

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 2036 - L2 Version 001  
Chandra X-Ray Center

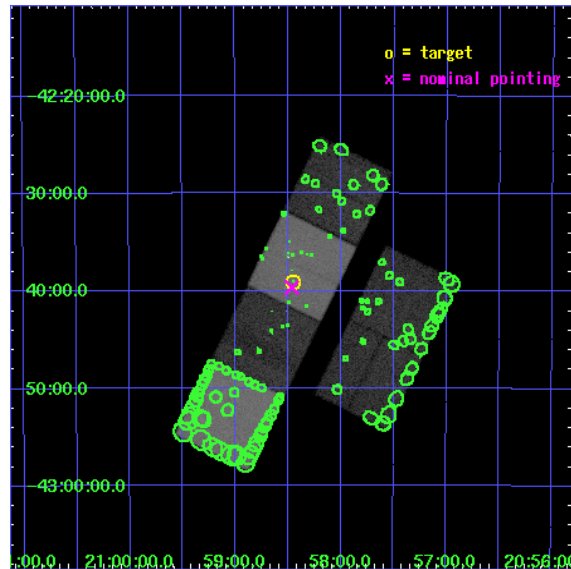
L2 Processing Date : Jan 13 2007

## 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
2.5	FID Slots . . . . .	13
2.5.1	Slot 0 . . . . .	13
2.5.2	Slot 1 . . . . .	14
2.5.3	Slot 2 . . . . .	15
<b>3</b>	<b>Point Sources</b>	<b>16</b>
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

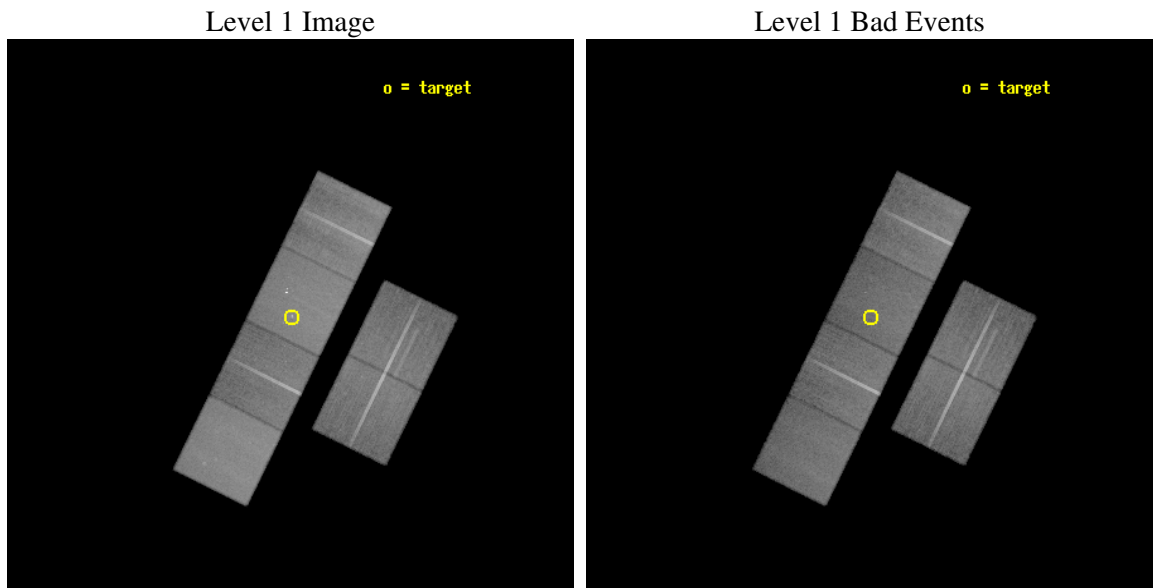
seq_num	600170
obs_id	2036
title	THE X-RAY PROPERTIES OF ULTRALUMINOUS GALAXIES: COSMOLOGICAL IMPLICATIONS
observer	Dr. Tim Heckman
object	IRAS 20551-4250
dtcycle	0
cycle	P
ra_targ	314.612083
dec_targ	-42.651722
ra_nom	314.61573022255
dec_nom	-42.661070465092
roll_nom	296.18320709197
revision	2
ontime	45446.400042325
livetime	44870.930360453
ontime2	45446.400042325
ontime3	45443.15908207
ontime5	45446.400042325
ontime6	45446.400042325
ontime7	45446.400042325
ontime8	45443.15908207
l2events	486647



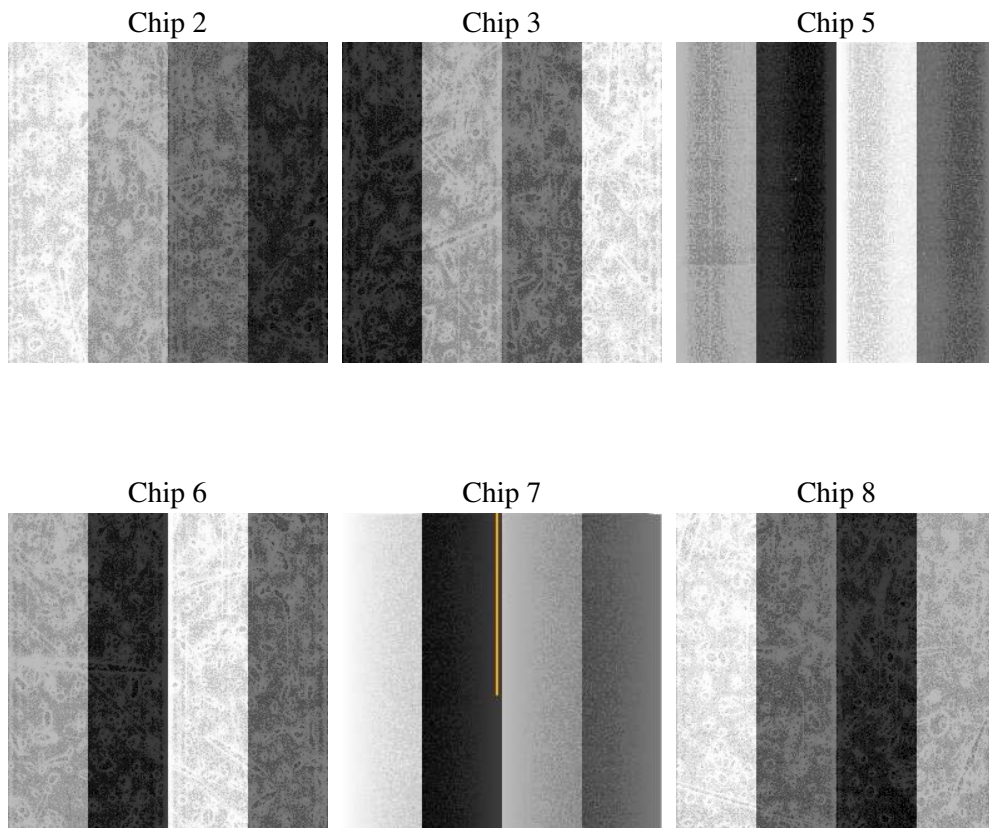
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.10
caldsver	3.3.0
date	2007-01-13T13:47:35
revision	2

sched_exp_time	45500.000000
ontime	45446.400042325
ontime2	45446.400042325
ontime3	45443.15908207
ontime5	45446.400042325
ontime6	45446.400042325
ontime7	45446.400042325
ontime8	45443.15908207
l1events	2011154

### 2.1.4 Events

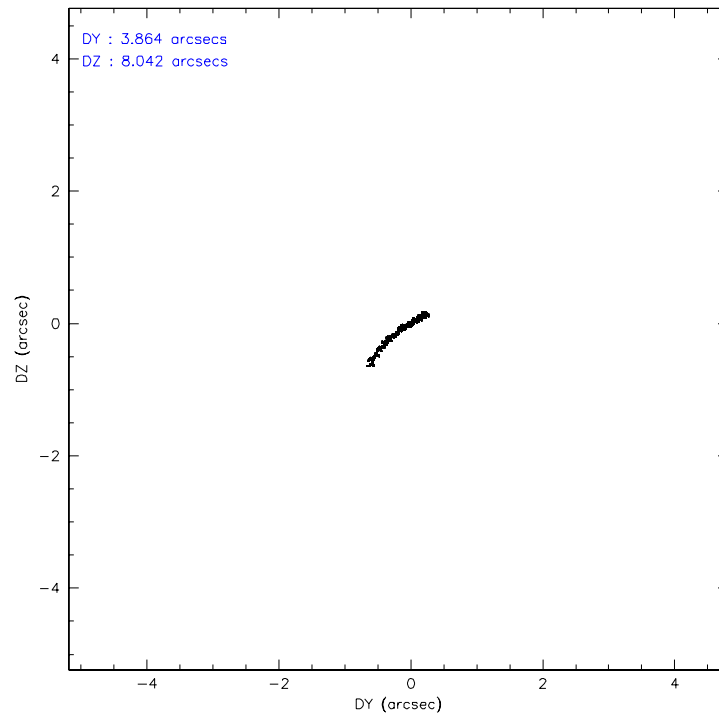
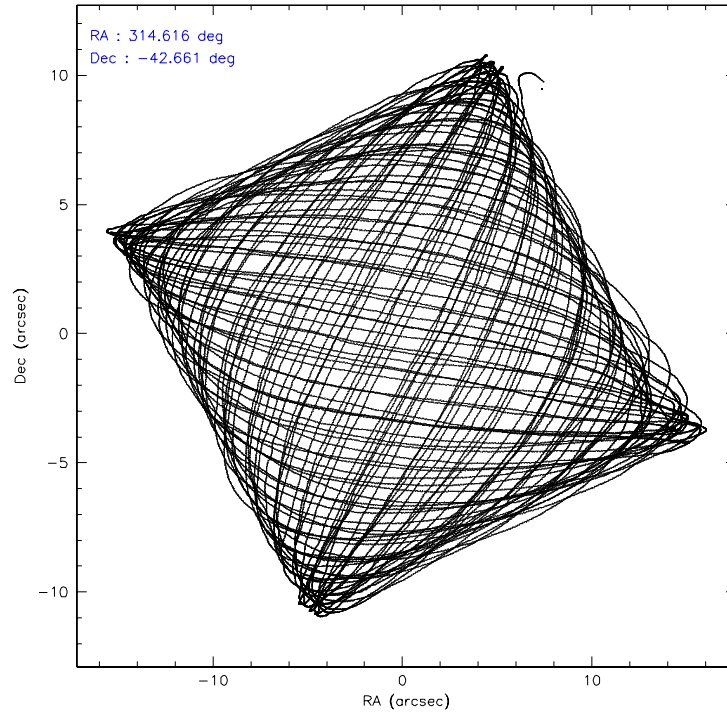
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	288568	278033	409685	289879	385246	359743
rejected events	252318	243072	218819	252796	212141	280880
rejected %	87%	87%	53%	87%	55%	78%

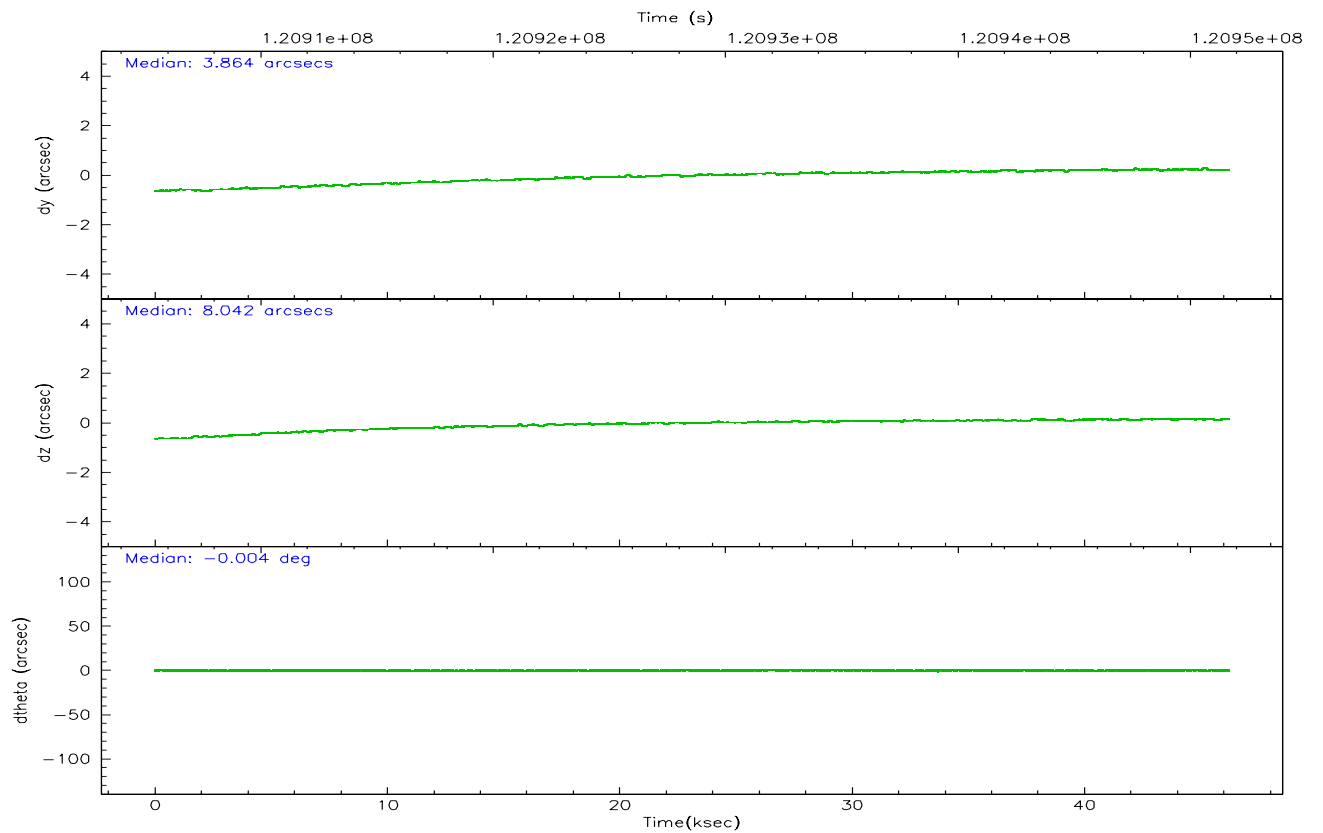
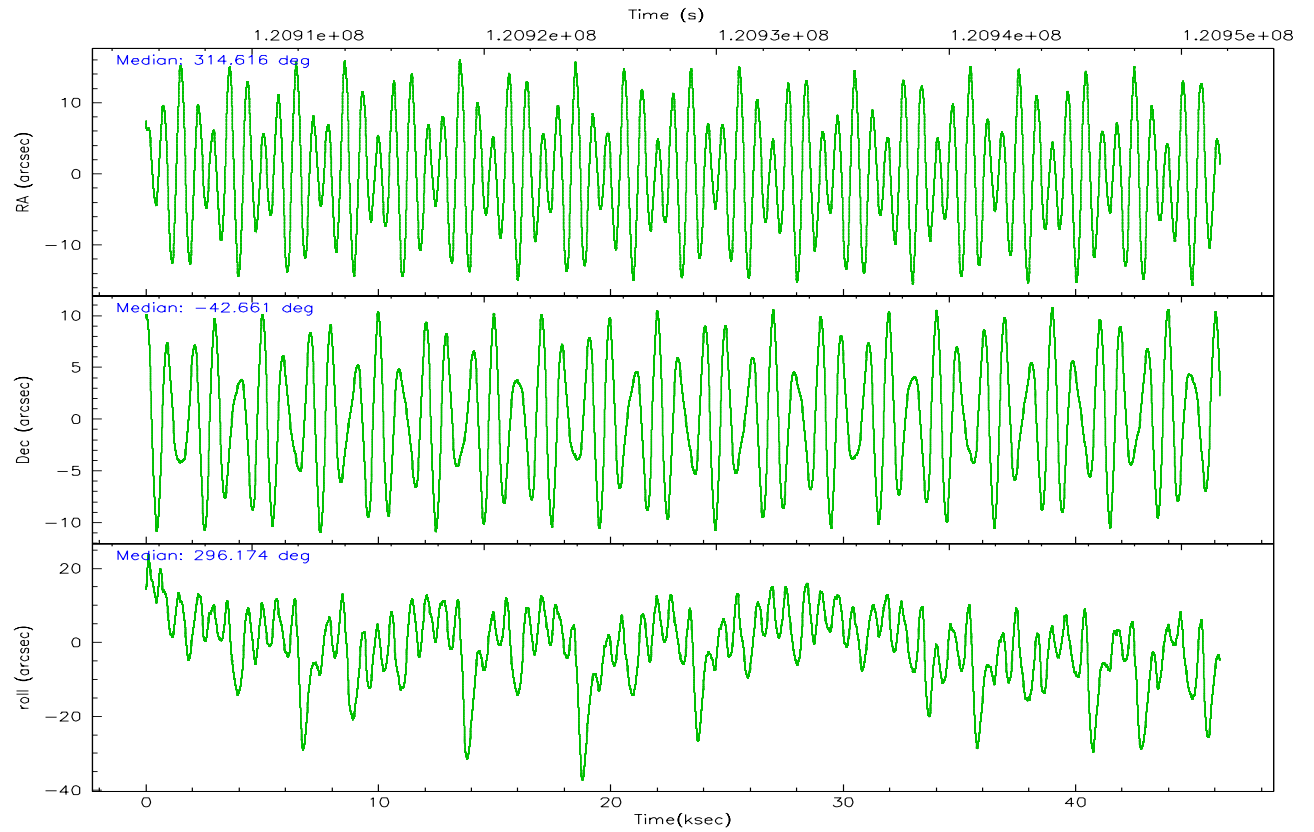
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	16381	15831	16940	16149	18777	26956
	5%	5%	4%	5%	4%	7%
grade 1 events	136	153	482	134	344	250
	0%	0%	0%	0%	0%	0%
grade 2 events	7646	6844	56346	7439	34304	16275
	2%	2%	13%	2%	8%	4%
grade 3 events	3165	3147	8817	3477	15703	8640
	1%	1%	2%	1%	4%	2%
grade 4 events	3052	3056	8587	3227	15496	7976
	1%	1%	2%	1%	4%	2%
grade 5 events	10045	10936	30101	12249	35268	15352
	3%	3%	7%	4%	9%	4%
grade 6 events	6010	6091	100200	6800	88846	19027
	2%	2%	24%	2%	23%	5%
grade 7 events	242133	231975	188212	240404	176508	265267
	83%	83%	45%	82%	45%	73%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	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	314.584698	314.6157302225459	Subarray requested	NONE	NONE
Pointing Dec	-42.646159	-42.66107046509239	Alternating exposures requested	N	N
Pointing Roll	296.005554	296.1832070919725	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	120906175.184000	120904946.83634			
Observation start date	2001-10-31T09:01:51	2001-10-31T08:42:26			
Observation end time	120951675.184000	120952448.92573			
Observation end date	2001-10-31T21:40:11	2001-10-31T21:54:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect





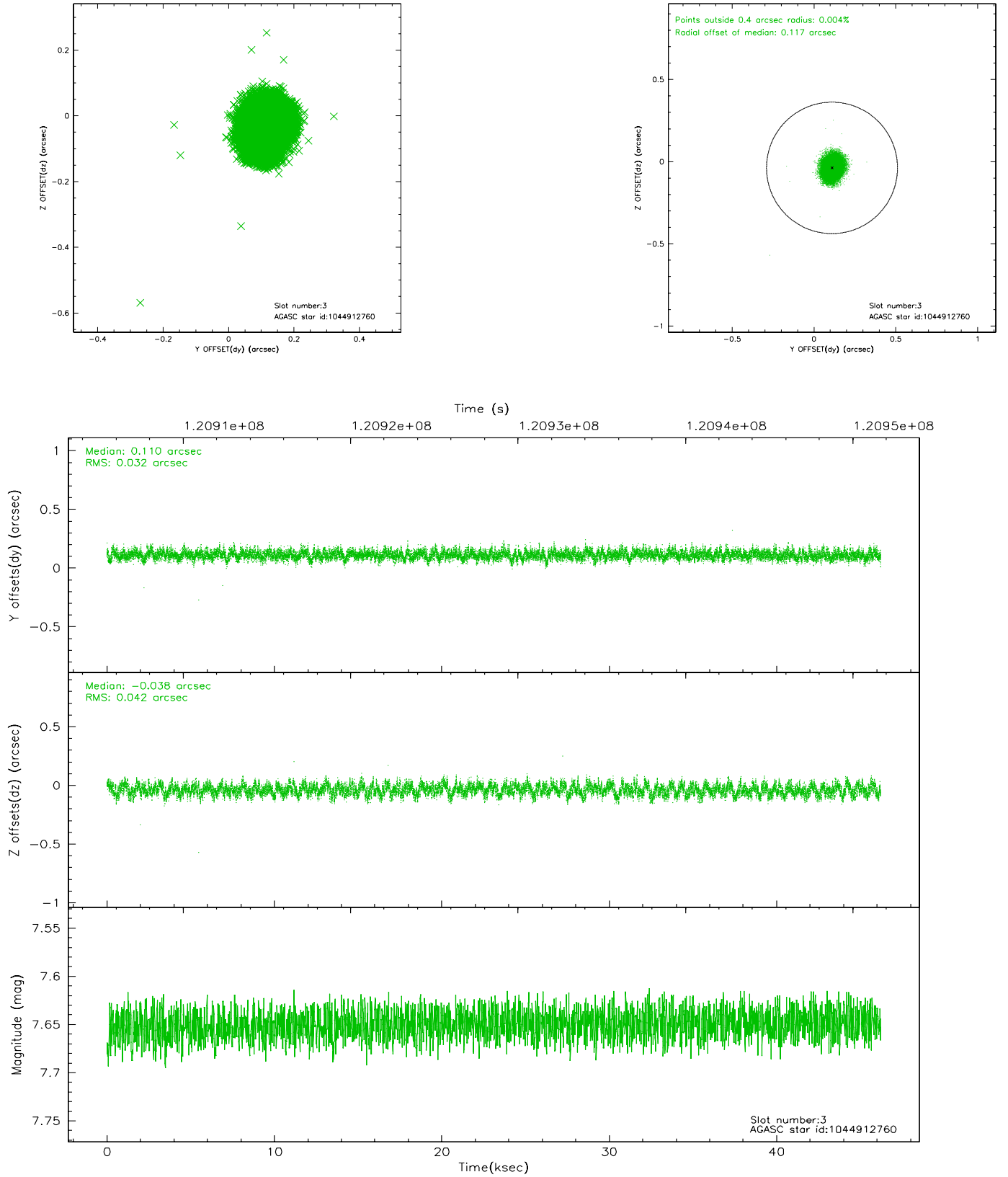
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.20	11275	0.010	0.014	0.013	0.028	0.000000	0.000000	939.56	-1724.80
1	FID	ACIS-S-5	7.24	11275	-0.006	0.027	0.010	0.021	0.000000	0.000000	-1809.41	172.85
2	FID	ACIS-S-6	7.36	11274	-0.025	-0.028	0.014	0.033	0.000000	0.000000	405.15	816.70
3	GUIDE	1044912760	7.65	22550	0.110	-0.038	0.057	0.090	314.991148	-43.015476	1665.67	377.39
4	GUIDE	1044911328	9.06	22544	-0.102	-0.116	0.088	0.142	313.755575	-42.864997	-241.78	-2316.80
5	GUIDE	1045041040	9.61	22529	-0.064	0.217	0.117	0.187	315.481975	-42.675498	1146.40	2082.53
6	GUIDE	1044912808	9.95	22483	0.058	-0.065	0.111	0.184	314.828933	-42.886568	1060.58	199.04
7	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

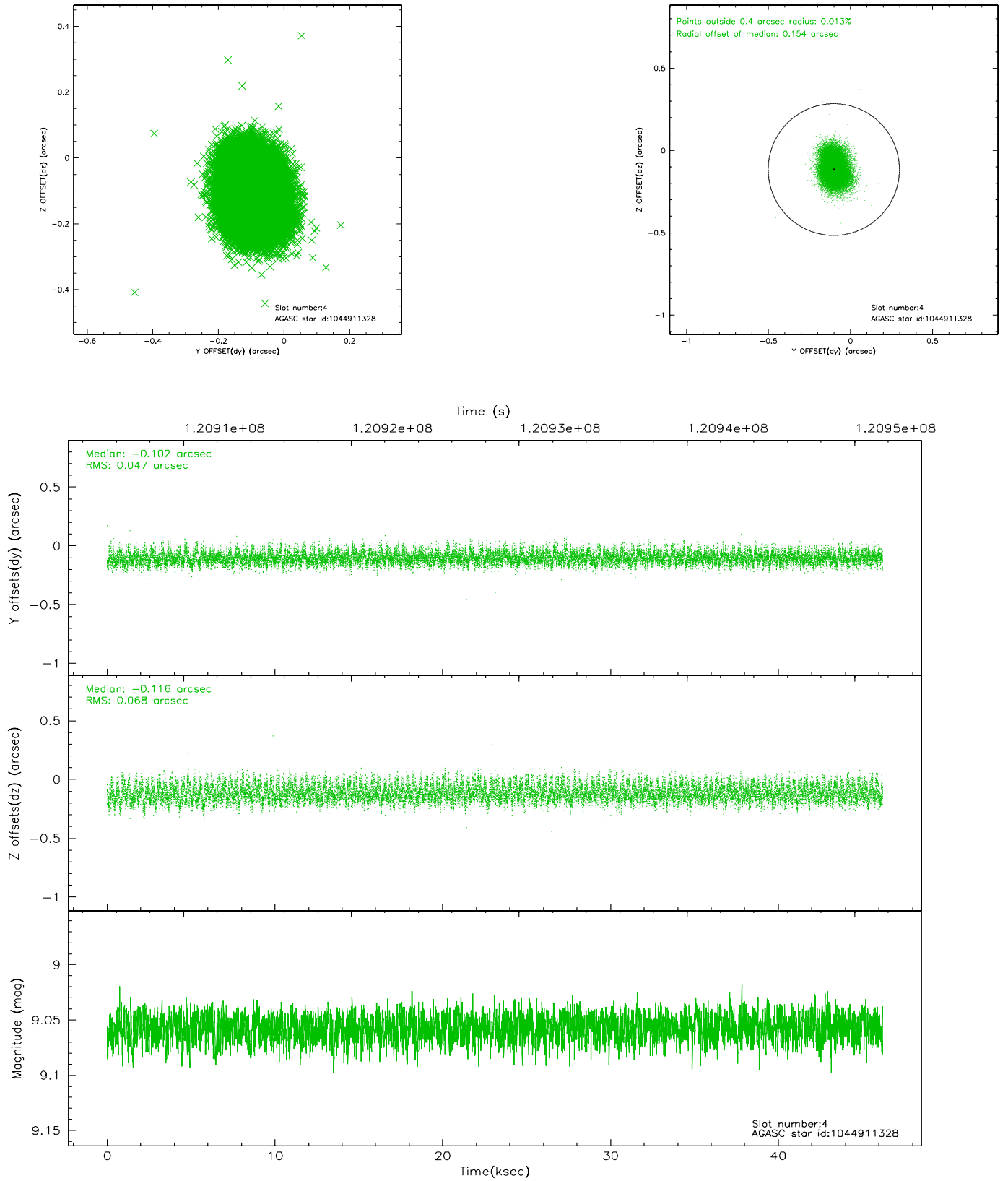


## 2.4 Star Slots

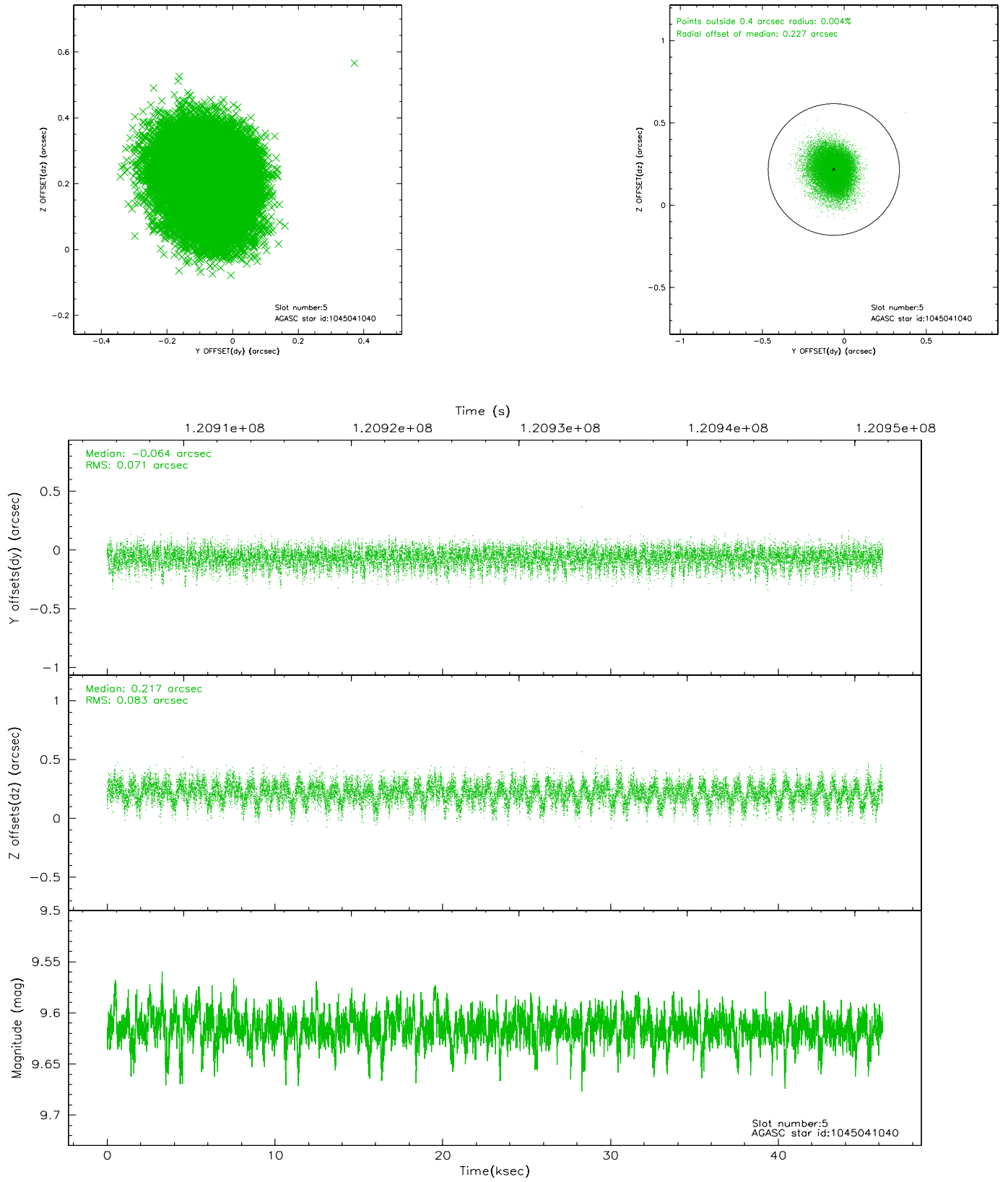
### 2.4.1 Slot 3



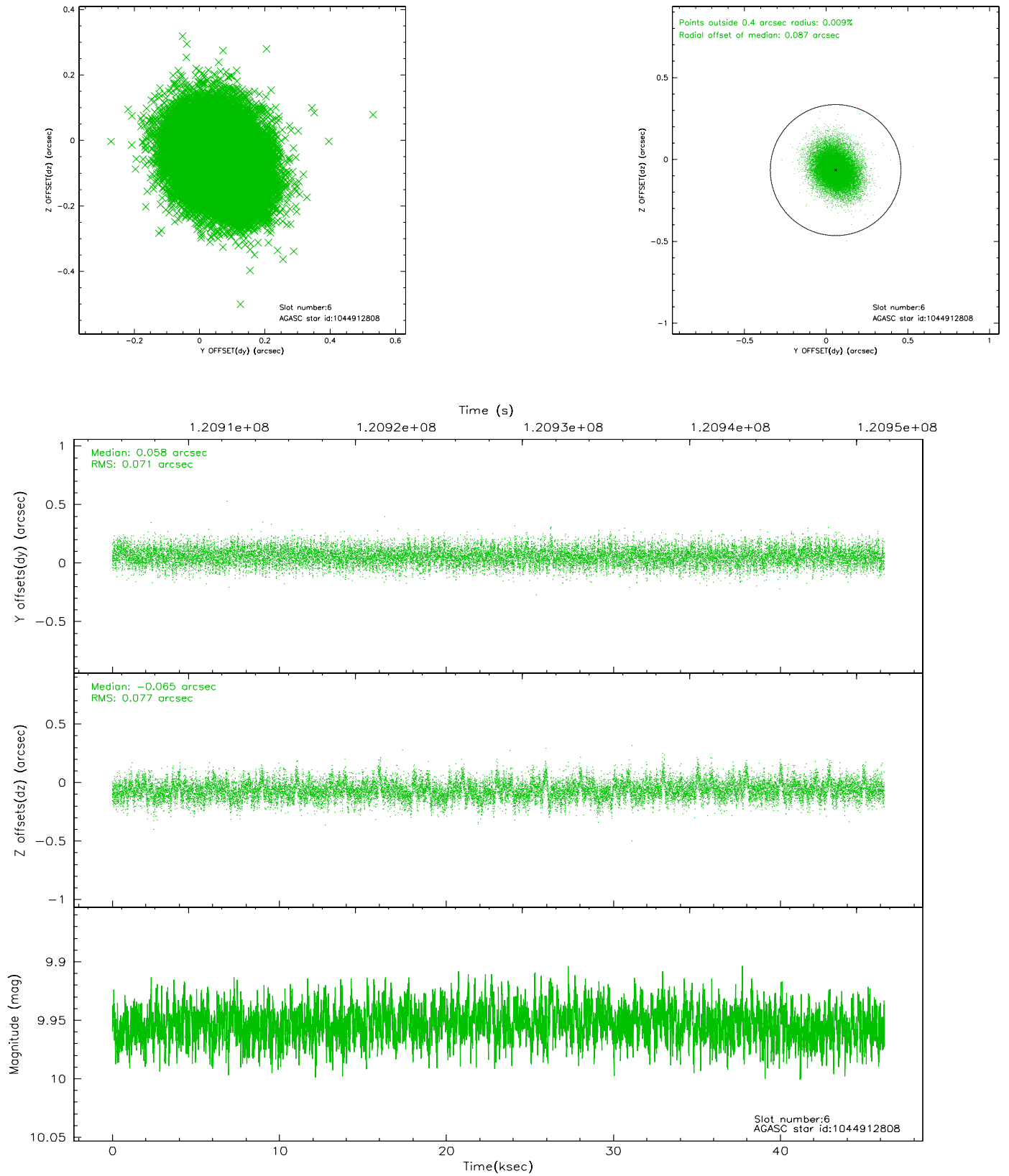
## 2.4.2 Slot 4



### 2.4.3 Slot 5

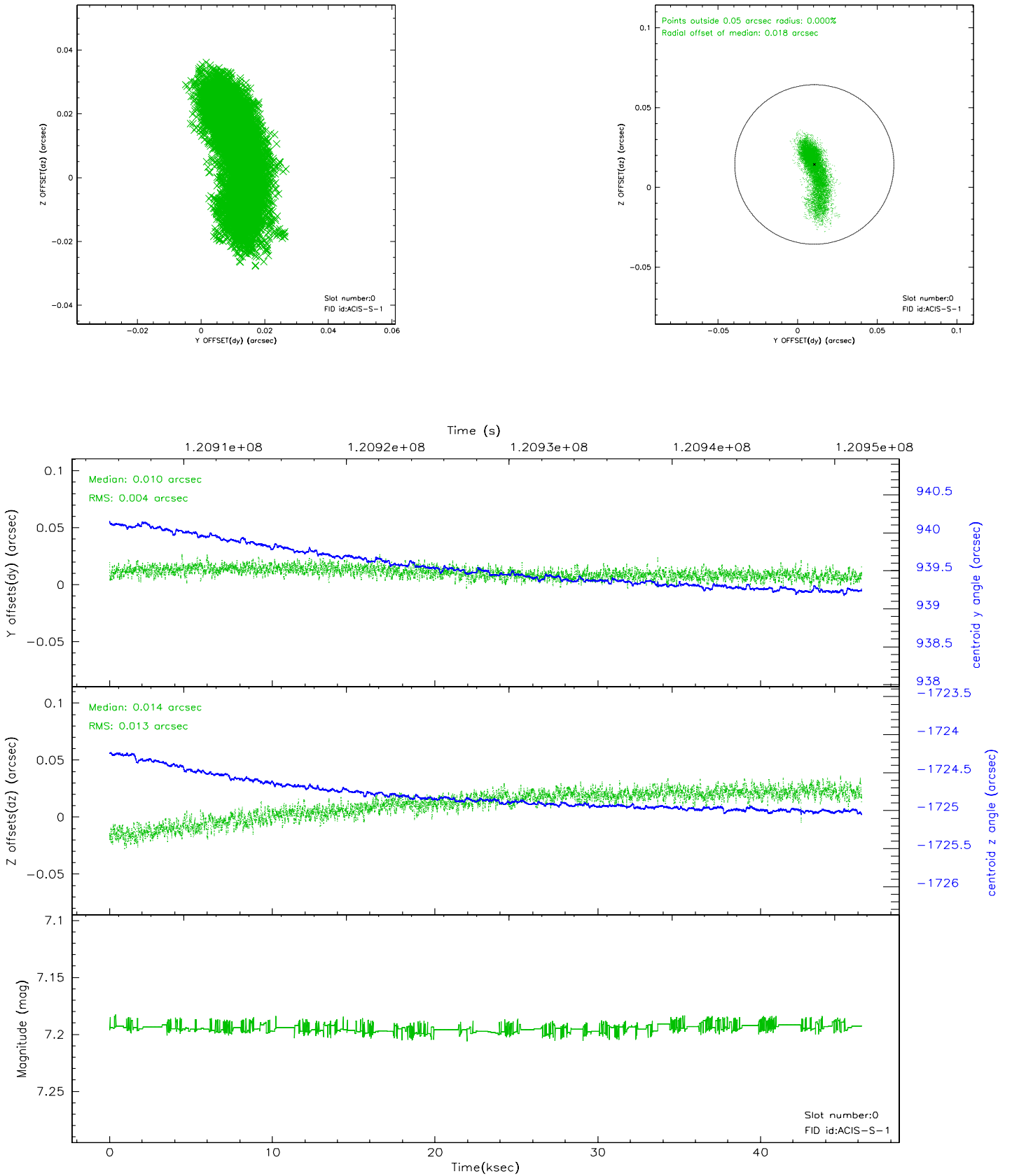


## 2.4.4 Slot 6

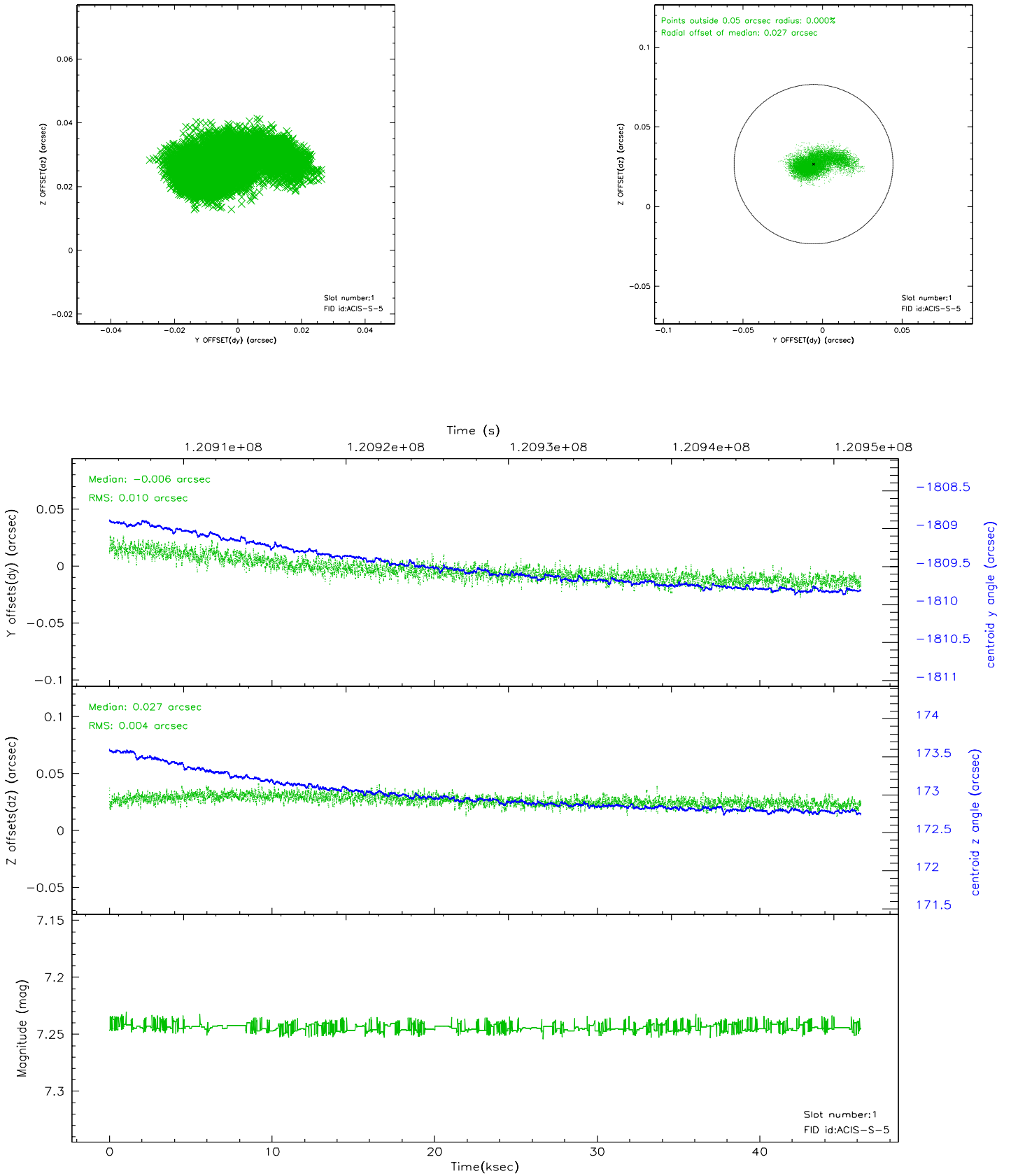


## 2.5 FID Slots

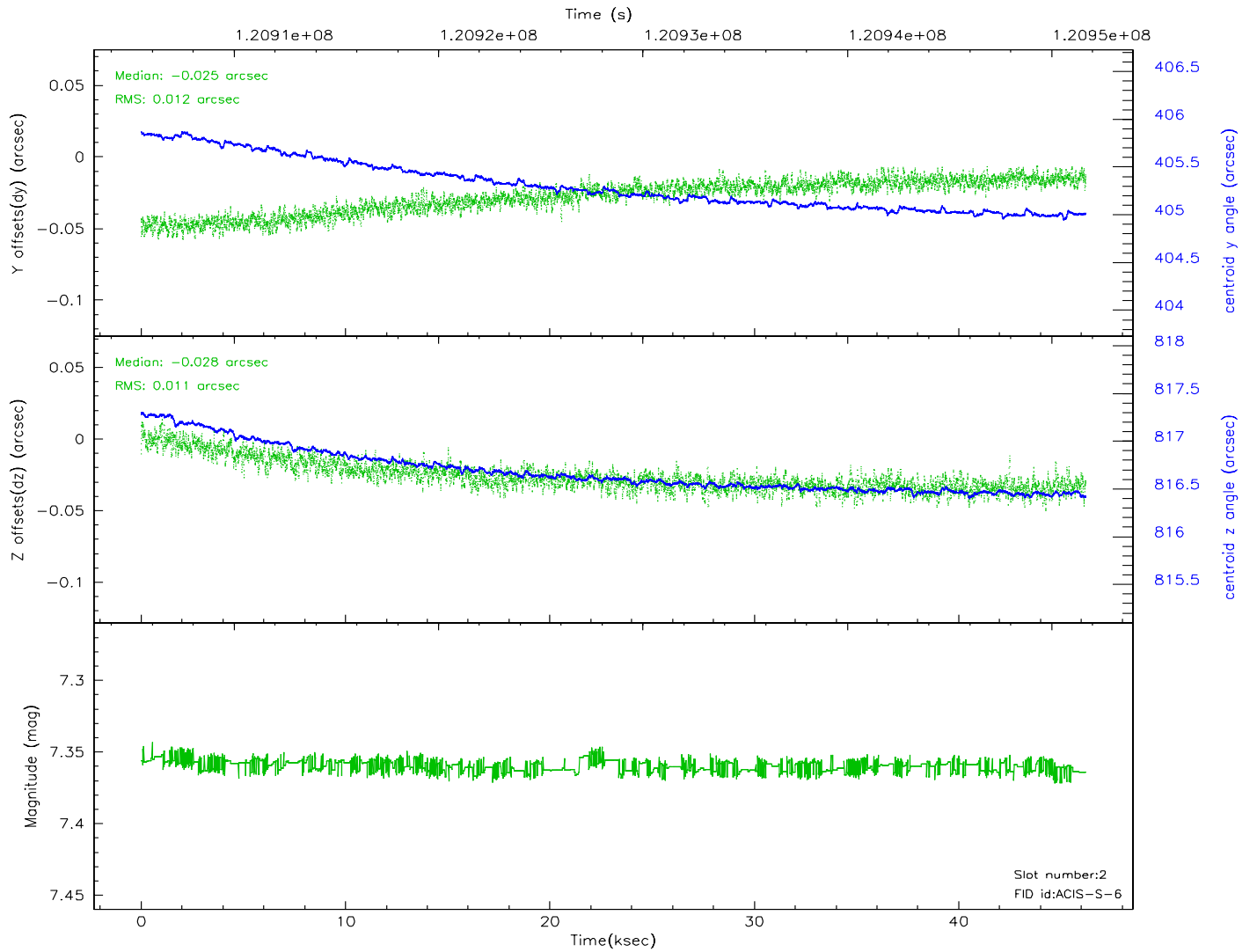
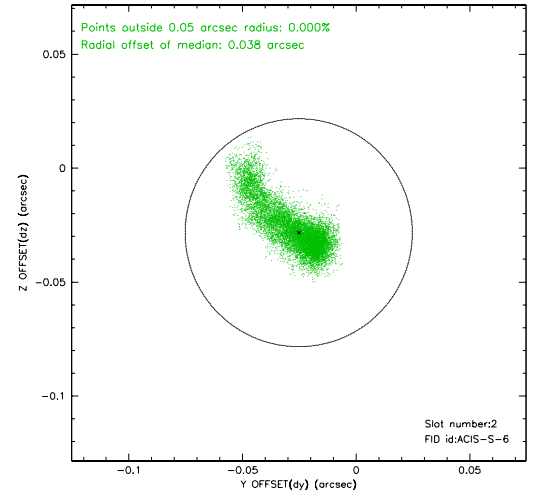
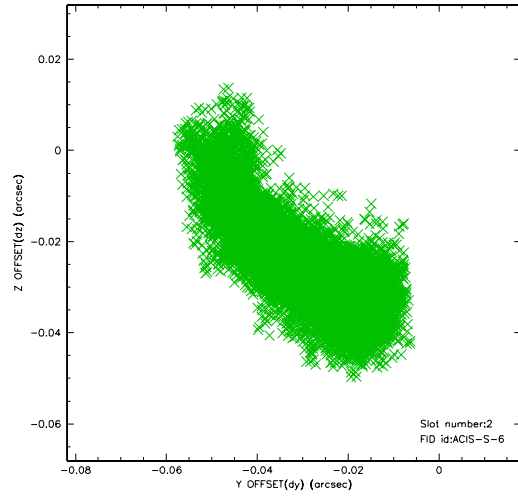
### 2.5.1 Slot 0



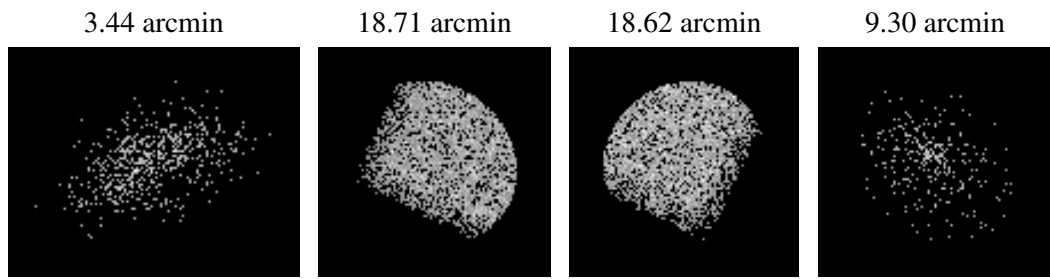
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources





# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2007.01.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.443

## A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is not expected to be degraded by removing one guide star or fid light from the solution.