

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10645 - L2 Version 2  
Chandra X-Ray Center

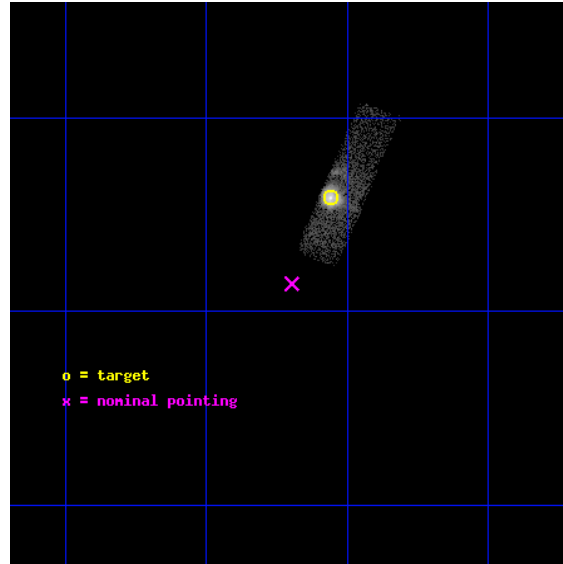
L2 Processing Date : Jun 8 2012

## 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

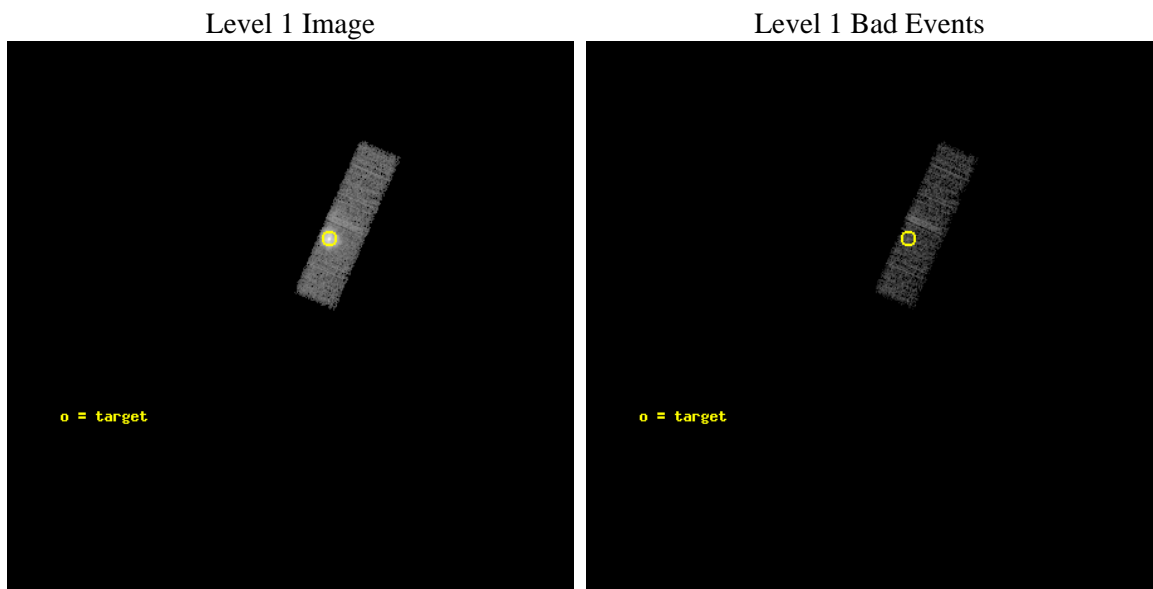
seq_num	590484	Sequence number
obs_id	10645	Observation id
title	AO-10 Observations of the Standard Candles Cas A and G21.5-09.	Pro
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-09[S2,-120,5.15,0,-2.61]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.42428325912	Nominal RA [deg]
dec_nom	-10.642852071416	Nominal Dec [deg]
roll_nom	113.68483040656	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10027.675769866	Sum of GTIs [s]
livetime	9538.3580042476	Livetime [s]
ontime6	10027.675769866	Sum of GTIs [s]
l2events	27234	Number of level 2 events



## 2 OBI

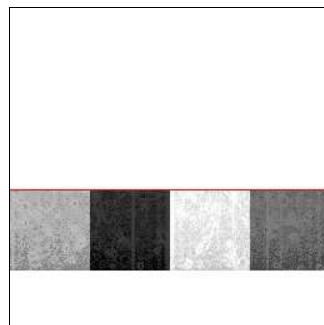
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 6



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10027.675769866	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime6	10027.675769866	Sum of GTIs [s]
date	2012-06-08T06:11:11	Date and time of file creation	l1events	52733	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 6</b>
level 1 events	52733
rejected events	23771
rejected %	45%

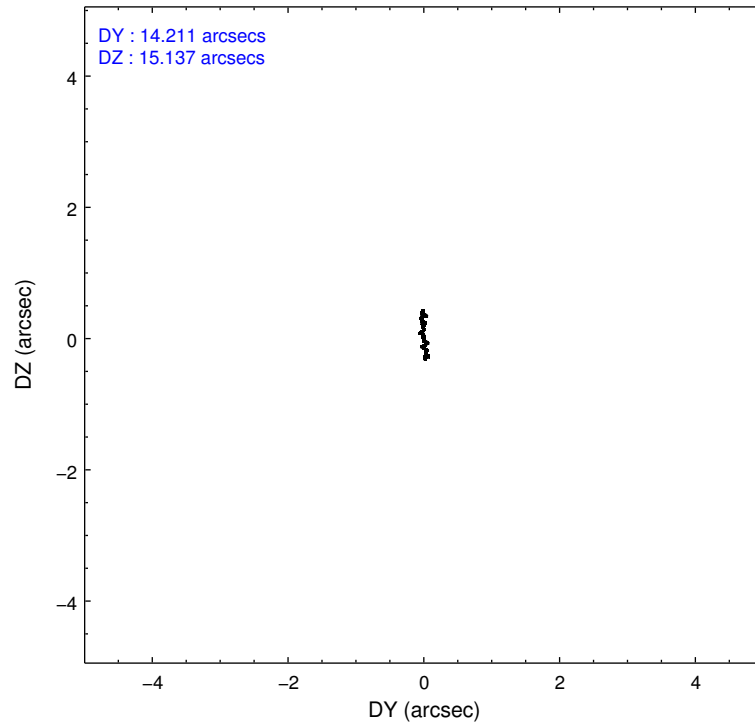
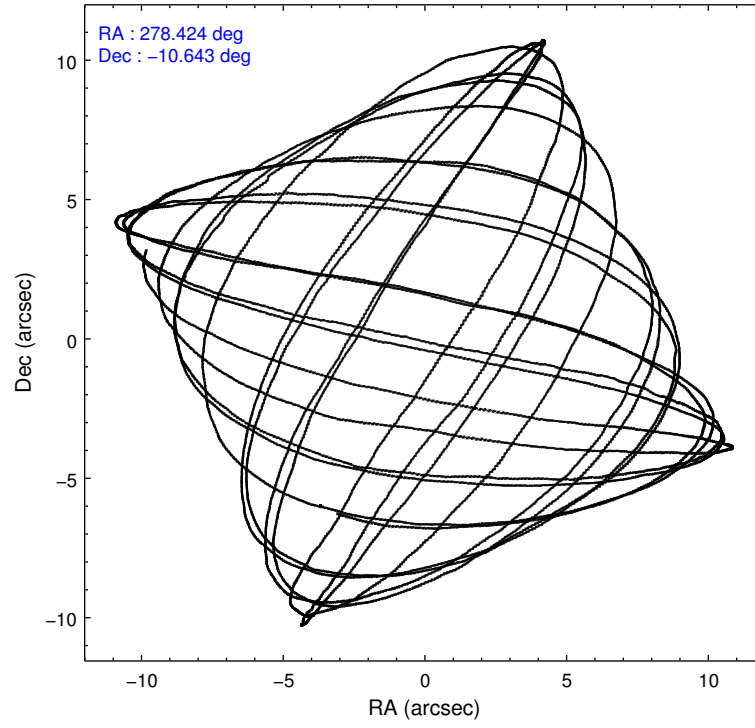
	<b>ccd 6</b>
grade 0 events	20024
	37%
grade 1 events	82
	0%
grade 2 events	3874
	7%
grade 3 events	1636
	3%
grade 4 events	1555
	2%
grade 5 events	803
	1%
grade 6 events	1873
	3%
grade 7 events	22886
	43%

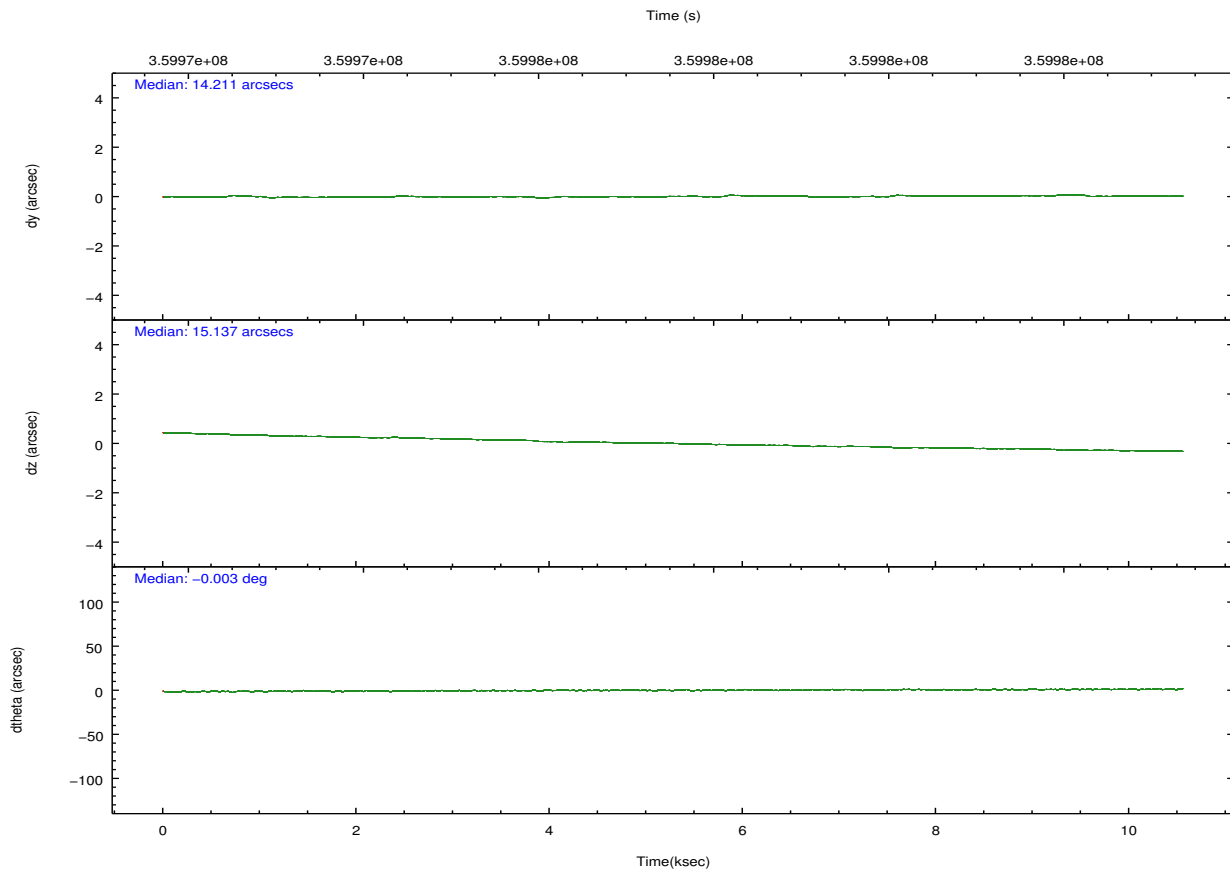
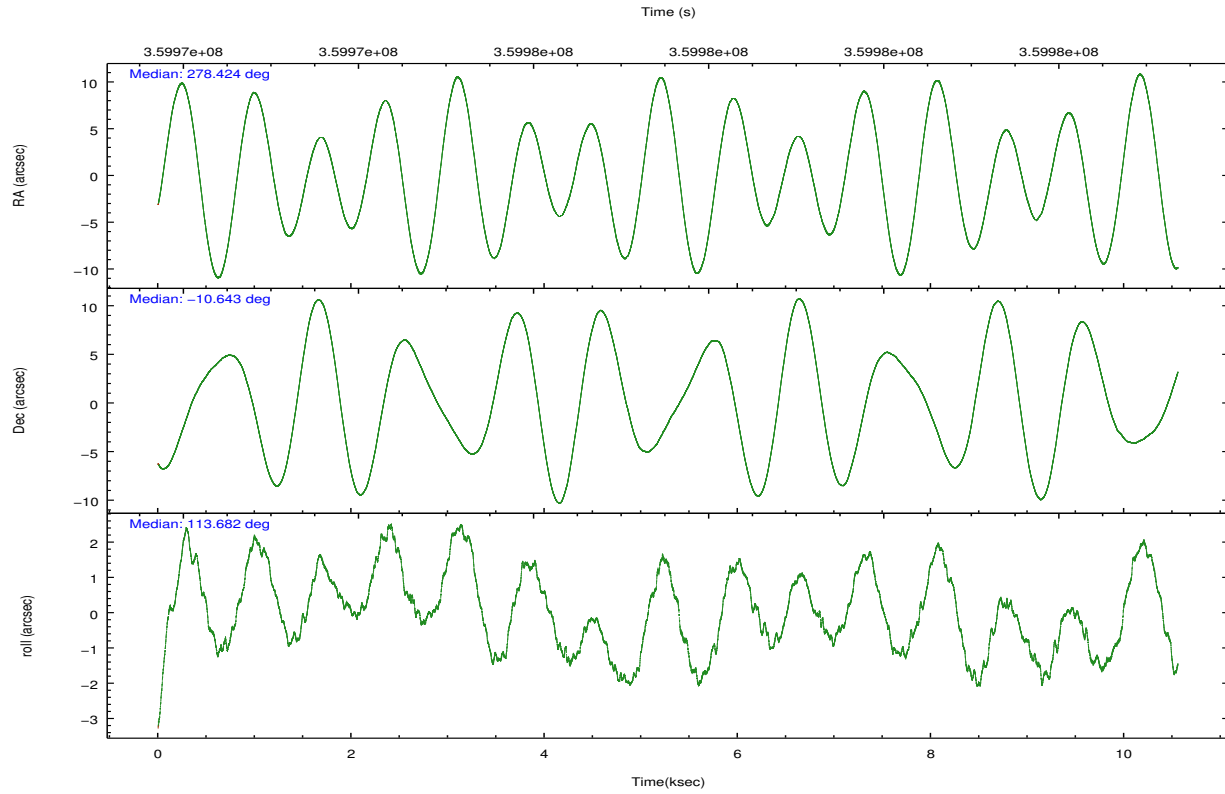


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-6	ACIS-6	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	278.446910	278.424283259122	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-10.658695	-10.64285207141611	Subarray start row	185	185
[deg] Pointing Roll	113.532375	113.6848304065595	Subarray row count	256	256
[s] Window start time (MET)	349833666.184000	349833666.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	360115266.184000	360115266.184000	[s] Primary exposure time	0.000000	0.8
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.522523	-187.527692451551			
[mm] SIM translation stage offset	-2.61	-2.604830131456765			
[s] Observation start time (MET)	359972819.184000	359972074.77177			
Observation start date	2009-05-29T08:25:53	2009-05-29T08:14:34			
[s] Observation end time (MET)	359982819.184000	359982953.09732			
Observation end date	2009-05-29T11:12:33	2009-05-29T11:15:53			
Read mode	TIMED	TIMED			

## 2.3 Aspect



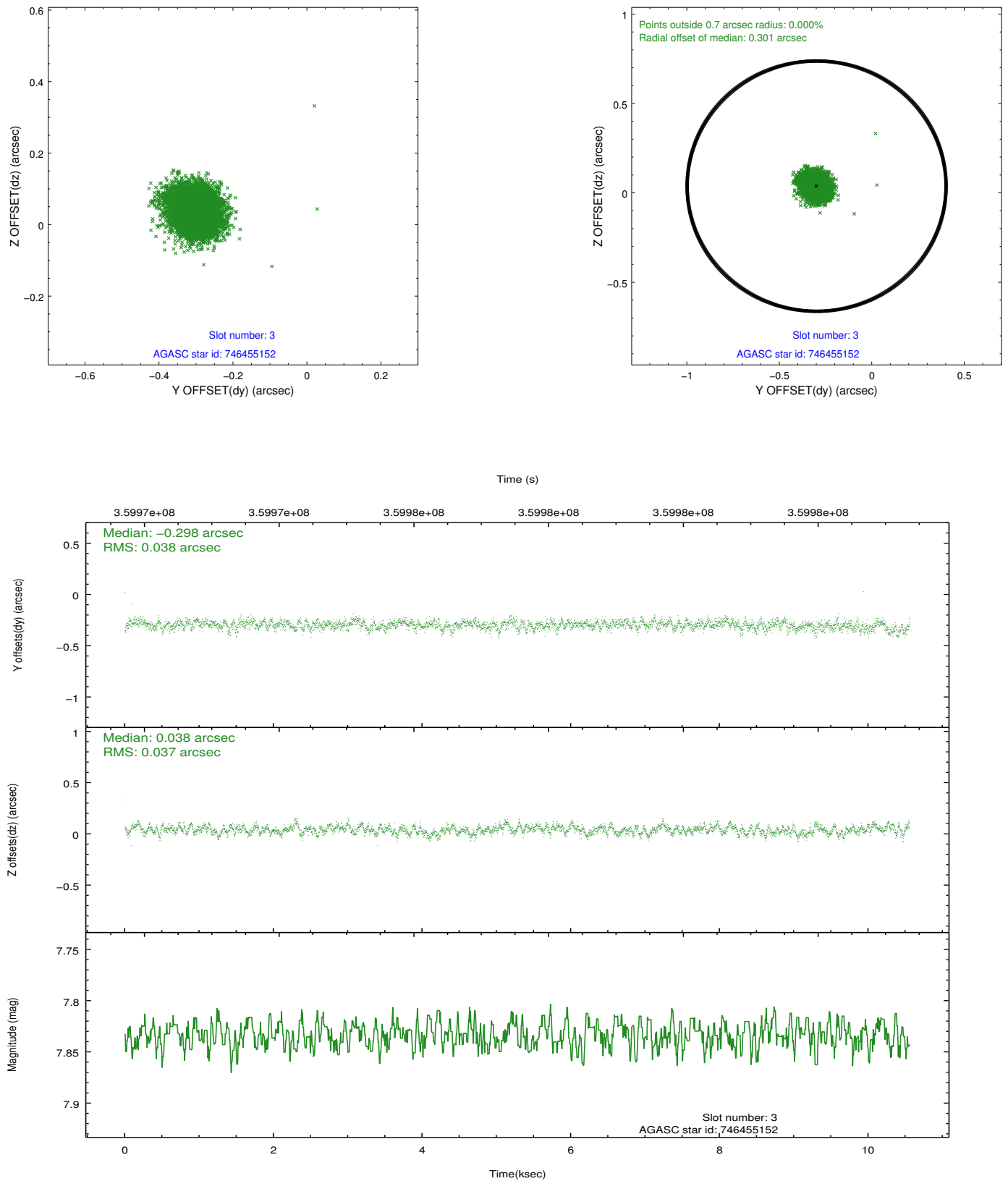


### Slot Statistics

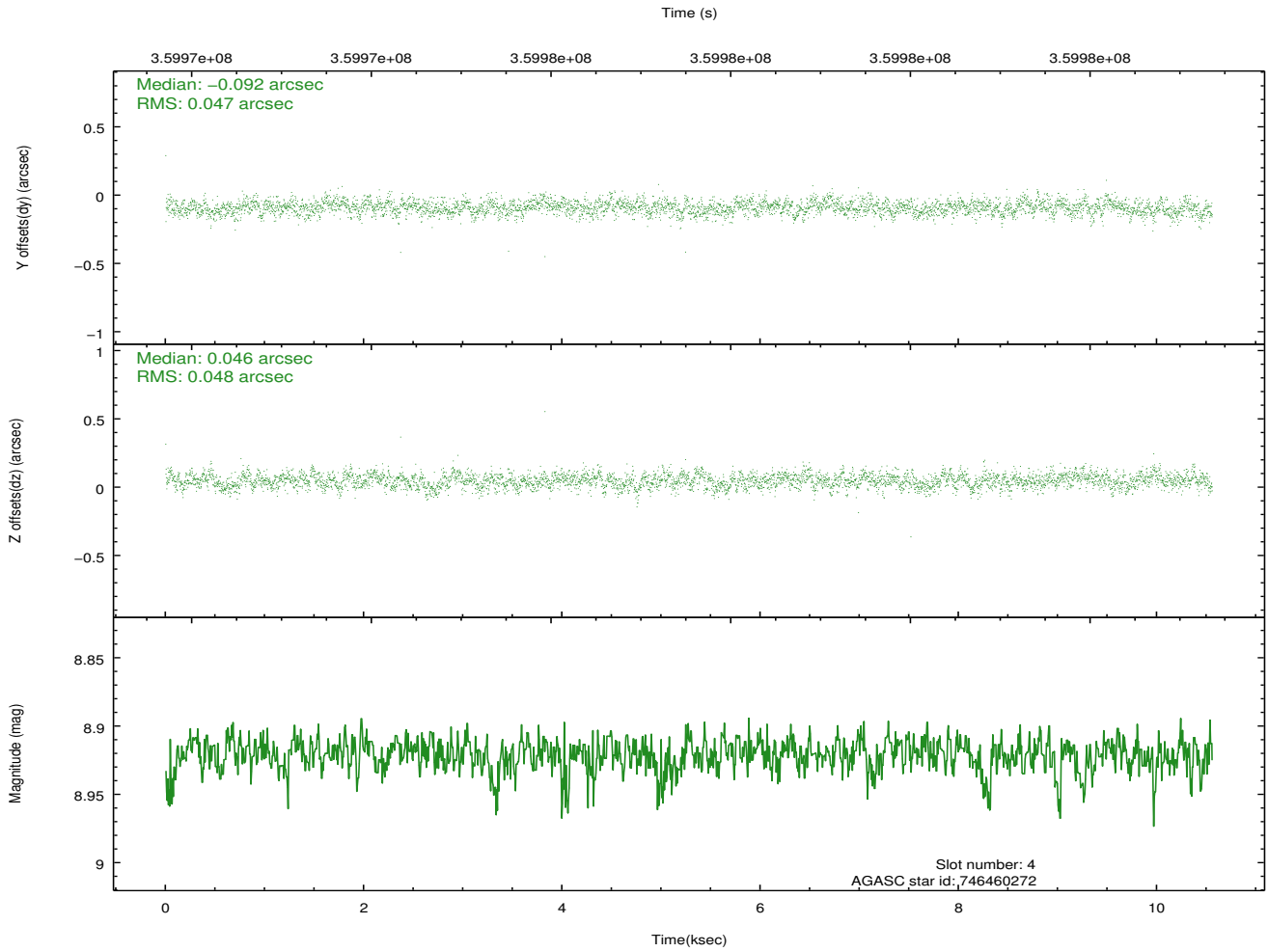
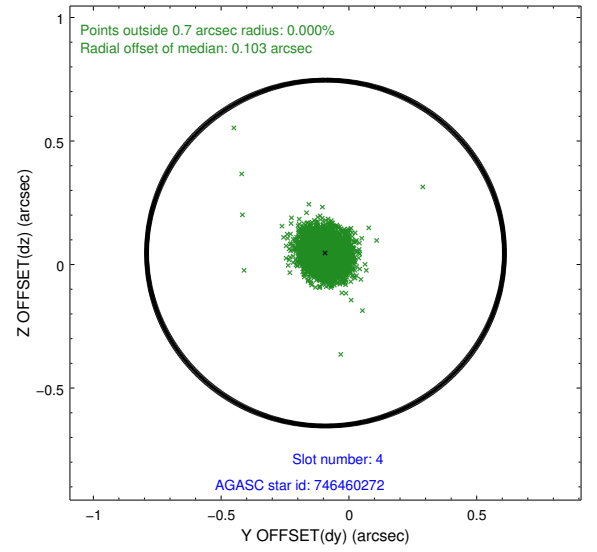
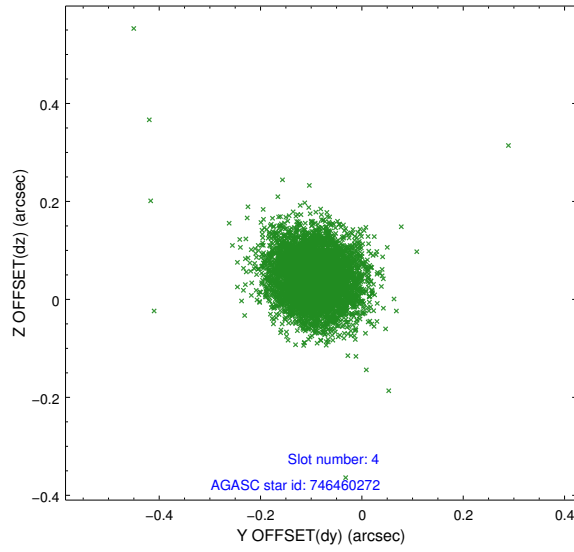
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	2576	-0.092	-0.062	0.010	0.016	0.000000	0.000000	-767.09	-1790.39
1	FID	ACIS-S-4	6.97	2576	0.227	0.061	0.007	0.023	0.000000	0.000000	2146.29	117.65
2	FID	ACIS-S-5	7.02	2576	-0.165	0.009	0.010	0.017	0.000000	0.000000	-1819.36	111.87
3	GUIDE	746455152	7.83	5150	-0.298	0.038	0.055	0.090	278.447893	-9.976732	2249.85	-983.09
4	GUIDE	746460272	8.92	5140	-0.092	0.046	0.070	0.113	278.847488	-10.152127	1105.46	-2029.11
5	GUIDE	746462392	8.53	5134	0.160	0.007	0.073	0.117	279.038421	-10.890715	-1603.69	-1583.55
6	GUIDE	746462456	8.38	5150	0.022	-0.102	0.062	0.098	278.652171	-10.530173	132.98	-850.65
7	GUIDE	746462680	9.02	5148	0.211	0.016	0.082	0.131	278.660755	-10.782756	-710.81	-514.91

## 2.4 Star Slots

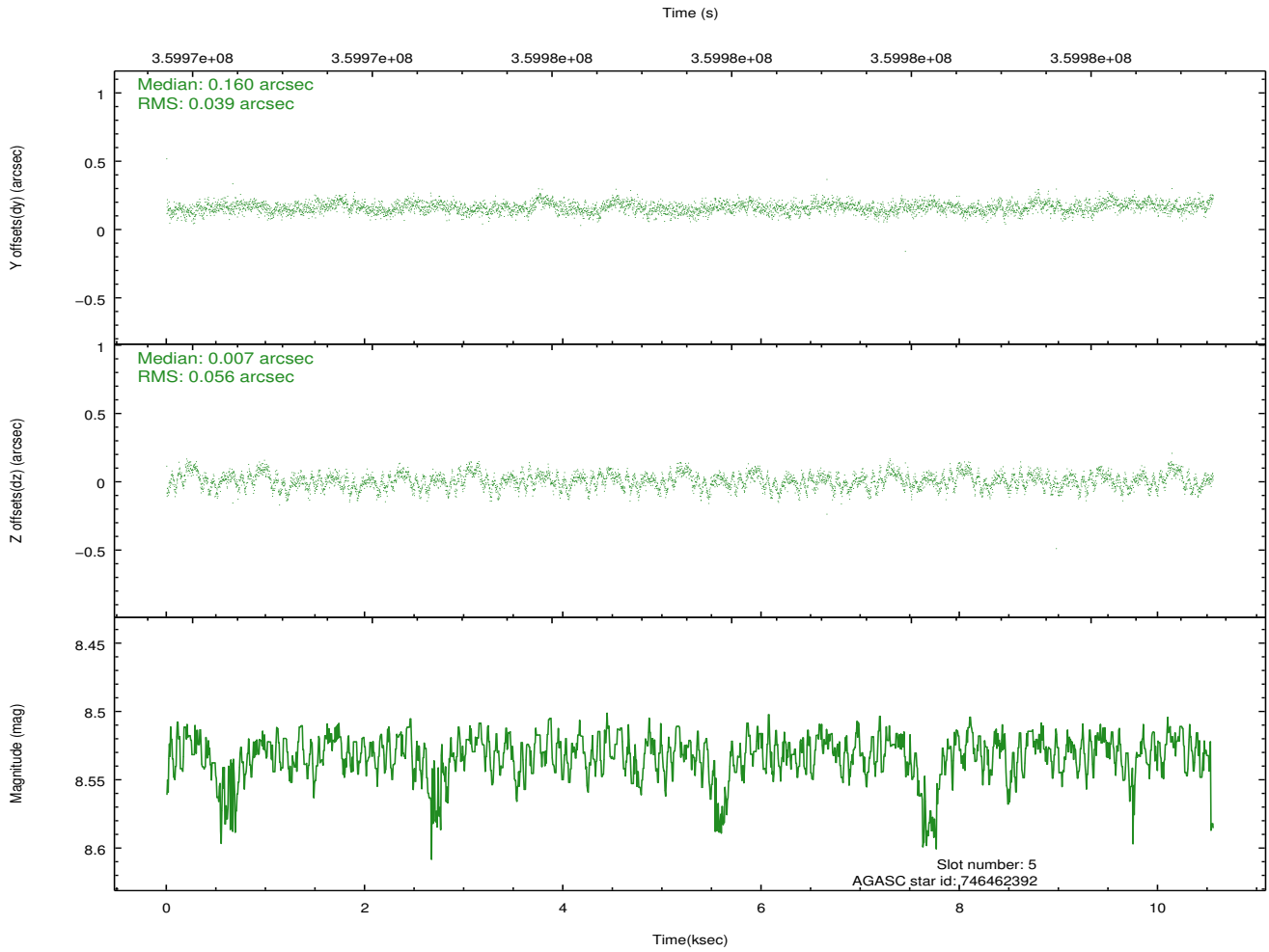
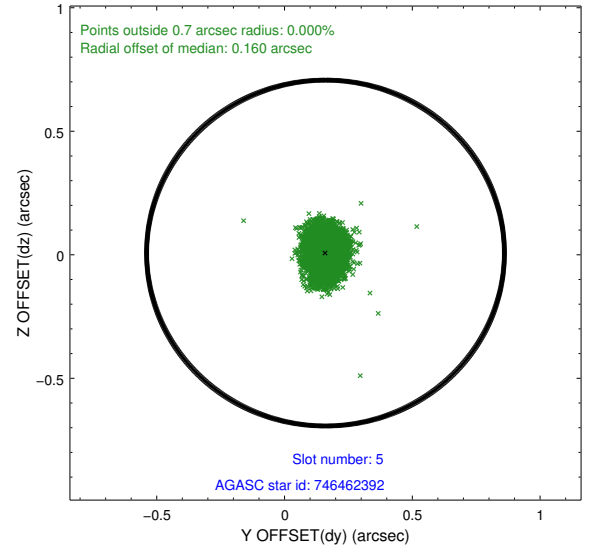
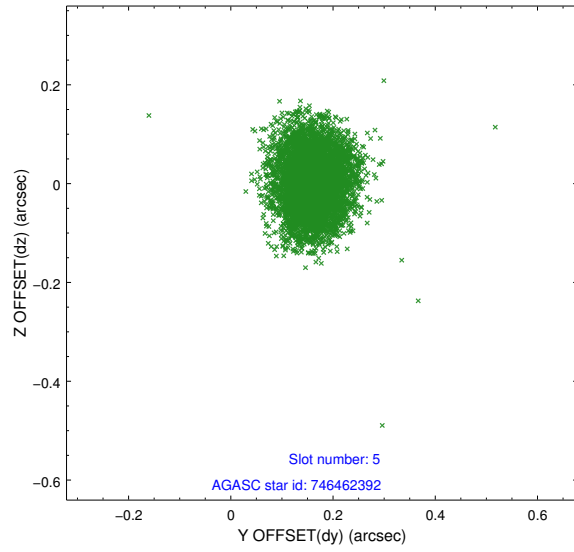
### 2.4.1 Slot 3



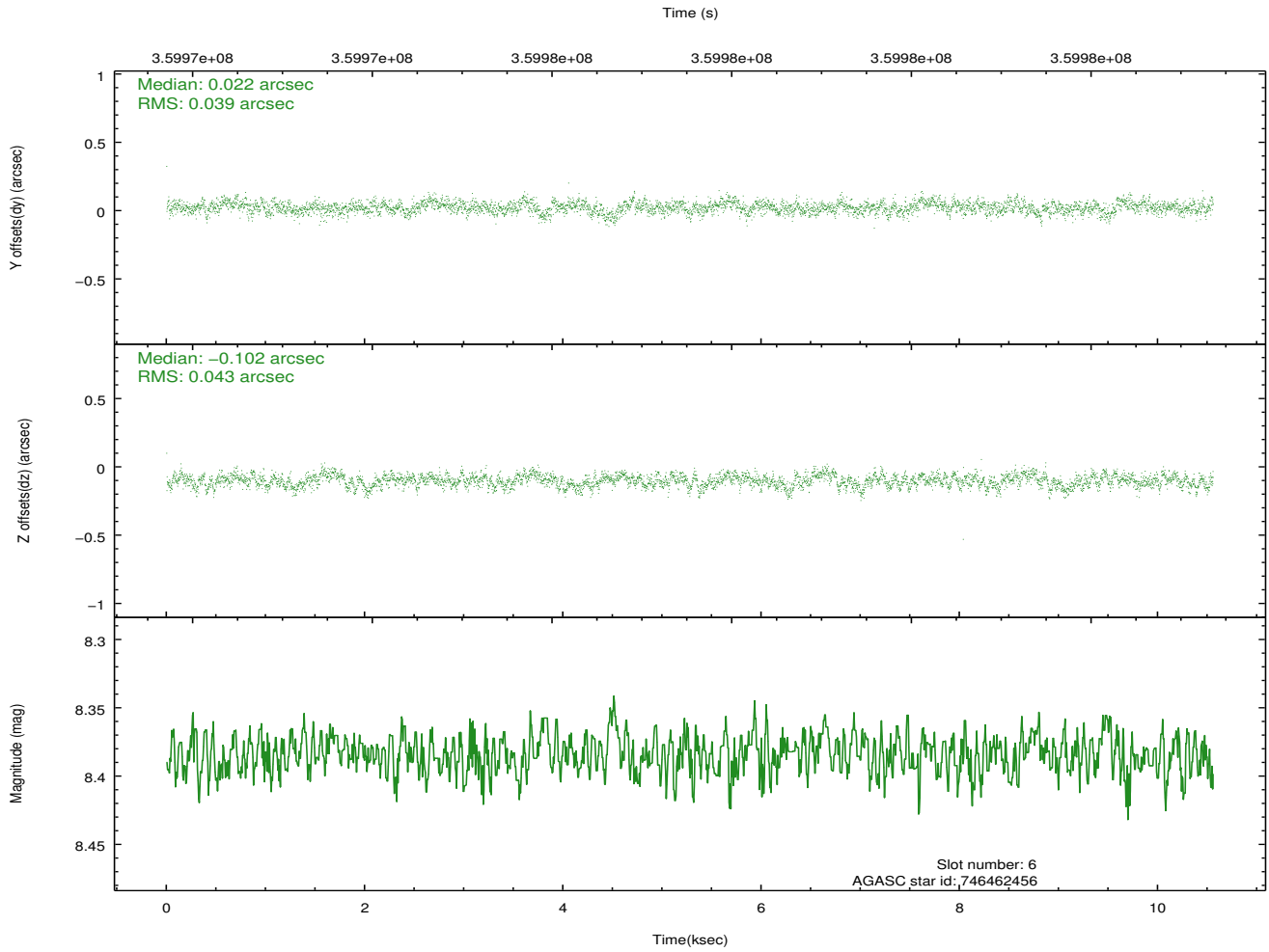
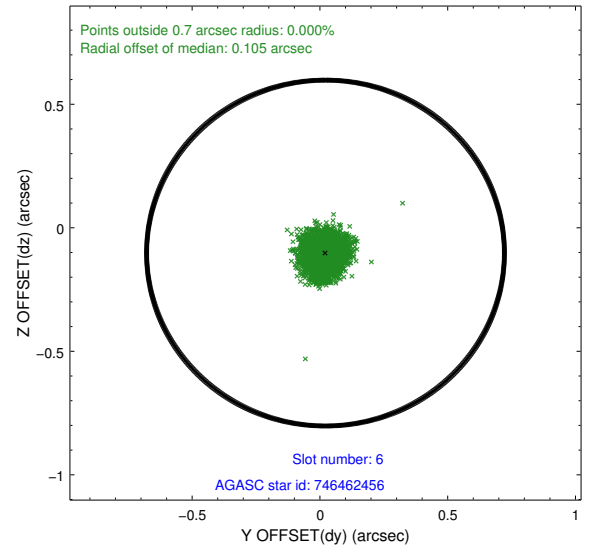
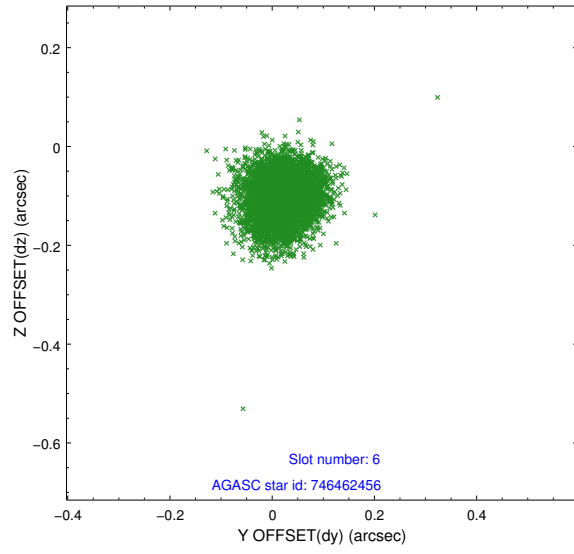
## 2.4.2 Slot 4



### 2.4.3 Slot 5

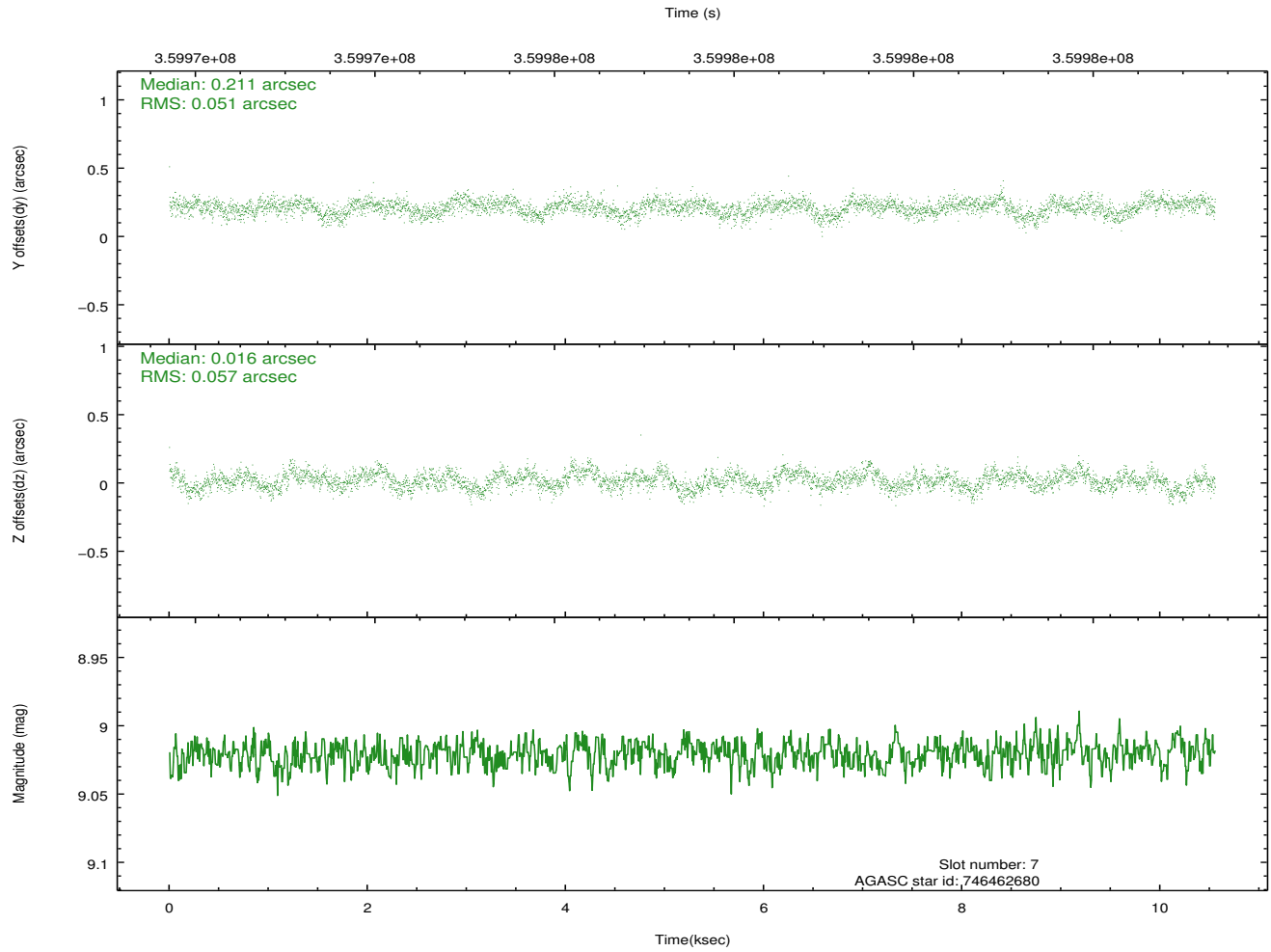
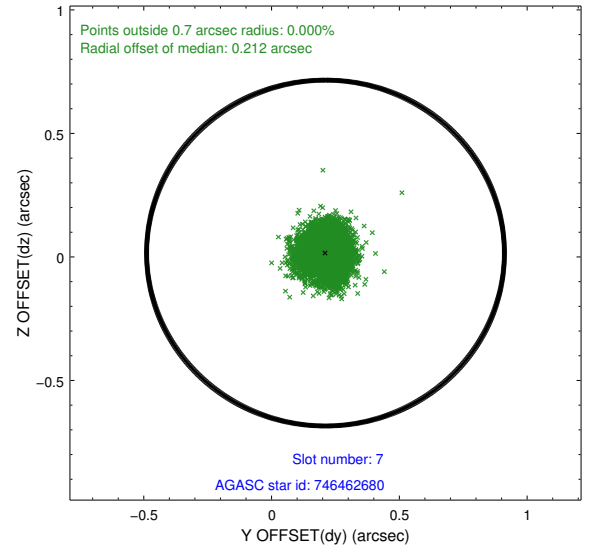
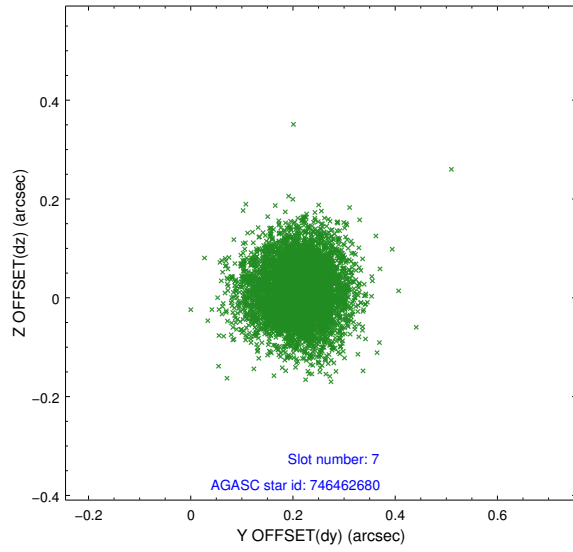


## 2.4.4 Slot 6



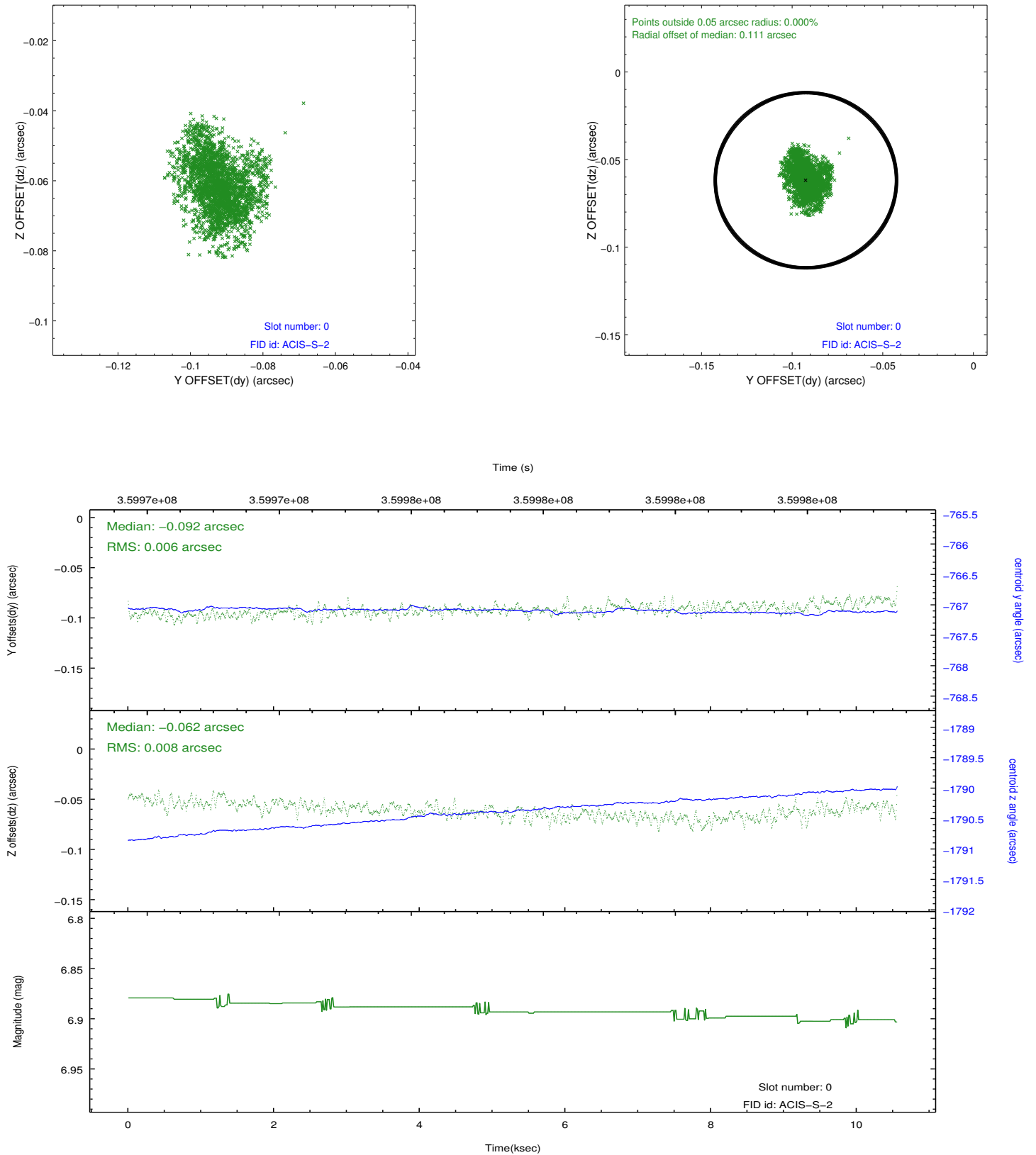


## 2.4.5 Slot 7

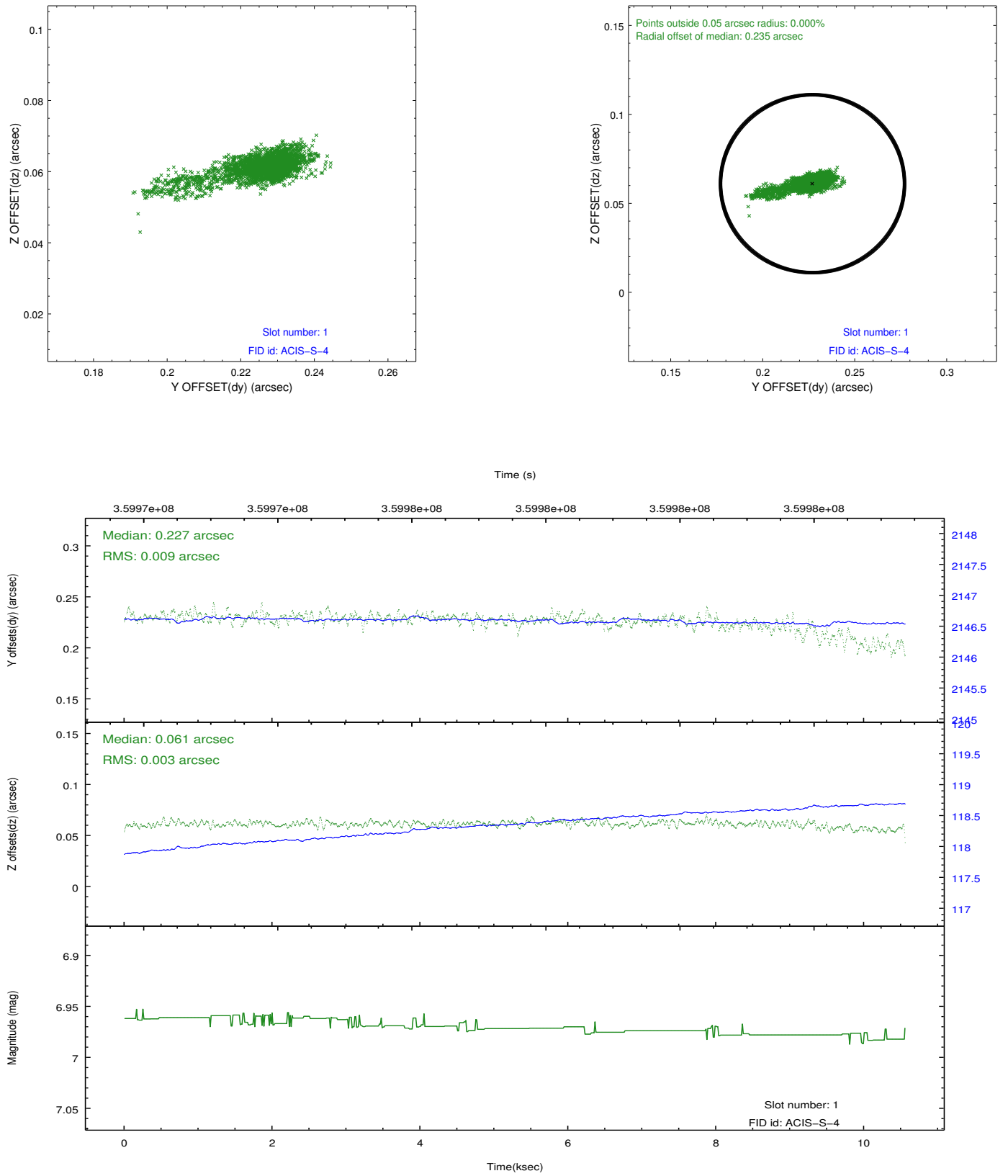


## 2.5 FID Slots

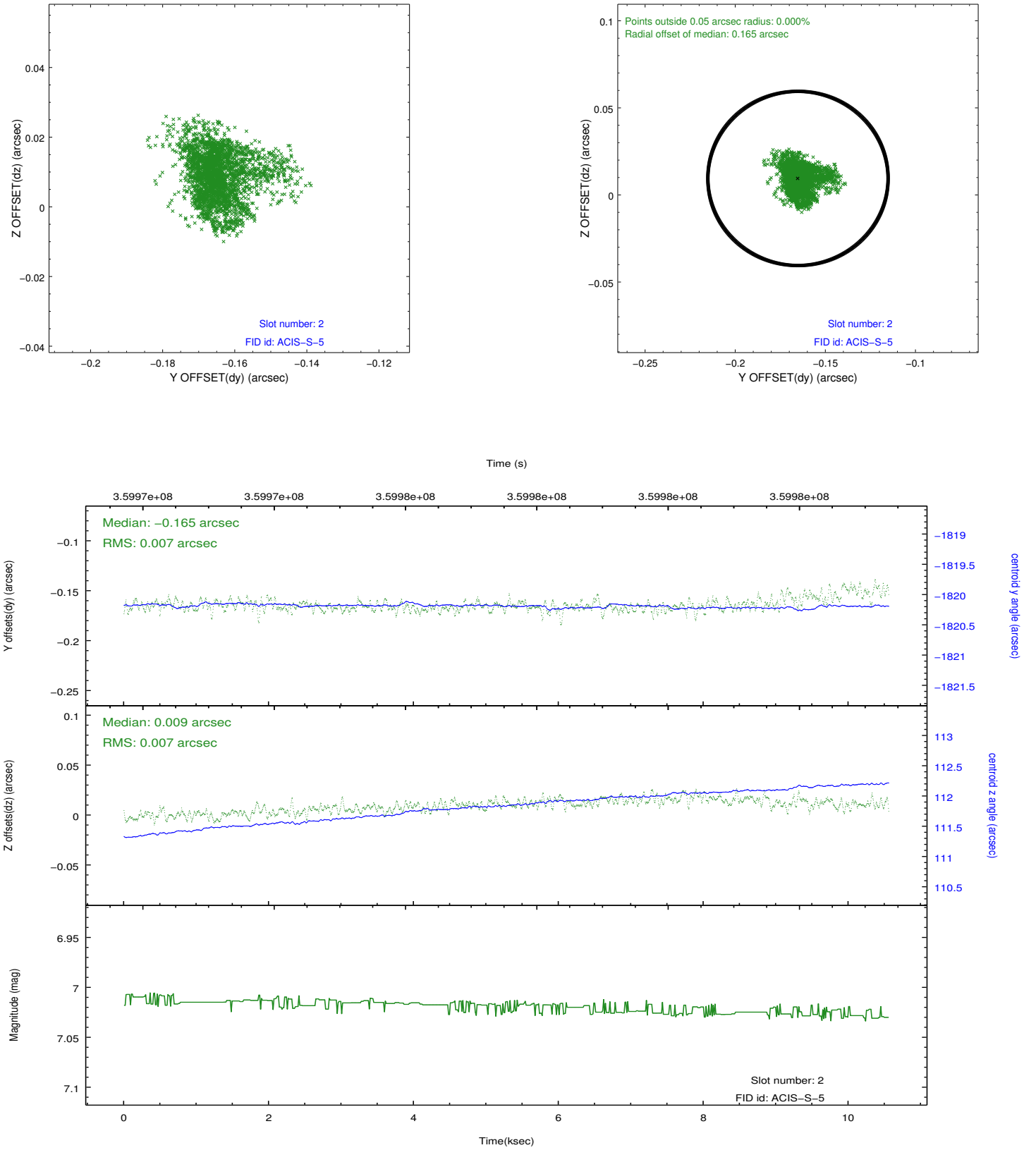
### 2.5.1 Slot 0



## 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)	2012.06.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.0279591

### A.2 Comments

Window constraint met.