

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 1045 - L2 Version 5
Chandra X-Ray Center

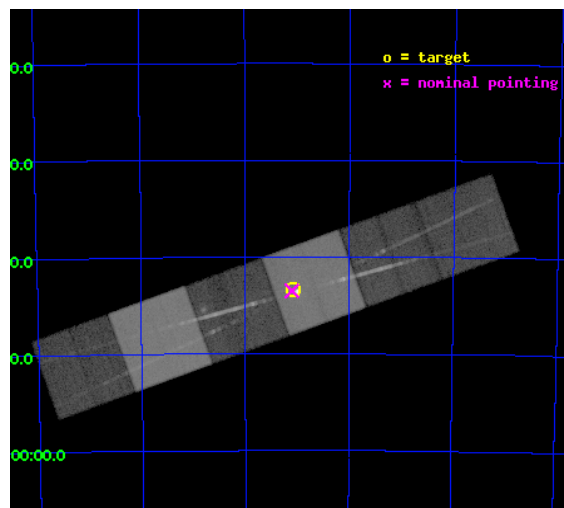
L2 Processing Date : Jan 16 2013

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1 Front

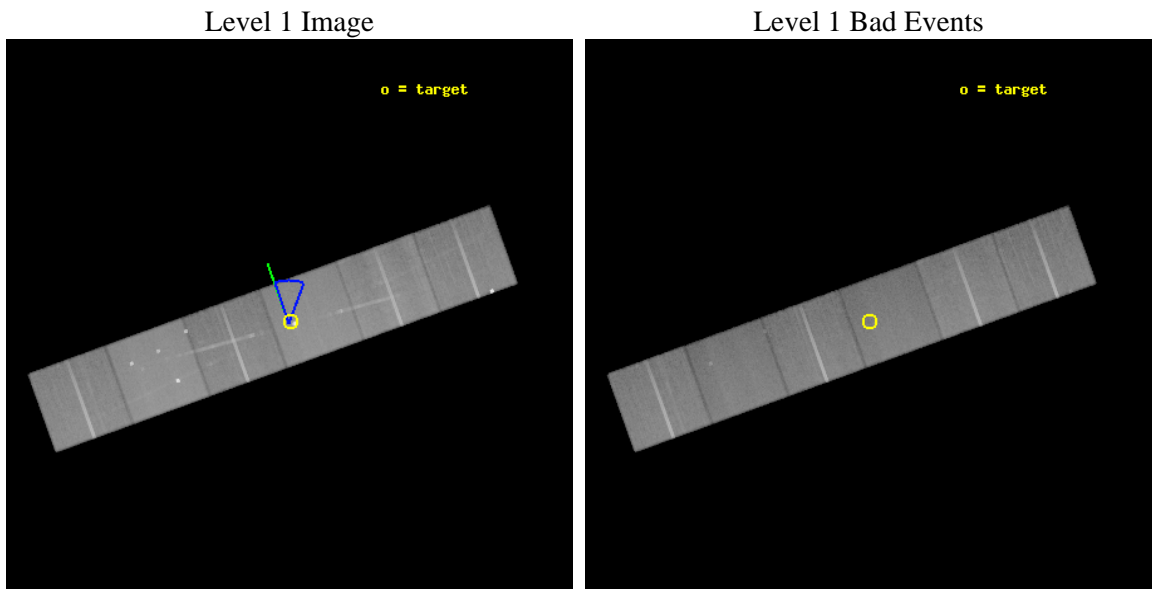
seq_num	500111	Sequence number
obs_id	1045	Observation id
title	HIGH RESOLUTION SPECTRA OF YOUNG SUPERNOVA REMNANTS	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	N103B	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	77.26625	Observer's specified target RA [deg]
dec_targ	-68.721944	Observer's specified target Dec [deg]
ra_nom	77.275421066659	Nominal RA [deg]
dec_nom	-68.725007199688	Nominal Dec [deg]
roll_nom	340.10473519193	Nominal Roll [deg]
revision	5	Processing version of data
ontime	74008.763431117	Sum of GTIs [s]
livetime	73071.619905825	Livetime [s]
ontime4	74008.80447112	Sum of GTIs [s]
ontime5	74008.722391114	Sum of GTIs [s]
ontime6	74008.681351125	Sum of GTIs [s]
ontime7	74008.763431117	Sum of GTIs [s]
ontime8	74002.158251032	Sum of GTIs [s]
ontime9	74005.358251035	Sum of GTIs [s]
l2events	756654	Number of level 2 events



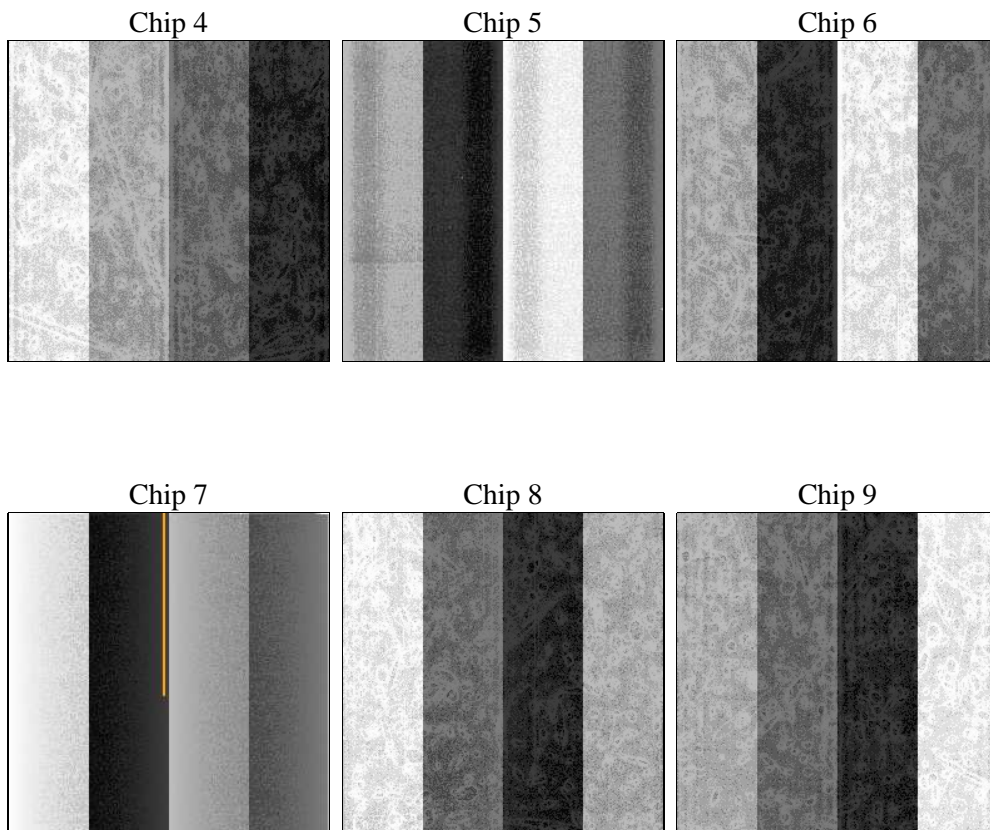
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	74255.628000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	74008.763431117	Sum of GTIs [s]
caldbver	4.5.1.1	 	ontime4	74008.804471112	Sum of GTIs [s]
date	2012-09-06T16:20:56	Date and time of file creation	ontime5	74008.722391114	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	74008.681351125	Sum of GTIs [s]
			ontime7	74008.763431117	Sum of GTIs [s]
			ontime8	74002.158251032	Sum of GTIs [s]
			ontime9	74005.358251035	Sum of GTIs [s]
			l1events	3246402	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	491107	641972	466690	610401	574062	462170	grade 0 events	22832	51967	37862	35988	46786	44771
rejected events	436638	334876	395721	330113	450956	386281		4%	8%	8%	5%	8%	9%
rejected %	88%	52%	84%	54%	78%	83%	grade 1 events	215	1734	269	550	347	375
								0%	0%	0%	0%	0%	0%
							grade 2 events	12652	82784	12012	58643	24586	10676
								2%	12%	2%	9%	4%	2%
							grade 3 events	4969	12725	5542	27439	11889	5287
								1%	1%	1%	4%	2%	1%
							grade 4 events	4821	12735	5381	26762	11067	5003
								0%	1%	1%	4%	1%	1%
							grade 5 events	15773	46599	18693	54552	23663	18892
								3%	7%	4%	8%	4%	4%
							grade 6 events	9206	146920	10174	131483	28823	10159
								1%	22%	2%	21%	5%	2%
							grade 7 events	420639	286508	376757	274984	426901	367007
								85%	44%	80%	45%	74%	79%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	77.201357	77.27542106665899	Subarray requested	NONE	NONE
[deg] Pointing Dec	-68.730022	-68.72500719968787	Alternating exposures requested	N	N
[deg] Pointing Roll	339.879085	340.104735191926	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	0.000000	0.000000			
[deg] Roll tolerance	20.000000	20.000000			
Roll constraint allows 180D rotation	N	N			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	94724912.184000	94723619.88989			
Observation start date	2001-01-01T08:27:28	2001-01-01T08:06:59			
[s] Observation end time (MET)	94799167.184000	94799481.680297			
Observation end date	2001-01-02T05:05:03	2001-01-02T05:11:21			
Read mode	TIMED	TIMED			

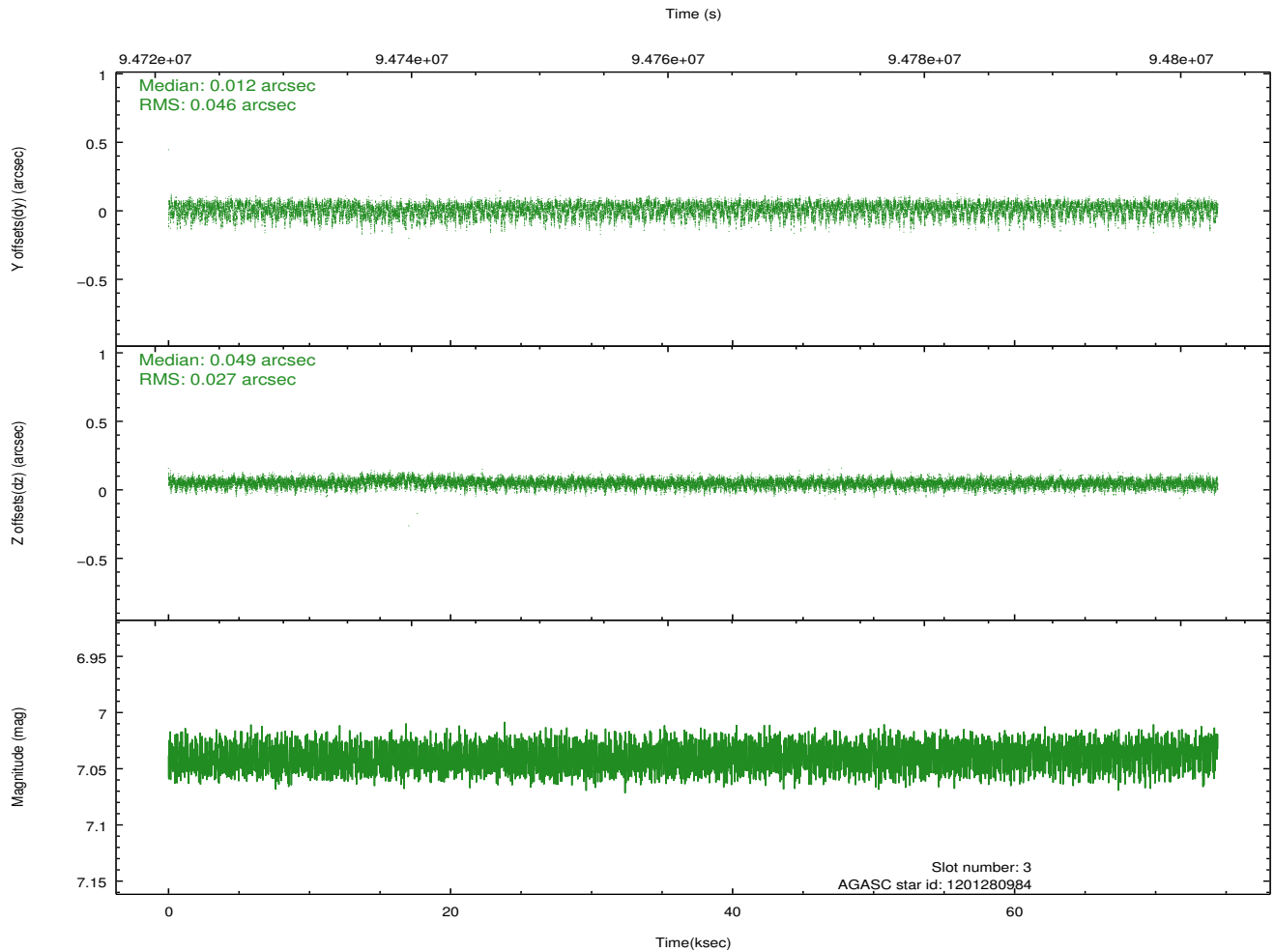
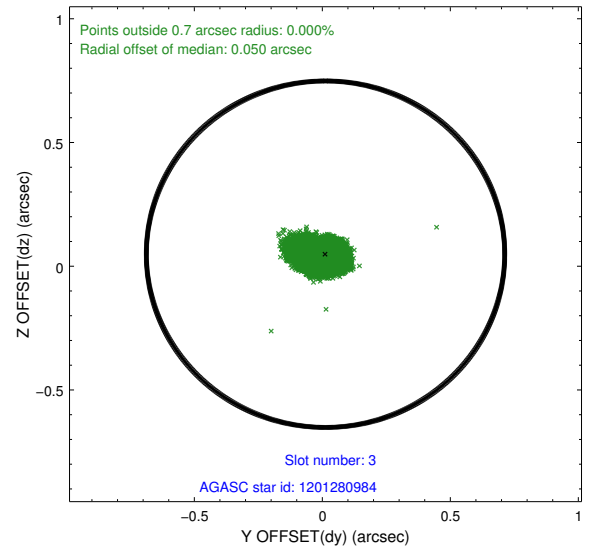
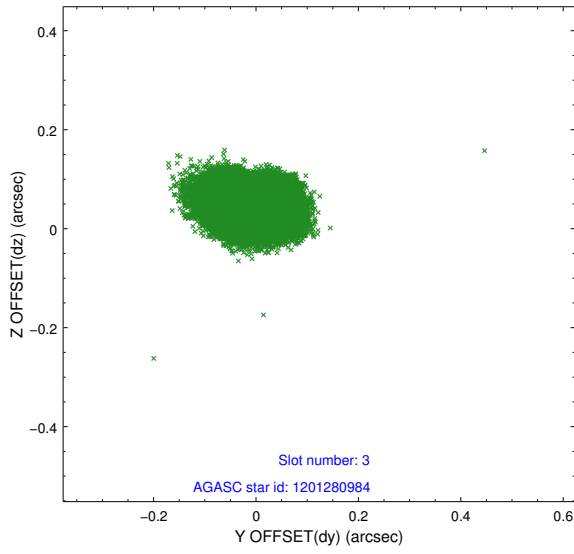
2.3 Aspect

Slot Statistics

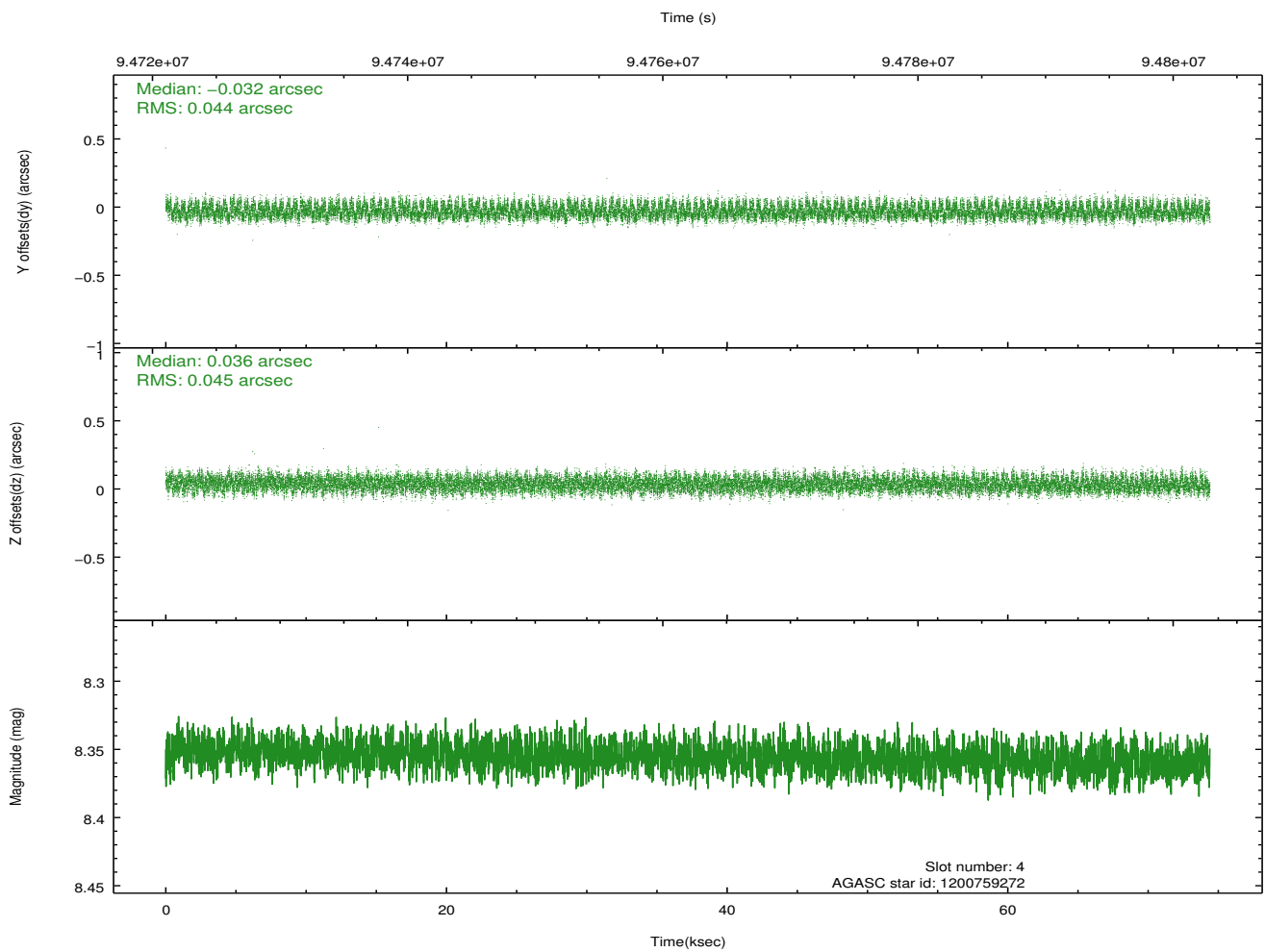
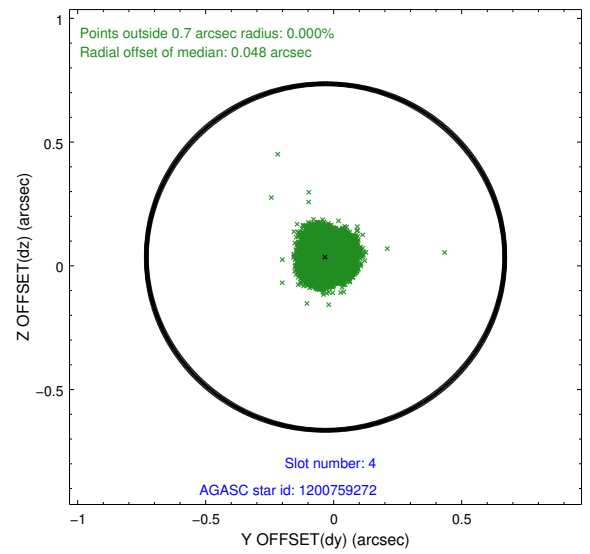
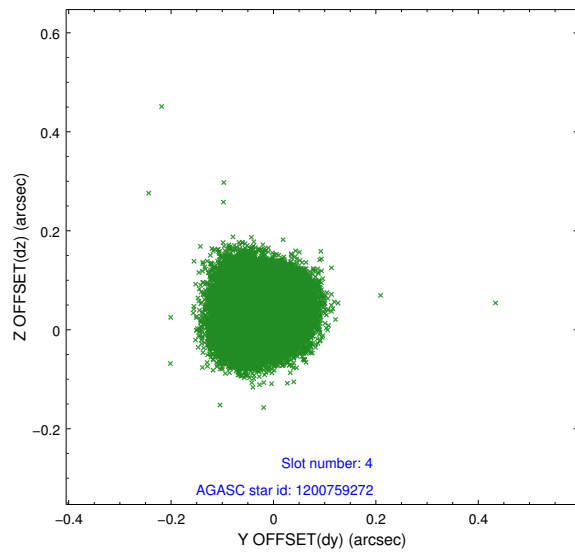
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	18147	0.002	0.009	0.007	0.012	0.000000	0.000000	-756.03	-1728.49
1	FID	ACIS-S-4	7.20	18146	-0.028	-0.003	0.012	0.022	0.000000	0.000000	2157.27	180.01
2	FID	ACIS-S-5	7.24	18146	-0.006	0.004	0.012	0.021	0.000000	0.000000	-1808.93	173.66
3	GUIDE	1201280984	7.04	36296	0.012	0.049	0.055	0.096	77.867422	-69.546090	1799.46	-2473.65
4	GUIDE	1200759272	8.36	36291	-0.032	0.036	0.069	0.103	75.444915	-68.988718	-1796.78	-1684.40
5	GUIDE	1200758760	8.31	36285	0.071	-0.041	0.073	0.118	76.277764	-68.086435	-1959.26	1740.23
6	GUIDE	1200760024	8.47	36289	-0.035	0.023	0.053	0.087	77.625244	-69.320410	1238.03	-1811.15
7	GUIDE	1200757184	8.26	36225	-0.014	-0.066	0.068	0.111	76.495289	-68.416644	-1264.27	733.04

2.4 Star Slots

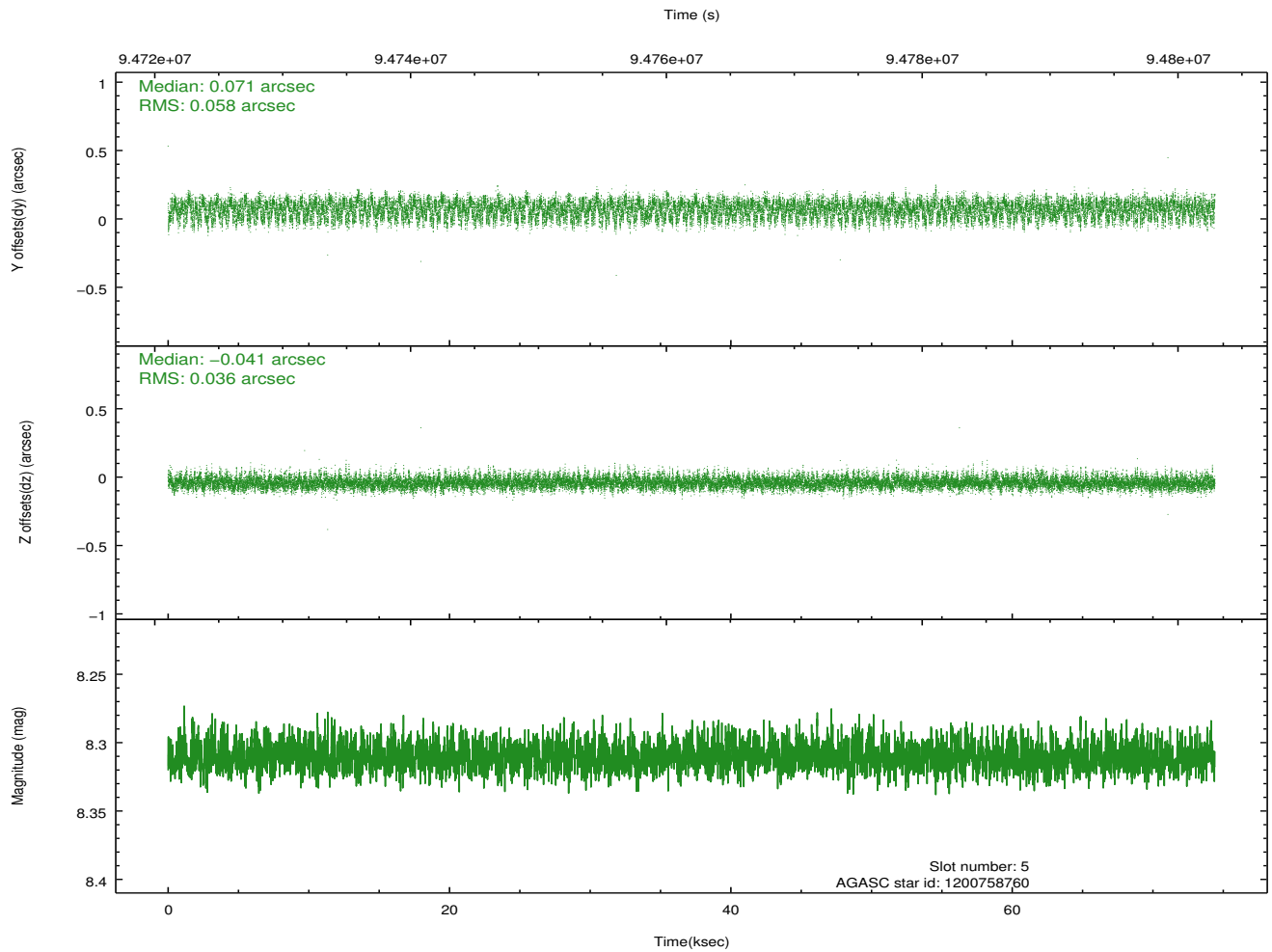
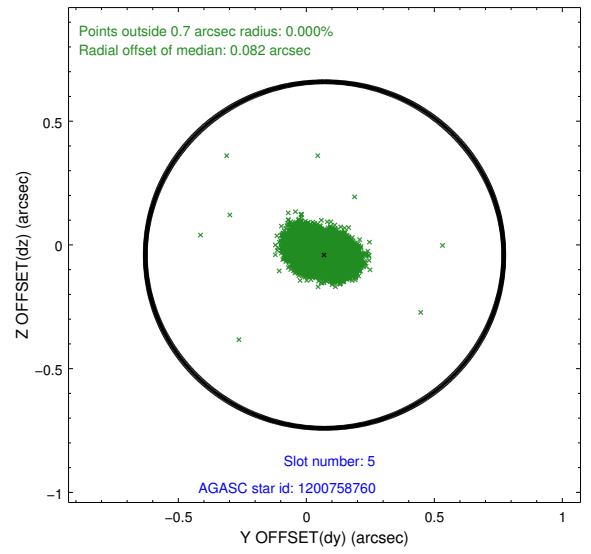
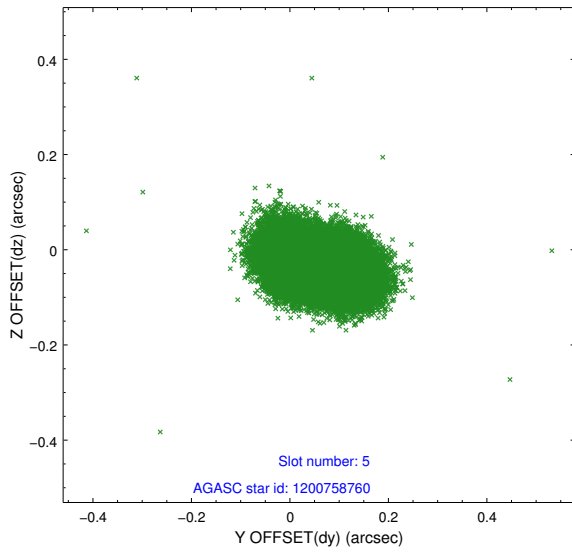
2.4.1 Slot 3



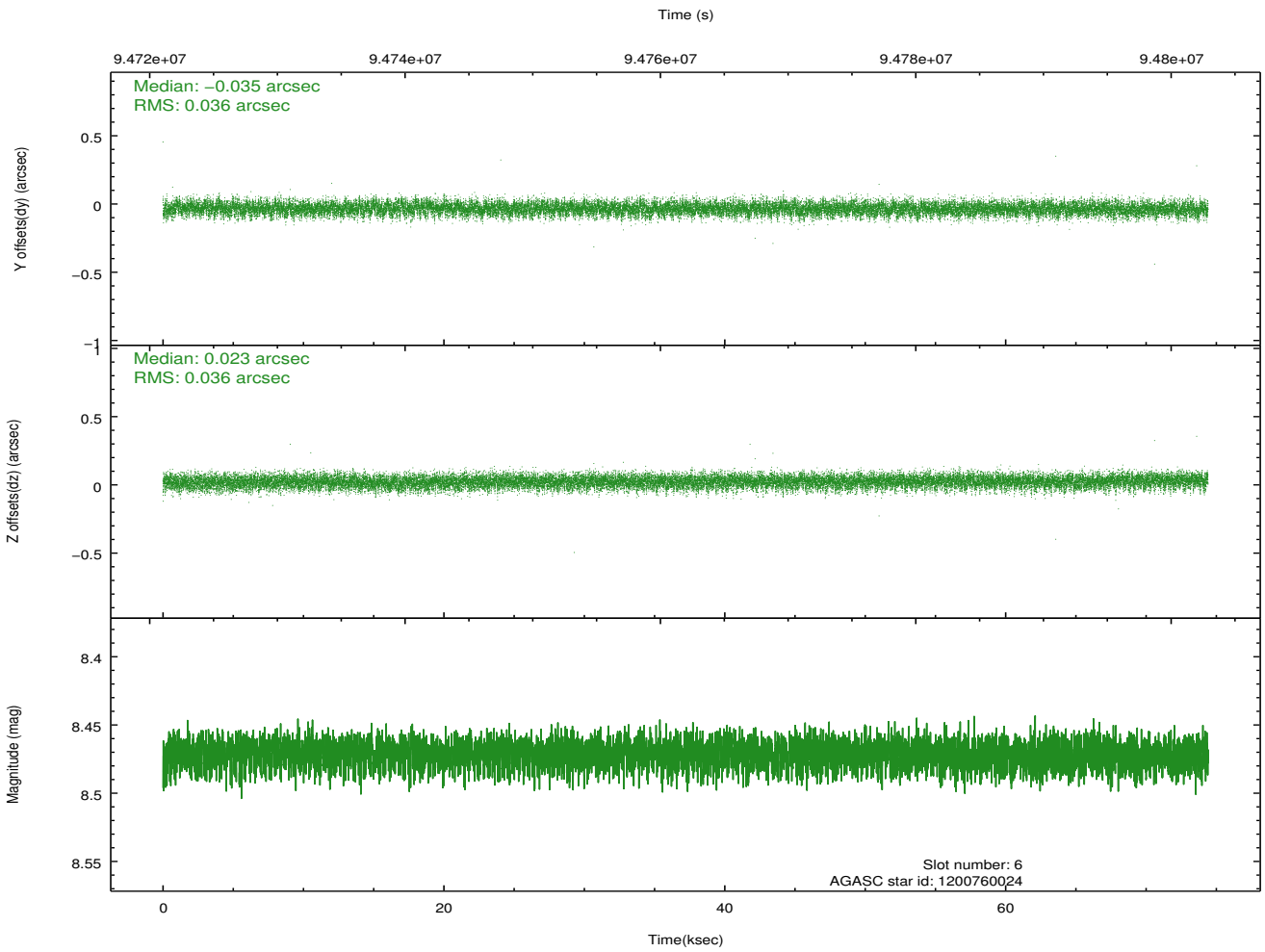
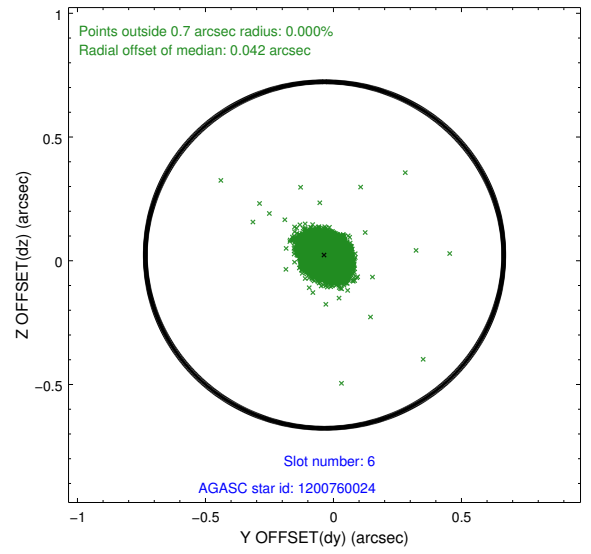
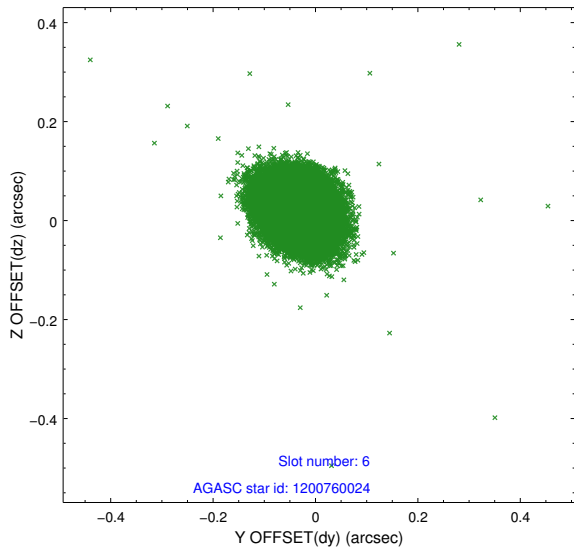
2.4.2 Slot 4



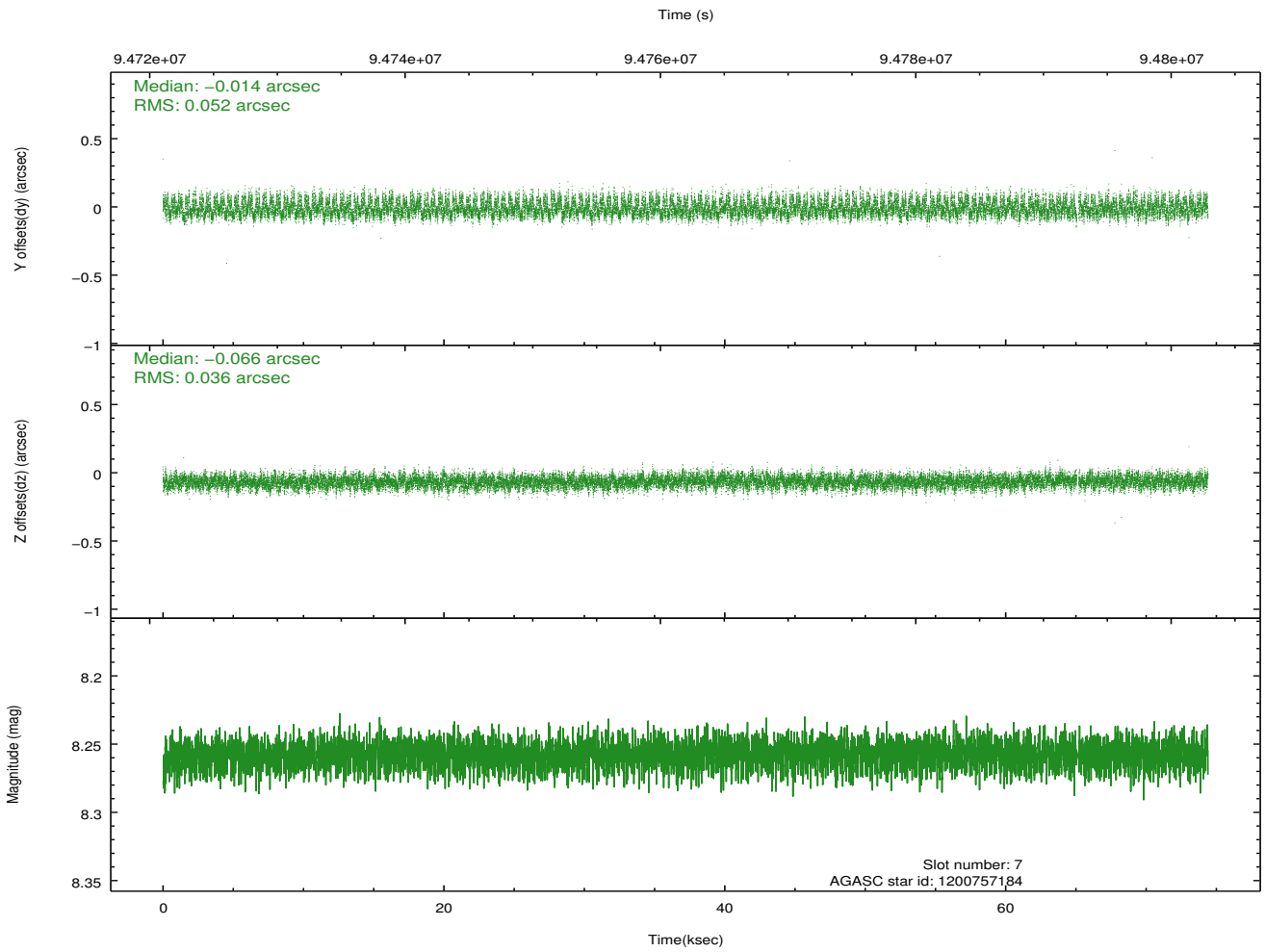
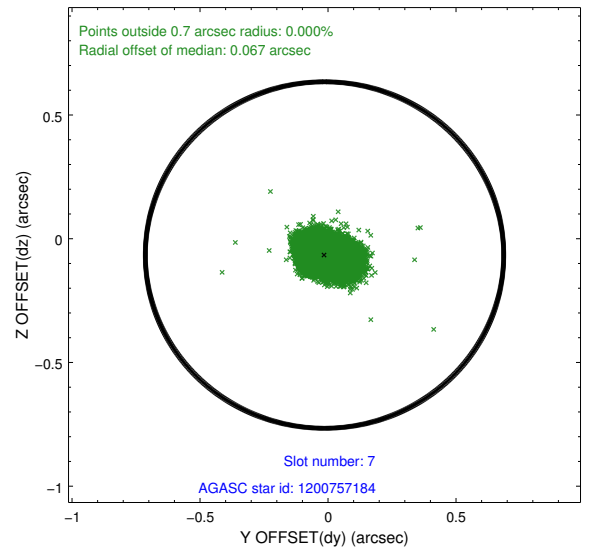
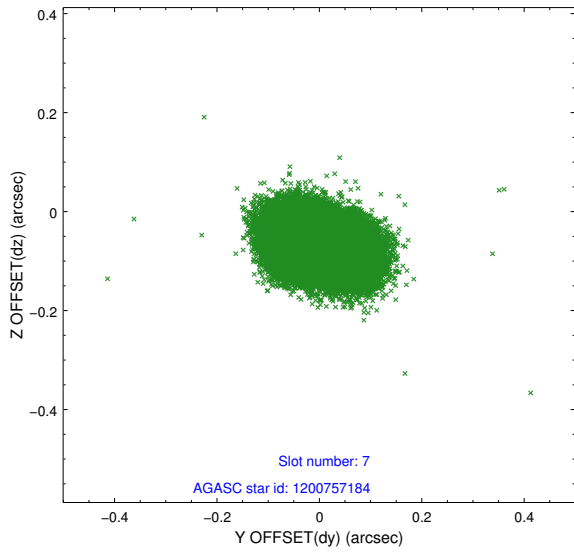
2.4.3 Slot 5



2.4.4 Slot 6

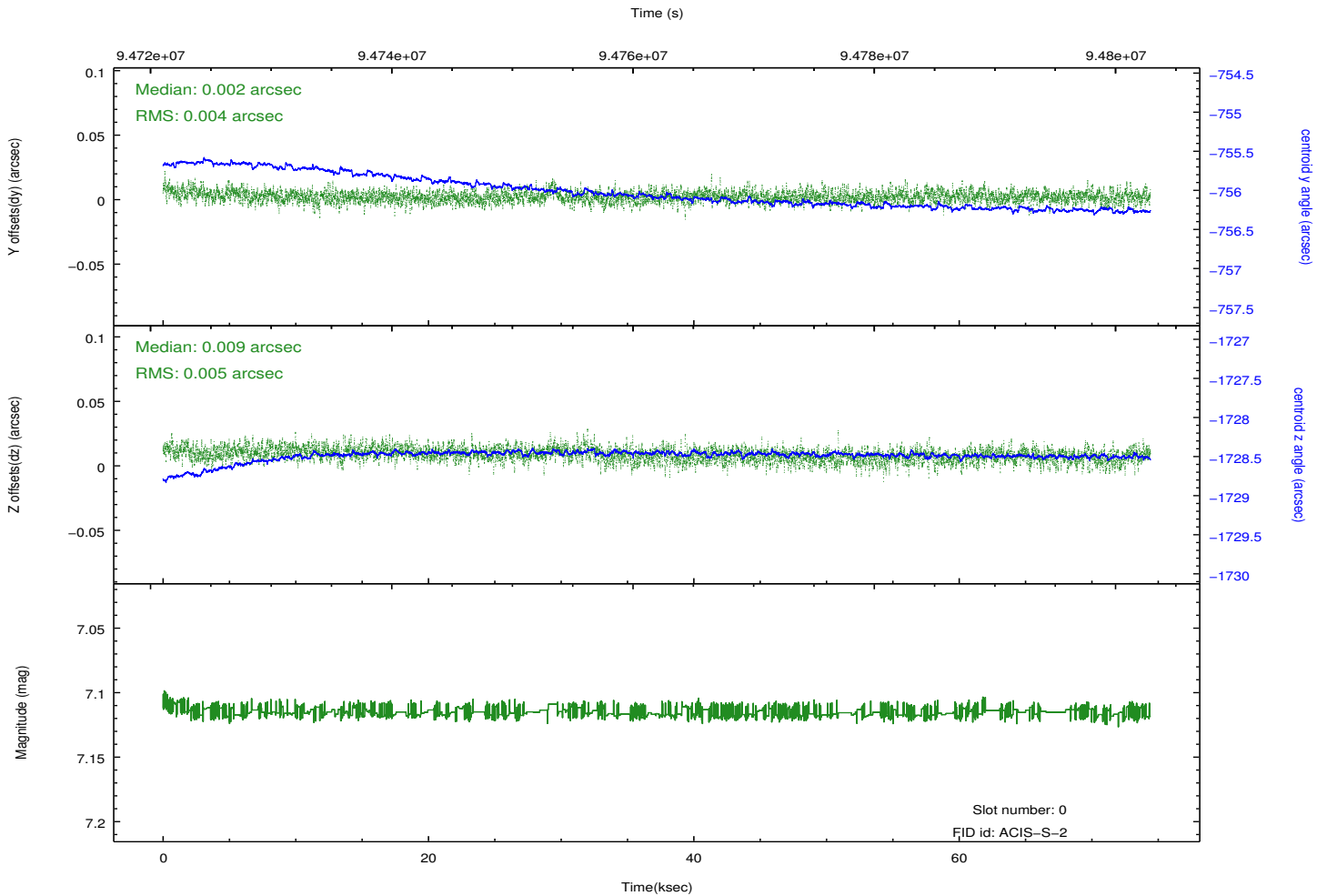
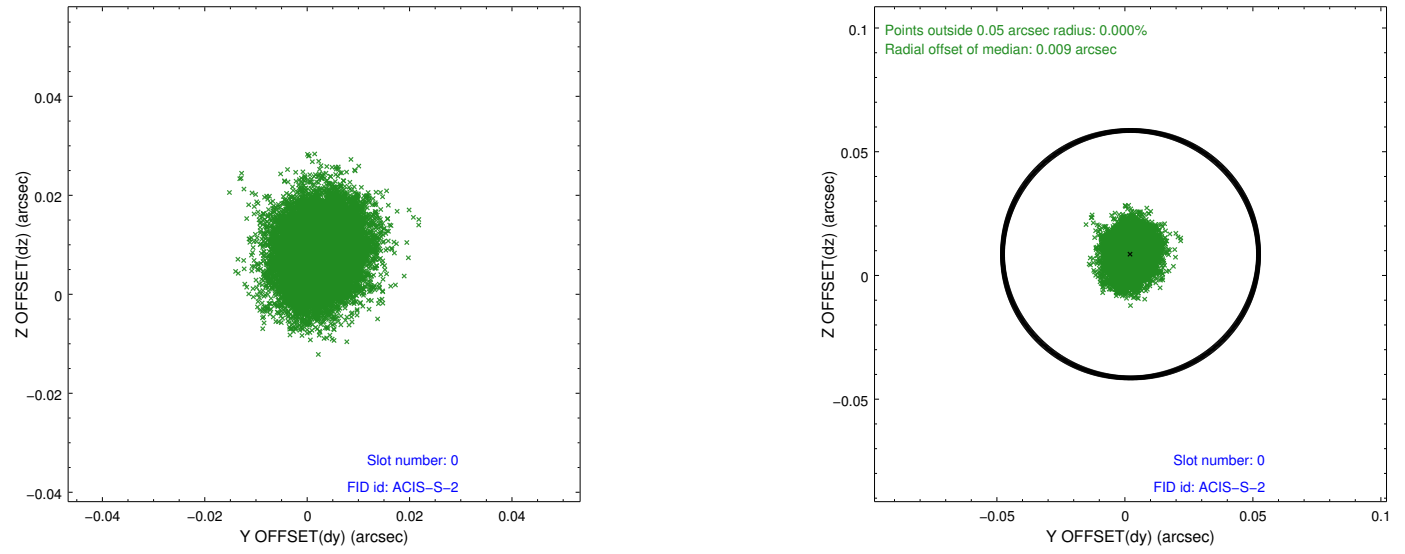


2.4.5 Slot 7

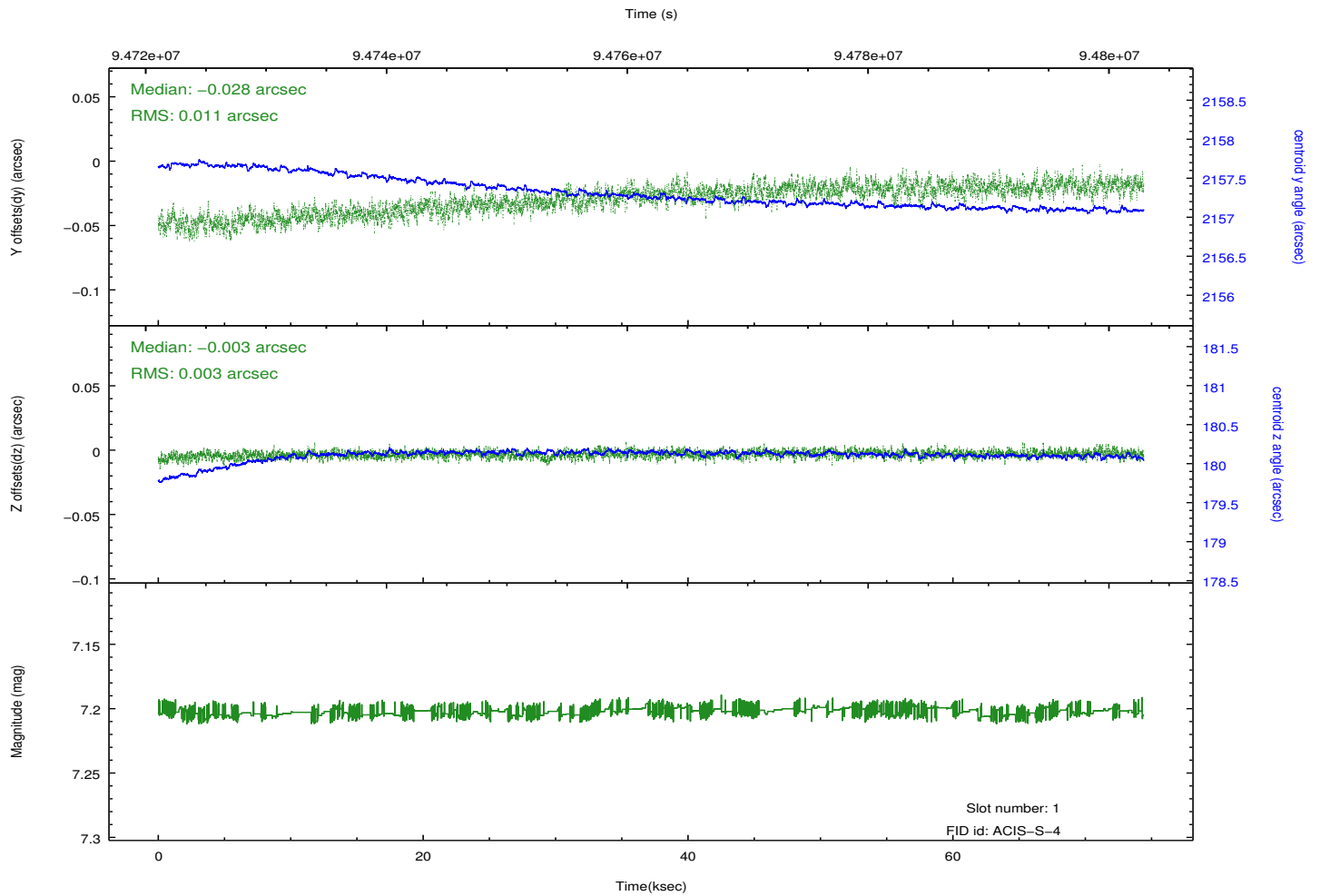
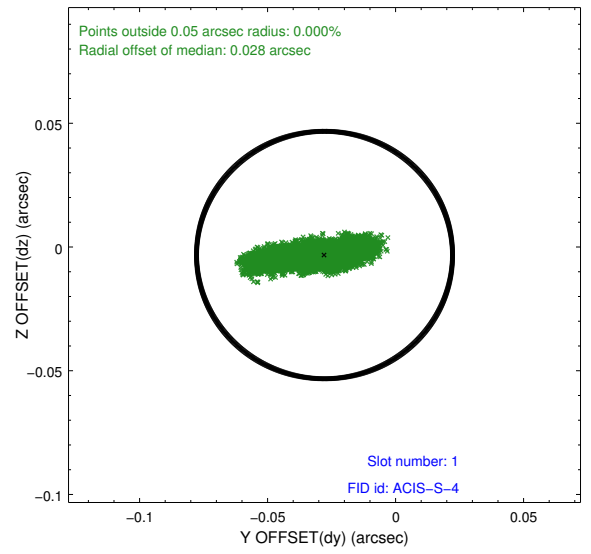
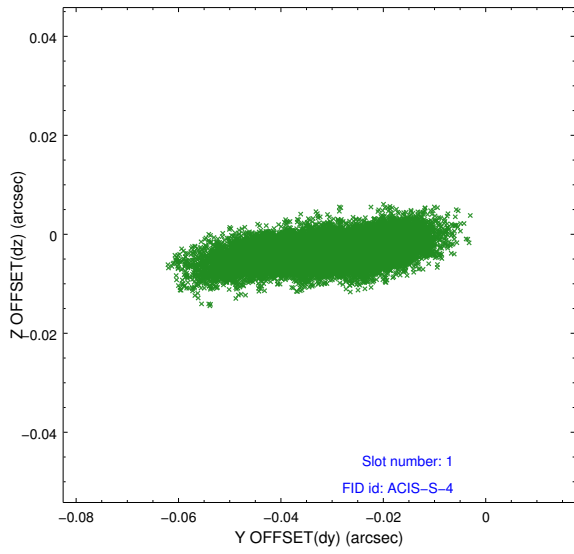


2.5 FID Slots

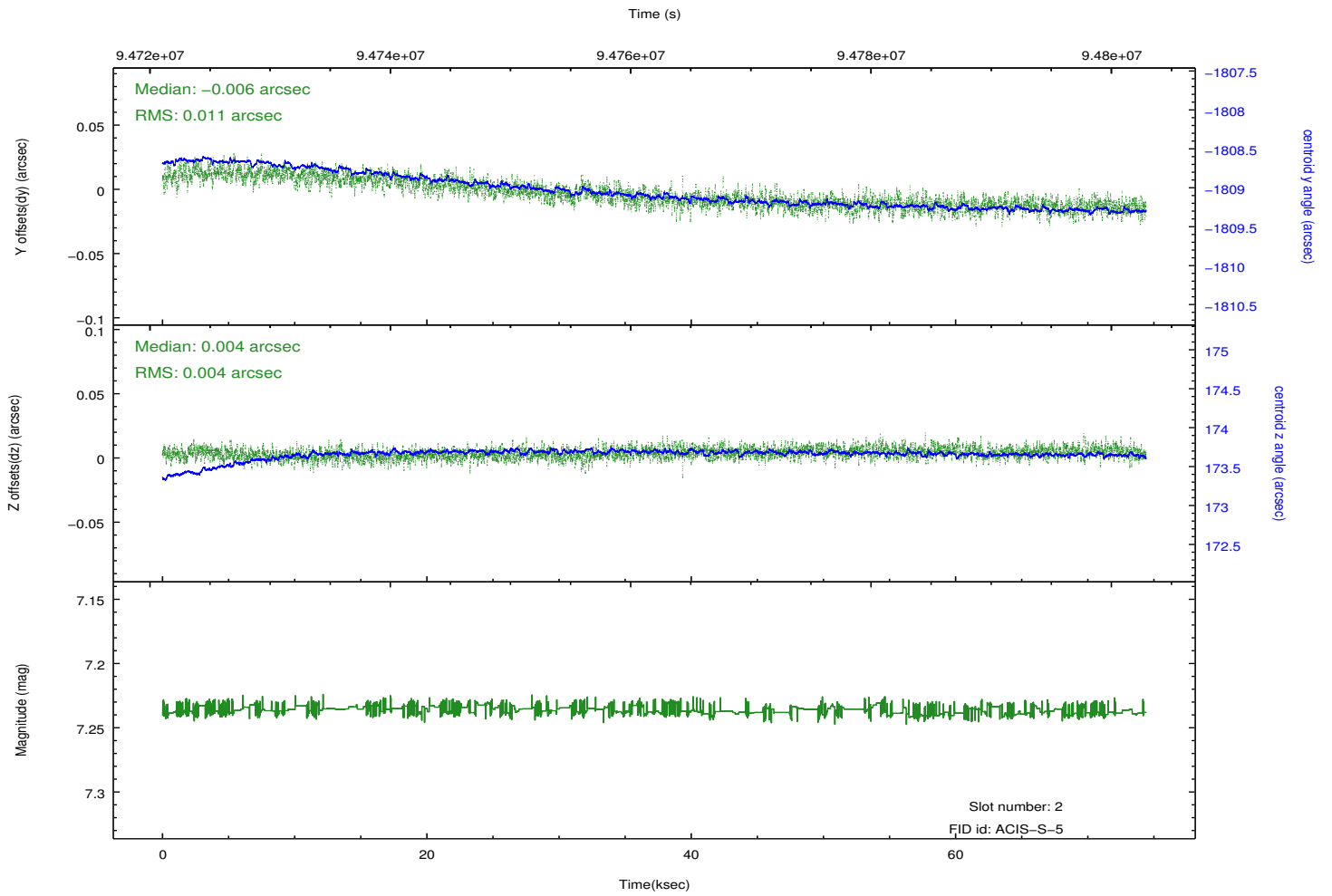
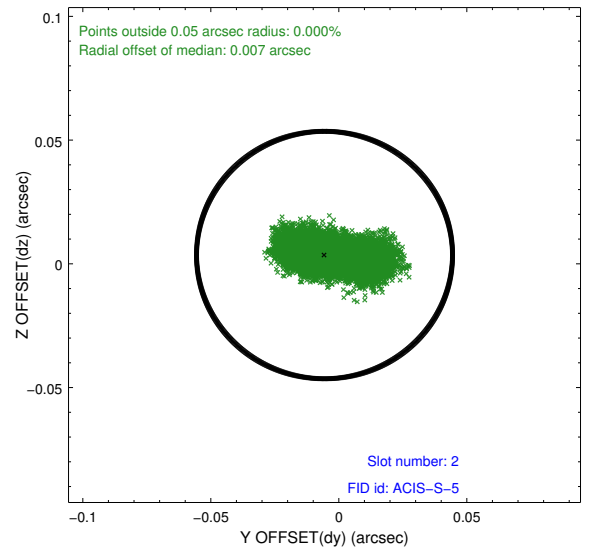
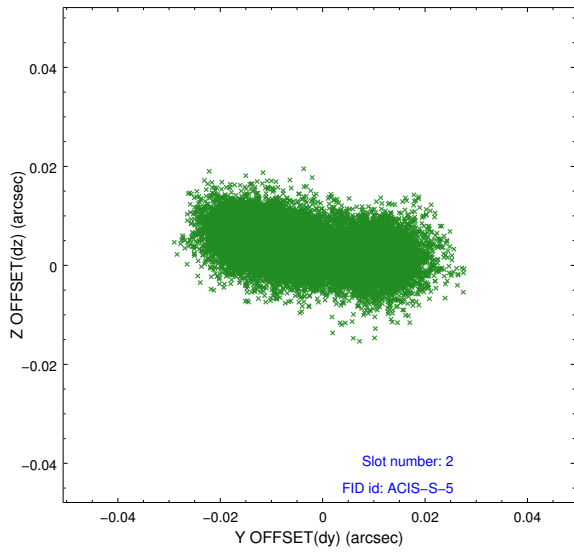
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

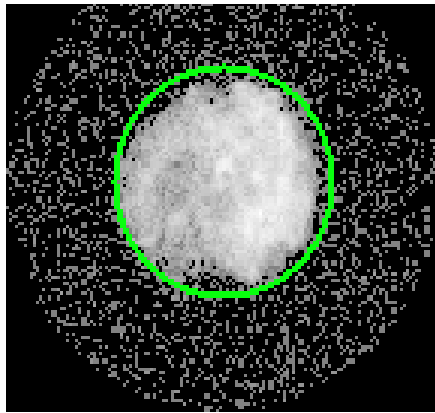


3 Gratings

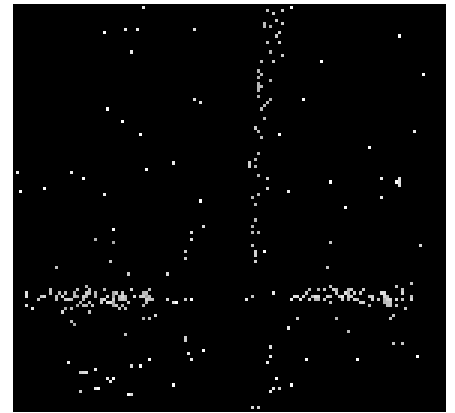
3.1 HEG Arm



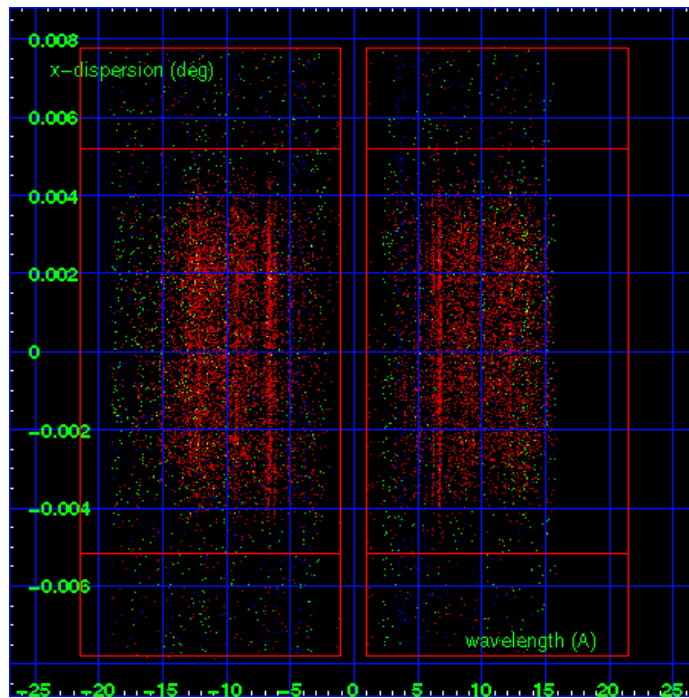
HEG Order Sort 123



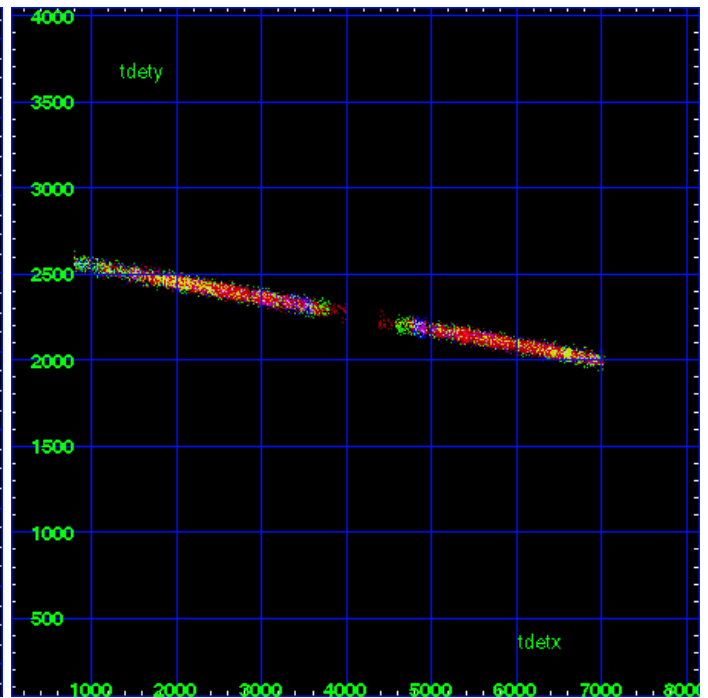
HEG Zero Order



HEG Order Sort ALL

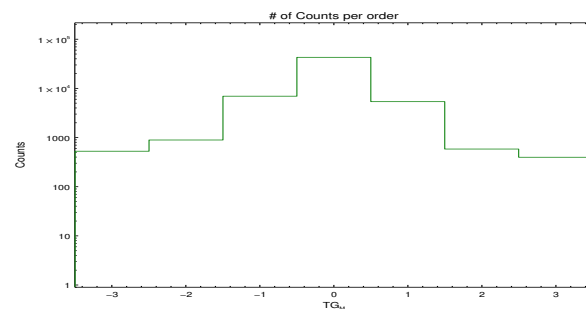


Spot Image HEG

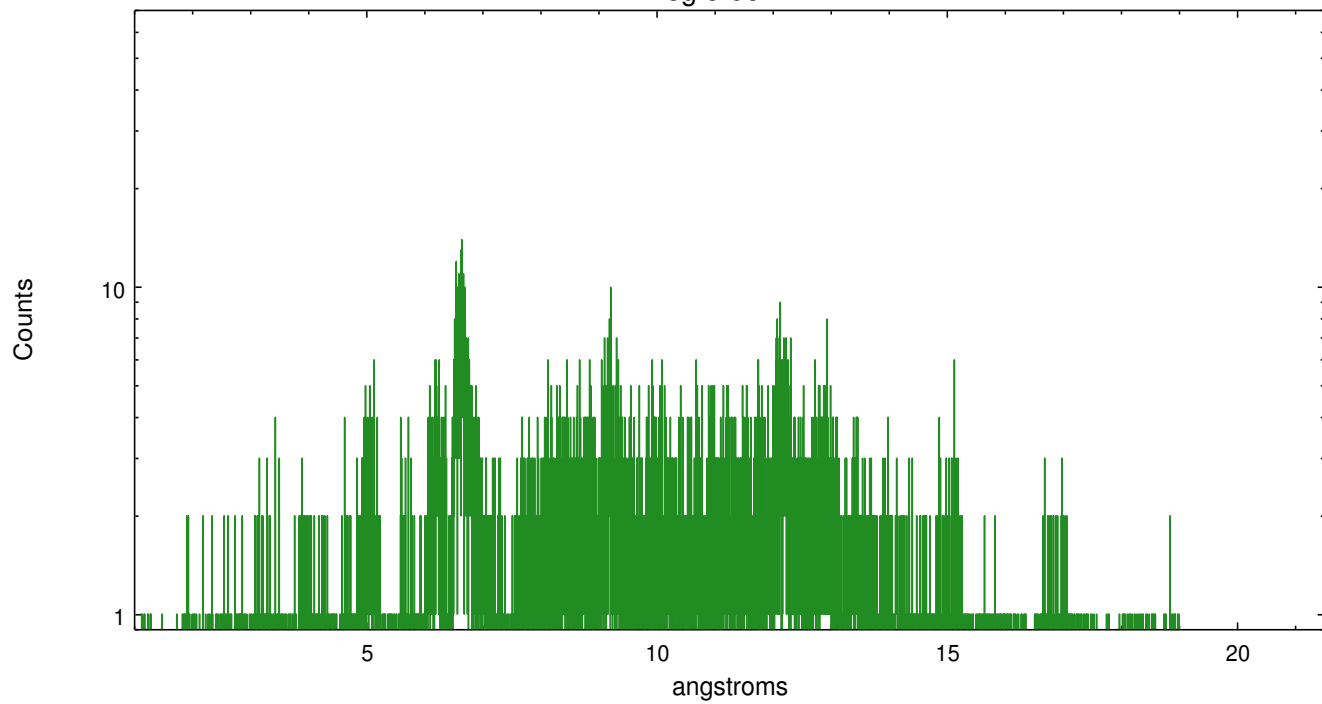


Full Detector HEG

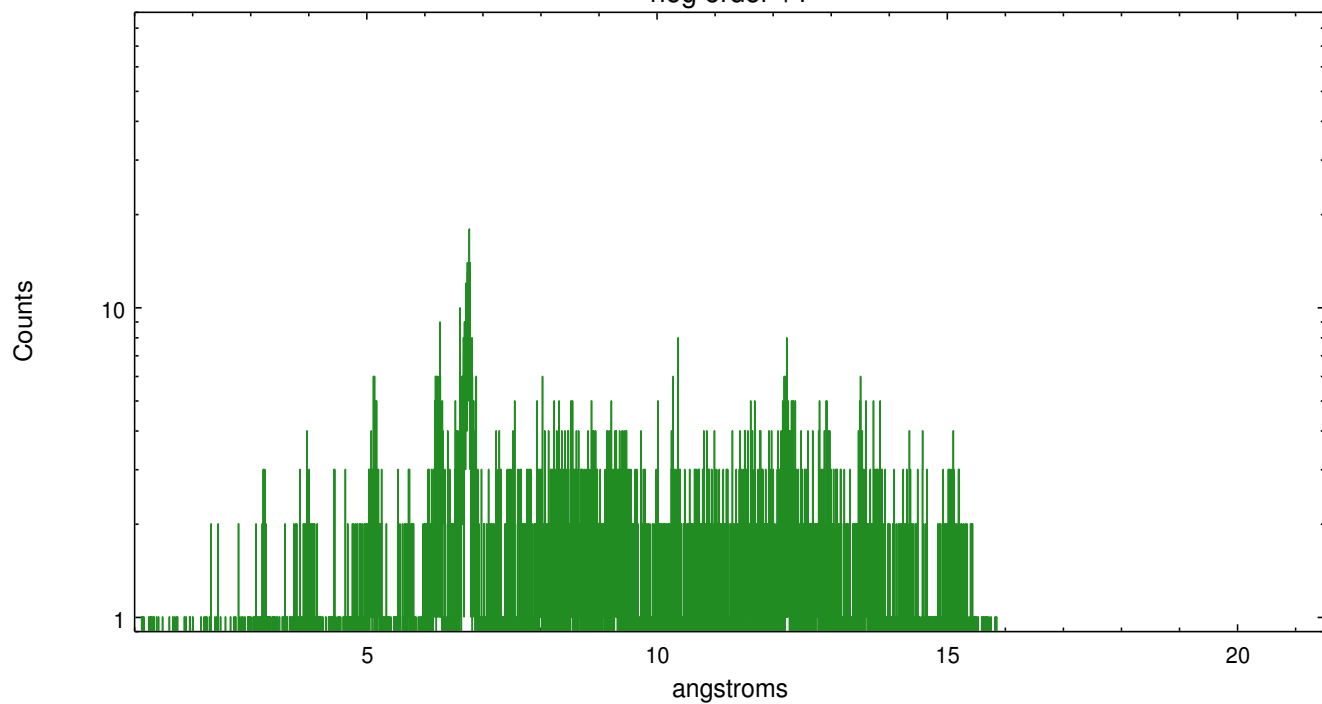
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	527	893	6969	43172	5402	584	397



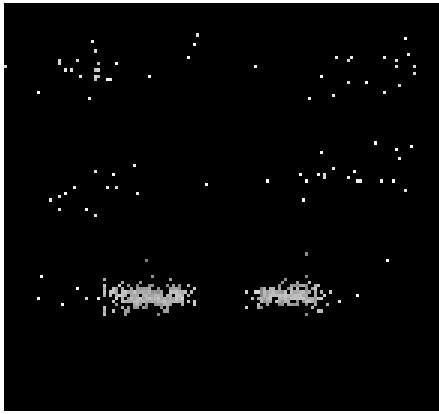
heg order -1



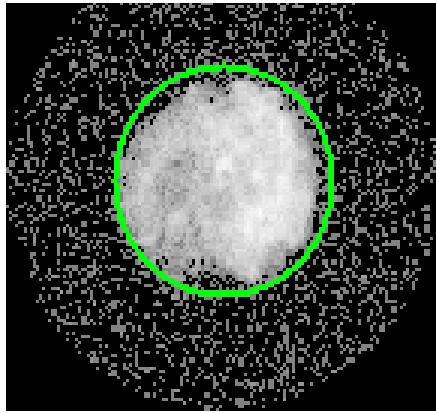
heg order +1



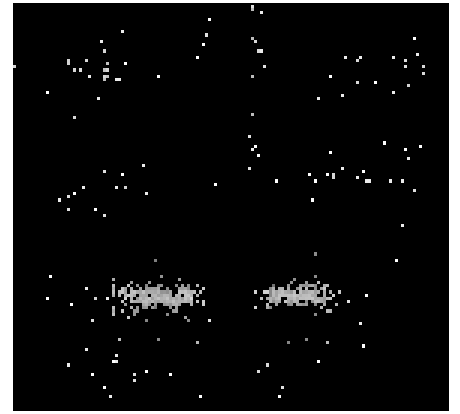
3.2 MEG Arm



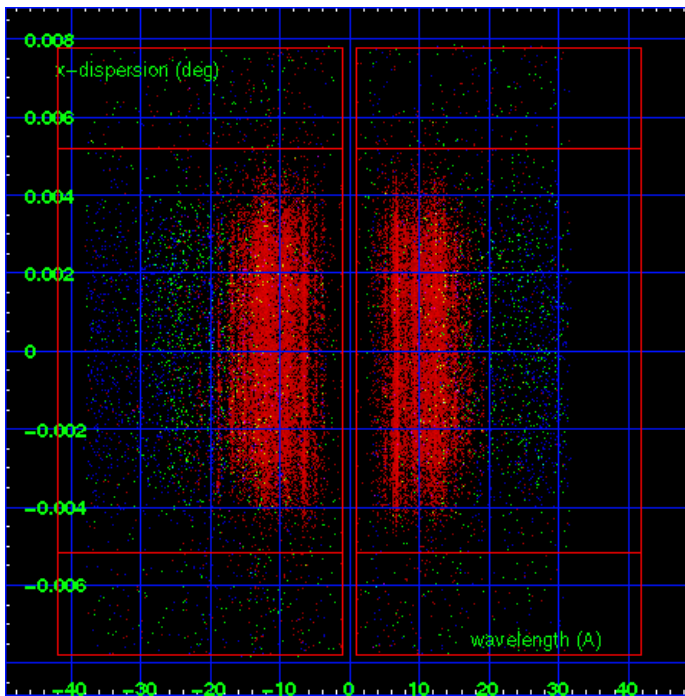
MEG Order Sort 123



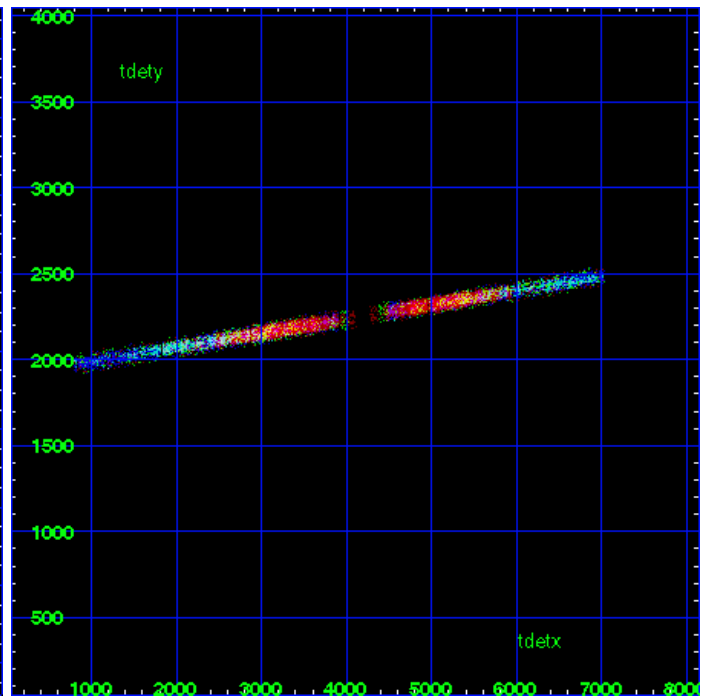
MEG Zero Order



MEG Order Sort ALL

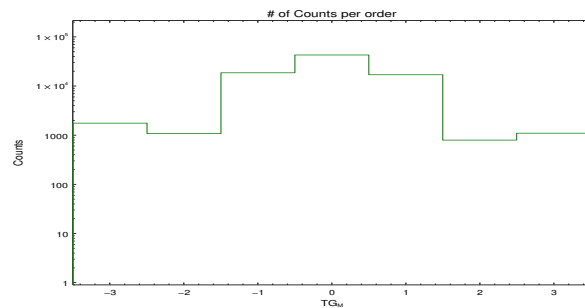


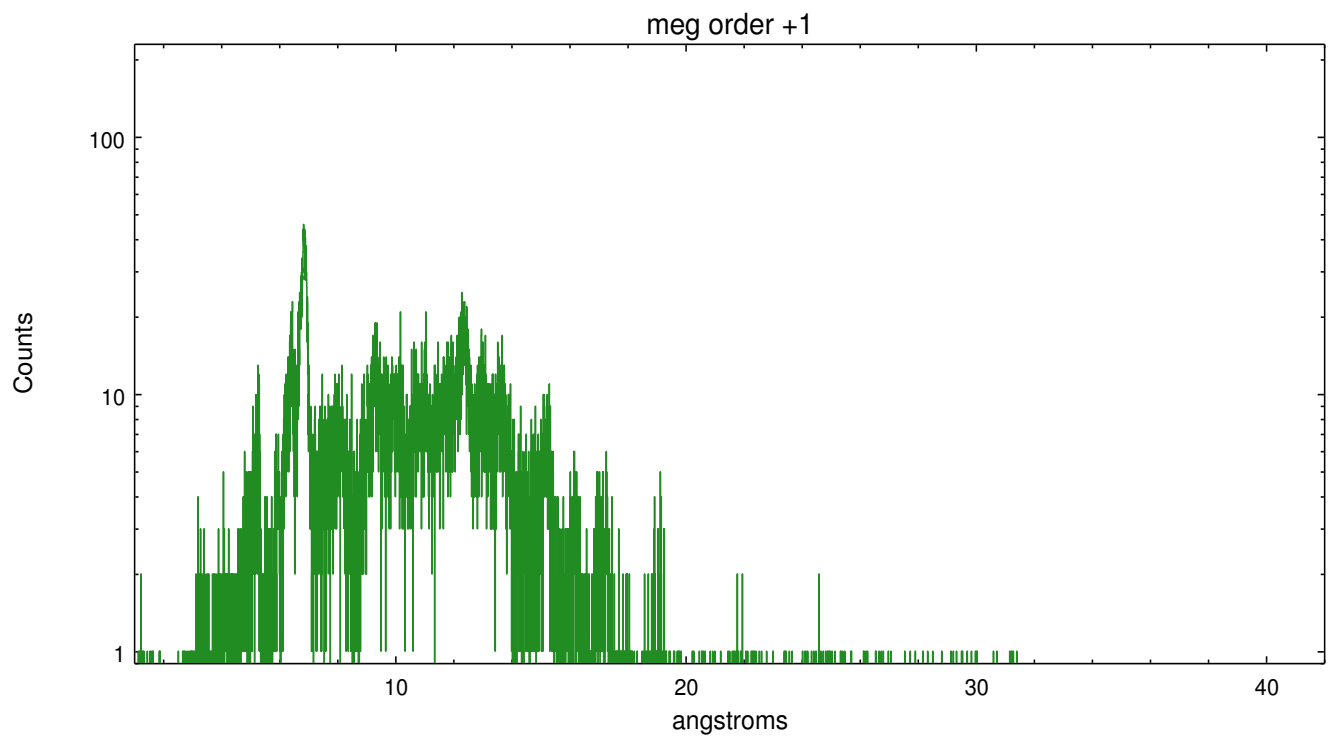
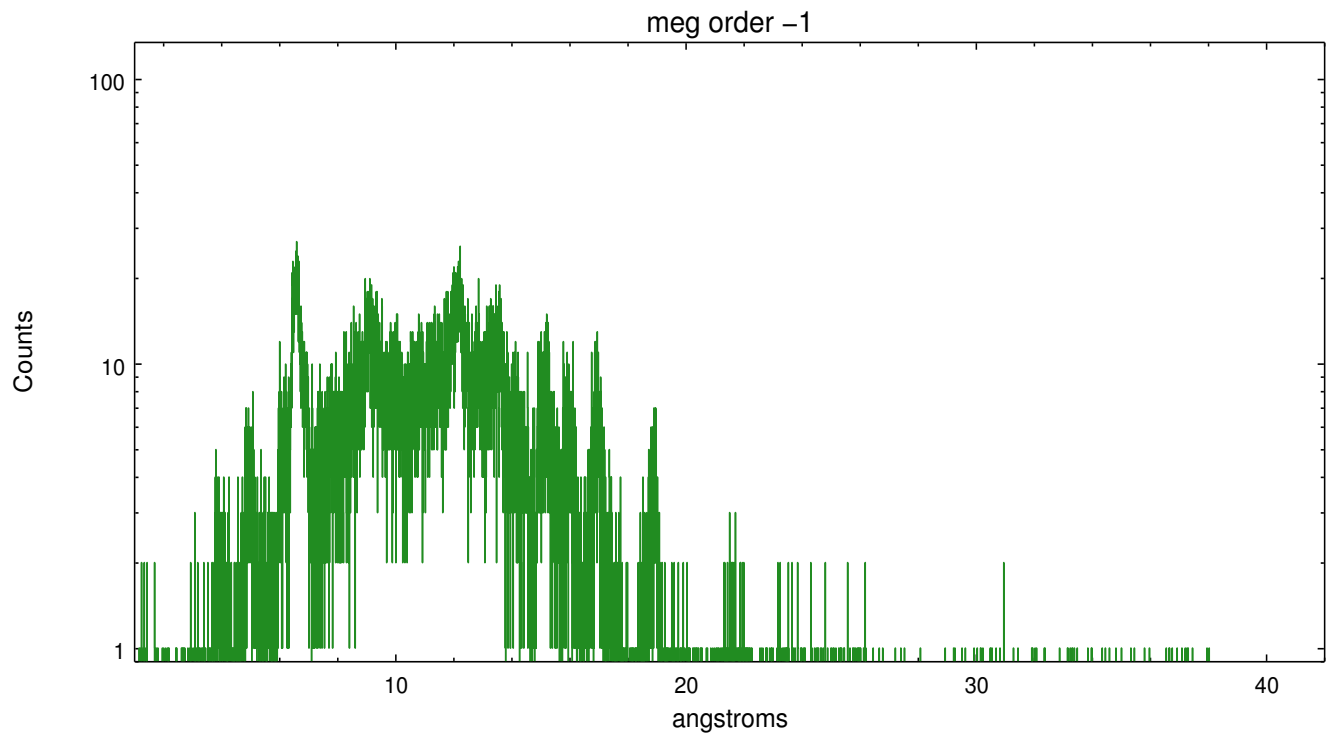
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1762	1083	18748	43172	17093	795	1099





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2013.01.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	74.009

A.2 Comments

Note: extended source; spatial extraction regions have been adjusted to accomodate the entire supernova remnant. However, there are no grating line-spread-function calibrations (grating RMF) for extended sources; spectral feautres will be the convolution of the source geometry with the instrumental profile.