

V&V Reference Report

L2 ASCDS Version : 7.6.11.10

Observation 648 - L2 Version 3
Chandra X-Ray Center

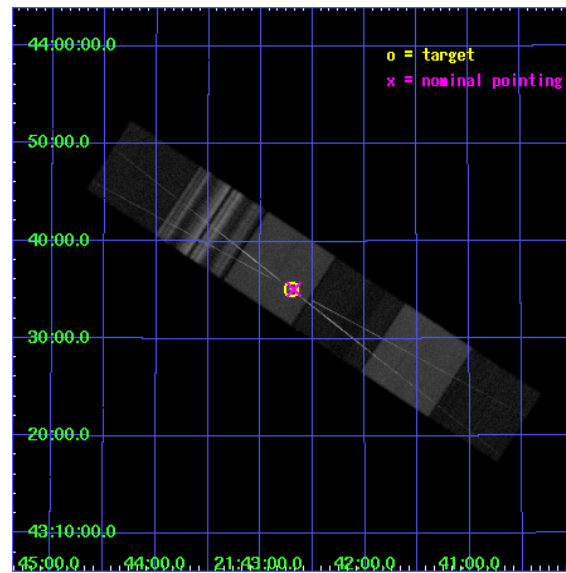
L2 Processing Date : Feb 5 2009

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1 Front

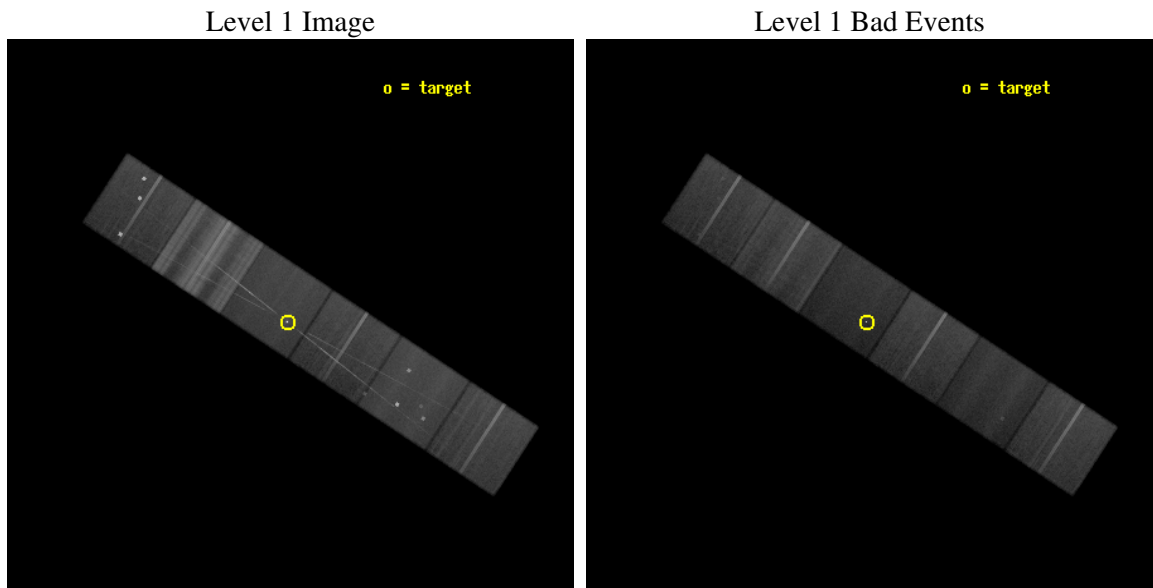
seq_num	300017
obs_id	648
title	BROAD-BAND HIGH RESOLUTION SPECTROSCOPY OF SS CYGNI IN OUTBURST
observer	DR. CHRISTOPHER MAUCHE
object	SS CYG
dtcycle	0
cycle	P
ra_targ	325.67625
dec_targ	43.585556
ra_nom	325.67002049984
dec_nom	43.584724389636
roll_nom	213.26192361509
revision	3
ontime	60294.400056154
livetime	59530.916057713
ontime4	60291.159095913
ontime5	60294.400056154
ontime6	60294.400056154
ontime7	60294.400056154
ontime8	60294.400056154
ontime9	60294.400056154
l2events	871120



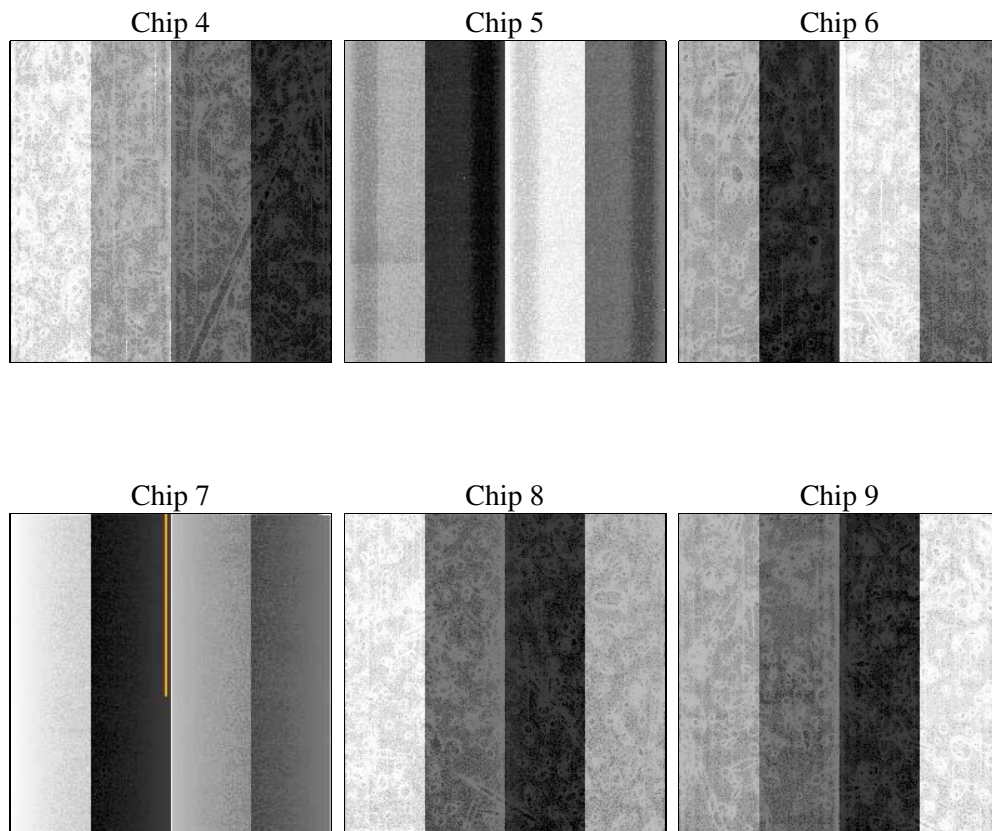
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1
ascdsver	7.6.11.10
caldsver	3.5.1
date	2009-02-05T11:04:41
revision	3

sched_exp_time	60360.758000
ontime	60294.400056154
ontime4	60291.159095913
ontime5	60294.400056154
ontime6	60294.400056154
ontime7	60294.400056154
ontime8	60294.400056154
ontime9	60294.400056154
l1events	3490189

2.1.4 Events

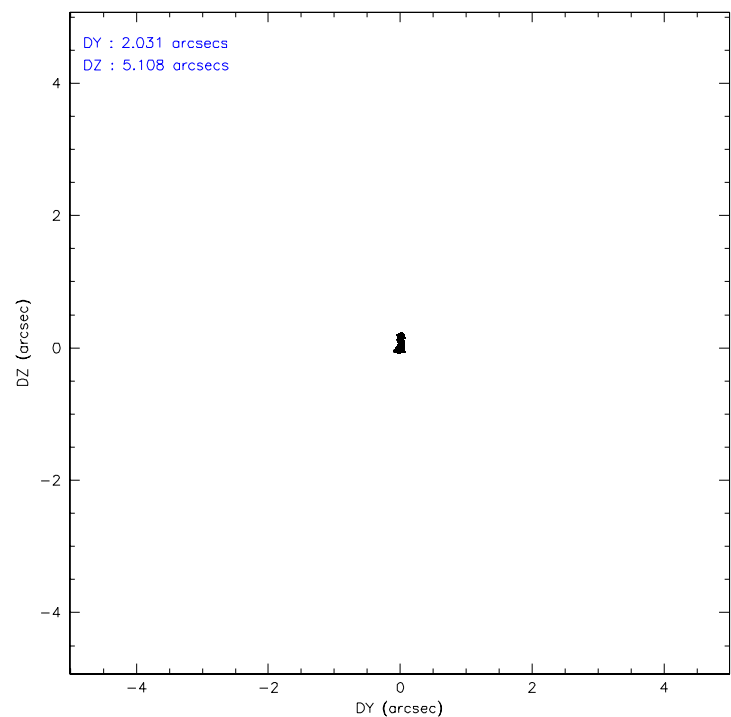
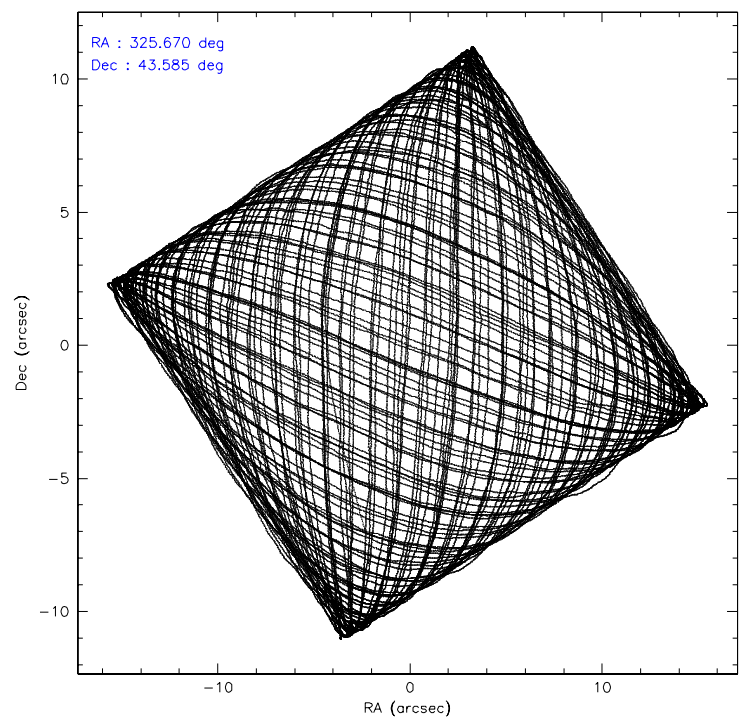
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	505765	544013	486357	503575	950384	500095
rejected events	426189	281714	403595	272468	477054	385500
rejected %	84%	51%	82%	54%	50%	77%

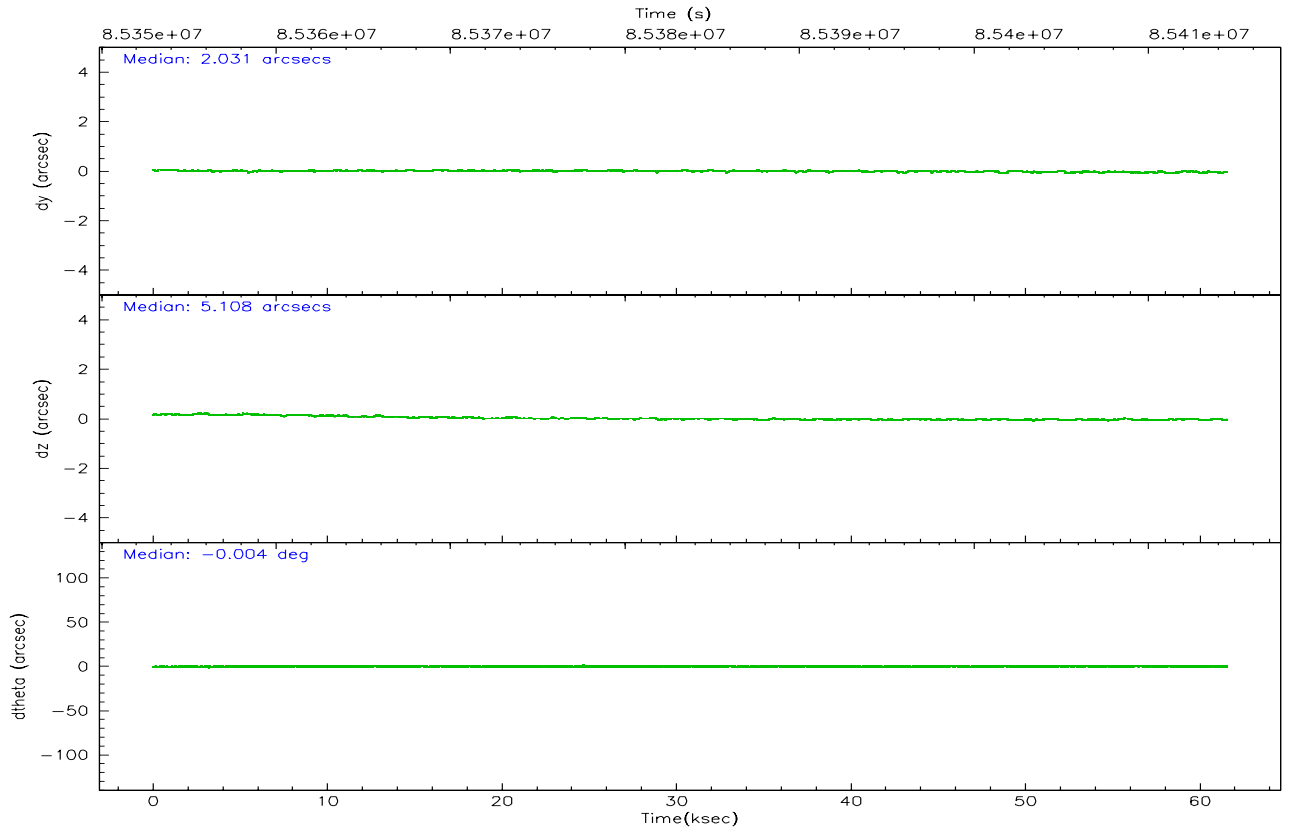
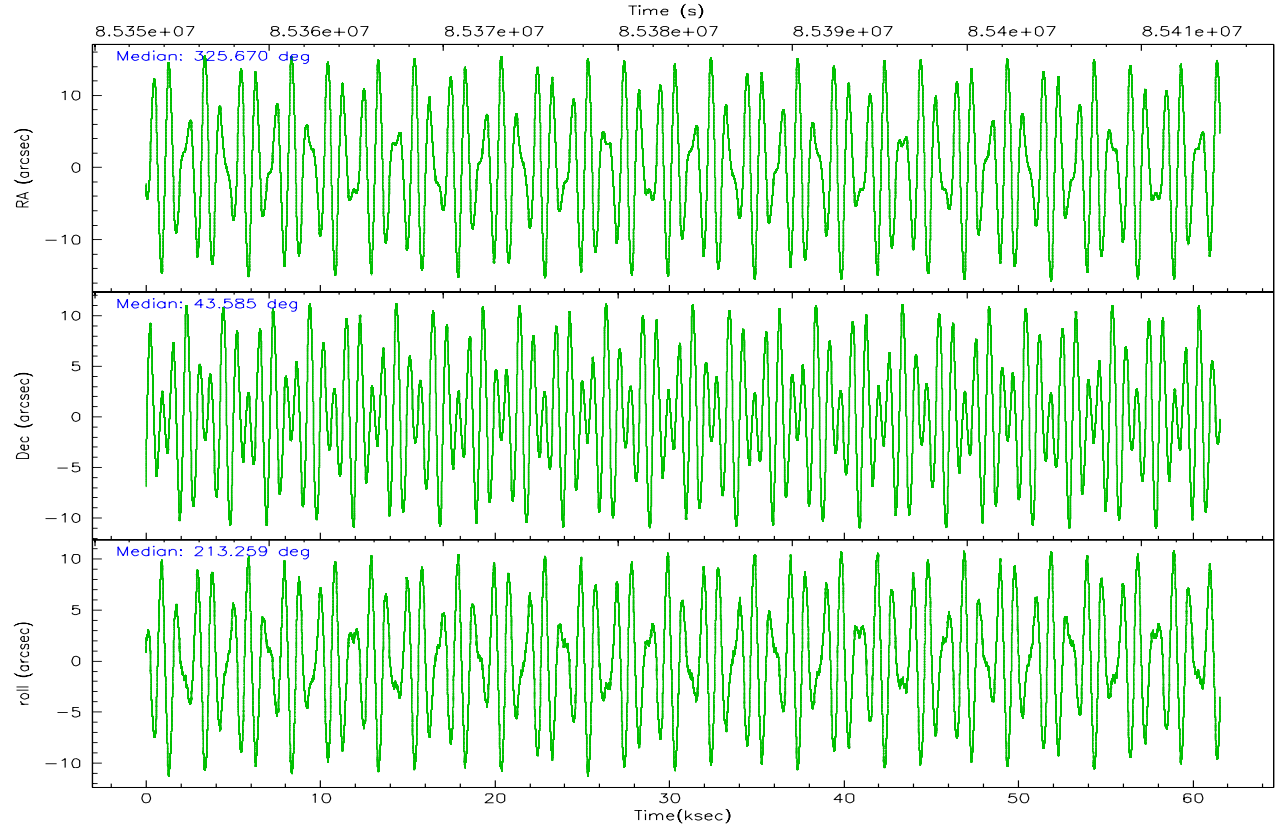
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	33762	44029	42761	25220	146720	60709
	6%	8%	8%	5%	15%	12%
grade 1 events	326	863	286	1013	1200	351
	0%	0%	0%	0%	0%	0%
grade 2 events	24044	73767	17678	48338	67266	32930
	4%	13%	3%	9%	7%	6%
grade 3 events	4610	12861	5161	21661	81925	4601
	0%	2%	1%	4%	8%	0%
grade 4 events	4839	12266	5125	21640	72529	4427
	0%	2%	1%	4%	7%	0%
grade 5 events	12416	37878	14043	45239	22956	14822
	2%	6%	2%	8%	2%	2%
grade 6 events	12362	119477	12069	114350	104998	11975
	2%	21%	2%	22%	11%	2%
grade 7 events	413406	242872	389234	226114	452790	370280
	81%	44%	80%	44%	47%	74%

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	OVERRIDE	OVERRIDE
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	325.6700204998432	325.6700204998432	Subarray requested	NONE	NONE
Pointing Dec	43.58472438963638	43.58472438963638	Alternating exposures requested	N	N
Pointing Roll	213.2619236150885	213.2619236150885	Primary exposure time	3.2	3.2
SIM focus pos (mm)	-0.68282252473119	-0.68282252473119			
SIM defocus (mm)	0.001444942264670734	0.001444942264670734			
SIM translation stage pos (mm)	-187.122887688	-187.122887688			
SIM translation stage offset (mm)	-3.00963541596721	-3.00963541596721			
Observation start time	85352942.43386	85352942.43386			
Observation start date	2000-09-14T21:28:00	2000-09-14T21:09:02			
Observation end time	85414505.986174	85414505.986174			
Observation end date	2000-09-15T14:14:00	2000-09-15T14:15:05			
Read mode	TIMED	TIMED			

2.3 Aspect



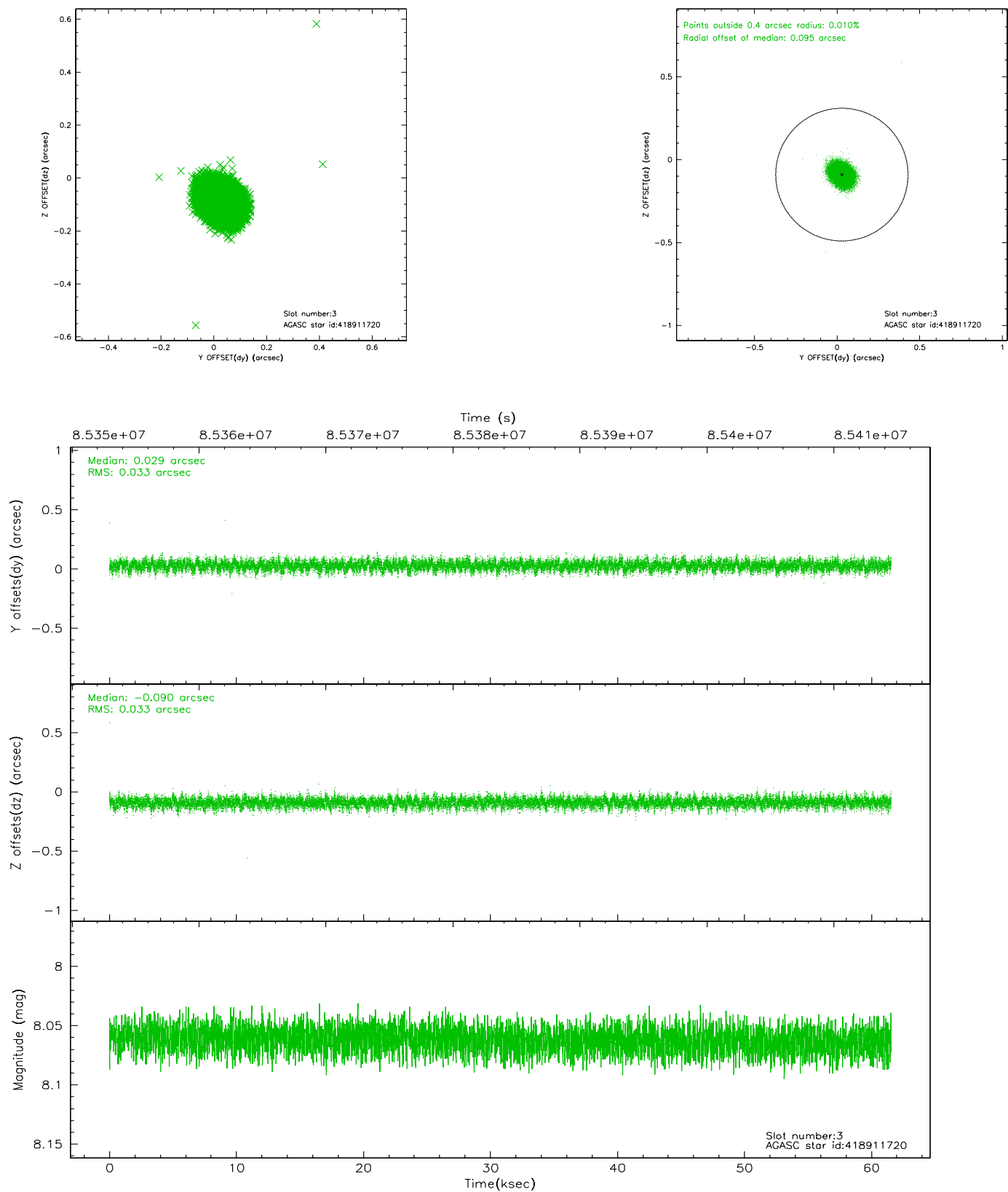


Slot Statistics

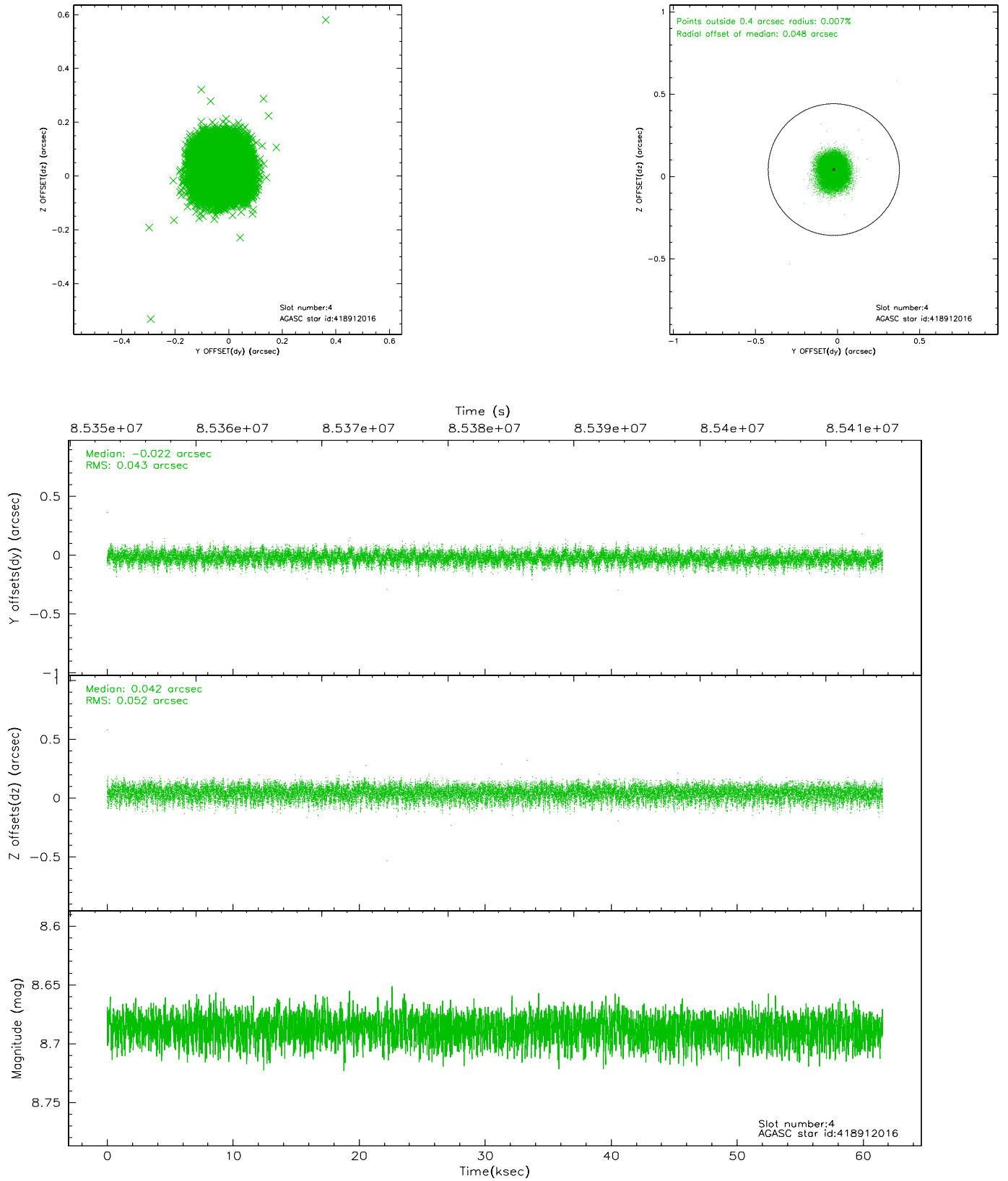
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	15014	0.020	-0.010	0.007	0.013	0.000000	0.000000	941.57	-1784.05
1	FID	ACIS-S-5	7.24	15014	-0.003	0.033	0.006	0.010	0.000000	0.000000	-1807.42	113.66
2	FID	ACIS-S-6	7.38	15013	-0.038	-0.012	0.008	0.014	0.000000	0.000000	407.19	757.46
3	GUIDE	418911720	8.06	30028	0.029	-0.090	0.049	0.081	325.786180	43.583511	-166.63	219.56
4	GUIDE	418912016	8.69	30025	-0.022	0.042	0.071	0.116	325.830997	44.345072	-1757.62	-2016.24
5	GUIDE	418393488	9.01	30019	-0.009	0.018	0.077	0.123	325.537667	42.821079	1878.85	2162.59
6	GUIDE	418390104	8.98	30024	-0.007	0.028	0.062	0.101	325.407324	43.099724	1616.32	1135.45
7	GUIDE	418920400	8.99	30021	0.009	0.005	0.071	0.115	325.896170	44.074587	-1368.63	-1107.74

2.4 Star Slots

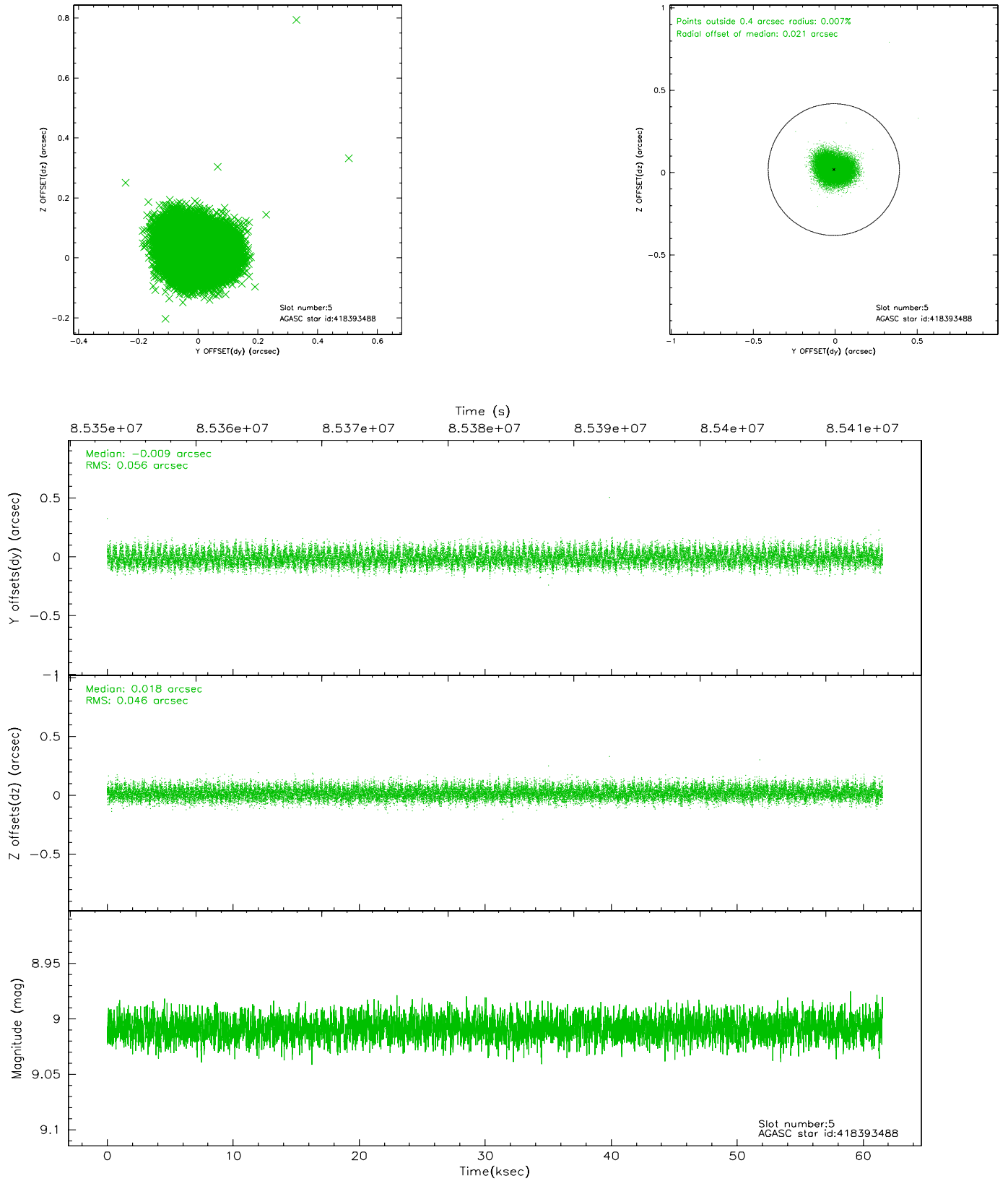
2.4.1 Slot 3



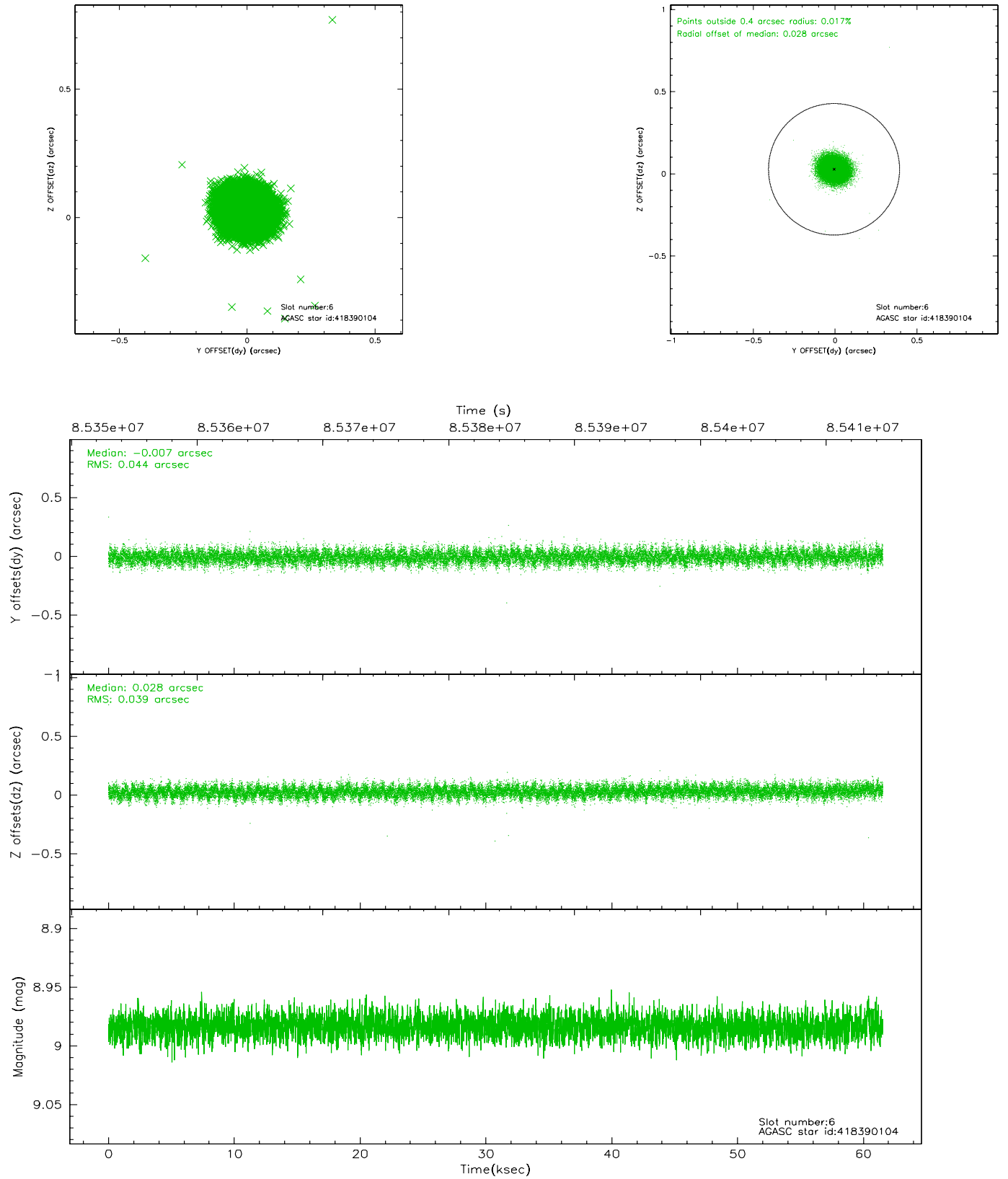
2.4.2 Slot 4



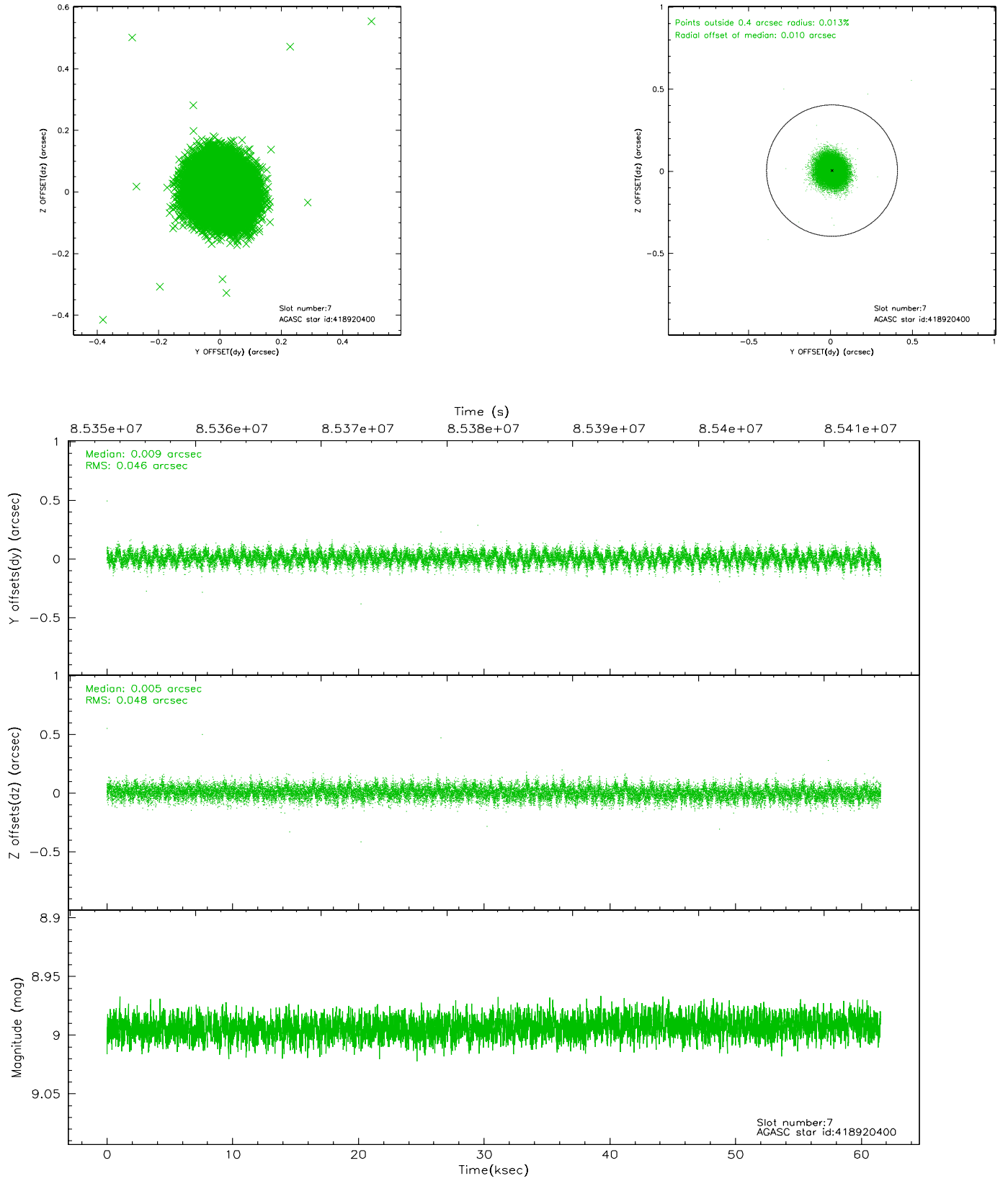
2.4.3 Slot 5



2.4.4 Slot 6

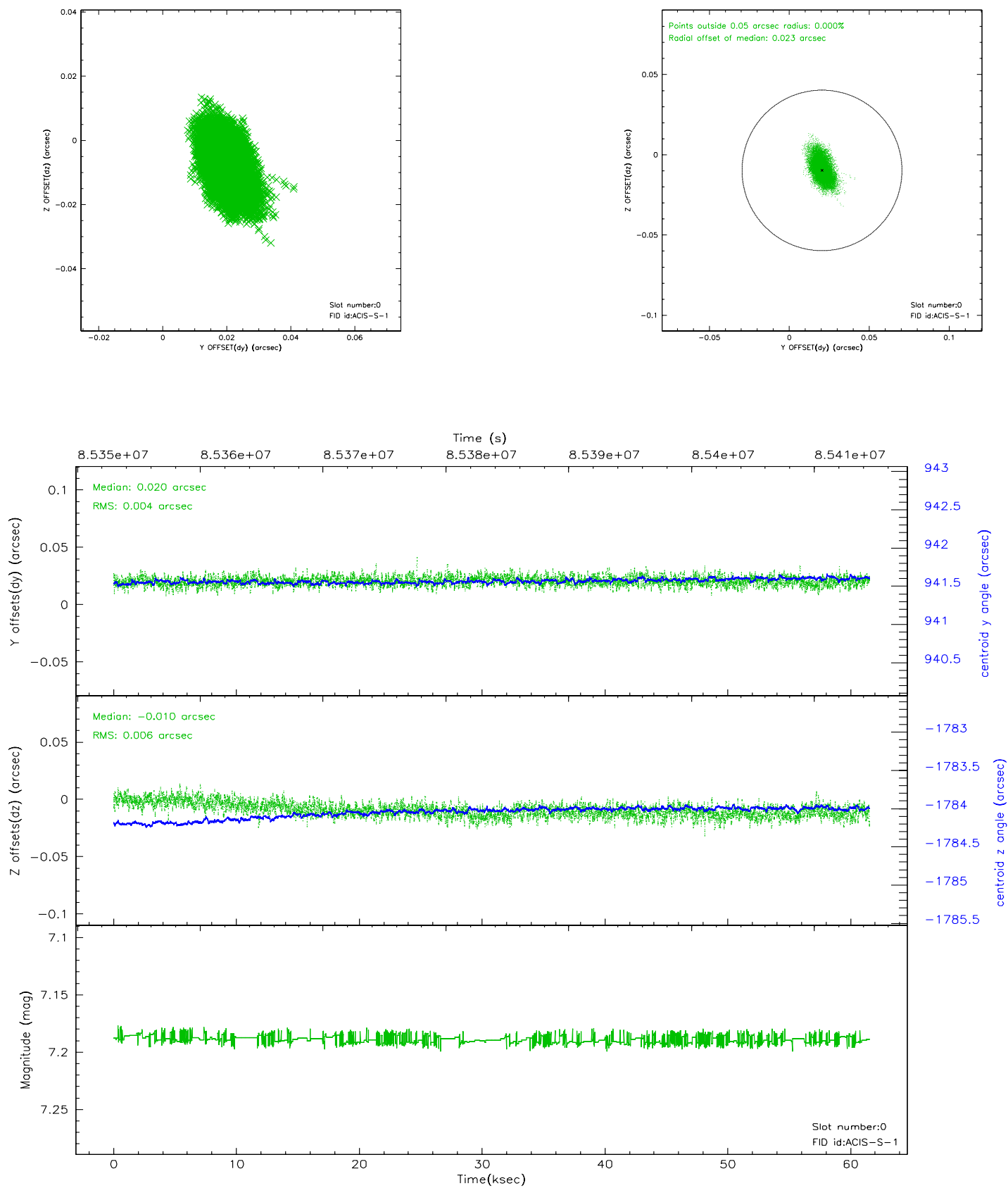


2.4.5 Slot 7

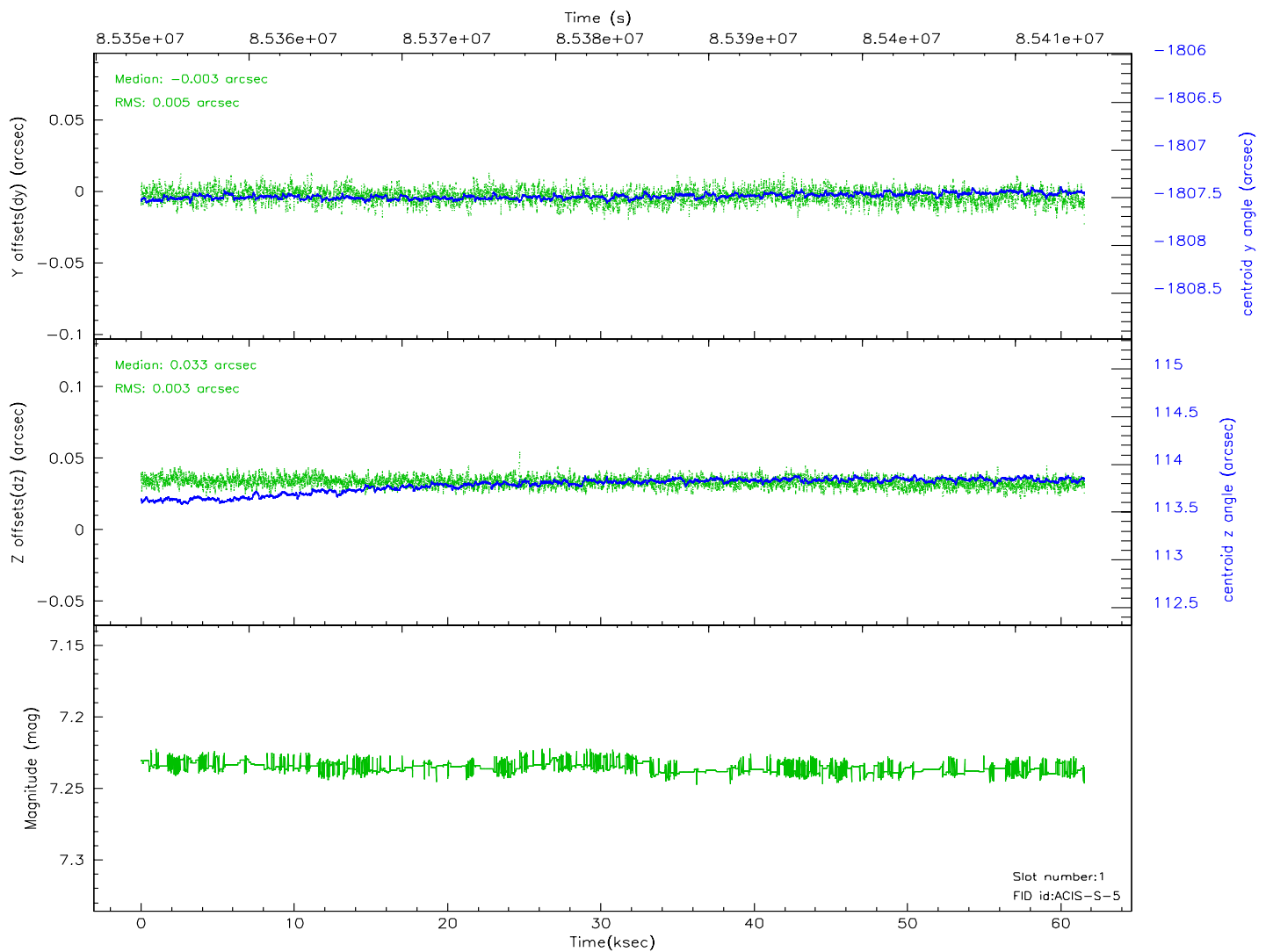
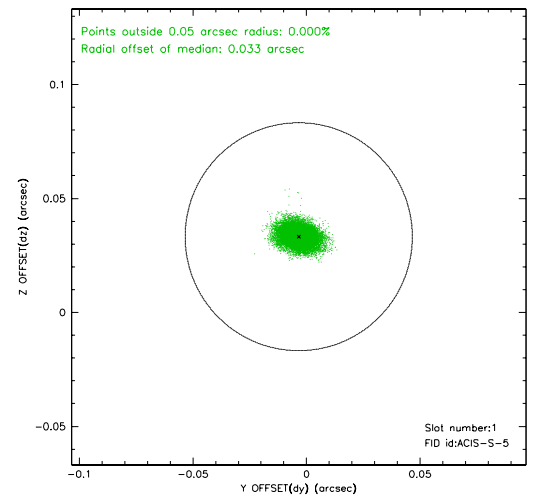
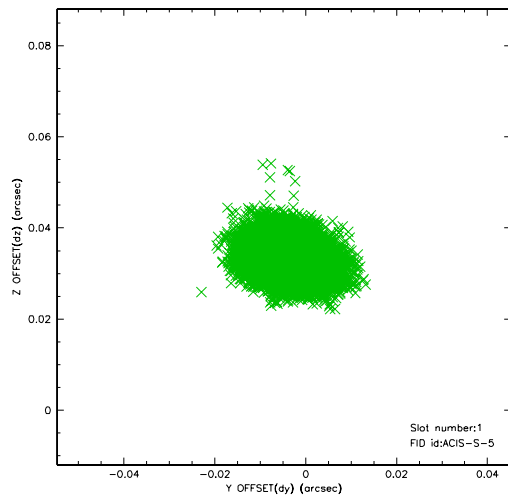


2.5 FID Slots

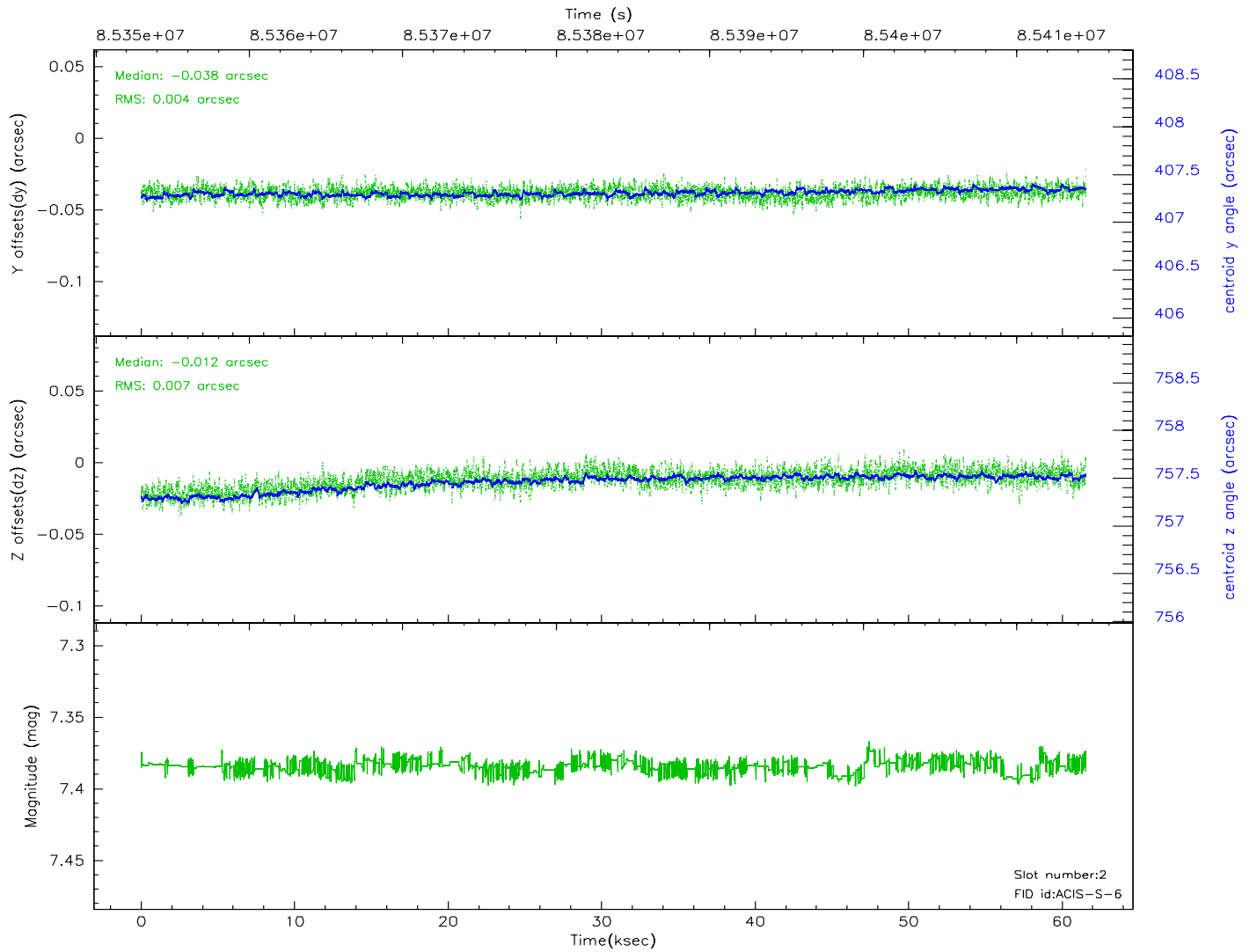
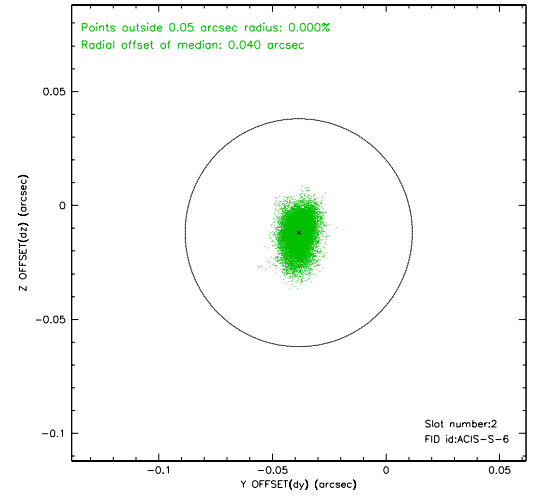
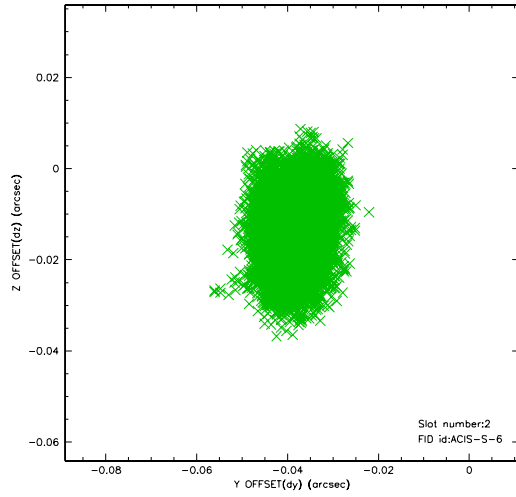
2.5.1 Slot 0



2.5.2 Slot 1

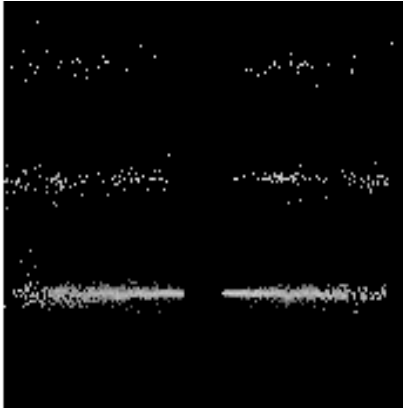


2.5.3 Slot 2



3 Gratings

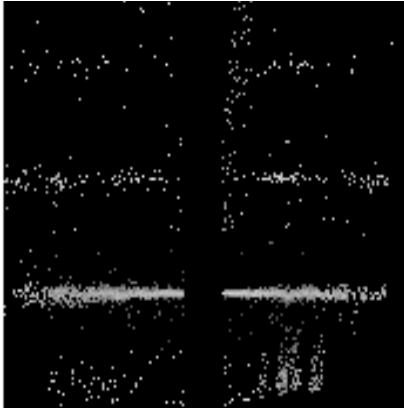
3.1 HEG Arm



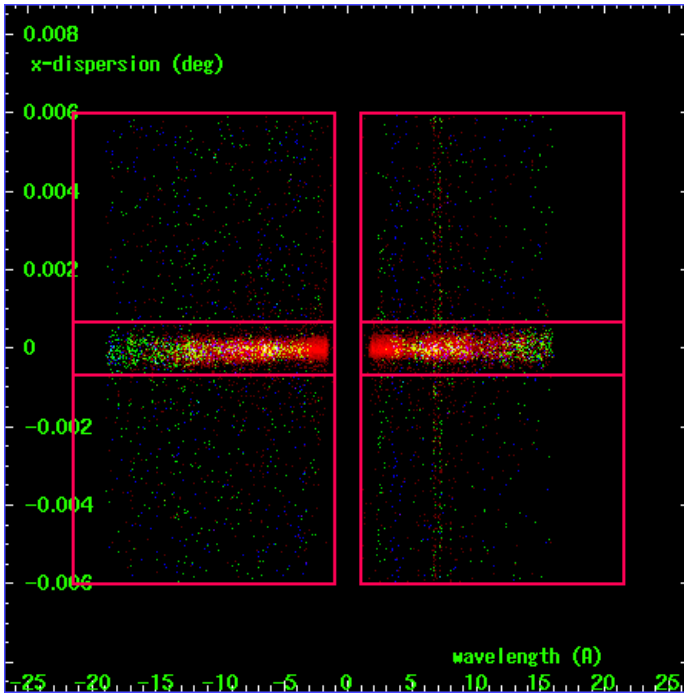
HEG Order Sort 123



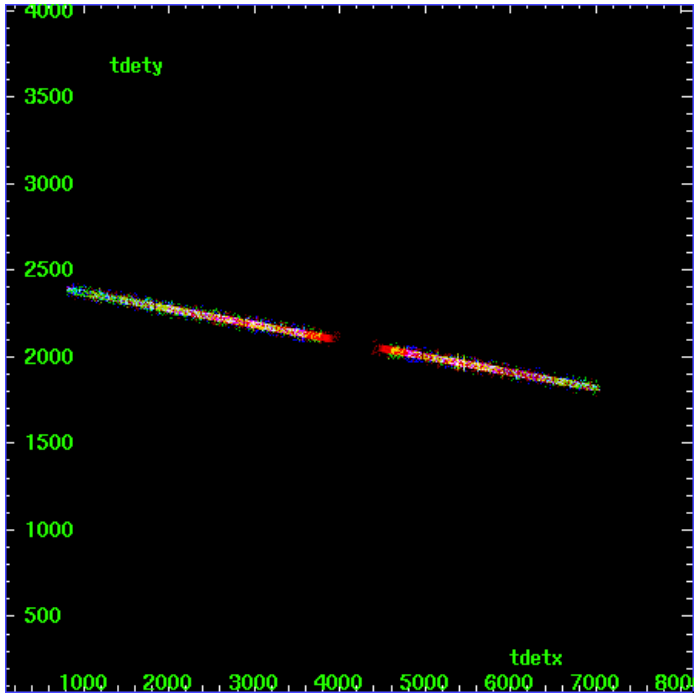
HEG Zero Order



HEG Order Sort ALL

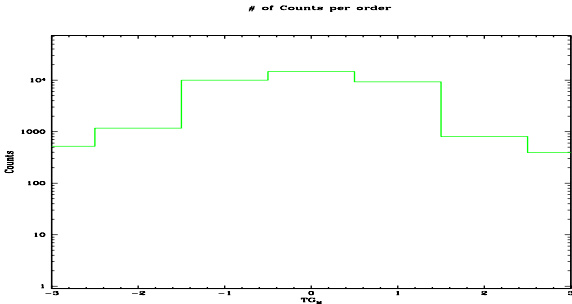


Spot Image HEG

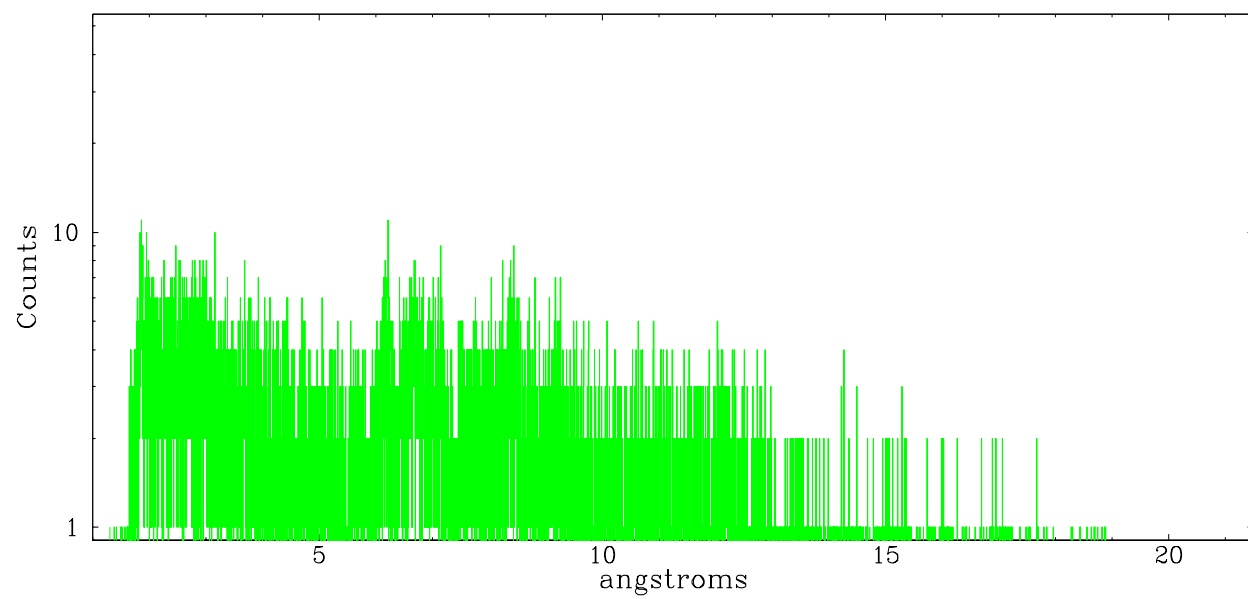


Full Detector HEG

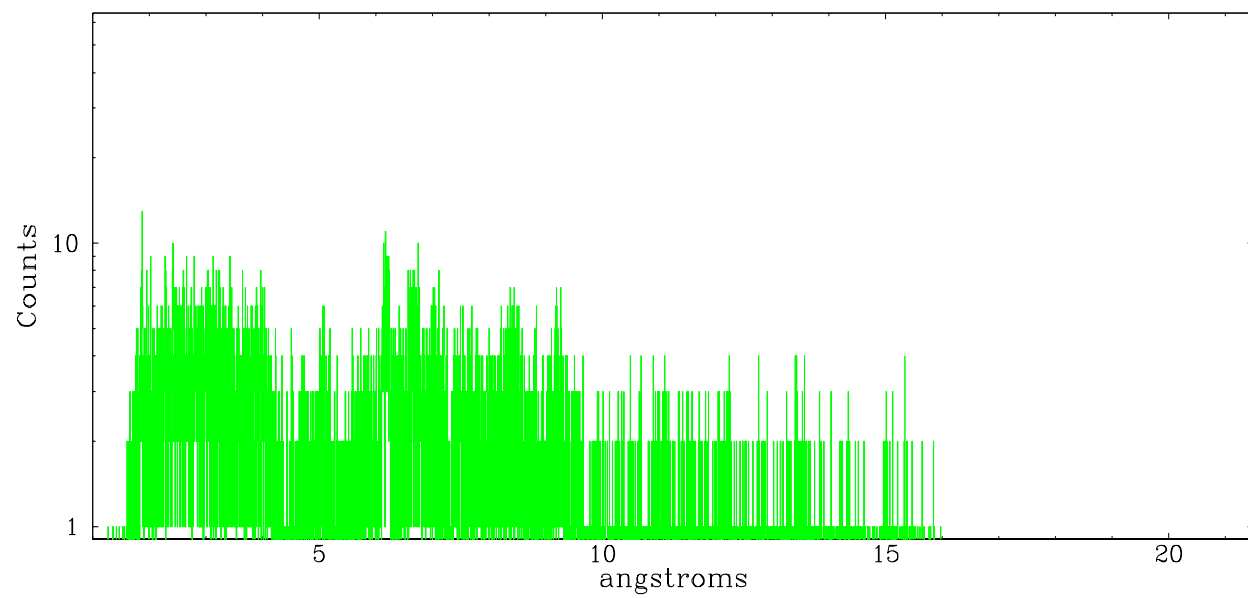
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	519	1169	9940	14578	9276	802	392



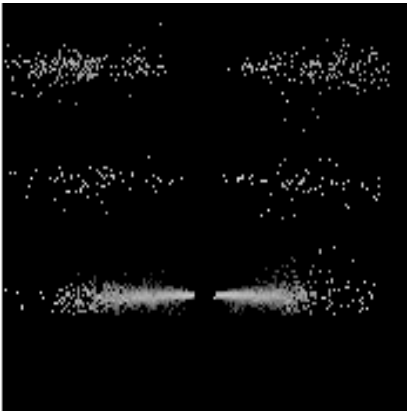
neg order -1



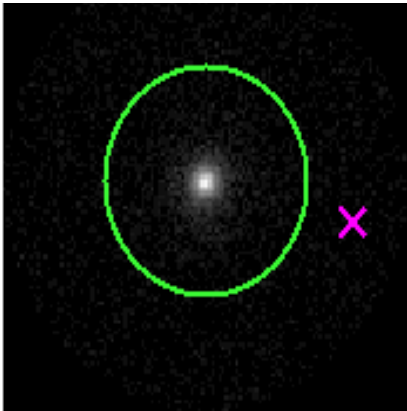
neg order +1



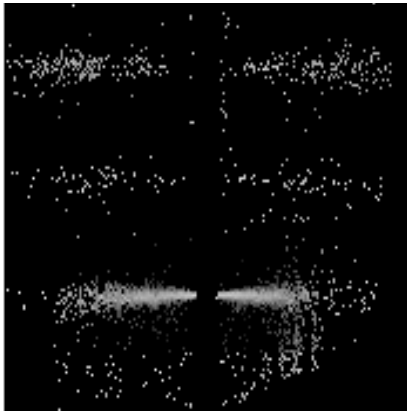
3.2 MEG Arm



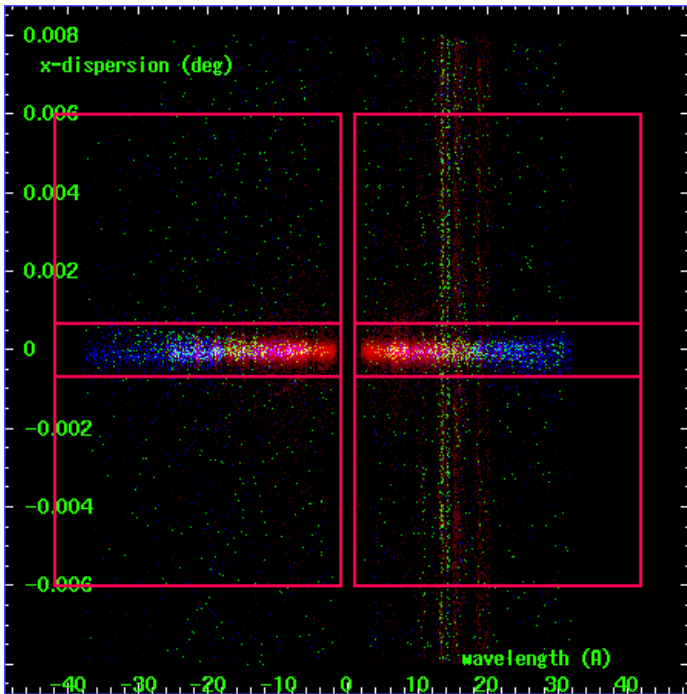
MEG Order Sort 123



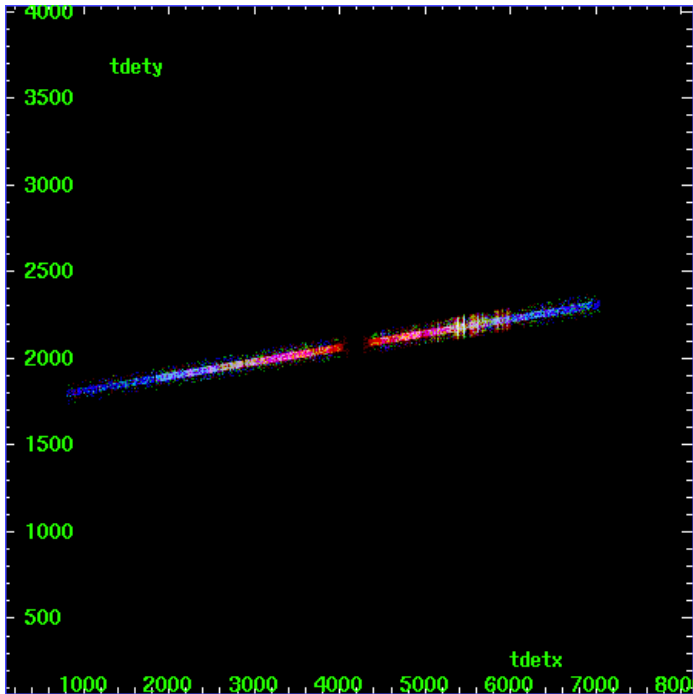
MEG Zero Order



MEG Order Sort ALL

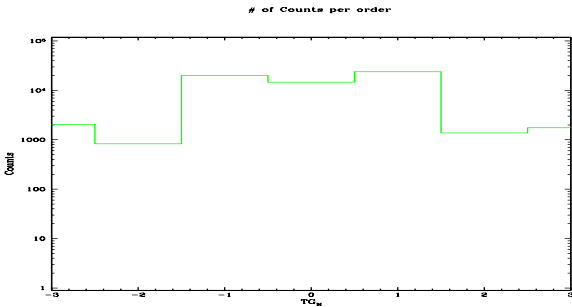


Spot Image MEG

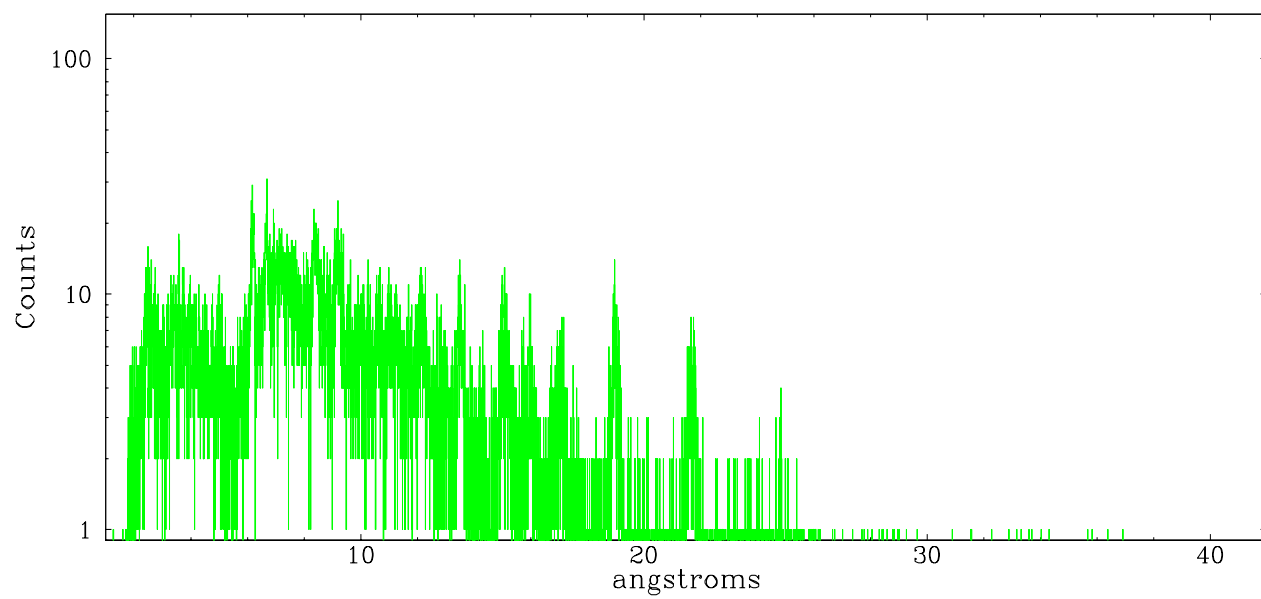


Full Detector MEG

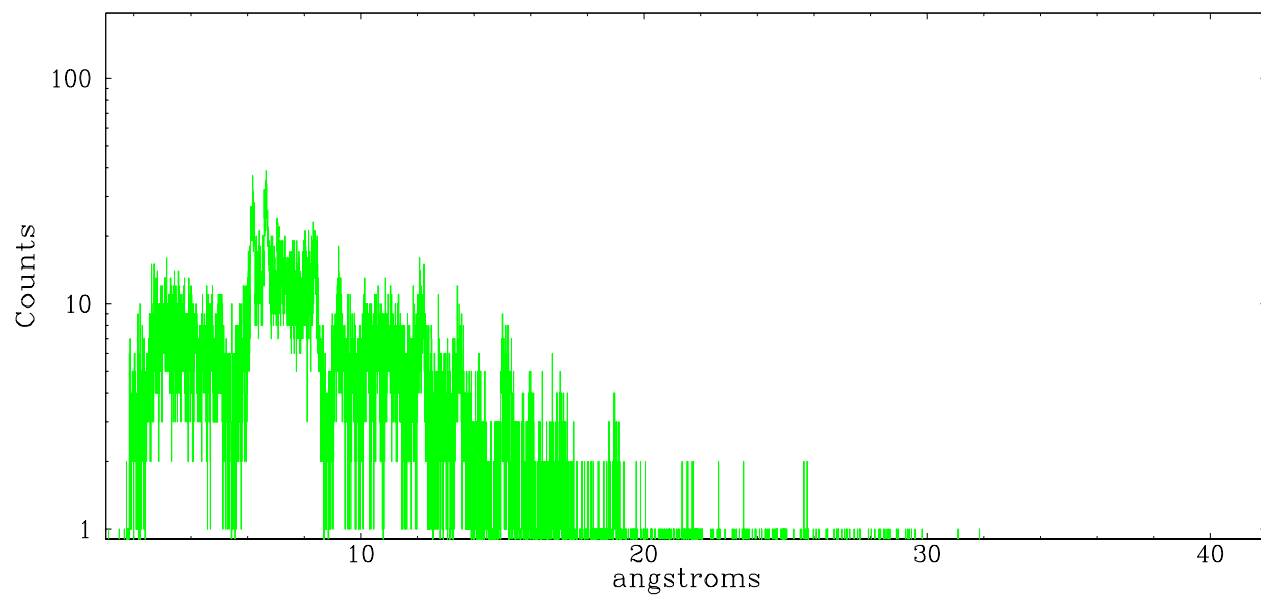
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2052	832	20080	14578	23728	1378	1753



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2009.02.05
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	60.304

A.2 Comments

SS Cyg in outburst. Preceded by an LETG observation 2307. Spacecraft instruments were safed due to high radiation environment at the beginning of this observation. An unscheduled momentum dump followed the safing event. This observation includes only events taken after the instrument safing and momentum dump, when the spacecraft was in a stable pointing configuration. Chip S4 is severely affected by streaking. Running the destreak algorithm on the level 2 event data may improve the analysis of events on this chip.

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This obsid was reprocessed to correct minor errors in parameters used in processing. Some of these parameters cannot be determined automatically for this observation and were derived from spacecraft telemetry.