

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 676 - L2 Version 3  
Chandra X-Ray Center

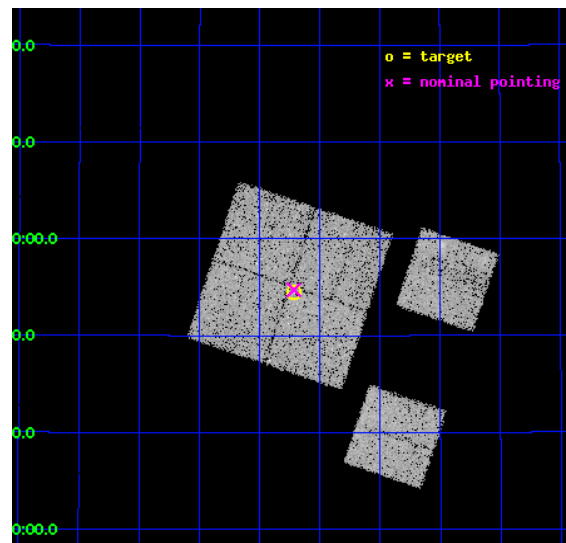
L2 Processing Date : Sep 2 2012

## 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	400043	Sequence number
obs_id	676	Observation id
title	BLACK HOLE EVENT HORIZONS AND ADVECTION-DOMINATED ACCRETION	Propos
observer	Dr. Jeffrey McClintock	Principal investigator
object	GRO J0422+32	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	65.428333	Observer's specified target RA [deg]
dec_targ	32.9075	Observer's specified target Dec [deg]
ra_nom	65.428779519028	Nominal RA [deg]
dec_nom	32.912350656397	Nominal Dec [deg]
roll_nom	108.55935362508	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19033.559047475	Sum of GTIs [s]
livetime	18792.544662183	Livetime [s]
ontime0	19036.800017715	Sum of GTIs [s]
ontime1	19033.559077397	Sum of GTIs [s]
ontime2	19033.559047475	Sum of GTIs [s]
ontime3	19033.559047475	Sum of GTIs [s]
ontime6	19033.559047475	Sum of GTIs [s]
ontime8	19033.559057459	Sum of GTIs [s]
l2events	67601	Number of level 2 events

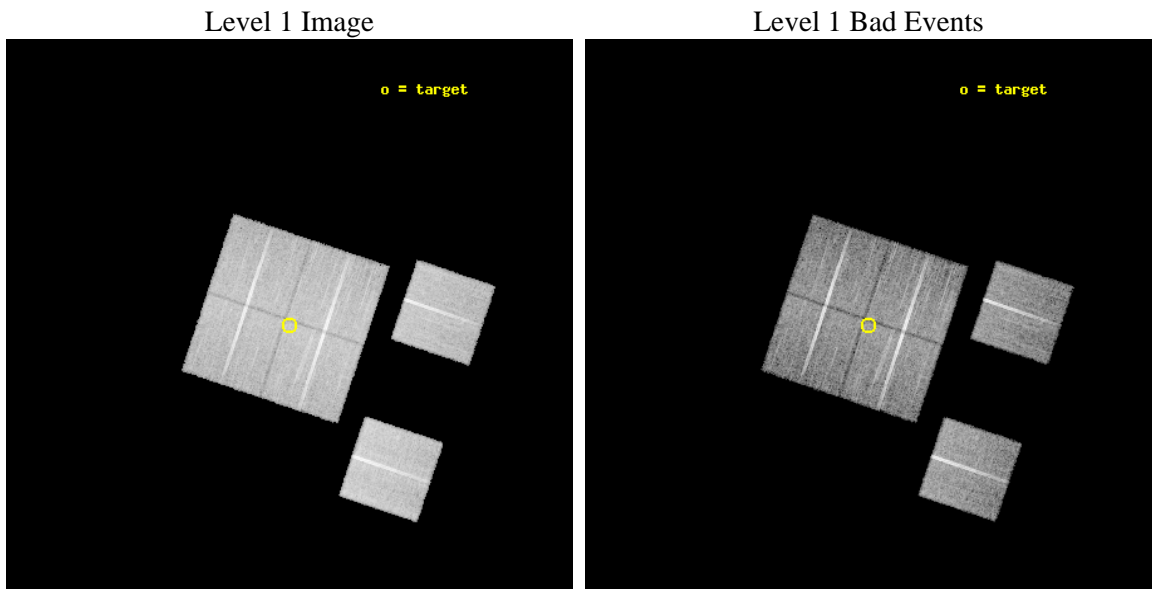




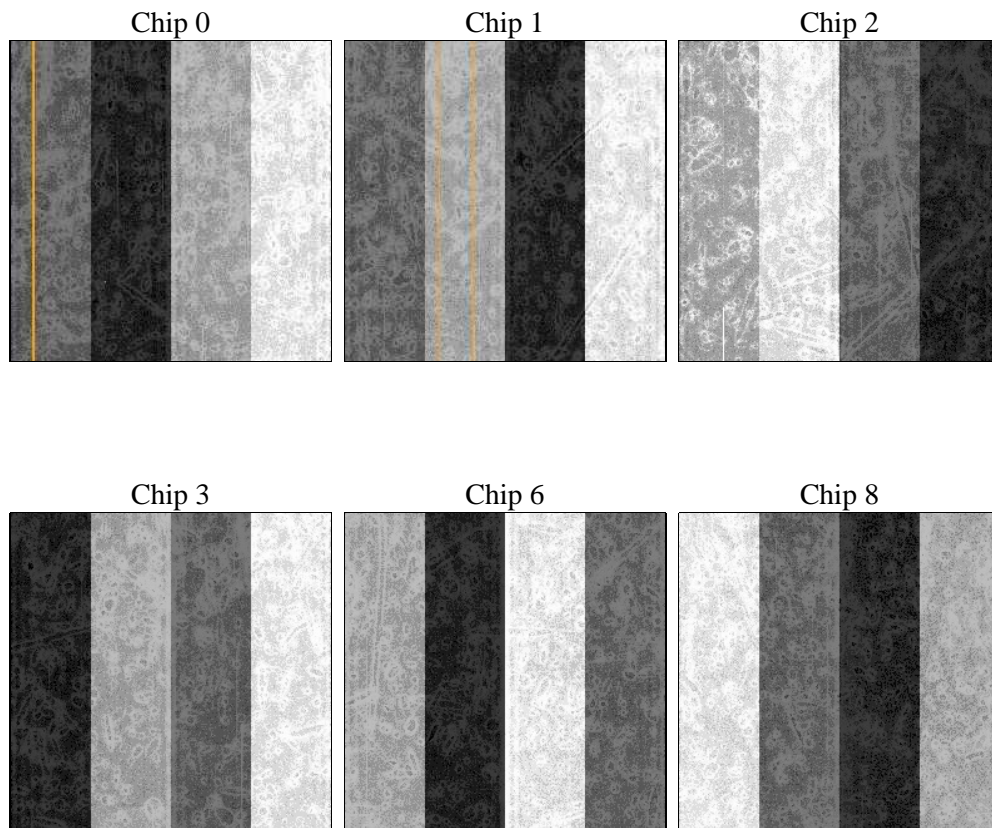
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	19033.559047475	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime0	19036.800017715	Sum of GTIs [s]
date	2012-09-02T09:55:19	Date and time of file creation	ontime1	19033.559077397	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	19033.559047475	Sum of GTIs [s]
			ontime3	19033.559047475	Sum of GTIs [s]
			ontime6	19033.559047475	Sum of GTIs [s]
			ontime8	19033.559057459	Sum of GTIs [s]
			l1events	710701	Number of level 1 events

### 2.1.4 Events

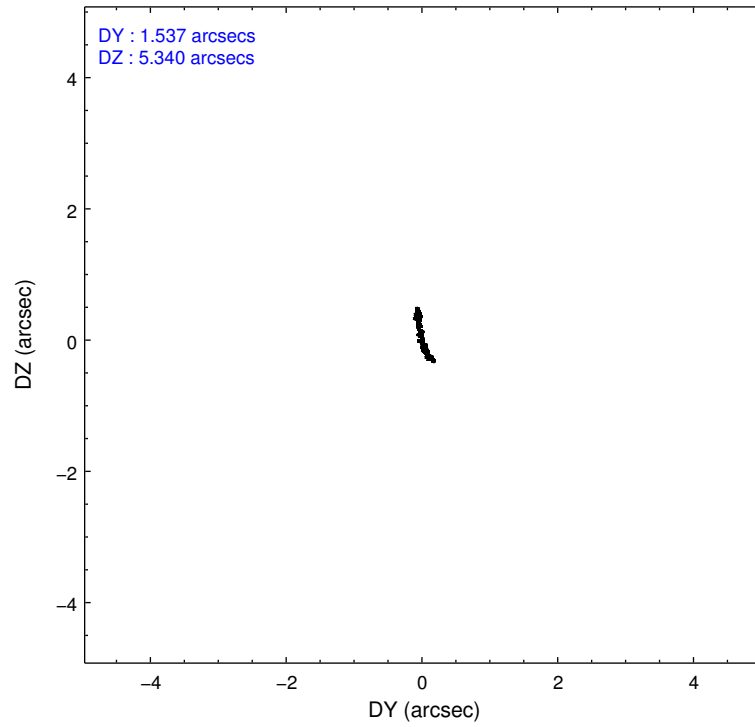
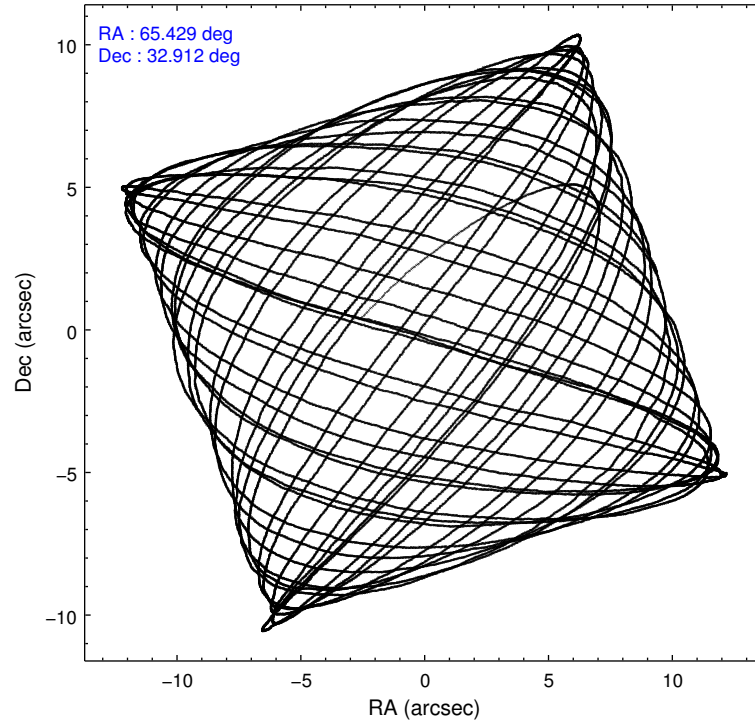
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 8		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 8
level 1 events	105694	106885	119409	119759	113382	145572	grade 0 events	5640	5497	5223	5539	5253	8692
rejected events	92696	93422	106891	106961	100627	117983		5%	5%	4%	4%	4%	5%
rejected %	87%	87%	89%	89%	88%	81%	grade 1 events	54	58	63	50	48	85
								0%	0%	0%	0%	0%	0%
							grade 2 events	2589	2673	2643	2598	2533	5981
								2%	2%	2%	2%	2%	4%
							grade 3 events	1297	1382	1231	1188	1307	2954
								1%	1%	1%	0%	1%	2%
							grade 4 events	1210	1368	1233	1225	1285	2770
								1%	1%	1%	1%	1%	1%
							grade 5 events	3933	4162	3673	4243	4752	5965
								3%	3%	3%	3%	4%	4%
							grade 6 events	2266	2550	2190	2250	2380	7196
								2%	2%	1%	1%	2%	4%
							grade 7 events	88705	89195	103153	102666	95824	111929
								83%	83%	86%	85%	84%	76%

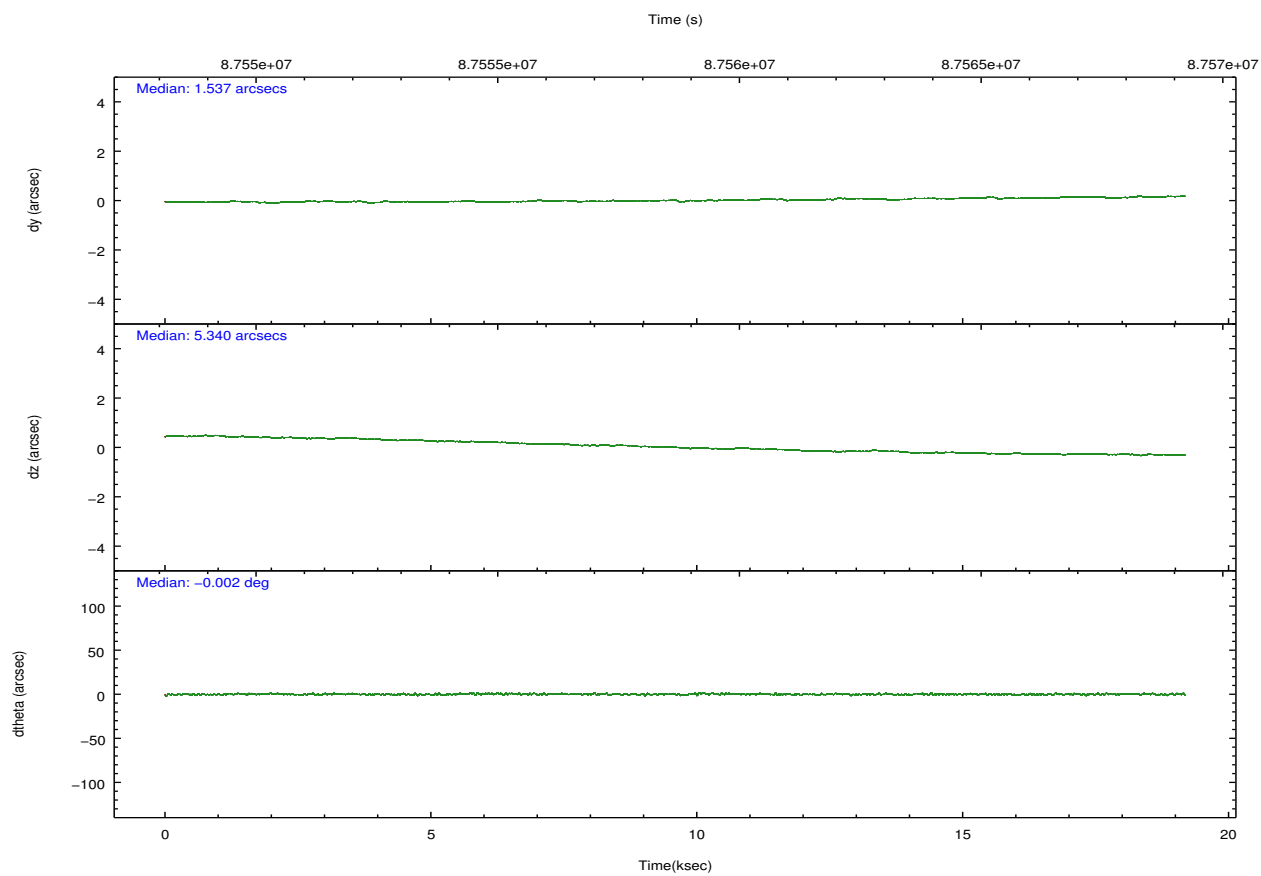
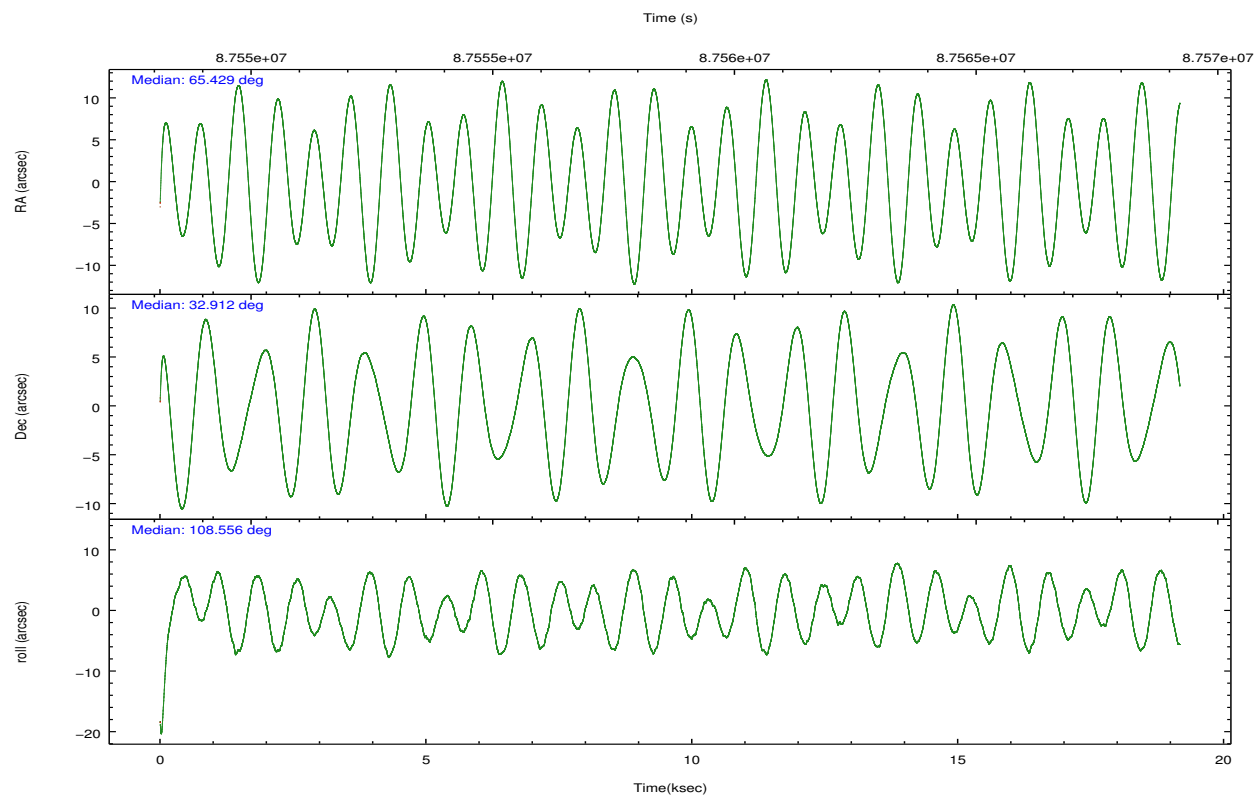
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012368	ACIS-012368
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	65.453286	65.42877951902767
[deg] Pointing Dec	32.894085	32.91235065639691
[deg] Pointing Roll	108.337364	108.5593536250765
[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)	87549261.184000	87548228.06686801
Observation start date	2000-10-10T07:13:17	2000-10-10T06:57:08
[s] Observation end time (MET)	87568261.184000	87568855.68014701
Observation end date	2000-10-10T12:29:57	2000-10-10T12:40:55
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



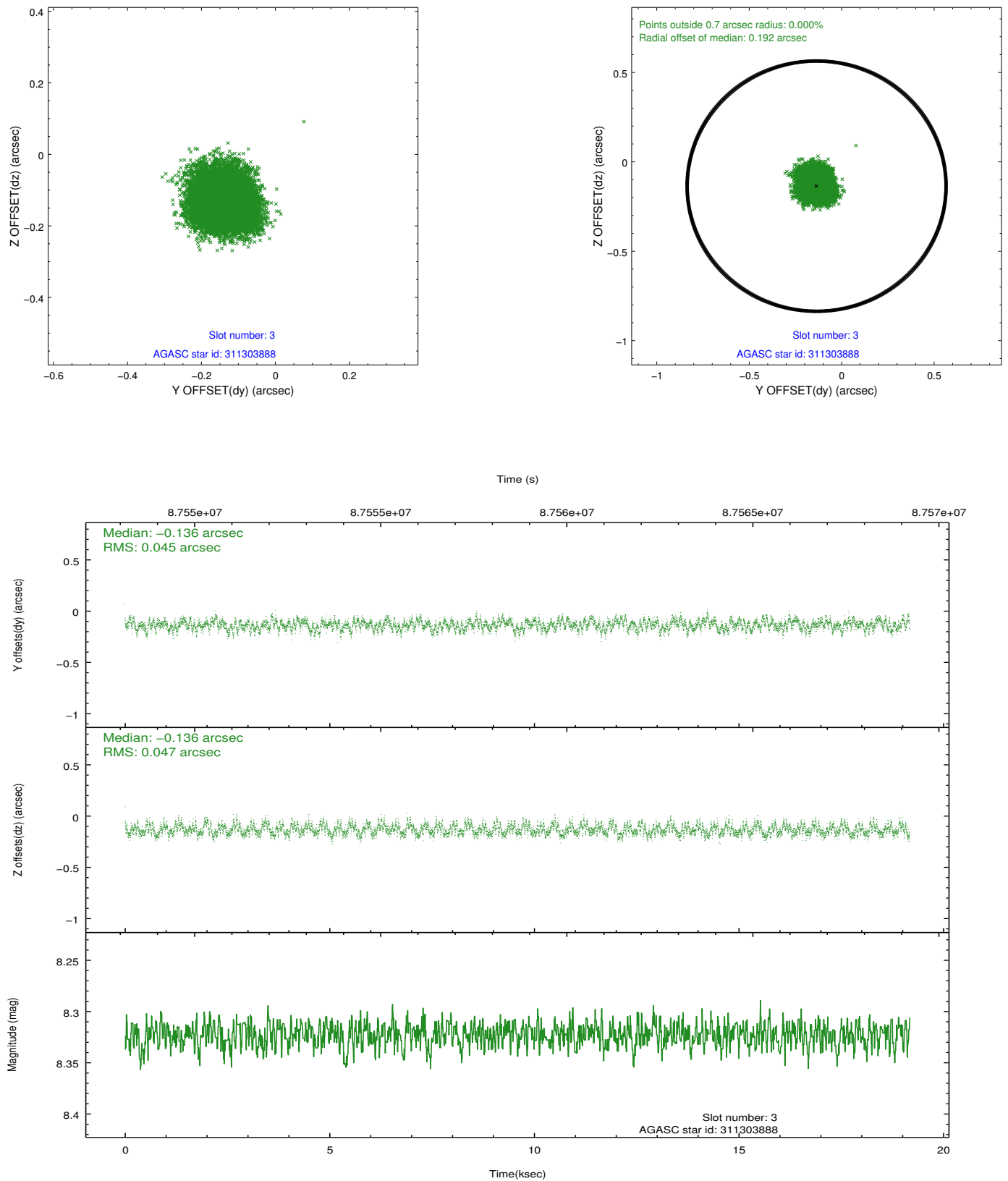


### Slot Statistics

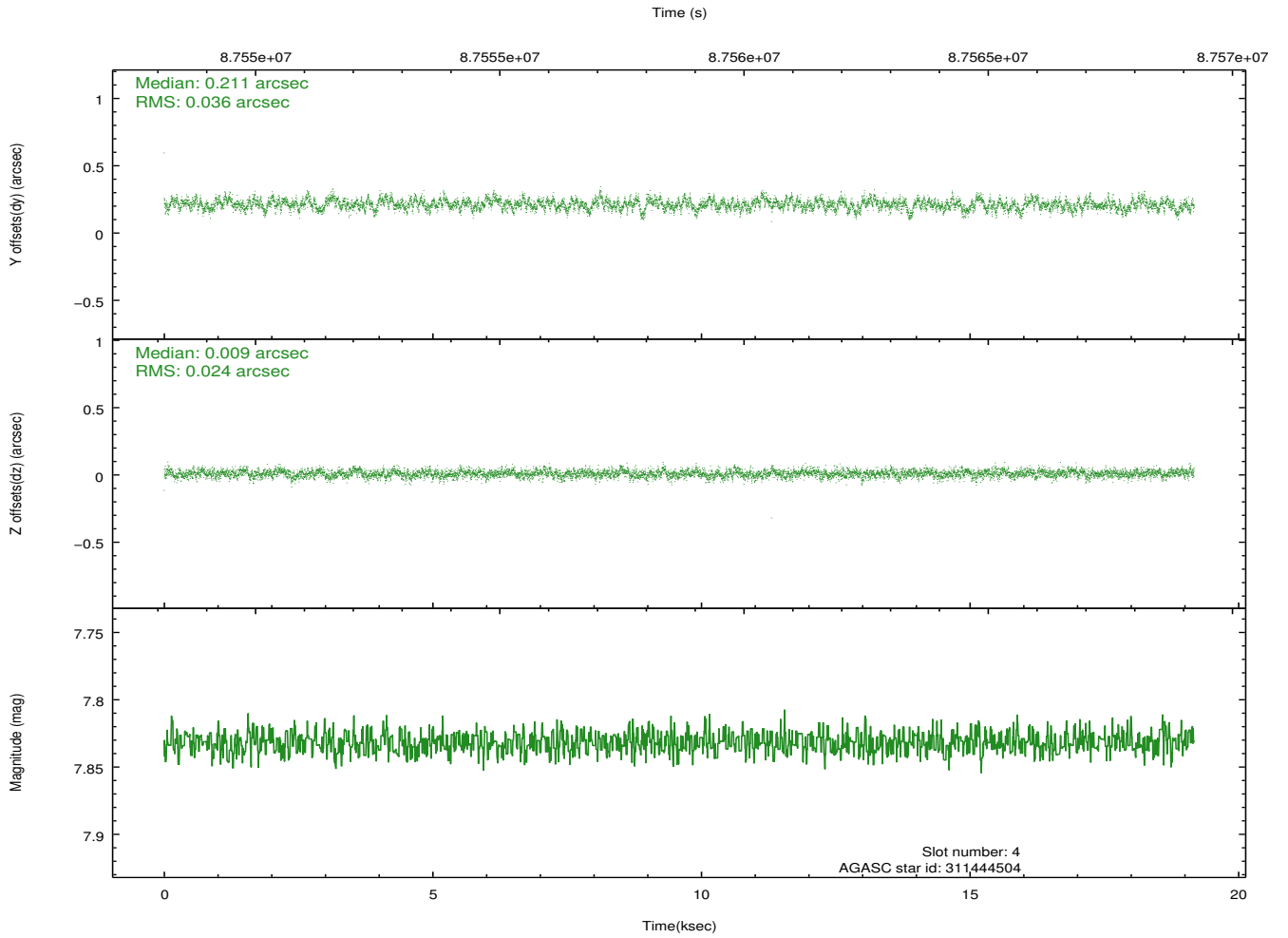
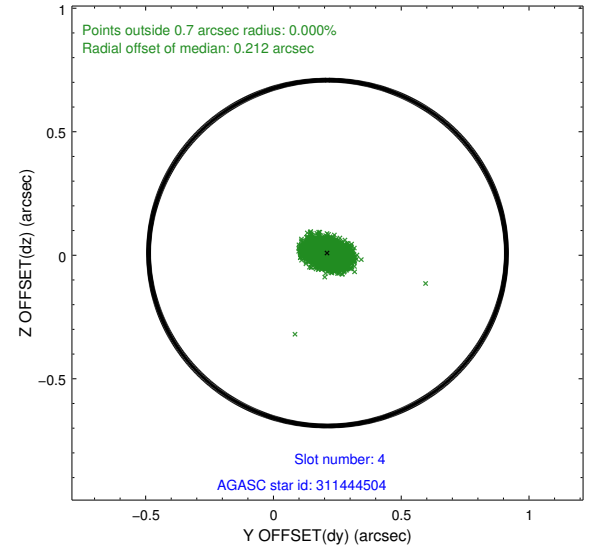
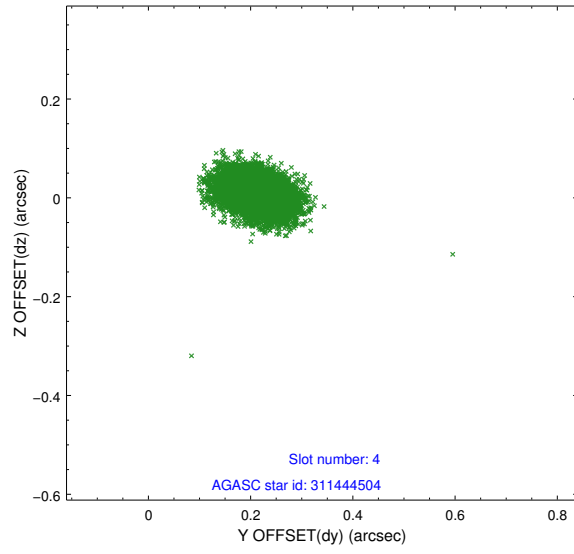
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	4677	-0.034	-0.044	0.010	0.018	0.000000	0.000000	-755.93	-835.14
1	FID	ACIS-I-4	7.19	4678	-0.040	0.040	0.009	0.015	0.000000	0.000000	2158.03	1071.03
2	FID	ACIS-I-5	7.23	4678	-0.027	0.073	0.012	0.019	0.000000	0.000000	-1809.49	1069.13
3	GUIDE	311303888	8.32	9353	-0.136	-0.136	0.071	0.110	64.797103	33.042449	1137.01	1710.15
4	GUIDE	311444504	7.83	9353	0.211	0.009	0.045	0.077	65.469013	32.222832	-2307.20	715.43
5	GUIDE	311435872	9.49	9350	0.008	0.199	0.085	0.139	65.981454	32.986957	-179.40	-1619.54
6	GUIDE	311299048	9.33	9351	-0.112	-0.016	0.095	0.150	64.674197	33.386875	2430.18	1662.66
7	GUIDE	311441728	9.54	9352	0.029	-0.056	0.084	0.139	65.332263	33.004865	495.36	221.97

## 2.4 Star Slots

### 2.4.1 Slot 3

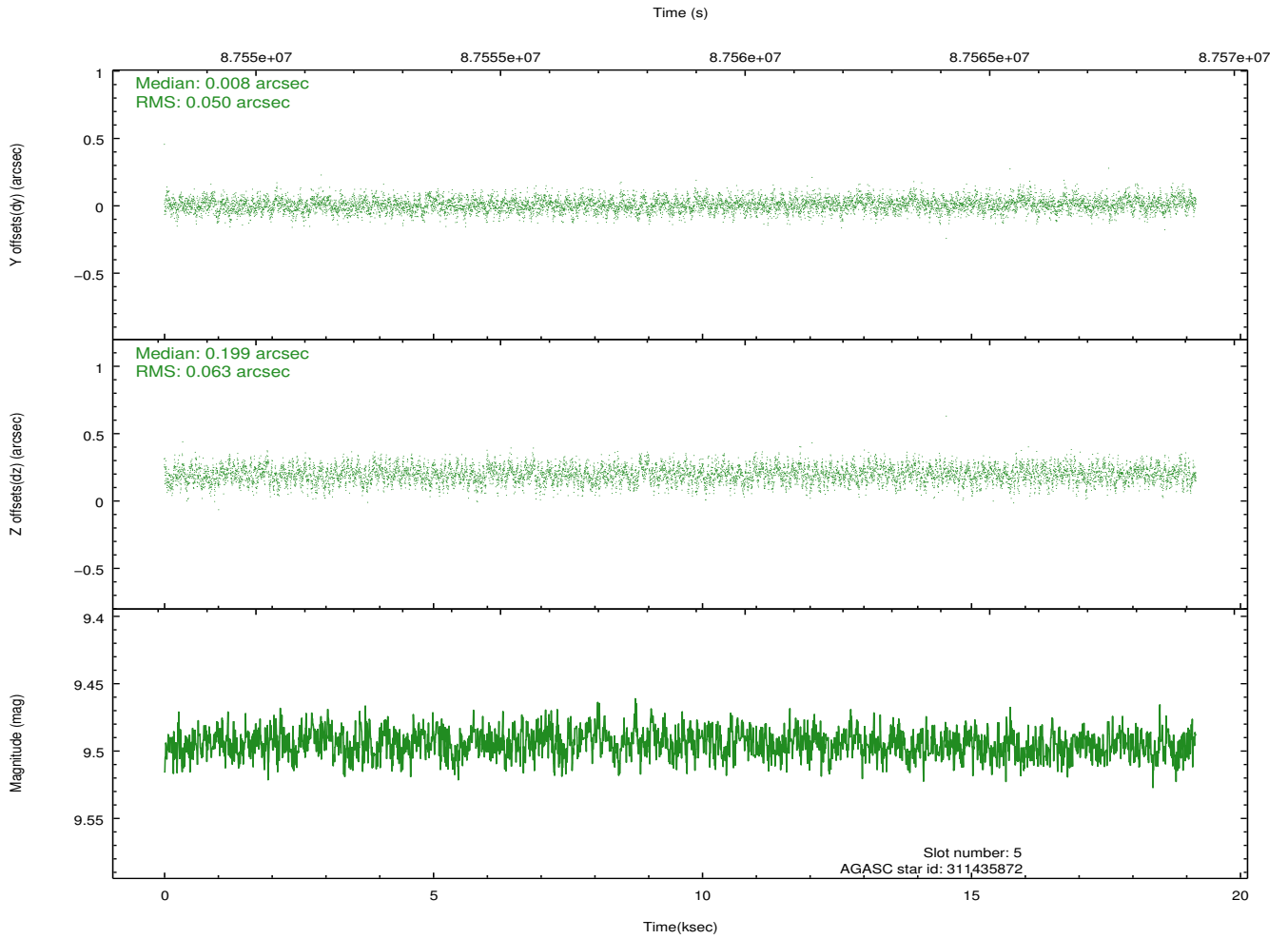
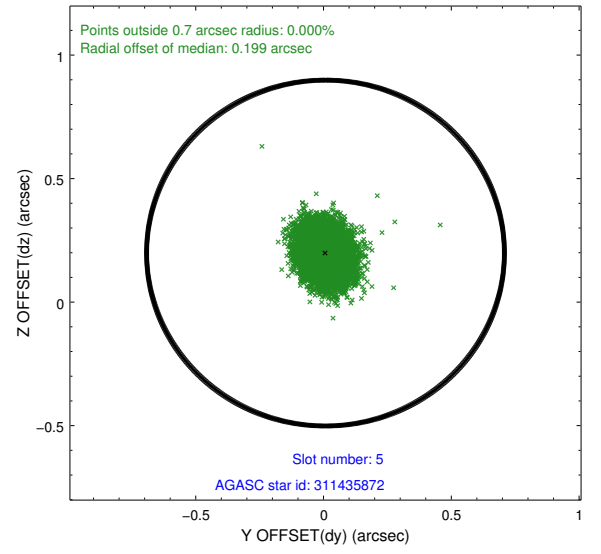
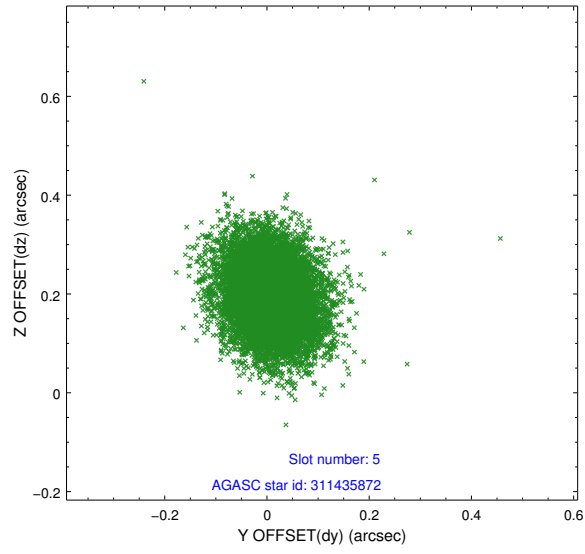


## 2.4.2 Slot 4

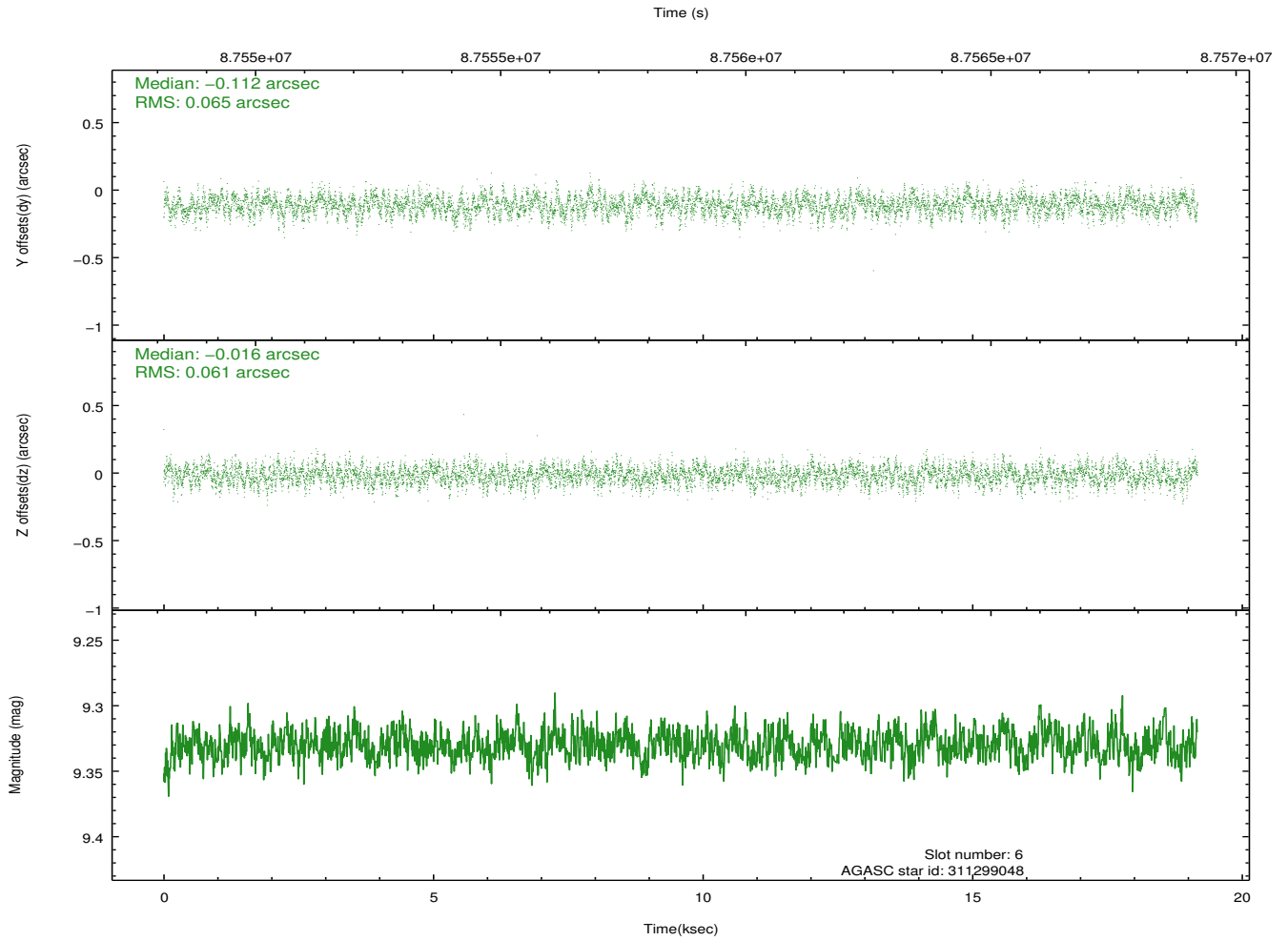
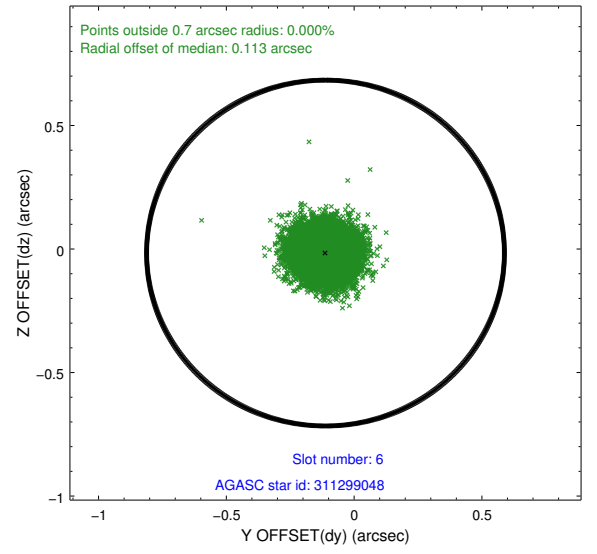
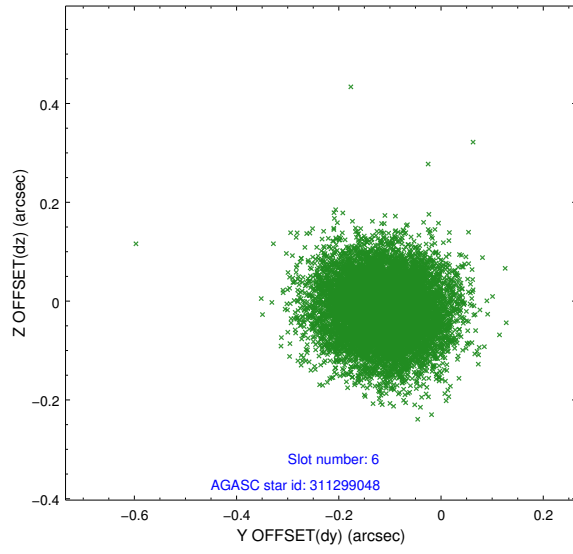




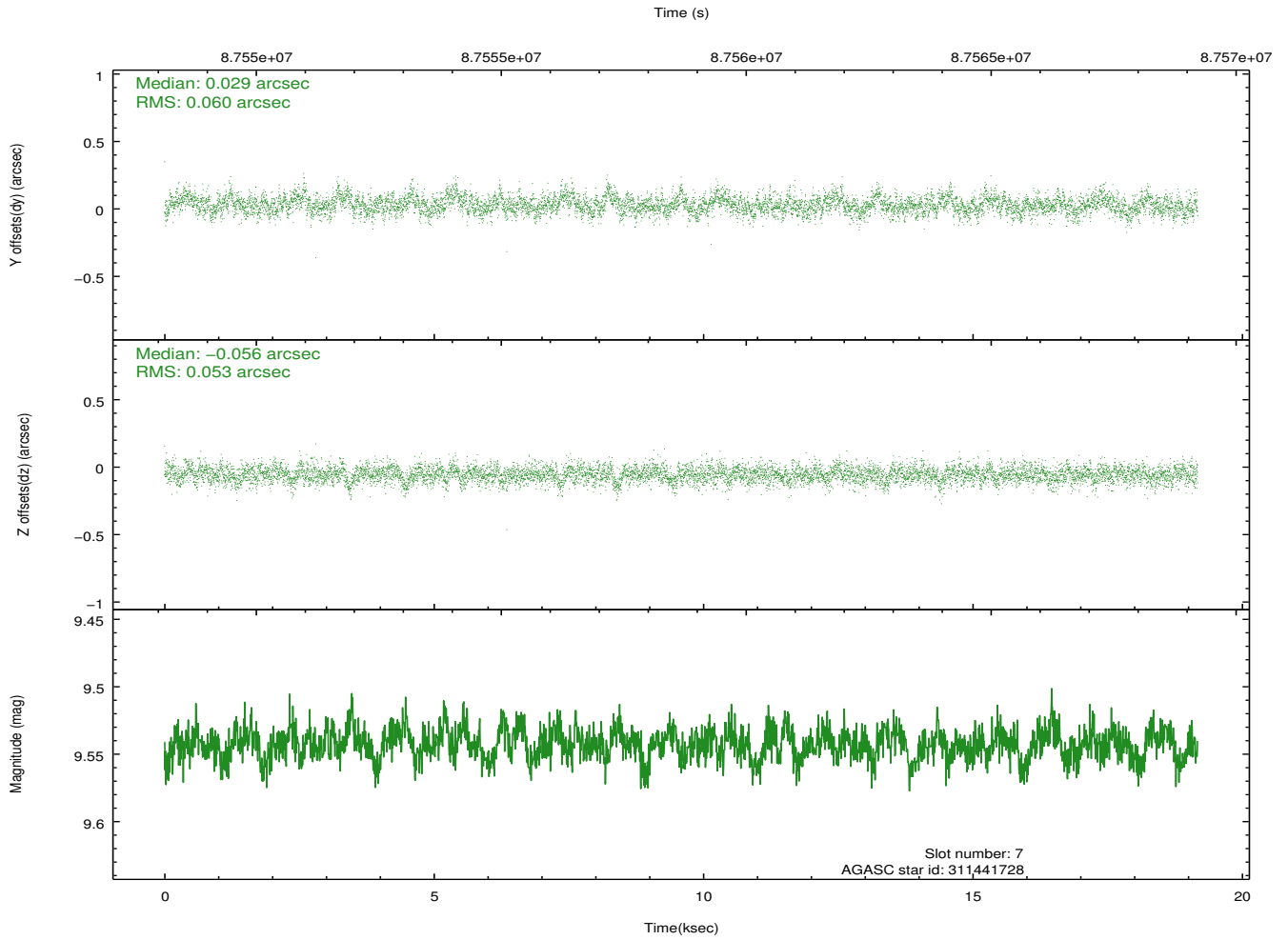
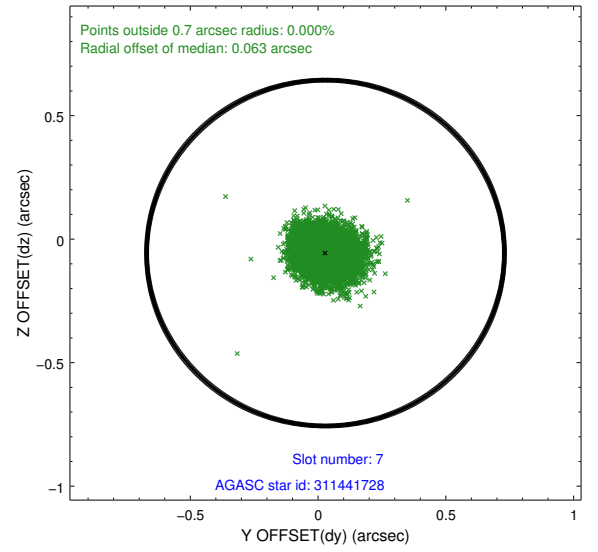
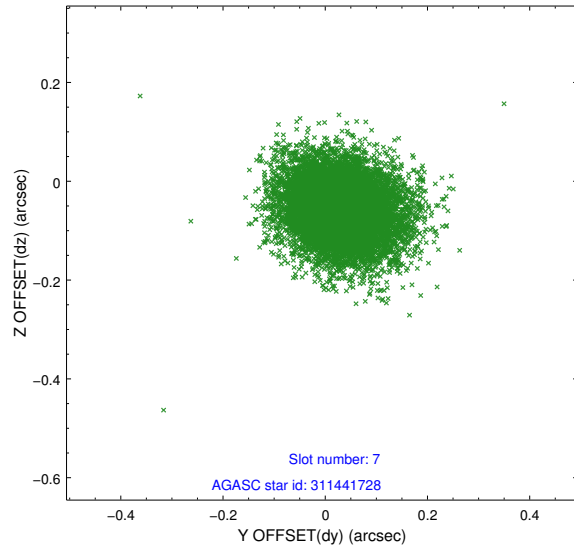
### 2.4.3 Slot 5



## 2.4.4 Slot 6

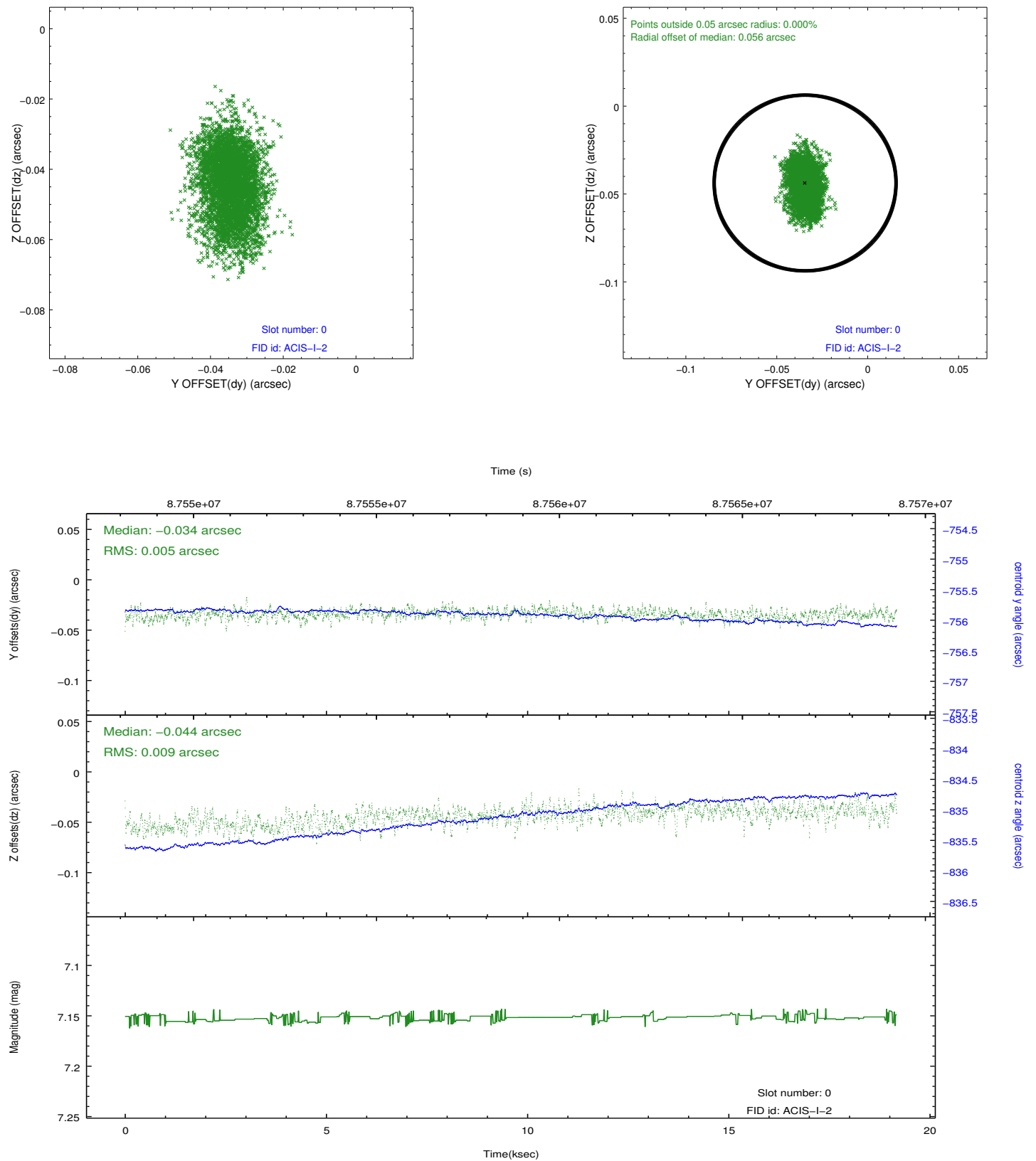


## 2.4.5 Slot 7

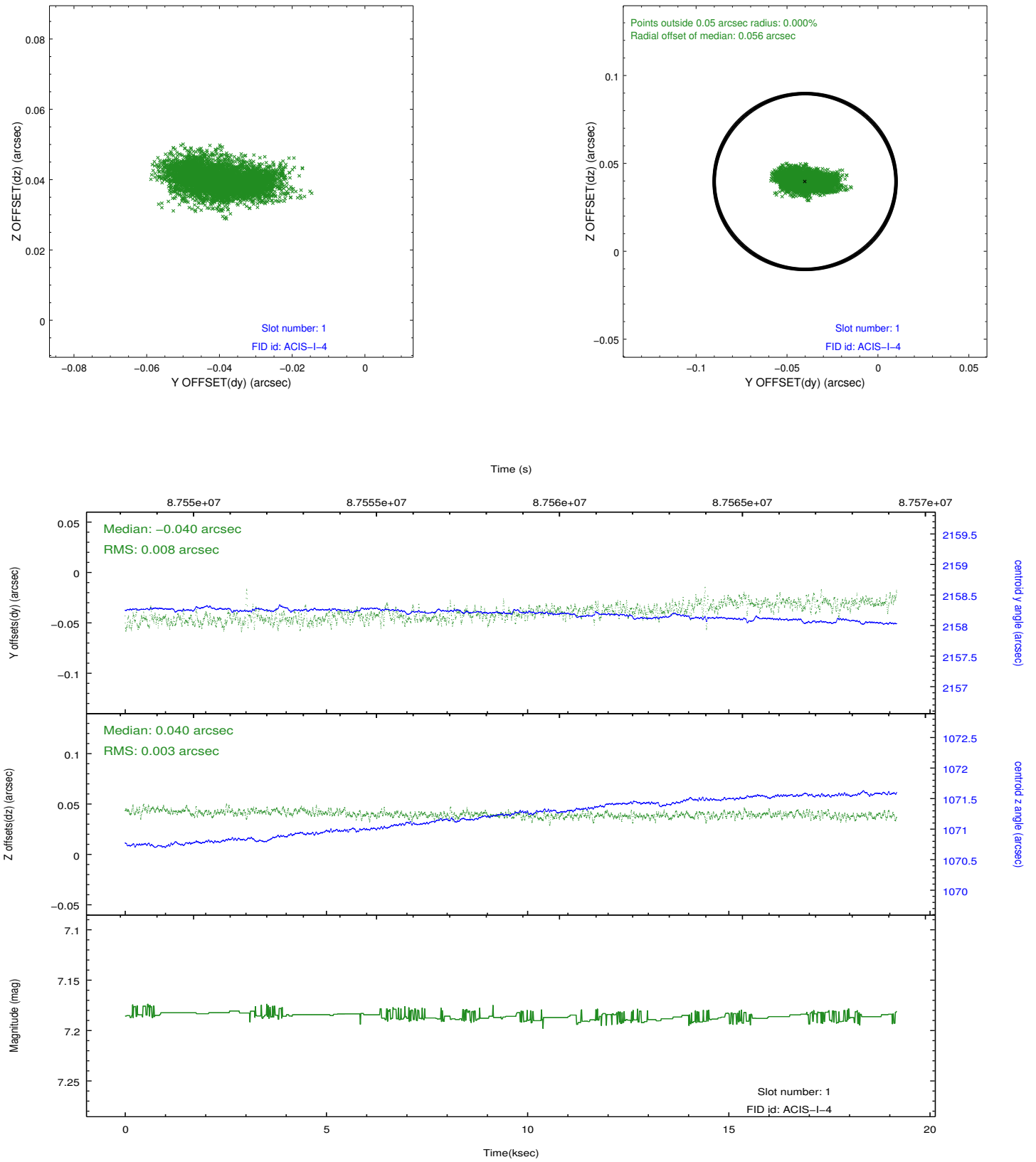


## 2.5 FID Slots

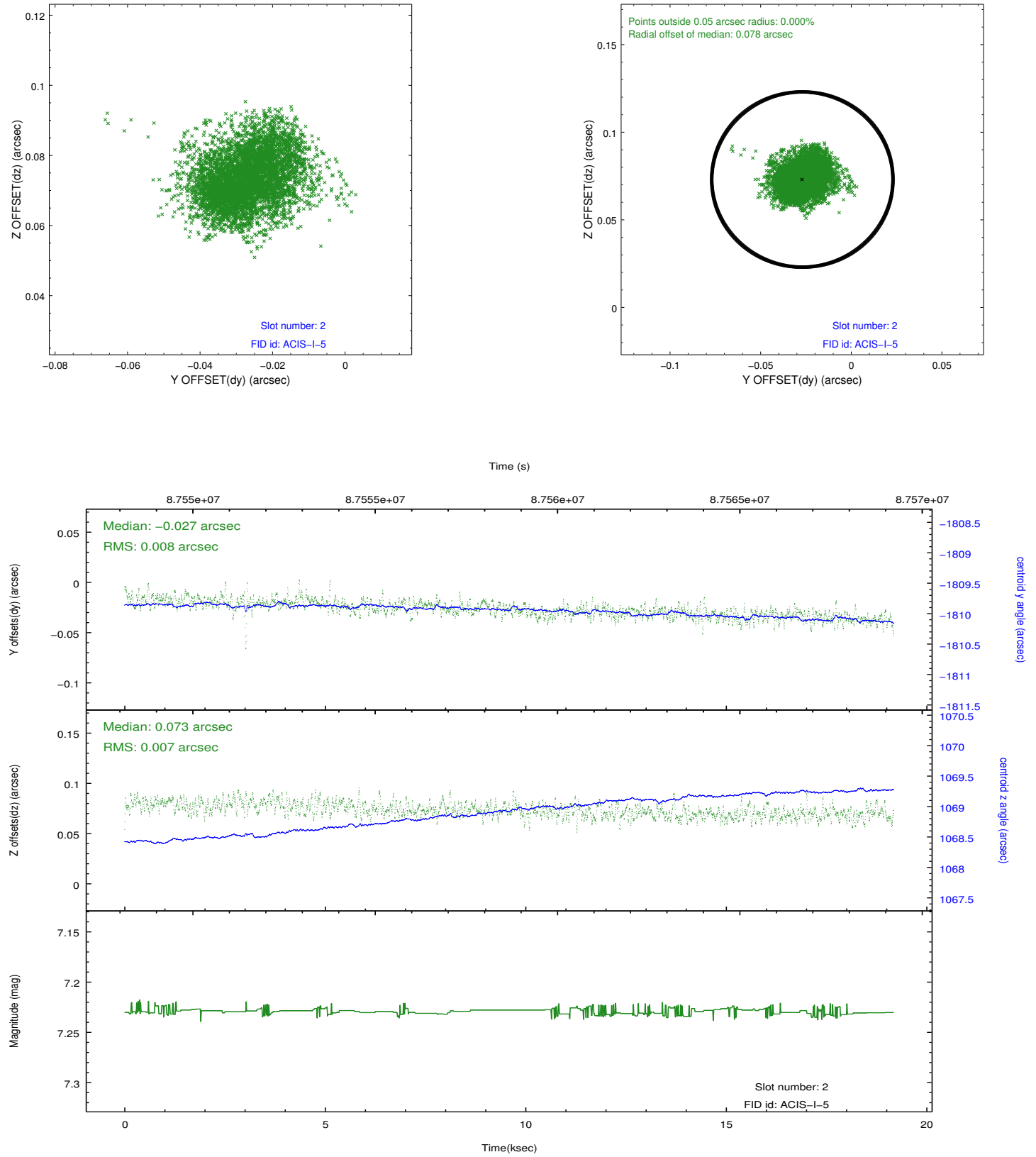
### 2.5.1 Slot 0



## 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)	2012.09.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.036

### A.2 Comments