

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 2416 - L2 Version 001
Chandra X-Ray Center

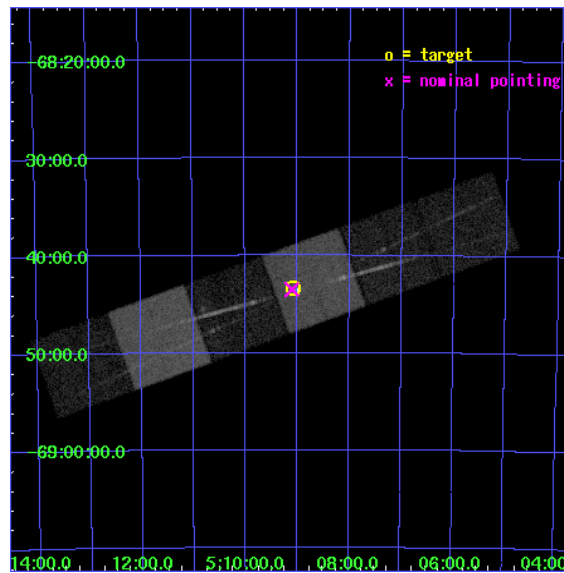
L2 Processing Date : Jun 22 2007

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

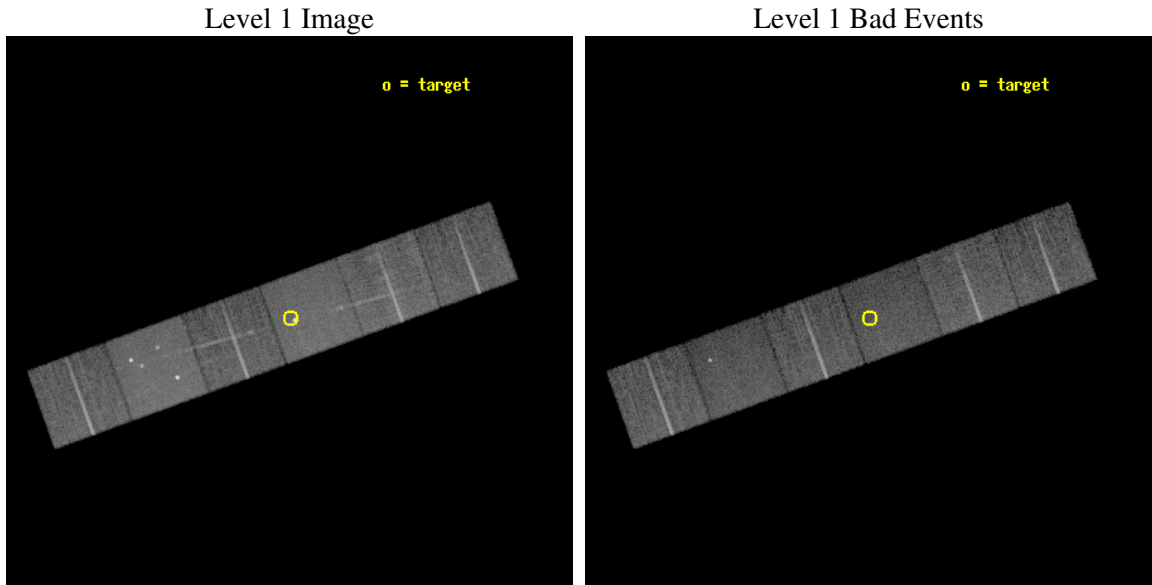
seq_num	500111
obs_id	2416
title	HIGH RESOLUTION SPECTRA OF YOUNG SUPERNOVA REMNANTS
observer	Prof. Claude Canizares
object	N103B
dtcycle	0
cycle	P
ra_targ	77.26625
dec_targ	-68.721944
ra_nom	77.275380863372
dec_nom	-68.725016056469
roll_nom	340.10469436518
revision	2
ontime	17619.200016409
livetime	17396.095096793
ontime4	17619.200016409
ontime5	17619.200016409
ontime6	17619.200016409
ontime7	17619.200016409
ontime8	17619.200016409
ontime9	17615.959056169
l2events	178554



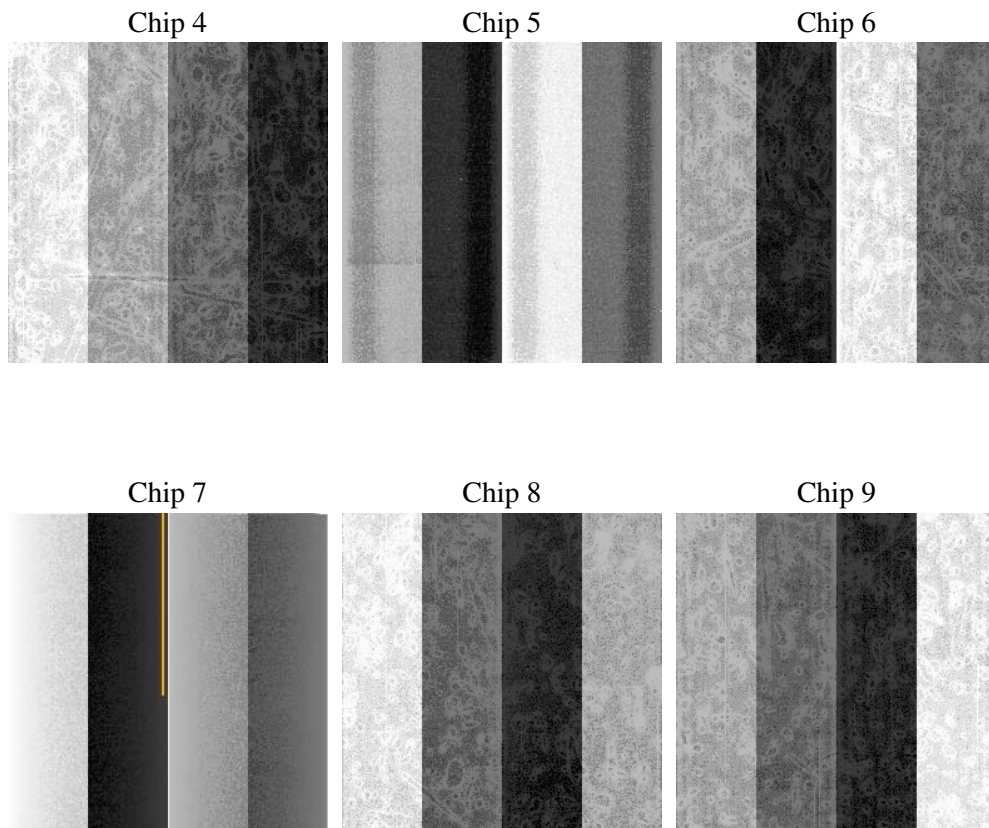
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.10
caldsver	3.4.0
date	2007-06-22T08:08:11
revision	2

sched_exp_time	17667.406000
ontime	17619.200016409
ontime4	17619.200016409
ontime5	17619.200016409
ontime6	17619.200016409
ontime7	17619.200016409
ontime8	17619.200016409
ontime9	17615.959056169
l1events	760422

2.1.4 Events

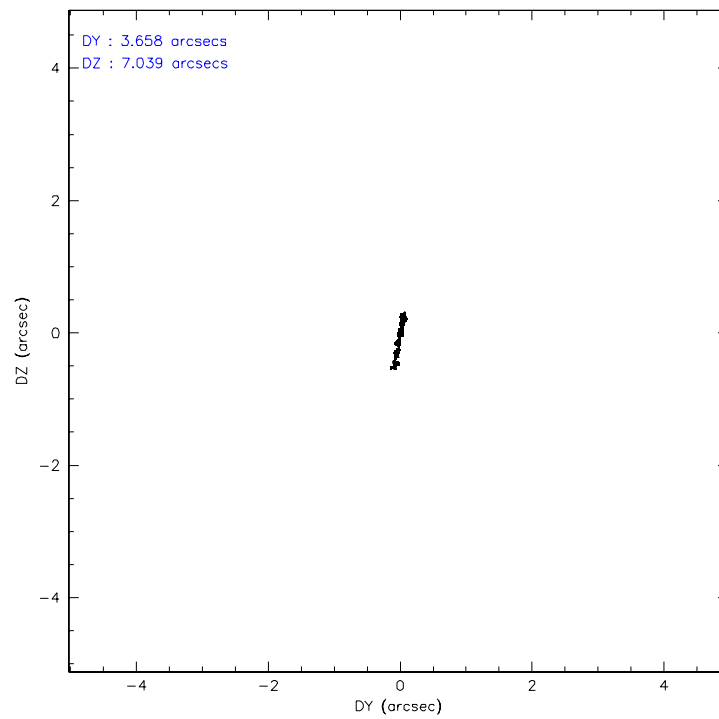
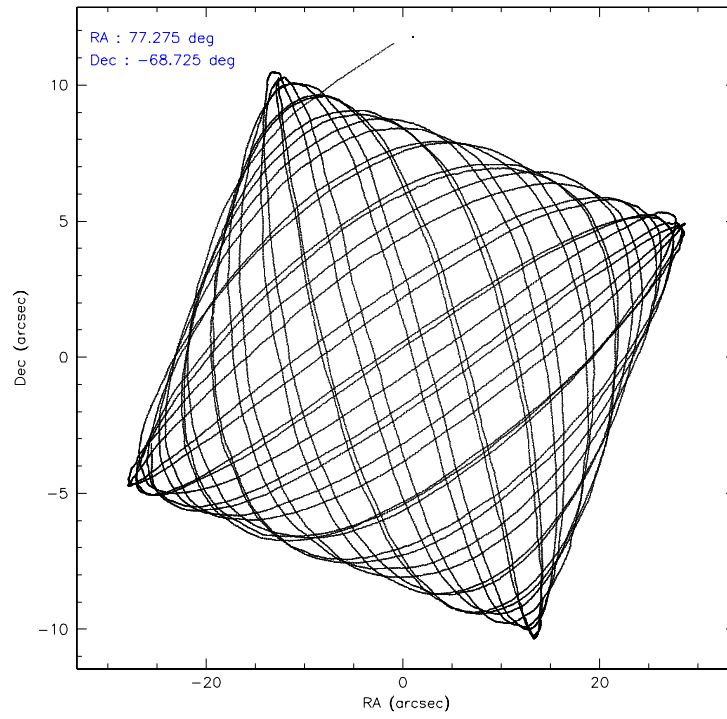
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	115324	152384	110632	143245	135017	103820
rejected events	102407	80035	93937	77526	105660	90985
rejected %	88%	52%	84%	54%	78%	87%

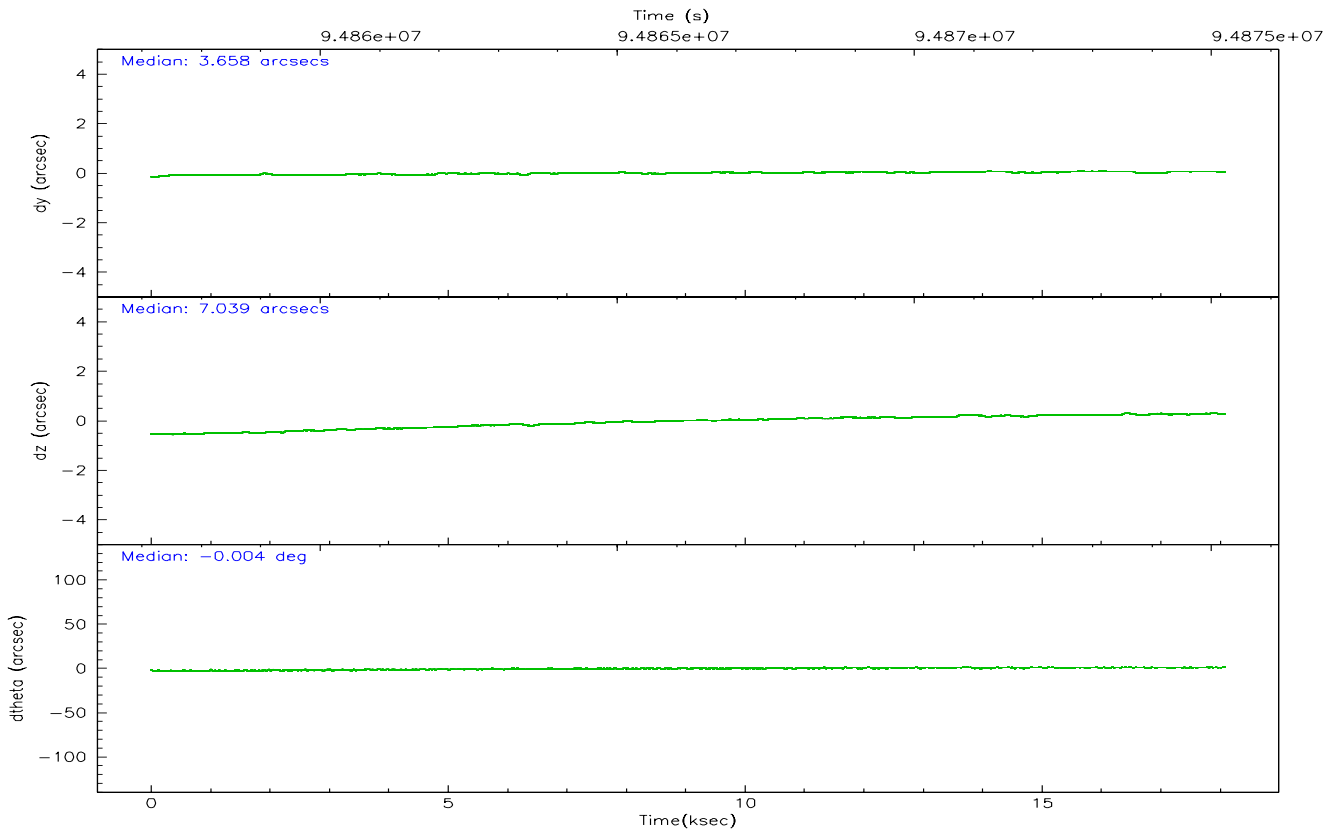
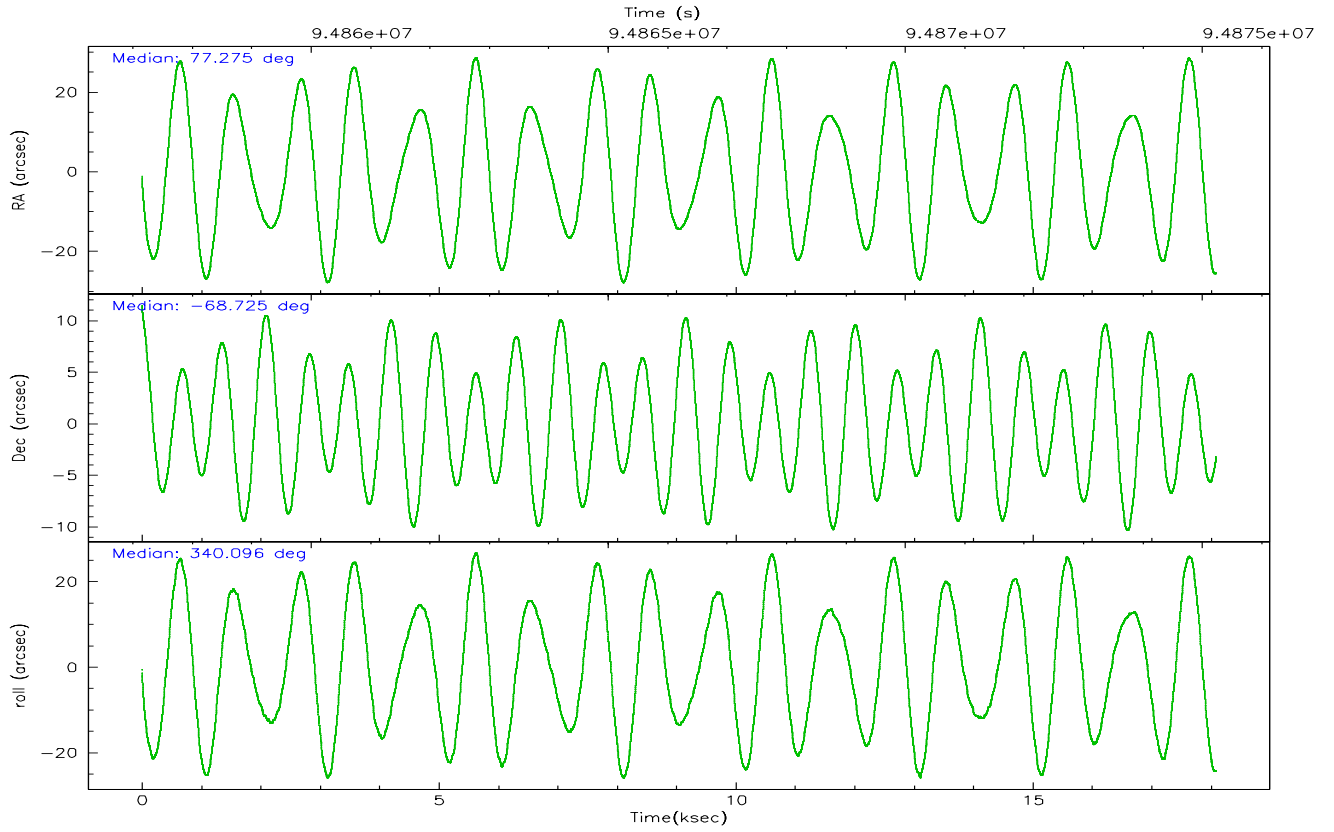
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	5609	11036	8874	8338	11305	5542
	4%	7%	8%	5%	8%	5%
grade 1 events	65	167	68	127	69	55
	0%	0%	0%	0%	0%	0%
grade 2 events	2941	21146	2728	13627	5824	2429
	2%	13%	2%	9%	4%	2%
grade 3 events	1161	2930	1410	6491	2830	1201
	1%	1%	1%	4%	2%	1%
grade 4 events	1109	2826	1293	6224	2635	1219
	0%	1%	1%	4%	1%	1%
grade 5 events	3690	11010	4307	12674	5525	4430
	3%	7%	3%	8%	4%	4%
grade 6 events	2099	34433	2398	31076	6768	2446
	1%	22%	2%	21%	5%	2%
grade 7 events	98650	68836	89554	64688	100061	86498
	85%	45%	80%	45%	74%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
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
Pointing RA	77.201357	77.27538086337172	Subarray requested	NONE	NONE
Pointing Dec	-68.730022	-68.72501605646906	Alternating exposures requested	N	N
Pointing Roll	339.879085	340.1046943651775	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	94857567.184000	94856494.232483			
Observation start date	2001-01-02T21:18:23	2001-01-02T21:01:34			
Observation end time	94875235.184000	94875932.84572899			
Observation end date	2001-01-03T02:12:51	2001-01-03T02:25:32			
Read mode	TIMED	TIMED			

2.3 Aspect



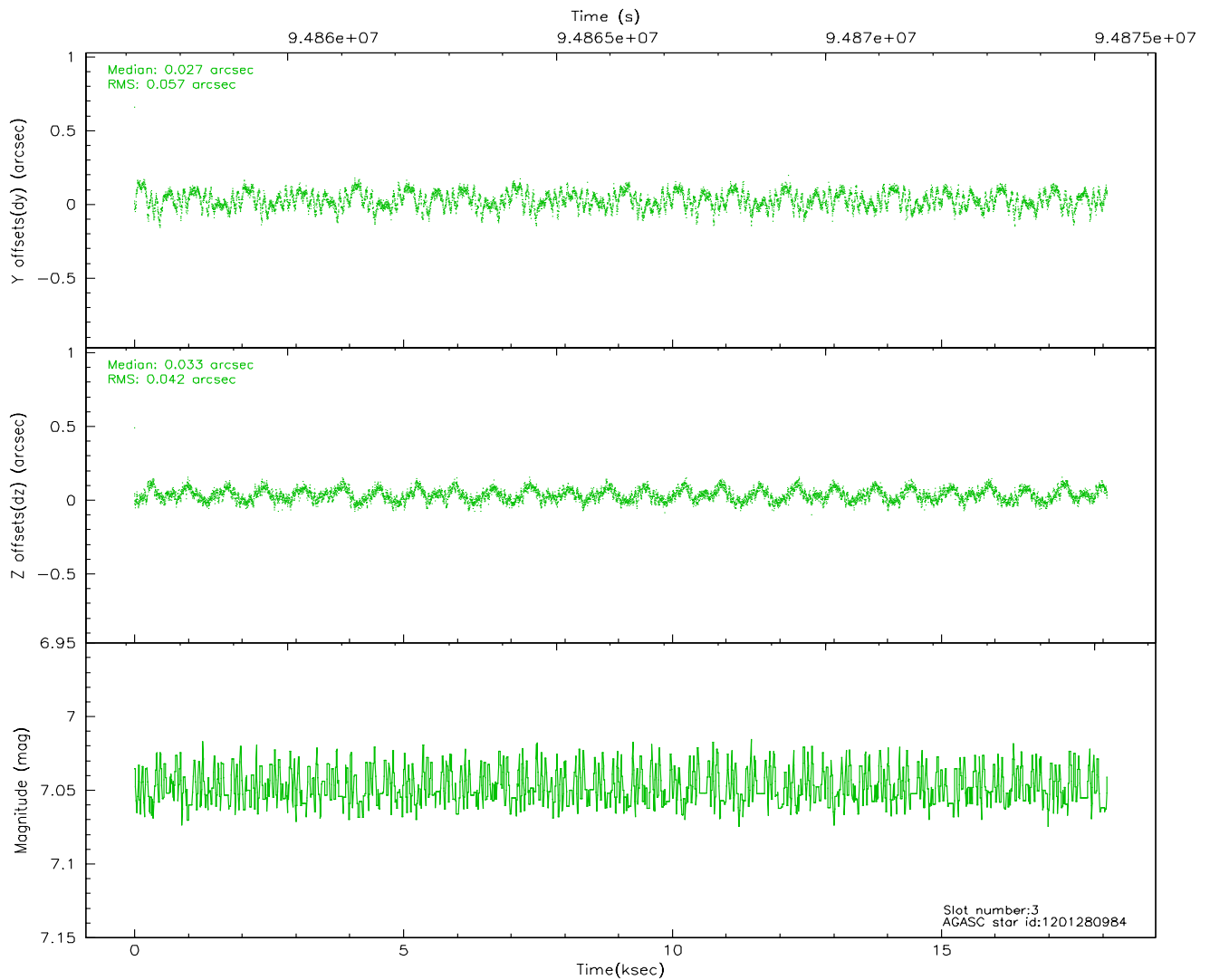
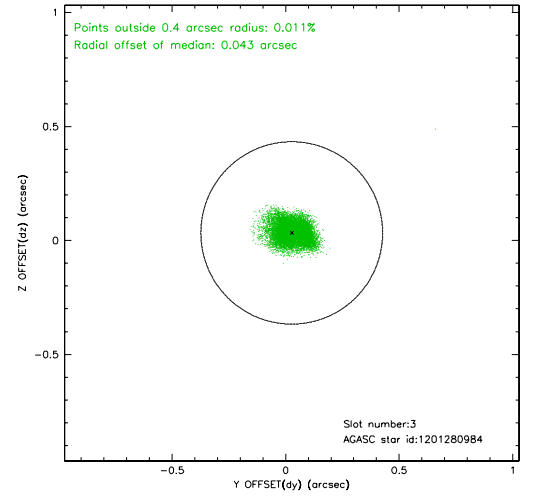
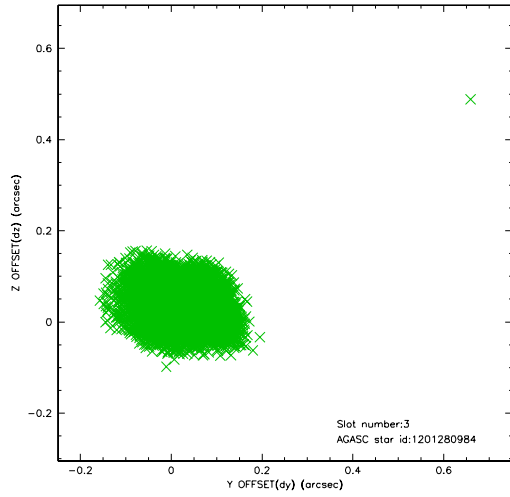


Slot Statistics

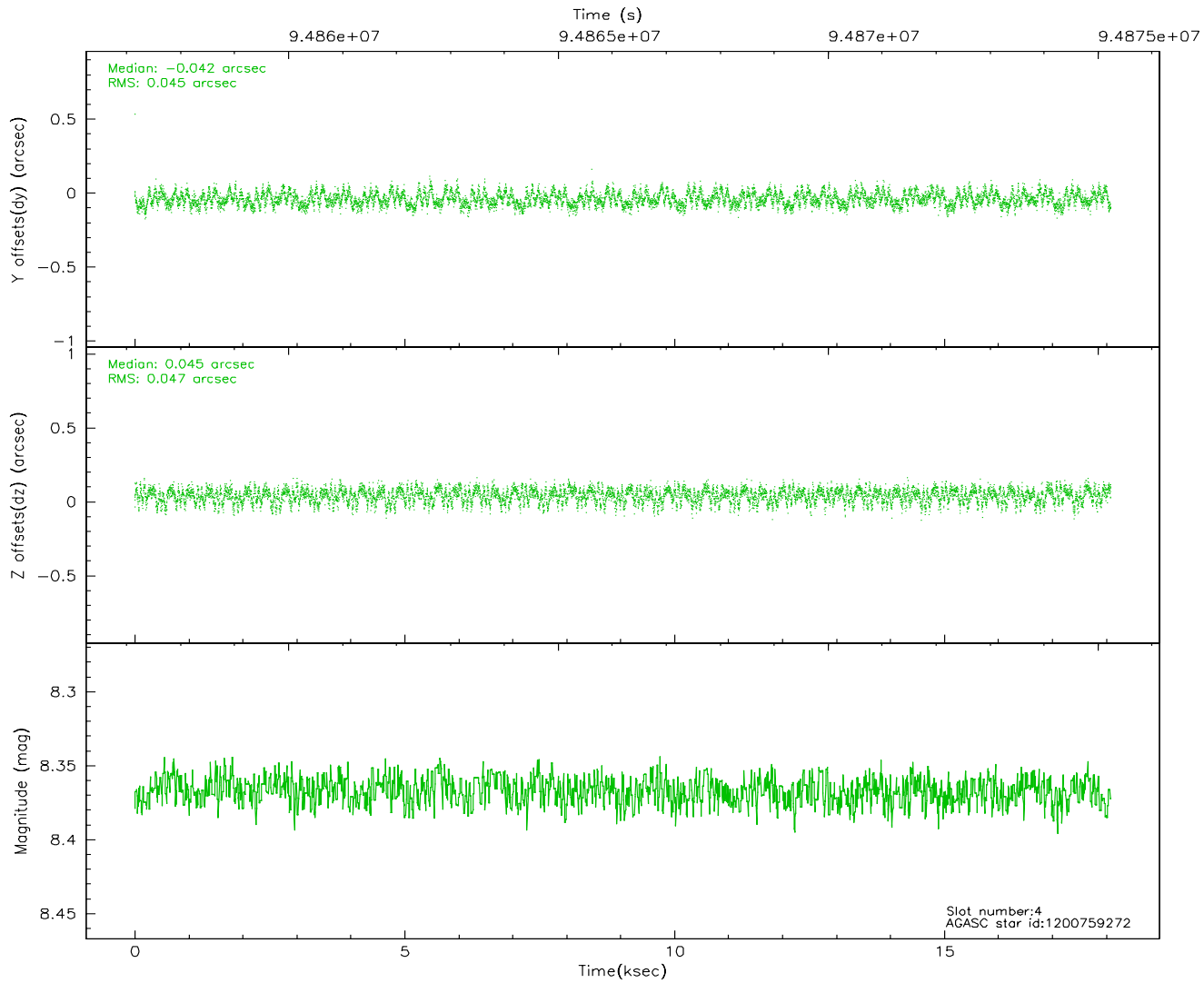
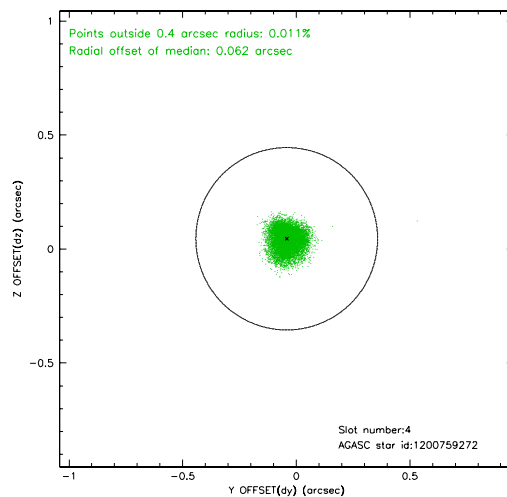
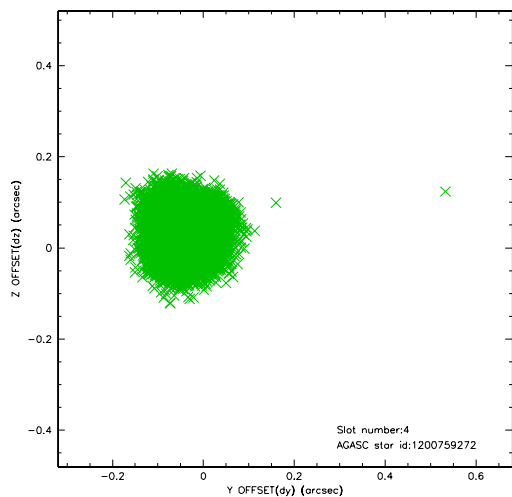
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	4412	0.005	0.032	0.009	0.014	0.000000	0.000000	-756.32	-1728.11
1	FID	ACIS-S-4	7.20	4410	-0.049	-0.011	0.005	0.010	0.000000	0.000000	2156.81	180.08
2	FID	ACIS-S-5	7.24	4411	0.013	-0.012	0.008	0.014	0.000000	0.000000	-1808.85	174.03
3	GUIDE	1201280984	7.05	8823	0.027	0.033	0.076	0.116	77.867422	-69.546090	1799.57	-2474.92
4	GUIDE	1200759272	8.37	8824	-0.042	0.045	0.070	0.107	75.444915	-68.988718	-1796.55	-1685.85
5	GUIDE	1200758760	8.31	8764	0.056	-0.015	0.074	0.123	76.277764	-68.086435	-1959.27	1738.81
6	GUIDE	1200760024	8.47	8819	-0.017	-0.001	0.055	0.091	77.625244	-69.320410	1237.97	-1812.28
7	GUIDE	1200757184	8.26	8821	-0.027	-0.061	0.073	0.116	76.495289	-68.416644	-1264.09	731.63

2.4 Star Slots

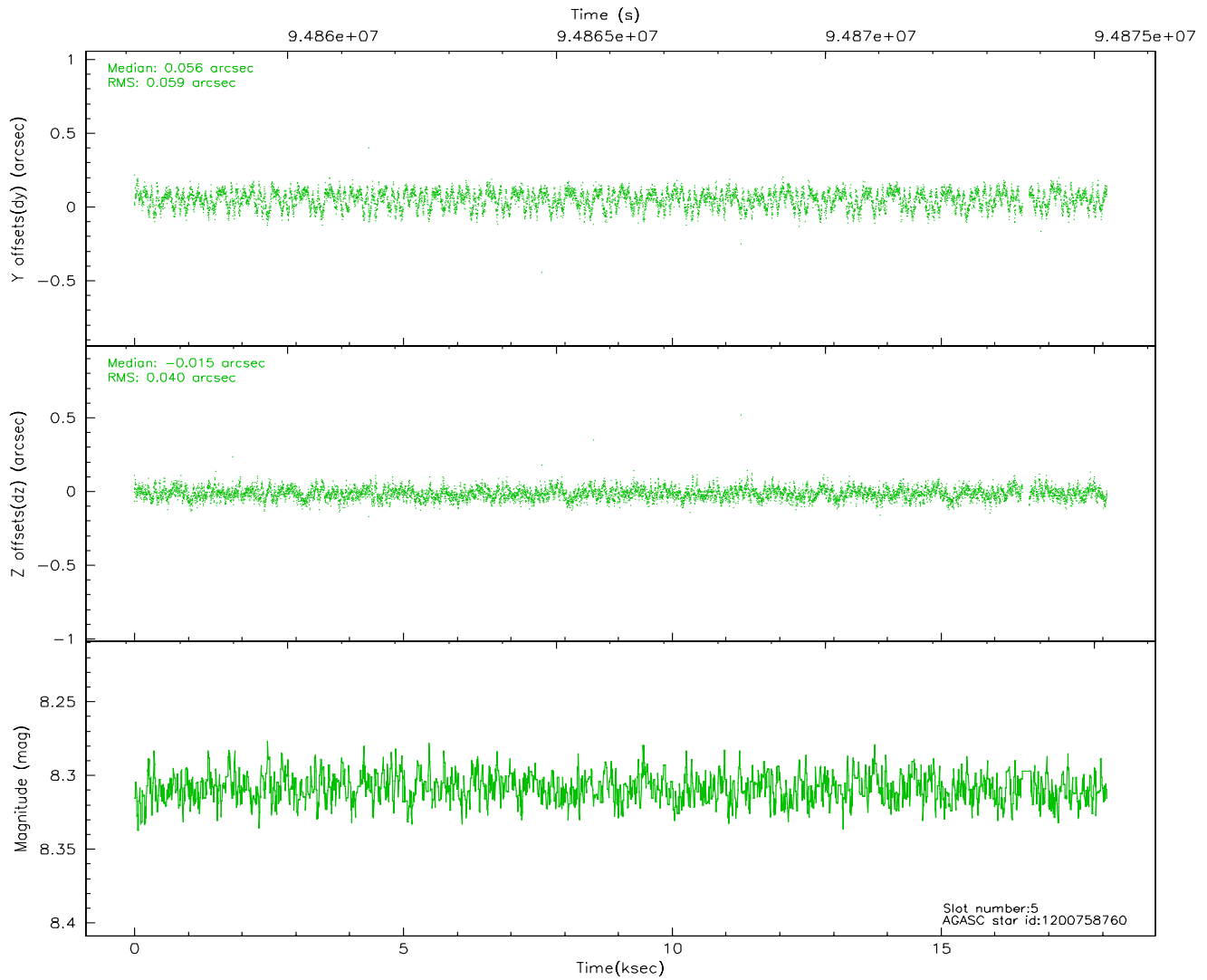
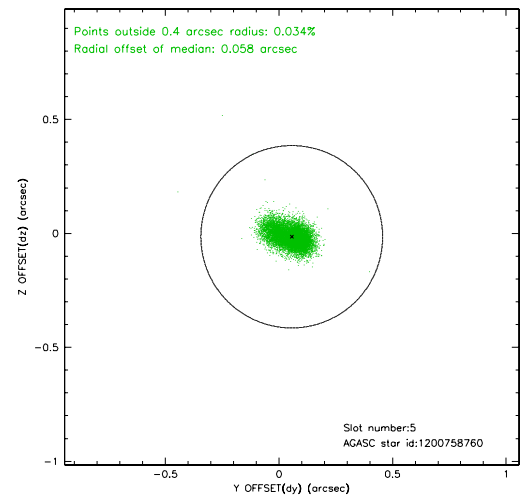
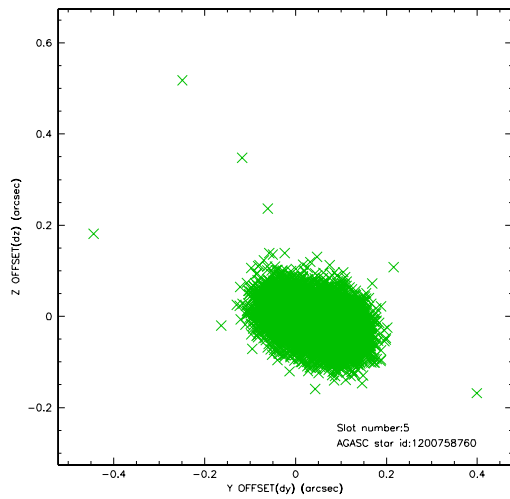
2.4.1 Slot 3



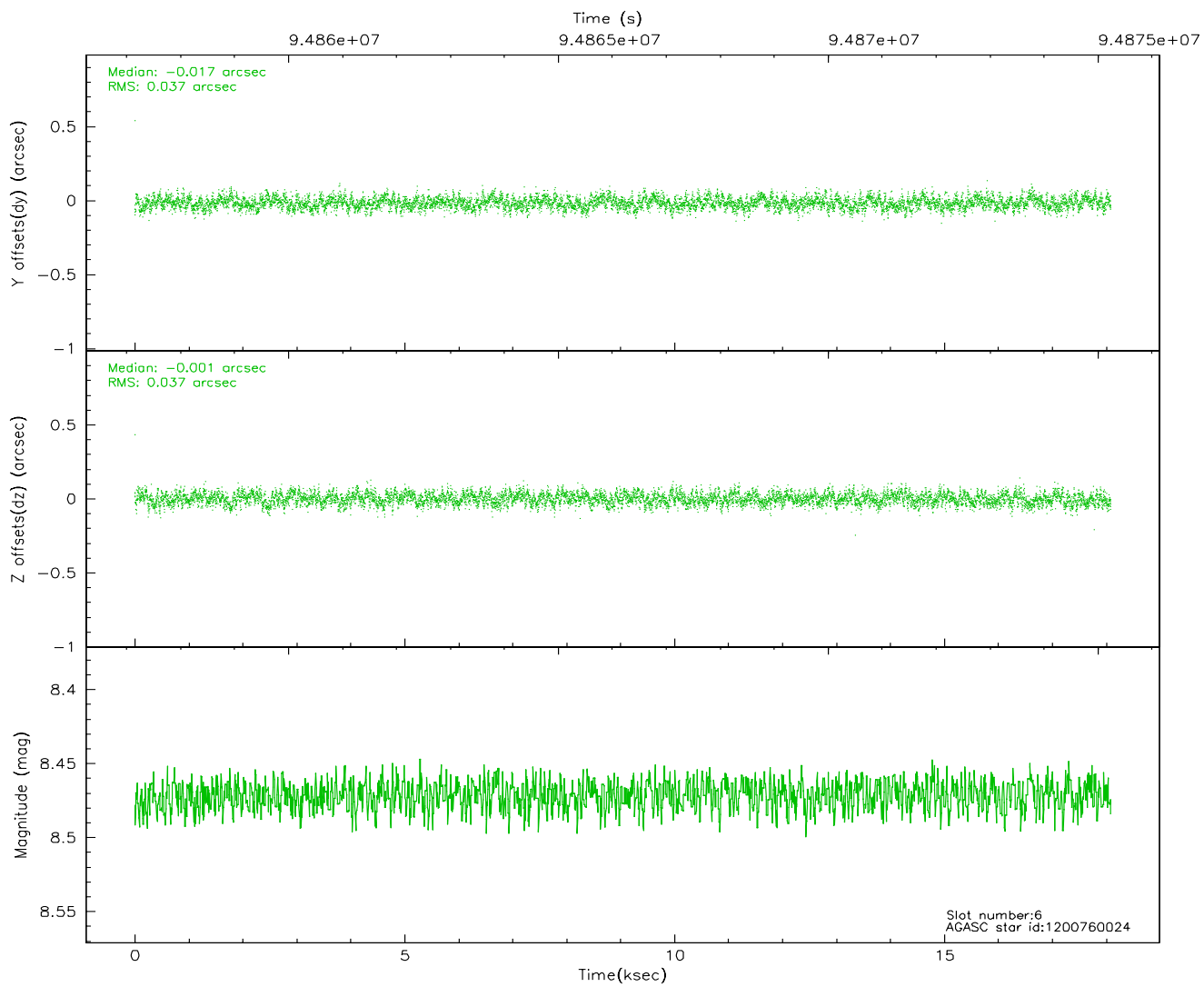
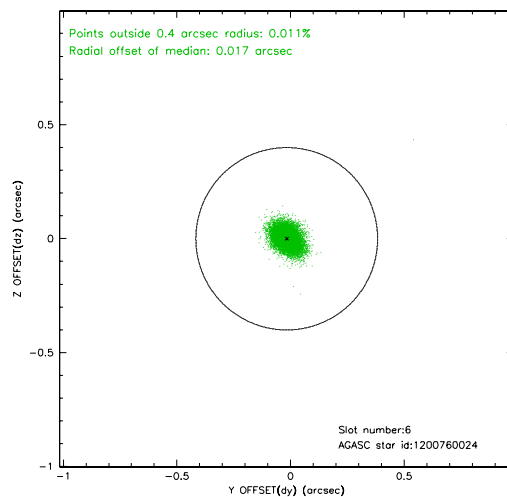
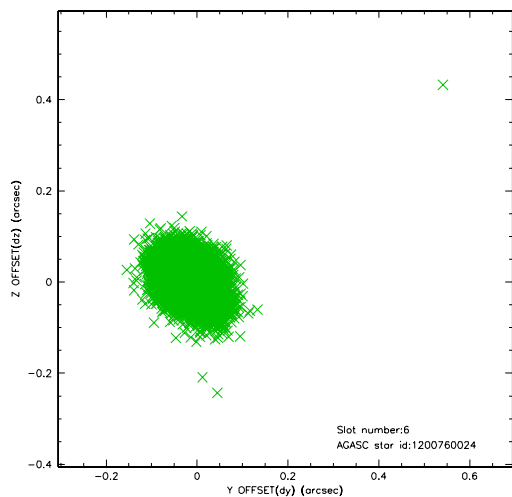
2.4.2 Slot 4



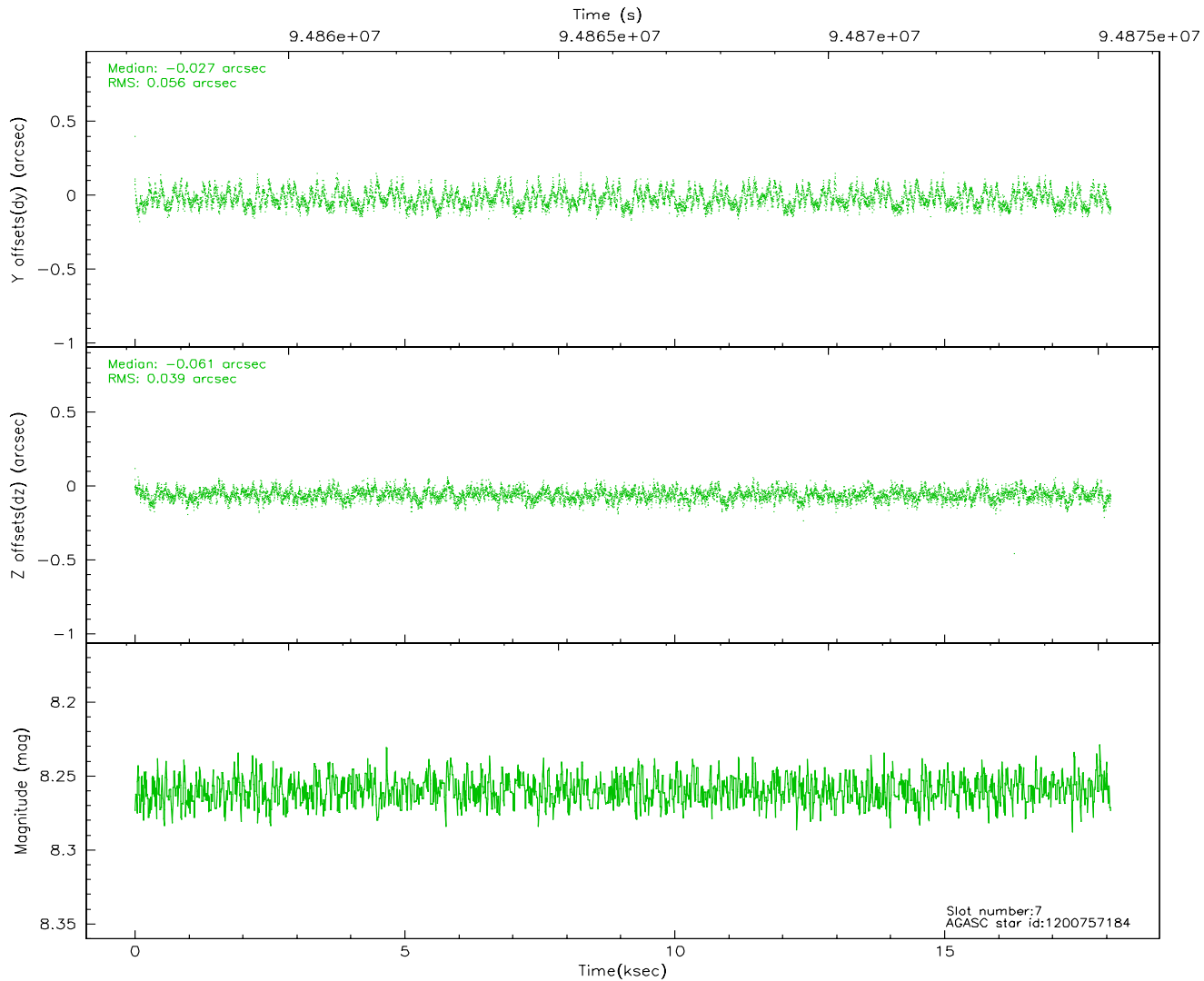
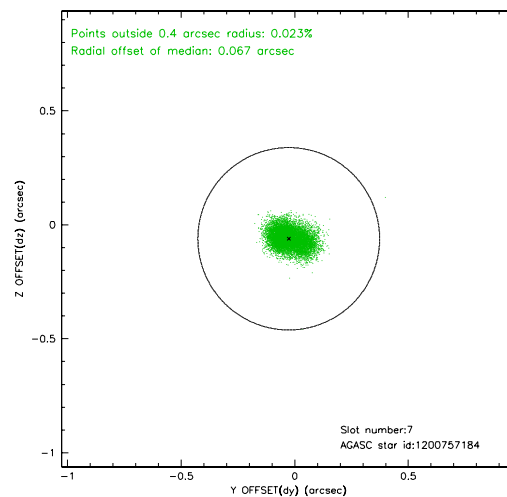
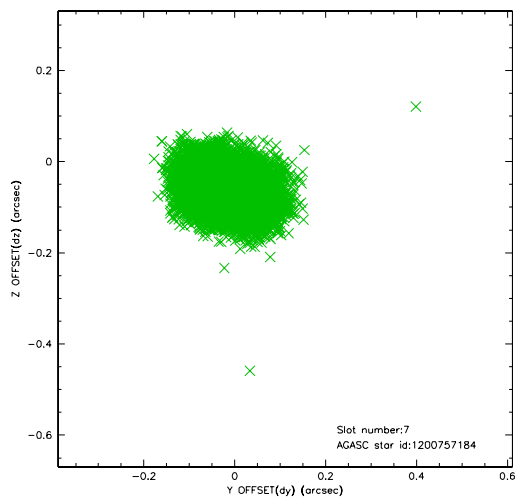
2.4.3 Slot 5



2.4.4 Slot 6

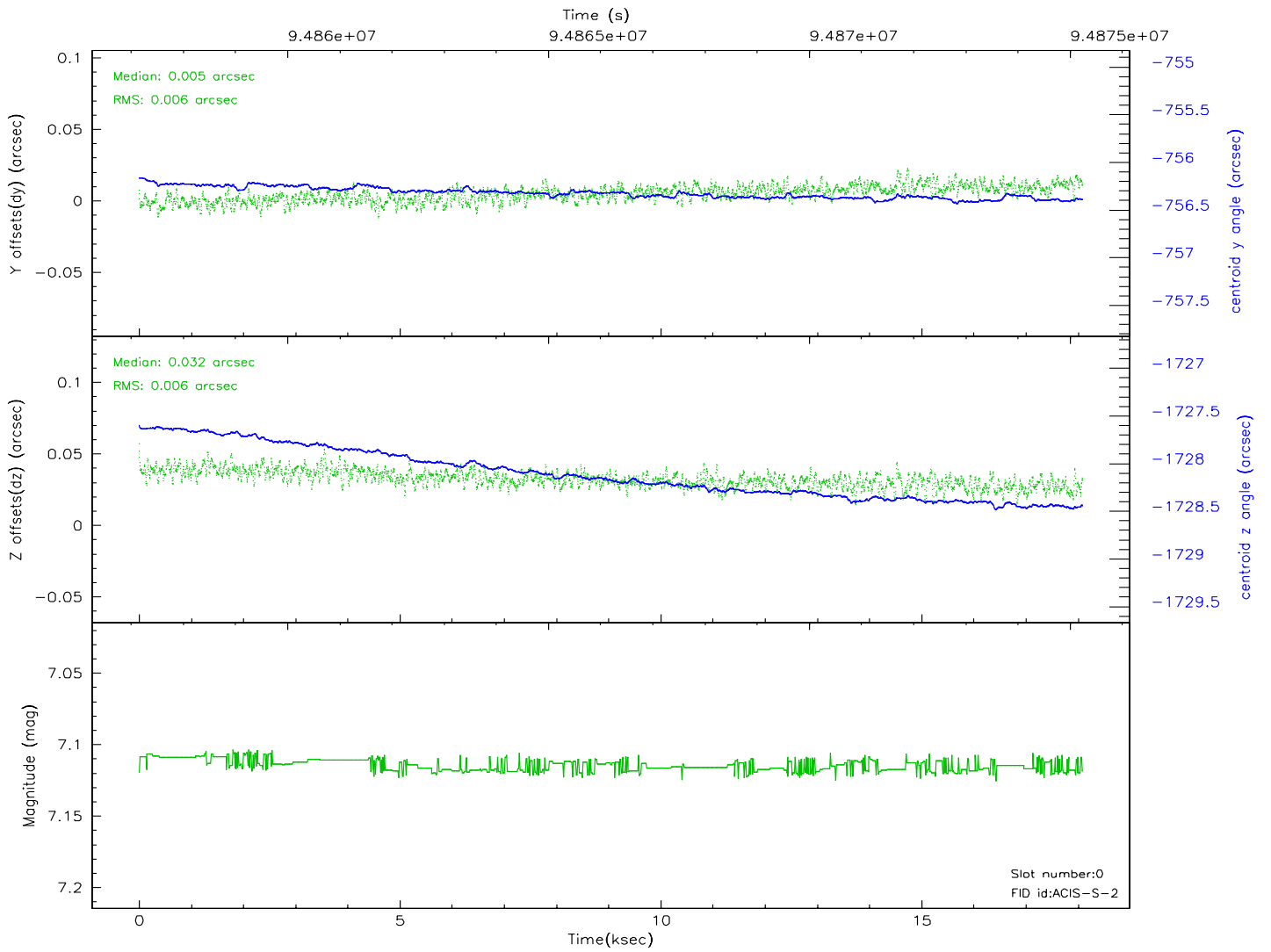
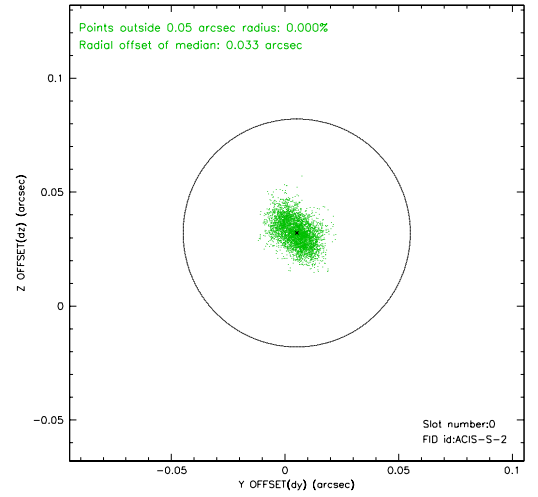
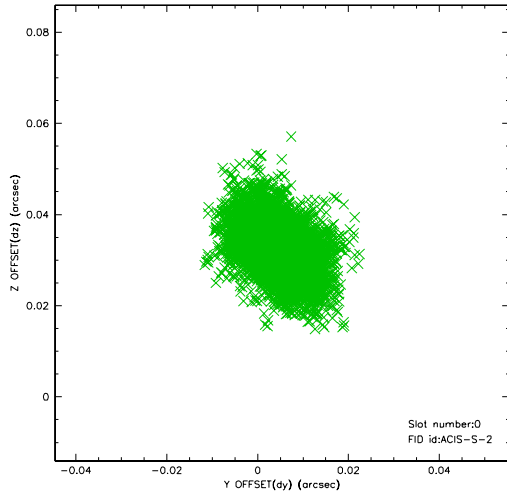


2.4.5 Slot 7

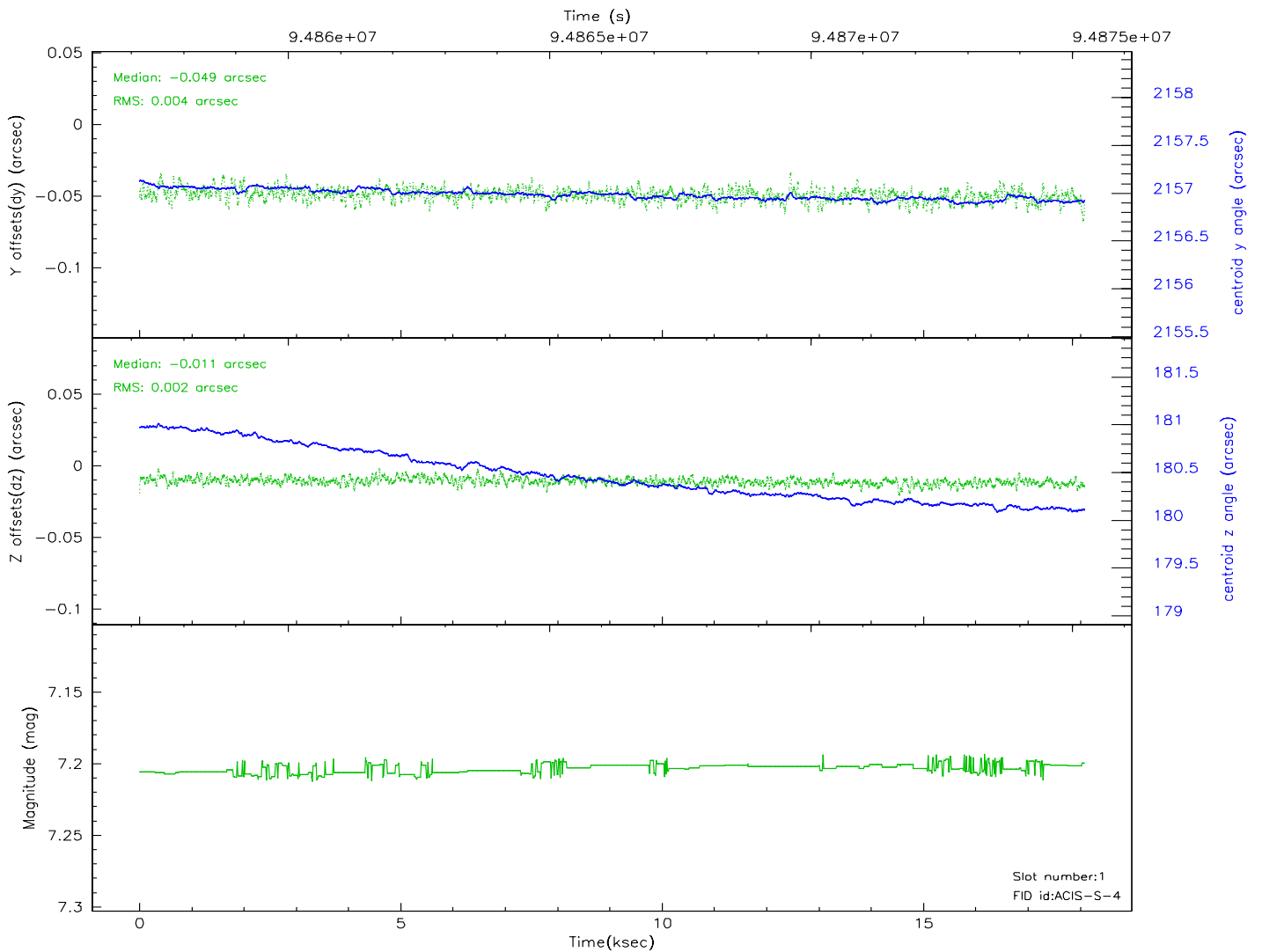
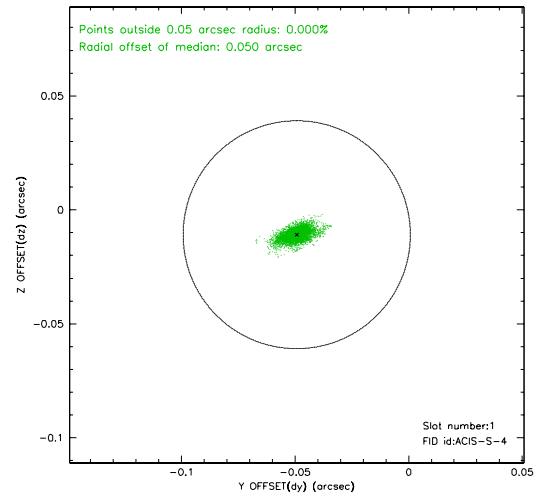
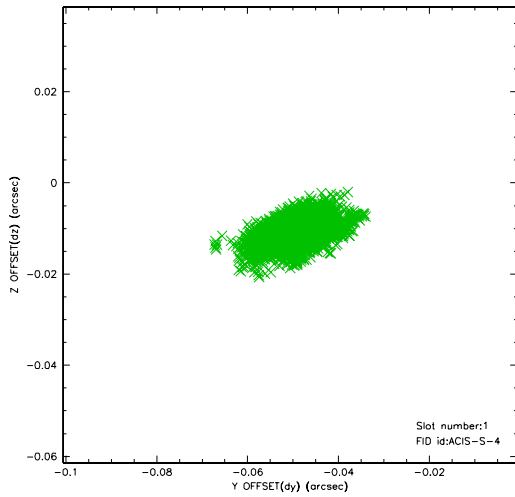


2.5 FID Slots

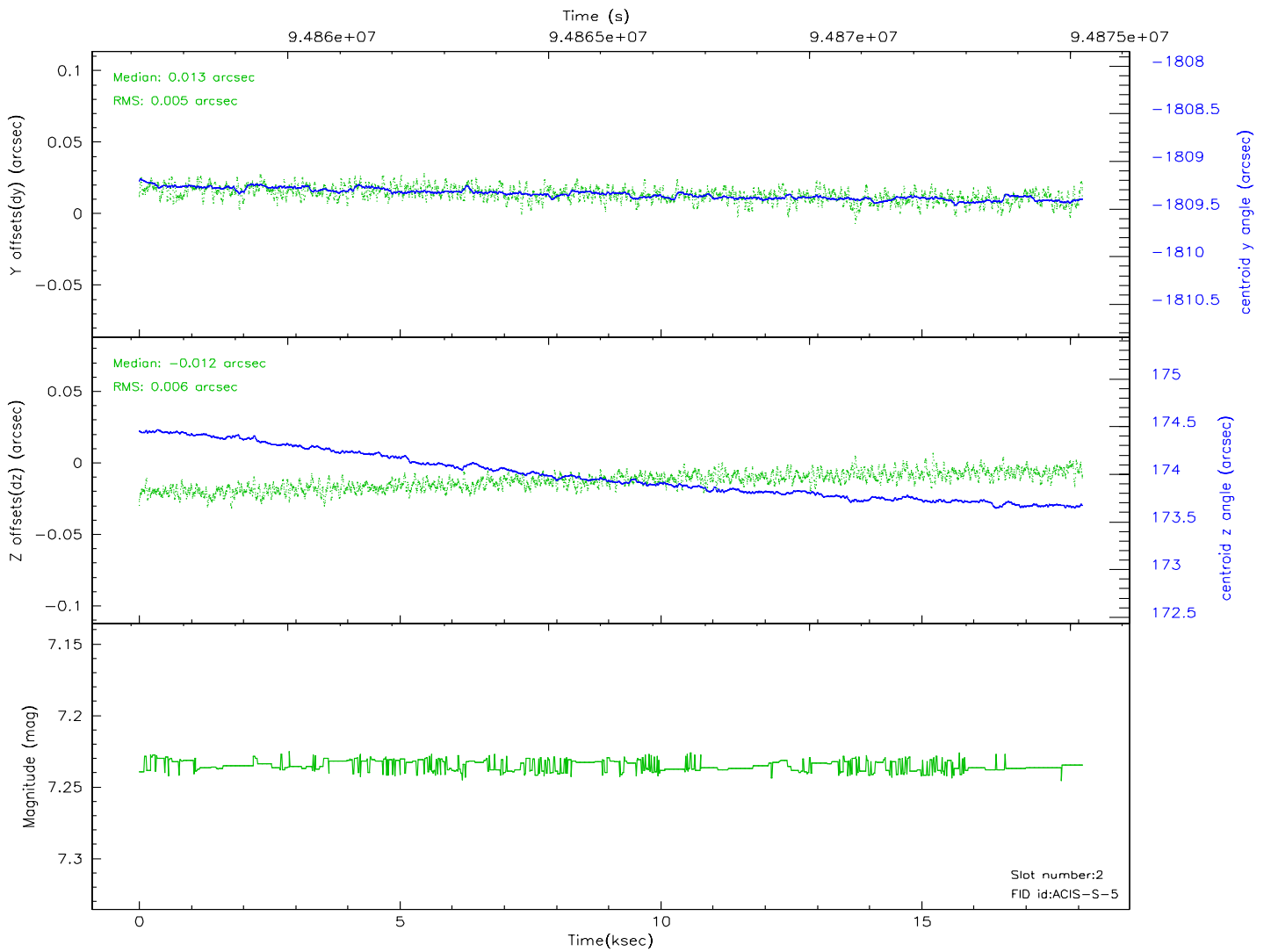
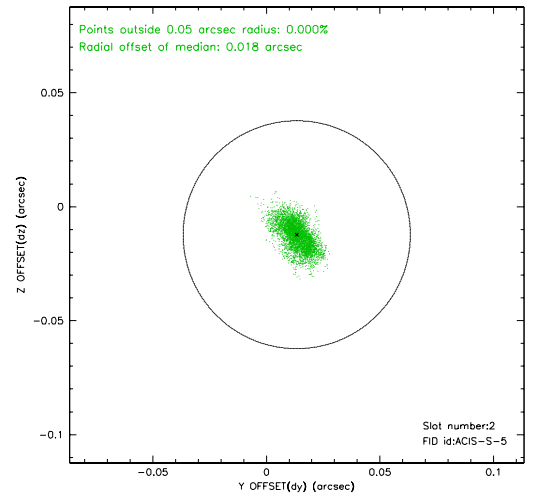
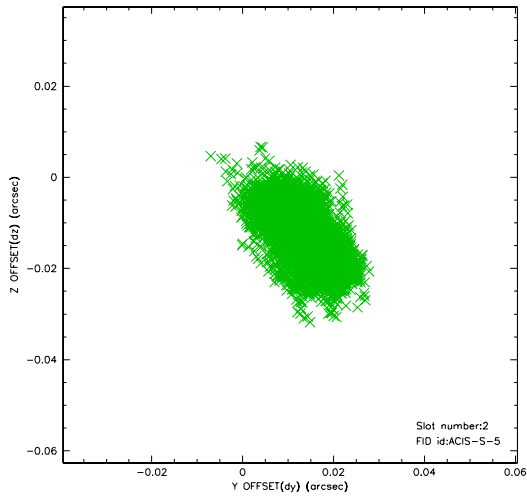
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

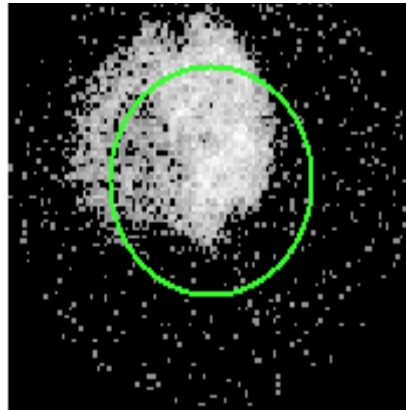


3 Gratings

3.1 HEG Arm



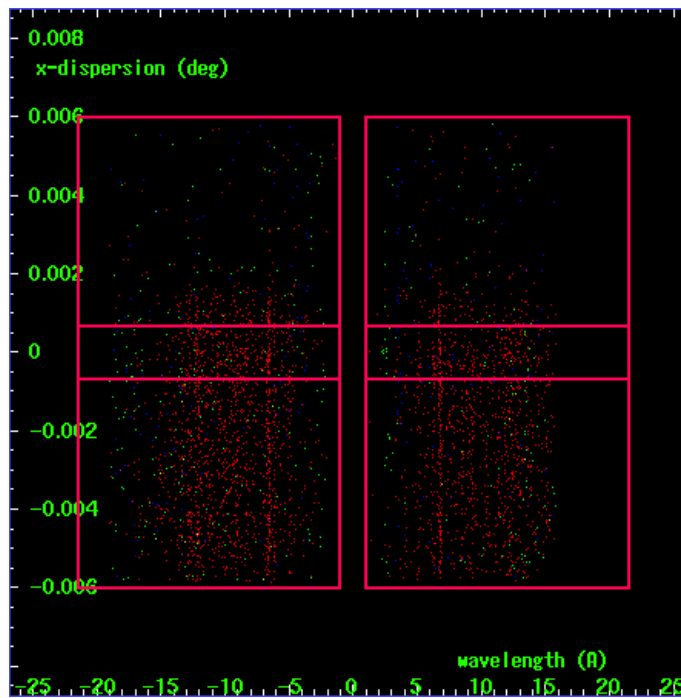
HEG Order Sort 123



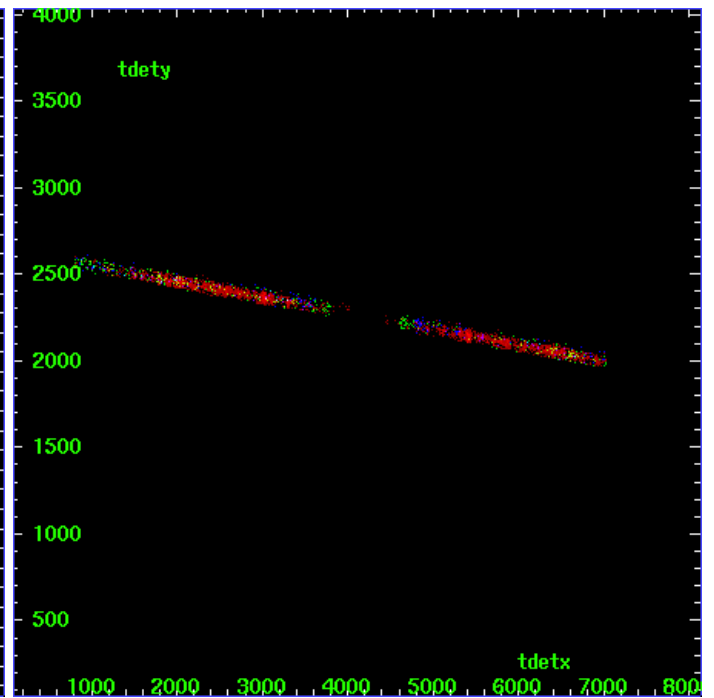
HEG Zero Order



HEG Order Sort ALL

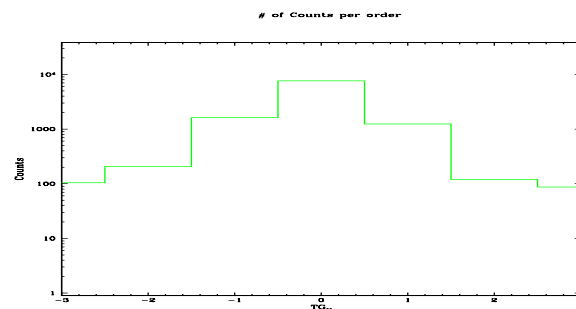


Spot Image HEG

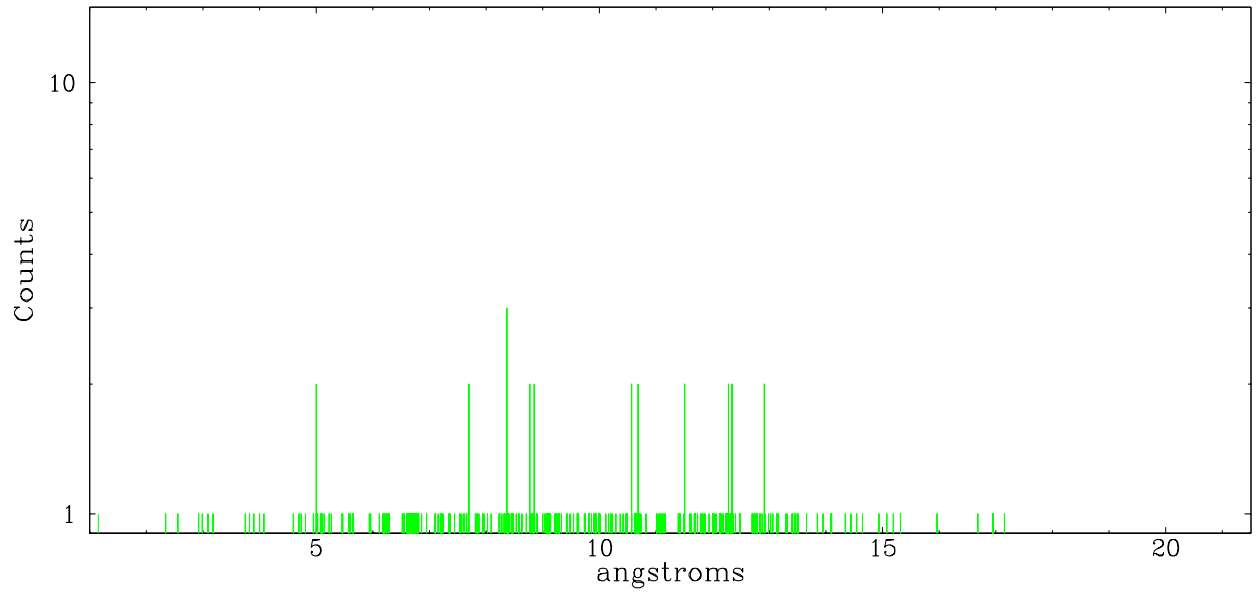


Full Detector HEG

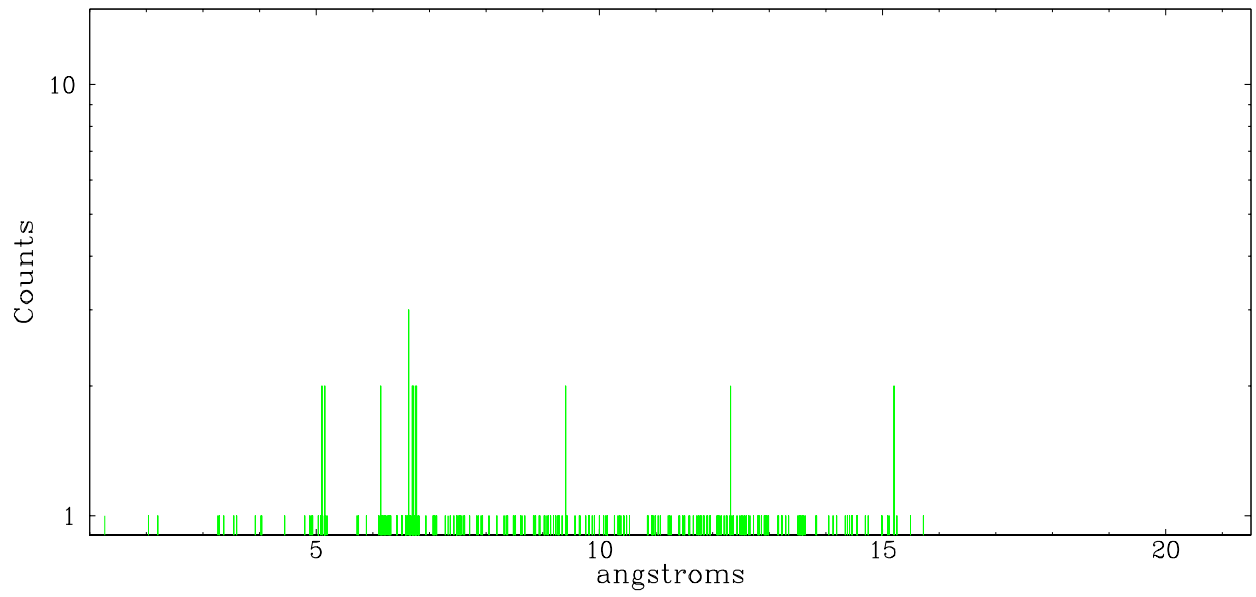
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	104	207	1617	7620	1240	120	87



heg order -1



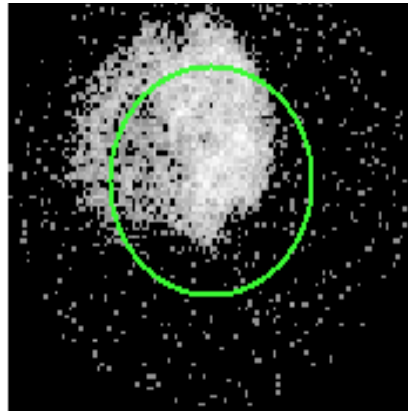
heg order +1



3.2 MEG Arm



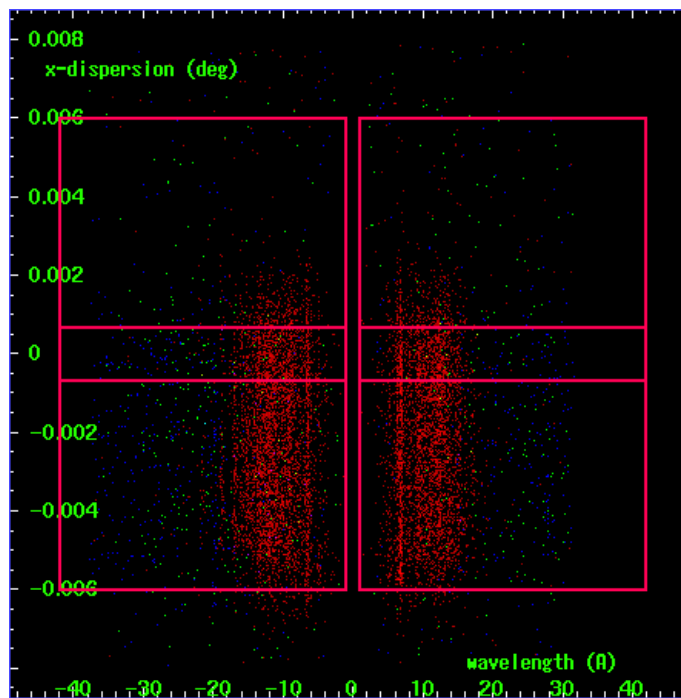
MEG Order Sort 123



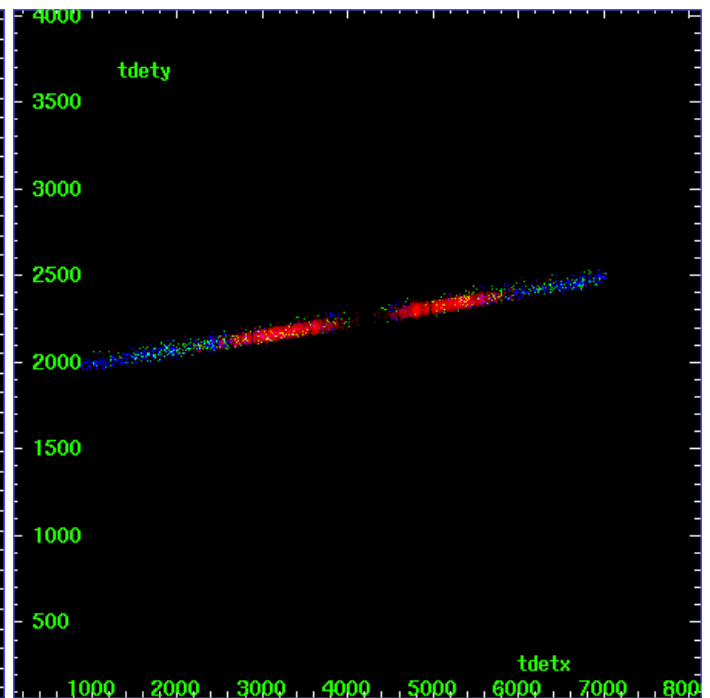
MEG Zero Order



MEG Order Sort ALL

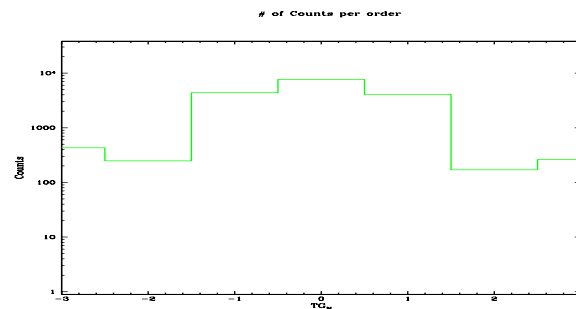


Spot Image MEG

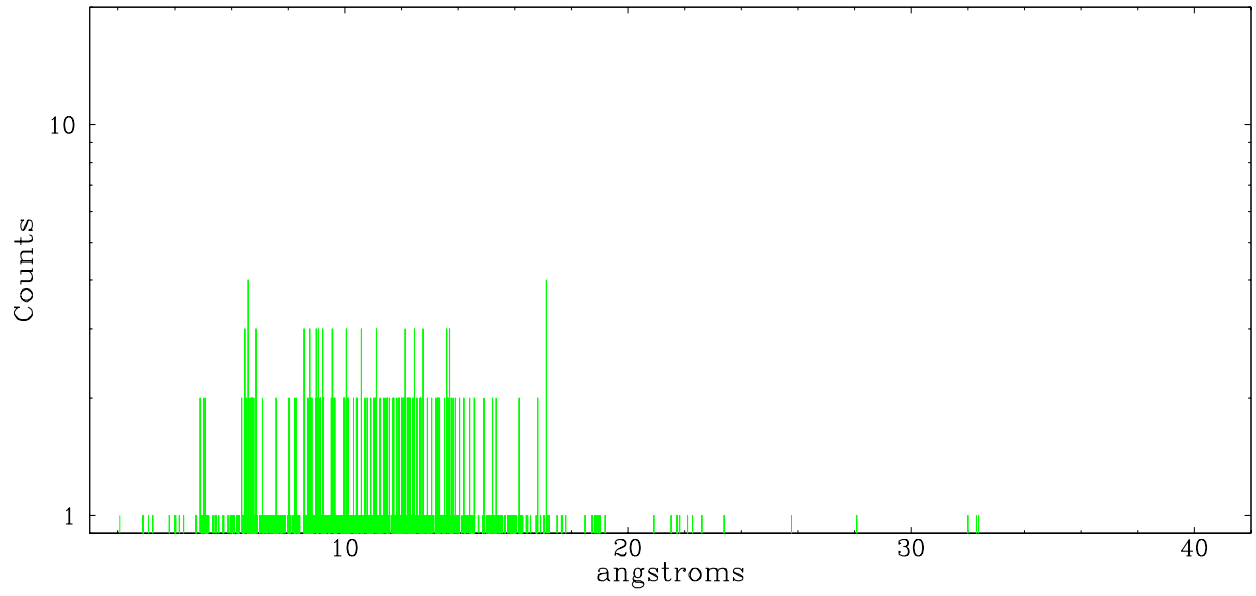


Full Detector MEG

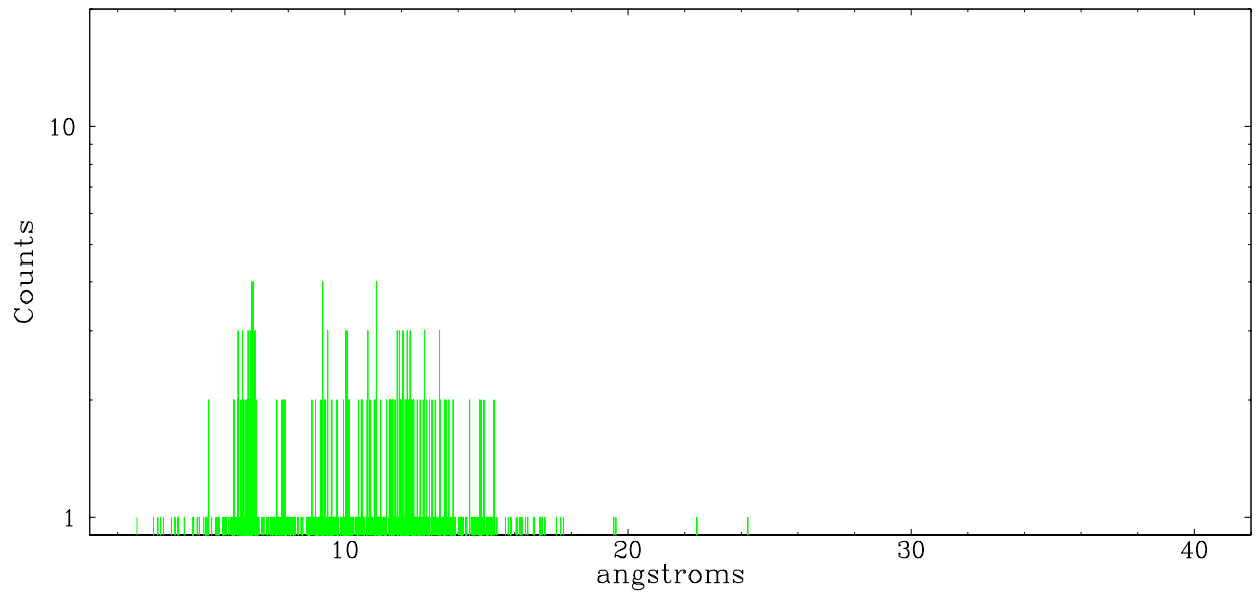
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	430	248	4371	7620	4080	170	262



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.07.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.622

A.2 Comments

WARNING: there are no standard ciao tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle. WARNING::Zeroth order selected by pipeline tools is near a bright region SSW of the center of the supernova remnant. The zeroth order position is not exactly at the position of the brightest pixel. The user will need to select a region or source of interest, then use software tools such as CIAO to specify the coordinates of the zeroth order source of interest before running the tools to resolve the dispersed events.