

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 14441 - L2 Version 1
Chandra X-Ray Center

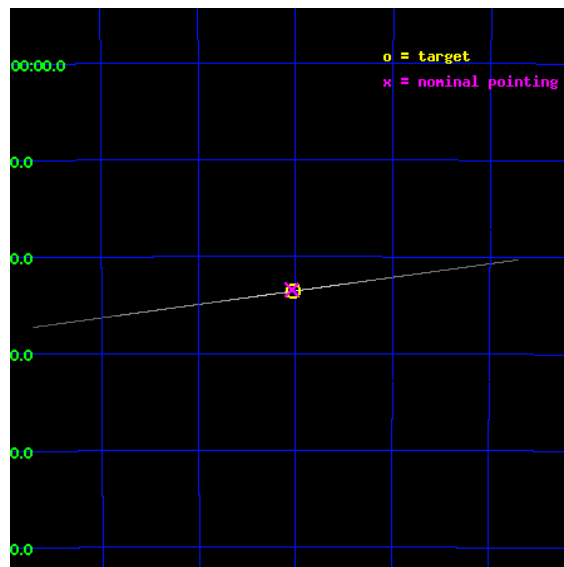
L2 Processing Date : Jun 7 2012

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1 Front

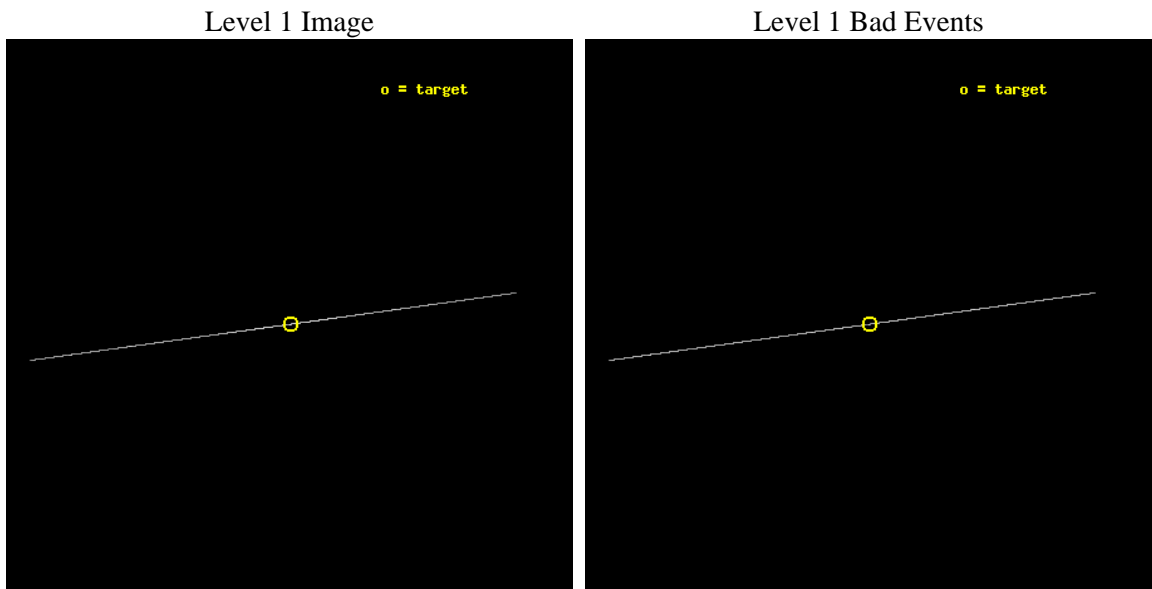
seq_num	401434	Sequence number
obs_id	14441	Observation id
title	An HETGS Observation of Extreme Activity in 4U 1630-47	Proposal ti
observer	Dr Joseph Neilsen	Principal investigator
object	4U 1630-47	Source name
ra_targ	248.506667	Observer's specified target RA [deg]
dec_targ	-47.393	Observer's specified target Dec [deg]
ra_nom	248.50953806944	Nominal RA [deg]
dec_nom	-47.390677271844	Nominal Dec [deg]
roll_nom	352.1389219297	Nominal Roll [deg]
revision	1	Processing version of data
ontime	19073.25	Sum of GTIs [s]
livetime	18998.745117188	Livetime [s]
ontime4	19068.875957847	Sum of GTIs [s]
ontime5	19073.25	Sum of GTIs [s]
ontime6	19073.25	Sum of GTIs [s]
ontime7	19073.25	Sum of GTIs [s]
ontime8	19073.25	Sum of GTIs [s]
ontime9	19073.25	Sum of GTIs [s]
l2events	1360877	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	19073.25	Sum of GTIs [s]
caldbver	4.4.10	 	ontime4	19068.875957847	Sum of GTIs [s]
date	2012-06-06T14:54:28	Date and time of file creation	ontime5	19073.25	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	19073.25	Sum of GTIs [s]
			ontime7	19073.25	Sum of GTIs [s]
			ontime8	19073.25	Sum of GTIs [s]
			ontime9	19073.25	Sum of GTIs [s]
			l1events	2750459	Number of level 1 events

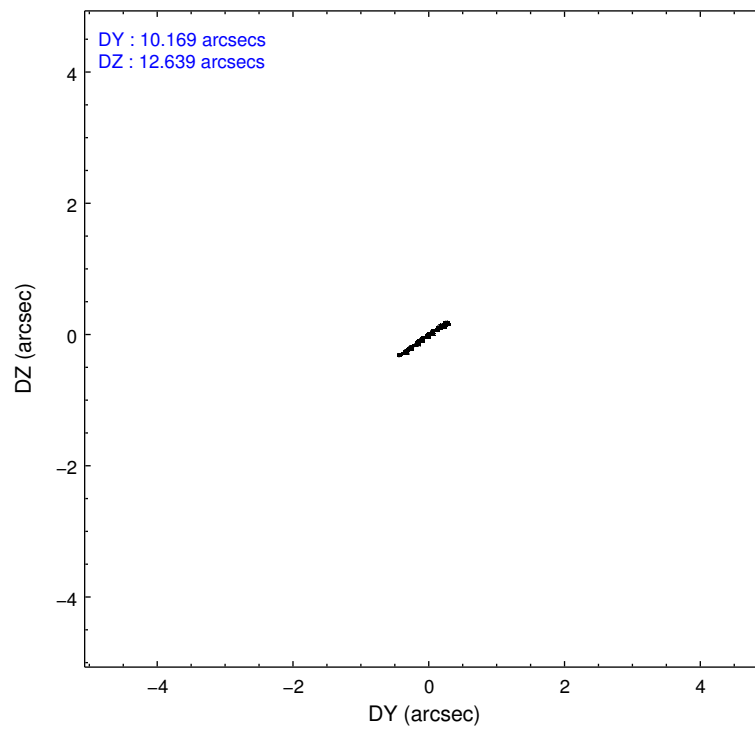
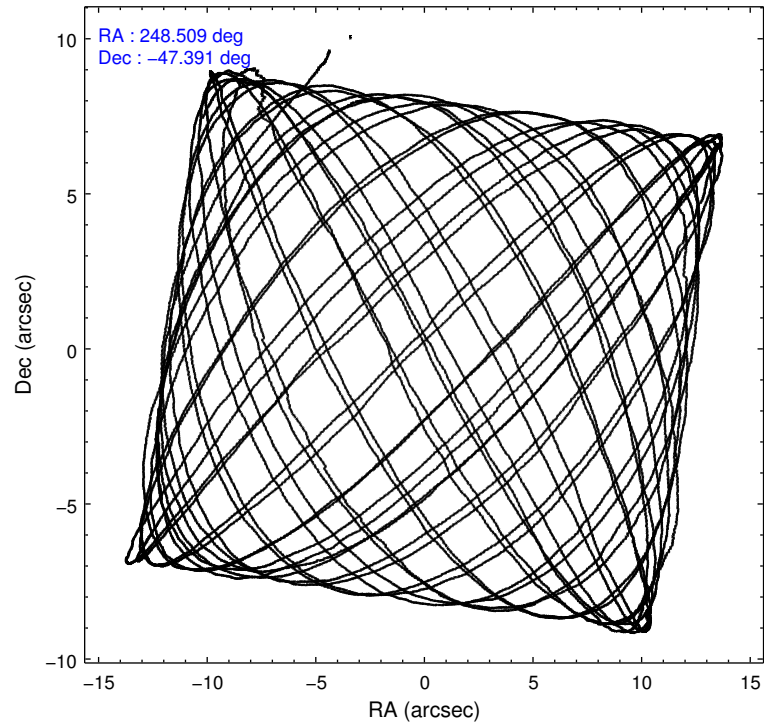
2.1.3 Events

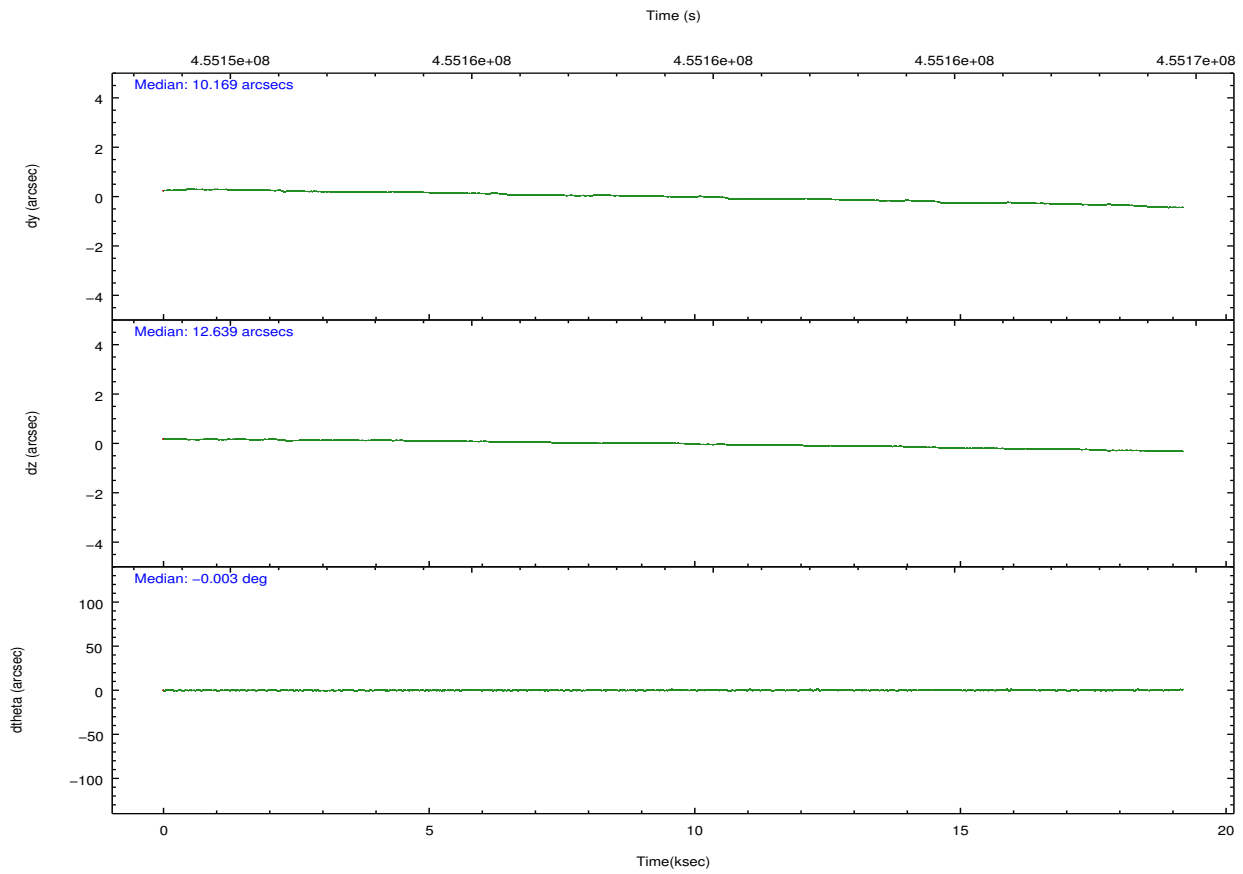
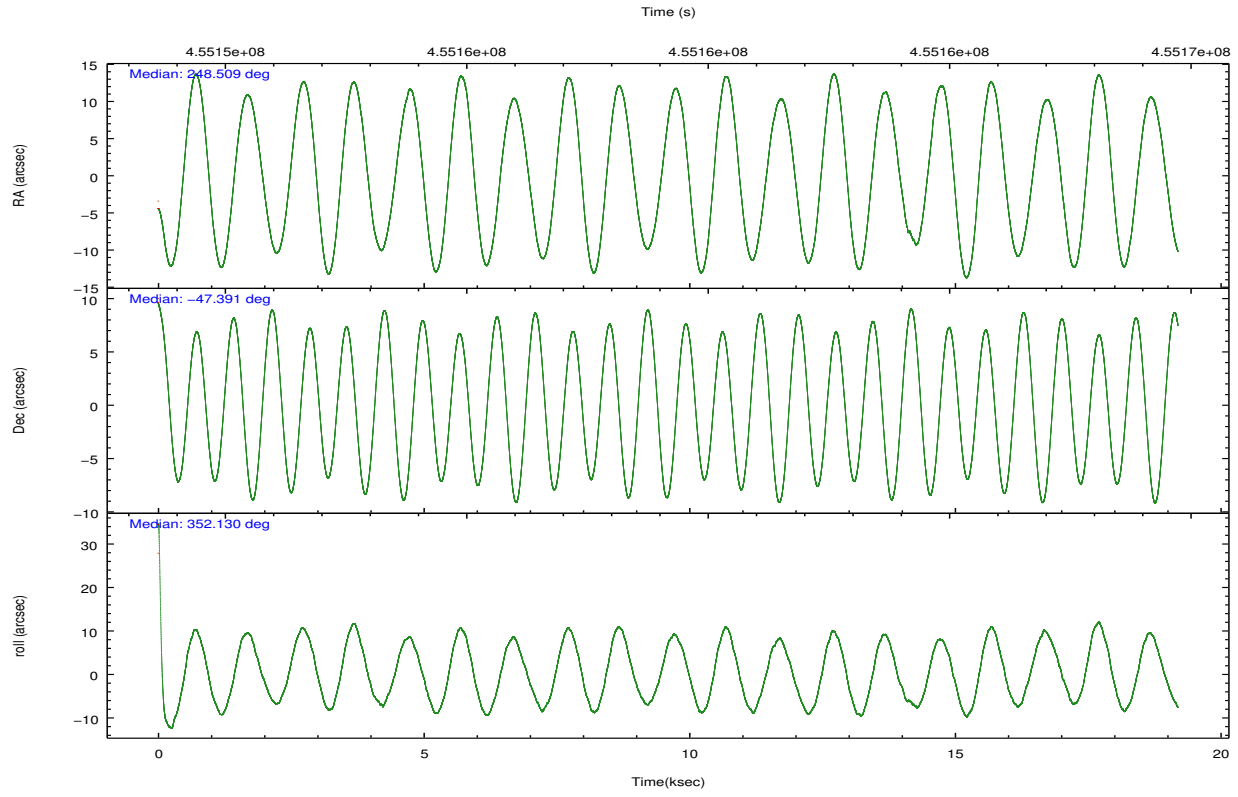
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	212838	313913	660021	968304	375471	219912	grade 0 events	3308	37855	14517	70785	27542	5881
rejected events	185838	159785	220267	242740	259739	185682		1%	12%	2%	7%	7%	2%
rejected %	87%	50%	33%	25%	69%	84%	grade 1 events	79	189	155	1096	230	105
								0%	0%	0%	0%	0%	0%
							grade 2 events	12701	47784	351892	257444	55157	15865
								5%	15%	53%	26%	14%	7%
							grade 3 events	2785	2211	3406	41138	6293	2642
								1%	0%	0%	4%	1%	1%
							grade 4 events	2687	2098	3201	41022	6112	2839
								1%	0%	0%	4%	1%	1%
							grade 5 events	4914	10033	7271	21139	8319	5725
								2%	3%	1%	2%	2%	2%
							grade 6 events	5522	64211	66815	315308	20663	7006
								2%	20%	10%	32%	5%	3%
							grade 7 events	180842	149532	212764	220372	251155	179849
								84%	47%	32%	22%	66%	81%

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_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	248.472352	248.5095380694373	Subarray requested	NONE	NONE
[deg] Pointing Dec	-47.401346	-47.39067727184415	Alternating exposures requested	N	N
[deg] Pointing Roll	351.954893	352.1389219297008	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-183.992523	-183.985022191653			
[mm] SIM translation stage offset	-6.14	-6.147500391354811			
[s] Observation start time (MET)	455149756.184000	455149221.81423			
Observation start date	2012-06-03T22:28:10	2012-06-03T22:20:21			
[s] Observation end time (MET)	455168756.184000	455169753.59032			
Observation end date	2012-06-04T03:44:50	2012-06-04T04:02:33			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



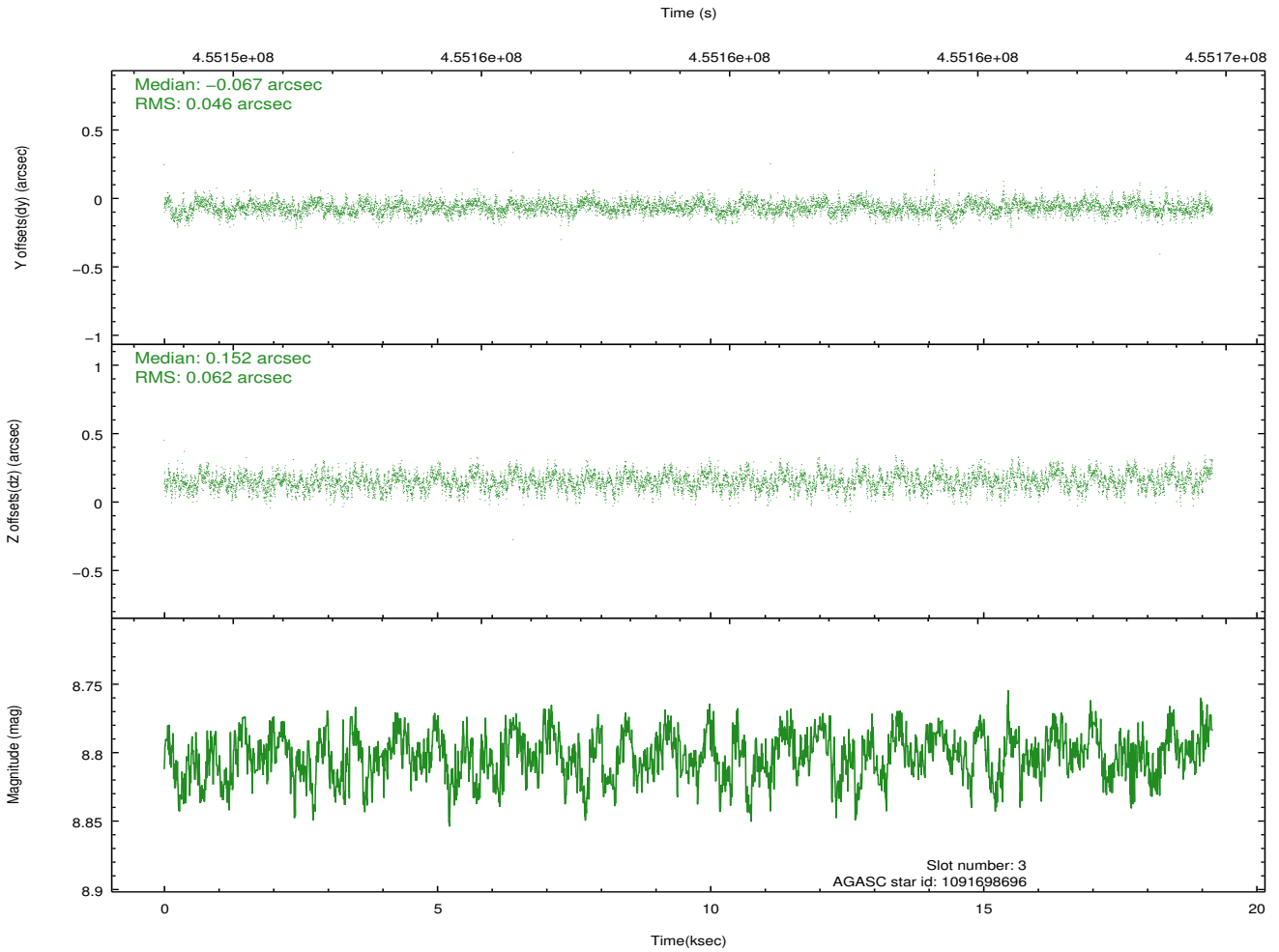
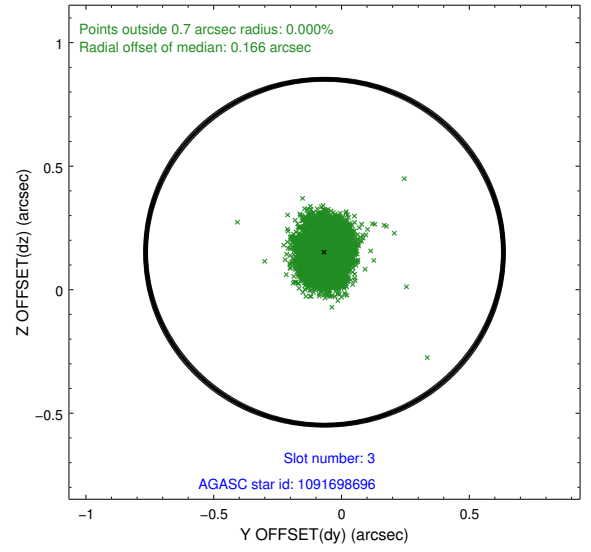
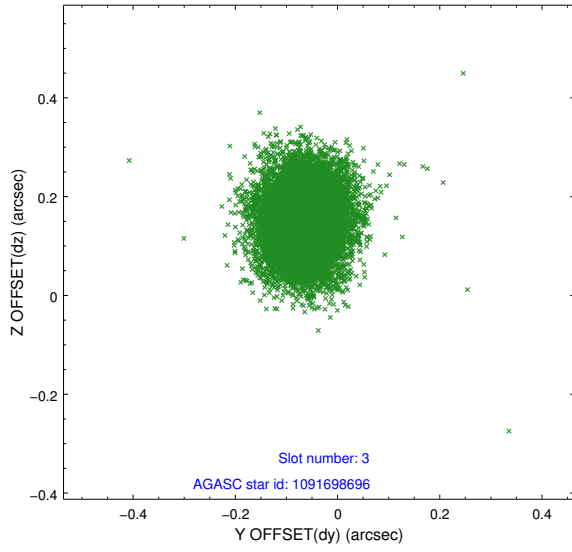


Slot Statistics

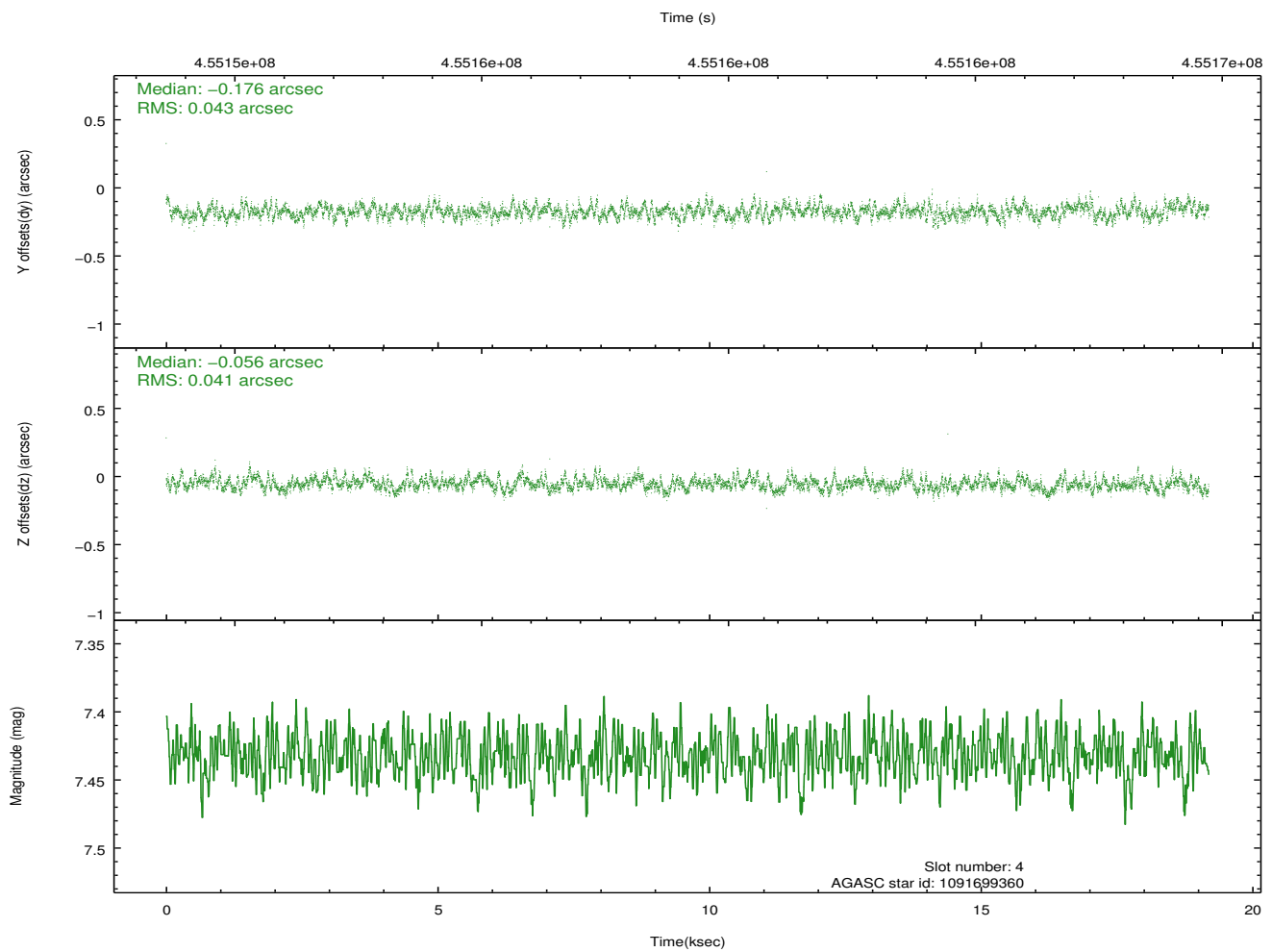
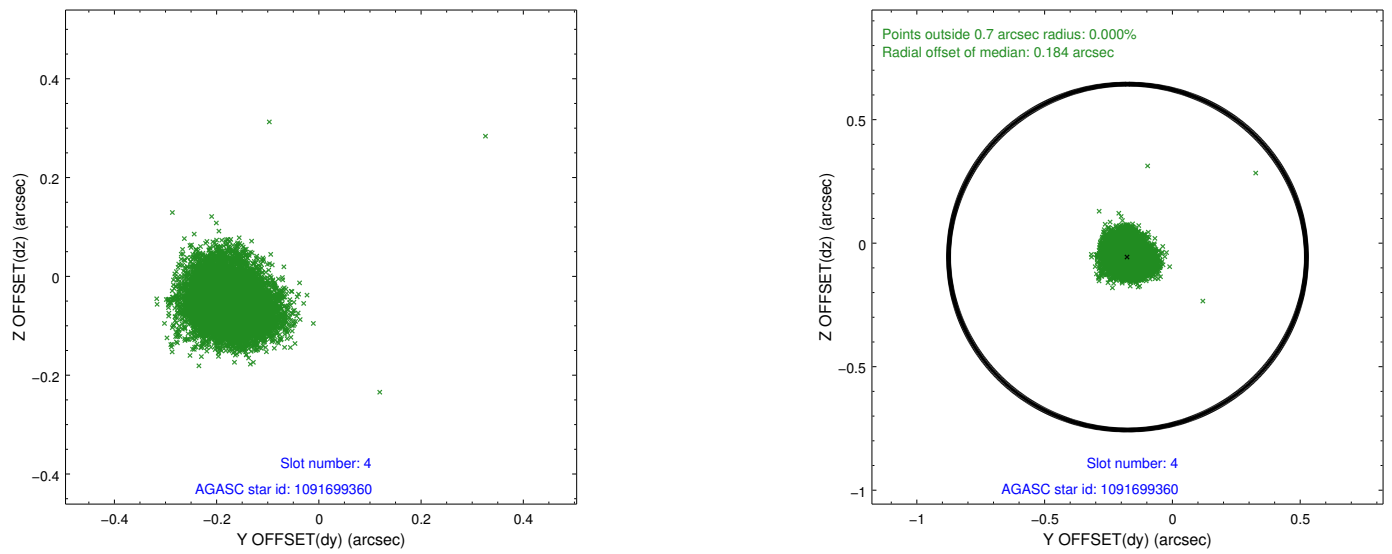
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.96	4682	-0.133	-0.119	0.010	0.017	0.000000	0.000000	-762.72	-1860.73
1	FID	ACIS-S-4	7.05	4682	0.308	0.096	0.009	0.016	0.000000	0.000000	2150.95	47.66
2	FID	ACIS-S-5	7.09	4682	-0.207	0.031	0.008	0.014	0.000000	0.000000	-1815.33	41.58
3	GUIDE	1091698696	8.80	9360	-0.067	0.152	0.082	0.131	248.529134	-48.079711	477.72	-2399.05
4	GUIDE	1091699360	7.43	9362	-0.176	-0.056	0.064	0.101	248.660725	-47.004364	258.09	1479.03
5	GUIDE	1091702440	8.75	9362	0.239	0.102	0.088	0.145	248.295809	-47.683380	-280.73	-1065.67
6	GUIDE	1091705224	9.20	9338	0.028	0.058	0.092	0.149	248.613211	-47.940846	608.86	-1875.93
7	GUIDE	1091709408	9.20	9350	-0.029	-0.254	0.090	0.151	249.304466	-47.312562	1968.18	589.90

2.4 Star Slots

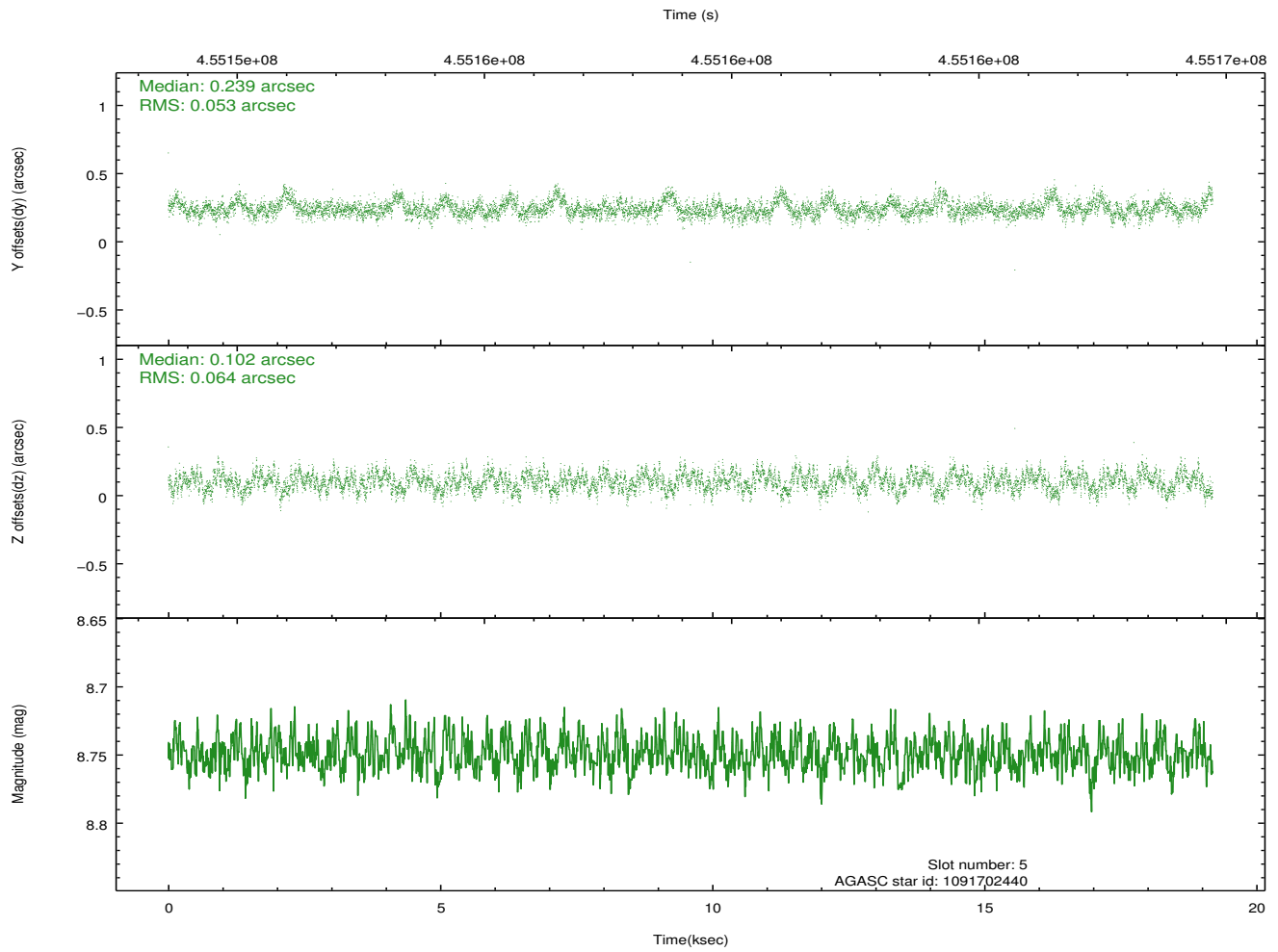
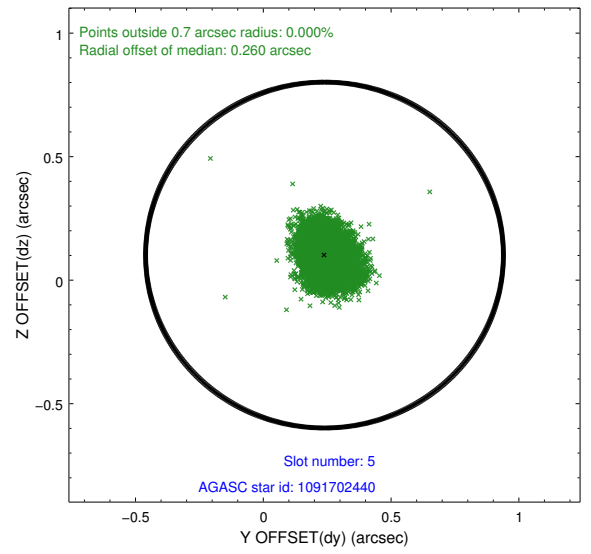
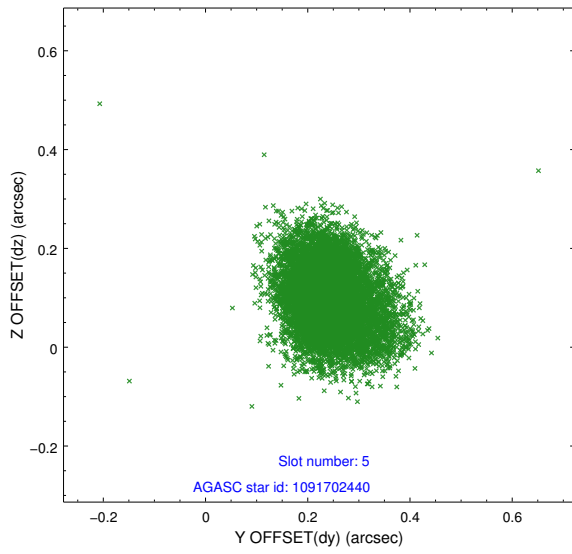
2.4.1 Slot 3



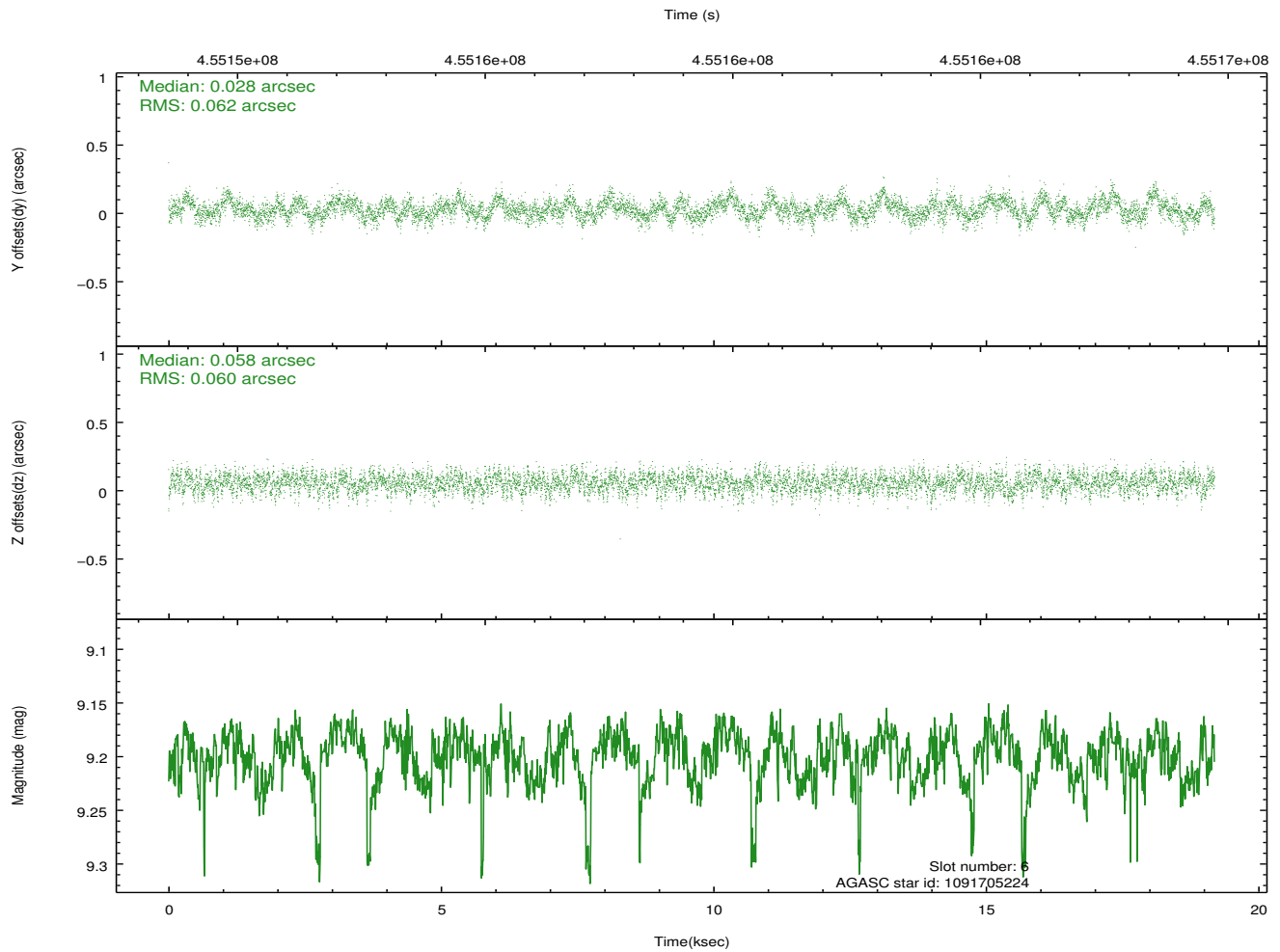
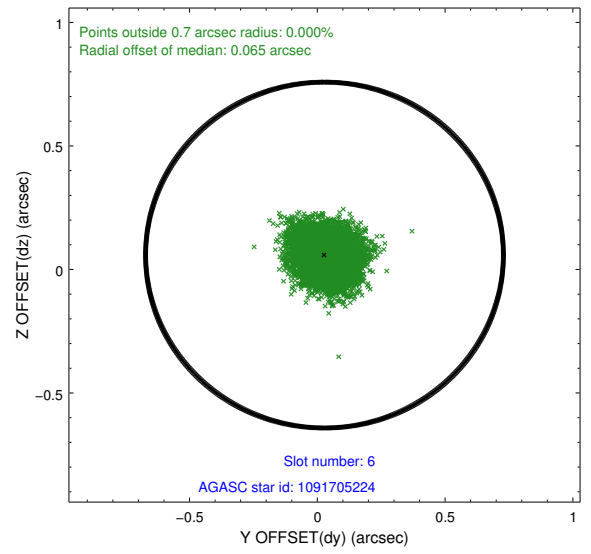
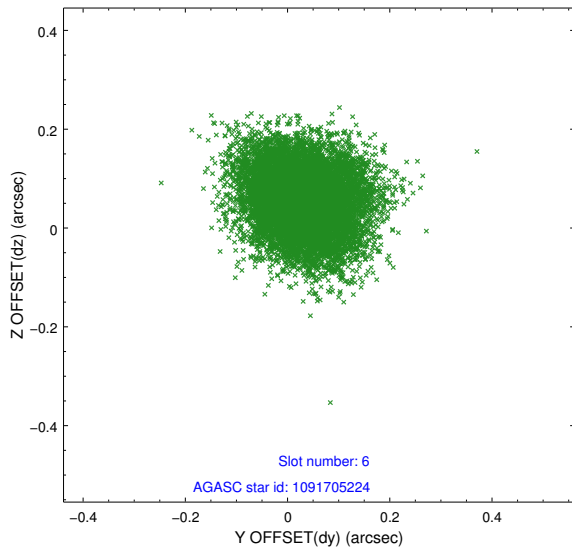
2.4.2 Slot 4



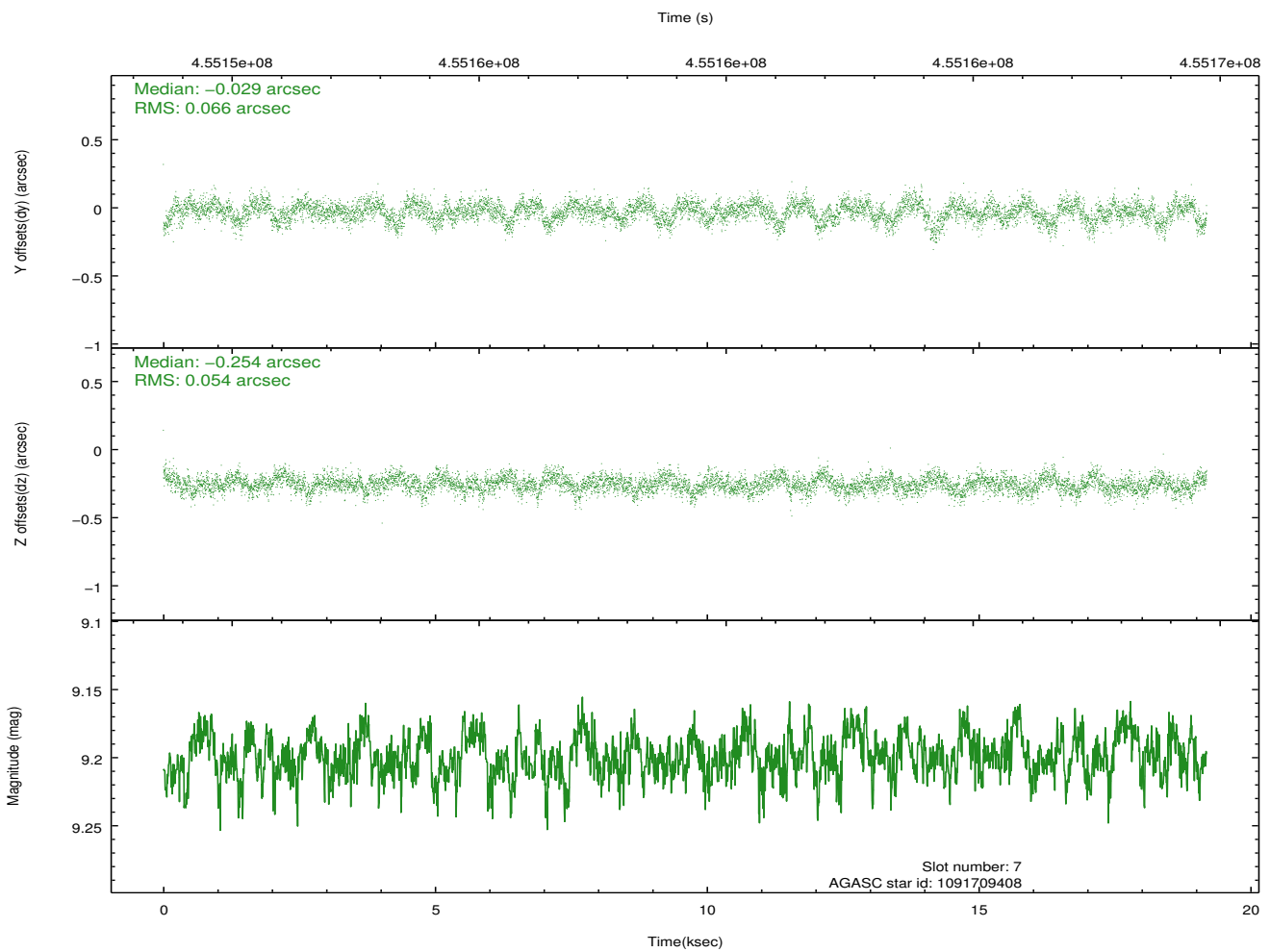
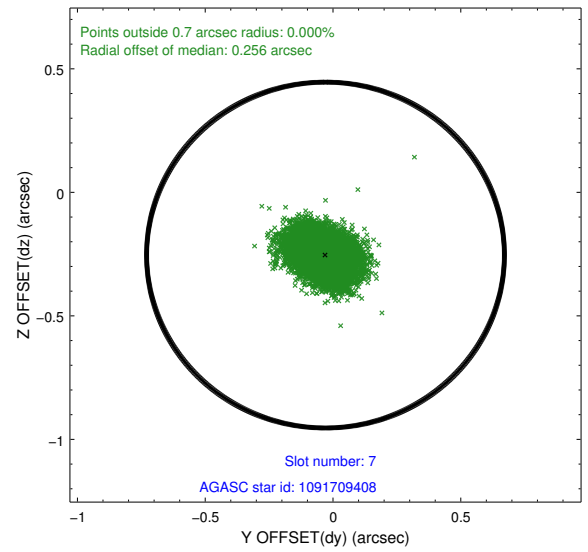
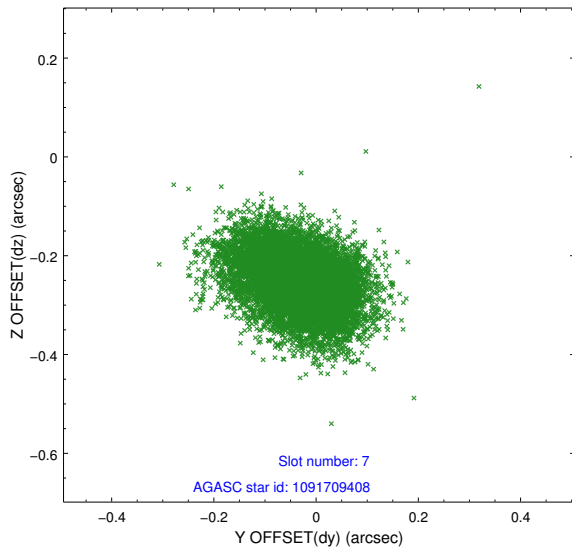
2.4.3 Slot 5



2.4.4 Slot 6

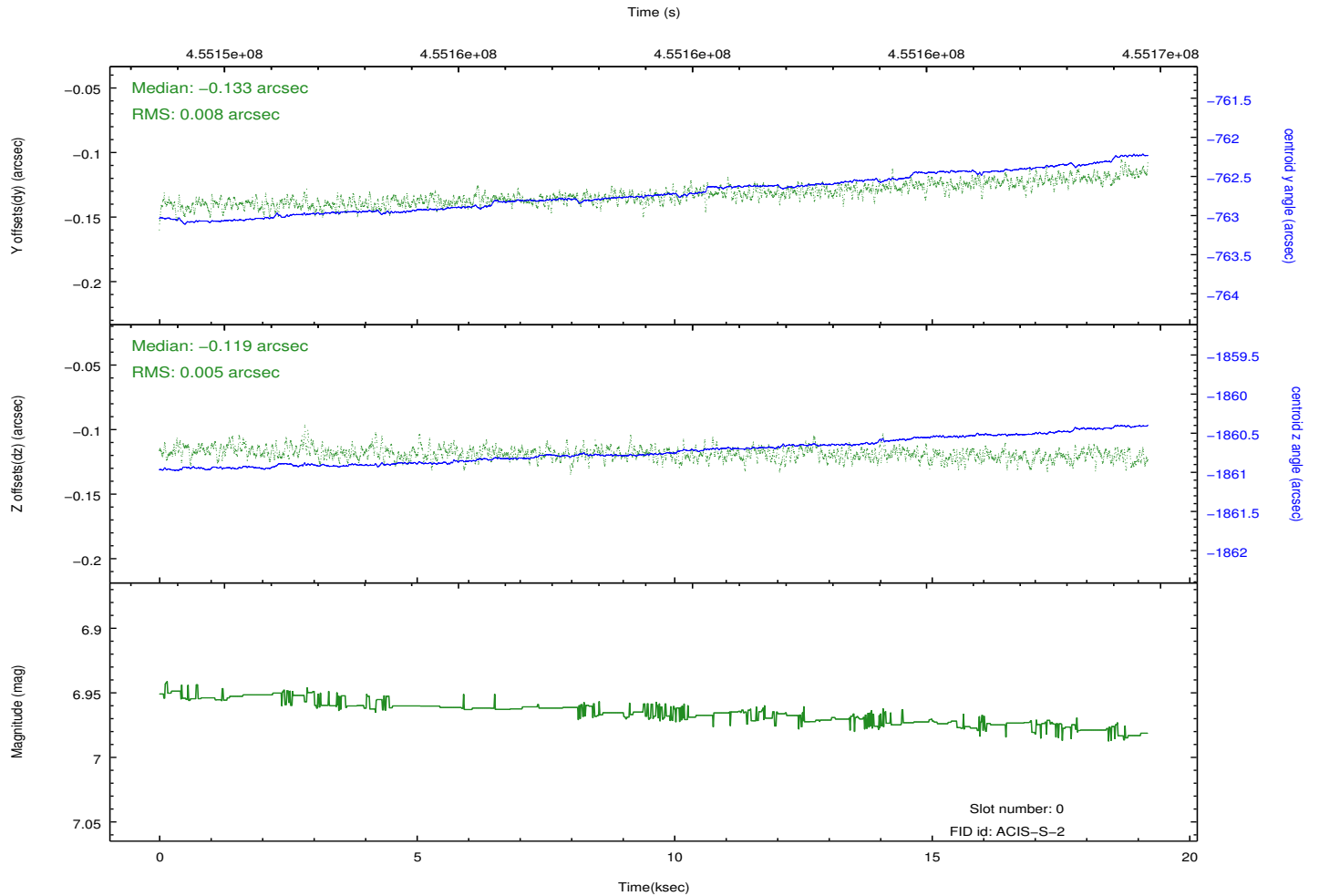
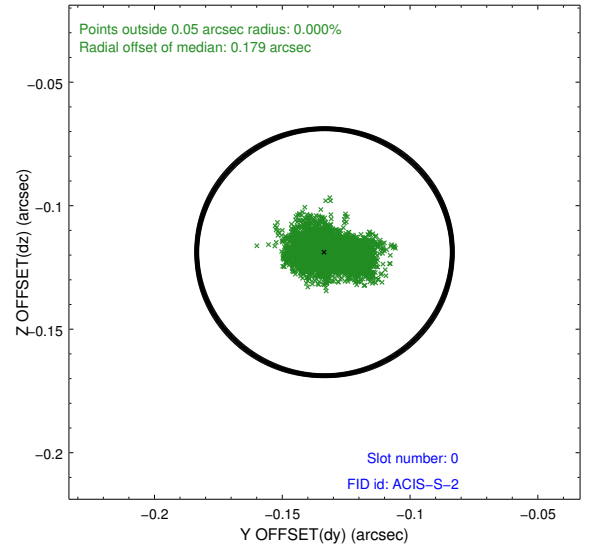
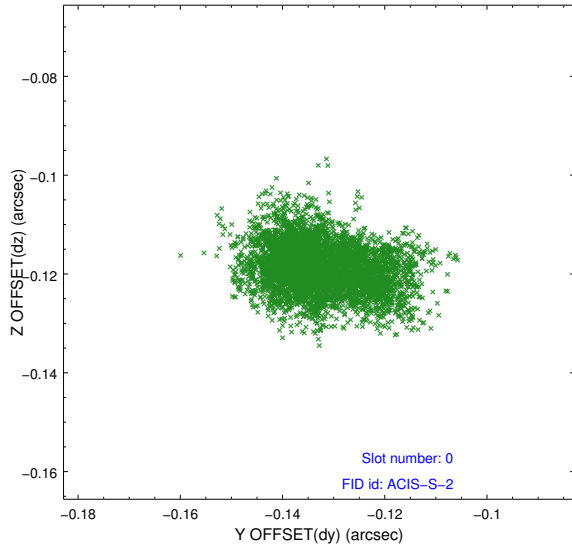


2.4.5 Slot 7

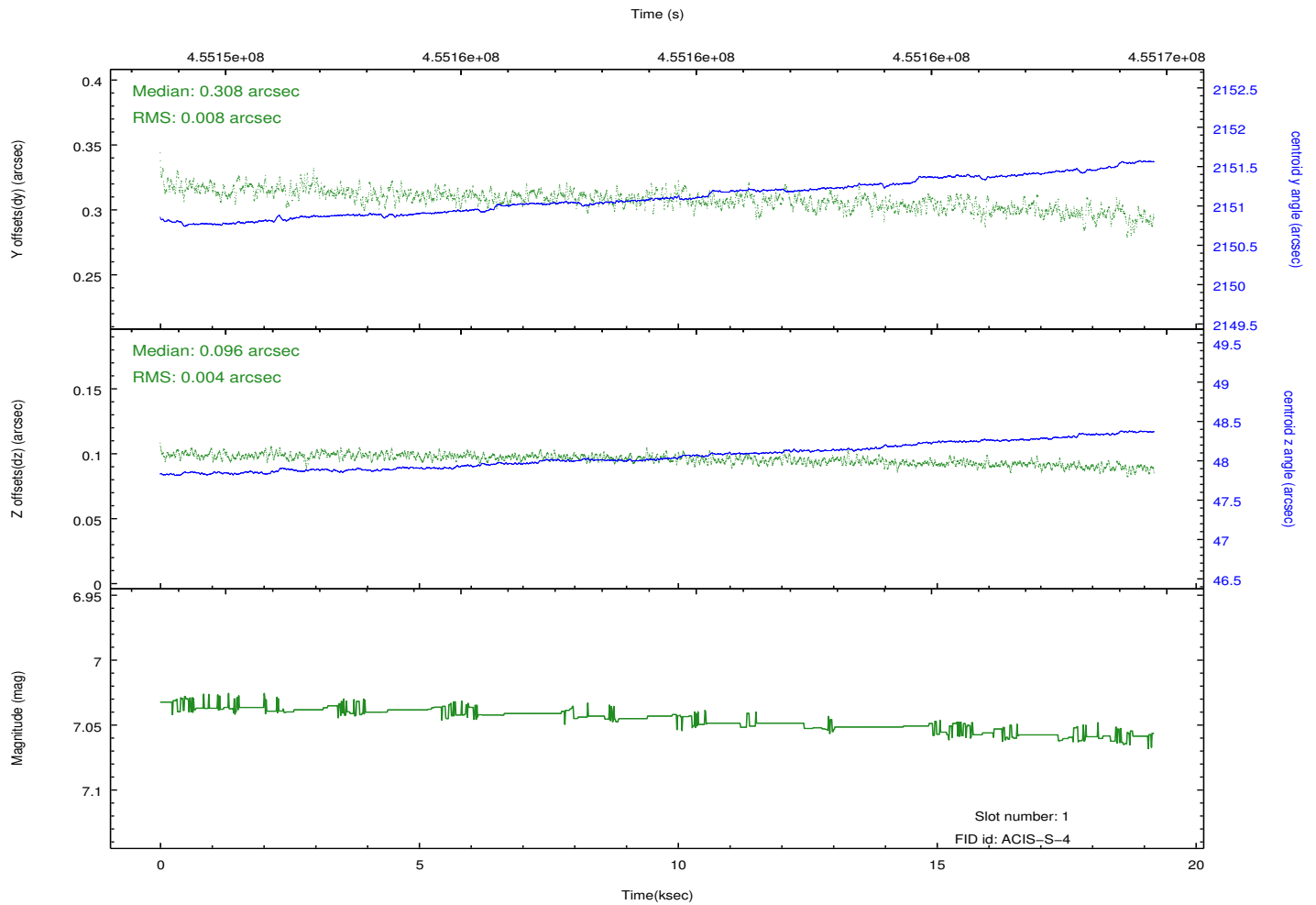
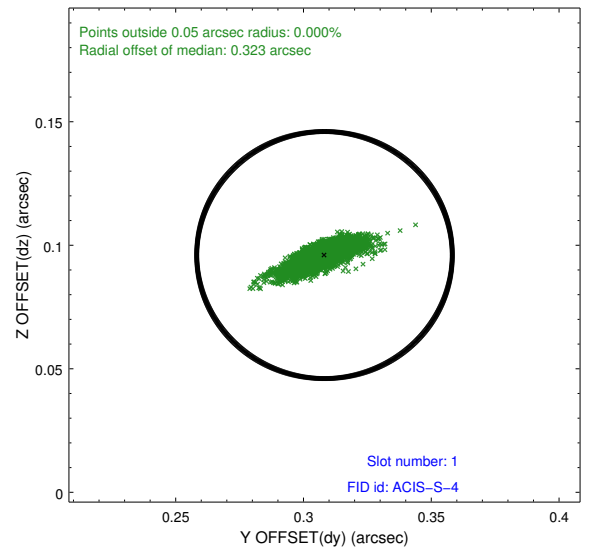
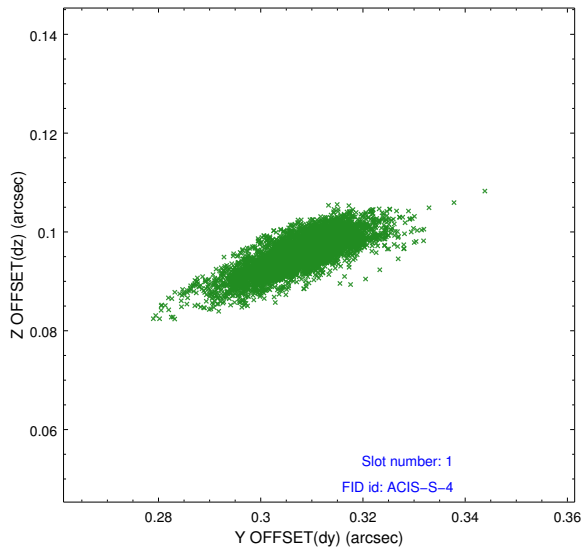


2.5 FID Slots

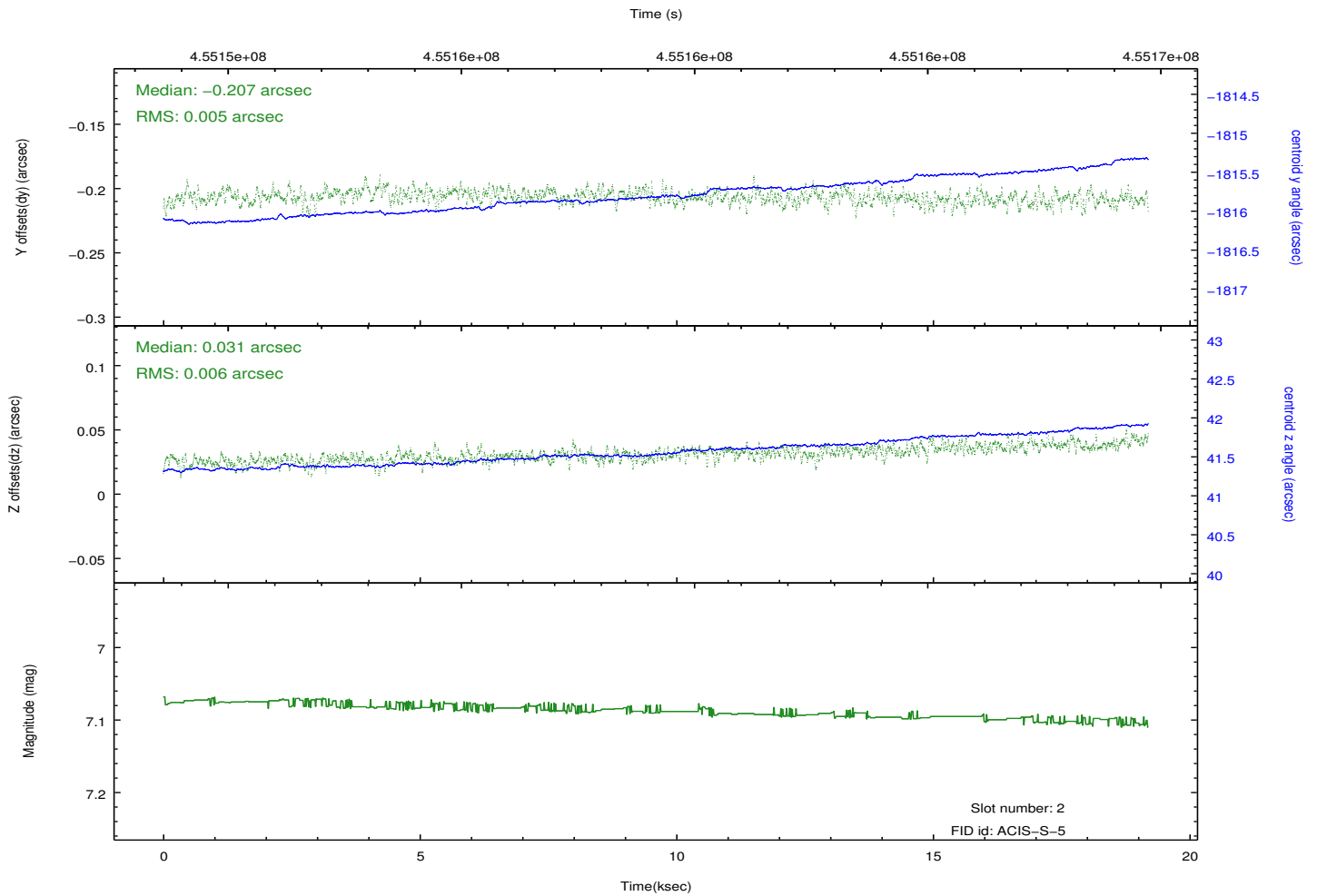
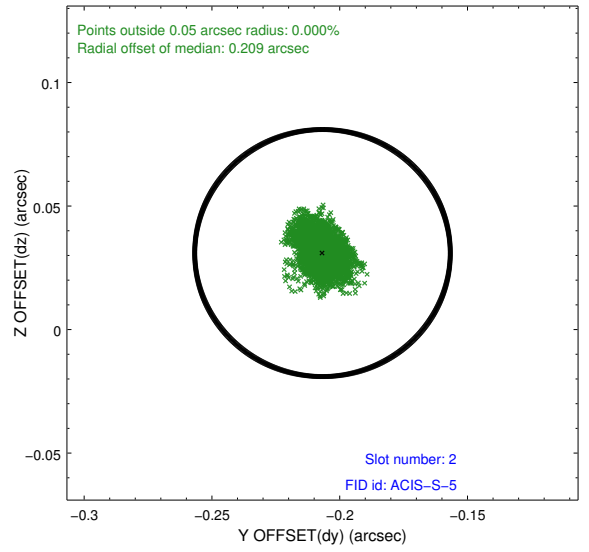
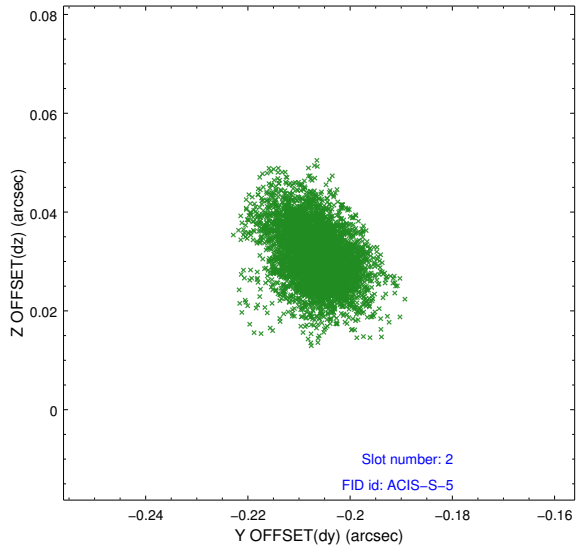
2.5.1 Slot 0



2.5.2 Slot 1

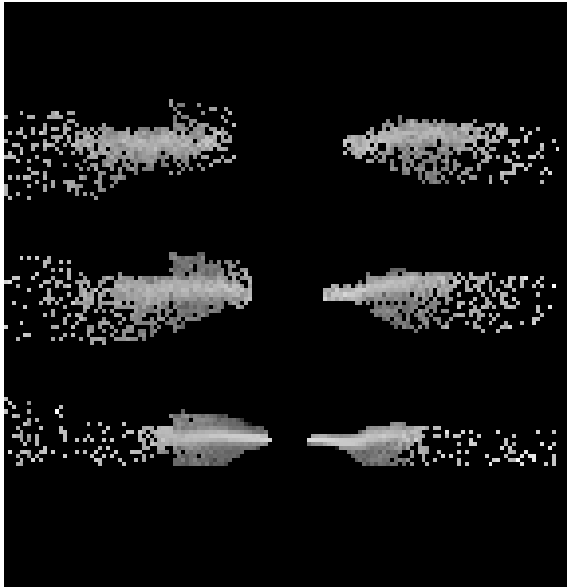


2.5.3 Slot 2

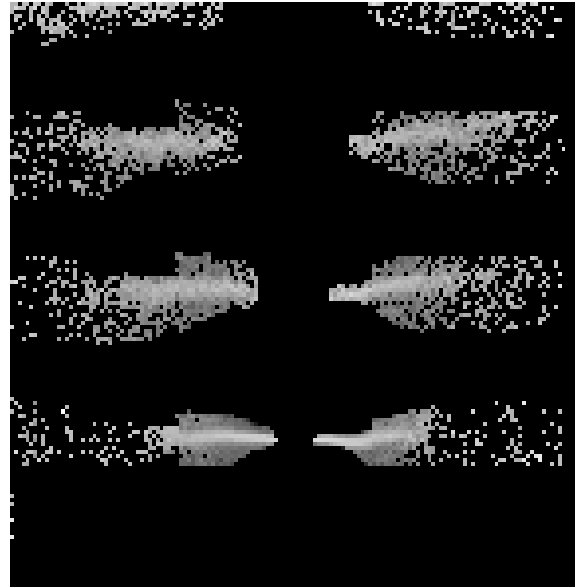


3 Gratings

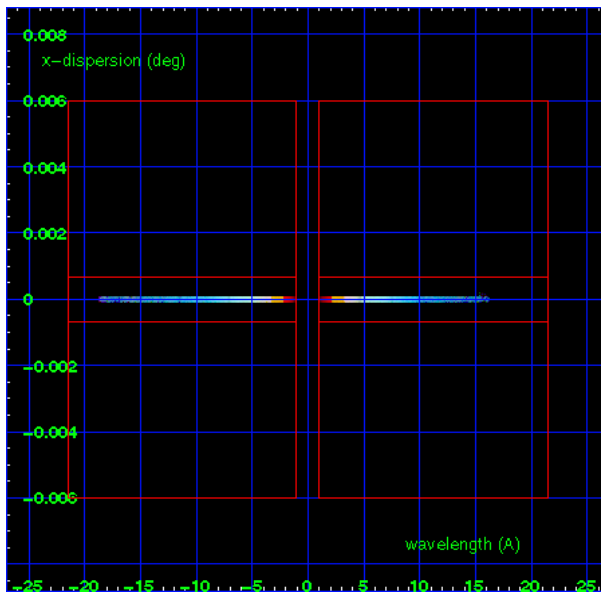
3.1 HEG Arm



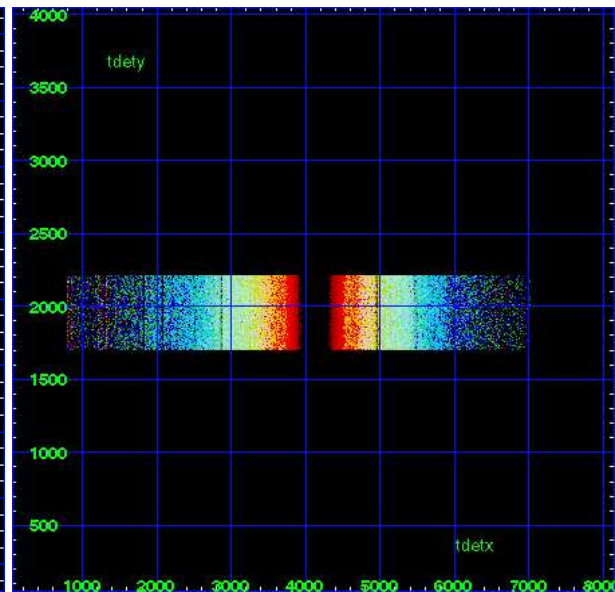
HEG Order Sort 123



HEG Order Sort ALL

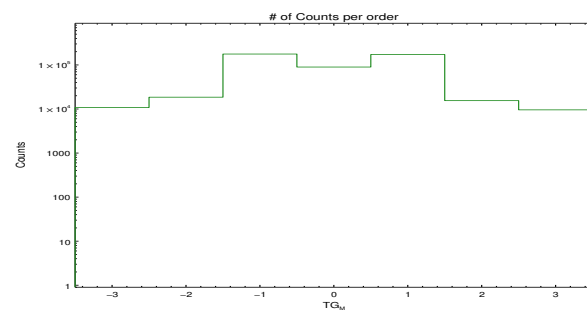


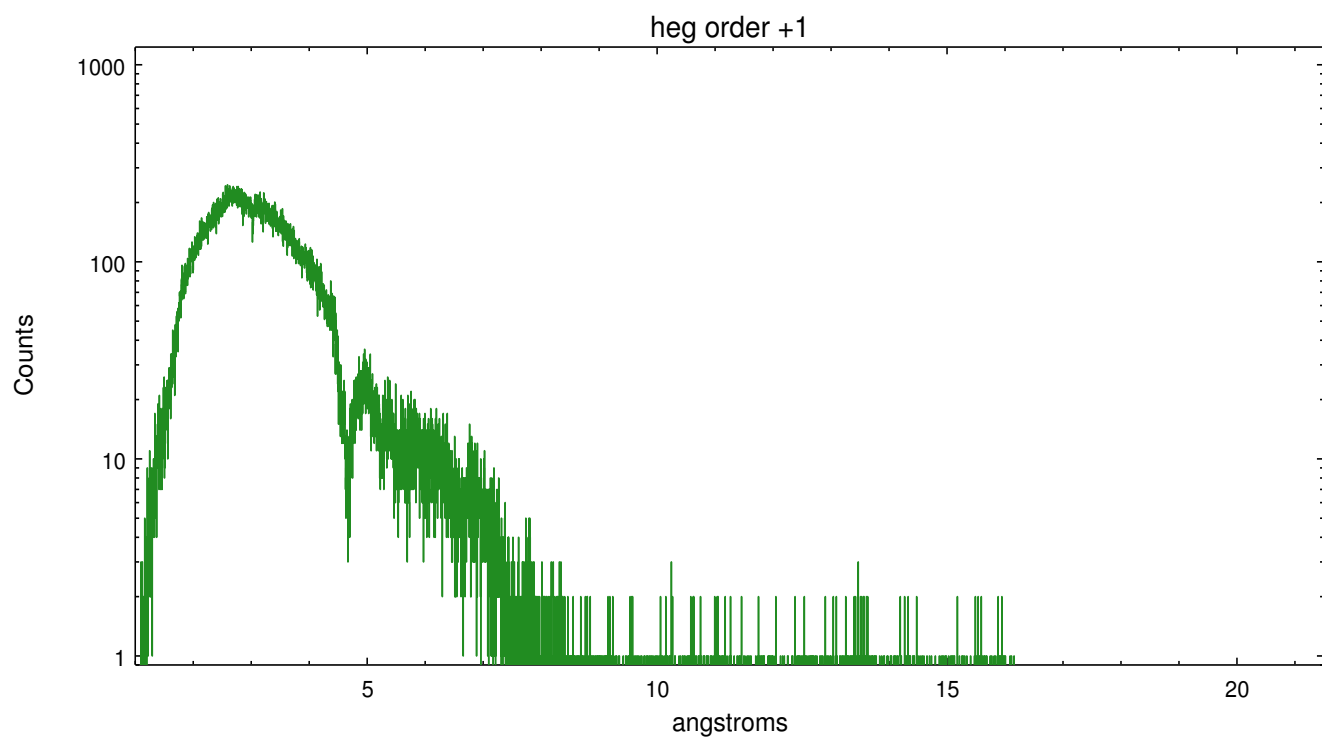
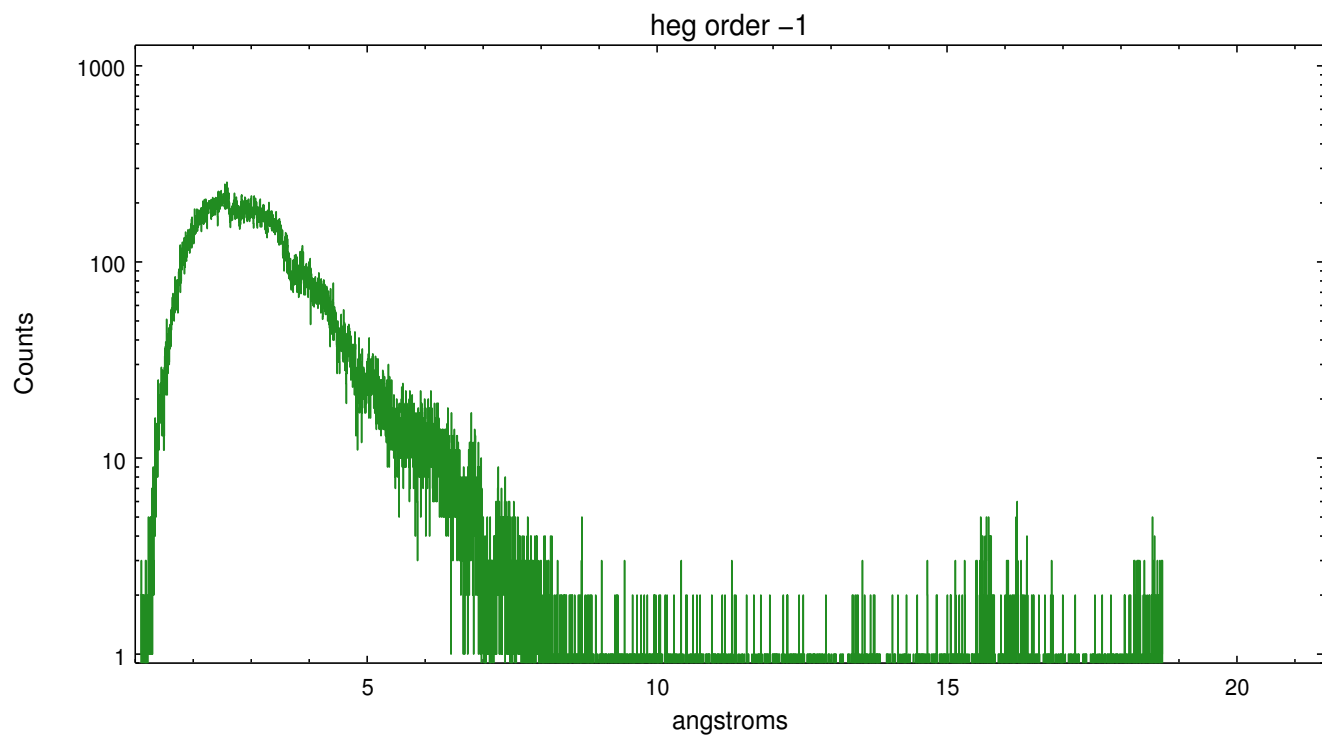
Spot Image HEG



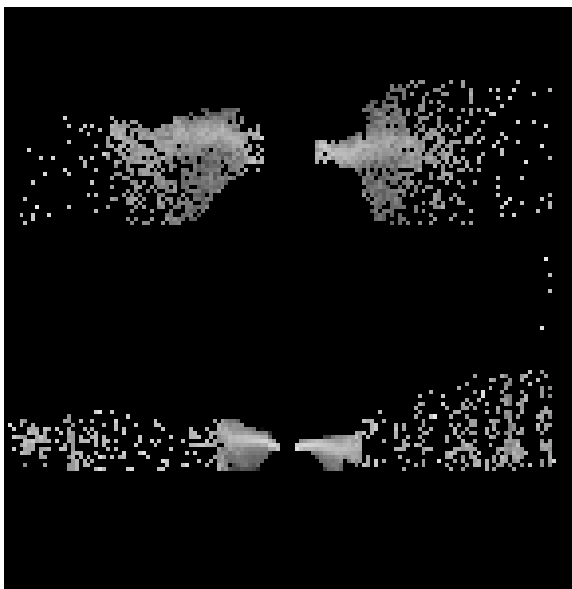
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	10811	18536	176903	89646	172453	15497	9571

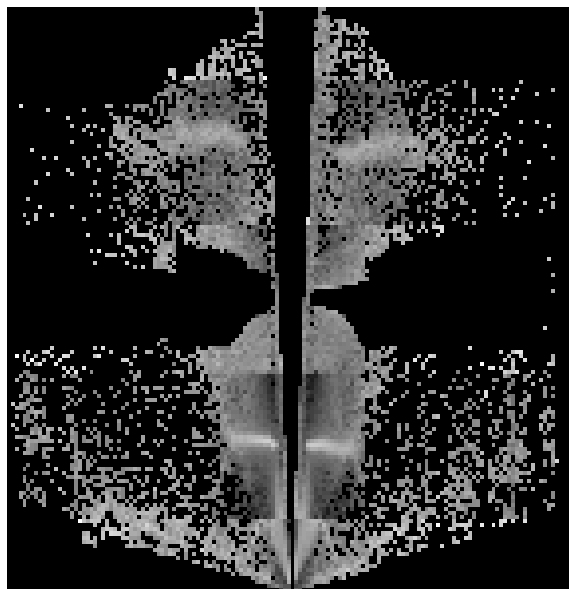




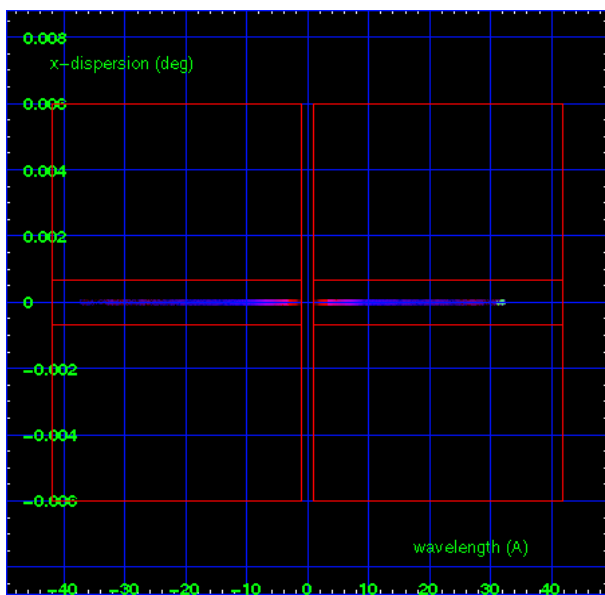
3.2 MEG Arm



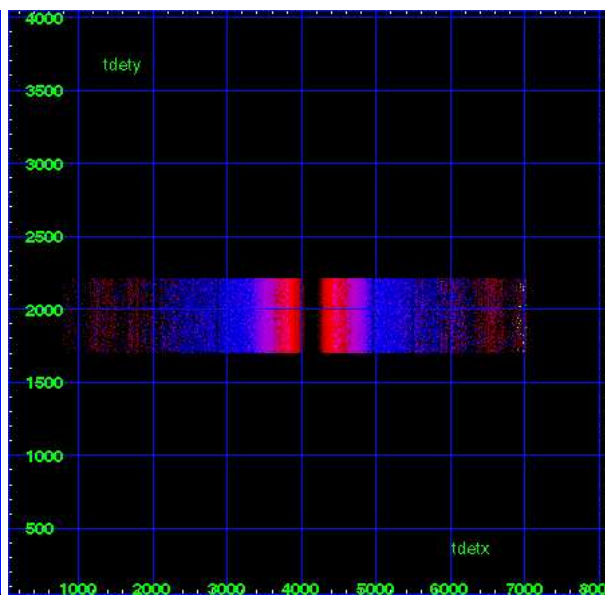
MEG Order Sort 123



MEG Order Sort ALL

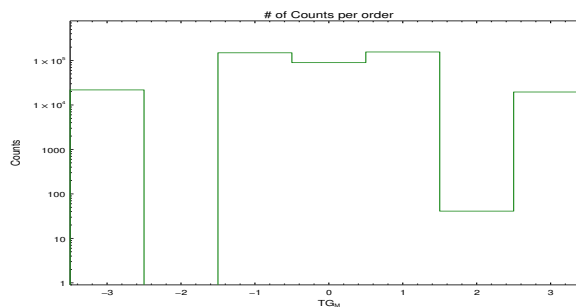


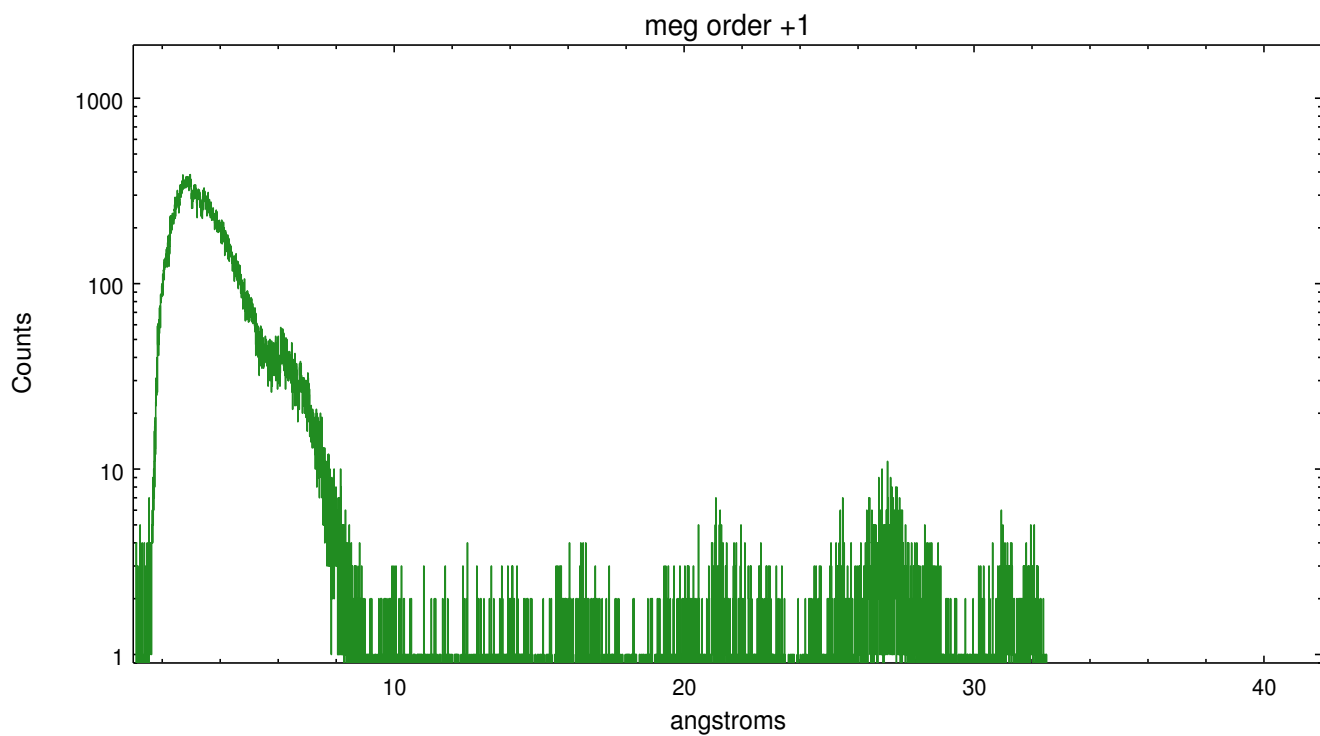
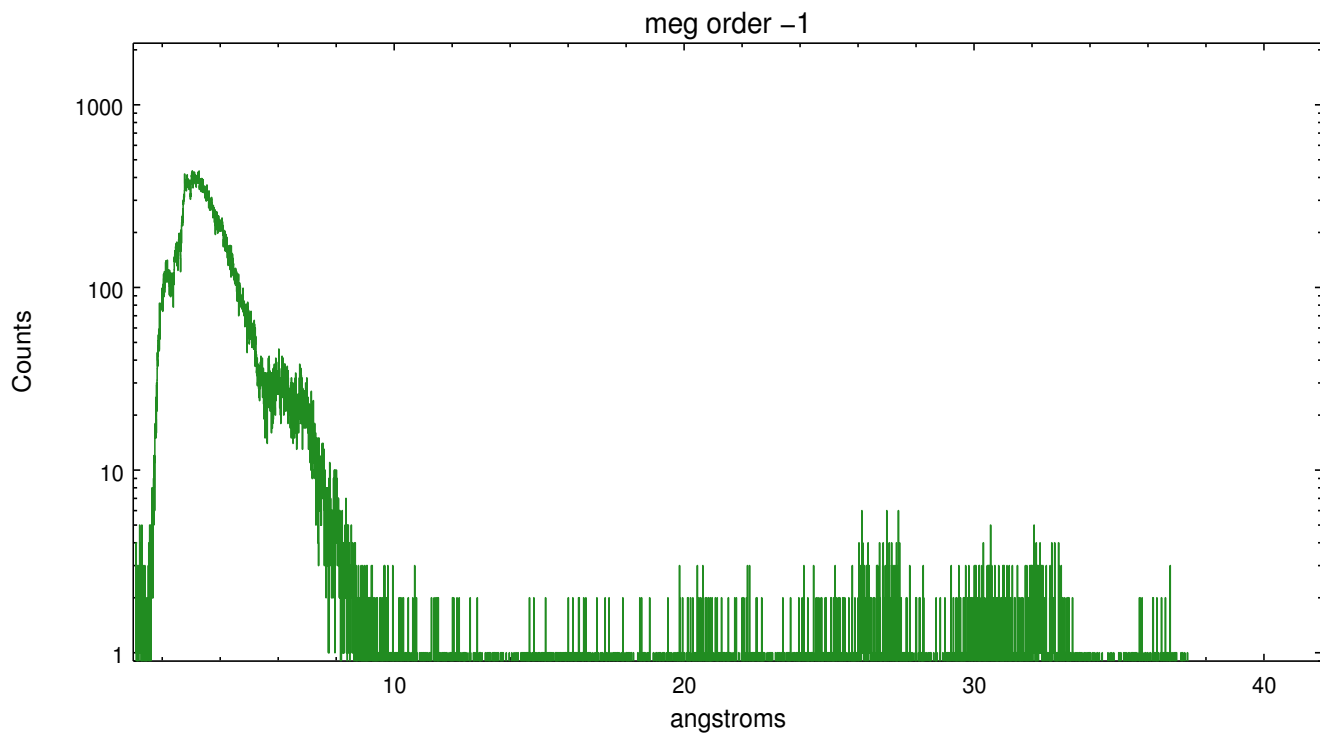
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	21824	0	149152	89646	155615	41	19576





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.06.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.07325

A.2 Comments