

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 22337 - L2 Version 2
Chandra X-Ray Center

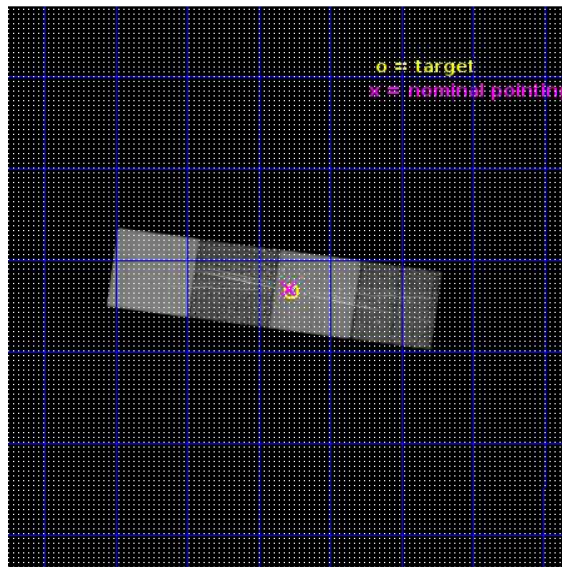
L2 Processing Date : Dec 30 2019

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1 Front

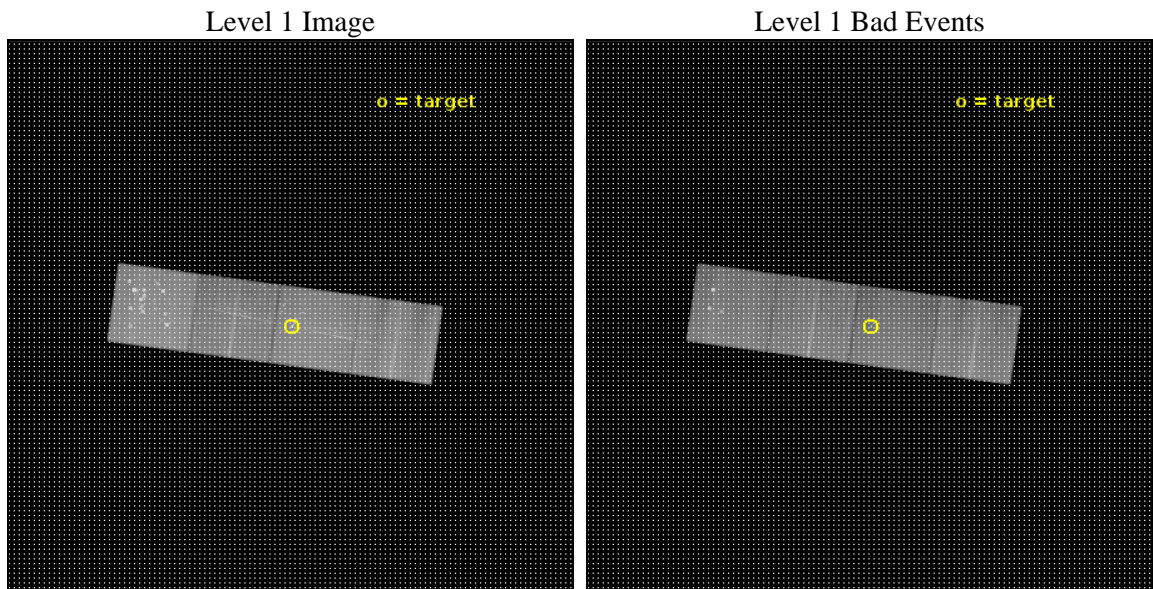
seq_num	201298	Sequence number
obs_id	22337	Observation id
title	THE TRUE NATURE OF X-RAYS FROM THE ORION TRAPEZIUM	Proposal title
observer	Norbert Schulz	Principal investigator
object	Orion Nebula Cluster	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.81875	Observer's specified target RA [deg]
dec_targ	-5.38975	Observer's specified target Dec [deg]
ra_nom	83.821076847716	Nominal RA [deg]
dec_nom	-5.3852914981837	Nominal Dec [deg]
roll_nom	7.9279534681518	Nominal Roll [deg]
revision	2	Processing version of data
ontime	38162.6807307	Sum of GTIs [s]
livetime	37664.057211997	Livetime [s]
ontime5	38162.639690757	Sum of GTIs [s]
ontime6	38162.598650694	Sum of GTIs [s]
ontime7	38162.6807307	Sum of GTIs [s]
ontime8	38162.55761075	Sum of GTIs [s]
l2events	534788	Number of level 2 events



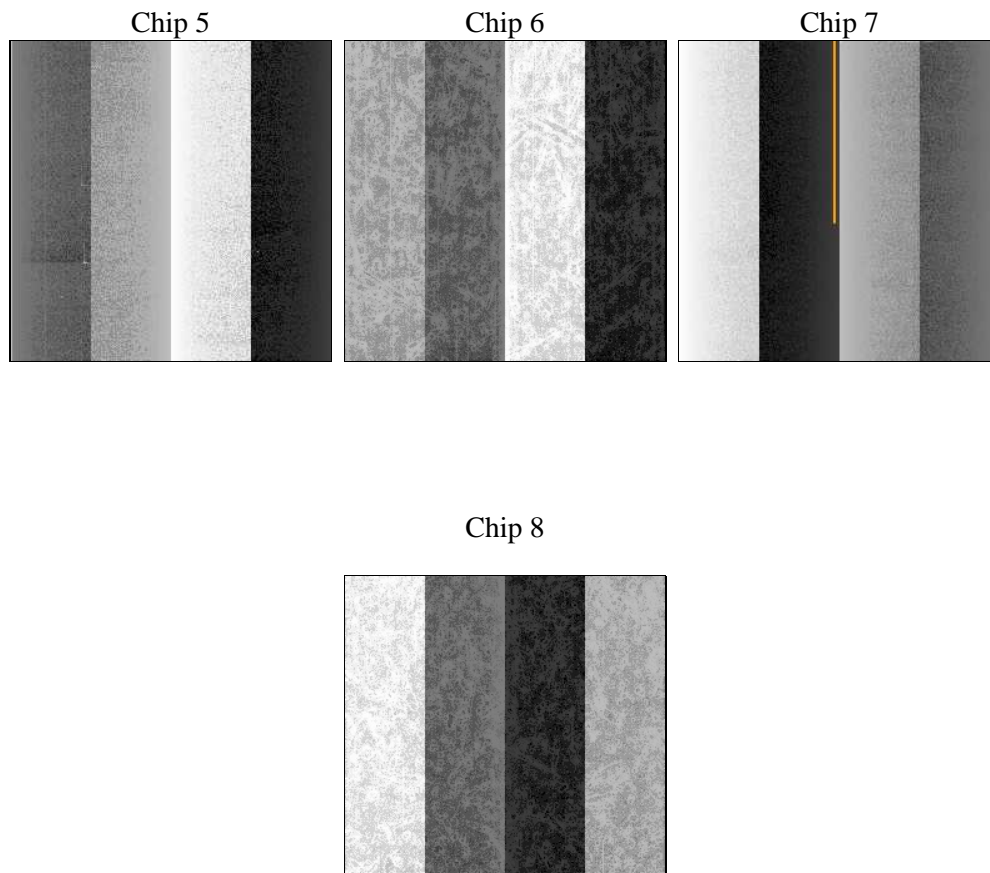
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	38100.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	38162.6807307	Sum of GTIs [s]
caldbver	4.8.4.2	 	ontime5	38162.639690757	Sum of GTIs [s]
date	2019-12-30T22:00:37	Date and time of file creation	ontime6	38162.598650694	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	38162.6807307	Sum of GTIs [s]
			ontime8	38162.55761075	Sum of GTIs [s]
			l1events	1742147	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4114.41, 4063.98)	src1a sky pixel position

2.1.4 Events

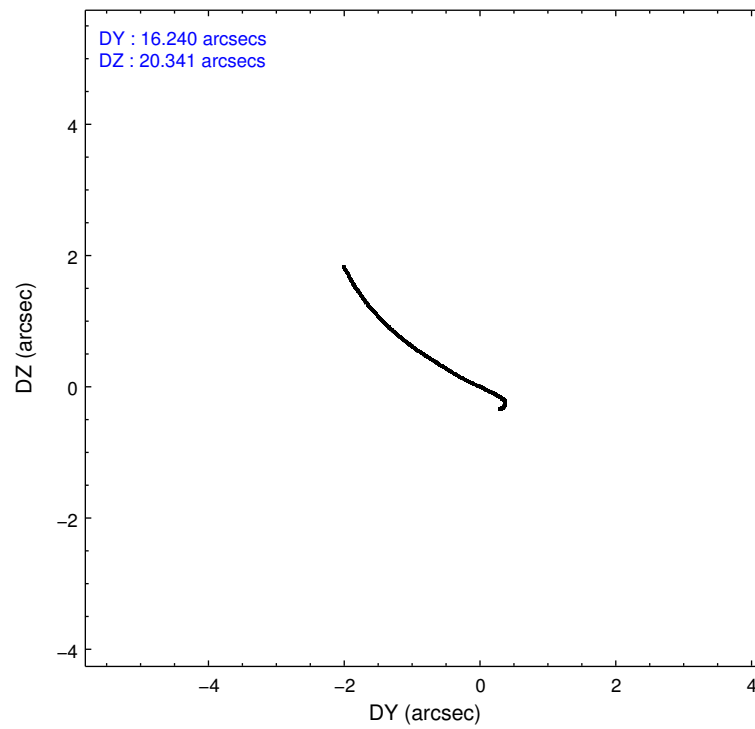
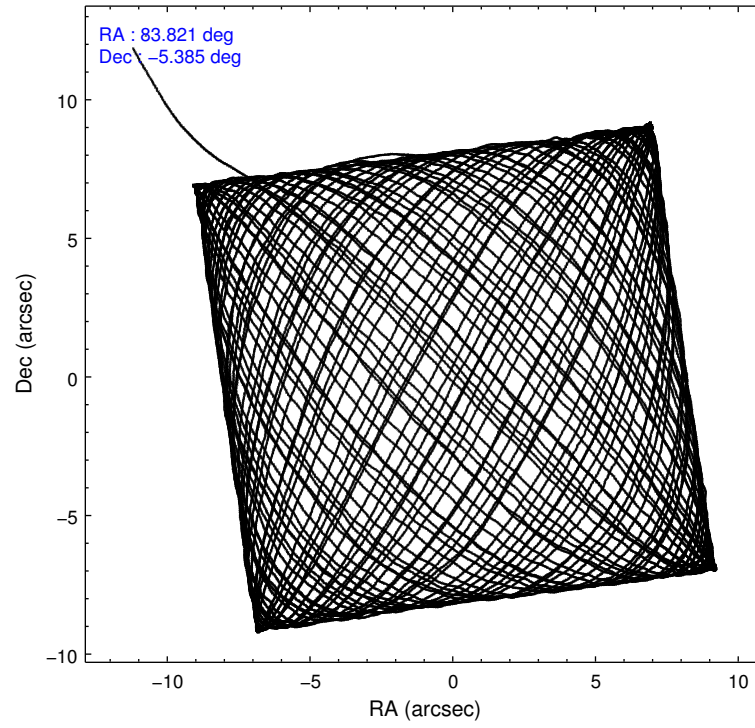
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	575820	325167	443355	397805
rejected events	268293	265596	222606	282007
rejected %	46%	81%	50%	70%

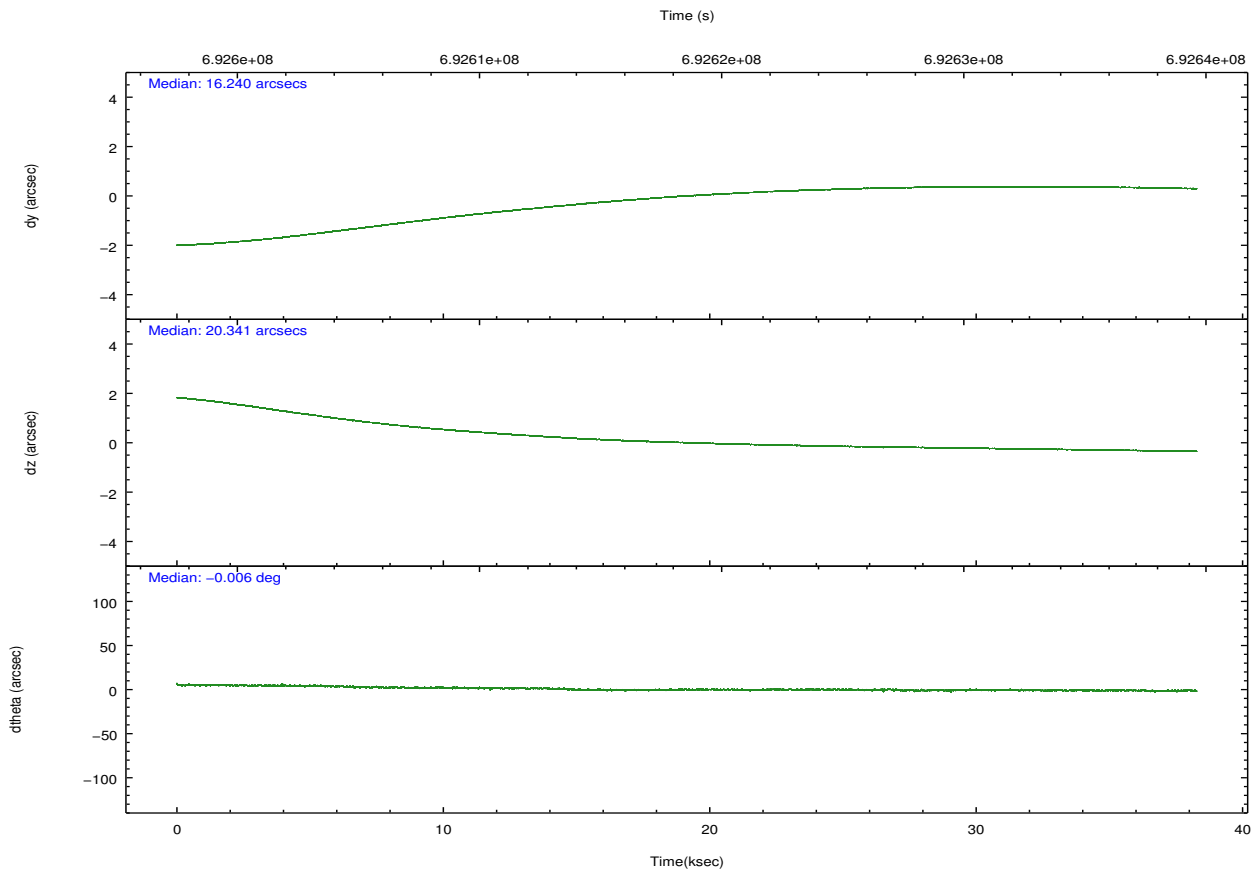
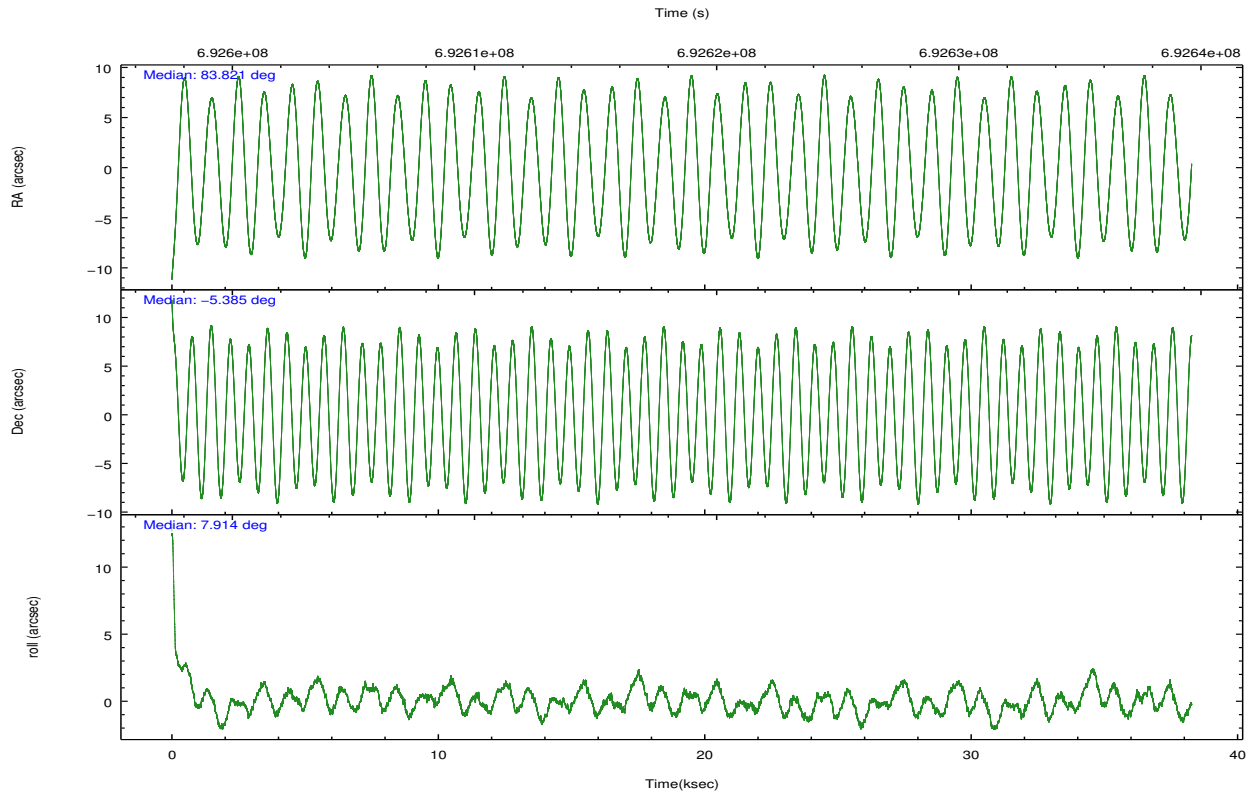
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	78776	29982	25304	39161
	13%	9%	5%	9%
grade 1 events	1253	242	836	366
	0%	0%	0%	0%
grade 2 events	85716	12188	49565	26582
	14%	3%	11%	6%
grade 3 events	8311	3913	18557	11054
	1%	1%	4%	2%
grade 4 events	6821	4014	18305	10570
	1%	1%	4%	2%
grade 5 events	34469	13318	38076	20520
	5%	4%	8%	5%
grade 6 events	127938	9477	109042	28435
	22%	2%	24%	7%
grade 7 events	232536	252033	183670	261117
	40%	77%	41%	65%

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	83.799570	83.82107684771576	CCD I2 on	N	N
[deg] Pointing Dec	-5.402455	-5.385291498183745	CCD I3 on	N	N
[deg] Pointing Roll	7.769302	7.927953468151785	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)	692599584.184000	692598402.21983	CCD S5 on	O2	N
Observation start date	2019-12-13T04:45:15	2019-12-13T04:26:42	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	692637684.184000	692638540.19726	On-chip summing requested	N	N
Observation end date	2019-12-13T15:20:15	2019-12-13T15:35:40	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





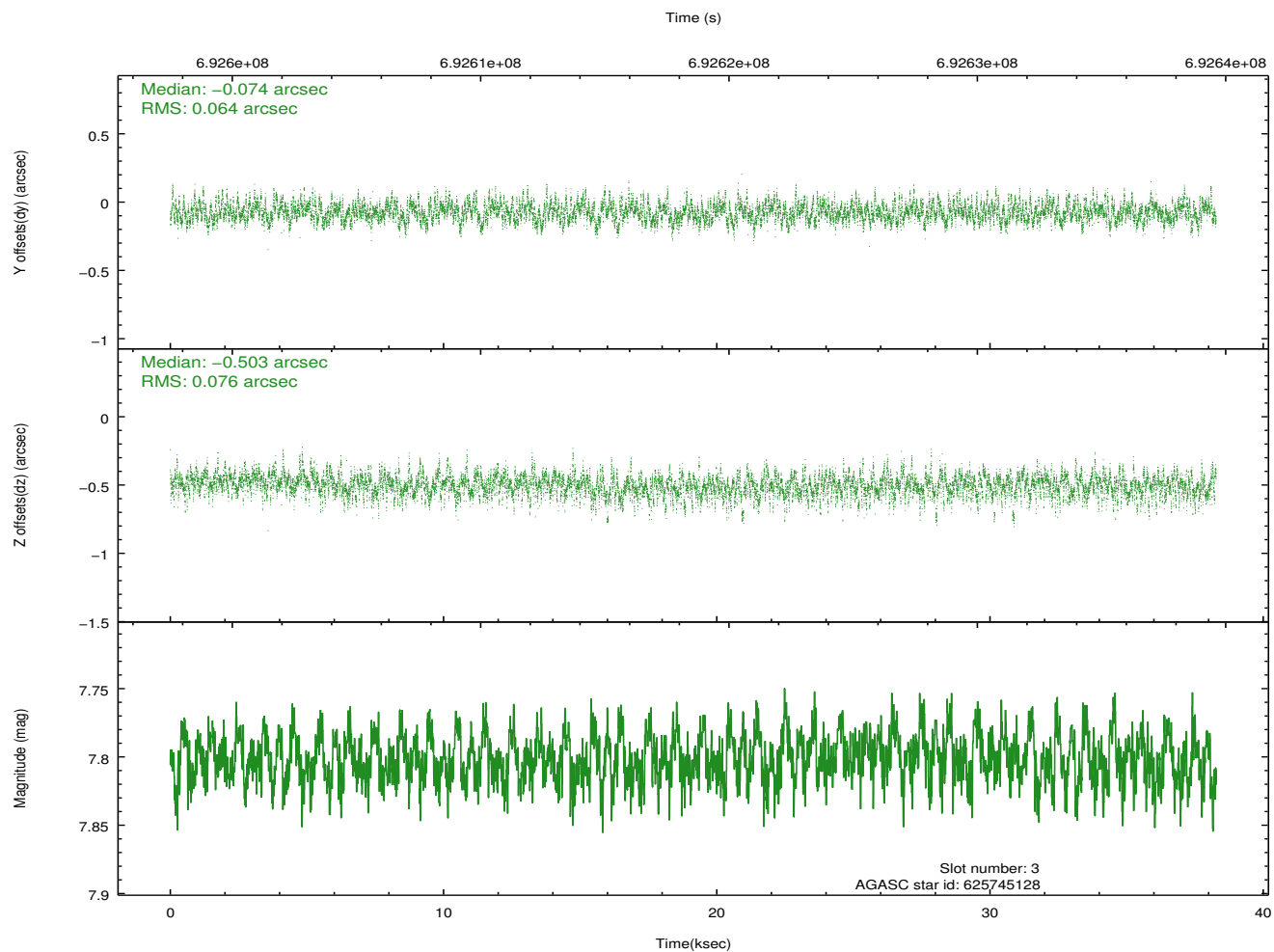
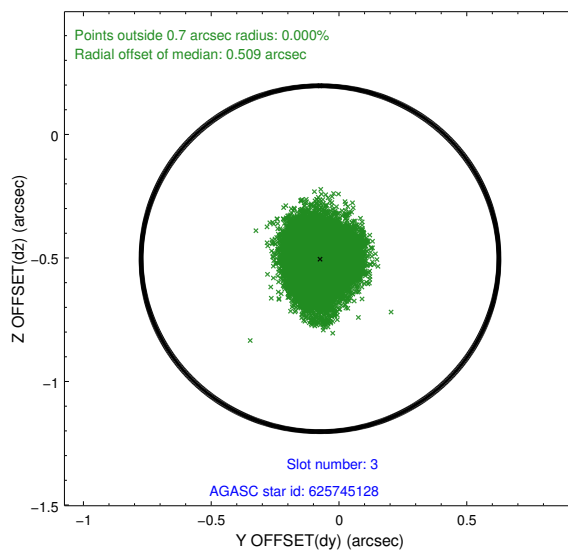
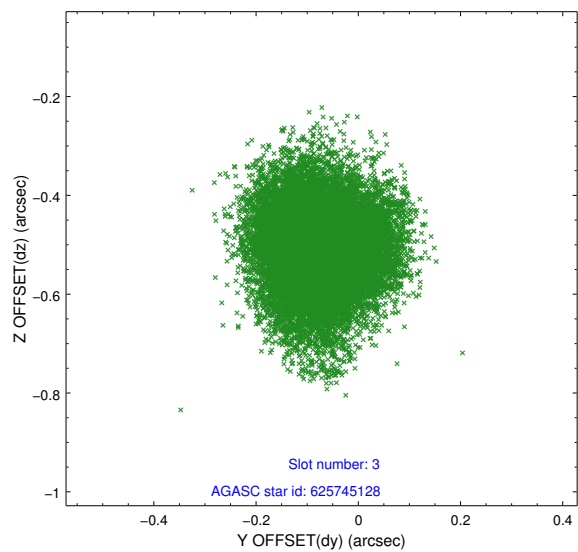
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.08	9336	1.000	-0.316	-0.213	0.019	0.032	0.000000	0.000000	-769.13	-1742
1	FID		ACIS-S-4	7.21	9336	1.000	0.797	0.211	0.019	0.046	0.000000	0.000000	2145.17	166
2	FID		ACIS-S-5	7.14	9336	1.000	-0.509	0.018	0.021	0.037	0.000000	0.000000	-1822.21	160
3	GUIDE	used	625745128	7.80	18667	1.000	-0.074	-0.503	0.106	0.173	83.769930	-4.731835	220.71	2406
4	GUIDE	used	625745136	7.21	18671	1.000	-0.071	-0.244	0.118	0.196	83.600341	-4.804339	-417.07	2230
5	GUIDE	used	626272760	6.65	18672	1.000	-0.098	-0.187	0.102	0.205	84.363987	-5.938389	1742.32	-2185
6	GUIDE	used	626272976	7.94	18663	1.000	0.148	0.407	0.118	0.186	83.795875	-5.926912	-267.33	-1868
7	GUIDE	used	626272880	7.69	18670	1.000	0.093	0.549	0.118	0.193	83.815609	-6.032748	-248.91	-2255

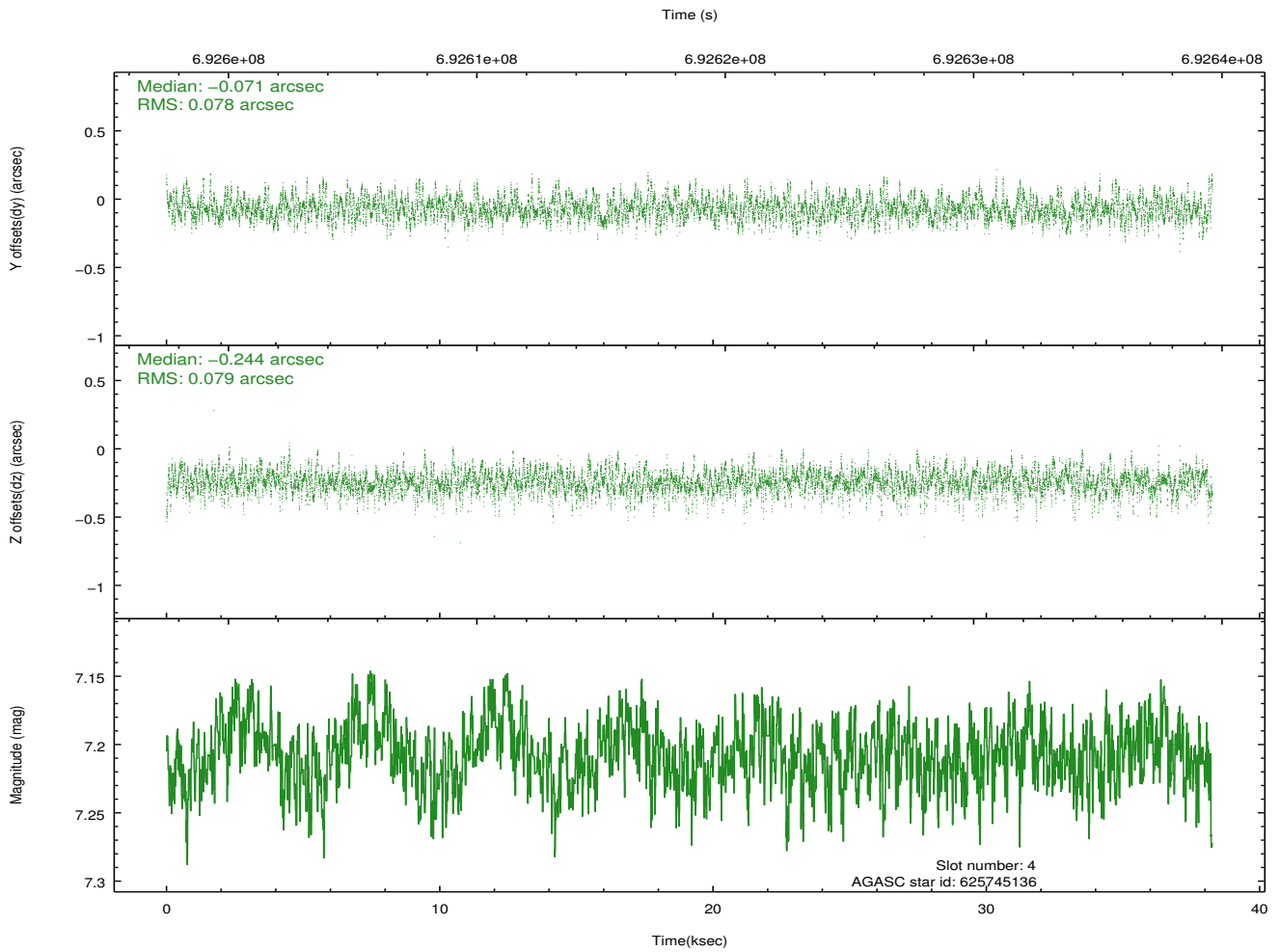
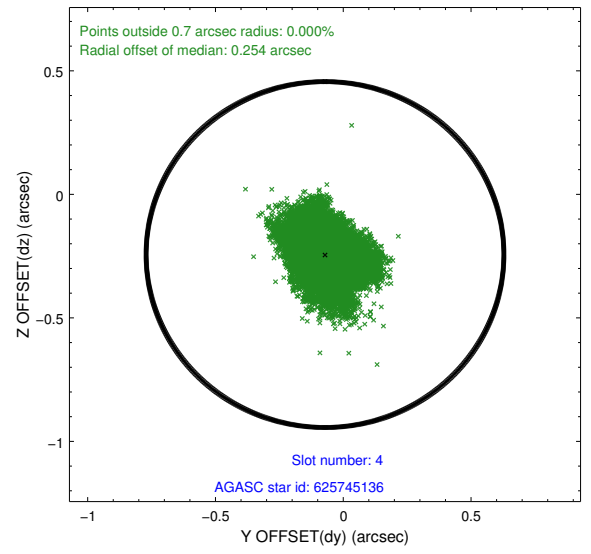
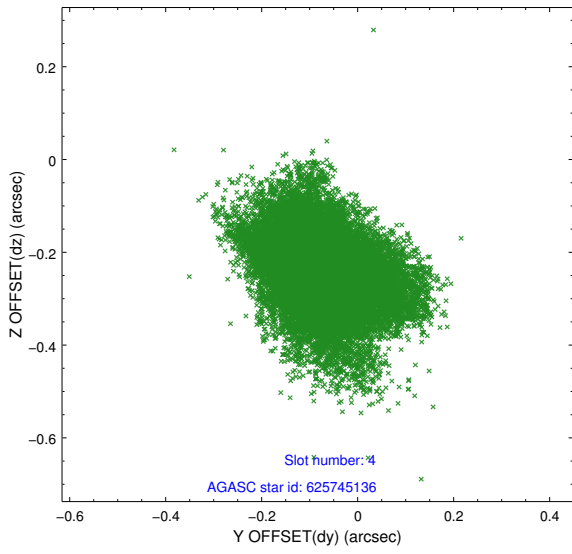
∞

2.4 Star Slots

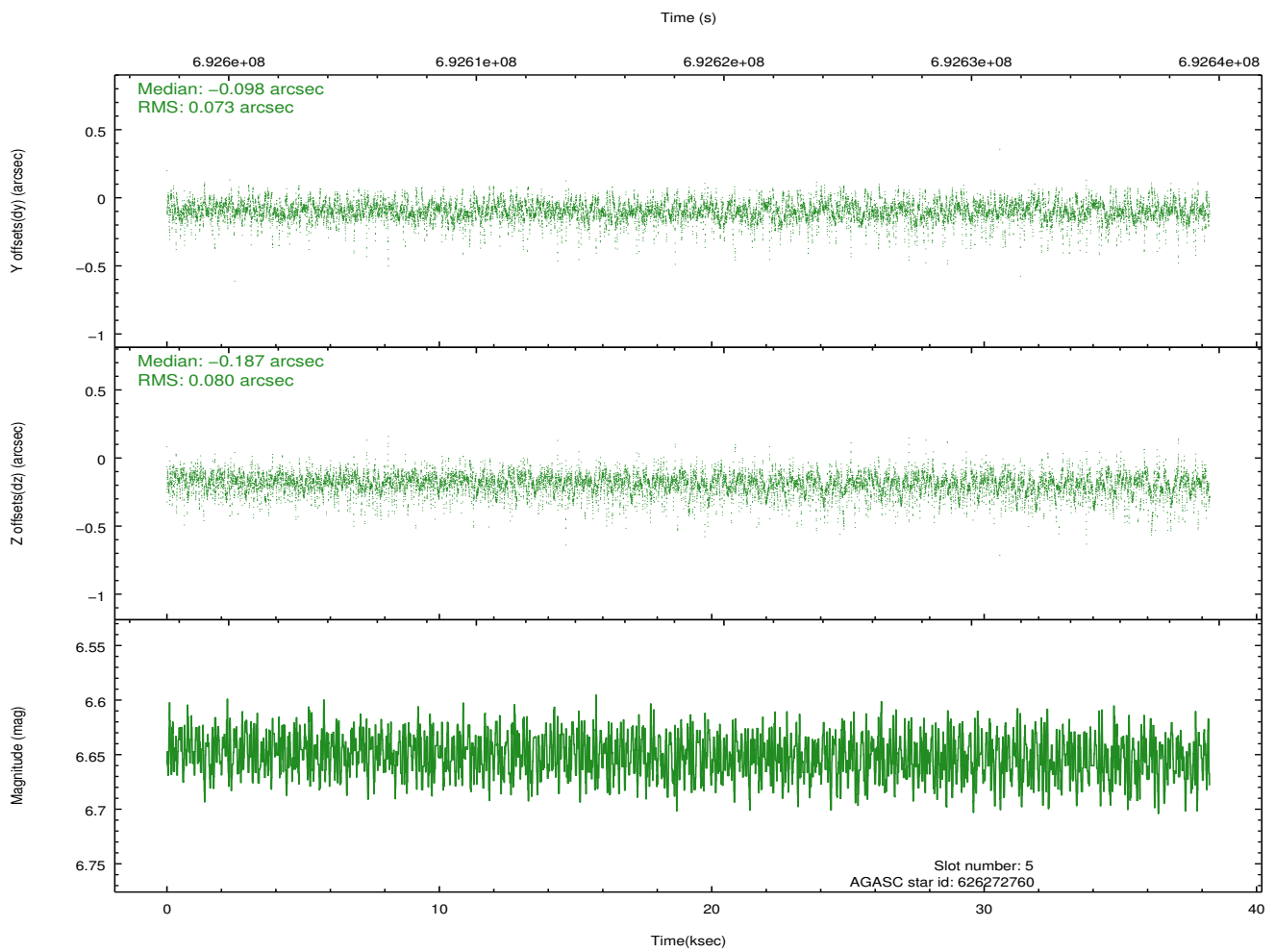
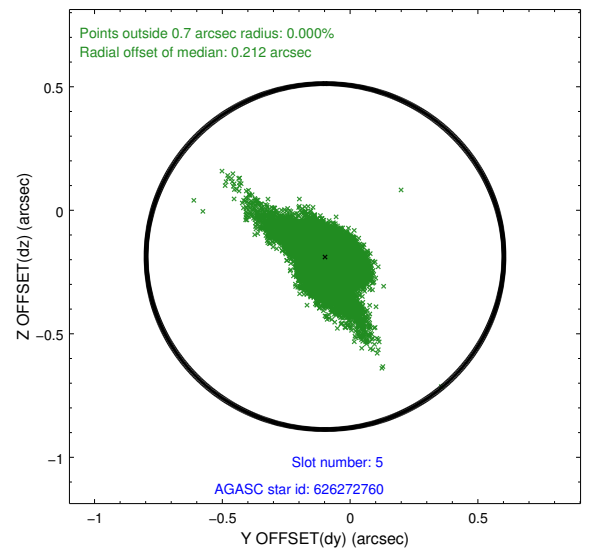
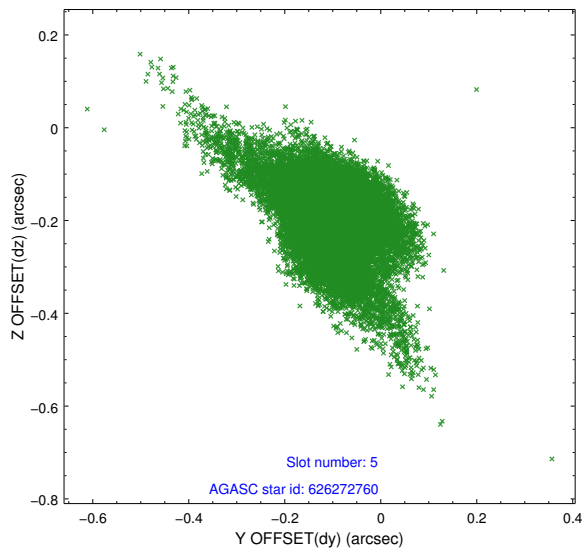
2.4.1 Slot 3



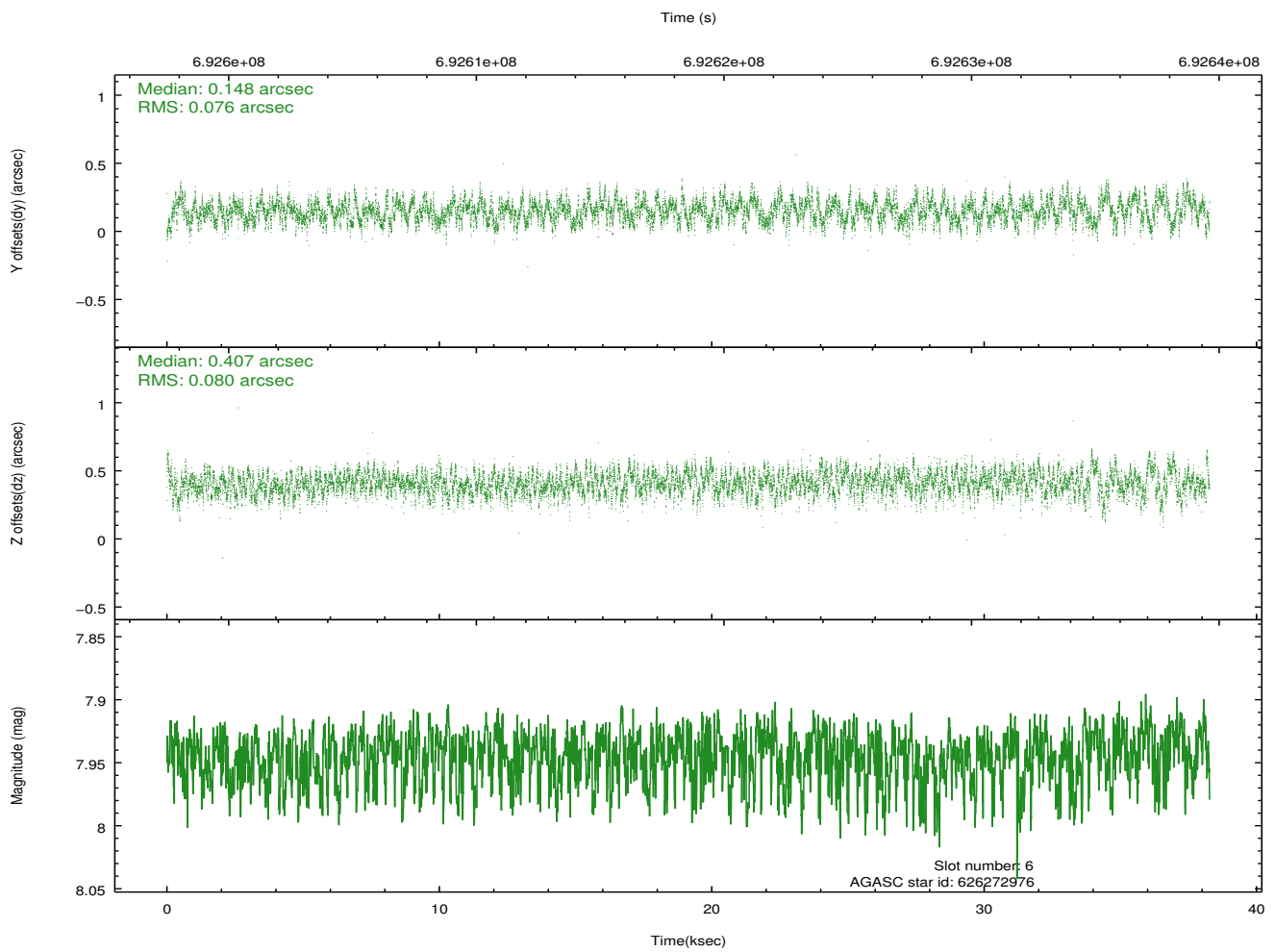
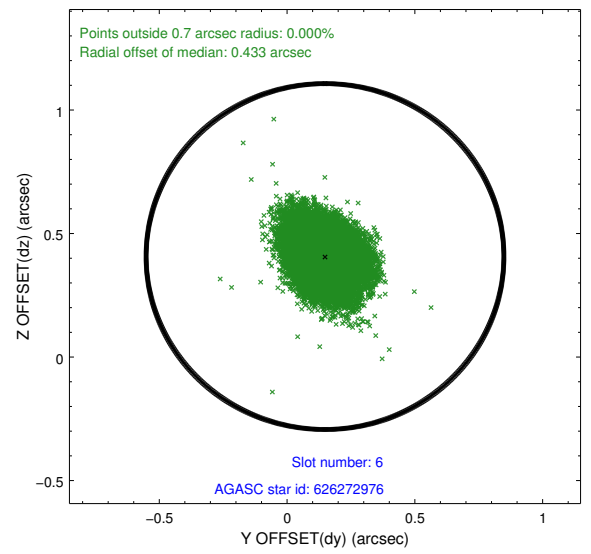
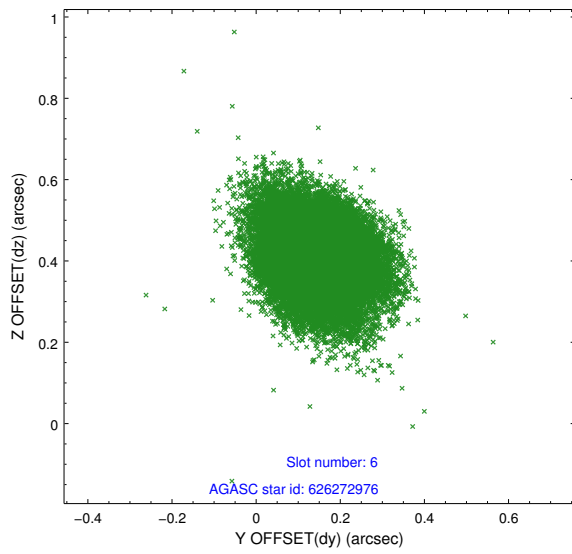
2.4.2 Slot 4



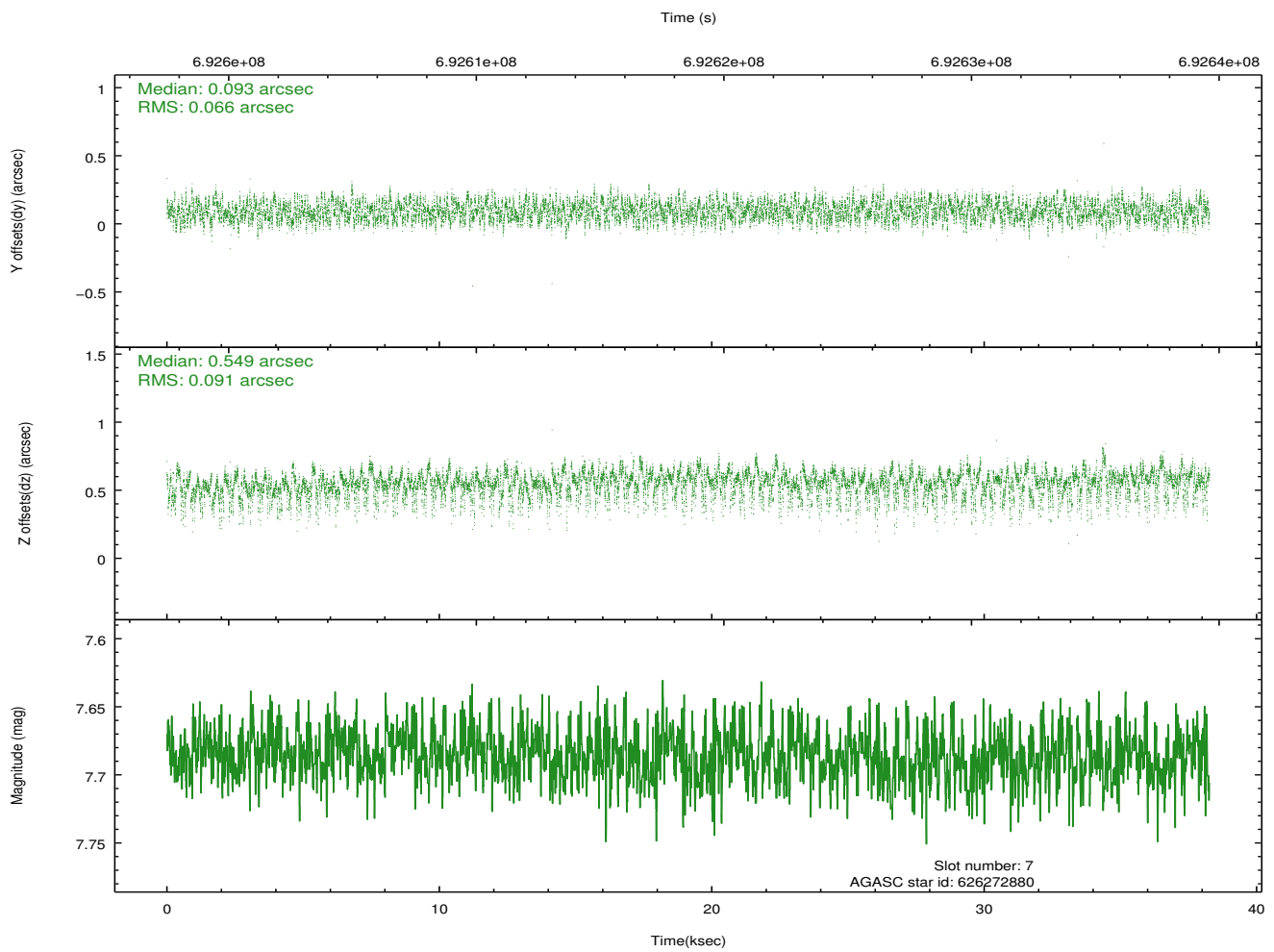
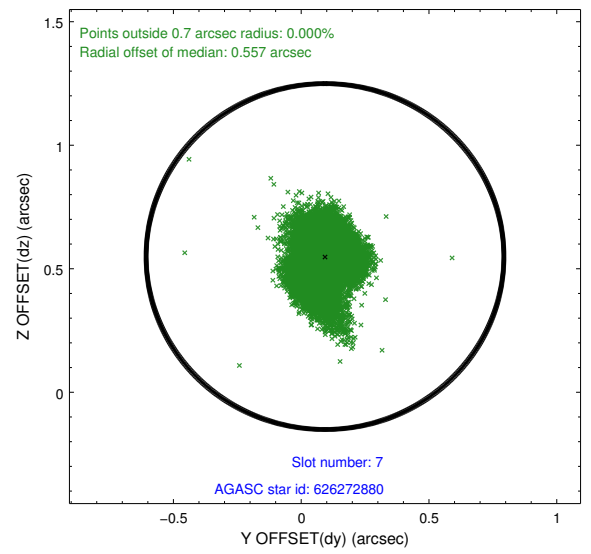
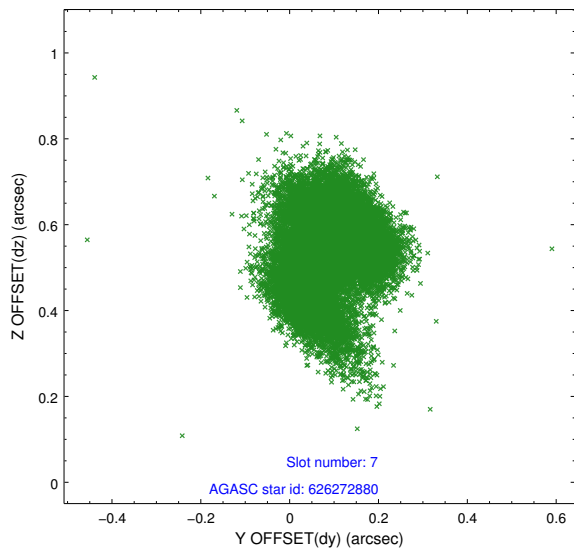
2.4.3 Slot 5



2.4.4 Slot 6

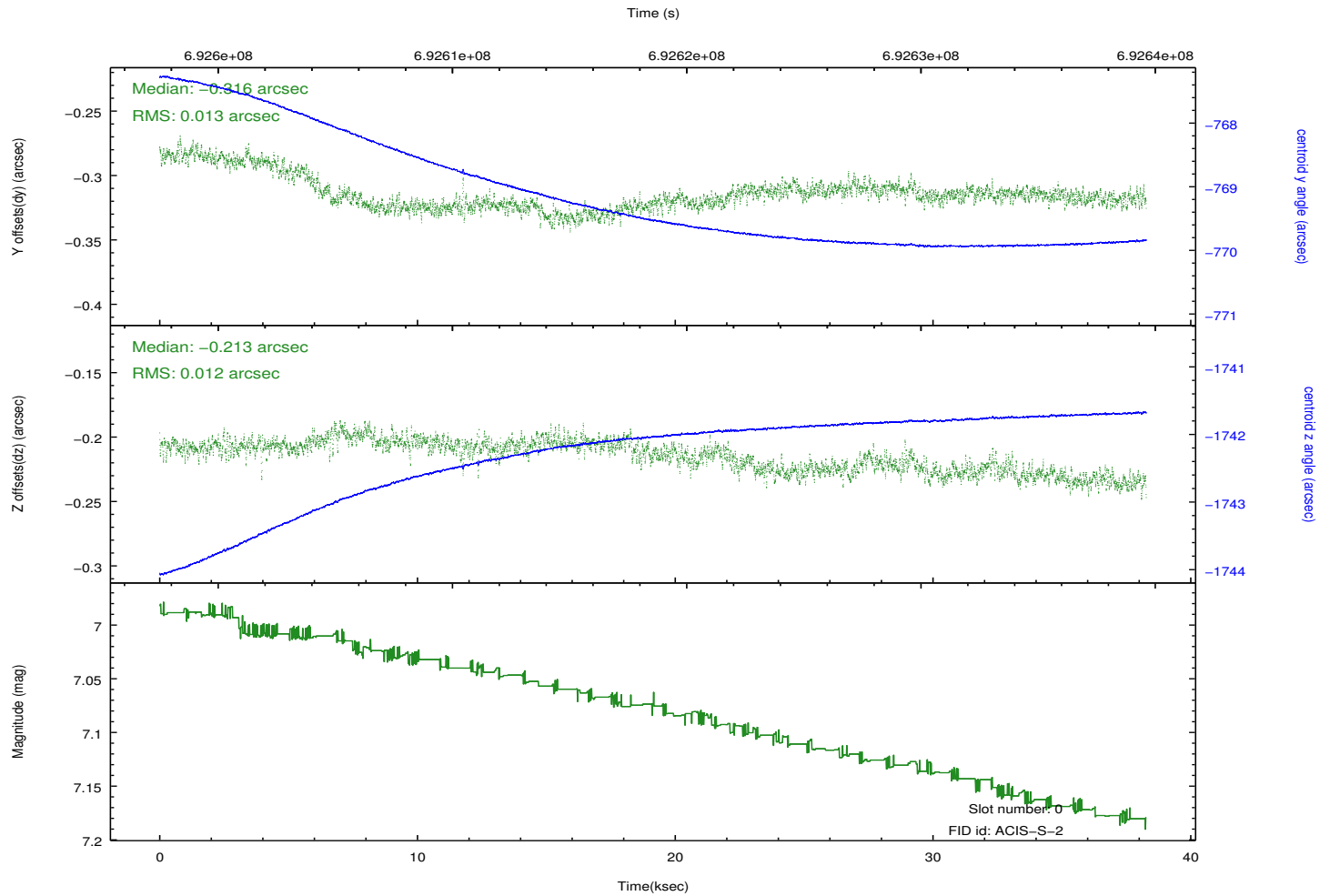
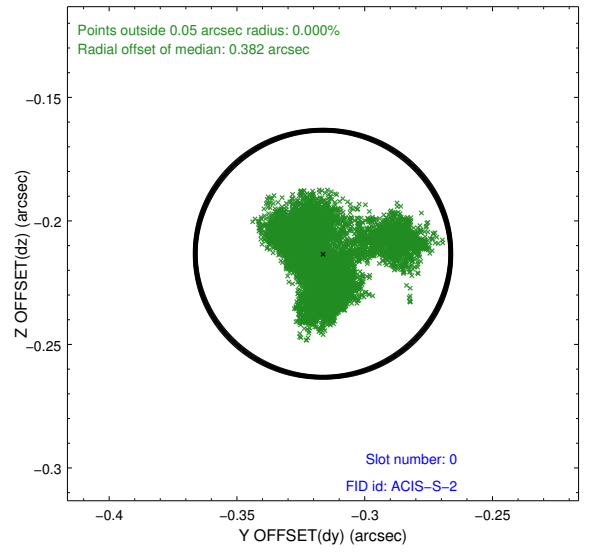
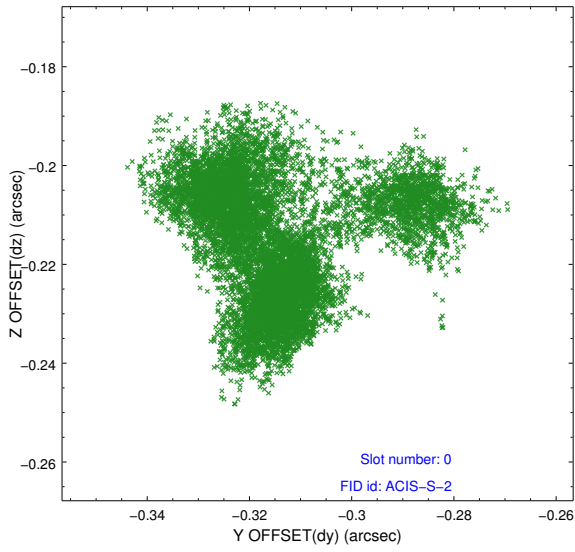


2.4.5 Slot 7

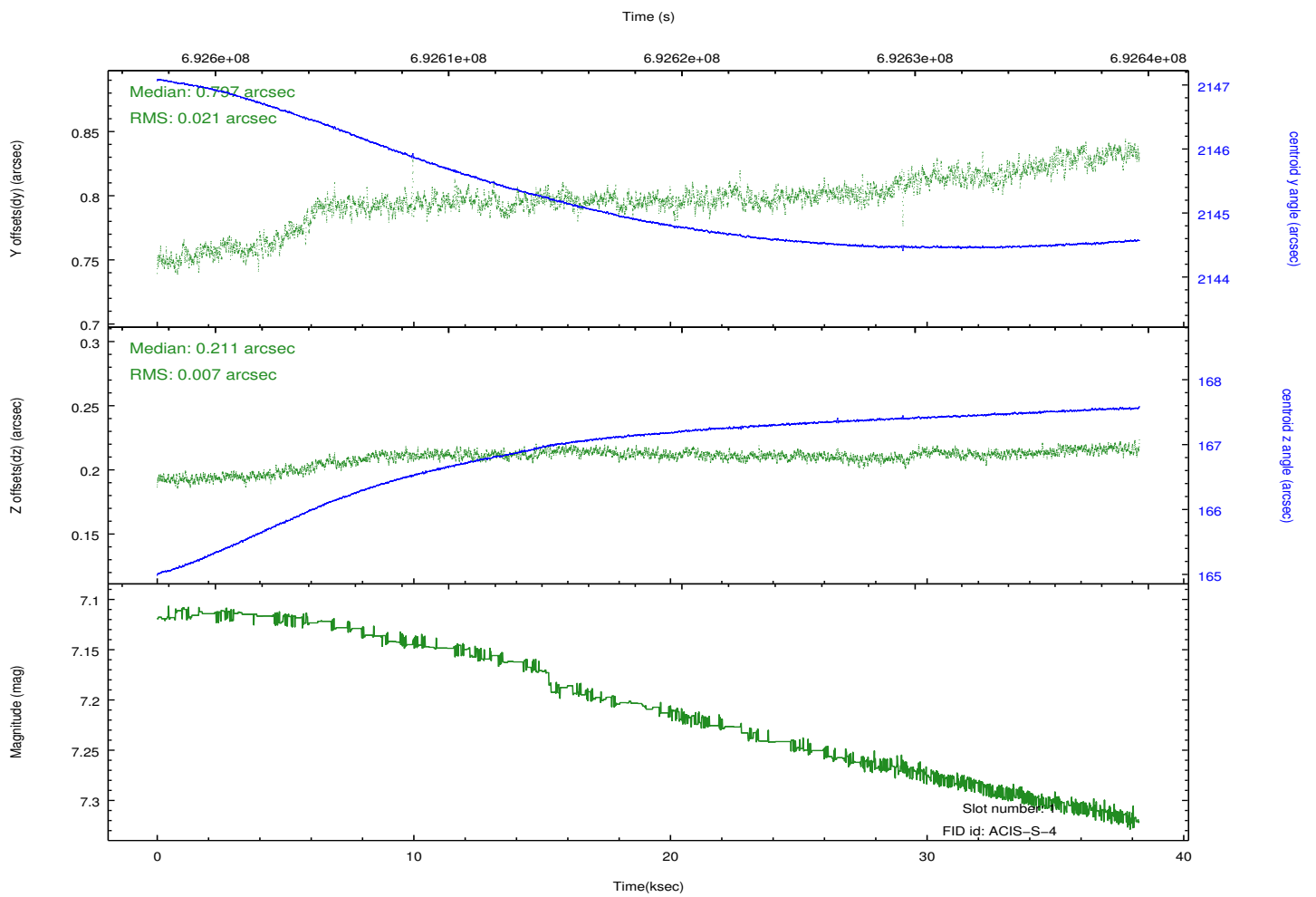
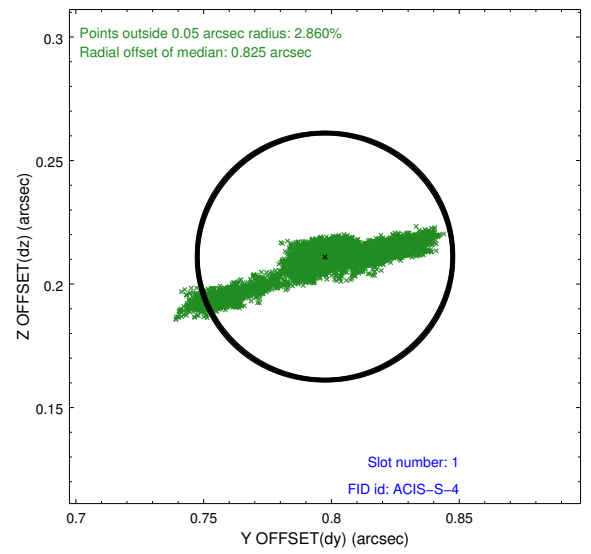
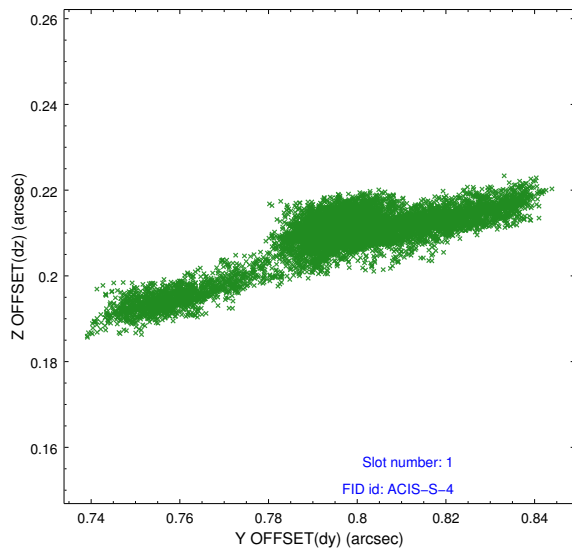


2.5 FID Slots

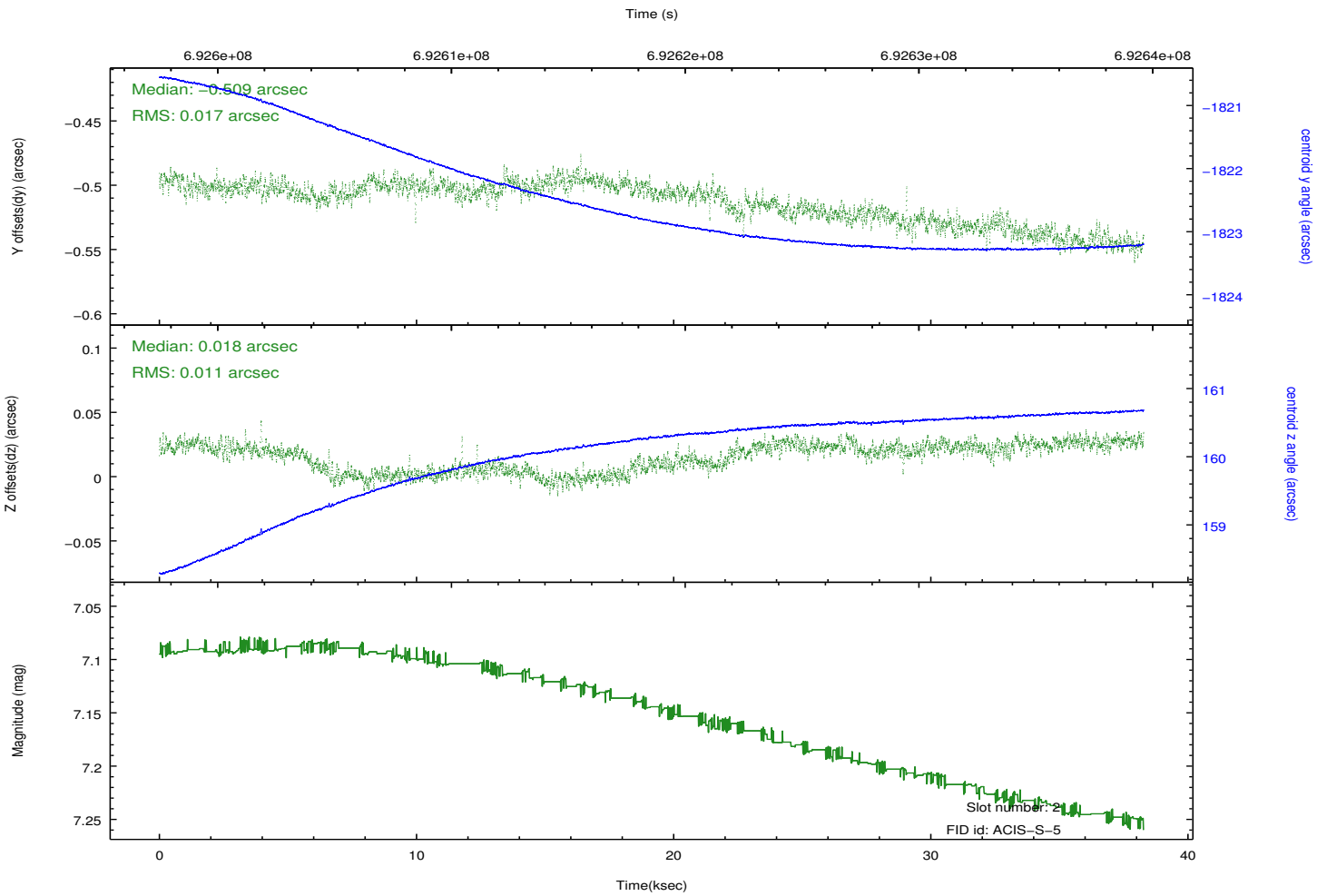
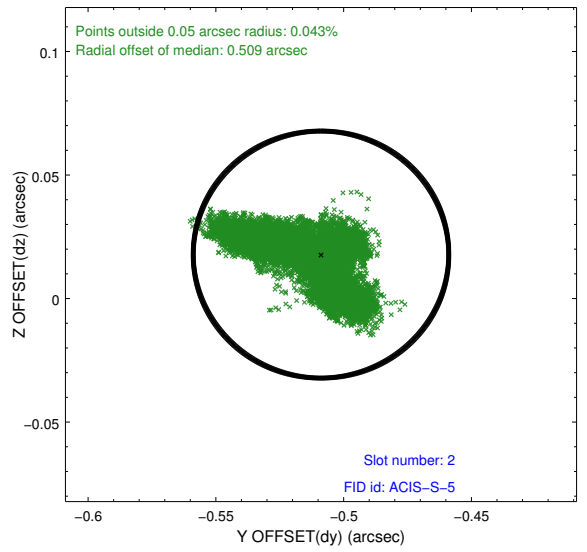
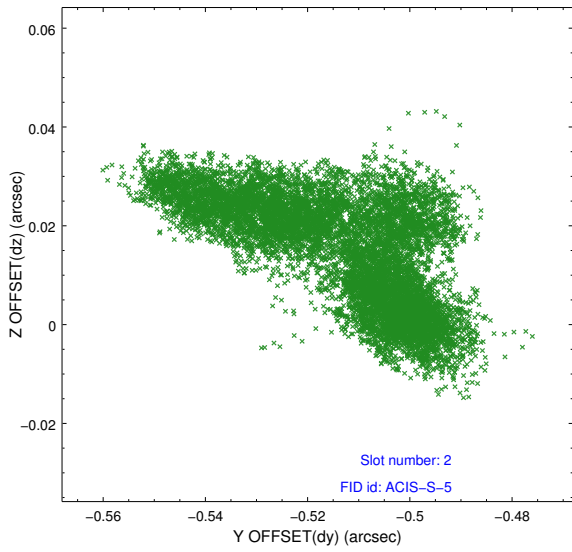
2.5.1 Slot 0



2.5.2 Slot 1

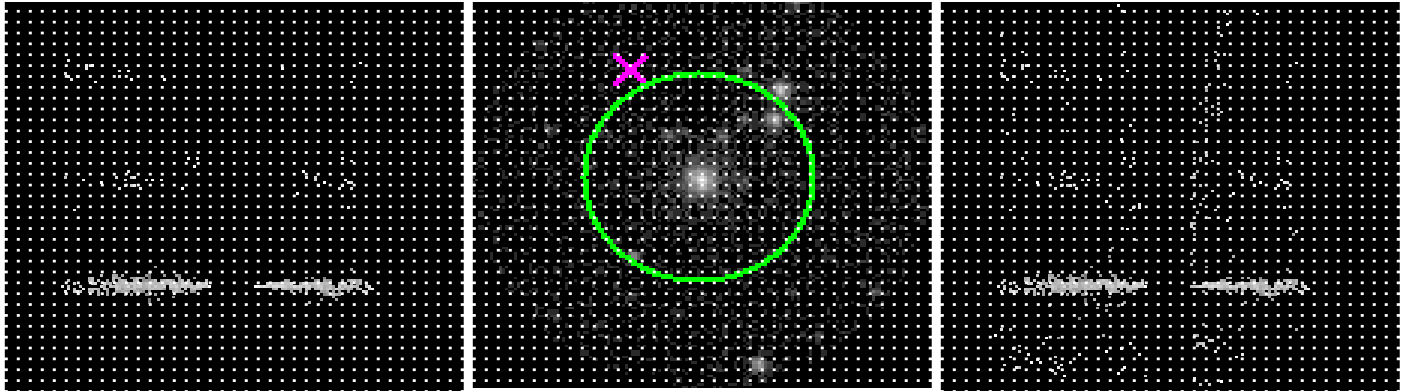


2.5.3 Slot 2



3 Gratings

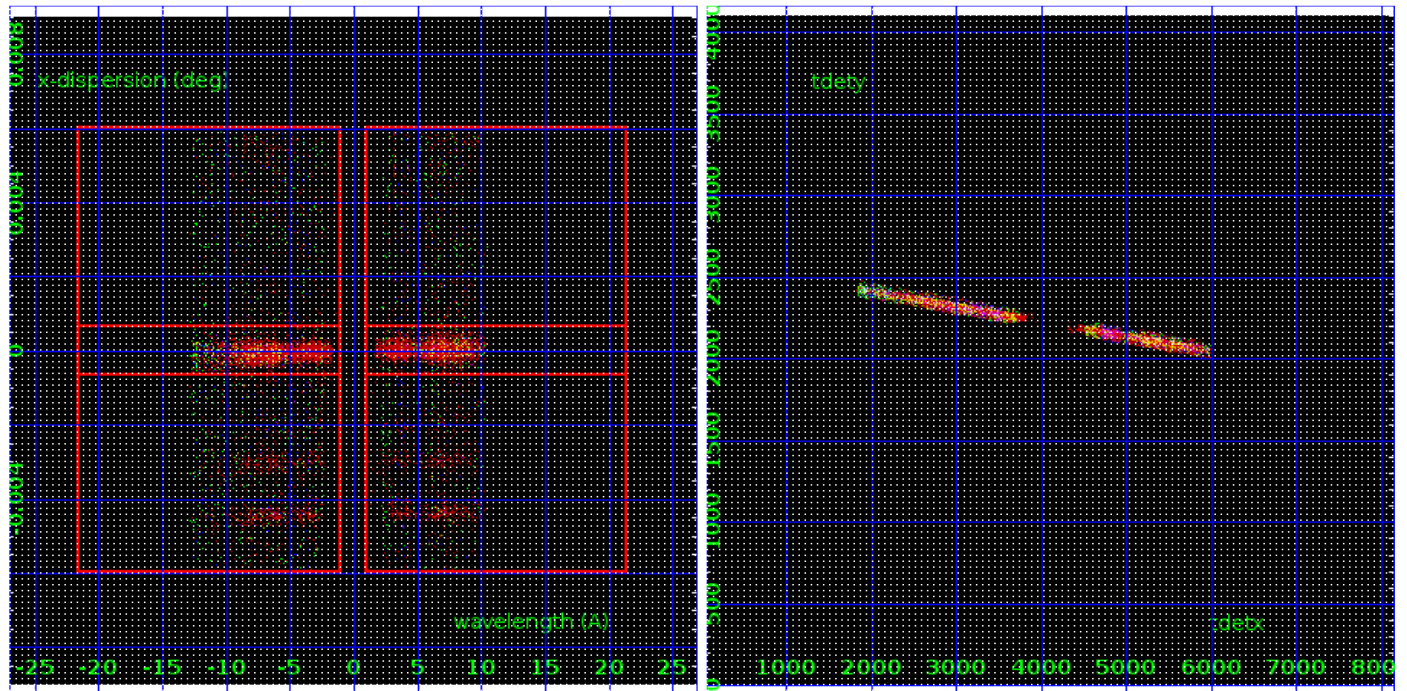
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

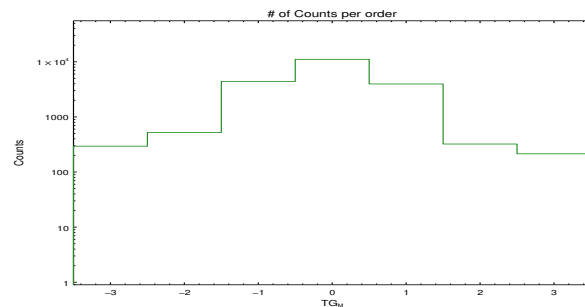
HEG Order Sort ALL

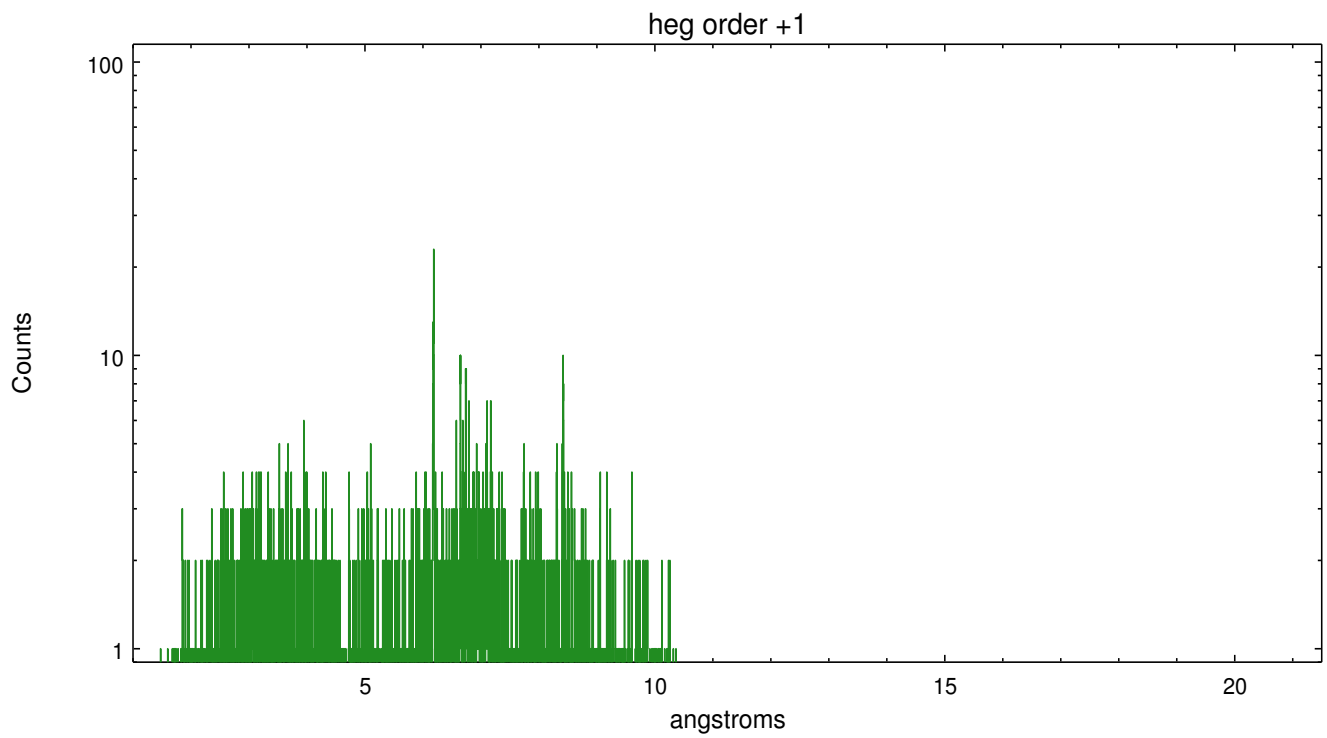
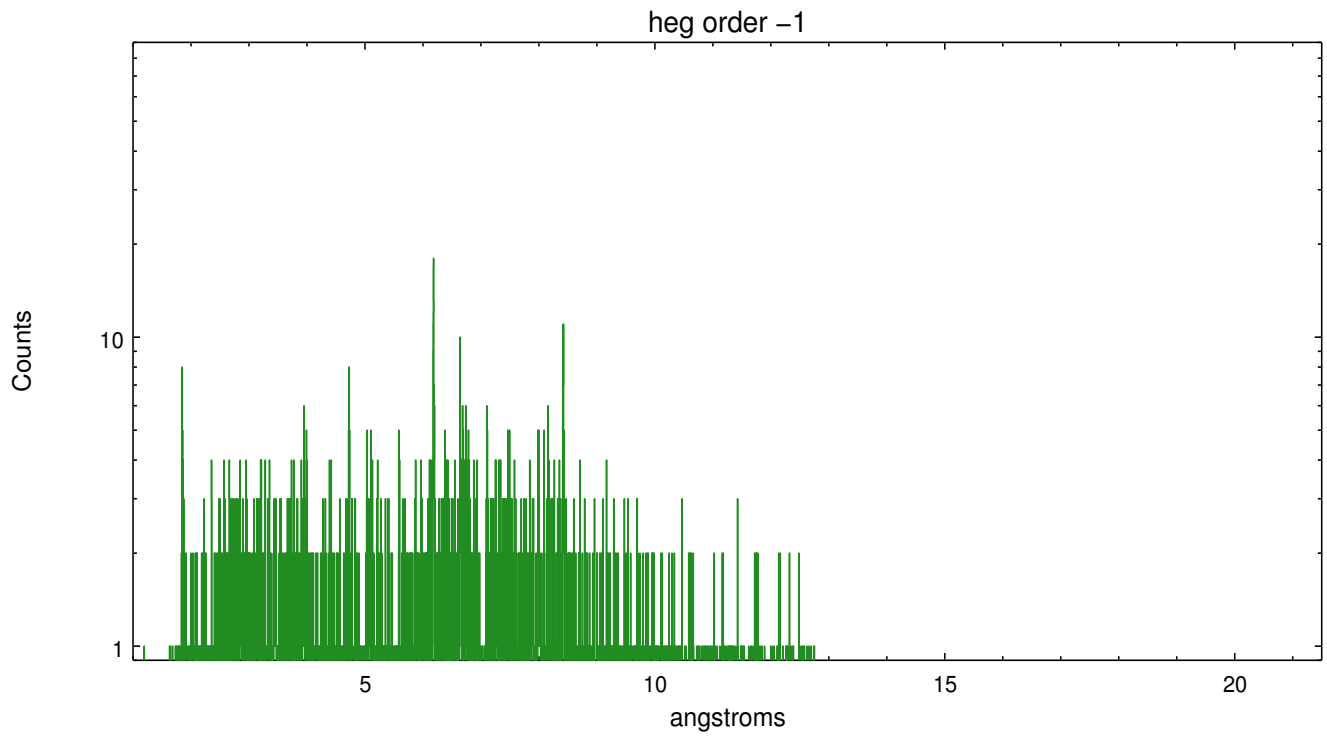


Spot Image HEG

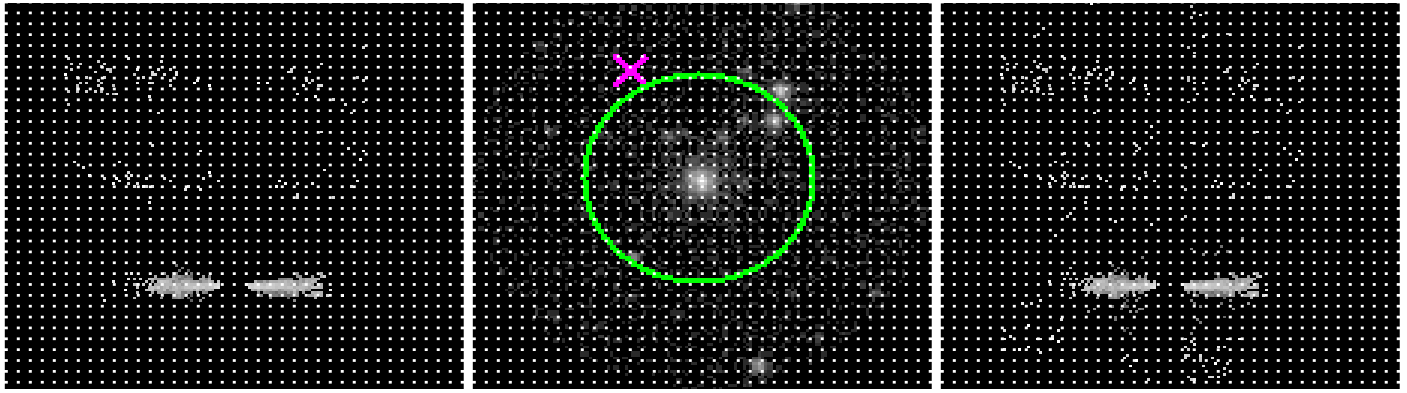
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	294	522	4408	11082	3959	322	214





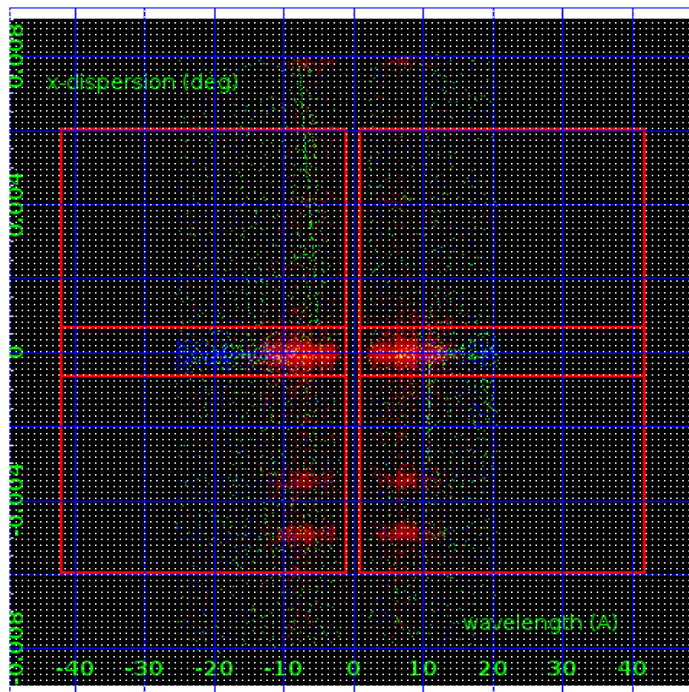
3.2 MEG Arm



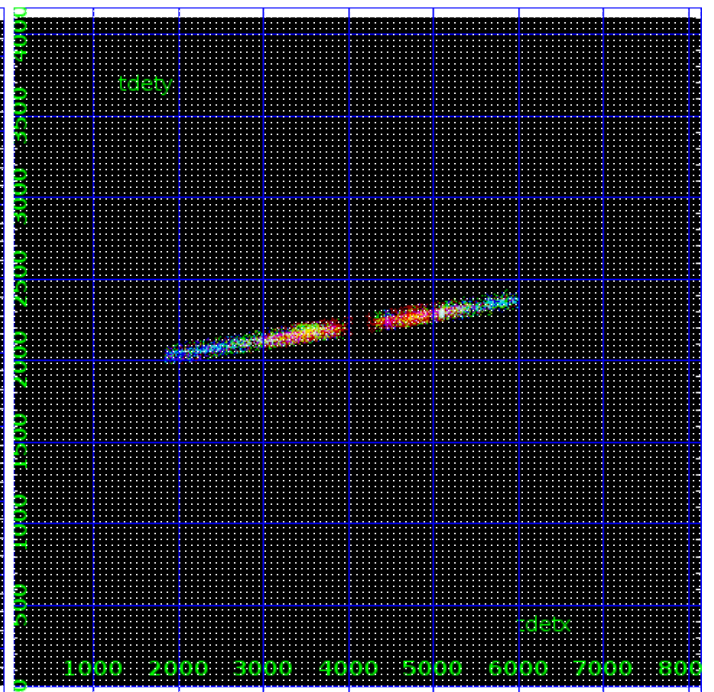
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

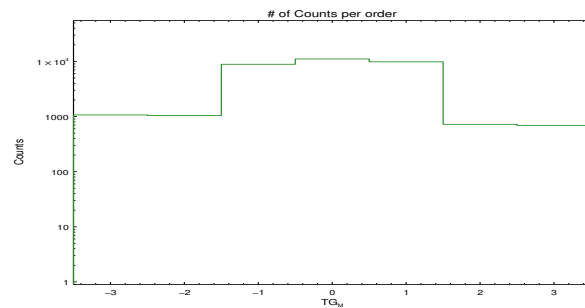


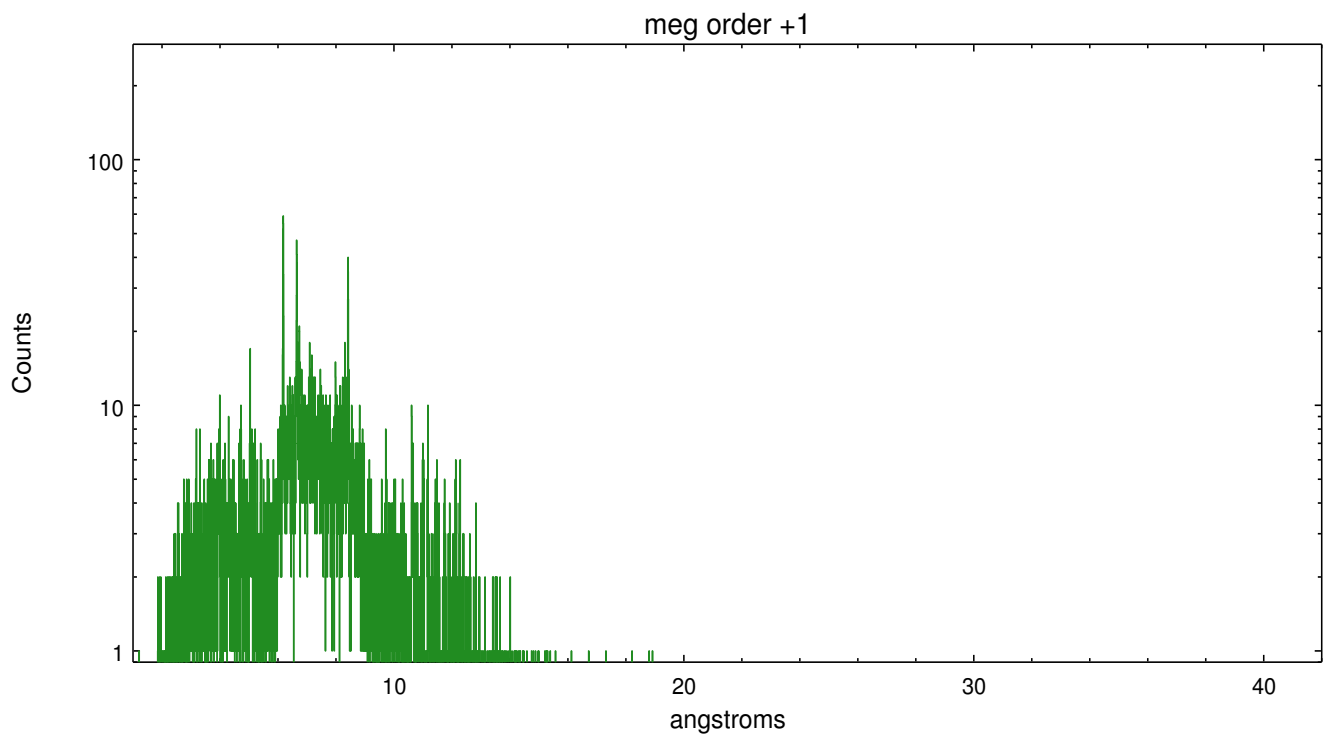
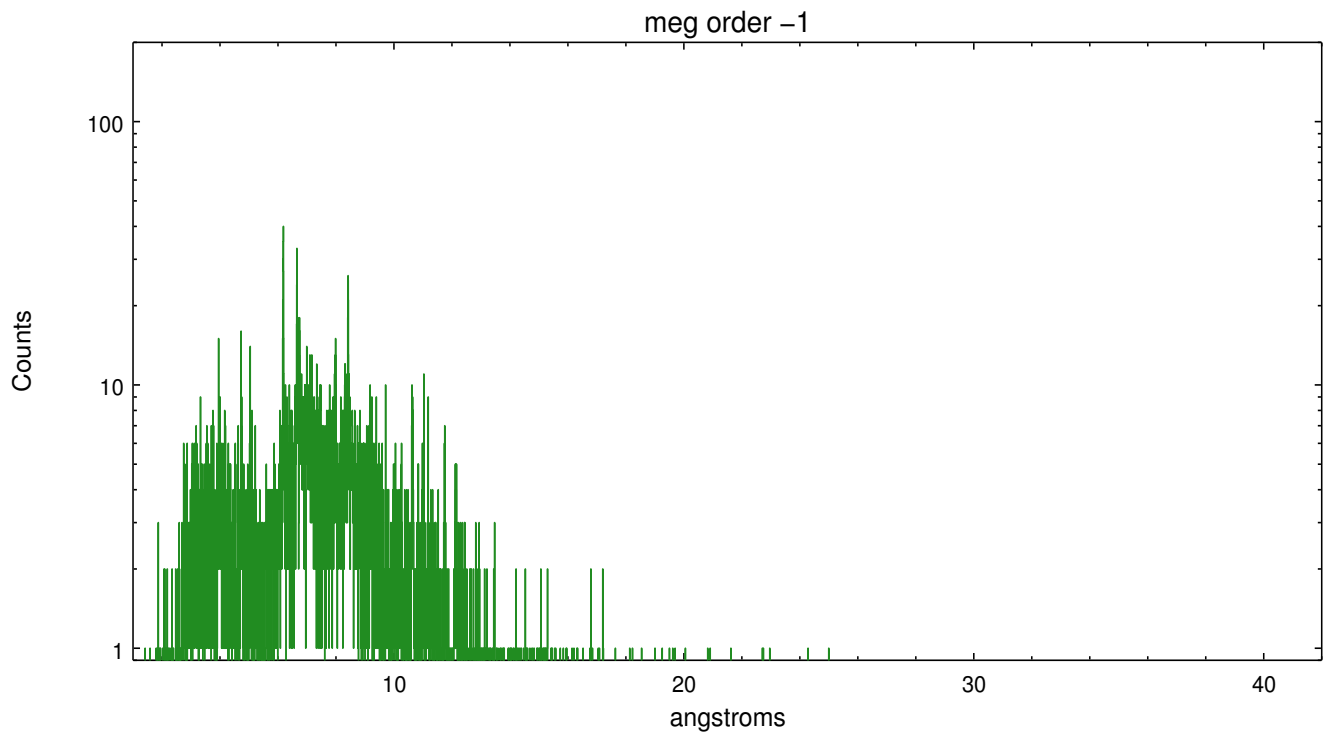
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1069	1045	8878	11082	9828	722	691





A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.01.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	38.1626807307

A.2 Comments