

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13017 - L2 Version 2  
Chandra X-Ray Center

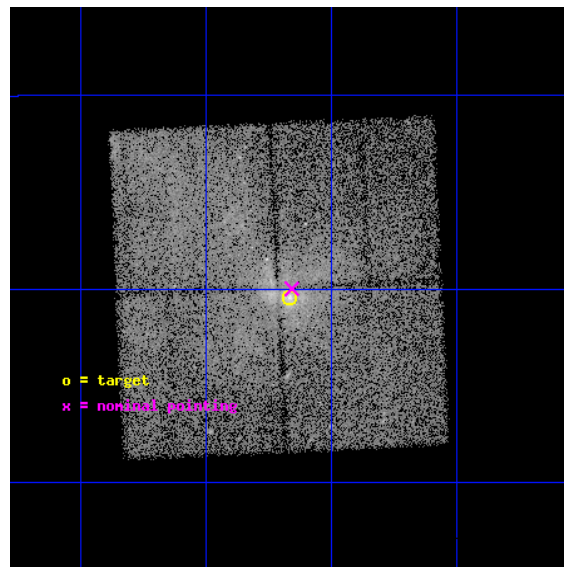
L2 Processing Date : Feb 6 2012

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# 1 Front

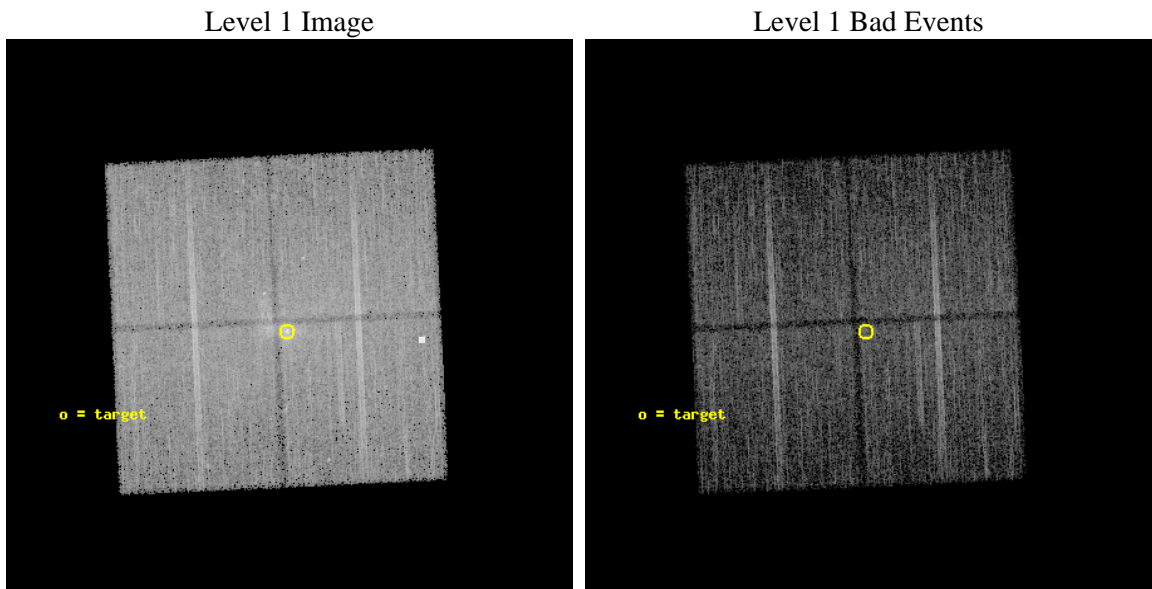
seq_num	600981	Sequence number
obs_id	13017	Observation id
title	Probing the Flaring Activity and Submillimeter Structure of Sgr A* with Chandra and 1.3mm VLBI	Proposal title
observer	Dr. Frederick Baganoff	Principal investigator
object	Sgr A*	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.416667	Observer's specified target RA [deg]
dec_targ	-29.007778	Observer's specified target Dec [deg]
ra_nom	266.41434971583	Nominal RA [deg]
dec_nom	-28.999978746184	Nominal Dec [deg]
roll_nom	87.408149557675	Nominal Roll [deg]
revision	2	Processing version of data
ontime	18063.633146524	Sum of GTIs [s]
livetime	17827.618481212	Livetime [s]
ontime0	18066.651026845	Sum of GTIs [s]
ontime1	18066.692066848	Sum of GTIs [s]
ontime2	18066.733106852	Sum of GTIs [s]
ontime3	18063.633146524	Sum of GTIs [s]
l2events	115159	Number of level 2 events



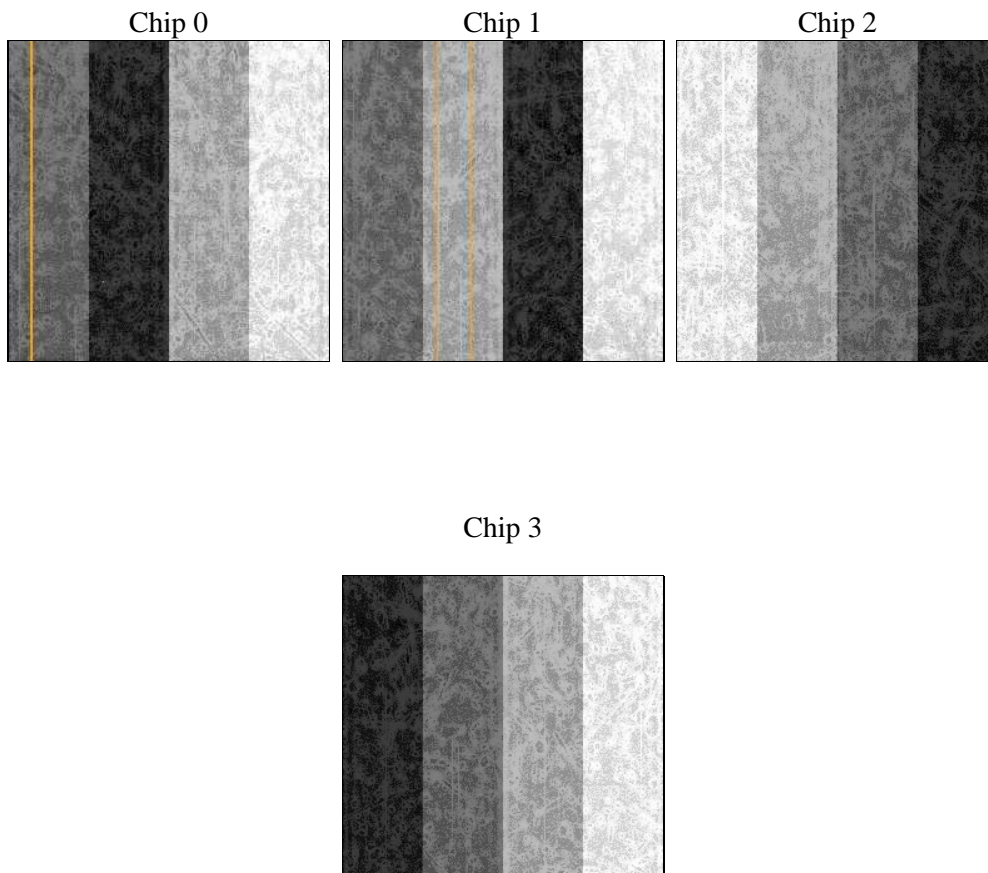
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	18063.633146524	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime0	18066.651026845	Sum of GTIs [s]
date	2012-02-06T23:28:20	Date and time of file creation	ontime1	18066.692066848	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	18066.733106852	Sum of GTIs [s]
			ontime3	18063.633146524	Sum of GTIs [s]
			l1events	528540	Number of level 1 events

### 2.1.4 Events

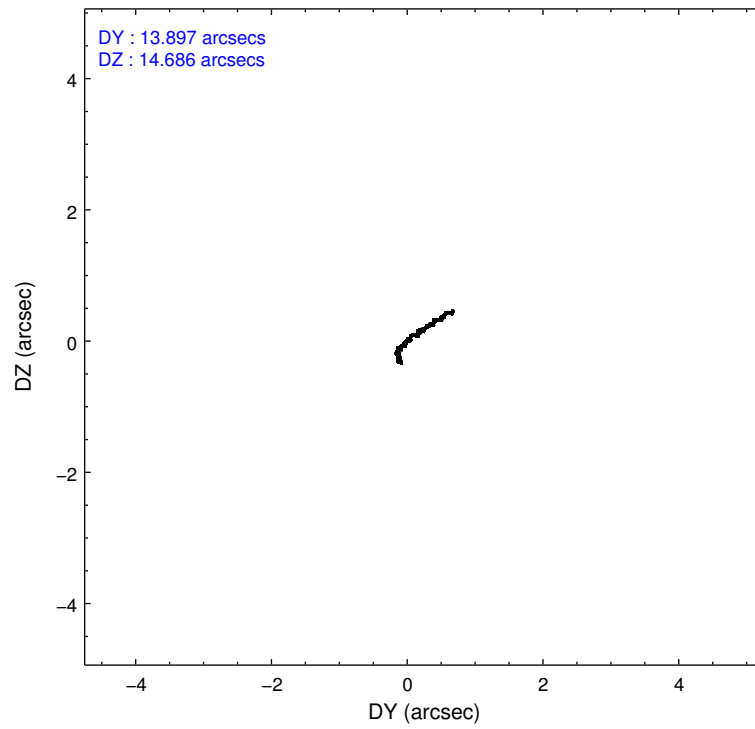
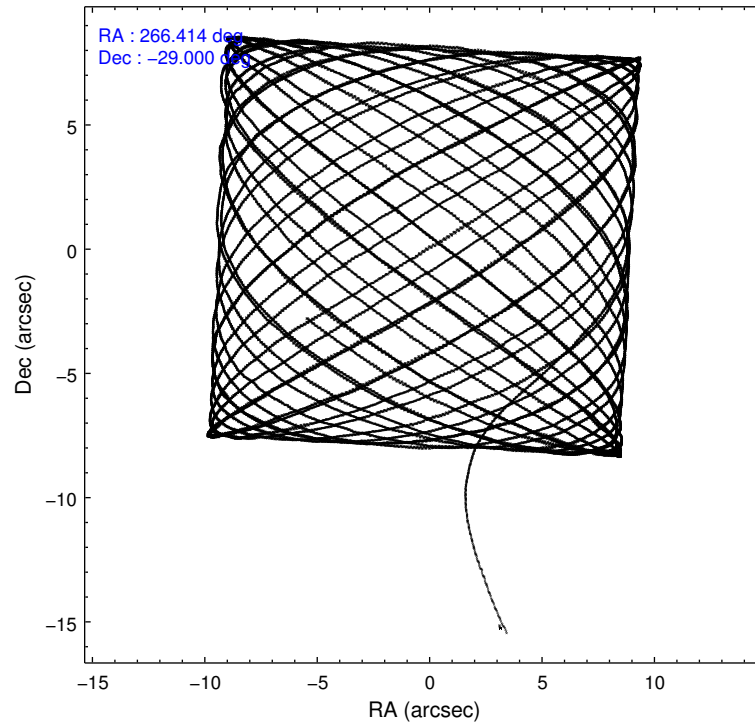
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	136108	124262	130913	137257
rejected events	96511	92811	104851	102429
rejected %	70%	74%	80%	74%

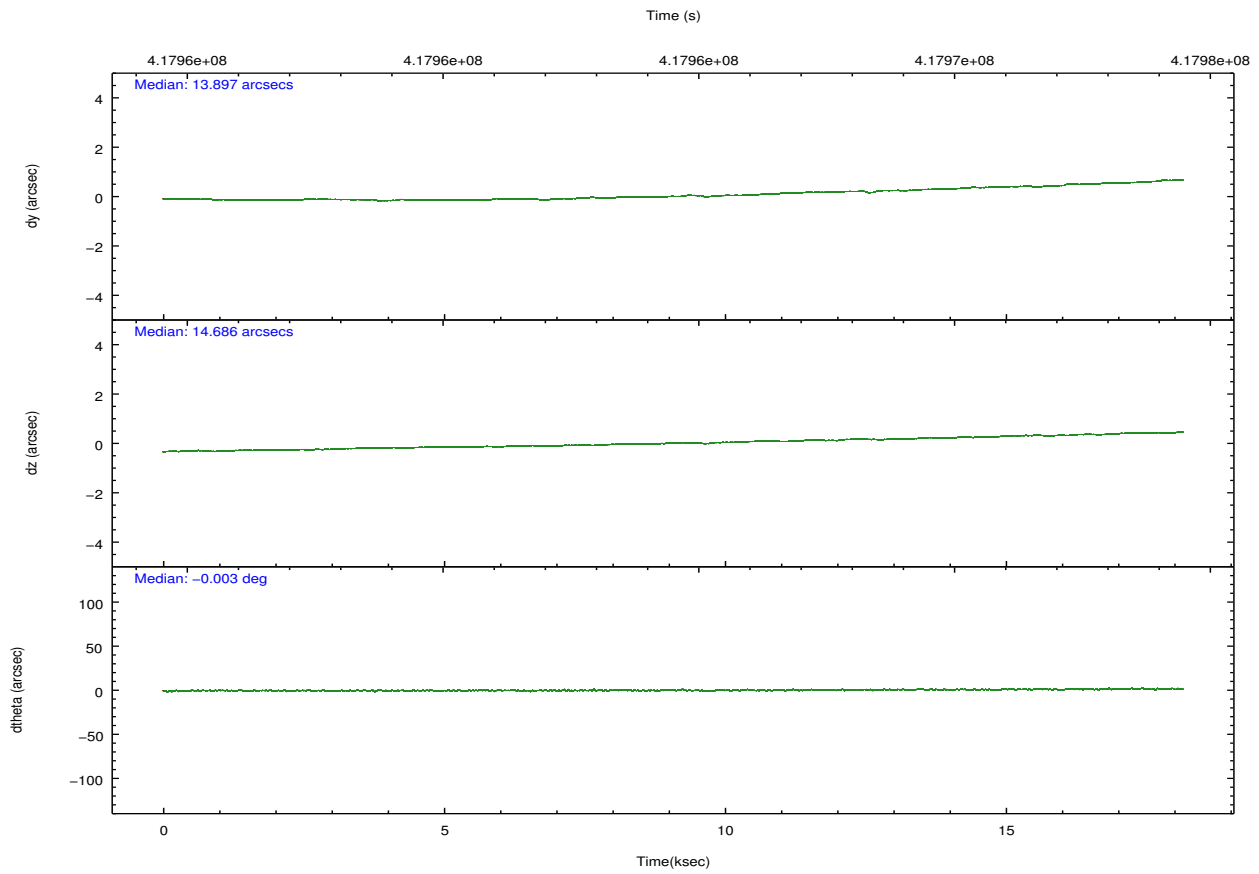
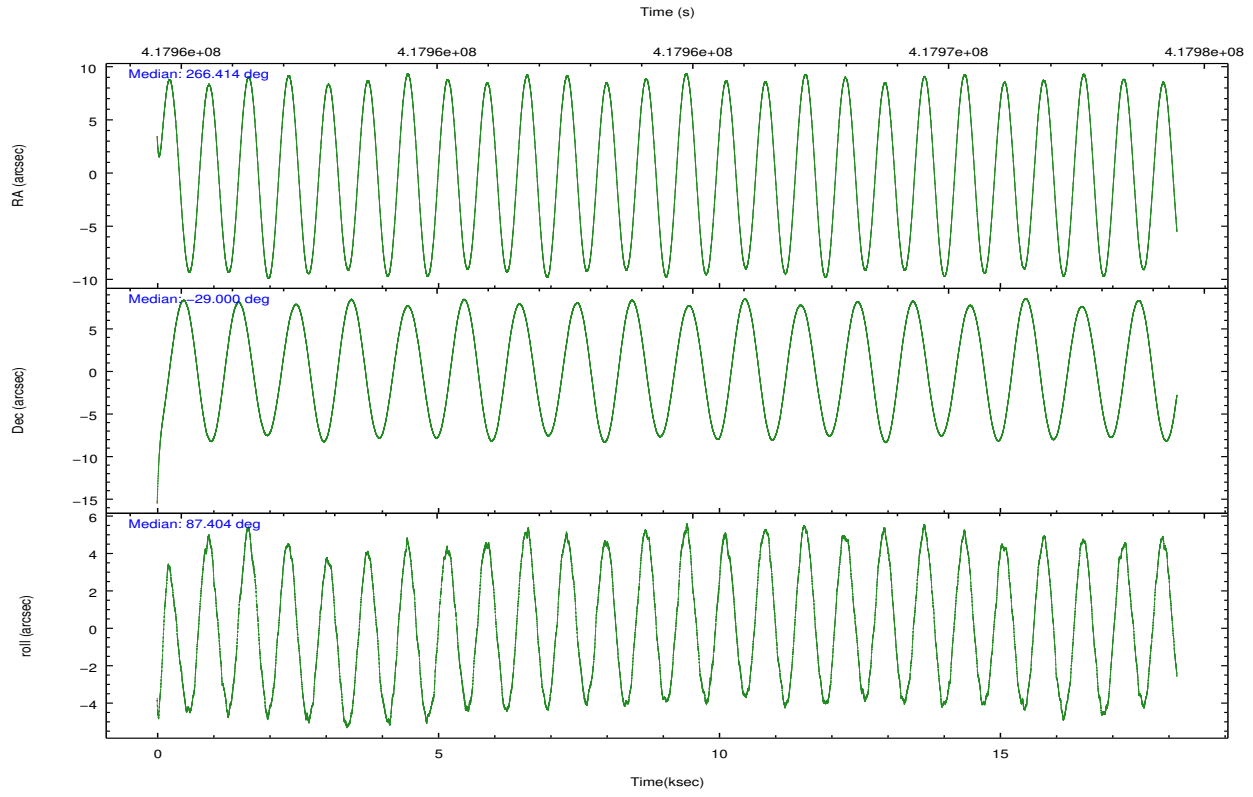
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	23094	16957	13940	20557
	16%	13%	10%	14%
grade 1 events	166	111	144	151
	0%	0%	0%	0%
grade 2 events	6916	5905	4838	5778
	5%	4%	3%	4%
grade 3 events	2687	2244	1950	2226
	1%	1%	1%	1%
grade 4 events	2531	2191	1965	2241
	1%	1%	1%	1%
grade 5 events	5177	5336	4843	5719
	3%	4%	3%	4%
grade 6 events	4378	4160	3370	4029
	3%	3%	2%	2%
grade 7 events	91159	87358	99863	96556
	66%	70%	76%	70%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	266.428913	266.4143497158263	Subarray requested	NONE	NONE
[deg] Pointing Dec	-29.024320	-28.99997874618392	Alternating exposures requested	N	N
[deg] Pointing Roll	87.206522	87.40814955767505	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	417955566.184000	417955566.184000			
[s] Window stop time (MET)	417973566.184000	417973566.184000			
[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)	417955566.184000	417954609.30997			
Observation start date	2011-03-31T10:45:00	2011-03-31T10:30:09			
[s] Observation end time (MET)	417973566.184000	417974433.836			
Observation end date	2011-03-31T15:45:00	2011-03-31T16:00:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect



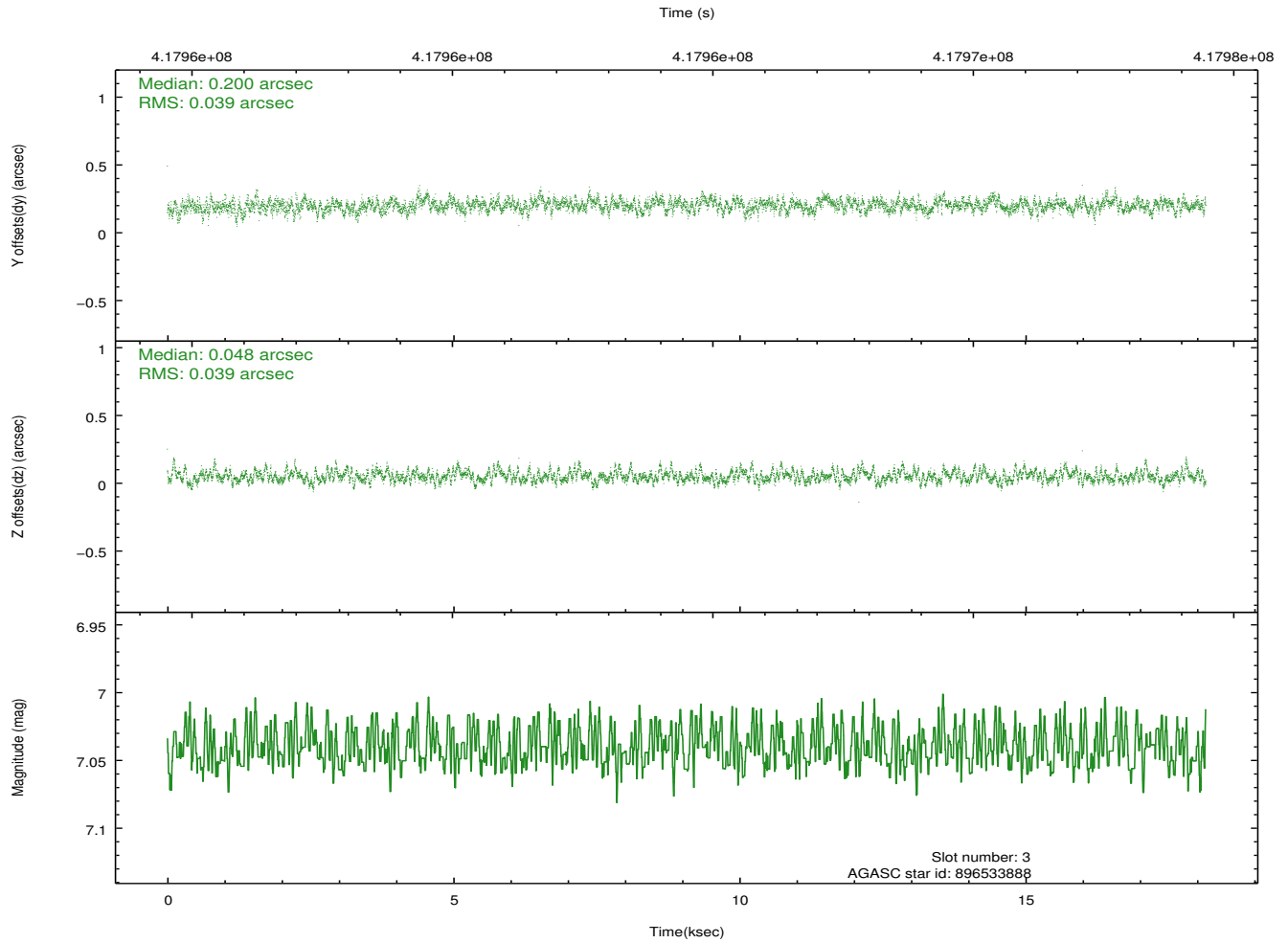
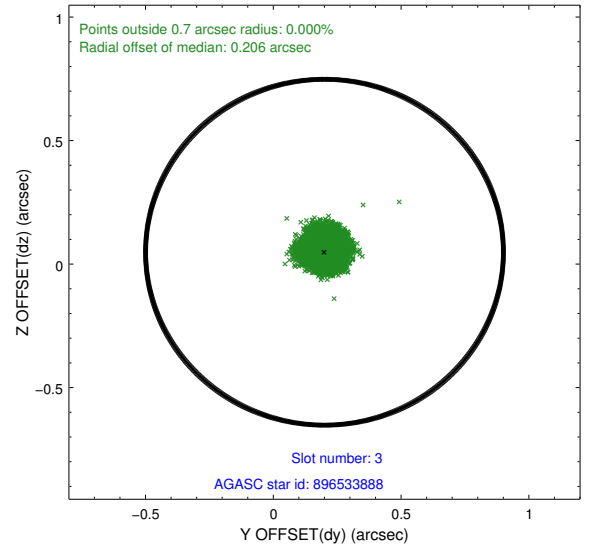
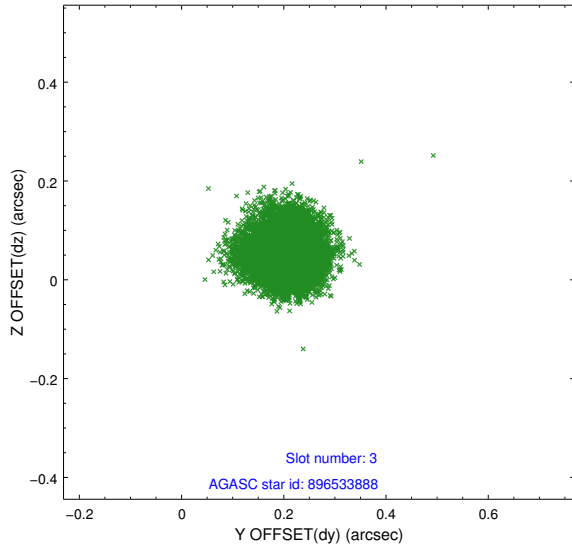


### Slot Statistics

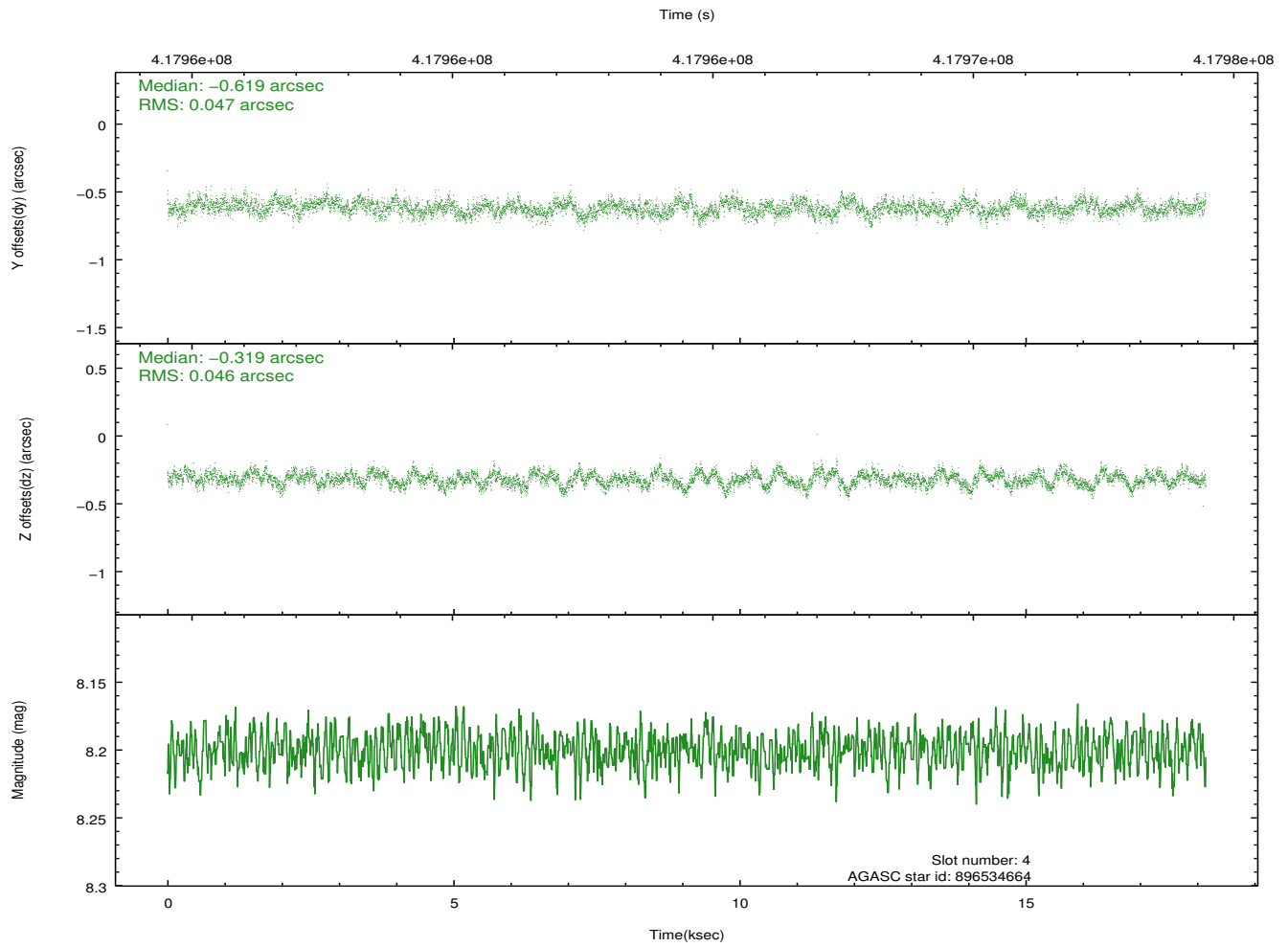
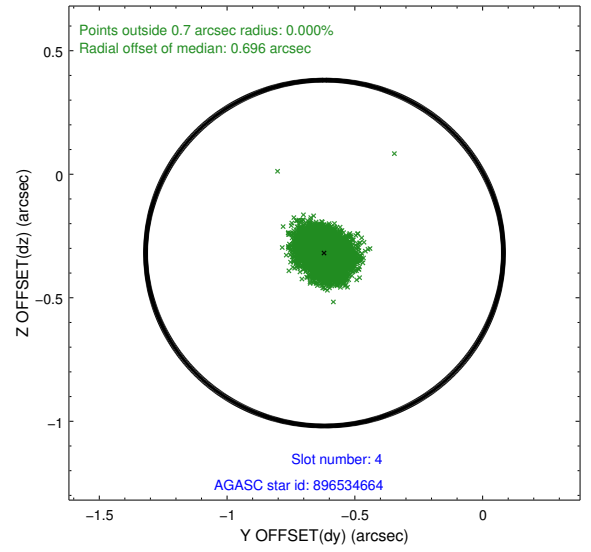
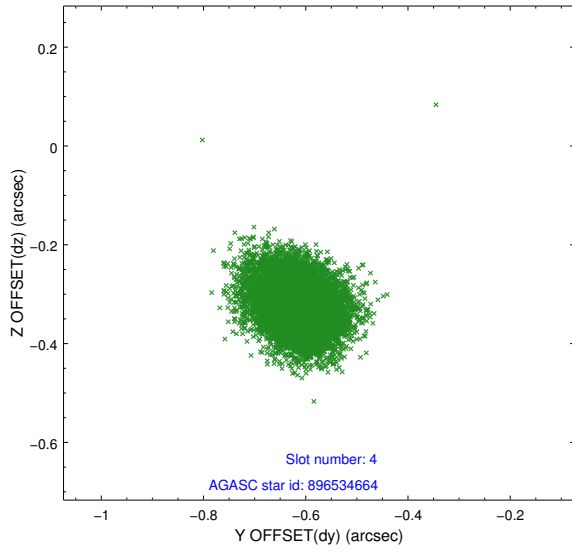
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.12	4428	0.034	0.004	0.012	0.021	0.000000	0.000000	925.54	-838.28
1	FID	ACIS-I-5	7.12	4428	-0.213	0.041	0.008	0.014	0.000000	0.000000	-1822.72	1059.08
2	FID	ACIS-I-6	7.12	4425	0.087	0.026	0.011	0.020	0.000000	0.000000	390.85	1703.86
3	GUIDE	896533888	7.04	8854	0.200	0.048	0.059	0.096	266.666434	-29.392757	-1288.76	-808.59
4	GUIDE	896534664	8.20	8849	-0.619	-0.319	0.070	0.112	266.405570	-28.407461	2213.91	182.05
5	GUIDE	896537176	8.02	8854	-0.093	0.052	0.061	0.098	266.498272	-28.678259	1255.36	-157.68
6	GUIDE	896541576	8.18	8853	0.102	0.125	0.068	0.109	267.051055	-28.762912	1031.12	-1915.01
7	GUIDE	896537776	7.53	8853	0.405	0.095	0.054	0.085	266.655684	-29.665673	-2271.44	-821.15

## 2.4 Star Slots

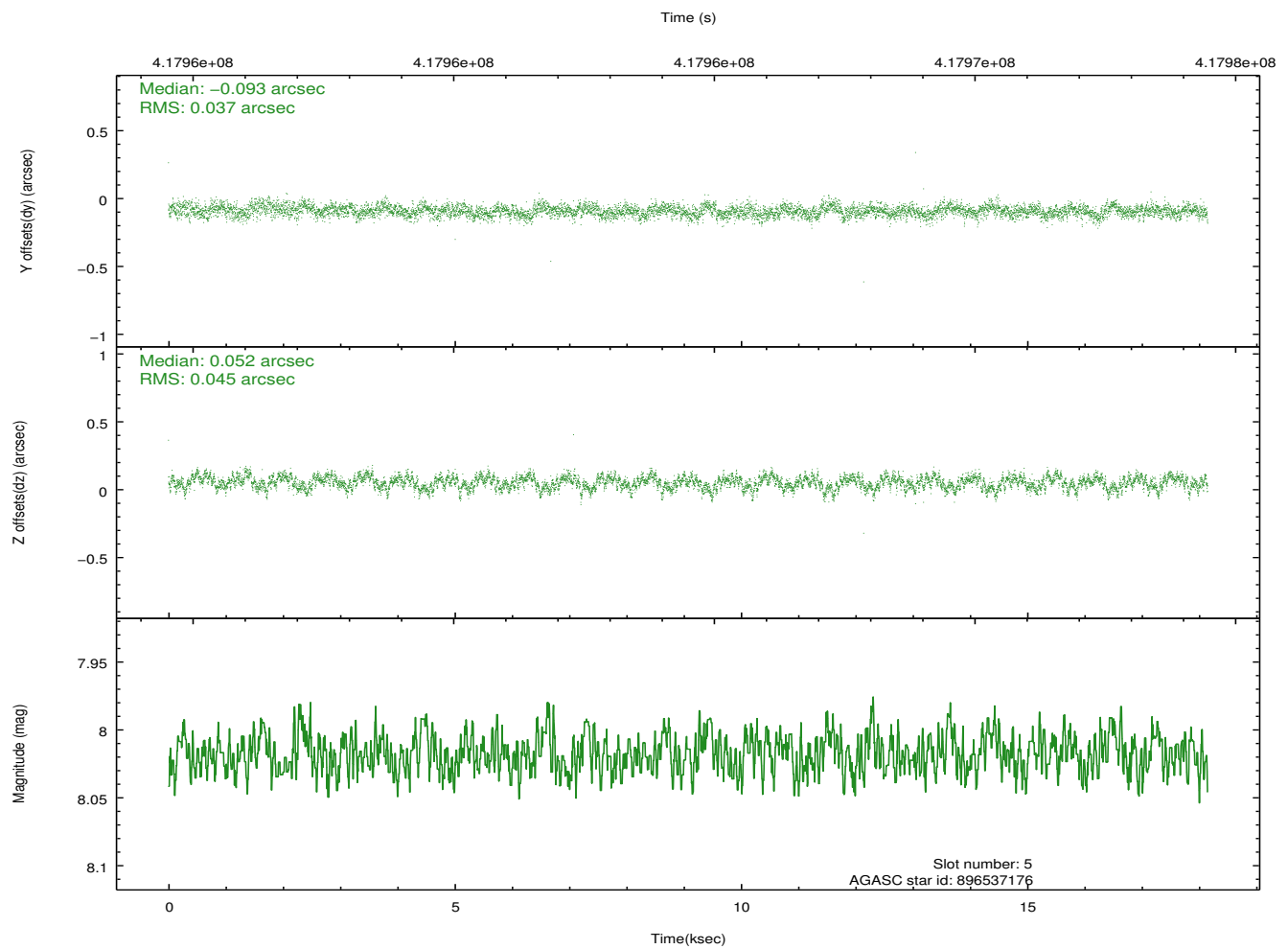
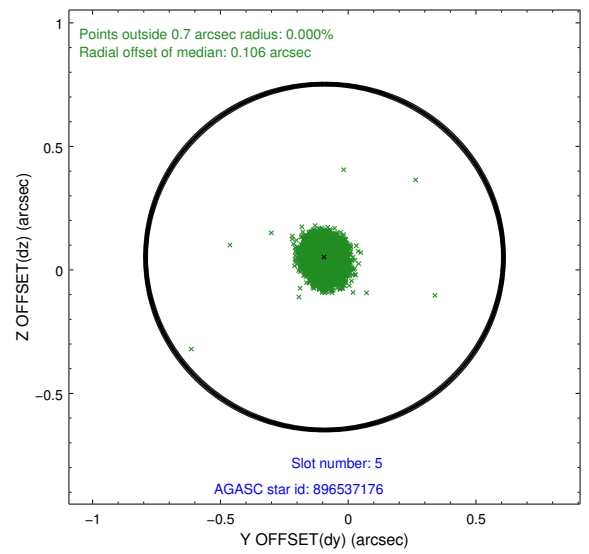
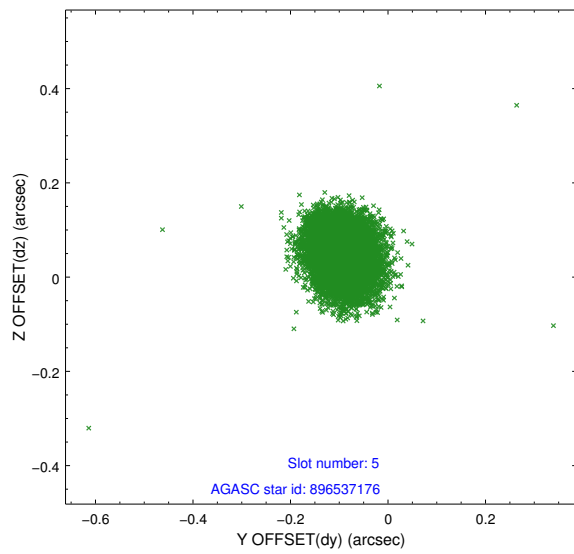
### 2.4.1 Slot 3



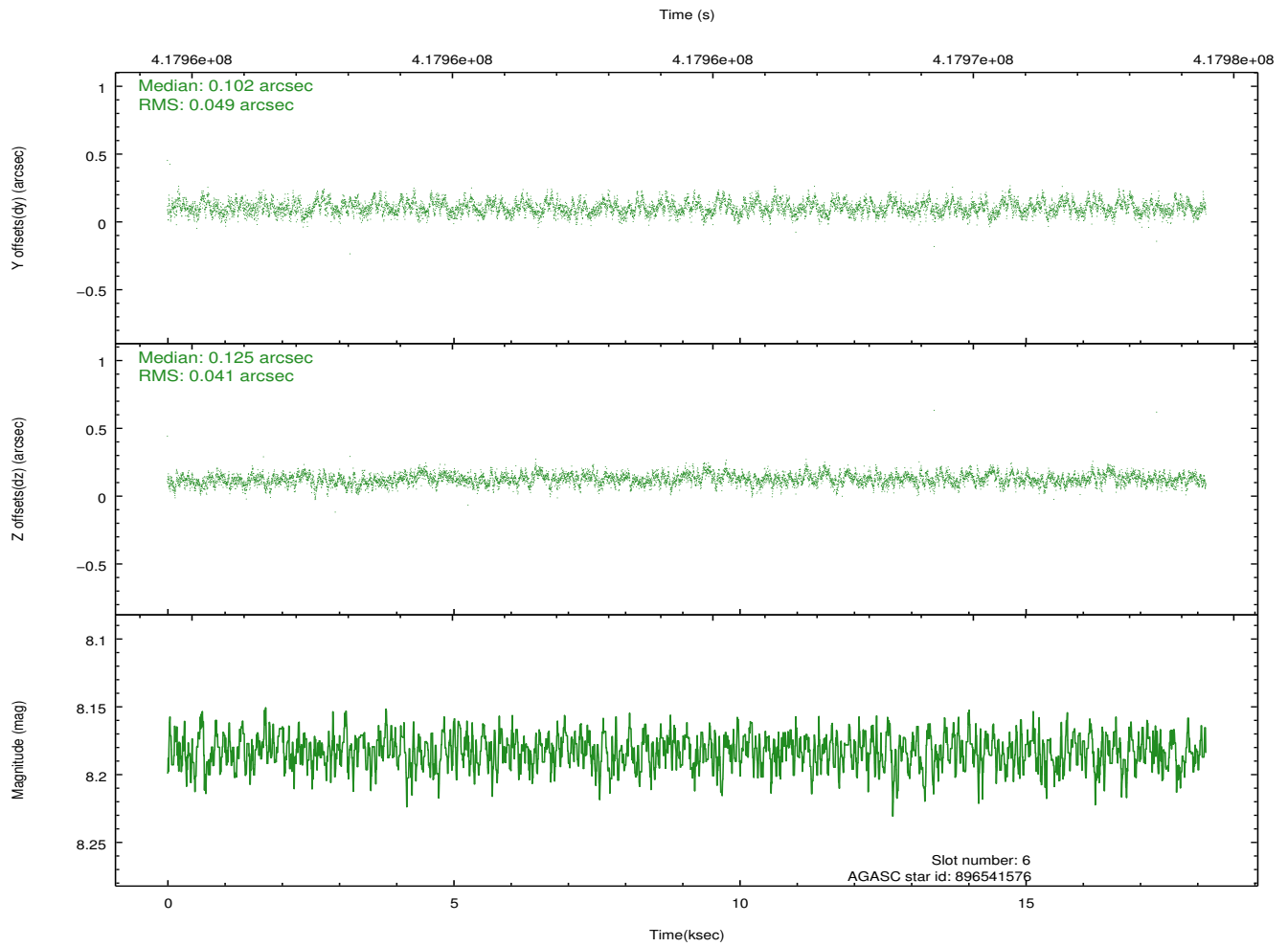
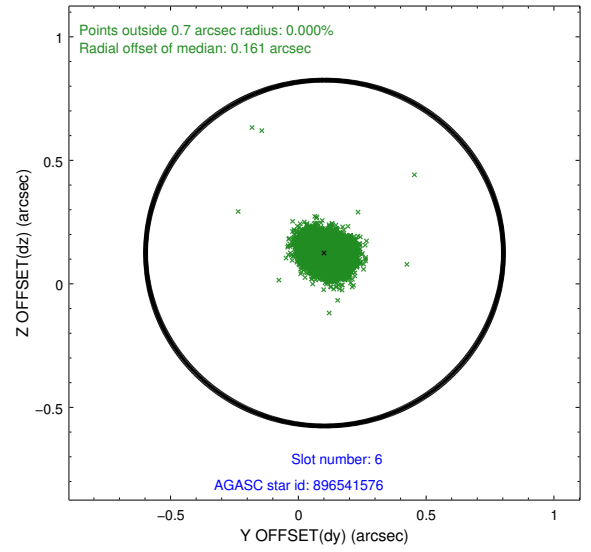
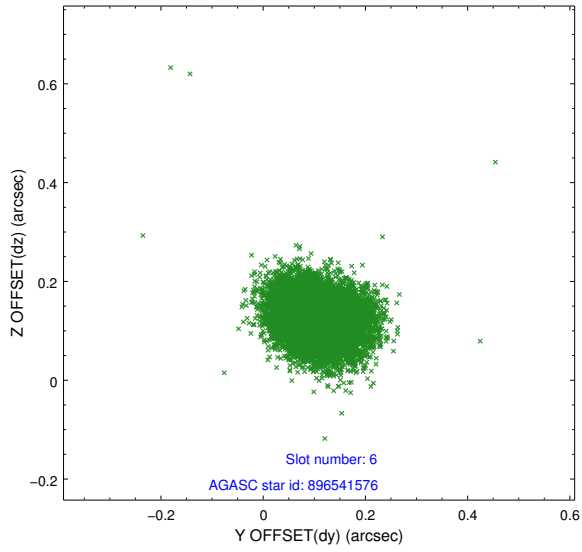
### 2.4.2 Slot 4



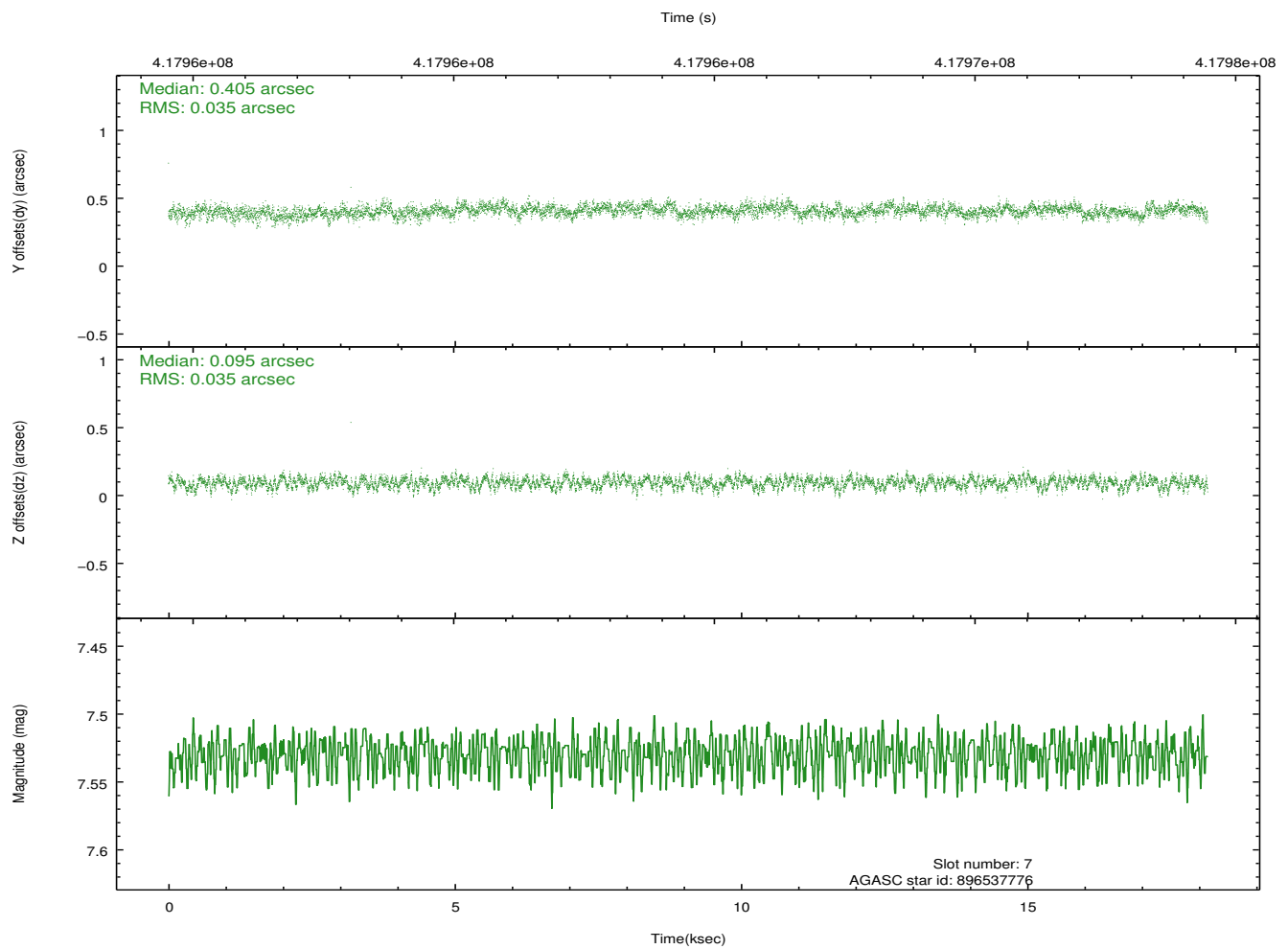
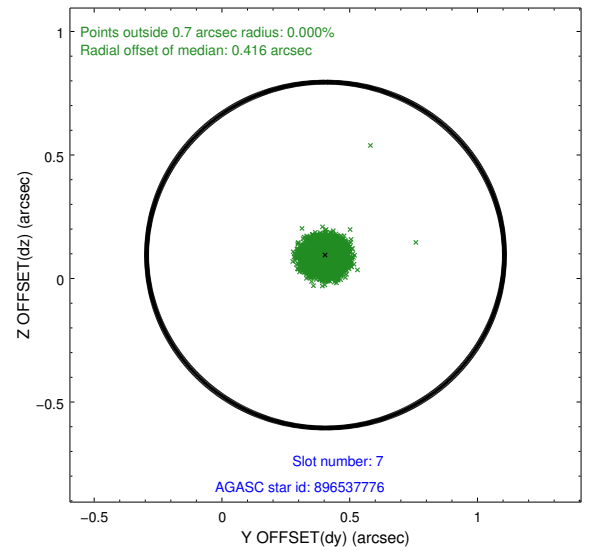
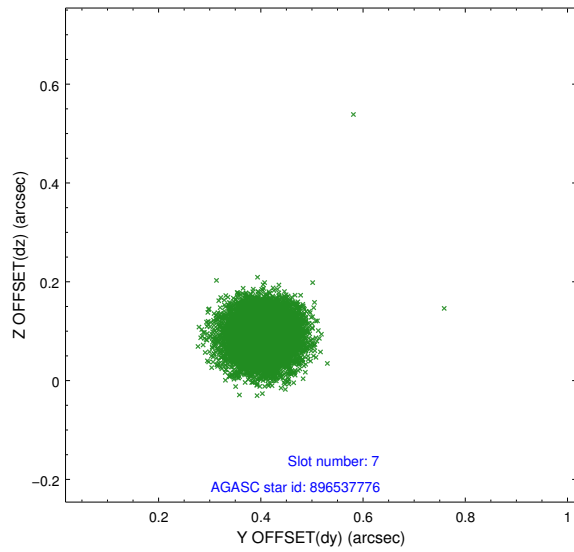
### 2.4.3 Slot 5



### 2.4.4 Slot 6

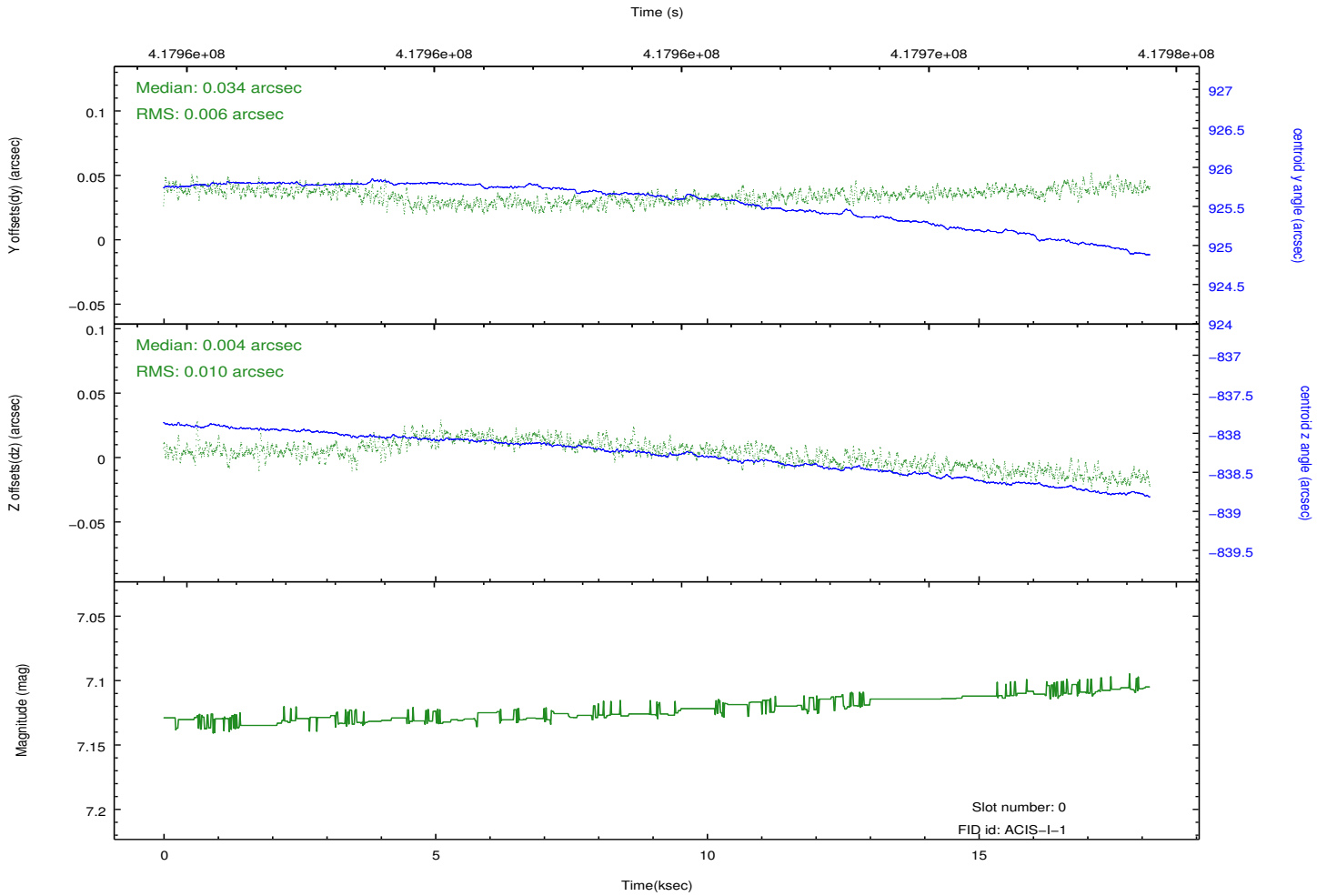
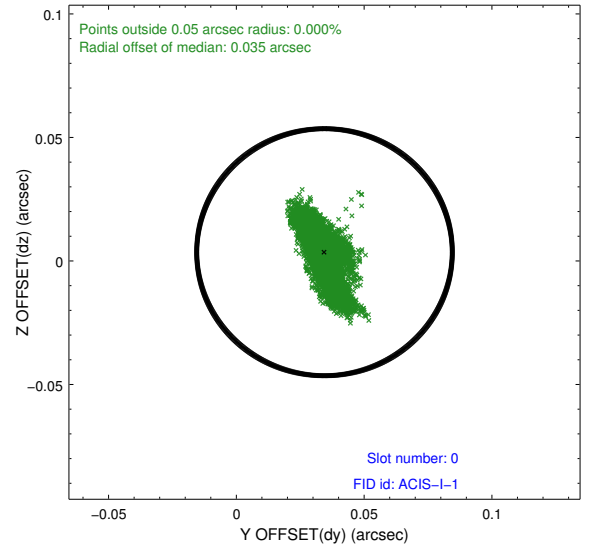
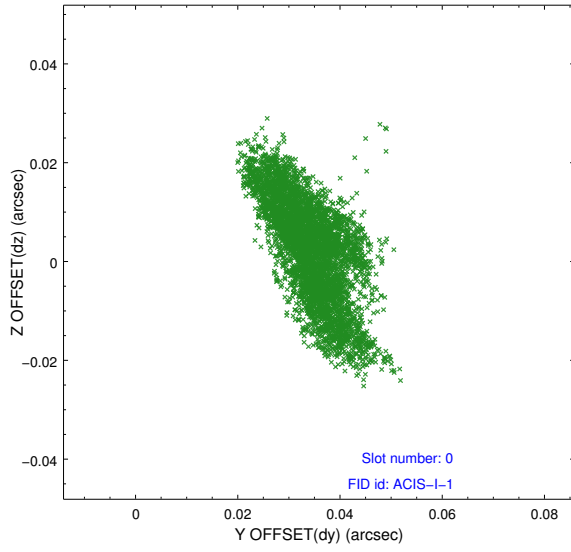


## 2.4.5 Slot 7

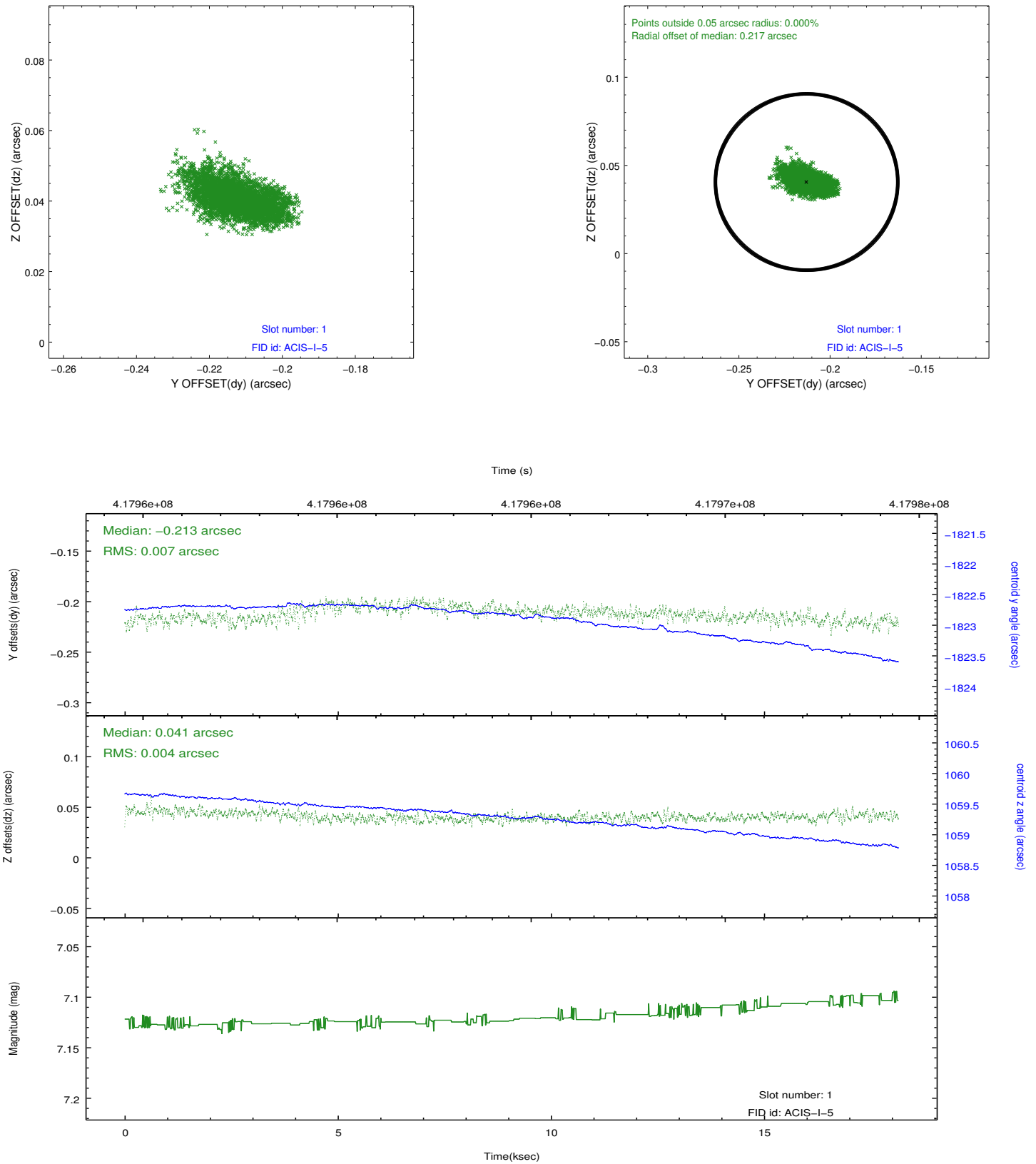


## 2.5 FID Slots

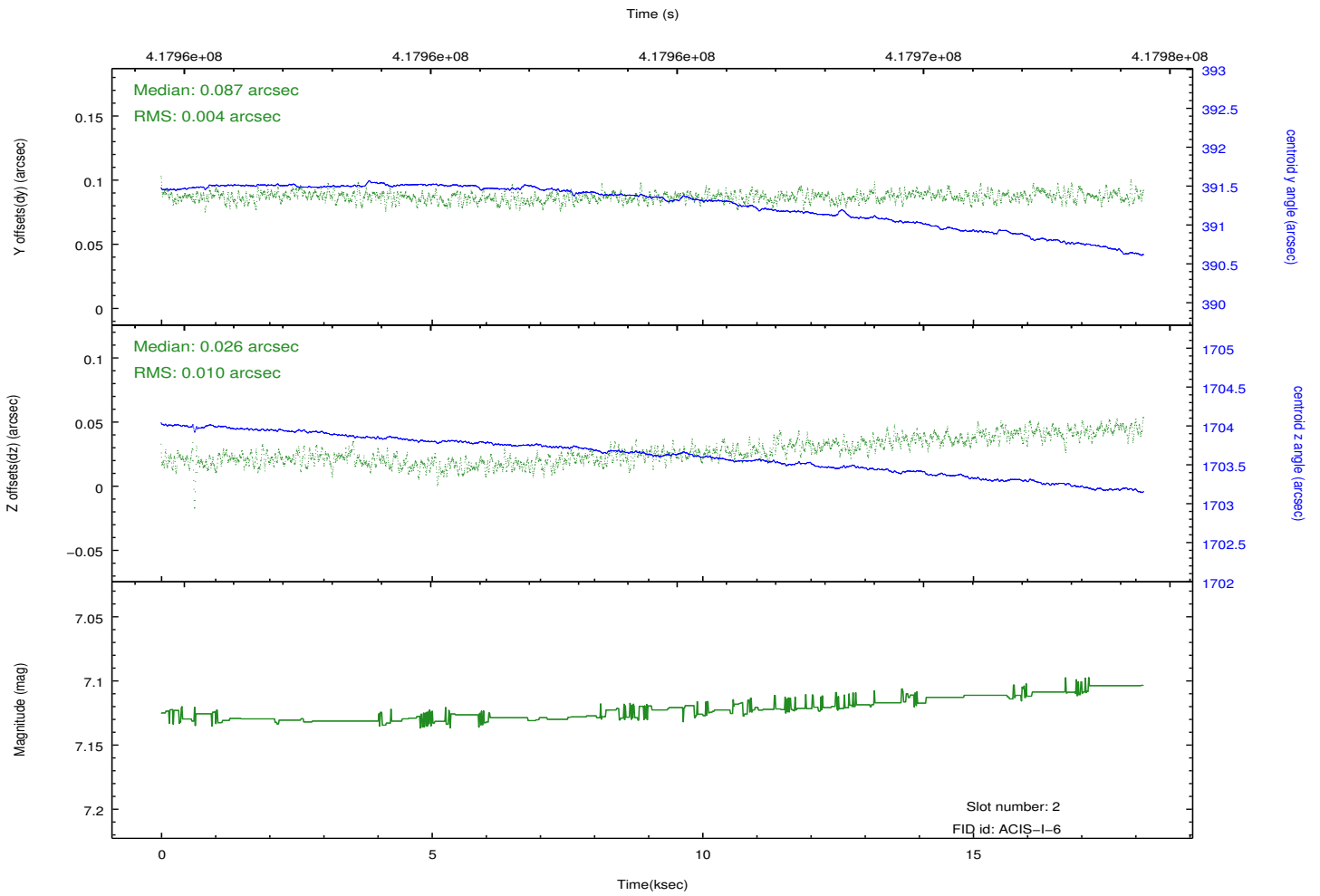
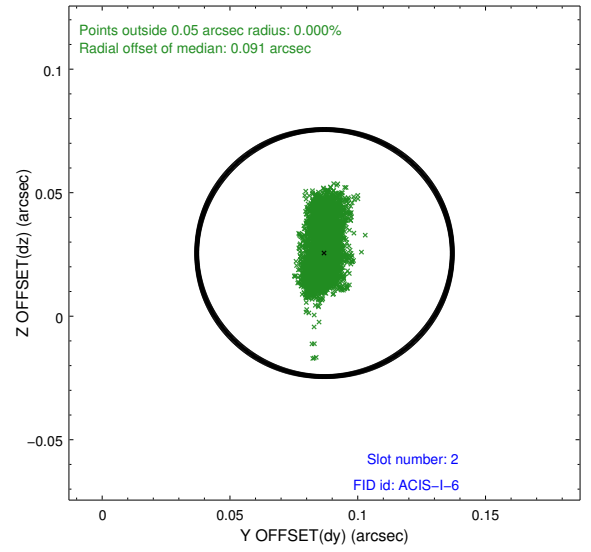
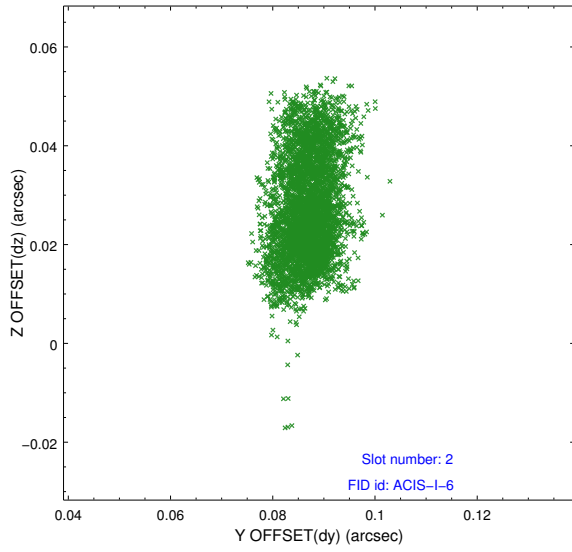
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.063633152902

## 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.

==

Window constraint met.