

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3530 - L2 Version 5  
Chandra X-Ray Center

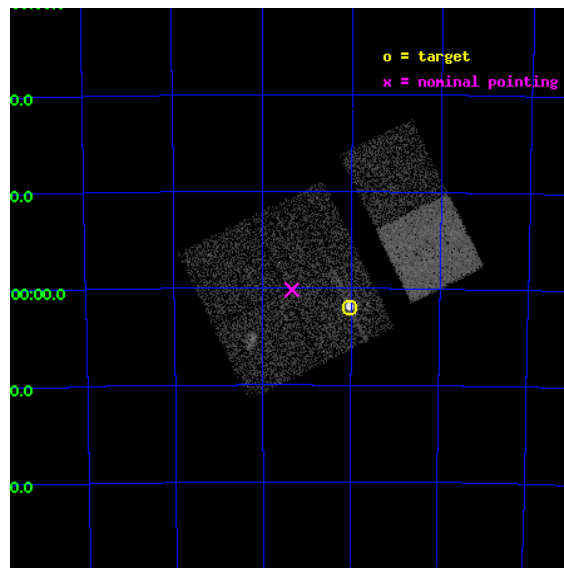
L2 Processing Date : Jan 17 2013

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# 1 Front

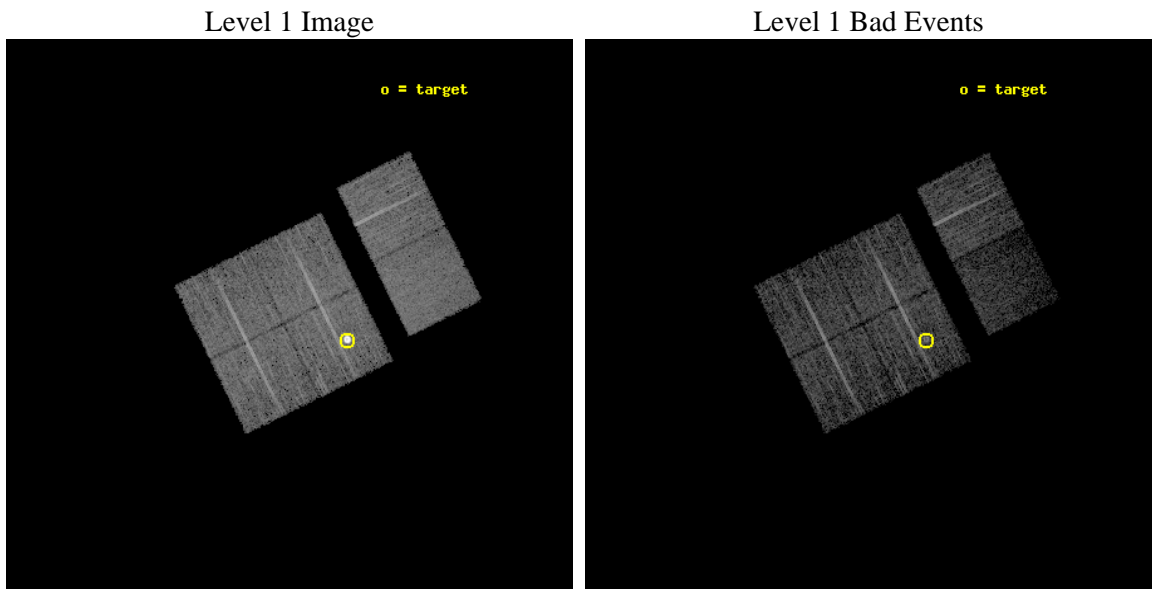
seq_num	590285	Sequence number
obs_id	3530	Observation id
title	AO4B ACIS-I CALIBRATION OBSERVATIONS OF E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[I3,-120,-4.0,4.5,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.335482974318	Nominal RA [deg]
dec_nom	-72.002975255379	Nominal Dec [deg]
roll_nom	63.748293458057	Nominal Roll [deg]
revision	5	Processing version of data
ontime	7750.3180106282	Sum of GTIs [s]
livetime	7652.1788172964	Livetime [s]
ontime0	7756.7999711037	Sum of GTIs [s]
ontime1	7756.7999711037	Sum of GTIs [s]
ontime2	7756.7999711037	Sum of GTIs [s]
ontime3	7750.3180106282	Sum of GTIs [s]
ontime6	7756.7999711037	Sum of GTIs [s]
ontime7	7756.7999711037	Sum of GTIs [s]
l2events	57259	Number of level 2 events



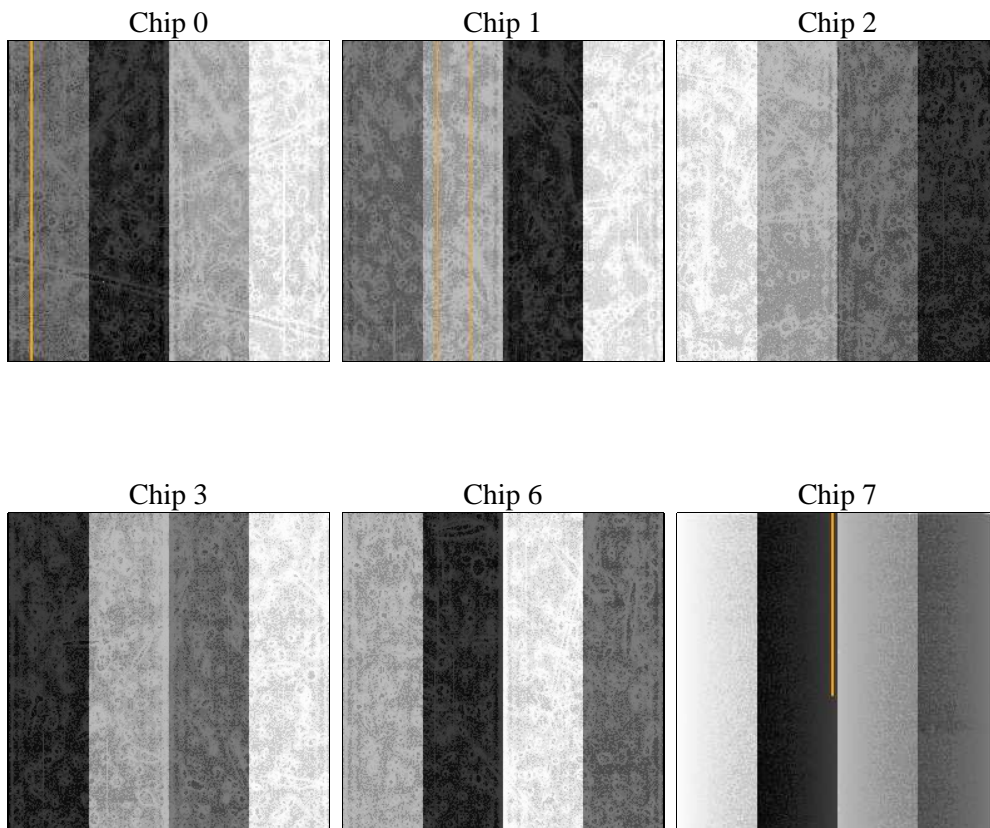
## 2 OBI

### 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	7750.3180106282	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime0	7756.7999711037	Sum of GTIs [s]
date	2013-01-17T20:55:23	Date and time of file creation	ontime1	7756.7999711037	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	7756.7999711037	Sum of GTIs [s]
			ontime3	7750.3180106282	Sum of GTIs [s]
			ontime6	7756.7999711037	Sum of GTIs [s]
			ontime7	7756.7999711037	Sum of GTIs [s]
			l1events	242804	Number of level 1 events

### 2.1.4 Events

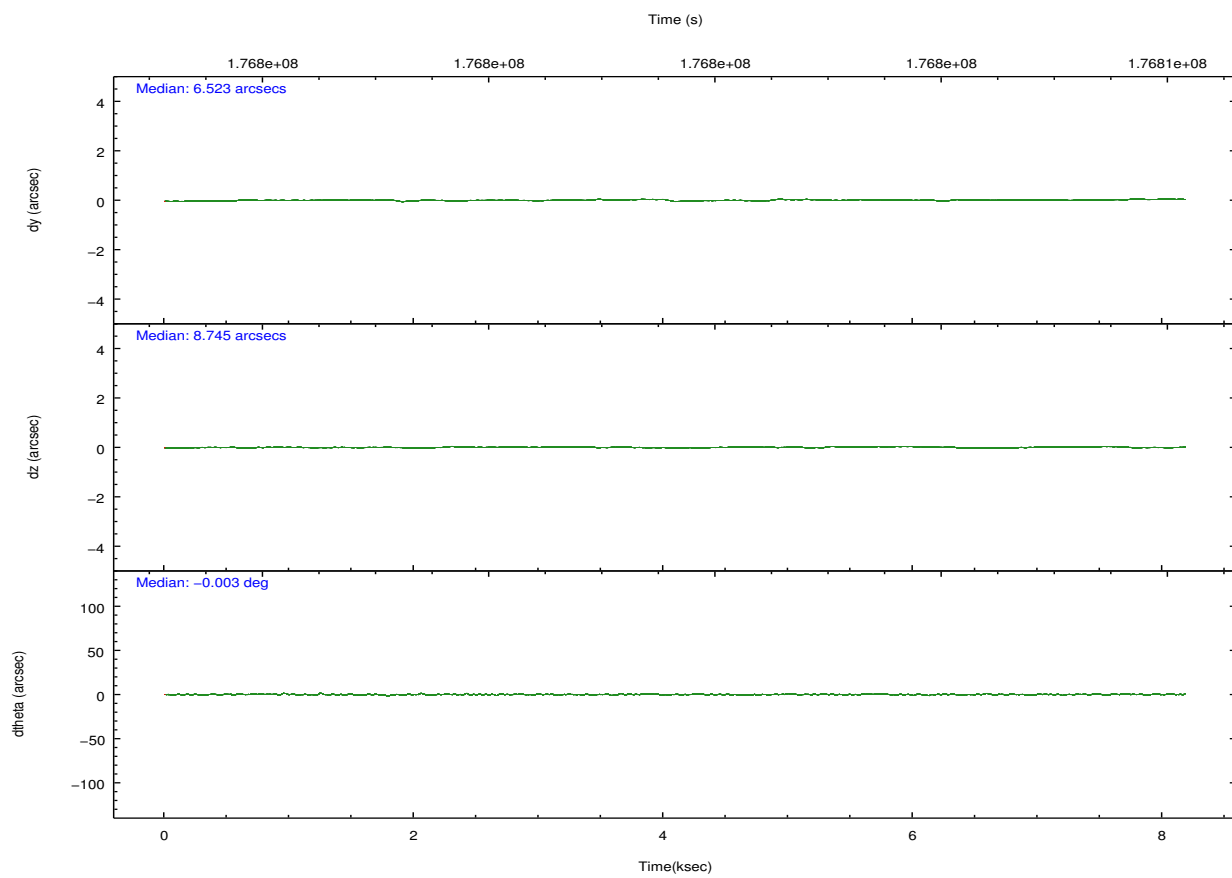
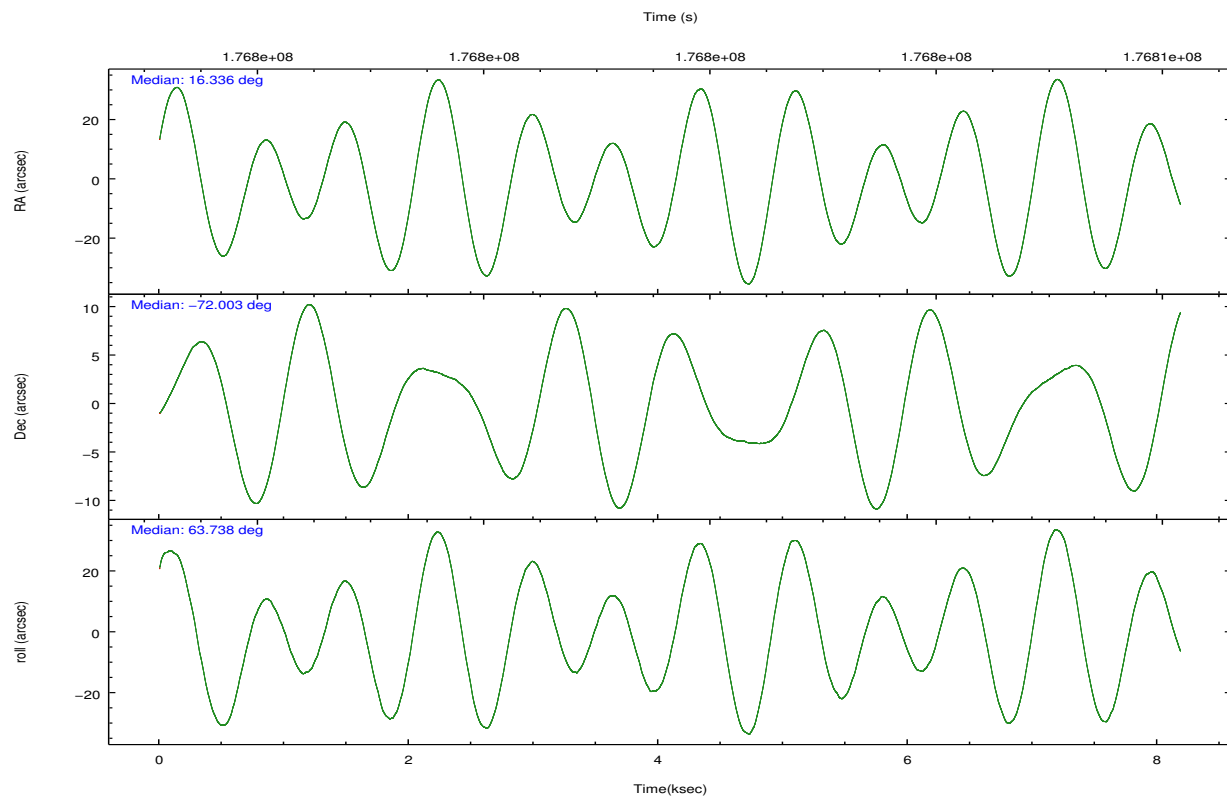
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	34795	35243	37409	61265	38414	35678	grade 0 events	1350	1889	1437	22862	1393	1964
rejected events	31199	30683	33771	33614	34603	17729		3%	5%	3%	37%	3%	5%
rejected %	89%	87%	90%	54%	90%	49%	grade 1 events	17	24	15	213	21	26
								0%	0%	0%	0%	0%	0%
							grade 2 events	783	864	790	2394	819	3749
								2%	2%	2%	3%	2%	10%
							grade 3 events	413	505	388	844	434	1767
								1%	1%	1%	1%	1%	4%
							grade 4 events	408	489	410	817	439	1791
								1%	1%	1%	1%	1%	5%
							grade 5 events	1131	1126	1008	1284	1304	3807
								3%	3%	2%	2%	3%	10%
							grade 6 events	646	813	615	745	727	8686
								1%	2%	1%	1%	1%	24%
							grade 7 events	30047	29533	32746	32106	33277	13888
								86%	83%	87%	52%	86%	38%



## 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	16.341473	16.33548297431831	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.030313	-72.00297525537857	Alternating exposures requested	N	N
[deg] Pointing Roll	63.545302	63.74829345805733	[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)	176797743.184000	176797367.35898			
Observation start date	2003-08-09T06:27:59	2003-08-09T06:22:47			
[s] Observation end time (MET)	176805743.184000	176806704.59688			
Observation end date	2003-08-09T08:41:19	2003-08-09T08:58:24			
Read mode	TIMED	TIMED			

## 2.3 Aspect

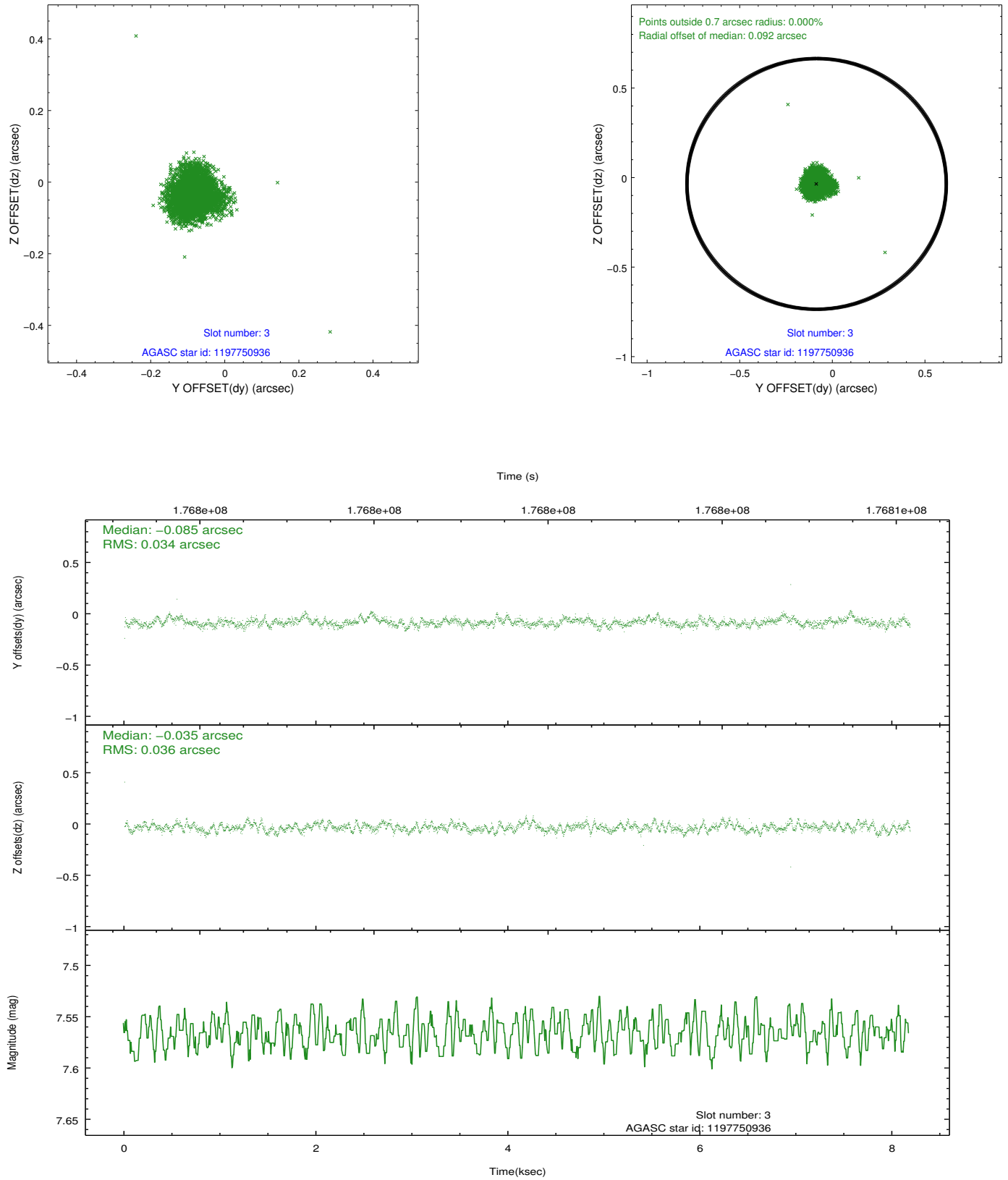


### Slot Statistics

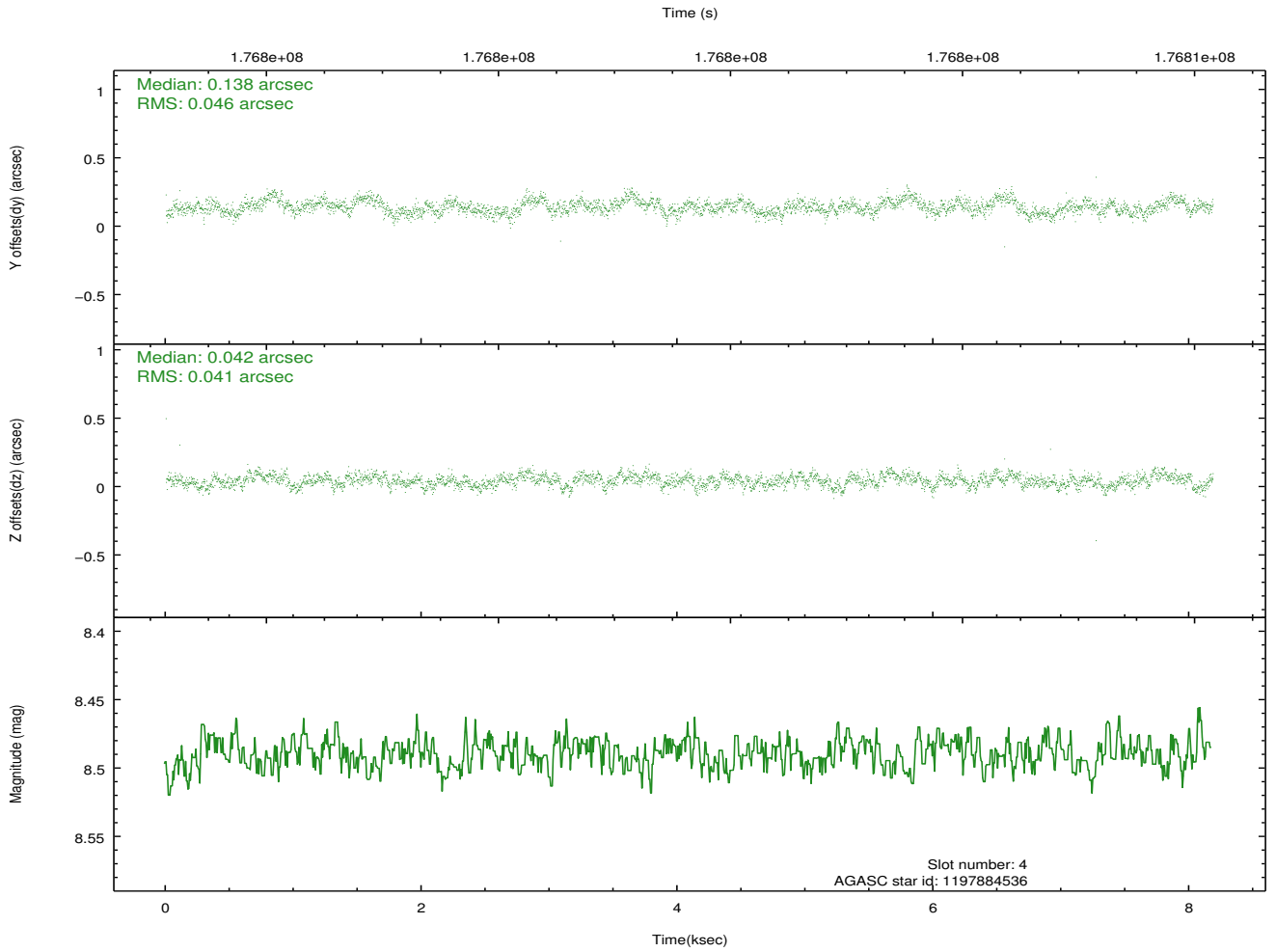
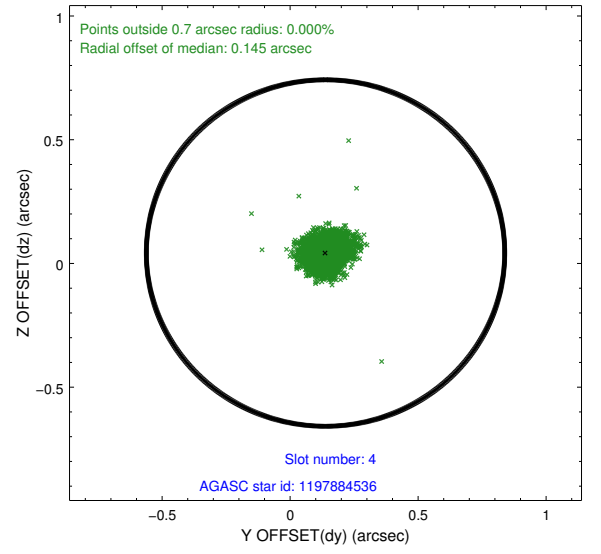
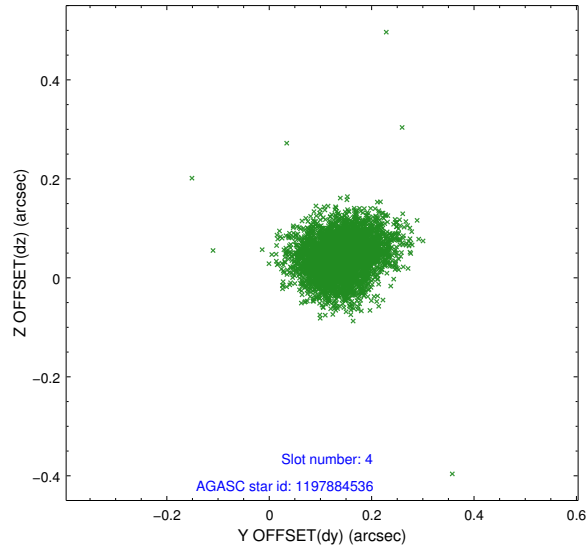
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1997	0.021	-0.010	0.004	0.009	0.000000	0.000000	933.22	-832.17
1	FID	ACIS-I-5	7.23	1997	-0.082	0.060	0.004	0.009	0.000000	0.000000	-1814.66	1064.98
2	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
3	GUIDE	1197750936	7.57	3993	-0.085	-0.035	0.052	0.083	15.387940	-71.549550	1057.45	1740.03
4	GUIDE	1197884536	8.49	3993	0.138	0.042	0.066	0.103	17.160729	-71.835289	1033.15	-512.35
5	GUIDE	1197884712	8.32	3992	0.020	0.115	0.053	0.084	16.087398	-72.252690	-841.09	-107.33
6	GUIDE	1197885104	9.35	3992	-0.028	-0.006	0.079	0.129	17.845067	-72.189368	206.25	-1746.26
7	GUIDE	1197885328	7.22	3992	-0.050	-0.116	0.054	0.087	16.283090	-71.733943	926.15	533.78

## 2.4 Star Slots

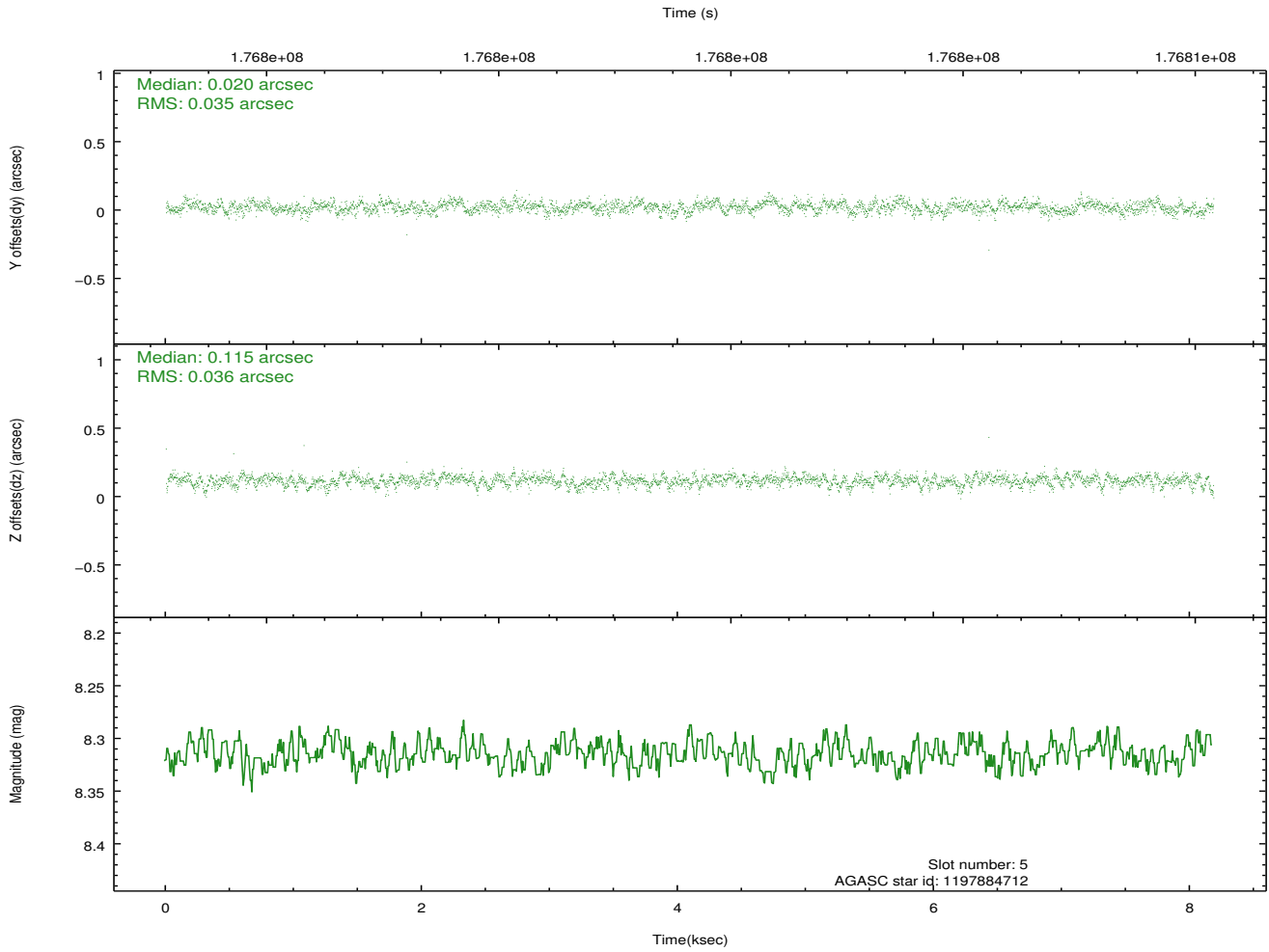
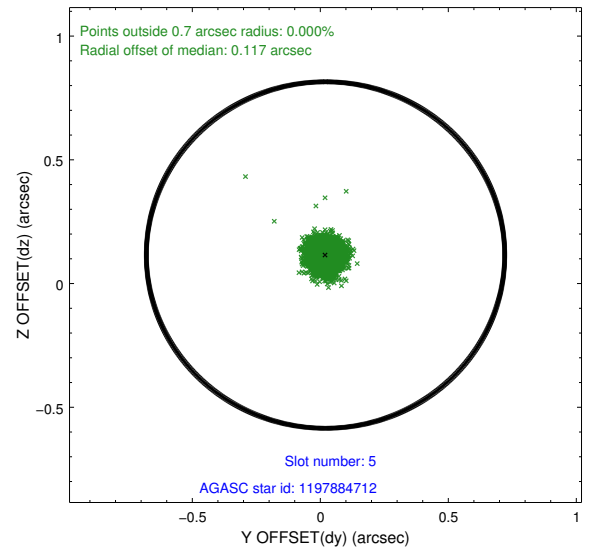
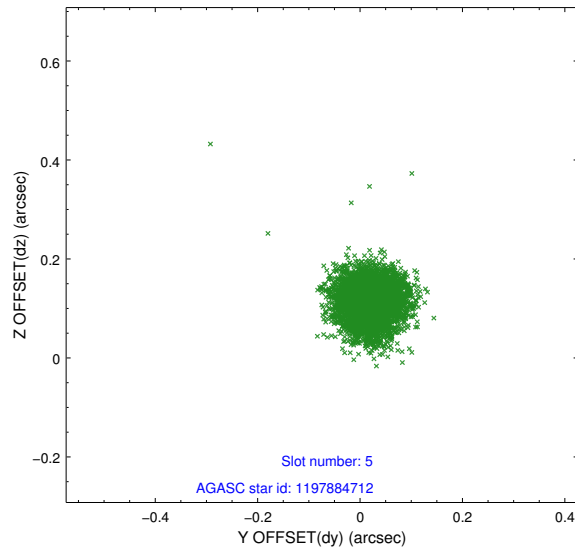
### 2.4.1 Slot 3



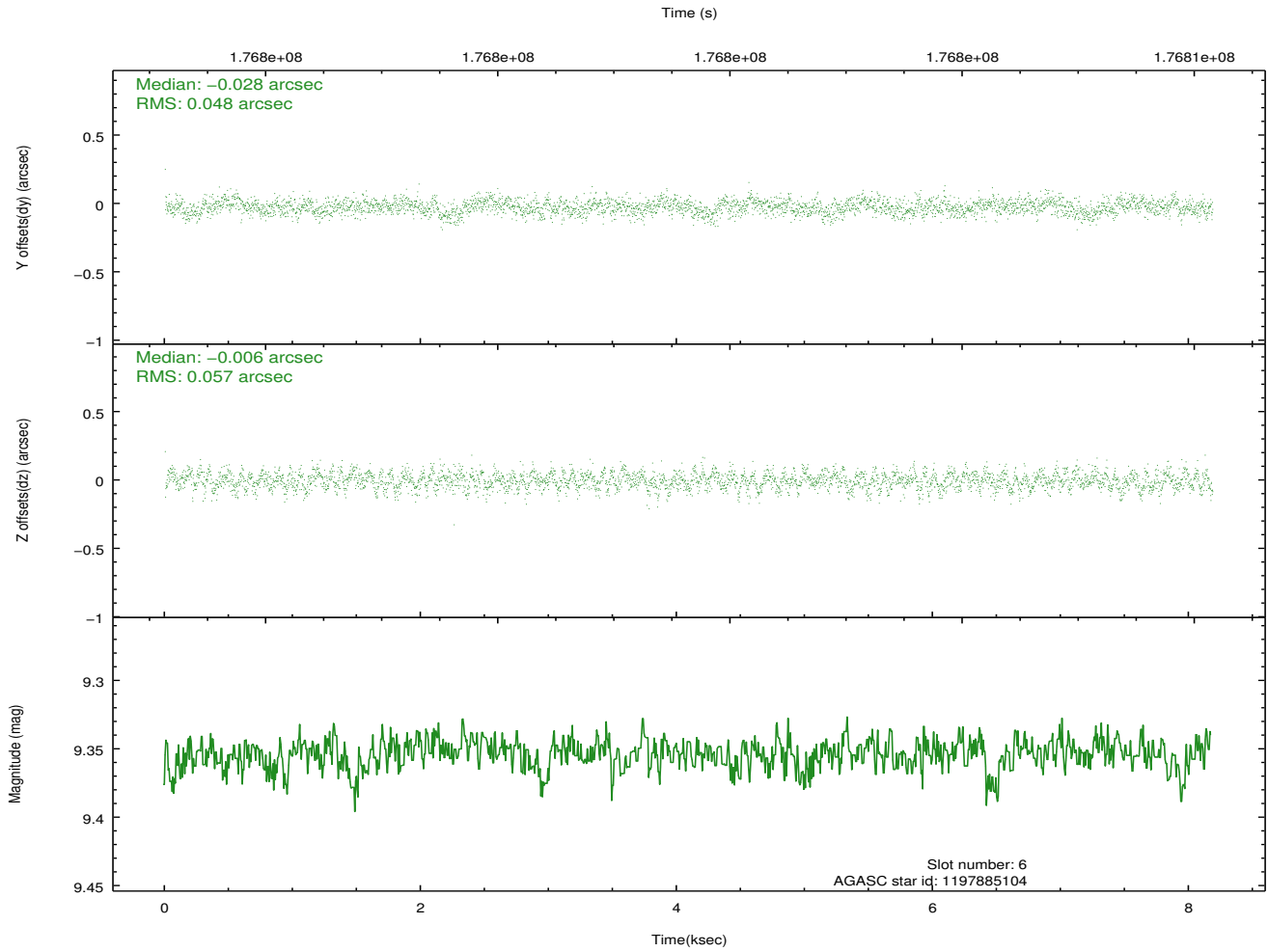
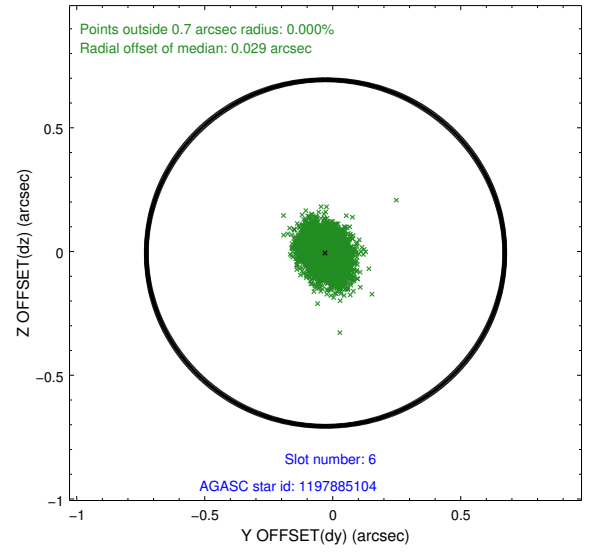
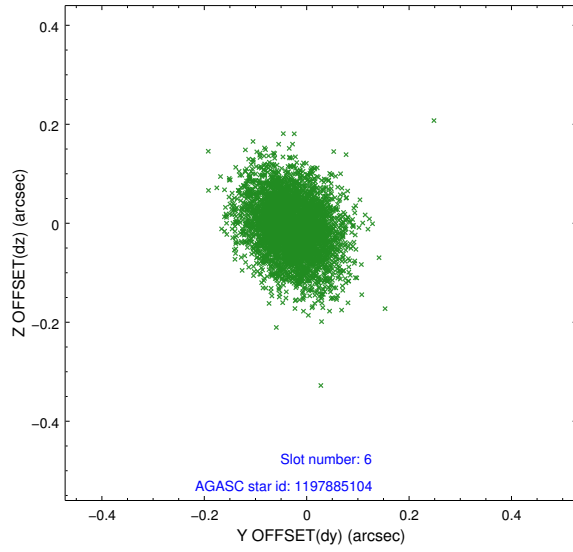
## 2.4.2 Slot 4



### 2.4.3 Slot 5

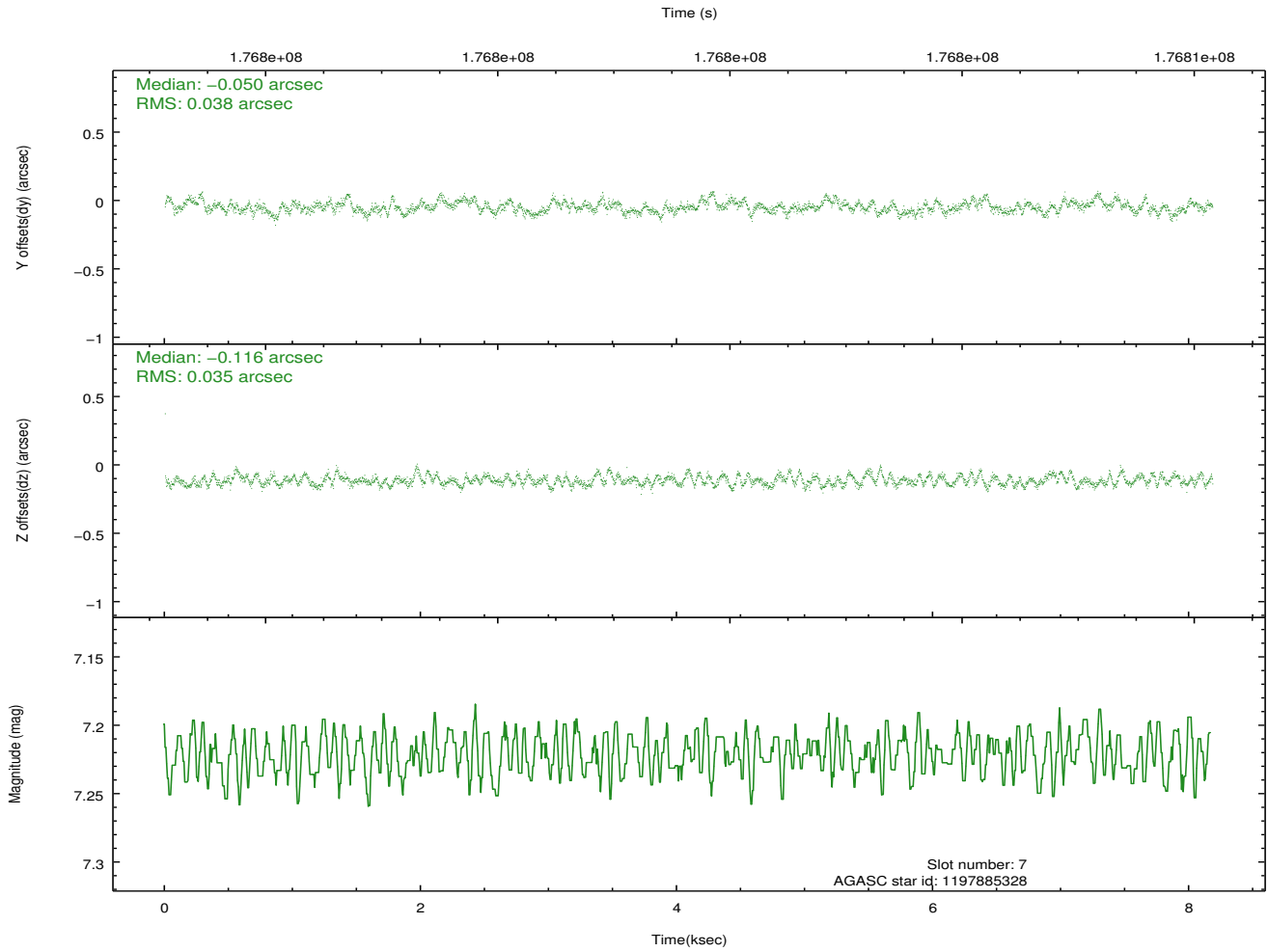
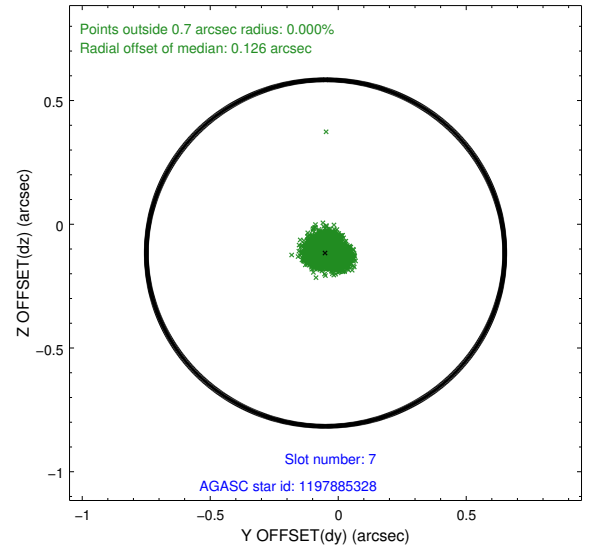
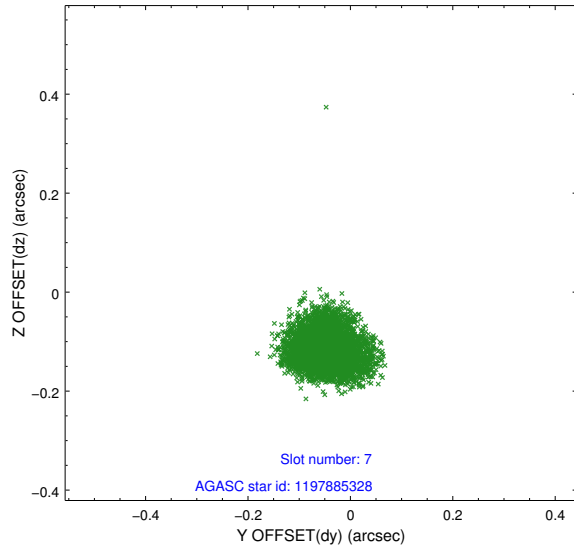


## 2.4.4 Slot 6



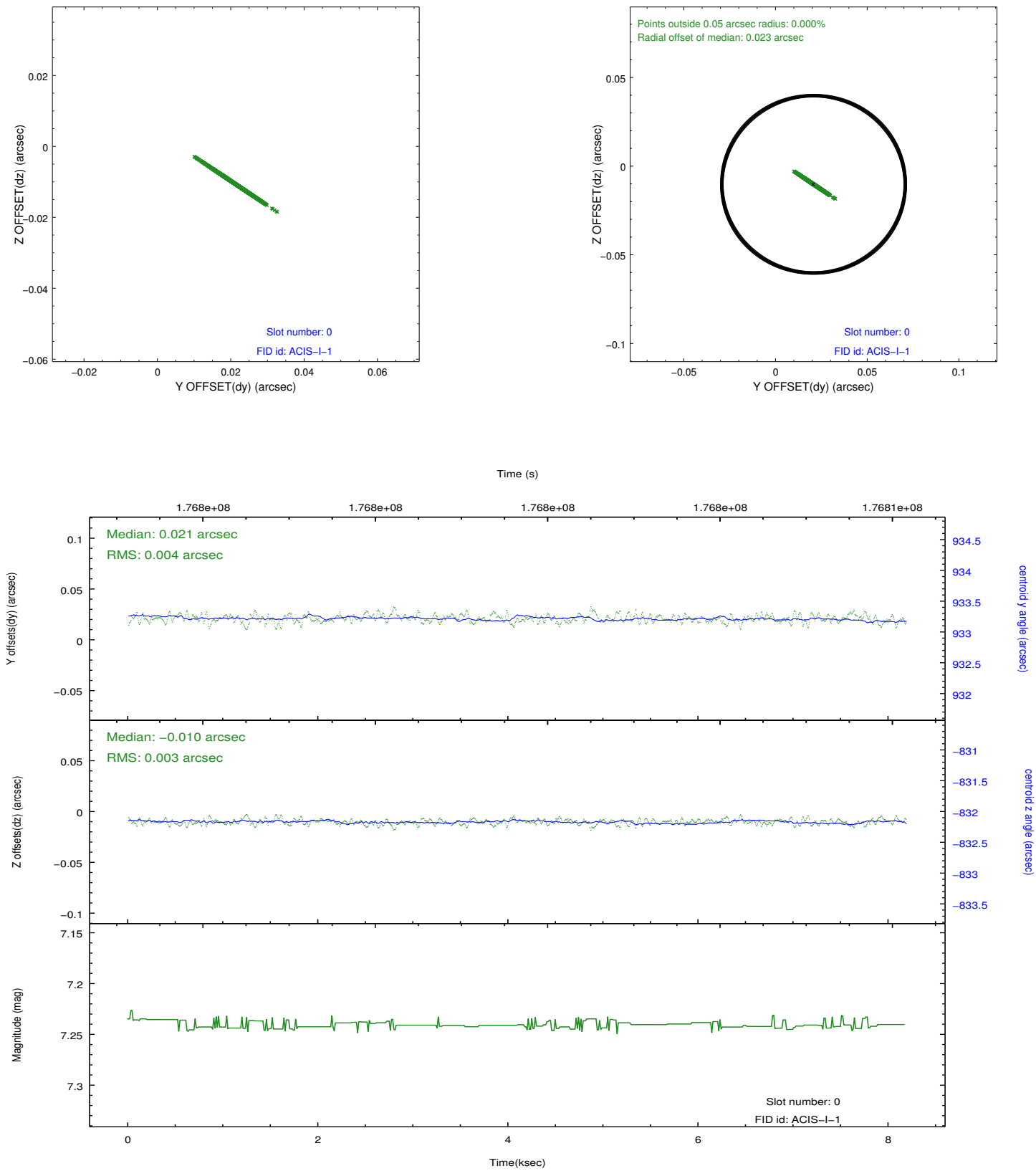


## 2.4.5 Slot 7

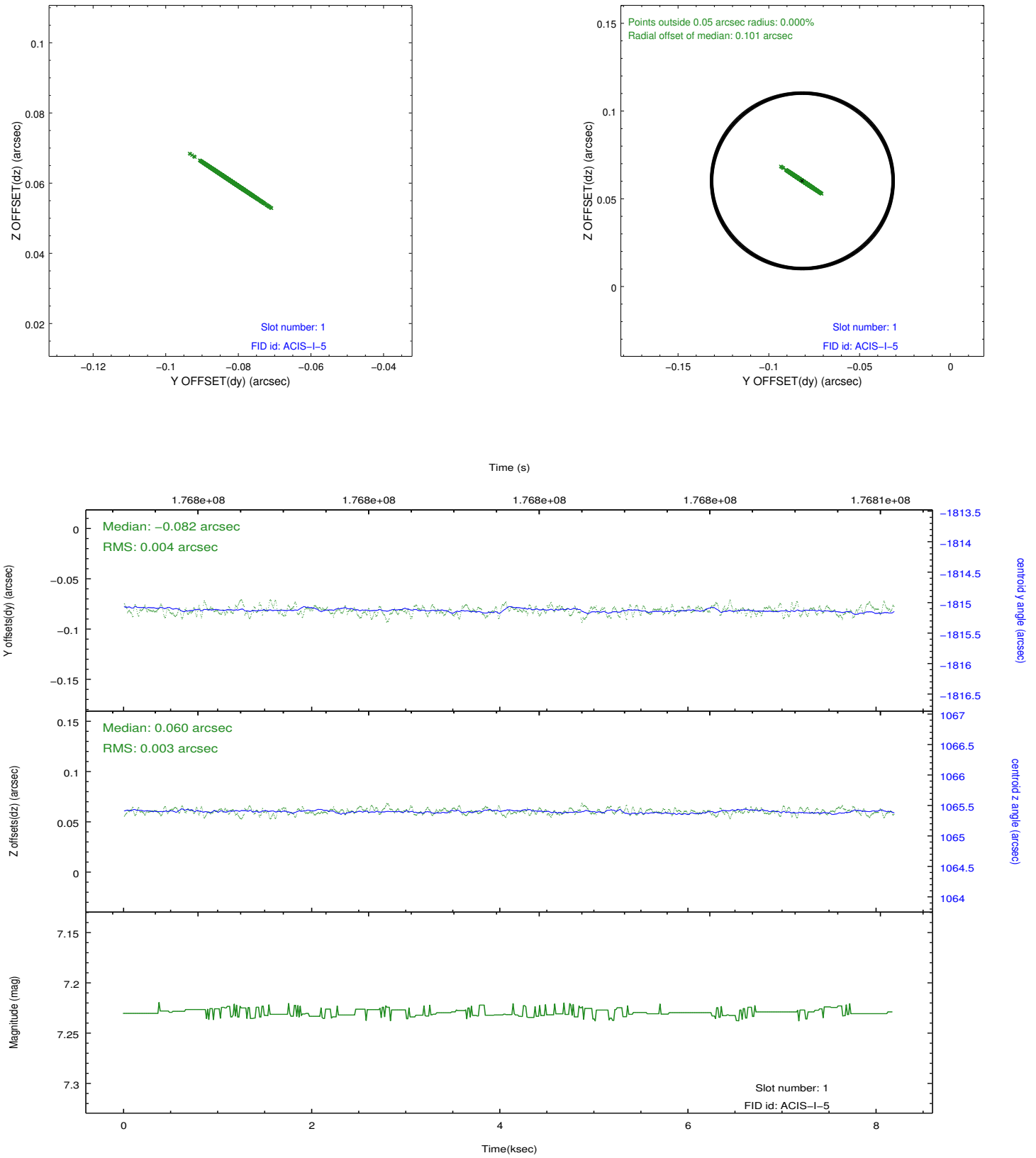


# 2.5 FID Slots

## 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	7.753

## 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.