

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 15598 - L2 Version 2  
Chandra X-Ray Center

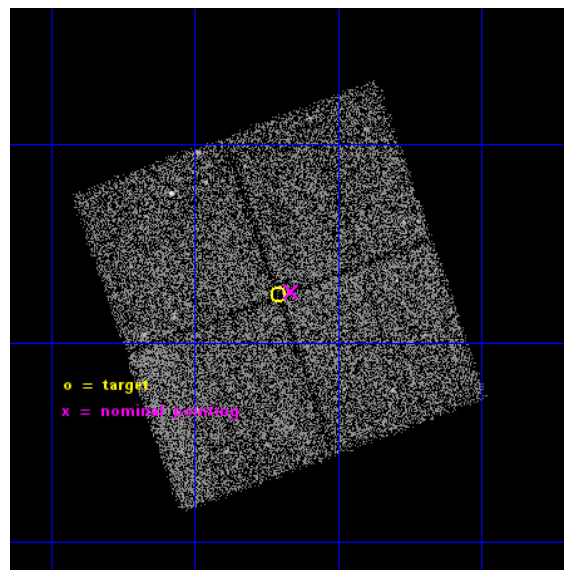
L2 Processing Date : Nov 30 2014

## 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	901038	Sequence number
obs_id	15598	Observation id
title	The COSMOS Legacy Survey	Proposal title
observer	Dr Francesca Civano	Principal investigator
object	COSMOS Legacy	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	150.42705	Observer's specified target RA [deg]
dec_targ	2.540617	Observer's specified target Dec [deg]
ra_nom	150.41562540464	Nominal RA [deg]
dec_nom	2.543213770994	Nominal Dec [deg]
roll_nom	70.209191047103	Nominal Roll [deg]
revision	2	Processing version of data
ontime	22487.400172949	Sum of GTIs [s]
livetime	22193.585734706	Livetime [s]
ontime0	22487.400172949	Sum of GTIs [s]
ontime1	22487.400172949	Sum of GTIs [s]
ontime2	22484.259172738	Sum of GTIs [s]
ontime3	22487.400172949	Sum of GTIs [s]
l2events	48267	Number of level 2 events

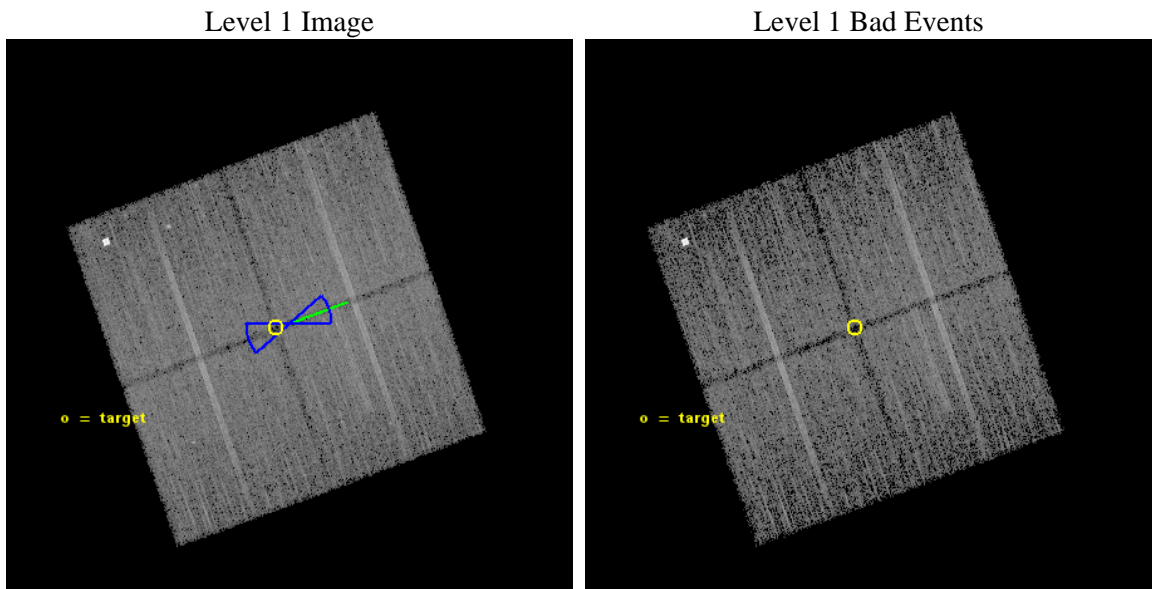




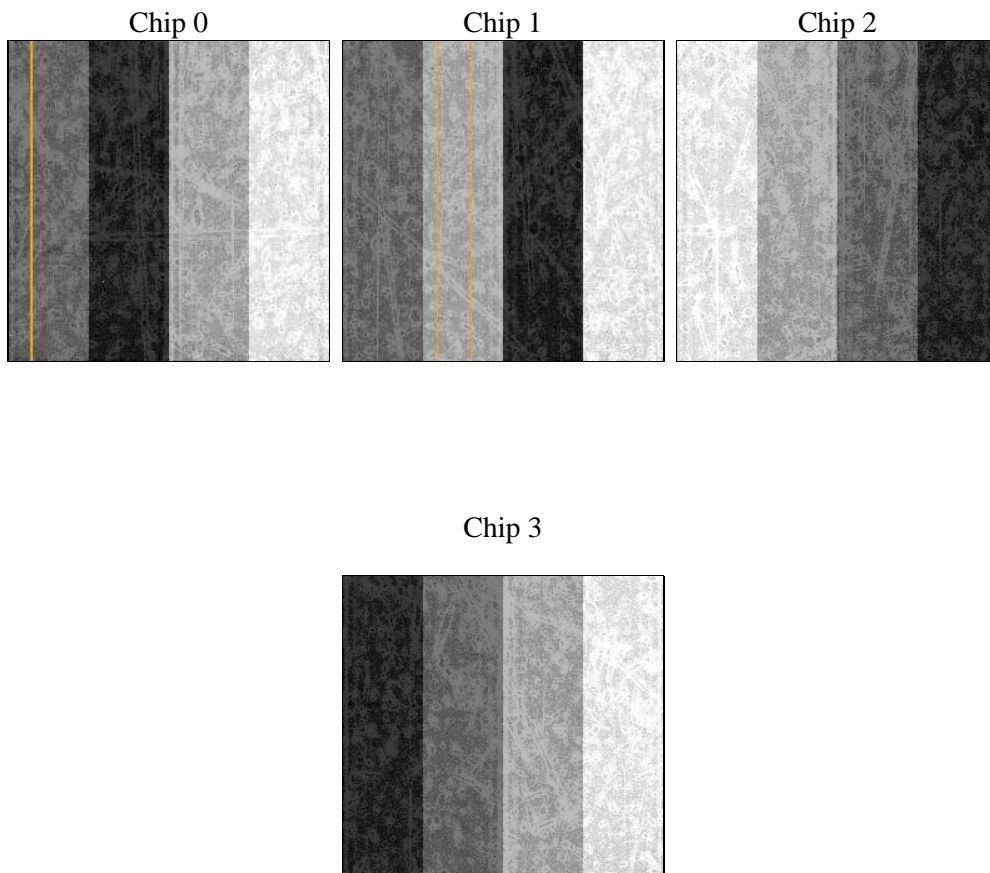
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22400.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	22487.400172949	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	22487.400172949	Sum of GTIs [s]
date	2014-11-30T07:44:14	Date and time of file creation	ontime1	22487.400172949	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	22484.259172738	Sum of GTIs [s]
			ontime3	22487.400172949	Sum of GTIs [s]
			l1events	464047	Number of level 1 events

### 2.1.4 Events

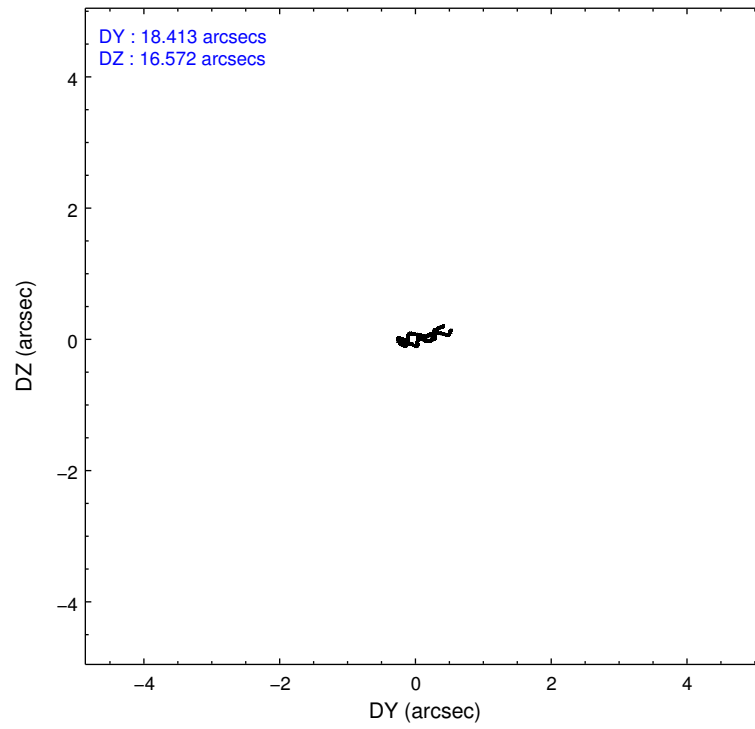
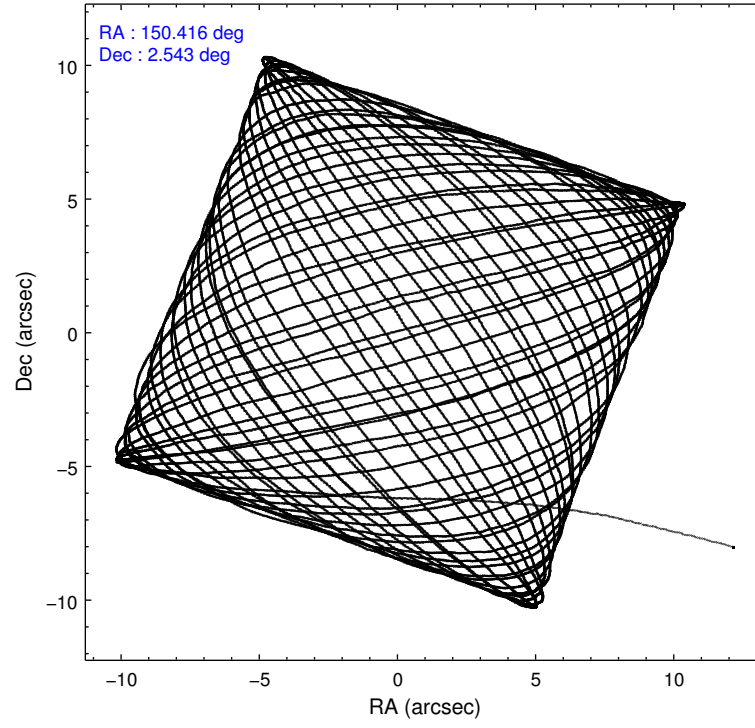
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	121112	108833	118572	115530
rejected events	106710	92929	104853	101933
rejected %	88%	85%	88%	88%

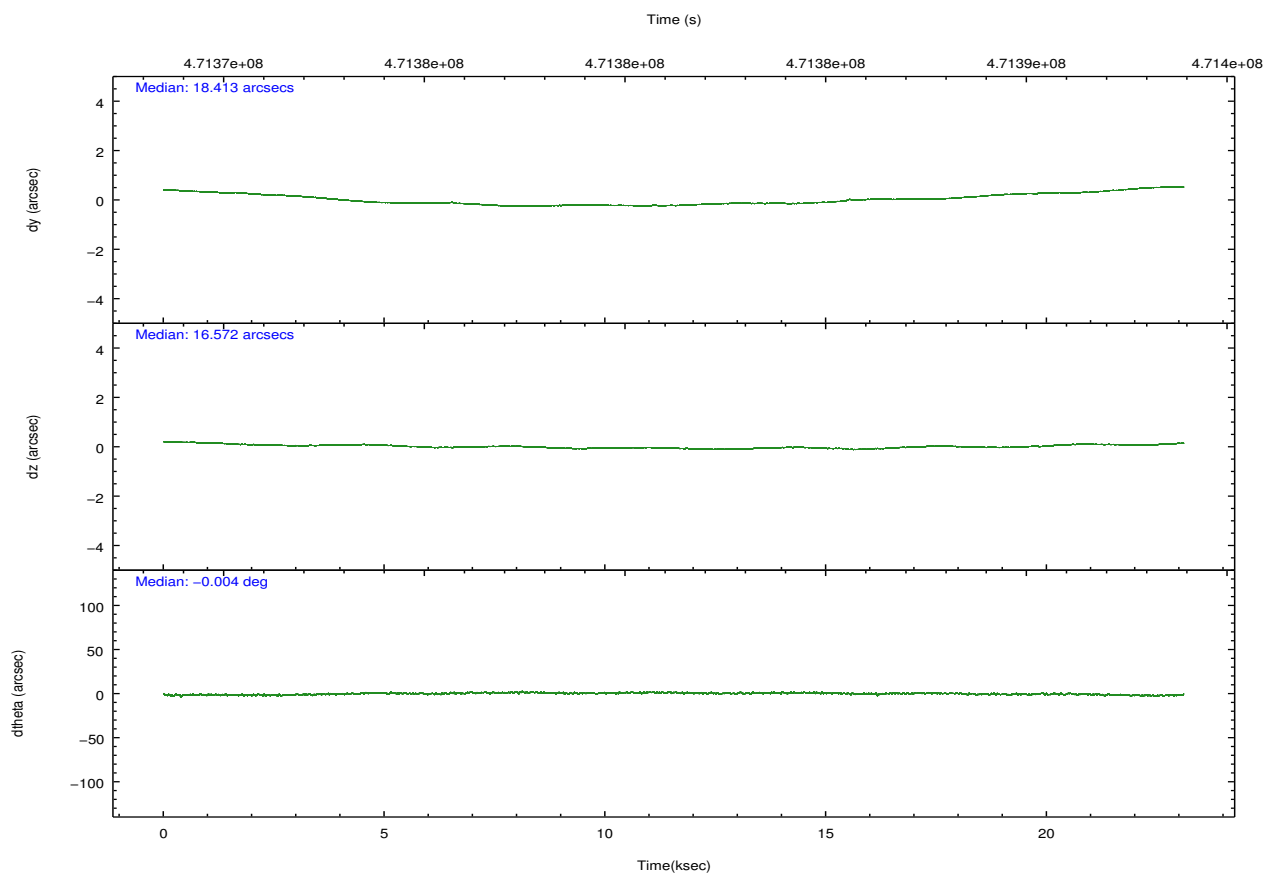
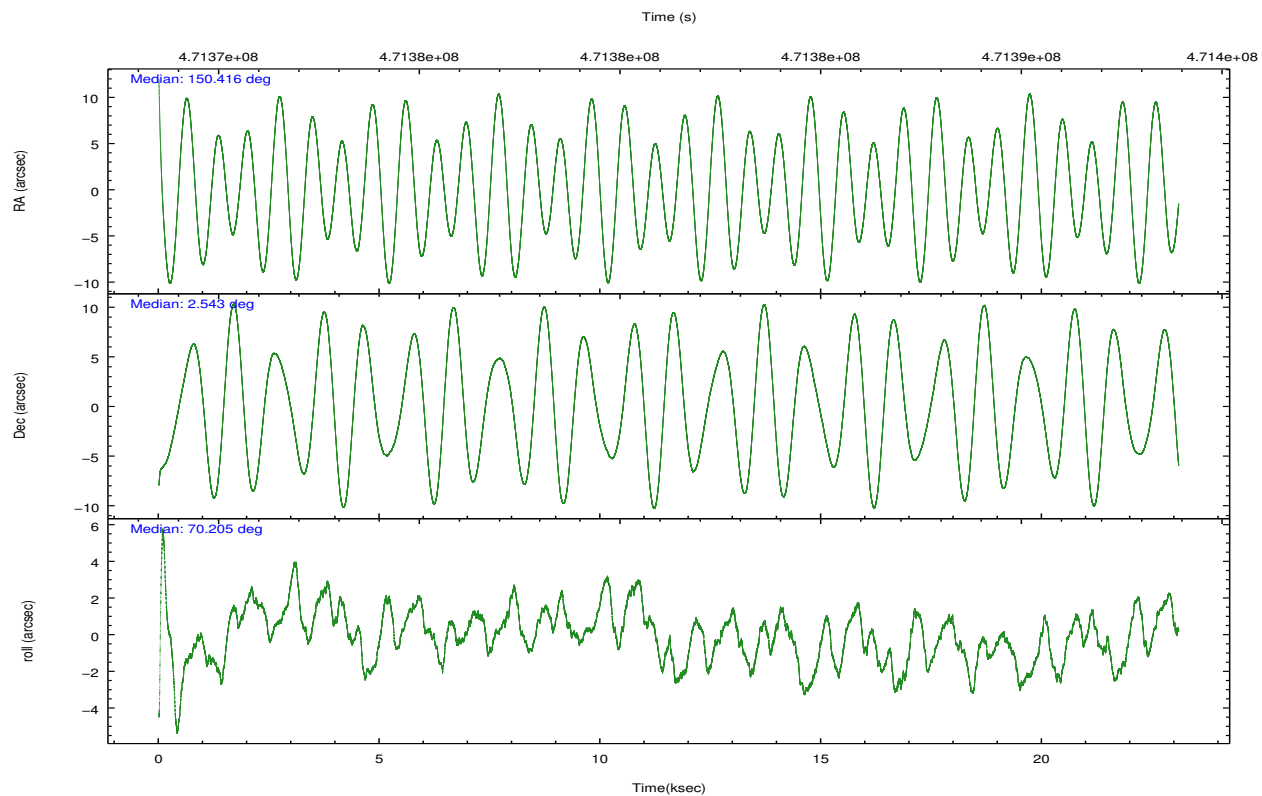
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	5164	5655	4809	4774
	4%	5%	4%	4%
grade 1 events	14048	67	58	66
	11%	0%	0%	0%
grade 2 events	3496	3778	3517	3000
	2%	3%	2%	2%
grade 3 events	1445	1553	1422	1484
	1%	1%	1%	1%
grade 4 events	1421	1535	1380	1462
	1%	1%	1%	1%
grade 5 events	5480	5930	5196	6300
	4%	5%	4%	5%
grade 6 events	2880	3383	2593	2877
	2%	3%	2%	2%
grade 7 events	87178	86932	99597	95567
	71%	79%	83%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	150.420633	150.4156254046397	Subarray requested	NONE	NONE
[deg] Pointing Dec	2.516166	2.543213770993971	Alternating exposures requested	N	N
[deg] Pointing Roll	70.000294	70.20919104710279	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	250.000000	250.000000			
[deg] Roll tolerance	20.000000	20.000000			
Roll constraint allows 180D rotation	Y	Y			
[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)	471370373.184000	471368904.68263			
Observation start date	2012-12-08T16:11:46	2012-12-08T15:48:24			
[s] Observation end time (MET)	471392773.184000	471393589.24646			
Observation end date	2012-12-08T22:25:06	2012-12-08T22:39:49			
Read mode	TIMED	TIMED			

## 2.3 Aspect



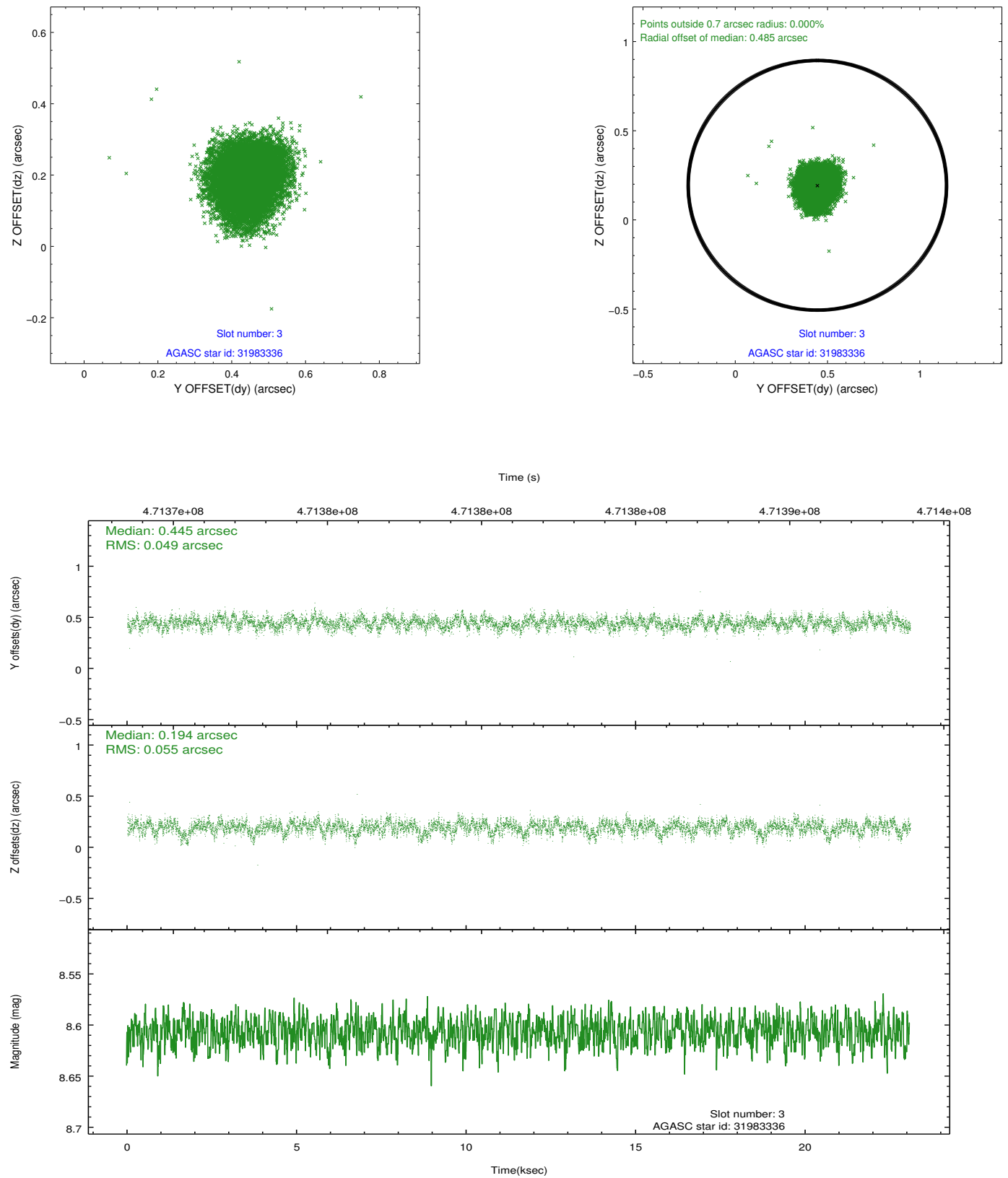


### Slot Statistics

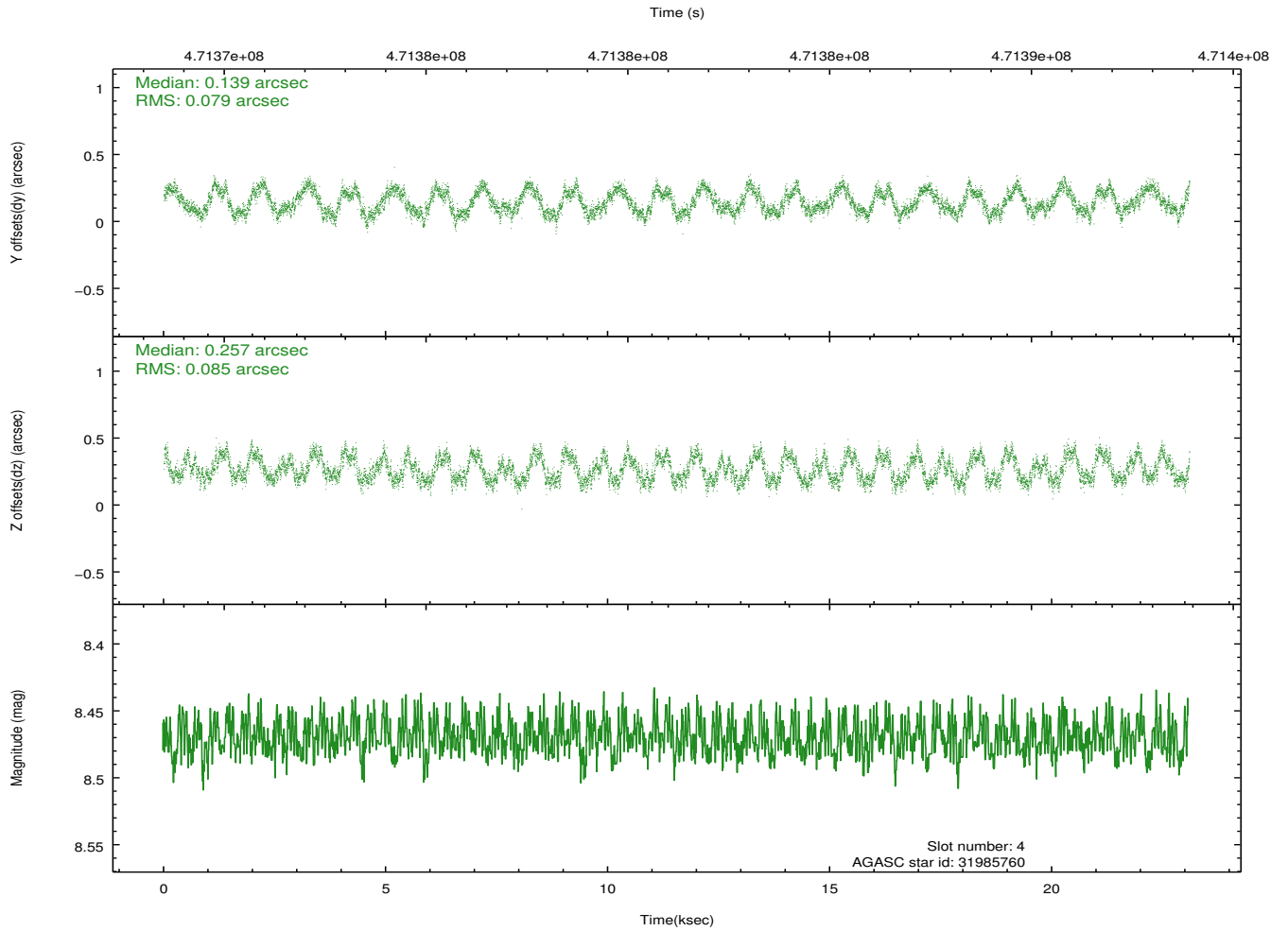
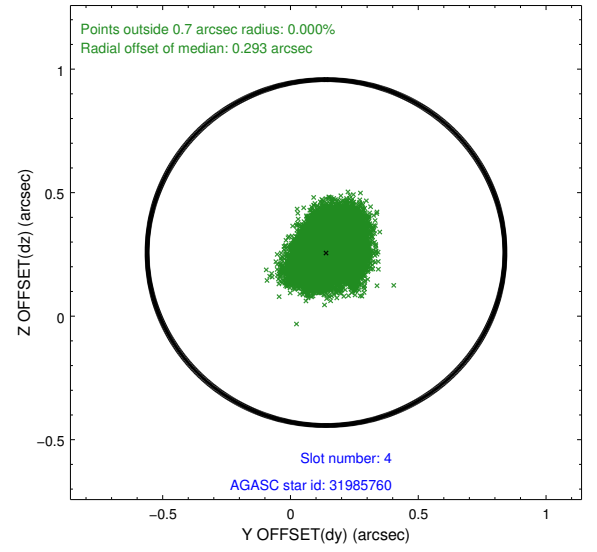
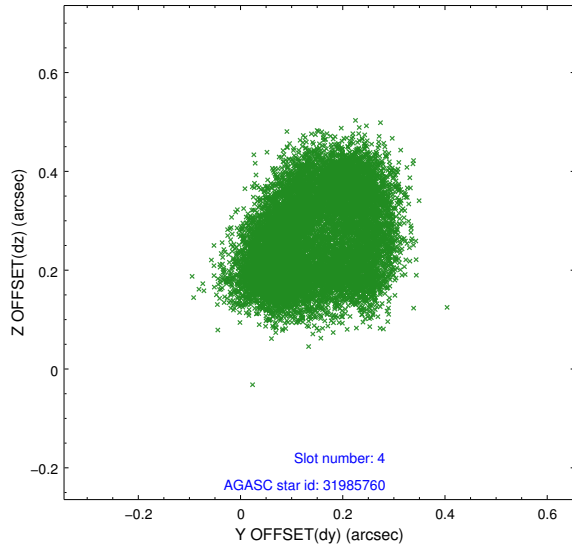
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	5632	-0.028	-0.092	0.009	0.016	0.000000	0.000000	920.92	-840.29
1	FID		ACIS-I-4	7.00	5633	0.232	0.101	0.010	0.017	0.000000	0.000000	2141.25	1059.67
2	FID		ACIS-I-5	7.06	5633	-0.303	0.062	0.010	0.020	0.000000	0.000000	-1827.22	1057.54
3	GUIDE	used	31983336	8.61	11239	0.445	0.194	0.079	0.125	150.429924	2.291234	-748.55	-308.01
4	GUIDE	used	31985760	8.47	11267	0.139	0.257	0.127	0.180	150.924581	2.094394	-806.14	-2222.35
5	GUIDE	used	31986152	8.99	11261	0.065	-0.046	0.148	0.254	150.840314	2.057585	-1034.44	-1983.00
6	GUIDE	used	32374896	9.21	11185	-0.228	0.120	0.126	0.197	150.682269	2.512794	310.49	-888.34
7	GUIDE	used	32387968	9.19	11258	-0.424	-0.525	0.103	0.165	150.106347	3.119099	1653.50	1803.80

## 2.4 Star Slots

### 2.4.1 Slot 3

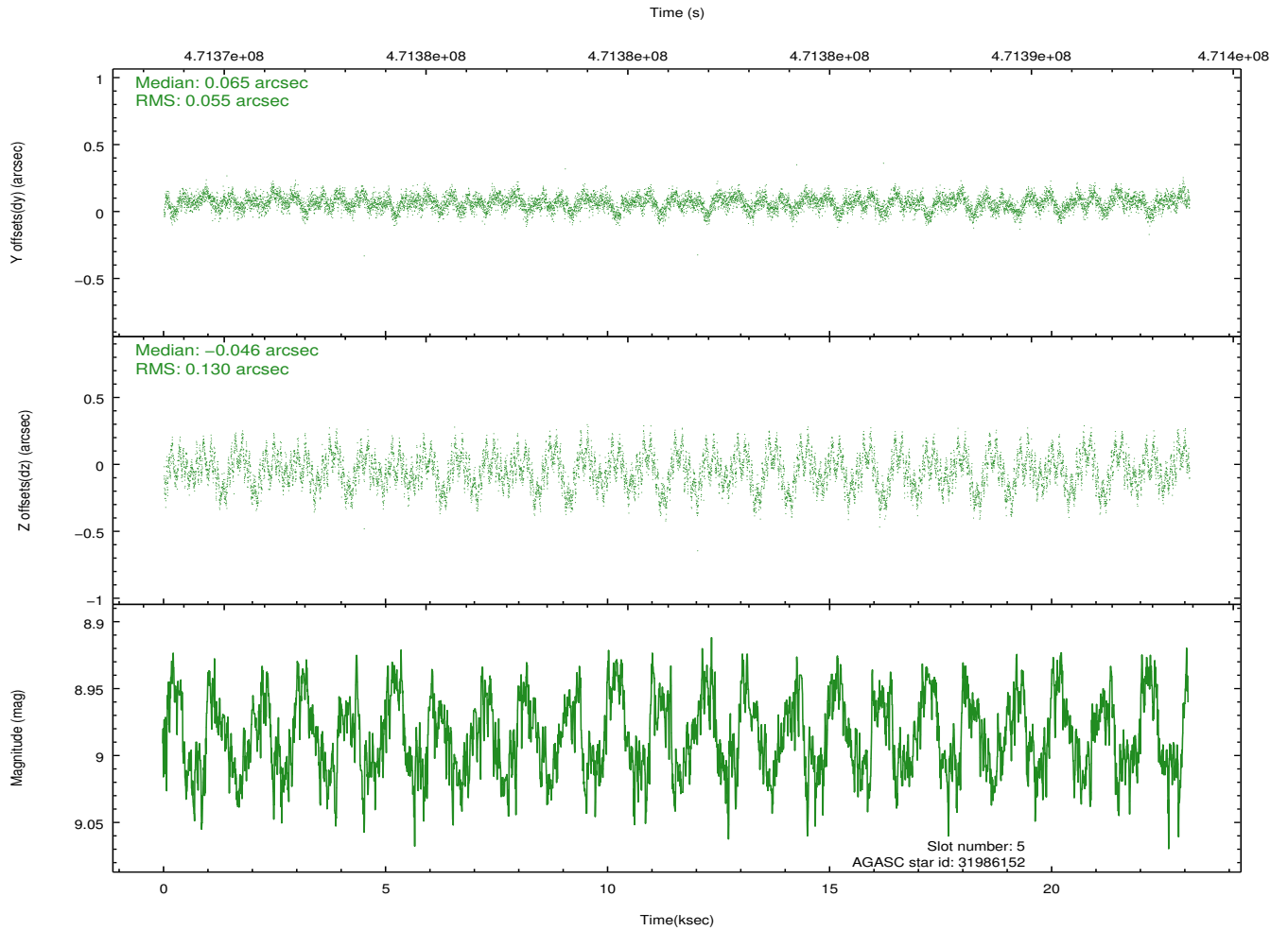
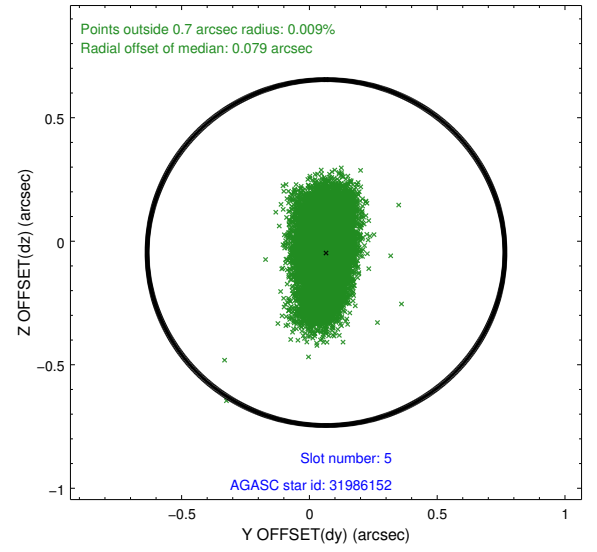
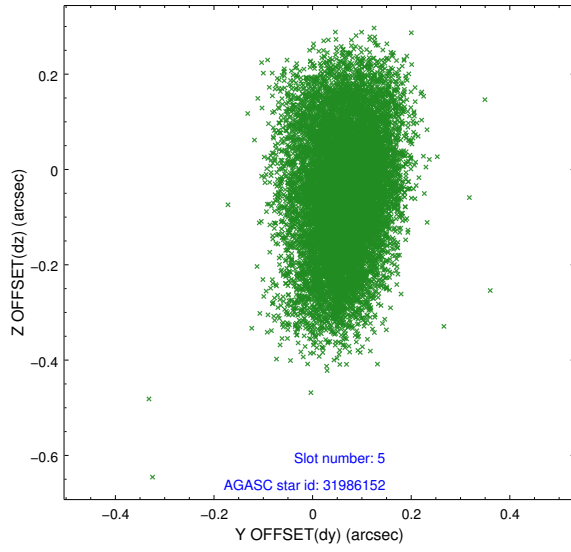


## 2.4.2 Slot 4

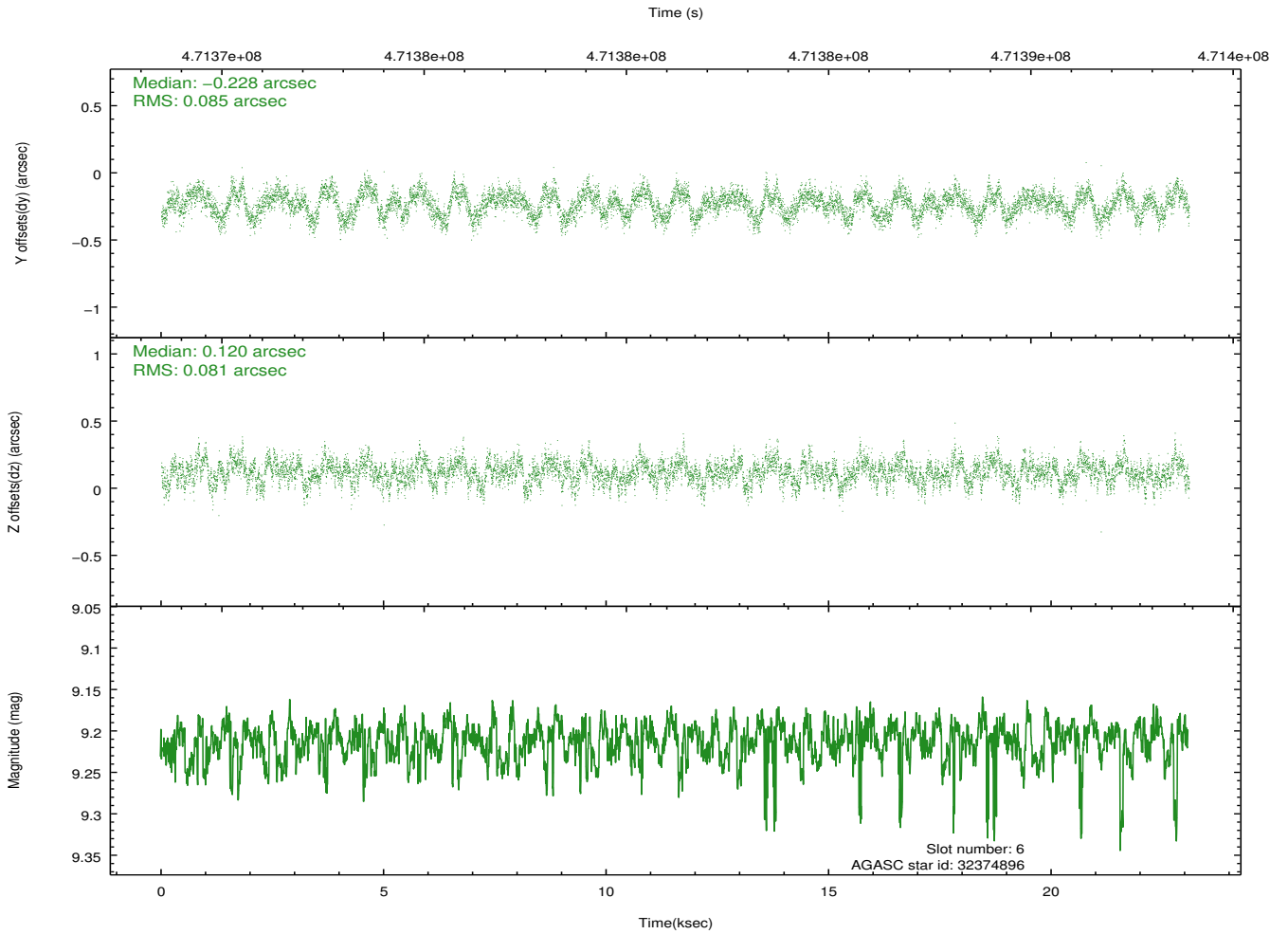
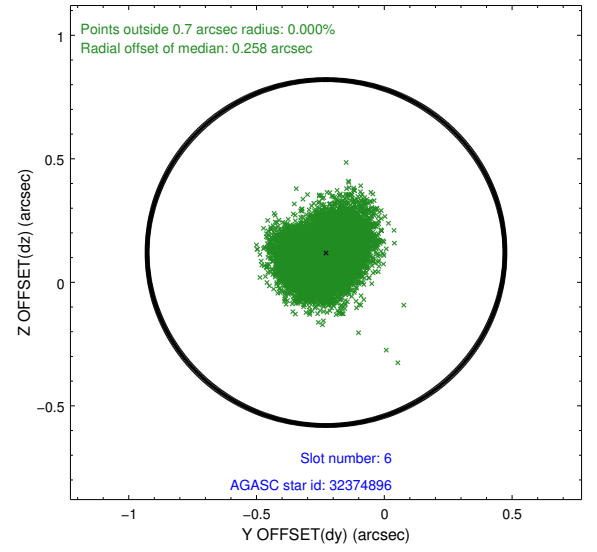
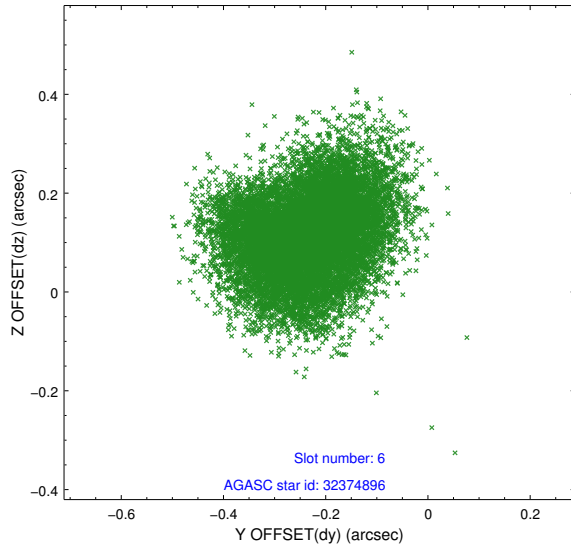




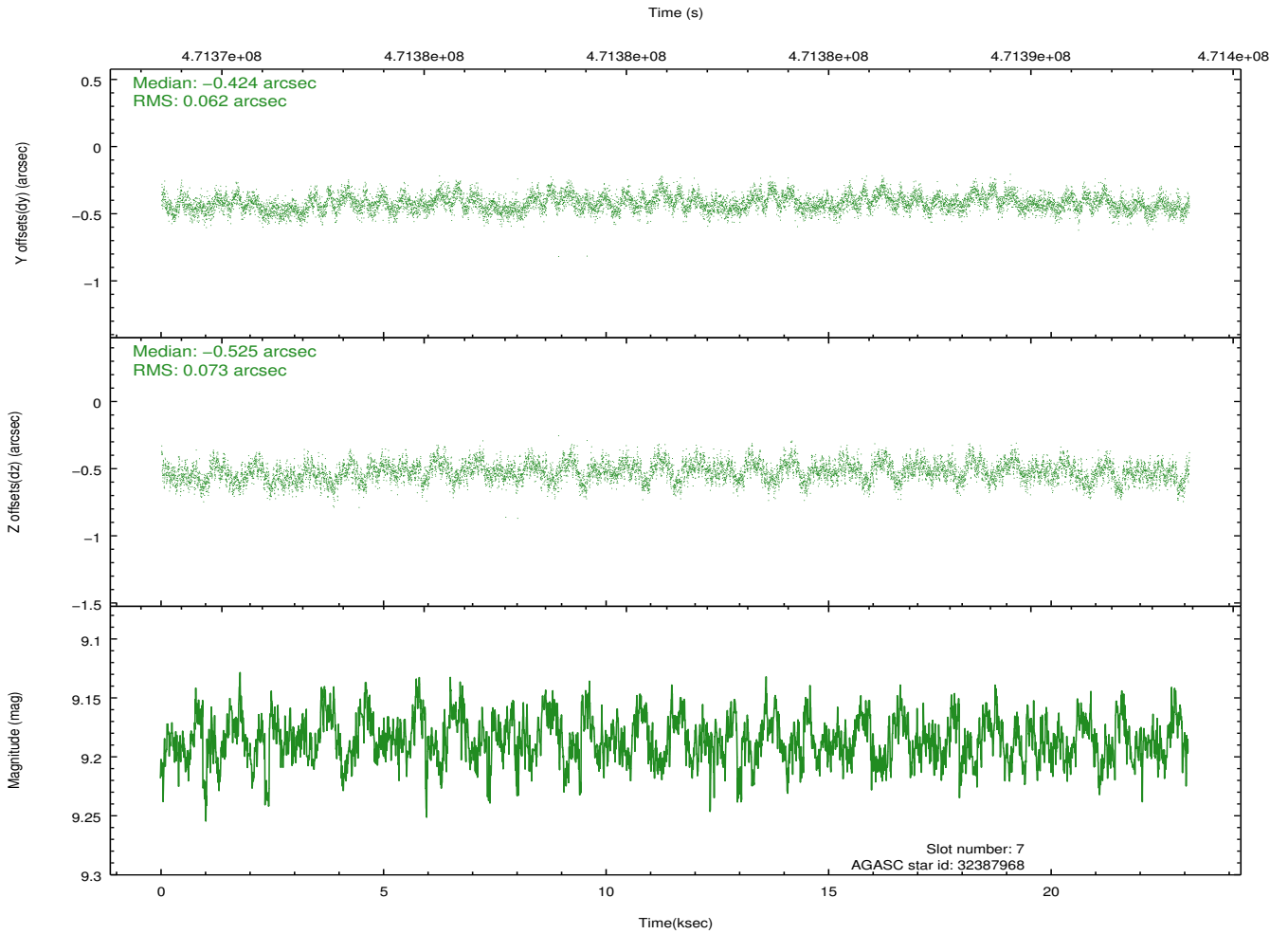
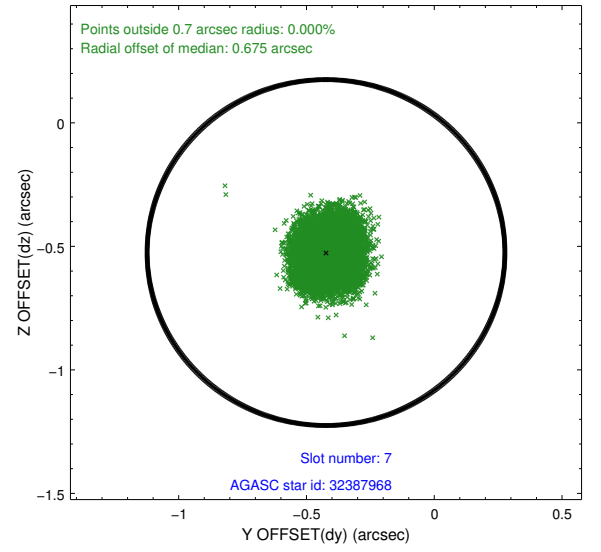
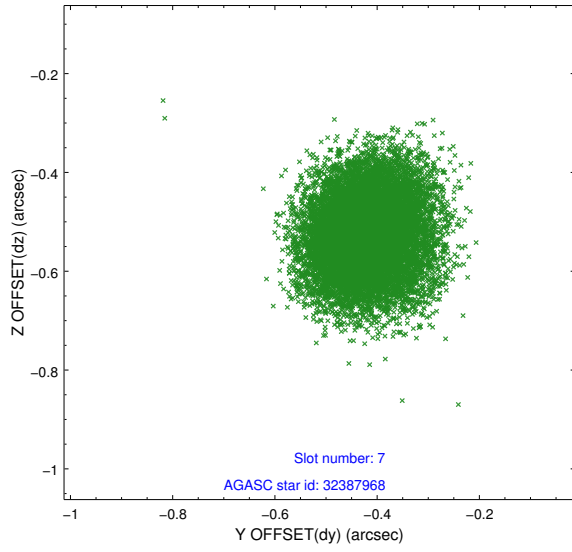
### 2.4.3 Slot 5



## 2.4.4 Slot 6

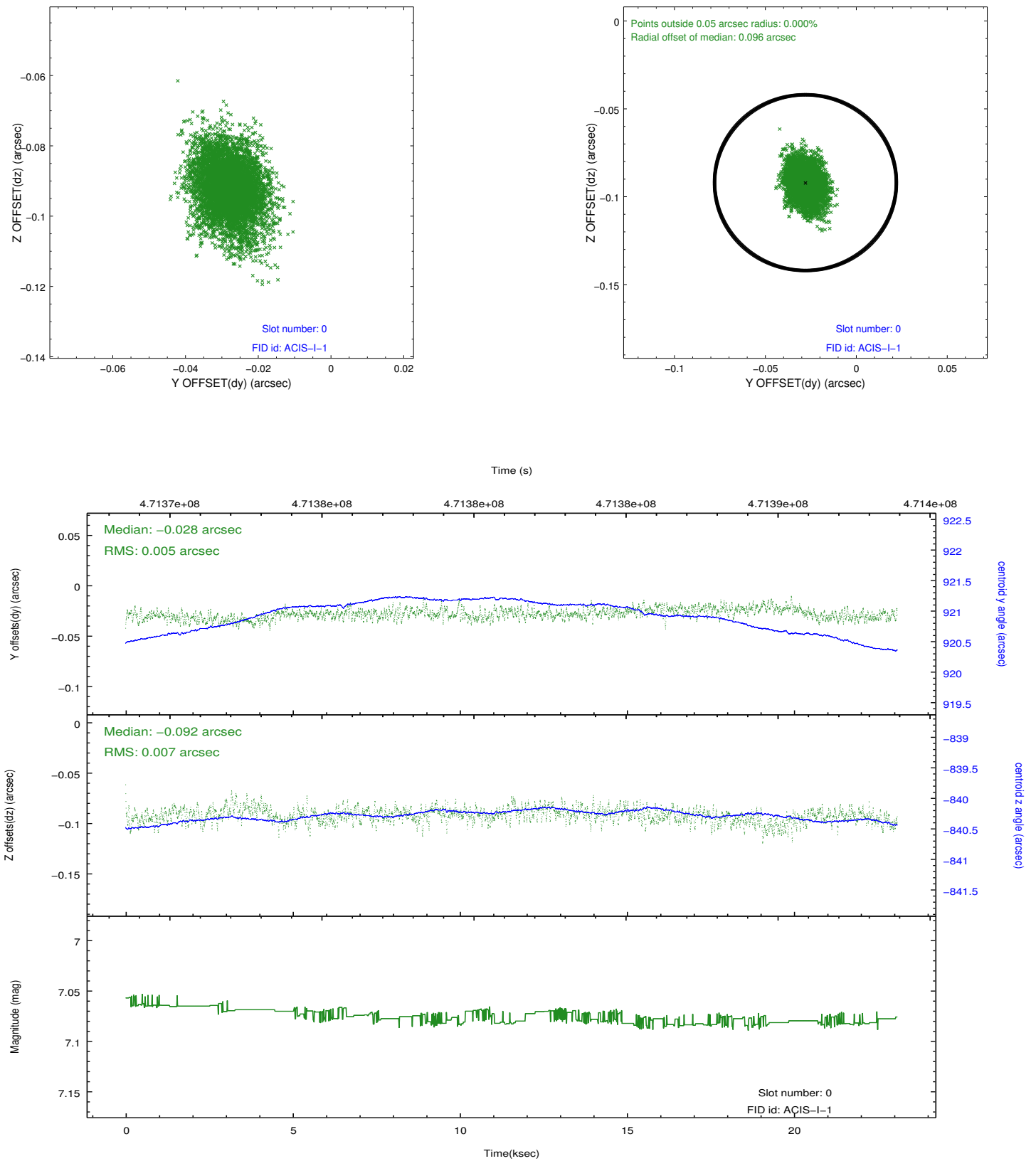


## 2.4.5 Slot 7

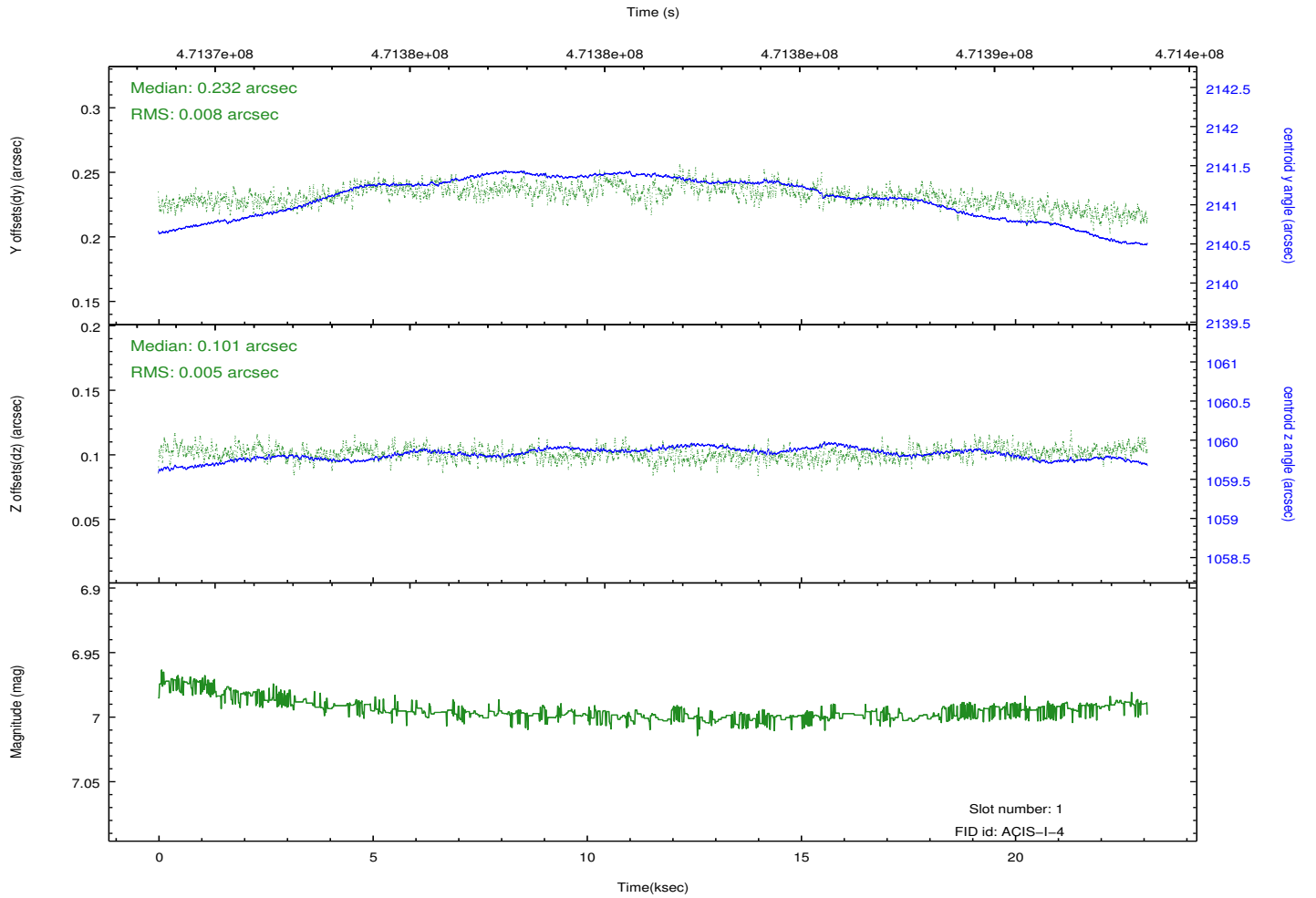
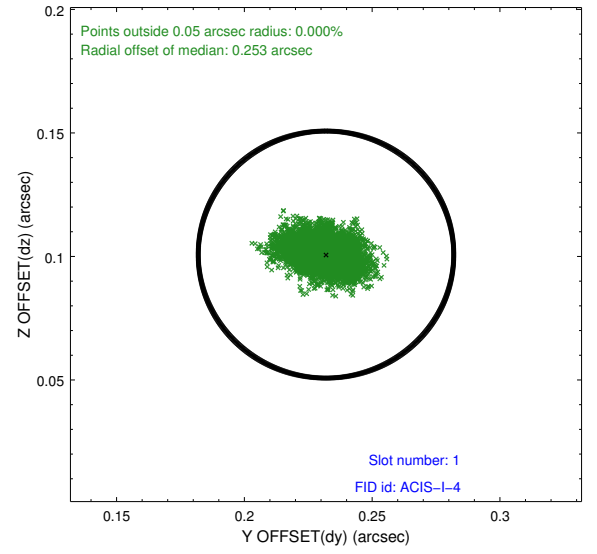
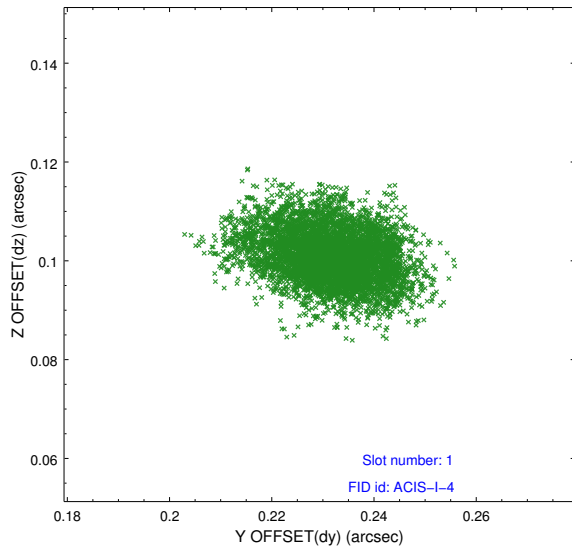


## 2.5 FID Slots

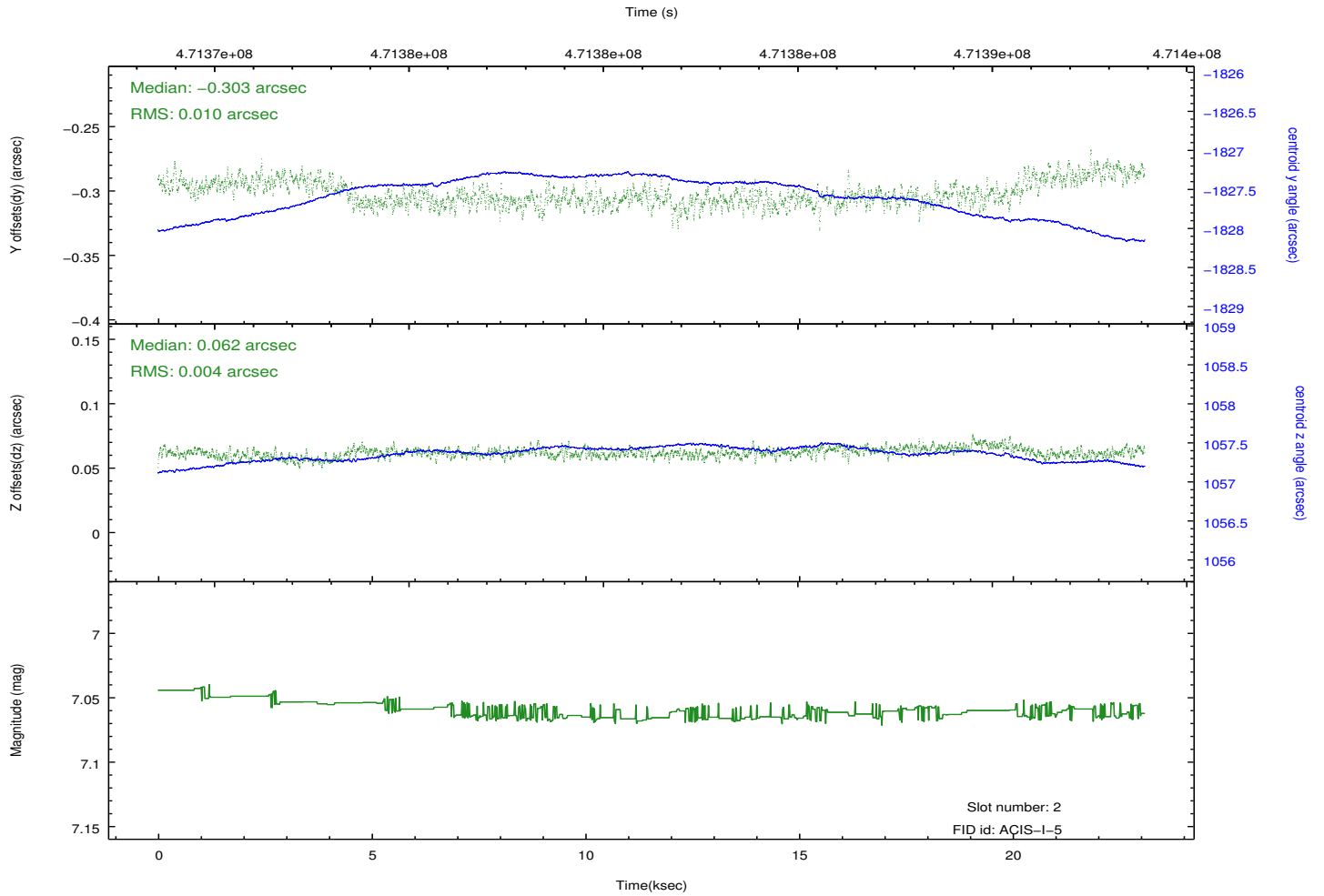
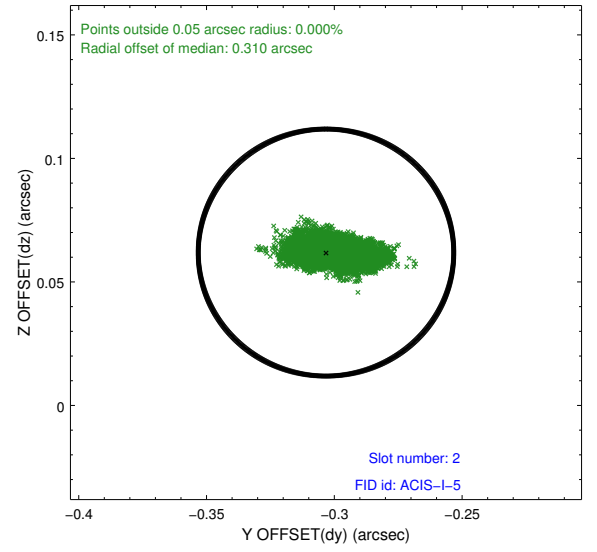
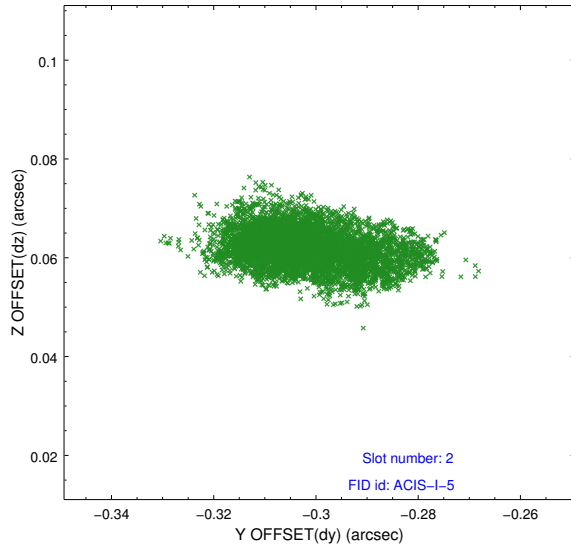
### 2.5.1 Slot 0



## 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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.487400172949

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.