

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21846 - L2 Version 2
Chandra X-Ray Center

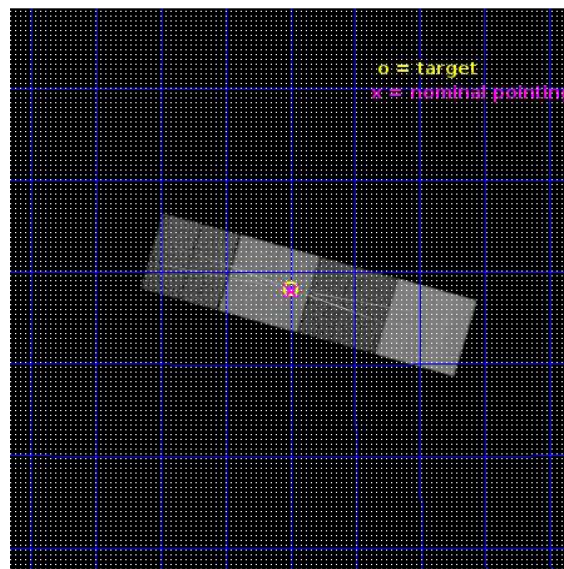
L2 Processing Date : May 13 2019

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1 Front

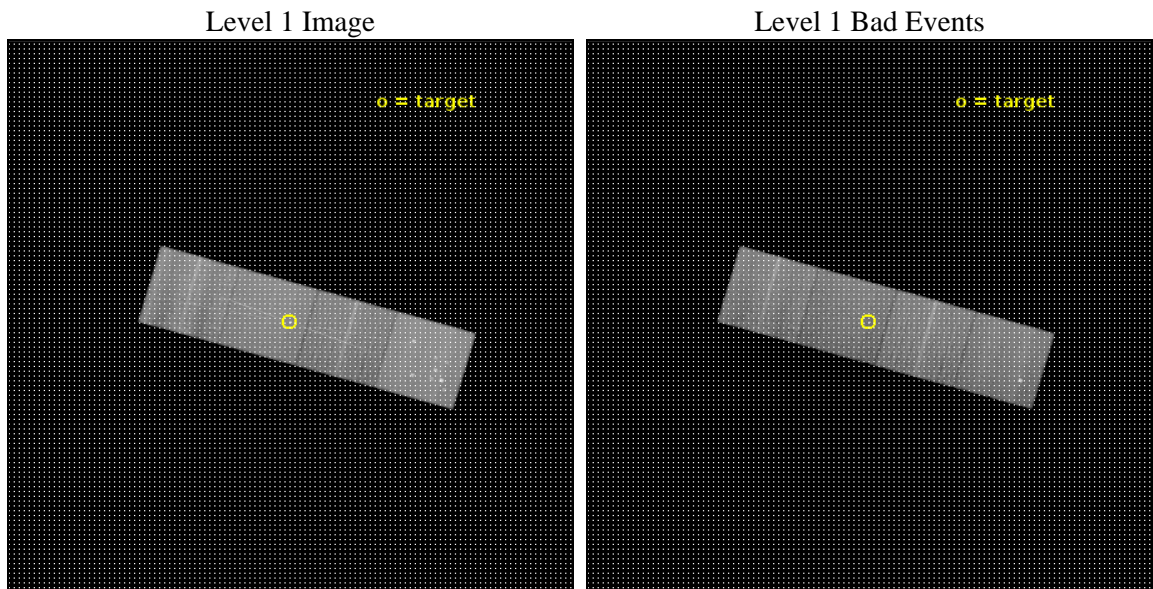
seq_num	703822	Sequence number
obs_id	21846	Observation id
title	Capturing the disk wind in NGC 5548 with Chandra	Proposal title
observer	Jelle Kaastra	Principal investigator
object	NGC 5548	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.497917	Observer's specified target RA [deg]
dec_targ	25.136833	Observer's specified target Dec [deg]
ra_nom	214.4979171374	Nominal RA [deg]
dec_nom	25.133610365257	Nominal Dec [deg]
roll_nom	196.15662217238	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30060.700231314	Sum of GTIs [s]
livetime	29667.935052426	Livetime [s]
ontime5	30060.700231314	Sum of GTIs [s]
ontime6	30057.559171081	Sum of GTIs [s]
ontime7	30060.700231314	Sum of GTIs [s]
ontime8	30057.559161067	Sum of GTIs [s]
l2events	360031	Number of level 2 events



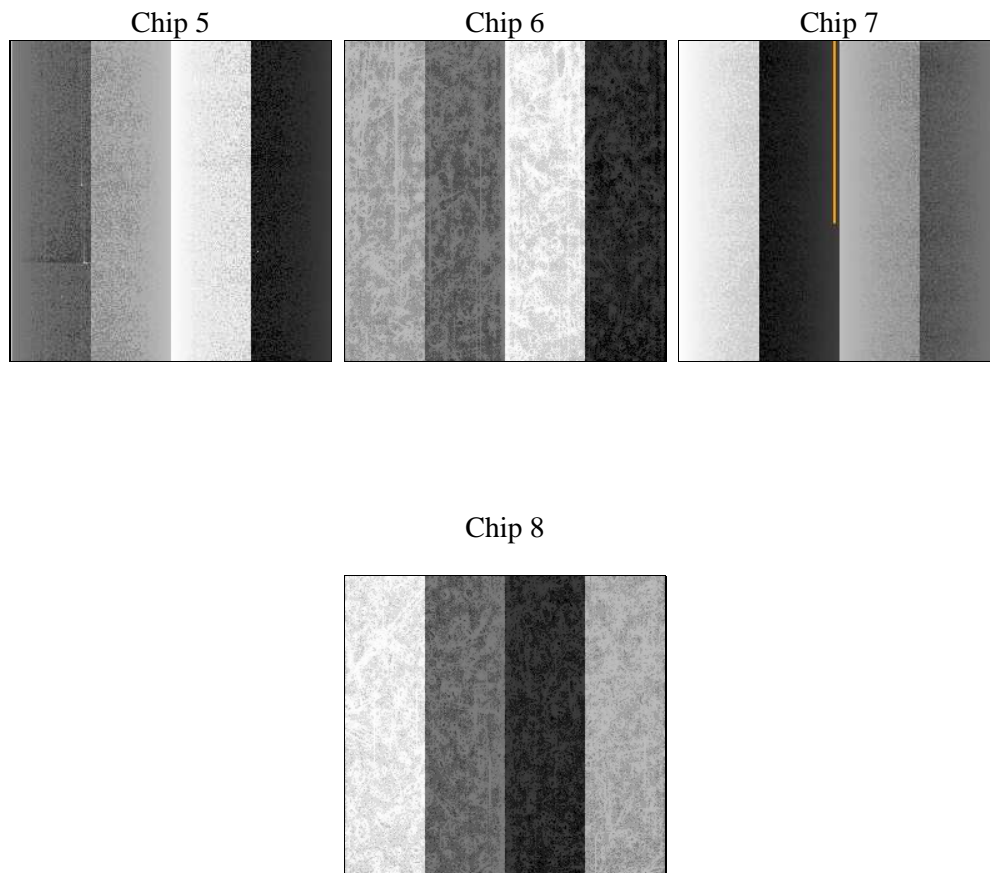
2 OBI

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	10.7.1	Processing system revision	ontime	30060.700231314	Sum of GTIs [s]
caldbver	4.8.2	 	ontime5	30060.700231314	Sum of GTIs [s]
date	2019-05-13T17:27:51	Date and time of file creation	ontime6	30057.559171081	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	30060.700231314	Sum of GTIs [s]
			ontime8	30057.559161067	Sum of GTIs [s]
			l1events	1239158	Number of level 1 events
			tgmethod	MANUAL	Method used to create src1a file
			zo_pos	(4096.12, 4120.12)	src1a sky pixel position
			zo_pos_tgd	(4096.21, 4120.35)	src1a sky pixel position via todetect

2.1.4 Events

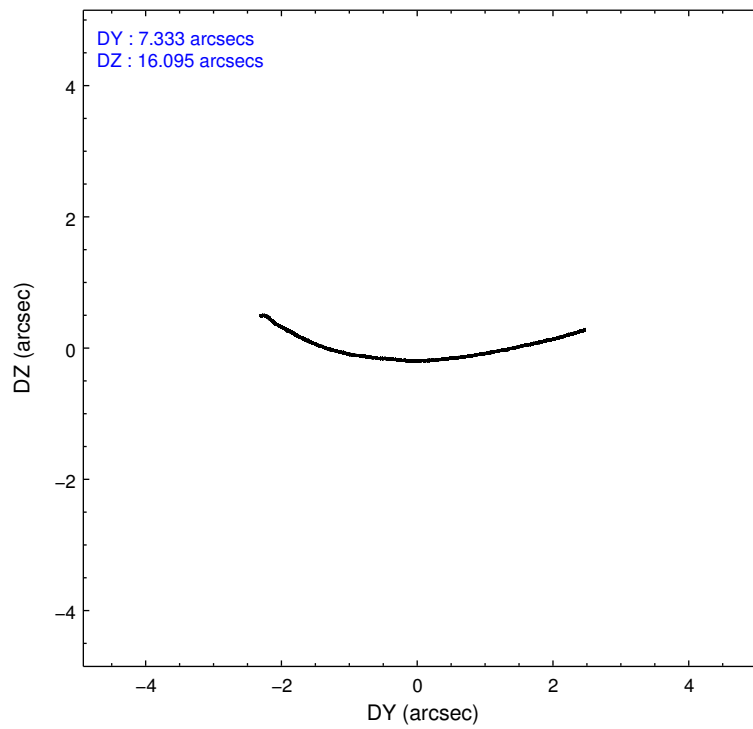
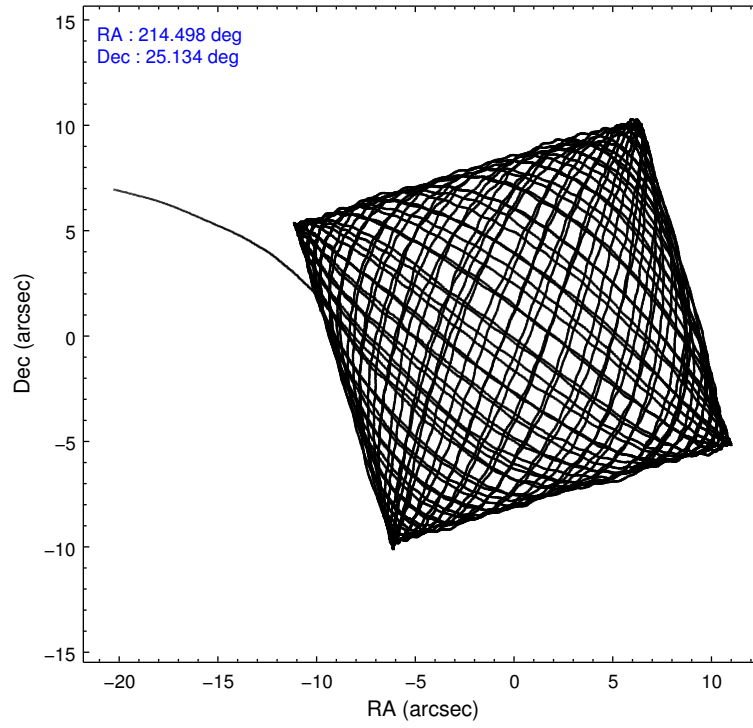
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	384384	242836	308790	303148
rejected events	195254	211040	169228	218880
rejected %	50%	86%	54%	72%

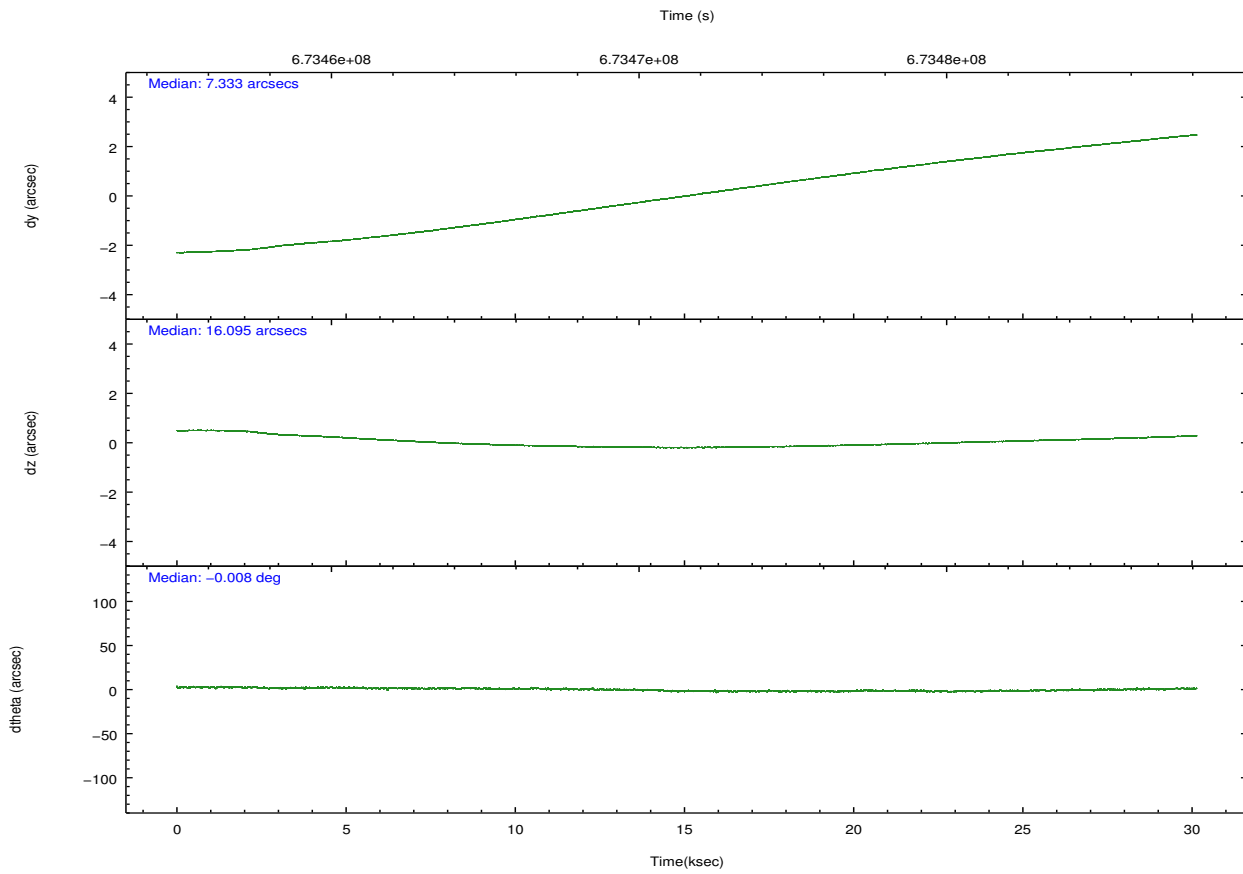
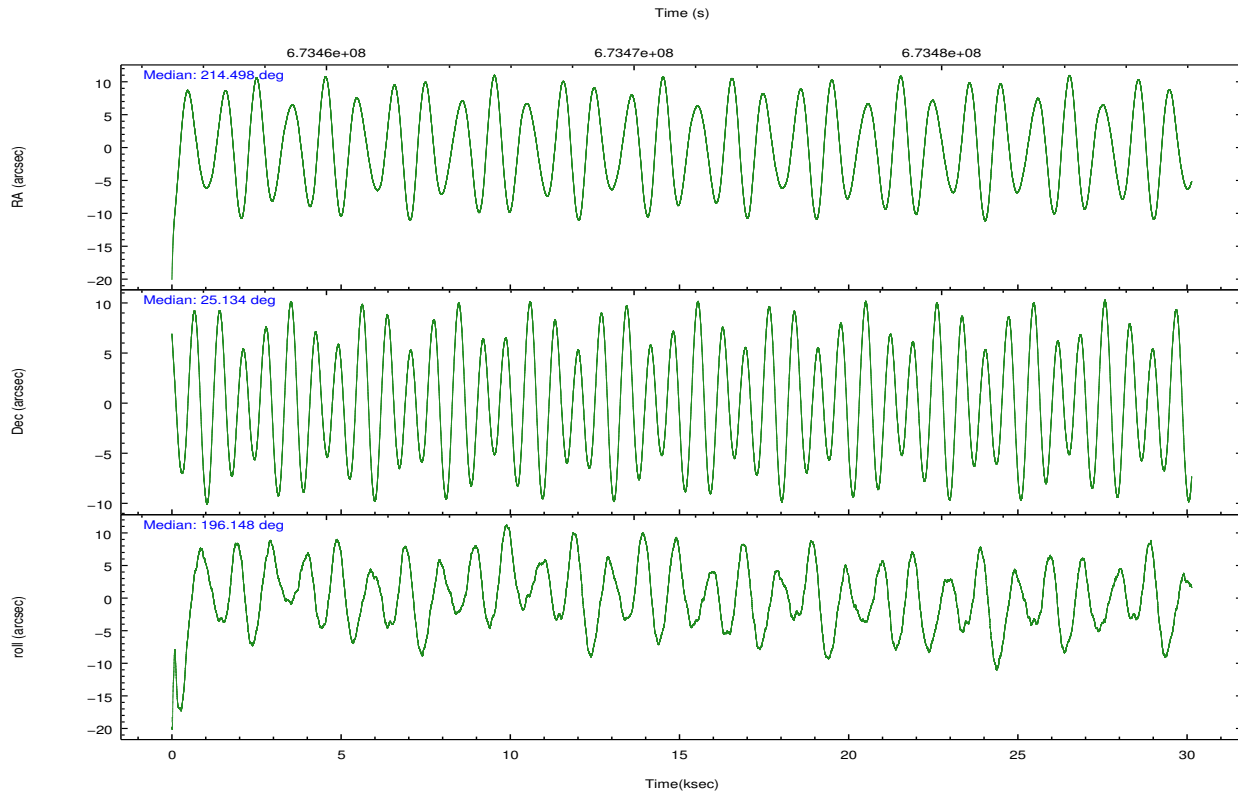
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	22970	12465	13039	24886
	5%	5%	4%	8%
grade 1 events	943	140	572	229
	0%	0%	0%	0%
grade 2 events	58407	7224	30164	20062
	15%	2%	9%	6%
grade 3 events	5282	2697	11177	8536
	1%	1%	3%	2%
grade 4 events	4890	2688	10896	8159
	1%	1%	3%	2%
grade 5 events	24539	10381	29285	16177
	6%	4%	9%	5%
grade 6 events	97617	6725	74301	22628
	25%	2%	24%	7%
grade 7 events	169736	200516	139356	202471
	44%	82%	45%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	214.518632	214.4979171374007	CCD I2 on	N	N
[deg] Pointing Dec	25.153666	25.13361036525696	CCD I3 on	N	N
[deg] Pointing Roll	195.991203	196.1566221723814	CCD S0 on	O1	N
[s] Window start time (MET)	665366469.184000	665366469.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	682992069.184000	682992069.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S5 on	O2	N
[mm] SIM translation stage offset	0	0.01005778216563158	Number of optional ACIS chips dropped	2	2
[s] Observation start time (MET)	673456613.184000	673455565.13095	On-chip summing requested	N	N
Observation start date	2019-05-05T15:15:44	2019-05-05T14:59:25	Subarray requested	NONE	NONE
[s] Observation end time (MET)	673486613.184000	673487319.6328599	Alternating exposures requested	N	N
Observation end date	2019-05-05T23:35:44	2019-05-05T23:48:39	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



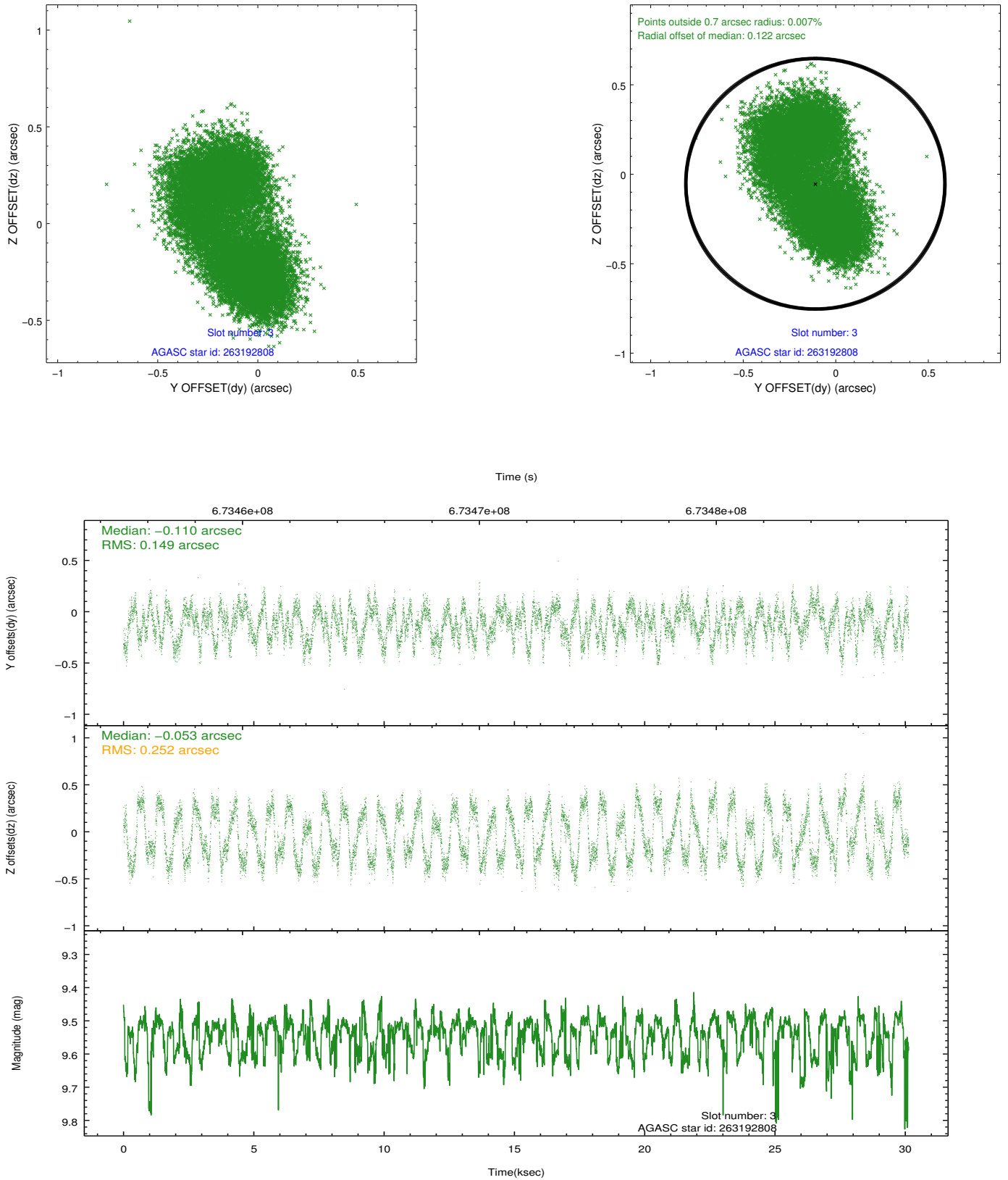


Slot Statistics

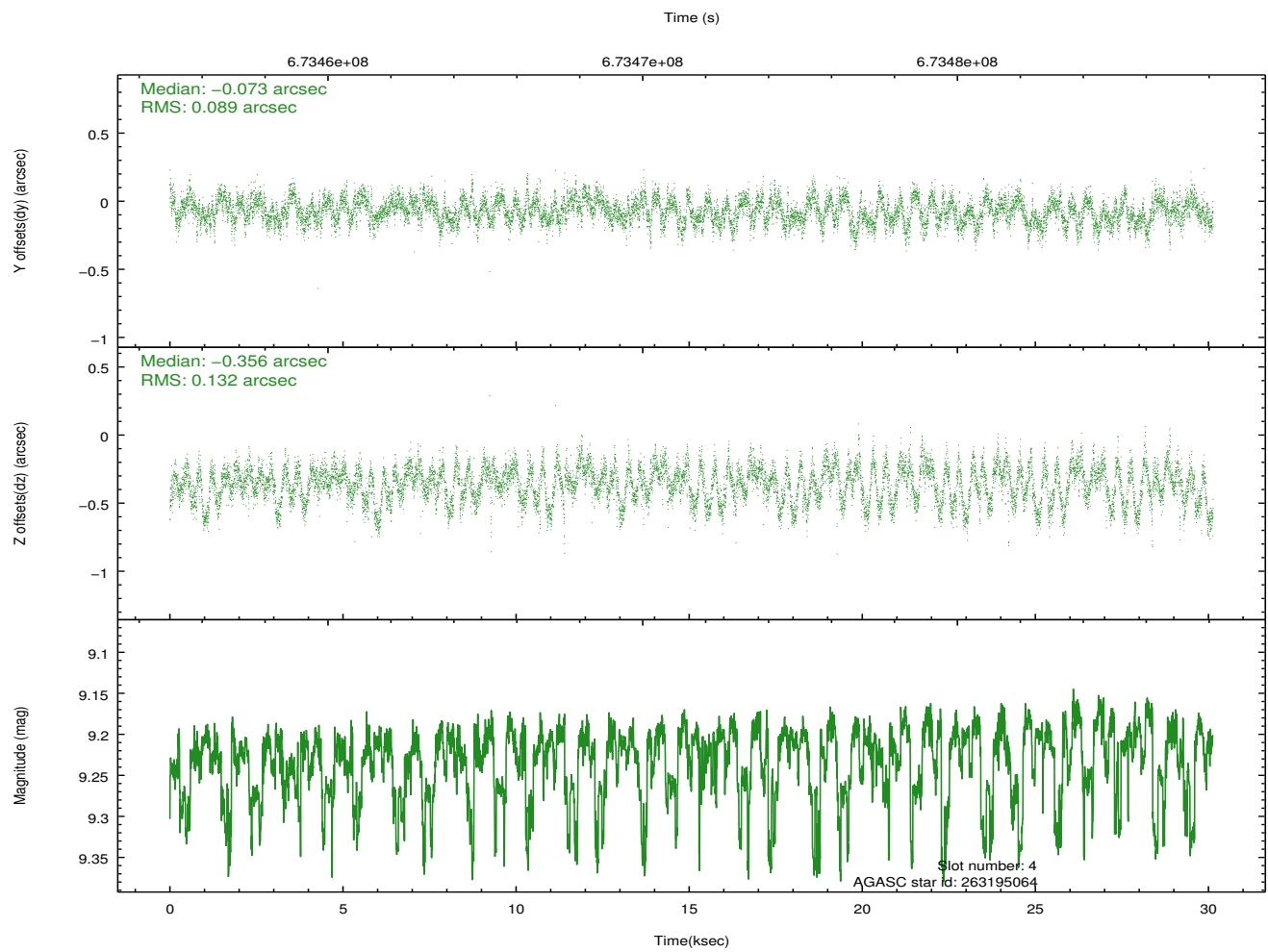
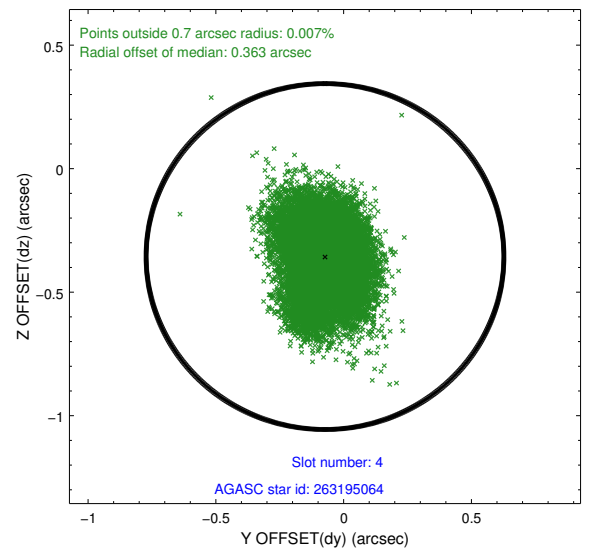
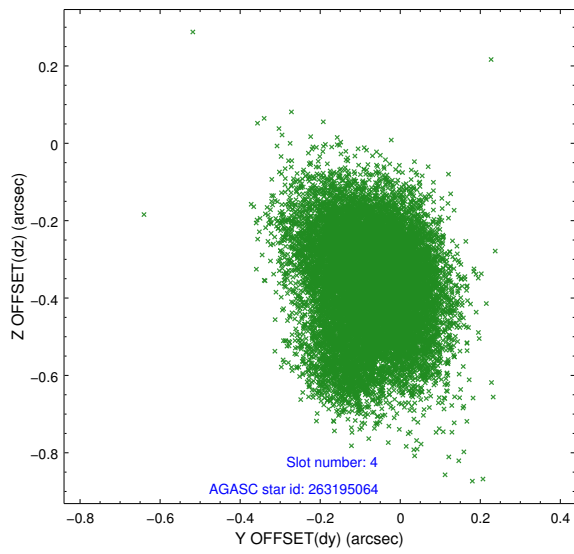
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-1	7.16	7350	1.000	0.116	-0.089	0.038	0.049	0.000000	0.000000	936.14	-1733
1	FID		ACIS-S-5	7.17	7350	1.000	-0.310	0.036	0.073	0.117	0.000000	0.000000	-1813.36	164
2	FID		ACIS-S-6	7.32	7350	1.000	0.177	0.063	0.031	0.065	0.000000	0.000000	401.58	808
3	GUIDE	used	263192808	9.54	14666	1.000	-0.110	-0.053	0.324	0.454	215.197131	24.910235	-1890.36	1447
4	GUIDE	used	263195064	9.23	14685	1.000	-0.073	-0.356	0.168	0.275	215.129983	24.745063	-1517.39	1960
5	GUIDE	used	263464688	9.16	14670	1.000	0.028	-0.089	0.194	0.295	214.654702	25.305283	-575.80	-402
6	GUIDE	used	263591976	8.52	14688	1.000	-0.086	0.431	0.179	0.258	215.004076	25.990362	-2340.43	-2465
7	GUIDE	used	263595296	9.73	14664	1.000	0.258	0.071	0.200	0.322	214.929889	25.645337	-1771.19	-1335

2.4 Star Slots

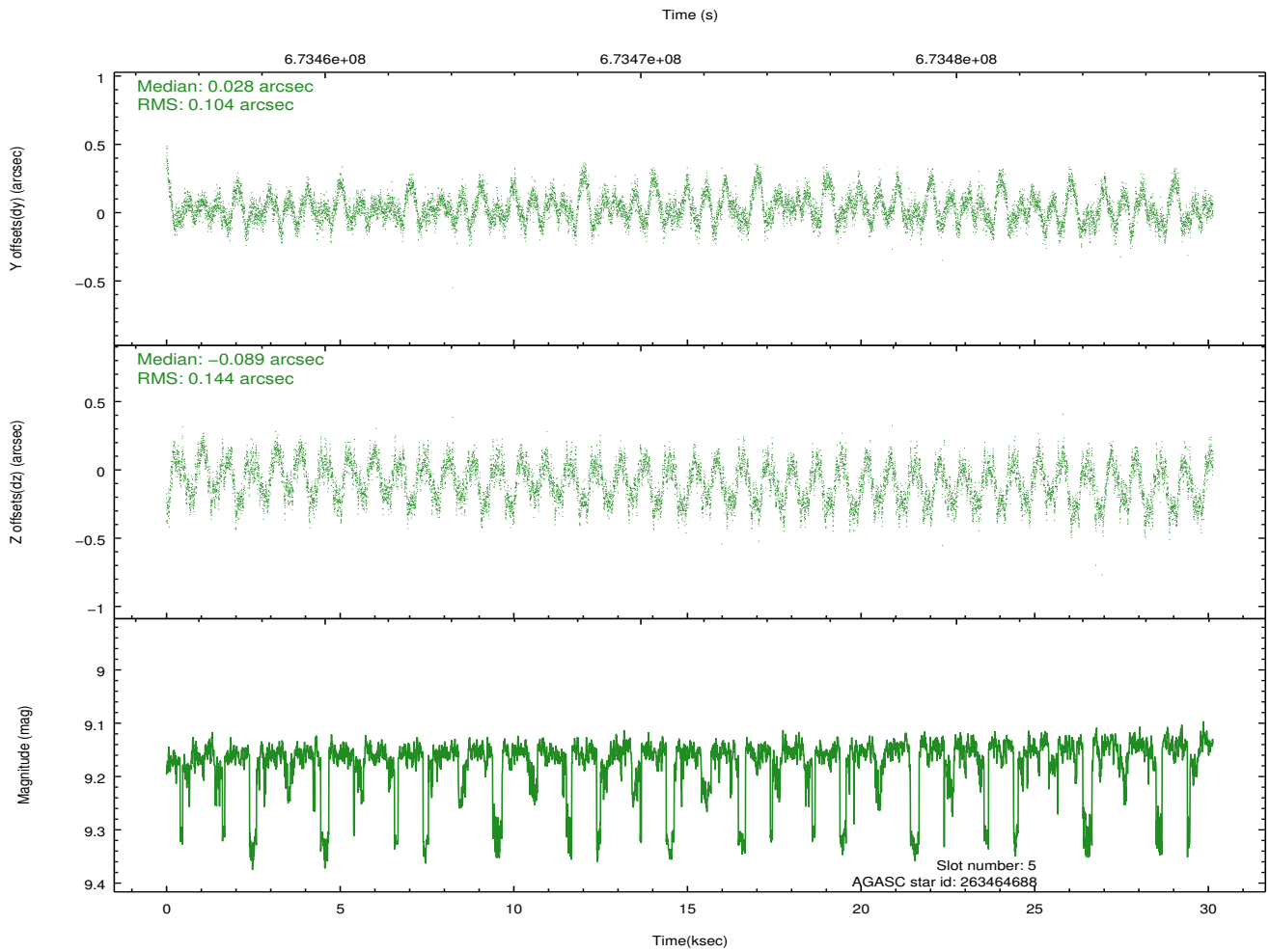
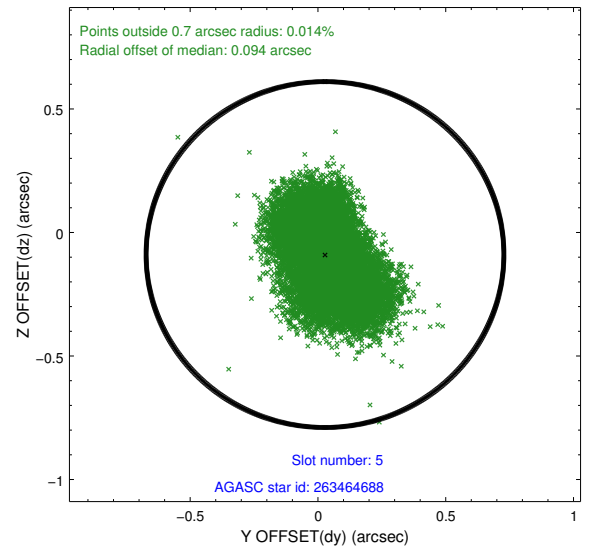
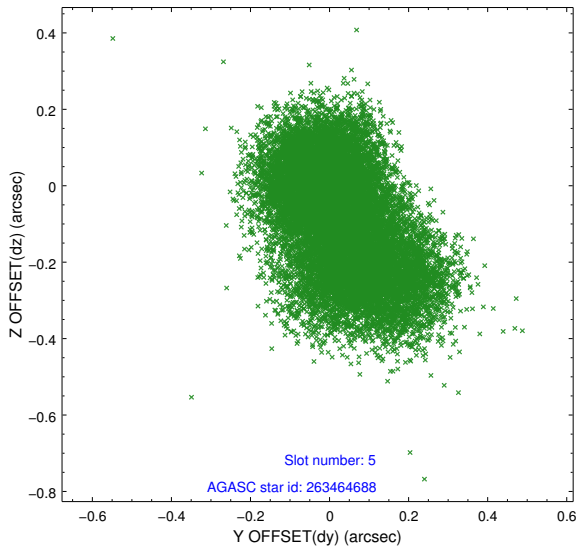
2.4.1 Slot 3



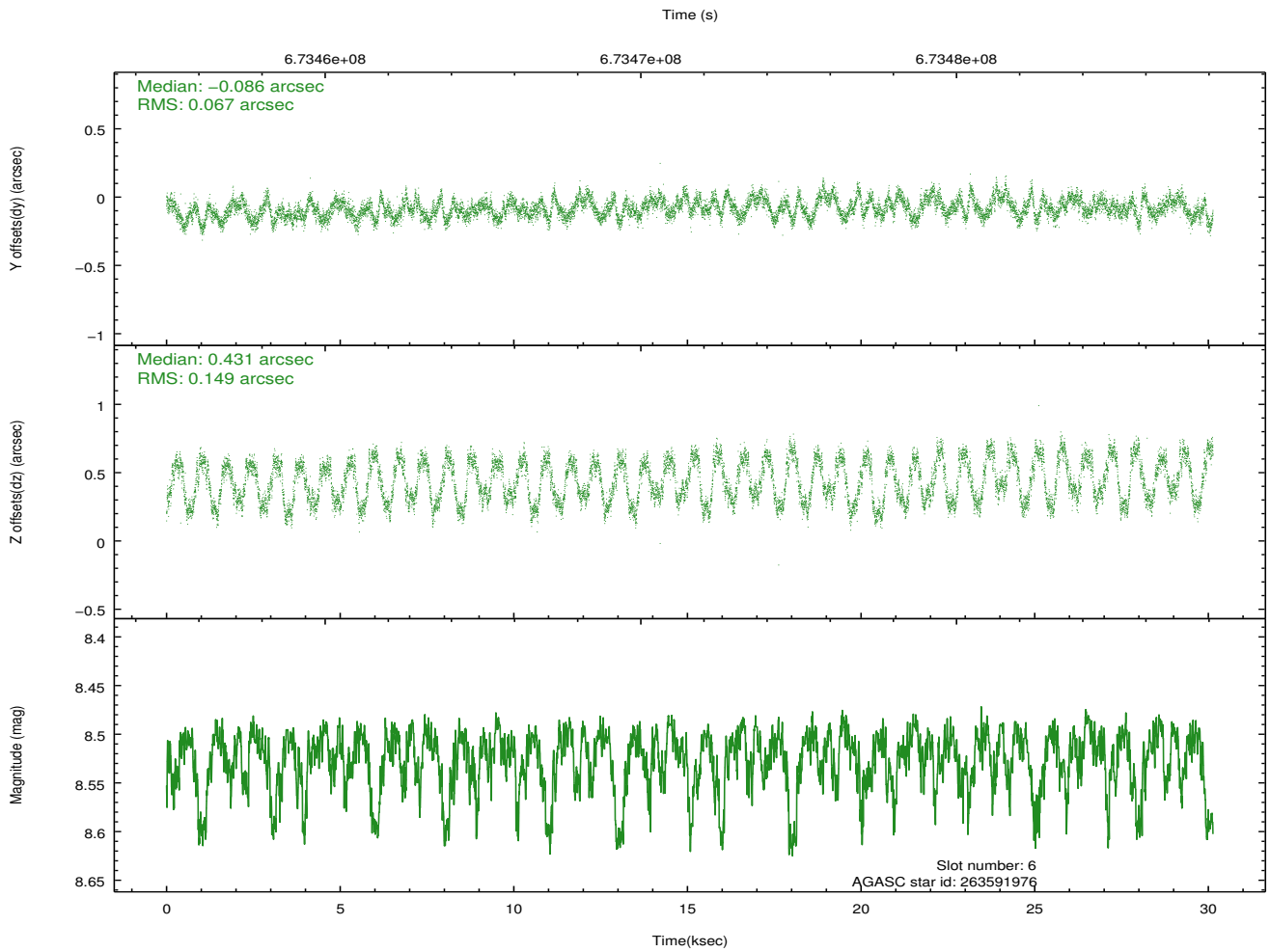
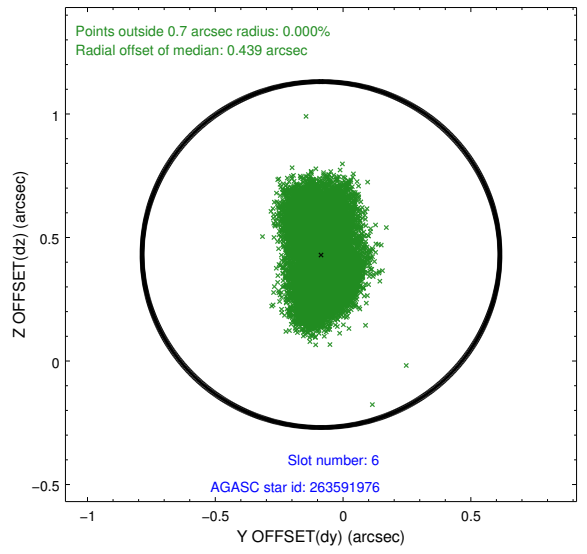
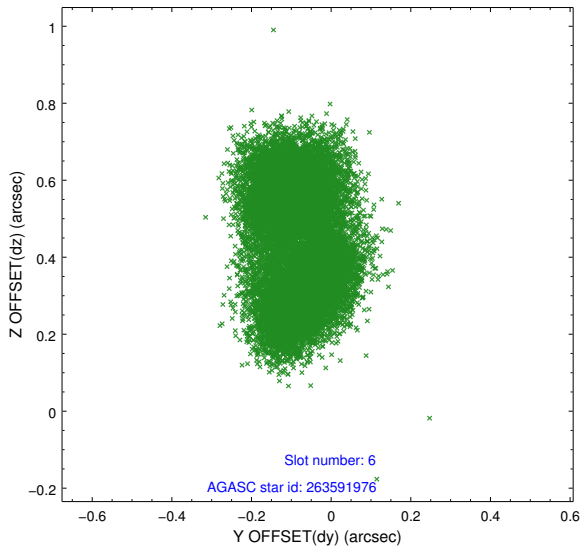
2.4.2 Slot 4



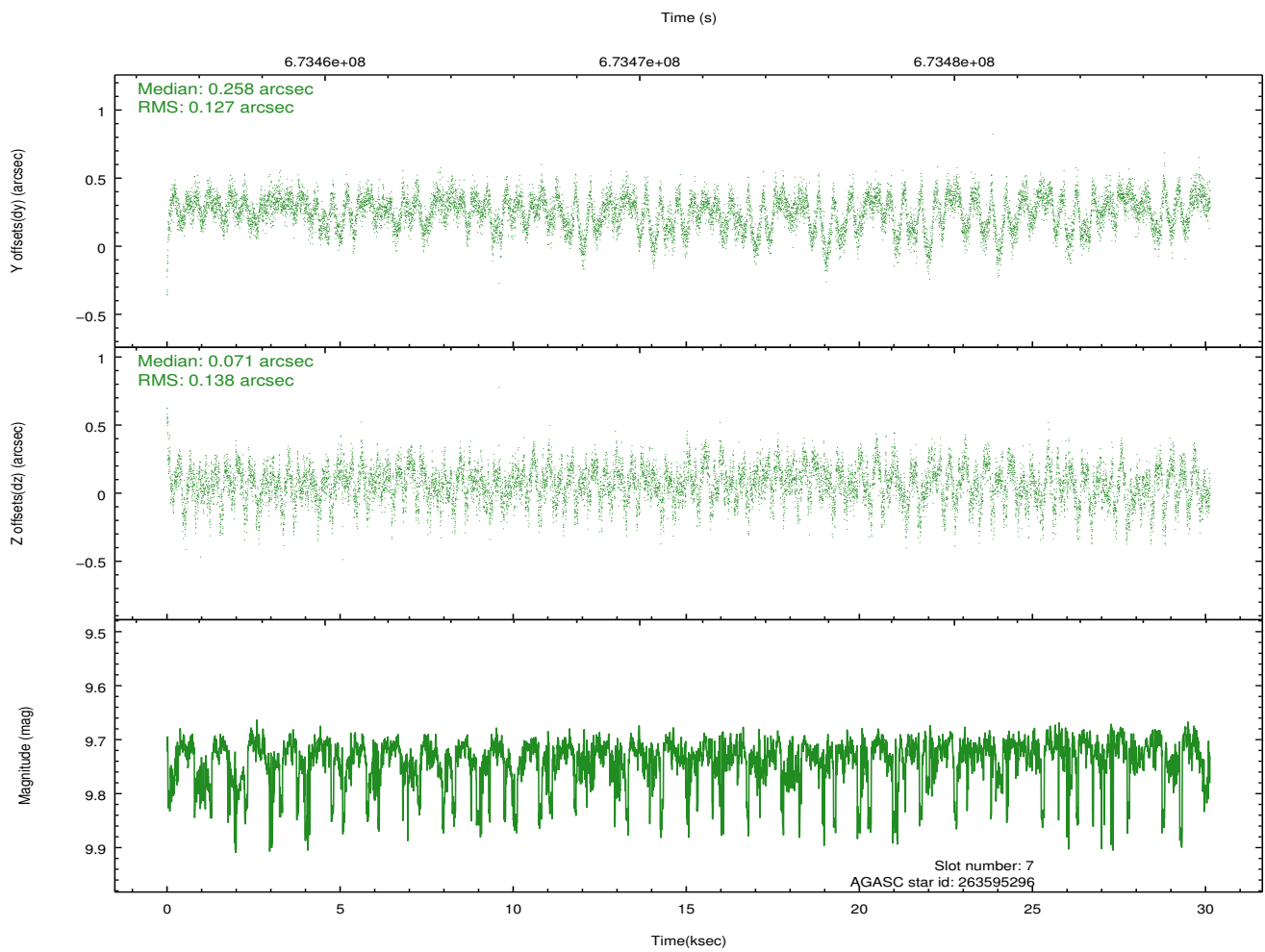
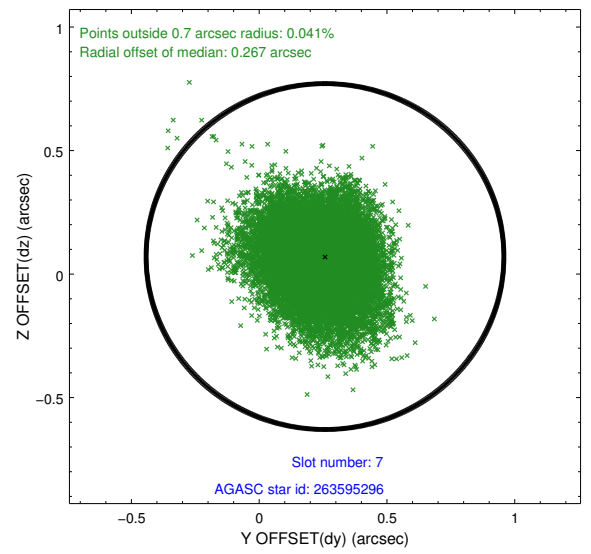
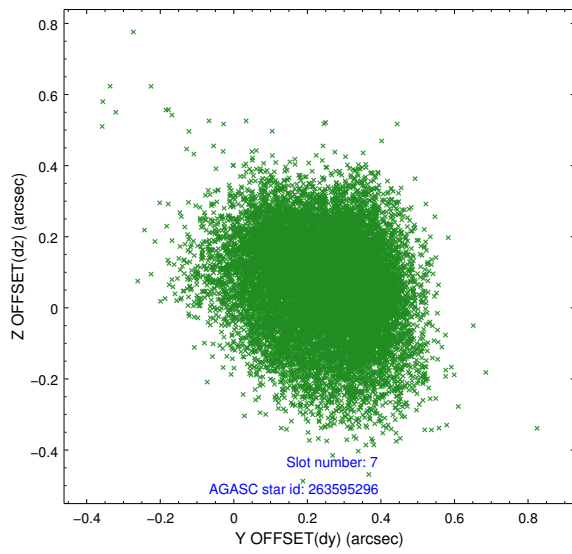
2.4.3 Slot 5



2.4.4 Slot 6

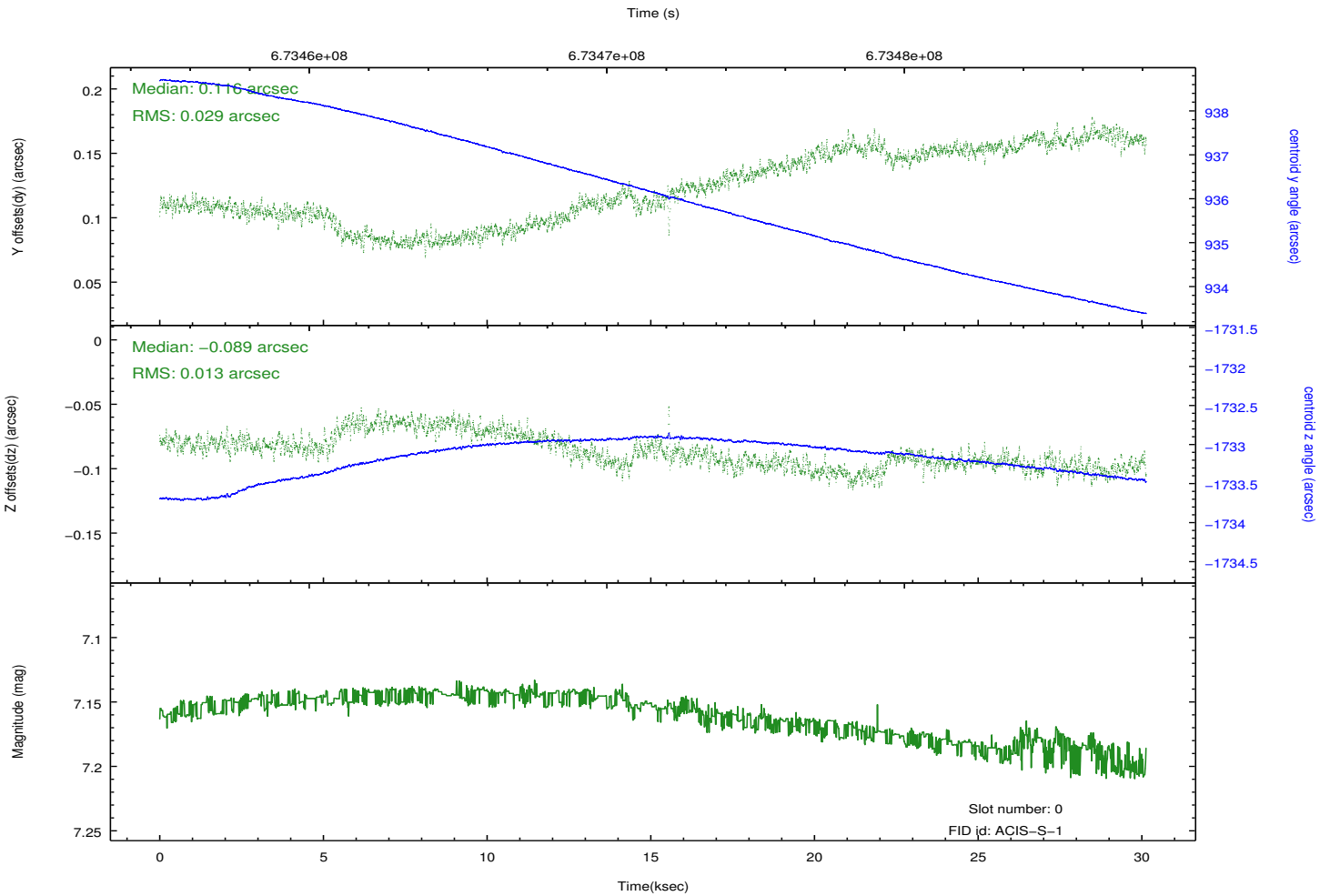
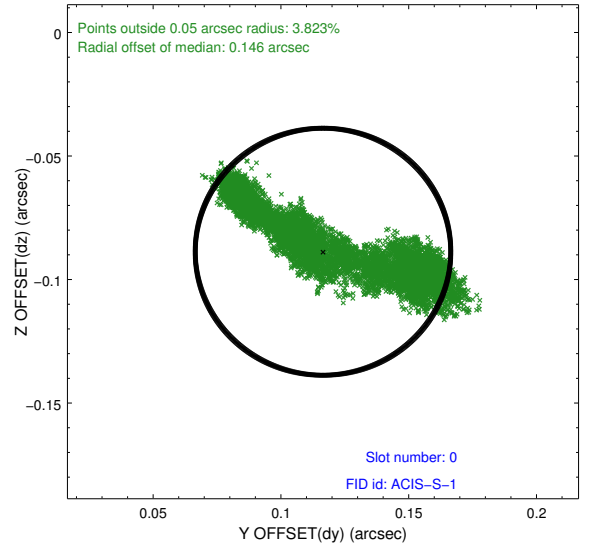
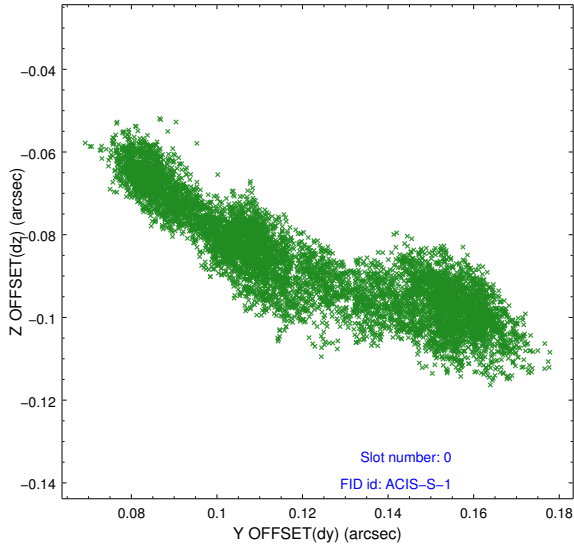


2.4.5 Slot 7

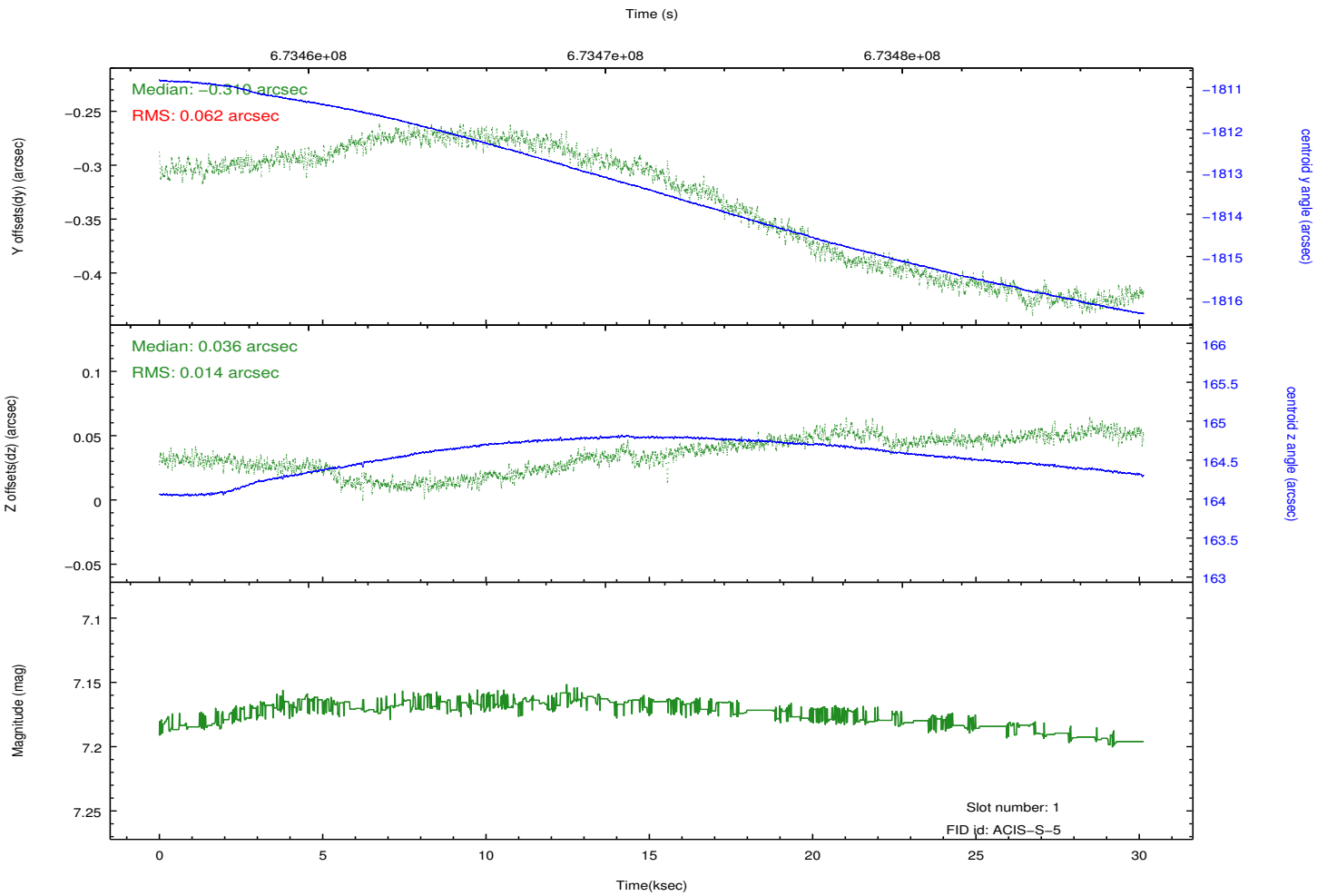
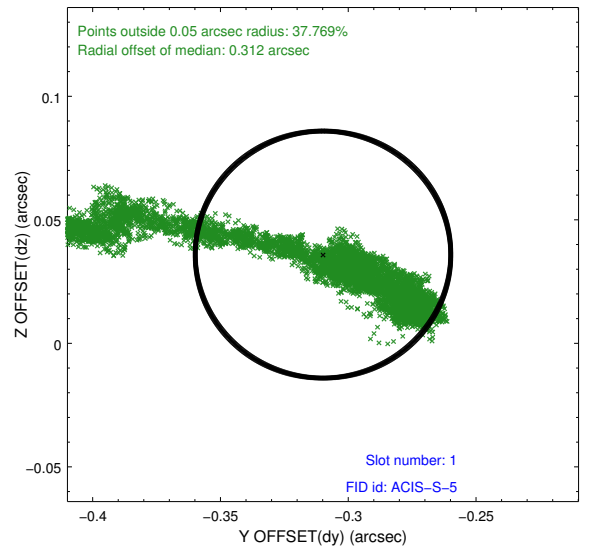
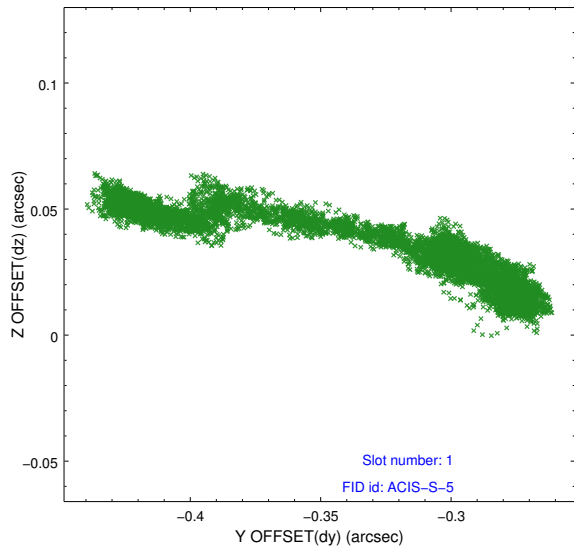


2.5 FID Slots

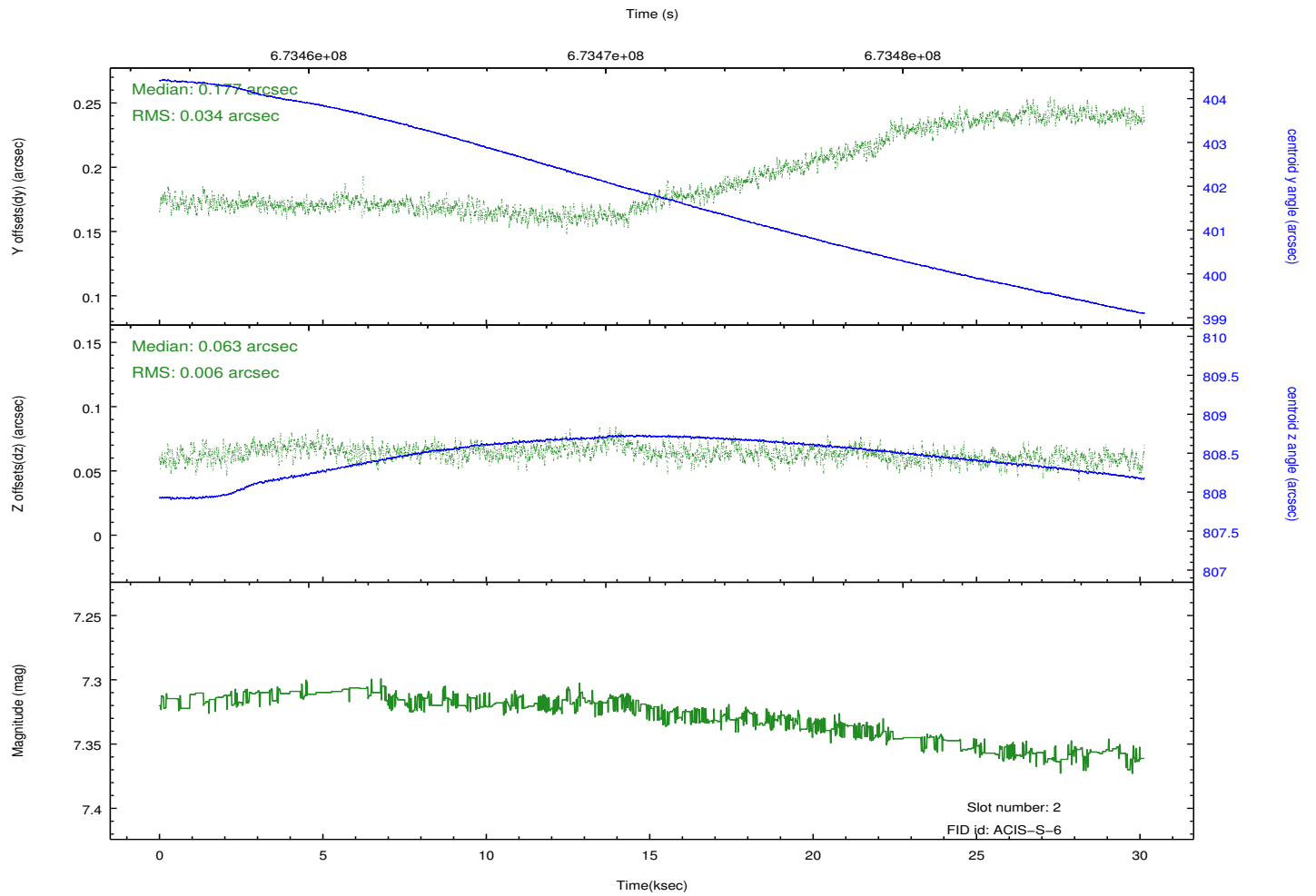
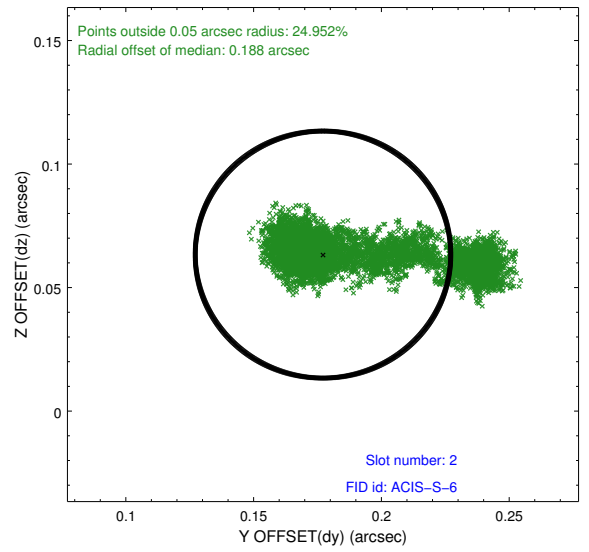
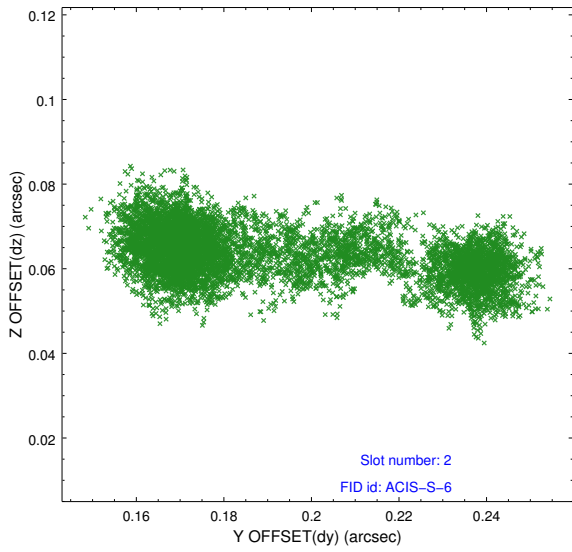
2.5.1 Slot 0



2.5.2 Slot 1

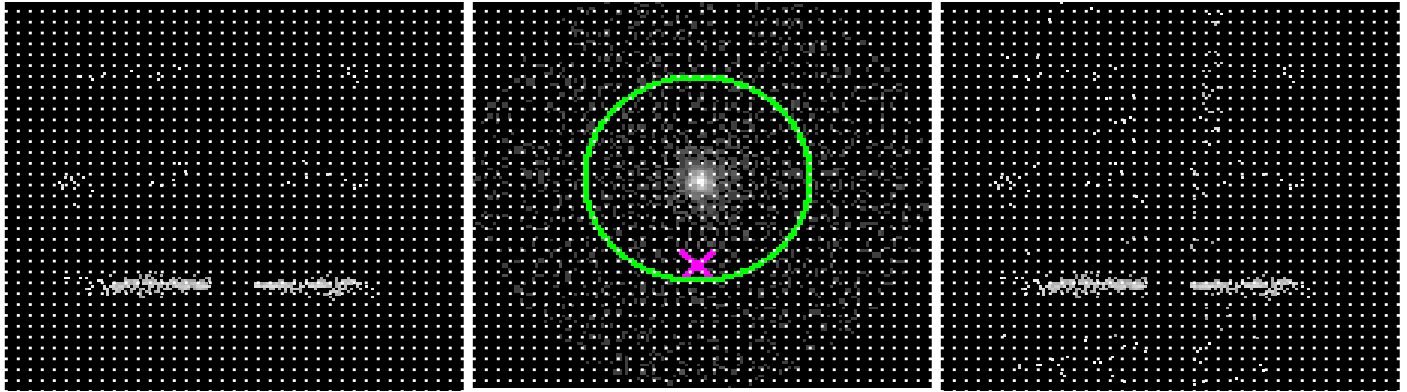


2.5.3 Slot 2



3 Gratings

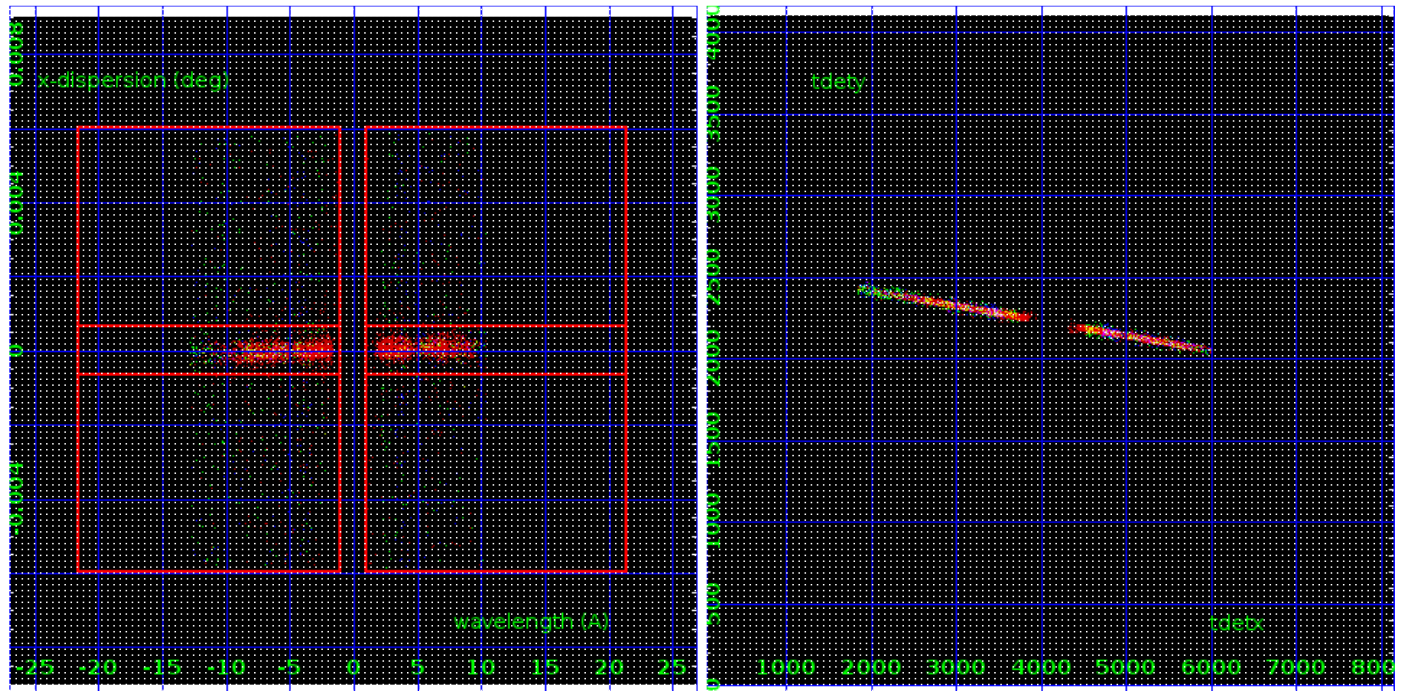
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

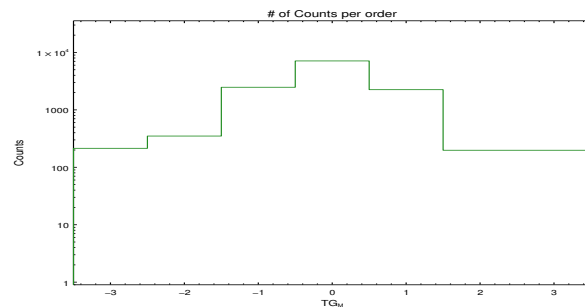
HEG Order Sort ALL

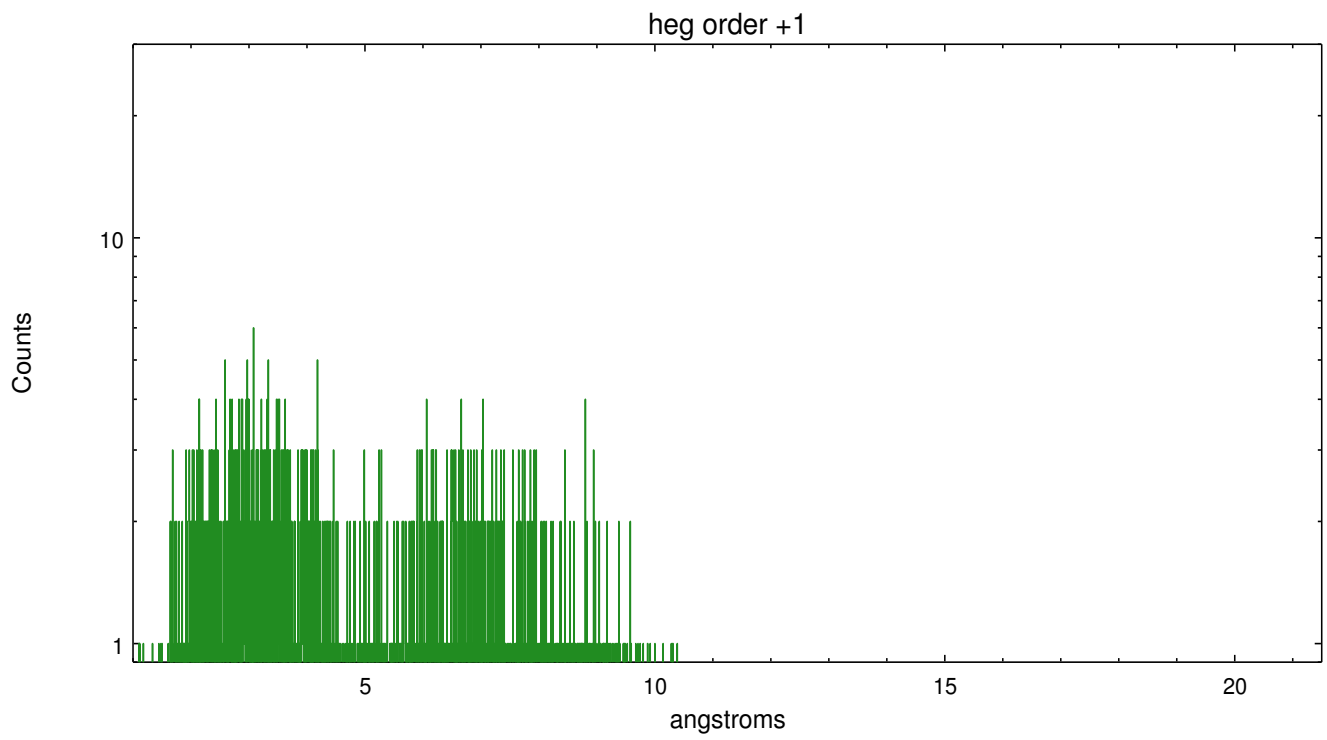
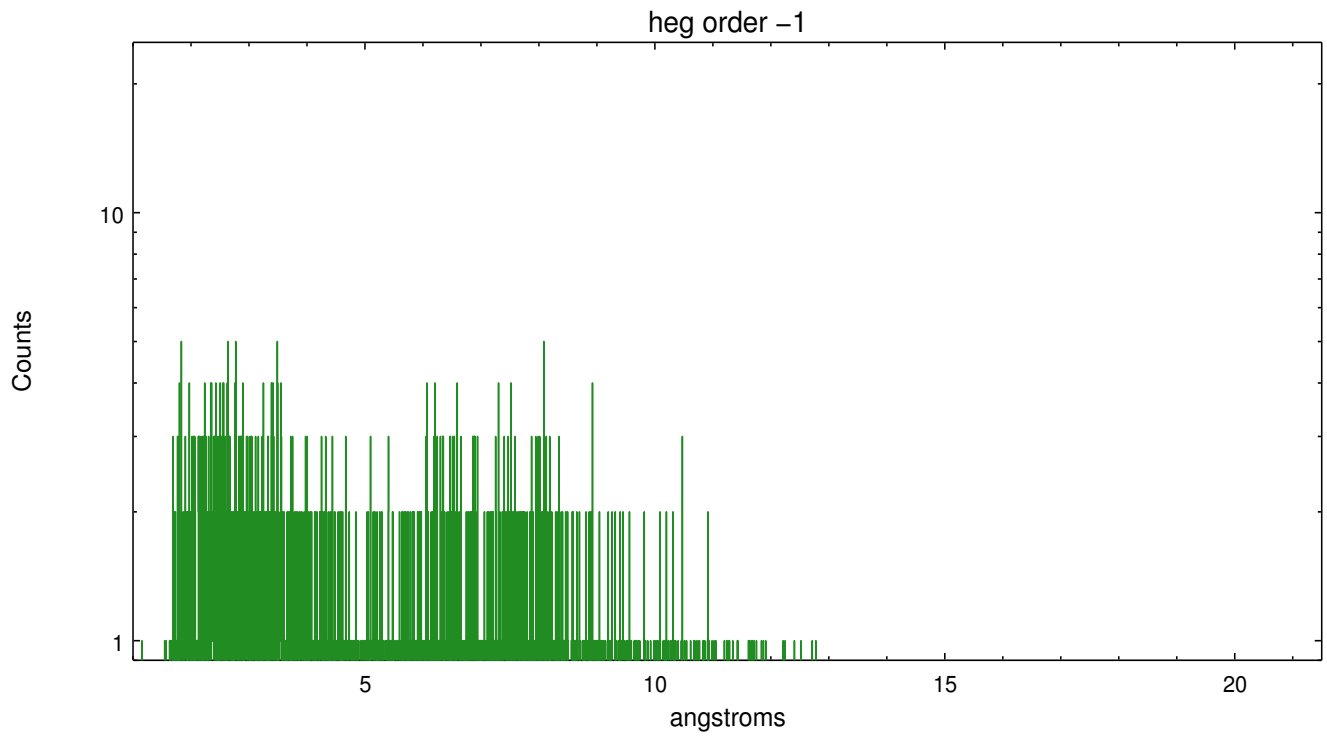


Spot Image HEG

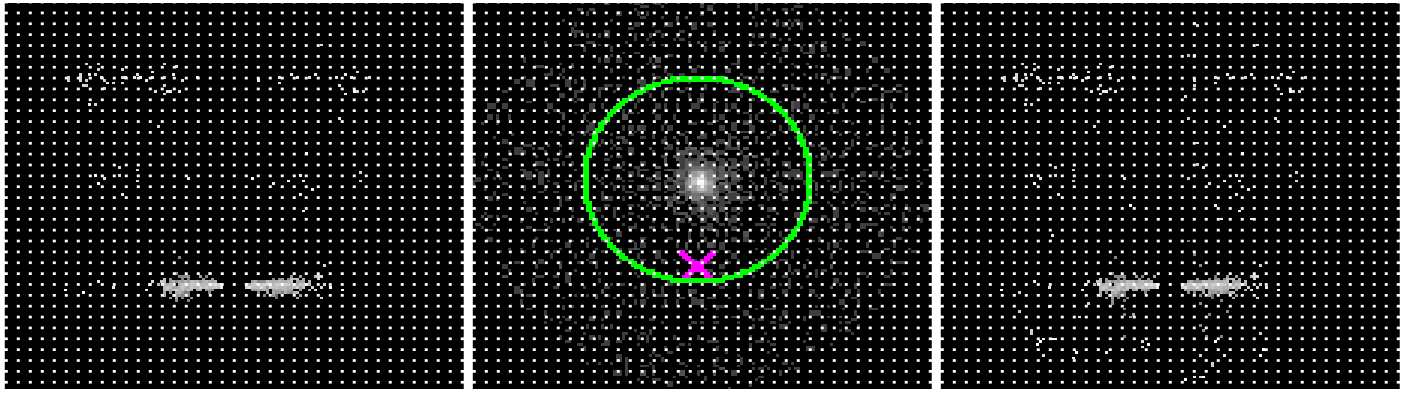
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	214	350	2475	7115	2248	198	198





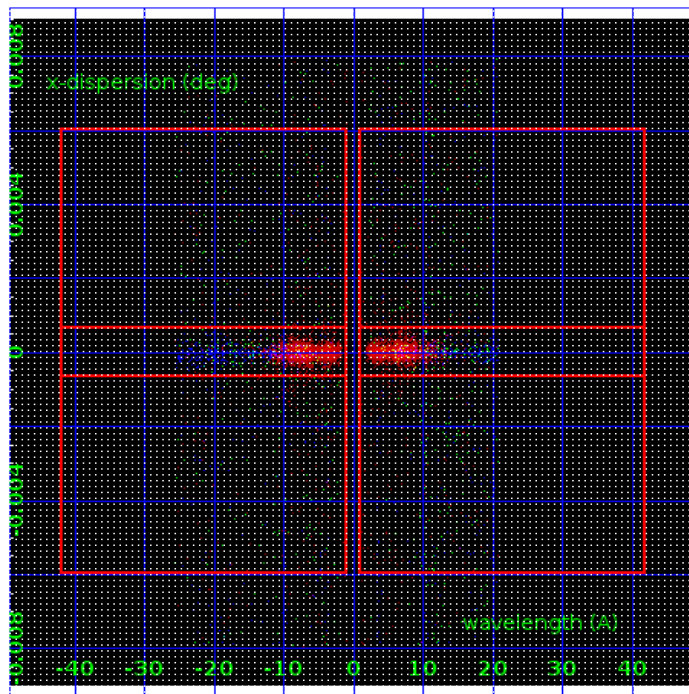
3.2 MEG Arm



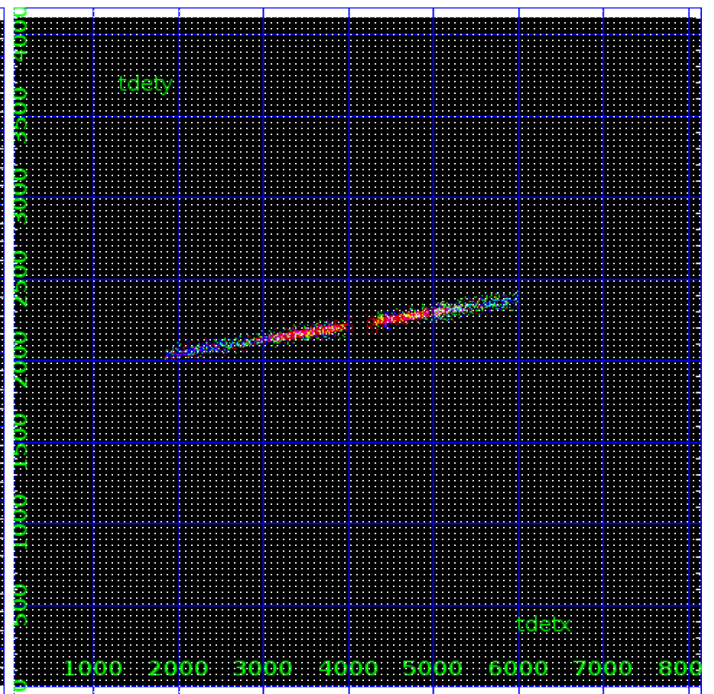
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

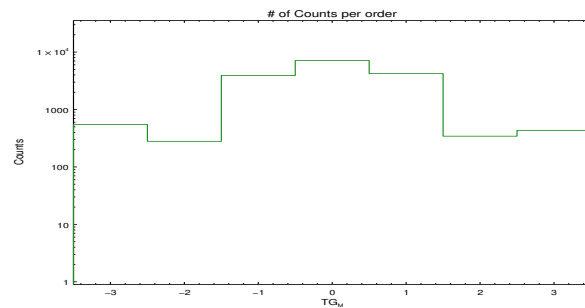


Spot Image MEG

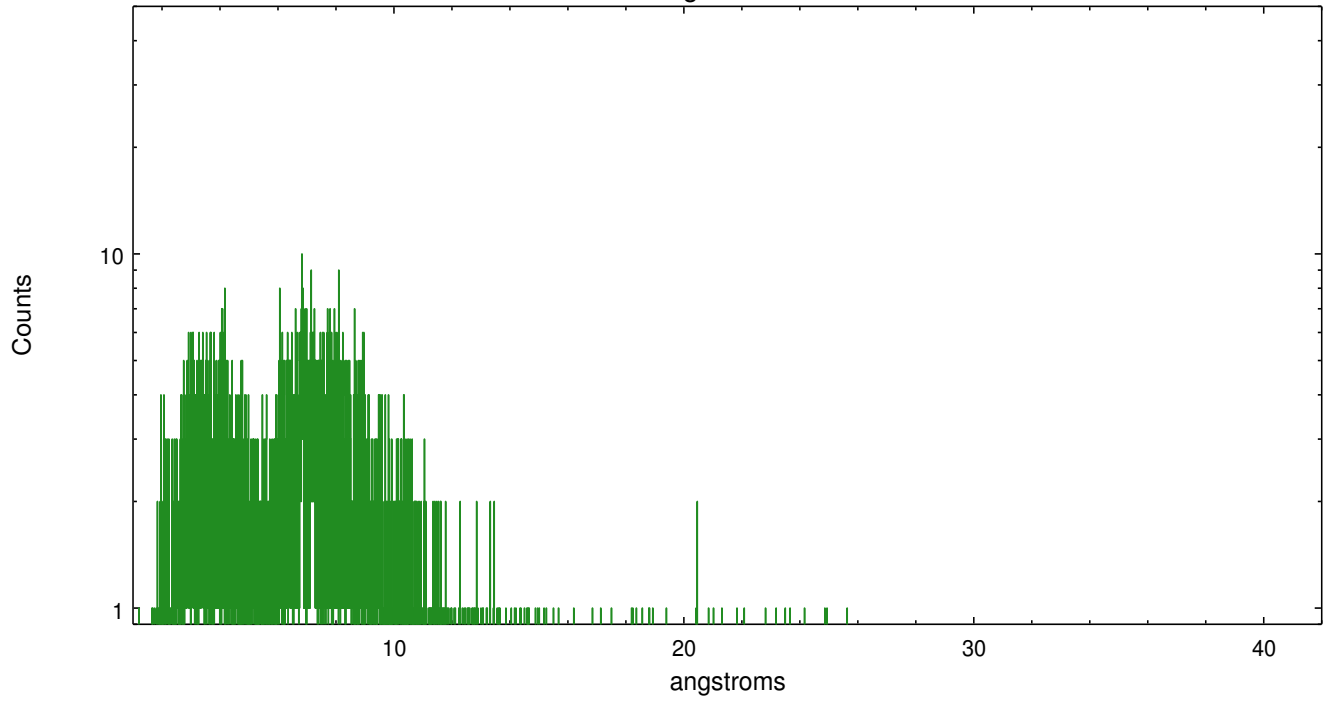


Full Detector MEG

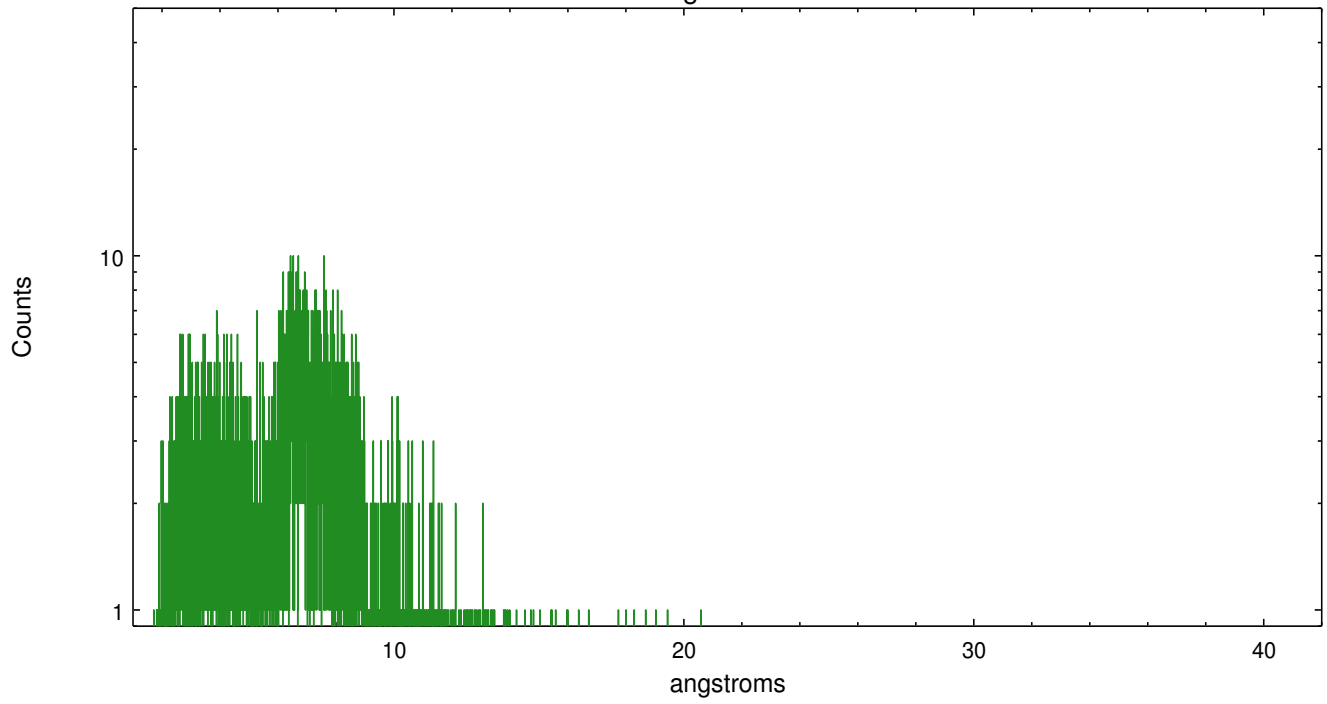
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	548	279	3914	7115	4215	343	433



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.05.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.060700231314

A.2 Comments