

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13410 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Feb 10 2012

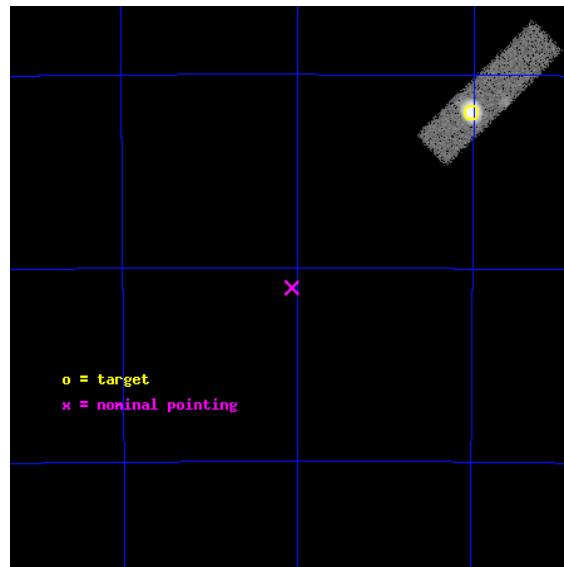
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# 1 Front

seq_num	890055	Sequence number
obs_id	13410	Observation id
title	Mapping the Spatial Distribution of the ACIS Contaminant	Proposal
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72	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	16.51630969925	Nominal RA [deg]
dec_nom	-72.183826886044	Nominal Dec [deg]
roll_nom	135.67103921916	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10027.645142913	Sum of GTIs [s]
livetime	9538.3288717901	Livetime [s]
ontime5	10027.645142913	Sum of GTIs [s]
l2events	51487	Number of level 2 events

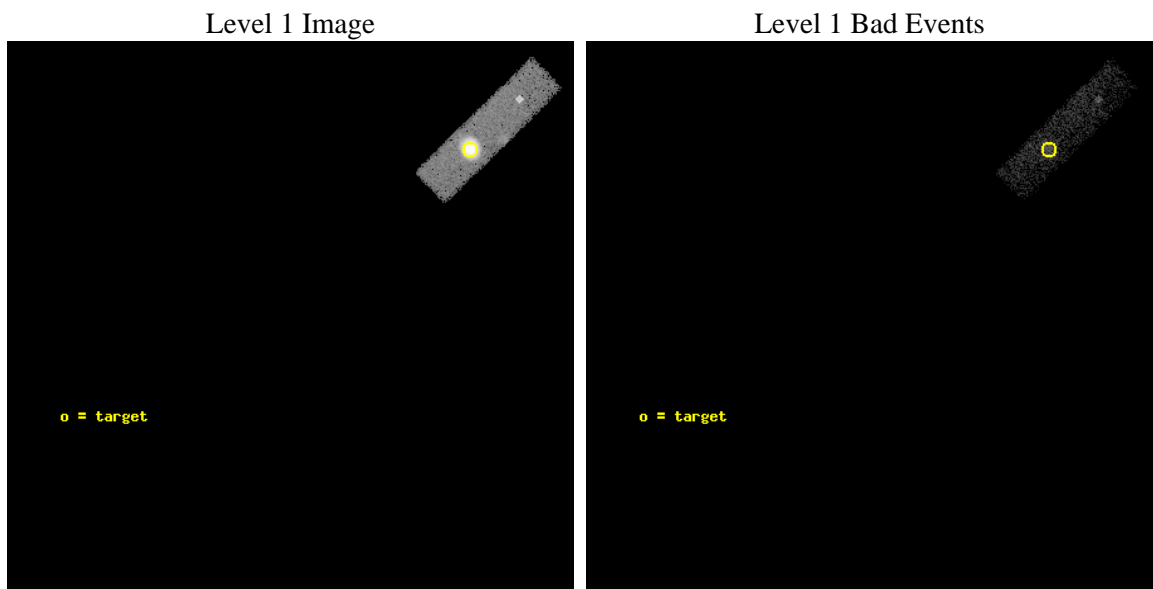




## 2 OBI

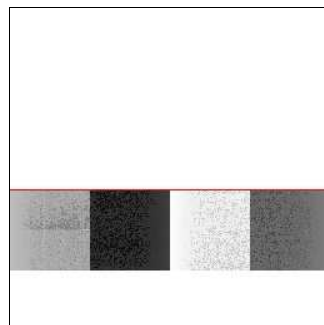
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 5





### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	10027.645142913	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime5	10027.645142913	Sum of GTIs [s]
date	2012-02-11T00:36:55	Date and time of file creation	l1events	66243	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 5</b>
level 1 events	66243
rejected events	10272
rejected %	15%

	<b>ccd 5</b>
grade 0 events	23163
	34%
grade 1 events	260
	0%
grade 2 events	14442
	21%
grade 3 events	4833
	7%
grade 4 events	4847
	7%
grade 5 events	2272
	3%
grade 6 events	8693
	13%
grade 7 events	7733
	11%

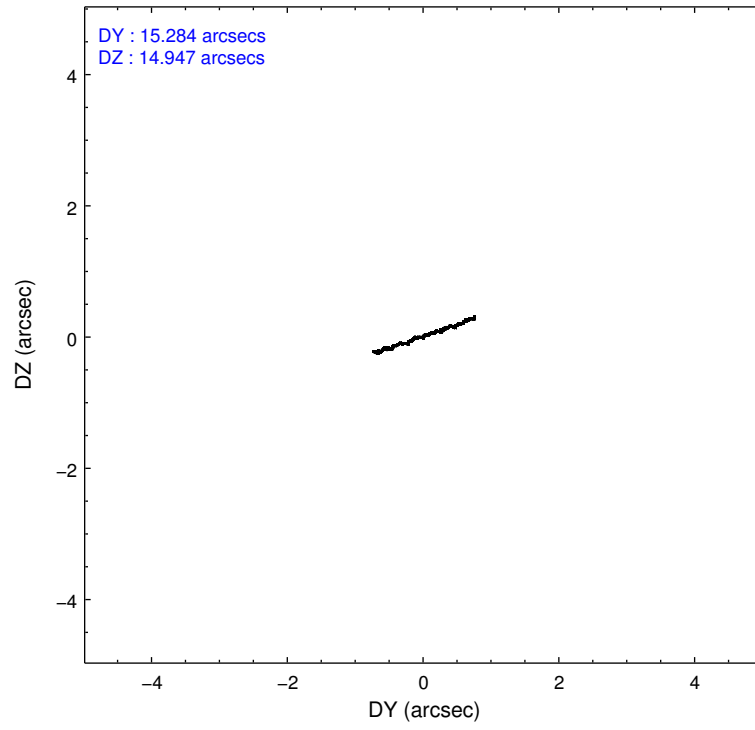
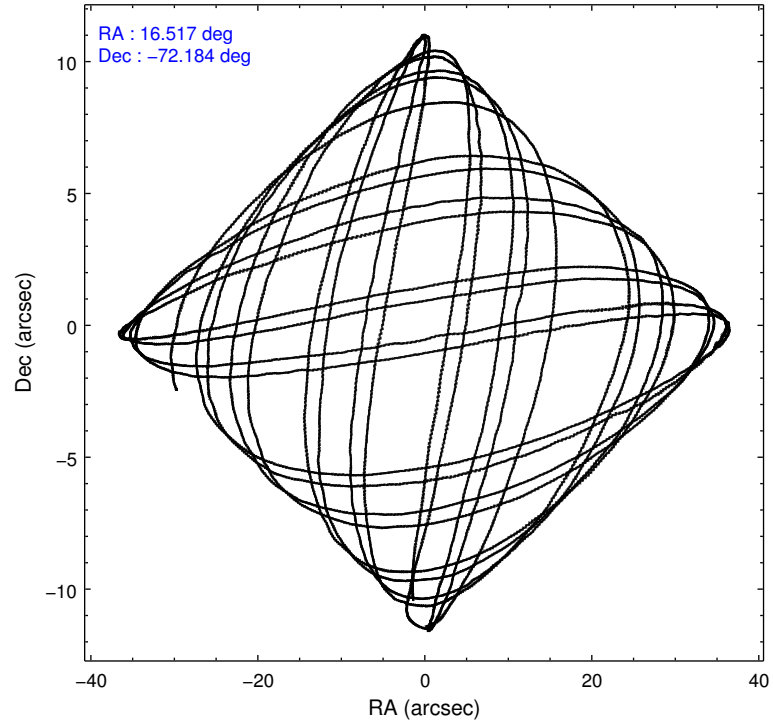


## 2.2 Compared Parameters

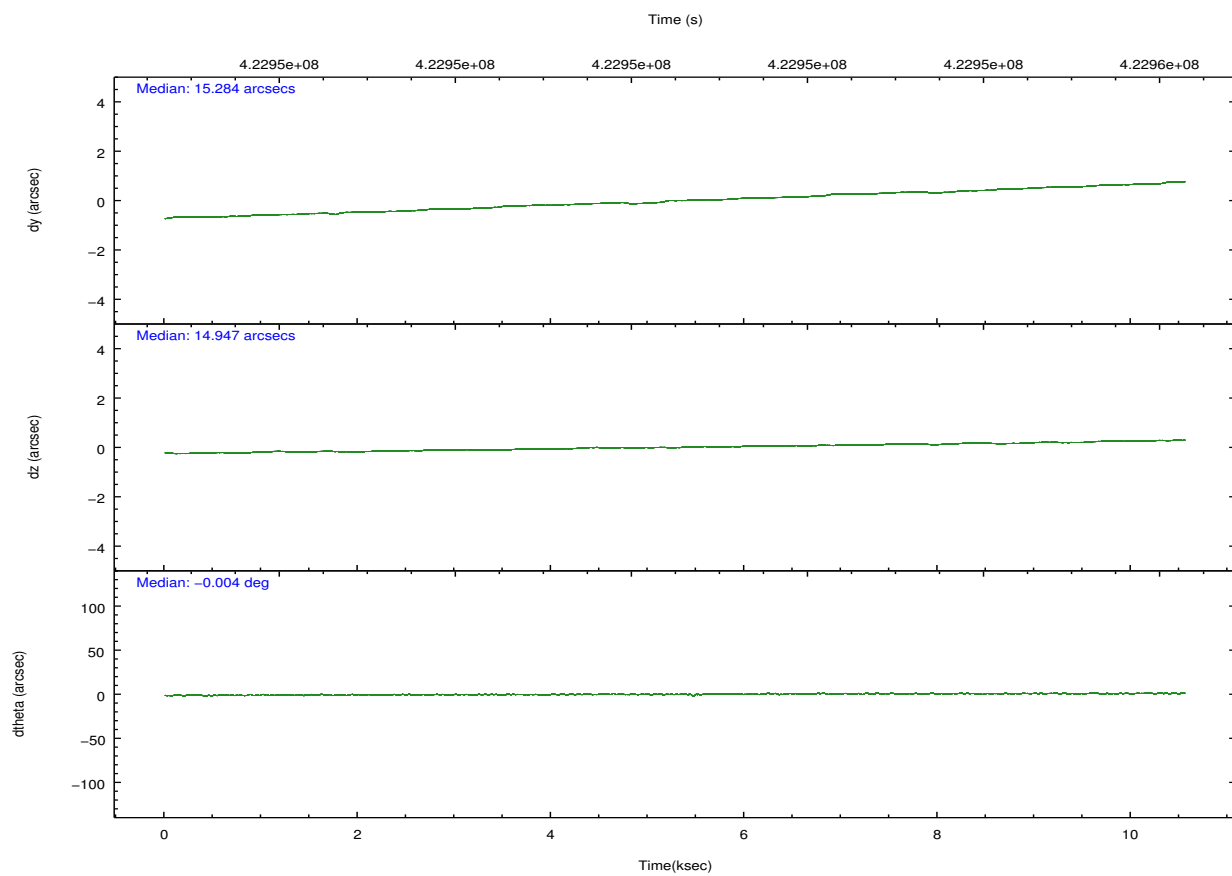
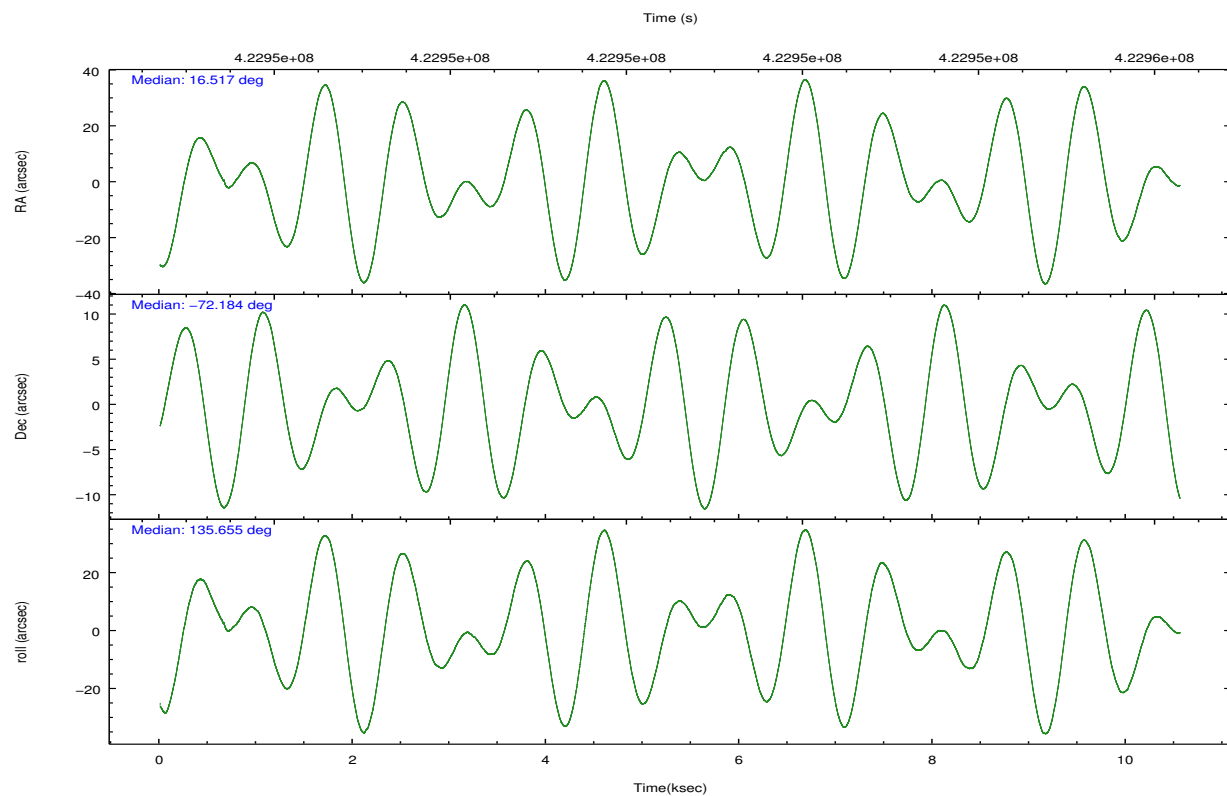
Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5	ACIS-5	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.603308	16.51630969924997	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-72.190243	-72.18382688604406	Subarray start row	185	185
[deg] Pointing Roll	135.597240	135.671039219157	Subarray row count	256	256
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.8
[mm] SIM translation stage pos	-185.732523	-185.7349856415388			
[mm] SIM translation stage offset	-4.4	-4.397536941469042			
[s] Observation start time (MET)	422945782.184000	422945038.85653			
Observation start date	2011-05-28T04:55:16	2011-05-28T04:43:58			
[s] Observation end time (MET)	422955782.184000	422956453.25712			
Observation end date	2011-05-28T07:41:56	2011-05-28T07:54:13			
Read mode	TIMED	TIMED			



## 2.3 Aspect









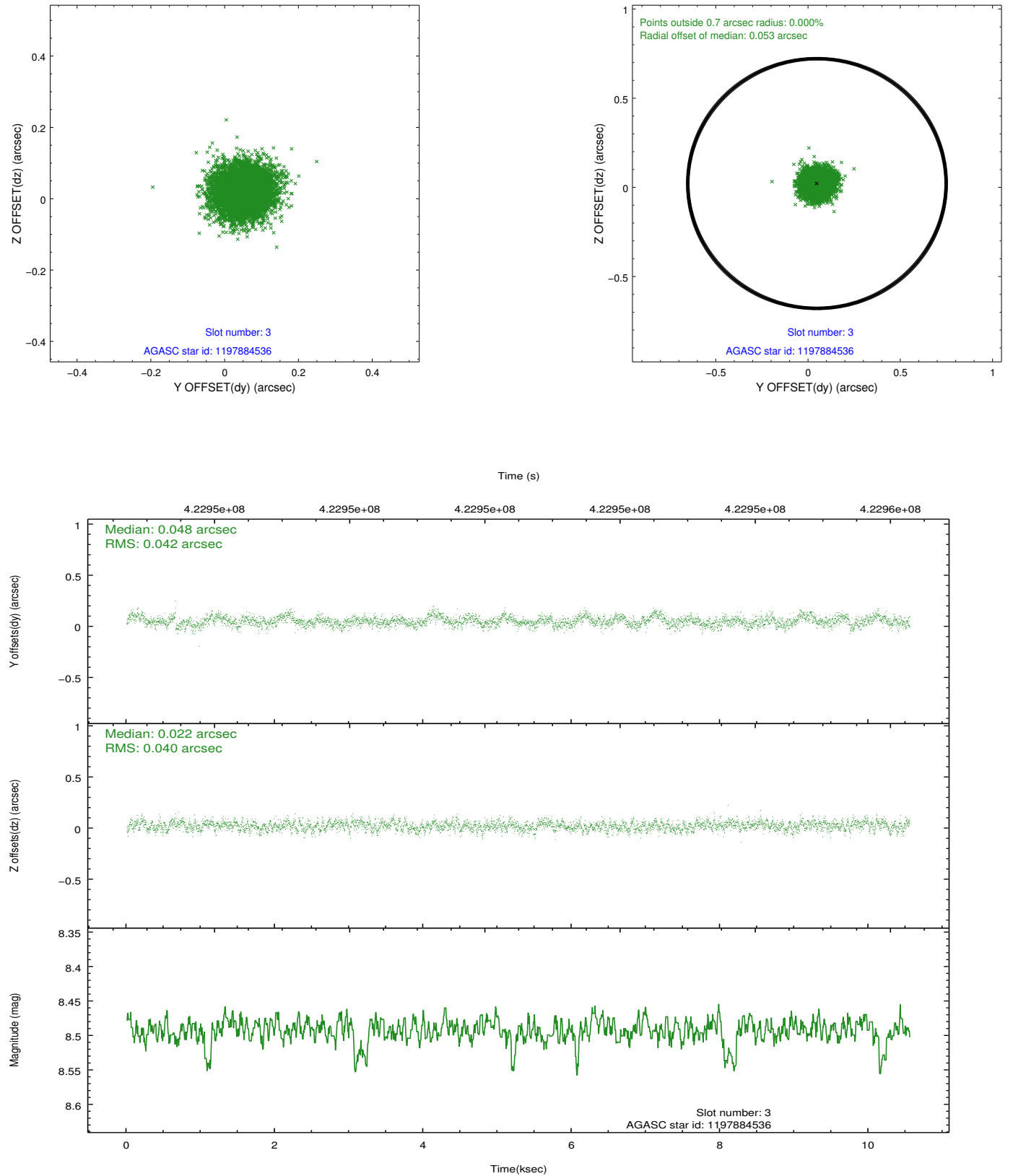
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.88	2574	-0.111	-0.052	0.010	0.018	0.000000	0.000000	-768.06	-1827.09
1	FID	ACIS-S-4	6.96	2574	0.203	0.068	0.012	0.030	0.000000	0.000000	2145.30	80.95
2	FID	ACIS-S-5	6.99	2574	-0.123	-0.007	0.018	0.034	0.000000	0.000000	-1820.27	75.12
3	GUIDE	1197884536	8.49	5145	0.048	0.022	0.062	0.098	17.160729	-71.835289	445.84	-1348.13
4	GUIDE	1197884712	8.30	5149	-0.038	-0.040	0.075	0.126	16.087398	-72.252690	245.54	558.55
5	GUIDE	1197885328	7.24	5148	-0.083	0.223	0.058	0.099	16.283090	-71.733943	1406.90	-920.28
6	GUIDE	1198189696	7.37	5149	0.103	-0.314	0.066	0.104	15.223750	-72.697522	-234.71	2349.97
7	GUIDE	1198283128	7.70	5147	-0.028	0.106	0.051	0.083	17.272580	-72.642428	-1655.35	663.35



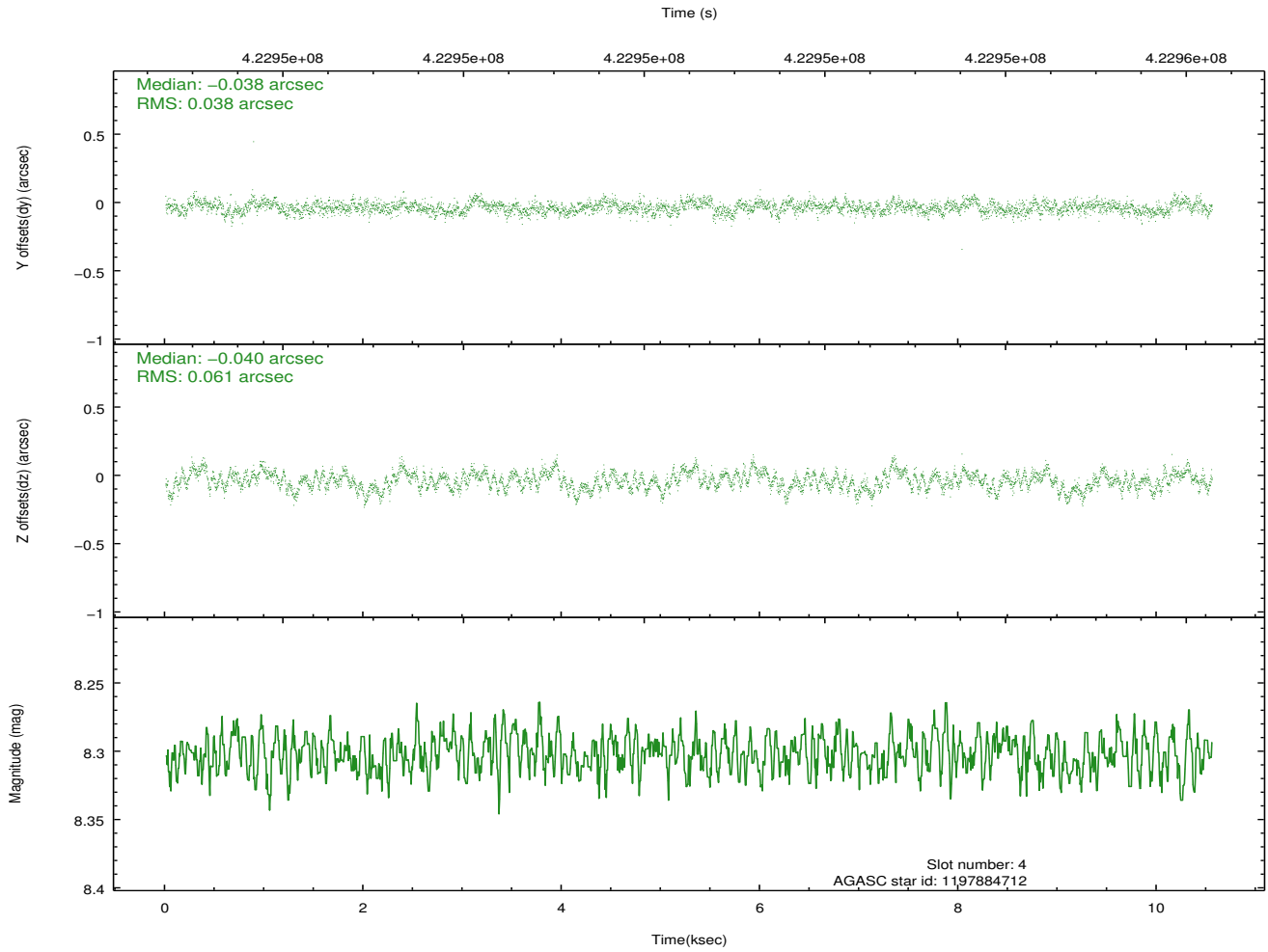
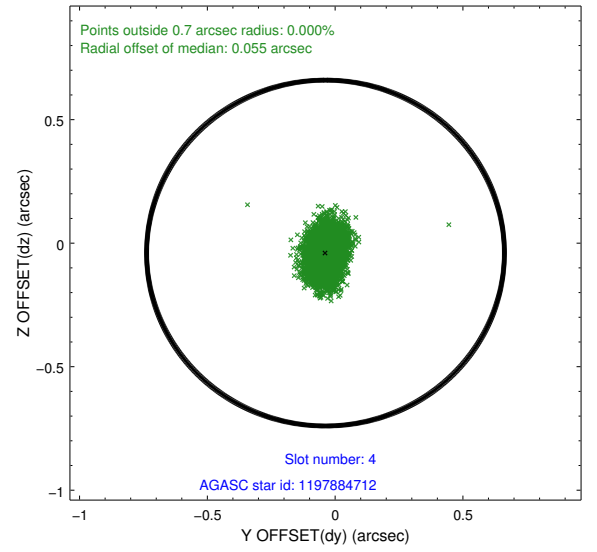
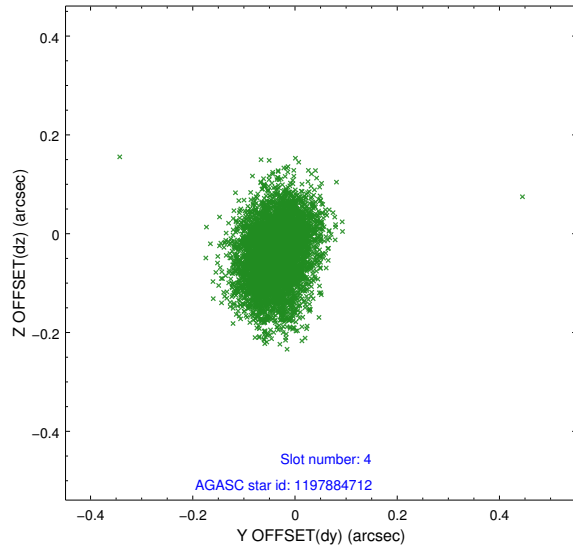
## 2.4 Star Slots

### 2.4.1 Slot 3



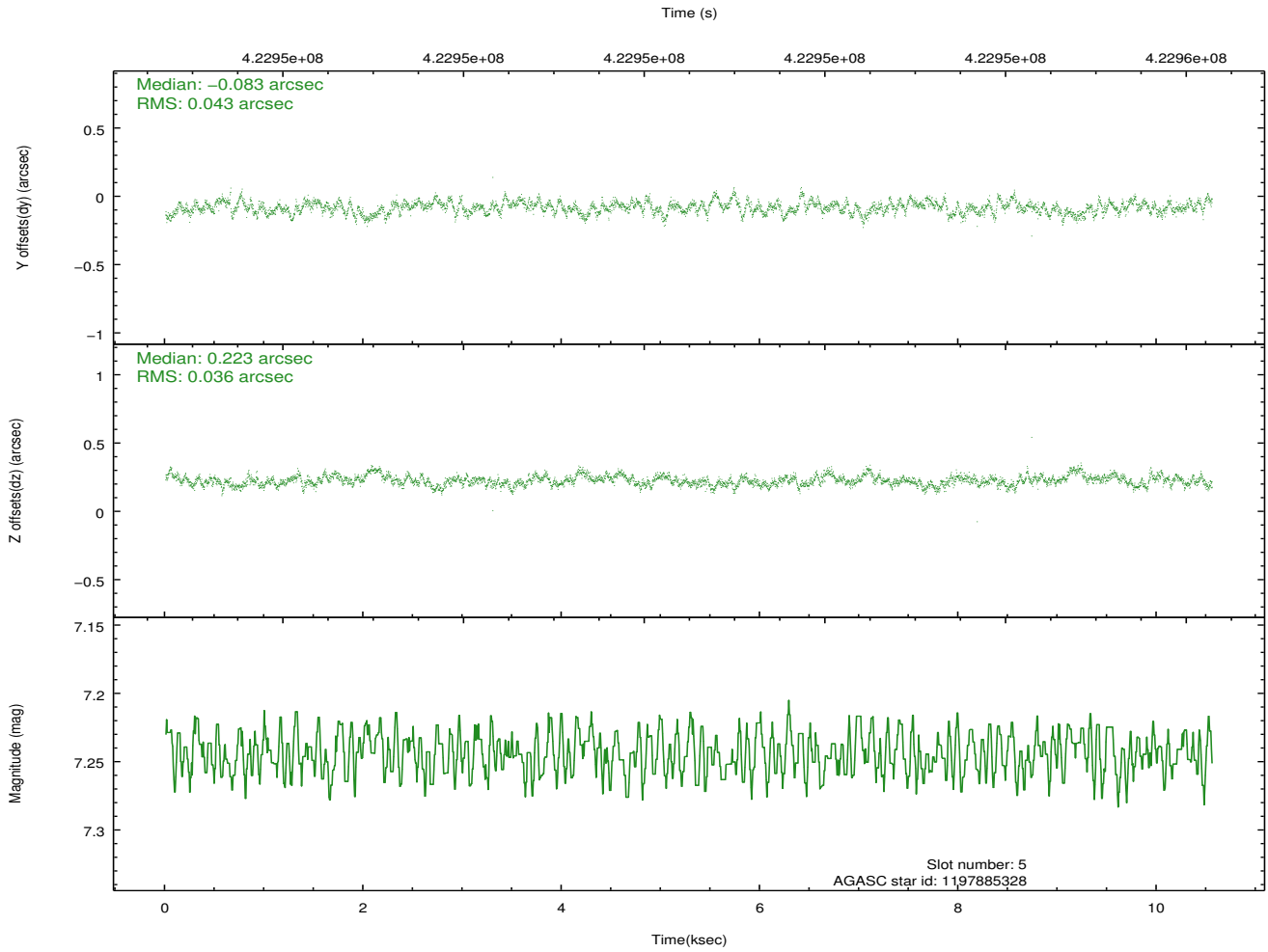
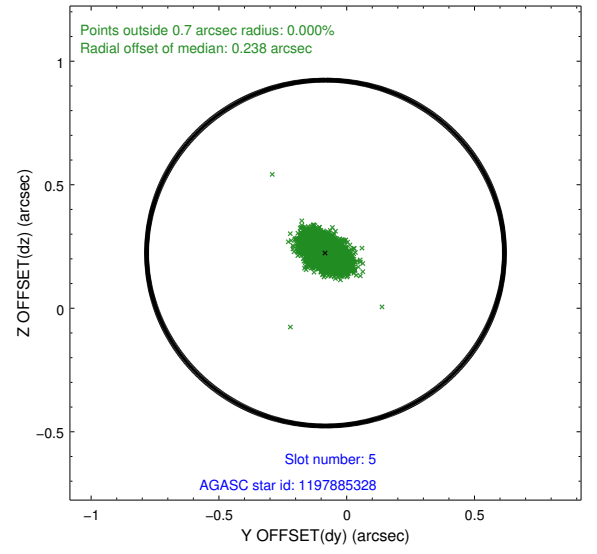
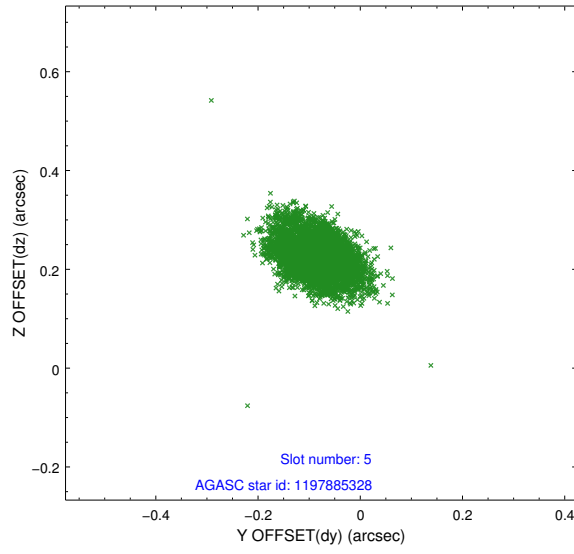


## 2.4.2 Slot 4



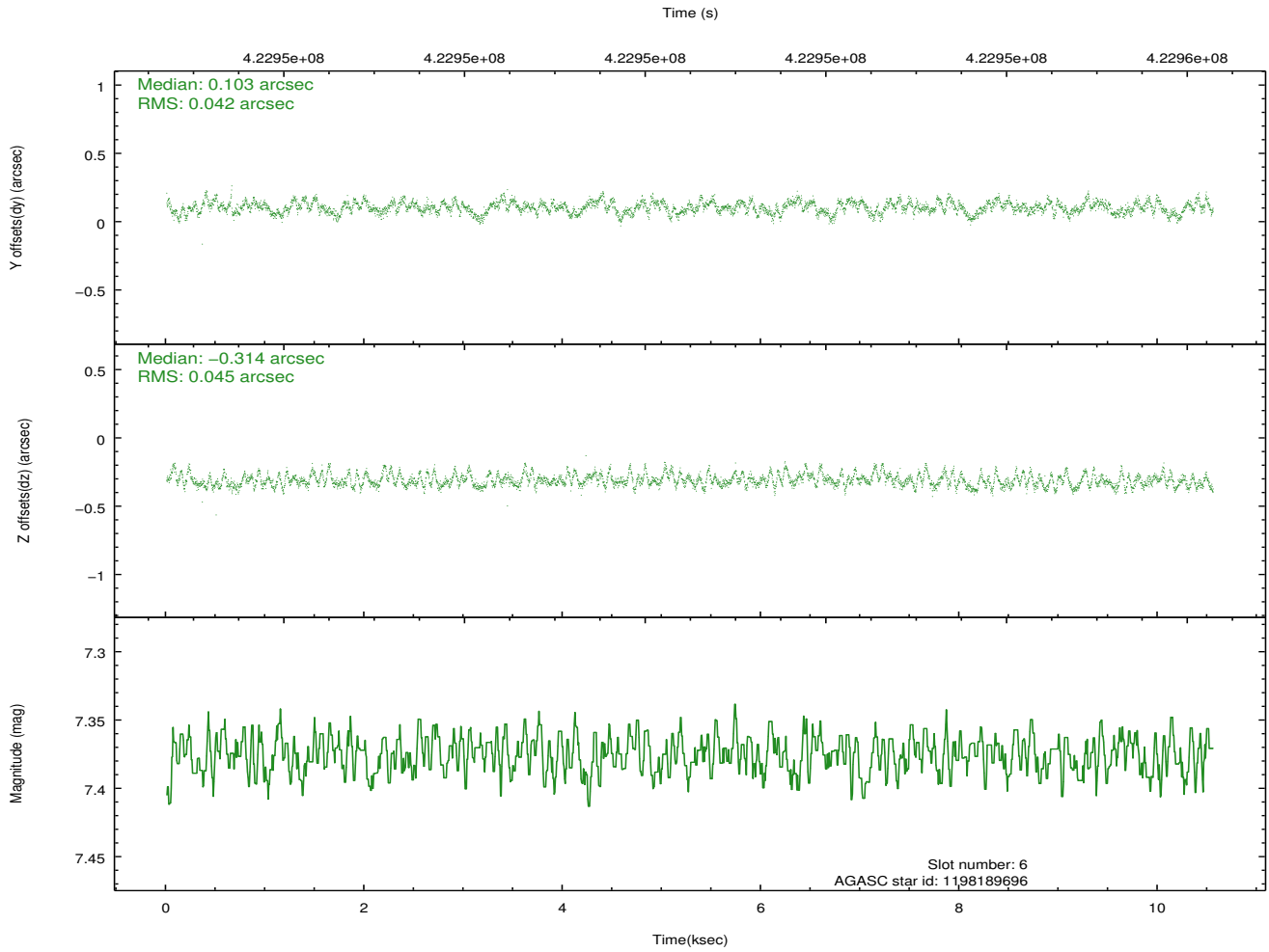
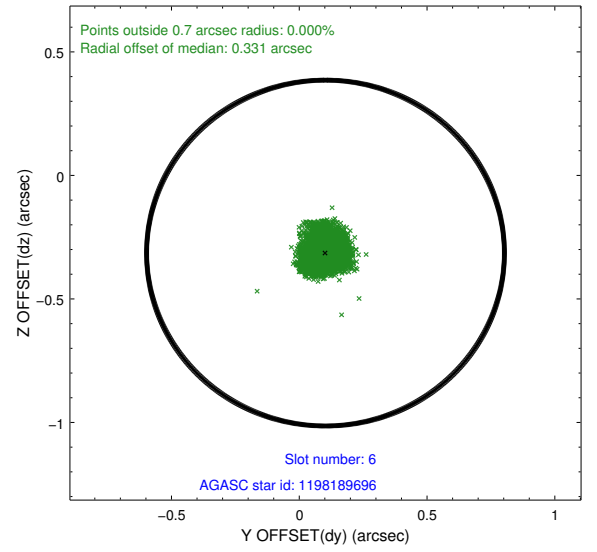
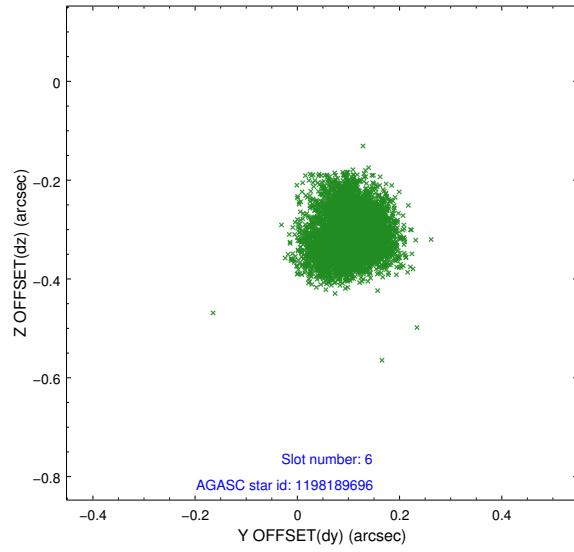


### 2.4.3 Slot 5



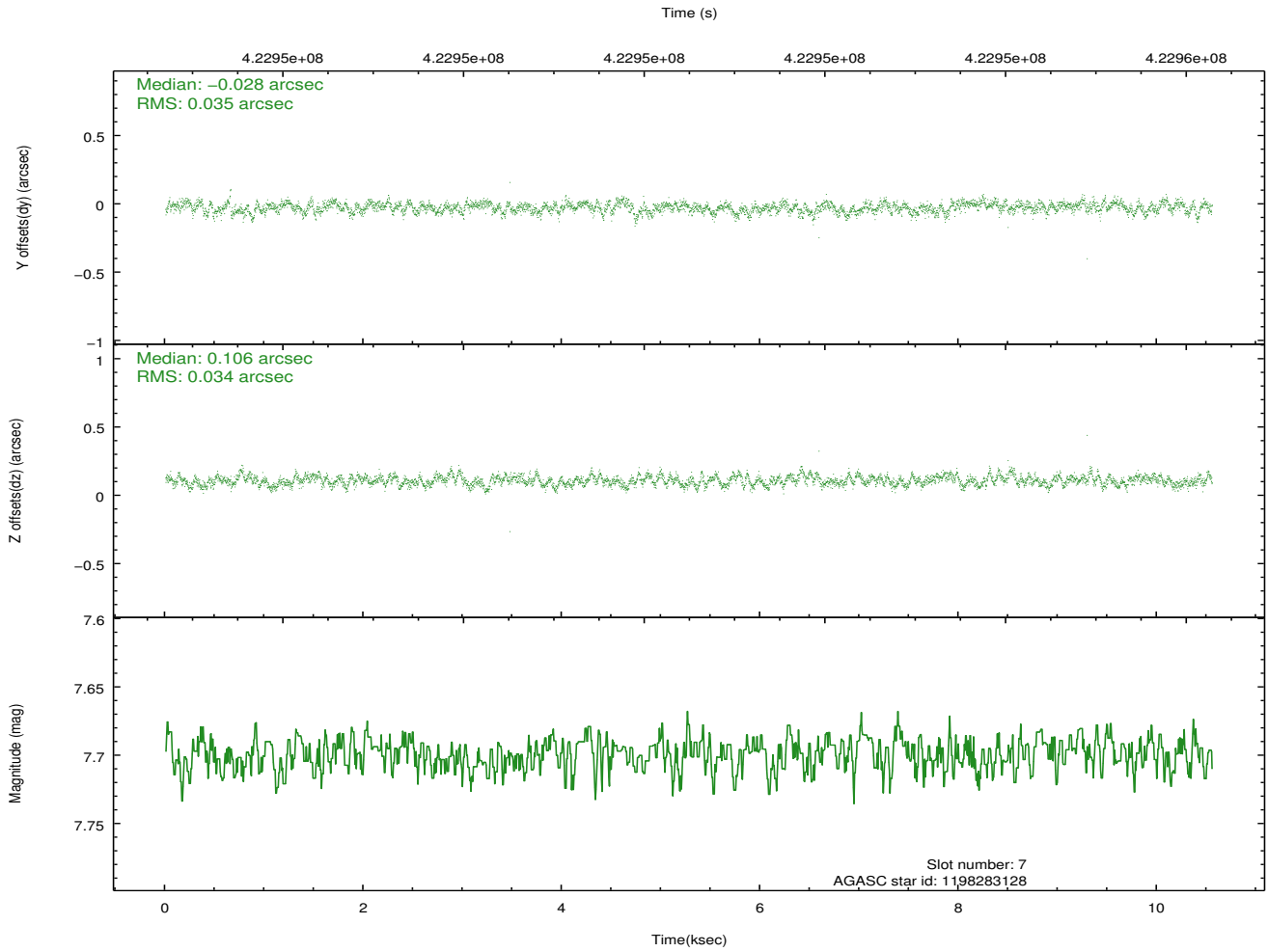
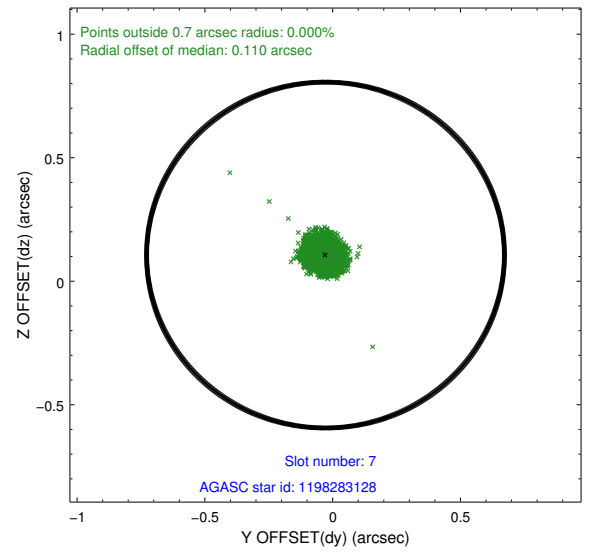
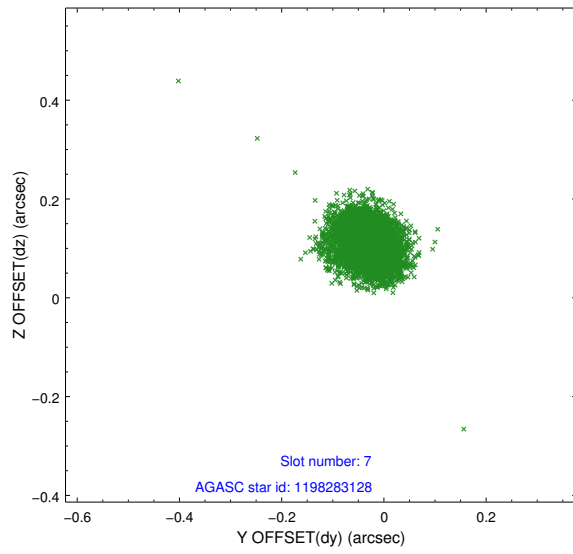


## 2.4.4 Slot 6





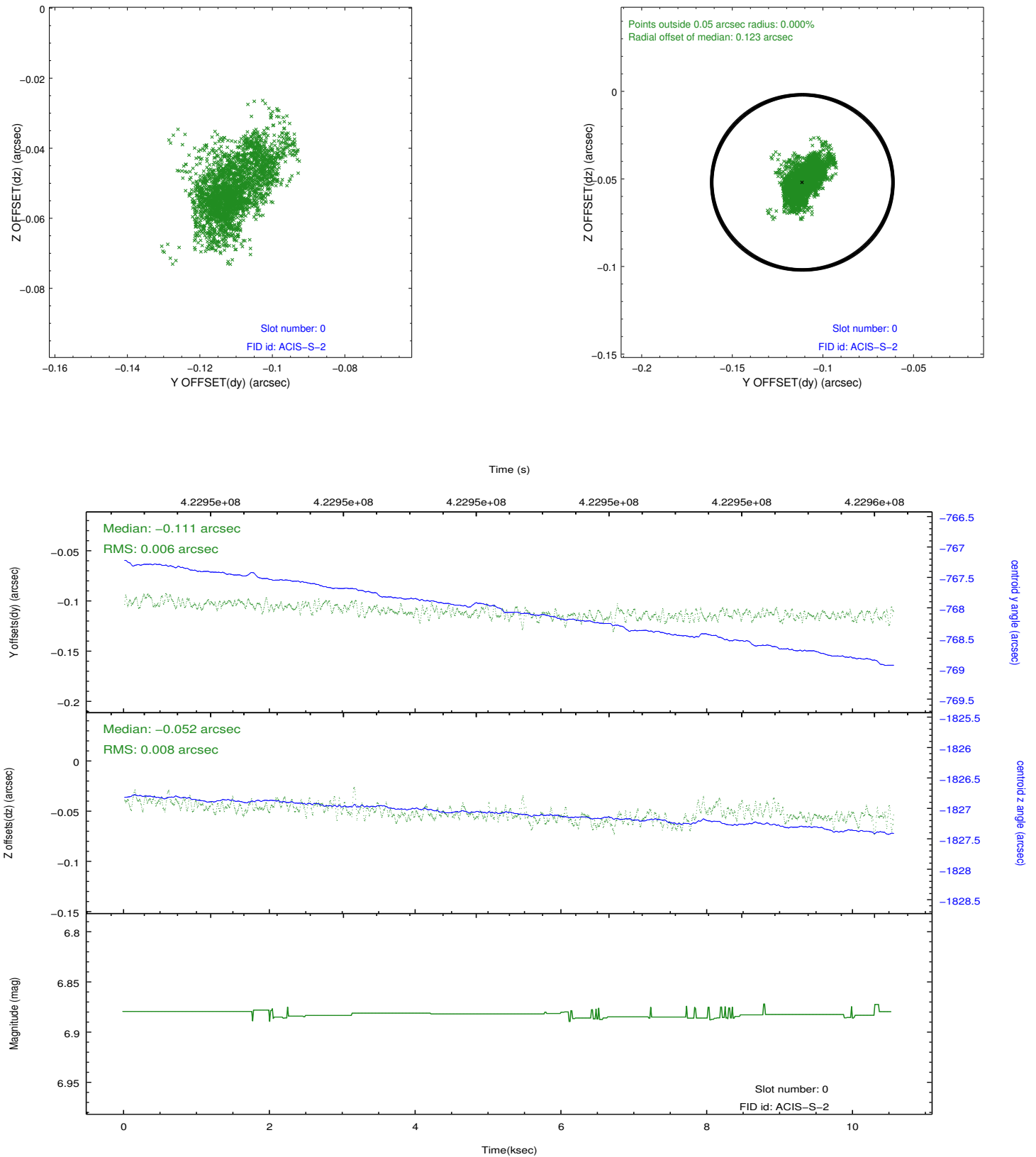
### 2.4.5 Slot 7





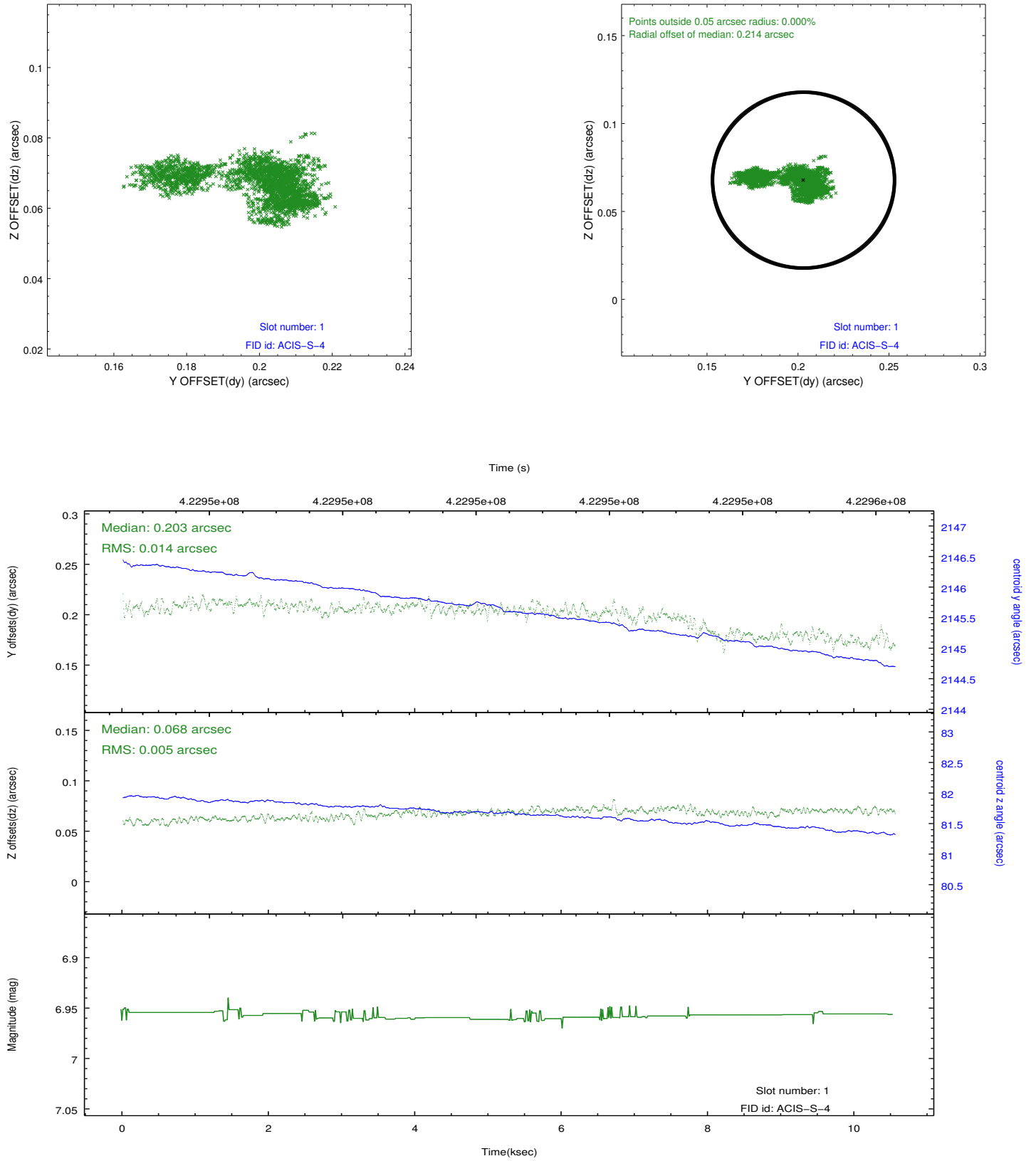
## 2.5 FID Slots

### 2.5.1 Slot 0



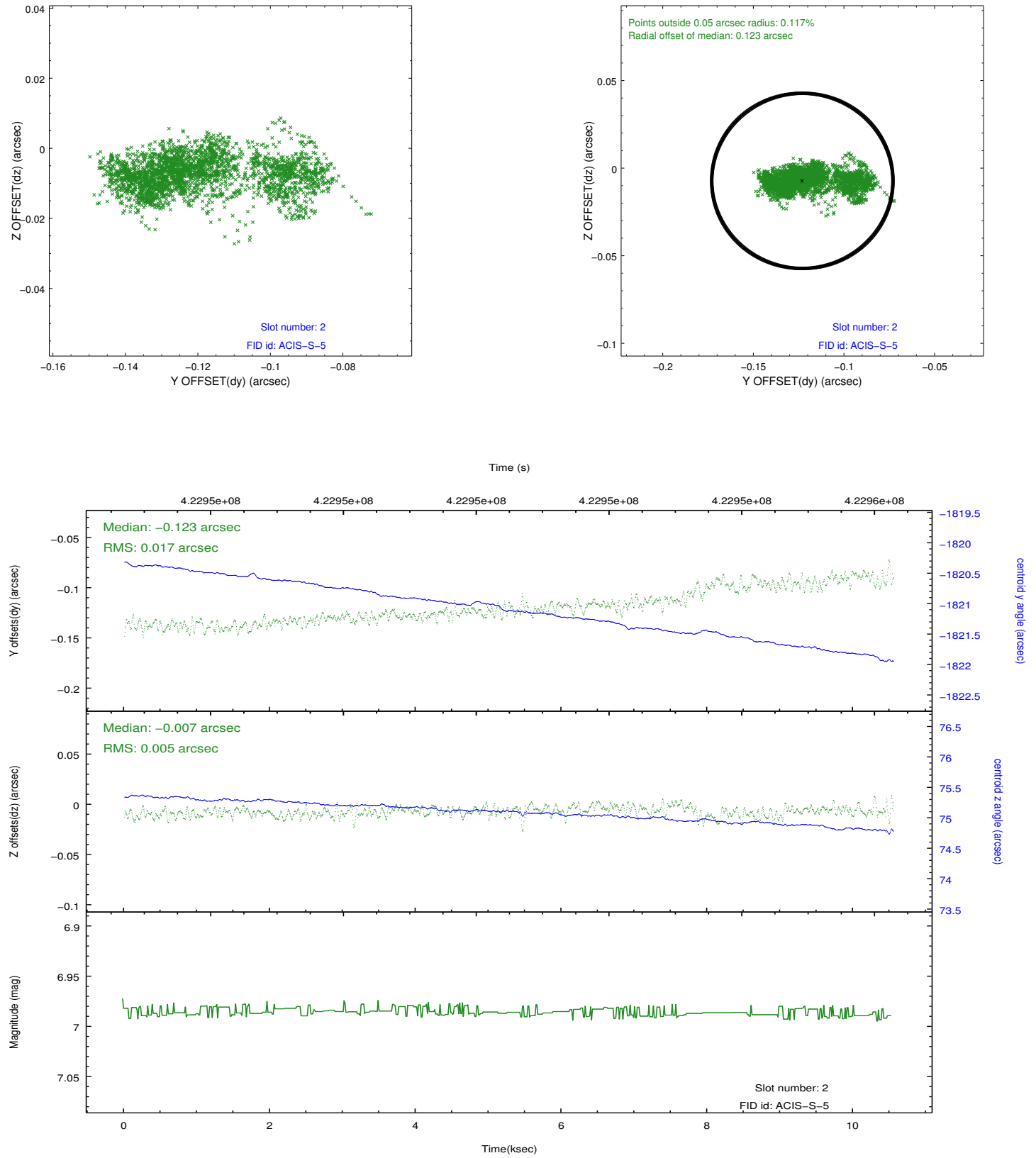


## 2.5.2 Slot 1





### 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.02764513886

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.

=====

Target is very off-axis.