

V&V Reference Report

L2 ASCDS Version : 10.6.4

Observation 21124 - L2 Version 1
Chandra X-Ray Center

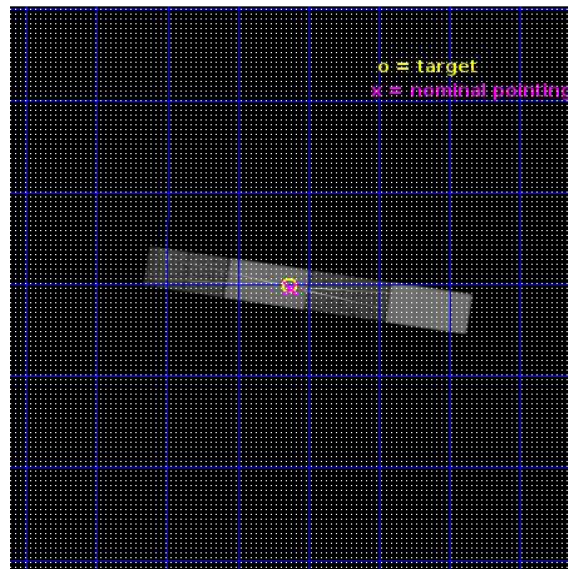
L2 Processing Date : Jul 13 2018

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1 Front

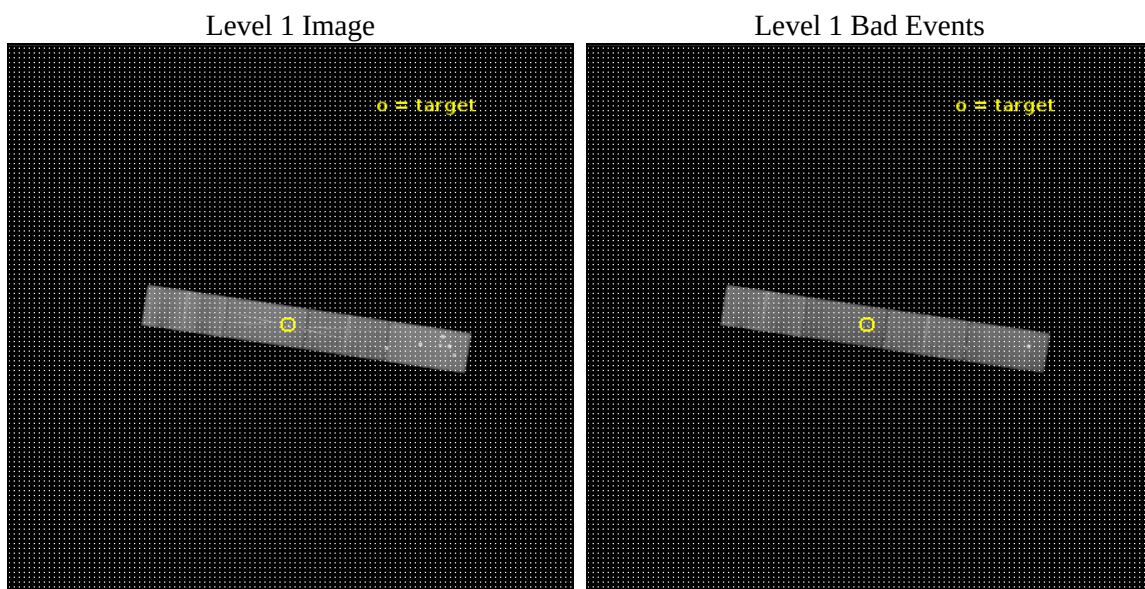
seq_num	402007	Sequence number
obs_id	21124	Observation id
title	Searching for Emission Lines in 4U 1907+09	Proposal title
observer	Claude Canizares	Principal investigator
object	4U 1907+09	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.407917	Observer's specified target RA [deg]
dec_targ	9.830278	Observer's specified target Dec [deg]
ra_nom	287.4052329191	Nominal RA [deg]
dec_nom	9.825680717025	Nominal Dec [deg]
roll_nom	188.8571003439	Nominal Roll [deg]
revision	1	Processing version of data
ontime	40057.047600269	Sum of GTIs [s]
livetime	39055.279676566	Livetime [s]
ontime5	40057.006560326	Sum of GTIs [s]
ontime6	40056.965520263	Sum of GTIs [s]
ontime7	40057.047600269	Sum of GTIs [s]
ontime8	40056.924480319	Sum of GTIs [s]
l2events	280433	Number of level 2 events



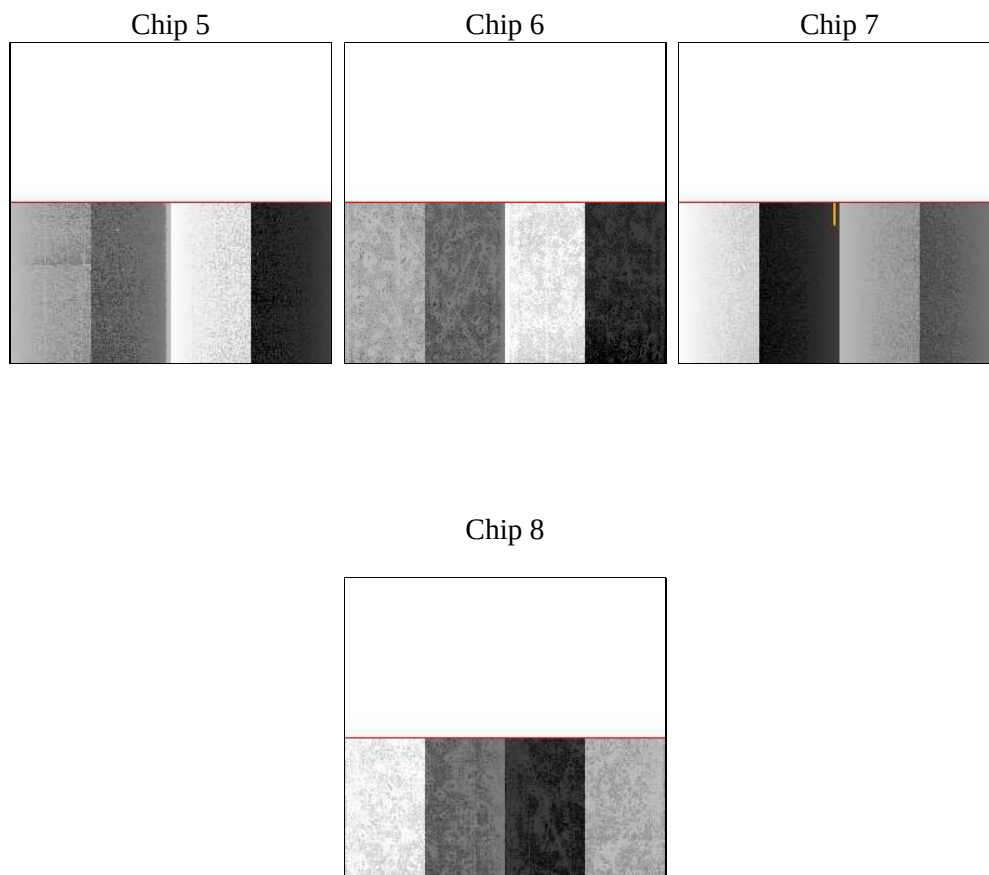
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.6.4	Processing system revision	ontime	40057.047600269	Sum of GTIs [s]
caldsver	4.7.8	 	ontime5	40057.006560326	Sum of GTIs [s]
date	2018-07-13T06:32:08	Date and time of file creation	ontime6	40056.965520263	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	40057.047600269	Sum of GTIs [s]
			ontime8	40056.924480319	Sum of GTIs [s]
			l1events	950724	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4073.37, 4126.87)	src1a sky pixel position

2.1.4 Events

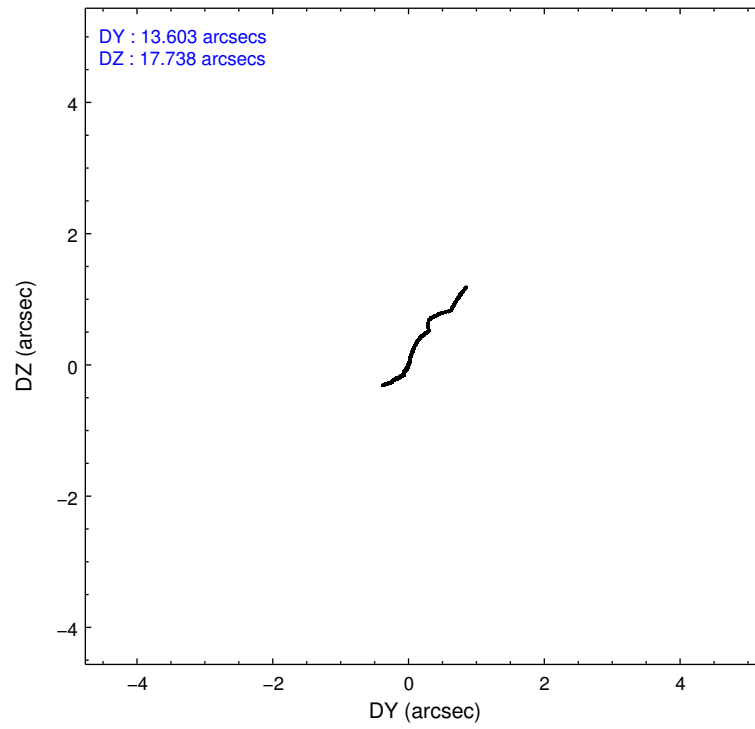
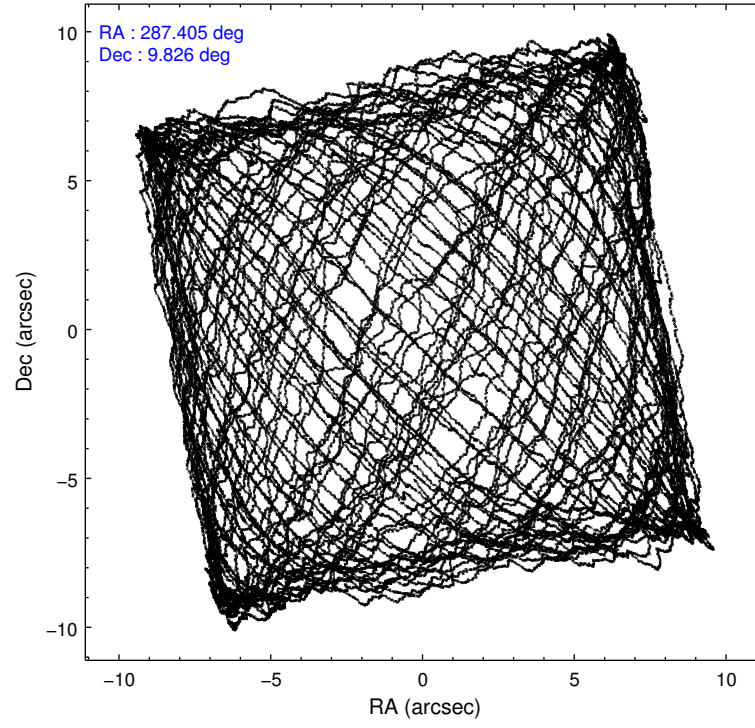
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	328144	175027	232718	214835
rejected events	143751	142955	113326	154718
rejected %	43%	81%	48%	72%

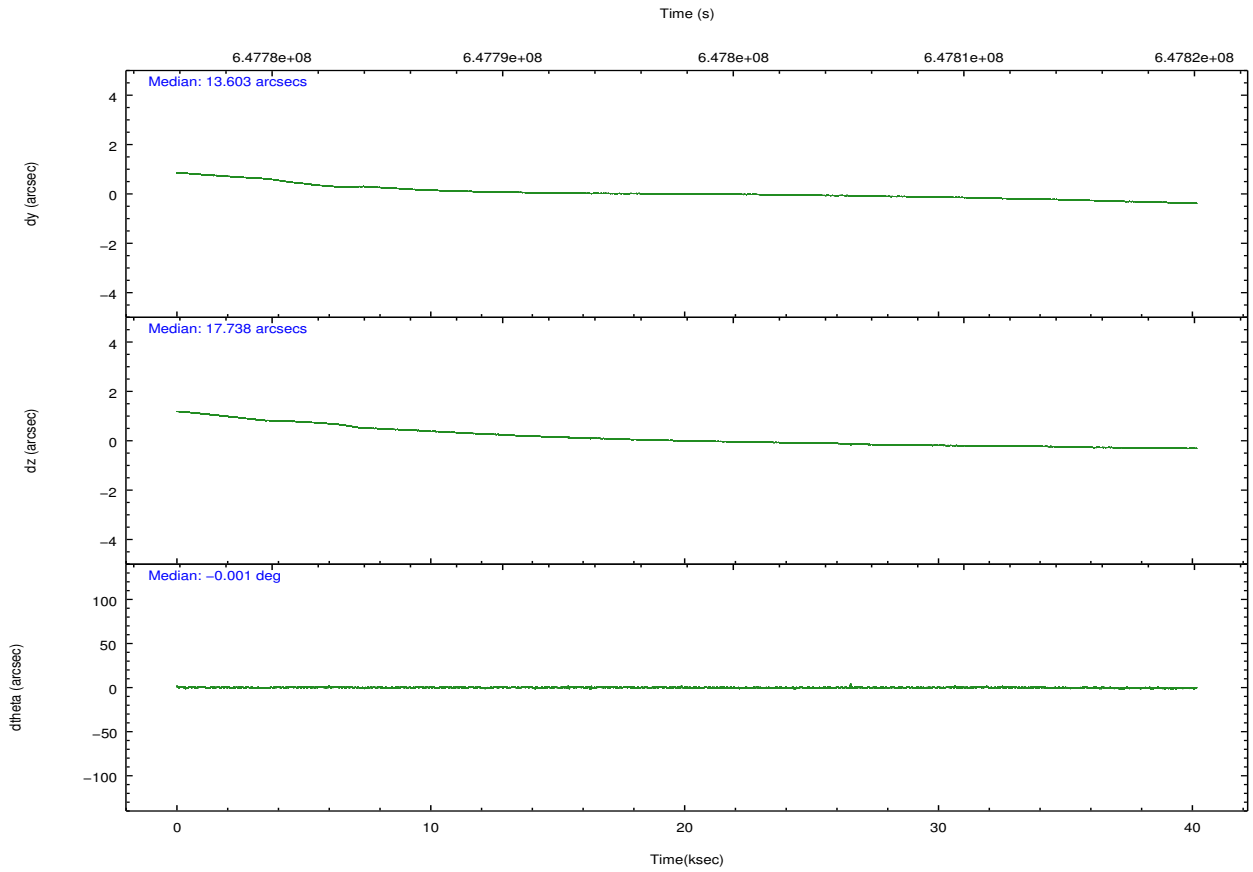
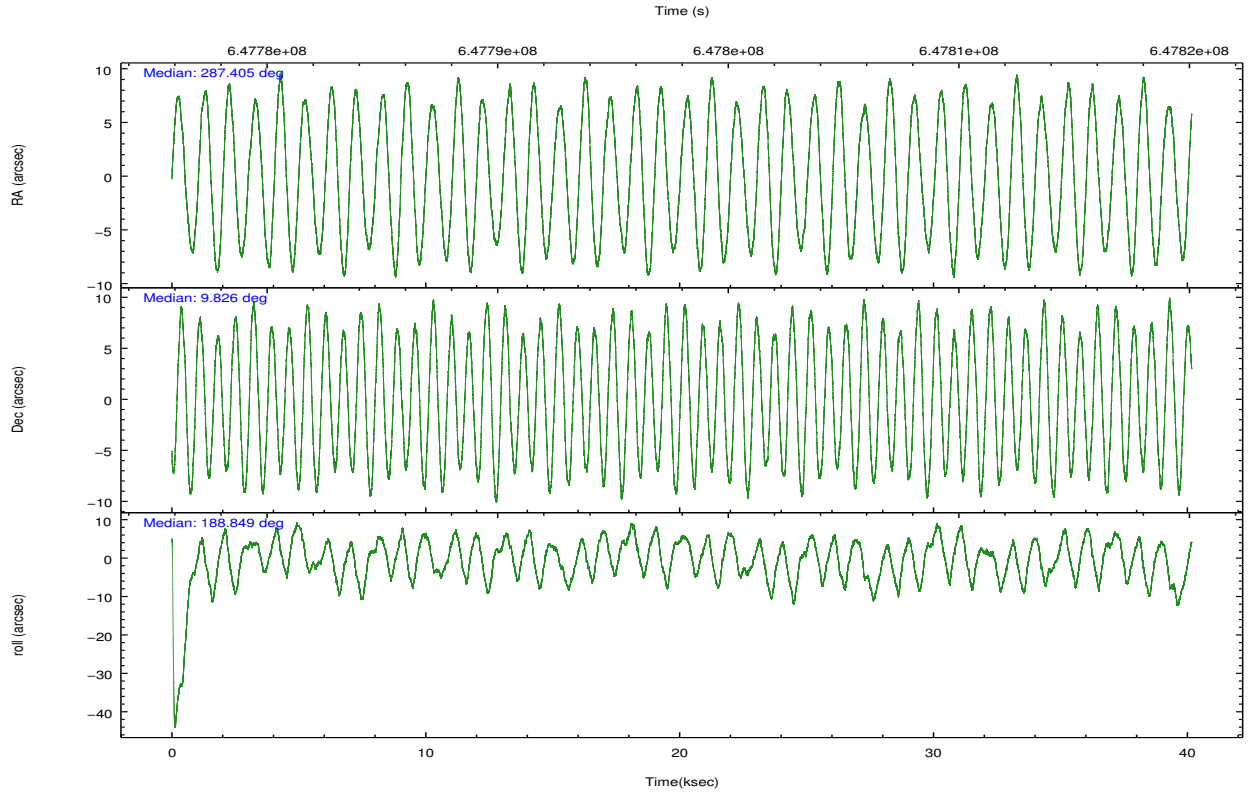
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	61706	15128	13413	17432
	18%	8%	5%	8%
grade 1 events	557	96	538	138
	0%	0%	0%	0%
grade 2 events	36942	6047	25405	13775
	11%	3%	10%	6%
grade 3 events	10467	2838	11308	6496
	3%	1%	4%	3%
grade 4 events	10681	2897	11005	6180
	3%	1%	4%	2%
grade 5 events	22402	7107	21079	10522
	6%	4%	9%	4%
grade 6 events	64616	5166	58268	16238
	19%	2%	25%	7%
grade 7 events	120773	135748	91702	144054
	36%	77%	39%	67%

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	287.426684	287.4052329191039	CCD I2 on	N	N
[deg] Pointing Dec	9.843177	9.825680717025044	CCD I3 on	N	N
[deg] Pointing Roll	188.696796	188.8571003439036	CCD S0 on	O1	N
[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)	647778059.184000	647777369.60826	CCD S5 on	O2	N
Observation start date	2018-07-12T10:19:50	2018-07-12T10:09:29	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	647818059.184000	647819120.93573	On-chip summing requested	N	N
Observation end date	2018-07-12T21:26:30	2018-07-12T21:45:20	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	1.6

2.3 Aspect



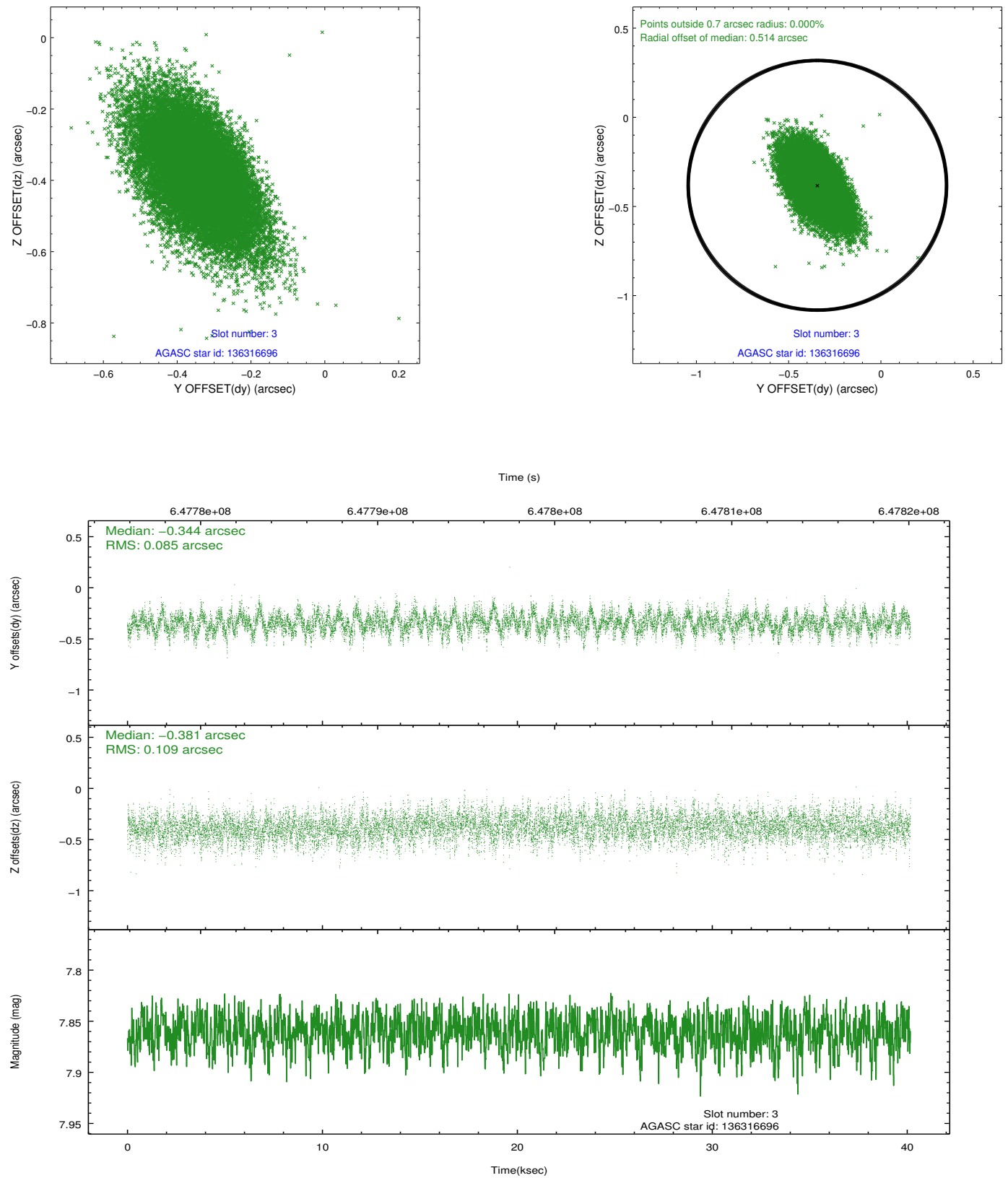


Slot Statistics

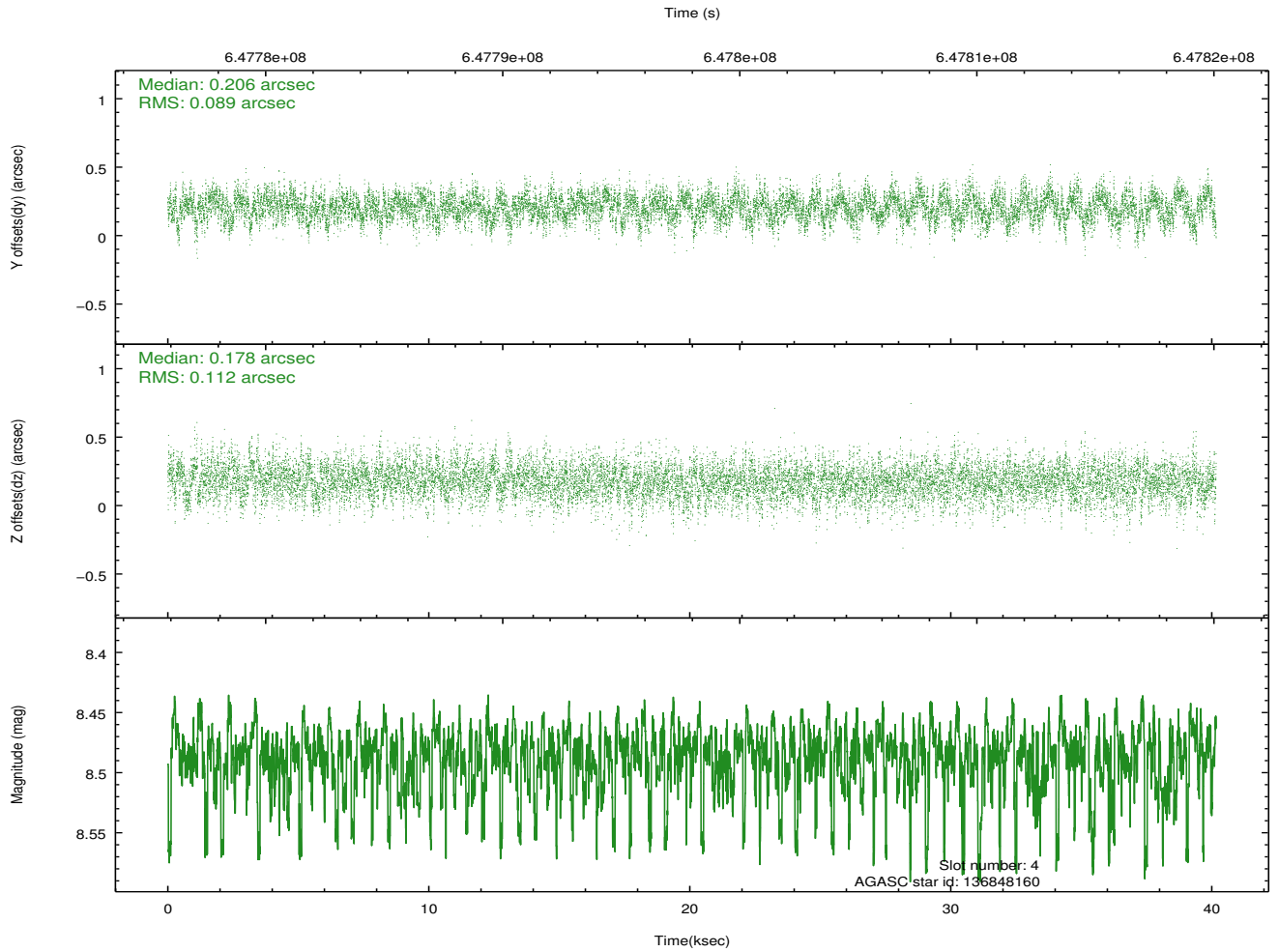
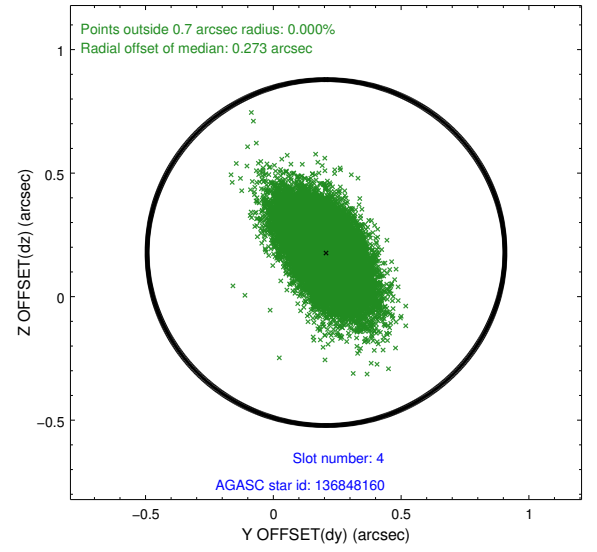
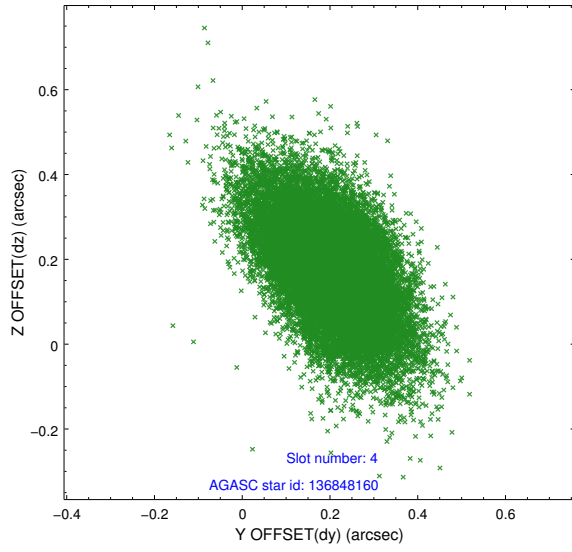
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.01	9798	1.000	-0.280	-0.168	0.013	0.049	0.000000	0.000000	-766.52	-1866
1	FID		ACIS-S-4	7.10	9798	1.000	0.298	0.176	0.012	0.024	0.000000	0.000000	2147.41	42
2	FID		ACIS-S-6	7.33	9797	1.000	-0.043	-0.000	0.010	0.024	0.000000	0.000000	395.83	679
3	GUIDE	used	136316696	7.86	19585	1.000	-0.344	-0.381	0.142	0.251	287.190166	9.367792	1089.65	1563
4	GUIDE	used	136848160	8.49	19584	1.000	0.206	0.178	0.145	0.260	287.100689	10.380263	849.11	-2085
5	GUIDE	used	136973480	8.41	19586	1.000	0.122	0.361	0.126	0.229	287.924725	9.951688	-1804.39	-120
6	GUIDE	used	136974696	6.65	19595	1.000	0.210	0.229	0.128	0.228	287.707206	10.345780	-1254.99	-1638
7	GUIDE	used	136316960	9.14	19567	1.000	-0.194	-0.383	0.196	0.315	287.104881	9.133555	1516.65	2351

2.4 Star Slots

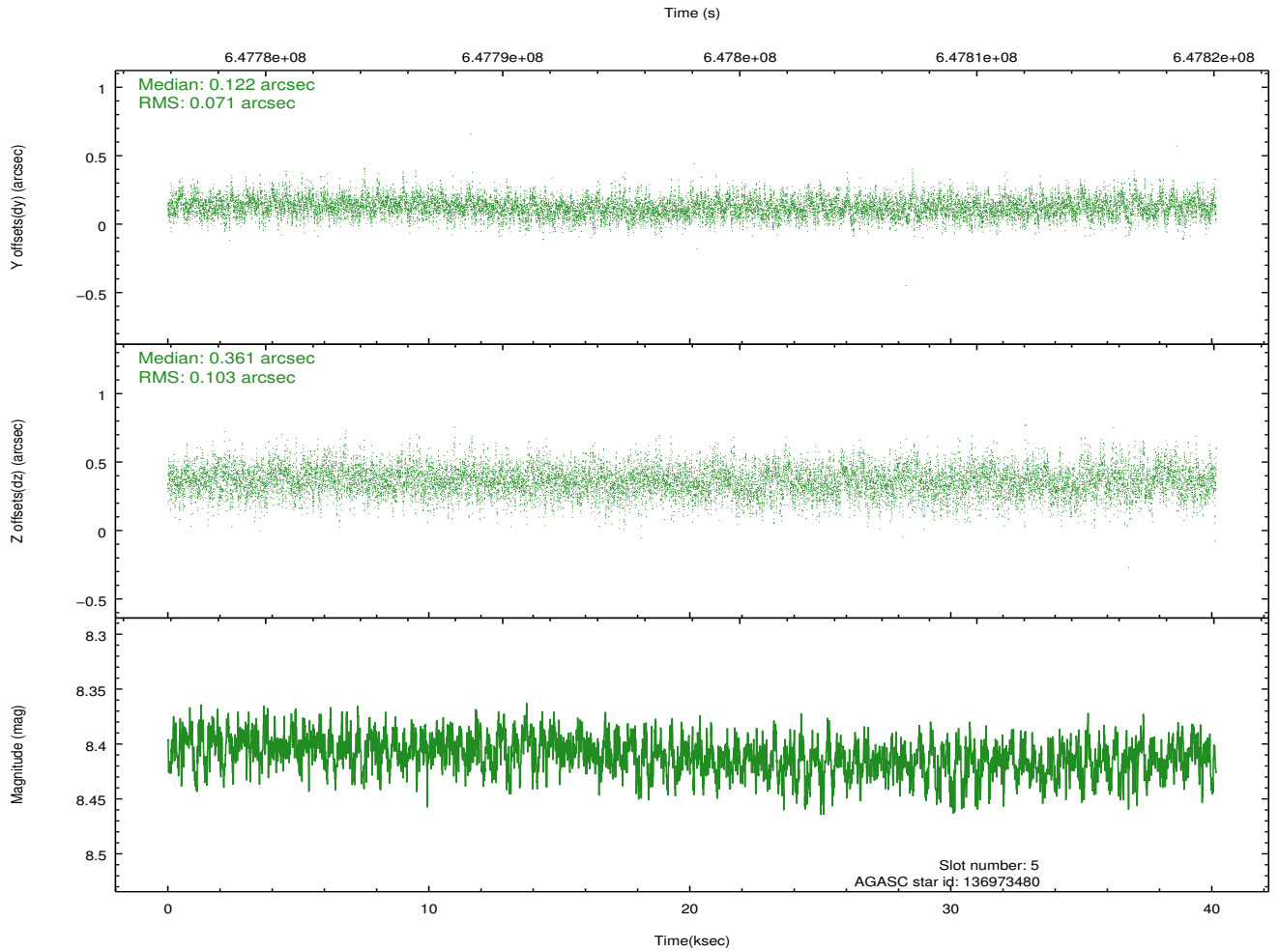
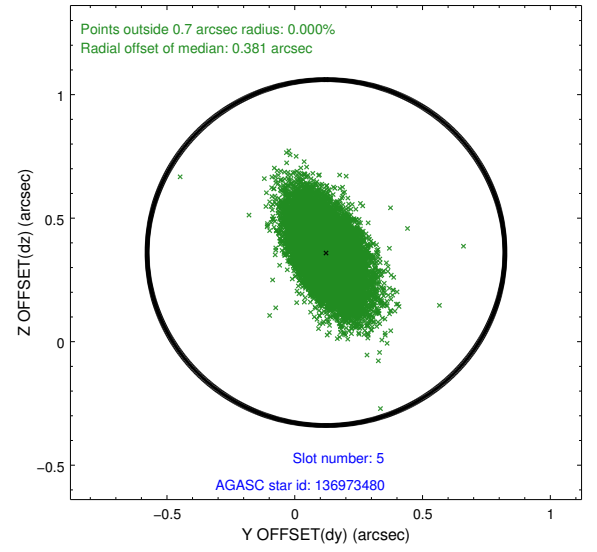
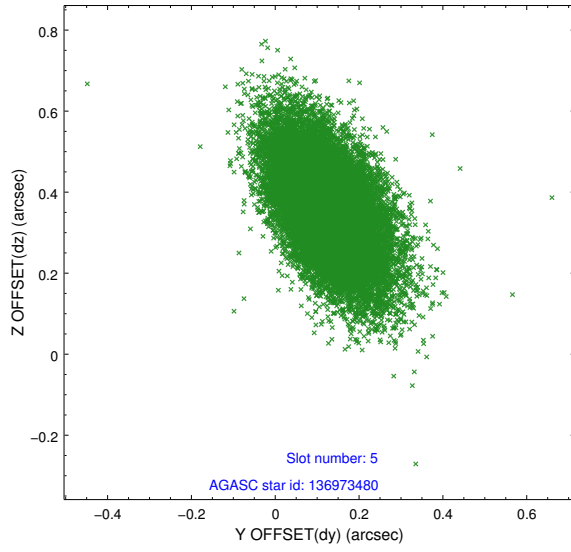
2.4.1 Slot 3



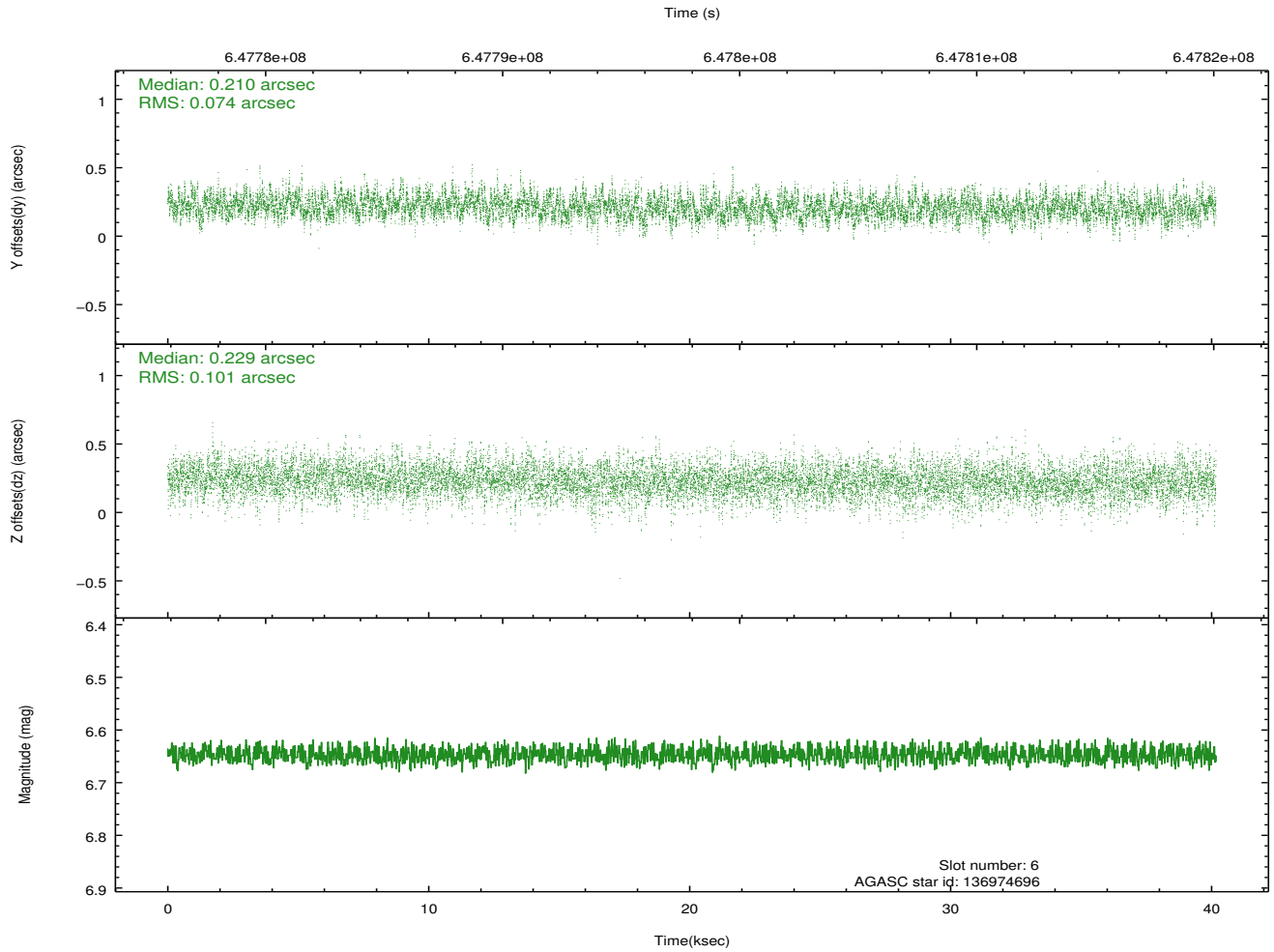
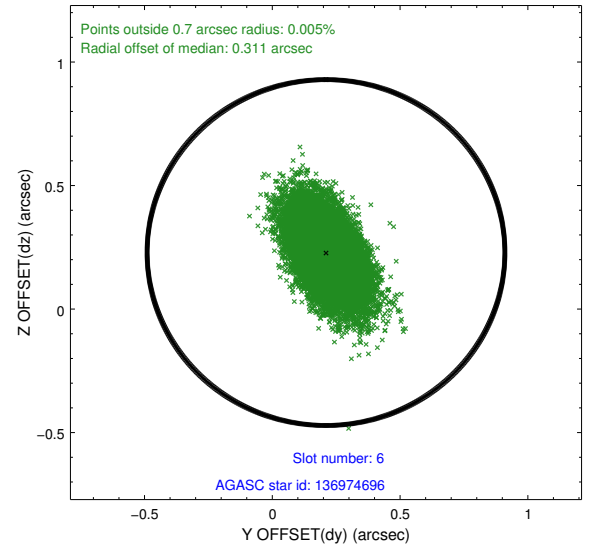
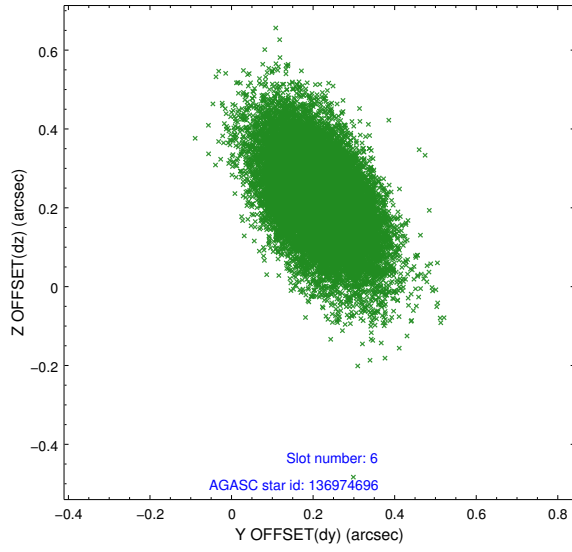
2.4.2 Slot 4



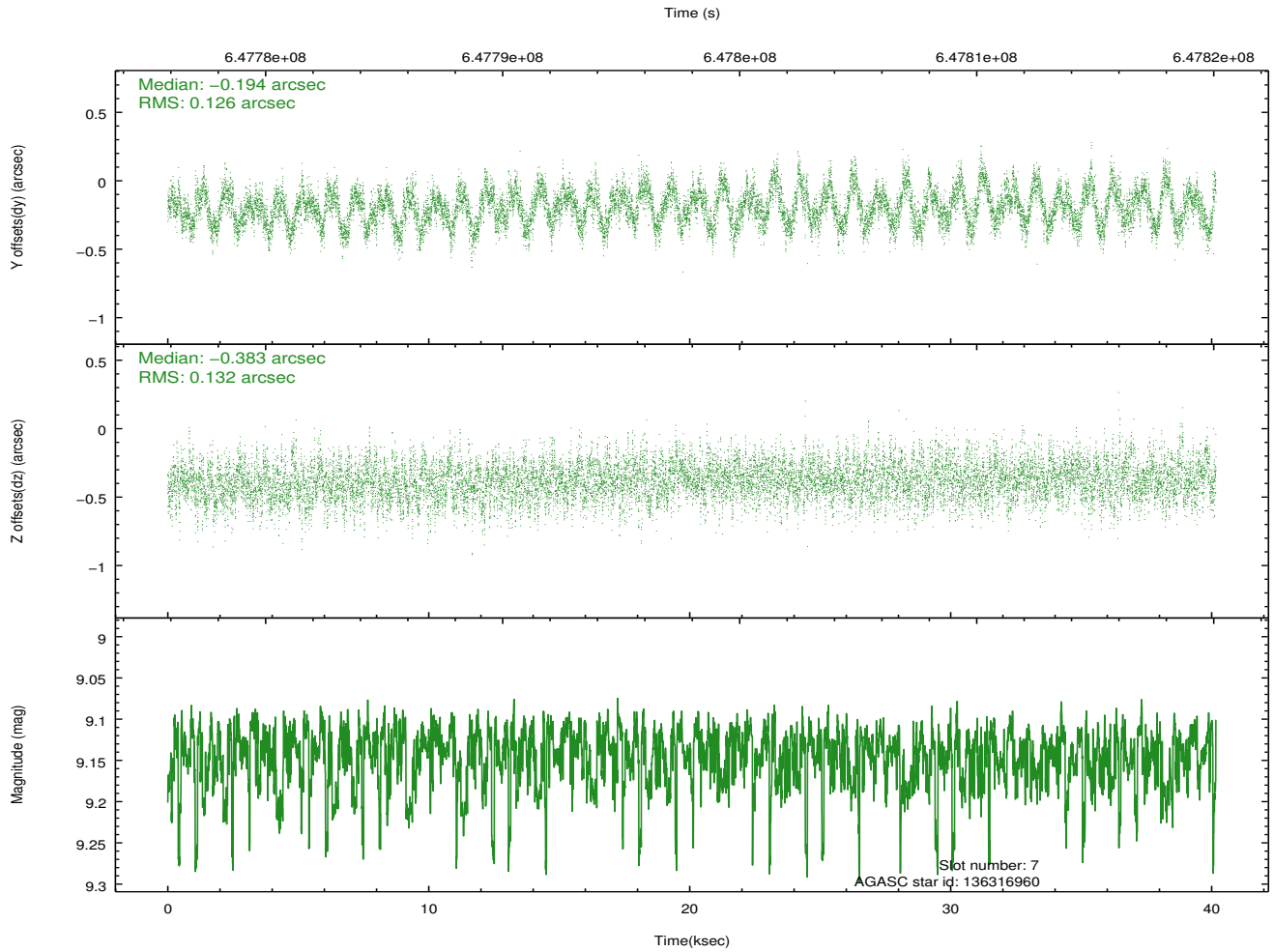
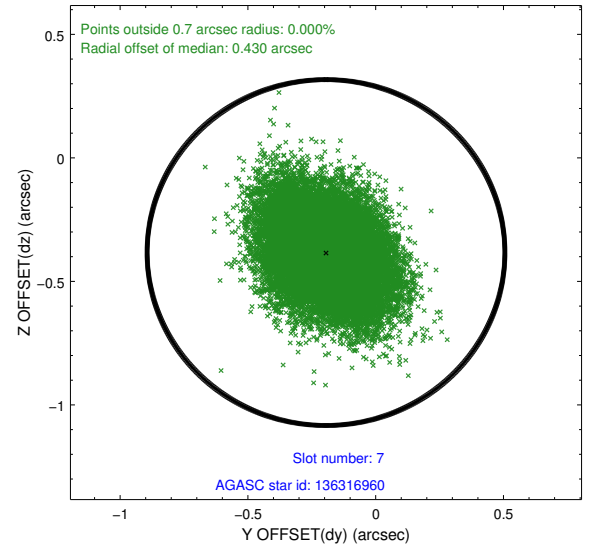
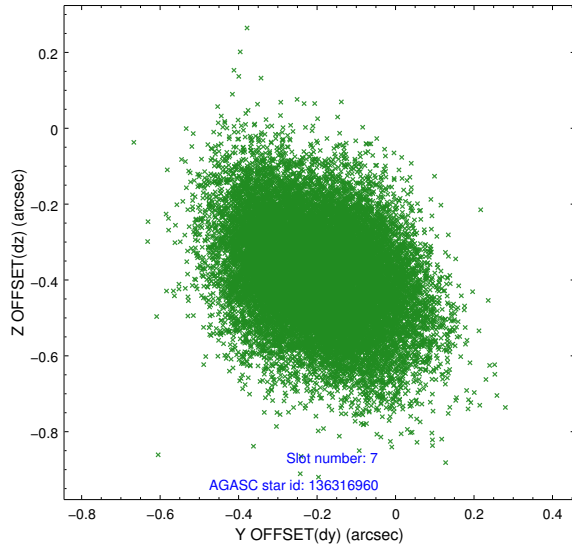
2.4.3 Slot 5



2.4.4 Slot 6

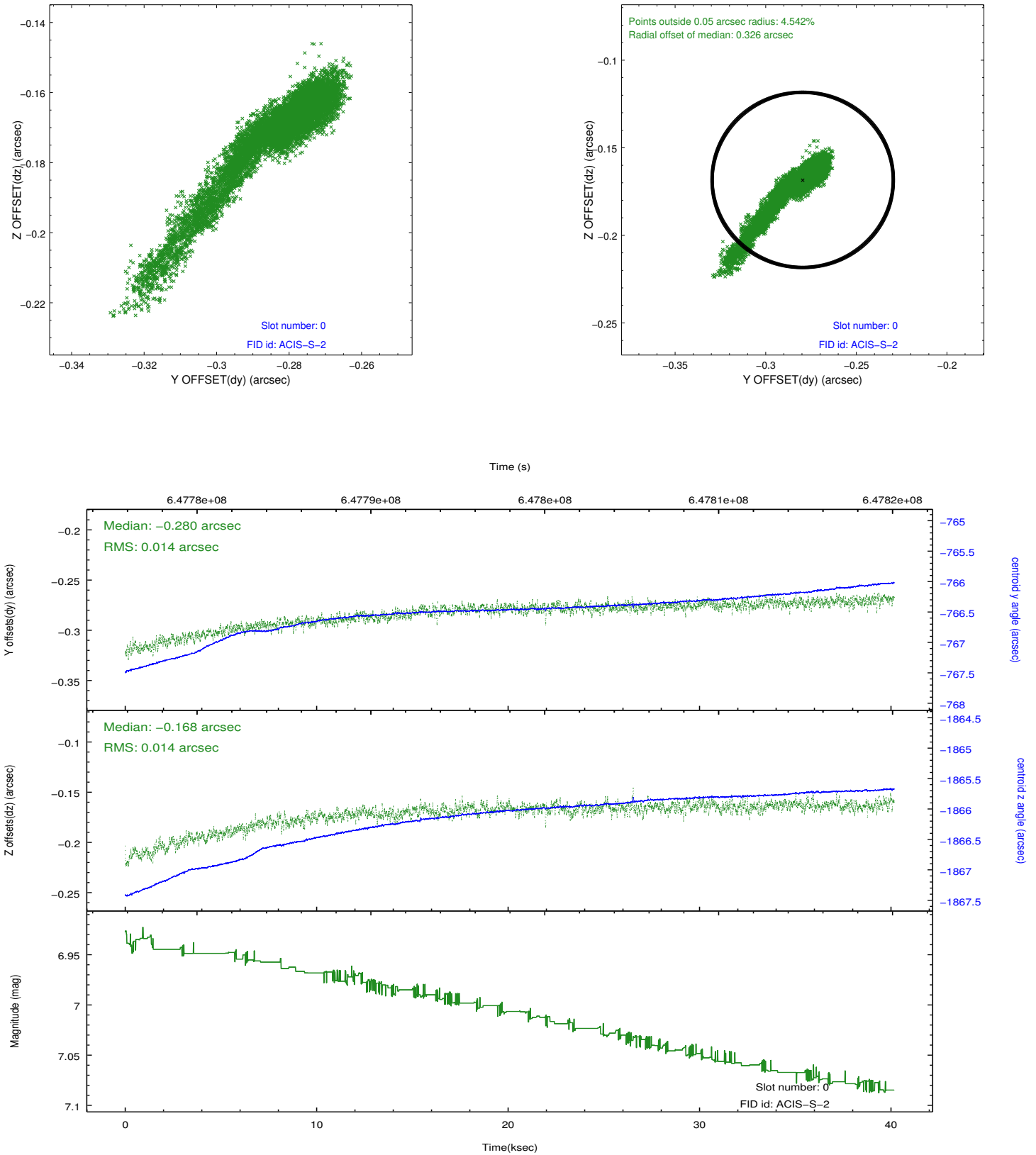


2.4.5 Slot 7

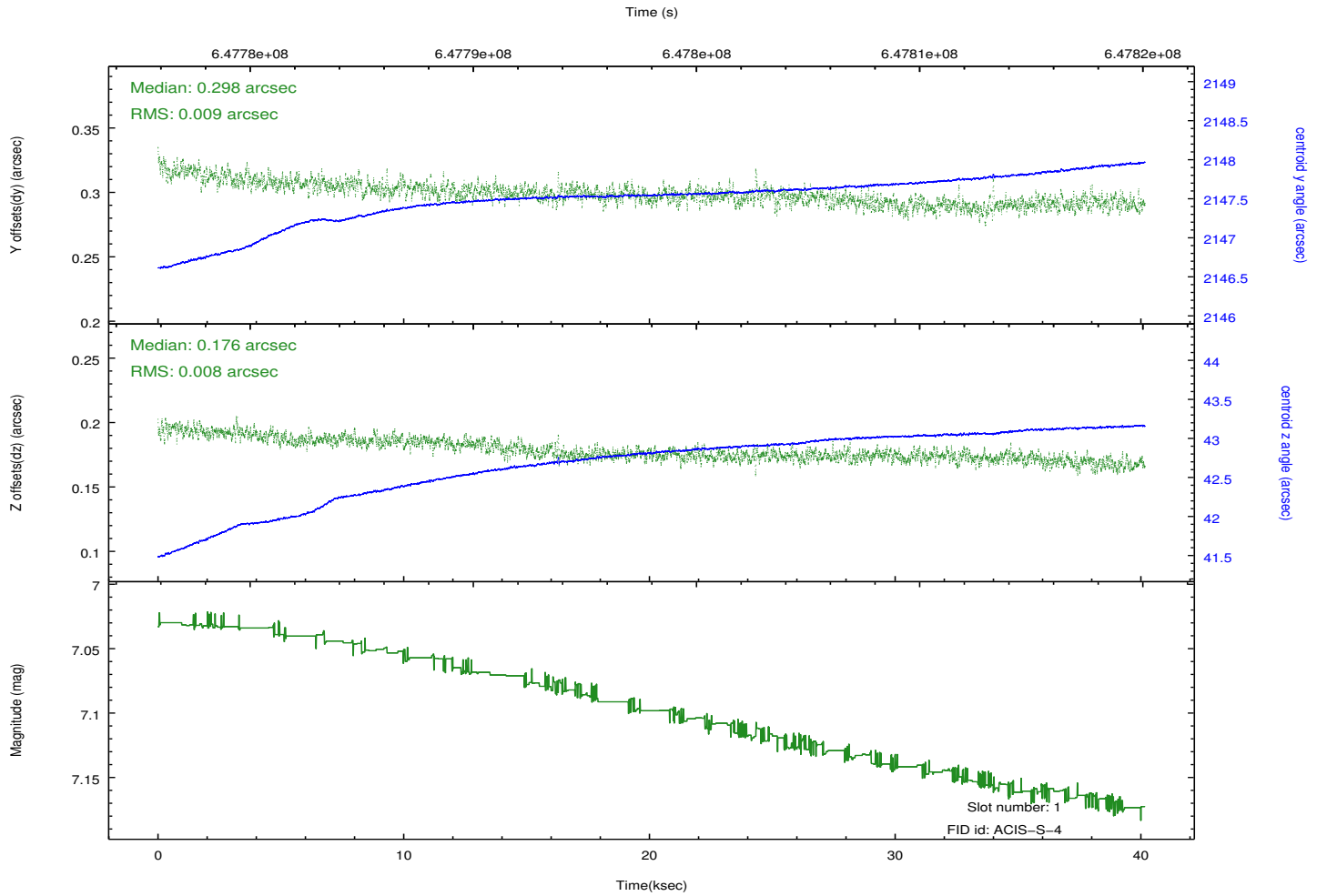
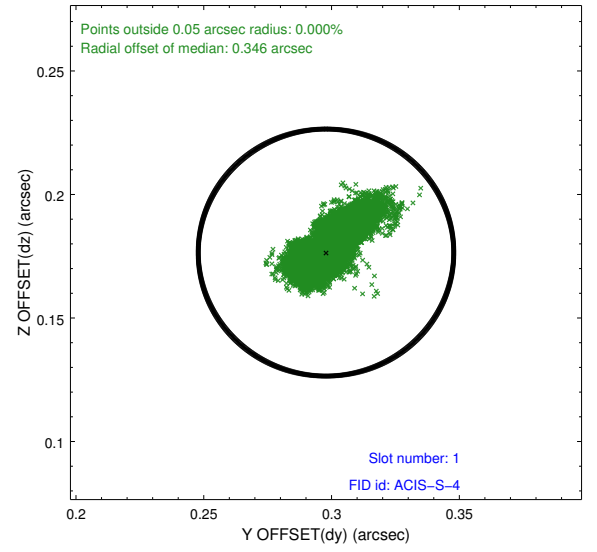
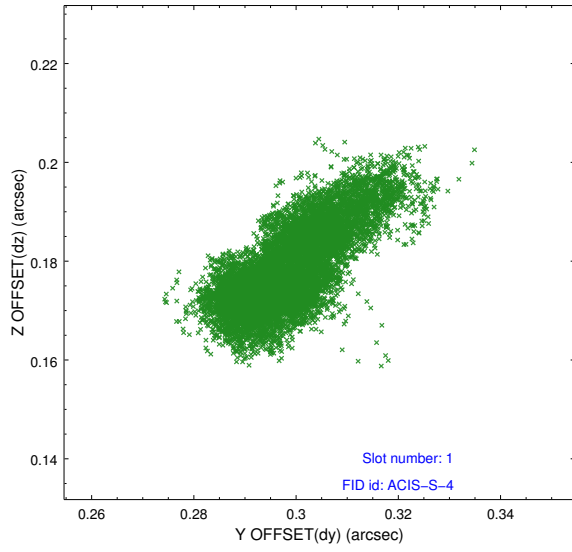


2.5 FID Slots

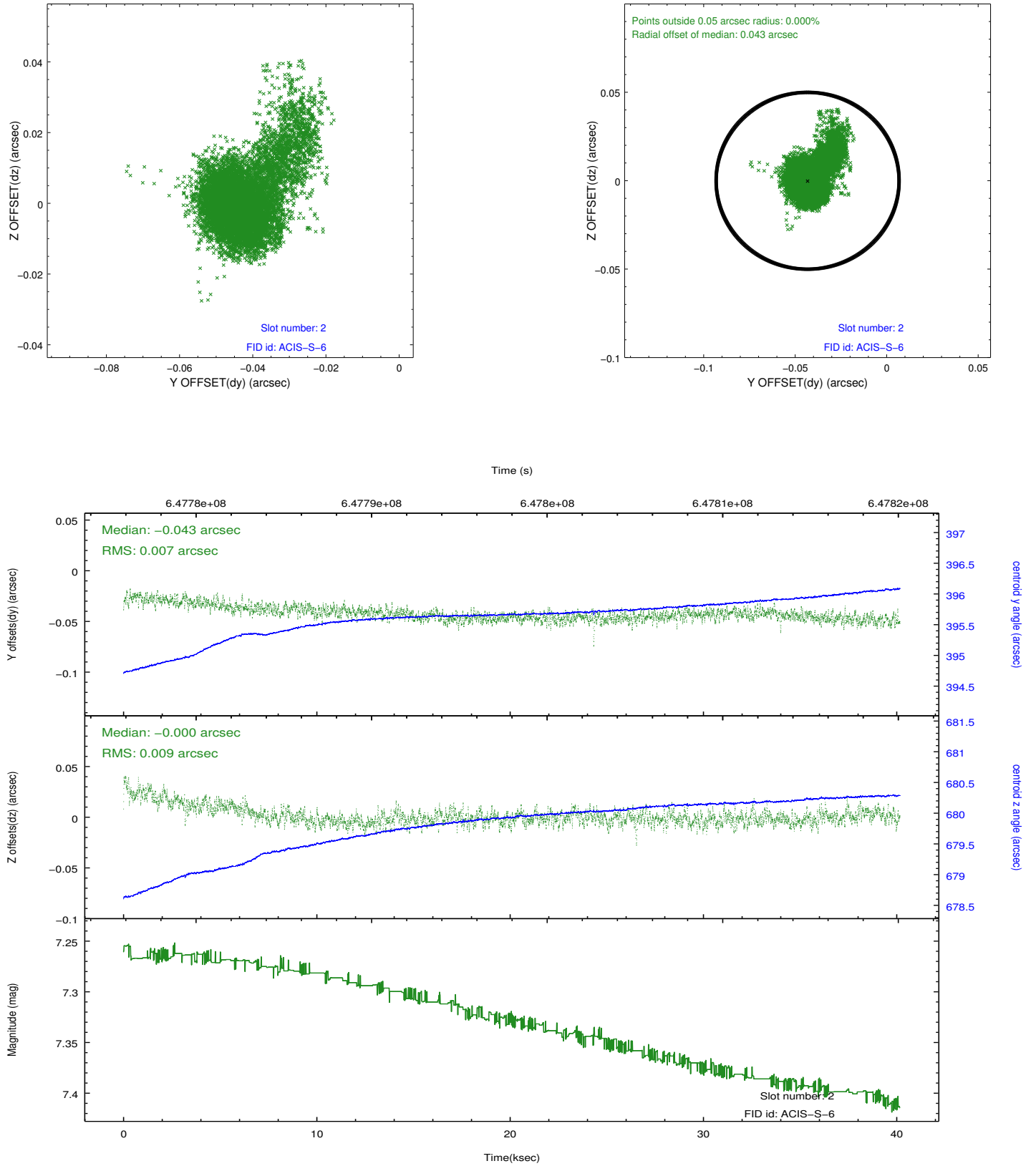
2.5.1 Slot 0



2.5.2 Slot 1

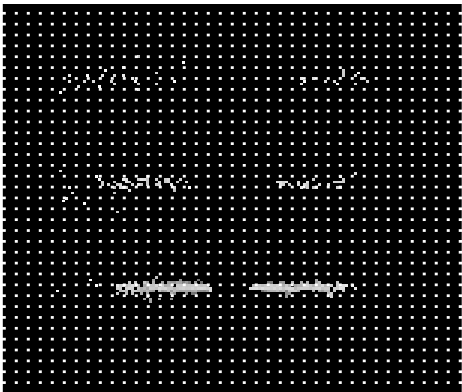


2.5.3 Slot 2

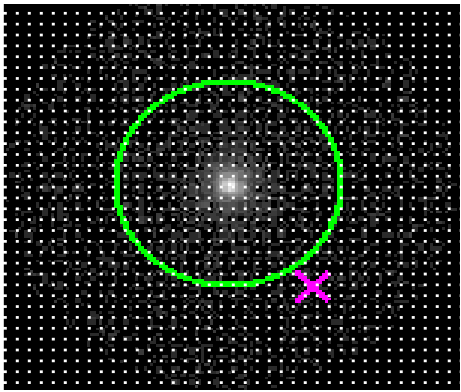


3 Gratings

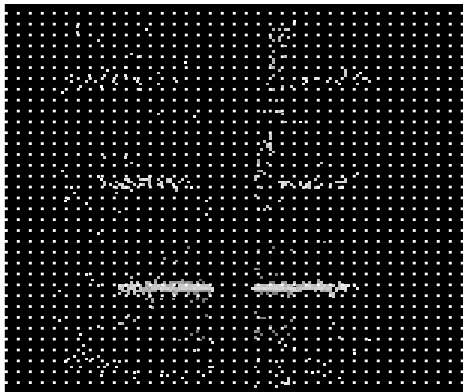
3.1 HEG Arm



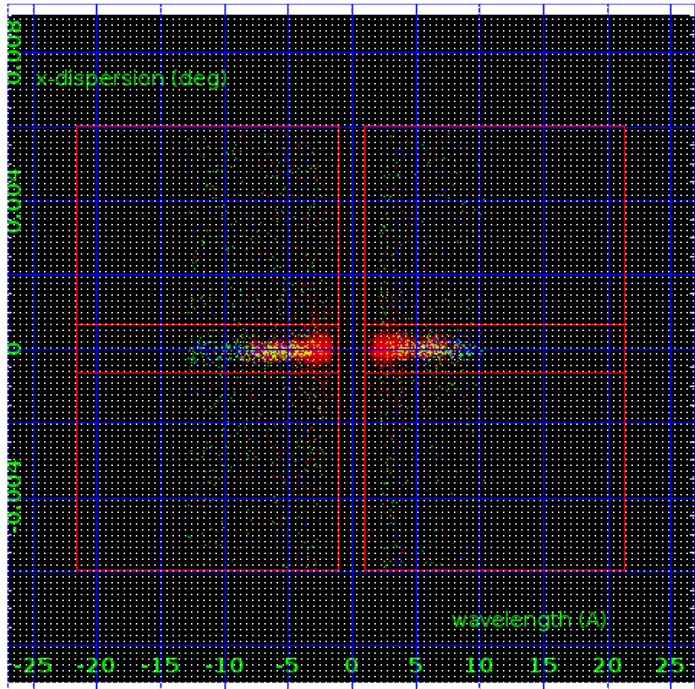
HEG Order Sort 123



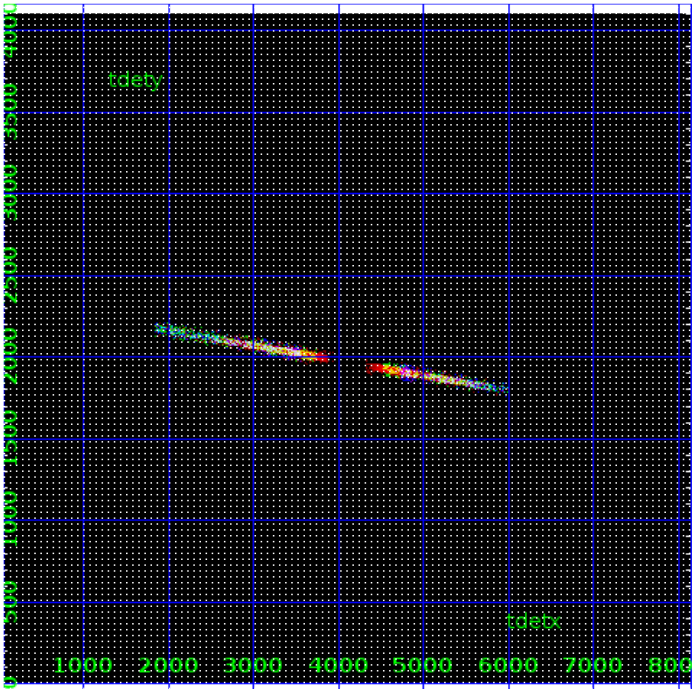
HEG Zero Order



HEG Order Sort ALL

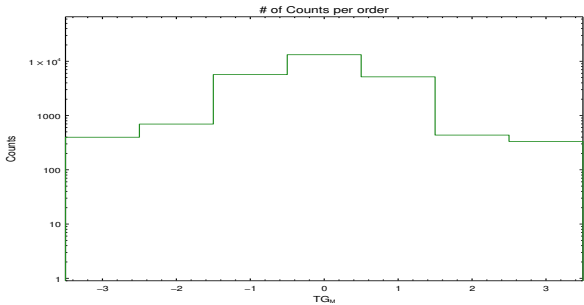


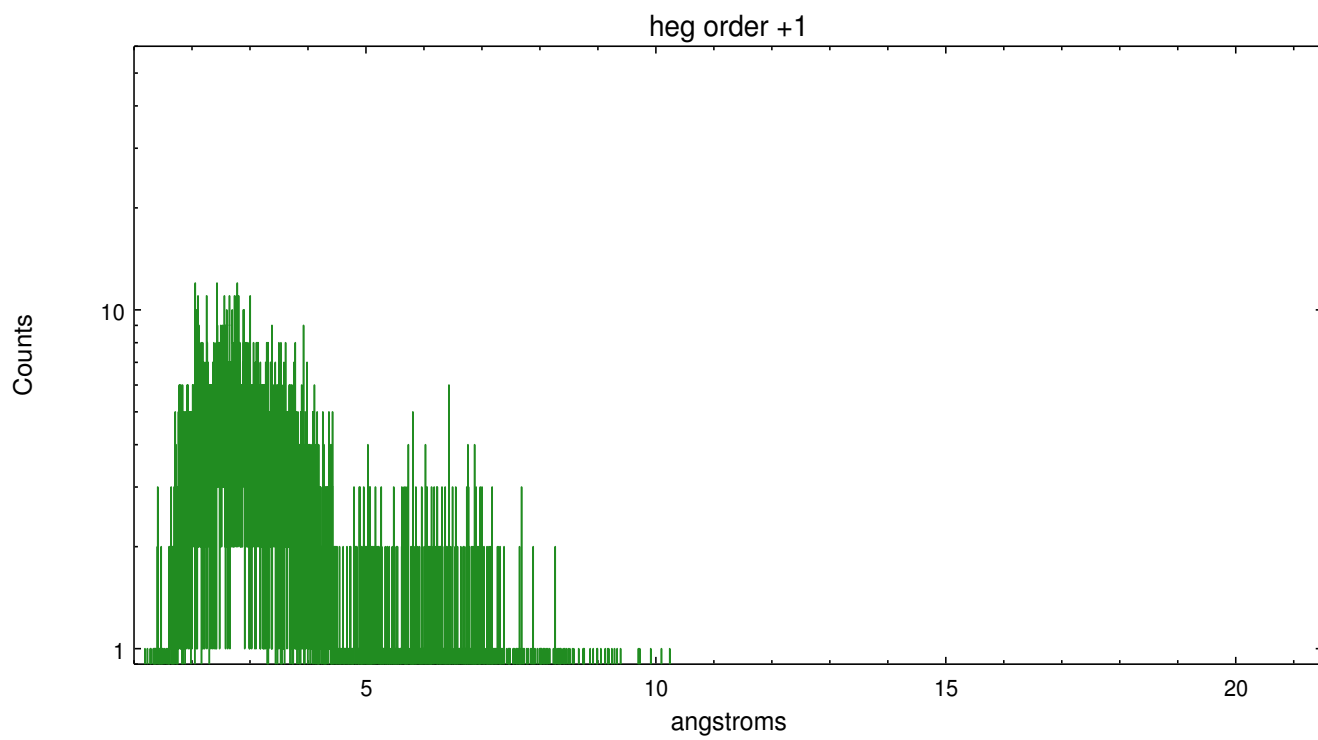
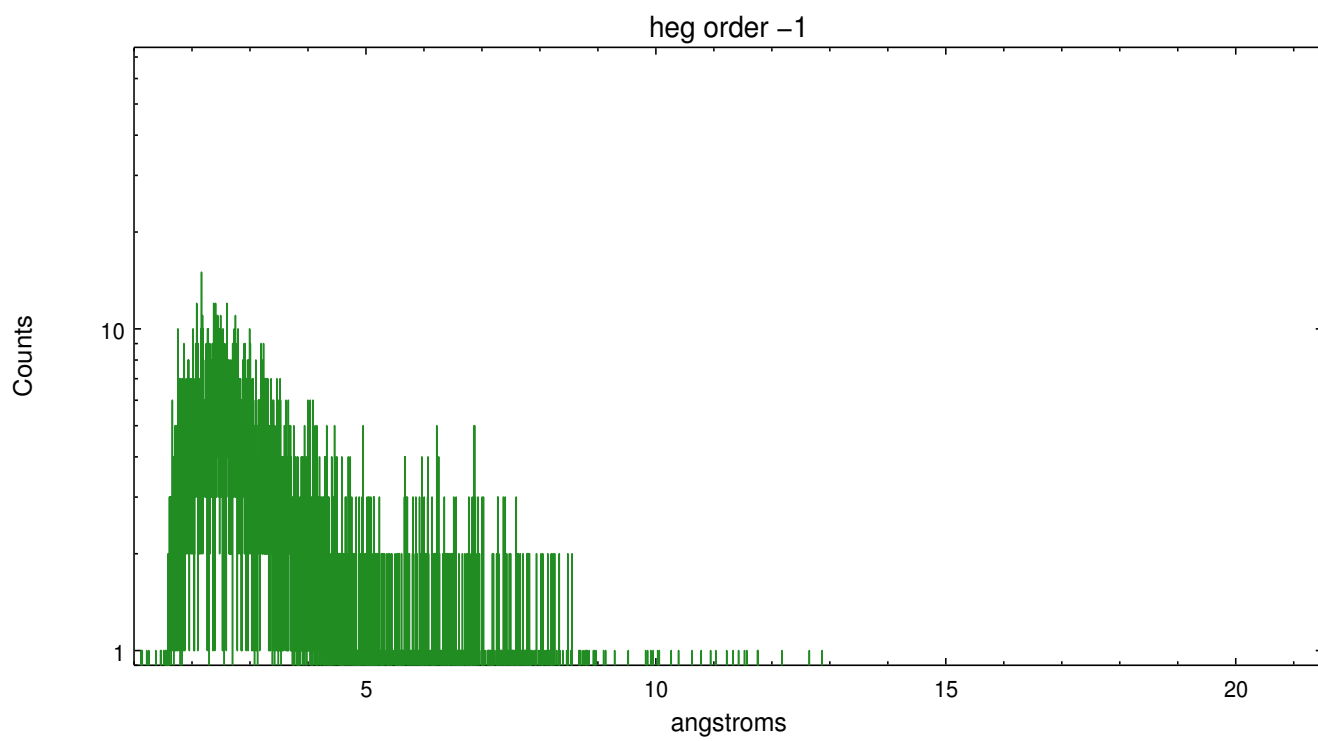
Spot Image HEG



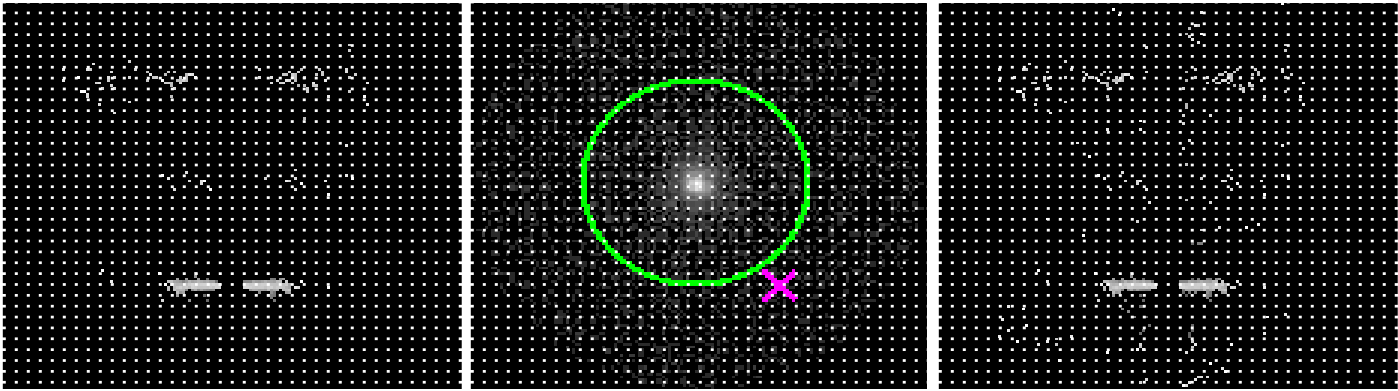
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	398	696	5681	13215	5168	436	333





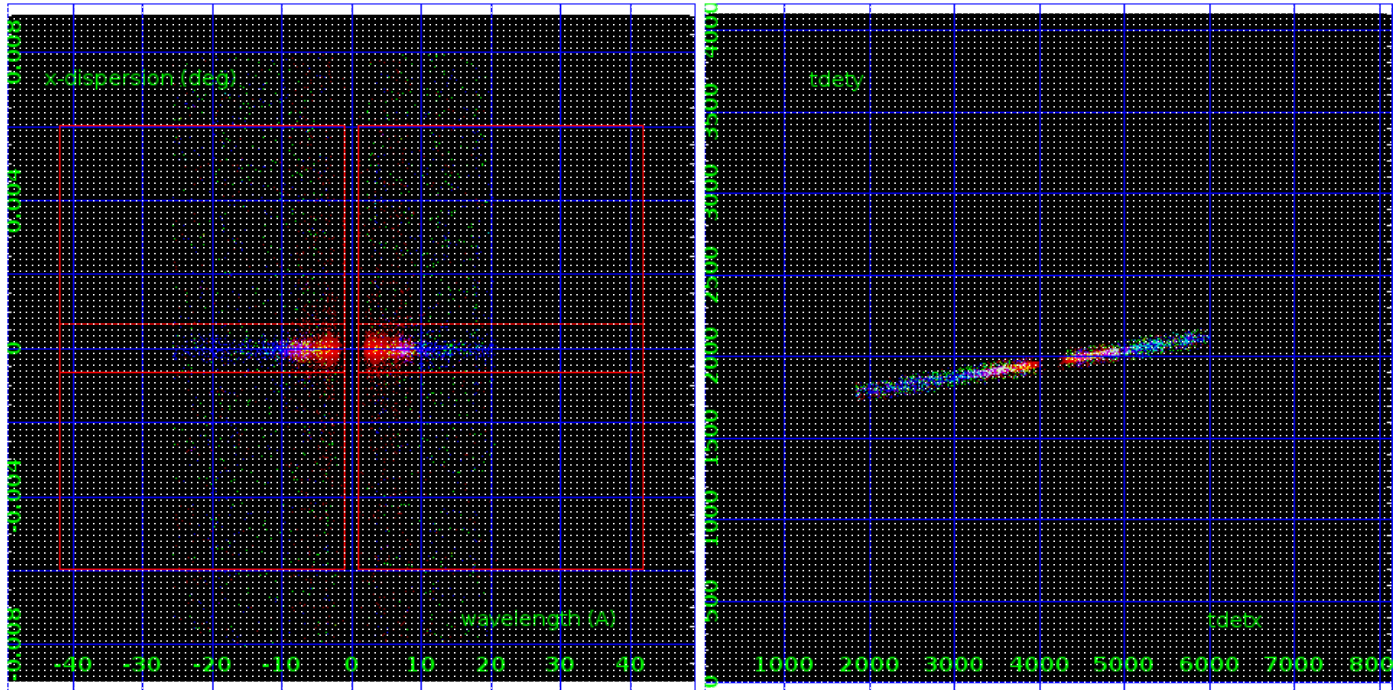
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

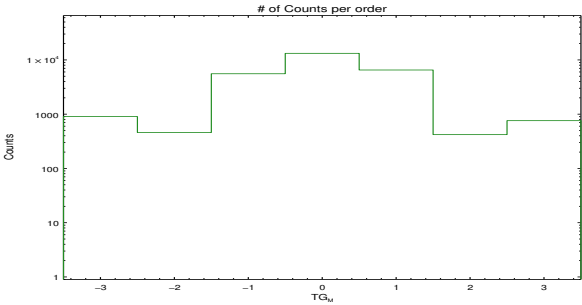
MEG Order Sort ALL

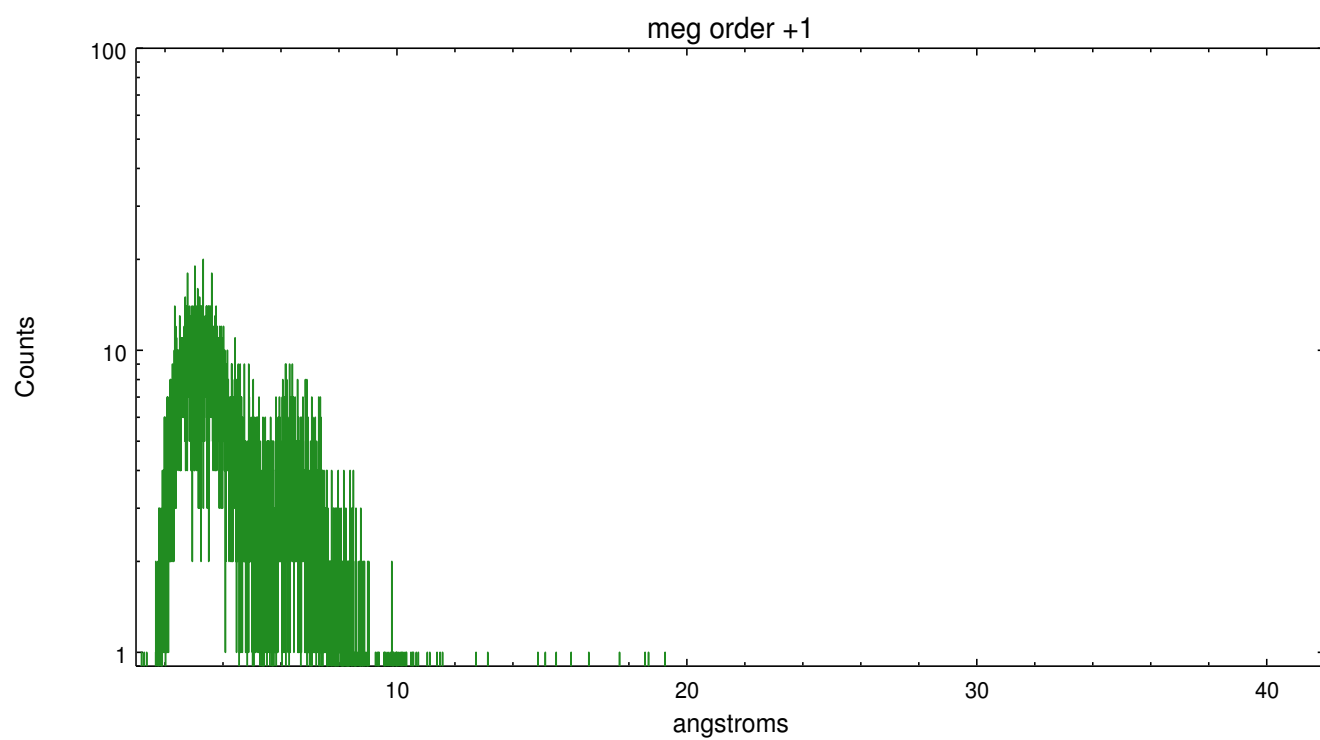
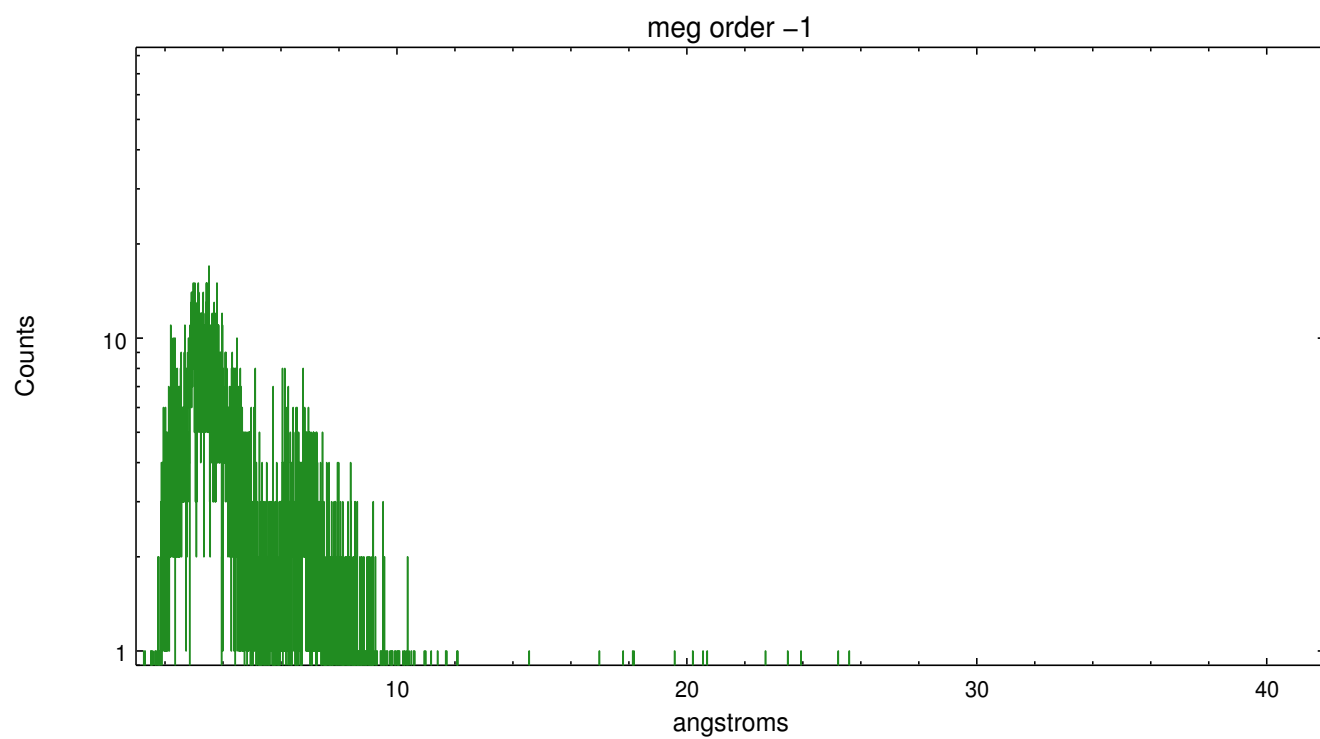


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	903	459	5564	13215	6520	420	760





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.057047600269

A.2 Comments