

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21682 - L2 Version 1
Chandra X-Ray Center

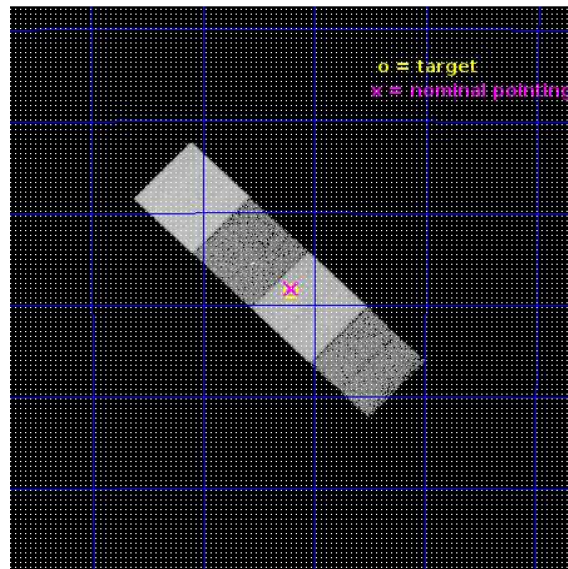
L2 Processing Date : May 7 2019

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
3	Gratings	16
3.1	HEG Arm	16
3.2	MEG Arm	18
A	Summary	20
A.1	Status	20
A.2	Comments	20

1 Front

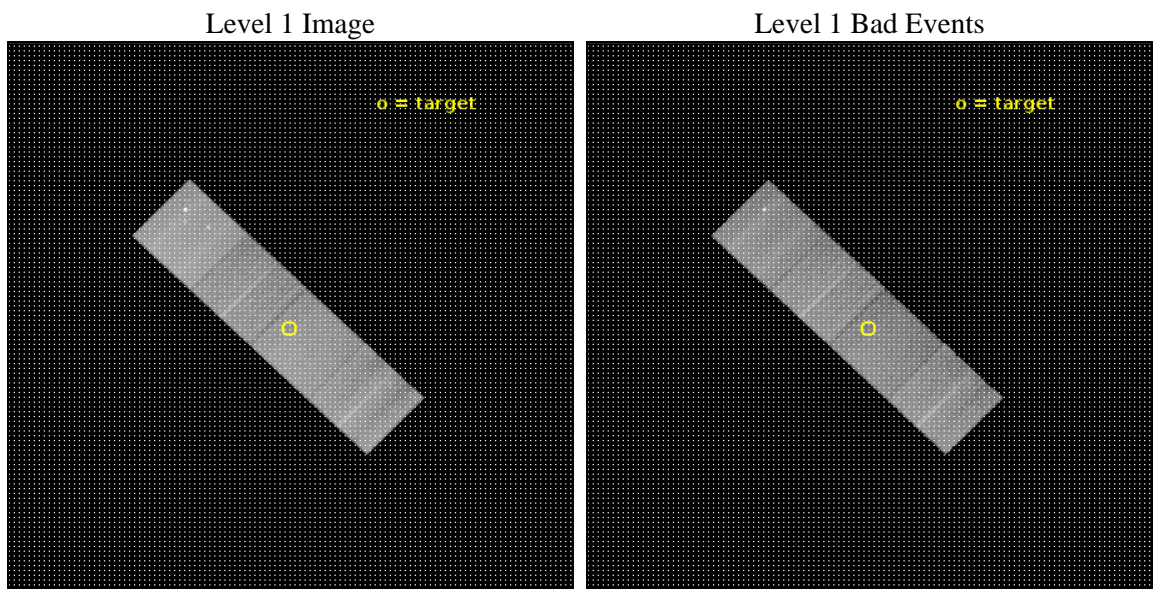
seq_num	201260	Sequence number
obs_id	21682	Observation id
title	Identifying Accretion at a Key Stage of Pre-main Sequence Stellar Evolution	Proposal title
observer	Dr. Claude Canizares	Principal investigator
object	SZ 96	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	242.052667	Observer's specified target RA [deg]
dec_targ	-39.142633	Observer's specified target Dec [deg]
ra_nom	242.05161957353	Nominal RA [deg]
dec_nom	-39.137943713357	Nominal Dec [deg]
roll_nom	44.155926983378	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17105.800131679	Sum of GTIs [s]
livetime	16882.300259851	Livetime [s]
ontime5	17105.800131679	Sum of GTIs [s]
ontime6	17105.800131679	Sum of GTIs [s]
ontime7	17105.800131679	Sum of GTIs [s]
ontime8	17105.800131679	Sum of GTIs [s]
l2events	193719	Number of level 2 events



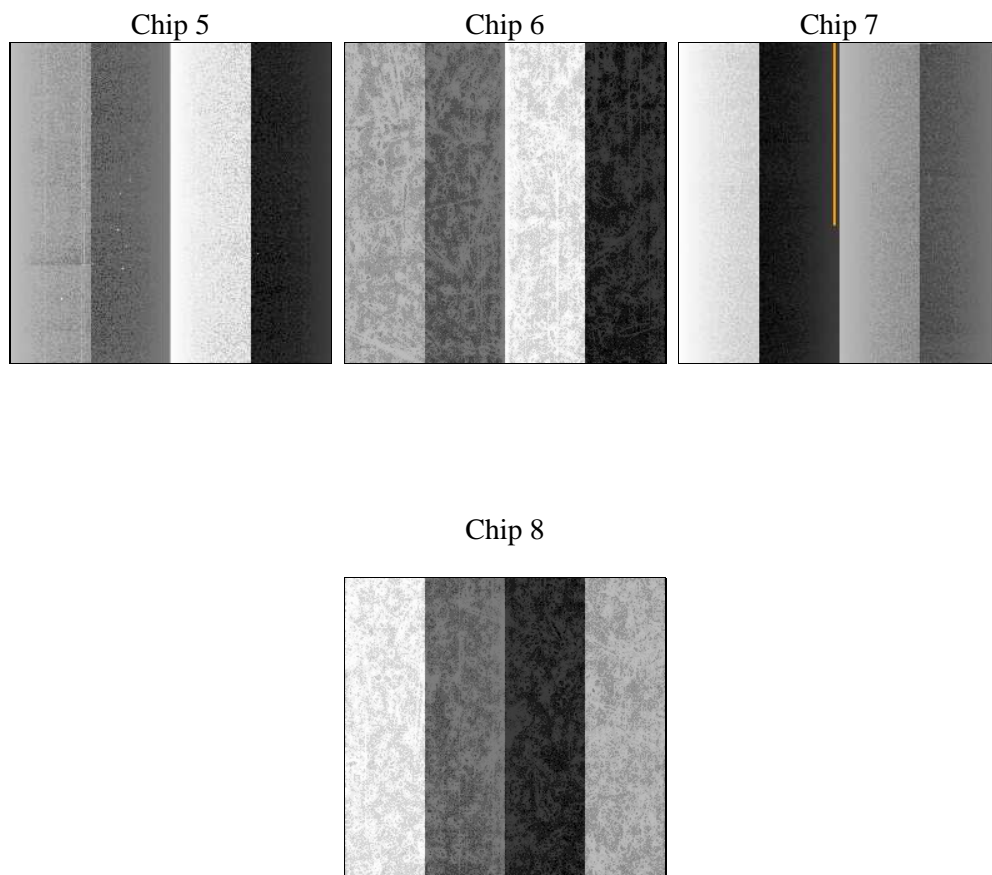
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17084.240000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	17105.800131679	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	17105.800131679	Sum of GTIs [s]
date	2019-05-07T06:15:10	Date and time of file creation	ontime6	17105.800131679	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	17105.800131679	Sum of GTIs [s]
			ontime8	17105.800131679	Sum of GTIs [s]
			l1events	701988	Number of level 1 events
			tgmethod	USER	Method used to create src1a file
			zo_pos	(4090.50, 4062.20)	src1a sky pixel position

2.1.4 Events

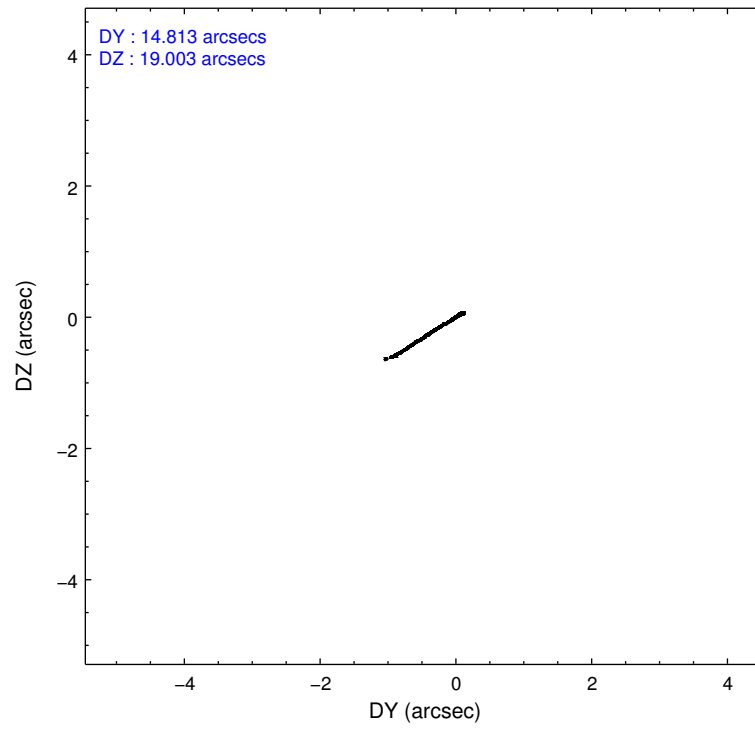
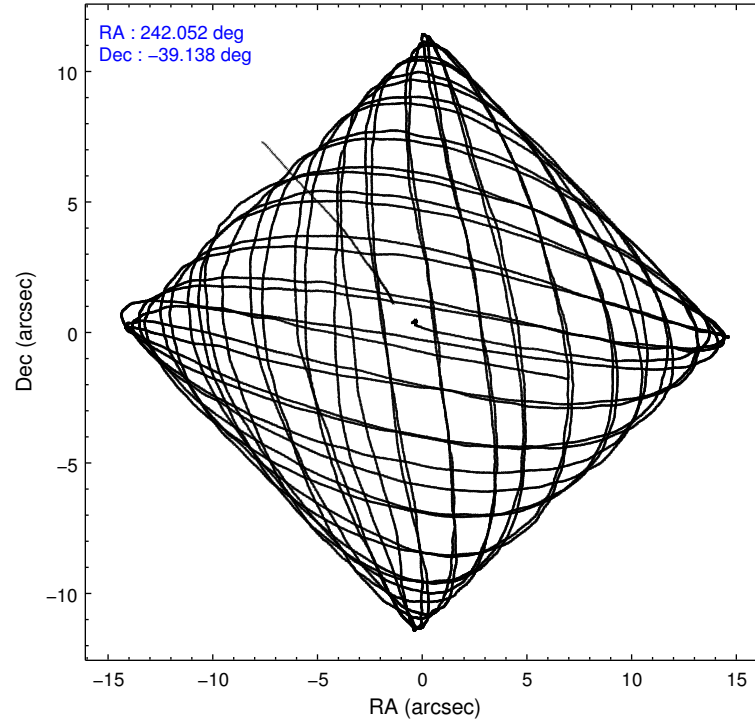
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	222658	141786	168867	168677
rejected events	115872	126244	95920	127522
rejected %	52%	89%	56%	75%

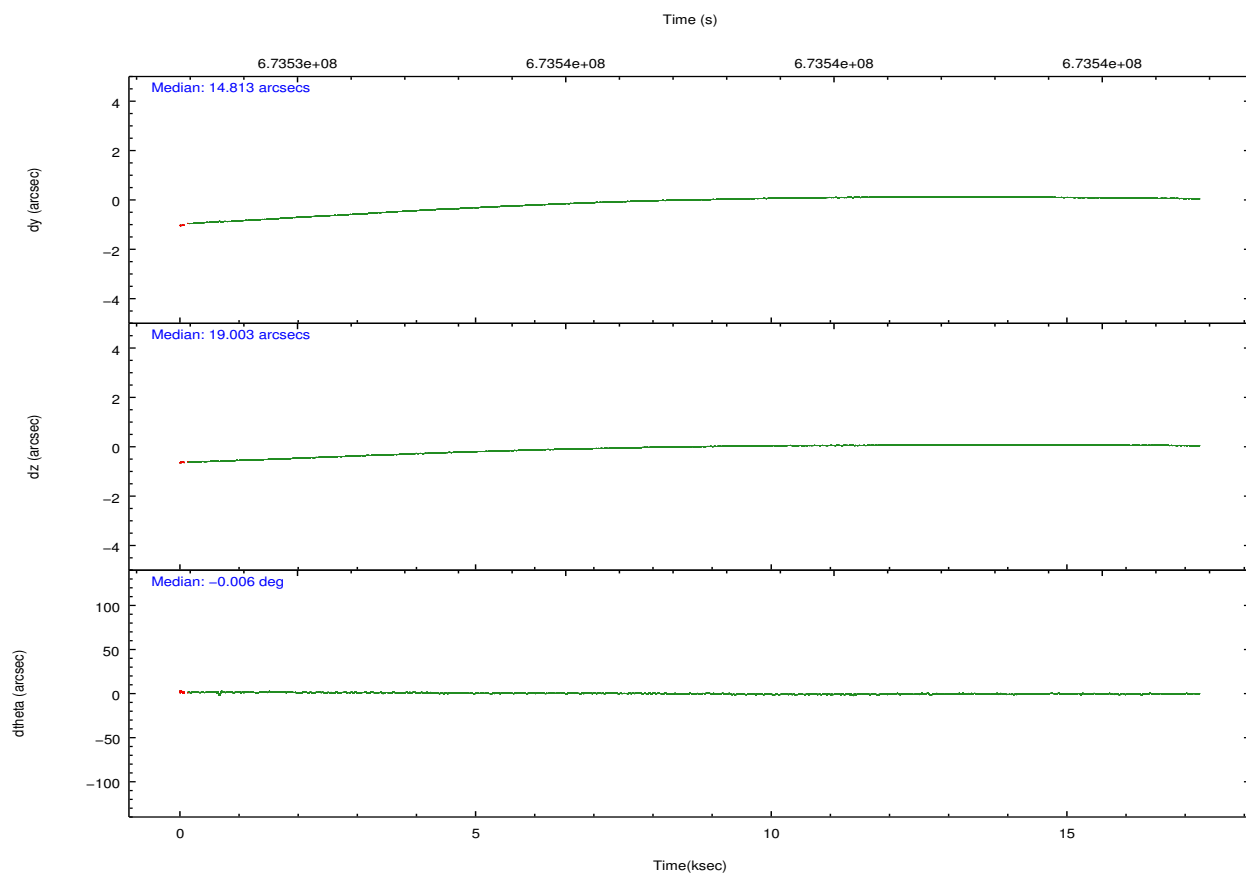
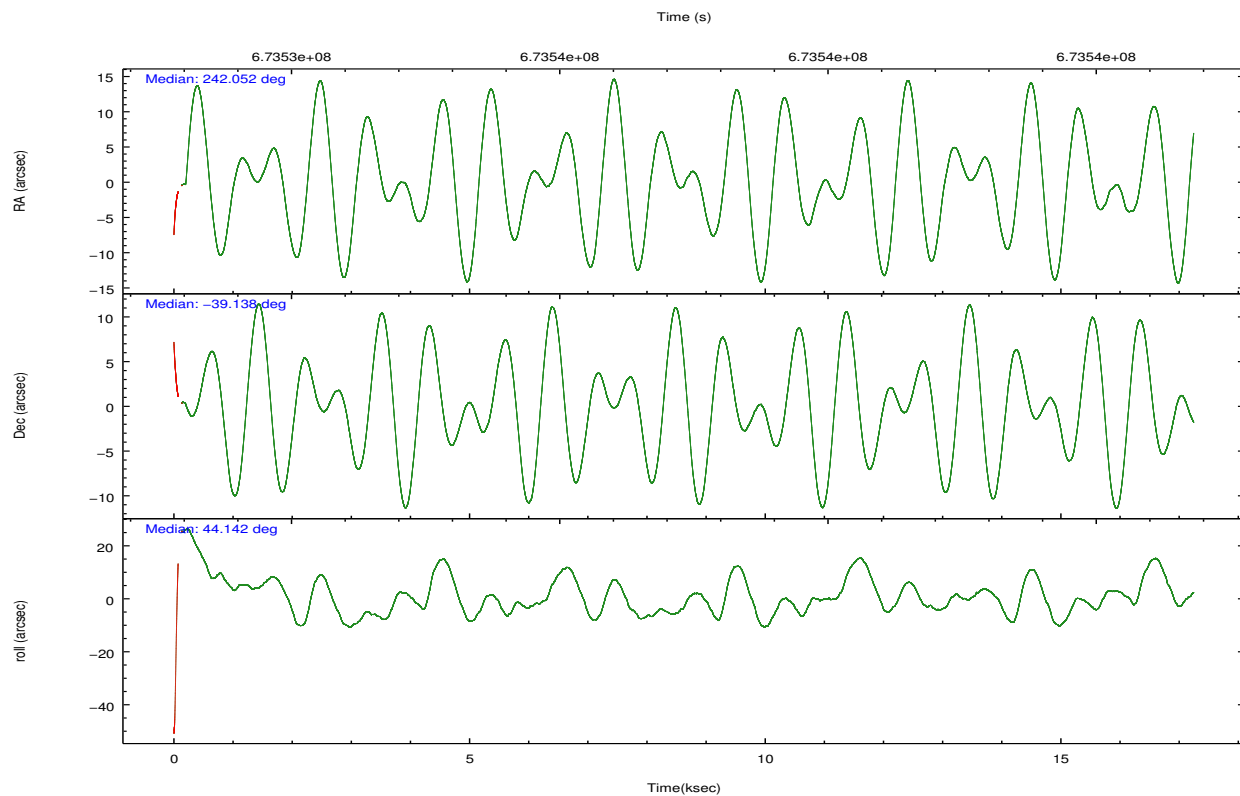
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9799	4625	6085	11154
	4%	3%	3%	6%
grade 1 events	585	69	260	132
	0%	0%	0%	0%
grade 2 events	33817	4319	15154	10664
	15%	3%	8%	6%
grade 3 events	3304	1195	5726	4116
	1%	0%	3%	2%
grade 4 events	2899	1213	5563	3821
	1%	0%	3%	2%
grade 5 events	14246	5238	16072	8655
	6%	3%	9%	5%
grade 6 events	57273	4234	40599	11474
	25%	2%	24%	6%
grade 7 events	100735	120893	79408	118661
	45%	85%	47%	70%

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	242.042416	242.0516195735326	CCD I2 on	N	N
[deg] Pointing Dec	-39.164456	-39.13794371335666	CCD I3 on	N	N
[deg] Pointing Roll	43.993529	44.15592698337787	CCD S0 on	O2	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	673528846.184000	673527724.11028	CCD S5 on	O1	N
Observation start date	2019-05-06T11:19:37	2019-05-06T11:02:04	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	673545931.184000	673546370.3989	On-chip summing requested	N	N
Observation end date	2019-05-06T16:04:22	2019-05-06T16:12:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



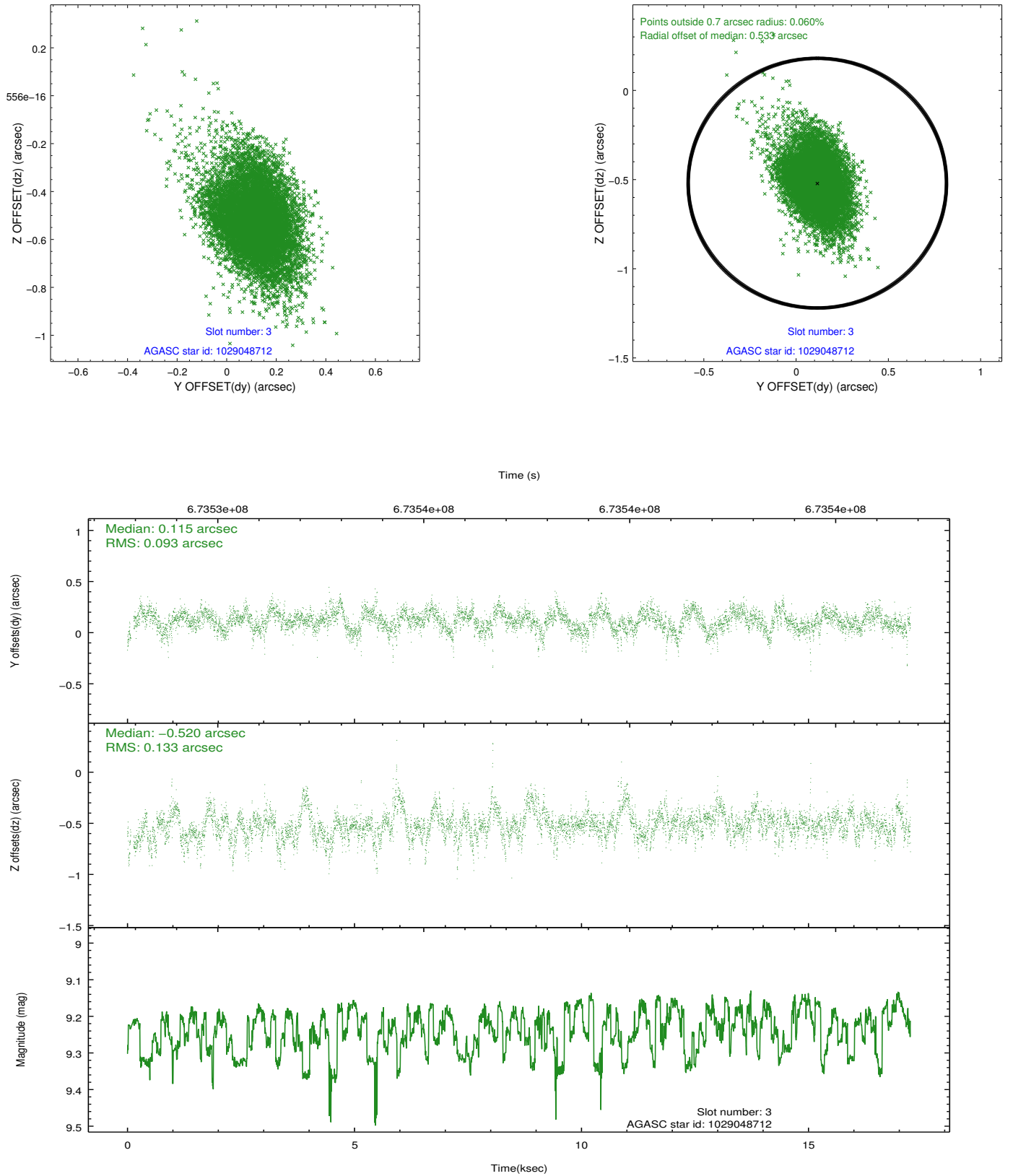


Slot Statistics

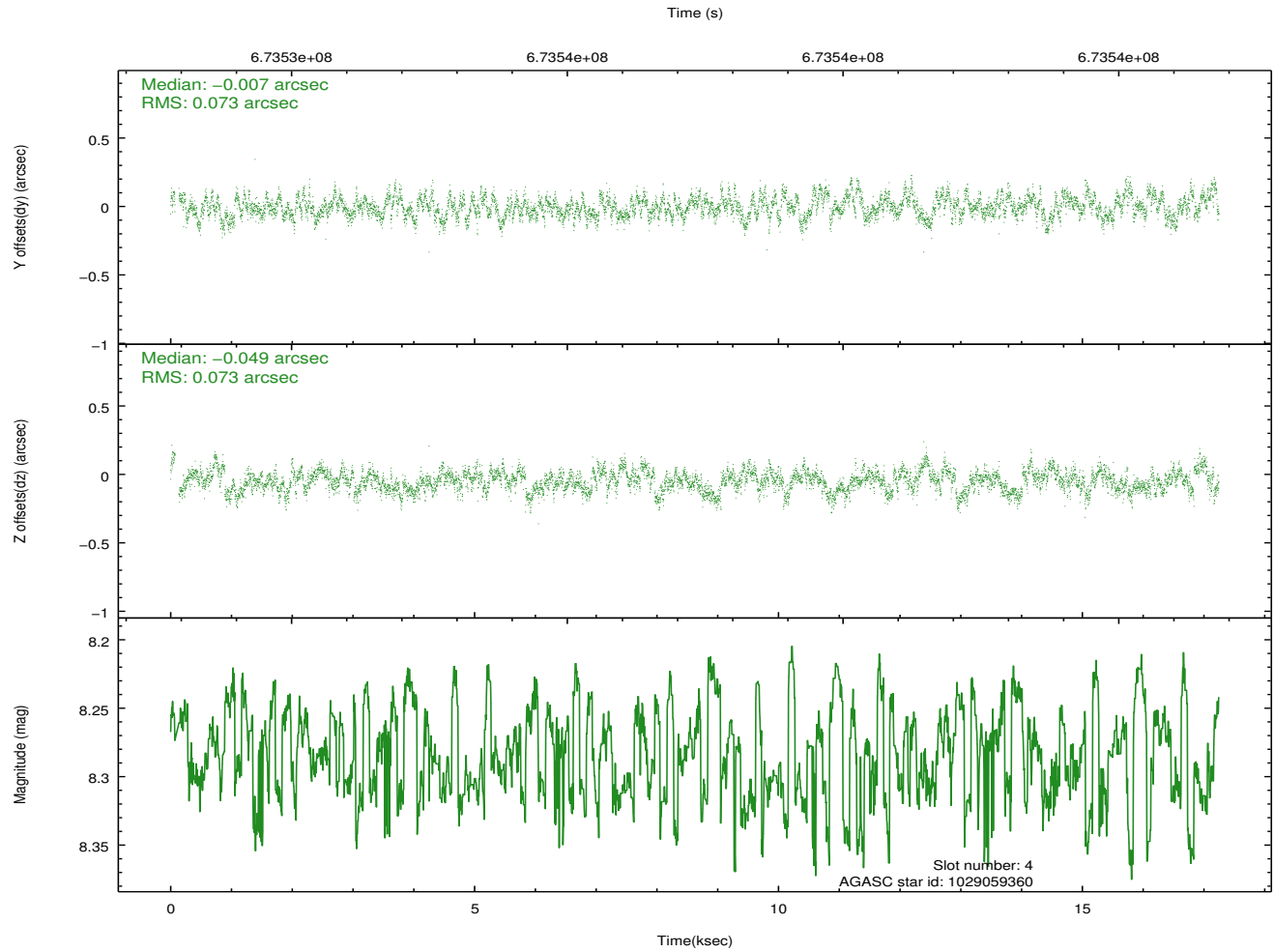
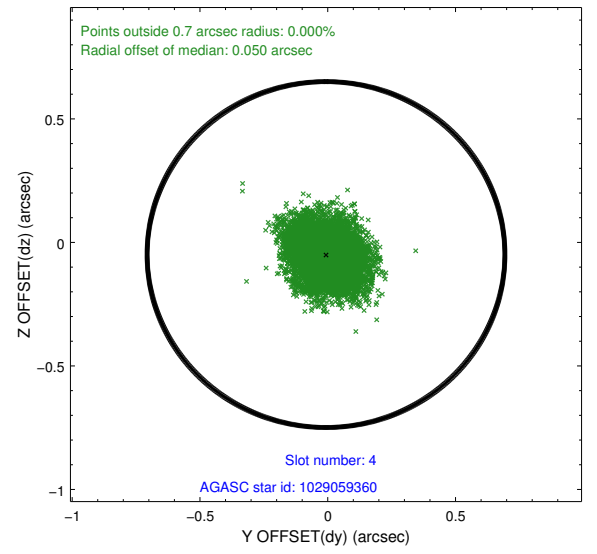
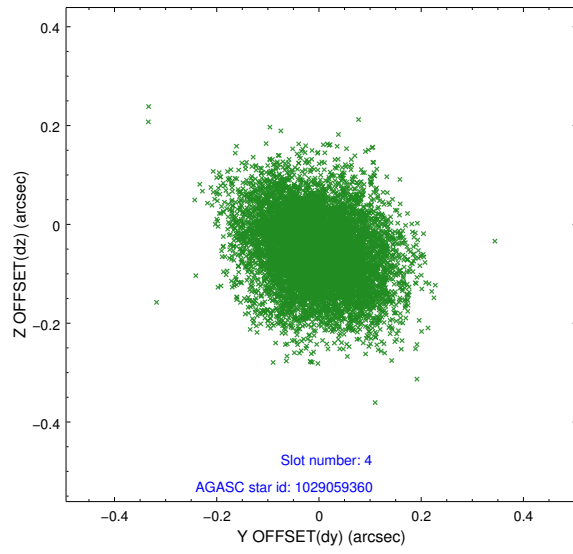
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-3	7.42	4192	1.000	-0.203	-0.241	0.012	0.020	0.000000	0.000000	45.45	-1869
1	FID		ACIS-S-4	7.28	4192	1.000	0.780	0.221	0.010	0.018	0.000000	0.000000	2146.53	168
2	FID		ACIS-S-5	7.25	4192	1.000	-0.604	0.029	0.011	0.019	0.000000	0.000000	-1820.74	161
3	GUIDE	used	1029048712	9.24	8369	1.000	0.115	-0.520	0.161	0.293	241.237794	-38.954366	-1102.56	2101
4	GUIDE	used	1029059360	8.28	8379	1.000	-0.007	-0.049	0.110	0.178	241.638388	-39.259513	-1049.43	534
5	GUIDE	used	1029580280	9.16	8312	1.000	0.119	0.318	0.136	0.224	242.322361	-39.646406	-646.88	-1786
6	GUIDE	used	1029579520	7.40	8383	1.000	-0.223	0.257	0.102	0.167	241.185376	-39.434662	-2397.91	947
7	MONITOR	unused		0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

2.4 Star Slots

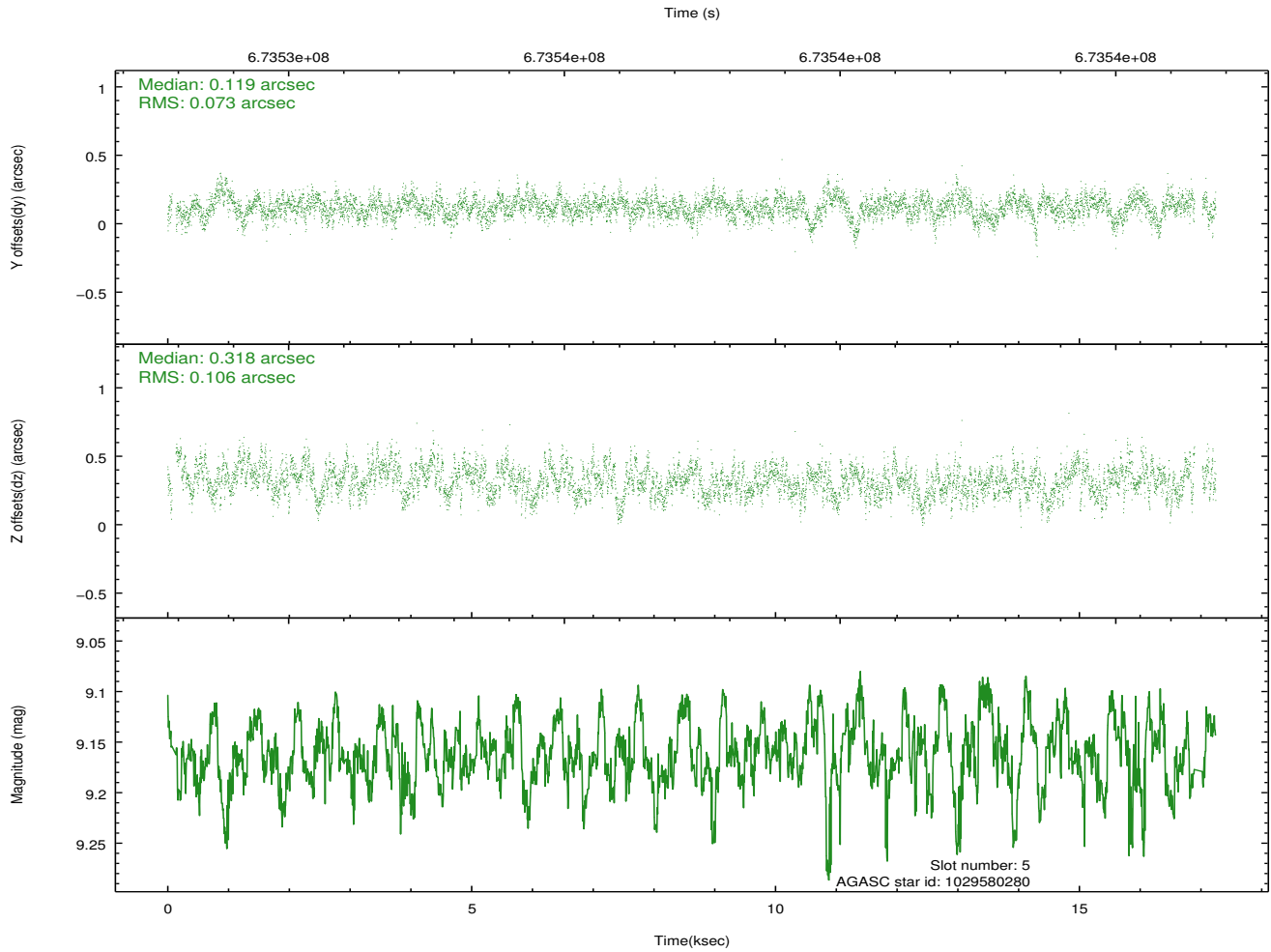
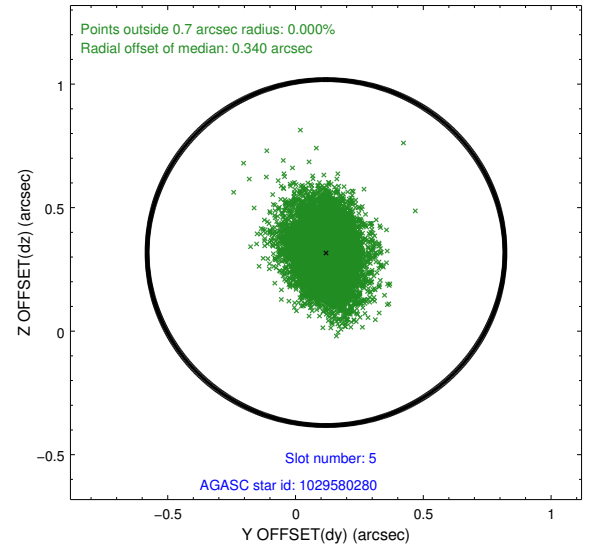
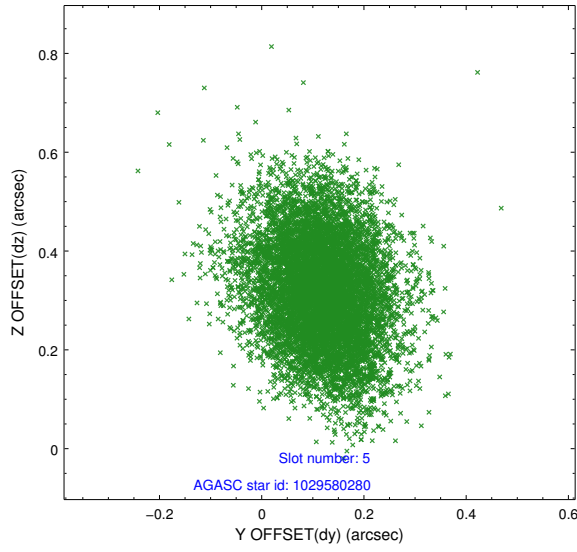
2.4.1 Slot 3



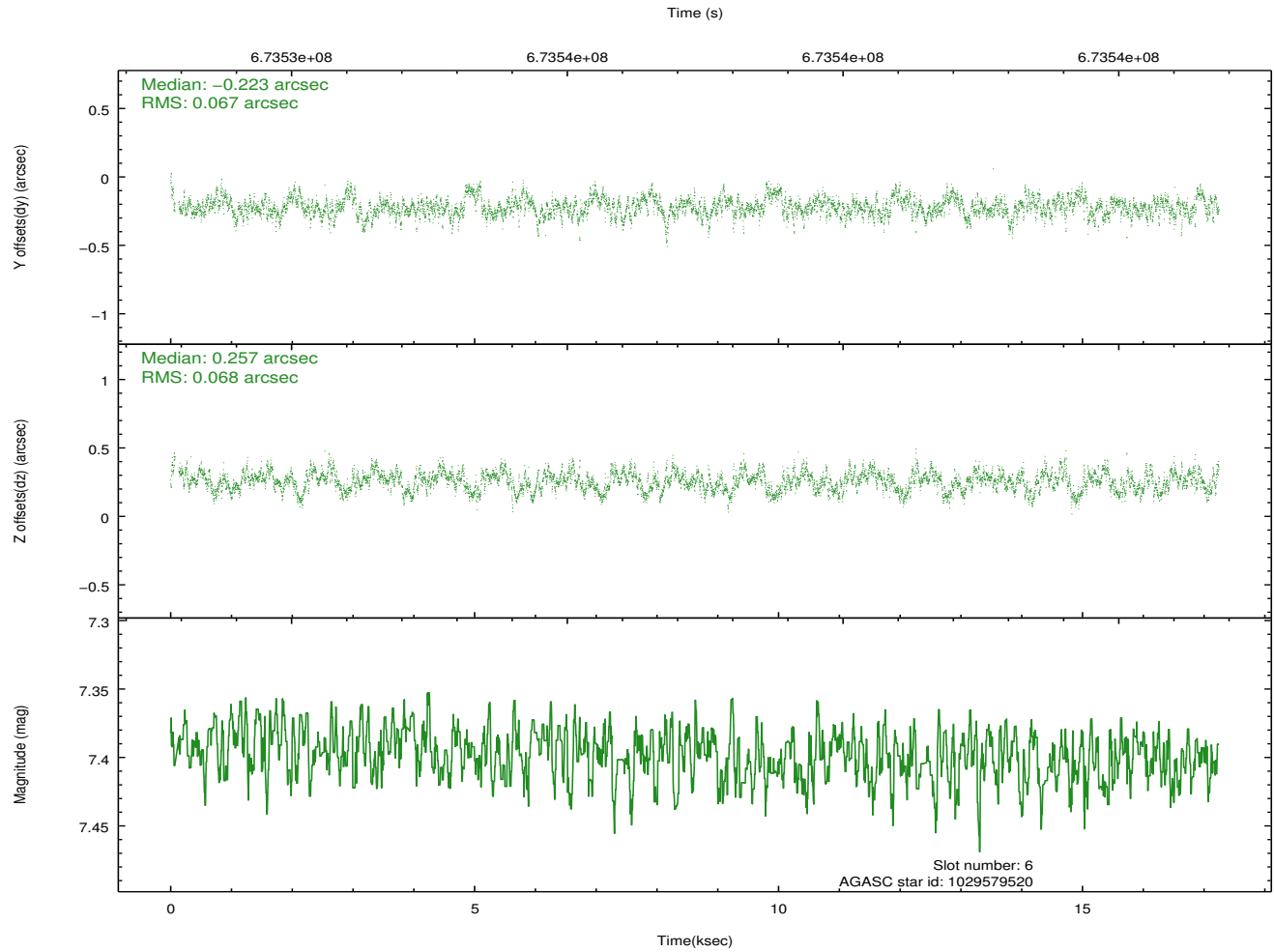
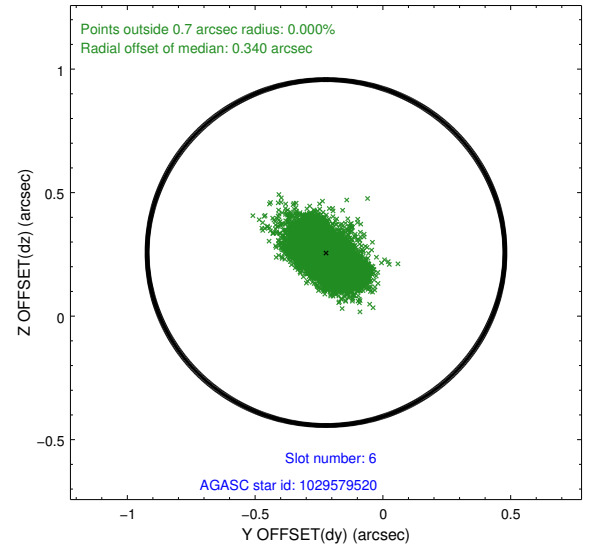
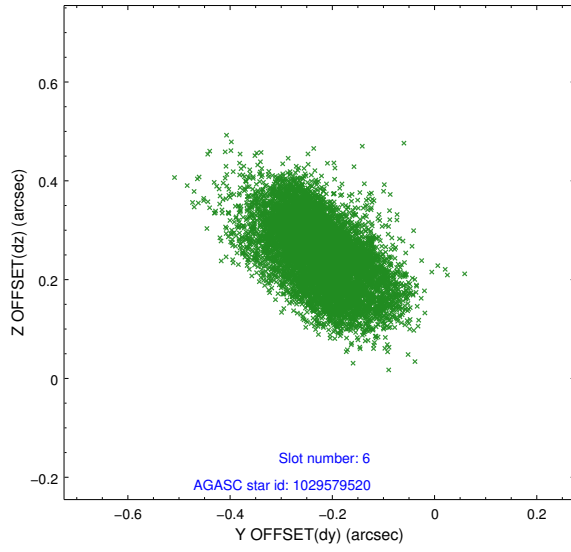
2.4.2 Slot 4



2.4.3 Slot 5

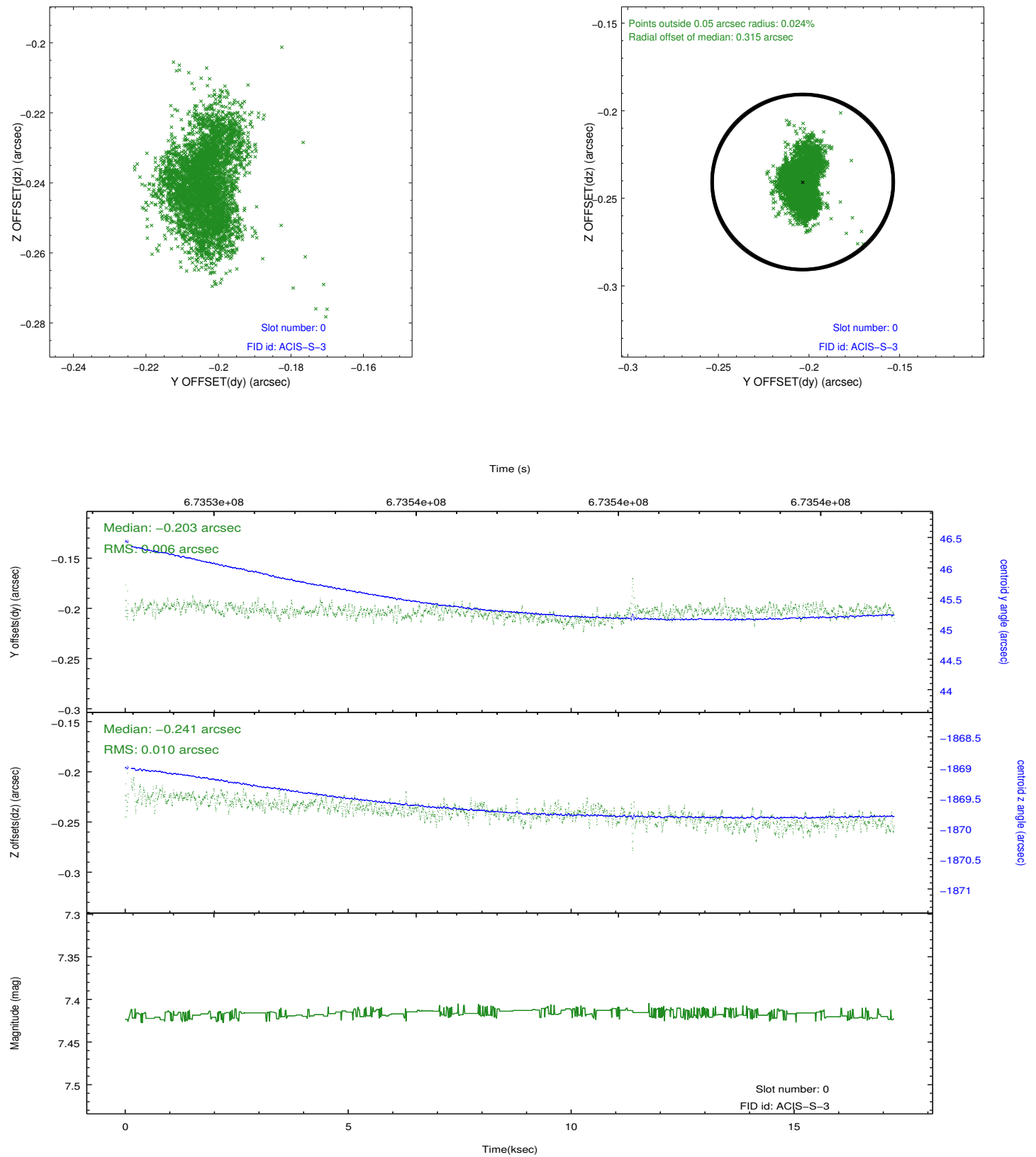


2.4.4 Slot 6

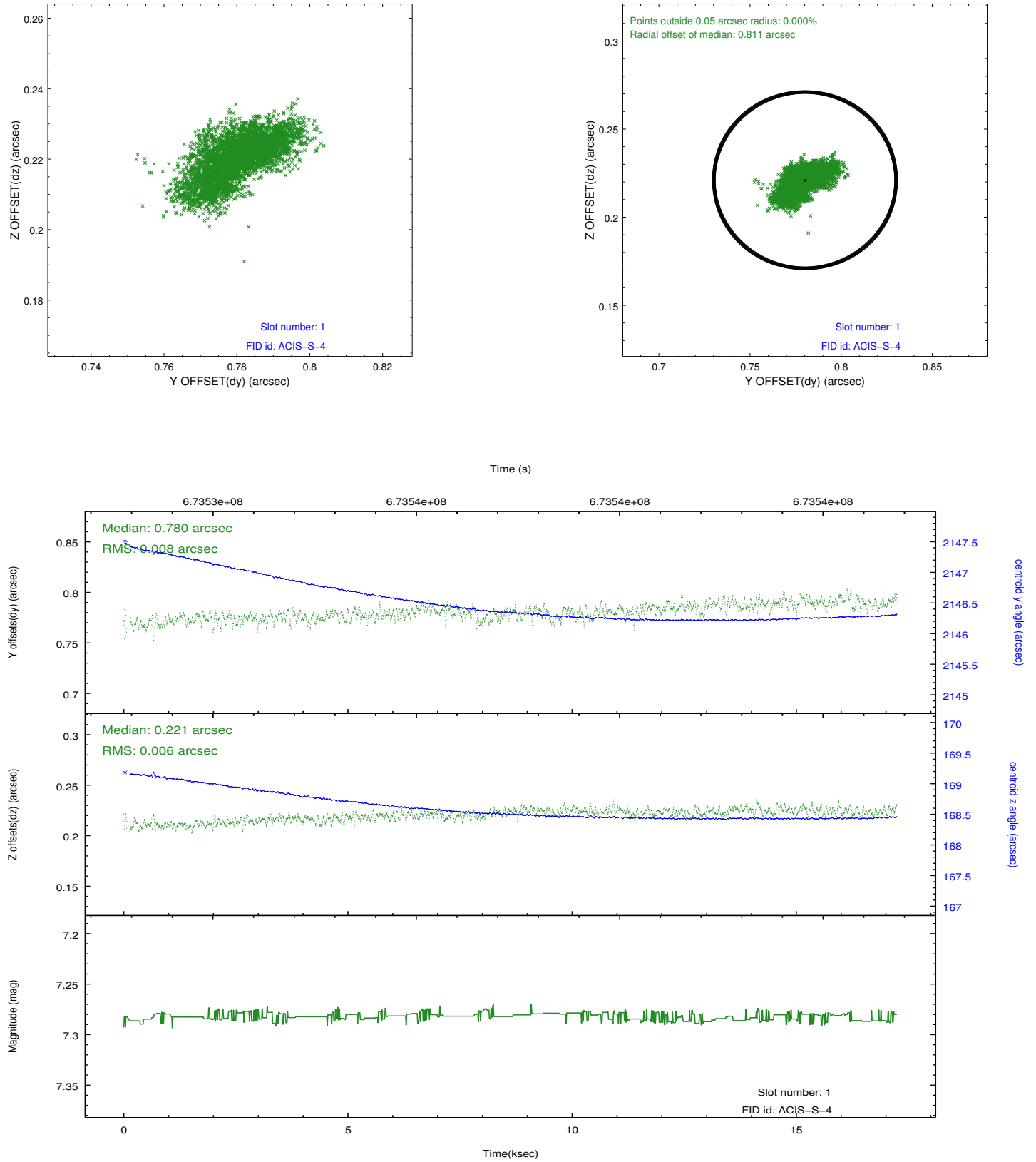


2.5 FID Slots

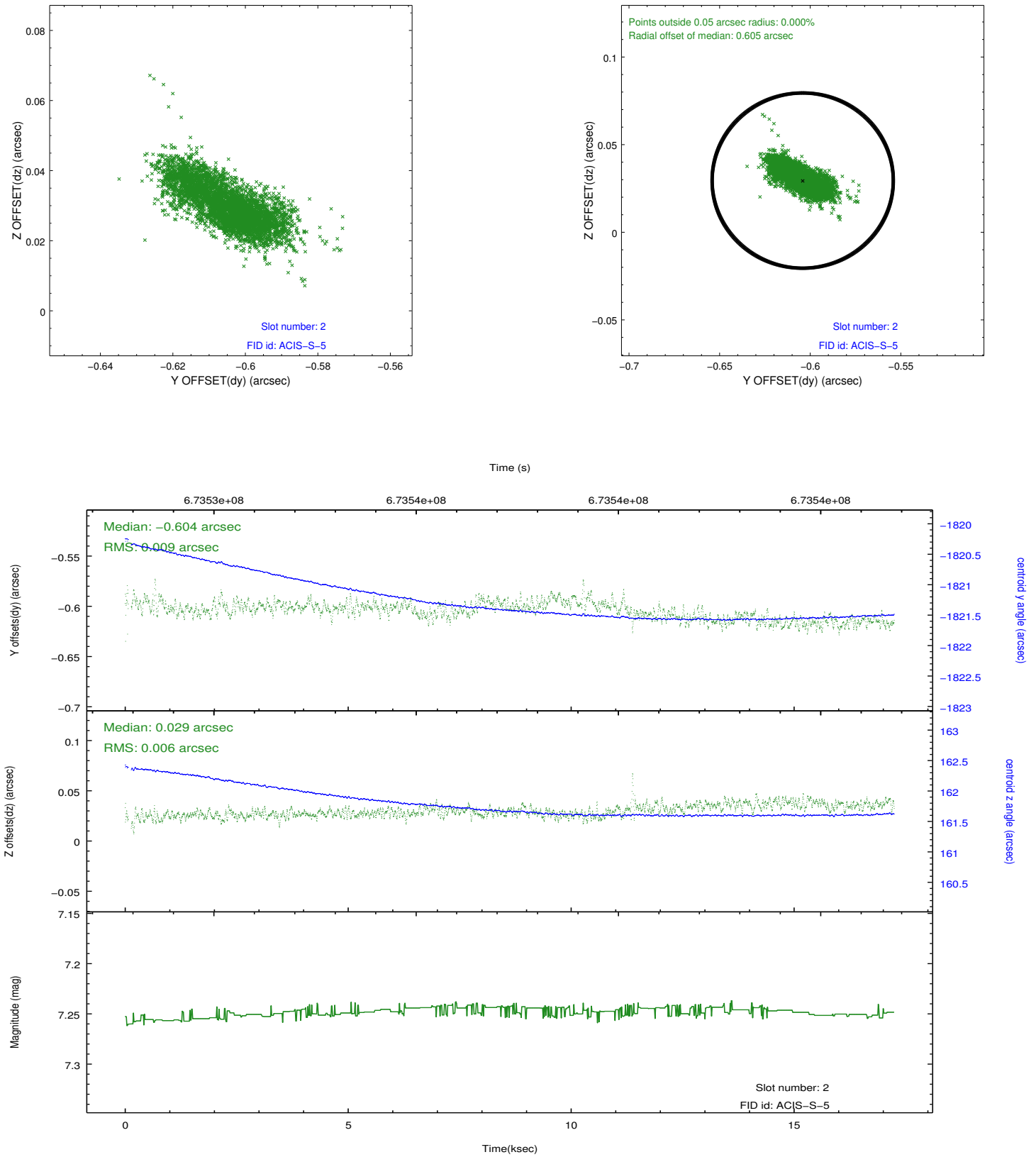
2.5.1 Slot 0



2.5.2 Slot 1

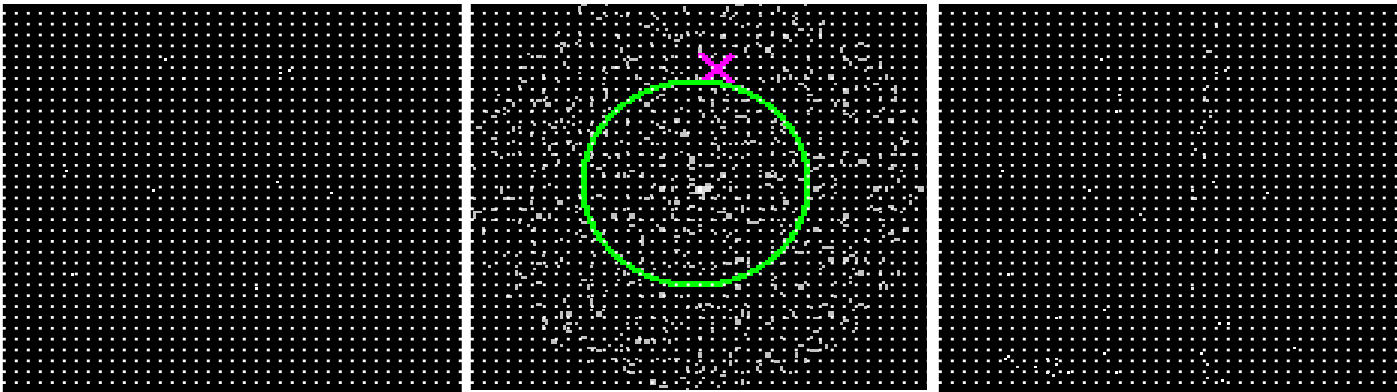


2.5.3 Slot 2



3 Gratings

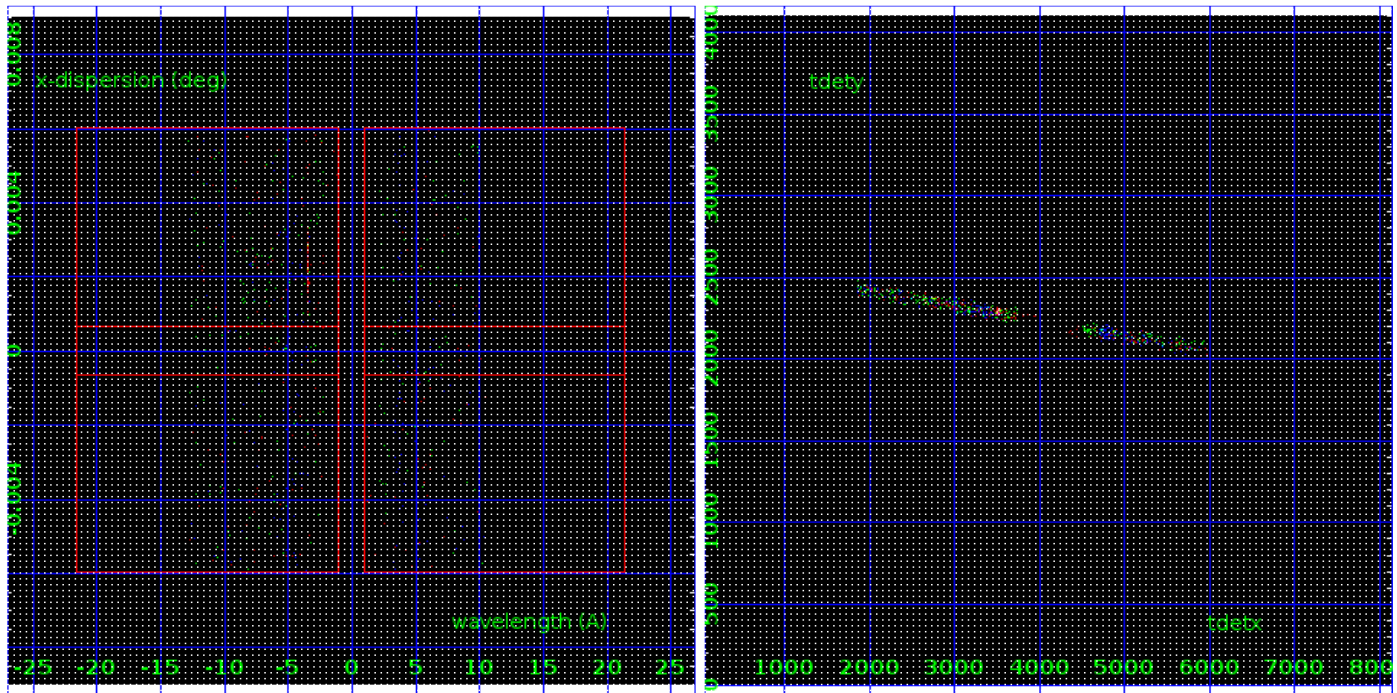
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

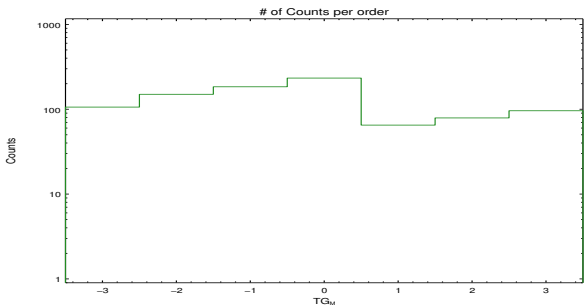
HEG Order Sort ALL

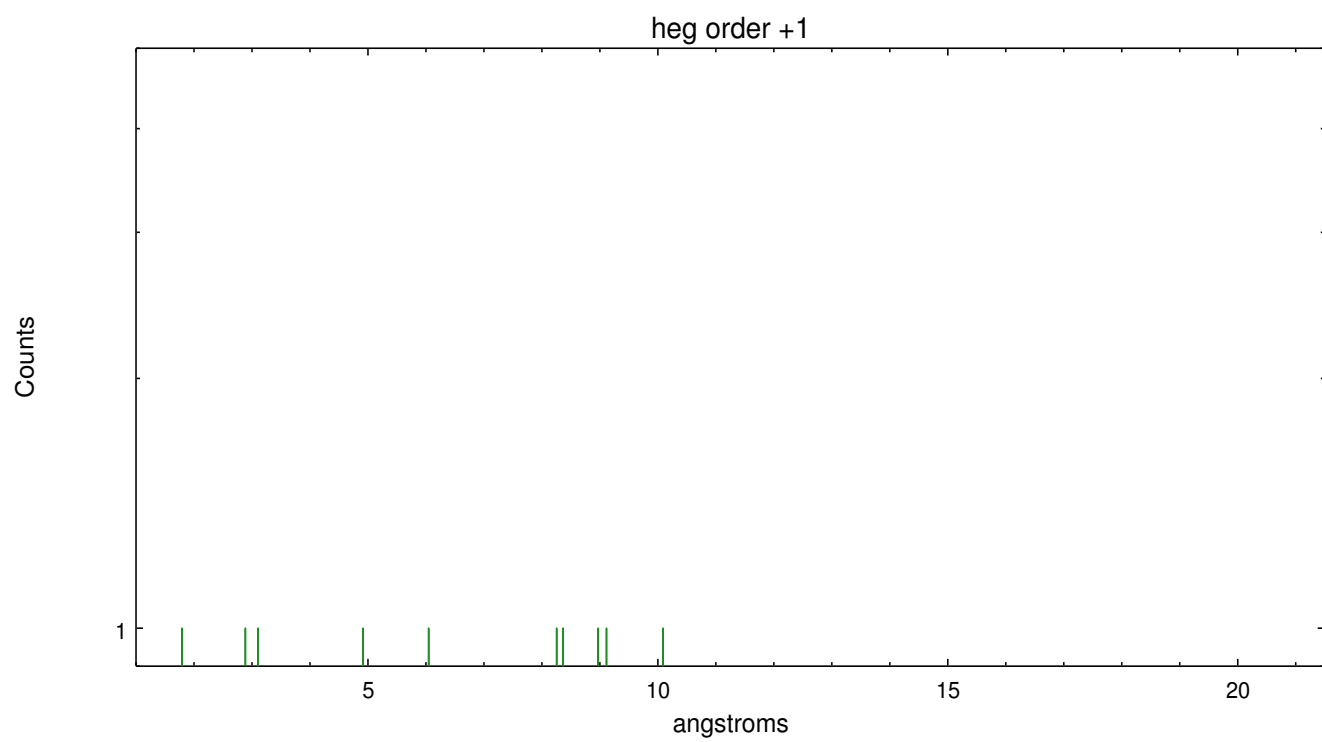
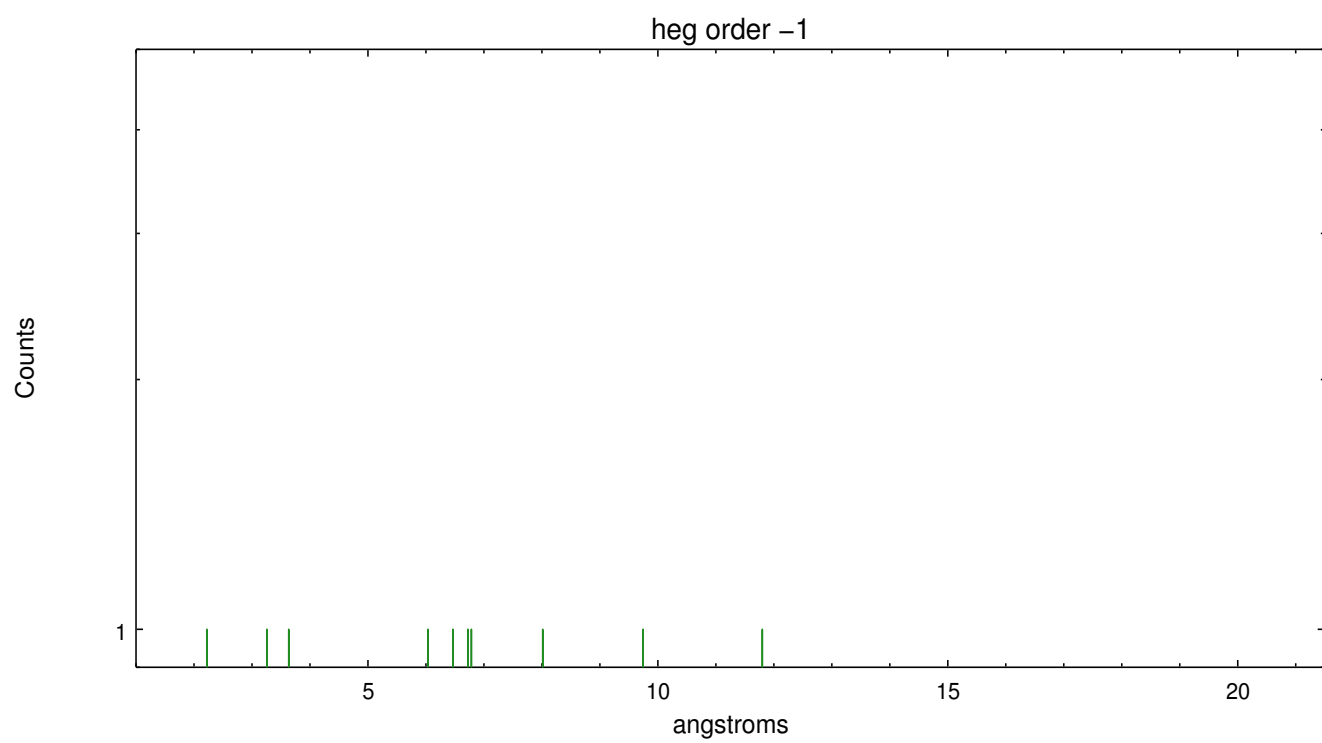


Spot Image HEG

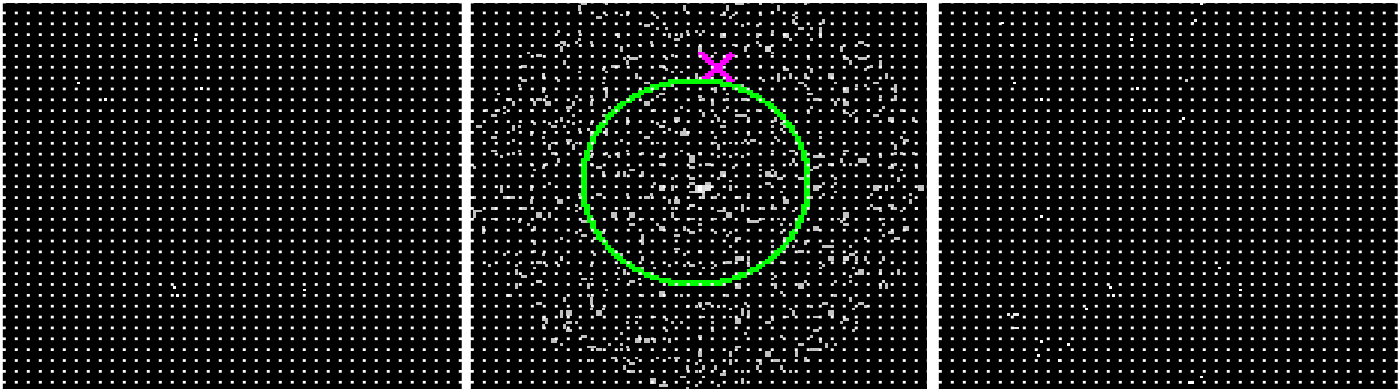
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	106	150	184	233	65	79	96





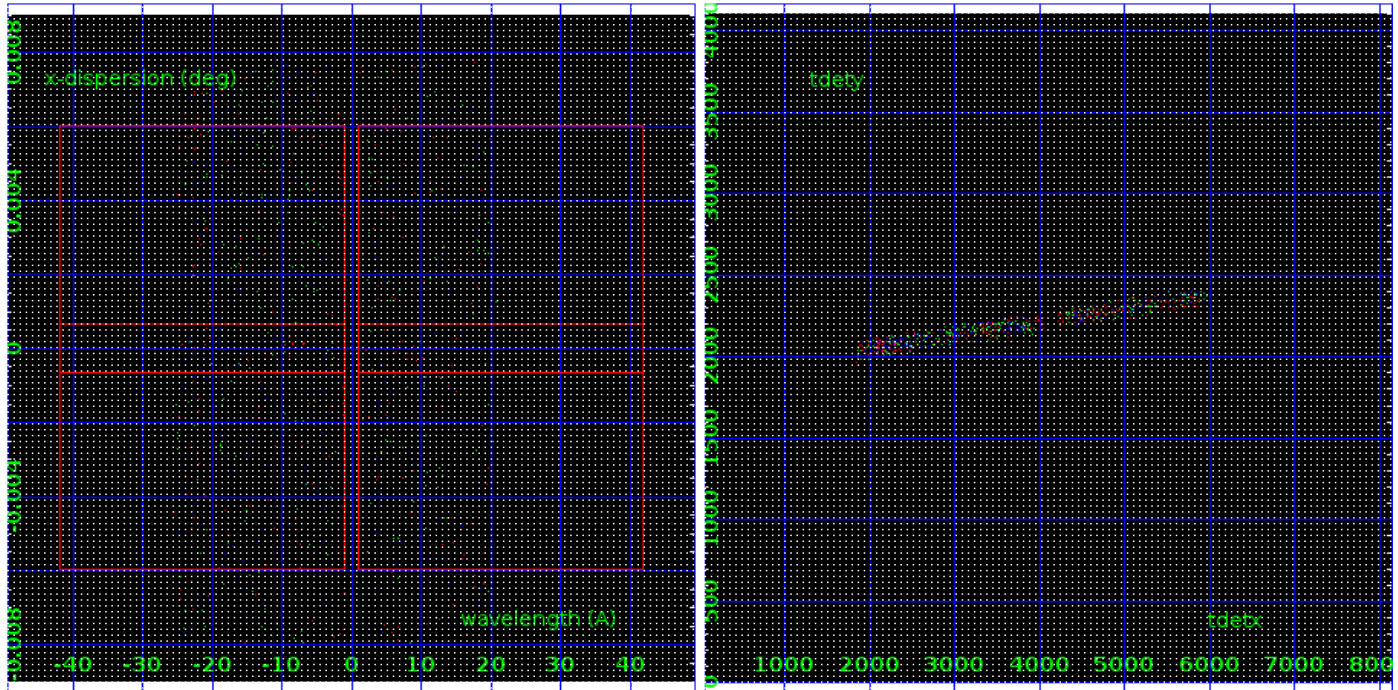
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

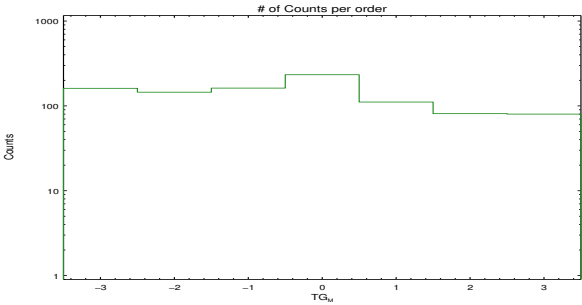
MEG Order Sort ALL

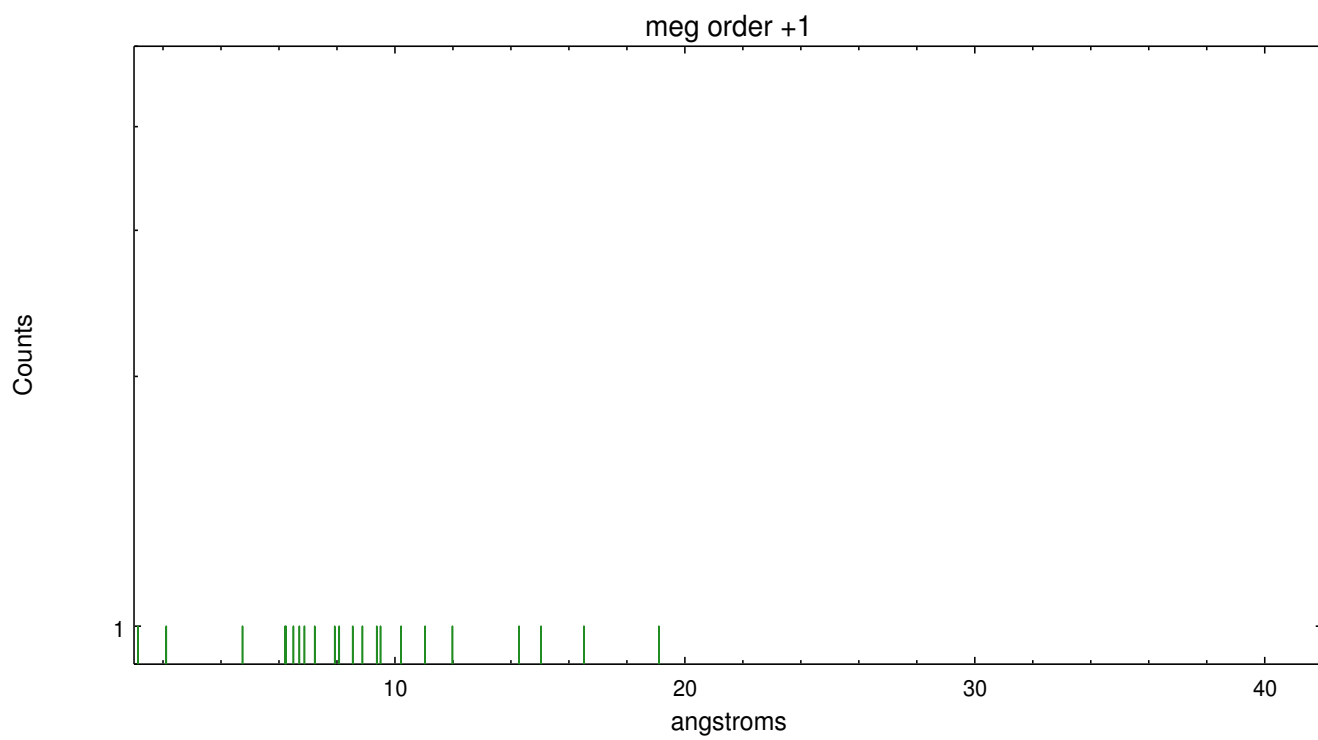
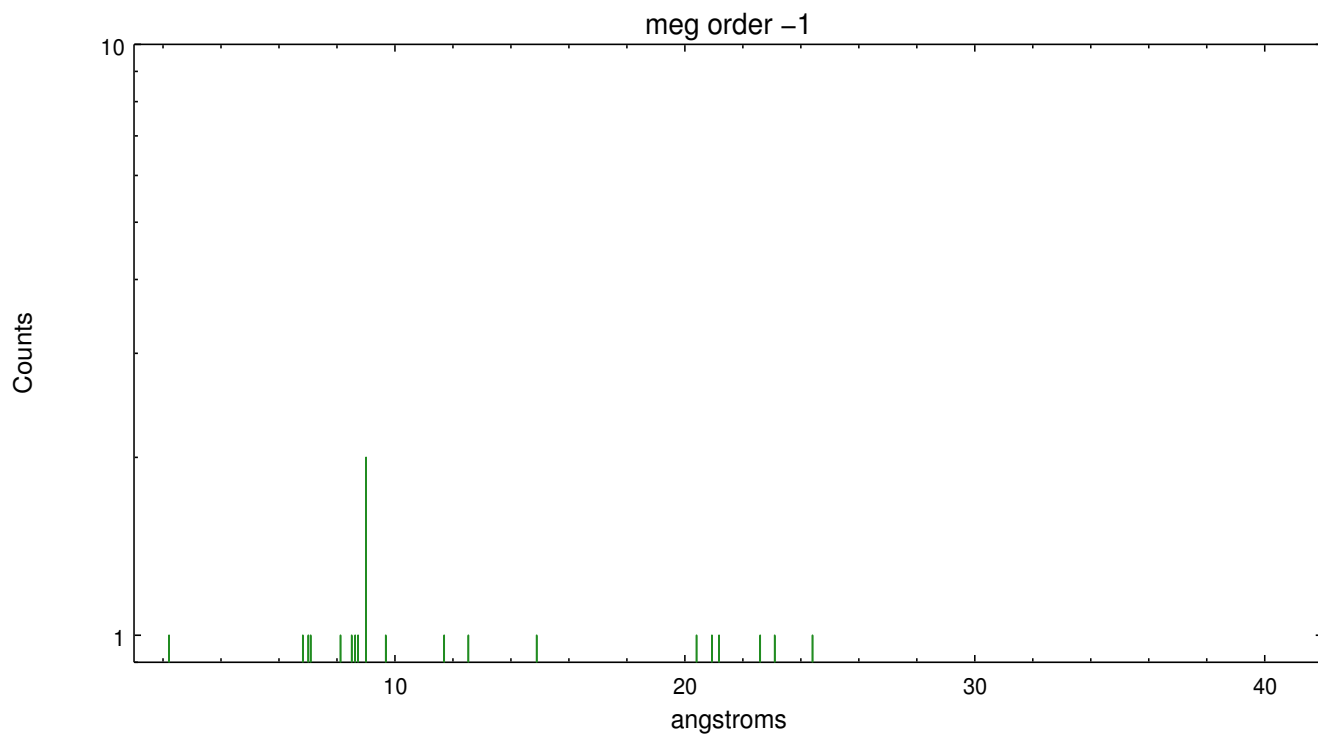


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	161	145	162	233	111	81	80





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.05.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.105800131679

A.2 Comments