

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 20094 - L2 Version 1
Chandra X-Ray Center

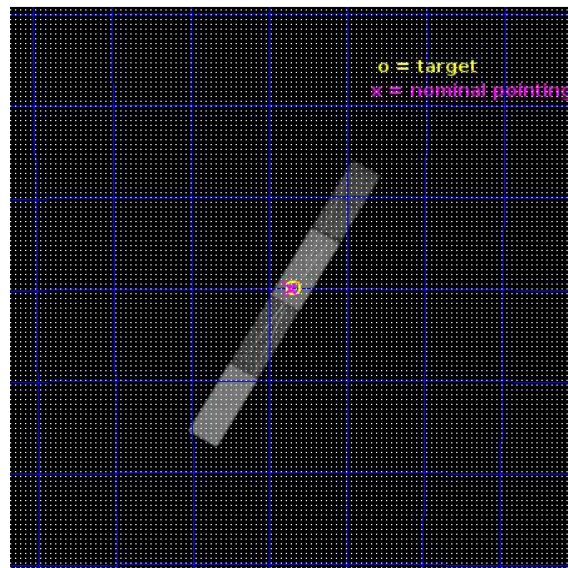
L2 Processing Date : Jul 5 2017

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1 Front

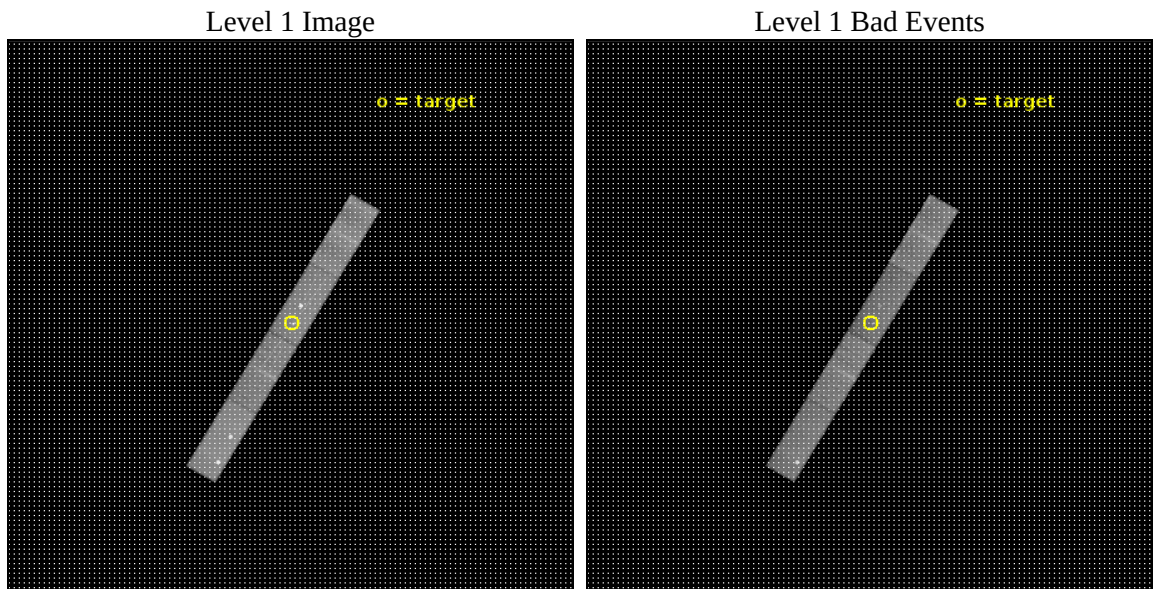
seq_num	401858	Sequence number
obs_id	20094	Observation id
title	The Puzzling Nature OF THE YOUNG MICROQUASAR CIR X-1	Proposal titl
observer	Norbert Schulz	Principal investigator
object	Cr X-1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	230.170833	Observer's specified target RA [deg]
dec_targ	-57.166667	Observer's specified target Dec [deg]
ra_nom	230.1787202648	Nominal RA [deg]
dec_nom	-57.166899576087	Nominal Dec [deg]
roll_nom	300.16327076683	Nominal Roll [deg]
revision	1	Processing version of data
ontime	36472.777320981	Sum of GTIs [s]
livetime	35356.596758691	Livetime [s]
ontime5	36472.736281037	Sum of GTIs [s]
ontime6	36472.695240974	Sum of GTIs [s]
ontime7	36472.777320981	Sum of GTIs [s]
ontime8	36472.654201031	Sum of GTIs [s]
l2events	181223	Number of level 2 events



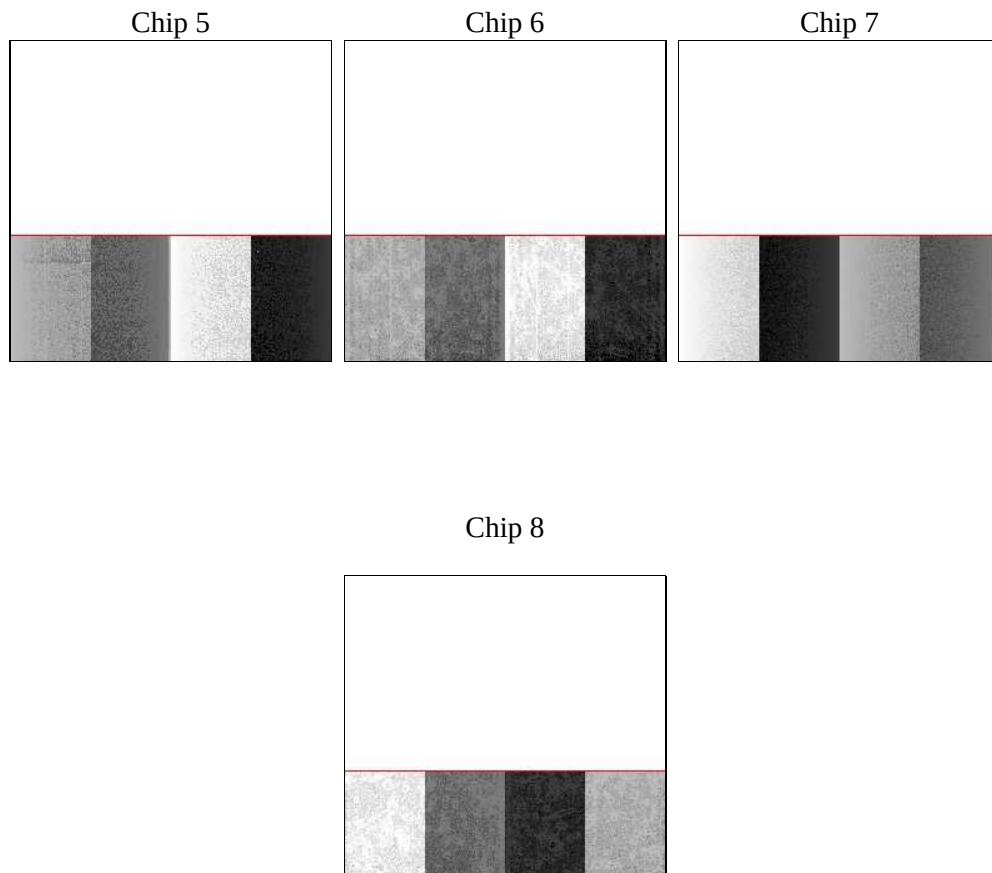
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36400.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	36472.777320981	Sum of GTIs [s]
caldbver	4.7.5	 	ontime5	36472.736281037	Sum of GTIs [s]
date	2017-07-05T22:24:15	Date and time of file creation	ontime6	36472.695240974	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	36472.777320981	Sum of GTIs [s]
			ontime8	36472.654201031	Sum of GTIs [s]
			l1events	658099	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4129.55, 4097.37)	src1a sky pixel position

2.1.4 Events

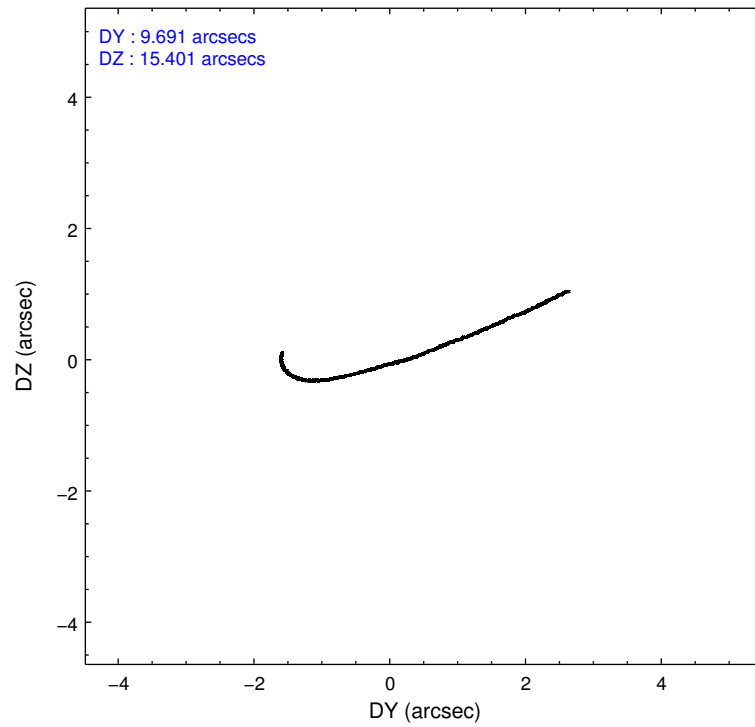
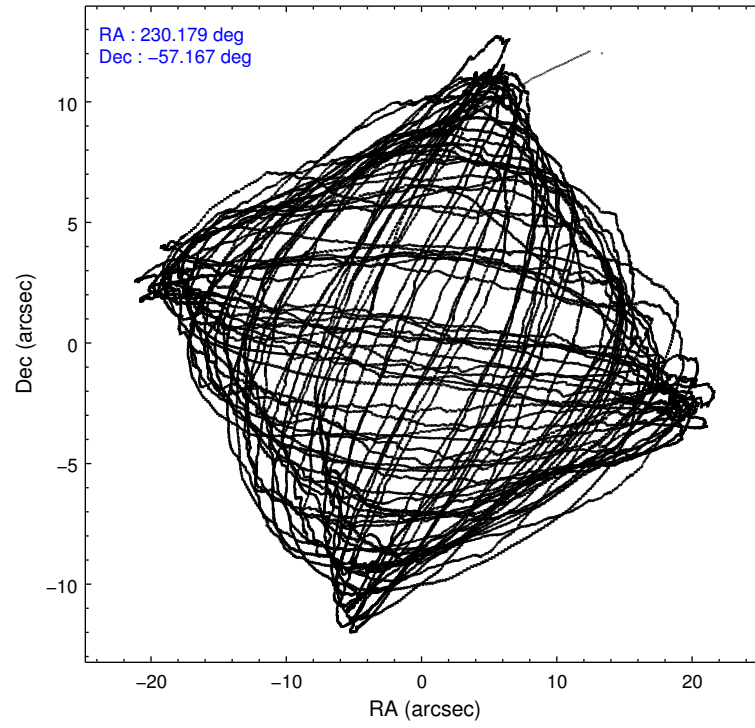
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	212631	119449	175259	150760
rejected events	96166	100966	73656	109287
rejected %	45%	84%	42%	72%

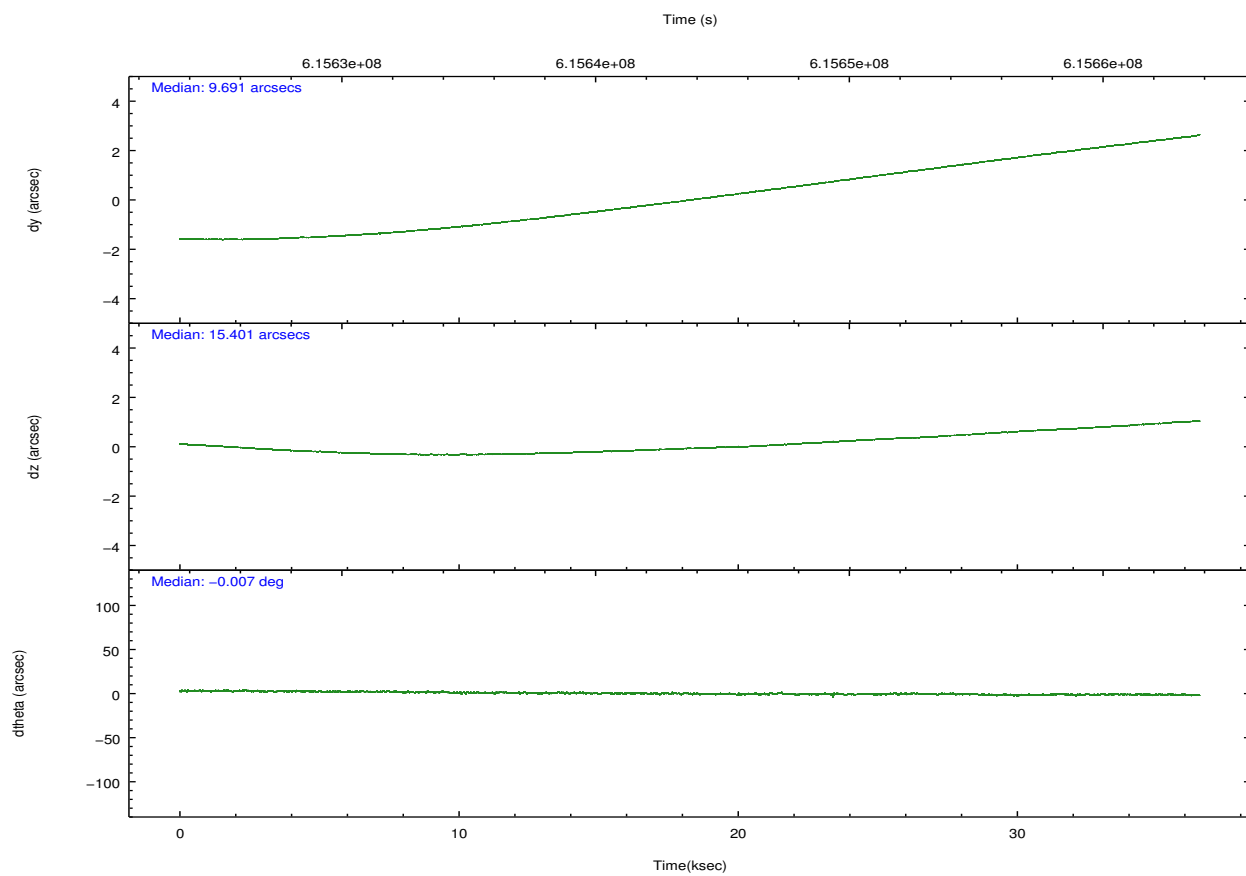
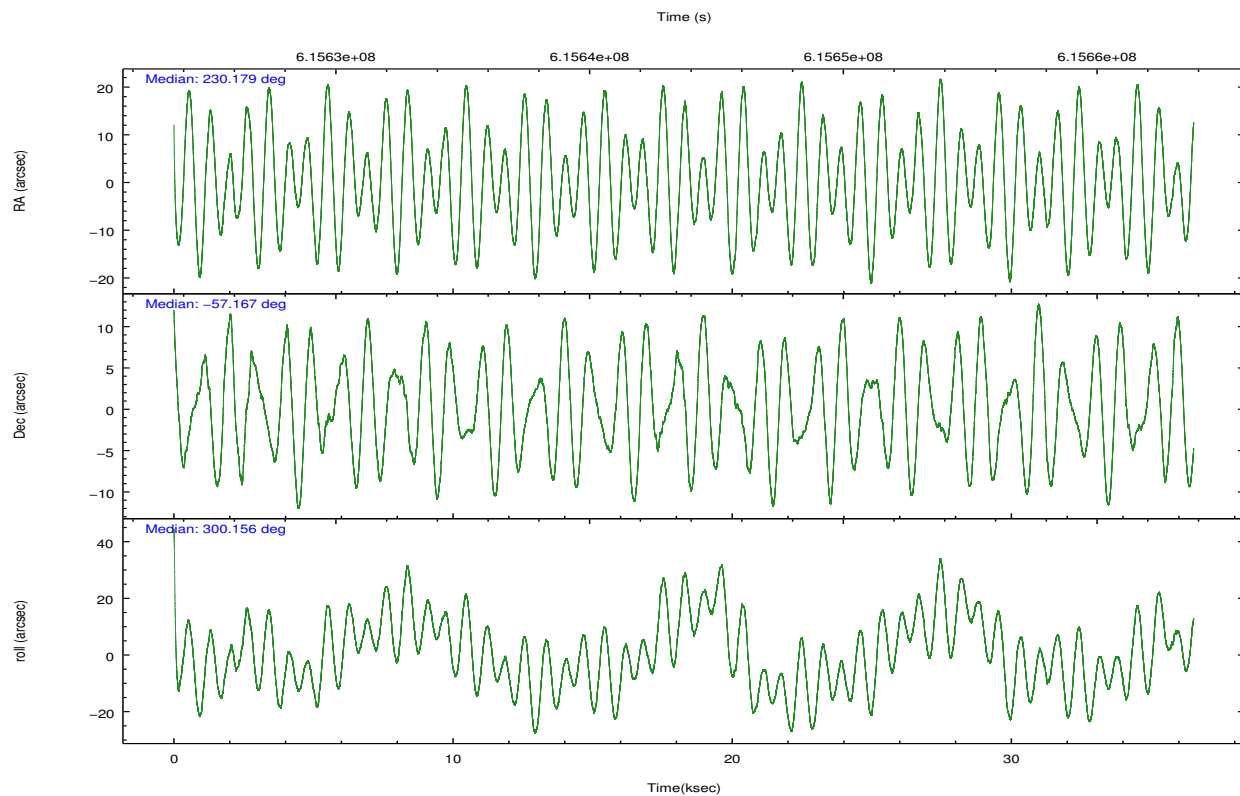
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	29540	7857	34337	12026
	13%	6%	19%	7%
grade 1 events	306	63	1101	92
	0%	0%	0%	0%
grade 2 events	33242	3563	16004	9117
	15%	2%	9%	6%
grade 3 events	6349	1934	7377	4710
	2%	1%	4%	3%
grade 4 events	4994	1998	7390	4495
	2%	1%	4%	2%
grade 5 events	18983	4712	13794	6811
	8%	3%	7%	4%
grade 6 events	42350	3131	36503	11138
	19%	2%	20%	7%
grade 7 events	76867	96191	58753	102371
	36%	80%	33%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	230.134517	230.1787202647961	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-57.153558	-57.16689957608688	Subarray start row	1	1
[deg] Pointing Roll	299.969491	300.1632707668313	Subarray row count	400	400
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.3
[mm] SIM translation stage pos	-182.642523	-182.6373491900168			
[mm] SIM translation stage offset	-7.49	-7.495173392990978			
Phase constraints	Y	Y			
[d] Phase period	16.540100	16.540100			
[d] Phase epoch (MJD)	55325.568980	55325.568980			
Phase start	0.960000	0.960000			
Phase end	0.040000	0.040000			
Phase start error	0.010000	0.010000			
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	615625561.184000	615624675.71788			
Observation start date	2017-07-05T07:04:52	2017-07-05T06:51:15			
[s] Observation end time (MET)	615661961.184000	615662582.7826			
Observation end date	2017-07-05T17:11:32	2017-07-05T17:23:02			
Read mode	TIMED	TIMED			

2.3 Aspect



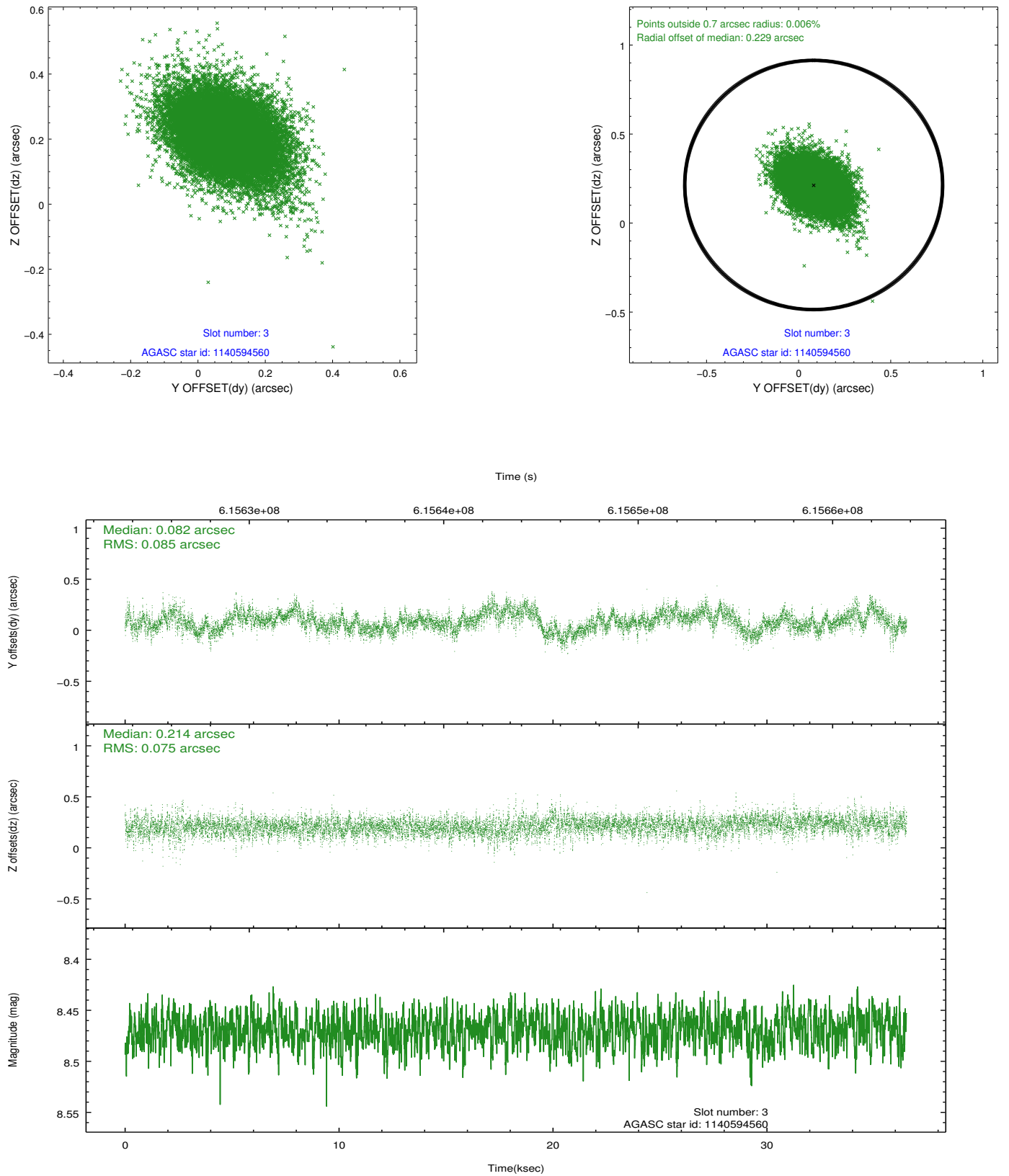


Slot Statistics

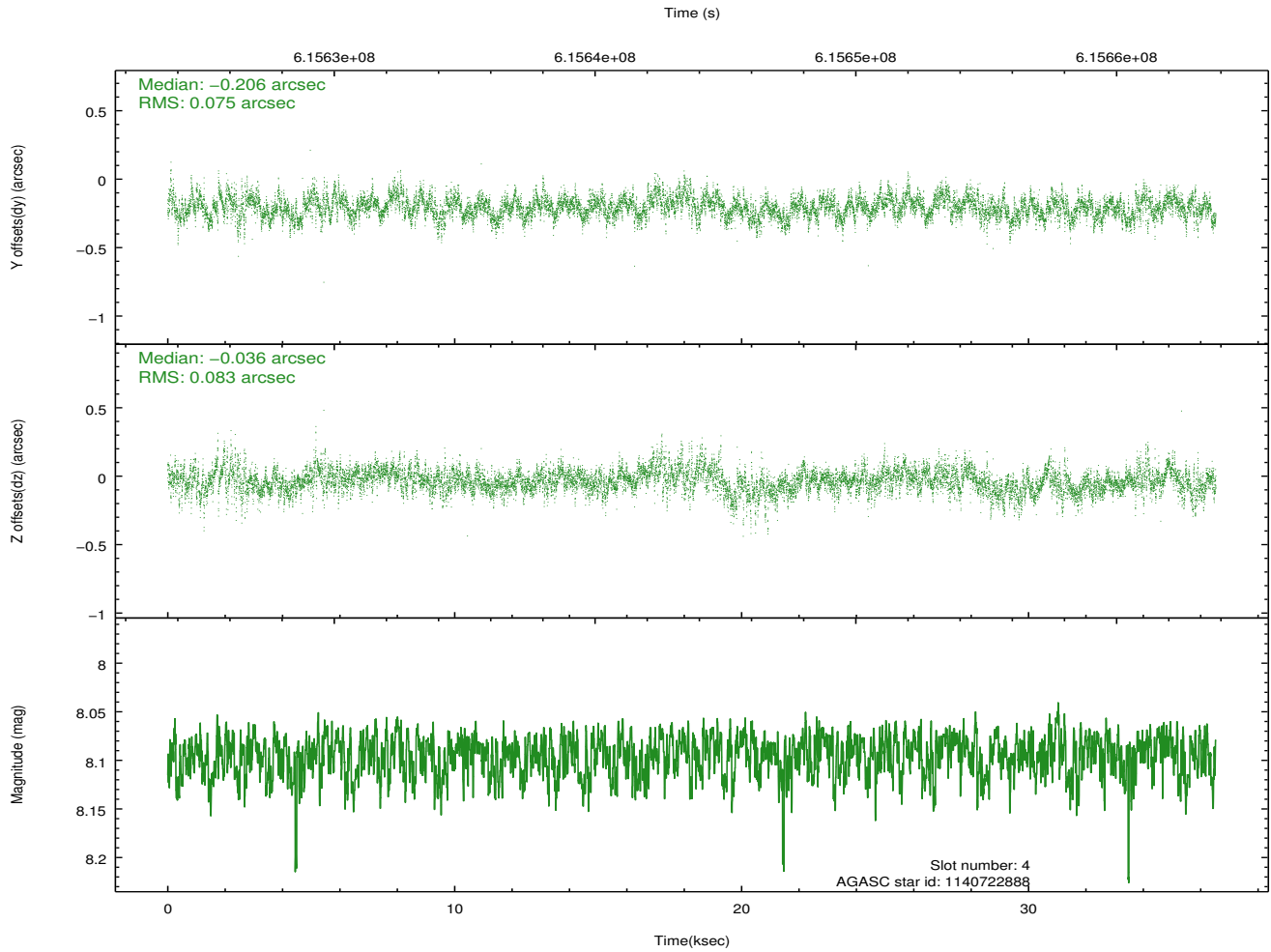
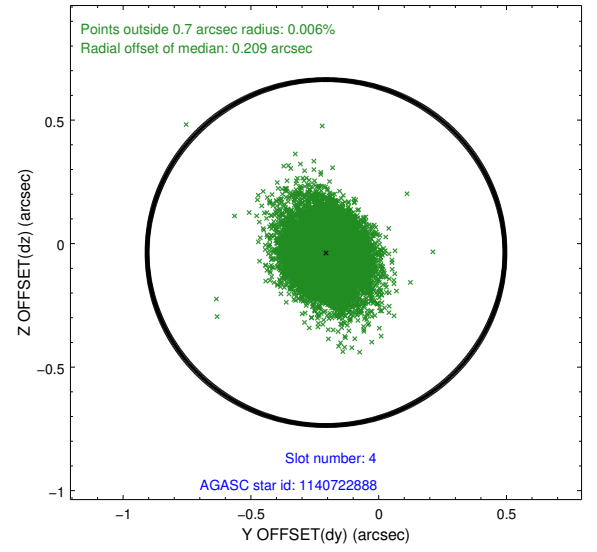
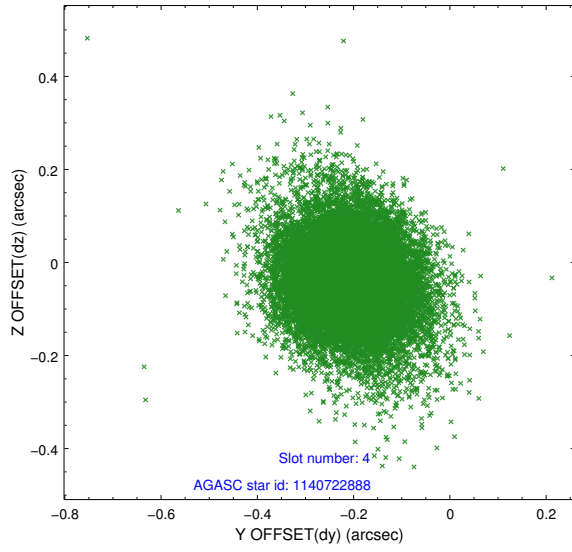
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.11	8909	0.094	0.046	0.020	0.030	0.000000	0.000000	934.07	-1886.91
1	FID		ACIS-S-5	7.13	8911	-0.266	0.054	0.037	0.048	0.000000	0.000000	-1815.33	10.51
2	FID		ACIS-S-6	7.32	8910	0.154	-0.086	0.021	0.028	0.000000	0.000000	399.58	654.43
3	GUIDE	used	1140594560	8.47	17812	0.082	0.214	0.117	0.202	229.144979	-57.397081	-186.59	-2107.22
4	GUIDE	used	1140722888	8.09	17819	-0.206	-0.036	0.116	0.197	230.457489	-57.599243	1702.61	-262.25
5	GUIDE	used	1140723840	8.56	17799	0.123	-0.060	0.119	0.199	230.379592	-56.994965	-253.29	701.22
6	GUIDE	used	1140726312	8.86	17808	-0.101	-0.035	0.131	0.221	231.010622	-56.676215	-613.33	2353.02
7	GUIDE	used	1140722800	9.12	17804	0.104	-0.082	0.145	0.242	231.057080	-56.699276	-495.08	2390.65

2.4 Star Slots

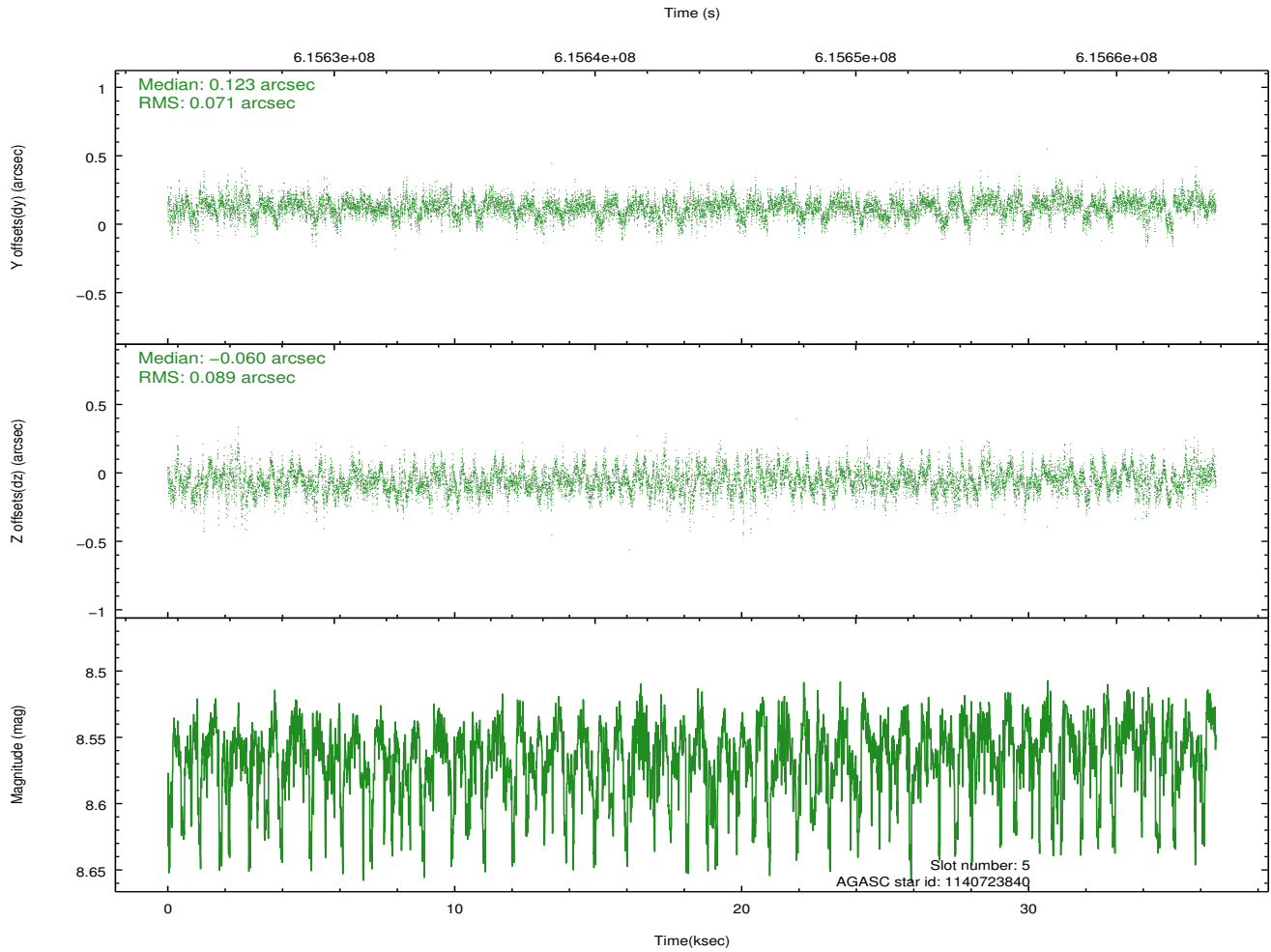
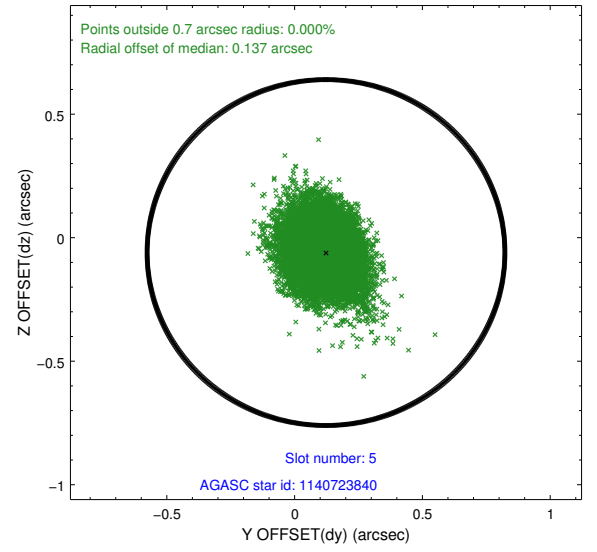
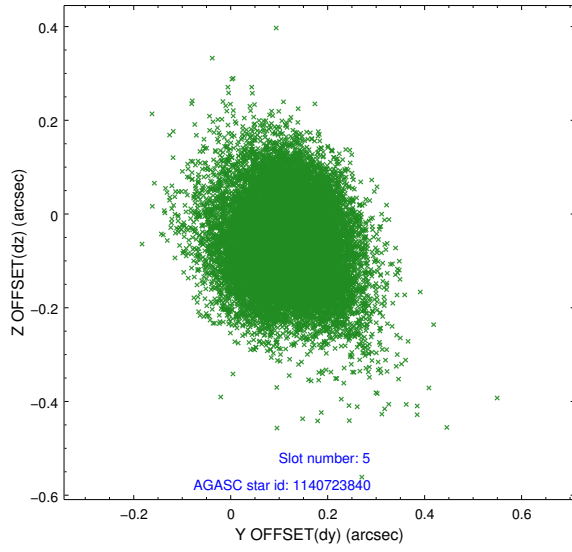
2.4.1 Slot 3



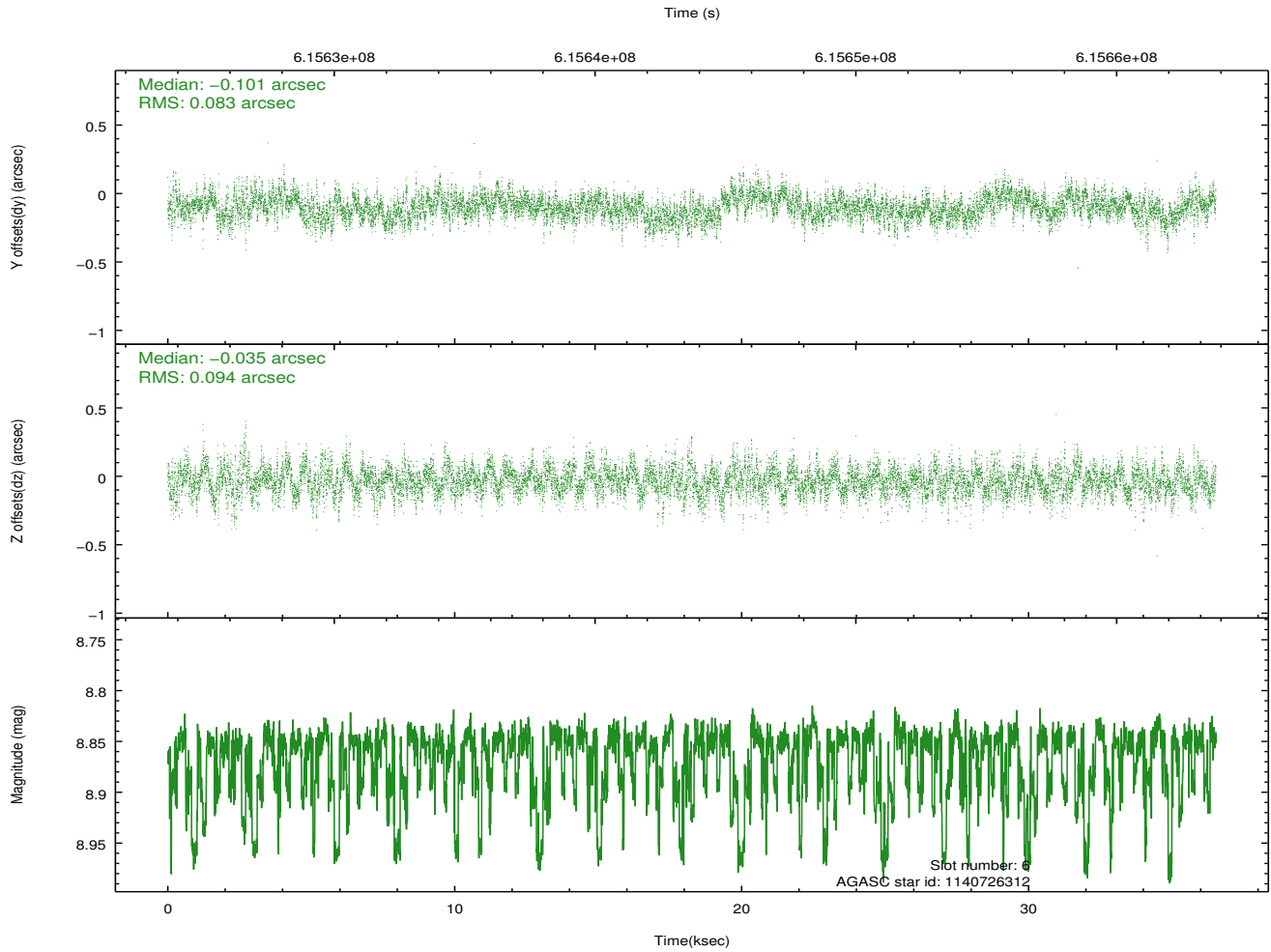
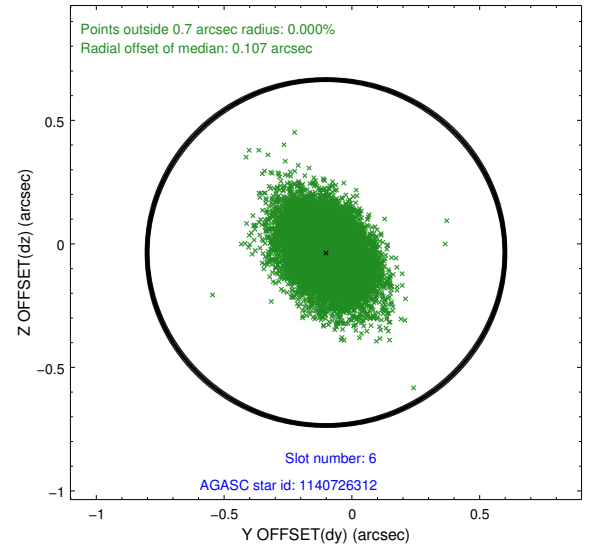
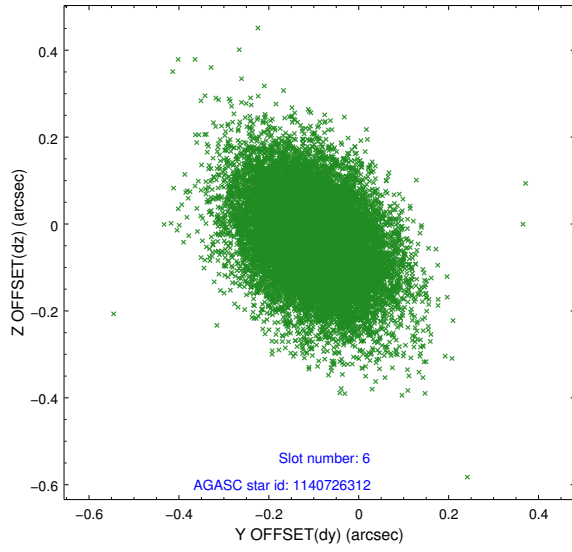
2.4.2 Slot 4



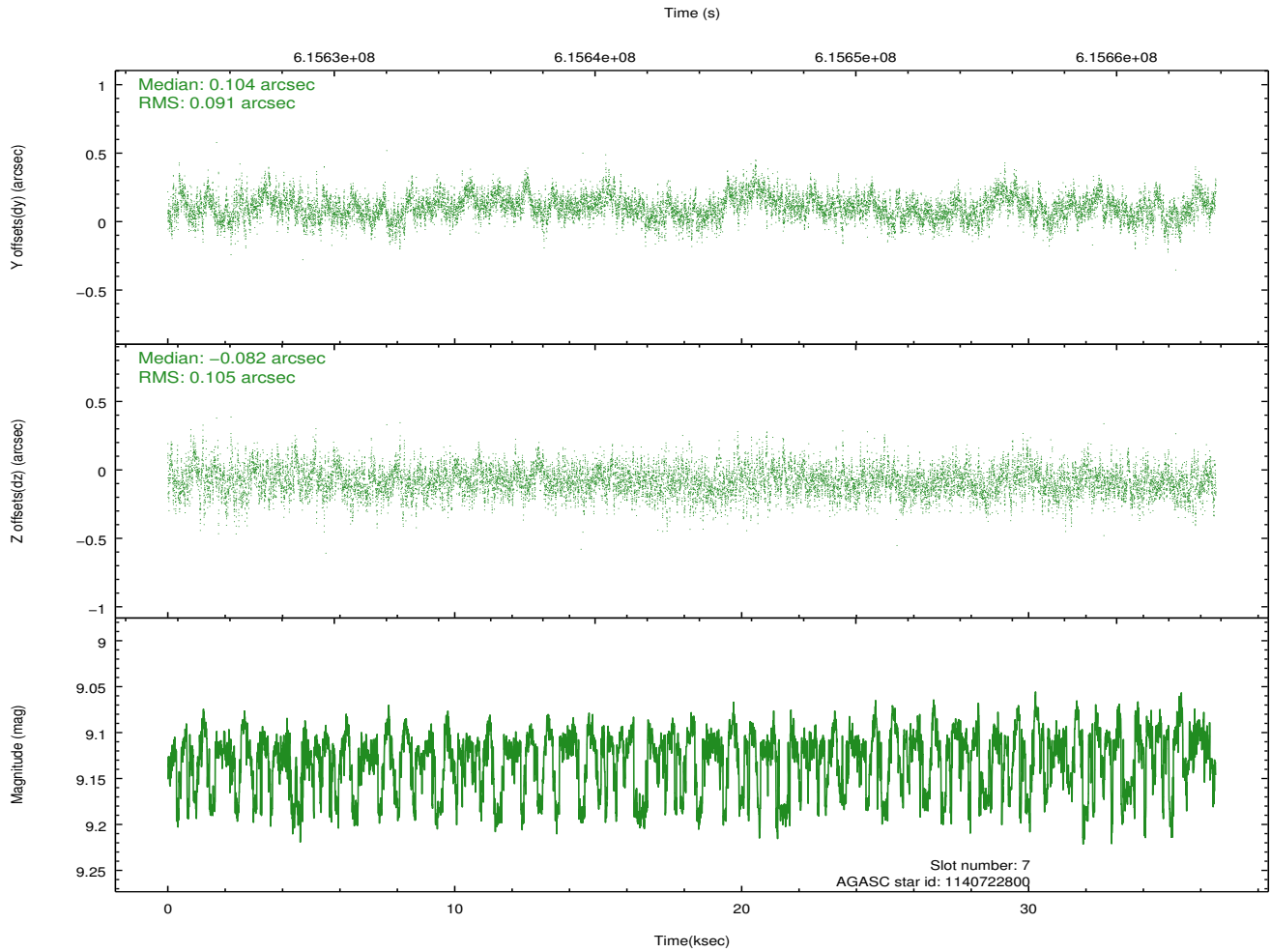
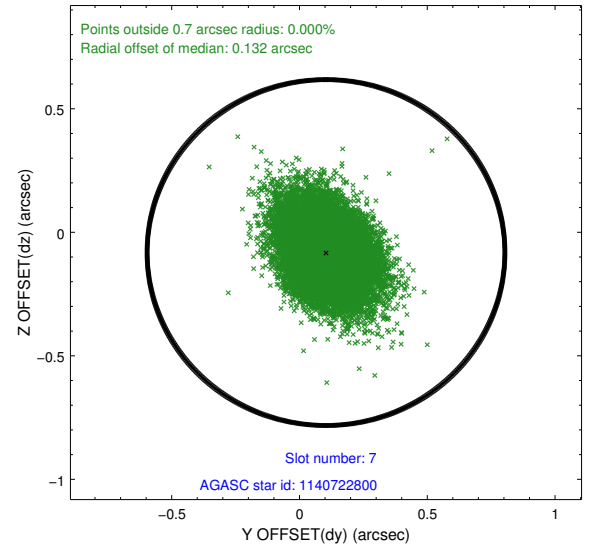
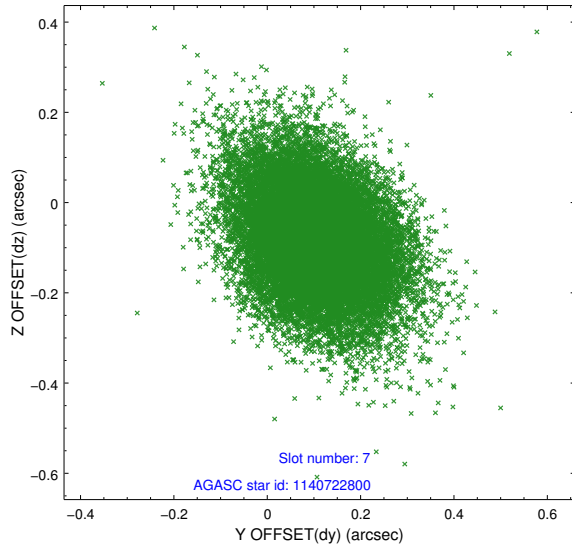
2.4.3 Slot 5



2.4.4 Slot 6

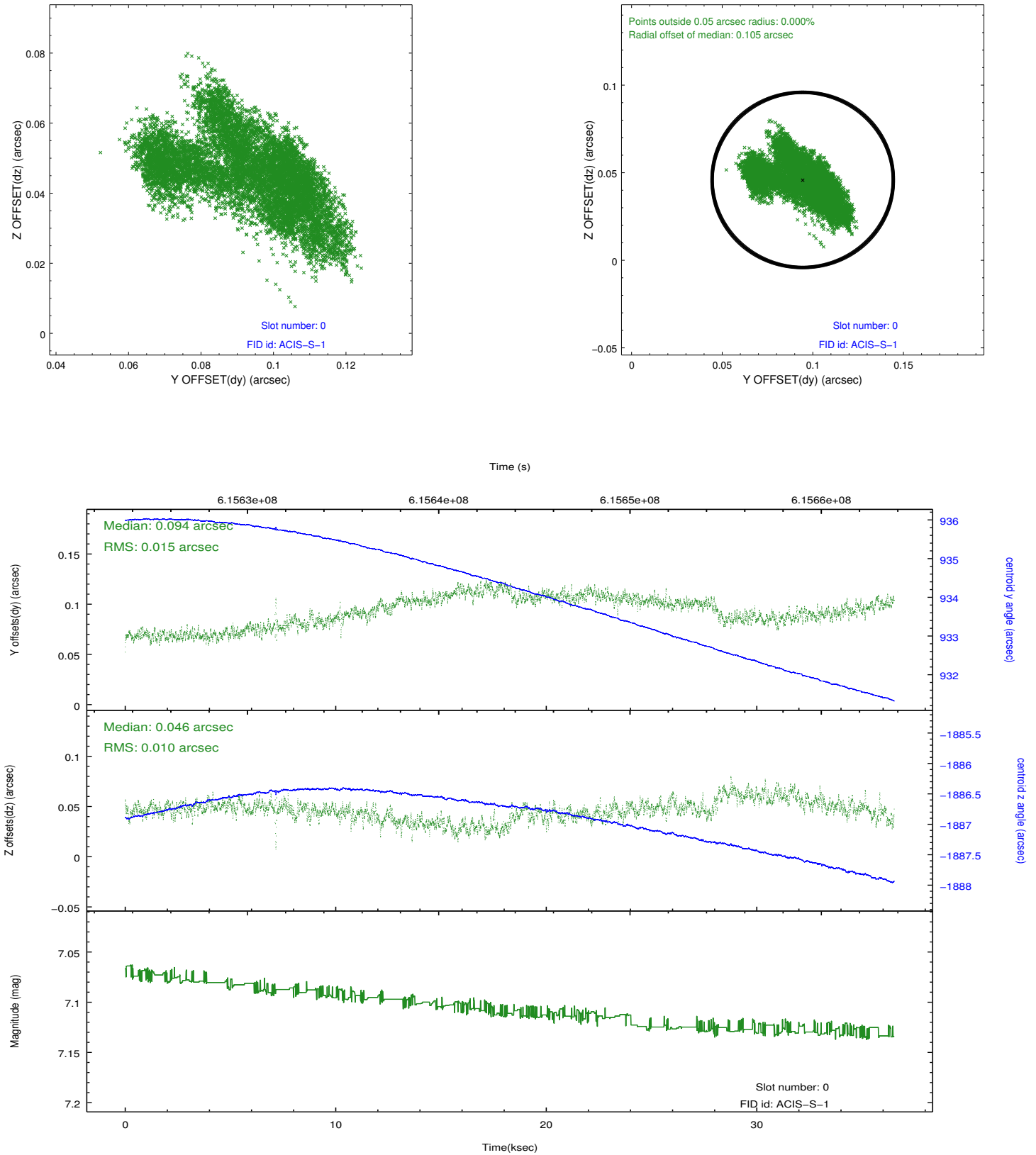


2.4.5 Slot 7

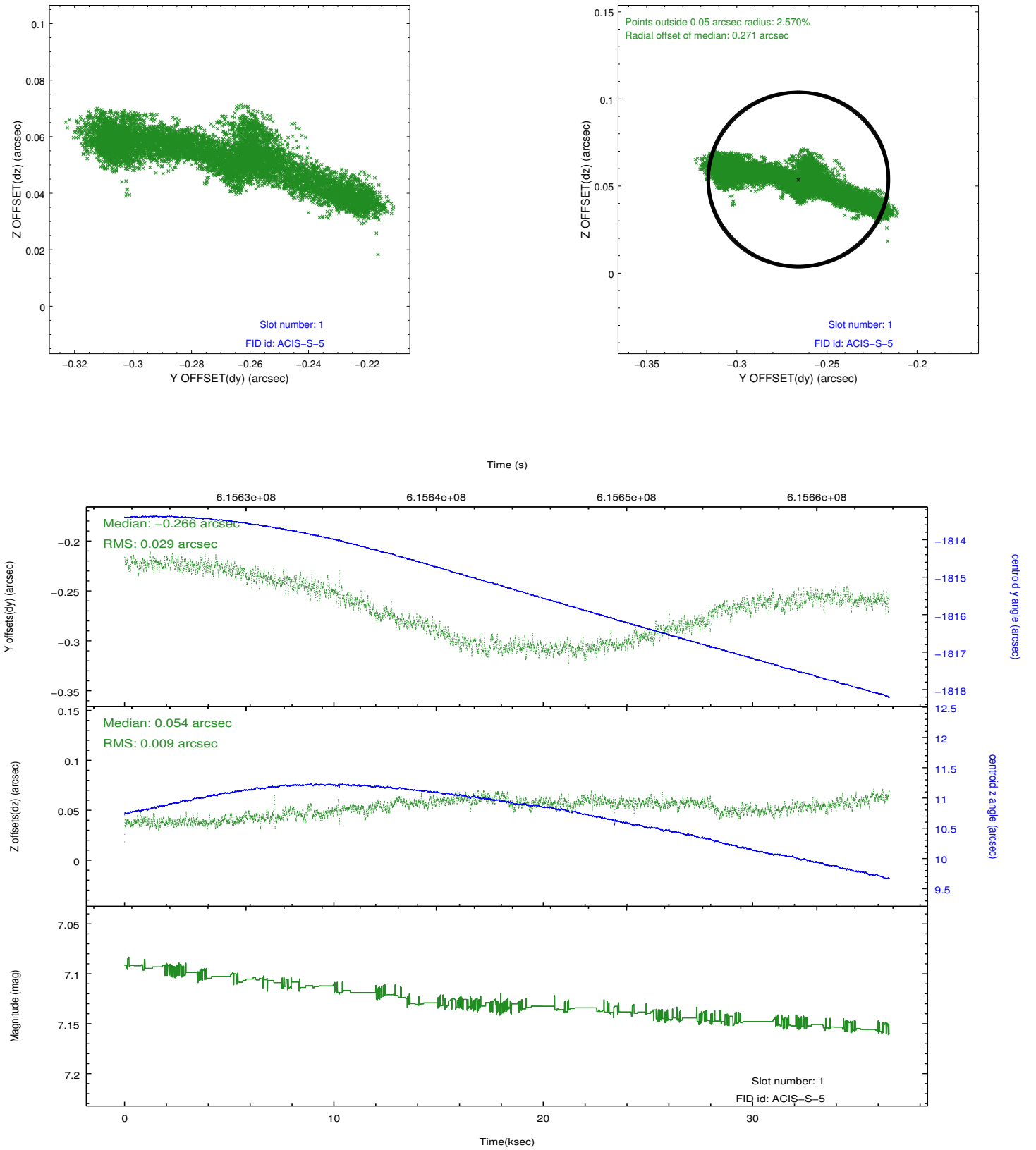


2.5 FID Slots

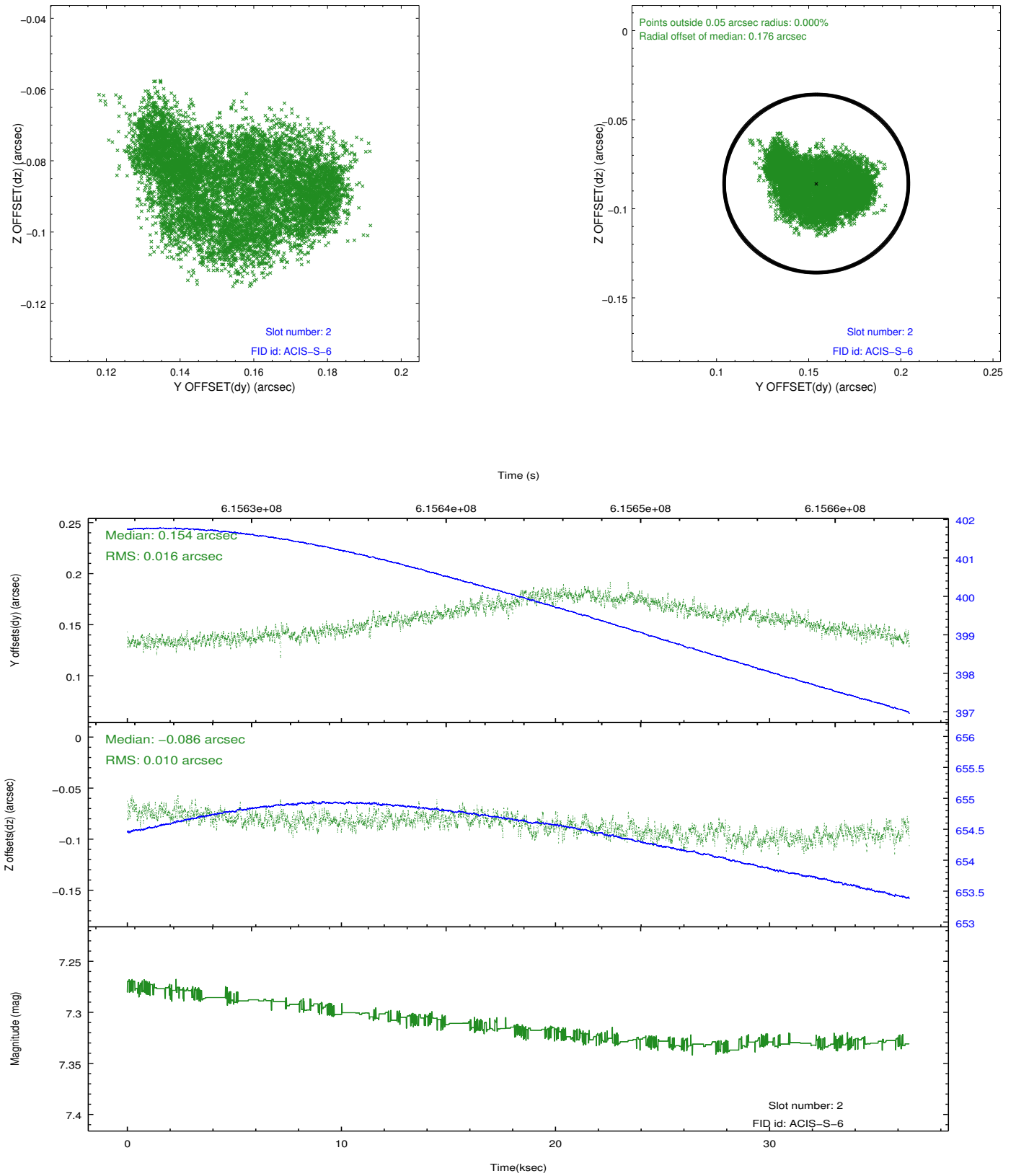
2.5.1 Slot 0



2.5.2 Slot 1

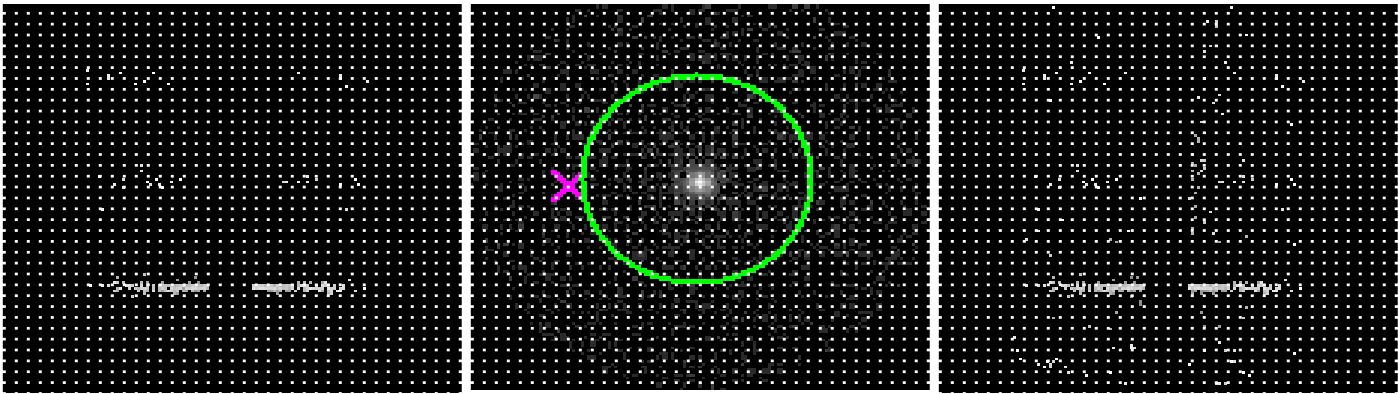


2.5.3 Slot 2



3 Gratings

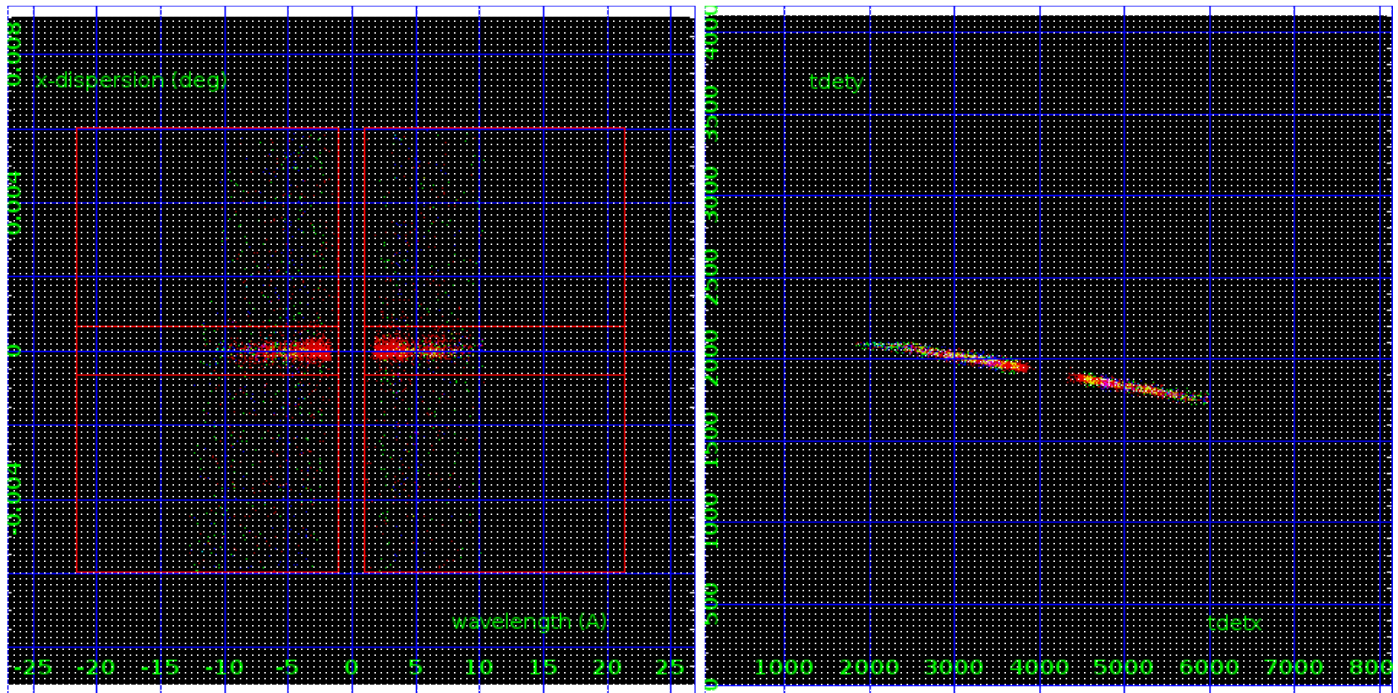
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

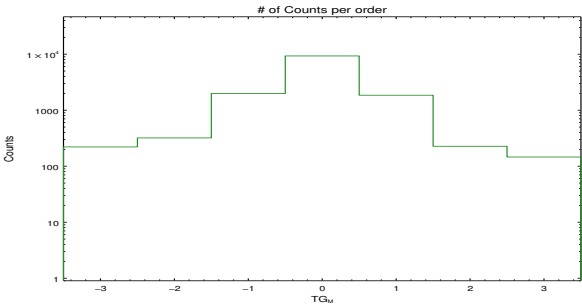
HEG Order Sort ALL

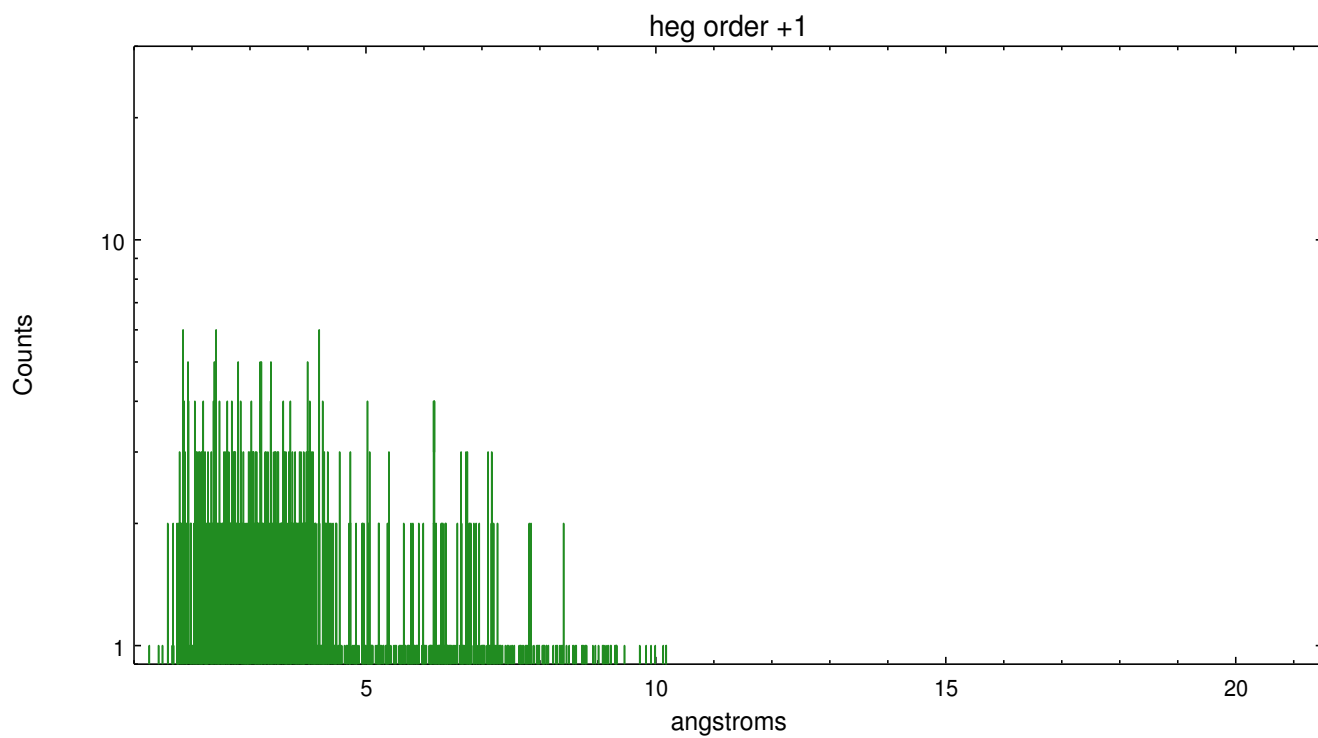
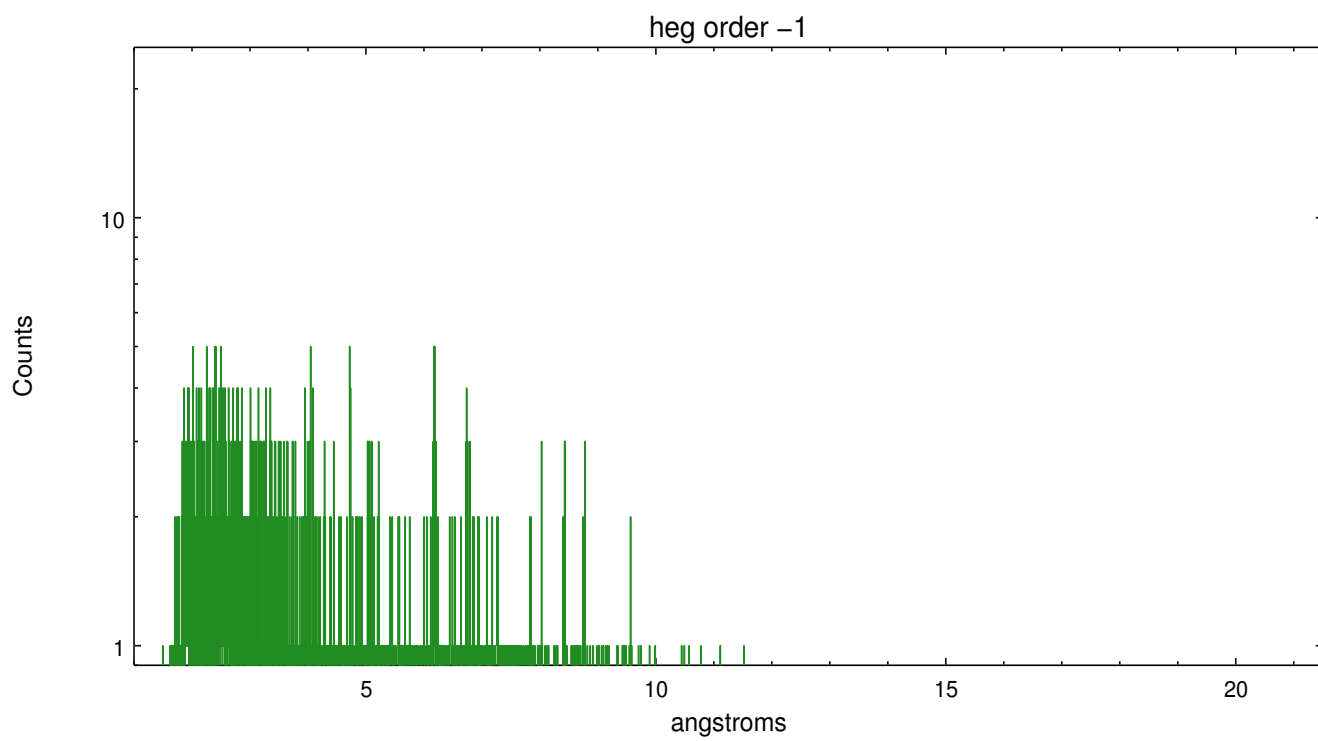


Spot Image HEG

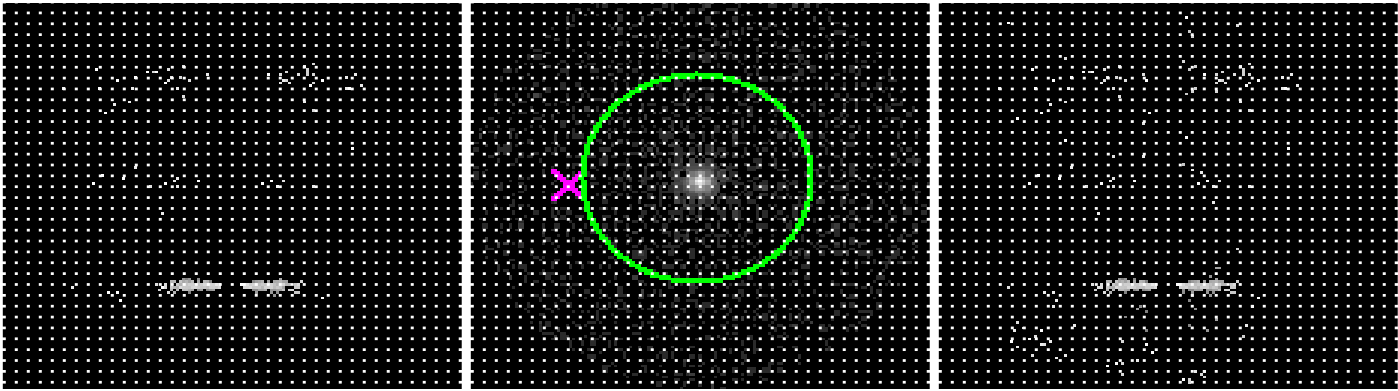
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	221	320	1985	9313	1851	227	146





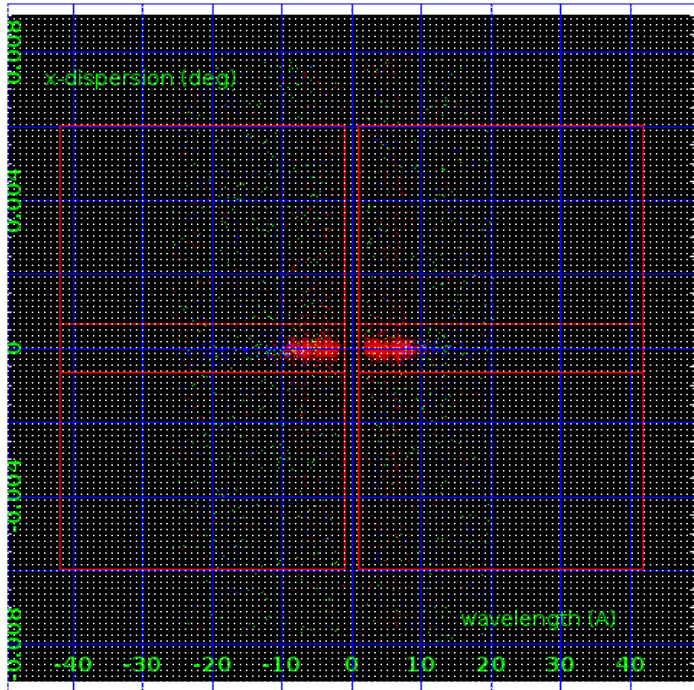
3.2 MEG Arm



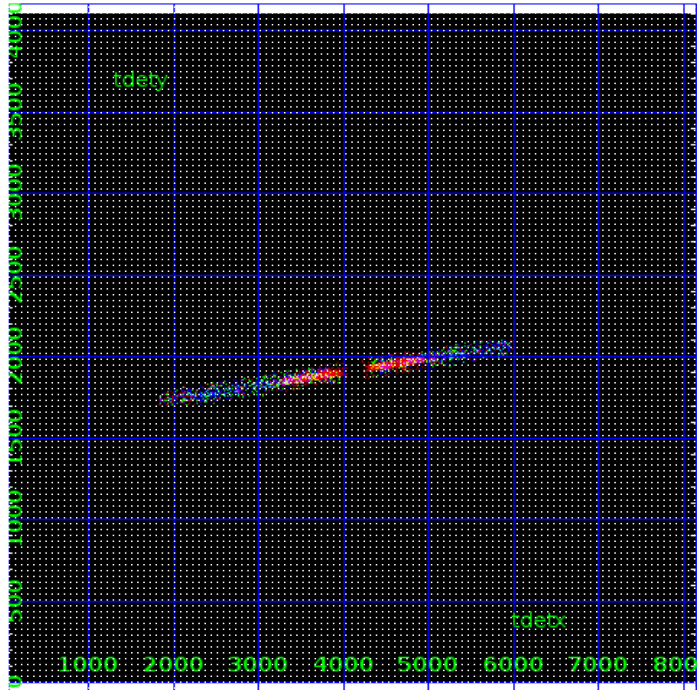
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

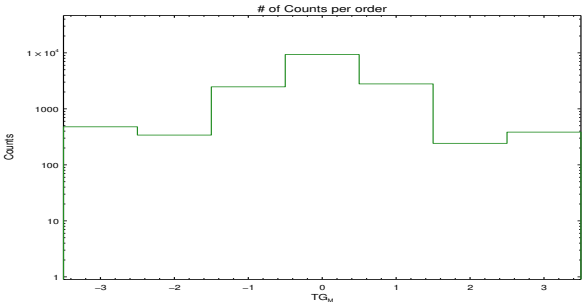


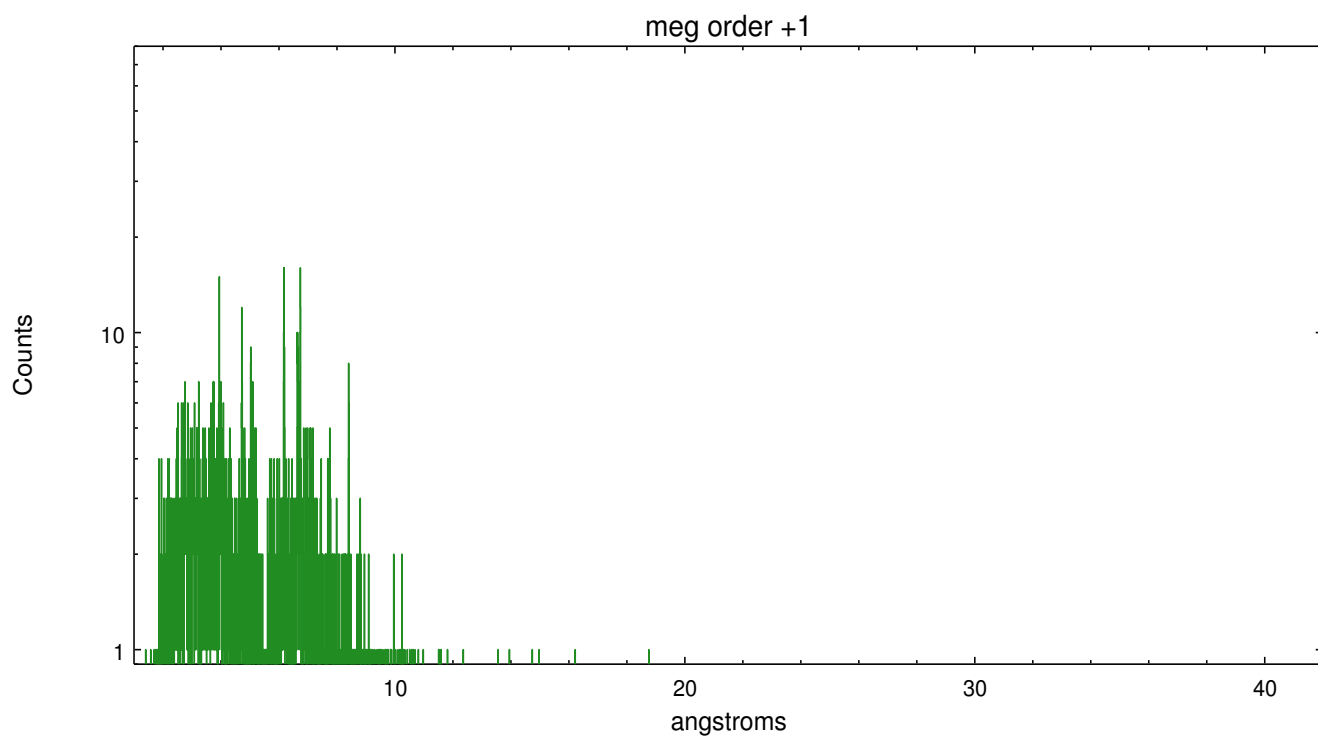
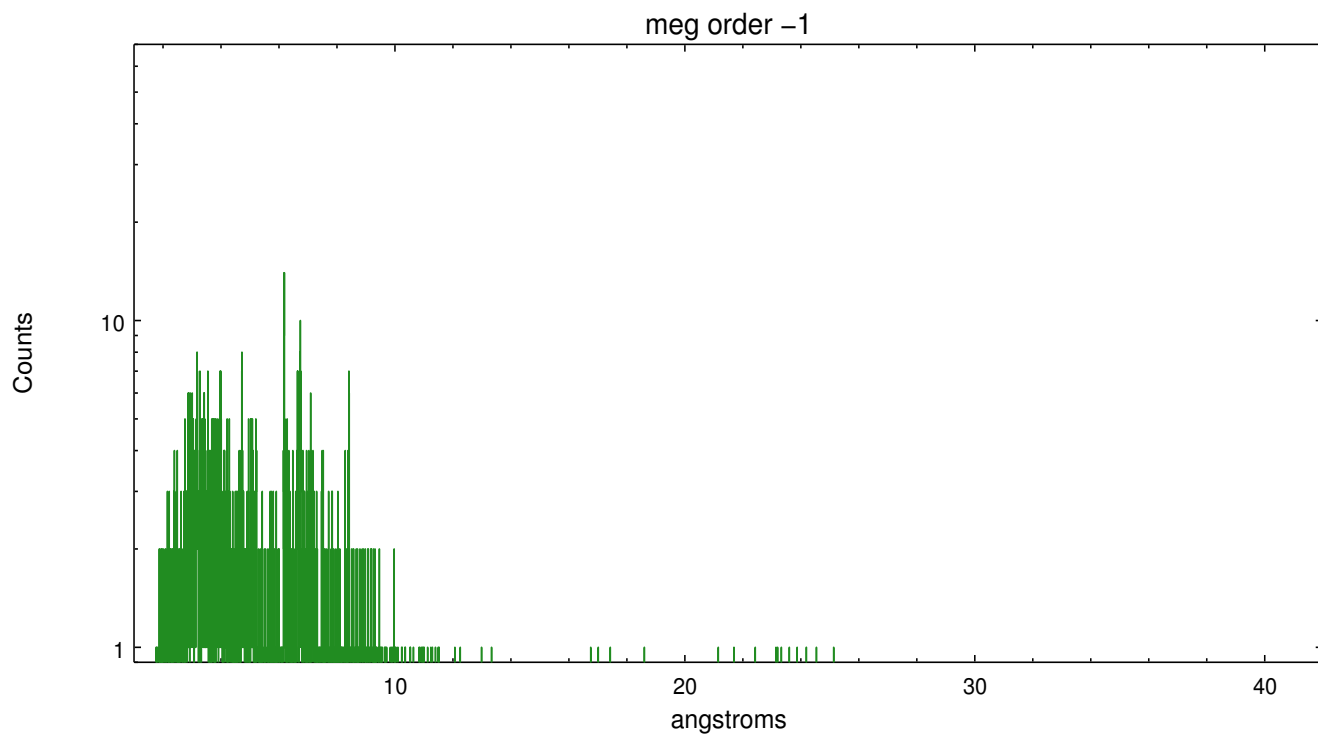
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	478	340	2473	9313	2789	242	384





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.07.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.472777320981

A.2 Comments