

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5553 - L2 Version 3
Chandra X-Ray Center

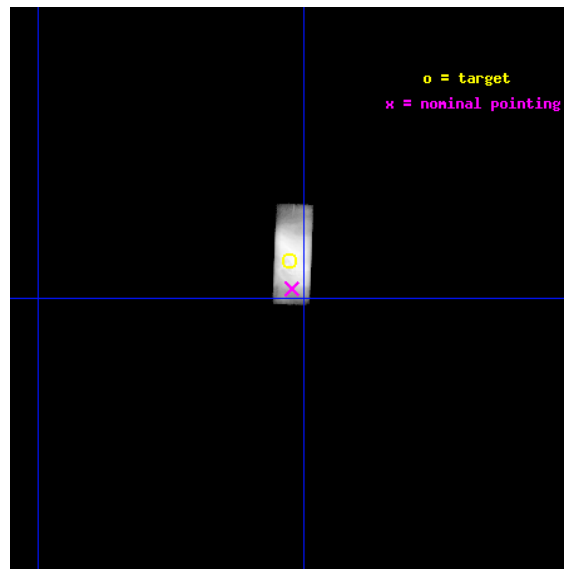
L2 Processing Date : Dec 21 2012

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1 Front

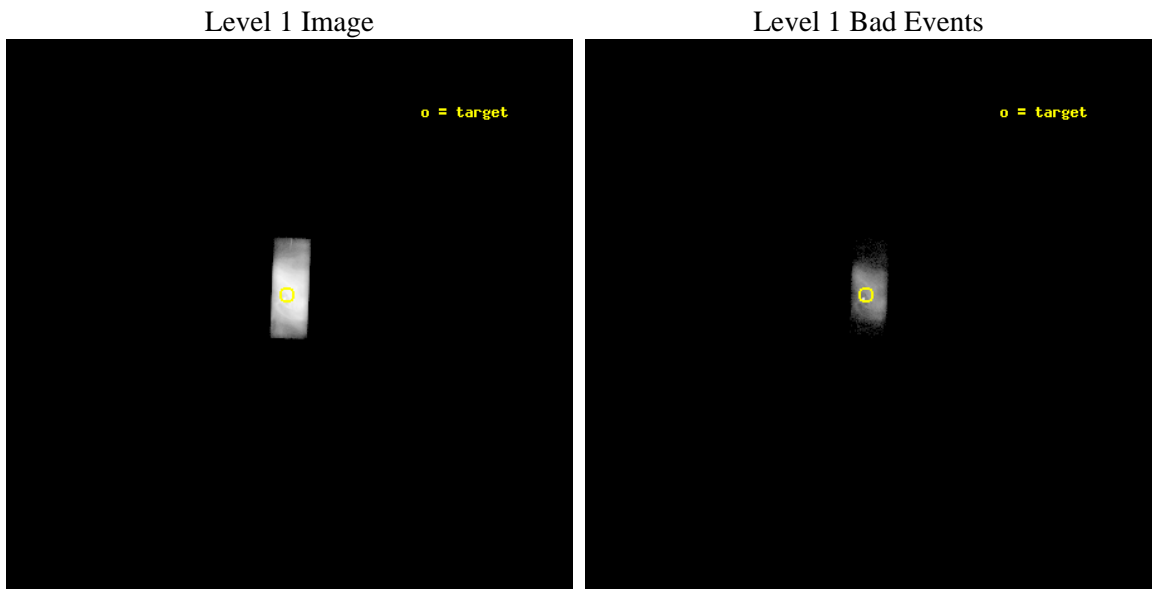
seq_num	500542	Sequence number
obs_id	5553	Observation id
title	Monitoring of the Relativistic Magnetohydrodynamic Shock in the Crab Nebula	Proposal title
observer	Dr Koji Mori	Principal investigator
object	The Crab Nebula	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.632083	Observer's specified target RA [deg]
dec_targ	22.016472	Observer's specified target Dec [deg]
ra_nom	83.630758650913	Nominal RA [deg]
dec_nom	22.004058235041	Nominal Dec [deg]
roll_nom	272.22680973769	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10152.600403428	Sum of GTIs [s]
livetime	8930.8589051971	Livetime [s]
ontime7	10152.600403428	Sum of GTIs [s]
l2events	2673249	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	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	10152.600403428	Sum of GTIs [s]
caldbver	4.5.5	 	ontime7	10152.600403428	Sum of GTIs [s]
date	2012-12-21T16:26:46	Date and time of file creation	l1events	2837012	Number of level 1 events
revision	3	Processing version of data			

2.1.3 Events

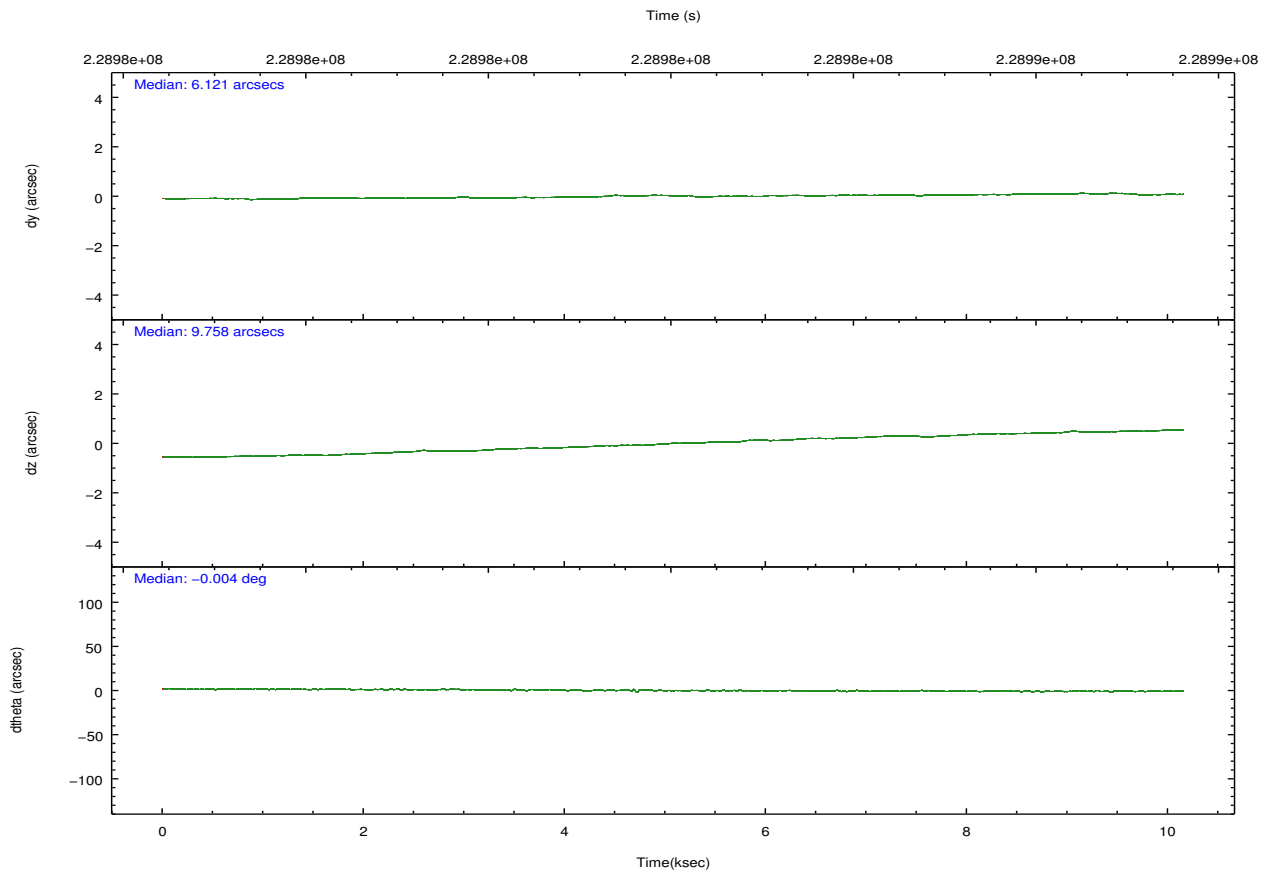
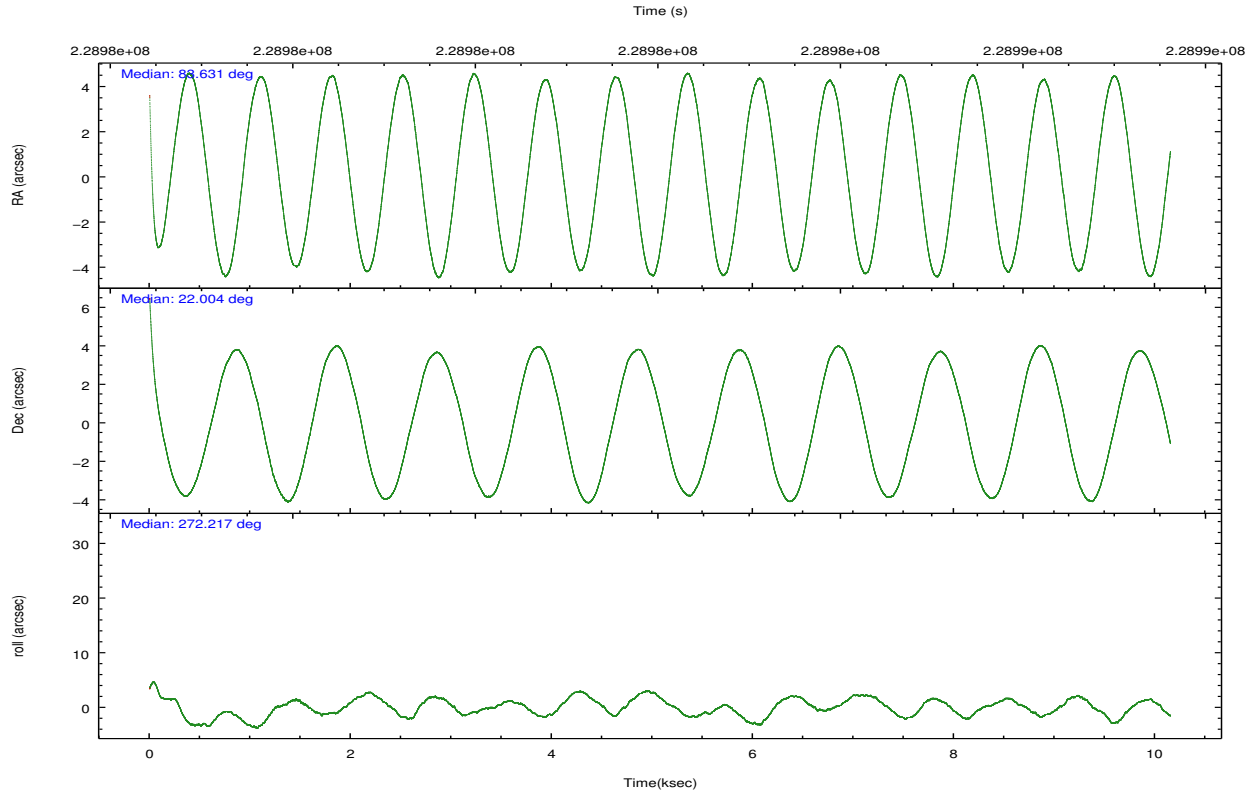
	ccd 7
level 1 events	2837012
rejected events	135418
rejected %	4%

	ccd 7
grade 0 events	552210
	19%
grade 1 events	10511
	0%
grade 2 events	698593
	24%
grade 3 events	311303
	10%
grade 4 events	297514
	10%
grade 5 events	43732
	1%
grade 6 events	871997
	30%
grade 7 events	51152
	1%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	83.614771	83.63075865091268	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	22.026897	22.00405823504067	Subarray start row	127	127
[deg] Pointing Roll	272.076174	272.2268097376885	Subarray row count	101	101
[s] Window start time (MET)	228960064.184000	228960064.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	229564864.184000	229564864.184000	[s] Primary exposure time	0.000000	0.3
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	228977103.184000	228976045.80127			
Observation start date	2005-04-04T04:43:59	2005-04-04T04:27:25			
[s] Observation end time (MET)	228987103.184000	228987237.26428			
Observation end date	2005-04-04T07:30:39	2005-04-04T07:33:57			
Read mode	TIMED	TIMED			

2.3 Aspect

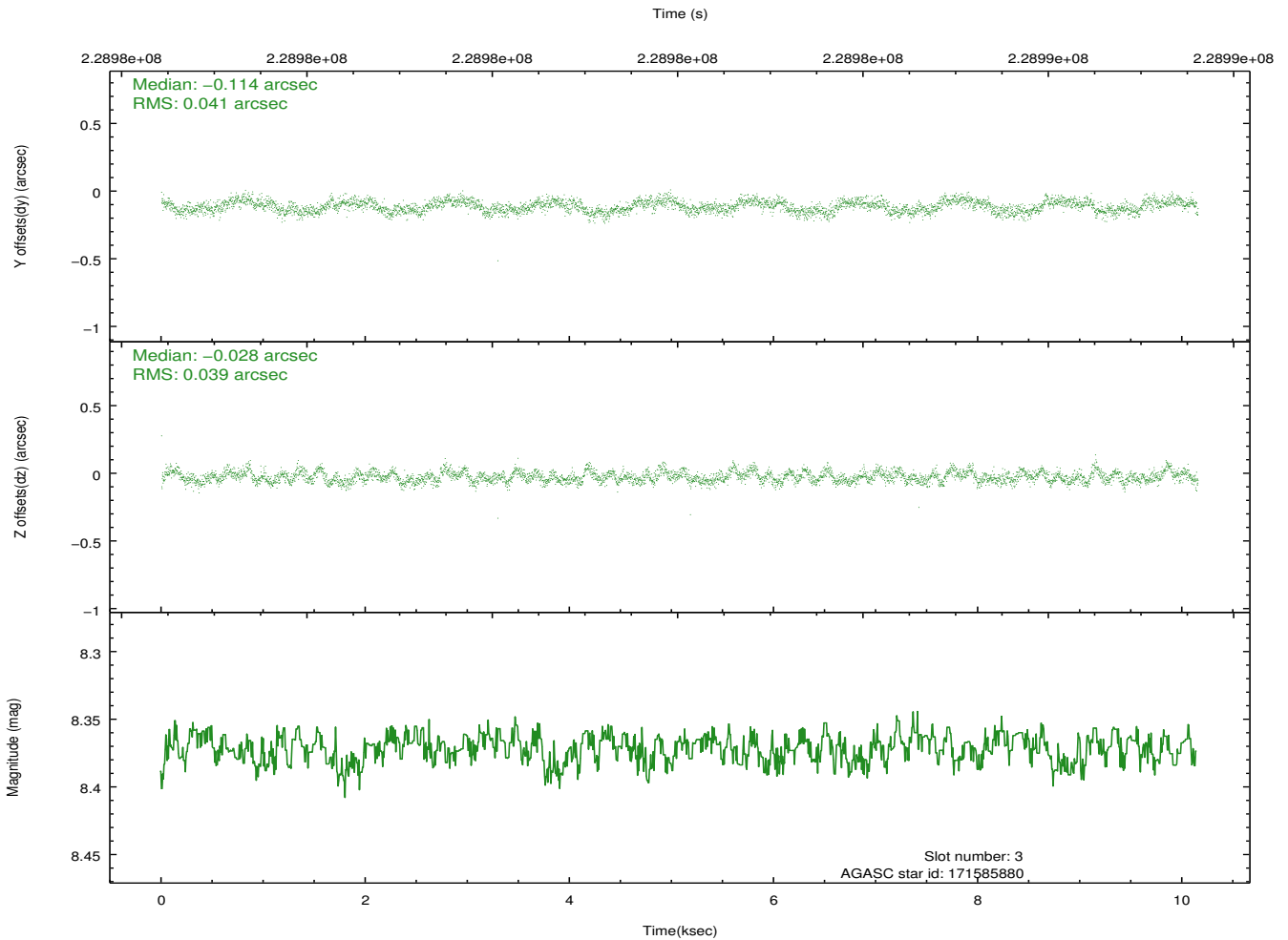
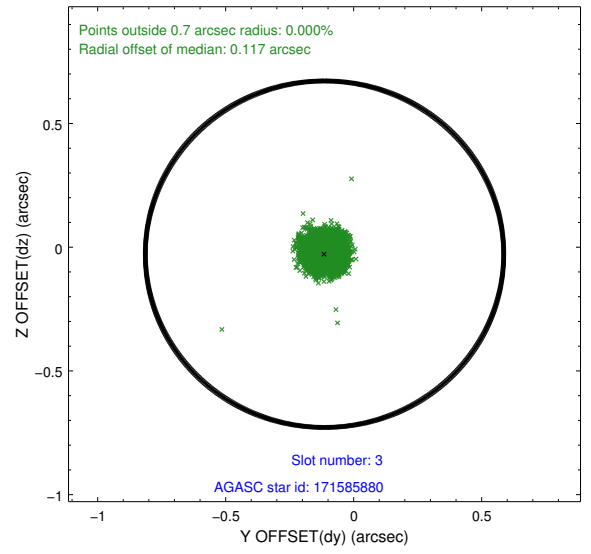
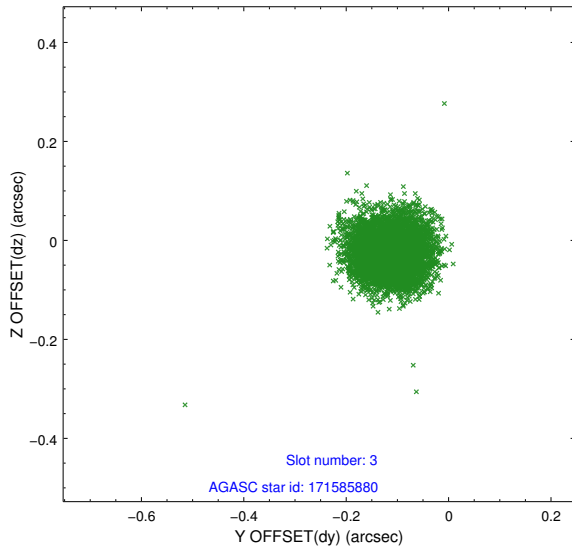


Slot Statistics

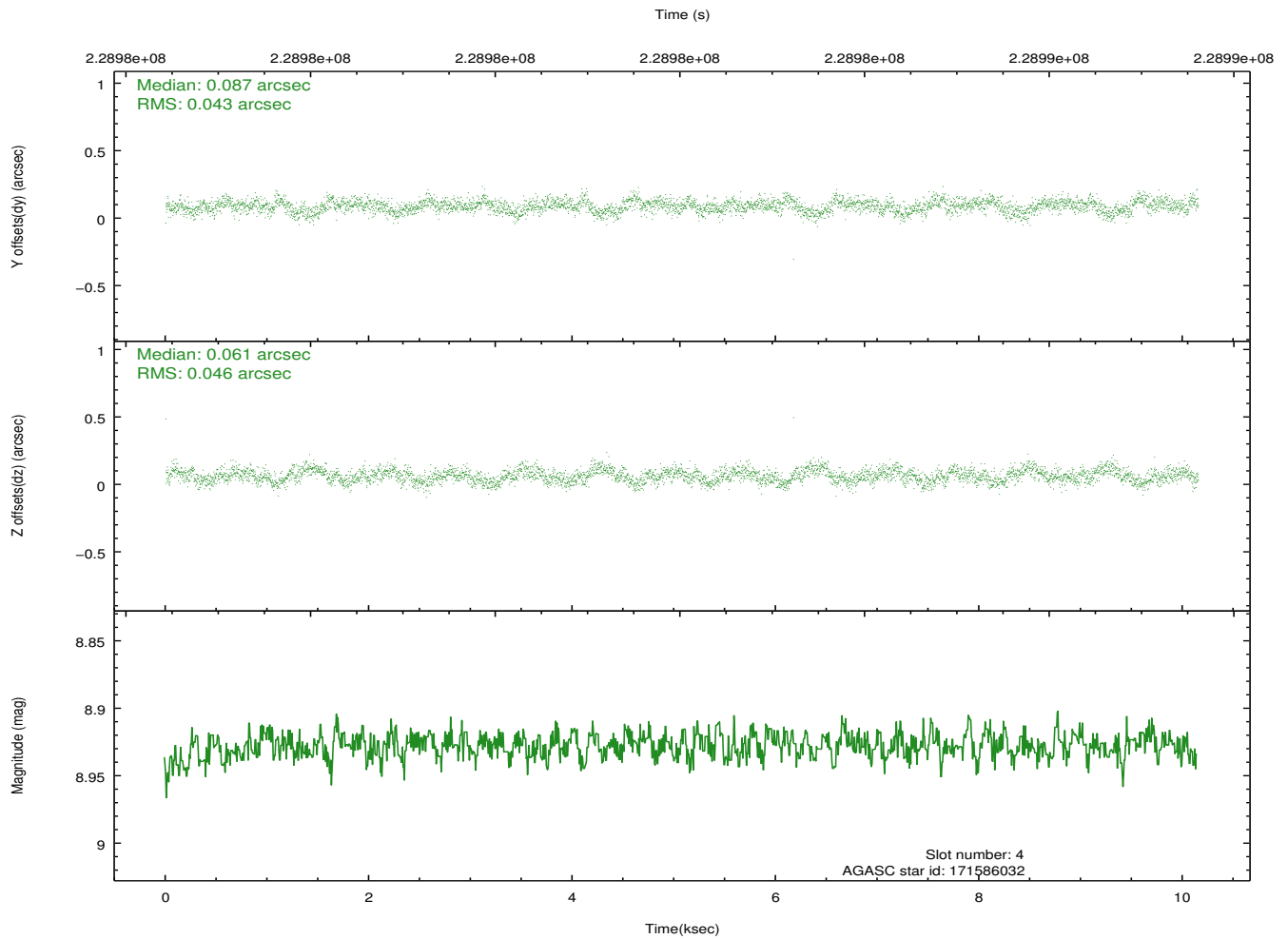
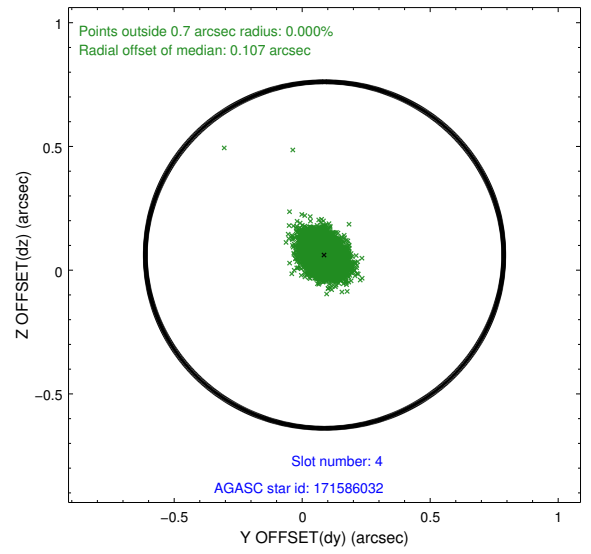
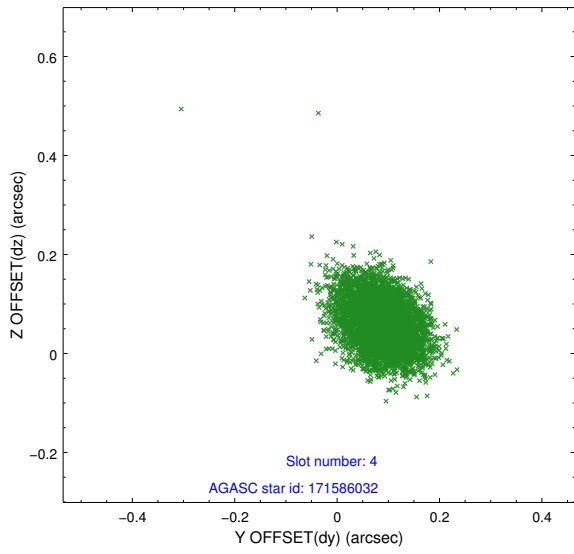
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	2477	-0.096	-0.109	0.008	0.014	0.000000	0.000000	-758.36	-1895.80
1	FID	ACIS-S-4	7.18	2477	0.177	0.075	0.006	0.012	0.000000	0.000000	2154.95	12.25
2	FID	ACIS-S-5	7.23	2475	-0.112	0.042	0.010	0.017	0.000000	0.000000	-1810.55	6.48
3	GUIDE	171585880	8.37	4953	-0.114	-0.028	0.060	0.095	83.676260	22.176319	-530.02	224.49
4	GUIDE	171586032	8.93	4949	0.087	0.061	0.067	0.109	83.950197	22.083225	-163.24	1125.95
5	GUIDE	171721904	9.20	4950	0.016	0.153	0.104	0.166	84.272676	22.116922	-249.21	2205.25
6	GUIDE	243941560	8.29	4954	-0.166	-0.049	0.068	0.105	83.733264	22.568598	-1934.63	464.59
7	GUIDE	171597832	9.16	4948	0.181	-0.141	0.108	0.167	83.183230	21.366702	2321.11	-1531.33

2.4 Star Slots

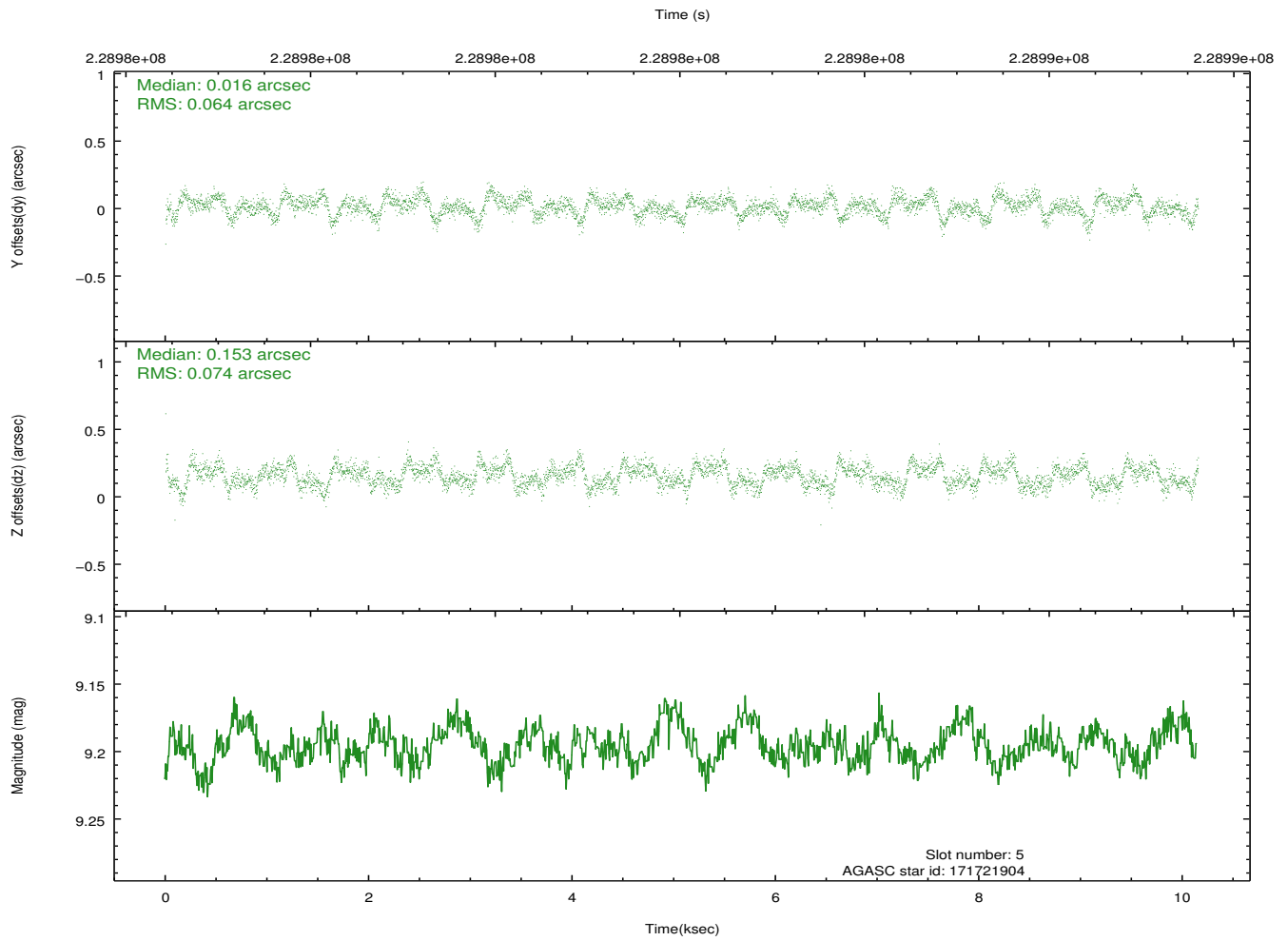
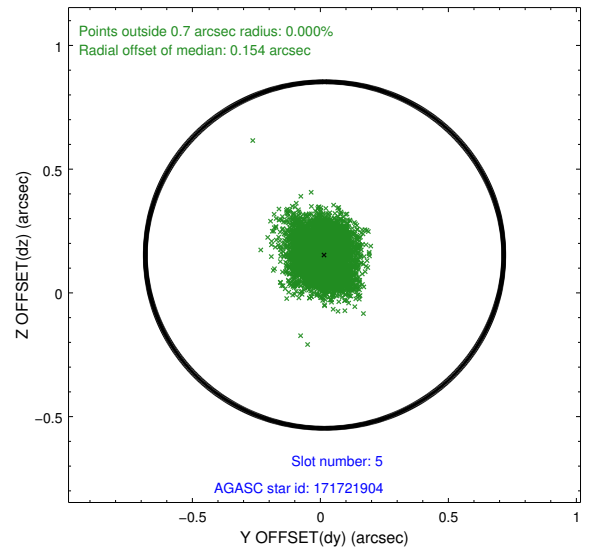
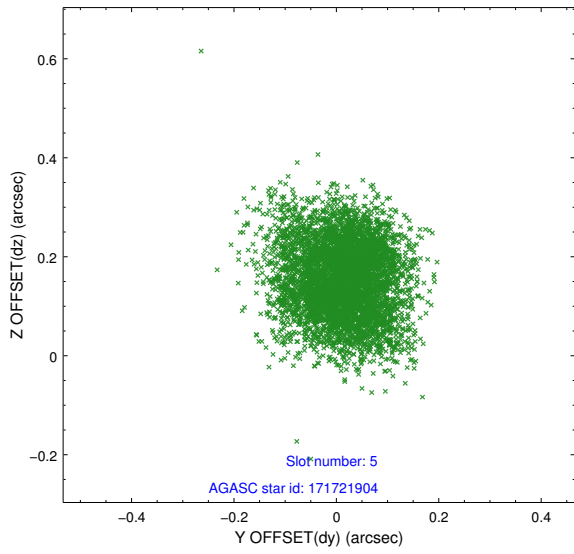
2.4.1 Slot 3



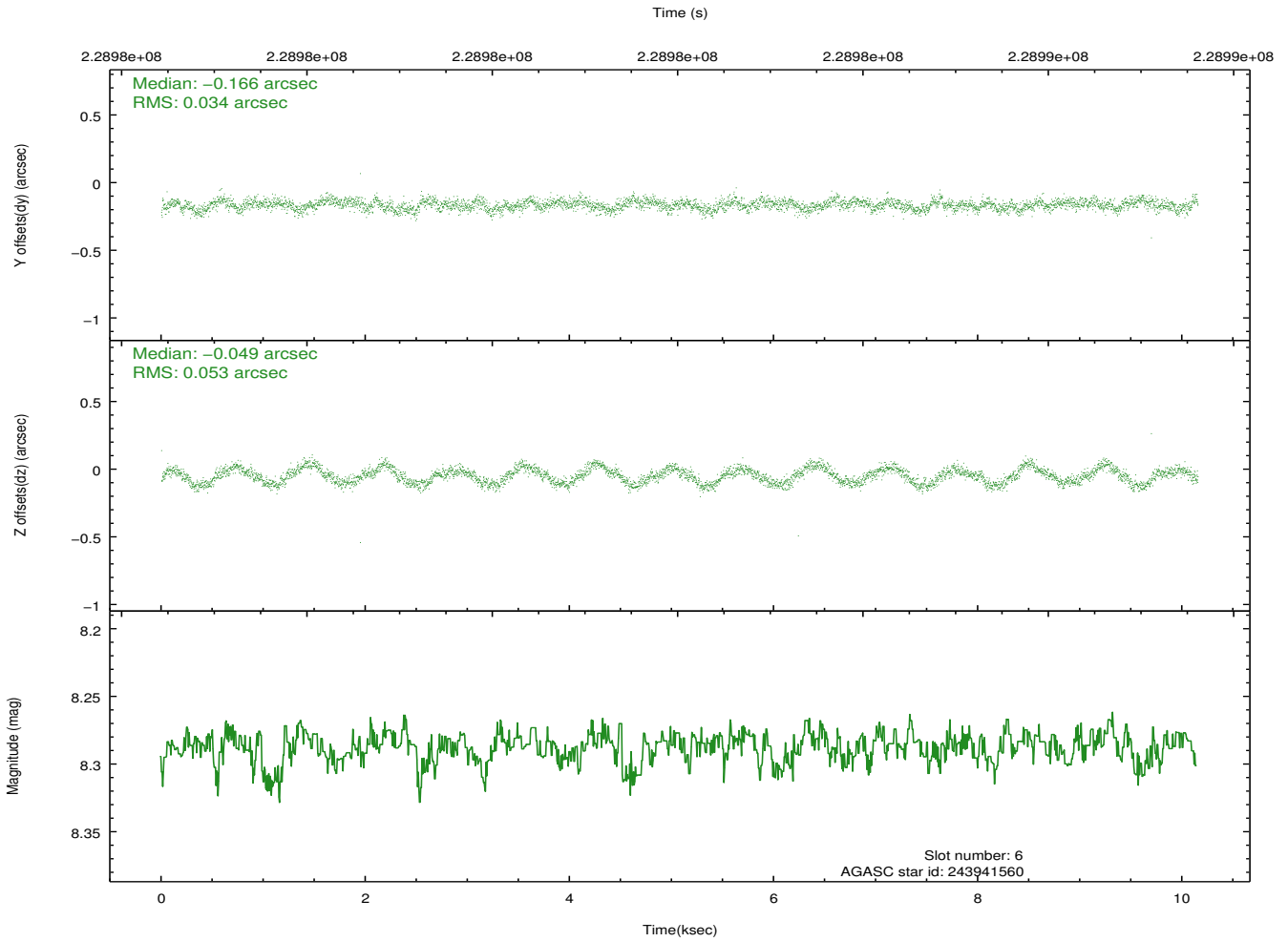
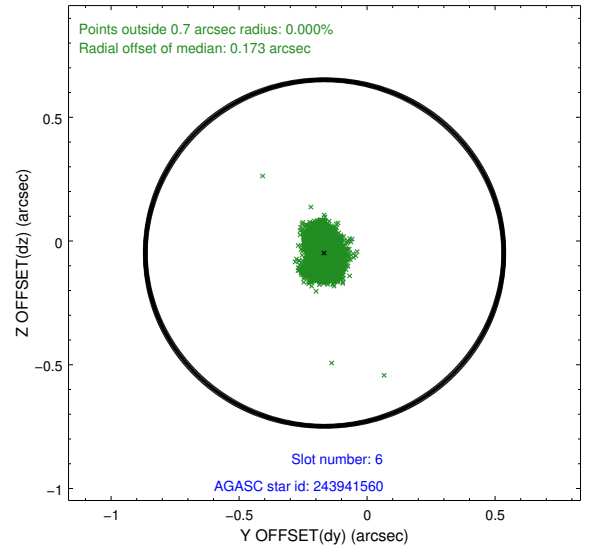
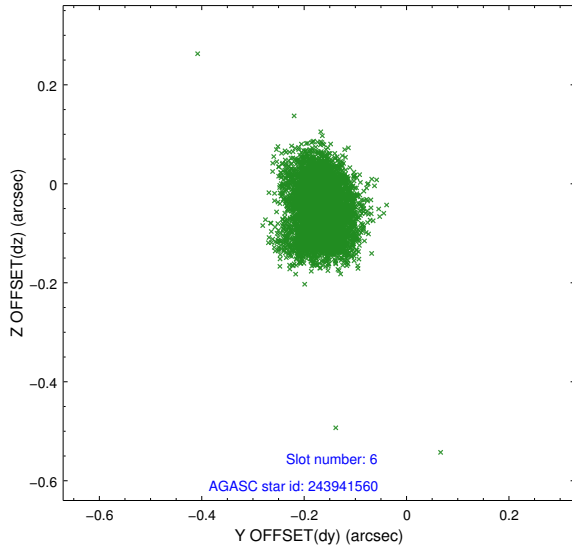
2.4.2 Slot 4



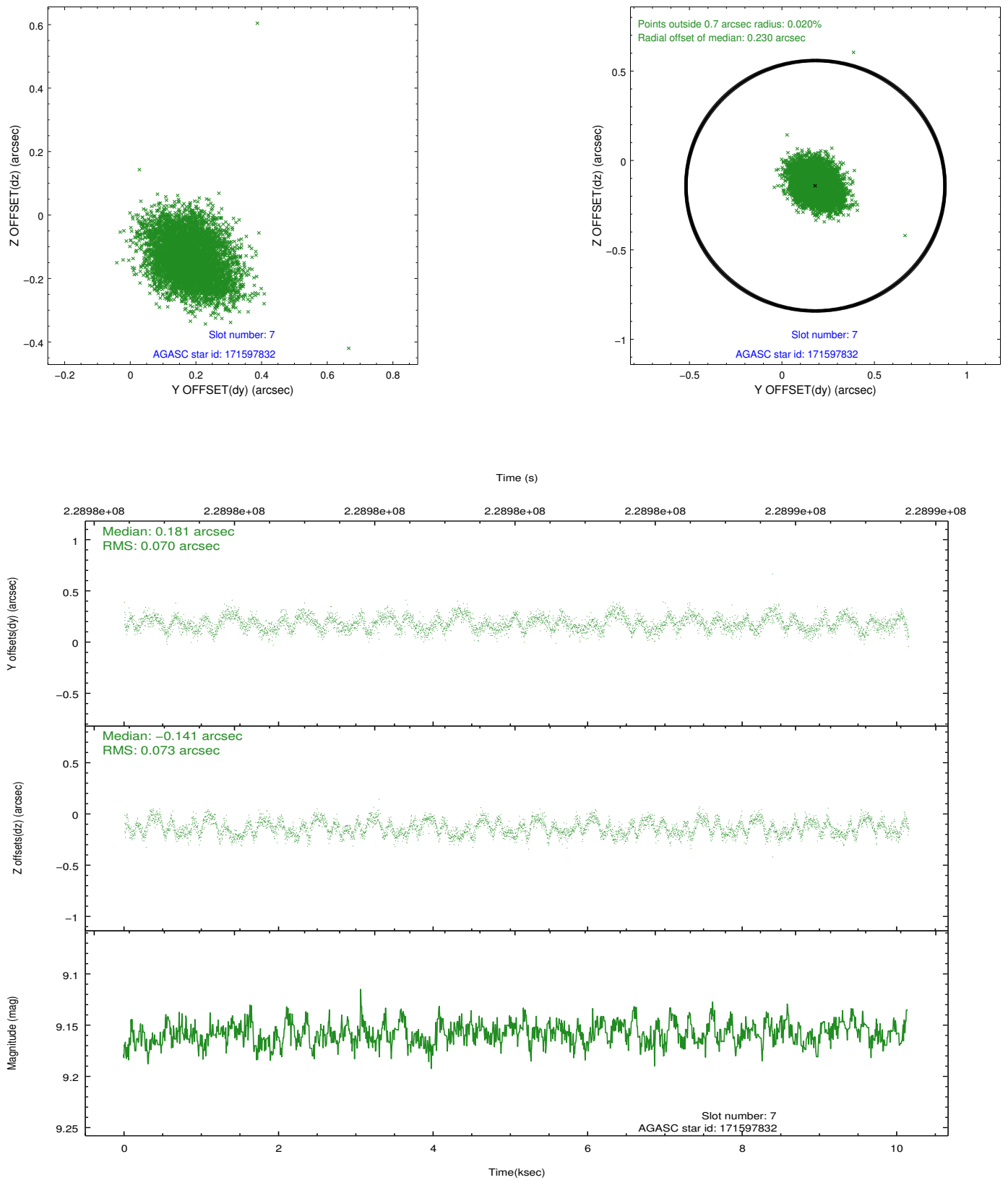
2.4.3 Slot 5



2.4.4 Slot 6

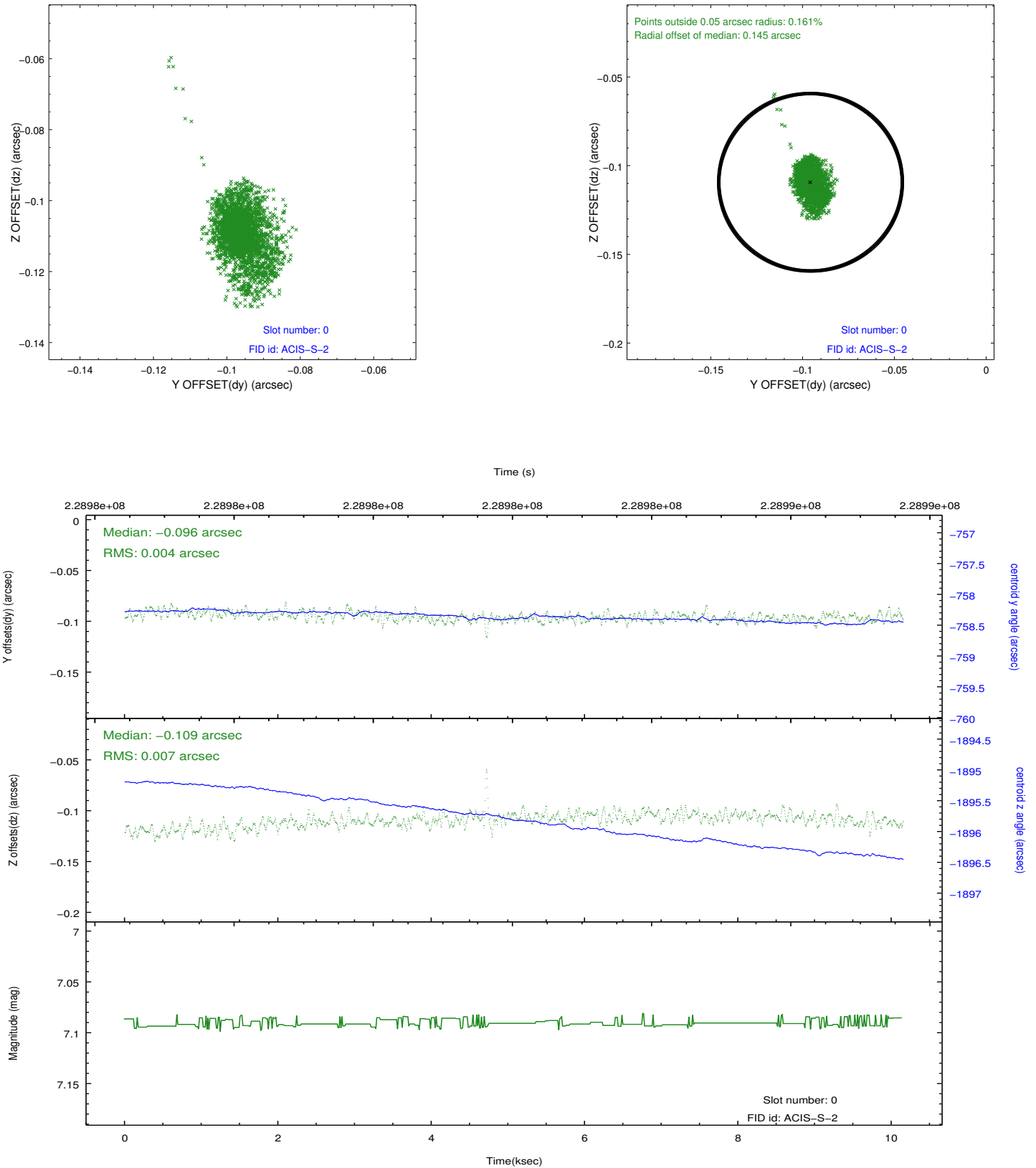


2.4.5 Slot 7

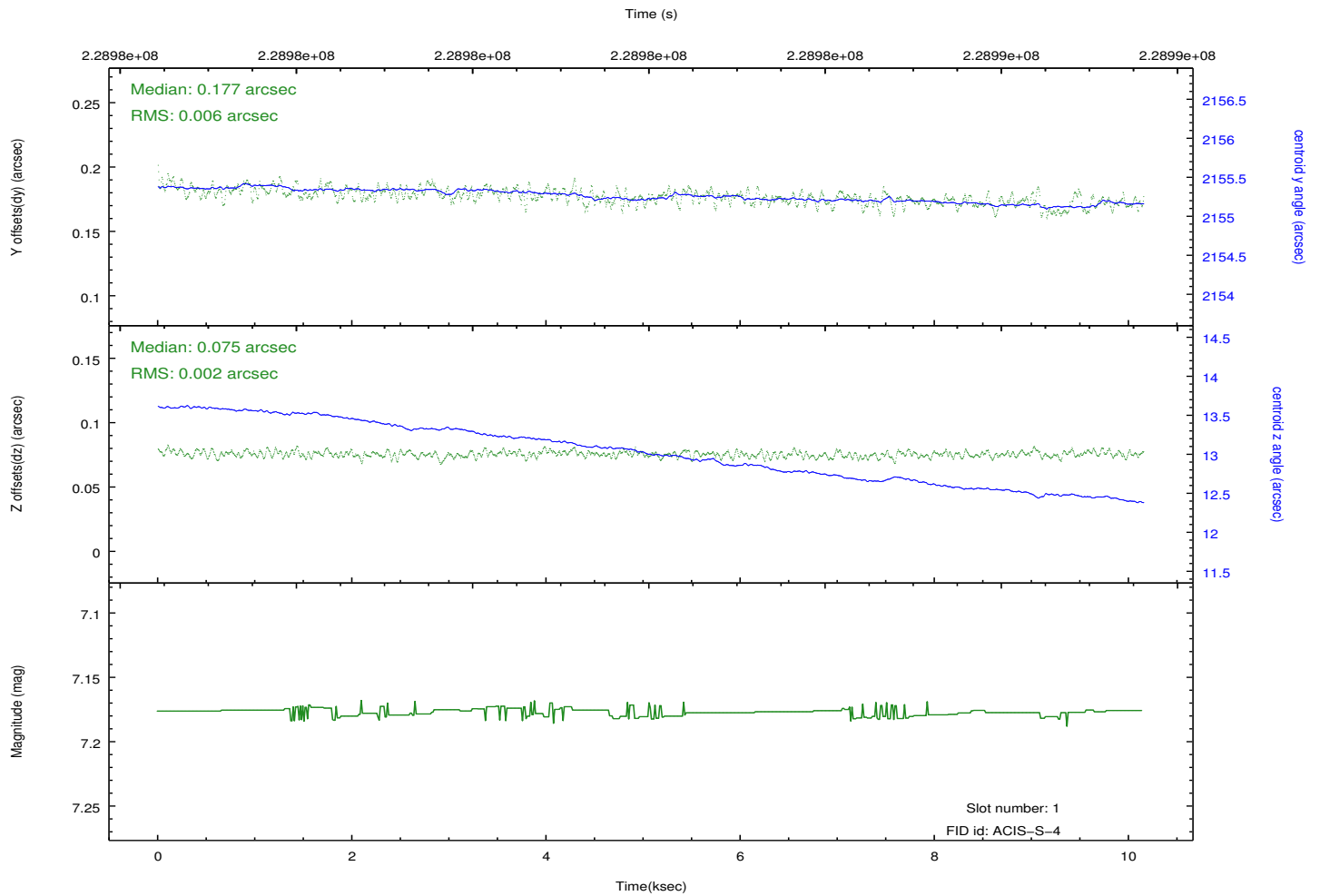
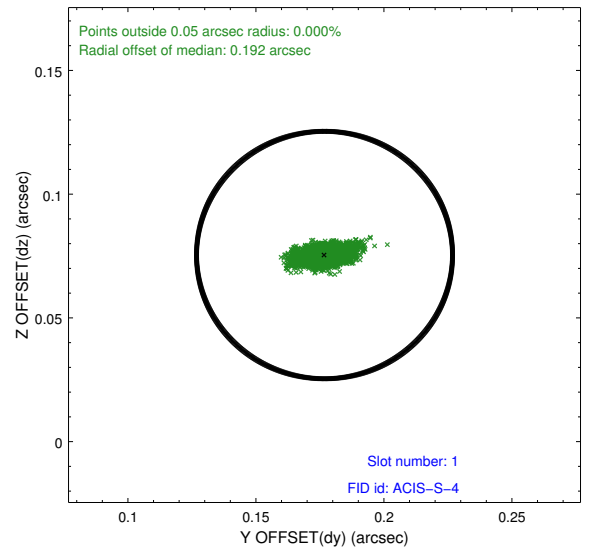
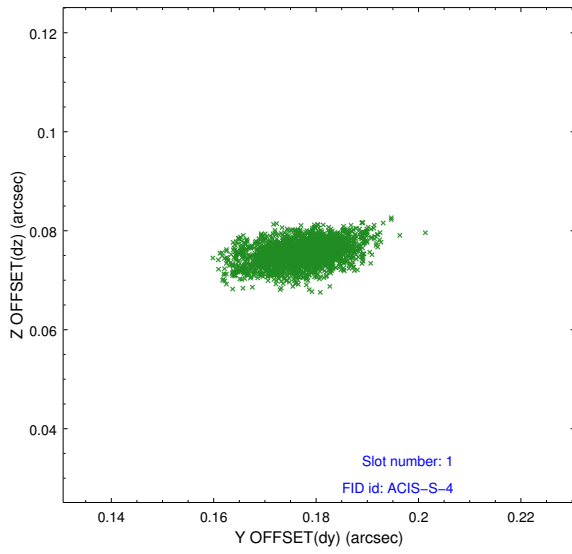


2.5 FID Slots

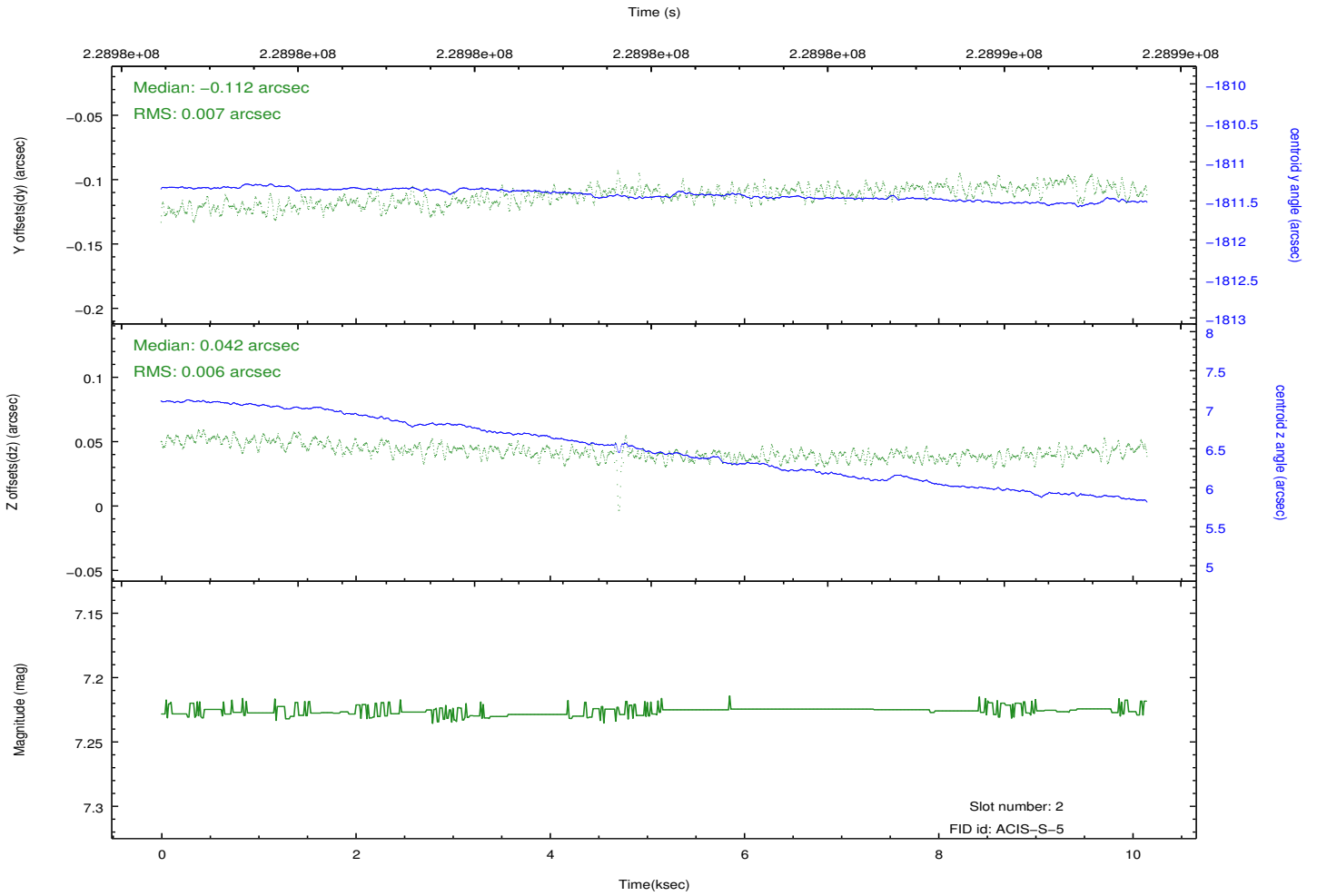
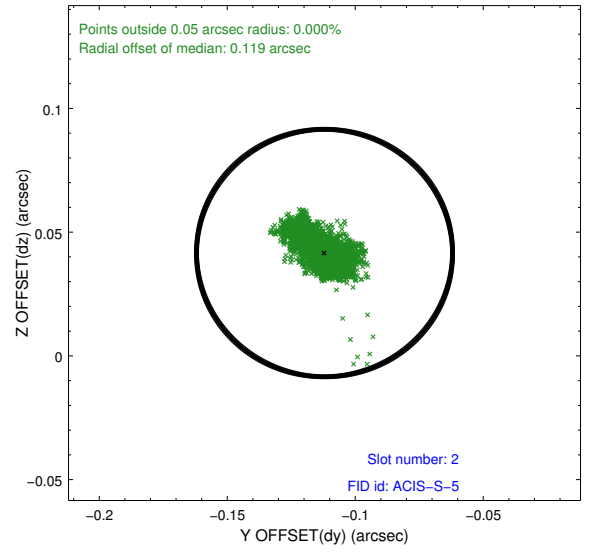
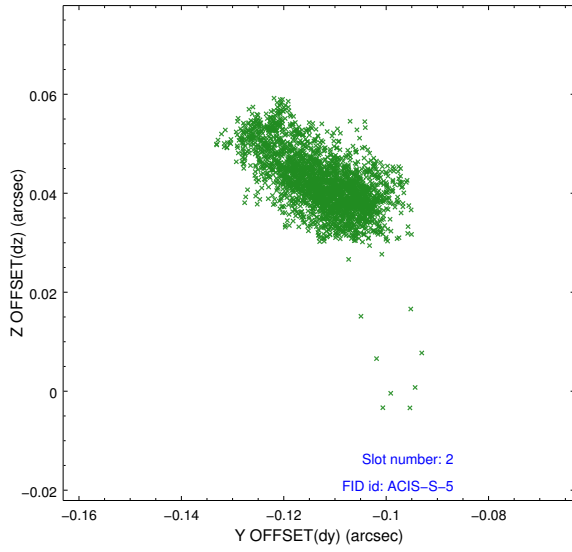
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

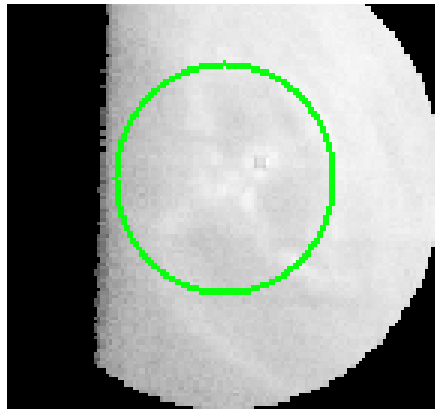


3 Gratings

3.1 HEG Arm



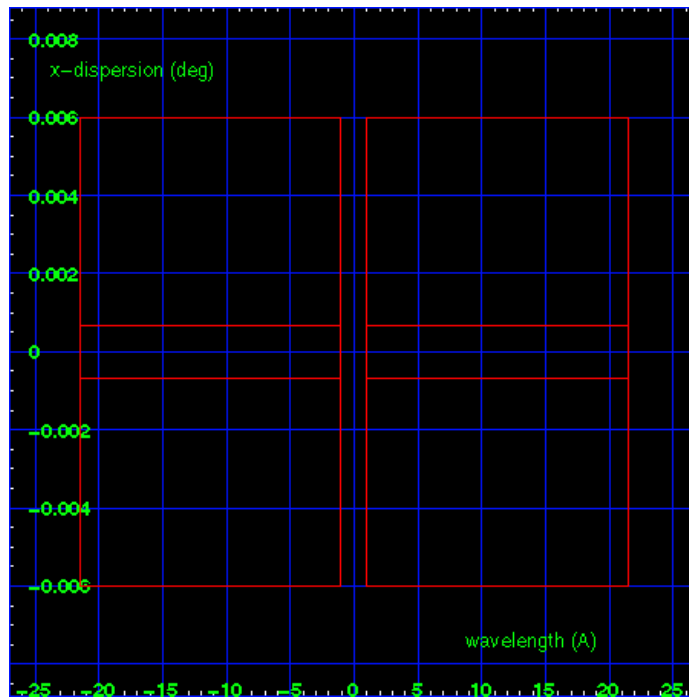
HEG Order Sort 123



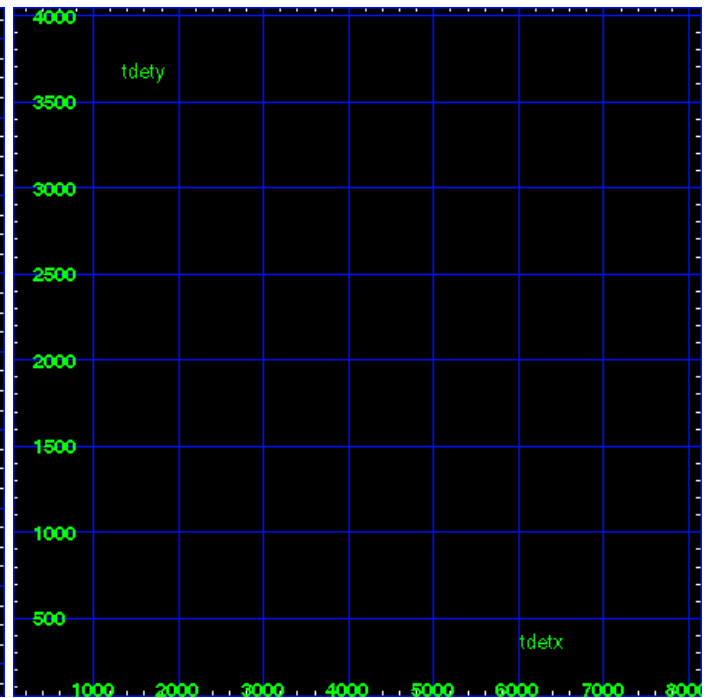
HEG Zero Order



HEG Order Sort ALL

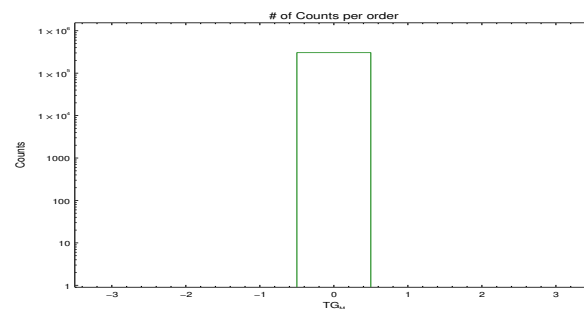


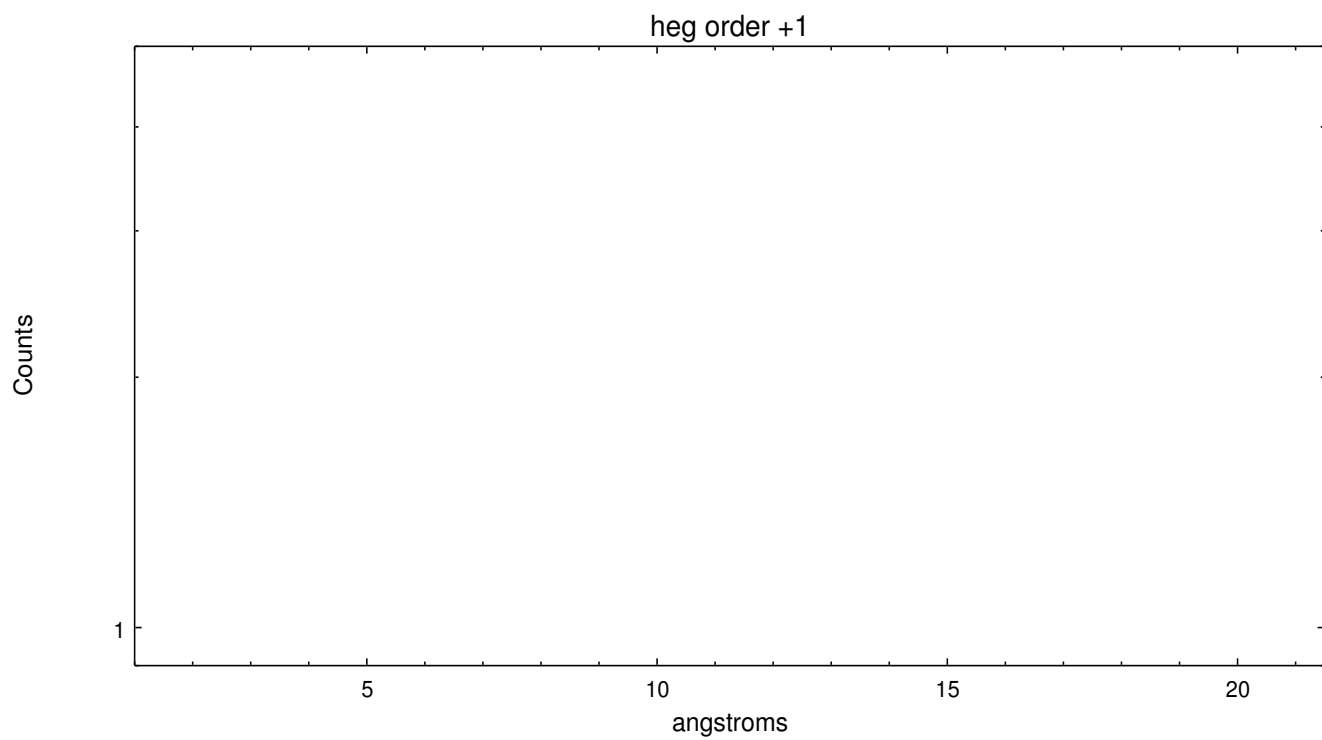
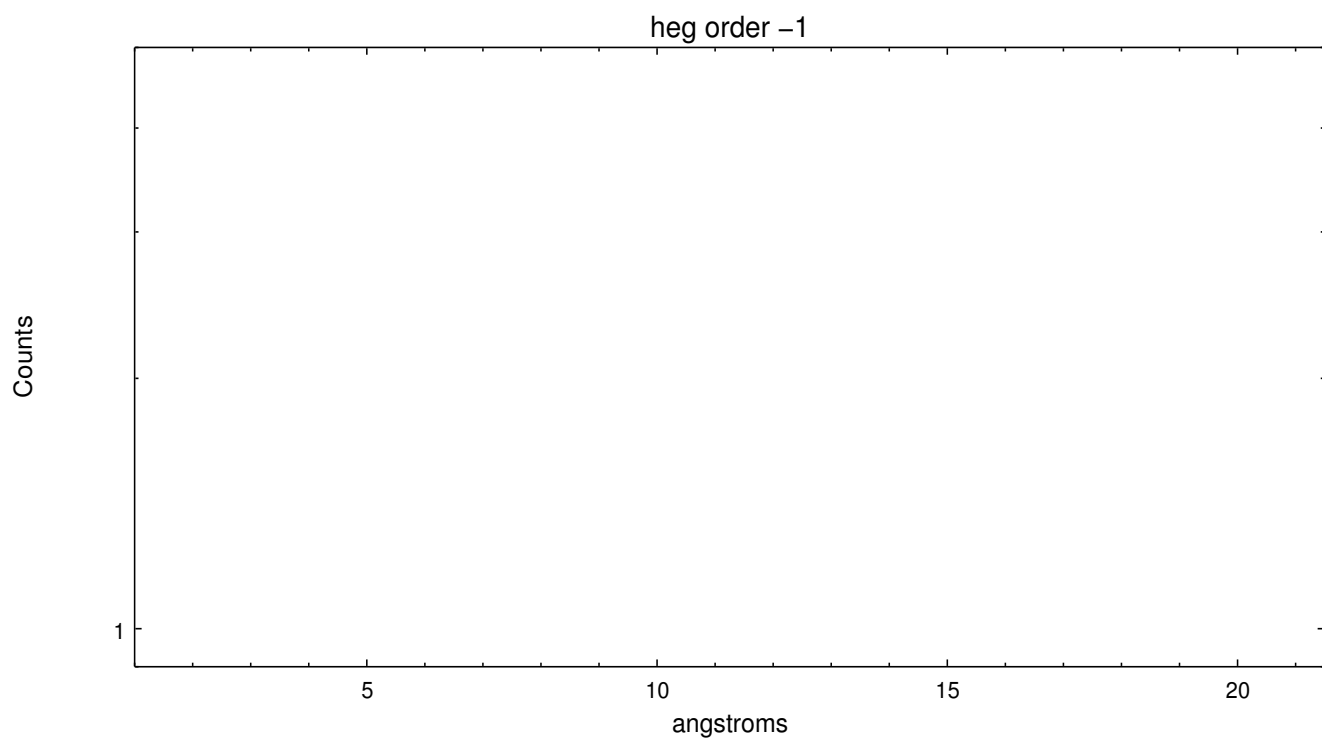
Spot Image HEG



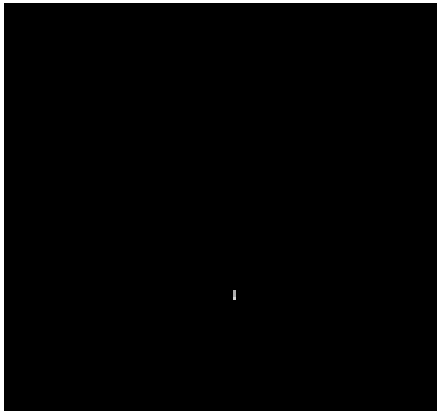
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	307435	0	0	0

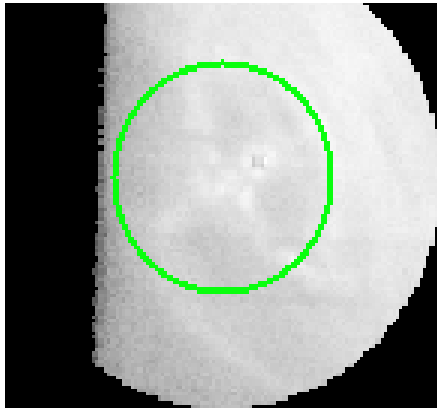




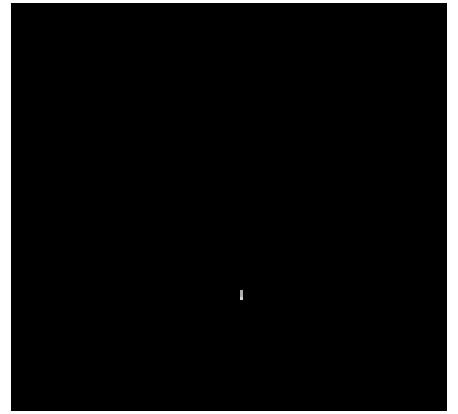
3.2 MEG Arm



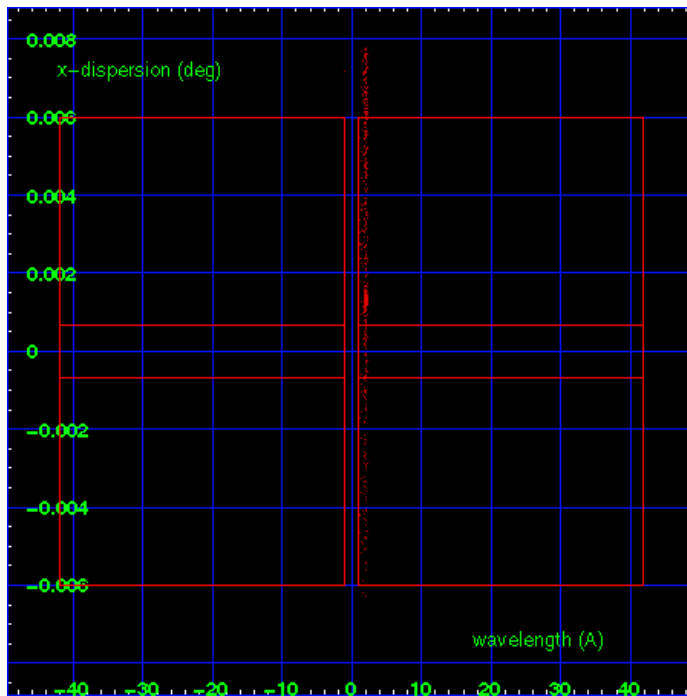
MEG Order Sort 123



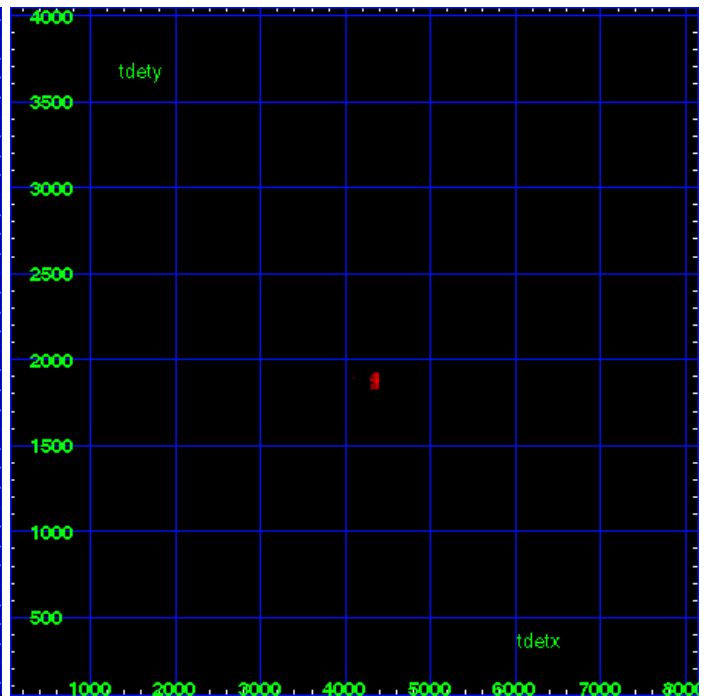
MEG Zero Order



MEG Order Sort ALL

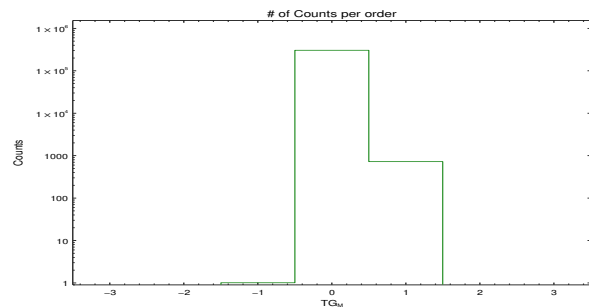


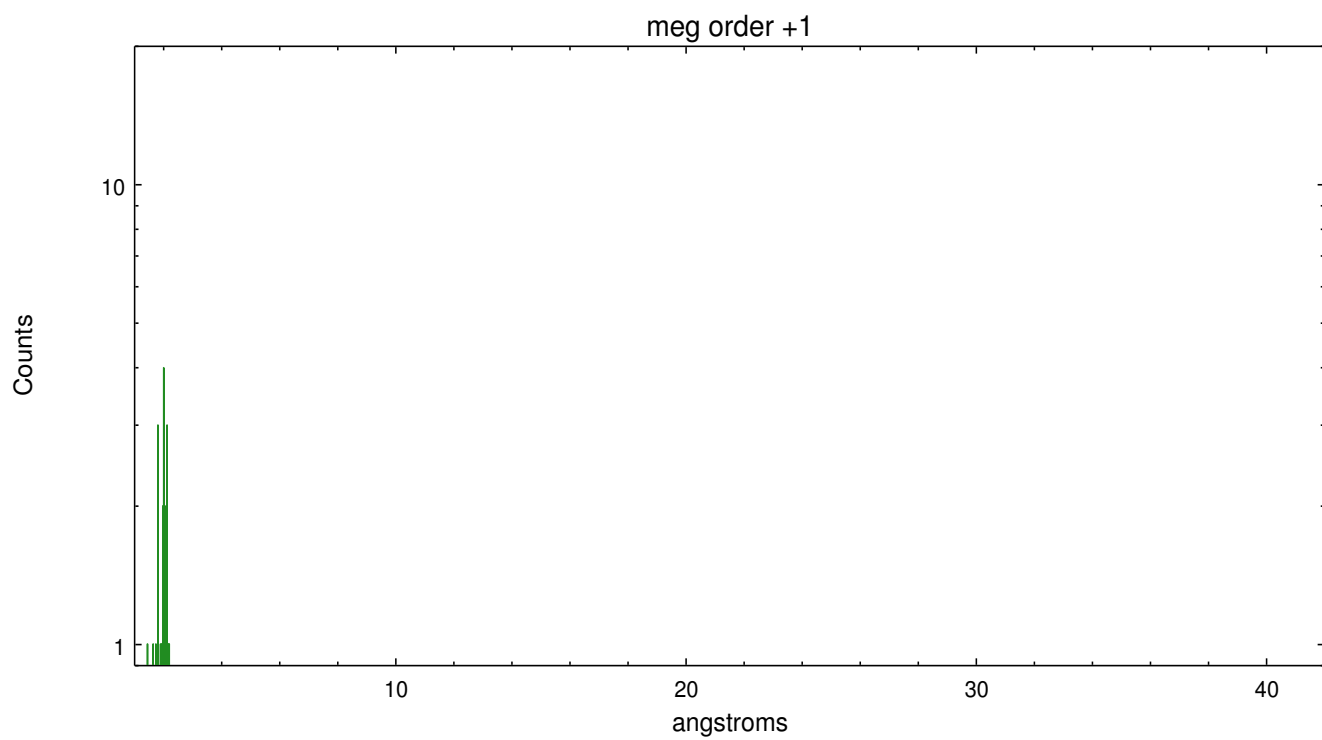
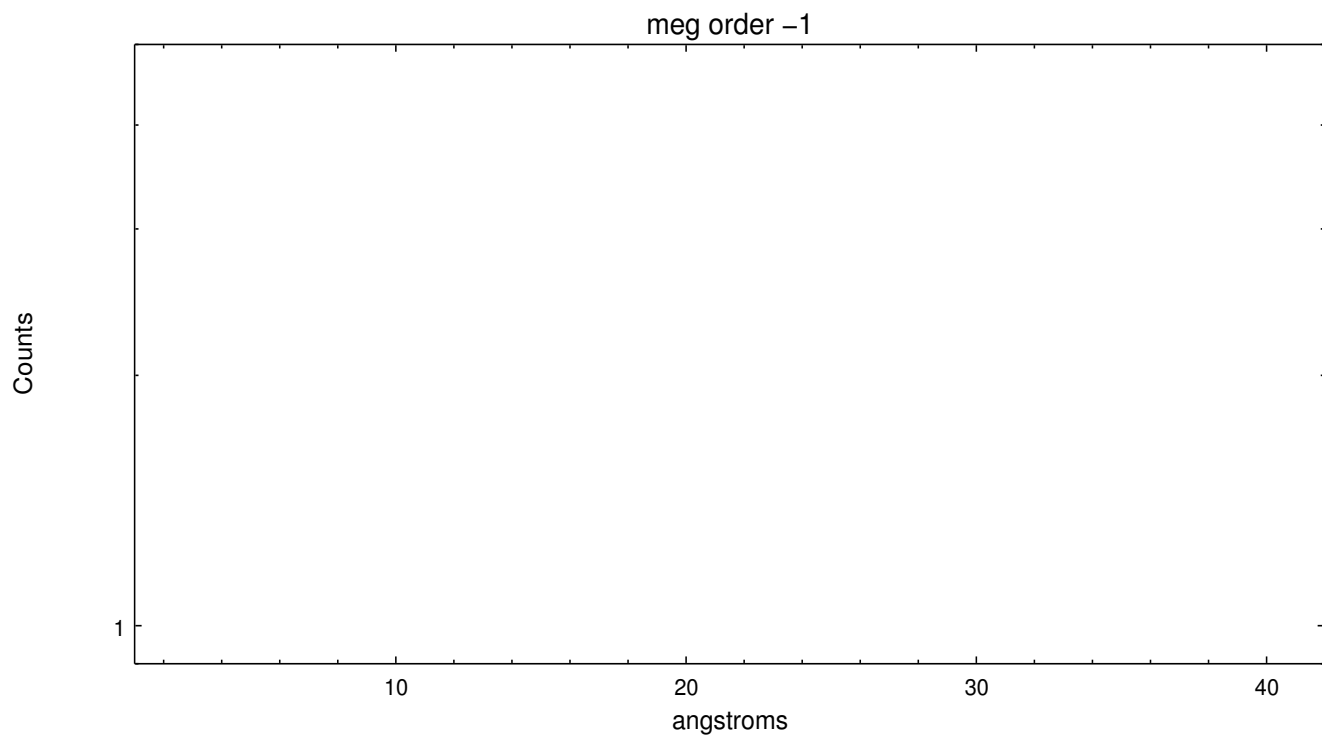
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	1	307435	724	0	0





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.1526

A.2 Comments

HETG is inserted as a filter; there is very little useful gratings information in the observation. The zeroth order position used in the grating extraction is NOT at the position of the pulsar, but is near a bright emission knot to the SE. If the dispersed grating spectrum is to be analyzed, it should be re-extracted using the exact position of the pulsar as the zeroth order position. The dispersed spectrum only contains data for the meg +1 order between 1-2 A.