

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3535 - L2 Version 4  
Chandra X-Ray Center

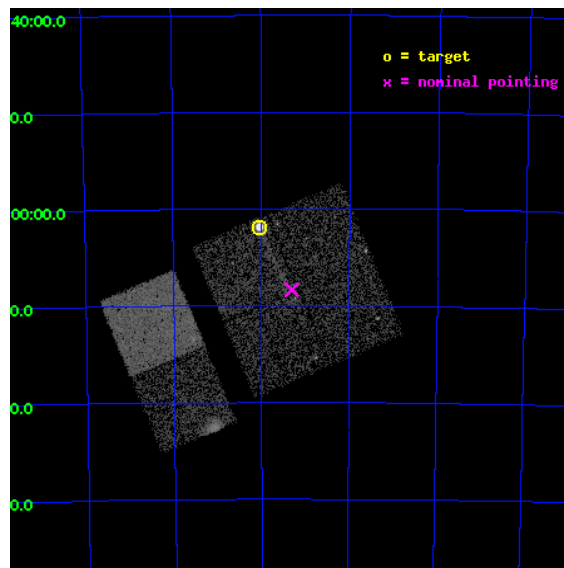
L2 Processing Date : Oct 22 2012

## 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

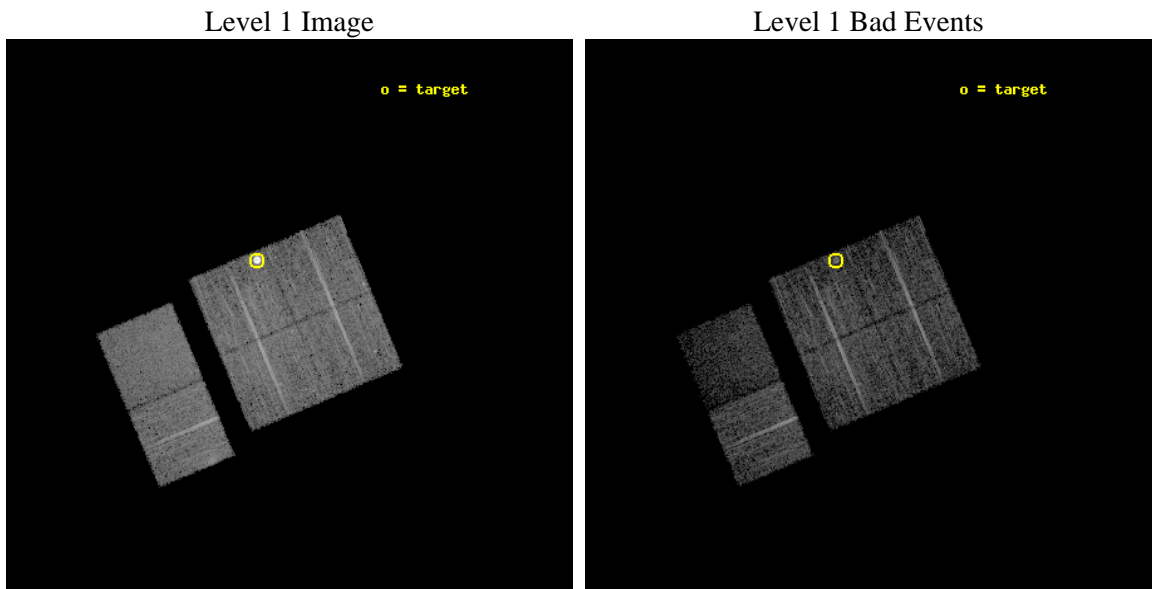
seq_num	590290	Sequence number
obs_id	3535	Observation id
title	AO4A ACIS-I CALIBRATION OBSERVATIONS OF E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[I3,-120,-7.0,0.5,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	15.826368131019	Nominal RA [deg]
dec_nom	-72.139484617447	Nominal Dec [deg]
roll_nom	247.19041066391	Nominal Roll [deg]
revision	4	Processing version of data
ontime	7935.4735091627	Sum of GTIs [s]
livetime	7834.9897654212	Livetime [s]
ontime0	7935.3503891826	Sum of GTIs [s]
ontime1	7935.3914291561	Sum of GTIs [s]
ontime2	7935.4324691594	Sum of GTIs [s]
ontime3	7935.4735091627	Sum of GTIs [s]
ontime6	7935.5555891693	Sum of GTIs [s]
ontime7	7935.514549166	Sum of GTIs [s]
l2events	57051	Number of level 2 events



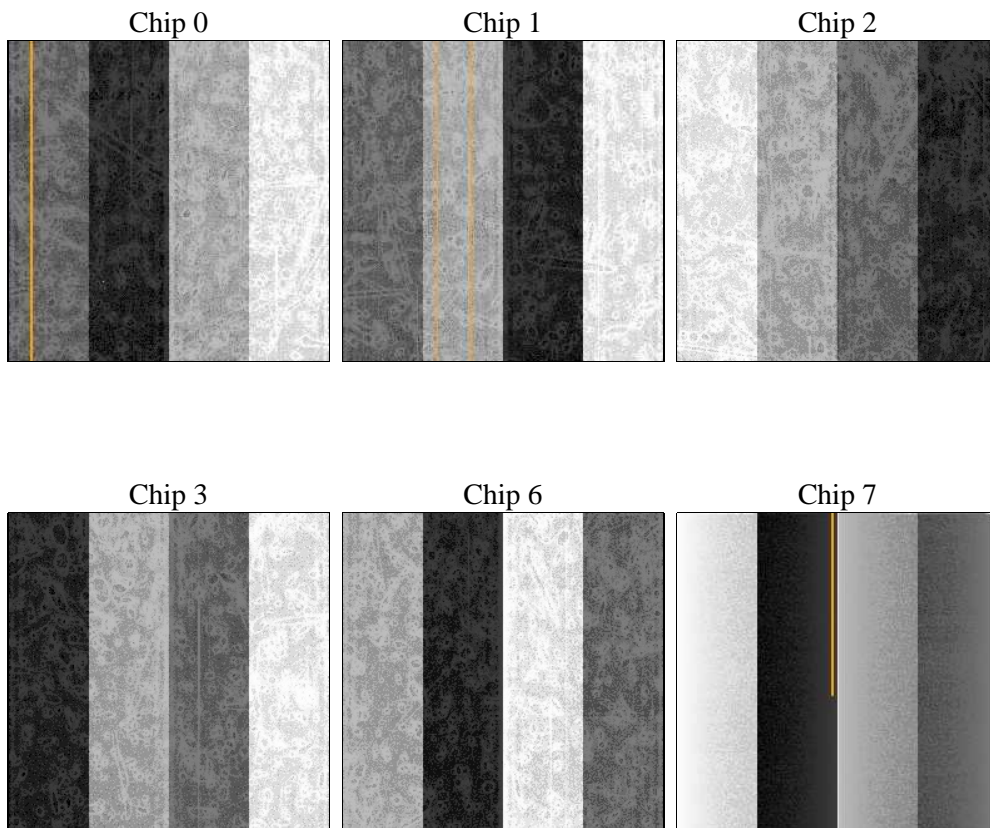
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7973.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7935.4735091627	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	7935.3503891826	Sum of GTIs [s]
date	2012-10-22T04:04:43	Date and time of file creation	ontime1	7935.3914291561	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	7935.4324691594	Sum of GTIs [s]
			ontime3	7935.4735091627	Sum of GTIs [s]
			ontime6	7935.5555891693	Sum of GTIs [s]
			ontime7	7935.514549166	Sum of GTIs [s]
			l1events	250698	Number of level 1 events

### 2.1.4 Events

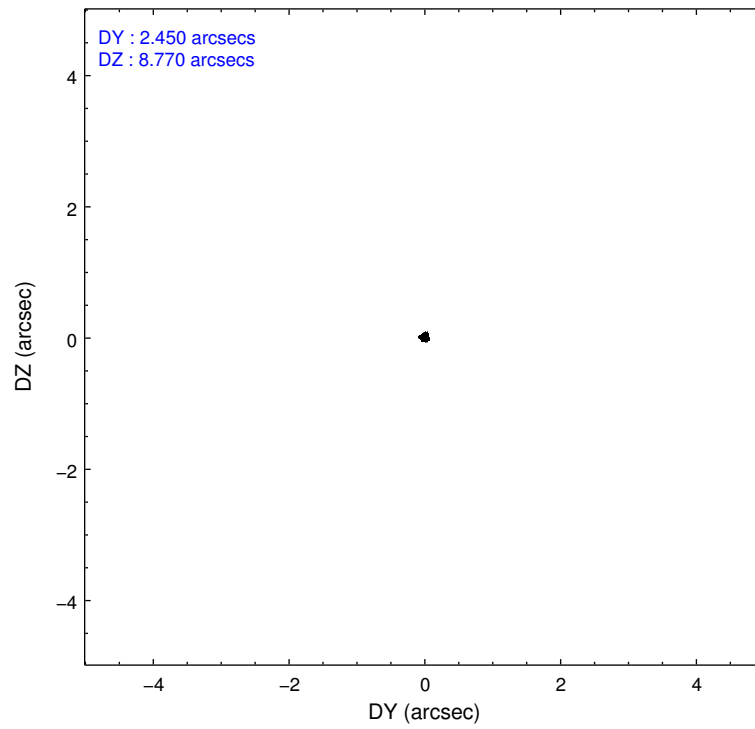
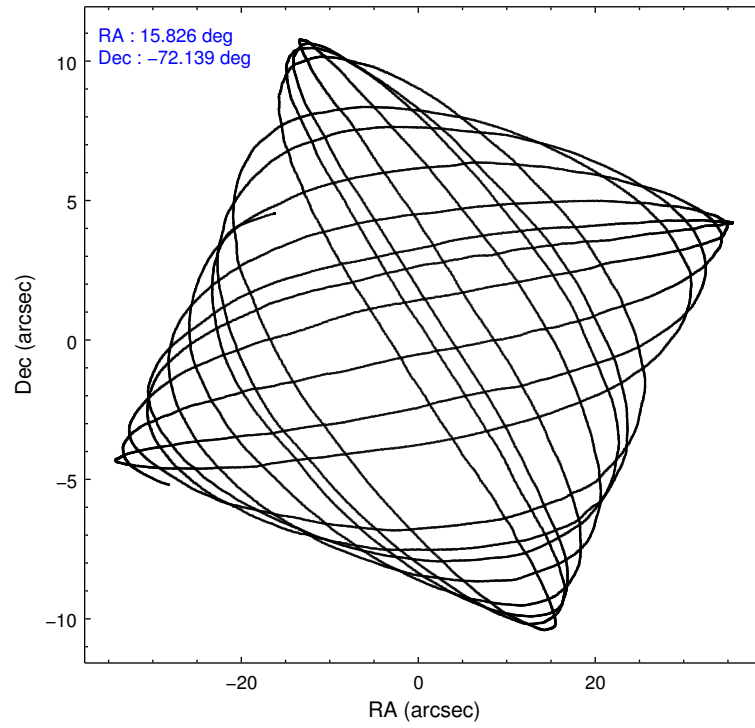
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	36922	35030	40860	60850	40739	36297	grade 0 events	1554	1738	1946	20712	2278	1897
rejected events	32907	30724	36509	35131	35814	18441		4%	4%	4%	34%	5%	5%
rejected %	89%	87%	89%	57%	87%	50%	grade 1 events	25	23	26	167	15	23
								0%	0%	0%	0%	0%	0%
							grade 2 events	843	904	898	2446	914	3776
								2%	2%	2%	4%	2%	10%
							grade 3 events	517	482	404	855	460	1821
								1%	1%	0%	1%	1%	5%
							grade 4 events	431	475	442	859	442	1751
								1%	1%	1%	1%	1%	4%
							grade 5 events	1148	1251	1016	1348	1348	4044
								3%	3%	2%	2%	3%	11%
							grade 6 events	676	712	670	864	834	8625
								1%	2%	1%	1%	2%	23%
							grade 7 events	31728	29445	35458	33599	34448	14360
								85%	84%	86%	55%	84%	39%

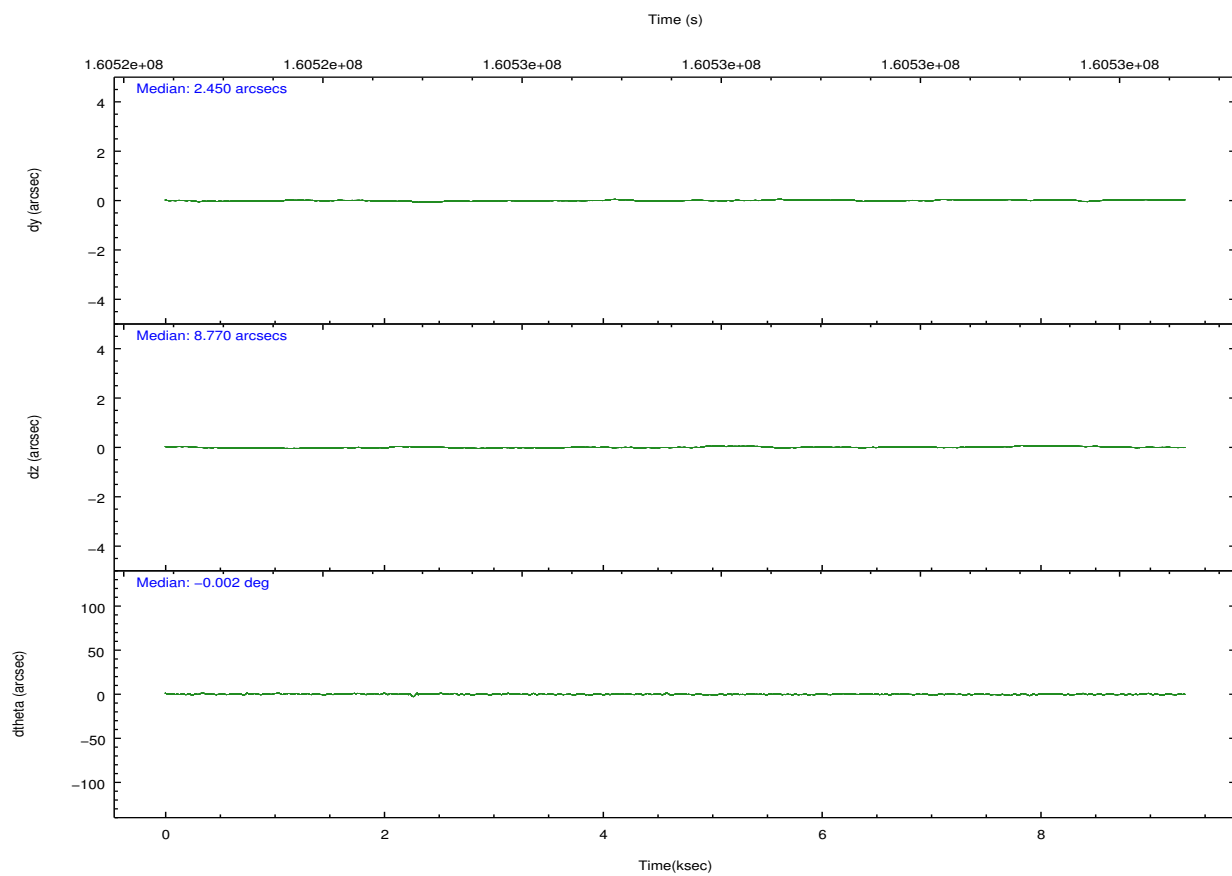
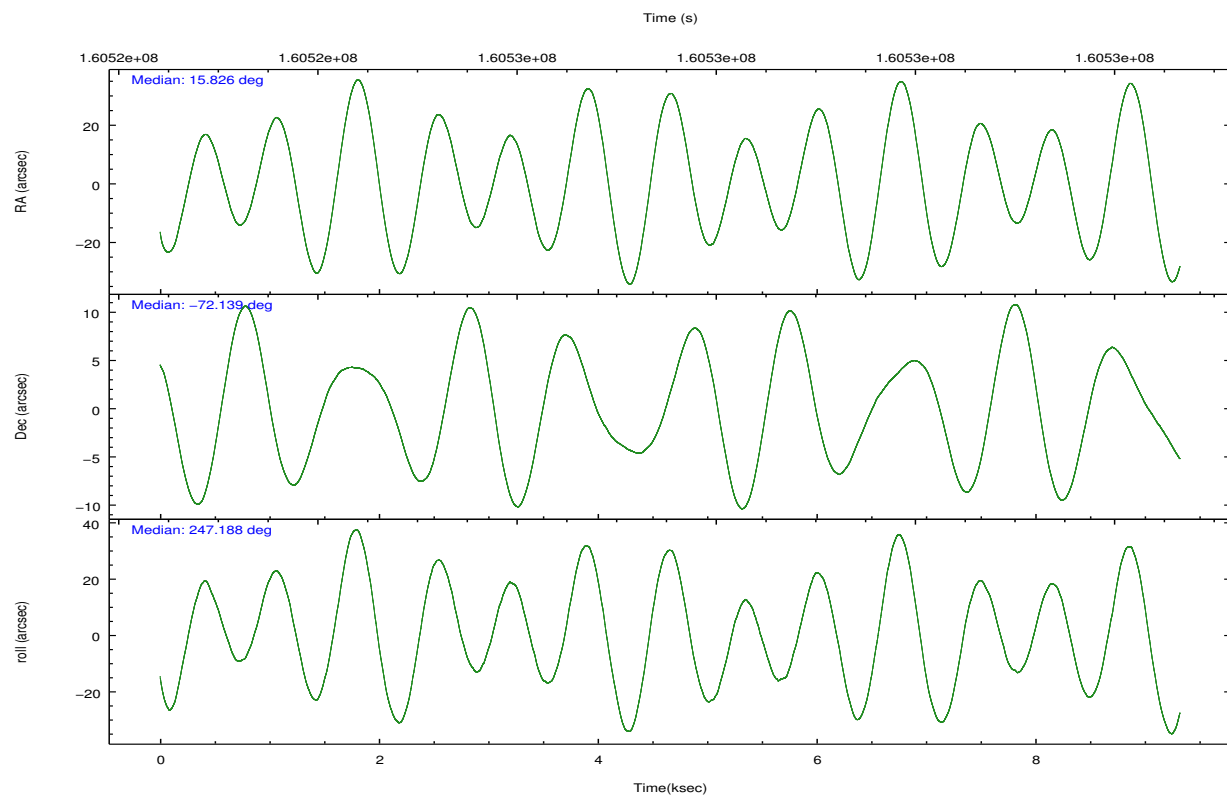


## 2.2 Compared Parameters

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	15.814959	15.82636813101883	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.112316	-72.13948461744747	Alternating exposures requested	N	N
[deg] Pointing Roll	246.970872	247.1904106639082	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	159019264.184000	159019264.184000			
[s] Window stop time (MET)	161697664.184000	161697664.184000			
[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)	160524222.184000	160522675.99517			
Observation start date	2003-02-01T22:02:38	2003-02-01T21:37:55			
[s] Observation end time (MET)	160532195.184000	160532329.44557			
Observation end date	2003-02-02T00:15:31	2003-02-02T00:18:49			
Read mode	TIMED	TIMED			

## 2.3 Aspect



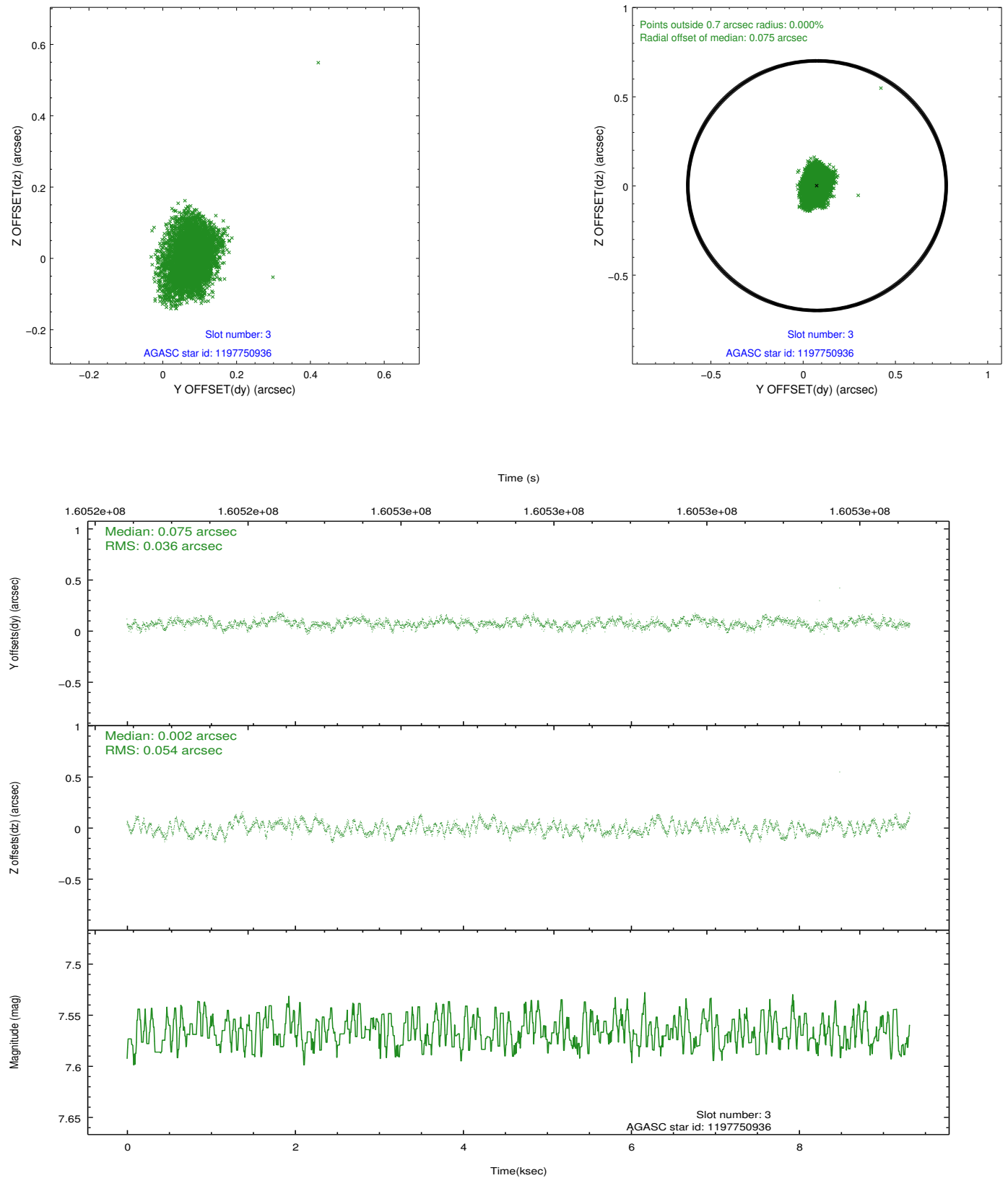


### Slot Statistics

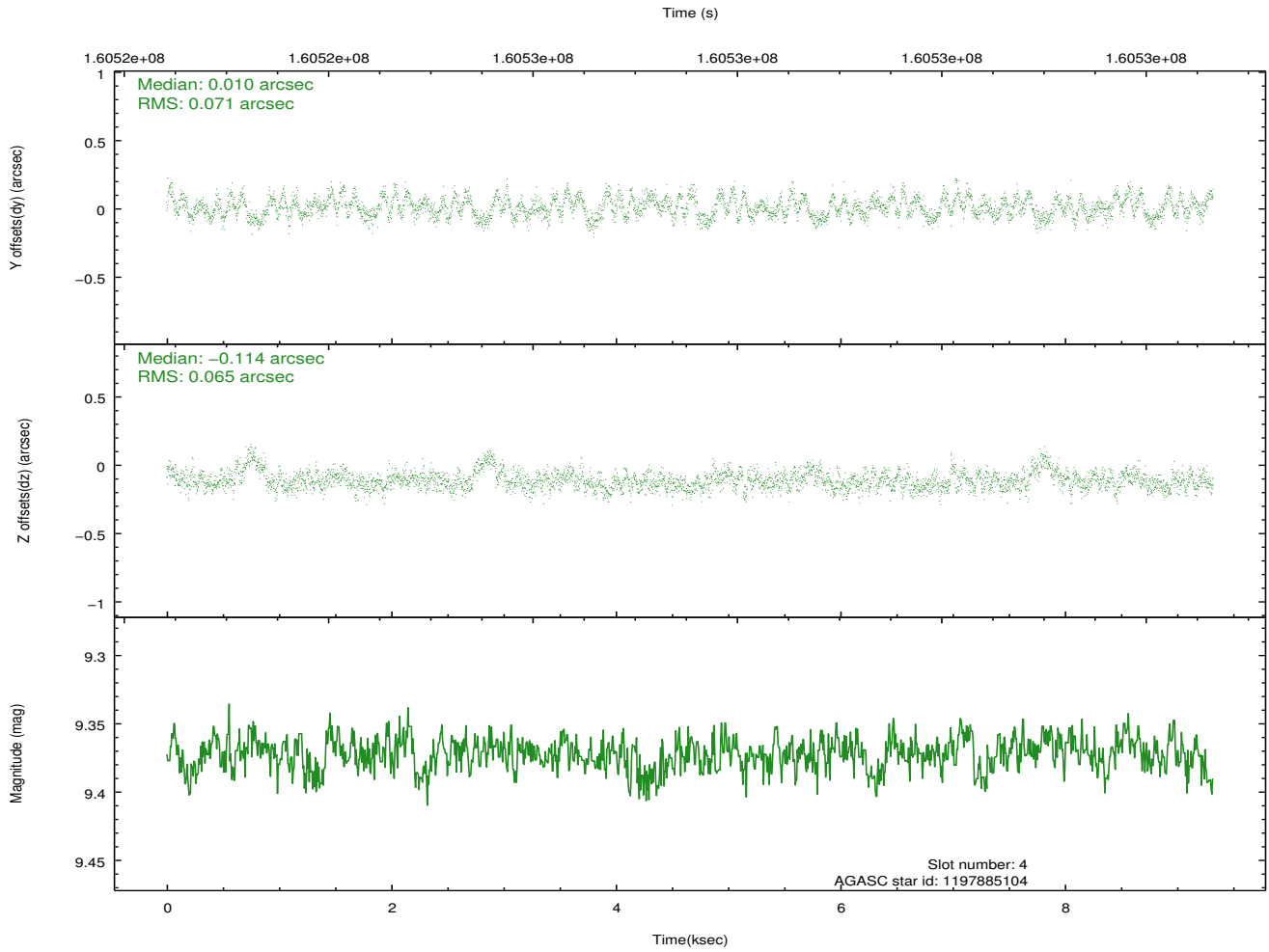
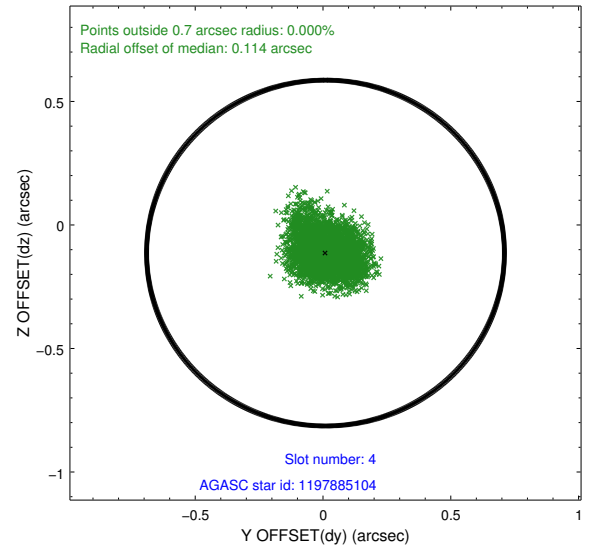
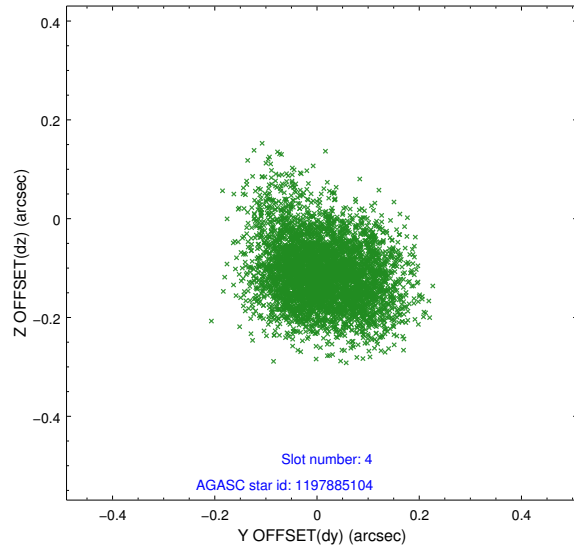
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.25	2273	-0.035	0.069	0.006	0.011	0.000000	0.000000	937.32	-832.14
1	FID	ACIS-I-5	7.24	2274	-0.053	0.024	0.006	0.011	0.000000	0.000000	-1810.48	1065.00
2	FID	ACIS-I-6	7.26	2274	-0.004	-0.023	0.006	0.011	0.000000	0.000000	402.26	1710.12
3	GUIDE	1197750936	7.57	4544	0.075	0.002	0.070	0.110	15.387940	-71.549550	-1672.14	-1239.36
4	GUIDE	1197885104	9.37	4547	0.010	-0.114	0.102	0.169	17.845067	-72.189368	-584.37	2179.99
5	GUIDE	1198189696	7.37	4547	-0.165	-0.010	0.062	0.093	15.223750	-72.697522	2189.29	243.73
6	GUIDE	1197750824	10.10	4545	0.083	0.145	0.142	0.238	14.791487	-71.393477	-1911.70	-2090.01
7	GUIDE	1197749664	9.54	4545	-0.016	-0.040	0.155	0.240	15.809015	-72.366369	844.00	351.68

## 2.4 Star Slots

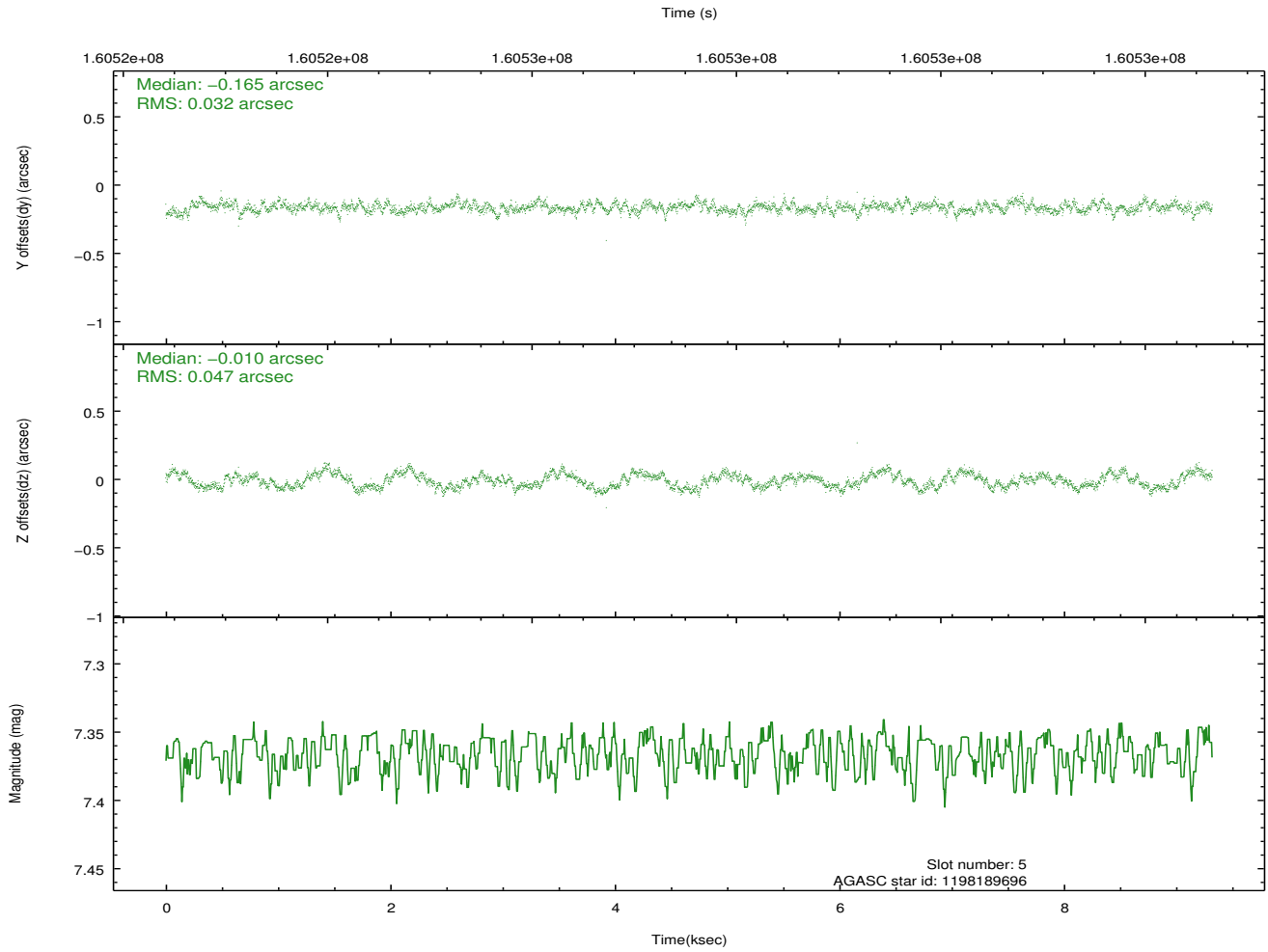
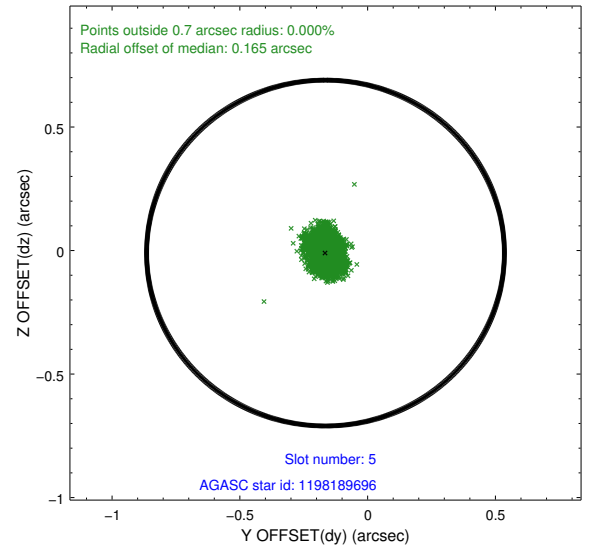
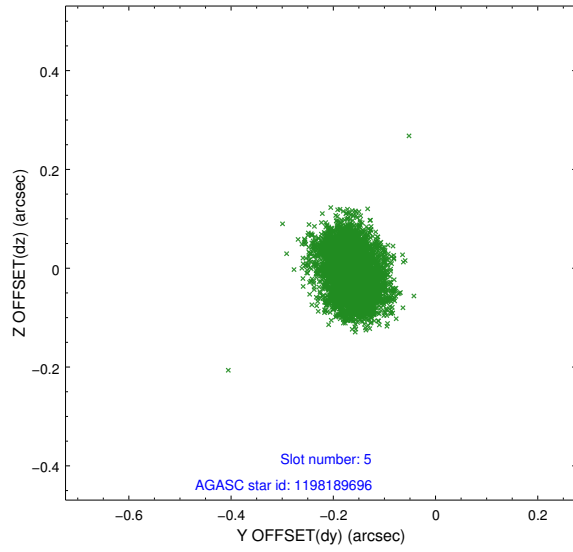
### 2.4.1 Slot 3



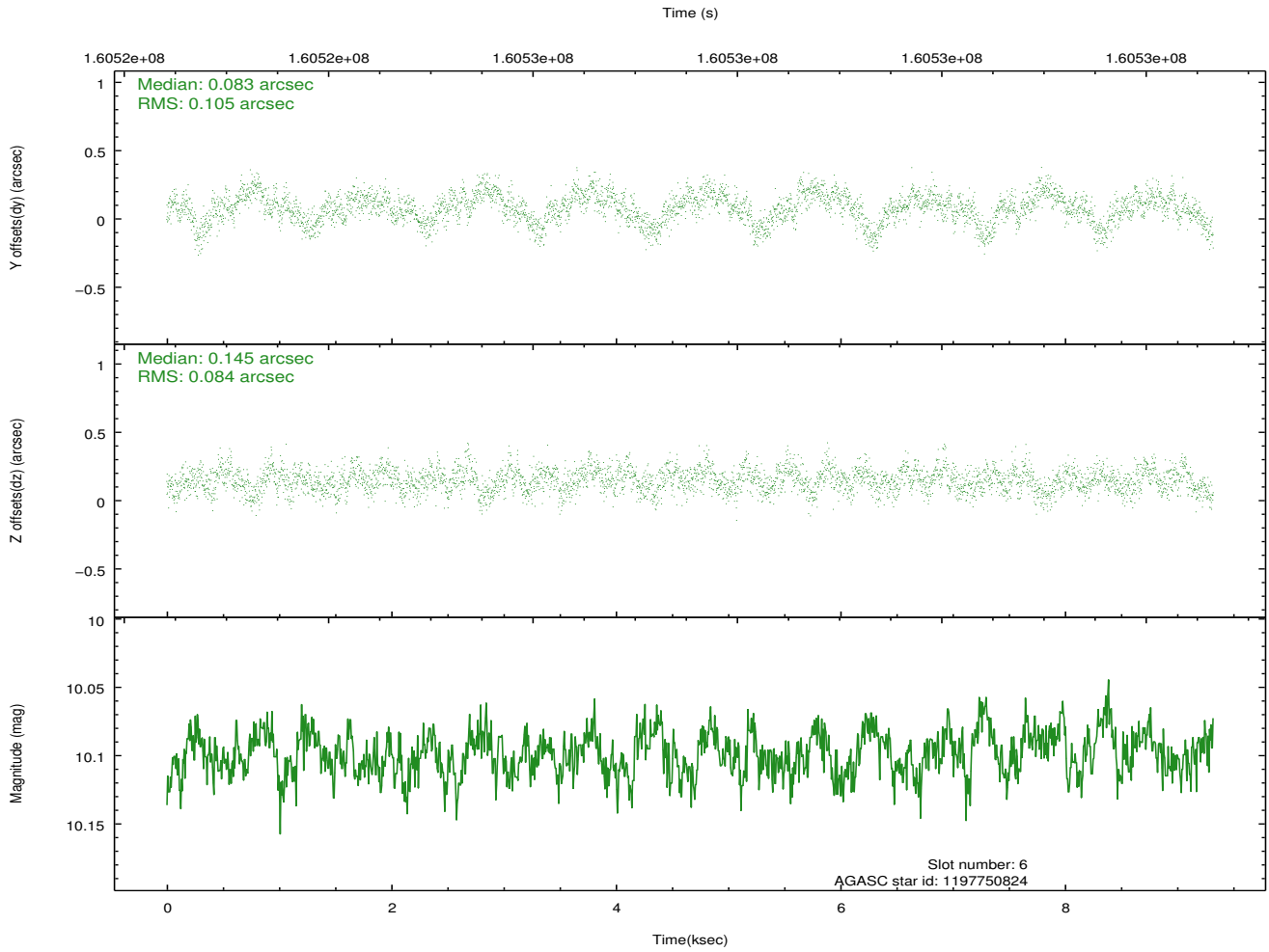
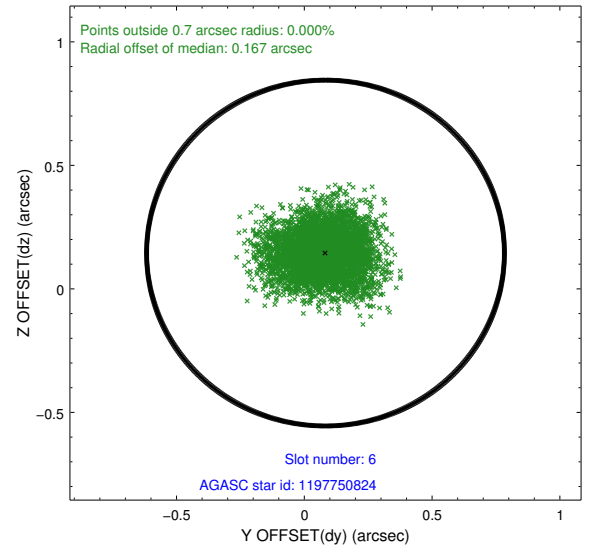
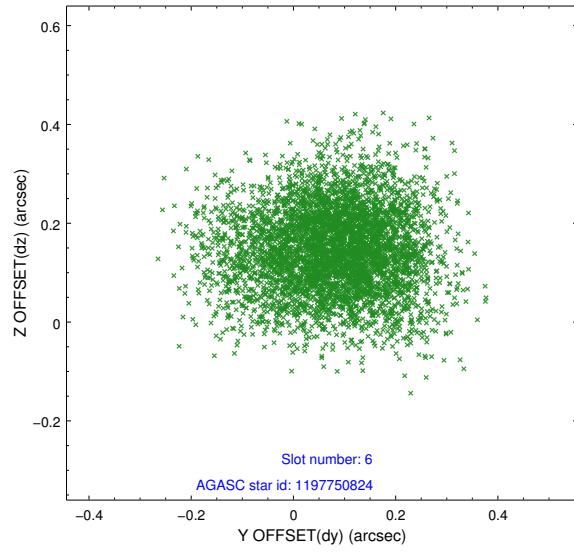
## 2.4.2 Slot 4



### 2.4.3 Slot 5

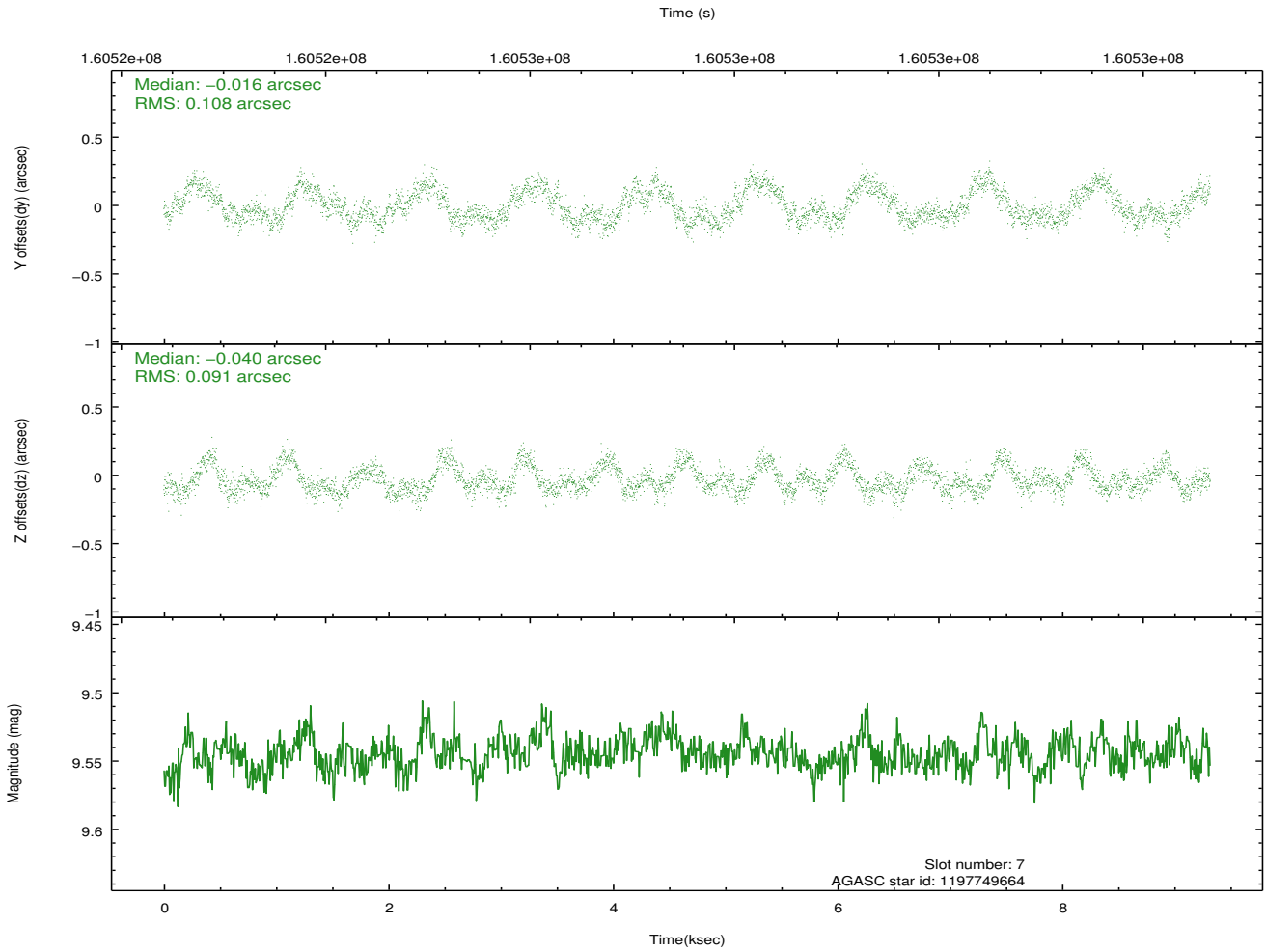
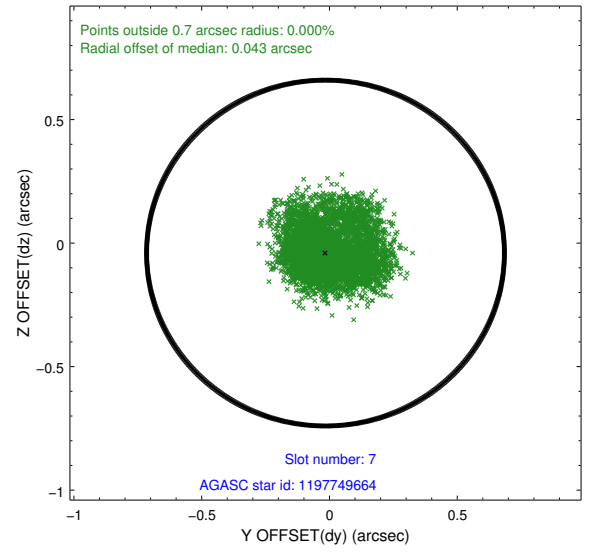
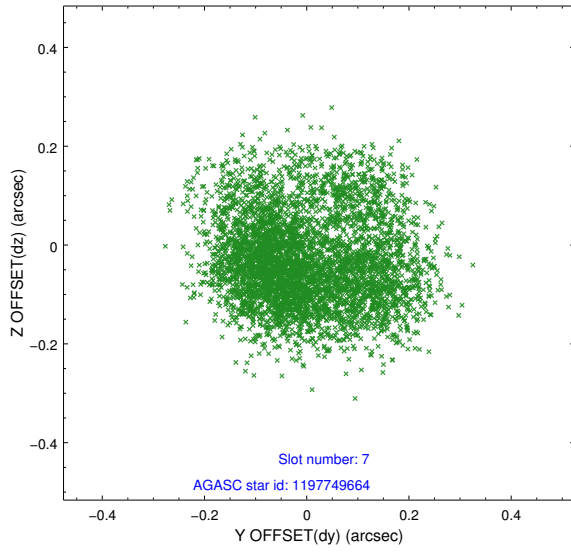


## 2.4.4 Slot 6



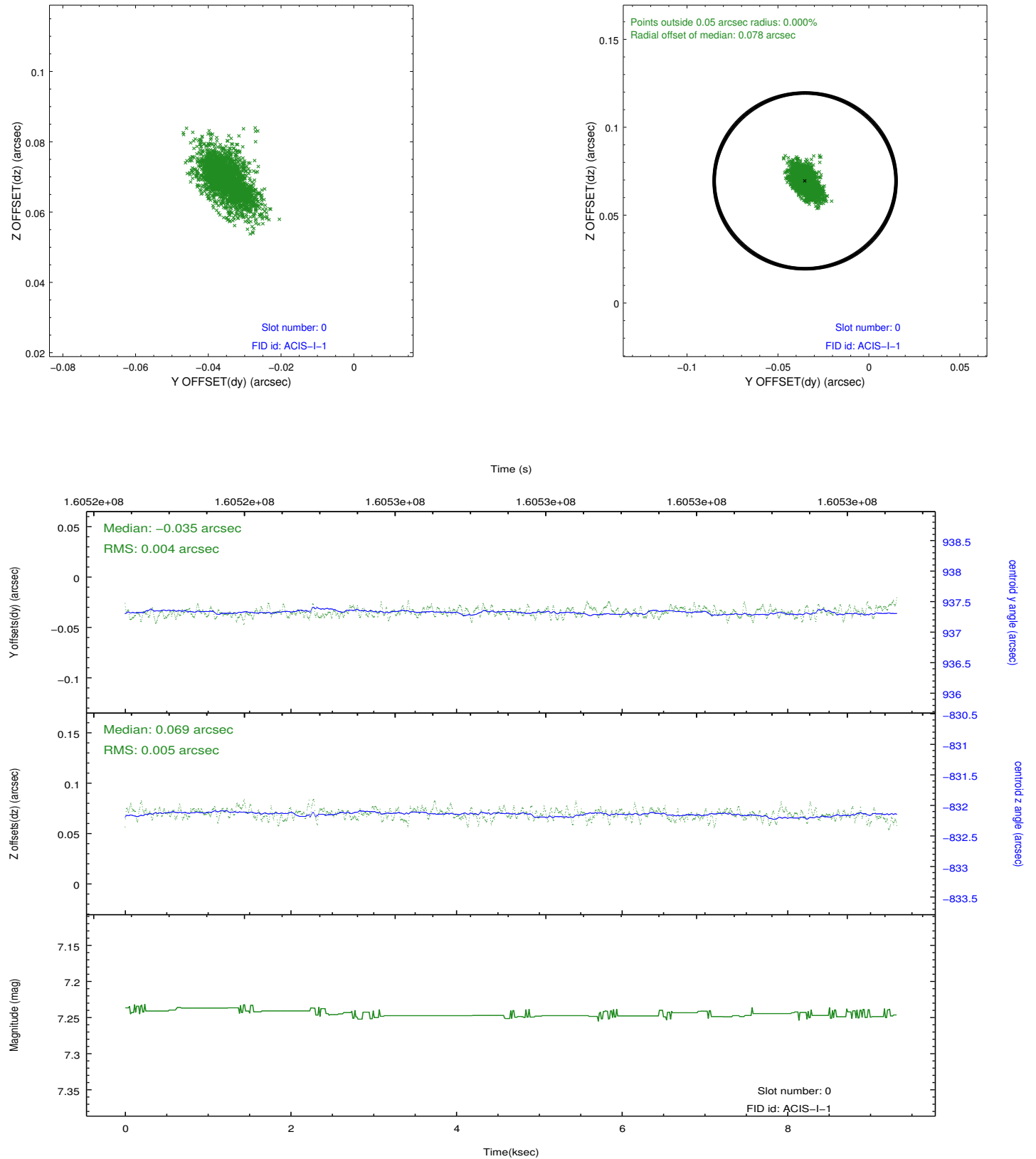


## 2.4.5 Slot 7

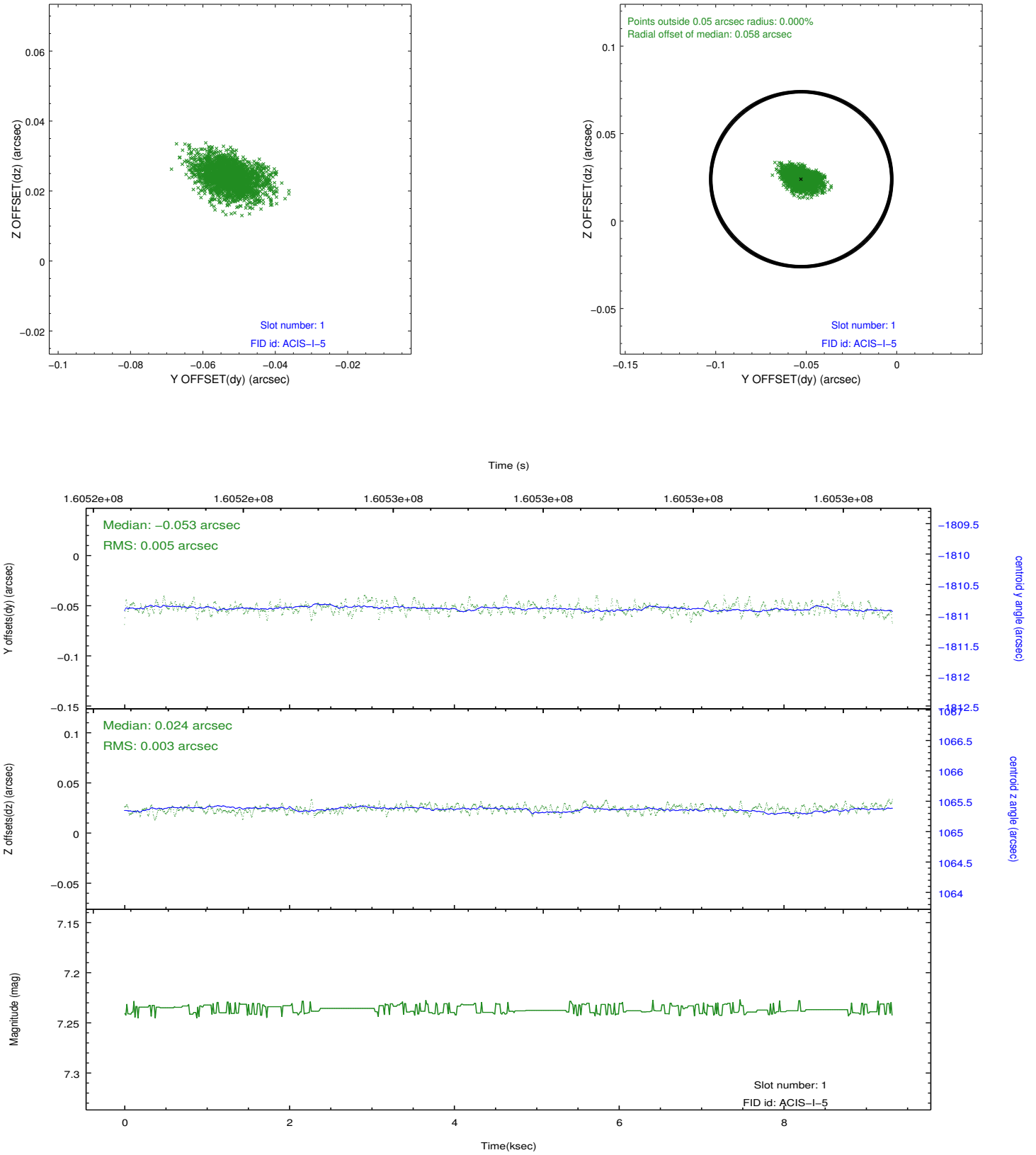


## 2.5 FID Slots

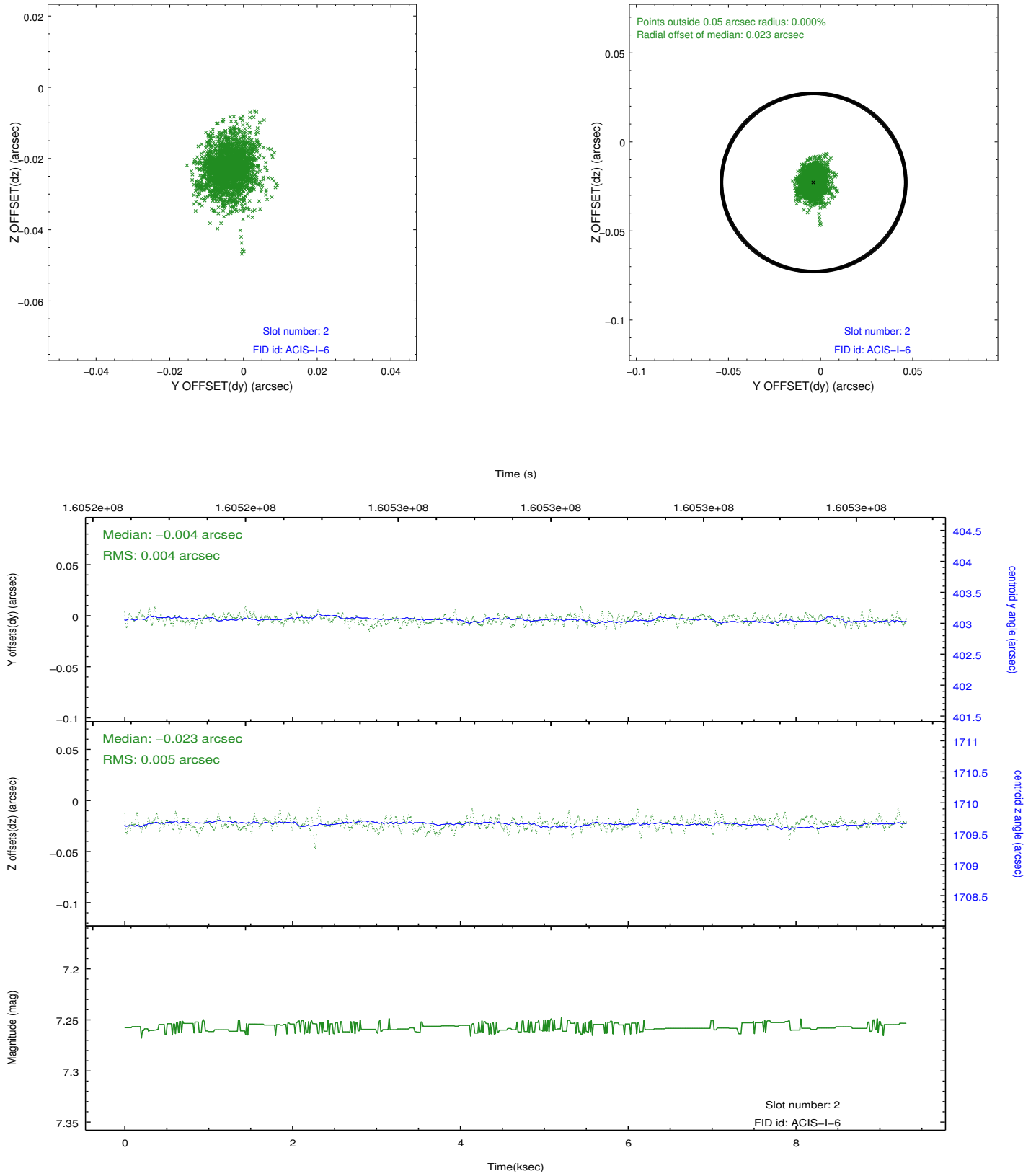
### 2.5.1 Slot 0



## 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)	2012.11.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.935

### A.2 Comments

Window constraint met.