

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 7 - L2 Version 3
Chandra X-Ray Center

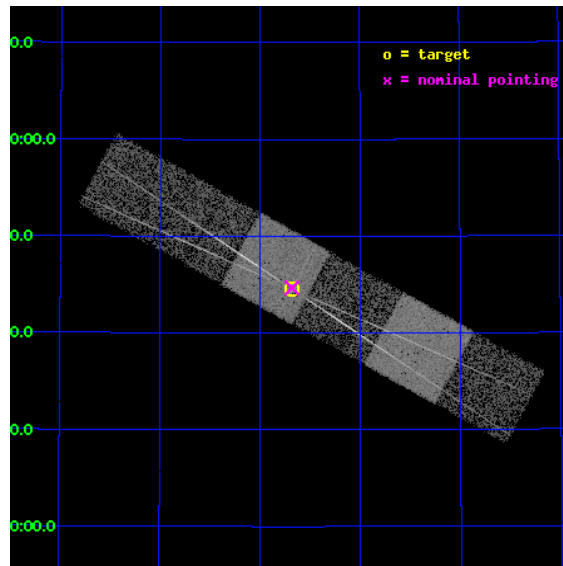
L2 Processing Date : Sep 1 2012

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1 Front

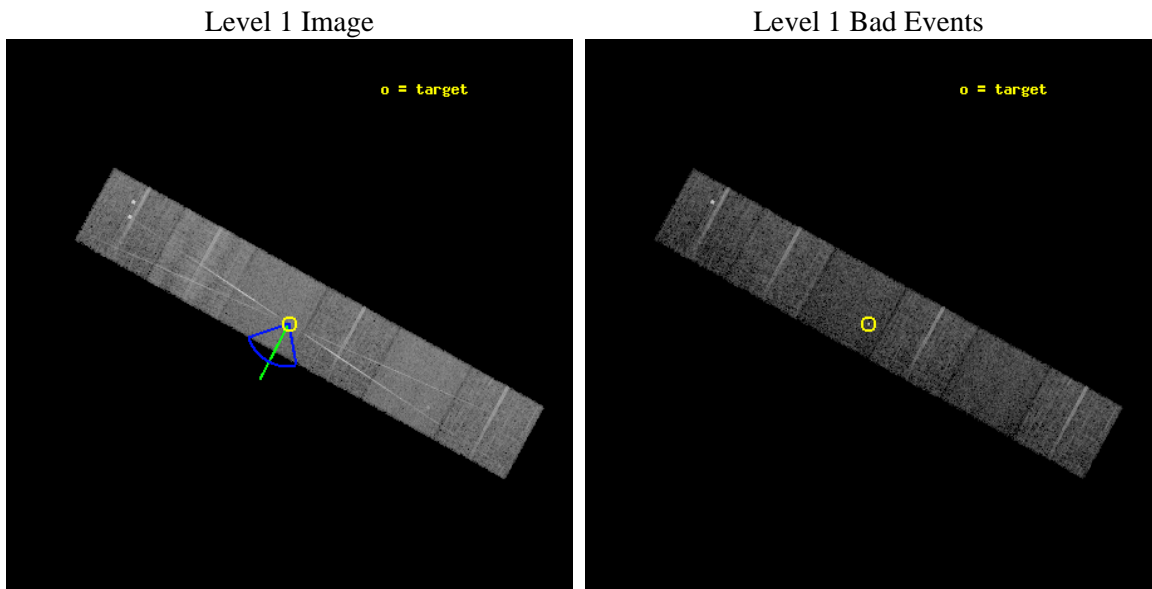
seq_num	200005	Sequence number
obs_id	7	Observation id
title	STELLAR CORONAL SPECTROSCOPY OF COOL STARS	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	AR LAC-2 FIRST QUAD (1)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742222	Observer's specified target Dec [deg]
ra_nom	332.17042455813	Nominal RA [deg]
dec_nom	45.744374172729	Nominal Dec [deg]
roll_nom	208.76655094594	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7449.6000069231	Sum of GTIs [s]
livetime	7355.2686860248	Livetime [s]
ontime4	7449.6000069231	Sum of GTIs [s]
ontime5	7449.6000069231	Sum of GTIs [s]
ontime6	7449.6000069231	Sum of GTIs [s]
ontime7	7449.6000069231	Sum of GTIs [s]
ontime8	7446.3590466827	Sum of GTIs [s]
ontime9	7449.6000069231	Sum of GTIs [s]
l2events	88880	Number of level 2 events



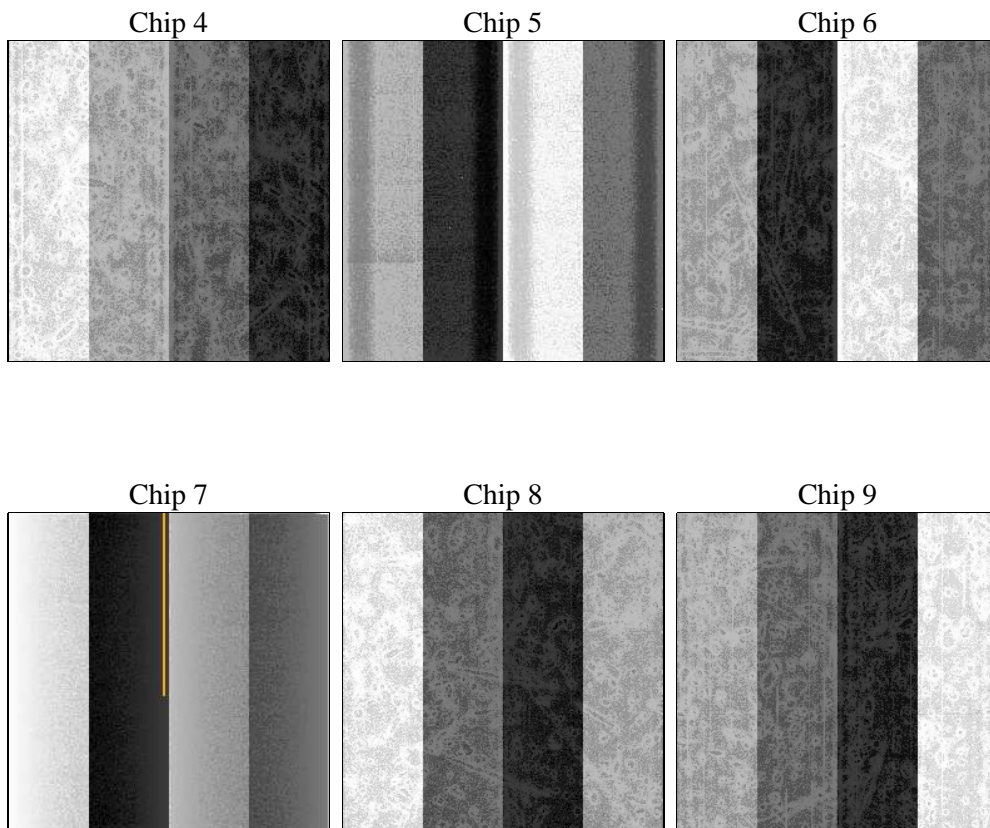
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7449.6000069231	Sum of GTIs [s]
caldsver	4.5.1.1	 	ontime4	7449.6000069231	Sum of GTIs [s]
date	2012-09-01T17:20:45	Date and time of file creation	ontime5	7449.6000069231	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	7449.6000069231	Sum of GTIs [s]
			ontime7	7449.6000069231	Sum of GTIs [s]
			ontime8	7446.3590466827	Sum of GTIs [s]
			ontime9	7449.6000069231	Sum of GTIs [s]
			l1events	344925	Number of level 1 events

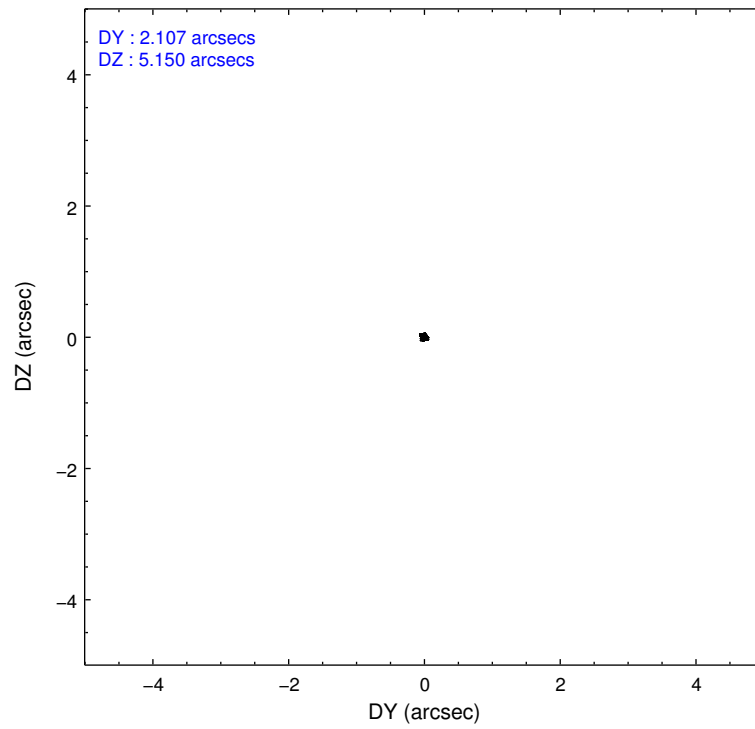
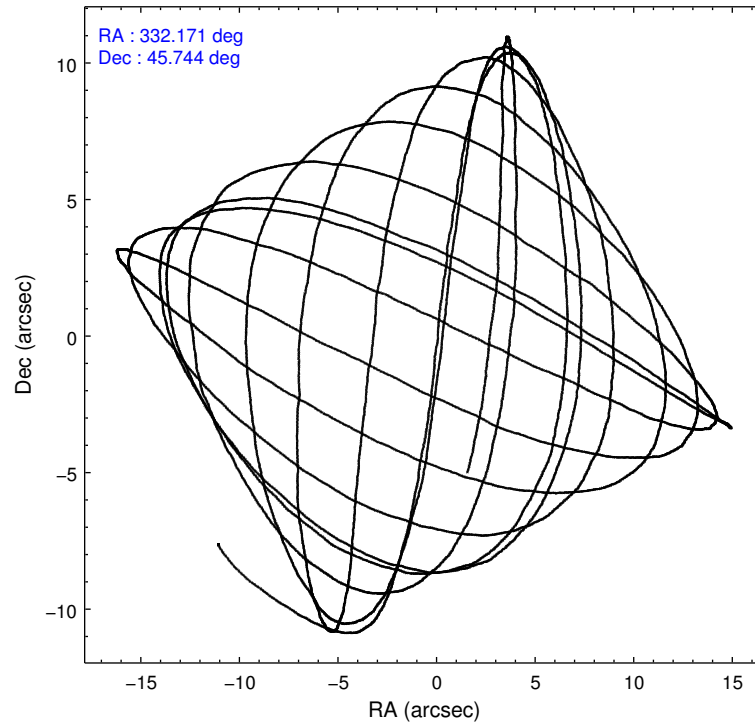
2.1.4 Events

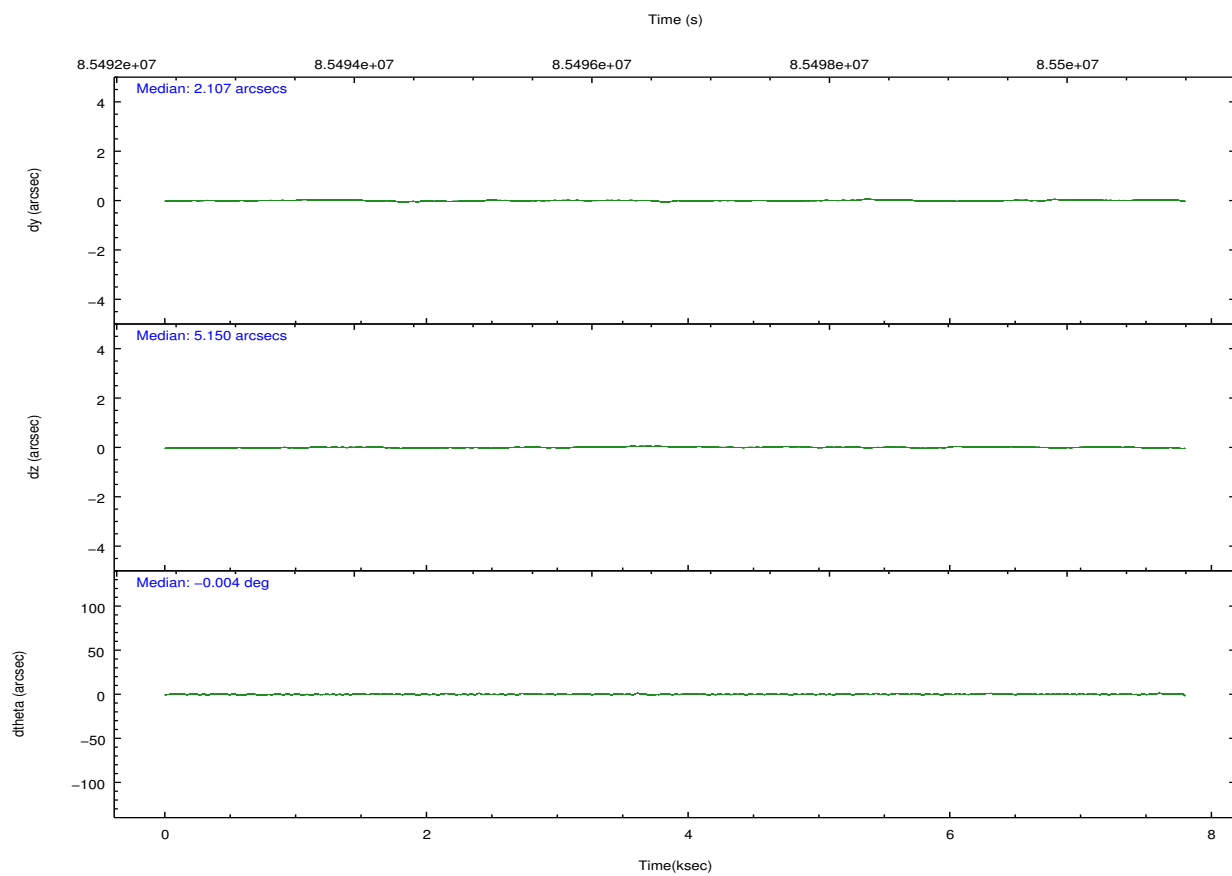
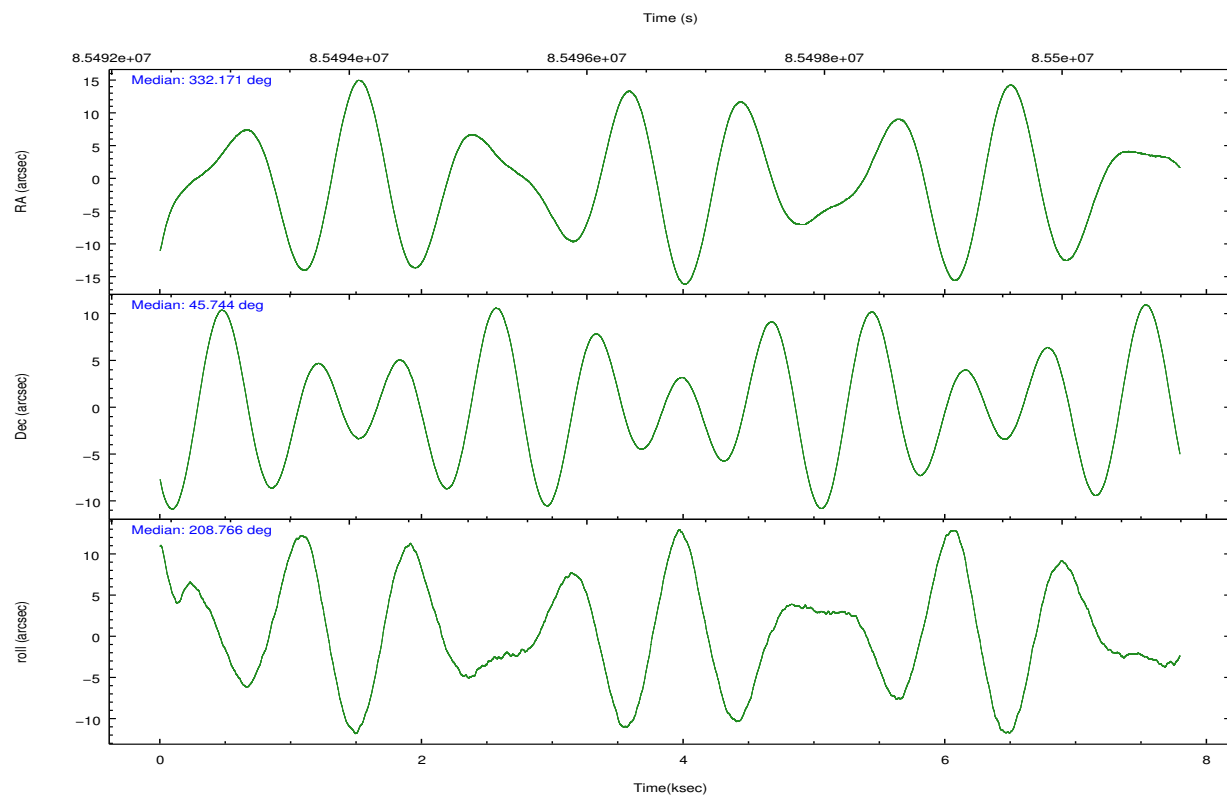
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	49553	60241	53577	61479	71286	48789	grade 0 events	3032	3426	8409	3762	10708	5292
rejected events	42894	31224	40423	32072	45126	40043		6%	5%	15%	6%	15%	10%
rejected %	86%	51%	75%	52%	63%	82%	grade 1 events	18	74	43	97	60	2045
								0%	0%	0%	0%	0%	4%
							grade 2 events	1624	8523	2075	6088	4190	1241
								3%	14%	3%	9%	5%	2%
							grade 3 events	501	1475	765	2717	3159	509
								1%	2%	1%	4%	4%	1%
							grade 4 events	519	1445	728	2865	2864	627
								1%	2%	1%	4%	4%	1%
							grade 5 events	1464	4302	1796	5277	2297	1727
								2%	7%	3%	8%	3%	3%
							grade 6 events	985	14158	1180	13992	5244	1080
								1%	23%	2%	22%	7%	2%
							grade 7 events	41410	26838	38581	26681	42764	36268
								83%	44%	72%	43%	59%	74%

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	332.190496	332.1704245581276	Subarray requested	NONE	NONE
[deg] Pointing Dec	45.767870	45.7443741727286	Alternating exposures requested	N	N
[deg] Pointing Roll	208.595538	208.7665509459372	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	210.000000	210.000000			
[deg] Roll tolerance	40.000000	40.000000			
Roll constraint allows 180D rotation	N	N			
[s] Window start time (MET)	50061664.184000	50061664.184000			
[s] Window stop time (MET)	93754864.184000	93754864.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
Phase constraints	Y	Y			
[d] Phase period	1.983180	1.983180			
[d] Phase epoch (MJD)	48501.123200	48501.123200			
Phase start	0.228000	0.228000			
Phase end	0.272000	0.272000			
Phase start error	0.080000	0.080000			
Phase end error	0.080000	0.080000			
[s] Observation start	85493099.184000	85492083.626875			

2.3 Aspect



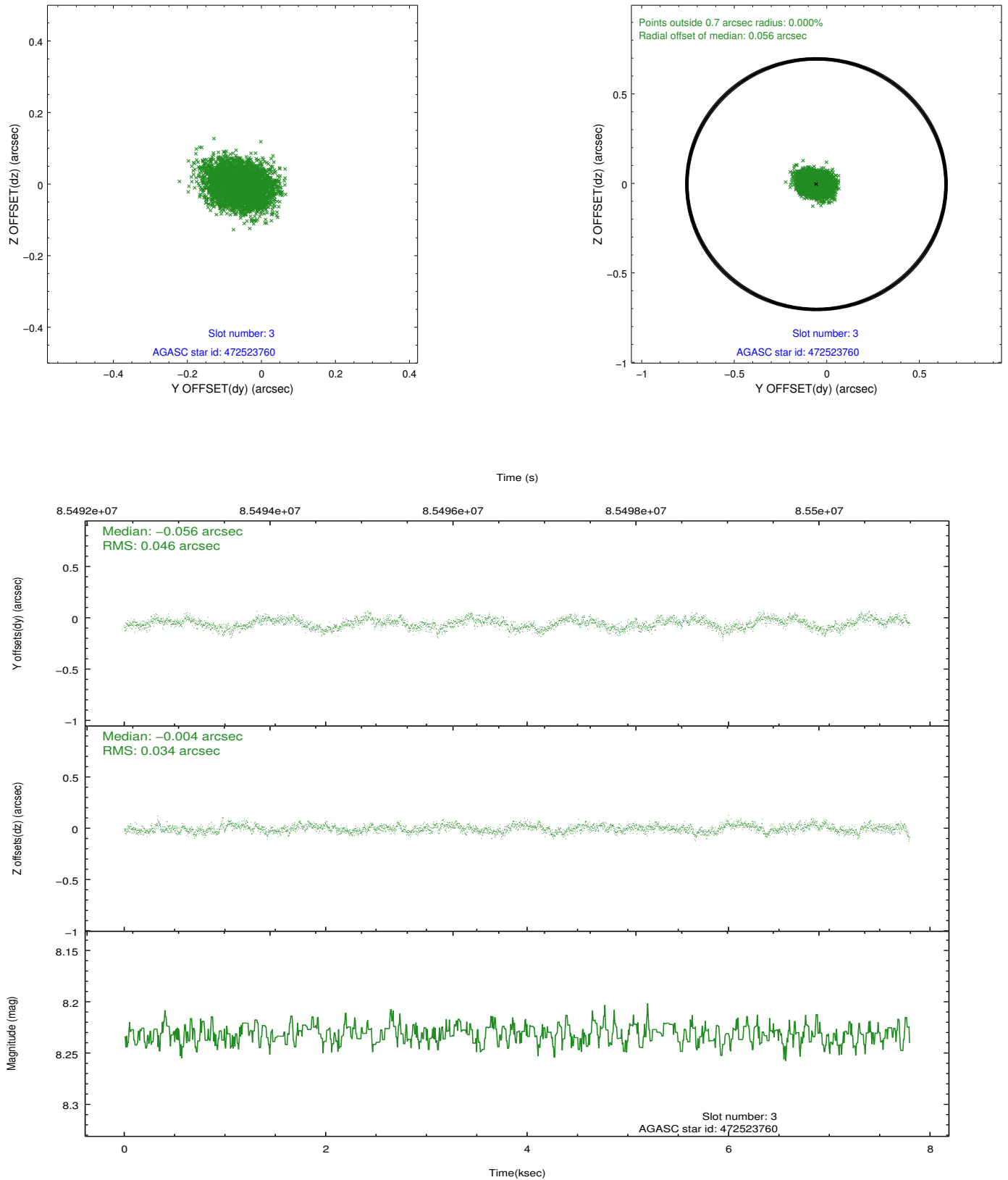


Slot Statistics

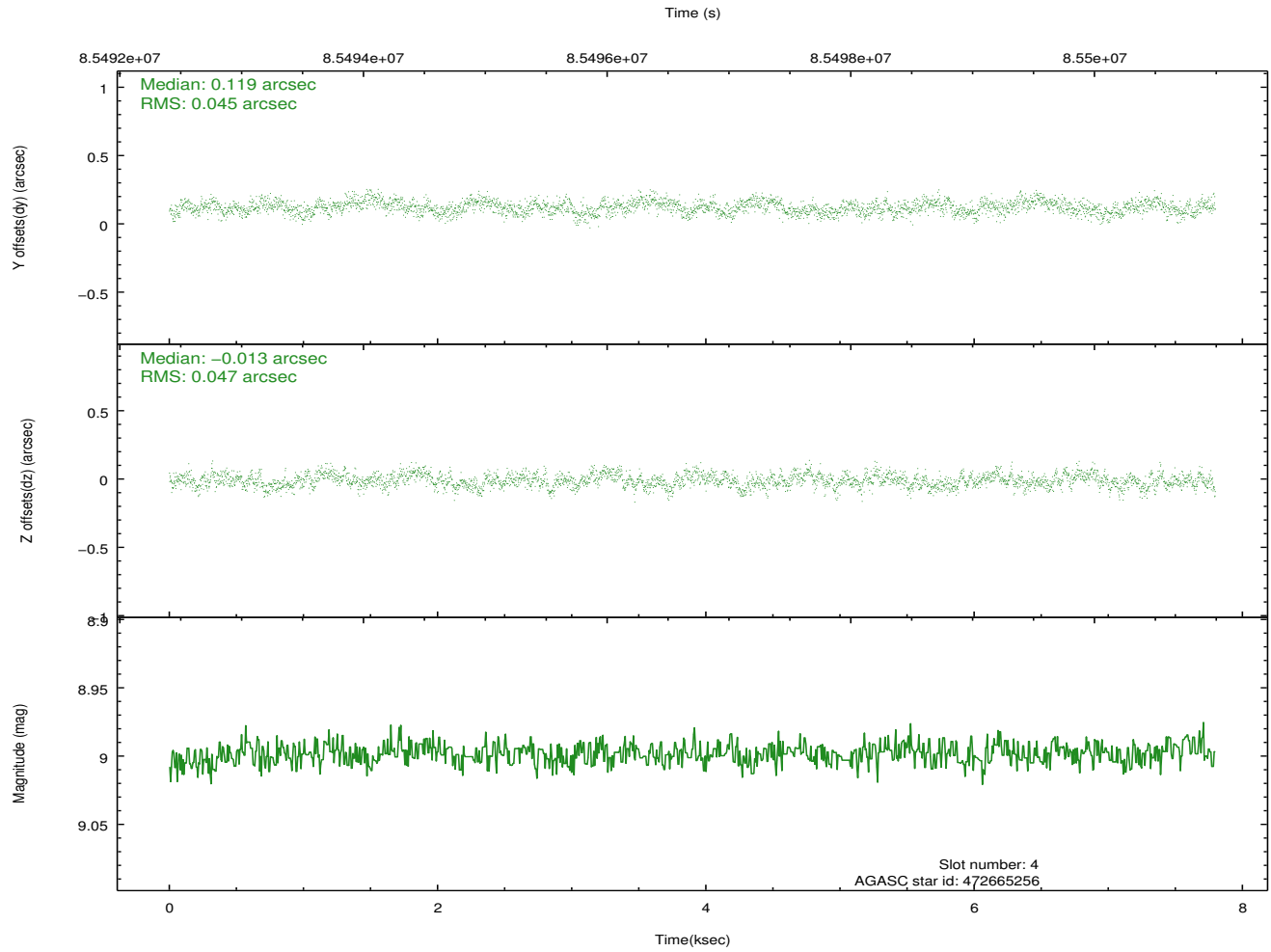
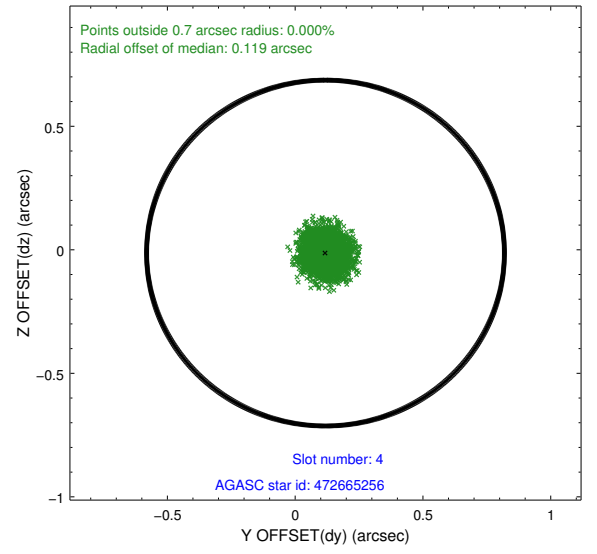
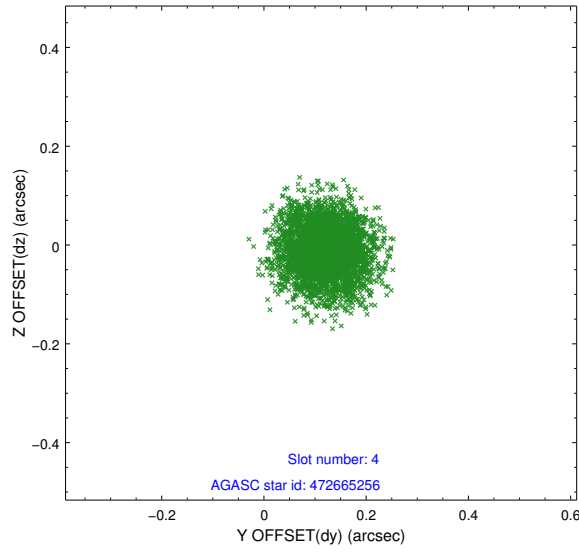
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1902	-0.032	-0.026	0.006	0.010	0.000000	0.000000	-754.55	-1788.43
1	FID	ACIS-S-4	7.20	1902	0.010	0.014	0.006	0.011	0.000000	0.000000	2158.44	119.31
2	FID	ACIS-S-6	7.38	1902	-0.005	0.019	0.007	0.011	0.000000	0.000000	408.40	757.54
3	GUIDE	472523760	8.23	3803	-0.056	-0.004	0.061	0.100	331.645363	45.403260	1837.04	488.66
4	GUIDE	472665256	9.00	3804	0.119	-0.013	0.070	0.111	332.808125	46.195041	-2088.36	-619.00
5	GUIDE	472659832	9.45	3802	-0.005	0.051	0.092	0.151	332.780399	46.098139	-1863.90	-344.29
6	GUIDE	472655704	9.47	3804	-0.045	0.020	0.087	0.139	332.167195	45.285228	884.18	1497.01
7	GUIDE	472523568	9.33	3801	-0.014	-0.051	0.173	0.241	331.465966	45.371411	2289.49	369.01

2.4 Star Slots

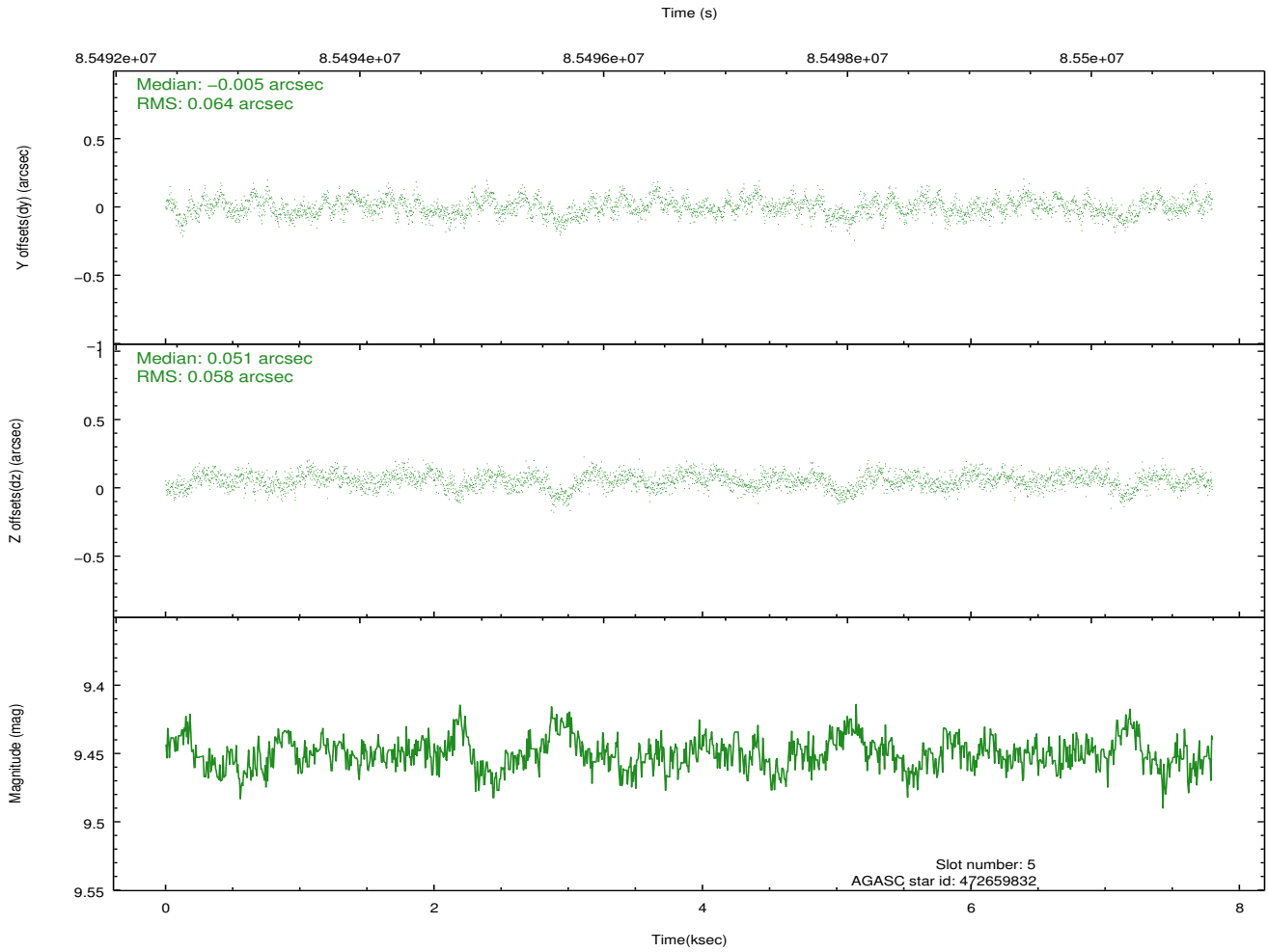
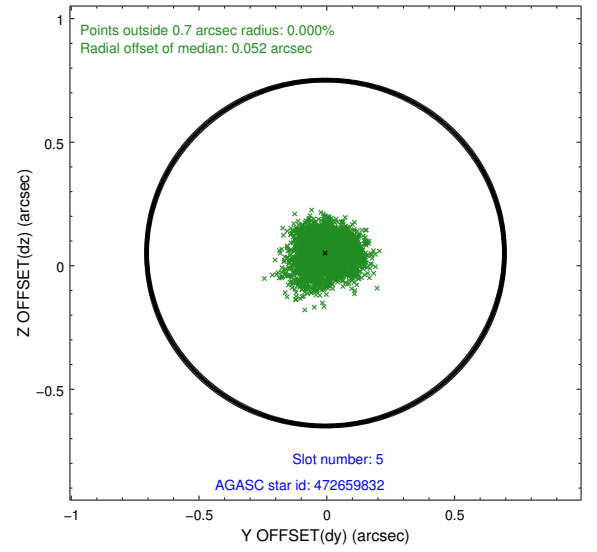
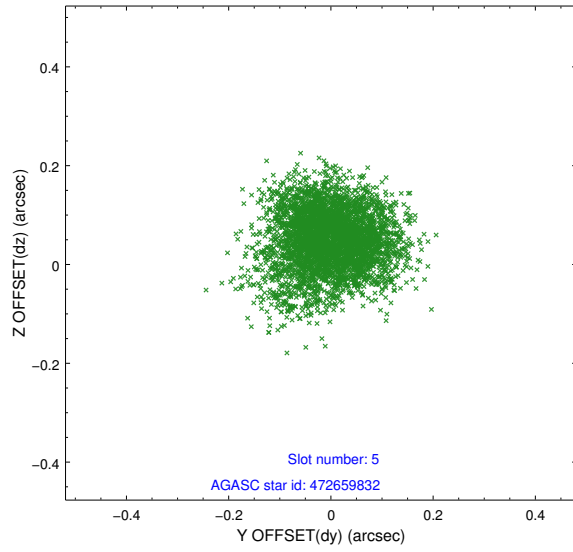
2.4.1 Slot 3



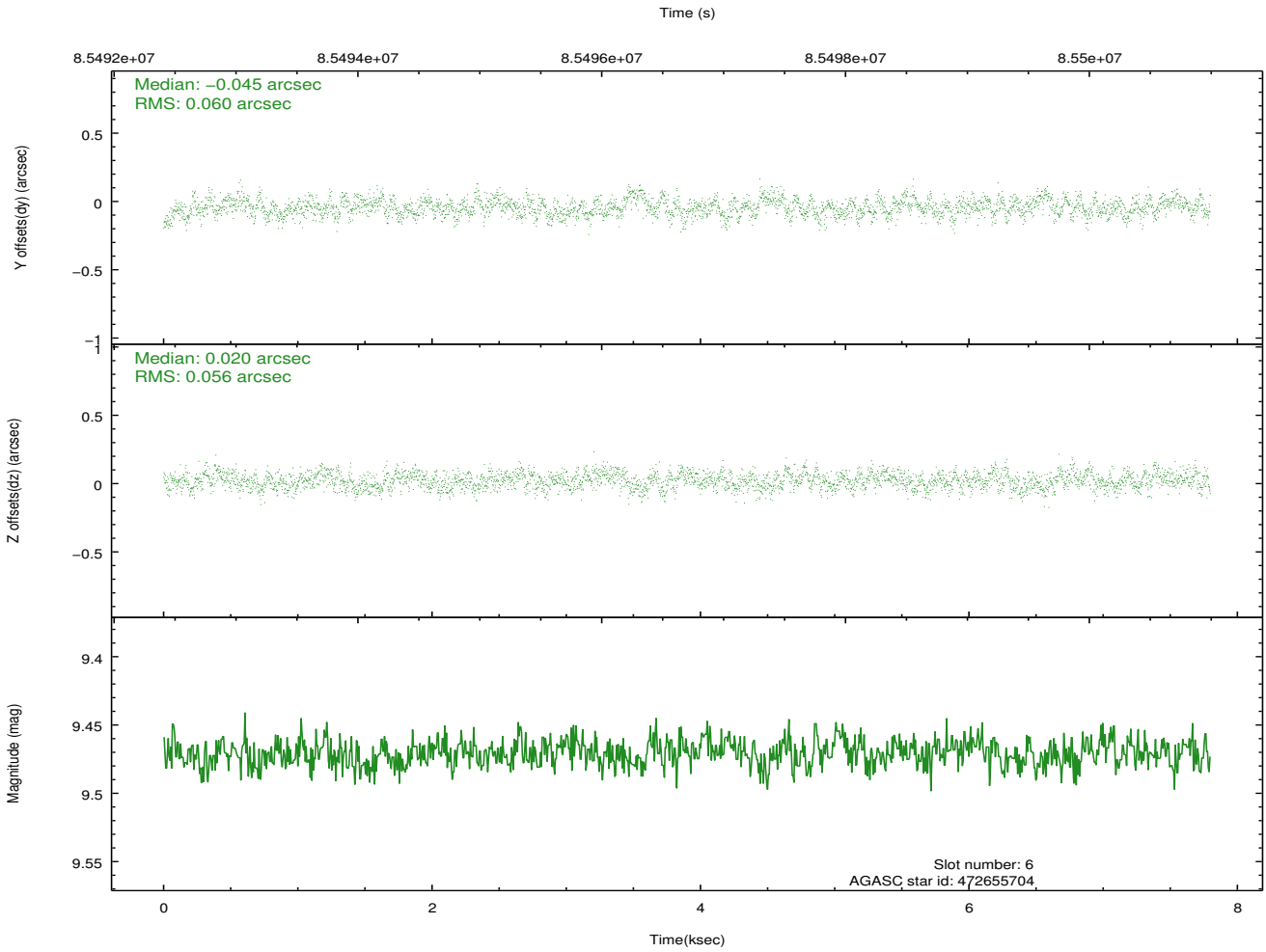
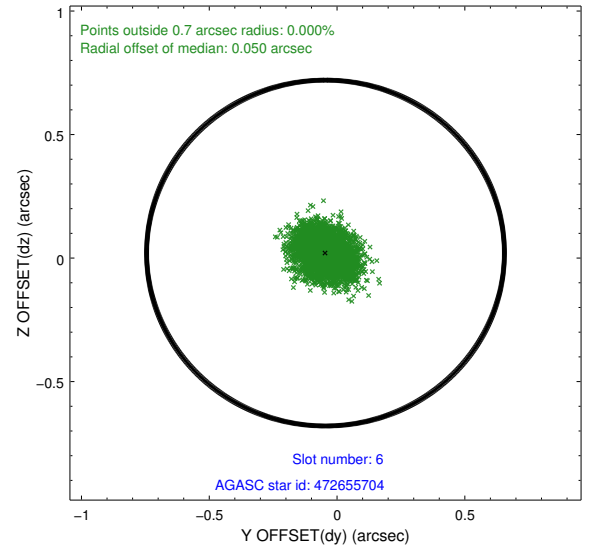
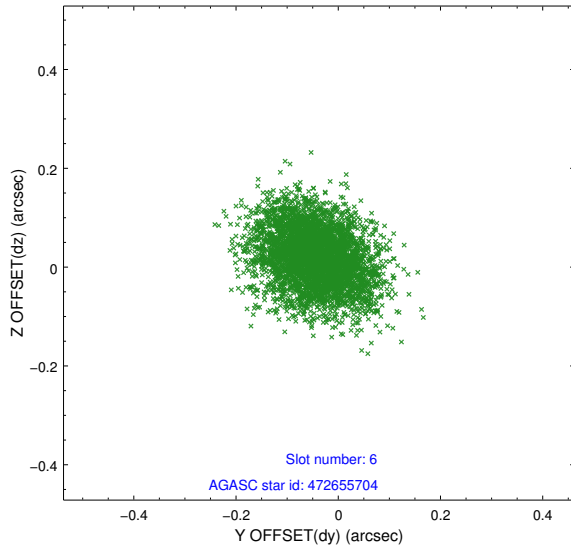
2.4.2 Slot 4



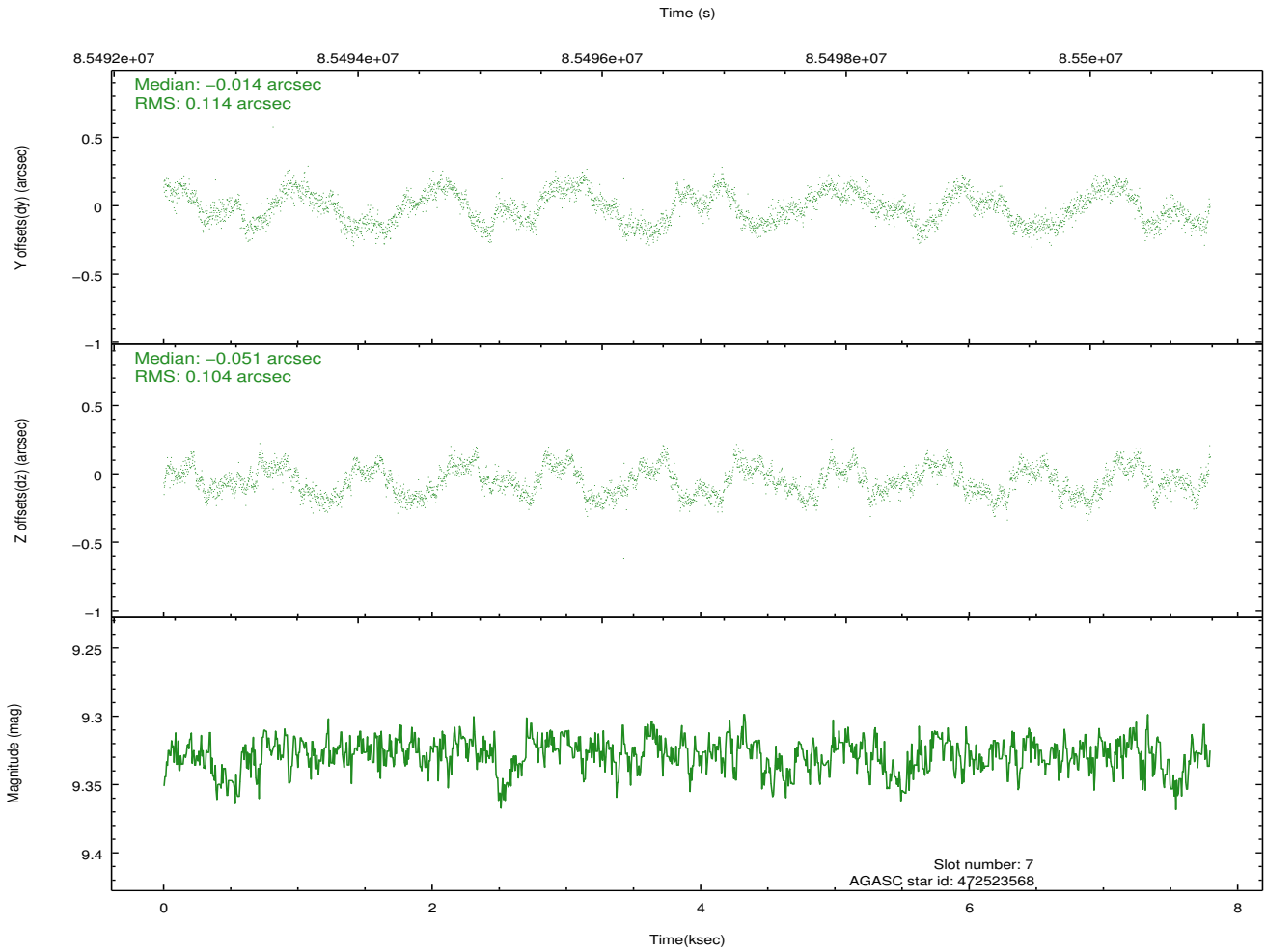
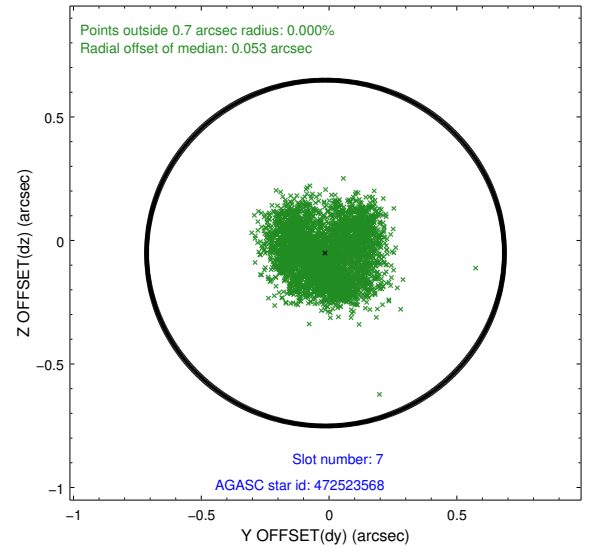
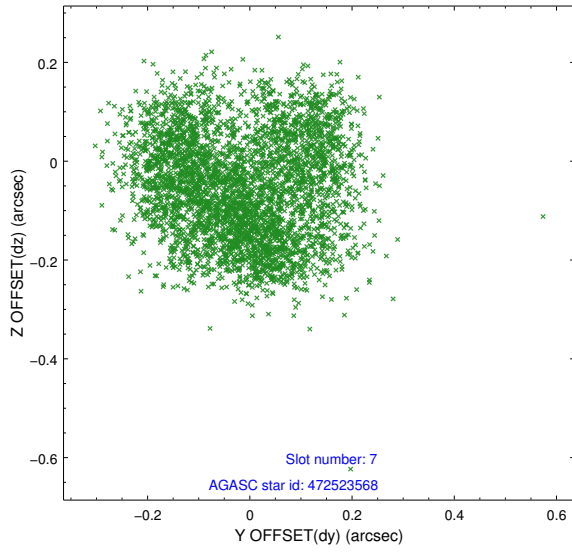
2.4.3 Slot 5



2.4.4 Slot 6

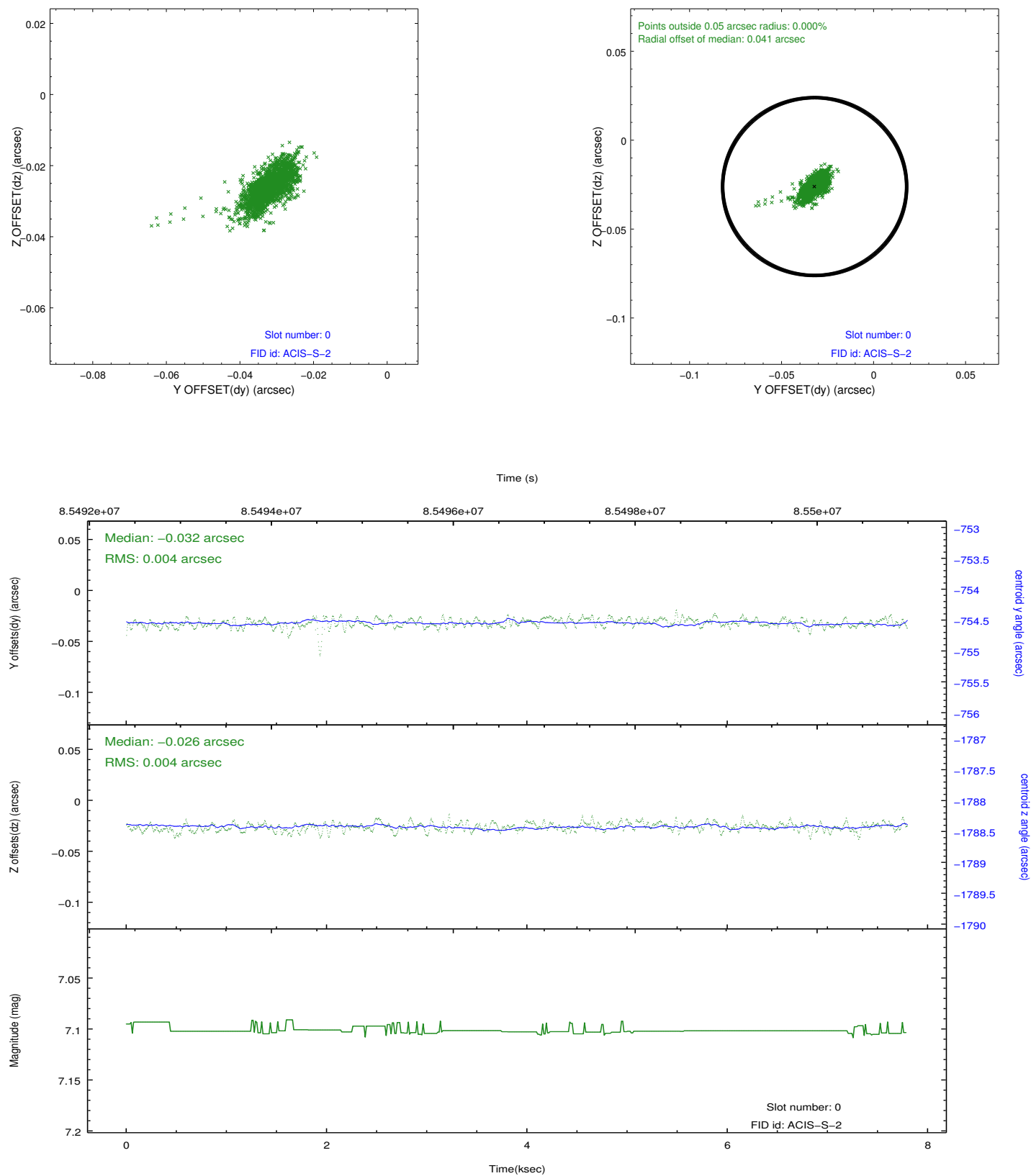


2.4.5 Slot 7

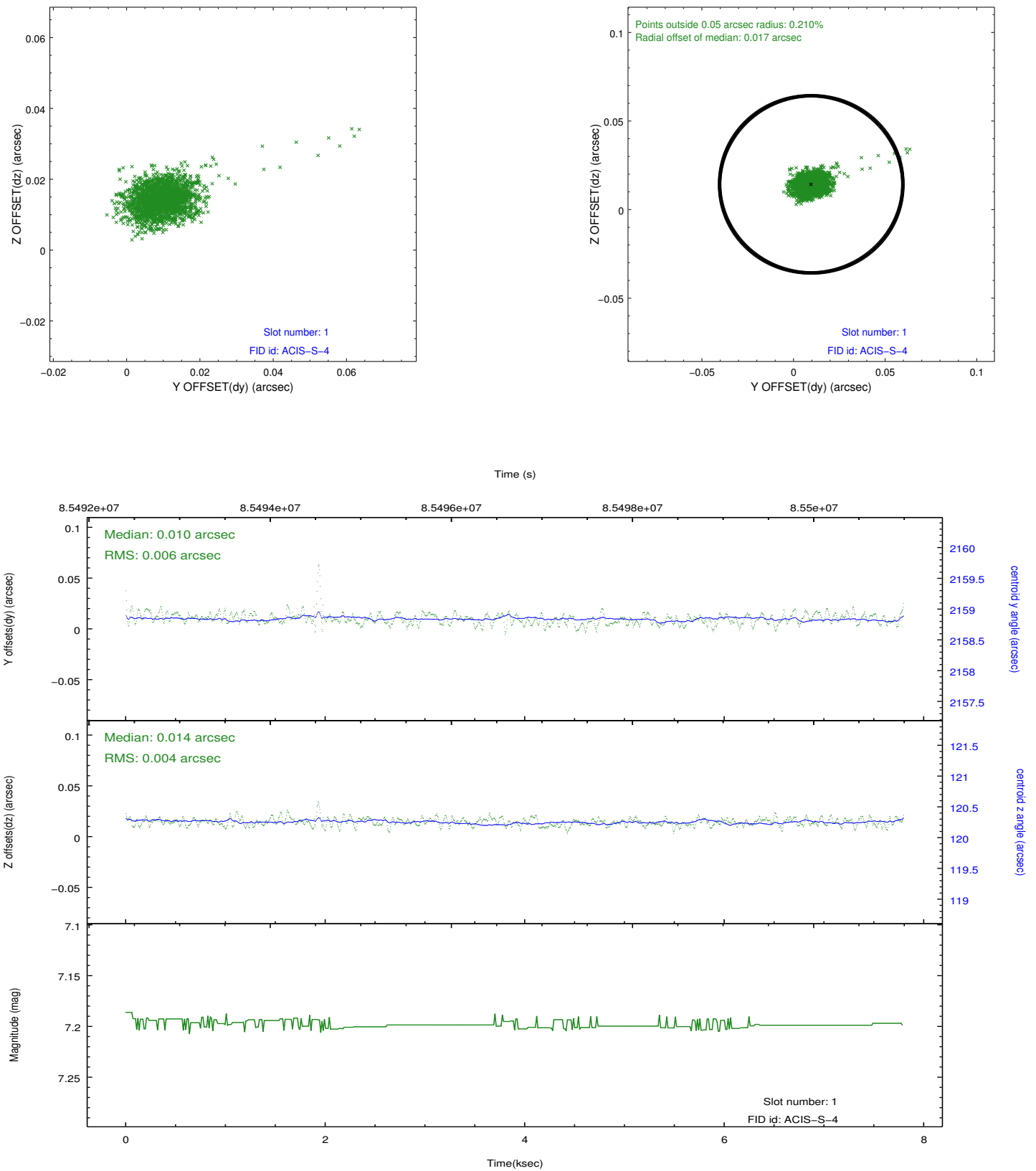


2.5 FID Slots

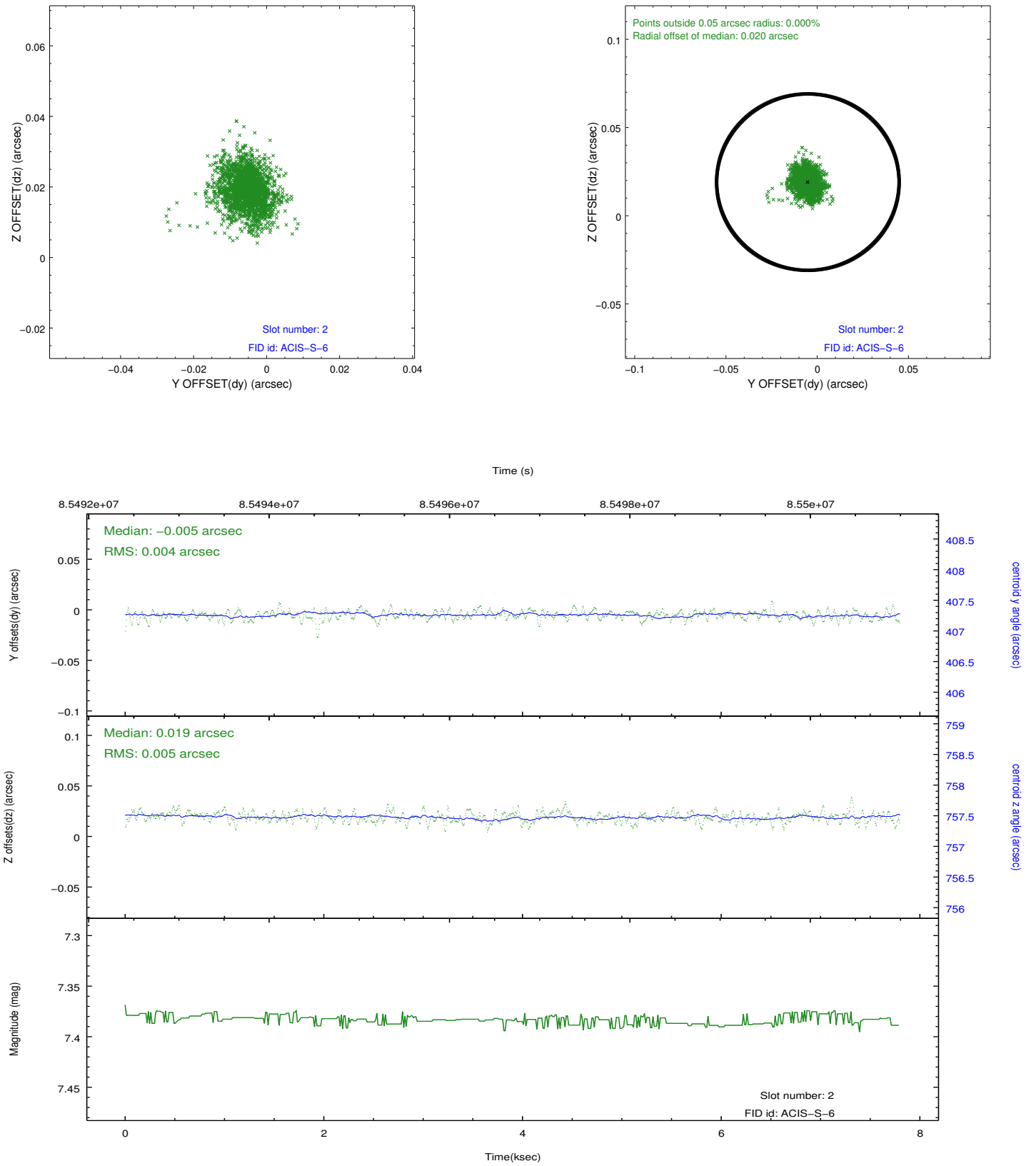
2.5.1 Slot 0



2.5.2 Slot 1

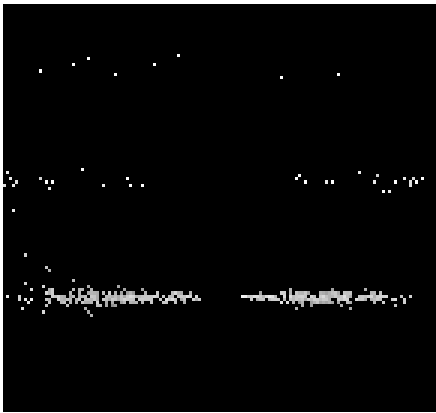


2.5.3 Slot 2

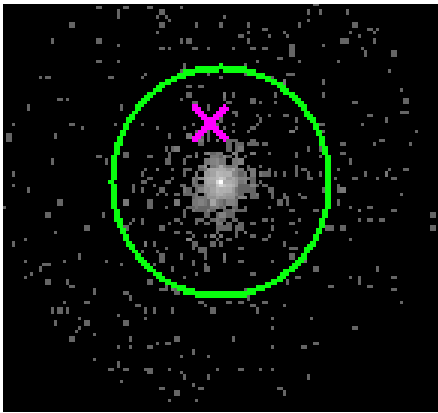


3 Gratings

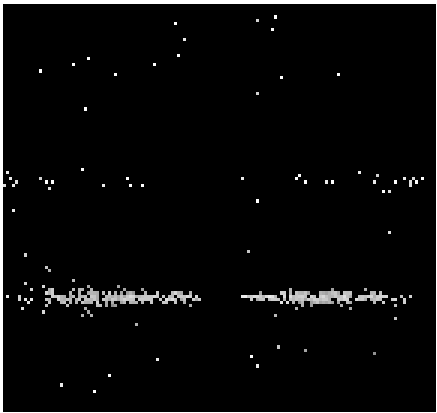
3.1 HEG Arm



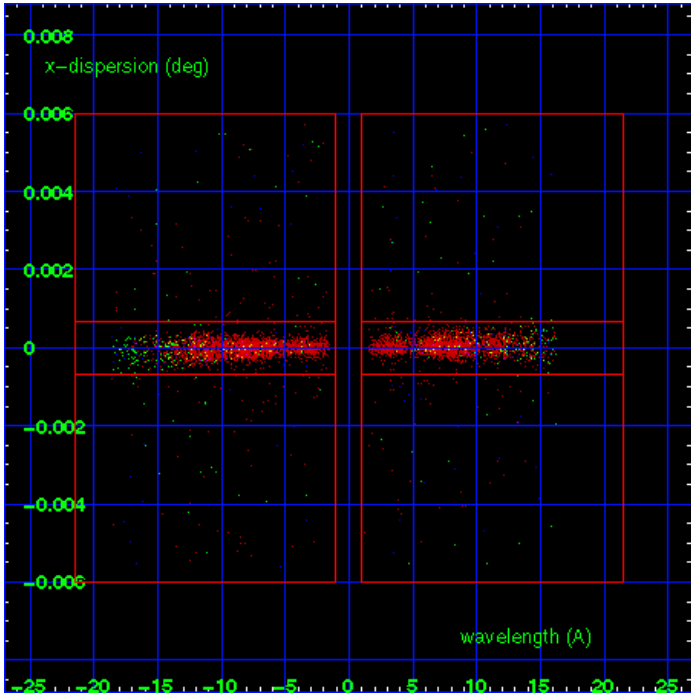
HEG Order Sort 123



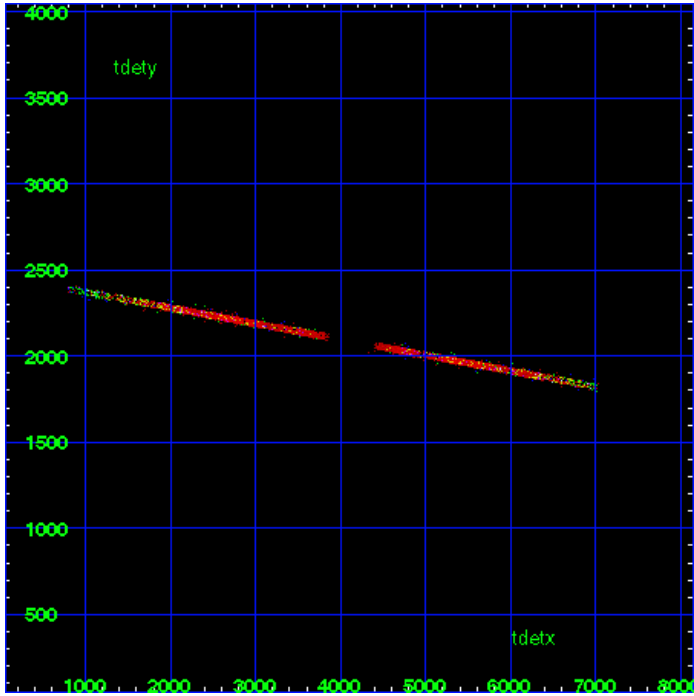
HEG Zero Order



HEG Order Sort ALL

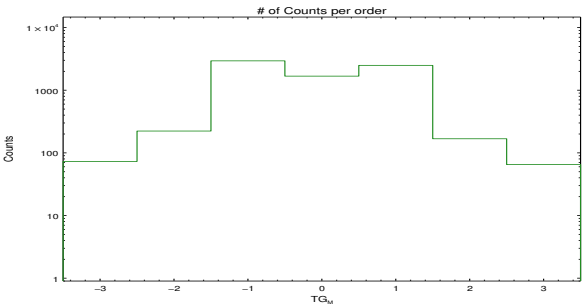


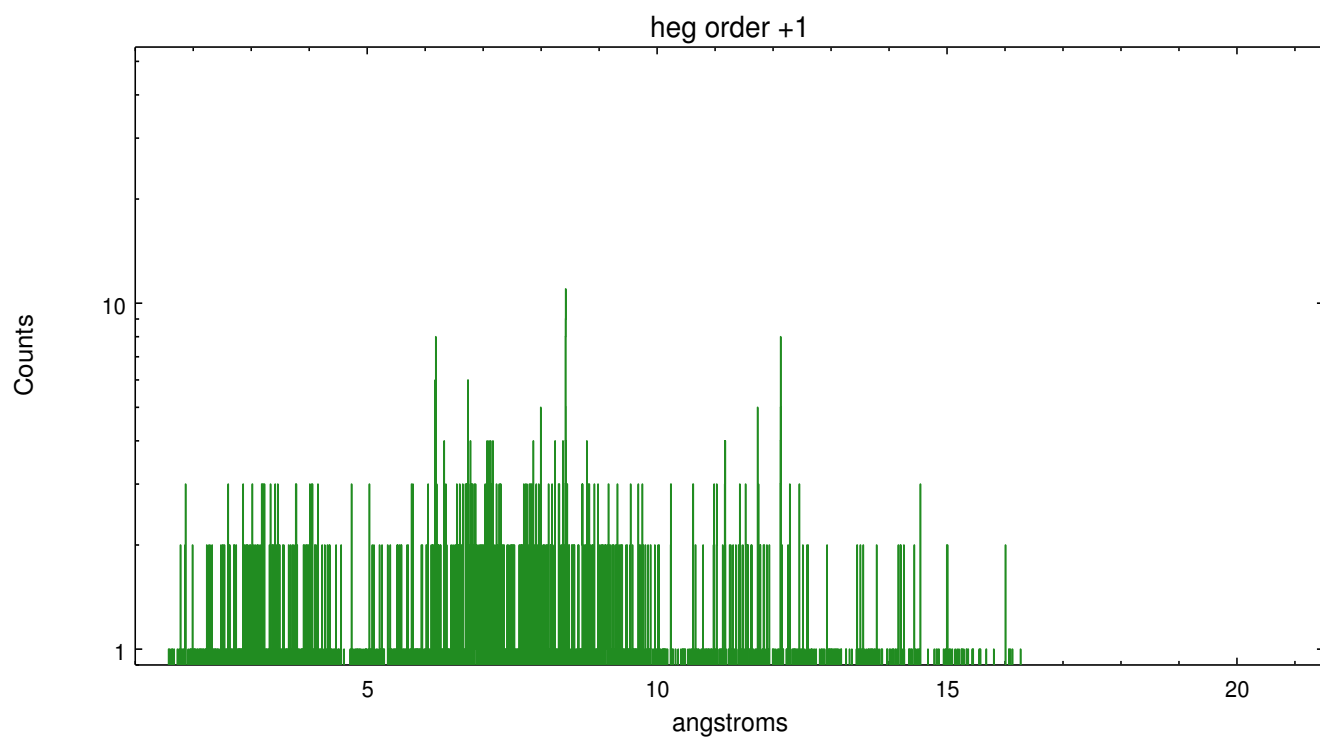
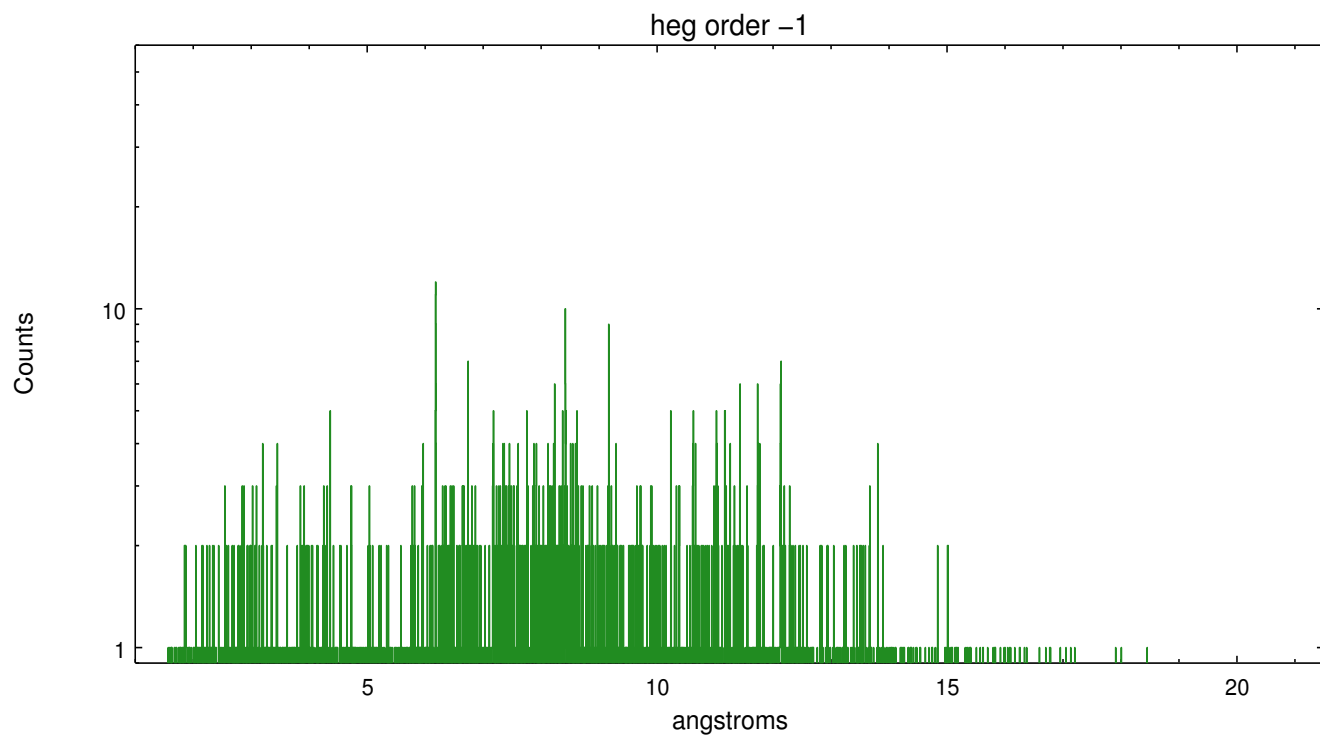
Spot Image HEG



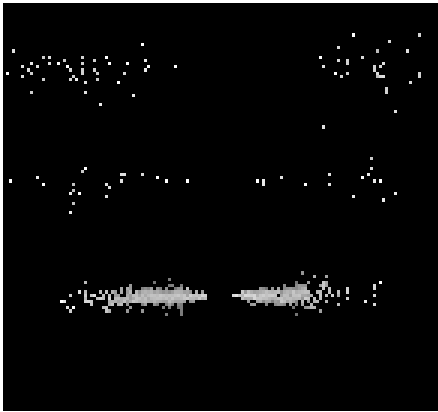
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	73	223	2943	1677	2491	168	65

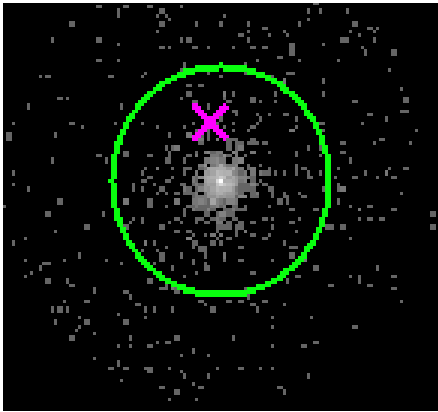




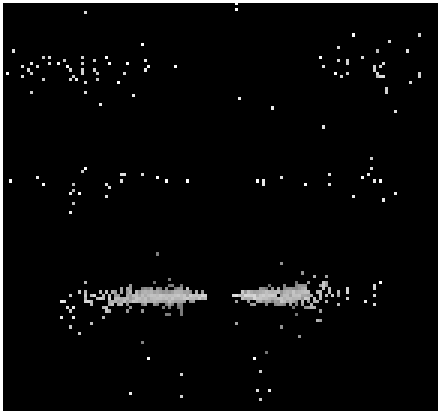
3.2 MEG Arm



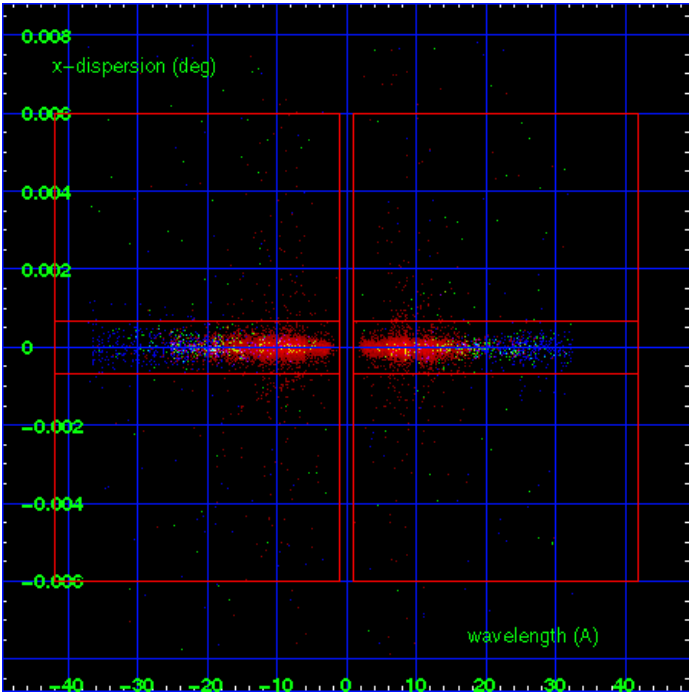
MEG Order Sort 123



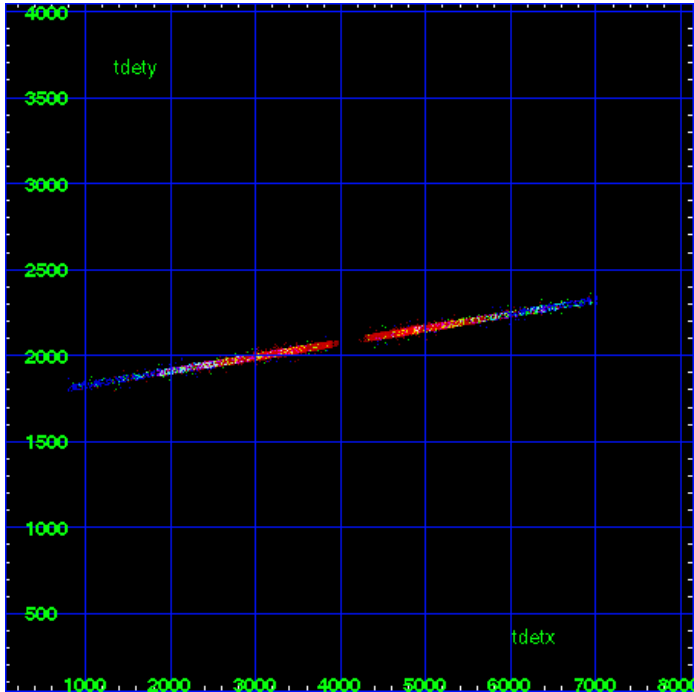
MEG Zero Order



MEG Order Sort ALL

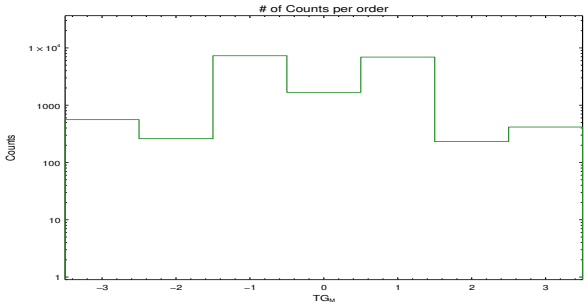


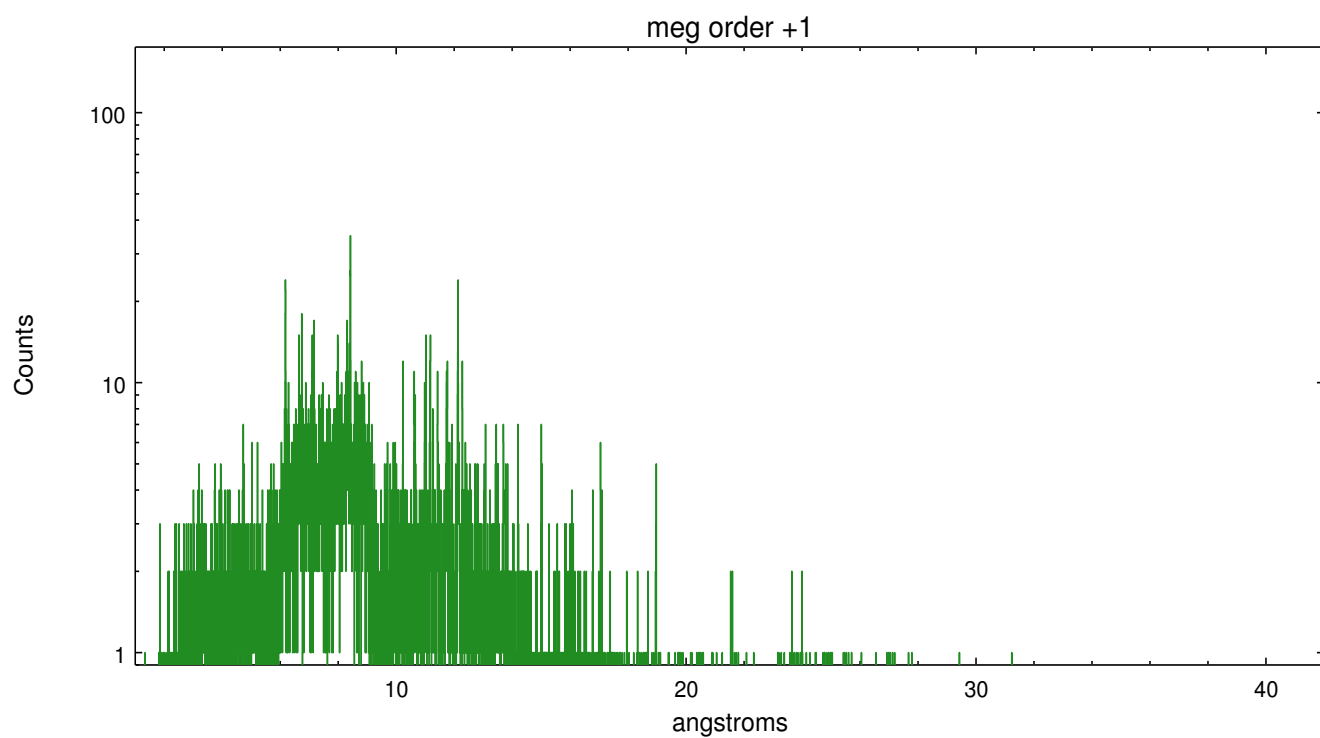
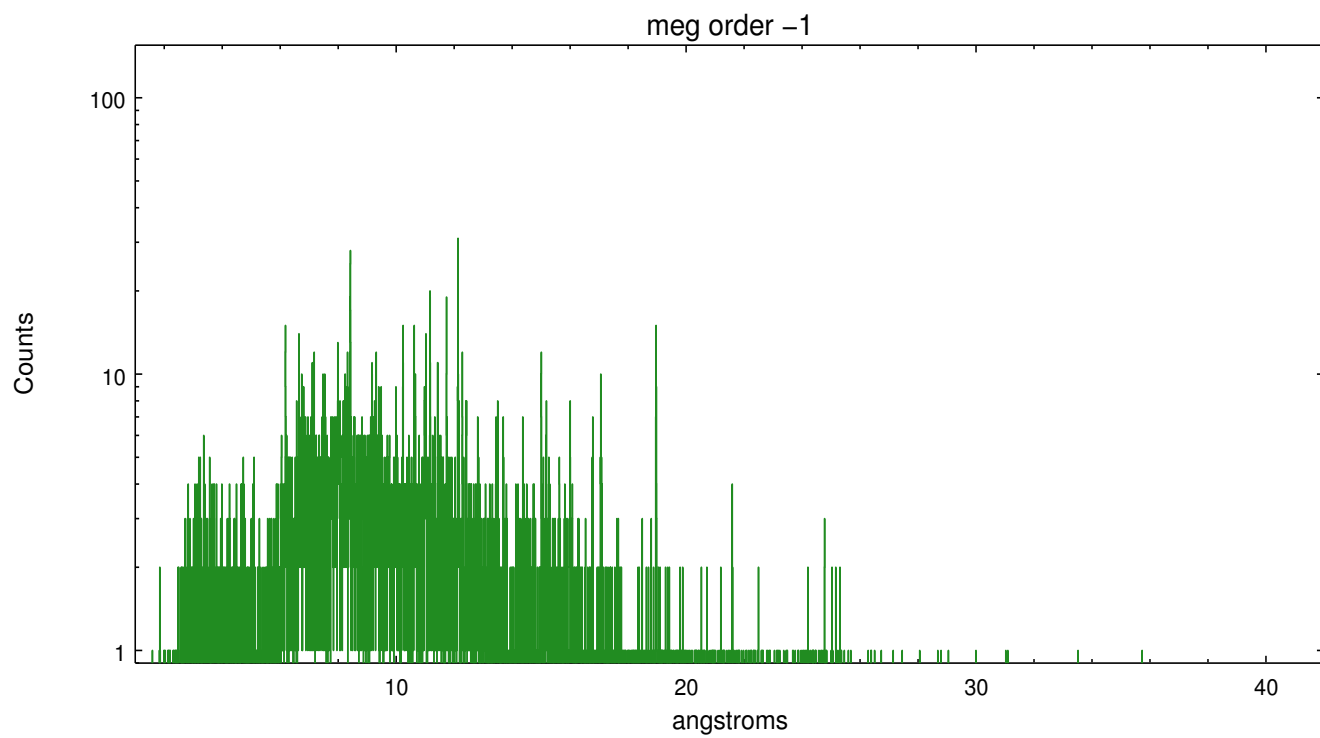
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	560	261	7308	1677	6919	232	416





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.452

A.2 Comments

Roll constraint met. Caveat: due to an 0.5 day observer error on the ephemeris, comments on the phase in the header 'OBJECT' are wrong.