

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 2310 - L2 Version 001  
Chandra X-Ray Center

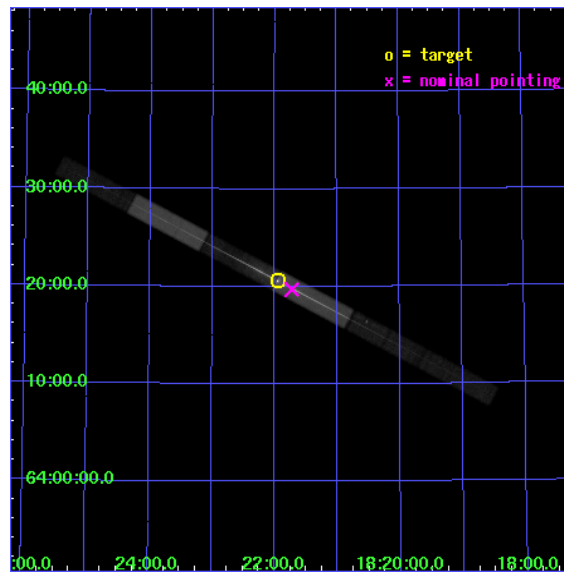
L2 Processing Date : Jan 30 2007

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# 1 Front

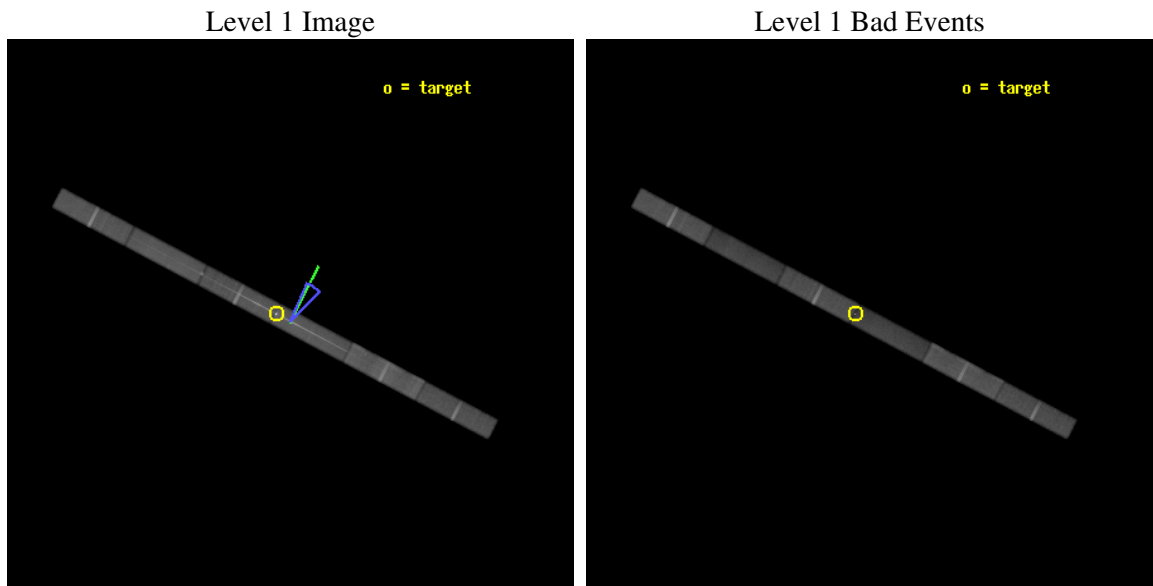
seq_num	700376
obs_id	2310
title	FINDING THE BARYONS IN THE LOW REDSHIFT UNIVERSE.
observer	Prof. Smita Mathur
object	H1821+643
dtcycle	0
cycle	P
ra_targ	275.48875
dec_targ	64.343444
ra_nom	275.43088109269
dec_nom	64.328439103755
roll_nom	27.676684523027
revision	4
ontime	169908.95898993
livetime	163210.78824054
ontime4	169910.0
ontime5	169907.91797984
ontime6	169905.83593972
ontime7	169908.95898993
ontime8	169908.95898993
ontime9	169908.95898993
l2events	607368



## 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	7.6.10
caldbver	3.3.0
date	2007-01-30T23:32:47
revision	4

sched_exp_time	169742.887000
ontime	169908.95898993
ontime4	169910.0
ontime5	169907.91797984
ontime6	169905.83593972
ontime7	169908.95898993
ontime8	169908.95898993
ontime9	169908.95898993
l1events	2349979

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	372900	377164	385650	452946	451797	309522
rejected events	333028	195328	294039	196031	352725	272045
rejected %	89%	51%	76%	43%	78%	87%

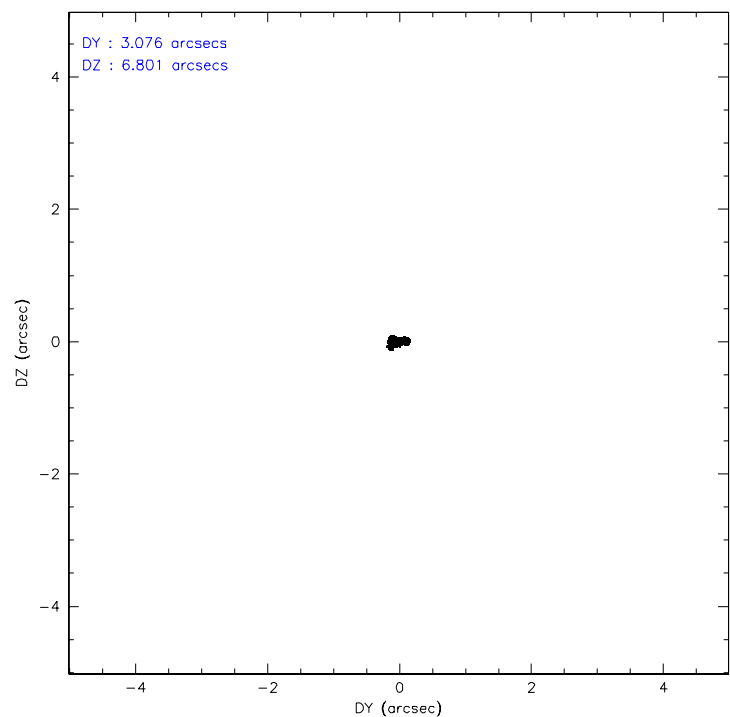
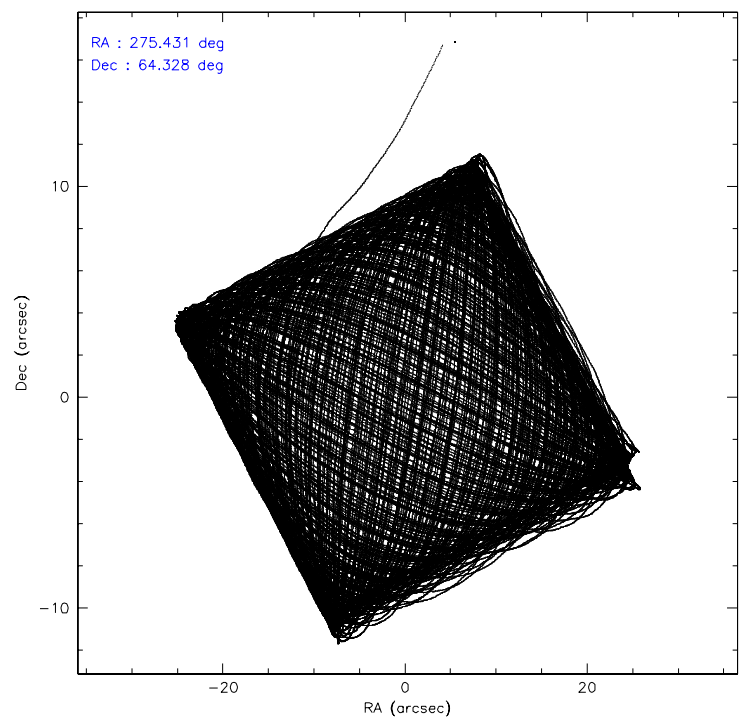
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	15277	23325	57349	44152	31939	14475
	4%	6%	14%	9%	7%	4%
grade 1 events	117	615	155	620	189	73
	0%	0%	0%	0%	0%	0%
grade 2 events	8195	47722	12221	58182	16414	6565
	2%	12%	3%	12%	3%	2%
grade 3 events	5225	13680	6975	28600	14337	5202
	1%	3%	1%	6%	3%	1%
grade 4 events	5031	13195	6958	27549	13171	4998
	1%	3%	1%	6%	2%	1%
grade 5 events	9008	31545	10167	32355	13021	10270
	2%	8%	2%	7%	2%	3%
grade 6 events	6264	84765	8252	99067	23378	6352
	1%	22%	2%	21%	5%	2%
grade 7 events	323783	162317	283573	162421	339348	261587
	86%	43%	73%	35%	75%	84%

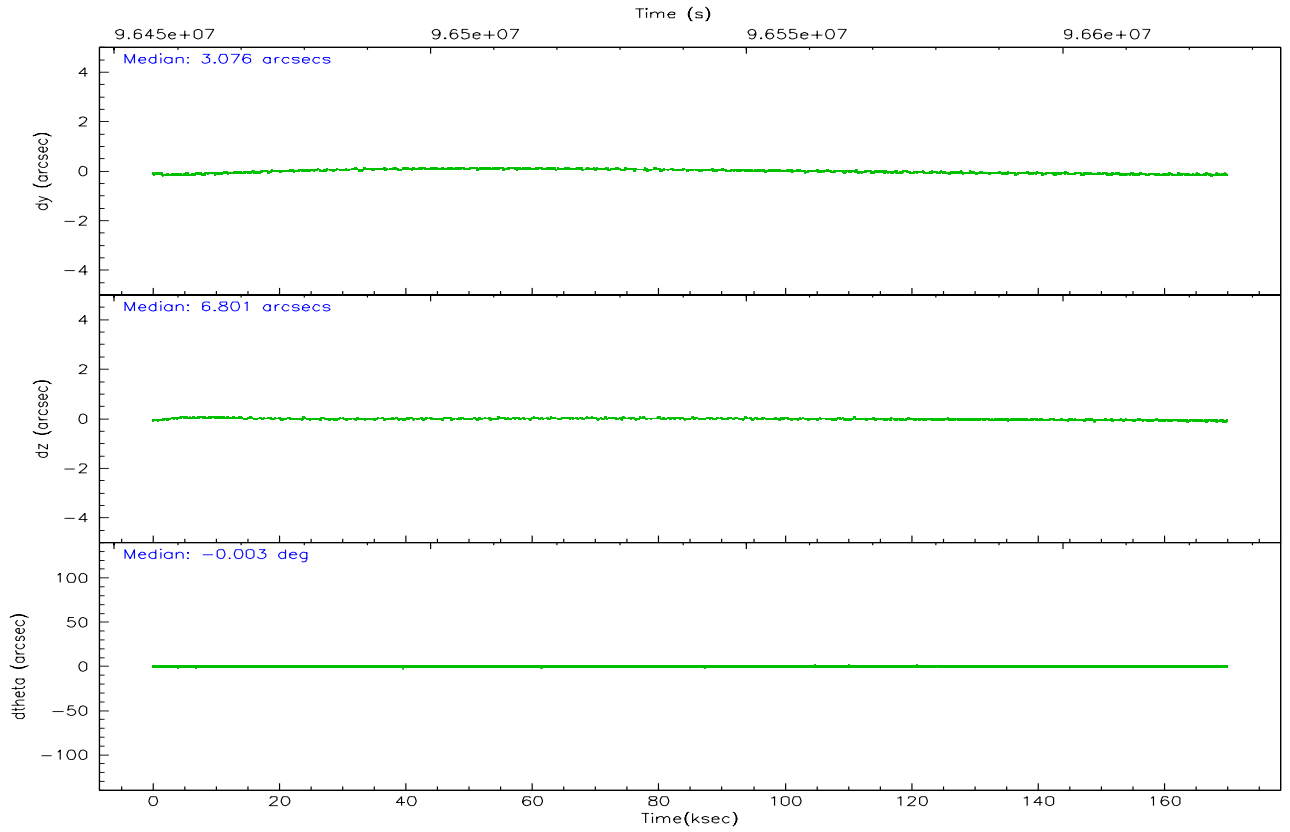
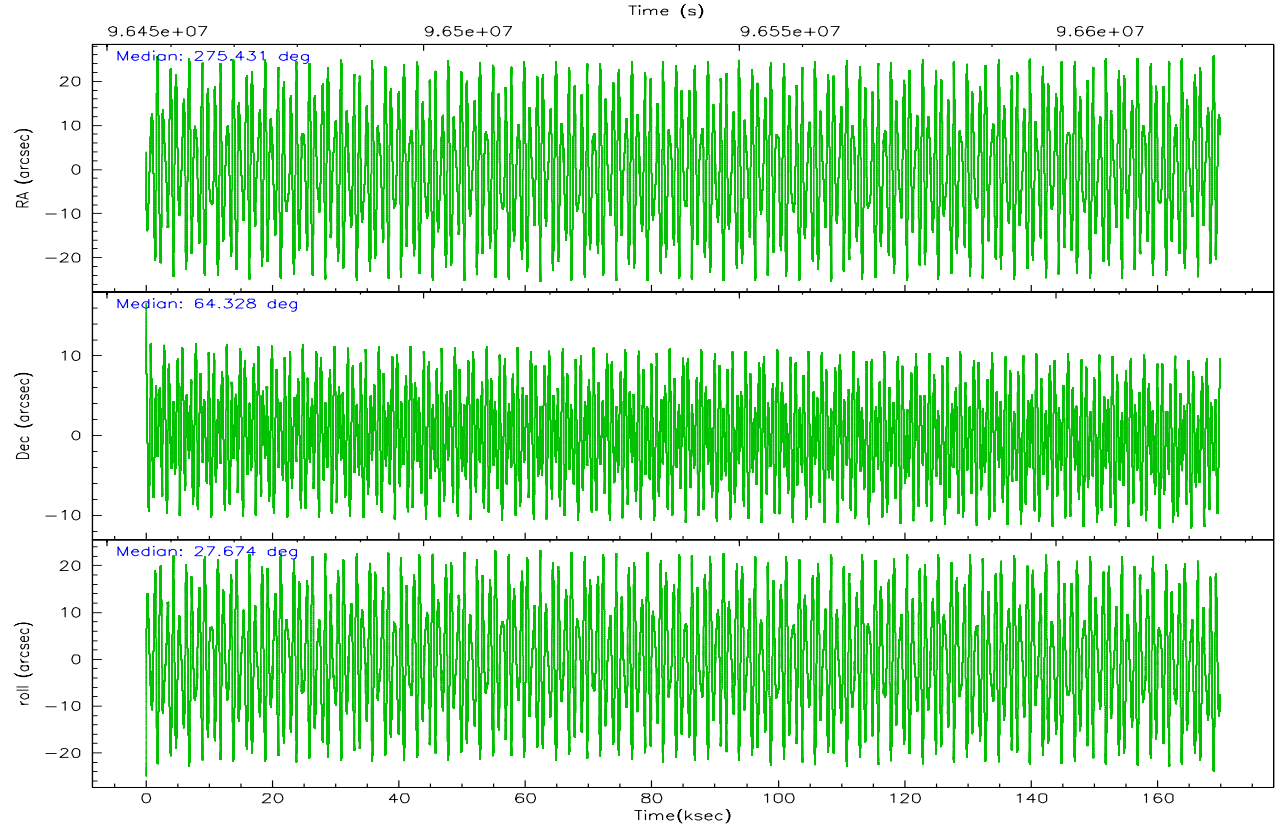


## 2.2 Compared Parameters

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	275.4308810926896	Subarray requested	CUSTOM	1/4
Pointing Dec	64.305215	64.32843910375543	Subarray start row	49	49
Pointing Roll	27.550007	27.67668452302662	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	96456285.184000	96455315.943848			
Observation start date	2001-01-21T09:23:41	2001-01-21T09:08:35			
Observation end time	96626028.184000	96626342.837924			
Observation end date	2001-01-23T08:32:44	2001-01-23T08:39:02			
Read mode	TIMED	TIMED			

## 2.3 Aspect



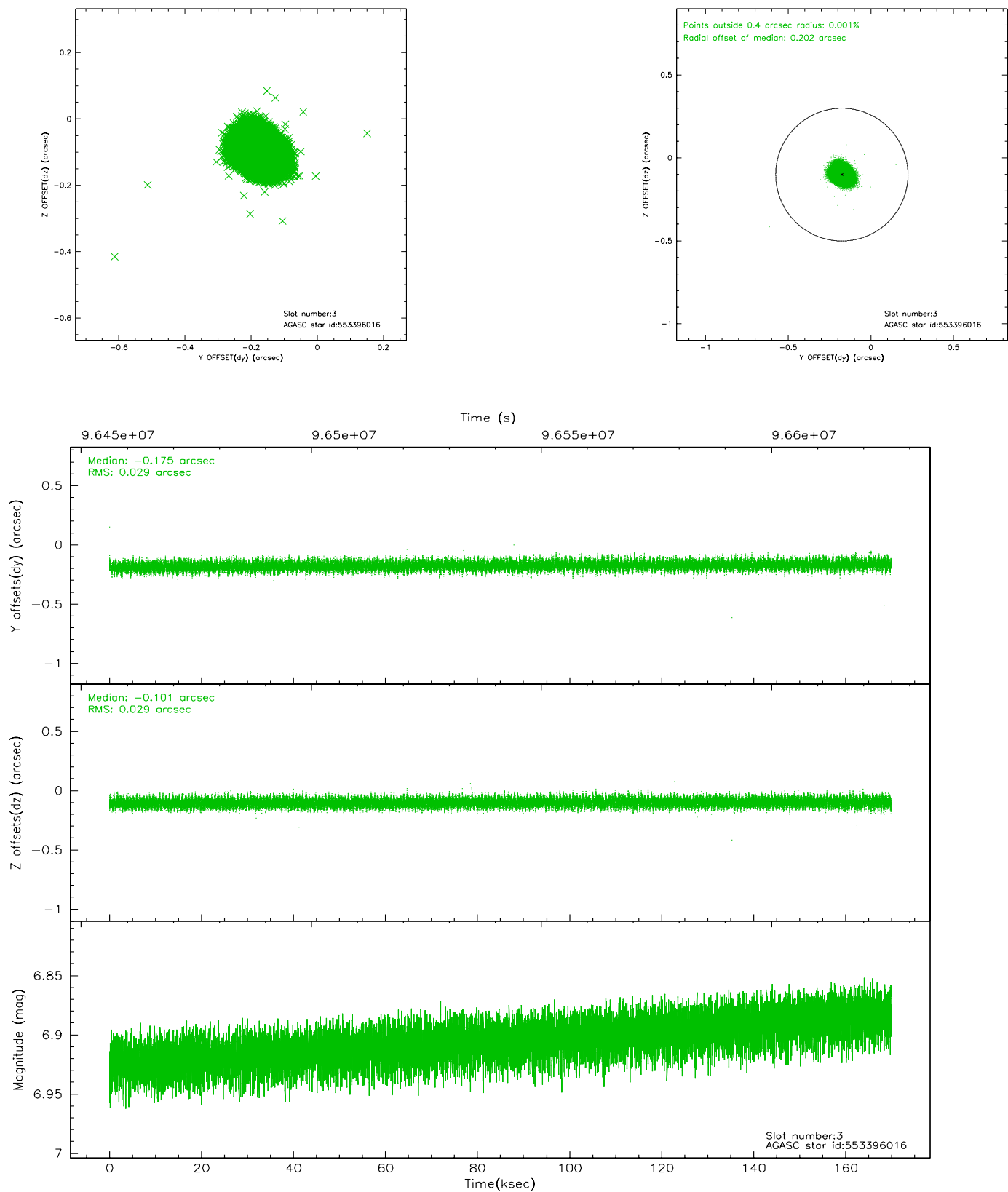


### Slot Statistics

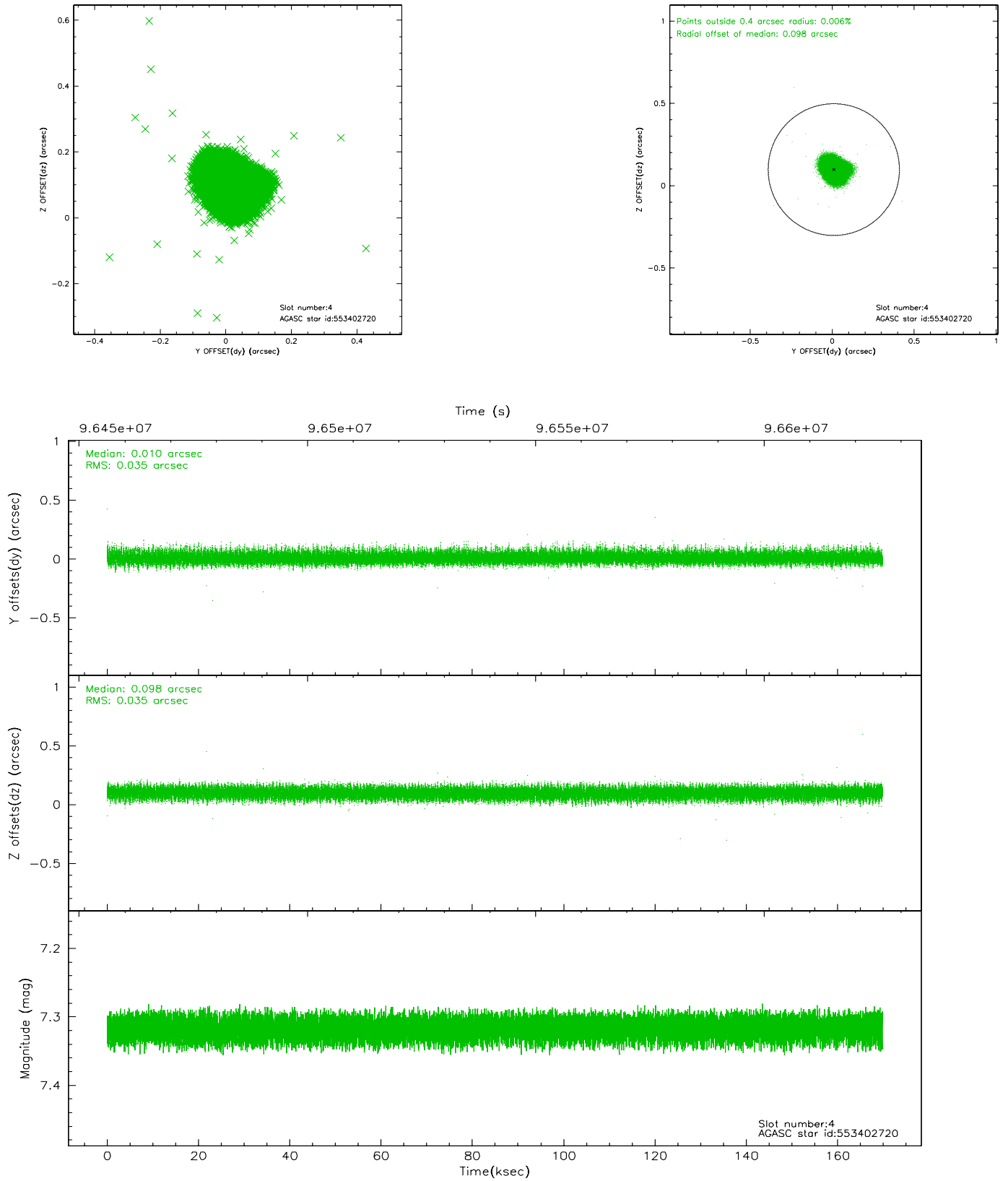
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	41439	-0.005	-0.082	0.007	0.011	0.000000	0.000000	-755.18	-1892.79
1	FID	ACIS-S-4	7.18	41433	-0.045	0.025	0.005	0.009	0.000000	0.000000	2158.14	15.85
2	FID	ACIS-S-5	7.23	41438	0.019	0.066	0.006	0.011	0.000000	0.000000	-1808.11	9.50
3	GUIDE	553396016	6.90	82878	-0.175	-0.101	0.043	0.070	276.292154	64.838422	2106.32	1076.93
4	GUIDE	553402720	7.32	82874	0.010	0.098	0.053	0.084	275.081751	64.202988	-608.04	-96.58
5	GUIDE	551697064	8.03	82869	0.072	-0.015	0.053	0.088	274.138245	64.538359	-1330.56	1662.31
6	GUIDE	551695040	8.45	82860	0.074	-0.053	0.054	0.087	273.859972	64.159739	-2367.36	676.90
7	GUIDE	553404184	8.64	82862	0.017	0.072	0.062	0.104	276.556964	64.060570	1219.28	-1610.69

## 2.4 Star Slots

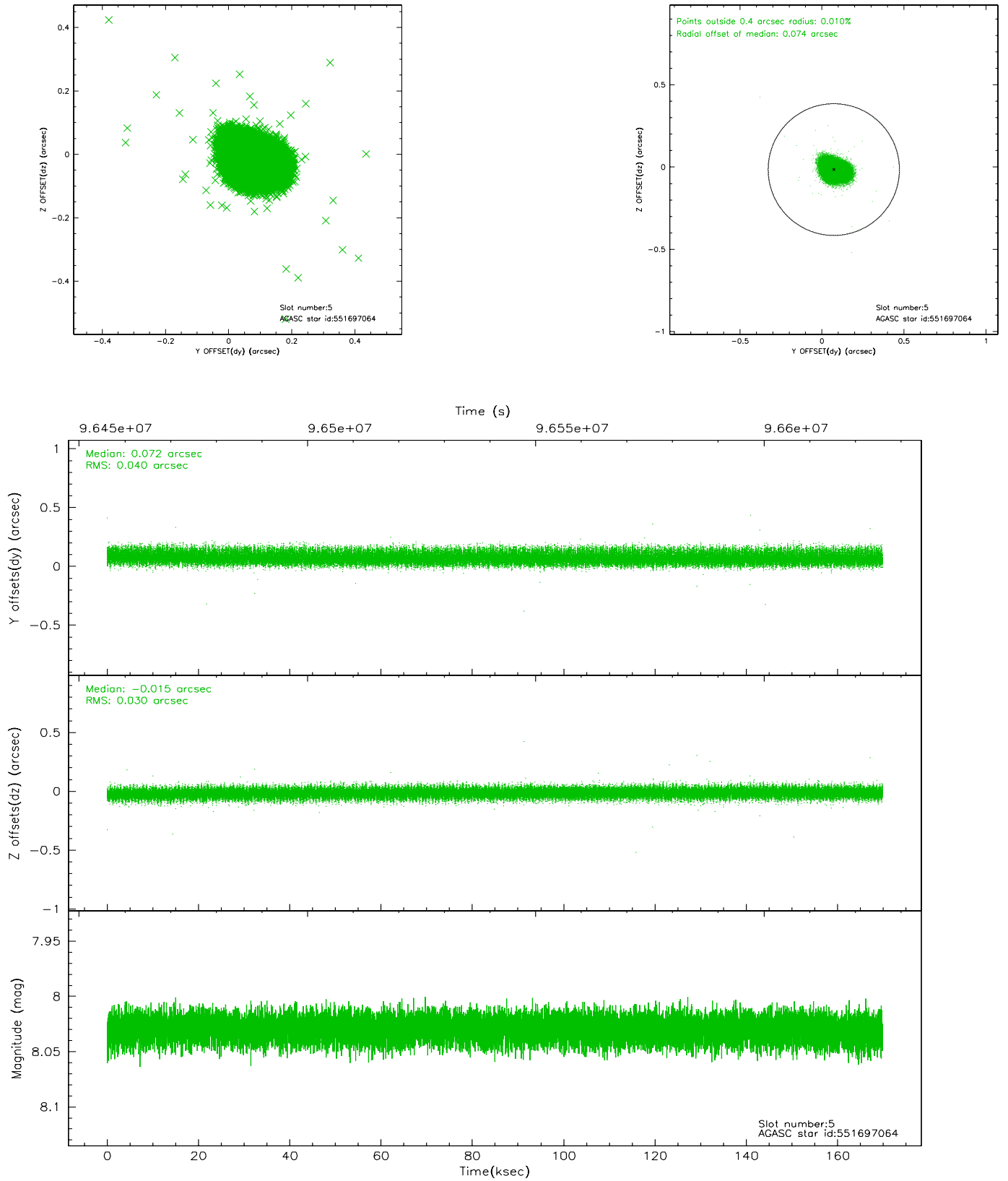
### 2.4.1 Slot 3



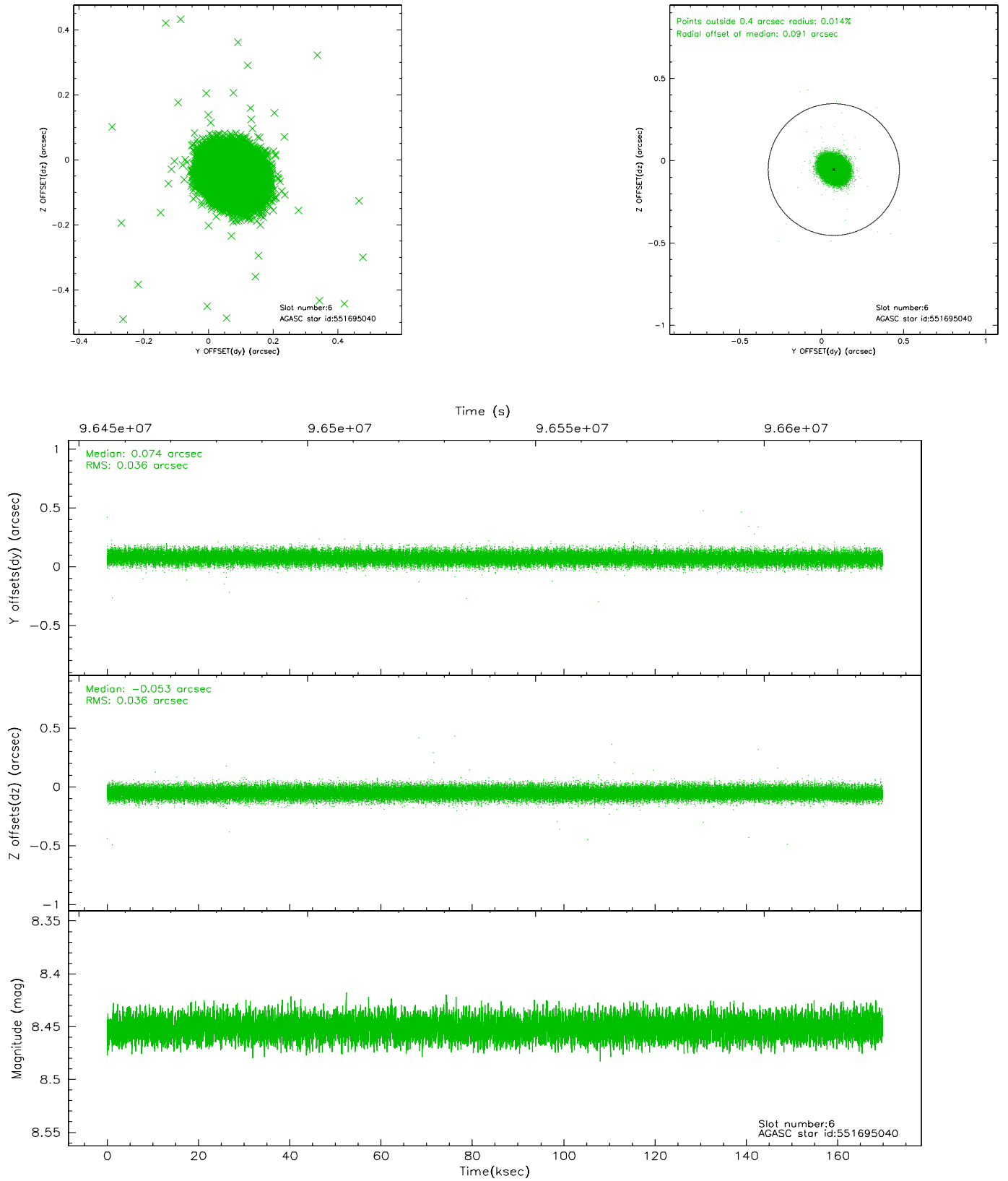
## 2.4.2 Slot 4



### 2.4.3 Slot 5

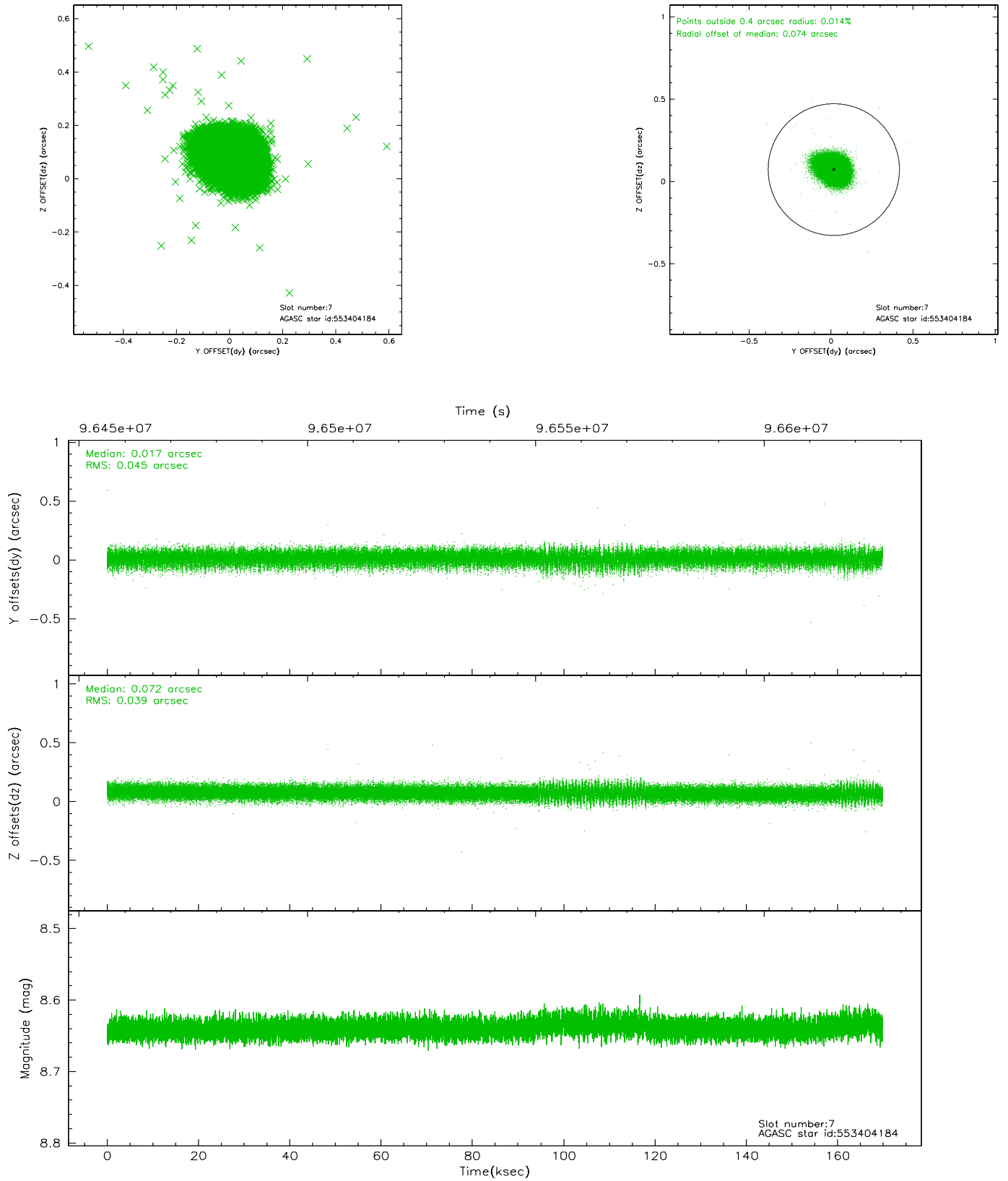


## 2.4.4 Slot 6



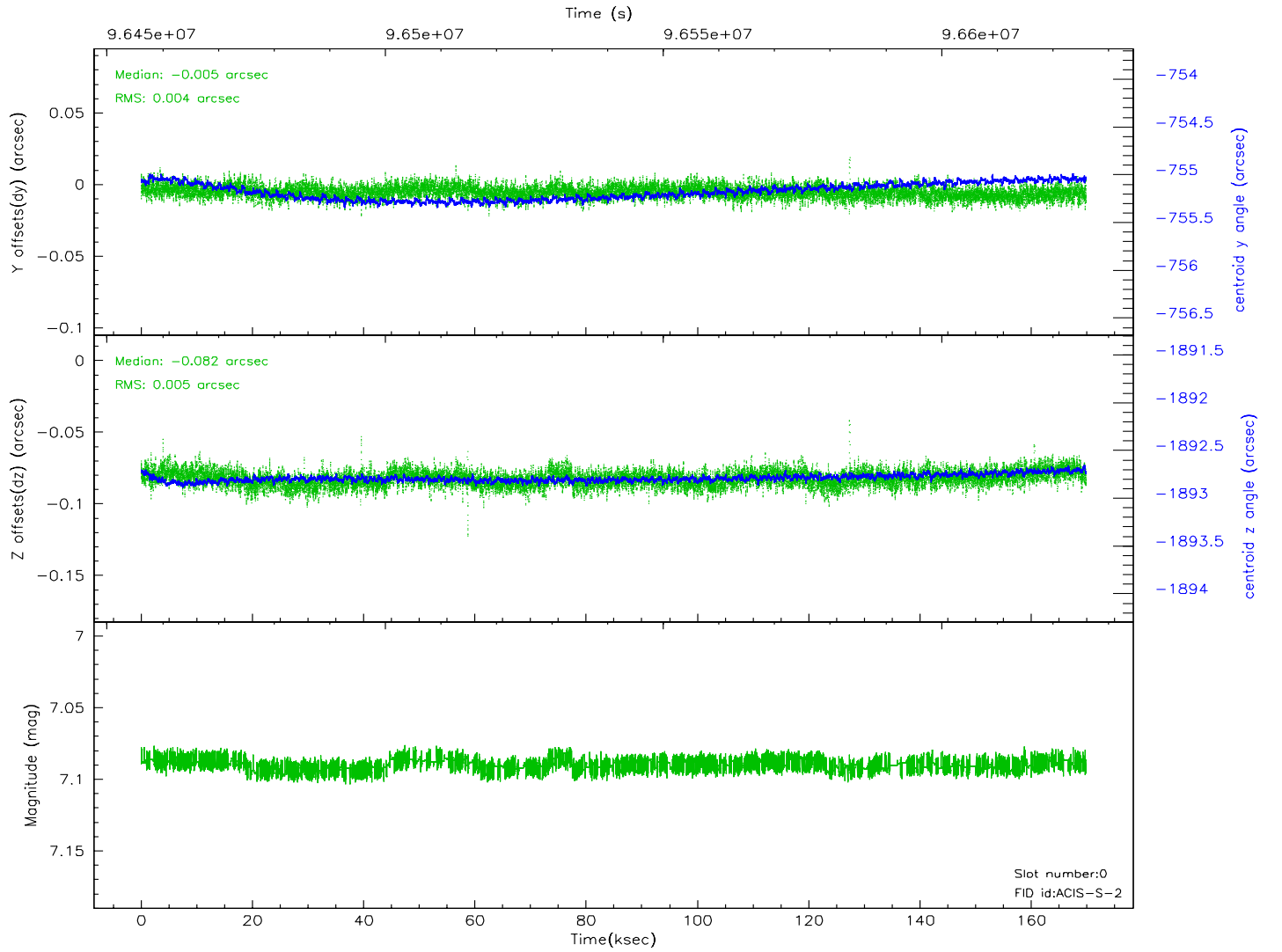
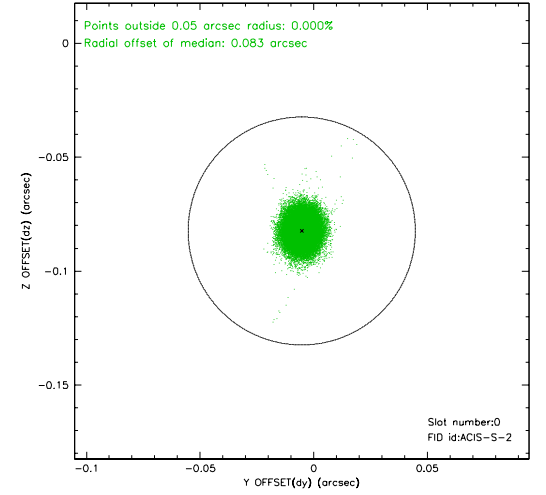
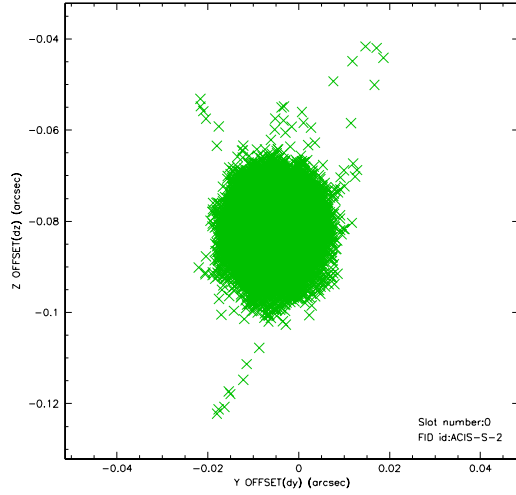


## 2.4.5 Slot 7

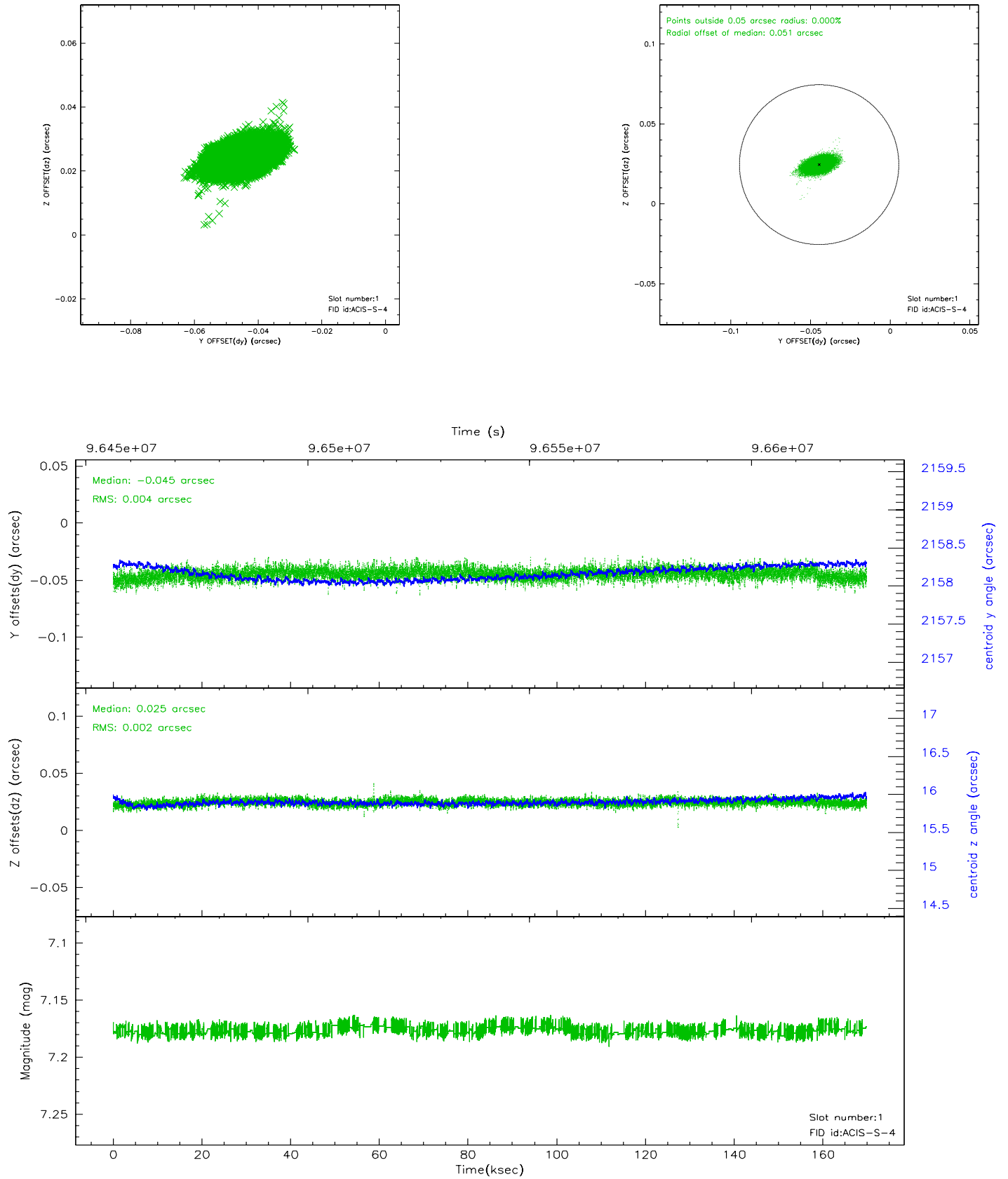


## 2.5 FID Slots

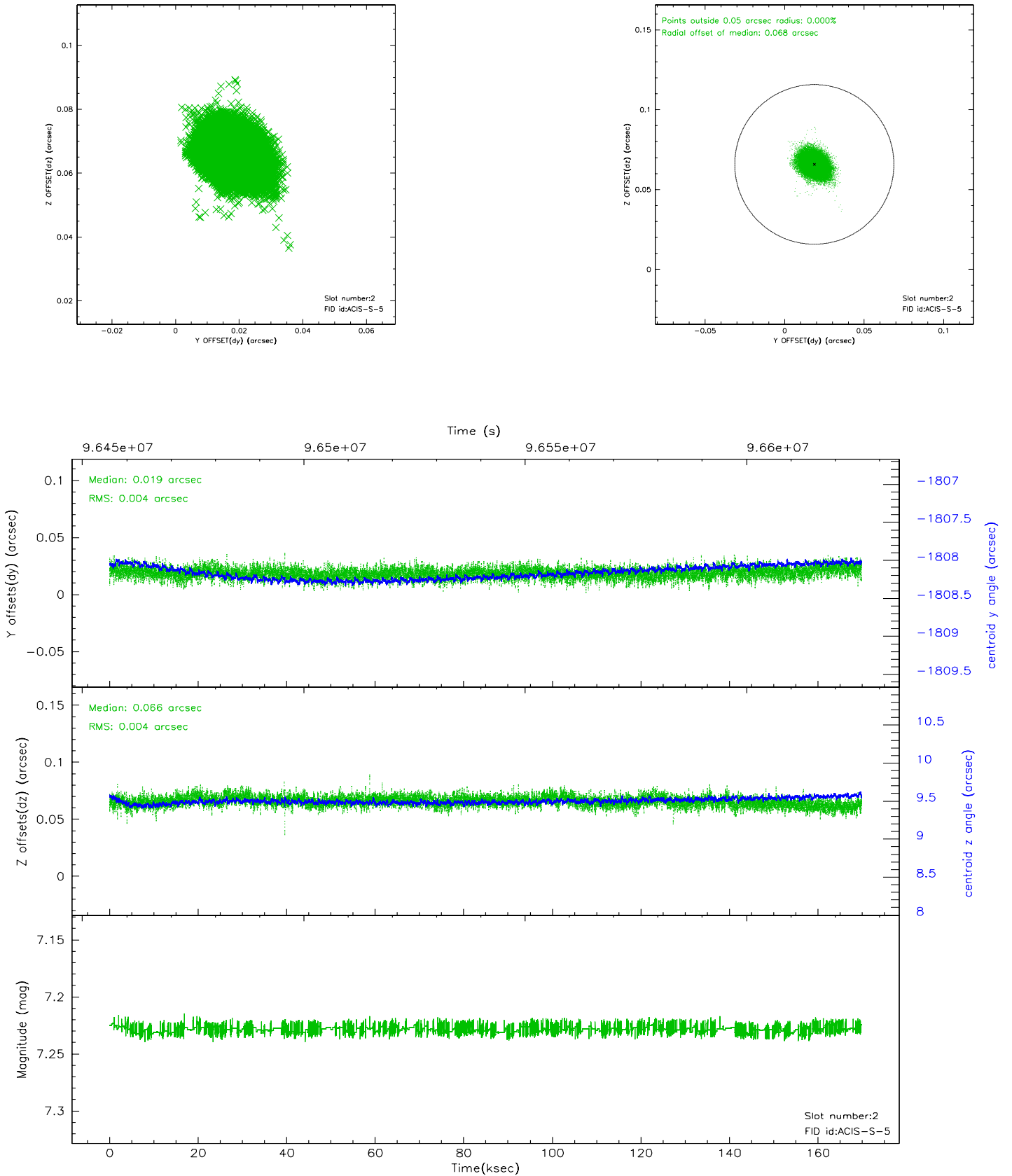
### 2.5.1 Slot 0



## 2.5.2 Slot 1

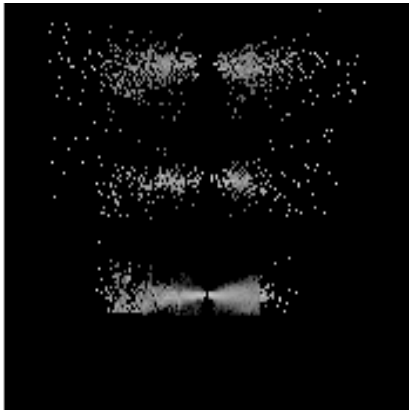


### 2.5.3 Slot 2

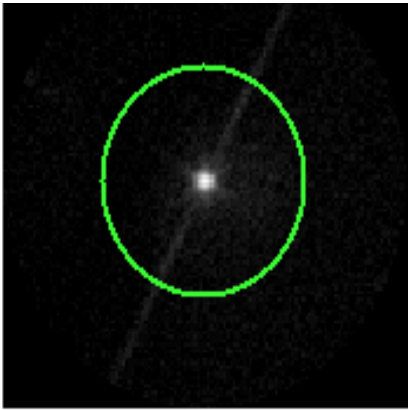


# 3 Gratings

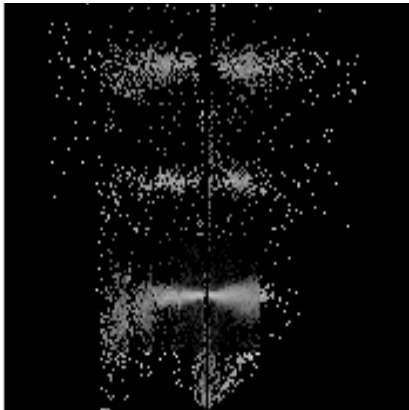
## 3.1 LETG Arm



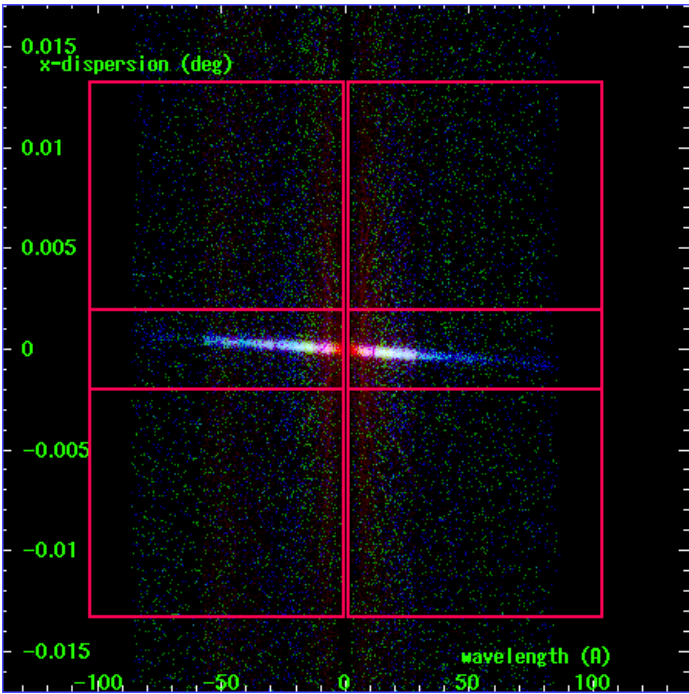
LETG Order Sort 123



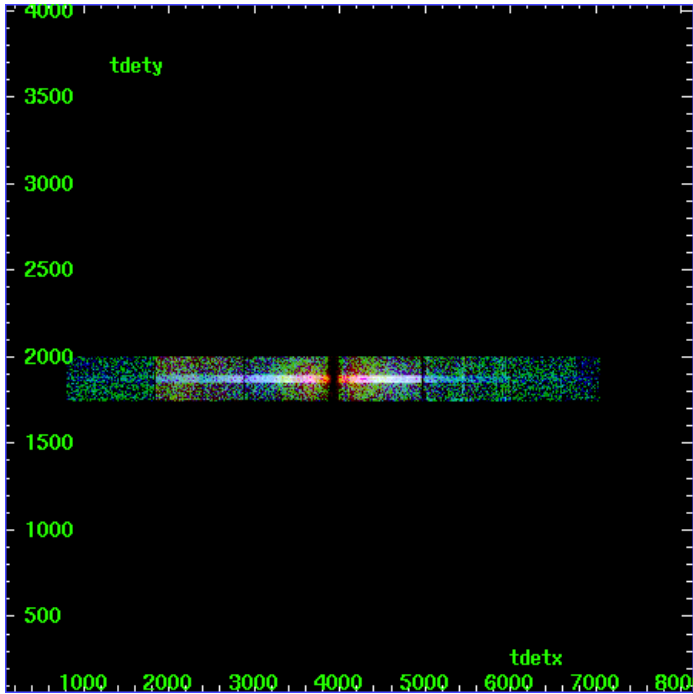
LETG Zero Order



LETG Order Sort ALL

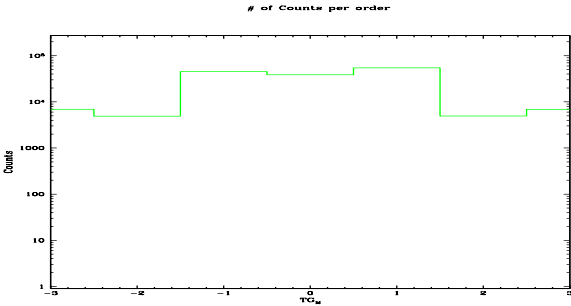


Spot Image LETG

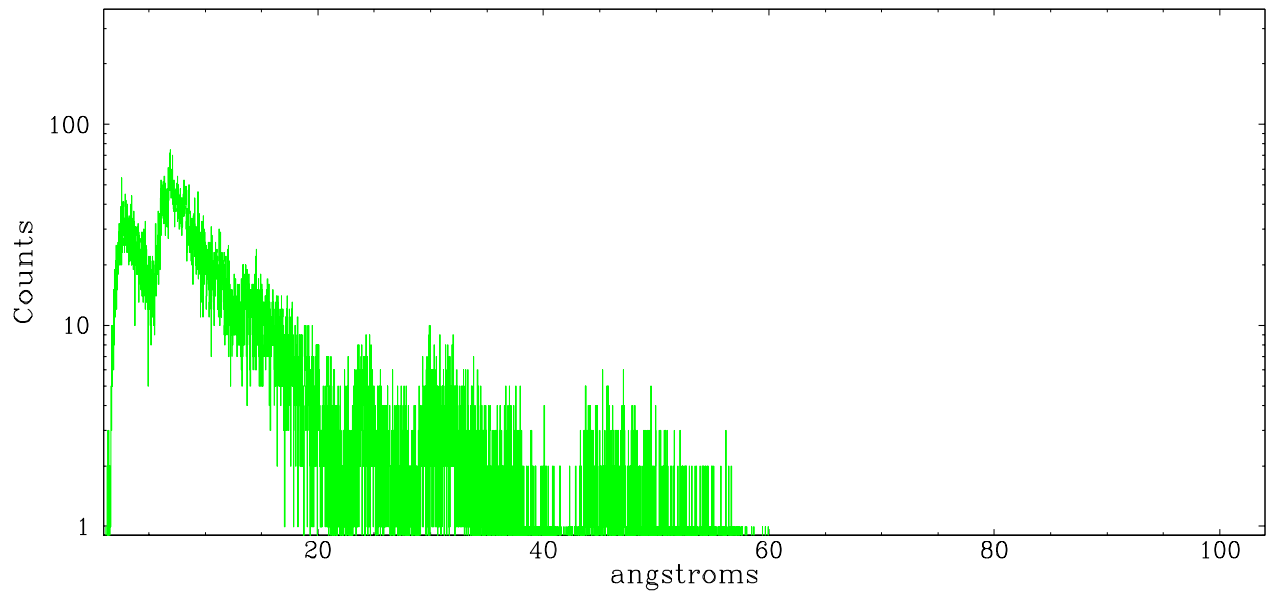


Full Detector LETG

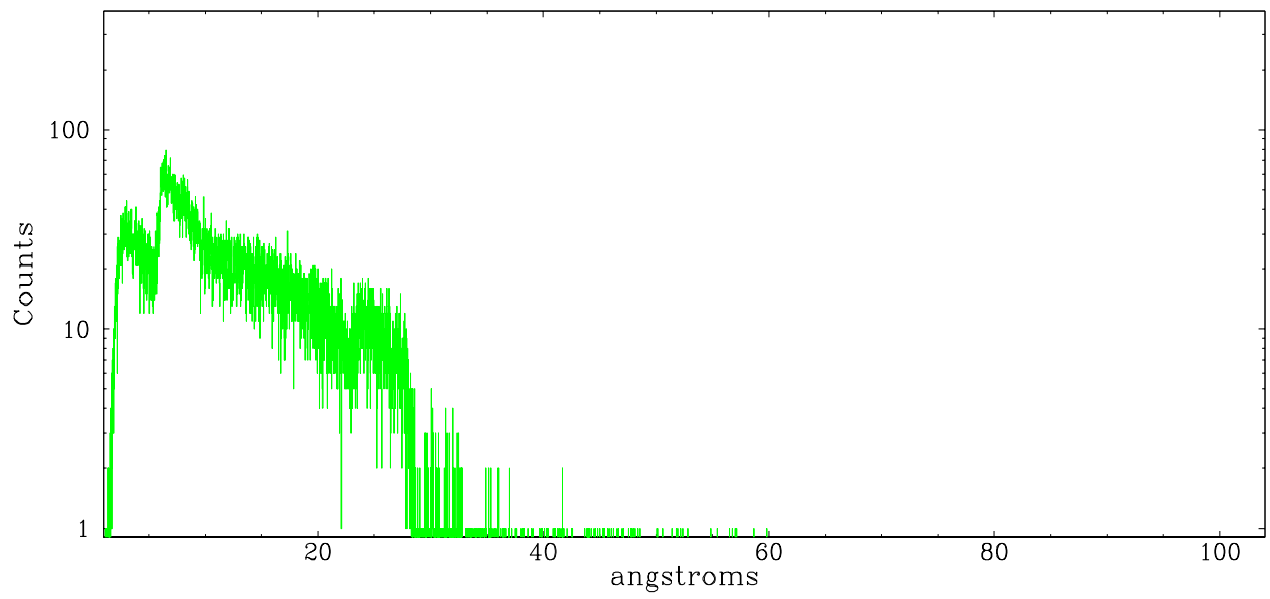
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	6917	4886	45323	38719	54385	4930	6824



leg order -1



leg order +1



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.04.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	169.783

### A.2 Comments

Roll constraint met.