

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 15704 - L2 Version 2
Chandra X-Ray Center

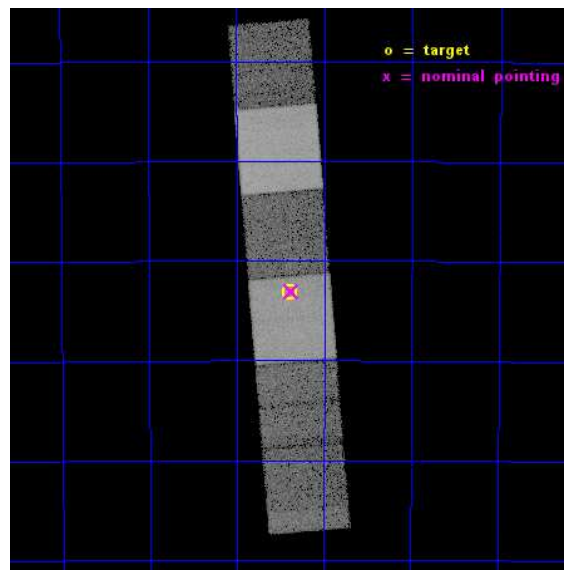
L2 Processing Date : Dec 10 2014

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1 Front

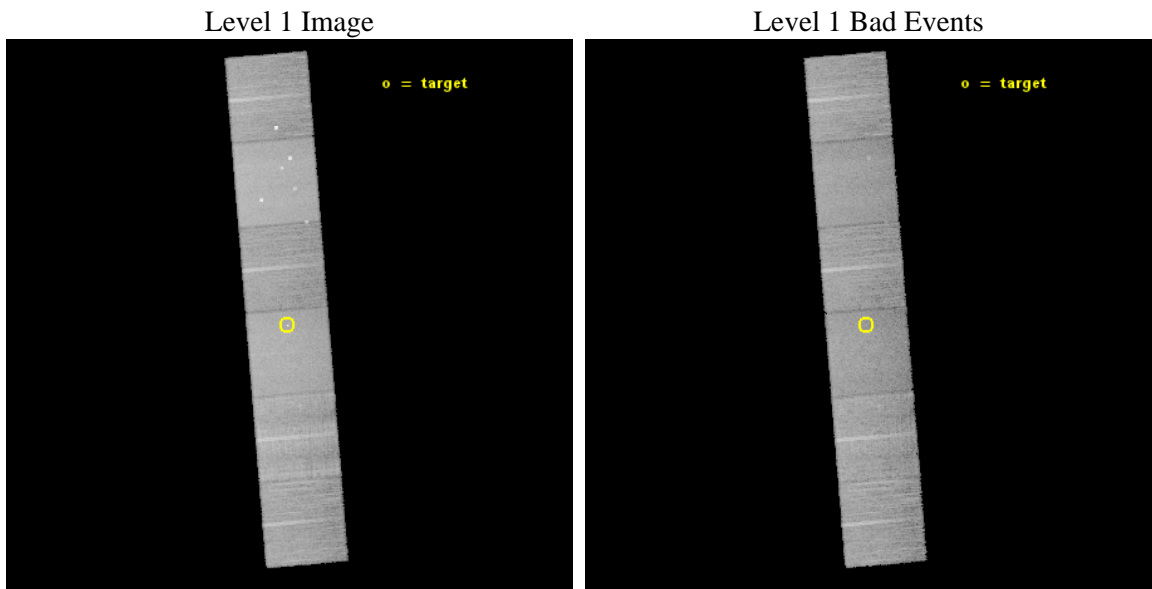
seq_num	200917	Sequence number
obs_id	15704	Observation id
title	The eye of the hurricane. Exploring the innermost wind region of the massive star QV Nor.	Proposal title
observer	Dr. Jose Torrejon	Principal investigator
object	QV Nor	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	235.5975	Observer's specified target RA [deg]
dec_targ	-52.386	Observer's specified target Dec [deg]
ra_nom	235.59357118632	Nominal RA [deg]
dec_nom	-52.384168699374	Nominal Dec [deg]
roll_nom	85.15351290157	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25961.599903345	Sum of GTIs [s]
livetime	25632.85849317	Livetime [s]
ontime4	25958.358893037	Sum of GTIs [s]
ontime5	25961.599903345	Sum of GTIs [s]
ontime6	25961.599903345	Sum of GTIs [s]
ontime7	25961.599903345	Sum of GTIs [s]
ontime8	25961.599903345	Sum of GTIs [s]
ontime9	25958.358913004	Sum of GTIs [s]
l2events	220328	Number of level 2 events



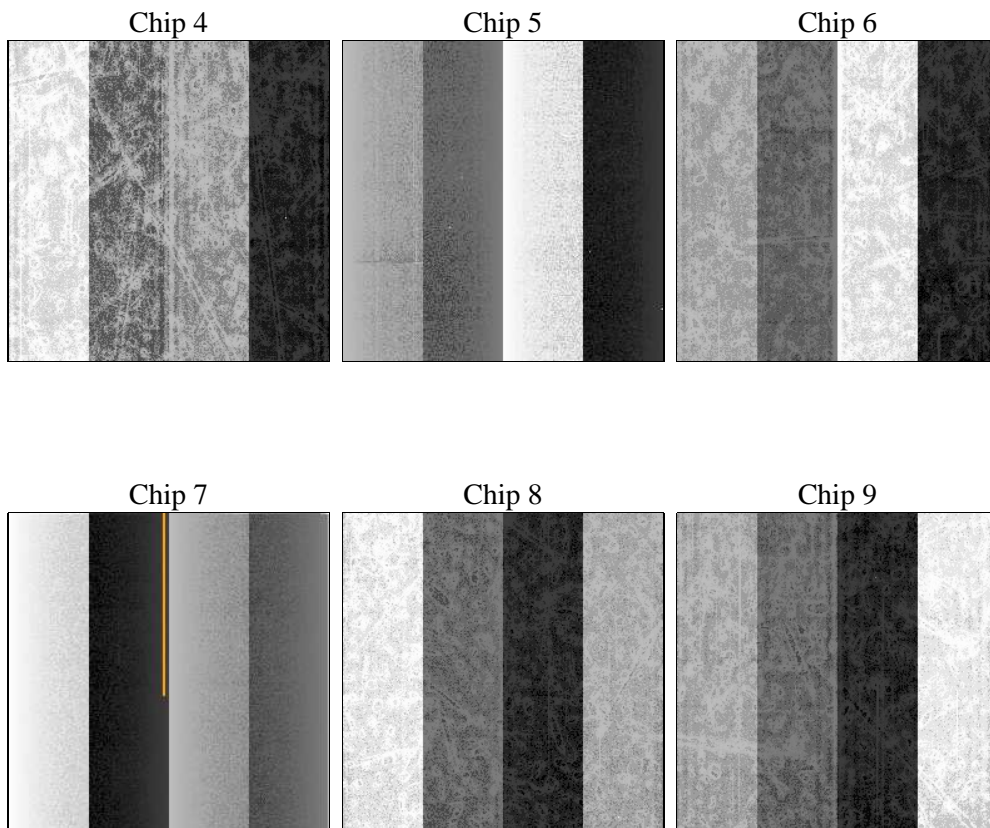
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	26000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	25961.599903345	Sum of GTIs [s]
caldsver	4.6.4	 	ontime4	25958.358893037	Sum of GTIs [s]
date	2014-12-10T06:57:54	Date and time of file creation	ontime5	25961.599903345	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	25961.599903345	Sum of GTIs [s]
			ontime7	25961.599903345	Sum of GTIs [s]
			ontime8	25961.599903345	Sum of GTIs [s]
			ontime9	25958.358913004	Sum of GTIs [s]
			l1events	939641	Number of level 1 events
			tgmetho	TGDETECT	Method used to create src1a file
			ra_pos	(4070.52, 4082.01)	src1a sky pixel position

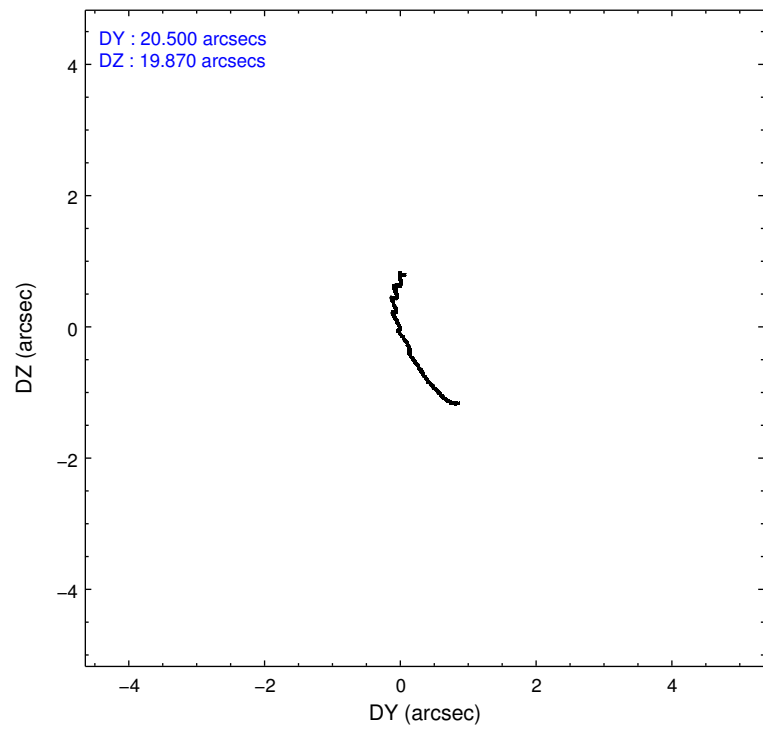
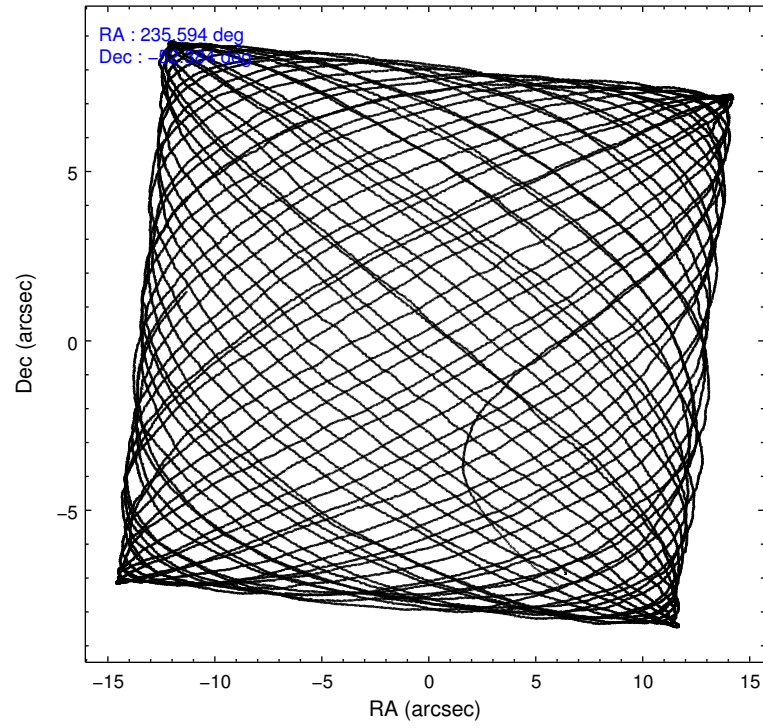
2.1.4 Events

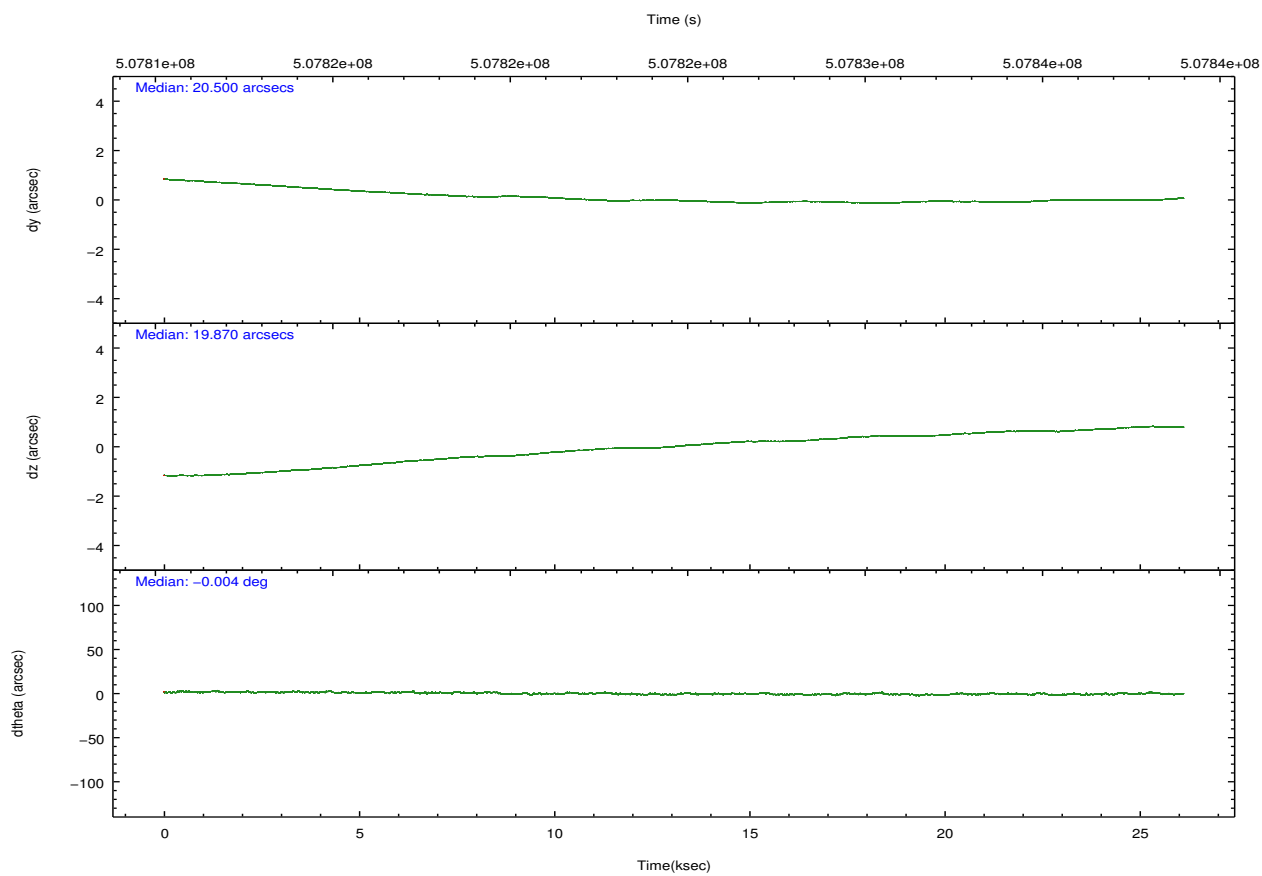
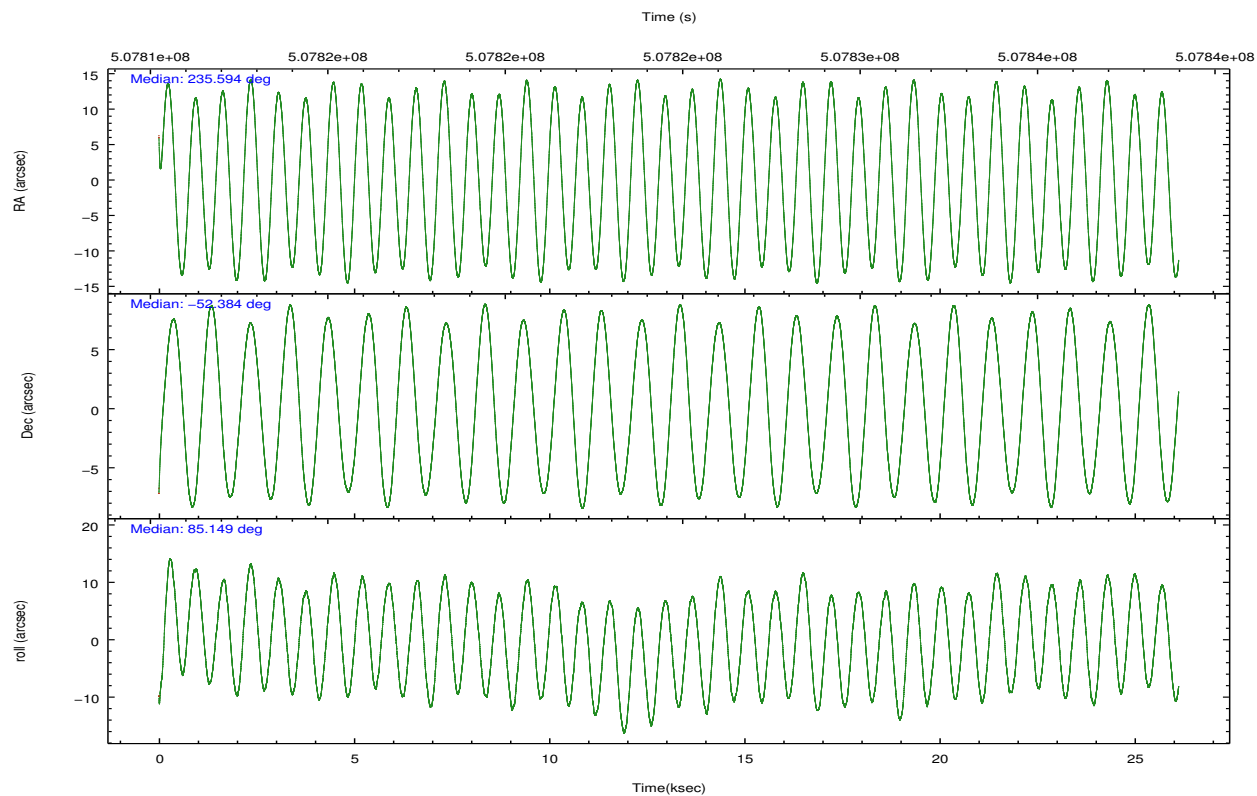
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	142154	206492	126835	170851	165559	127750	grade 0 events	8937	10397	5754	6556	12613	5601
rejected events	123324	106596	110834	95852	121996	111793		6%	5%	4%	3%	7%	4%
rejected %	86%	51%	87%	56%	73%	87%	grade 1 events	145	565	66	205	124	74
								0%	0%	0%	0%	0%	0%
							grade 2 events	3753	29835	3633	15540	10216	3472
								2%	14%	2%	9%	6%	2%
							grade 3 events	1813	3240	1570	6176	4707	1656
								1%	1%	1%	3%	2%	1%
							grade 4 events	1561	3101	1495	6178	4333	1606
								1%	1%	1%	3%	2%	1%
							grade 5 events	6569	14789	6414	17013	9564	7293
								4%	7%	5%	9%	5%	5%
							grade 6 events	2767	53340	3552	40555	11702	3623
								1%	25%	2%	23%	7%	2%
							grade 7 events	116609	91225	104351	78628	112300	104425
								82%	44%	82%	46%	67%	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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	235.613165	235.5935711863189	CCD I2 on	N	N
[deg] Pointing Dec	-52.408757	-52.38416869937367	CCD I3 on	N	N
[deg] Pointing Roll	85.012412	85.15351290157011	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
Phase constraints	Y	Y	CCD S5 on	Y	Y
[d] Phase period	3.728382	3.728382	Number of optional ACIS chips dropped	0	0
[d] Phase epoch (MJD)	54678.000000	54678.000000	On-chip summing requested	N	N
Phase start	0.840000	0.840000	Subarray requested	NONE	NONE
Phase end	0.090000	0.090000	Alternating exposures requested	N	N
Phase start error	0.025000	0.025000	[s] Primary exposure time	0.000000	3.2
Phase end error	0.025000	0.025000			
[s] Observation start time (MET)	507811665.184000	507810501.55285			
Observation start date	2014-02-03T10:46:38	2014-02-03T10:28:21			
[s] Observation end time (MET)	507837665.184000	507838540.42939			
Observation end date	2014-02-03T17:59:58	2014-02-03T18:15:40			
Read mode	TIMED	TIMED			

2.3 Aspect



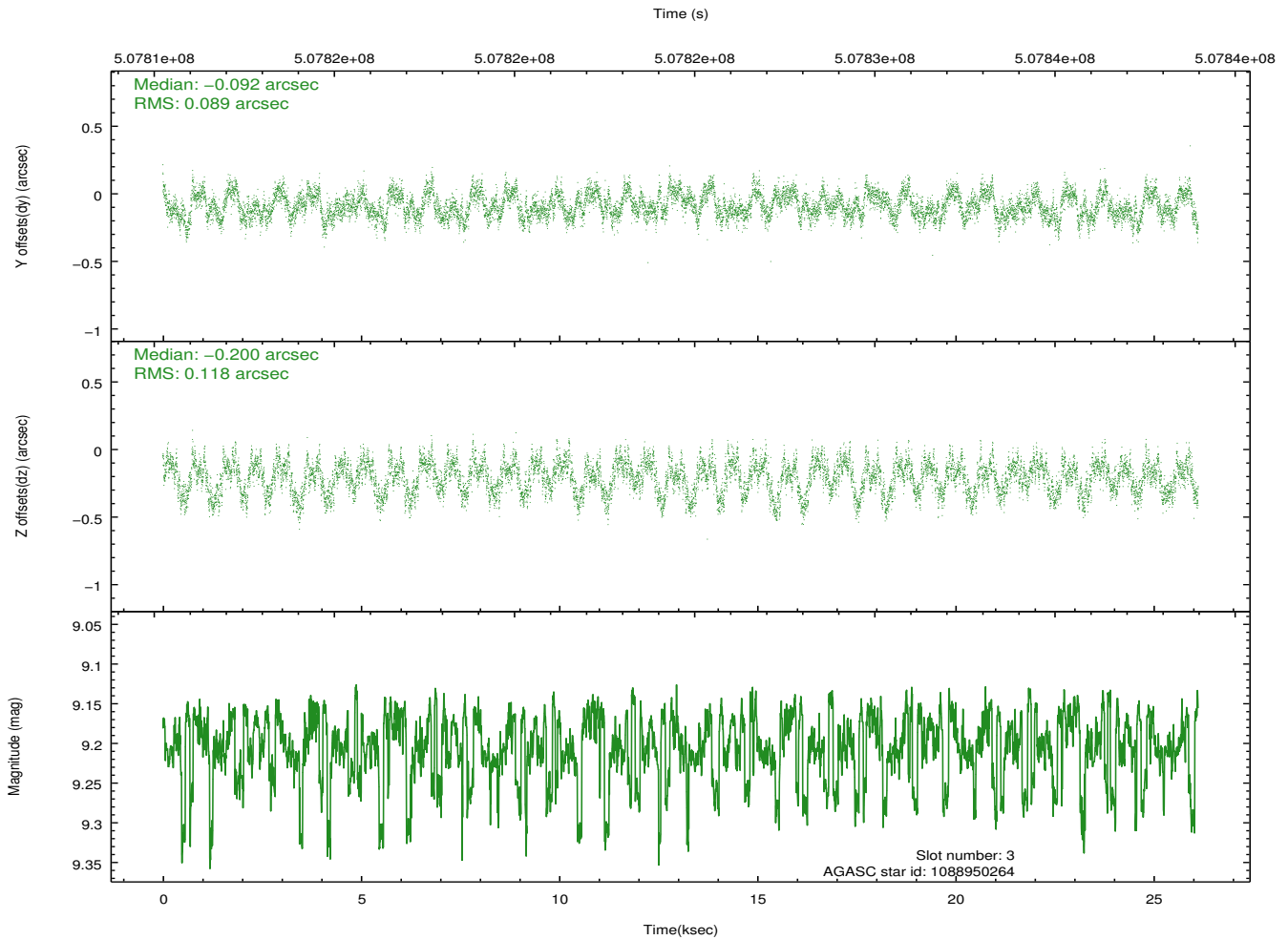
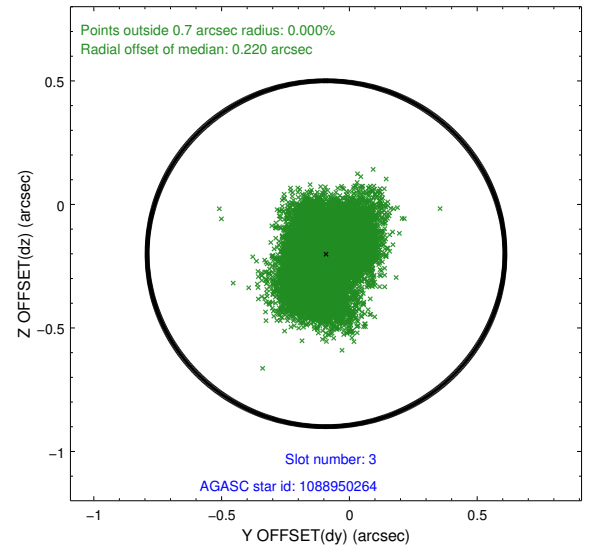
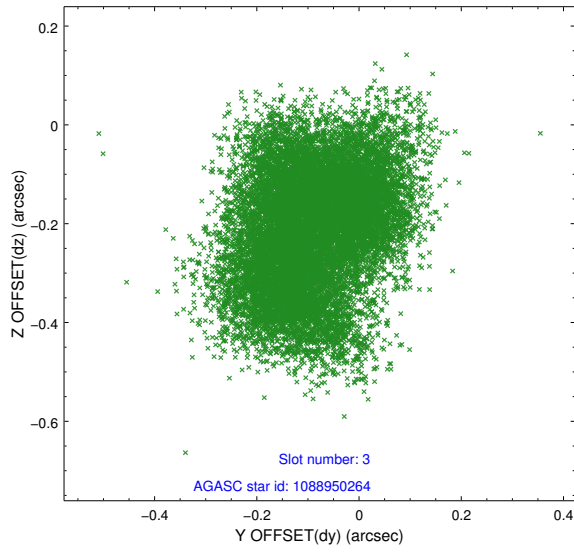


Slot Statistics

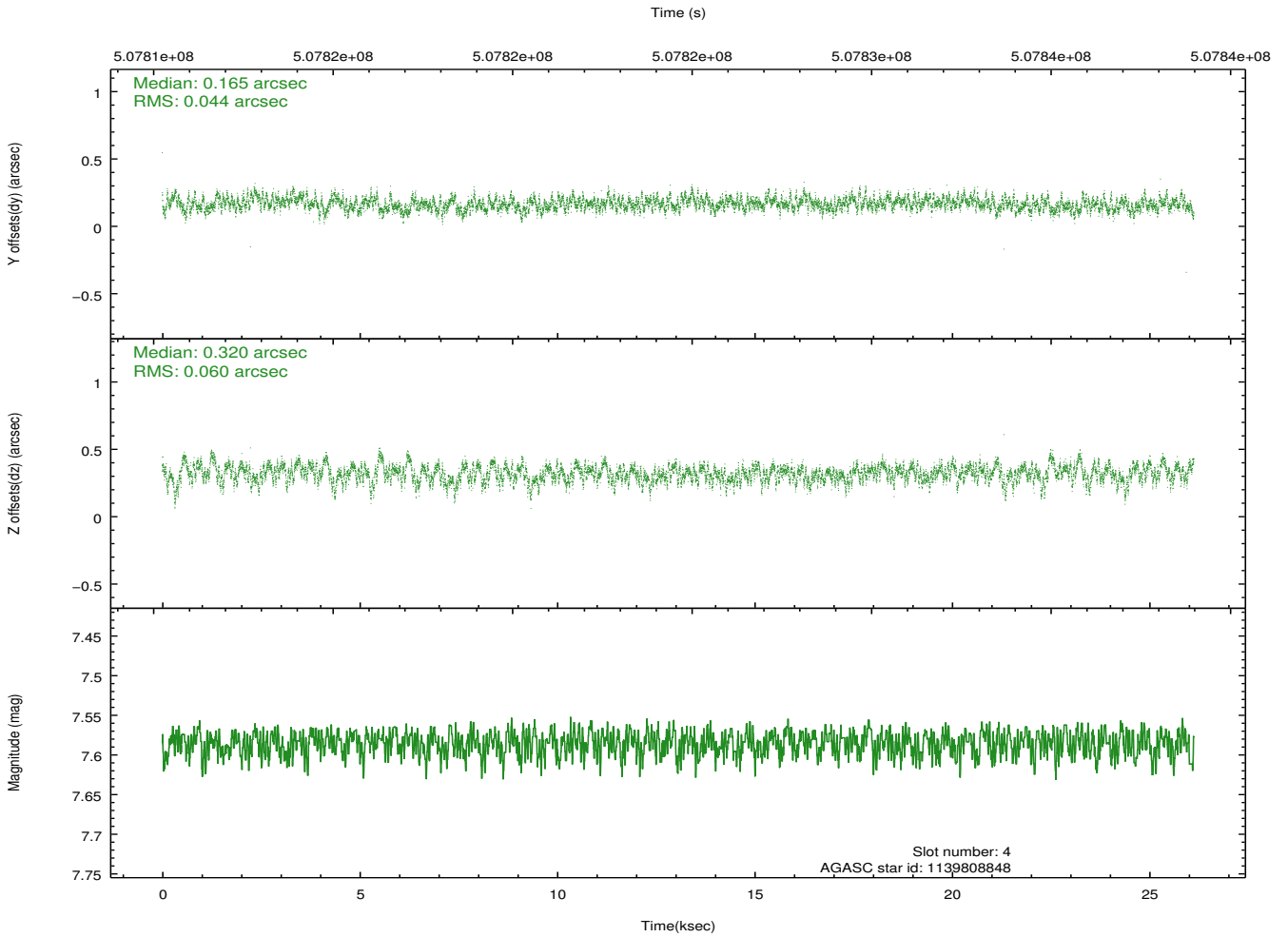
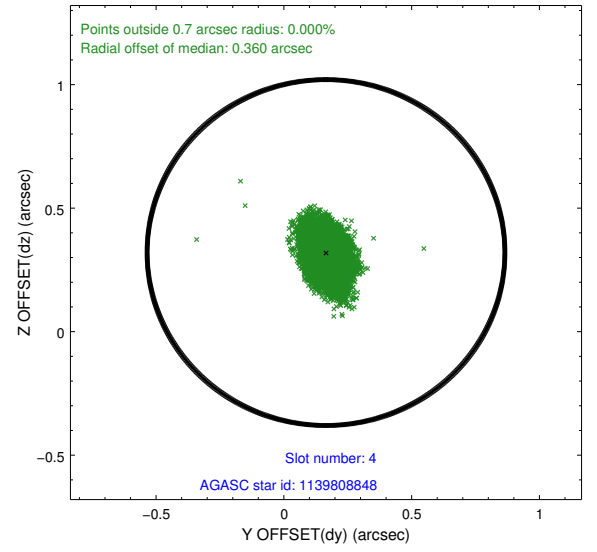
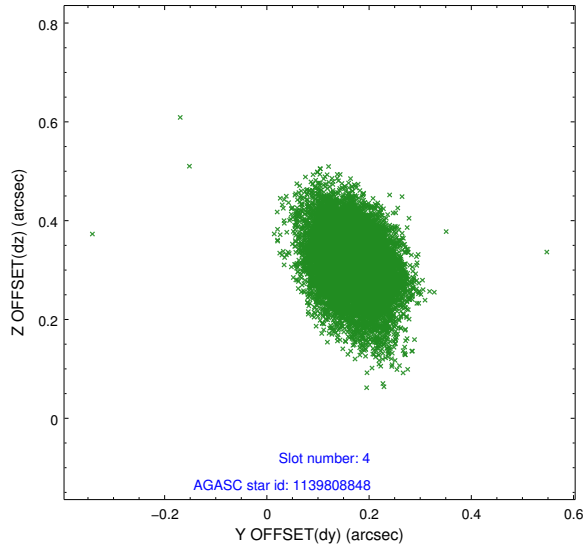
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.05	6373	-0.150	-0.036	0.017	0.035	0.000000	0.000000	-773.90	-1741.30
1	FID		ACIS-S-4	7.13	6373	0.284	0.082	0.010	0.018	0.000000	0.000000	2139.77	167.19
2	FID		ACIS-S-5	7.16	6372	-0.167	-0.039	0.018	0.035	0.000000	0.000000	-1826.62	160.87
3	GUIDE	used	1088950264	9.20	12740	-0.092	-0.200	0.160	0.248	235.183580	-52.231636	550.27	998.78
4	GUIDE	used	1139808848	7.58	12738	0.165	0.320	0.077	0.133	236.360535	-52.566830	-432.47	-1678.87
5	GUIDE	used	1139805424	8.54	12740	0.357	0.208	0.104	0.163	236.144577	-53.087549	-2338.08	-1357.33
6	GUIDE	used	1088952304	9.59	12733	-0.275	-0.374	0.146	0.238	234.981812	-51.960089	1480.88	1535.10
7	GUIDE	used	1088962448	9.61	12731	-0.162	0.050	0.160	0.290	235.981964	-51.763869	2382.38	-616.30

2.4 Star Slots

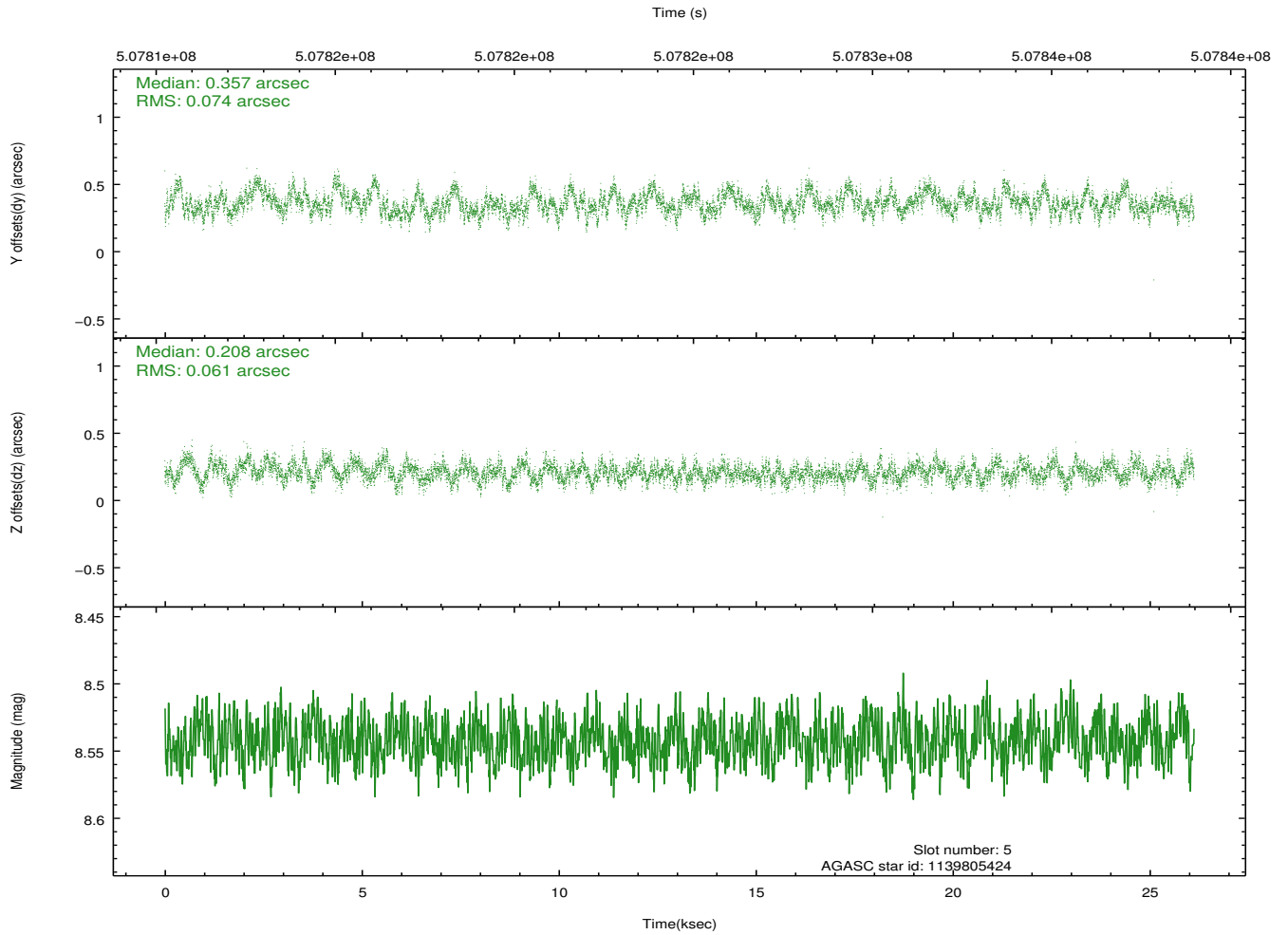
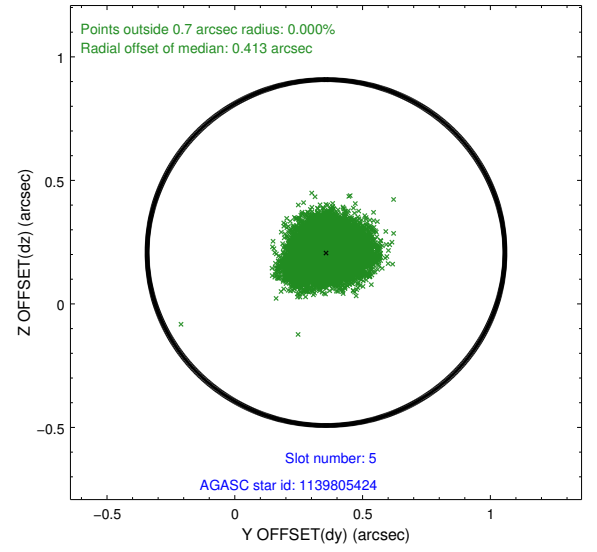
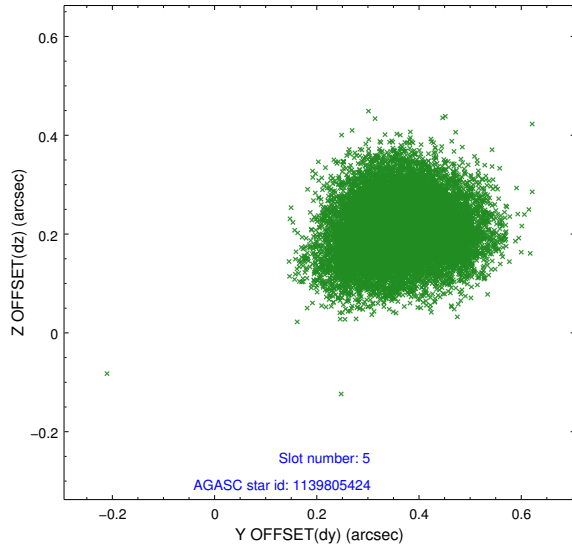
2.4.1 Slot 3



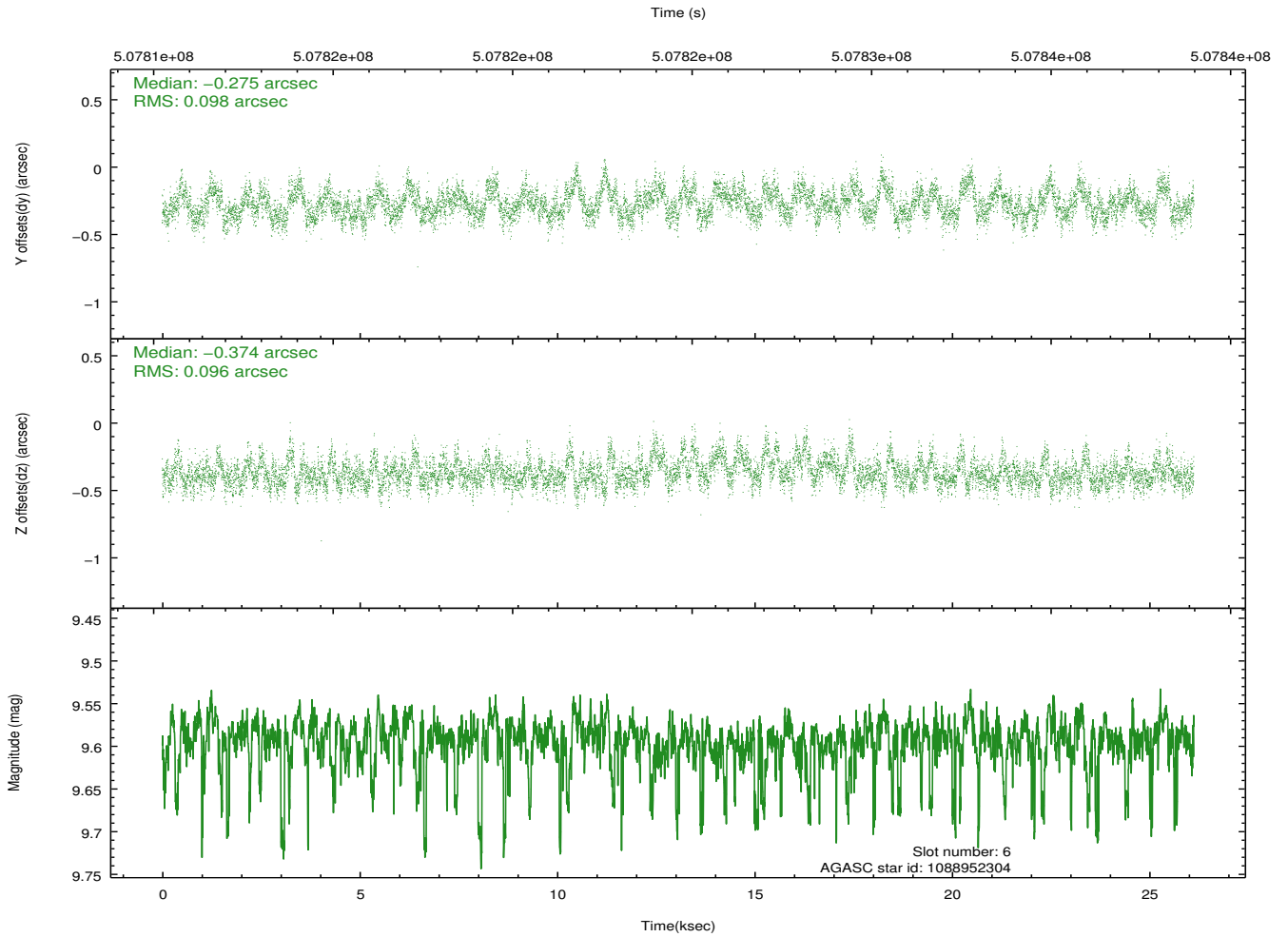
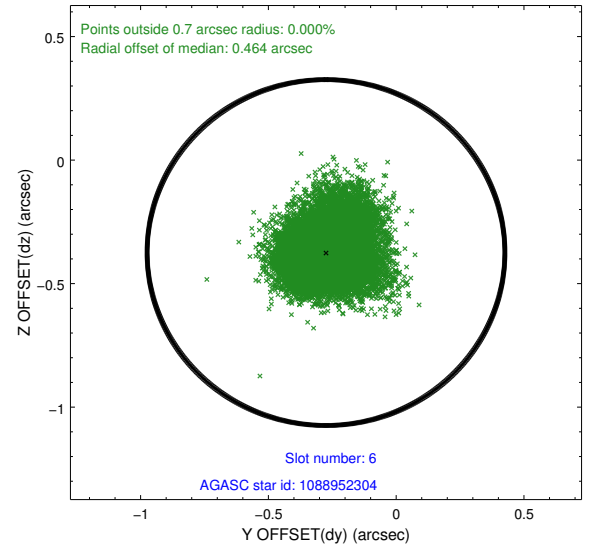
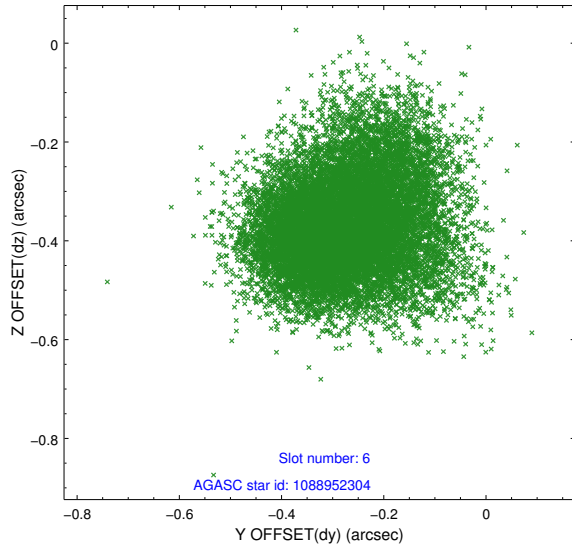
2.4.2 Slot 4



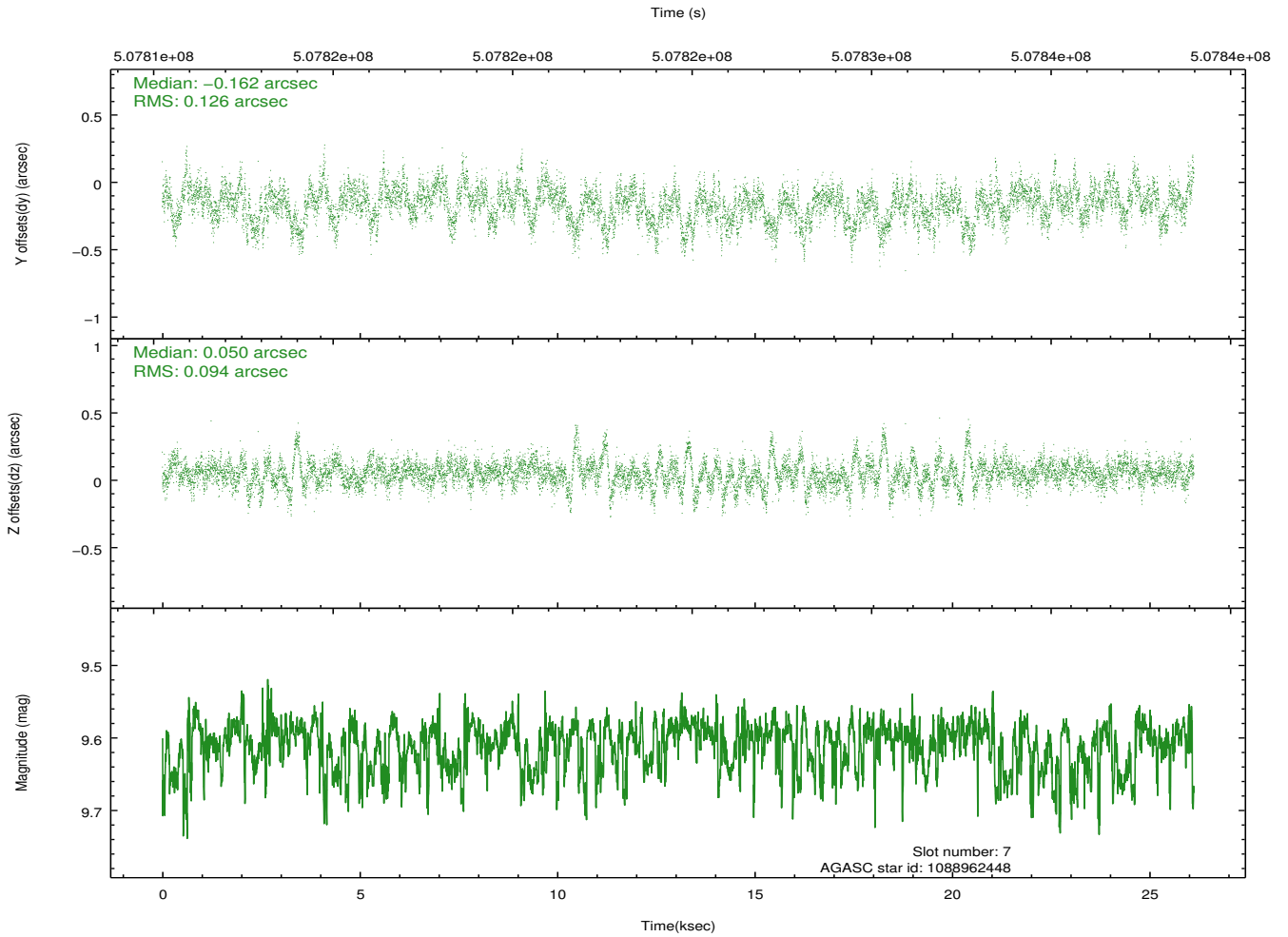
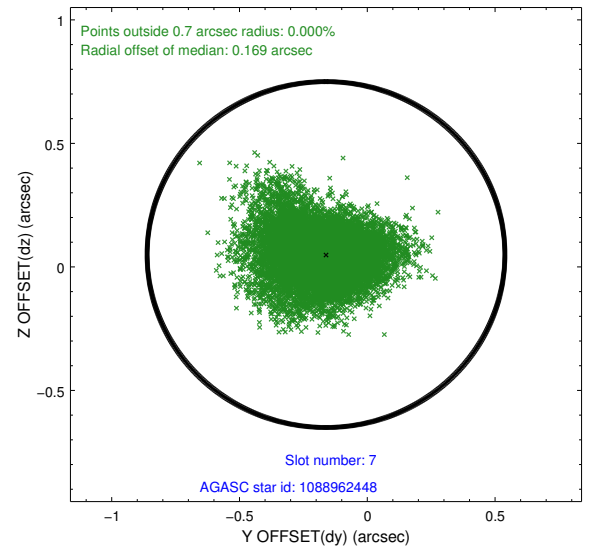
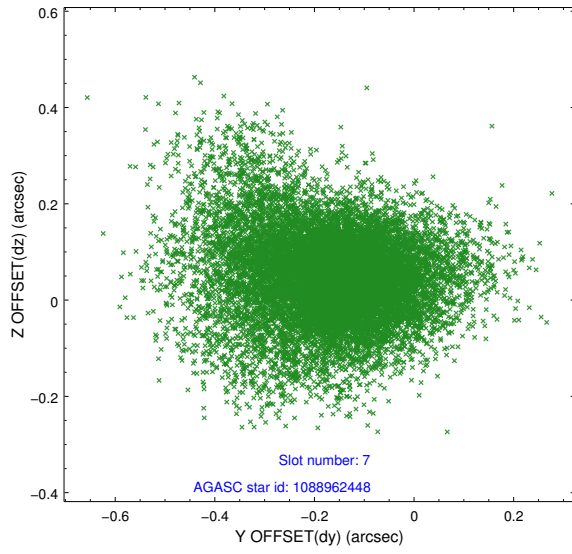
2.4.3 Slot 5



2.4.4 Slot 6

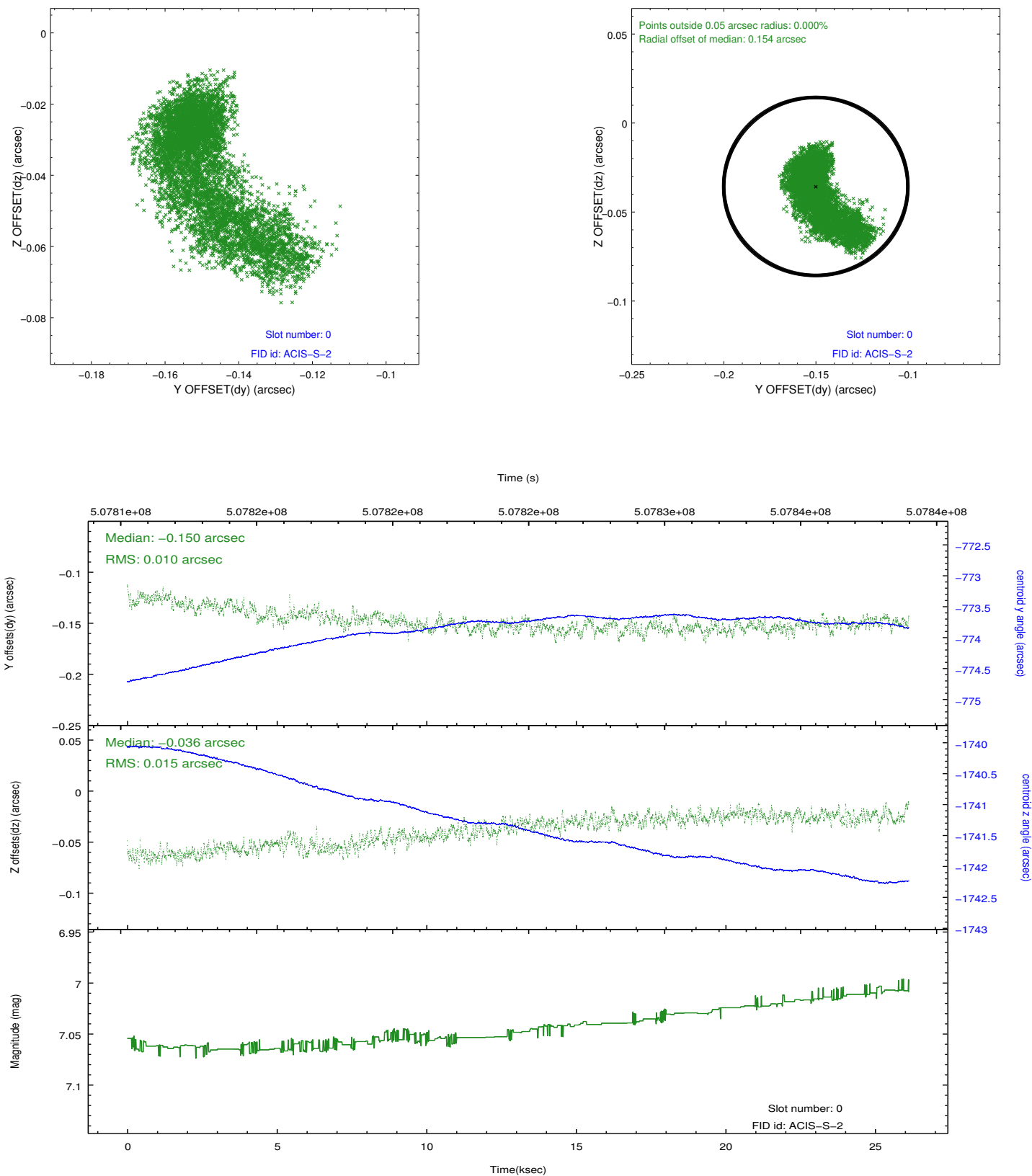


2.4.5 Slot 7

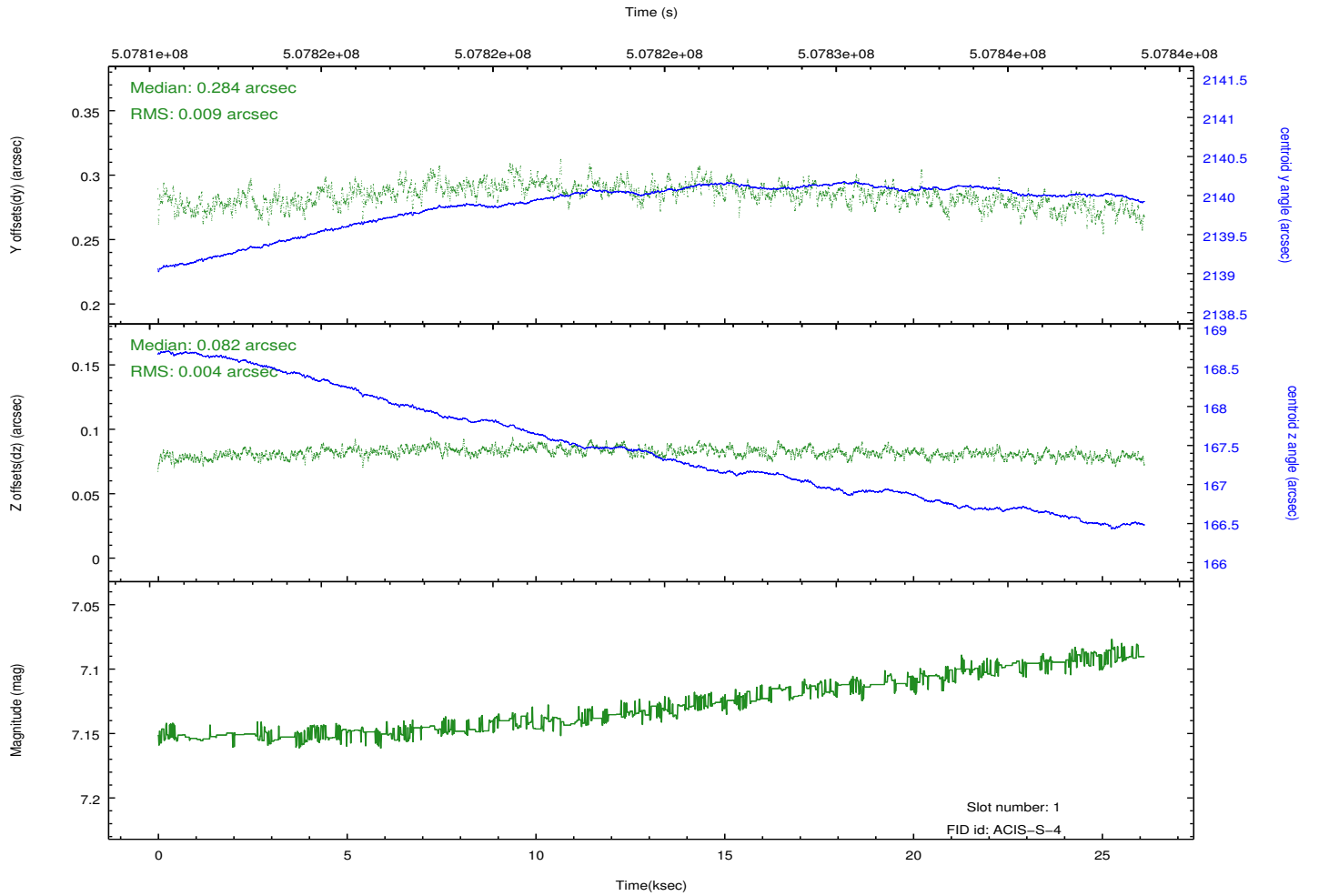
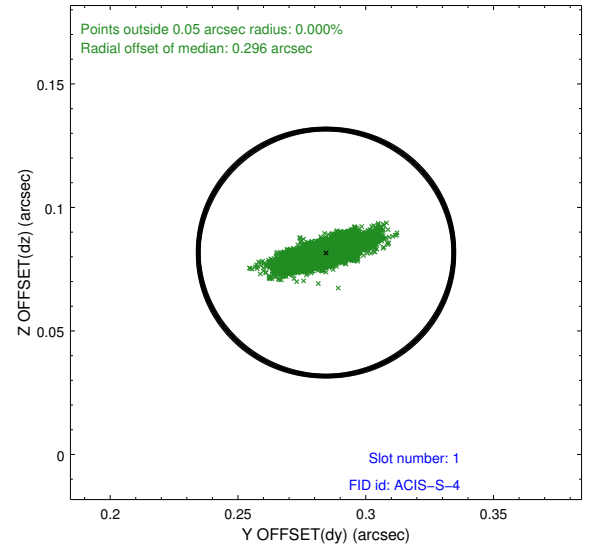
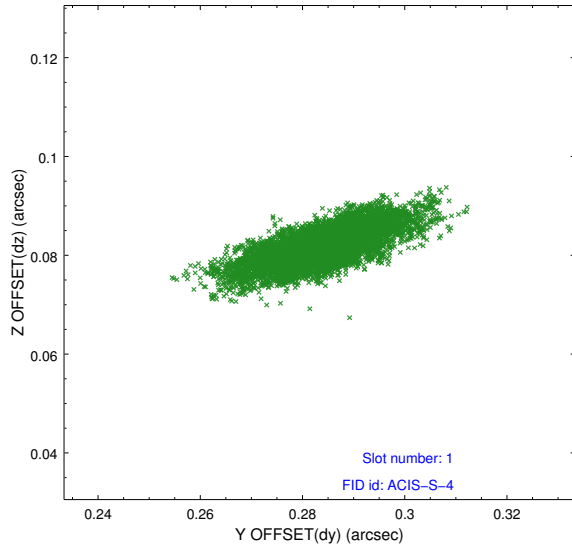


2.5 FID Slots

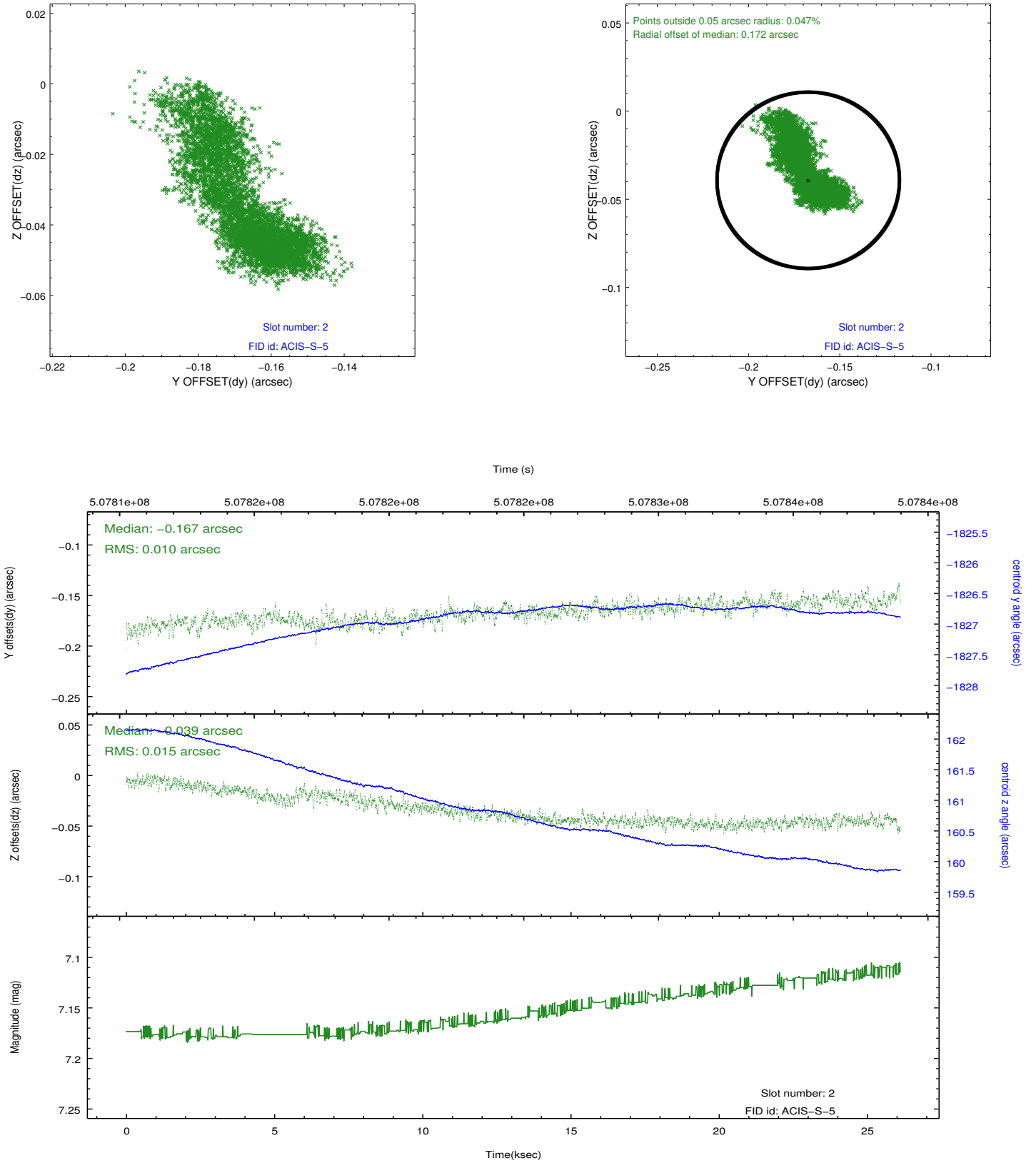
2.5.1 Slot 0



2.5.2 Slot 1

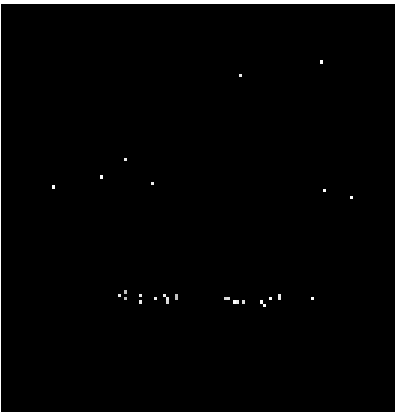


2.5.3 Slot 2

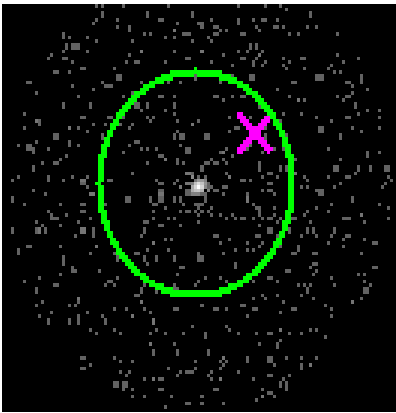


3 Gratings

3.1 HEG Arm



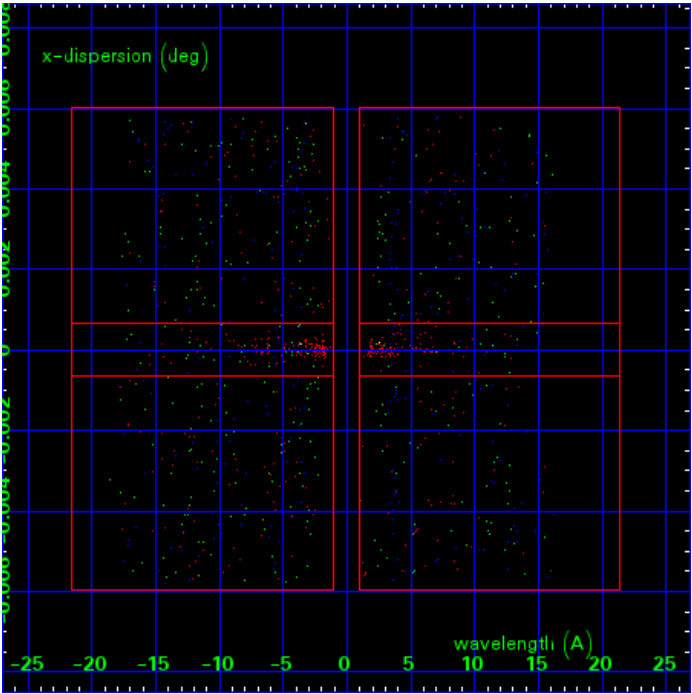
HEG Order Sort 123



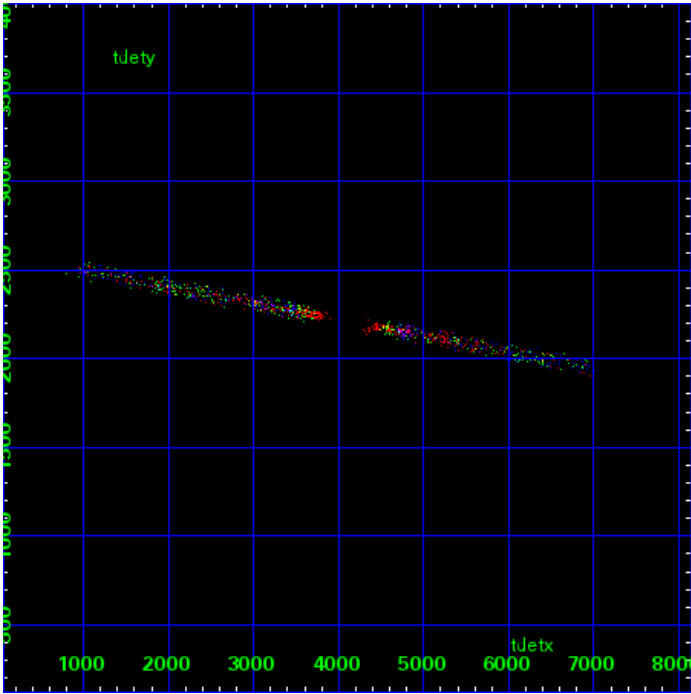
HEG Zero Order



HEG Order Sort ALL

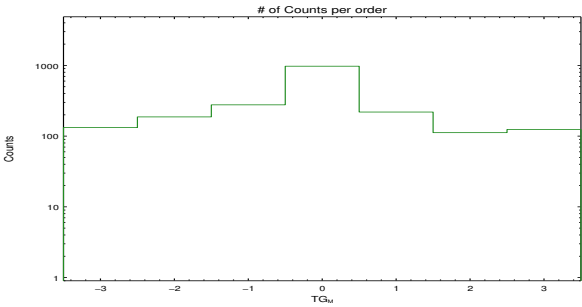


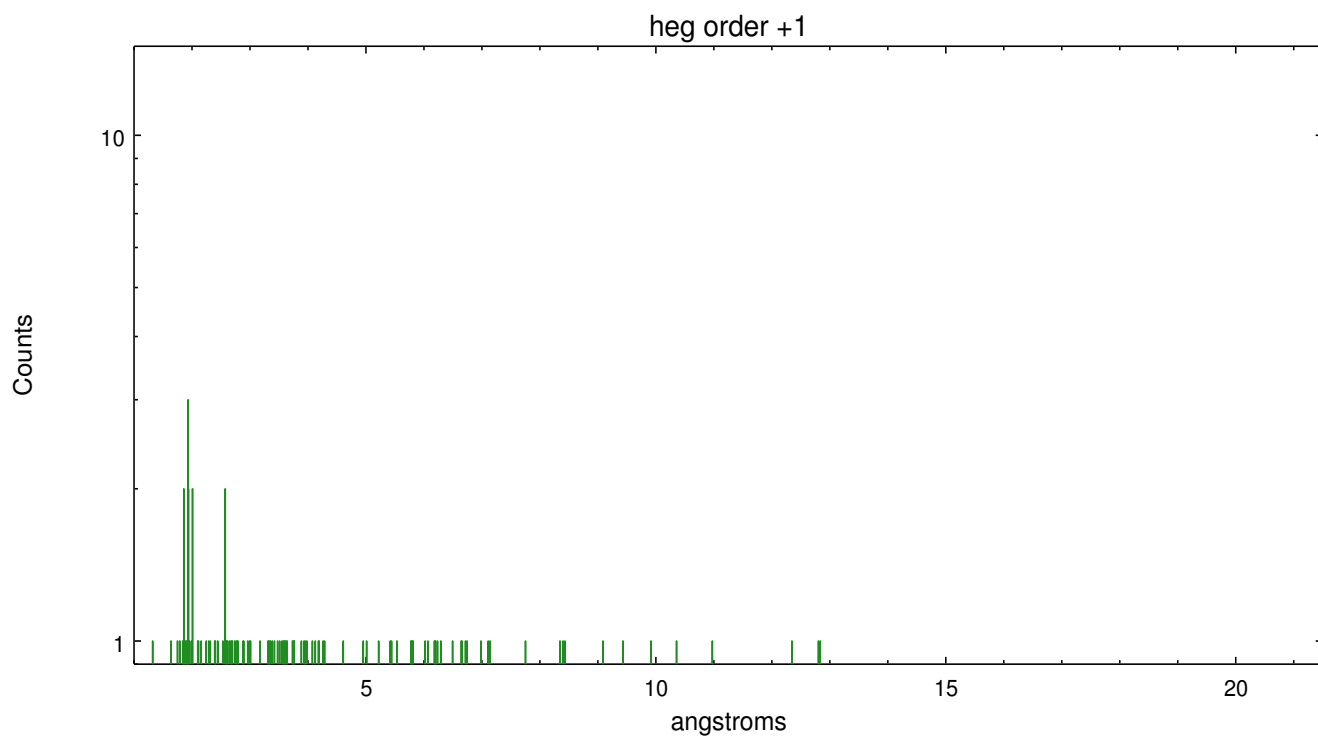
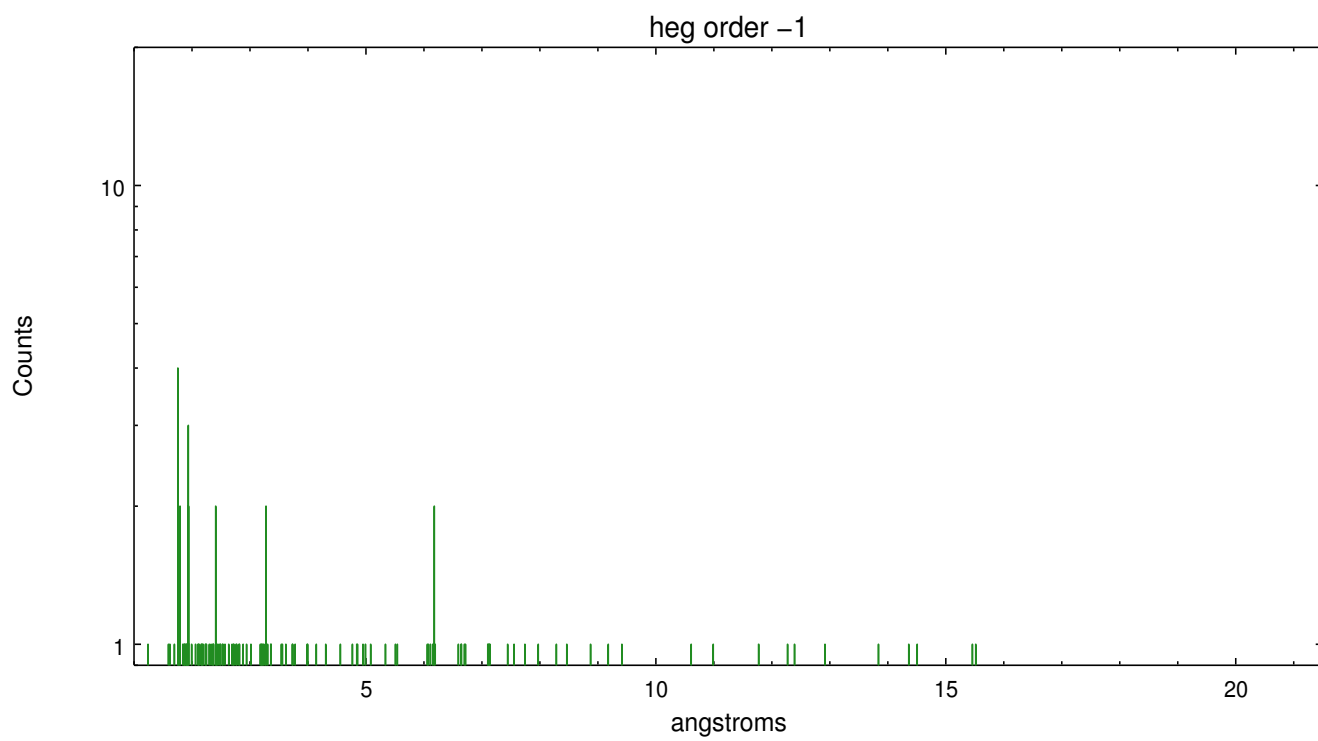
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	132	187	277	974	219	112	124

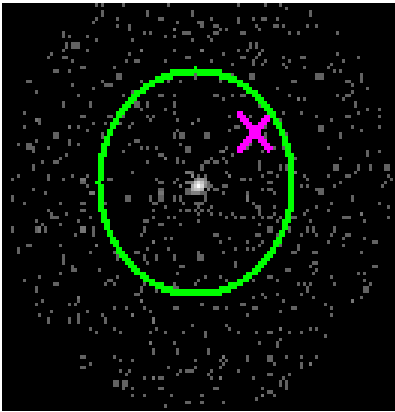




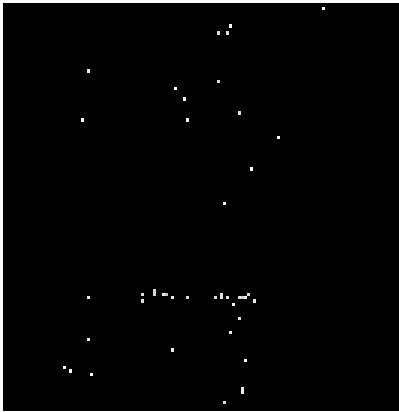
3.2 MEG Arm



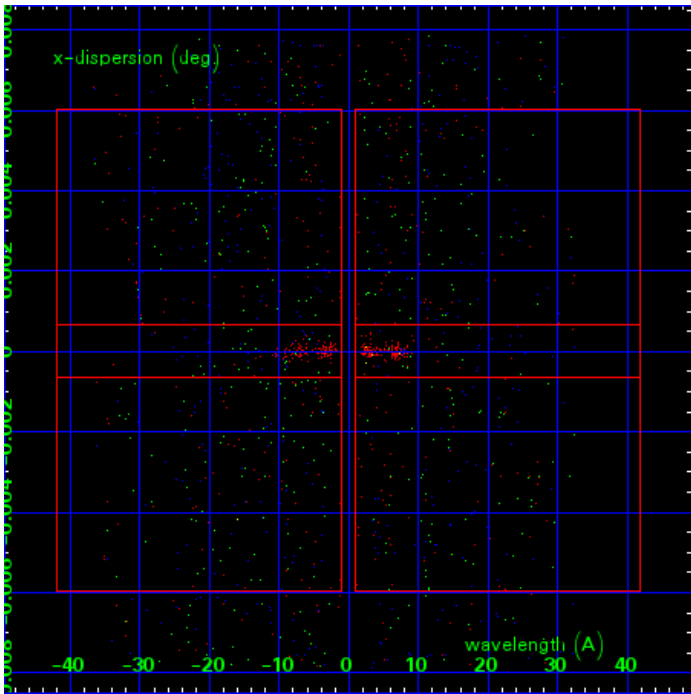
MEG Order Sort 123



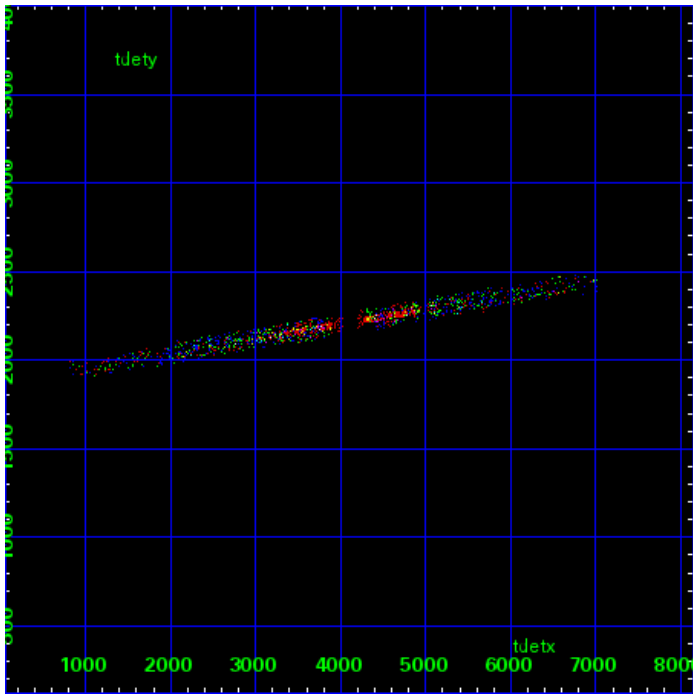
MEG Zero Order



MEG Order Sort ALL

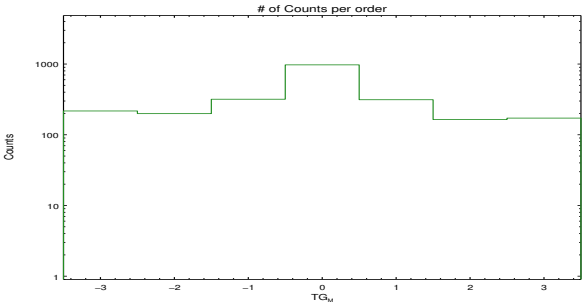


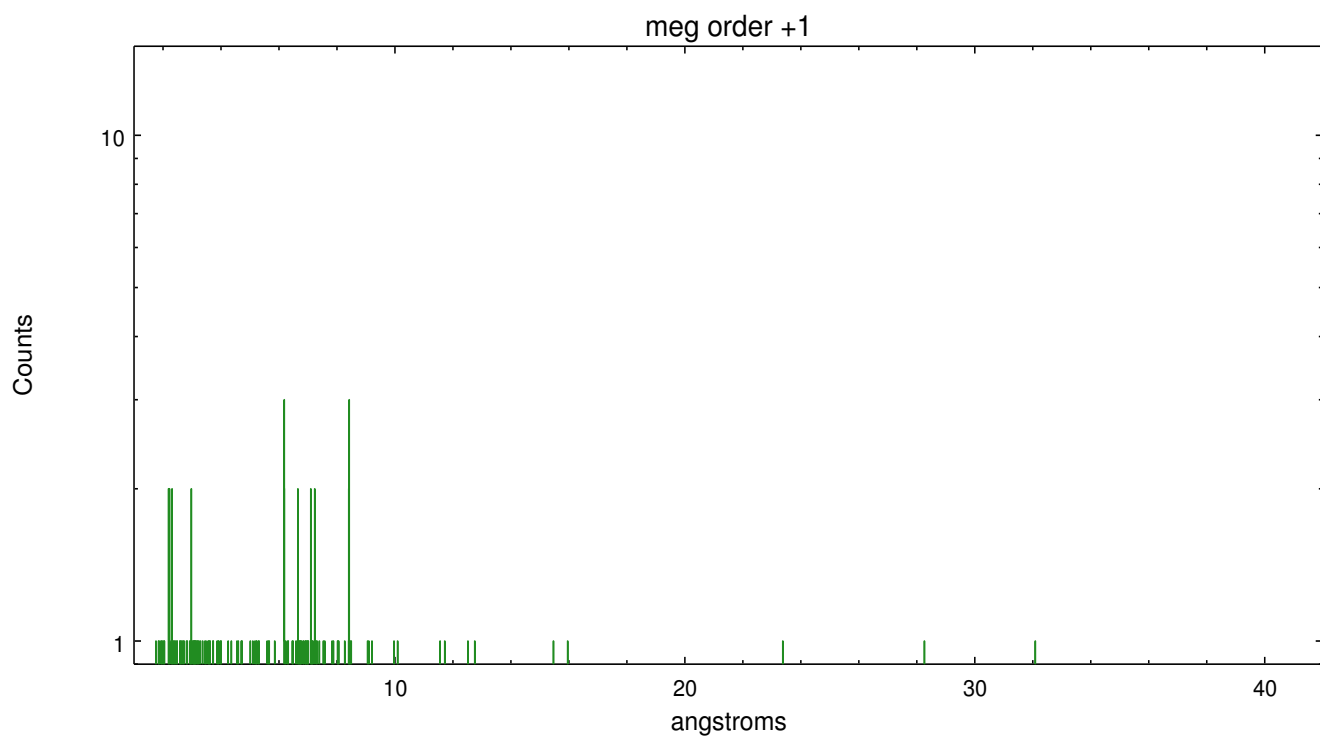
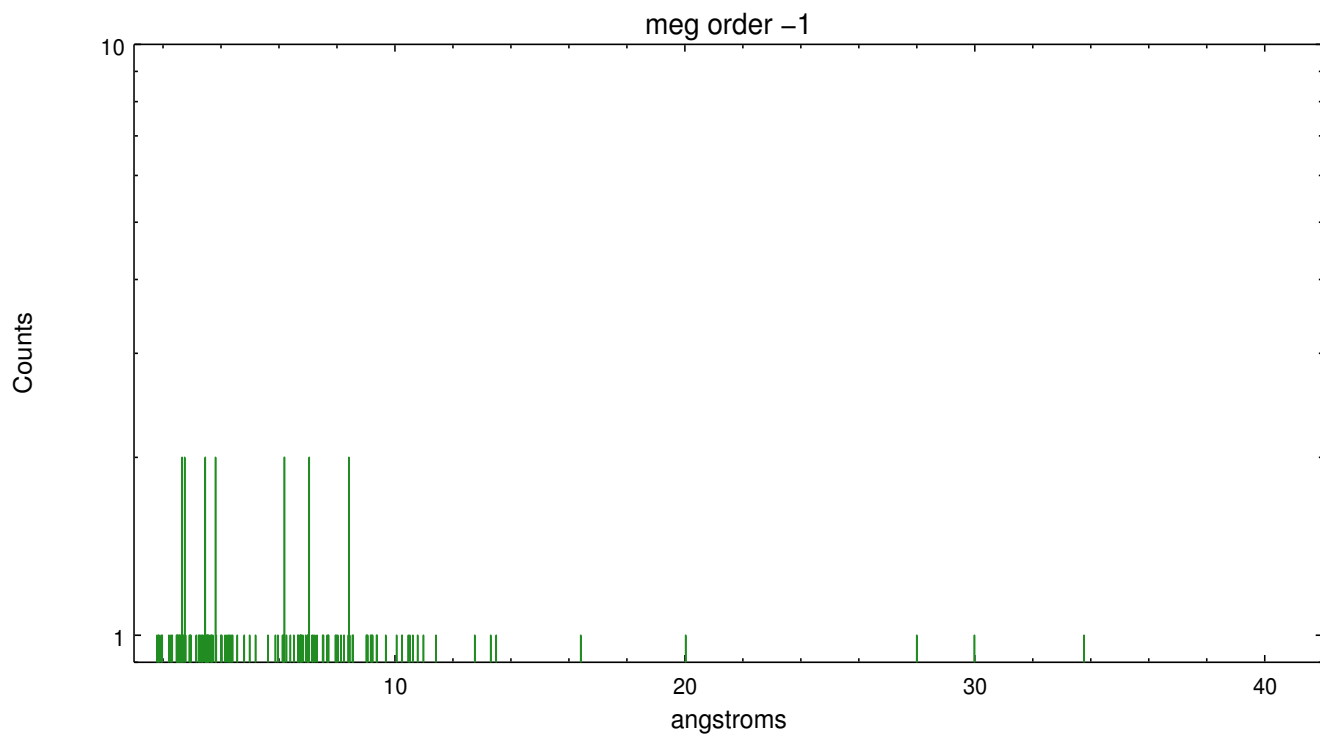
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	217	199	318	974	313	164	172





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.961599903345

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.