

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22008 - L2 Version 1
Chandra X-Ray Center

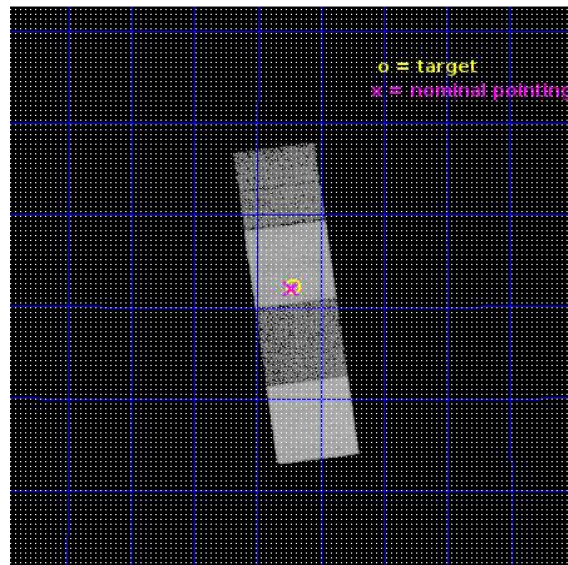
L2 Processing Date : Dec 22 2018

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

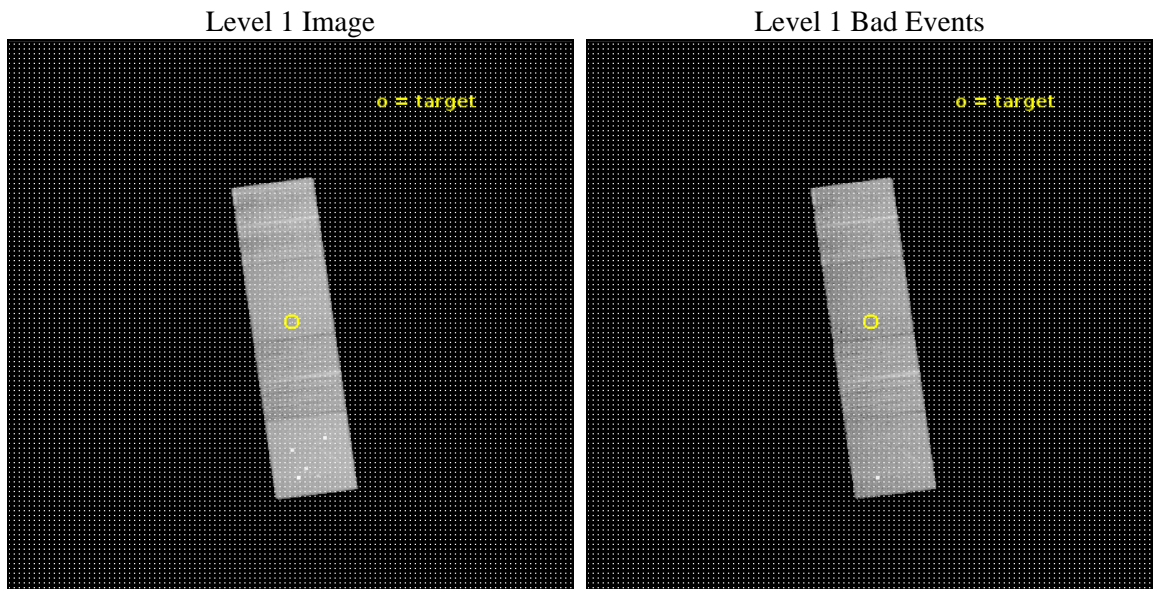
seq_num	201195	Sequence number
obs_id	22008	Observation id
title	X-ray Flares from Young Stars and the Sun: Bridging the Gap with Chandra+NuSTAR	Proposal title
observer	Dr. Claude Canizares	Principal investigator
object	V773 Tau	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	63.55375	Observer's specified target RA [deg]
dec_targ	28.203417	Observer's specified target Dec [deg]
ra_nom	63.557799229409	Nominal RA [deg]
dec_nom	28.199946985042	Nominal Dec [deg]
roll_nom	262.15468576838	Nominal Roll [deg]
revision	1	Processing version of data
ontime	15025.700115681	Sum of GTIs [s]
livetime	14829.37828191	Livetime [s]
ontime5	15025.700115681	Sum of GTIs [s]
ontime6	15025.700115681	Sum of GTIs [s]
ontime7	15025.700115681	Sum of GTIs [s]
ontime8	15025.700115681	Sum of GTIs [s]
l2events	172334	Number of level 2 events



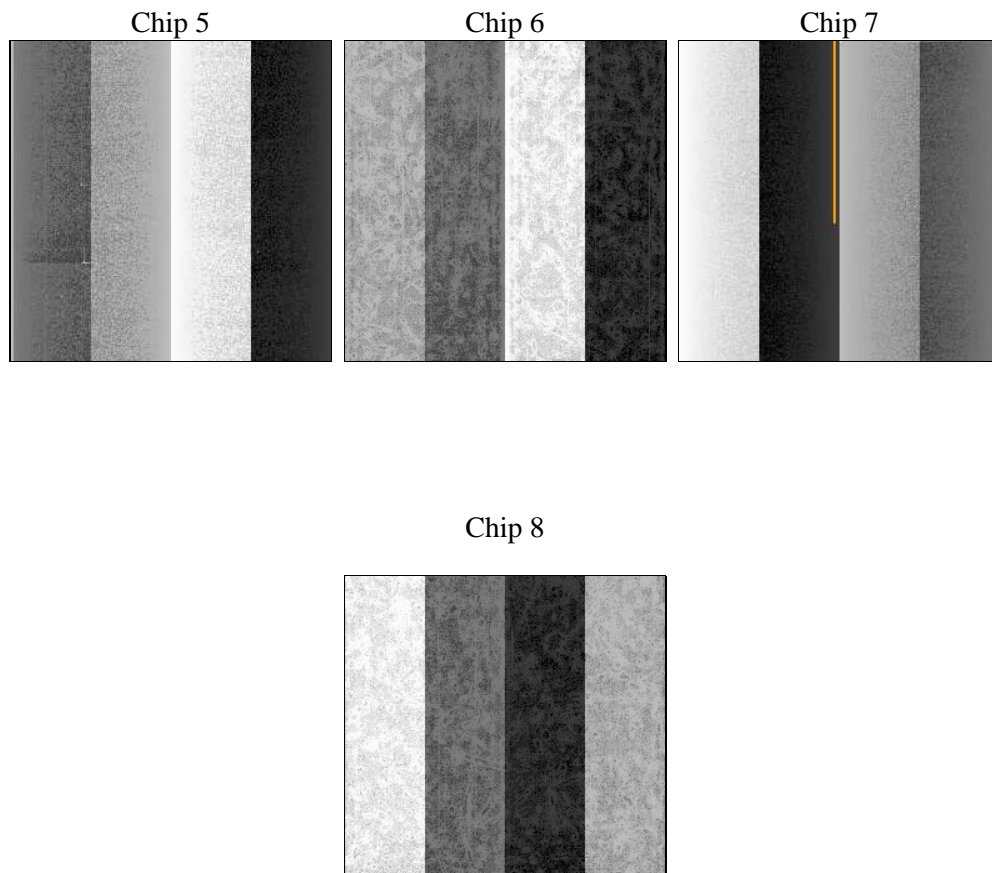
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	15025.700115681	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	15025.700115681	Sum of GTIs [s]
date	2018-12-22T13:27:55	Date and time of file creation	ontime6	15025.700115681	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	15025.700115681	Sum of GTIs [s]
			ontime8	15025.700115681	Sum of GTIs [s]
			l1events	622155	Number of level 1 events
			tgmeth	TGDETECT	Method used to create src1a file
			zo_pos	(4121.71, 4120.58)	src1a sky pixel position

2.1.4 Events

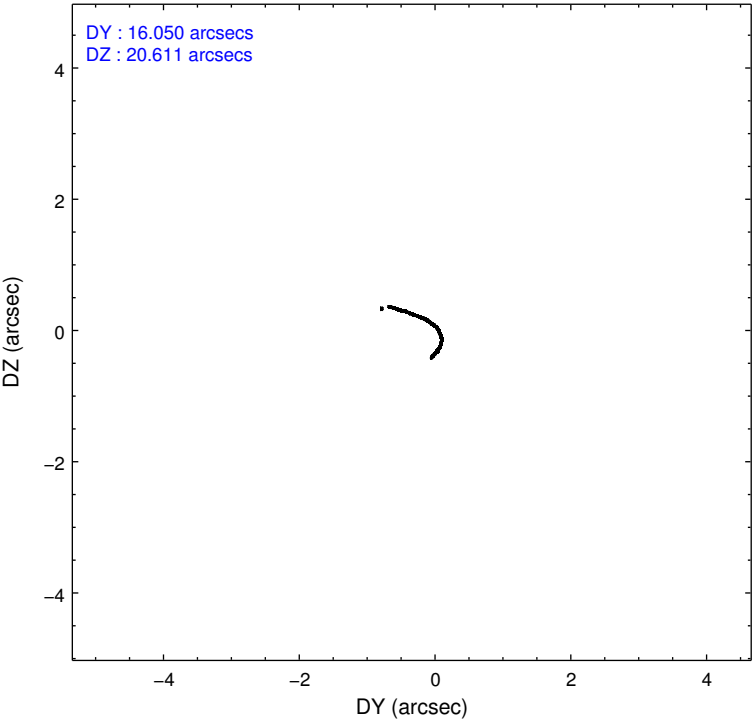
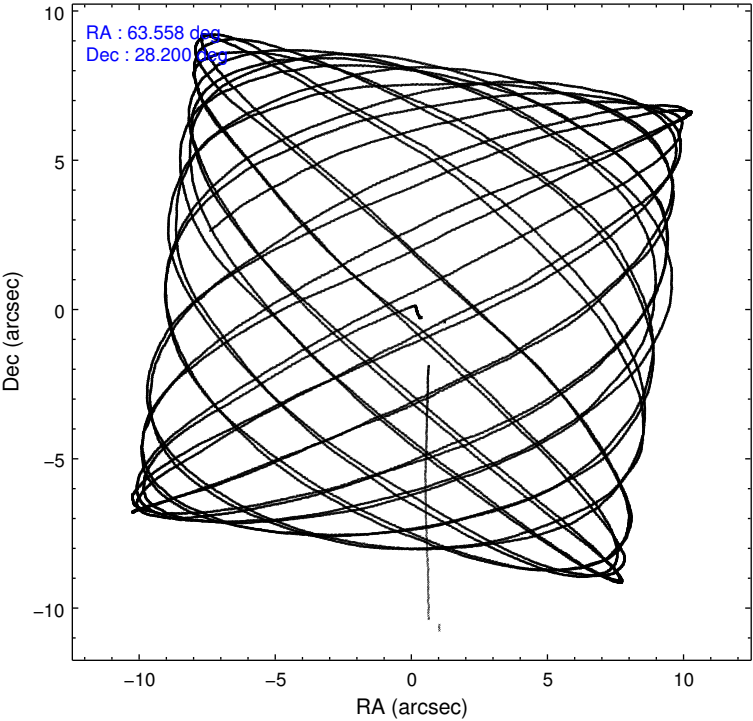
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	200456	119653	148666	153380
rejected events	101035	106555	84108	111559
rejected %	50%	89%	56%	72%

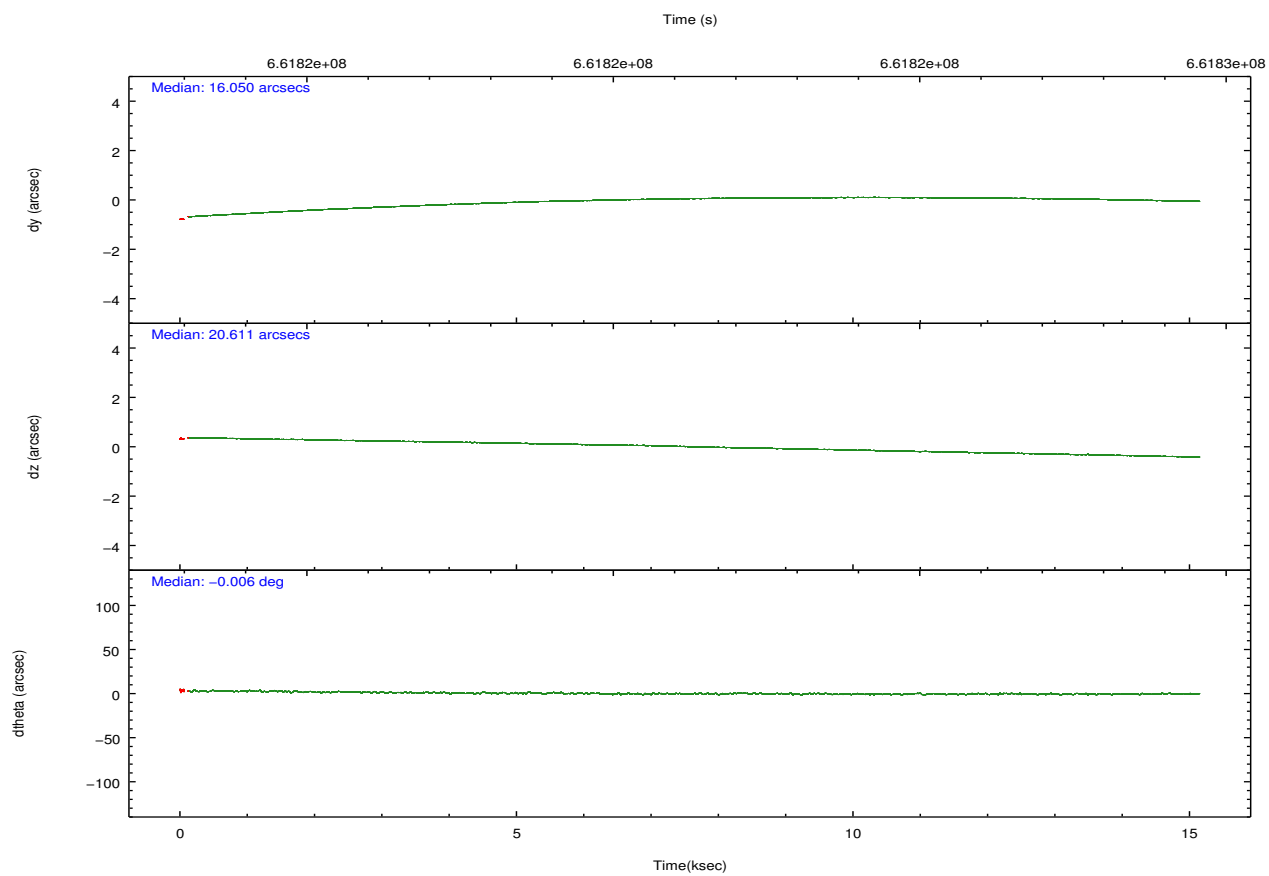
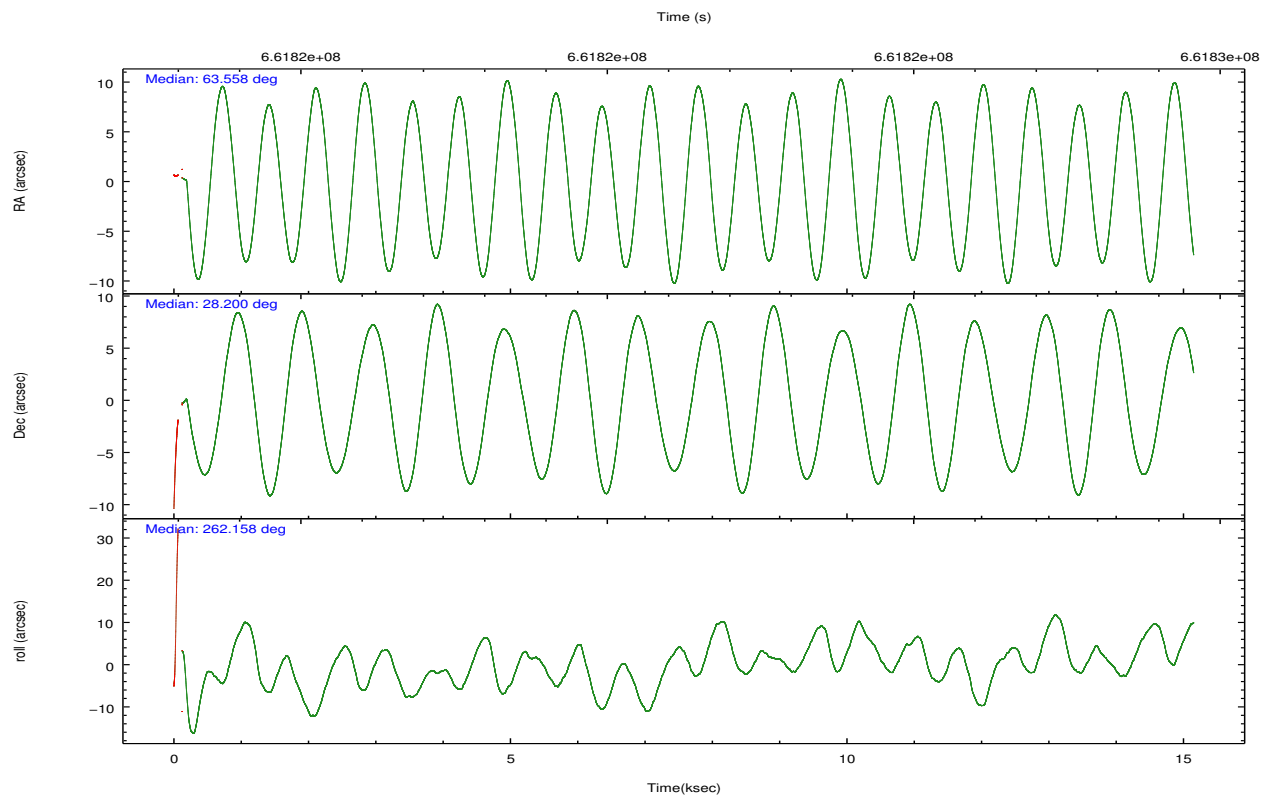
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	15617	4369	5391	11390
	7%	3%	3%	7%
grade 1 events	486	50	244	117
	0%	0%	0%	0%
grade 2 events	29746	3132	13958	10255
	14%	2%	9%	6%
grade 3 events	2668	1275	5161	4165
	1%	1%	3%	2%
grade 4 events	2630	1286	4968	4002
	1%	1%	3%	2%
grade 5 events	13009	5433	14564	8138
	6%	4%	9%	5%
grade 6 events	49058	3090	35263	12082
	24%	2%	23%	7%
grade 7 events	87242	101018	69117	103231
	43%	84%	46%	67%

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	63.545665	63.55779922940888	CCD I2 on	N	N
[deg] Pointing Dec	28.225240	28.1999469850419	CCD I3 on	N	N
[deg] Pointing Roll	262.003823	262.1546857683772	CCD S0 on	O1	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)	661813832.184000	661812295.77241	CCD S5 on	O2	N
Observation start date	2018-12-21T21:09:23	2018-12-21T20:44:55	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	661828832.184000	661829614.17344	On-chip summing requested	N	N
Observation end date	2018-12-22T01:19:23	2018-12-22T01:33:34	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



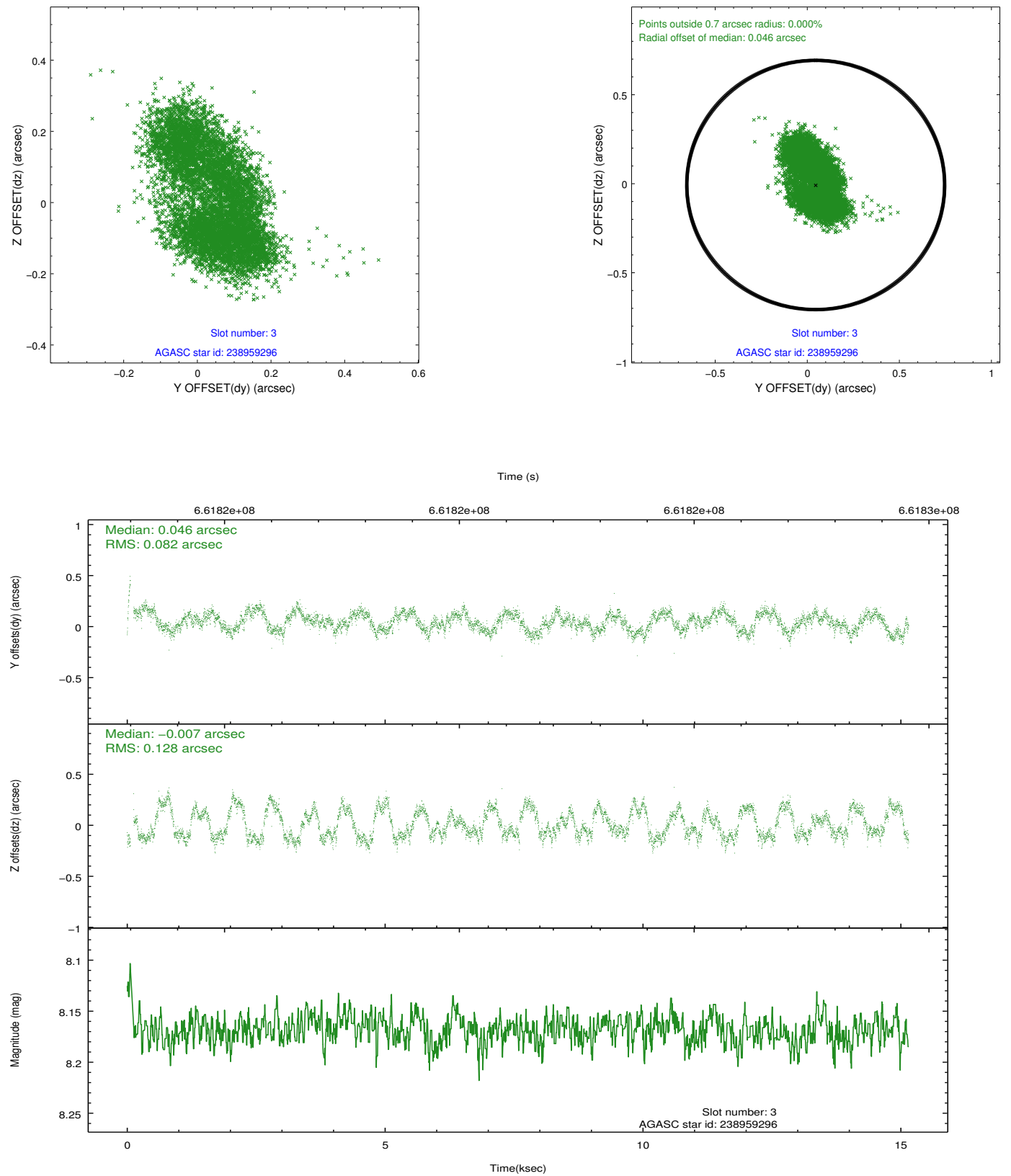


Slot Statistics

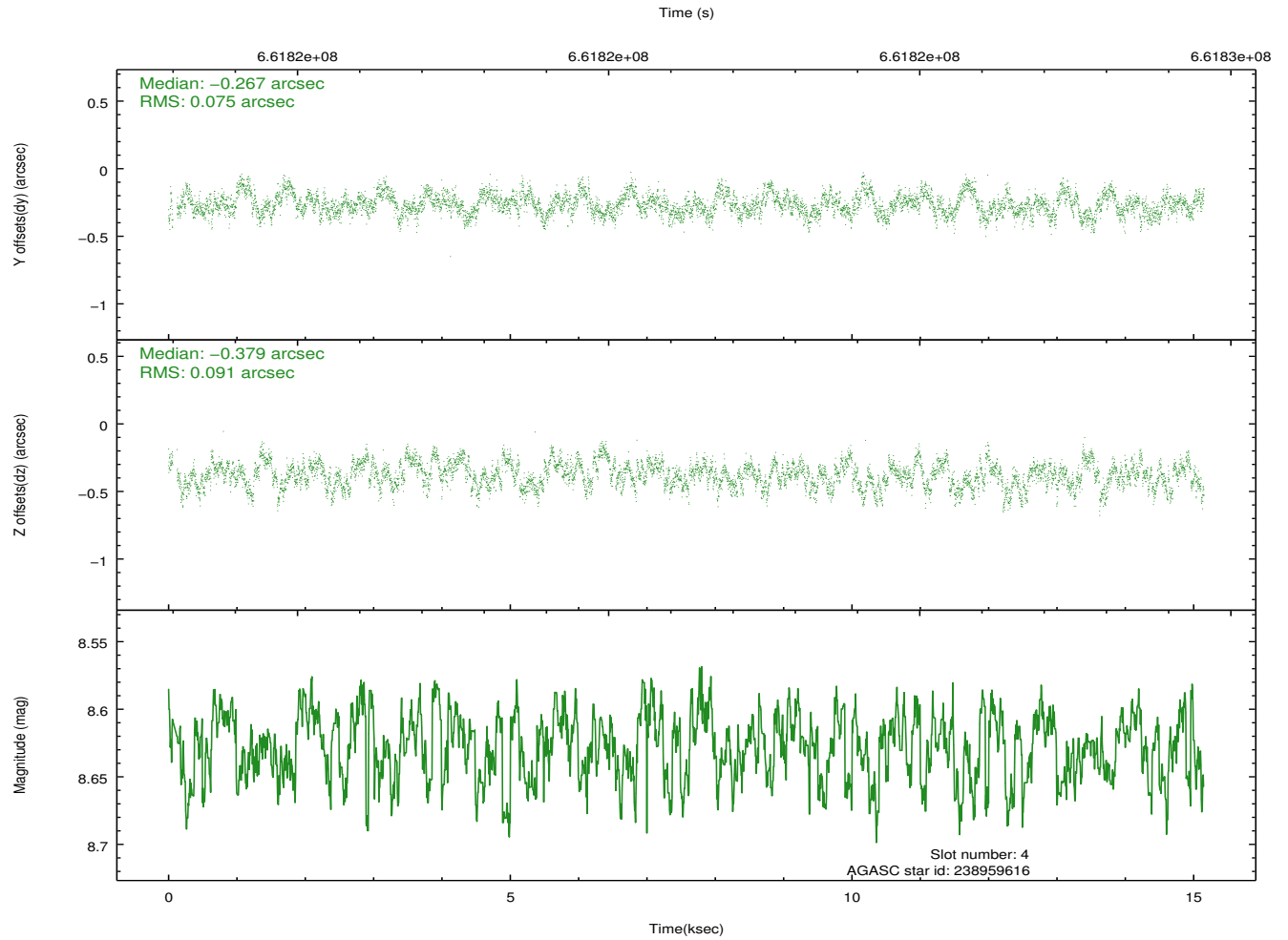
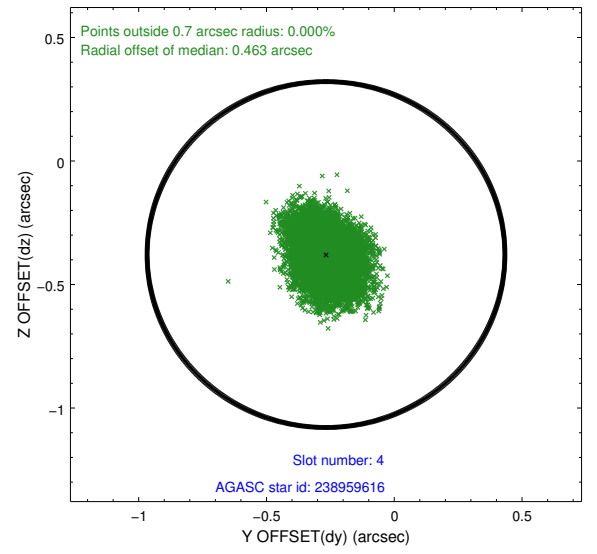
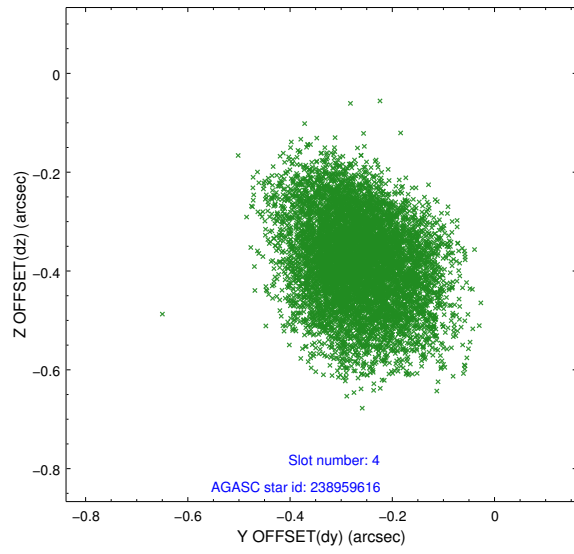
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.13	3682	1.000	-0.160	-0.187	0.008	0.013	0.000000	0.000000	926.93	-1737
1	FID		ACIS-S-4	7.16	3681	1.000	0.343	0.158	0.008	0.014	0.000000	0.000000	2144.99	166
2	FID		ACIS-S-6	7.30	3682	1.000	-0.207	0.040	0.008	0.014	0.000000	0.000000	393.18	803
3	GUIDE	used	238959296	8.17	7354	1.000	0.046	-0.007	0.162	0.255	63.264622	28.040280	783.31	-791
4	GUIDE	used	238959616	8.63	7354	1.000	-0.267	-0.379	0.127	0.202	63.631917	27.959756	909.07	405
5	GUIDE	used	239475552	8.63	7358	1.000	-0.204	0.199	0.123	0.186	63.591874	28.708120	-1741.15	-96
6	GUIDE	used	239476904	9.34	7340	1.000	0.438	0.197	0.265	0.450	63.088920	28.435074	-548.89	-1535
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

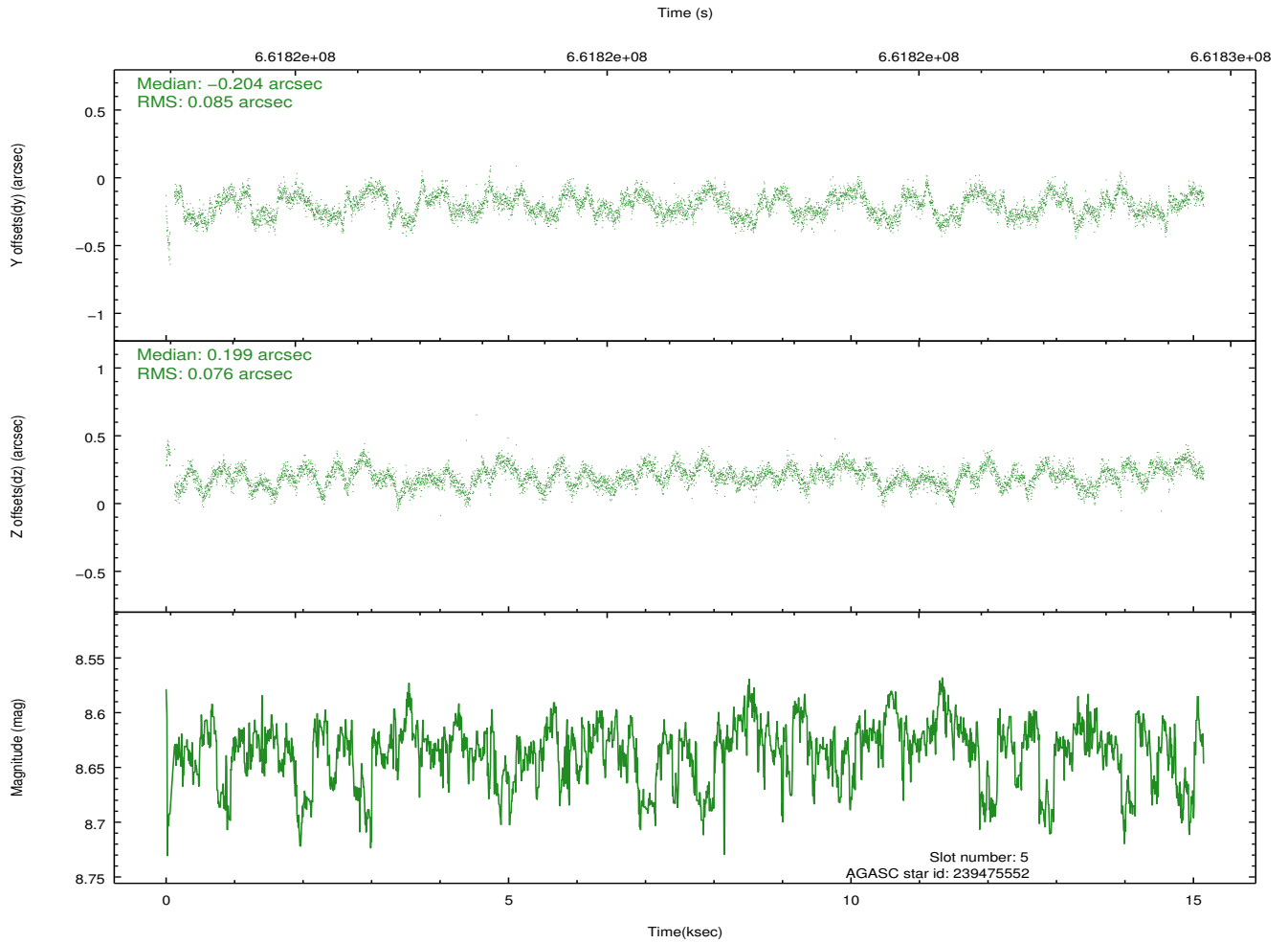
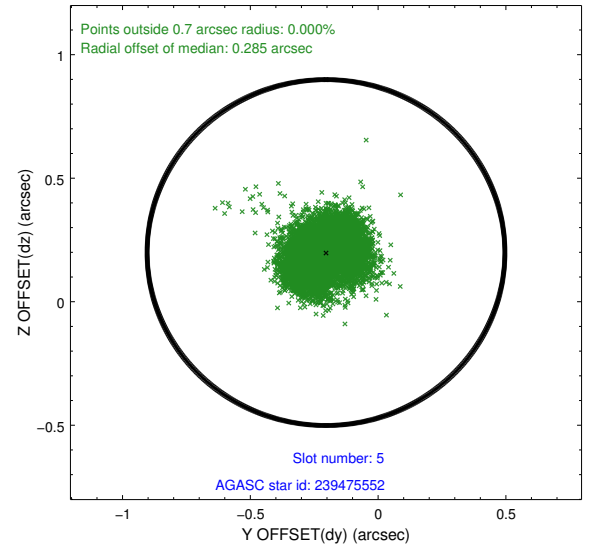
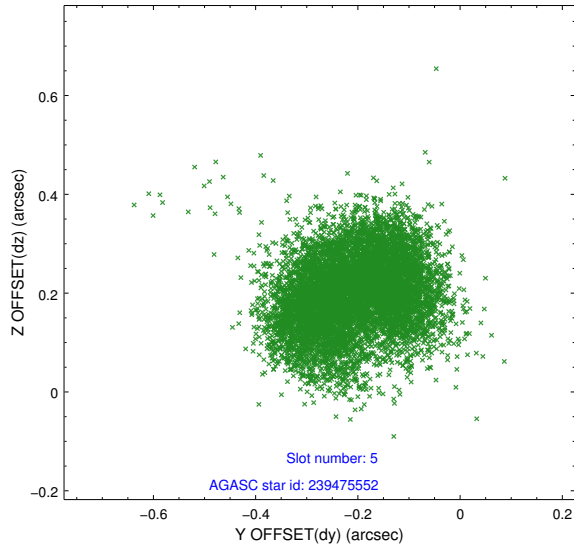
2.4.1 Slot 3



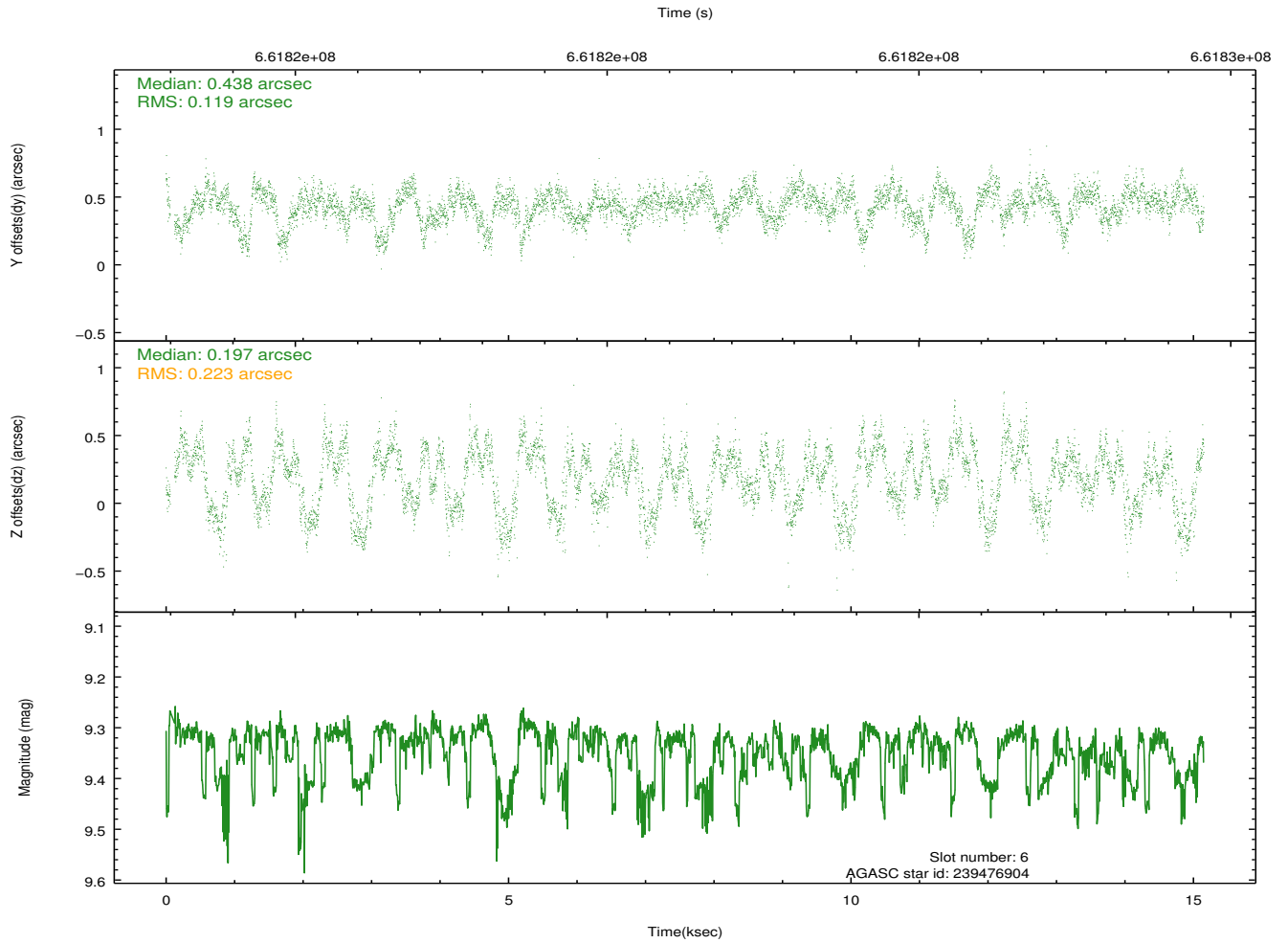
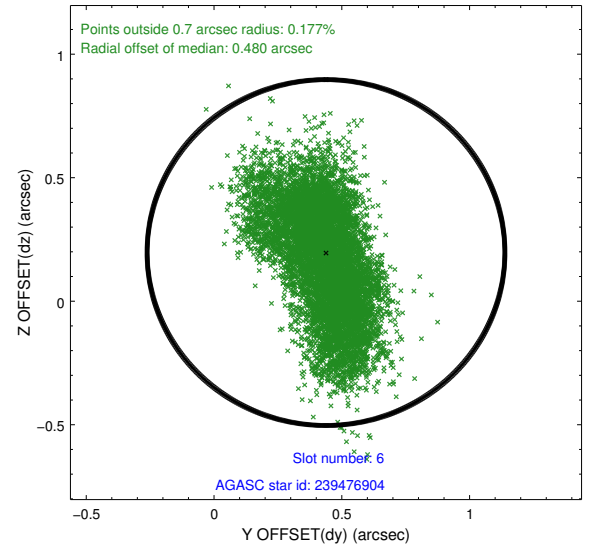
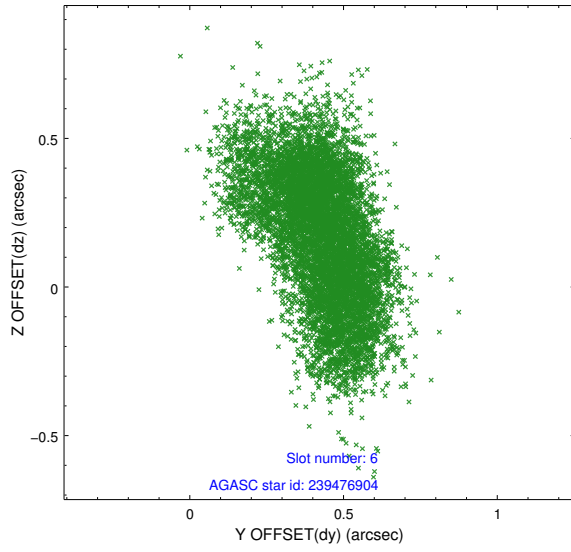
2.4.2 Slot 4



2.4.3 Slot 5

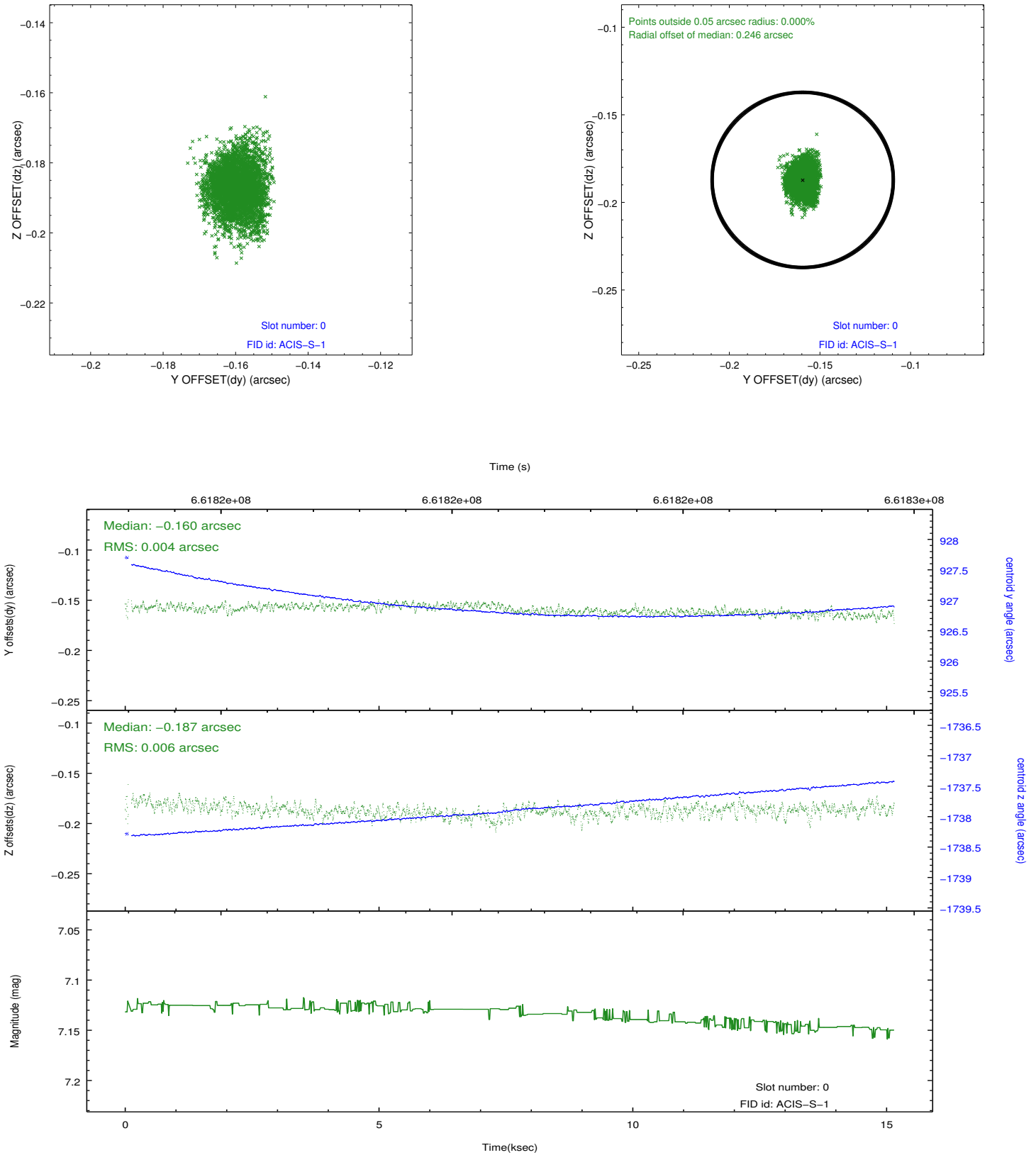


2.4.4 Slot 6

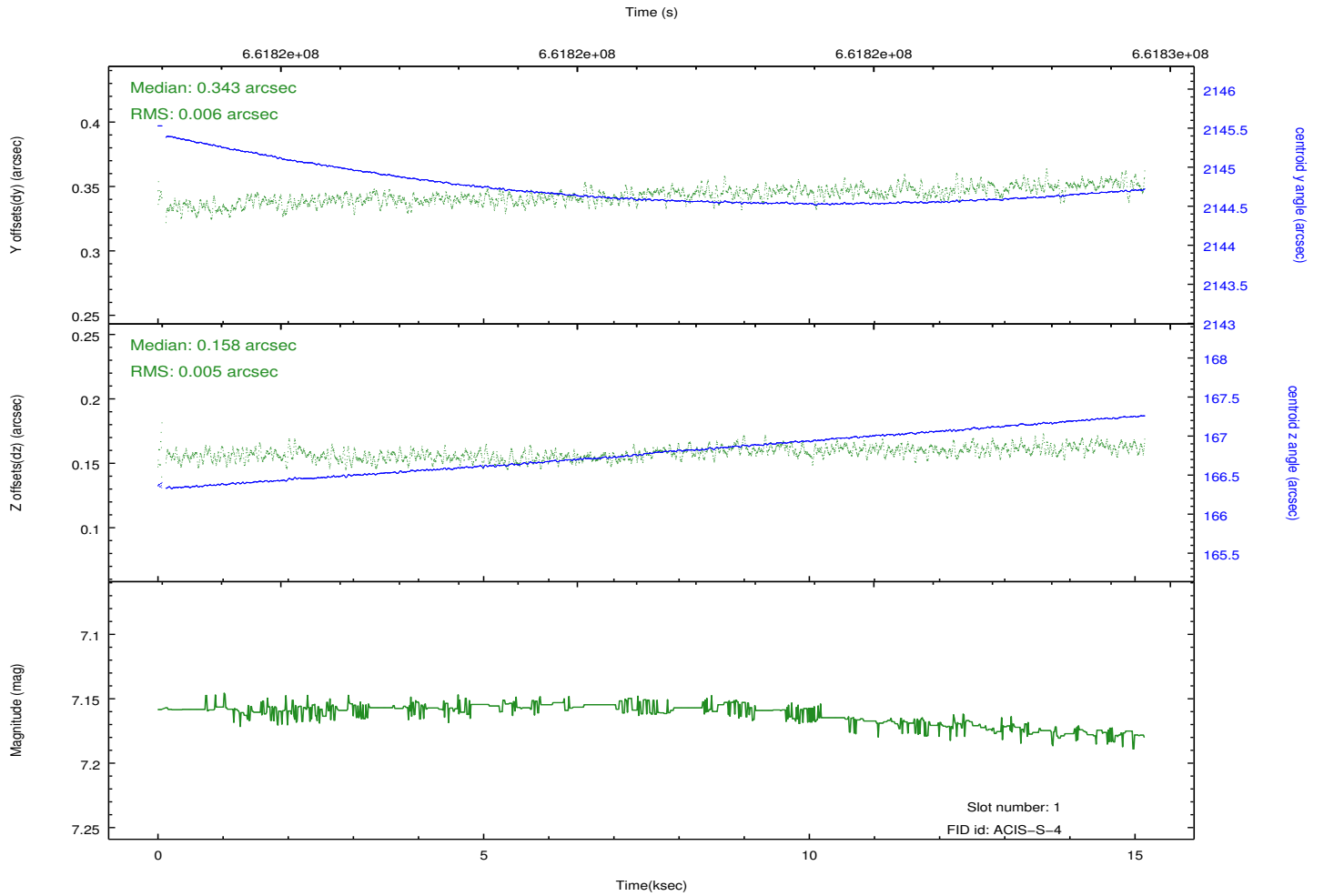
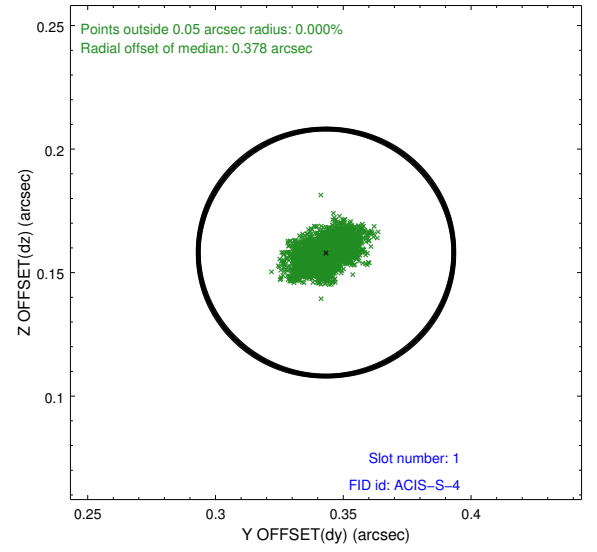
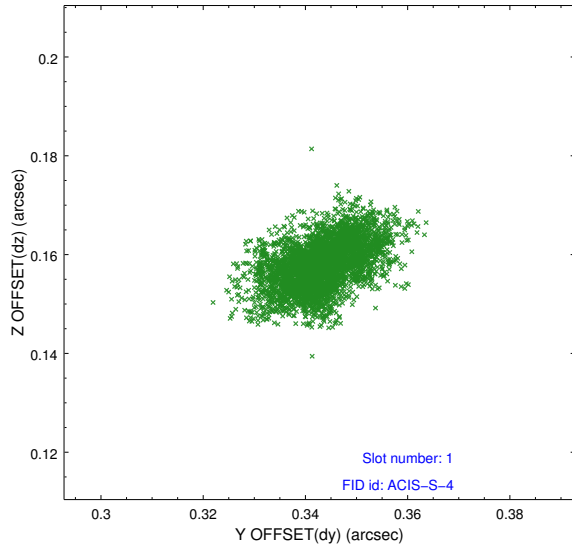


2.5 FID Slots

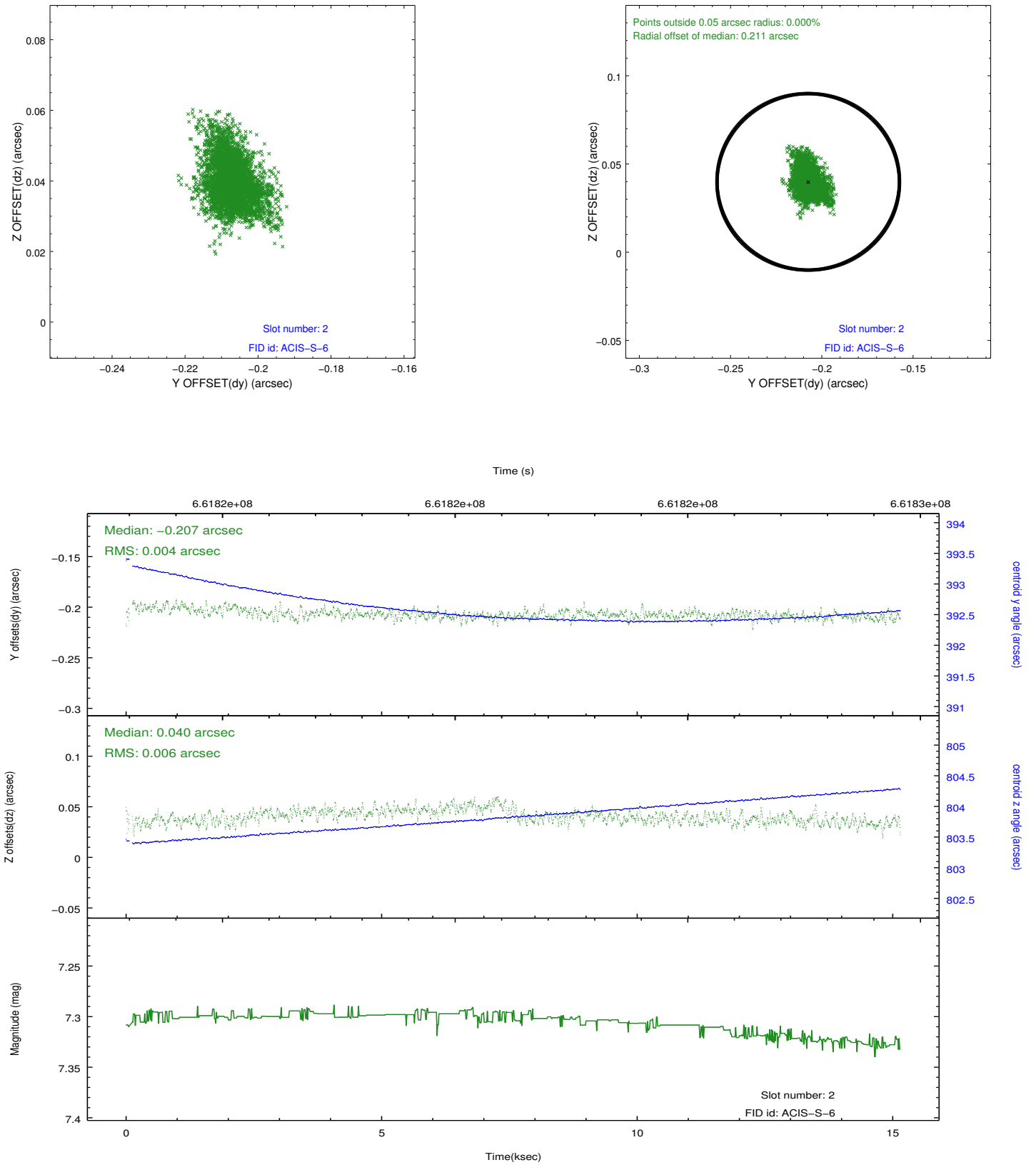
2.5.1 Slot 0



2.5.2 Slot 1

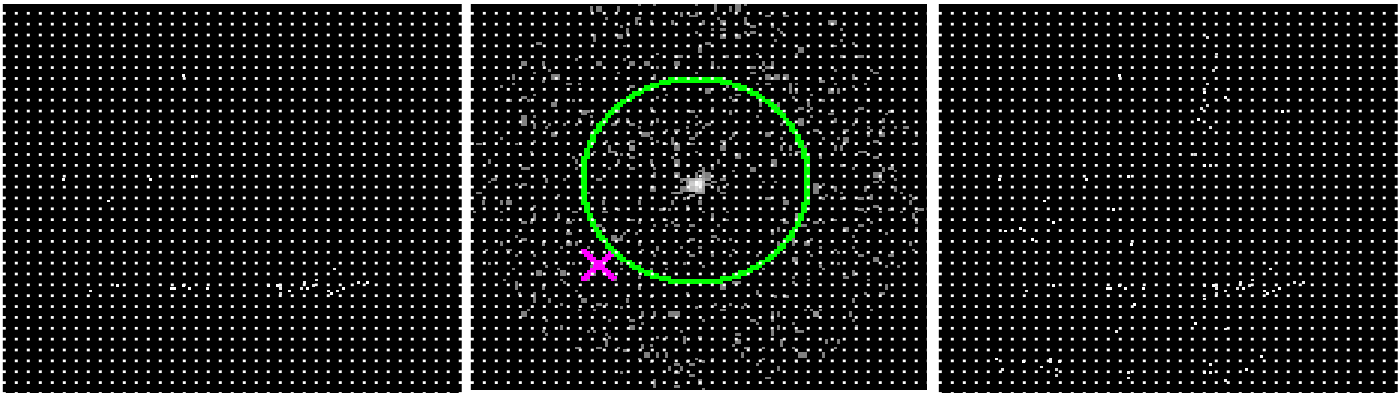


2.5.3 Slot 2



3 Gratings

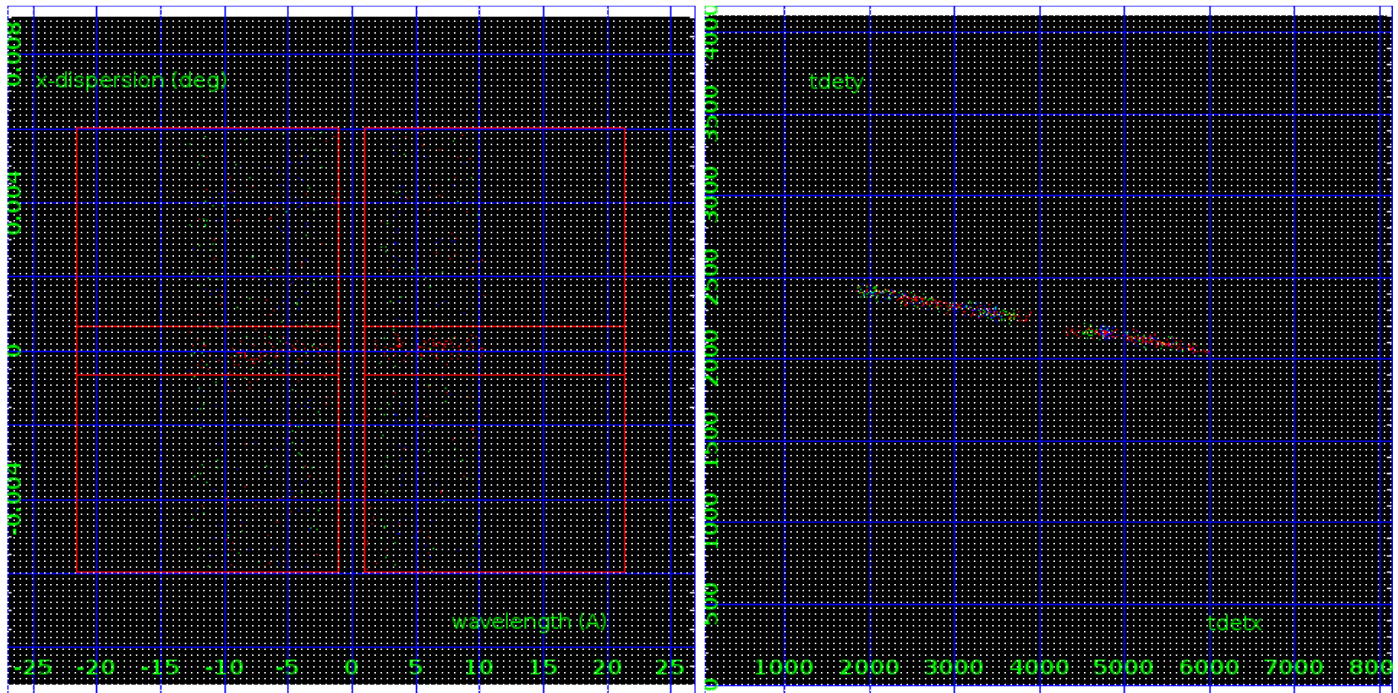
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

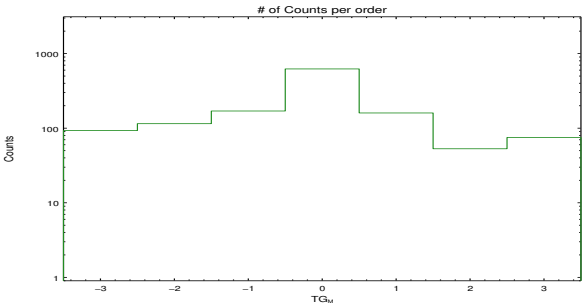
HEG Order Sort ALL

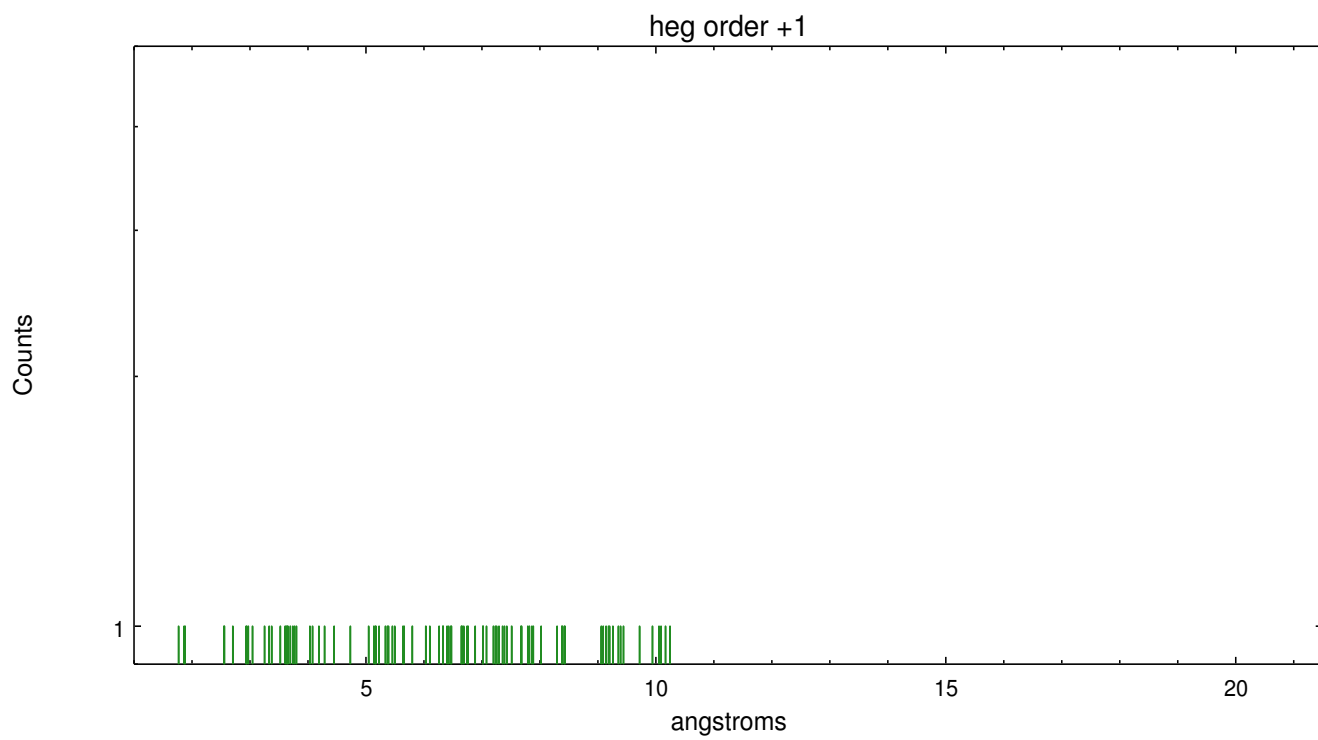
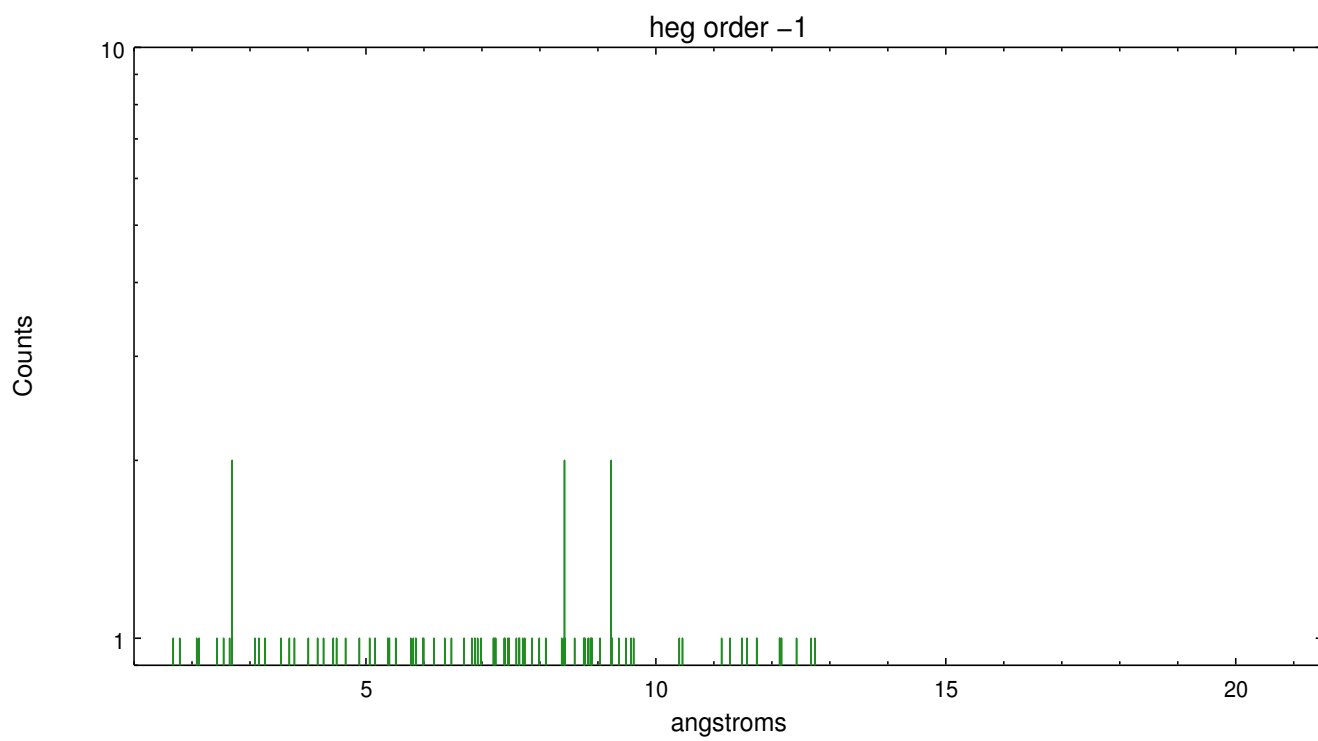


Spot Image HEG

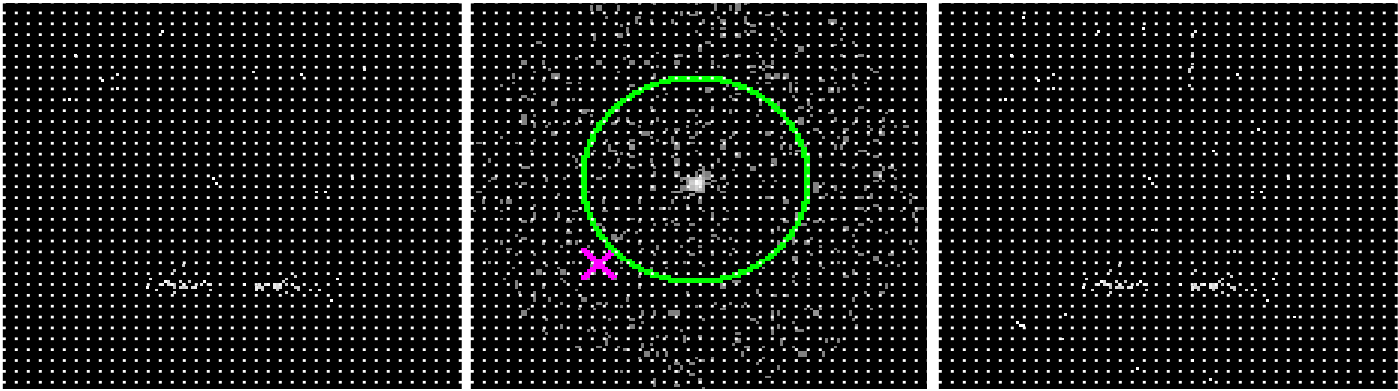
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	93	115	170	623	160	53	75





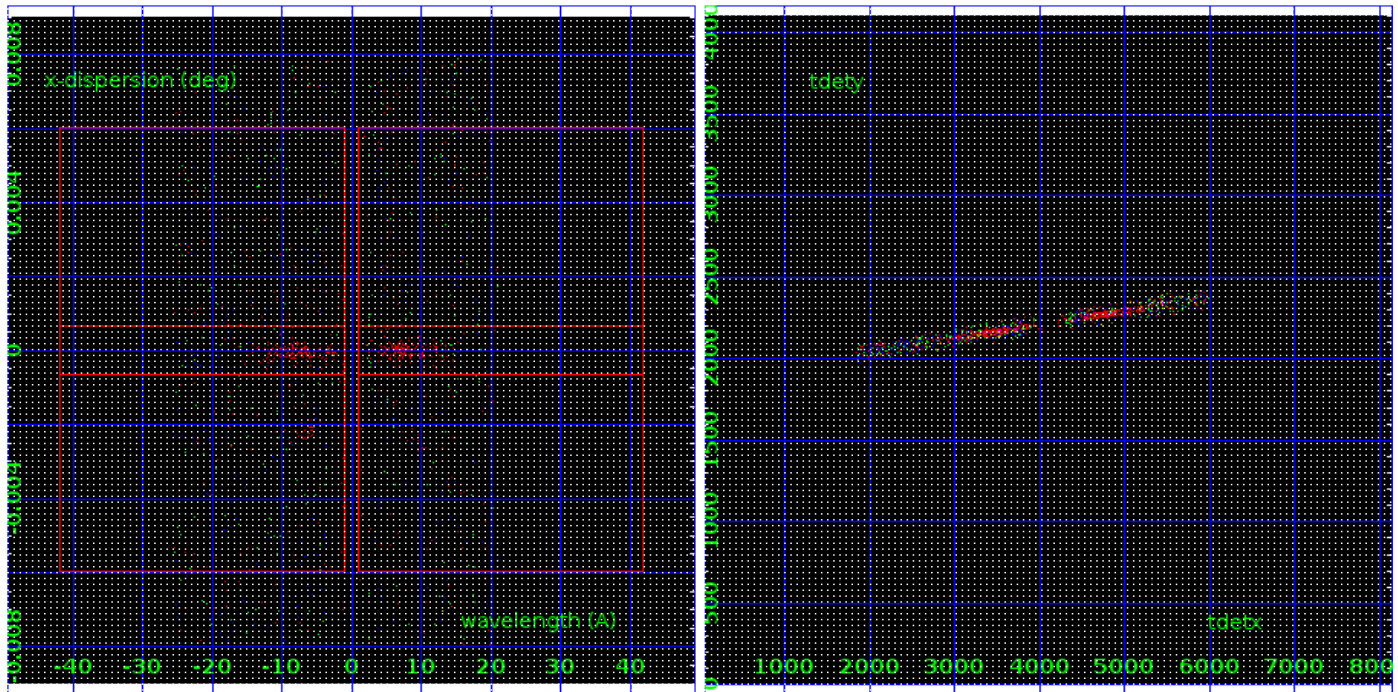
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

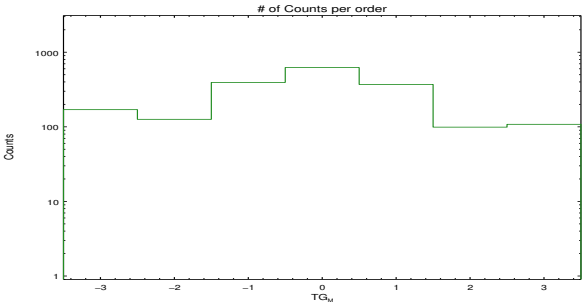
MEG Order Sort ALL

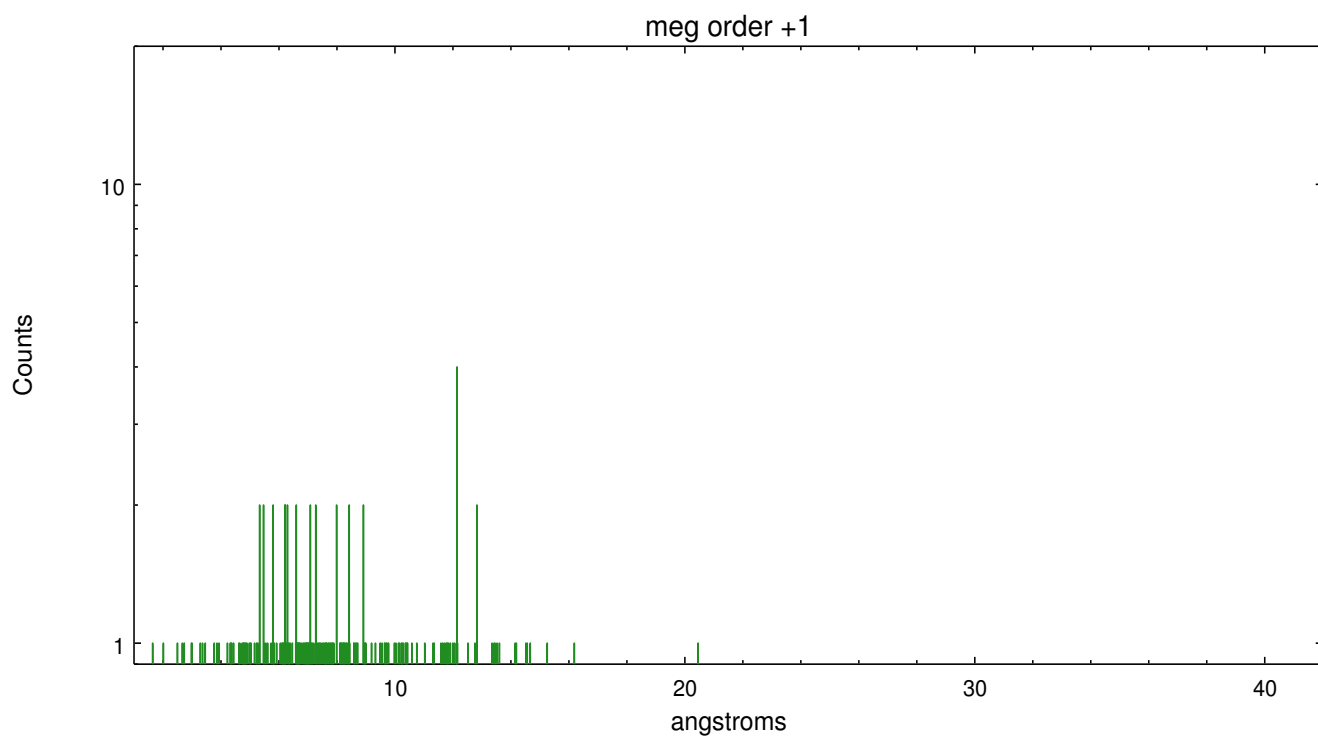
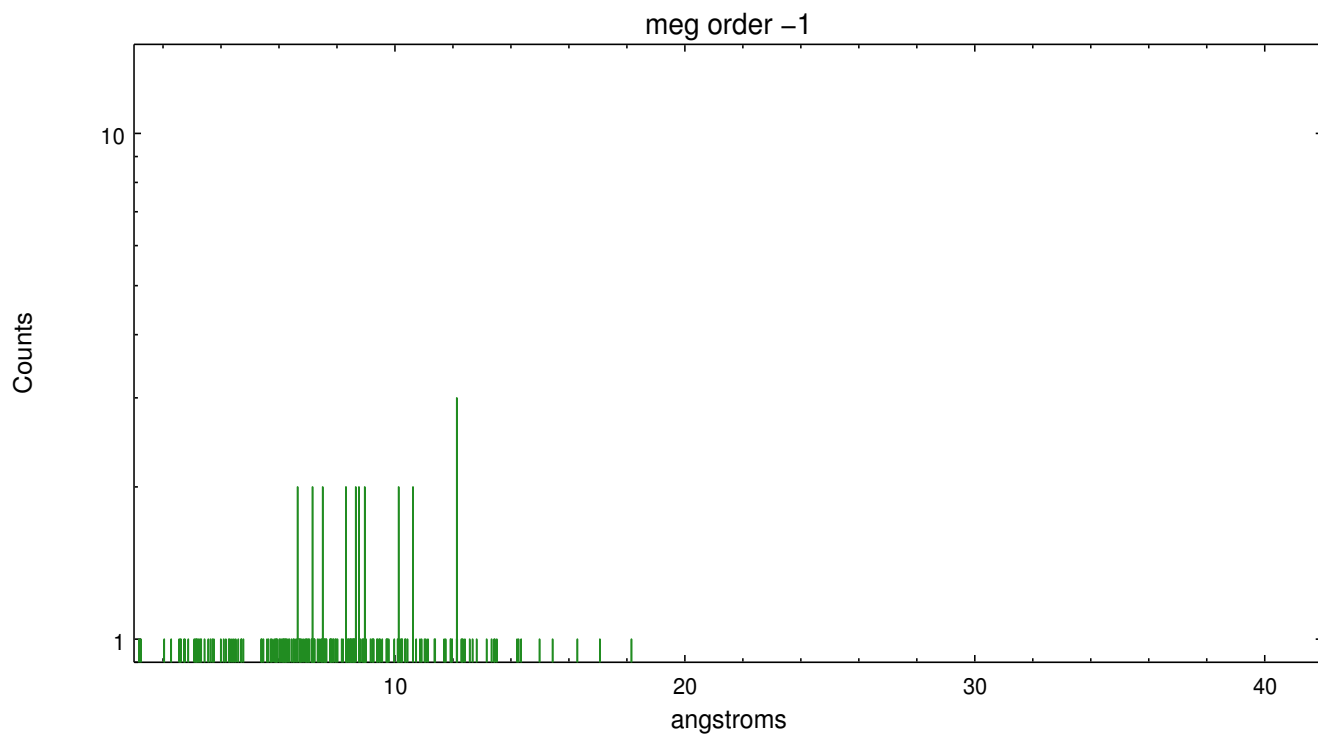


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	170	126	394	623	370	99	108





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2018.12.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.025700115681

A.2 Comments