

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2186 - L2 Version 001
Chandra X-Ray Center

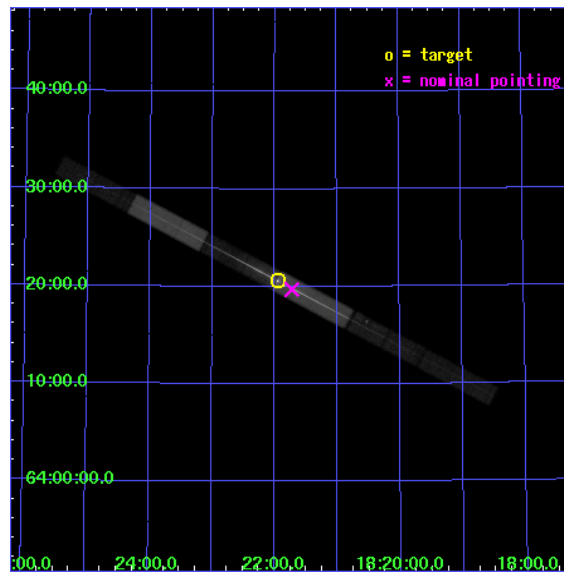
L2 Processing Date : Nov 6 2006

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	LETG Arm	17
A	Summary	19
A.1	Status	19
A.2	Comments	19

1 Front

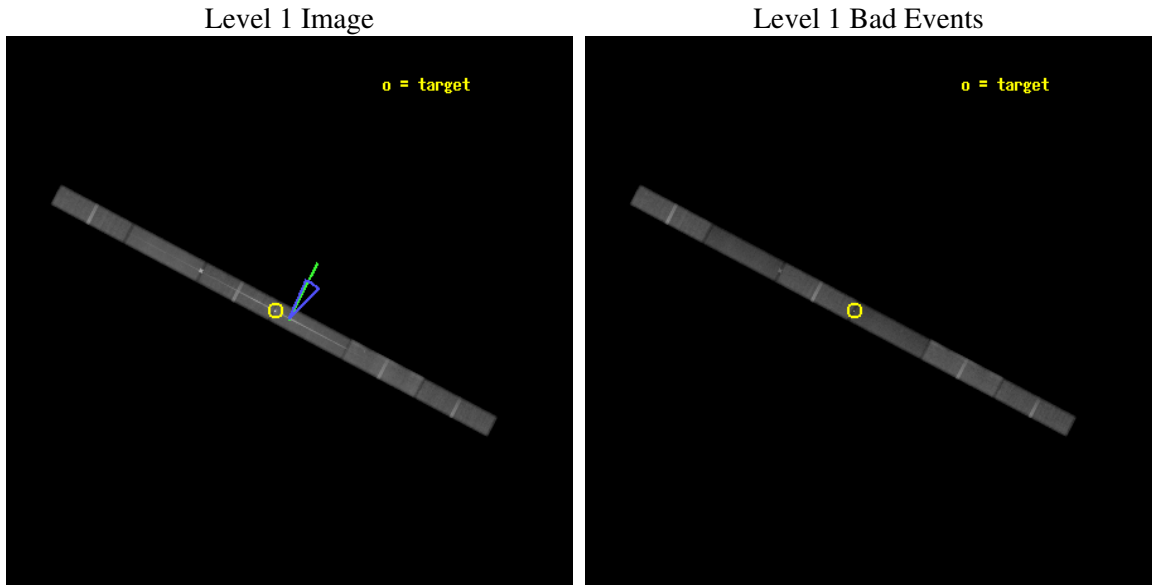
seq_num	700376
obs_id	2186
title	FINDING THE BARYONS IN THE LOW REDSHIFT UNIVERSE.
observer	Prof. Smita Mathur
object	H1821+643
dtcycle	0
cycle	P
ra_targ	275.48875
dec_targ	64.343444
ra_nom	275.43088210504
dec_nom	64.328436994064
roll_nom	27.676683368656
revision	3
ontime	171821.0
livetime	165047.45254745
ontime4	171817.87692986
ontime5	171816.83597961
ontime6	171817.87692986
ontime7	171821.0
ontime8	171819.95897992
ontime9	171819.95901984
l2events	582259



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	7.6.9
caldsver	3.2.3
date	2006-11-04T13:28:44
revision	3

sched_exp_time	171660.418000
ontime	172226.38211891
ontime4	172223.25904877
ontime5	172222.21809852
ontime6	172223.25904877
ontime7	172226.38211891
ontime8	172225.34109883
ontime9	172225.34113875
l1events	2324591

2.1.4 Events

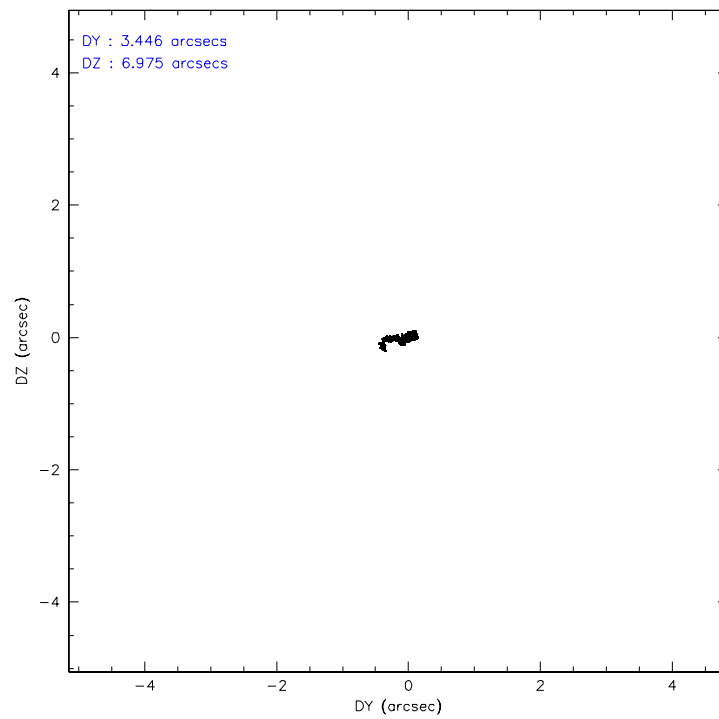
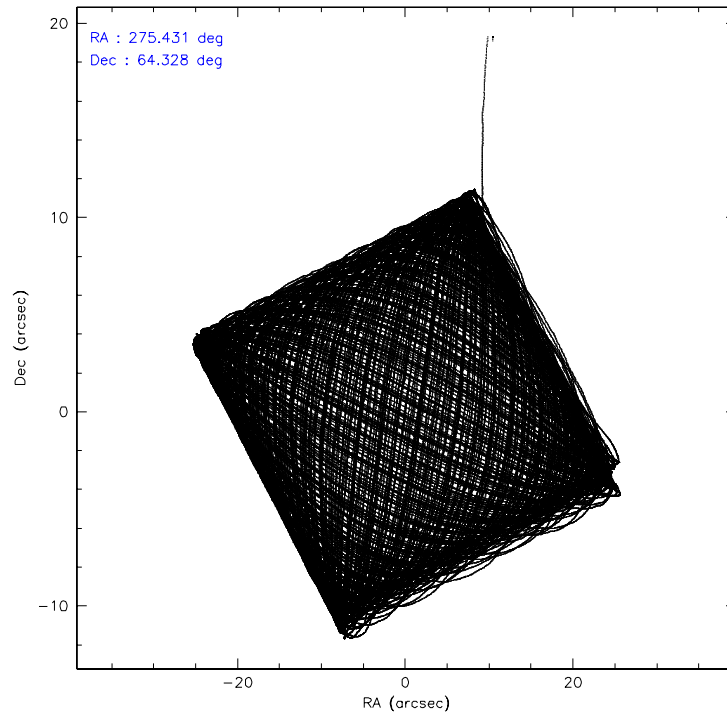
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	364866	390999	382791	448497	430805	306633
rejected events	326998	205324	294137	200800	350149	270970
rejected %	89%	52%	76%	44%	81%	88%

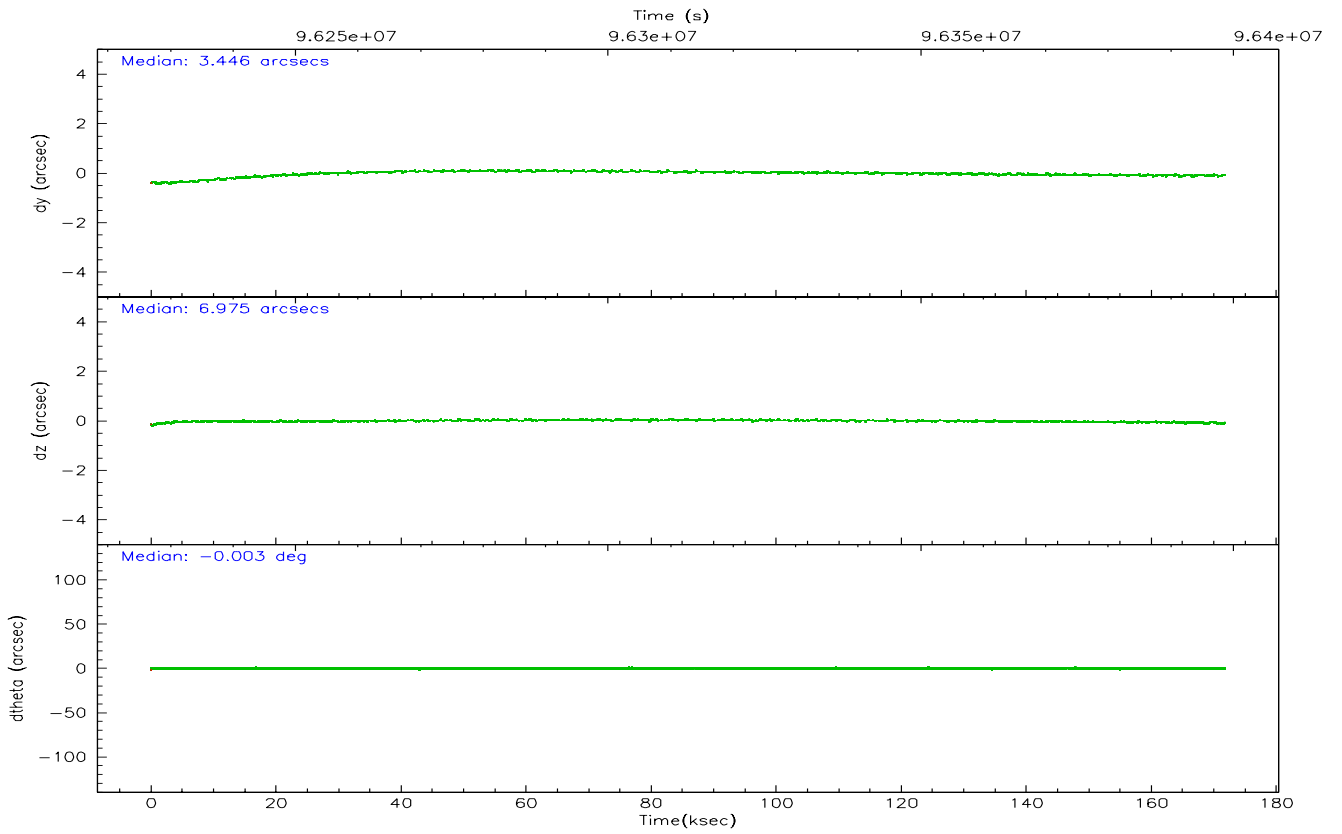
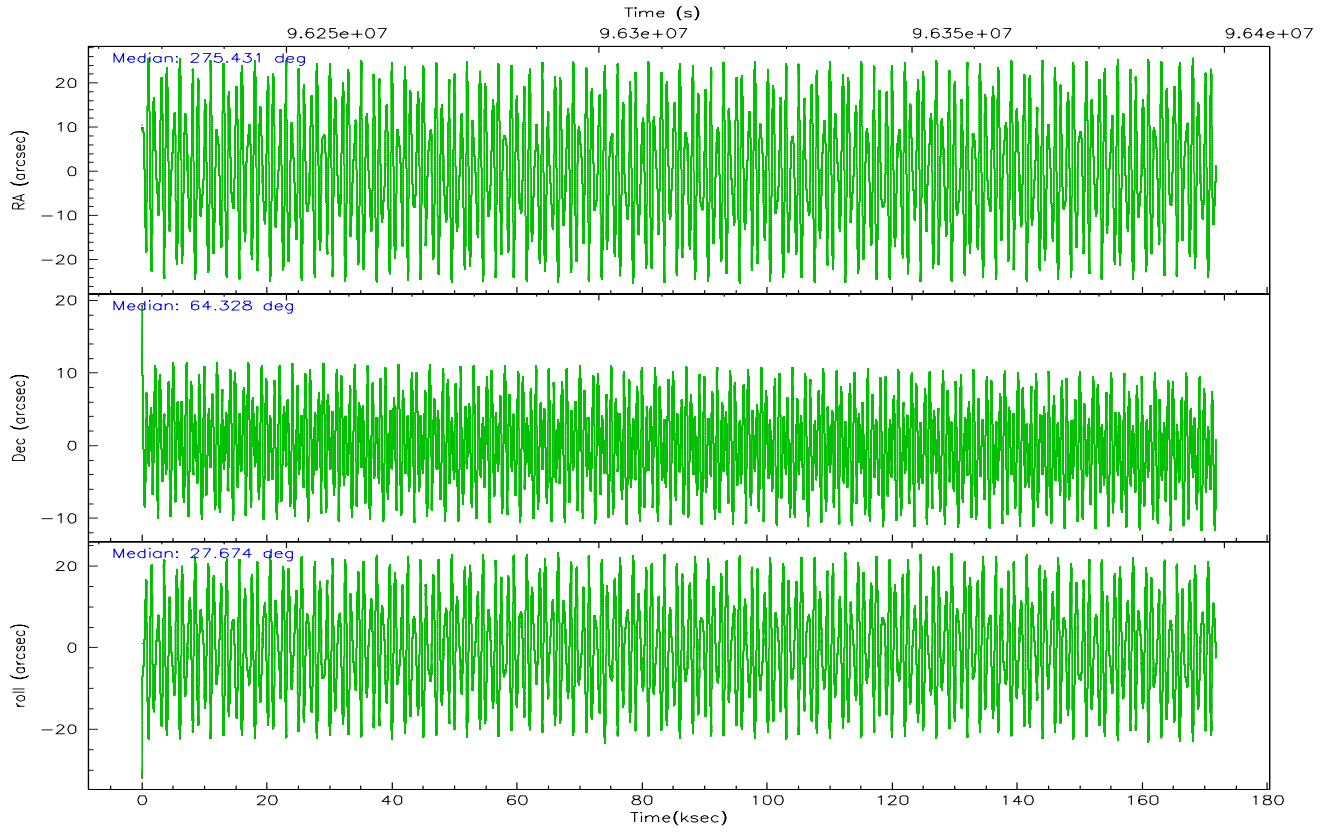
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	14113	26738	55400	38651	24489	13451
	3%	6%	14%	8%	5%	4%
grade 1 events	114	2001	166	521	139	107
	0%	0%	0%	0%	0%	0%
grade 2 events	7677	50129	11737	59644	15004	6071
	2%	12%	3%	13%	3%	1%
grade 3 events	5226	9474	7037	25016	10284	5127
	1%	2%	1%	5%	2%	1%
grade 4 events	5021	9561	6804	23911	9537	5122
	1%	2%	1%	5%	2%	1%
grade 5 events	9073	23157	10466	27867	13022	10264
	2%	5%	2%	6%	3%	3%
grade 6 events	5926	90427	7810	100980	21495	5977
	1%	23%	2%	22%	4%	1%
grade 7 events	317716	179512	283371	171907	336835	260514
	87%	45%	74%	38%	78%	84%

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	LETG	LETG	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	275.397649	275.4308821050403	Subarray requested	CUSTOM	1/4
Pointing Dec	64.305215	64.32843699406367	Subarray start row	49	49
Pointing Roll	27.550007	27.67668336865571	Subarray row count	256	256
Roll angle	35.000000	35.000000	Alternating exposures requested	N	N
Roll tolerance	10.000000	10.000000	Primary exposure time	0.000000	1
Roll constraint allows 180D rotation	N	N			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-182.132523	-182.1344861297048			
SIM translation stage offset (mm)	-8	-7.998036453302973			
Observation start time	96227048.184000	96226076.22253799			
Observation start date	2001-01-18T17:43:04	2001-01-18T17:27:56			
Observation end time	96398708.184000	96399022.94168501			
Observation end date	2001-01-20T17:24:04	2001-01-20T17:30:22			
Read mode	TIMED	TIMED			

2.3 Aspect



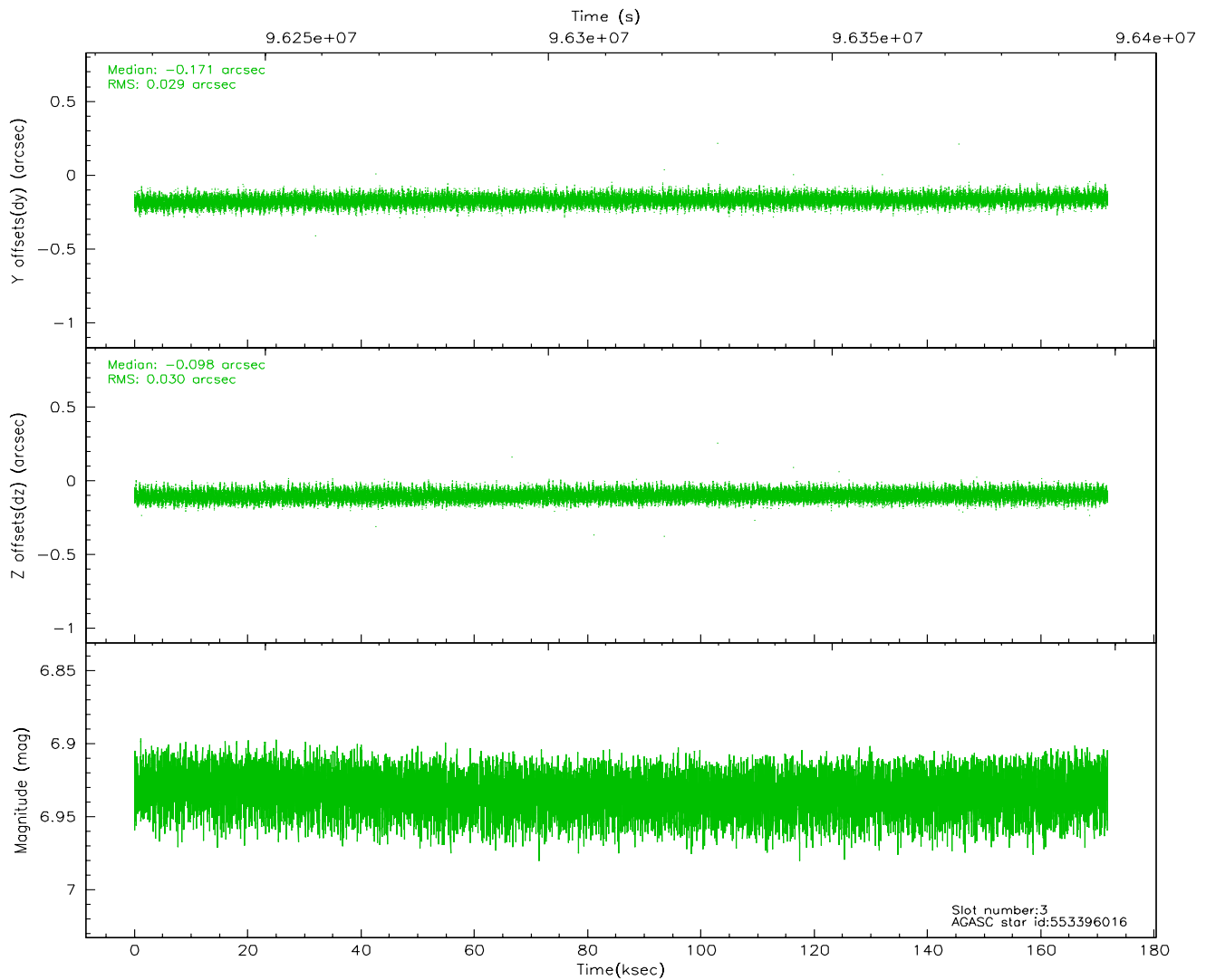
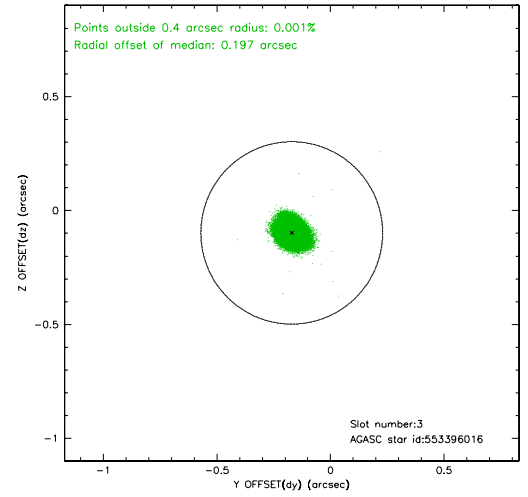
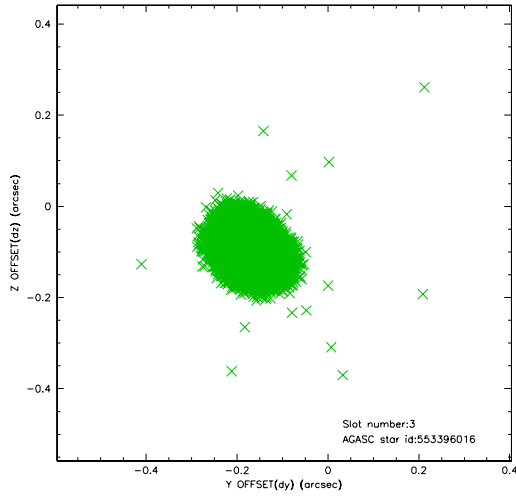


Slot Statistics

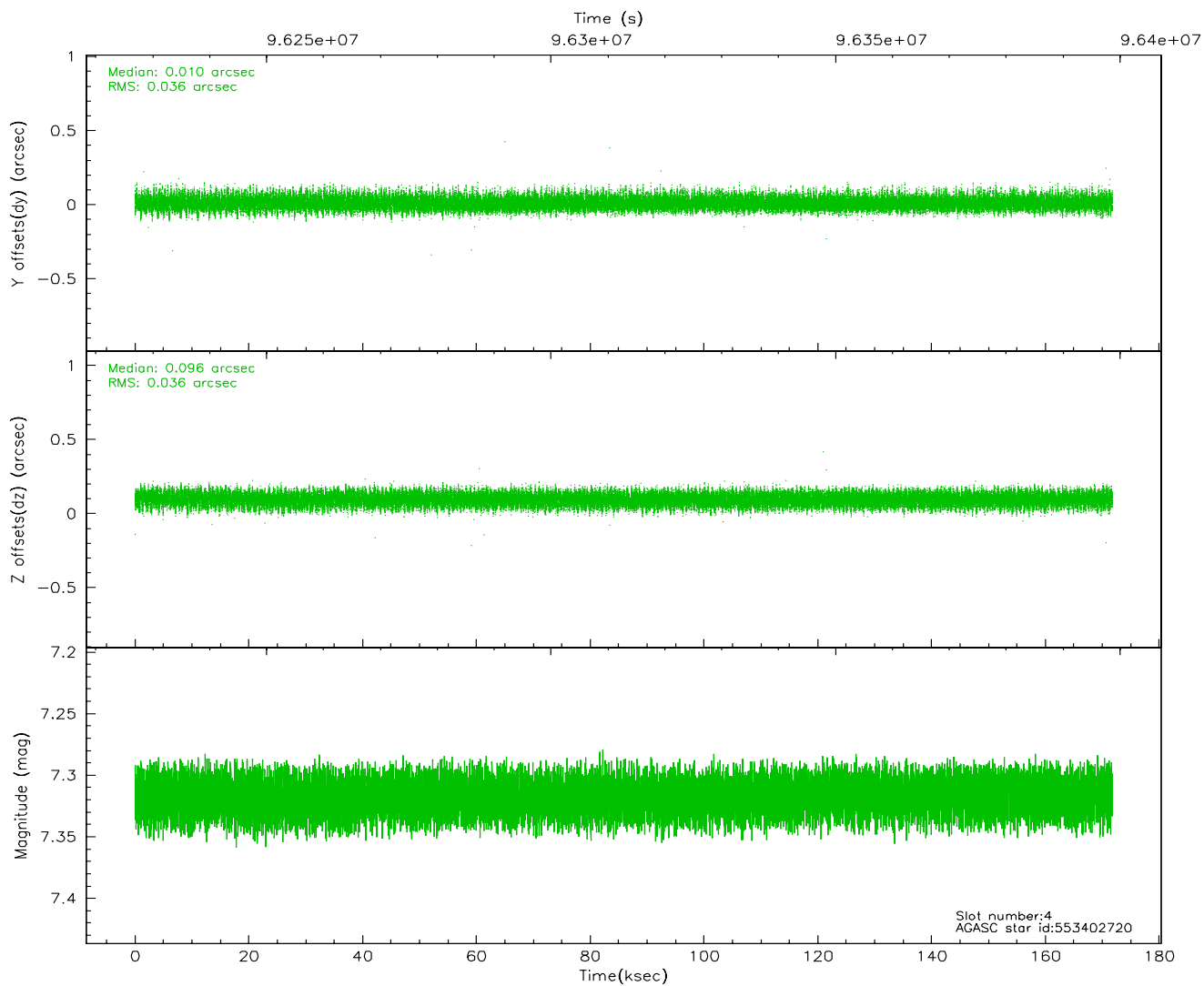
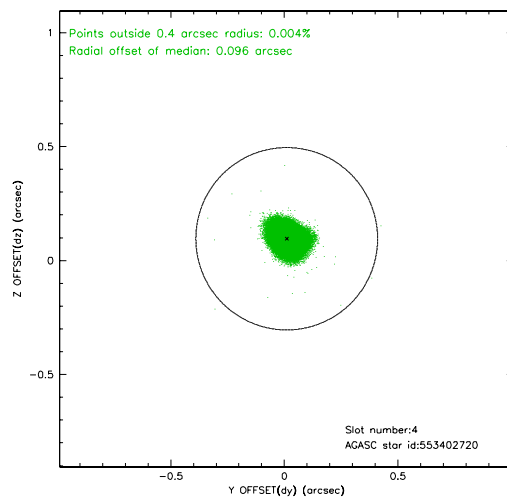
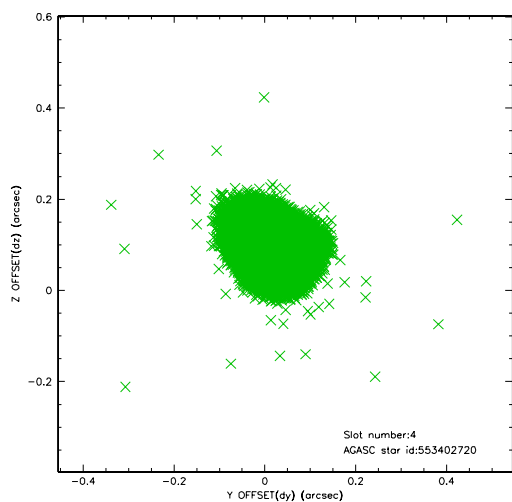
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	41908	-0.002	-0.091	0.007	0.012	0.000000	0.000000	-755.54	-1892.97
1	FID	ACIS-S-4	7.18	41904	-0.039	0.025	0.006	0.011	0.000000	0.000000	2157.79	15.68
2	FID	ACIS-S-5	7.23	41905	0.010	0.074	0.007	0.013	0.000000	0.000000	-1808.48	9.33
3	GUIDE	553396016	6.93	83802	-0.171	-0.098	0.044	0.072	276.292154	64.838422	2106.33	1076.95
4	GUIDE	553402720	7.32	83812	0.010	0.096	0.054	0.087	275.081751	64.202988	-608.03	-96.57
5	GUIDE	551697064	8.03	83791	0.071	-0.014	0.053	0.088	274.138245	64.538359	-1330.56	1662.32
6	GUIDE	551695040	8.46	83796	0.072	-0.054	0.054	0.087	273.859972	64.159739	-2367.36	676.91
7	GUIDE	553404184	8.64	83800	0.014	0.071	0.068	0.110	276.556964	64.060570	1219.29	-1610.67

2.4 Star Slots

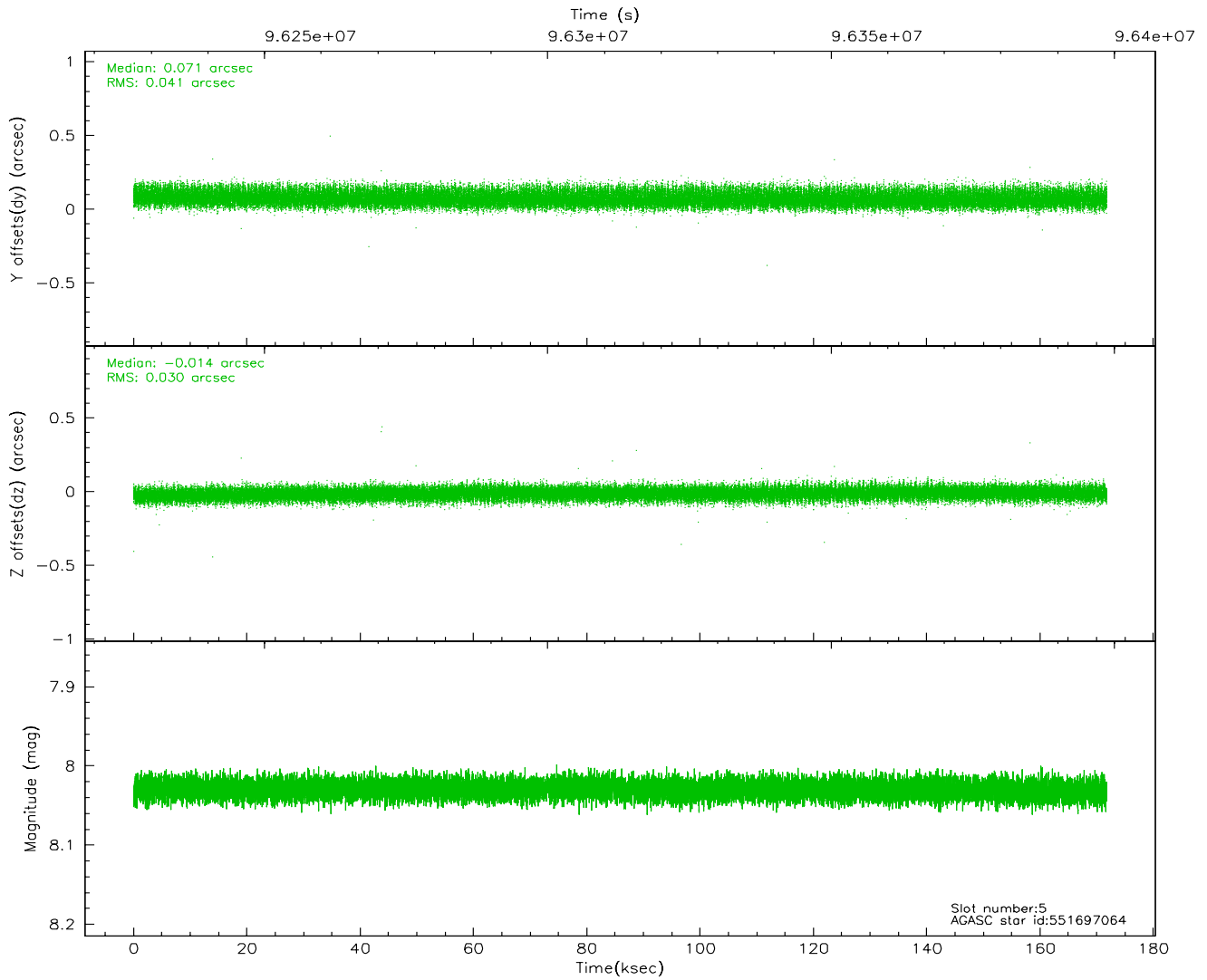
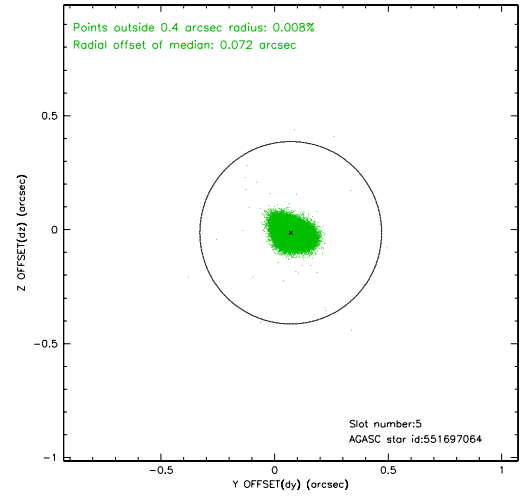
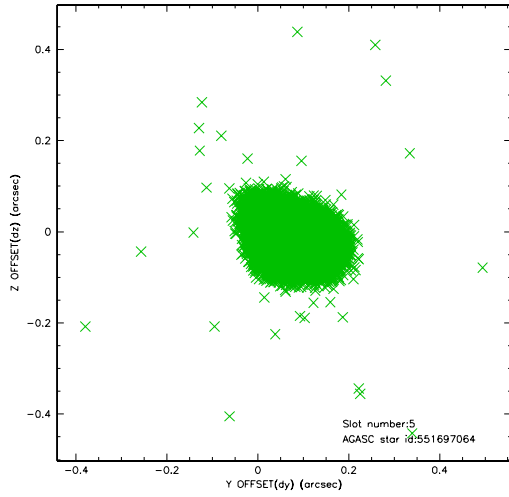
2.4.1 Slot 3



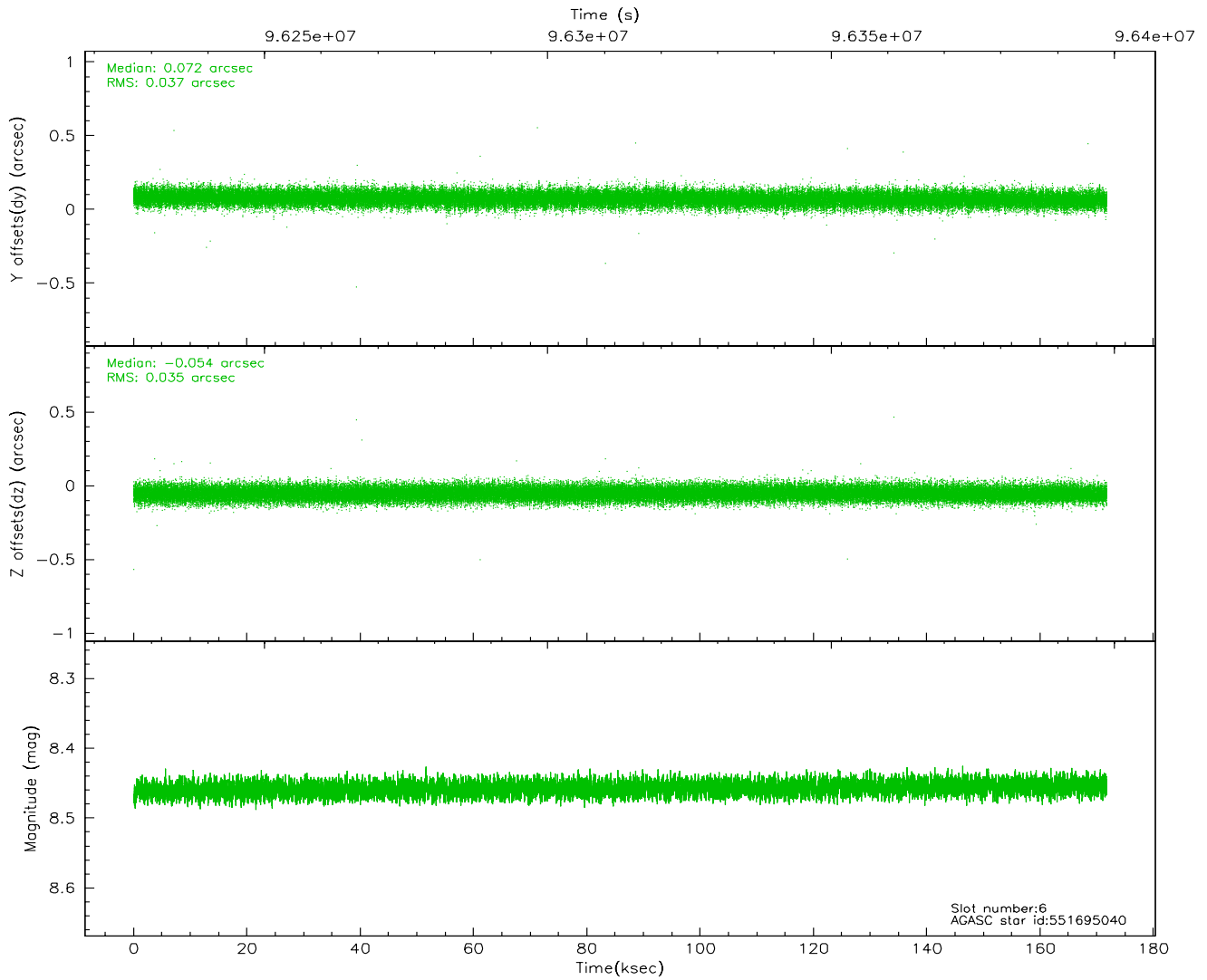
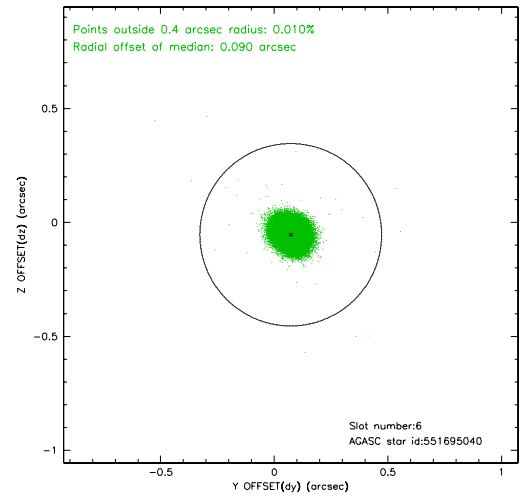
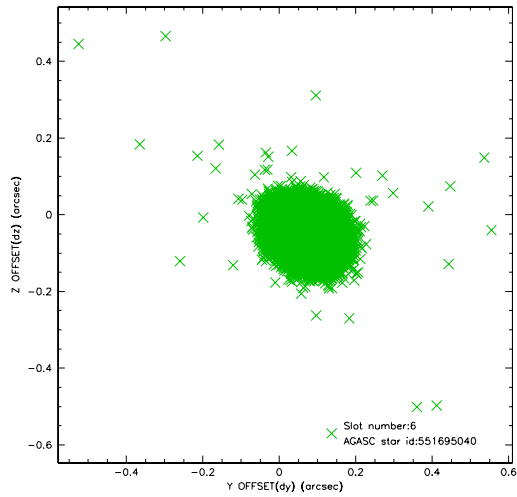
2.4.2 Slot 4



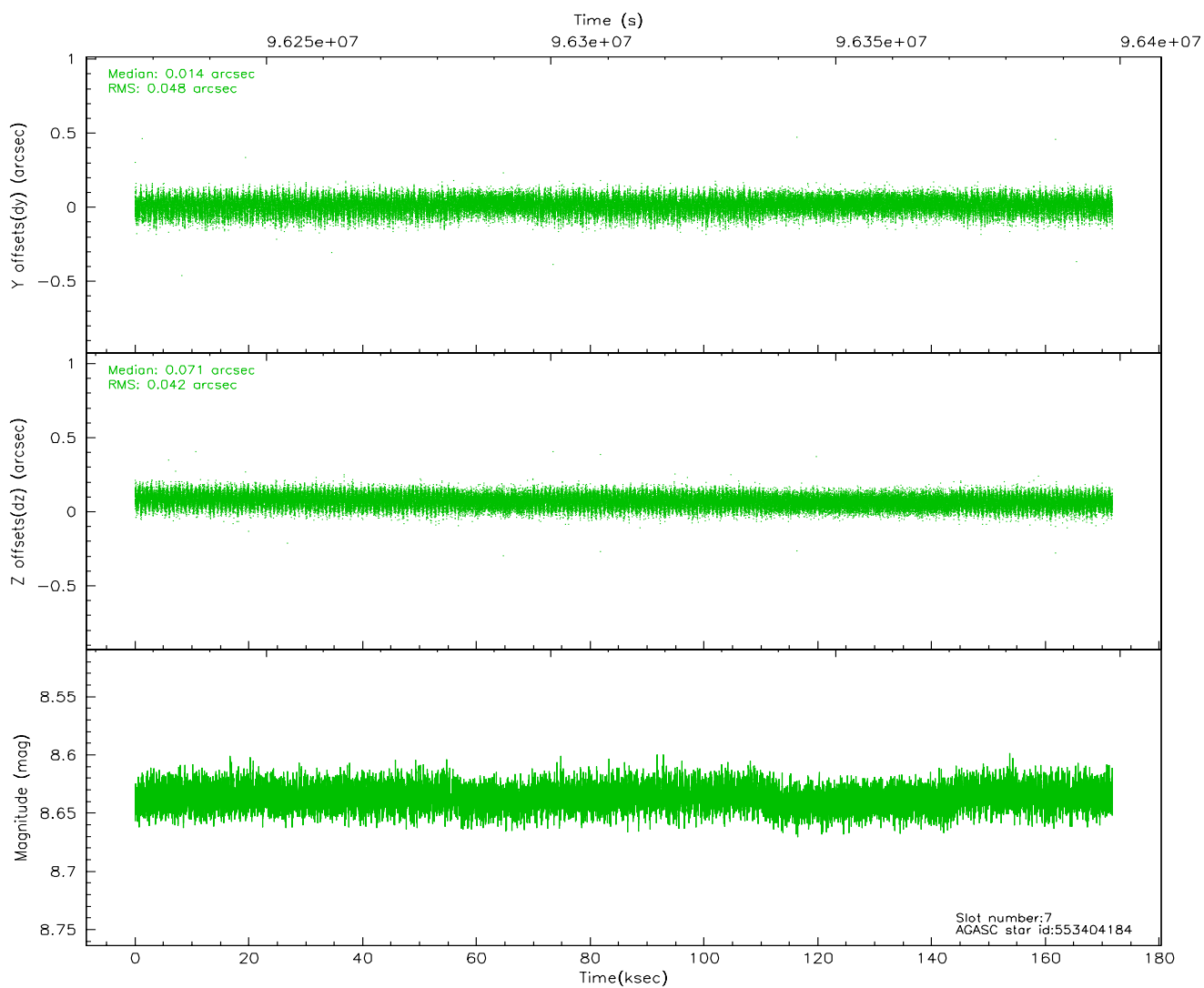
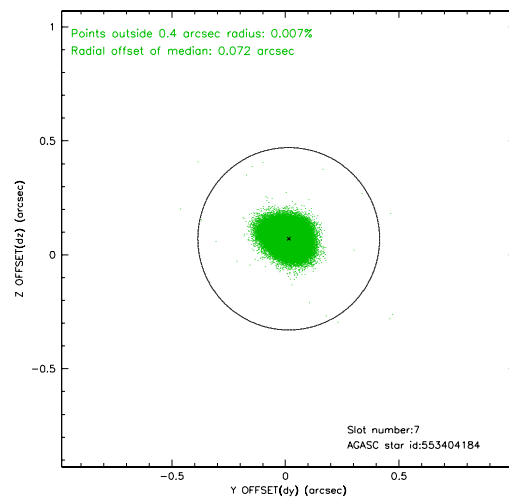
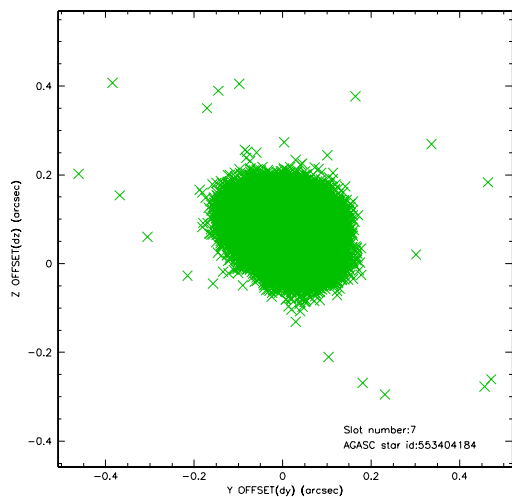
2.4.3 Slot 5



2.4.4 Slot 6

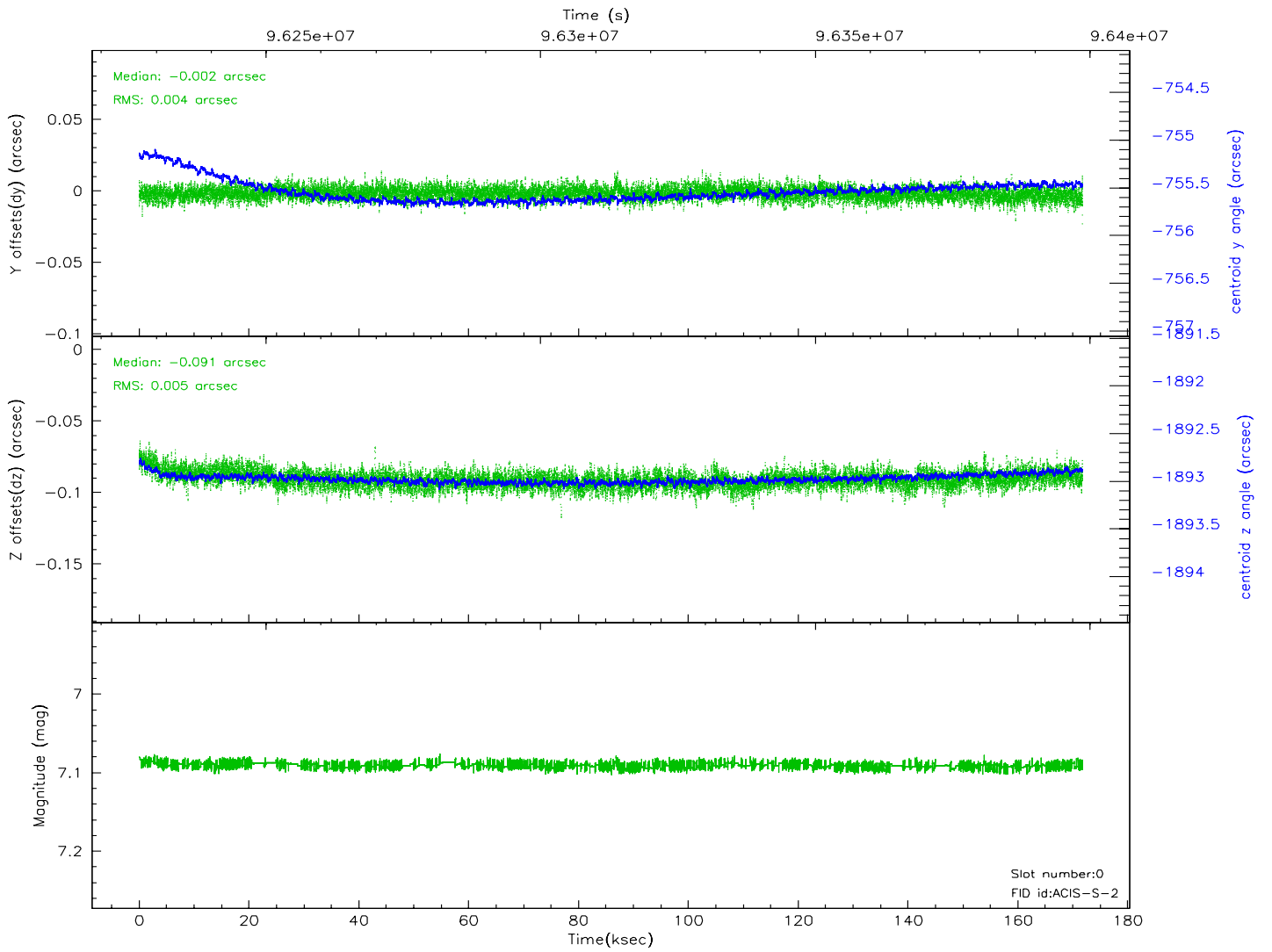
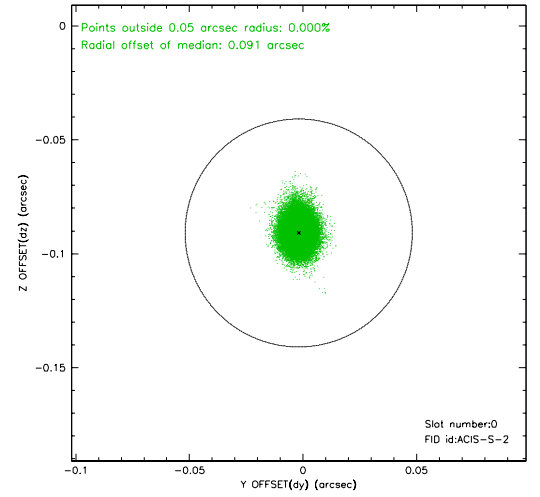
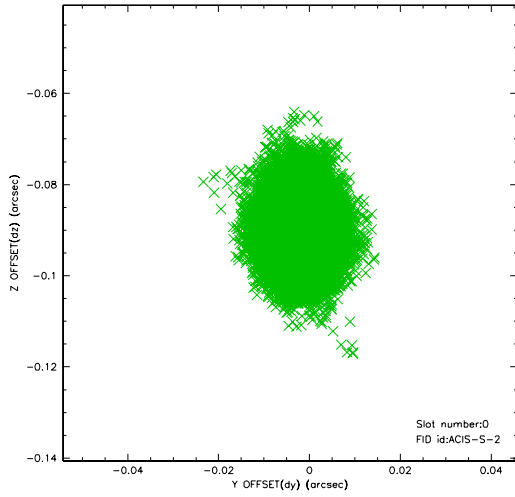


2.4.5 Slot 7

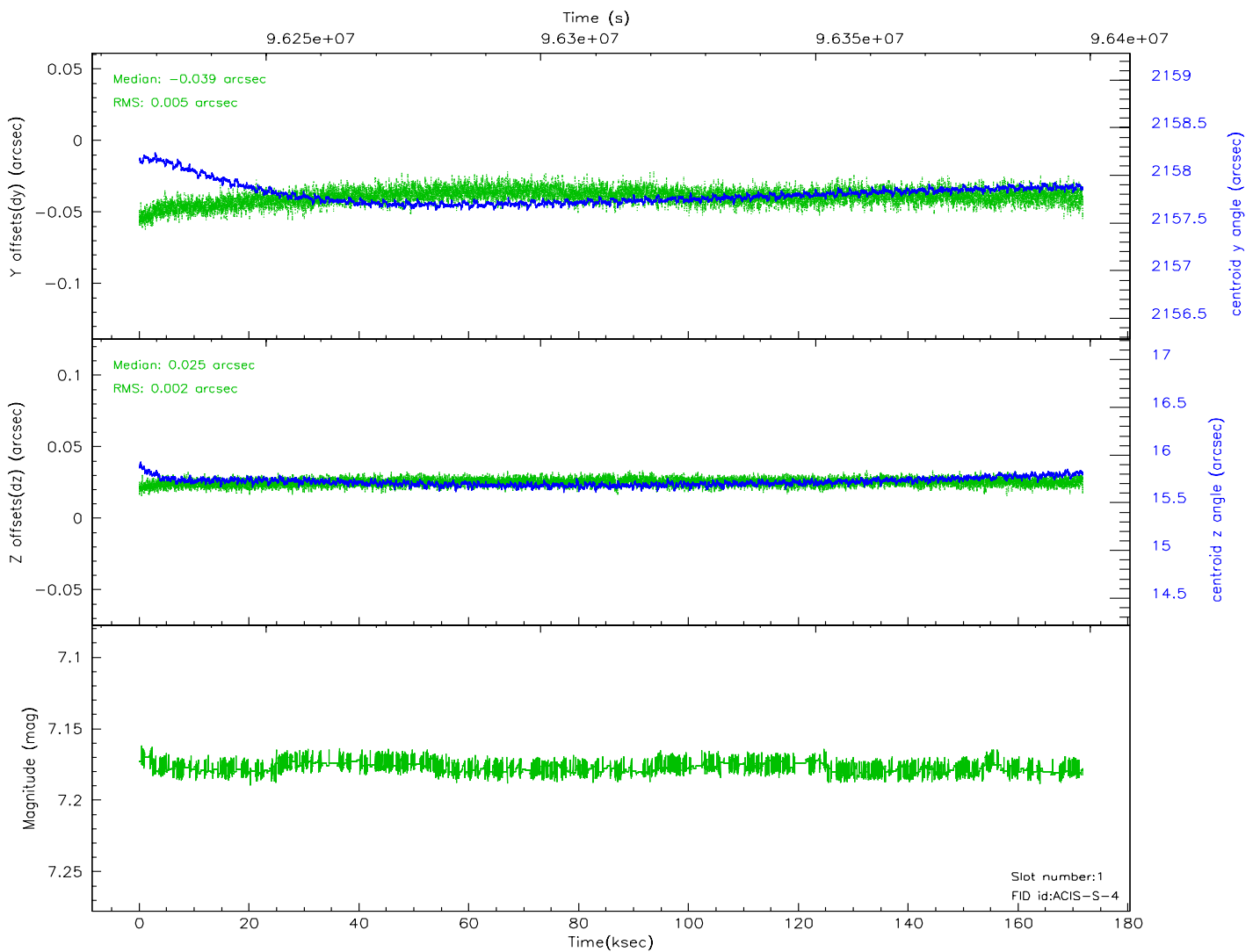
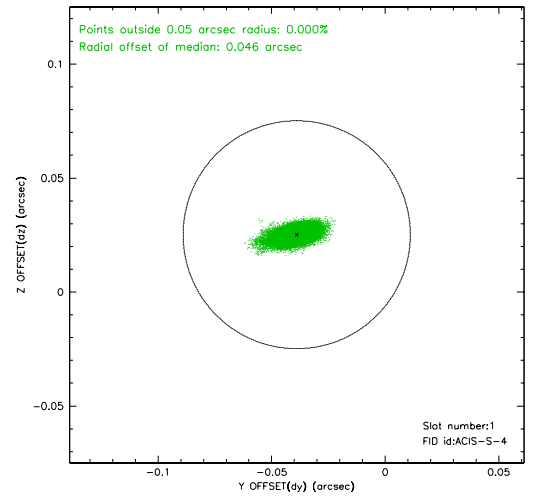
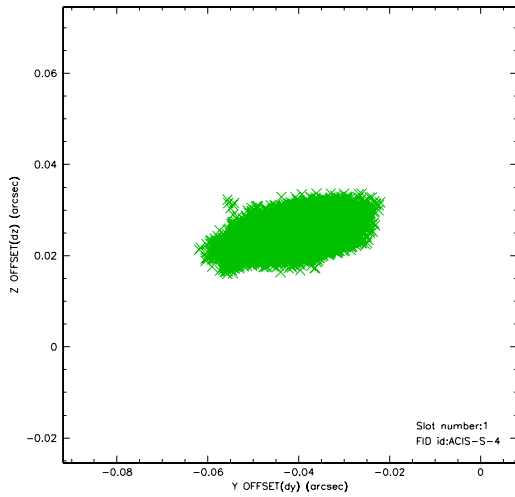


2.5 FID Slots

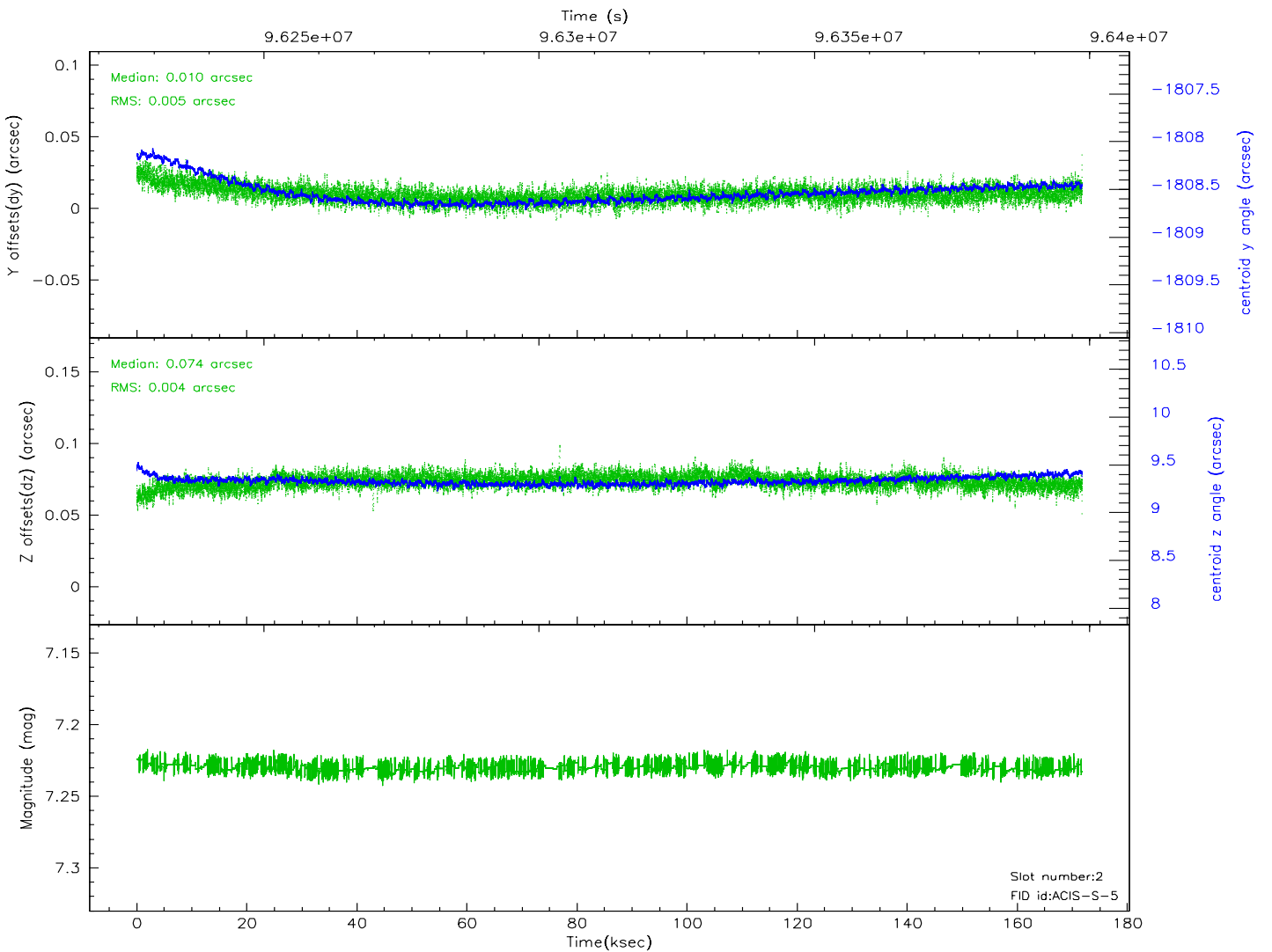
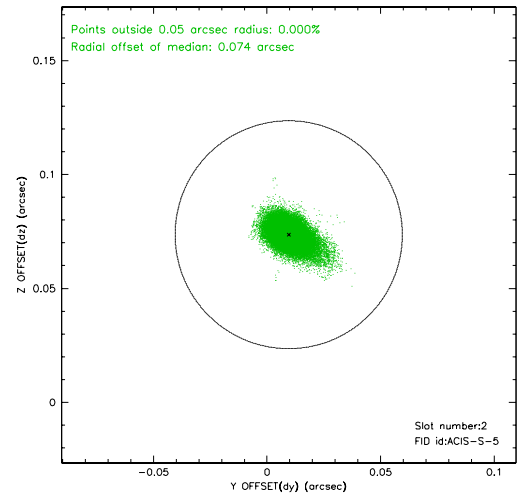
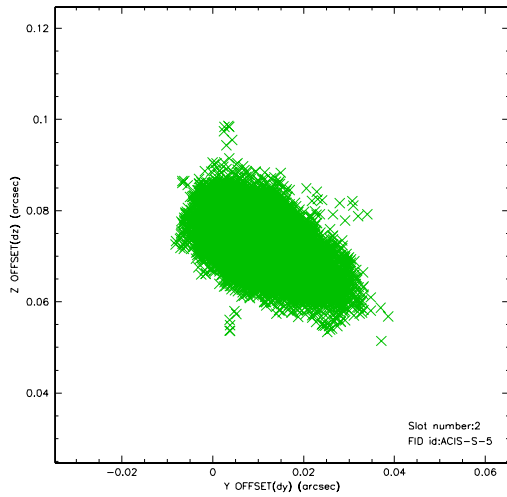
2.5.1 Slot 0



2.5.2 Slot 1

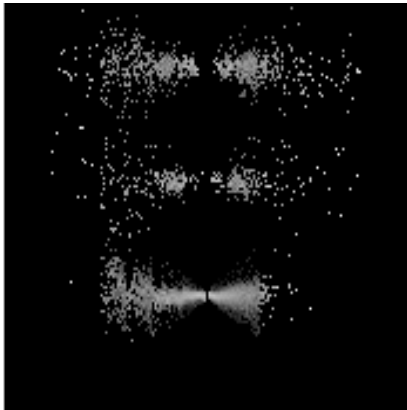


2.5.3 Slot 2

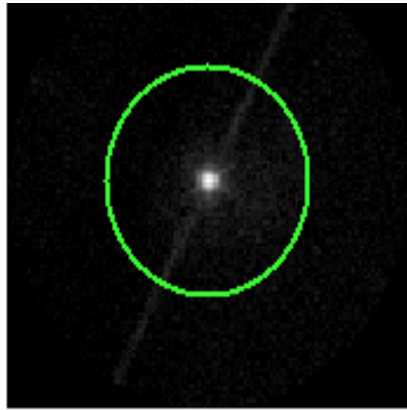


3 Gratings

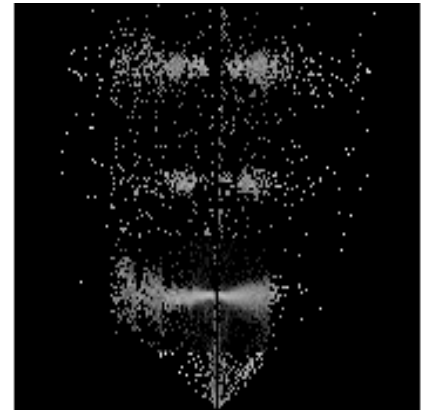
3.1 LETG Arm



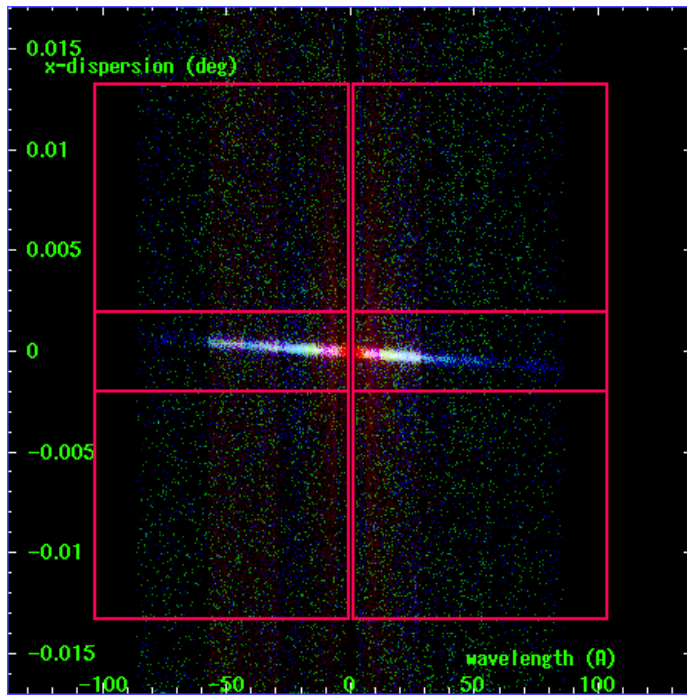
LETG Order Sort 123



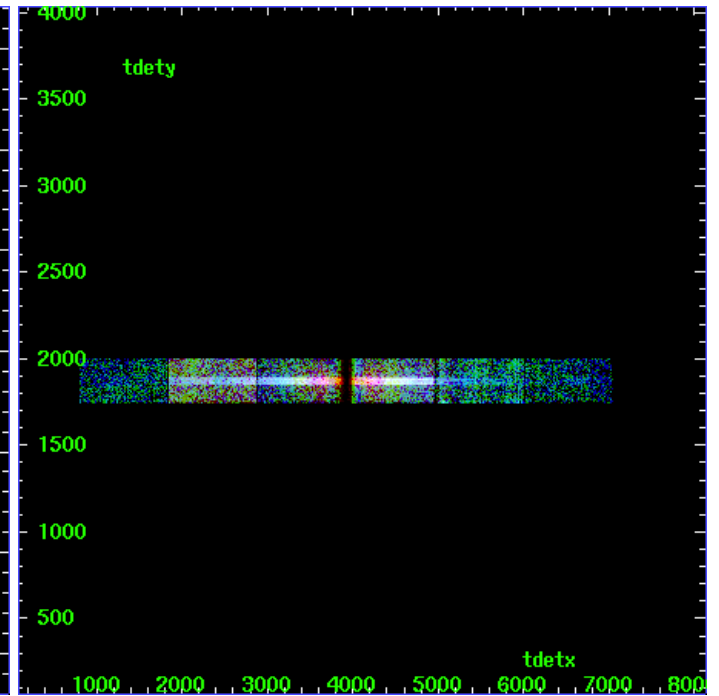
LETG Zero Order



LETG Order Sort ALL

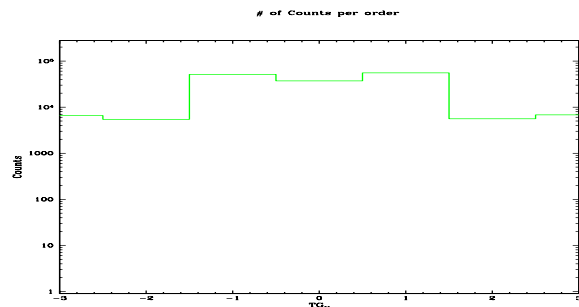


Spot Image LETG

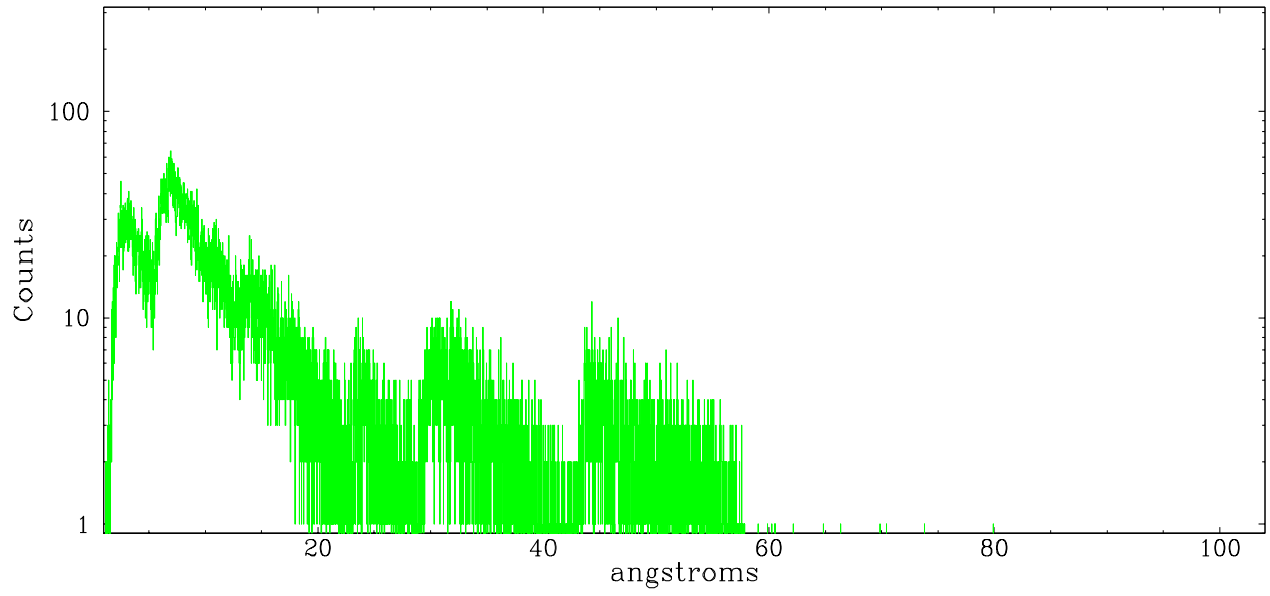


Full Detector LETG

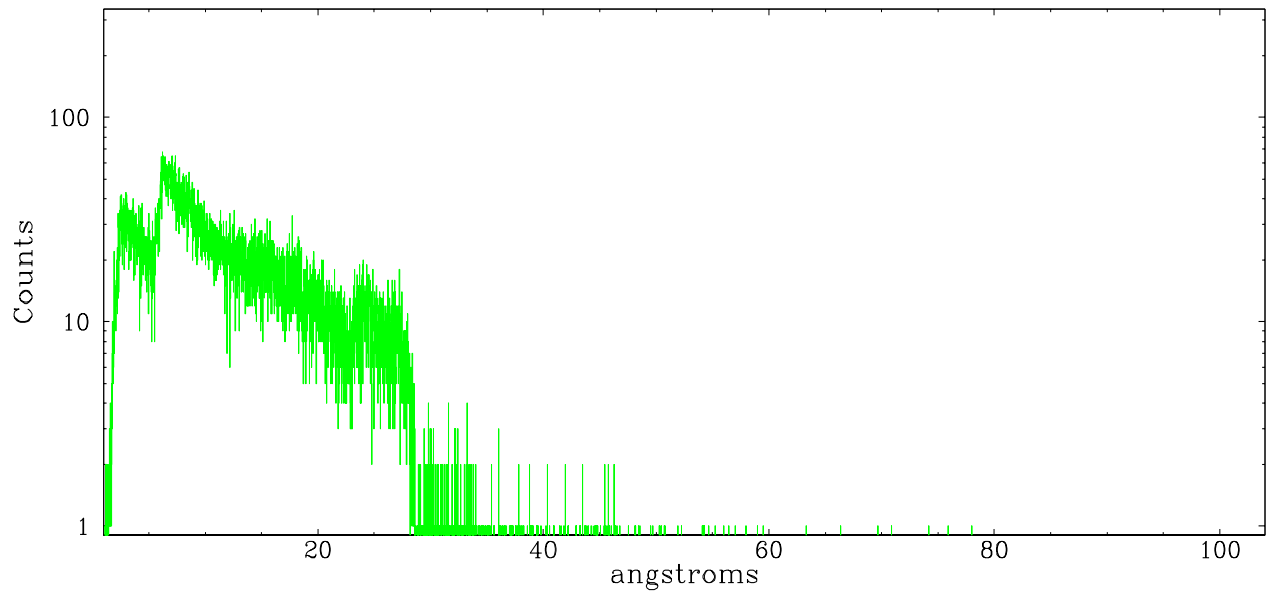
	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	6573	5453	51544	37149	55397	5608	6831



leg order -1



leg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	171.82

A.2 Comments

Requested roll angle is met.

Part of the zeroth order image is dithered into the gap between 2 CCDs. Columns falling in the CCD gap are given a bad pixel flag. Therefore, the zeroth order flux will not be accurate.

The -1 leg order has significant flux out to about 60 A, but the +1 leg order has flux only to about 30-40 A. This is presumably due to a bright source as well as some extended emission in the background region of CCD chip S4.

If there is interest in this wavelength region, either the negative order should be used alone or the positive order re-extracted using only uncontaminated background.