

V&V Reference Report

L2 ASCDS Version : 10.4.3

Observation 17731 - L2 Version 1
Chandra X-Ray Center

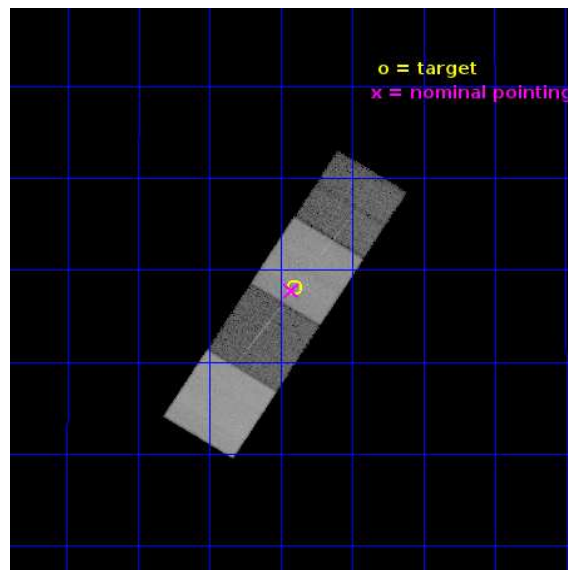
L2 Processing Date : Jan 22 2016

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

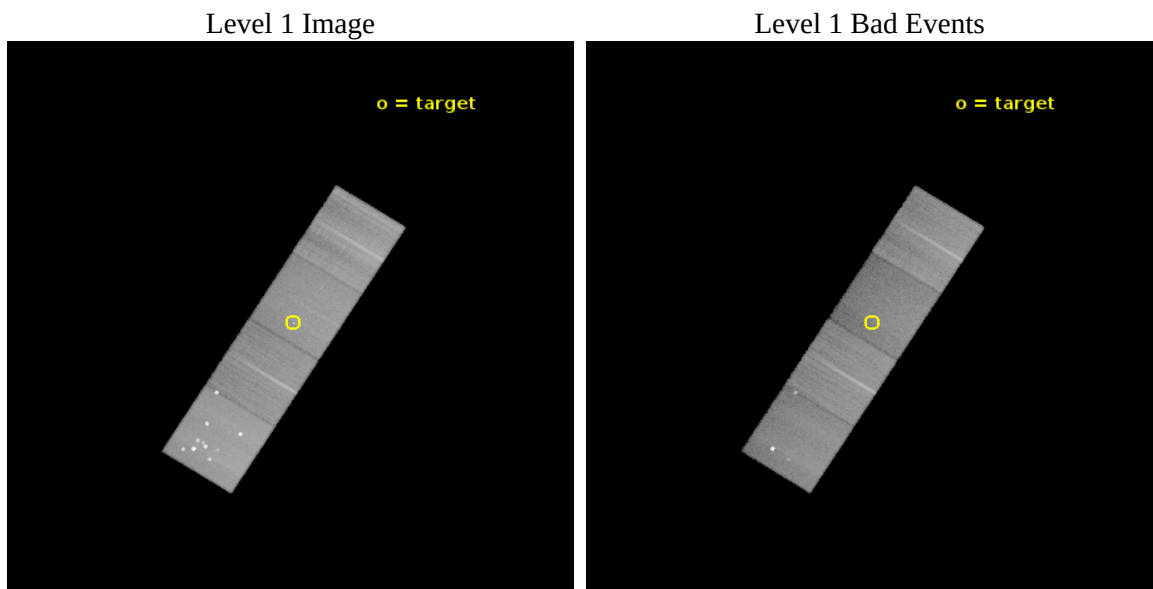
seq_num	201042	Sequence number
obs_id	17731	Observation id
title	A PROBE OF THE HYBRID COLLIDING WIND AND CENTRIFUGAL-MAGNETOSPHERIC X-RAY EMISSION OF PLASKETT'S STAR	Proposal title
observer	Dr. Maurice Leutenegger	Principal investigator
object	Plaskett's star	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	99.35	Observer's specified target RA [deg]
dec_targ	6.135389	Observer's specified target Dec [deg]
ra_nom	99.356546523139	Nominal RA [deg]
dec_nom	6.1294811376718	Nominal Dec [deg]
roll_nom	302.1559289507	Nominal Roll [deg]
revision	1	Processing version of data
ontime	47106.707115173	Sum of GTIs [s]
livetime	46491.22330726	Livetime [s]
ontime5	47106.66607523	Sum of GTIs [s]
ontime6	47106.625035167	Sum of GTIs [s]
ontime7	47106.707115173	Sum of GTIs [s]
ontime8	47100.301944613	Sum of GTIs [s]
l2events	357754	Number of level 2 events



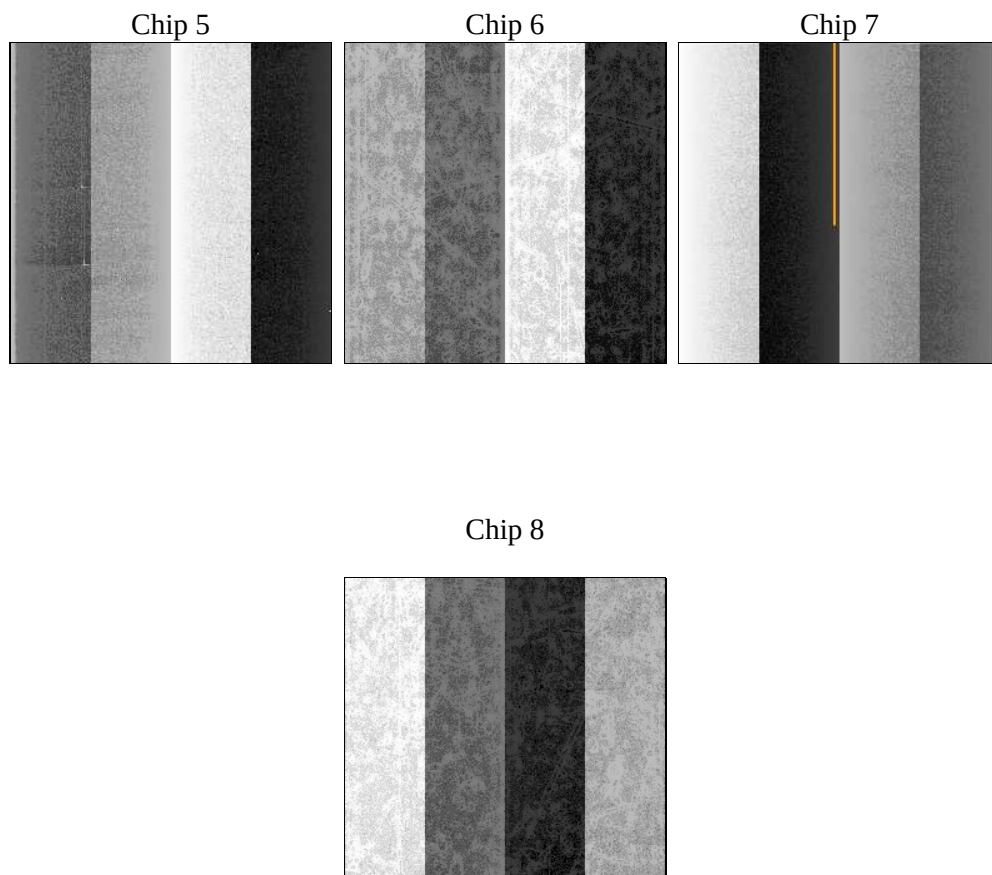
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	47000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	47106.707115173	Sum of GTIs [s]
caldsver	4.7.0	 	ontime5	47106.66607523	Sum of GTIs [s]
date	2016-01-22T04:34:40	Date and time of file creation	ontime6	47106.625035167	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	47106.707115173	Sum of GTIs [s]
			ontime8	47100.301944613	Sum of GTIs [s]
			l1events	1281859	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4142.70, 4140.39)	src1a sky pixel position

2.1.4 Events

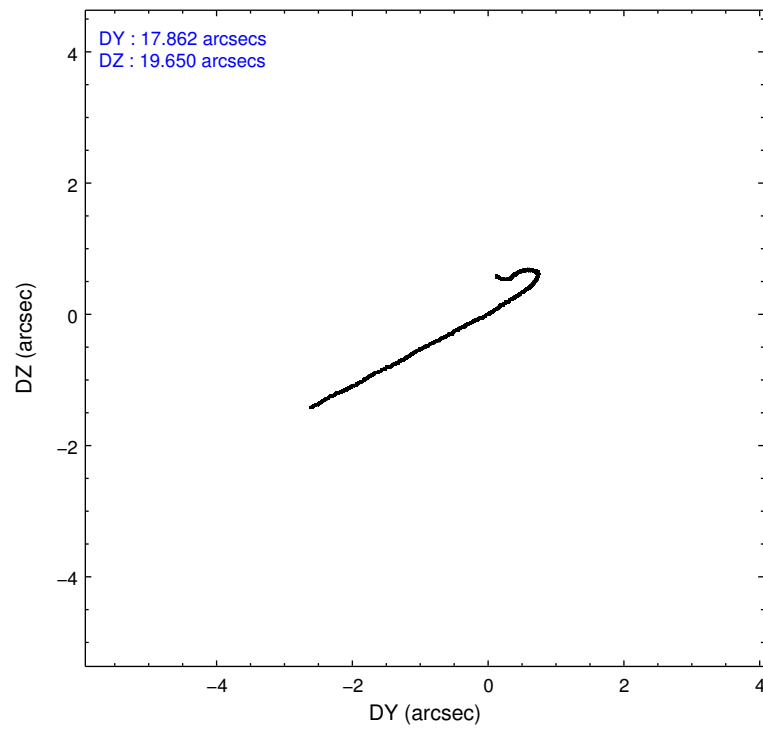
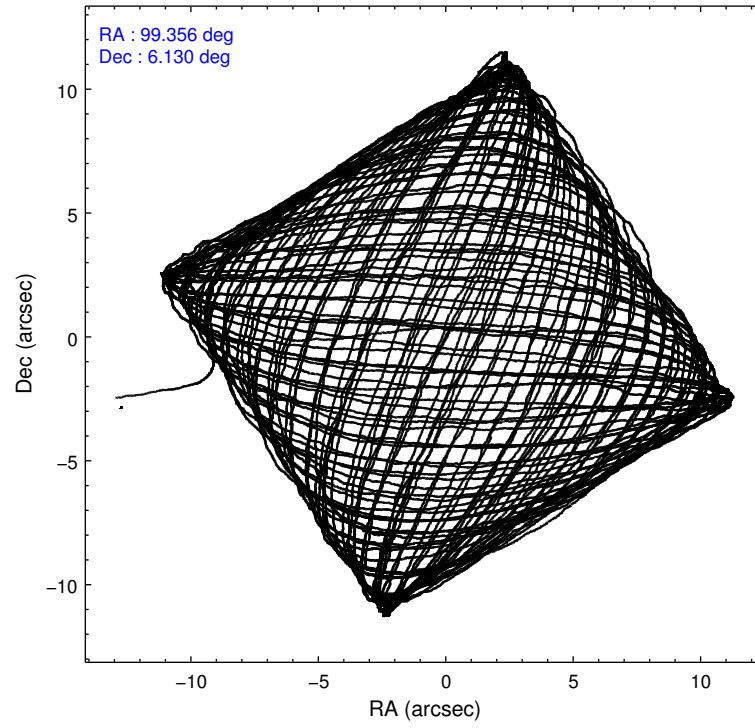
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	423505	254445	280744	323165
rejected events	189429	224821	147537	234036
rejected %	44%	88%	52%	72%

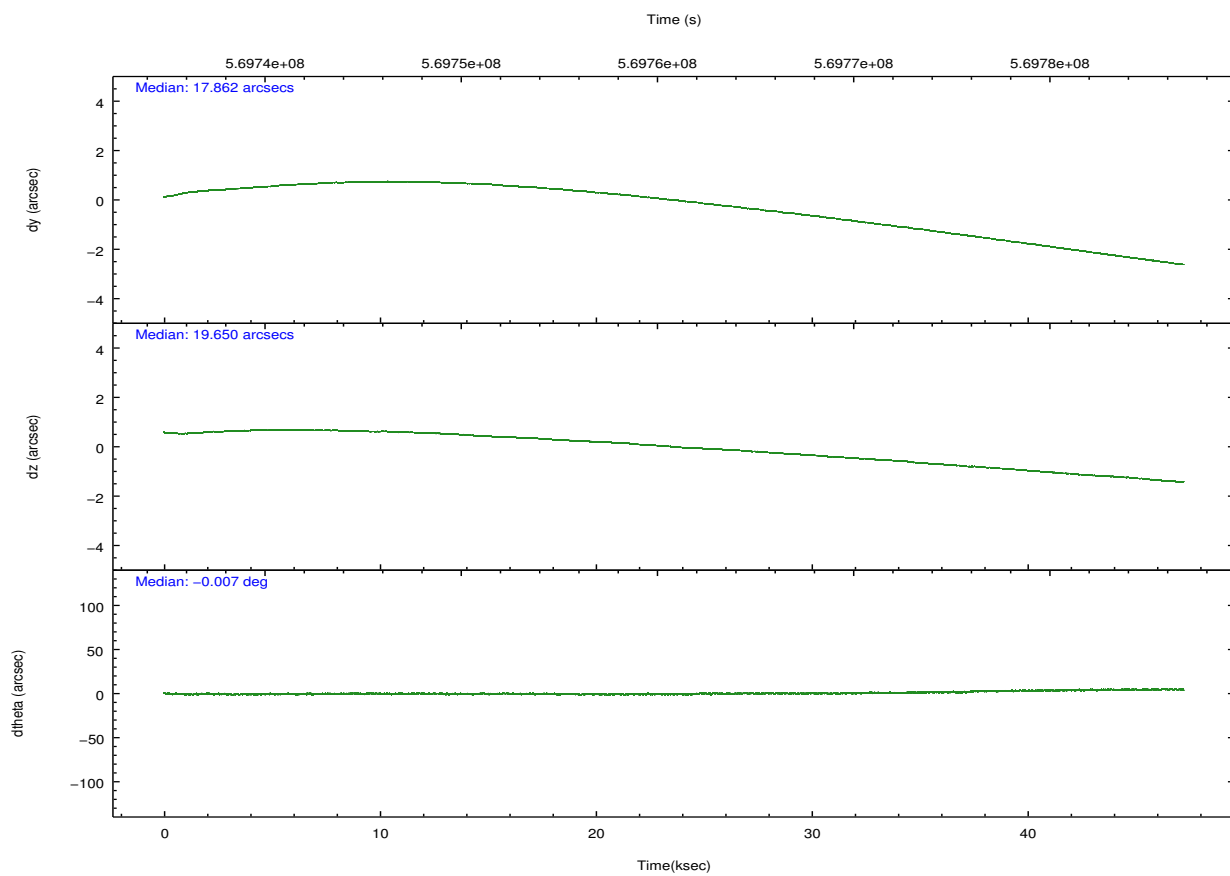
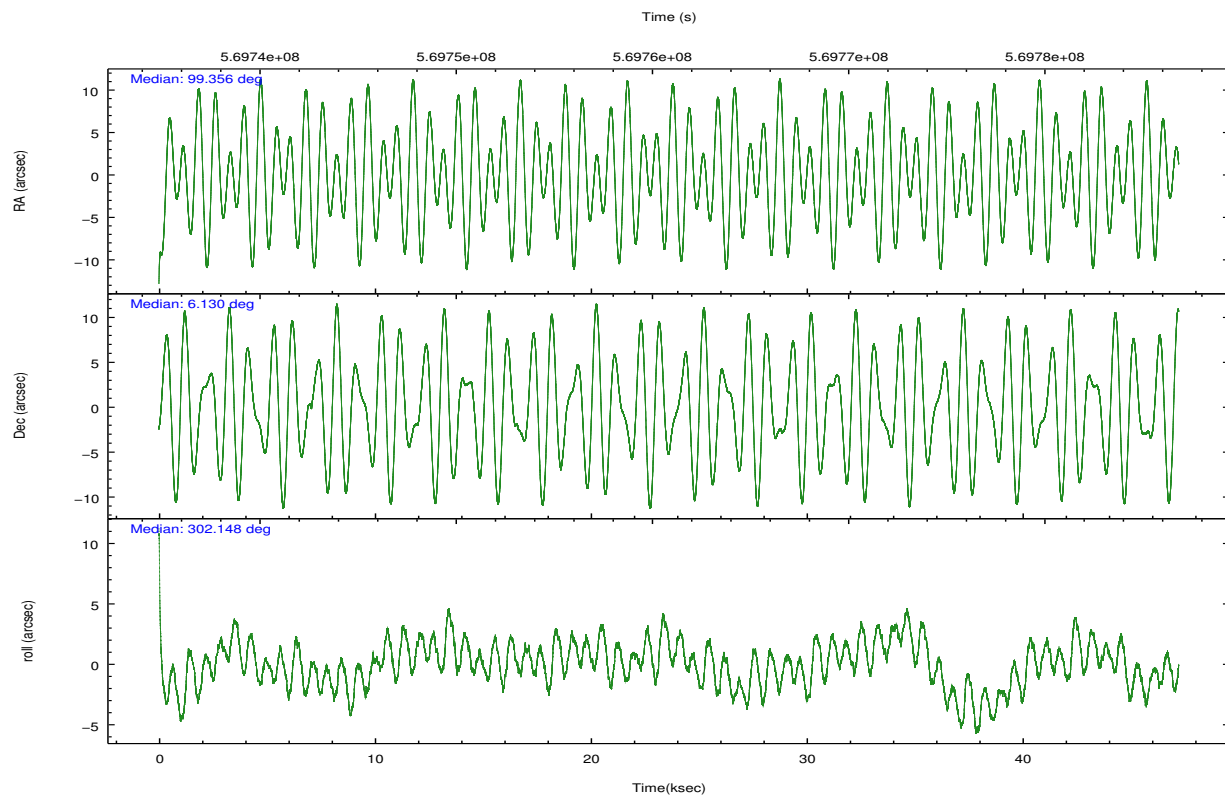
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	50911	10649	12861	25185
	12%	4%	4%	7%
grade 1 events	924	119	428	227
	0%	0%	0%	0%
grade 2 events	64884	6786	29060	21963
	15%	2%	10%	6%
grade 3 events	8014	2790	11157	9229
	1%	1%	3%	2%
grade 4 events	7871	2851	10700	8675
	1%	1%	3%	2%
grade 5 events	27823	10197	28252	16259
	6%	4%	10%	5%
grade 6 events	102428	6553	69445	24084
	24%	2%	24%	7%
grade 7 events	160650	214500	118841	217543
	37%	84%	42%	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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	99.331977	99.35654652313873	CCD I2 on	N	N
[deg] Pointing Dec	6.141971	6.129481137671816	CCD I3 on	N	N
[deg] Pointing Roll	302.001923	302.1559289507044	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	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
Phase constraints	Y	Y	CCD S5 on	O2	N
[d] Phase period	14.396257	14.396257	Number of optional ACIS chips dropped	2	2
[d] Phase epoch (MJD)	57369.740000	57369.740000	On-chip summing requested	N	N
Phase start	0.200000	0.200000	Subarray requested	NONE	NONE
Phase end	0.300000	0.300000	Alternating exposures requested	N	N
Phase start error	0.050000	0.050000	[s] Primary exposure time	0.000000	3.1
Phase end error	0.050000	0.050000			
[s] Observation start time (MET)	569737418.184000	569736333.8513			
Observation start date	2016-01-21T04:22:30	2016-01-21T04:05:33			
[s] Observation end time (MET)	569784418.184000	569785208.4165699			
Observation end date	2016-01-21T17:25:50	2016-01-21T17:40:08			
Read mode	TIMED	TIMED			

2.3 Aspect



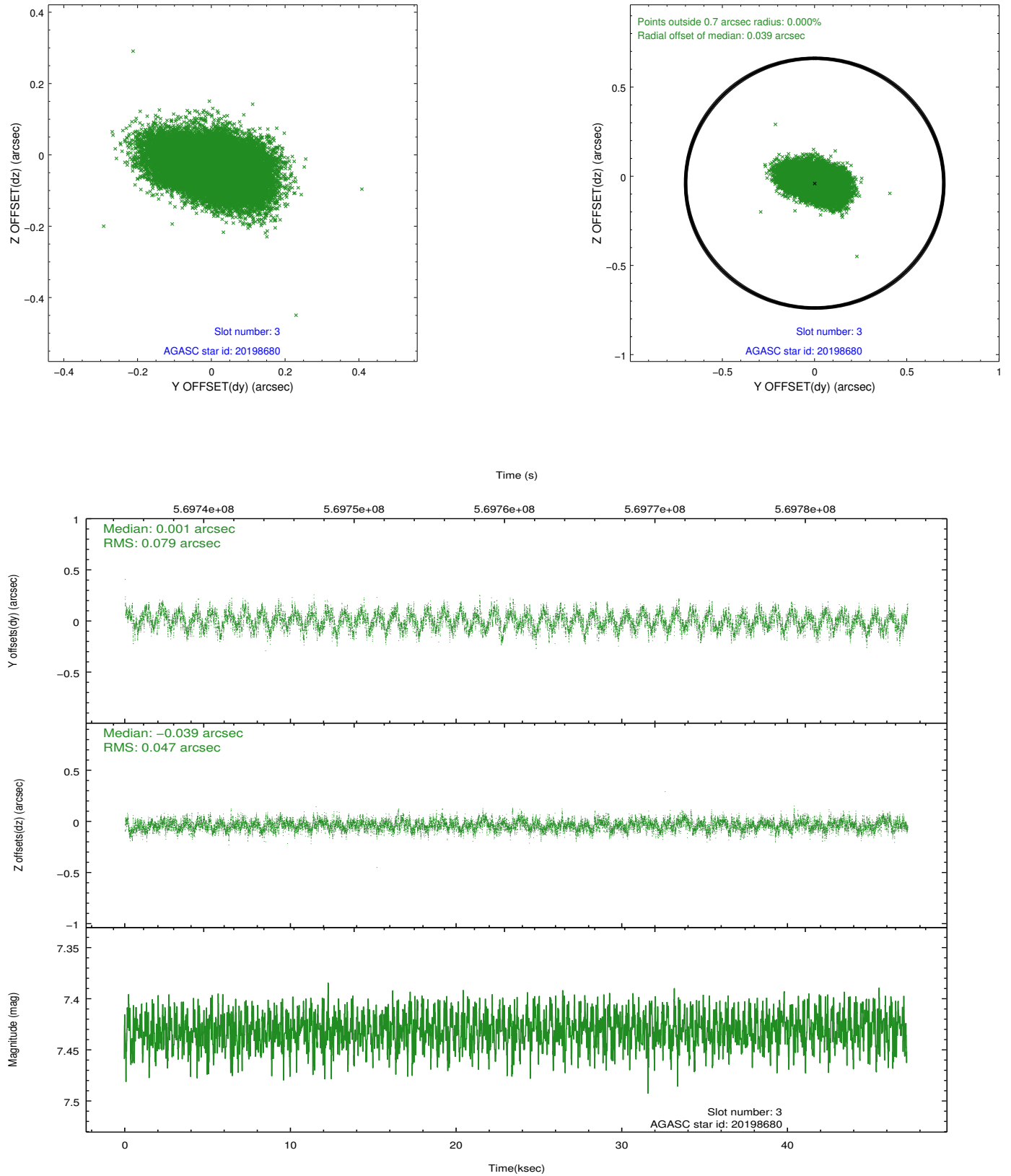


Slot Statistics

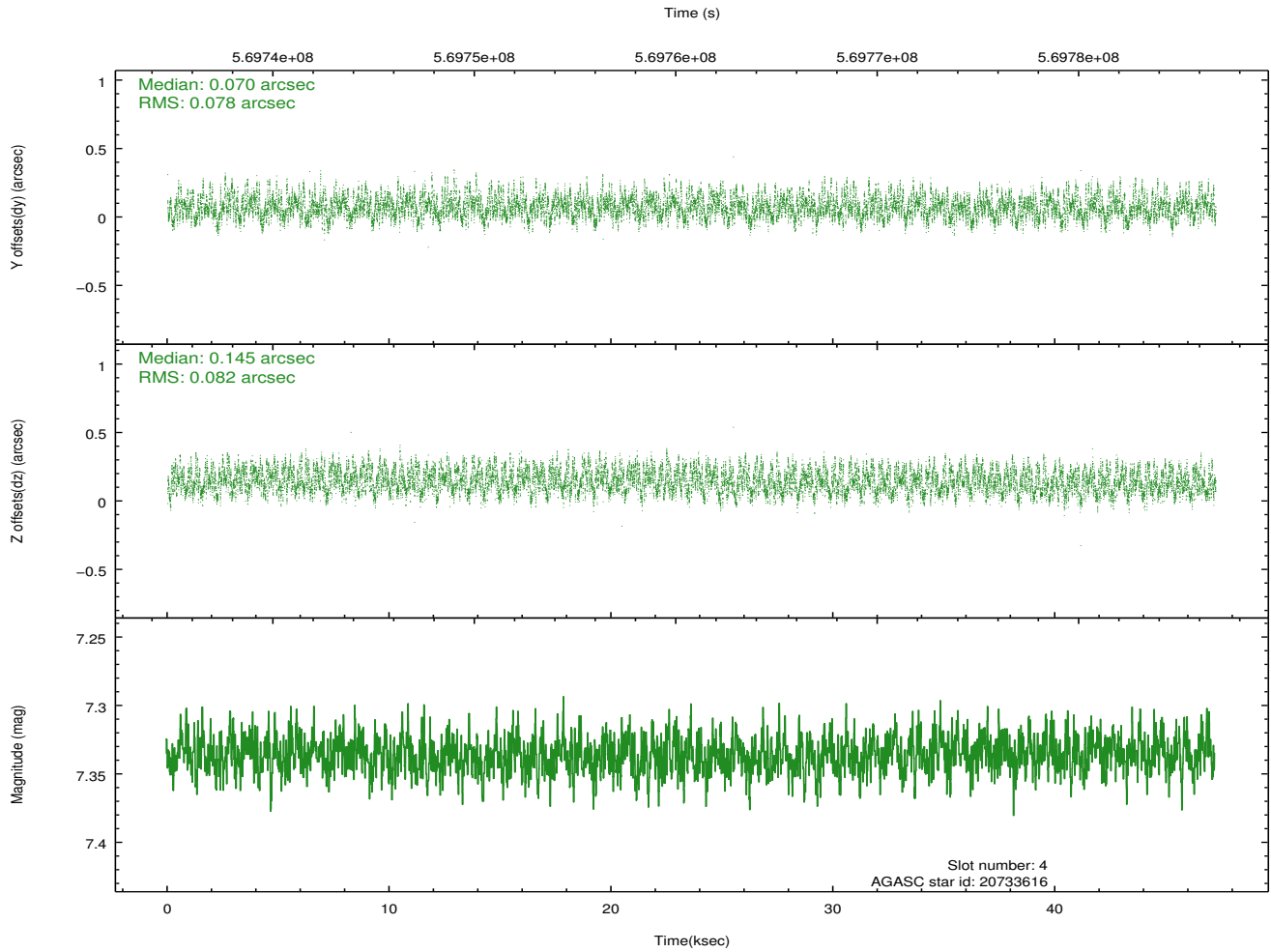
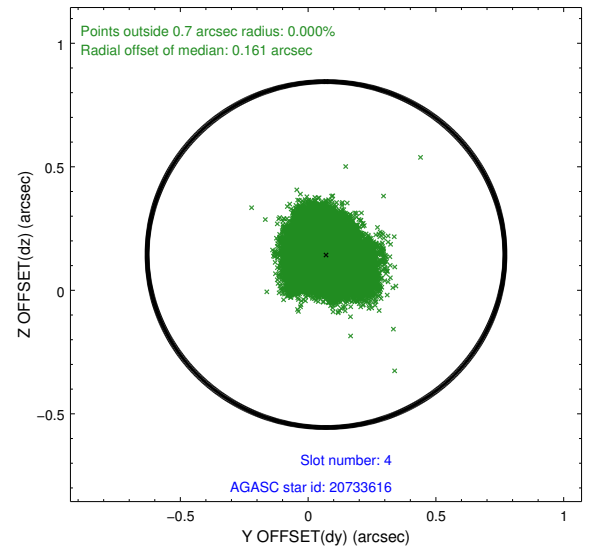
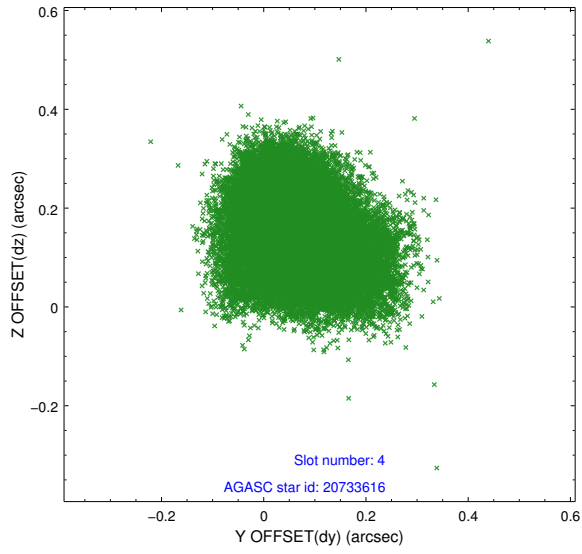
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.22	11518	0.057	-0.077	0.035	0.055	0.000000	0.000000	925.61	-1736.67
1	FID		ACIS-S-4	7.23	11521	0.333	0.026	0.029	0.036	0.000000	0.000000	2143.24	167.62
2	FID		ACIS-S-5	7.24	11520	-0.423	0.061	0.018	0.035	0.000000	0.000000	-1823.80	161.14
3	GUIDE	used	20198680	7.43	23040	0.001	-0.039	0.098	0.162	99.264537	5.519391	1772.97	-1392.48
4	GUIDE	used	20733616	7.34	23040	0.070	0.145	0.124	0.185	99.107863	6.083187	-245.15	-792.11
5	GUIDE	used	20849928	8.44	23030	-0.100	-0.060	0.094	0.149	99.890363	6.116347	1136.69	1646.99
6	GUIDE	used	20860264	8.28	23037	-0.039	0.027	0.093	0.152	99.464533	6.683248	-1401.08	1434.59
7	GUIDE	used	20864528	7.43	23040	0.072	-0.061	0.082	0.139	99.593328	6.317246	-39.43	1127.79

2.4 Star Slots

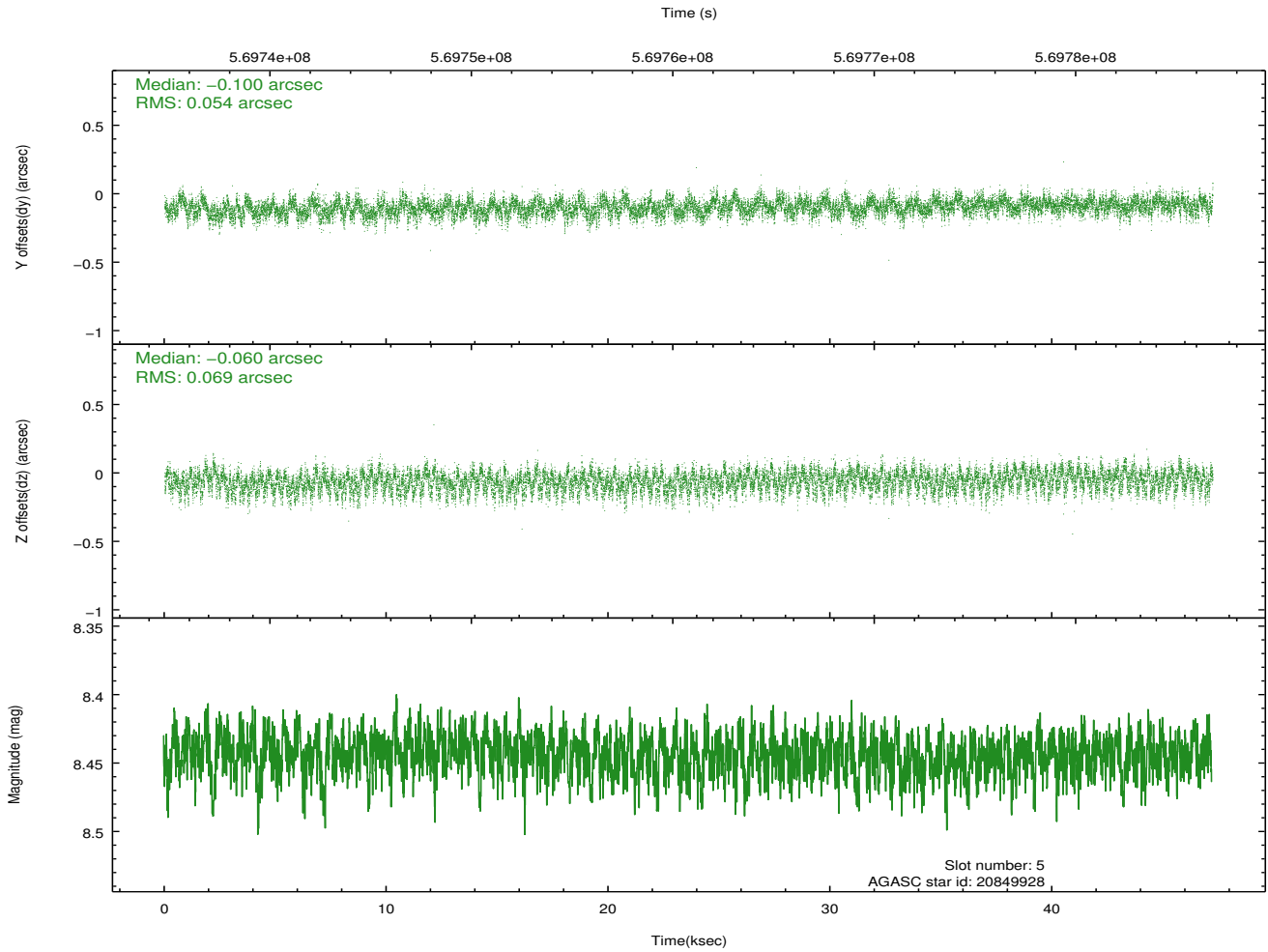
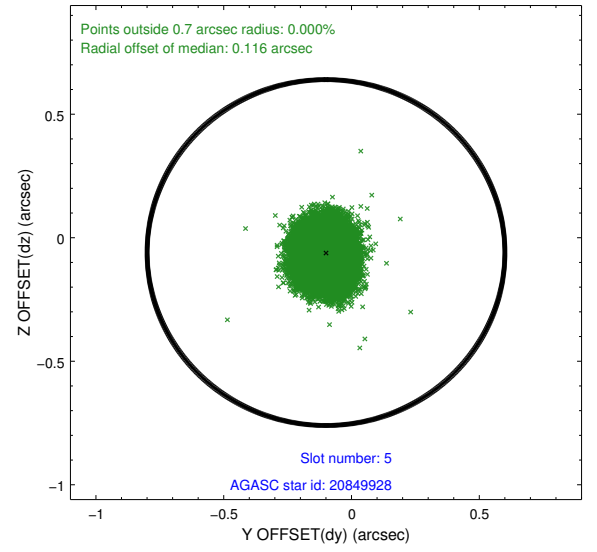
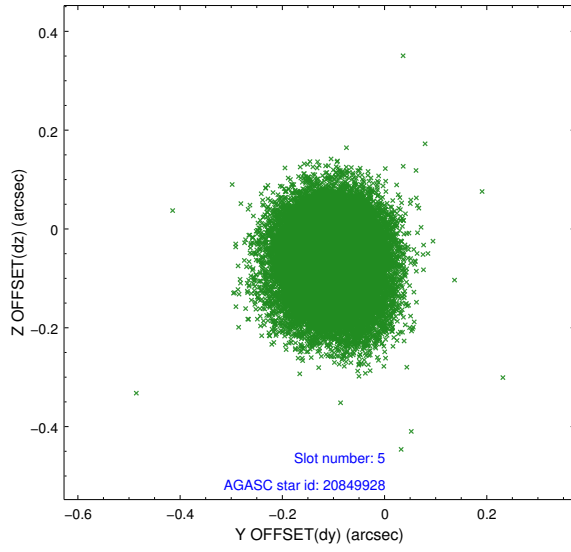
2.4.1 Slot 3



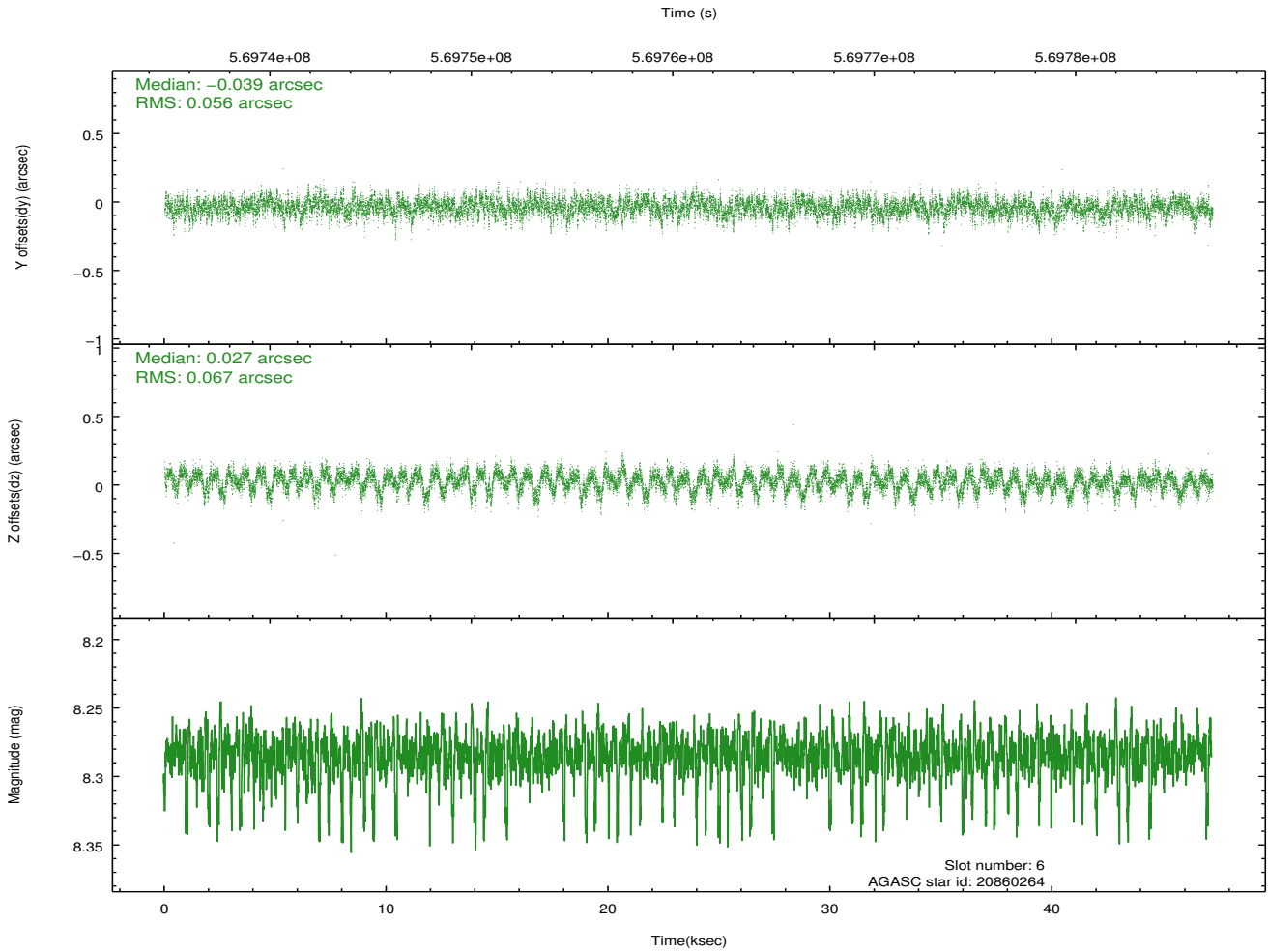
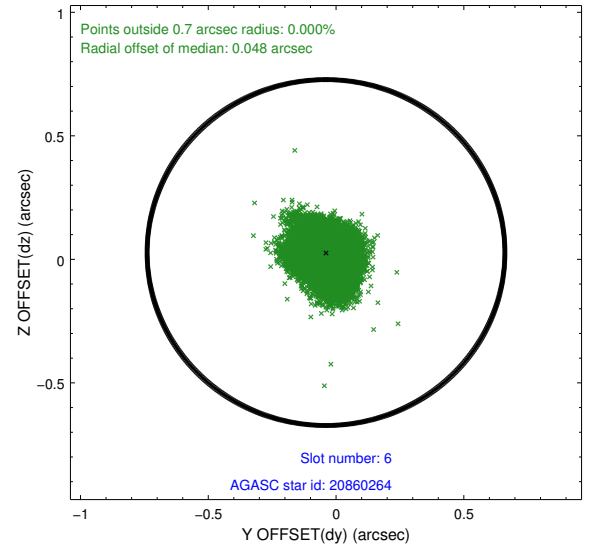
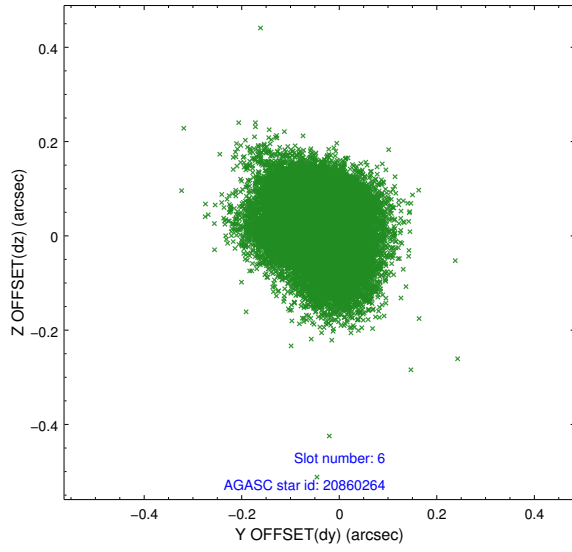
2.4.2 Slot 4



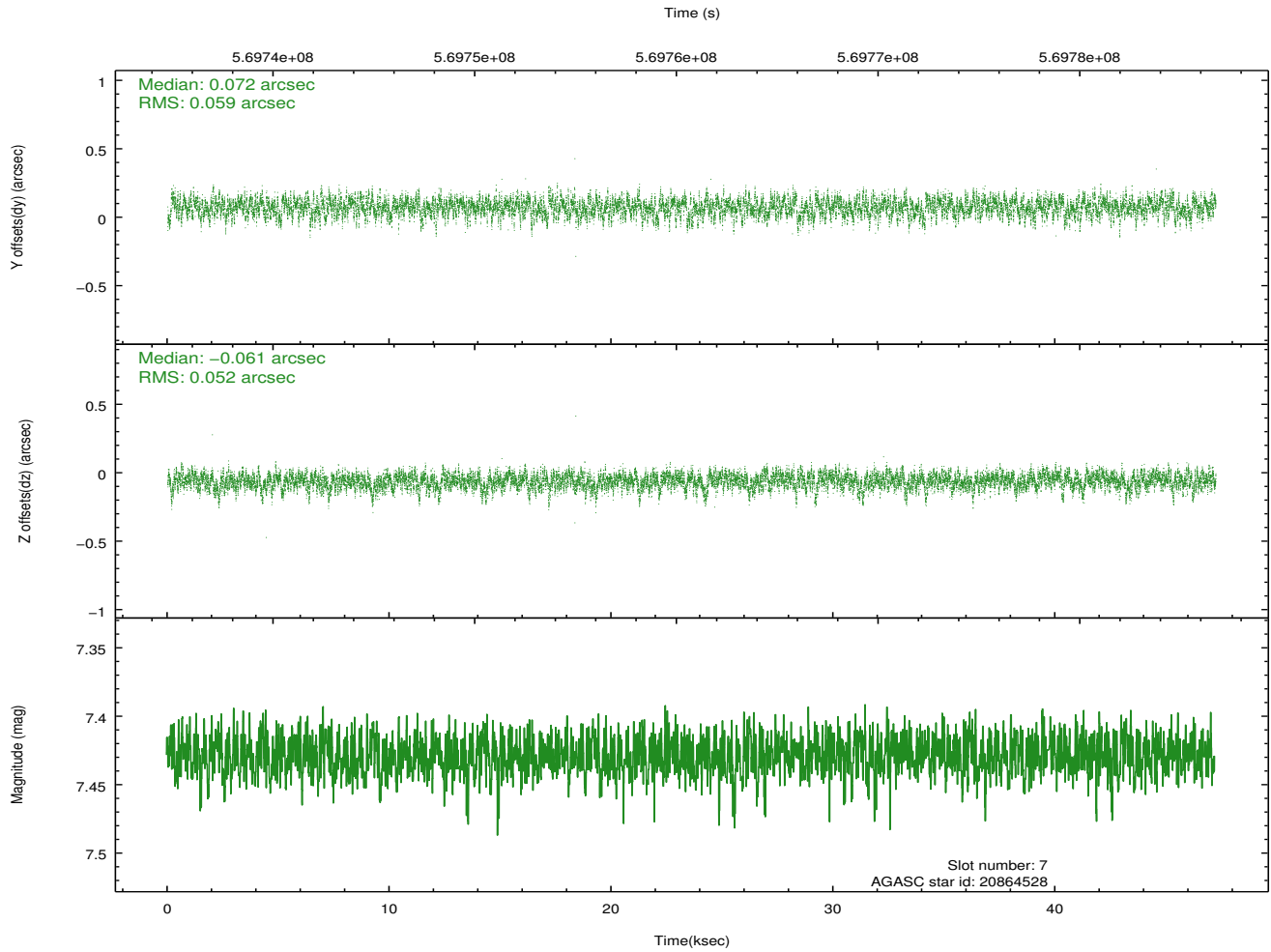
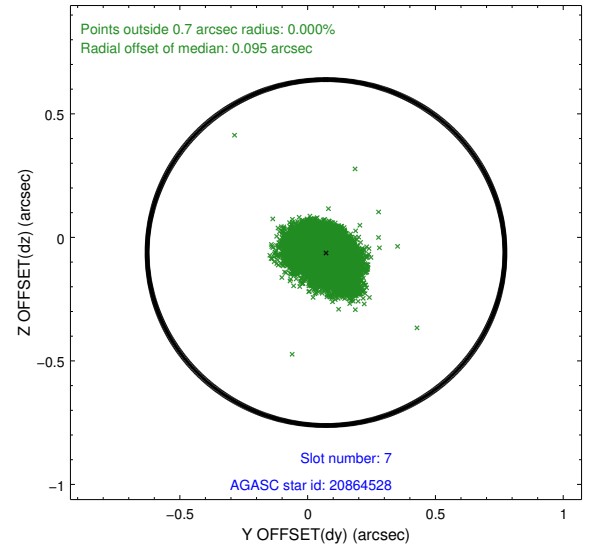
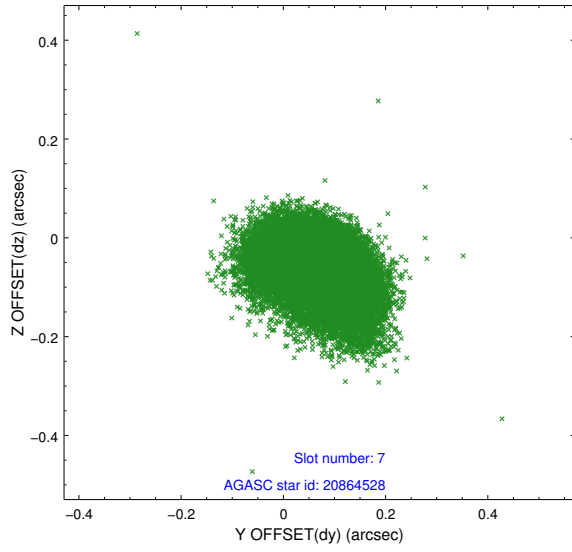
2.4.3 Slot 5



2.4.4 Slot 6

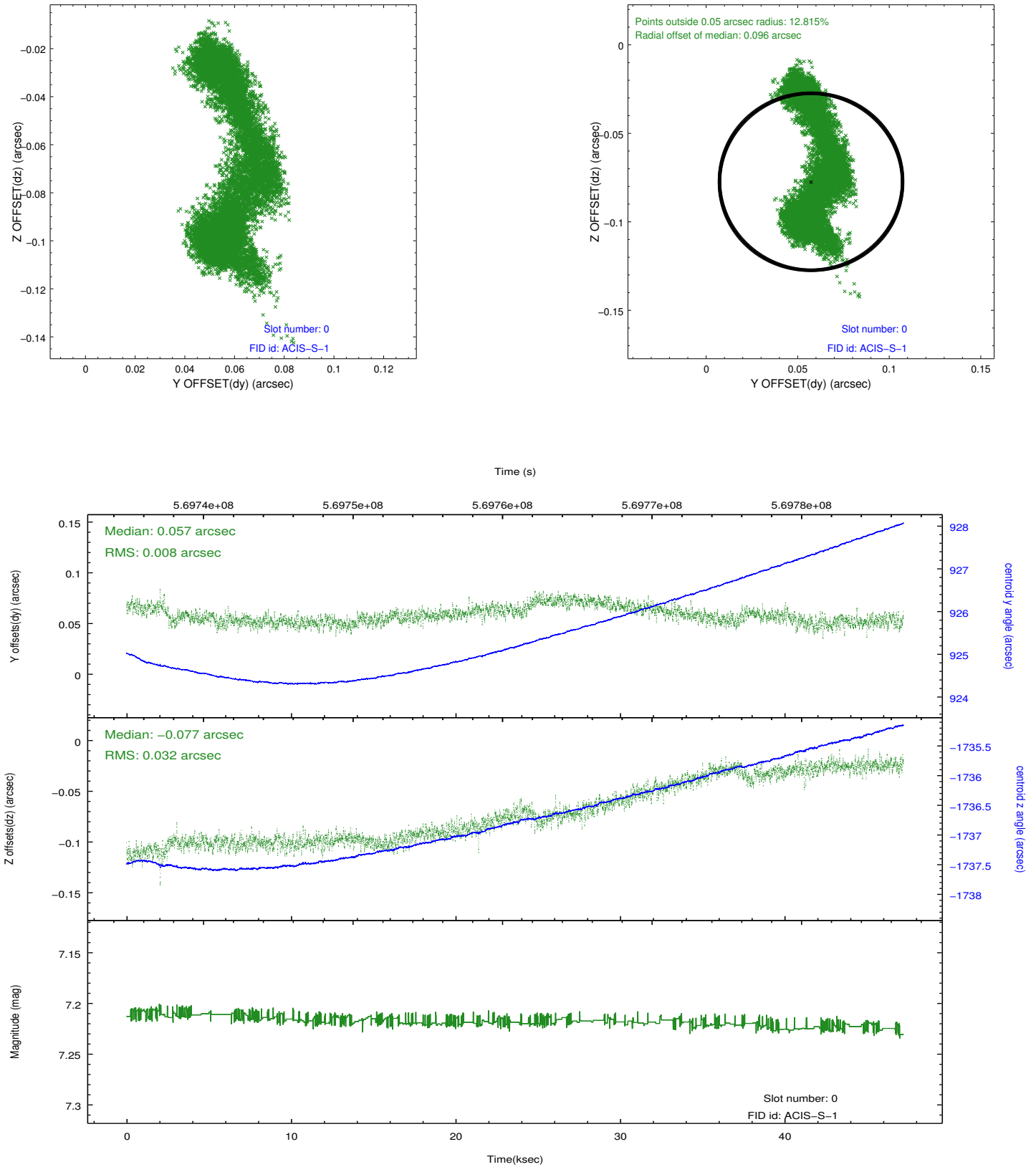


2.4.5 Slot 7

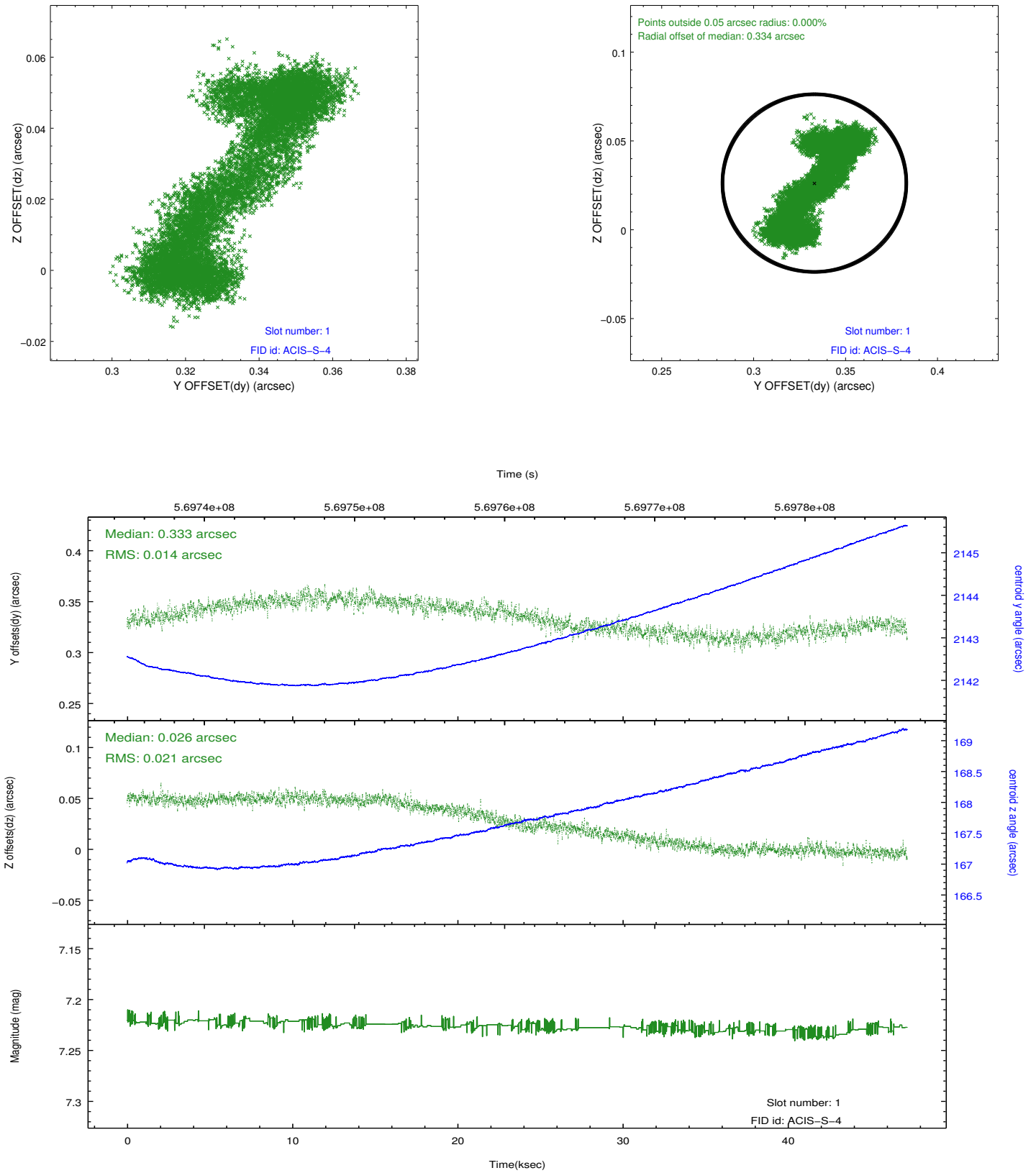


2.5 FID Slots

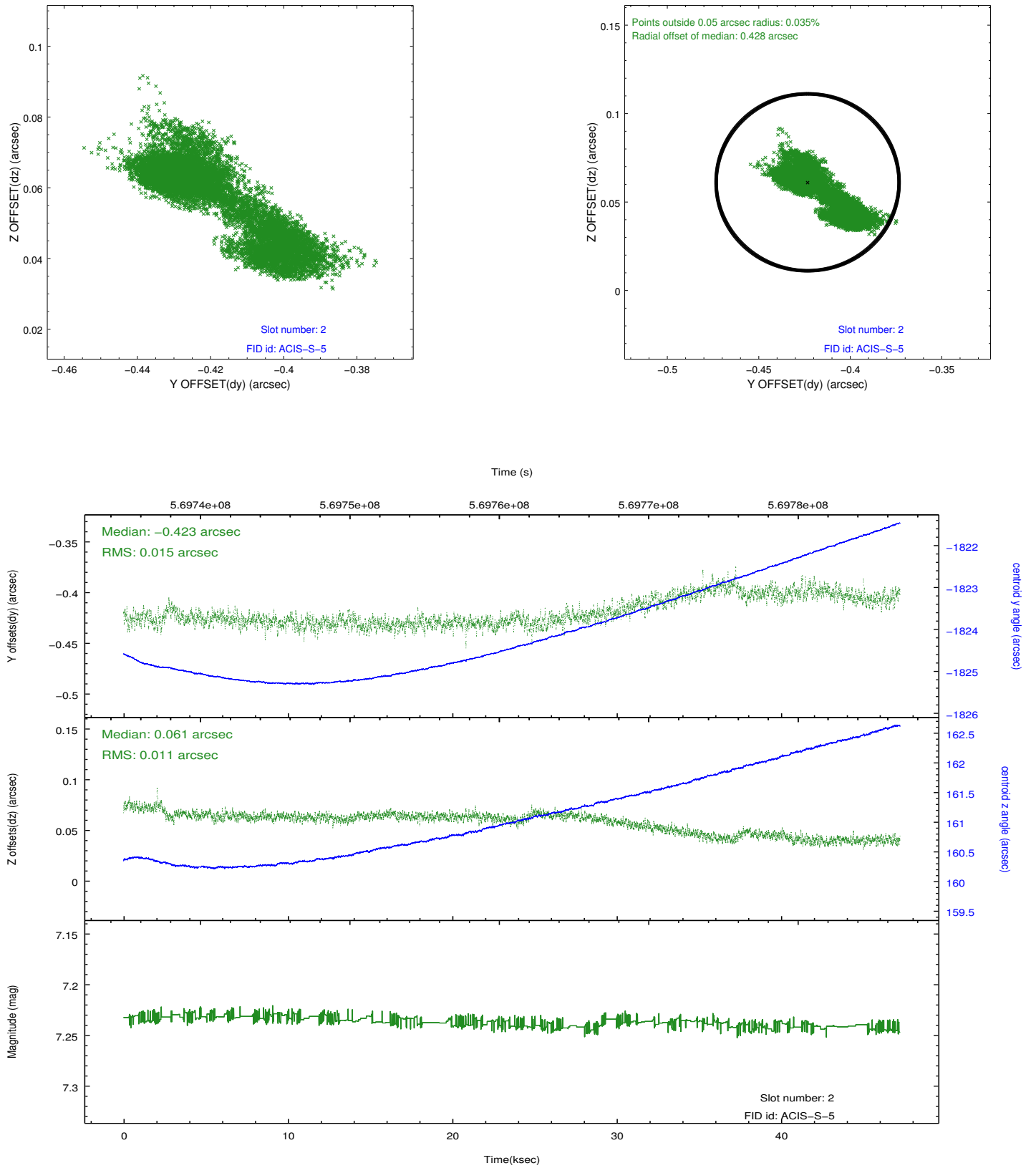
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

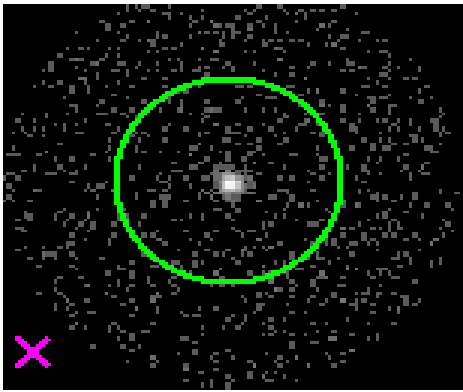


3 Gratings

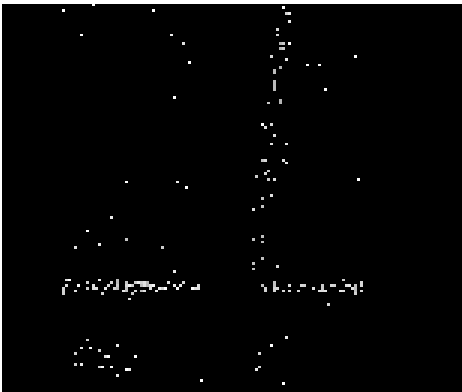
3.1 HEG Arm



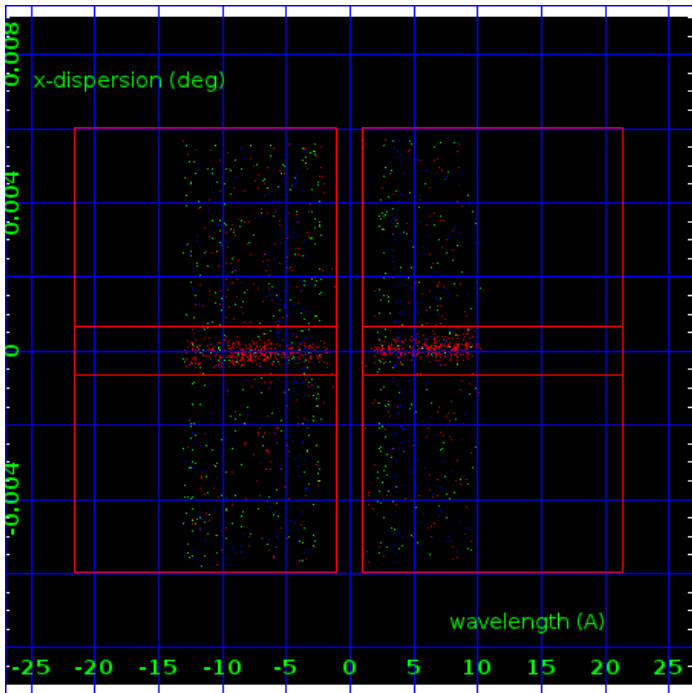
HEG Order Sort 123



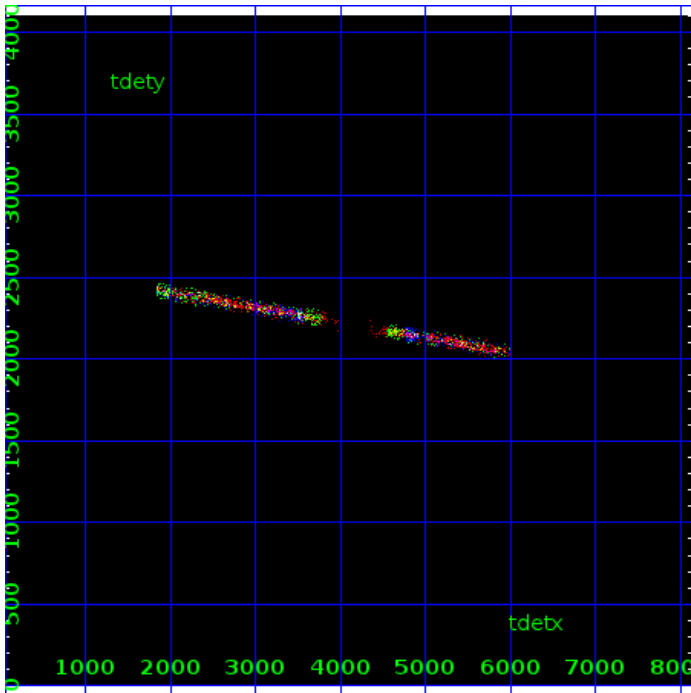
HEG Zero Order



HEG Order Sort ALL

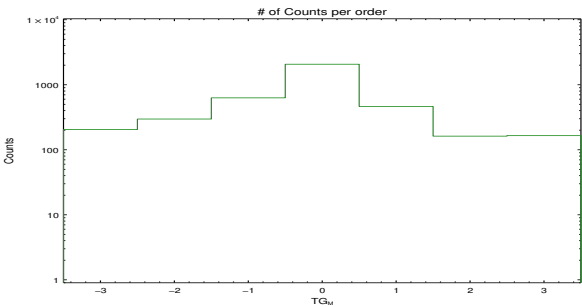


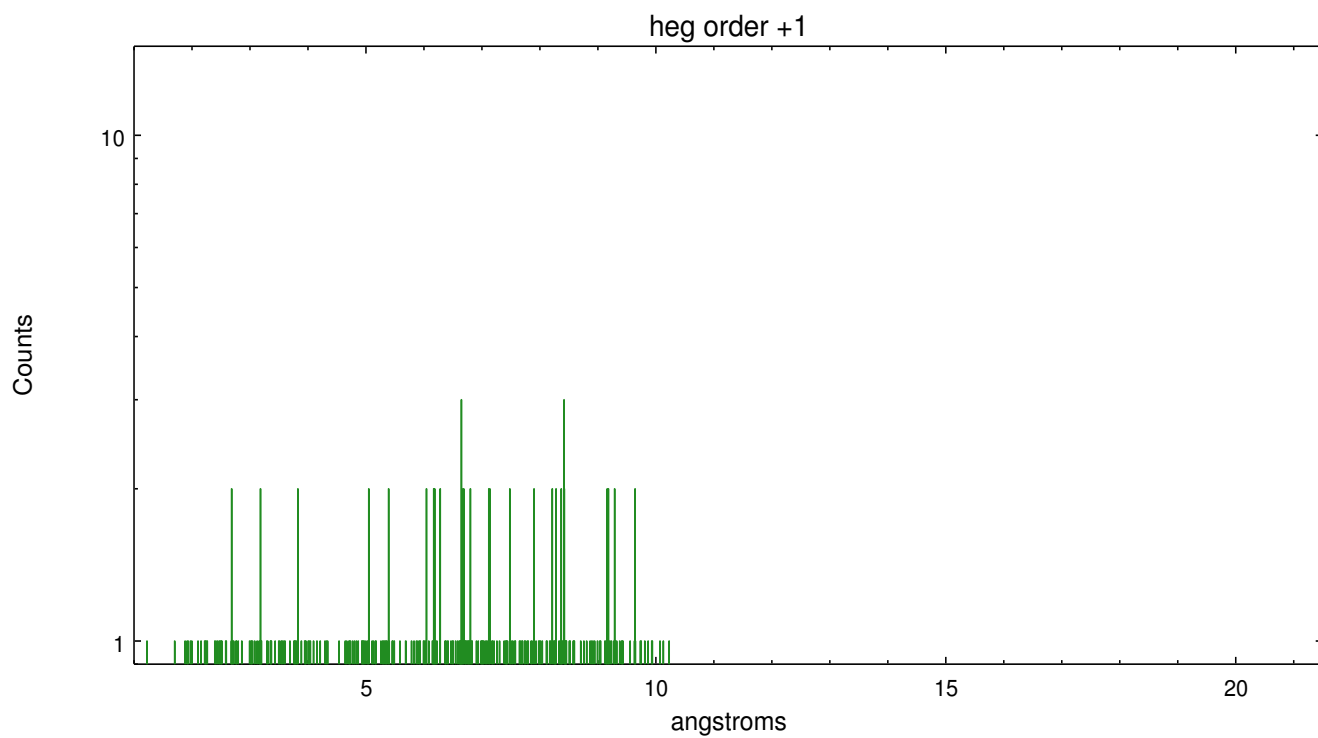
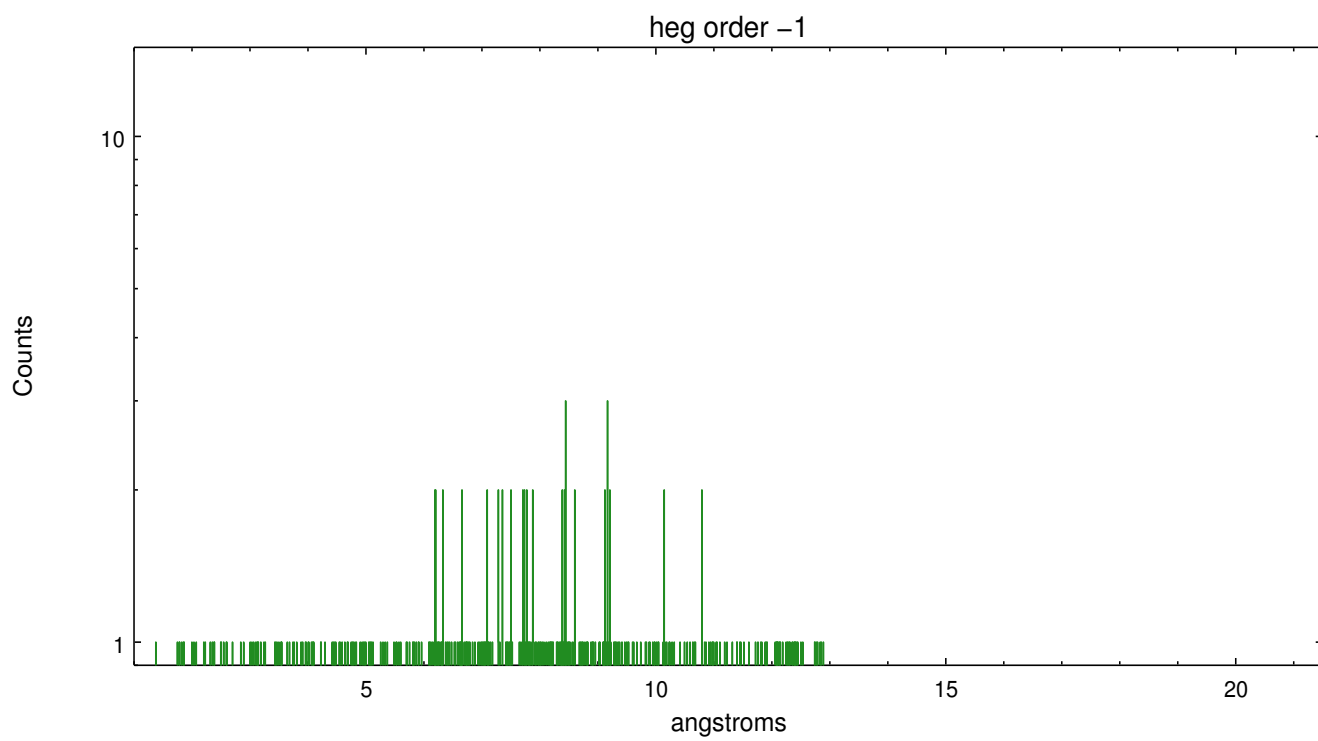
Spot Image HEG



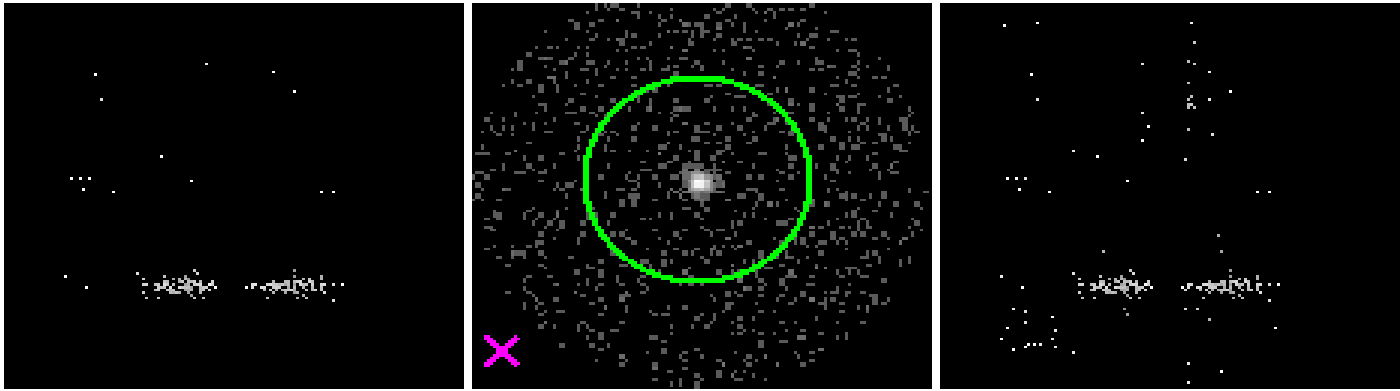
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	205	297	629	2068	463	162	165





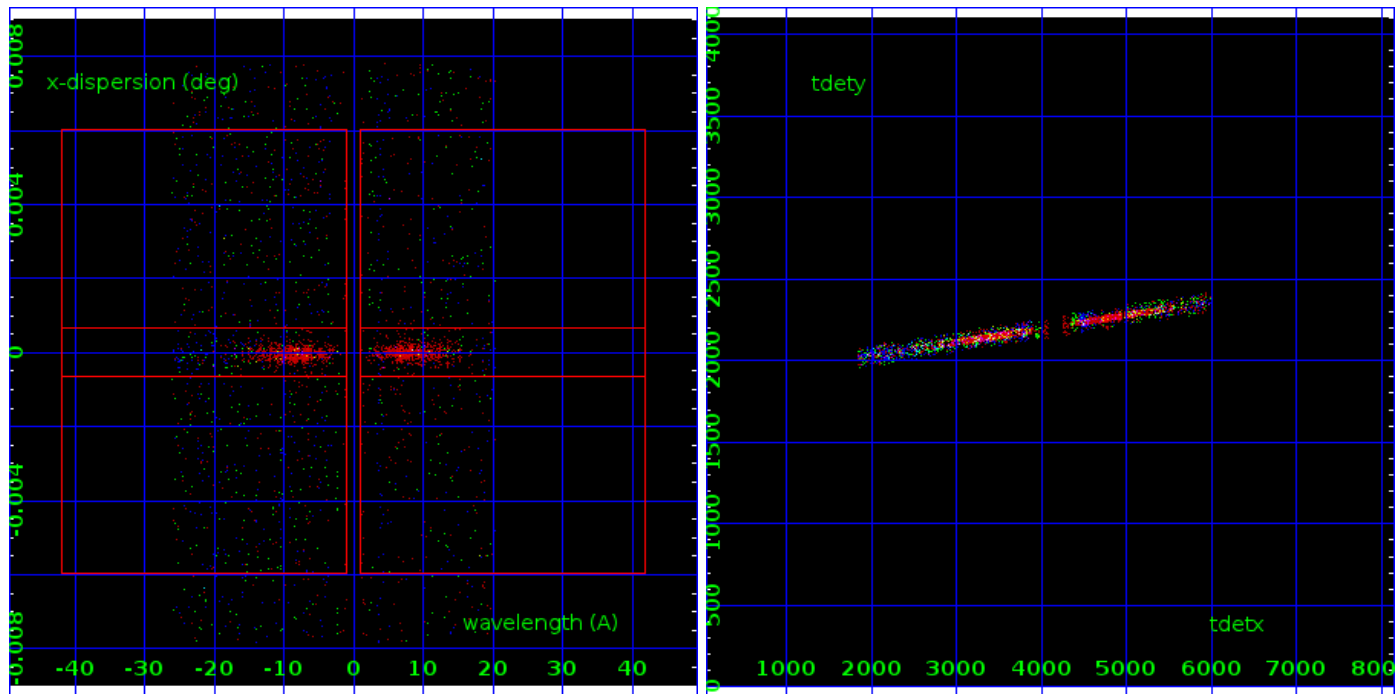
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

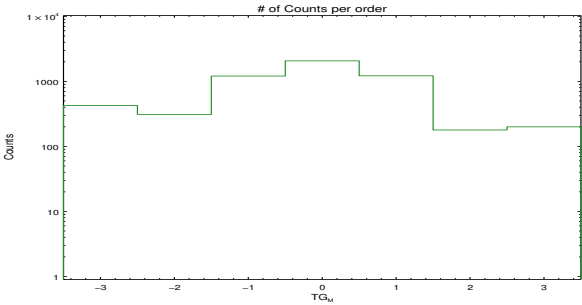
MEG Order Sort ALL

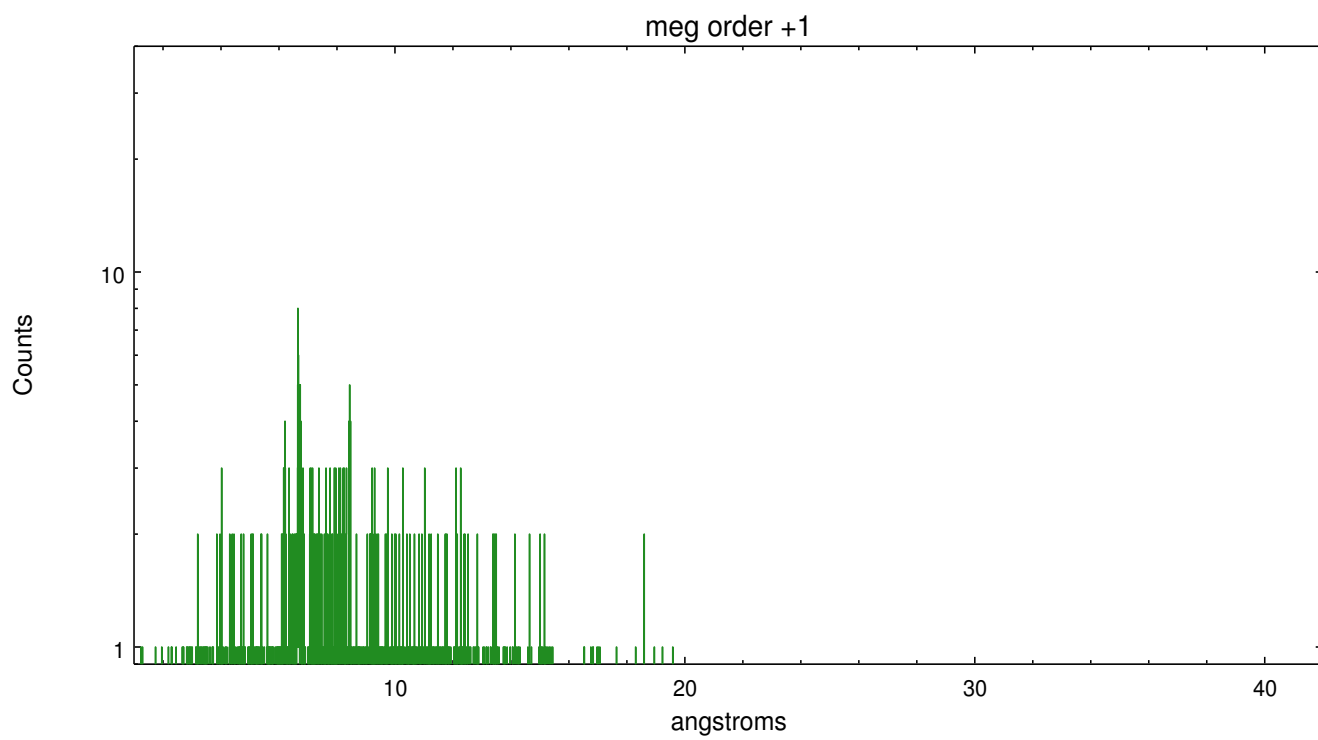
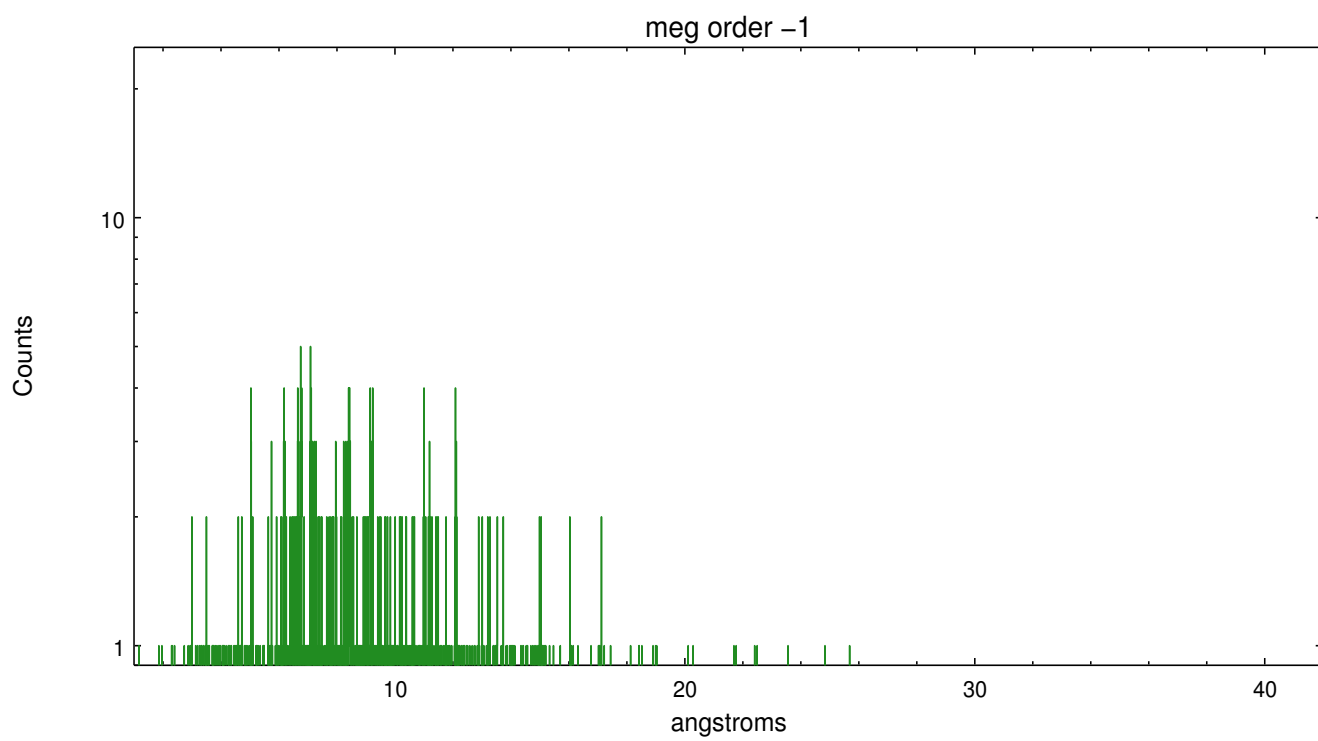


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	426	310	1208	2068	1219	179	200





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	47.106707115173

A.2 Comments

Phase constraint met for quadrature.