

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21215 - L2 Version 1
Chandra X-Ray Center

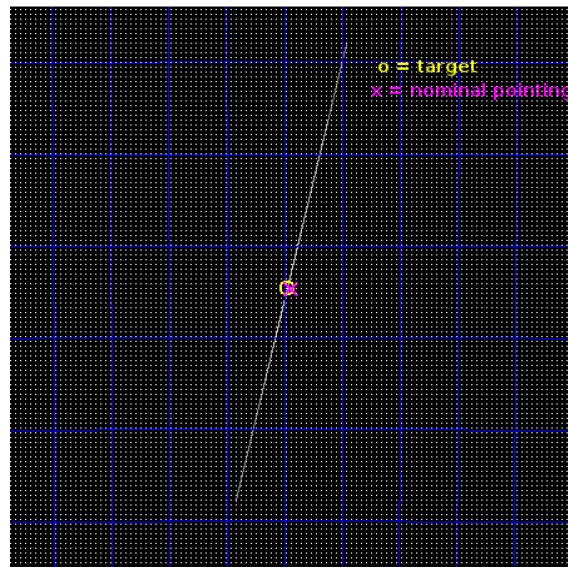
L2 Processing Date : Mar 26 2019

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1 Front

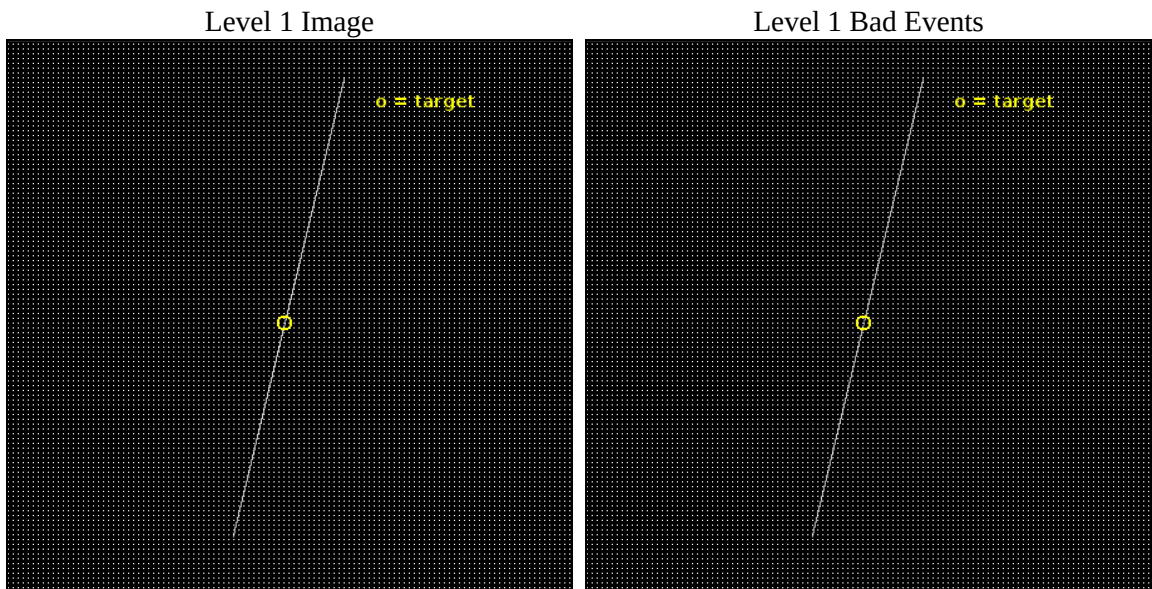
seq_num	402048	Sequence number
obs_id	21215	Observation id
title	Are Black Hole Inflow and Outflow Rates Coupled?	Proposal title
observer	Jon Miller	Principal investigator
object	Swift J1728.9-3613	Source name
ra_targ	262.244333	Observer's specified target RA [deg]
dec_targ	-36.243806	Observer's specified target Dec [deg]
ra_nom	262.23449336236	Nominal RA [deg]
dec_nom	-36.244905341758	Nominal Dec [deg]
roll_nom	103.05080382696	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30053.0	Sum of GTIs [s]
livetime	29935.60546875	Livetime [s]
ontime4	30053.0	Sum of GTIs [s]
ontime5	30053.0	Sum of GTIs [s]
ontime6	30053.0	Sum of GTIs [s]
ontime7	30053.0	Sum of GTIs [s]
ontime8	30053.0	Sum of GTIs [s]
ontime9	30053.0	Sum of GTIs [s]
l2events	1436930	Number of level 2 events



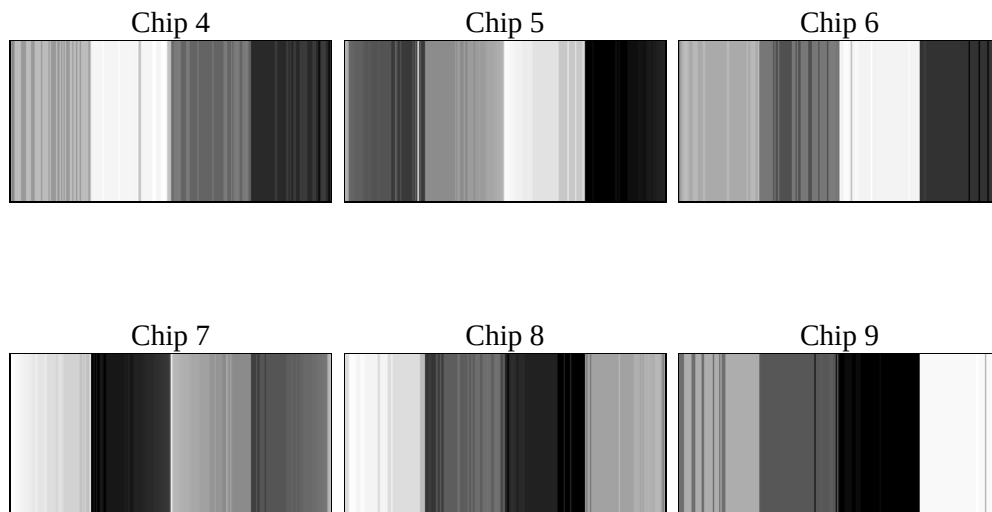
2 OBI

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	30053.0	Sum of GTIs [s]
caldsver	4.8.2	 	ontime4	30053.0	Sum of GTIs [s]
date	2019-03-26T15:31:17	Date and time of file creation	ontime5	30053.0	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	30053.0	Sum of GTIs [s]
			ontime7	30053.0	Sum of GTIs [s]
			ontime8	30053.0	Sum of GTIs [s]
			ontime9	30053.0	Sum of GTIs [s]
			l1events	3926492	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
				64030.45	

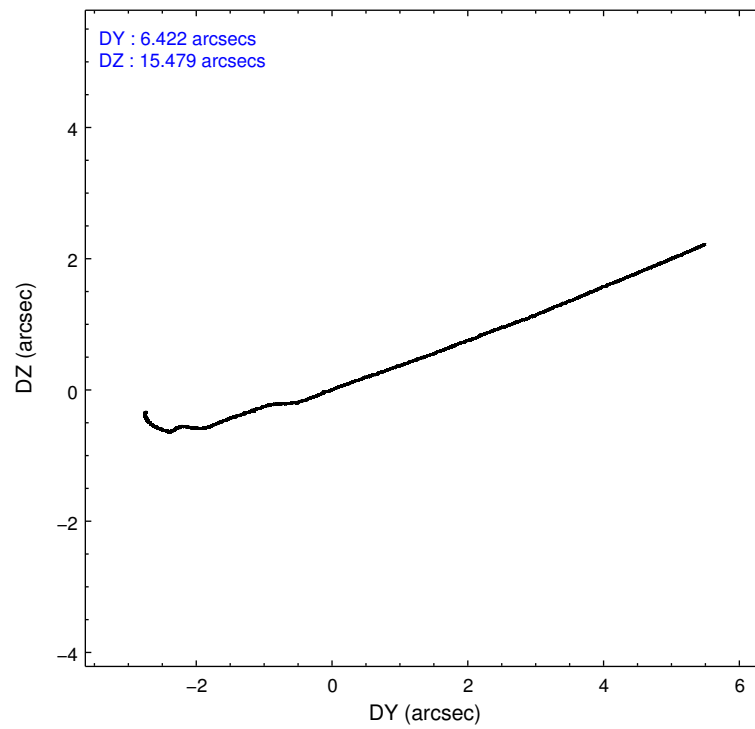
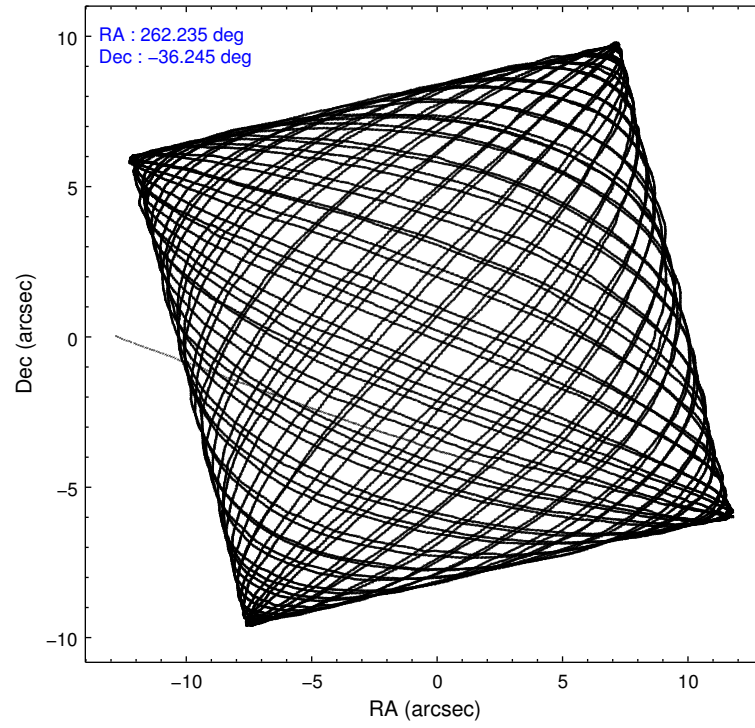
2.1.4 Events

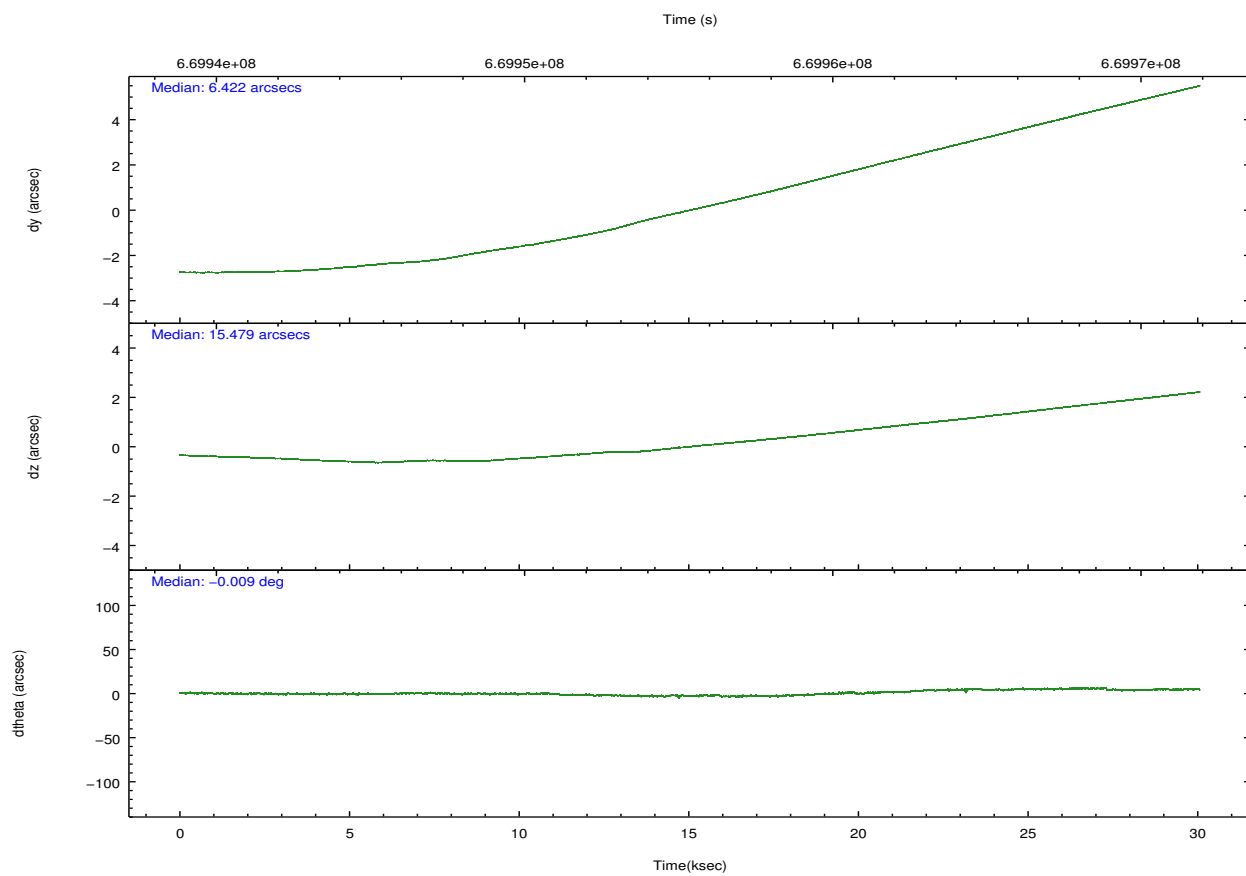
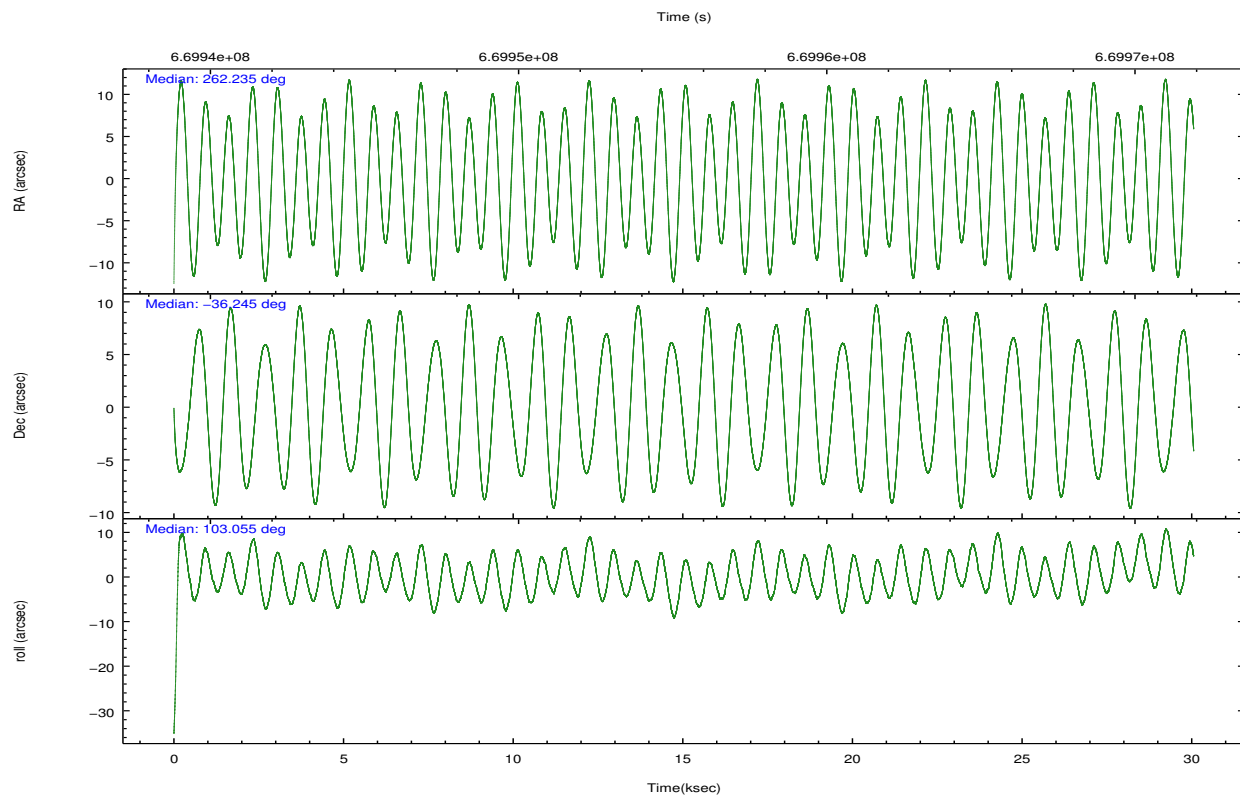
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	435008	564914	793367	939614	752523	441066	grade 0 events	6566	12647	10668	70249	35052	6299
rejected events	380497	321357	380687	337559	530303	378236		1%	2%	1%	7%	4%	1%
rejected %	87%	56%	47%	35%	70%	85%	grade 1 events	322	474	250	785	582	246
								0%	0%	0%	0%	0%	0%
							grade 2 events	27159	92621	349605	209342	124748	34012
								6%	16%	44%	22%	16%	7%
							grade 3 events	5401	5218	5113	37109	12776	4629
								1%	0%	0%	3%	1%	1%
							grade 4 events	5196	4932	4876	37390	12493	4926
								1%	0%	0%	3%	1%	1%
							grade 5 events	11839	26033	13413	32587	18225	13316
								2%	4%	1%	3%	2%	3%
							grade 6 events	10237	128405	42712	248387	37328	13016
								2%	22%	5%	26%	4%	2%
							grade 7 events	368288	294584	366730	303765	511319	364622
								84%	52%	46%	32%	67%	82%

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	CC33_FAINT	CC33_FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	262.258041	262.2344933623552	CCD I2 on	N	N
[deg] Pointing Dec	-36.264708	-36.24490534175796	CCD I3 on	N	N
[deg] Pointing Roll	102.908108	103.0508038269596	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)	669940403.184000	669939342.90794	CCD S5 on	O2	Y
Observation start date	2019-03-25T22:32:14	2019-03-25T22:15:42	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	669970403.184000	669971146.60985	On-chip summing requested	N	N
Observation end date	2019-03-26T06:52:14	2019-03-26T07:05:46	Subarray requested	NONE	NONE
Read mode	CONTINUOUS	CONTINUOUS	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0

2.3 Aspect



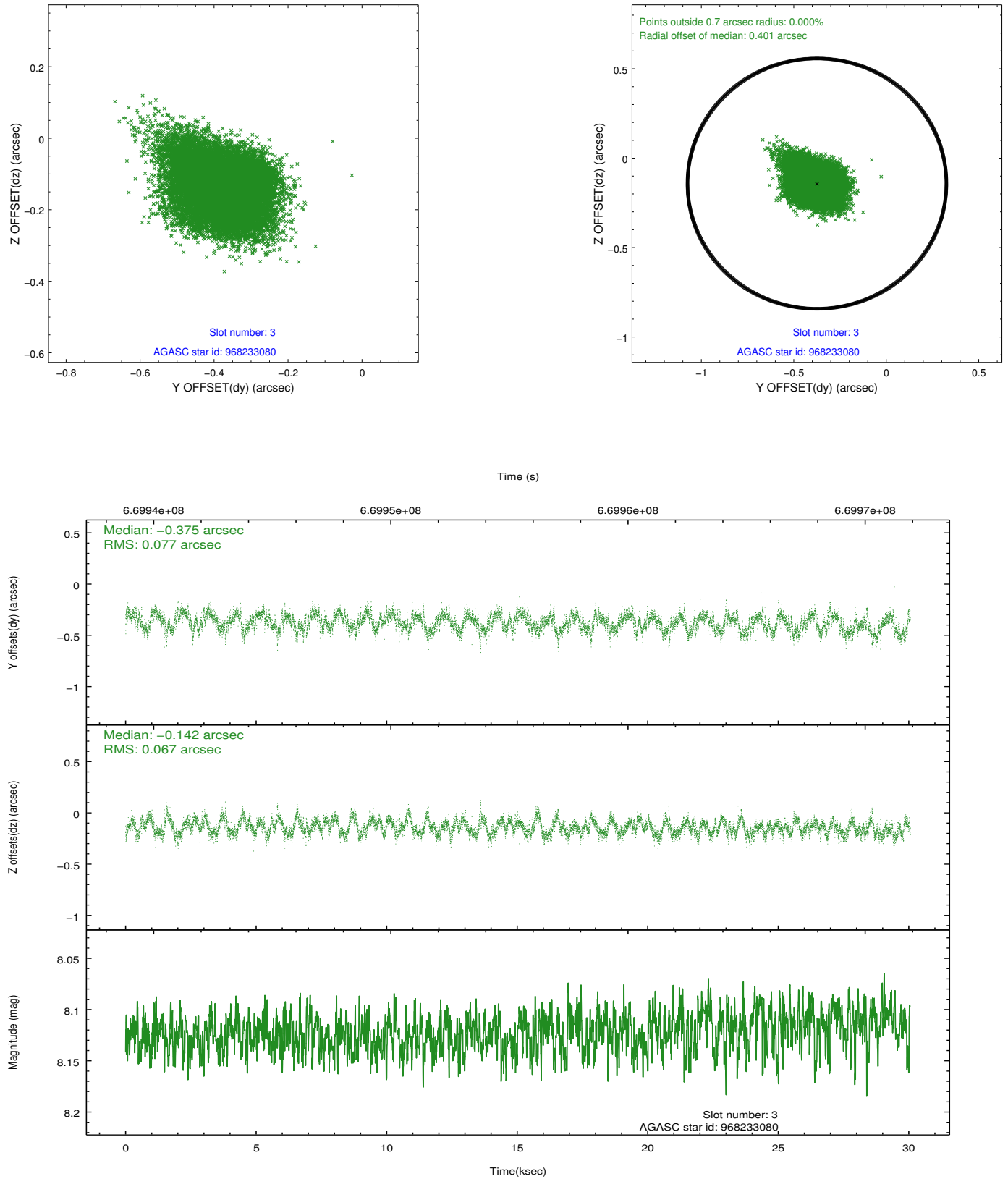


Slot Statistics

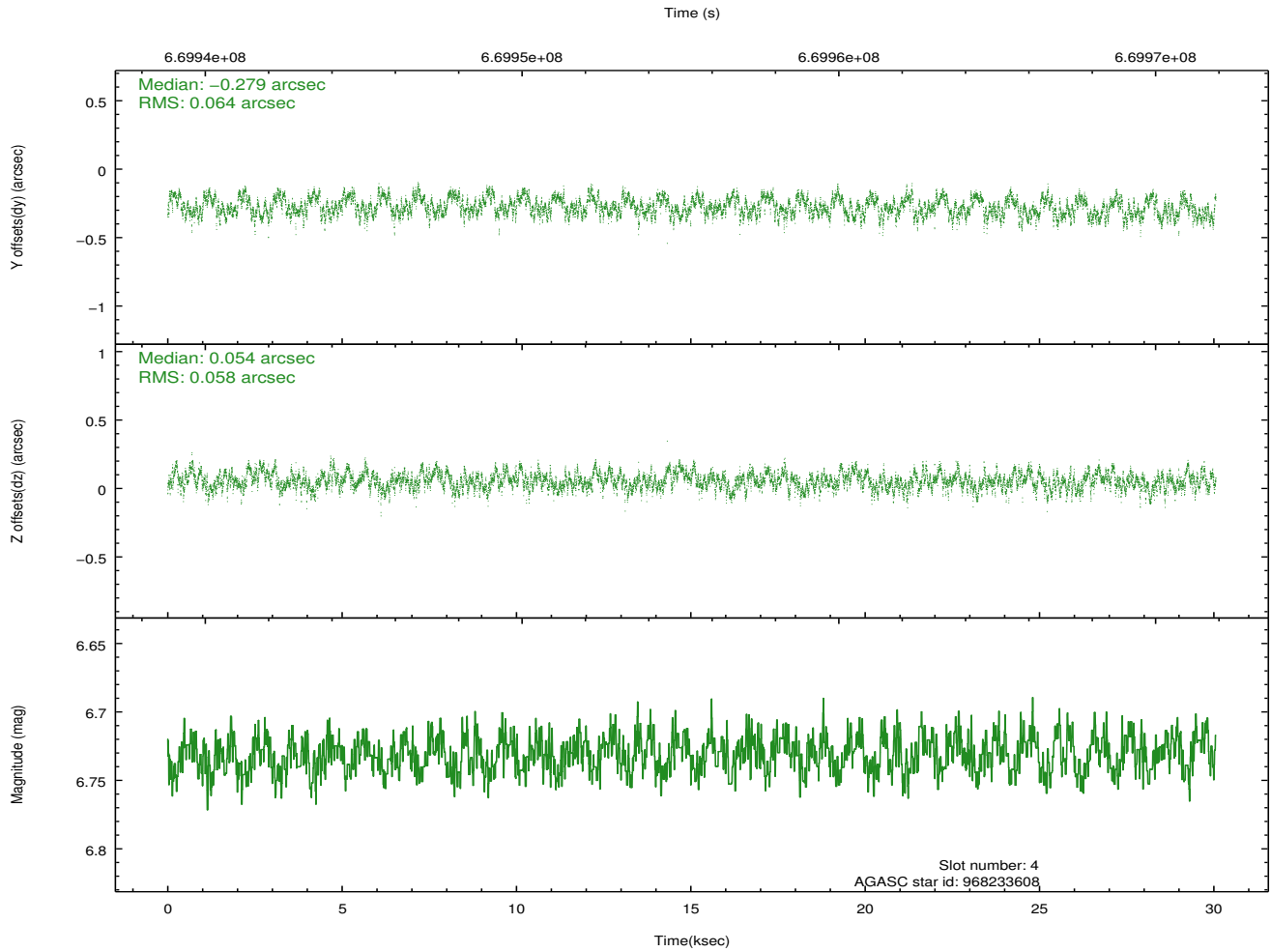
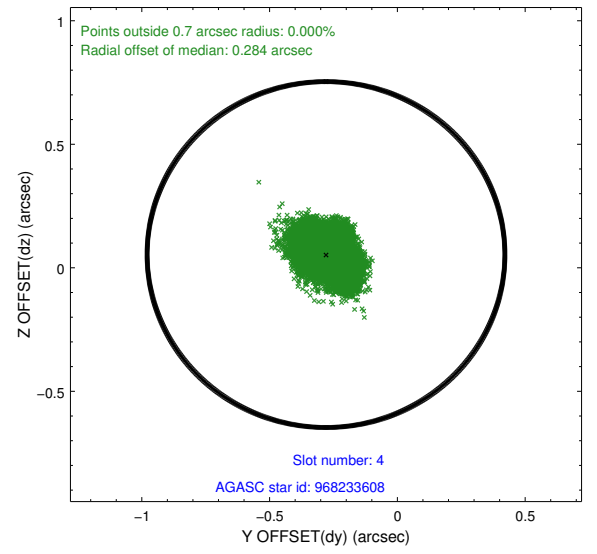
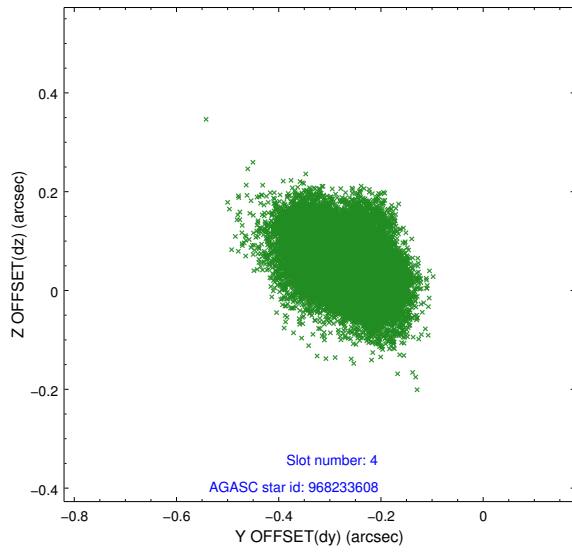
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-4	7.11	7332	1.000	0.402	0.019	0.032	0.081	0.000000	0.000000	2154.16	171
1	FID		ACIS-S-5	7.09	7332	1.000	-0.466	0.002	0.058	0.100	0.000000	0.000000	-1812.84	164
2	FID		ACIS-S-6	7.24	7331	1.000	0.039	-0.006	0.024	0.037	0.000000	0.000000	401.92	808
3	GUIDE	used	968233080	8.12	14657	1.000	-0.375	-0.142	0.108	0.171	262.553982	-35.644375	1982.35	-1342
4	GUIDE	used	968233608	6.73	14663	1.000	-0.279	0.054	0.095	0.145	262.776101	-35.900177	937.93	-1764
5	GUIDE	used	968233880	8.06	14590	1.000	-0.066	0.006	0.106	0.181	262.894591	-36.076957	239.71	-1954
6	GUIDE	used	968234080	9.02	14641	1.000	0.325	0.011	0.164	0.268	263.014066	-36.315075	-674.09	-2094
7	GUIDE	used	968235824	8.76	14653	1.000	0.402	0.057	0.106	0.169	263.103960	-36.698362	-2076.70	-2028

2.4 Star Slots

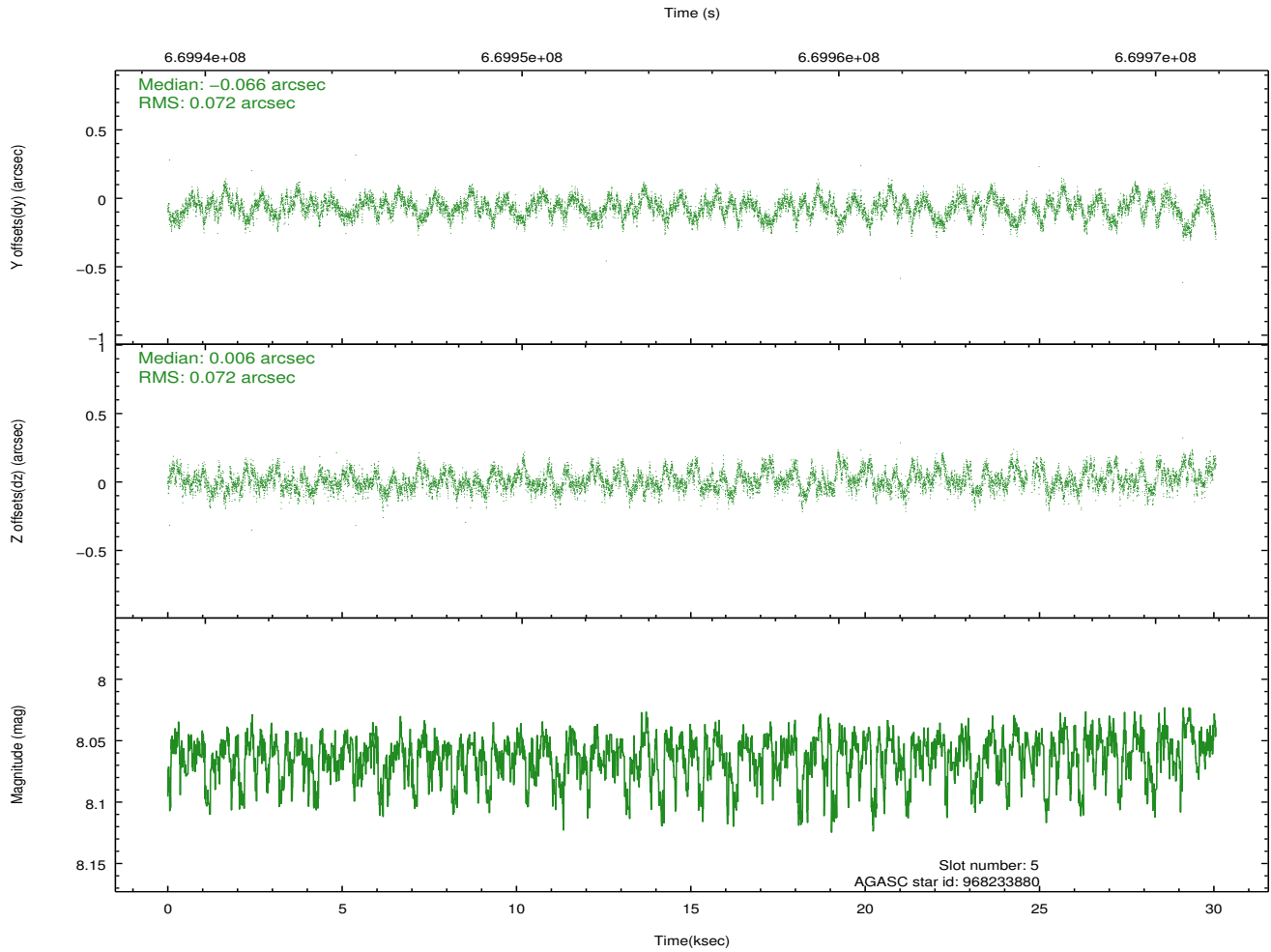
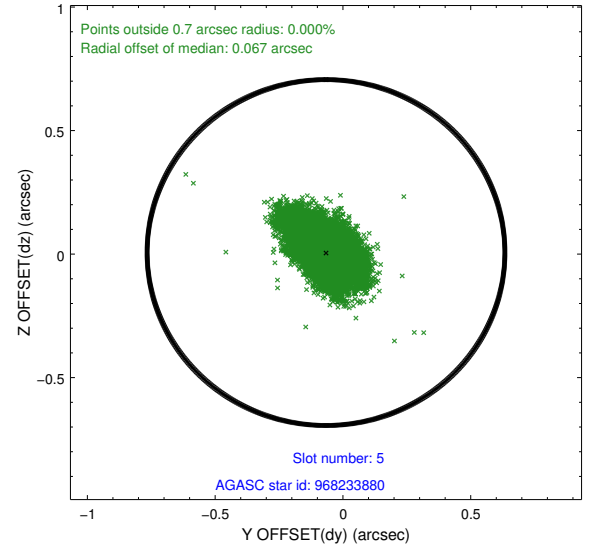
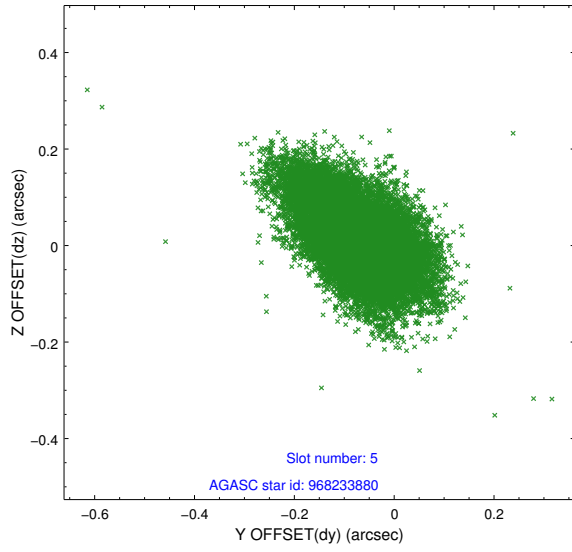
2.4.1 Slot 3



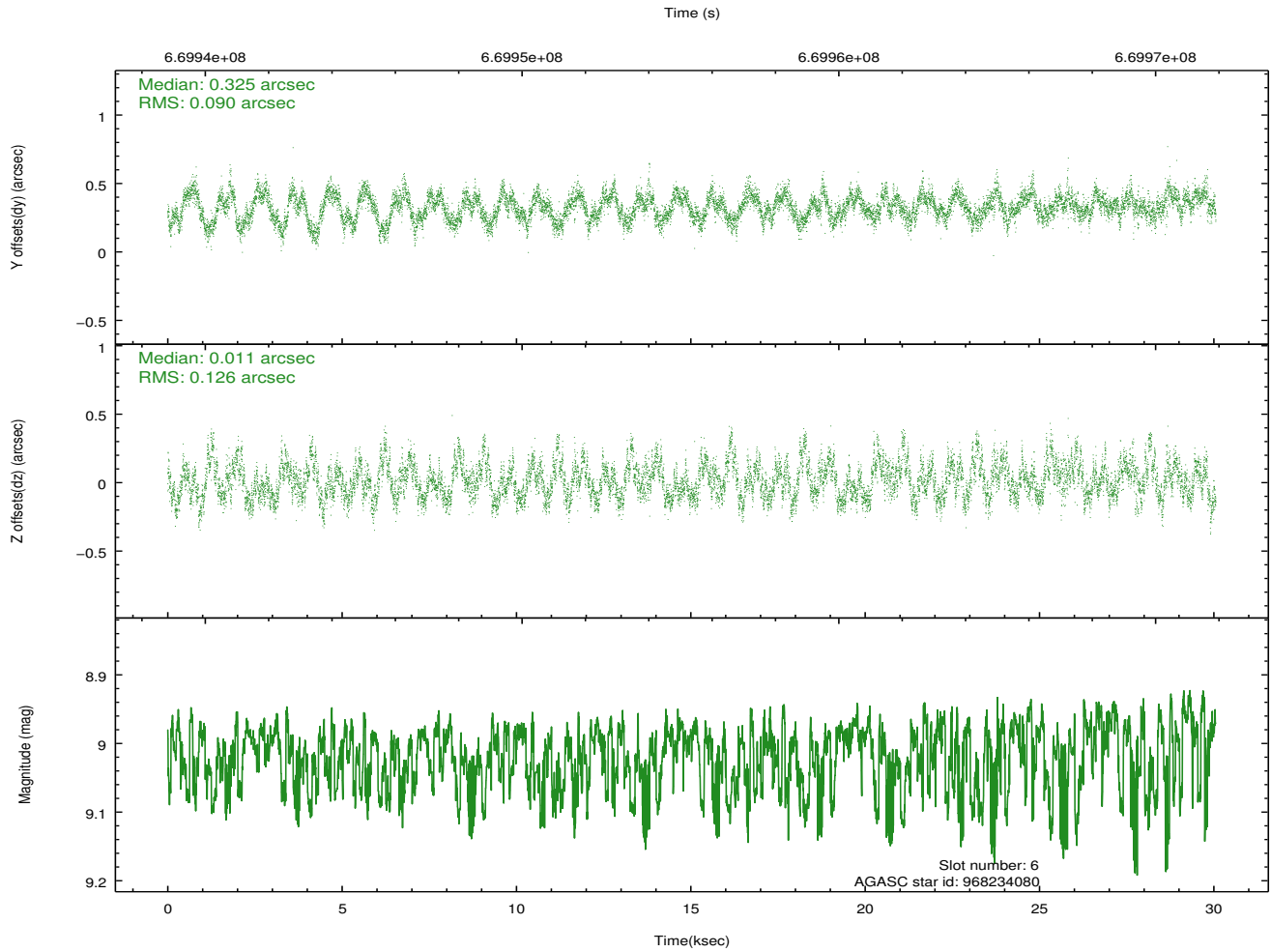
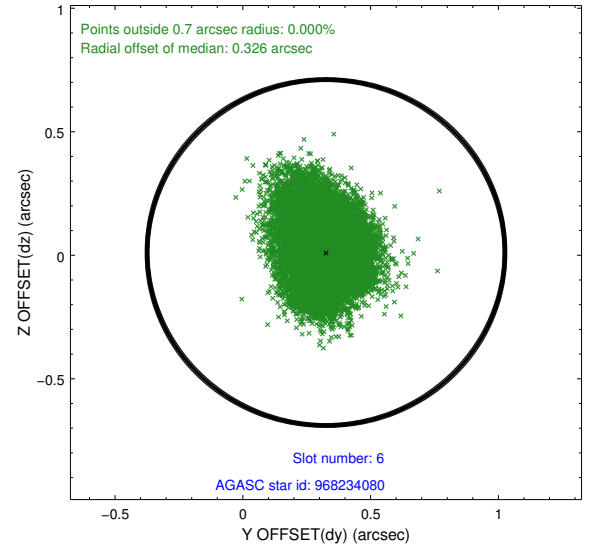
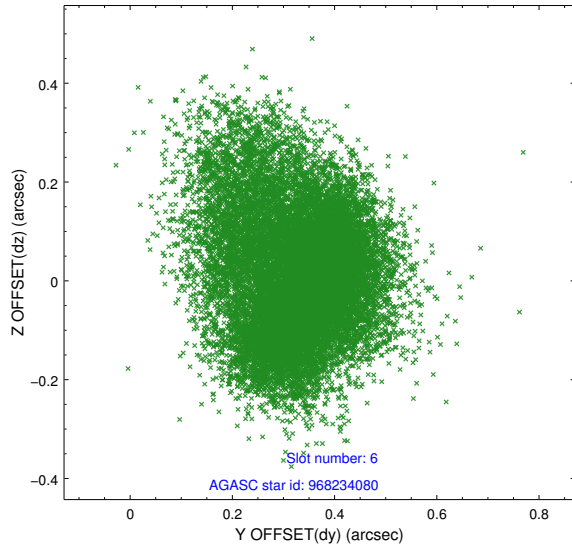
2.4.2 Slot 4



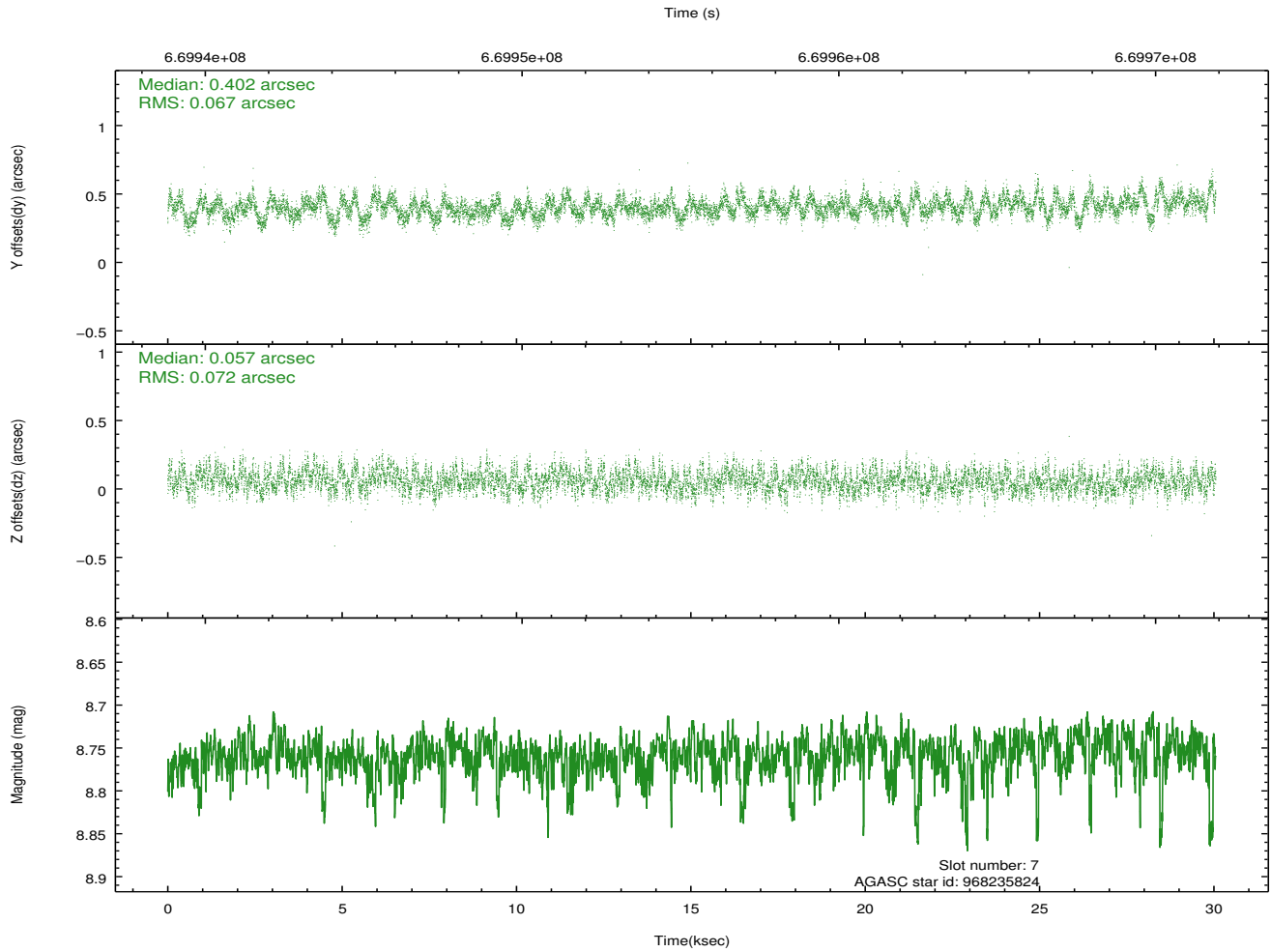
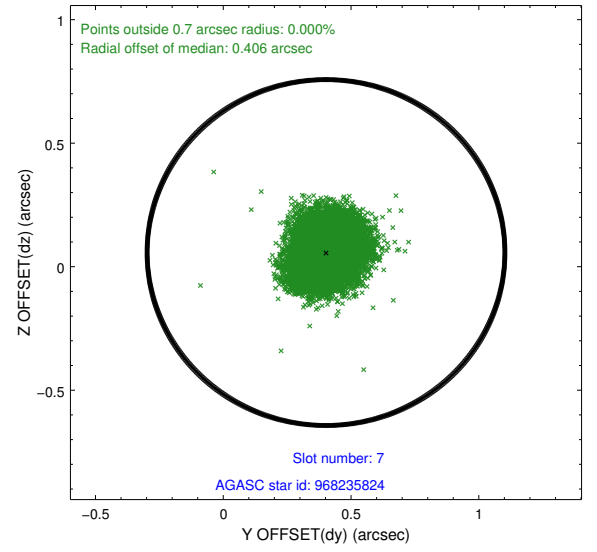
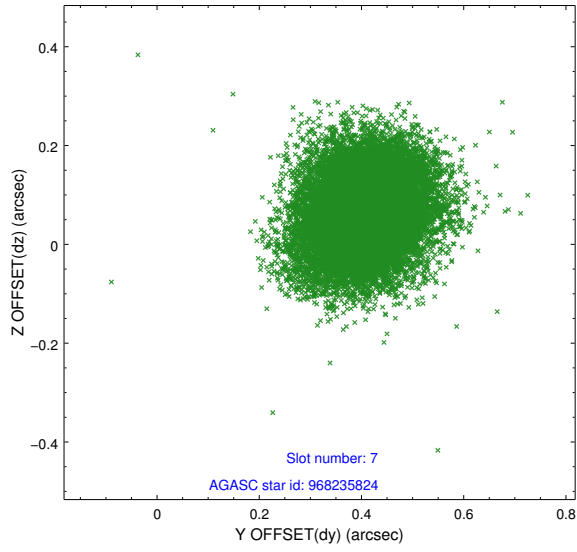
2.4.3 Slot 5



2.4.4 Slot 6

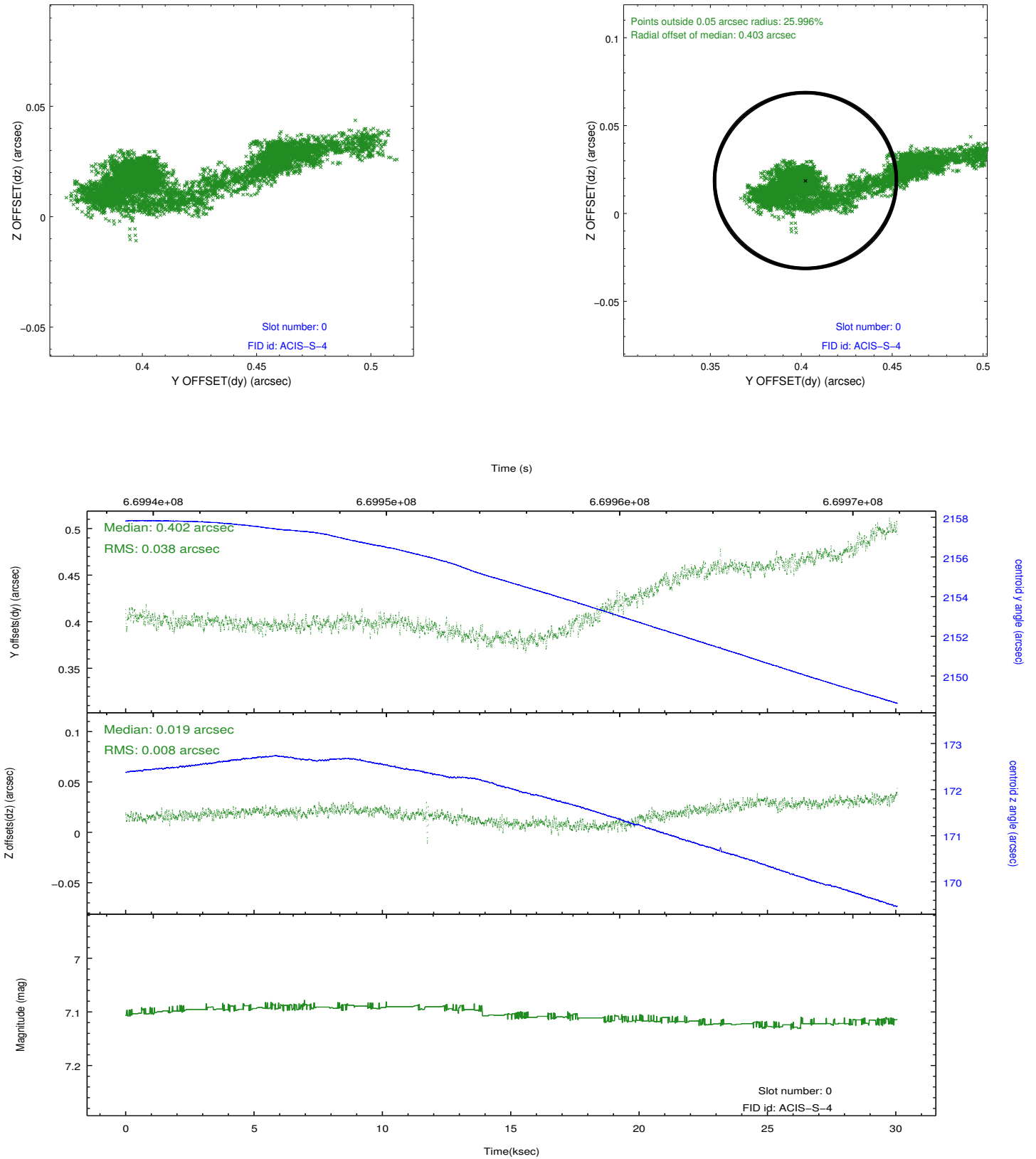


2.4.5 Slot 7

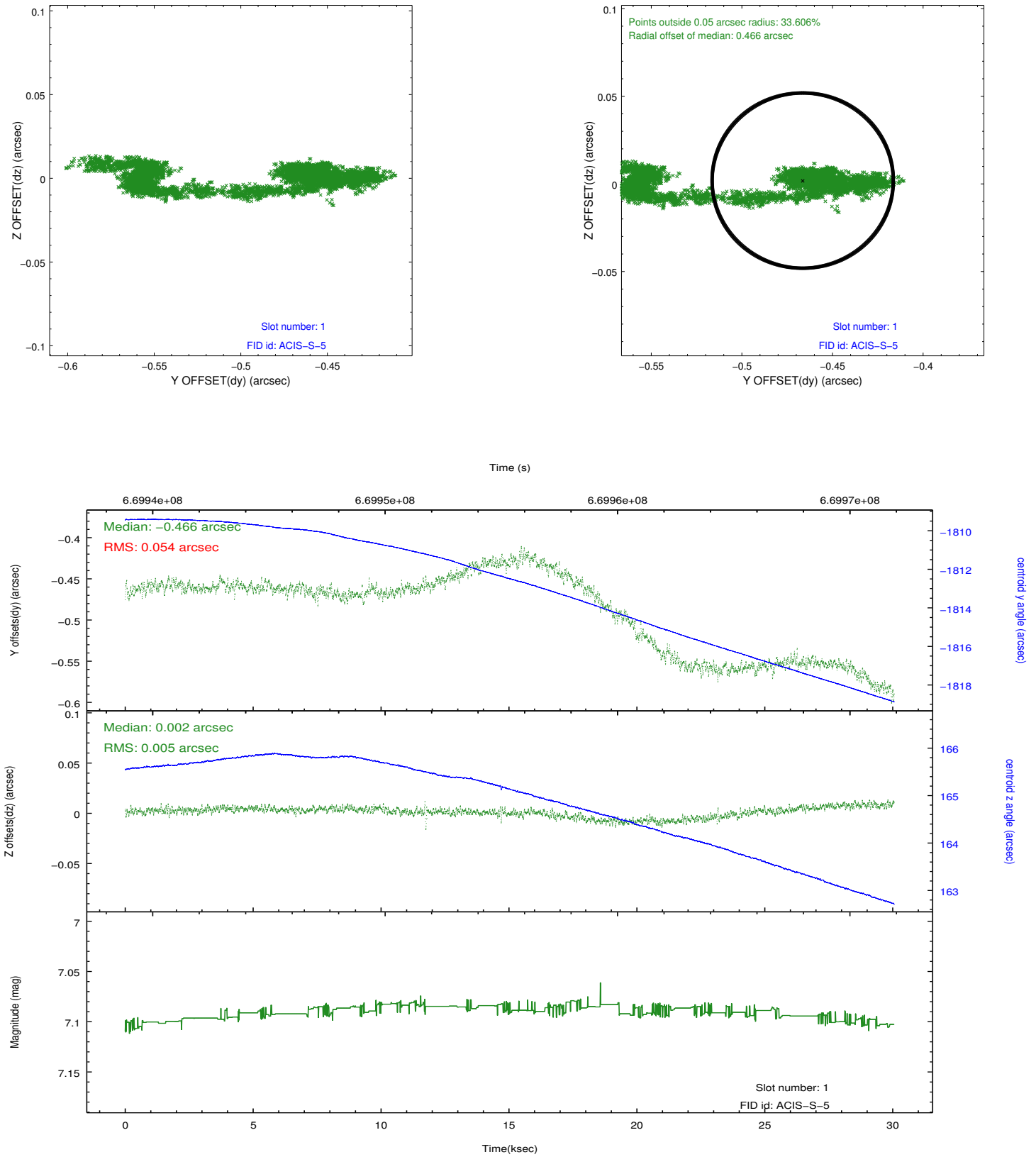


2.5 FID Slots

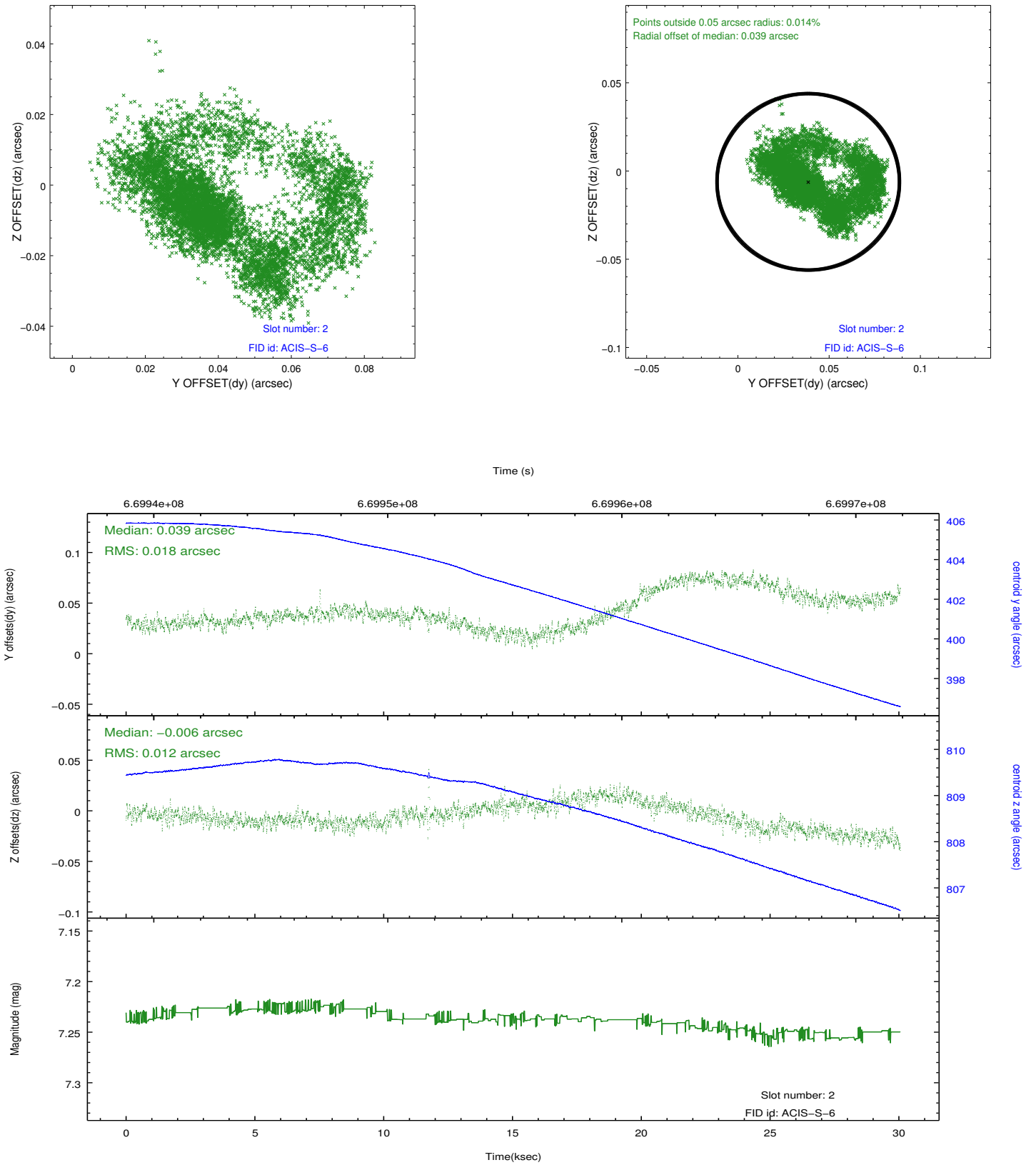
2.5.1 Slot 0



2.5.2 Slot 1

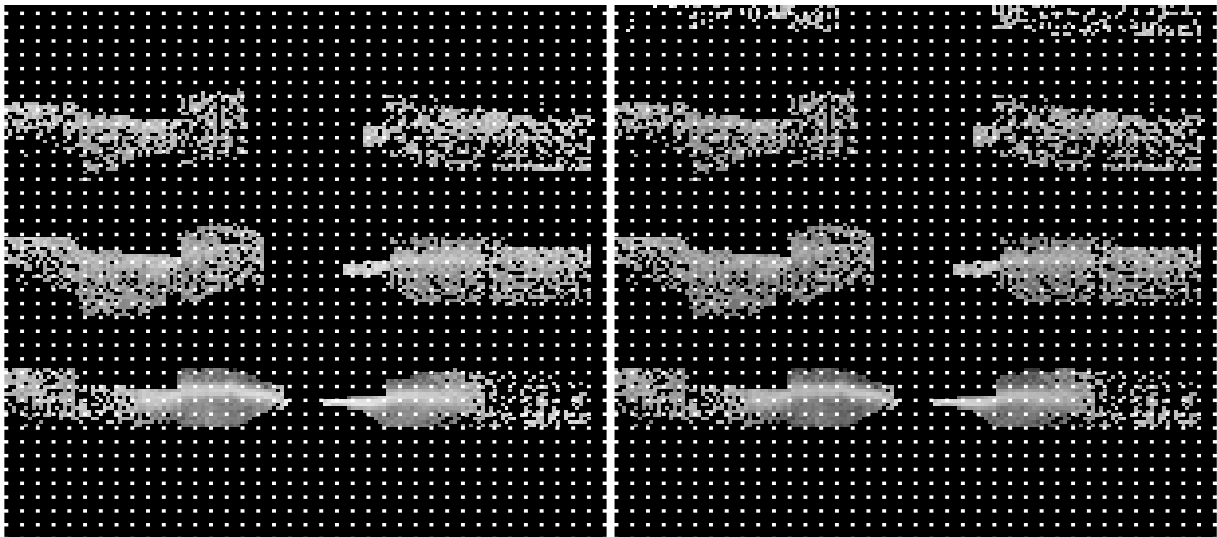


2.5.3 Slot 2



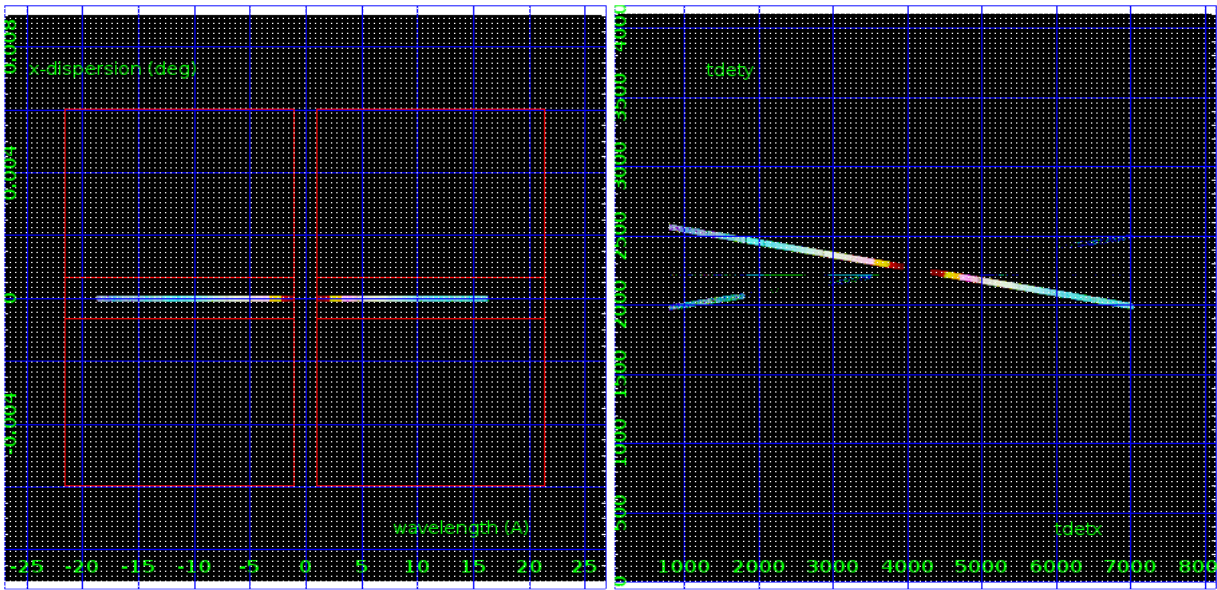
3 Gratings

3.1 HEG Arm



HEG Order Sort 123

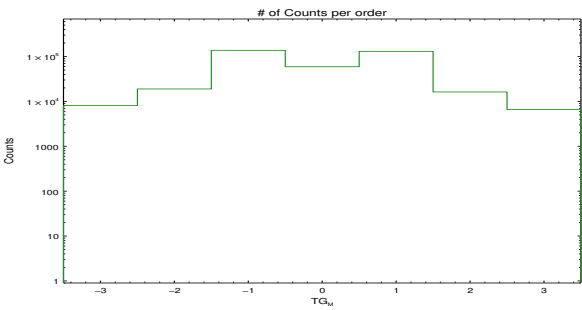
HEG Order Sort ALL

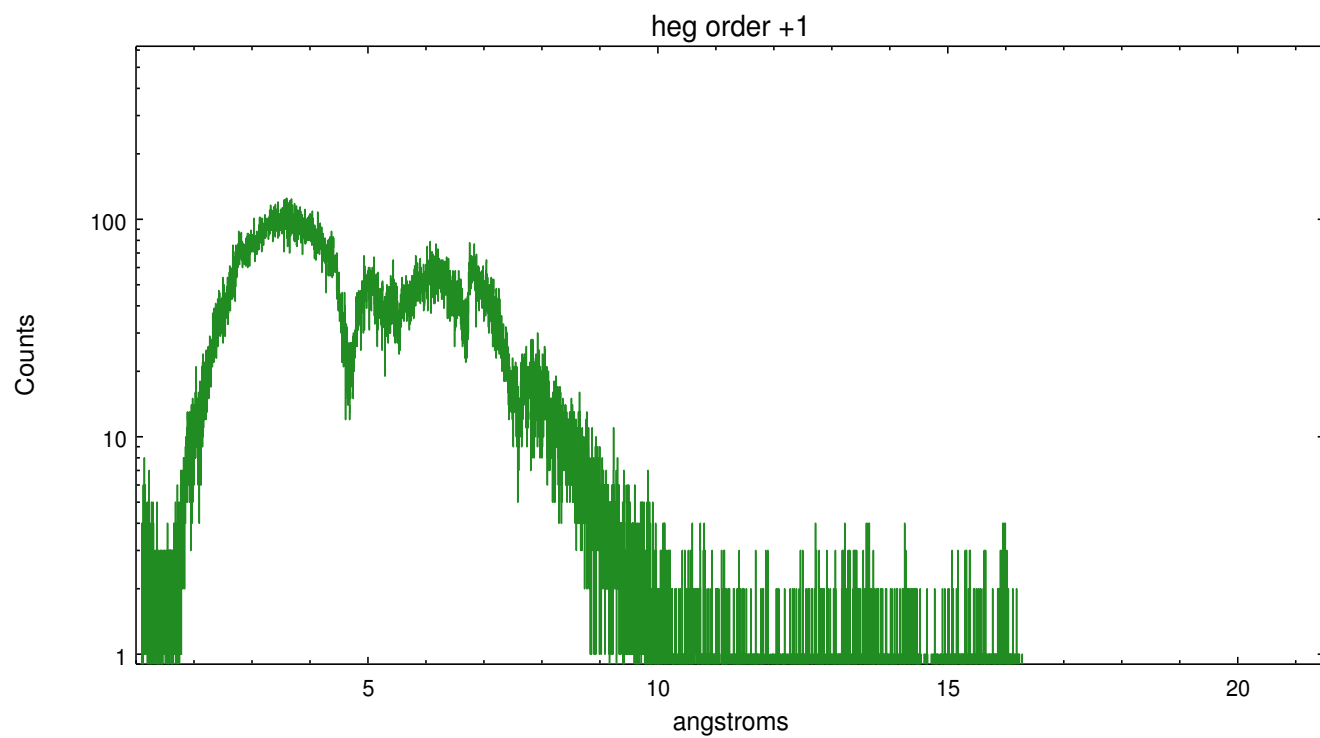
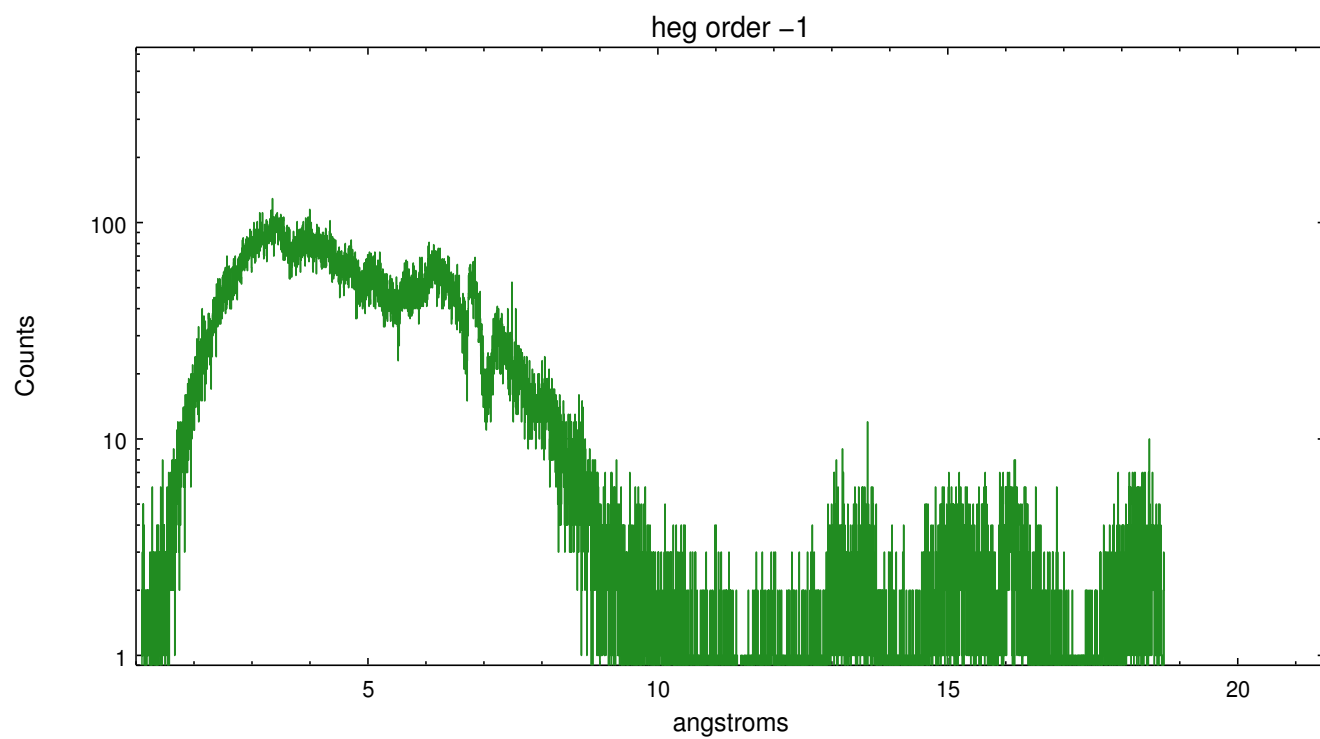


Spot Image HEG

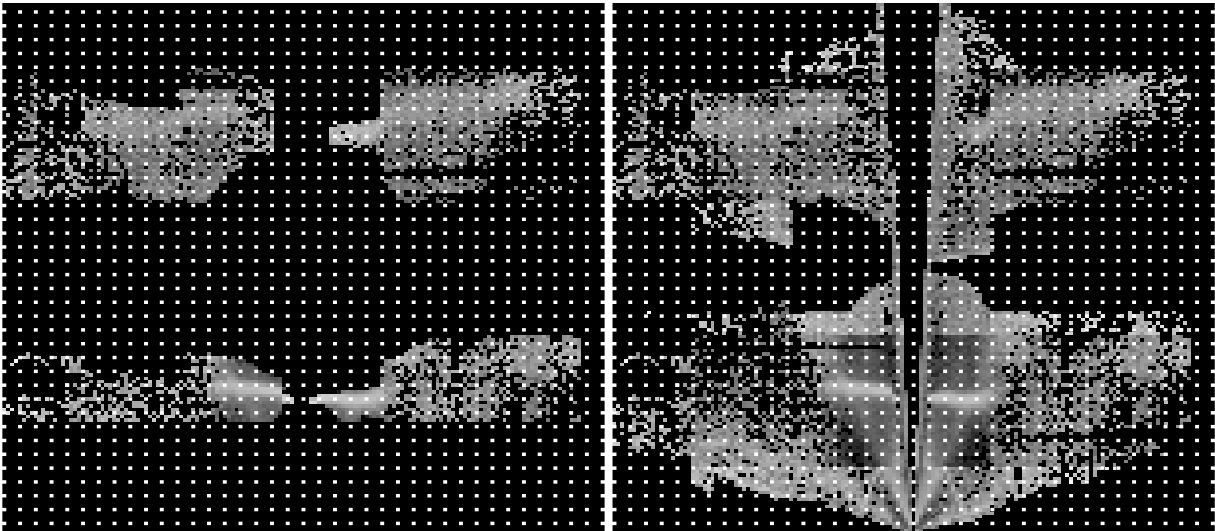
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	8093	18948	137169	59236	130183	16228	6575



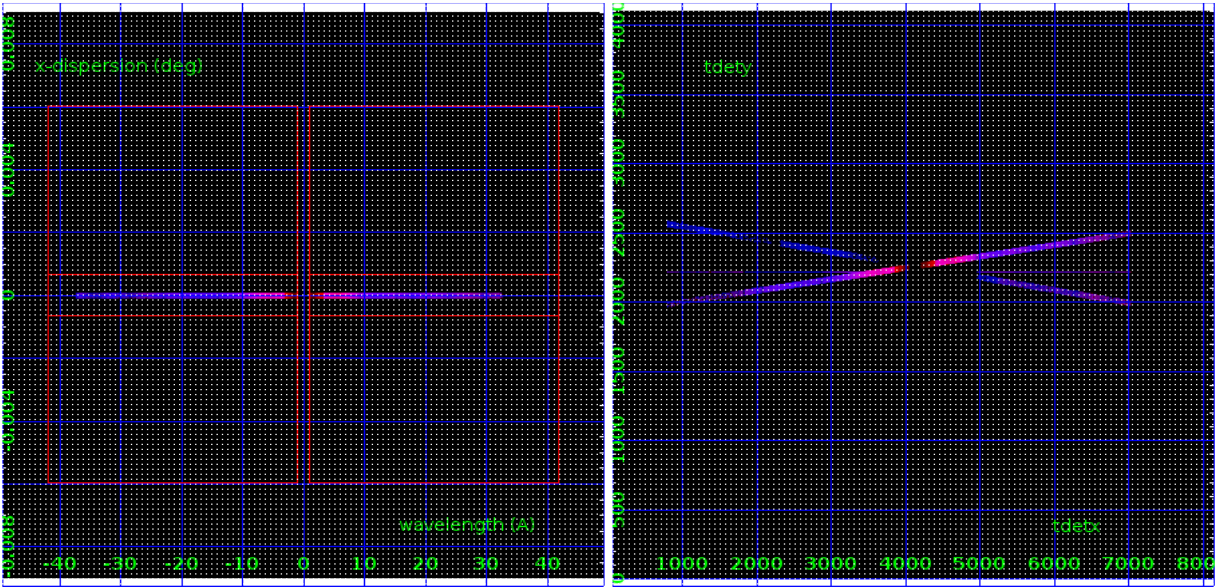


3.2 MEG Arm



MEG Order Sort 123

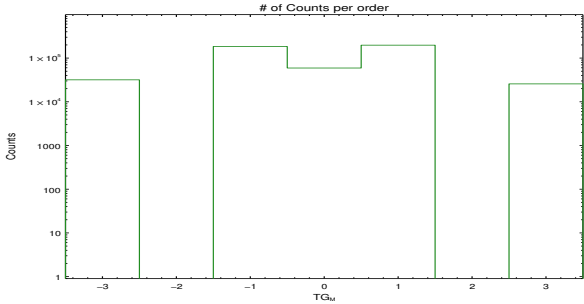
MEG Order Sort ALL

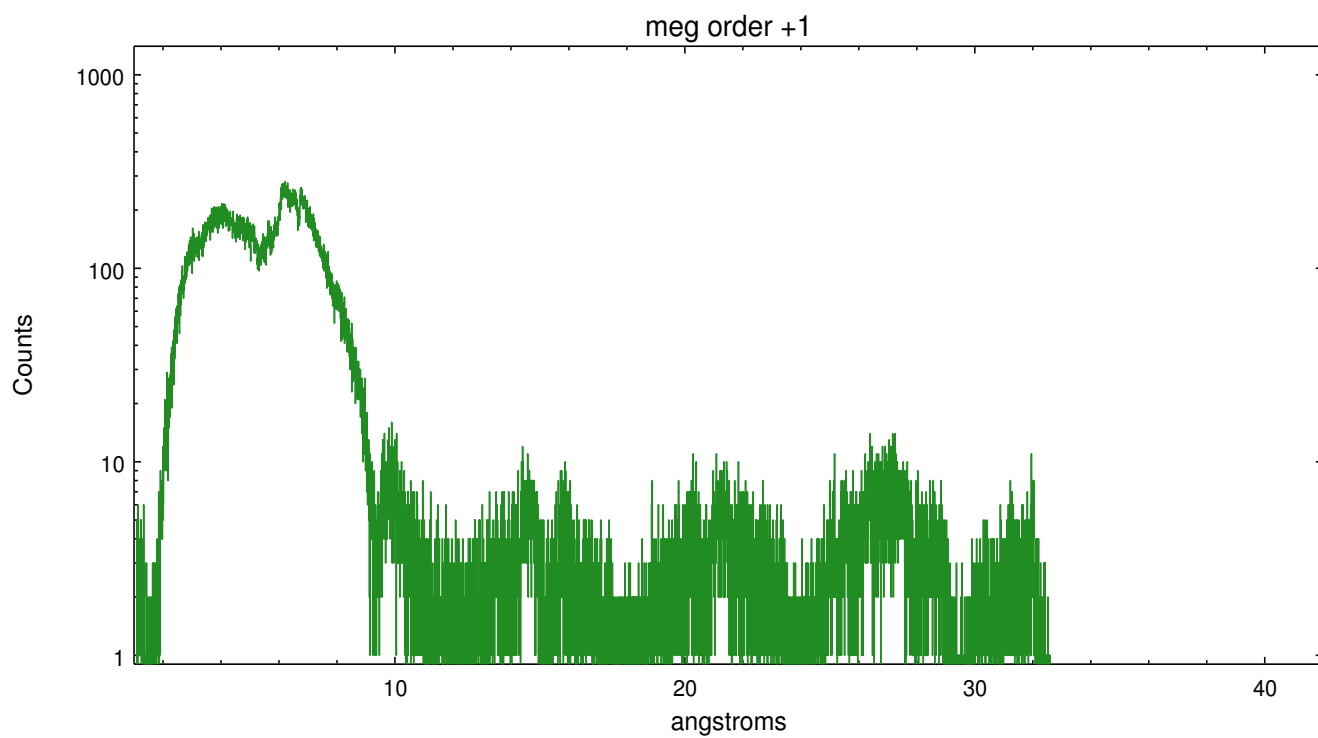
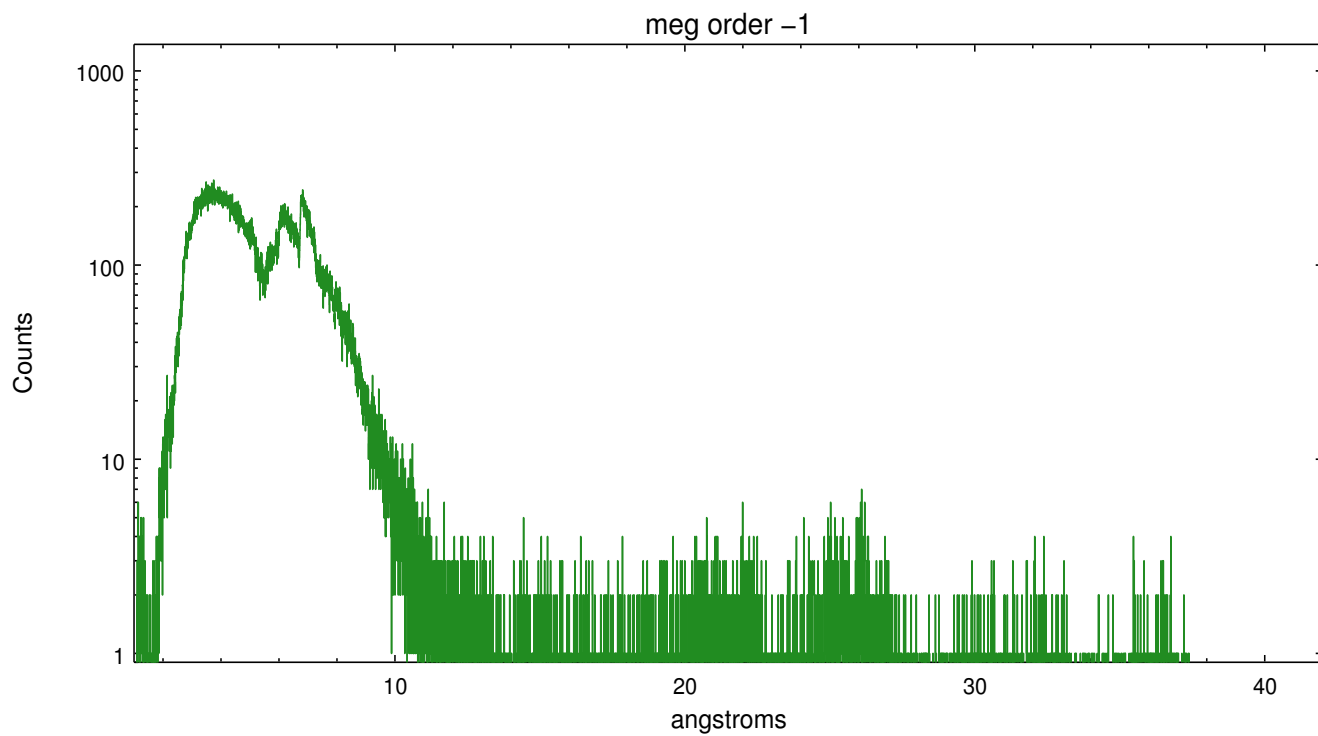


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	31815	0	184070	59236	197352	0	25694





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.03.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.053

A.2 Comments