

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 4722 - L2 Version <sub>e</sub>1  
Chandra X-Ray Center

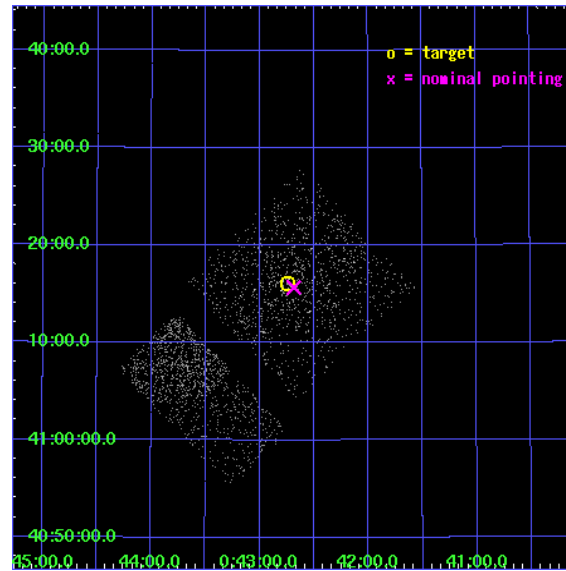
L2 Processing Date : Apr 13 2006

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI Primary</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>OBI Secondary</b>	<b>17</b>
3.1	OBI . . . . .	17
3.1.1	Images . . . . .	17
3.1.2	Bias . . . . .	17
3.1.3	Parameters . . . . .	18
3.1.4	Events . . . . .	18
<b>4</b>	<b>Point Sources</b>	<b>19</b>
<b>A</b>	<b>Summary</b>	<b>20</b>
A.1	Status . . . . .	20
A.2	Comments . . . . .	20

# 1 Front

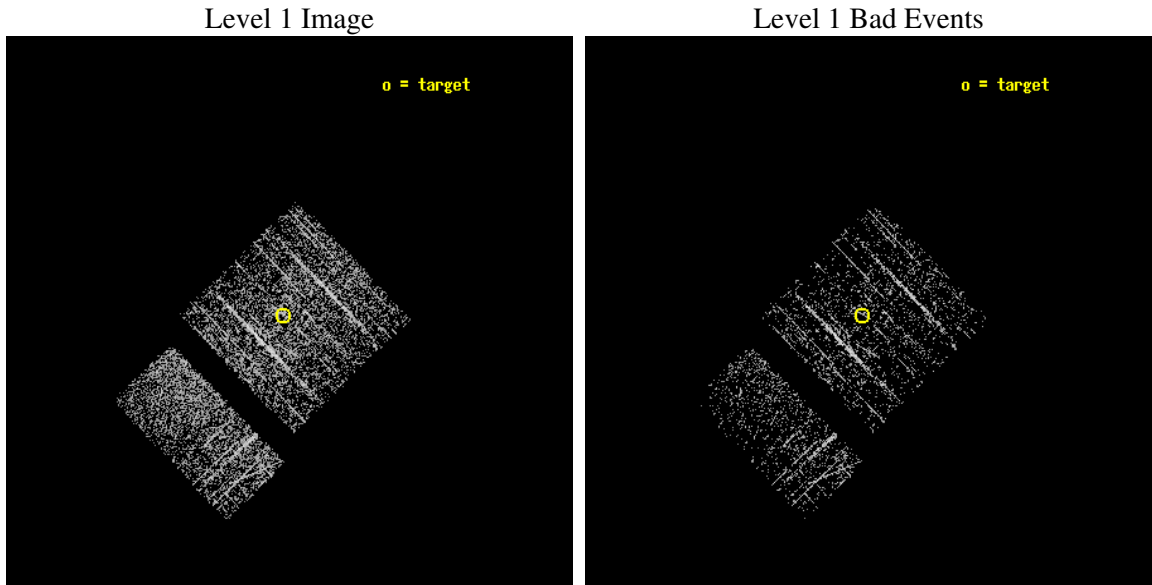
seq_num	600377
obs_id	4722
title	Black Hole X-ray Novae in M31
observer	Dr. MICHAEL GARCIA
object	M31-bulge
dtcycle	0
cycle	P
ra_targ	10.684583
dec_targ	41.269
ra_nom	10.671264657106
dec_nom	41.261295985155
roll_nom	225.99447042825
revision	2
ontime	922.2793533802
livetime	145.18901705116
ontime0	922.19764512777
ontime1	922.19764512777
ontime2	922.2383133769
ontime3	922.2793533802
ontime6	922.34912037849
ontime7	922.3203933835
l2events	2567



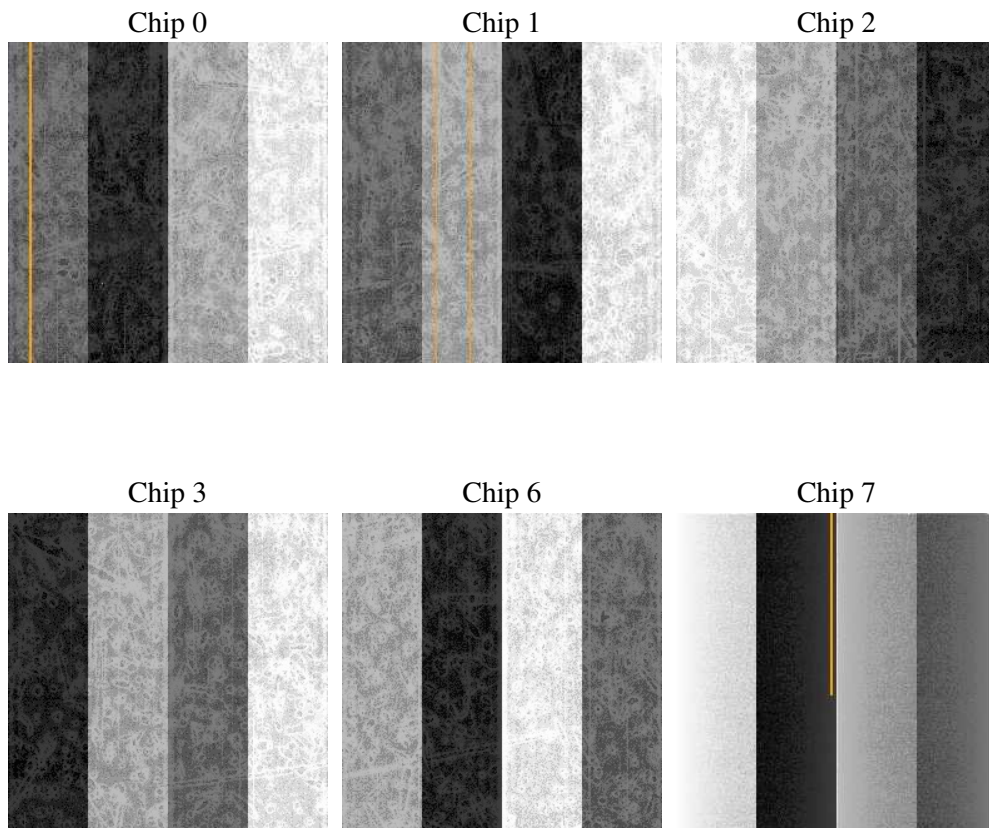
## 2 OBI Primary

### 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	2006-04-13T11:55:31
revision	2

sched_exp_time	5000.000000
ontime	929.97184038162
ontime0	929.97184038162
ontime1	929.97184038162
ontime2	929.97184038162
ontime3	929.97184038162
ontime6	929.97184038162
ontime7	929.97184038162
l1events	22735

### 2.1.4 Events

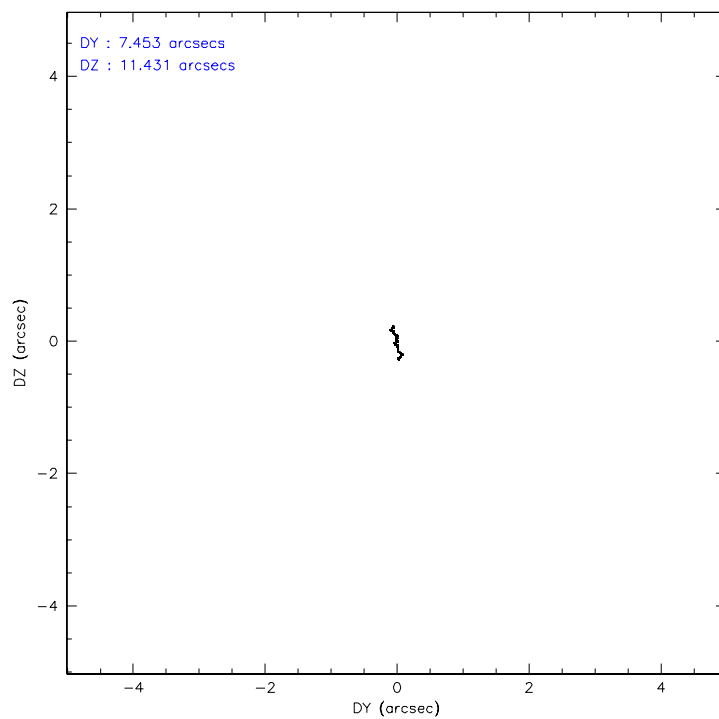
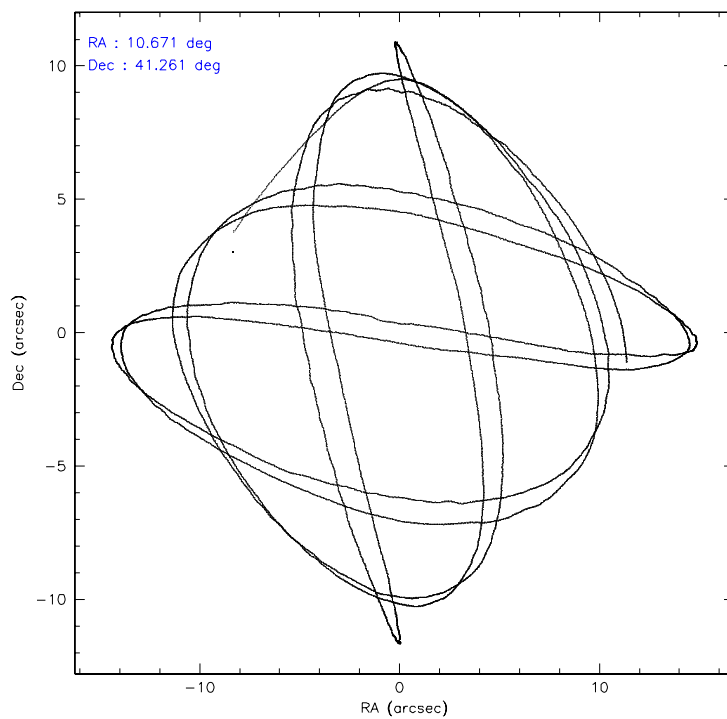
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3517	3637	3727	4100	4133	3621
rejected events	3103	3231	3402	3582	3801	2716
rejected %	88%	88%	91%	87%	91%	75%

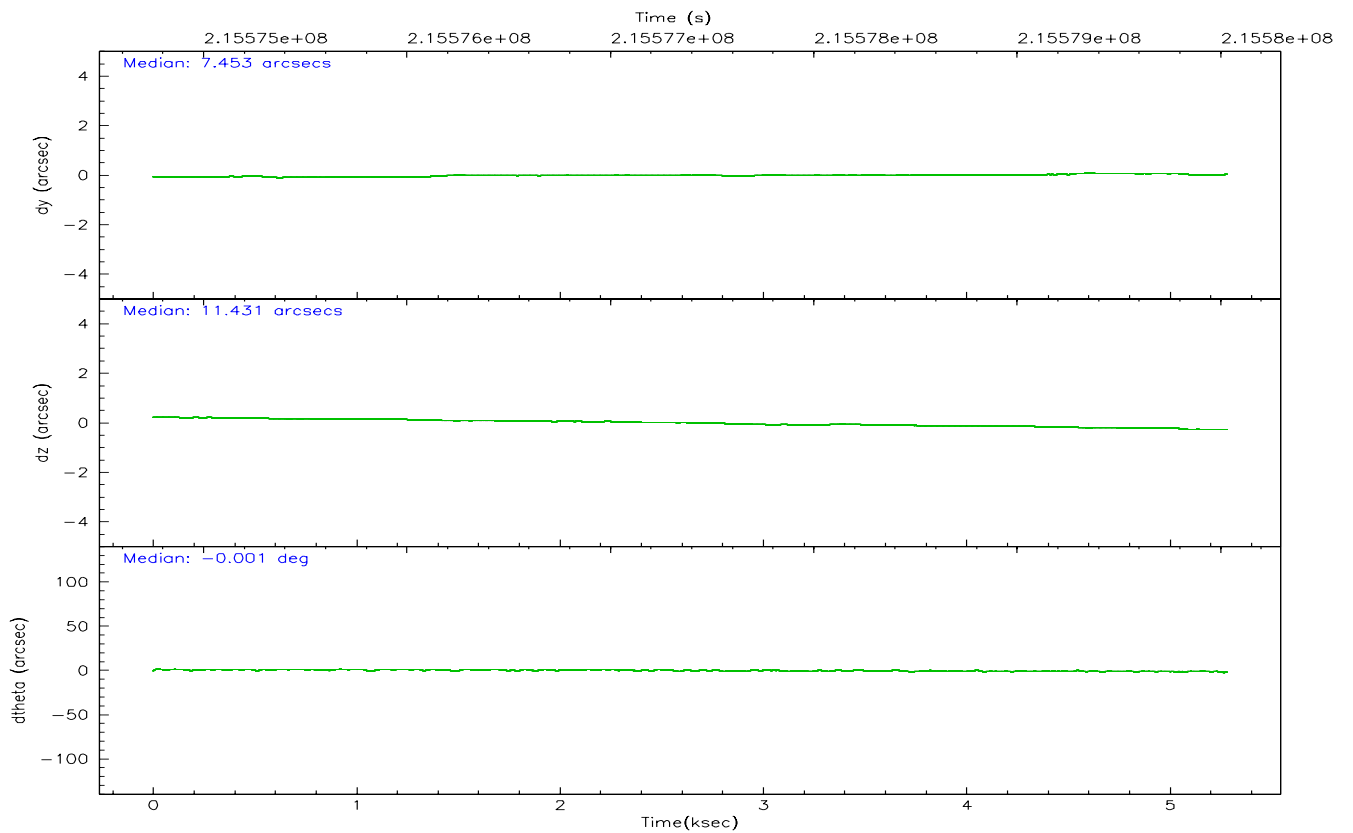
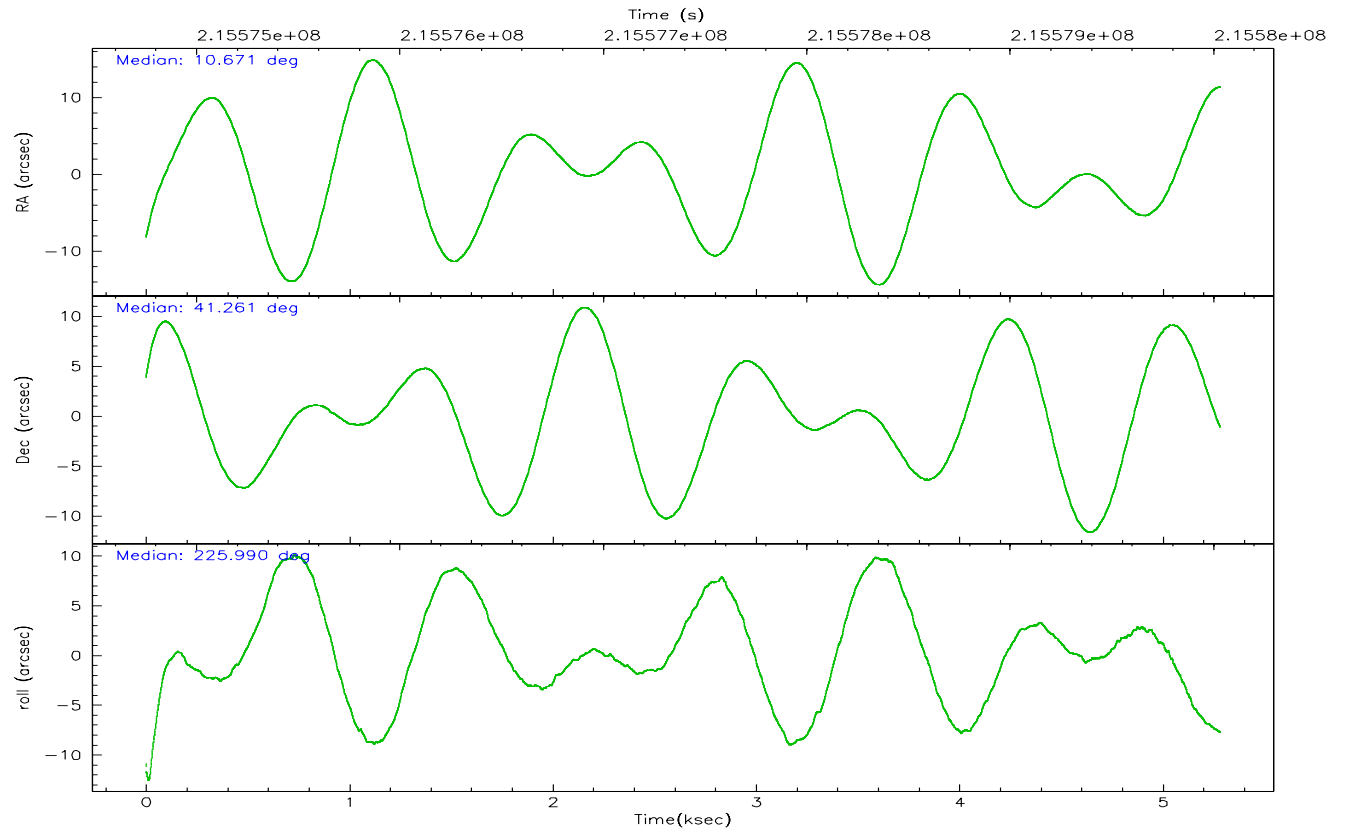
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	178	149	131	272	106	68
	5%	4%	3%	6%	2%	1%
grade 1 events	1	1	1	3	3	5
	0%	0%	0%	0%	0%	0%
grade 2 events	96	87	76	92	72	235
	2%	2%	2%	2%	1%	6%
grade 3 events	42	47	34	43	38	52
	1%	1%	0%	1%	0%	1%
grade 4 events	40	41	39	47	36	58
	1%	1%	1%	1%	0%	1%
grade 5 events	97	108	105	124	120	194
	2%	2%	2%	3%	2%	5%
grade 6 events	63	86	51	68	82	498
	1%	2%	1%	1%	1%	13%
grade 7 events	3000	3118	3290	3451	3676	2511
	85%	85%	88%	84%	88%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	10.679850	10.67126465710632	Alternating exposures requested	Y	Y
Pointing Dec	41.287807	41.26129598515531	Primary exposure time	0.600000	0.6
Pointing Roll	225.780152	225.9944704282525	Secondary exposure time	0.000000	3.2
Window start time	215654464.184000	215654464.184000	Duty cycle	5	5
Window stop time	216259264.184000	216259264.184000			
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	215575033.184000	215573877.04651			
Observation start date	2004-10-31T01:56:09	2004-10-31T01:37:57			
Observation end time	215580033.184000	215580557.48431			
Observation end date	2004-10-31T03:19:29	2004-10-31T03:29:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect





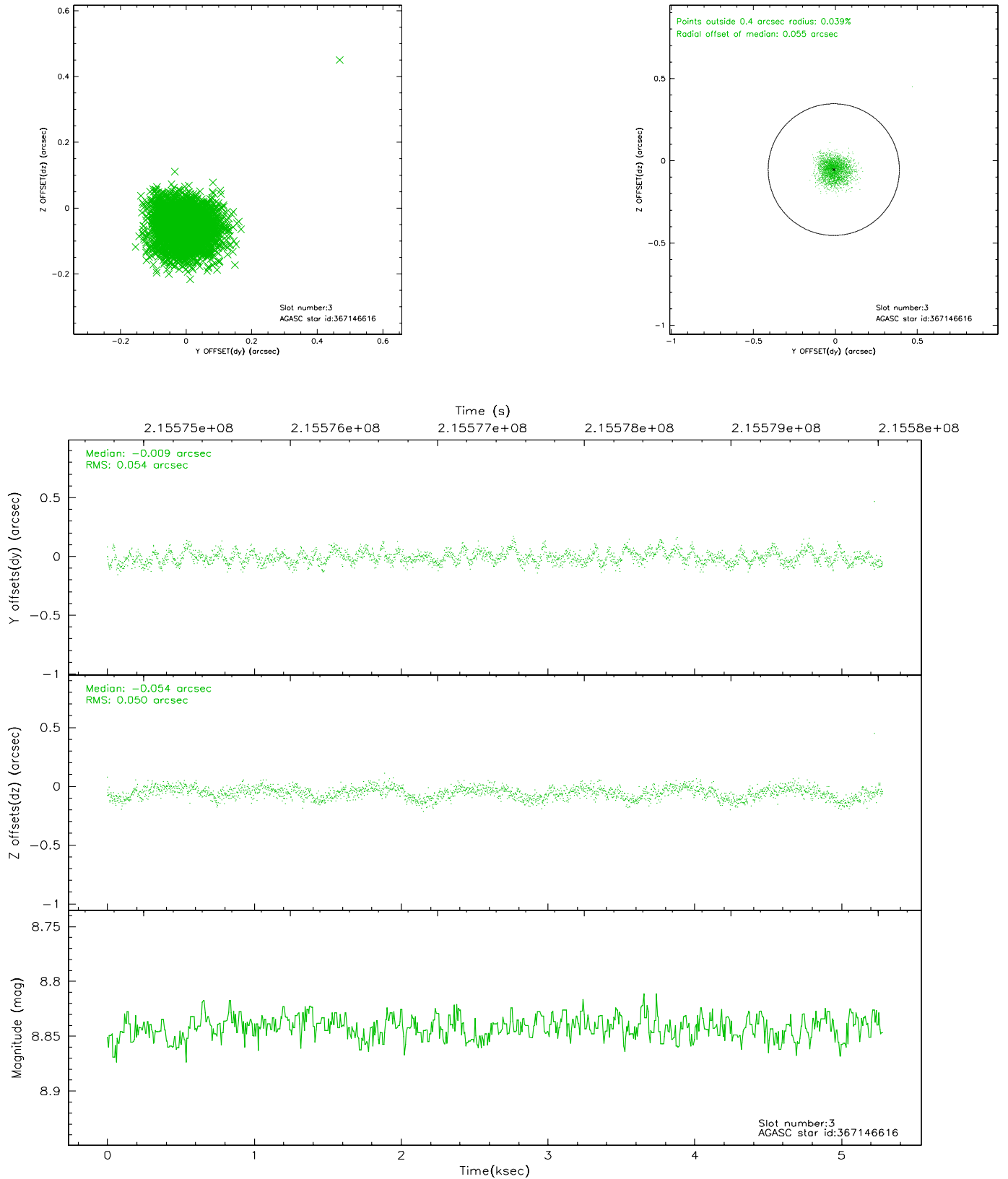
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1289	0.025	0.003	0.008	0.015	0.000000	0.000000	932.24	-834.94
1	FID	ACIS-I-5	7.23	1289	-0.110	0.061	0.010	0.023	0.000000	0.000000	-1815.35	1062.07
2	FID	ACIS-I-6	7.24	1289	-0.005	0.008	0.009	0.015	0.000000	0.000000	396.55	1707.79
3	GUIDE	367146616	8.84	2577	-0.009	-0.054	0.079	0.122	11.418645	41.190163	-1149.65	1673.61
4	GUIDE	367148872	7.22	2578	-0.138	-0.067	0.060	0.098	10.505940	40.688258	1877.73	1165.80
5	GUIDE	367658664	9.59	2577	0.026	-0.021	0.096	0.168	10.374070	41.369746	365.04	-798.17
6	GUIDE	367663272	9.29	2577	-0.028	0.016	0.080	0.127	10.656279	41.699429	-1016.68	-1079.24
7	GUIDE	367145856	9.29	2575	0.145	0.125	0.086	0.141	10.744946	40.402085	2160.97	2351.70

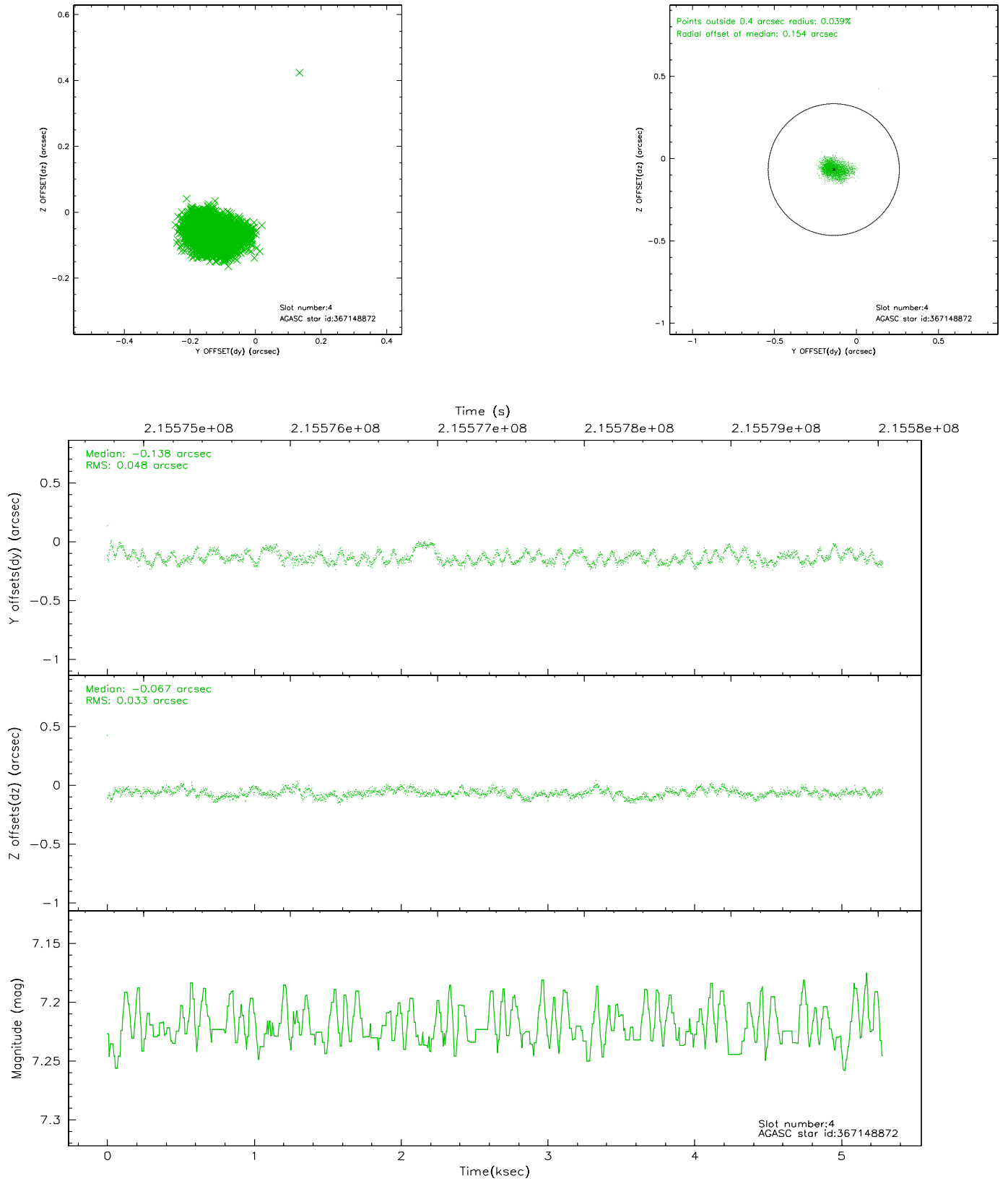


## 2.4 Star Slots

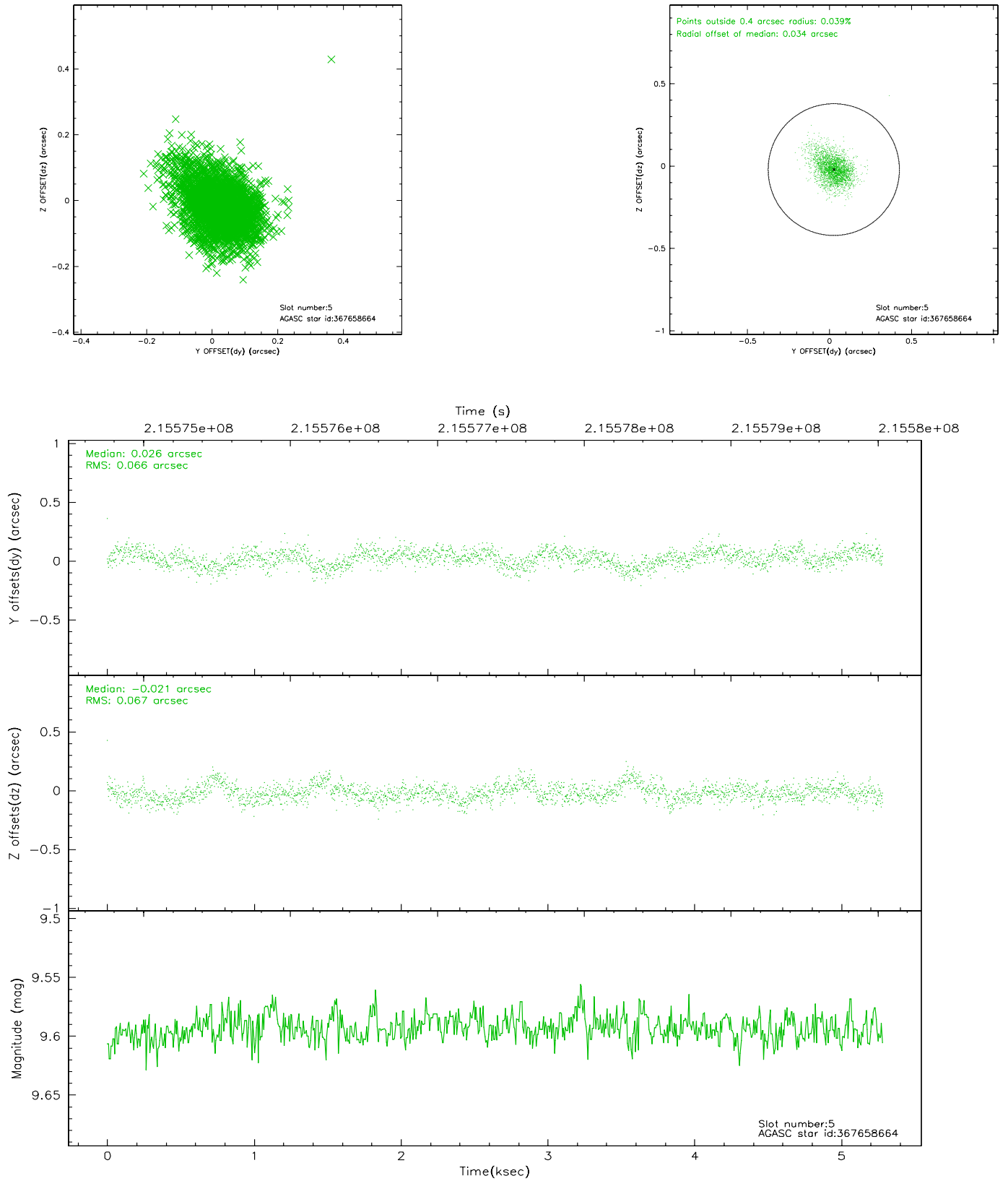
### 2.4.1 Slot 3



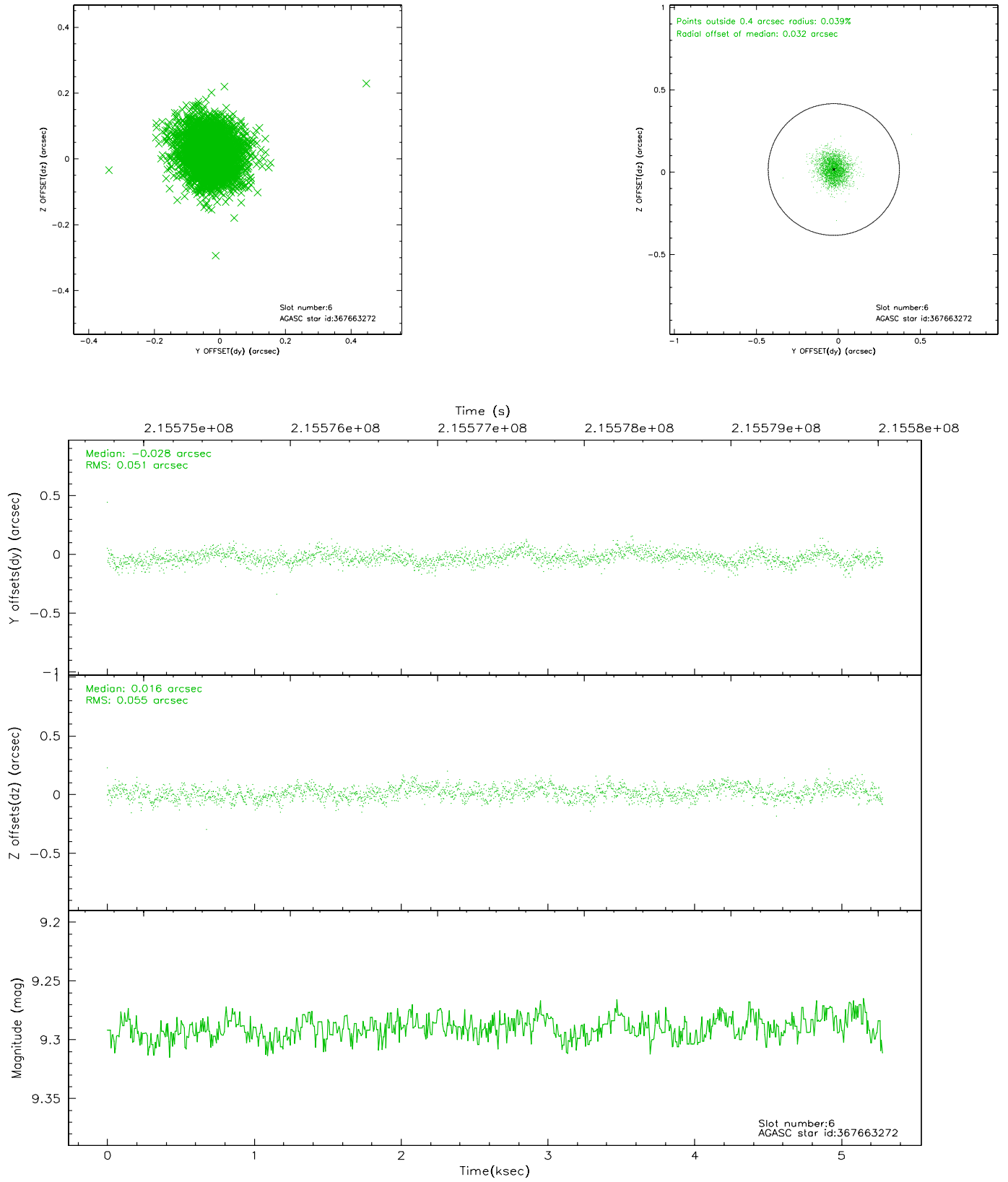
## 2.4.2 Slot 4



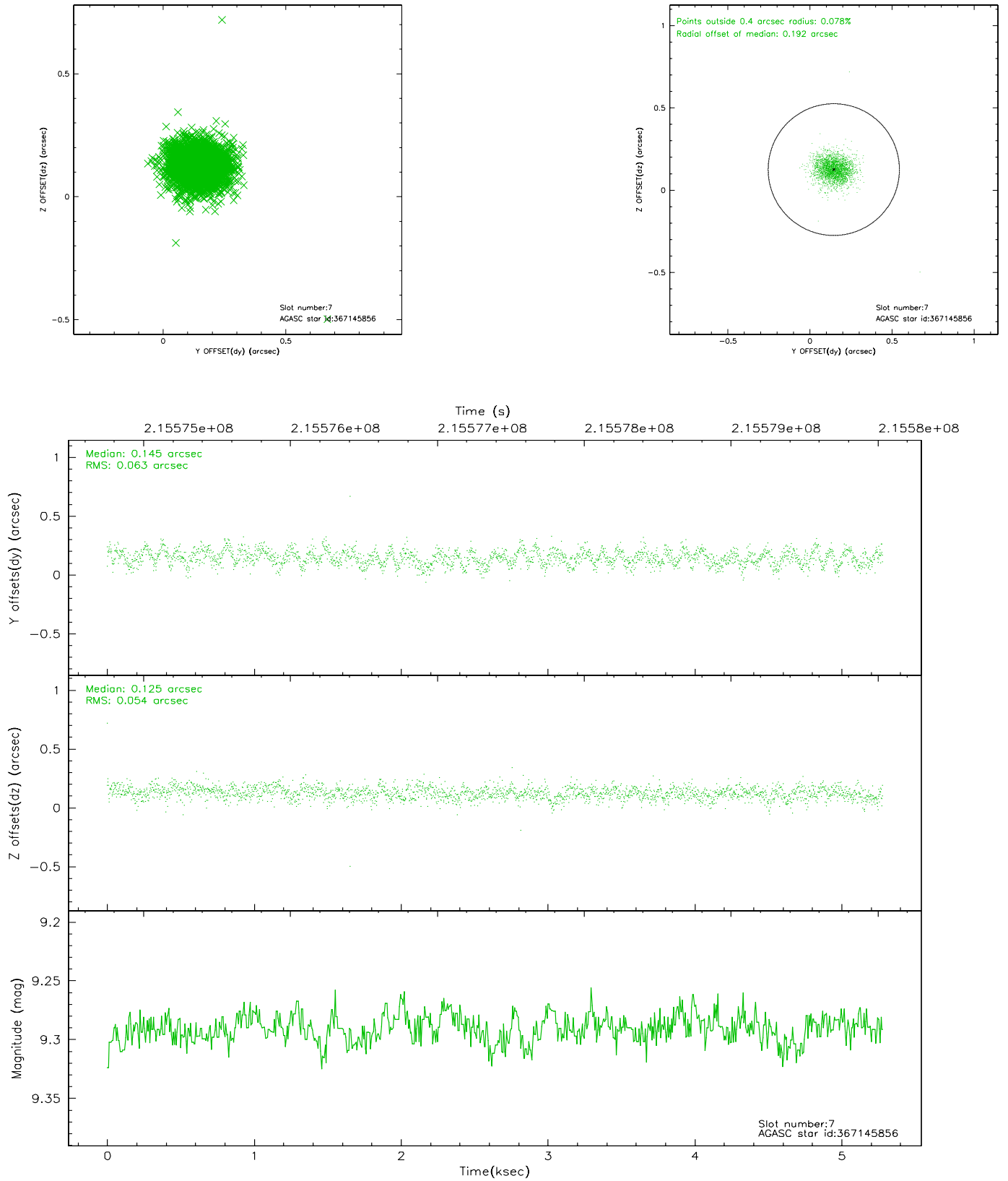
### 2.4.3 Slot 5



## 2.4.4 Slot 6

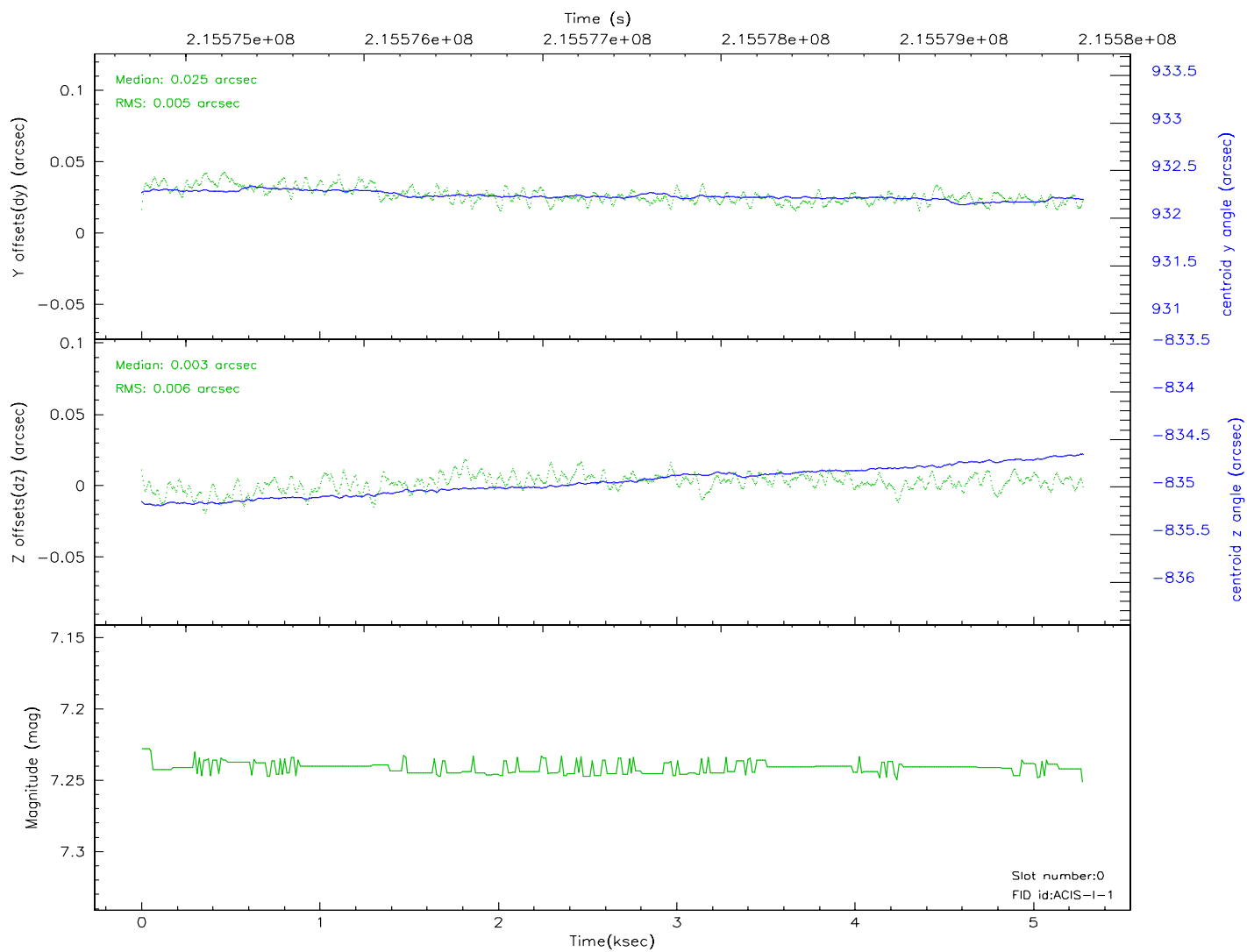
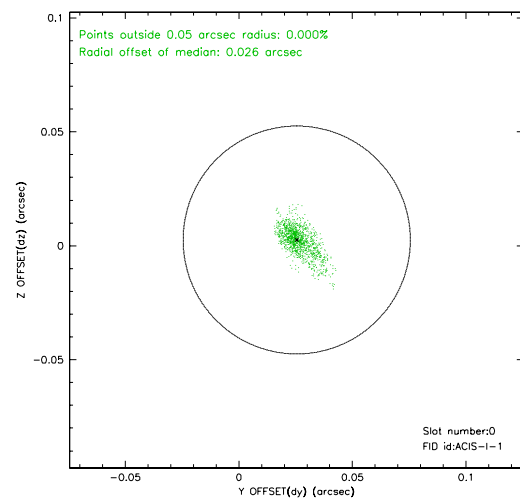
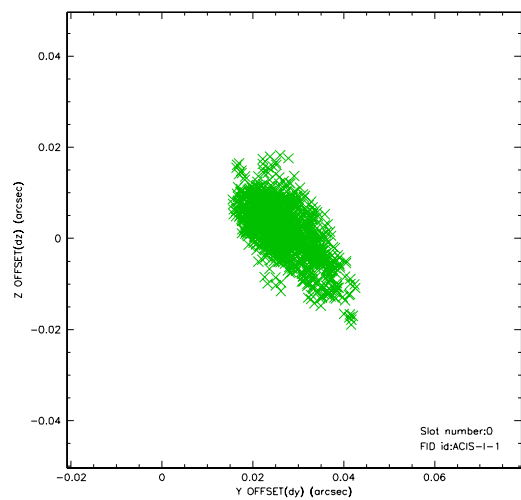


## 2.4.5 Slot 7

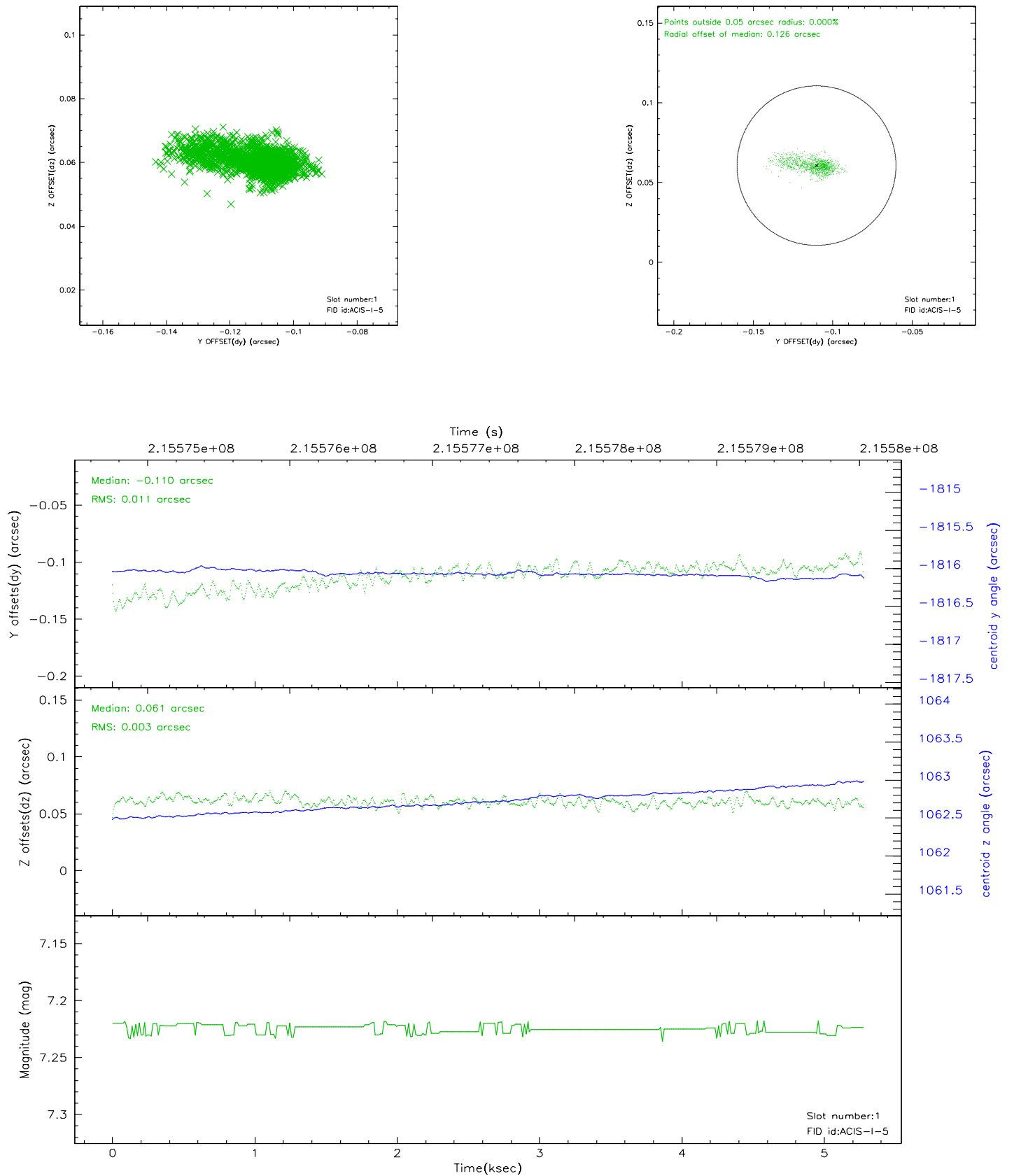


## 2.5 FID Slots

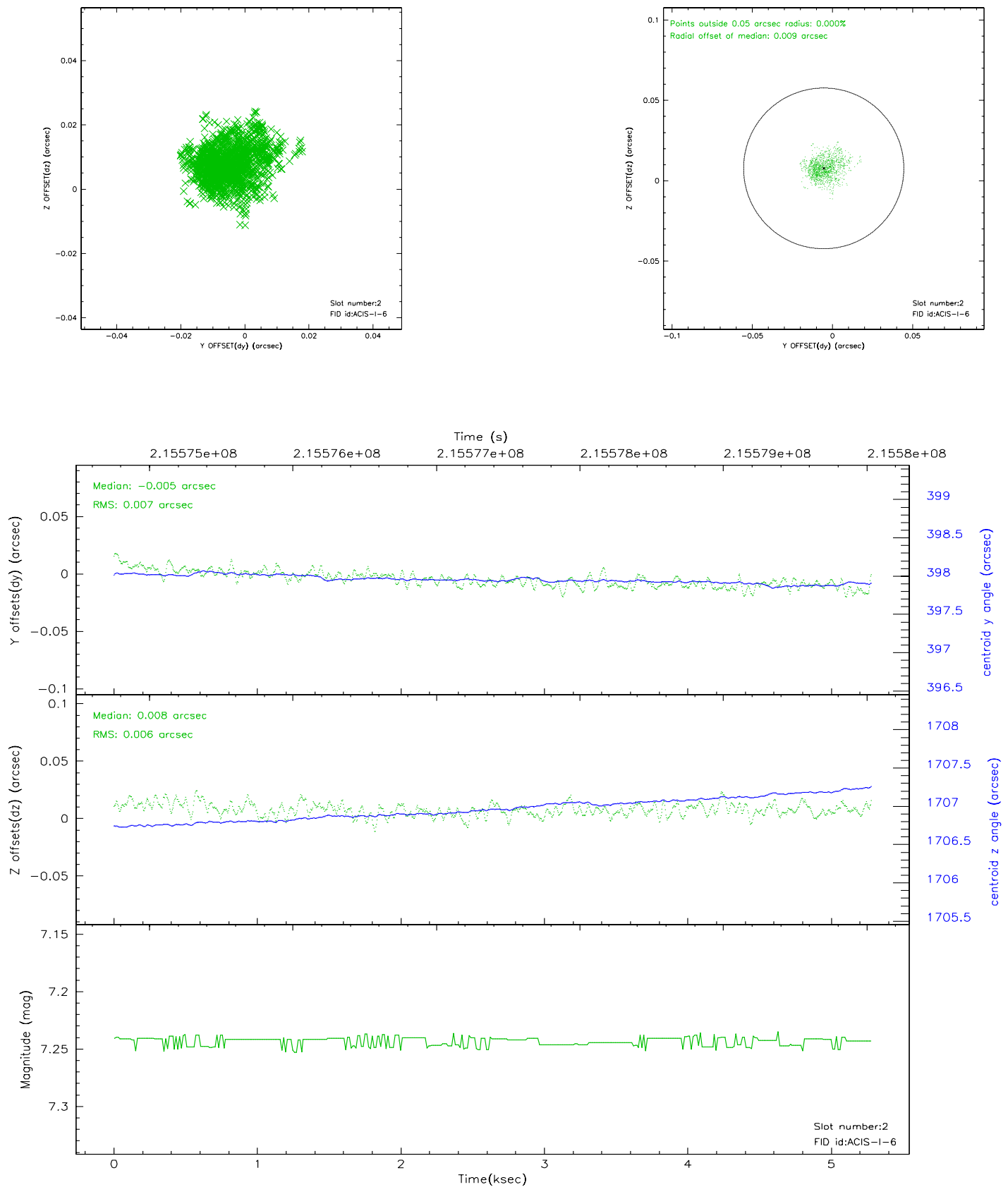
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

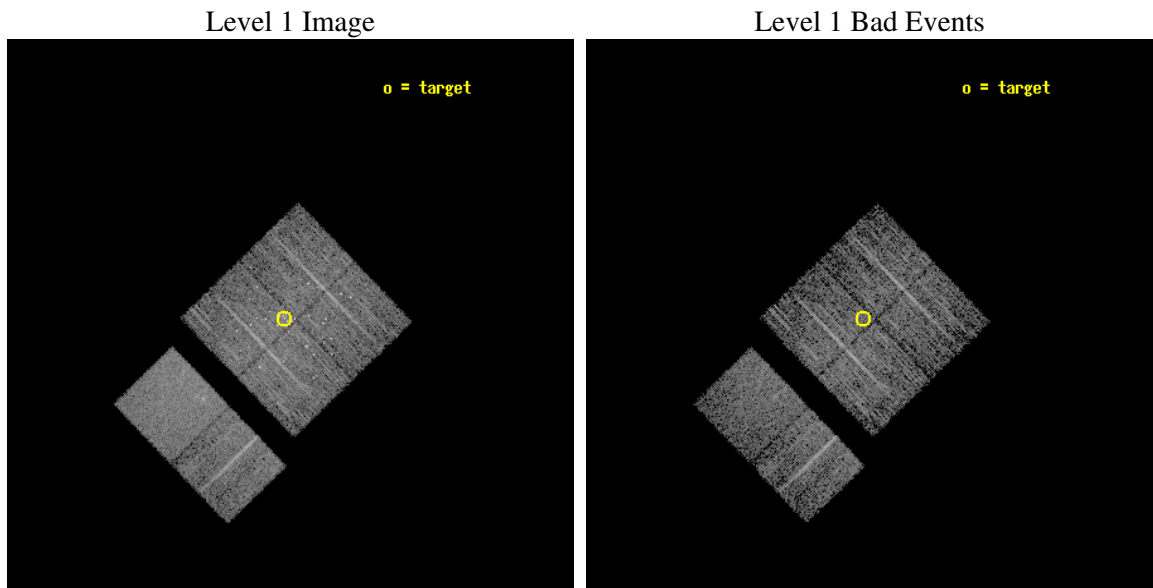




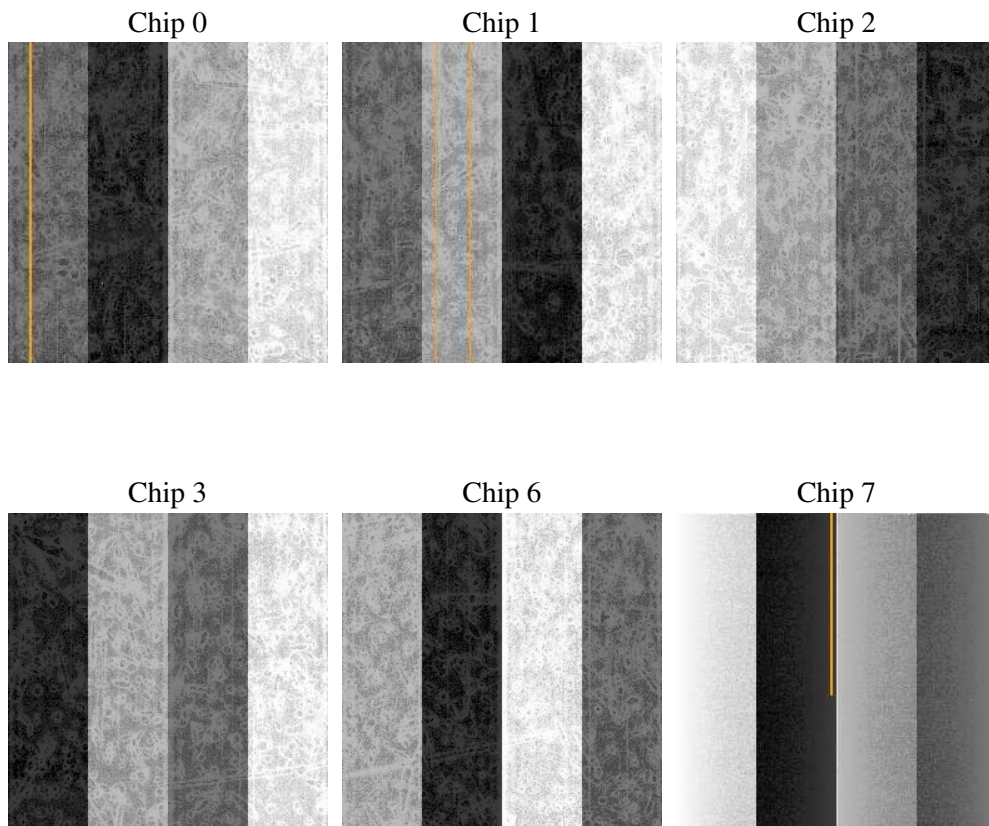
## 3 OBI Secondary

### 3.1 OBI

#### 3.1.1 Images



#### 3.1.2 Bias



### 3.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldsver	3.2.1
date	2006-04-13T12:01:23
revision	2

sched_exp_time	5000.000000
ontime	3950.7909798324
ontime0	3950.7911195159
ontime1	3950.791218847
ontime2	3950.790880233
ontime3	3950.7909798324
ontime6	3950.7909597456
ontime7	3950.7909999192
l1events	206703

### 3.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	30740	30565	35439	36291	31926	41742
rejected events	24842	25112	29994	27527	27984	25501
rejected %	80%	82%	84%	75%	87%	61%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	3302	2750	3071	5714	1670	933
	10%	8%	8%	15%	5%	2%
grade 1 events	35	34	26	89	29	32
	0%	0%	0%	0%	0%	0%
grade 2 events	987	1033	985	1233	799	4068
	3%	3%	2%	3%	2%	9%
grade 3 events	453	438	396	491	393	825
	1%	1%	1%	1%	1%	1%
grade 4 events	375	407	360	505	323	763
	1%	1%	1%	1%	1%	1%
grade 5 events	1229	1322	1227	1351	1550	2745
	3%	4%	3%	3%	4%	6%
grade 6 events	788	832	639	831	764	9685
	2%	2%	1%	2%	2%	23%
grade 7 events	23571	23749	28735	26077	26398	22691
	76%	77%	81%	71%	82%	54%

## 4 Point Sources

## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.04.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.866

### A.2 Comments

Window constraint not satisfied.