

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 18695 - L2 Version 1  
Chandra X-Ray Center

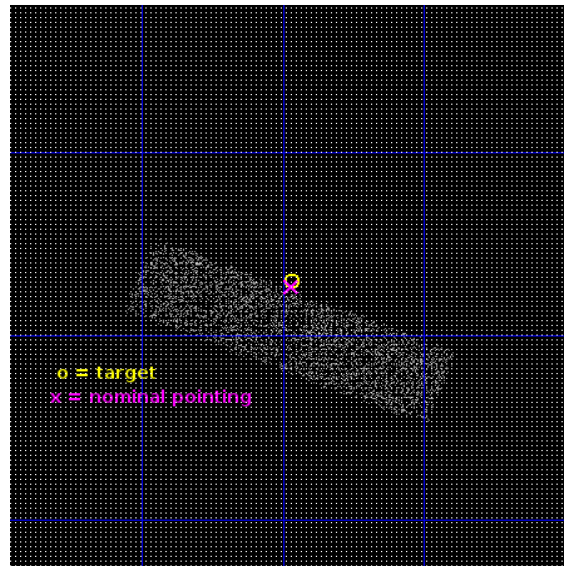
L2 Processing Date : Jan 11 2017

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# 1 Front

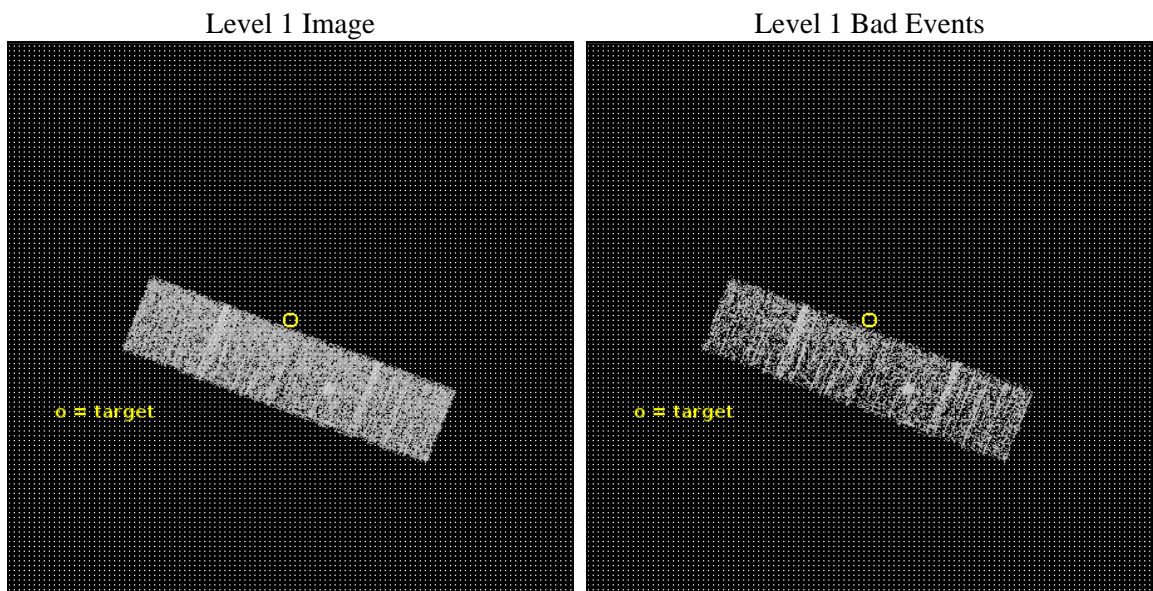
seq_num	100153	Sequence number
obs_id	18695	Observation id
title	Venus in an intermediate phase of the solar cycle	Proposal title
observer	Peter Predehl	Principal investigator
object	Venus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	338.992314	Observer's specified target RA [deg]
dec_targ	-9.617304	Observer's specified target Dec [deg]
ra_nom	338.99238435968	Nominal RA [deg]
dec_nom	-9.6221289848101	Nominal Dec [deg]
roll_nom	291.34891215759	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5833.5591068268	Sum of GTIs [s]
livetime	5687.6703620405	Livetime [s]
ontime0	5830.2770767212	Sum of GTIs [s]
ontime2	5833.5591068268	Sum of GTIs [s]
l2events	3808	Number of level 2 events



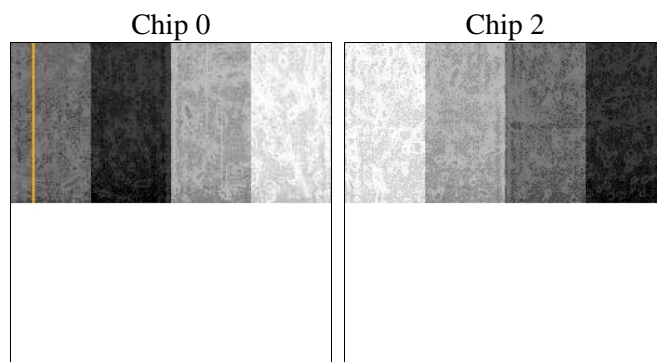
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	5833.5591068268	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime0	5830.2770767212	Sum of GTIs [s]
date	2017-01-11T11:48:05	Date and time of file creation	ontime2	5833.5591068268	Sum of GTIs [s]
revision	1	Processing version of data	l1events	45219	Number of level 1 events

### 2.1.4 Events

	<b>ccd 0</b>	<b>ccd 2</b>
level 1 events	21948	23271
rejected events	19310	20877
rejected %	87%	89%

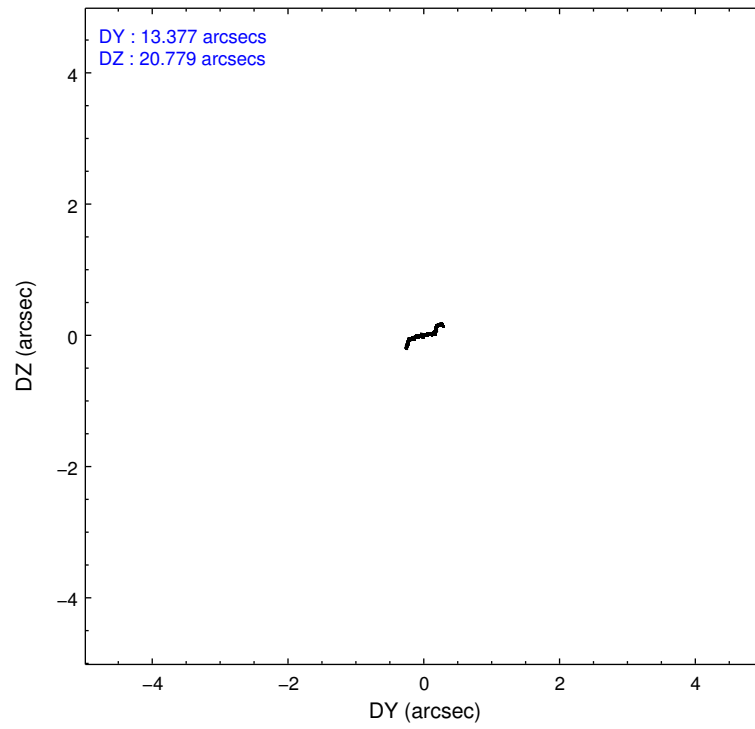
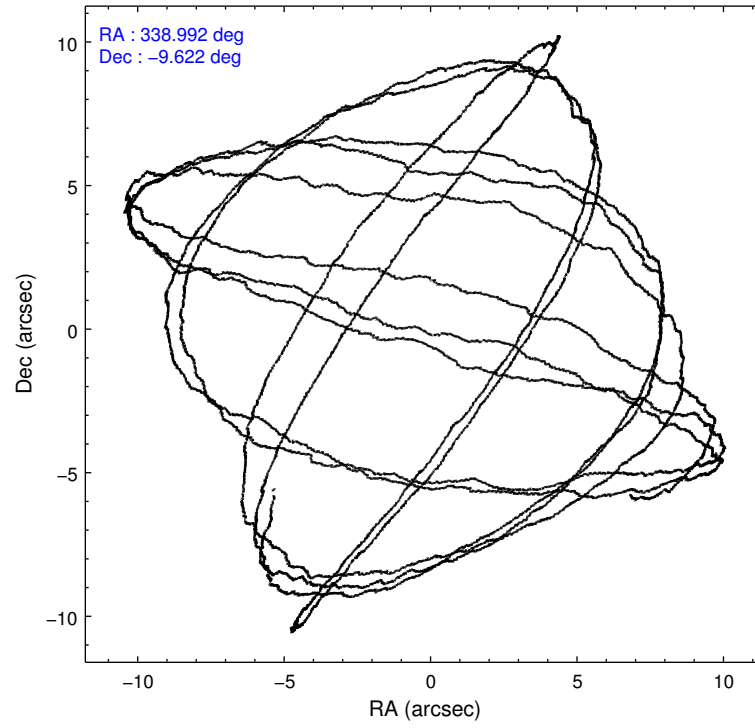
	<b>ccd 0</b>	<b>ccd 2</b>
grade 0 events	873	825
	3%	3%
grade 1 events	7	15
	0%	0%
grade 2 events	627	539
	2%	2%
grade 3 events	316	287
	1%	1%
grade 4 events	325	314
	1%	1%
grade 5 events	917	852
	4%	3%
grade 6 events	498	430
	2%	1%
grade 7 events	18385	20009
	83%	85%

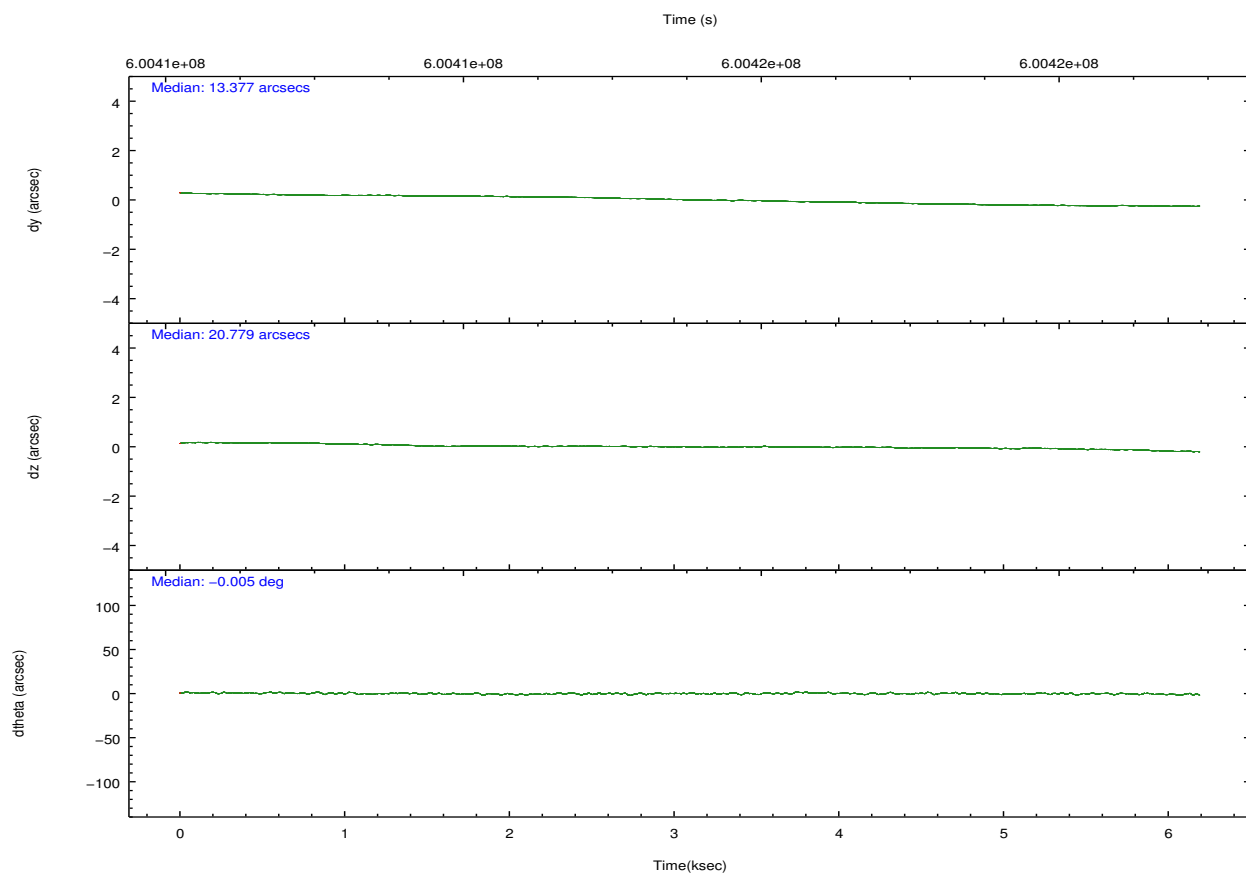
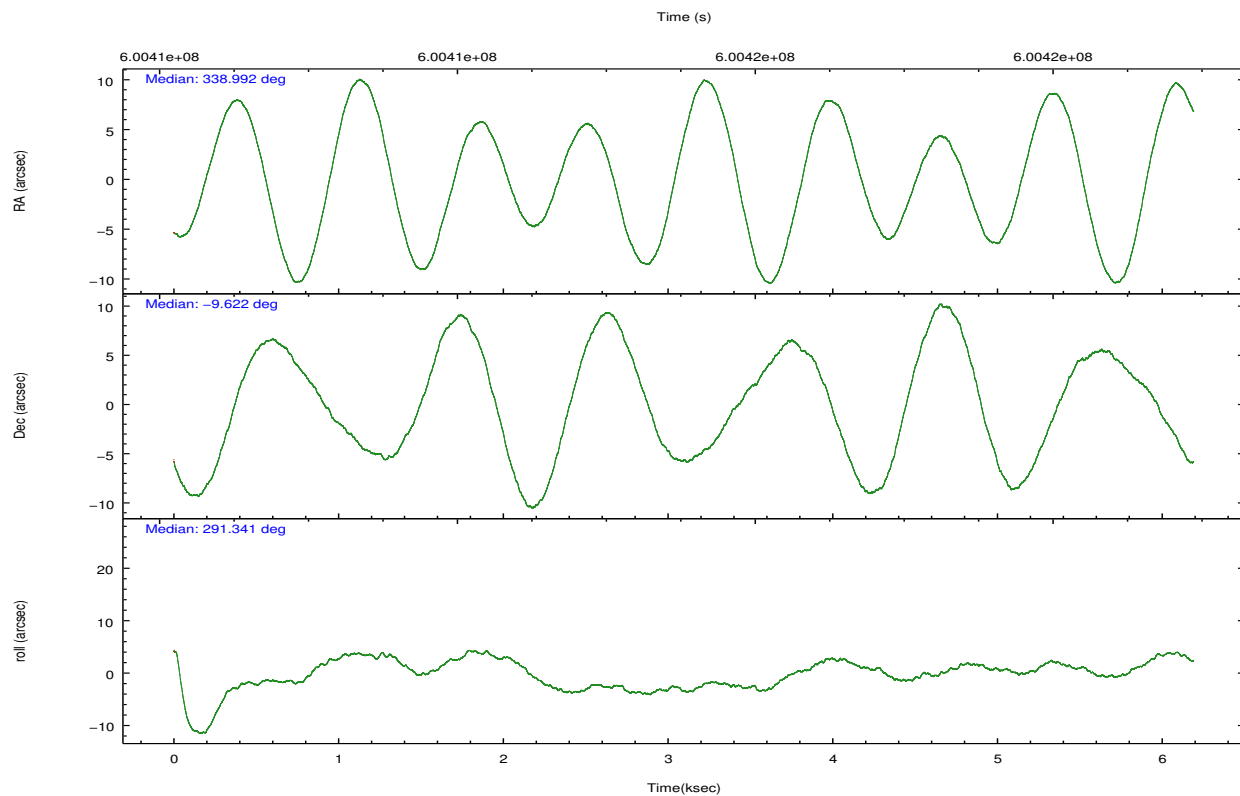


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-02	ACIS-02	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	338.970425	338.9923843596795	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	-9.604919	-9.622128984810088	Subarray start row	513	513
[deg] Pointing Roll	291.136545	291.3489121575854	Subarray row count	512	512
[s] Window start time (MET)	600134469.184000	600134469.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	600652809.184000	600652809.184000	[s] Primary exposure time	0.000000	1.6
[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)	600412613.184000	600412236.75945			
Observation start date	2017-01-10T05:15:44	2017-01-10T05:10:36			
[s] Observation end time (MET)	600418613.184000	600418746.53483			
Observation end date	2017-01-10T06:55:44	2017-01-10T06:59:06			
Read mode	TIMED	TIMED			

## 2.3 Aspect



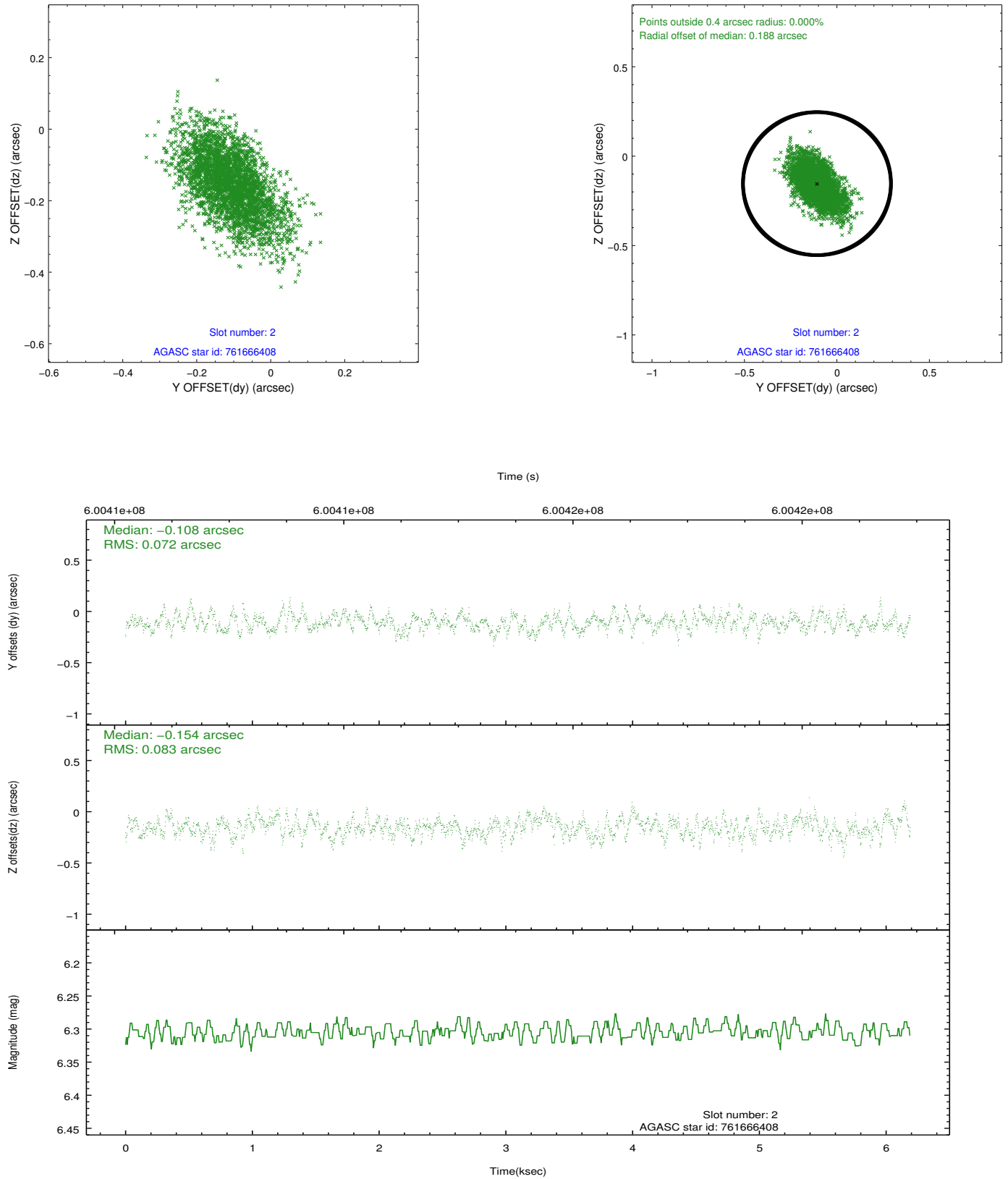


### Slot Statistics

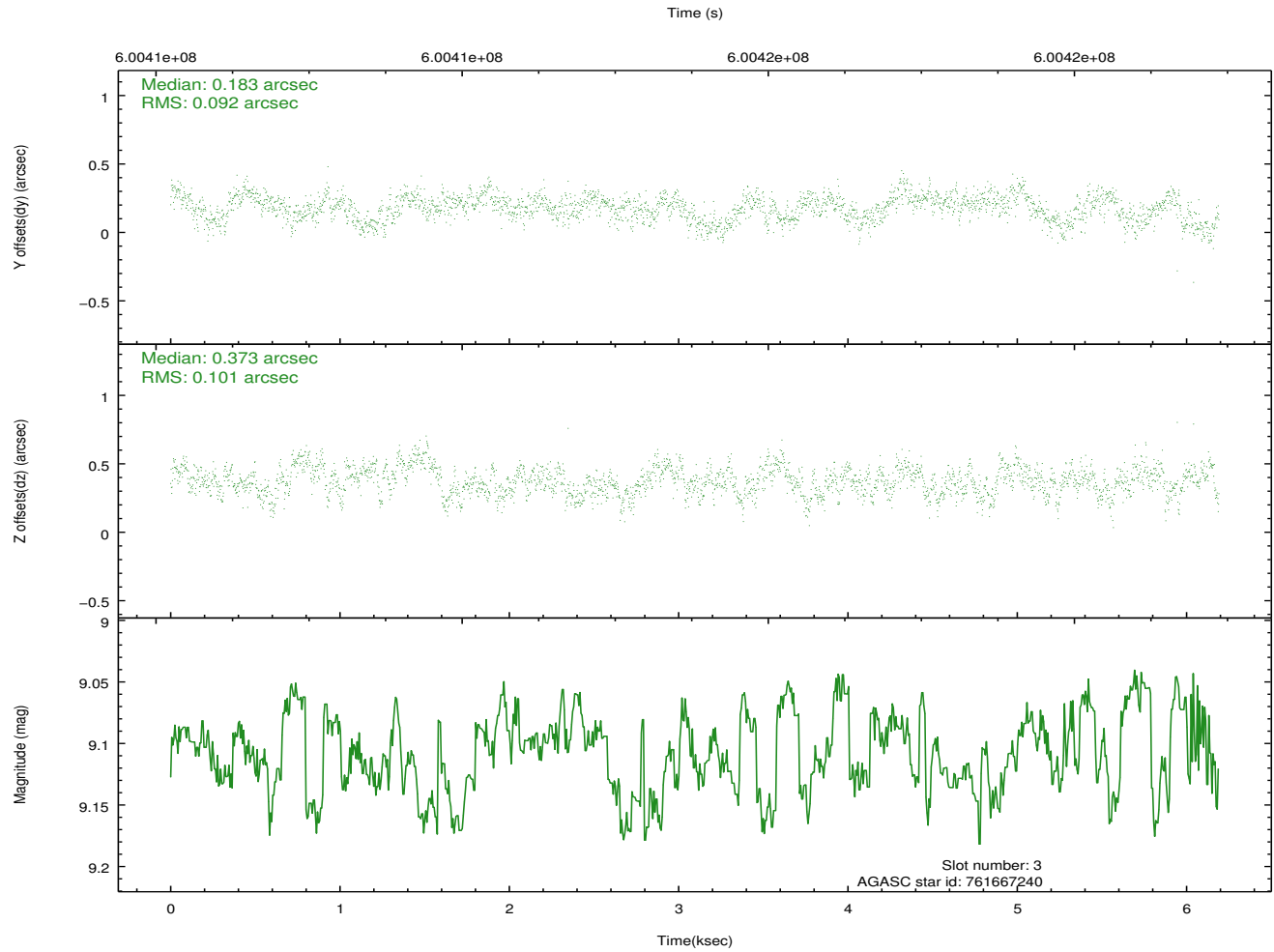
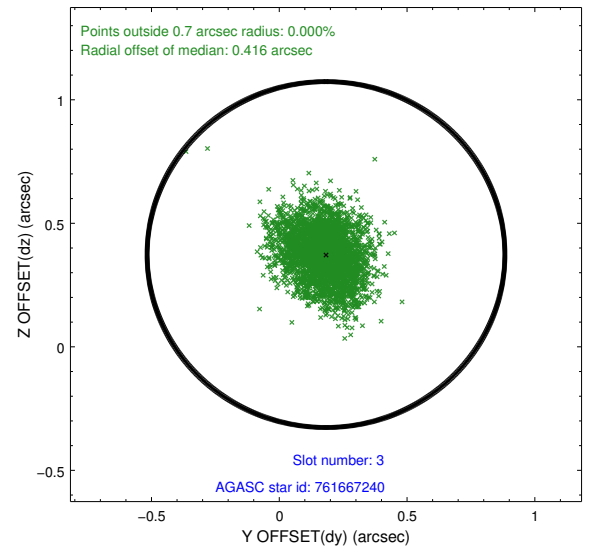
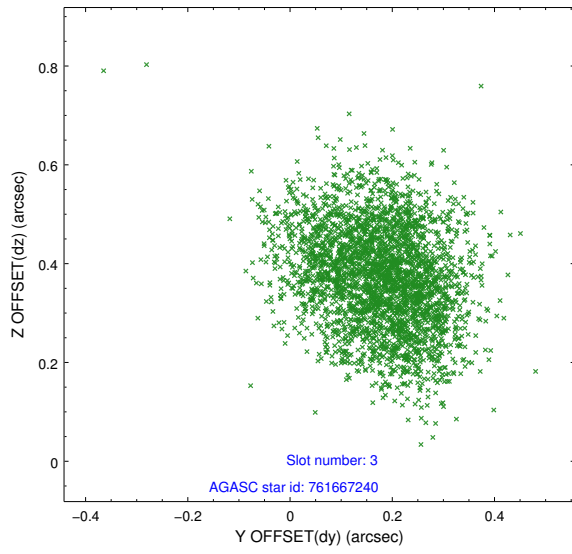
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.03	1511	-0.018	-0.003	0.007	0.013	0.000000	0.000000	-768.02	-850.95
1	FID		ACIS-I-5	7.11	1511	-0.046	0.051	0.007	0.013	0.000000	0.000000	-1822.69	1052.41
2	GUIDE	used	761666408	6.31	3021	-0.108	-0.154	0.114	0.197	338.527561	-9.608492	-553.73	-1471.45
3	GUIDE	used	761667240	9.11	3015	0.183	0.373	0.146	0.229	338.639466	-9.137380	-1993.44	-490.59
4	GUIDE	used	761670320	9.19	3019	-0.114	-0.079	0.205	0.304	339.180611	-8.948429	-1935.59	1549.16
5	GUIDE	used	761670696	9.38	3019	0.264	0.224	0.189	0.311	338.284918	-9.212445	-2194.04	-1763.01
6	GUIDE	used	761672120	8.08	3021	-0.067	-0.261	0.118	0.198	339.232283	-9.389338	-389.07	1146.63
7	GUIDE	used	761672136	8.52	3016	-0.164	-0.104	0.131	0.205	339.196147	-9.393141	-422.15	1023.13

## 2.4 Star Slots

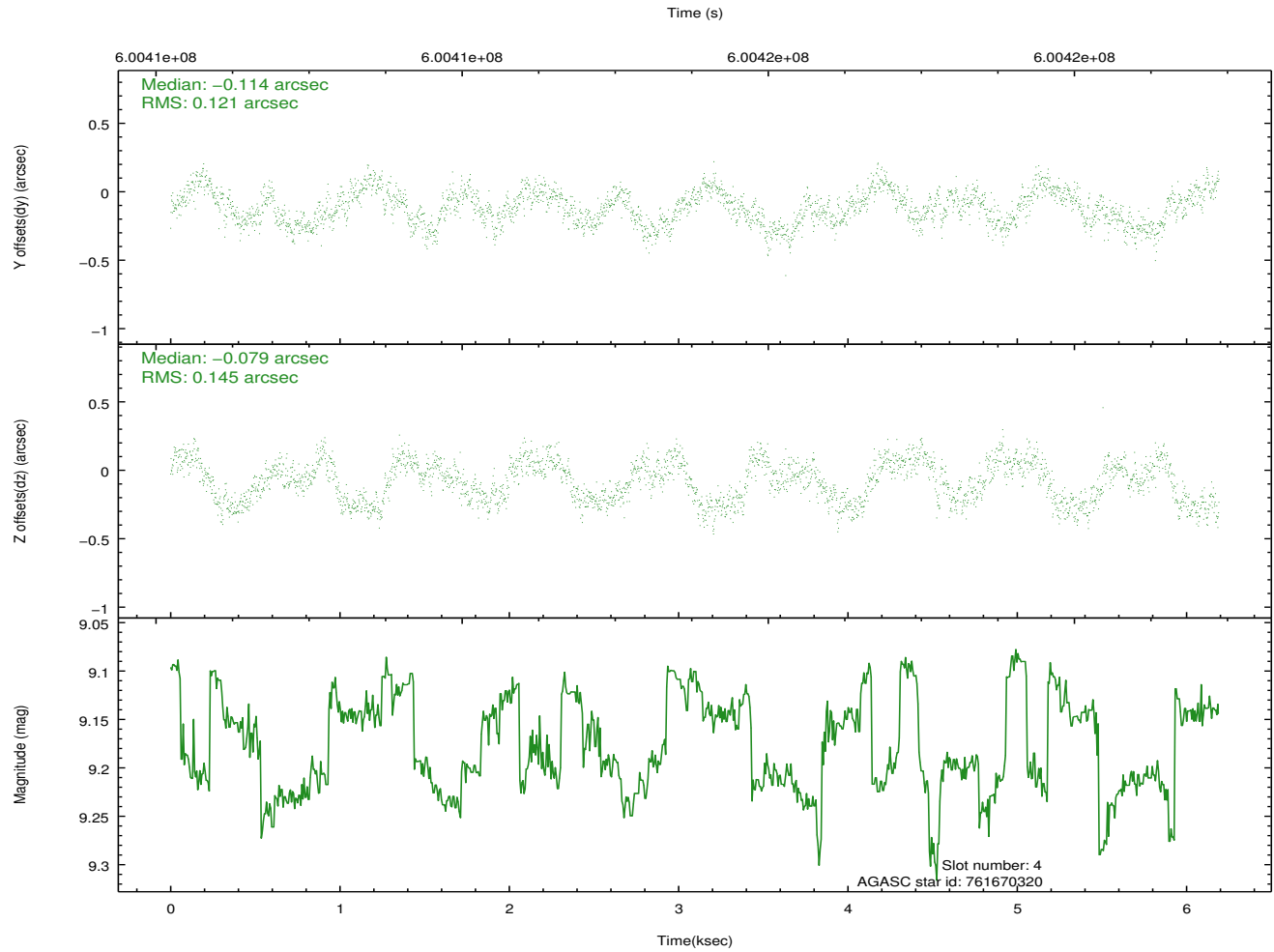
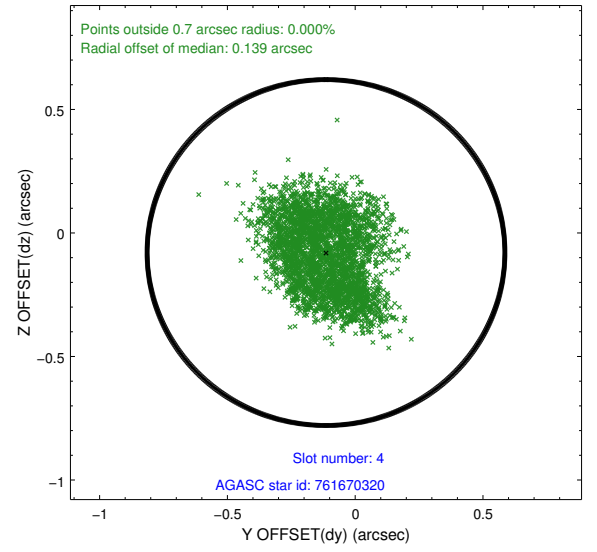
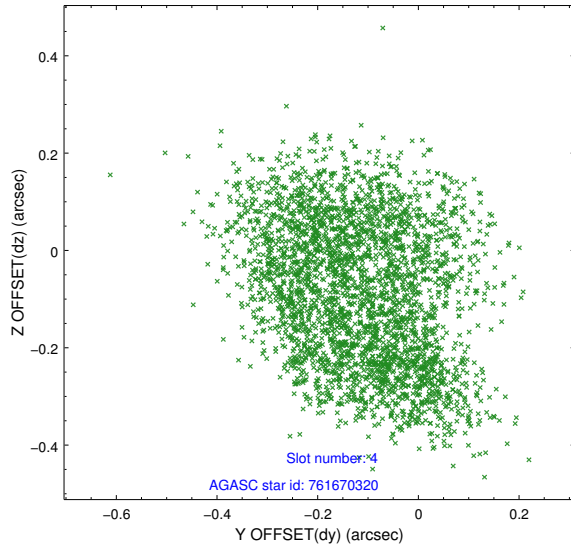
### 2.4.1 Slot 2



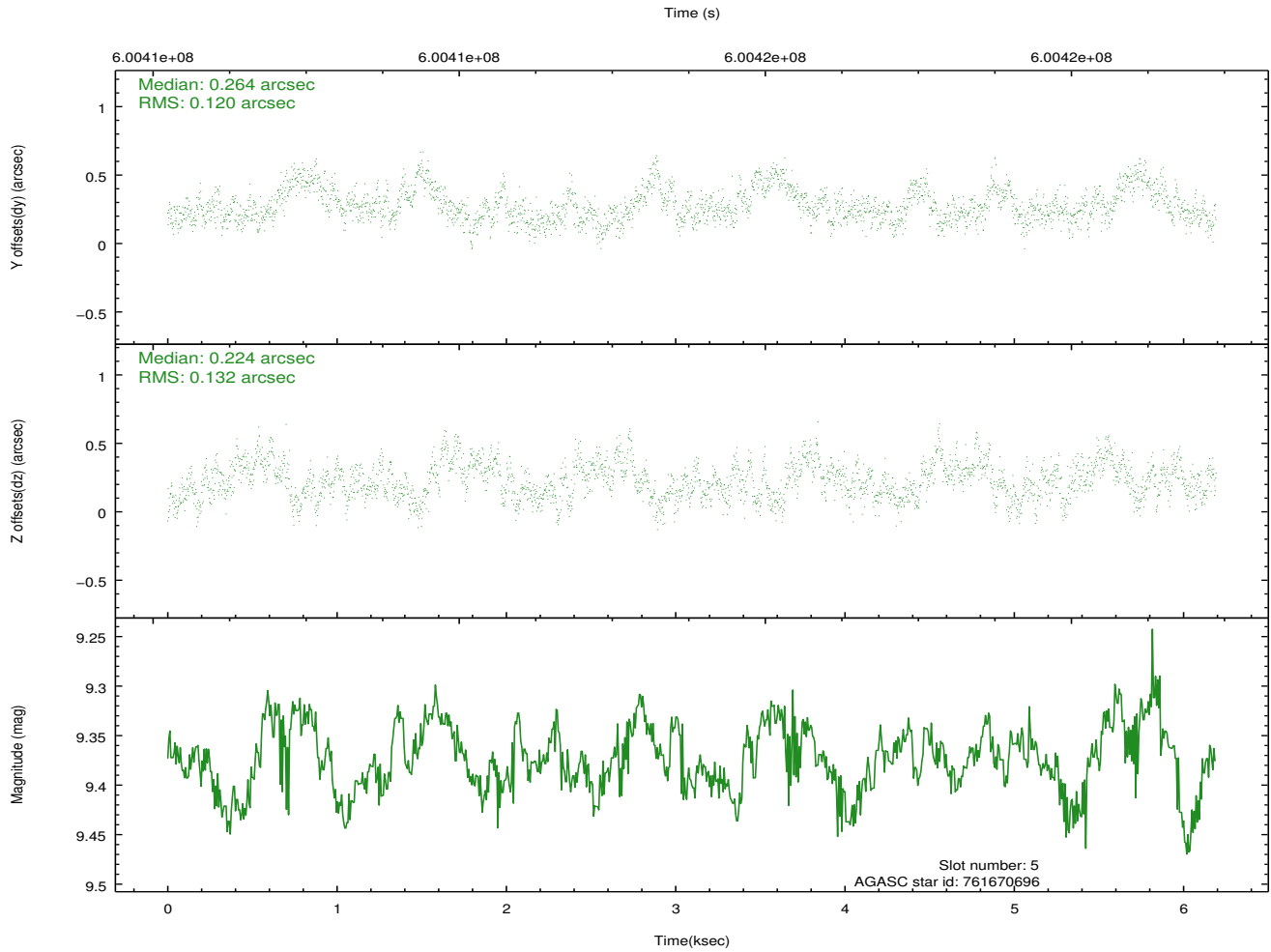
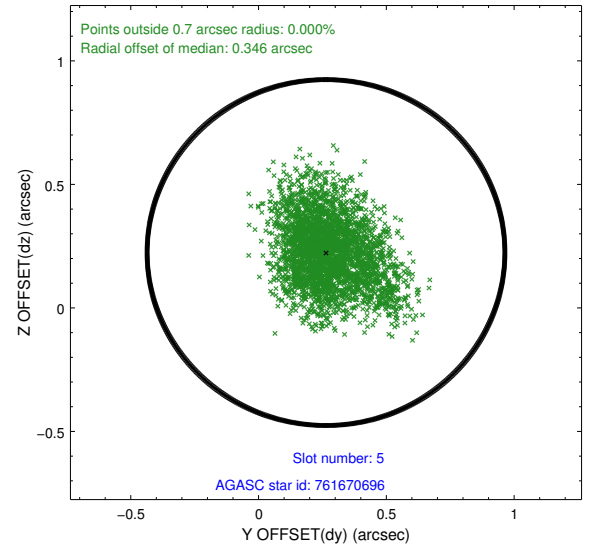
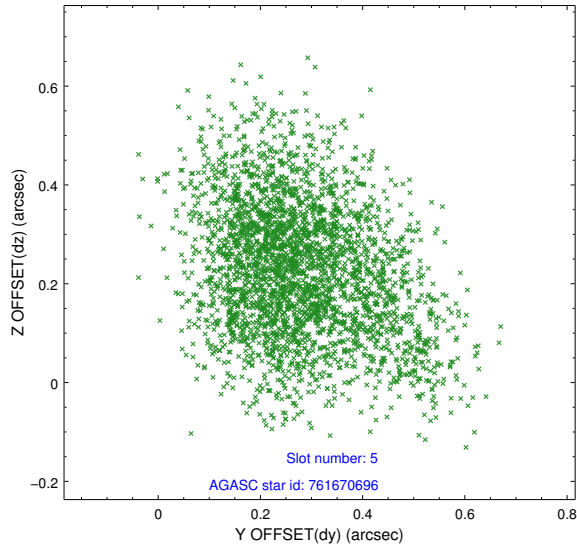
## 2.4.2 Slot 3



### 2.4.3 Slot 4

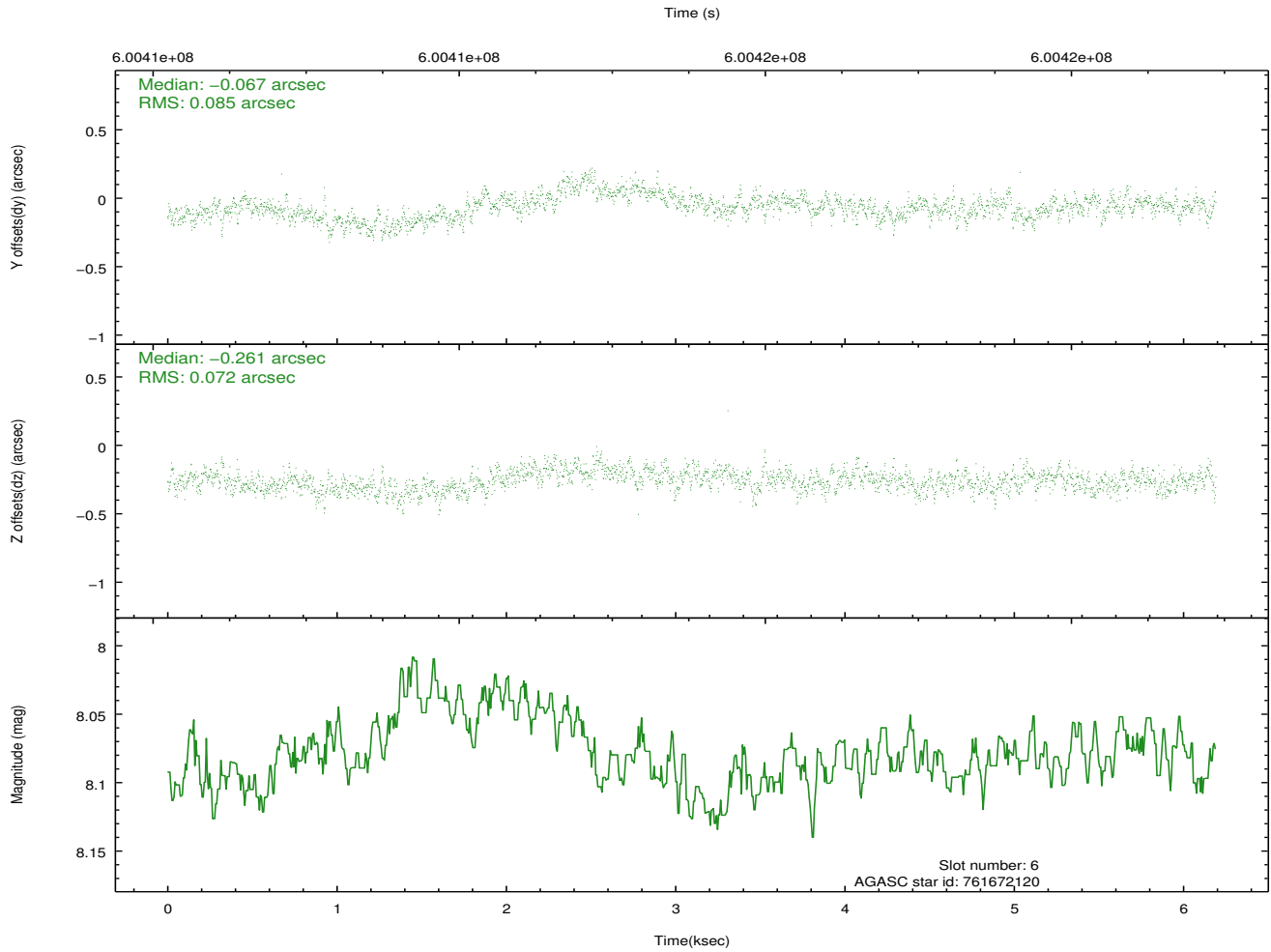
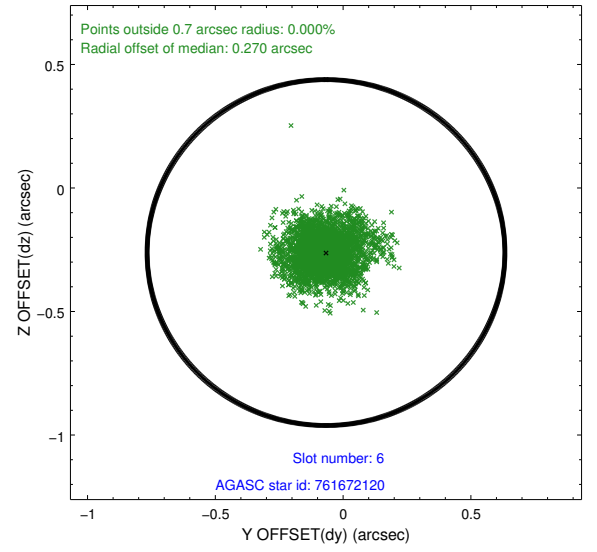
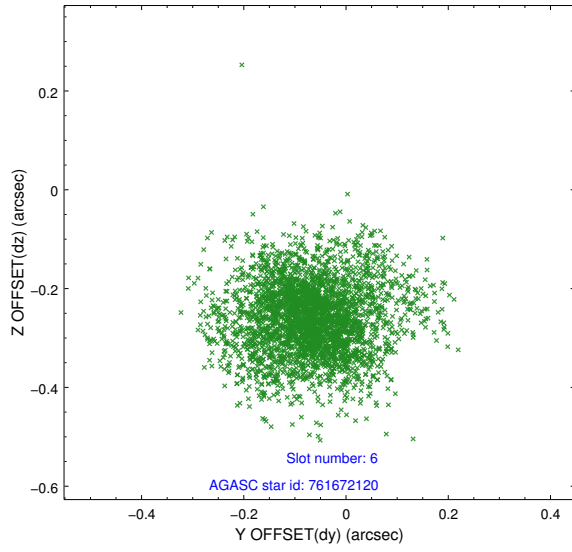


## 2.4.4 Slot 5

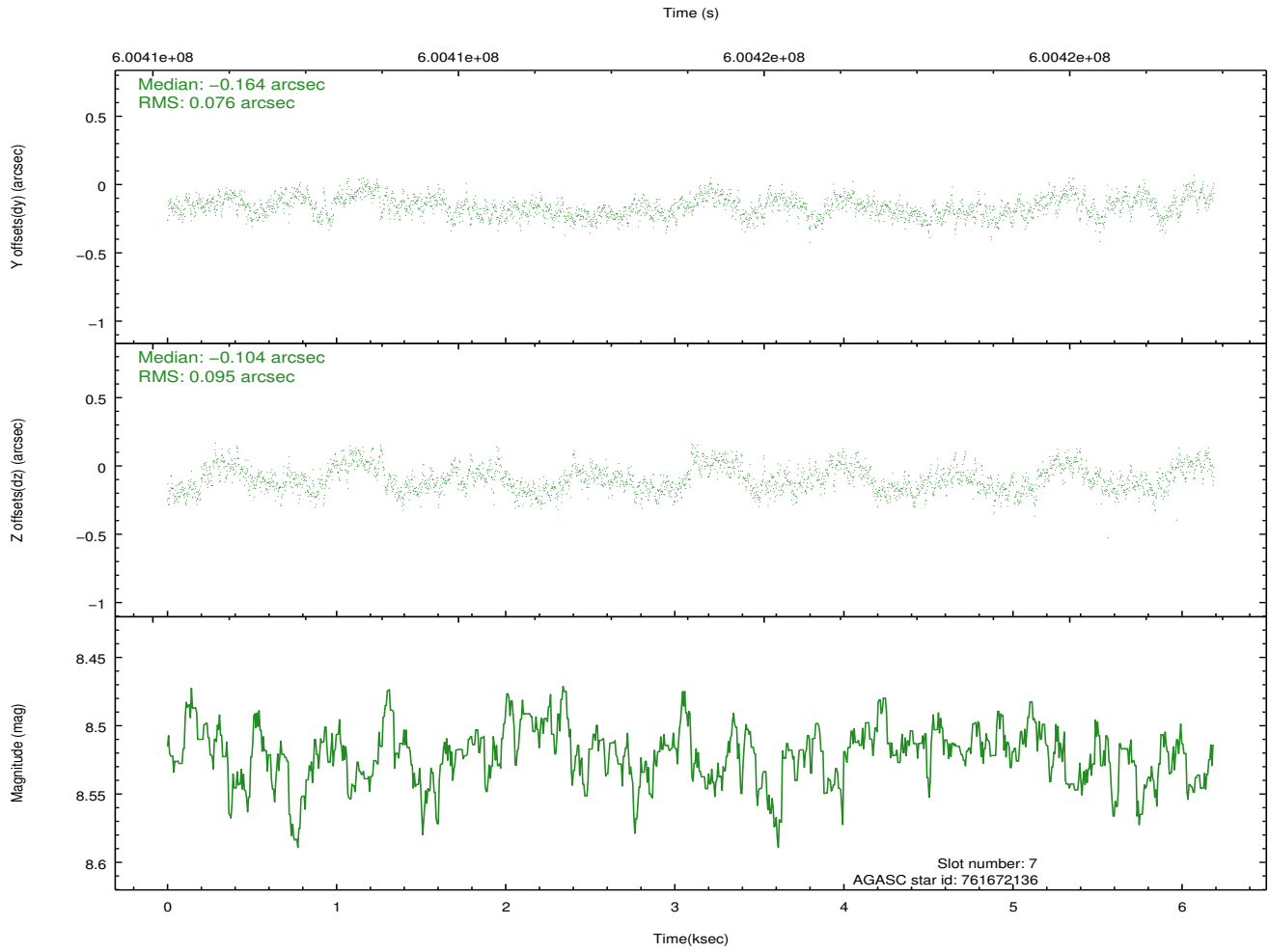
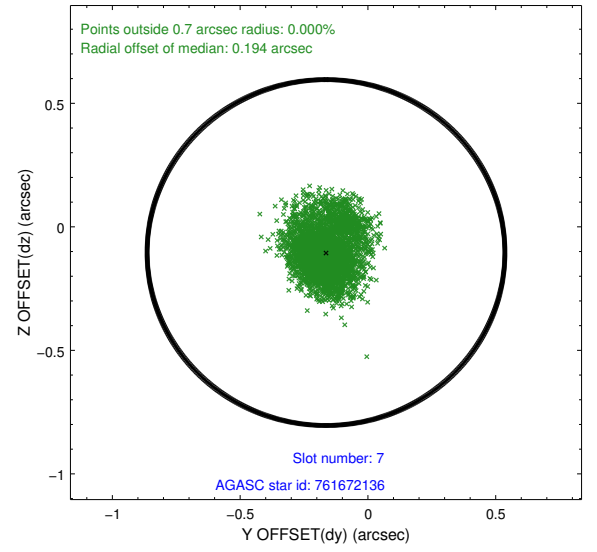
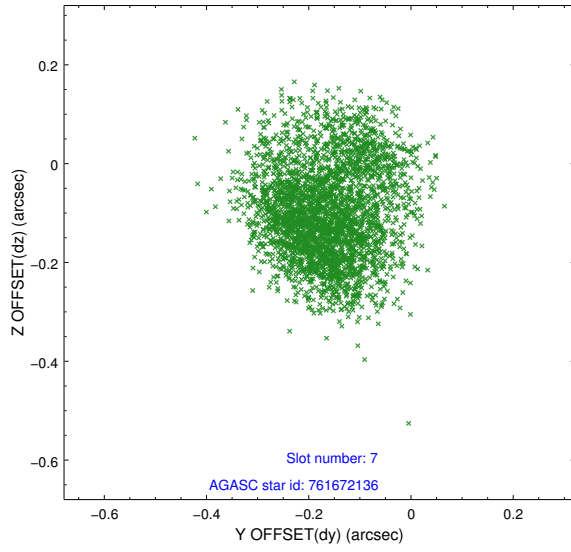




## 2.4.5 Slot 6

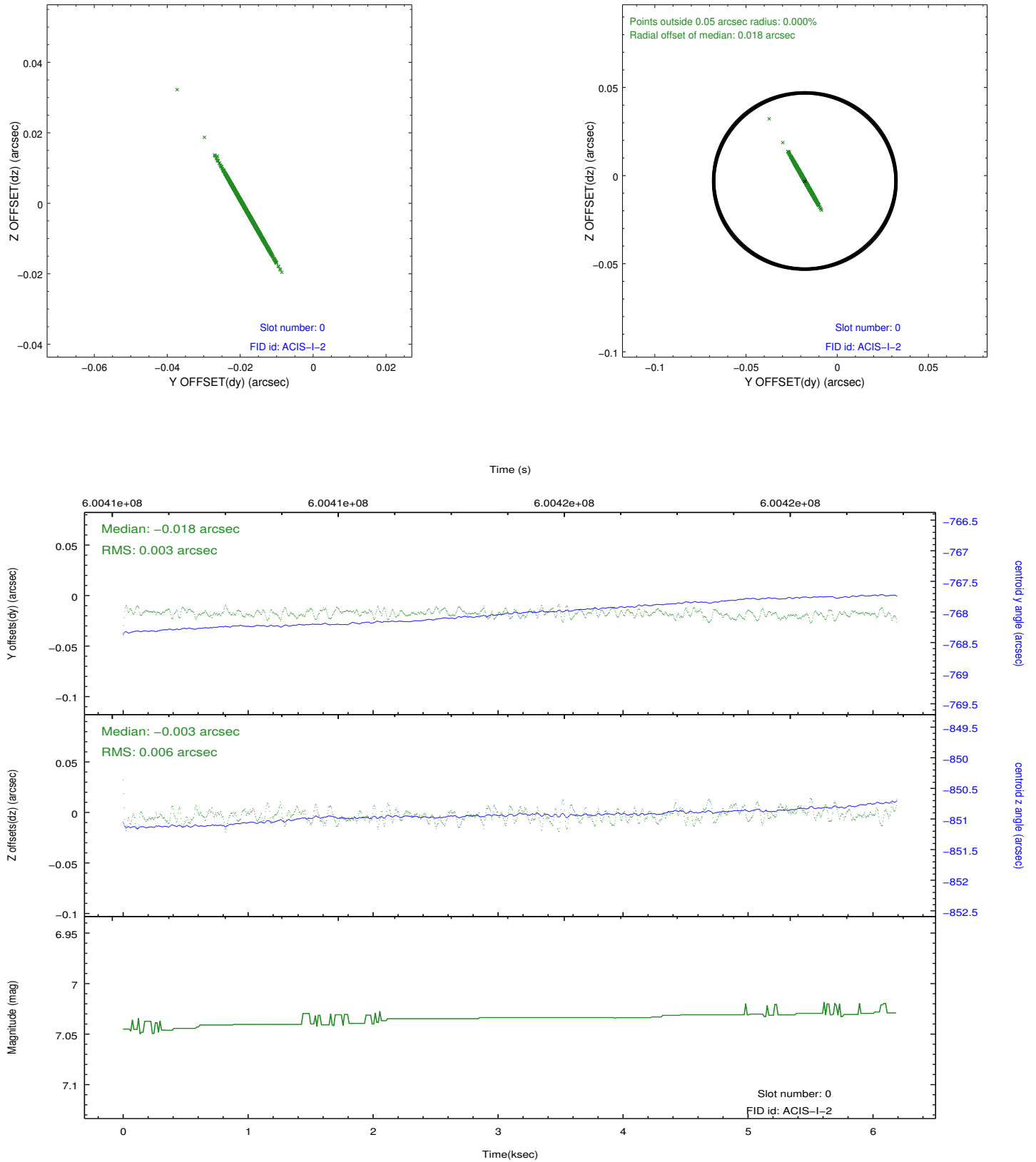


## 2.4.6 Slot 7

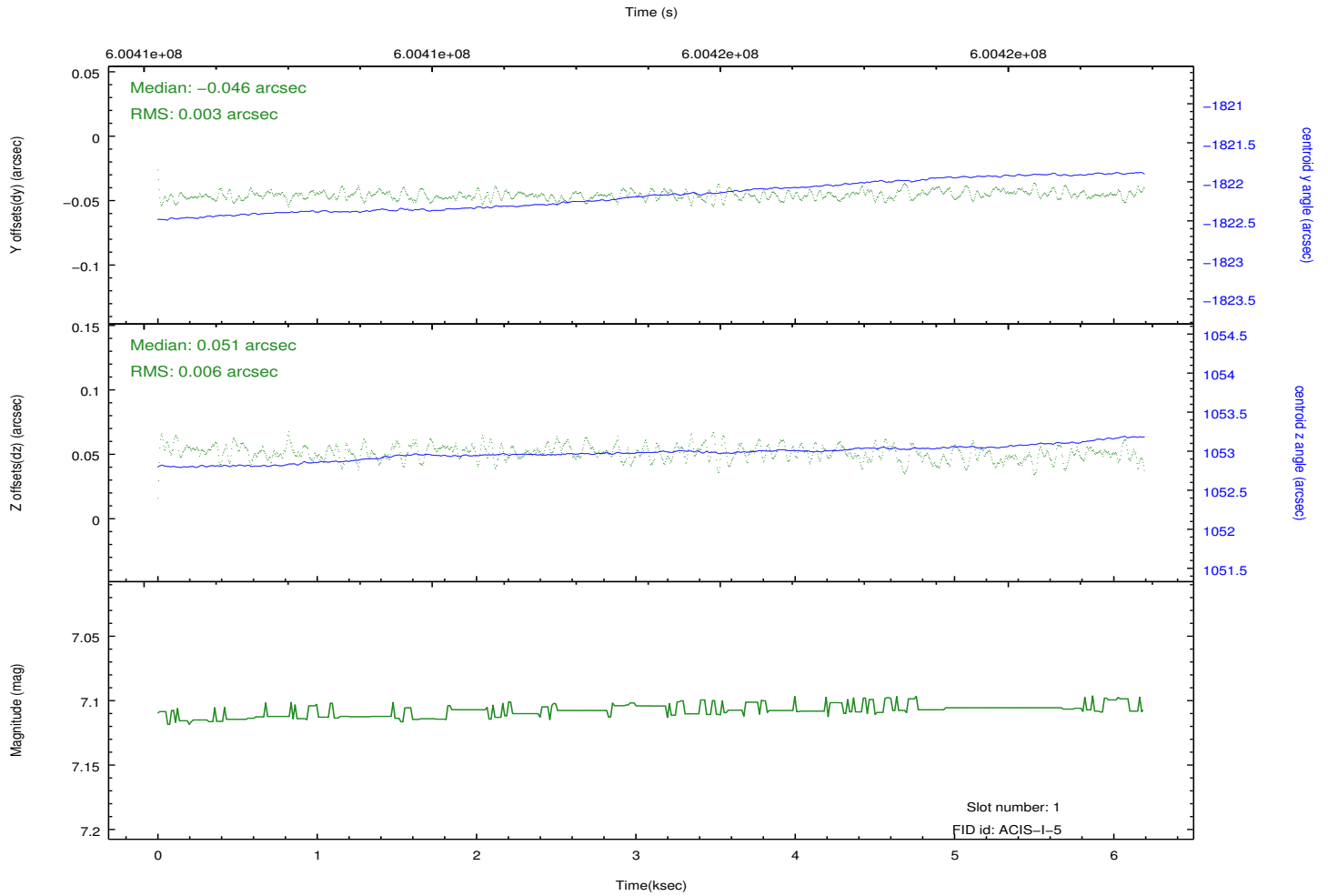
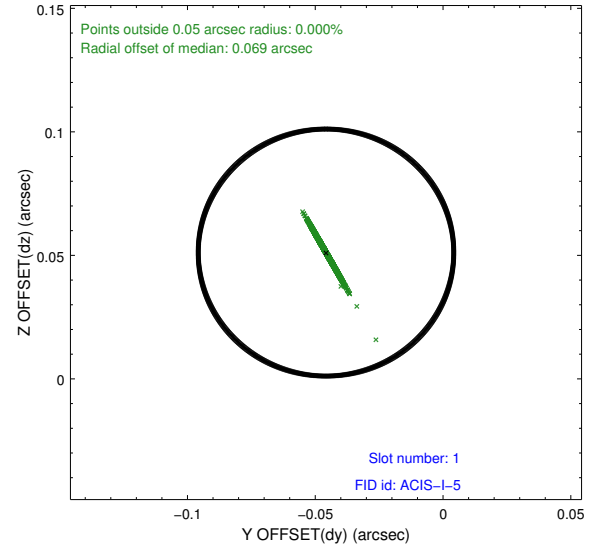
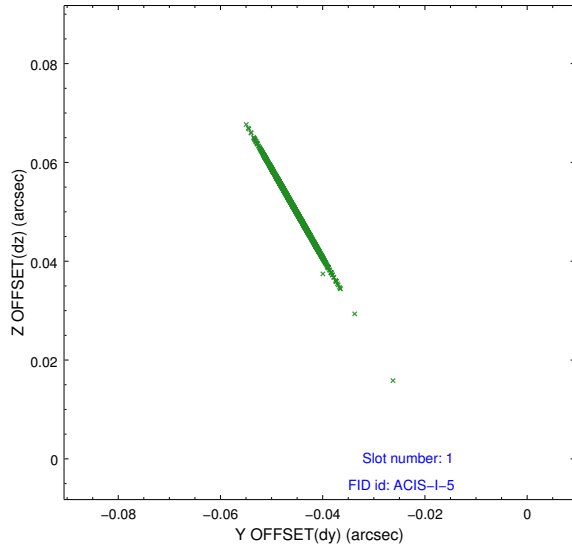


## 2.5 FID Slots

### 2.5.1 Slot 0



## 2.5.2 Slot 1



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2017.01.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.8335591068268

## A.2 Comments

This is a moving target. Users will need to run sso\_freeze or similar software to position the events in the reference frame of the target.

=====

Nominal chip set to 2

=====

Window constraint met.