

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 6141 - L2 Version 3
Chandra X-Ray Center

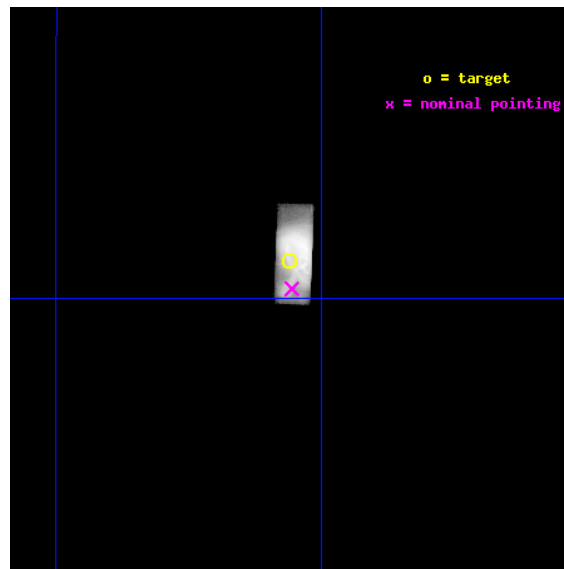
L2 Processing Date : Dec 21 2012

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1 Front

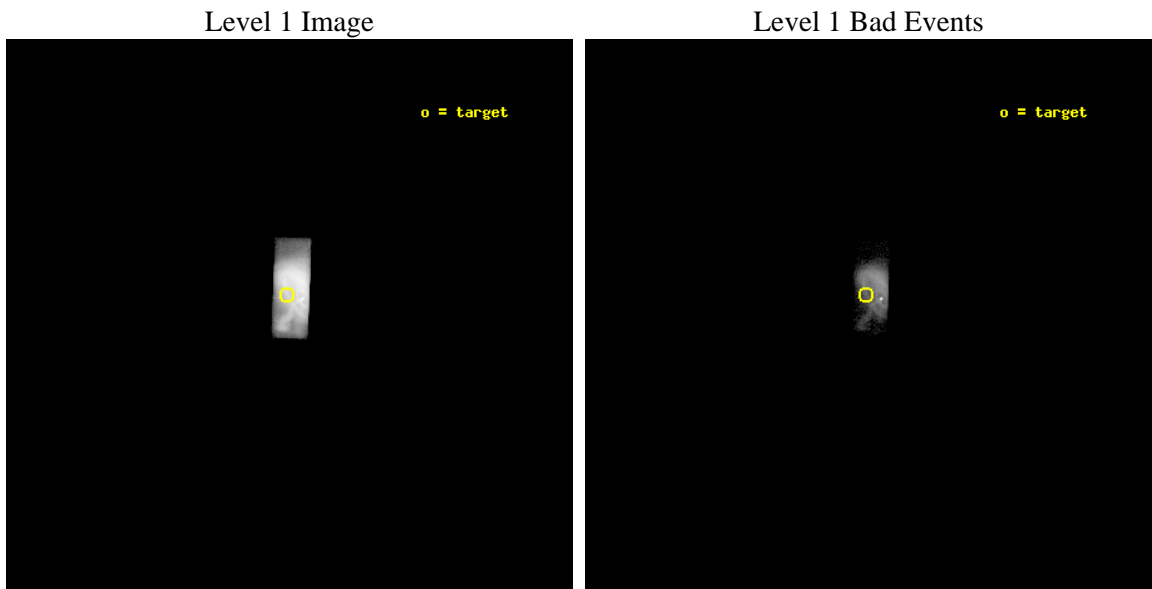
seq_num	500594	Sequence number
obs_id	6141	Observation id
title	Monitoring of the Relativistic Magnetohydrodynamic Shock in the Crab Nebula	Proposal title
observer	Dr Koji Mori	Principal investigator
object	The Crab Nebula	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.640417	Observer's specified target RA [deg]
dec_targ	22.016472	Observer's specified target Dec [deg]
ra_nom	83.639098236556	Nominal RA [deg]
dec_nom	22.004055948163	Nominal Dec [deg]
roll_nom	272.23359592167	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9857.100391686	Sum of GTIs [s]
livetime	8670.9187118983	Livetime [s]
ontime7	9857.100391686	Sum of GTIs [s]
l2events	1817811	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	9857.100391686	Sum of GTIs [s]
caldsver	4.5.5	 	ontime7	9857.100391686	Sum of GTIs [s]
date	2012-12-21T17:37:38	Date and time of file creation	l1events	1893924	Number of level 1 events
revision	3	Processing version of data			

2.1.3 Events

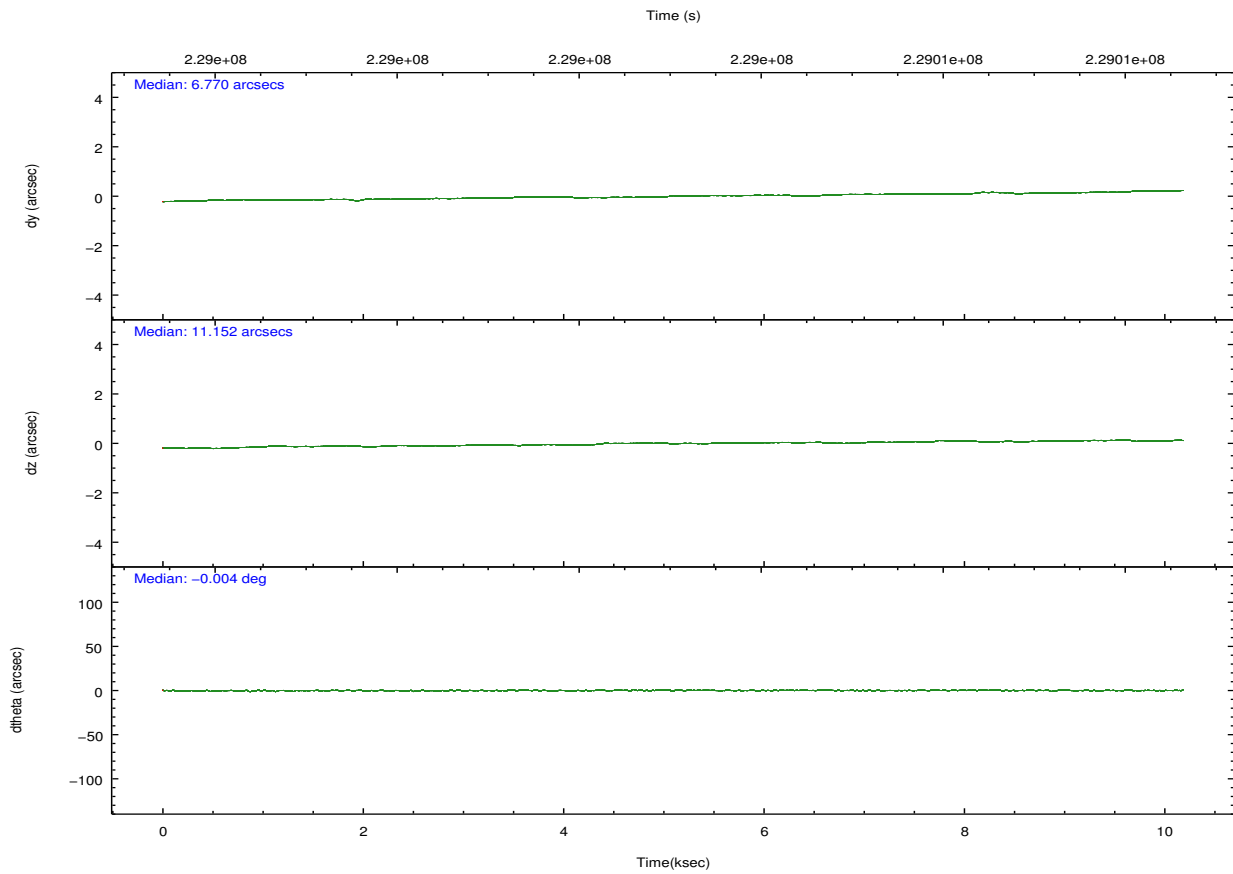
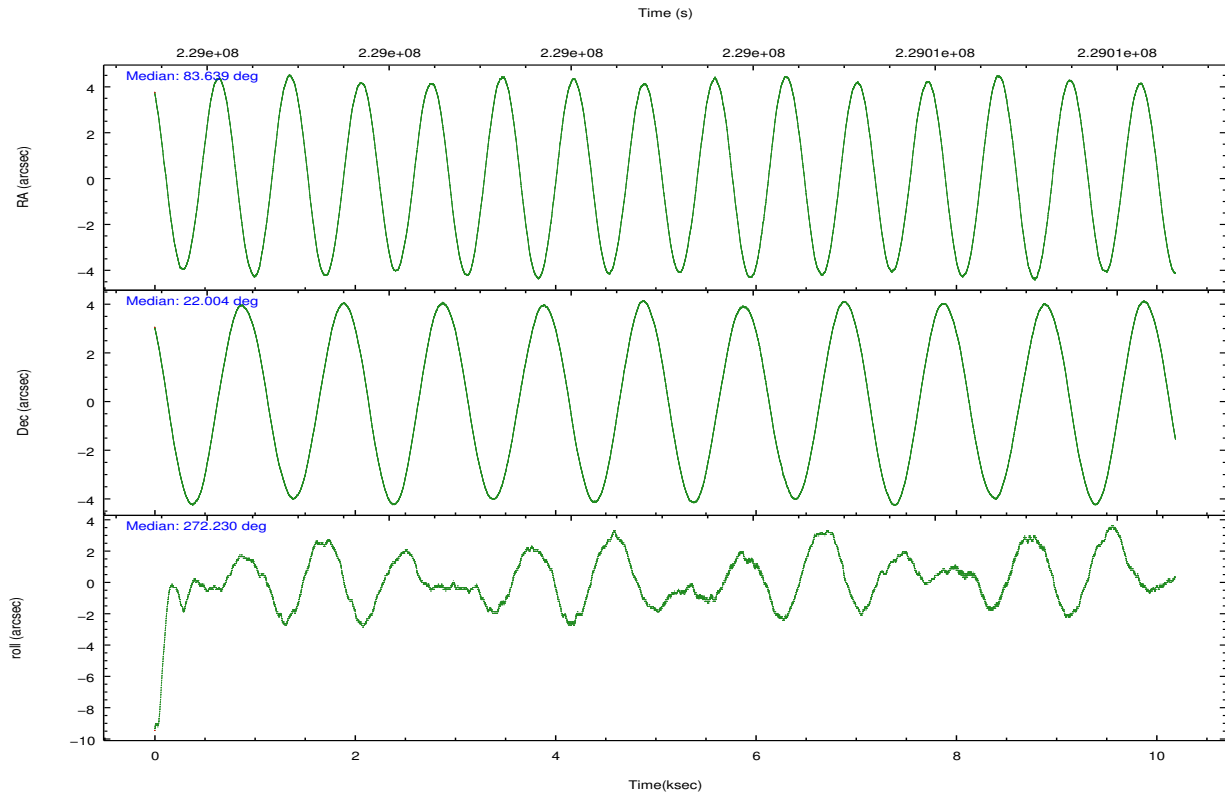
	ccd 7
level 1 events	1893924
rejected events	64844
rejected %	3%

	ccd 7
grade 0 events	371349
	19%
grade 1 events	6135
	0%
grade 2 events	471788
	24%
grade 3 events	207956
	10%
grade 4 events	198755
	10%
grade 5 events	26736
	1%
grade 6 events	579441
	30%
grade 7 events	31764
	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	83.623101	83.63909823655561	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	22.026896	22.00405594816315	Subarray start row	127	127
[deg] Pointing Roll	272.082963	272.2335959216712	Subarray row count	101	101
[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	0.3
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	228998123.184000	228997747.61476			
Observation start date	2005-04-04T10:34:19	2005-04-04T10:29:07			
[s] Observation end time (MET)	229008123.184000	229008516.77775			
Observation end date	2005-04-04T13:20:59	2005-04-04T13:28:36			
Read mode	TIMED	TIMED			

2.3 Aspect

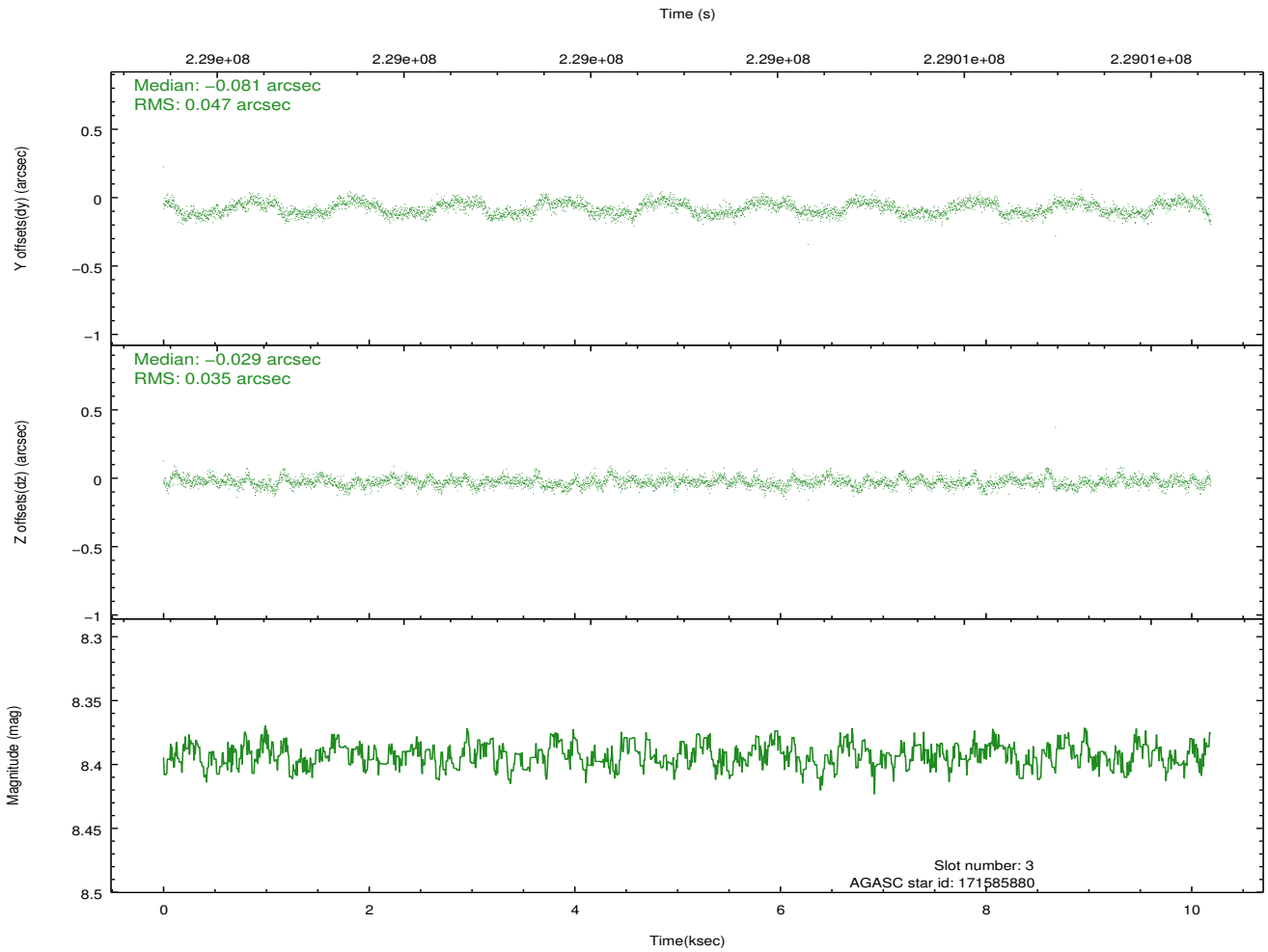
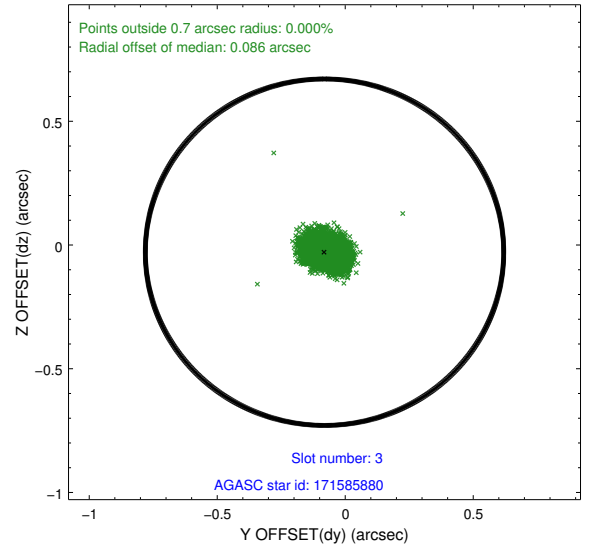
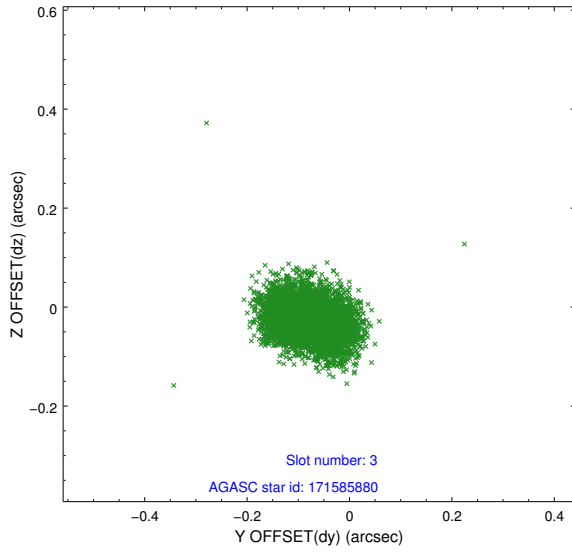


Slot Statistics

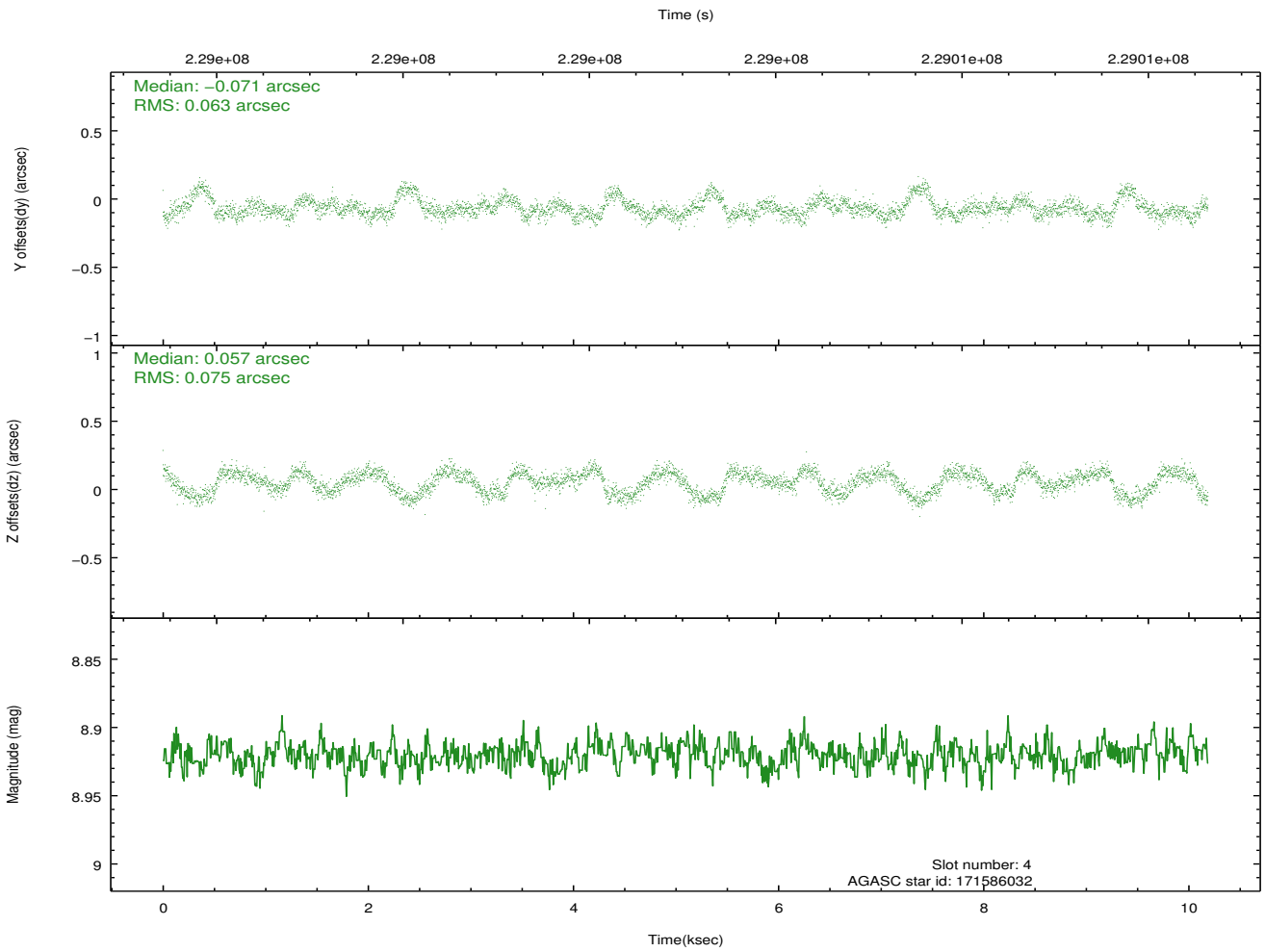
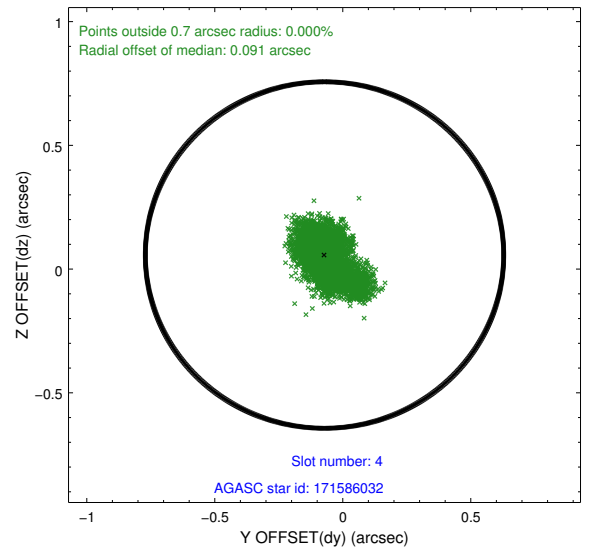
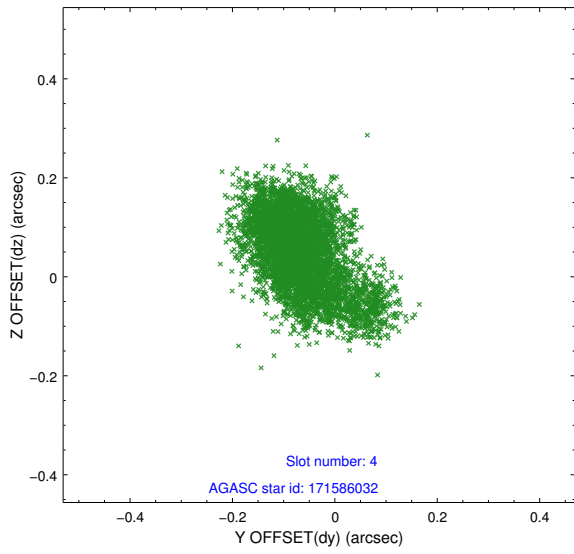
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.08	2486	-0.072	-0.124	0.009	0.014	0.000000	0.000000	-759.01	-1897.25
1	FID	ACIS-S-4	7.18	2486	0.111	0.068	0.006	0.012	0.000000	0.000000	2154.22	10.81
2	FID	ACIS-S-5	7.23	2486	-0.070	0.064	0.008	0.013	0.000000	0.000000	-1811.18	5.07
3	GUIDE	171585880	8.39	4970	-0.081	-0.029	0.063	0.097	83.676260	22.176319	-530.92	196.82
4	GUIDE	171586032	8.92	4966	-0.071	0.057	0.100	0.181	83.950197	22.083225	-164.06	1098.15
5	GUIDE	171597832	9.17	4967	0.173	-0.115	0.099	0.155	83.183230	21.366702	2320.03	-1559.65
6	GUIDE	171721904	9.21	4966	0.102	0.138	0.092	0.146	84.272676	22.116922	-248.99	2176.94
7	GUIDE	243941560	8.29	4970	-0.130	-0.050	0.062	0.098	83.733264	22.568598	-1935.45	437.30

2.4 Star Slots

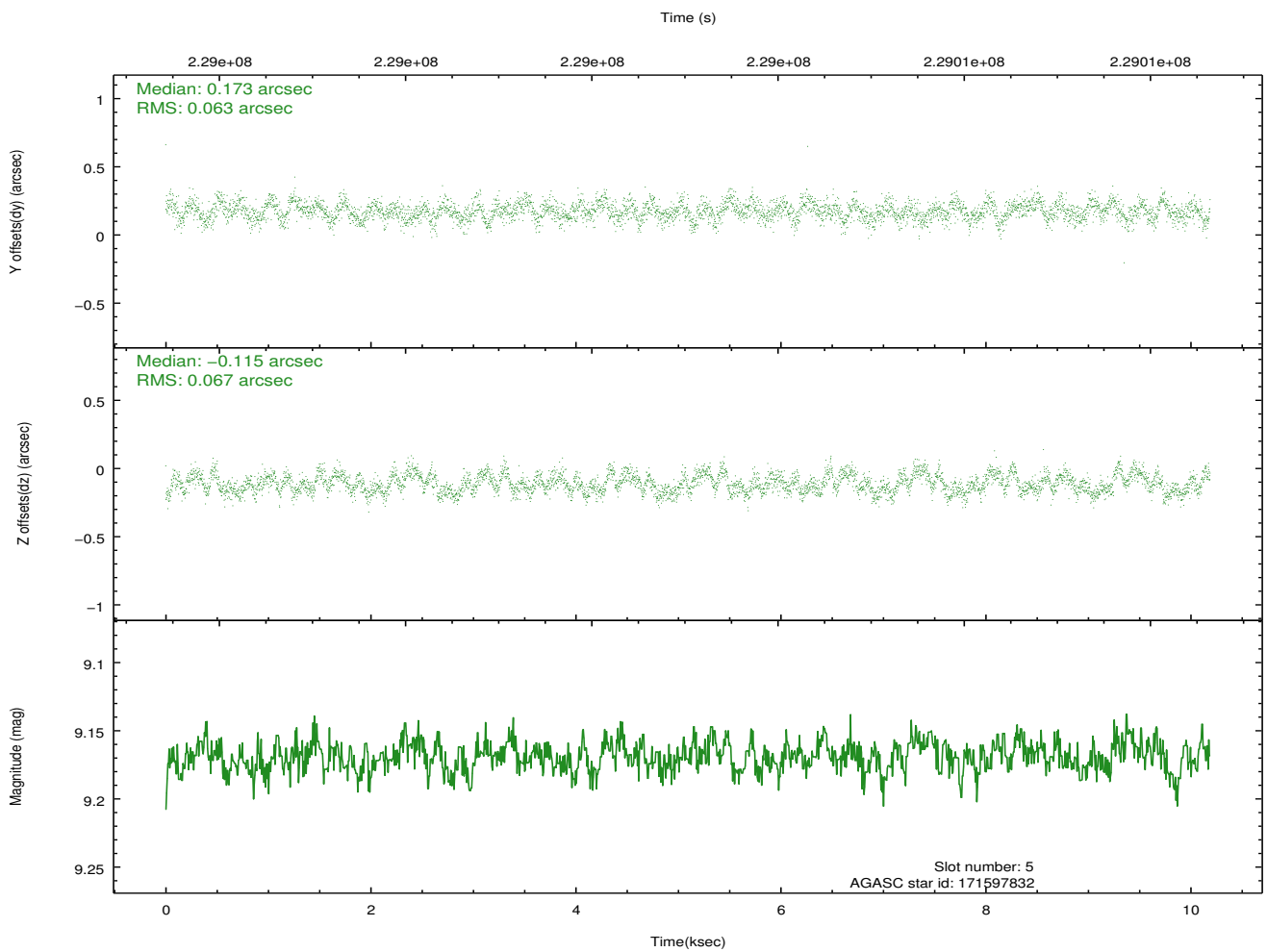
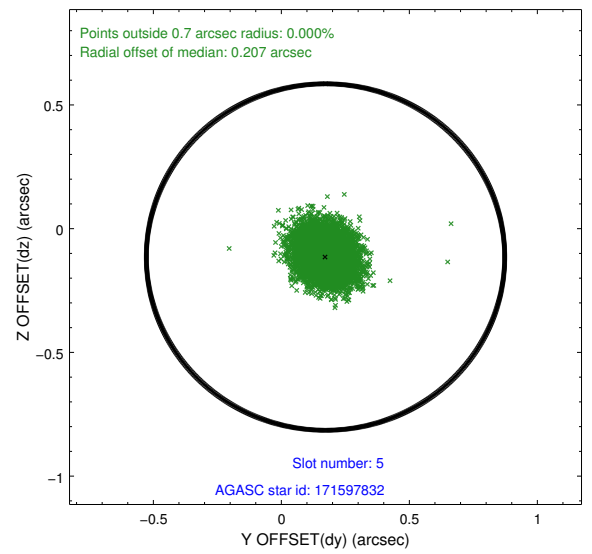
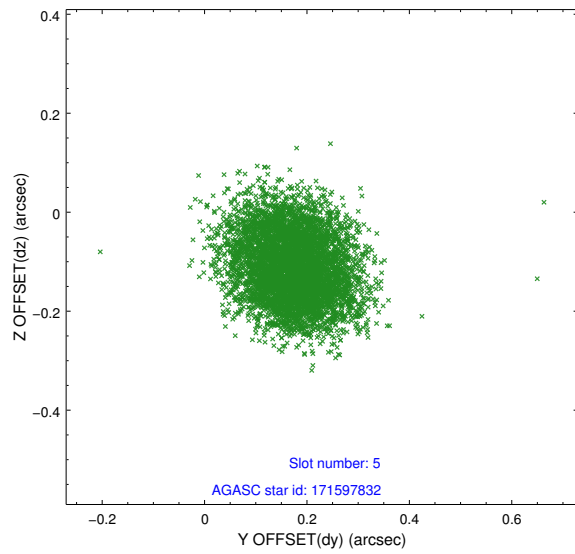
2.4.1 Slot 3



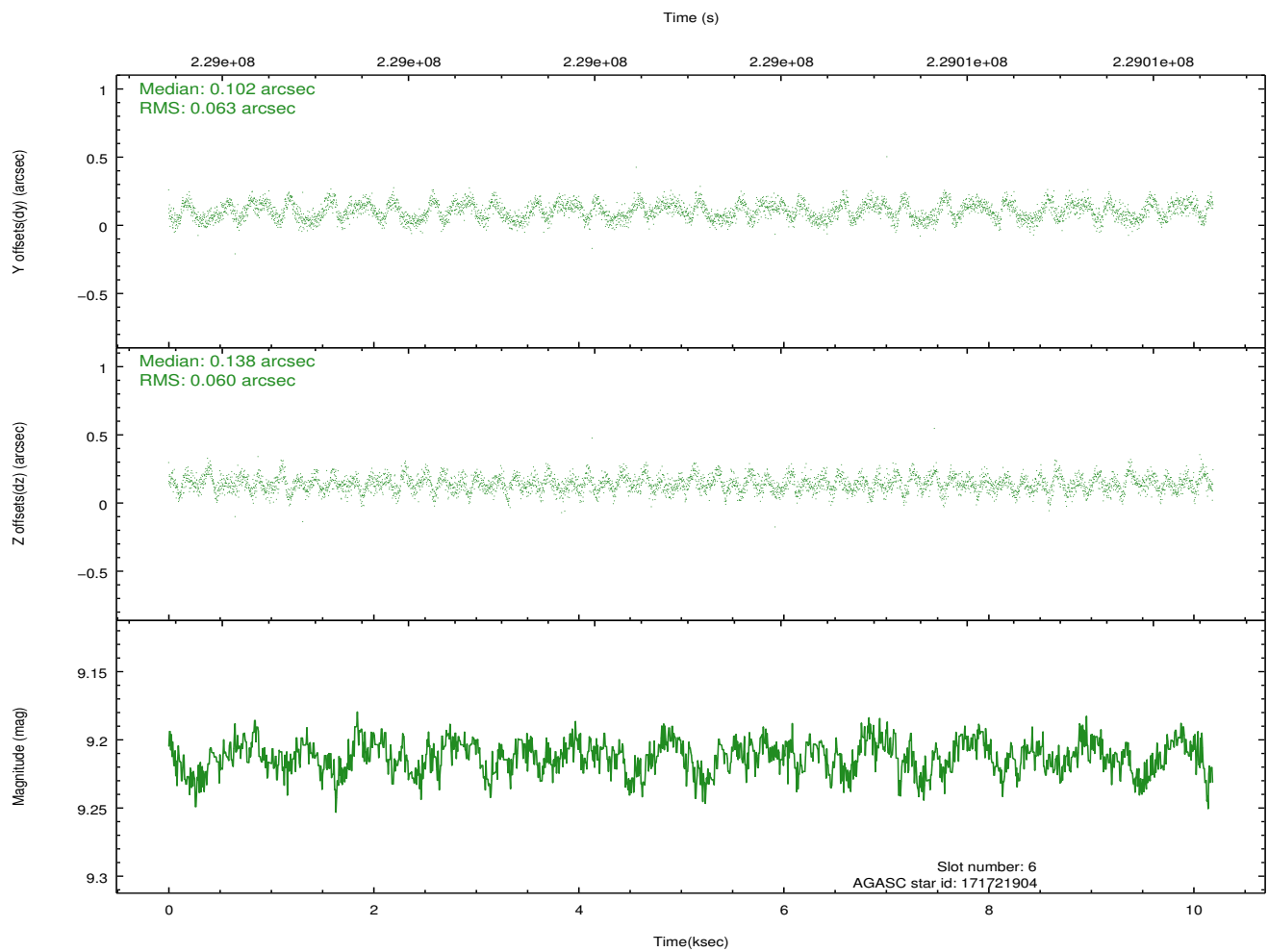
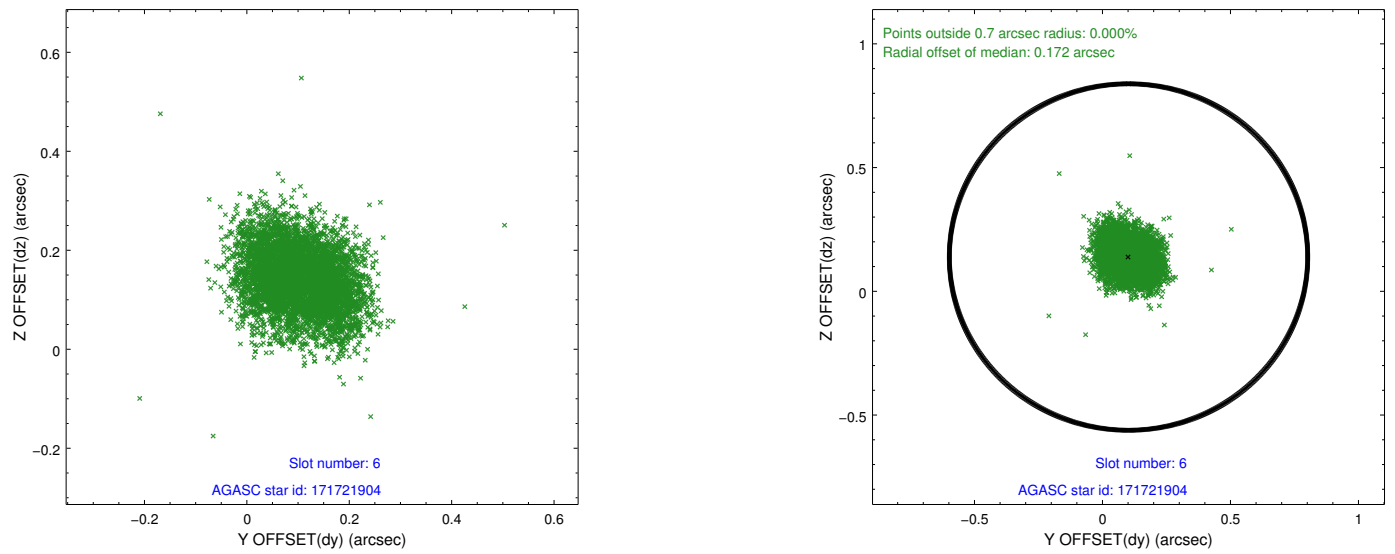
2.4.2 Slot 4



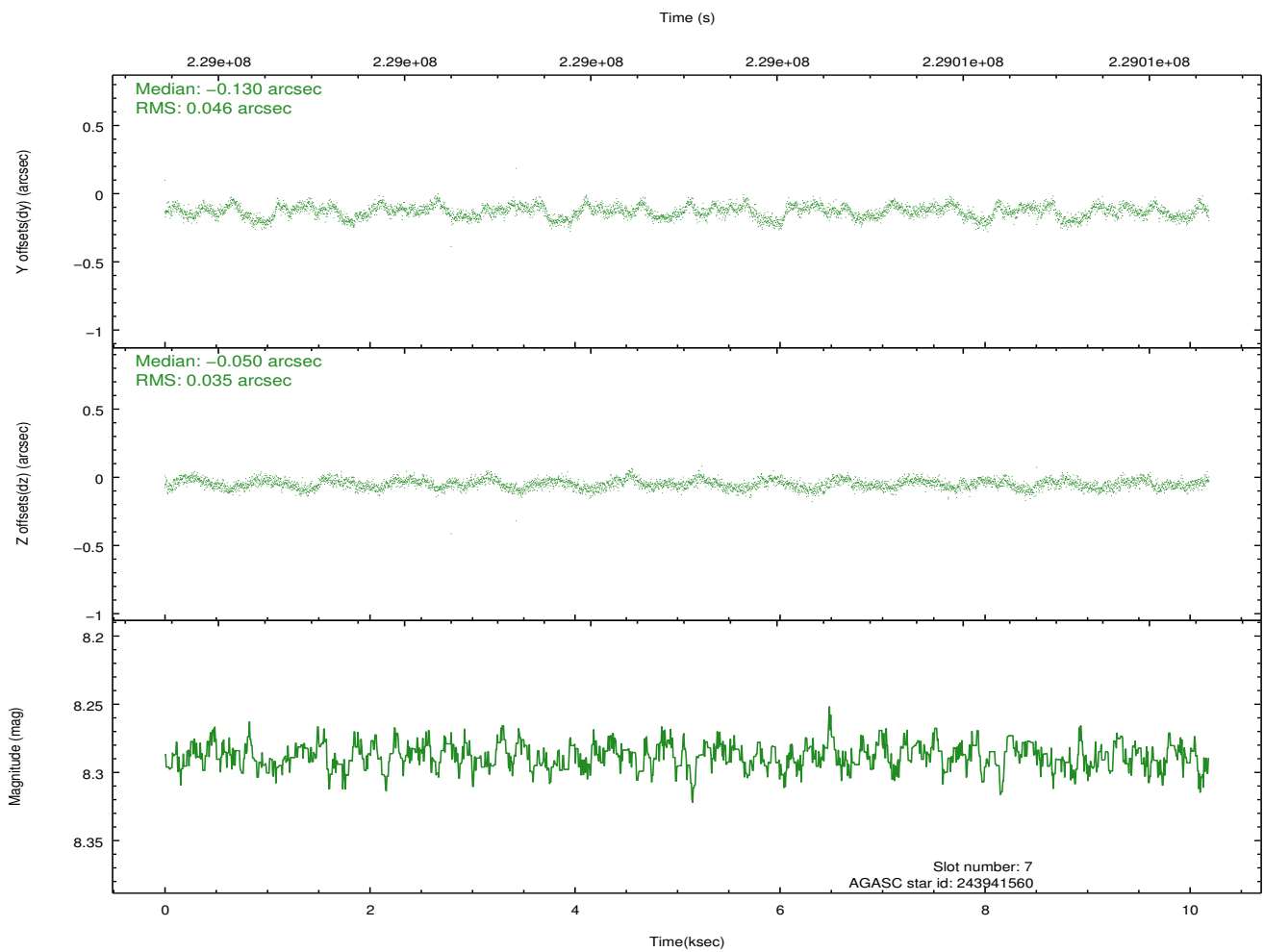
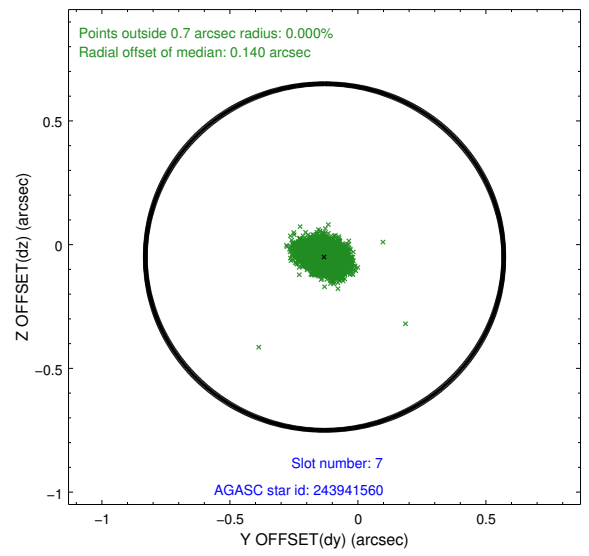
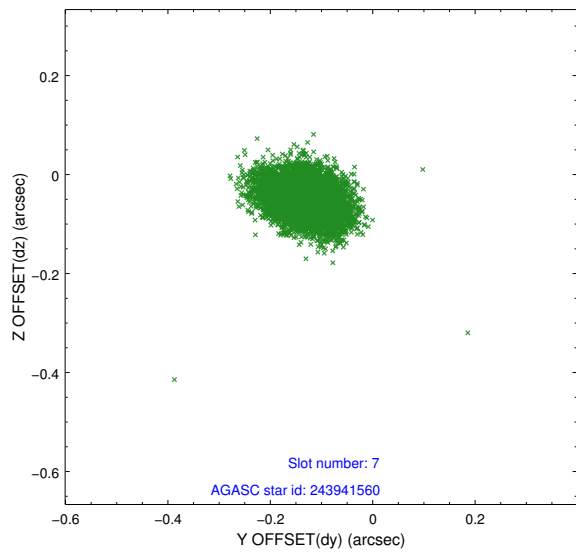
2.4.3 Slot 5



2.4.4 Slot 6

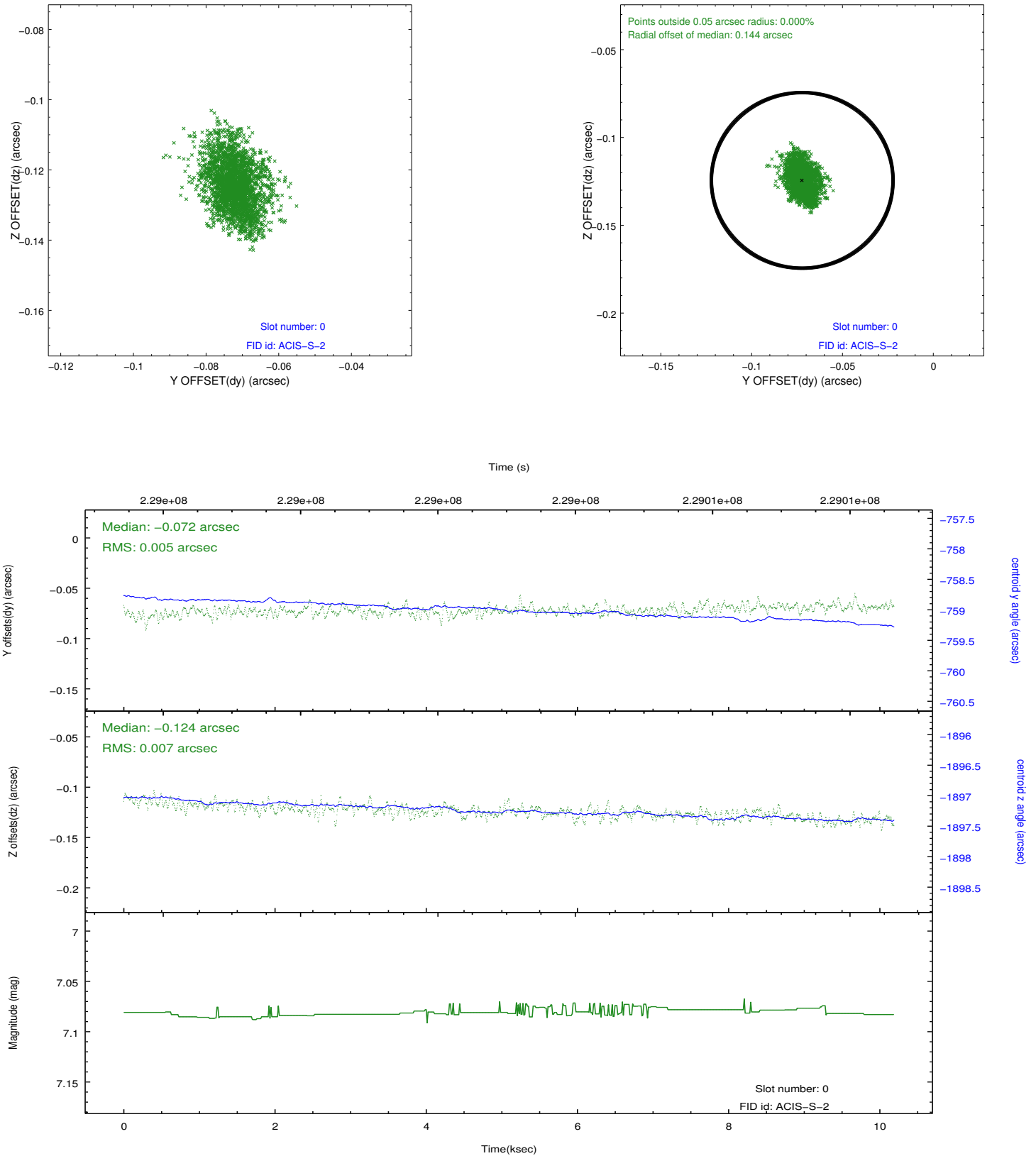


2.4.5 Slot 7

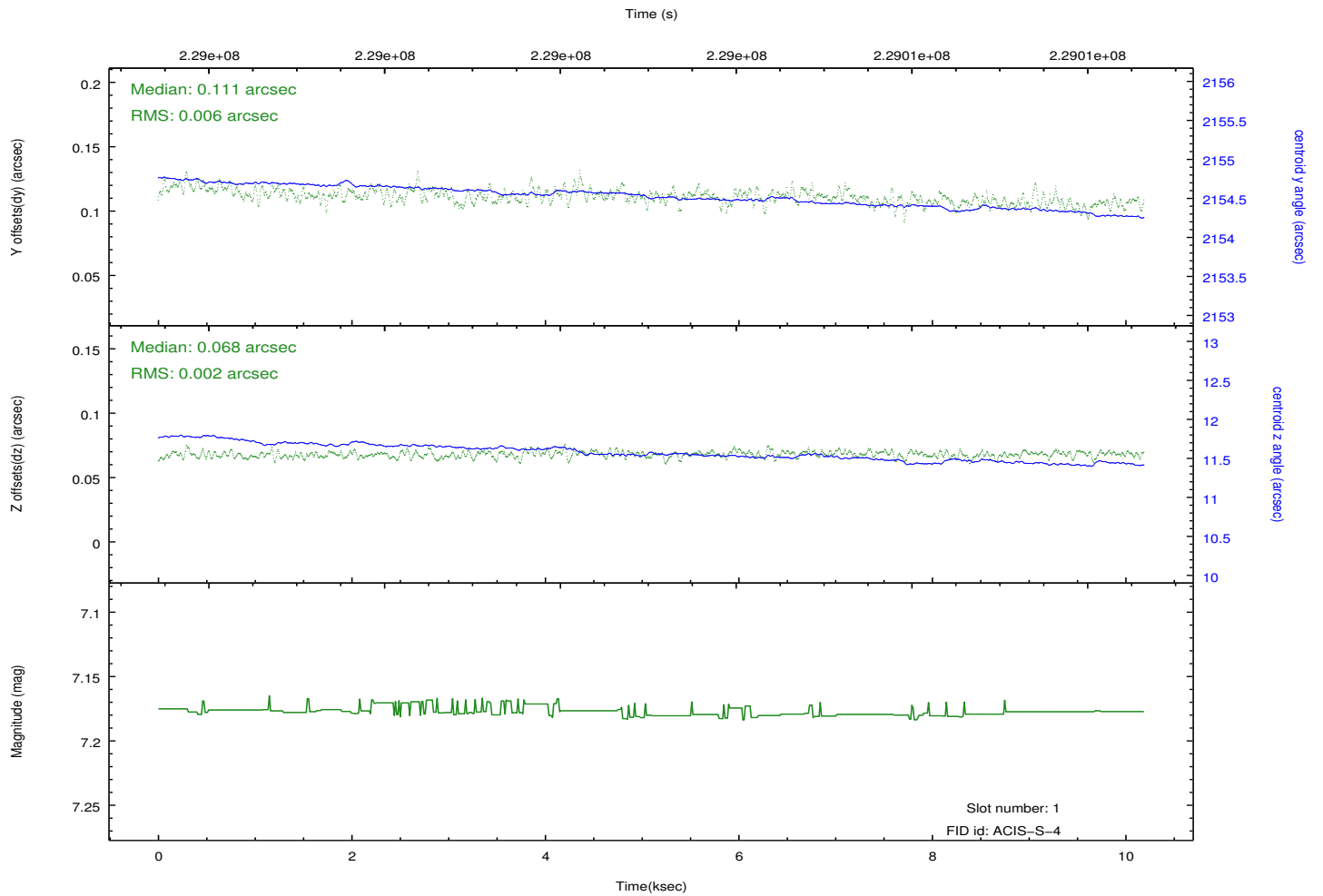
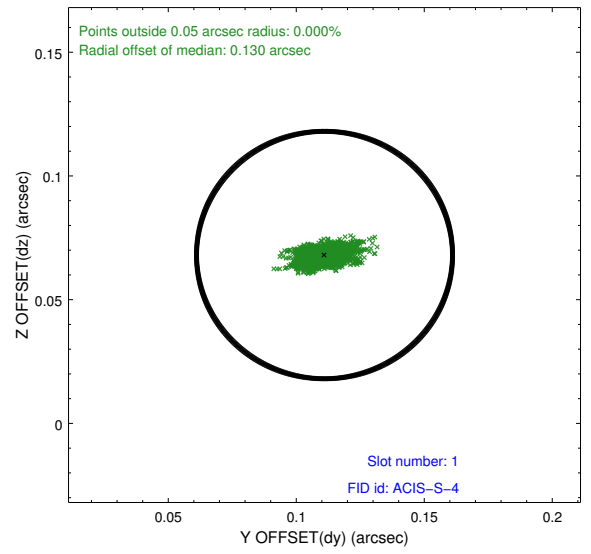
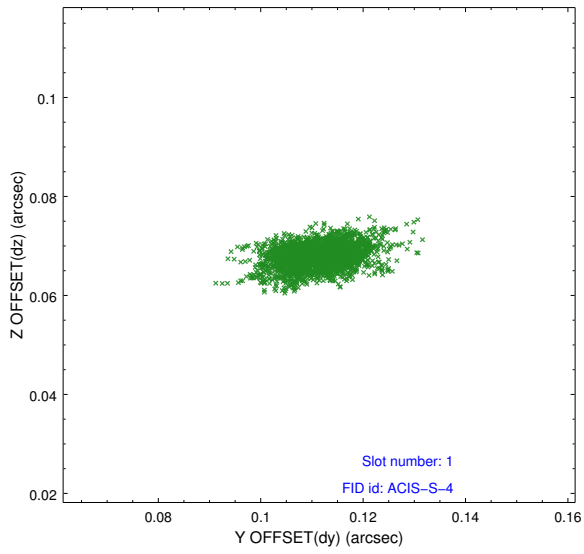


2.5 FID Slots

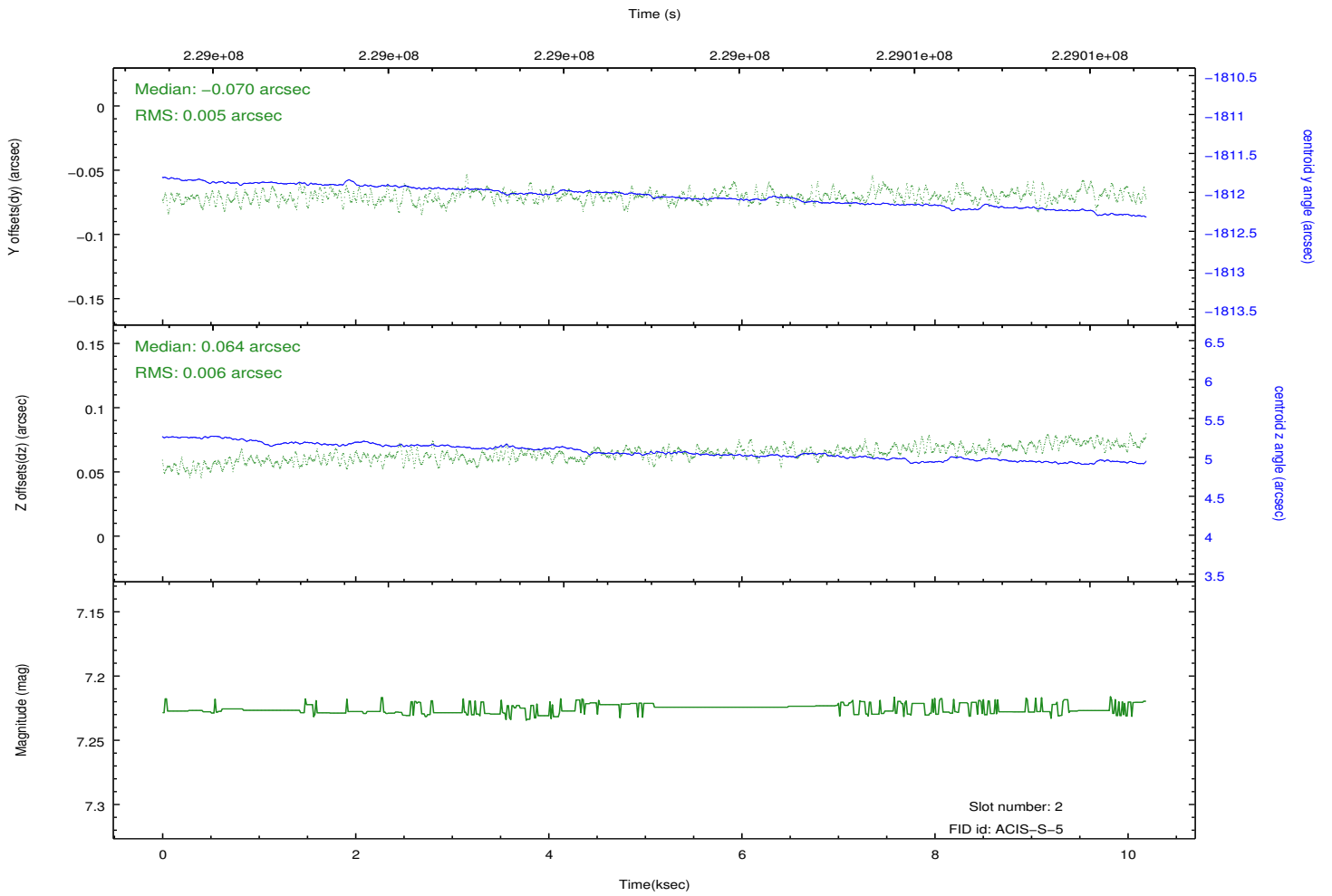
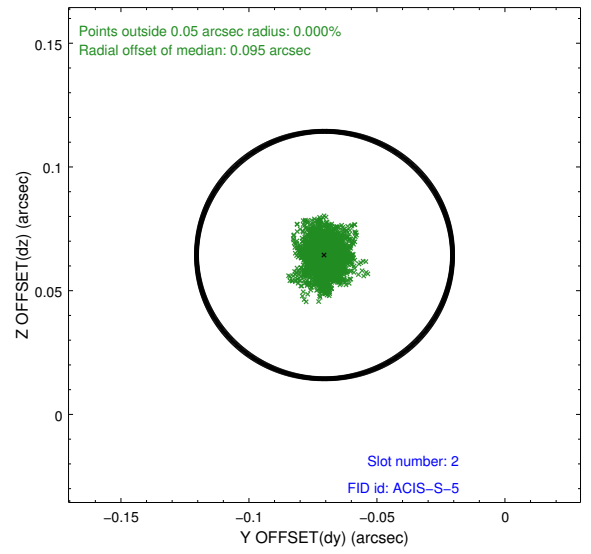
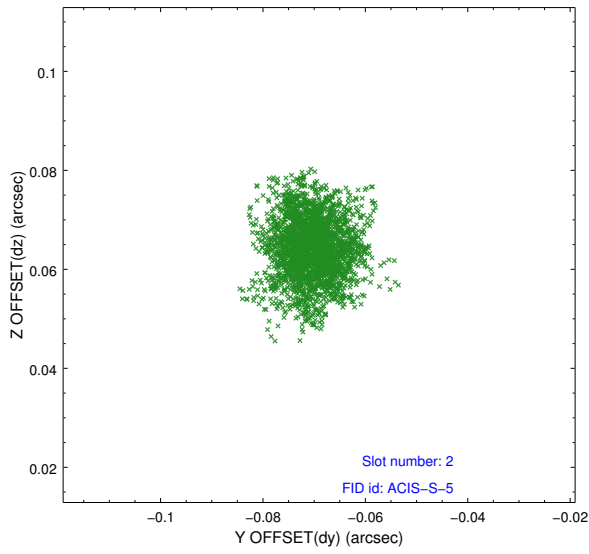
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

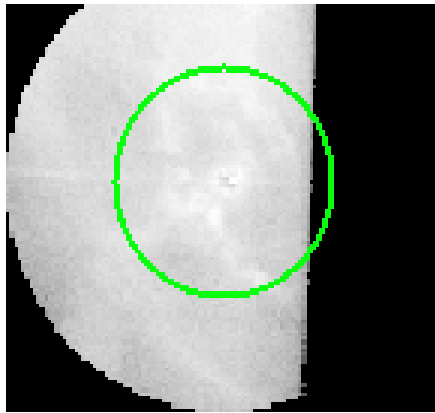


3 Gratings

3.1 HEG Arm



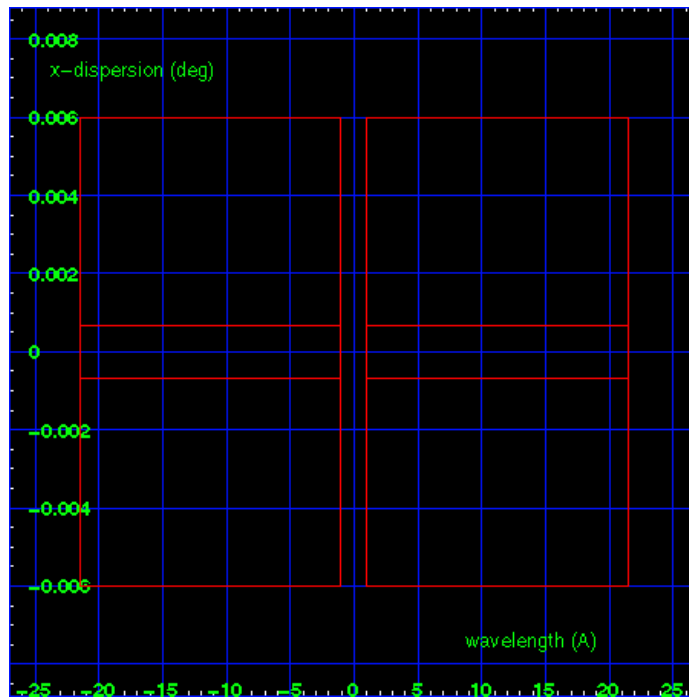
HEG Order Sort 123



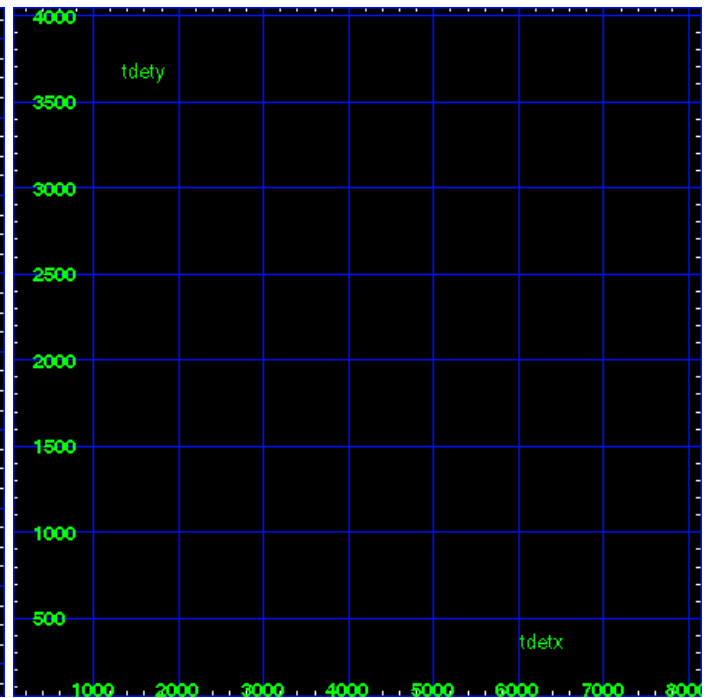
HEG Zero Order



HEG Order Sort ALL

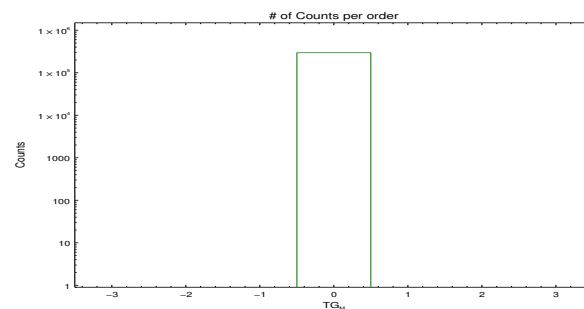


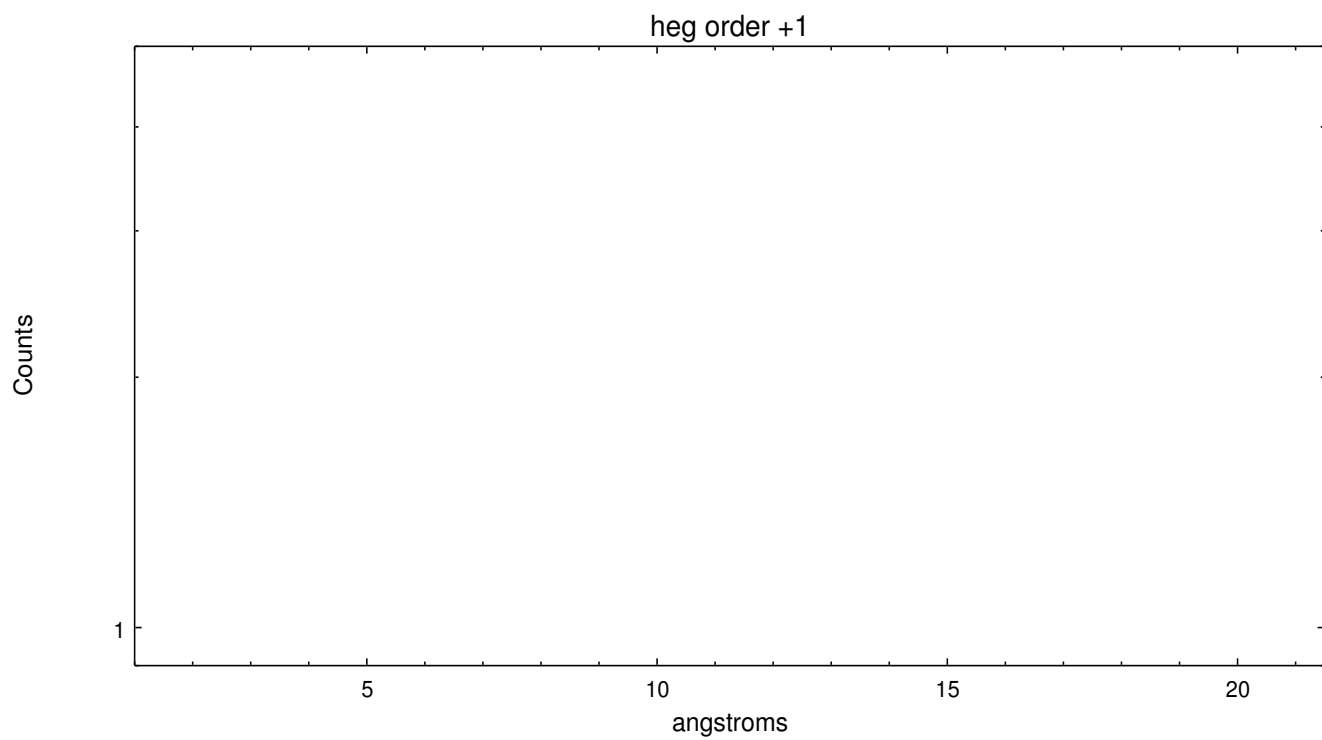
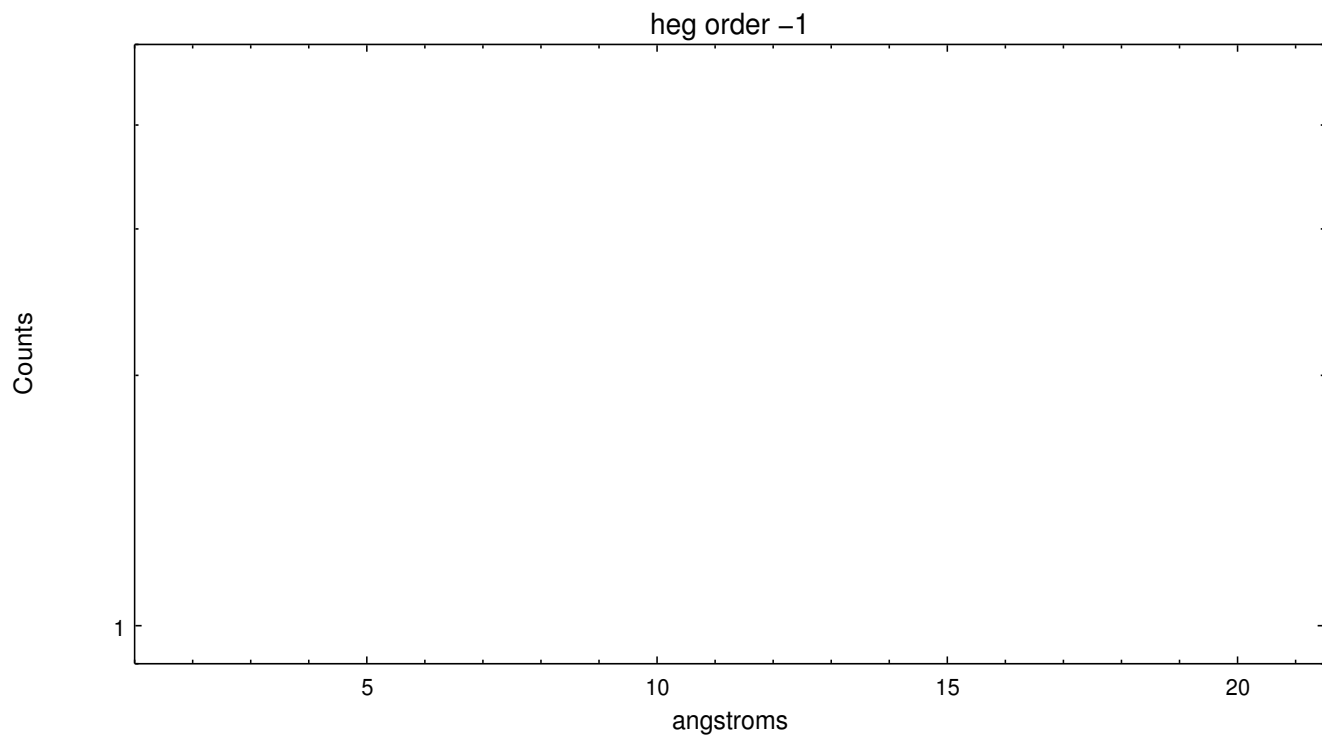
Spot Image HEG



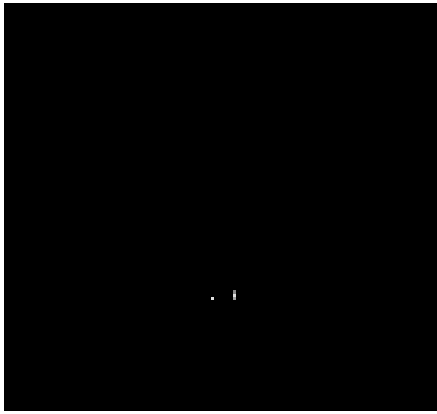
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	298906	0	0	0

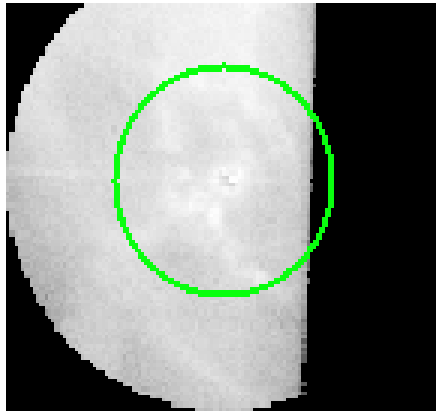




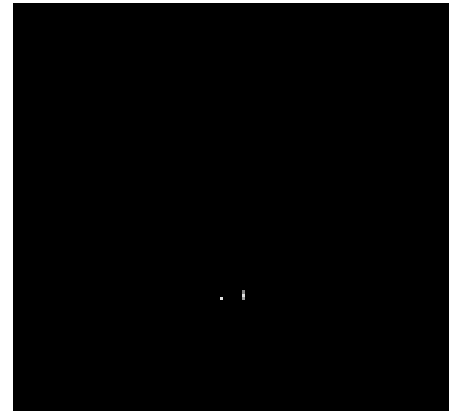
3.2 MEG Arm



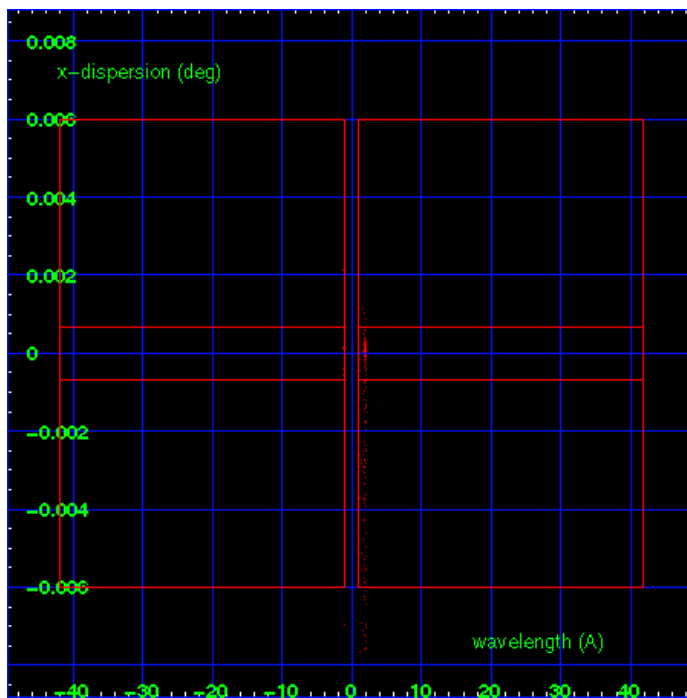
MEG Order Sort 123



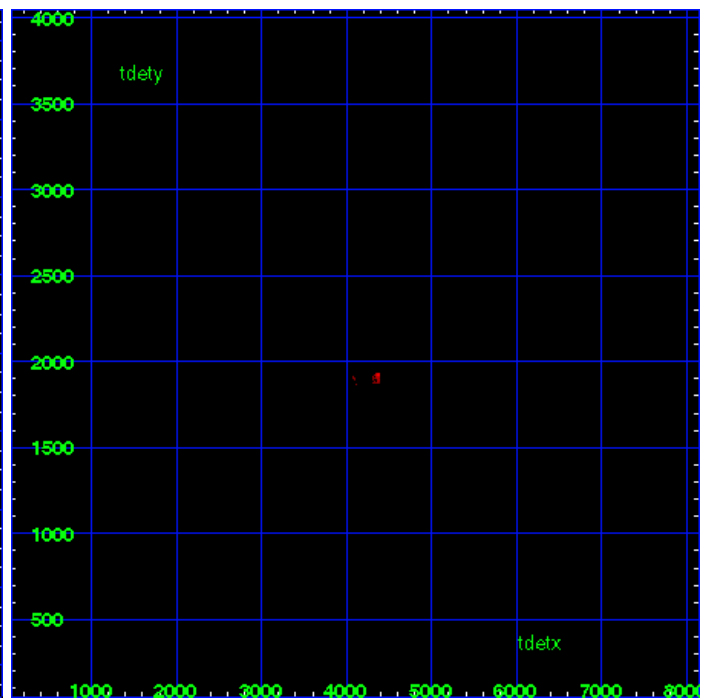
MEG Zero Order



MEG Order Sort ALL

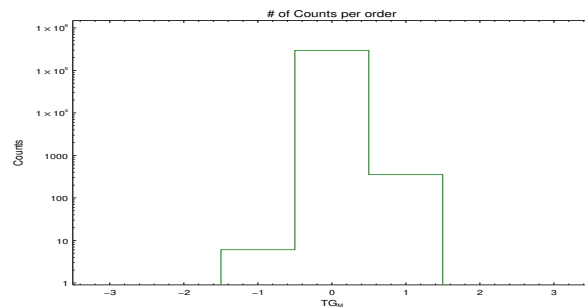


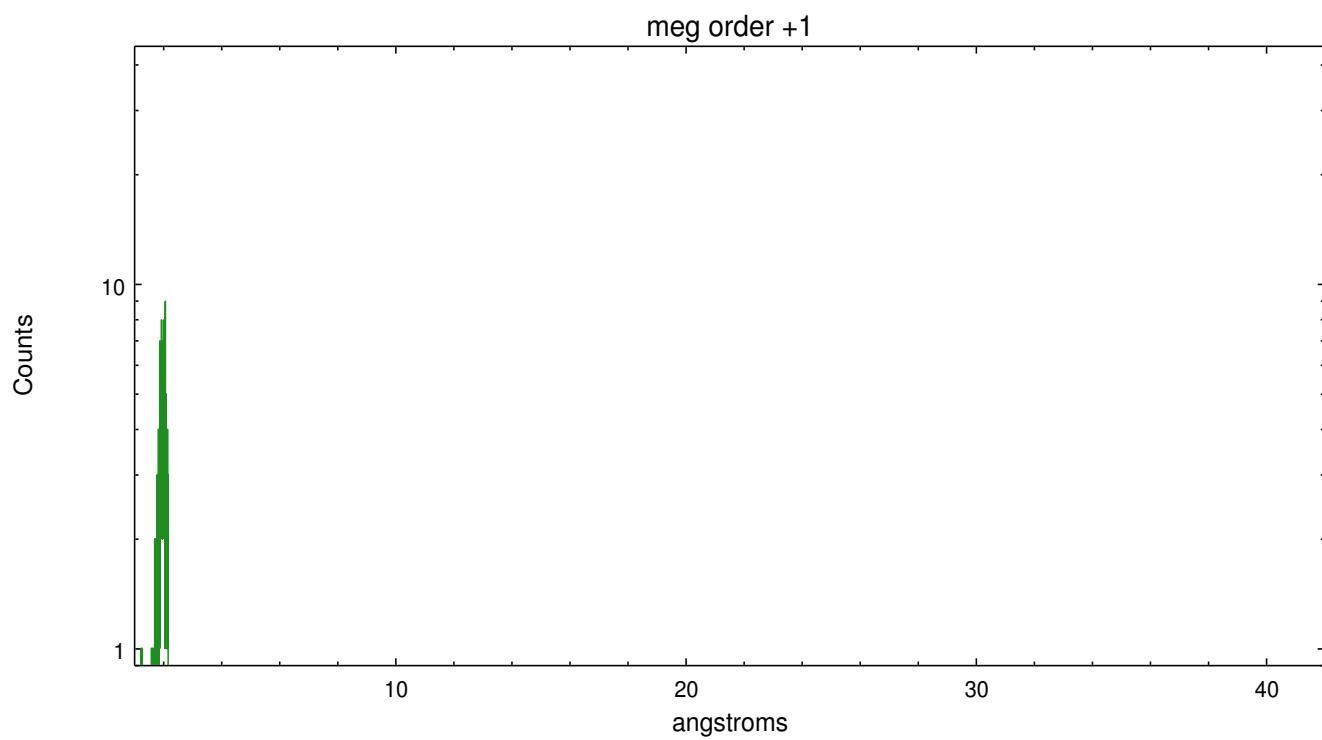
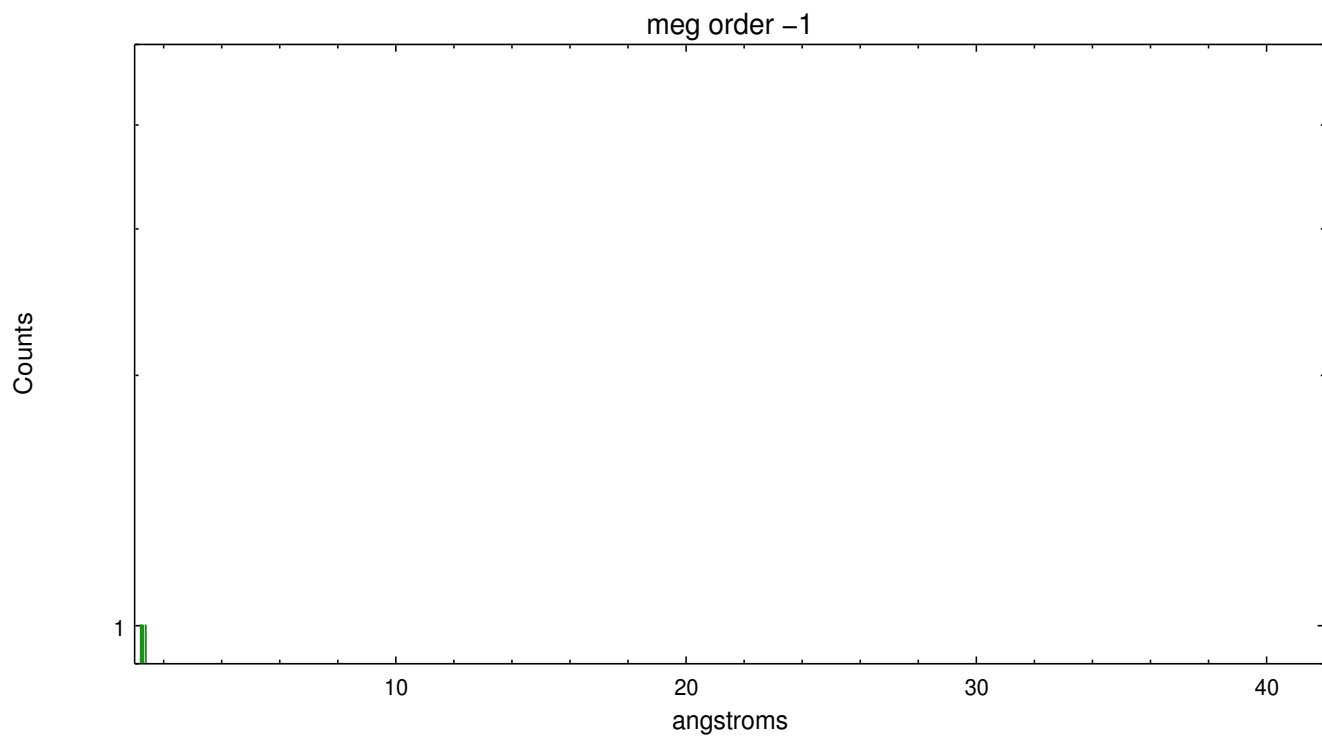
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	6	298906	355	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	9.8571

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 very near the position of the pulsar. 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.