

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3529 - L2 Version 5  
Chandra X-Ray Center

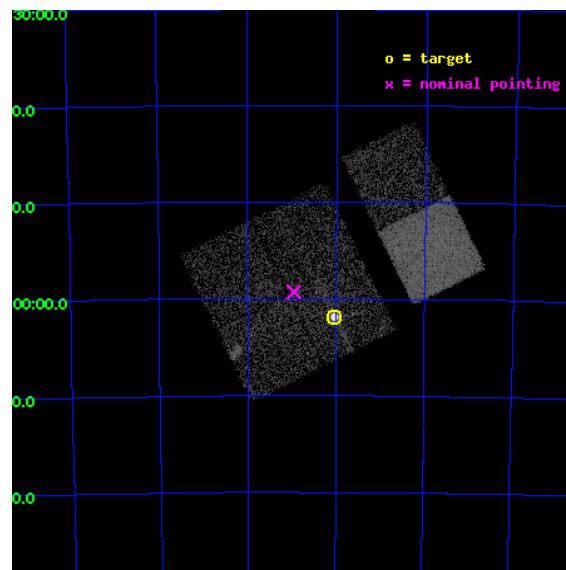
L2 Processing Date : Jan 17 2013

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# 1 Front

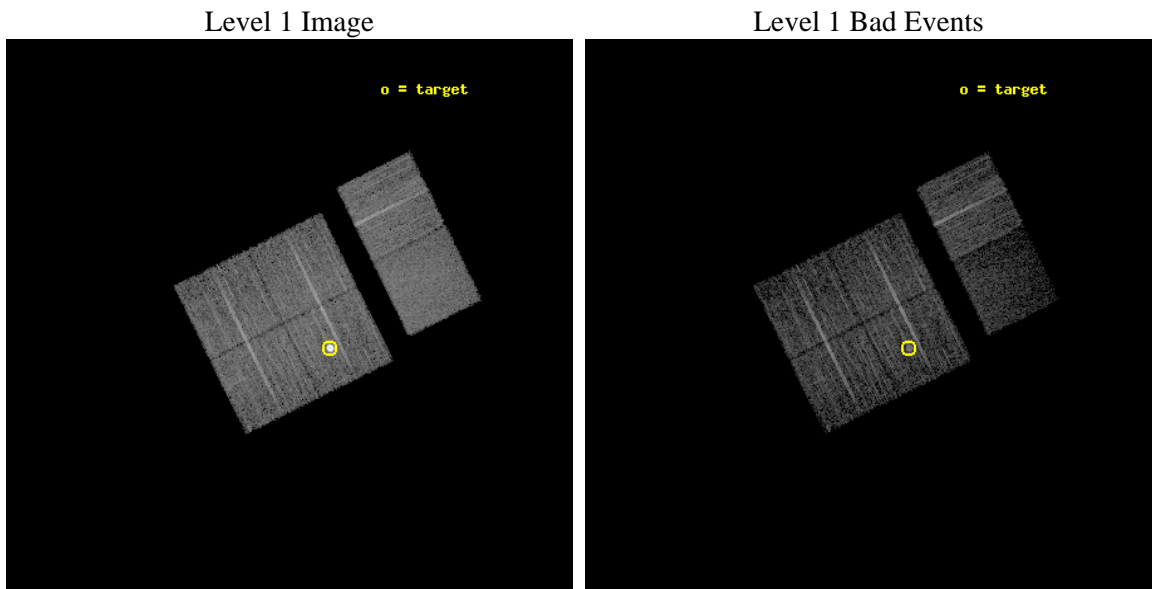
seq_num	590284	Sequence number
obs_id	3529	Observation id
title	AO4B ACIS-I CALIBRATION OBSERVATIONS OF E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[I3,-120,-4.0,2.5,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.238638447245	Nominal RA [deg]
dec_nom	-71.988025955174	Nominal Dec [deg]
roll_nom	63.762465558442	Nominal Roll [deg]
revision	5	Processing version of data
ontime	7750.1880781651	Sum of GTIs [s]
livetime	7652.0505301163	Livetime [s]
ontime0	7753.3059284389	Sum of GTIs [s]
ontime1	7753.3469684124	Sum of GTIs [s]
ontime2	7753.3880383074	Sum of GTIs [s]
ontime3	7750.1880781651	Sum of GTIs [s]
ontime6	7753.5111284256	Sum of GTIs [s]
ontime7	7753.4700884223	Sum of GTIs [s]
l2events	60263	Number of level 2 events



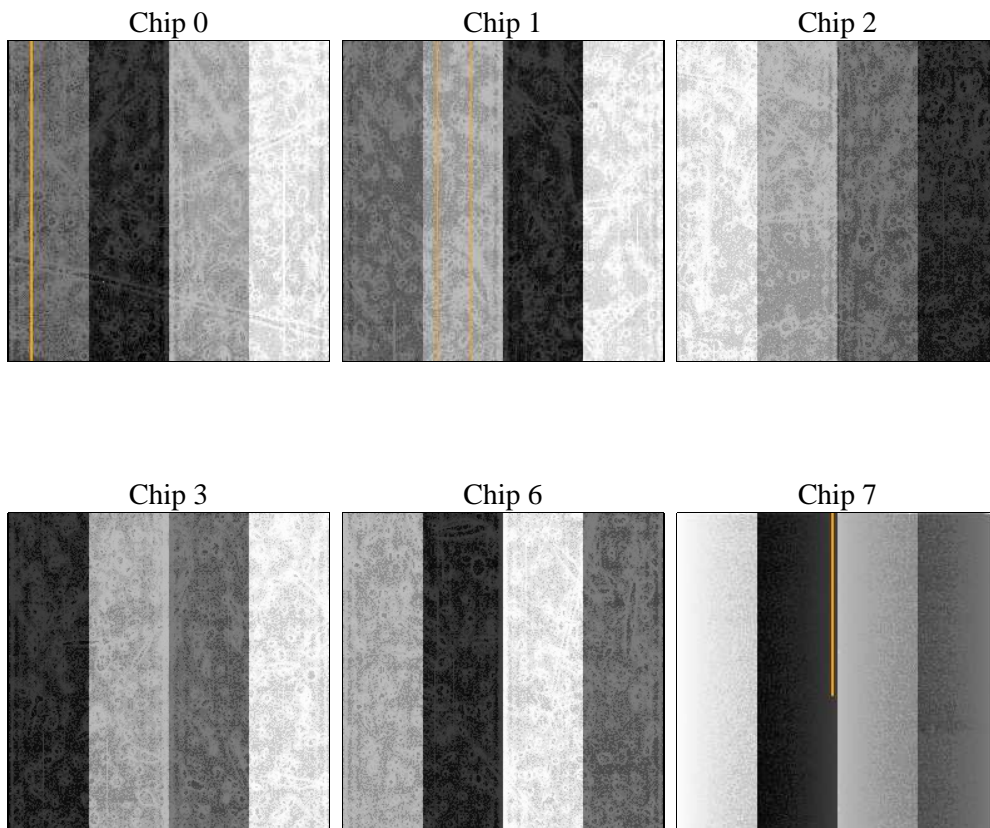
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	7750.1880781651	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime0	7753.3059284389	Sum of GTIs [s]
date	2013-01-17T20:41:01	Date and time of file creation	ontime1	7753.3469684124	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	7753.3880383074	Sum of GTIs [s]
			ontime3	7750.1880781651	Sum of GTIs [s]
			ontime6	7753.5111284256	Sum of GTIs [s]
			ontime7	7753.4700884223	Sum of GTIs [s]
			l1events	250500	Number of level 1 events

### 2.1.4 Events

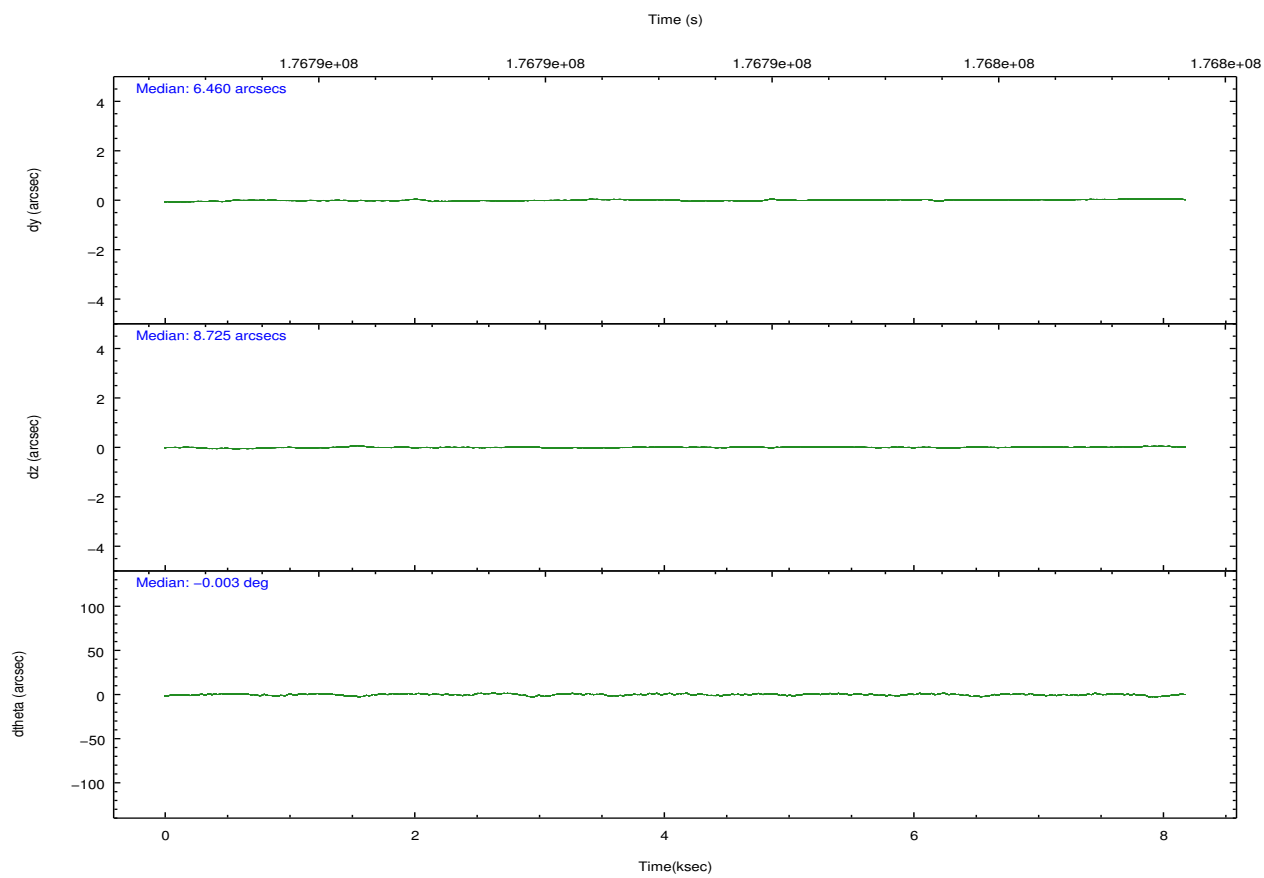
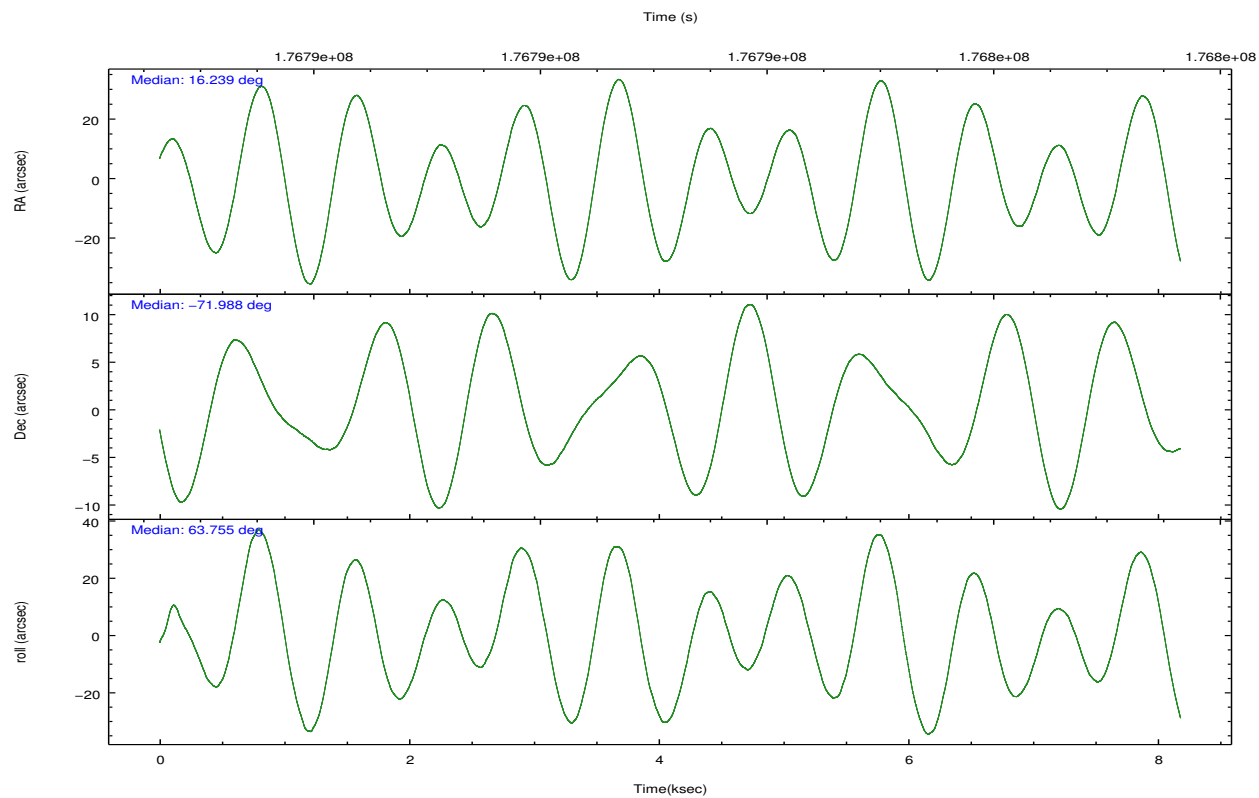
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	34728	35852	38283	62417	40636	38584	grade 0 events	1438	1988	1469	23586	1538	2294
rejected events	30906	31256	34589	33898	36598	17671		4%	5%	3%	37%	3%	5%
rejected %	88%	87%	90%	54%	90%	45%	grade 1 events	16	23	18	192	14	37
								0%	0%	0%	0%	0%	0%
							grade 2 events	846	834	832	2532	877	4418
								2%	2%	2%	4%	2%	11%
							grade 3 events	465	481	392	813	431	2010
								1%	1%	1%	1%	1%	5%
							grade 4 events	410	482	392	803	409	2006
								1%	1%	1%	1%	1%	5%
							grade 5 events	1130	1227	1056	1334	1256	3804
								3%	3%	2%	2%	3%	9%
							grade 6 events	667	818	615	809	786	10203
								1%	2%	1%	1%	1%	26%
							grade 7 events	29756	29999	33509	32348	35325	13812
								85%	83%	87%	51%	86%	35%



## 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	16.244752	16.23863844724491	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.015302	-71.98802595517375	Alternating exposures requested	N	N
[deg] Pointing Roll	63.559589	63.76246555844185	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	174614464.184000	174614464.184000			
[s] Window stop time (MET)	177292864.184000	177292864.184000			
[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)	176789233.184000	176788857.29611			
Observation start date	2003-08-09T04:06:09	2003-08-09T04:00:57			
[s] Observation end time (MET)	176797233.184000	176797367.35898			
Observation end date	2003-08-09T06:19:29	2003-08-09T06:22:47			
Read mode	TIMED	TIMED			

## 2.3 Aspect

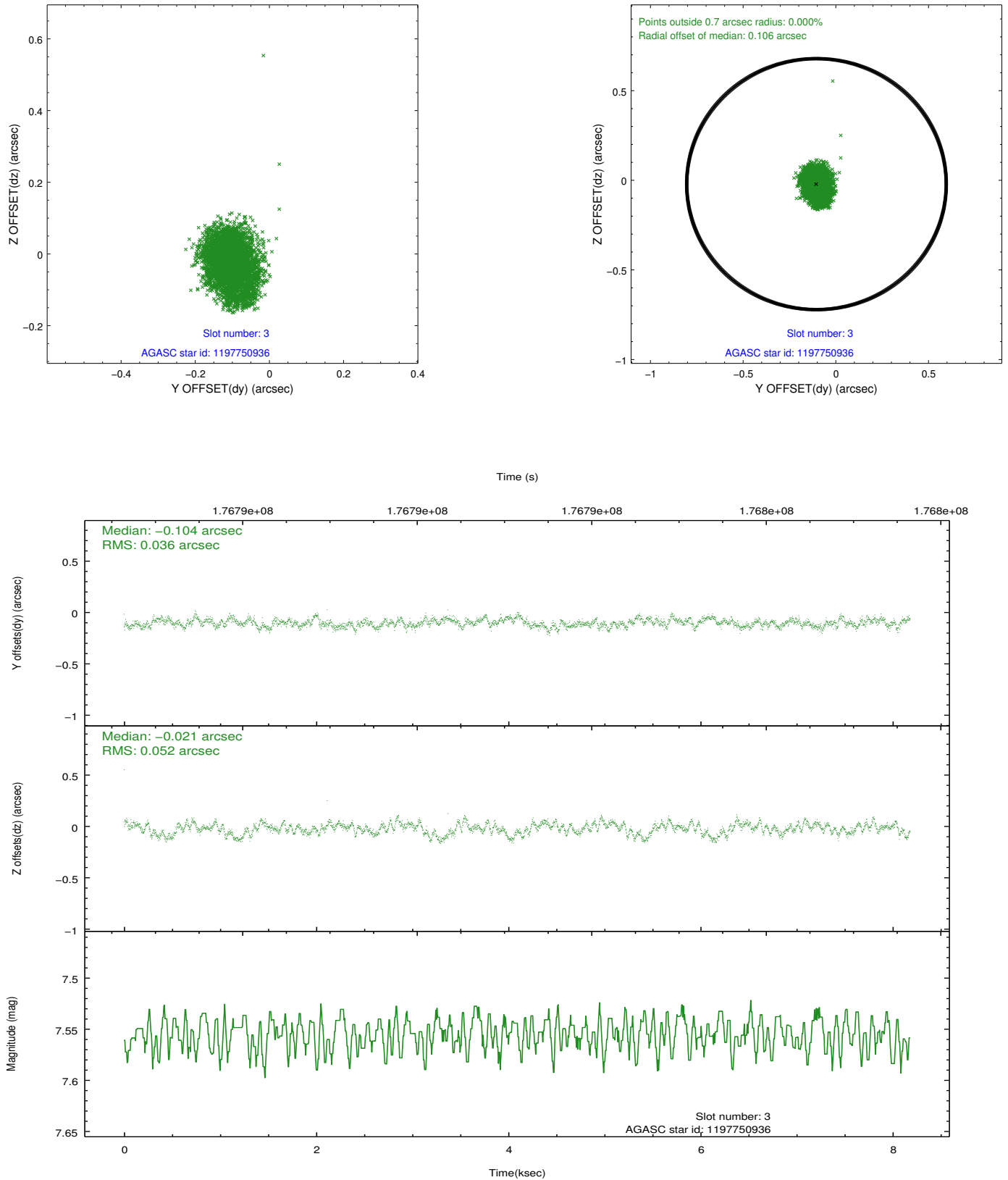


### Slot Statistics

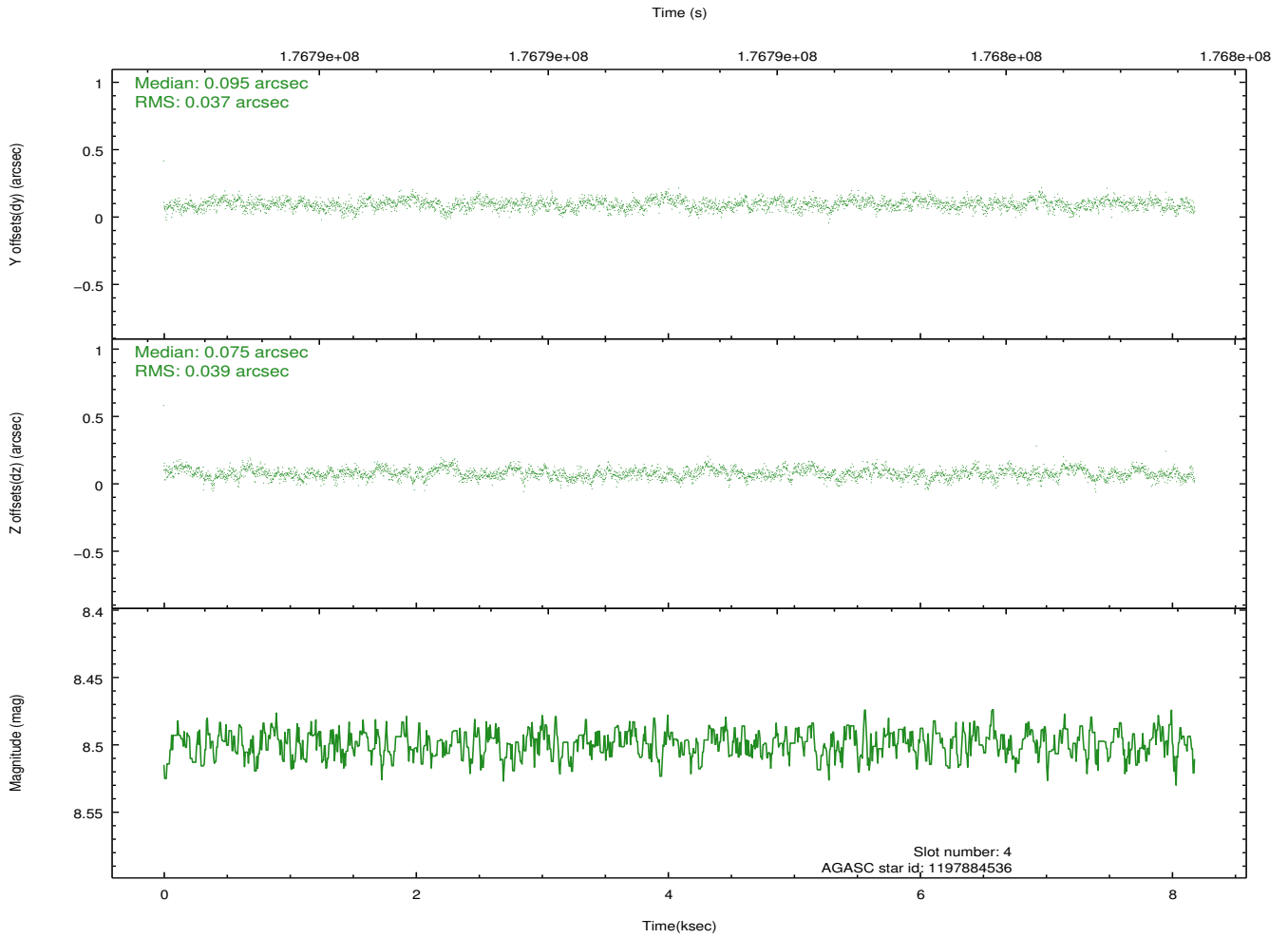
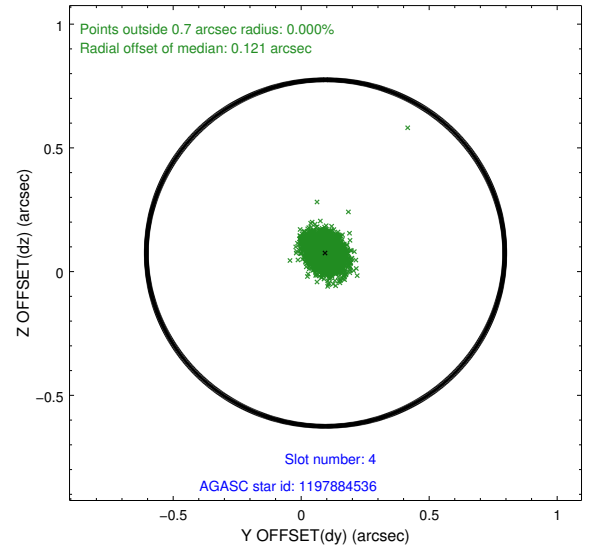
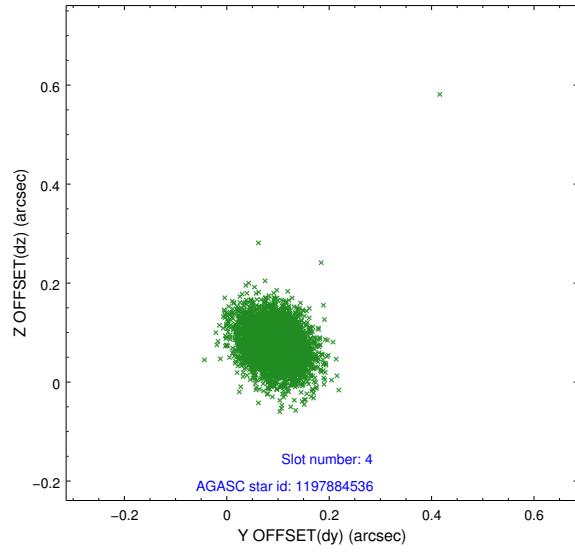
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1996	0.015	-0.007	0.006	0.014	0.000000	0.000000	933.28	-832.14
1	FID	ACIS-I-5	7.23	1996	-0.076	0.056	0.006	0.014	0.000000	0.000000	-1814.59	1064.99
2	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
3	GUIDE	1197750936	7.55	3991	-0.104	-0.021	0.066	0.109	15.387940	-71.549550	1060.39	1617.84
4	GUIDE	1197884536	8.50	3992	0.095	0.075	0.056	0.090	17.160729	-71.835289	1031.78	-634.49
5	GUIDE	1197885104	9.33	3991	-0.028	0.009	0.123	0.199	17.845067	-72.189368	203.05	-1866.94
6	GUIDE	1197885328	7.22	3992	-0.055	-0.145	0.054	0.082	16.283090	-71.733943	926.81	411.78
7	GUIDE	1198190968	10.01	3988	0.093	0.074	0.114	0.192	15.749622	-72.545972	-1949.88	-372.74

## 2.4 Star Slots

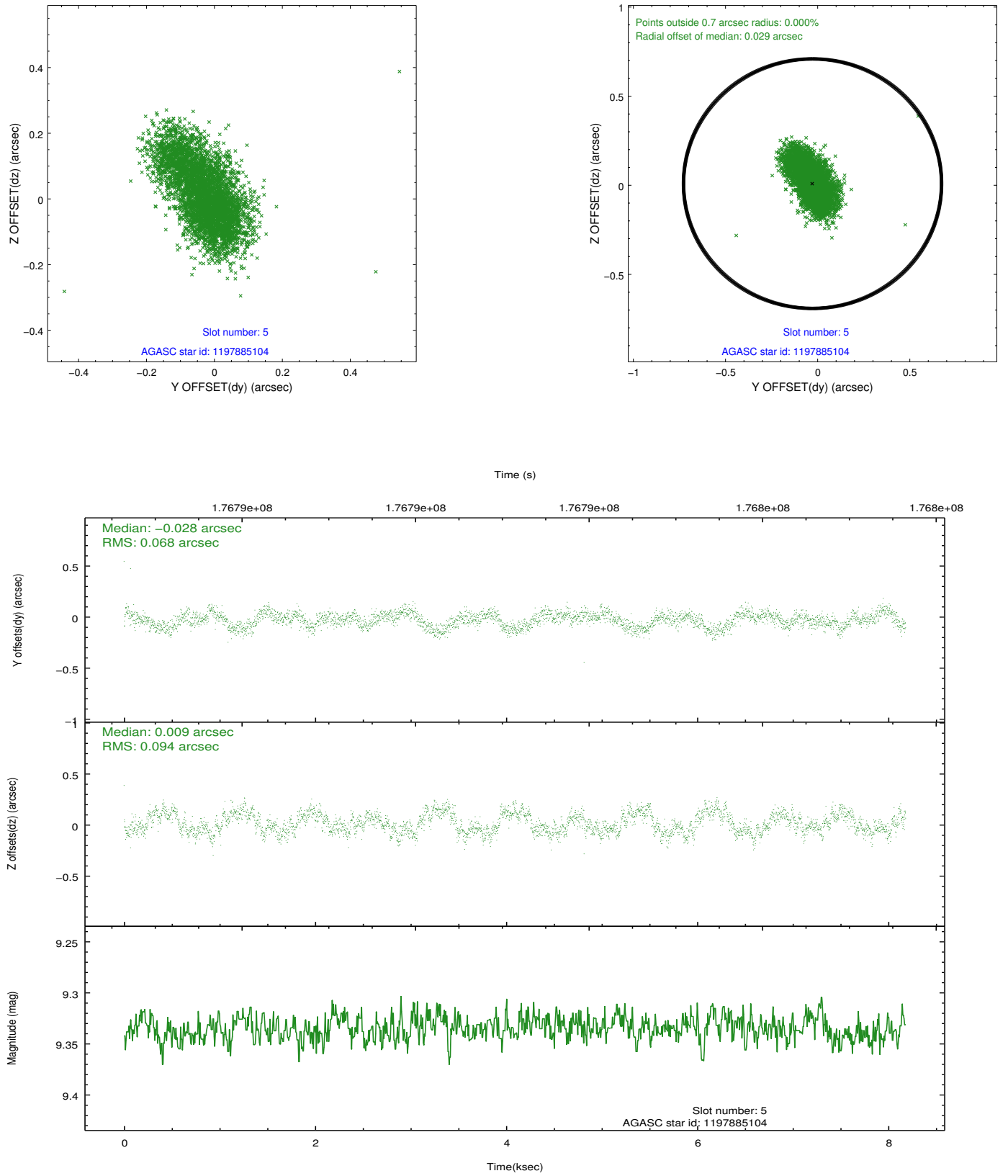
### 2.4.1 Slot 3



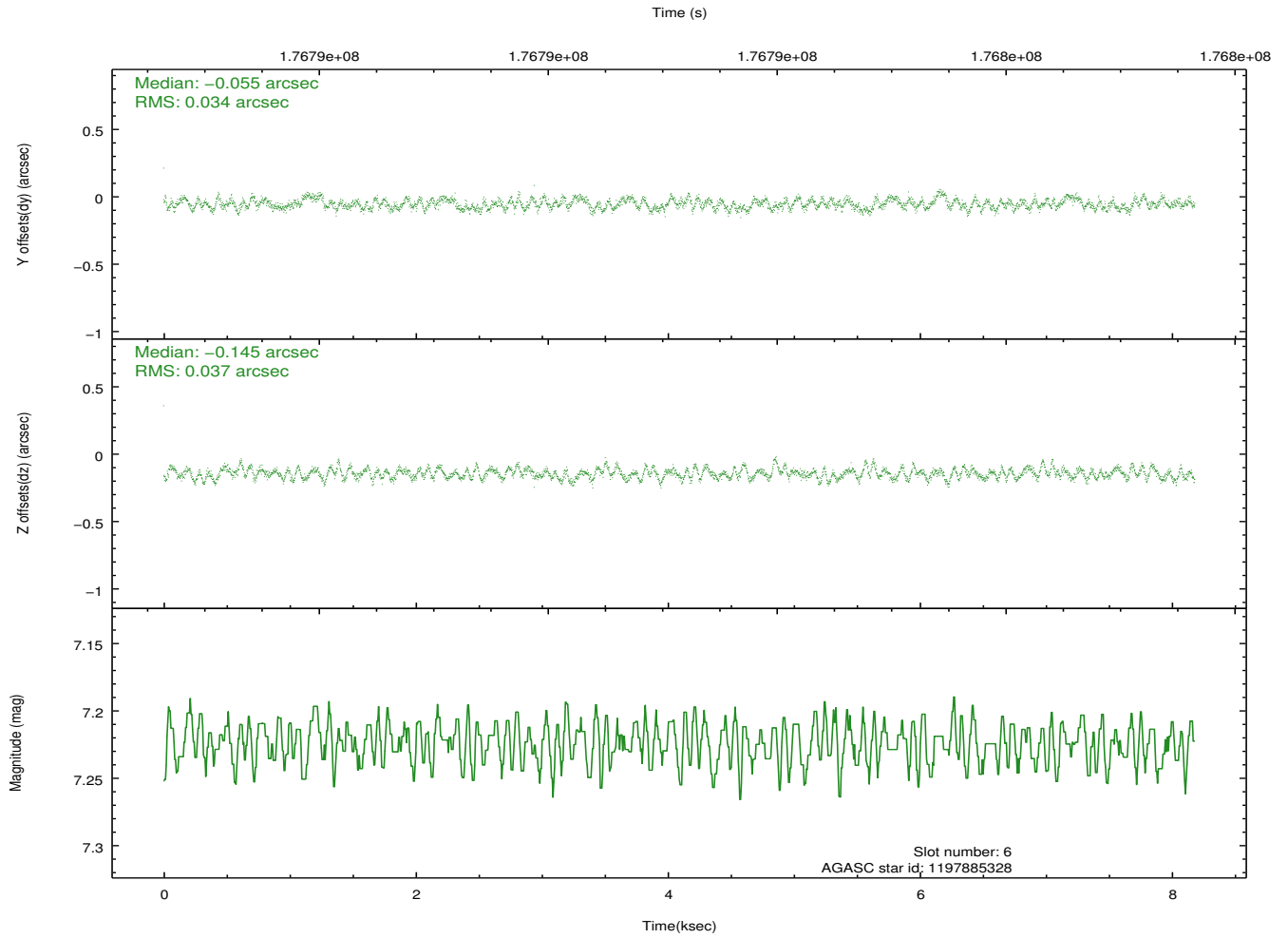
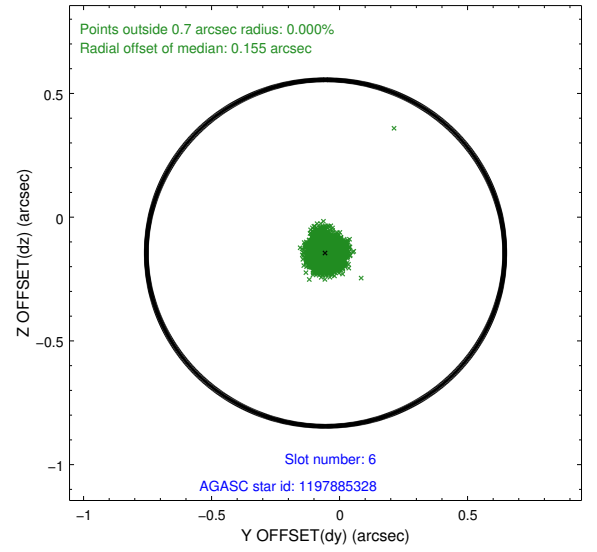
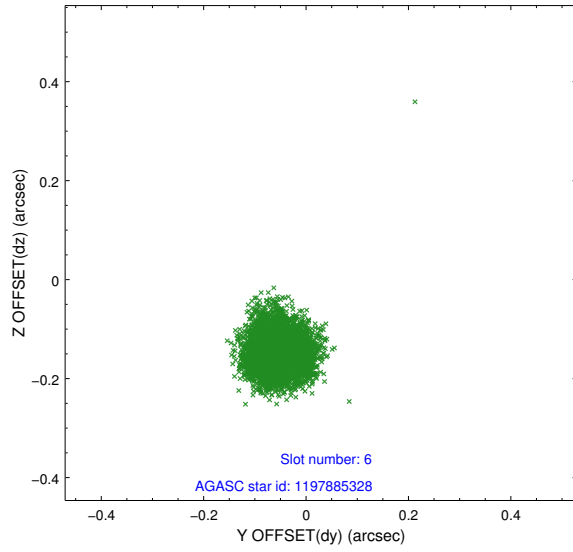
## 2.4.2 Slot 4



### 2.4.3 Slot 5

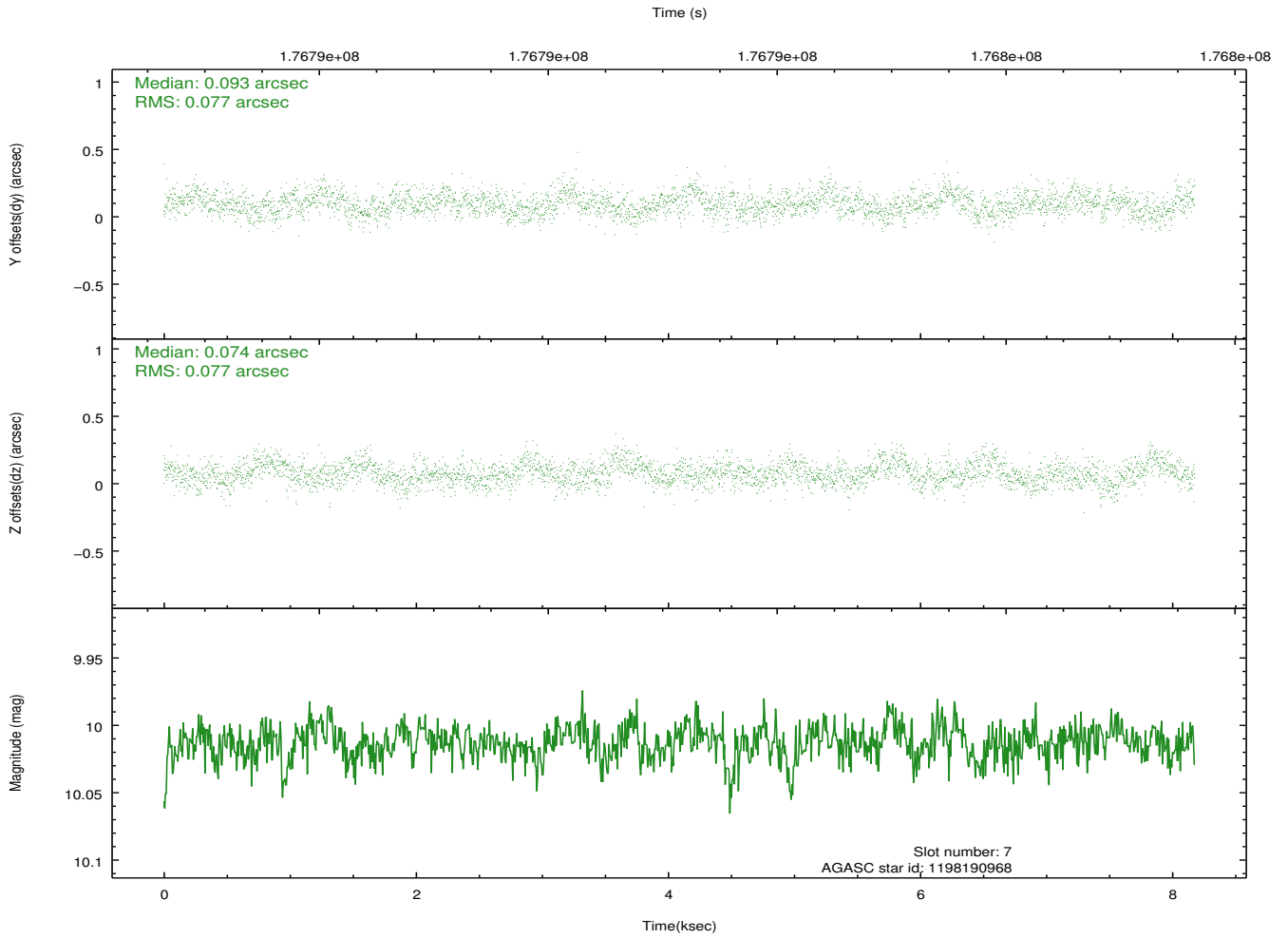
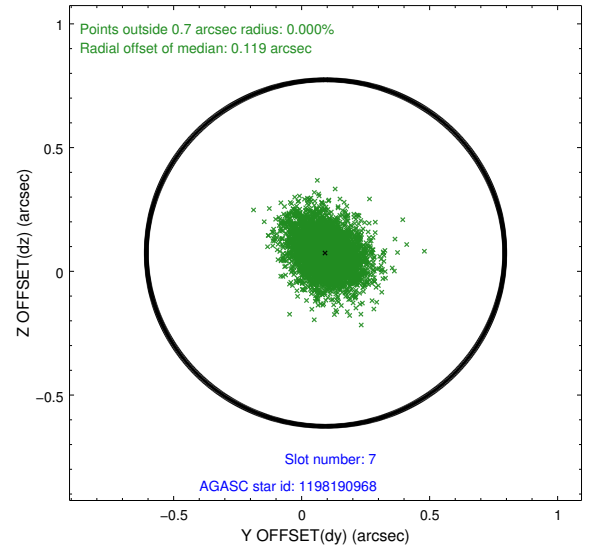
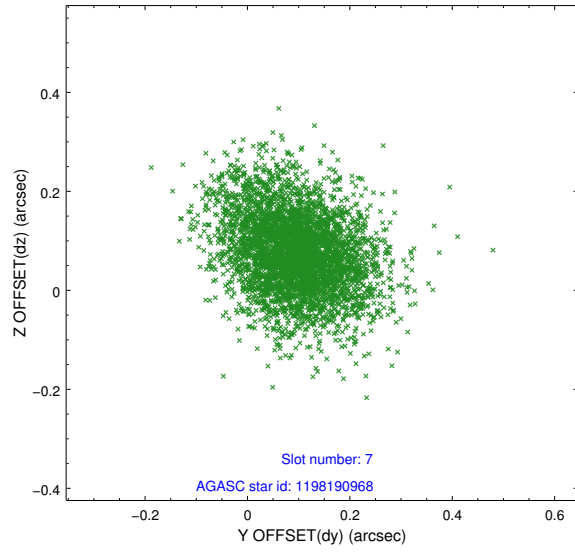


## 2.4.4 Slot 6



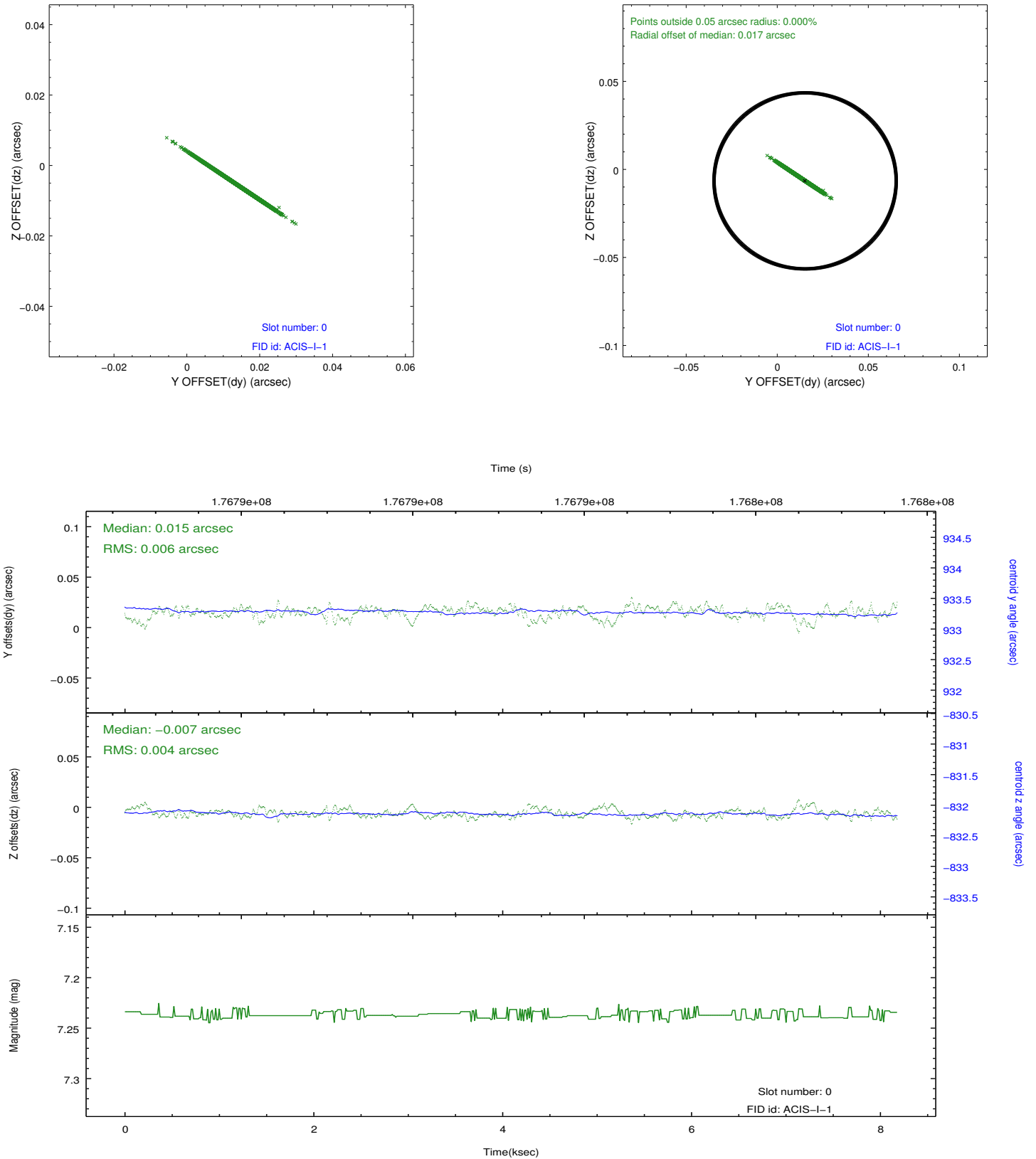


## 2.4.5 Slot 7

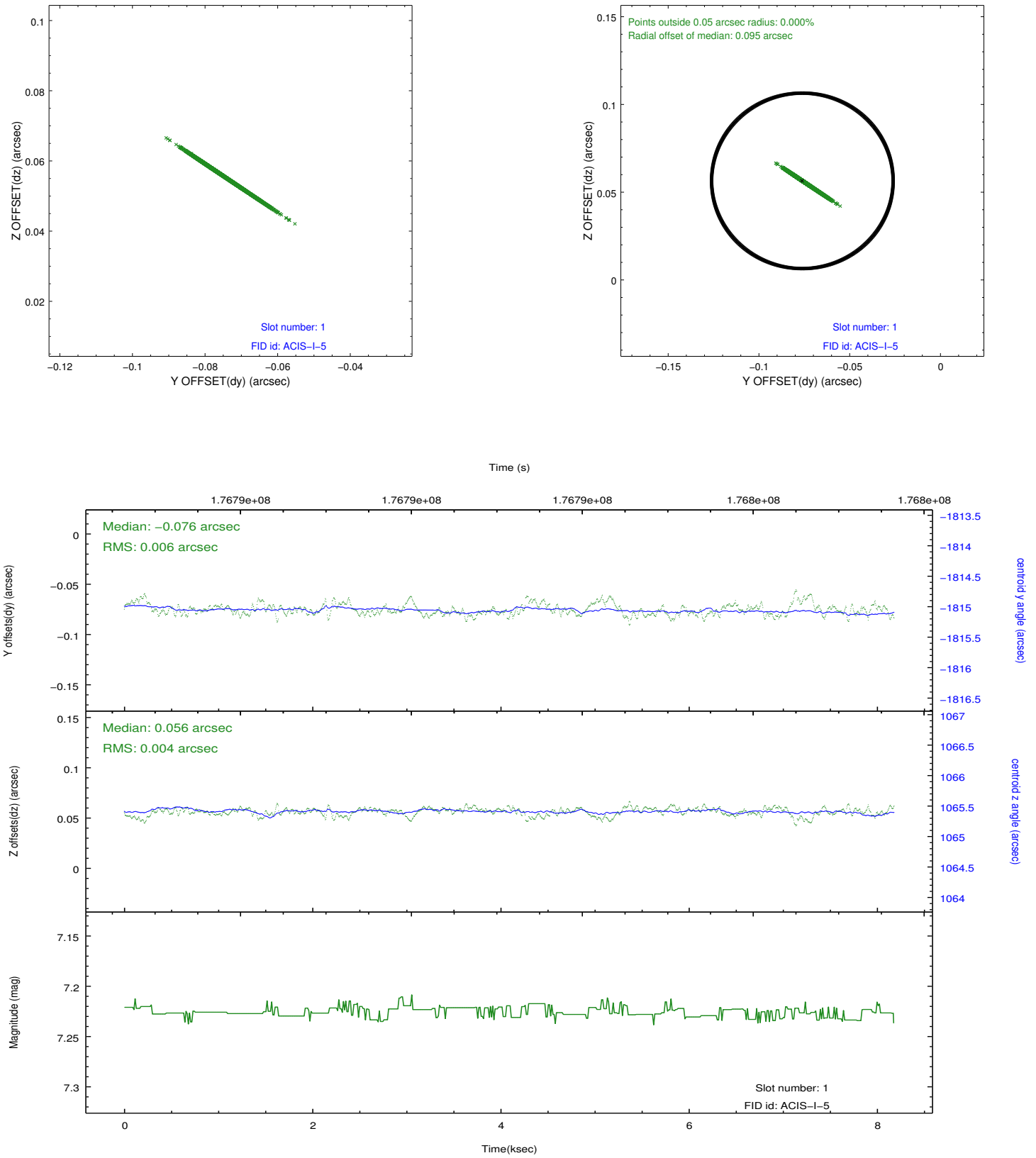


## 2.5 FID Slots

### 2.5.1 Slot 0



## 2.5.2 Slot 1



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2013.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.75

## A.2 Comments

Window preference met.

The fid light in slot 2 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this fid light from the solution.