

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21200 - L2 Version 1
Chandra X-Ray Center

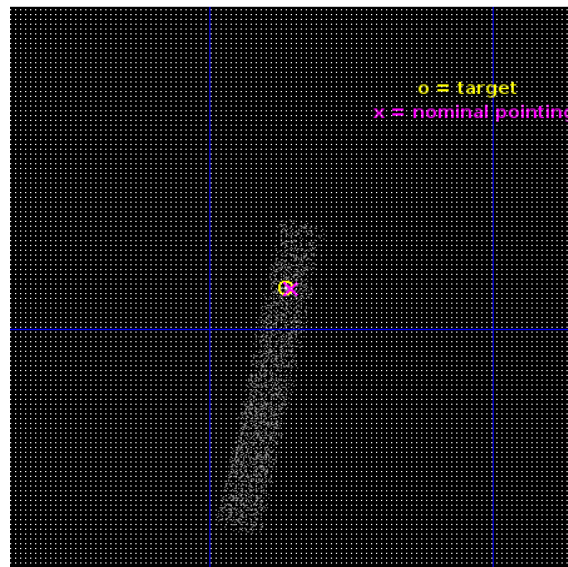
L2 Processing Date : Apr 30 2019

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1 Front

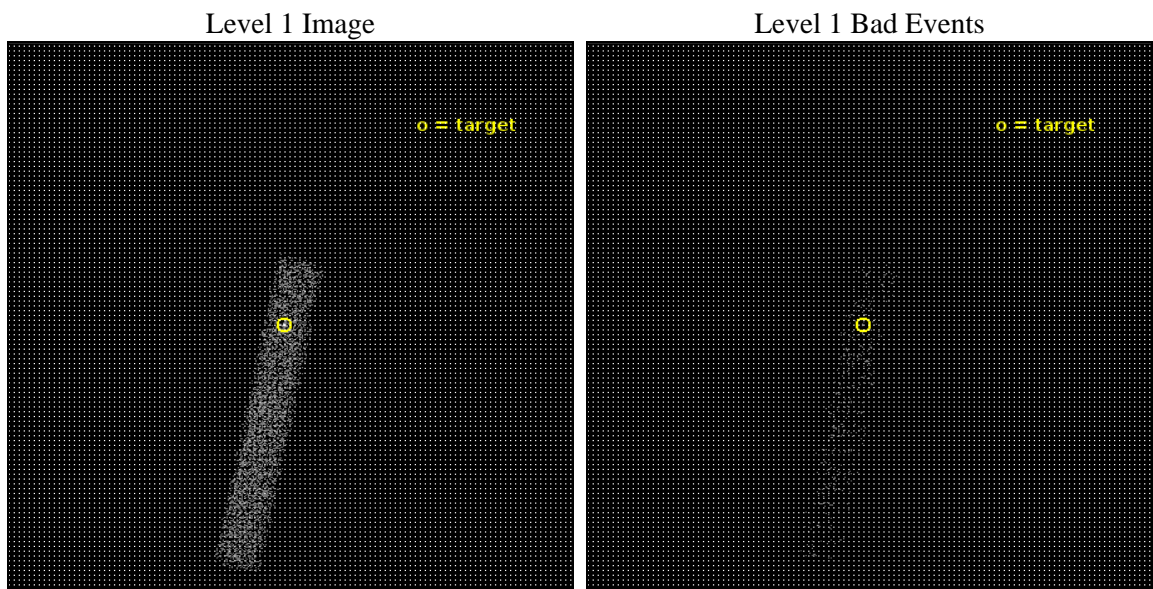
seq_num	402033	Sequence number
obs_id	21200	Observation id
title	Following a black hole X-ray transient through the transition into quiescence	Proposal title
observer	Elena Gallo	Principal investigator
object	MAXI J1820+070	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	275.09125	Observer's specified target RA [deg]
dec_targ	7.185361	Observer's specified target Dec [deg]
ra_nom	275.08864674662	Nominal RA [deg]
dec_nom	7.1848741939397	Nominal Dec [deg]
roll_nom	101.15697080997	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4068.3997573853	Sum of GTIs [s]
livetime	3689.8238322014	Livetime [s]
ontime7	4068.3997573853	Sum of GTIs [s]
l2events	3144	Number of level 2 events



2 OBI

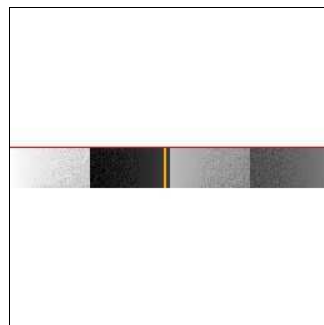
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	4068.3997573853	Sum of GTIs [s]
caldsver	4.8.2	 	ontime7	4068.3997573853	Sum of GTIs [s]
date	2019-04-30T16:40:00	Date and time of file creation	l1events	6018	Number of level 1 events
revision	1	Processing version of data	tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4076.64, 4100.26)	src1a sky pixel position

2.1.4 Events

	ccd 7
level 1 events	6018
rejected events	2742
rejected %	45%

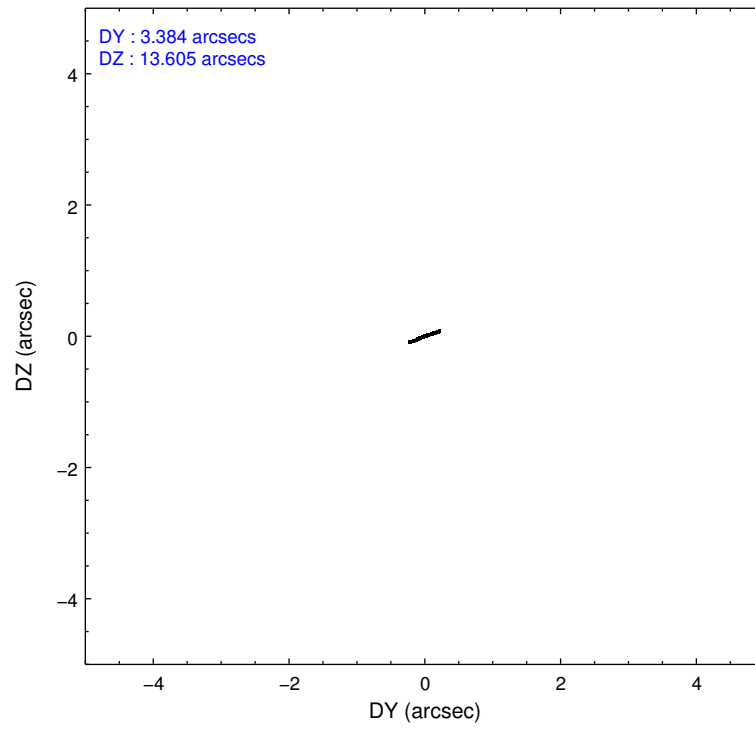
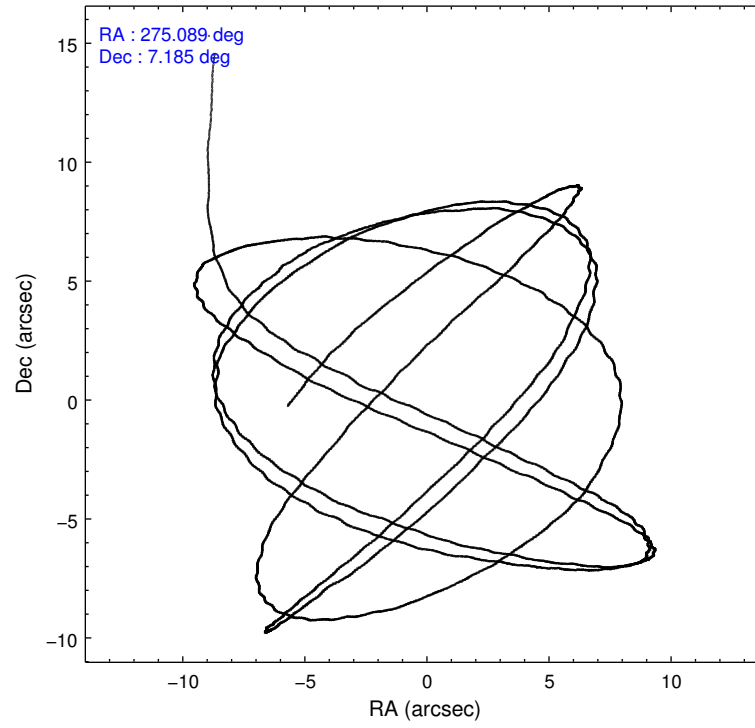
	ccd 7
grade 0 events	419
	6%
grade 1 events	9
	0%
grade 2 events	620
	10%
grade 3 events	424
	7%
grade 4 events	411
	6%
grade 5 events	492
	8%
grade 6 events	1402
	23%
grade 7 events	2241
	37%

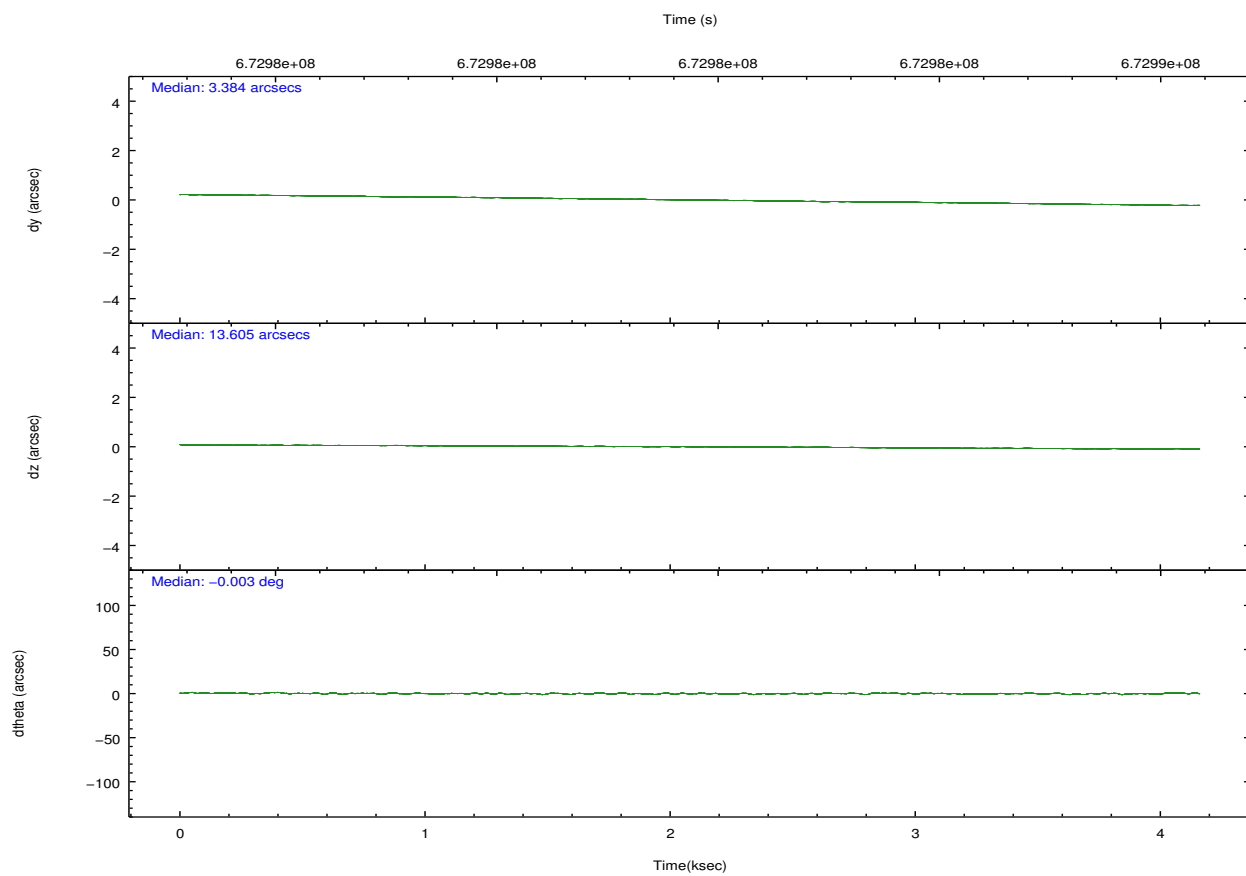
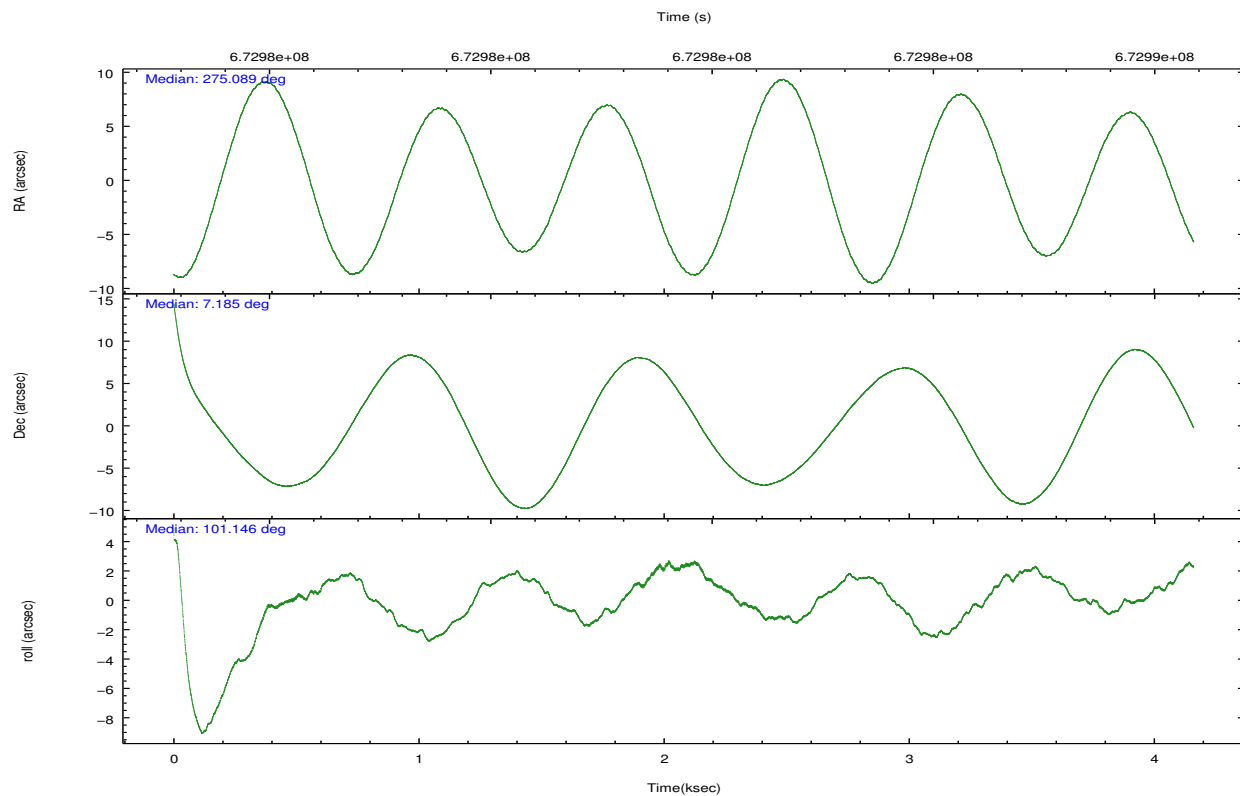
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	275.107116	275.0886467466212
[deg] Pointing Dec	7.164373	7.184874193939677
[deg] Pointing Roll	100.998016	101.156970809967
[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)	672981961.184000	672980595.4774899
Observation start date	2019-04-30T03:24:52	2019-04-30T03:03:15
[s] Observation end time (MET)	672985961.184000	672986373.40284
Observation end date	2019-04-30T04:31:32	2019-04-30T04:39:33
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

2.3 Aspect



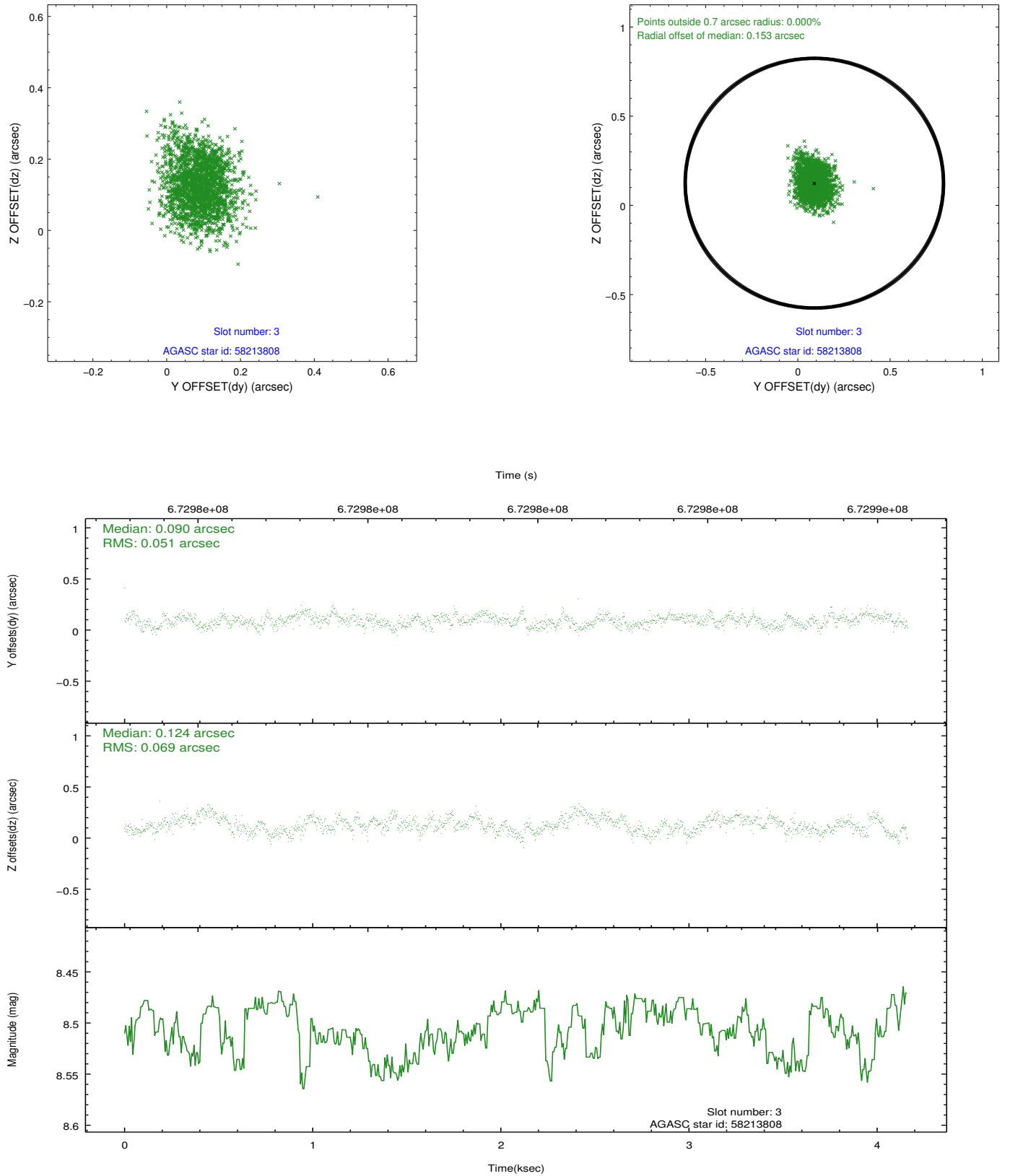


Slot Statistics

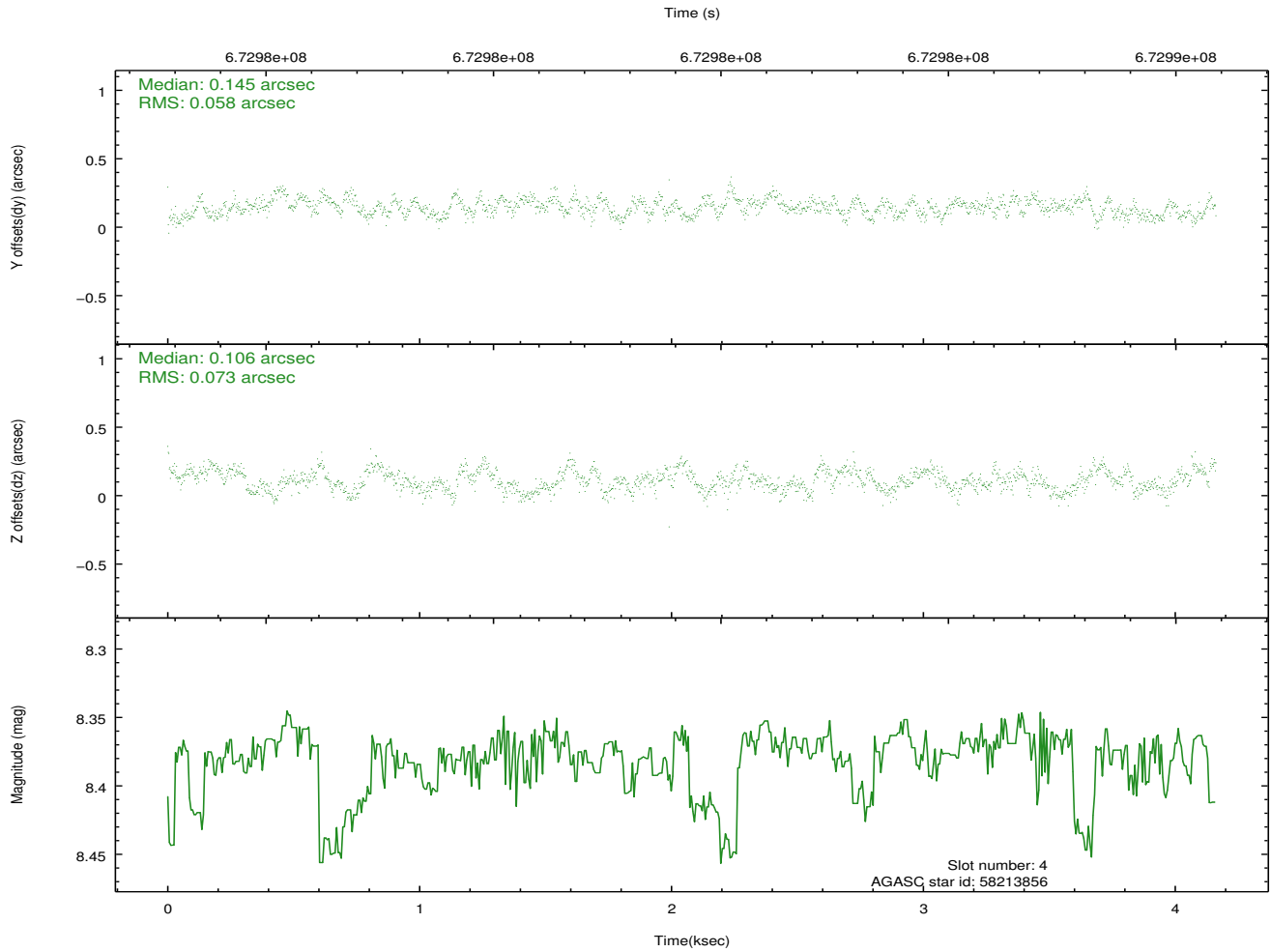
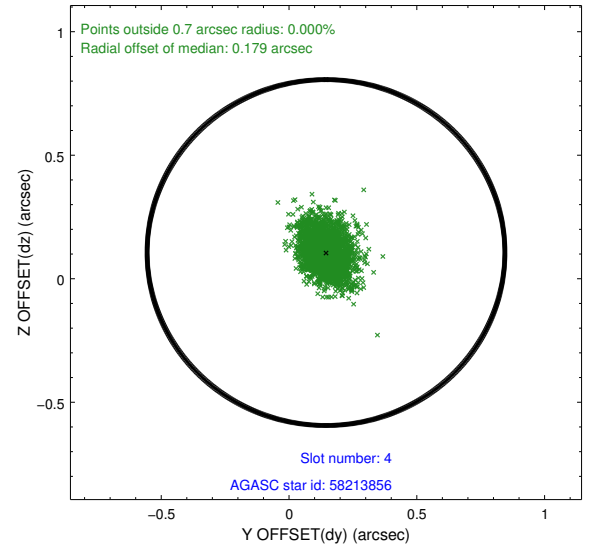
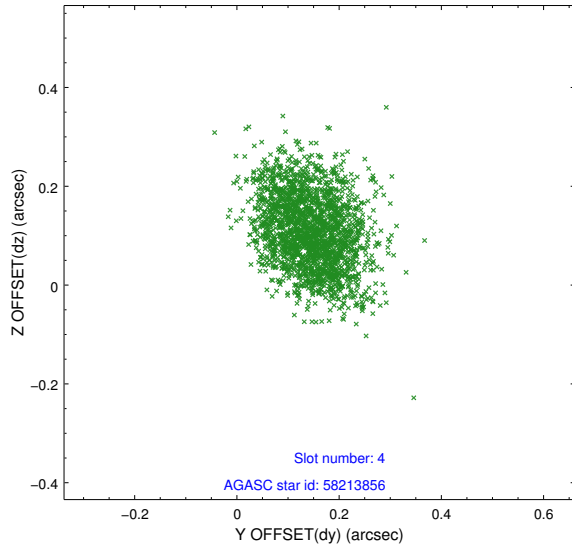
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.12	1014	1.000	-0.012	-0.105	0.009	0.015	0.000000	0.000000	-756.09	-1734
1	FID		ACIS-S-5	7.26	1014	1.000	-0.219	-0.004	0.010	0.015	0.000000	0.000000	-1810.04	165
2	FID		ACIS-S-6	7.39	1015	1.000	0.204	0.117	0.008	0.013	0.000000	0.000000	404.18	811
3	GUIDE	used	58213808	8.51	2031	1.000	0.090	0.124	0.092	0.147	275.527738	7.140365	-370.41	-1457
4	GUIDE	used	58213856	8.38	2030	1.000	0.145	0.106	0.099	0.160	275.612553	7.226303	-124.26	-1814
5	GUIDE	used	58215552	7.57	2030	1.000	-0.083	-0.350	0.072	0.124	275.048740	7.069088	-297.28	269
6	GUIDE	used	58338368	6.73	2031	1.000	-0.021	0.223	0.082	0.132	275.704454	7.206741	-255.71	-2122
7	GUIDE	used	132401928	7.34	2030	1.000	-0.132	-0.099	0.098	0.157	275.575114	7.548927	1040.62	-1902

2.4 Star Slots

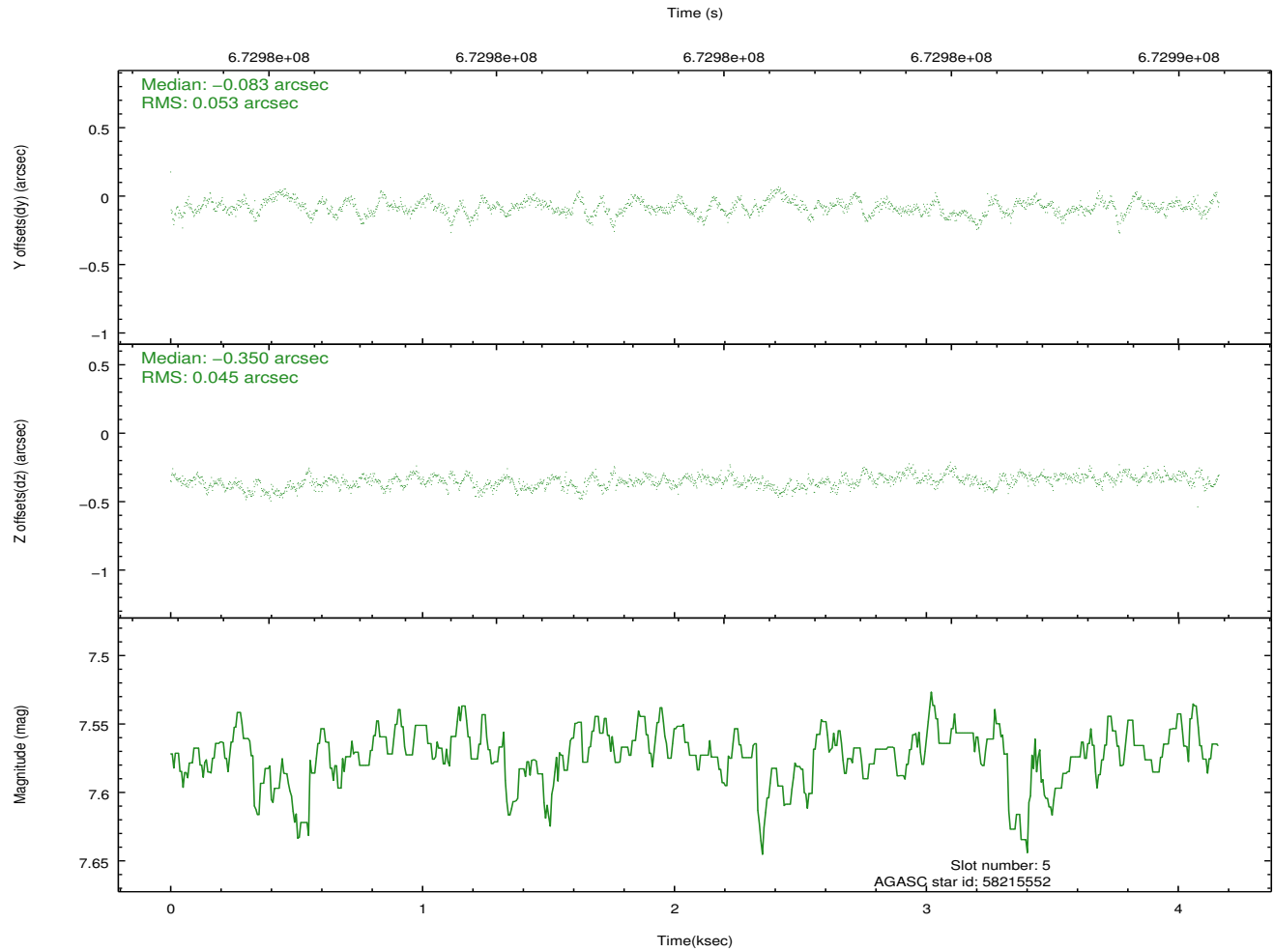
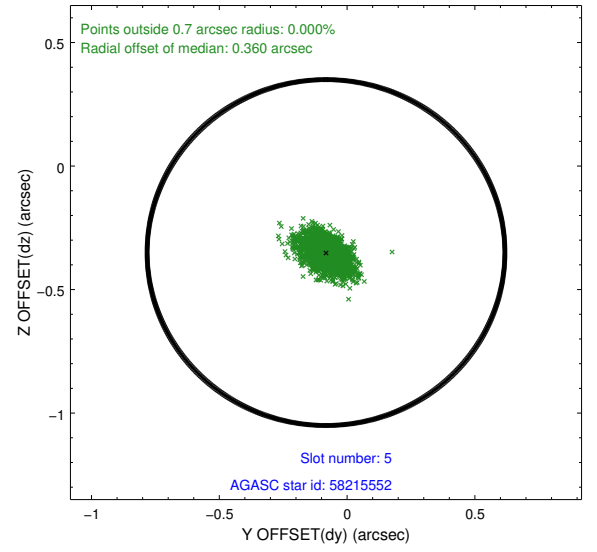
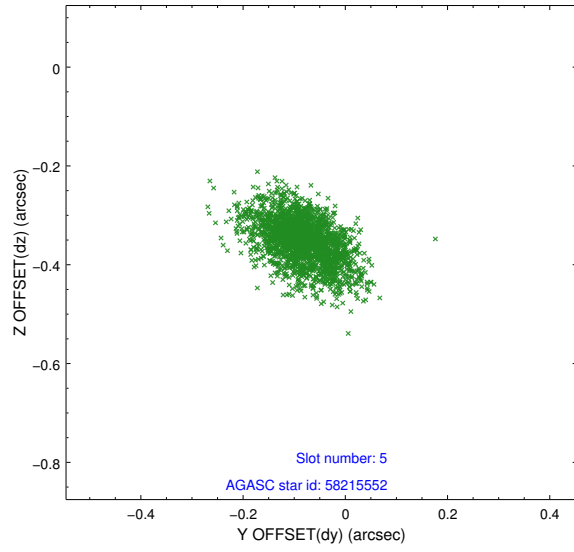
2.4.1 Slot 3



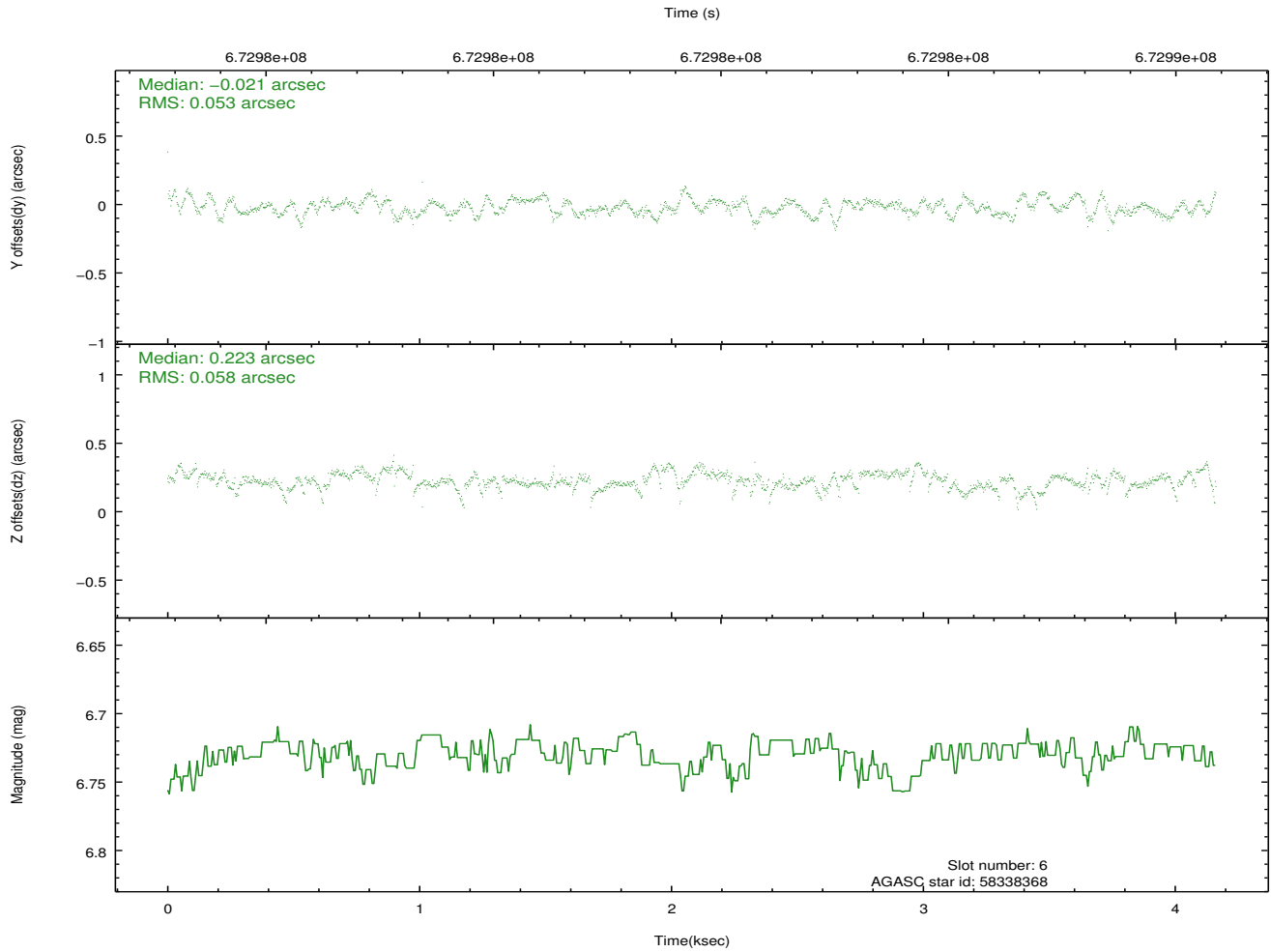
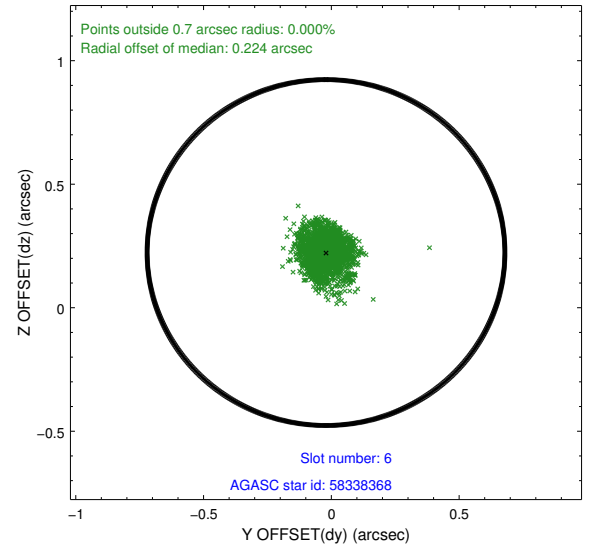
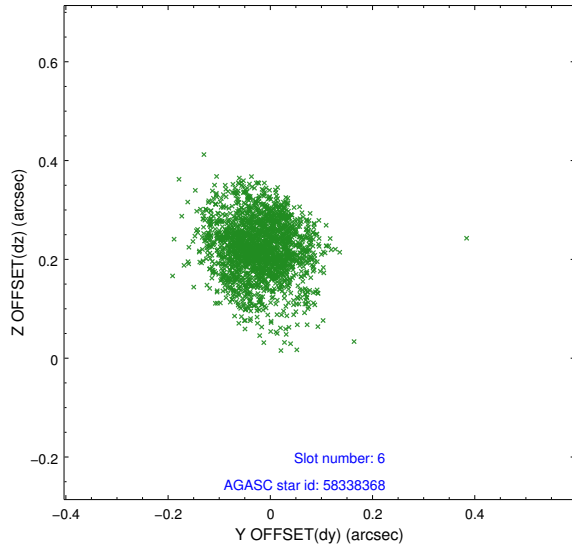
2.4.2 Slot 4



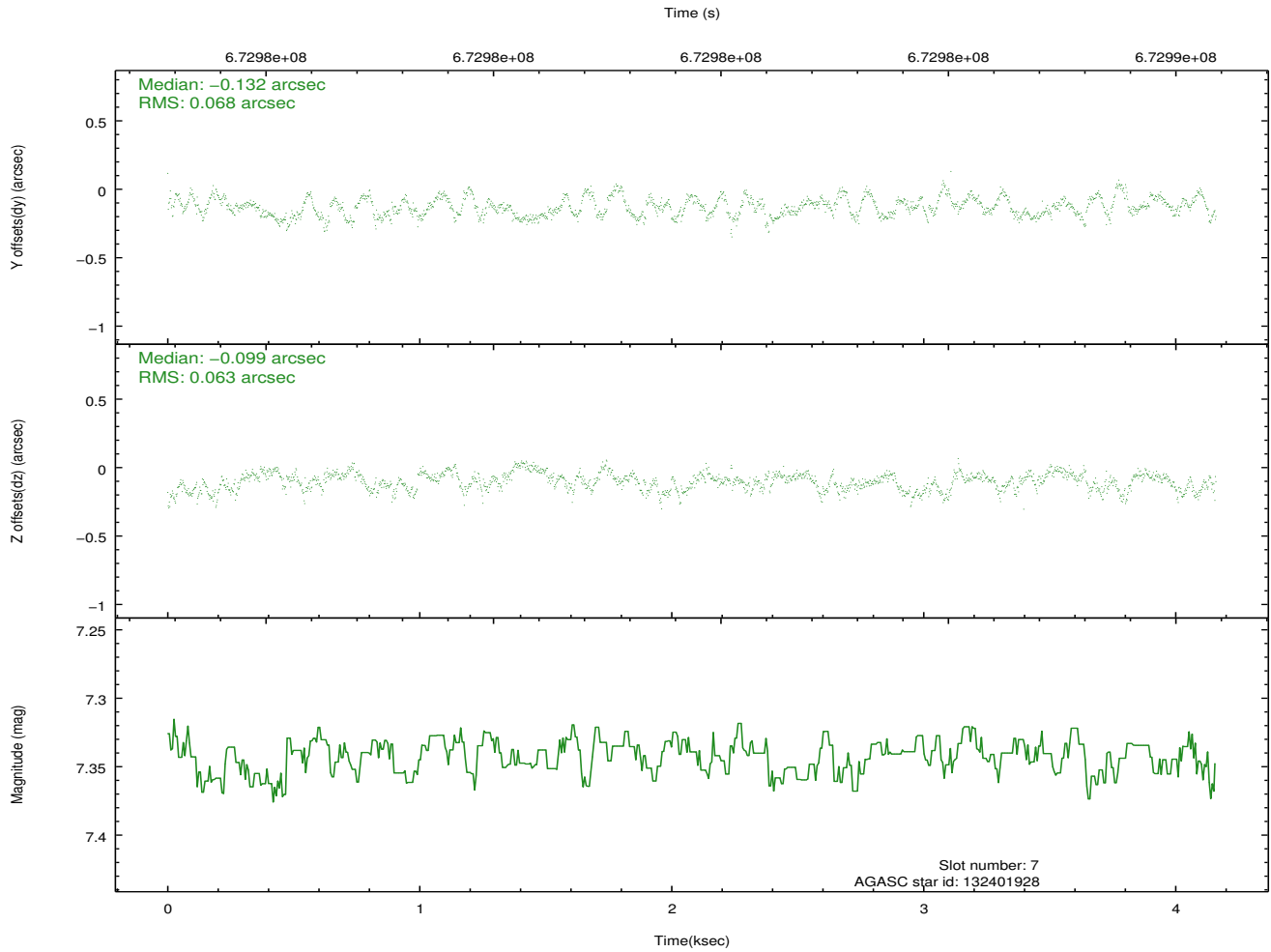
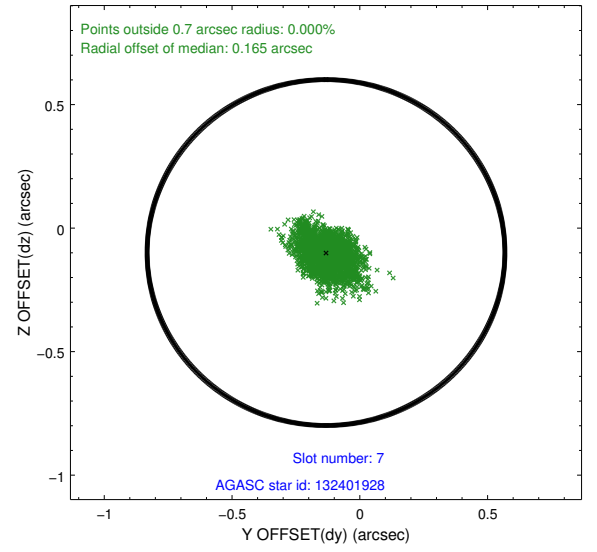
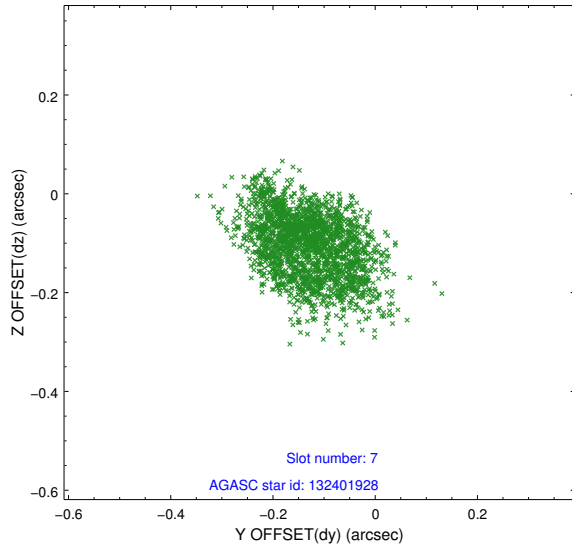
2.4.3 Slot 5



2.4.4 Slot 6

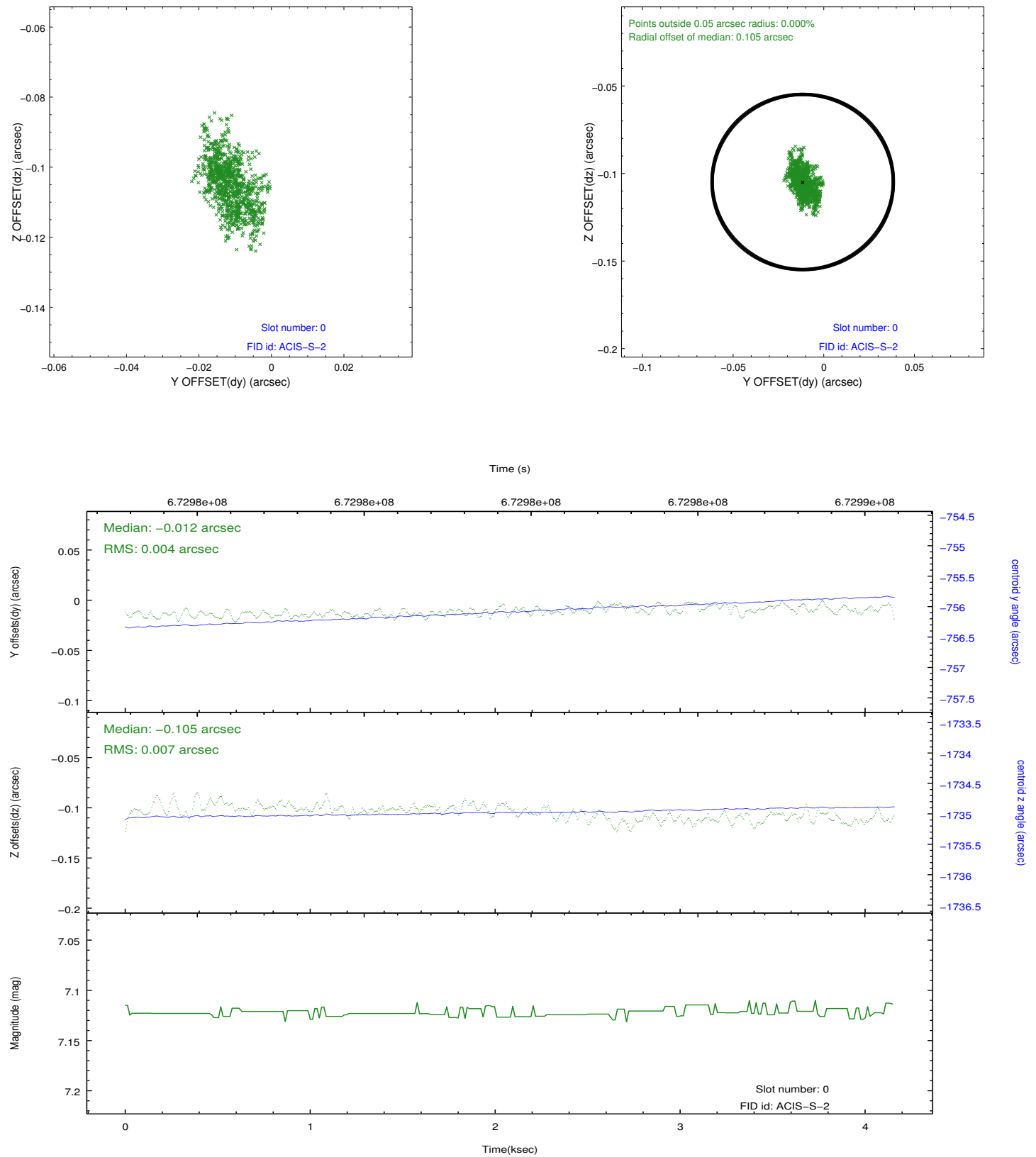


2.4.5 Slot 7

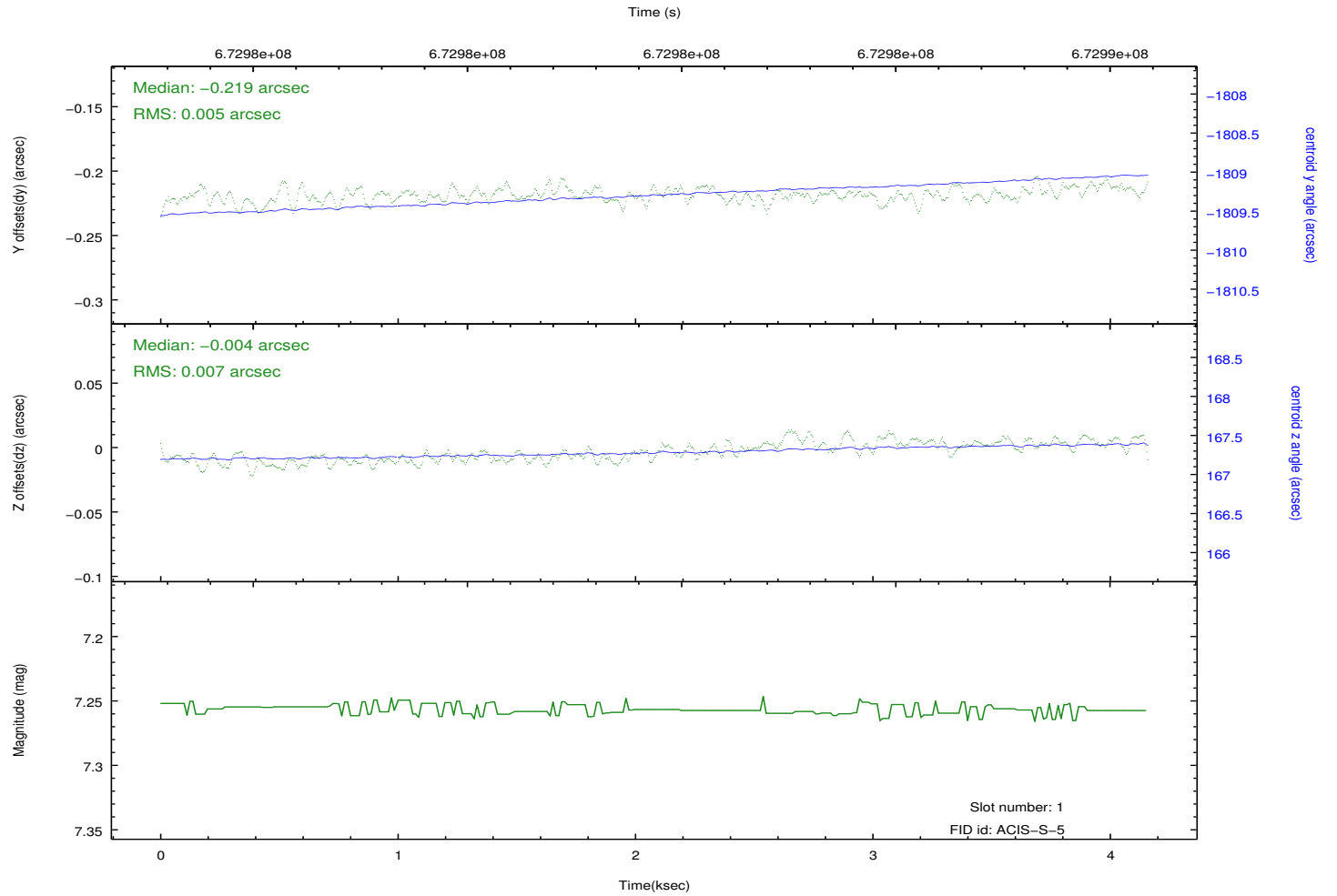
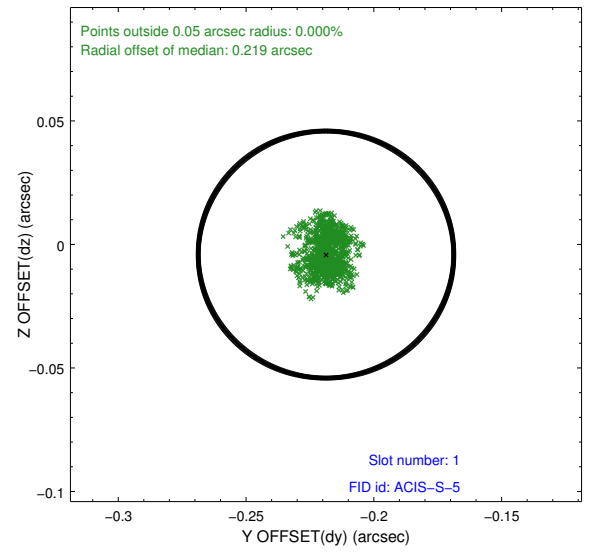
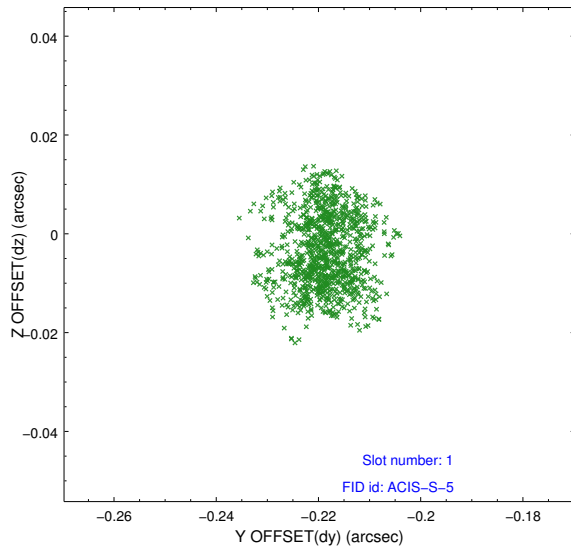


2.5 FID Slots

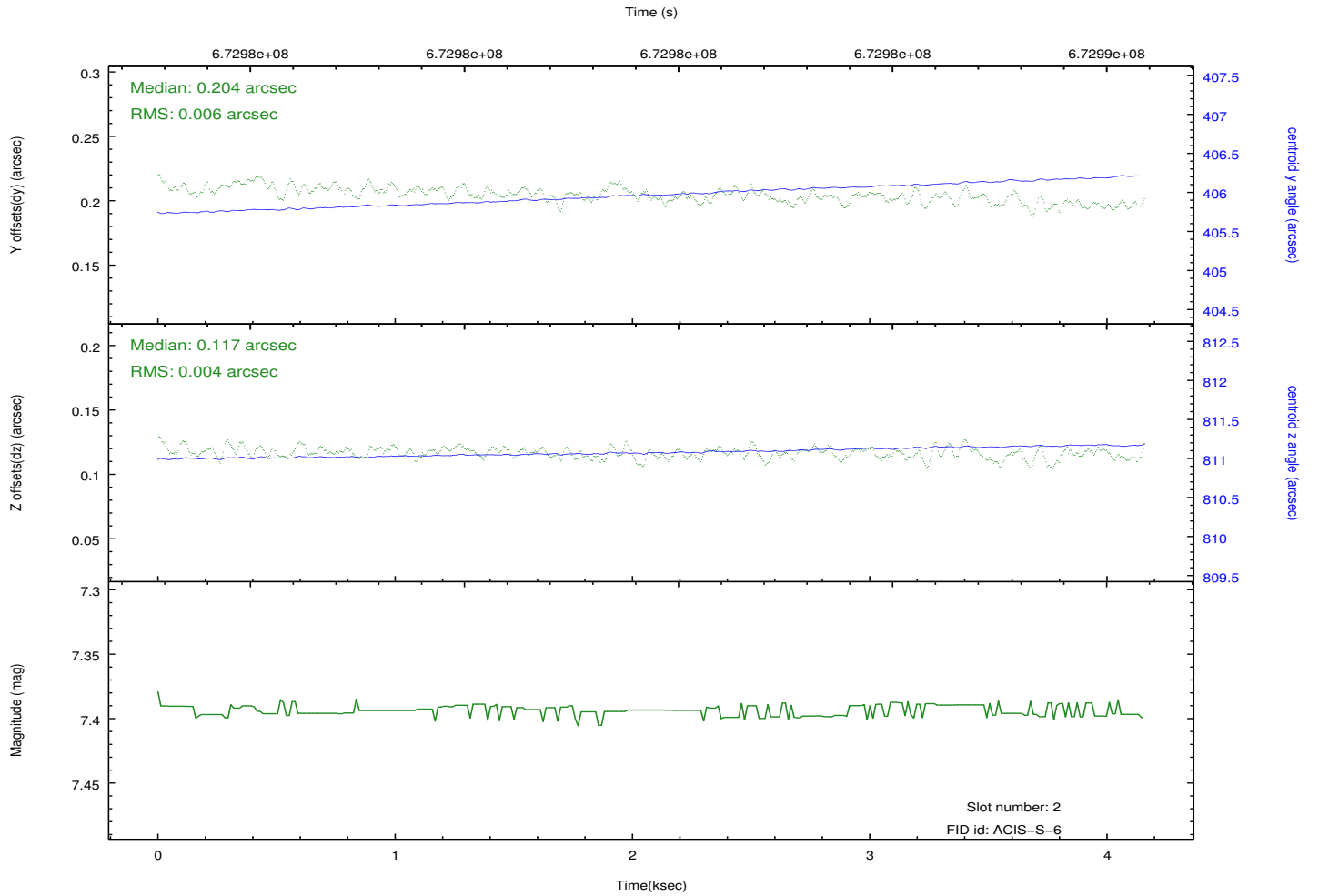
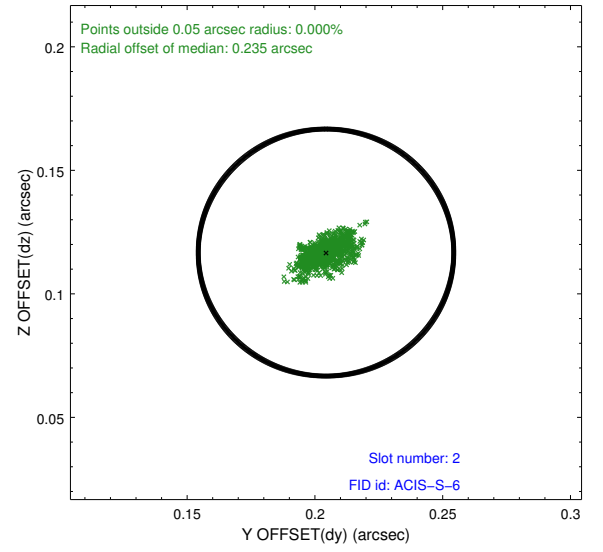
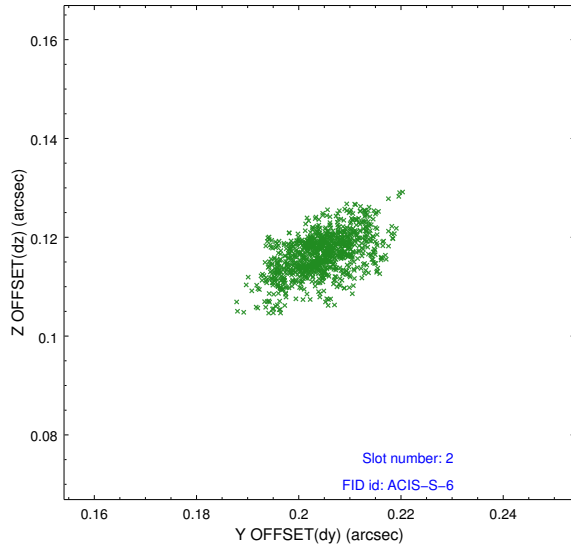
2.5.1 Slot 0



2.5.2 Slot 1

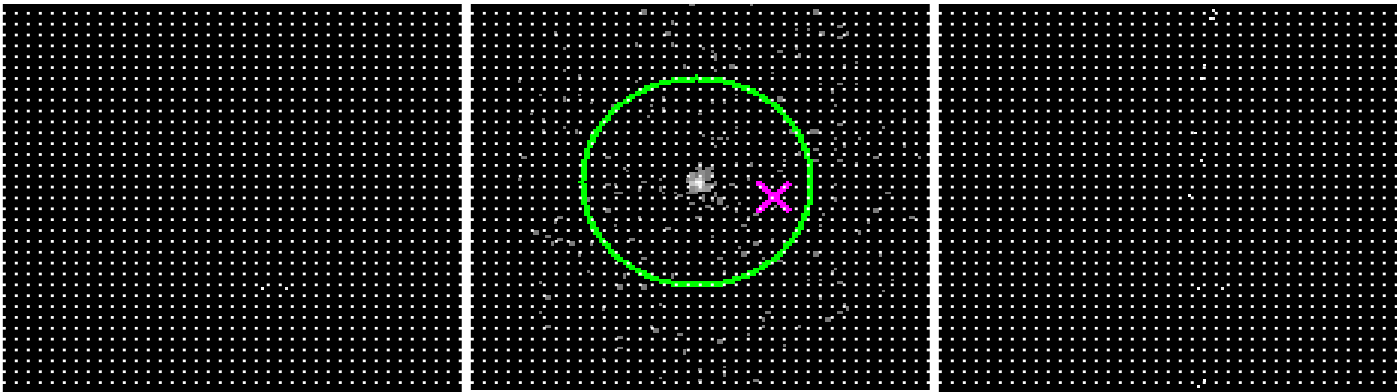


2.5.3 Slot 2



3 Gratings

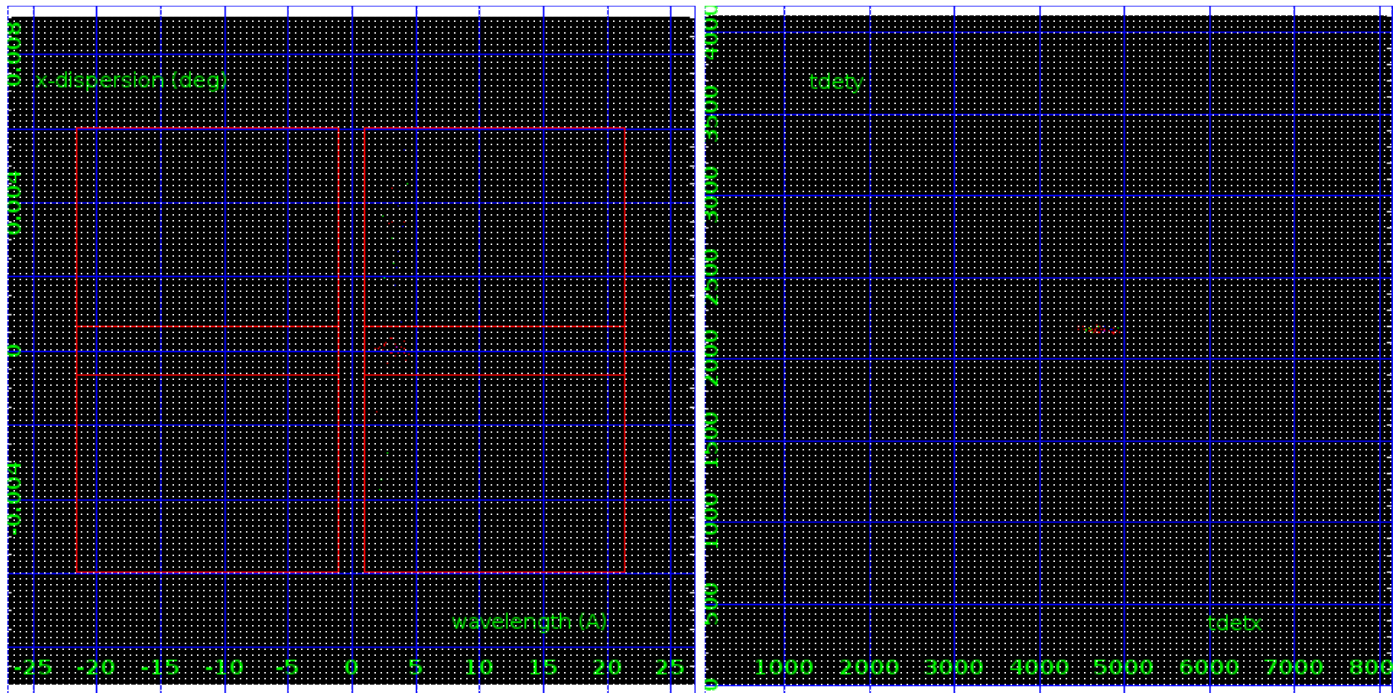
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

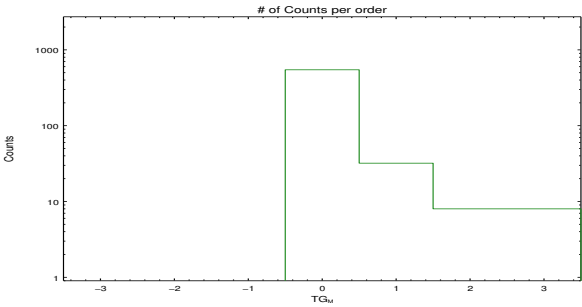
HEG Order Sort ALL

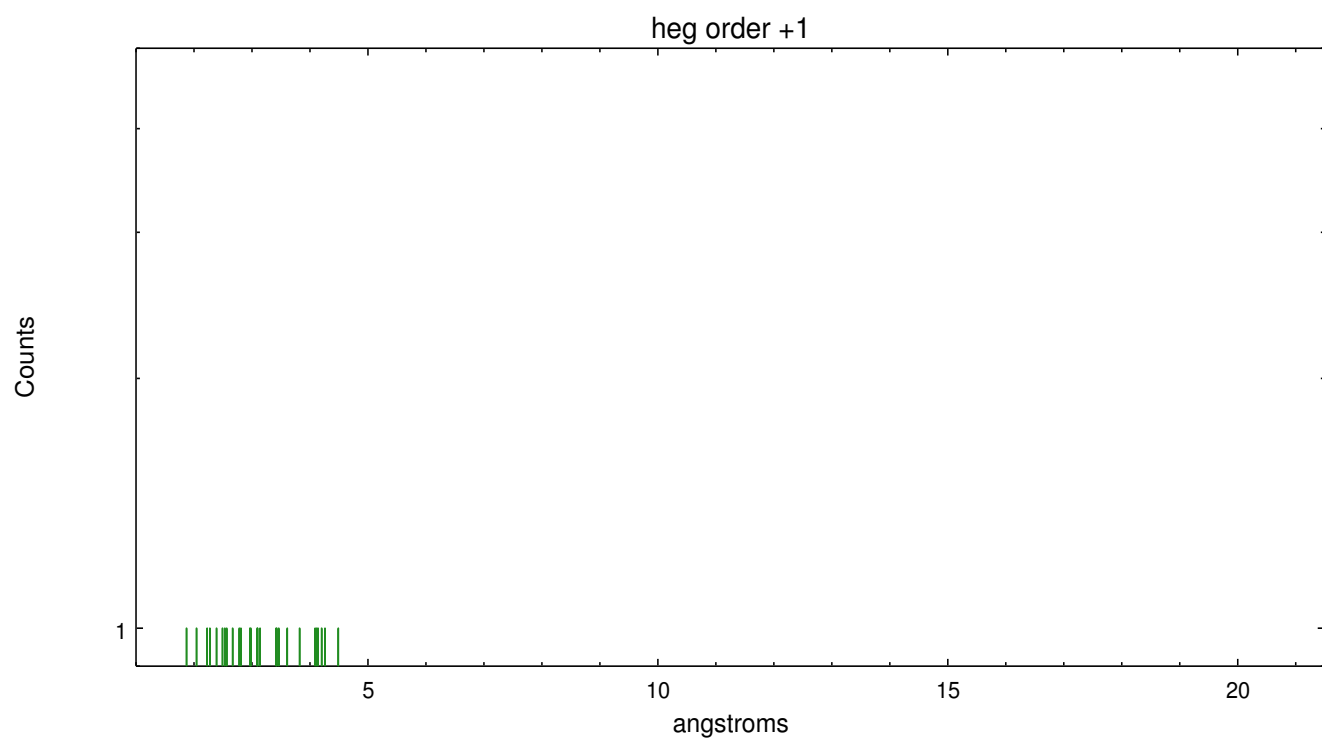
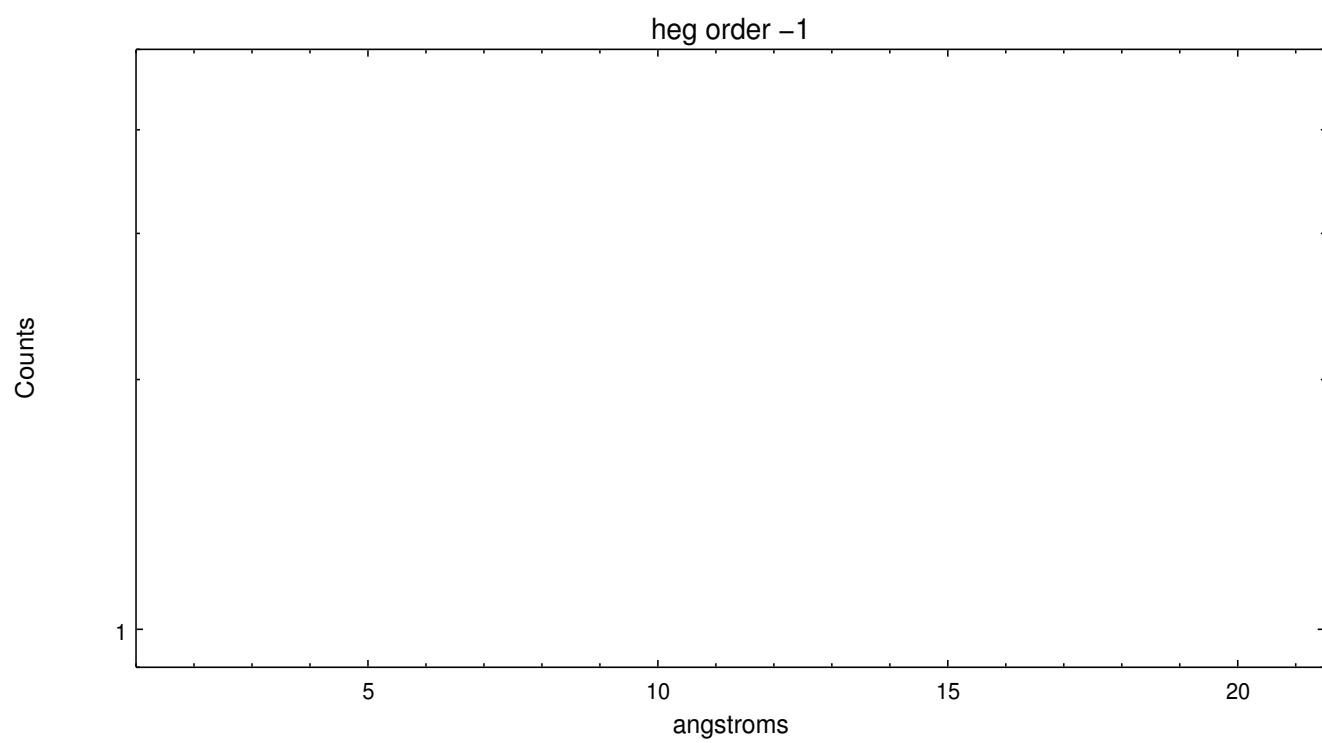


Spot Image HEG

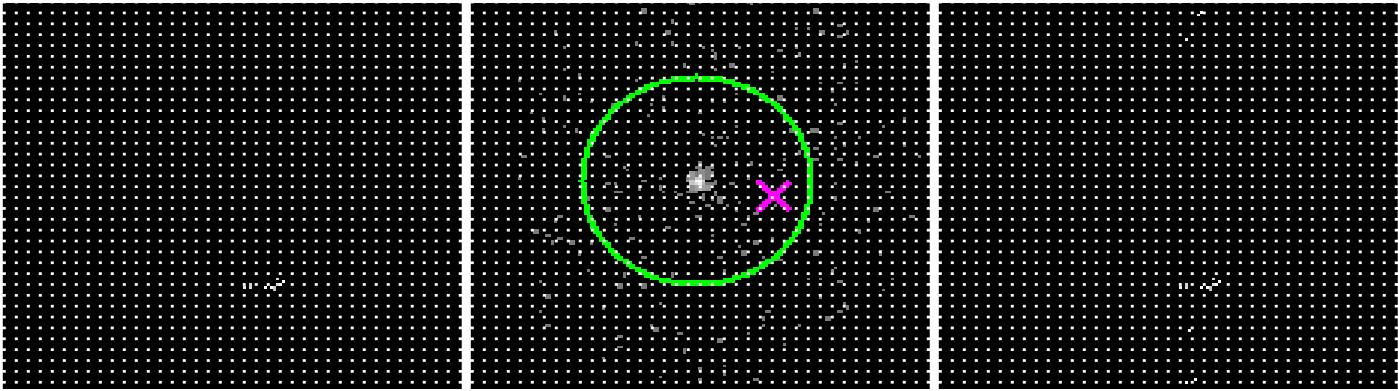
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	546	32	8	8





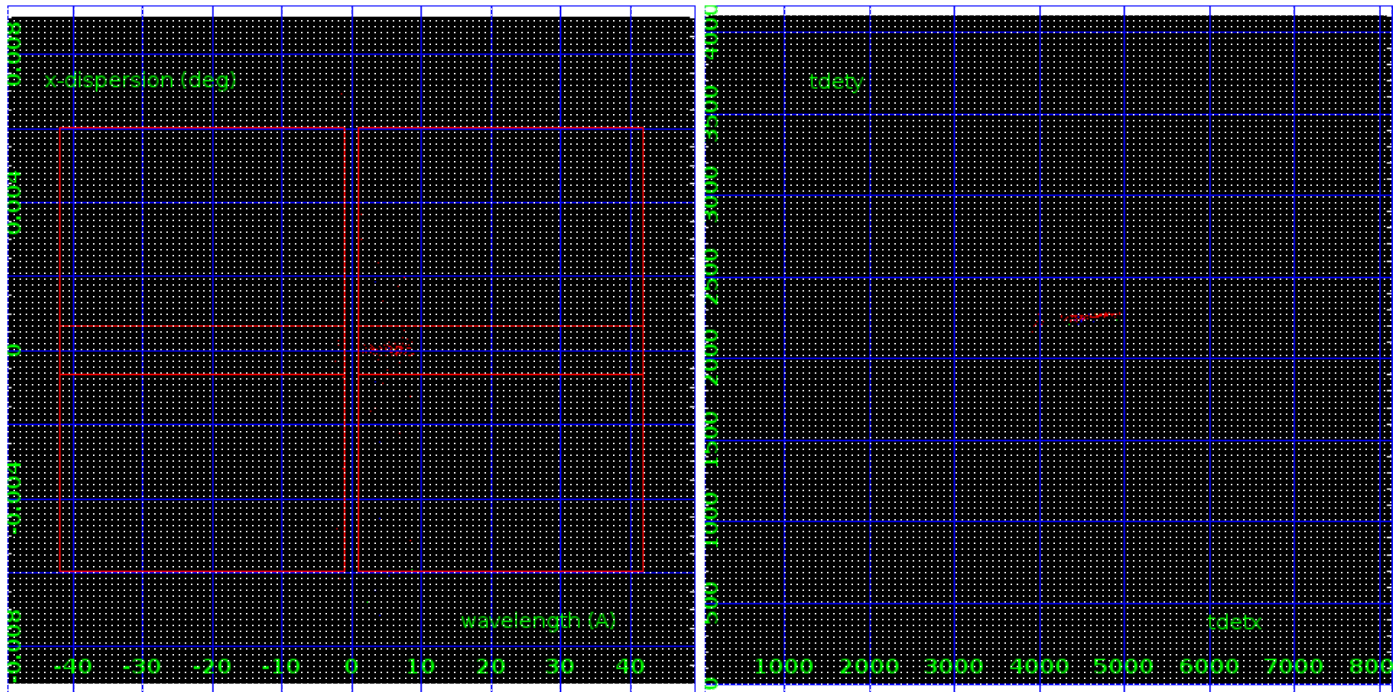
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

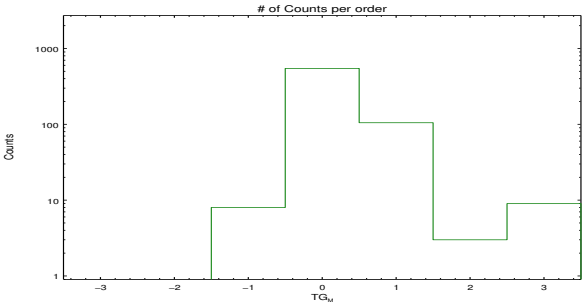
MEG Order Sort ALL

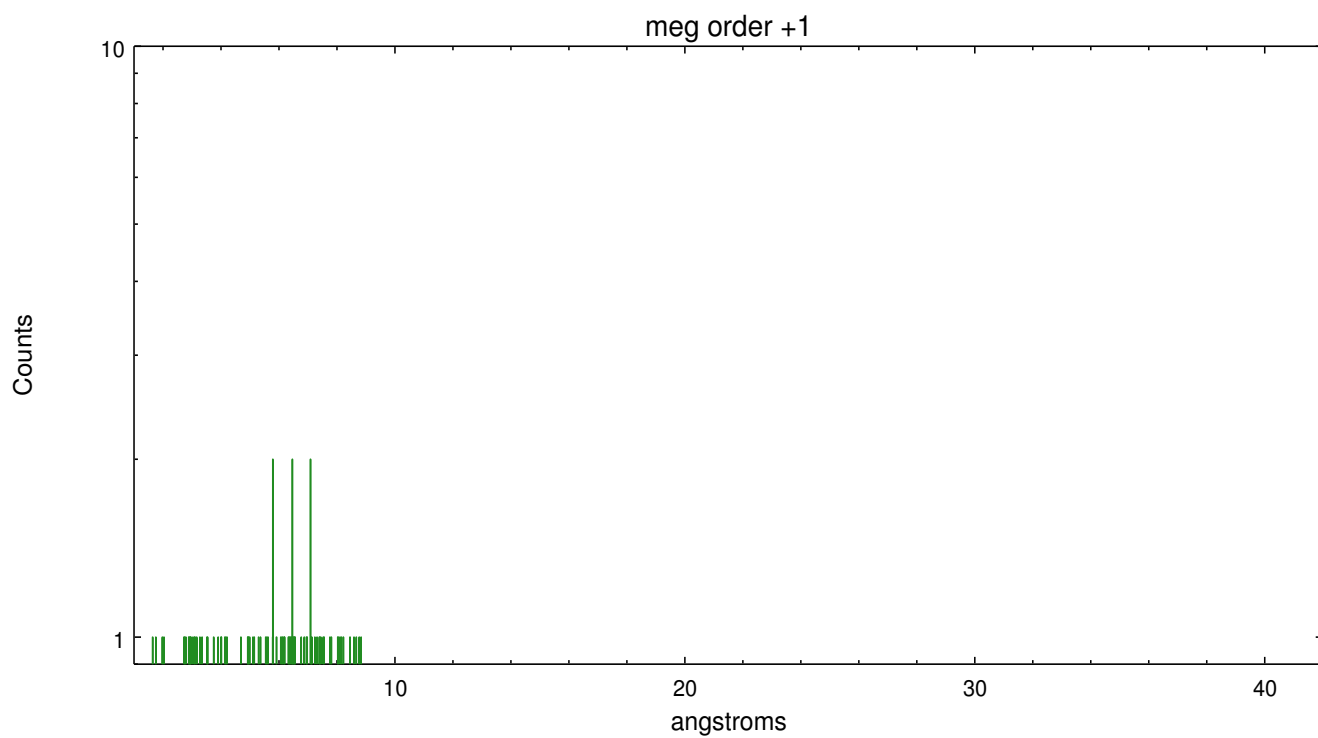
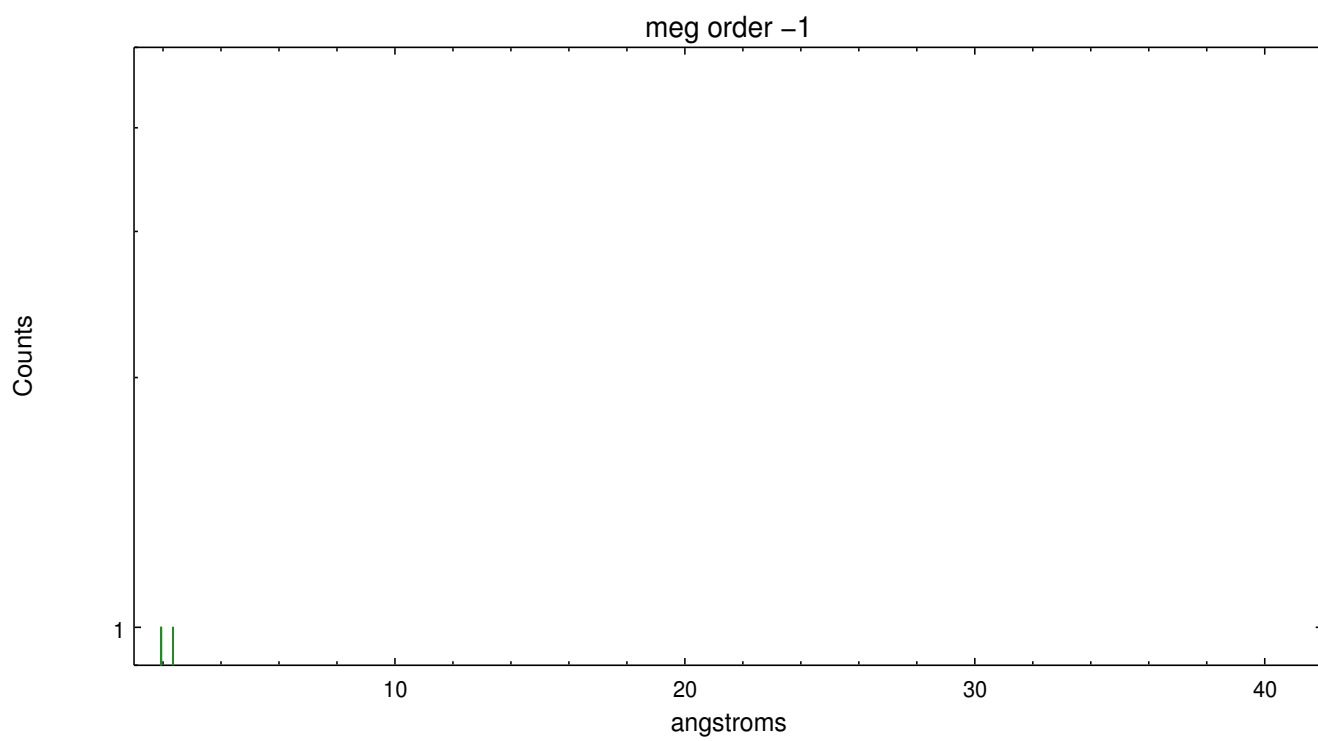


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	8	546	105	3	9





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.05.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.0683997573853

A.2 Comments