

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3785 - L2 Version 4  
Chandra X-Ray Center

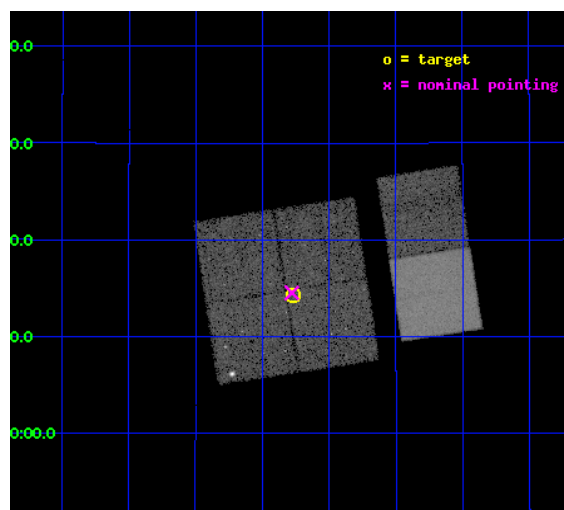
L2 Processing Date : Oct 20 2012

## 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	400272	Sequence number
obs_id	3785	Observation id
title	REOLVING THE SHORT GAMMA-RAY BURST MYSTERY	Proposal title
observer	Dr Kevin Hurley	Principal investigator
object	GRB021201	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	121.942083	Observer's specified target RA [deg]
dec_targ	21.238306	Observer's specified target Dec [deg]
ra_nom	121.94467949283	Nominal RA [deg]
dec_nom	21.242205339736	Nominal Dec [deg]
roll_nom	81.209006631611	Nominal Roll [deg]
revision	4	Processing version of data
ontime	19963.442406118	Sum of GTIs [s]
livetime	19710.65327783	Livetime [s]
ontime0	19963.319286138	Sum of GTIs [s]
ontime1	19963.360326111	Sum of GTIs [s]
ontime2	19963.401366115	Sum of GTIs [s]
ontime3	19963.442406118	Sum of GTIs [s]
ontime6	19963.524486125	Sum of GTIs [s]
ontime7	19963.483446121	Sum of GTIs [s]
l2events	133570	Number of level 2 events

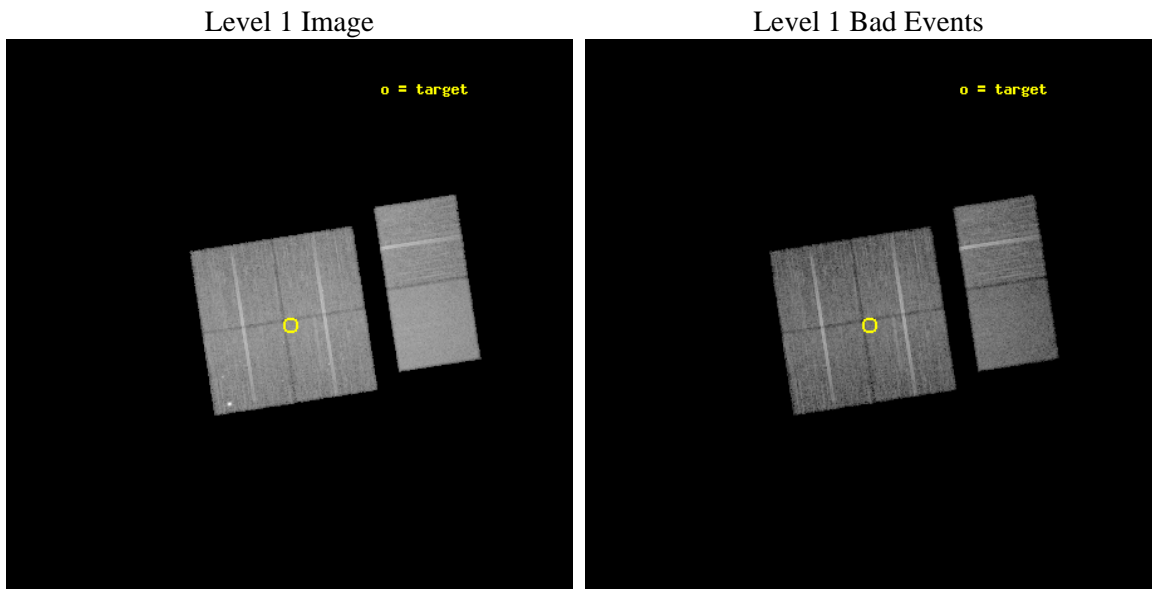




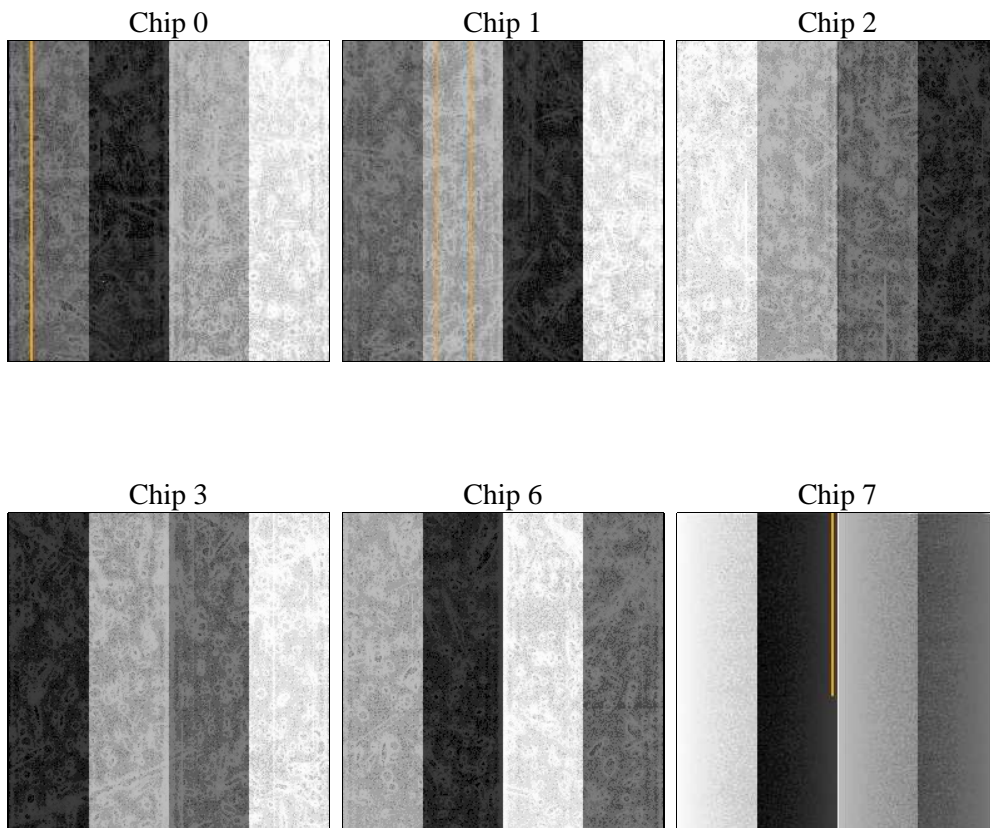
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	19963.442406118	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	19963.319286138	Sum of GTIs [s]
date	2012-10-20T16:57:21	Date and time of file creation	ontime1	19963.360326111	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	19963.401366115	Sum of GTIs [s]
			ontime3	19963.442406118	Sum of GTIs [s]
			ontime6	19963.524486125	Sum of GTIs [s]
			ontime7	19963.483446121	Sum of GTIs [s]
			l1events	769169	Number of level 1 events

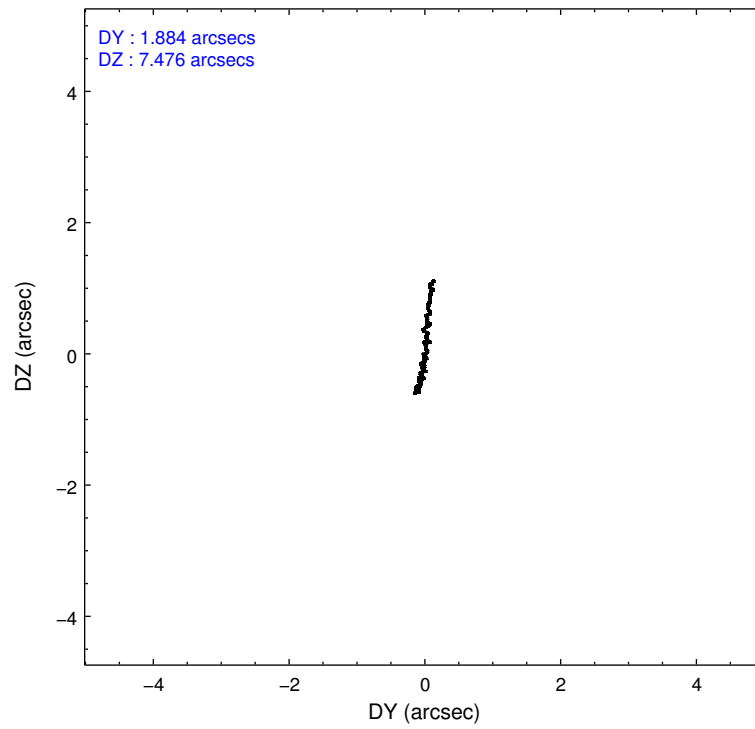
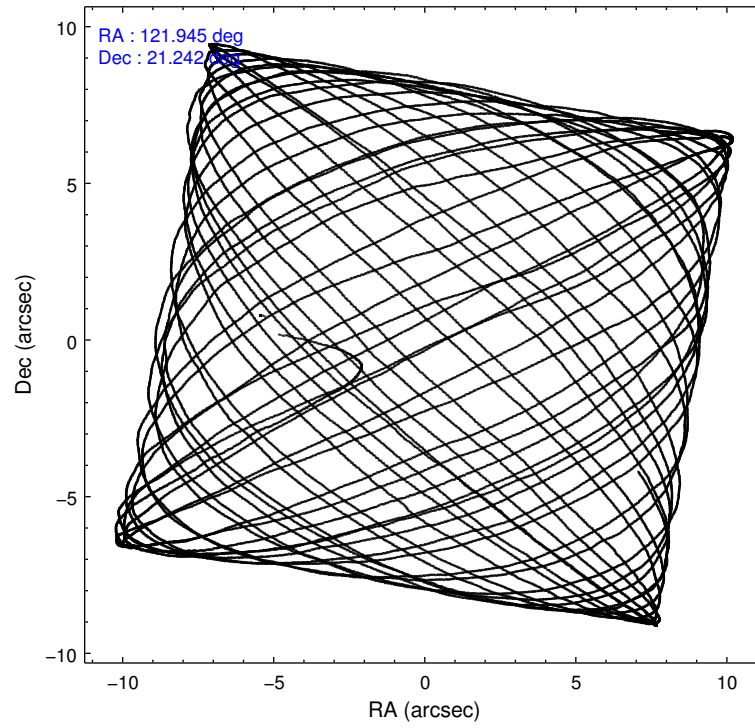
### 2.1.4 Events

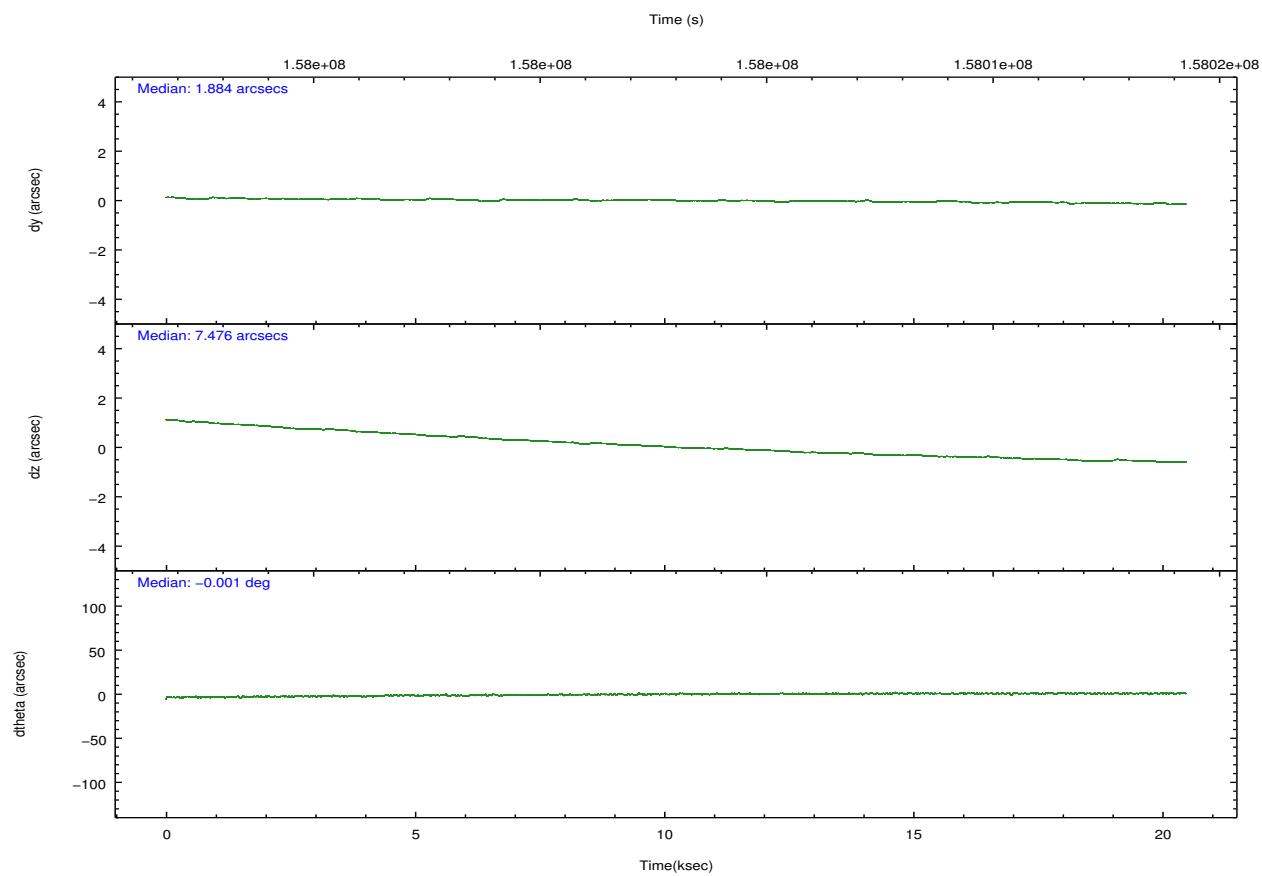
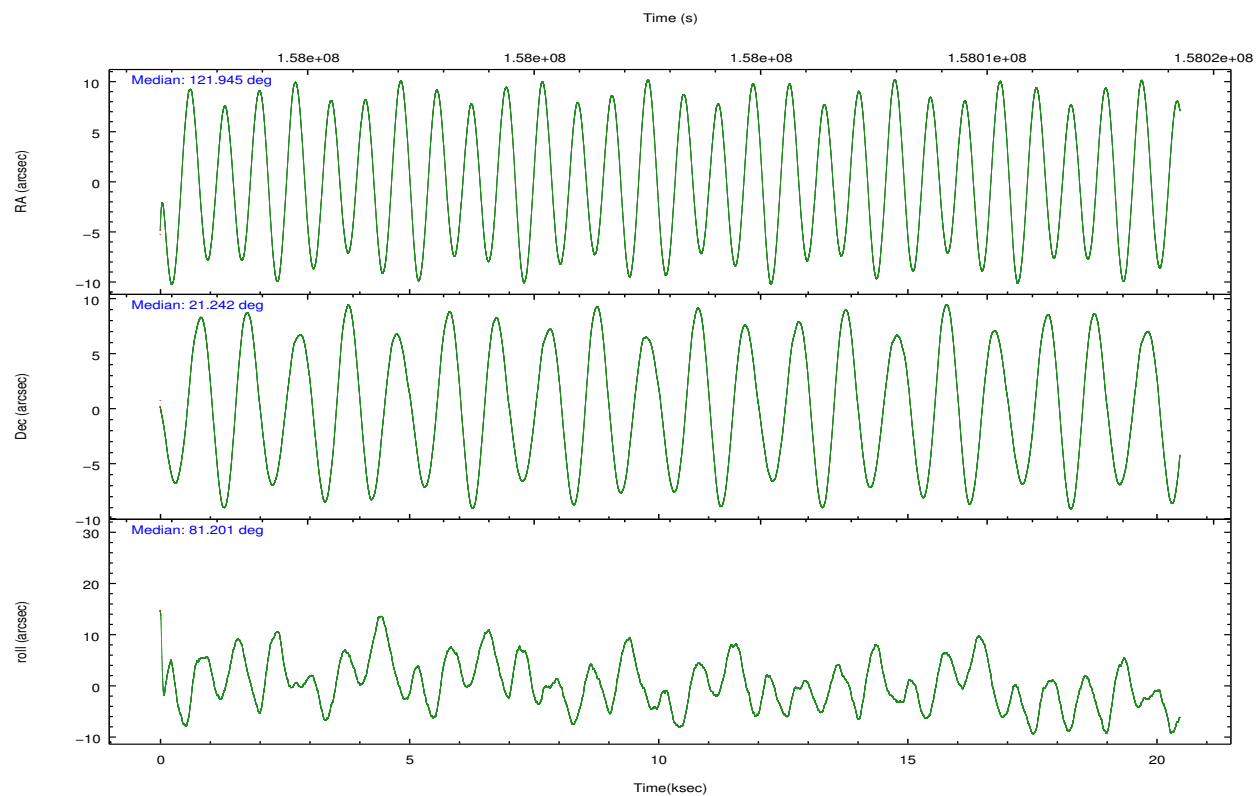
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	112974	119650	121198	122027	129182	164138	grade 0 events	6284	10556	6292	6401	5568	6138
rejected events	98258	99297	107027	107647	114864	96430		5%	8%	5%	5%	4%	3%
rejected %	86%	82%	88%	88%	88%	58%	grade 1 events	58	72	79	79	58	145
								0%	0%	0%	0%	0%	0%
							grade 2 events	3017	3454	2762	2768	2892	13306
								2%	2%	2%	2%	2%	8%
							grade 3 events	1521	1651	1335	1350	1405	6119
								1%	1%	1%	1%	1%	3%
							grade 4 events	1358	1633	1411	1449	1418	6038
								1%	1%	1%	1%	1%	3%
							grade 5 events	4779	5105	4697	5408	5651	15634
								4%	4%	3%	4%	4%	9%
							grade 6 events	2540	3061	2372	2415	3038	36121
								2%	2%	1%	1%	2%	22%
							grade 7 events	93417	94118	102250	102157	109152	80637
								82%	78%	84%	83%	84%	49%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	121.955436	121.944679492827	Subarray requested	NONE	NONE
[deg] Pointing Dec	21.216764	21.24220533973581	Alternating exposures requested	N	N
[deg] Pointing Roll	80.996418	81.20900663161126	[s] Primary exposure time	0.000000	3.2
[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)	157993228.184000	157992117.45172			
Observation start date	2003-01-03T14:59:24	2003-01-03T14:41:57			
[s] Observation end time (MET)	158013228.184000	158013632.20262			
Observation end date	2003-01-03T20:32:44	2003-01-03T20:40:32			
Read mode	TIMED	TIMED			

## 2.3 Aspect



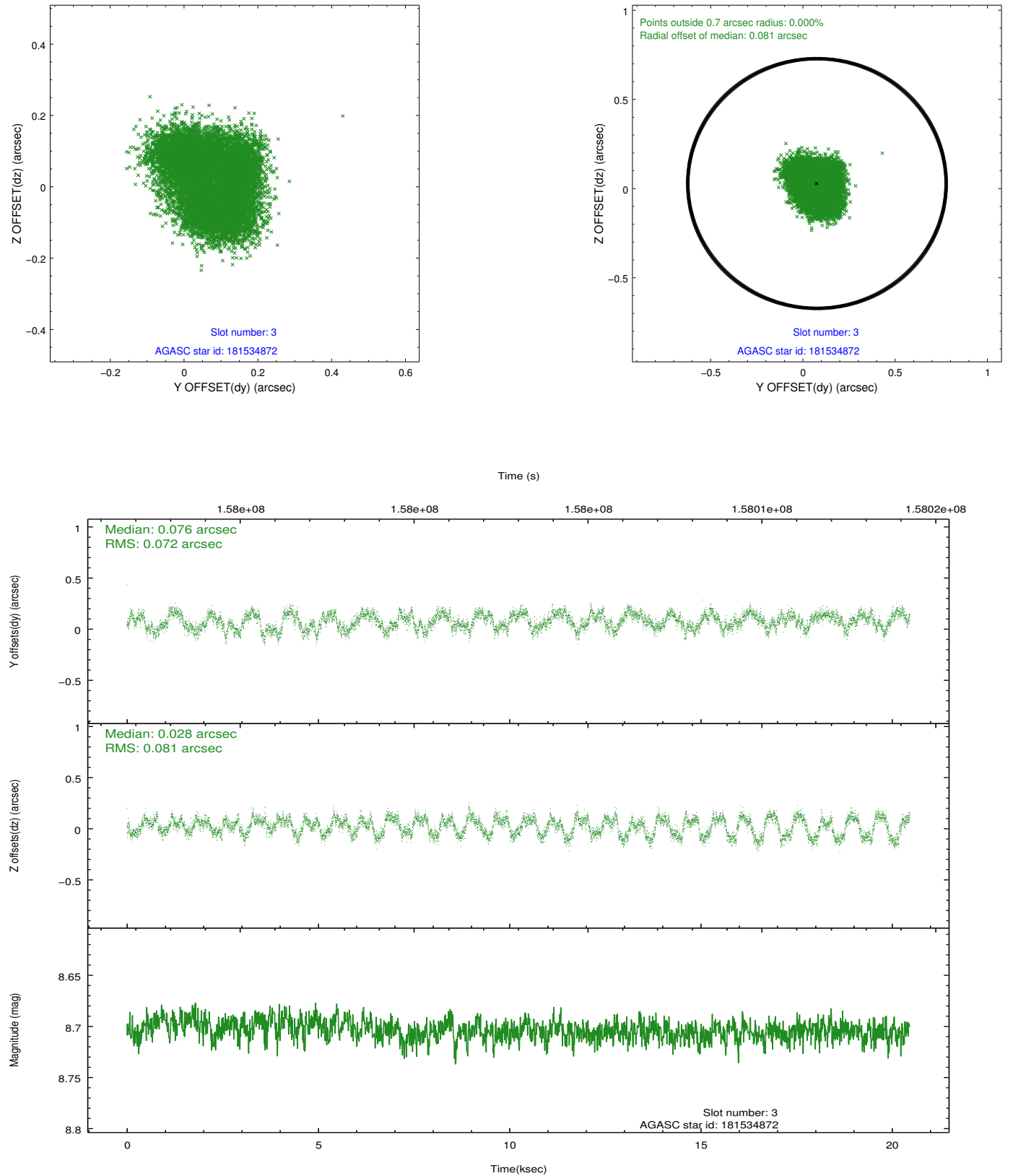


### Slot Statistics

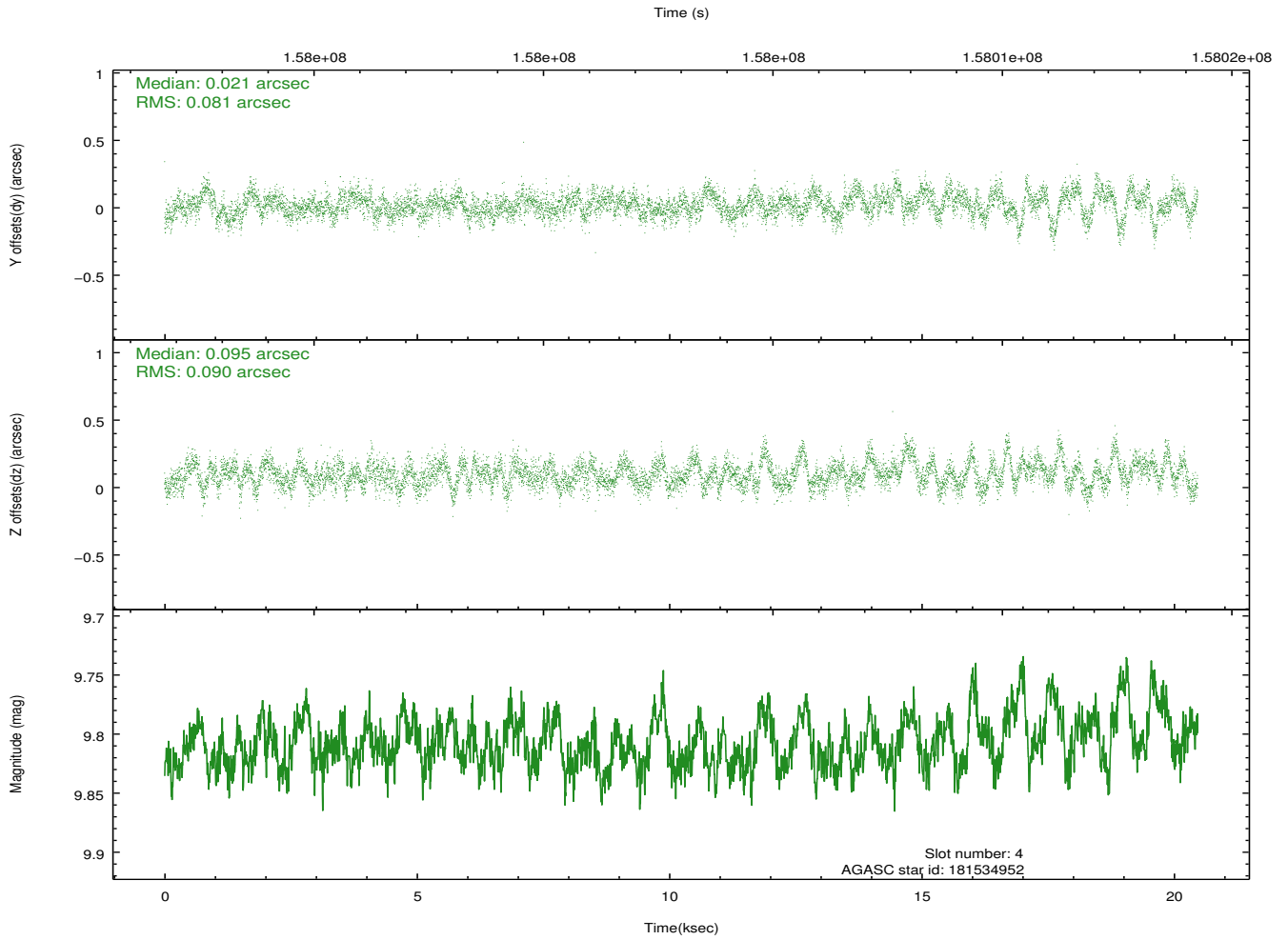
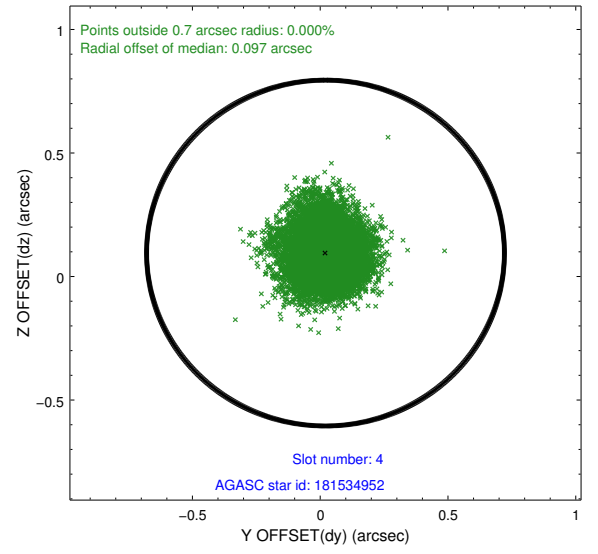
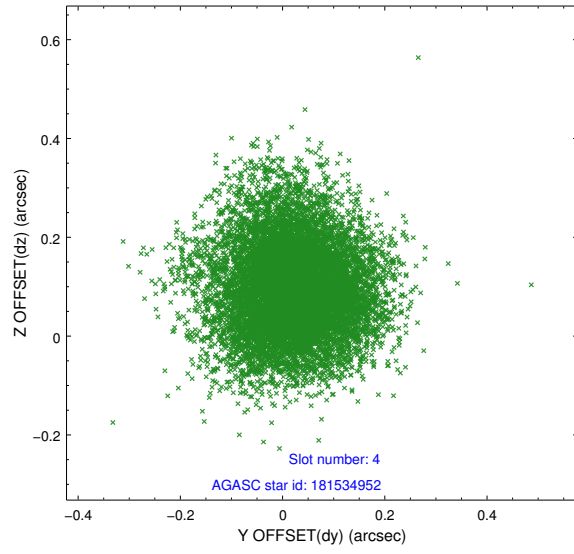
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.25	4993	-0.008	0.039	0.022	0.043	0.000000	0.000000	937.92	-830.95
1	FID	ACIS-I-5	7.24	4992	-0.051	0.046	0.010	0.020	0.000000	0.000000	-1810.10	1066.49
2	FID	ACIS-I-6	7.26	4993	-0.030	-0.016	0.017	0.026	0.000000	0.000000	403.29	1711.10
3	GUIDE	181534872	8.70	9928	0.076	0.028	0.119	0.173	122.048586	20.562714	-2276.01	-678.75
4	GUIDE	181534952	9.81	9980	0.021	0.095	0.128	0.208	122.257601	20.539153	-2248.84	-1387.92
5	GUIDE	182061696	9.74	9973	-0.004	-0.034	0.118	0.194	122.373049	21.367790	758.05	-1297.35
6	GUIDE	181942008	9.33	9977	0.041	-0.148	0.098	0.160	121.454983	20.803759	-1729.26	1430.82
7	GUIDE	182062104	9.69	9971	-0.144	0.076	0.206	0.329	122.204442	21.589629	1456.83	-612.55

## 2.4 Star Slots

### 2.4.1 Slot 3

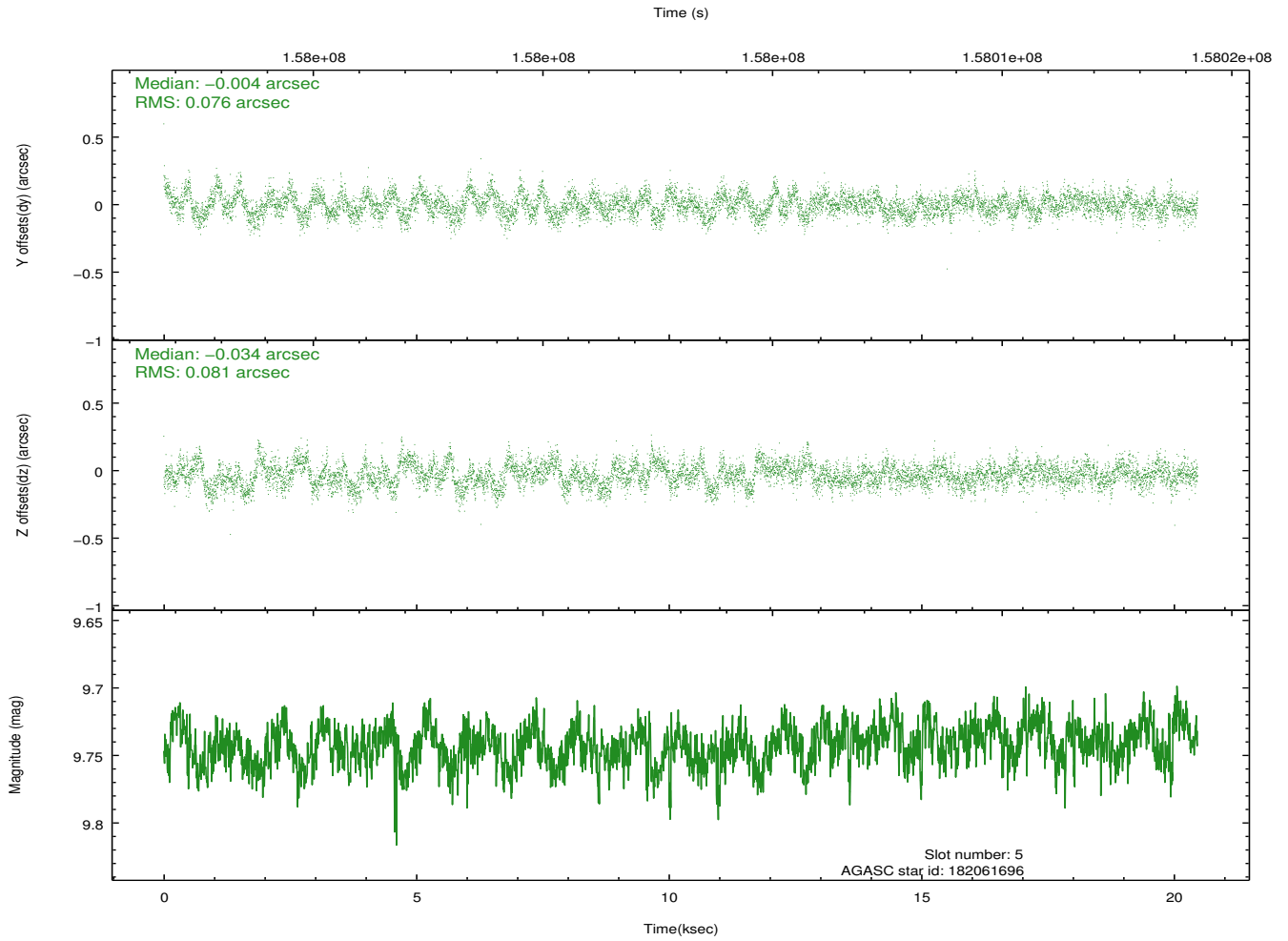
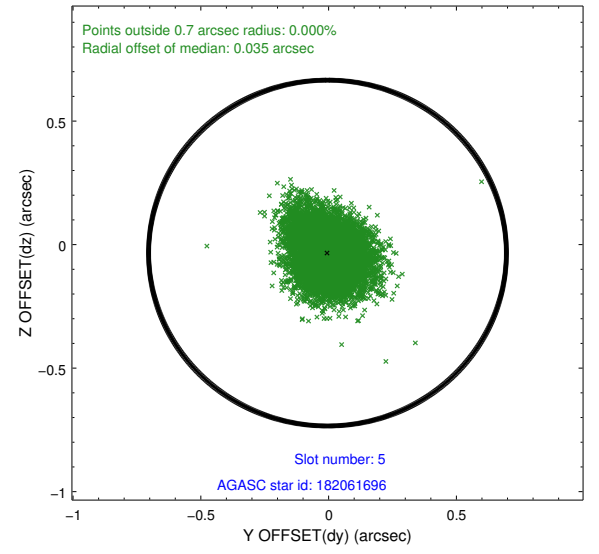
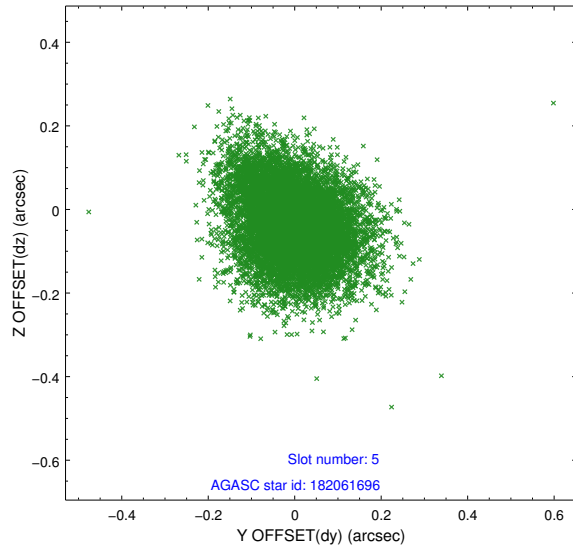


## 2.4.2 Slot 4

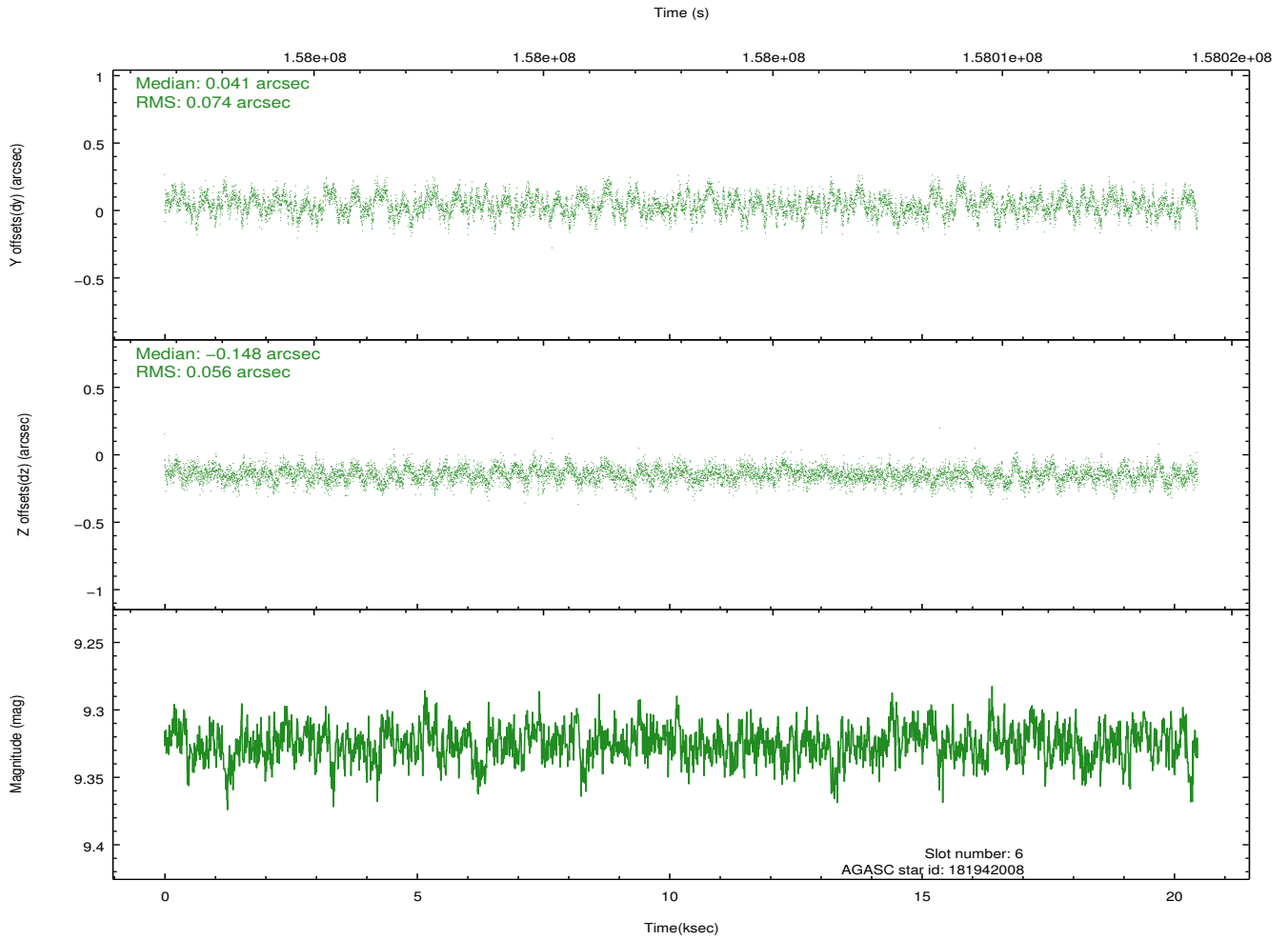
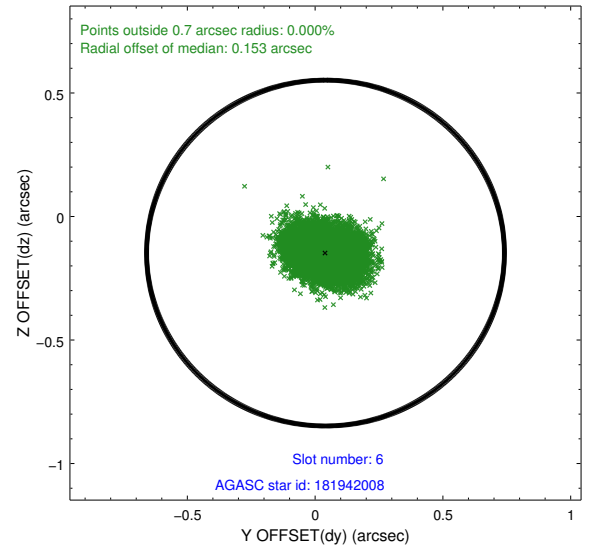
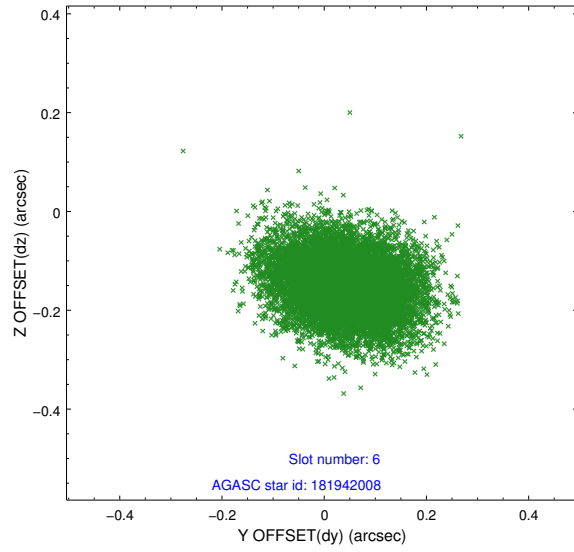




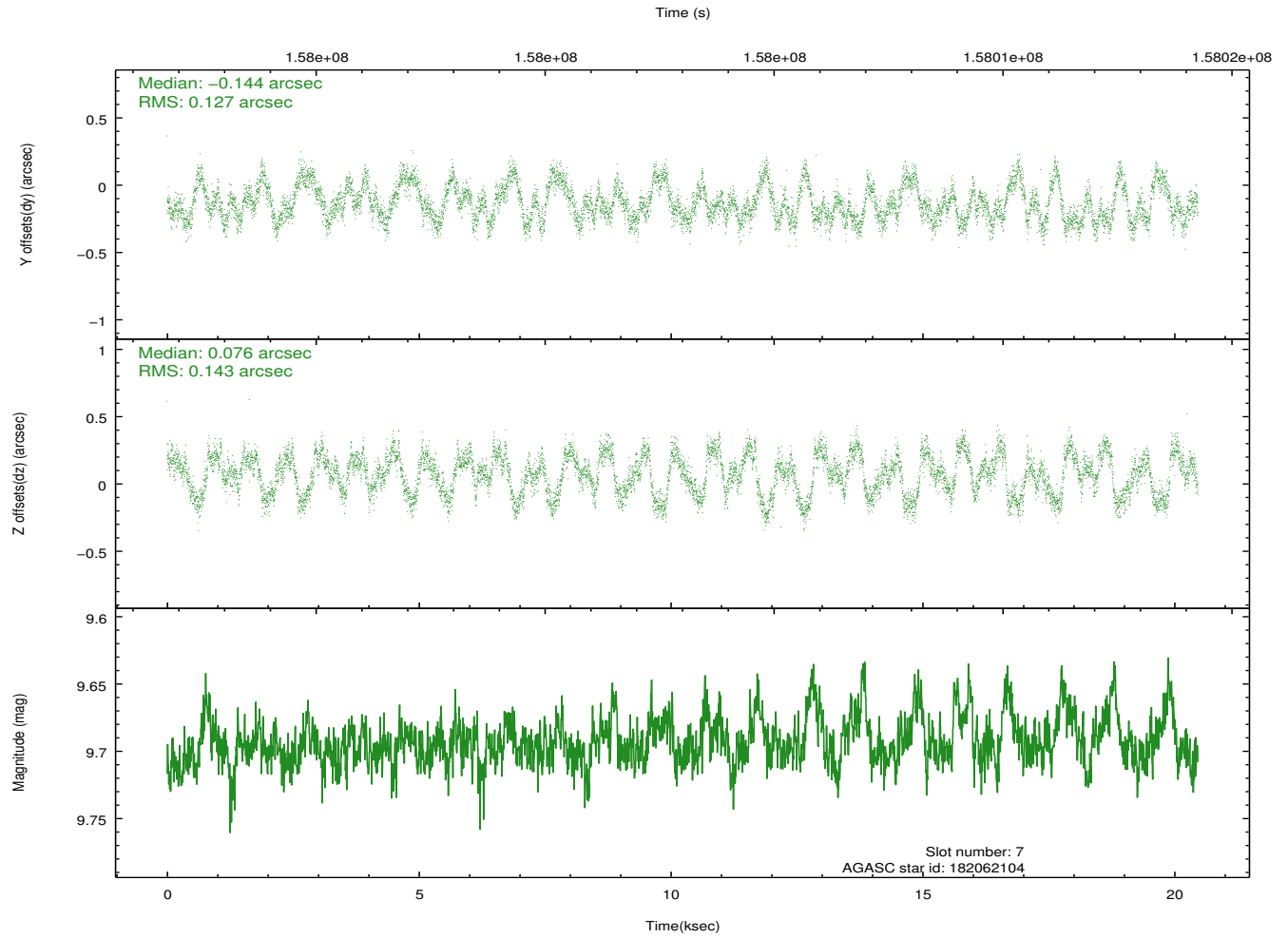
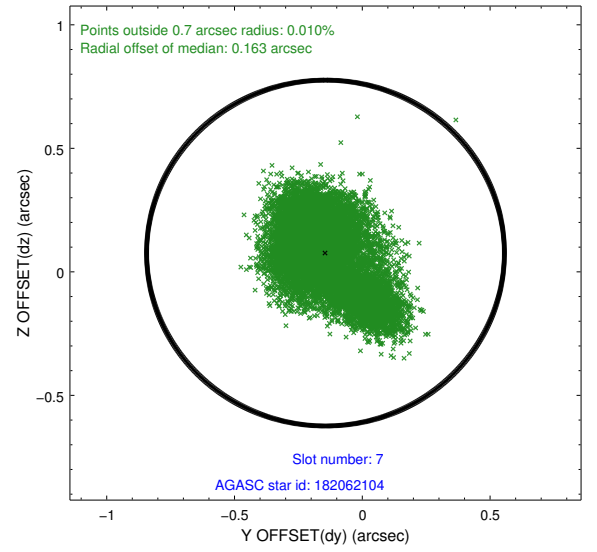
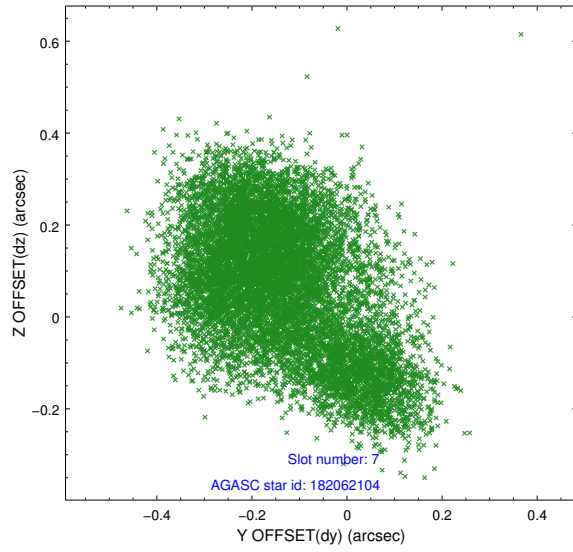
### 2.4.3 Slot 5



## 2.4.4 Slot 6

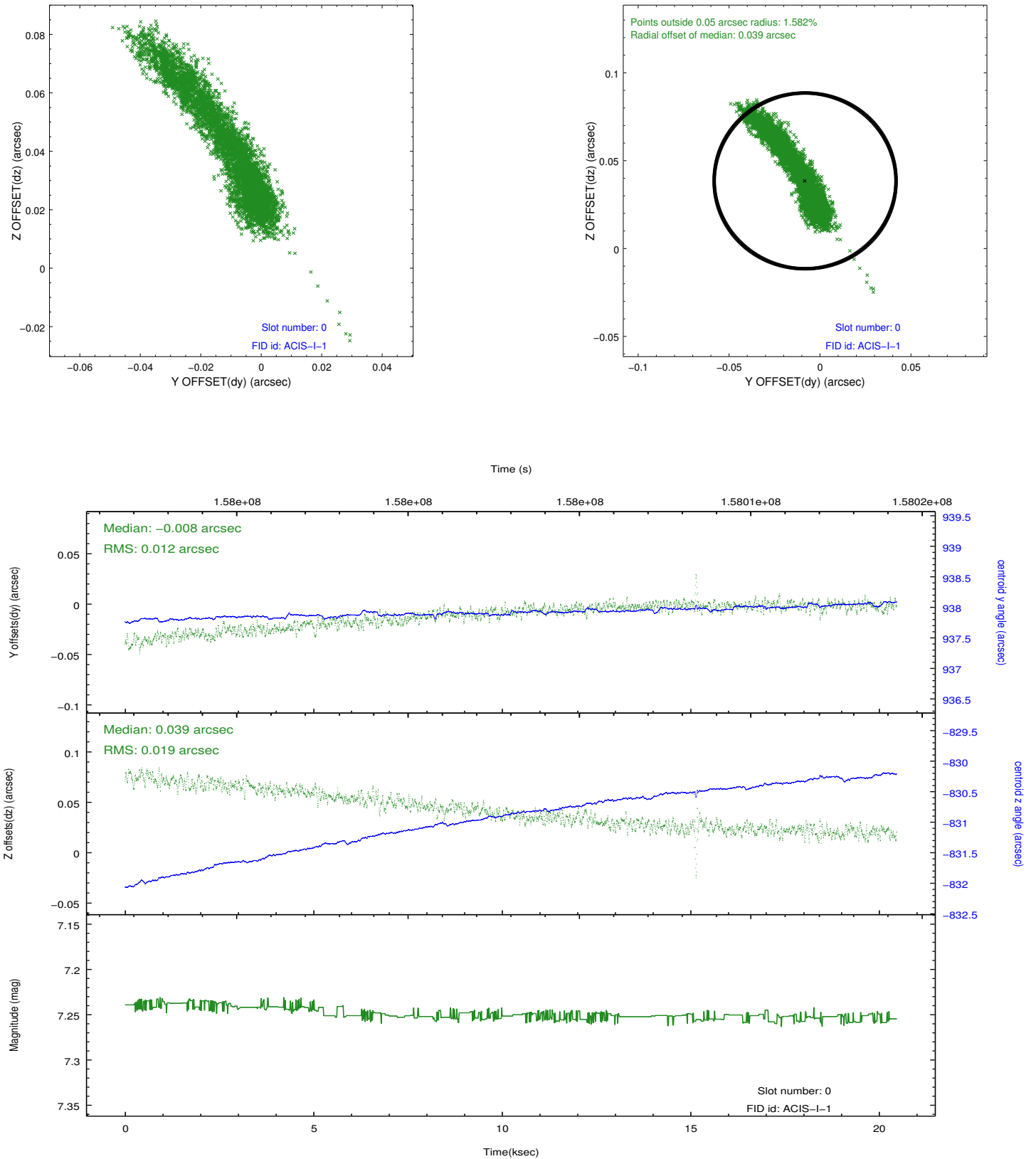


## 2.4.5 Slot 7

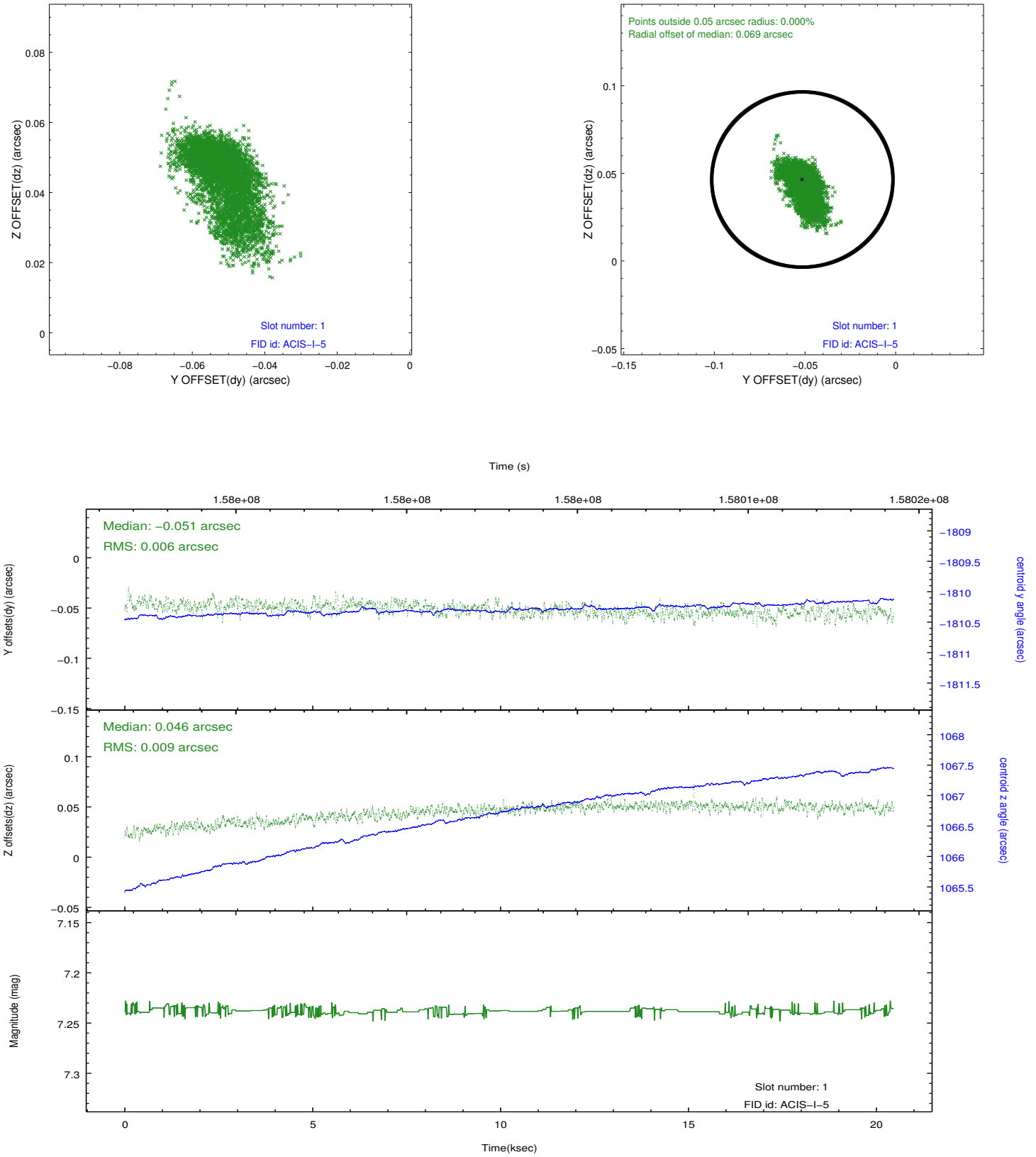


## 2.5 FID Slots

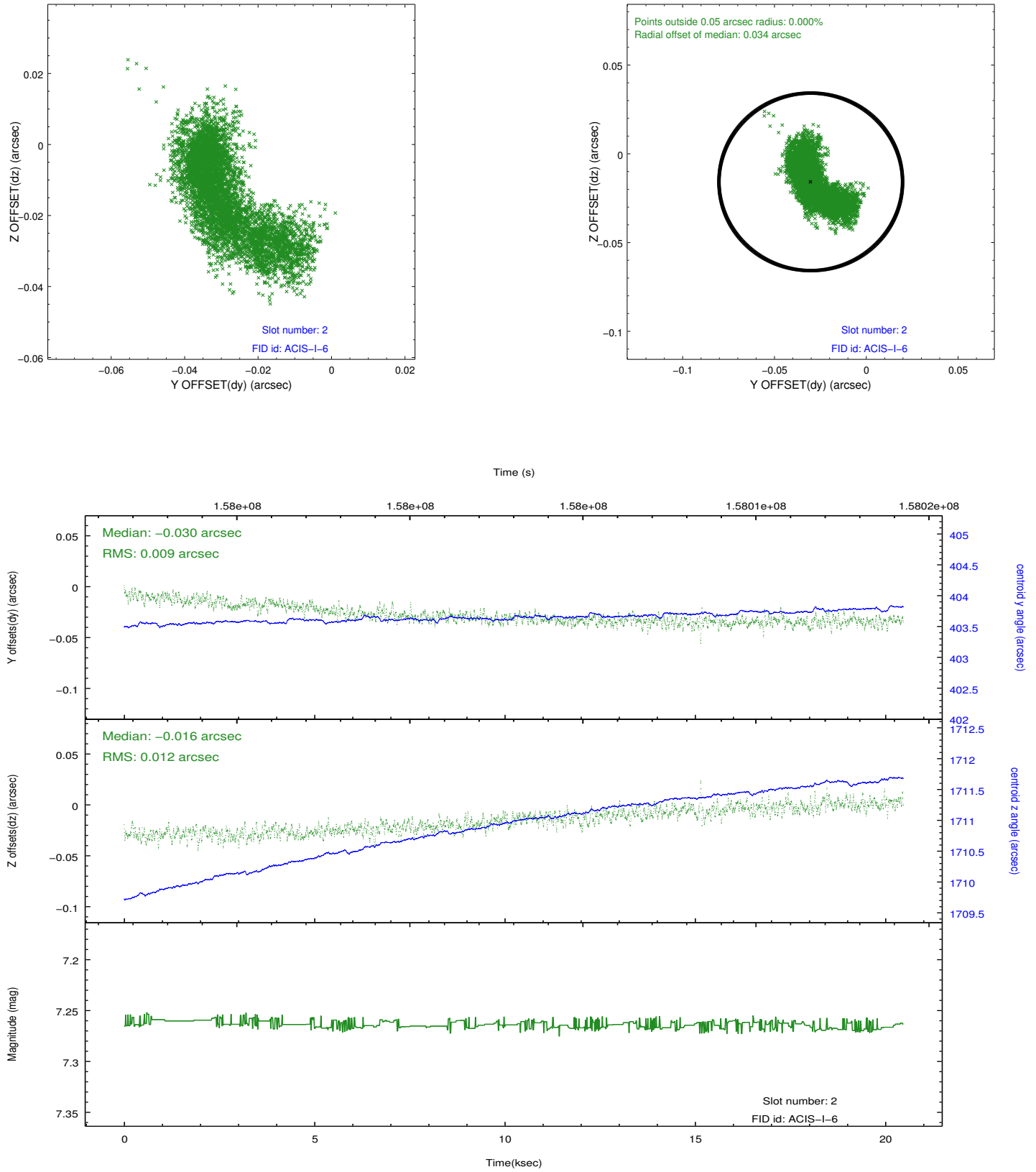
### 2.5.1 Slot 0



## 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)	2012.11.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.964

### A.2 Comments

Monitor constraint met.