

V&V Reference Report

L2 ASCDS Version : 10.4.3

Observation 17537 - L2 Version 2
Chandra X-Ray Center

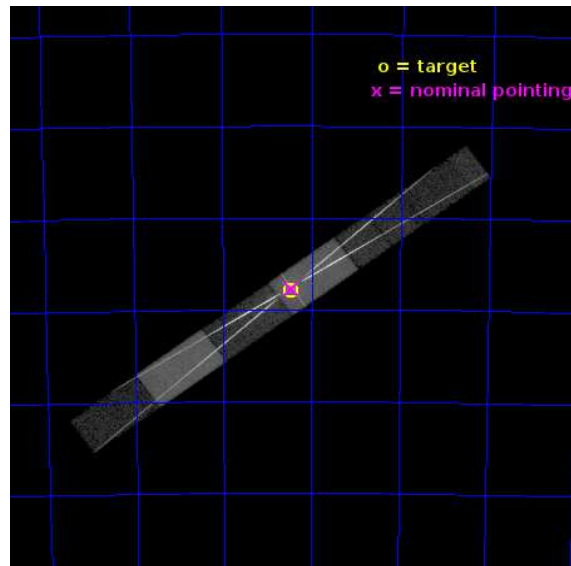
L2 Processing Date : Jan 11 2016

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1 Front

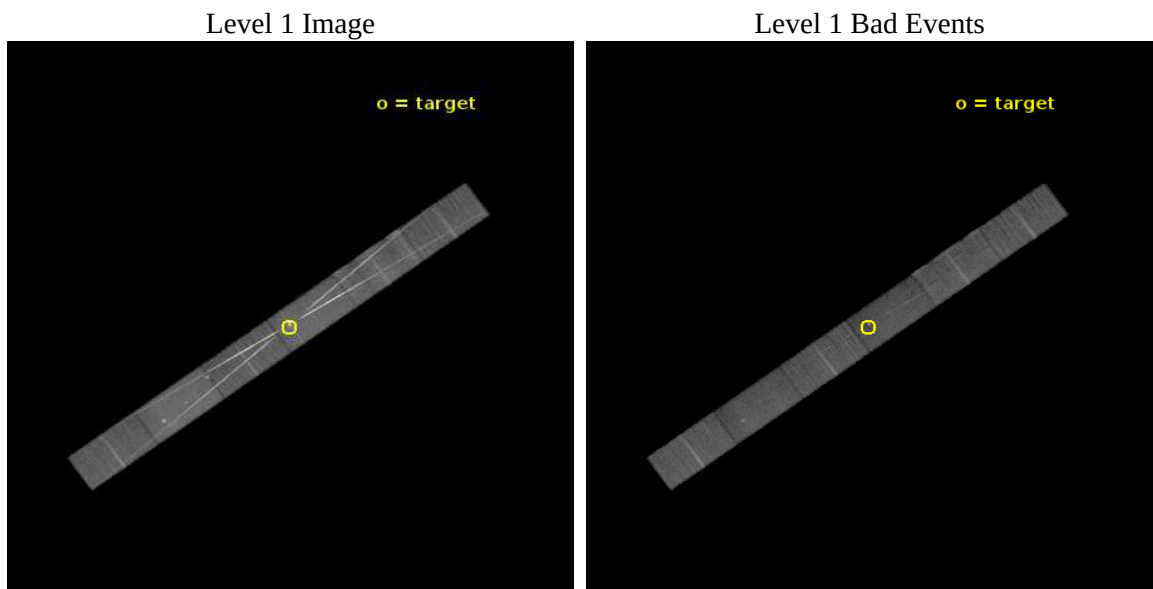
seq_num	901124	Sequence number
obs_id	17537	Observation id
title	HETG Observations of the Extragalactic Z-source LMC X-2	Proposal t
observer	Prof. Claude Canizares	Principal investigator
object	LMC X-2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	80.116667	Observer's specified target RA [deg]
dec_targ	-71.964806	Observer's specified target Dec [deg]
ra_nom	80.113432091289	Nominal RA [deg]
dec_nom	-71.962161925769	Nominal Dec [deg]
roll_nom	324.15352784791	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30032.200842381	Sum of GTIs [s]
livetime	29324.278265891	Livetime [s]
ontime4	30032.200842381	Sum of GTIs [s]
ontime5	30032.200842381	Sum of GTIs [s]
ontime6	30032.200842381	Sum of GTIs [s]
ontime7	30032.200842381	Sum of GTIs [s]
ontime8	30032.200842381	Sum of GTIs [s]
ontime9	30032.200842381	Sum of GTIs [s]
l2events	506661	Number of level 2 events



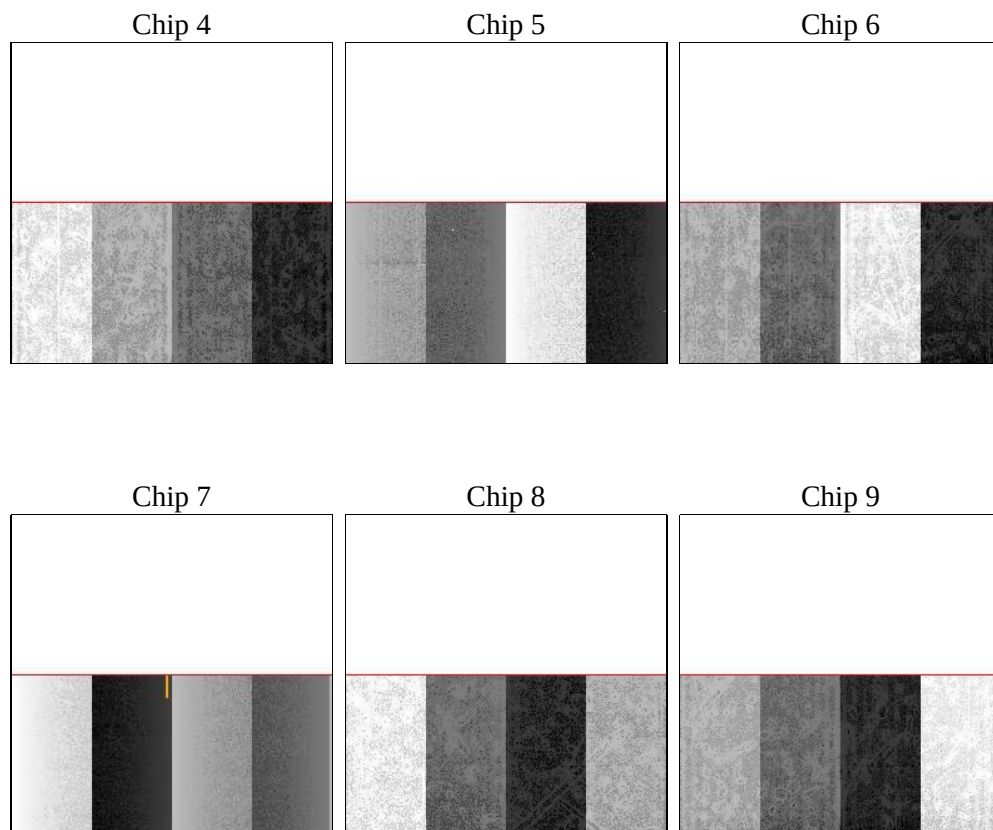
2 OBI

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	10.4.3	Processing system revision	ontime	30032.200842381	Sum of GTIs [s]
caldsver	4.7.0	 	ontime4	30032.200842381	Sum of GTIs [s]
date	2016-01-10T06:44:19	Date and time of file creation	ontime5	30032.200842381	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	30032.200842381	Sum of GTIs [s]
			ontime7	30032.200842381	Sum of GTIs [s]
			ontime8	30032.200842381	Sum of GTIs [s]
			ontime9	30032.200842381	Sum of GTIs [s]
			l1events	1057271	Number of level 1 events
			tgmethod	MANUAL	Method used to create src1a file
			src1a_pos	(4087.22, 4118.77)	src1a sky pixel position

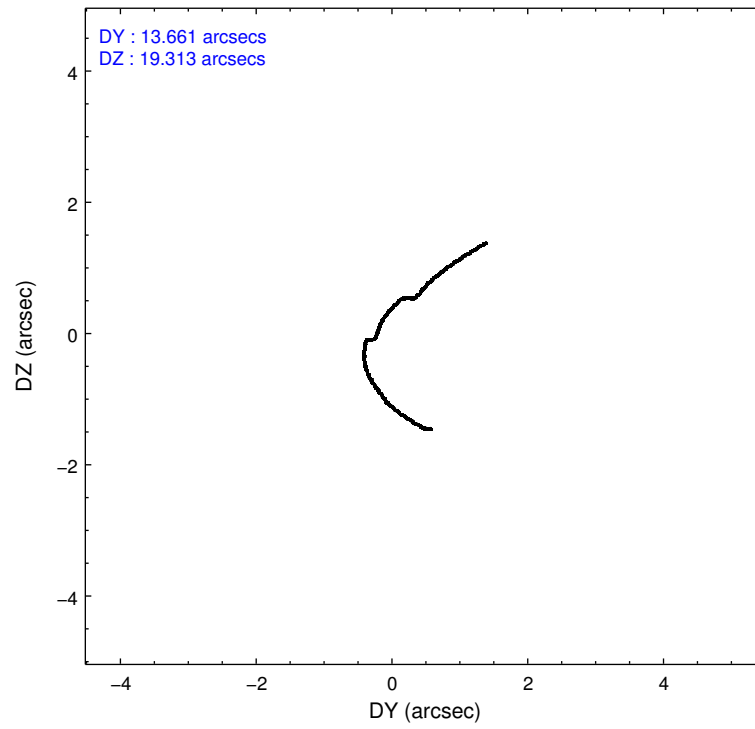
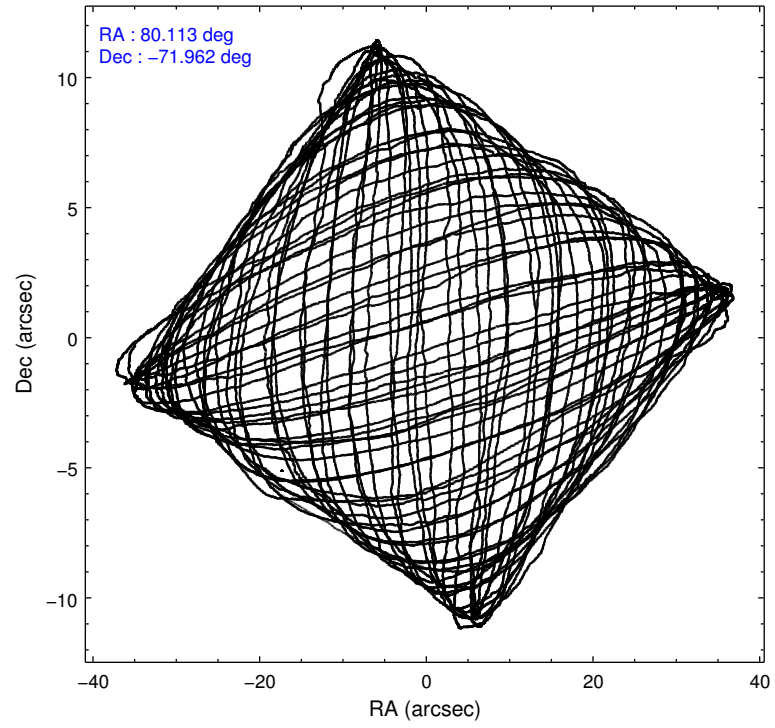
2.1.4 Events

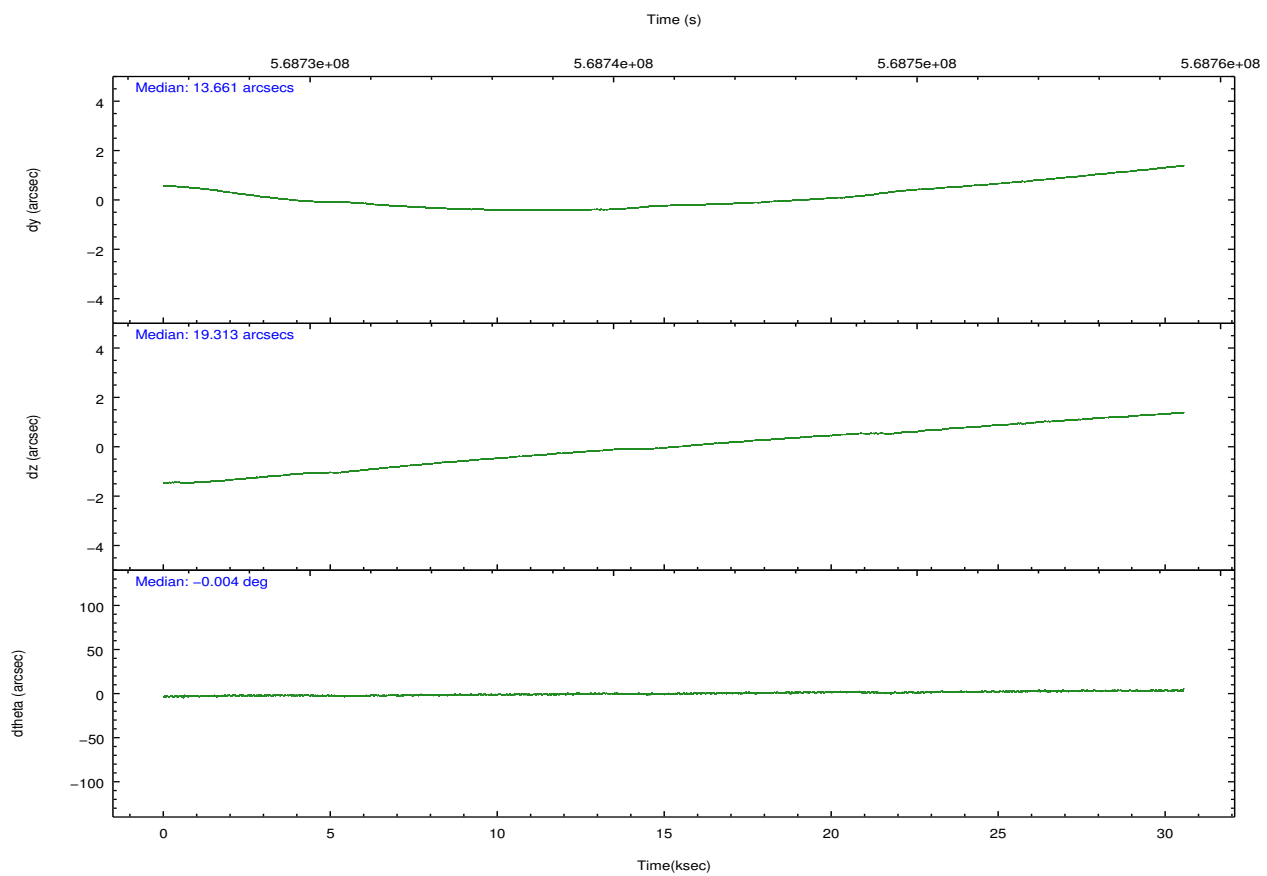
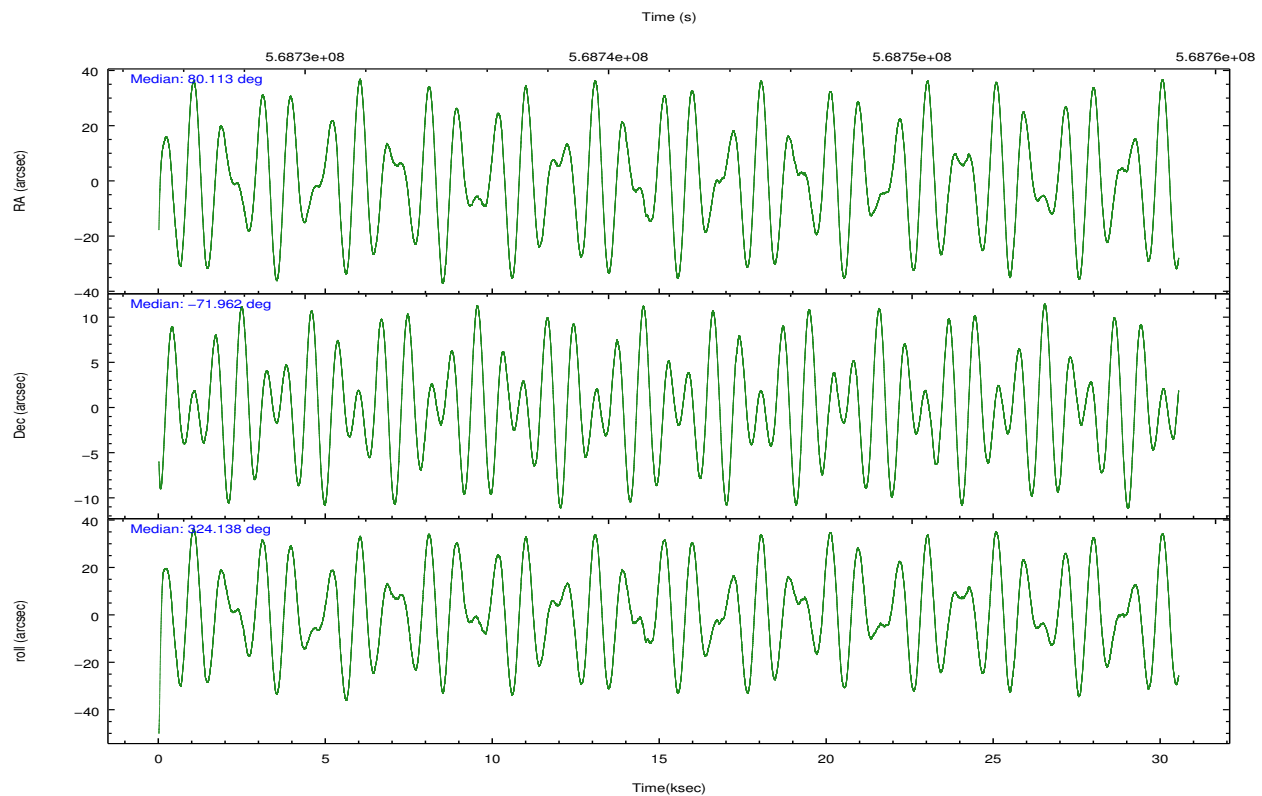
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	109642	176479	229142	270780	171297	99931	grade 0 events	7182	17700	102988	36246	48738	9624
rejected events	94239	75928	86870	71495	89820	81185		6%	10%	44%	13%	28%	9%
rejected %	85%	43%	37%	26%	52%	81%	grade 1 events	64	1179	522	635	205	51
								0%	0%	0%	0%	0%	0%
							grade 2 events	3289	29389	18598	47454	12647	3287
								2%	16%	8%	17%	7%	3%
							grade 3 events	1457	6158	6604	21101	5110	1627
								1%	3%	2%	7%	2%	1%
							grade 4 events	1365	5855	6451	20767	4963	1553
								1%	3%	2%	7%	2%	1%
							grade 5 events	4242	11071	4703	14290	6248	4668
								3%	6%	2%	5%	3%	4%
							grade 6 events	2112	41460	7643	73747	10030	2657
								1%	23%	3%	27%	5%	2%
							grade 7 events	89931	63667	81633	56540	83356	76464
								82%	36%	35%	20%	48%	76%

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	80.025188	80.11343209128933	CCD I2 on	N	N
[deg] Pointing Dec	-71.959702	-71.96216192576945	CCD I3 on	N	N
[deg] Pointing Roll	323.913014	324.153527847907	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	-183.992523	-183.985022191653	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-6.14	-6.147500391354811	CCD S4 on	Y	Y
[s] Observation start time (MET)	568727275.184000	568725822.16892	CCD S5 on	O2	Y
Observation start date	2016-01-09T11:46:47	2016-01-09T11:23:42	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	568757275.184000	568758229.59575	On-chip summing requested	N	N
Observation end date	2016-01-09T20:06:47	2016-01-09T20:23:49	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect



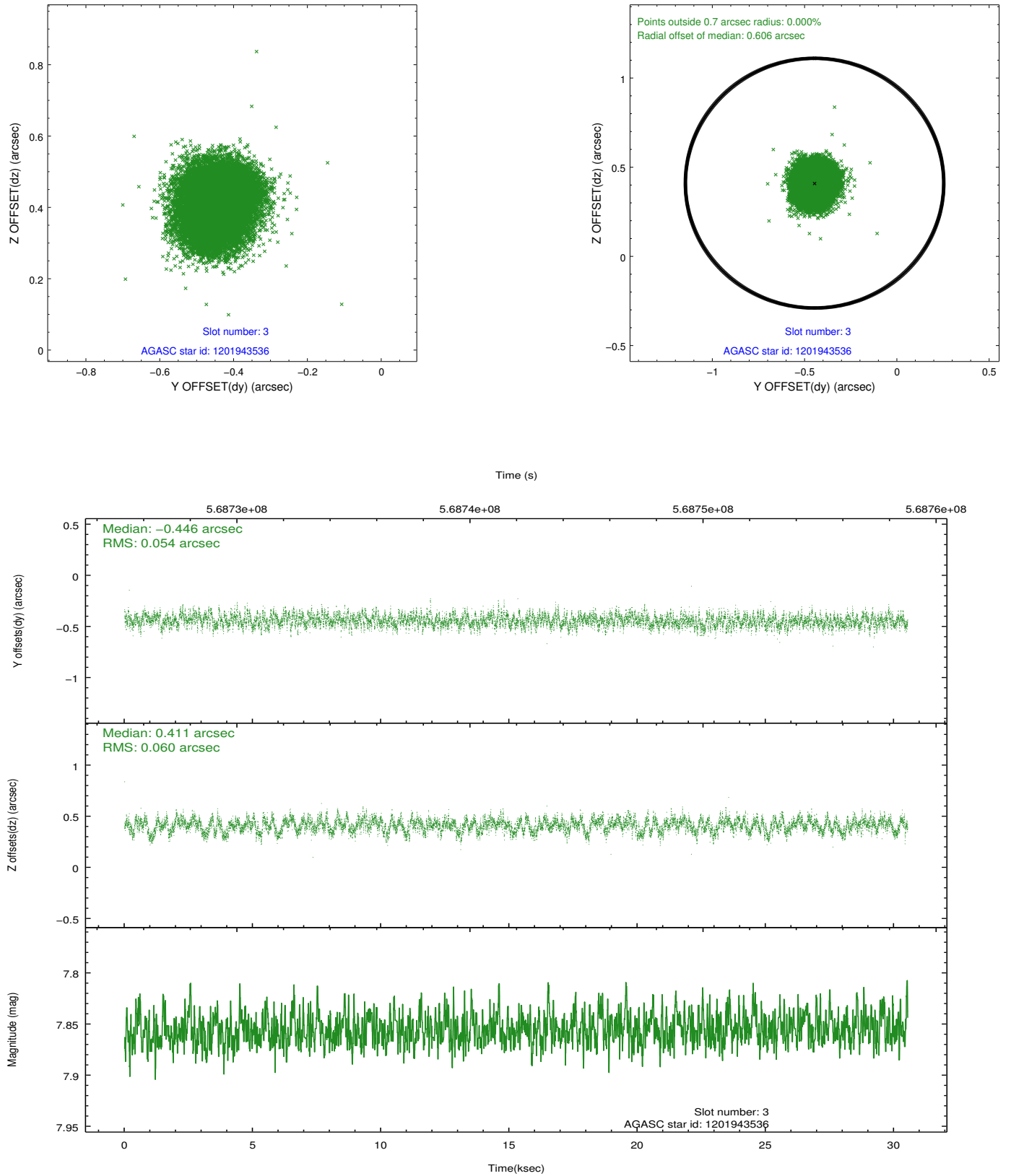


Slot Statistics

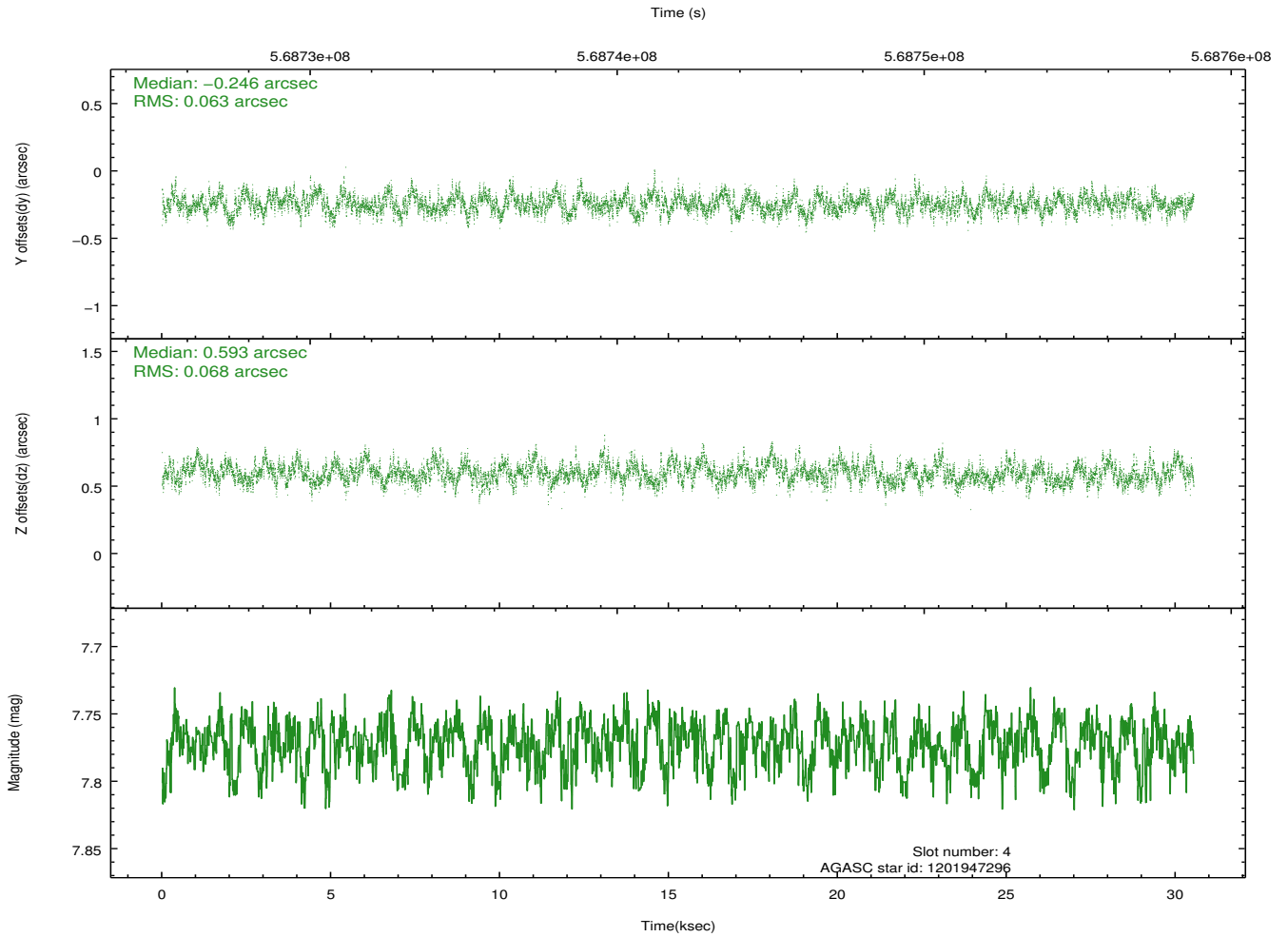
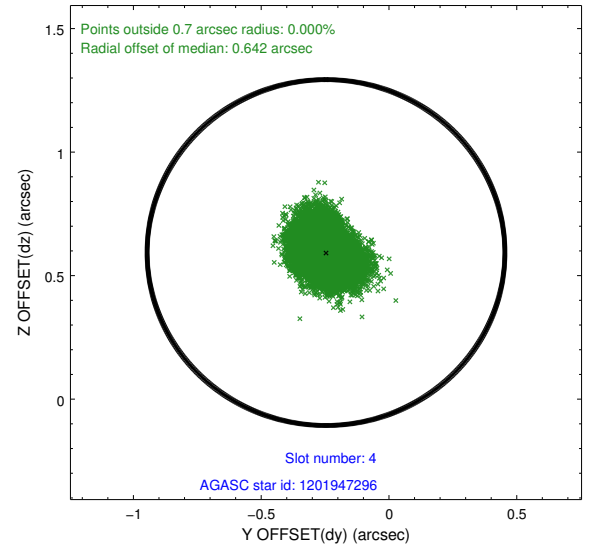
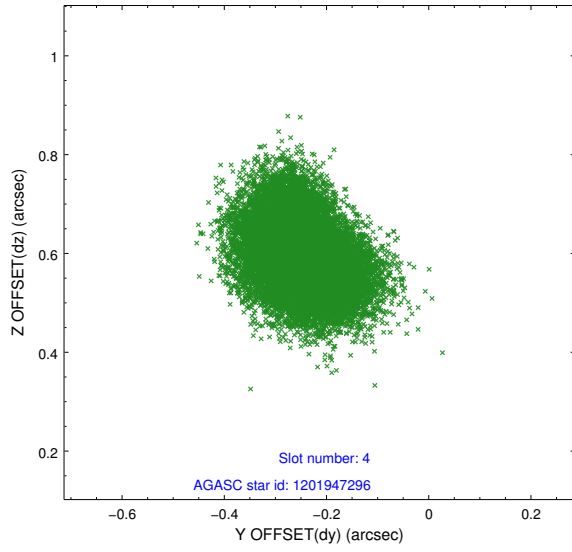
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.10	7448	-0.178	-0.154	0.028	0.054	0.000000	0.000000	-766.52	-1867.63
1	FID		ACIS-S-4	7.19	7448	0.385	0.124	0.018	0.042	0.000000	0.000000	2147.31	40.99
2	FID		ACIS-S-5	7.23	7448	-0.242	0.037	0.033	0.048	0.000000	0.000000	-1819.32	34.68
3	GUIDE	used	1201943536	7.86	14893	-0.446	0.411	0.087	0.135	80.686918	-72.338612	1389.83	-678.52
4	GUIDE	used	1201947296	7.77	14893	-0.246	0.593	0.100	0.158	80.605426	-71.506504	-424.05	1707.15
5	GUIDE	used	1201947968	7.38	14894	0.972	-1.080	0.071	0.121	79.357687	-71.533125	-1516.21	788.48
6	GUIDE	used	1201948040	8.28	14892	0.045	0.169	0.093	0.148	78.573490	-71.502940	-2296.47	336.38
7	GUIDE	used	1201943568	9.15	14887	-0.324	-0.092	0.138	0.229	79.668048	-72.694310	1249.72	-2362.55

2.4 Star Slots

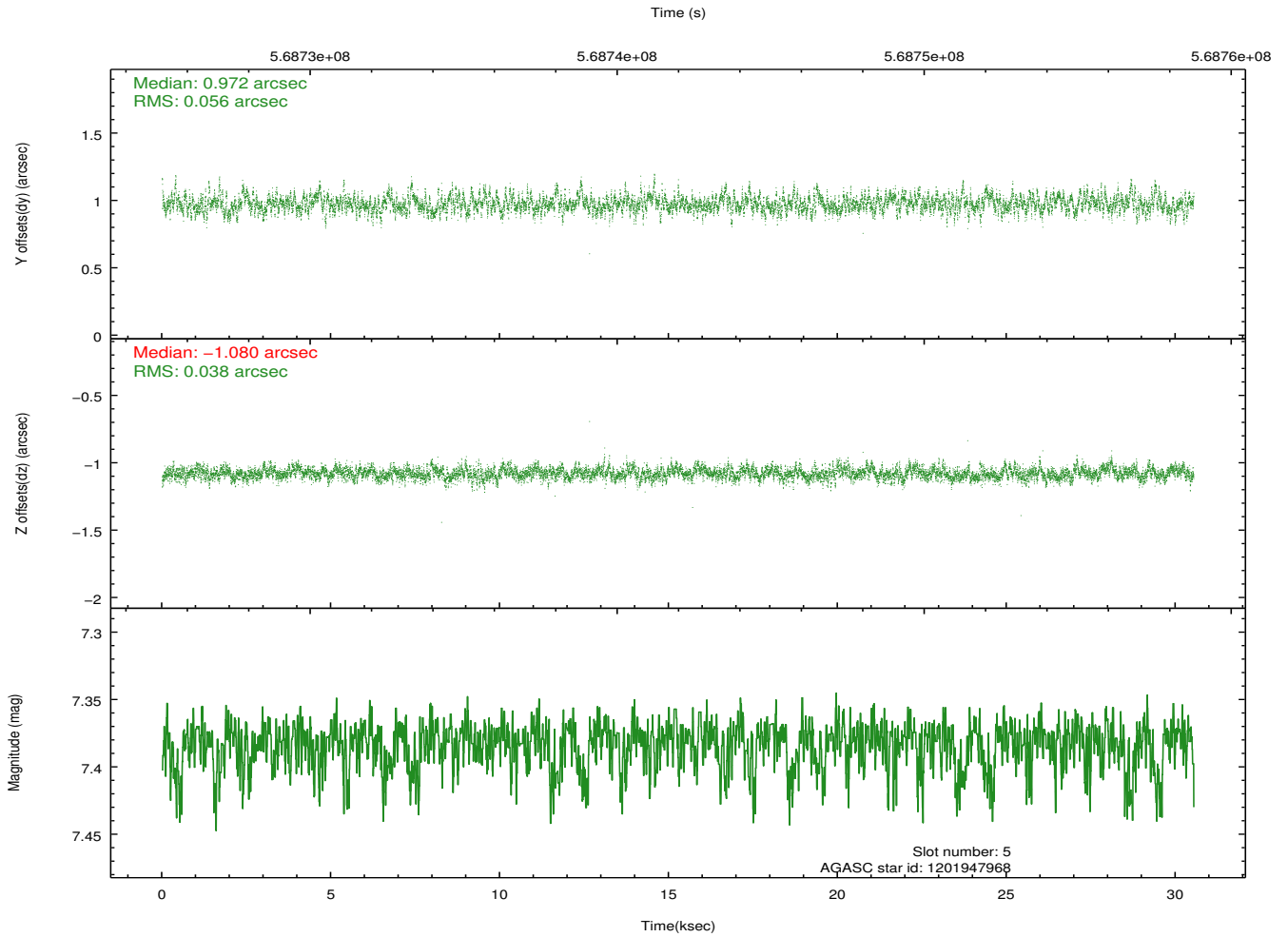
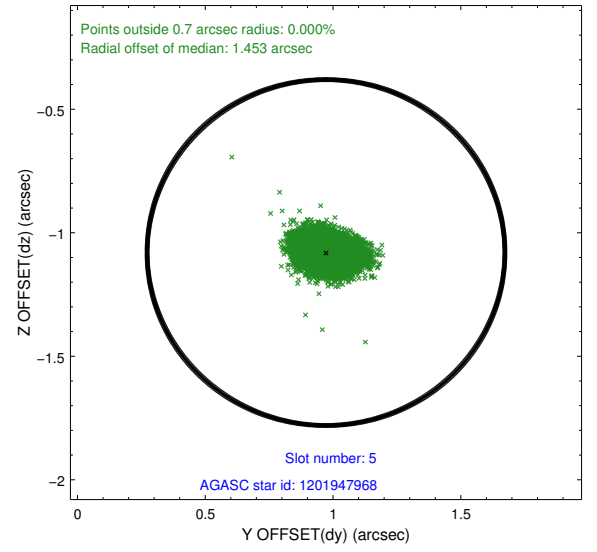
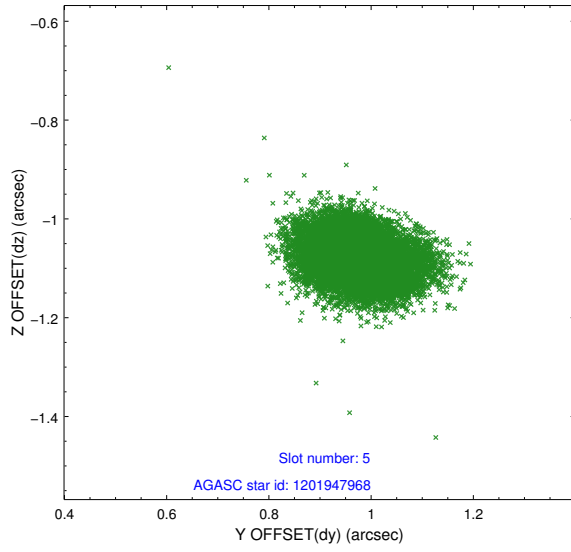
2.4.1 Slot 3



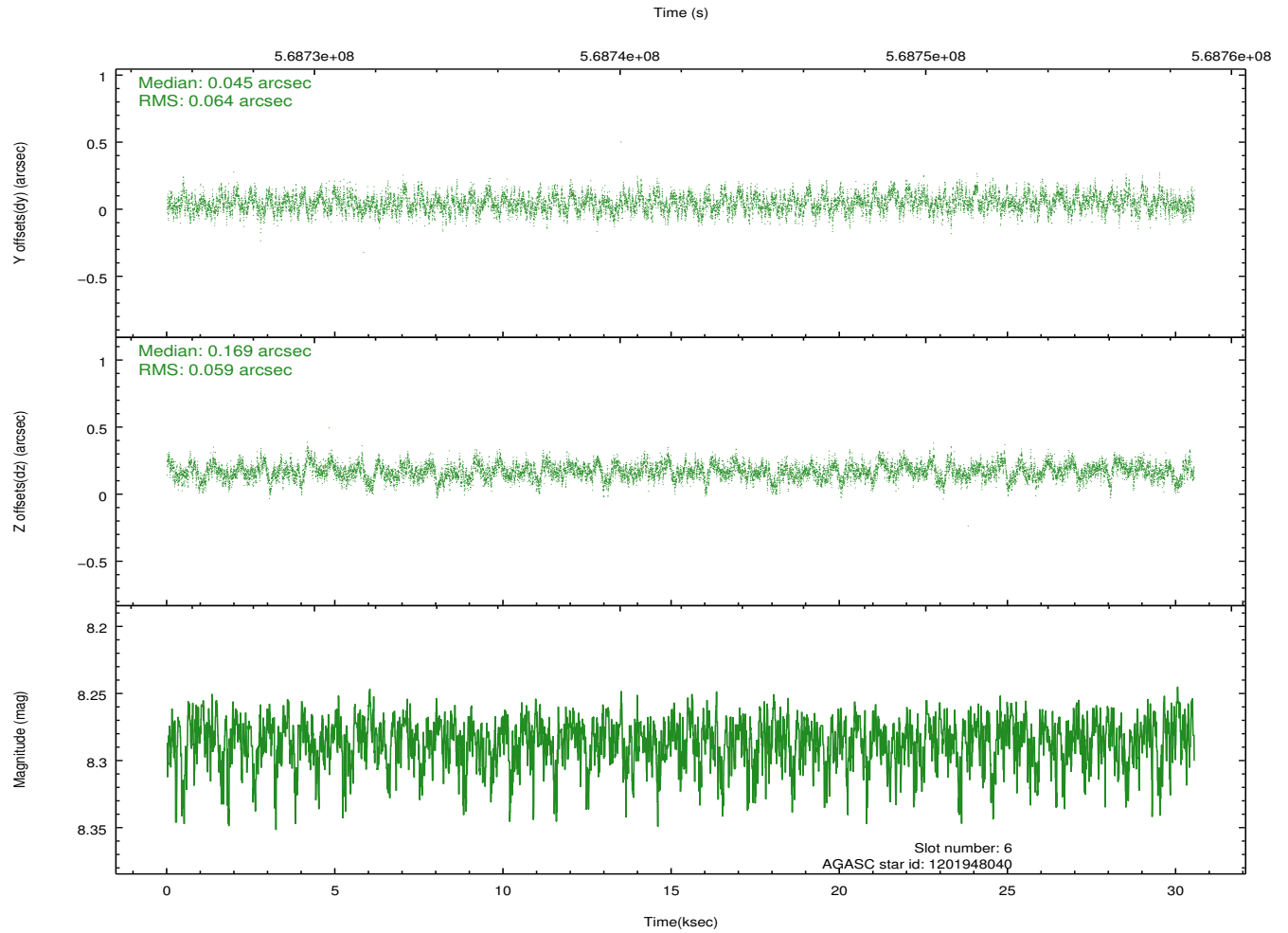
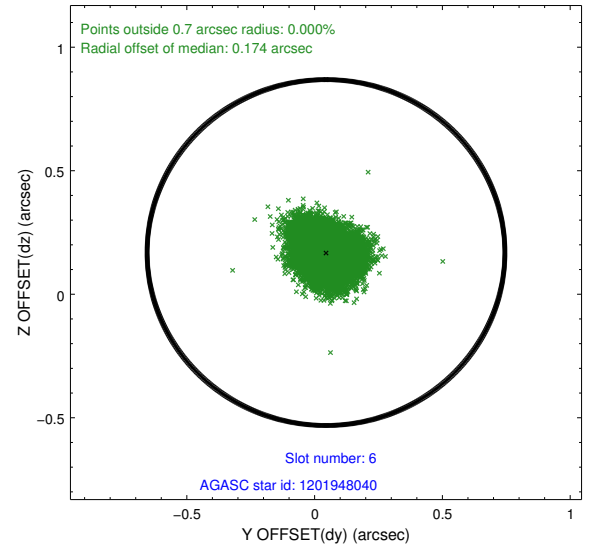
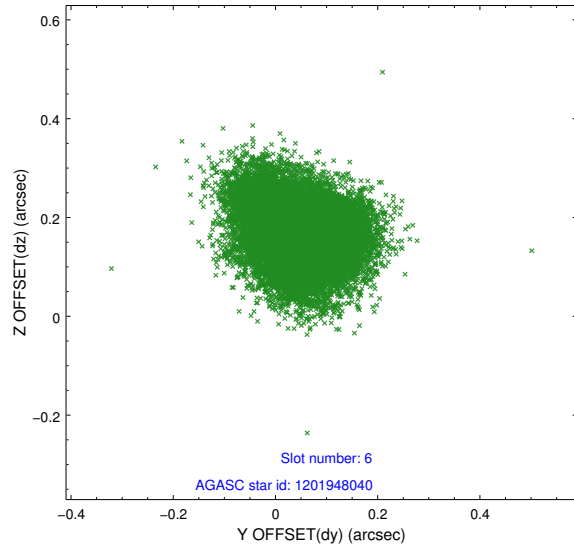
2.4.2 Slot 4



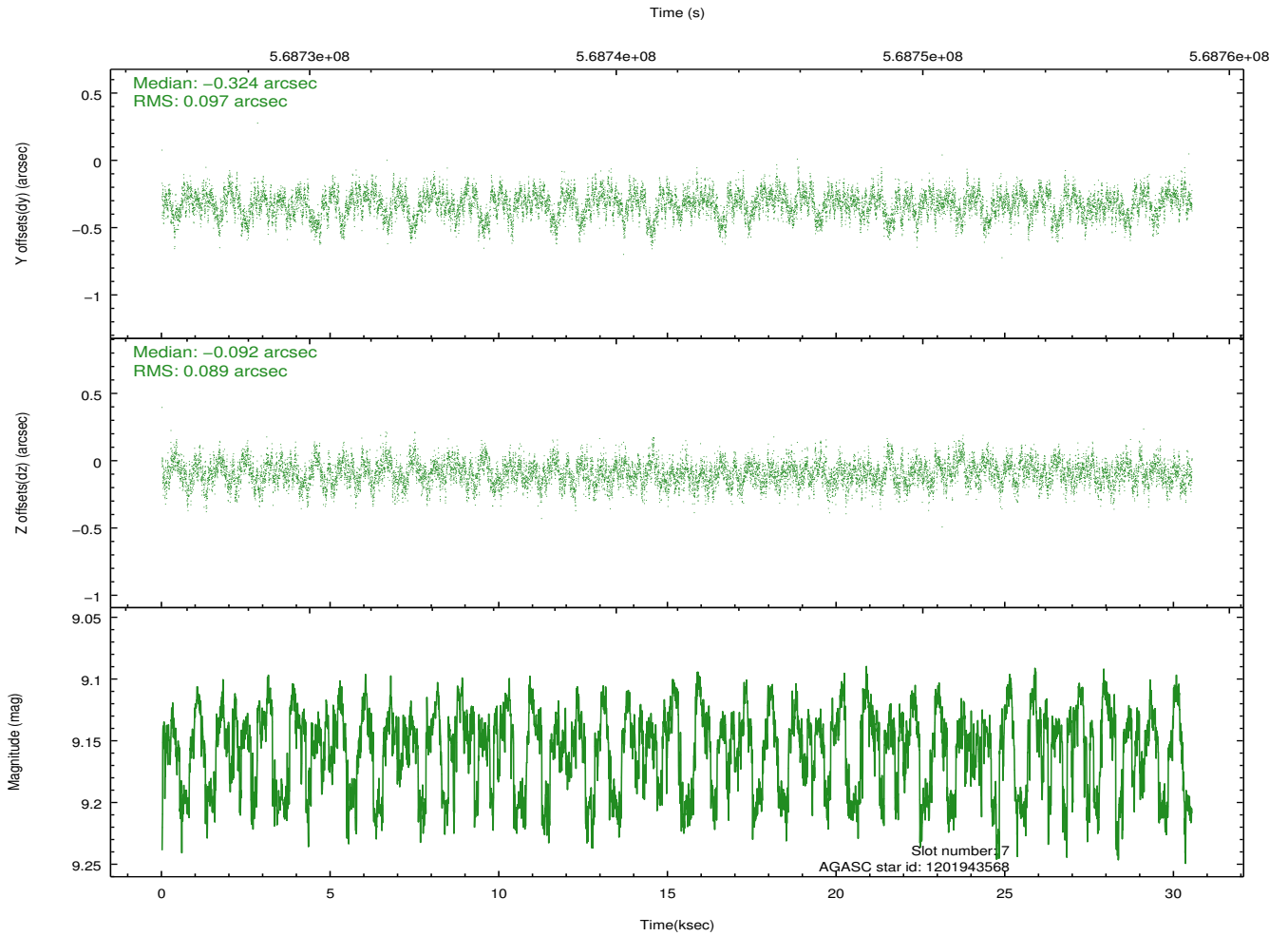
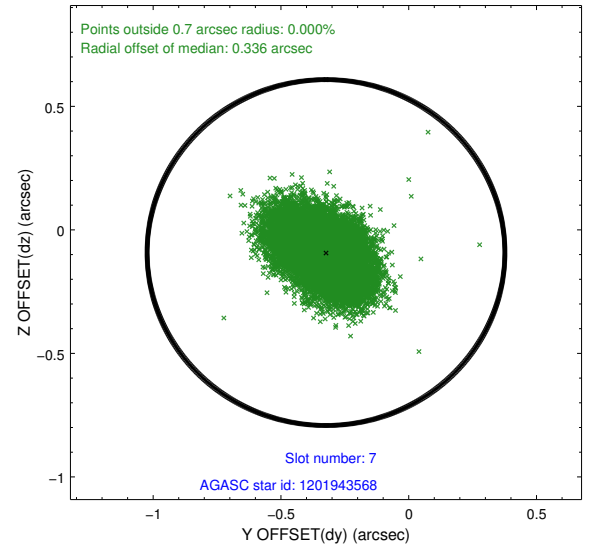
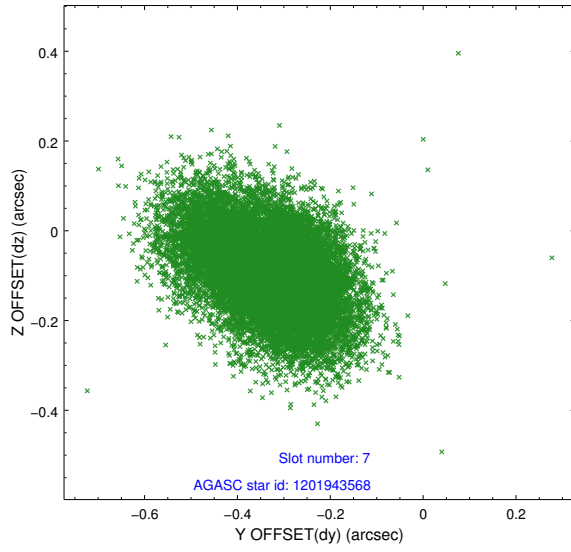
2.4.3 Slot 5



2.4.4 Slot 6

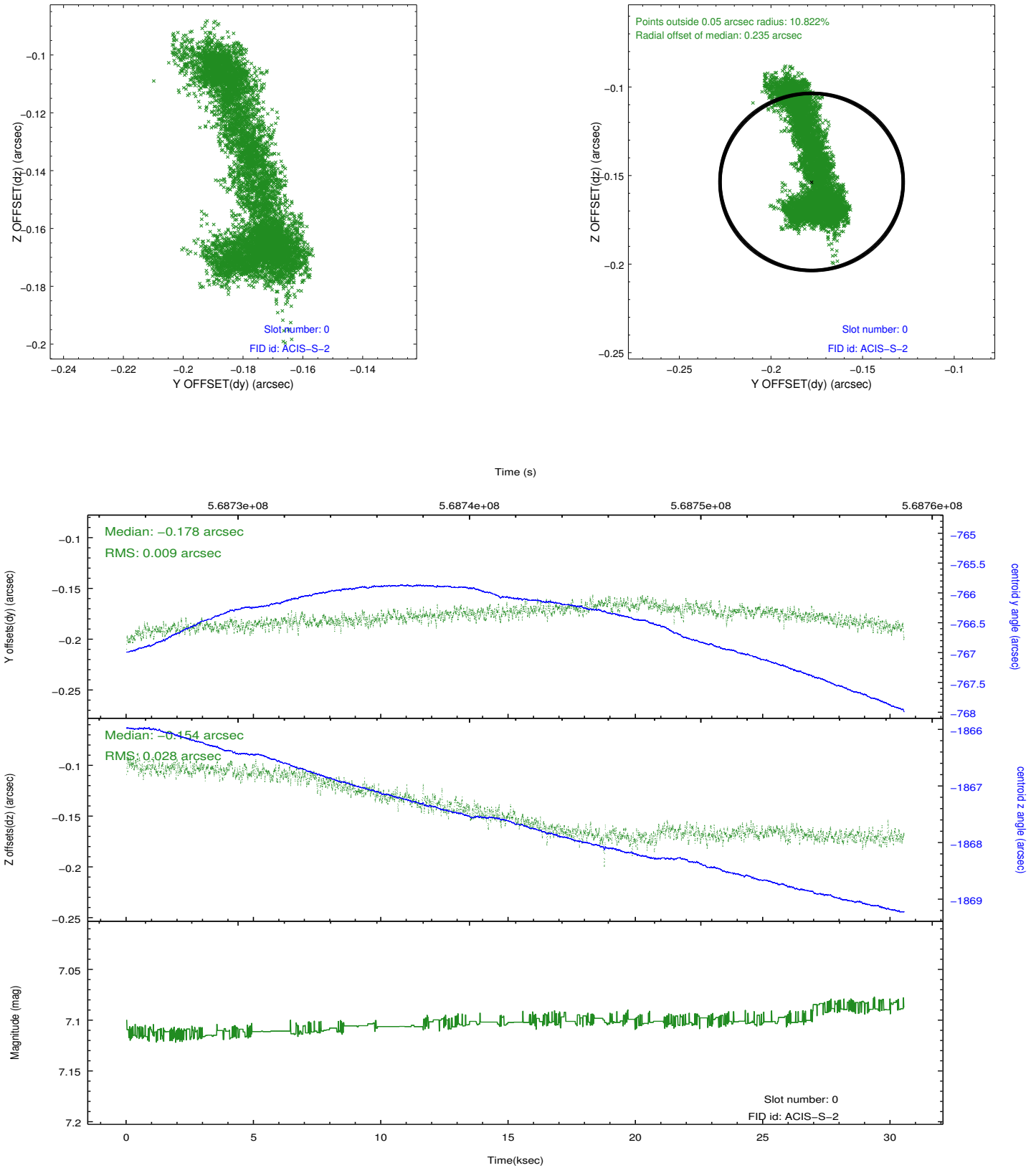


2.4.5 Slot 7

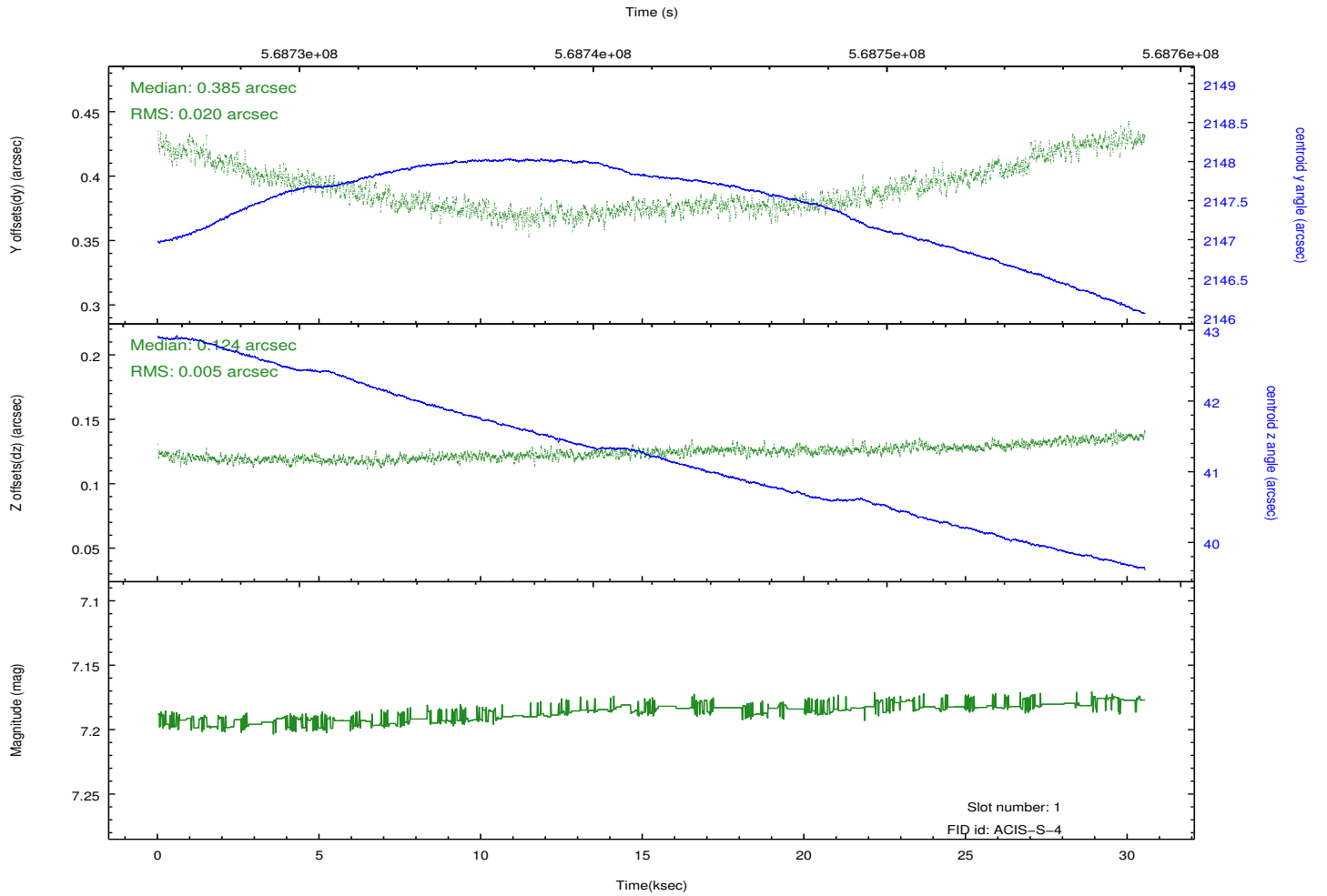
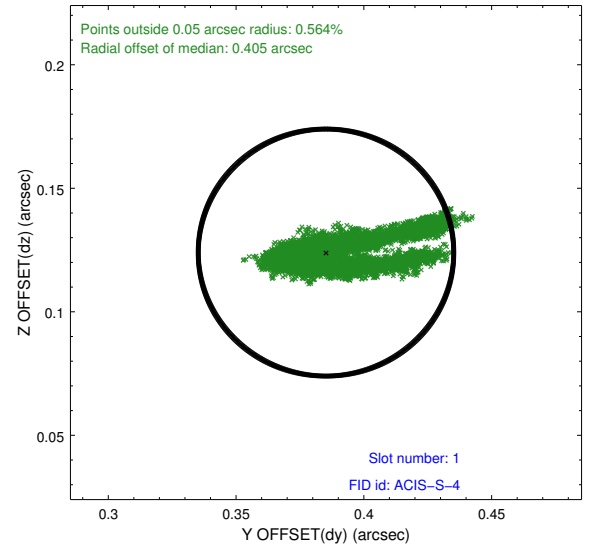
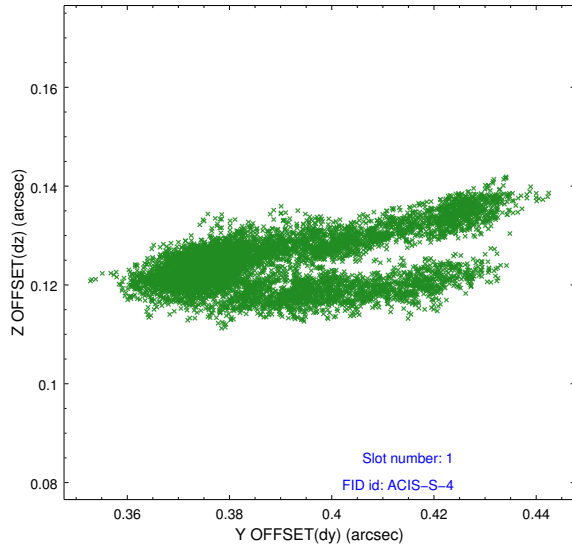


2.5 FID Slots

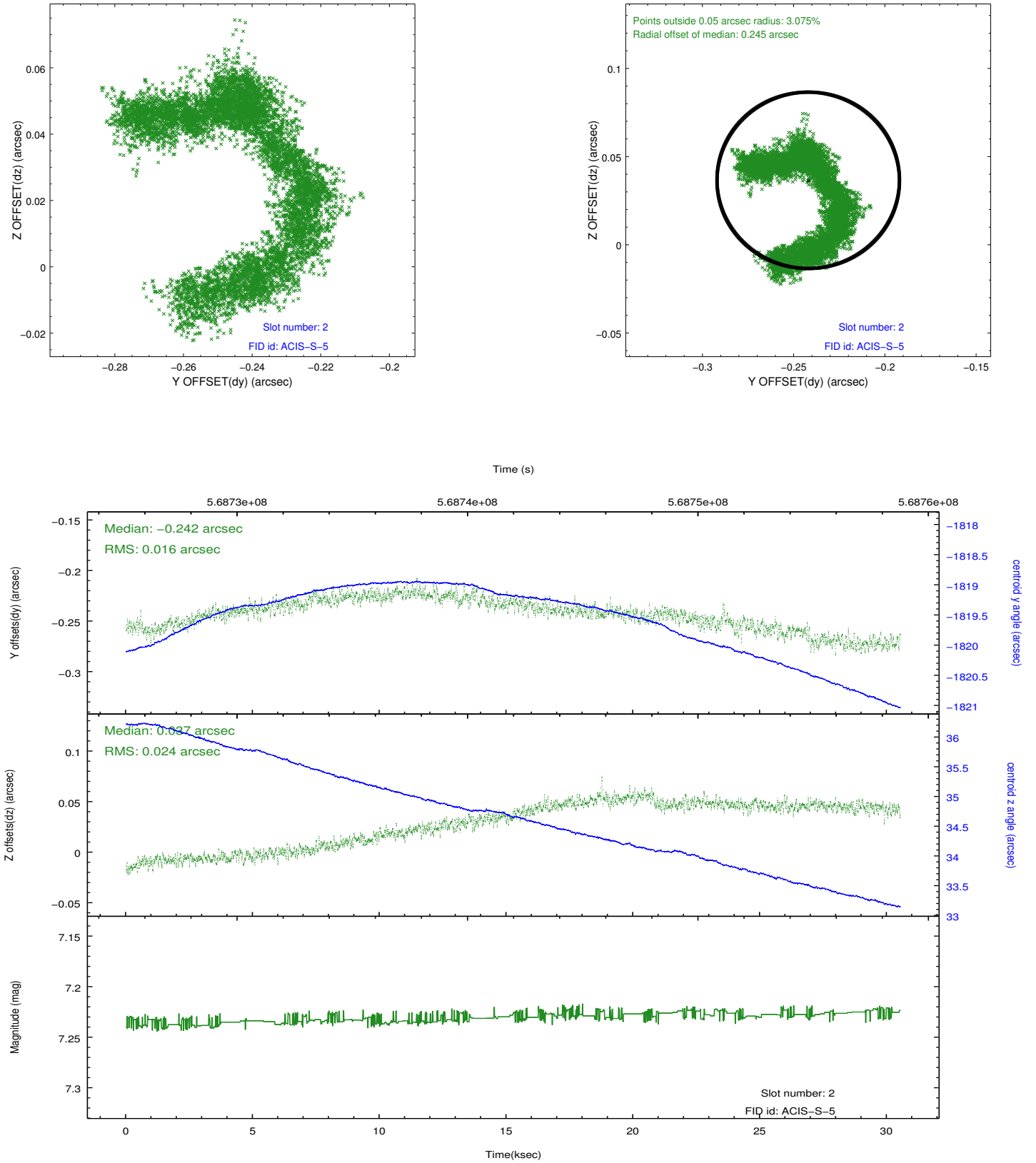
2.5.1 Slot 0



2.5.2 Slot 1

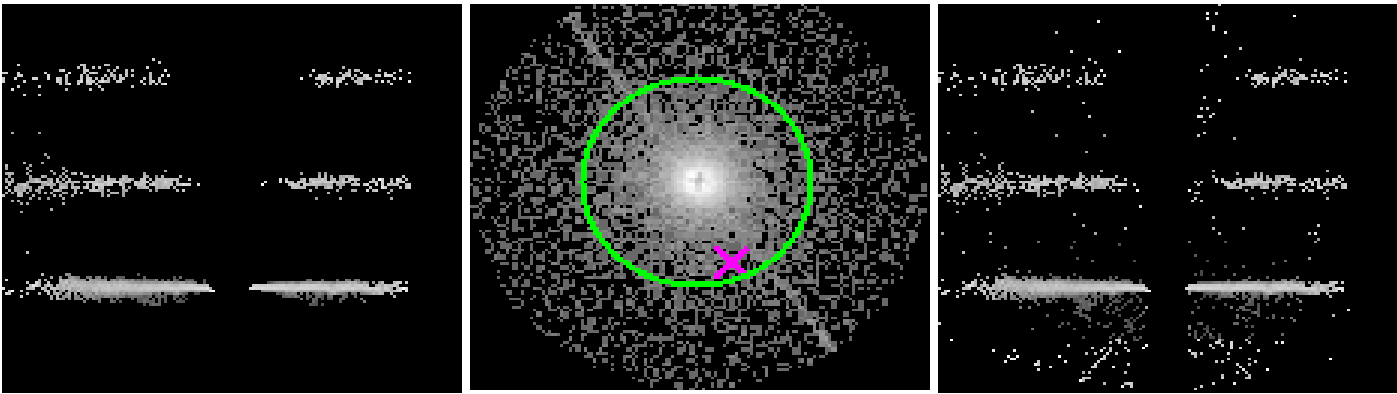


2.5.3 Slot 2



3 Gratings

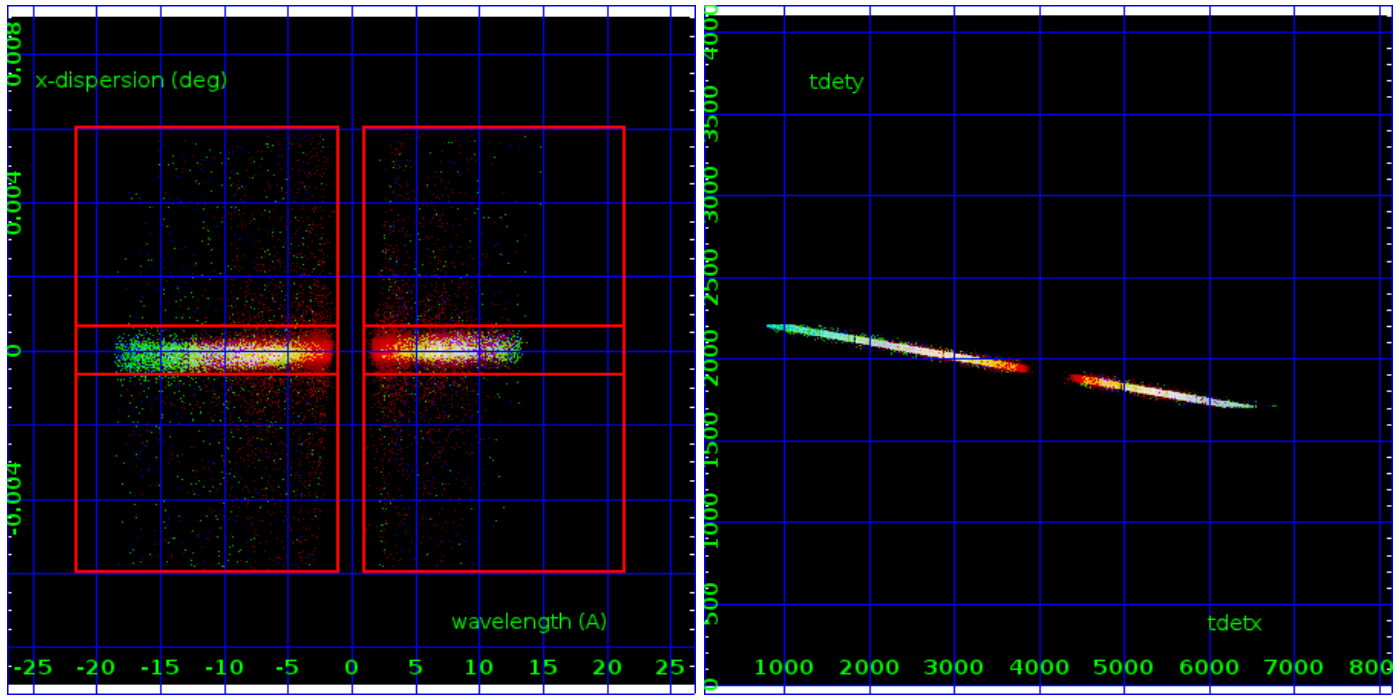
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

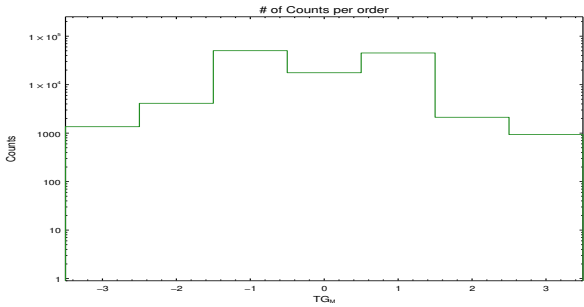
HEG Order Sort ALL

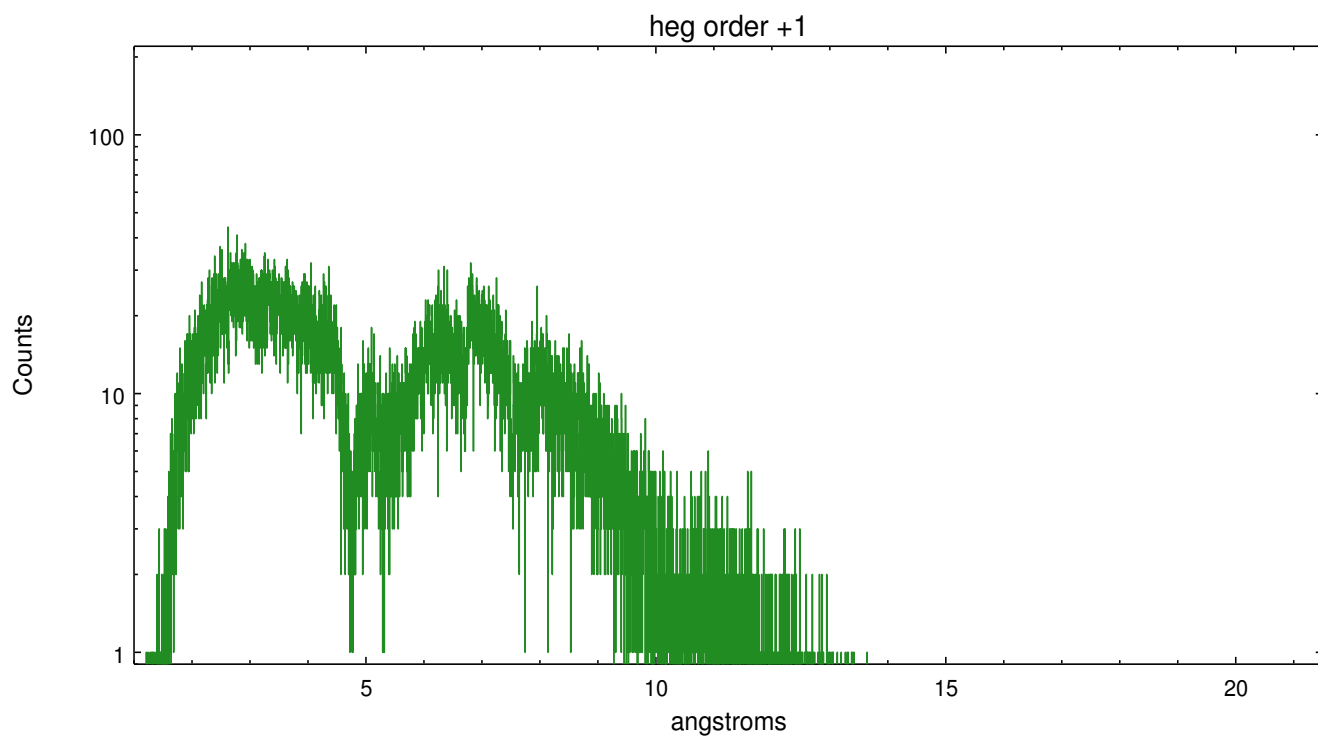
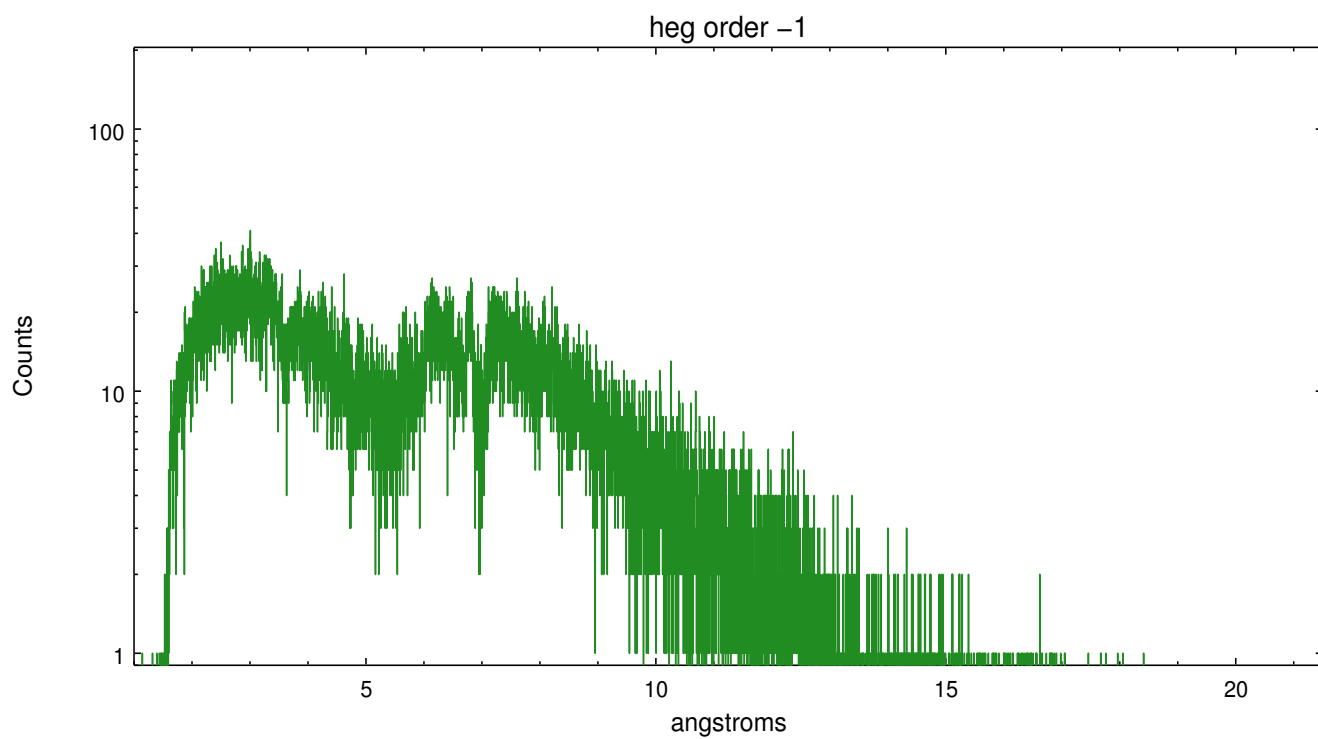


Spot Image HEG

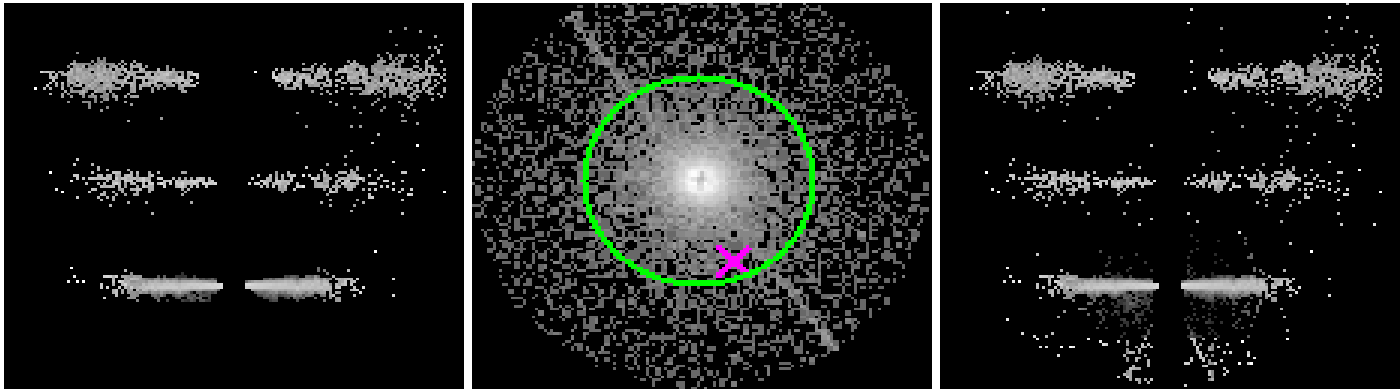
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1358	4123	50241	17622	45056	2123	933





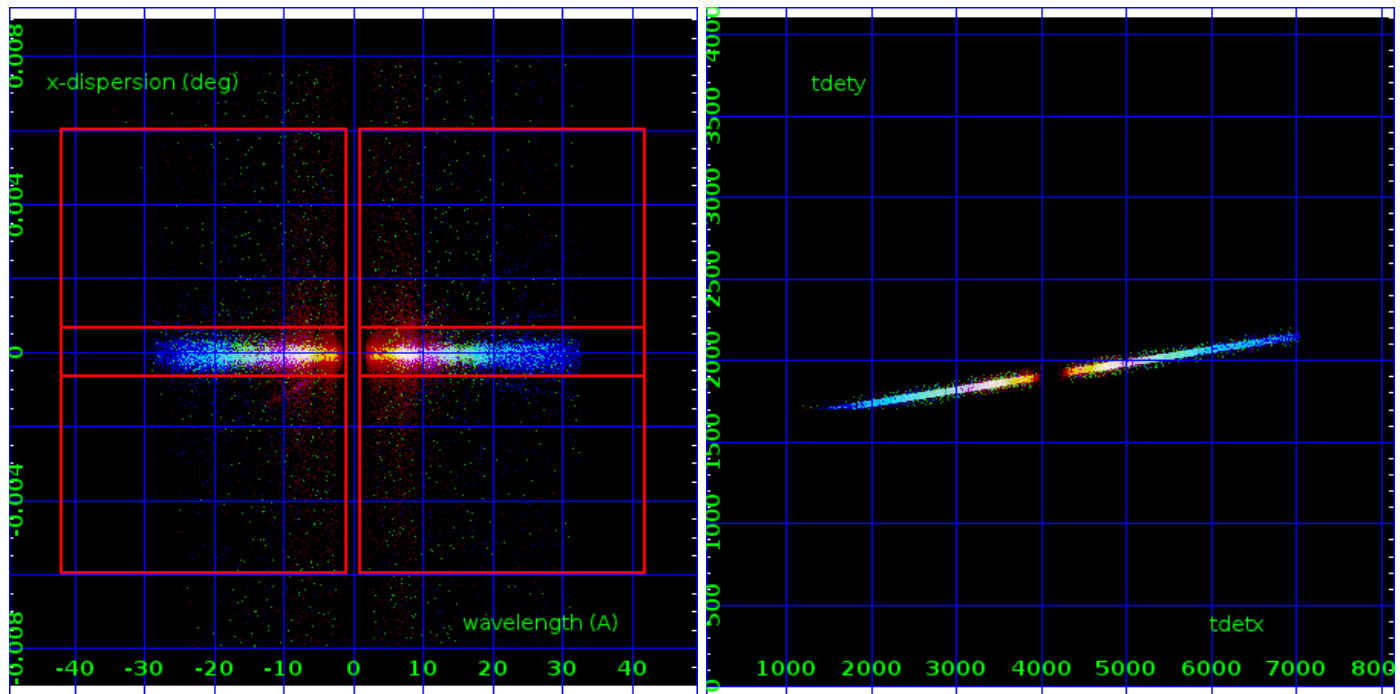
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

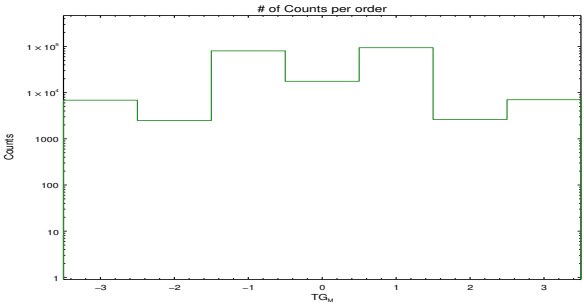
MEG Order Sort ALL

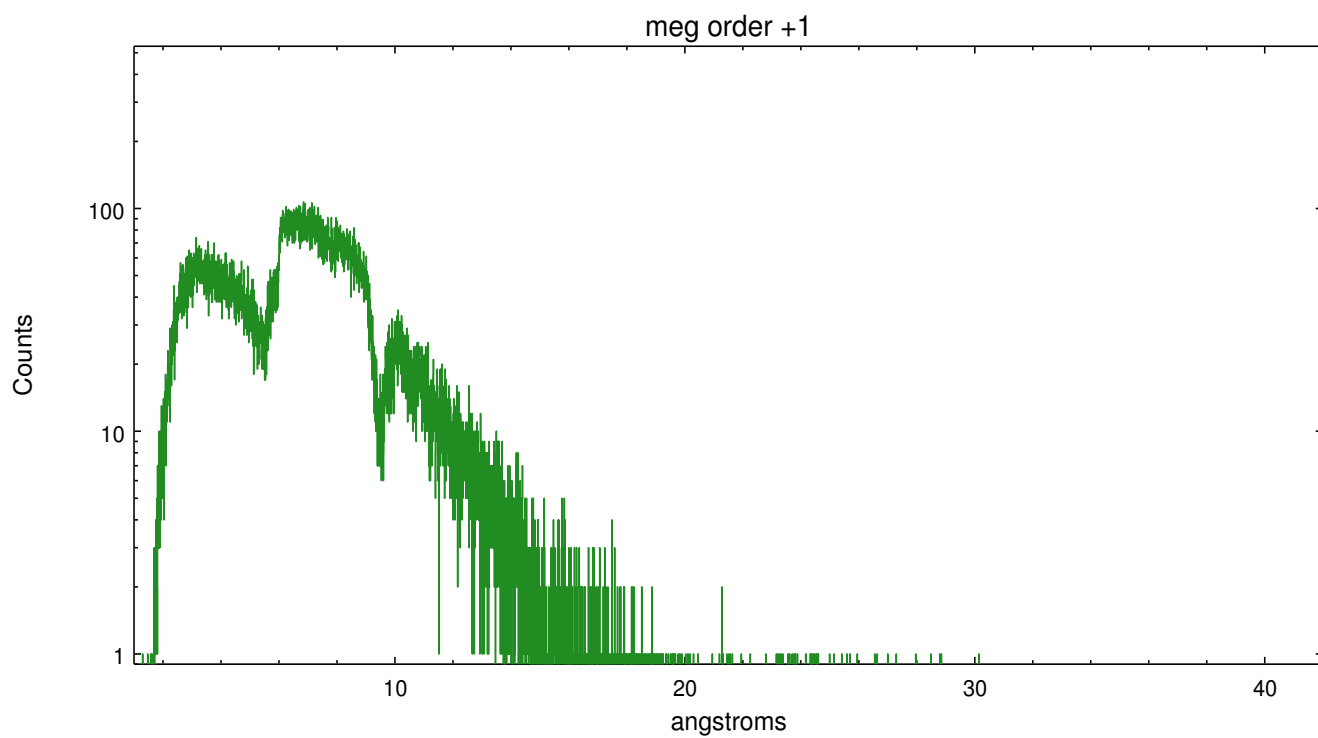
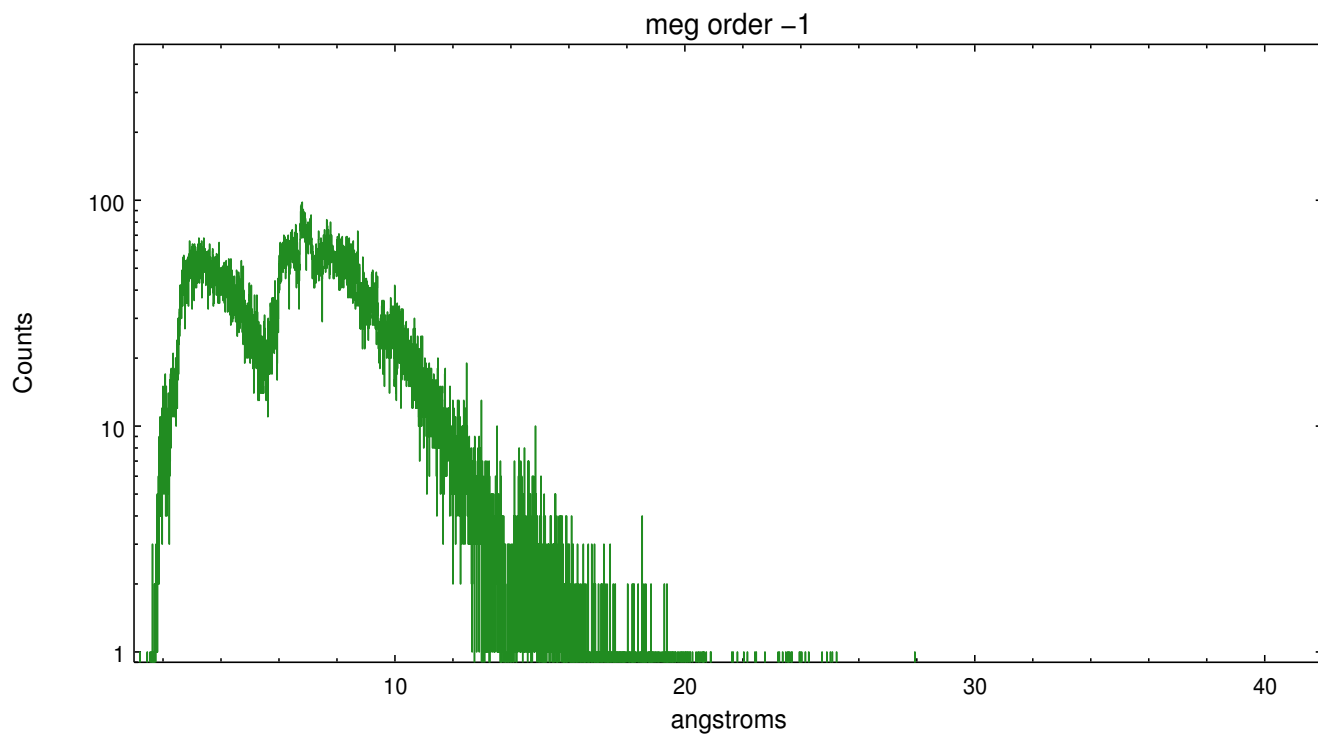


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	6874	2497	80396	17622	94207	2628	7036





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2016.01.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.032200842381

A.2 Comments