

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 14414 - L2 Version 1
Chandra X-Ray Center

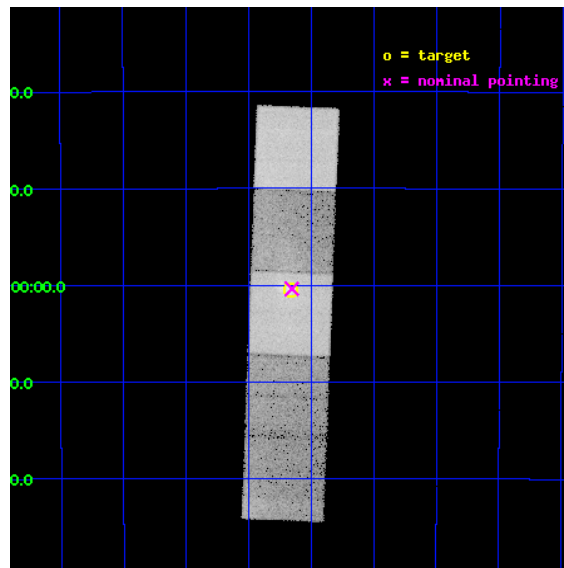
L2 Processing Date : Mar 24 2012

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1 Front

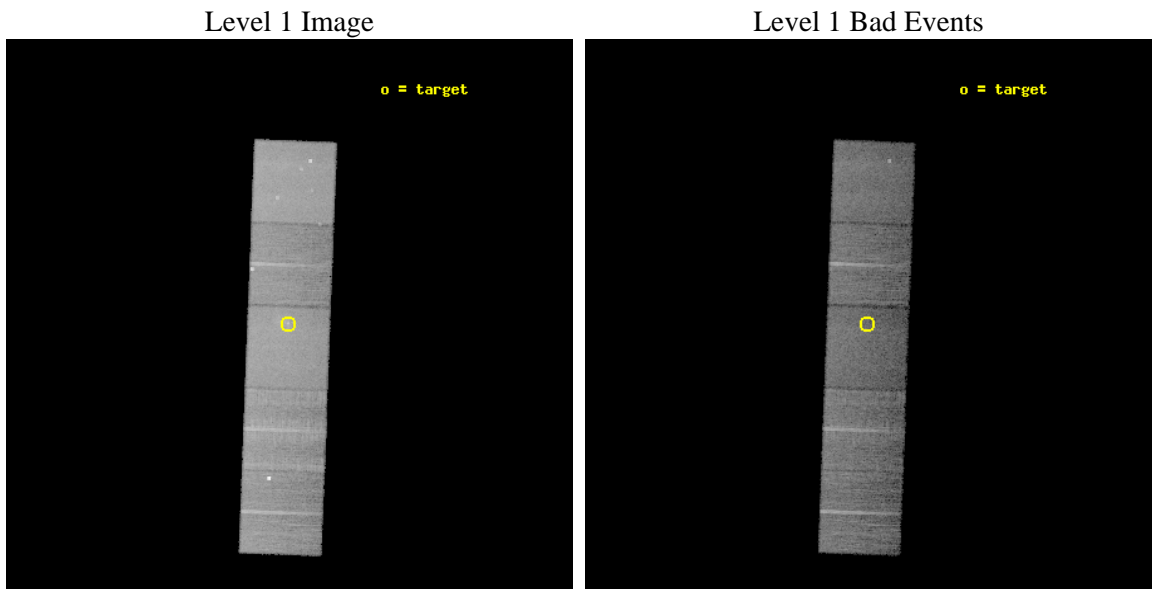
seq_num	601015	Sequence number
obs_id	14414	Observation id
title	Chandra HETG Ultra-deep Gratings Spectroscopy of Sgr A* (CHUGSS)	P
observer	Dr. Frederick Baganoff	Principal investigator
object	Sgr A*	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.416667	Observer's specified target RA [deg]
dec_targ	-29.007806	Observer's specified target Dec [deg]
ra_nom	266.41365917451	Nominal RA [deg]
dec_nom	-29.006290652395	Nominal Dec [deg]
roll_nom	92.155171062763	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20060.100154281	Sum of GTIs [s]
livetime	19798.000177734	Livetime [s]
ontime5	20060.100154281	Sum of GTIs [s]
ontime6	20060.100154281	Sum of GTIs [s]
ontime7	20060.100154281	Sum of GTIs [s]
ontime8	20060.100154281	Sum of GTIs [s]
ontime9	20060.100154281	Sum of GTIs [s]
l2events	229495	Number of level 2 events



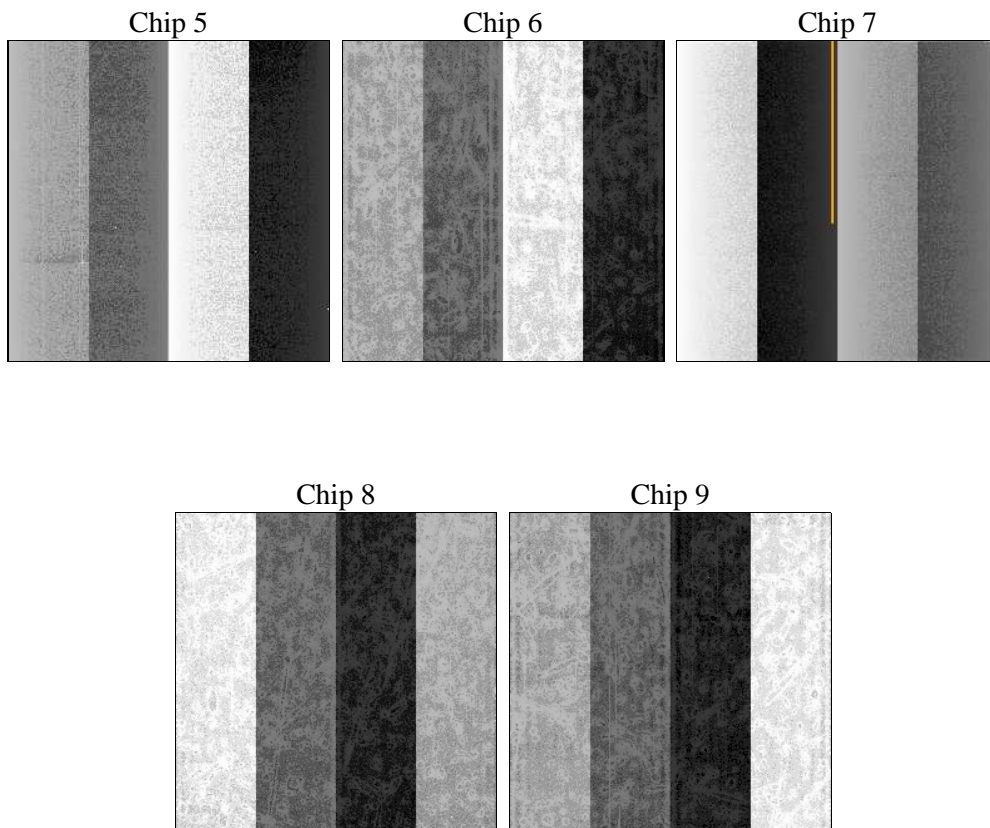
2 OBI

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	8.4.3	Processing system revision	ontime	20060.100154281	Sum of GTIs [s]
caldsver	4.4.8	 	ontime5	20060.100154281	Sum of GTIs [s]
date	2012-03-24T15:41:37	Date and time of file creation	ontime6	20060.100154281	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	20060.100154281	Sum of GTIs [s]
			ontime8	20060.100154281	Sum of GTIs [s]
			ontime9	20060.100154281	Sum of GTIs [s]
			l1events	768663	Number of level 1 events

2.1.4 Events

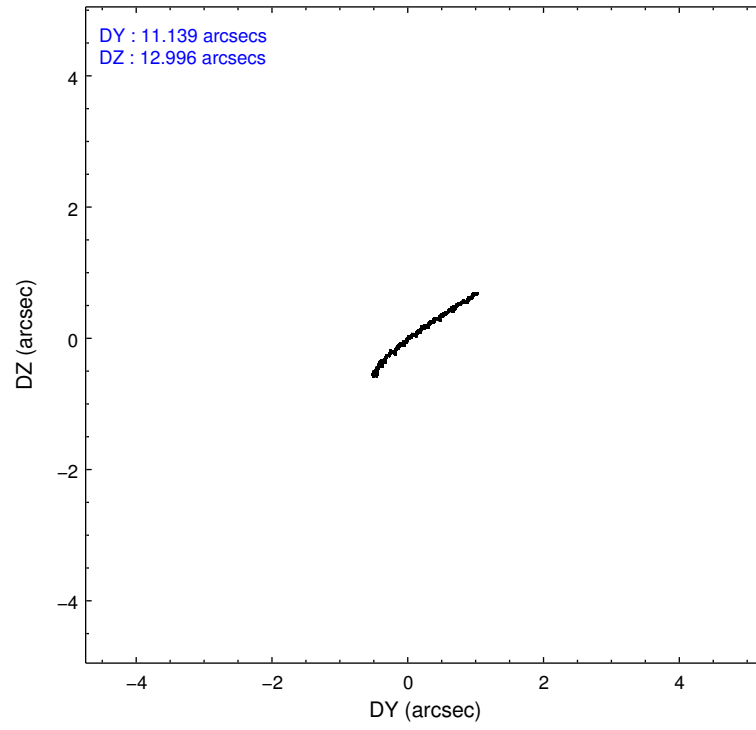
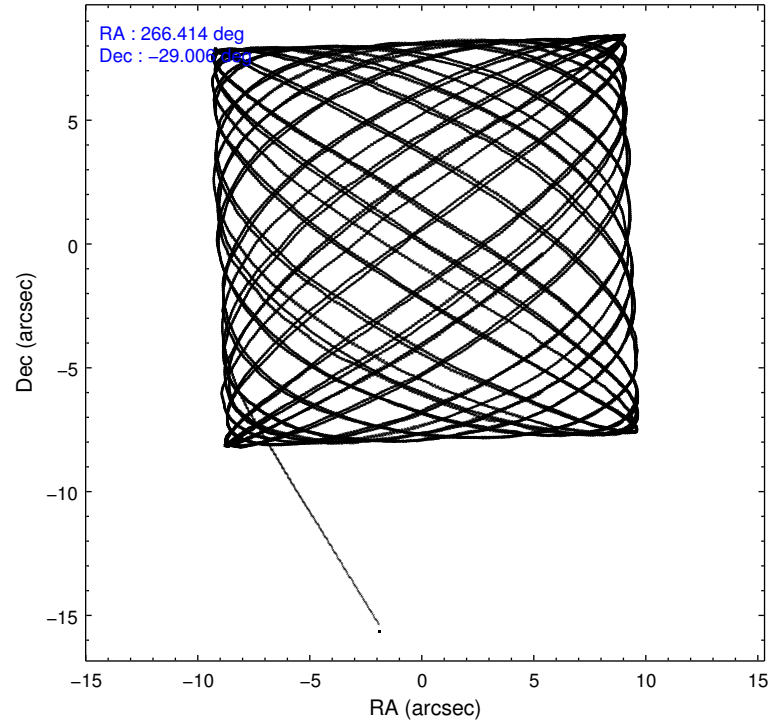
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	186955	126947	169009	156621	129131
rejected events	95418	100104	85162	111693	102985
rejected %	51%	78%	50%	71%	79%

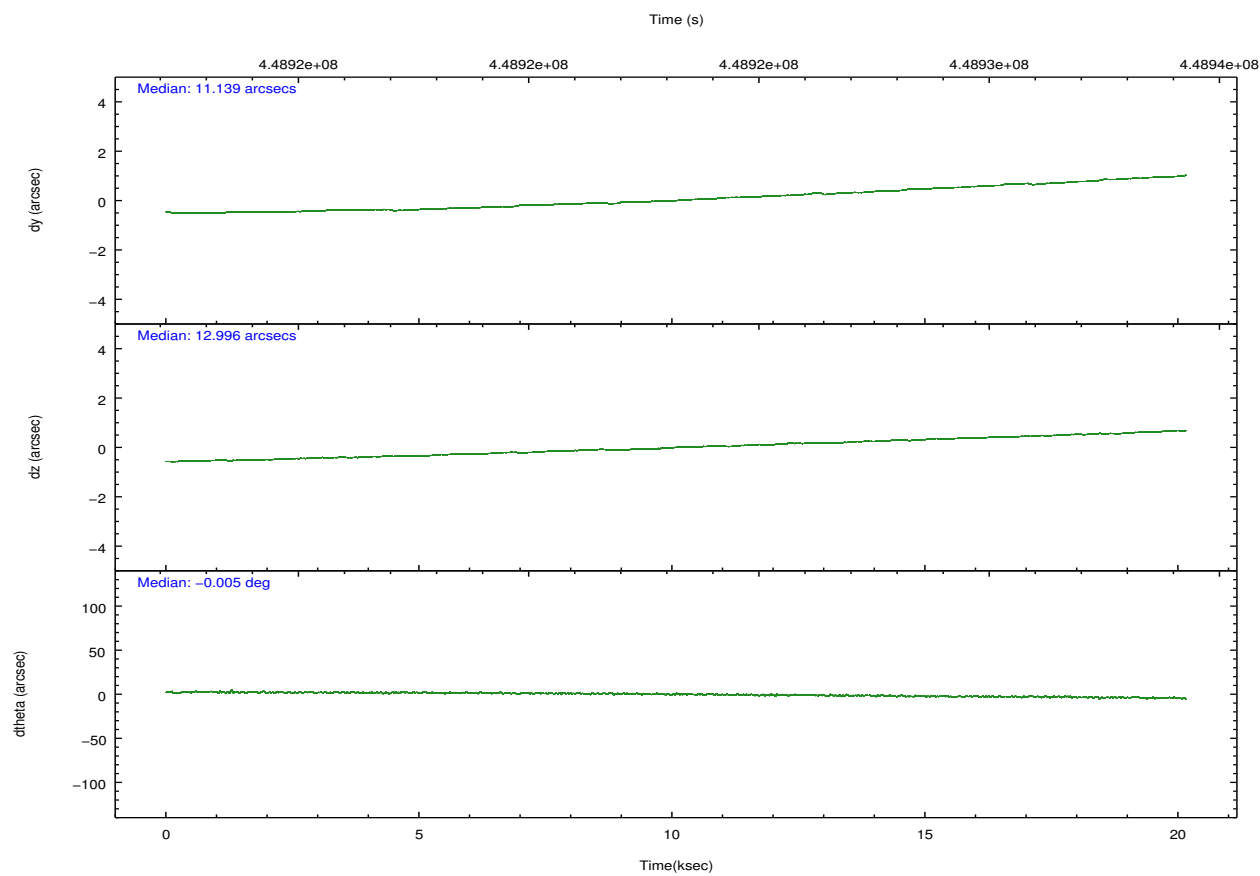
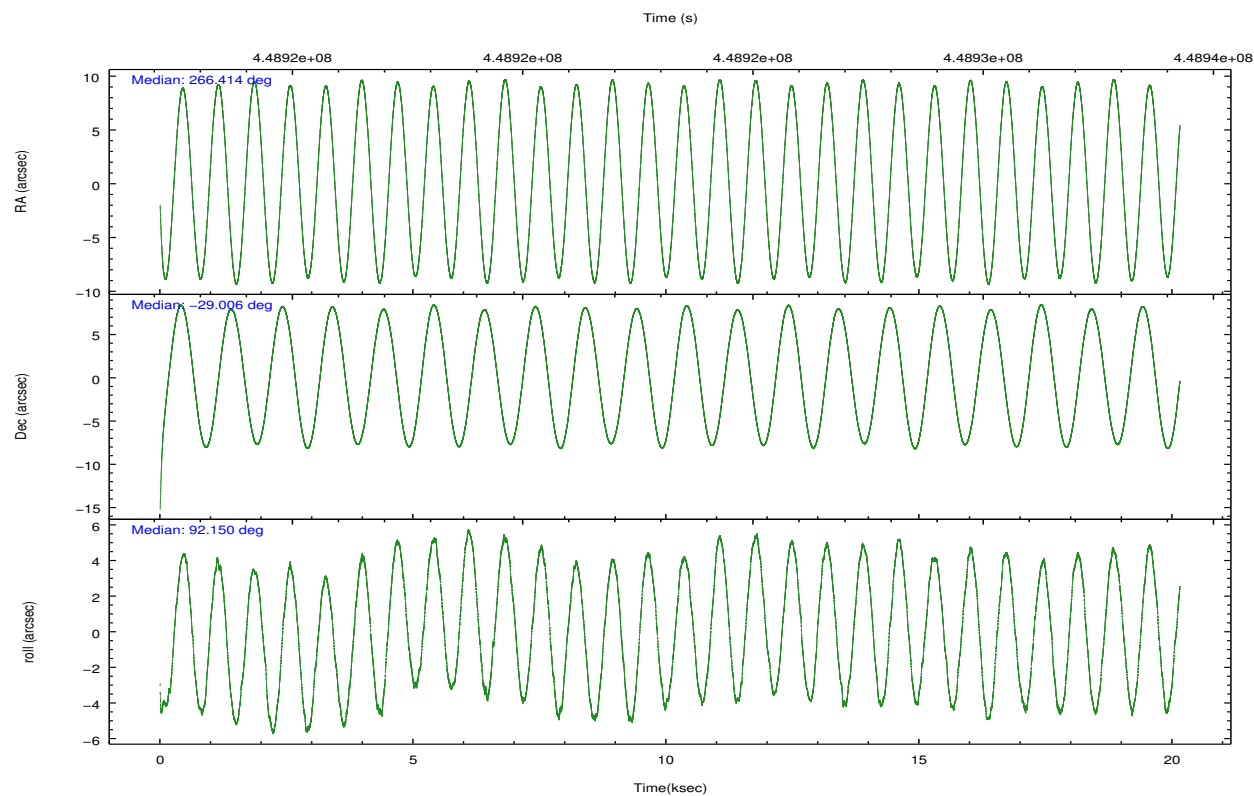
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	7629	13903	9453	15205	15305
	4%	10%	5%	9%	11%
grade 1 events	882	128	212	132	134
	0%	0%	0%	0%	0%
grade 2 events	28330	4665	17631	10298	3860
	15%	3%	10%	6%	2%
grade 3 events	3215	2007	7381	4311	1835
	1%	1%	4%	2%	1%
grade 4 events	3126	1941	7481	4033	1678
	1%	1%	4%	2%	1%
grade 5 events	13503	5809	15416	8283	6384
	7%	4%	9%	5%	4%
grade 6 events	49244	4330	41916	11084	3471
	26%	3%	24%	7%	2%
grade 7 events	81026	94164	69519	103275	96464
	43%	74%	41%	65%	74%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	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	266.430680	266.4136591745097	Subarray requested	NONE	NONE
[deg] Pointing Dec	-29.029222	-29.00629065239491	Alternating exposures requested	N	N
[deg] Pointing Roll	92.006803	92.155171062763	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	448913278.184000	448912184.63671			
Observation start date	2012-03-23T18:06:52	2012-03-23T17:49:44			
[s] Observation end time (MET)	448933278.184000	448934558.8504			
Observation end date	2012-03-23T23:40:12	2012-03-24T00:02:38			
Read mode	TIMED	TIMED			

2.3 Aspect



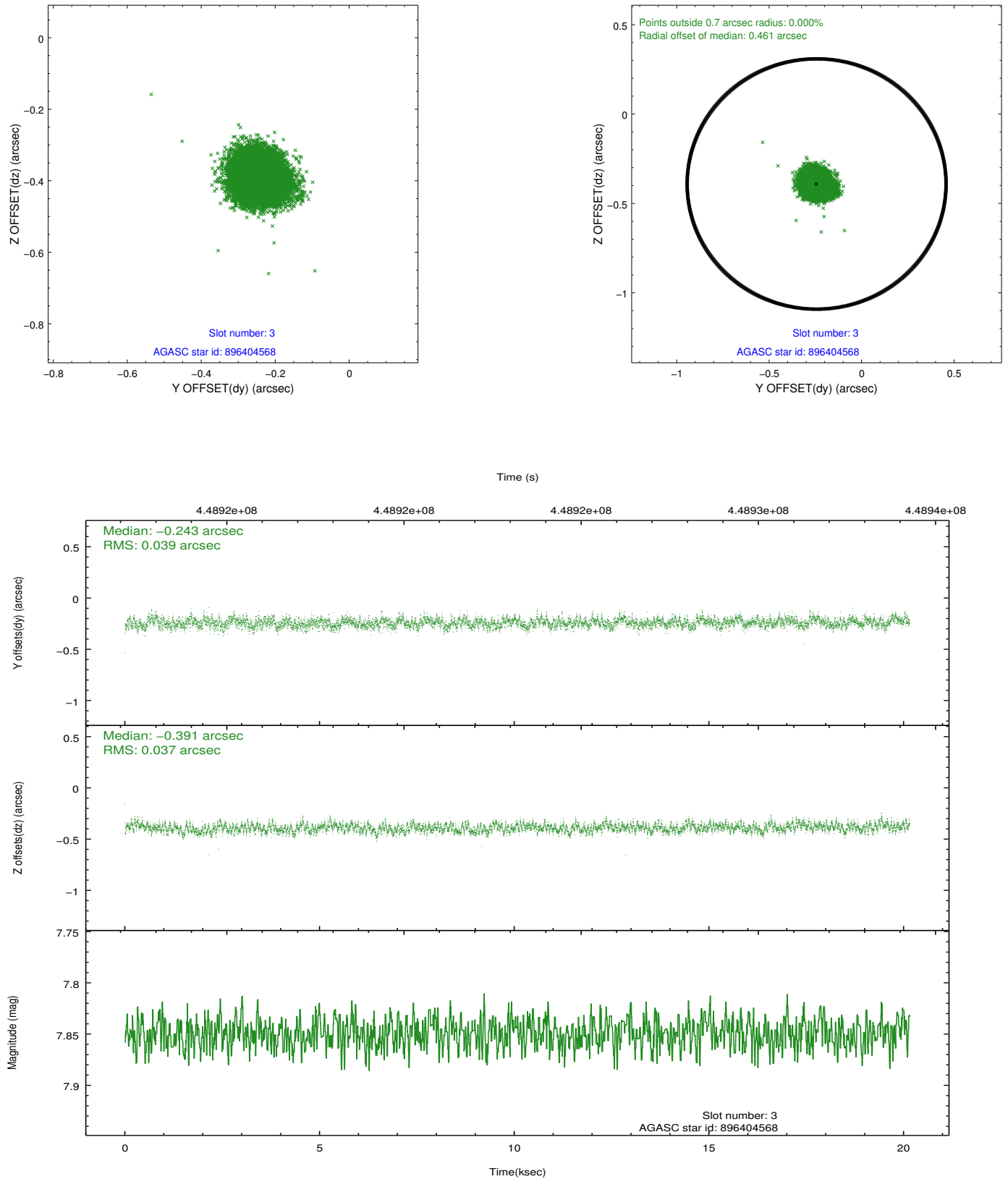


Slot Statistics

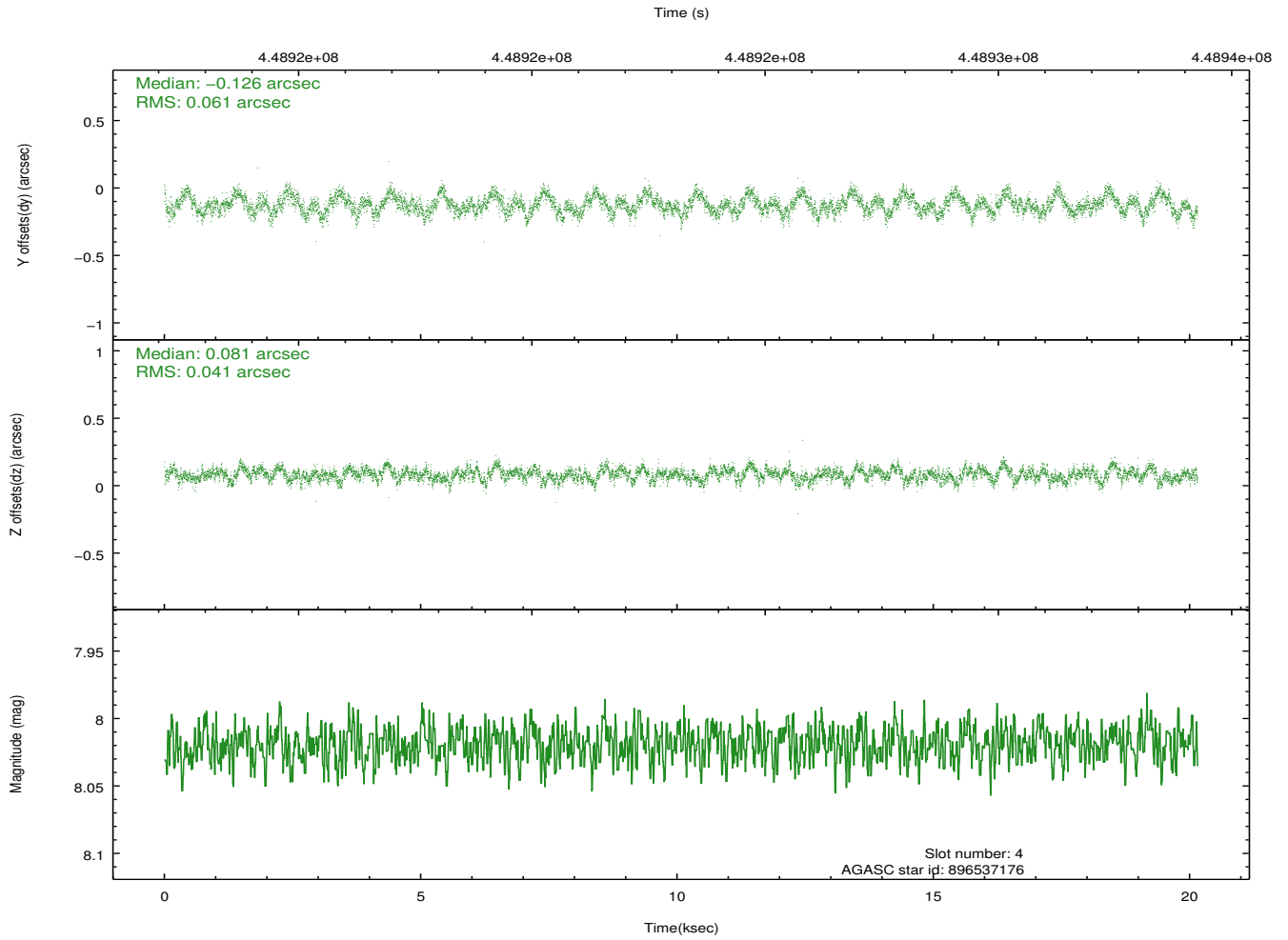
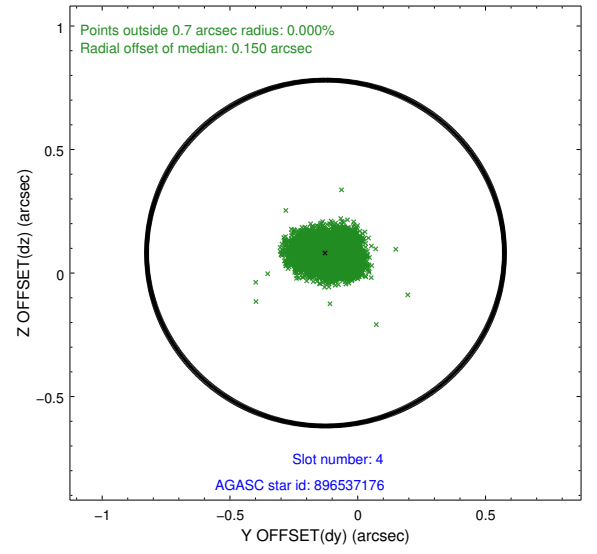
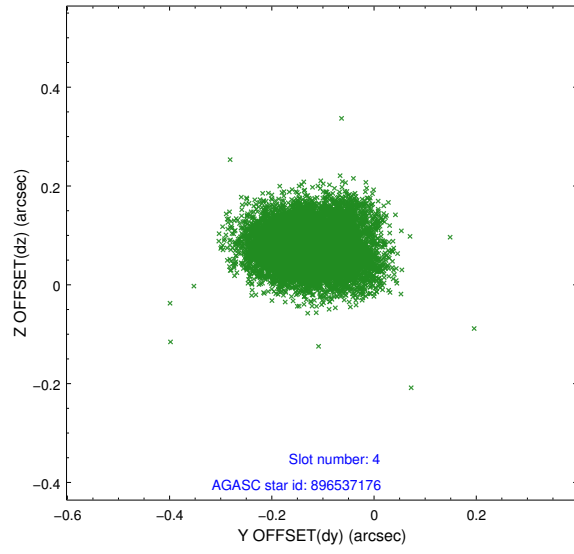
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.10	4916	-0.017	-0.026	0.020	0.034	0.000000	0.000000	931.91	-1729.94
1	FID	ACIS-S-4	7.10	4916	0.080	-0.002	0.017	0.025	0.000000	0.000000	2149.52	174.05
2	FID	ACIS-S-6	7.24	4916	-0.086	0.042	0.011	0.018	0.000000	0.000000	398.02	811.67
3	GUIDE	896404568	7.85	9830	-0.243	-0.391	0.057	0.090	265.687293	-28.431080	2226.86	2276.77
4	GUIDE	896537176	8.02	9829	-0.126	0.081	0.078	0.128	266.498272	-28.678259	1255.43	-257.15
5	GUIDE	896540808	7.48	9826	0.067	-0.316	0.047	0.073	265.985401	-29.308604	-958.64	1431.89
6	GUIDE	896537776	7.53	9830	0.386	0.211	0.048	0.078	266.655684	-29.665673	-2314.65	-623.00
7	GUIDE	896538208	7.96	9828	-0.086	0.415	0.060	0.099	267.176969	-28.671626	1196.68	-2400.13

2.4 Star Slots

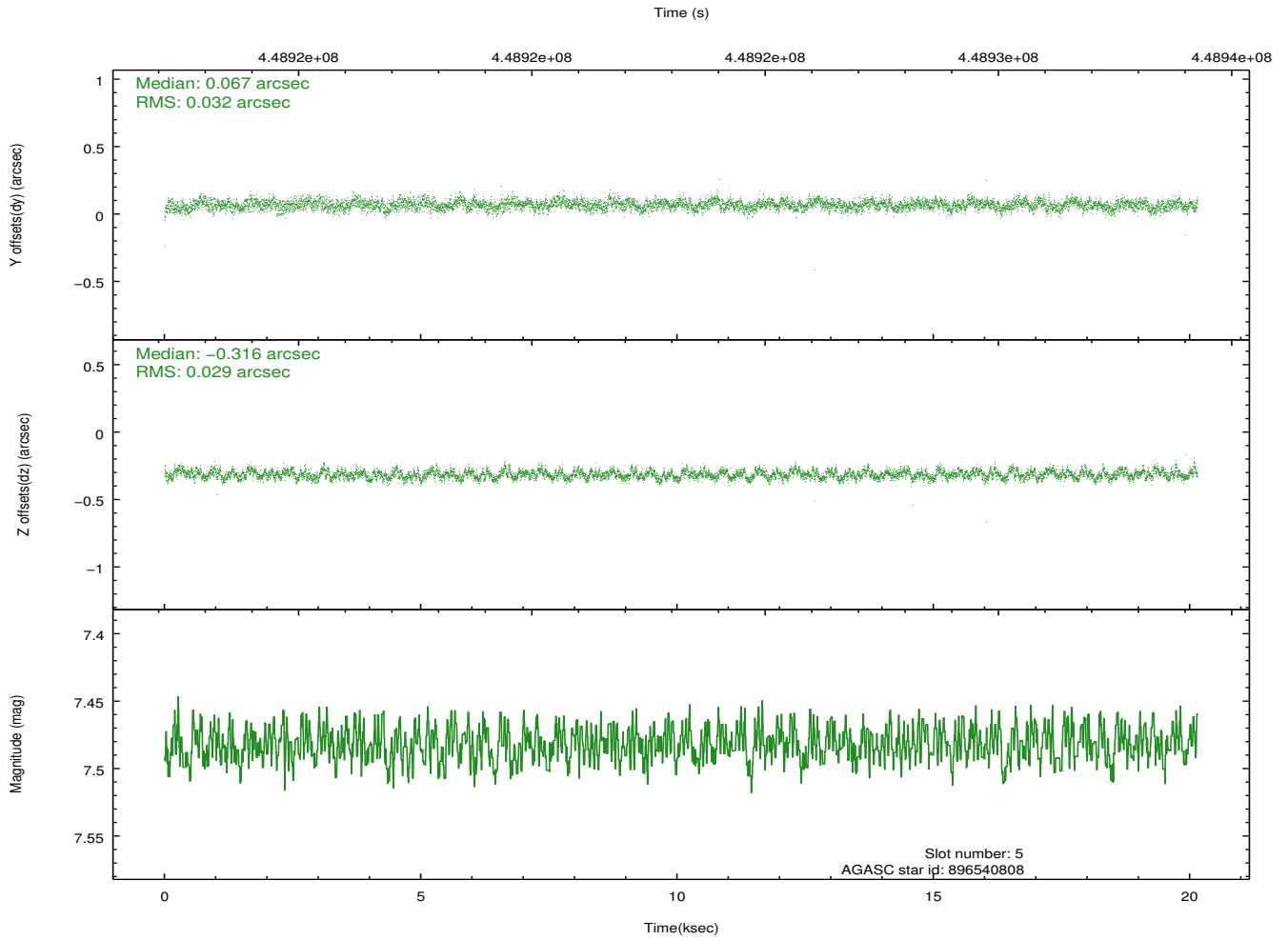
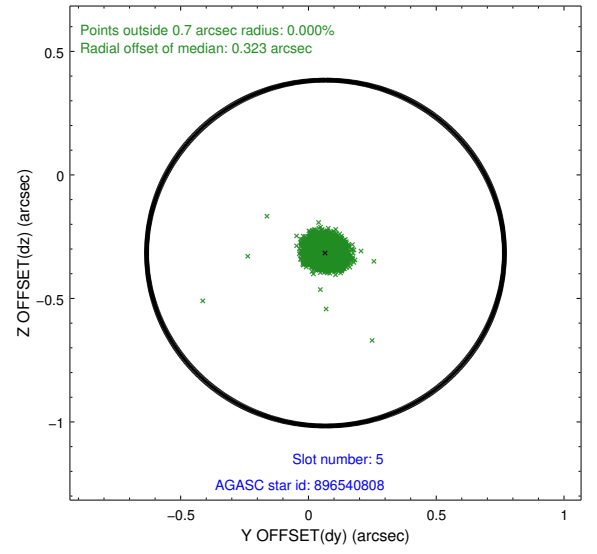
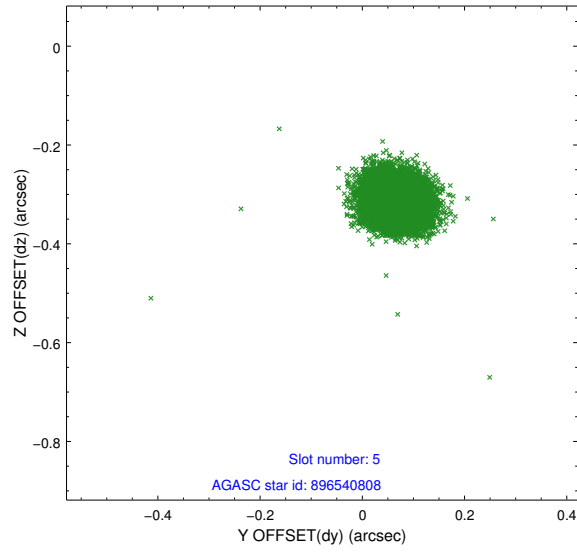
2.4.1 Slot 3



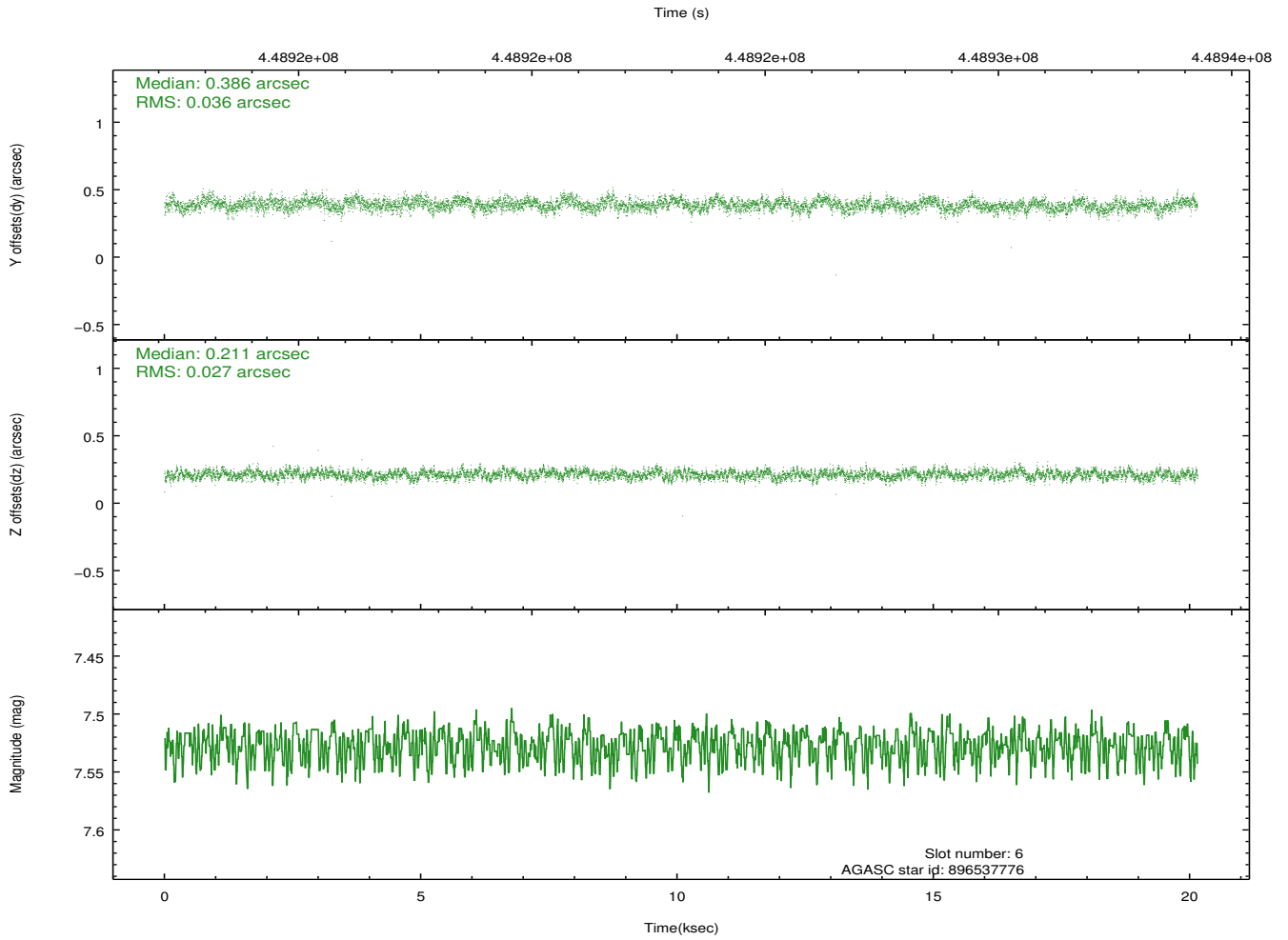
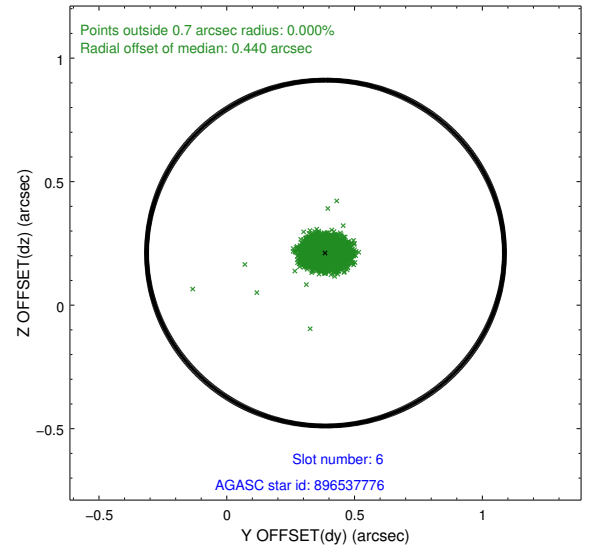
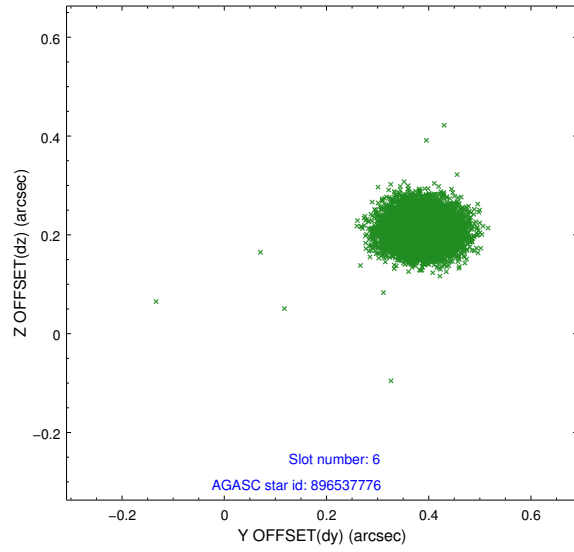
2.4.2 Slot 4



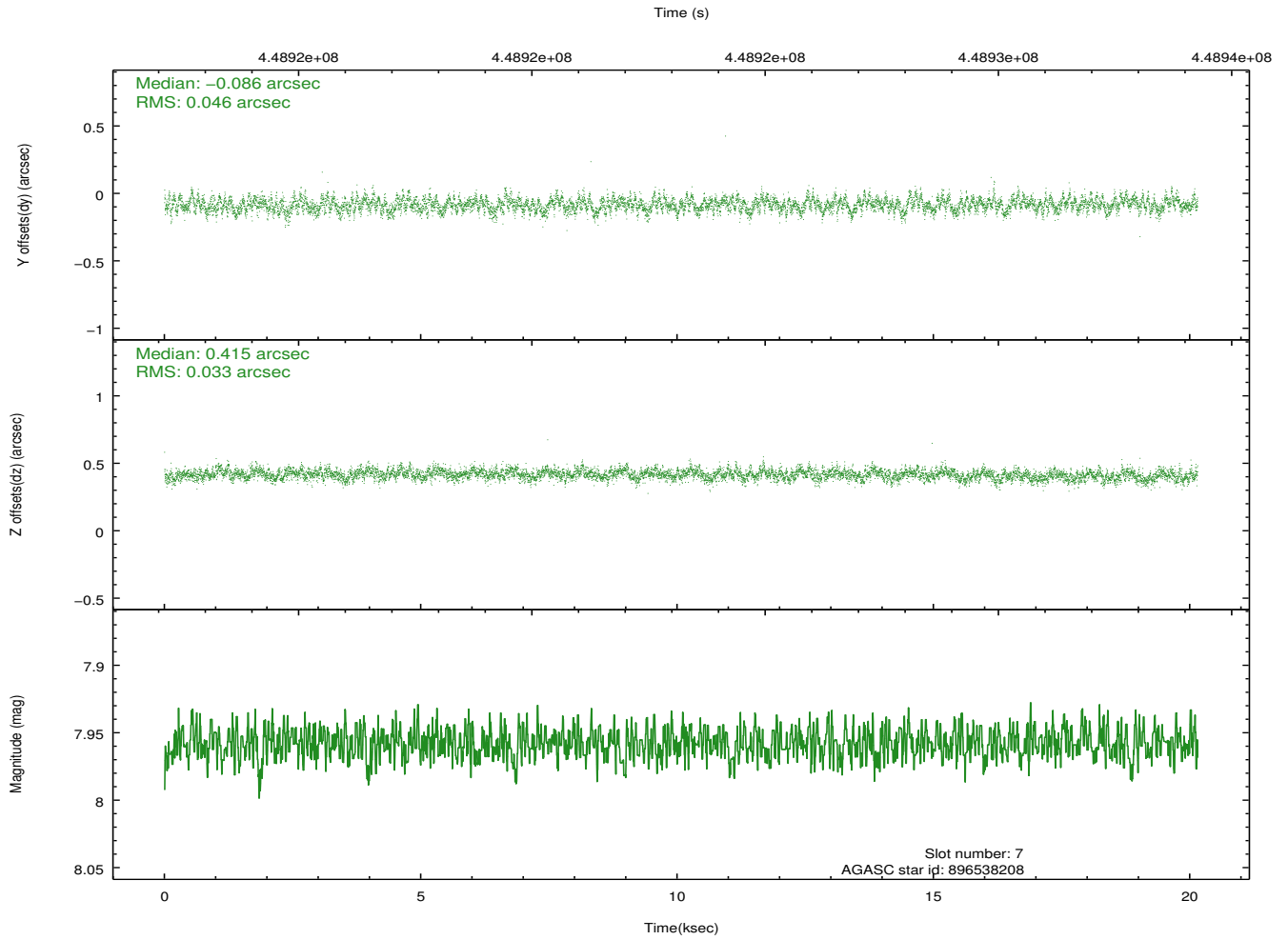
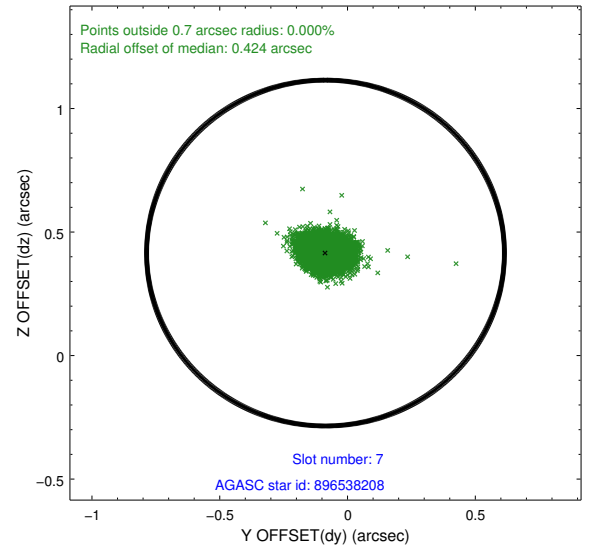
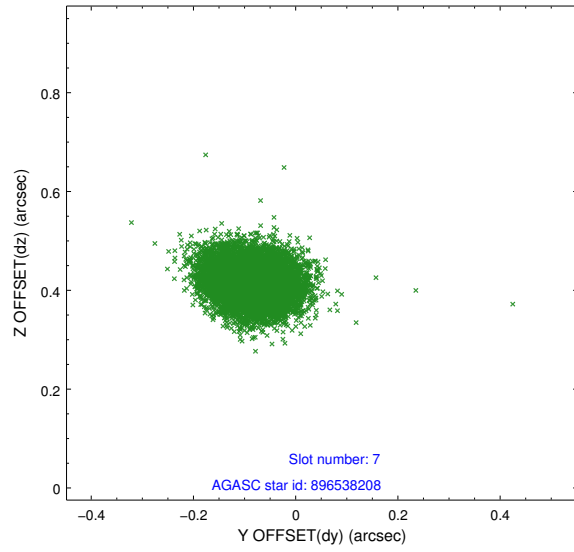
2.4.3 Slot 5



2.4.4 Slot 6

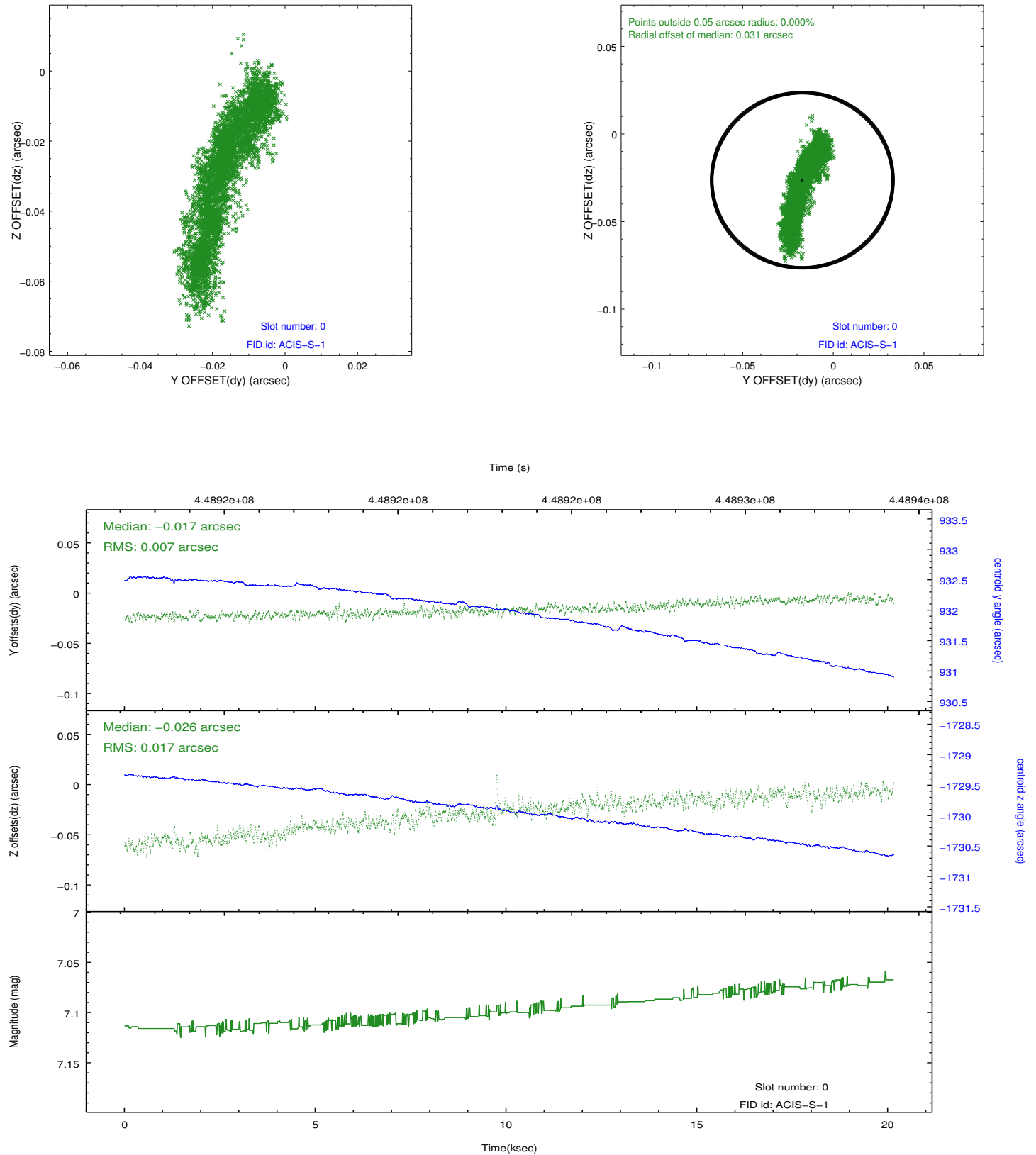


2.4.5 Slot 7

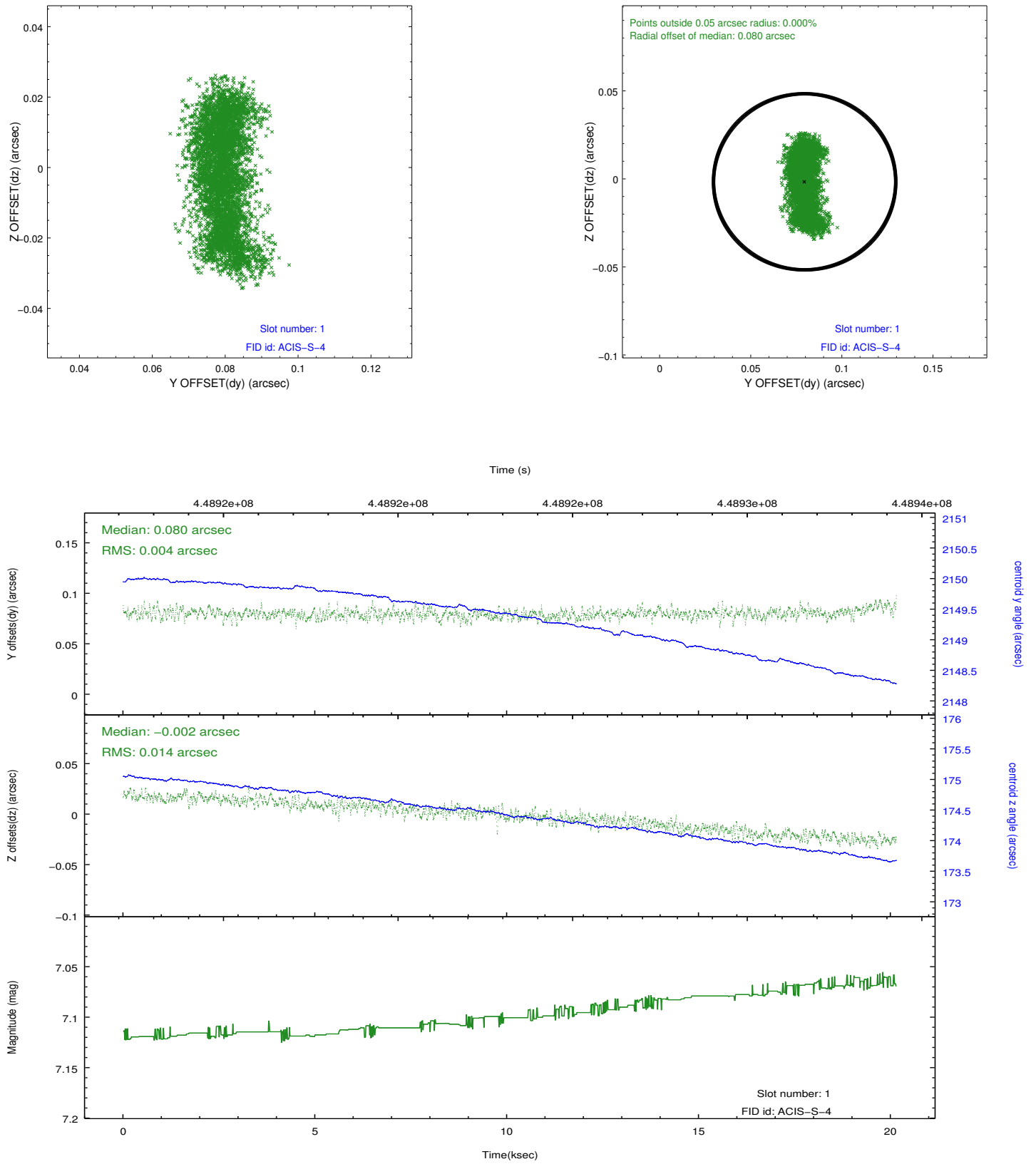


2.5 FID Slots

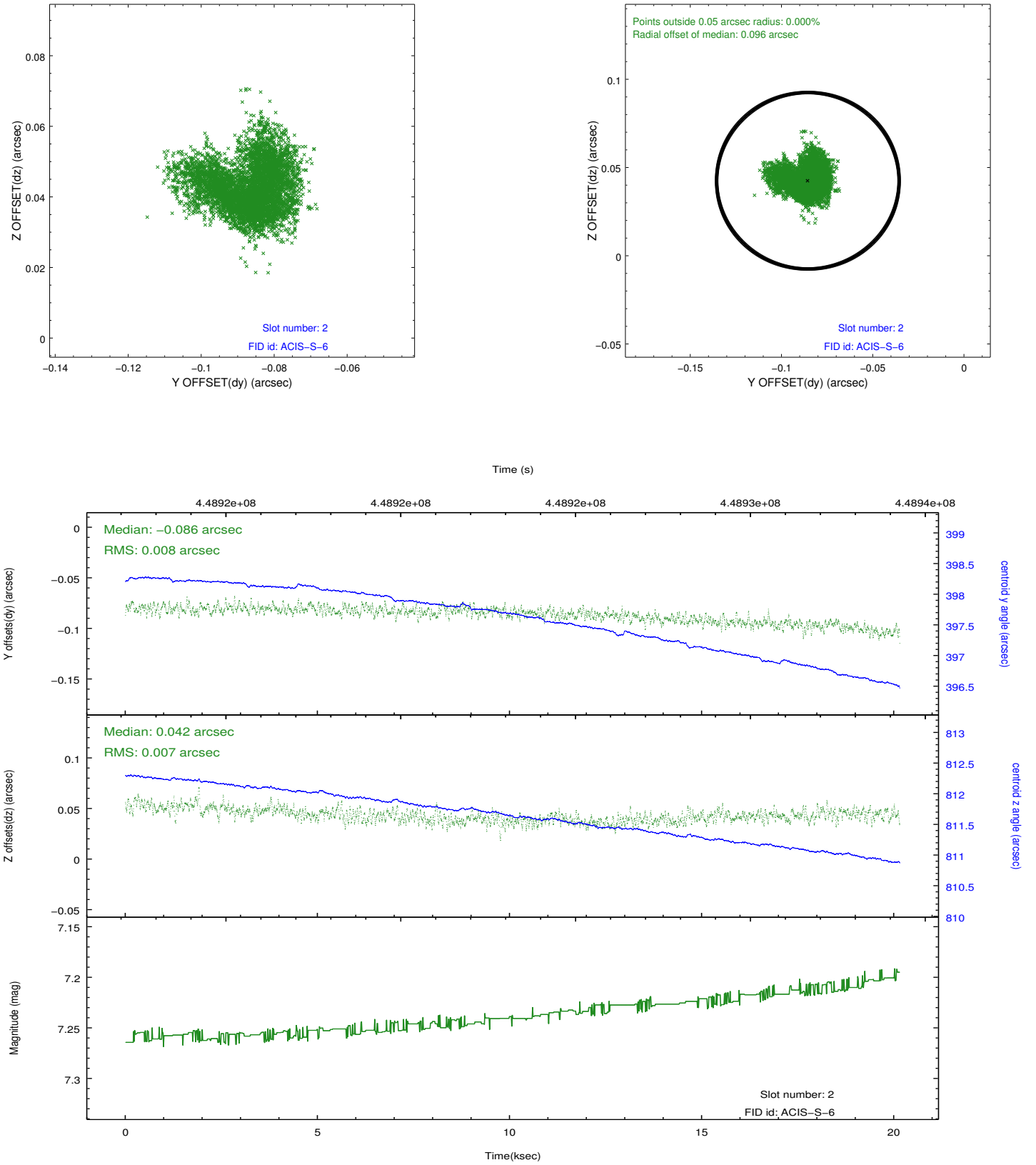
2.5.1 Slot 0



2.5.2 Slot 1

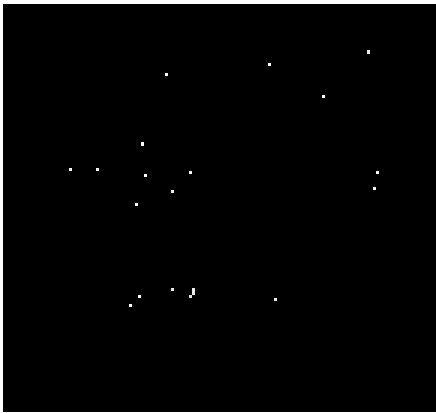


2.5.3 Slot 2

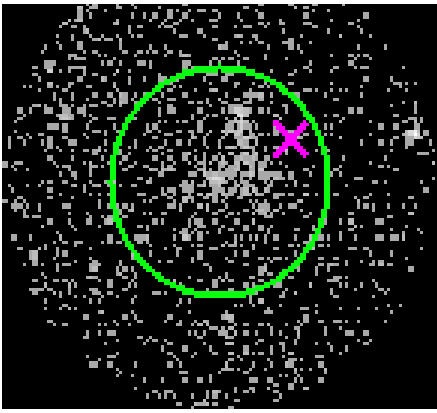


3 Gratings

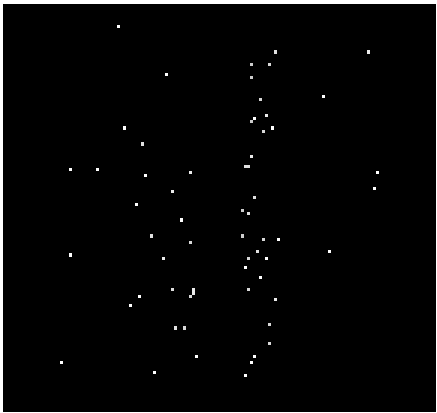
3.1 HEG Arm



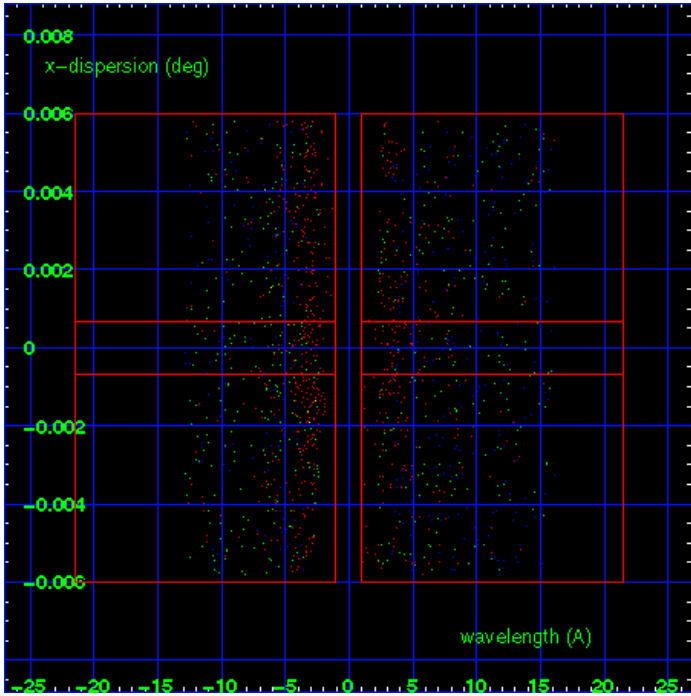
HEG Order Sort 123



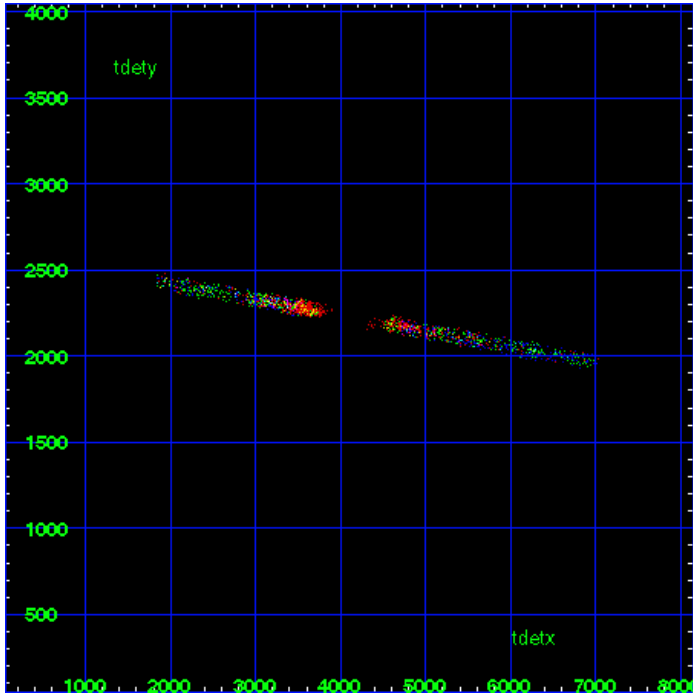
HEG Zero Order



HEG Order Sort ALL

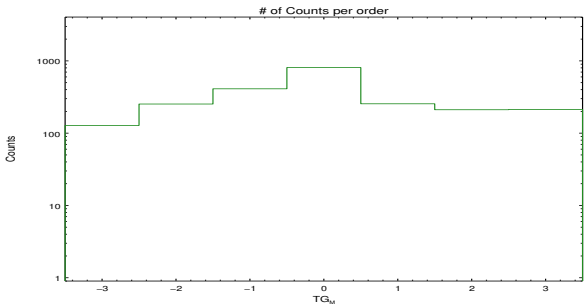


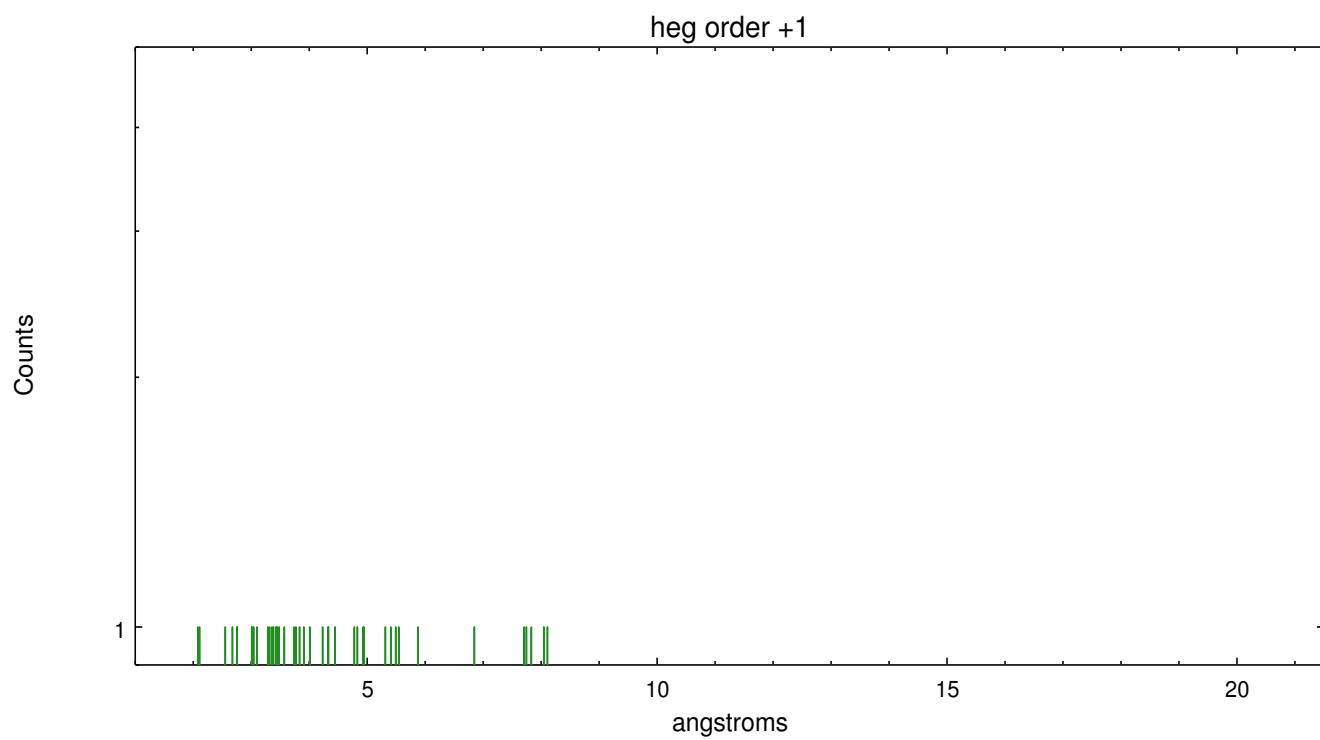
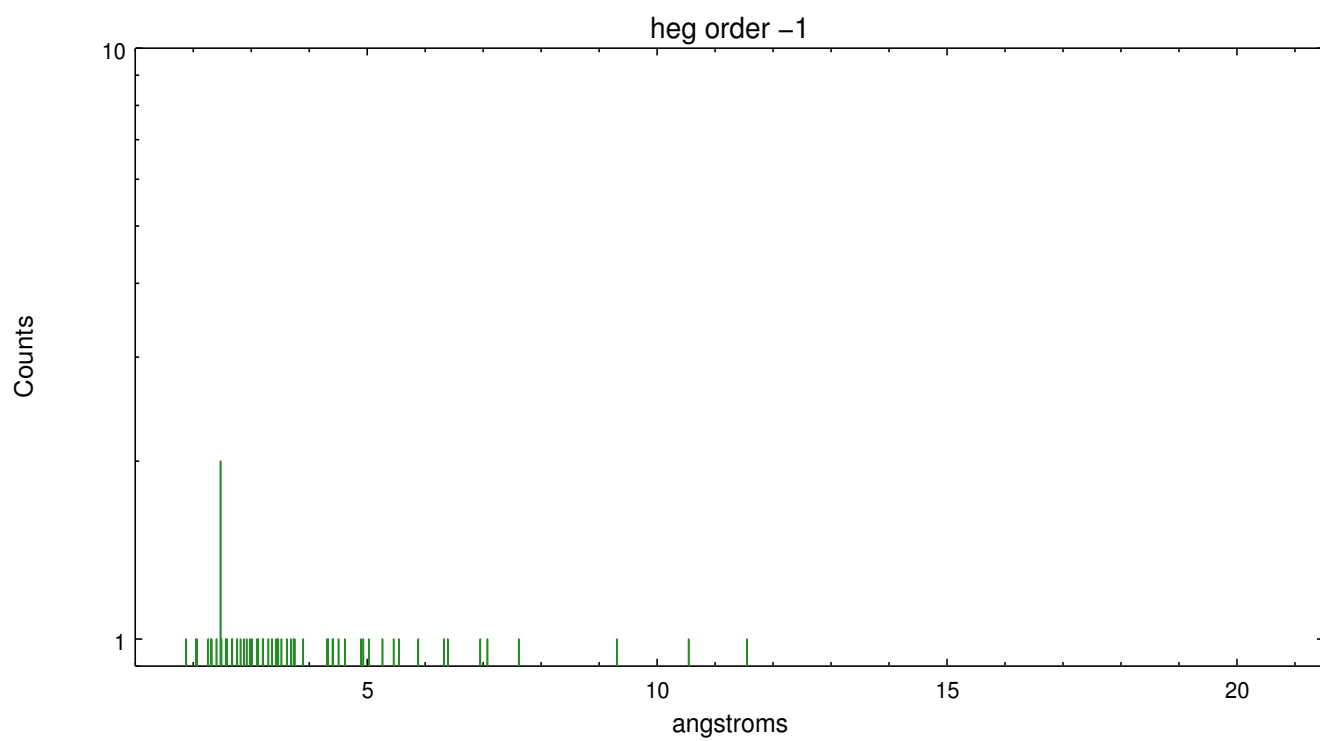
Spot Image HEG



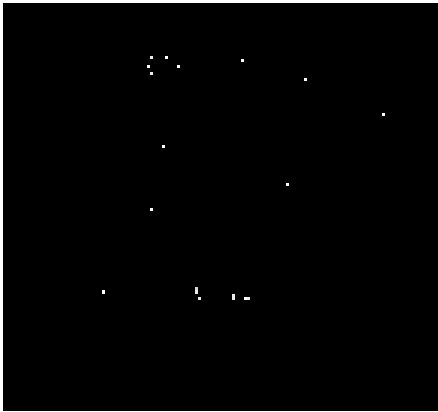
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	128	253	411	808	255	211	212

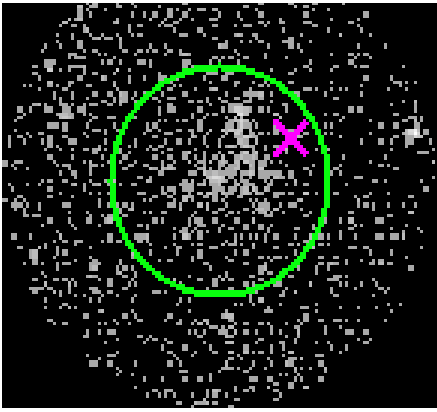




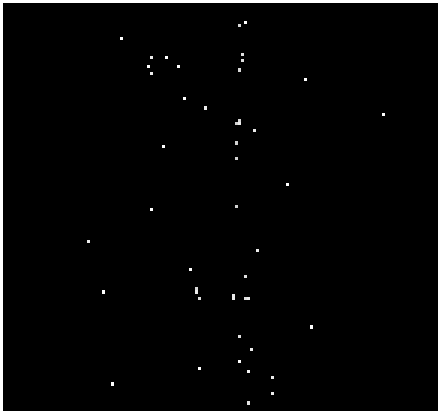
3.2 MEG Arm



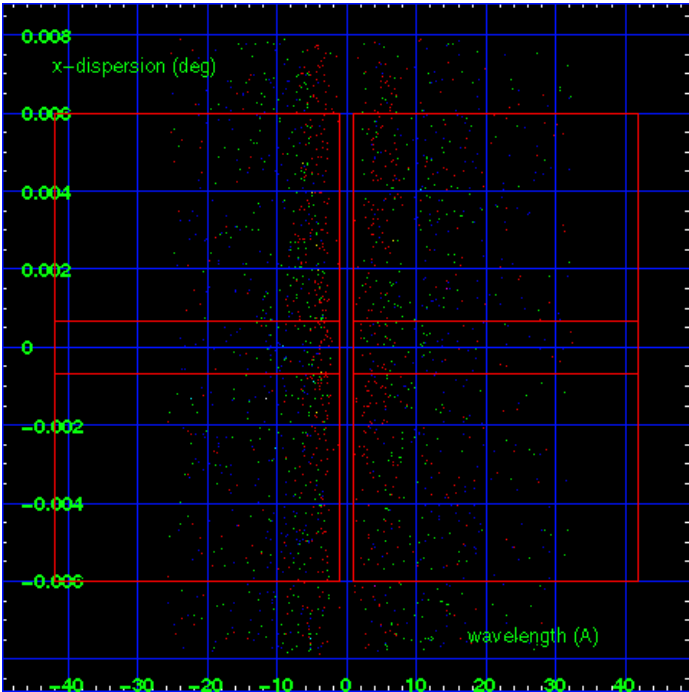
MEG Order Sort 123



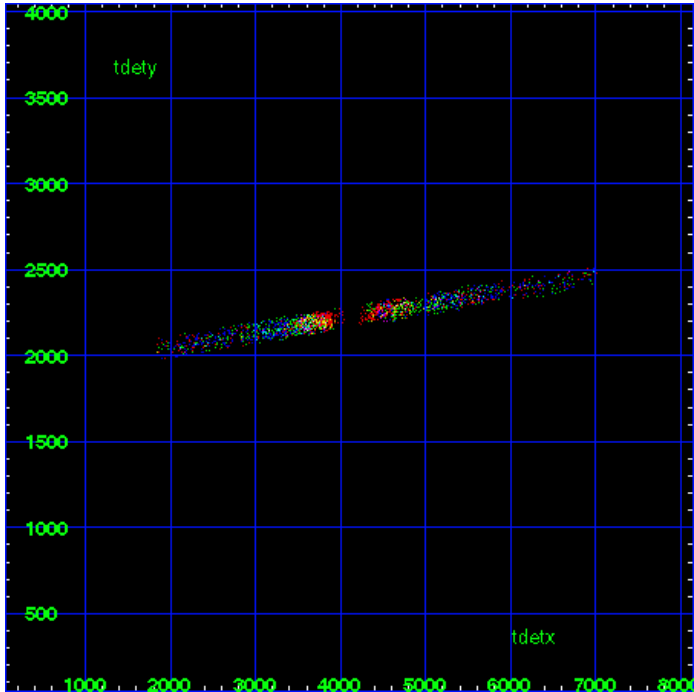
MEG Zero Order



MEG Order Sort ALL

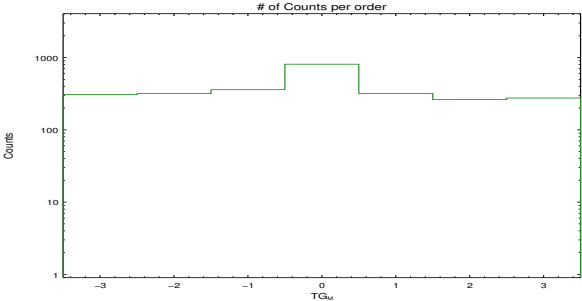


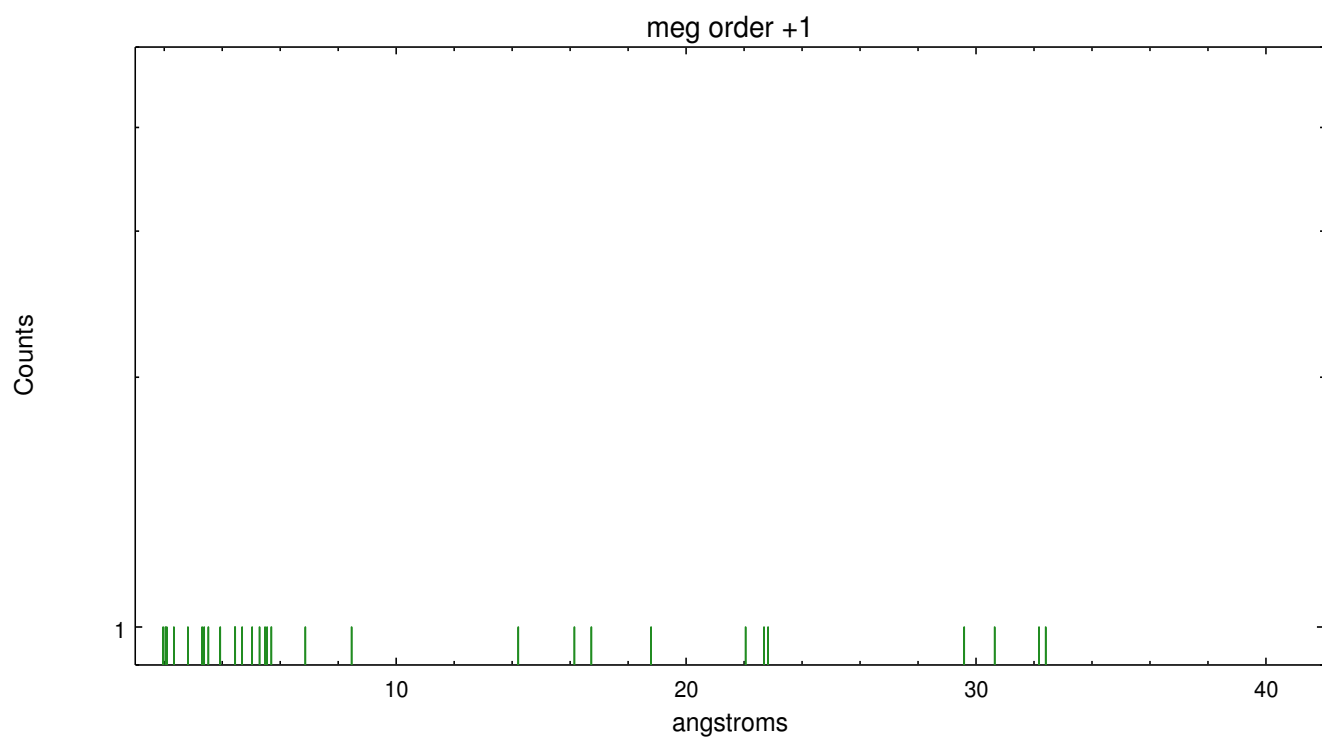
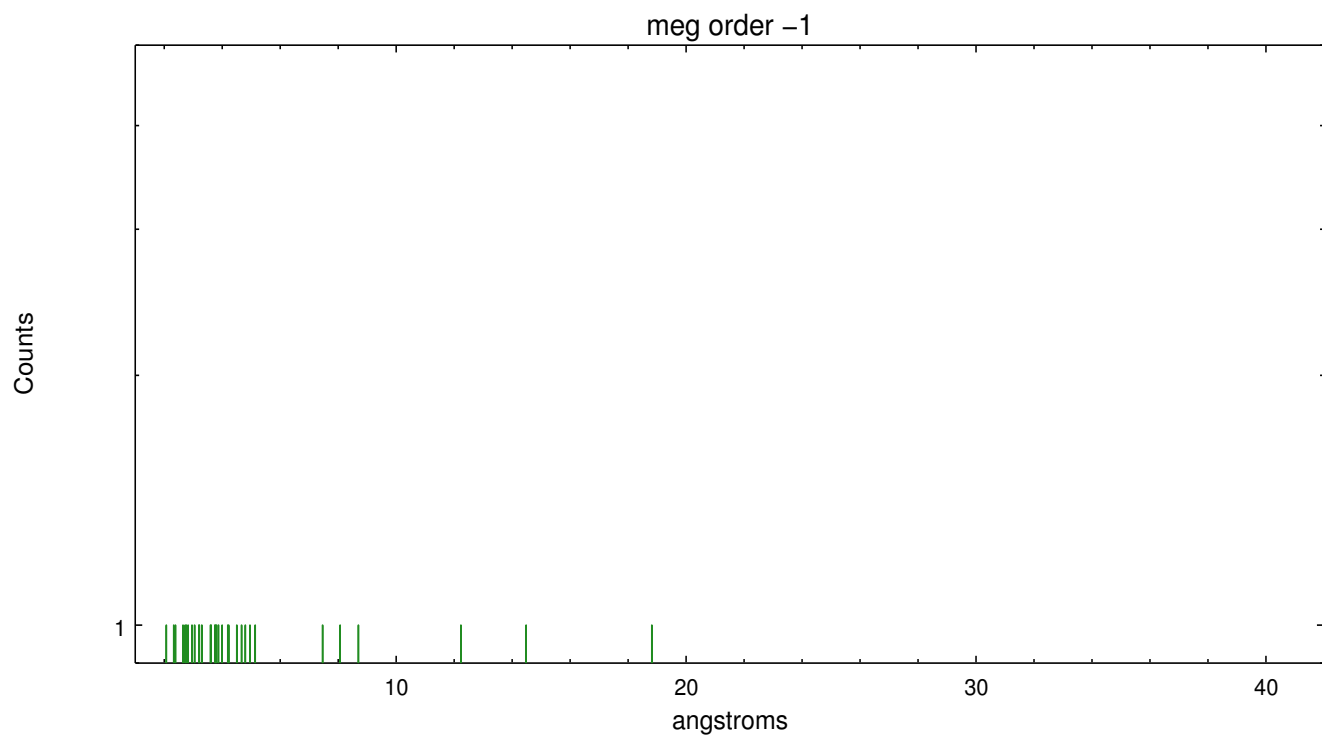
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	307	317	359	808	318	262	275





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.03.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.060100154281

A.2 Comments

Note: spatially complex region with multiple sources and extended emission. The spectral extraction was centered on the nominal Sgr A* coordinates: (RA,DEC) = (266.416667, -29.007806)[deg].