

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2730 - L2 Version 3
Chandra X-Ray Center

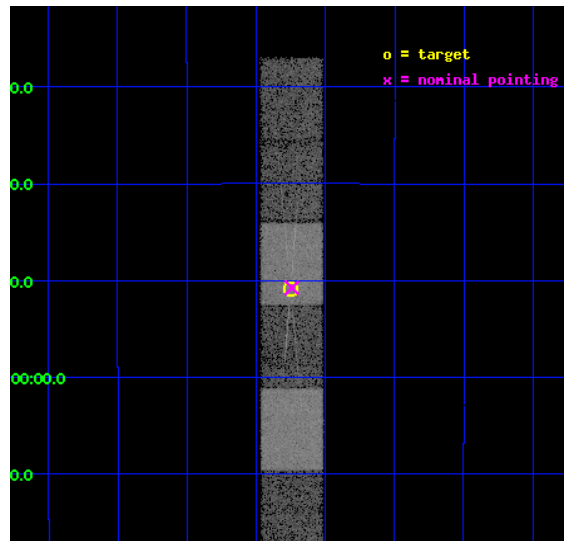
L2 Processing Date : Oct 13 2012

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1 Front

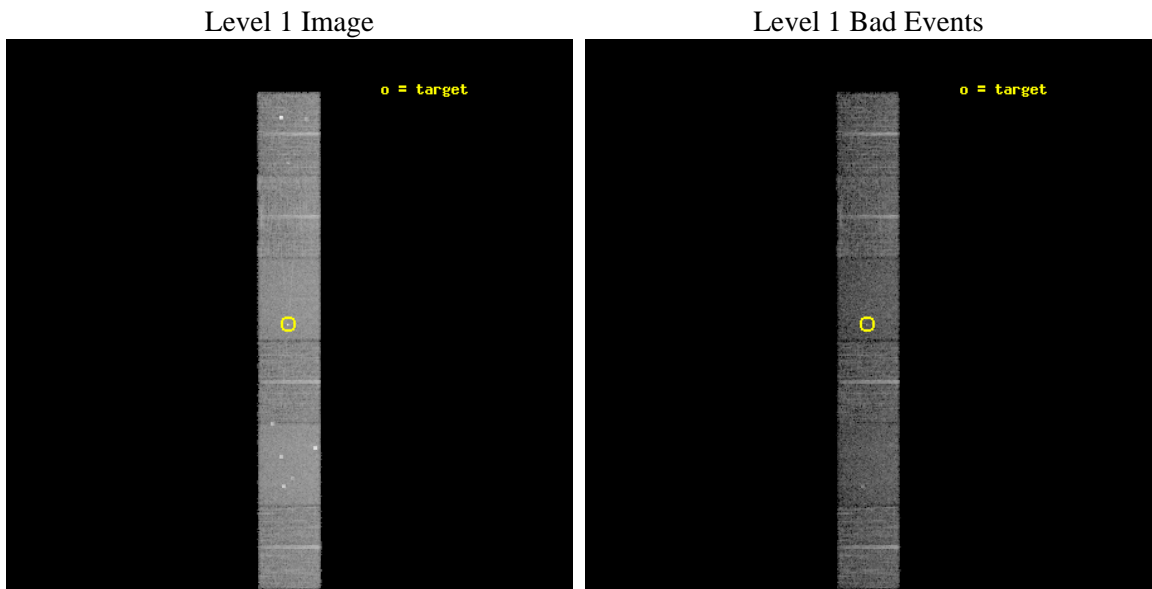
seq_num	400210	Sequence number
obs_id	2730	Observation id
title	A CHANDRA STUDY OF NEARBY PERSISTENT MICROQUASAR LS 5039	Proposal
observer	Prof. Walter Lewin	Principal investigator
object	LS 5039	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	276.562083	Observer's specified target RA [deg]
dec_targ	-14.8475	Observer's specified target Dec [deg]
ra_nom	276.5603392013	Nominal RA [deg]
dec_nom	-14.846061086362	Nominal Dec [deg]
roll_nom	269.88960776477	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10780.0	Sum of GTIs [s]
livetime	10605.893649844	Livetime [s]
ontime4	10780.0	Sum of GTIs [s]
ontime5	10780.0	Sum of GTIs [s]
ontime6	10780.0	Sum of GTIs [s]
ontime7	10780.0	Sum of GTIs [s]
ontime8	10780.0	Sum of GTIs [s]
ontime9	10780.0	Sum of GTIs [s]
l2events	88373	Number of level 2 events



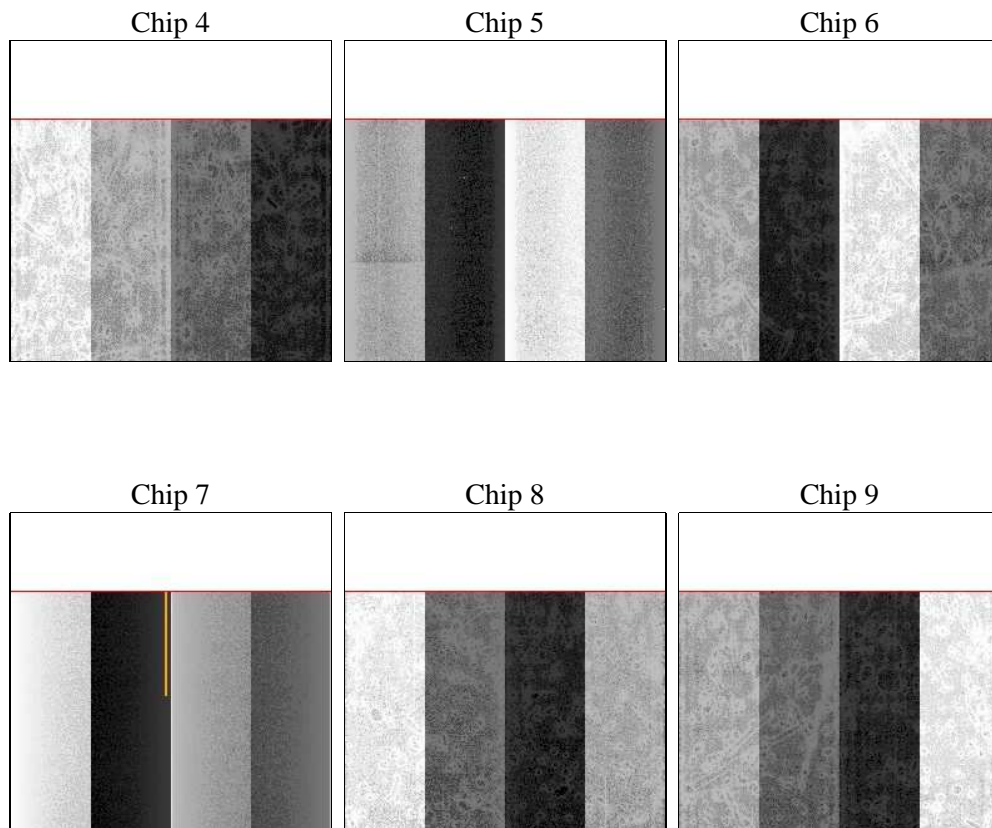
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10617.339000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10780.0	Sum of GTIs [s]
caldbver	4.5.2	 	ontime4	10780.0	Sum of GTIs [s]
date	2012-10-13T05:56:36	Date and time of file creation	ontime5	10780.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	10780.0	Sum of GTIs [s]
			ontime7	10780.0	Sum of GTIs [s]
			ontime8	10780.0	Sum of GTIs [s]
			ontime9	10780.0	Sum of GTIs [s]
			l1events	379099	Number of level 1 events

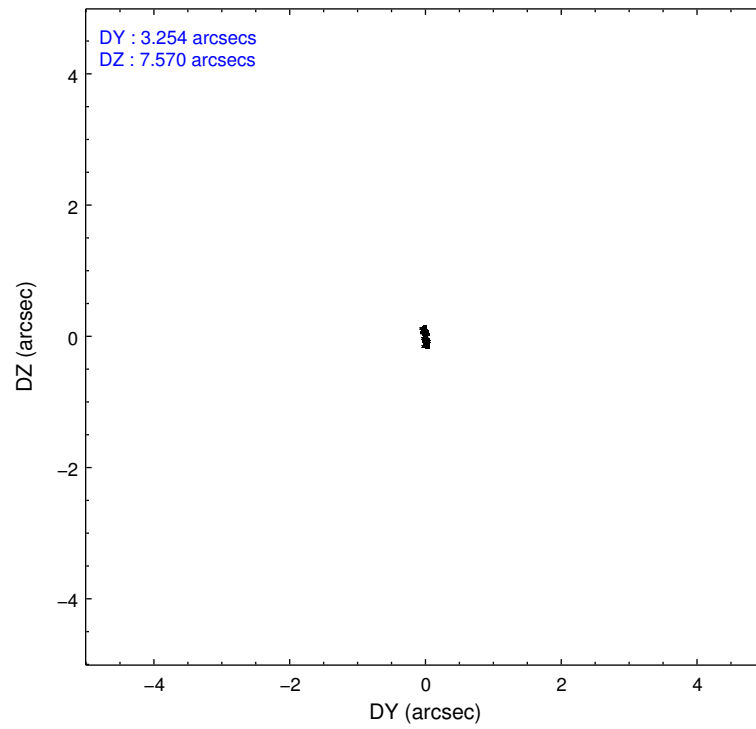
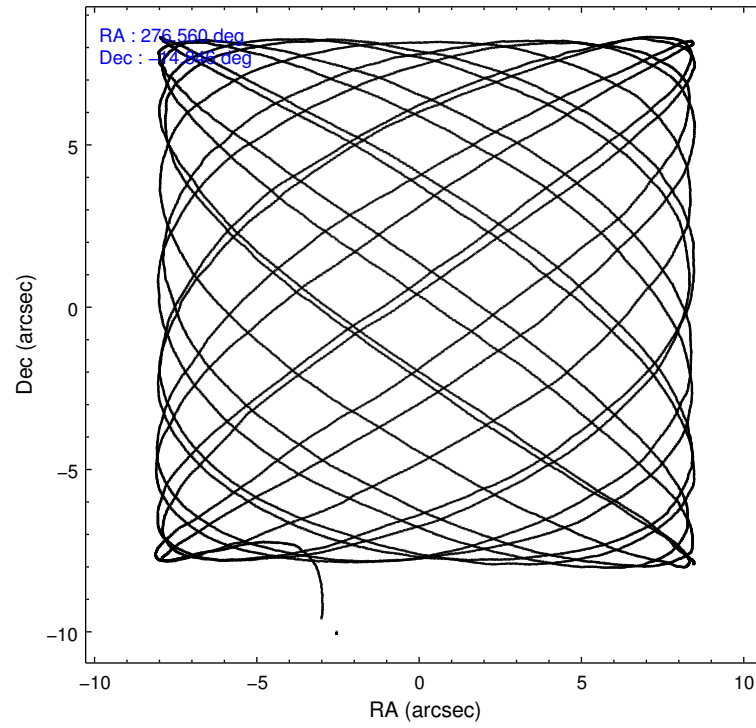
2.1.4 Events

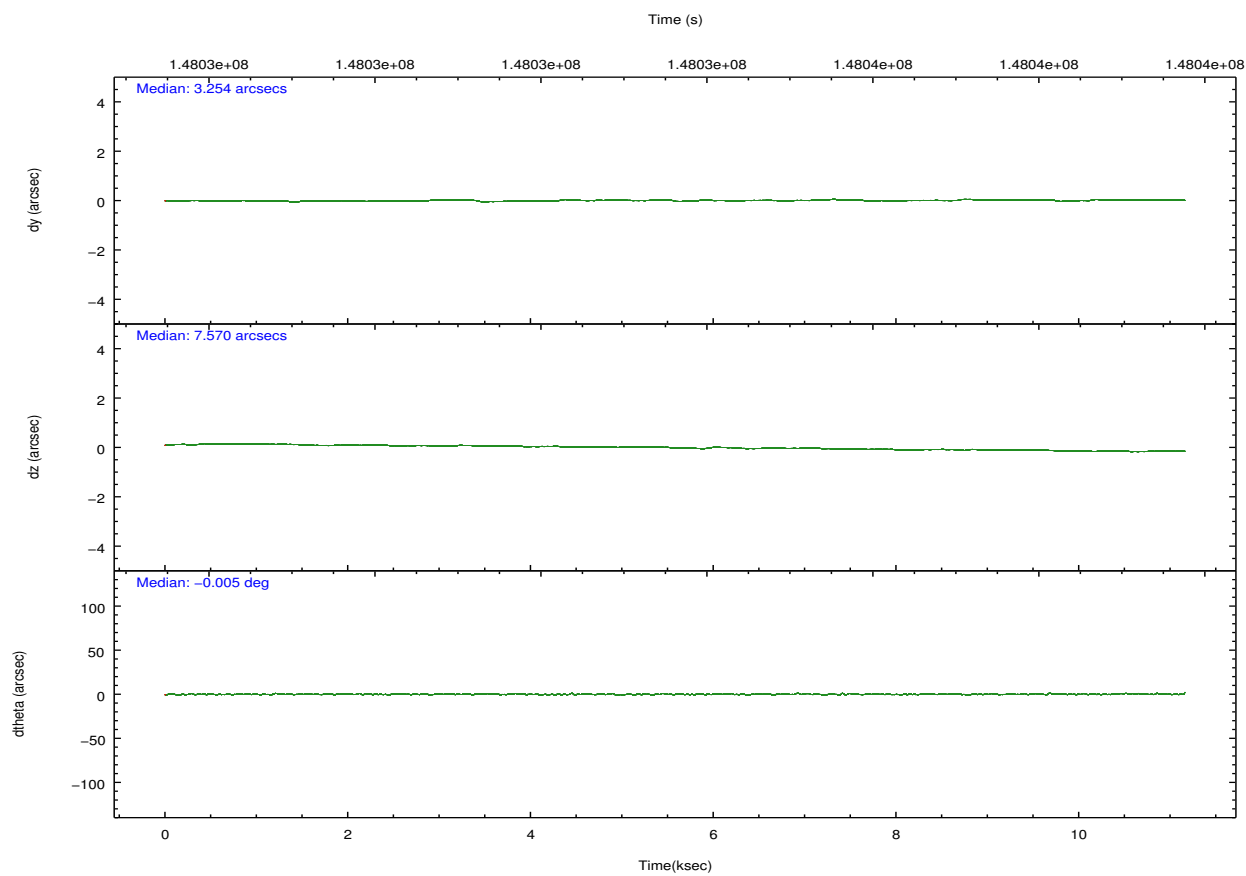
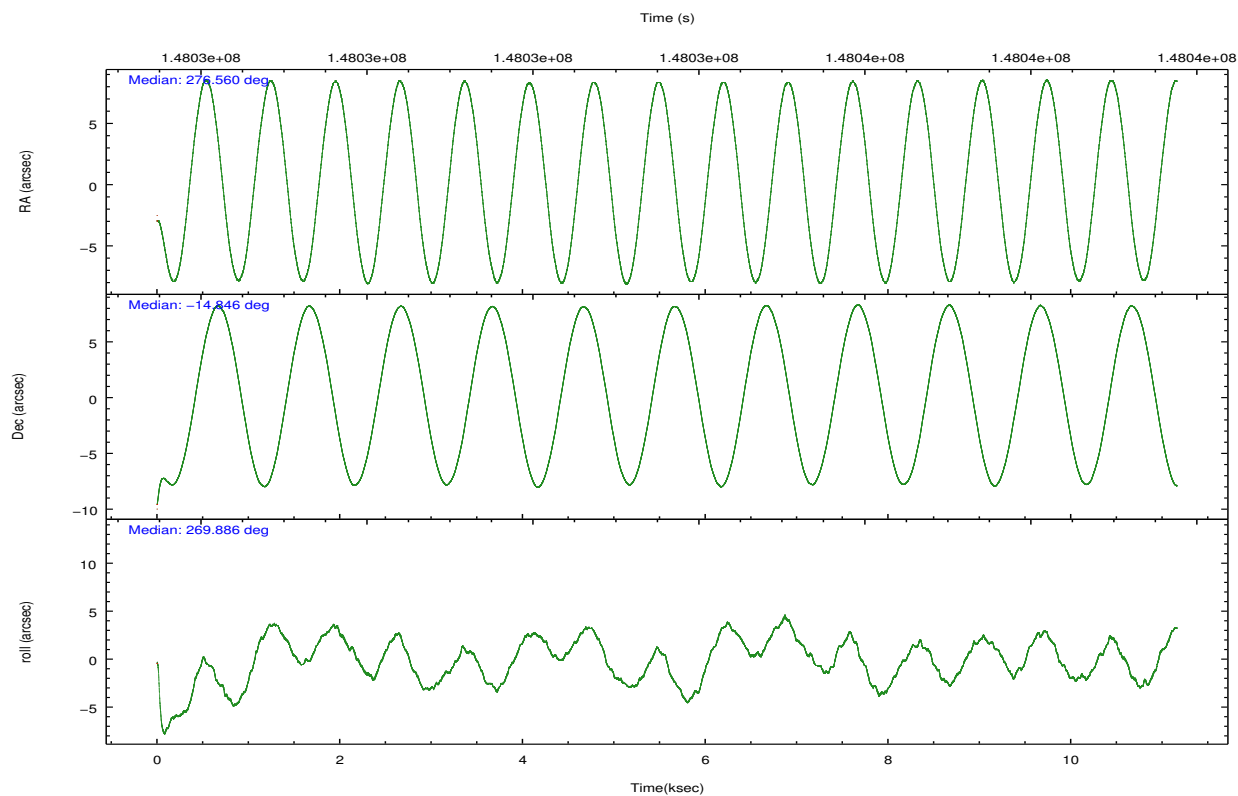
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	56634	77868	53690	68112	65326	57469	grade 0 events	3571	8660	3680	3083	5276	7617
rejected events	48931	38875	45753	37788	50262	45604		6%	11%	6%	4%	8%	13%
rejected %	86%	49%	85%	55%	76%	79%	grade 1 events	29	283	15	72	38	56
								0%	0%	0%	0%	0%	0%
							grade 2 events	1498	9636	1467	6133	2918	1448
								2%	12%	2%	9%	4%	2%
							grade 3 events	771	1751	671	2856	1713	730
								1%	2%	1%	4%	2%	1%
							grade 4 events	722	1758	686	2953	1646	736
								1%	2%	1%	4%	2%	1%
							grade 5 events	2050	5850	2243	6106	2815	2290
								3%	7%	4%	8%	4%	3%
							grade 6 events	1142	17196	1433	15305	3513	1337
								2%	22%	2%	22%	5%	2%
							grade 7 events	46851	32734	43495	31604	47407	43255
								82%	42%	81%	46%	72%	75%

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	276.545994	276.5603392013007	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-14.822594	-14.84606108636235	Subarray start row	1	1
[deg] Pointing Roll	269.729298	269.8896077647749	Subarray row count	774	774
[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	2.5
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	148028578.184000	148027440.64996			
Observation start date	2002-09-10T07:01:54	2002-09-10T06:44:00			
[s] Observation end time (MET)	148039196.184000	148039510.53796			
Observation end date	2002-09-10T09:58:52	2002-09-10T10:05:10			
Read mode	TIMED	TIMED			

2.3 Aspect



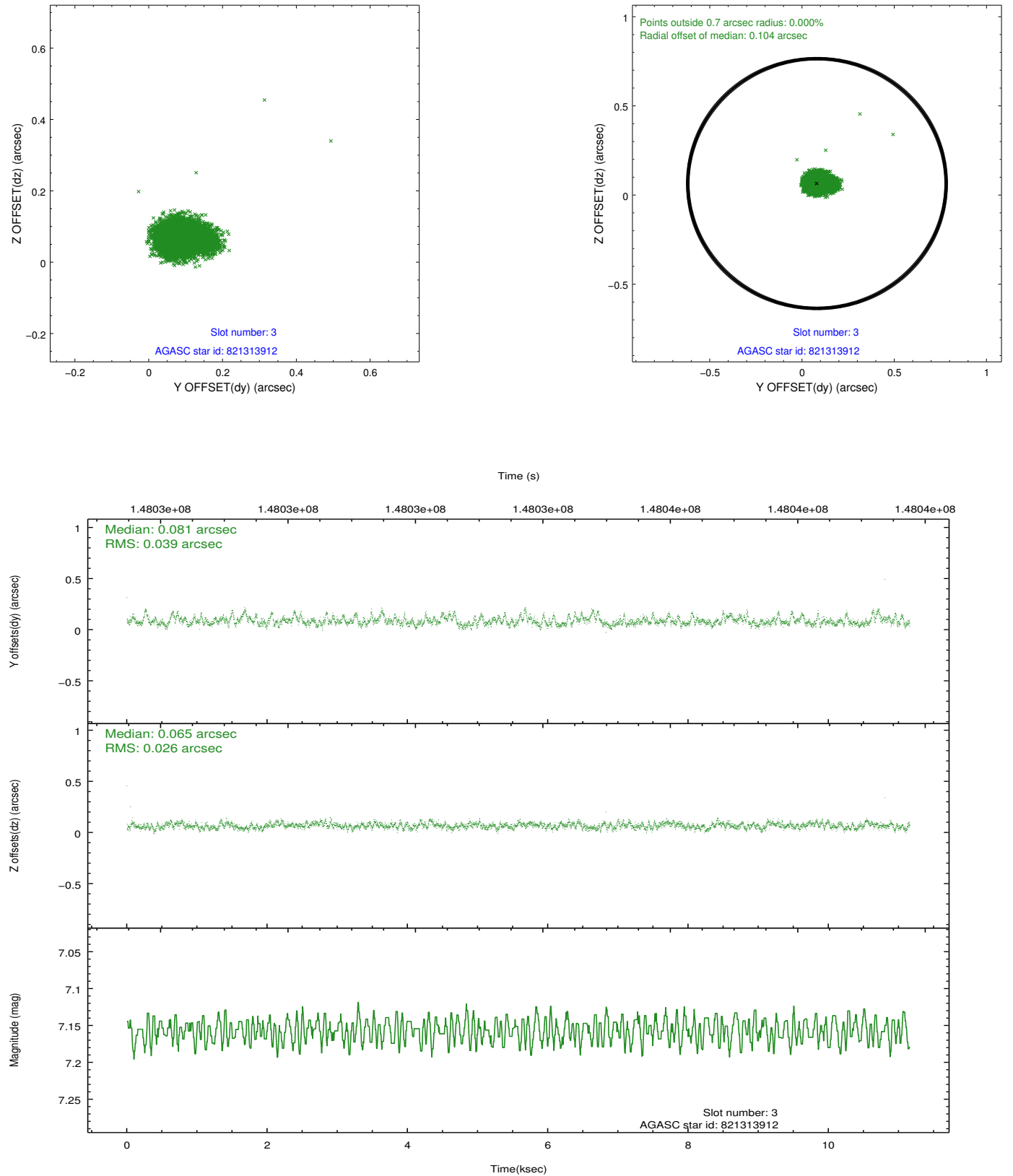


Slot Statistics

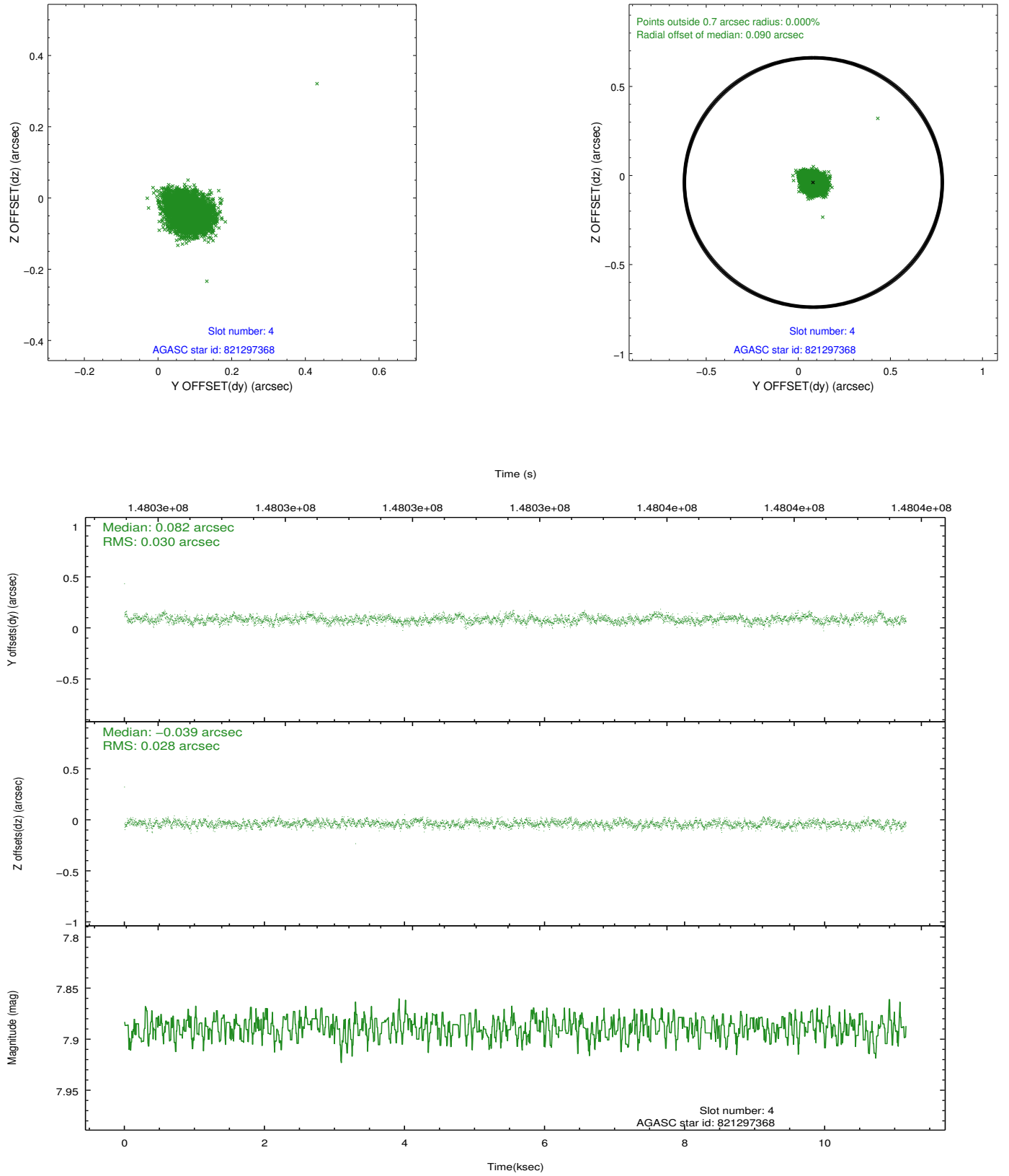
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	2723	-0.063	-0.036	0.005	0.010	0.000000	0.000000	-755.73	-1790.88
1	FID	ACIS-S-4	7.20	2723	0.030	0.045	0.006	0.010	0.000000	0.000000	2157.40	117.24
2	FID	ACIS-S-6	7.38	2723	0.006	-0.002	0.007	0.011	0.000000	0.000000	406.87	755.08
3	GUIDE	821313912	7.16	5444	0.081	0.065	0.047	0.083	276.880488	-15.373623	1980.30	1171.28
4	GUIDE	821297368	7.89	5445	0.082	-0.039	0.043	0.070	276.313836	-15.122723	1086.48	-801.03
5	GUIDE	821172784	9.20	5444	0.241	-0.188	0.097	0.156	275.866733	-15.346945	1904.40	-2349.02
6	GUIDE	747380784	9.21	5440	-0.218	0.206	0.103	0.177	277.188264	-14.189338	-2285.91	2231.07
7	GUIDE	747390464	9.05	5439	-0.201	-0.046	0.067	0.111	276.079675	-14.163702	-2361.90	-1638.35

2.4 Star Slots

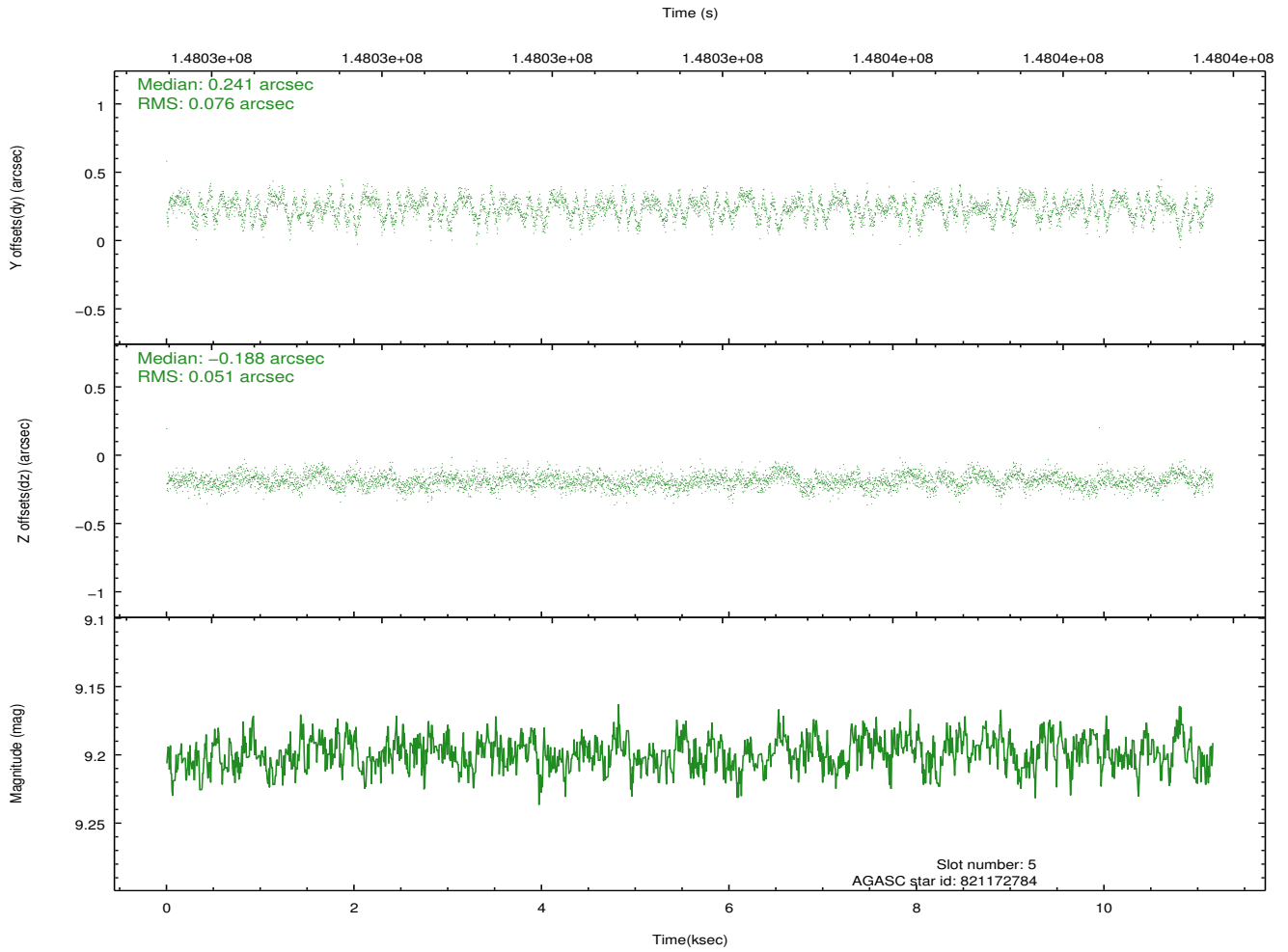
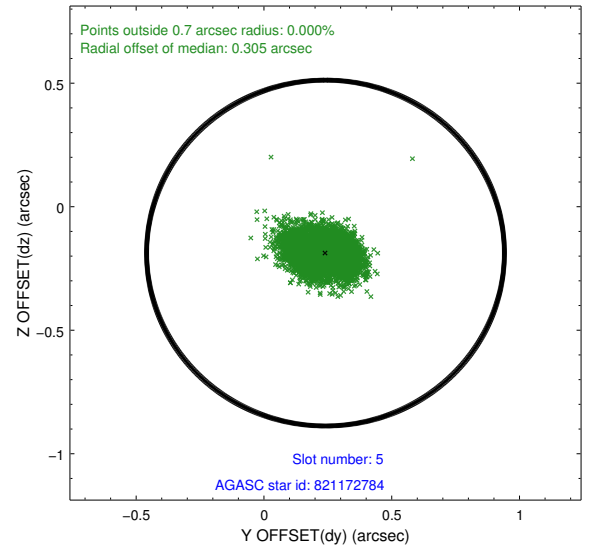
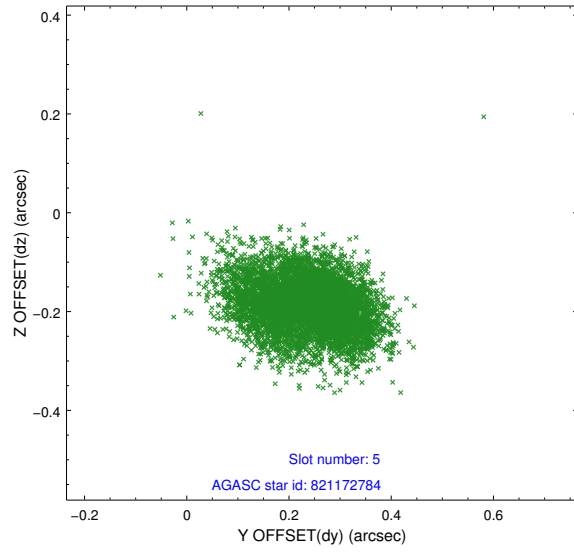
2.4.1 Slot 3



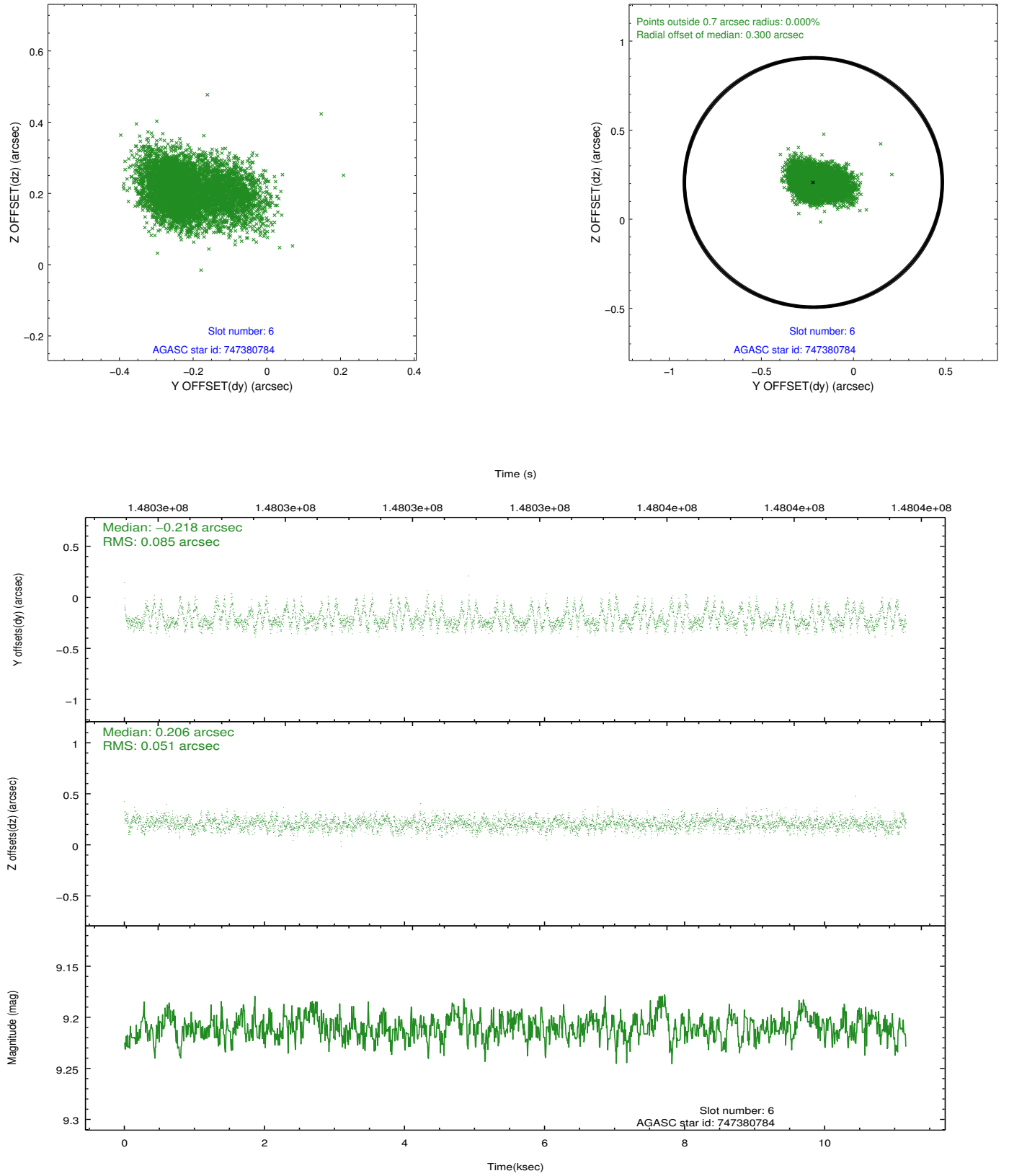
2.4.2 Slot 4



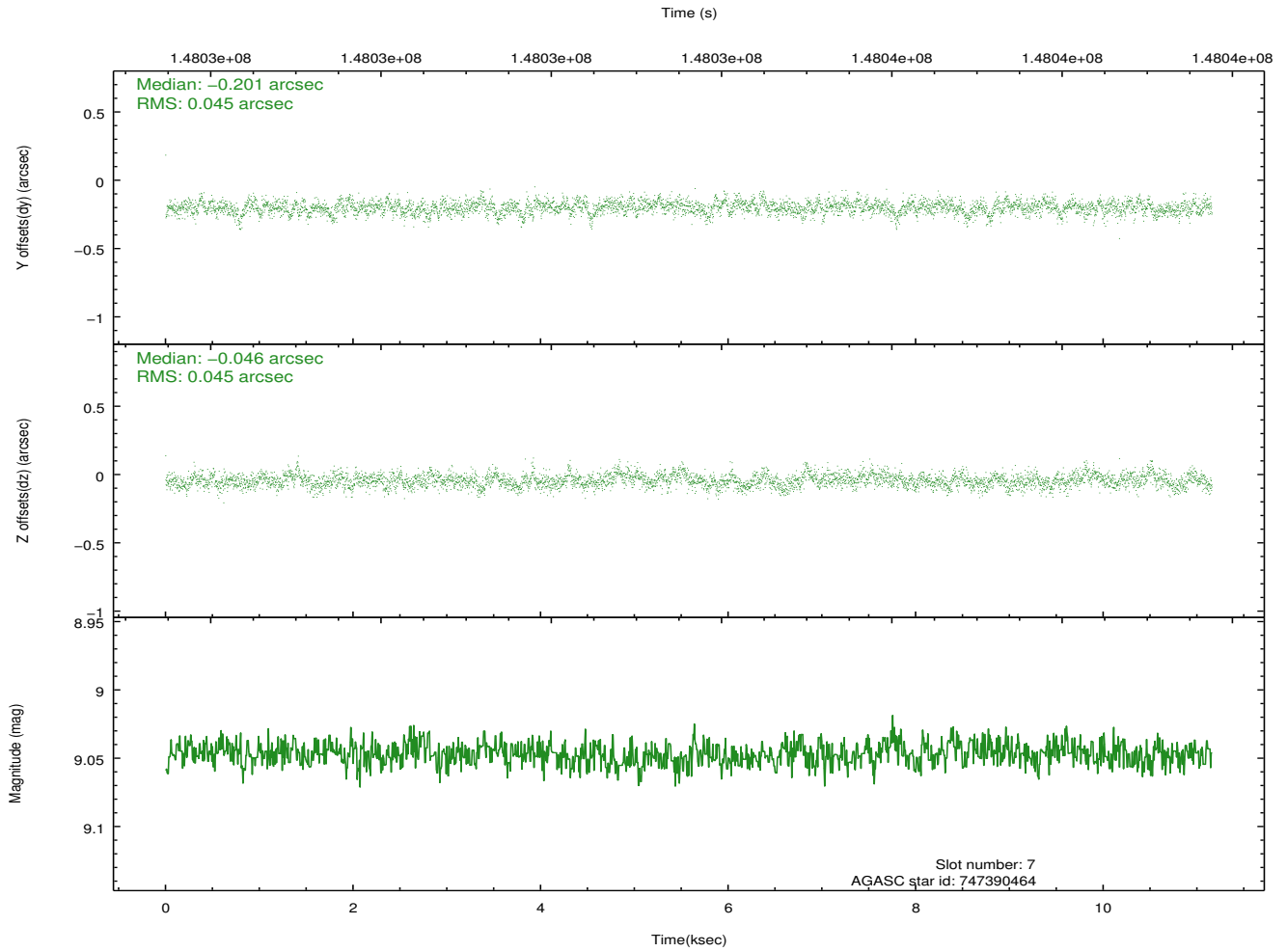
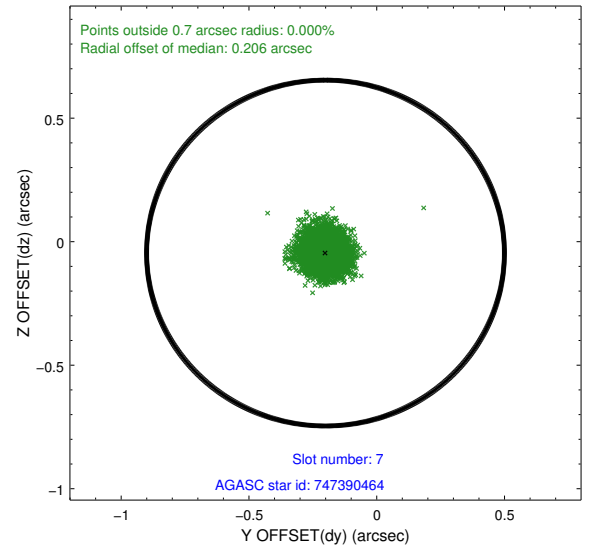
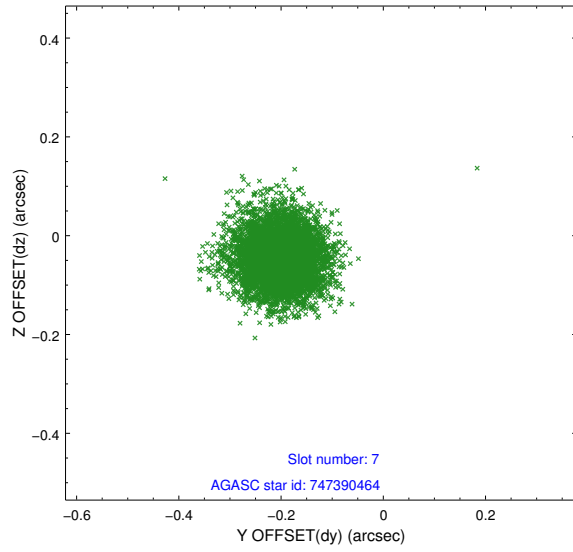
2.4.3 Slot 5



2.4.4 Slot 6

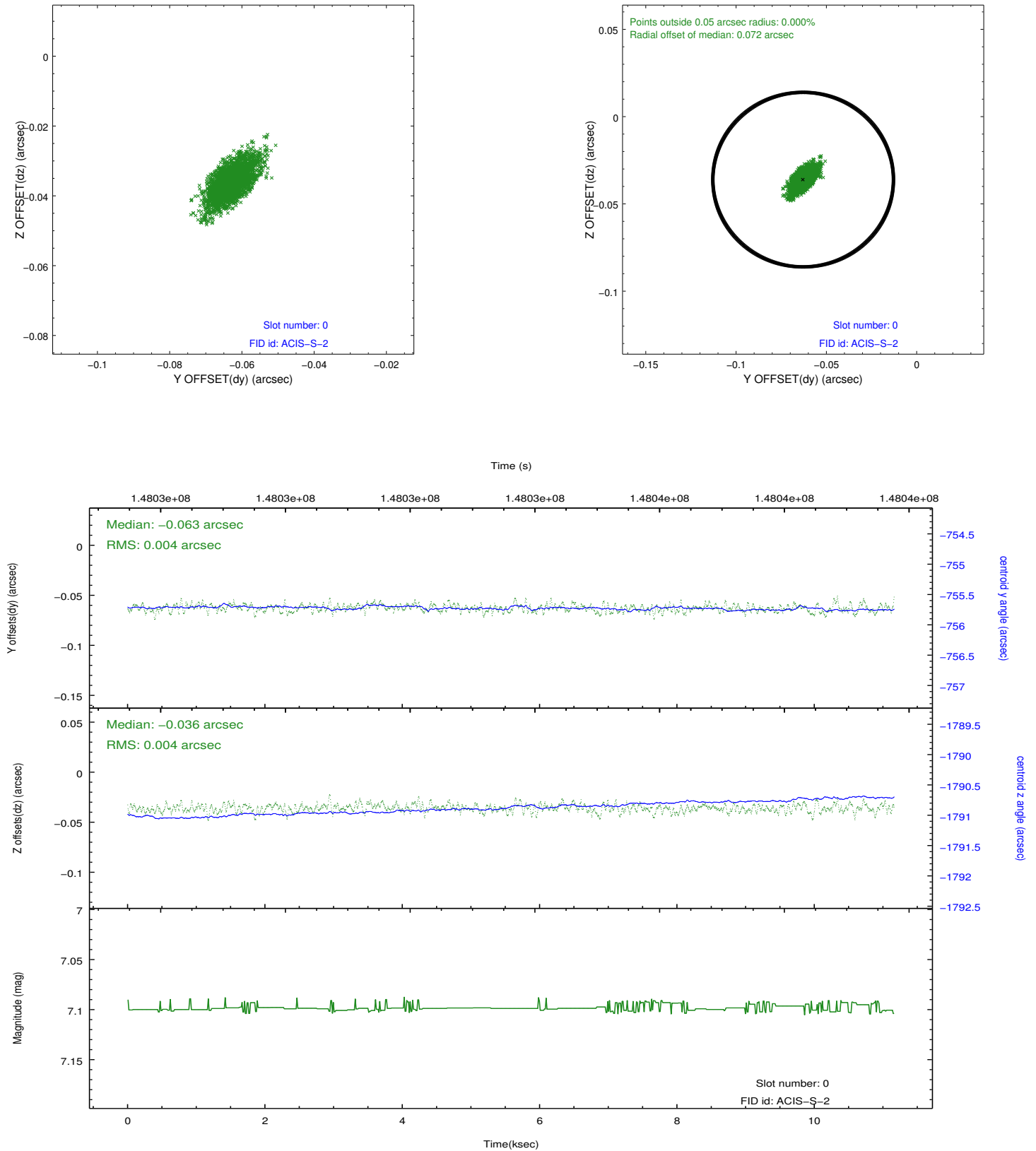


2.4.5 Slot 7

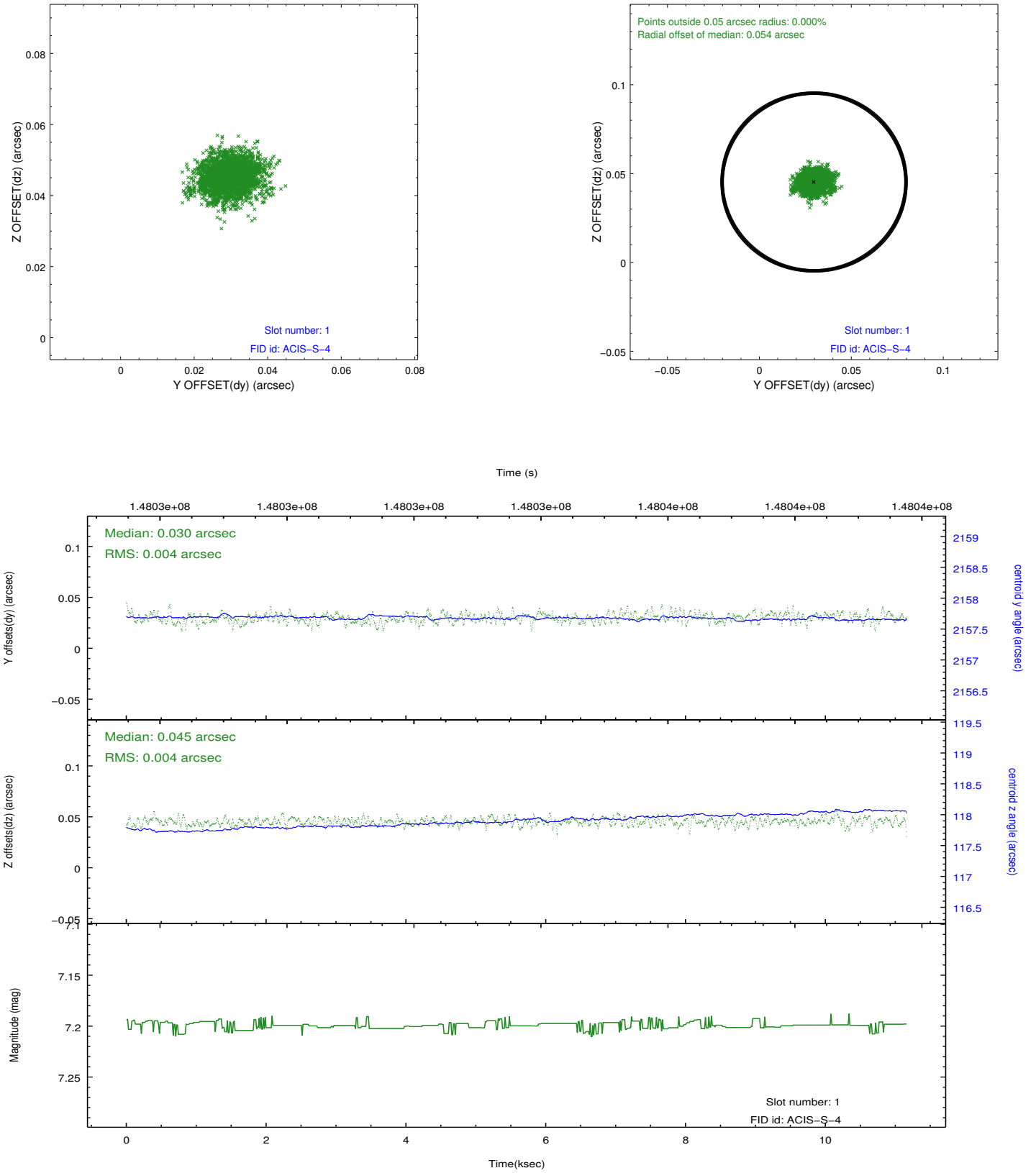


2.5 FID Slots

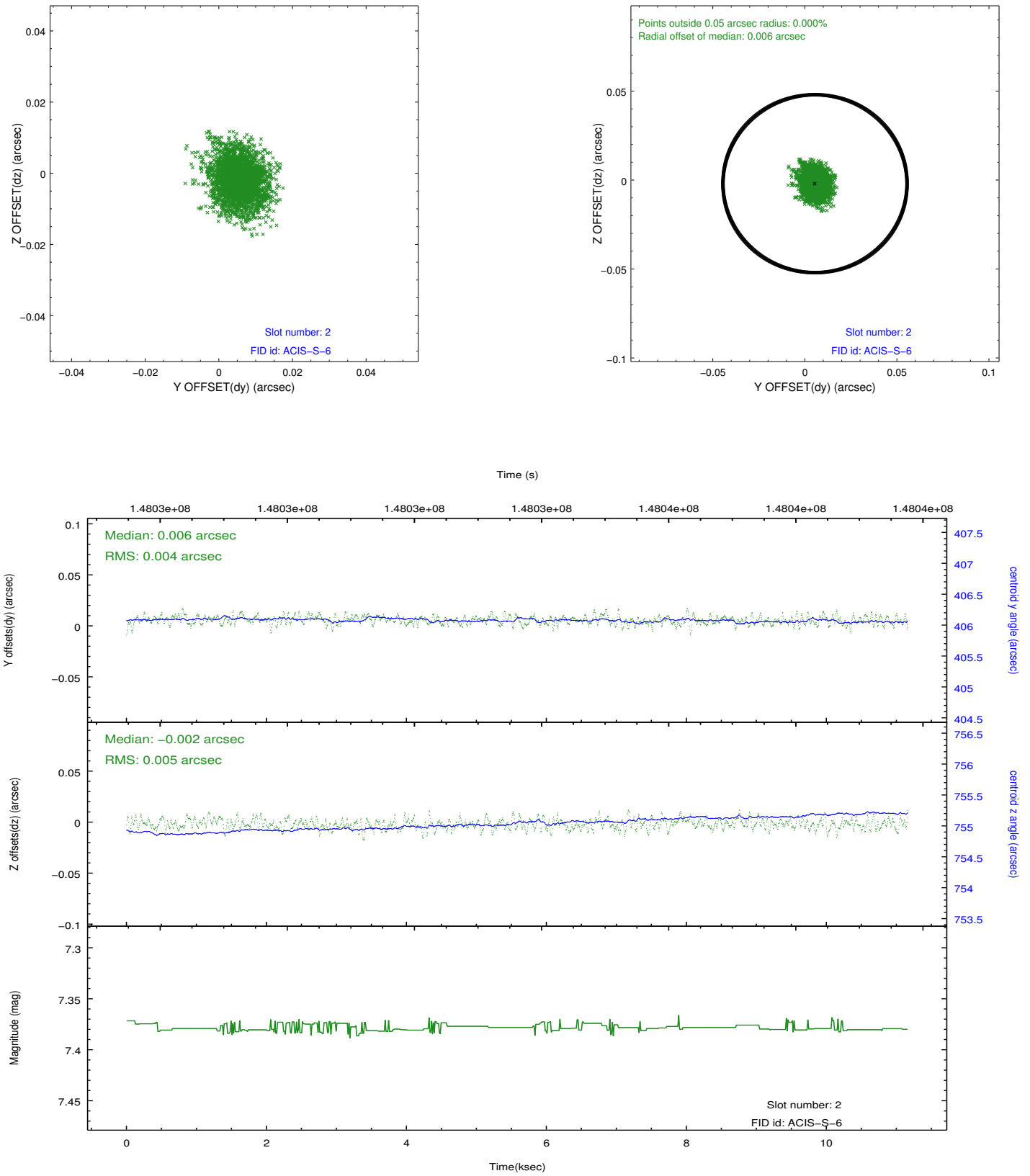
2.5.1 Slot 0



2.5.2 Slot 1

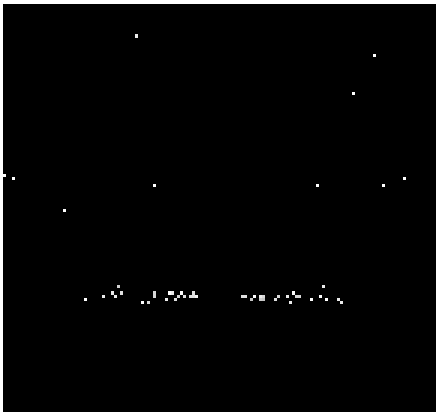


2.5.3 Slot 2

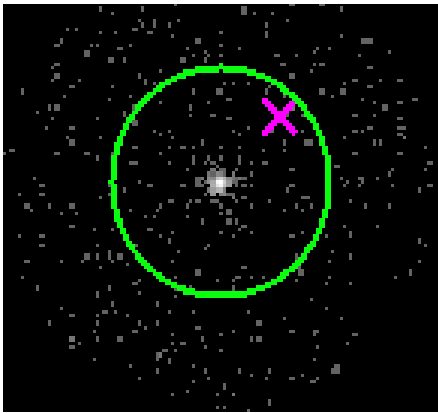


3 Gratings

3.1 HEG Arm



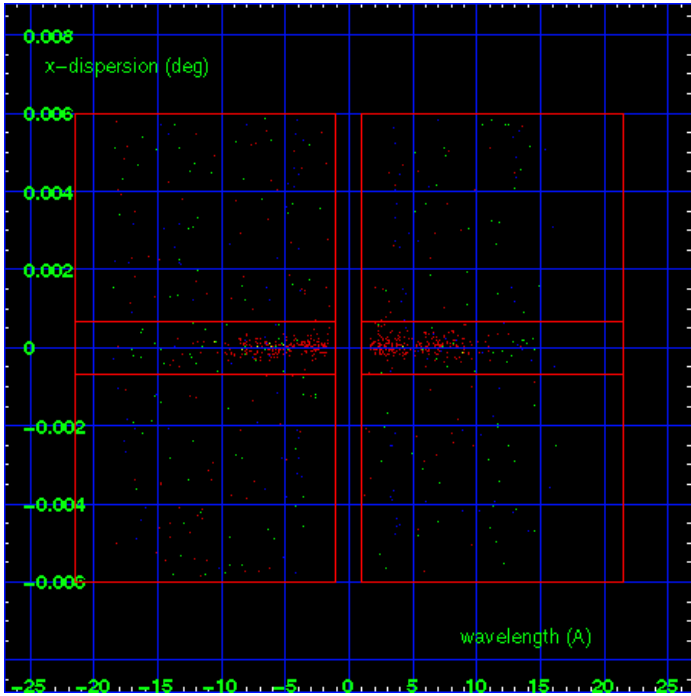
HEG Order Sort 123



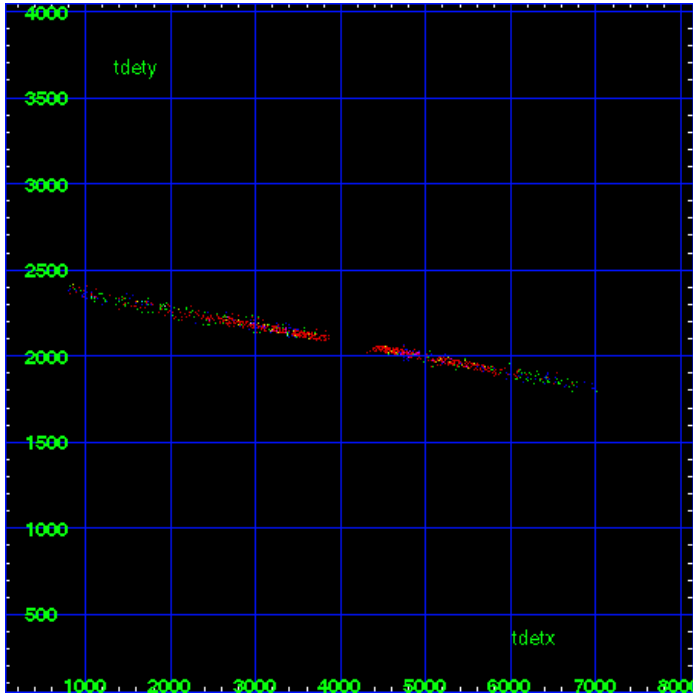
HEG Zero Order



HEG Order Sort ALL

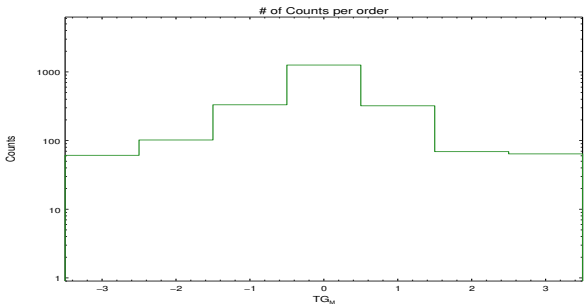


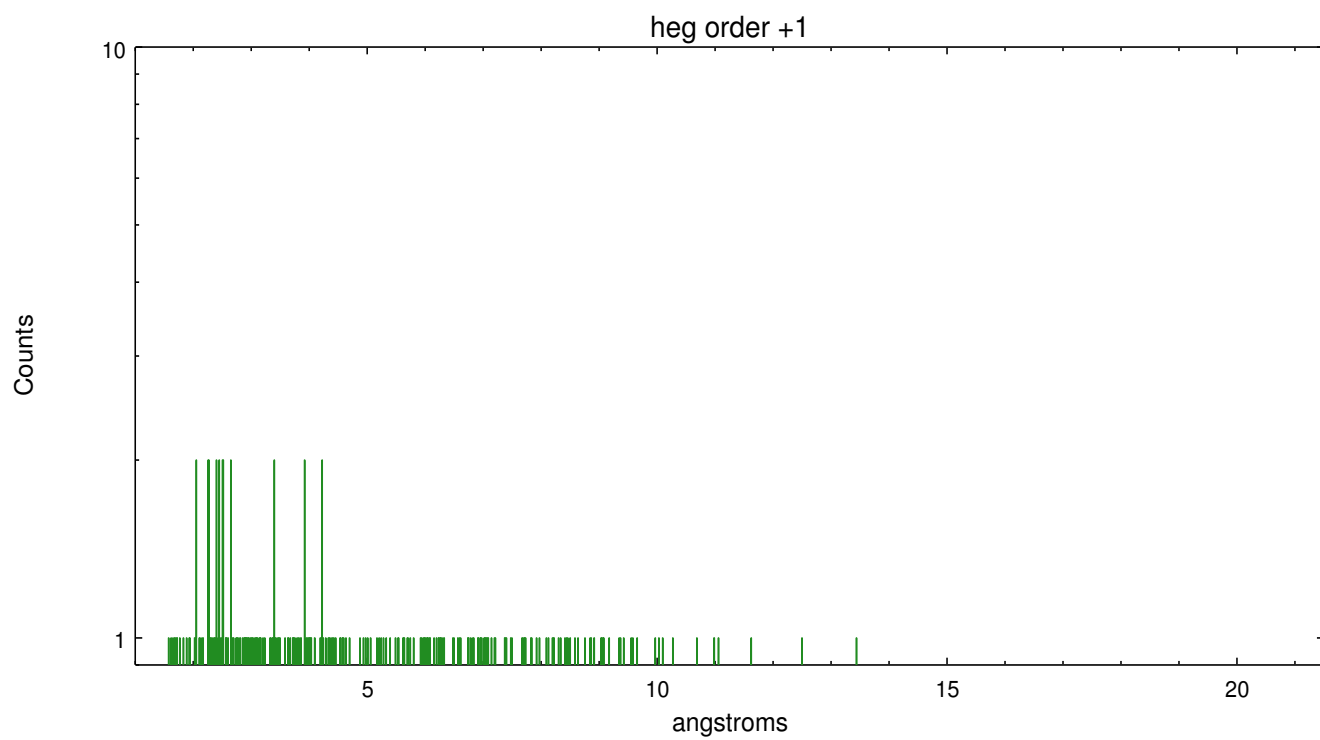
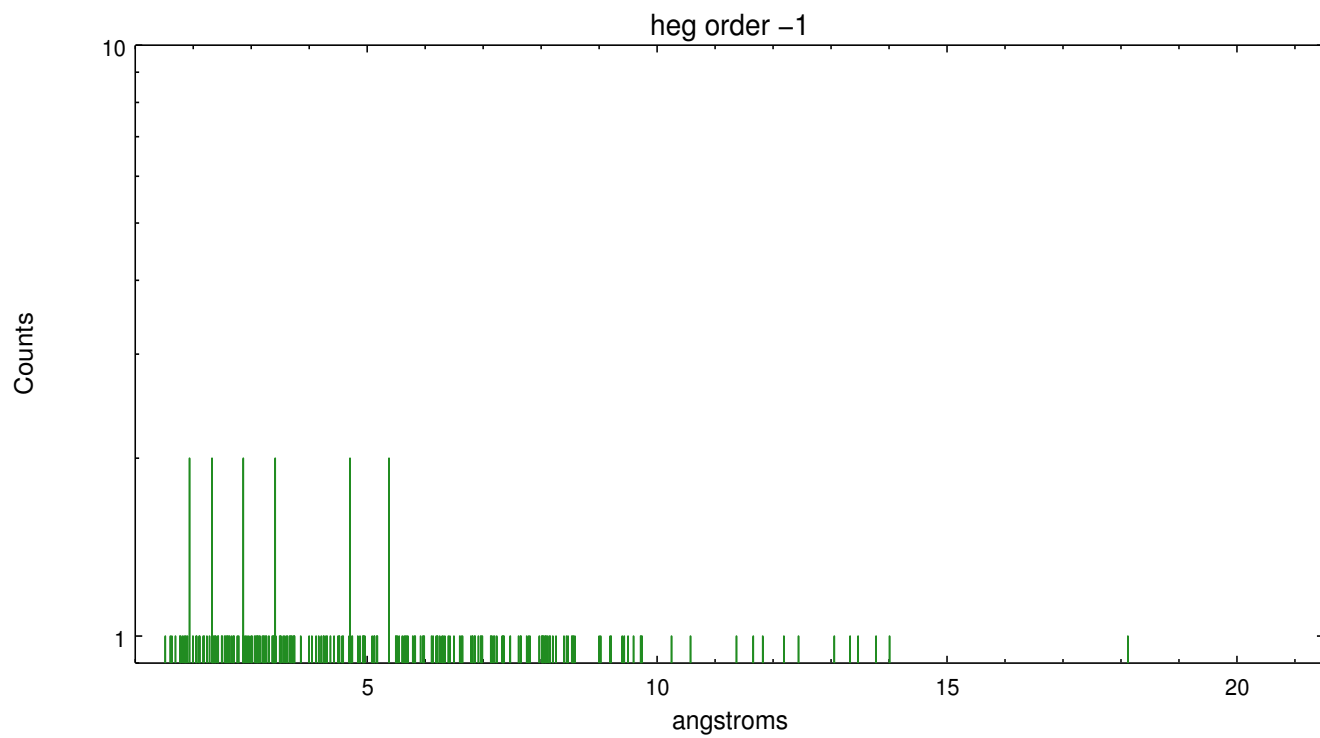
Spot Image HEG



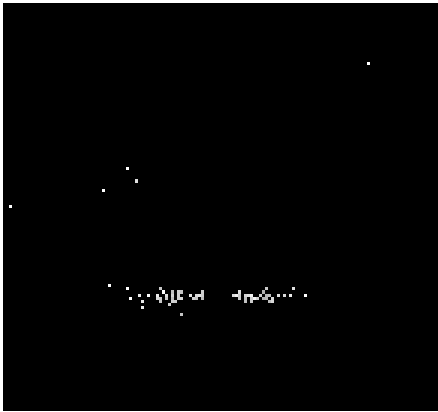
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	61	102	332	1259	321	69	64

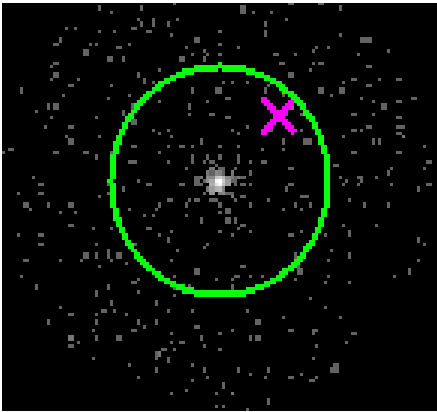




3.2 MEG Arm



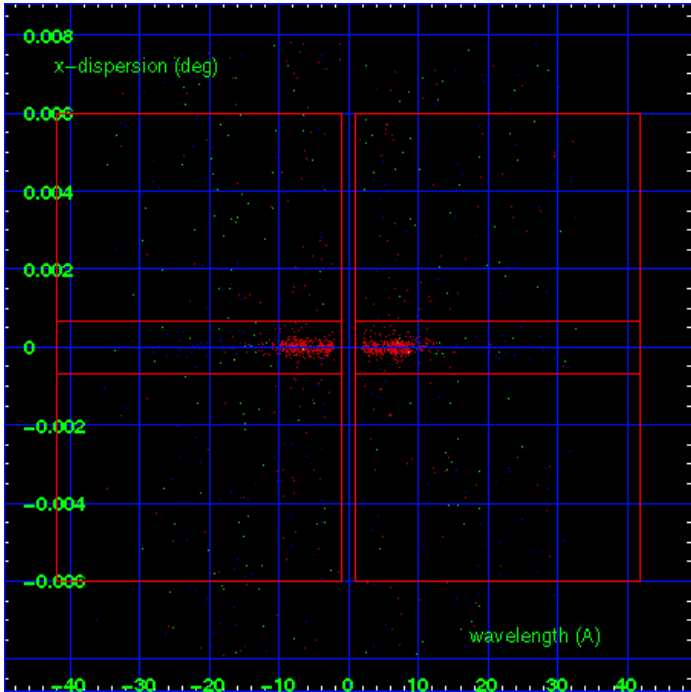
MEG Order Sort 123



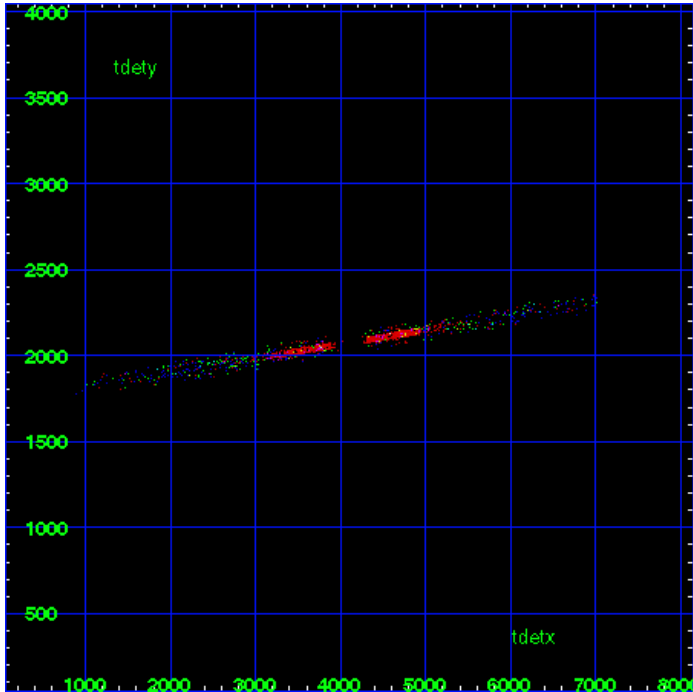
MEG Zero Order



MEG Order Sort ALL

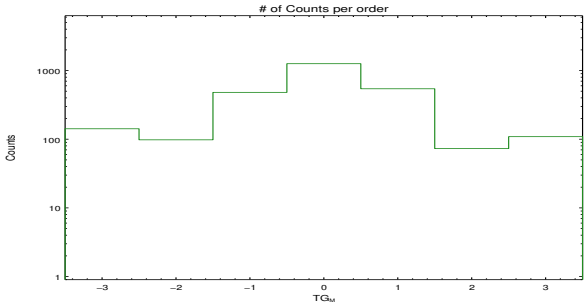


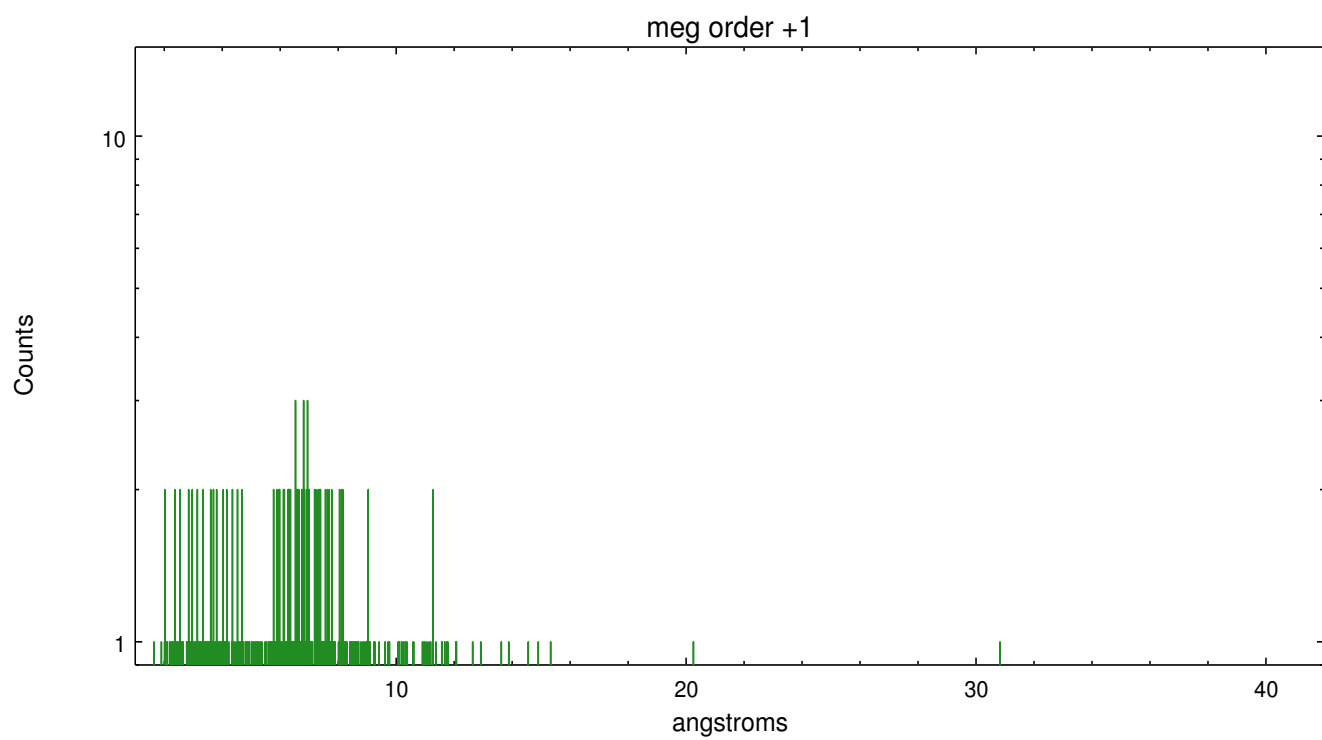
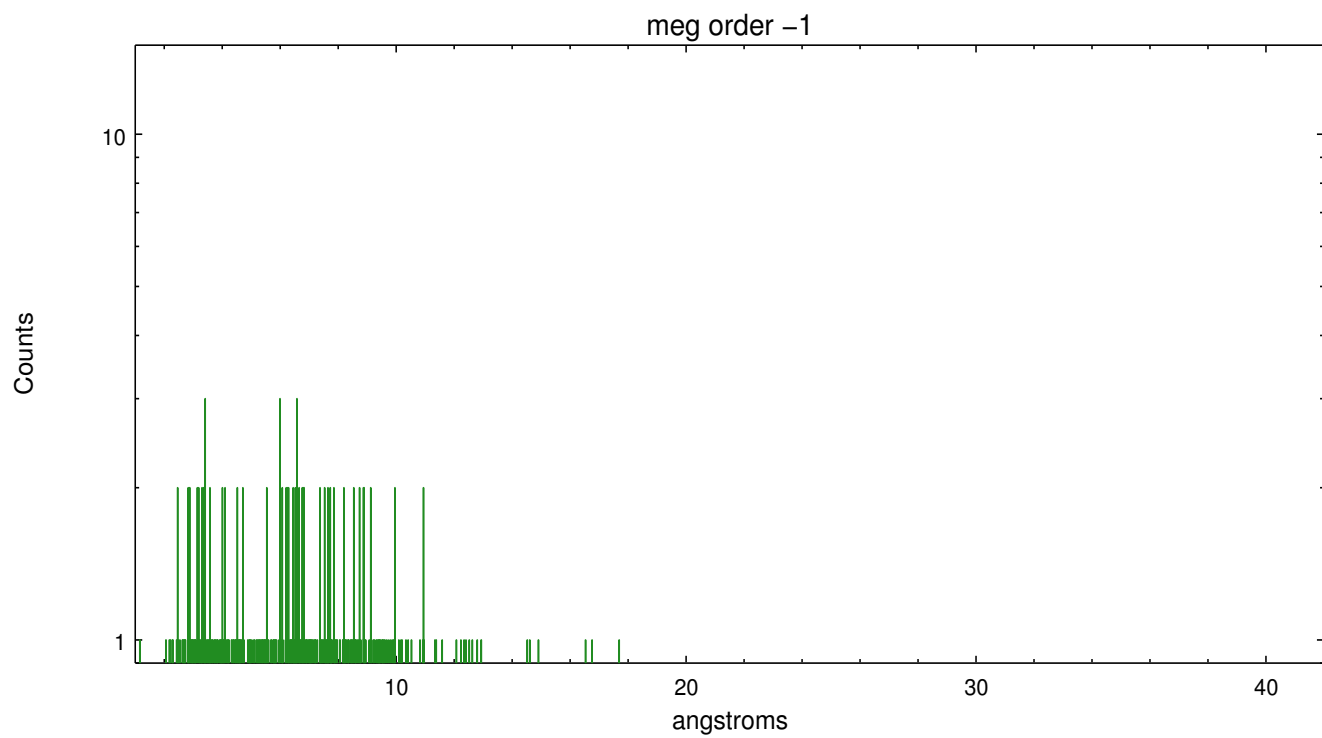
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	142	98	481	1259	543	73	109





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.782

A.2 Comments