

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 12235 - L2 Version 2
Chandra X-Ray Center

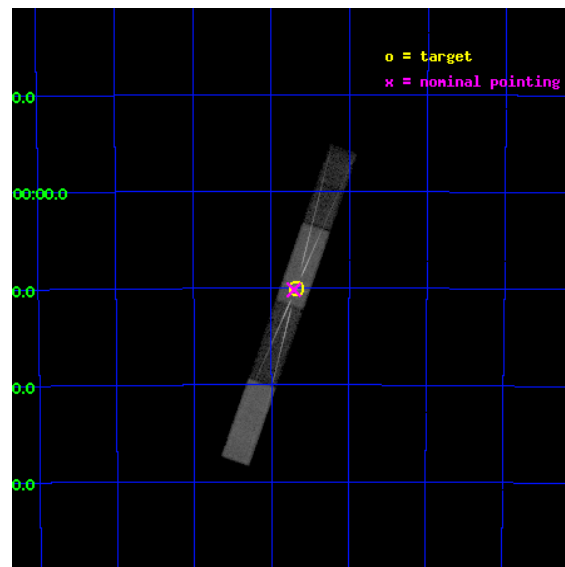
L2 Processing Date : Jun 29 2012

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1 Front

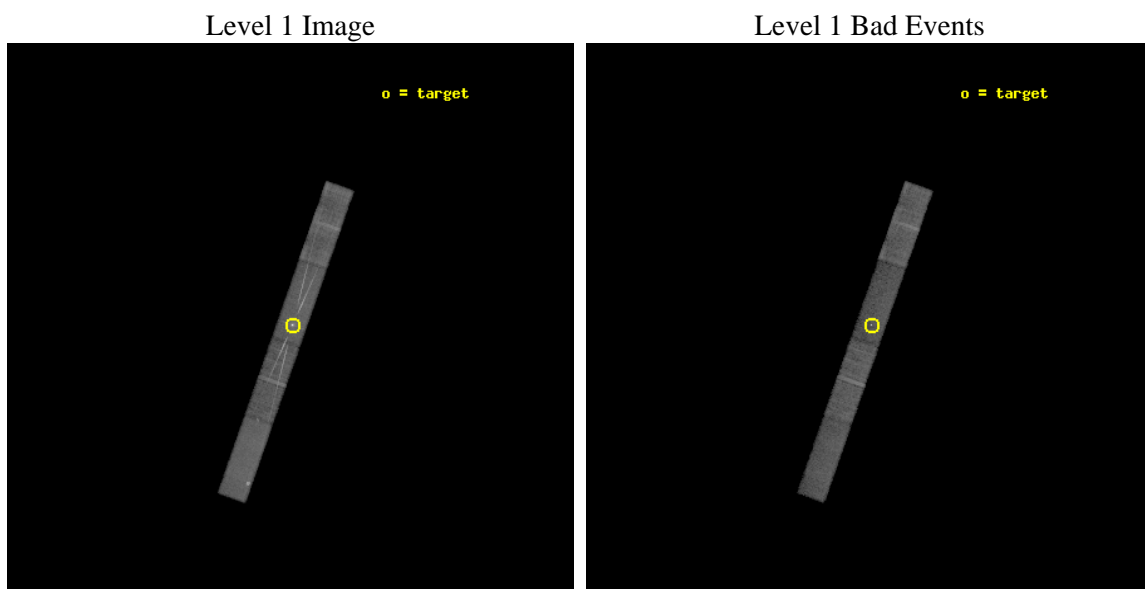
seq_num	401141	Sequence number
obs_id	12235	Observation id
title	X-ray spectroscopy of Cir X-1 through its transition to an exceptionally hard X-ray state	Proposal title
observer	Dr. Antonino D'A	Principal investigator
object	Cir X-1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	230.170417	Observer's specified target RA [deg]
dec_targ	-57.166667	Observer's specified target Dec [deg]
ra_nom	230.17736476458	Nominal RA [deg]
dec_nom	-57.169724501335	Nominal Dec [deg]
roll_nom	289.38632129141	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20079.599800587	Sum of GTIs [s]
livetime	19415.586734275	Livetime [s]
ontime5	20079.599800587	Sum of GTIs [s]
ontime6	20079.56617415	Sum of GTIs [s]
ontime7	20079.599800587	Sum of GTIs [s]
ontime8	20079.525134146	Sum of GTIs [s]
l2events	125822	Number of level 2 events



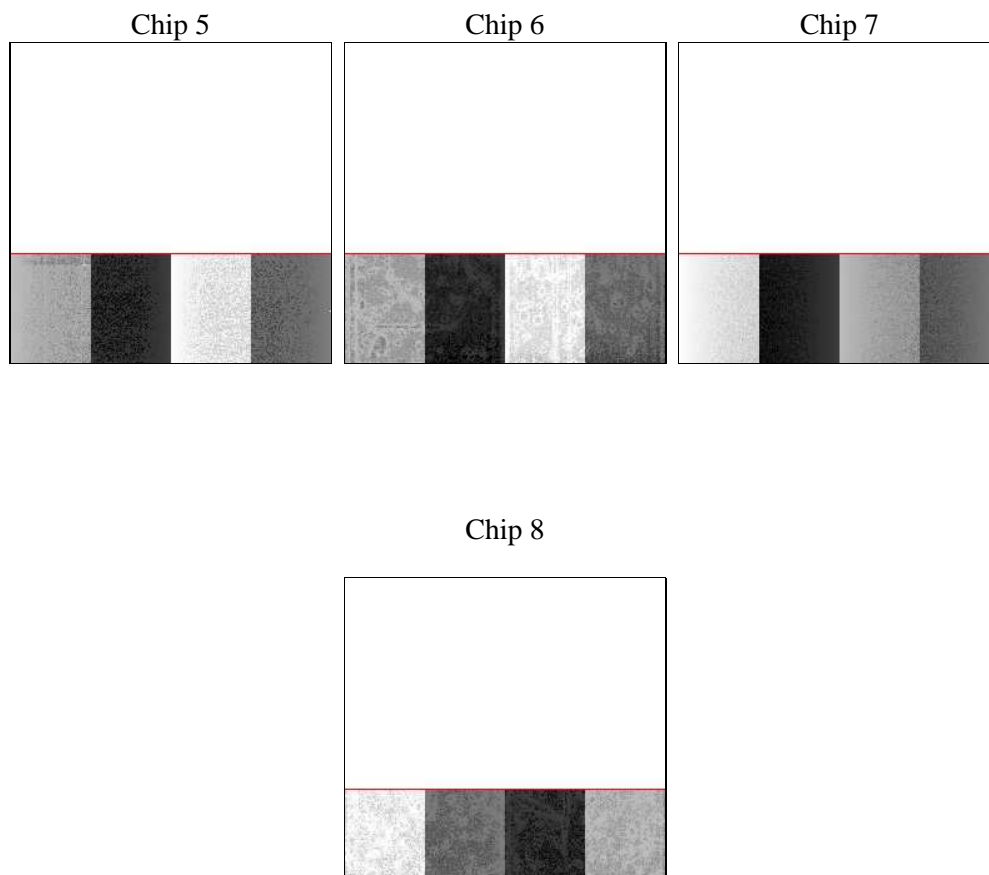
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	20079.599800587	Sum of GTIs [s]
caldsver	4.5.0	 	ontime5	20079.599800587	Sum of GTIs [s]
date	2012-06-29T11:22:36	Date and time of file creation	ontime6	20079.56617415	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	20079.599800587	Sum of GTIs [s]
			ontime8	20079.525134146	Sum of GTIs [s]
			l1events	329287	Number of level 1 events

2.1.4 Events

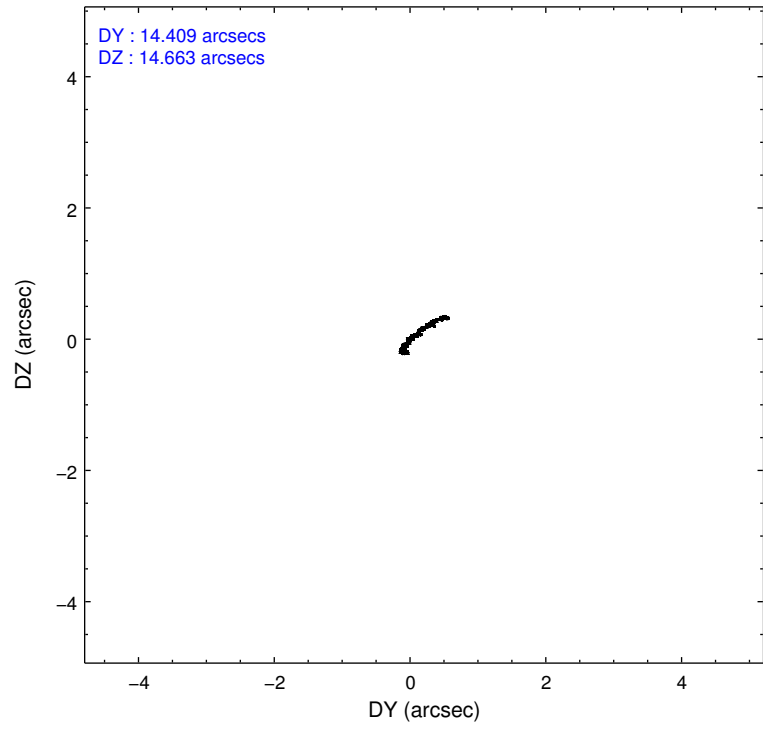
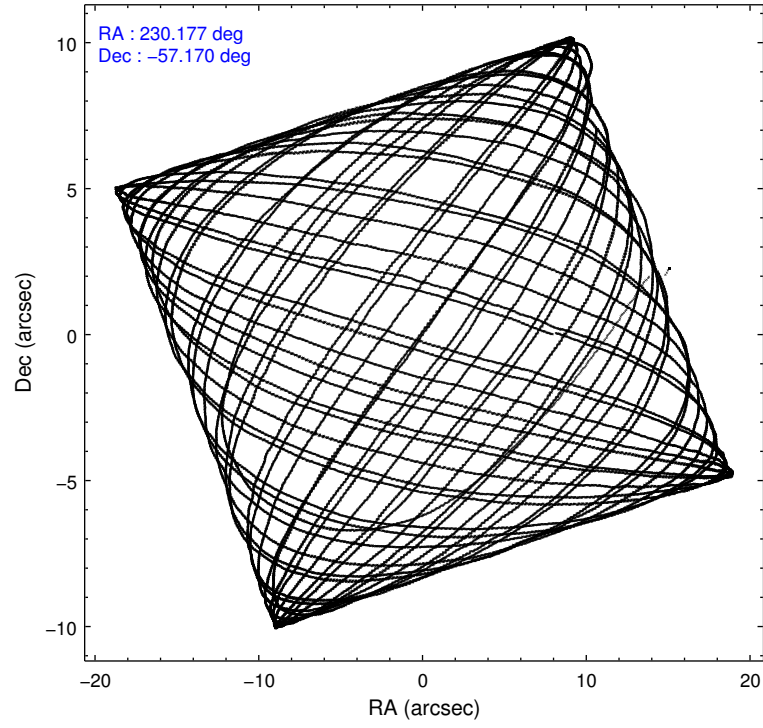
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	80343	71417	98639	78888
rejected events	37949	50948	38033	55920
rejected %	47%	71%	38%	70%

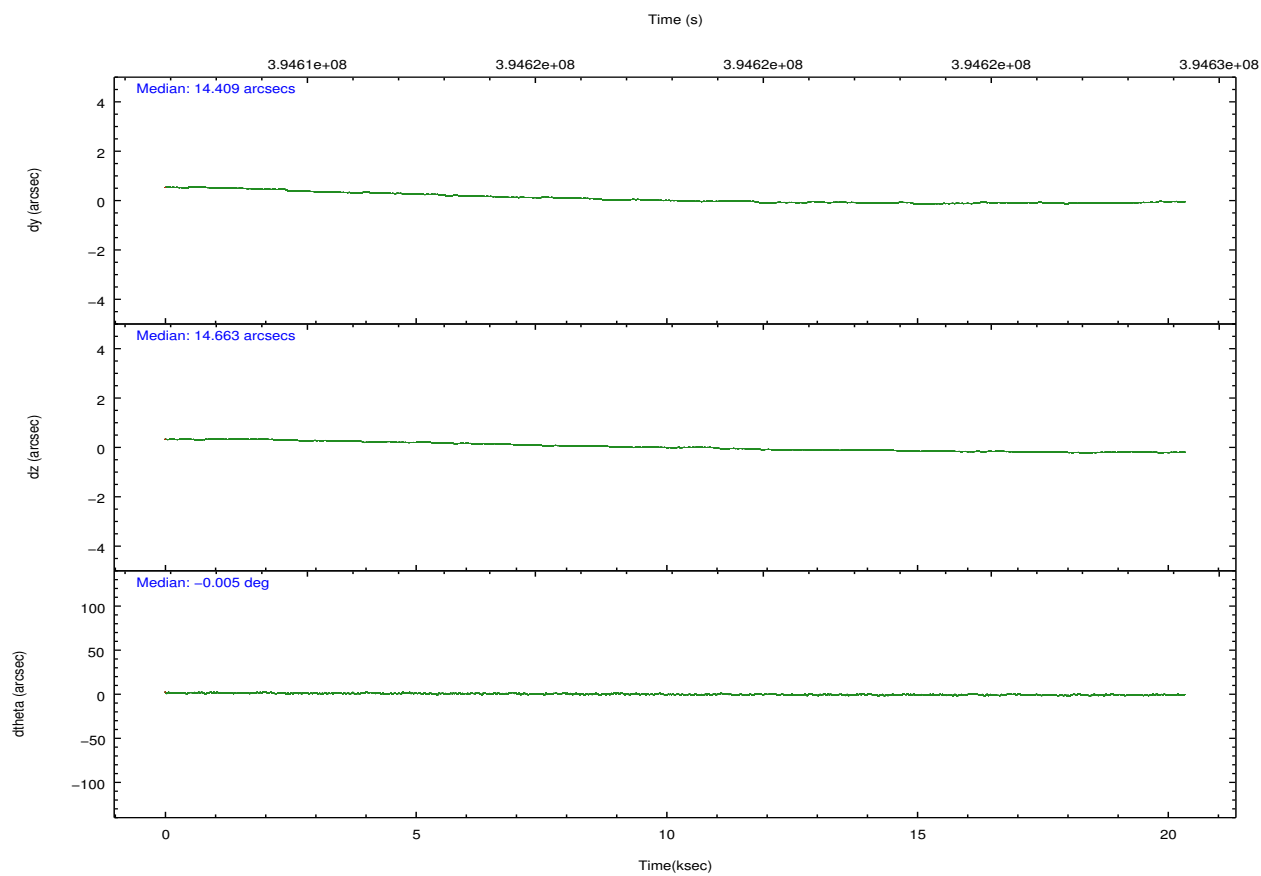
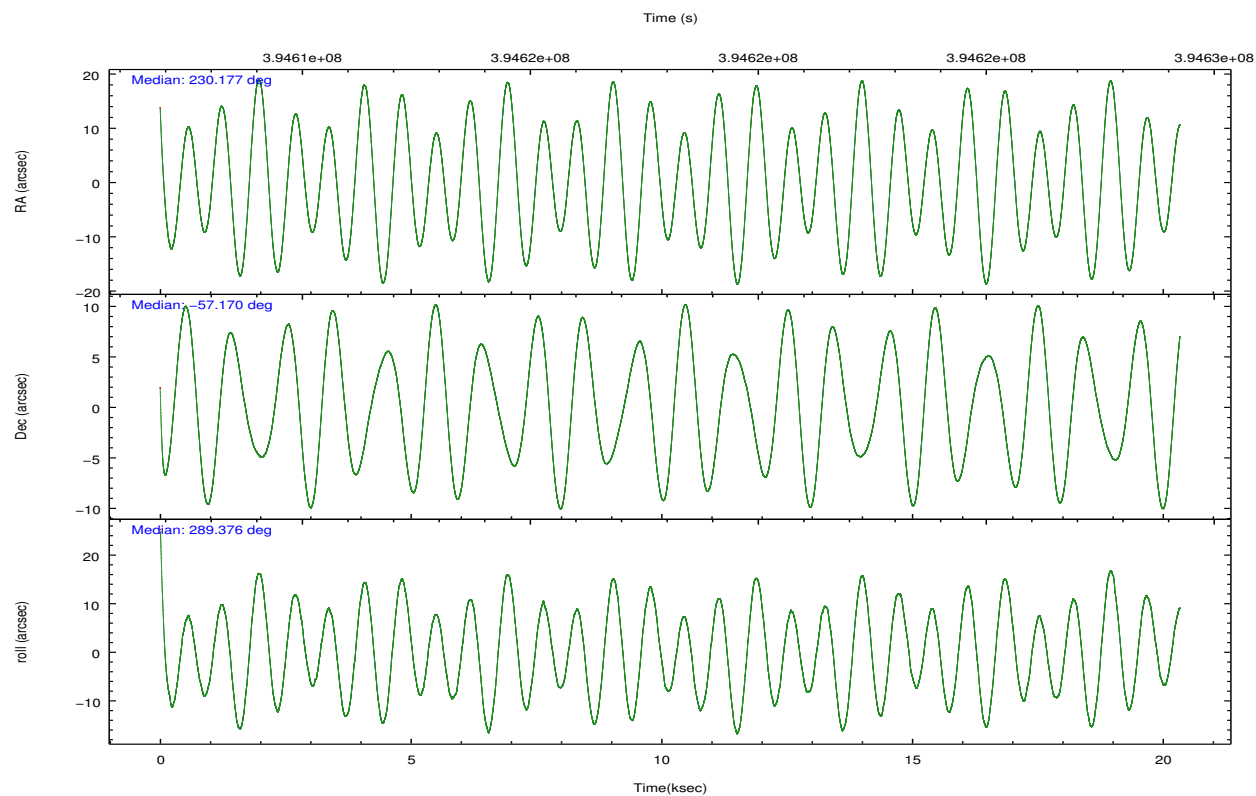
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	5901	11540	8262	7531
	7%	16%	8%	9%
grade 1 events	214	52	377	50
	0%	0%	0%	0%
grade 2 events	11307	3340	13056	4870
	14%	4%	13%	6%
grade 3 events	2694	1610	5932	2637
	3%	2%	6%	3%
grade 4 events	2729	1609	6103	2412
	3%	2%	6%	3%
grade 5 events	6851	2125	7944	3094
	8%	2%	8%	3%
grade 6 events	19765	2371	27256	5518
	24%	3%	27%	6%
grade 7 events	30882	48770	29709	52776
	38%	68%	30%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	230.138665	230.1773647645752	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-57.152198	-57.16972450133538	Subarray start row	1	1
[deg] Pointing Roll	289.197173	289.386321291408	Subarray row count	350	350
[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	1.2
[mm] SIM translation stage pos	-182.132523	-182.1344861297048			
[mm] SIM translation stage offset	-8	-7.998036453302973			
[s] Observation start time (MET)	394608236.184000	394607110.95775			
Observation start date	2010-07-04T05:22:50	2010-07-04T05:05:10			
[s] Observation end time (MET)	394628236.184000	394629020.84637			
Observation end date	2010-07-04T10:56:10	2010-07-04T11:10:20			
Read mode	TIMED	TIMED			

2.3 Aspect



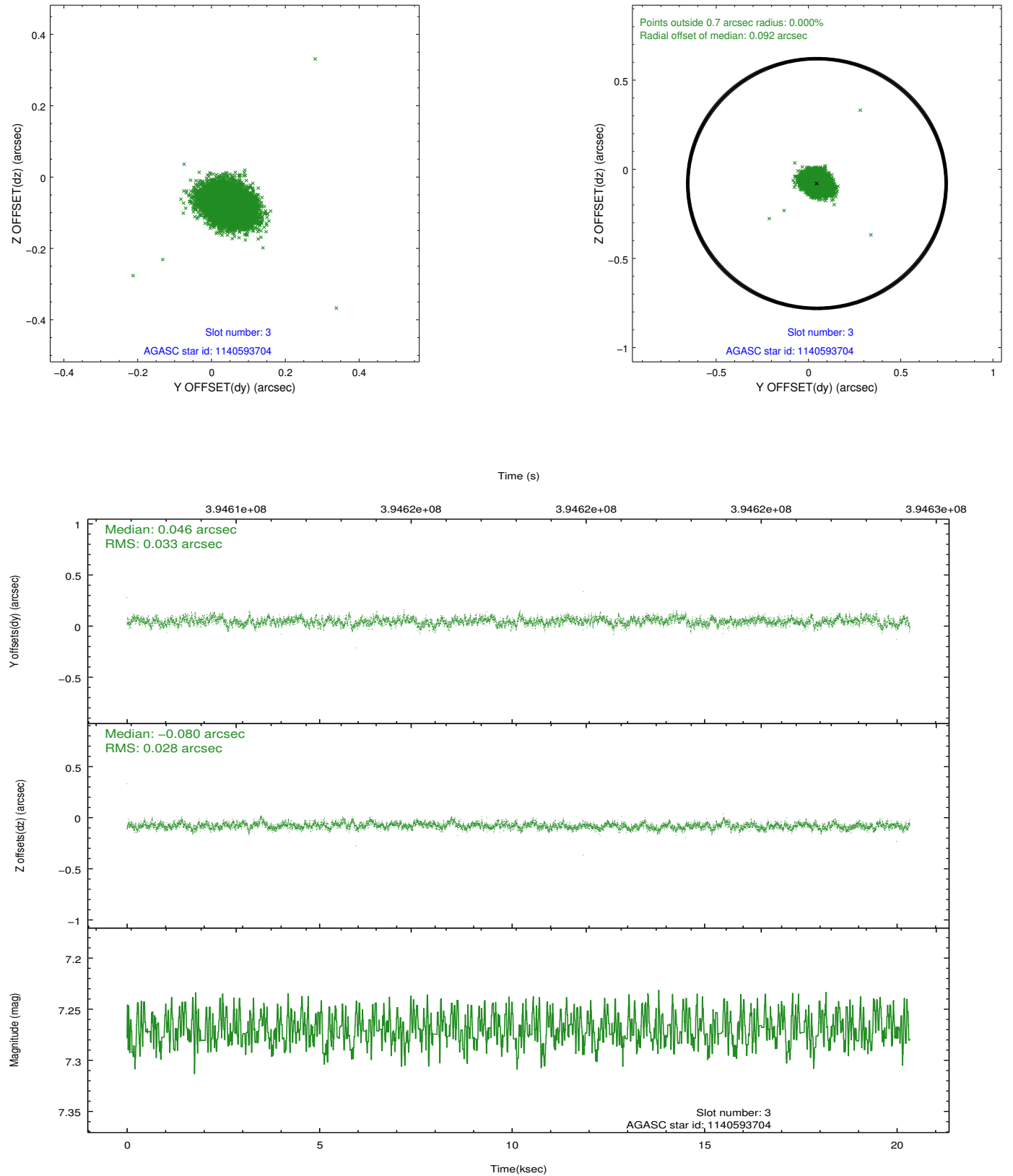


Slot Statistics

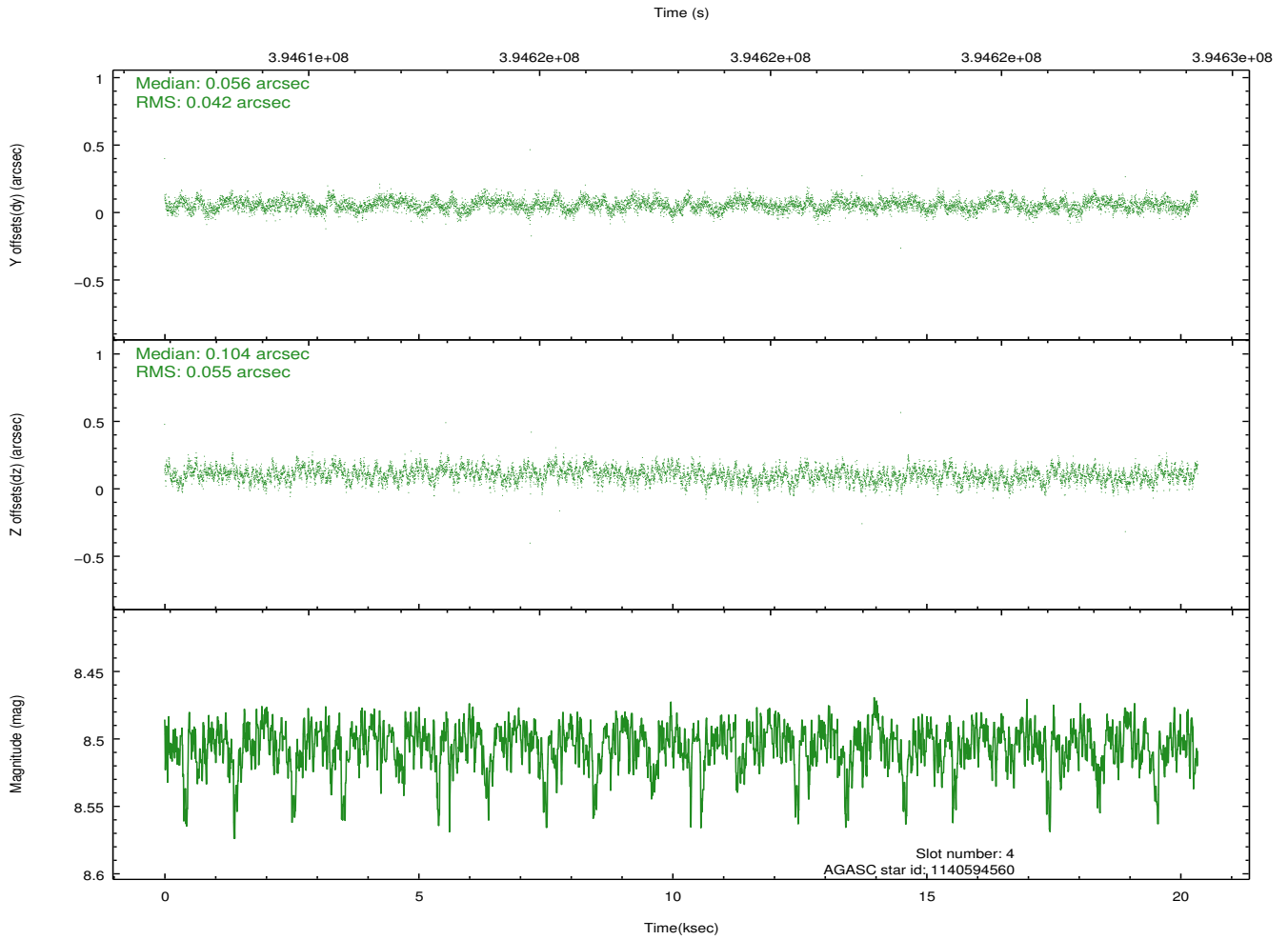
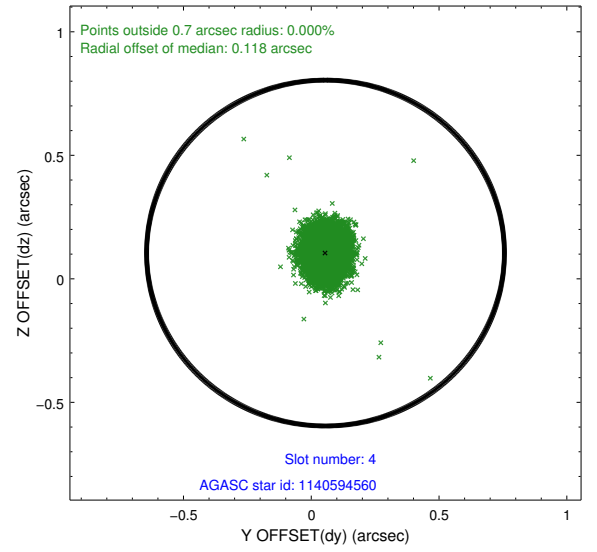
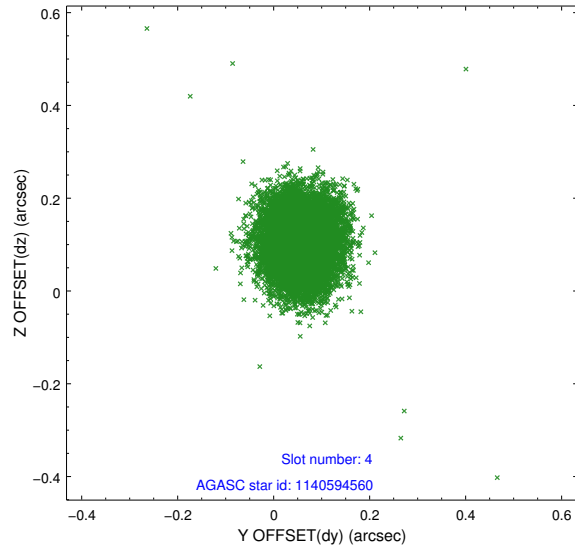
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.98	4961	0.117	0.135	0.008	0.014	0.000000	0.000000	929.27	-1896.32
1	FID	ACIS-S-2	6.90	4960	-0.198	-0.090	0.009	0.017	0.000000	0.000000	-766.85	-1901.31
2	FID	ACIS-S-6	7.20	4961	0.061	-0.041	0.009	0.020	0.000000	0.000000	394.79	644.61
3	GUIDE	1140593704	7.27	9920	0.046	-0.080	0.045	0.075	229.741417	-57.540991	1072.13	-1185.54
4	GUIDE	1140594560	8.50	9918	0.056	0.104	0.072	0.116	229.144979	-57.397081	212.90	-2114.54
5	GUIDE	1140722888	8.11	9917	0.004	-0.132	0.081	0.126	230.457489	-57.599243	1723.77	51.30
6	GUIDE	1140726312	8.90	9898	-0.117	0.033	0.084	0.132	231.010622	-56.676215	-1040.65	2187.88
7	GUIDE	1140722800	9.16	9915	0.010	0.075	0.103	0.169	231.057080	-56.699276	-931.68	2246.75

2.4 Star Slots

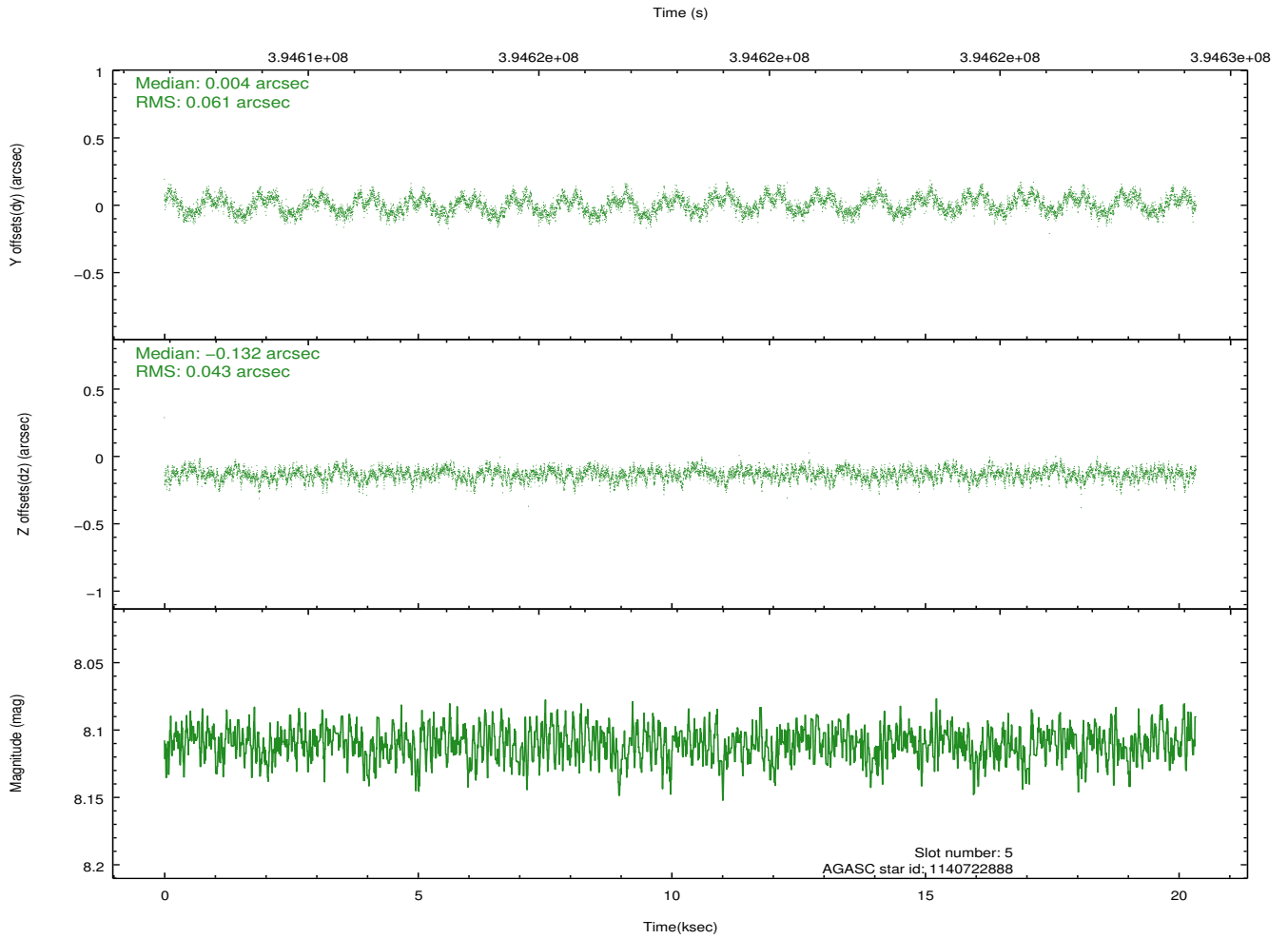
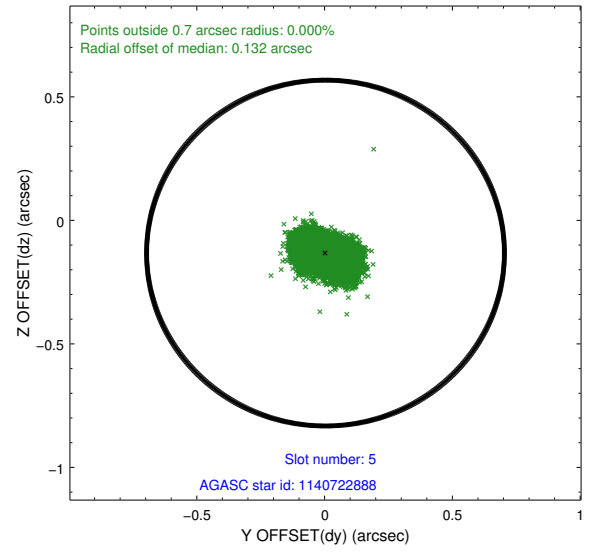
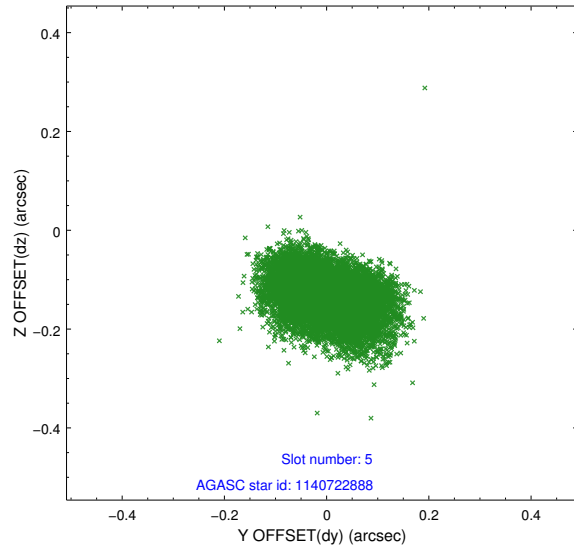
2.4.1 Slot 3



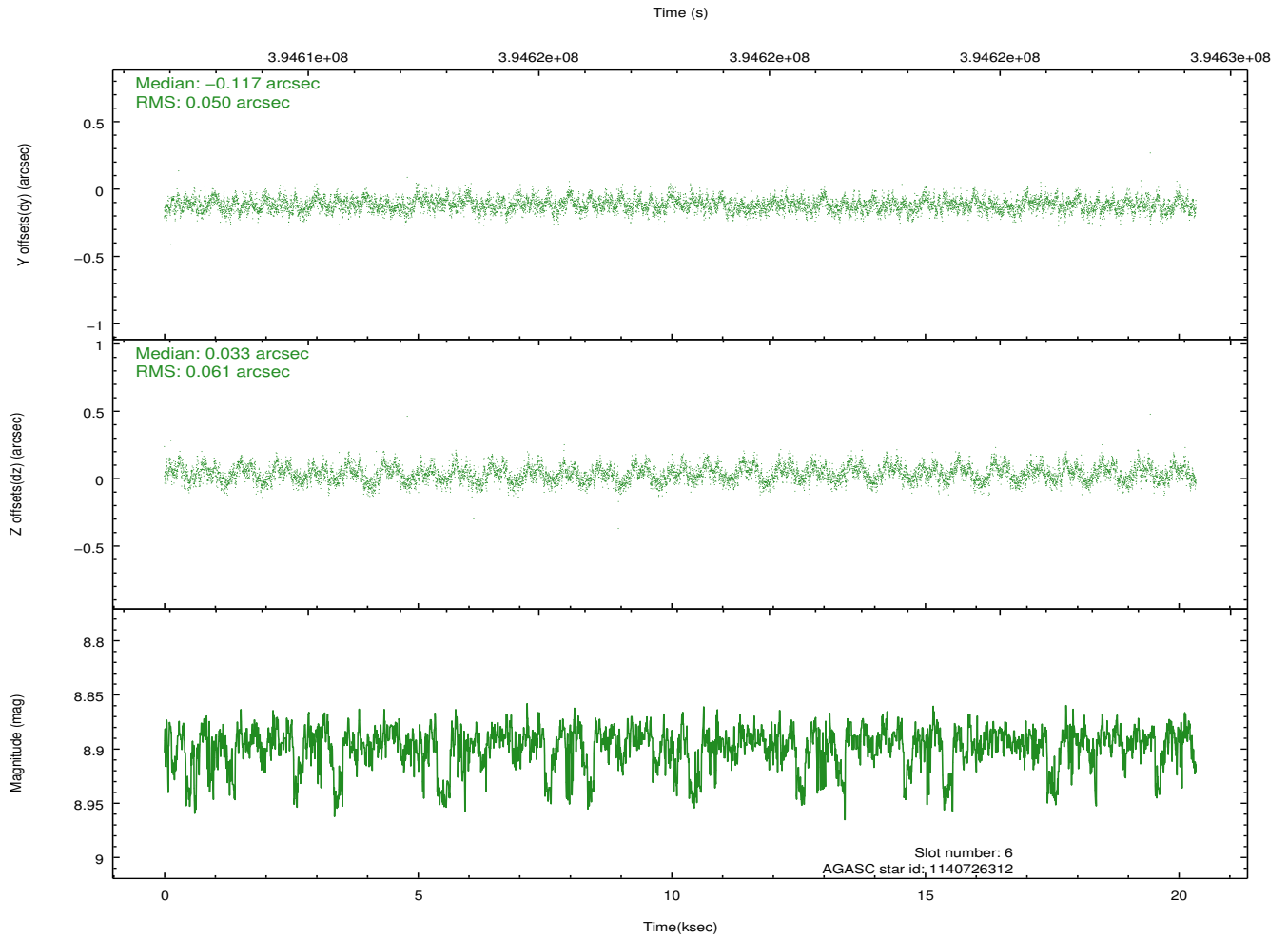
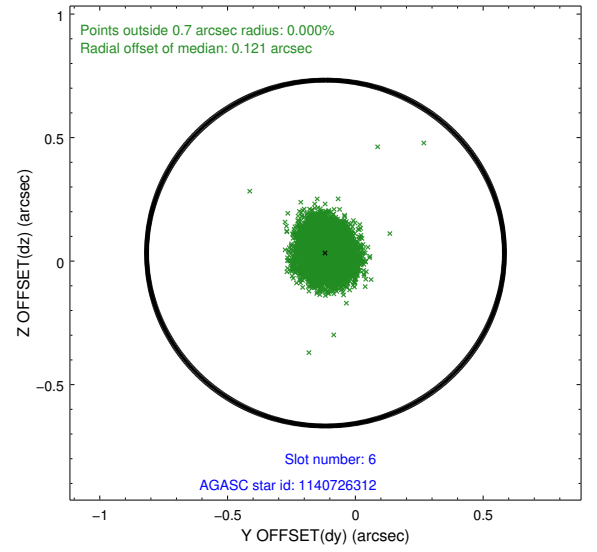
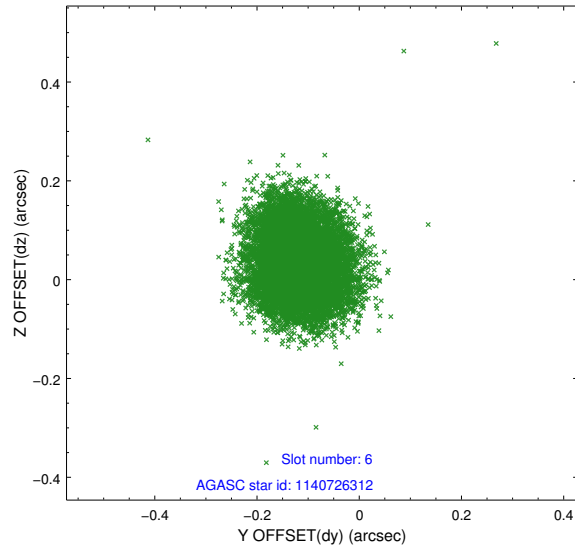
2.4.2 Slot 4



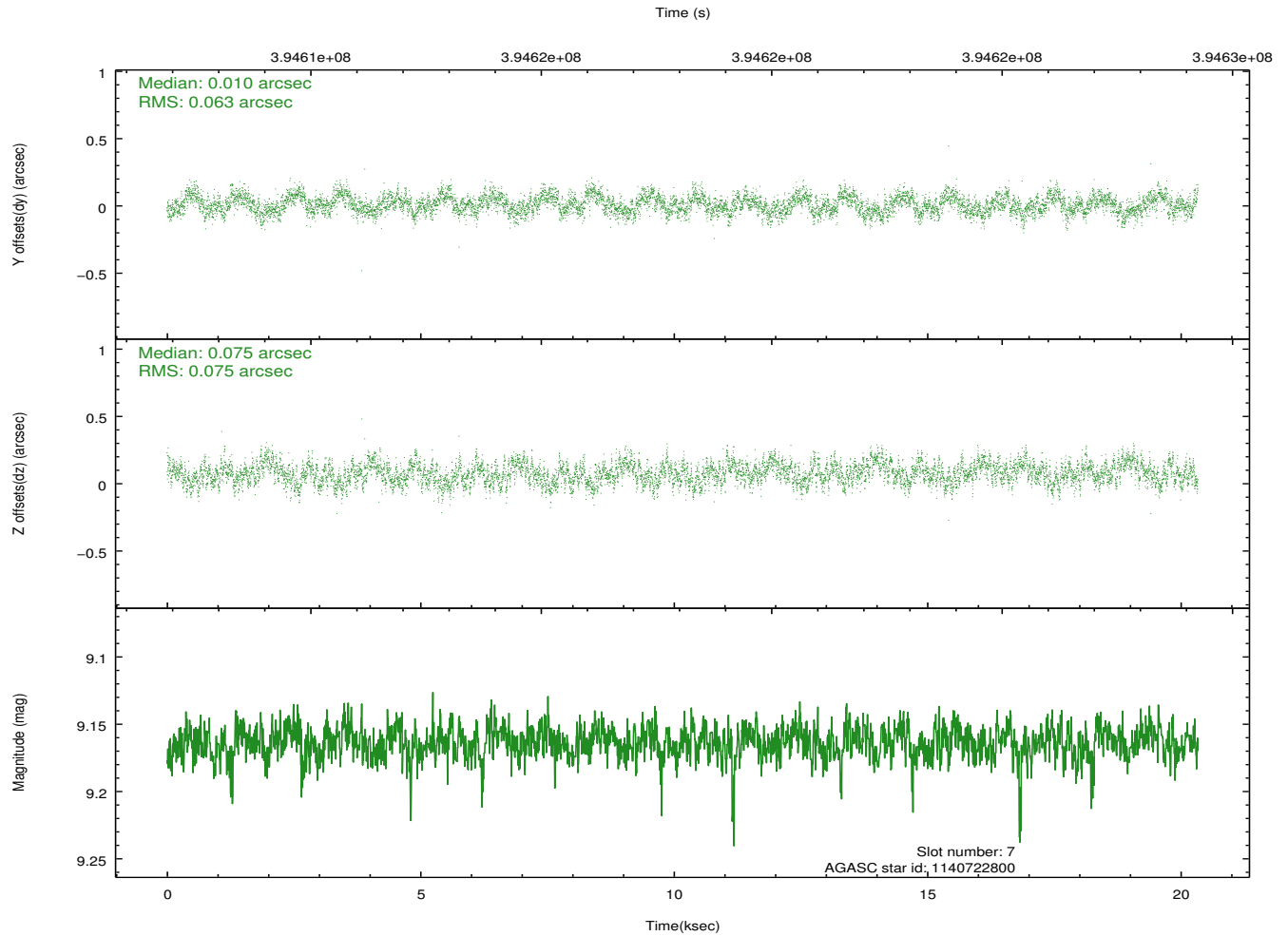
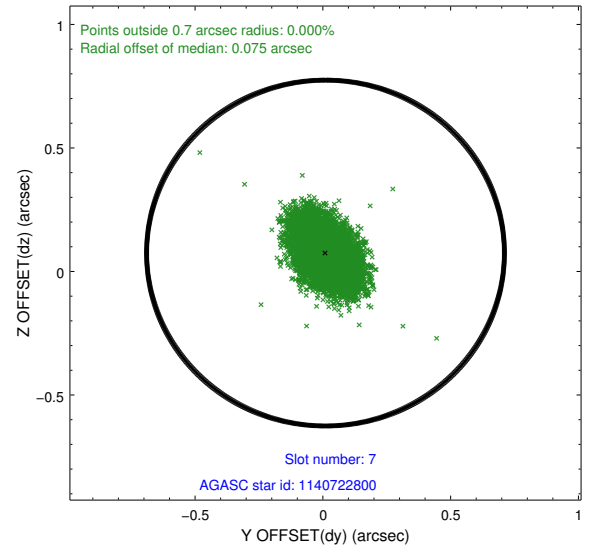
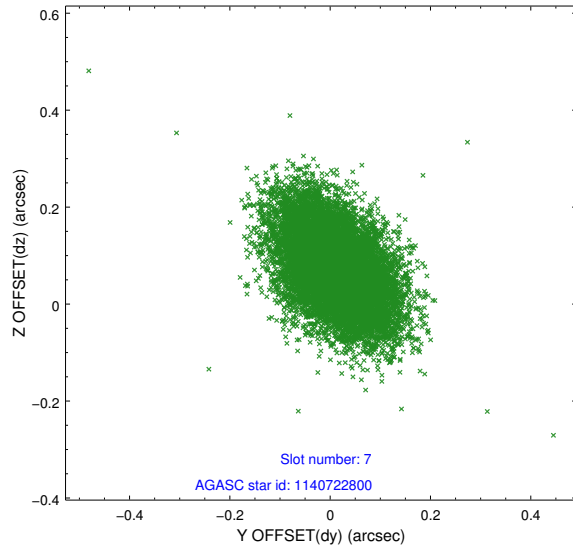
2.4.3 Slot 5



2.4.4 Slot 6

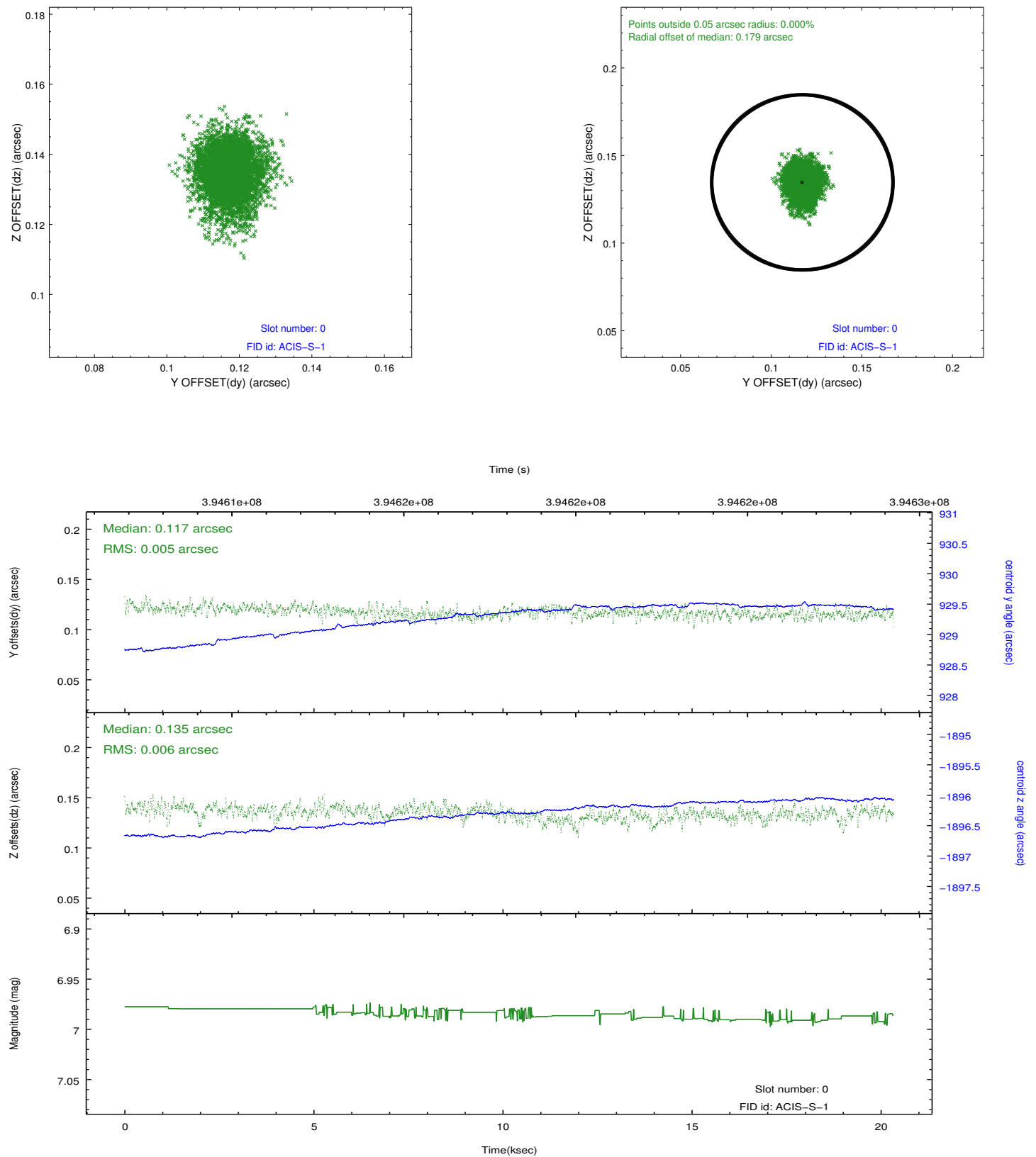


2.4.5 Slot 7

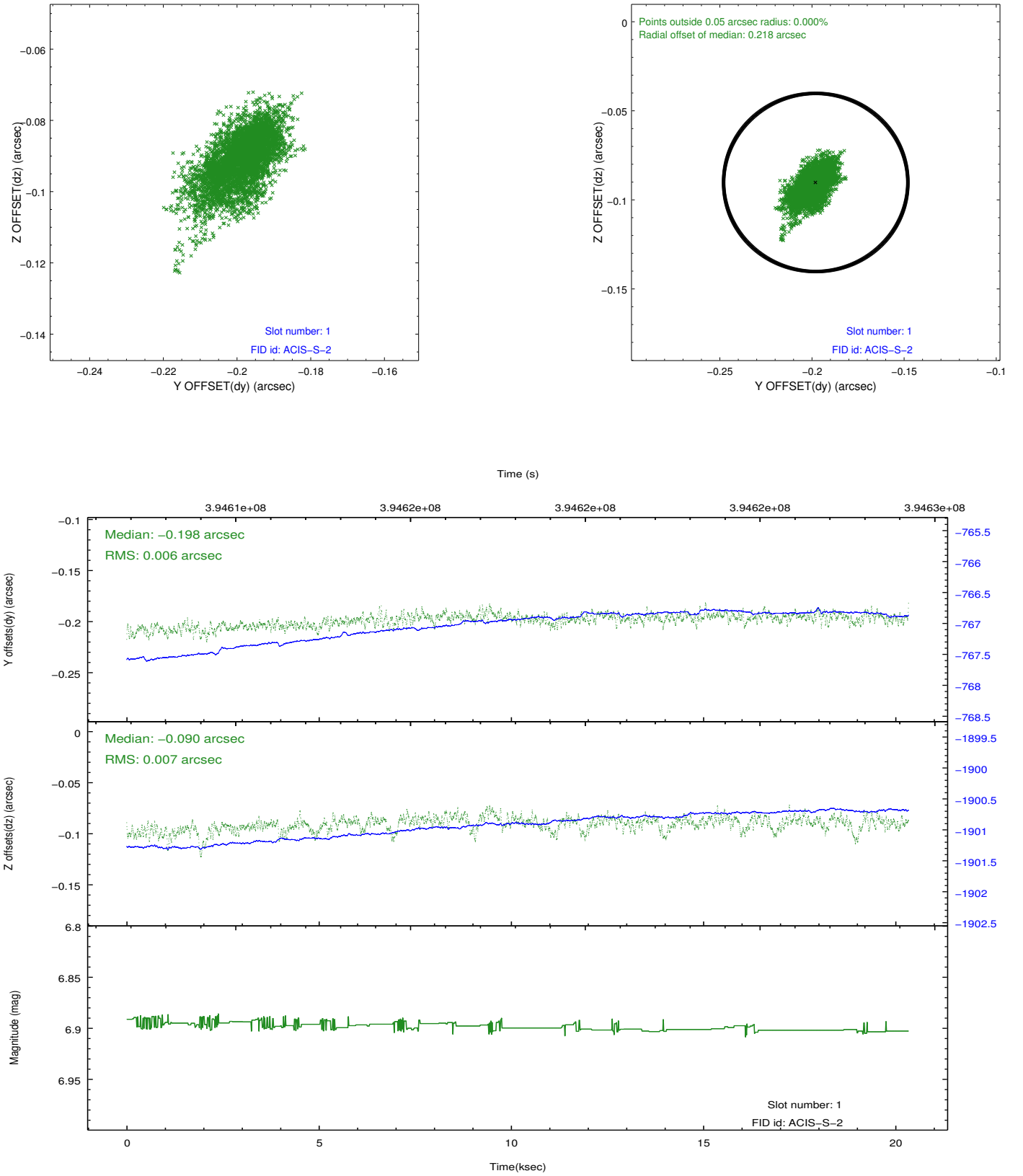


2.5 FID Slots

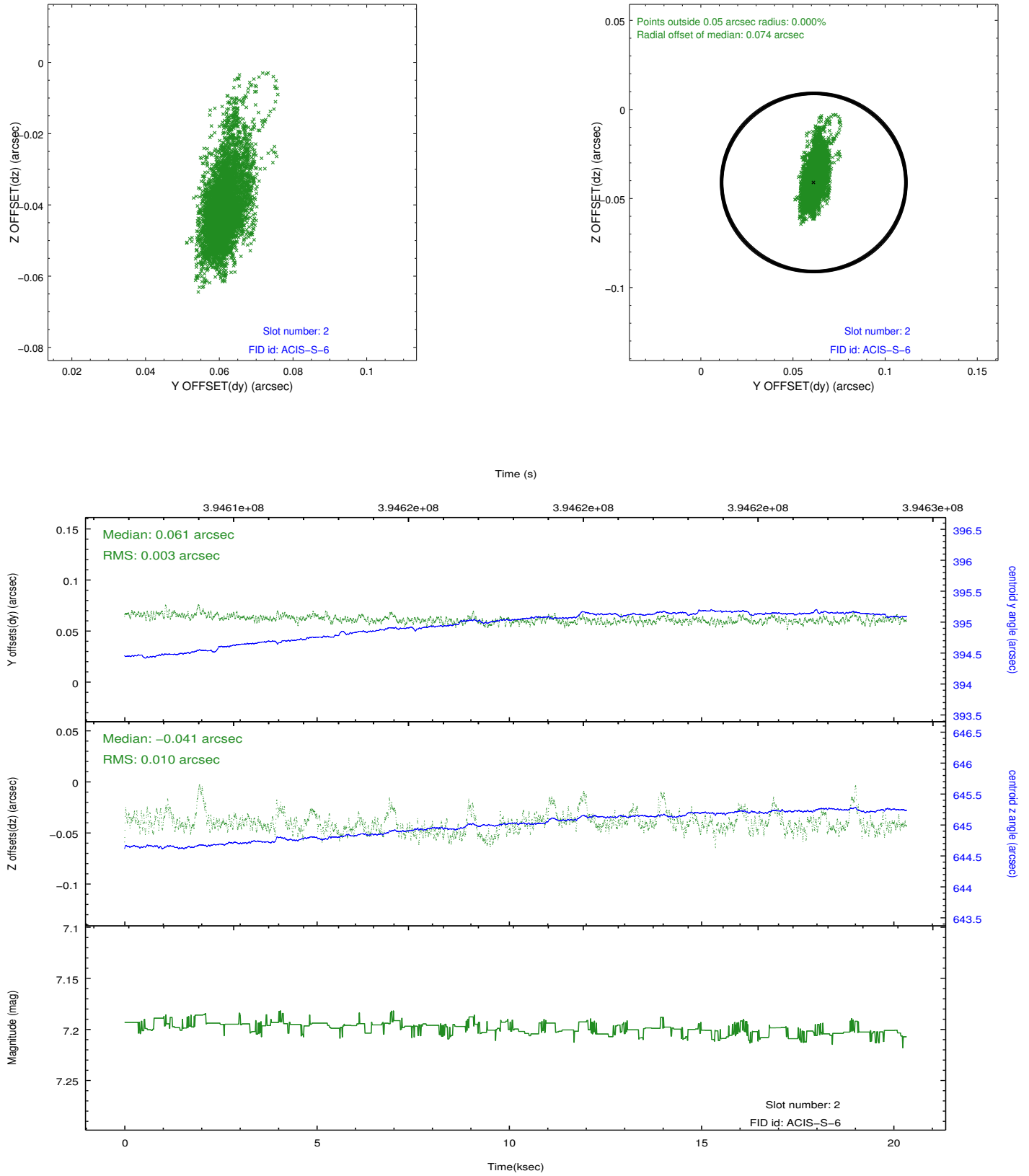
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

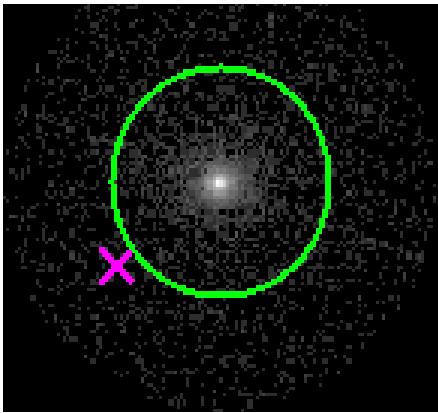


3 Gratings

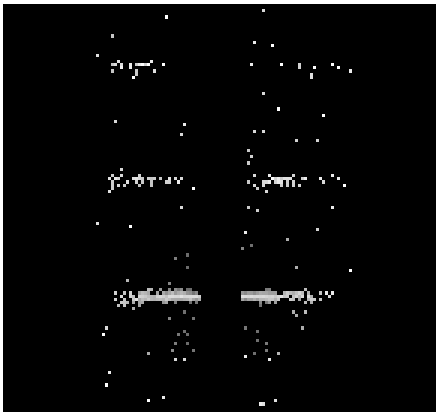
3.1 HEG Arm



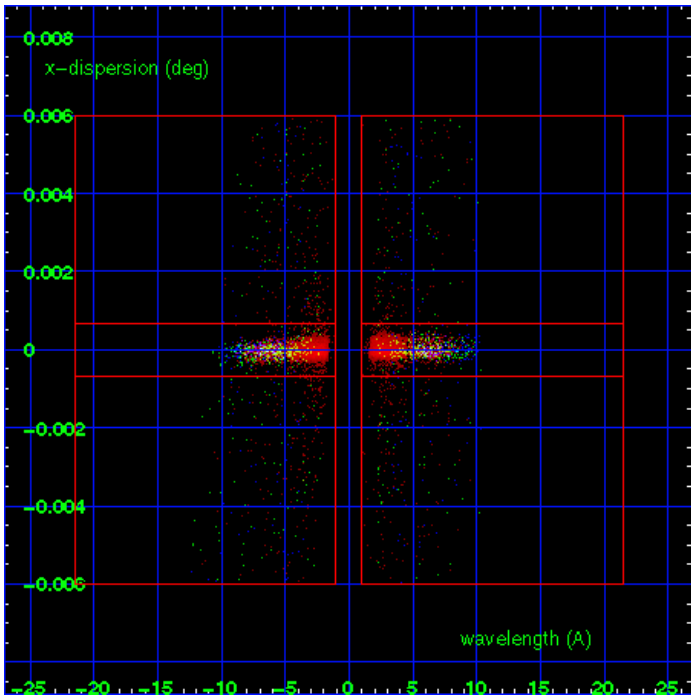
HEG Order Sort 123



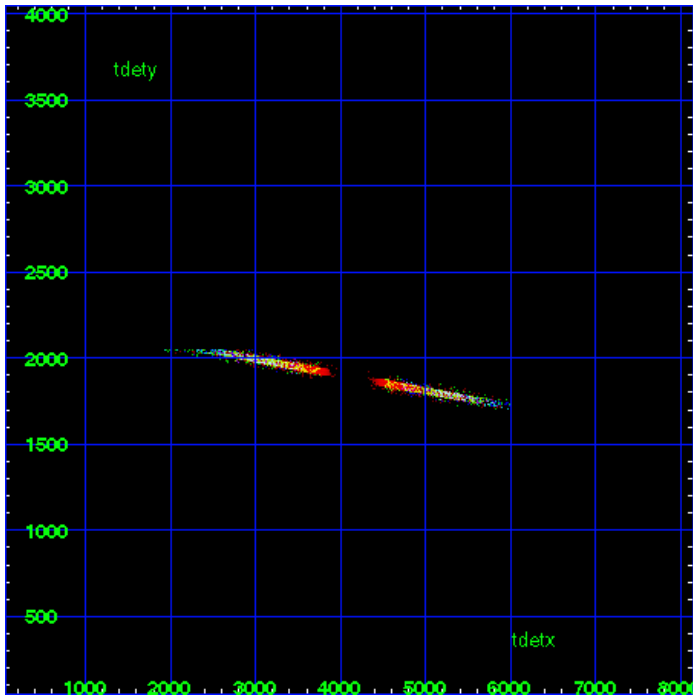
HEG Zero Order



HEG Order Sort ALL

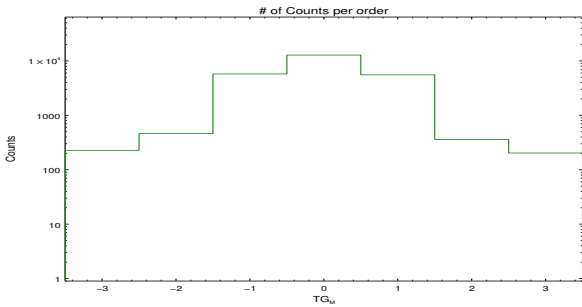


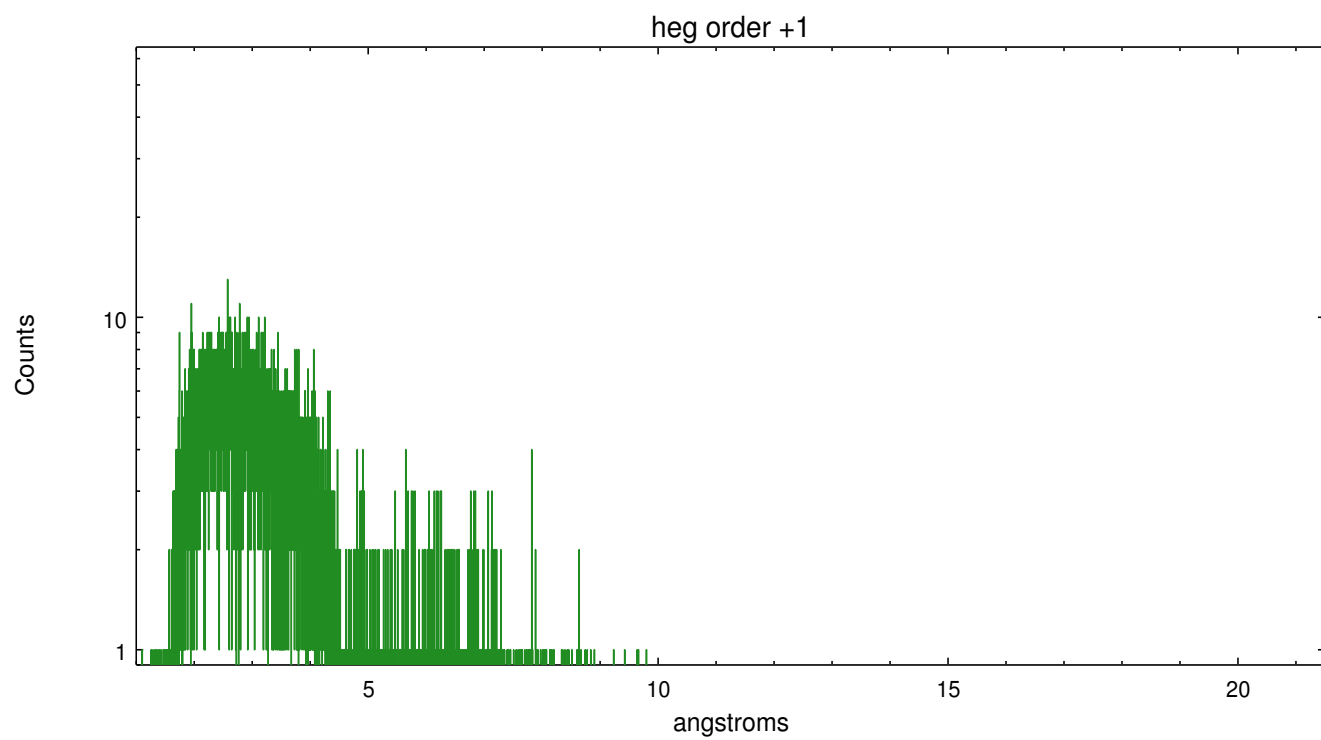
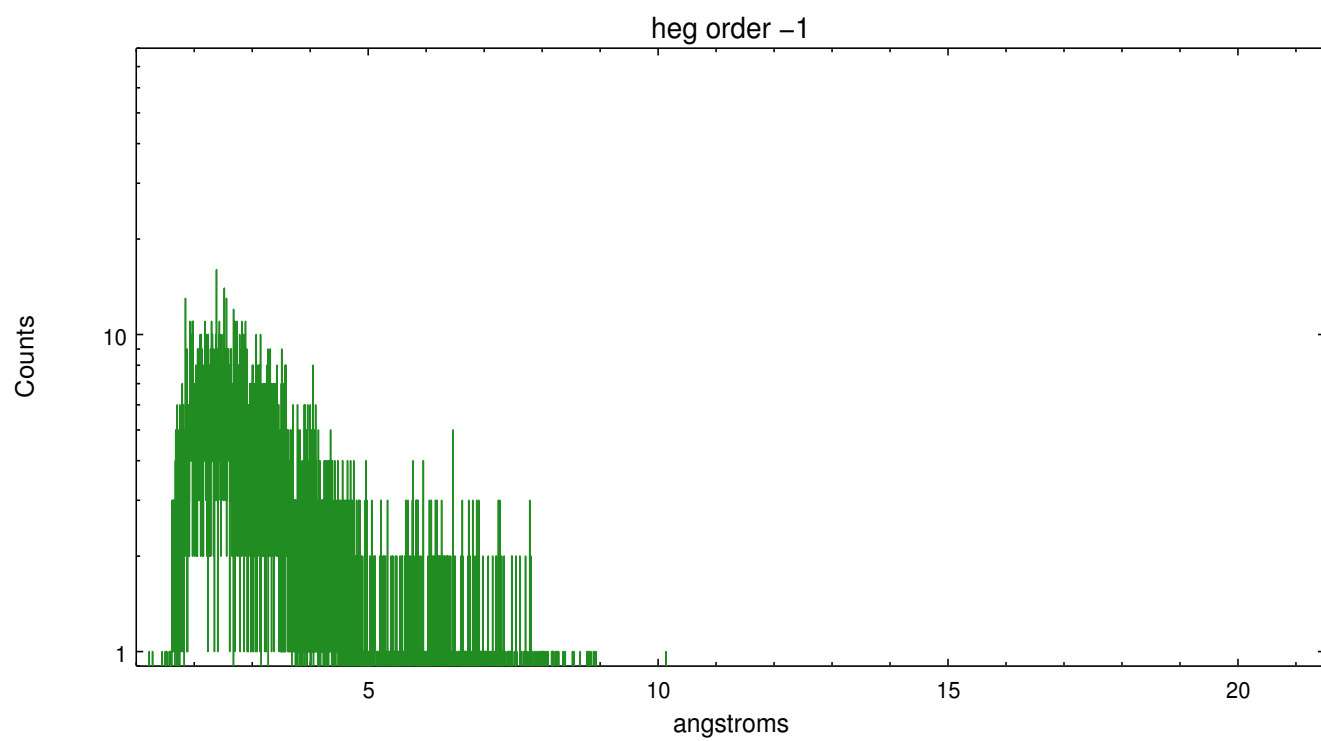
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	227	462	5758	12798	5546	360	203

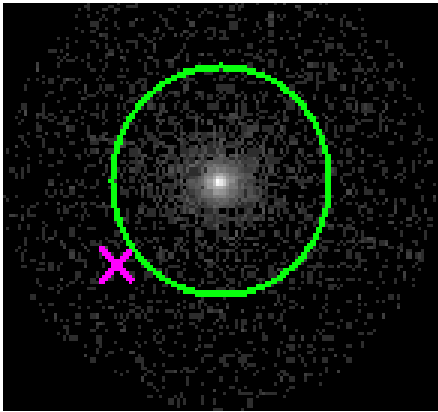




3.2 MEG Arm



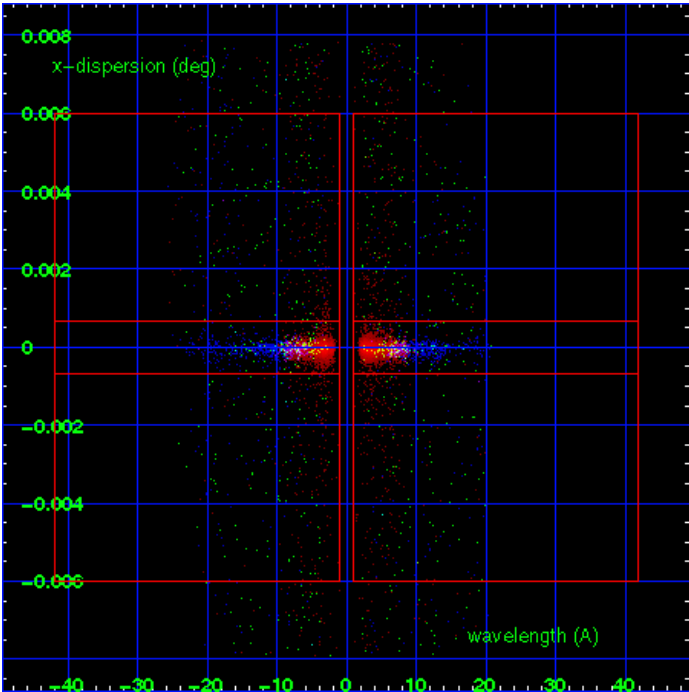
MEG Order Sort 123



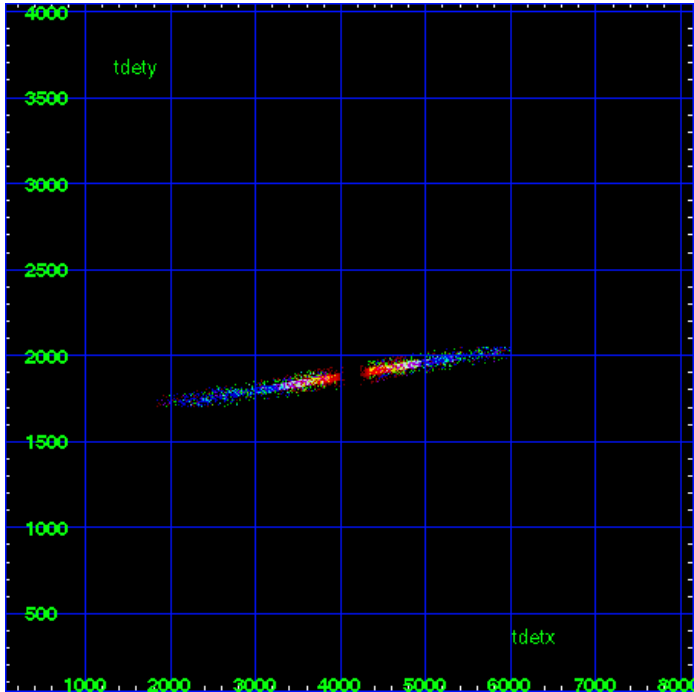
MEG Zero Order



MEG Order Sort ALL

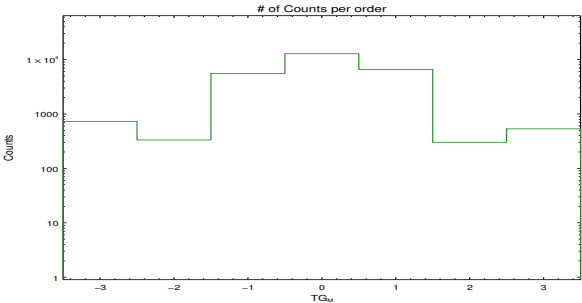


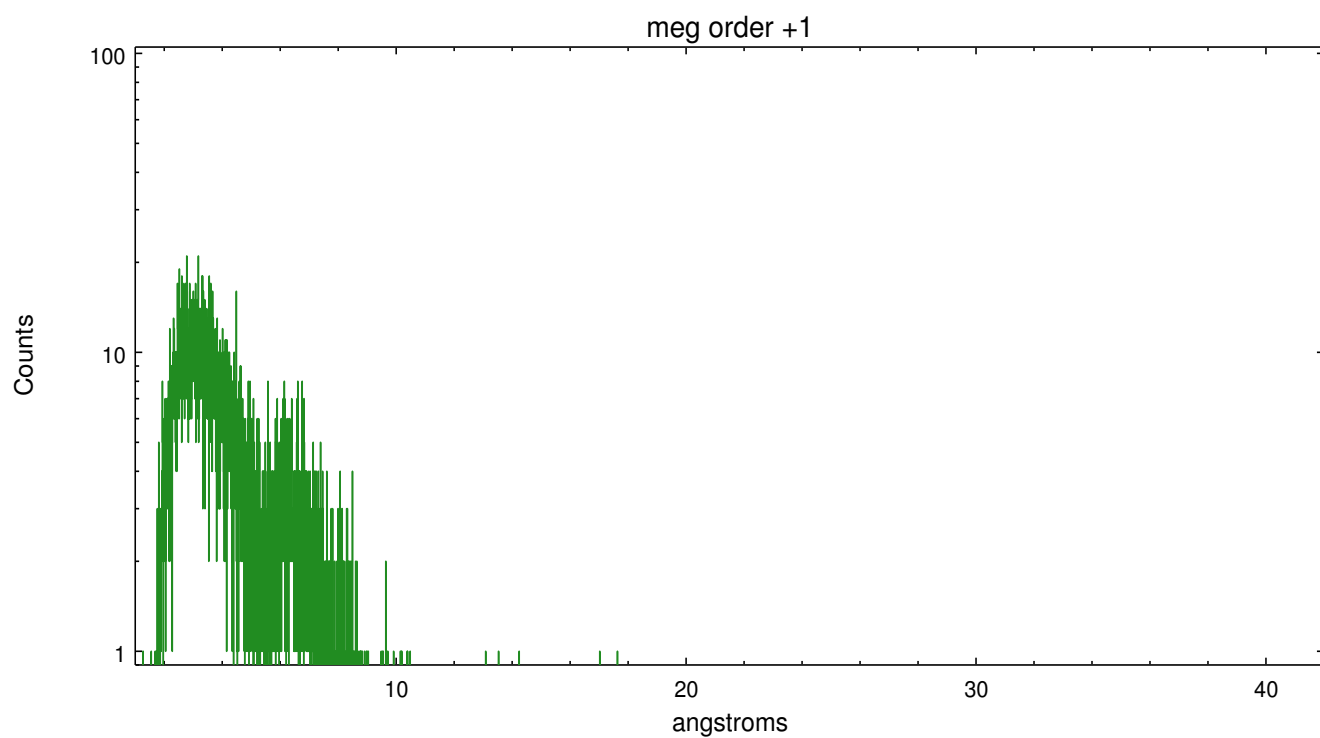
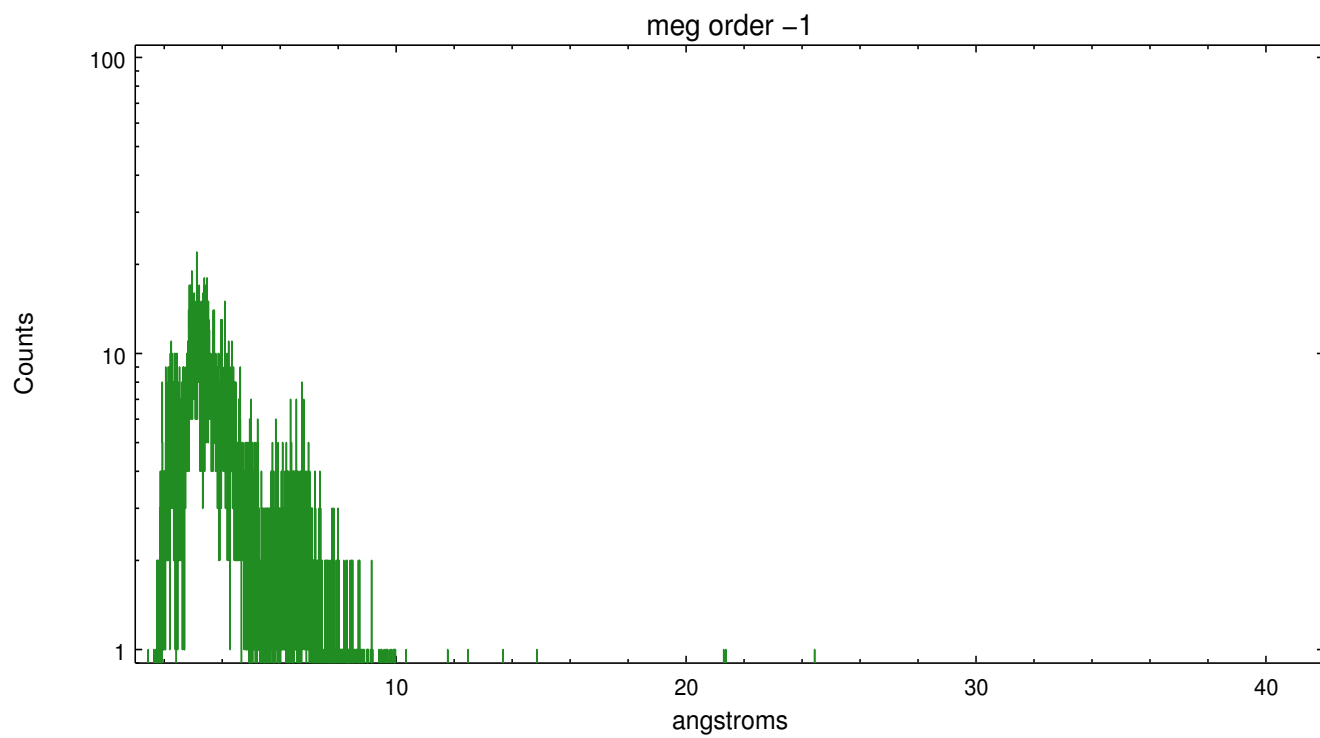
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	731	333	5559	12798	6577	302	533





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.07.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.079599800587

A.2 Comments