

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10893 - L2 Version 2
Chandra X-Ray Center

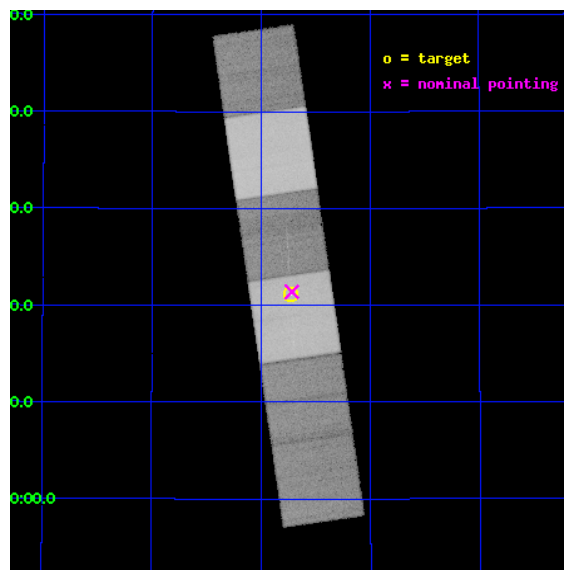
L2 Processing Date : Jun 4 2012

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1 Front

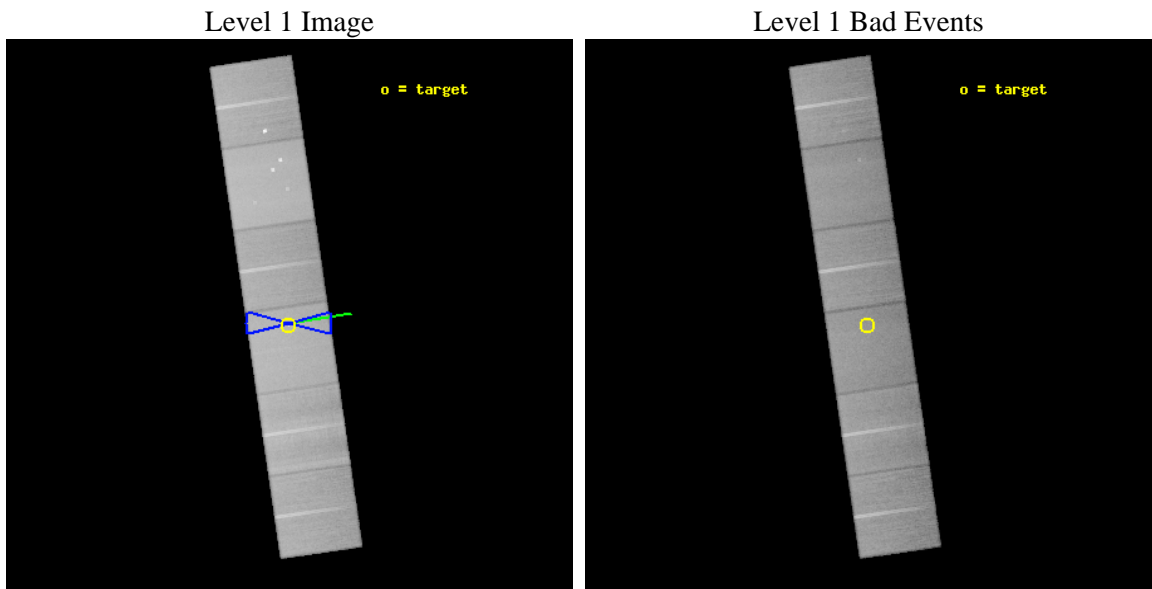
seq_num	200556	Sequence number
obs_id	10893	Observation id
title	Testing the Colliding Wind Paradigm: X-rays from the Wolf-Rayet Binary System WR 147	Proposal title
observer	Dr Svetozar ZHEKOV	Principal investigator
object	WR 147	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	309.182083	Observer's specified target RA [deg]
dec_targ	40.352028	Observer's specified target Dec [deg]
ra_nom	309.17956977991	Nominal RA [deg]
dec_nom	40.35649234405	Nominal Dec [deg]
roll_nom	81.658263430419	Nominal Roll [deg]
revision	2	Processing version of data
ontime	43446.399838209	Sum of GTIs [s]
livetime	42896.255363177	Livetime [s]
ontime4	43446.399838209	Sum of GTIs [s]
ontime5	43446.399838209	Sum of GTIs [s]
ontime6	43446.399838209	Sum of GTIs [s]
ontime7	43446.399838209	Sum of GTIs [s]
ontime8	43446.399838209	Sum of GTIs [s]
ontime9	43446.399838209	Sum of GTIs [s]
l2events	760364	Number of level 2 events



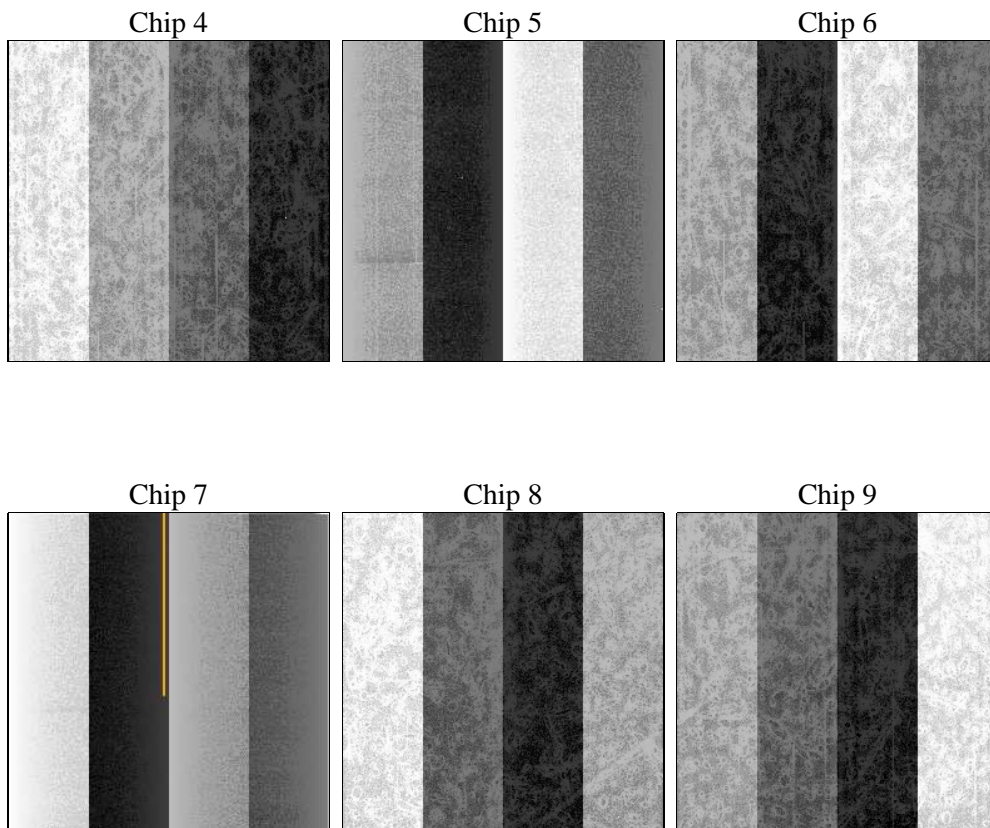
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	43500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	43446.399838209	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	43446.399838209	Sum of GTIs [s]
date	2012-06-04T00:25:28	Date and time of file creation	ontime5	43446.399838209	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	43446.399838209	Sum of GTIs [s]
			ontime7	43446.399838209	Sum of GTIs [s]
			ontime8	43446.399838209	Sum of GTIs [s]
			ontime9	43446.399838209	Sum of GTIs [s]
			l1events	3325558	Number of level 1 events

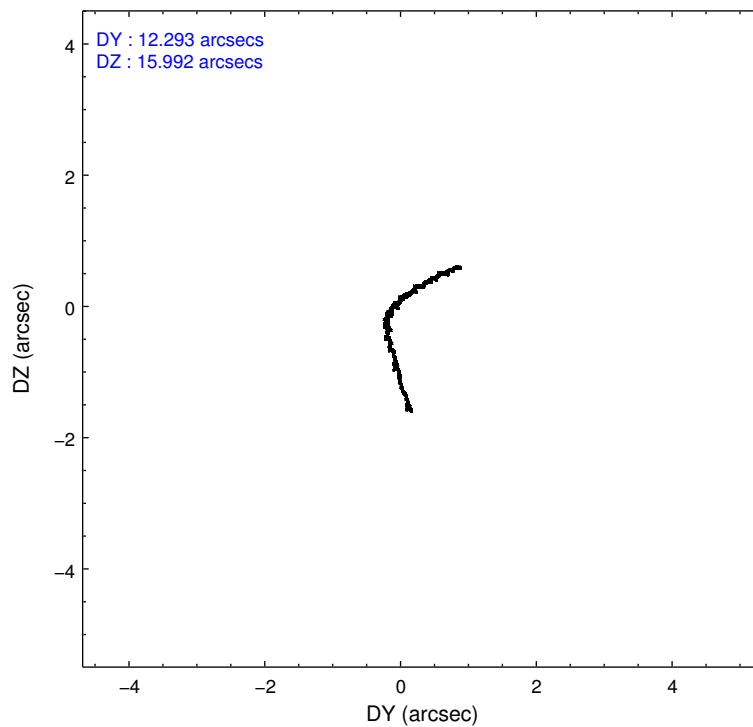
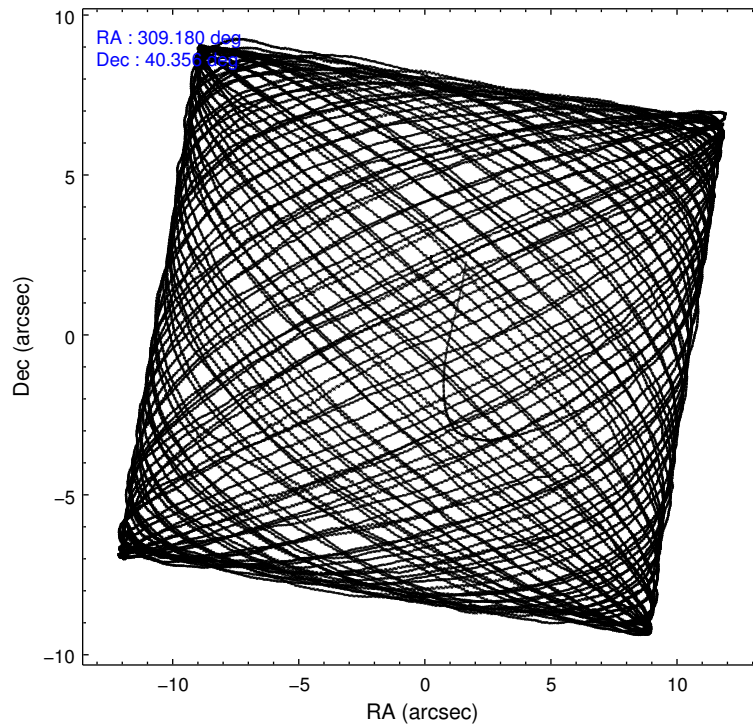
2.1.4 Events

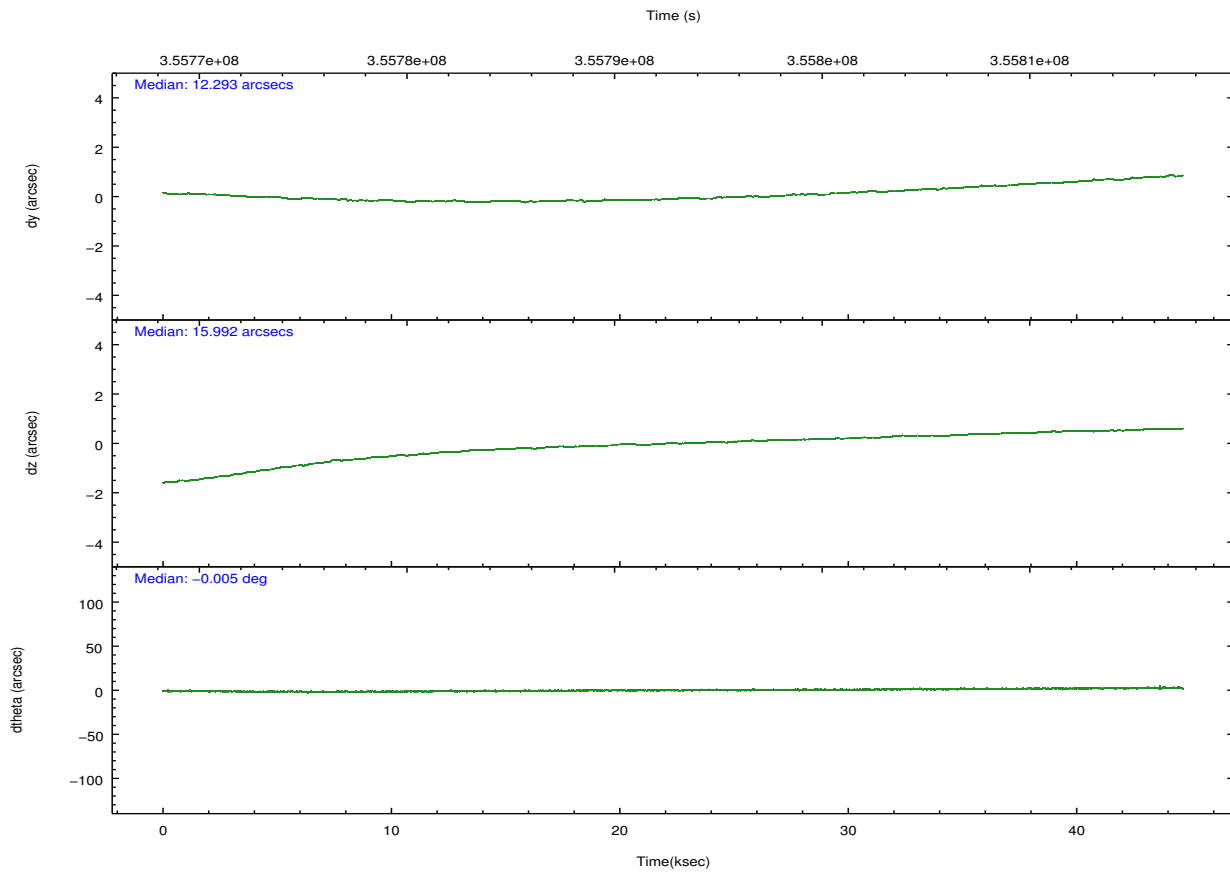
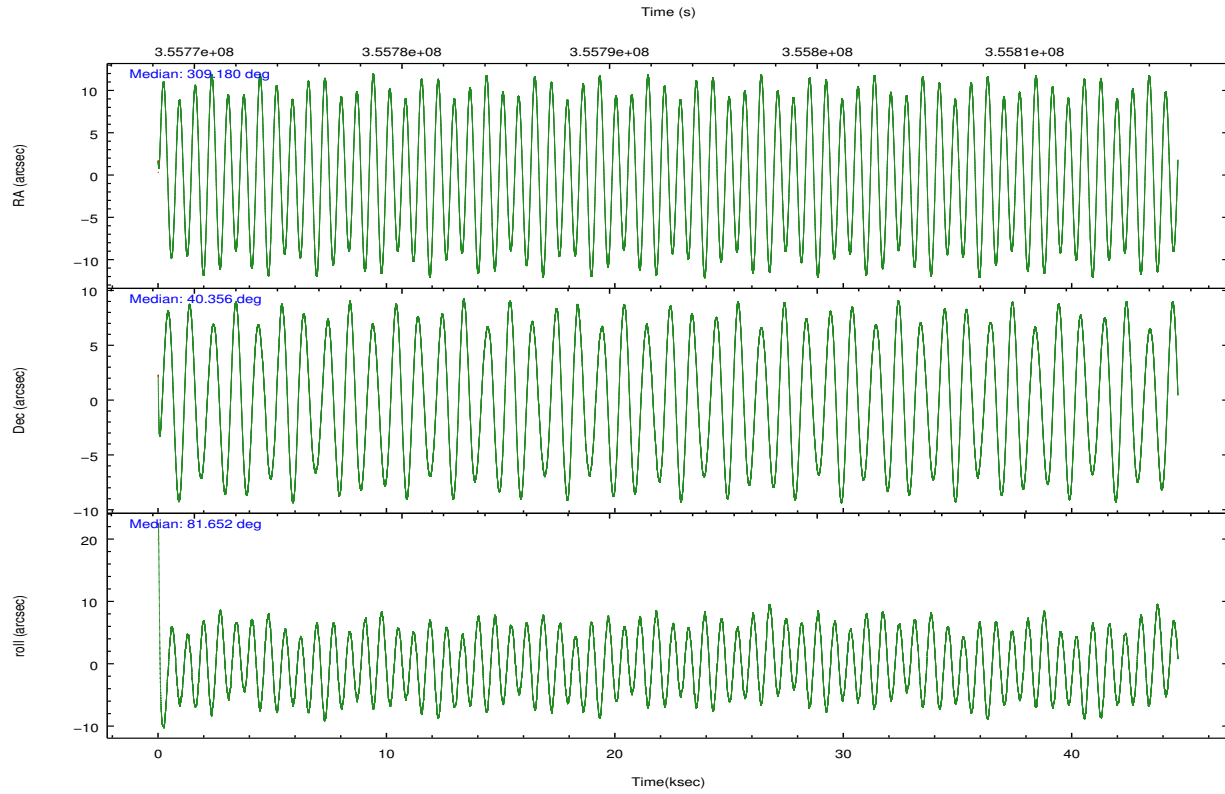
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	507036	705472	458422	629320	569410	455898	grade 0 events	35937	28060	21045	21815	41407	22793
rejected events	437823	380256	403813	367542	435571	399326		7%	3%	4%	3%	7%	4%
rejected %	86%	53%	88%	58%	76%	87%	grade 1 events	587	1528	260	739	503	290
								0%	0%	0%	0%	0%	0%
							grade 2 events	12606	101038	12217	54286	30536	11681
								2%	14%	2%	8%	5%	2%
							grade 3 events	5717	11767	5145	21711	13798	5522
								1%	1%	1%	3%	2%	1%
							grade 4 events	5557	11332	4946	21639	12946	5237
								1%	1%	1%	3%	2%	1%
							grade 5 events	21341	50182	21638	58445	29320	23114
								4%	7%	4%	9%	5%	5%
							grade 6 events	9411	173072	11266	142376	35158	11349
								1%	24%	2%	22%	6%	2%
							grade 7 events	415880	328493	381905	308309	405742	375912
								82%	46%	83%	48%	71%	82%

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	309.193258	309.1795697799116	CCD I2 on	N	N
[deg] Pointing Dec	40.331205	40.35649234404989	CCD I3 on	N	N
[deg] Pointing Roll	81.492775	81.65826343041877	CCD S0 on	O1	Y
[deg] Roll angle	90.000000	90.000000	CCD S1 on	Y	Y
[deg] Roll tolerance	15.000000	15.000000	CCD S2 on	Y	Y
Roll constraint allows 180D rotation	Y	Y	CCD S3 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S4 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S5 on	O2	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	Number of optional ACIS chips dropped	0	0
[mm] SIM translation stage offset	0	0.00754346686406393	On-chip summing requested	N	N
[s] Observation start time (MET)	355771649.184000	355769454.12499	Subarray requested	NONE	NONE
Observation start date	2009-04-10T17:26:23	2009-04-10T16:50:54	Alternating exposures requested	N	N
[s] Observation end time (MET)	355815149.184000	355815973.23981	[s] Primary exposure time	0.000000	3.2
Observation end date	2009-04-11T05:31:23	2009-04-11T05:46:13			
Read mode	TIMED	TIMED			

2.3 Aspect





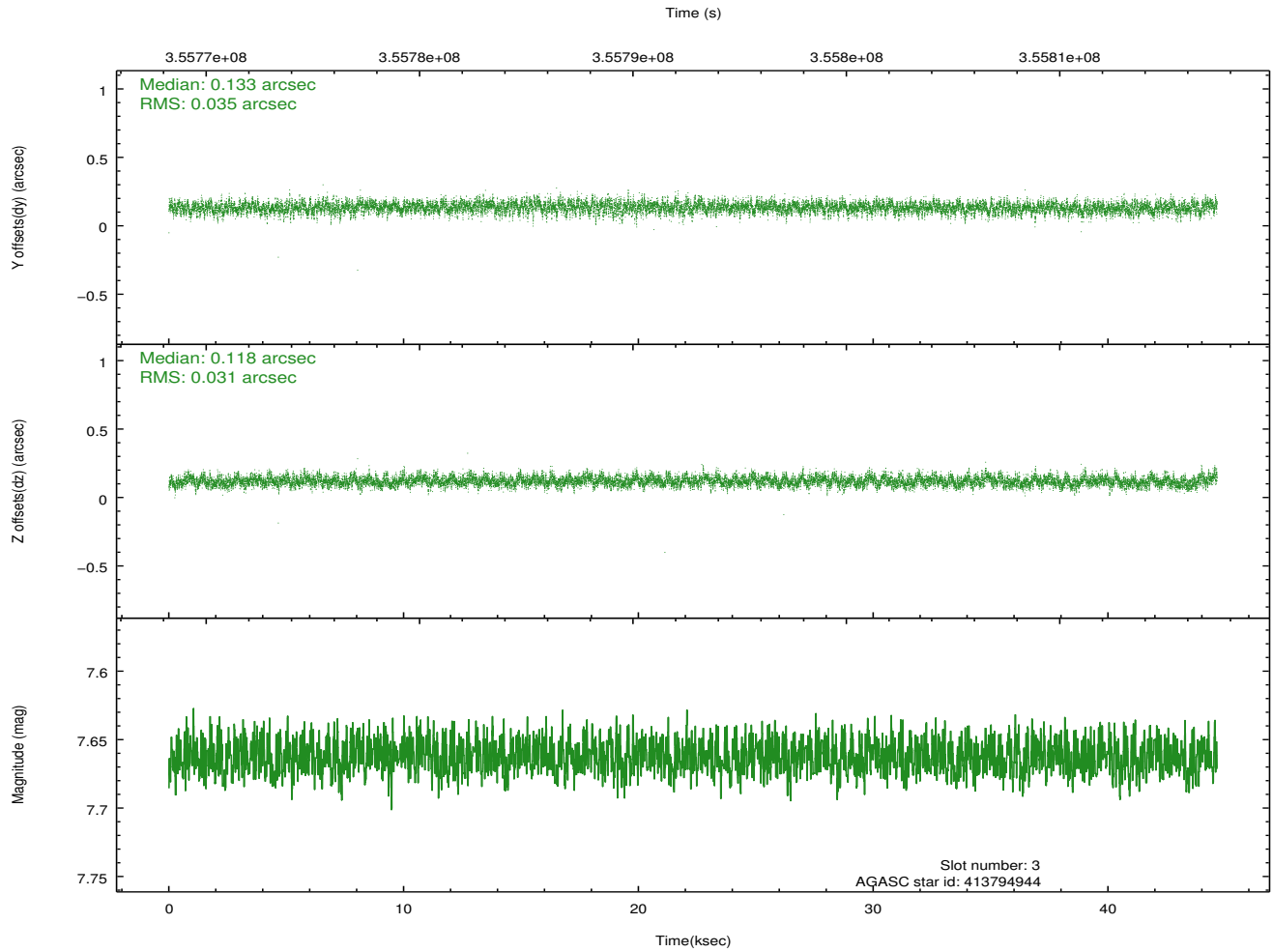
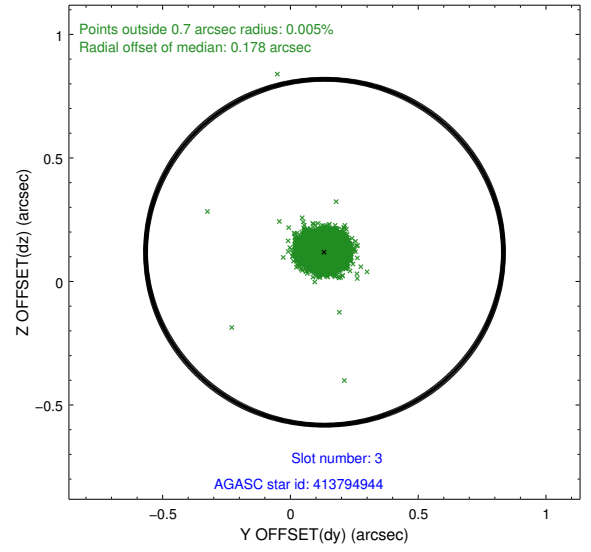
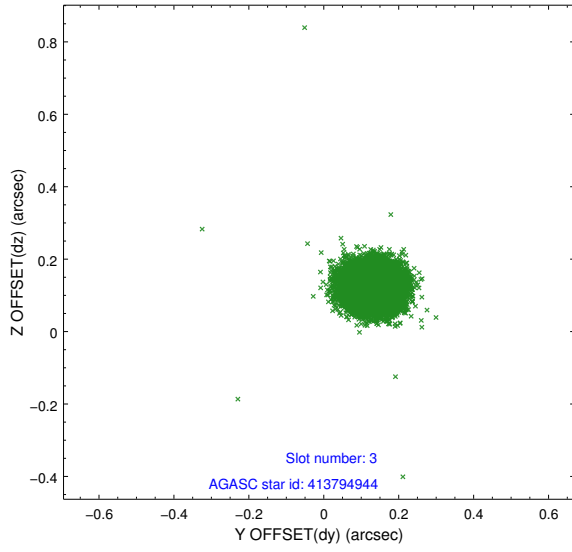
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	10890	-0.040	-0.012	0.013	0.019	0.000000	0.000000	-765.32	-1737.28
1	FID	ACIS-S-4	6.97	10888	0.138	0.022	0.011	0.020	0.000000	0.000000	2148.12	171.27
2	FID	ACIS-S-5	7.00	10889	-0.127	-0.002	0.015	0.036	0.000000	0.000000	-1818.28	164.87
3	GUIDE	413794944	7.66	21772	0.133	0.118	0.049	0.080	309.554319	39.690543	-2130.91	-1329.88
4	GUIDE	413797136	7.92	21770	-0.085	0.130	0.059	0.095	309.356621	39.806092	-1802.49	-726.28
5	GUIDE	413799600	8.56	21765	0.034	-0.166	0.088	0.143	308.280373	39.866891	-2013.84	2249.23
6	GUIDE	413803744	8.83	21762	-0.086	-0.126	0.077	0.123	308.586342	40.704904	1090.96	1838.24
7	GUIDE	415503960	9.25	21759	0.004	0.038	0.098	0.163	310.022122	40.895650	2354.20	-1927.93

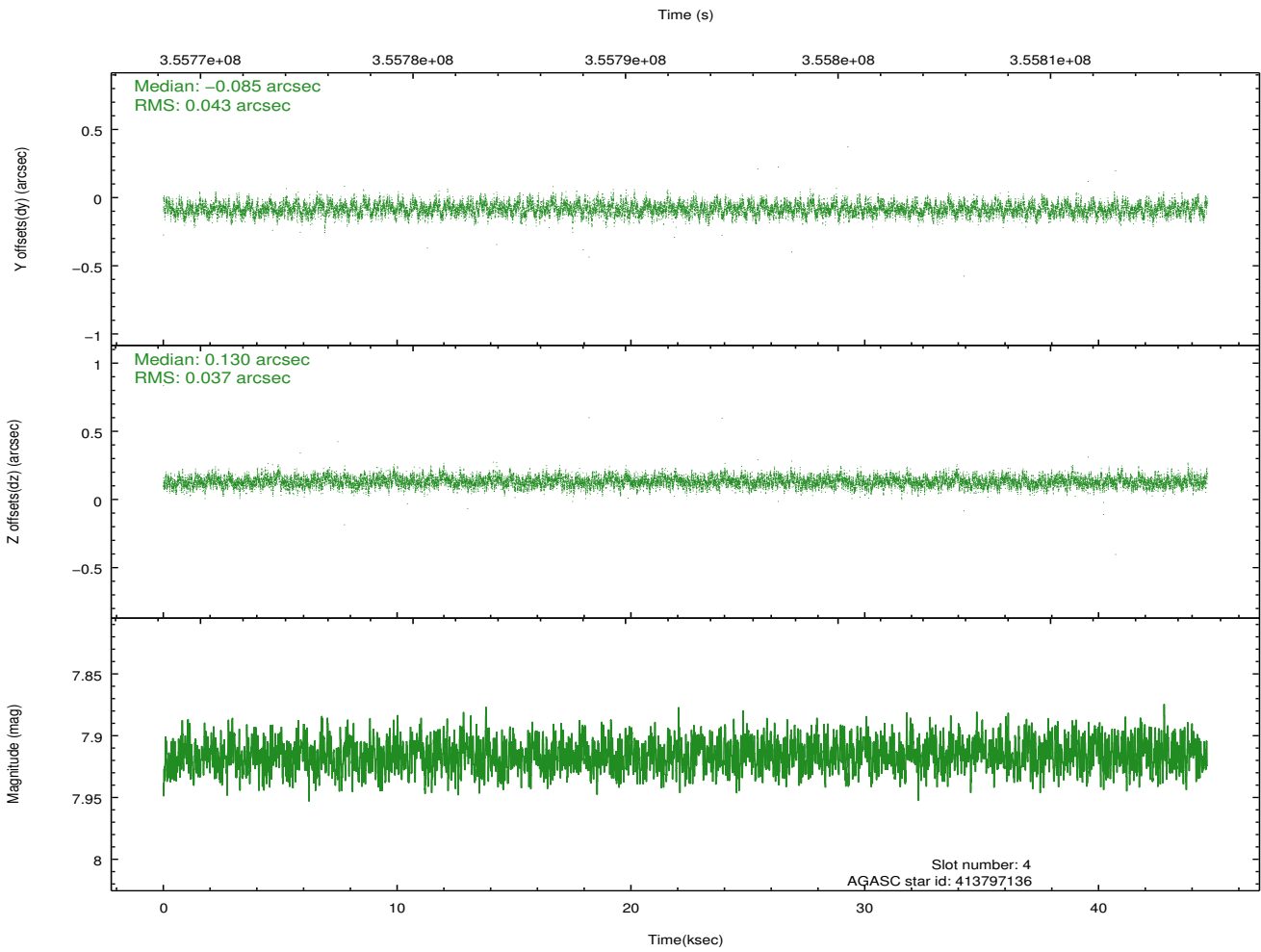
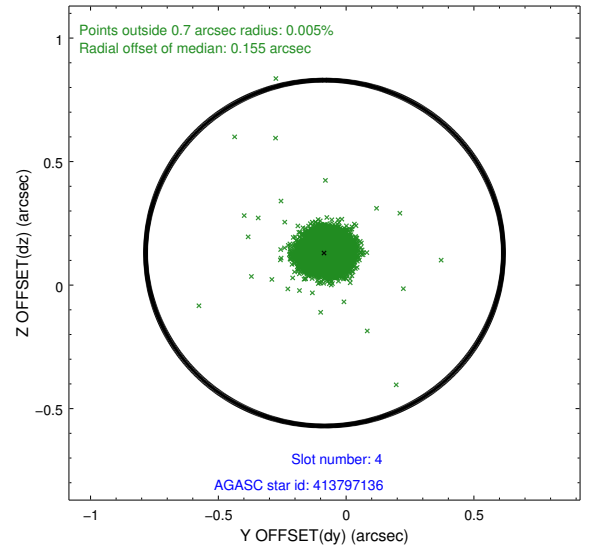
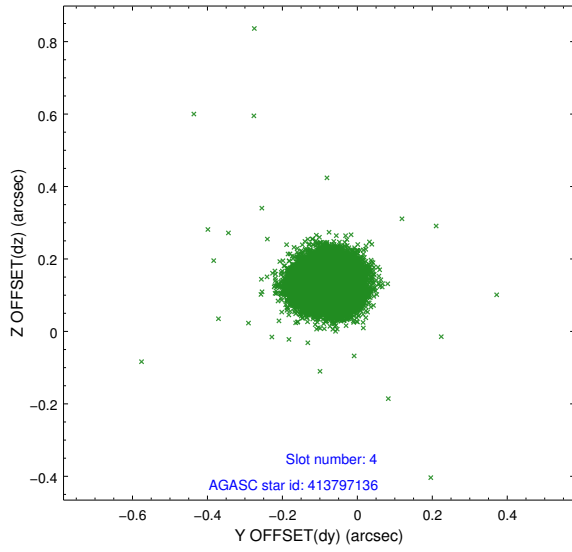
∞

2.4 Star Slots

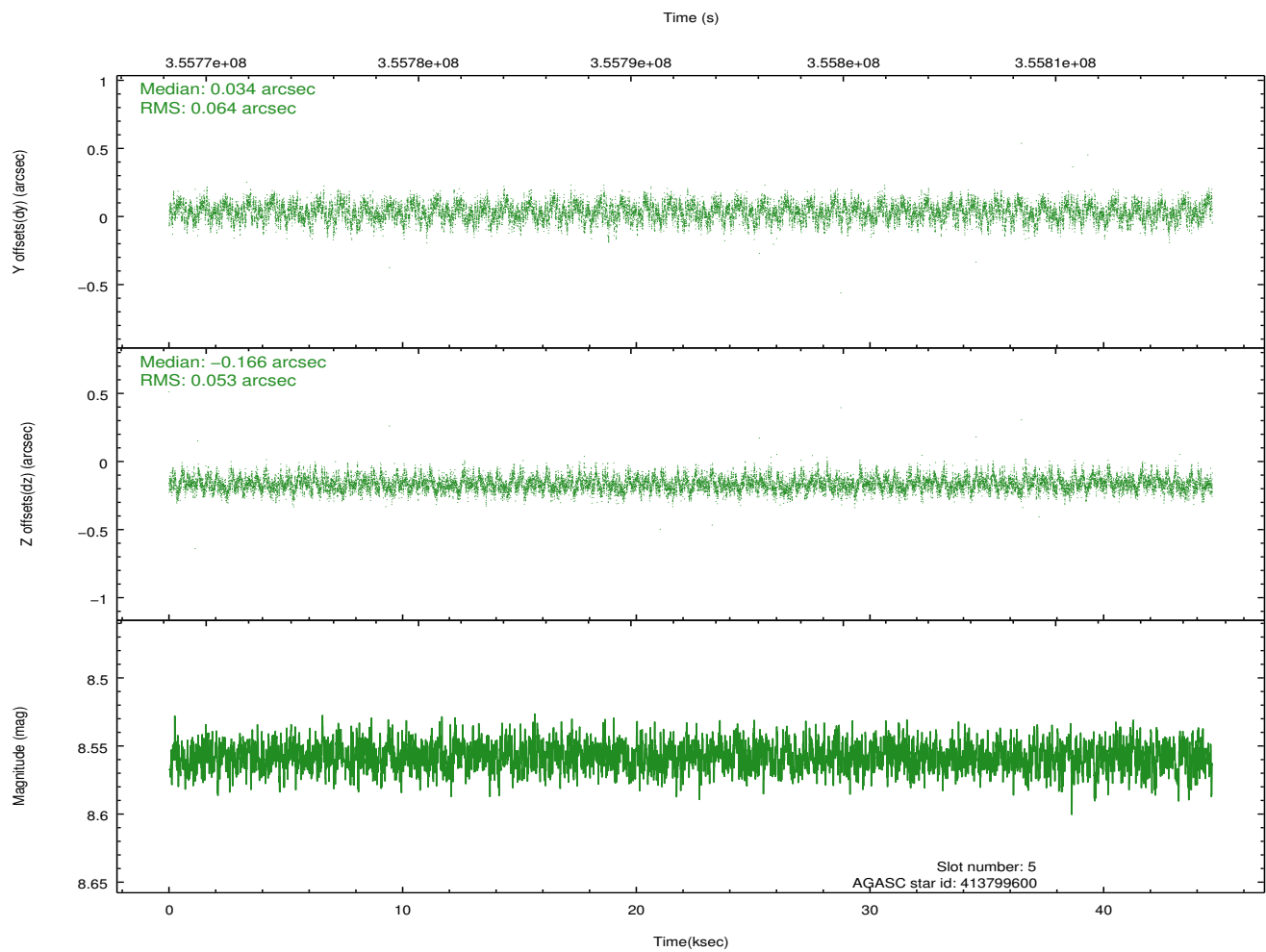
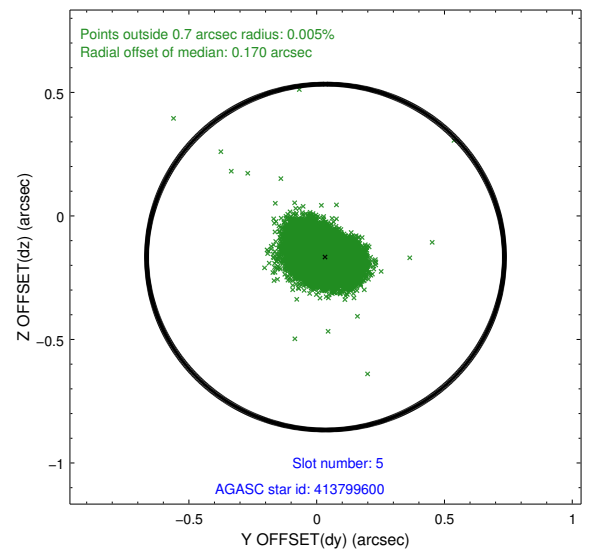
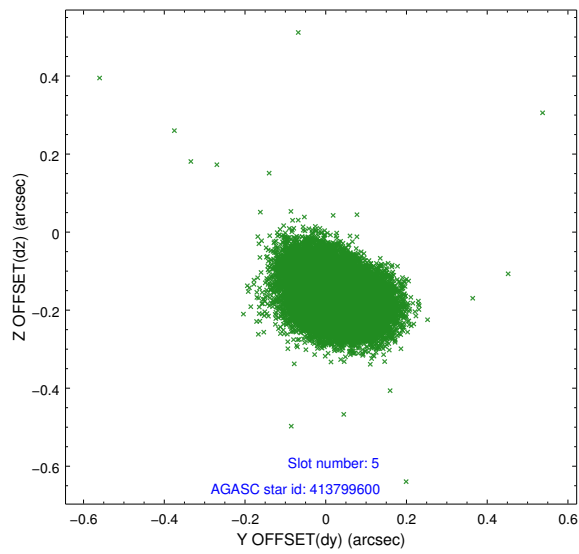
2.4.1 Slot 3



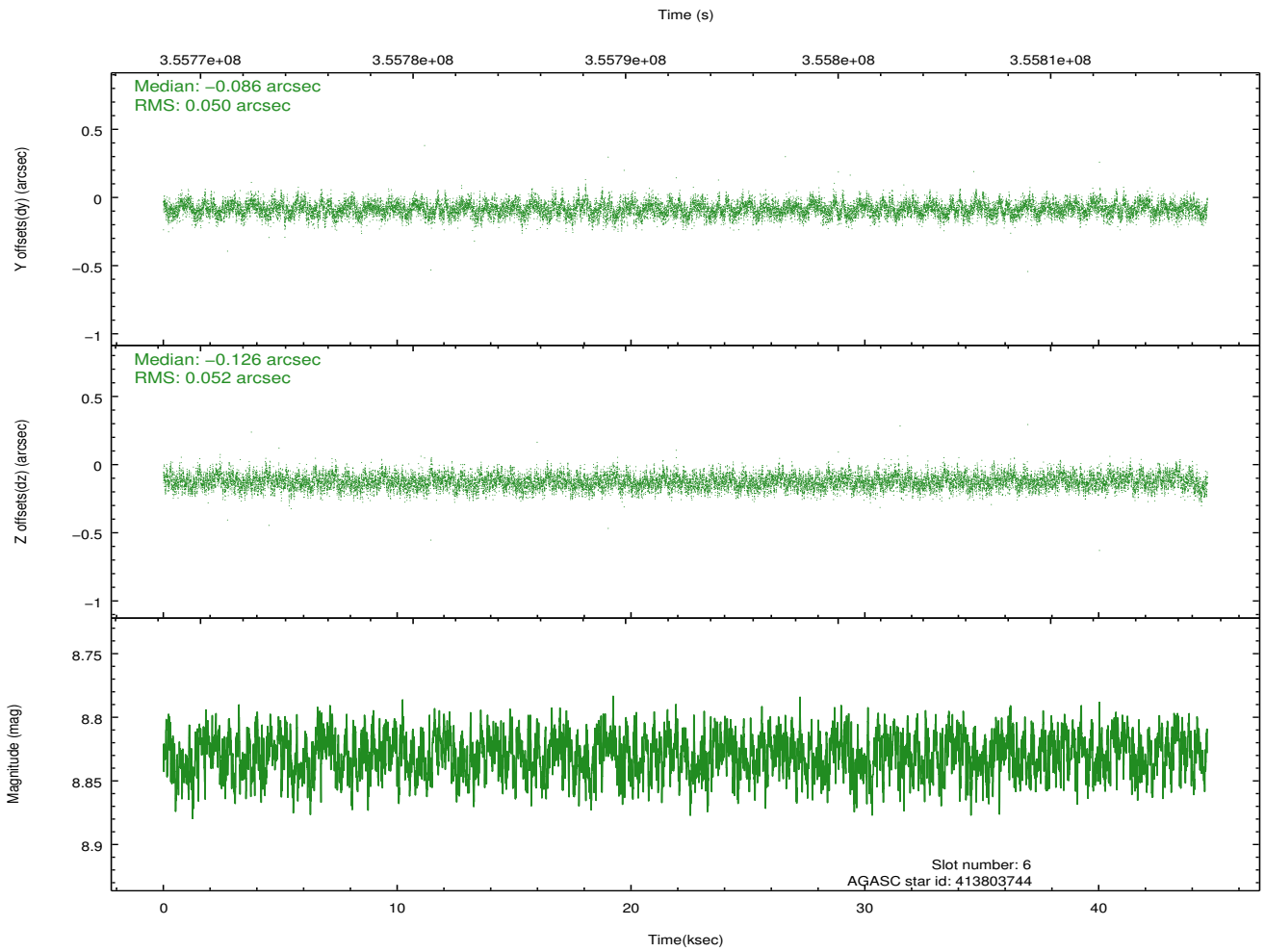
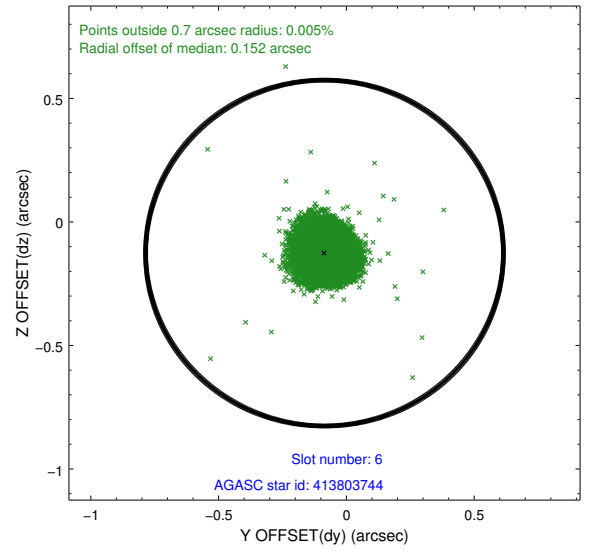
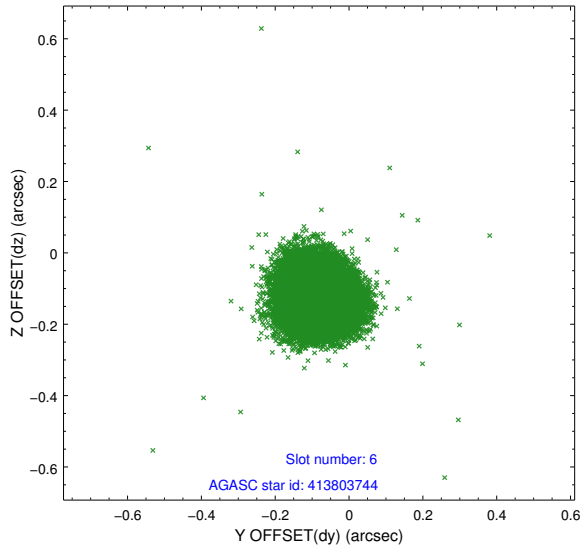
2.4.2 Slot 4



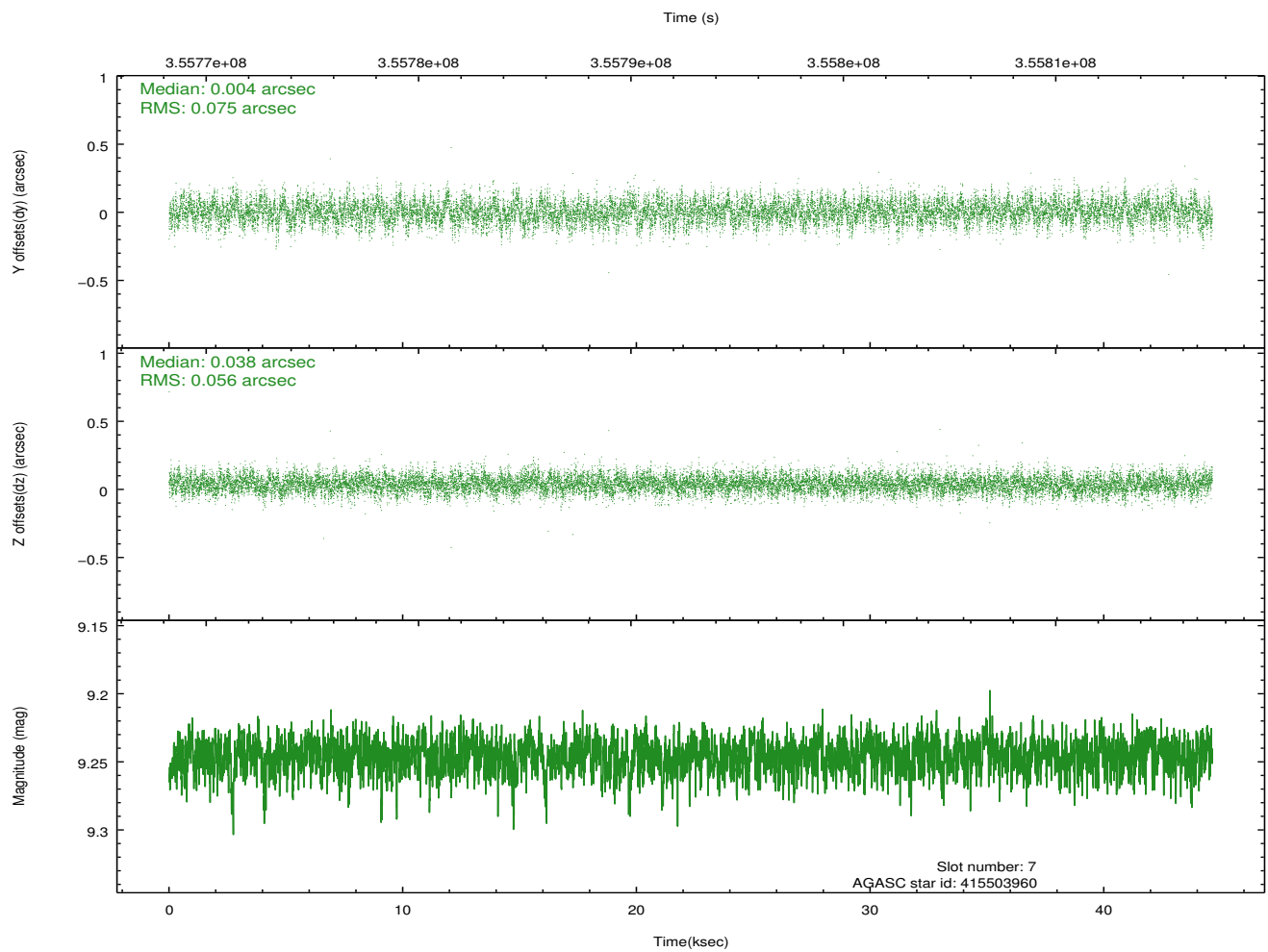
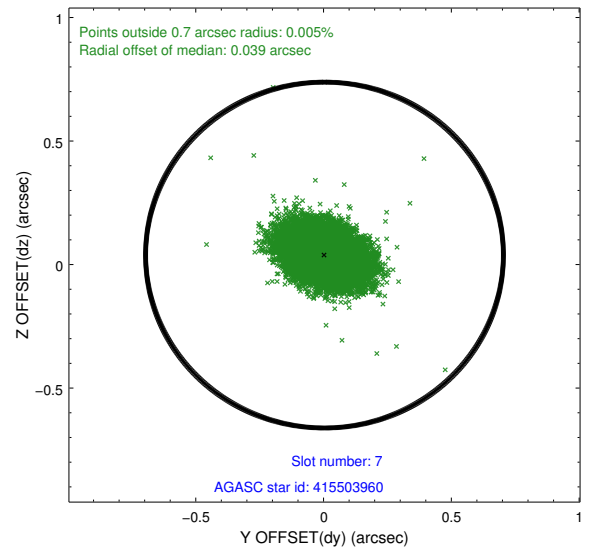
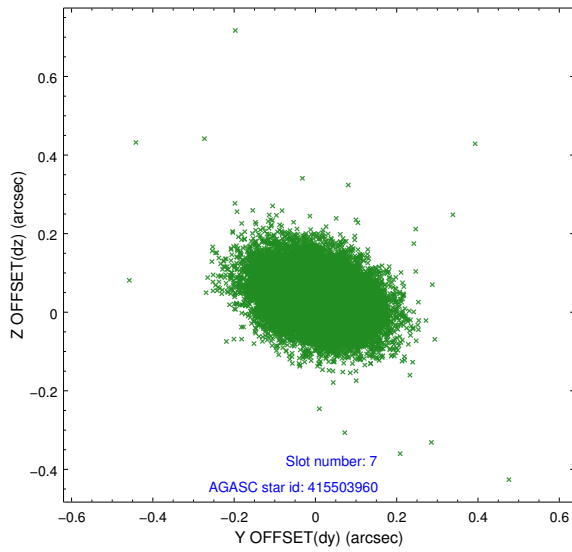
2.4.3 Slot 5



2.4.4 Slot 6

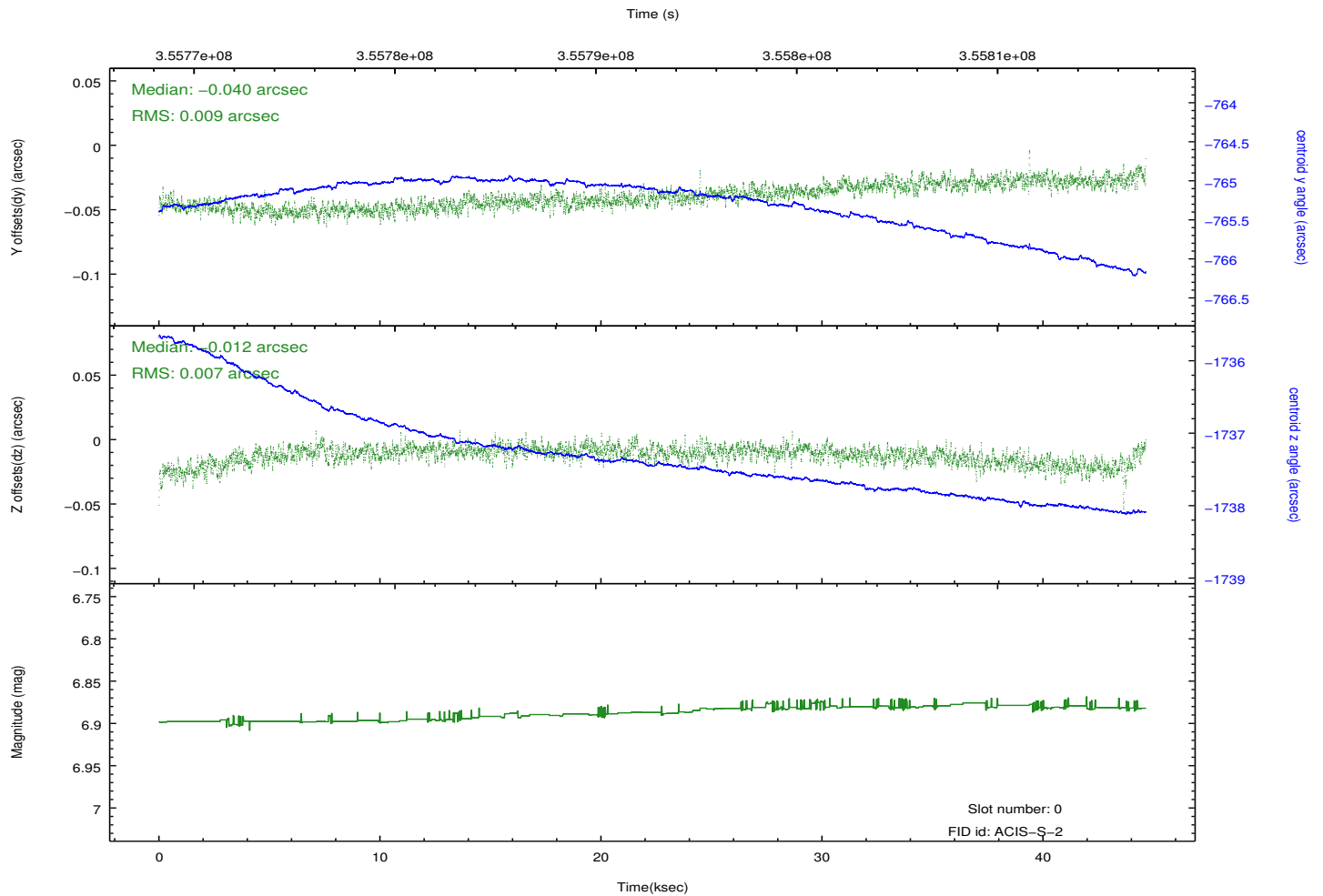
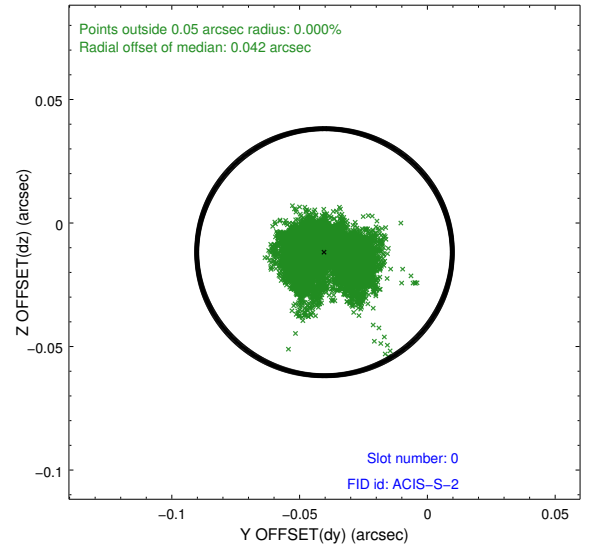
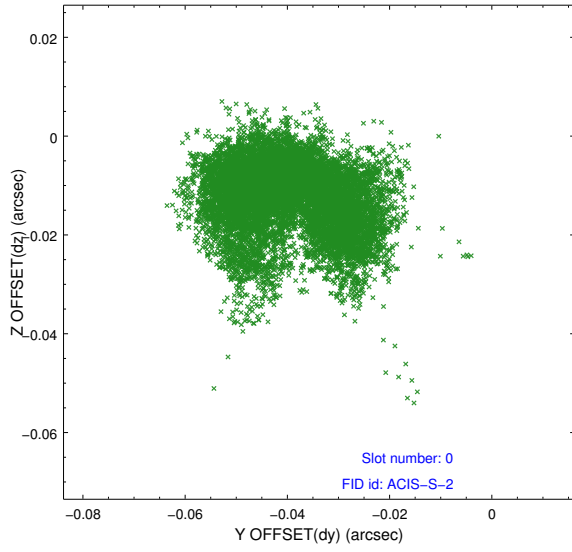


2.4.5 Slot 7

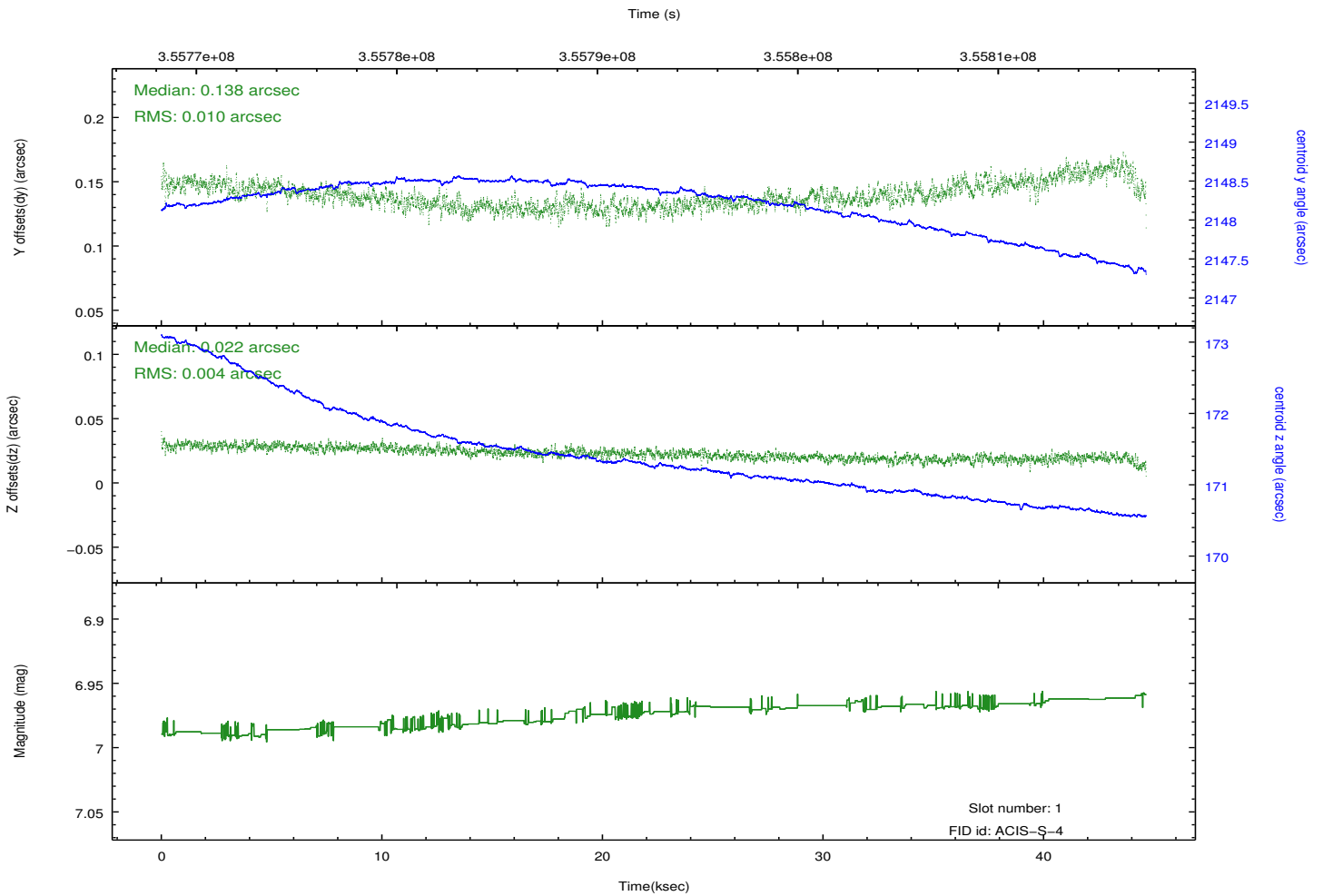
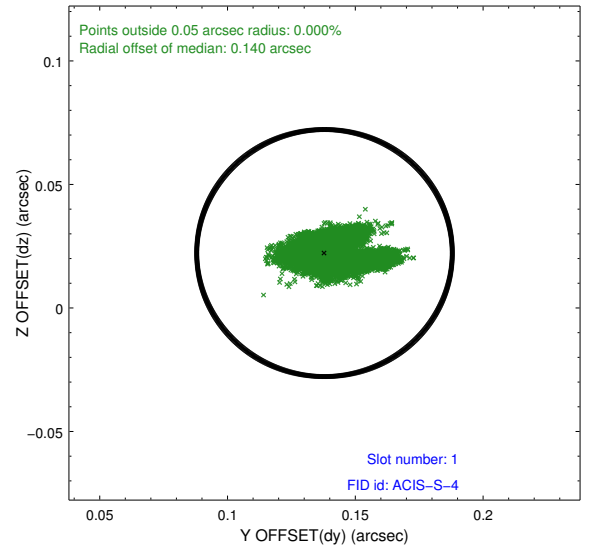
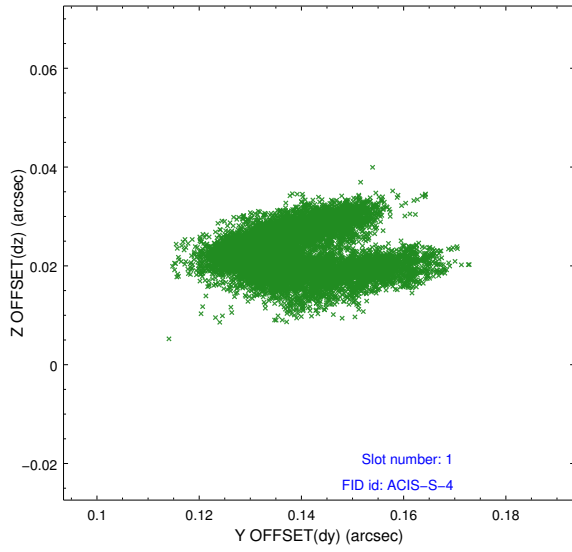


2.5 FID Slots

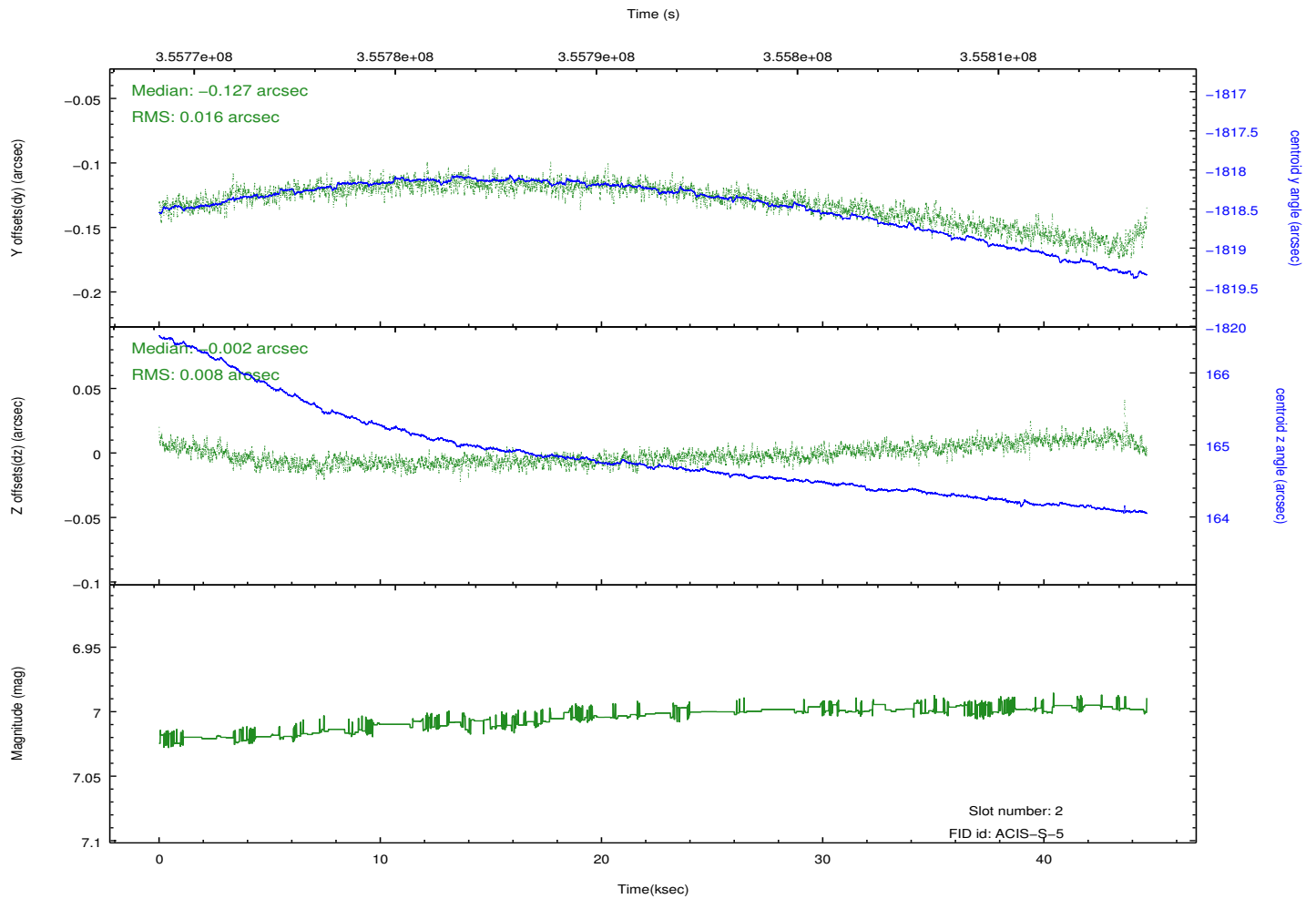
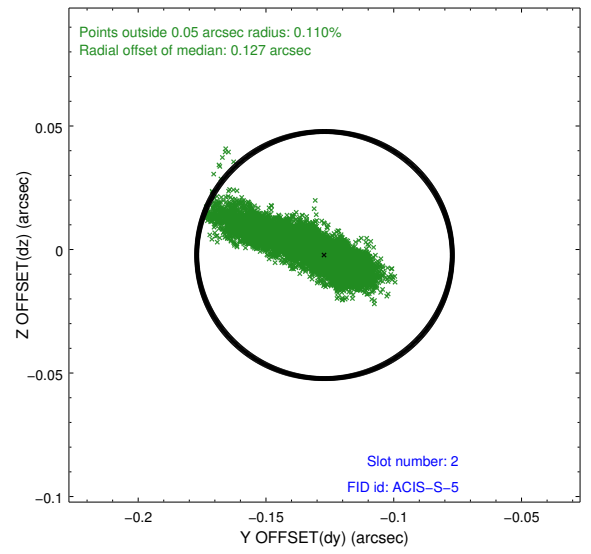
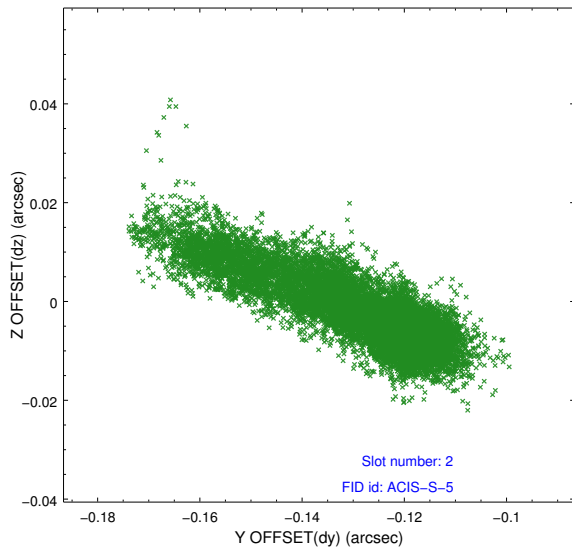
2.5.1 Slot 0



2.5.2 Slot 1

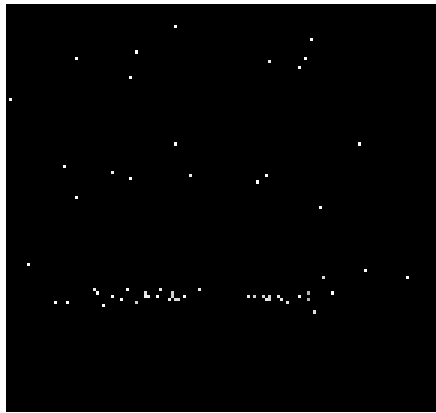


2.5.3 Slot 2

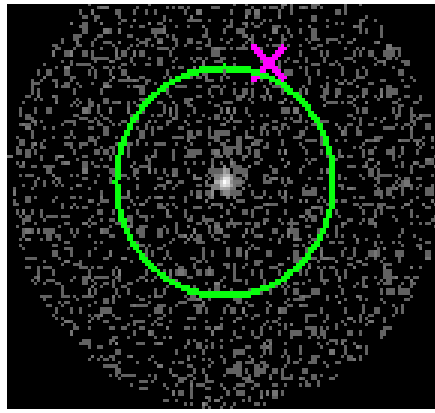


3 Gratings

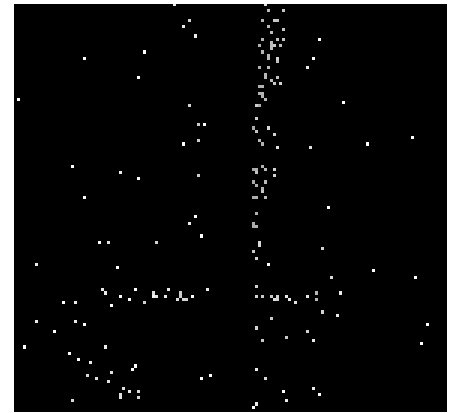
3.1 HEG Arm



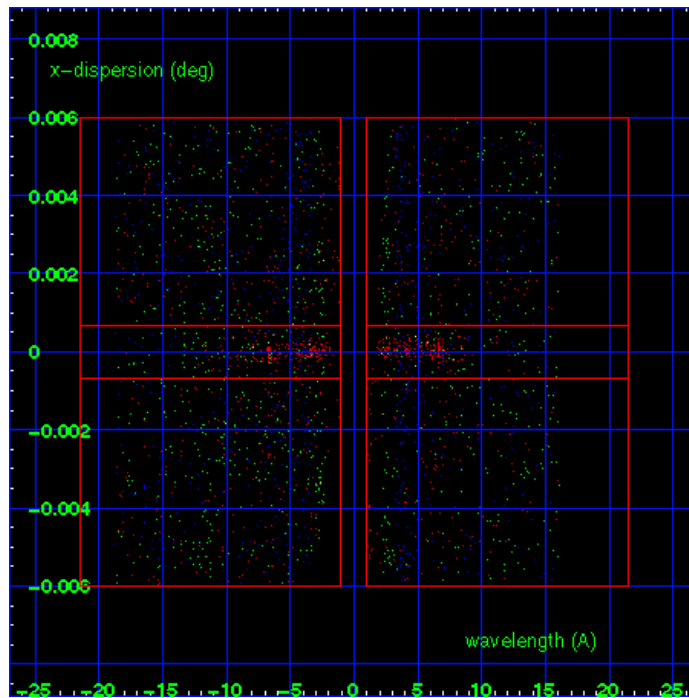
HEG Order Sort 123



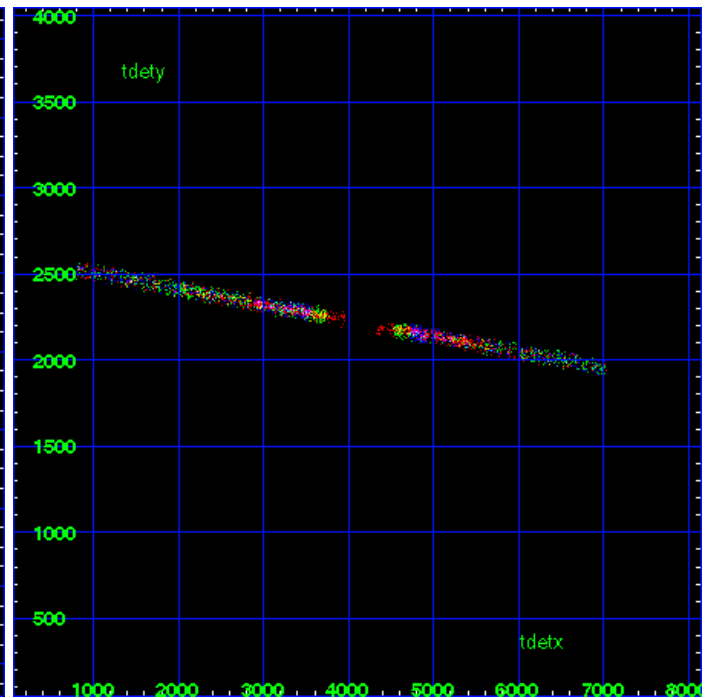
HEG Zero Order



HEG Order Sort ALL

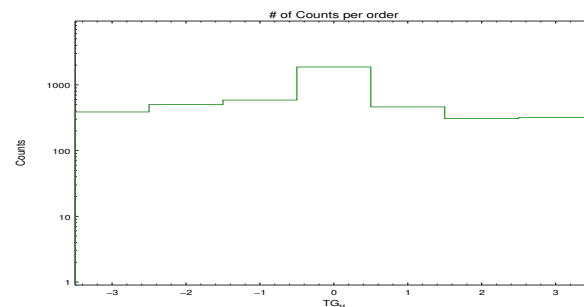


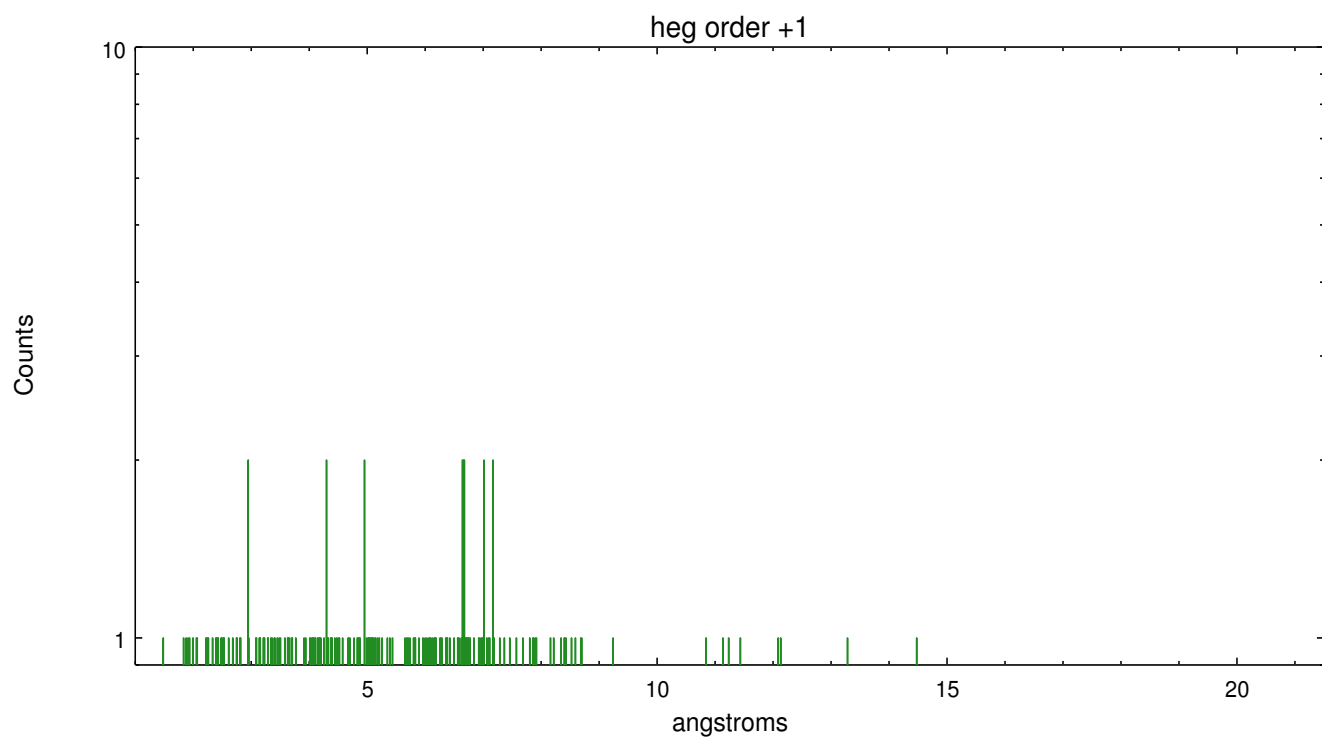
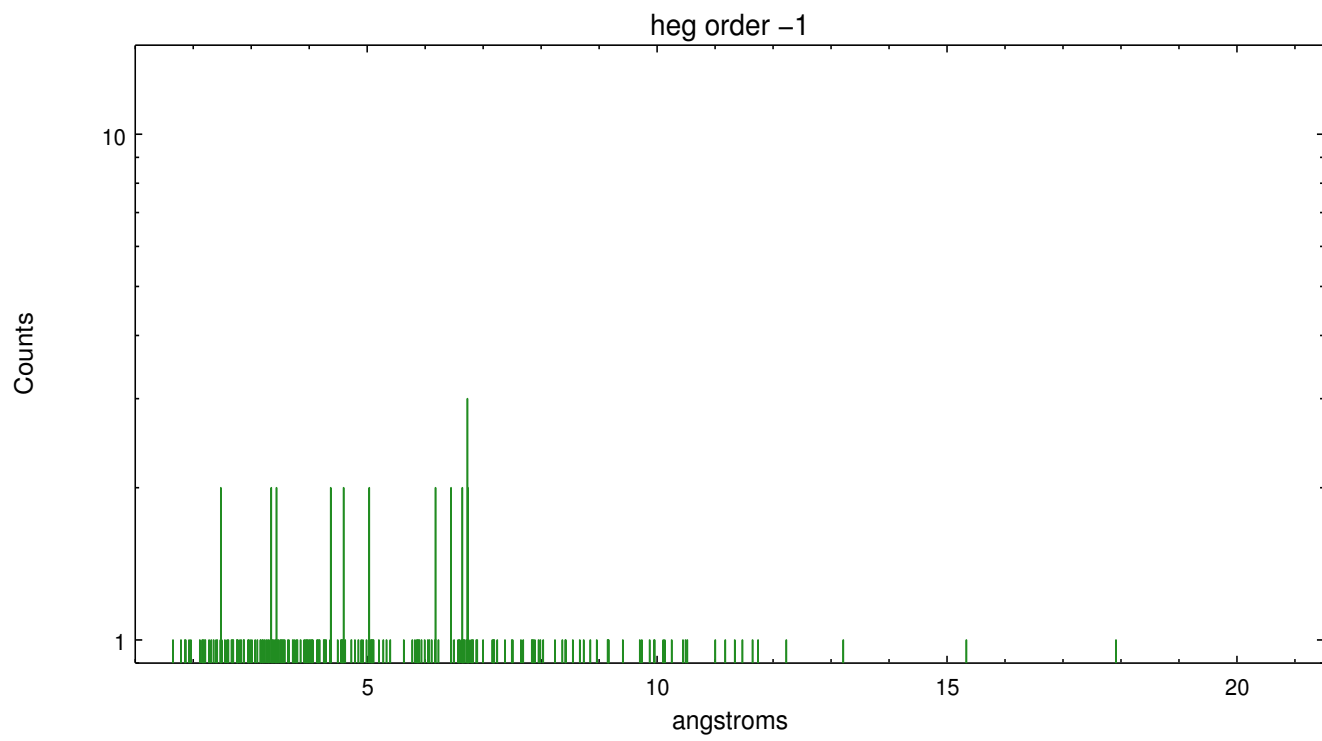
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	387	502	587	1871	462	307	319

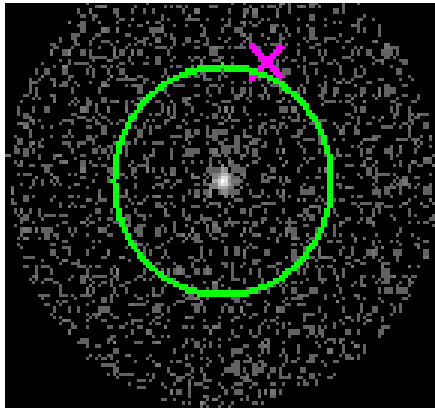




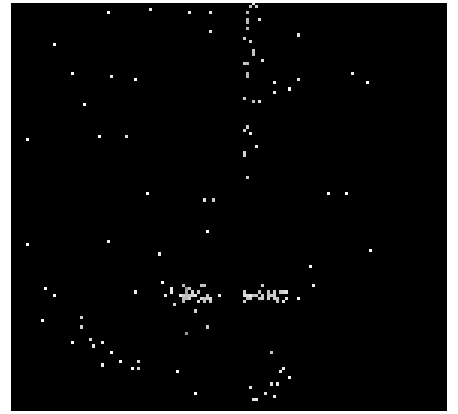
3.2 MEG Arm



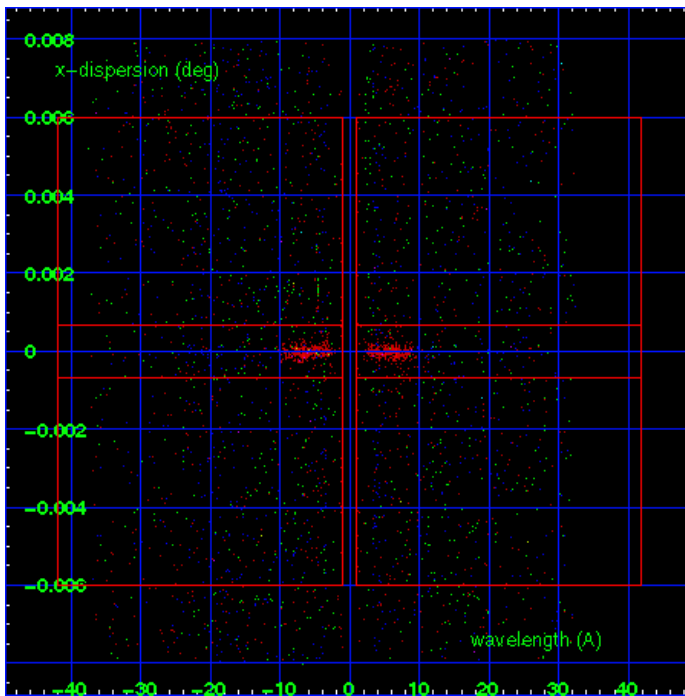
MEG Order Sort 123



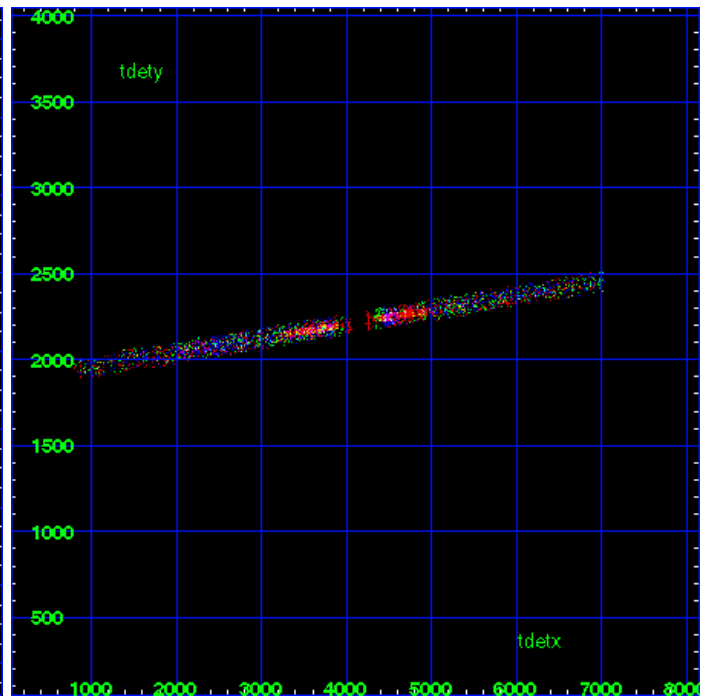
MEG Zero Order



MEG Order Sort ALL

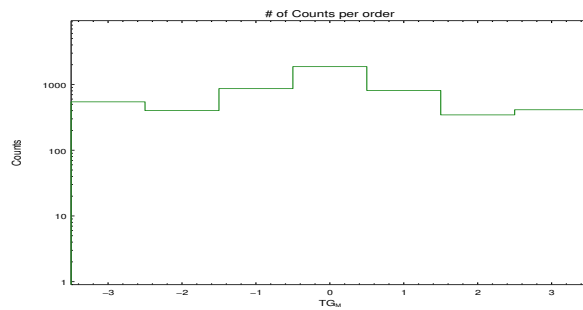


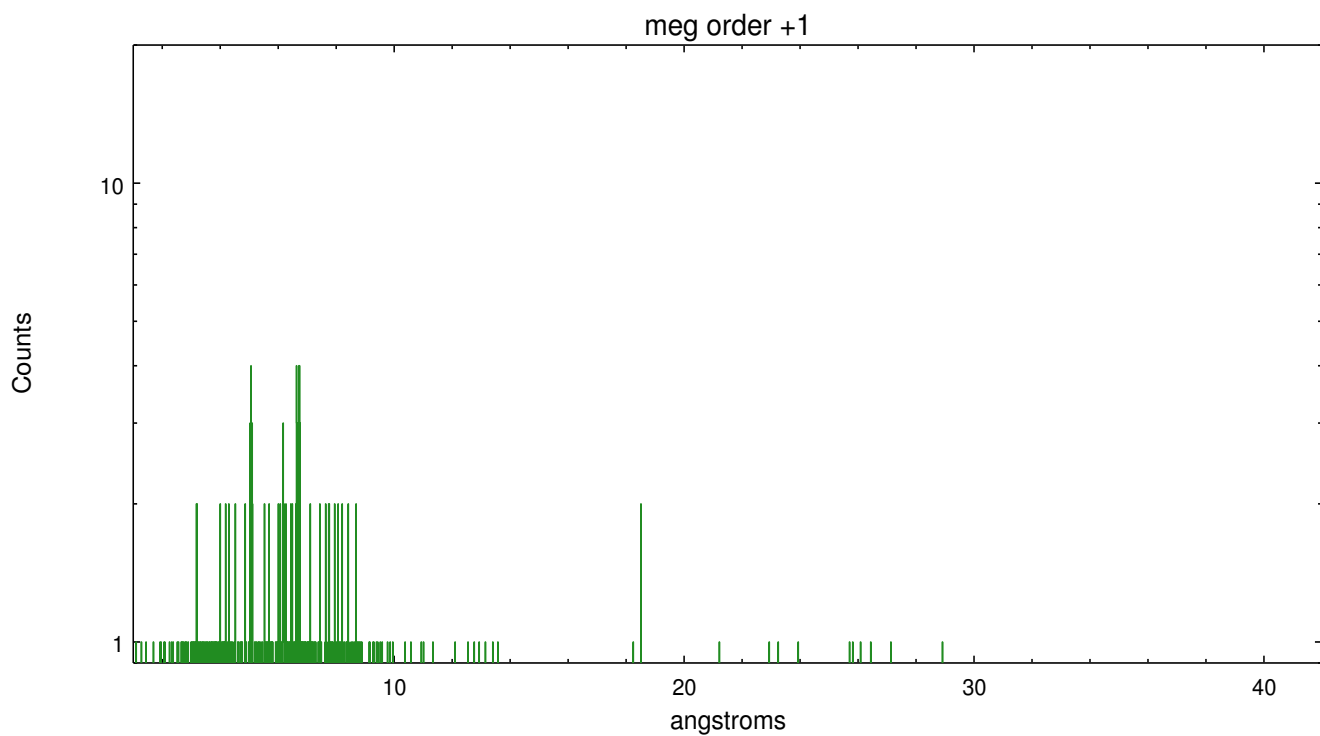
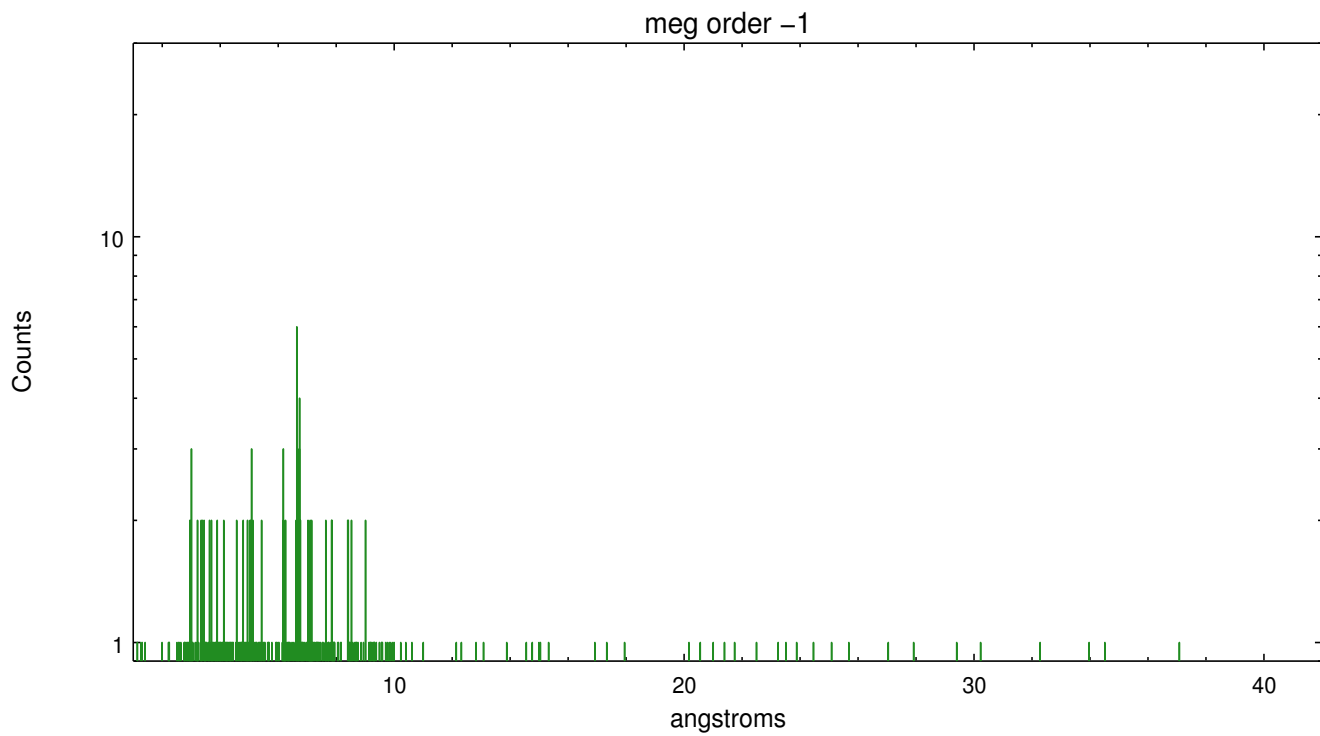
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	545	401	866	1871	811	345	413





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.06.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	43.4463998

A.2 Comments

Roll constraint met.