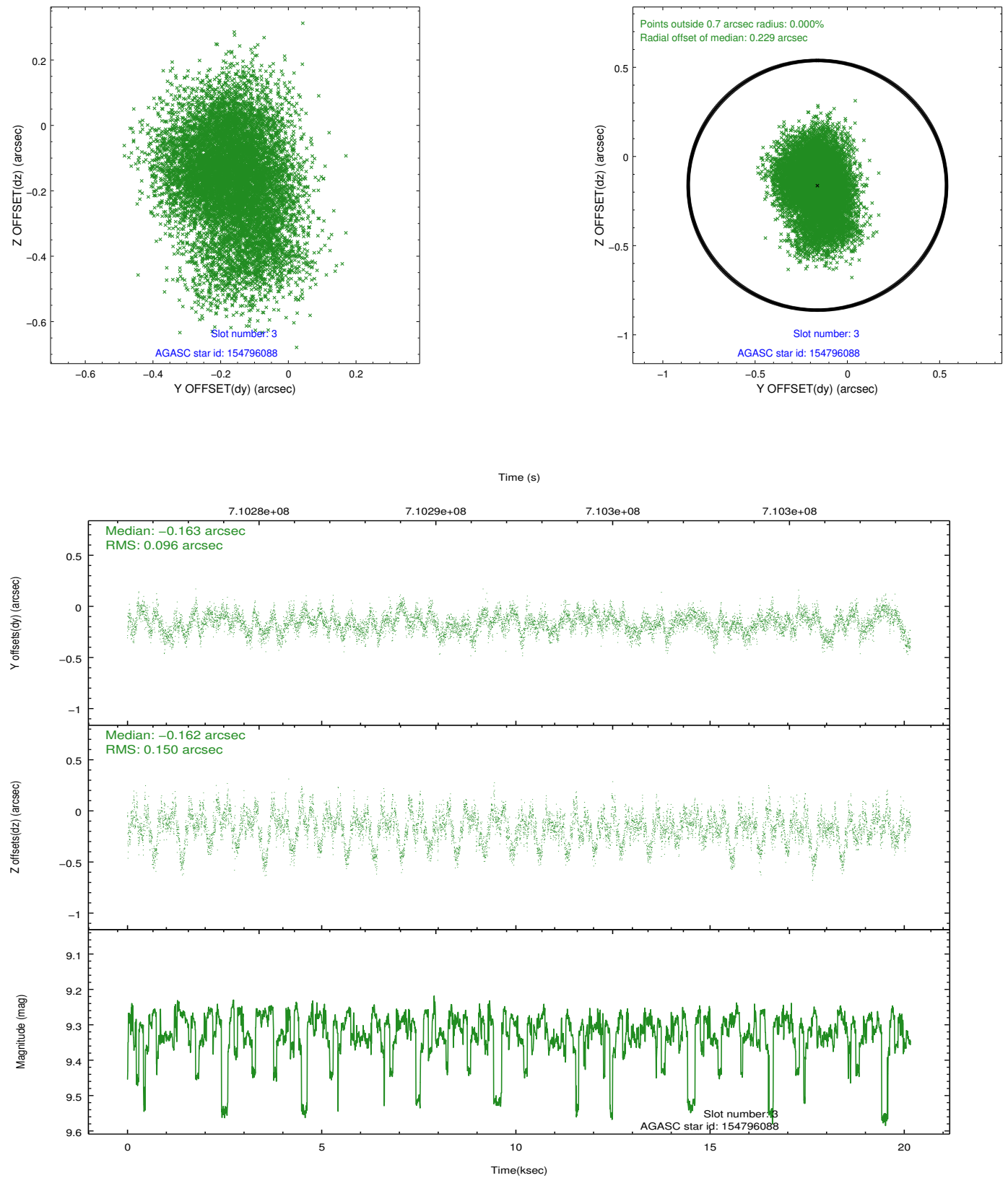


Slot Statistics

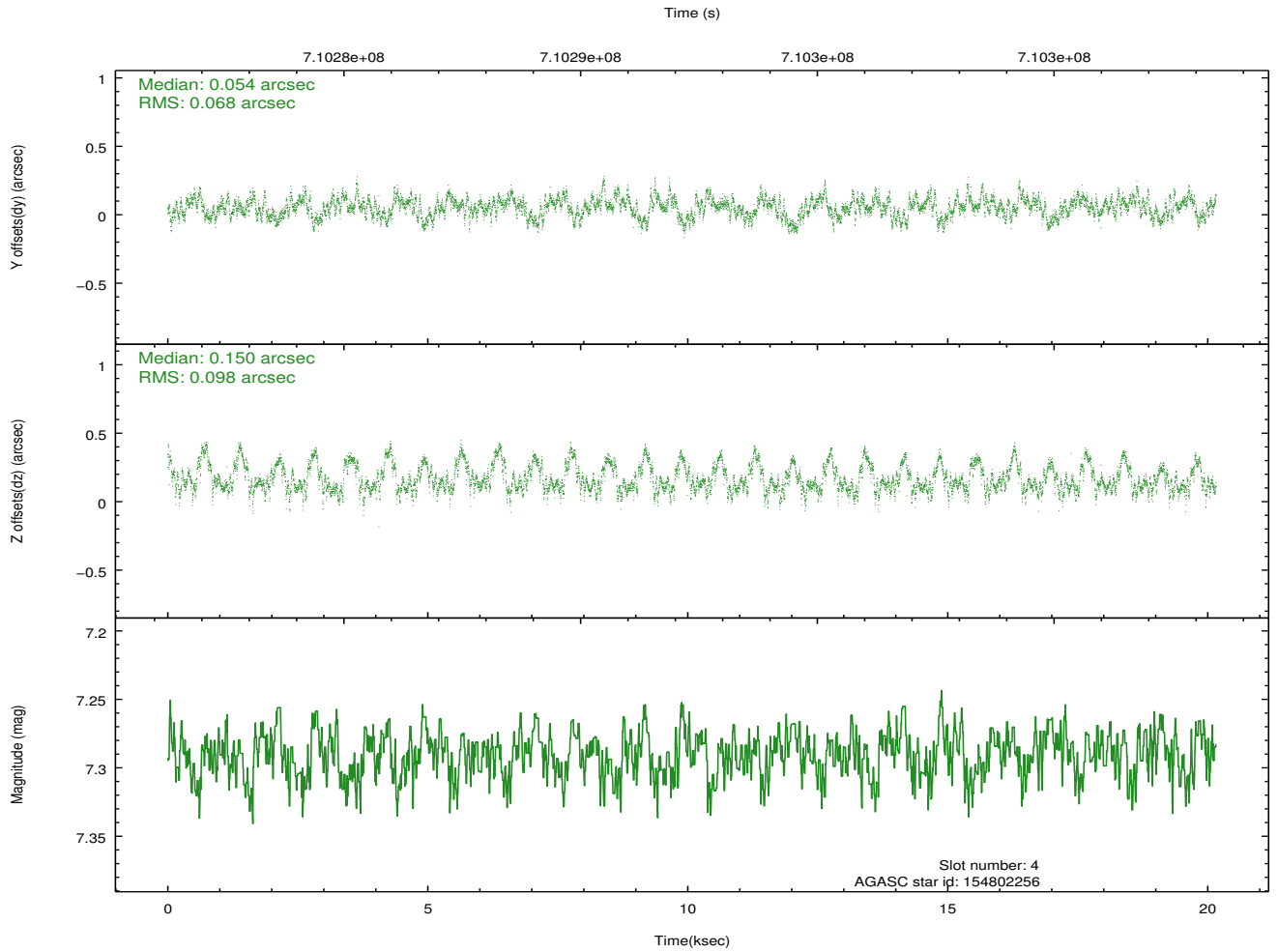
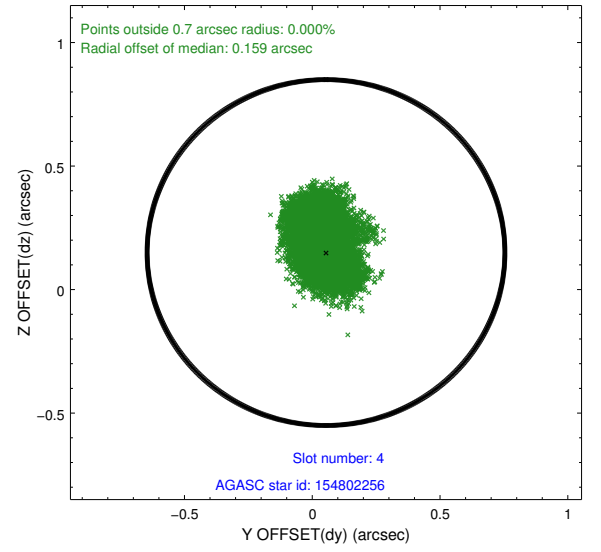
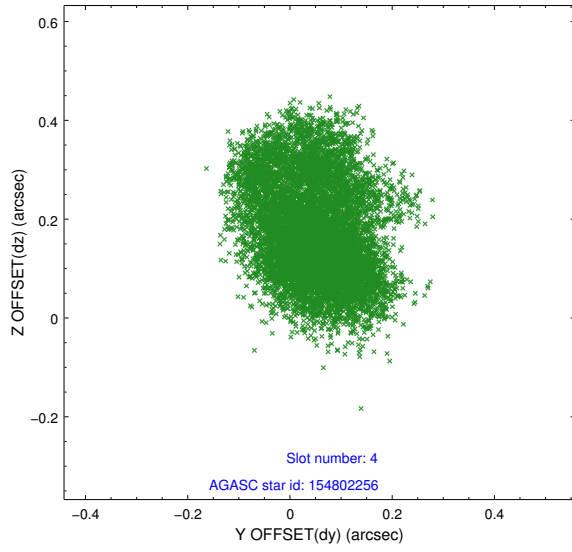
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	4917	1.000	0.166	-0.114	0.015	0.032	0.000000	0.000000	-763.71	-1739
1	FID		ACIS-S-4	7.24	4916	1.000	0.137	-0.049	0.012	0.024	0.000000	0.000000	2149.80	168
2	FID		ACIS-S-5	7.23	4918	1.000	-0.333	0.172	0.010	0.020	0.000000	0.000000	-1816.47	163
3	GUIDE	used	154796088	9.32	9818	1.000	-0.163	-0.162	0.188	0.316	1.327954	19.982770	-279.72	1148
4	GUIDE	used	154802256	7.29	9836	1.000	0.054	0.150	0.127	0.213	2.267963	19.924686	-1809.06	-1647
5	GUIDE	used	155193224	9.06	9825	1.000	0.254	0.208	0.155	0.249	2.130274	20.267286	-495.06	-1741
6	GUIDE	used	155194232	8.09	9831	1.000	-0.060	-0.092	0.116	0.181	1.710987	20.559760	1056.05	-902
7	GUIDE	used	155196784	7.52	9830	1.000	-0.069	-0.120	0.101	0.165	1.810289	20.555714	901.62	-1199

2.4 Star Slots

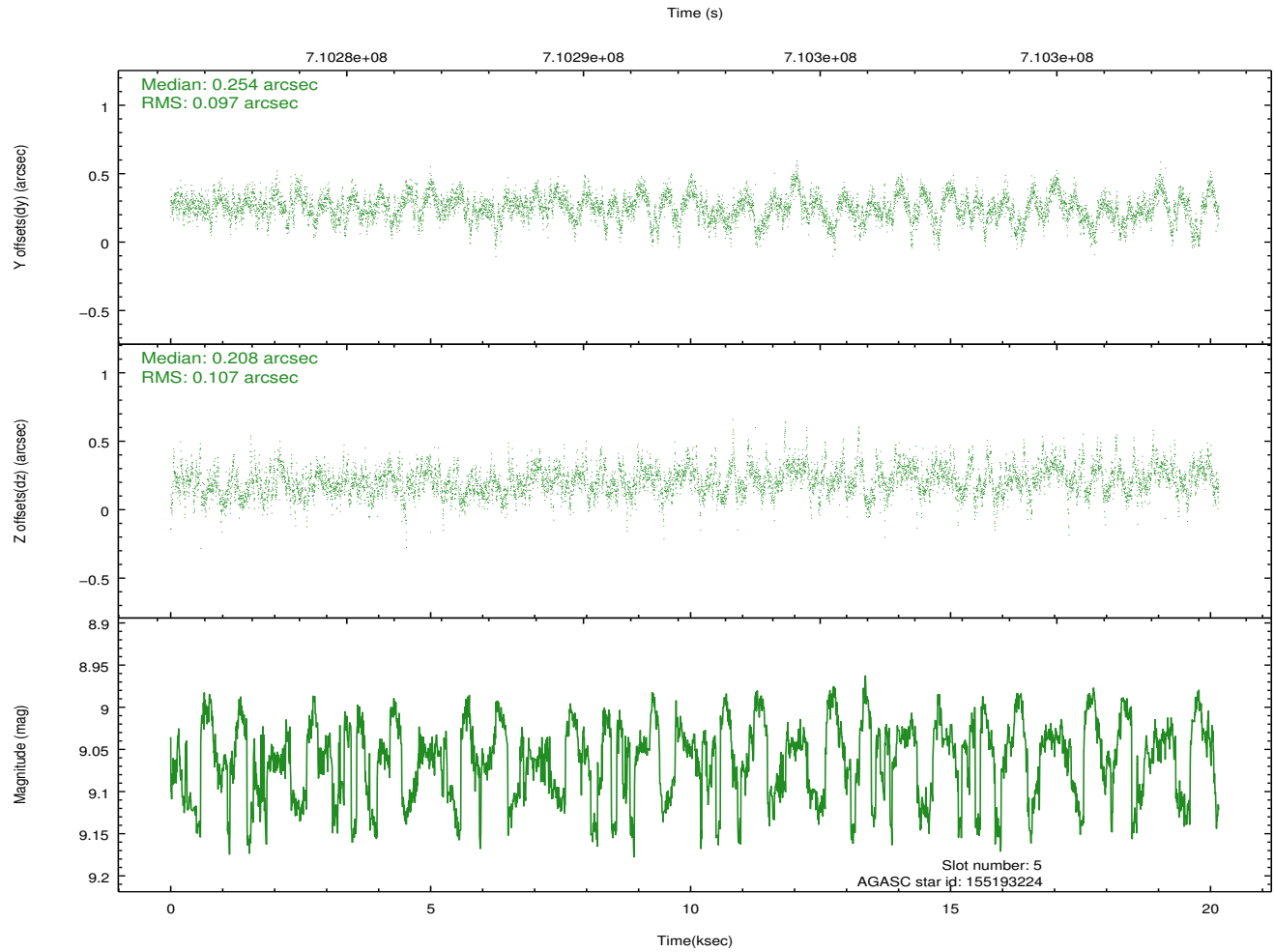
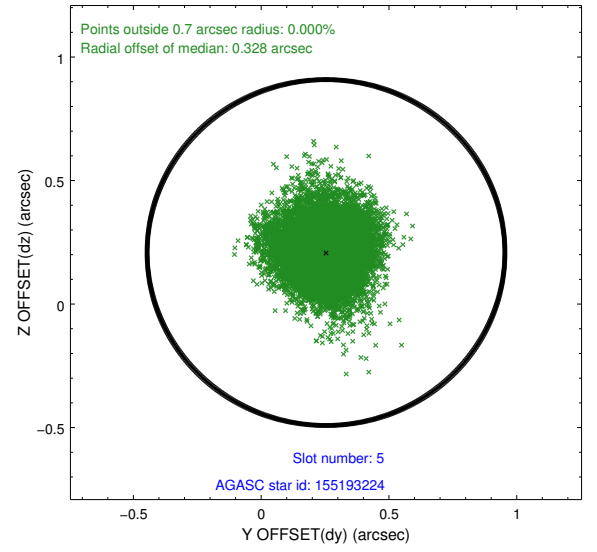
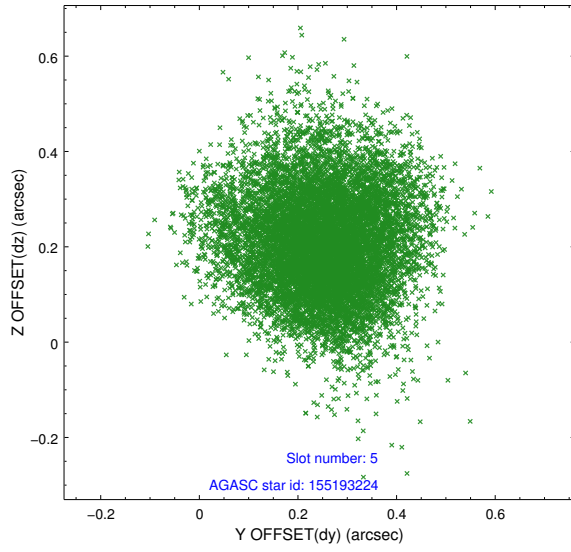
2.4.1 Slot 3



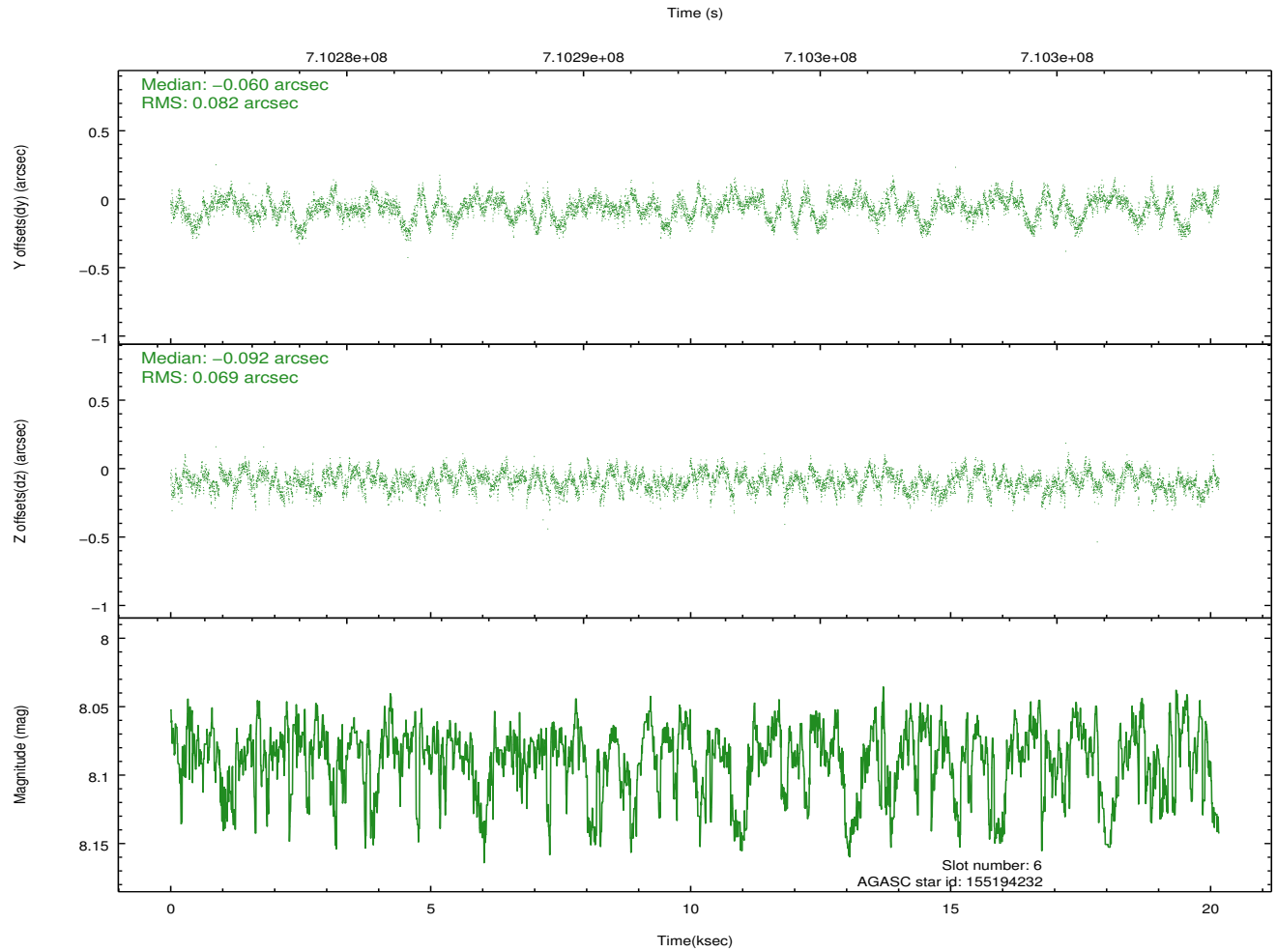
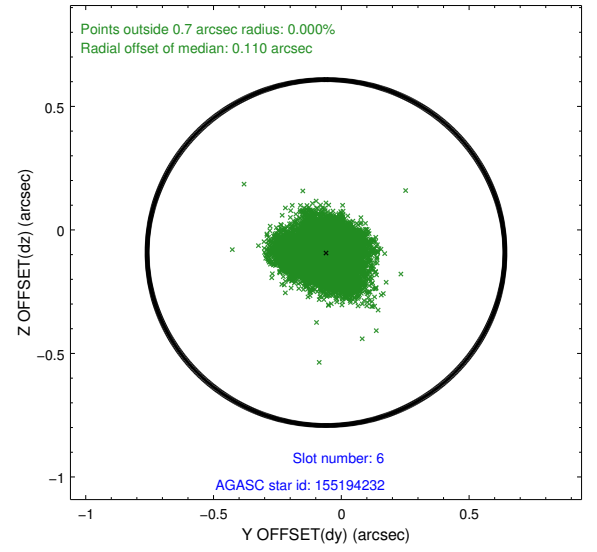
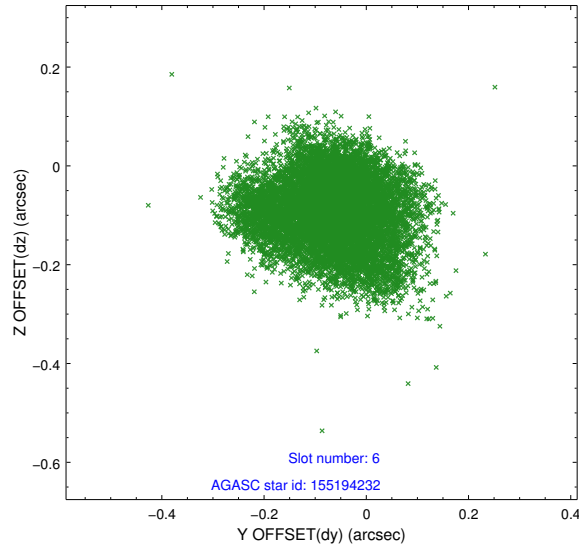
2.4.2 Slot 4



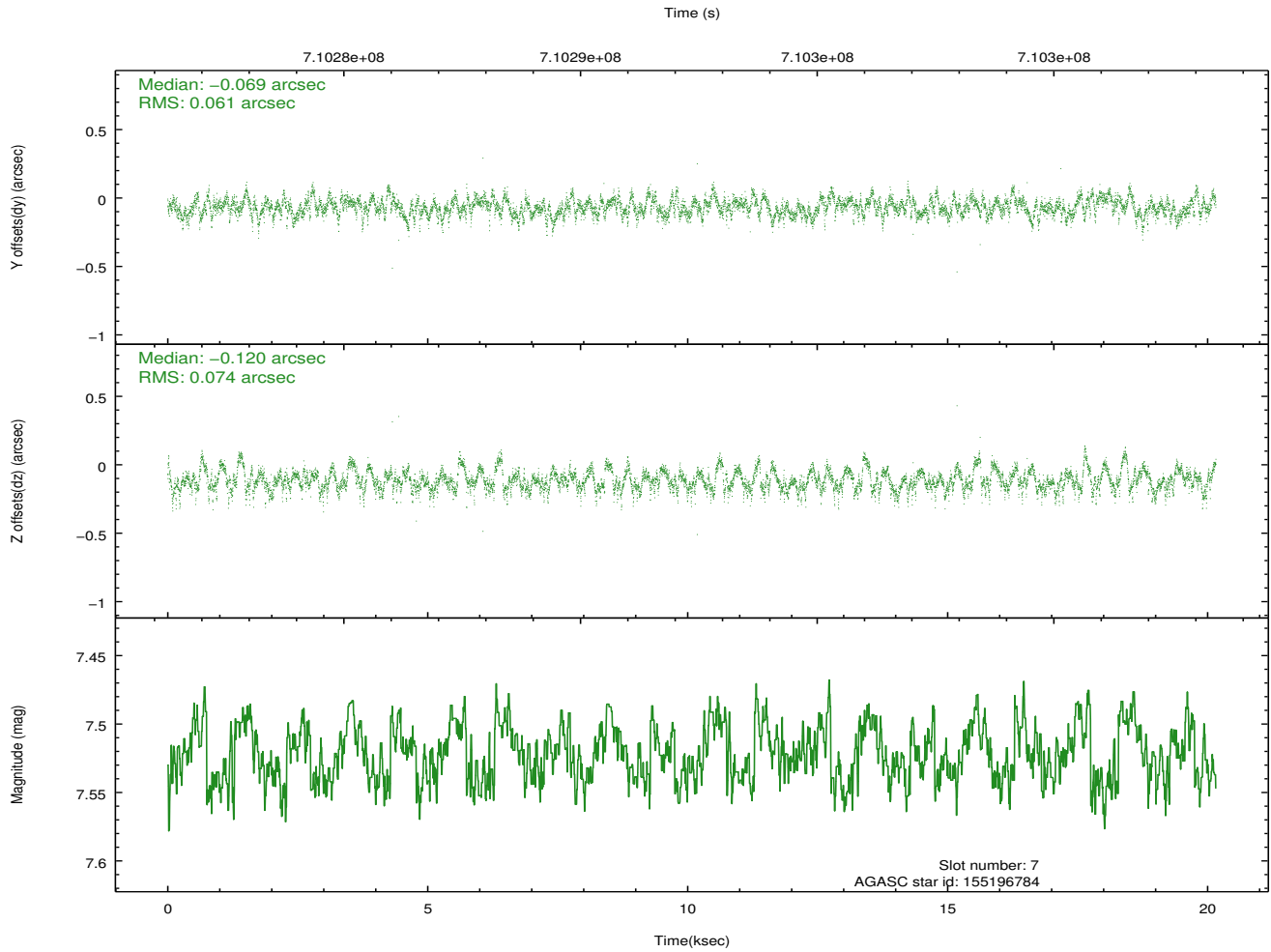
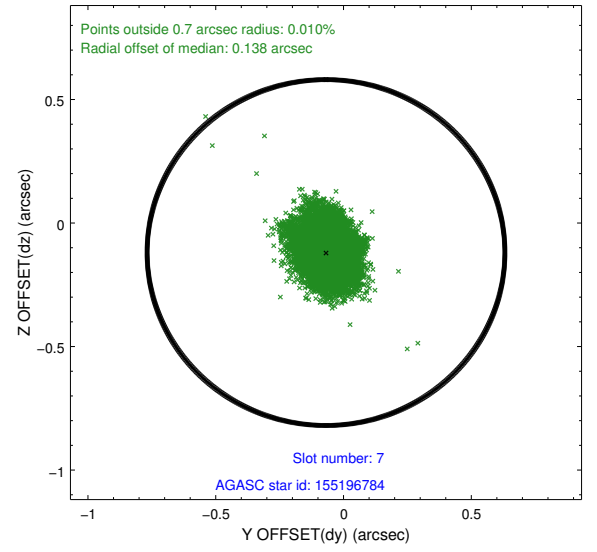
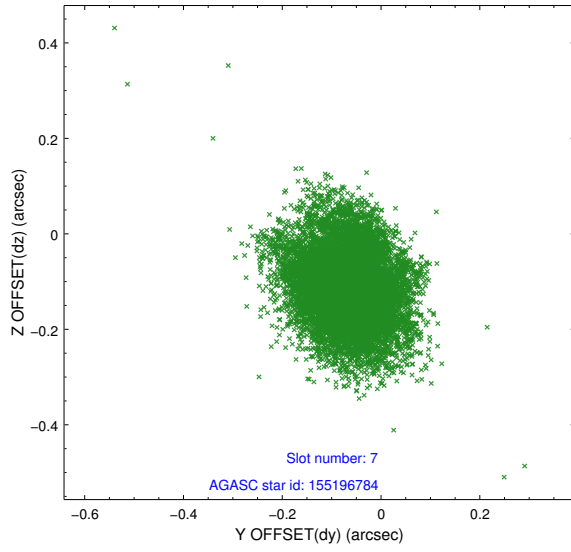
2.4.3 Slot 5



2.4.4 Slot 6

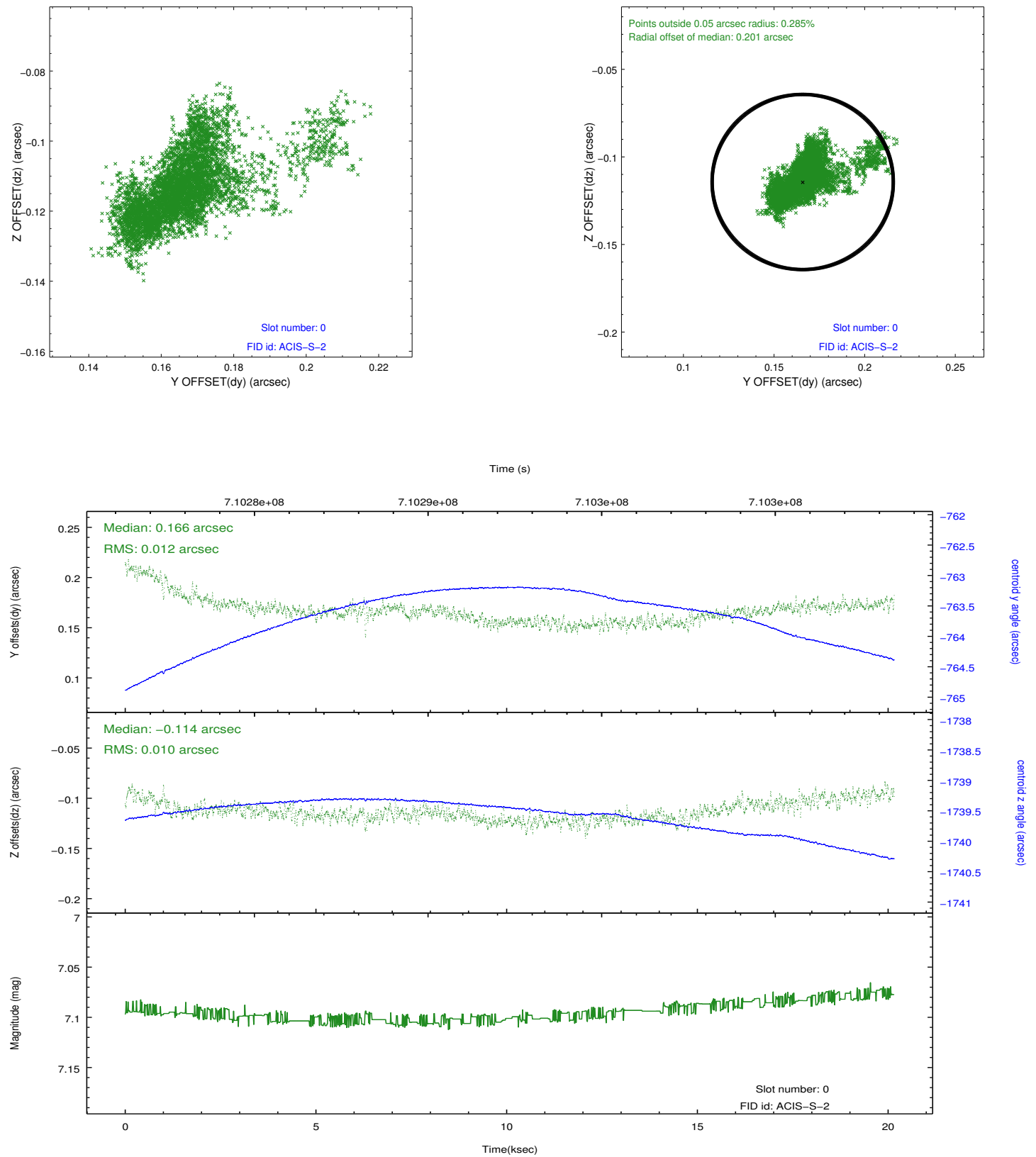


2.4.5 Slot 7

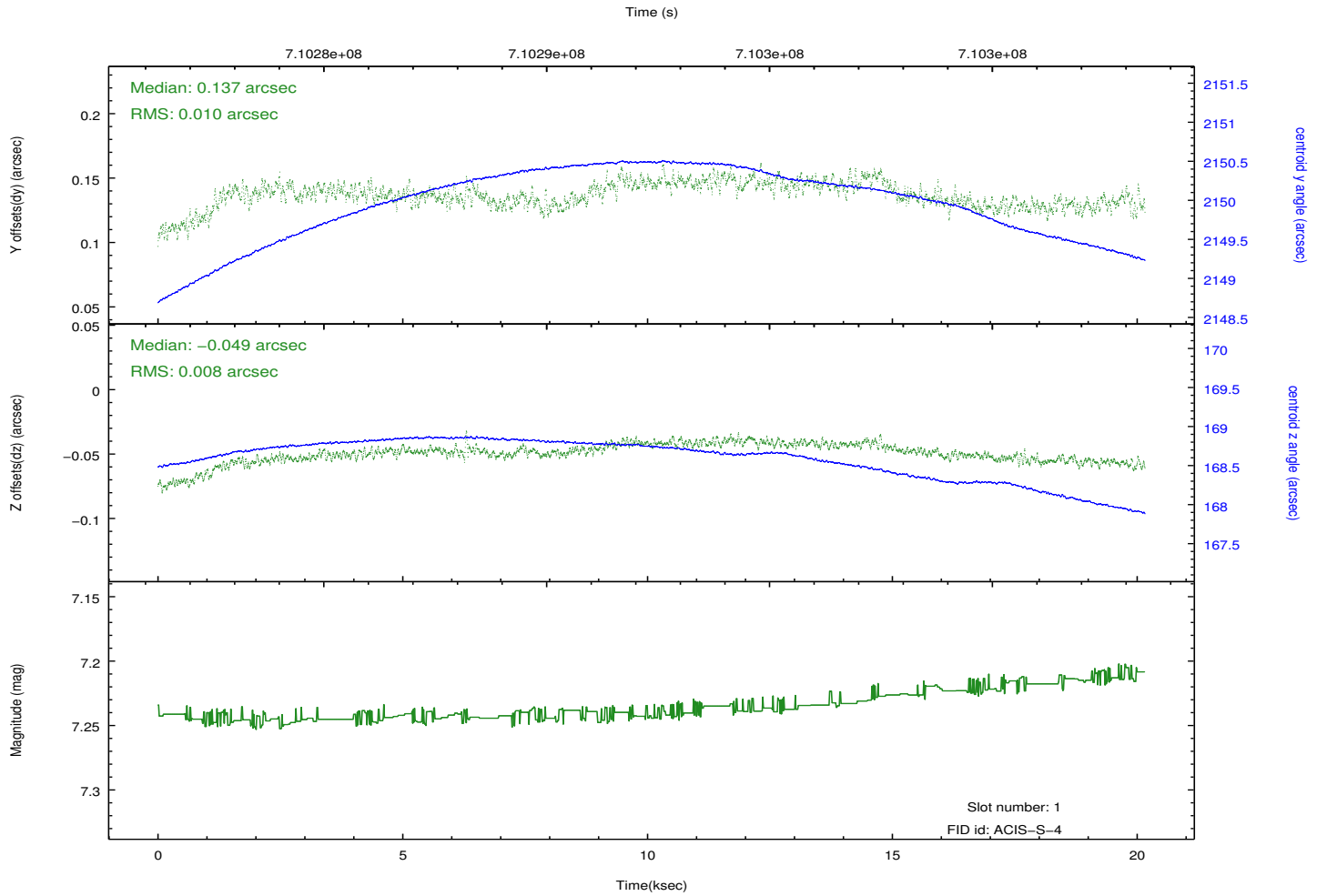
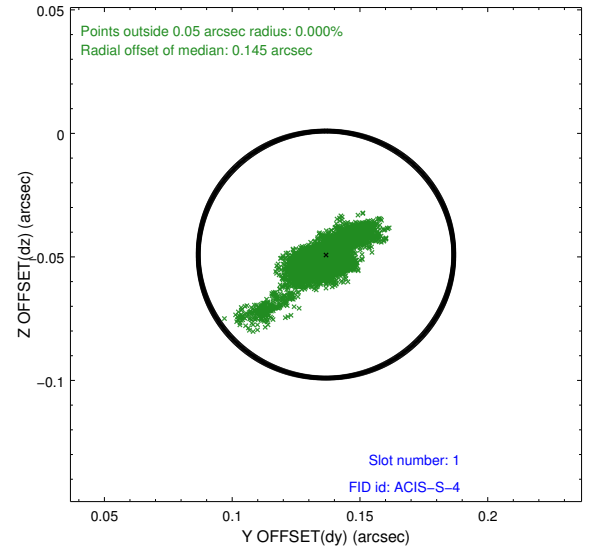
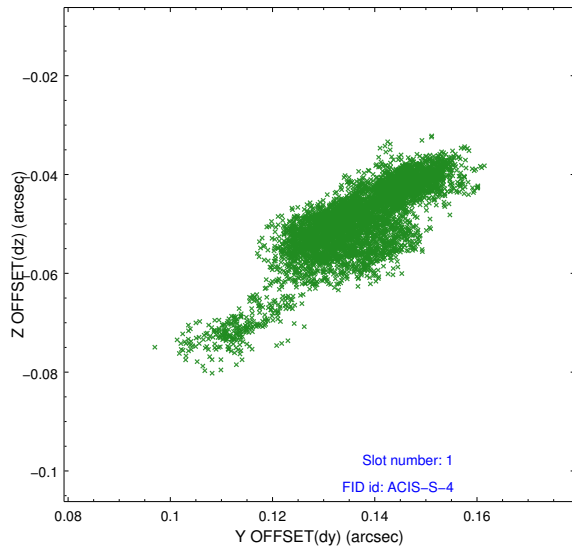


2.5 FID Slots

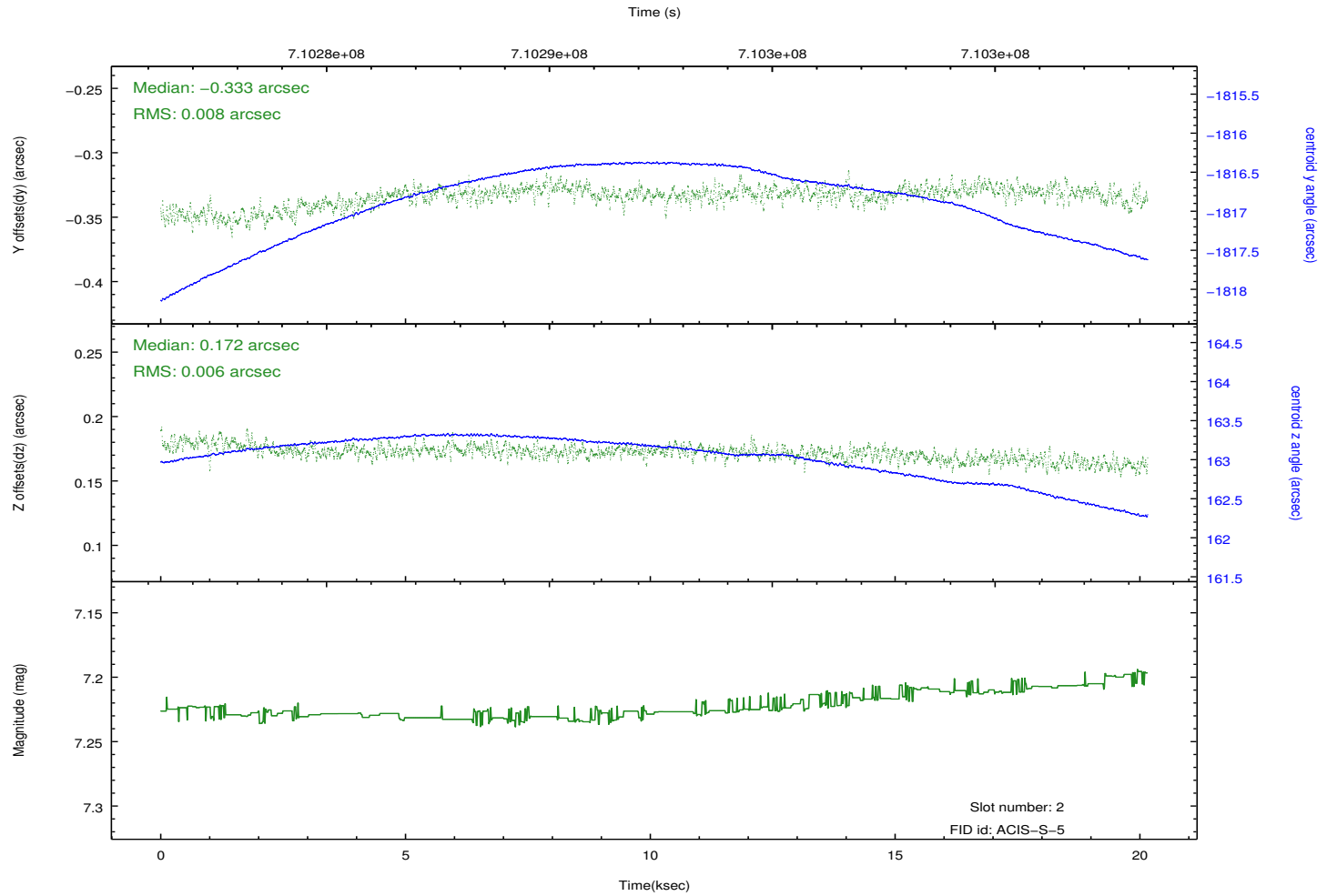
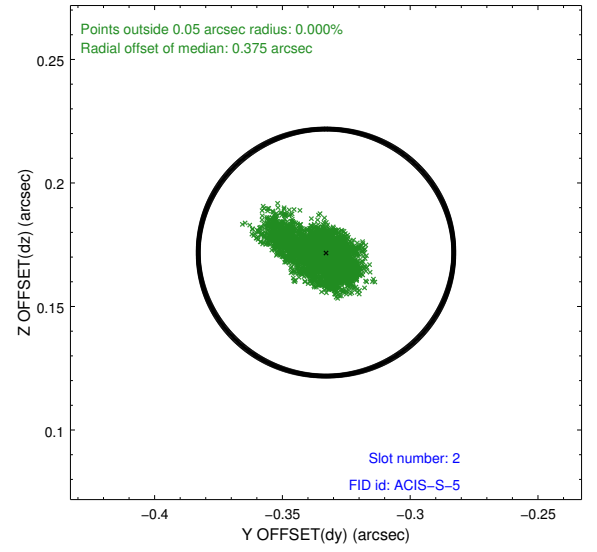
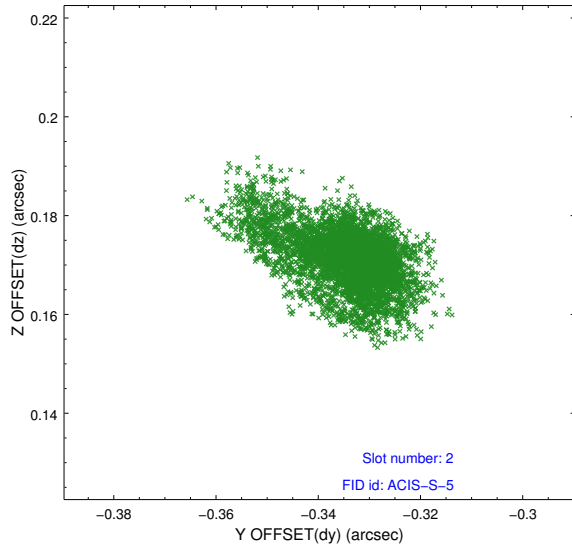
2.5.1 Slot 0



2.5.2 Slot 1

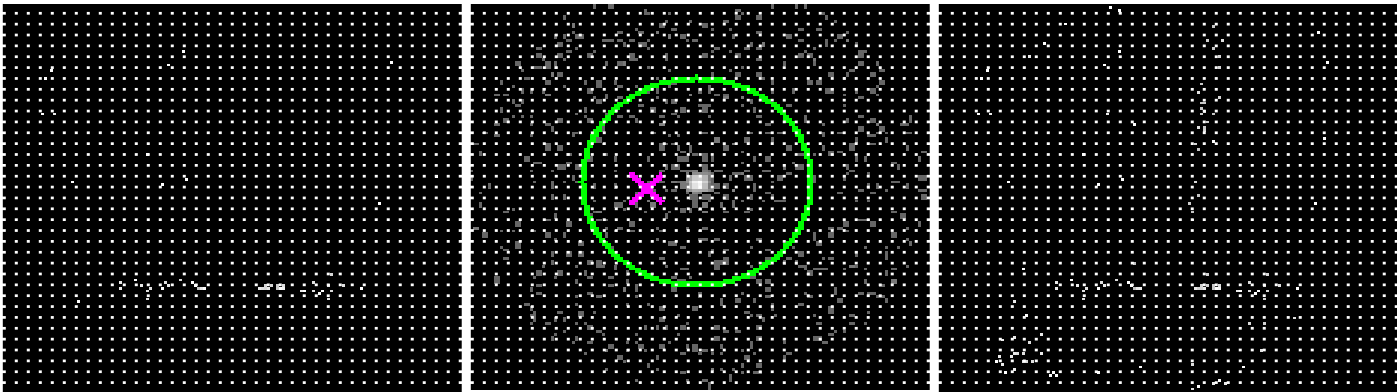


2.5.3 Slot 2



3 Gratings

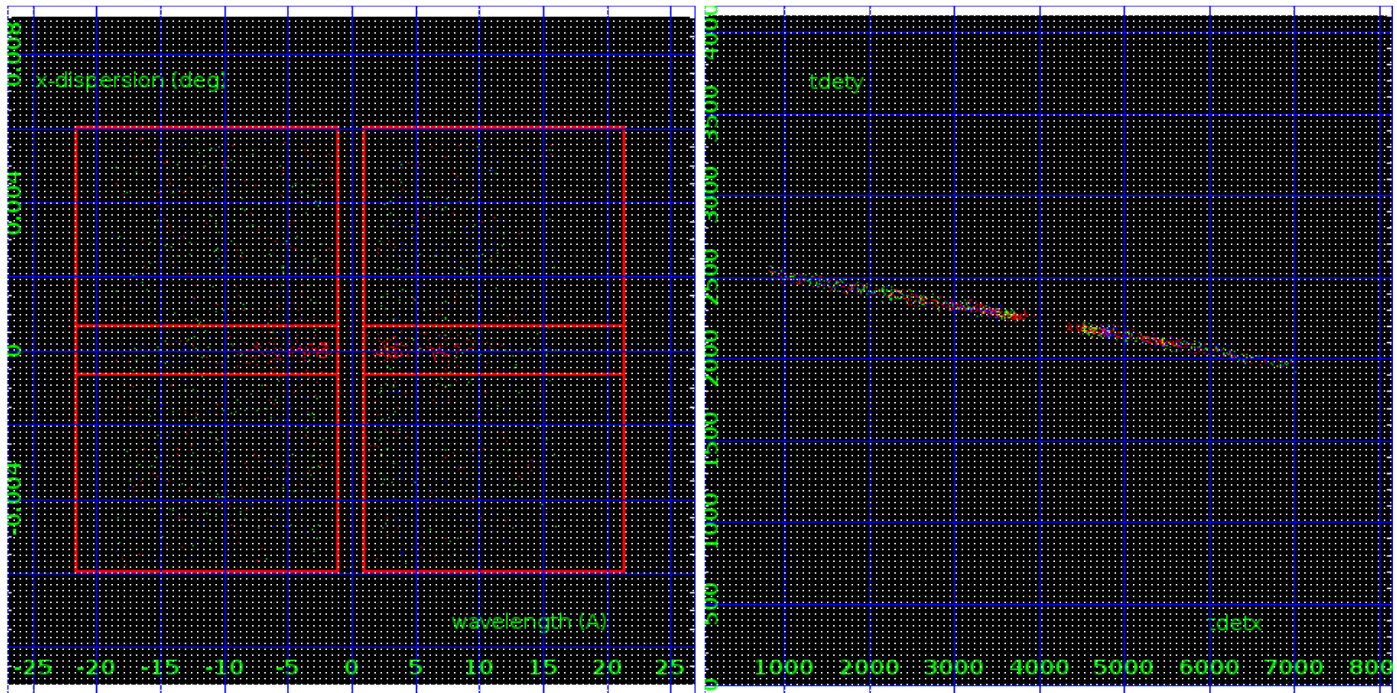
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

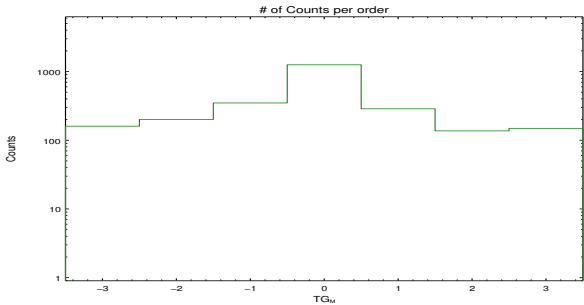
HEG Order Sort ALL

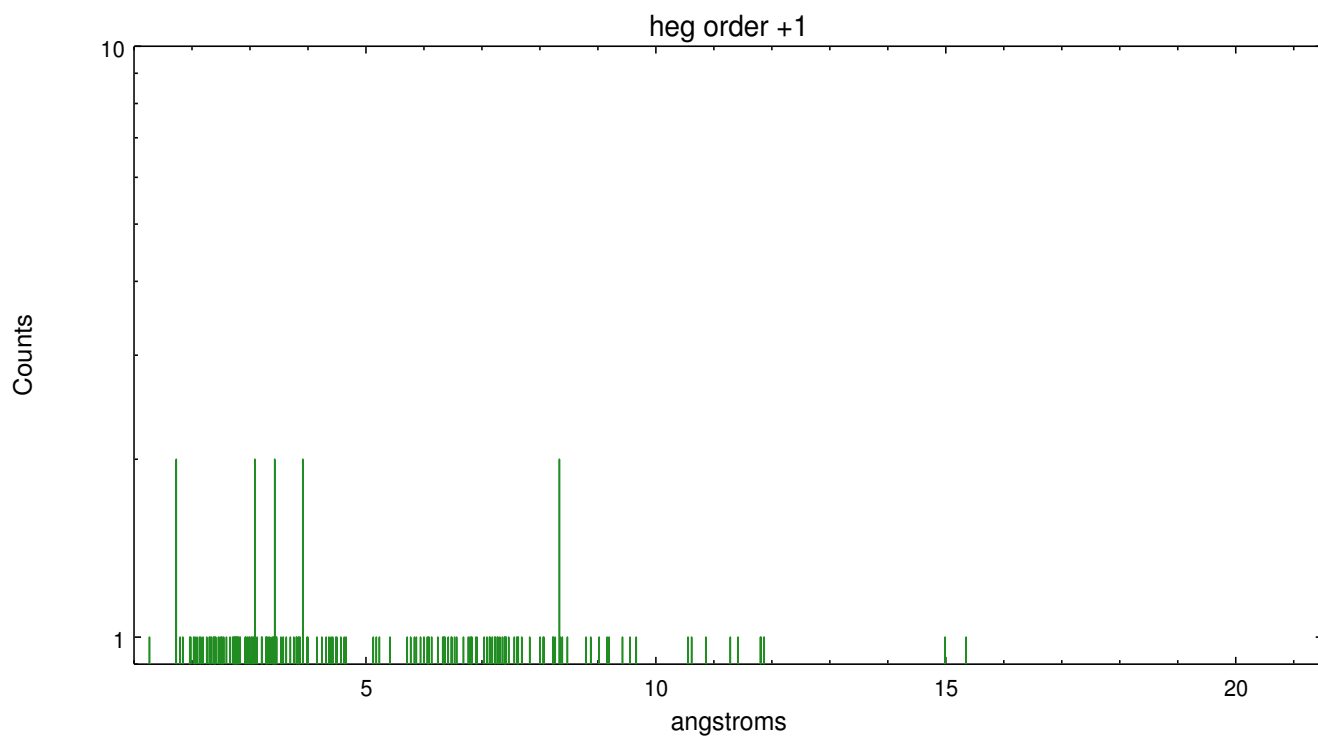
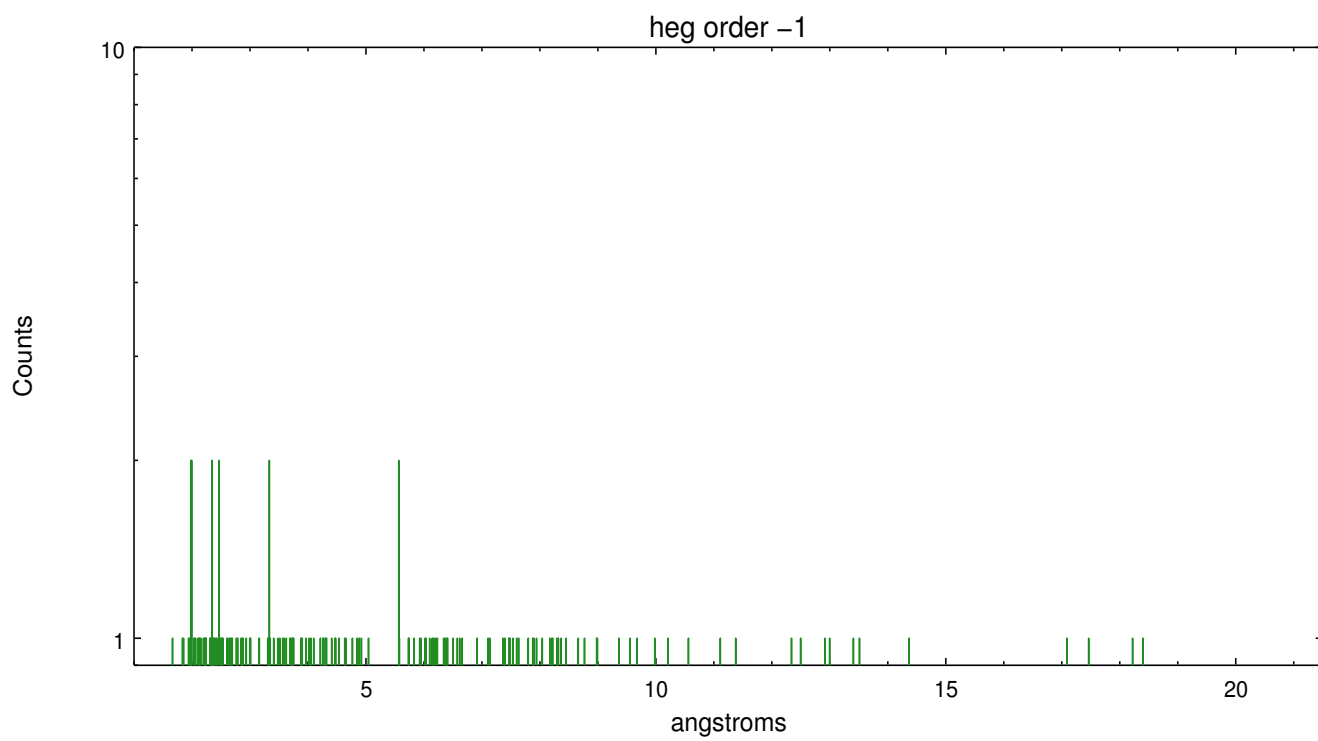


Spot Image HEG

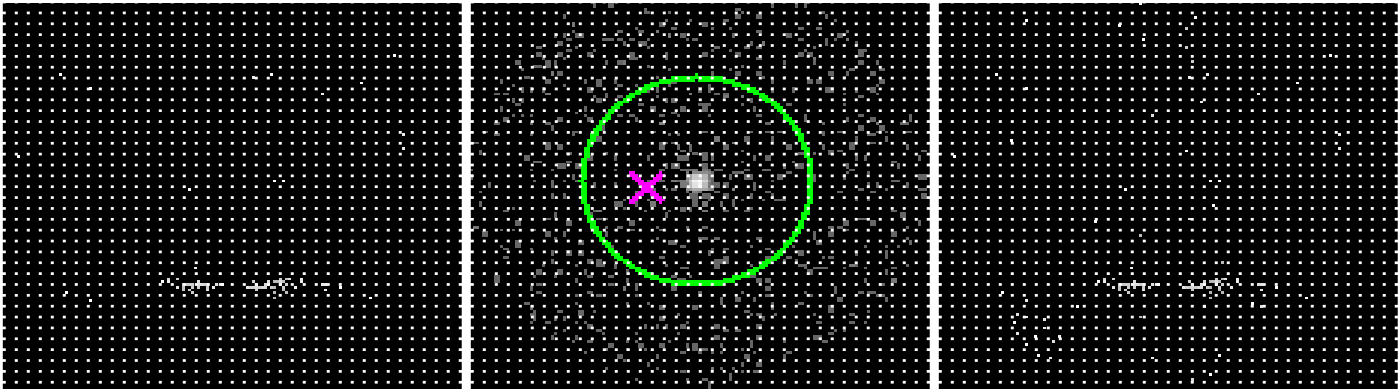
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	160	201	349	1254	287	137	149





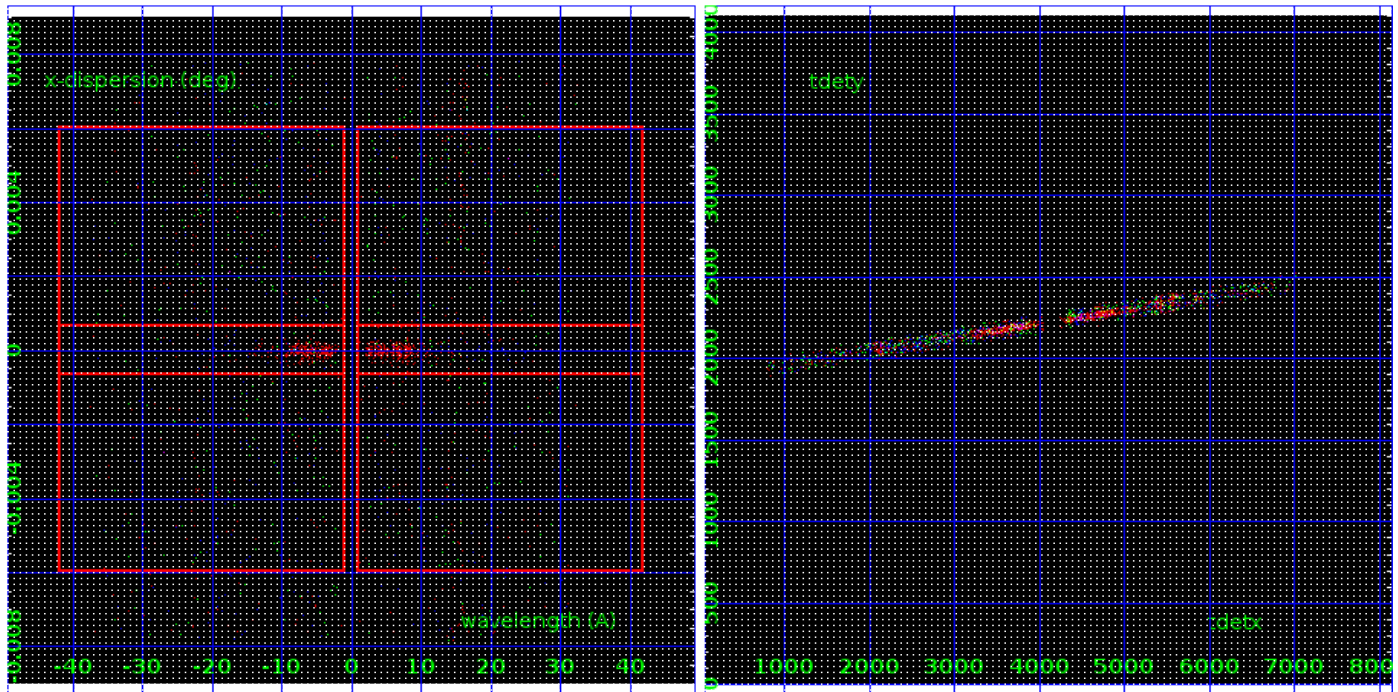
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

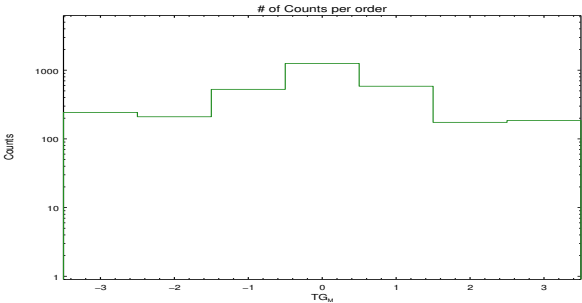
MEG Order Sort ALL

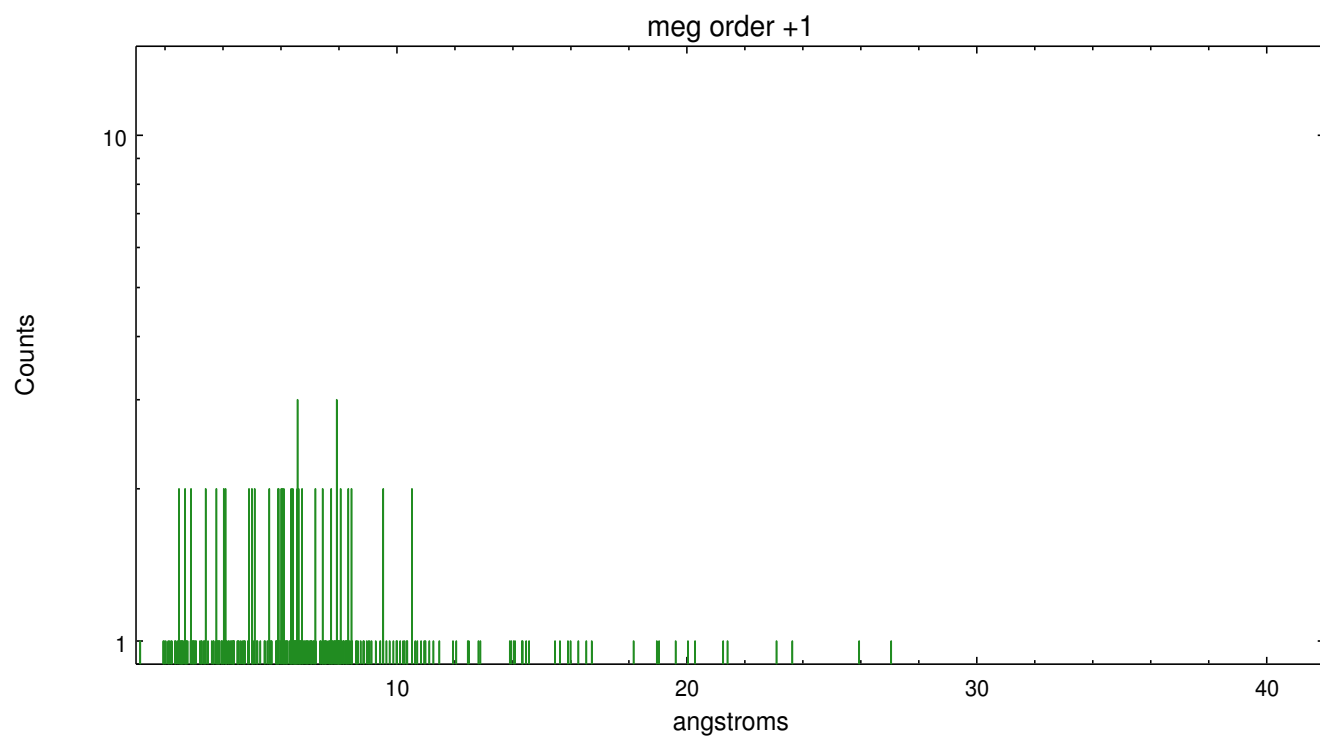
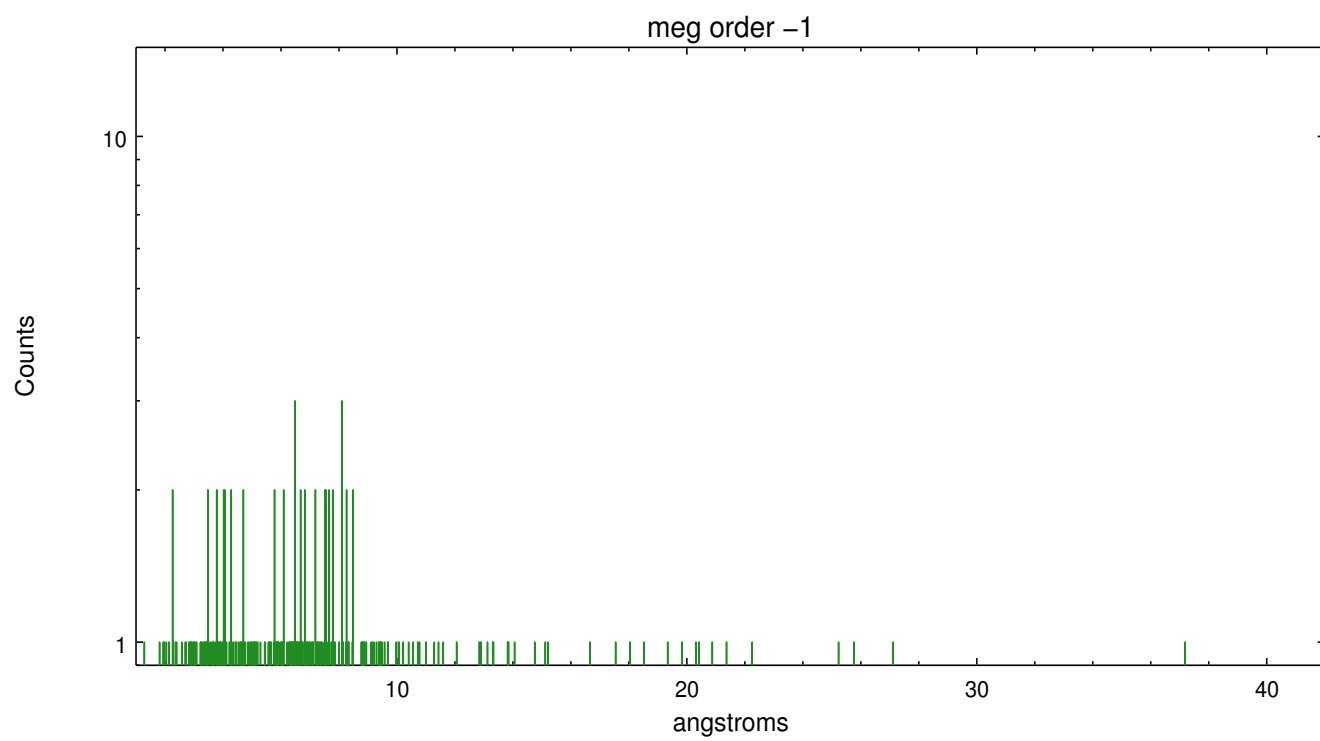


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	243	210	526	1254	584	174	185





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2020.07.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.0775

A.2 Comments