

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10678 - L2 Version 2
Chandra X-Ray Center

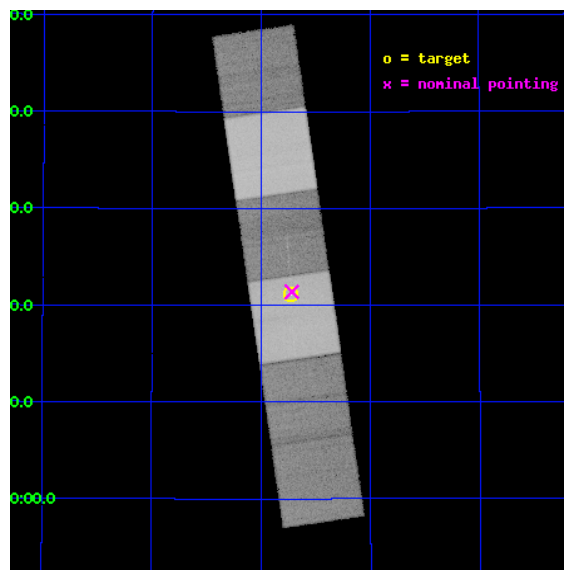
L2 Processing Date : Jun 4 2012

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1 Front

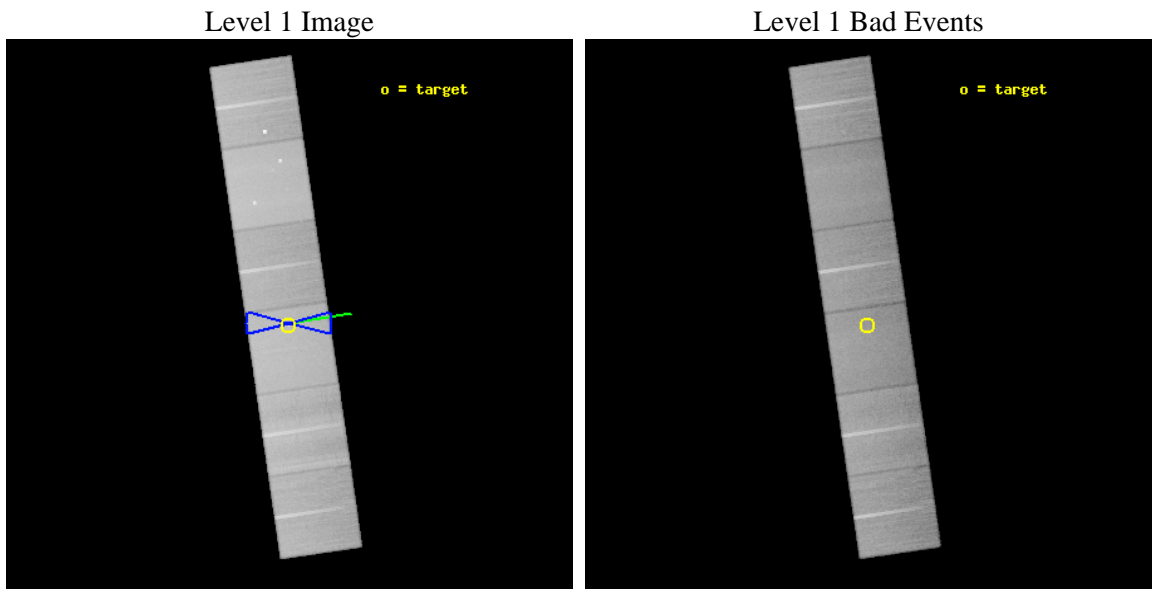
seq_num	200556	Sequence number
obs_id	10678	Observation id
title	Testing the Colliding Wind Paradigm: X-rays from the Wolf-Rayet Binary System WR 147	Proposal title
observer	Dr Svetozar ZHEKOV	Principal investigator
object	WR 147	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	309.182083	Observer's specified target RA [deg]
dec_targ	40.352028	Observer's specified target Dec [deg]
ra_nom	309.17957859735	Nominal RA [deg]
dec_nom	40.356490056237	Nominal Dec [deg]
roll_nom	81.658250469777	Nominal Roll [deg]
revision	2	Processing version of data
ontime	41855.999844134	Sum of GTIs [s]
livetime	41325.99397145	Livetime [s]
ontime4	41855.999844134	Sum of GTIs [s]
ontime5	41855.988558948	Sum of GTIs [s]
ontime6	41855.947518945	Sum of GTIs [s]
ontime7	41855.999844134	Sum of GTIs [s]
ontime8	41852.665528536	Sum of GTIs [s]
ontime9	41855.865438938	Sum of GTIs [s]
l2events	745934	Number of level 2 events



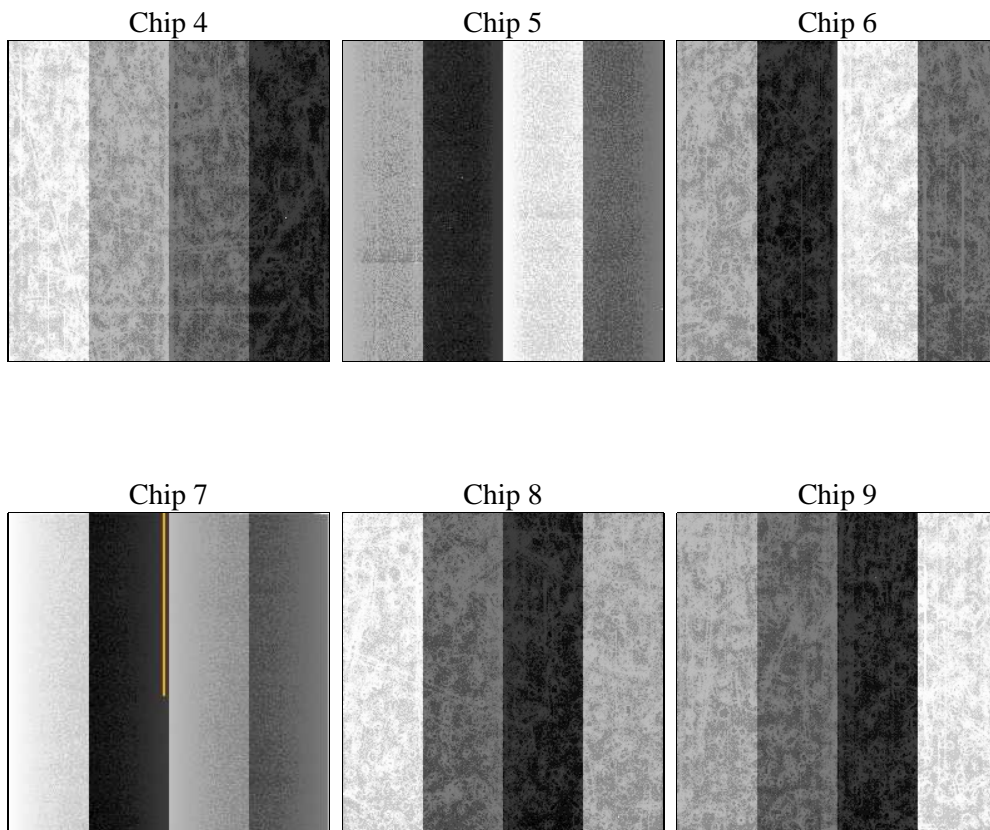
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	42100.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	41855.999844134	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	41855.999844134	Sum of GTIs [s]
date	2012-06-03T23:53:42	Date and time of file creation	ontime5	41855.988558948	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	41855.947518945	Sum of GTIs [s]
			ontime7	41855.999844134	Sum of GTIs [s]
			ontime8	41852.665528536	Sum of GTIs [s]
			ontime9	41855.865438938	Sum of GTIs [s]
			l1events	3248290	Number of level 1 events

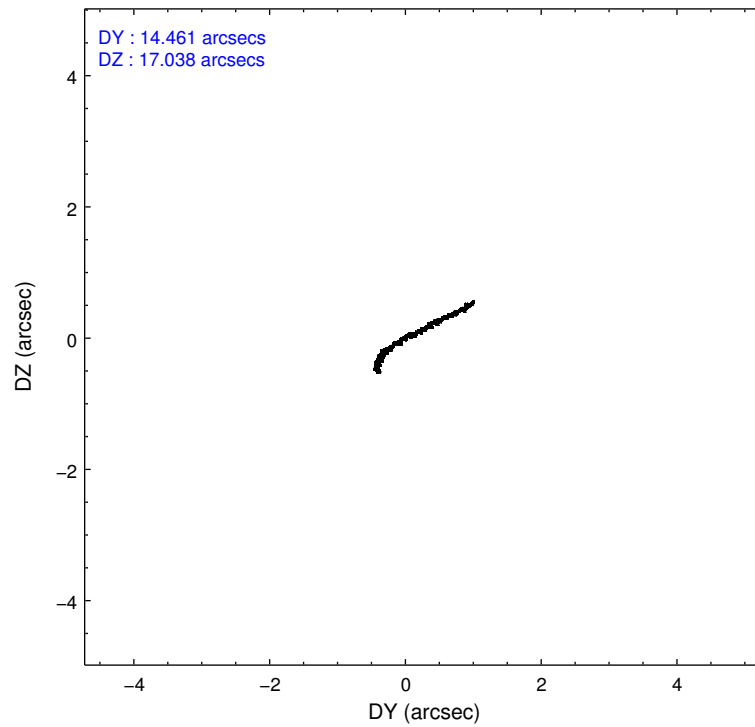
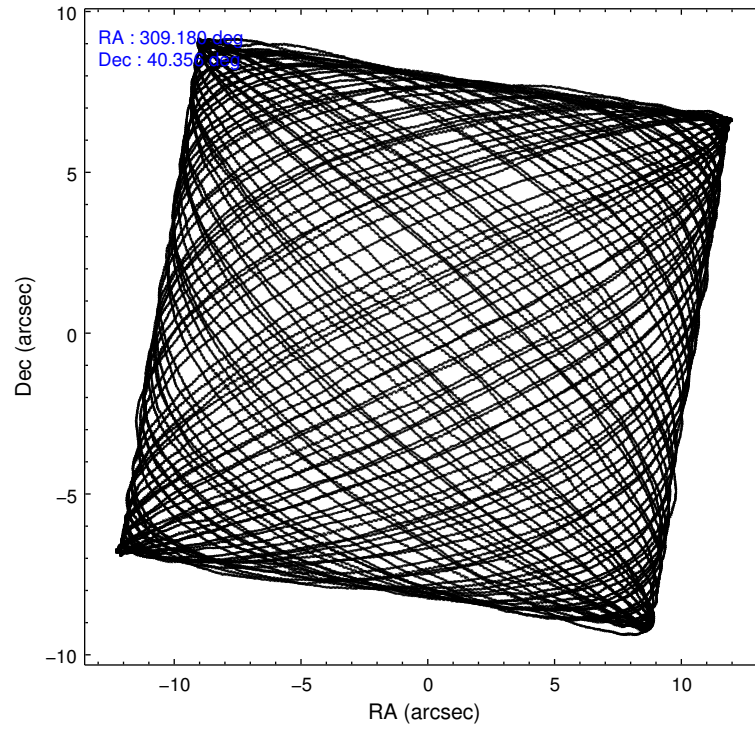
2.1.4 Events

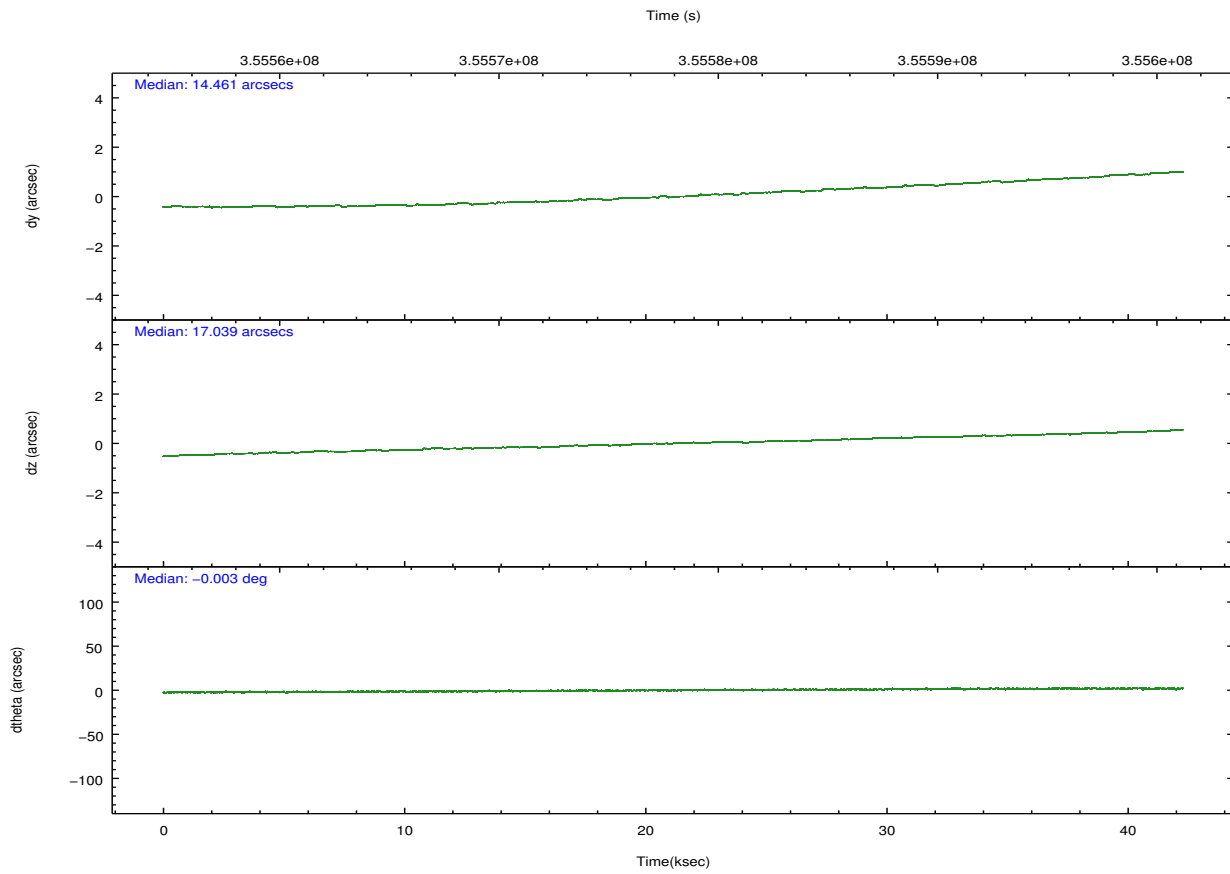
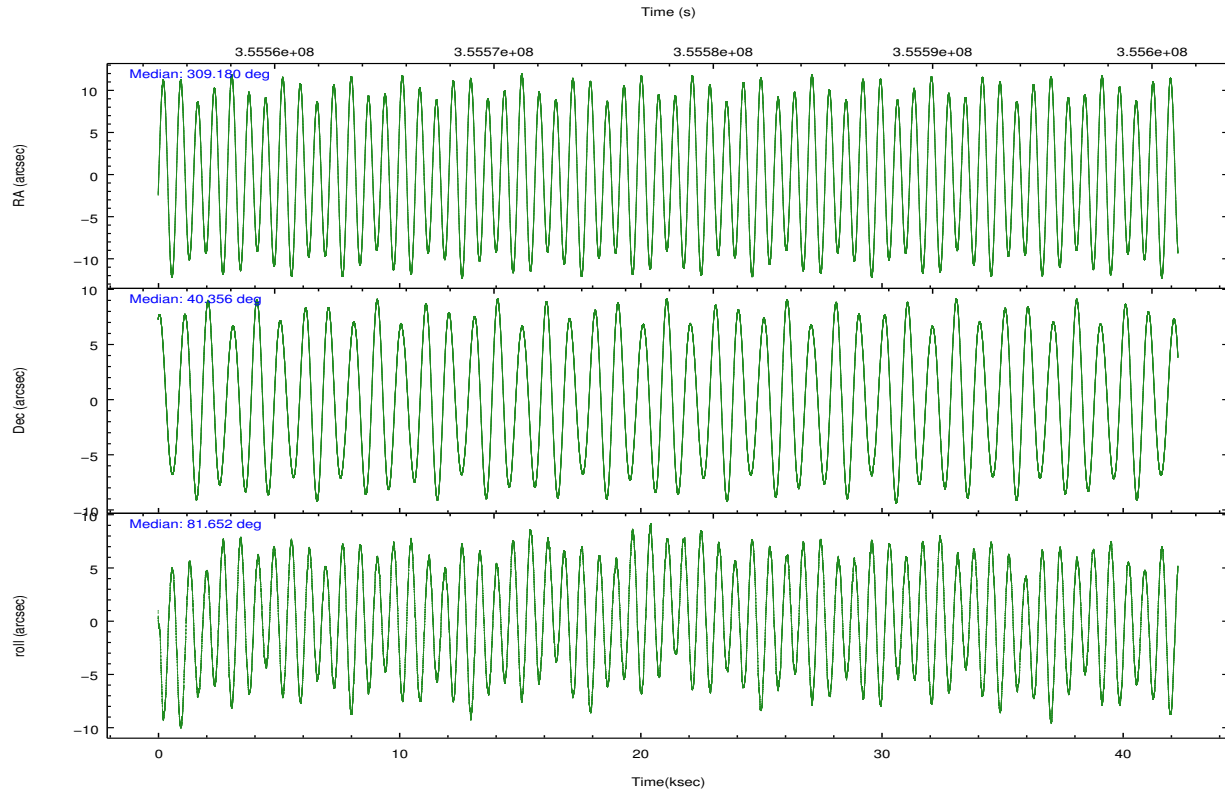
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	504517	684056	442054	616053	559984	441626	grade 0 events	33626	24235	20788	21534	41082	22420
rejected events	438651	369735	388297	358125	429892	386468		6%	3%	4%	3%	7%	5%
rejected %	86%	54%	87%	58%	76%	87%	grade 1 events	592	1133	257	669	439	296
								0%	0%	0%	0%	0%	0%
							grade 2 events	12366	98156	12295	53080	29317	11372
								2%	14%	2%	8%	5%	2%
							grade 3 events	5614	11507	4932	21539	13702	5247
								1%	1%	1%	3%	2%	1%
							grade 4 events	5304	11375	4854	21185	12756	5214
								1%	1%	1%	3%	2%	1%
							grade 5 events	20887	49413	21167	57724	28465	22809
								4%	7%	4%	9%	5%	5%
							grade 6 events	8962	169069	10894	140608	33266	10915
								1%	24%	2%	22%	5%	2%
							grade 7 events	417166	319168	366867	299714	400957	363353
								82%	46%	82%	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	309.1795785973536	CCD I2 on	N	N
[deg] Pointing Dec	40.331205	40.35649005623714	CCD I3 on	N	N
[deg] Pointing Roll	81.492775	81.65825046977737	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)	355556970.184000	355556593.9019	Subarray requested	NONE	NONE
Observation start date	2009-04-08T05:48:24	2009-04-08T05:43:13	Alternating exposures requested	N	N
[s] Observation end time (MET)	355599070.184000	355600497.72909	[s] Primary exposure time	0.000000	3.2
Observation end date	2009-04-08T17:30:04	2009-04-08T17:54:57			
Read mode	TIMED	TIMED			

2.3 Aspect



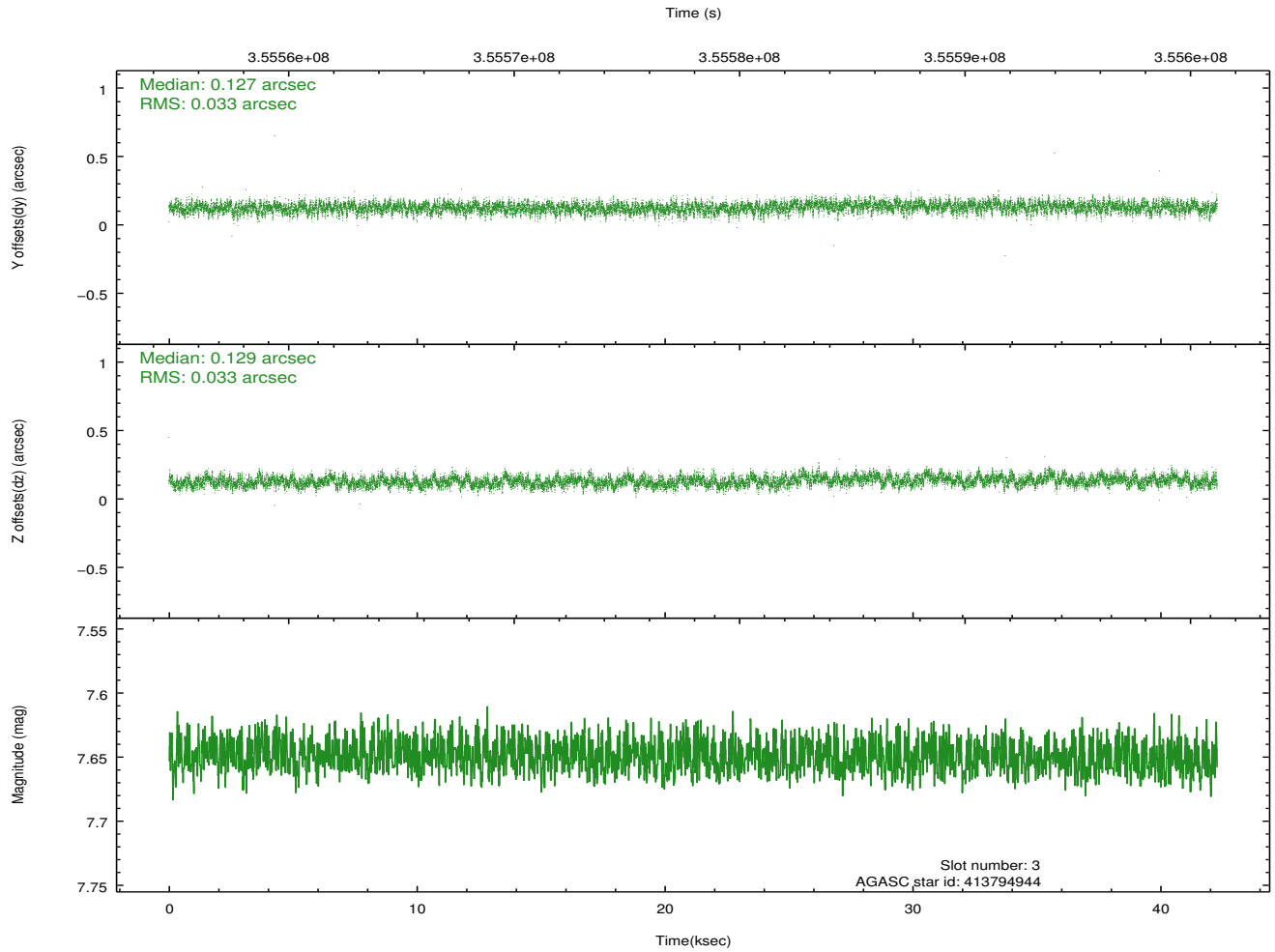
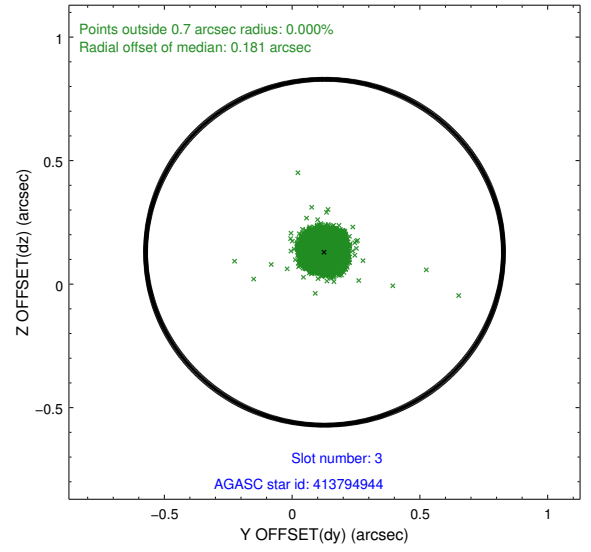
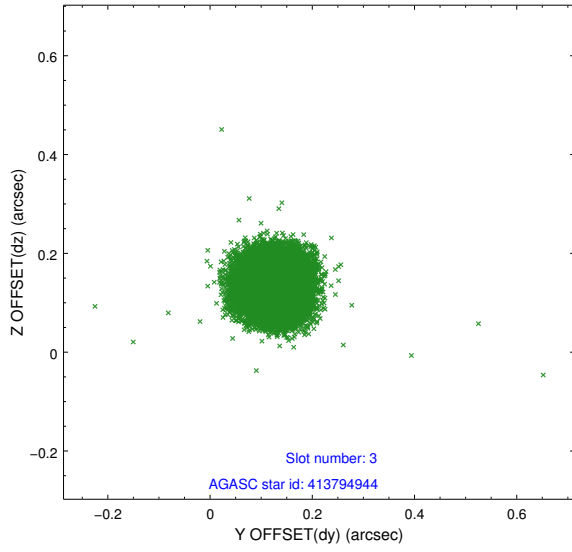


Slot Statistics

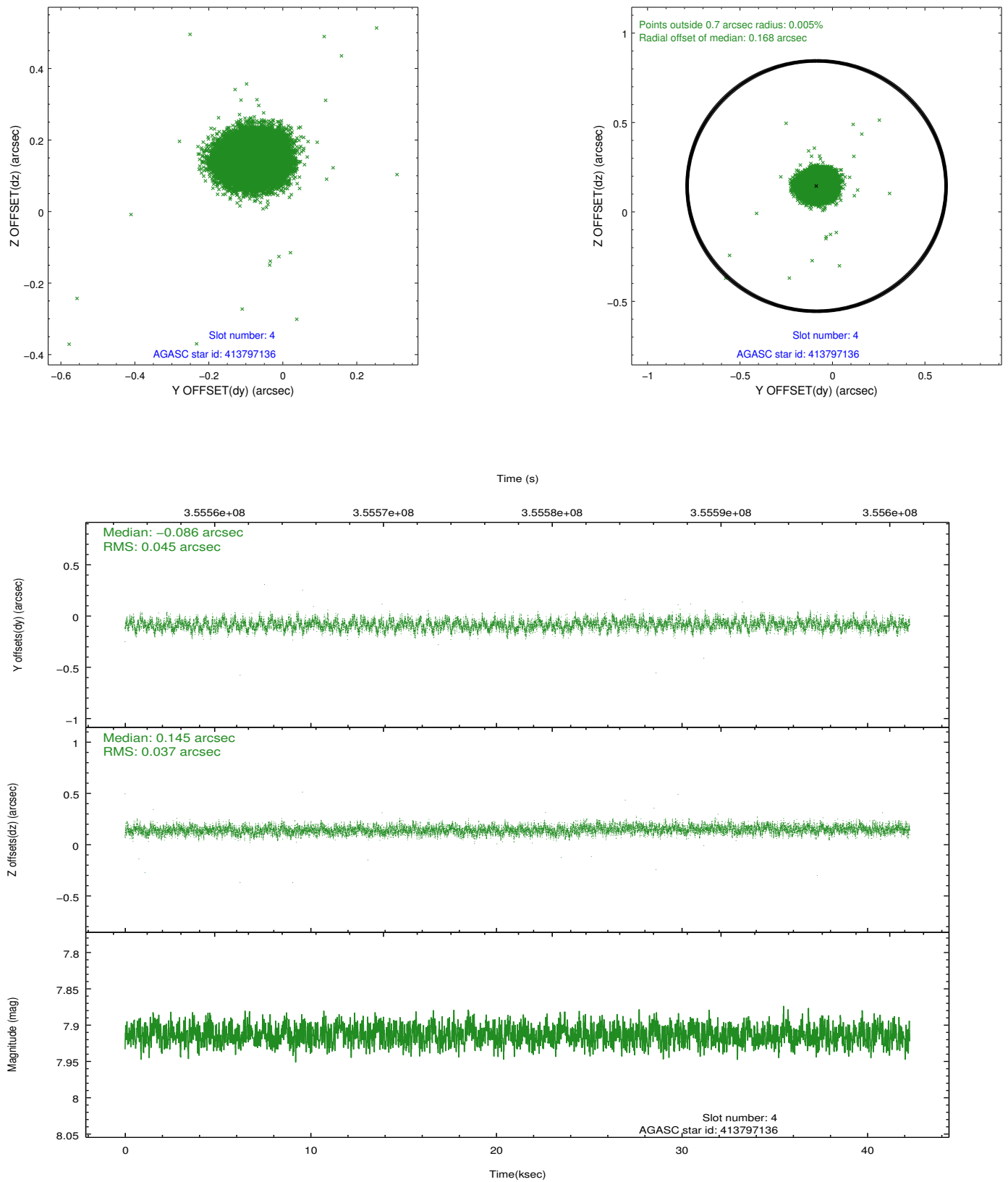
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.88	10314	-0.052	-0.030	0.011	0.017	0.000000	0.000000	-767.59	-1738.49
1	FID	ACIS-S-4	6.97	10312	0.178	0.033	0.014	0.024	0.000000	0.000000	2145.94	170.00
2	FID	ACIS-S-5	7.00	10313	-0.162	0.005	0.021	0.038	0.000000	0.000000	-1820.49	163.72
3	GUIDE	413794944	7.65	20621	0.127	0.129	0.050	0.080	309.554319	39.690543	-2130.89	-1329.84
4	GUIDE	413797136	7.91	20616	-0.086	0.145	0.061	0.098	309.356621	39.806092	-1802.47	-726.25
5	GUIDE	413799600	8.56	20615	0.032	-0.174	0.085	0.139	308.280373	39.866891	-2013.85	2249.25
6	GUIDE	413803744	8.83	20610	-0.095	-0.141	0.075	0.121	308.586342	40.704904	1090.95	1838.27
7	GUIDE	415503960	9.24	20605	0.025	0.036	0.101	0.170	310.022122	40.895650	2354.25	-1927.88

2.4 Star Slots

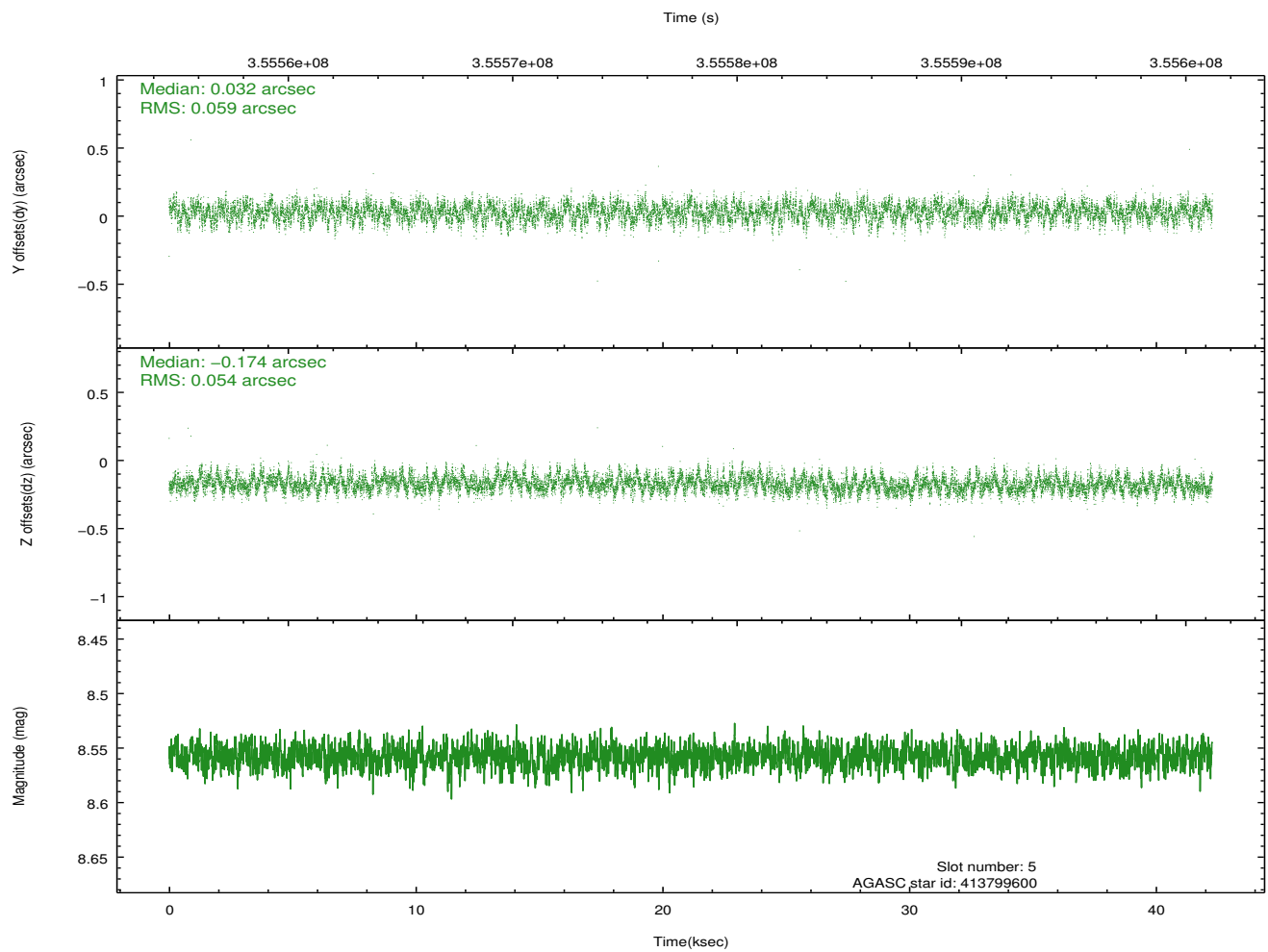
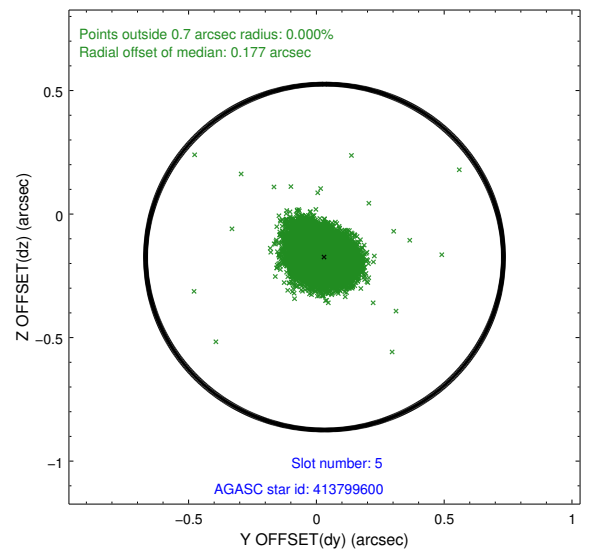
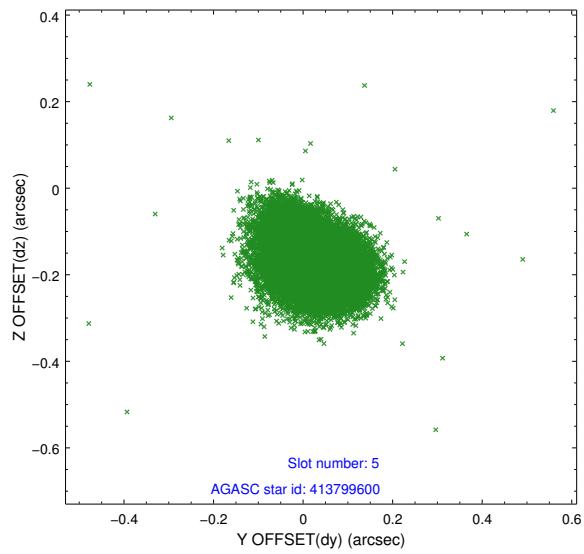
2.4.1 Slot 3



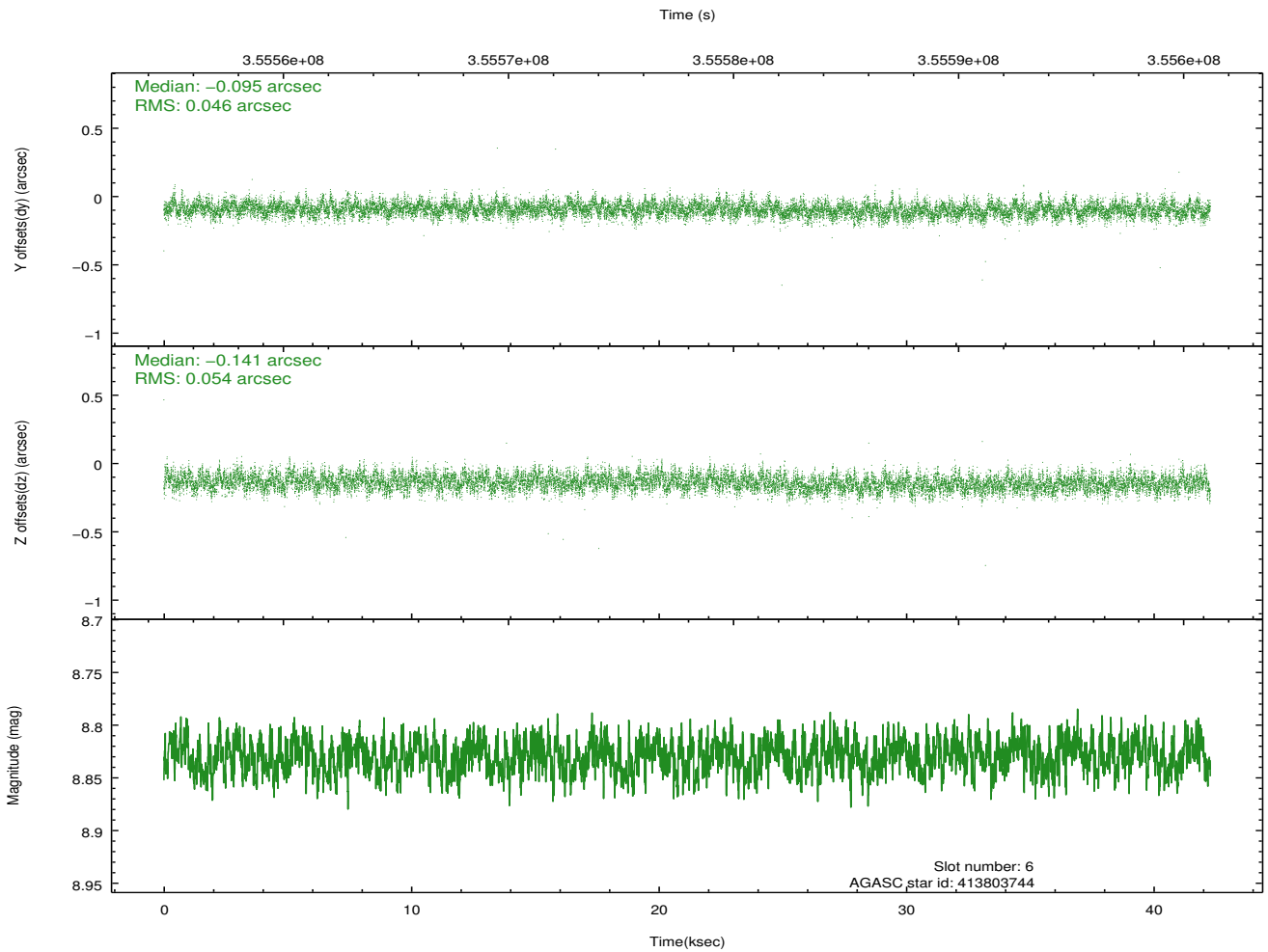
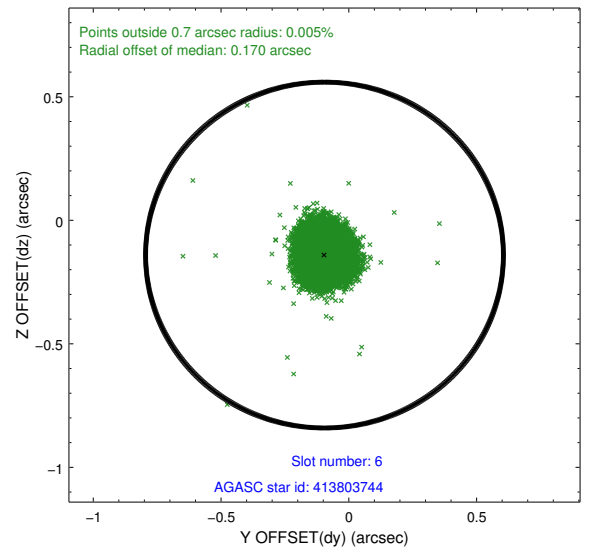
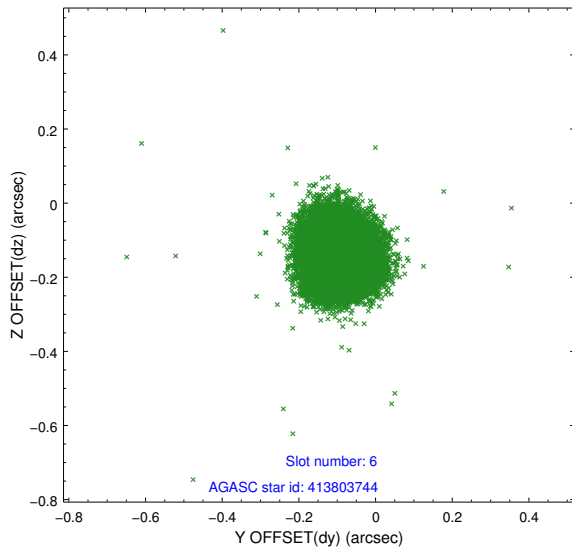
2.4.2 Slot 4



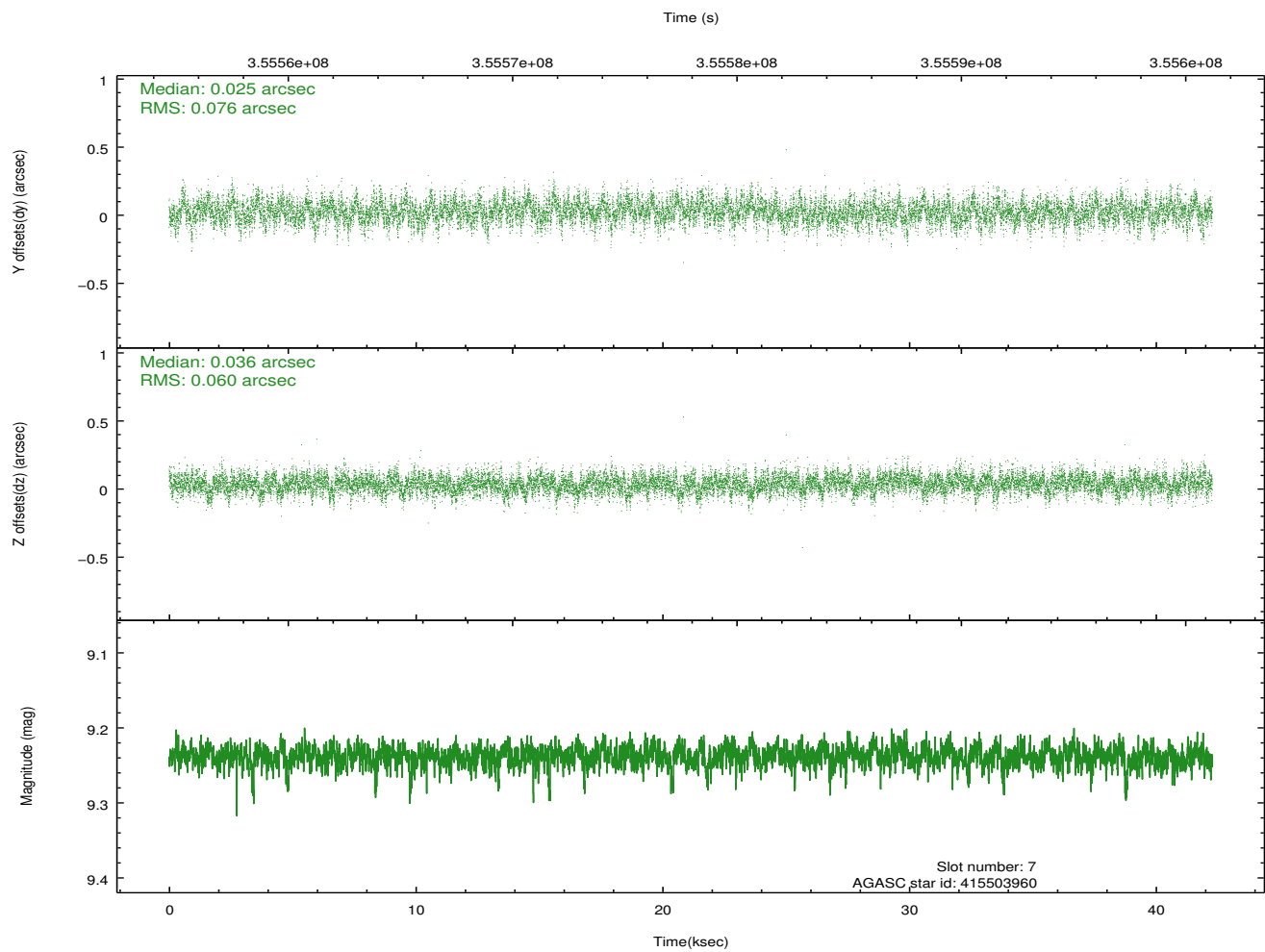
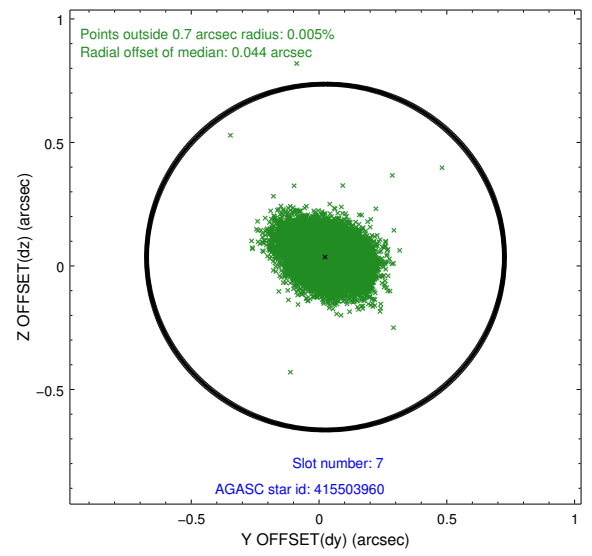
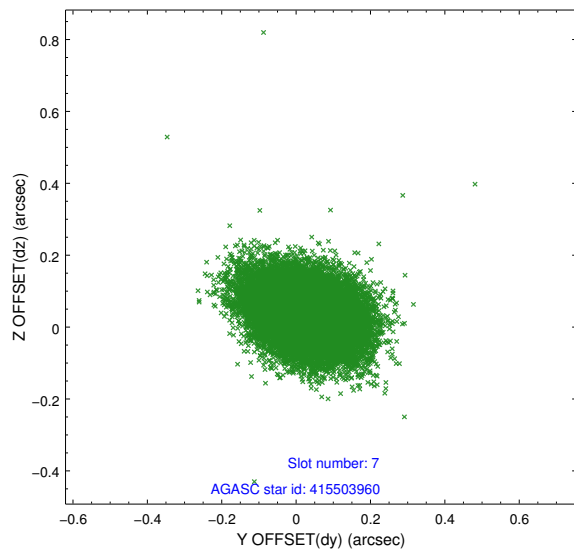
2.4.3 Slot 5



2.4.4 Slot 6

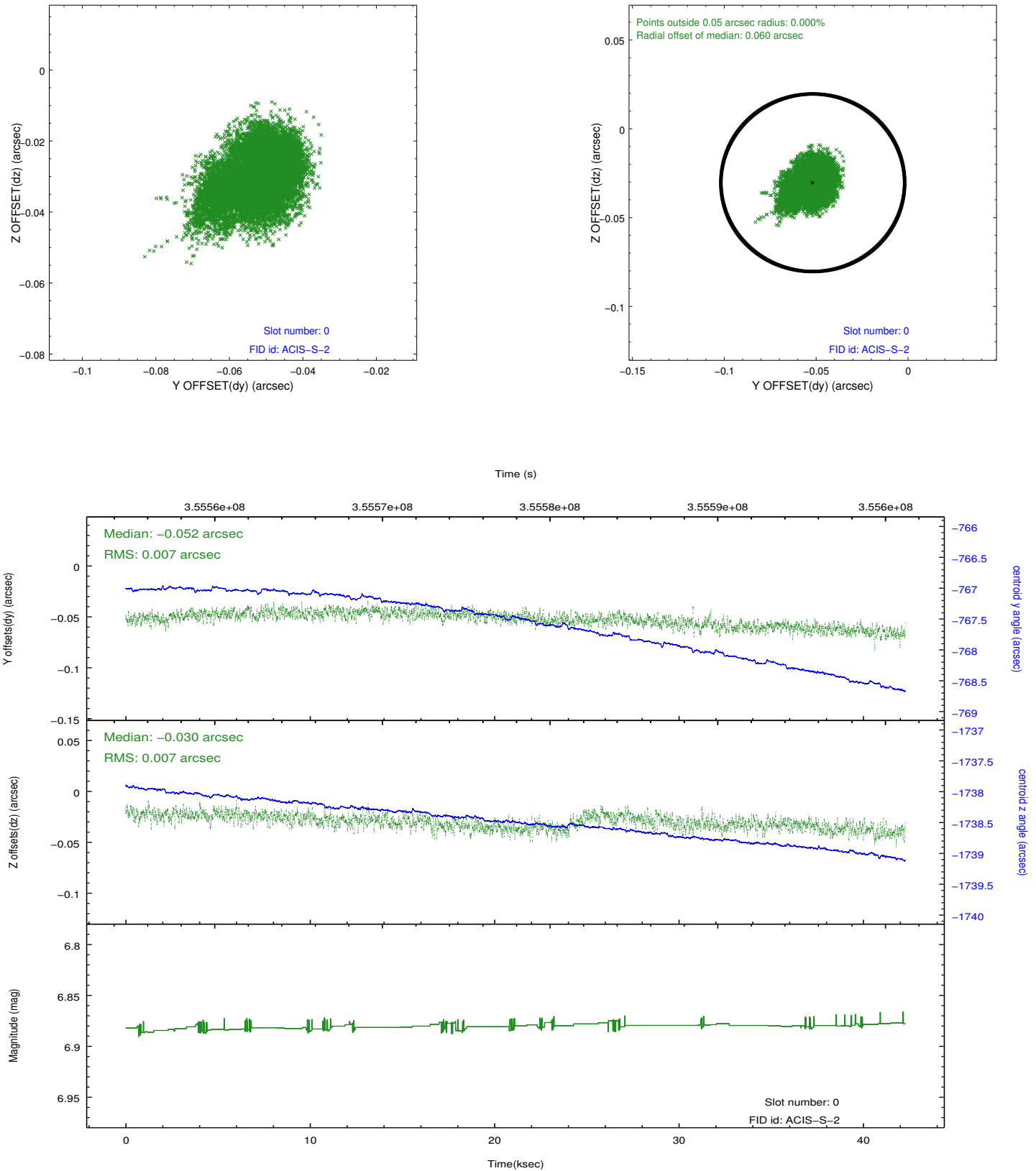


2.4.5 Slot 7

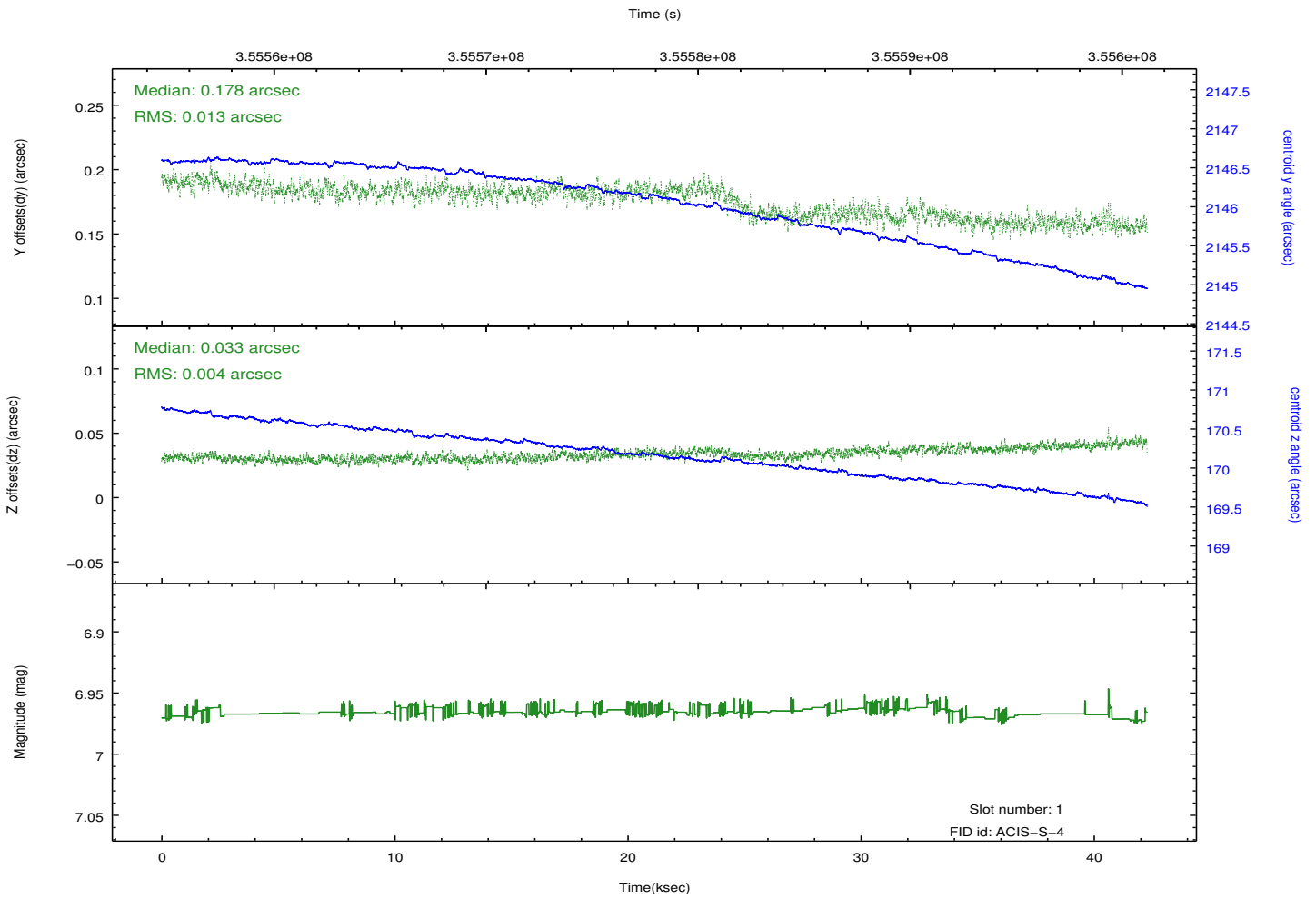
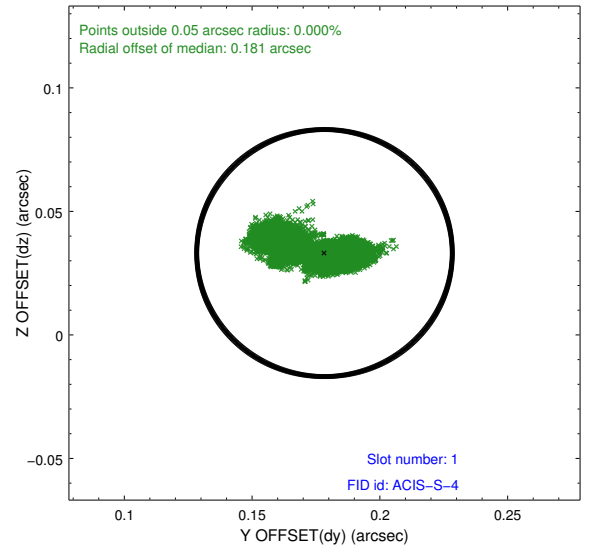
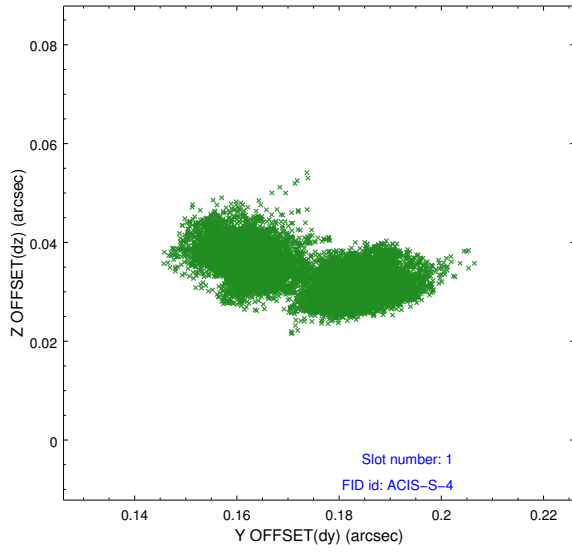


2.5 FID Slots

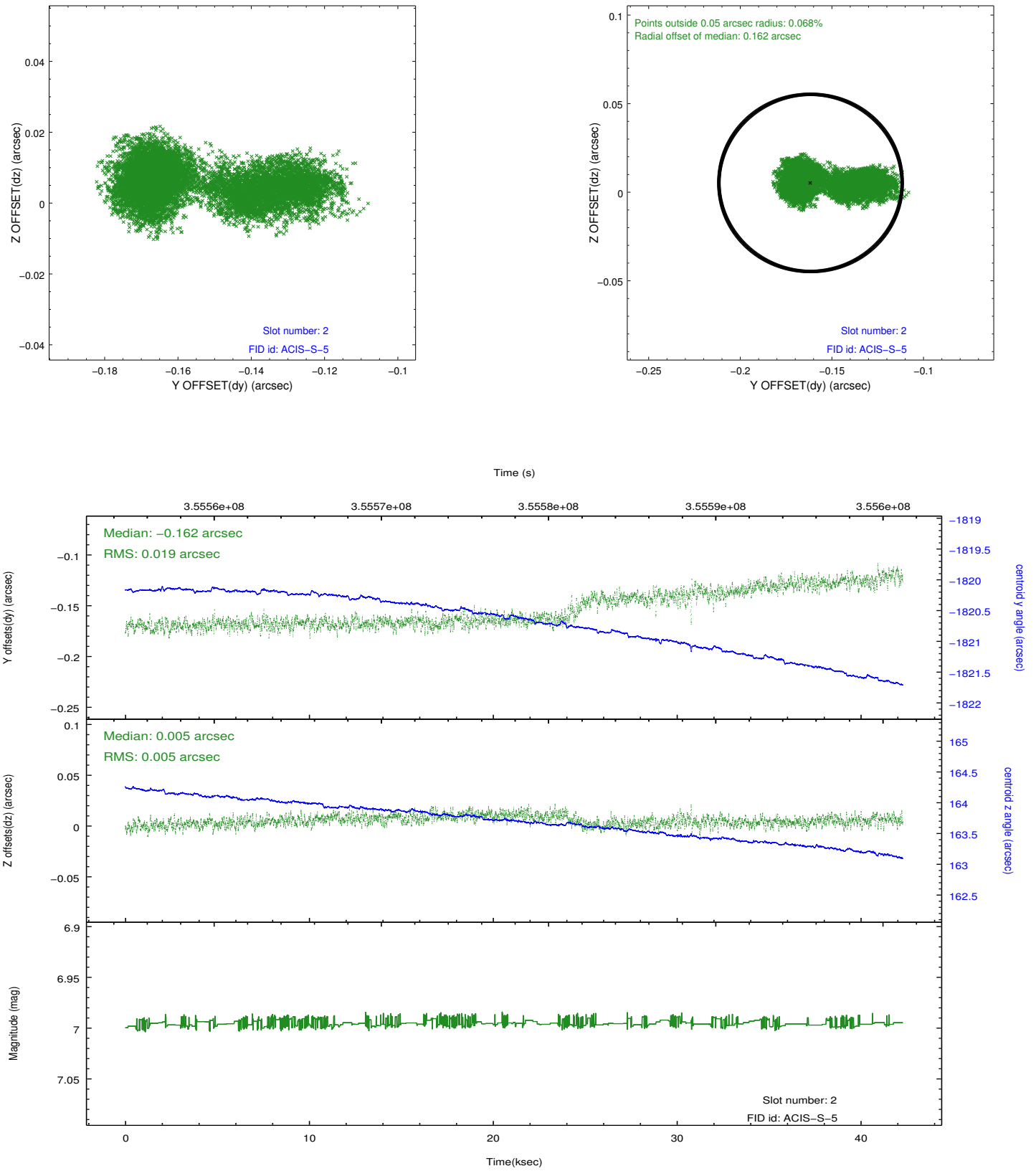
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

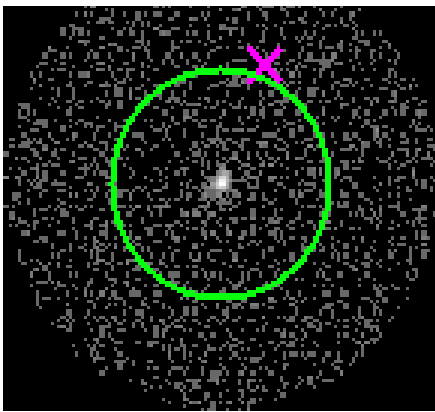


3 Gratings

3.1 HEG Arm



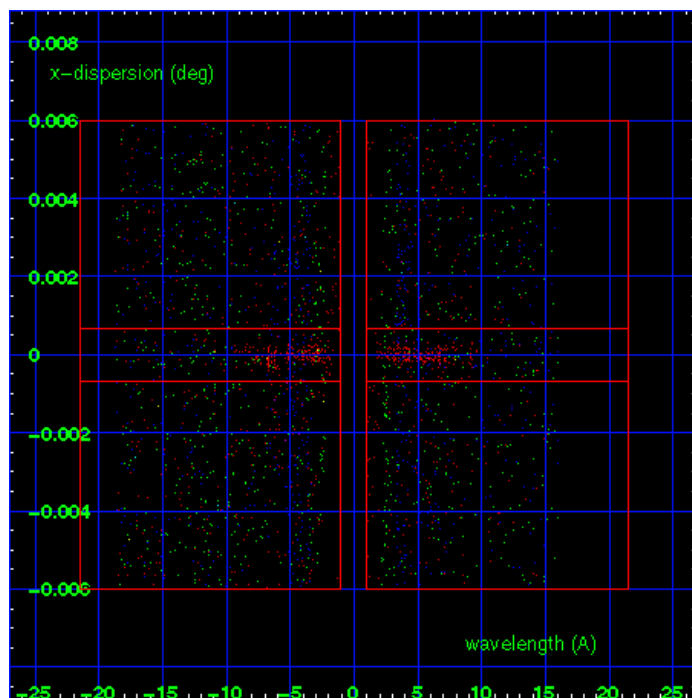
HEG Order Sort 123



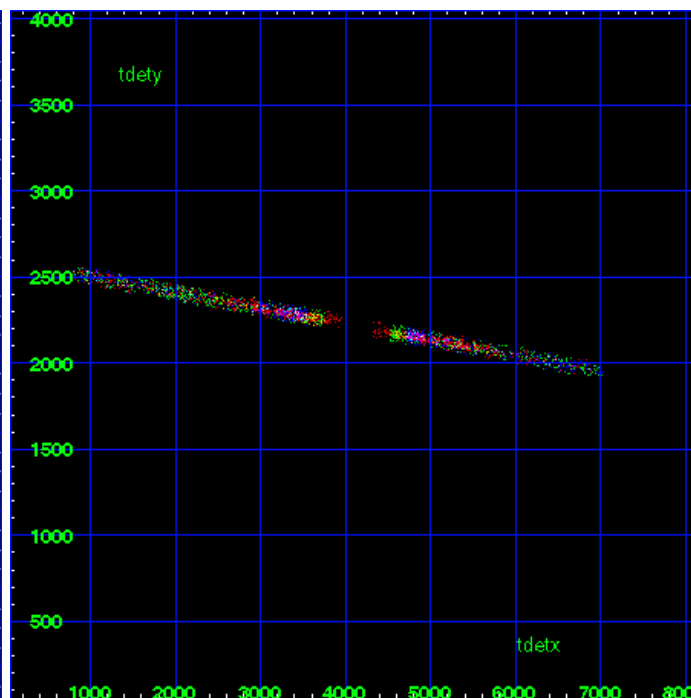
HEG Zero Order



HEG Order Sort ALL

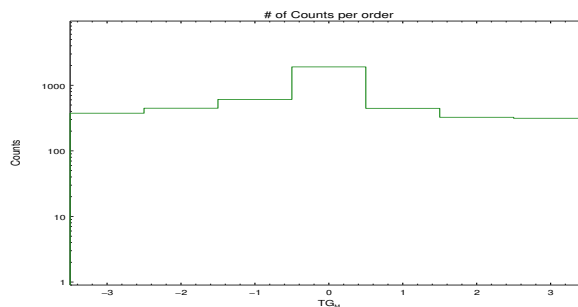


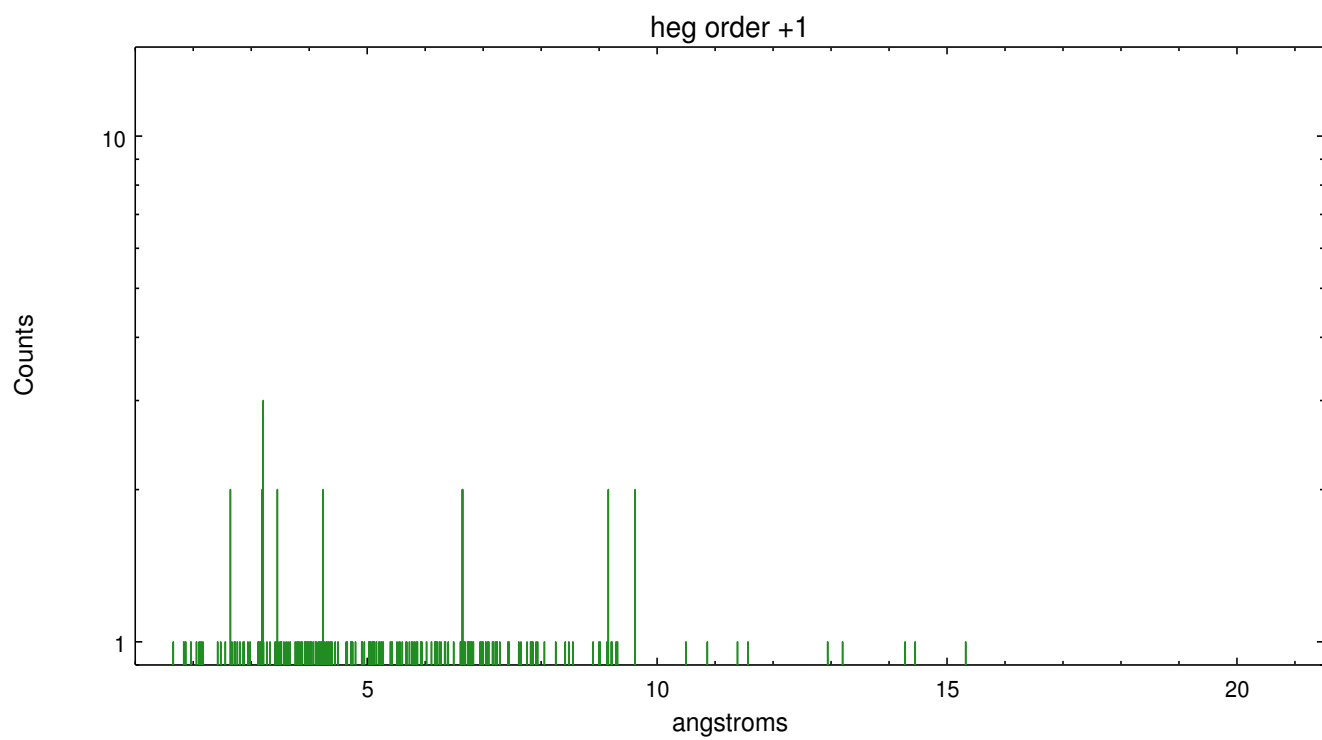
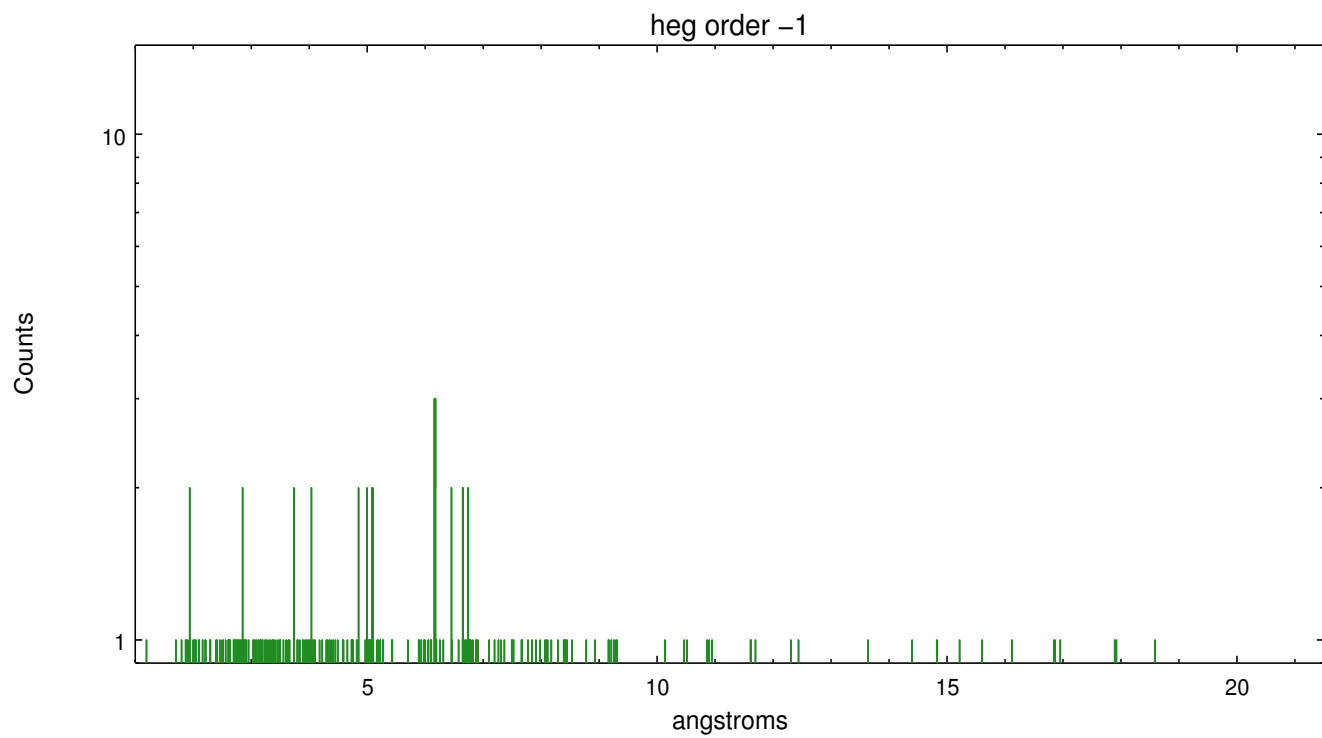
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	375	447	609	1907	445	325	314

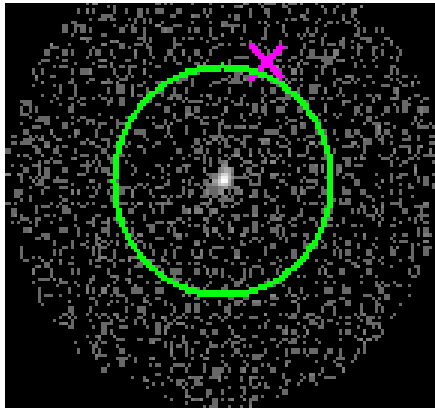




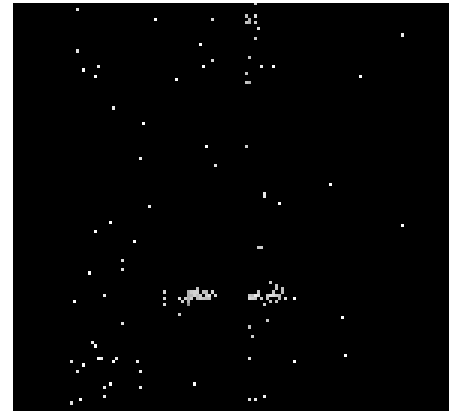
3.2 MEG Arm



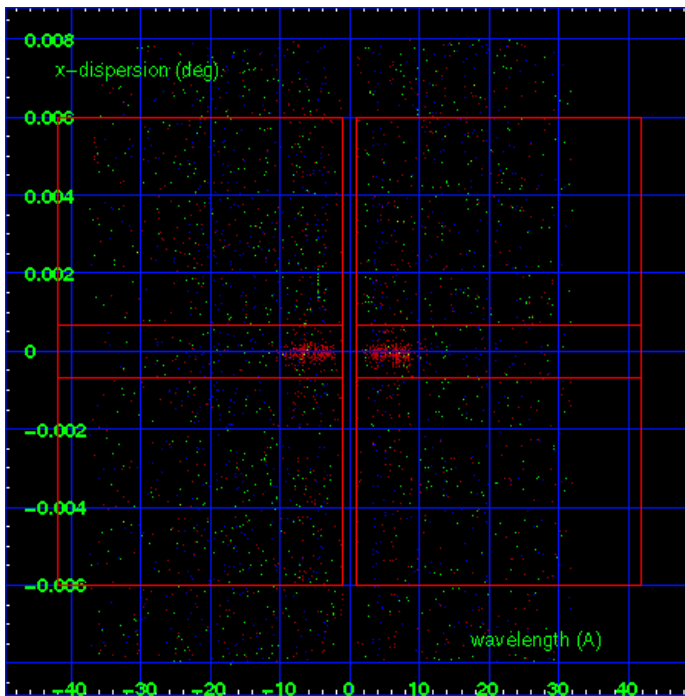
MEG Order Sort 123



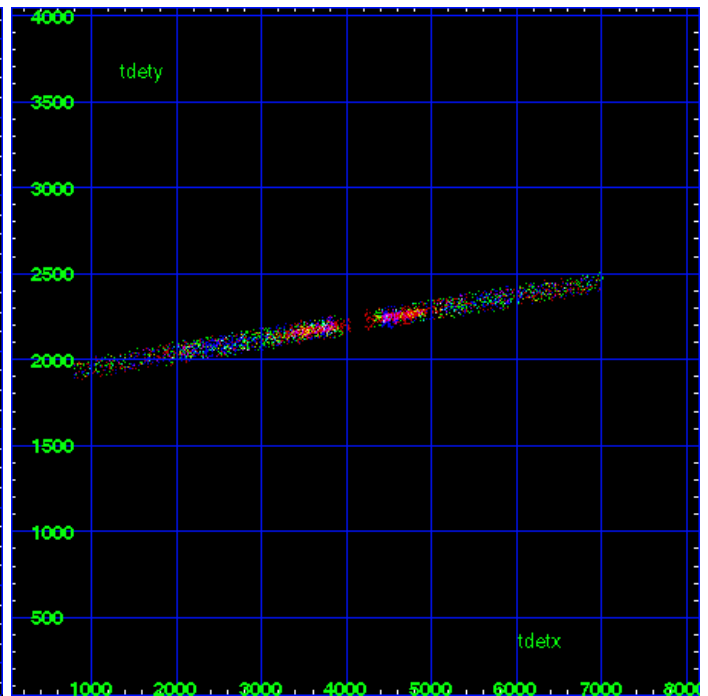
MEG Zero Order



MEG Order Sort ALL

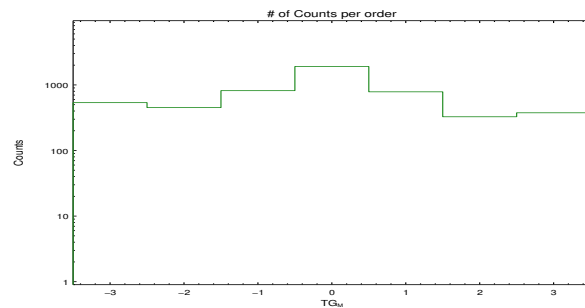


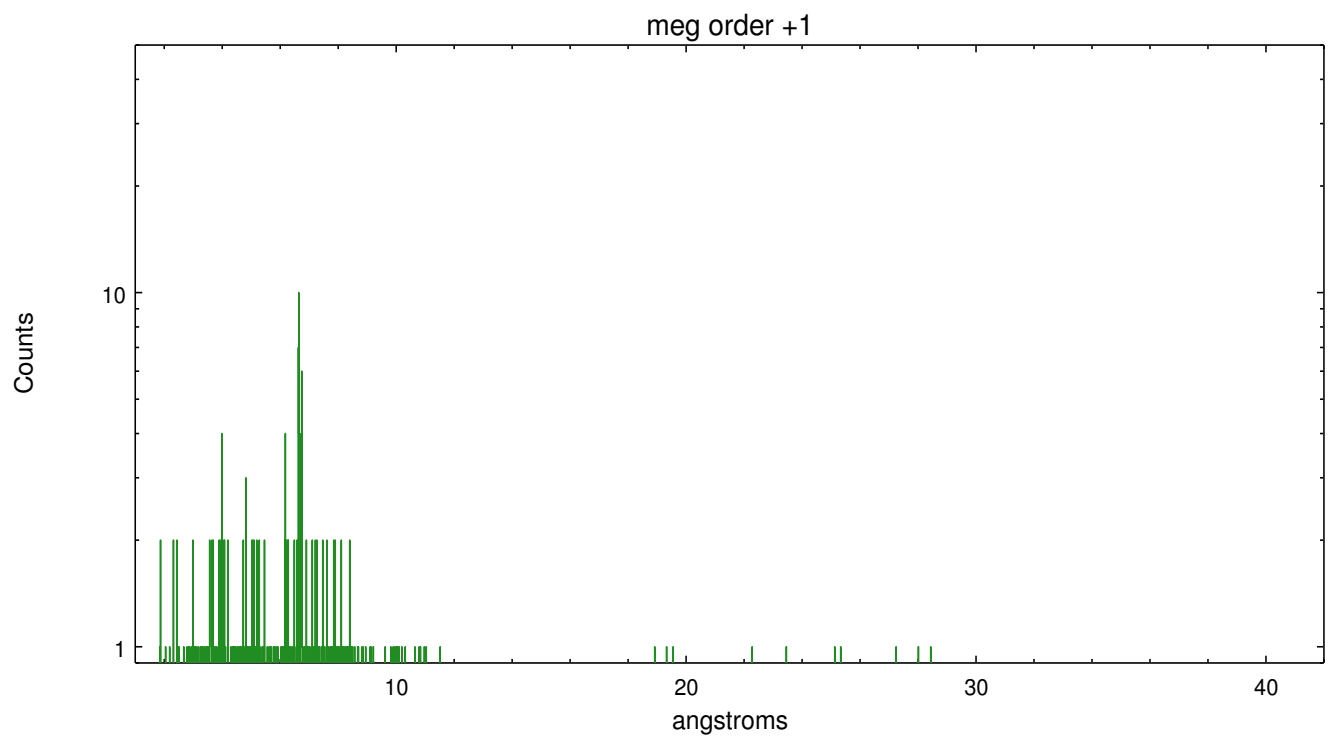
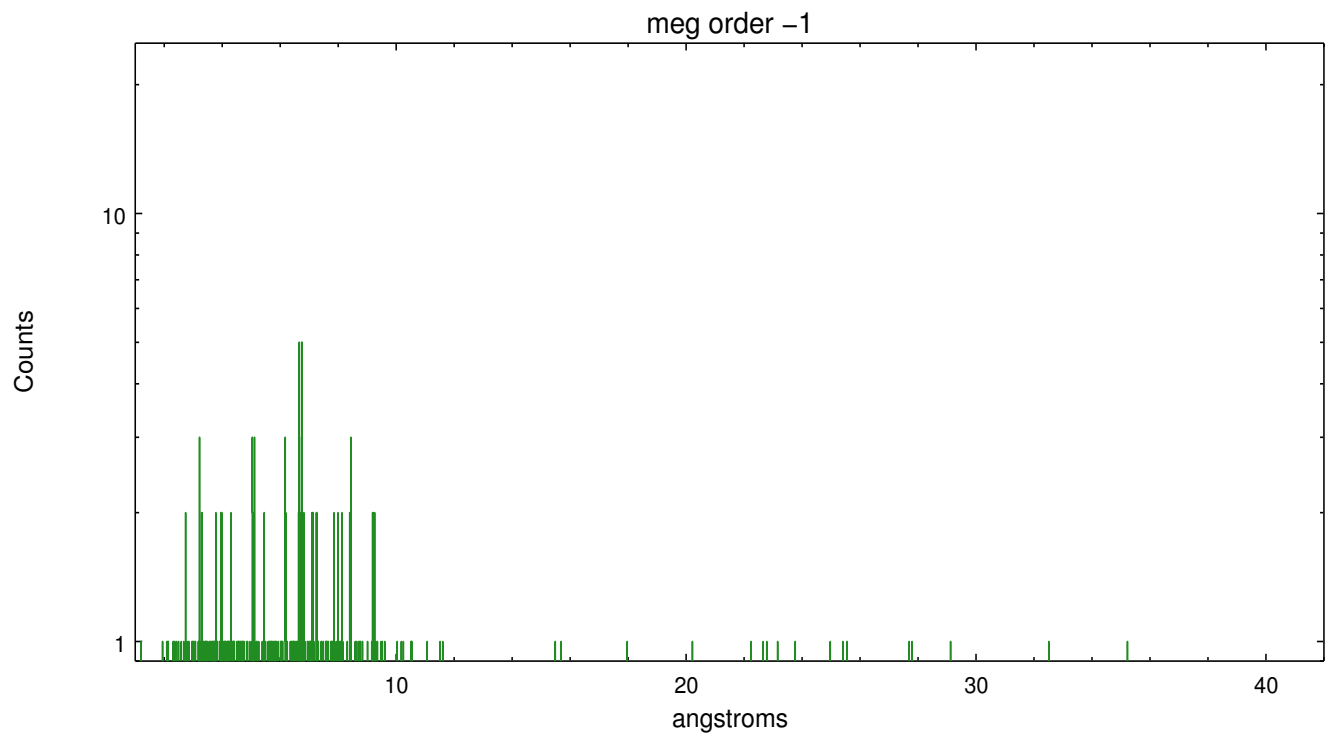
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	537	451	818	1907	785	327	376





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	41.8559998

A.2 Comments

Roll constraint met.