

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 6969 - L2 Version 2  
Chandra X-Ray Center

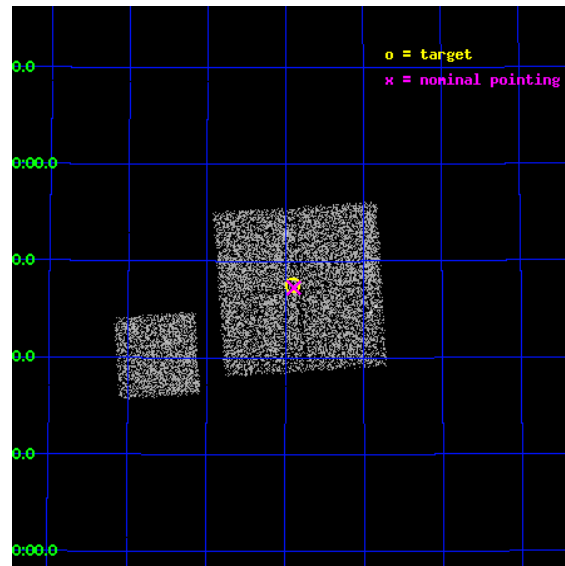
L2 Processing Date : Apr 3 2012

## 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>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

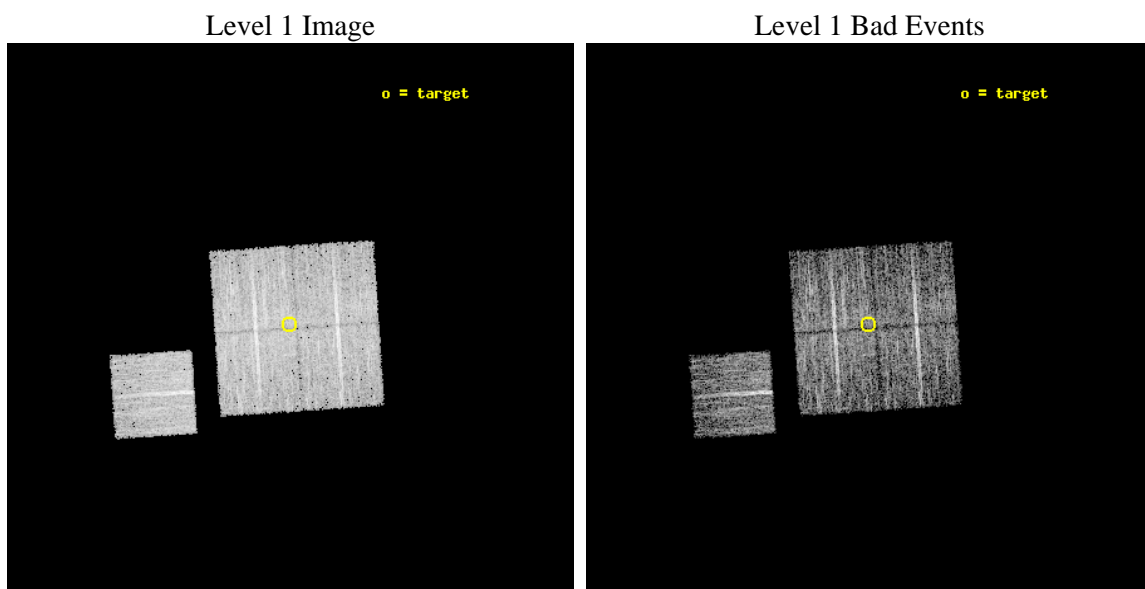
seq_num	800602	Sequence number
obs_id	6969	Observation id
title	A Search for the Origin of Ultrahigh Energy Cosmic Rays	Proposal t
observer	Prof. David Helfand	Principal investigator
object	P13	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	167.726	Observer's specified target RA [deg]
dec_targ	56.7917	Observer's specified target Dec [deg]
ra_nom	167.72234375783	Nominal RA [deg]
dec_nom	56.787596348957	Nominal Dec [deg]
roll_nom	266.17318236382	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4777.0999907851	Sum of GTIs [s]
livetime	4714.6836625557	Livetime [s]
ontime0	4777.0999907851	Sum of GTIs [s]
ontime1	4777.0999907851	Sum of GTIs [s]
ontime2	4773.959030509	Sum of GTIs [s]
ontime3	4777.0999907851	Sum of GTIs [s]
ontime6	4777.0999907851	Sum of GTIs [s]
l2events	15392	Number of level 2 events



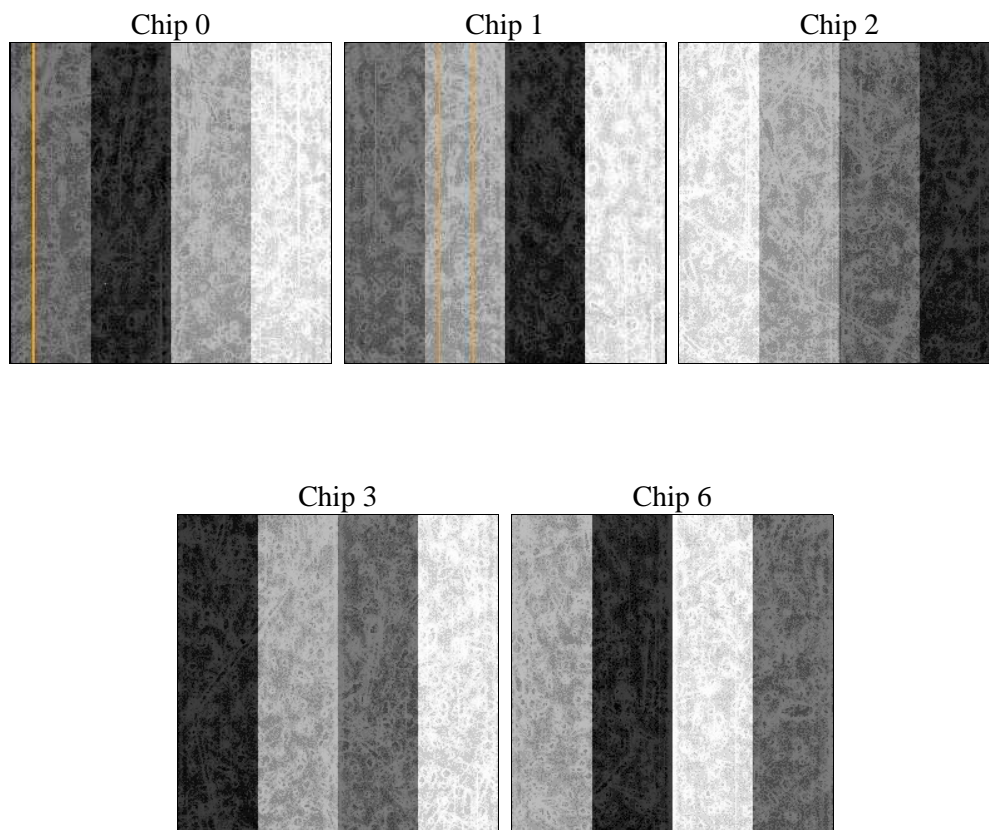
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	4777.0999907851	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	4777.0999907851	Sum of GTIs [s]
date	2012-04-04T00:08:28	Date and time of file creation	ontime1	4777.0999907851	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4773.959030509	Sum of GTIs [s]
			ontime3	4777.0999907851	Sum of GTIs [s]
			ontime6	4777.0999907851	Sum of GTIs [s]
			l1events	186802	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	34850	34626	38988	39745	38593
rejected events	31192	30541	35386	36115	34932
rejected %	89%	88%	90%	90%	90%

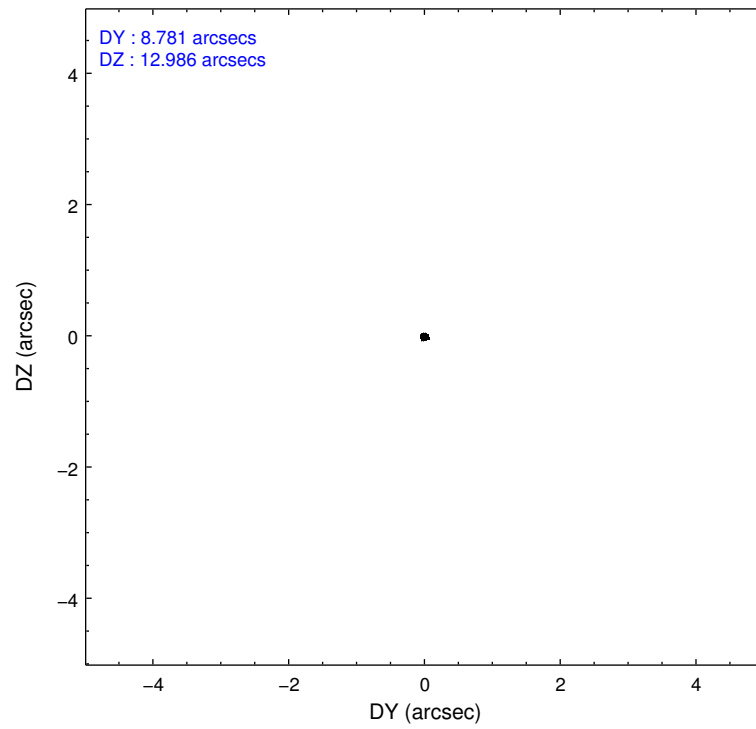
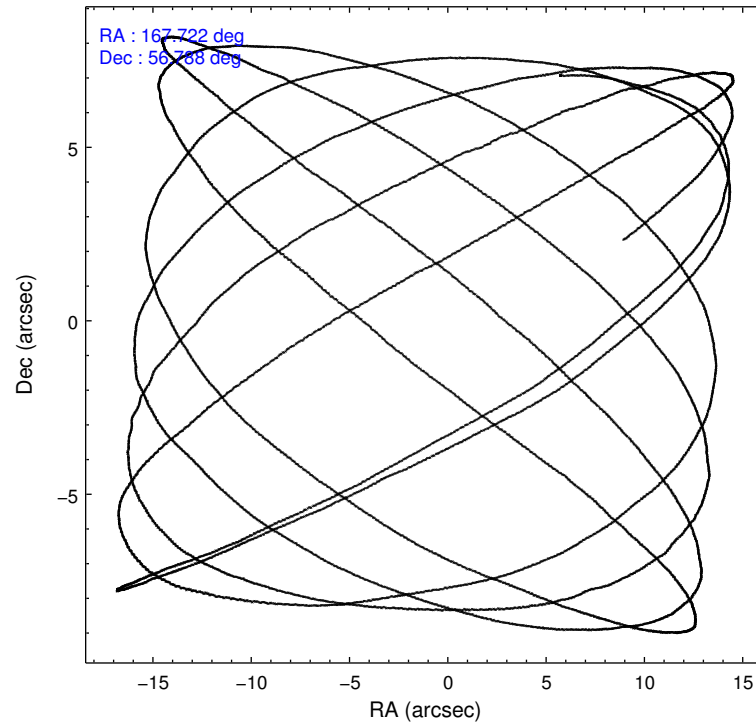
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1248	1453	1252	1321	1314
	3%	4%	3%	3%	3%
grade 1 events	20	21	20	14	14
	0%	0%	0%	0%	0%
grade 2 events	926	866	921	764	755
	2%	2%	2%	1%	1%
grade 3 events	432	464	381	397	423
	1%	1%	0%	0%	1%
grade 4 events	393	459	373	427	409
	1%	1%	0%	1%	1%
grade 5 events	1272	1345	1202	1452	1424
	3%	3%	3%	3%	3%
grade 6 events	663	844	677	722	761
	1%	2%	1%	1%	1%
grade 7 events	29896	29174	34162	34648	33493
	85%	84%	87%	87%	86%

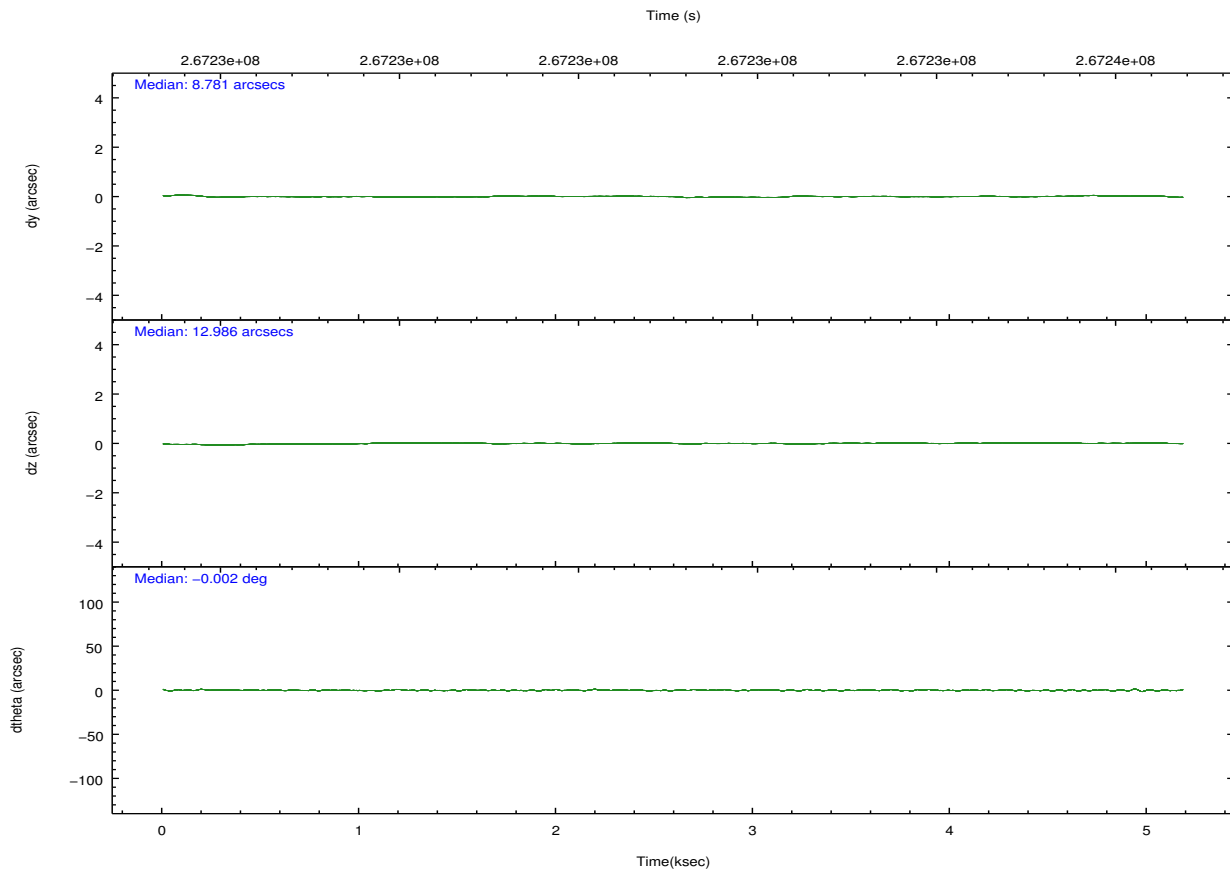
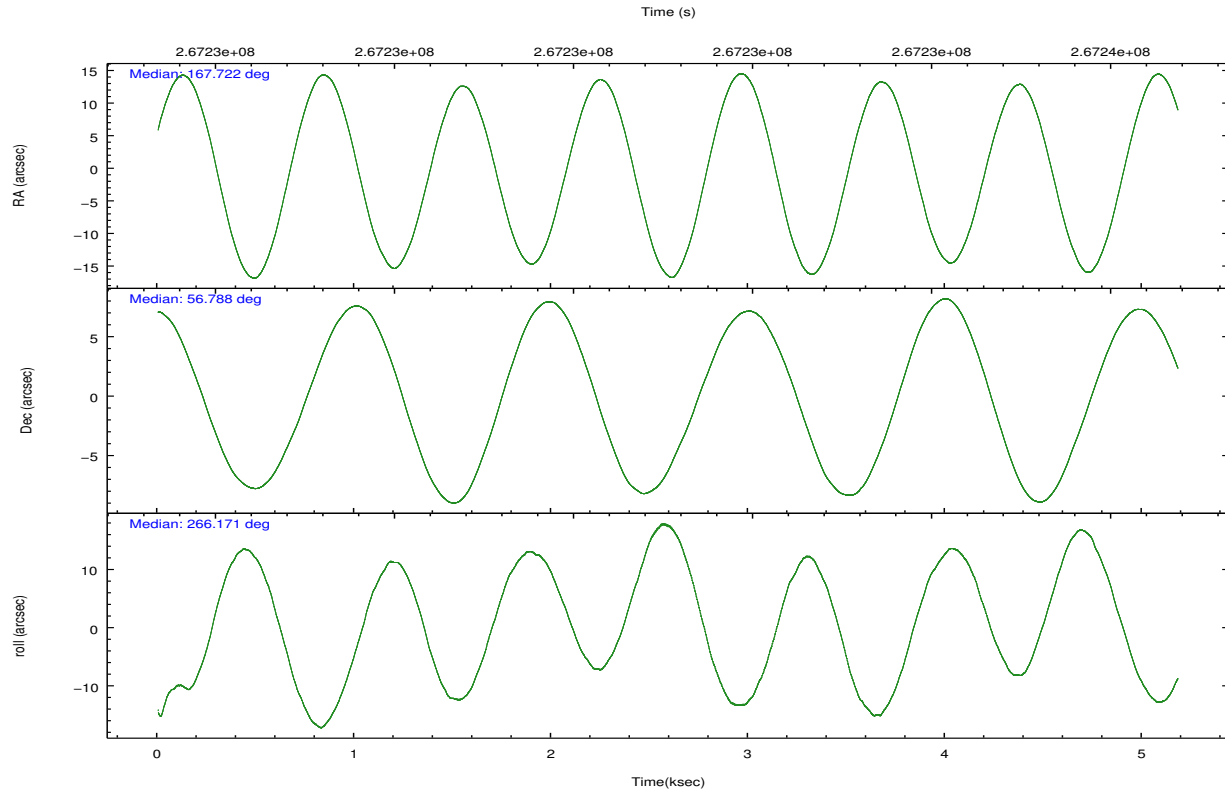


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	167.699948	167.7223437578298	Subarray requested	NONE	NONE
[deg] Pointing Dec	56.812085	56.78759634895697	Alternating exposures requested	N	N
[deg] Pointing Roll	265.983238	266.1731823638156	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	267230122.184000	267229747.12836			
Observation start date	2006-06-20T22:34:17	2006-06-20T22:29:07			
[s] Observation end time (MET)	267235122.184000	267235920.70365			
Observation end date	2006-06-20T23:57:37	2006-06-21T00:12:00			
Read mode	TIMED	TIMED			

## 2.3 Aspect



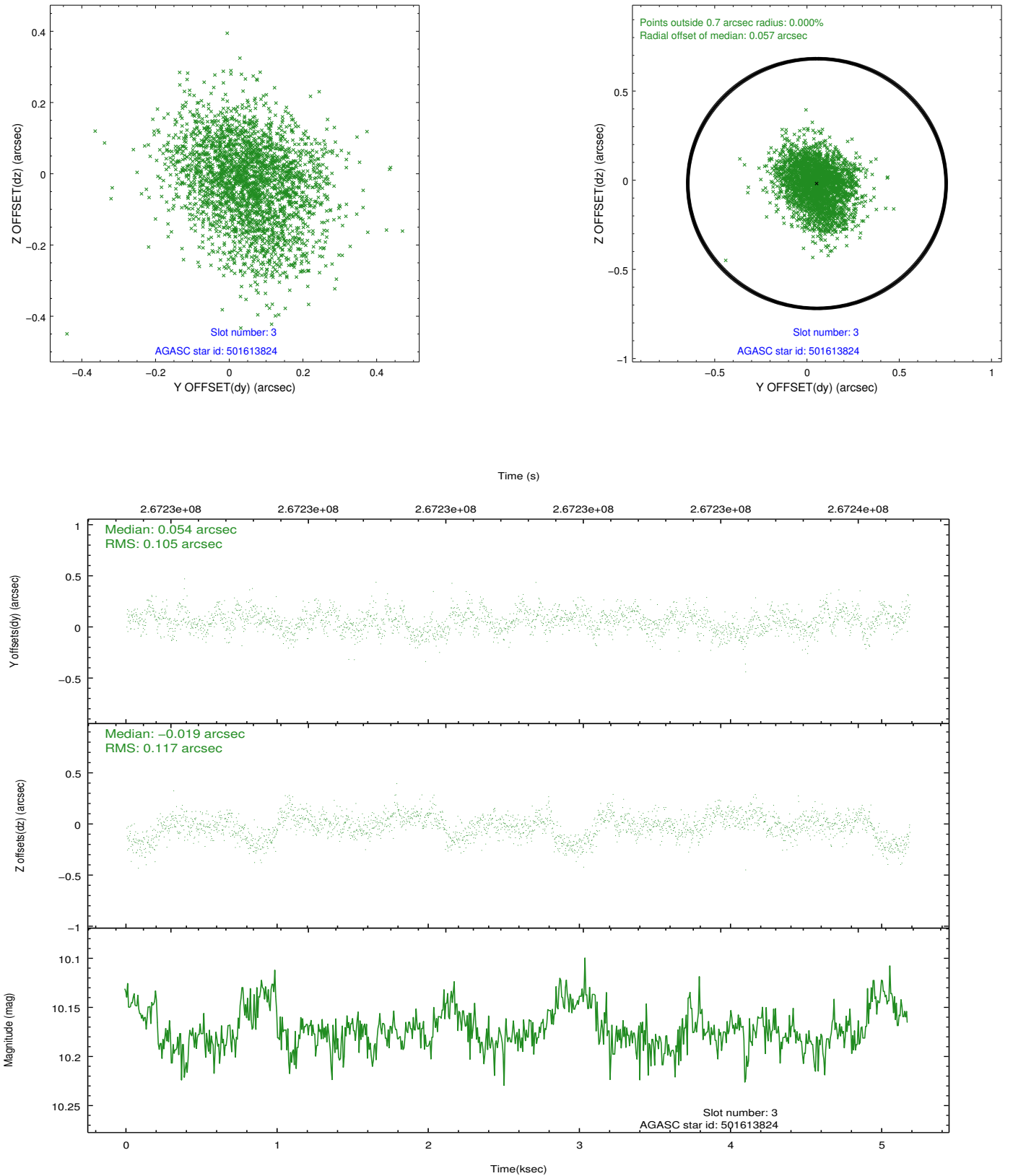


### Slot Statistics

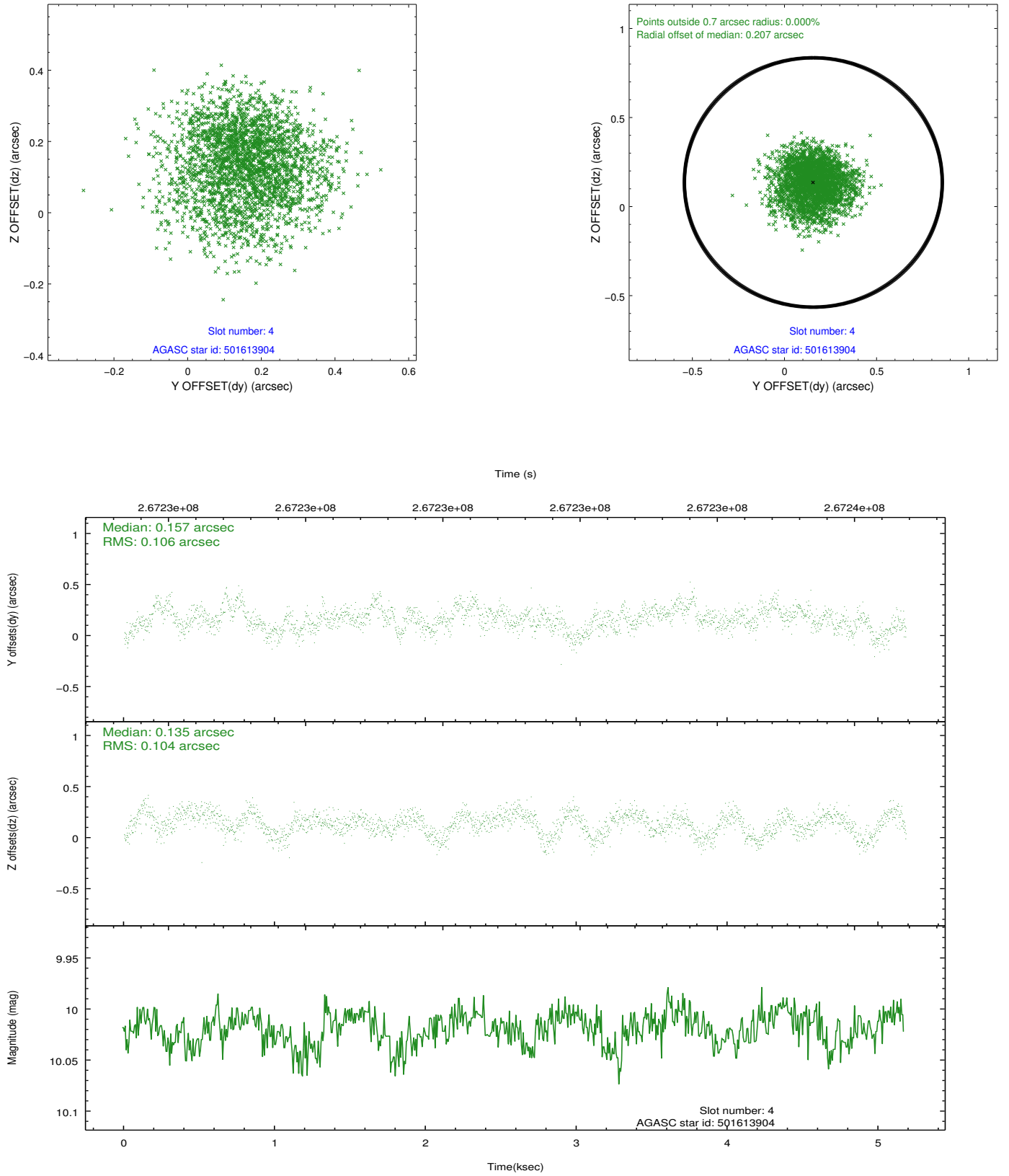
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1264	0.039	-0.001	0.006	0.011	0.000000	0.000000	930.88	-836.54
1	FID	ACIS-I-5	7.23	1264	-0.194	0.051	0.006	0.010	0.000000	0.000000	-1816.80	1060.43
2	FID	ACIS-I-6	7.24	1264	0.064	0.021	0.007	0.010	0.000000	0.000000	395.20	1706.22
3	GUIDE	501613824	10.17	2519	0.054	-0.019	0.166	0.273	168.164349	56.160287	2272.95	1092.71
4	GUIDE	501613904	10.02	2528	0.157	0.135	0.161	0.251	168.615830	56.200576	2056.84	1983.70
5	GUIDE	501617400	8.94	2527	-0.039	0.139	0.106	0.174	167.619761	56.497458	1142.28	-78.79
6	GUIDE	501619848	8.54	2524	-0.143	-0.099	0.084	0.133	166.662698	57.051349	-731.33	-2088.04
7	GUIDE	501620848	9.32	2524	-0.028	-0.135	0.087	0.143	167.963691	57.281851	-1723.81	392.36

## 2.4 Star Slots

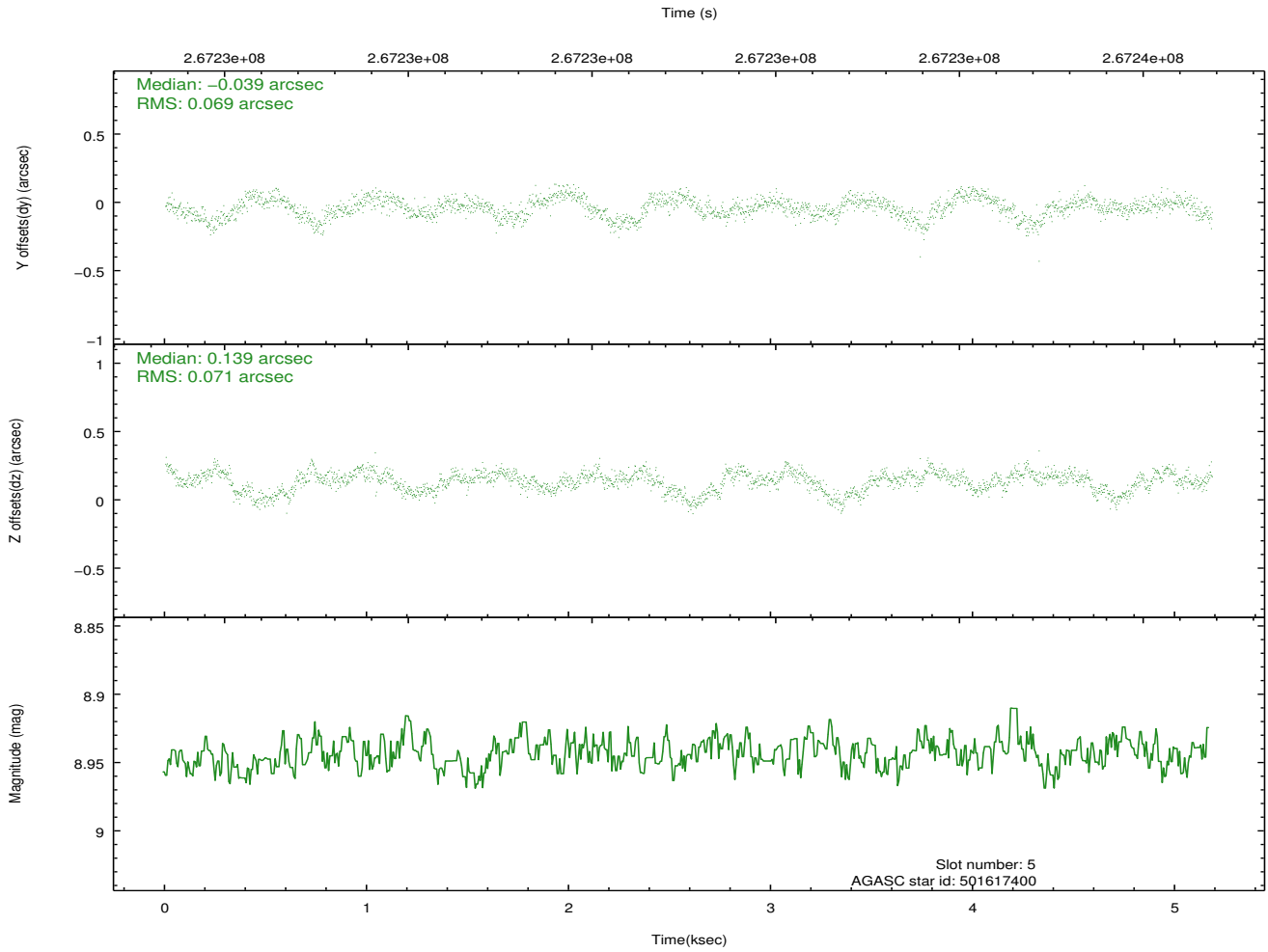
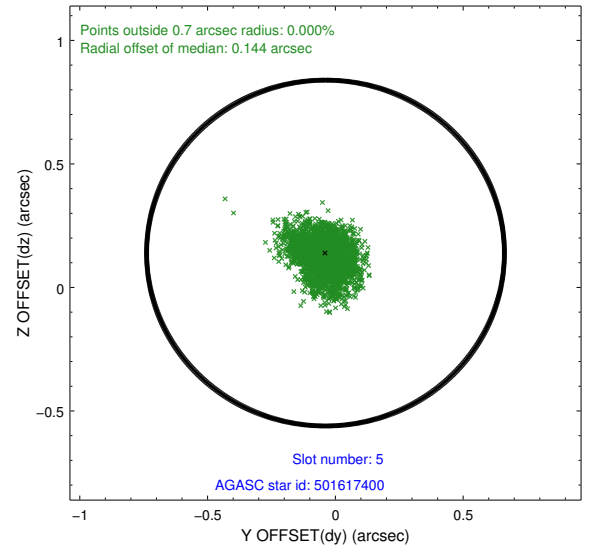
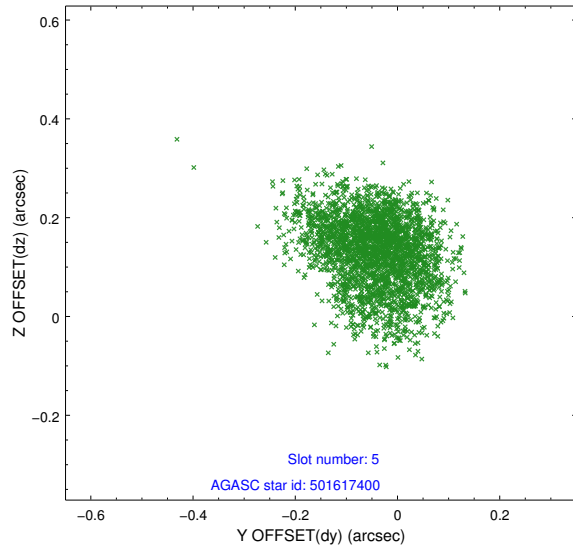
### 2.4.1 Slot 3



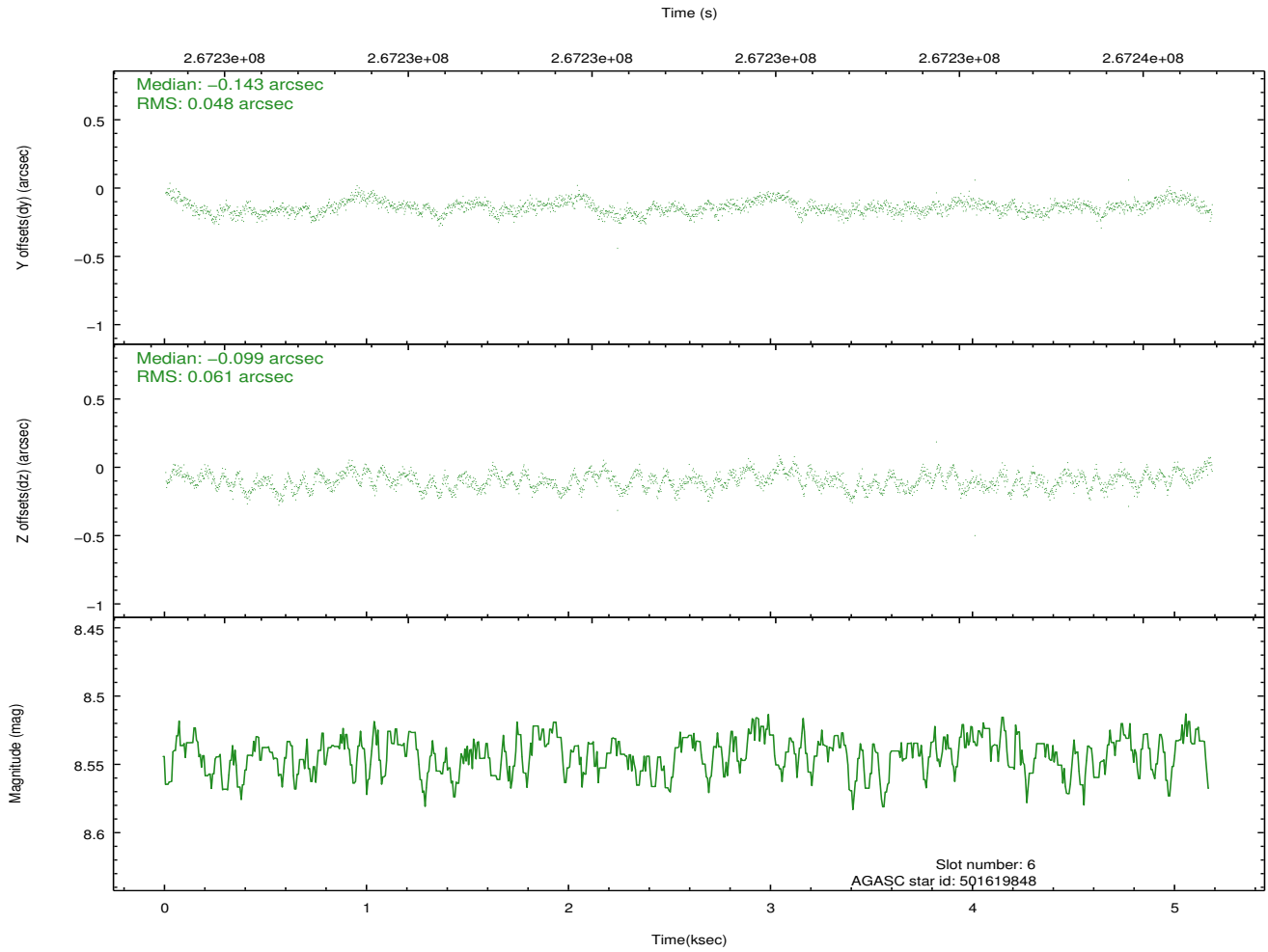
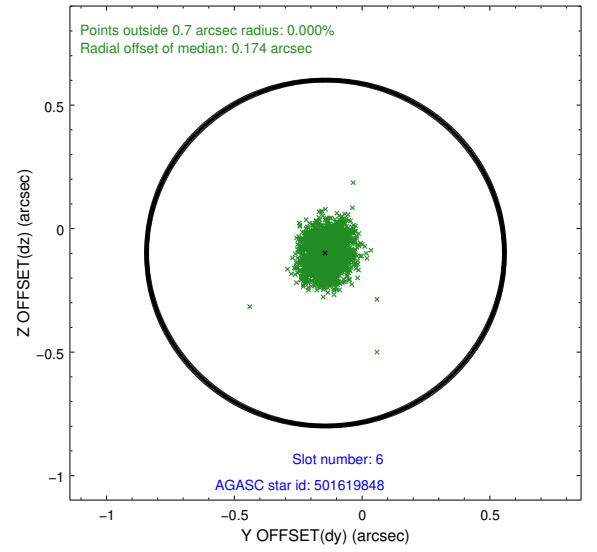
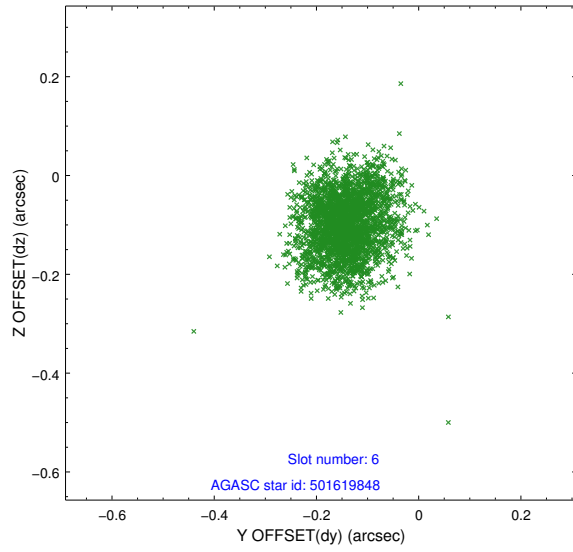
## 2.4.2 Slot 4



### 2.4.3 Slot 5

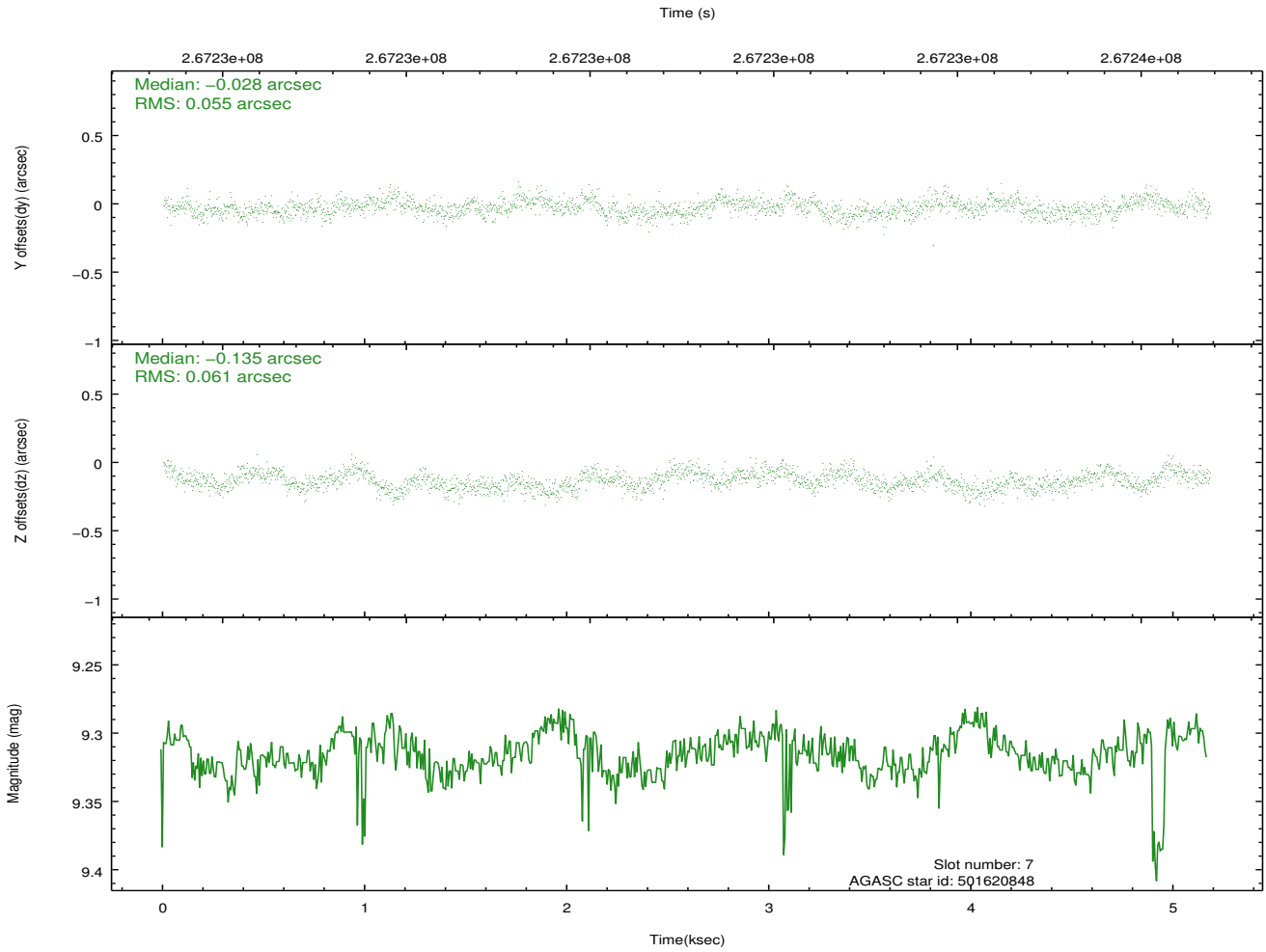
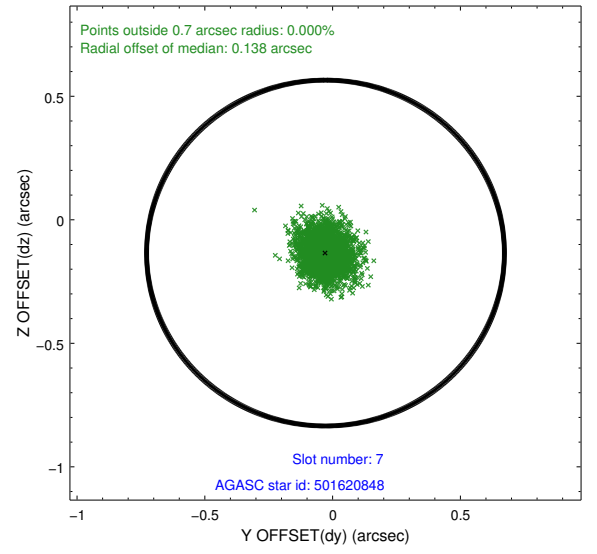
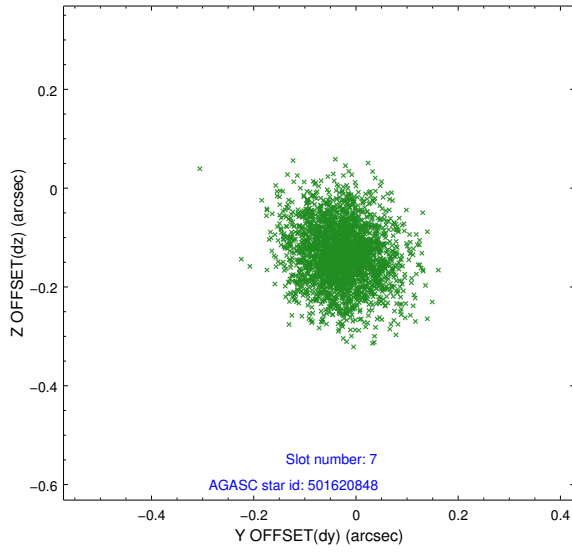


## 2.4.4 Slot 6



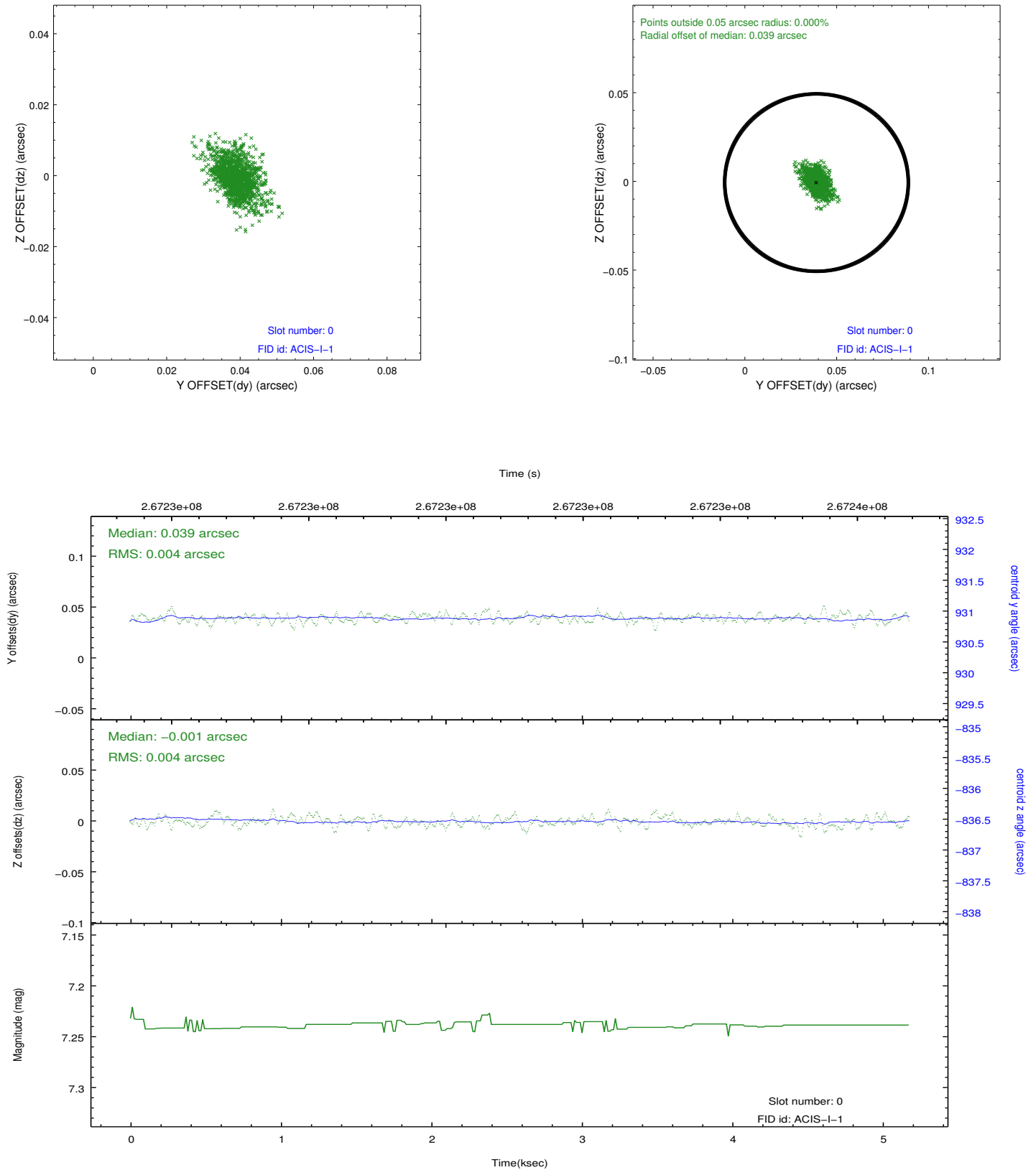


### 2.4.5 Slot 7

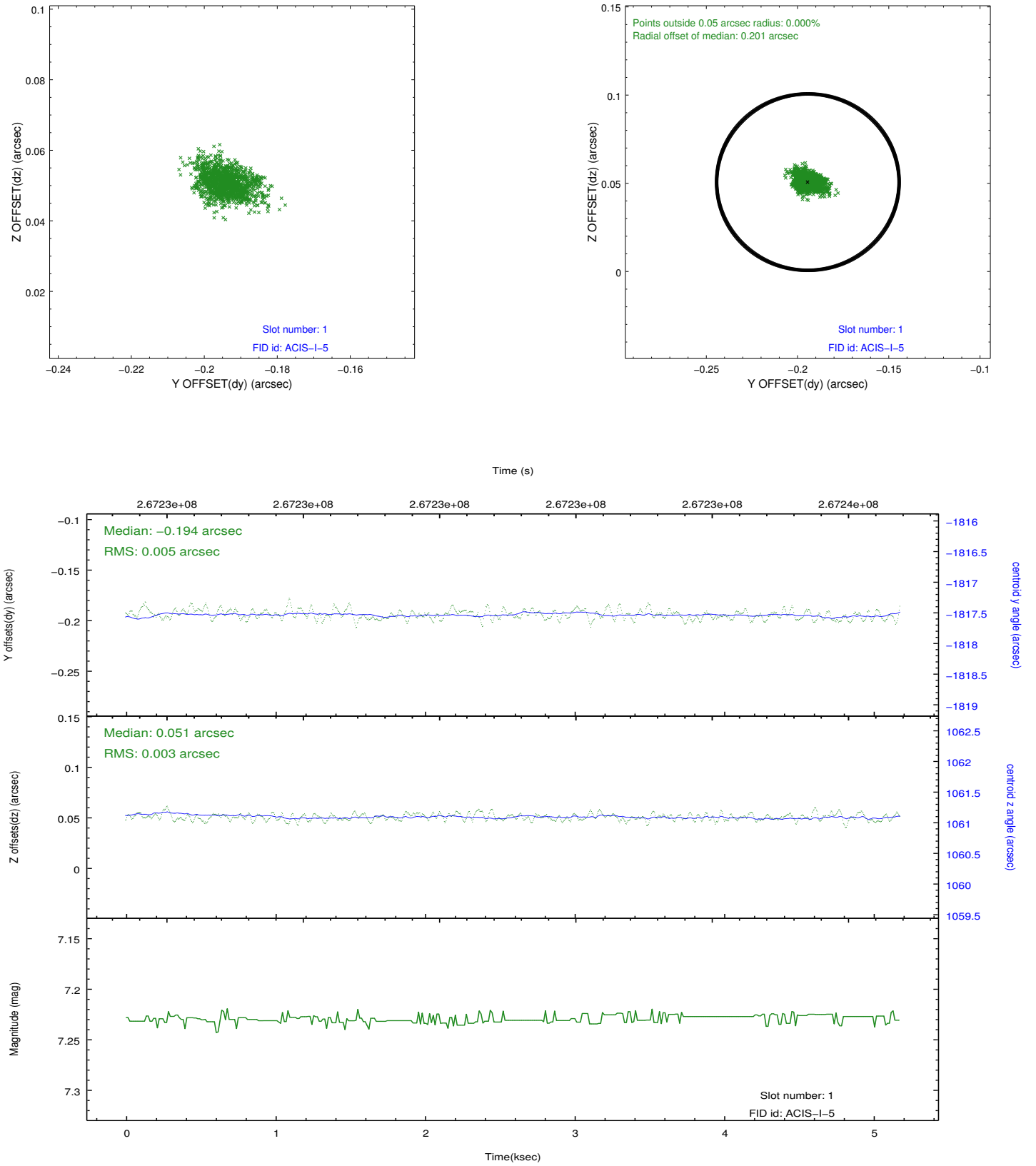


## 2.5 FID Slots

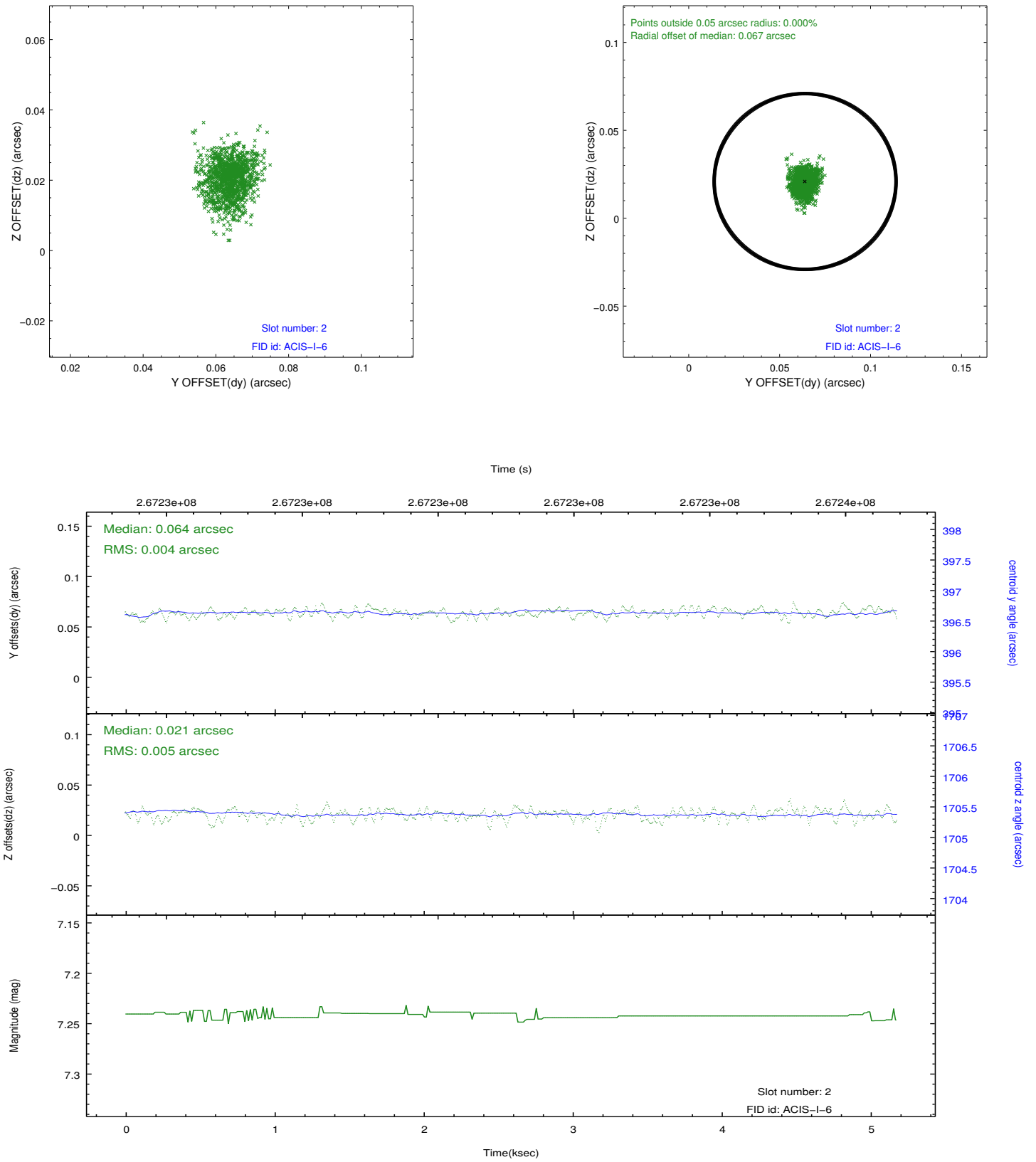
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.77709999

### A.2 Comments