

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 4820 - L2 Version 001
Chandra X-Ray Center

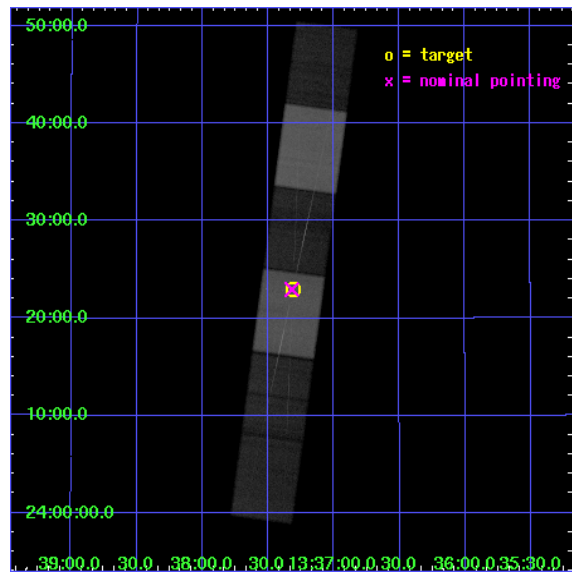
L2 Processing Date : Jun 3 2006

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1 Front

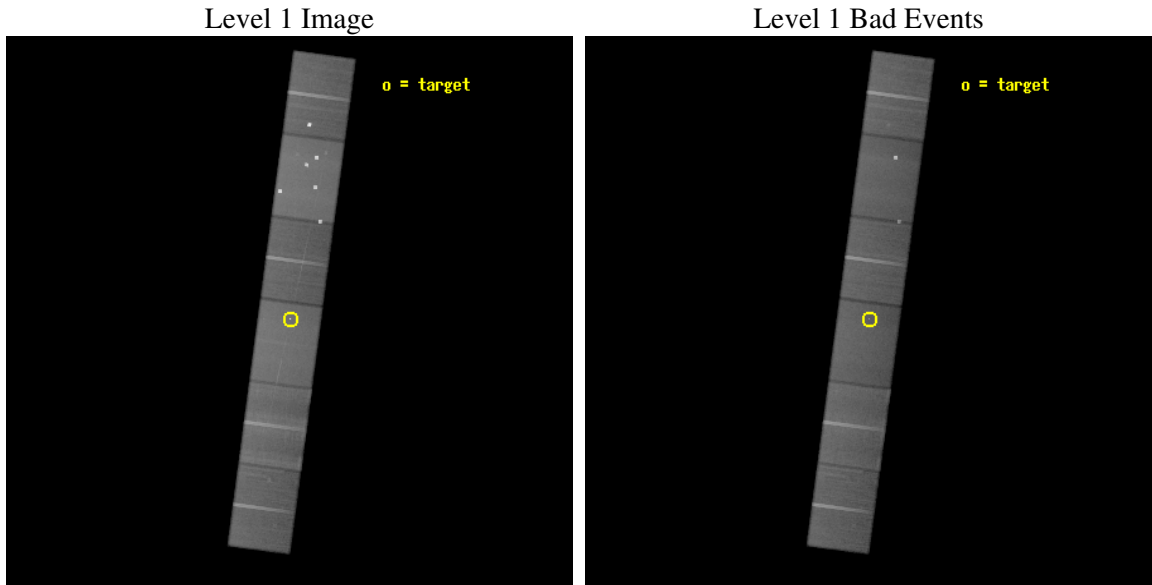
seq_num	700902
obs_id	4820
title	A Chandra HETGS & HST view of the Warm and Lukewarm absorbers in IRAS 13349+2438
observer	Prof Julia Lee
object	IRAS 13349+2438
dtcycle	0
cycle	P
ra_targ	204.327917
dec_targ	24.384167
ra_nom	204.32994320384
dec_nom	24.382905289243
roll_nom	97.651278112329
revision	2
ontime	137447.5
livetime	135227.60365834
ontime4	137447.5
ontime5	137447.5
ontime6	137442.41800958
ontime7	137447.5
ontime8	137444.95899984
ontime9	137447.5
l2events	1094523



2 OBI

2.1 OBI

2.1.1 Images

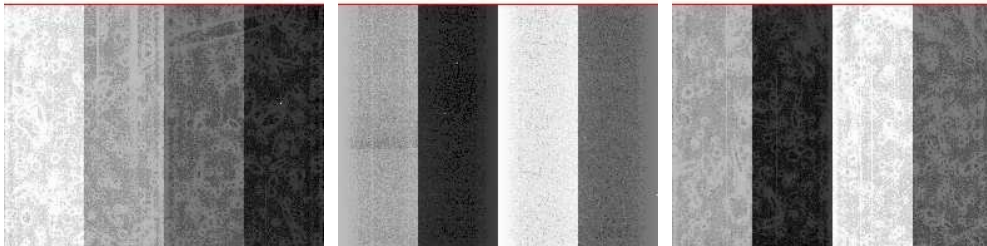


2.1.2 Bias

Chip 4

Chip 5

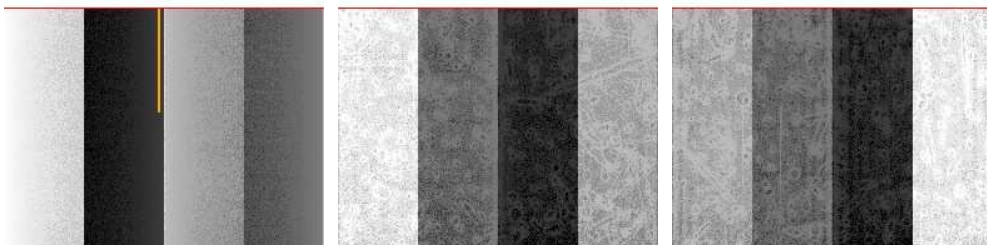
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	1
ascdsver	7.6.7.2
caldsver	3.2.2
date	2006-06-02T21:20:21
revision	2

sched_exp_time	137286.237000
ontime	137908.56450593
ontime4	137786.59460586
ontime5	137908.56450593
ontime6	137796.75883552
ontime7	137908.56450593
ontime8	137794.21774578
ontime9	137799.29978594
l1events	5258274

2.1.4 Events

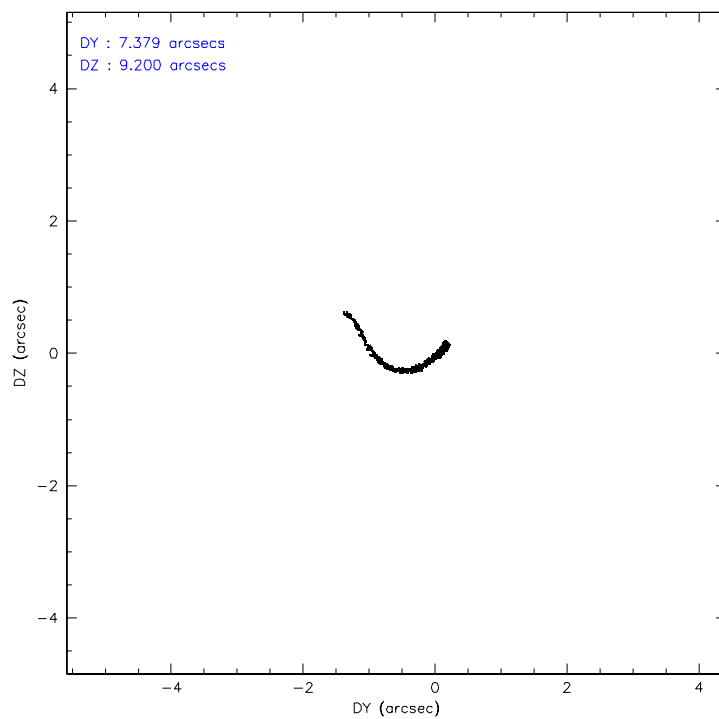
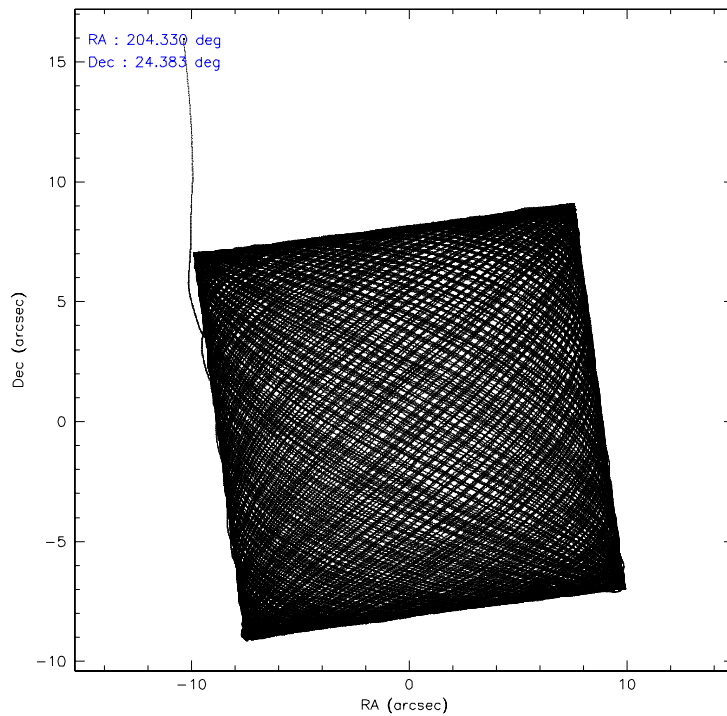
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	821435	1170869	716599	956319	894916	698136
rejected events	683735	602515	629901	581436	705750	612430
rejected %	83%	51%	87%	60%	78%	87%

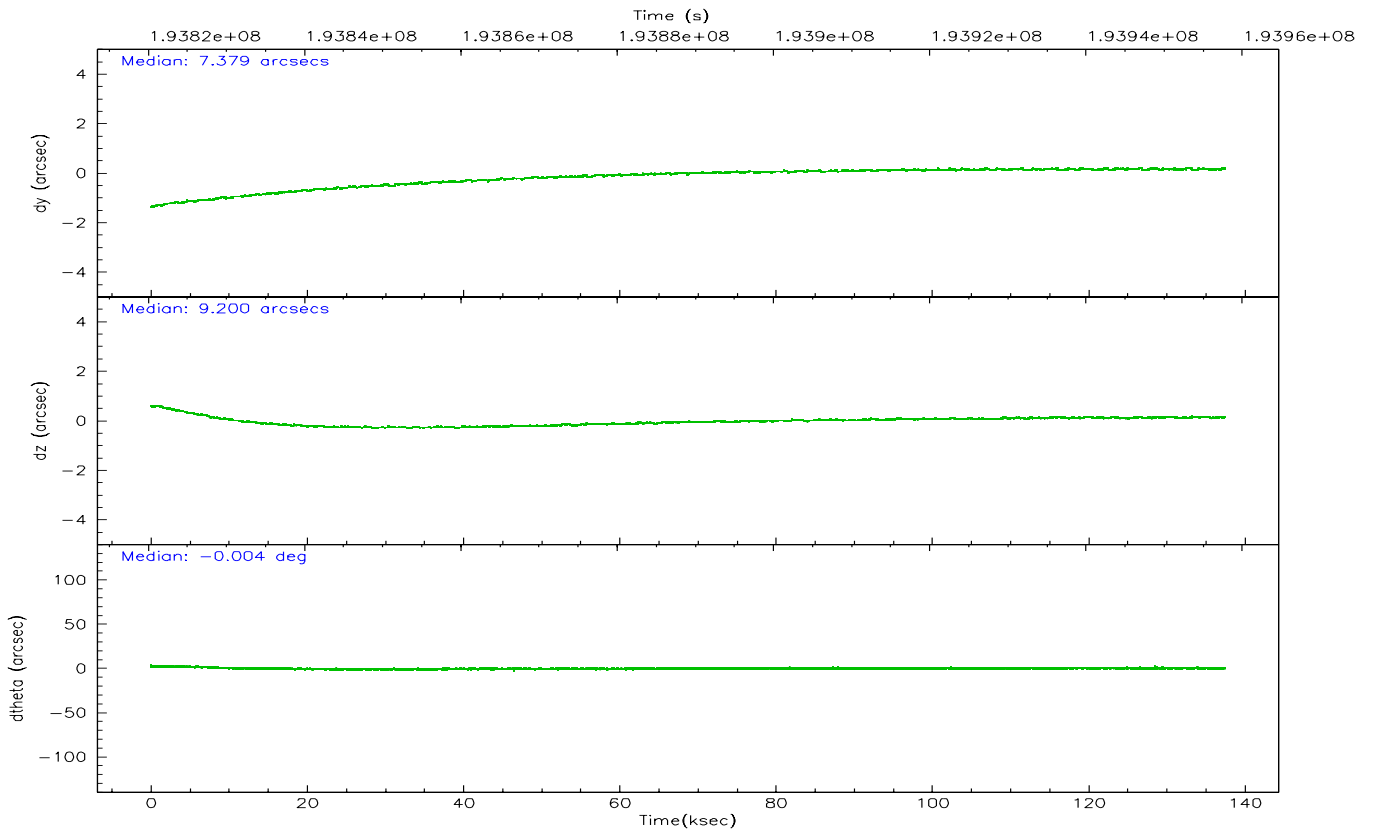
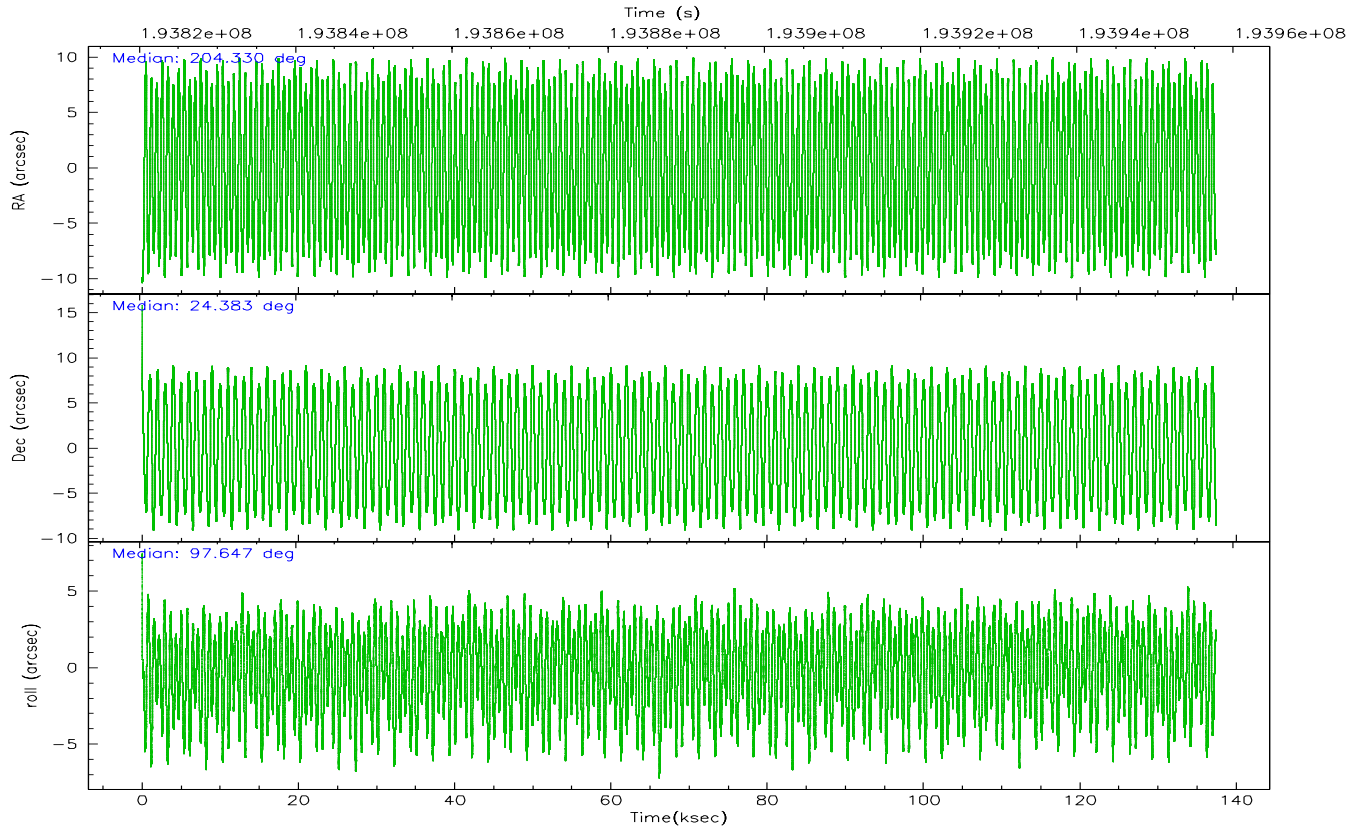
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	87294	123611	34955	24922	59327	34491
	10%	10%	4%	2%	6%	4%
grade 1 events	642	1846	285	611	510	344
	0%	0%	0%	0%	0%	0%
grade 2 events	18518	147385	17646	90520	40378	16605
	2%	12%	2%	9%	4%	2%
grade 3 events	9323	15183	8892	21939	20666	9182
	1%	1%	1%	2%	2%	1%
grade 4 events	8841	13169	8733	21704	19251	8794
	1%	1%	1%	2%	2%	1%
grade 5 events	30176	60499	31287	66315	41636	33706
	3%	5%	4%	6%	4%	4%
grade 6 events	14031	270629	16691	217079	49953	16860
	1%	23%	2%	22%	5%	2%
grade 7 events	652610	538547	598110	513229	663195	578154
	79%	45%	83%	53%	74%	82%

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	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	CUSTOM
Pointing RA	204.348523	204.3299432038442	Subarray start row	1	1
Pointing Dec	24.361588	24.38290528924297	Subarray row count	774	774
Pointing Roll	97.486986	97.65127811232911	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	2.5
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-187.132523	-187.1254020033014			
SIM translation stage offset (mm)	-3	-3.007120579706367			
Observation start time	193820515.184000	193819326.82012			
Observation start date	2004-02-22T07:00:51	2004-02-22T06:42:06			
Observation end time	193957801.184000	193958115.92619			
Observation end date	2004-02-23T21:08:57	2004-02-23T21:15:15			
Read mode	TIMED	TIMED			

2.3 Aspect



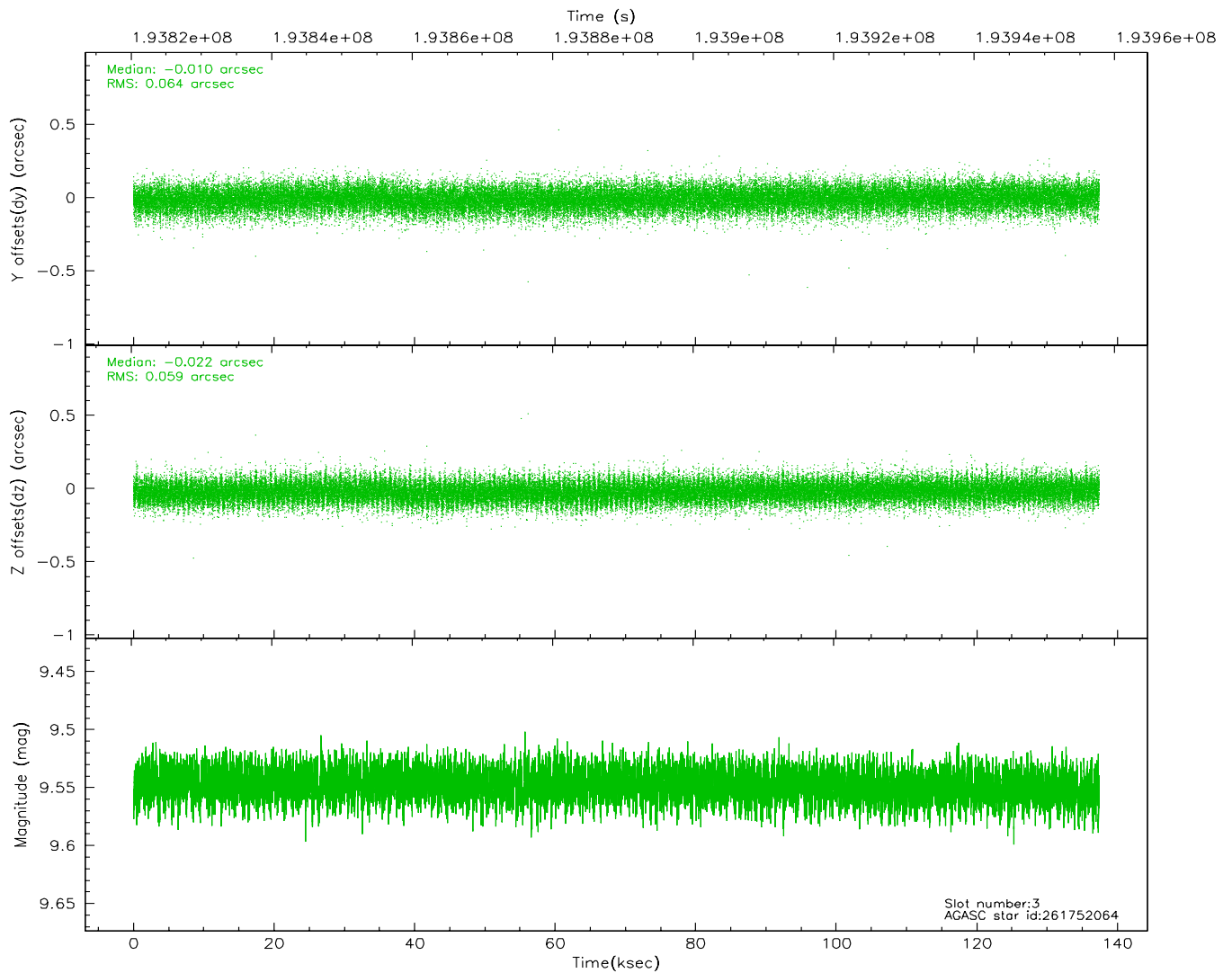
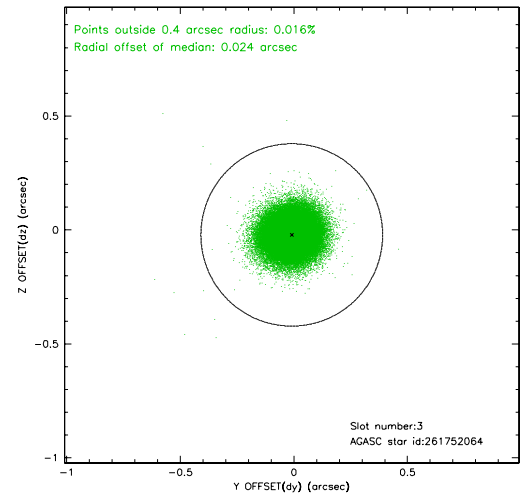
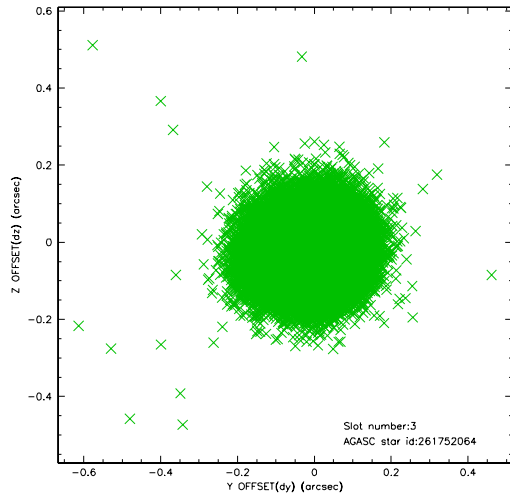


Slot Statistics

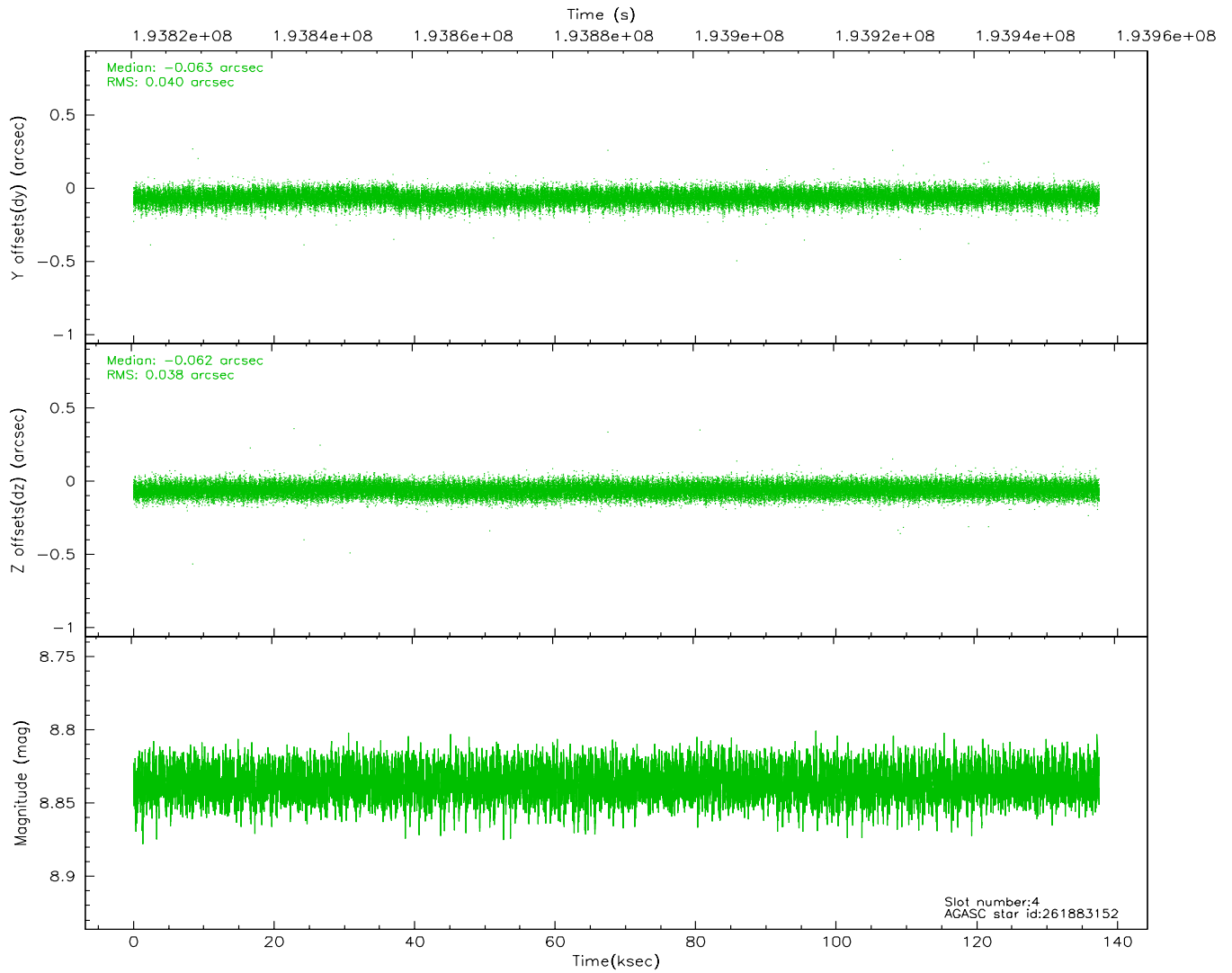
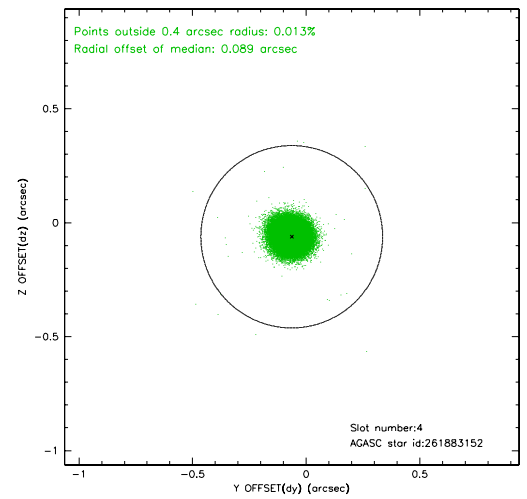
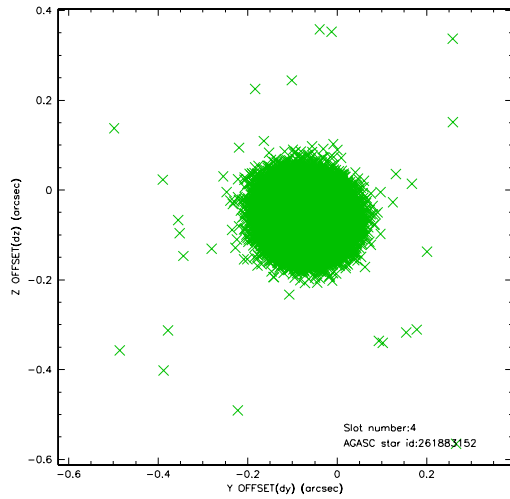
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	33523	-0.053	-0.027	0.012	0.021	0.000000	0.000000	-759.80	-1792.52
1	FID	ACIS-S-4	7.20	33523	0.052	0.032	0.010	0.020	0.000000	0.000000	2153.63	116.13
2	FID	ACIS-S-5	7.23	33521	-0.030	0.002	0.011	0.019	0.000000	0.000000	-1812.75	109.64
3	GUIDE	261752064	9.55	67008	-0.010	-0.022	0.092	0.151	203.623563	24.917606	2299.12	2085.55
4	GUIDE	261883152	8.84	67030	-0.063	-0.062	0.058	0.095	203.788287	24.806639	1830.88	1606.30
5	GUIDE	261883880	7.97	67043	0.010	-0.062	0.059	0.097	204.025503	23.933947	-1386.66	1254.26
6	GUIDE	261884240	8.08	67045	-0.011	0.098	0.055	0.090	204.721443	24.250625	-553.70	-1161.55
7	GUIDE	261885848	7.98	67040	0.071	0.049	0.057	0.092	204.737886	24.131748	-985.12	-1160.72

2.4 Star Slots

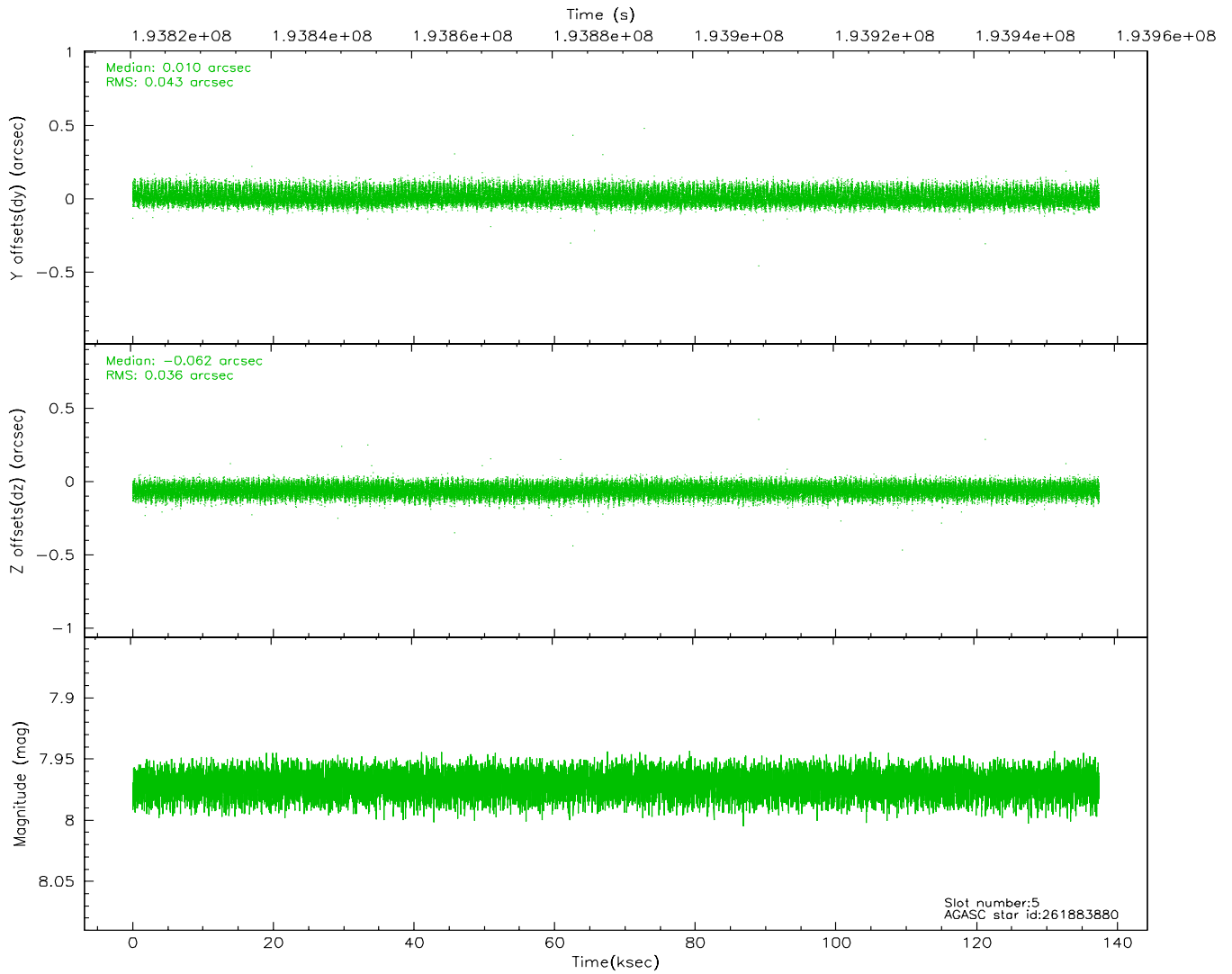
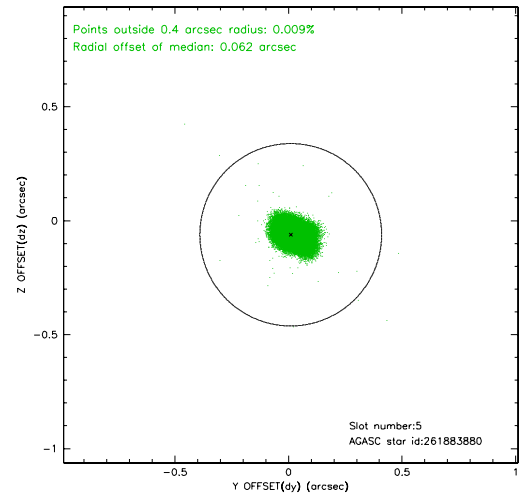
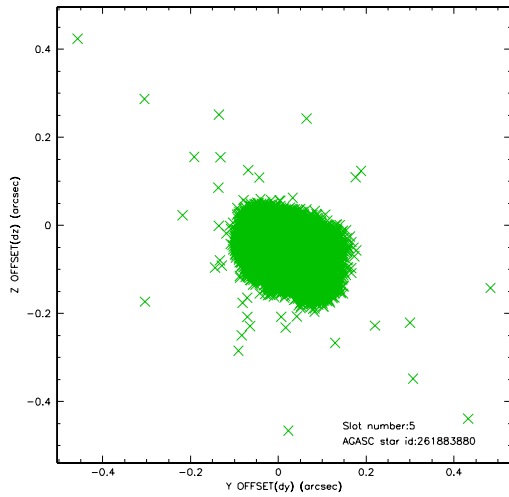
2.4.1 Slot 3



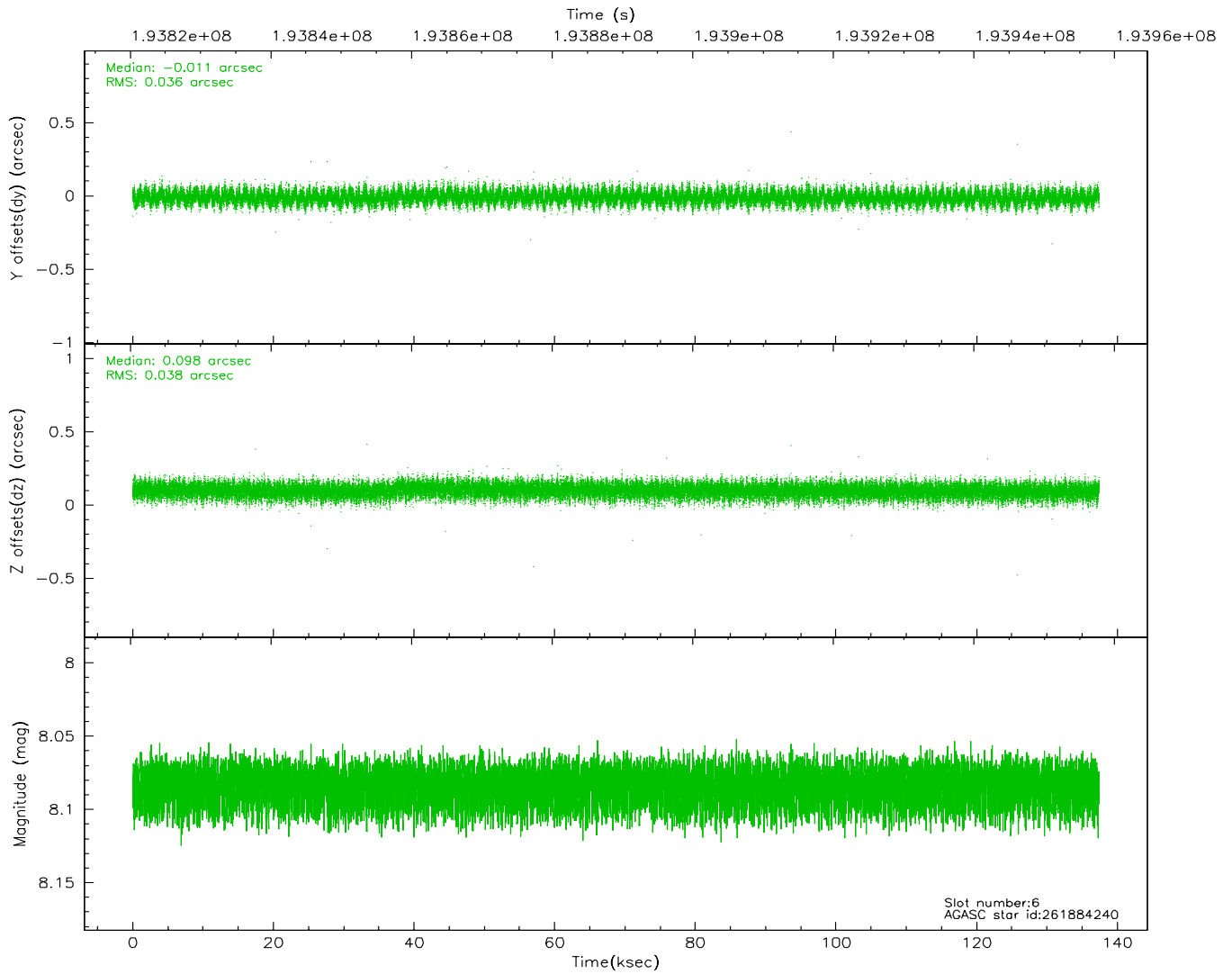
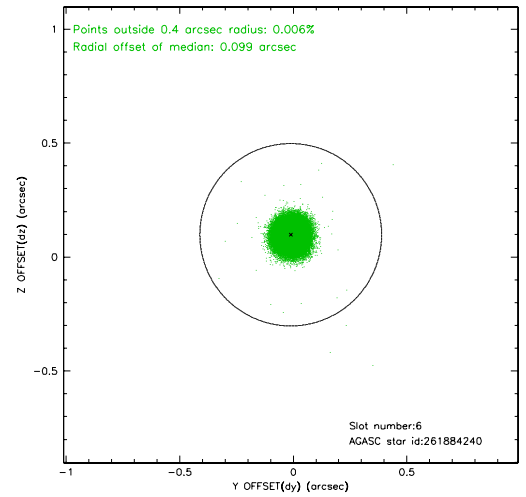
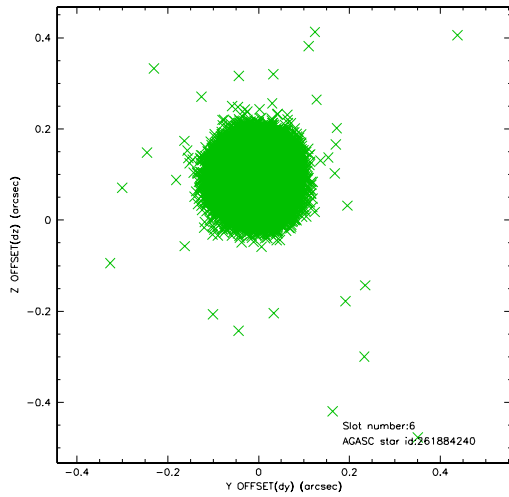
2.4.2 Slot 4



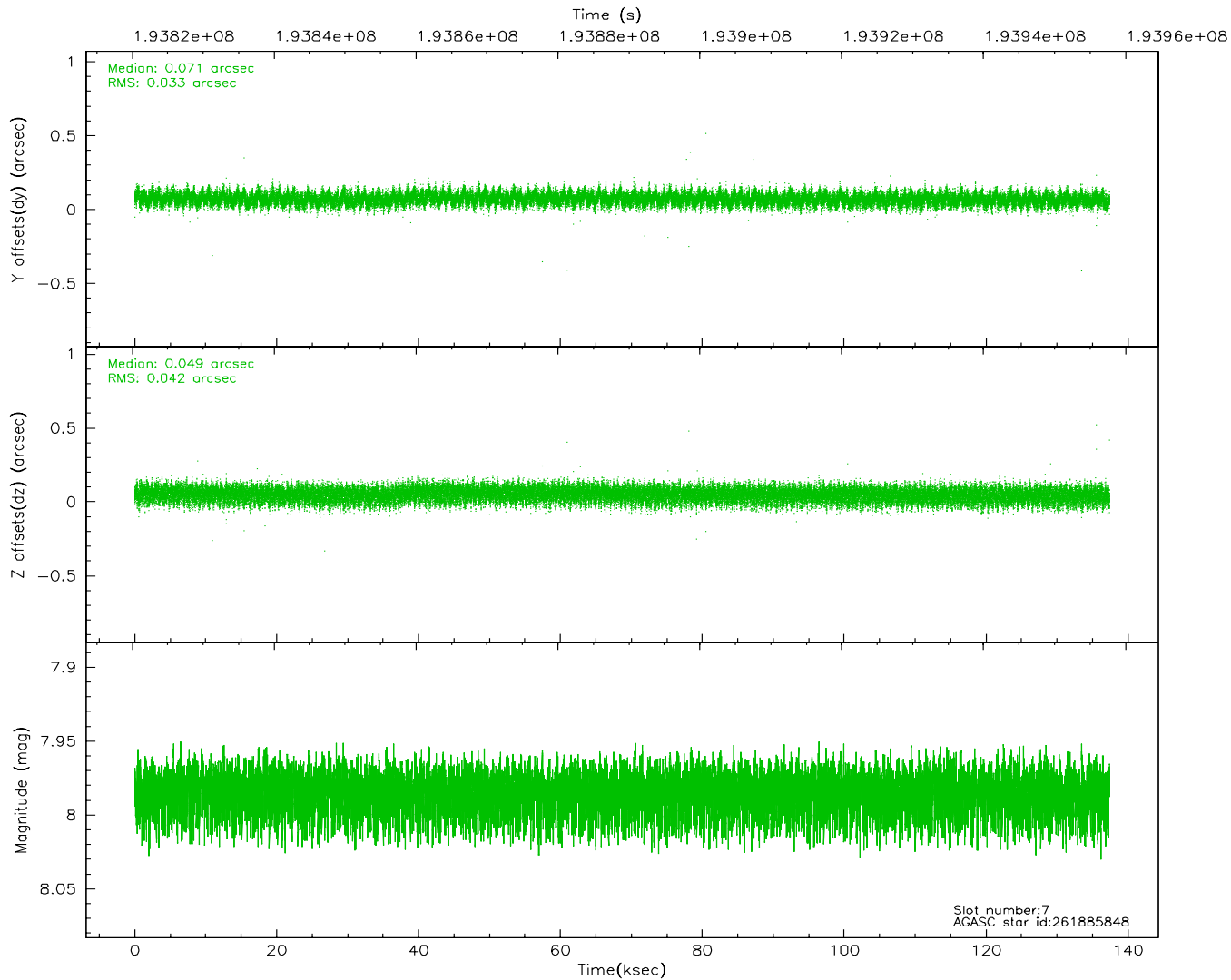
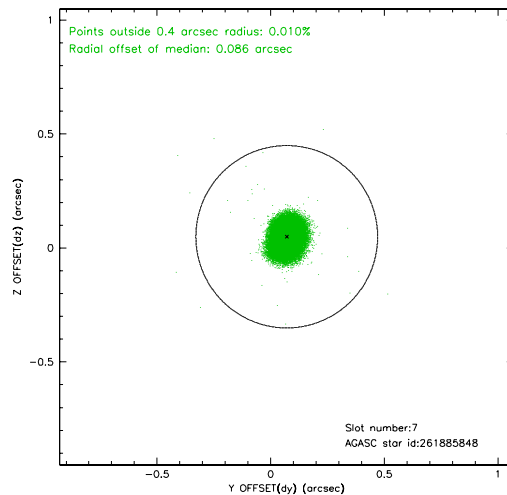
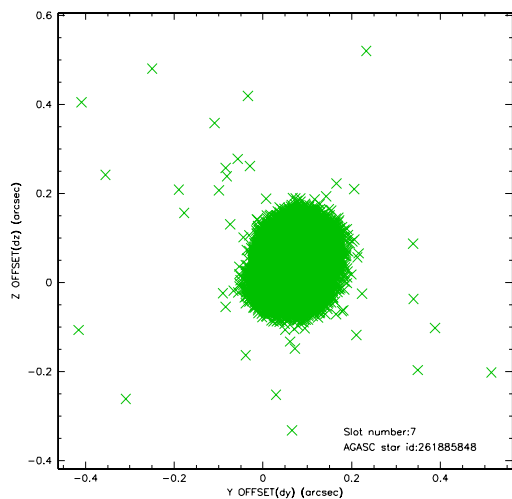
2.4.3 Slot 5



2.4.4 Slot 6

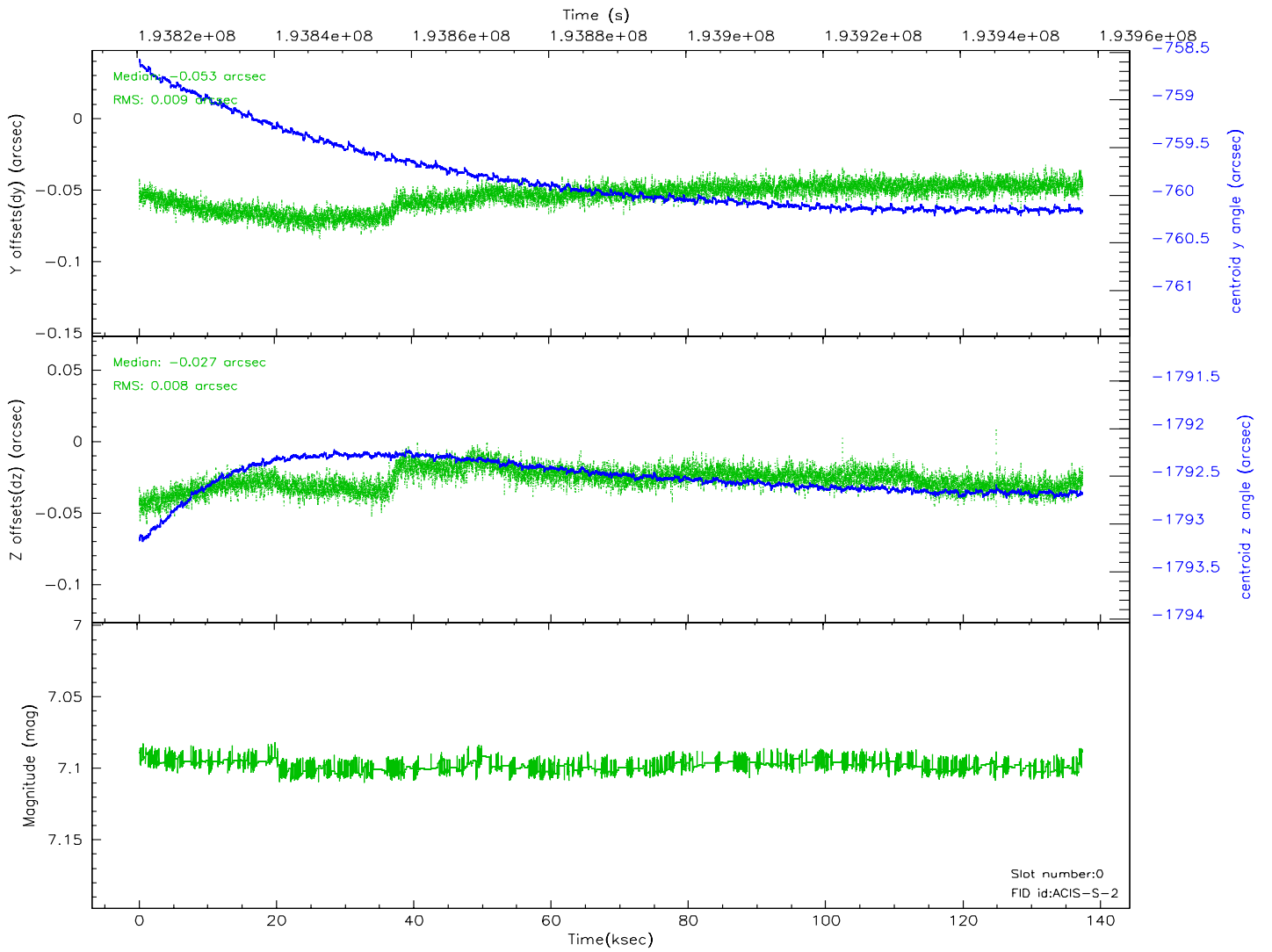
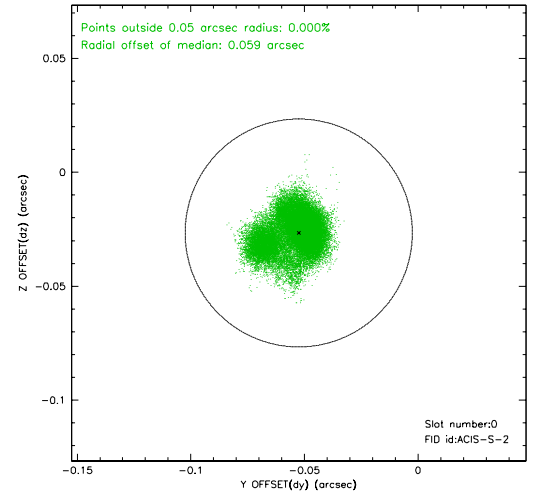
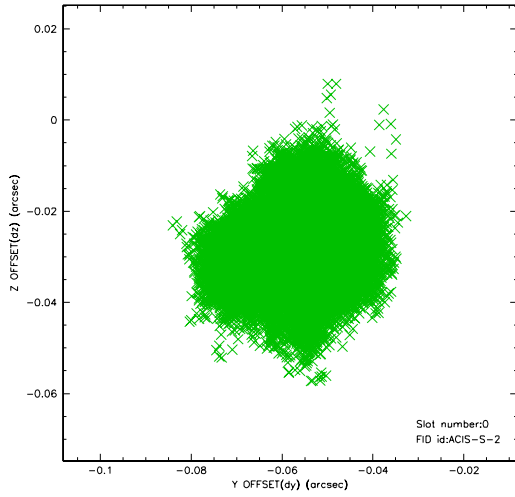


2.4.5 Slot 7

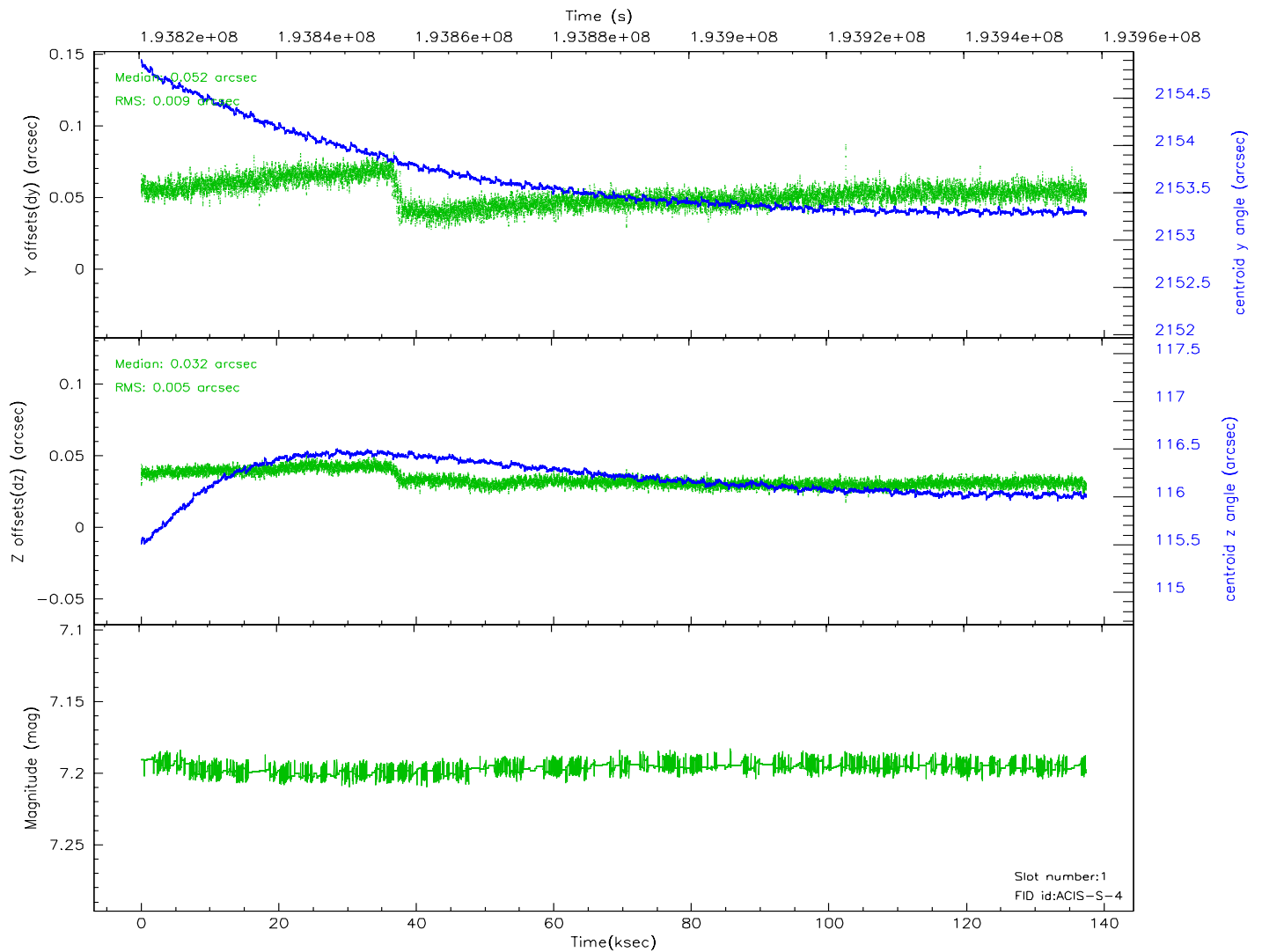
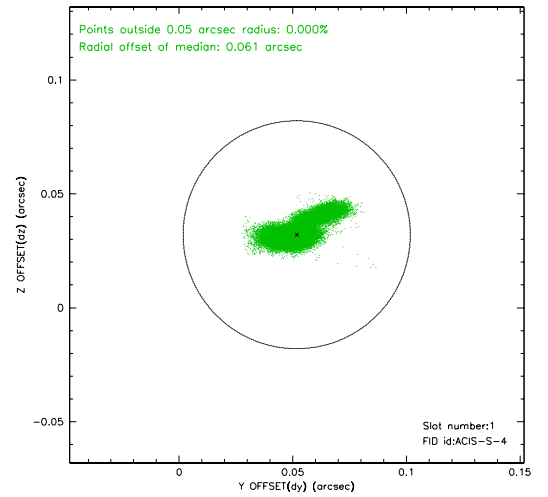
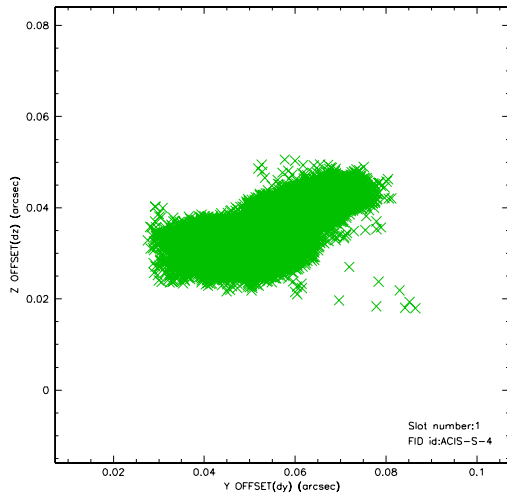


2.5 FID Slots

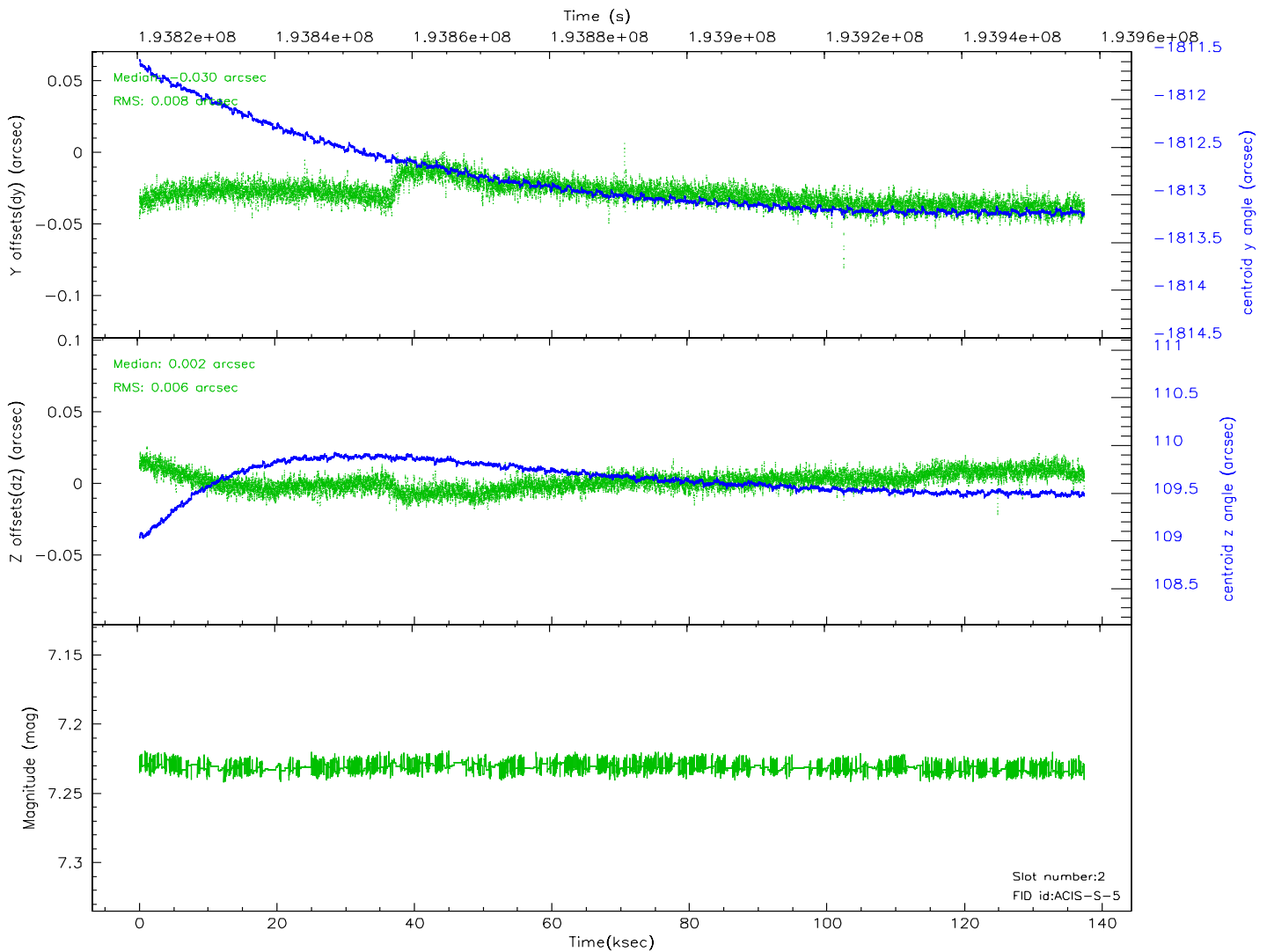
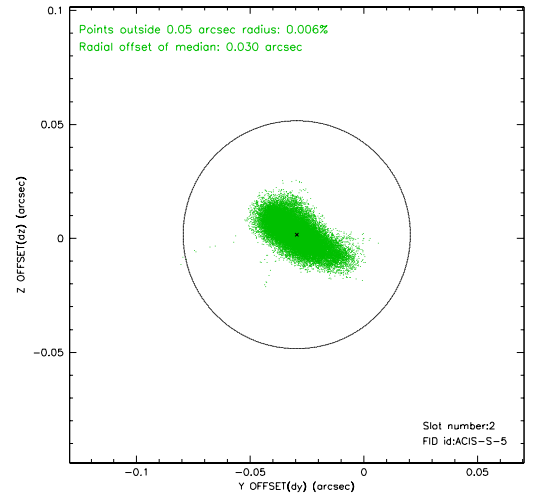
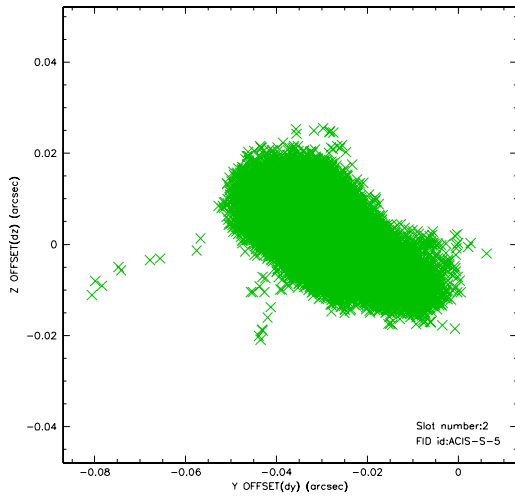
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

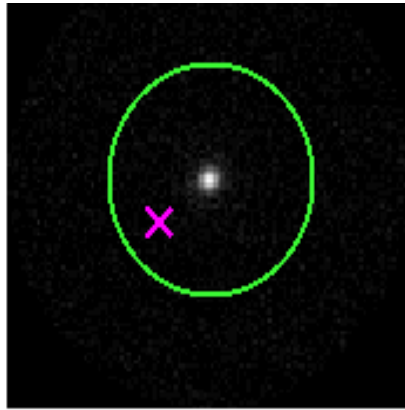


3 Gratings

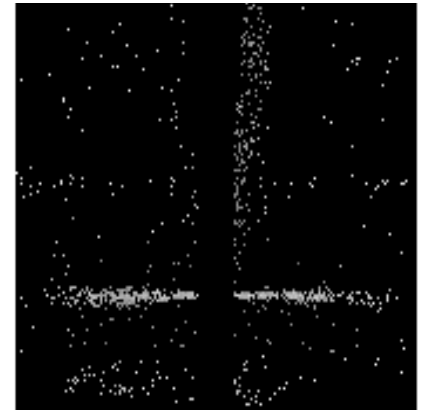
3.1 HEG Arm



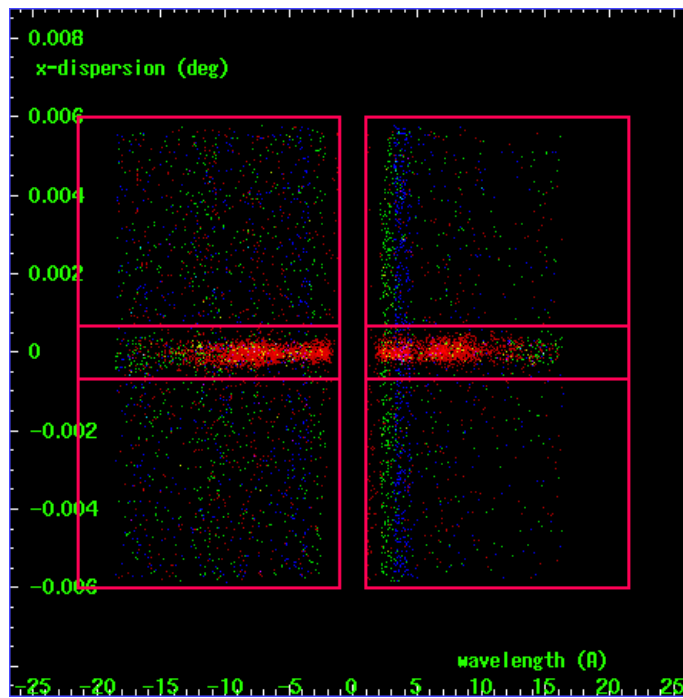
HEG Order Sort 123



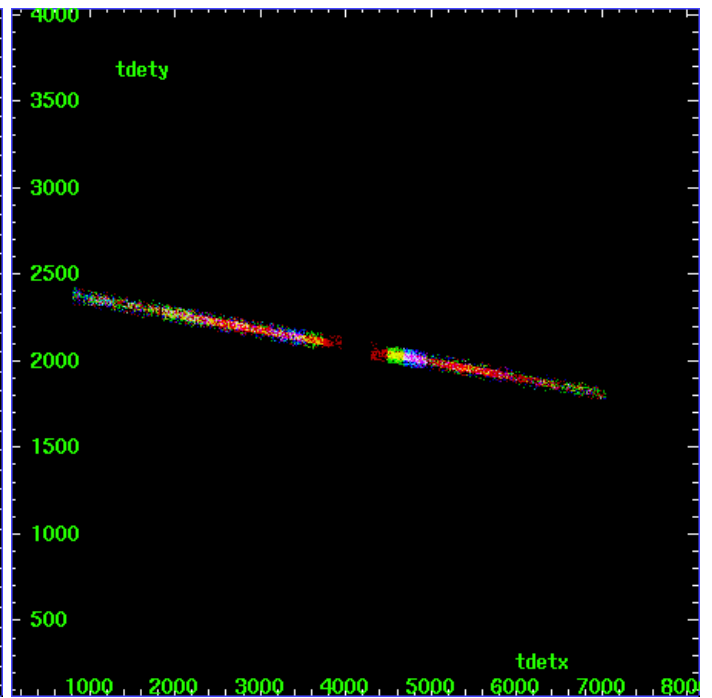
HEG Zero Order



HEG Order Sort ALL

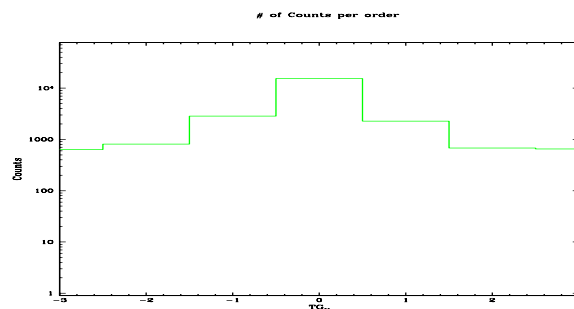


Spot Image HEG

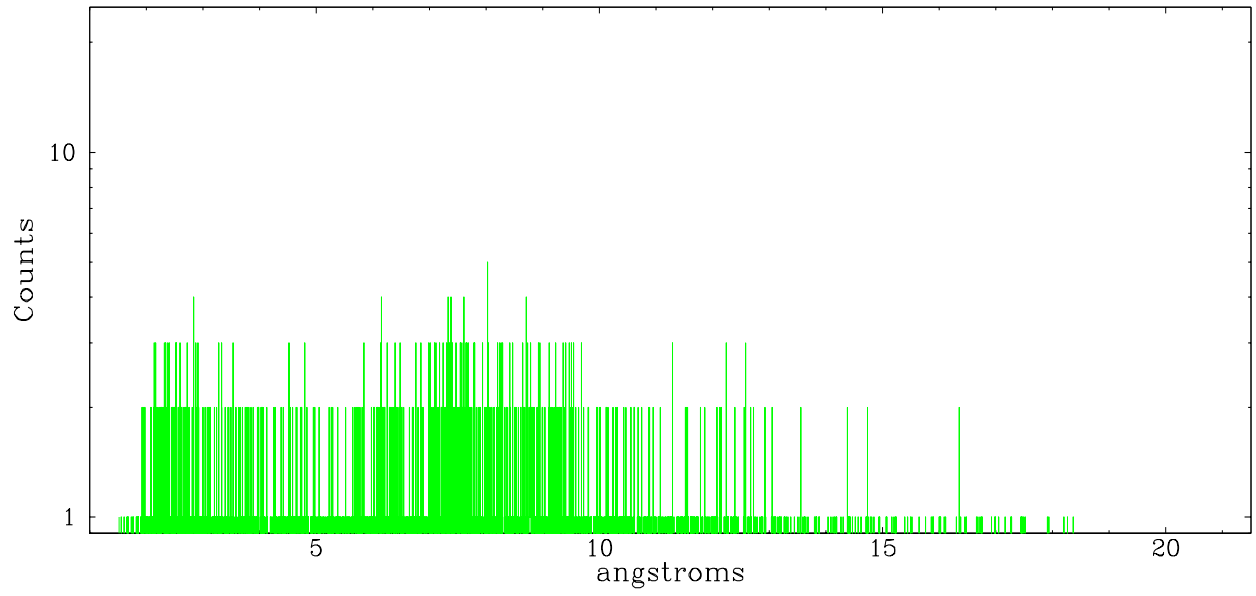


Full Detector HEG

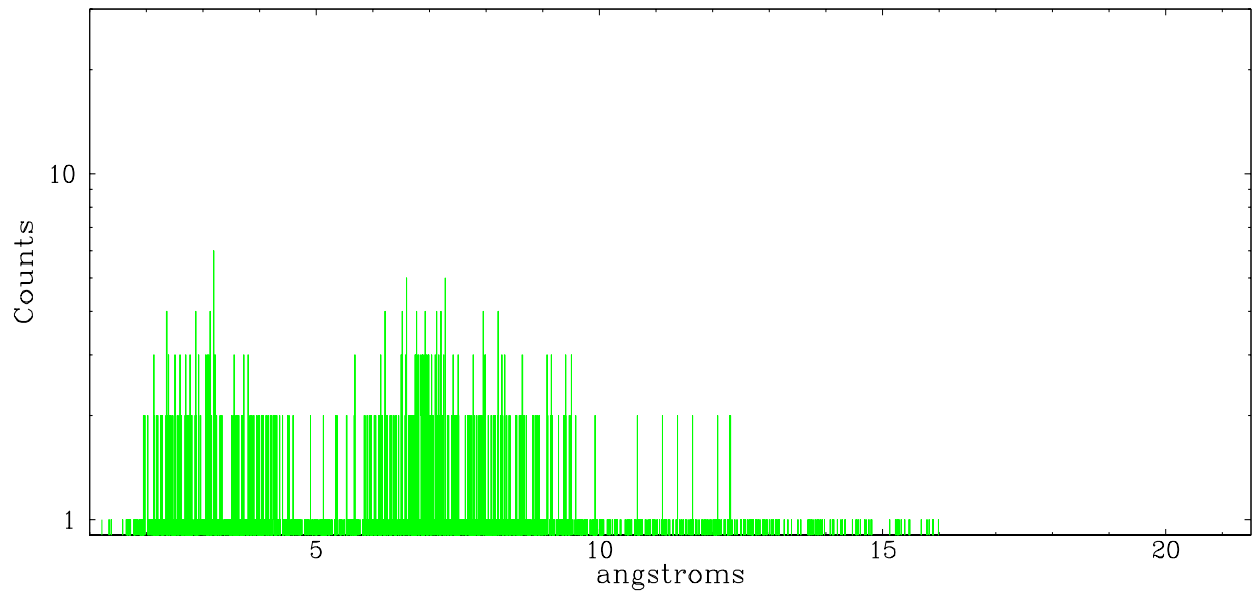
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	637	813	2841	15413	2273	677	652



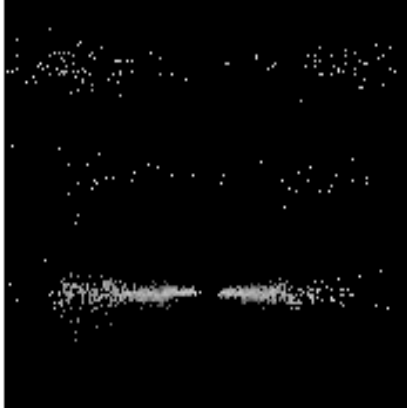
heg order -1



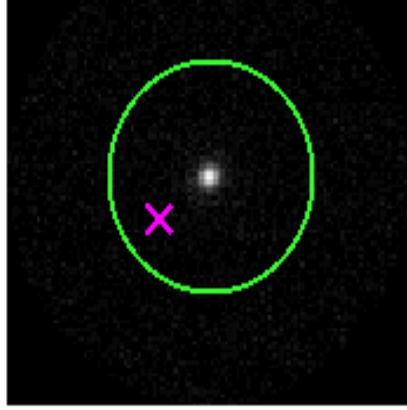
heg order +1



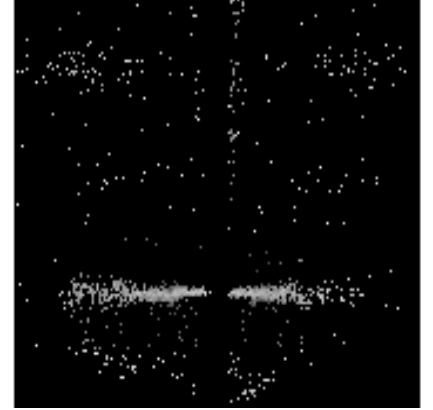
3.2 MEG Arm



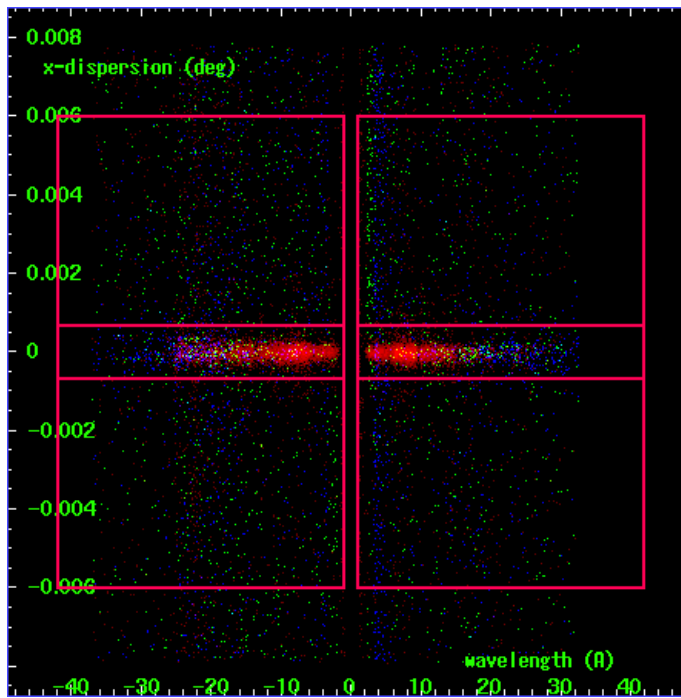
MEG Order Sort 123



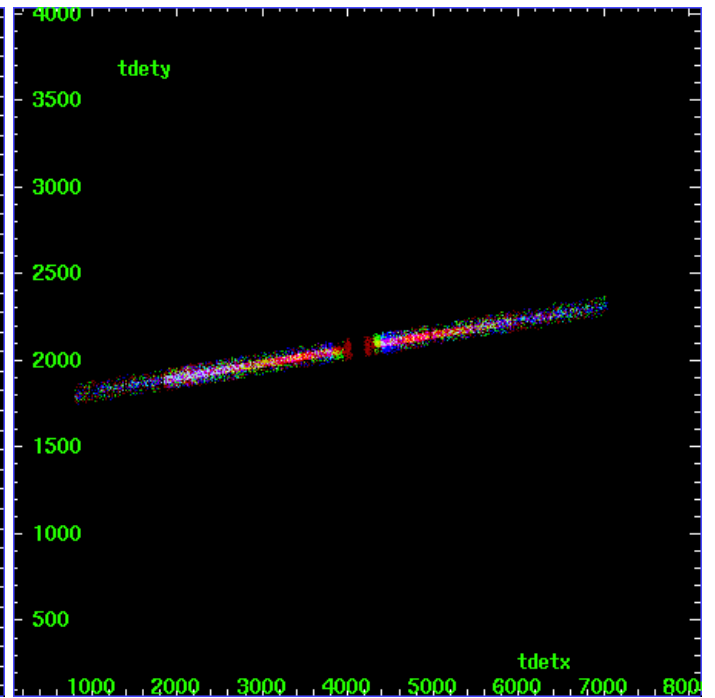
MEG Zero Order



MEG Order Sort ALL

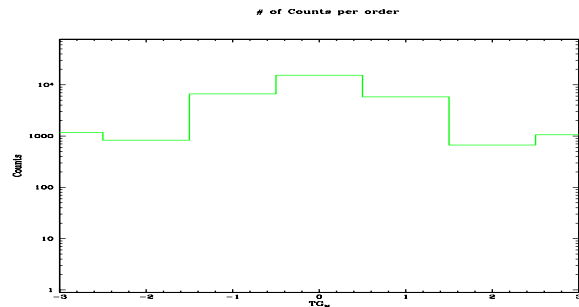


Spot Image MEG

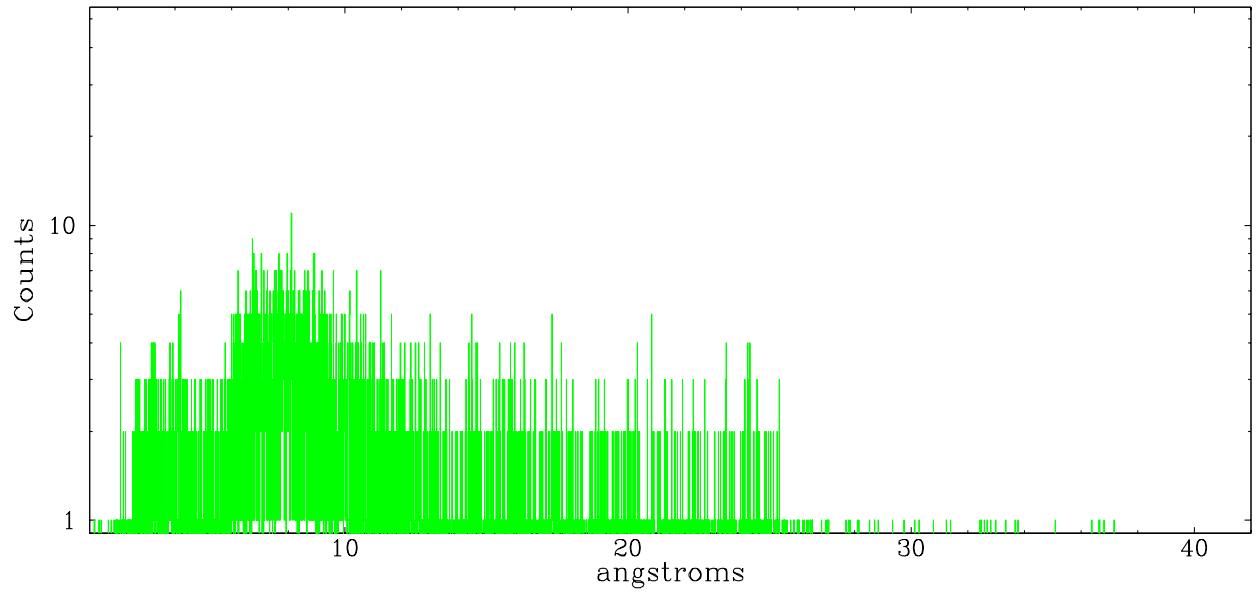


Full Detector MEG

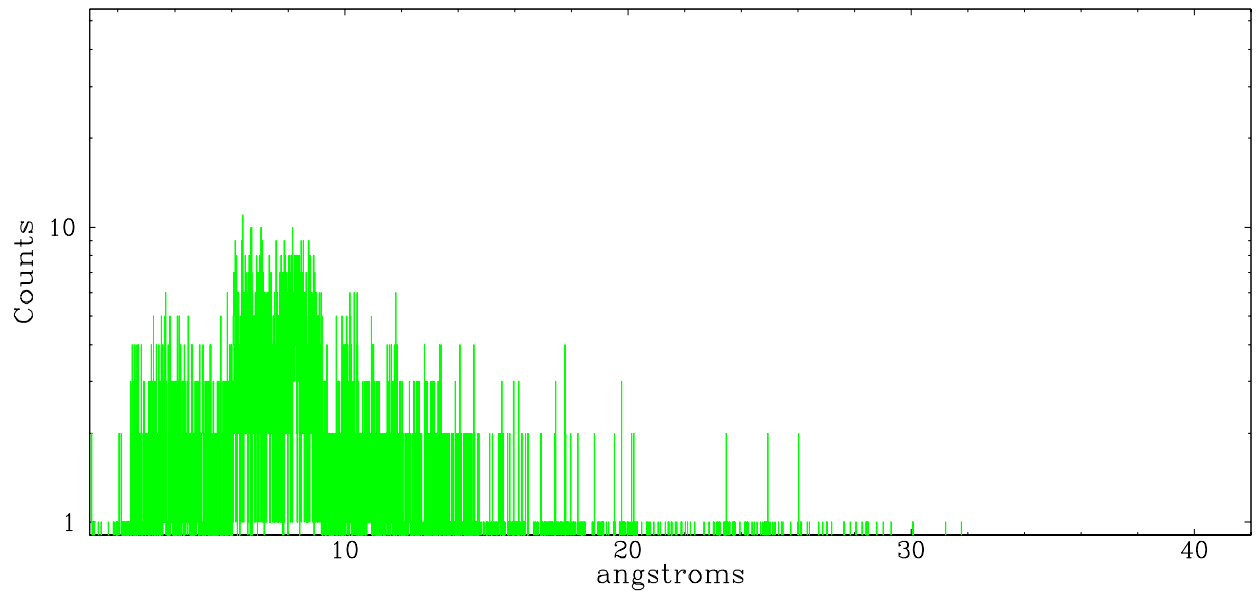
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1175	830	6633	15413	5804	670	1059



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.06.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	137.447

A.2 Comments

The ACIS focal plane temperature increases by more than two degrees over the course of the observation, and is above calibration limits for the last 15 ksec of the observation.