

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 9702 - L2 Version 2  
Chandra X-Ray Center

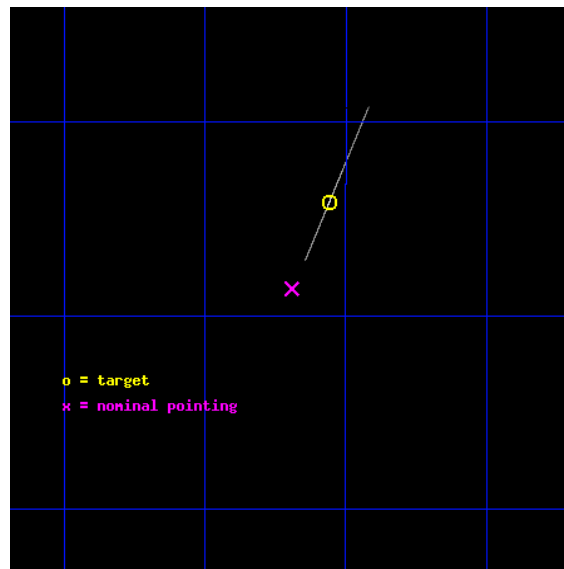
L2 Processing Date : May 15 2012

## 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

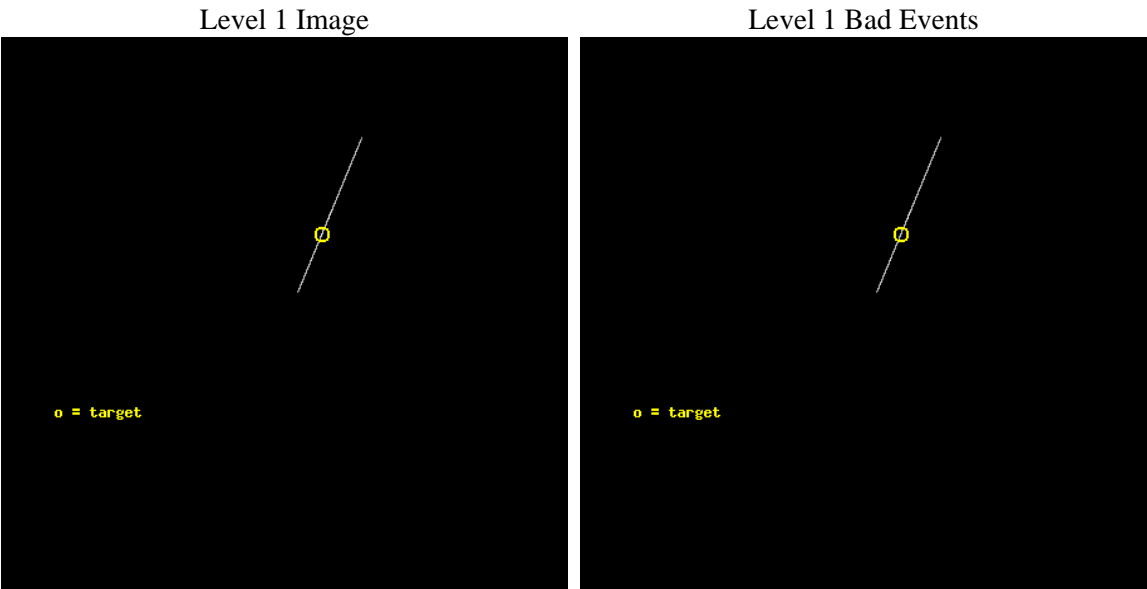
seq_num	590480	Sequence number
obs_id	9702	Observation id
title	AO9 Observations of the Standard Candles Cas A and G21.5-09.	Propo
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-09[S3,-120,1.0,0,0]	Source name
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.42288593239	Nominal RA [deg]
dec_nom	-10.643438178432	Nominal Dec [deg]
roll_nom	112.6770184862	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10184.0	Sum of GTIs [s]
livetime	10144.21875	Livetime [s]
ontime6	10184.0	Sum of GTIs [s]
l2events	37962	Number of level 2 events



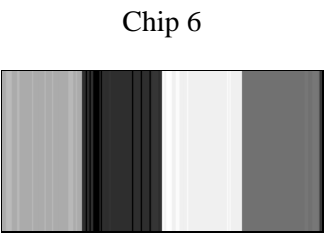
# 2 OBI

## 2.1 OBI

### 2.1.1 Images



### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	10184.0	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime6	10184.0	Sum of GTIs [s]
date	2012-05-15T15:23:15	Date and time of file creation	l1events	317208	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

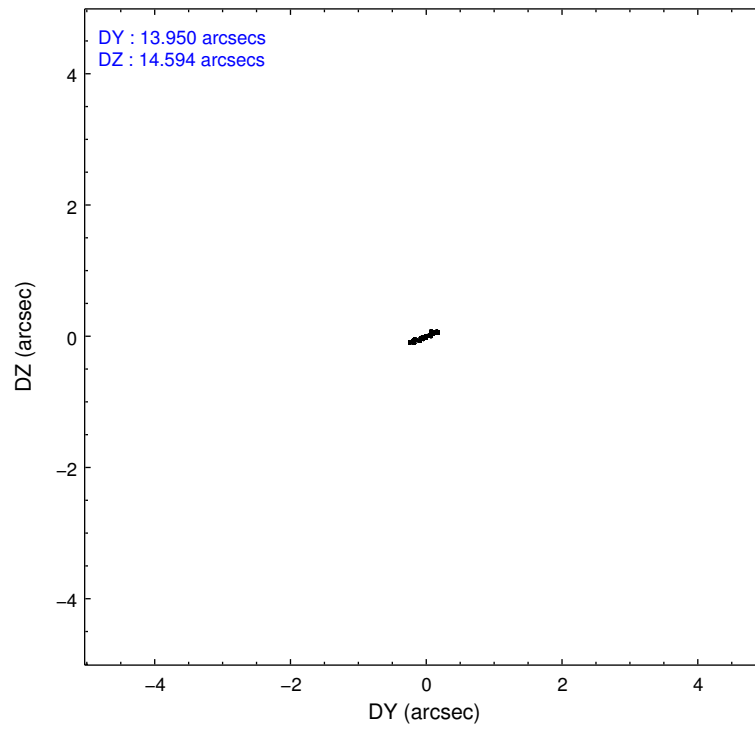
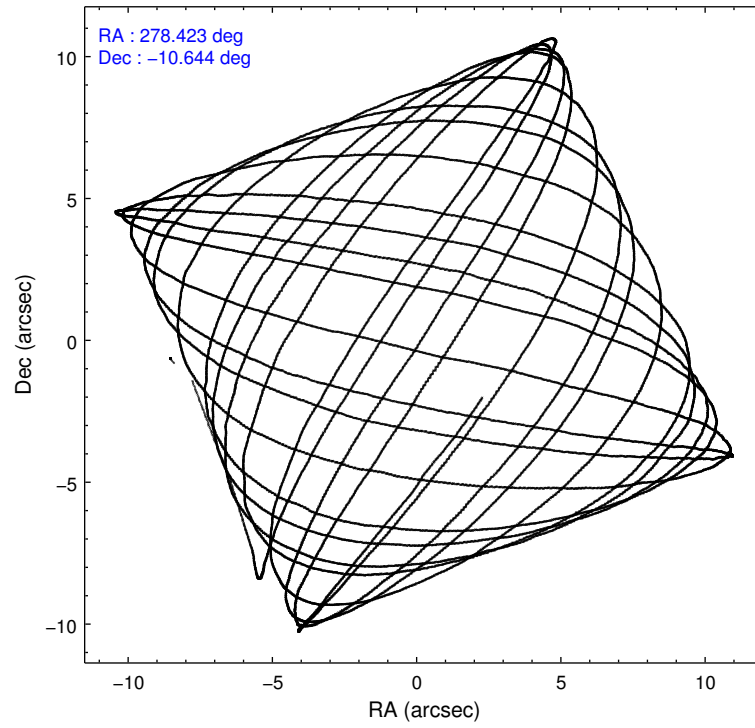
	<b>ccd 6</b>
level 1 events	317208
rejected events	276303
rejected %	87%

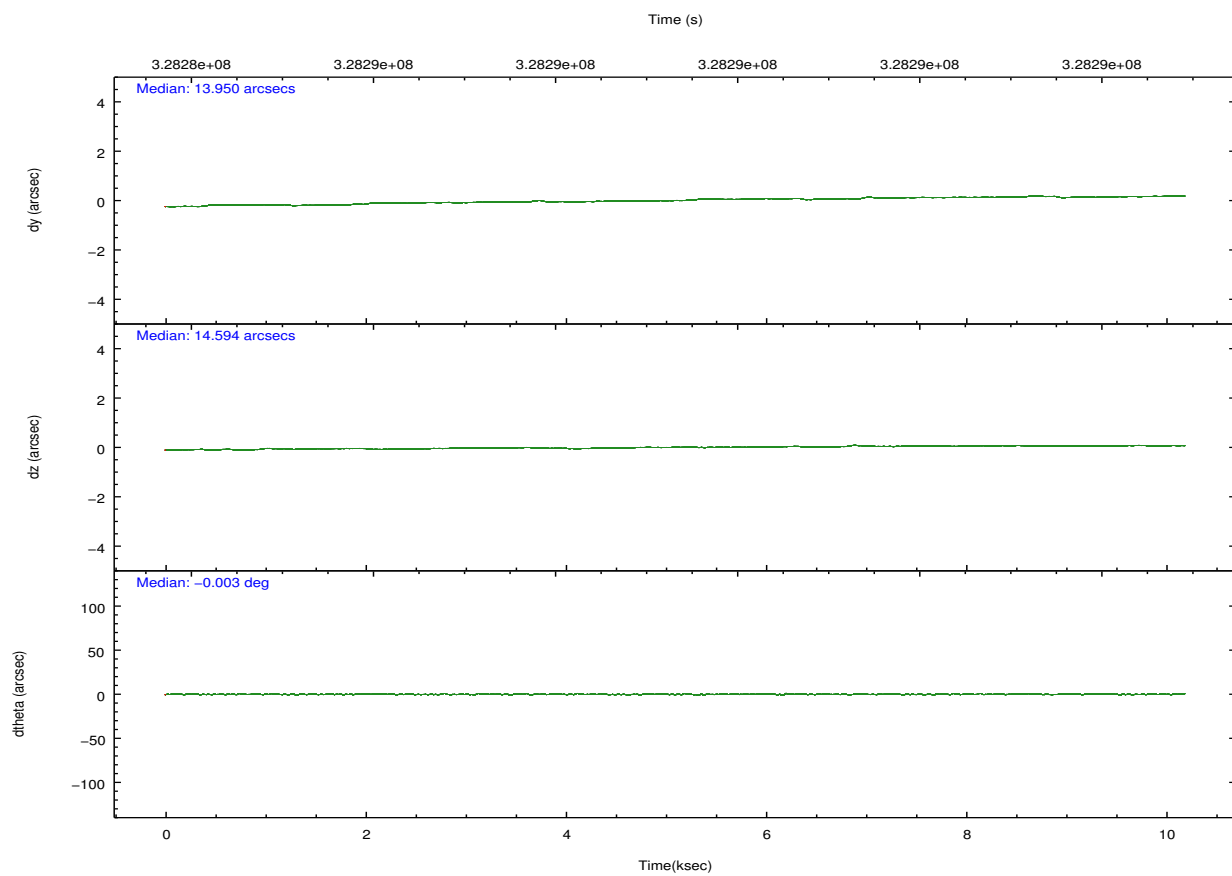
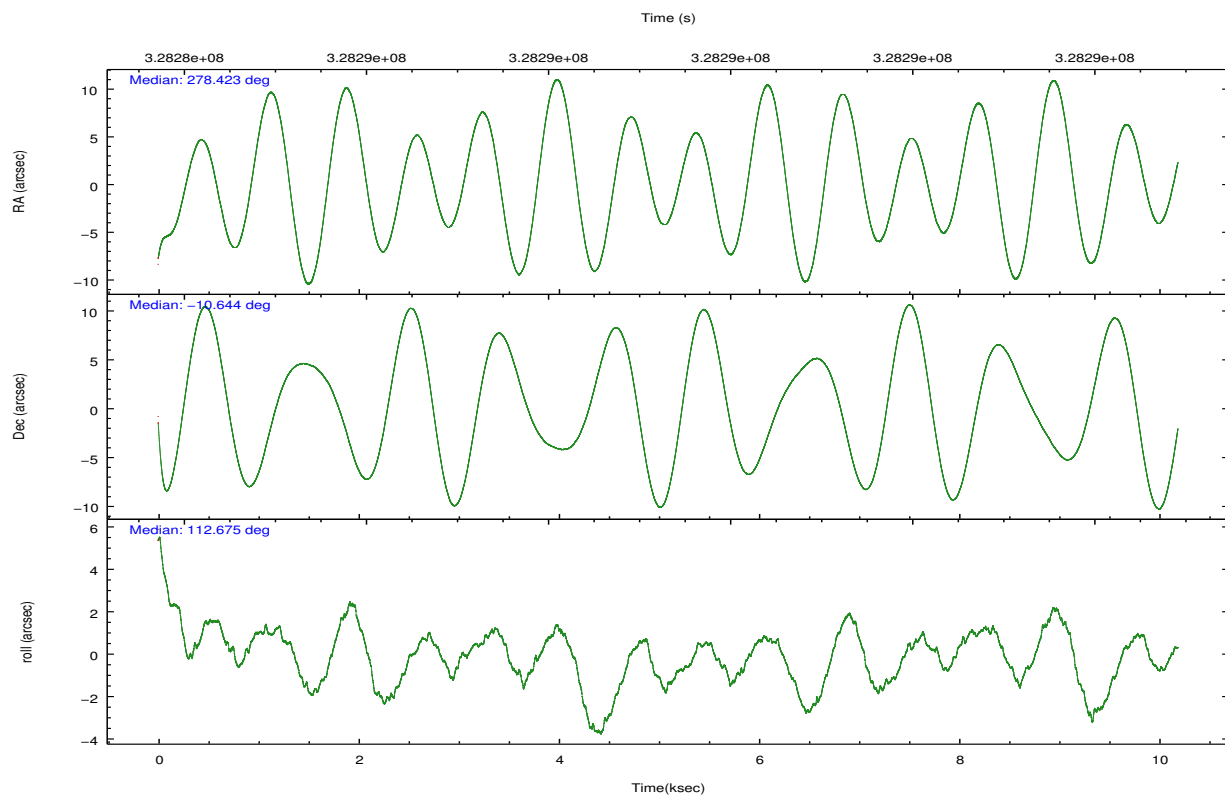
	<b>ccd 6</b>
grade 0 events	2394
	0%
grade 1 events	82
	0%
grade 2 events	29386
	9%
grade 3 events	2317
	0%
grade 4 events	2240
	0%
grade 5 events	3428
	1%
grade 6 events	6307
	1%
grade 7 events	271054
	85%

## 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	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	278.445283	278.4228859323898	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.659678	-10.64343817843208	Alternating exposures requested	N	N
[deg] Pointing Roll	112.524525	112.6770184861982	[s] Primary exposure time	0.000000	0
[s] Window start time (MET)	318211265.184000	318211265.184000			
[s] Window stop time (MET)	328579265.184000	328579265.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.522523	-187.5251781362495			
[mm] SIM translation stage offset	-2.61	-2.607344446758333			
[s] Observation start time (MET)	328284404.184000	328283175.99772			
Observation start date	2008-05-27T14:05:39	2008-05-27T13:46:15			
[s] Observation end time (MET)	328294404.184000	328294765.16078			
Observation end date	2008-05-27T16:52:19	2008-05-27T16:59:25			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



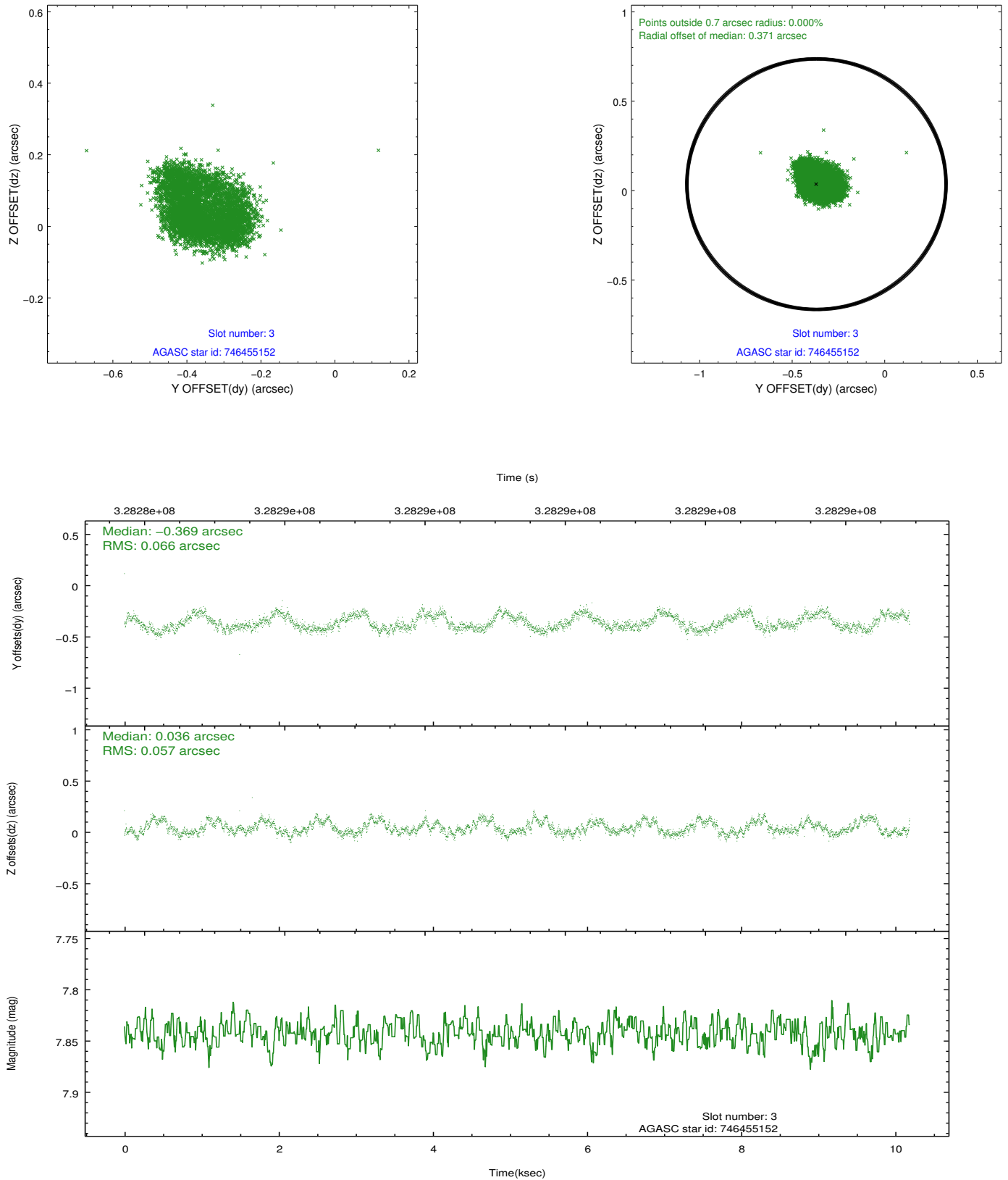


Slot Statistics

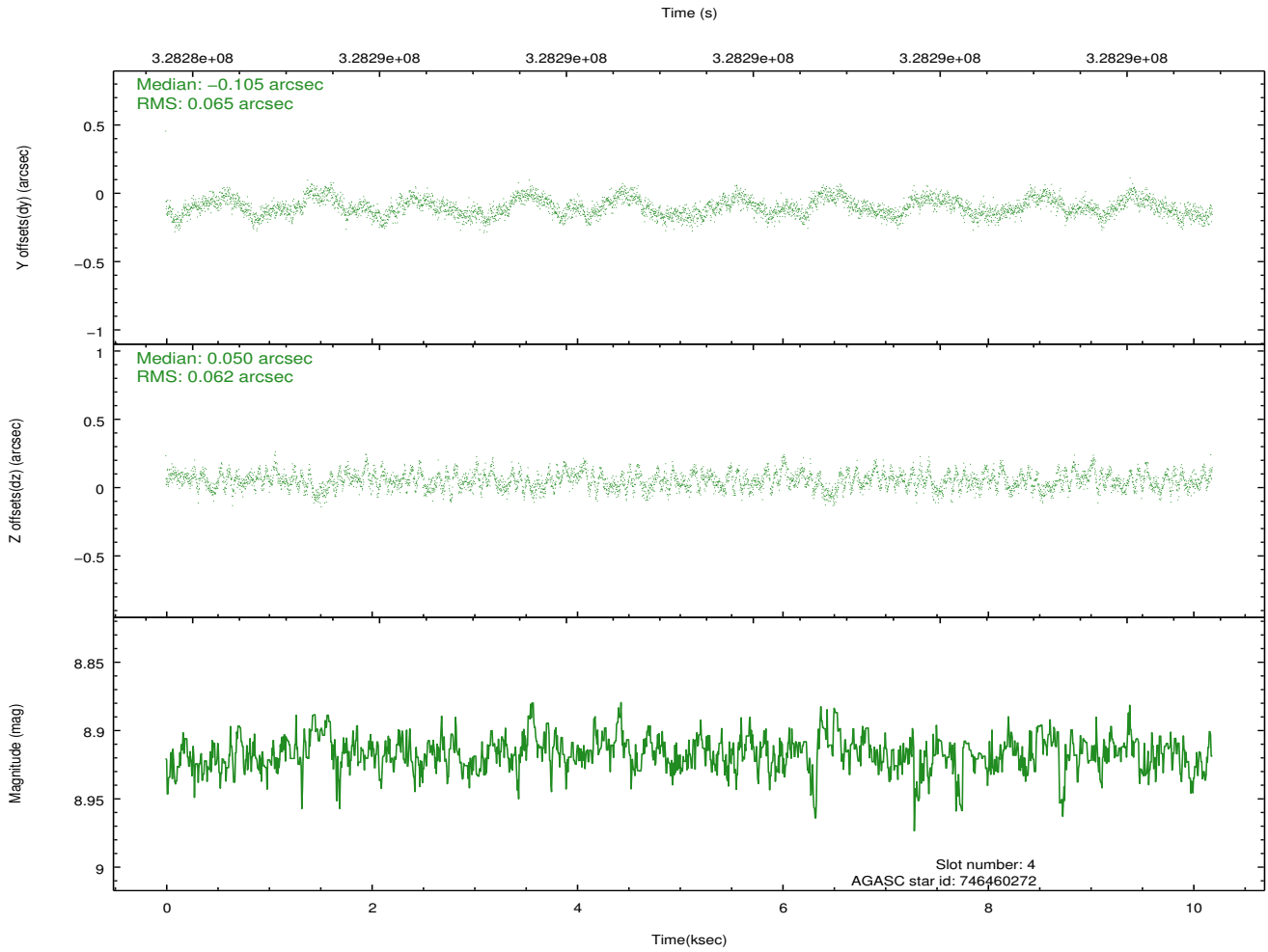
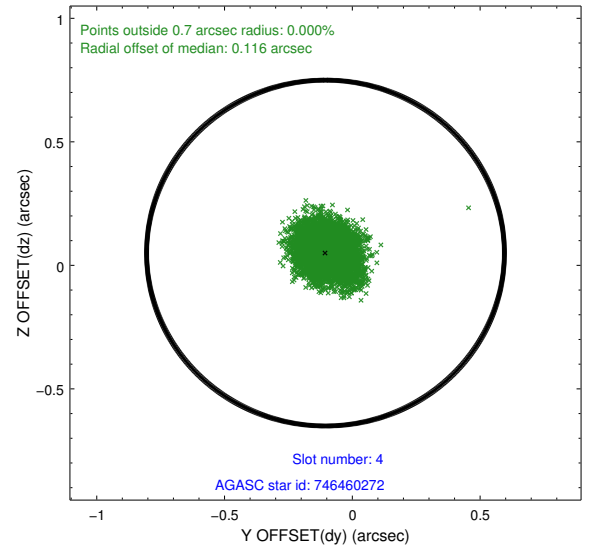
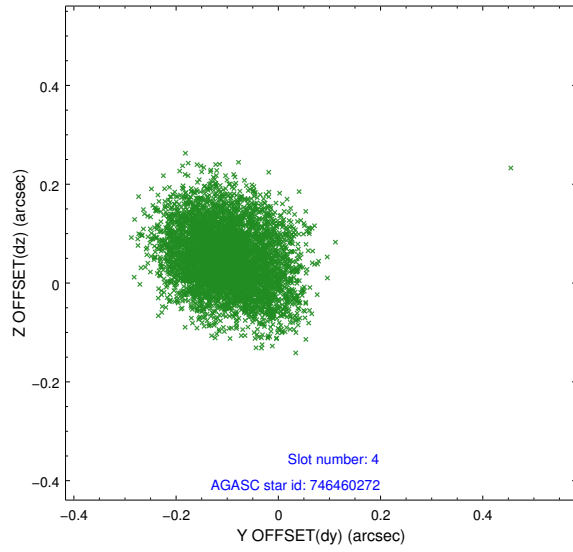
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.87	2486	-0.076	-0.059	0.008	0.013	0.000000	0.000000	-766.81	-1789.86
1	FID	ACIS-S-4	6.95	2486	0.178	0.053	0.010	0.018	0.000000	0.000000	2146.50	118.13
2	FID	ACIS-S-5	7.00	2486	-0.133	0.015	0.007	0.012	0.000000	0.000000	-1819.02	112.41
3	GUIDE	746455152	7.84	4971	-0.369	0.036	0.097	0.141	278.447893	-9.976732	2267.71	-950.27
4	GUIDE	746460272	8.92	4969	-0.105	0.050	0.097	0.153	278.847488	-10.152127	1141.94	-2016.26
5	GUIDE	746462392	8.52	4967	0.149	0.021	0.066	0.109	279.038421	-10.890715	-1574.40	-1618.32
6	GUIDE	746462456	8.38	4968	0.062	-0.109	0.059	0.097	278.652171	-10.530173	149.07	-855.10
7	GUIDE	746462680	9.01	4969	0.250	-0.001	0.068	0.113	278.660755	-10.782756	-700.62	-534.22

## 2.4 Star Slots

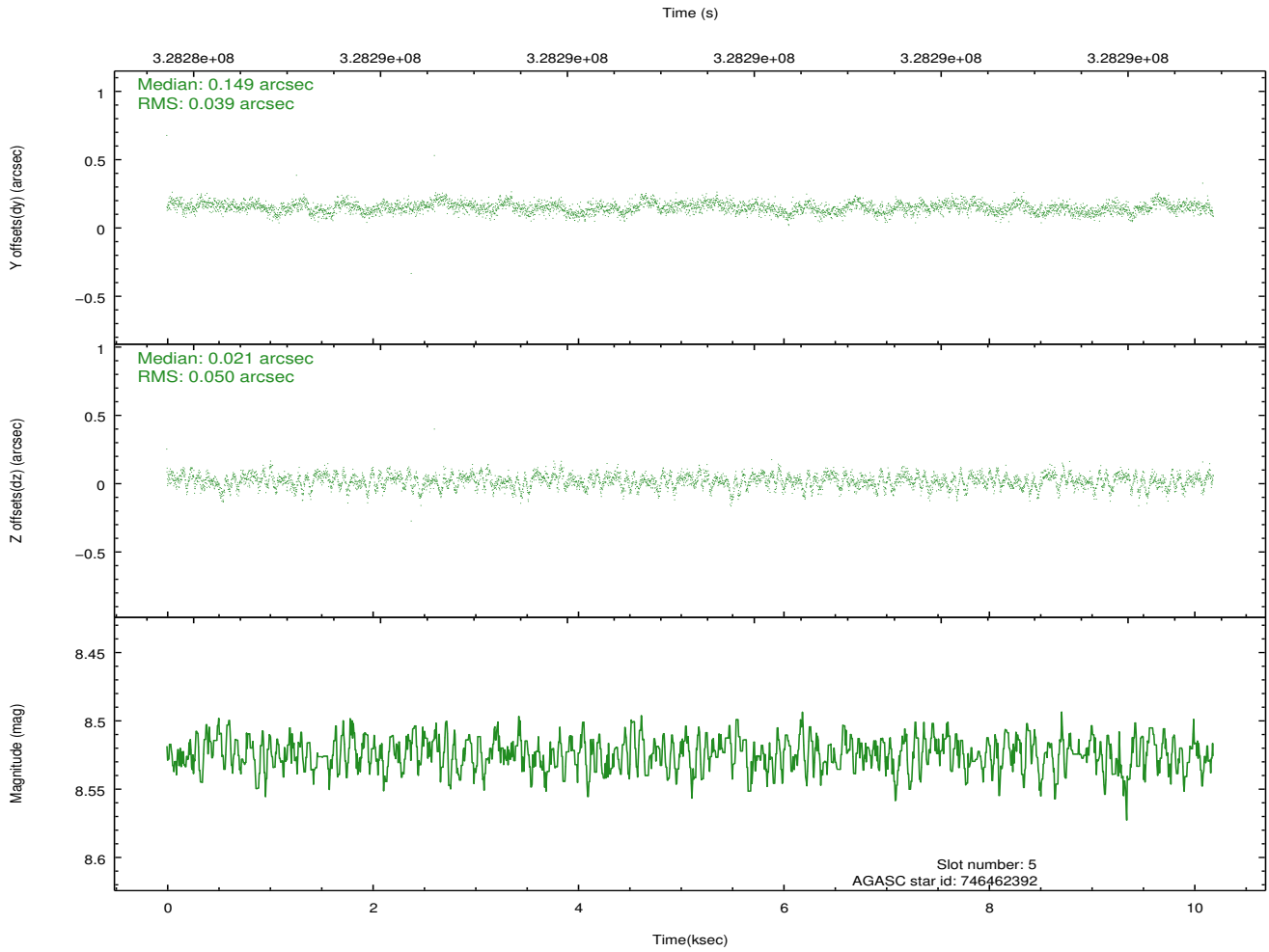
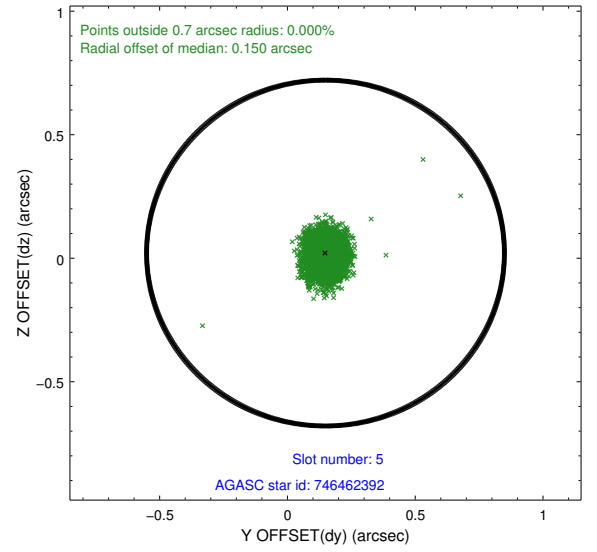
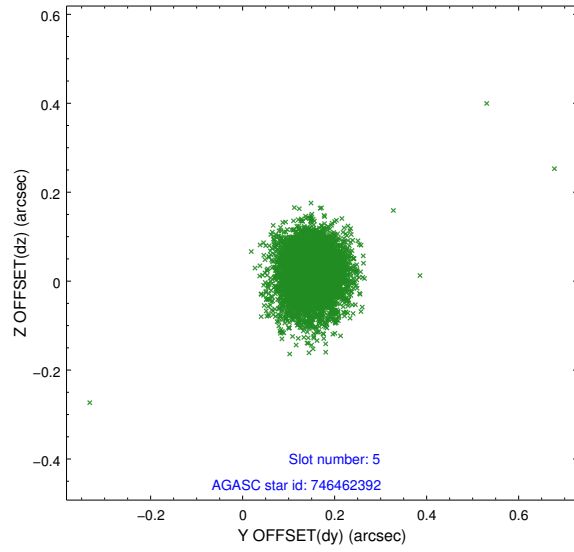
### 2.4.1 Slot 3



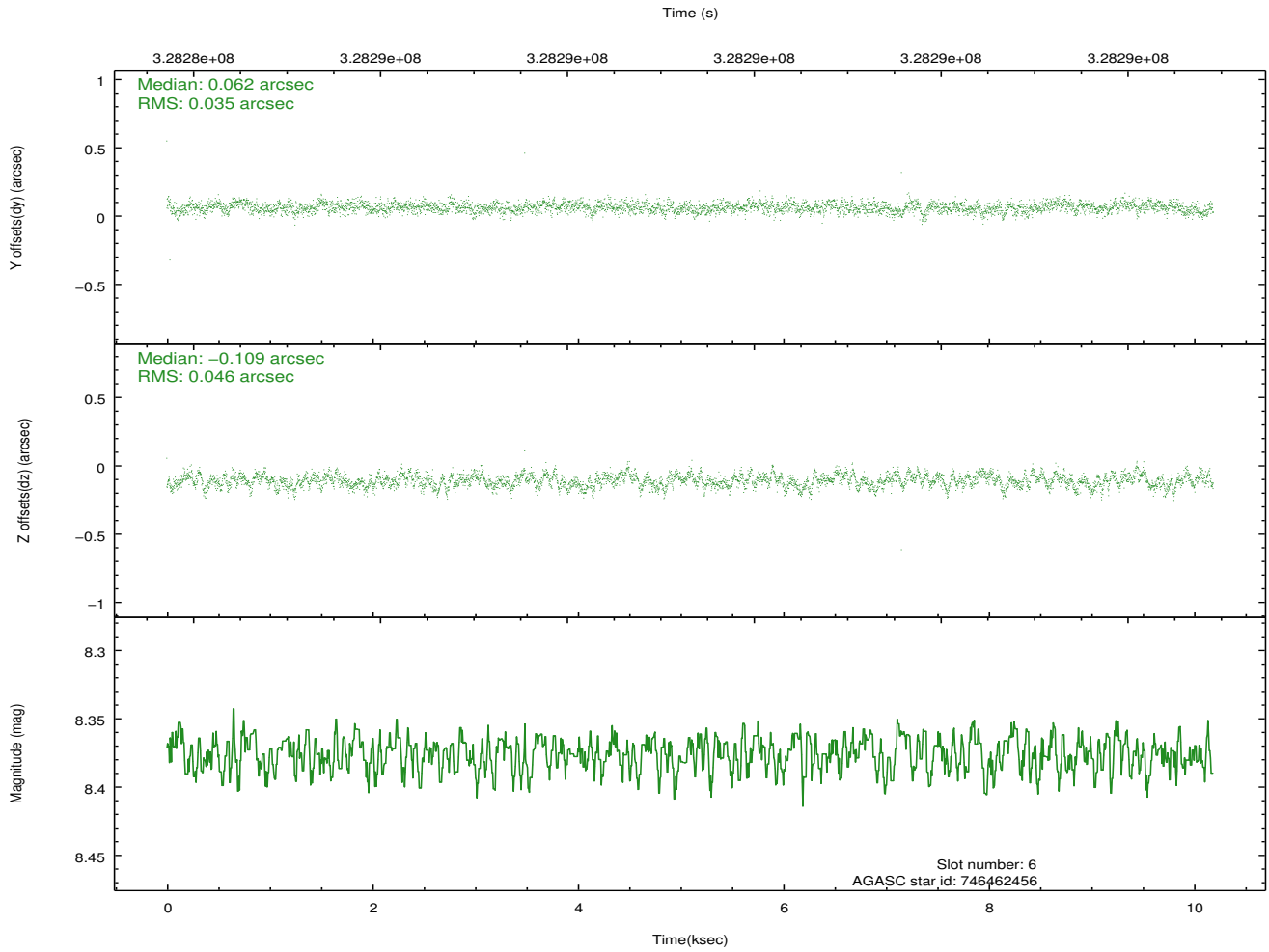
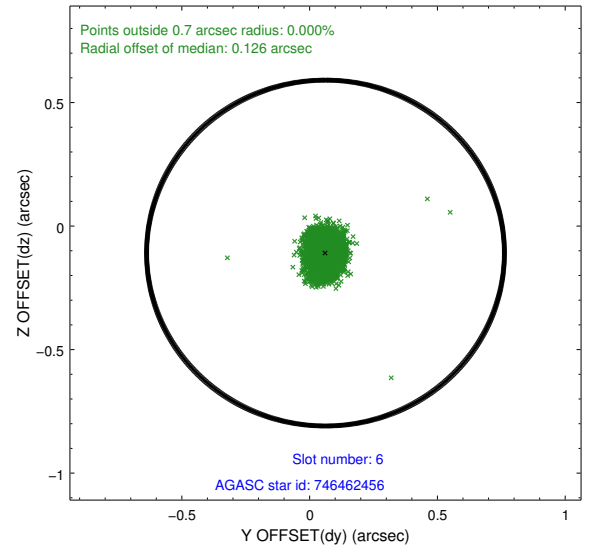
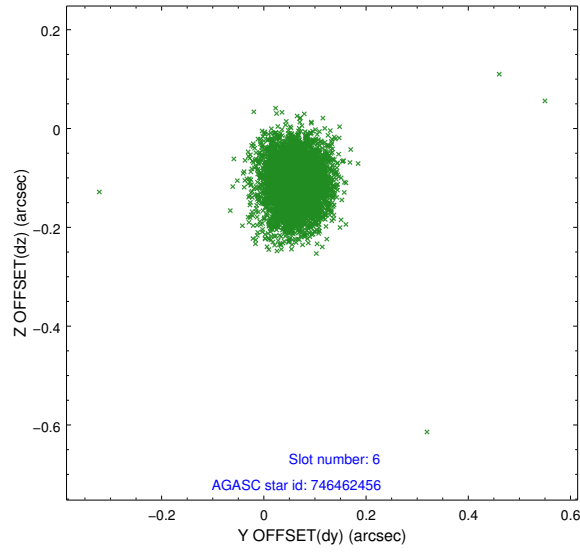
## 2.4.2 Slot 4



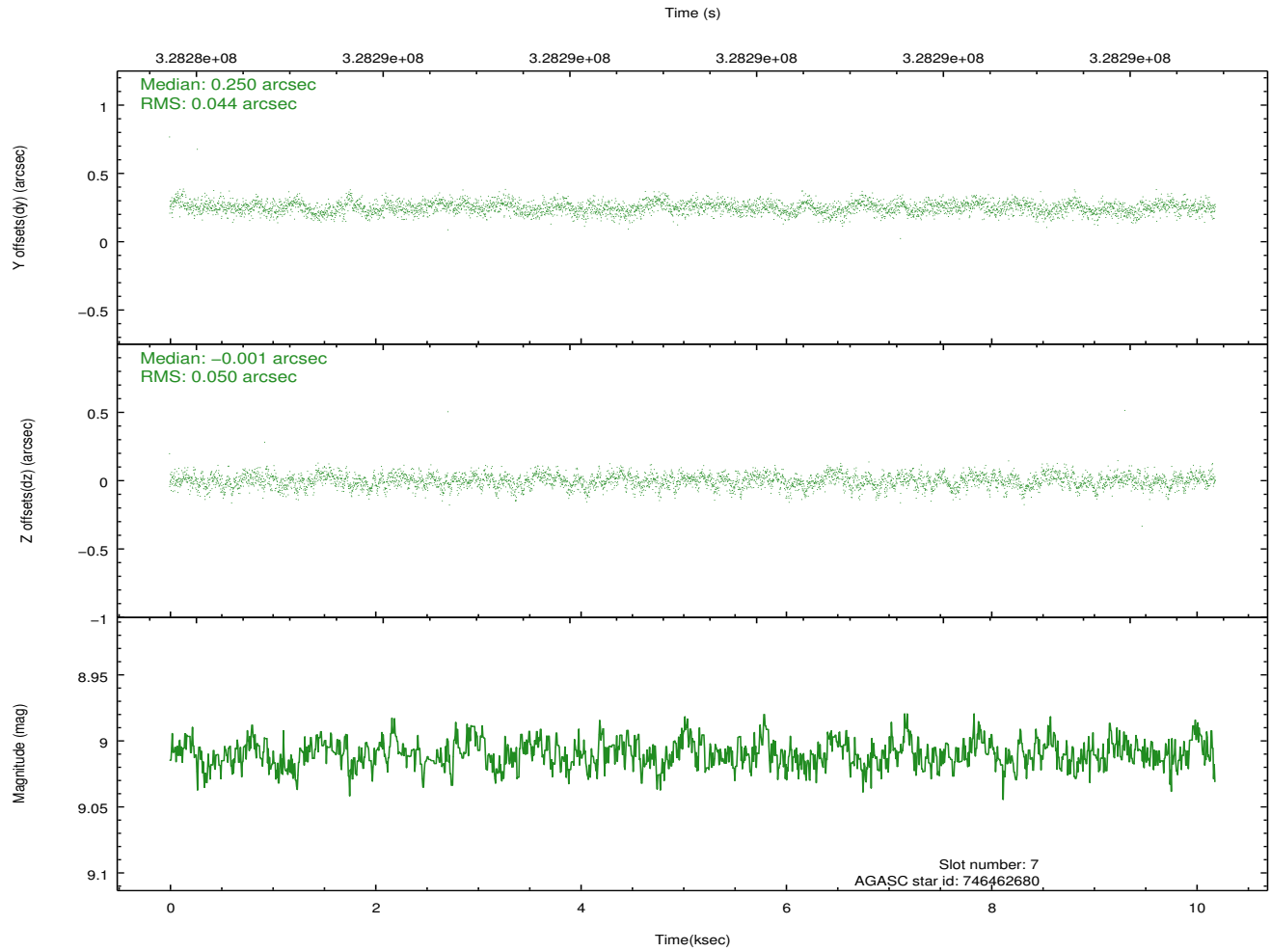
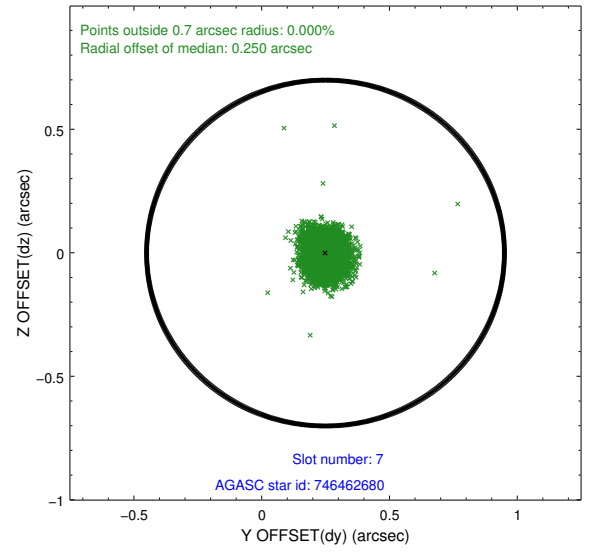
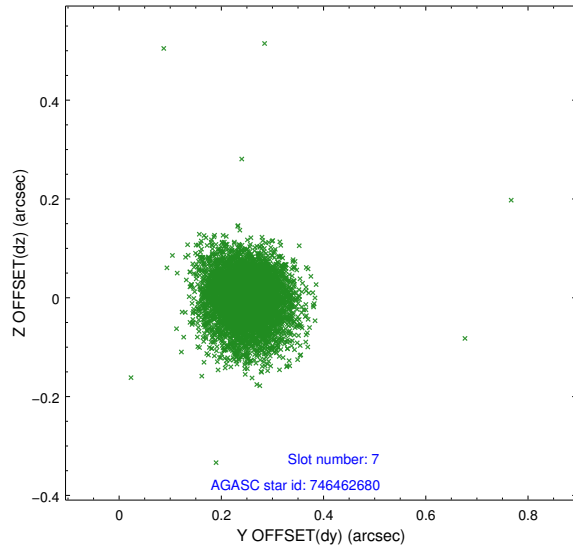
### 2.4.3 Slot 5



## 2.4.4 Slot 6

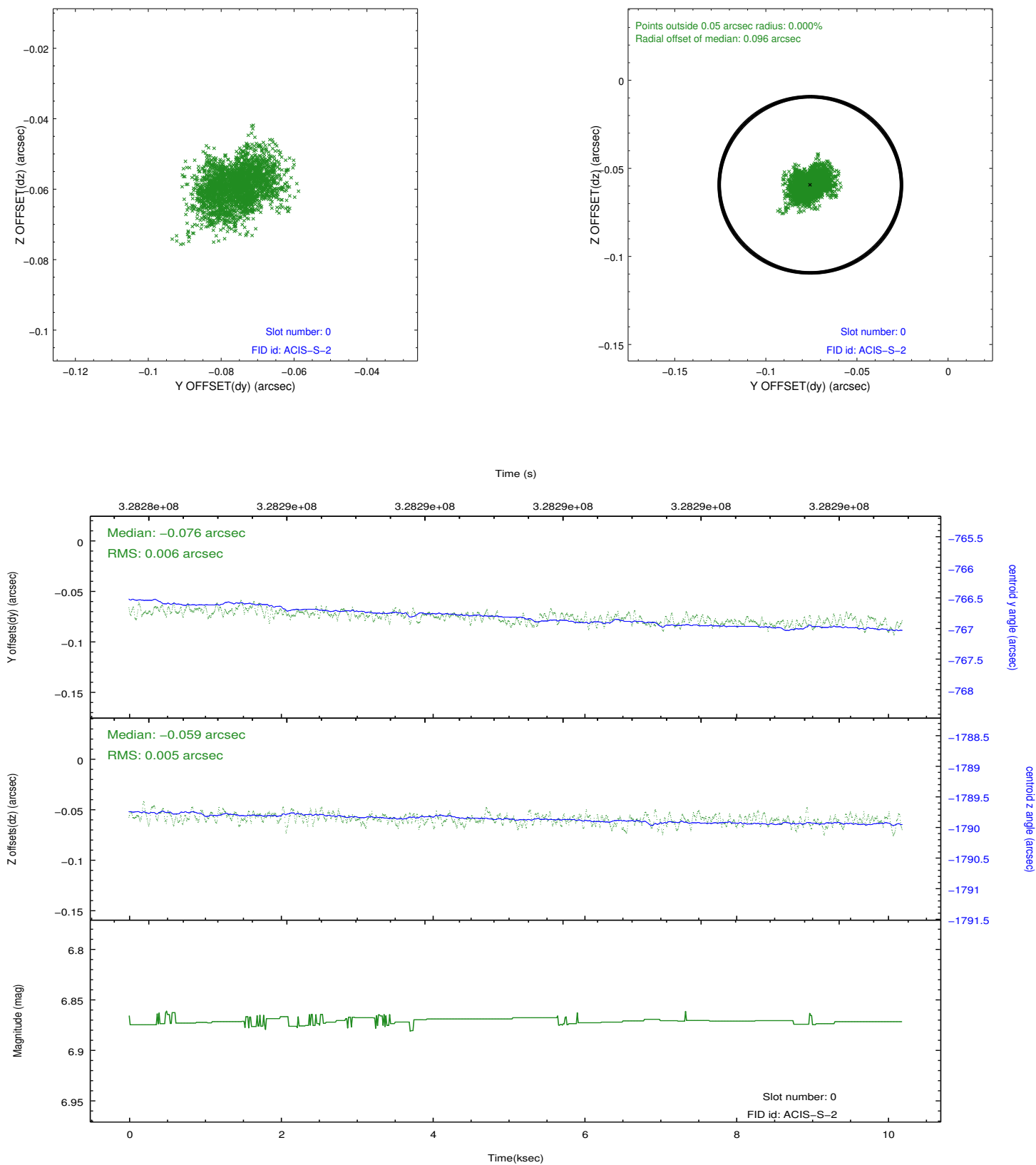


## 2.4.5 Slot 7

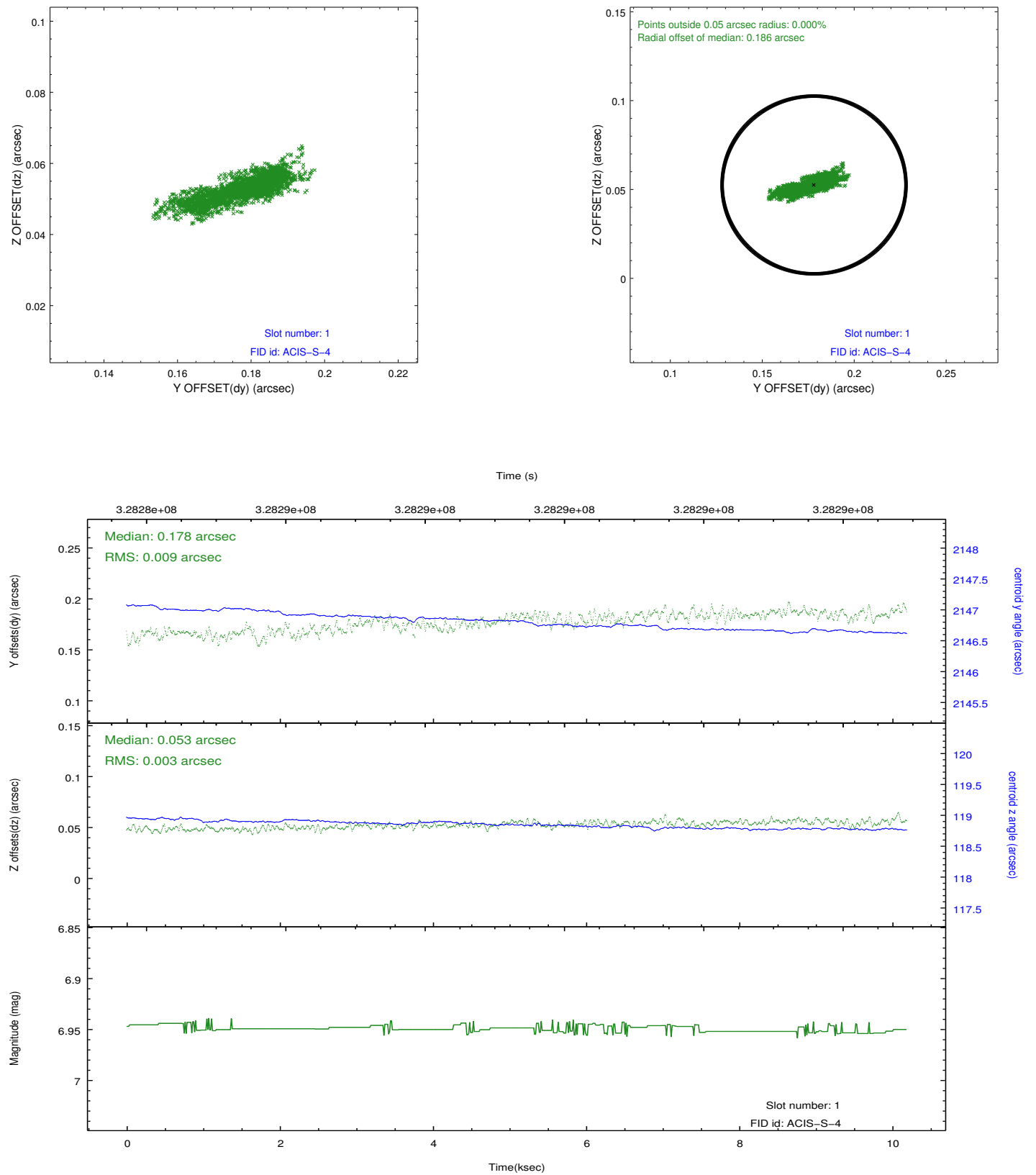


## 2.5 FID Slots

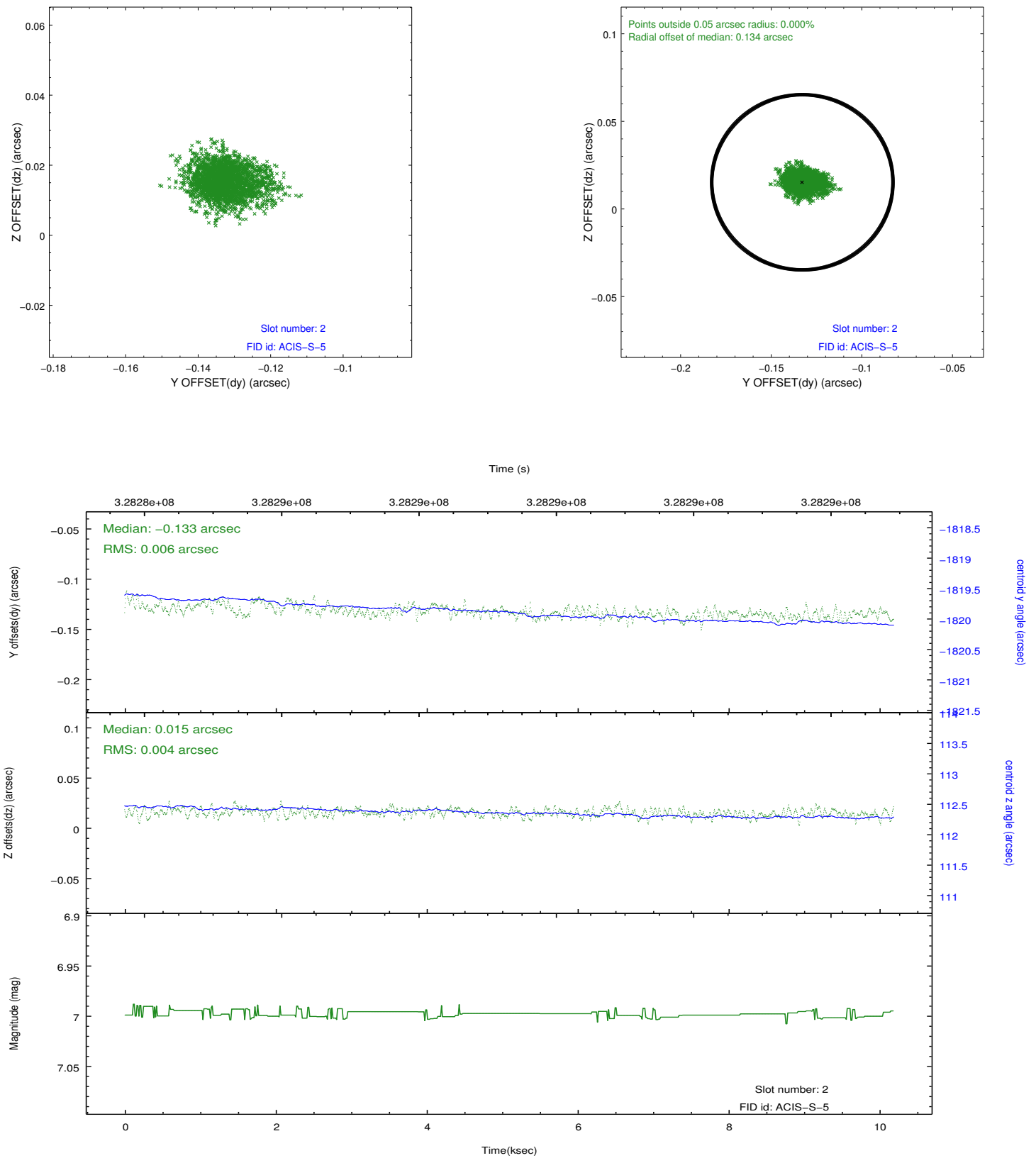
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.184

### A.2 Comments

All flight grades except 255 telemetered. Target is off-axis and therefore extended.