

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2872 - L2 Version 3  
Chandra X-Ray Center

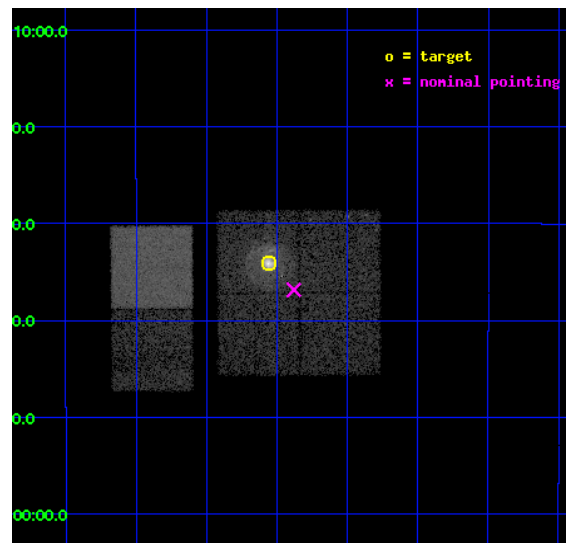
L2 Processing Date : Oct 14 2012

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# 1 Front

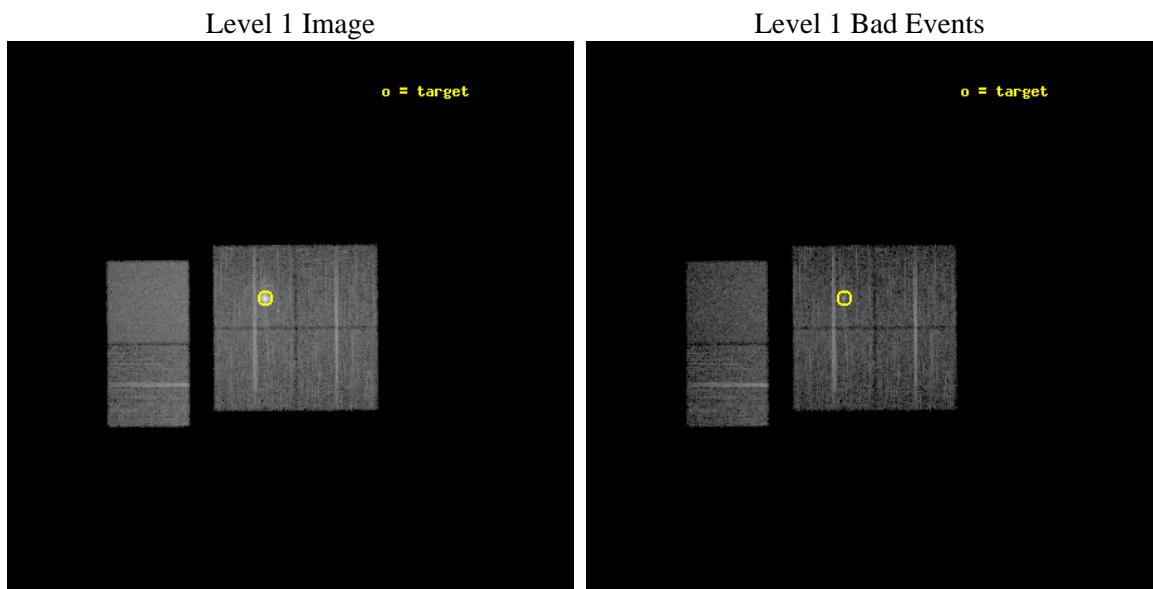
seq_num	590261	Sequence number
obs_id	2872	Observation id
title	AO3B CALIBRATION OBSERVATIONS THE STANDARD CANDLES CAS A AND G21.5-09	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip I3, T=120, Offsets=-2,2,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.34491669112	Nominal RA [deg]
dec_nom	-10.614117496313	Nominal Dec [deg]
roll_nom	269.69245881663	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9964.7999628782	Sum of GTIs [s]
livetime	9838.6196656661	Livetime [s]
ontime0	9964.7999628782	Sum of GTIs [s]
ontime1	9964.7999628782	Sum of GTIs [s]
ontime2	9964.7999628782	Sum of GTIs [s]
ontime3	9964.7999628782	Sum of GTIs [s]
ontime6	9964.7999628782	Sum of GTIs [s]
ontime7	9964.7999628782	Sum of GTIs [s]
l2events	95395	Number of level 2 events



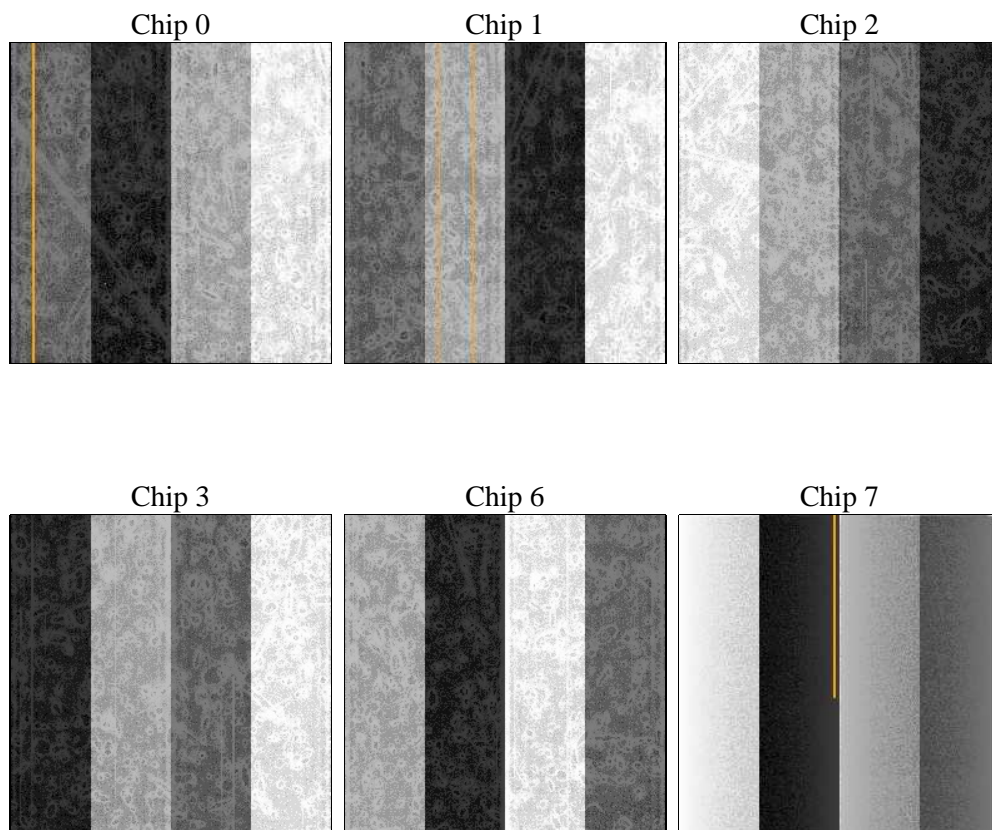
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9964.7999628782	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	9964.7999628782	Sum of GTIs [s]
date	2012-10-14T18:00:42	Date and time of file creation	ontime1	9964.7999628782	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	9964.7999628782	Sum of GTIs [s]
			ontime3	9964.7999628782	Sum of GTIs [s]
			ontime6	9964.7999628782	Sum of GTIs [s]
			ontime7	9964.7999628782	Sum of GTIs [s]
			l1events	418063	Number of level 1 events

### 2.1.4 Events

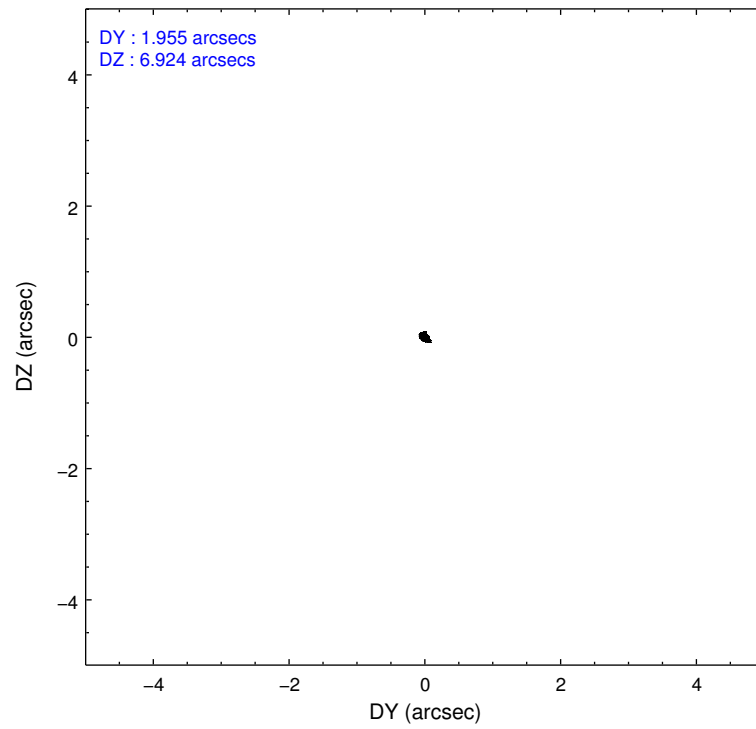
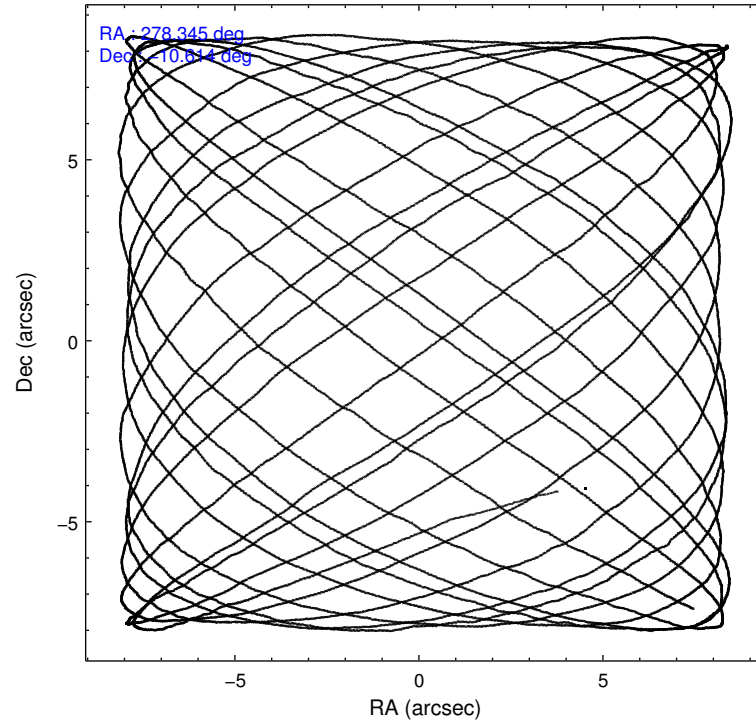
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	57966	57989	64685	92177	64233	81013	grade 0 events	3492	3847	3820	25854	3083	3026
rejected events	50149	49261	56664	54428	56611	47622		6%	6%	5%	28%	4%	3%
rejected %	86%	84%	87%	59%	88%	58%	grade 1 events	25	31	38	288	30	68
								0%	0%	0%	0%	0%	0%
							grade 2 events	1610	1724	1579	5325	1522	6519
								2%	2%	2%	5%	2%	8%
							grade 3 events	759	828	723	1946	761	2964
								1%	1%	1%	2%	1%	3%
							grade 4 events	709	820	665	2002	766	3000
								1%	1%	1%	2%	1%	3%
							grade 5 events	2410	2509	2380	2726	2848	7905
								4%	4%	3%	2%	4%	9%
							grade 6 events	1249	1513	1236	2632	1492	17894
								2%	2%	1%	2%	2%	22%
							grade 7 events	47712	46717	54244	51404	53731	39637
								82%	80%	83%	55%	83%	48%

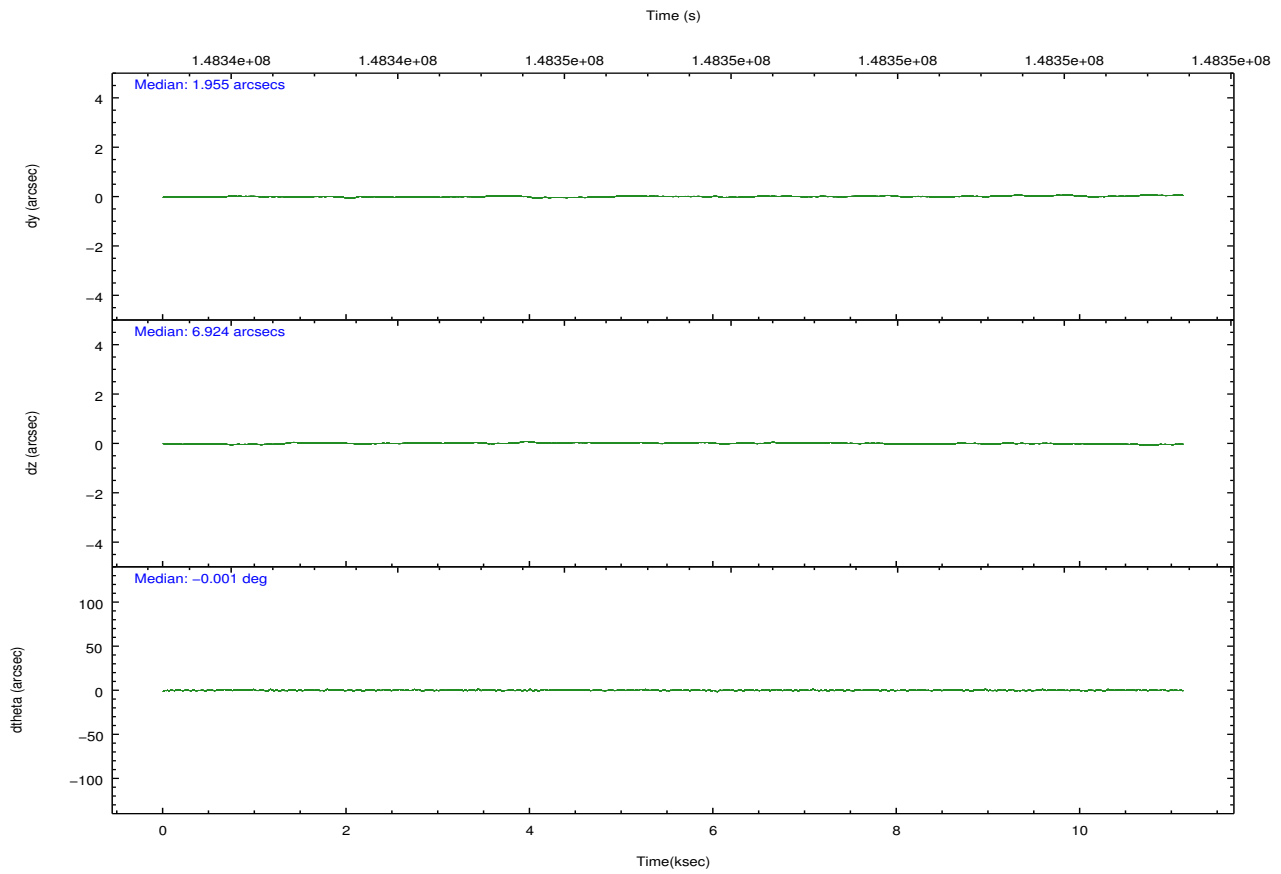
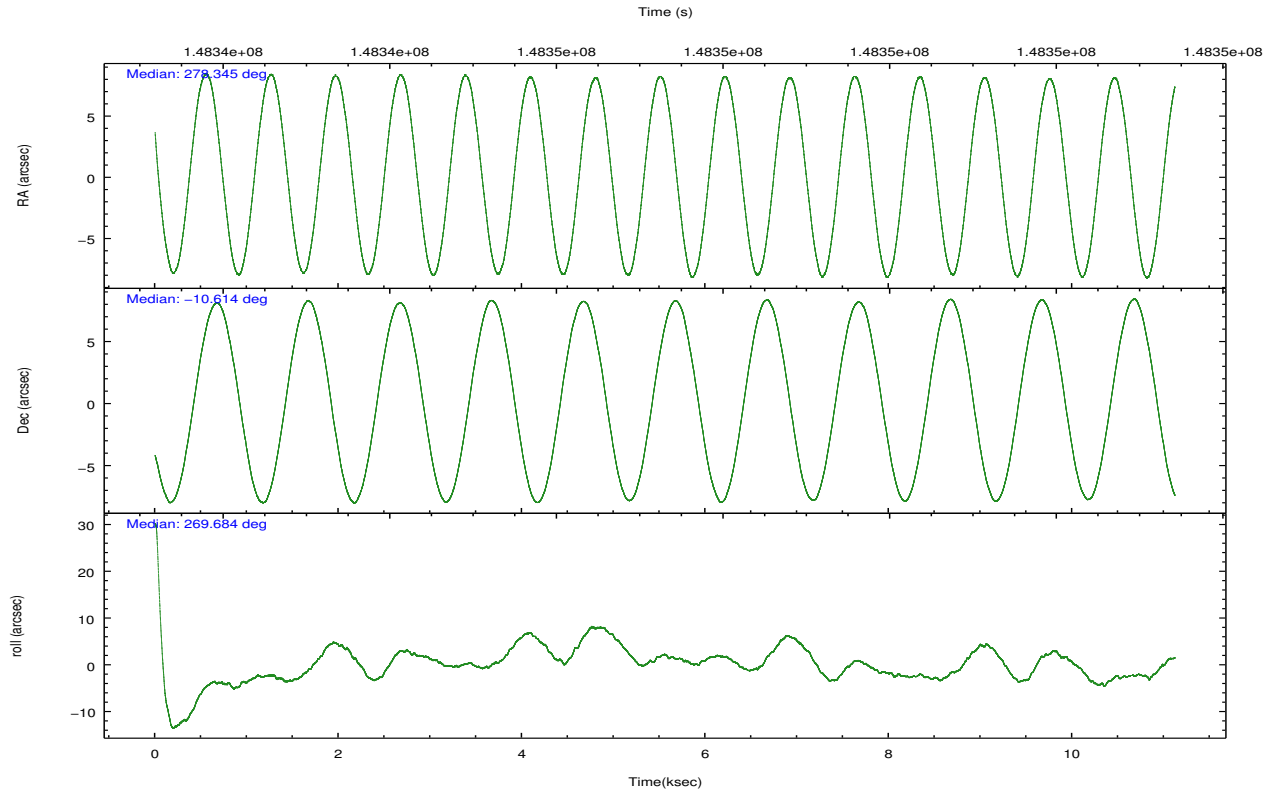


## 2.2 Compared Parameters

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	278.331054	278.3449166911179	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.590343	-10.61411749631281	Alternating exposures requested	N	N
[deg] Pointing Roll	269.481223	269.692458816634	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	147225664.184000	147225664.184000			
[s] Window stop time (MET)	149731264.184000	149731264.184000			
[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)	148342871.184000	148341445.82542			
Observation start date	2002-09-13T22:20:07	2002-09-13T21:57:25			
[s] Observation end time (MET)	148352871.184000	148353021.1509			
Observation end date	2002-09-14T01:06:47	2002-09-14T01:10:21			
Read mode	TIMED	TIMED			

## 2.3 Aspect



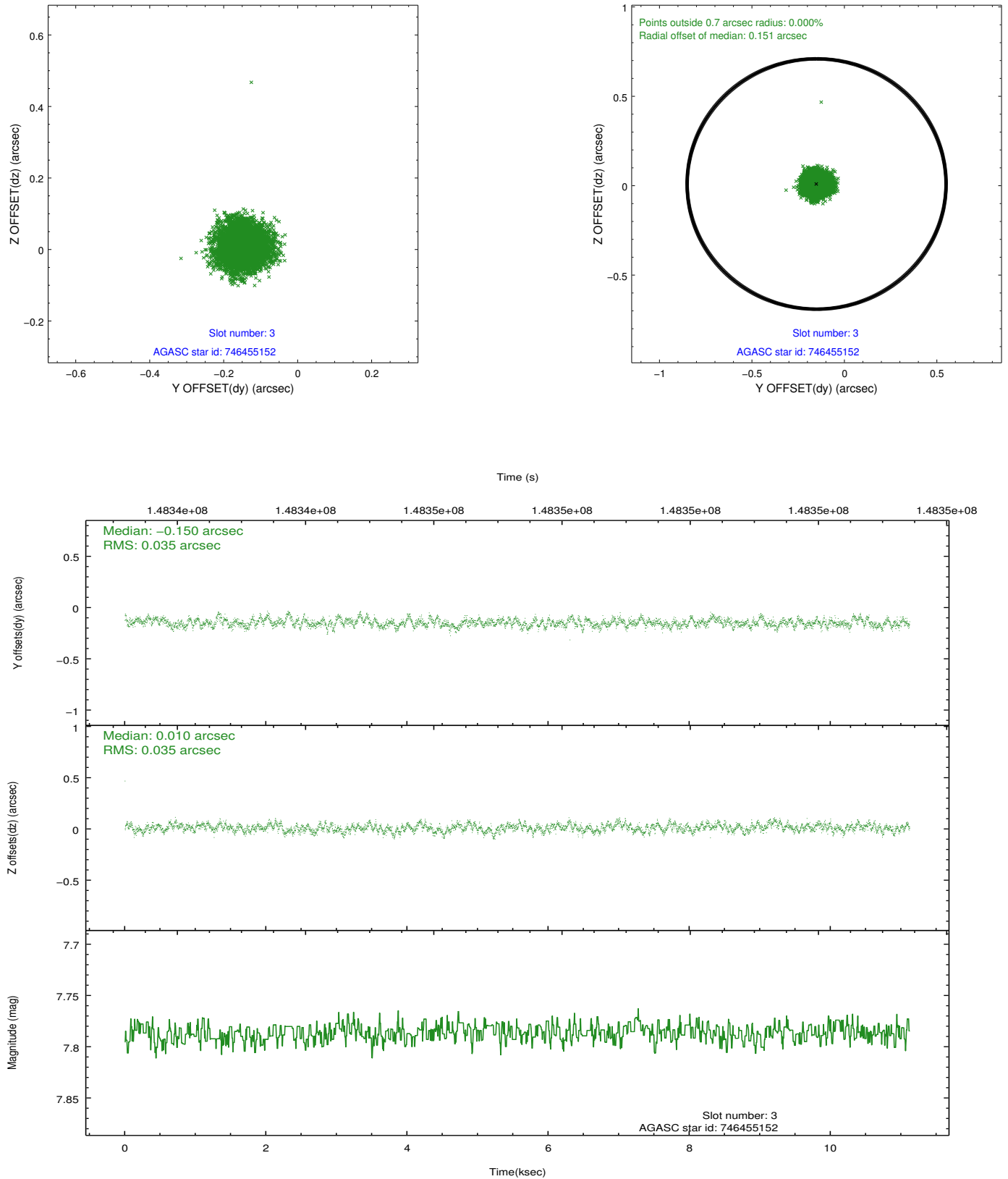


### Slot Statistics

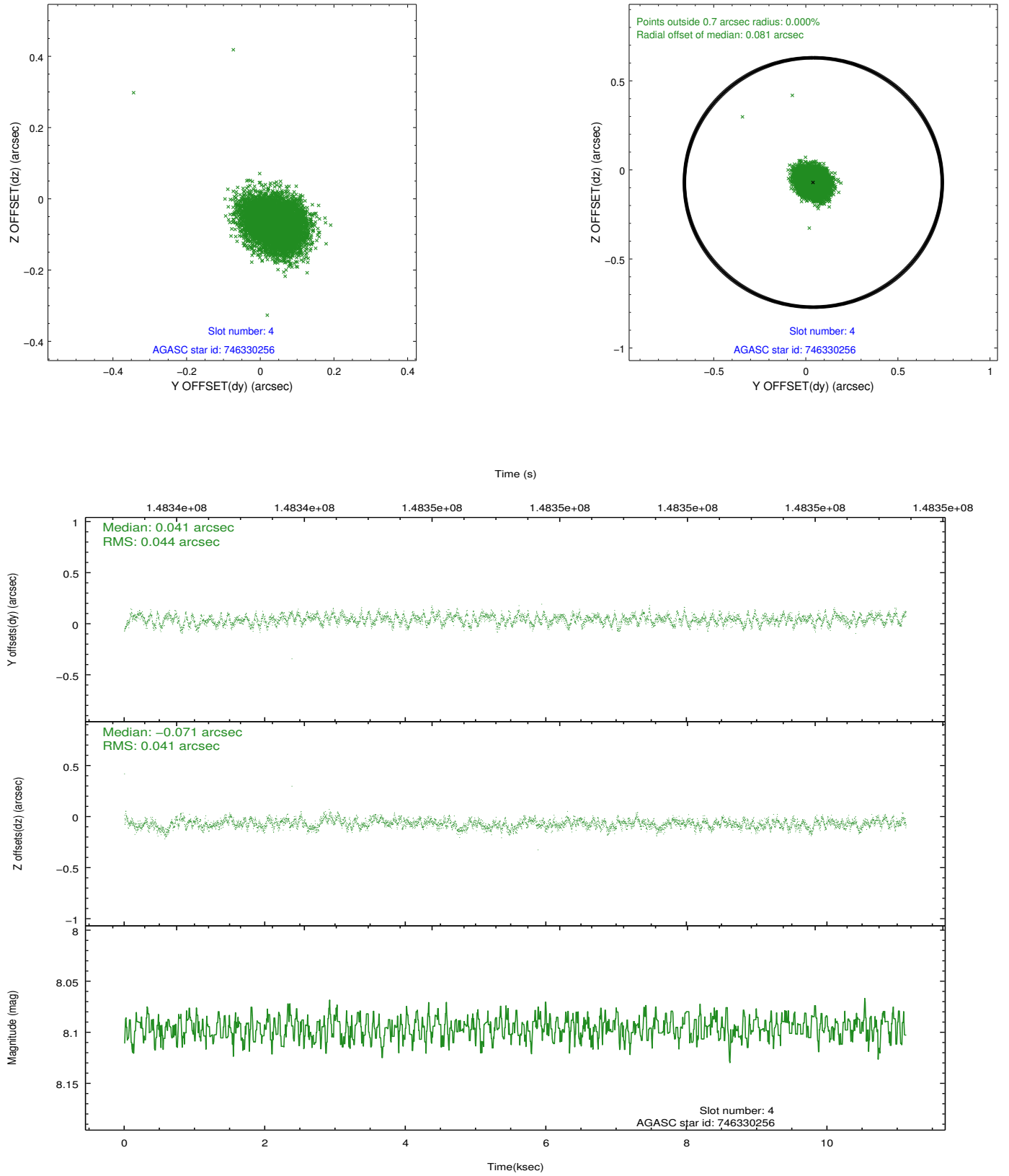
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.25	2711	-0.003	0.022	0.006	0.011	0.000000	0.000000	937.84	-830.31
1	FID	ACIS-I-5	7.24	2711	-0.049	0.049	0.006	0.010	0.000000	0.000000	-1810.01	1067.04
2	FID	ACIS-I-6	7.26	2713	-0.038	-0.001	0.007	0.011	0.000000	0.000000	402.91	1711.96
3	GUIDE	746455152	7.79	5425	-0.150	0.010	0.053	0.084	278.447893	-9.976732	-2213.17	394.40
4	GUIDE	746330256	8.10	5425	0.041	-0.071	0.064	0.101	277.634401	-10.863955	1009.71	-2453.37
5	GUIDE	746455112	8.93	5423	0.192	-0.155	0.084	0.139	278.266531	-10.703234	408.45	-224.47
6	GUIDE	746460272	8.94	5425	-0.063	0.116	0.077	0.122	278.847488	-10.152127	-1593.27	1816.05
7	GUIDE	746461728	9.77	5406	-0.019	0.097	0.113	0.184	278.986921	-10.530755	-234.15	2320.19

## 2.4 Star Slots

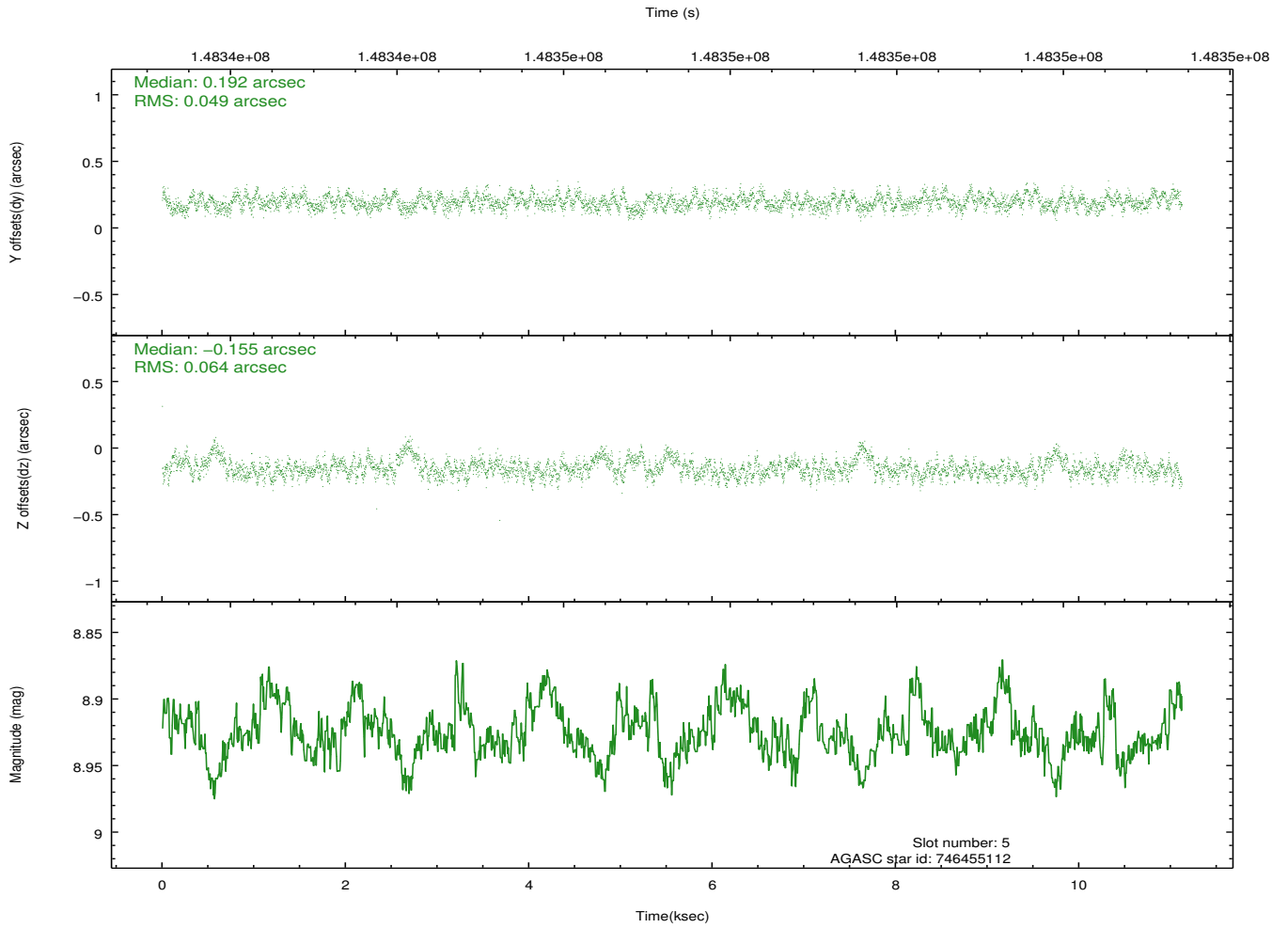
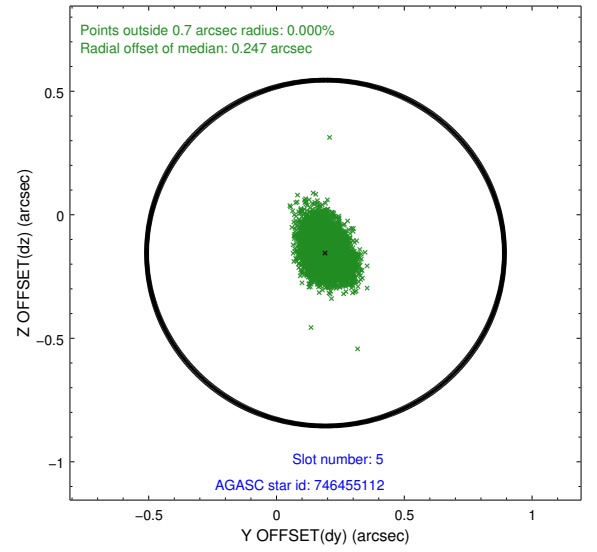
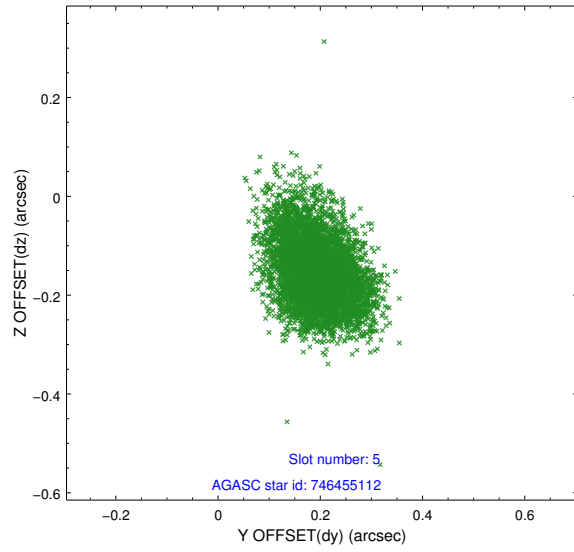
### 2.4.1 Slot 3



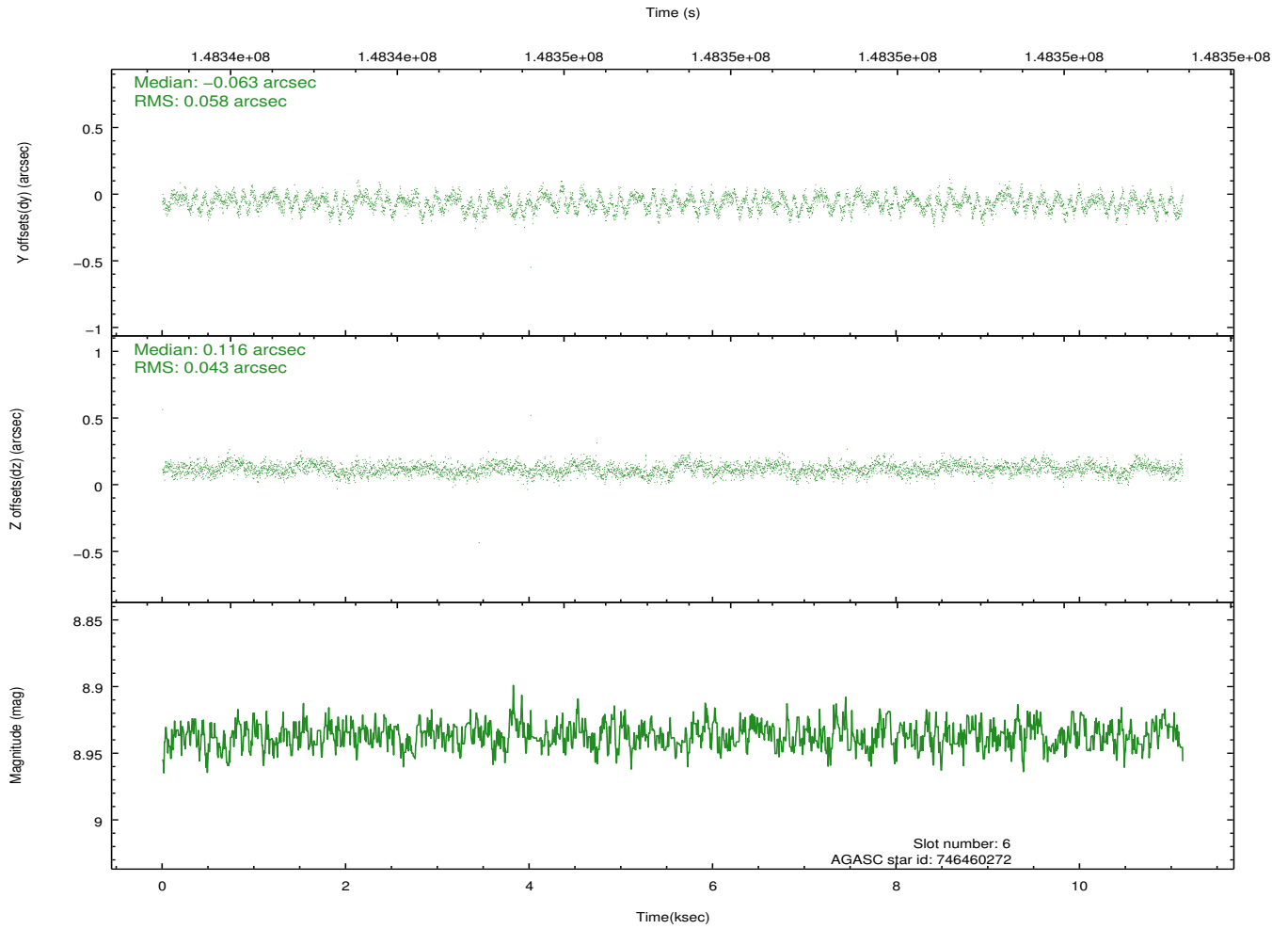
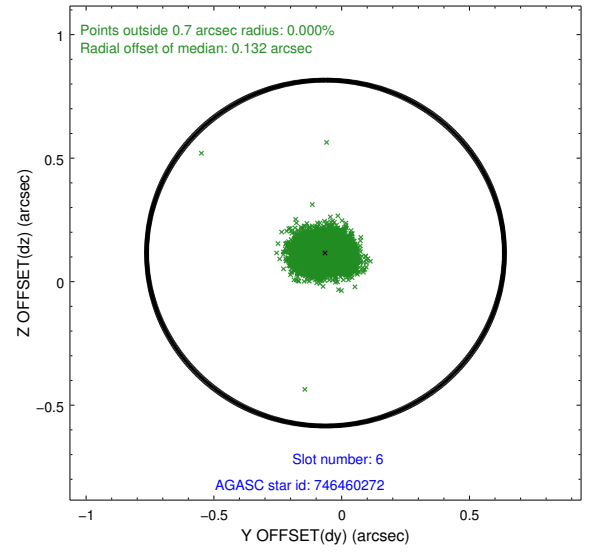
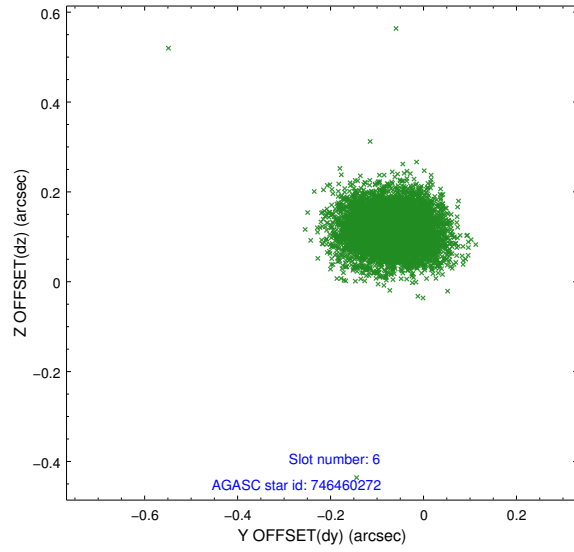
## 2.4.2 Slot 4



### 2.4.3 Slot 5

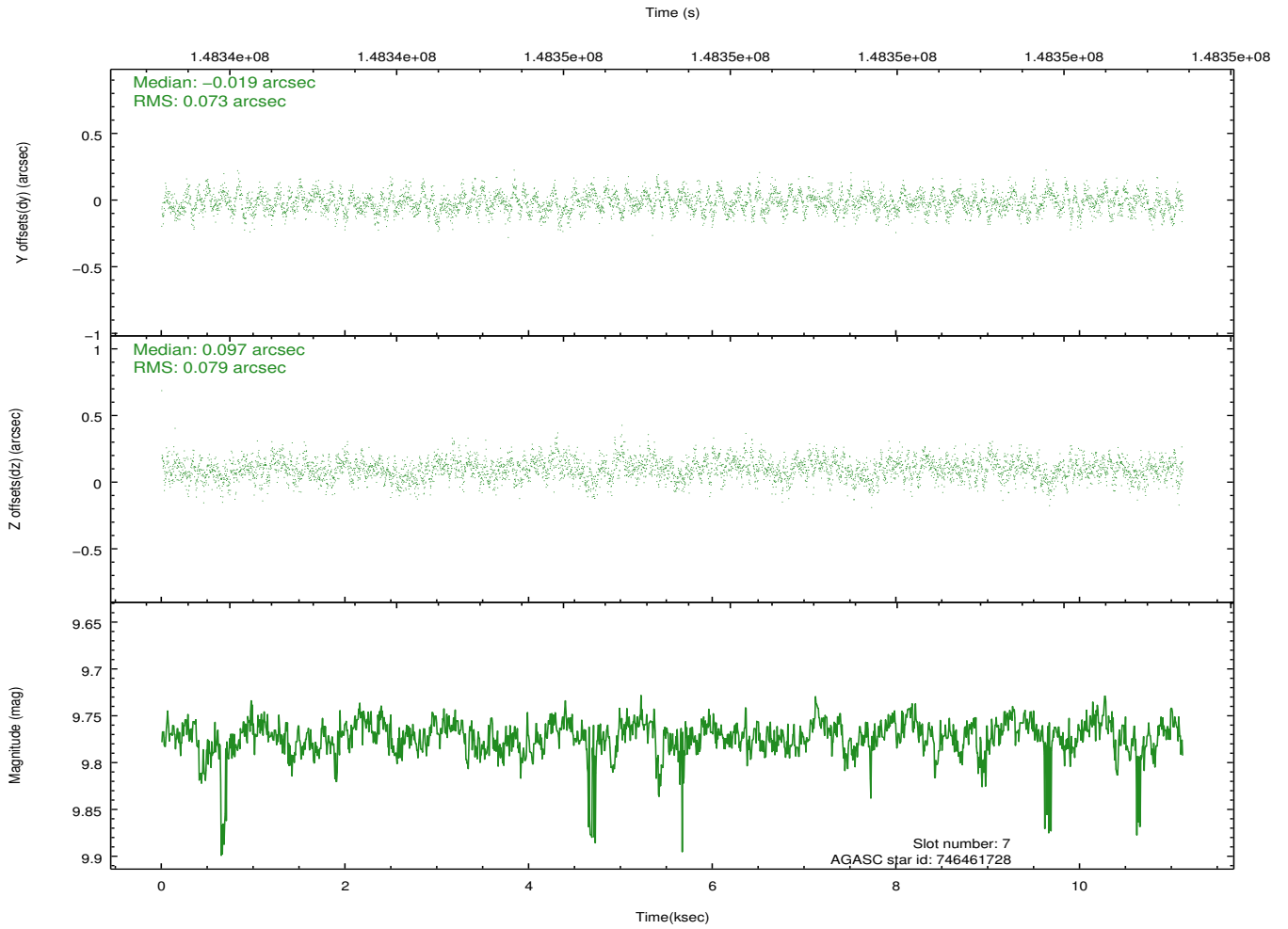
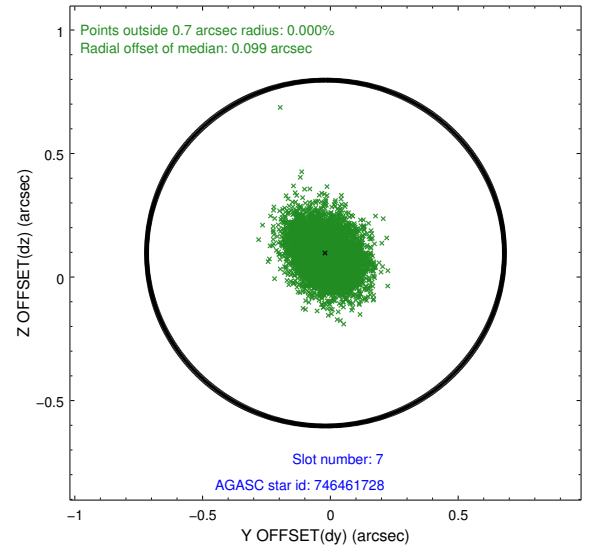
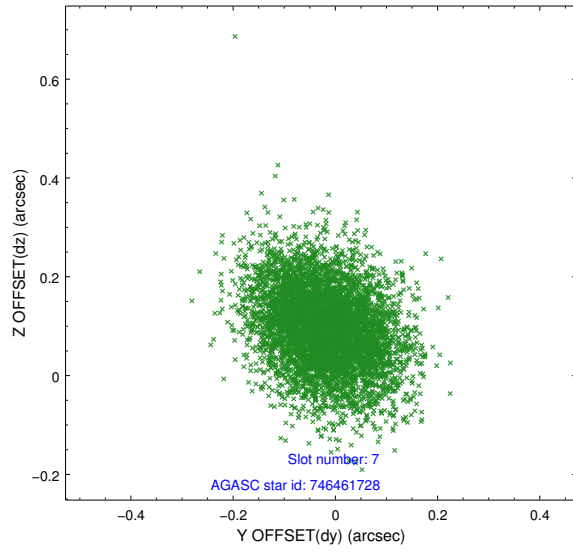


## 2.4.4 Slot 6



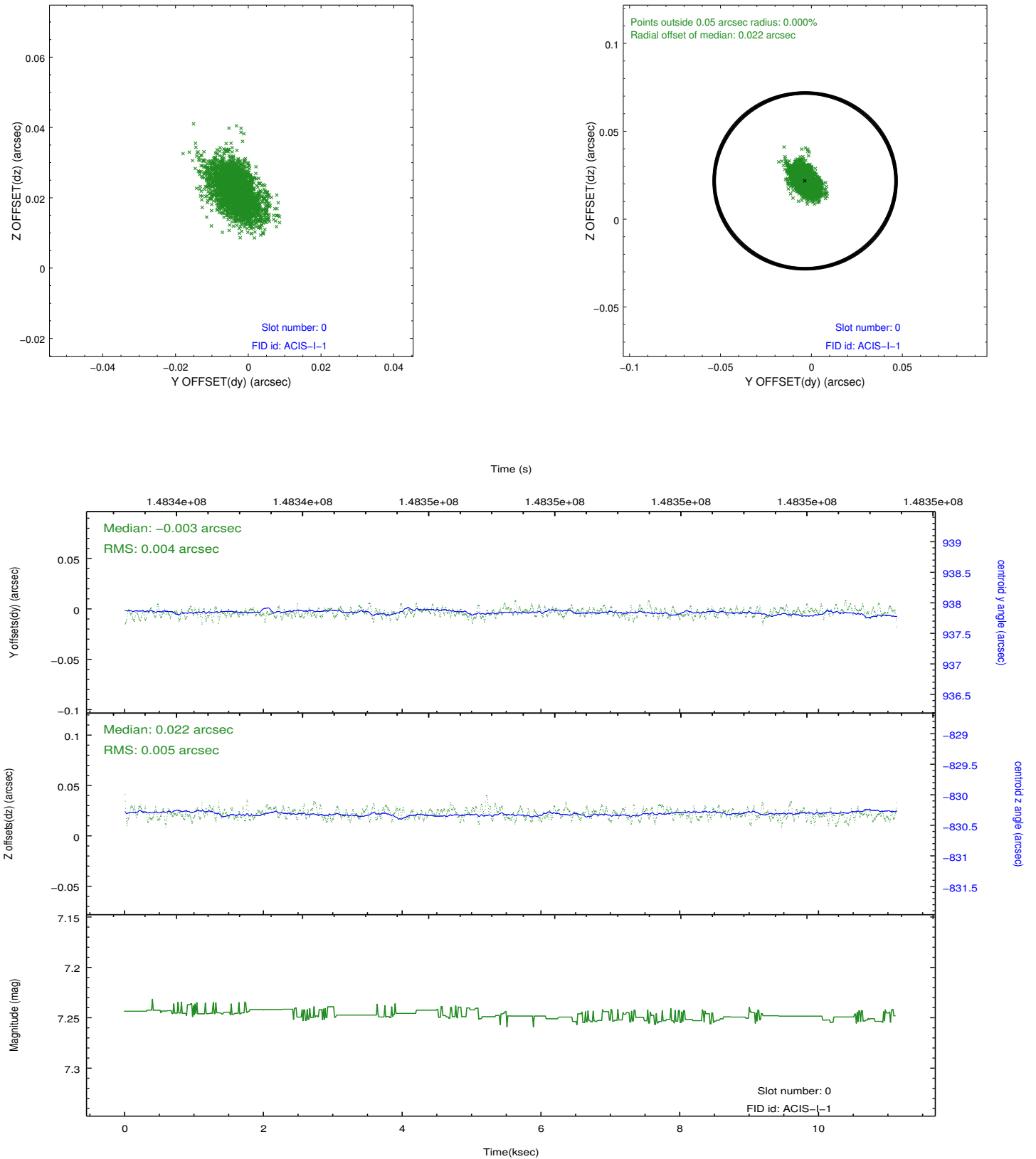


## 2.4.5 Slot 7

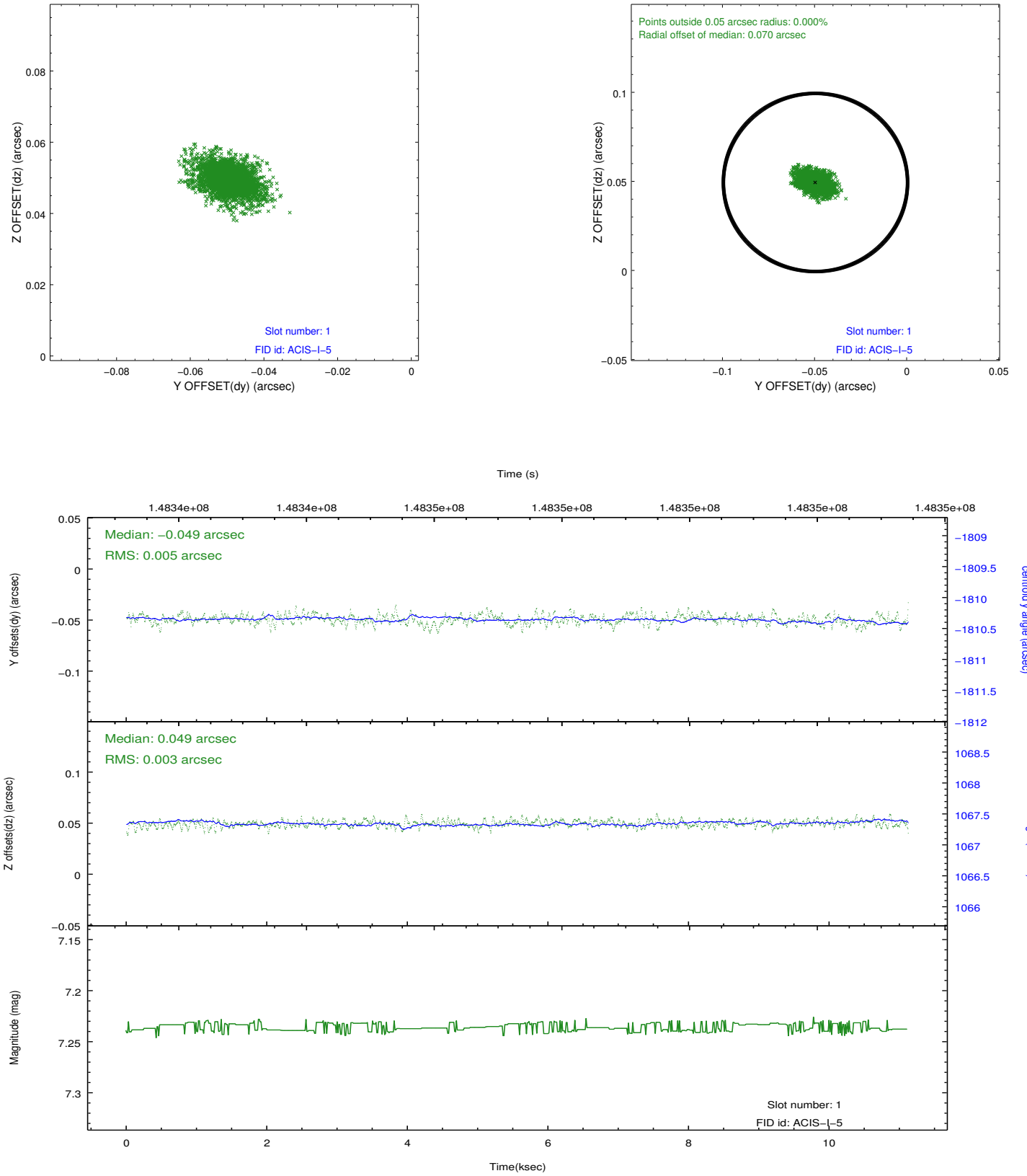


## 2.5 FID Slots

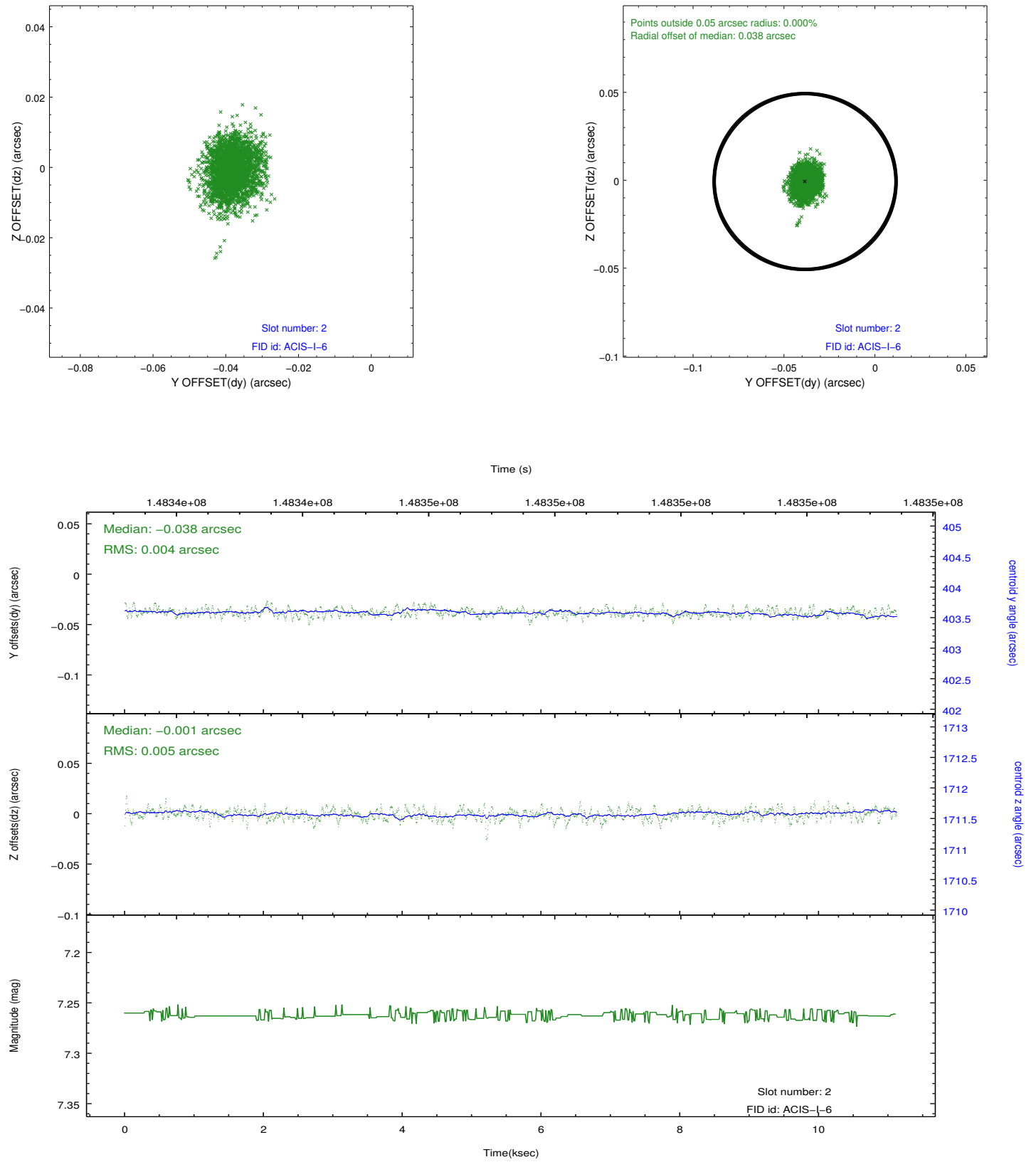
### 2.5.1 Slot 0



## 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)	2012.10.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.967

### A.2 Comments

Window constraint met.