

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22185 - L2 Version 1
Chandra X-Ray Center

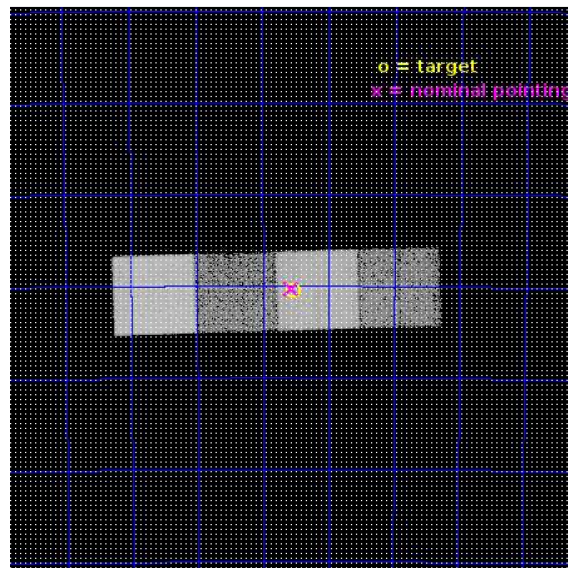
L2 Processing Date : May 3 2019

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1 Front

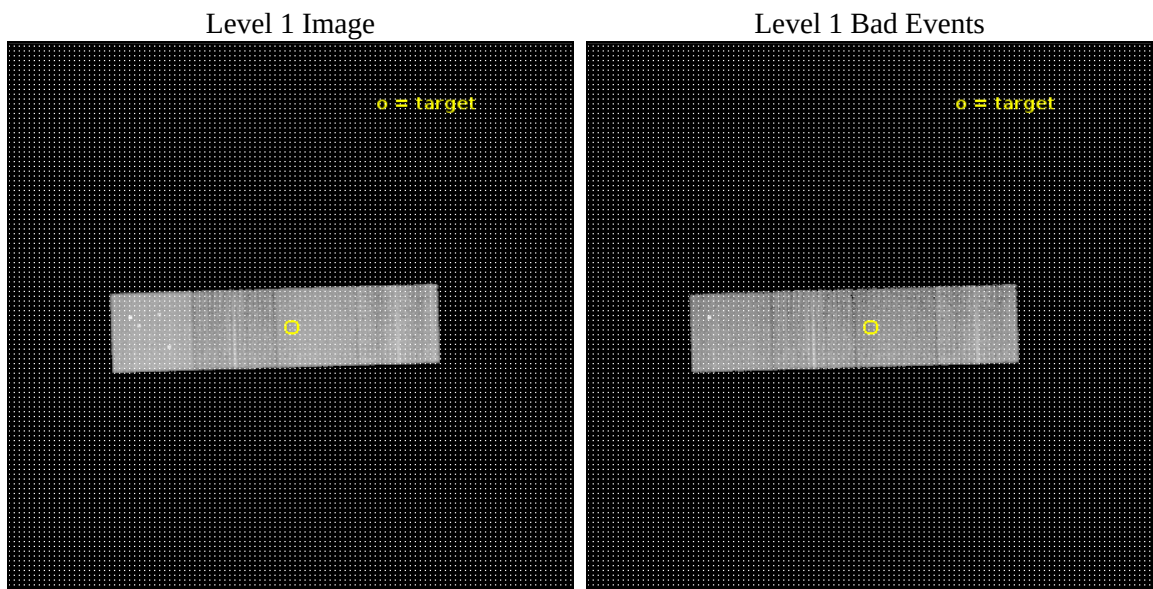
seq_num	201265	Sequence number
obs_id	22185	Observation id
title	The Origin and Impact of Flares in the Proxima Centauri Planetary System	Proposal title
observer	Meredith MacGregor	Principal investigator
object	Proxima Centauri	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	217.3847	Observer's specified target RA [deg]
dec_targ	-62.67535	Observer's specified target Dec [deg]
ra_nom	217.39066634978	Nominal RA [deg]
dec_nom	-62.671578094651	Nominal Dec [deg]
roll_nom	358.16196147828	Nominal Roll [deg]
revision	1	Processing version of data
ontime	13062.752246618	Sum of GTIs [s]
livetime	12892.077771858	Livetime [s]
ontime5	13062.711206675	Sum of GTIs [s]
ontime6	13062.670166612	Sum of GTIs [s]
ontime7	13062.752246618	Sum of GTIs [s]
ontime8	13062.629126668	Sum of GTIs [s]
l2events	148840	Number of level 2 events



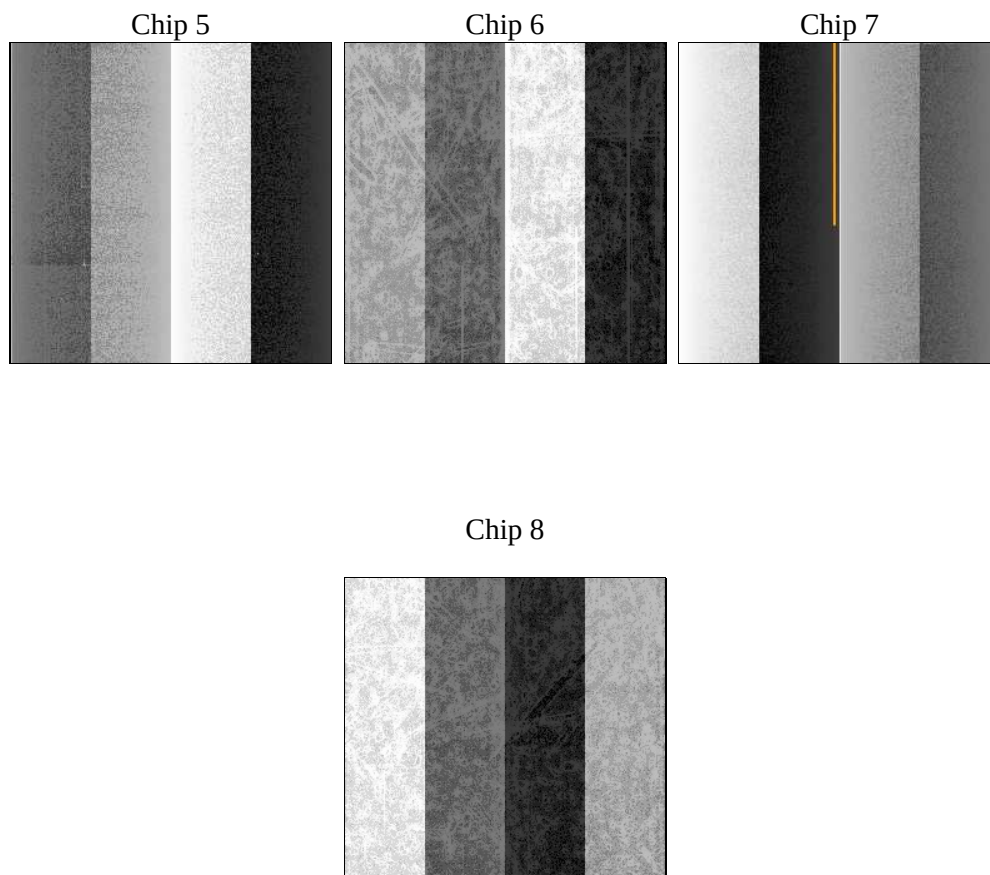
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	13000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	13062.752246618	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	13062.711206675	Sum of GTIs [s]
date	2019-05-03T14:12:01	Date and time of file creation	ontime6	13062.670166612	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	13062.752246618	Sum of GTIs [s]
			ontime8	13062.629126668	Sum of GTIs [s]
			l1events	519018	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4115.85, 4068.41)	src1a sky pixel position

2.1.4 Events

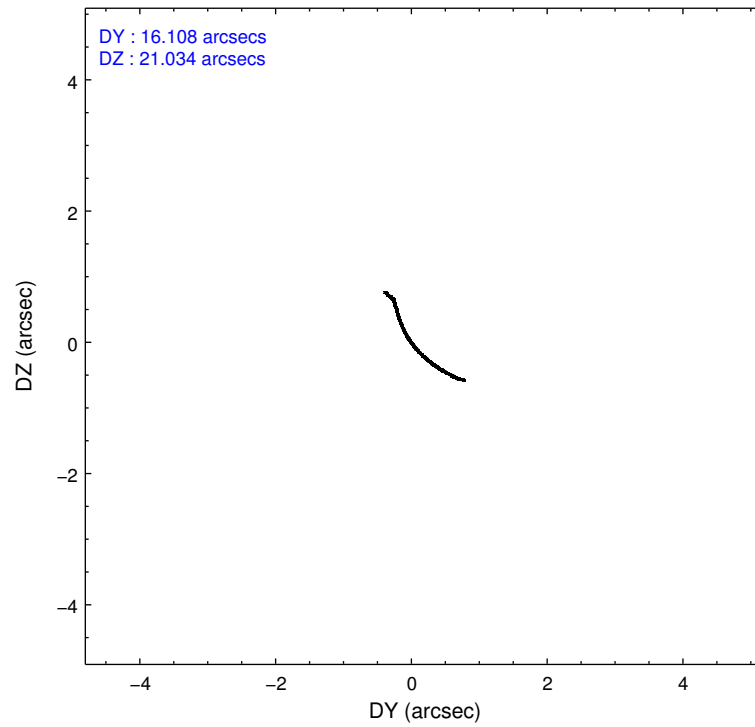
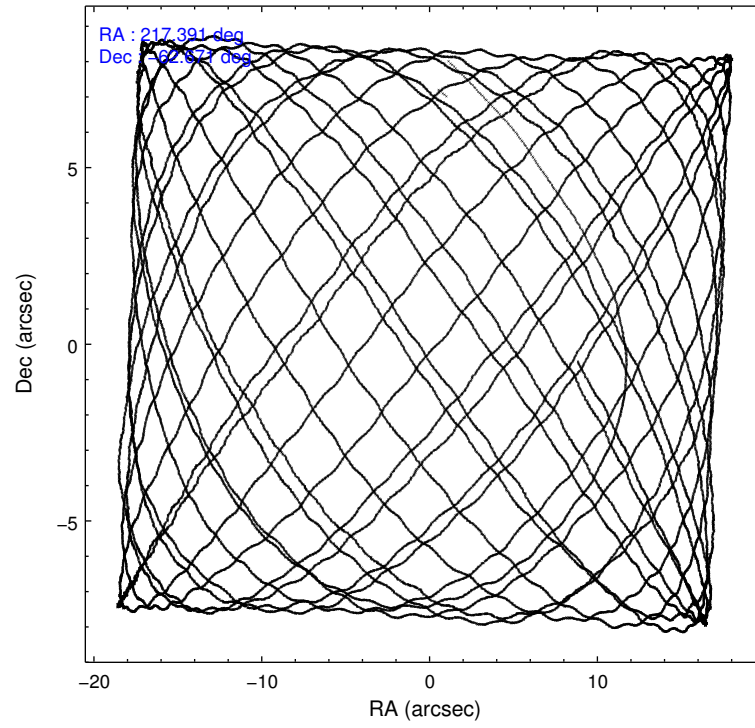
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	164724	97634	126464	130196
rejected events	84973	86154	71233	93344
rejected %	51%	88%	56%	71%

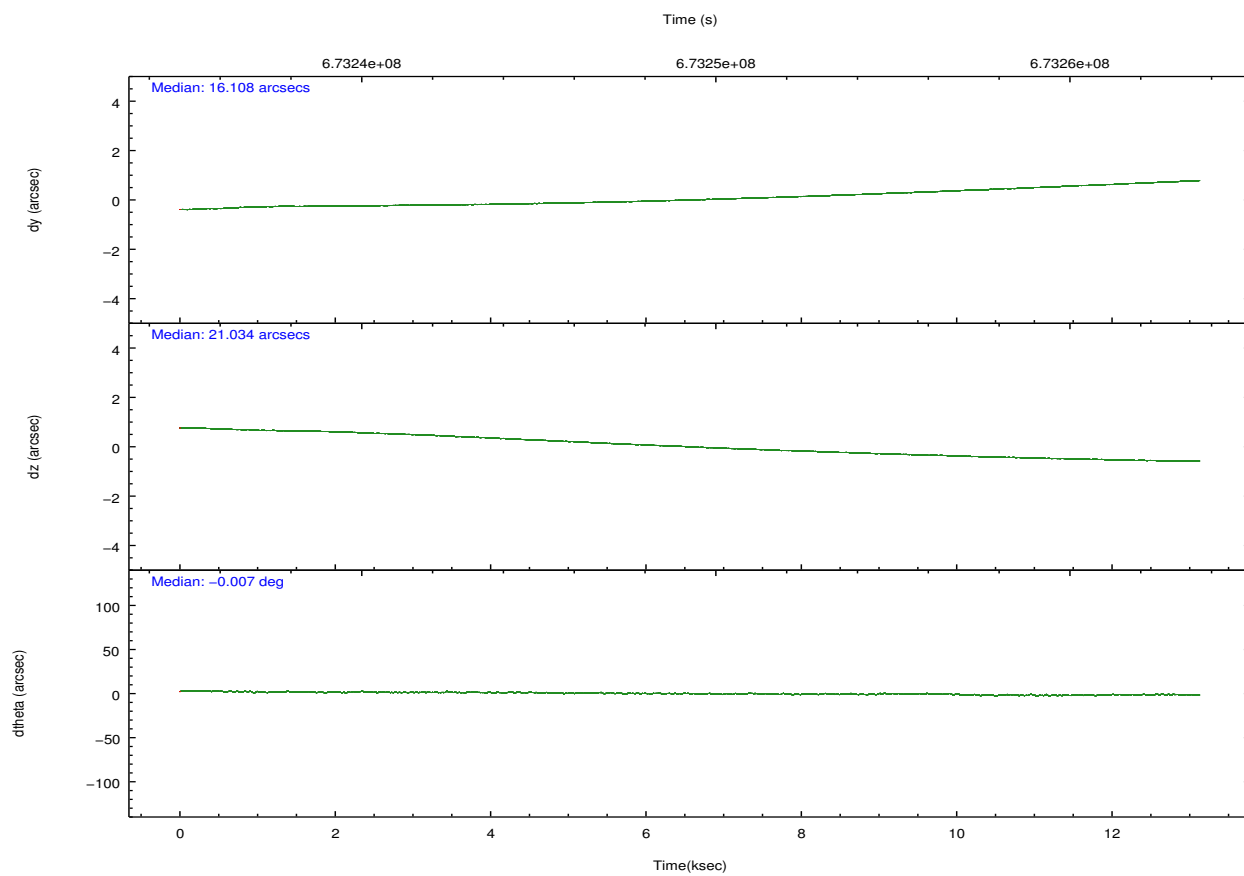
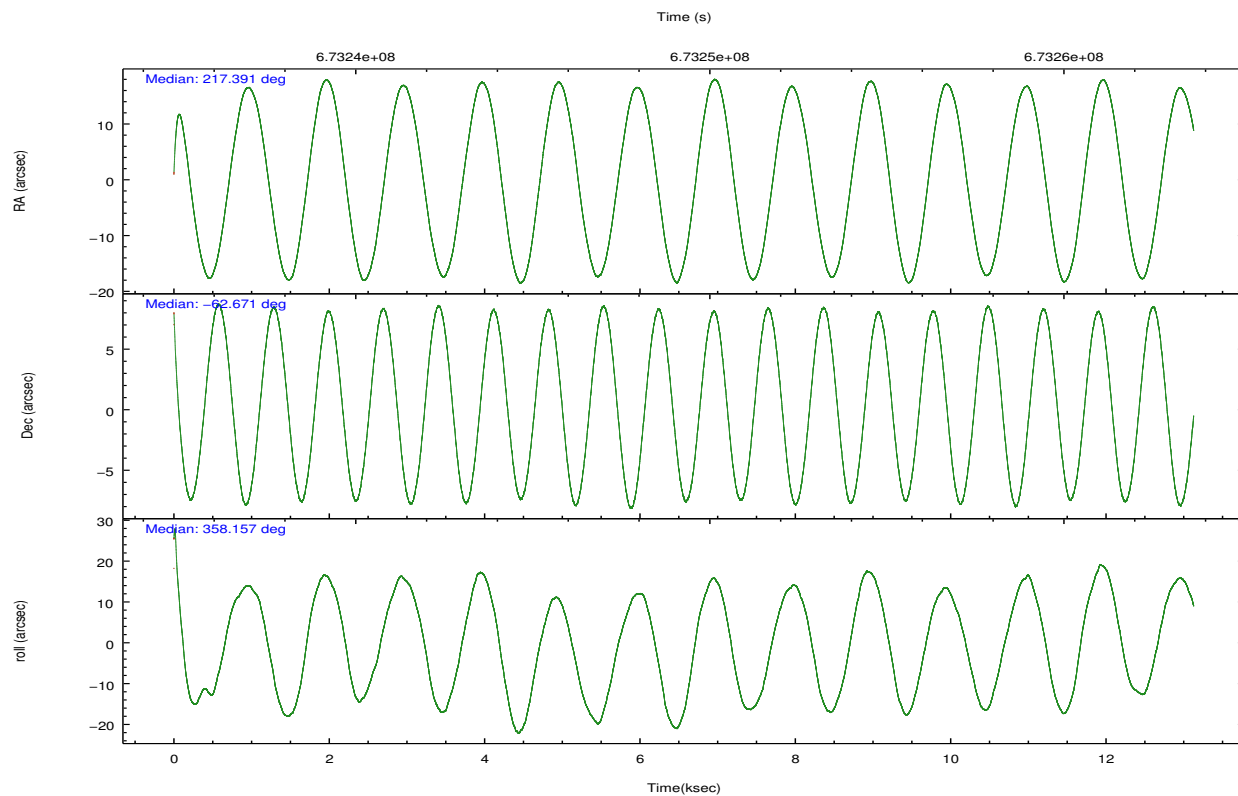
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	8348	3694	4620	10512
	5%	3%	3%	8%
grade 1 events	355	48	197	114
	0%	0%	0%	0%
grade 2 events	25059	2708	11896	9066
	15%	2%	9%	6%
grade 3 events	2304	1174	4316	3695
	1%	1%	3%	2%
grade 4 events	2197	1105	4341	3516
	1%	1%	3%	2%
grade 5 events	11345	4596	12537	7252
	6%	4%	9%	5%
grade 6 events	41860	2801	30074	10085
	25%	2%	23%	7%
grade 7 events	73256	81508	58483	85956
	44%	83%	46%	66%

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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	217.338291	217.3906663497826	CCD I2 on	N	N
[deg] Pointing Dec	-62.684808	-62.67157809465105	CCD I3 on	N	N
[deg] Pointing Roll	357.958766	358.1619614782776	CCD S0 on	O1	N
[s] Window start time (MET)	672714069.184000	672714069.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	673693269.184000	673693269.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S5 on	O2	N
[mm] SIM translation stage offset	0	0.01005778216563158	Number of optional ACIS chips dropped	2	2
[s] Observation start time (MET)	673243187.184000	673241944.86815	On-chip summing requested	N	N
Observation start date	2019-05-03T03:58:38	2019-05-03T03:39:04	Subarray requested	NONE	NONE
[s] Observation end time (MET)	673256187.184000	673256929.34405	Alternating exposures requested	N	N
Observation end date	2019-05-03T07:35:18	2019-05-03T07:48:49	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



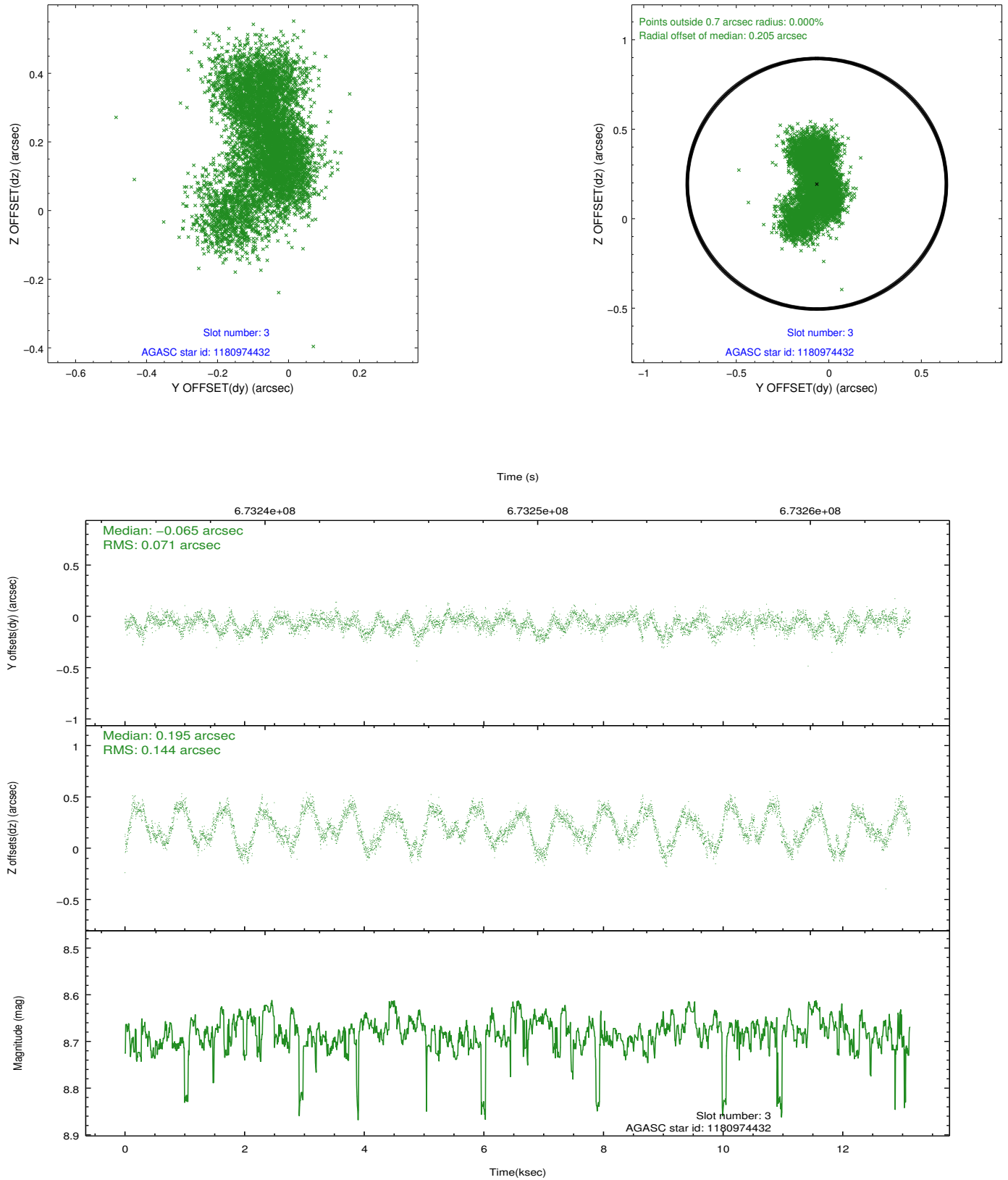


Slot Statistics

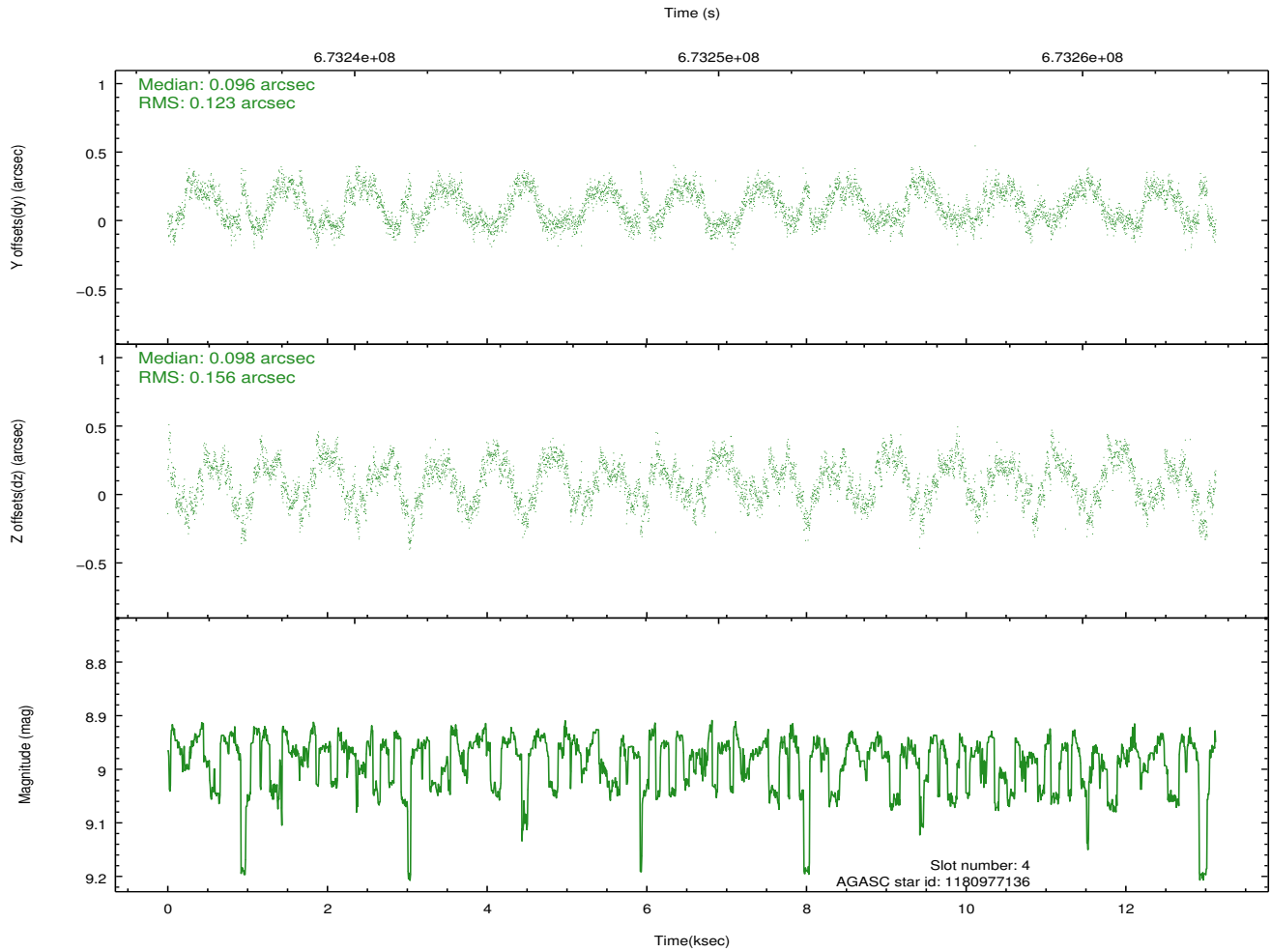
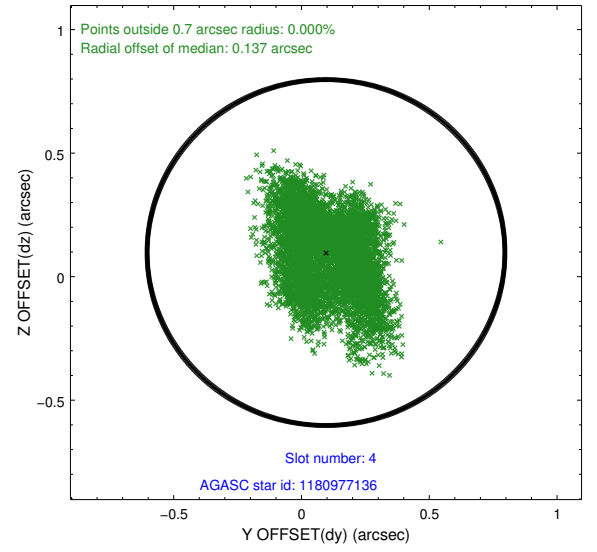
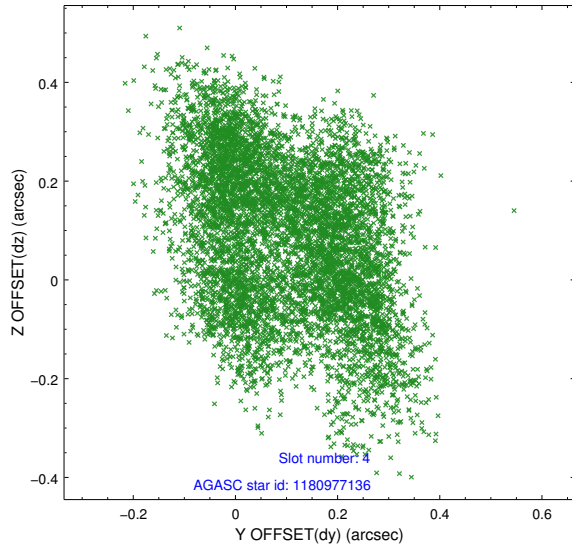
id	status	used	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-3	7.27	3203	1.000	-0.215	-0.239	0.021	0.029	0.000000	0.000000	43.88 -1871
1	FID		ACIS-S-4	7.16	3203	1.000	0.734	0.226	0.027	0.046	0.000000	0.000000	2144.90 165
2	FID		ACIS-S-5	7.12	3202	1.000	-0.550	0.024	0.012	0.021	0.000000	0.000000	-1822.12 159
3	GUIDE	used	1180974432	8.68	6400	1.000	-0.065	0.195	0.175	0.277	217.803607	-62.540366	753.66 543
4	GUIDE	used	1180977136	8.97	6399	1.000	0.096	0.098	0.210	0.334	217.148159	-62.209003	-379.78 1698
5	GUIDE	used	1180985824	8.75	6401	1.000	0.118	0.187	0.115	0.195	216.565550	-62.139830	-1368.88 1905
6	GUIDE	used	1180991936	7.76	6403	1.000	-0.021	-0.161	0.132	0.200	216.873169	-61.996737	-874.37 2442
7	GUIDE	used	1180992136	8.21	6398	1.000	-0.123	-0.308	0.103	0.162	217.334663	-62.071437	-84.97 2205

2.4 Star Slots

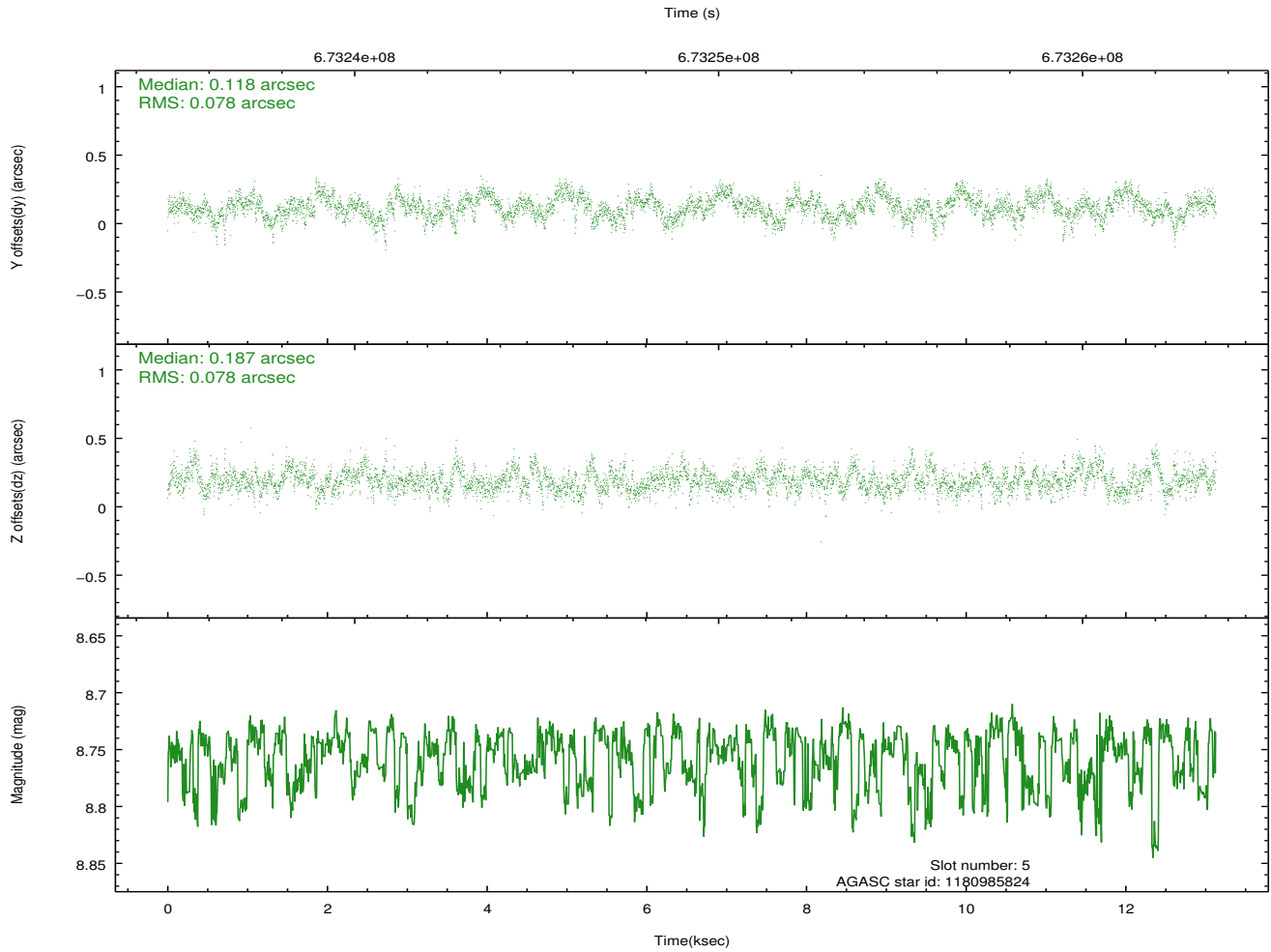
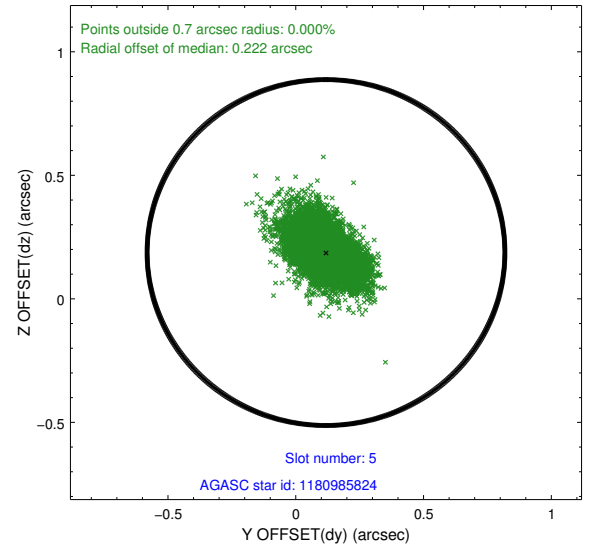
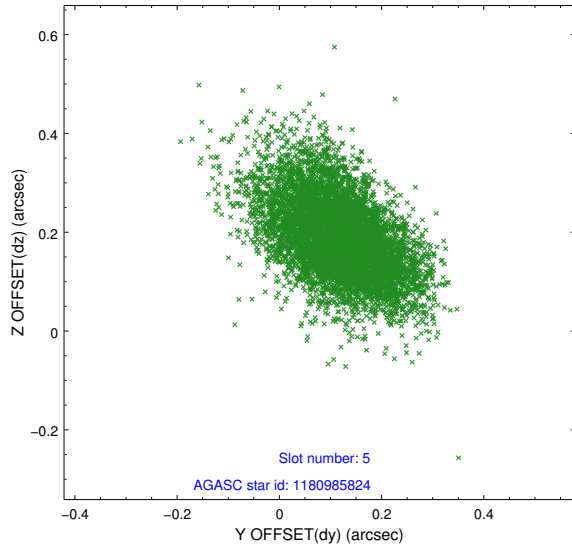
2.4.1 Slot 3



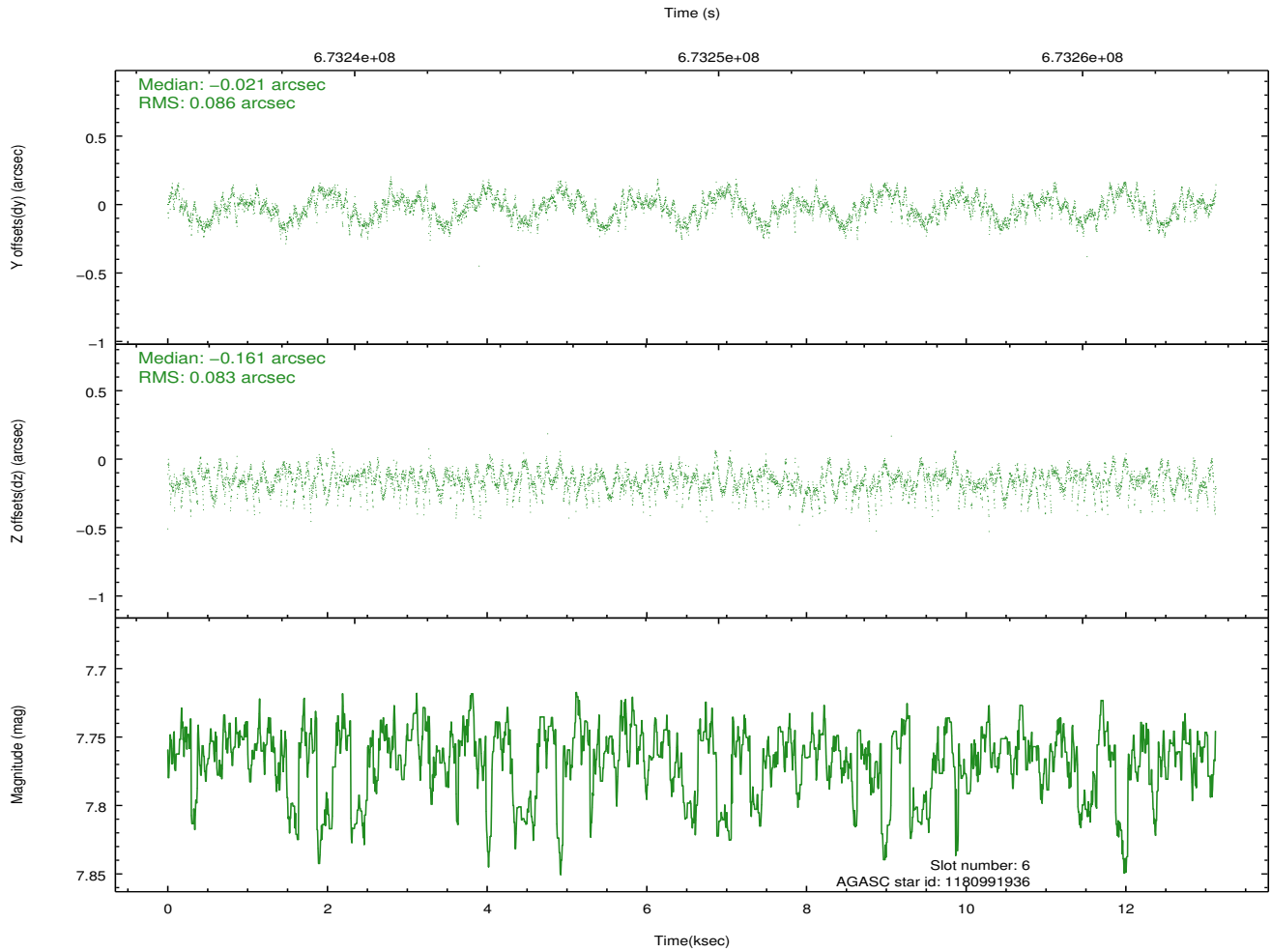
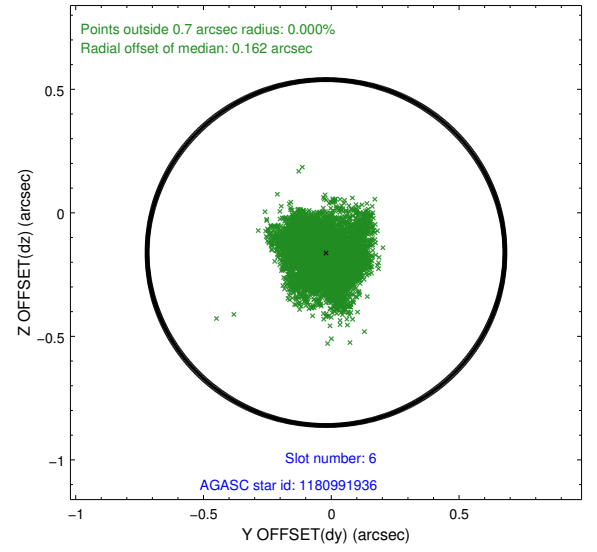
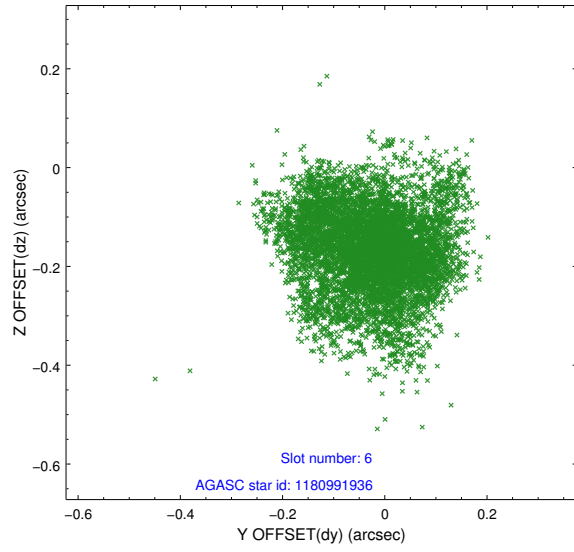
2.4.2 Slot 4



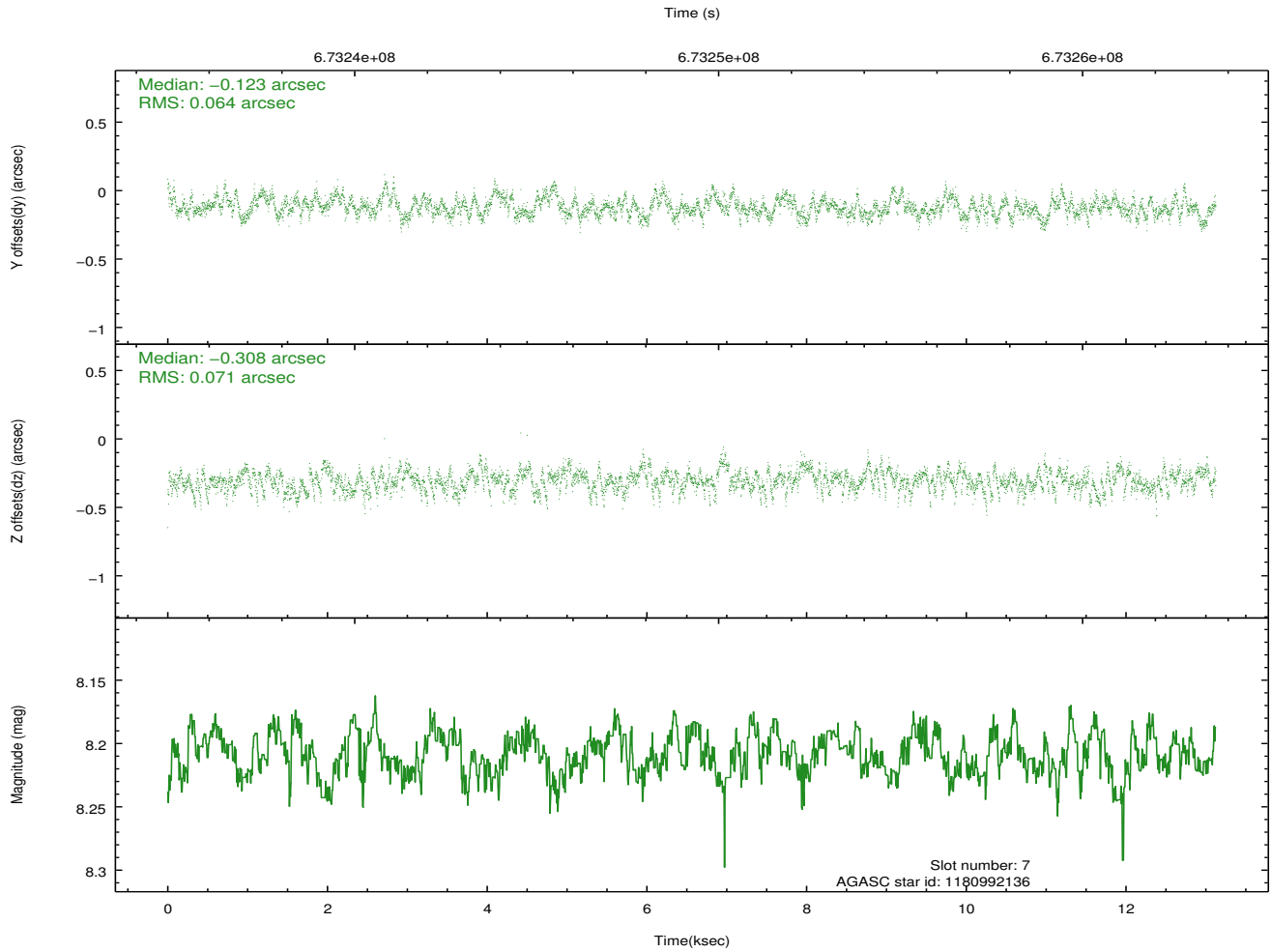
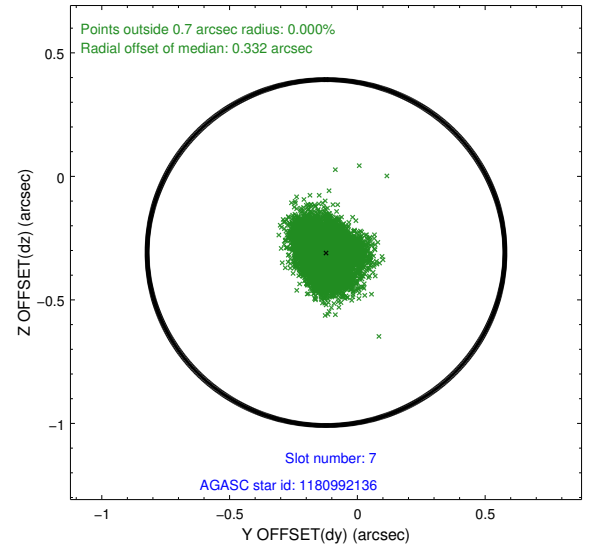
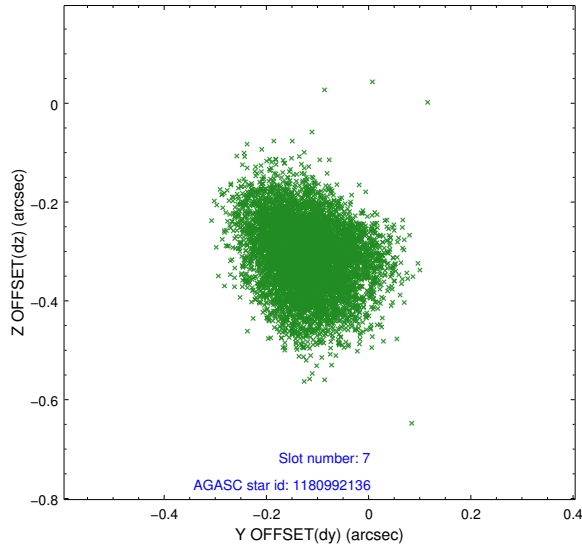
2.4.3 Slot 5



2.4.4 Slot 6

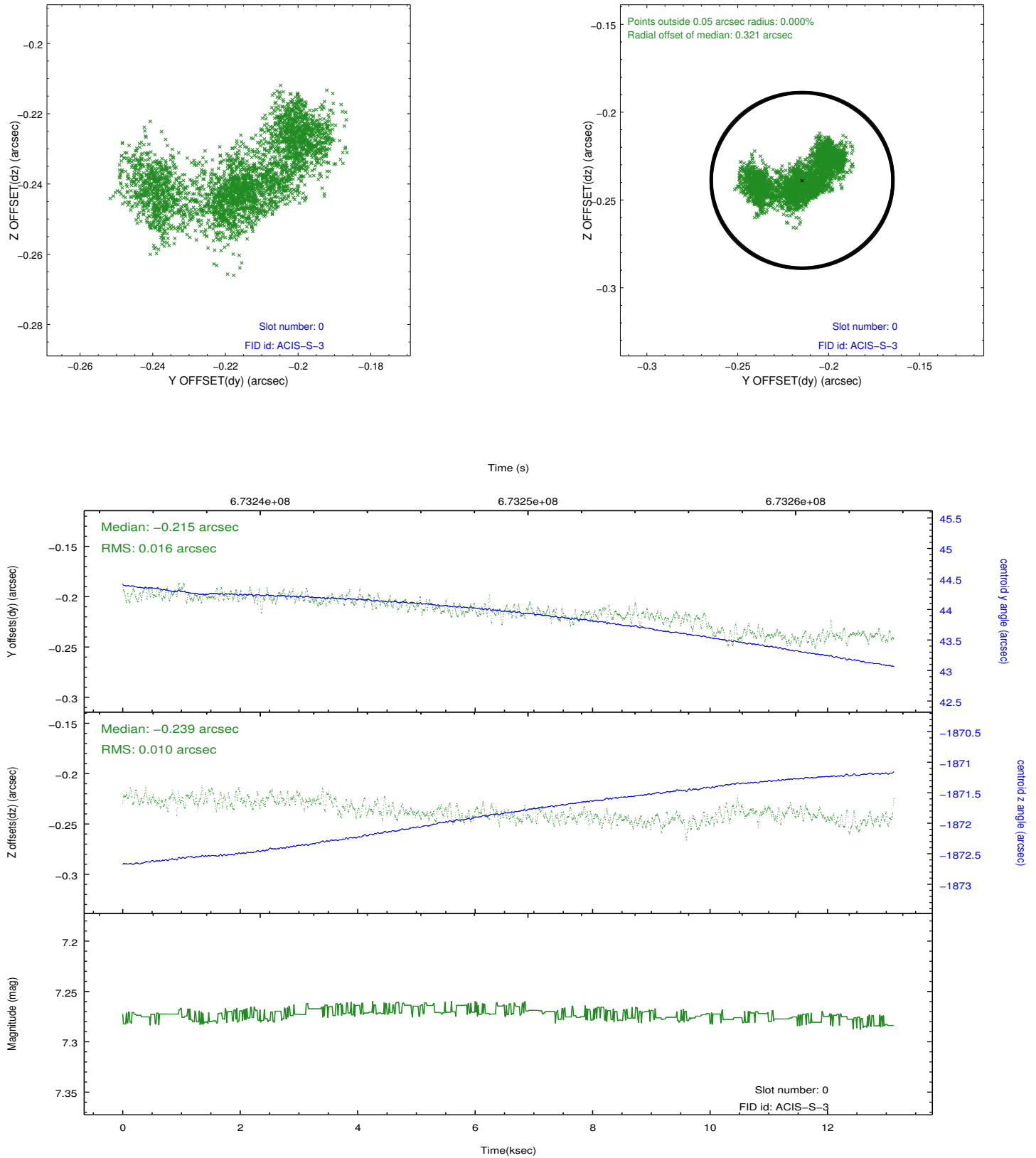


2.4.5 Slot 7

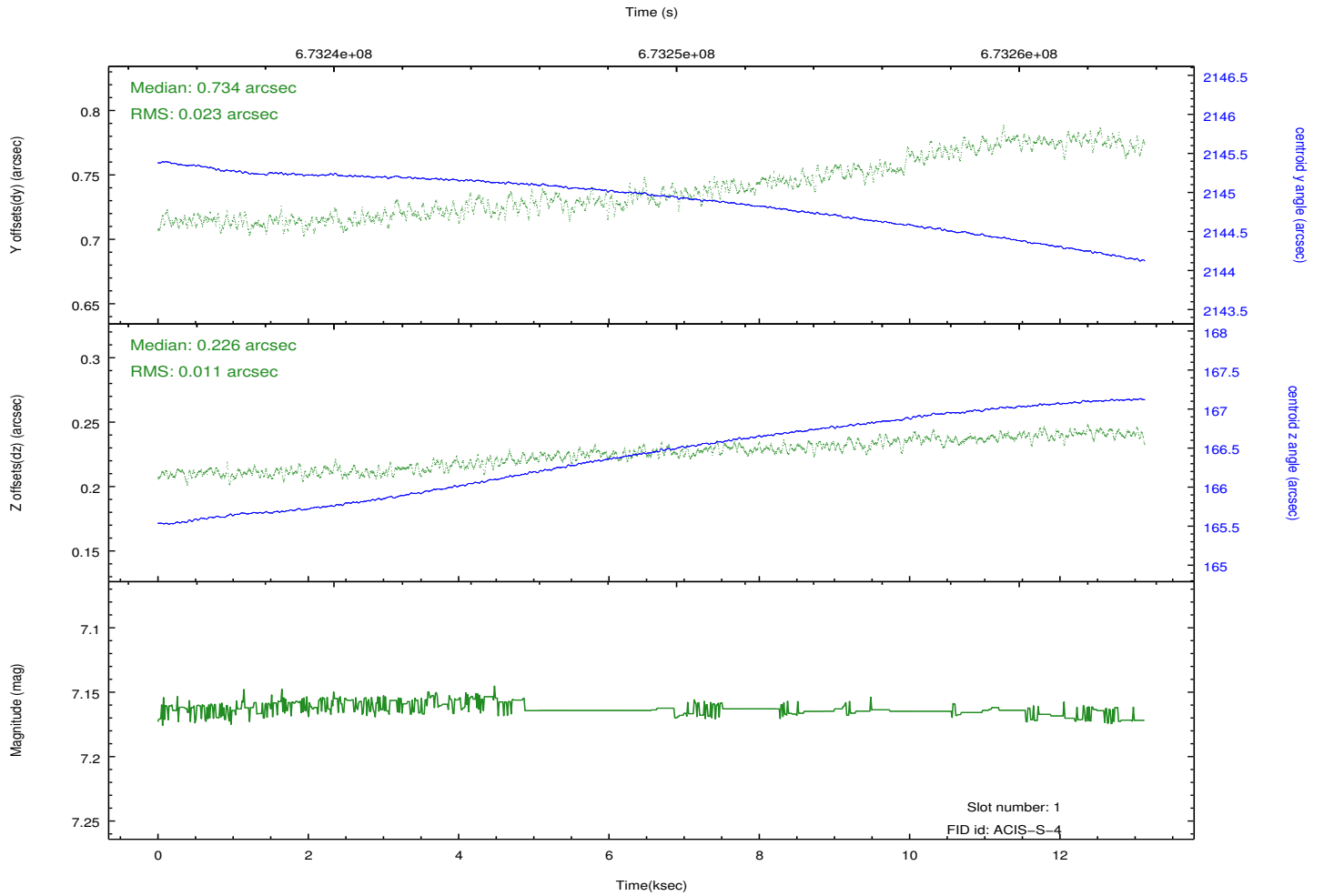
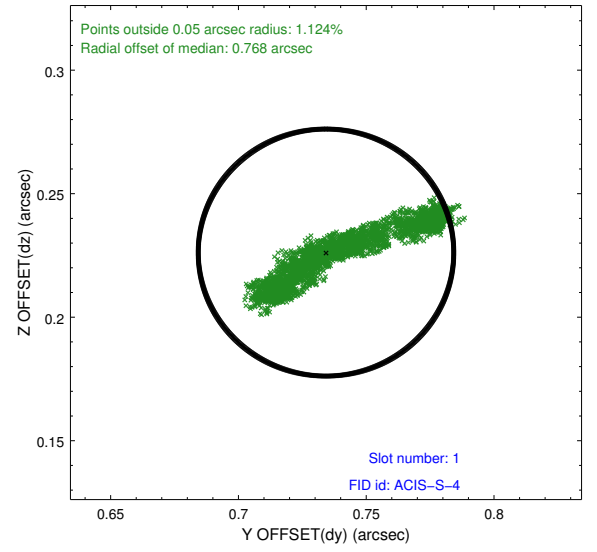
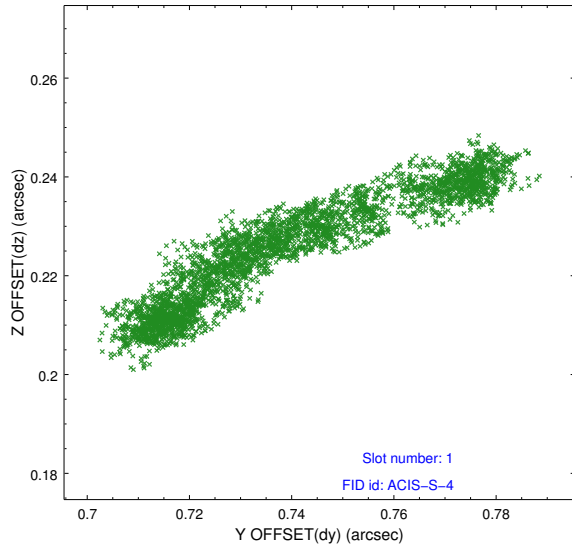


2.5 FID Slots

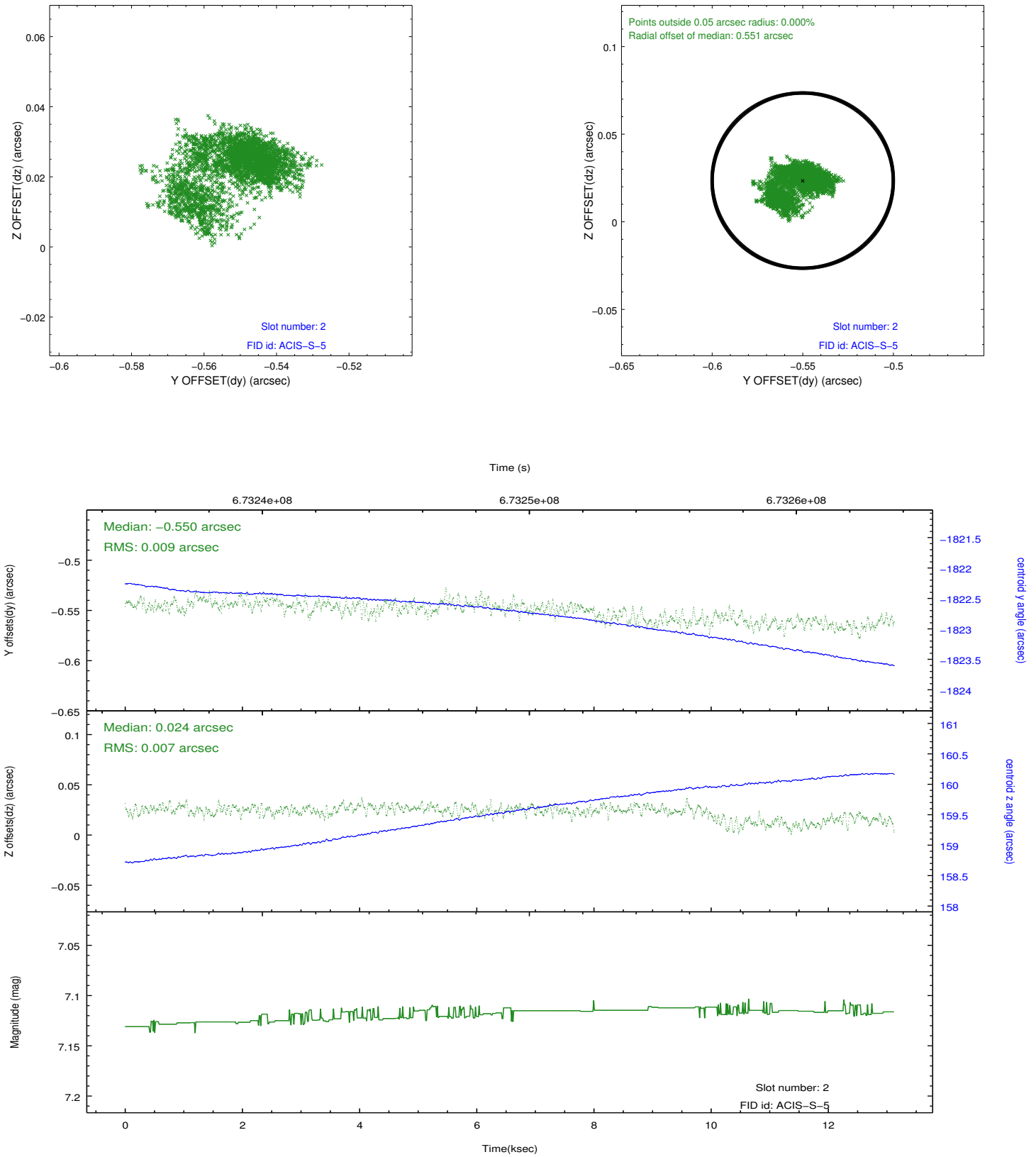
2.5.1 Slot 0



2.5.2 Slot 1

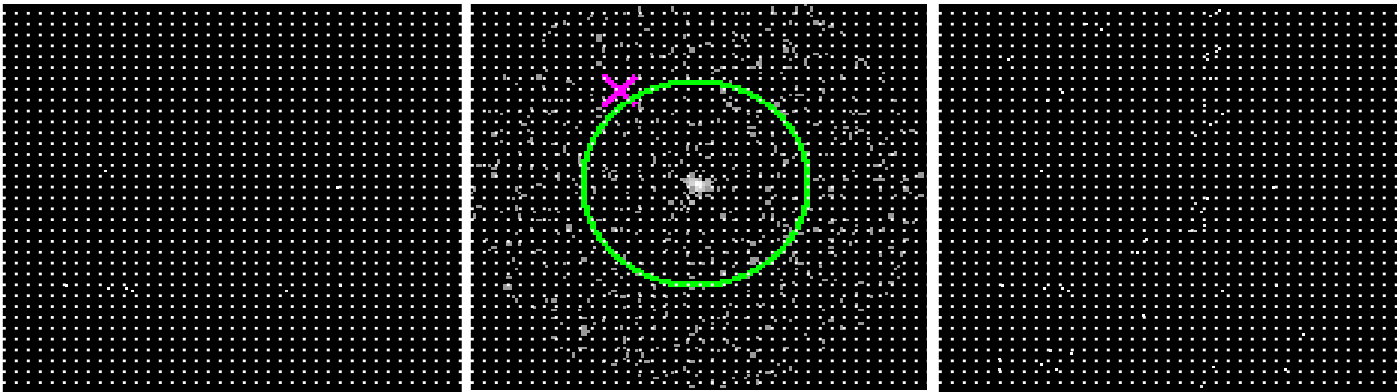


2.5.3 Slot 2



3 Gratings

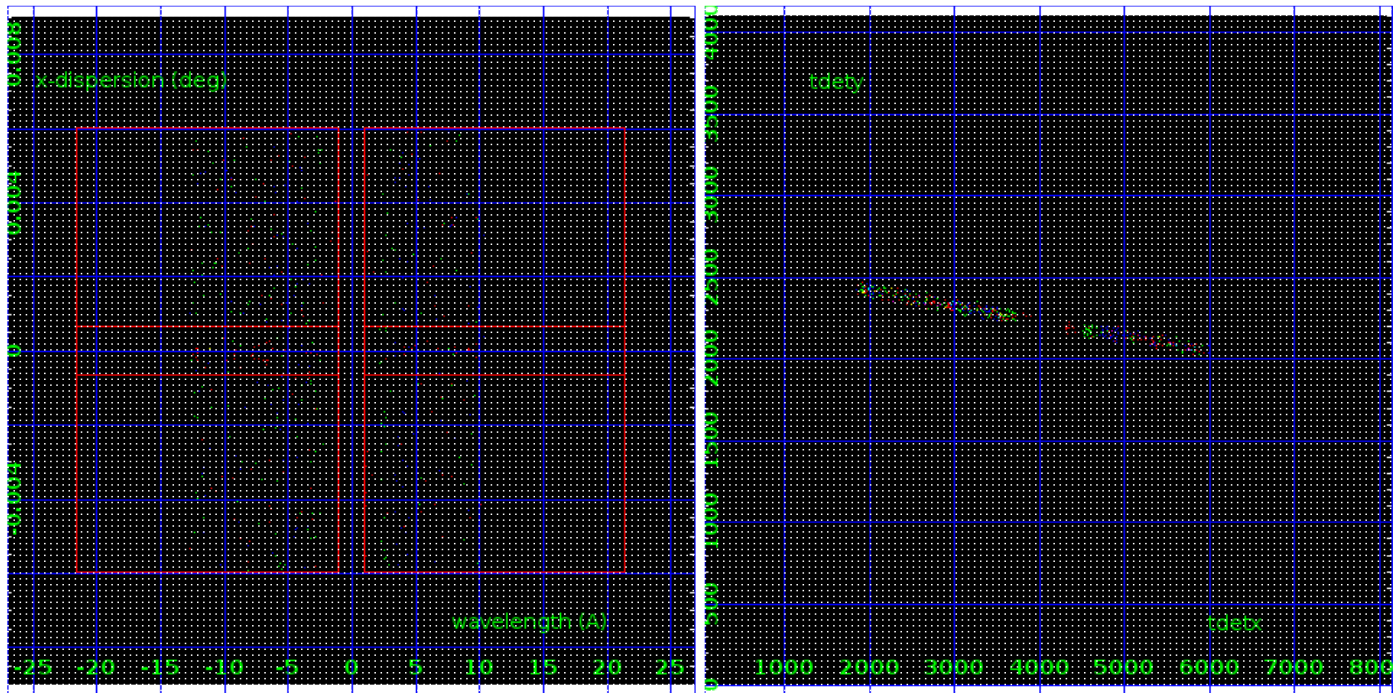
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

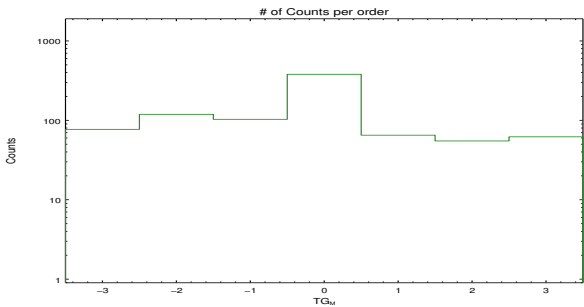
HEG Order Sort ALL

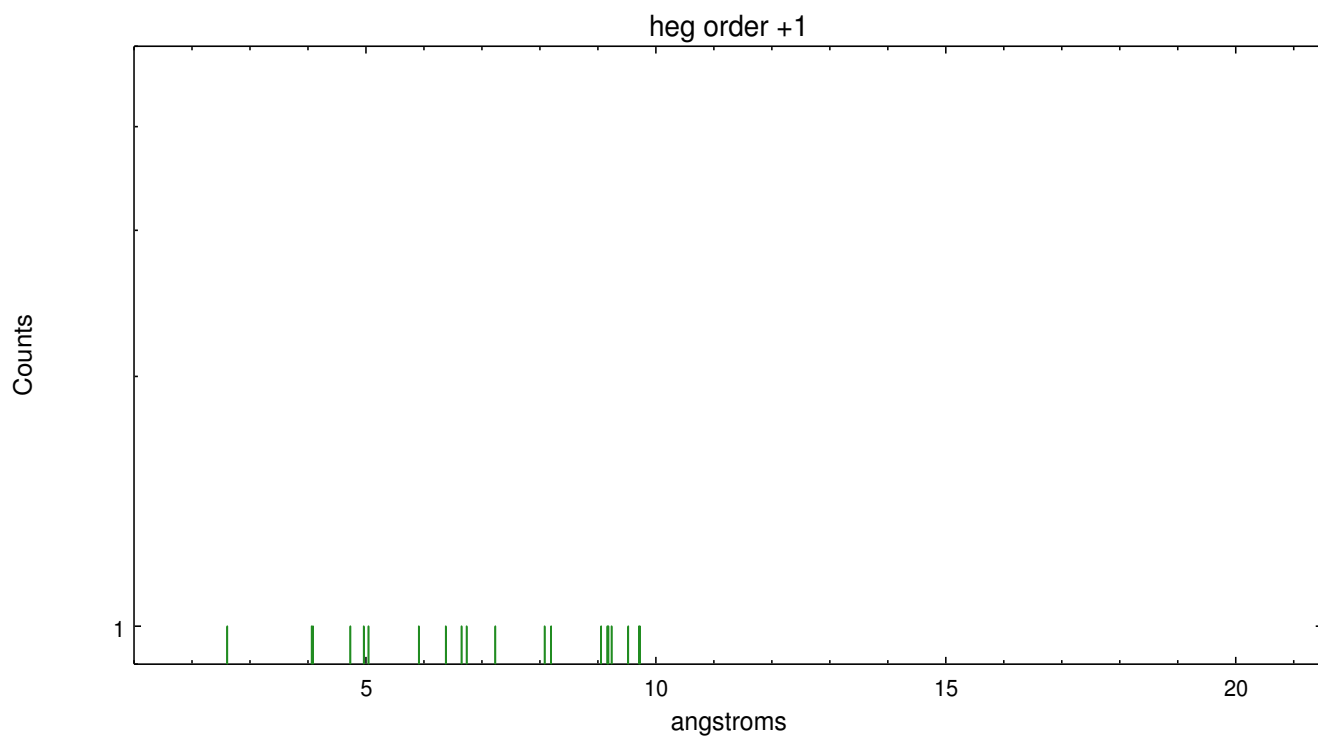
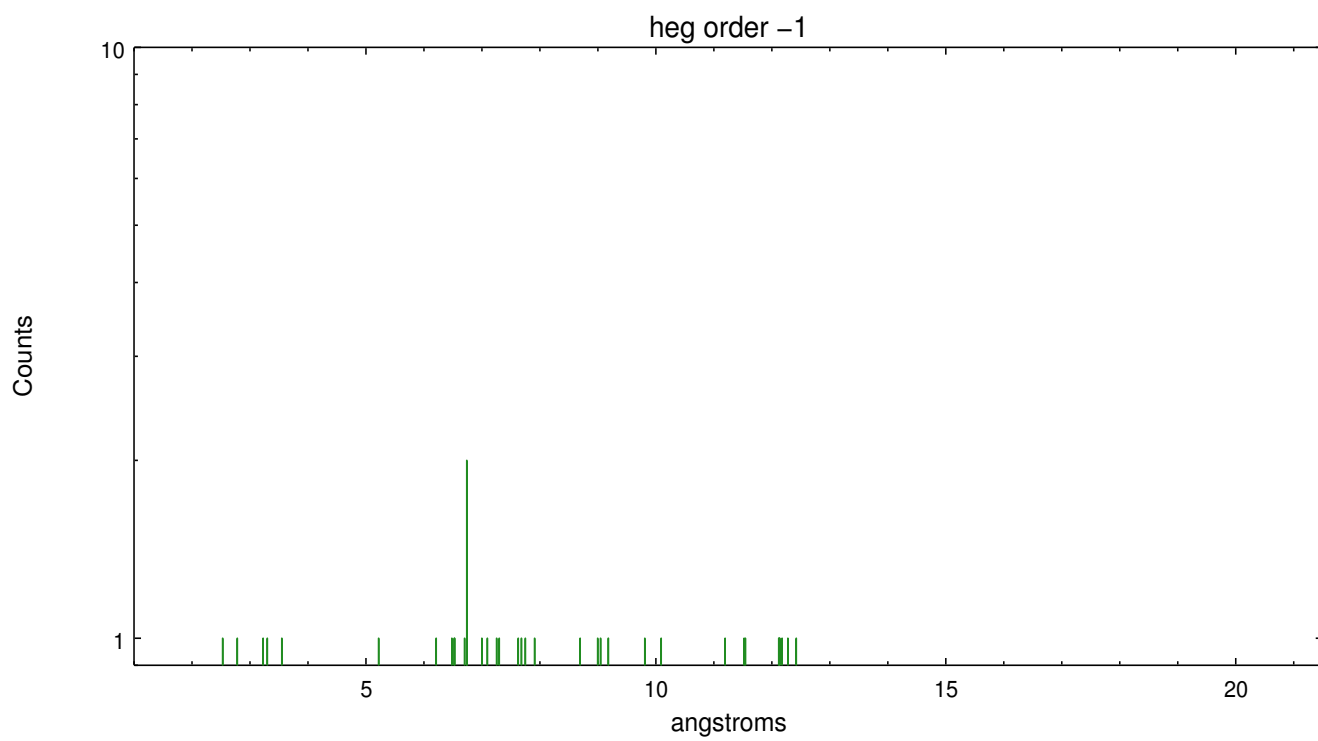


Spot Image HEG

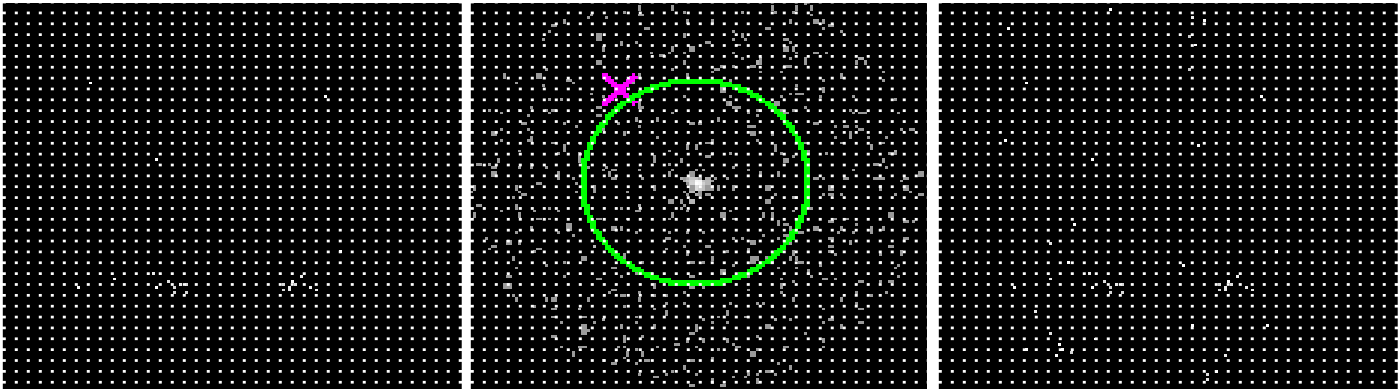
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	77	119	103	380	65	55	62





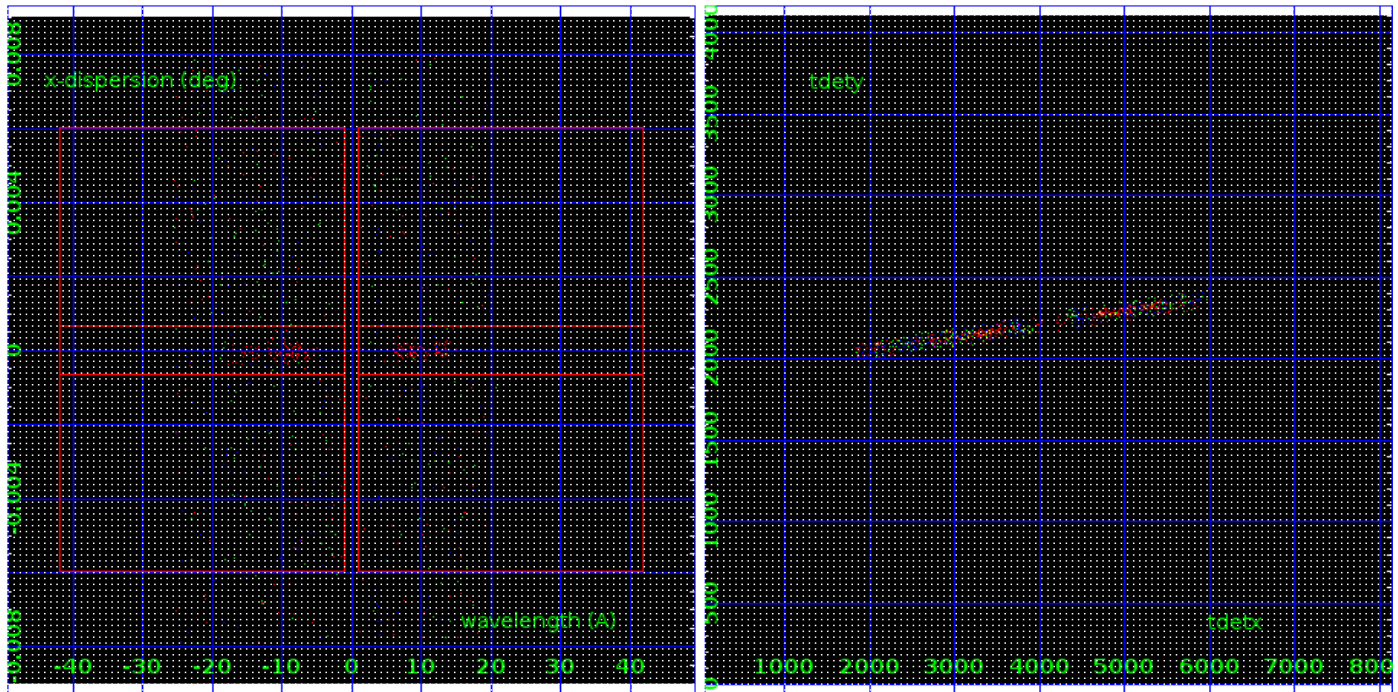
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

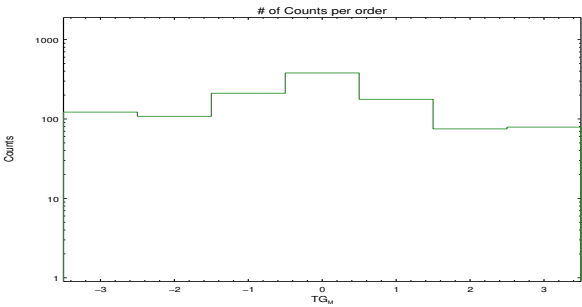
MEG Order Sort ALL

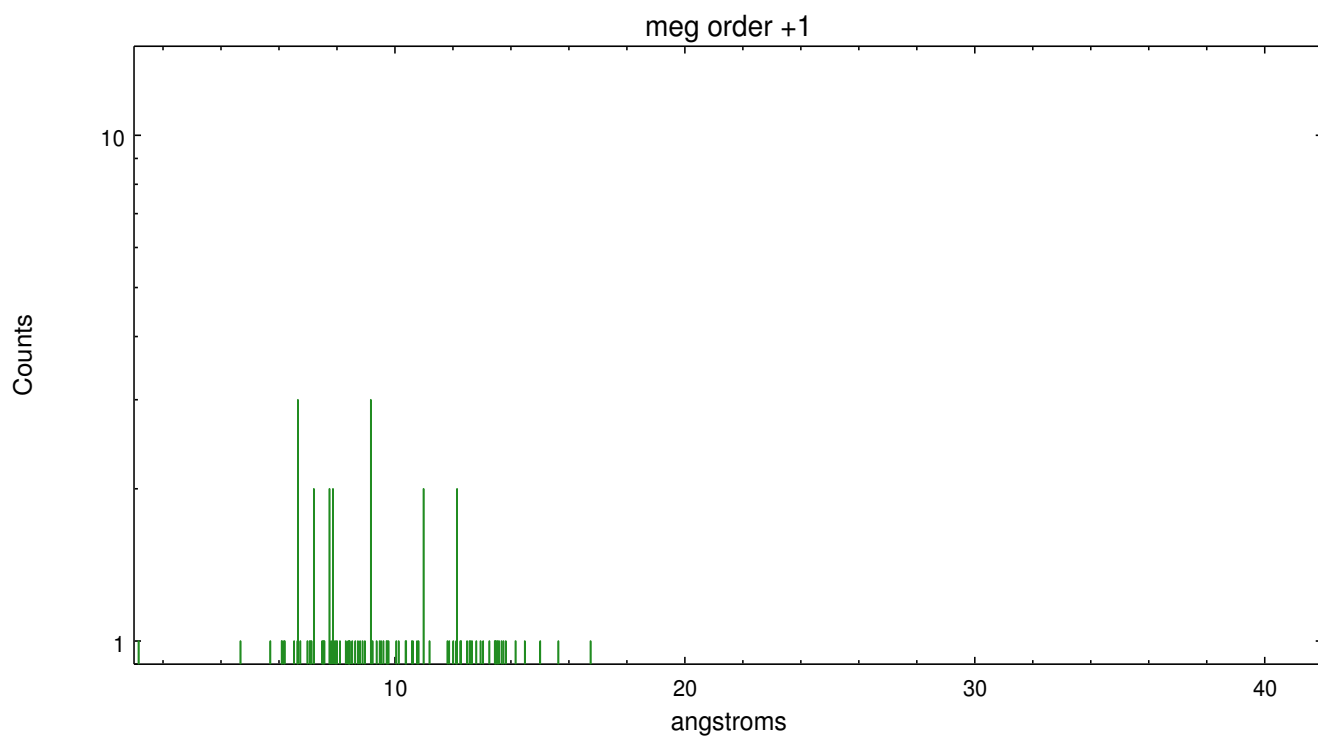
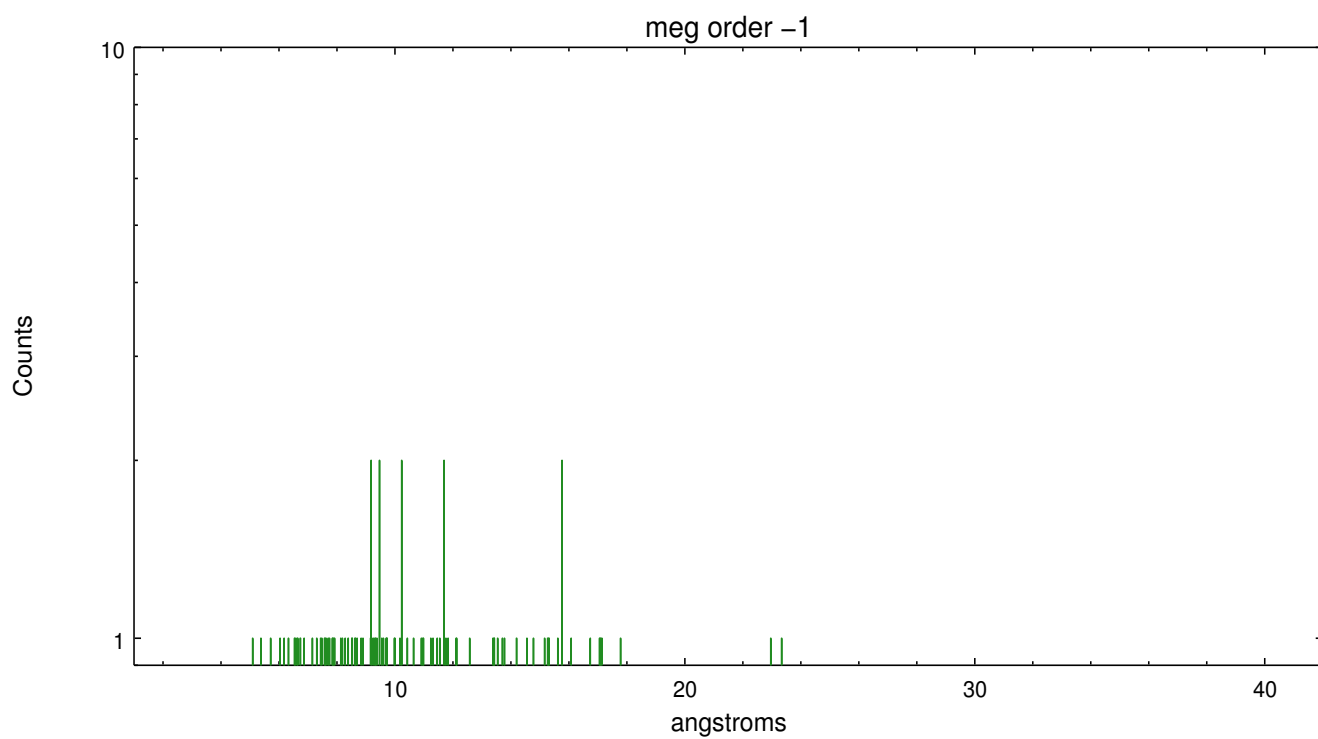


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	122	108	211	380	177	75	79





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.05.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.062752246618

A.2 Comments