

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 21240 - L2 Version 1
Chandra X-Ray Center

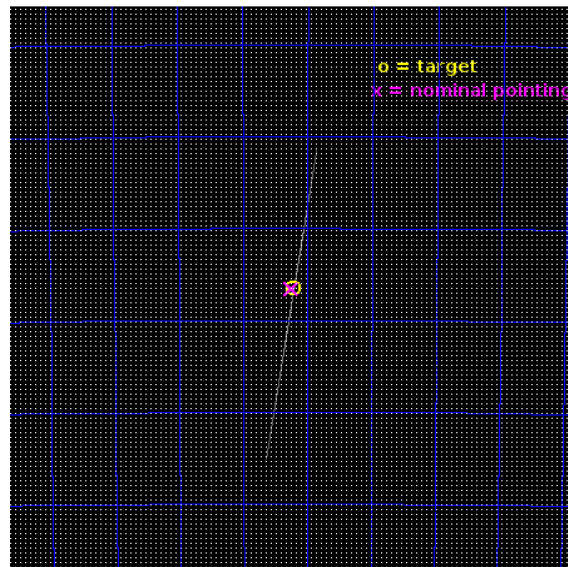
L2 Processing Date : Jun 27 2019

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1 Front

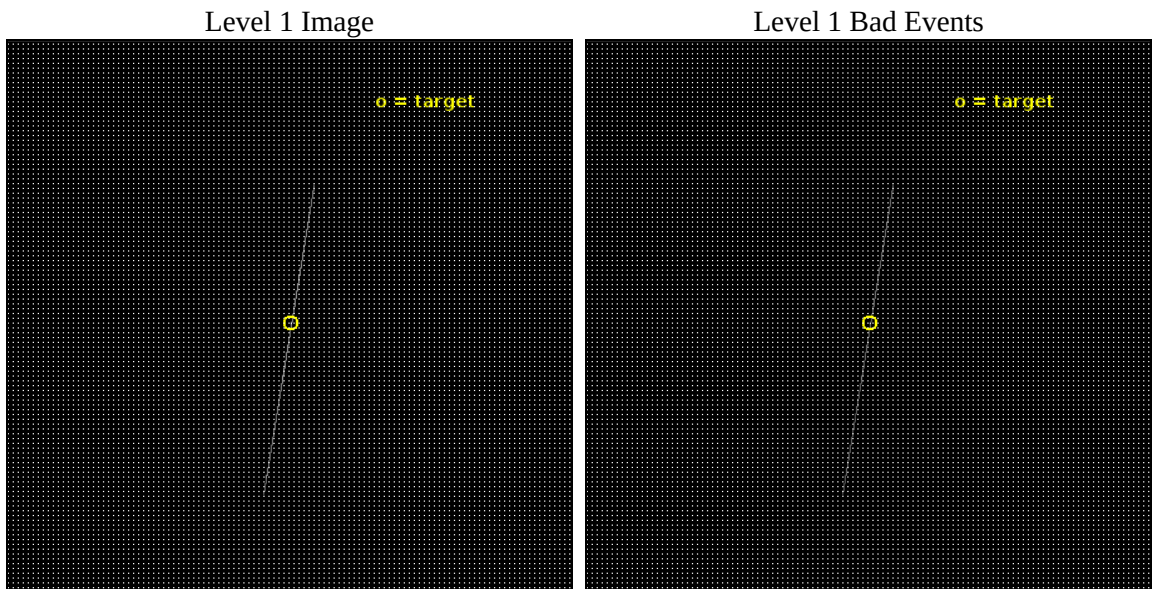
seq_num	402072	Sequence number
obs_id	21240	Observation id
title	A Test of Black-Hole Disk Truncation: Thermal Disk Emission in the Bright Hard State	Proposal title
observer	James Steiner	Principal investigator
object	MAXI J1348-630	Source name
ra_targ	207.0535	Observer's specified target RA [deg]
dec_targ	-63.274611	Observer's specified target Dec [deg]
ra_nom	207.06235401053	Nominal RA [deg]
dec_nom	-63.276205007302	Nominal Dec [deg]
roll_nom	278.87880230635	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20118.75	Sum of GTIs [s]
livetime	20040.161132812	Livetime [s]
ontime5	20118.75	Sum of GTIs [s]
ontime6	20118.75	Sum of GTIs [s]
ontime7	20118.75	Sum of GTIs [s]
ontime8	20118.75	Sum of GTIs [s]
l2events	3036656	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	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	20118.75	Sum of GTIs [s]
caldsver	4.8.3	 	ontime5	20118.75	Sum of GTIs [s]
date	2019-06-27T12:34:31	Date and time of file creation	ontime6	20118.75	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	20118.75	Sum of GTIs [s]
			ontime8	20118.75	Sum of GTIs [s]
			l1events	5078827	Number of level 1 events
			tgmeth	TGDETECT	Method used to create src1a file
			zo_pos	(4125.52, 4108.04)	src1a sky pixel position

2.1.3 Events

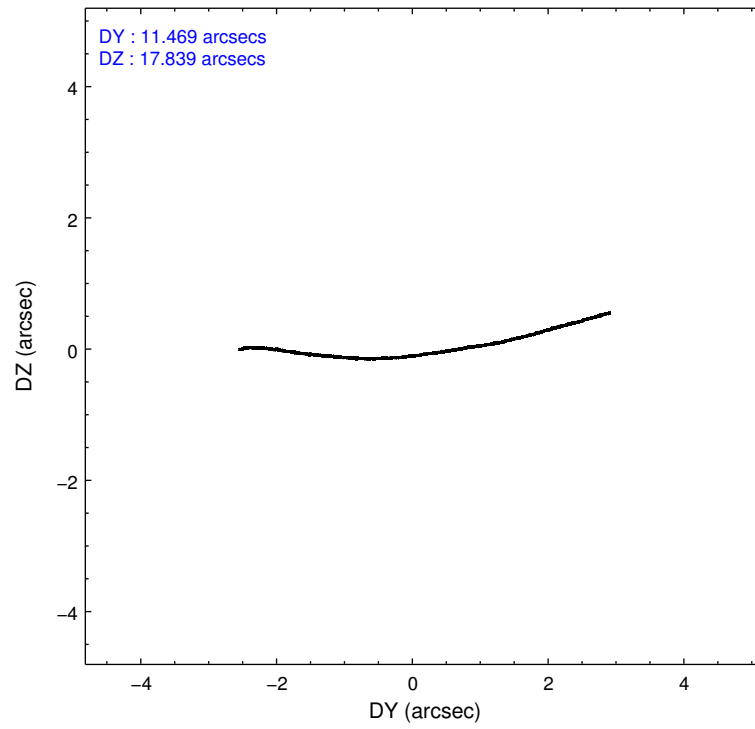
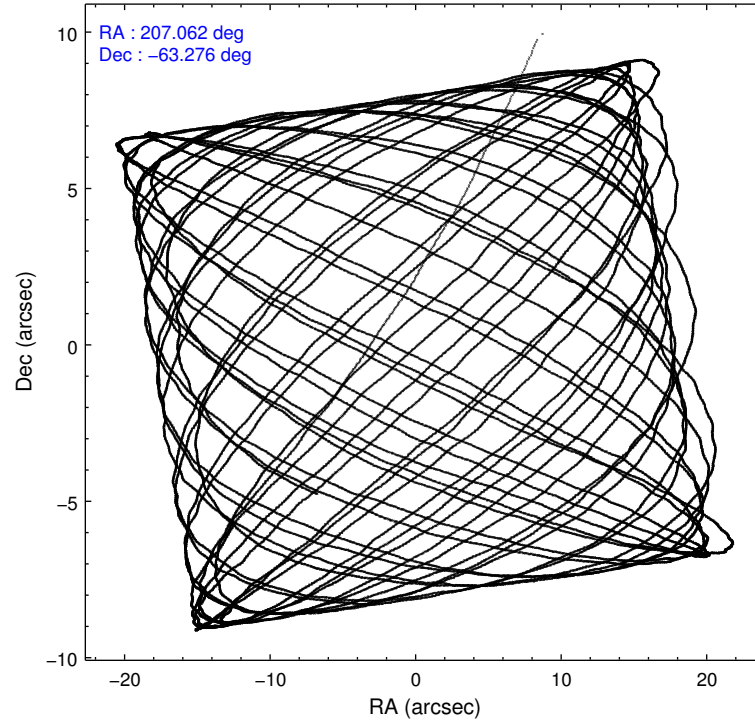
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	617756	1163628	2544356	753087
rejected events	245318	308143	829296	385229
rejected %	39%	26%	32%	51%

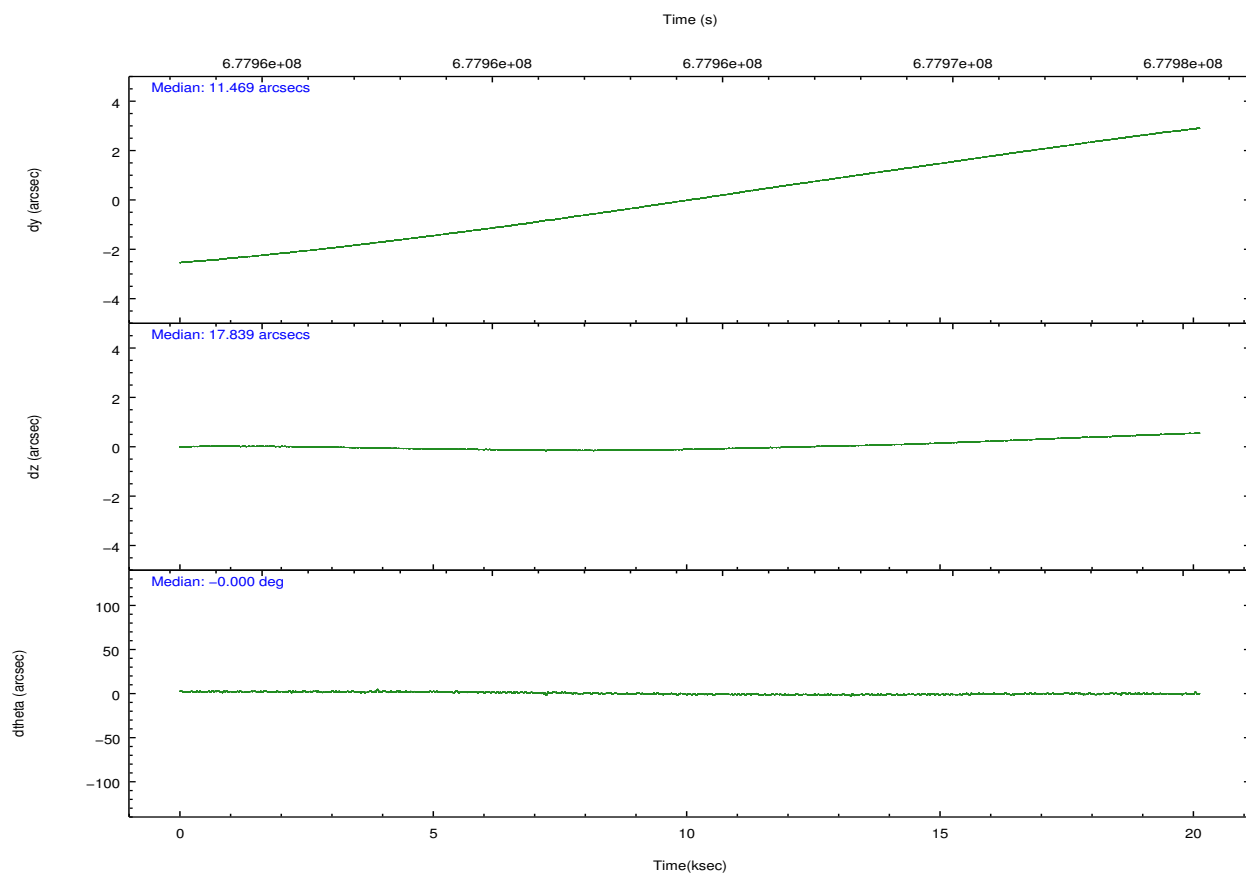
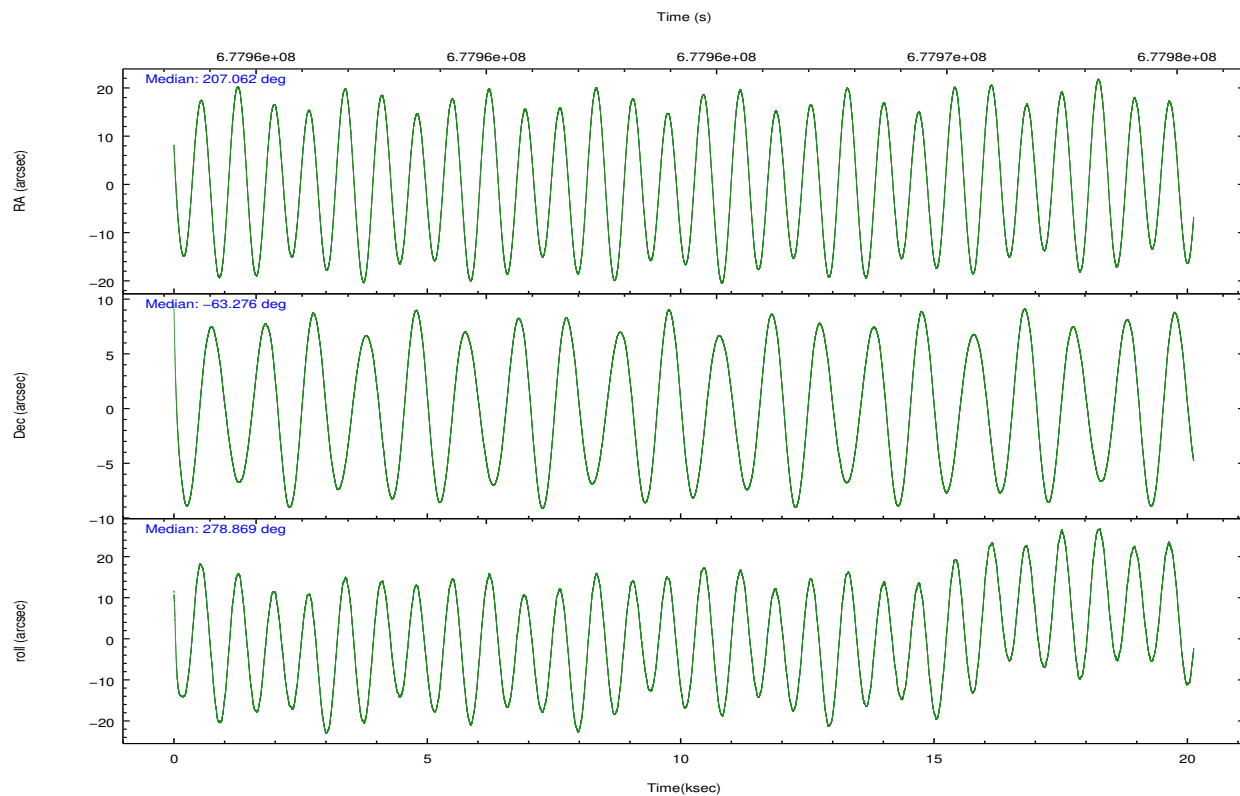
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	86735	7544	130196	28273
	14%	0%	5%	3%
grade 1 events	206	135	6665	306
	0%	0%	0%	0%
grade 2 events	157478	754624	679904	282449
	25%	64%	26%	37%
grade 3 events	4315	3464	71553	8956
	0%	0%	2%	1%
grade 4 events	4134	3175	70287	8681
	0%	0%	2%	1%
grade 5 events	15256	10987	82258	12393
	2%	0%	3%	1%
grade 6 events	120009	87256	764322	39779
	19%	7%	30%	5%
grade 7 events	229623	296443	739171	372250
	37%	25%	29%	49%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	207.023475	207.0623540105265	Subarray requested	NONE	NONE
[deg] Pointing Dec	-63.255067	-63.27620500730183	Alternating exposures requested	N	N
[deg] Pointing Roll	278.687440	278.8788023063495	[s] Primary exposure time	0.000000	0
[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)	677954366.184000	677952822.08811			
Observation start date	2019-06-26T16:38:17	2019-06-26T16:13:42			
[s] Observation end time (MET)	677974366.184000	677974988.22694			
Observation end date	2019-06-26T22:11:37	2019-06-26T22:23:08			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



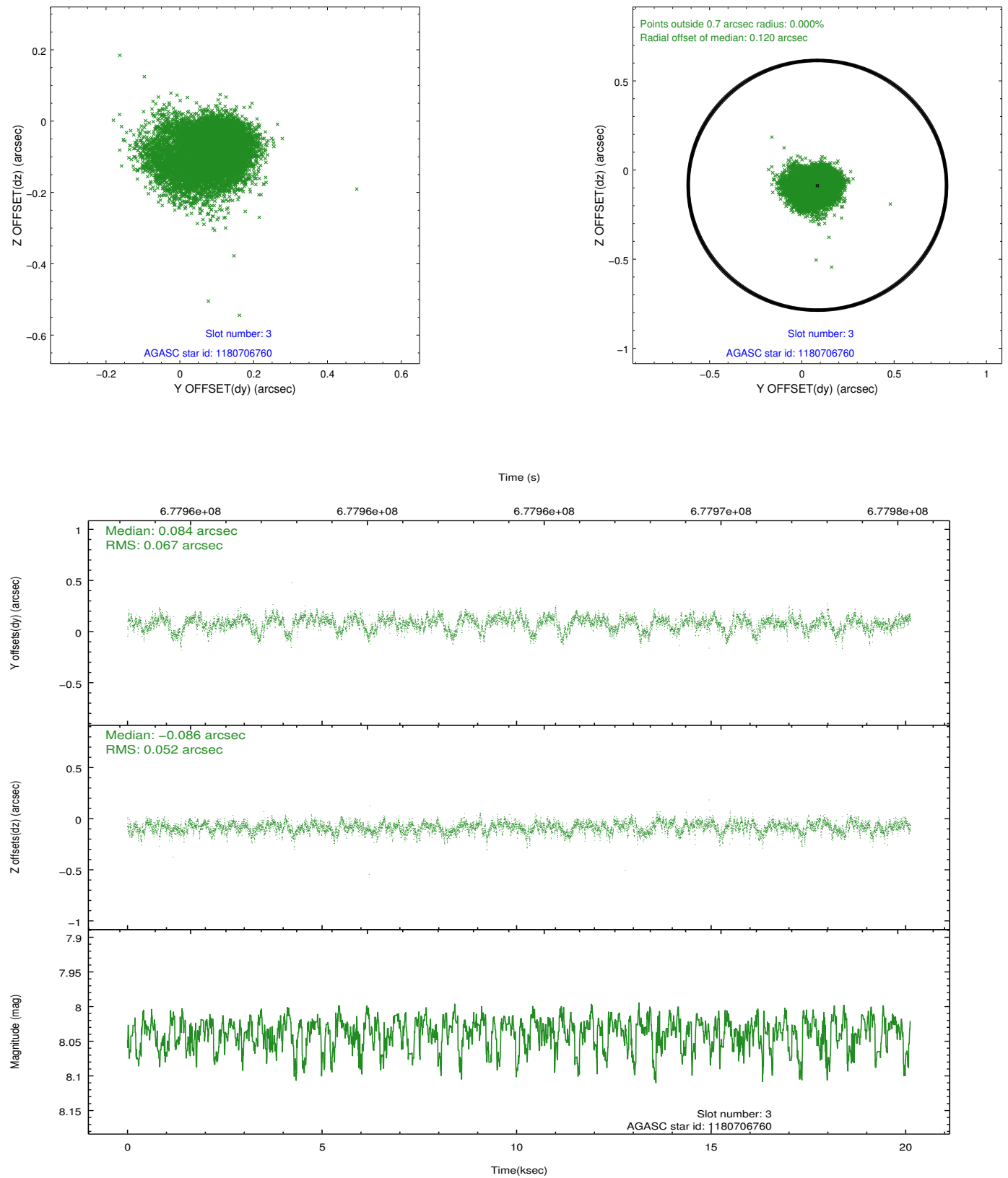


Slot Statistics

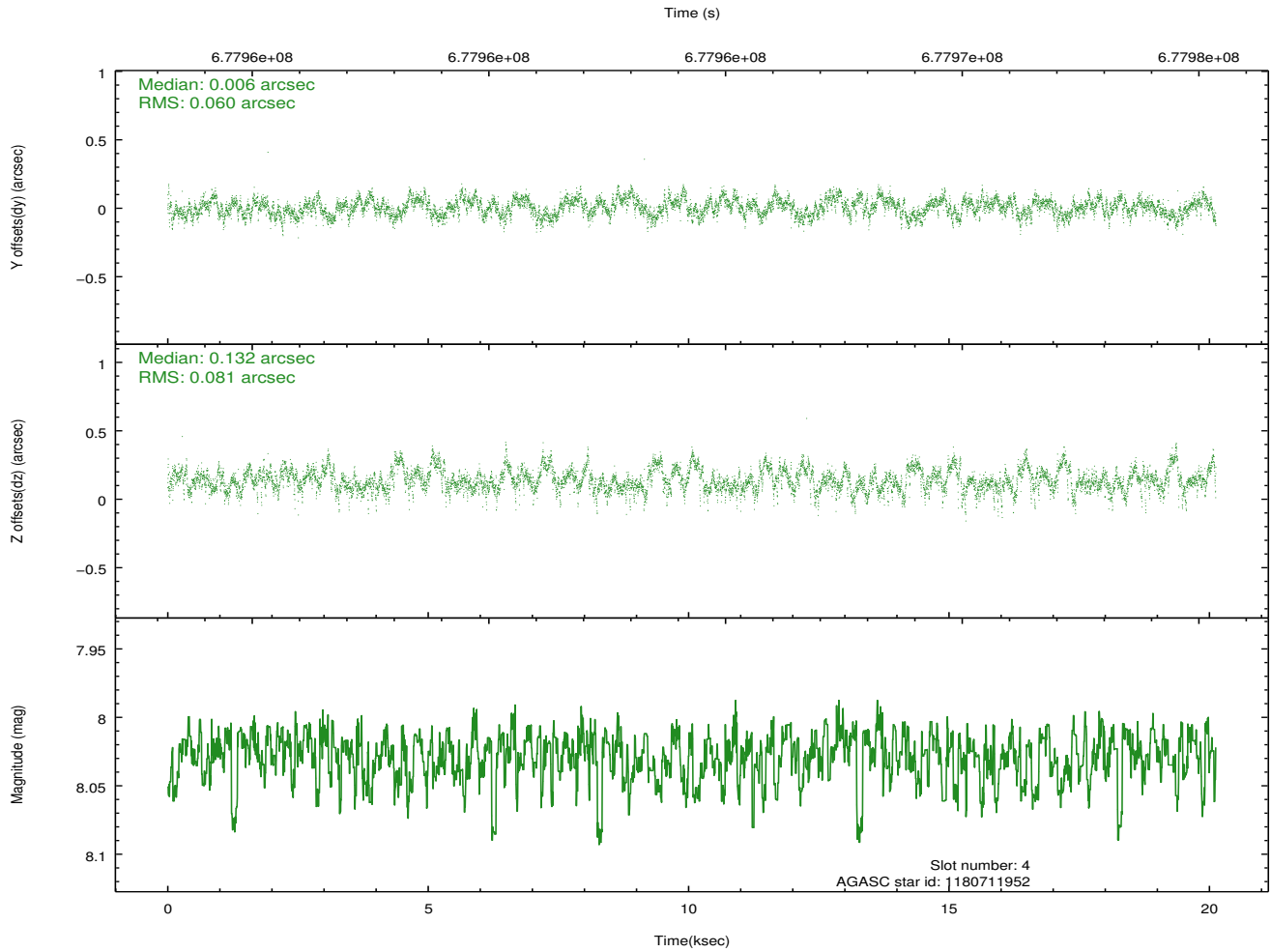
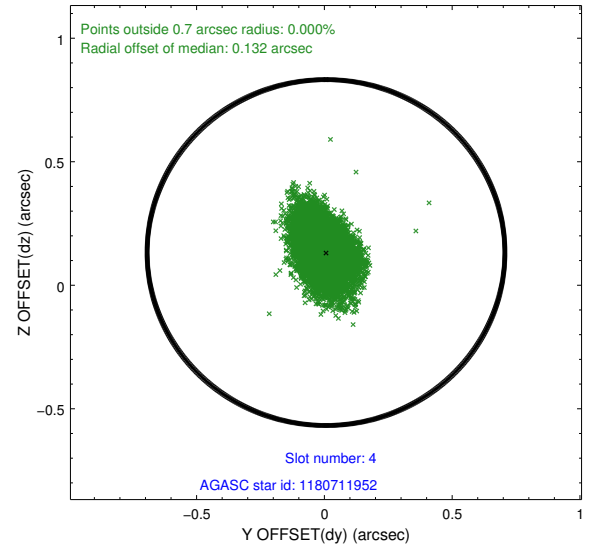
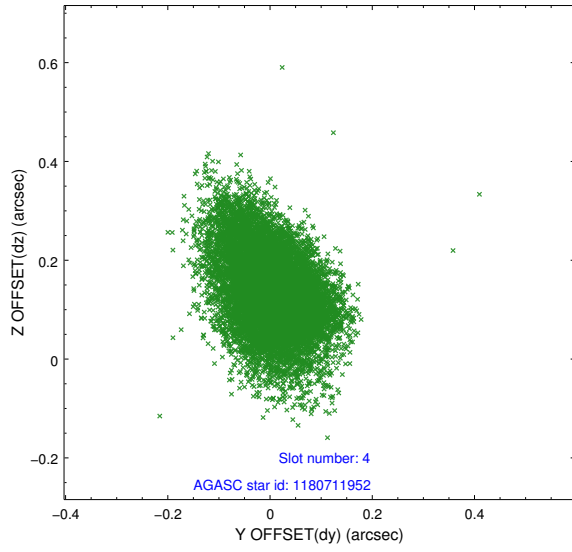
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.96	4909	1.000	-0.271	-0.193	0.033	0.093	0.000000	0.000000	-764.79	-1739
1	FID		ACIS-S-3	7.23	4909	1.000	-0.203	-0.154	0.027	0.040	0.000000	0.000000	48.31	-1868
2	FID		ACIS-S-4	7.08	4909	1.000	0.441	0.356	0.027	0.078	0.000000	0.000000	2149.42	169
3	GUIDE	used	1180706760	8.04	9816	1.000	0.084	-0.086	0.088	0.151	207.130891	-63.143939	-368.59	232
4	GUIDE	used	1180711952	8.03	9813	1.000	0.006	0.132	0.105	0.180	208.267354	-62.888019	-978.74	2213
5	GUIDE	used	1180717040	7.84	9815	1.000	-0.117	-0.162	0.127	0.196	208.136771	-63.356115	646.43	1719
6	GUIDE	used	1180731320	8.71	9813	1.000	0.132	-0.043	0.106	0.174	206.551030	-63.663652	1343.52	-968
7	GUIDE	used	1180723336	8.22	9815	1.000	-0.086	0.154	0.102	0.177	208.235059	-62.720623	-1581.39	2263

2.4 Star Slots

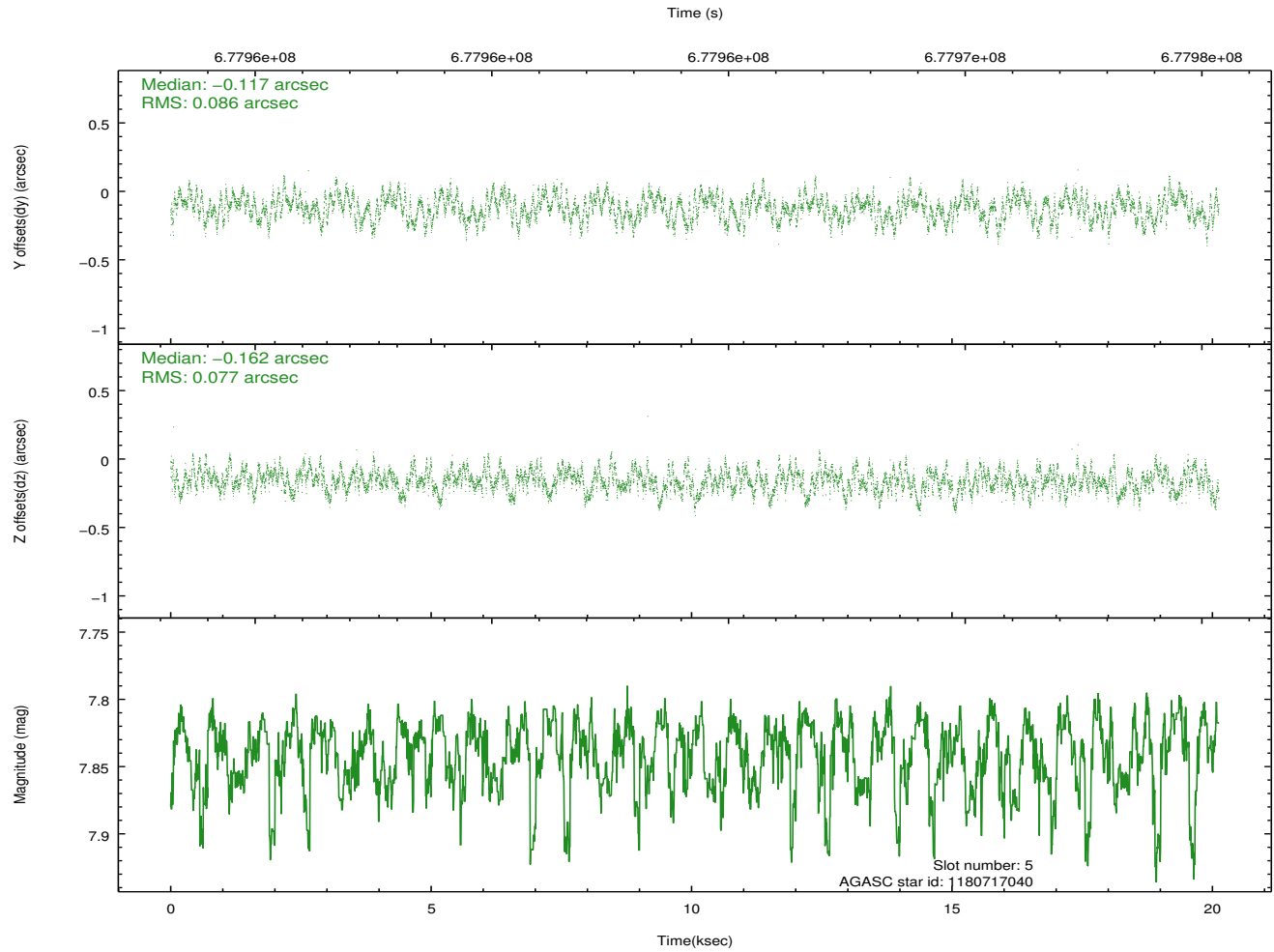
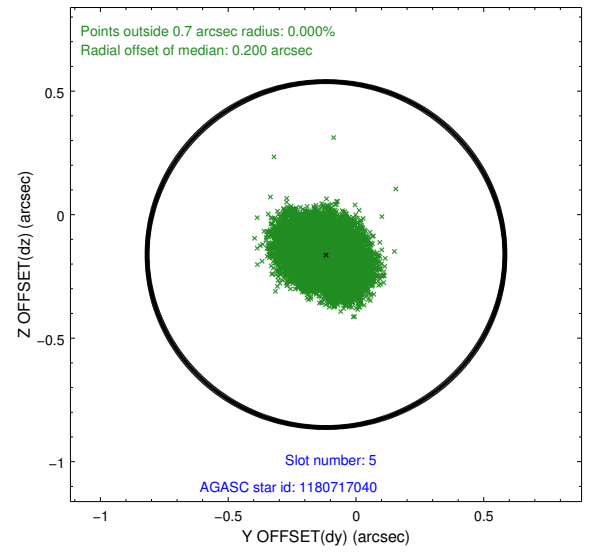
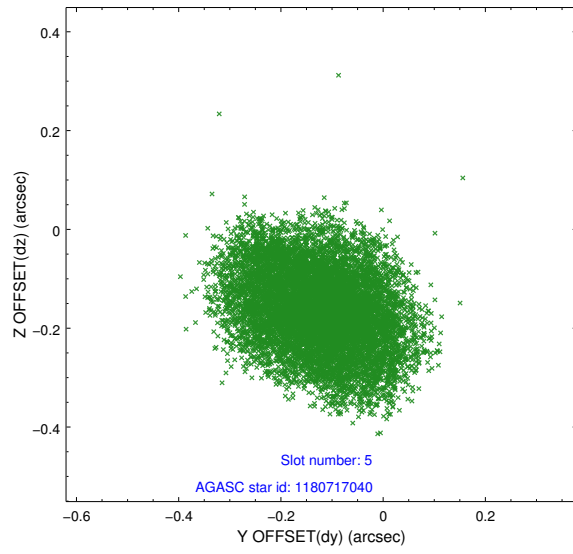
2.4.1 Slot 3



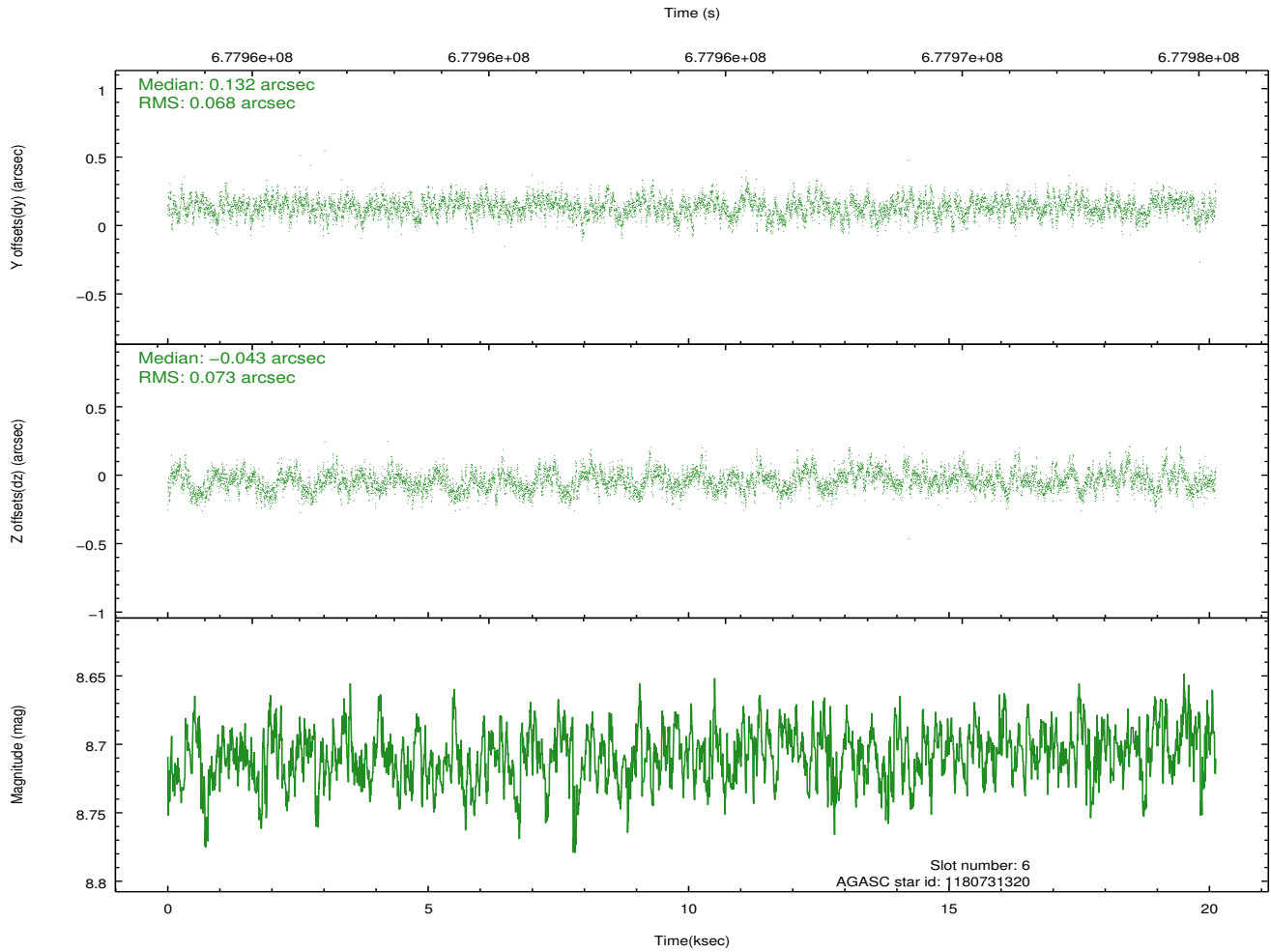
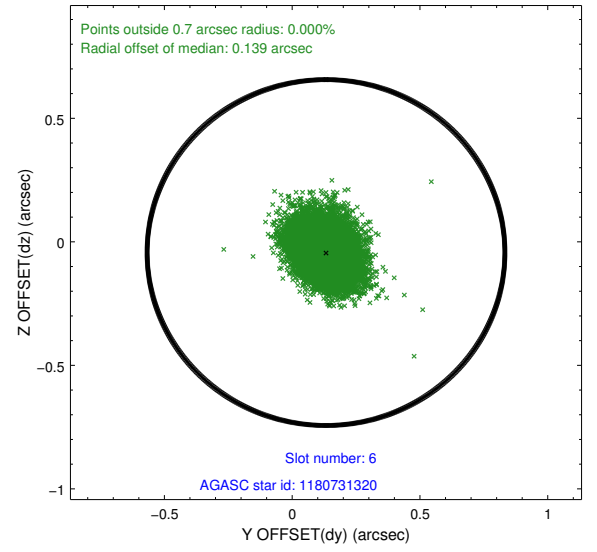
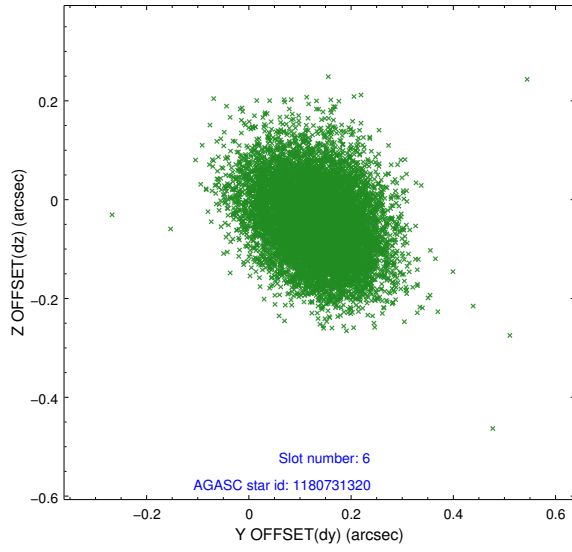
2.4.2 Slot 4



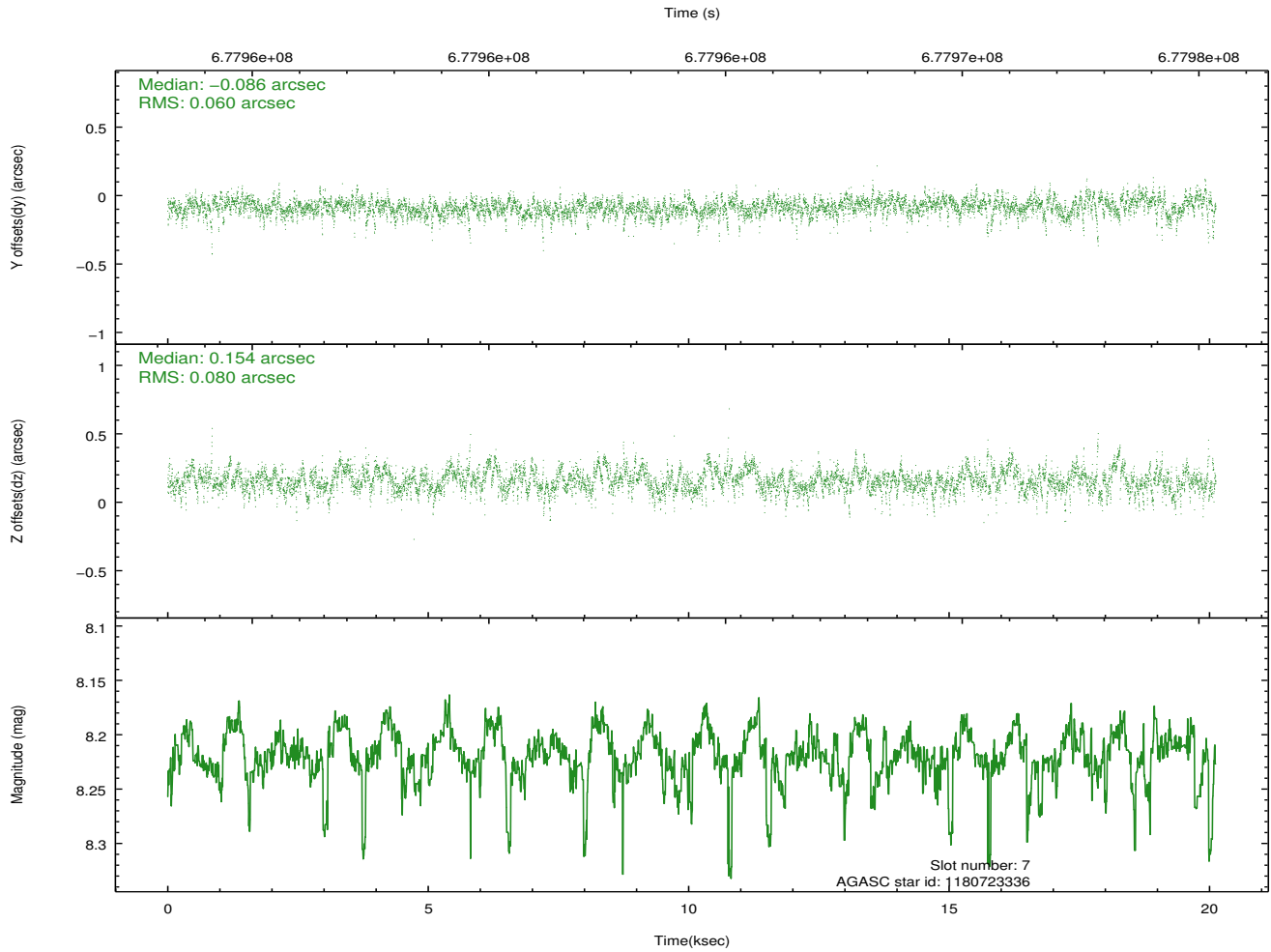
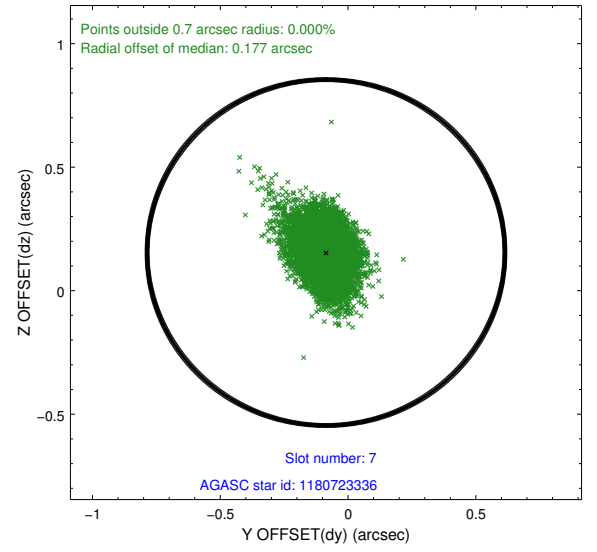
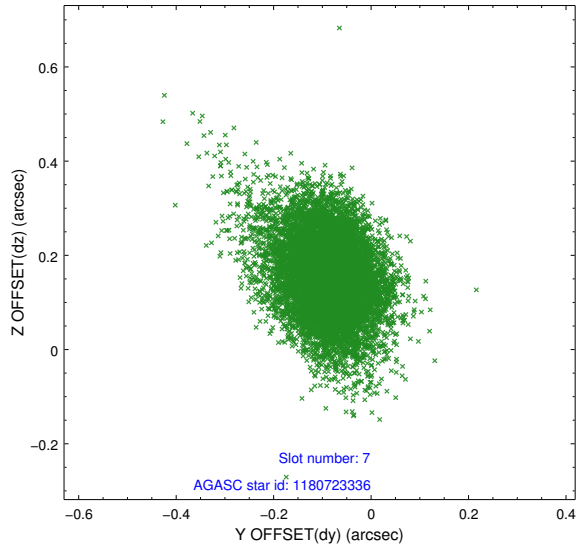
2.4.3 Slot 5



2.4.4 Slot 6

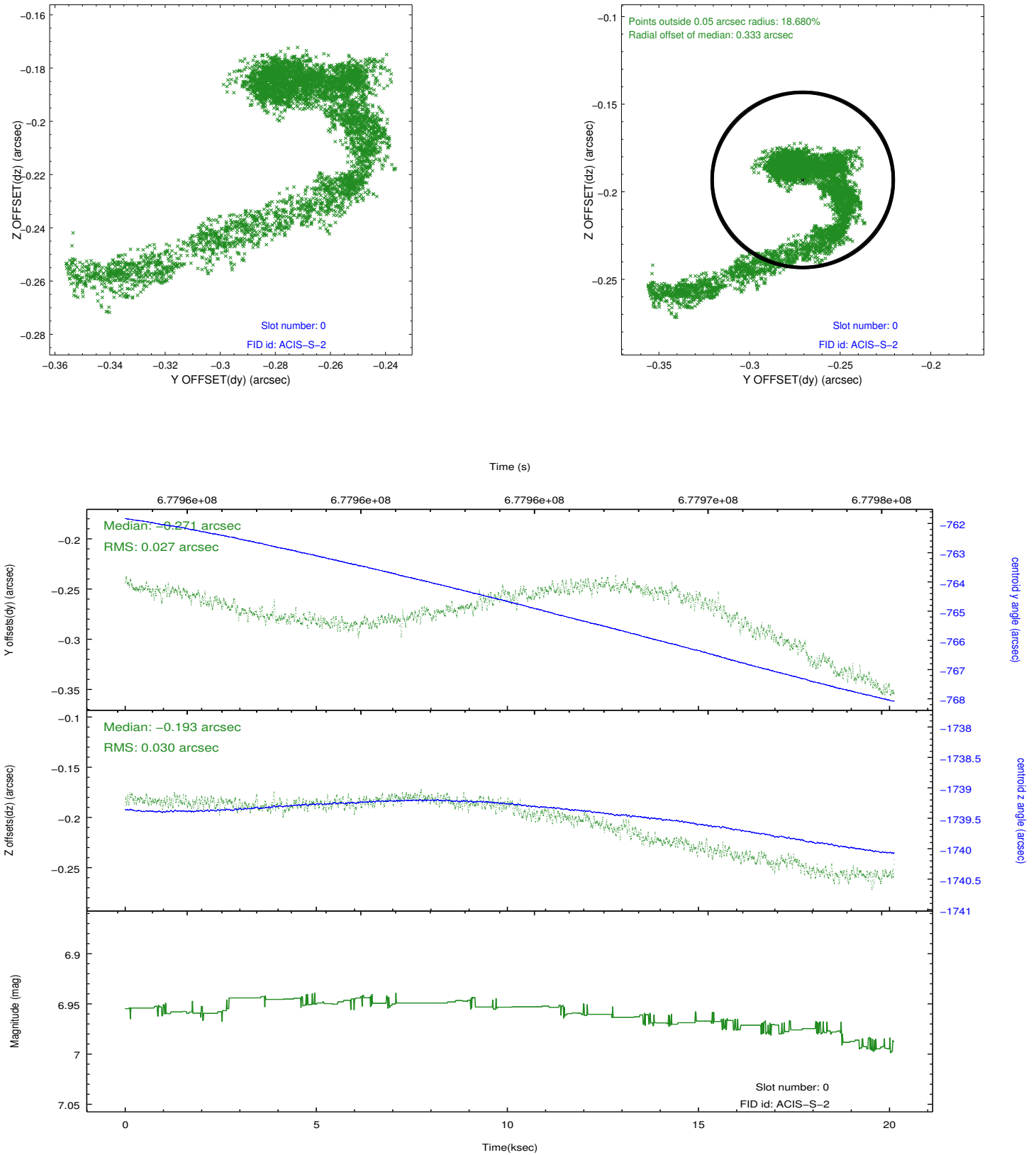


2.4.5 Slot 7

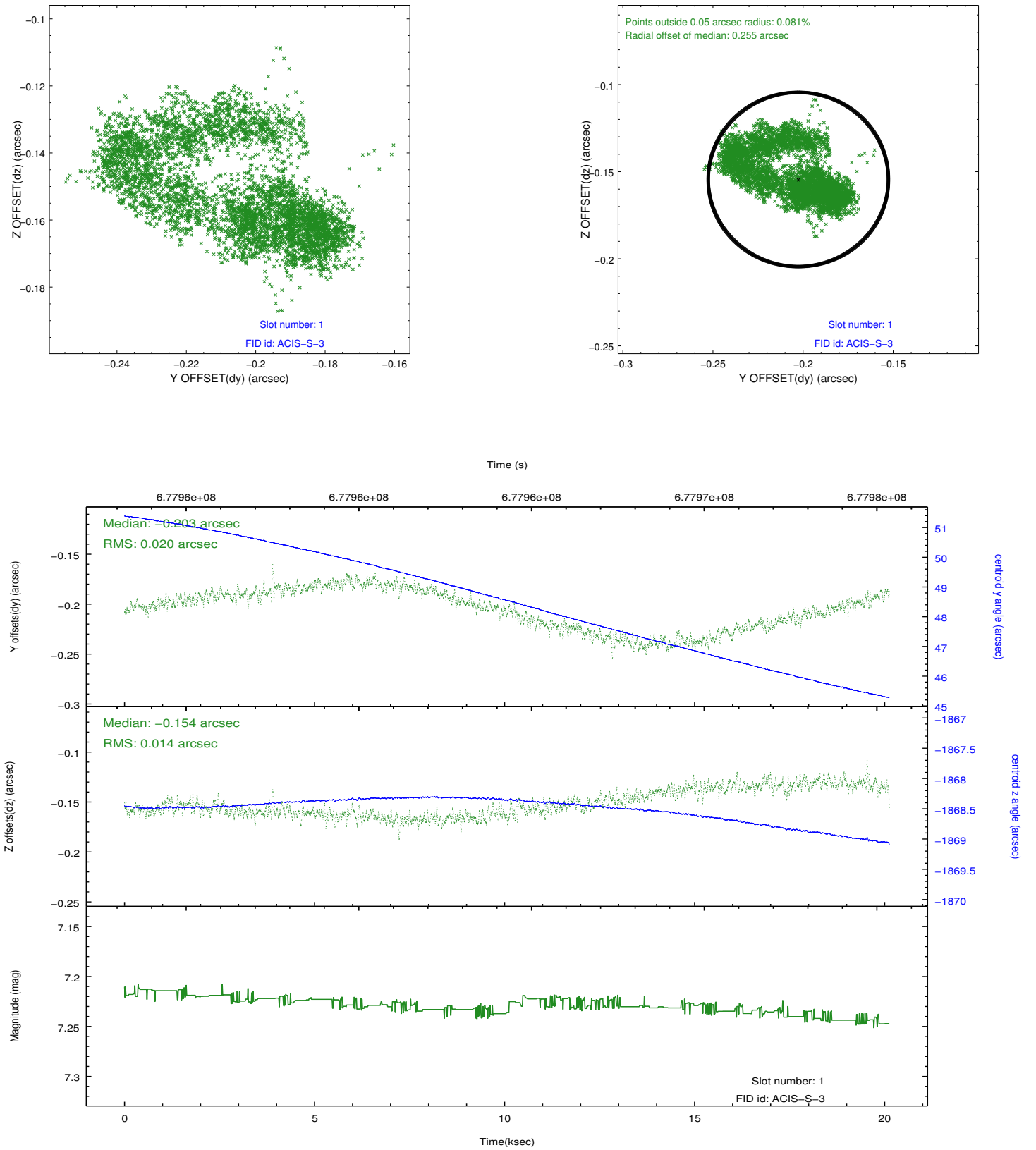


2.5 FID Slots

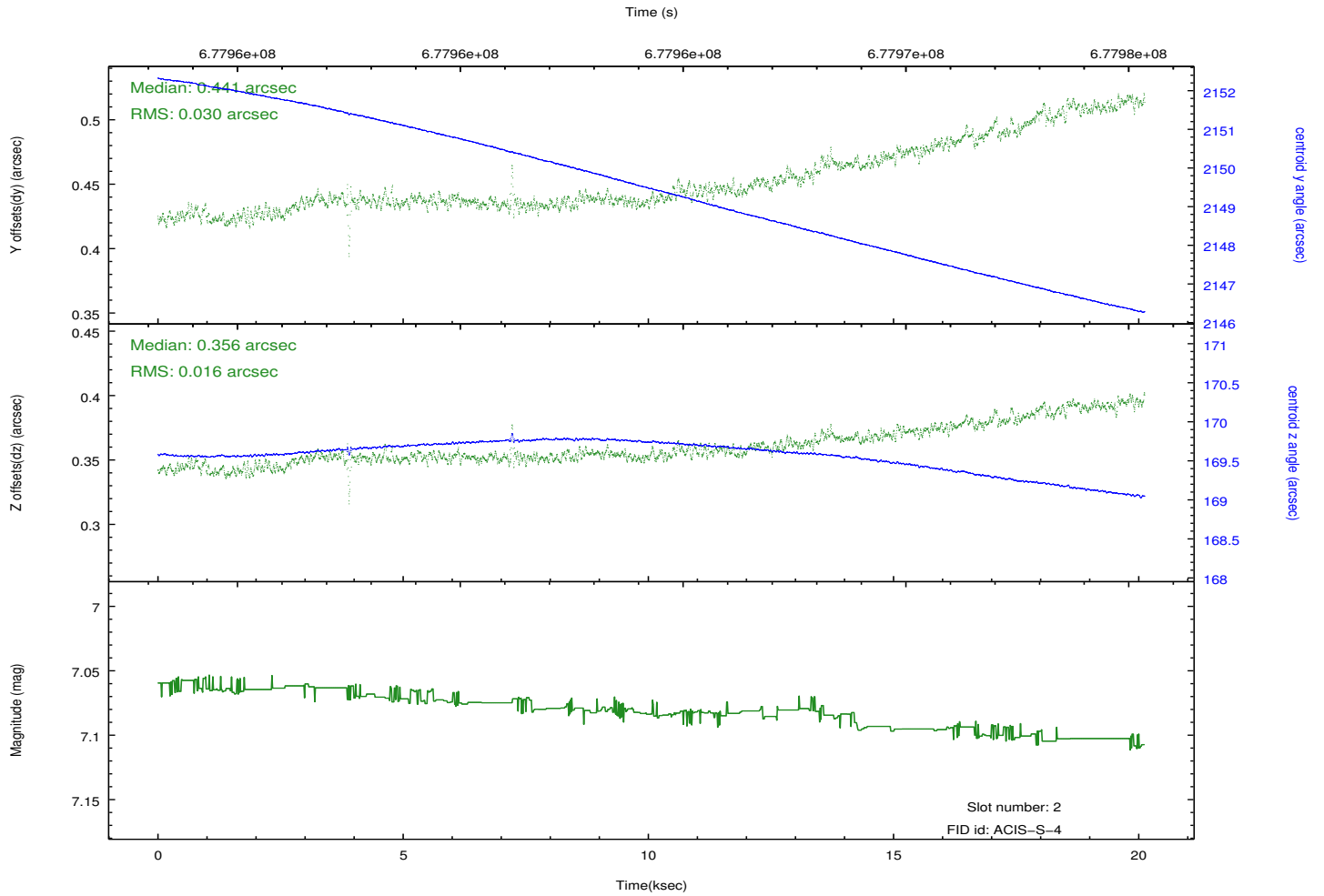
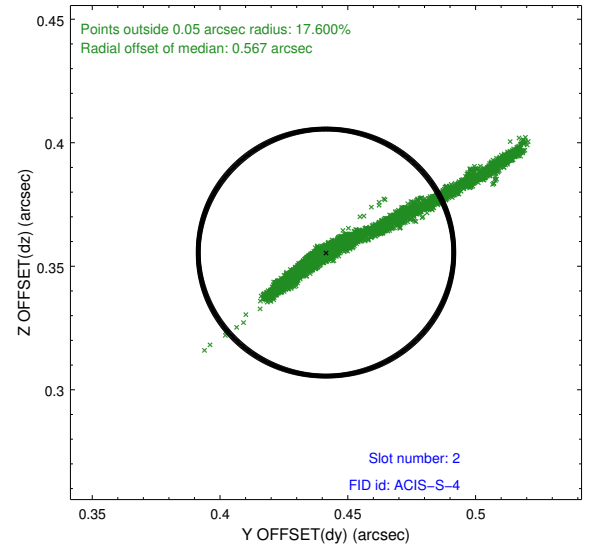
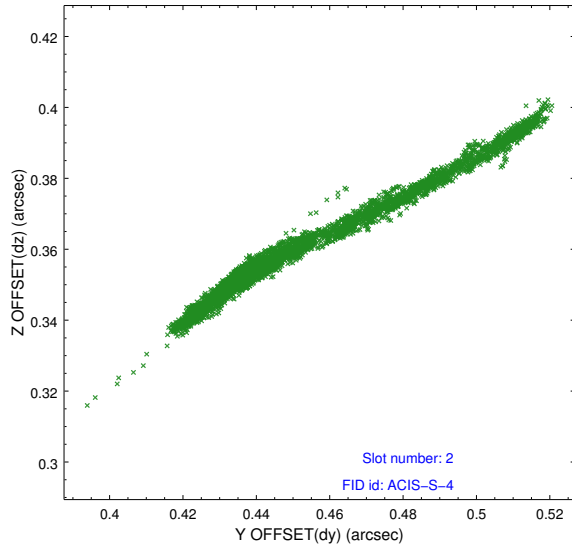
2.5.1 Slot 0



2.5.2 Slot 1

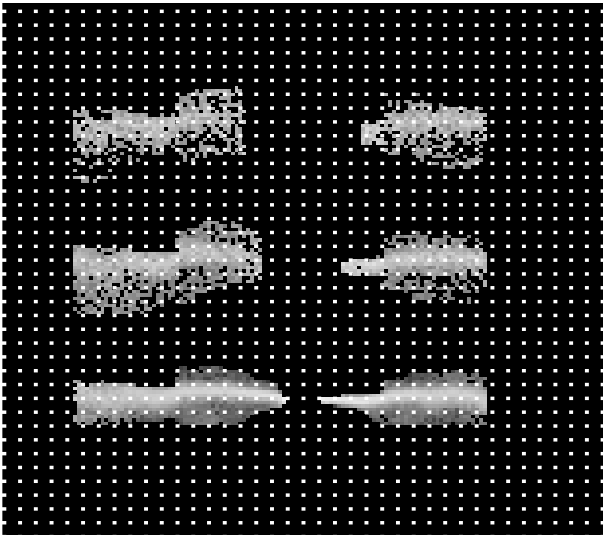


2.5.3 Slot 2

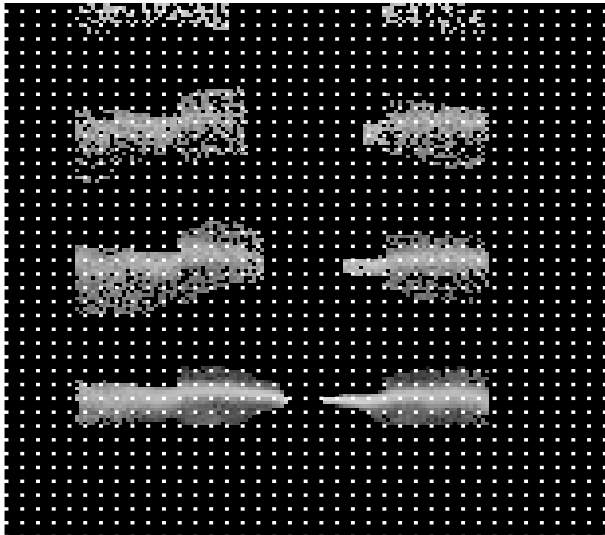


3 Gratings

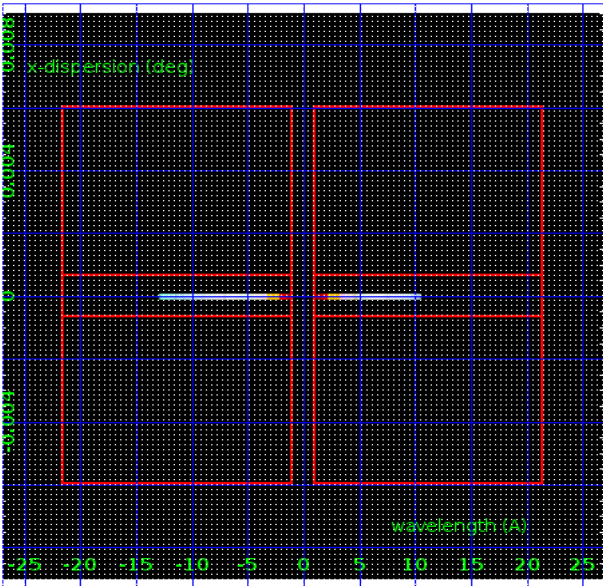
3.1 HEG Arm



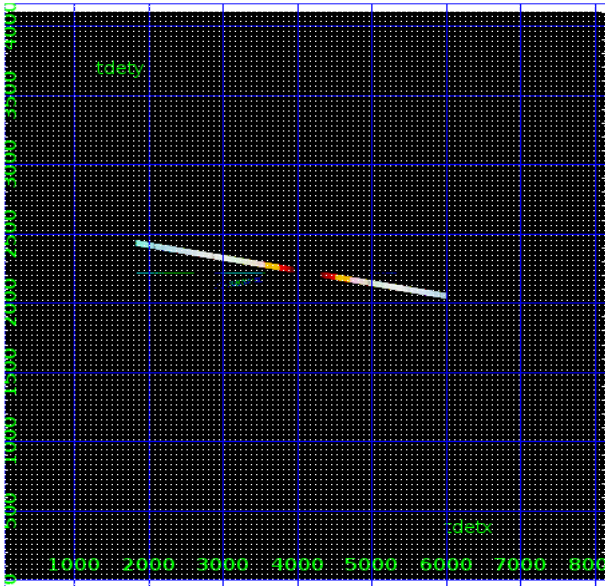
HEG Order Sort 123



HEG Order Sort ALL

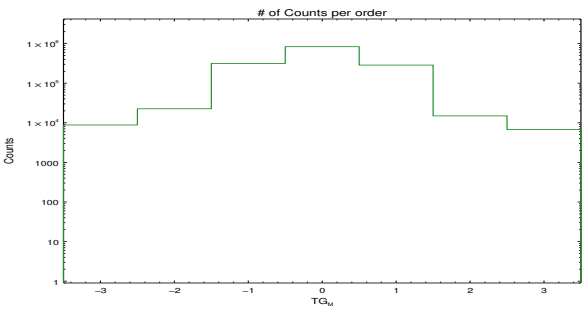


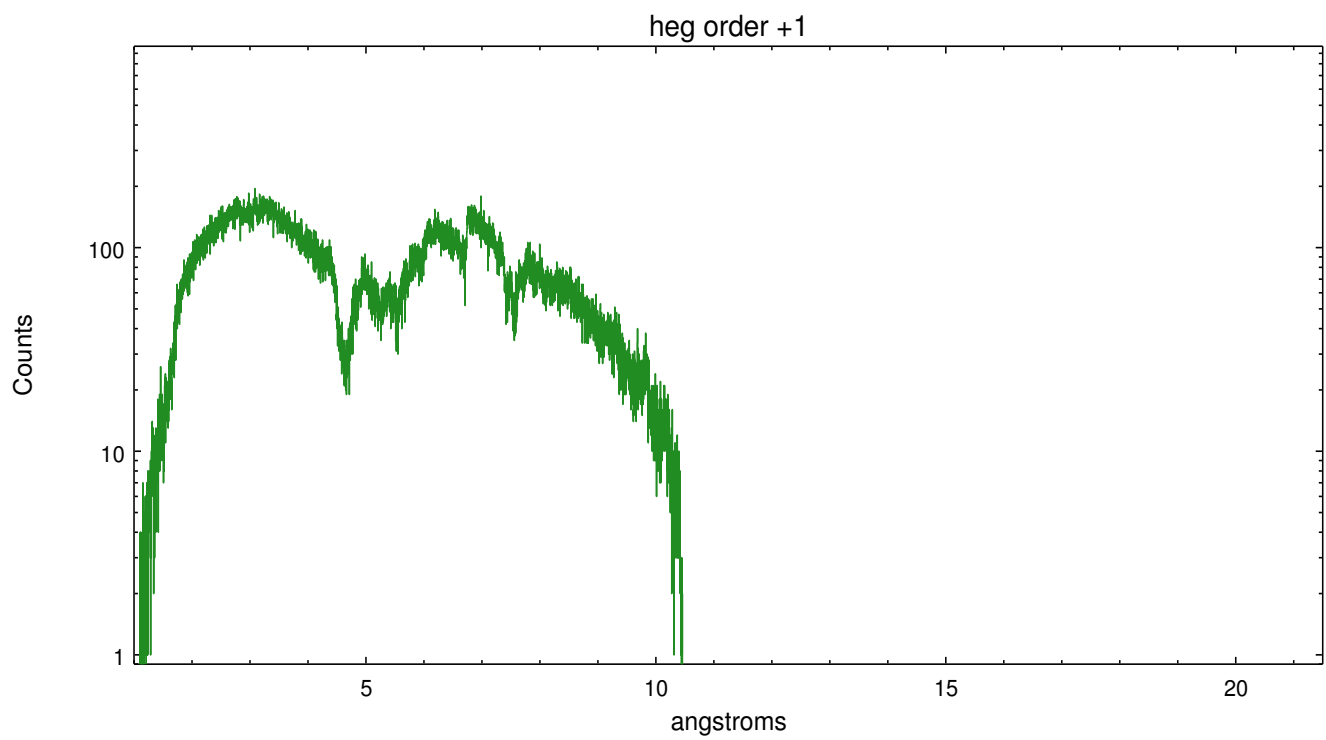
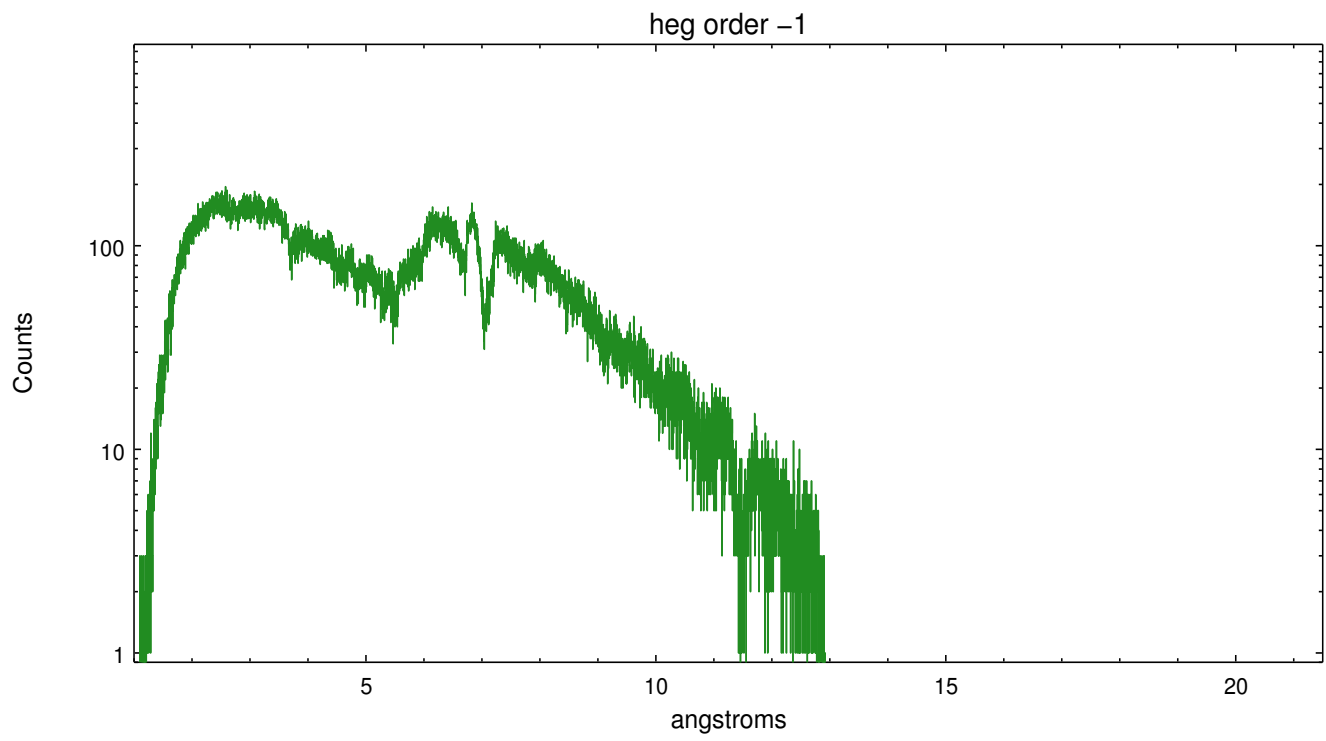
Spot Image HEG



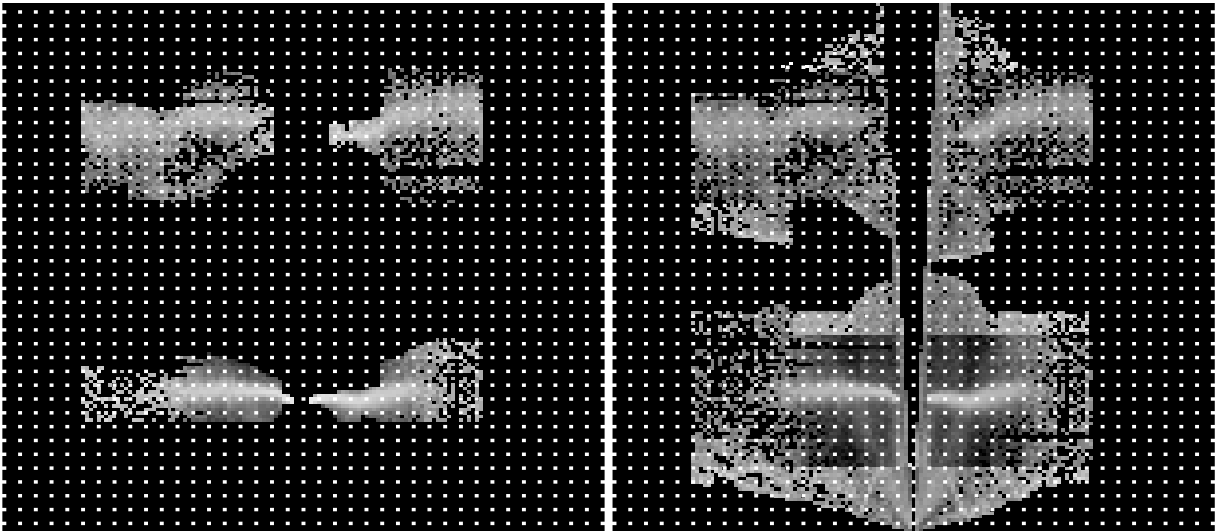
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	8809	22622	315246	836488	286649	14943	6773



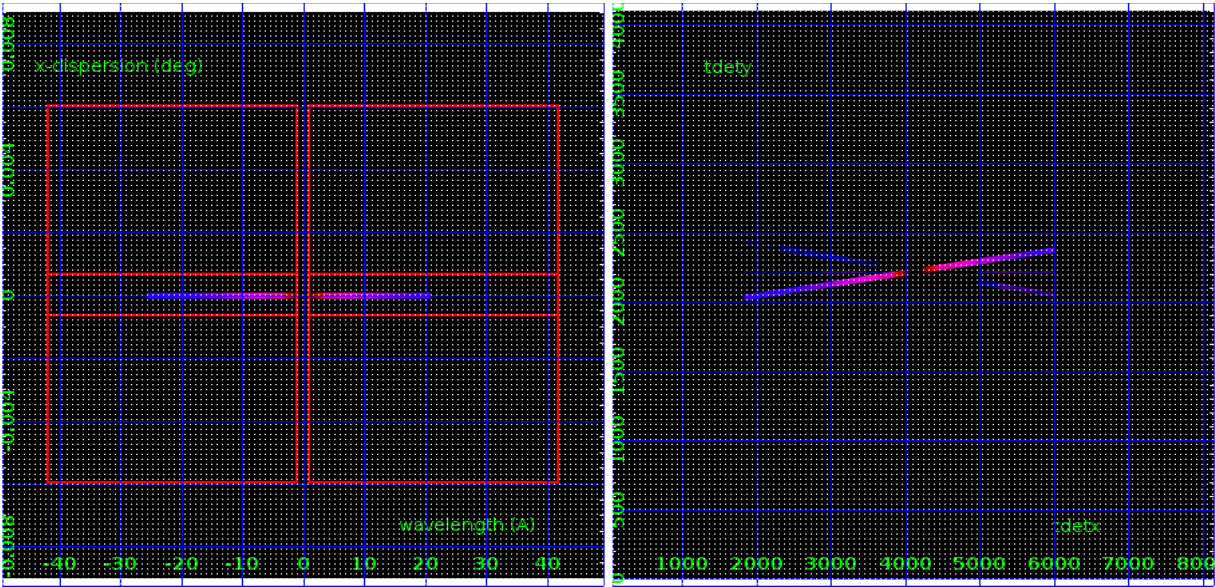


3.2 MEG Arm



MEG Order Sort 123

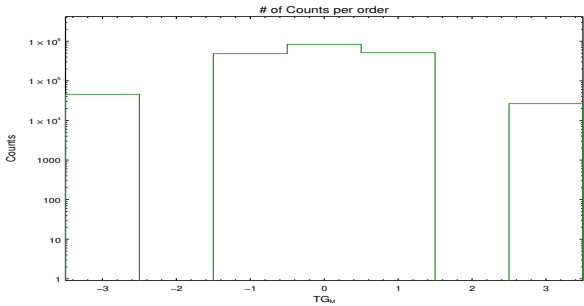
MEG Order Sort ALL

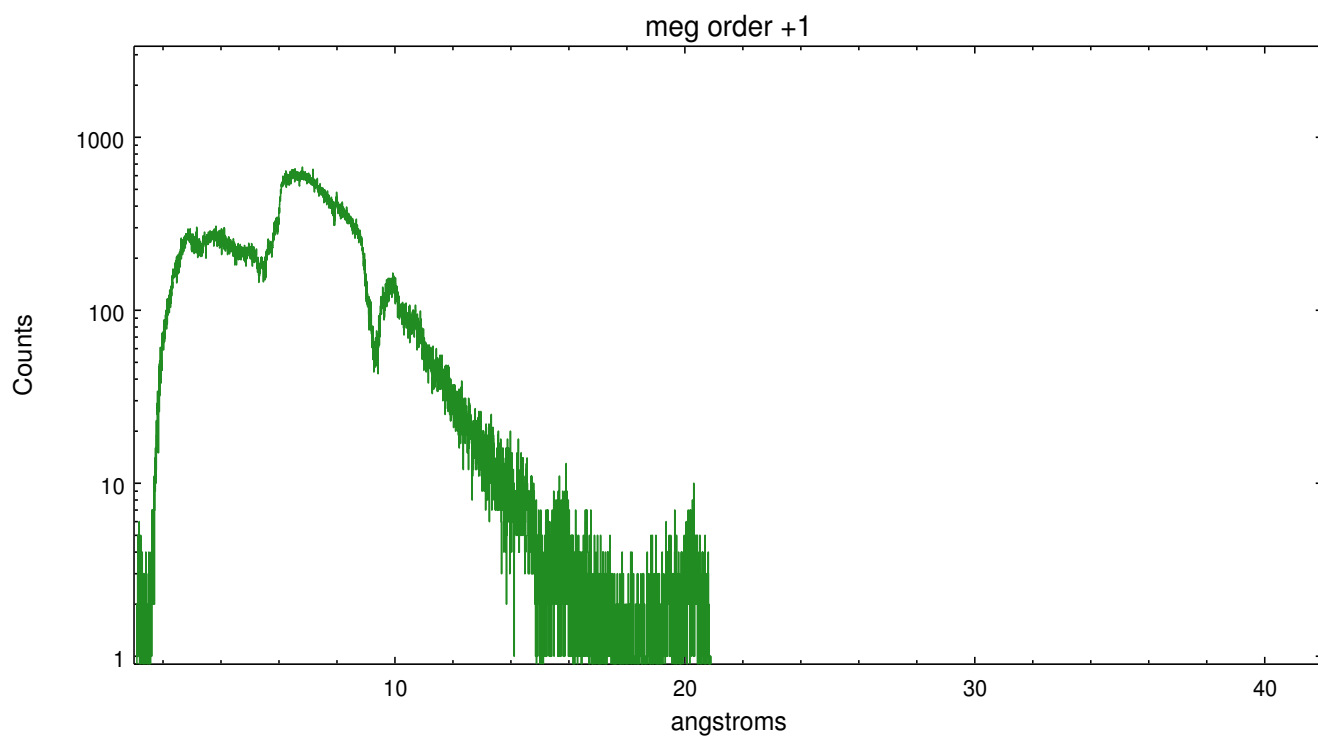
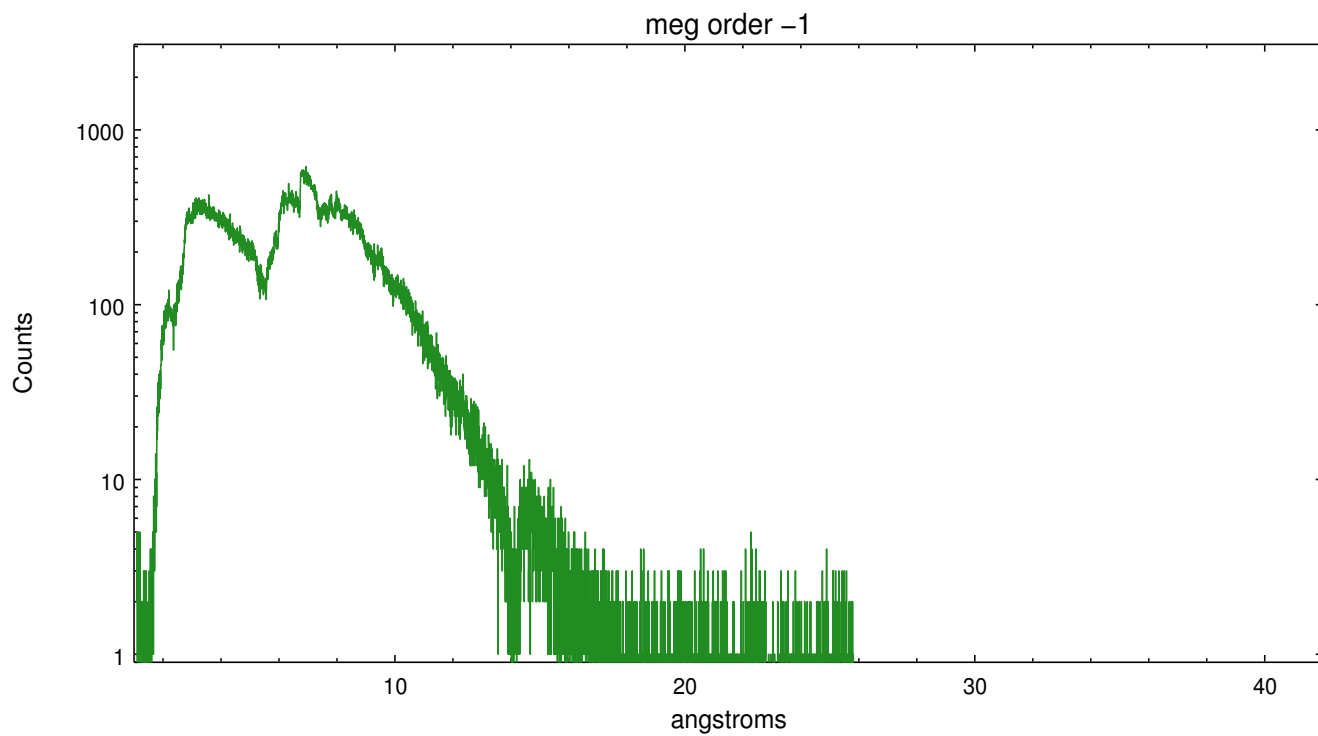


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	45727	0	484442	836488	512554	0	26515





A Summary

A.1 Status

V&V Scientist	David Principe
V&V Date (YYYY-MM-DD)	2019.06.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.11875

A.2 Comments

For ACIS/CC-mode w/ HETG, and with no SIM-Z offset, there are no MEG even order counts. MEG even orders overlap with HEG orders in energy, but MEG even order efficiencies are very low. Since HEG and MEG cannot be spatially separated, events are preferentially assigned to HEG. (MEG odd orders can be resolved.) For observations with a SIM-Z offset, MEG negative and MEG positive orders will be missing (off the array), and remove some of the ambiguity.