

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 14256 - L2 Version 3
Chandra X-Ray Center

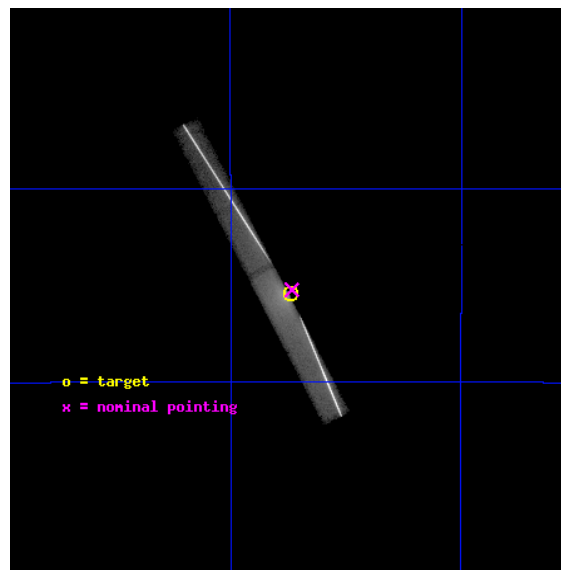
L2 Processing Date : May 15 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

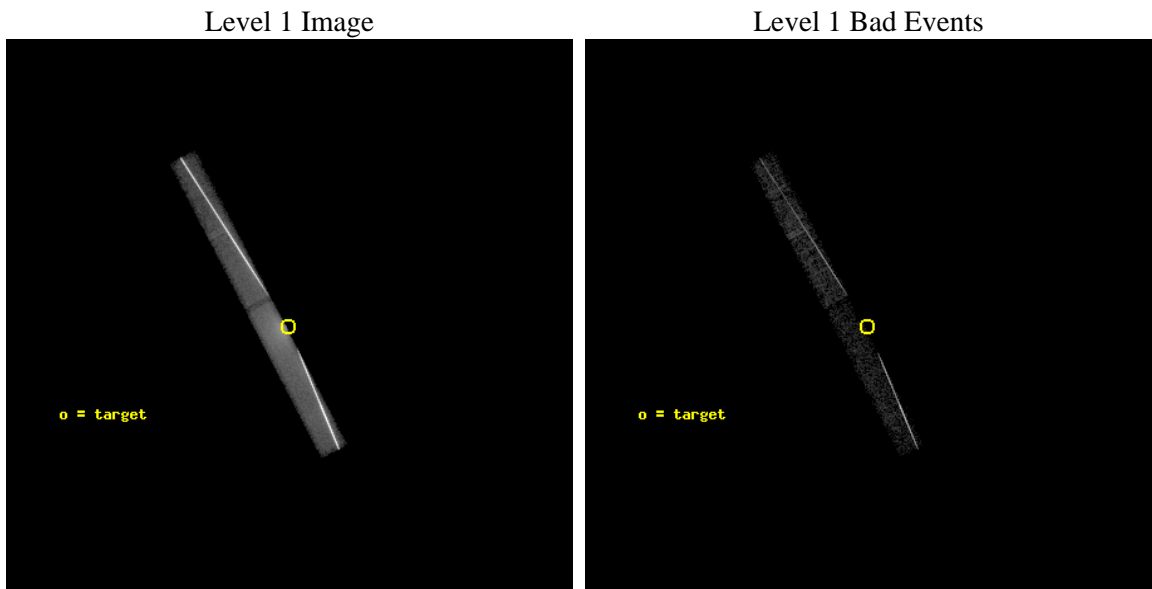
seq_num	490023	Sequence number
obs_id	14256	Observation id
title	AO-13 Calibration Observations of GX 349+2	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	GX 349+2	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	256.435417	Observer's specified target RA [deg]
dec_targ	-36.423083	Observer's specified target Dec [deg]
ra_nom	256.43356329625	Nominal RA [deg]
dec_nom	-36.42050300601	Nominal Dec [deg]
roll_nom	62.418982967402	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10063.0	Sum of GTIs [s]
livetime	9299.6820937454	Livetime [s]
ontime6	10062.978818119	Sum of GTIs [s]
ontime7	10063.0	Sum of GTIs [s]
l2events	735970	Number of level 2 events



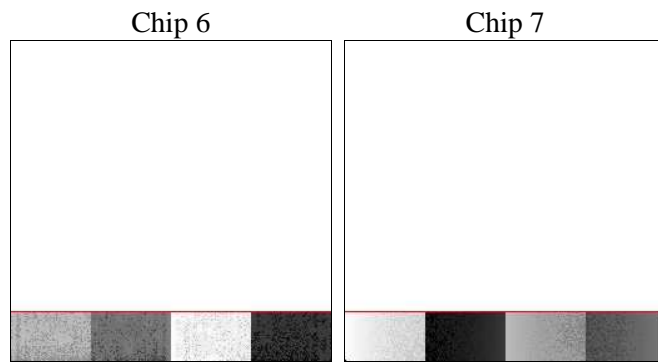
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	10063.0	Sum of GTIs [s]
caldbver	4.4.9	 	ontime6	10062.978818119	Sum of GTIs [s]
date	2012-05-10T03:22:55	Date and time of file creation	ontime7	10063.0	Sum of GTIs [s]
revision	1	Processing version of data	l1events	802807	Number of level 1 events

2.1.4 Events

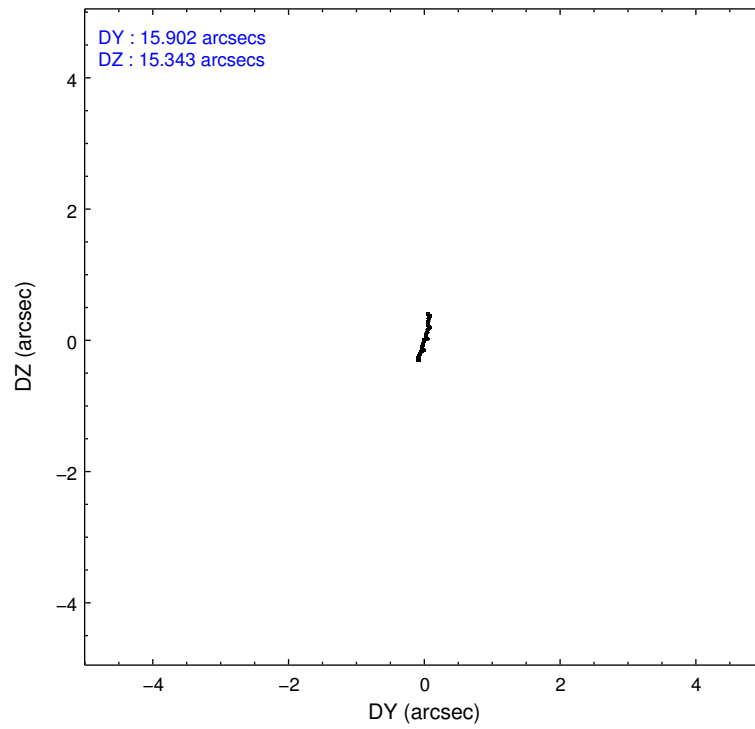
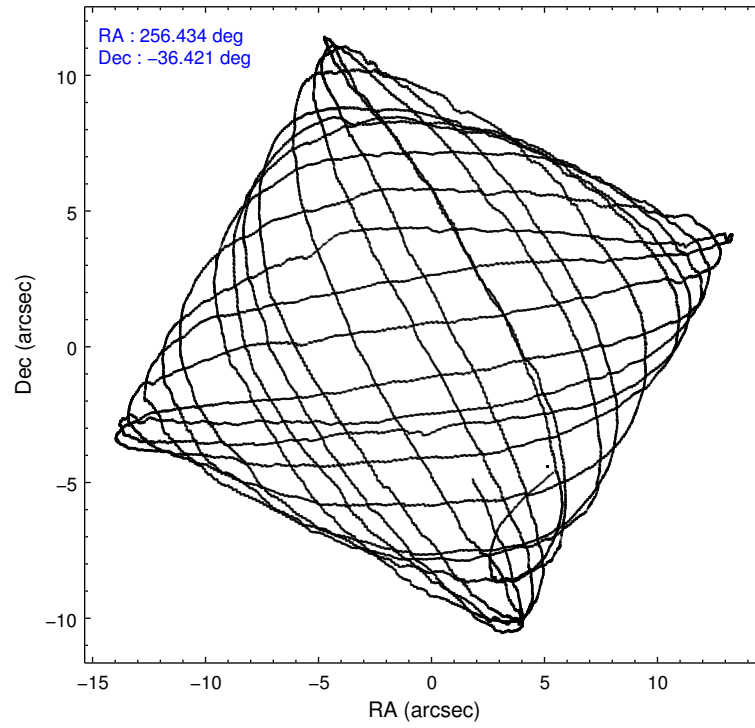
	ccd 6	ccd 7
level 1 events	328113	474694
rejected events	18098	27004
rejected %	5%	5%

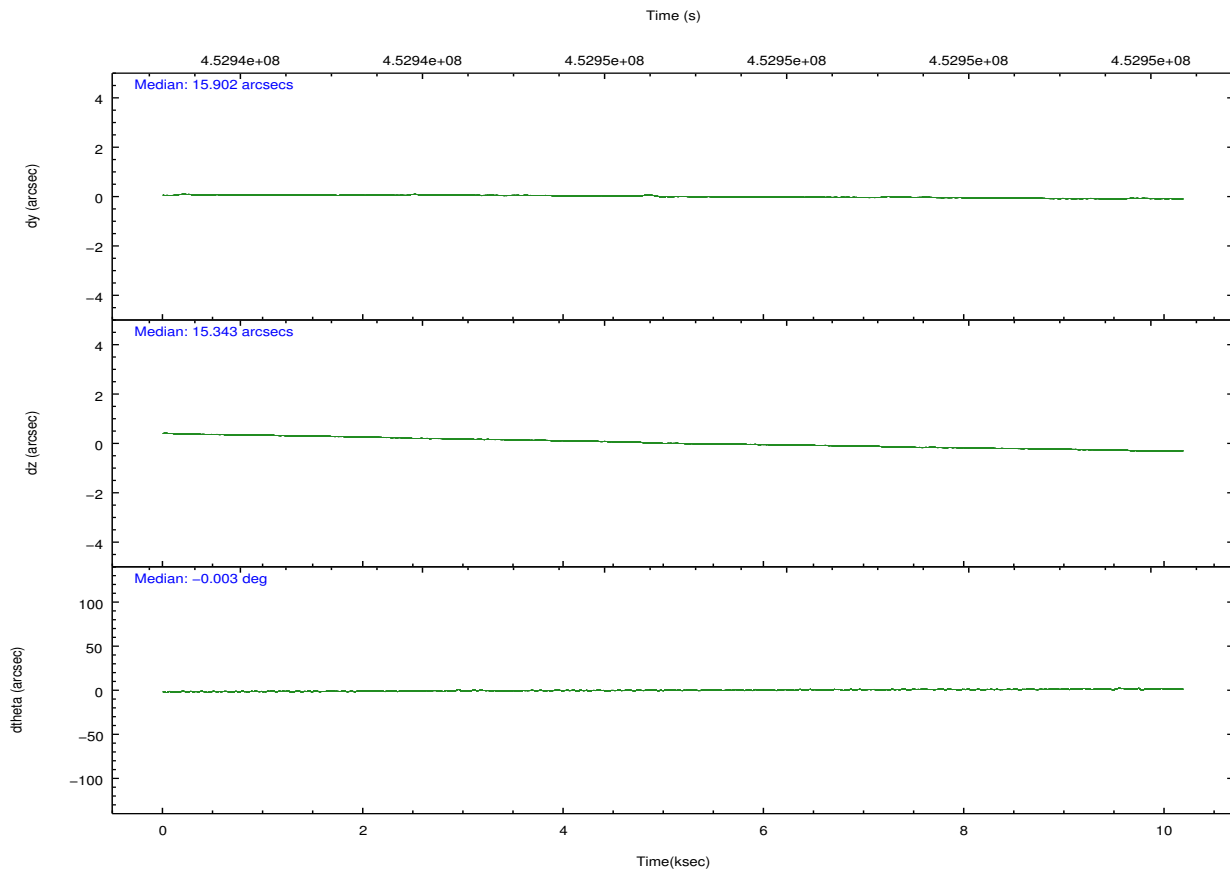
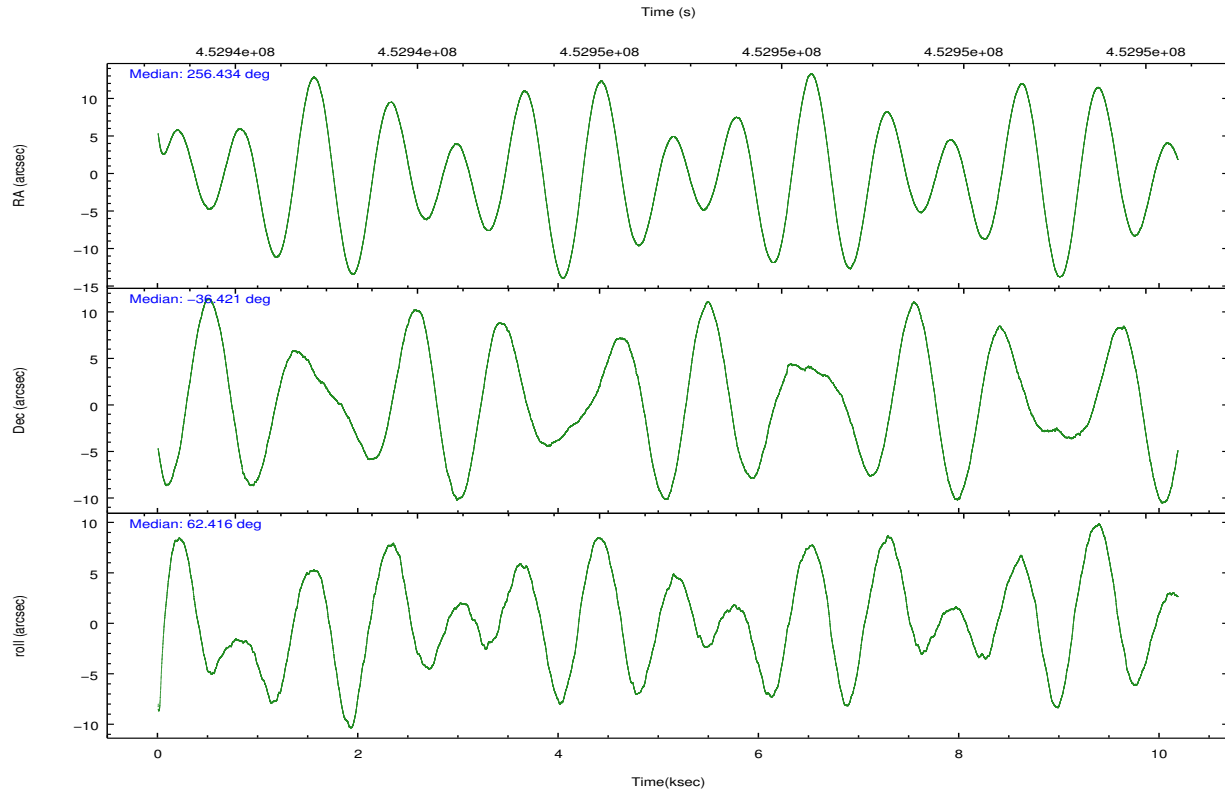
	ccd 6	ccd 7
grade 0 events	217752	87561
	66%	18%
grade 1 events	2287	2014
	0%	0%
grade 2 events	41483	111659
	12%	23%
grade 3 events	15014	51533
	4%	10%
grade 4 events	14804	51304
	4%	10%
grade 5 events	2647	10415
	0%	2%
grade 6 events	21005	145675
	6%	30%
grade 7 events	13121	14533
	3%	3%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-67	ACIS-67	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	256.435440	256.4335632962465	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-36.447763	-36.42050300601038	Subarray start row	1	1
[deg] Pointing Roll	62.263485	62.41898296740187	Subarray row count	156	156
[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	0.5
[mm] SIM translation stage pos	-177.132523	-177.1284843642989			
[mm] SIM translation stage offset	-13	-13.00403821870893			
[s] Observation start time (MET)	452941854.184000	452940806.92546			
Observation start date	2012-05-09T09:09:48	2012-05-09T08:53:26			
[s] Observation end time (MET)	452951854.184000	452952235.16357			
Observation end date	2012-05-09T11:56:28	2012-05-09T12:03:55			
Read mode	TIMED	TIMED			

2.3 Aspect



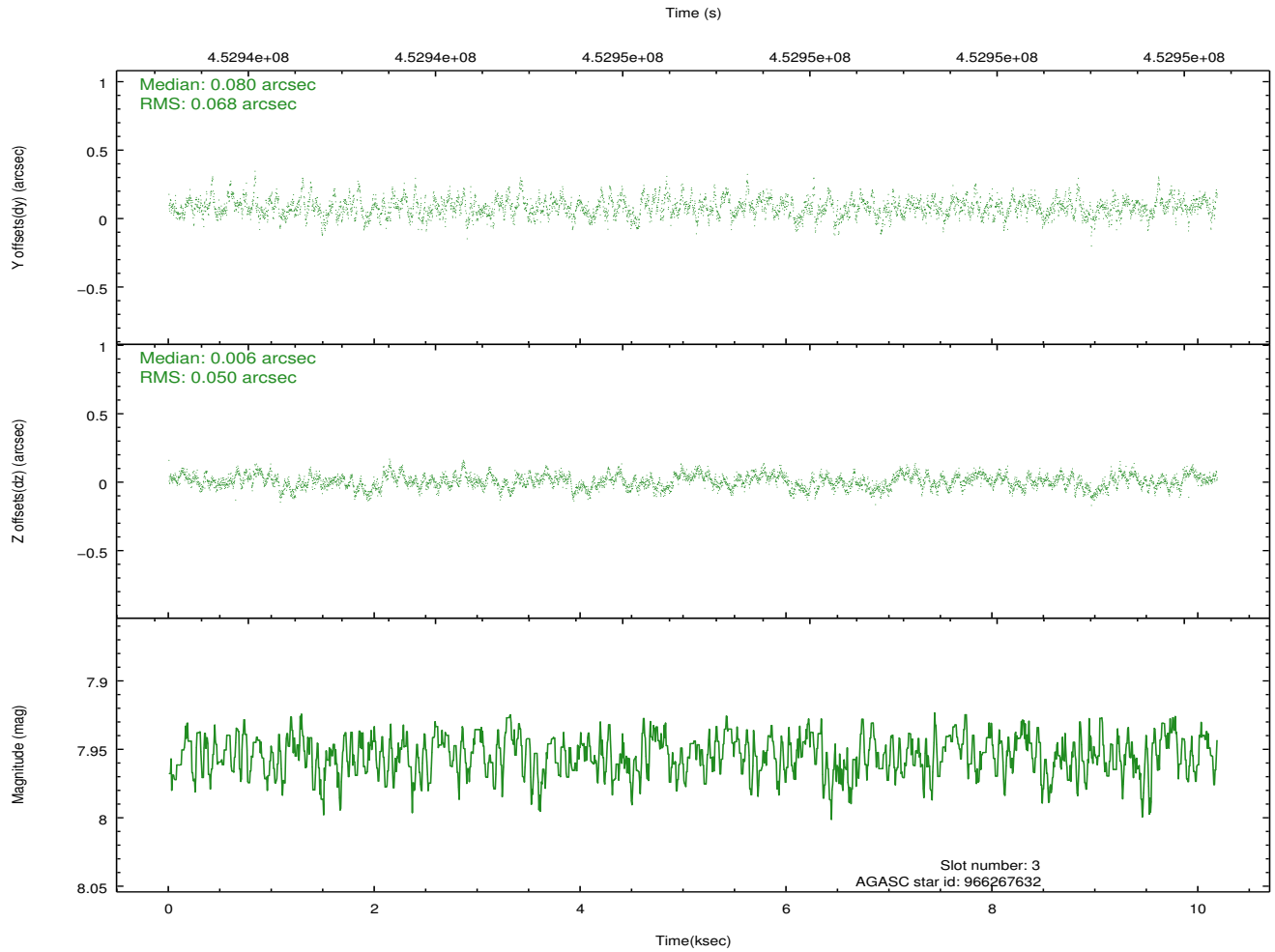
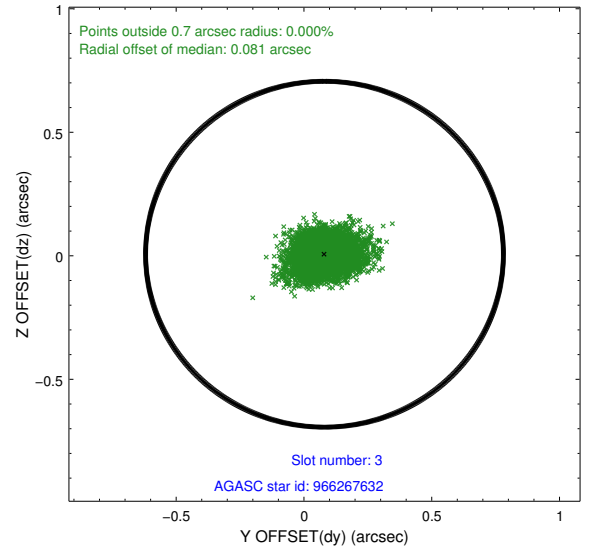
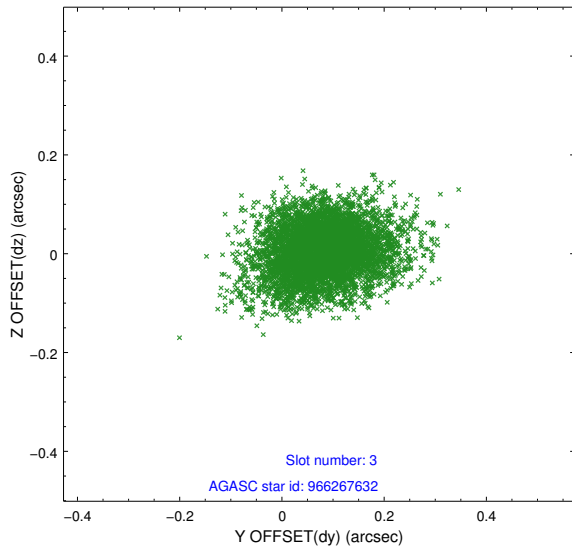


Slot Statistics

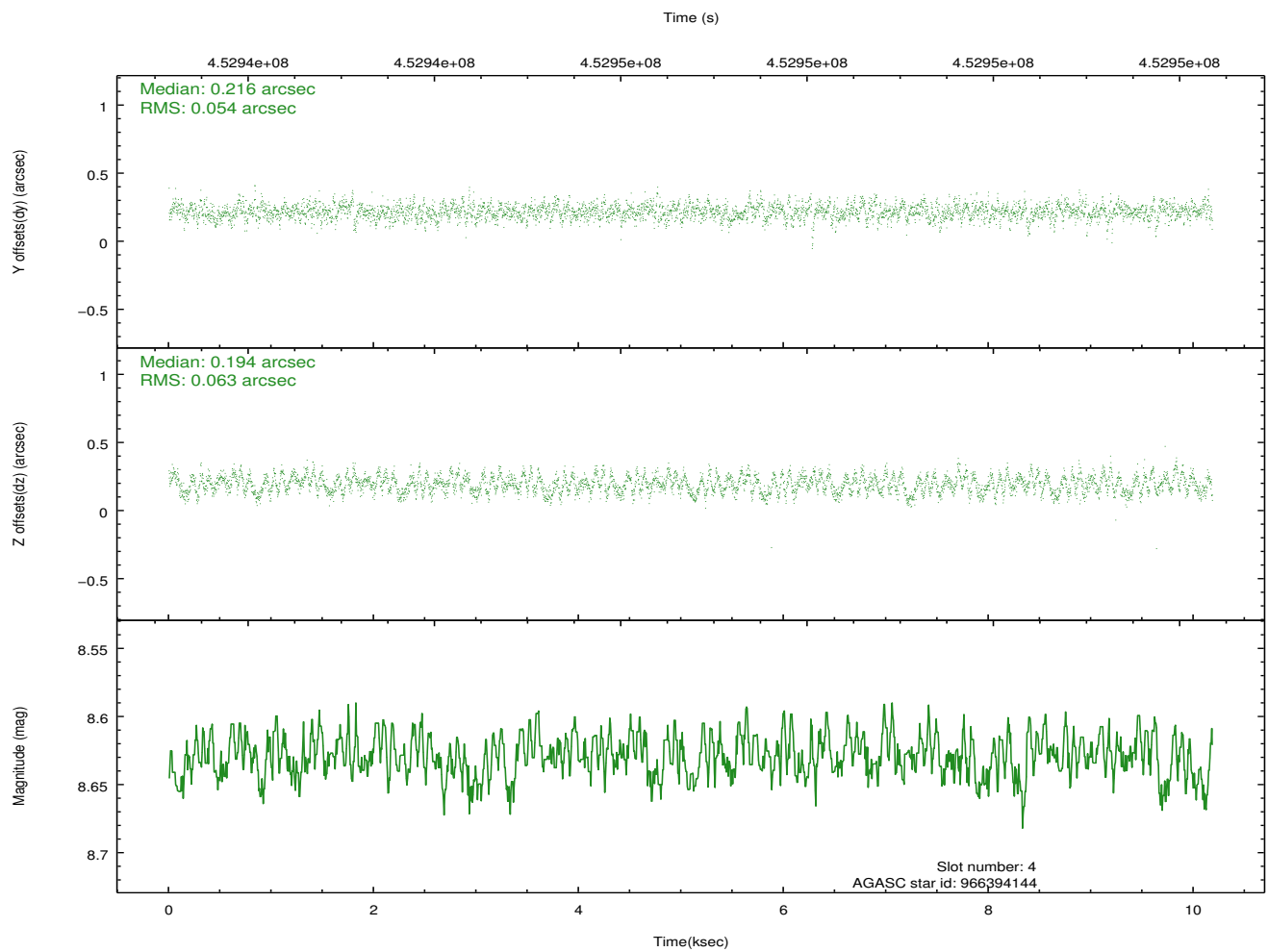
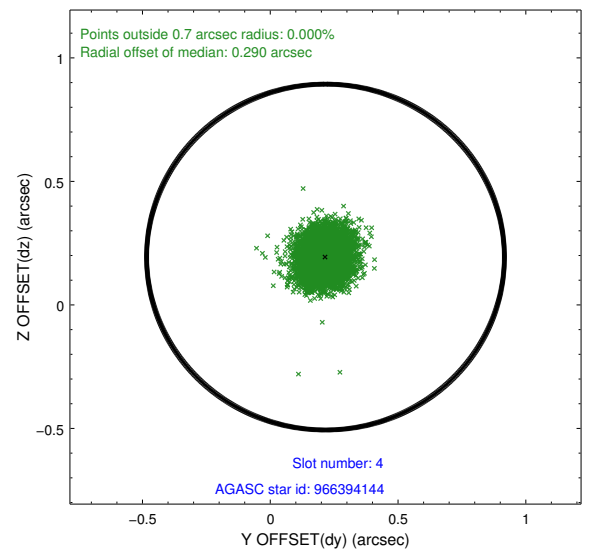
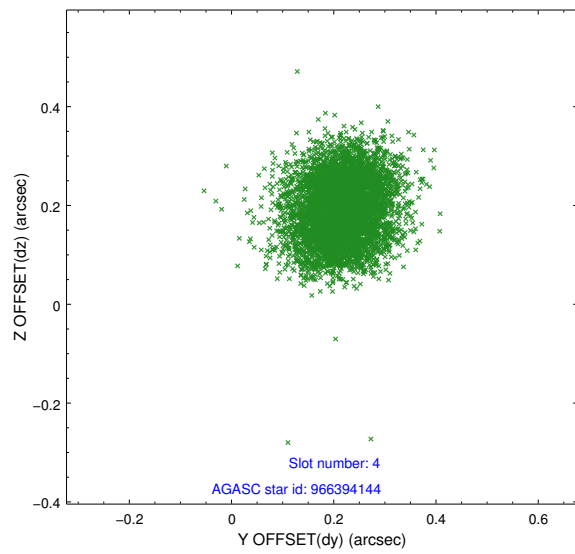
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	2484	-0.159	-0.367	0.010	0.015	0.000000	0.000000	-768.12	-2004.73
1	FID	ACIS-S-4	6.98	2484	0.272	0.174	0.009	0.014	0.000000	0.000000	2145.39	-96.44
2	FID	ACIS-S-5	7.04	2484	-0.144	0.200	0.007	0.013	0.000000	0.000000	-1820.25	-102.07
3	GUIDE	966267632	7.95	4968	0.080	0.006	0.088	0.150	256.428991	-36.740525	-940.90	-473.80
4	GUIDE	966394144	8.63	4964	0.216	0.194	0.088	0.139	256.902901	-37.062041	-1335.13	-2218.80
5	GUIDE	966395984	9.20	4961	-0.266	-0.314	0.096	0.167	256.535204	-35.907673	1856.10	647.01
6	GUIDE	966396120	7.84	4965	0.044	0.055	0.087	0.135	256.737004	-36.720258	-463.58	-1227.14
7	GUIDE	966398520	8.34	4962	-0.077	0.057	0.096	0.151	256.842646	-35.892866	2318.57	-122.83

2.4 Star Slots

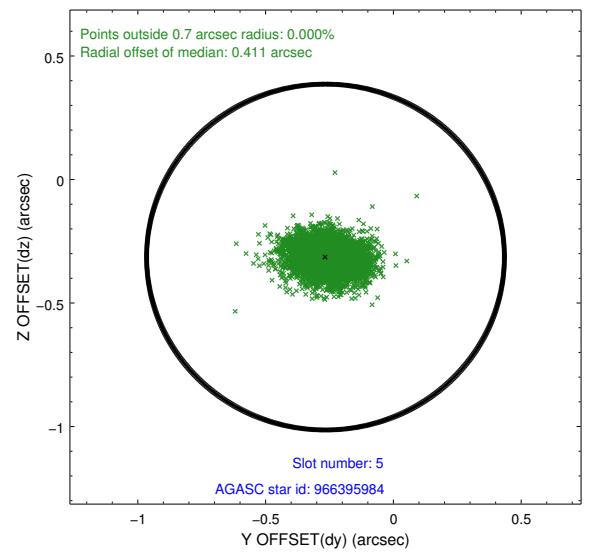
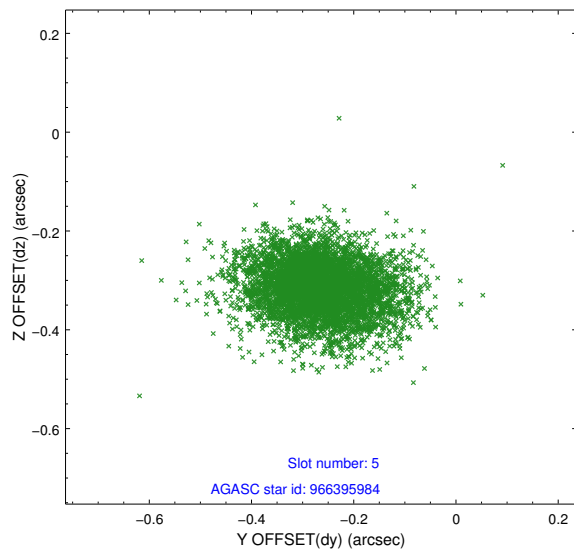
2.4.1 Slot 3



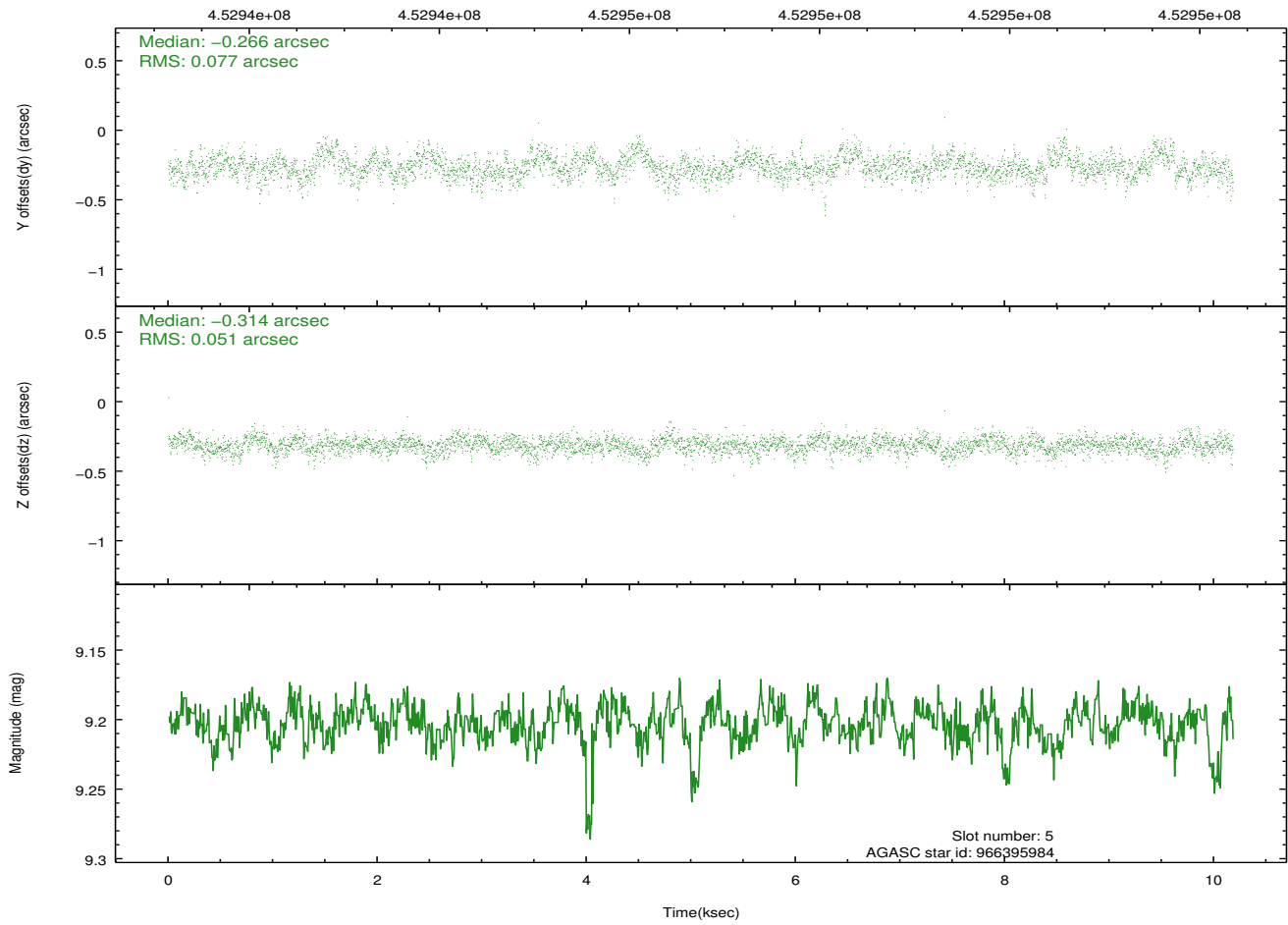
2.4.2 Slot 4



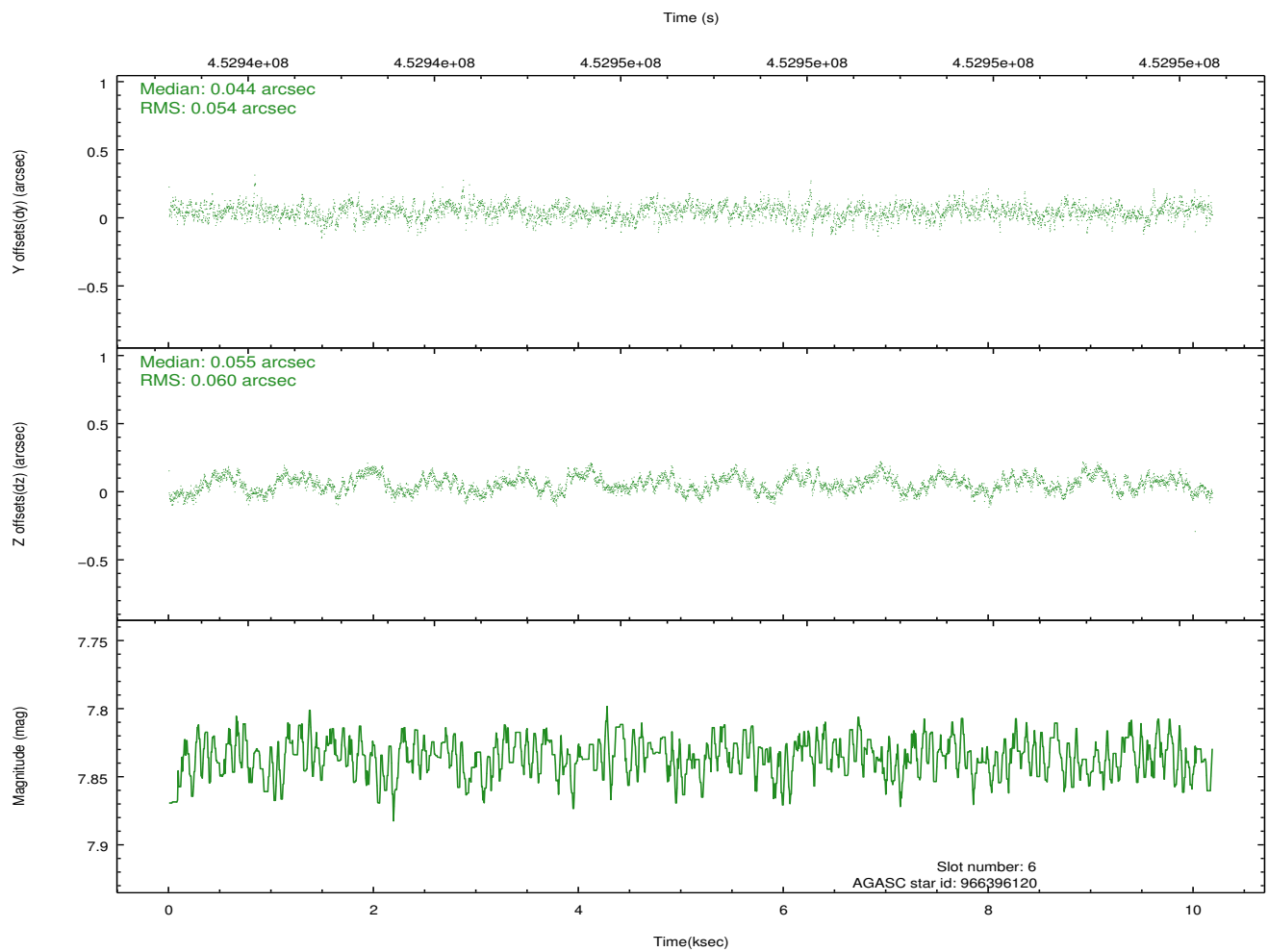
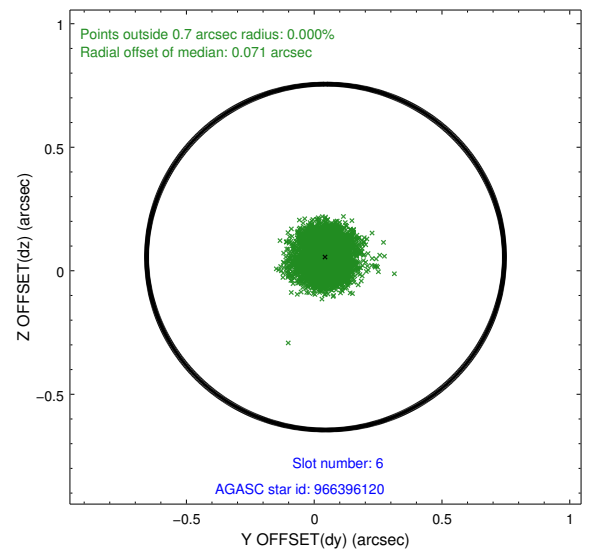
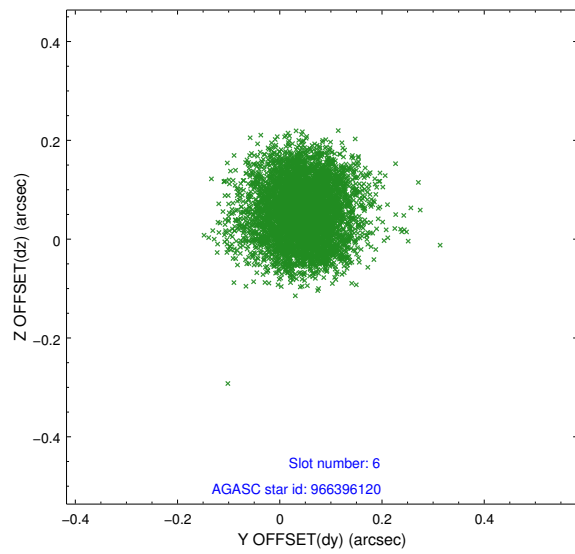
2.4.3 Slot 5



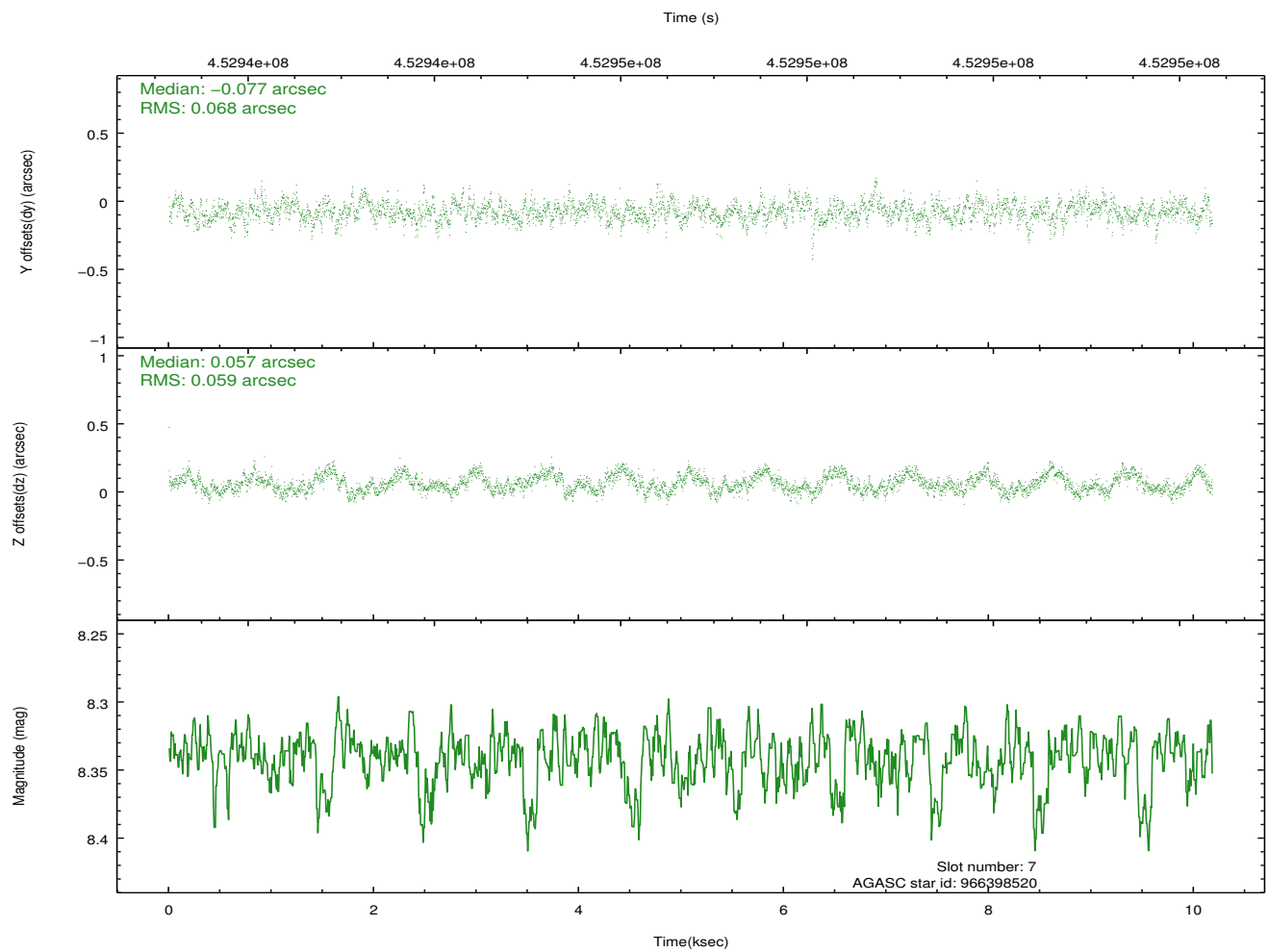
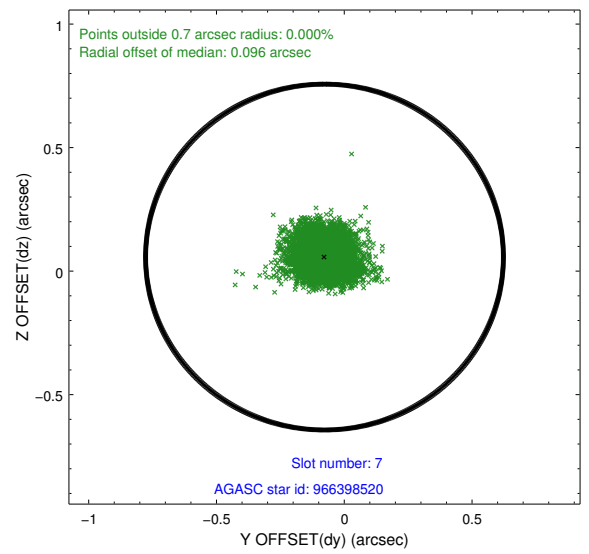
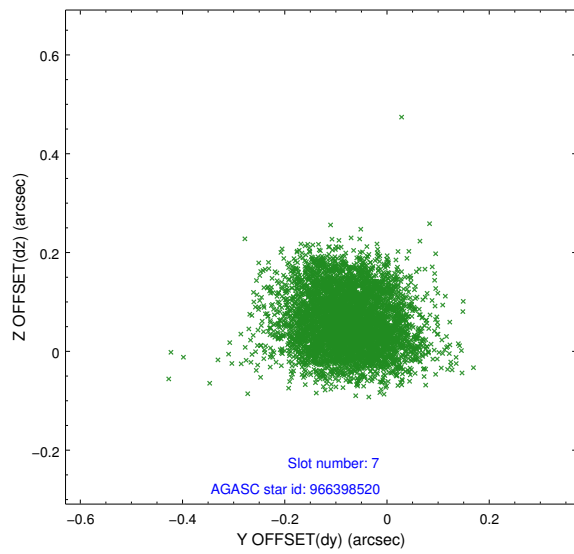
Time (s)



2.4.4 Slot 6

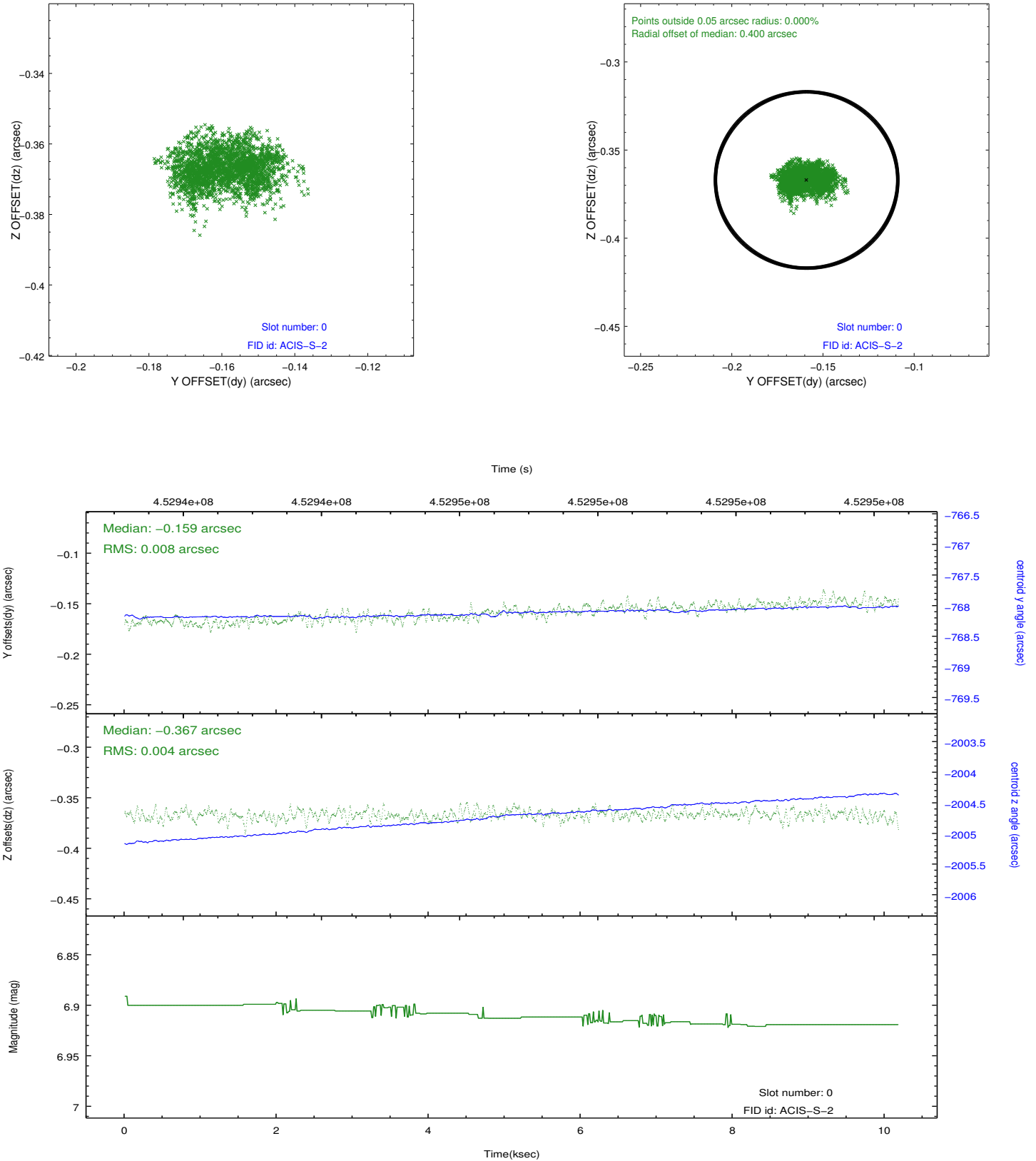


2.4.5 Slot 7

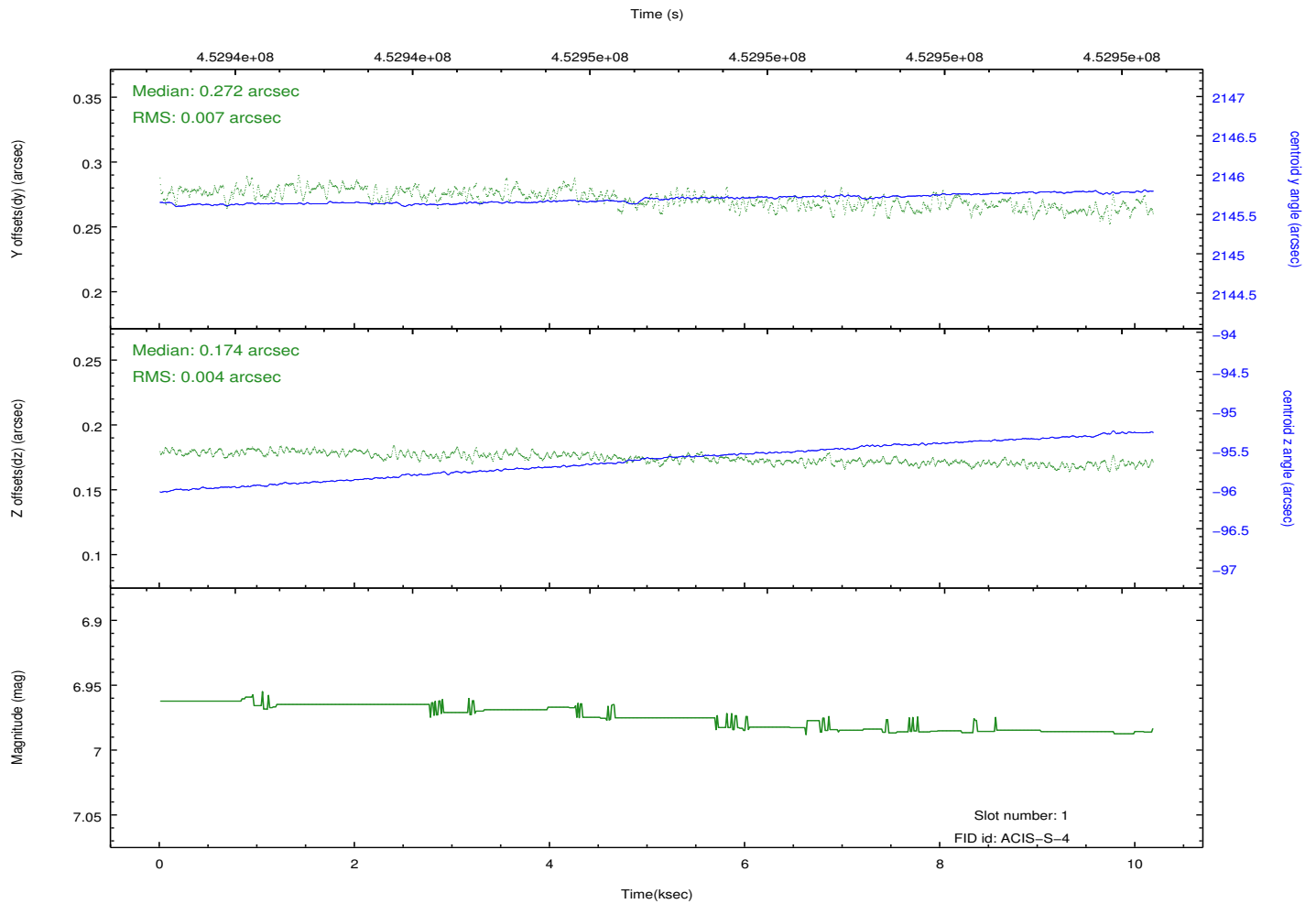
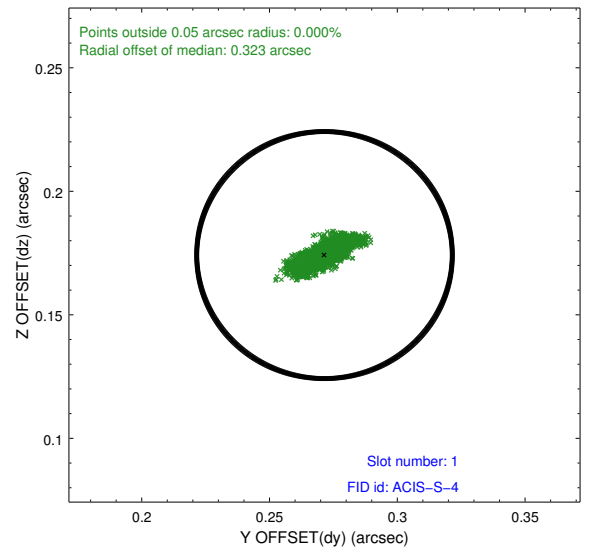
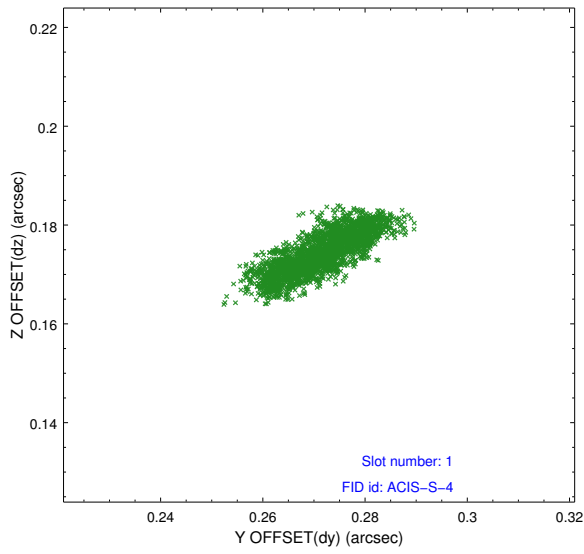


2.5 FID Slots

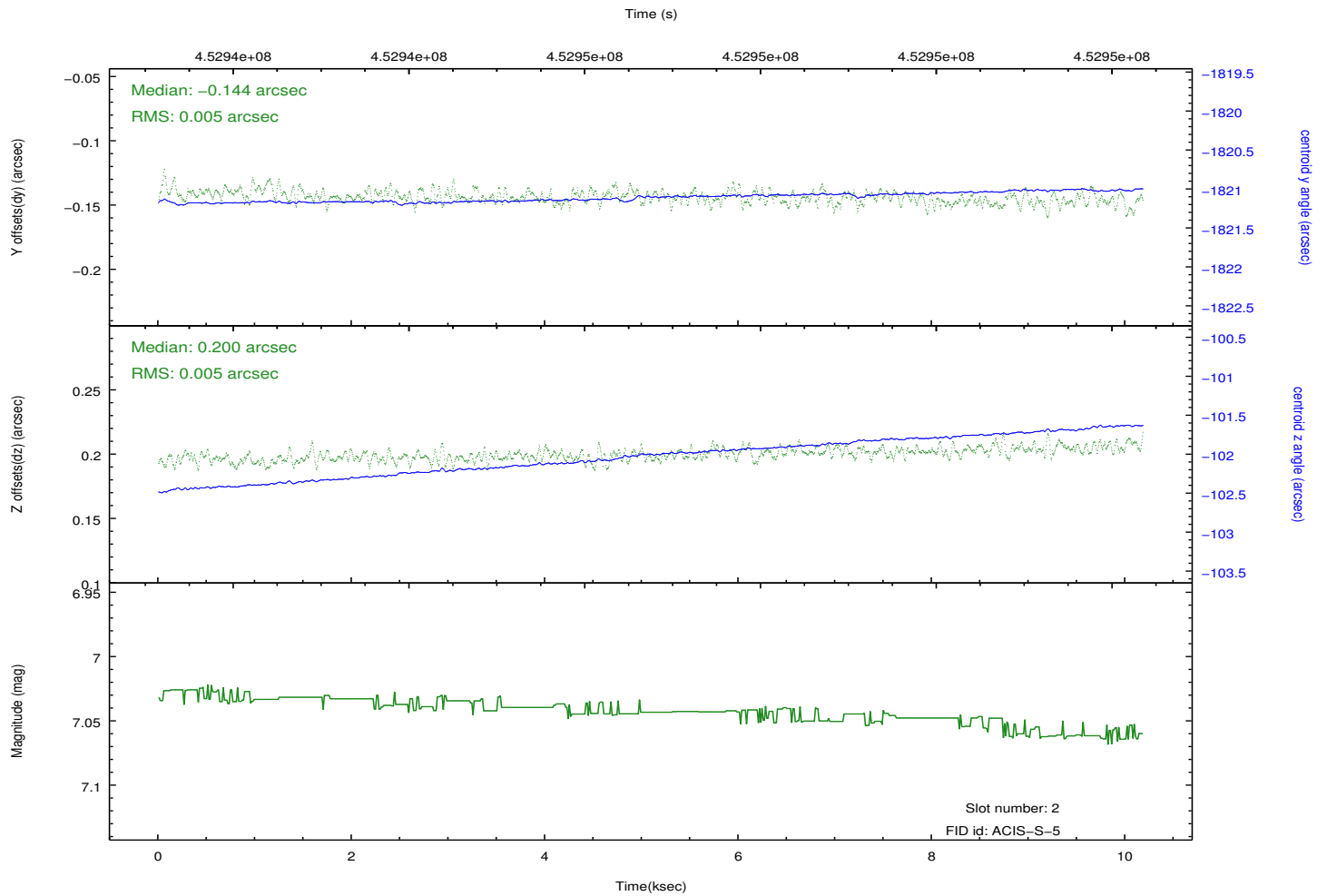
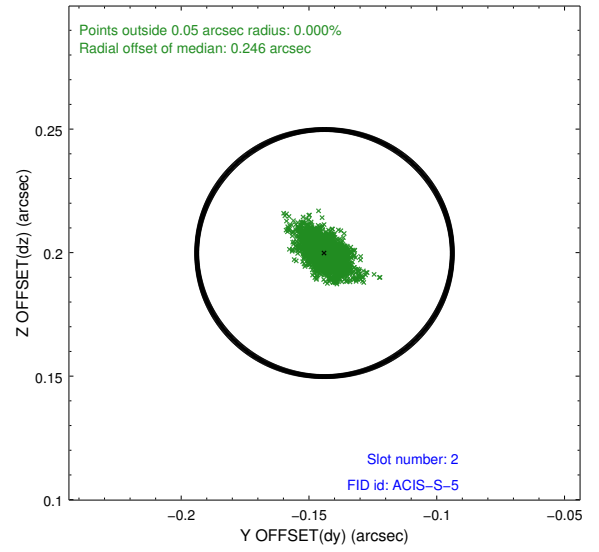
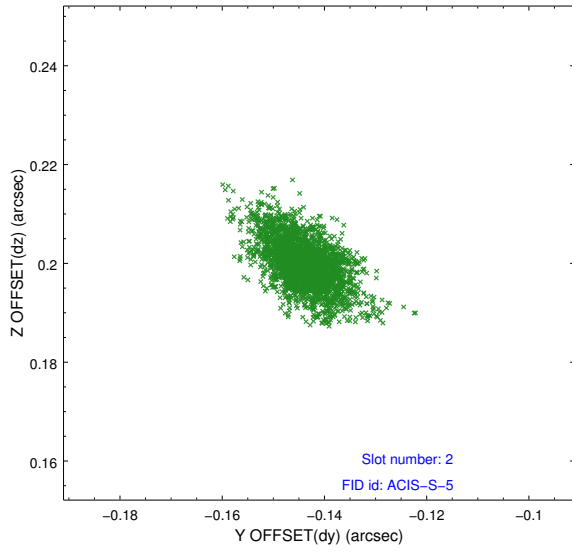
2.5.1 Slot 0



2.5.2 Slot 1

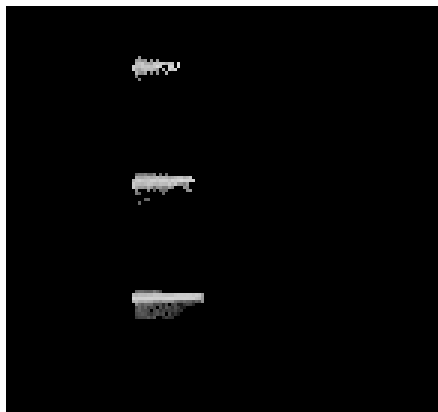


2.5.3 Slot 2

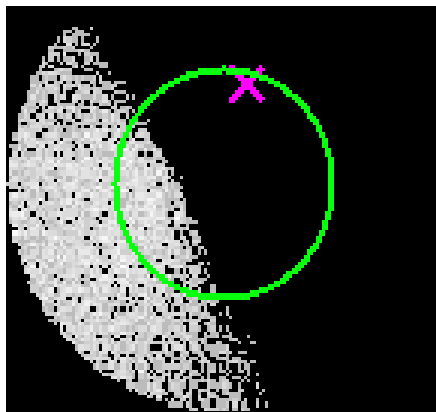


3 Gratings

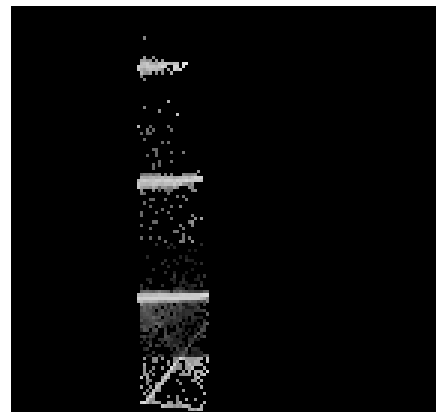
3.1 HEG Arm



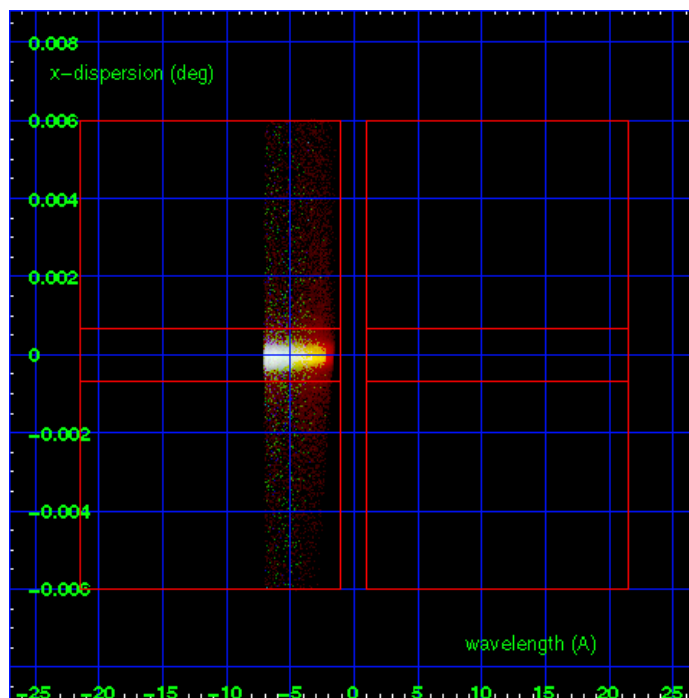
HEG Order Sort 123



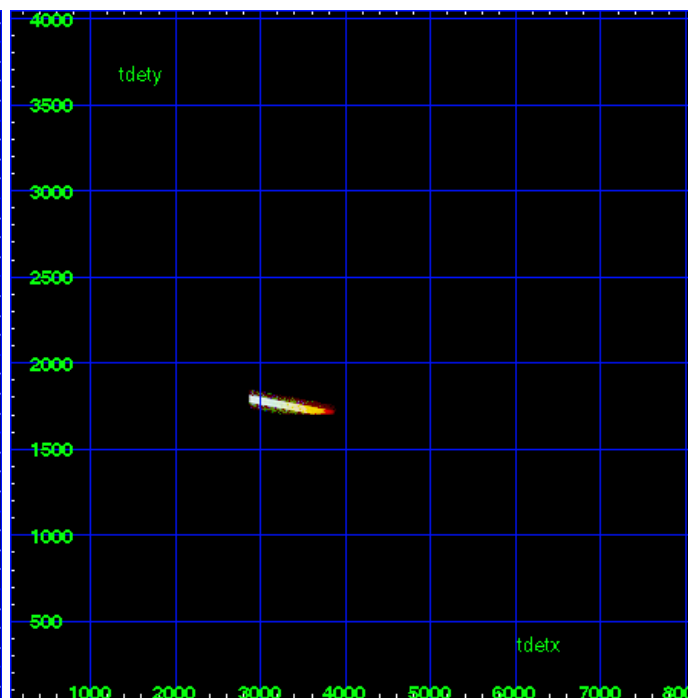
HEG Zero Order



HEG Order Sort ALL

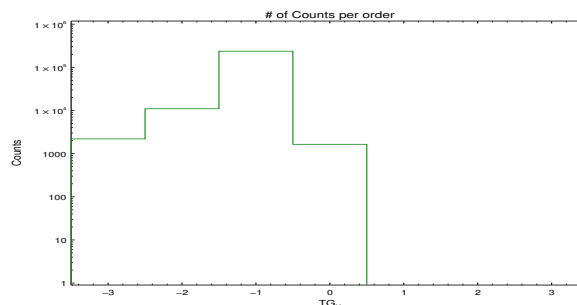


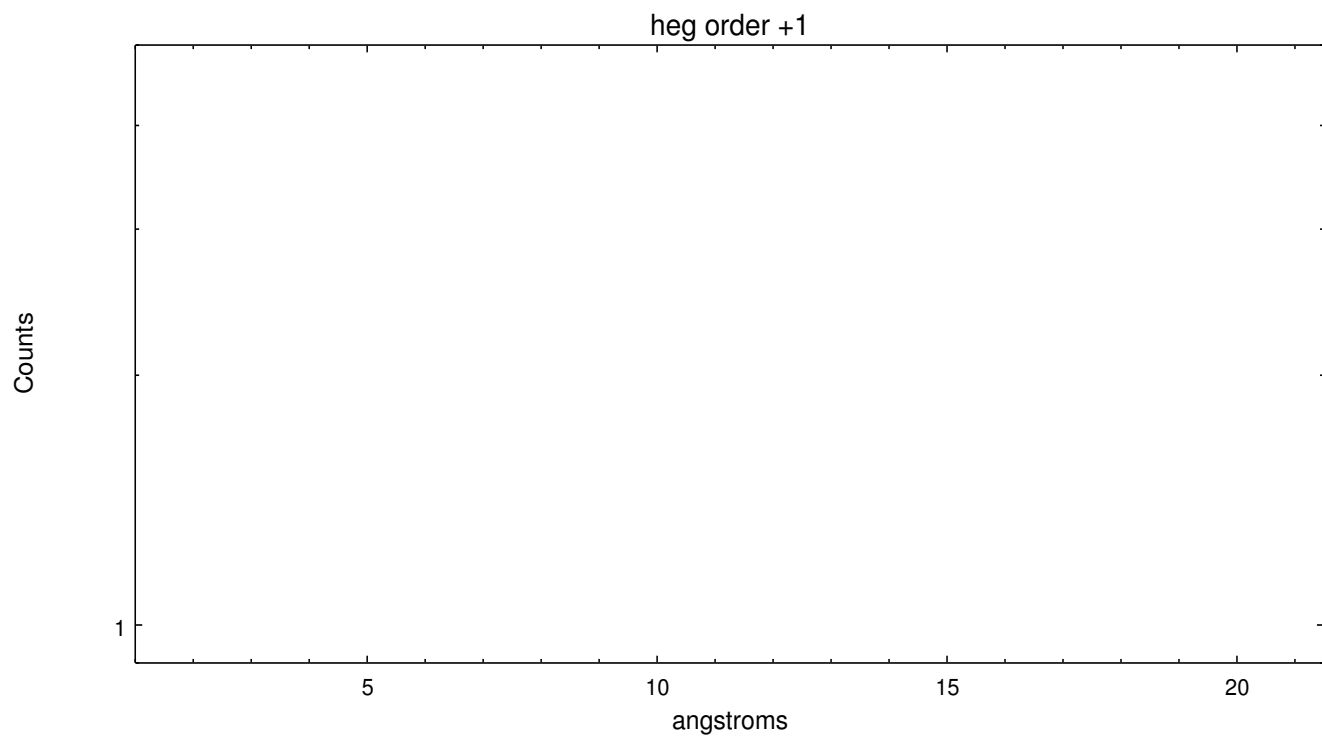
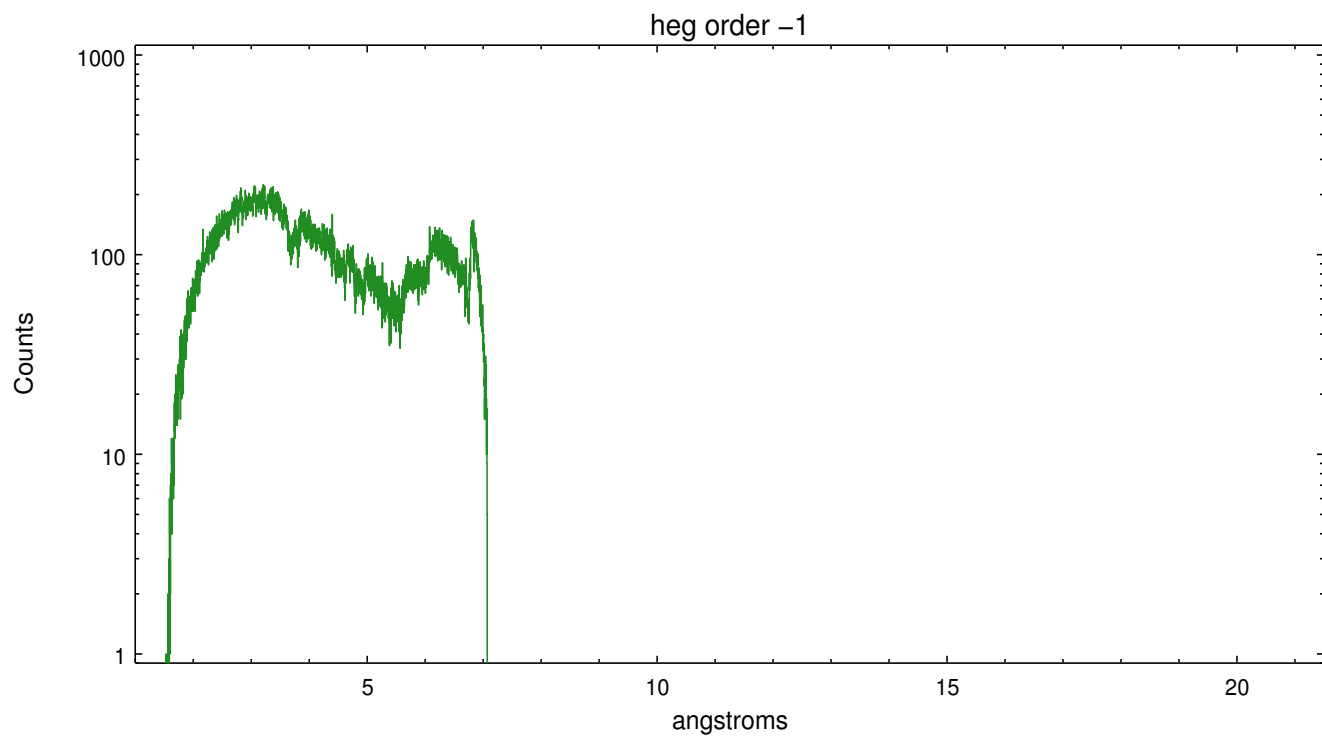
Spot Image HEG



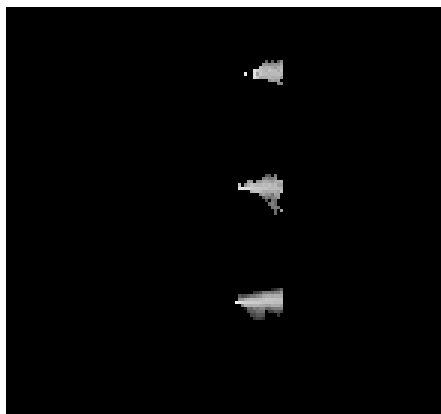
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2195	10964	236489	1642	0	0	0

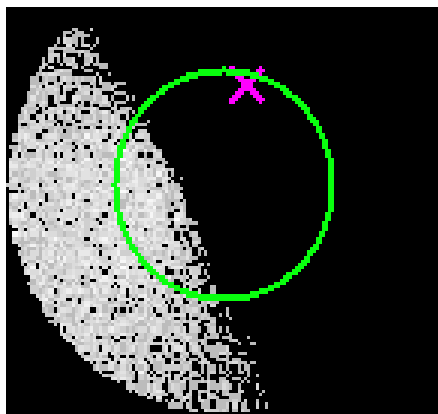




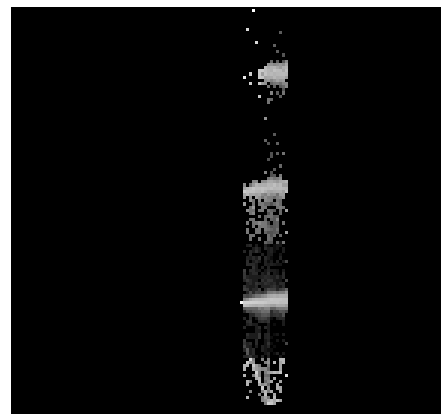
3.2 MEG Arm



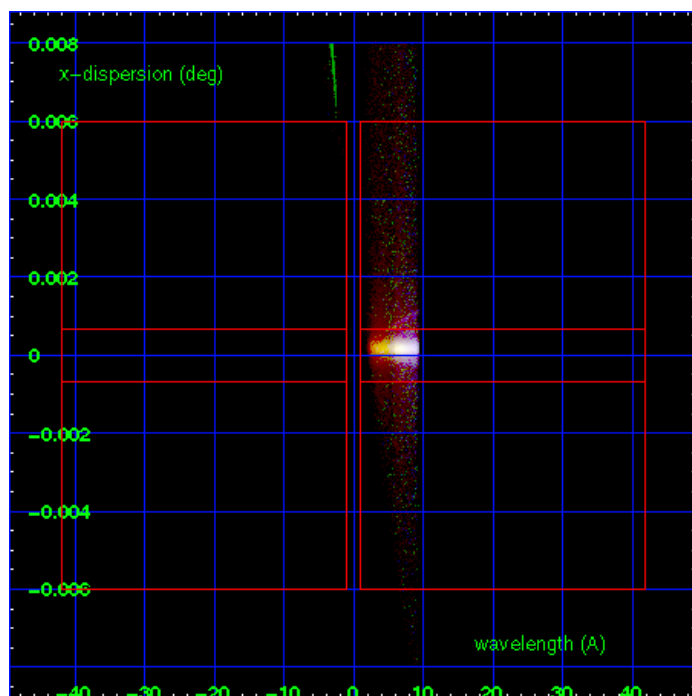
MEG Order Sort 123



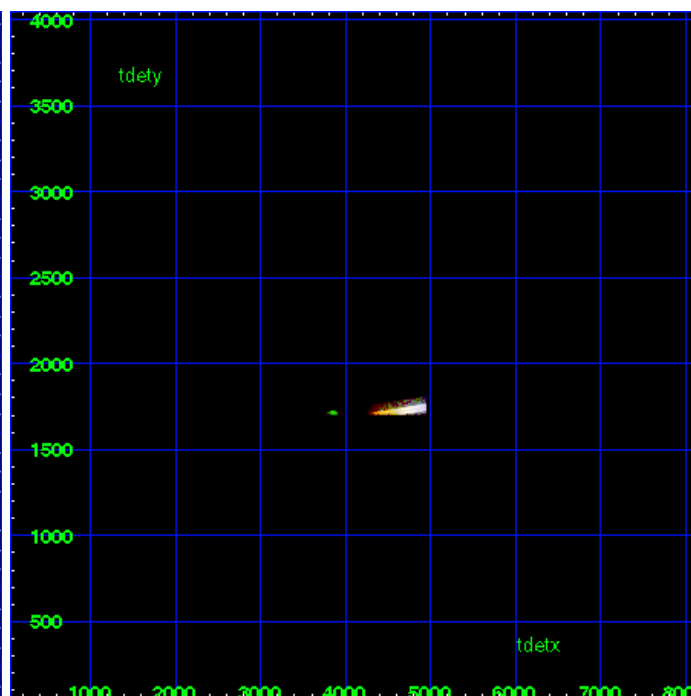
MEG Zero Order



MEG Order Sort ALL

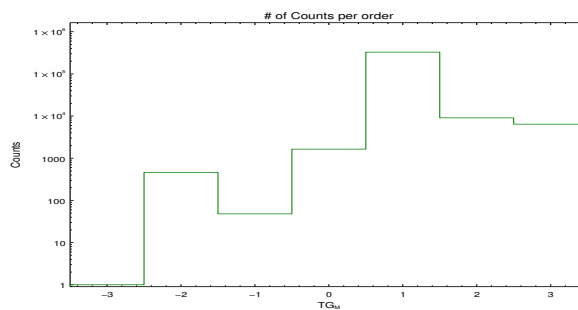


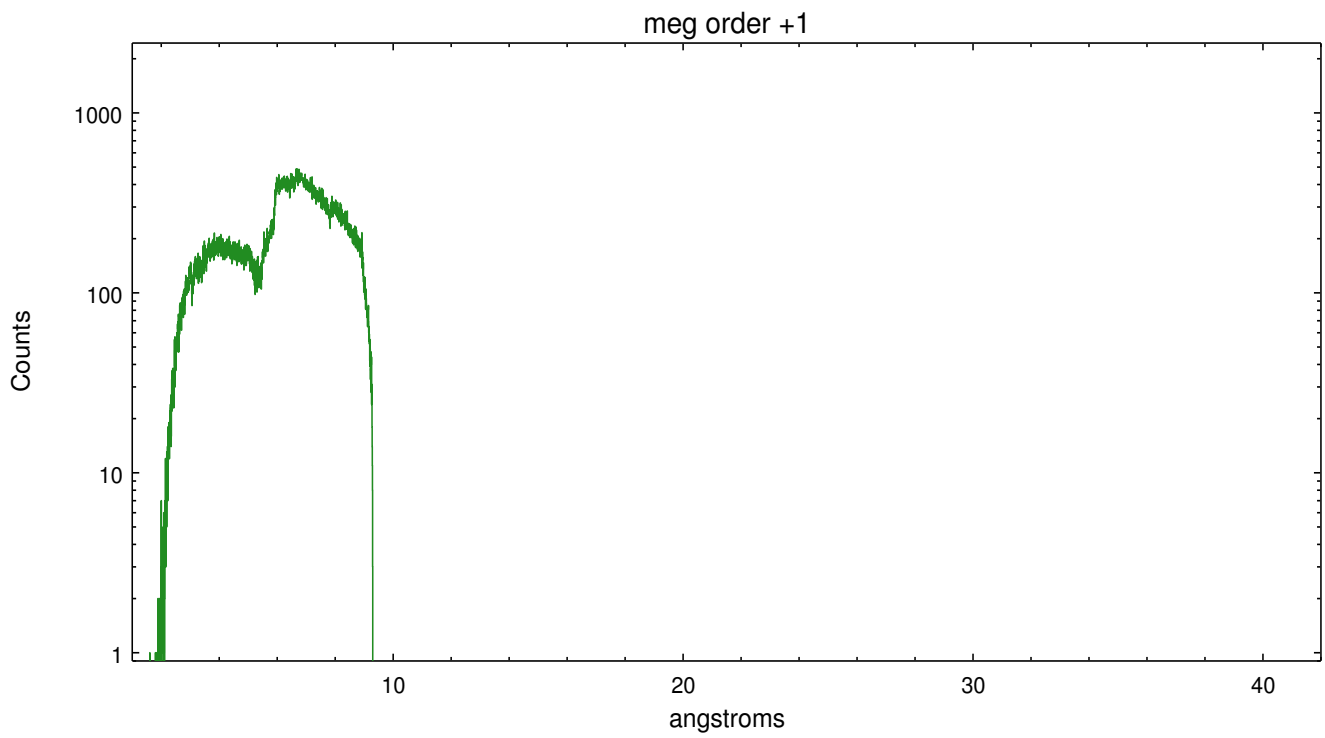
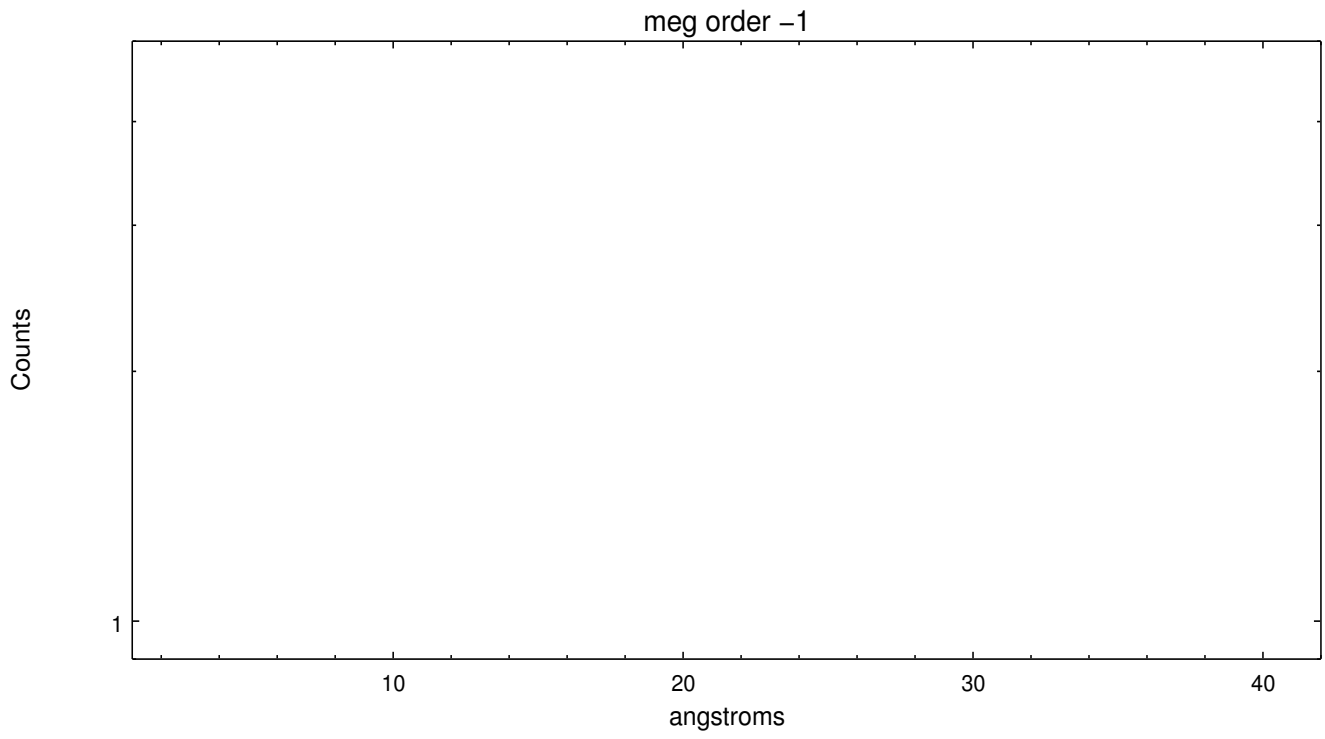
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1	461	48	1642	327206	9075	6413





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.063

A.2 Comments

Target is off the chip. Most of the +1 MEG arm and -1 HEG arm are on the chips and usable. Zeroth order position was found manually by drawing a region on each visible order in ds9 and using the cursor to identify the intersection of the regions. This technique resulted in zeroth order coordinates of $(x,y) = (4089.9, 4070.0)$. Note that these sky coordinates do not correspond to the source position supplied by the user and recorded in OCAT. Nor do they correspond to the coordinates of this target as given by SIMBAD. However, the zeroth order position of $(x,y) = (4089.9, 4070.0)$ results in a good extraction of the spectral data. Custom subarray configuration: rows 1-156.