

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5151 - L2 Version 3  
Chandra X-Ray Center

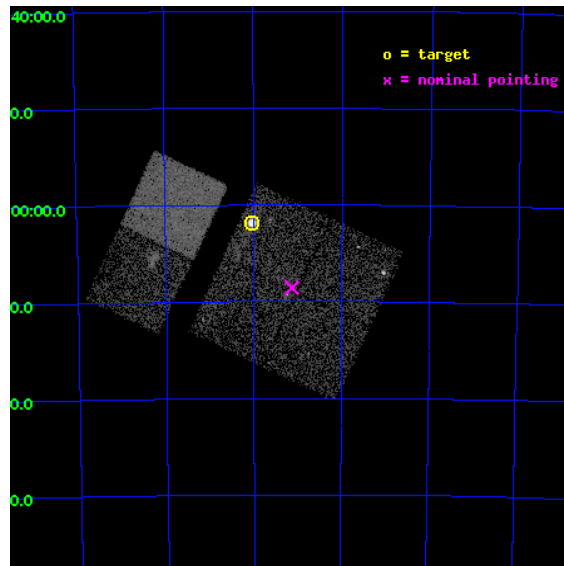
L2 Processing Date : Nov 9 2012

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# 1 Front

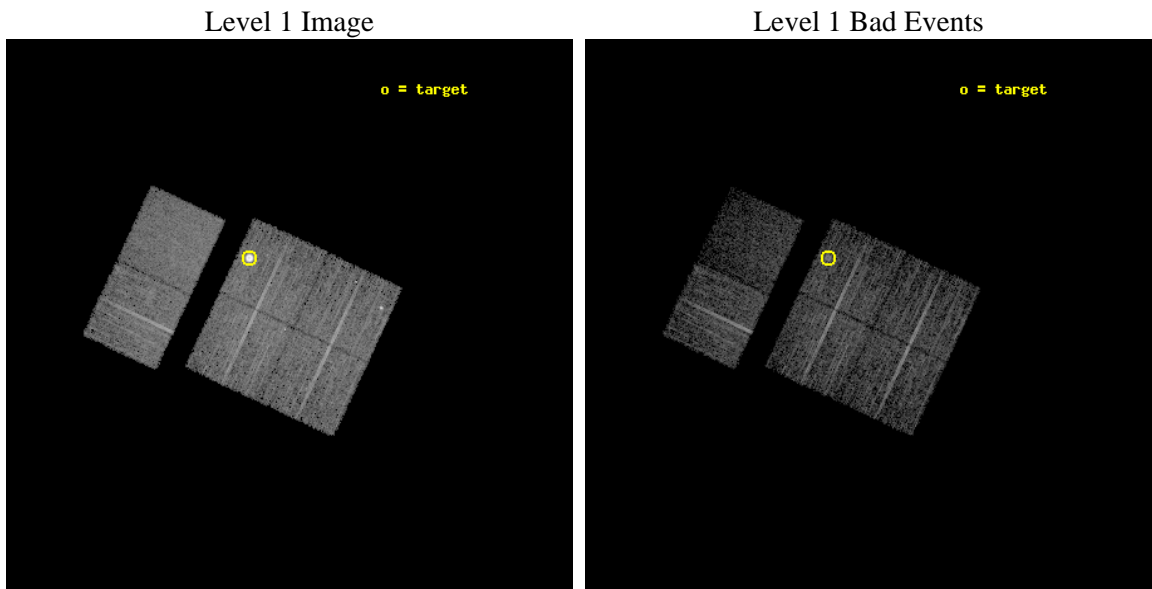
seq_num	590349	Sequence number
obs_id	5151	Observation id
title	AO5A ACIS-I Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[S3,-120,-3,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	15.783371832651	Nominal RA [deg]
dec_nom	-72.142927359004	Nominal Dec [deg]
roll_nom	295.13749933644	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7670.3999714255	Sum of GTIs [s]
livetime	7573.272748427	Livetime [s]
ontime0	7670.3999714255	Sum of GTIs [s]
ontime1	7670.3999714255	Sum of GTIs [s]
ontime2	7670.3999714255	Sum of GTIs [s]
ontime3	7670.3999714255	Sum of GTIs [s]
ontime6	7670.3999714255	Sum of GTIs [s]
ontime7	7670.3999714255	Sum of GTIs [s]
l2events	54677	Number of level 2 events



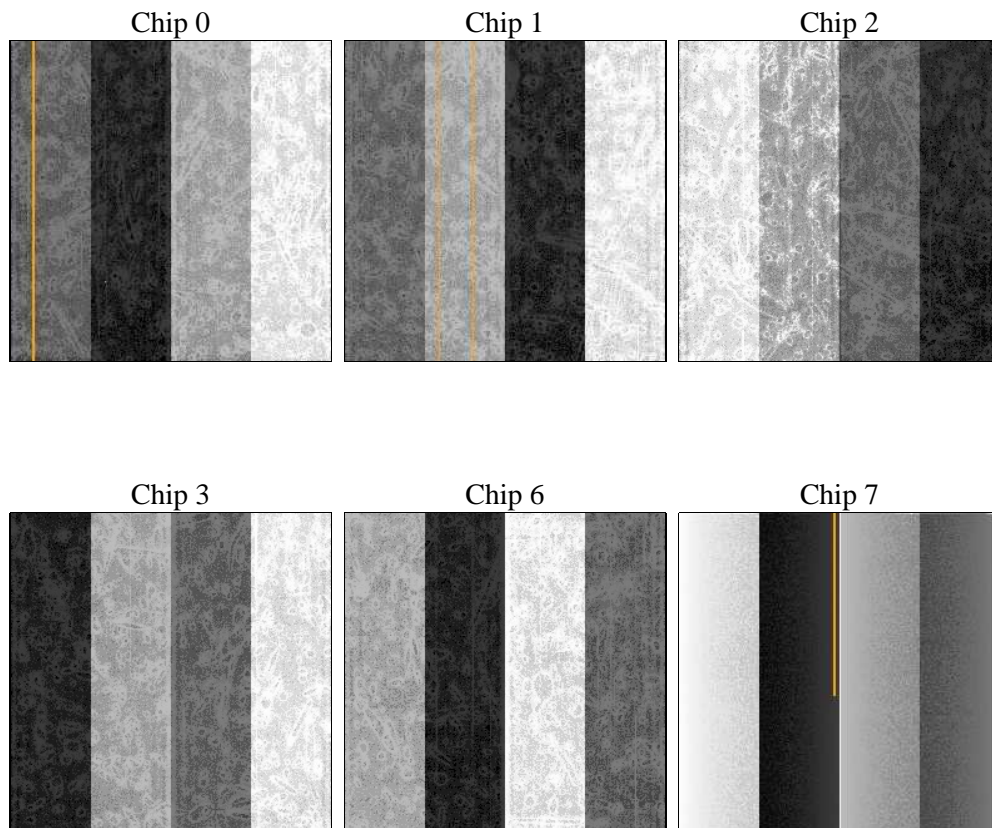
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7914.699000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7670.3999714255	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	7670.3999714255	Sum of GTIs [s]
date	2012-11-09T07:42:18	Date and time of file creation	ontime1	7670.3999714255	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	7670.3999714255	Sum of GTIs [s]
			ontime3	7670.3999714255	Sum of GTIs [s]
			ontime6	7670.3999714255	Sum of GTIs [s]
			ontime7	7670.3999714255	Sum of GTIs [s]
			l1events	236643	Number of level 1 events

### 2.1.4 Events

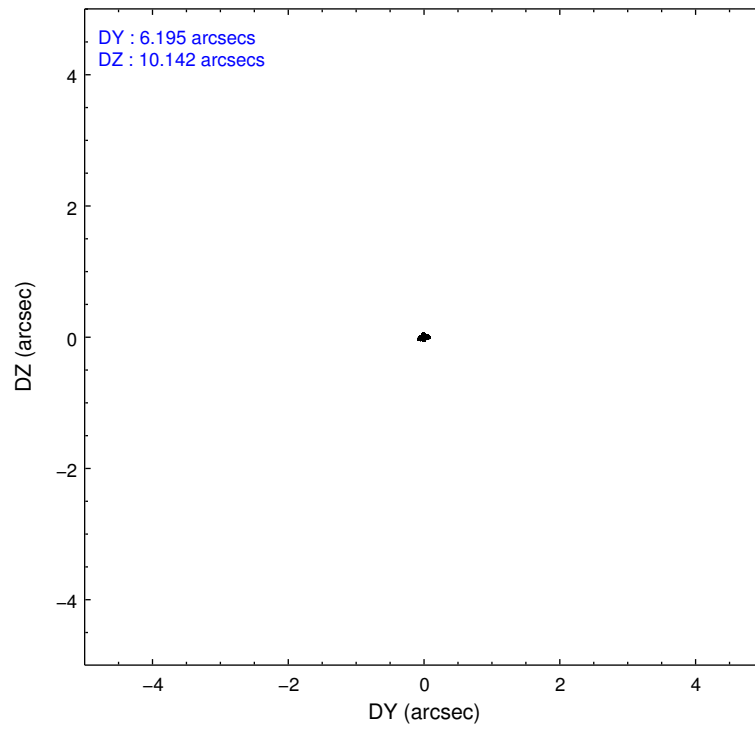
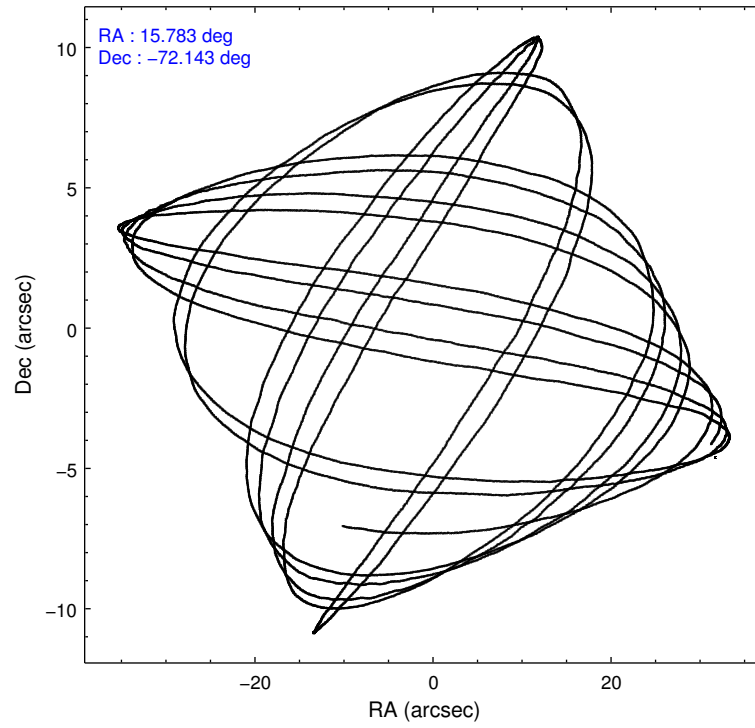
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	33727	35597	39116	56046	36874	35283	grade 0 events	1533	2453	2020	19925	1689	1800
rejected events	29861	30509	34686	31577	32809	18038		4%	6%	5%	35%	4%	5%
rejected %	88%	85%	88%	56%	88%	51%	grade 1 events	19	18	20	156	13	31
								0%	0%	0%	0%	0%	0%
							grade 2 events	843	942	924	2159	815	3536
								2%	2%	2%	3%	2%	10%
							grade 3 events	413	465	423	805	396	1663
								1%	1%	1%	1%	1%	4%
							grade 4 events	395	461	424	789	419	1772
								1%	1%	1%	1%	1%	5%
							grade 5 events	1113	1140	1028	1286	1306	3807
								3%	3%	2%	2%	3%	10%
							grade 6 events	683	770	643	814	753	8492
								2%	2%	1%	1%	2%	24%
							grade 7 events	28728	29348	33634	30112	31483	14182
								85%	82%	85%	53%	85%	40%

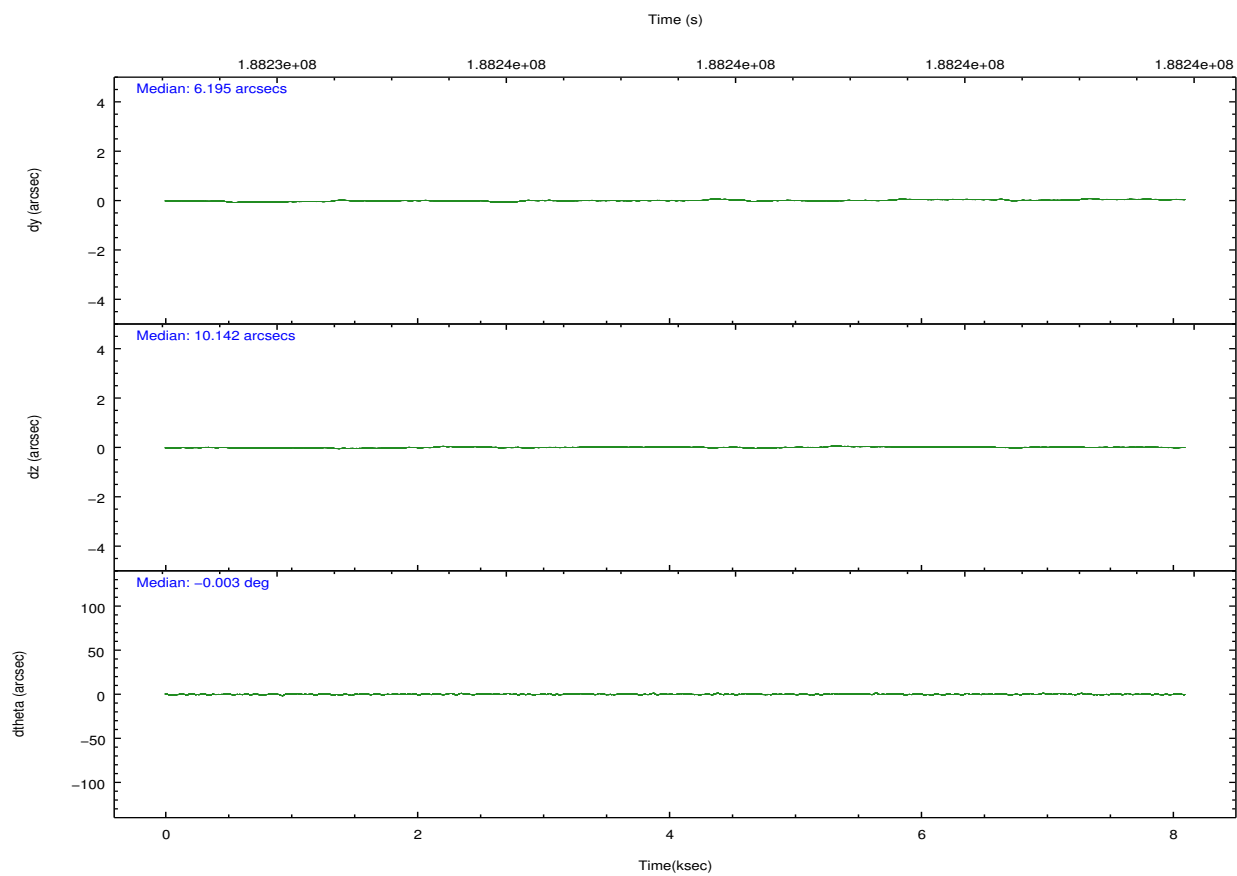
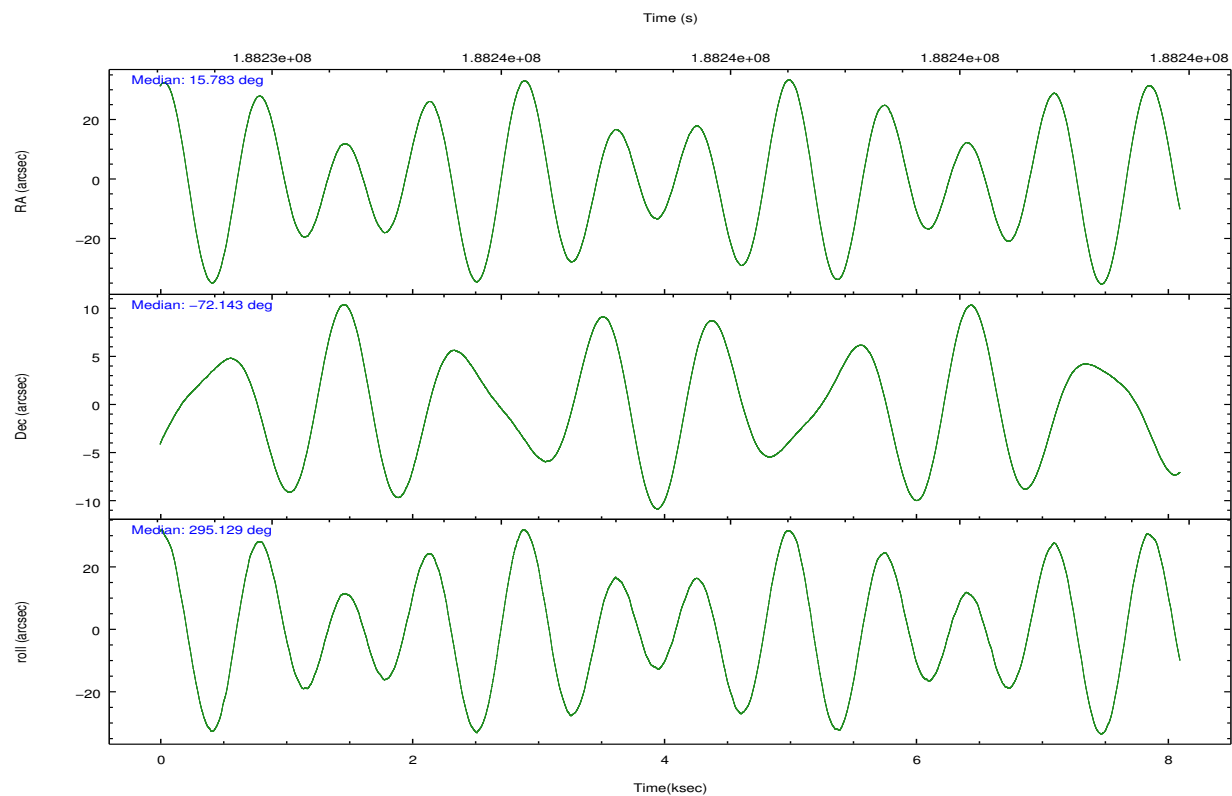


## 2.2 Compared Parameters

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	15.709778	15.78337183265086	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.127331	-72.14292735900428	Alternating exposures requested	N	N
[deg] Pointing Roll	294.858768	295.137499336439	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	181353664.184000	181353664.184000			
[s] Window stop time (MET)	189216064.184000	189216064.184000			
[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)	188233600.184000	188233225.20146			
Observation start date	2003-12-19T15:05:36	2003-12-19T15:00:25			
[s] Observation end time (MET)	188241515.184000	188241830.07684			
Observation end date	2003-12-19T17:17:31	2003-12-19T17:23:50			
Read mode	TIMED	TIMED			

## 2.3 Aspect



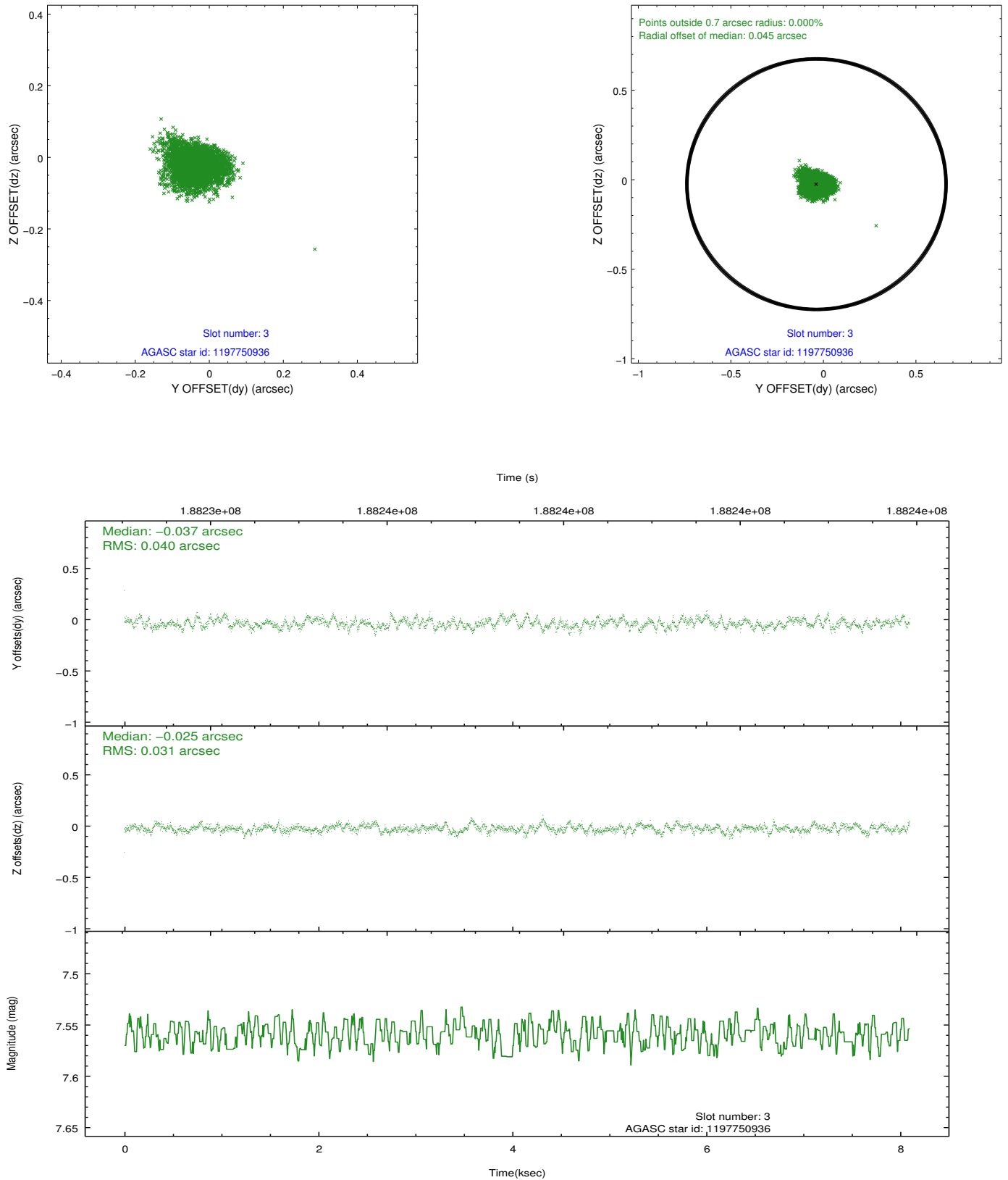


### Slot Statistics

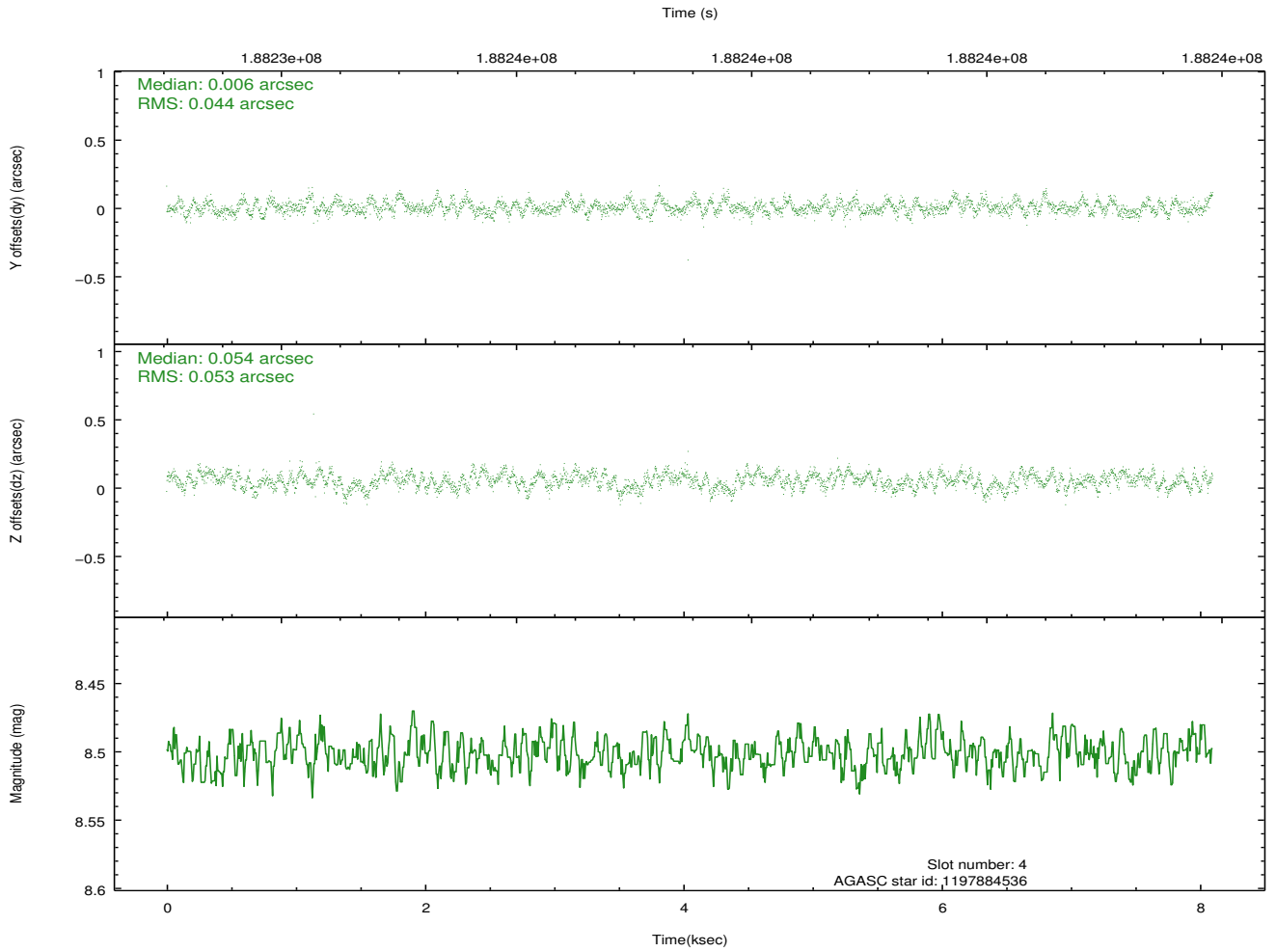
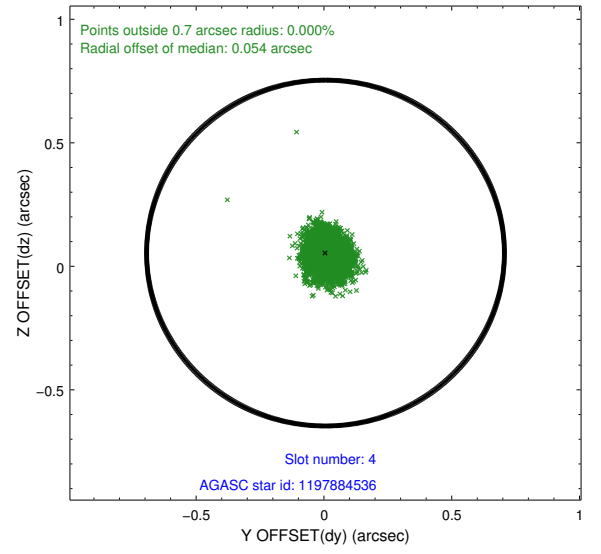
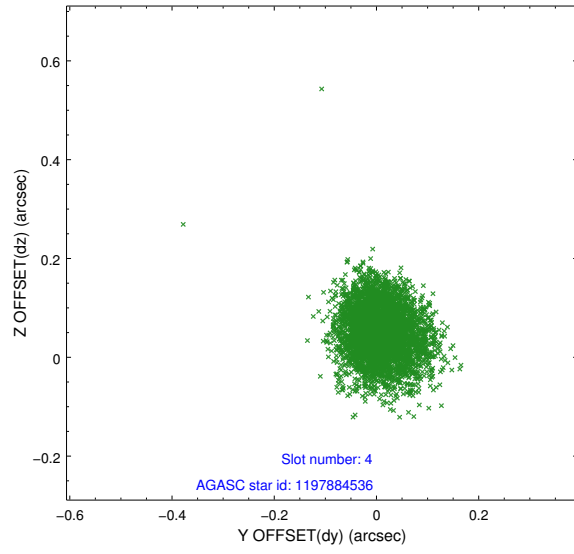
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1975	0.034	-0.017	0.006	0.010	0.000000	0.000000	933.56	-833.61
1	FID	ACIS-I-5	7.23	1975	-0.061	0.079	0.006	0.010	0.000000	0.000000	-1814.30	1063.56
2	FID	ACIS-I-6	7.24	1975	-0.063	0.007	0.006	0.011	0.000000	0.000000	398.20	1708.83
3	GUIDE	1197750936	7.56	3951	-0.037	-0.025	0.052	0.088	15.387940	-71.549550	-2040.39	540.95
4	GUIDE	1197884536	8.50	3951	0.006	0.054	0.073	0.116	17.160729	-71.835289	-252.33	1911.26
5	GUIDE	1197884712	8.30	3950	0.070	-0.131	0.064	0.103	16.087398	-72.252690	584.97	186.16
6	GUIDE	1197885328	7.23	3951	-0.022	0.043	0.054	0.086	16.283090	-71.733943	-1010.18	1181.41
7	GUIDE	1198189696	7.37	3950	-0.021	0.057	0.058	0.096	15.223750	-72.697522	1645.76	-1335.39

## 2.4 Star Slots

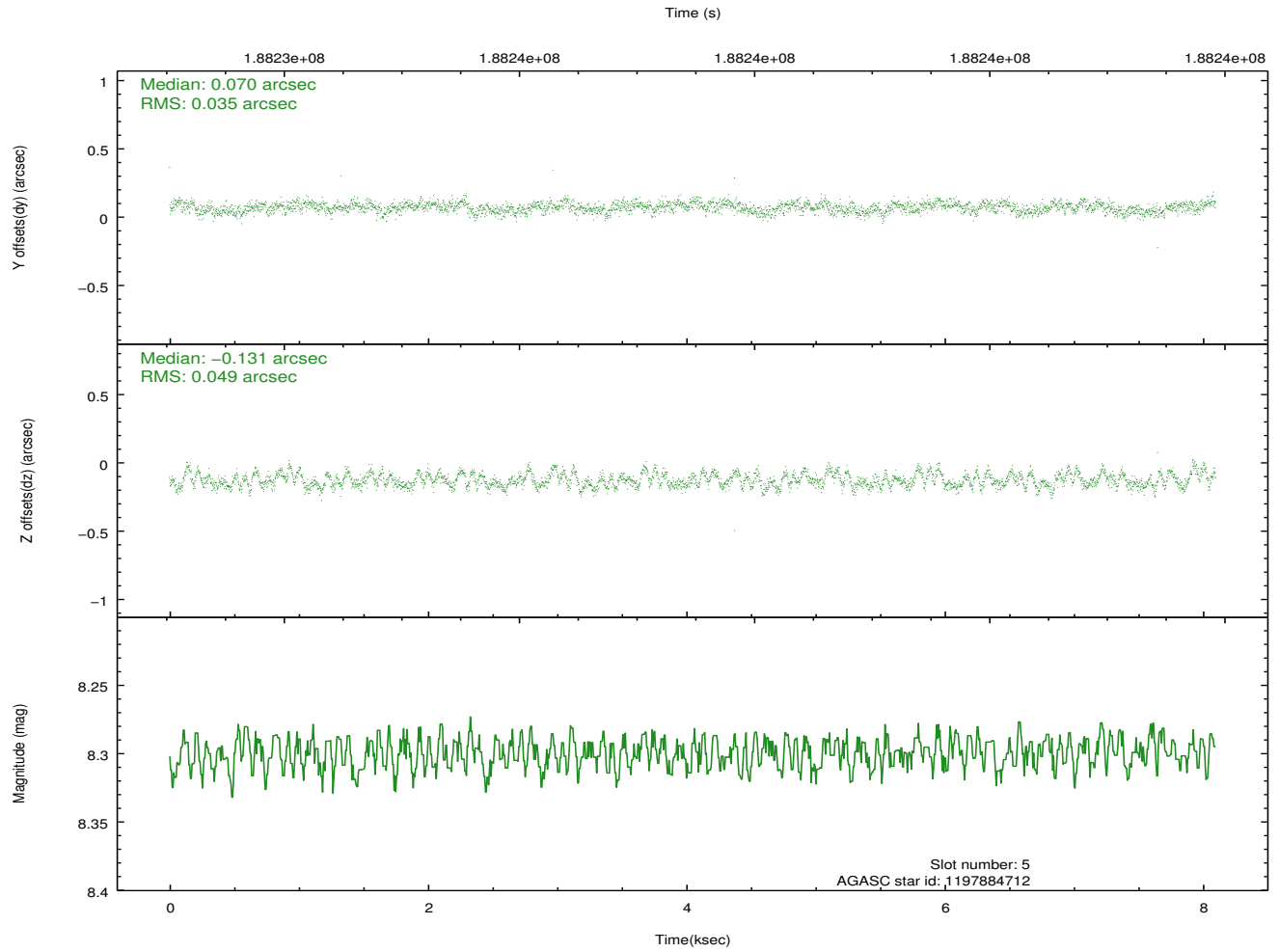
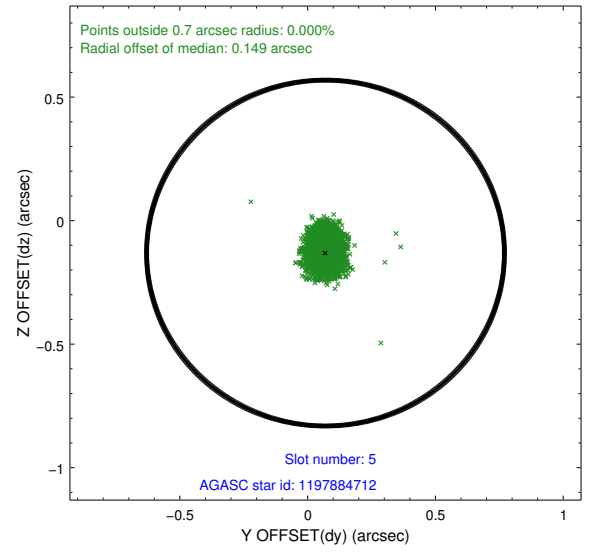
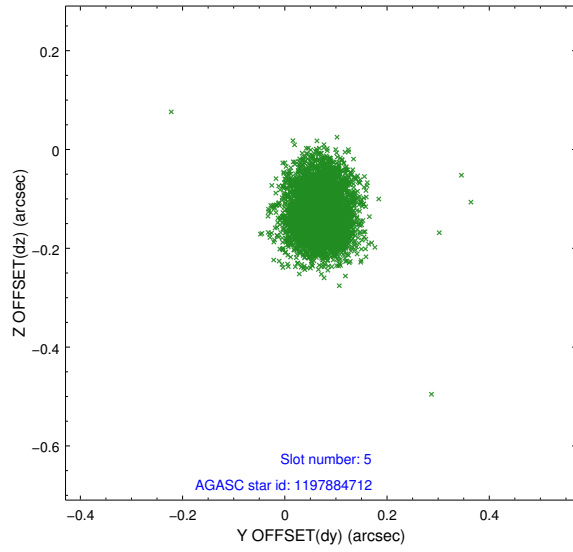
### 2.4.1 Slot 3



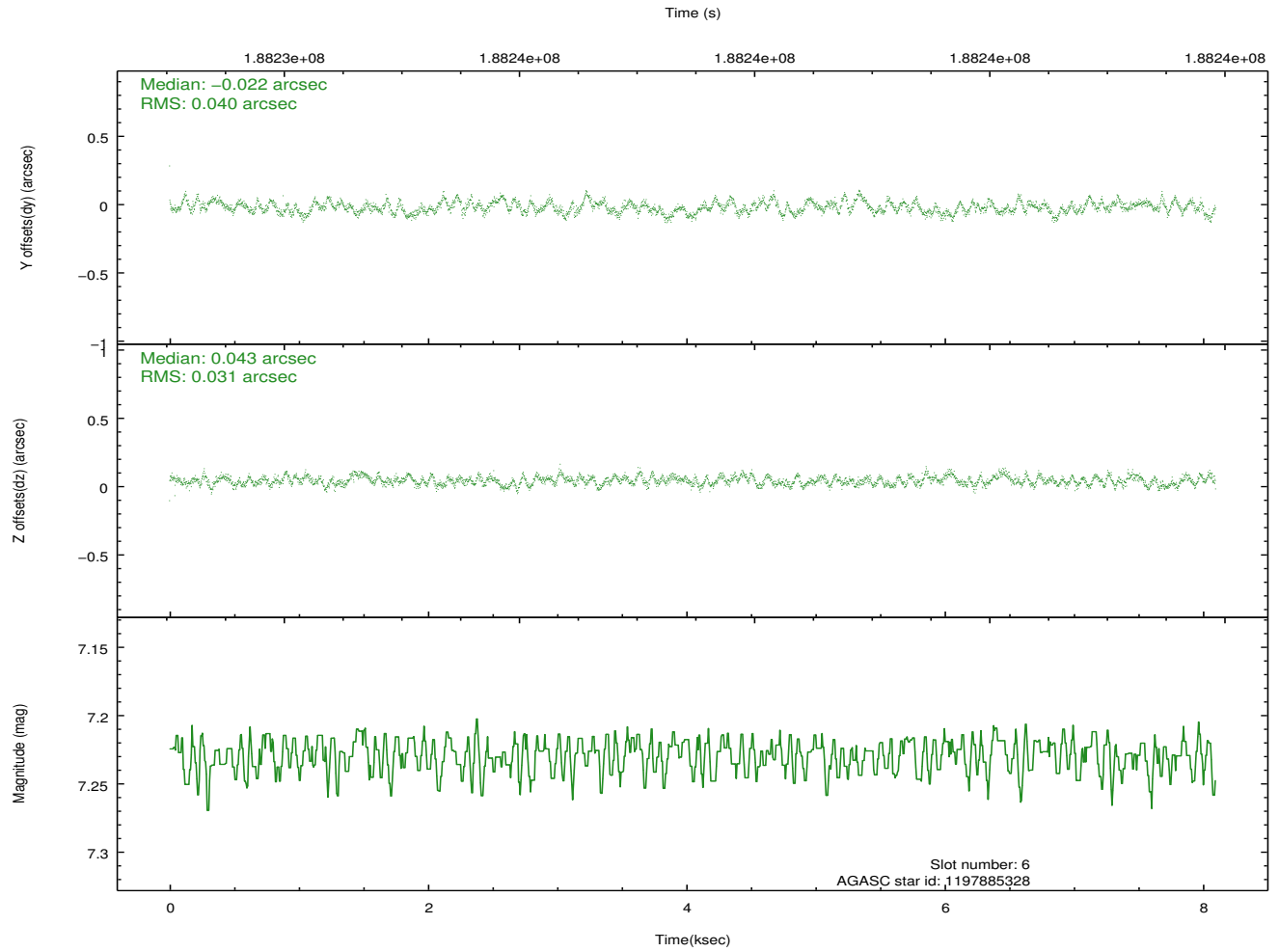
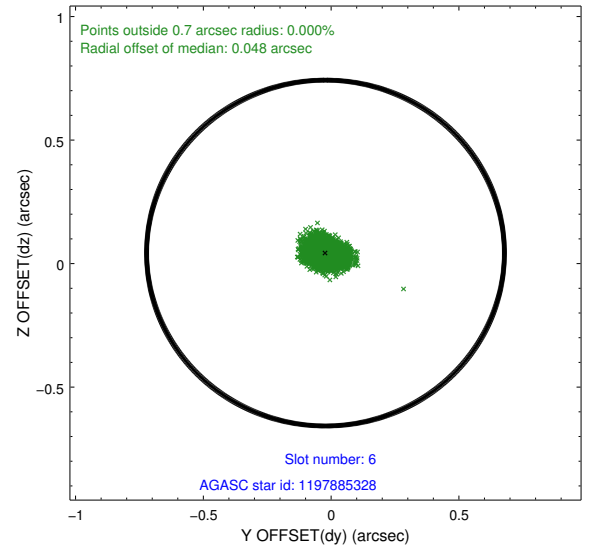
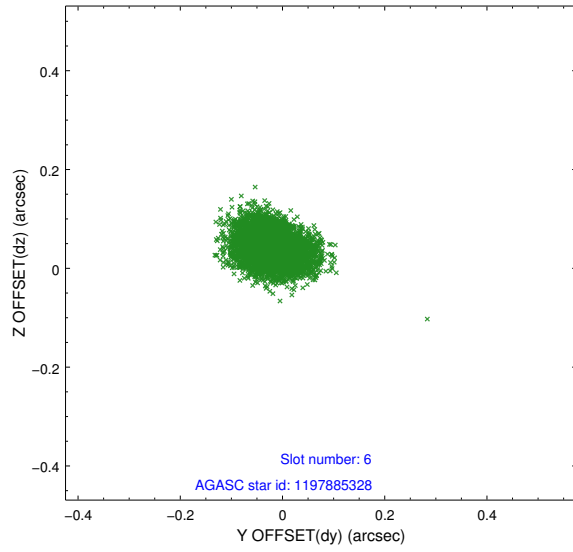
## 2.4.2 Slot 4



### 2.4.3 Slot 5

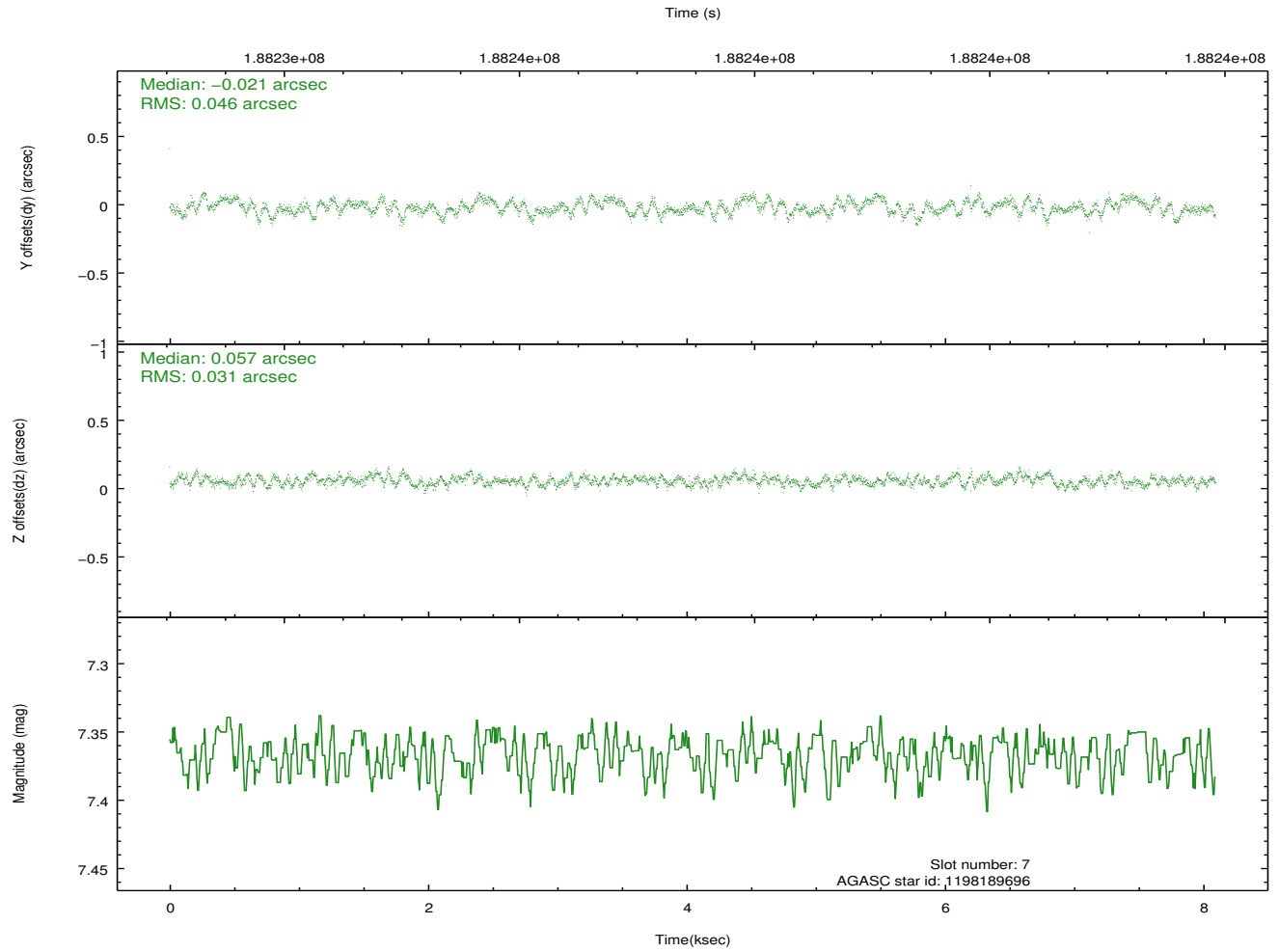
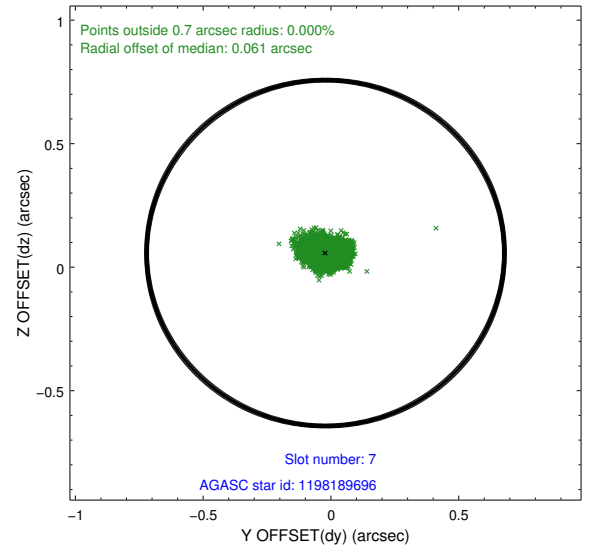
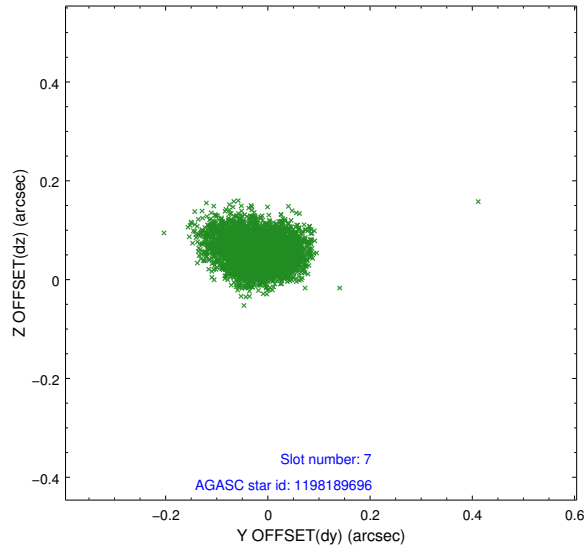


## 2.4.4 Slot 6



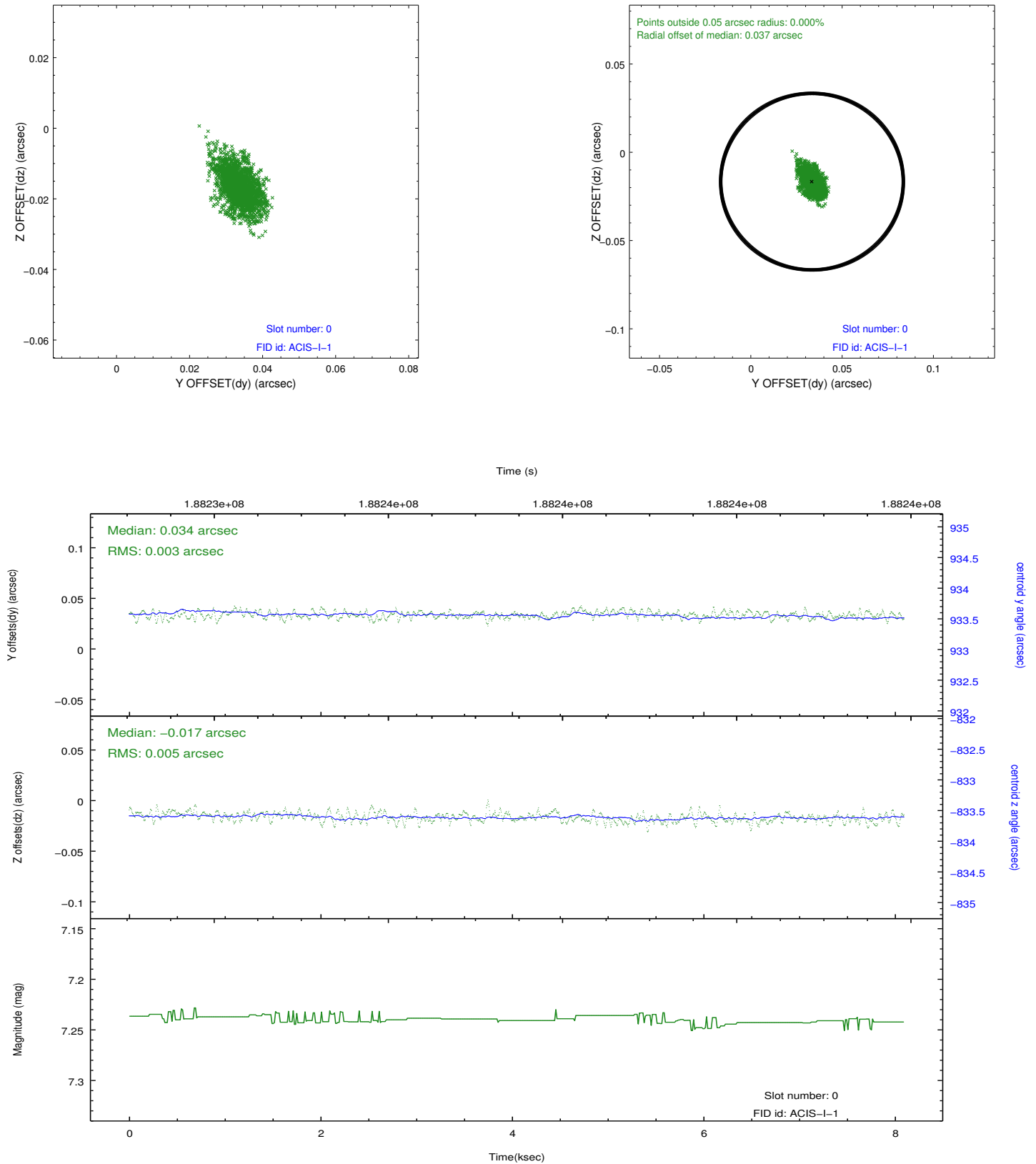


## 2.4.5 Slot 7

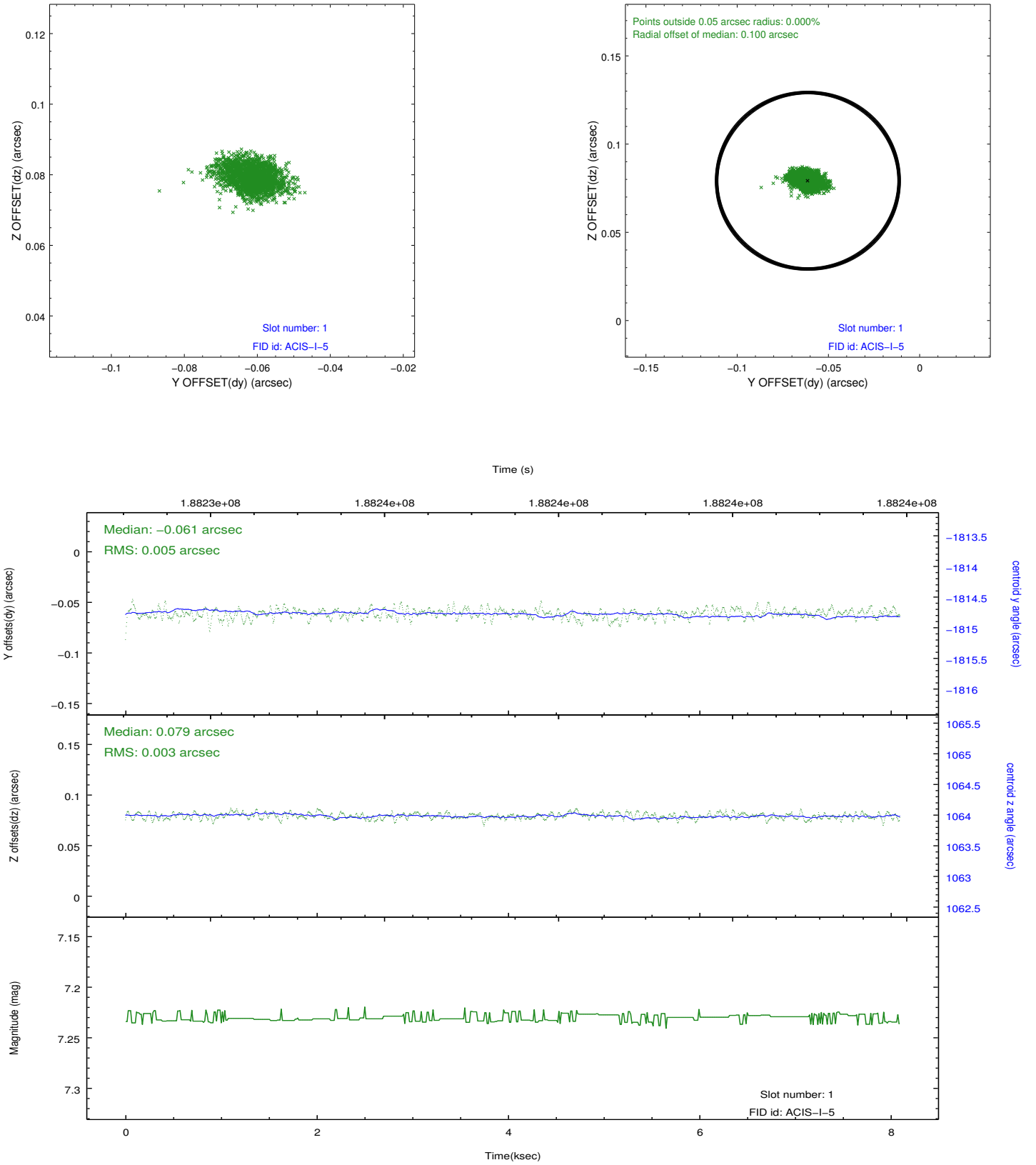


## 2.5 FID Slots

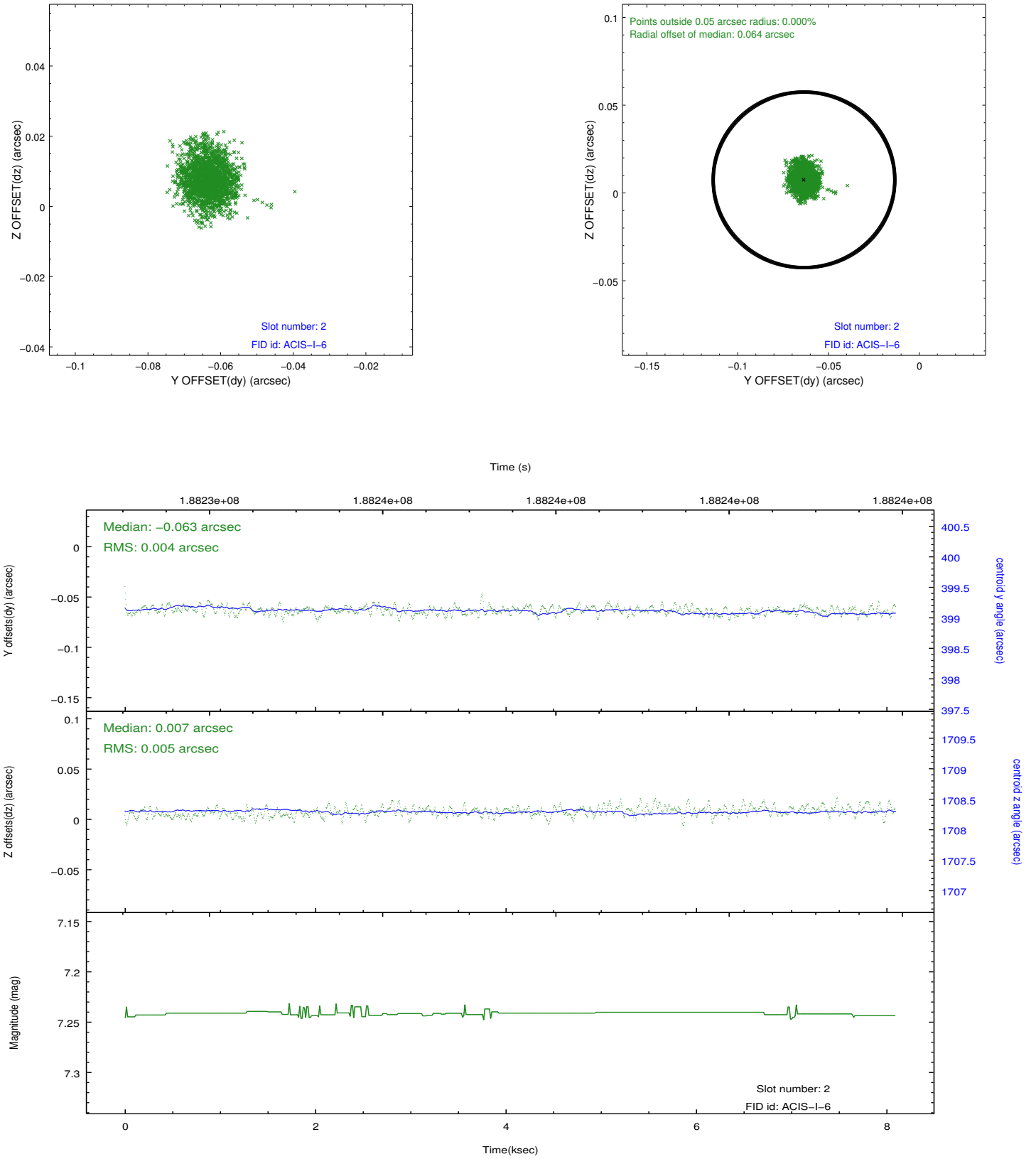
### 2.5.1 Slot 0



## 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)	2012.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.673

### A.2 Comments

Window constraint met. presume the cal team carried this one out correctly, but e0102 is on ccd i3, but label says s3.