

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 6214 - L2 Version 002  
Chandra X-Ray Center

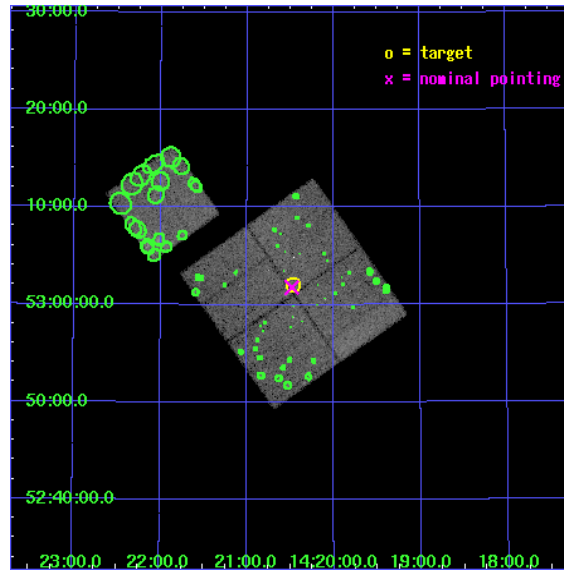
L2 Processing Date : Mar 26 2006

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
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
<b>3</b>	<b>Point Sources</b>	<b>17</b>
<b>A</b>	<b>Summary</b>	<b>18</b>
A.1	Status . . . . .	18
A.2	Comments . . . . .	18

# 1 Front

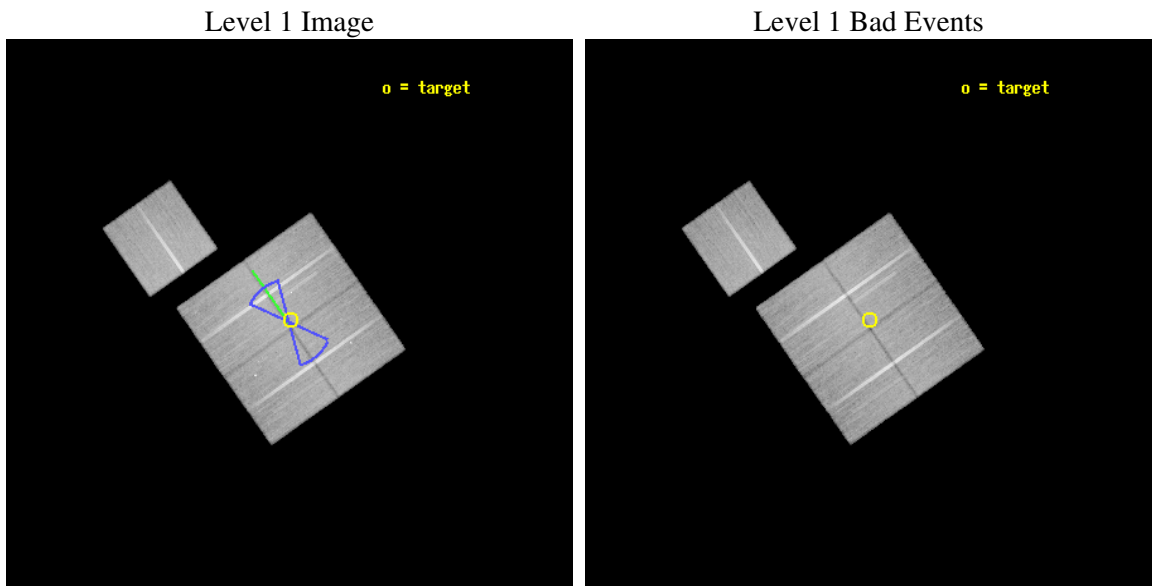
seq_num	900350
obs_id	6214
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies
observer	Professor Kirpal Nandra
object	EGS-3
dtcycle	0
cycle	P
ra_targ	215.116653
dec_targ	53.033695
ra_nom	215.12070682652
dec_nom	53.029765637172
roll_nom	324.87170300504
revision	2
ontime	48133.658917308
livetime	47504.757228069
ontime0	48136.799907446
ontime1	48127.376976758
ontime2	48127.376986831
ontime3	48133.658917308
ontime6	48133.658907294
l2events	125334



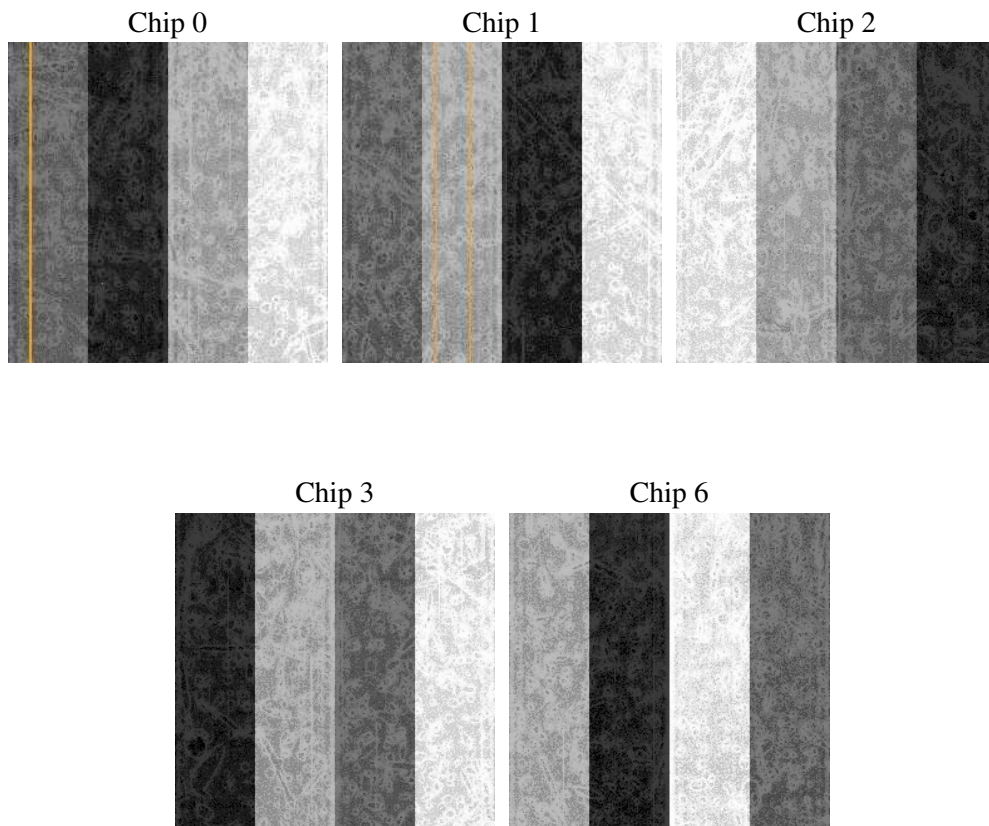
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldbver	3.2.1
date	2006-03-26T04:52:24
revision	2

sched_exp_time	48000.000000
ontime	48563.046794206
ontime0	48566.187814265
ontime1	48556.764883578
ontime2	48556.764863729
ontime3	48563.046794206
ontime6	48563.046784192
l1events	1427420

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	274229	272781	301952	288680	289778
rejected events	244204	239688	273386	260624	259221
rejected %	89%	87%	90%	90%	89%

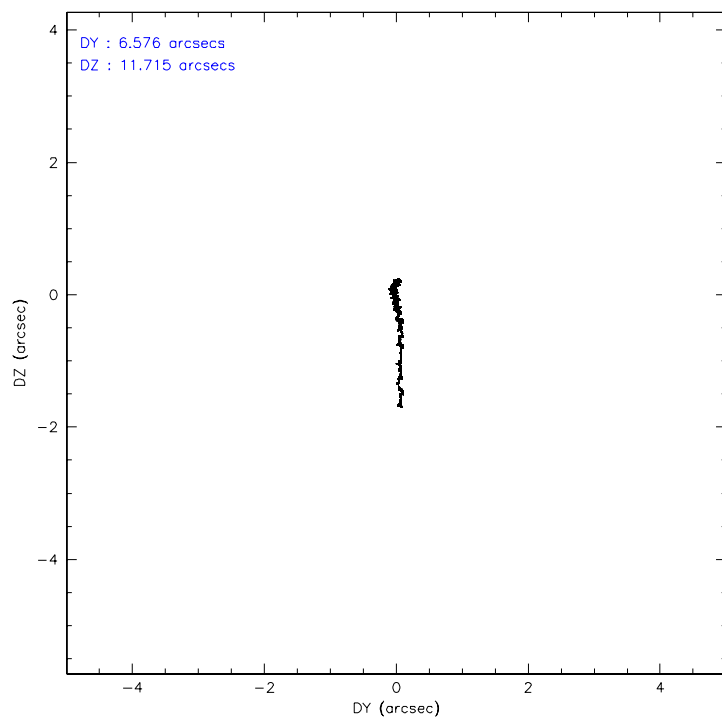
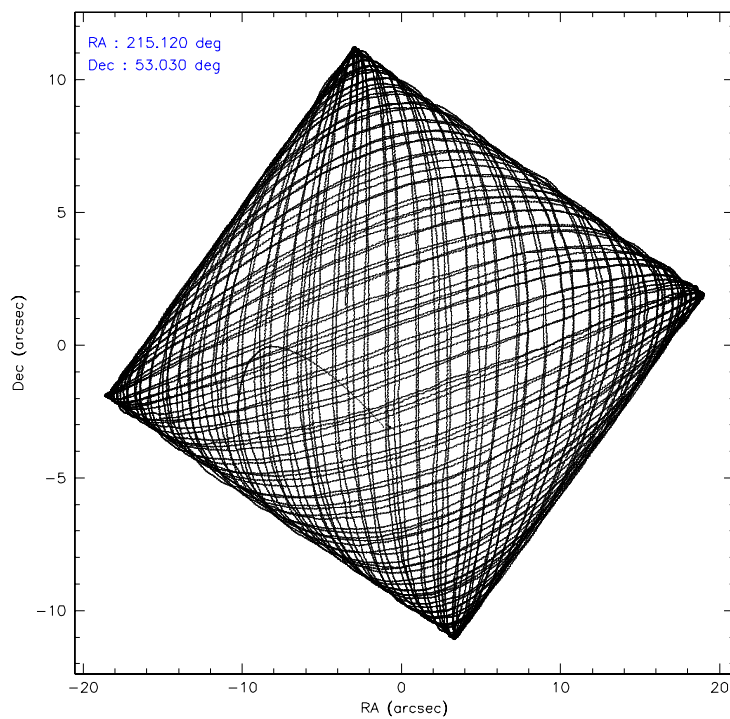
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	10888	12439	10227	10183	10696
	3%	4%	3%	3%	3%
grade 1 events	129	131	155	194	122
	0%	0%	0%	0%	0%
grade 2 events	7205	7238	6800	6132	6827
	2%	2%	2%	2%	2%
grade 3 events	3388	3522	3149	3259	3432
	1%	1%	1%	1%	1%
grade 4 events	3200	3657	3243	3257	3323
	1%	1%	1%	1%	1%
grade 5 events	9874	11400	9565	11952	11799
	3%	4%	3%	4%	4%
grade 6 events	5605	6557	5351	5470	6549
	2%	2%	1%	1%	2%
grade 7 events	233940	227837	263462	248233	247030
	85%	83%	87%	85%	85%

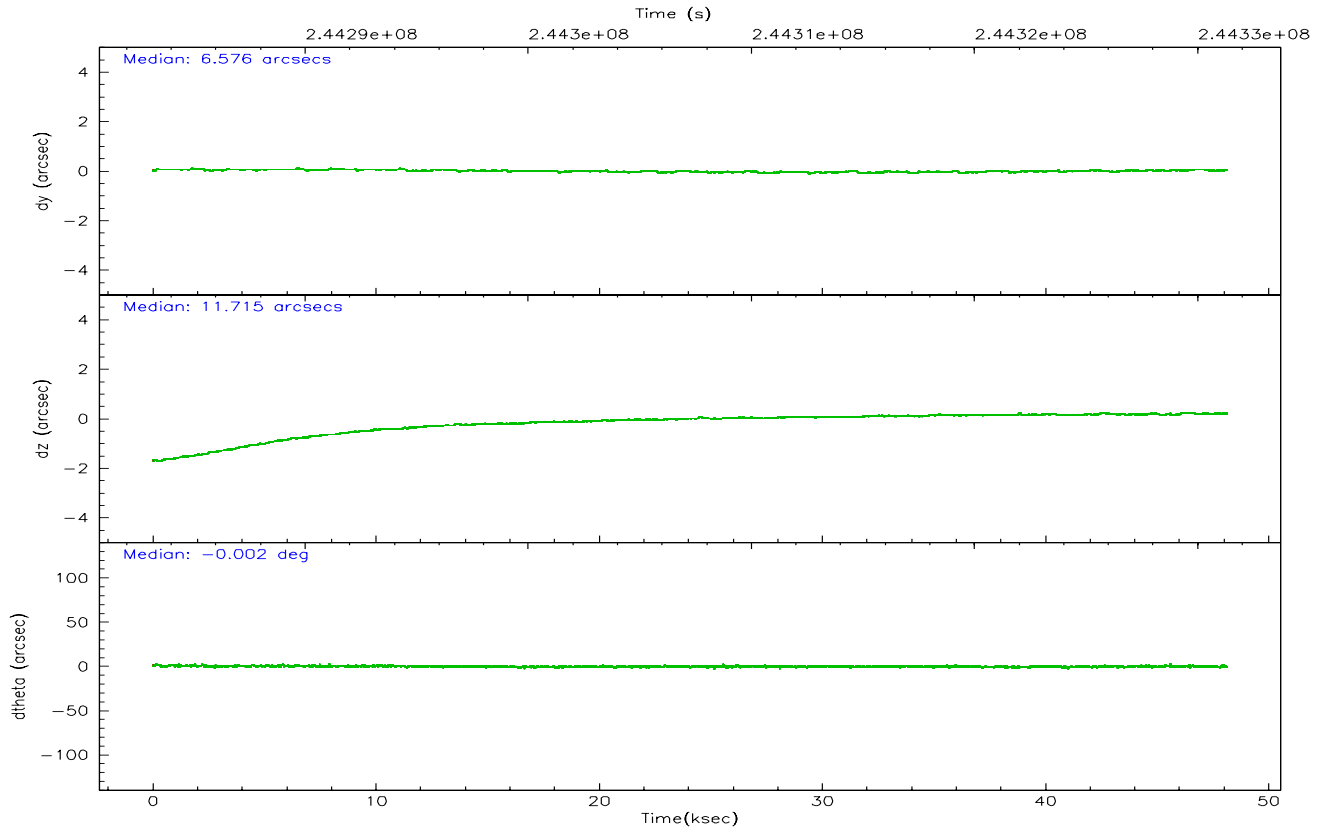
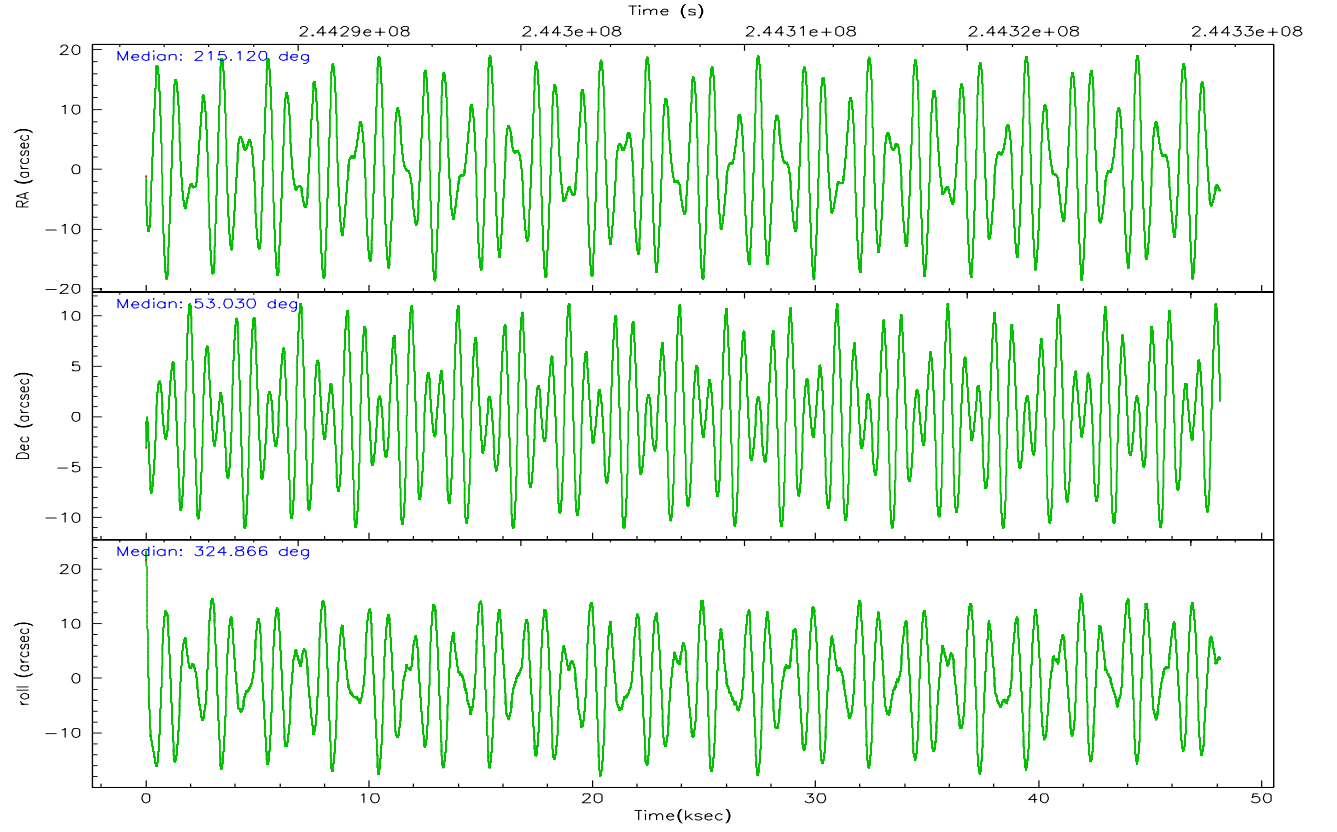


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	215.075357	215.120706826517	Alternating exposures requested	N	N
Pointing Dec	53.032088	53.0297656371721	Primary exposure time	0.000000	3.1
Pointing Roll	324.699246	324.8717030050362			
Roll angle	50.756000	50.756000			
Roll tolerance	25.000000	25.000000			
Roll constraint allows 180D rotation	Y	Y			
SIM focus pos (mm)	-0.782348	-0.7809083437167272			
SIM defocus (mm)	0	0.001439871863259334			
SIM translation stage pos (mm)	-233.592463	-233.5874344608287			
SIM translation stage offset (mm)	0	-0.005018542100998502			
Observation start time	244283328.184000	244282143.95091			
Observation start date	2005-09-28T08:27:44	2005-09-28T08:09:03			
Observation end time	244331328.184000	244332183.94072			
Observation end date	2005-09-28T21:47:44	2005-09-28T22:03:03			
Read mode	TIMED	TIMED			

## 2.3 Aspect



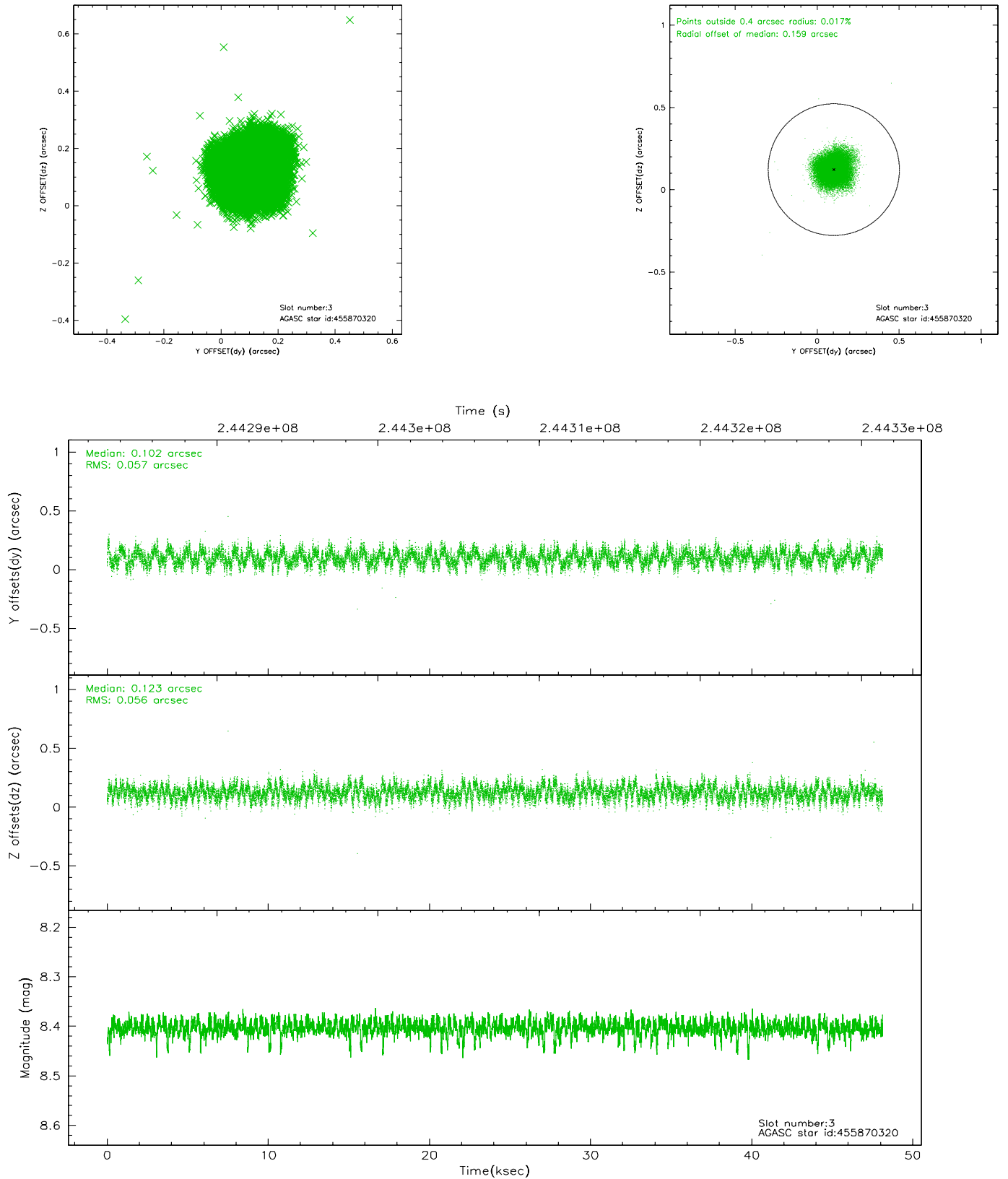


### Slot Statistics

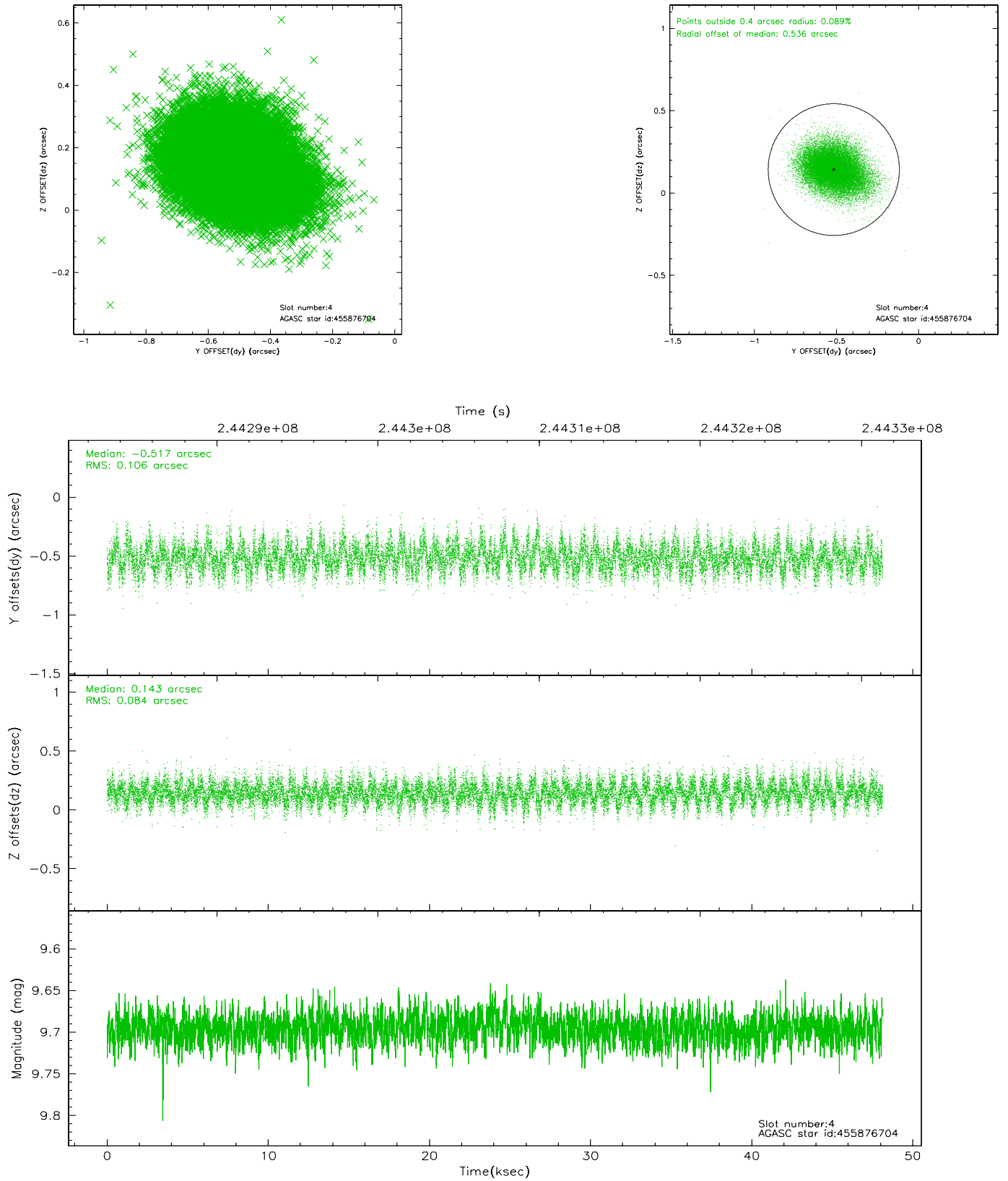
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	11741	-0.067	-0.088	0.012	0.024	0.000000	0.000000	-761.13	-841.48
1	FID	ACIS-I-4	7.17	11741	0.077	0.067	0.009	0.020	0.000000	0.000000	2153.08	1064.85
2	FID	ACIS-I-5	7.22	11743	-0.110	0.090	0.013	0.031	0.000000	0.000000	-1815.02	1062.71
3	GUIDE	455870320	8.40	23469	0.102	0.123	0.086	0.134	214.874440	52.401638	951.76	-2106.36
4	GUIDE	455876704	9.70	23464	-0.517	0.143	0.143	0.234	215.615051	52.388297	2304.58	-1202.12
5	GUIDE	505809632	8.06	23473	0.243	-0.077	0.073	0.122	215.499426	53.521185	-277.85	1963.82
6	GUIDE	505812088	8.14	23411	0.164	-0.060	0.061	0.098	214.186617	53.263562	-2049.70	-415.99
7	GUIDE	505812376	7.72	23482	0.008	-0.128	0.060	0.098	214.039537	52.937930	-1647.22	-1562.10

## 2.4 Star Slots

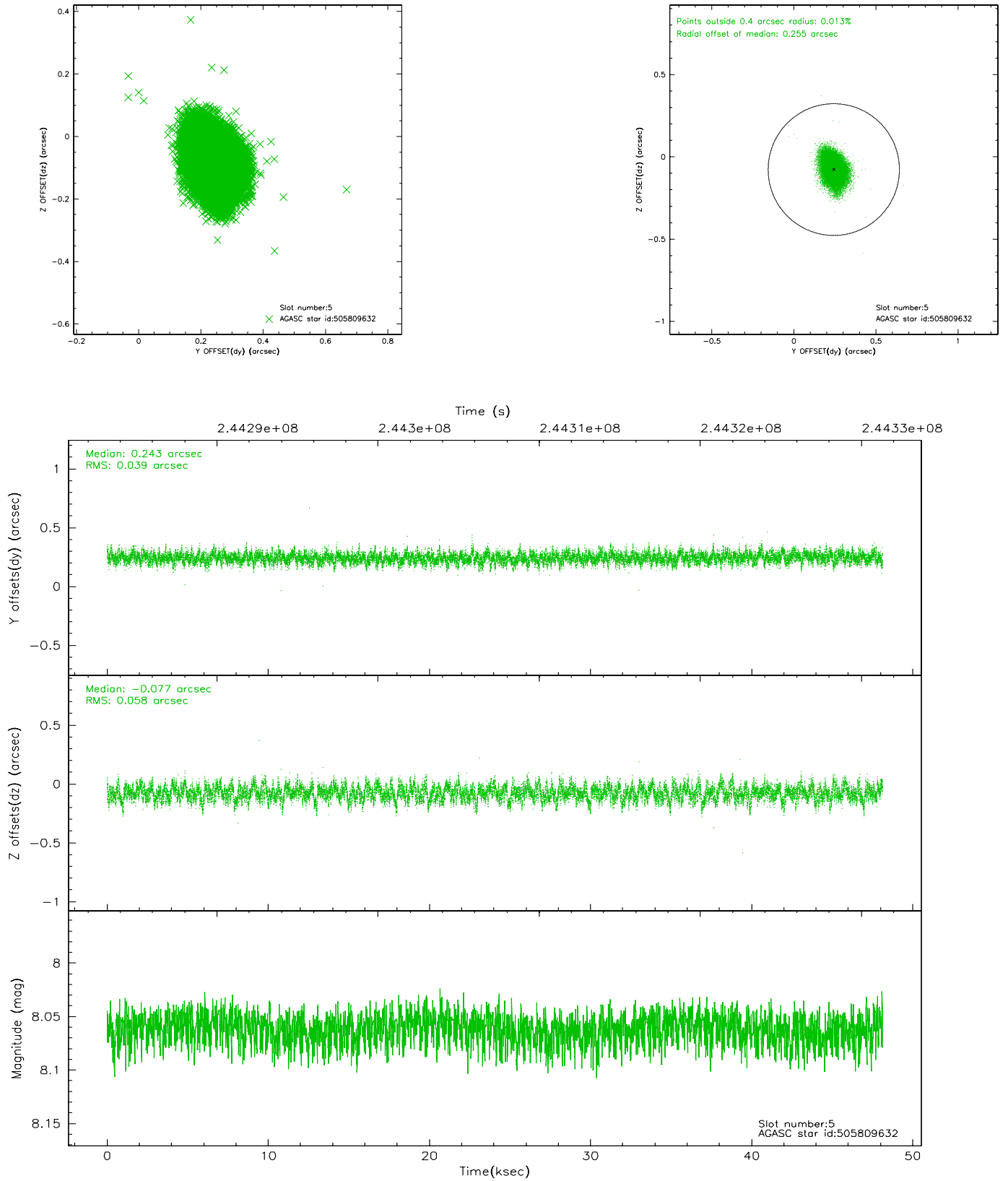
### 2.4.1 Slot 3



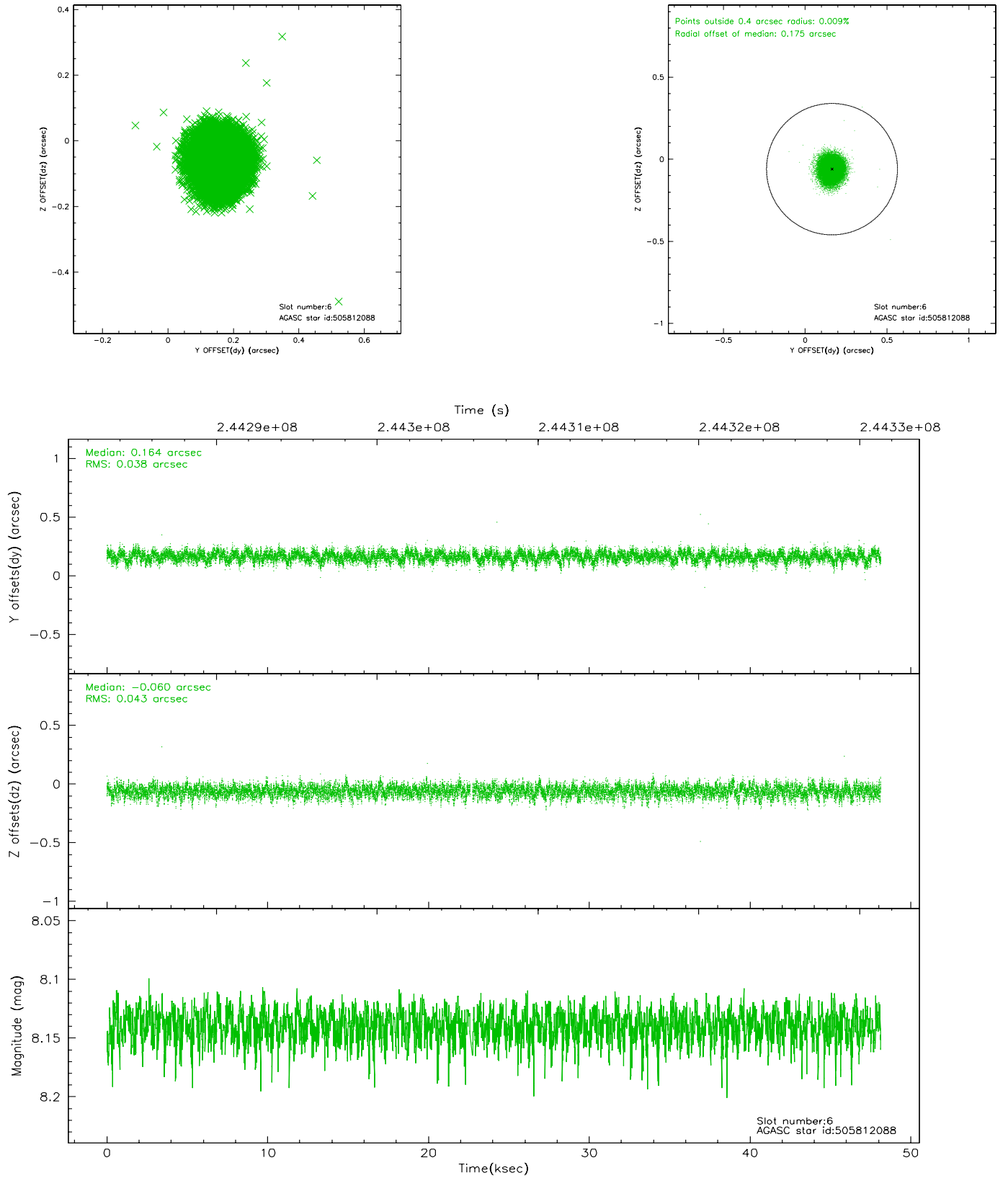
## 2.4.2 Slot 4



### 2.4.3 Slot 5

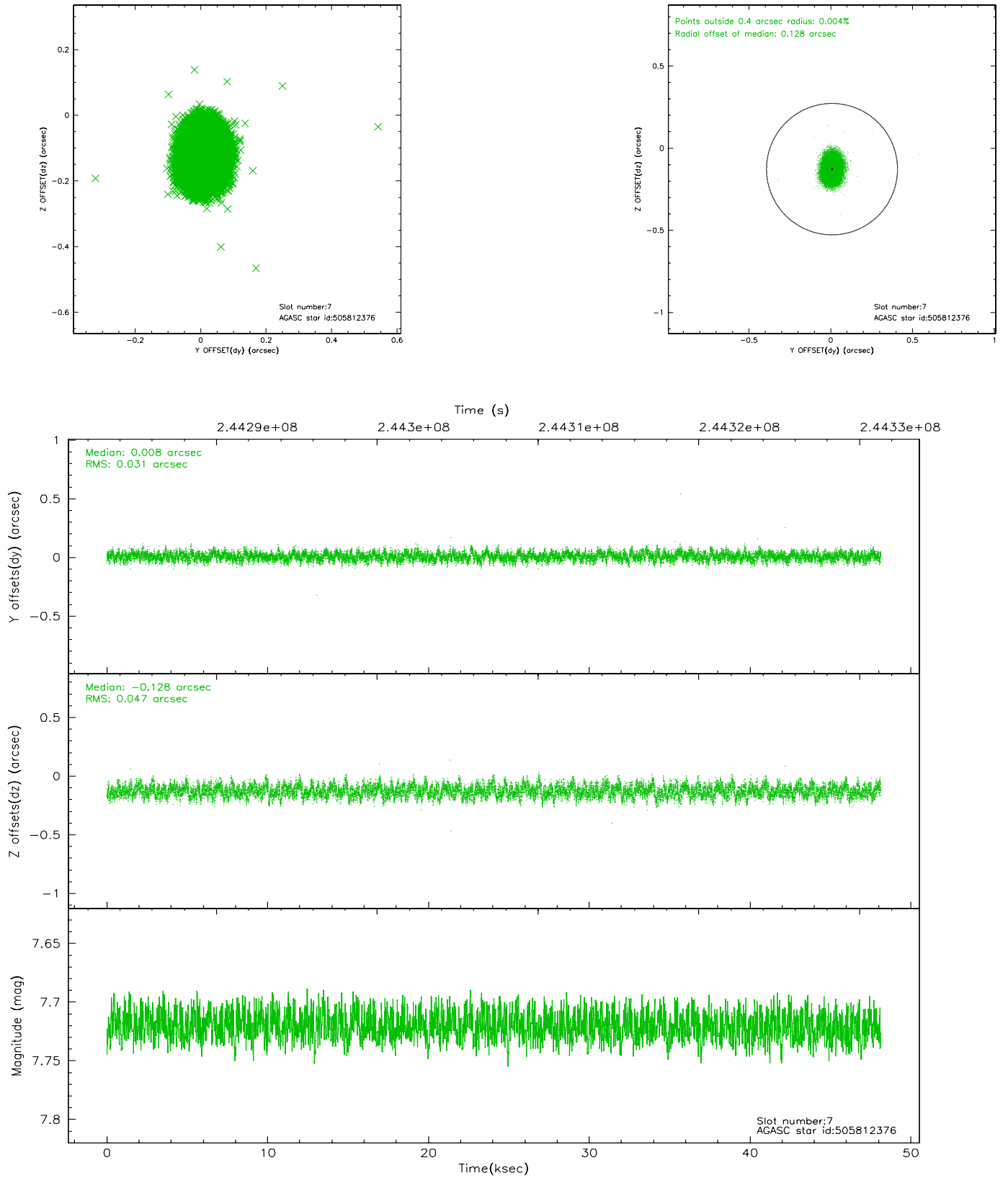


## 2.4.4 Slot 6



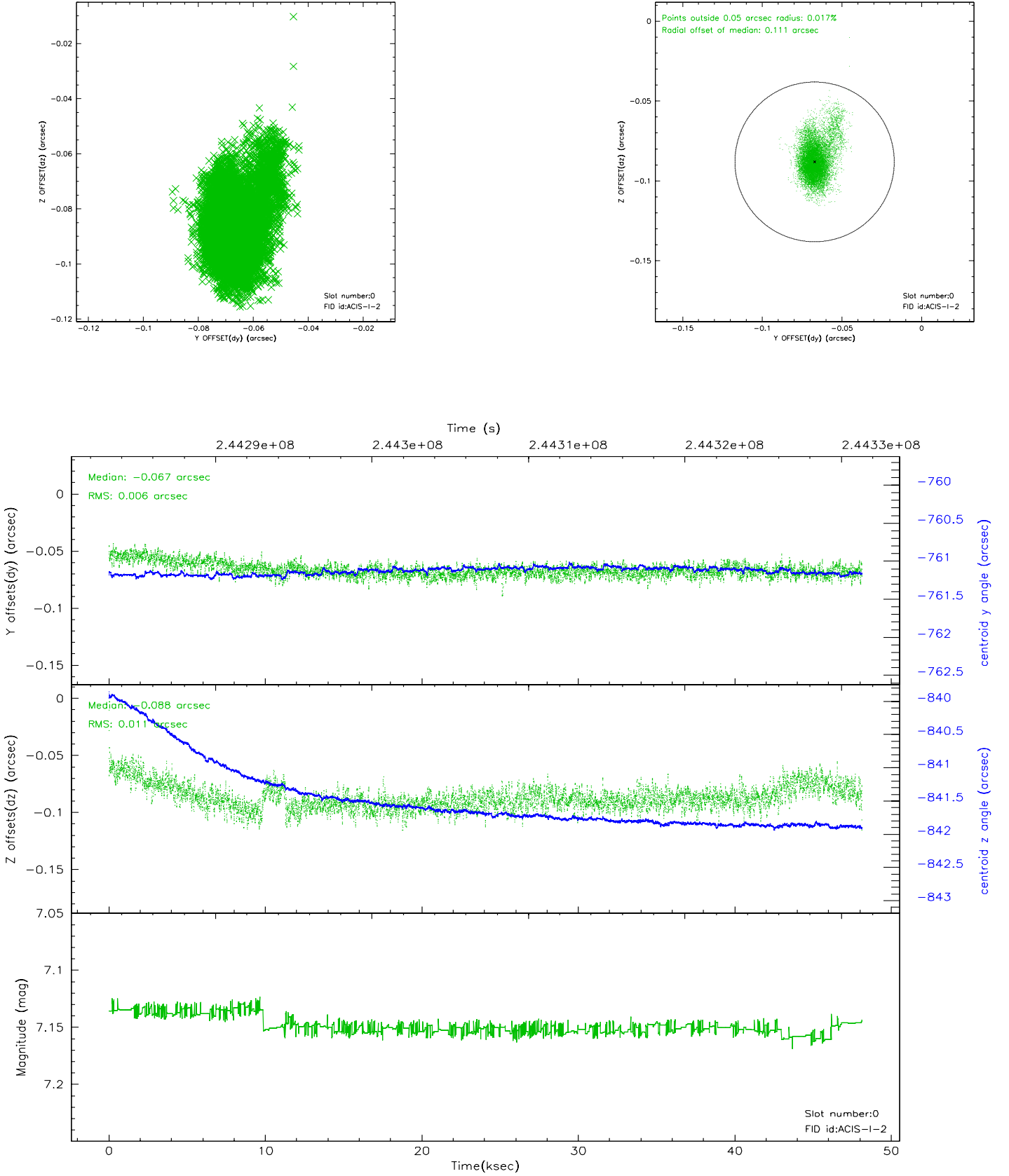


## 2.4.5 Slot 7

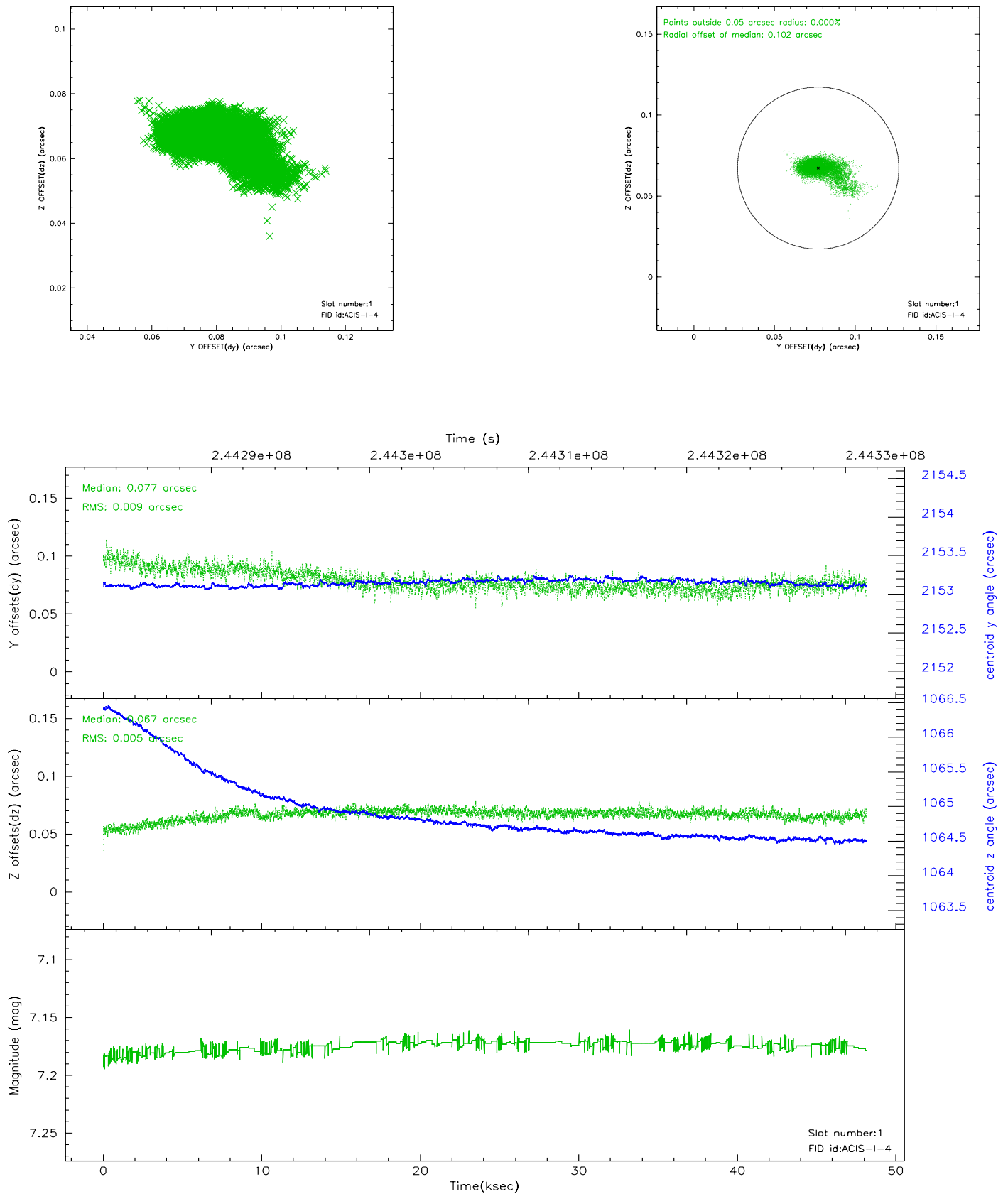


## 2.5 FID Slots

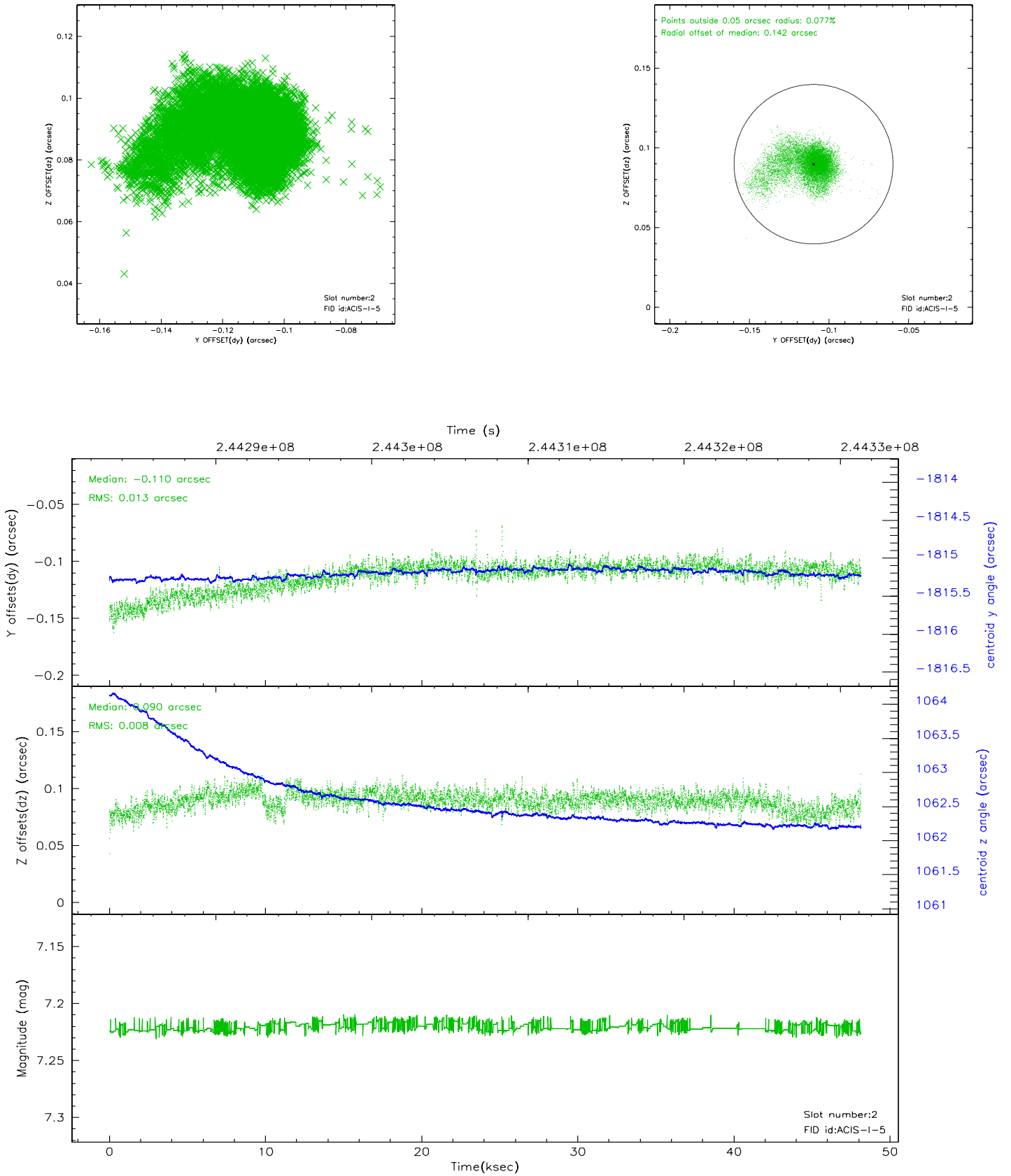
### 2.5.1 Slot 0



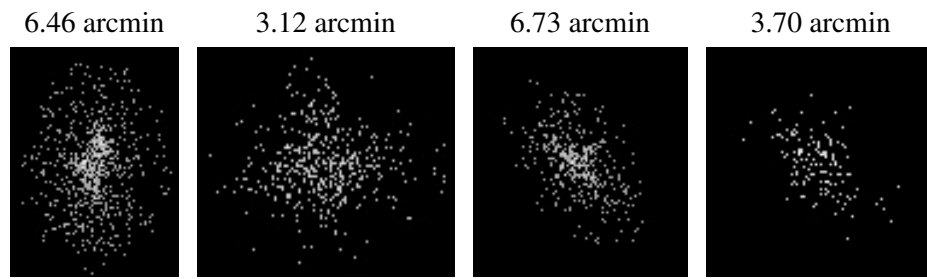
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	48.13365

## A.2 Comments

Roll constraint met. Focal plane temperature declined by more than 3 degrees during the observation. Calibration files may not be valid for the higher temperature range. As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. GOs should subtract 1.3 degrees from the reported temperature to determine the true temperature. In addition the FP temperature was not regulating during this period. The FP temperature fluctuated between -121.3 C and -118.8 C during this time. For analysis of line-dominated spectra from the FI CCDs, GOs might notice a systematic gain shift by up to 0.5%, either towards higher/lower energies depending on if the FP temperature was colder/warmer than -119.7 C. Analysis of line-dominated spectra on S3 are mostly unaffected (where mostly unaffected means that the changes are smaller than the current uncertainties in the calibration). Analysis of continuum-dominated spectra on both the FI and BI CCDs are mostly unaffected. Imaging analysis on both the FI and BI CCDs are mostly unaffected.