

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8896 - L2 Version 3
Chandra X-Ray Center

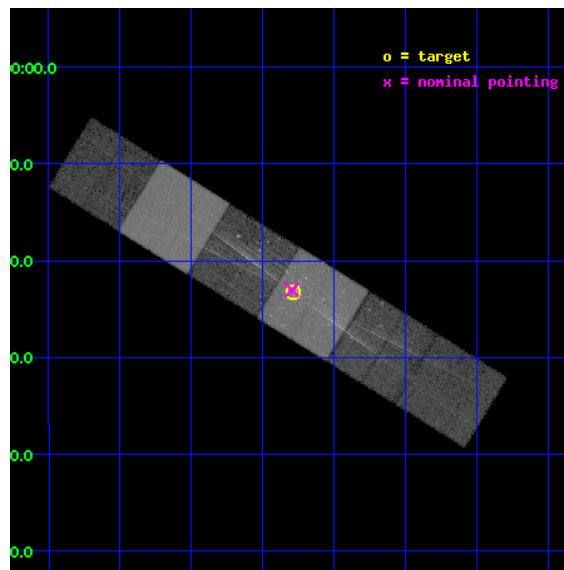
L2 Processing Date : May 5 2012

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
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

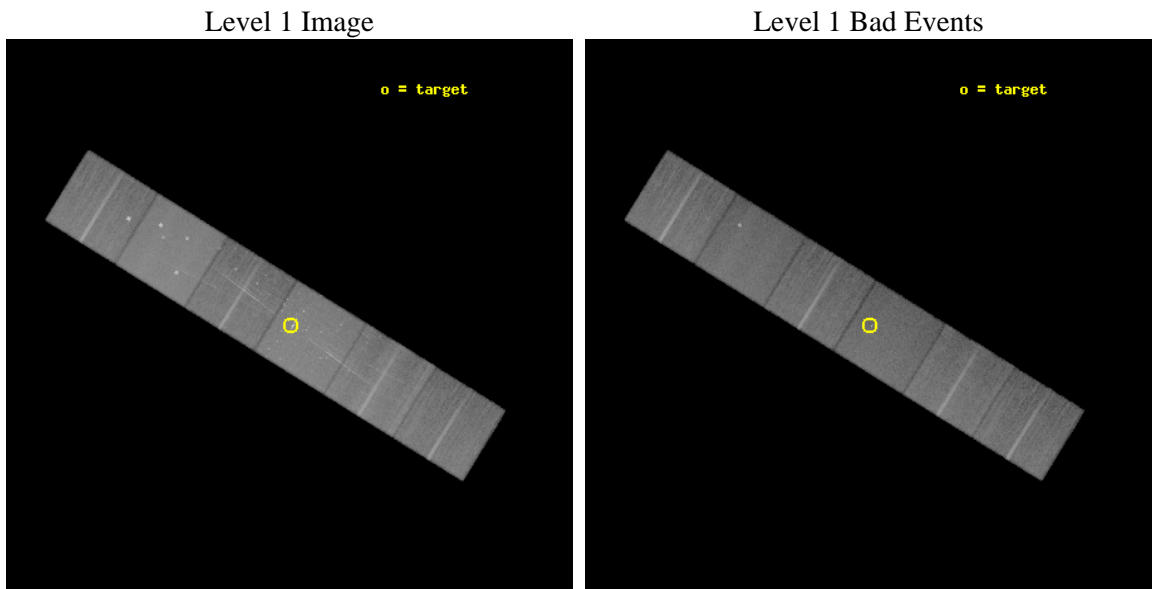
seq_num	200477	Sequence number
obs_id	8896	Observation id
title	The HETG Orion Legacy Project: PMS Stellar Studies of the Orion Trapezium Cluster	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Orion Trapezium Cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.821667	Observer's specified target RA [deg]
dec_targ	-5.387889	Observer's specified target Dec [deg]
ra_nom	83.823833302103	Nominal RA [deg]
dec_nom	-5.3835514713015	Nominal Dec [deg]
roll_nom	31.682326481054	Nominal Roll [deg]
revision	3	Processing version of data
ontime	22947.199914575	Sum of GTIs [s]
livetime	22656.628652111	Livetime [s]
ontime4	22947.199914575	Sum of GTIs [s]
ontime5	22947.199914575	Sum of GTIs [s]
ontime6	22947.199914575	Sum of GTIs [s]
ontime7	22947.199914575	Sum of GTIs [s]
ontime8	22947.199914575	Sum of GTIs [s]
ontime9	22947.199914575	Sum of GTIs [s]
l2events	459912	Number of level 2 events



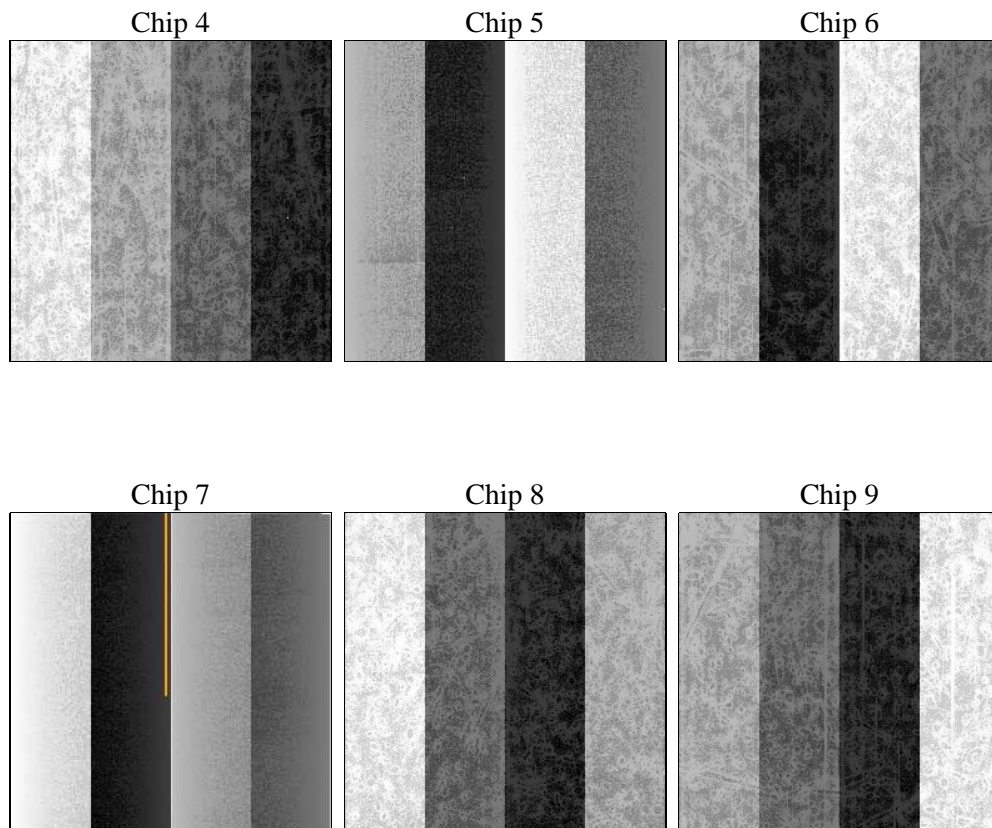
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	22947.199914575	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	22947.199914575	Sum of GTIs [s]
date	2012-05-05T21:11:56	Date and time of file creation	ontime5	22947.199914575	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	22947.199914575	Sum of GTIs [s]
			ontime7	22947.199914575	Sum of GTIs [s]
			ontime8	22947.199914575	Sum of GTIs [s]
			ontime9	22947.199914575	Sum of GTIs [s]
			l1events	1752200	Number of level 1 events

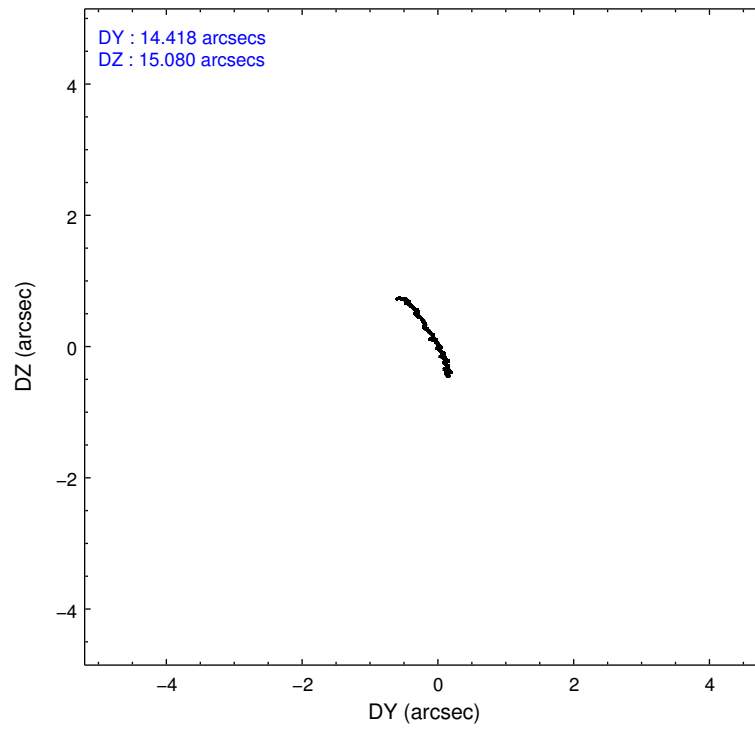
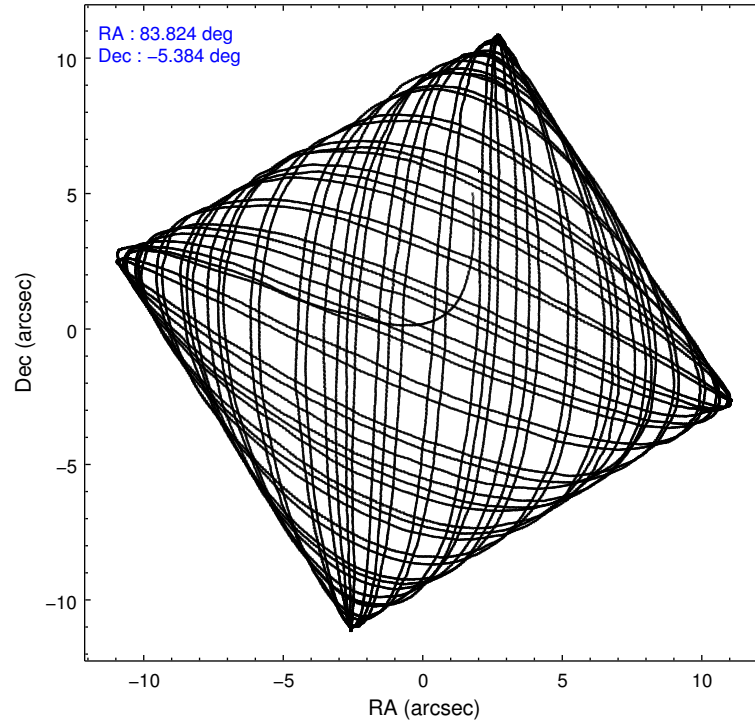
2.1.4 Events

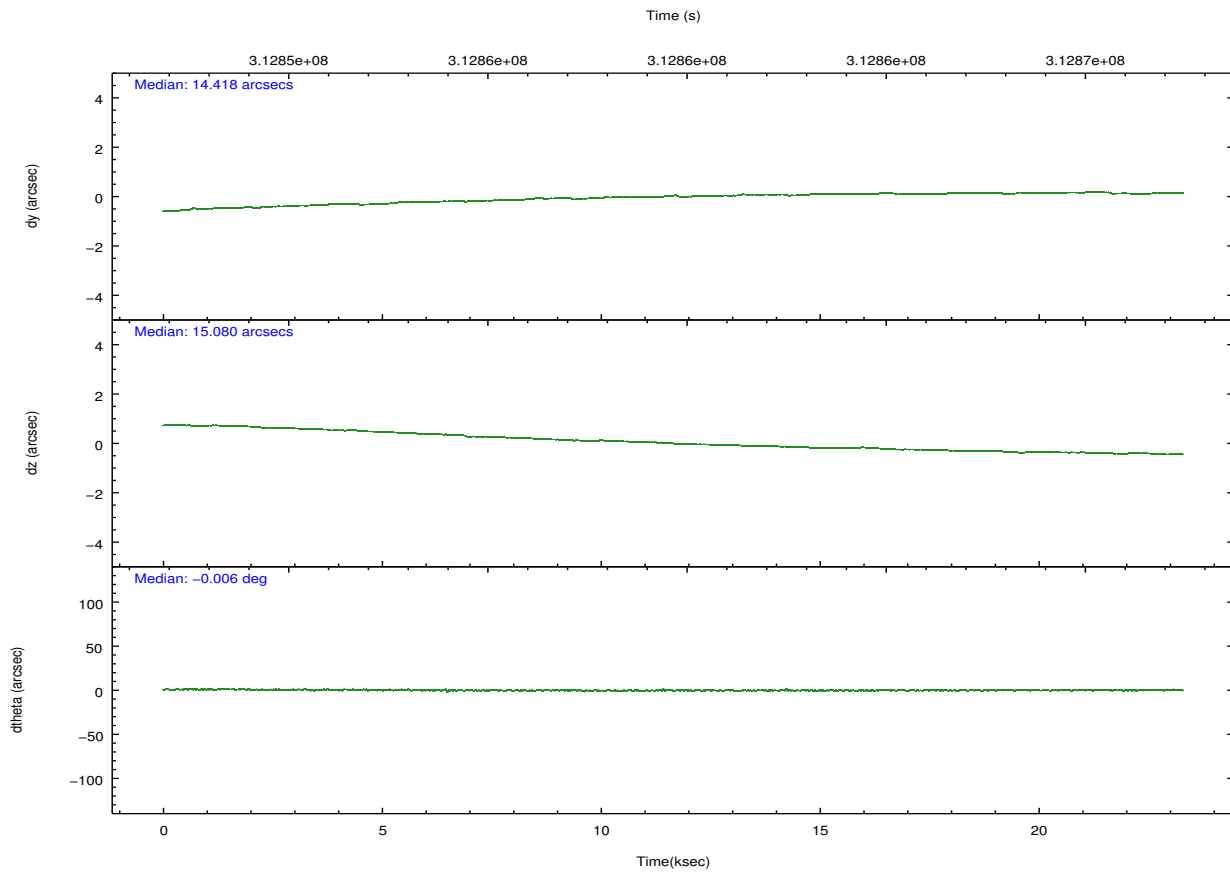
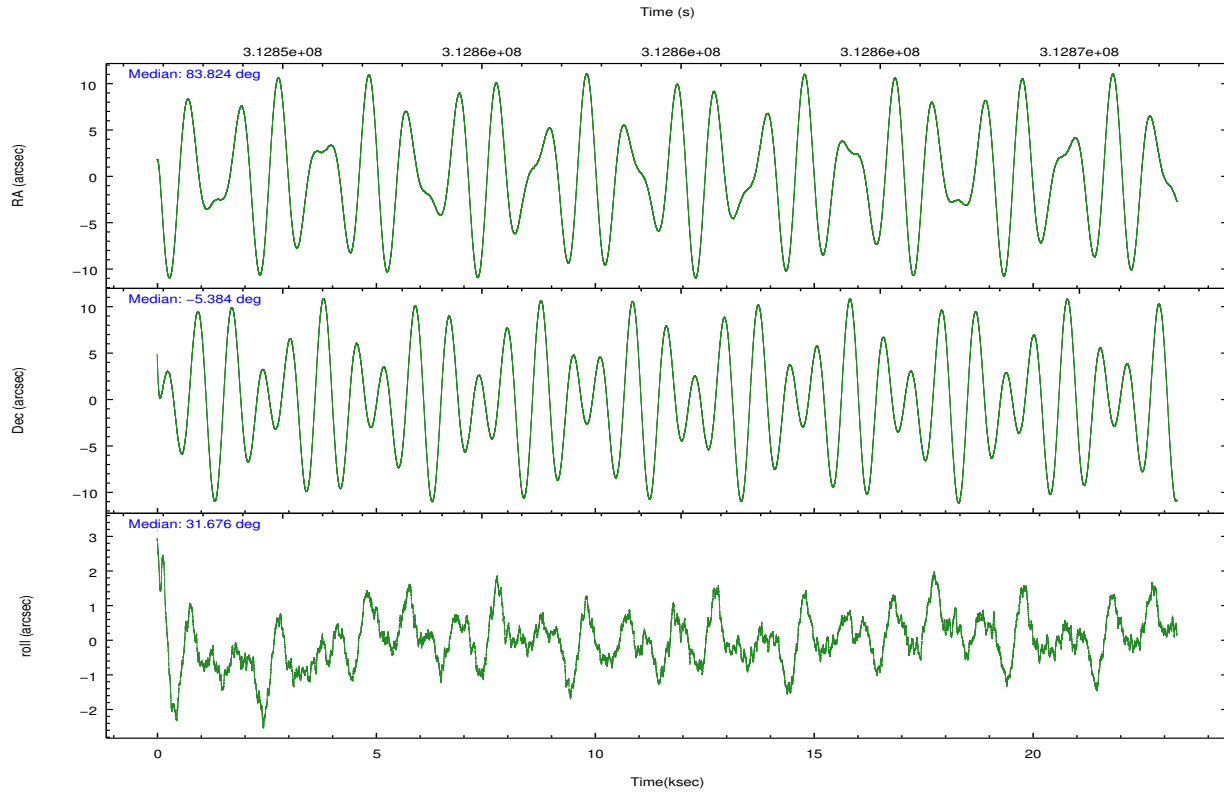
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	260677	354390	249494	356369	301482	229788	grade 0 events	19145	18192	28408	21287	30875	14081
rejected events	225355	187824	199631	182157	223990	198615		7%	5%	11%	5%	10%	6%
rejected %	86%	52%	80%	51%	74%	86%	grade 1 events	302	510	213	474	294	150
								0%	0%	0%	0%	0%	0%
							grade 2 events	6042	51366	8490	37745	15818	6044
								2%	14%	3%	10%	5%	2%
							grade 3 events	2821	6399	3332	16138	7219	2826
								1%	1%	1%	4%	2%	1%
							grade 4 events	2727	5861	3375	15973	6750	2701
								1%	1%	1%	4%	2%	1%
							grade 5 events	10203	24713	10759	30060	14375	11384
								3%	6%	4%	8%	4%	4%
							grade 6 events	4598	84795	6279	83119	16851	5533
								1%	23%	2%	23%	5%	2%
							grade 7 events	214839	162554	188638	151573	209300	187069
								82%	45%	75%	42%	69%	81%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	83.811152	83.82383330210266	CCD I2 on	N	N
[deg] Pointing Dec	-5.407804	-5.383551471301521	CCD I3 on	N	N
[deg] Pointing Roll	31.524500	31.68232648105444	CCD S0 on	O1	Y
[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)	312848285.184000	312847113.948	CCD S5 on	Y	Y
Observation start date	2007-11-30T22:17:00	2007-11-30T21:58:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	312871285.184000	312872422.73673	On-chip summing requested	N	N
Observation end date	2007-12-01T04:40:20	2007-12-01T05:00:22	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



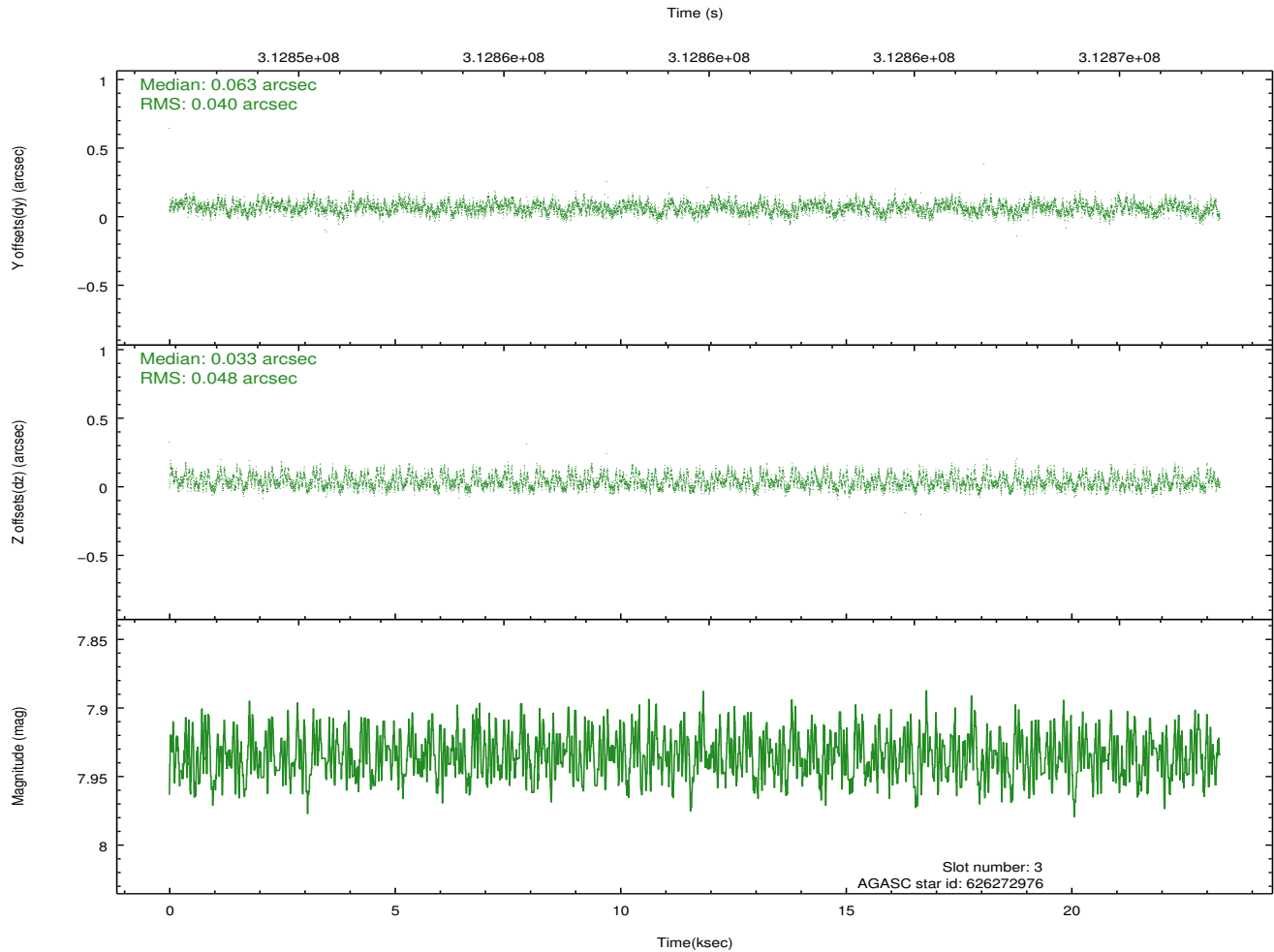
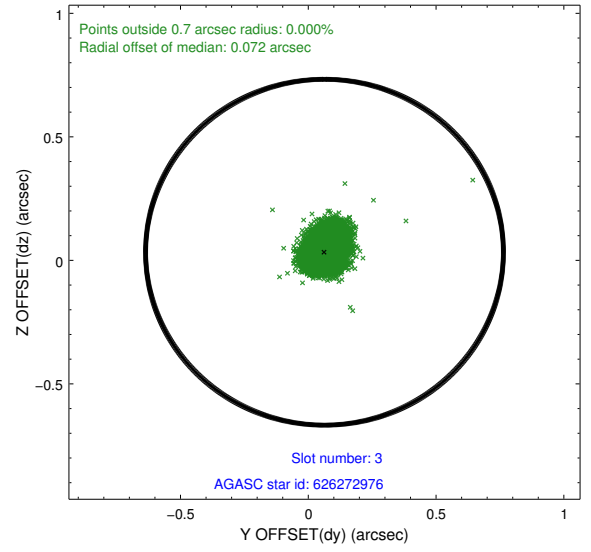
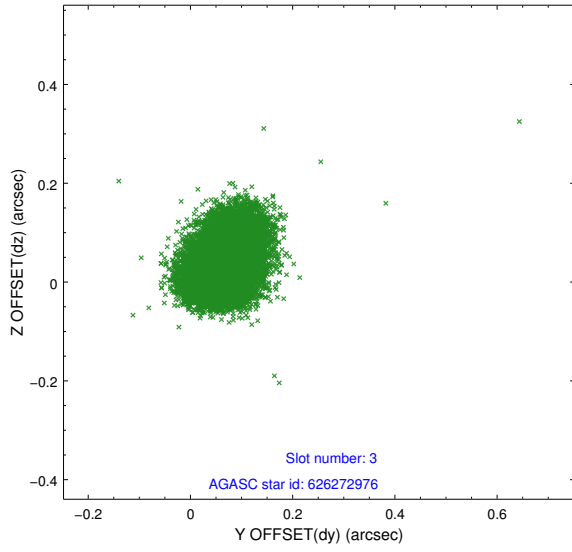


Slot Statistics

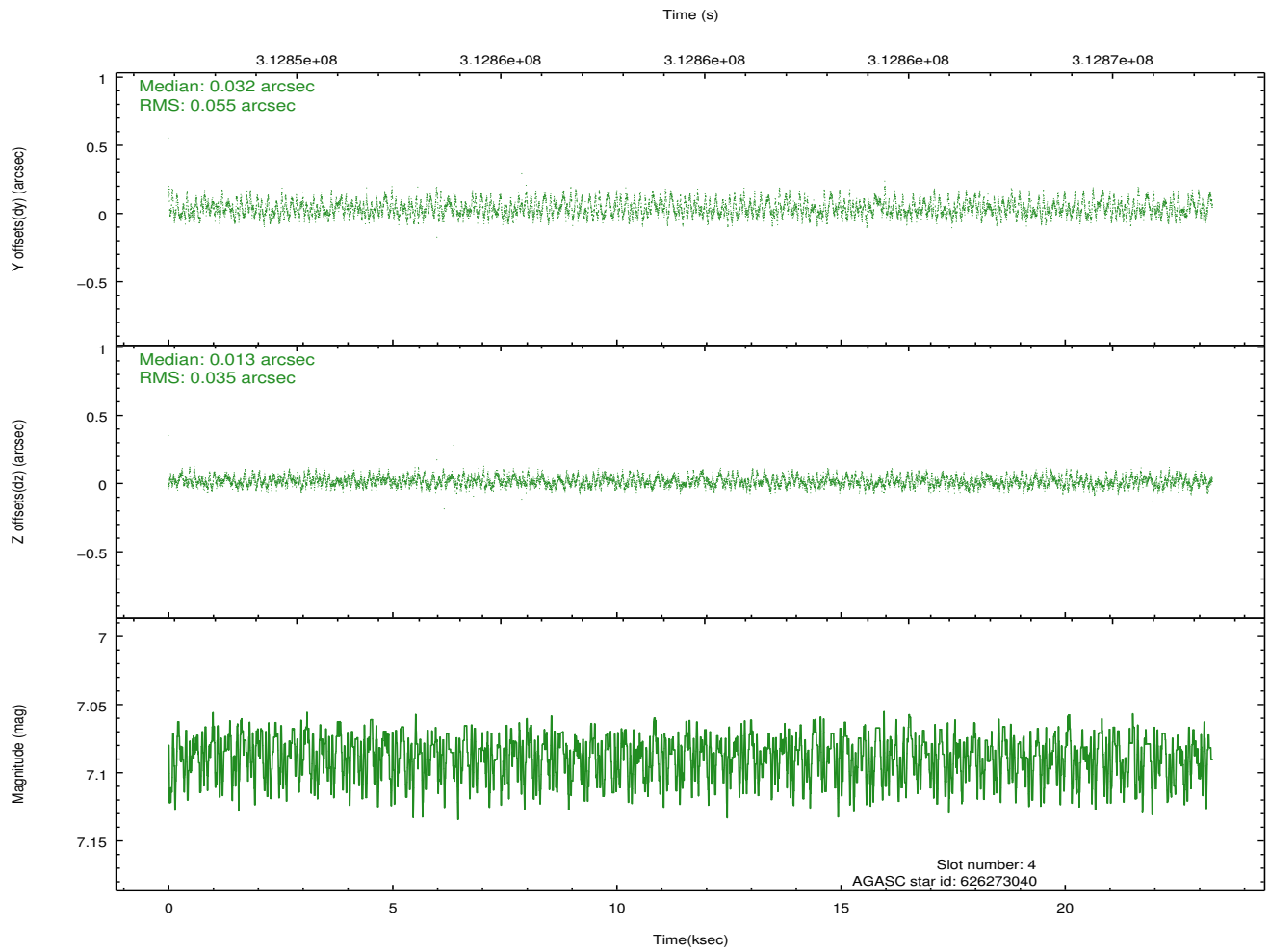
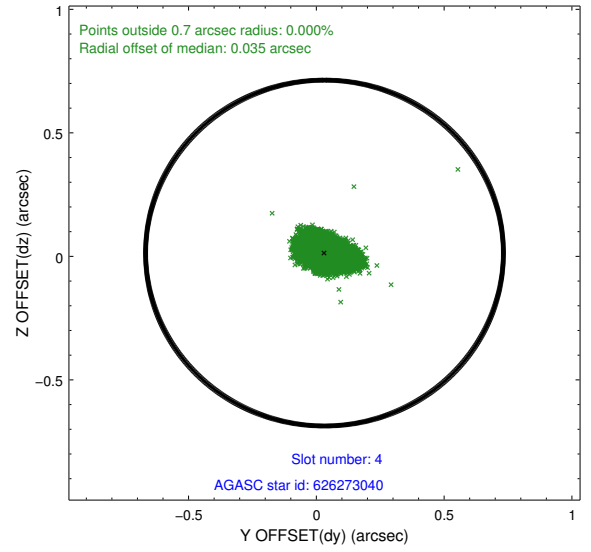
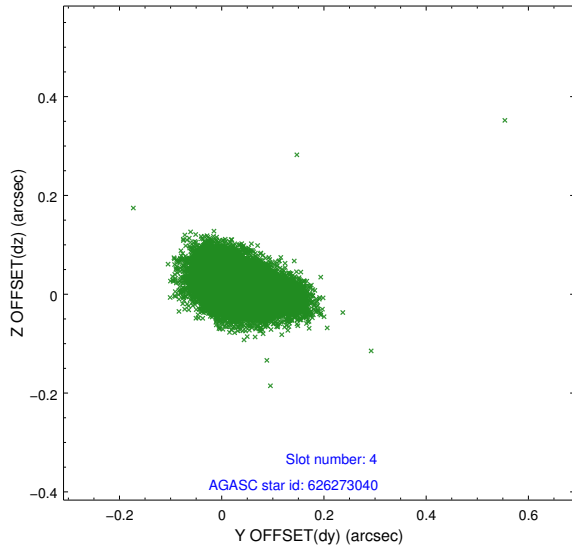
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	5681	0.027	-0.039	0.019	0.037	0.000000	0.000000	928.77	-1732.15
1	FID	ACIS-S-4	7.19	5681	0.147	0.020	0.012	0.019	0.000000	0.000000	2146.35	171.93
2	FID	ACIS-S-5	7.22	5680	-0.202	0.032	0.010	0.020	0.000000	0.000000	-1820.17	165.67
3	GUIDE	626272976	7.94	11362	0.063	0.033	0.066	0.105	83.795875	-5.926912	-1023.19	-1564.45
4	GUIDE	626273040	7.09	11363	0.032	0.013	0.070	0.112	84.062610	-5.647920	316.27	-1208.09
5	GUIDE	625745128	7.79	11360	-0.004	-0.158	0.059	0.094	83.769930	-4.731835	1146.47	2151.59
6	GUIDE	625745144	7.84	11355	-0.120	-0.011	0.057	0.096	83.888985	-4.837539	1311.57	1604.35
7	GUIDE	626272880	7.65	11359	0.016	0.117	0.051	0.081	83.815609	-6.032748	-1162.08	-1925.97

2.4 Star Slots

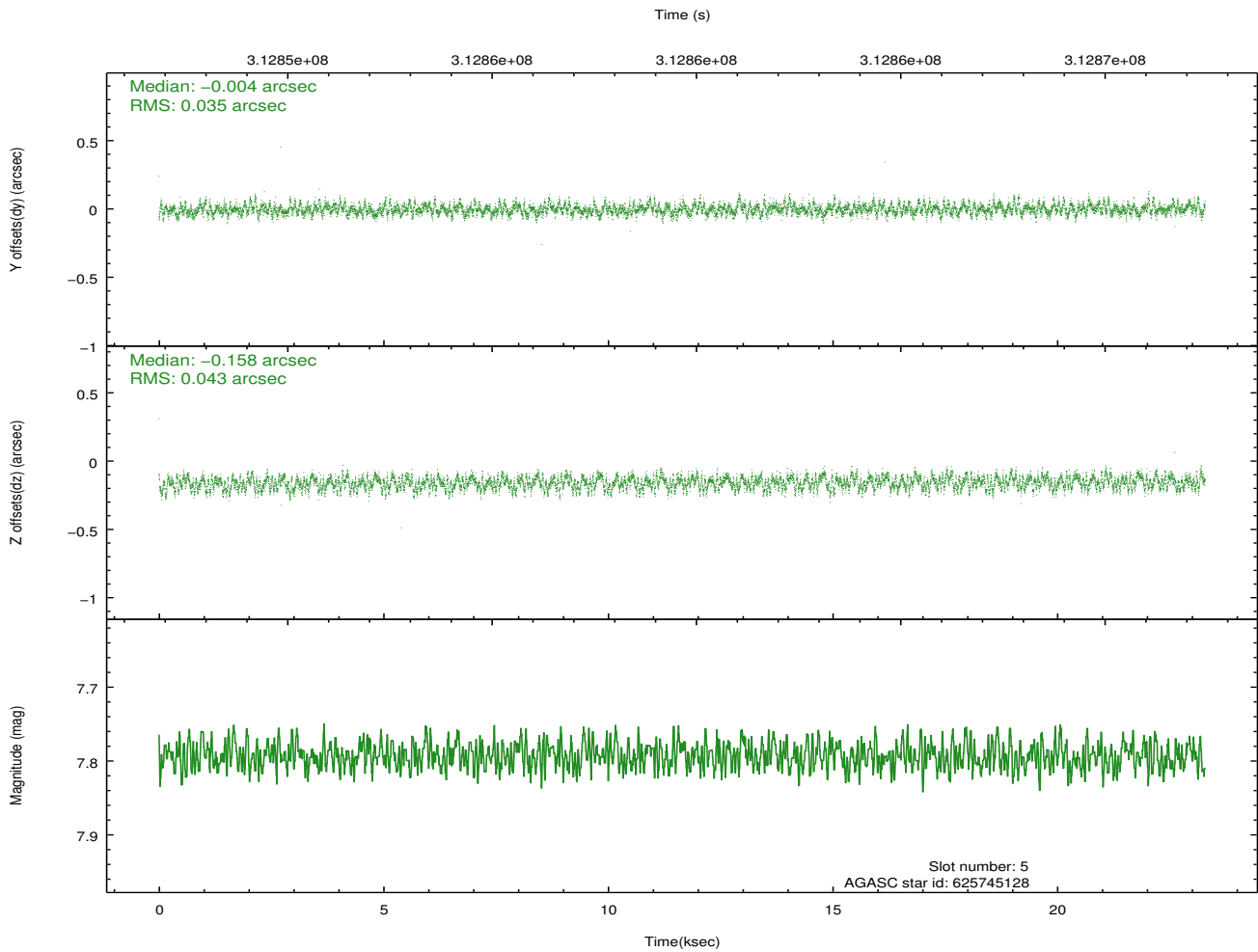
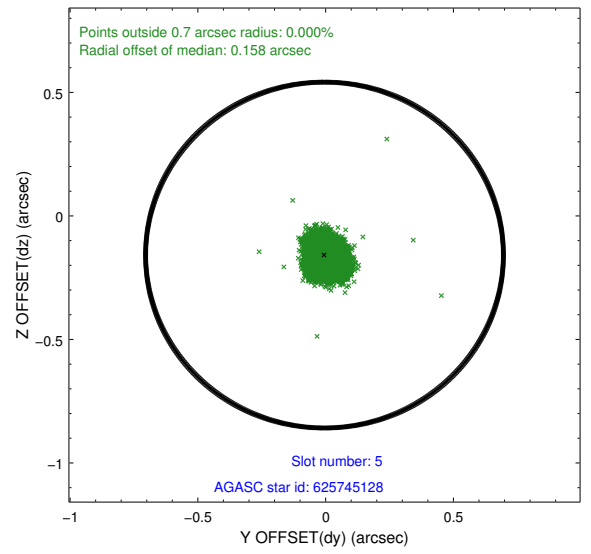
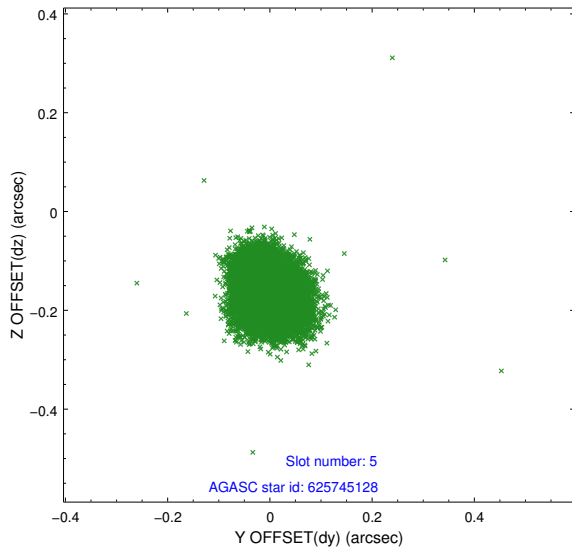
2.4.1 Slot 3



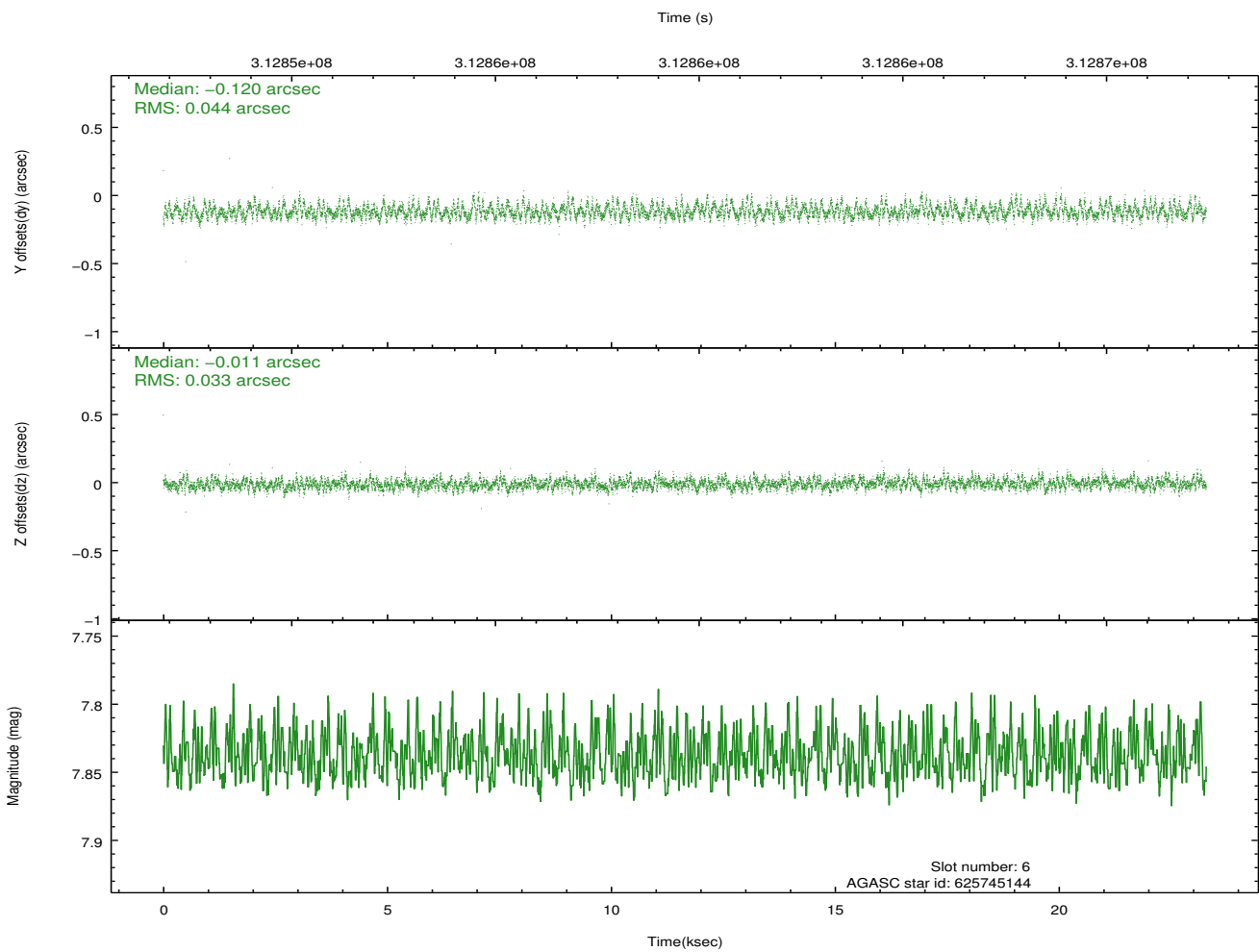
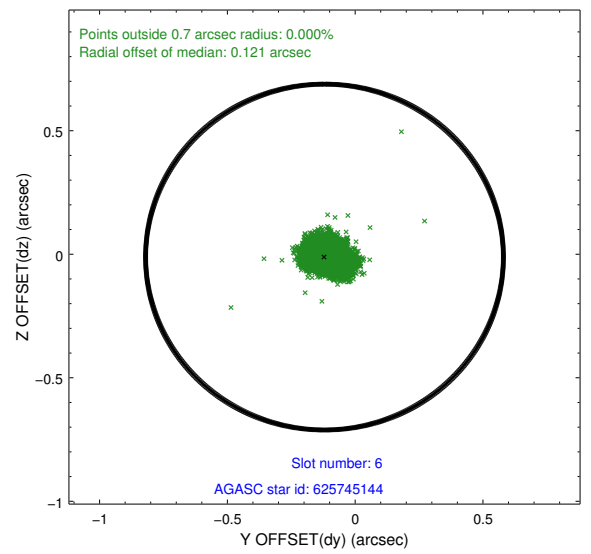
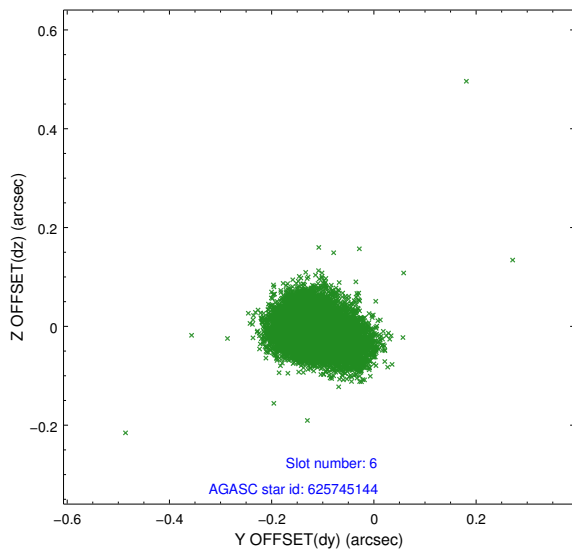
2.4.2 Slot 4



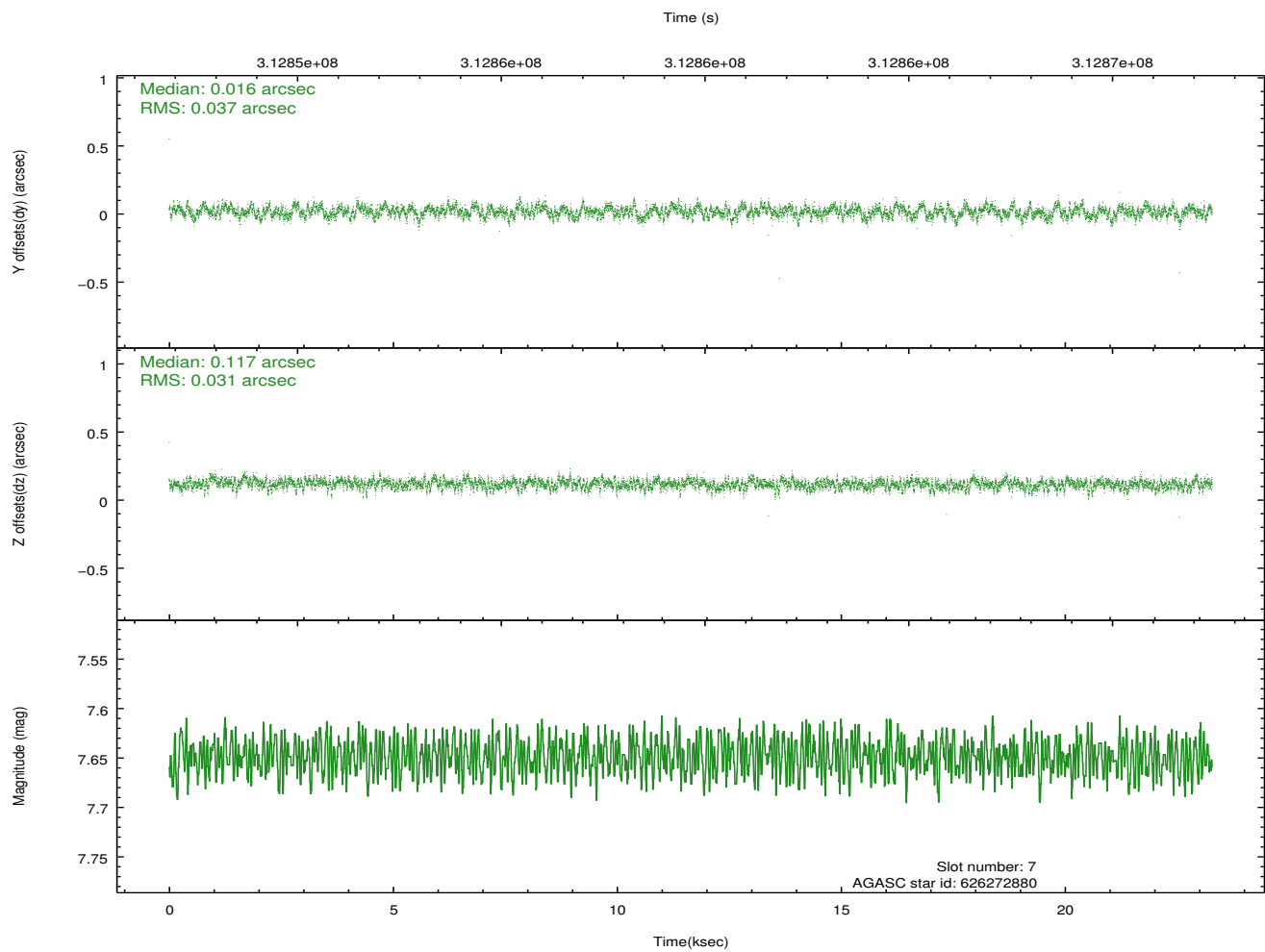
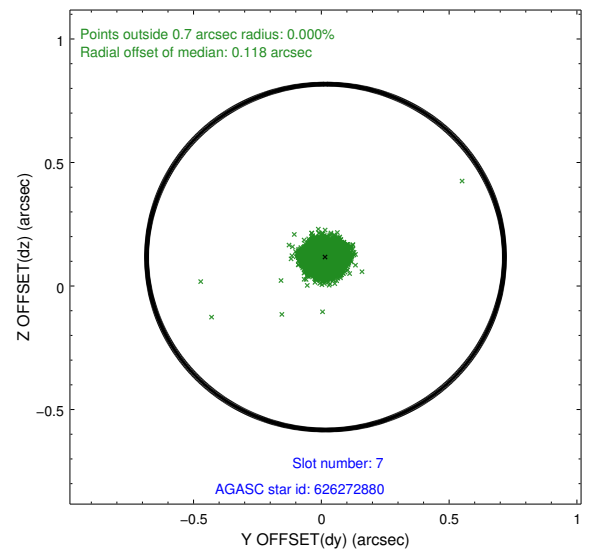
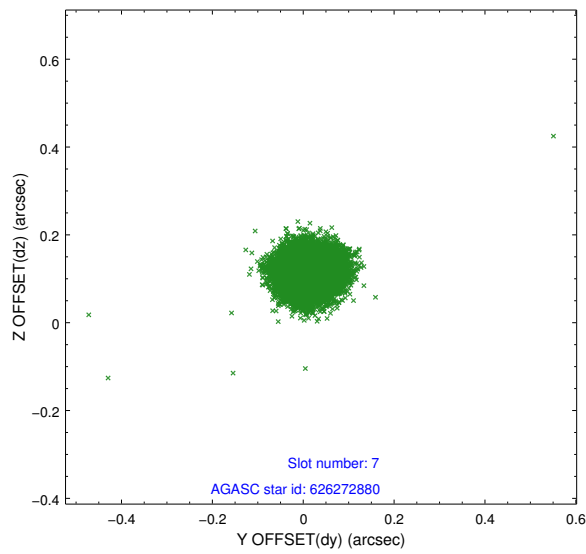
2.4.3 Slot 5



2.4.4 Slot 6

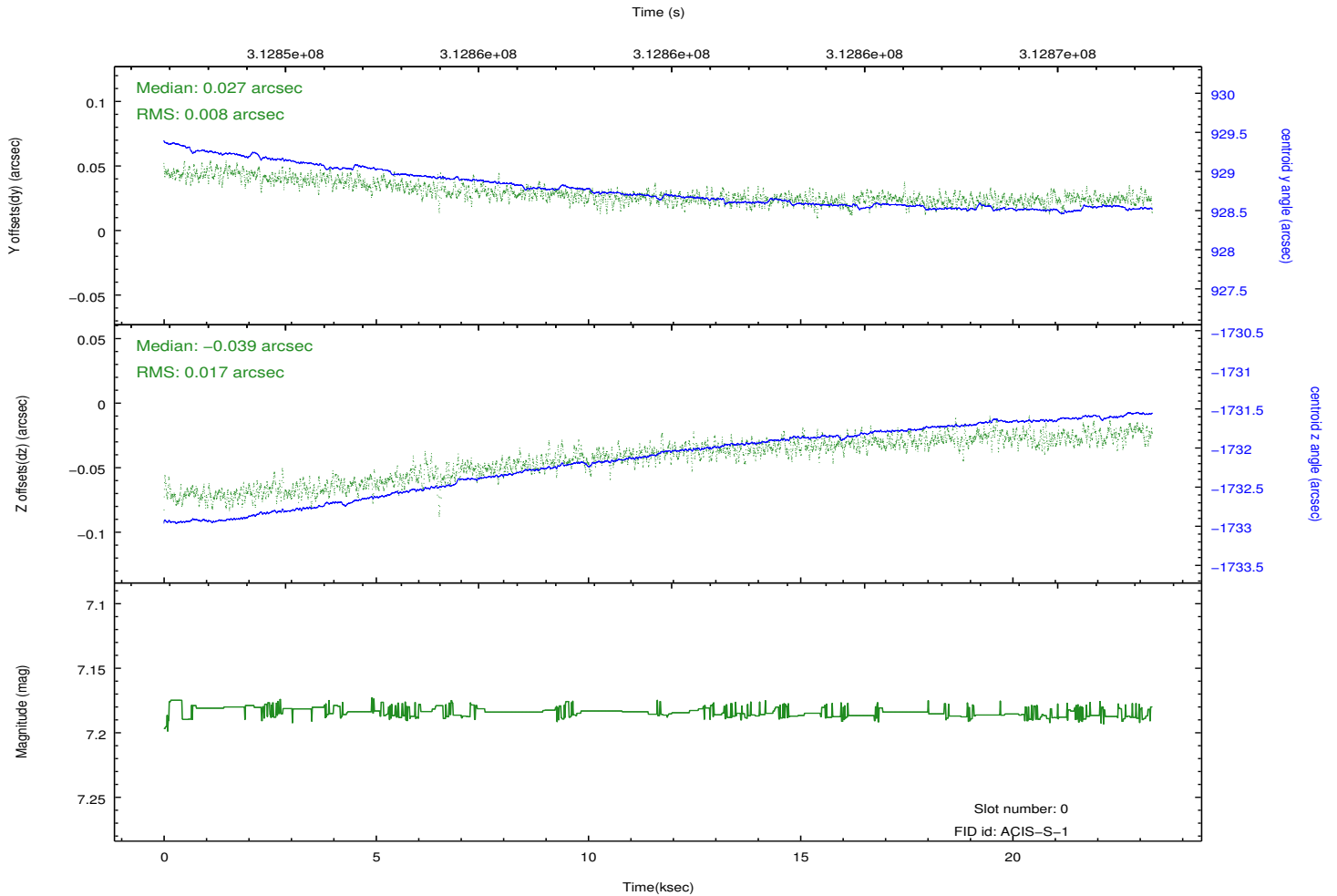
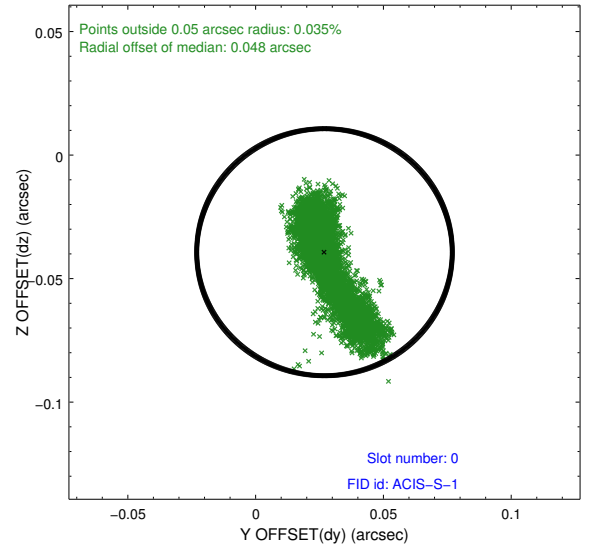
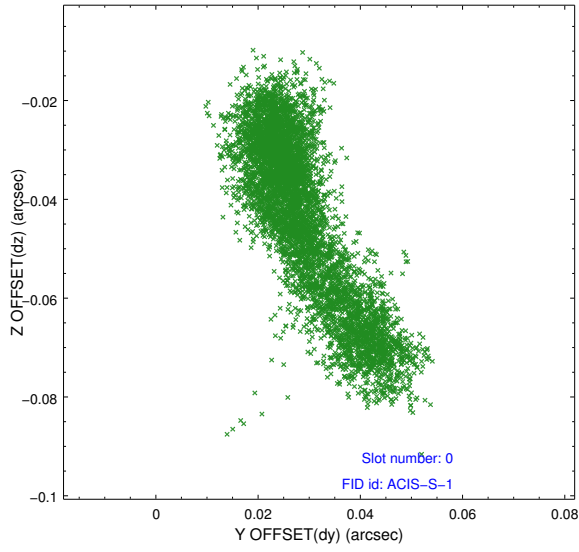


2.4.5 Slot 7

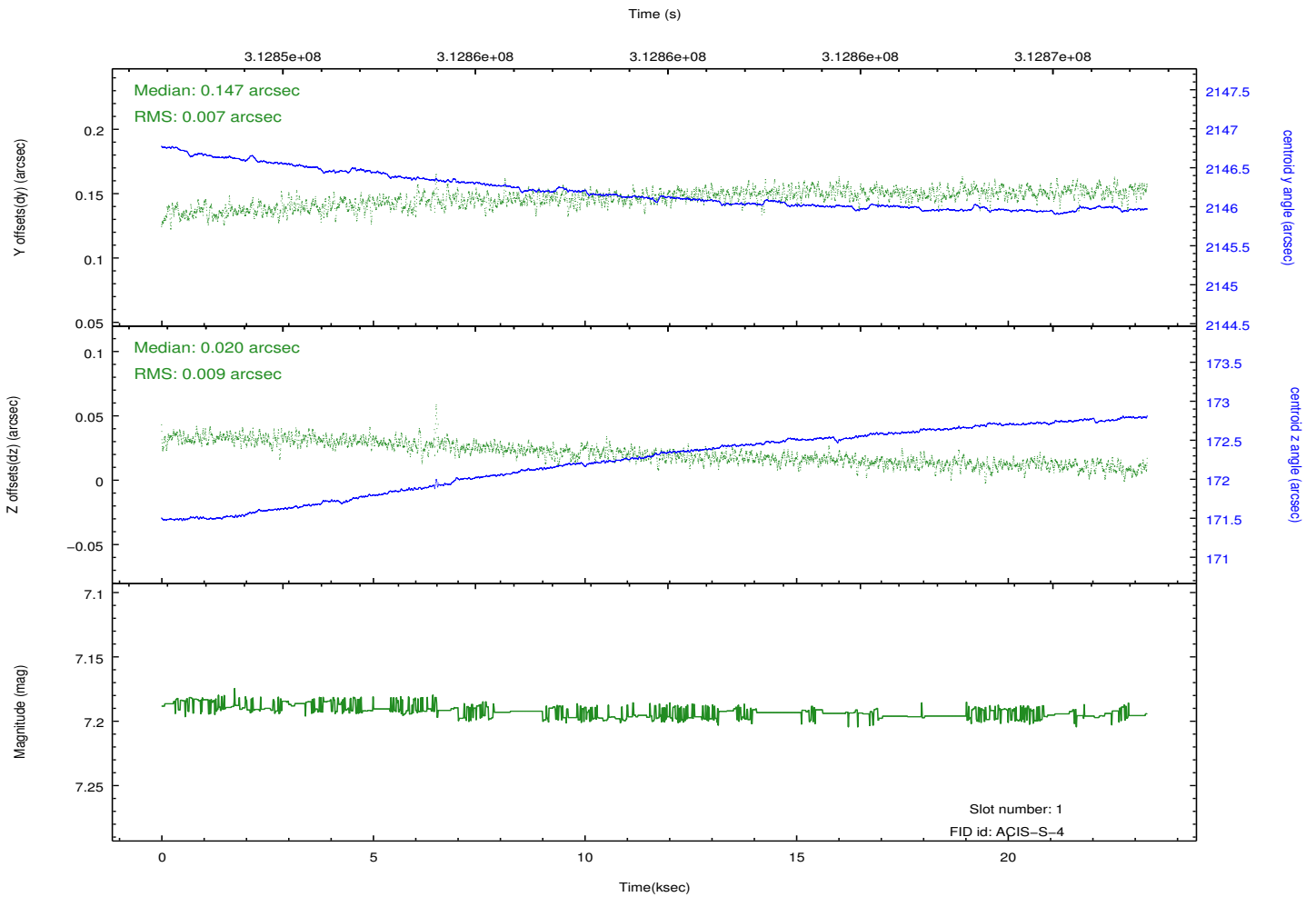
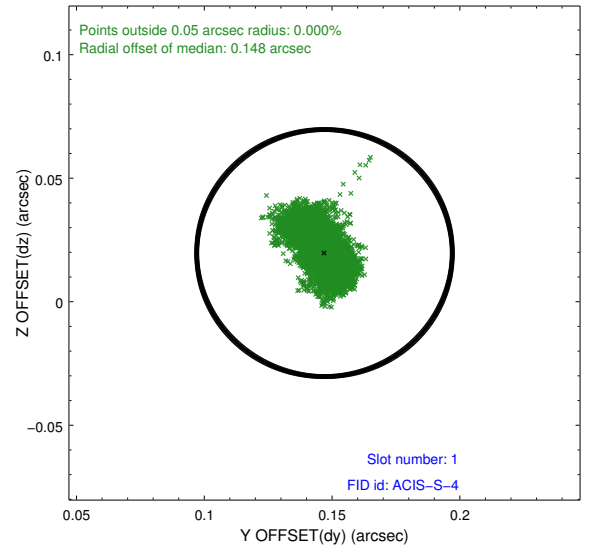
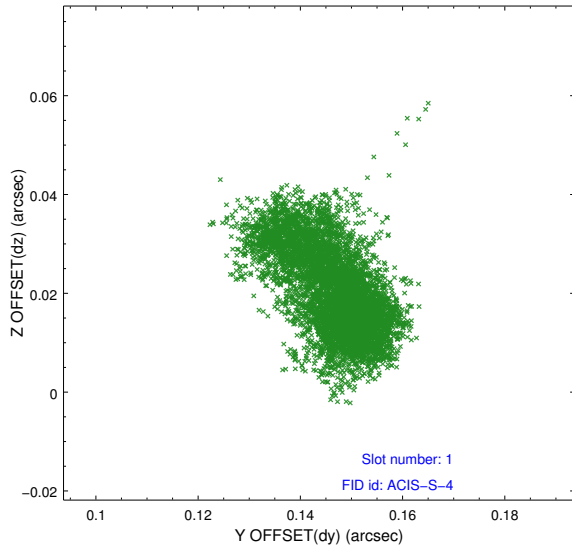


2.5 FID Slots

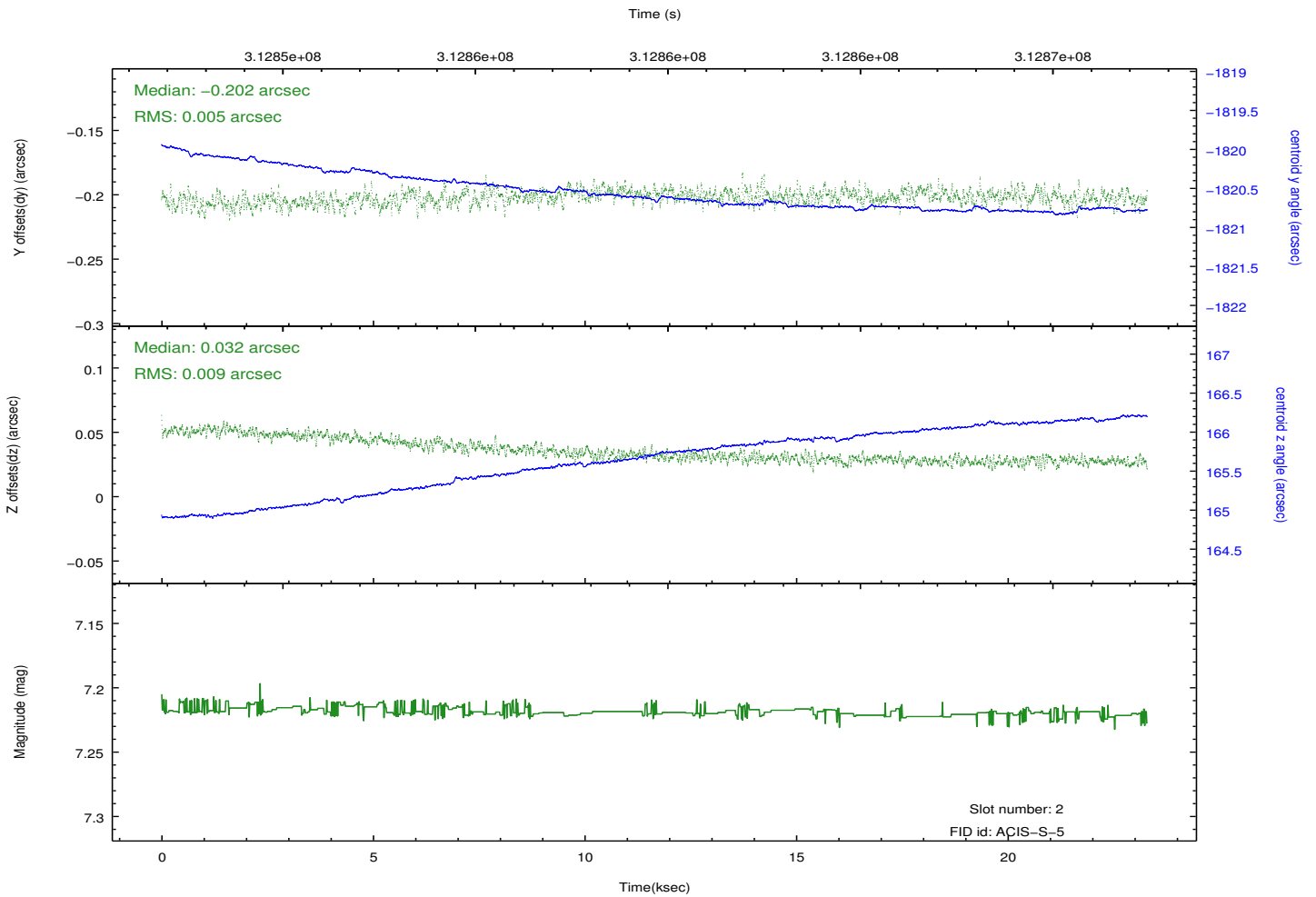
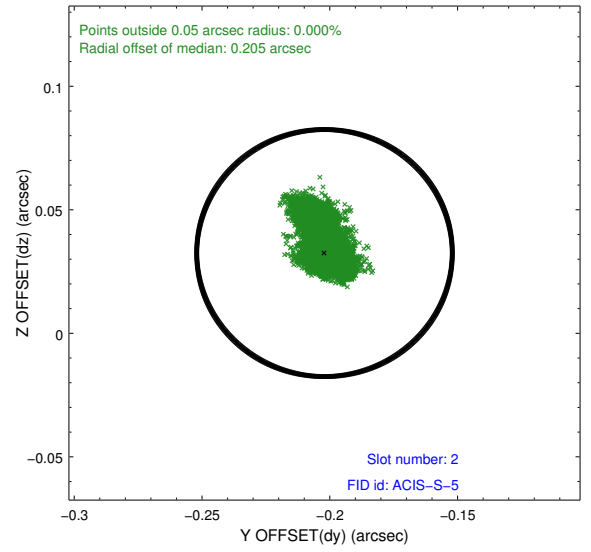
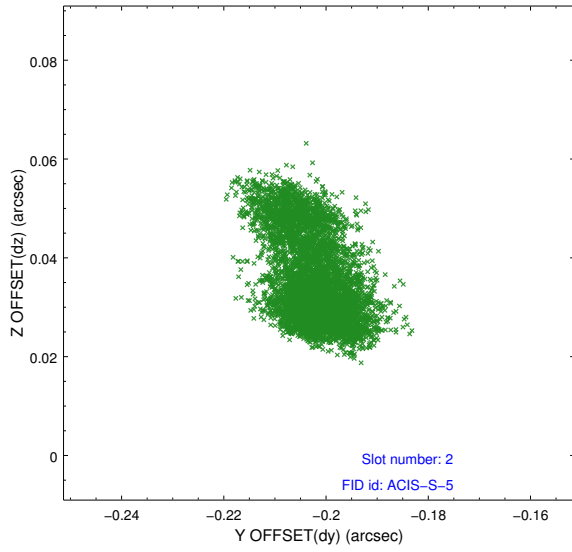
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

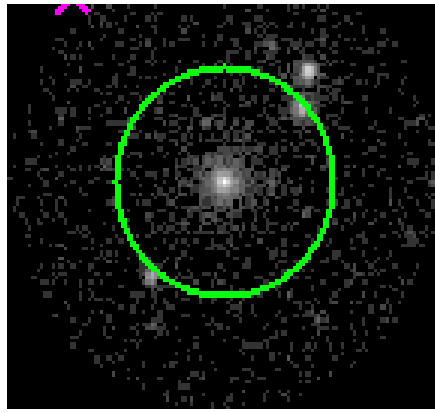


3 Gratings

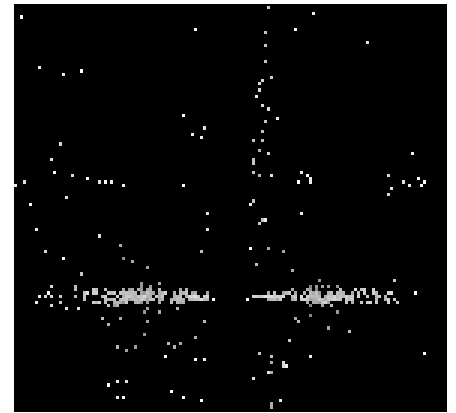
3.1 HEG Arm



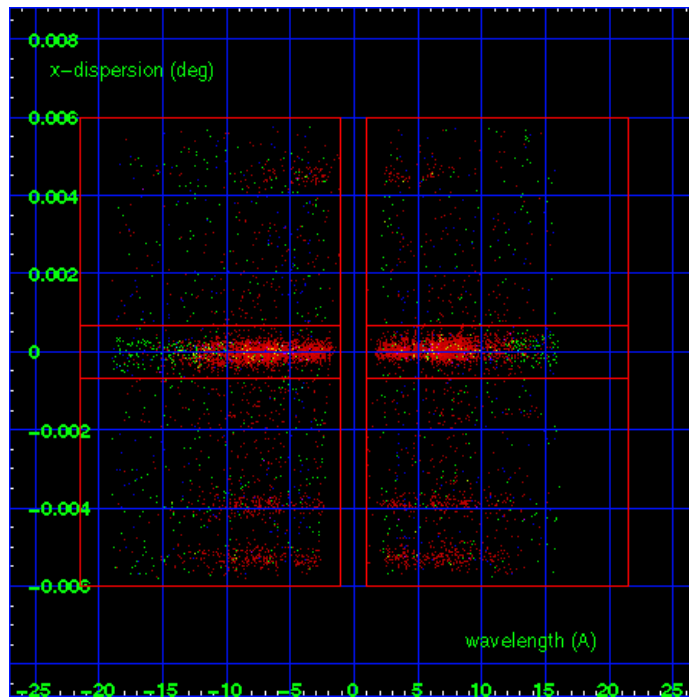
HEG Order Sort 123



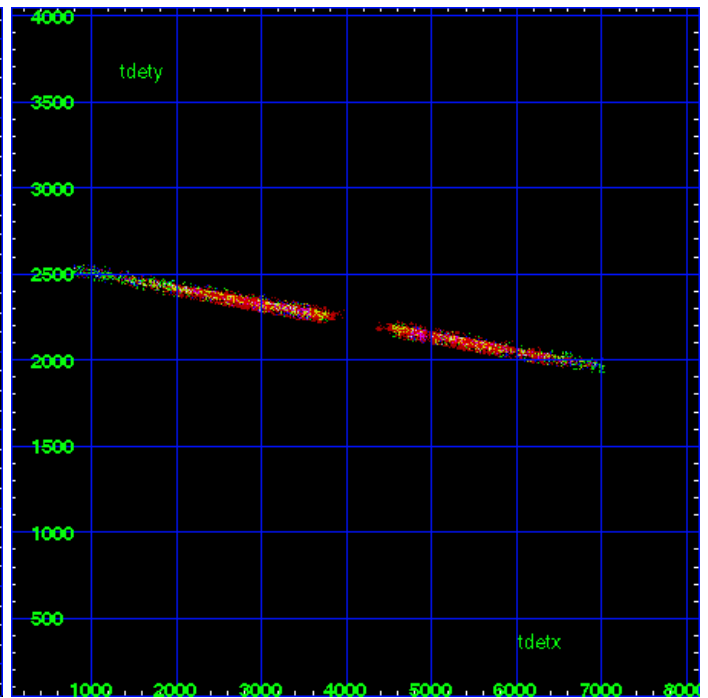
HEG Zero Order



HEG Order Sort ALL

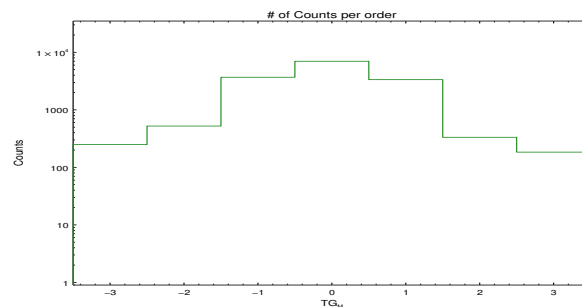


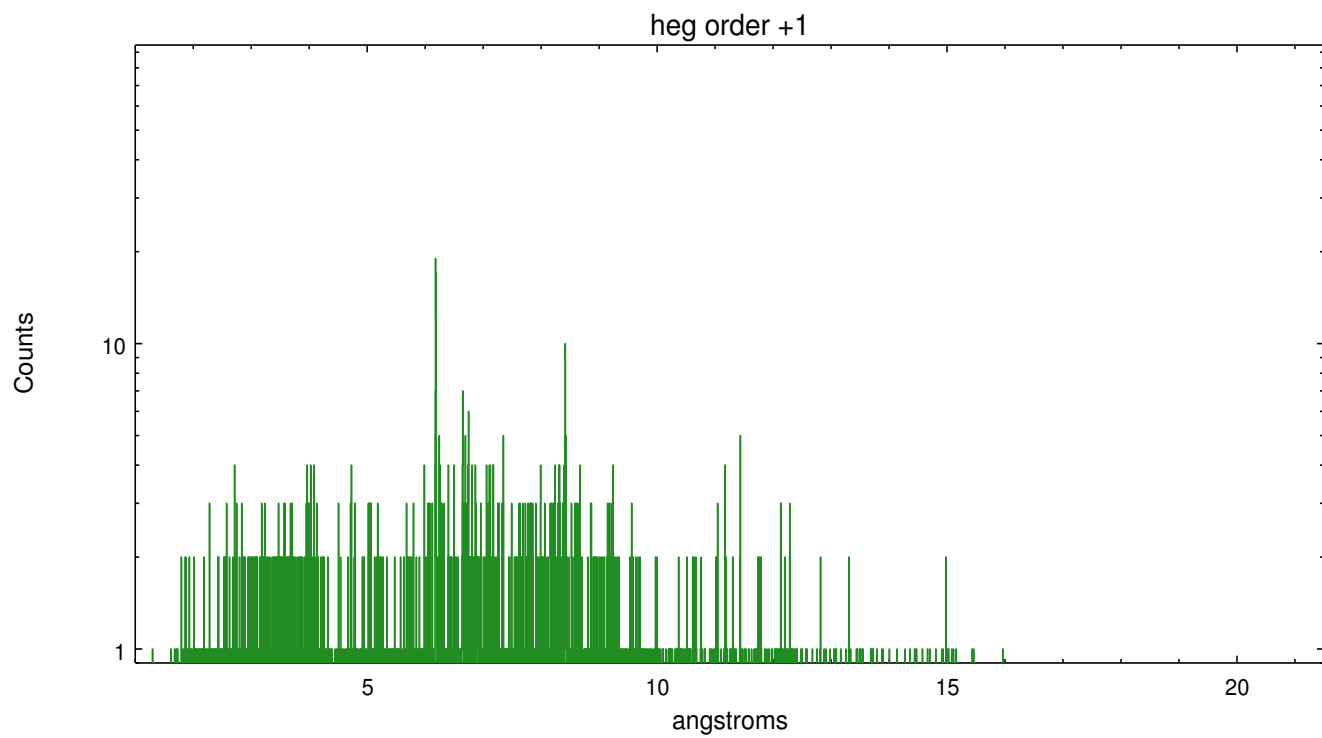
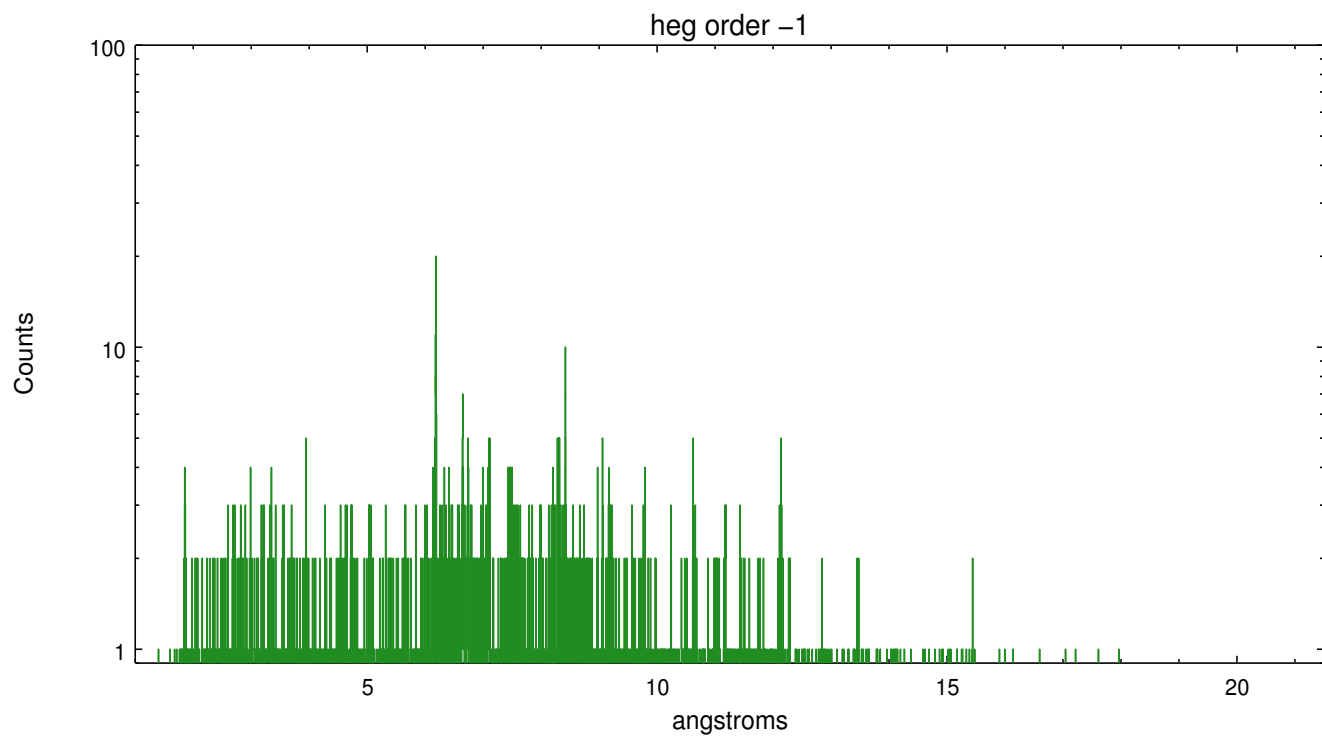
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	249	523	3685	6994	3350	333	184

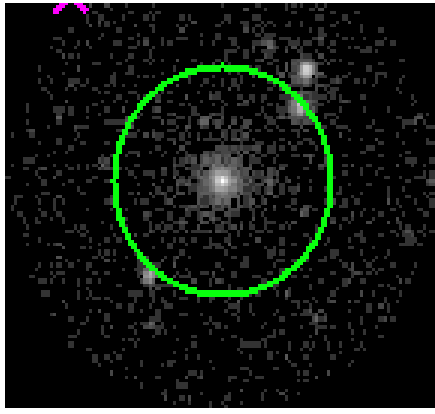




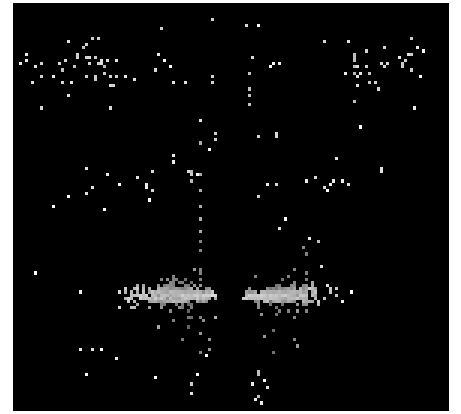
3.2 MEG Arm



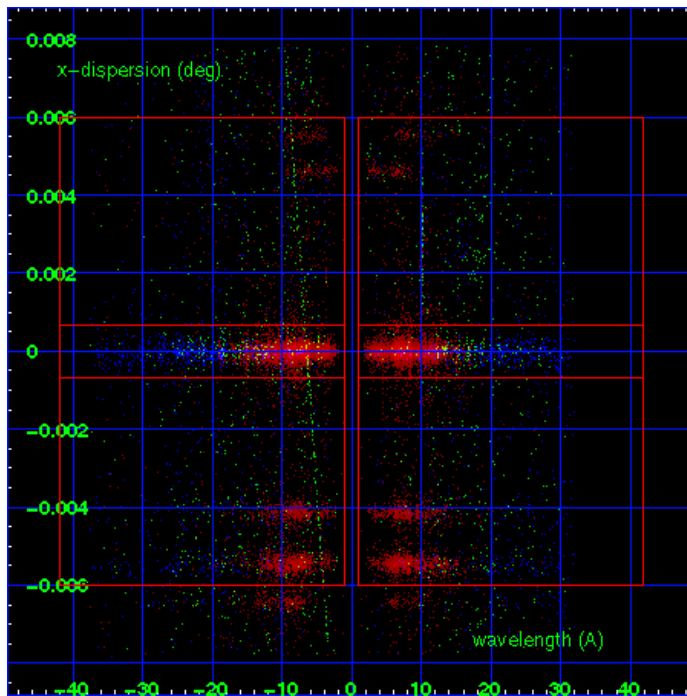
MEG Order Sort 123



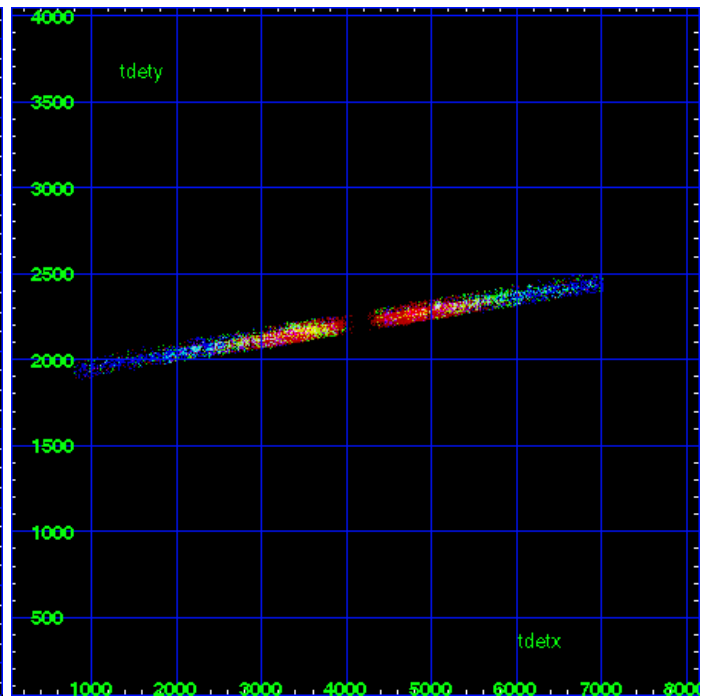
MEG Zero Order



MEG Order Sort ALL

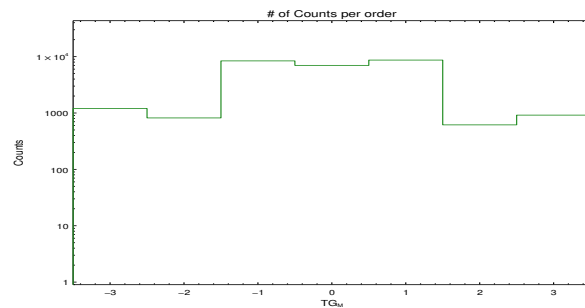


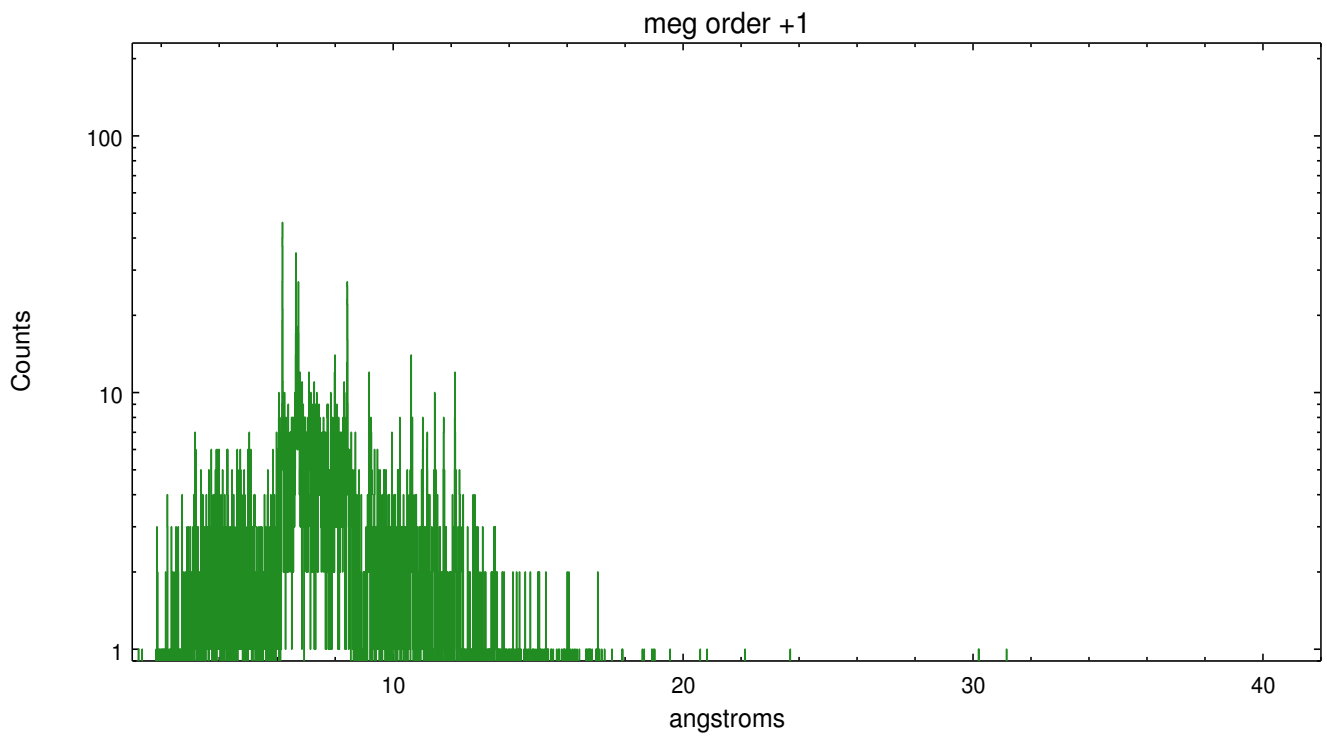
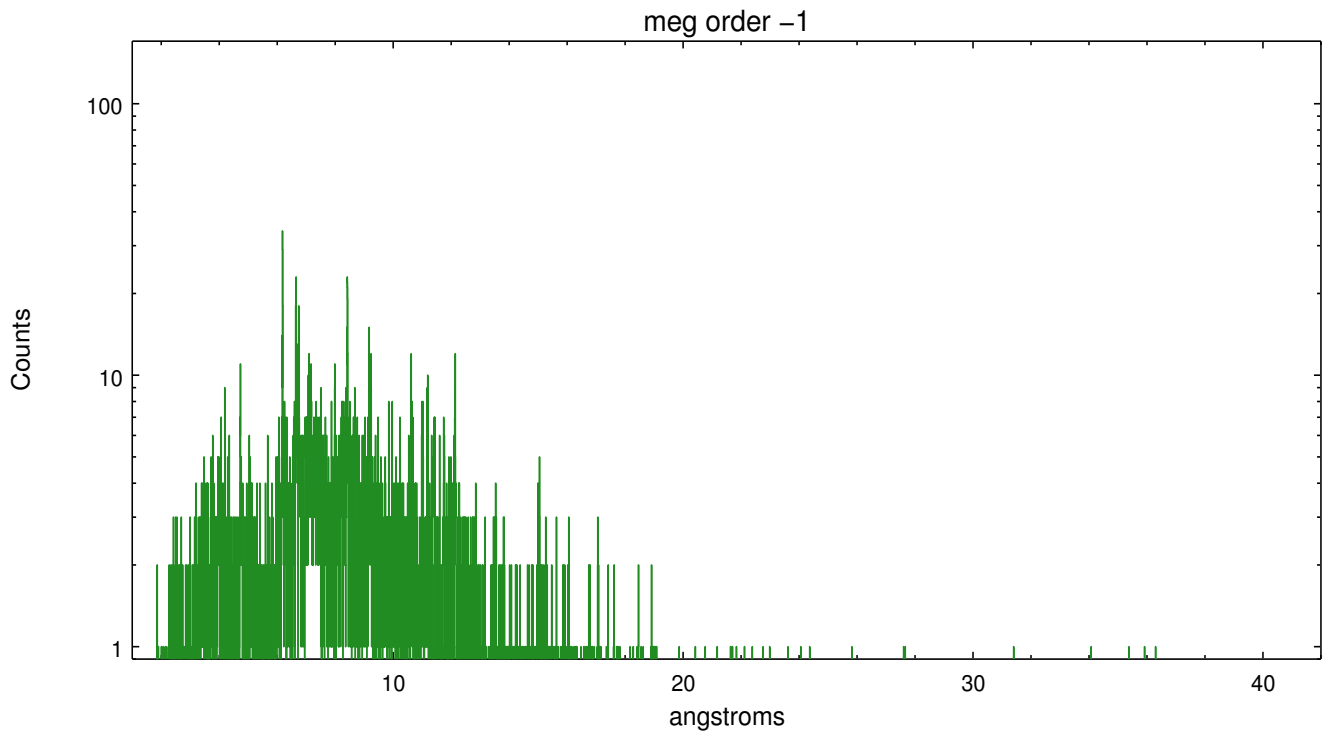
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1202	818	8409	6994	8687	616	917





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.9471999

A.2 Comments

Spectral extraction is centered on theta 1 Ori C. This source was found

automatically by the software tool tgdetect. No manual intervention was needed. Warning: Multiple sources in the field may cause contamination of the primary extraction or background at some wavelengths.