

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 20022 - L2 Version 1
Chandra X-Ray Center

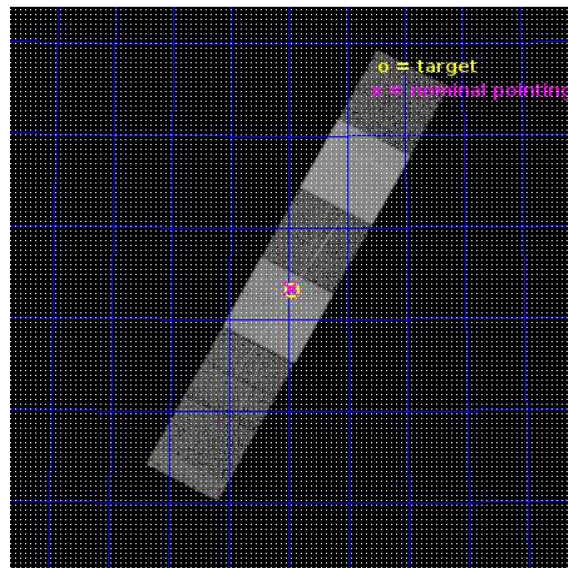
L2 Processing Date : Mar 29 2017

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1 Front

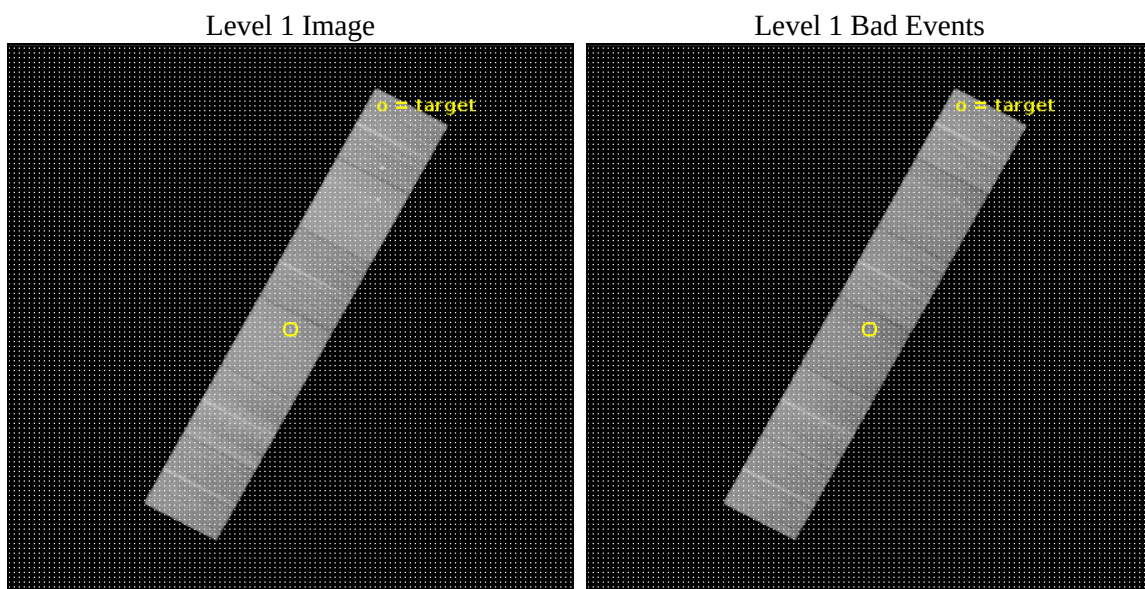
seq_num	703214	Sequence number
obs_id	20022	Observation id
title	Picturing Feedback in Action: from the innermost nuclear region to the Galaxy Scale	Proposal title
observer	Fabrizio Nicastro	Principal investigator
object	Mkn 876	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.488333	Observer's specified target RA [deg]
dec_targ	65.719444	Observer's specified target Dec [deg]
ra_nom	243.48858583499	Nominal RA [deg]
dec_nom	65.722514884064	Nominal Dec [deg]
roll_nom	118.15639707536	Nominal Roll [deg]
revision	1	Processing version of data
ontime	22837.647713542	Sum of GTIs [s]
livetime	22548.463667013	Livetime [s]
ontime4	22834.44772315	Sum of GTIs [s]
ontime5	22837.606673479	Sum of GTIs [s]
ontime6	22837.565633535	Sum of GTIs [s]
ontime7	22837.647713542	Sum of GTIs [s]
ontime8	22837.524593472	Sum of GTIs [s]
ontime9	22837.483553529	Sum of GTIs [s]
l2events	273616	Number of level 2 events



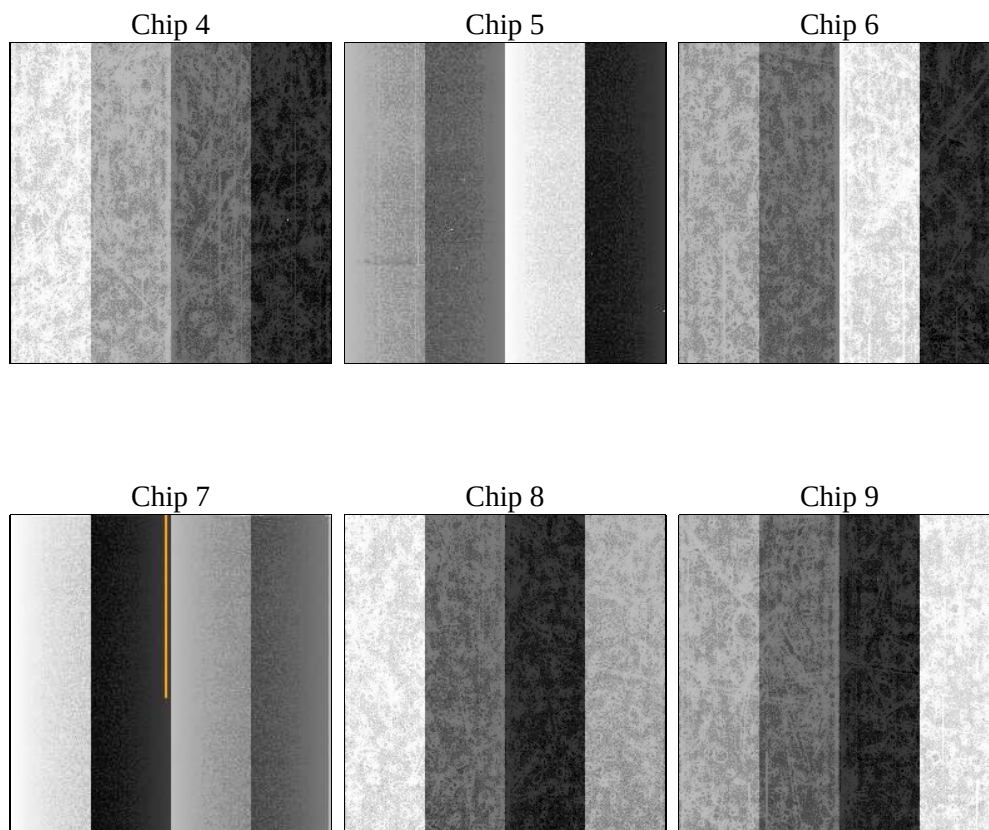
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	22900.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	22837.647713542	Sum of GTIs [s]
caldsver	4.7.3	 	ontime4	22834.44772315	Sum of GTIs [s]
date	2017-03-29T05:43:10	Date and time of file creation	ontime5	22837.606673479	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	22837.565633535	Sum of GTIs [s]
			ontime7	22837.647713542	Sum of GTIs [s]
			ontime8	22837.524593472	Sum of GTIs [s]
			ontime9	22837.483553529	Sum of GTIs [s]
			l1events	1211062	Number of level 1 events
			tgmeth	TGDETECT	Method used to create src1a file
			src1a_pos	(4097.06, 4072.82)	src1a sky pixel position

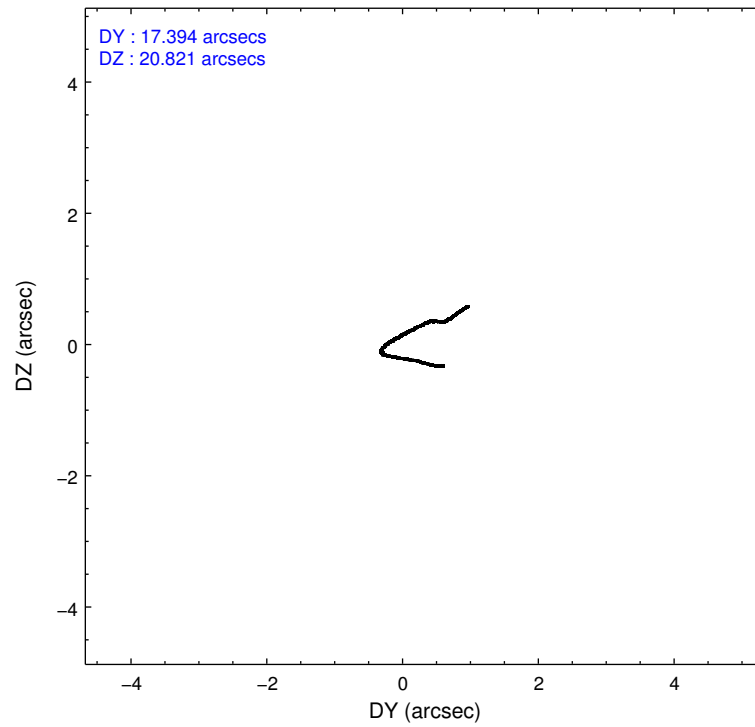
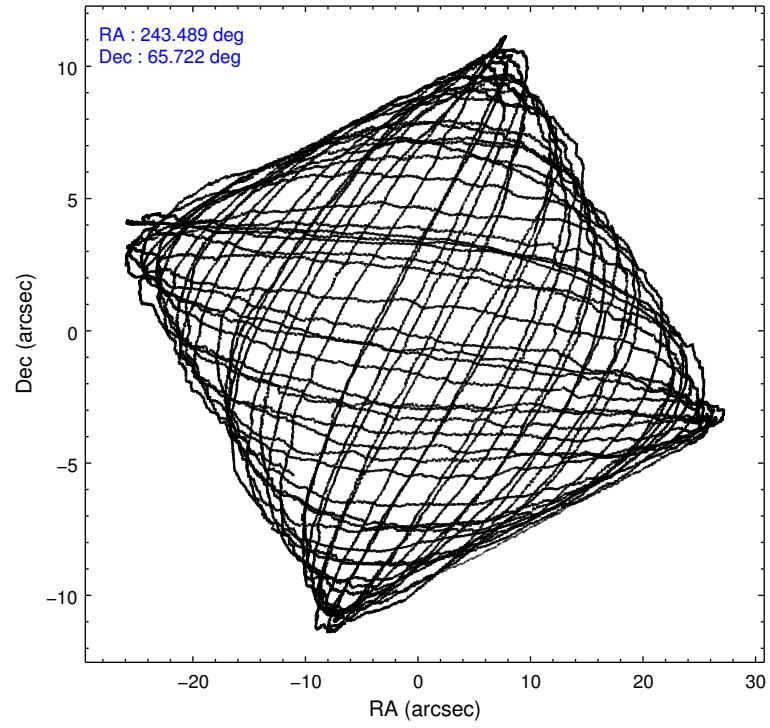
2.1.4 Events

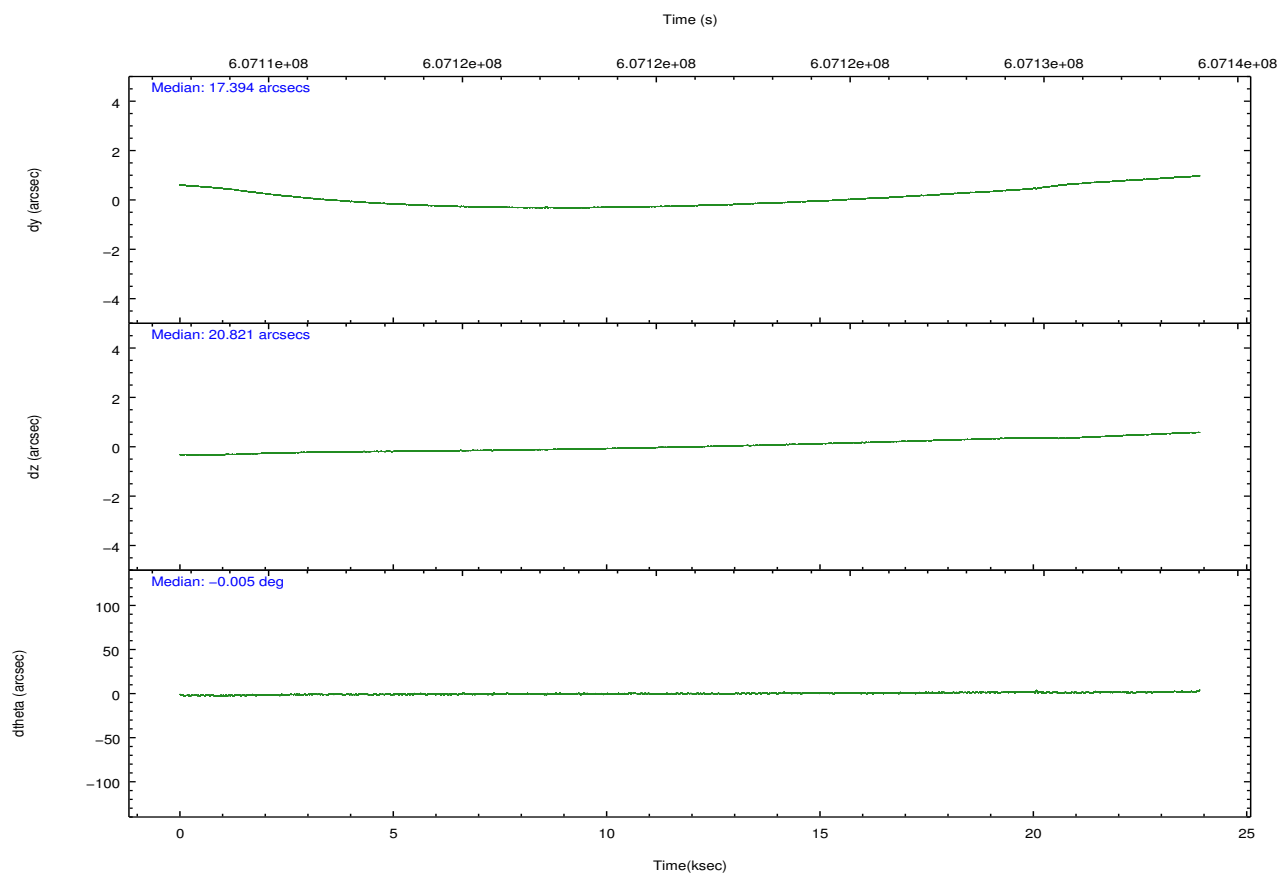
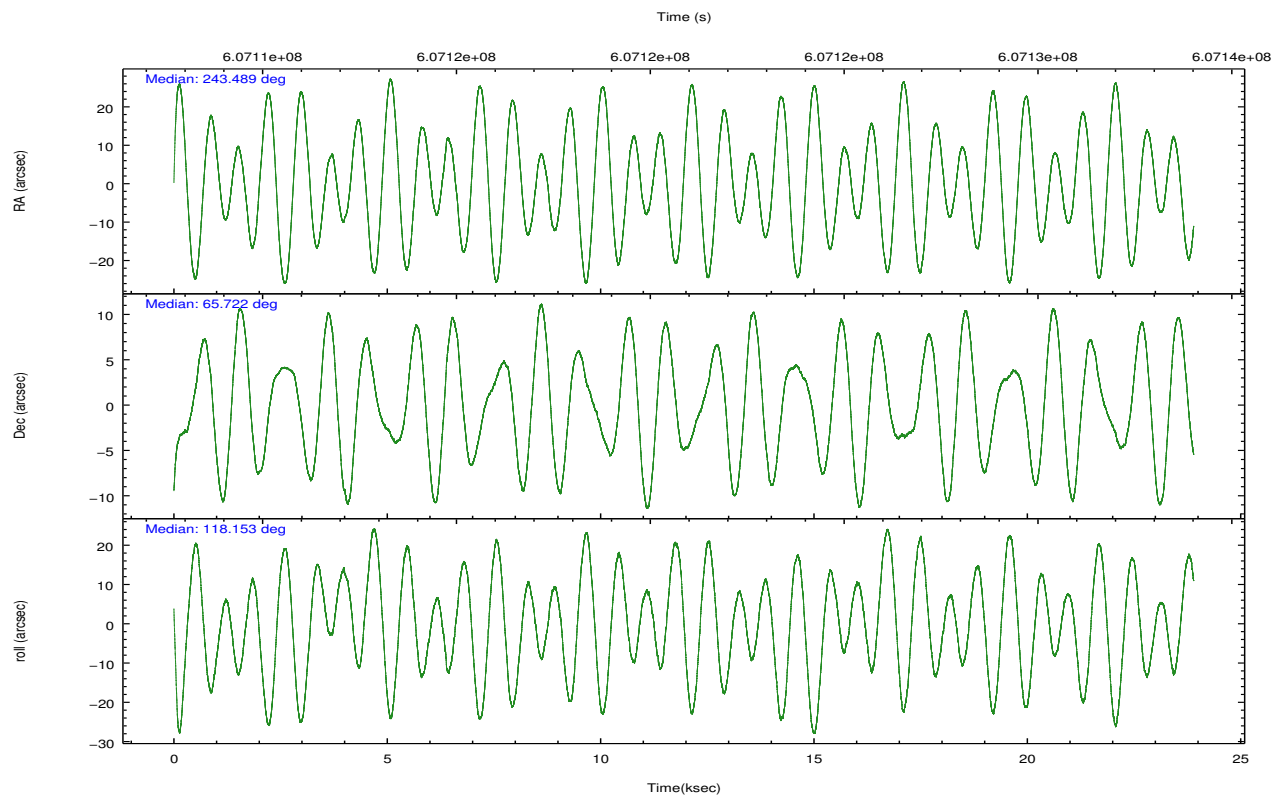
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	194092	253715	170802	211516	214168	166769	grade 0 events	8045	8060	6849	7991	15526	6622
rejected events	174094	132544	151202	118262	159418	147521		4%	3%	4%	3%	7%	3%
rejected %	89%	52%	88%	55%	74%	88%	grade 1 events	188	1063	87	256	151	101
								0%	0%	0%	0%	0%	0%
							grade 2 events	4498	37871	4588	20018	13227	4366
								2%	14%	2%	9%	6%	2%
							grade 3 events	2079	3633	1738	7296	5726	1986
								1%	1%	1%	3%	2%	1%
							grade 4 events	2091	3675	1757	7165	5396	1905
								1%	1%	1%	3%	2%	1%
							grade 5 events	7826	16970	7325	20314	11426	8301
								4%	6%	4%	9%	5%	4%
							grade 6 events	3290	67985	4678	50799	14895	4370
								1%	26%	2%	24%	6%	2%
							grade 7 events	166075	114458	143780	97677	147821	139118
								85%	45%	84%	46%	69%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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	243.545733	243.4885858349923	CCD I2 on	N	N
[deg] Pointing Dec	65.708326	65.7225148840639	CCD I3 on	N	N
[deg] Pointing Roll	117.947684	118.1563970753611	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)	607109917.184000	607108173.67258	CCD S5 on	Y	Y
Observation start date	2017-03-28T17:37:28	2017-03-28T17:09:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	607132817.184000	607133488.09902	On-chip summing requested	N	N
Observation end date	2017-03-28T23:59:08	2017-03-29T00:11:28	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



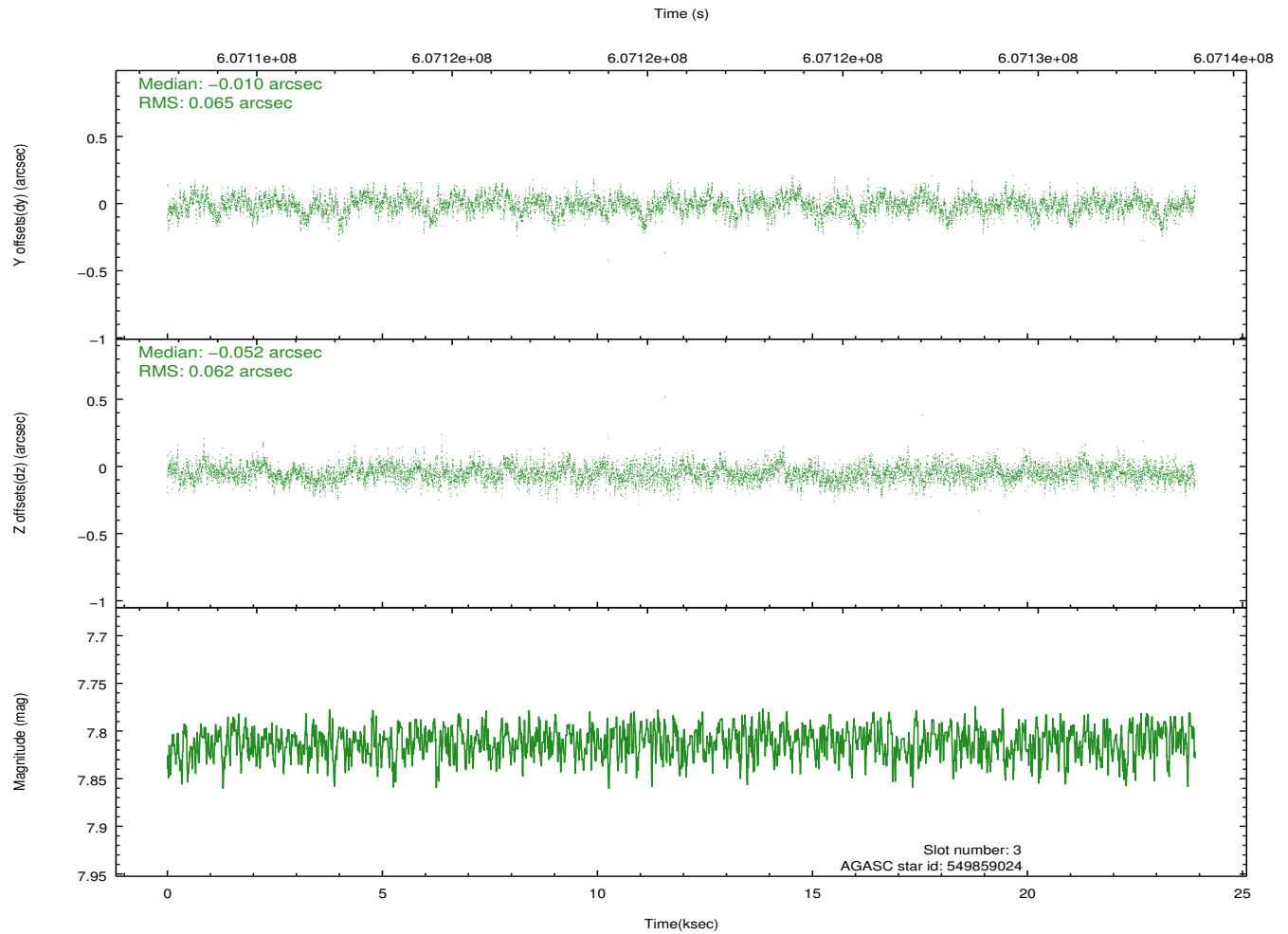
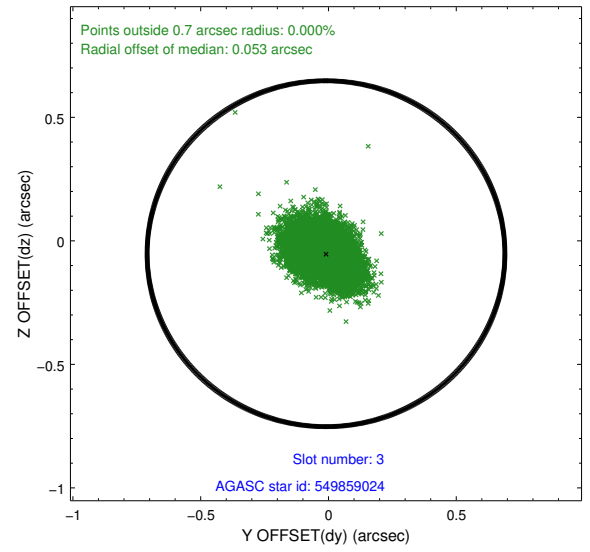
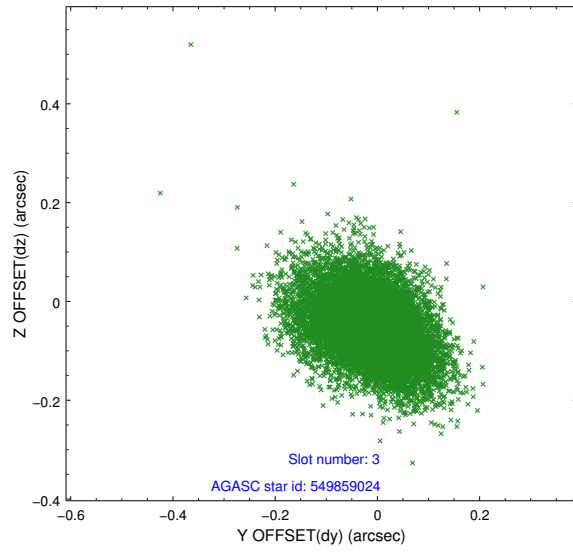


Slot Statistics

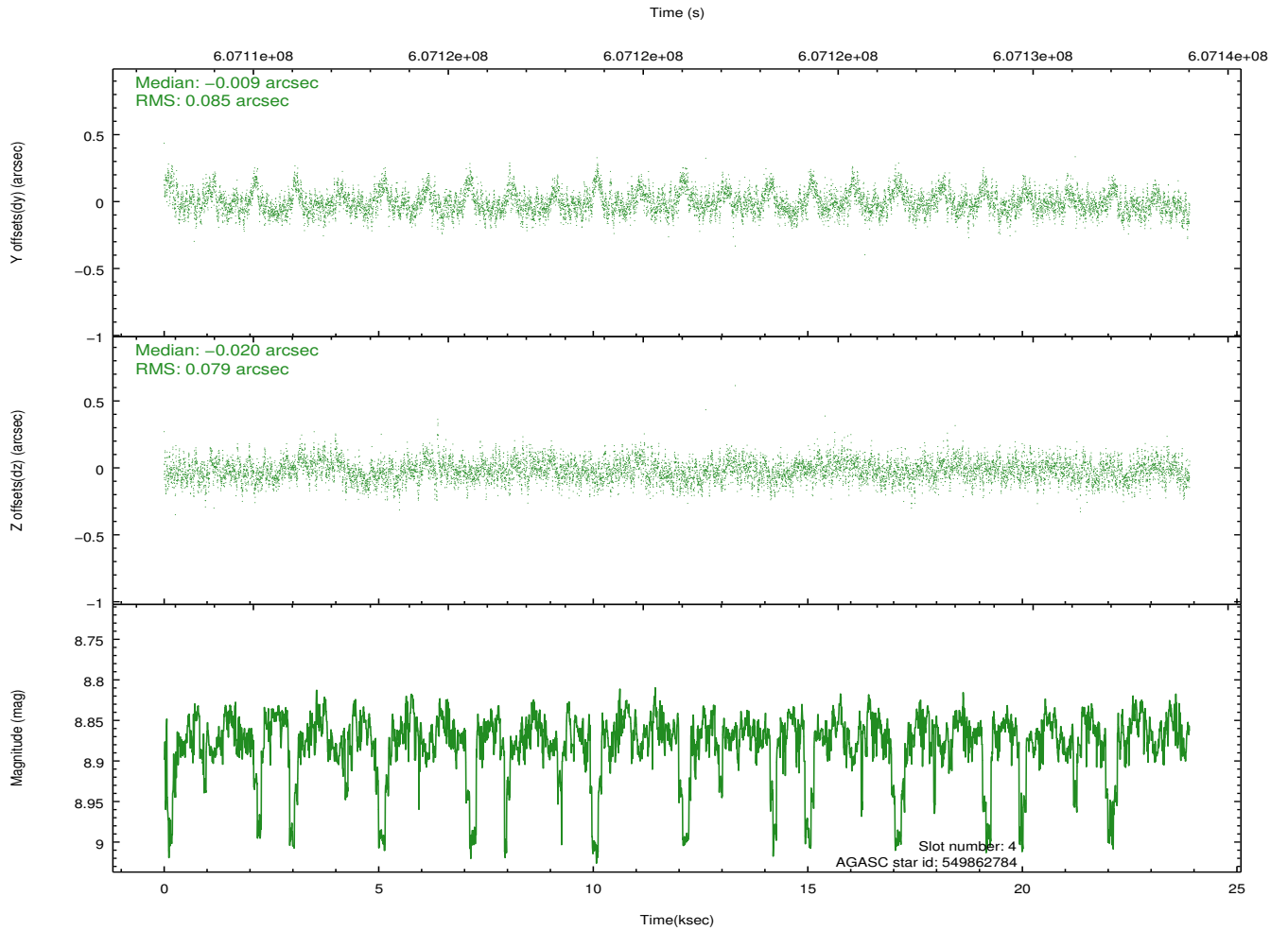
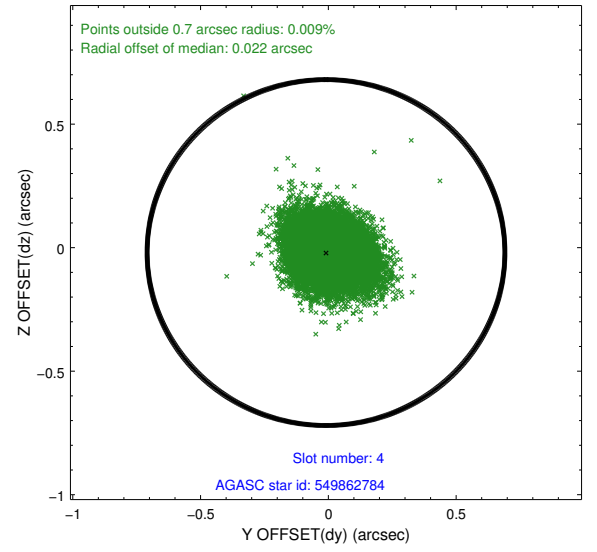
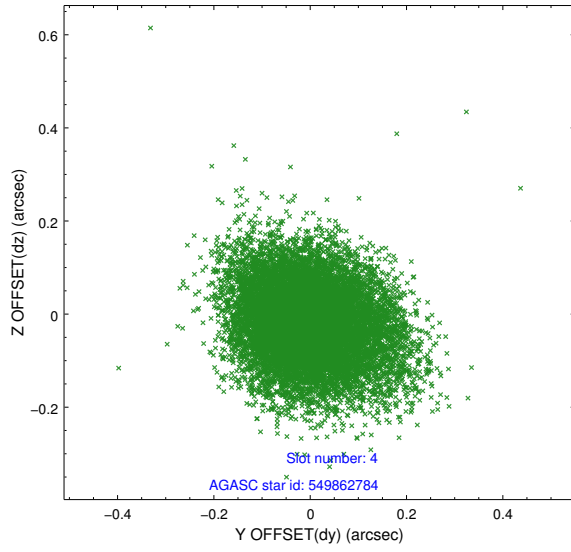
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.06	5829	-0.217	-0.109	0.013	0.022	0.000000	0.000000	-770.72	-1742.53
1	FID		ACIS-S-4	7.17	5827	0.491	0.134	0.008	0.021	0.000000	0.000000	2143.17	166.11
2	FID		ACIS-S-5	7.16	5828	-0.306	-0.016	0.014	0.022	0.000000	0.000000	-1823.52	159.71
3	GUIDE	used	549859024	7.81	11657	-0.010	-0.052	0.093	0.160	243.777882	65.072262	-2186.23	761.77
4	GUIDE	used	549862784	8.87	11648	-0.009	-0.020	0.123	0.202	243.335157	66.115006	1437.65	-414.24
5	GUIDE	used	549863464	7.50	11658	-0.212	-0.046	0.100	0.166	243.630740	66.376841	2068.68	-1235.99
6	GUIDE	used	549864952	8.92	11645	0.242	0.172	0.124	0.201	244.861755	65.614211	-1197.23	-1578.47
7	GUIDE	used	549864184	9.04	11644	-0.012	-0.050	0.134	0.219	243.727034	65.246202	-1597.46	538.24

2.4 Star Slots

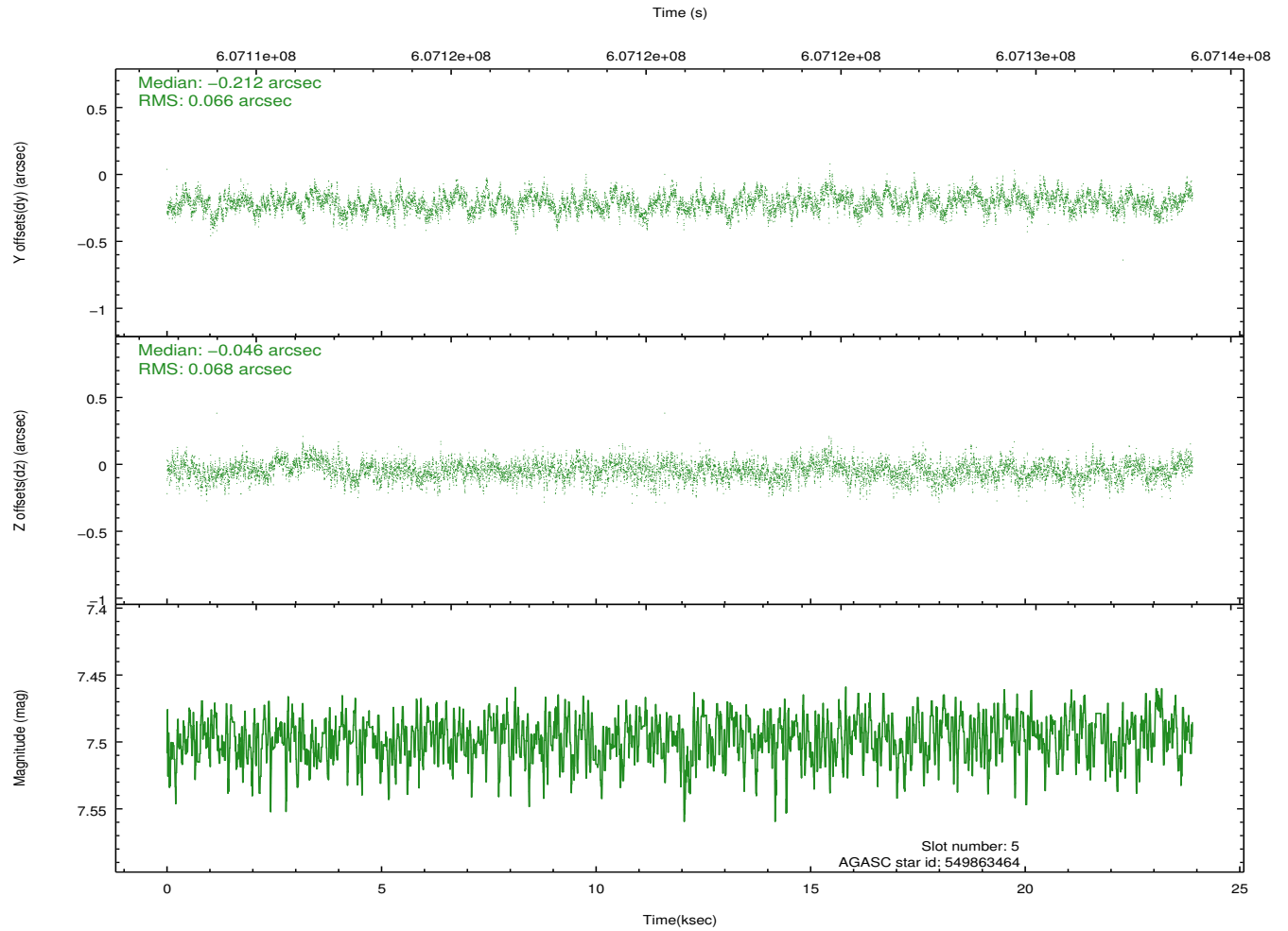
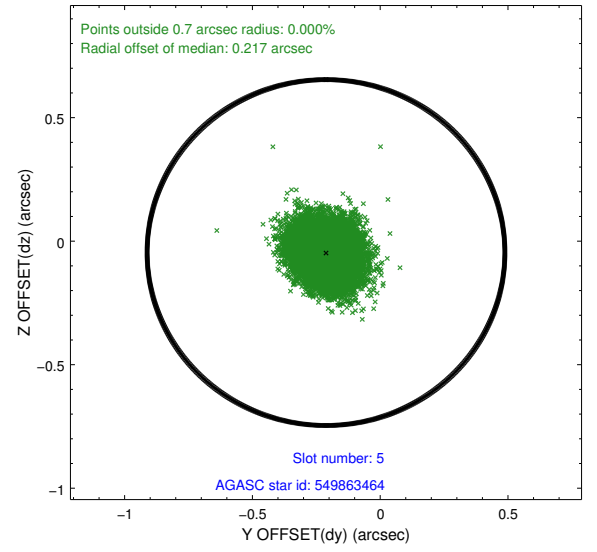
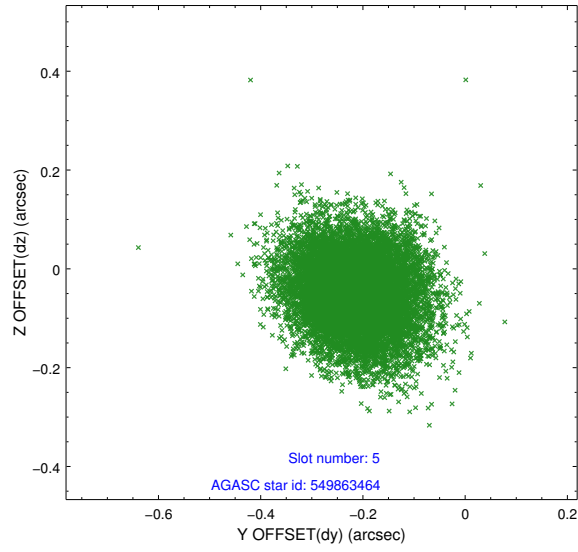
2.4.1 Slot 3



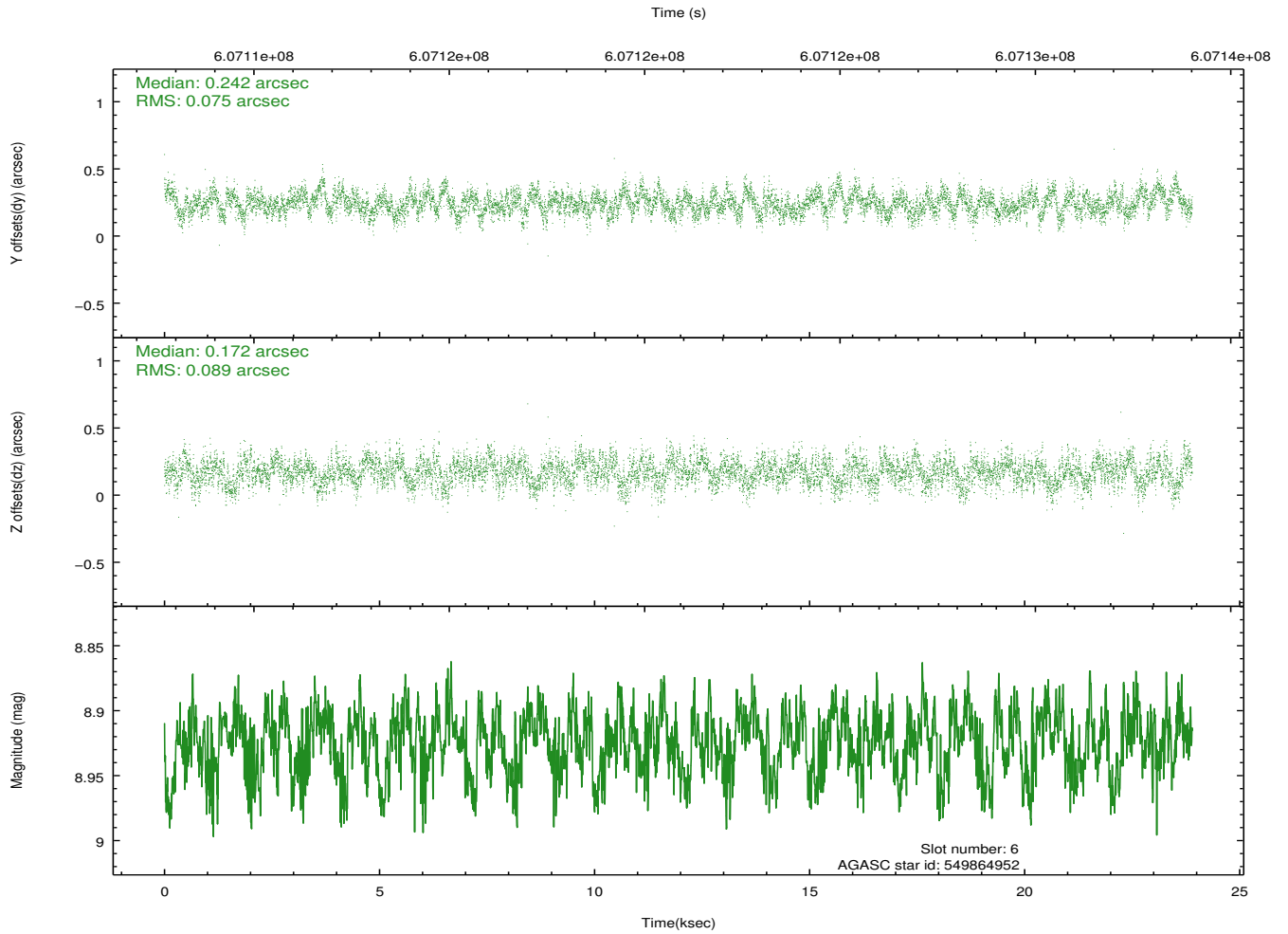
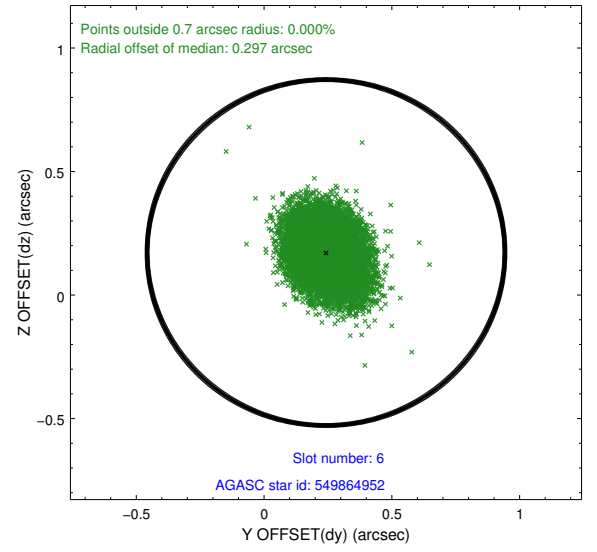
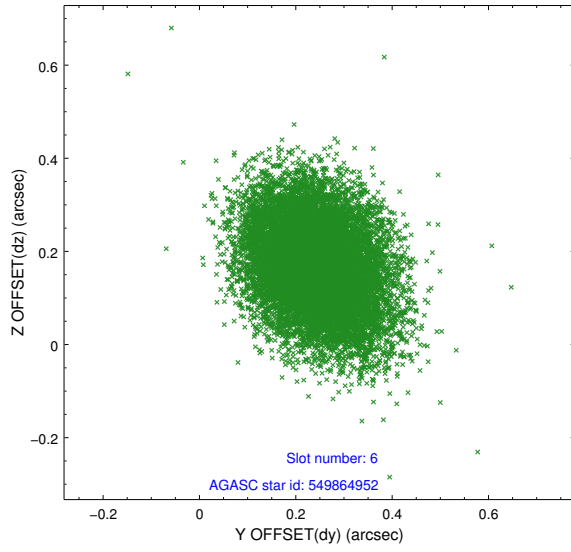
2.4.2 Slot 4



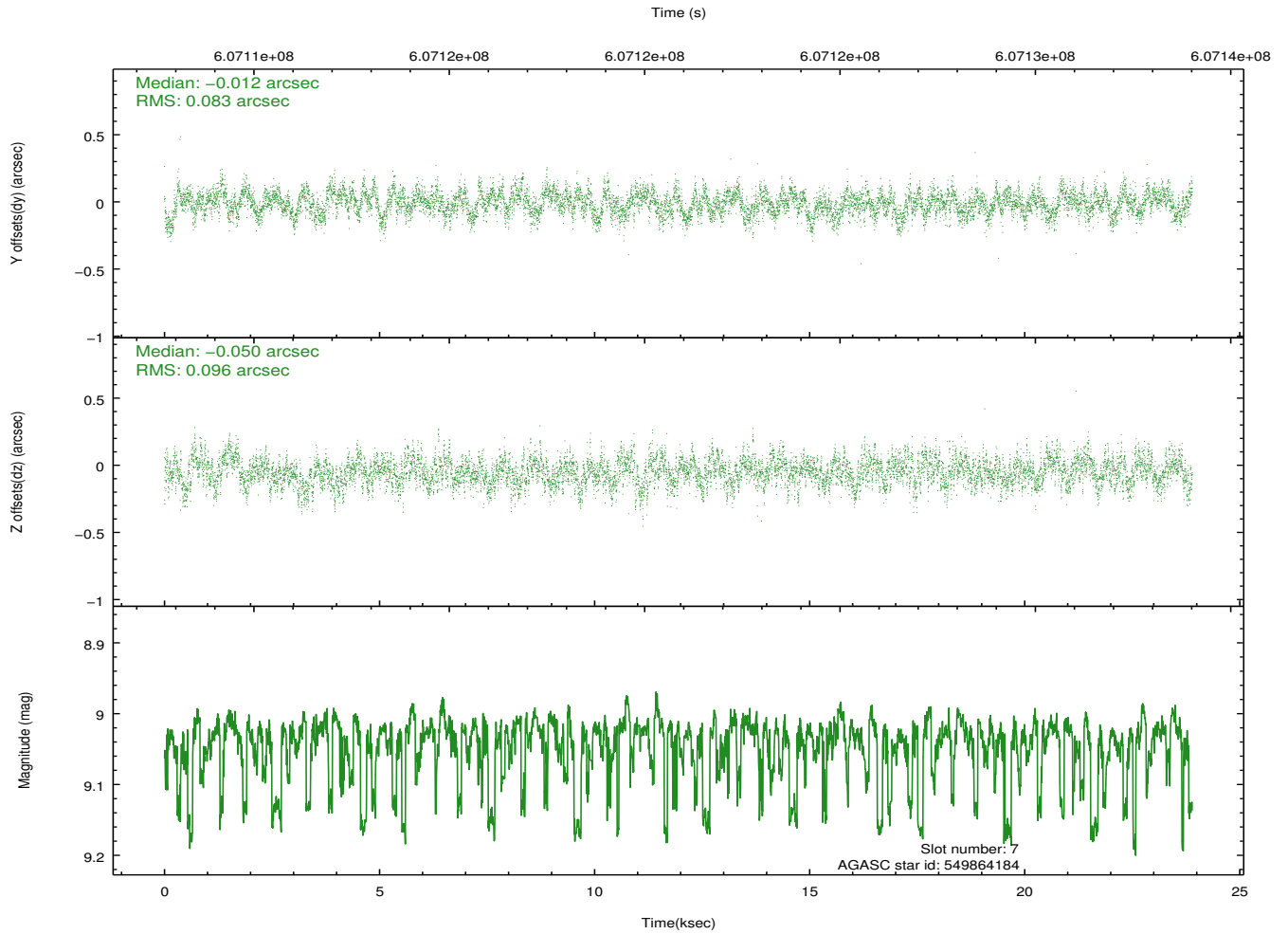
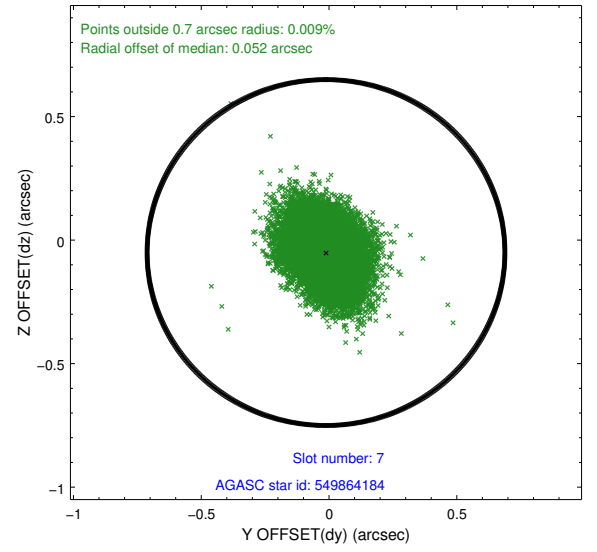
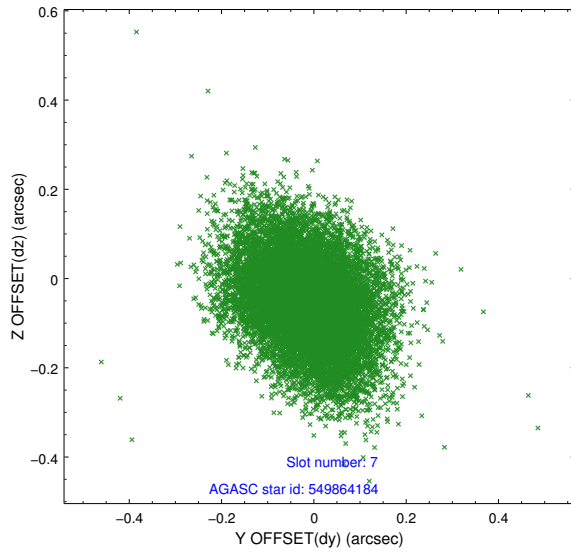
2.4.3 Slot 5



2.4.4 Slot 6

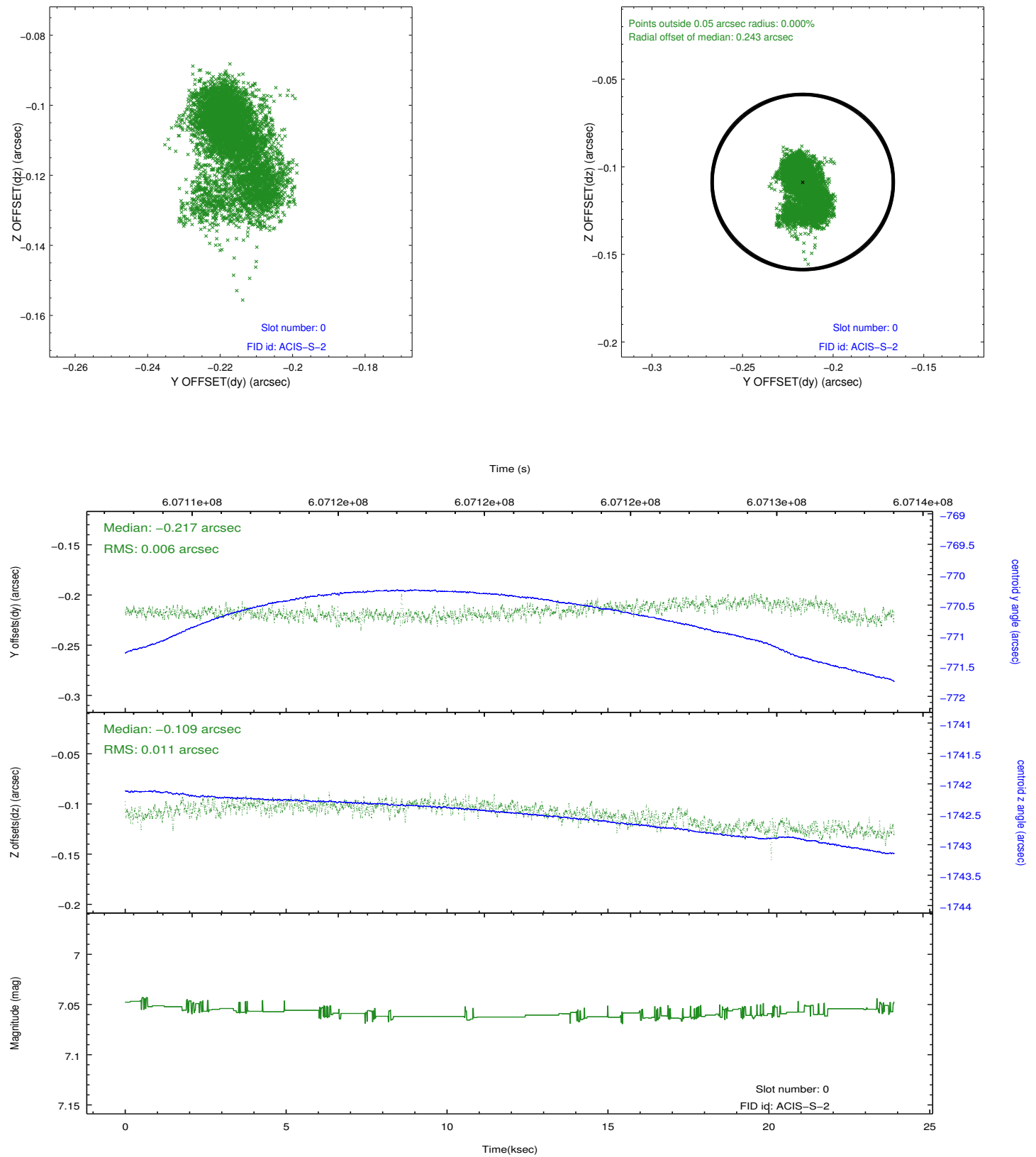


2.4.5 Slot 7

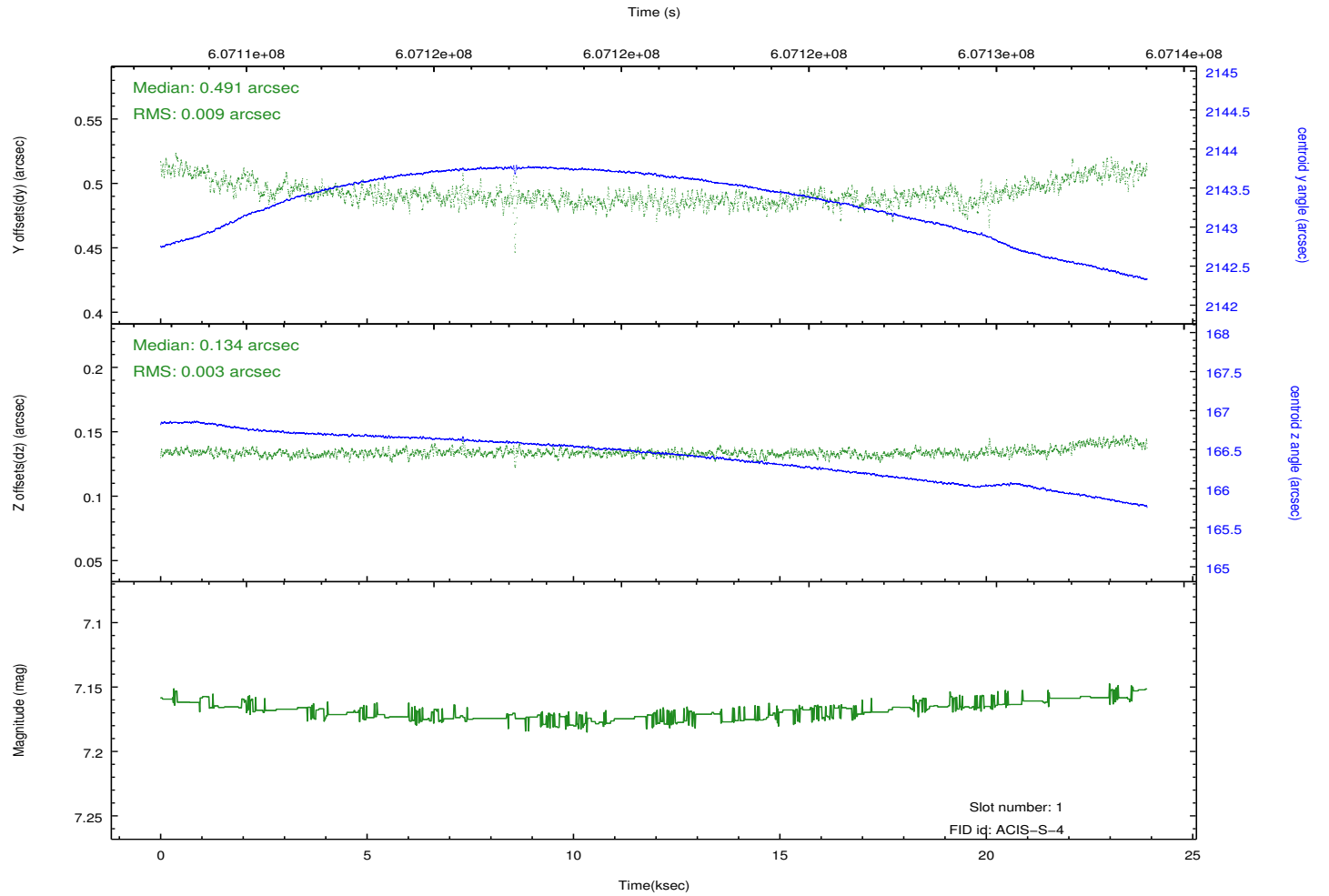
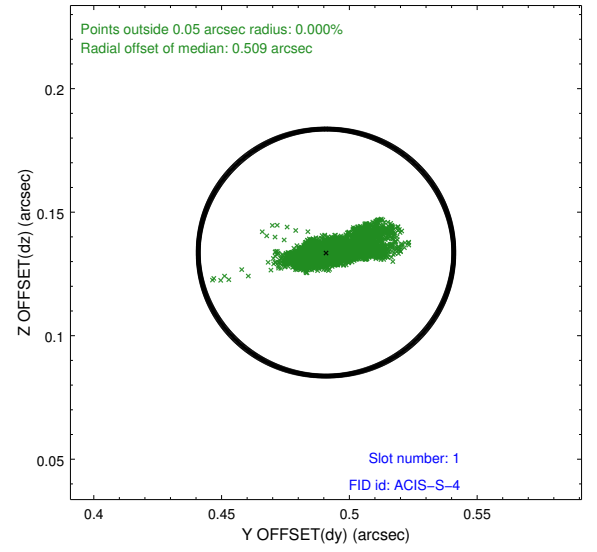
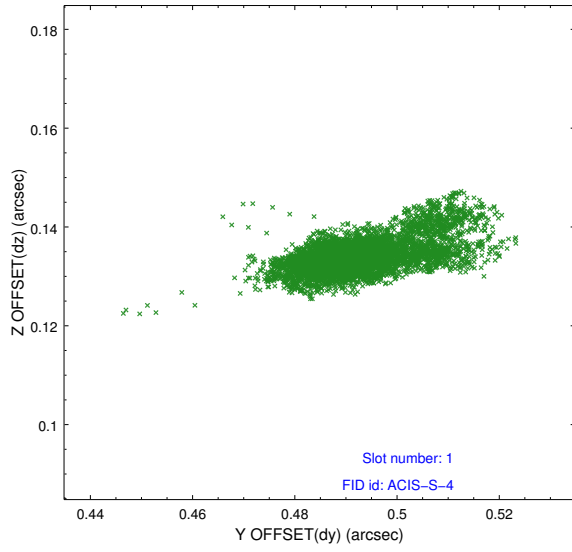


2.5 FID Slots

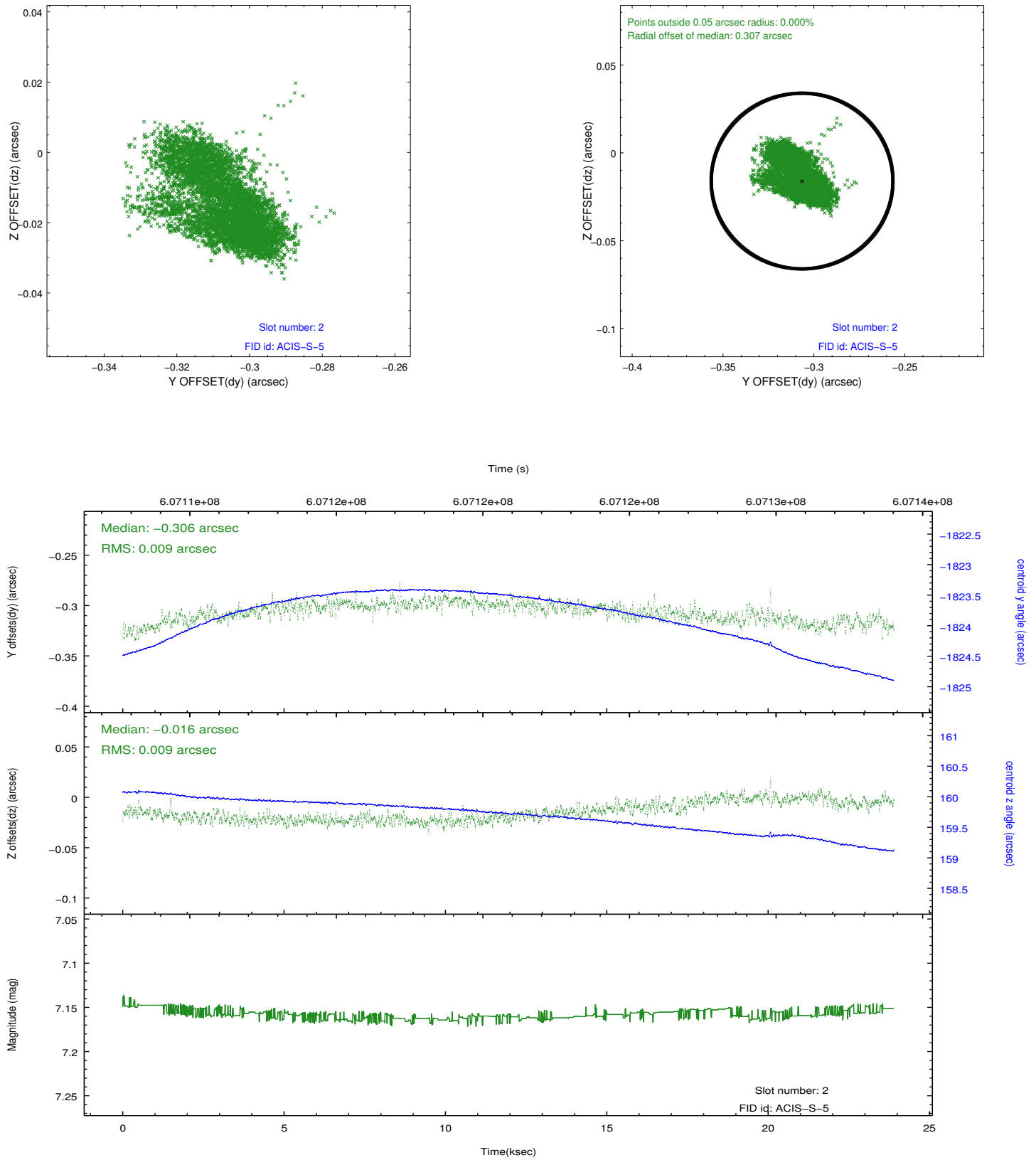
2.5.1 Slot 0



2.5.2 Slot 1

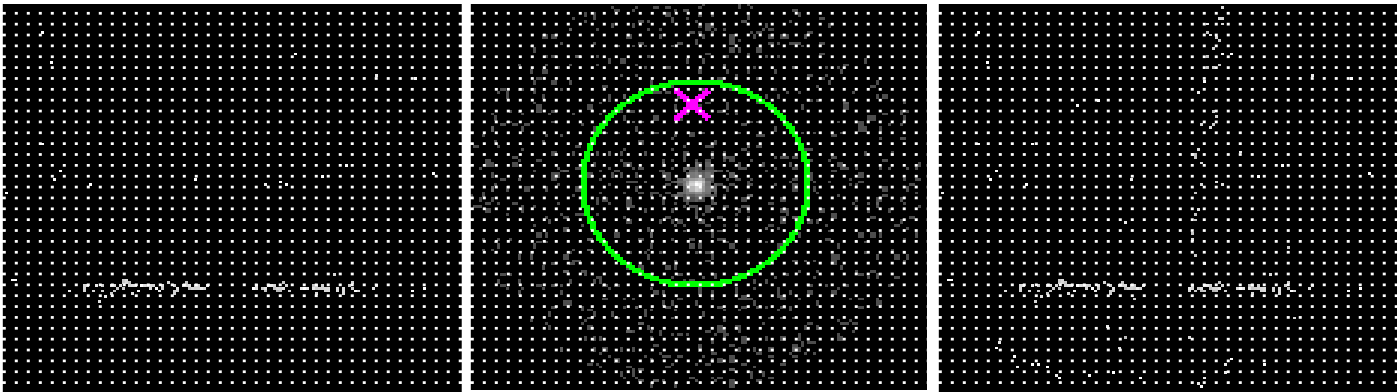


2.5.3 Slot 2



3 Gratings

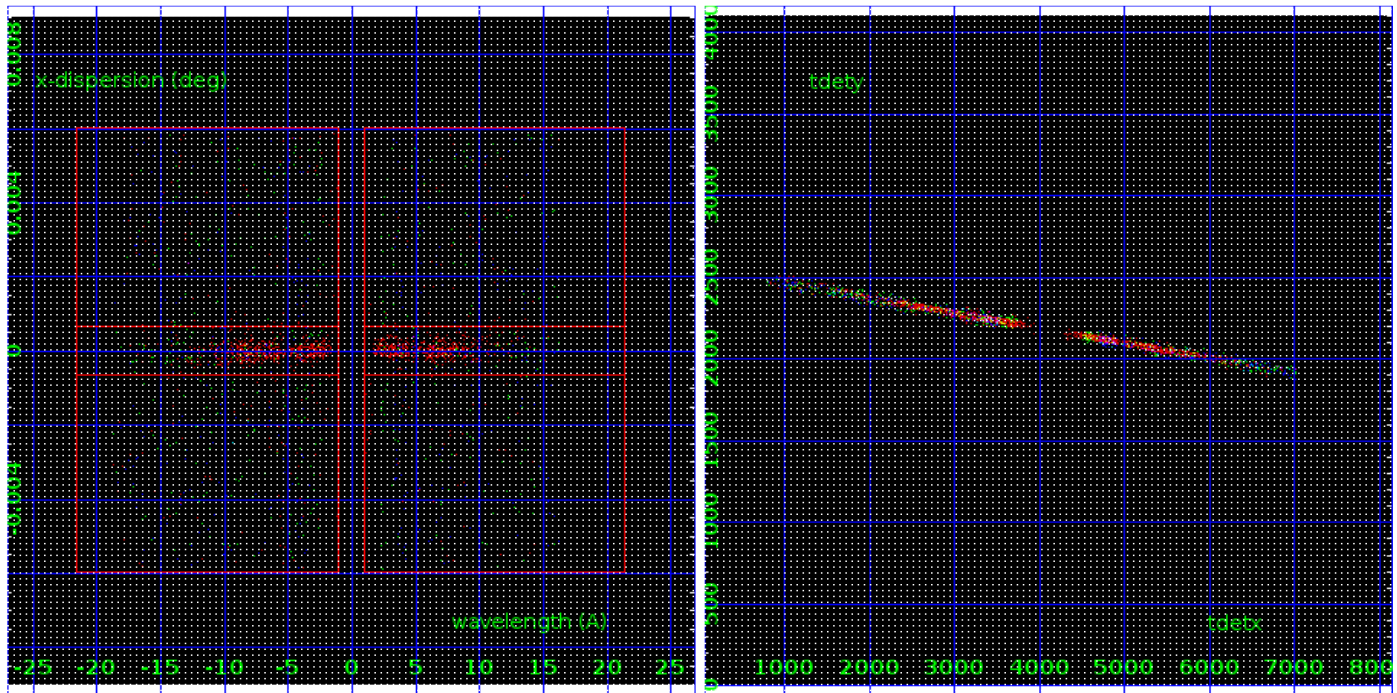
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

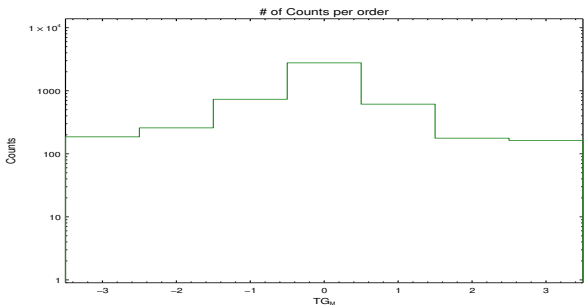
HEG Order Sort ALL

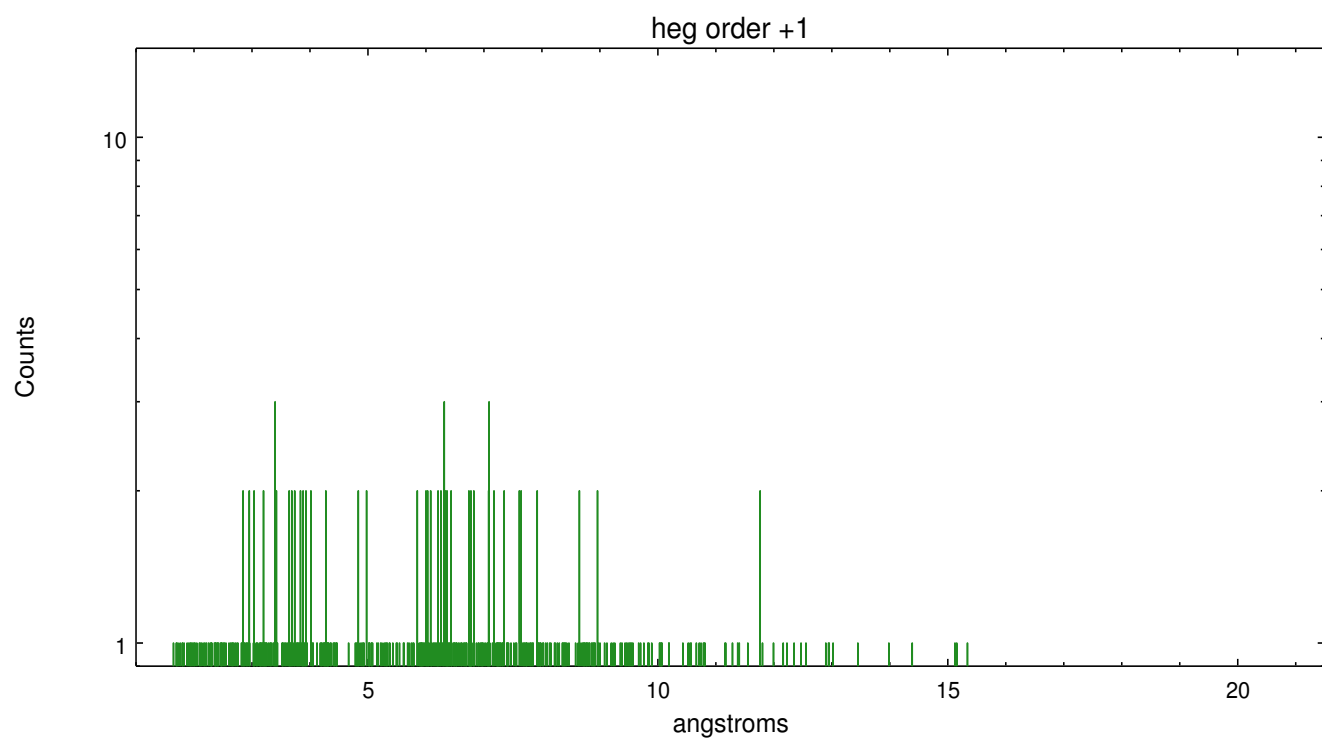
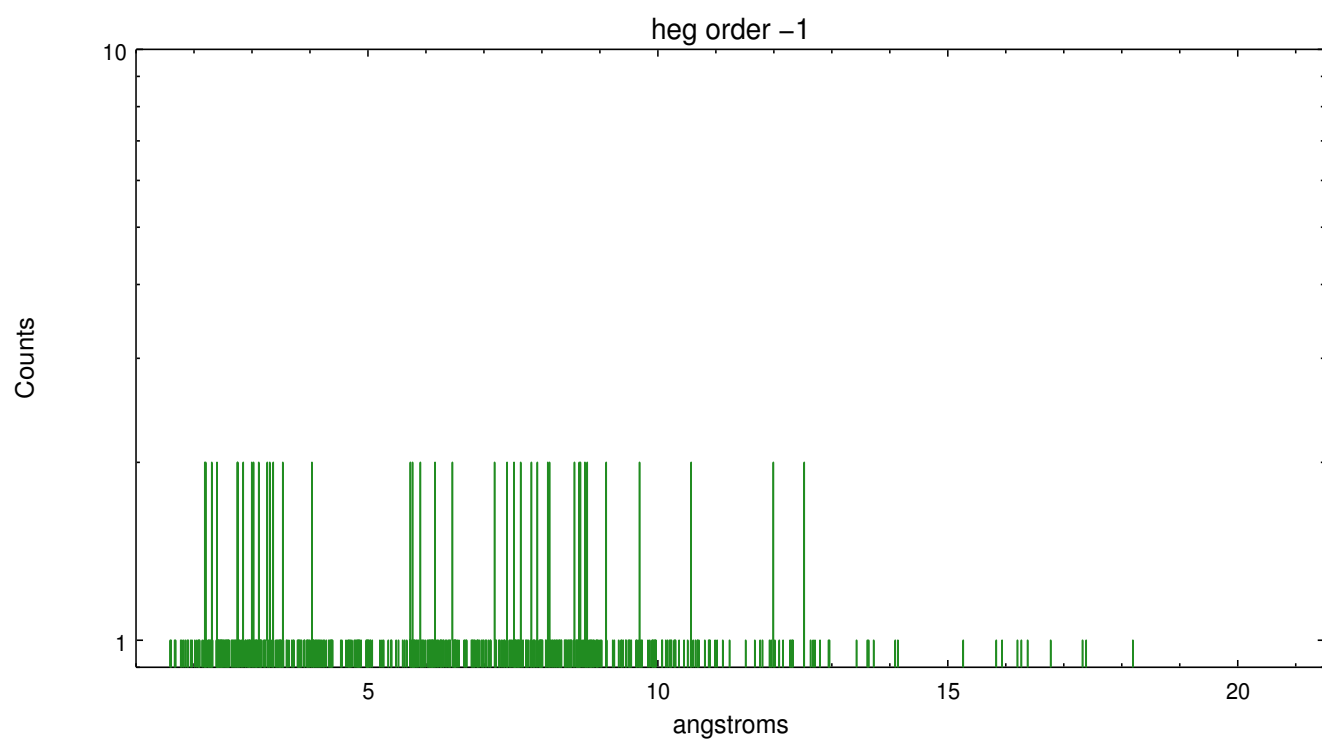


Spot Image HEG

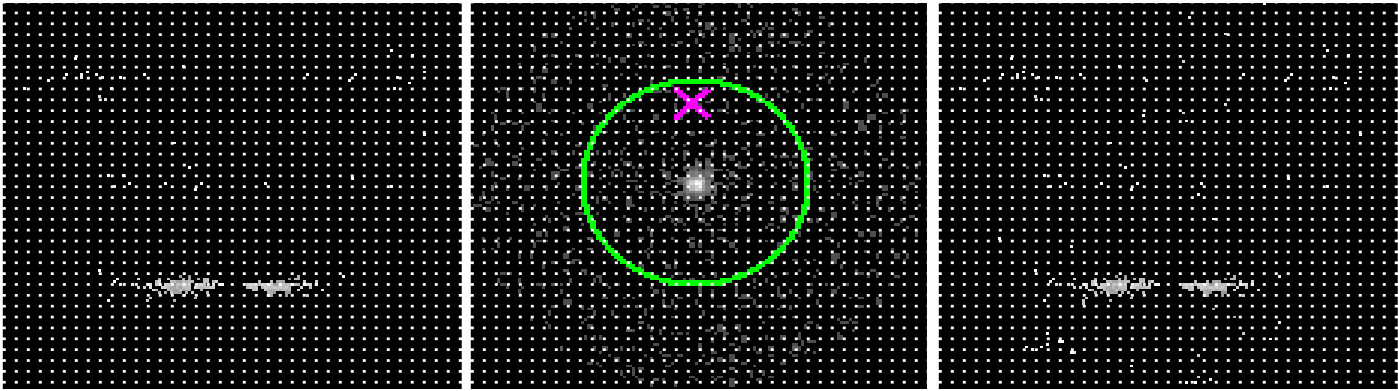
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	186	258	733	2772	613	177	163





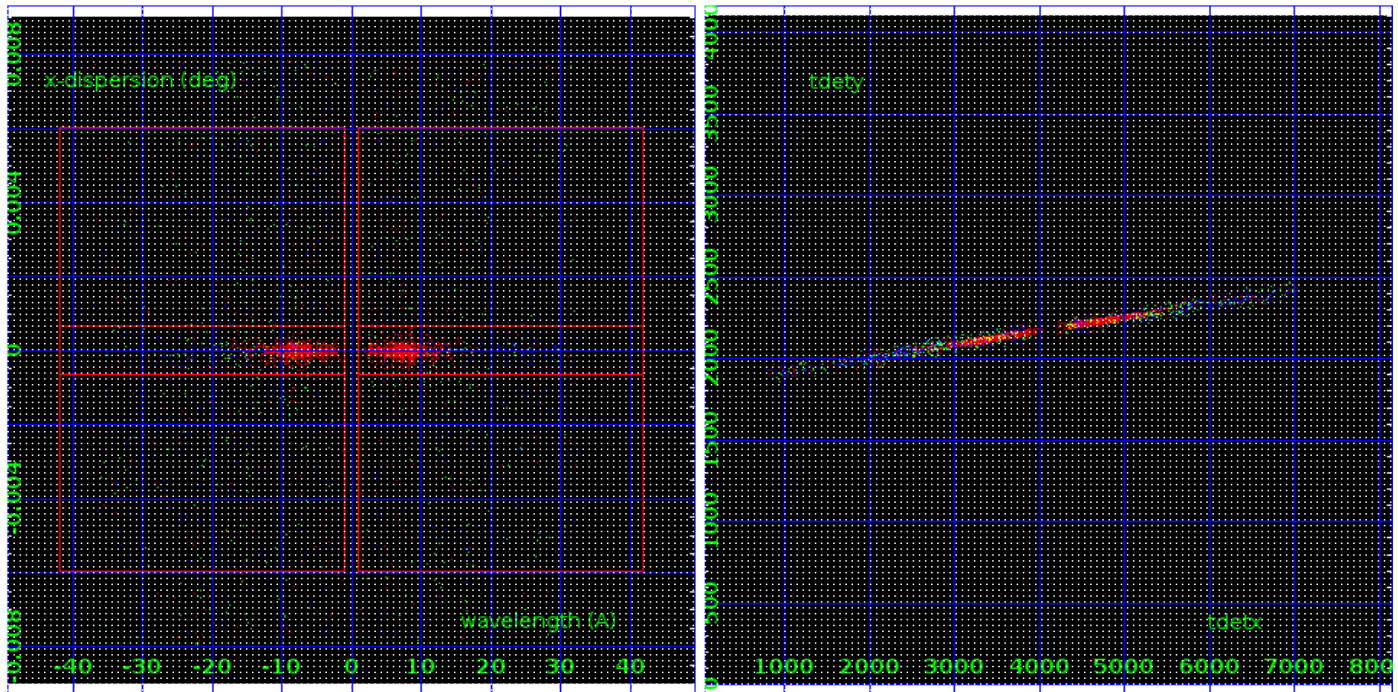
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

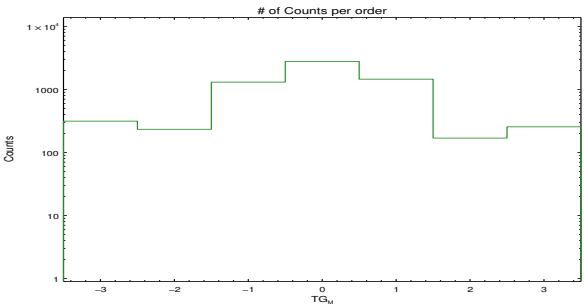
MEG Order Sort ALL

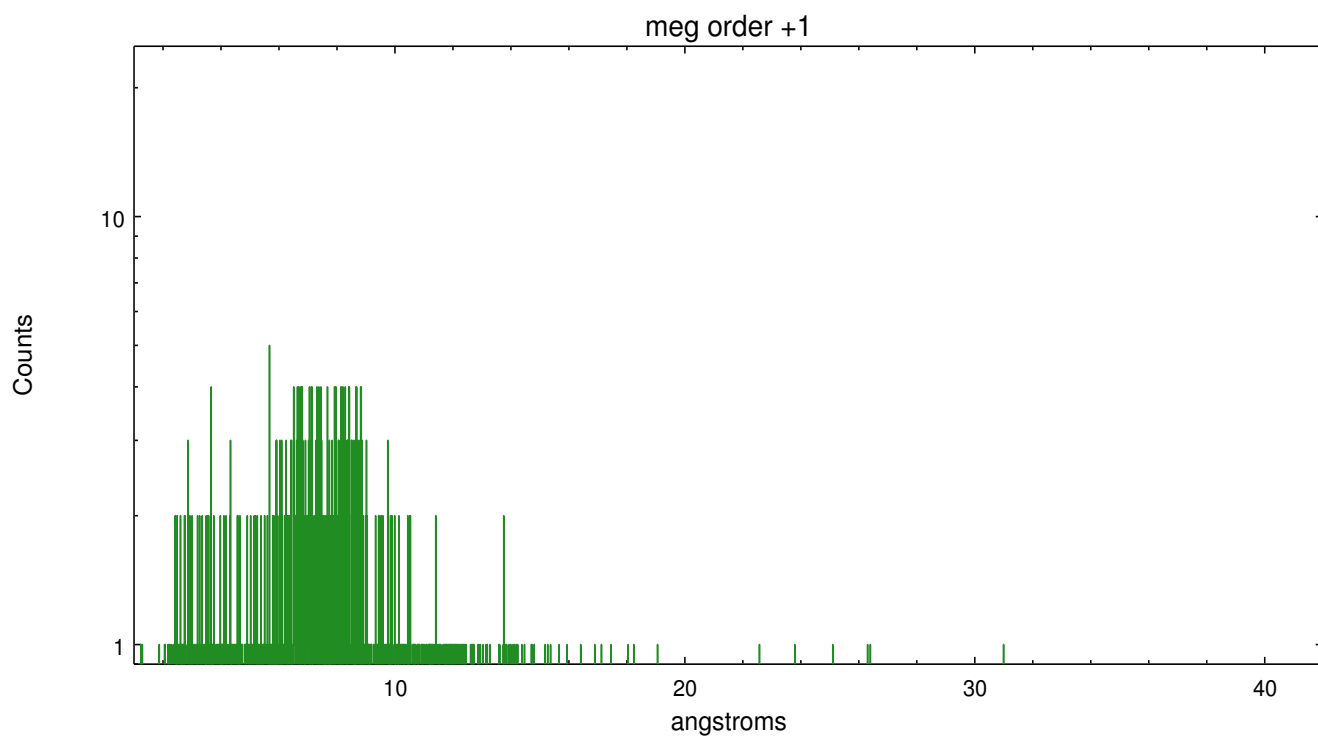
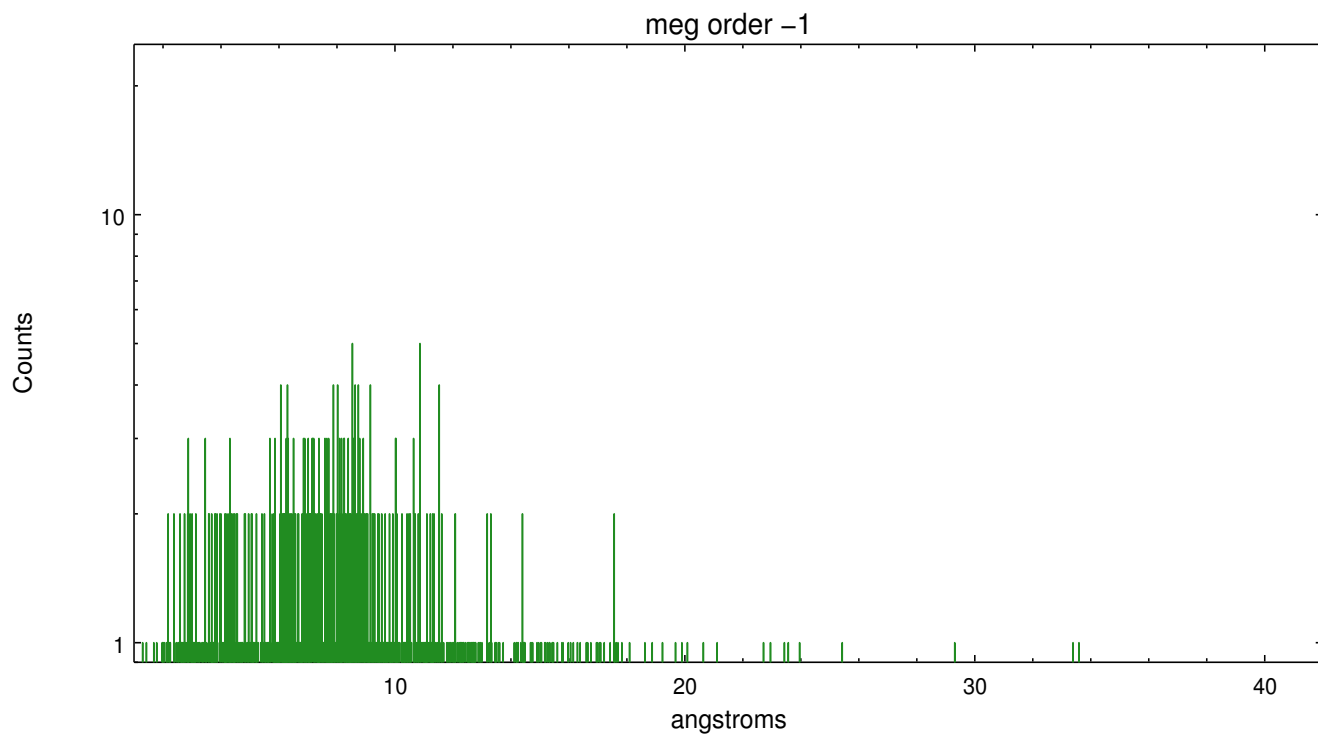


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	314	233	1305	2772	1453	169	255





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.03.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.837647713542

A.2 Comments