

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 22229 - L2 Version 1  
Chandra X-Ray Center

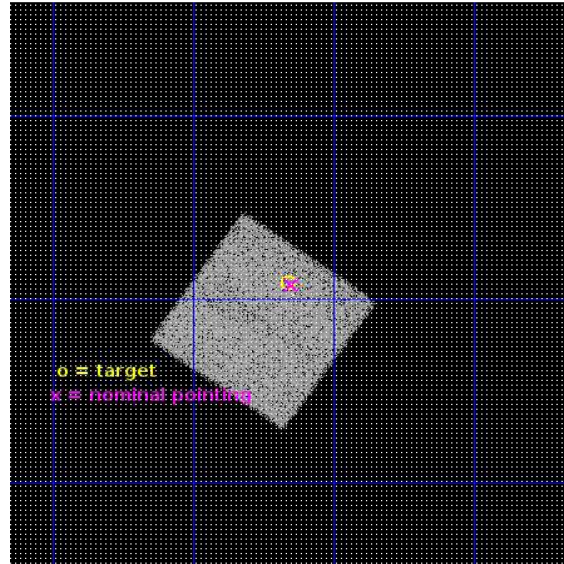
L2 Processing Date : May 22 2019

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# 1 Front

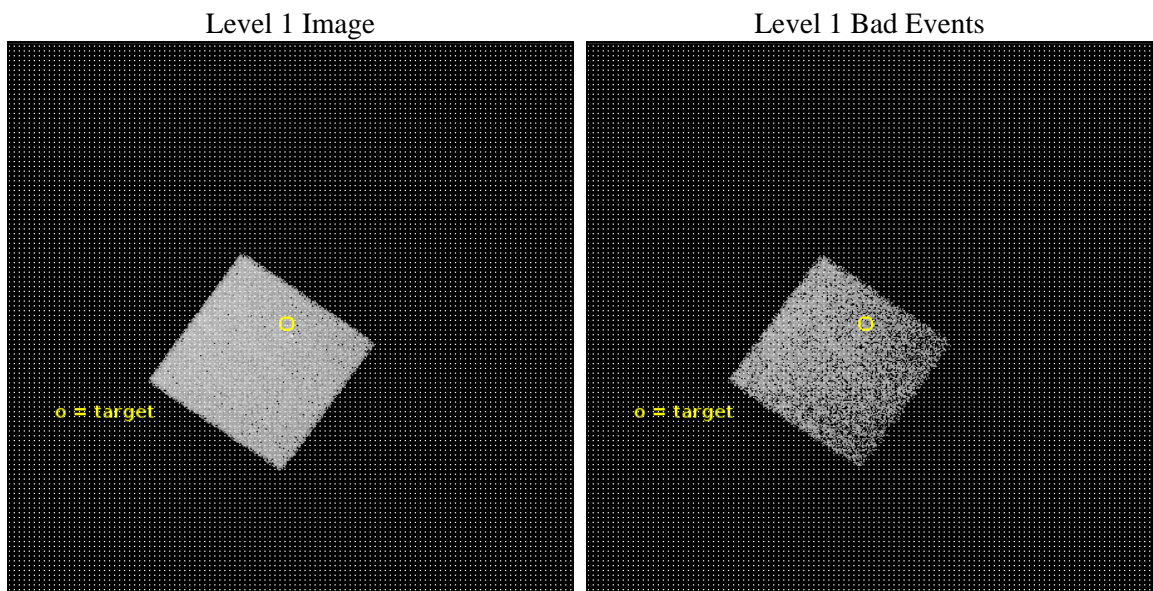
seq_num	703895	Sequence number
obs_id	22229	Observation id
title	Chandra-NuSTAR synergy in the NuSTAR serendipitous survey	Proposal
observer	Dr David Alexander	Principal investigator
object	1RXSJ010713d0m113554_s1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.914791	Observer's specified target RA [deg]
dec_targ	-11.652583	Observer's specified target Dec [deg]
ra_nom	16.912261284109	Nominal RA [deg]
dec_nom	-11.653928790149	Nominal Dec [deg]
roll_nom	125.1561812337	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10091.841519594	Sum of GTIs [s]
livetime	9955.6482515135	Livetime [s]
ontime7	10091.841519594	Sum of GTIs [s]
l2events	40583	Number of level 2 events



## 2 OBI

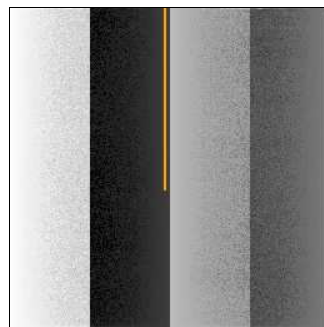
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	10091.841519594	Sum of GTIs [s]
caldsver	4.8.2	&#160	ontime7	10091.841519594	Sum of GTIs [s]
date	2019-05-22T05:56:35	Date and time of file creation	l1events	95229	Number of level 1 events
revision	1	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	95229
rejected events	53501
rejected %	56%

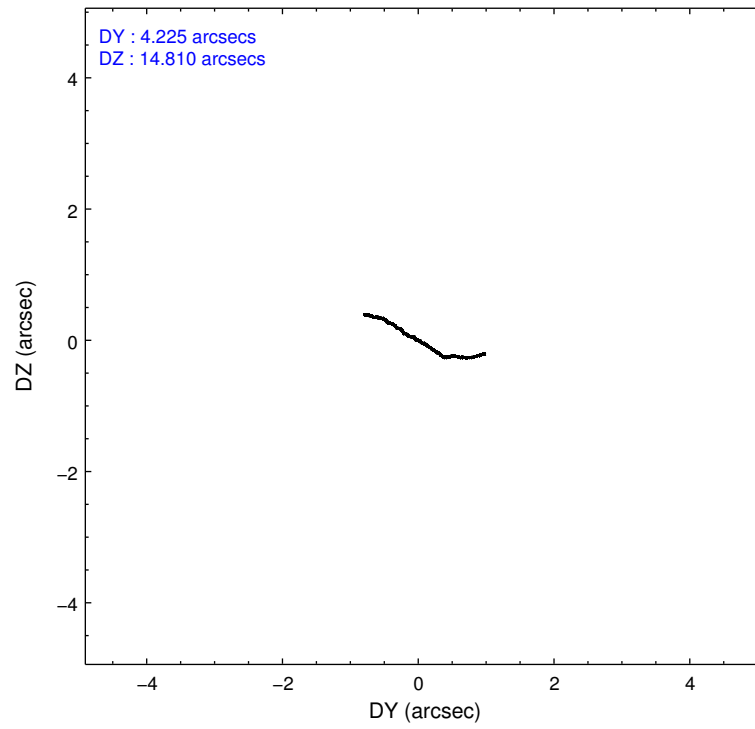
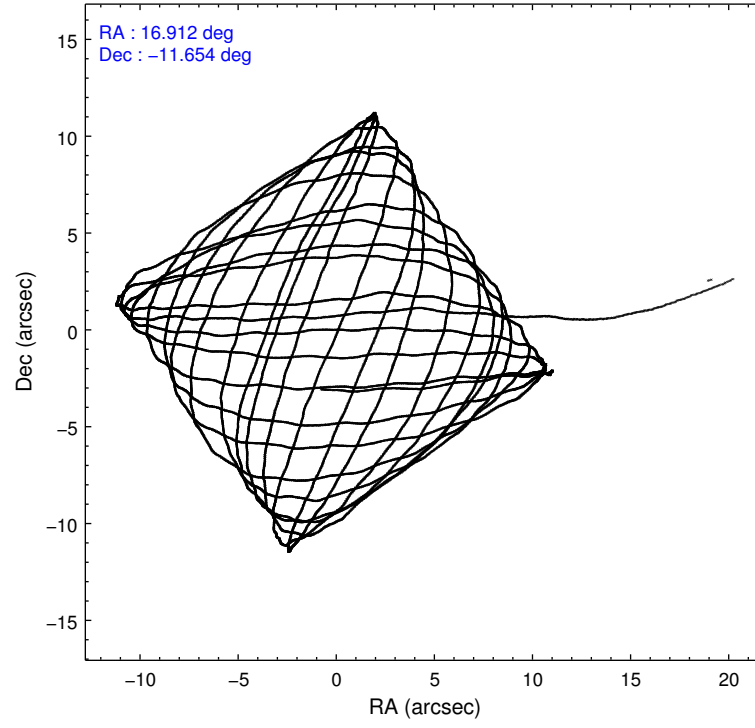
	<b>ccd 7</b>
grade 0 events	3412
	3%
grade 1 events	146
	0%
grade 2 events	8678
	9%
grade 3 events	3158
	3%
grade 4 events	3226
	3%
grade 5 events	8948
	9%
grade 6 events	23264
	24%
grade 7 events	44397
	46%

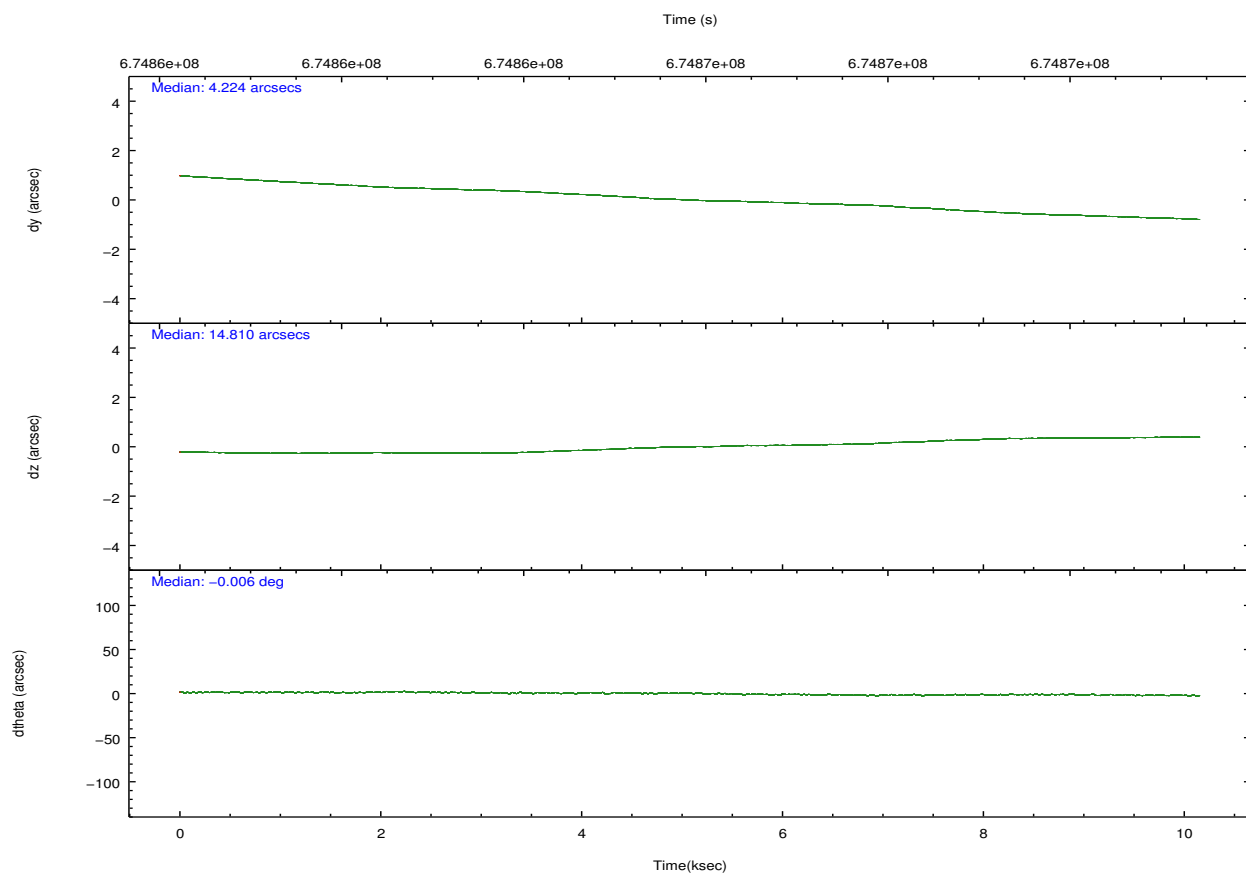
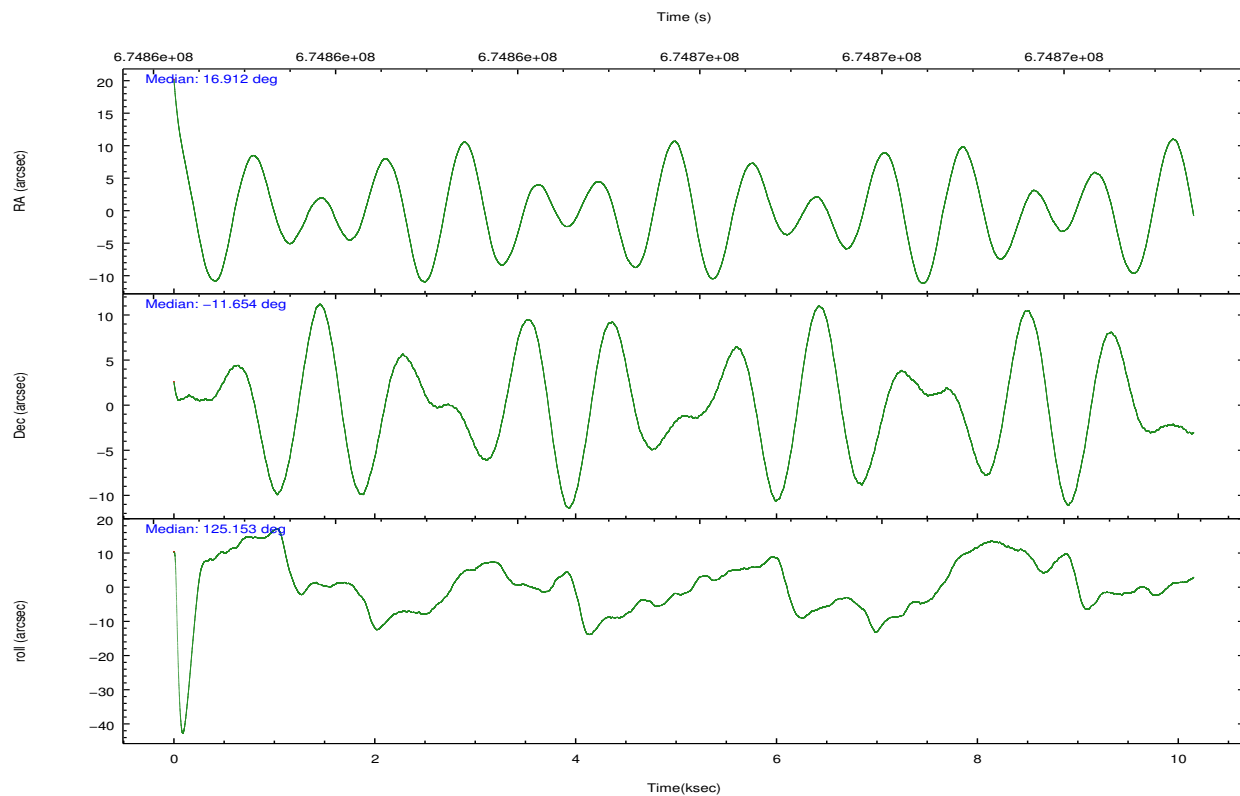


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	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	16.937795	16.91226128410898	Subarray requested	NONE	NONE
[deg] Pointing Dec	-11.665128	-11.65392879014902	Alternating exposures requested	N	N
[deg] Pointing Roll	125.004645	125.1561812336979	[s] Primary exposure time	0.000000	3
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	674860898.184000	674859575.87758			
Observation start date	2019-05-21T21:20:29	2019-05-21T20:59:35			
[s] Observation end time (MET)	674870898.184000	674872092.66583			
Observation end date	2019-05-22T00:07:09	2019-05-22T00:28:12			
Read mode	TIMED	TIMED			

## 2.3 Aspect



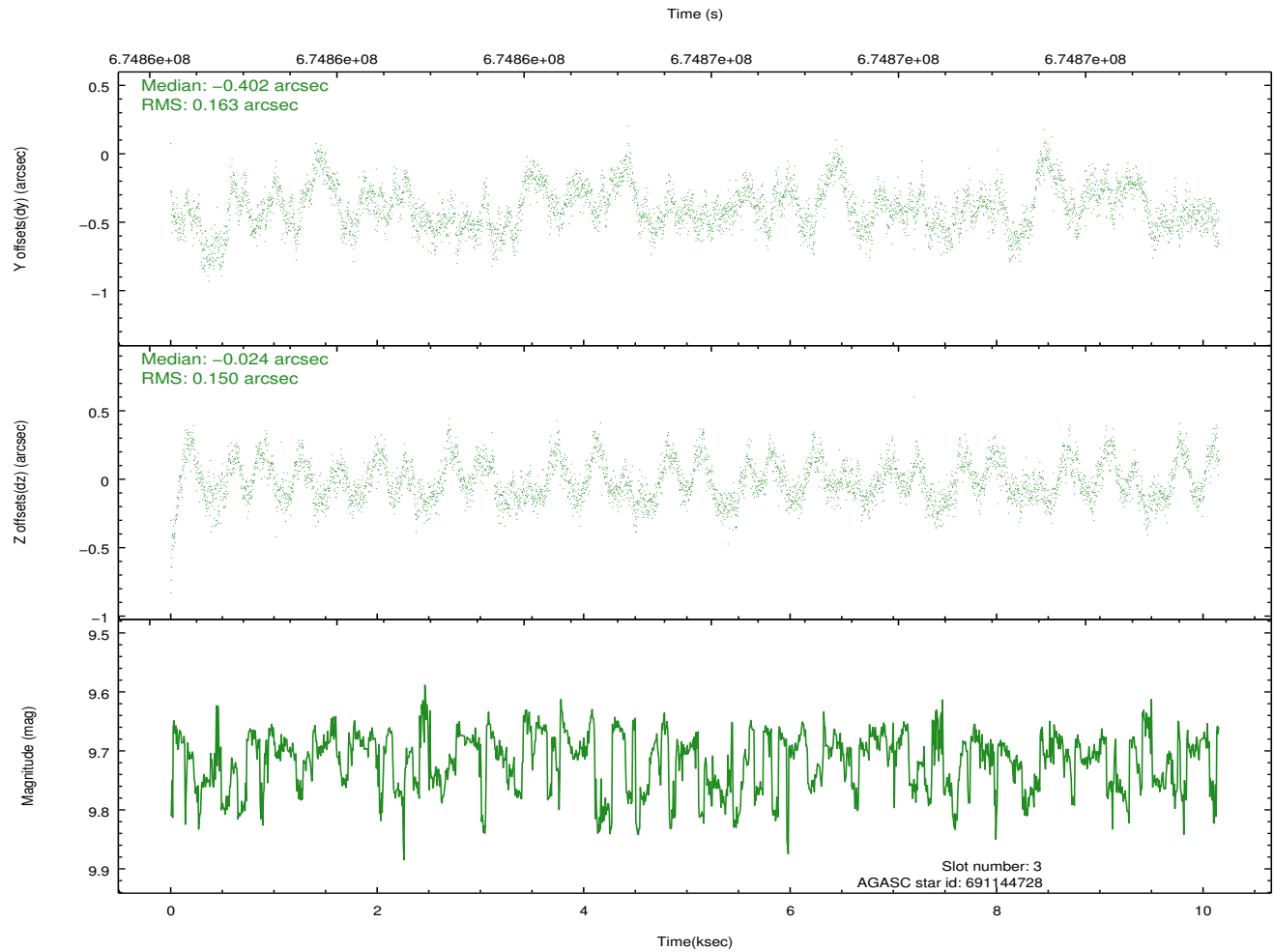
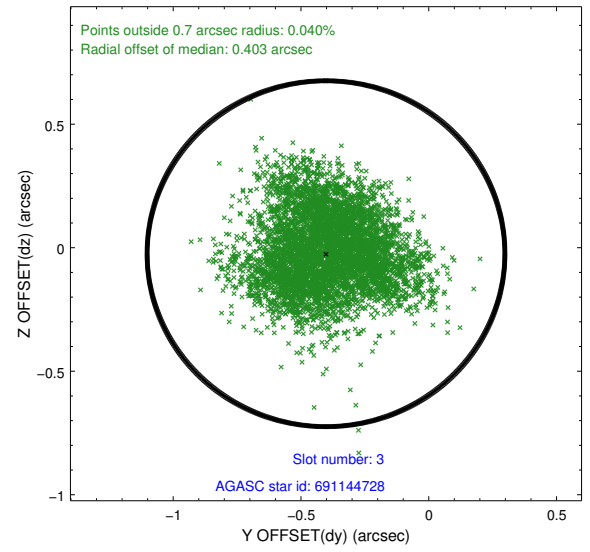
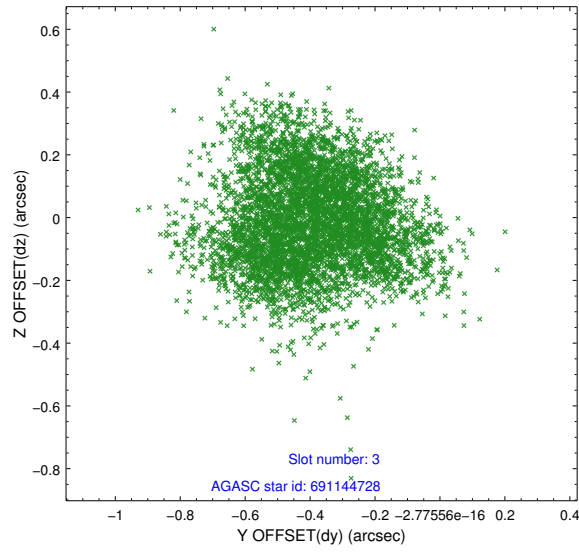


Slot Statistics

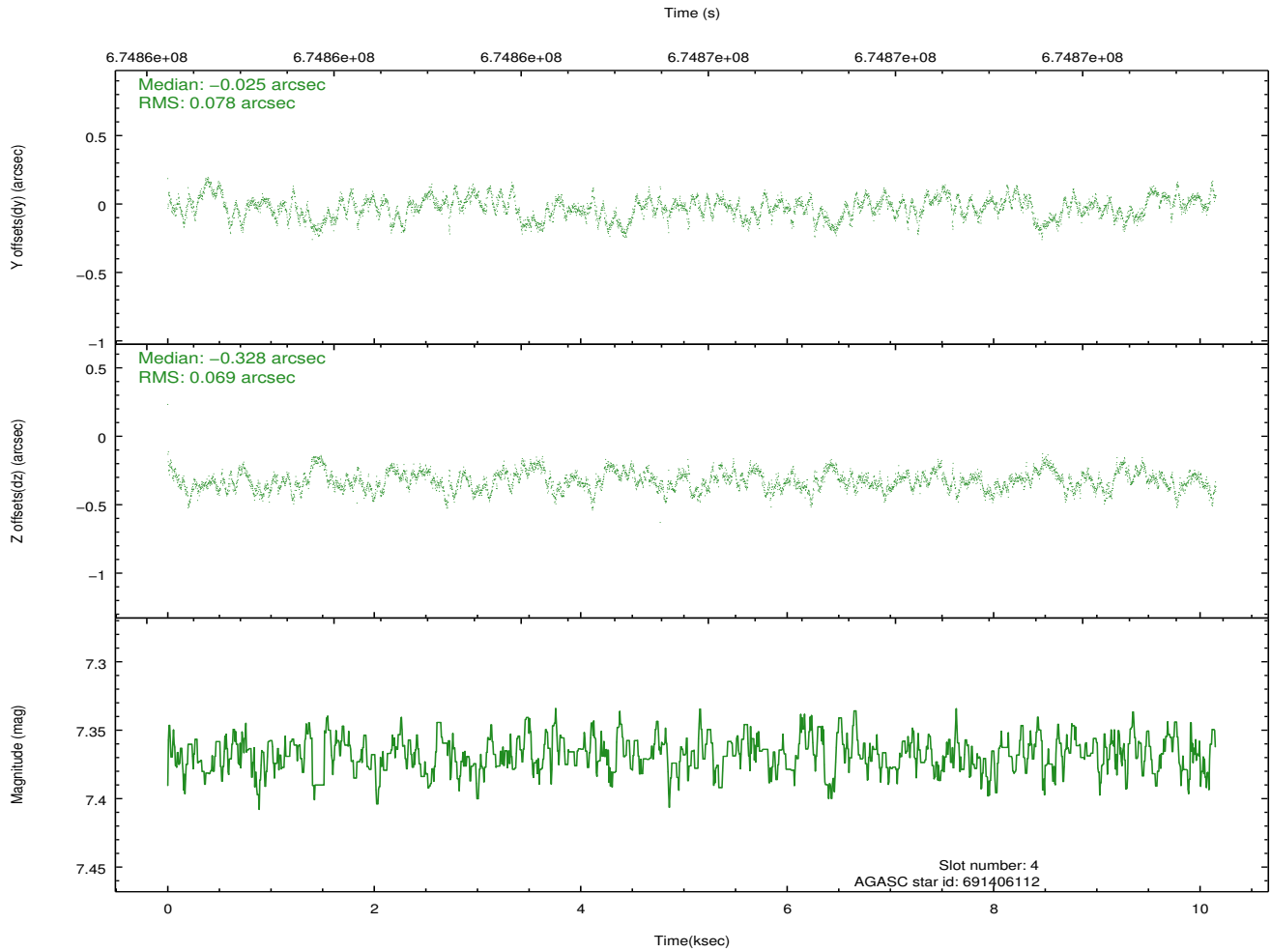
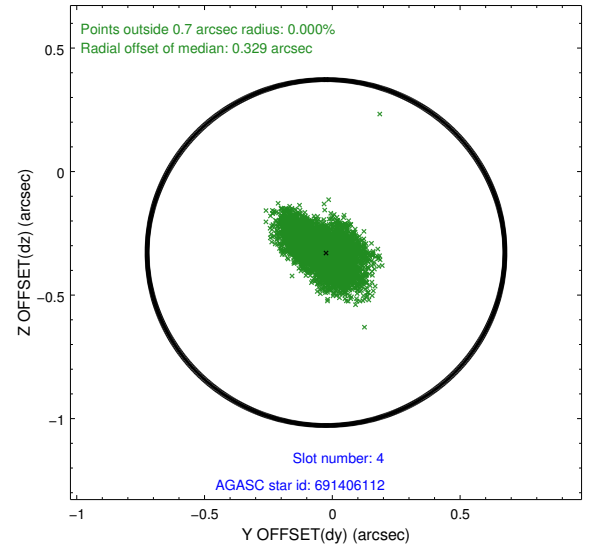
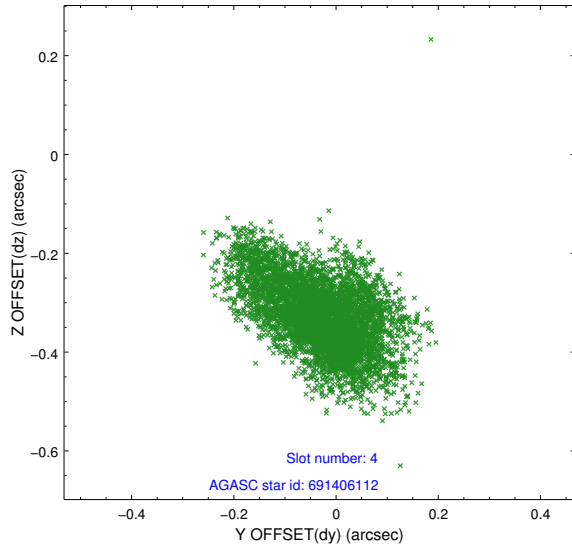
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	2477	1.000	-0.270	-0.094	0.030	0.039	0.000000	0.000000	-757.16	-1736
1	FID		ACIS-S-4	7.21	2477	1.000	0.595	0.156	0.026	0.048	0.000000	0.000000	2156.68	172
2	FID		ACIS-S-5	7.21	2477	1.000	-0.352	-0.054	0.009	0.015	0.000000	0.000000	-1809.47	165
3	GUIDE	used	691144728	9.71	4949	1.000	-0.402	-0.024	0.236	0.374	16.760277	-11.151338	1874.43	-547
4	GUIDE	used	691406112	7.37	4954	1.000	-0.025	-0.328	0.109	0.187	17.044395	-12.168074	-1698.10	730
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
6	GUIDE	used	691409832	8.87	4951	1.000	0.299	0.212	0.119	0.189	17.344036	-12.114823	-2147.25	-241
7	GUIDE	used	691415704	7.91	4951	1.000	0.128	0.123	0.090	0.143	17.400105	-11.678561	-975.53	-1306

## 2.4 Star Slots

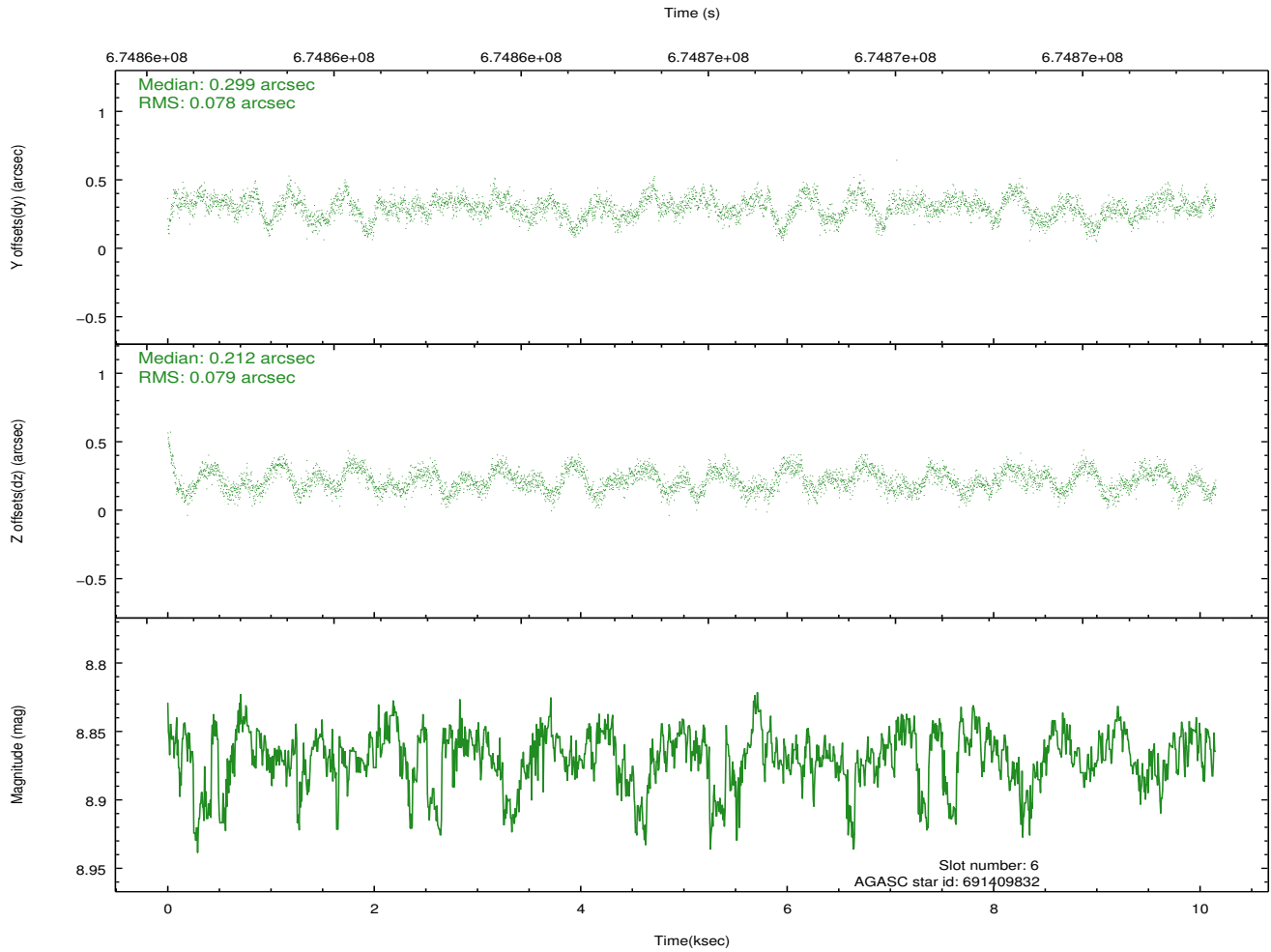
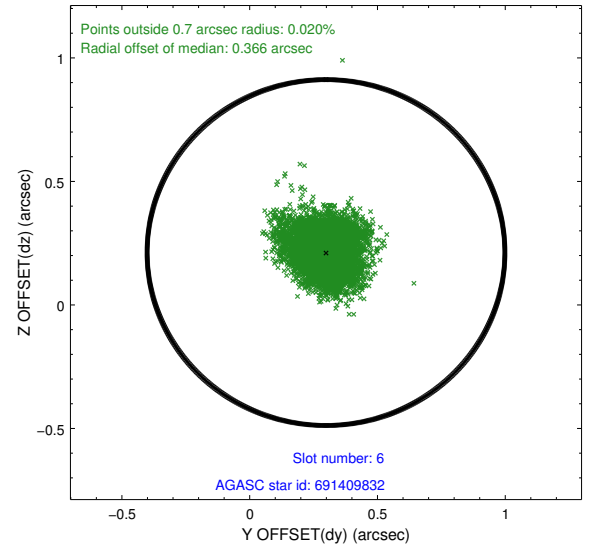
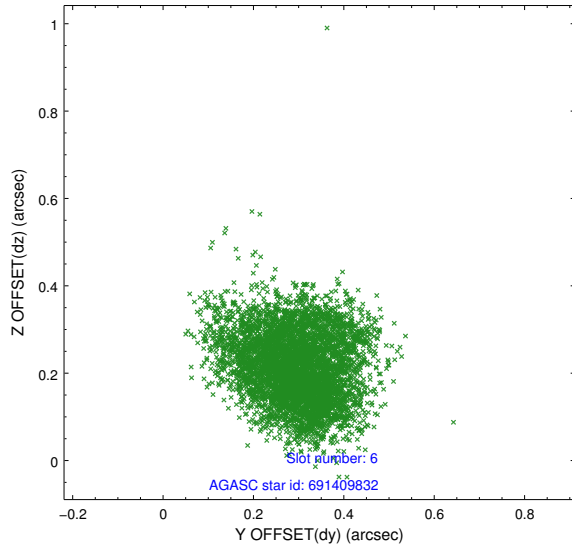
### 2.4.1 Slot 3



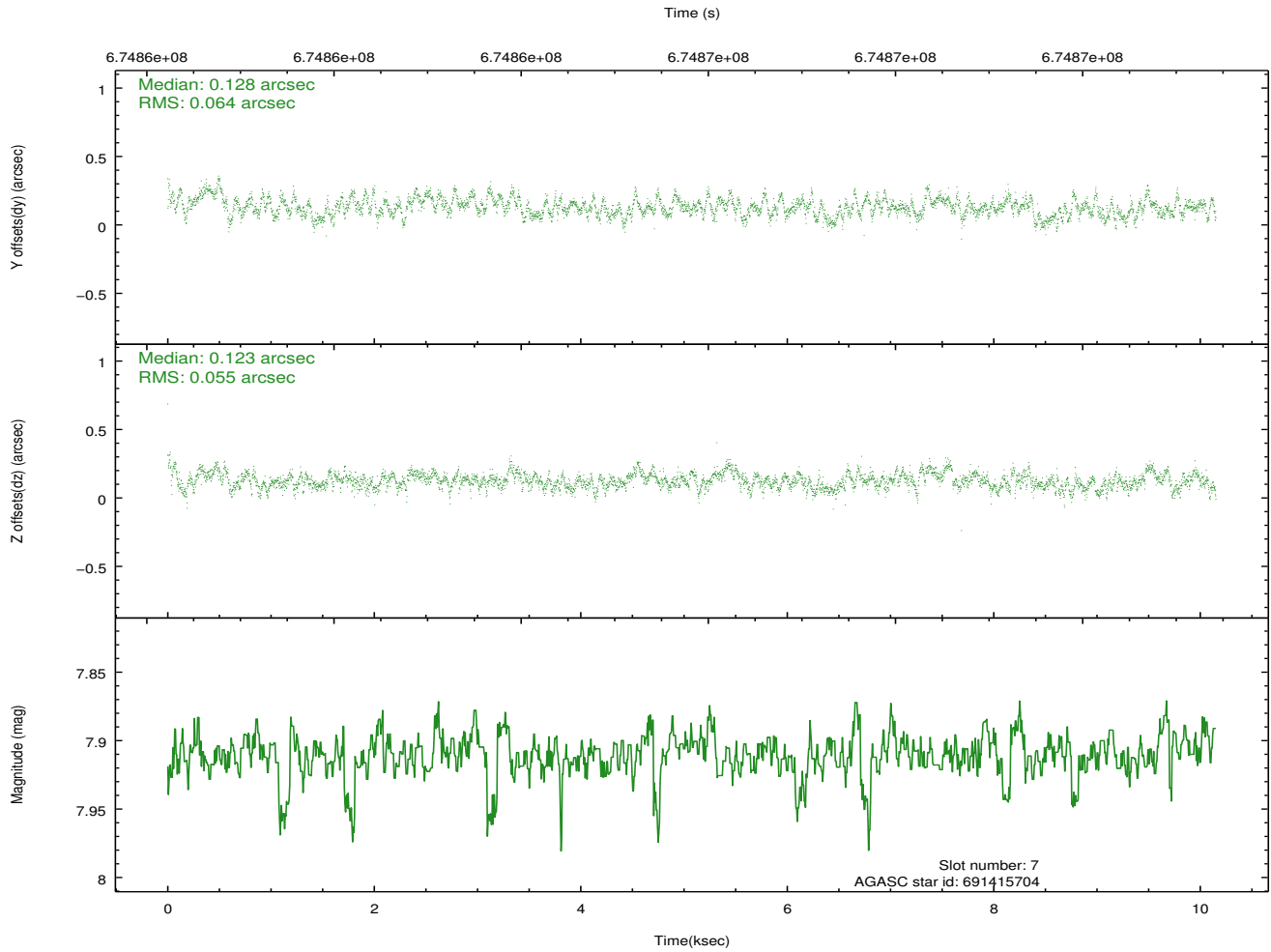
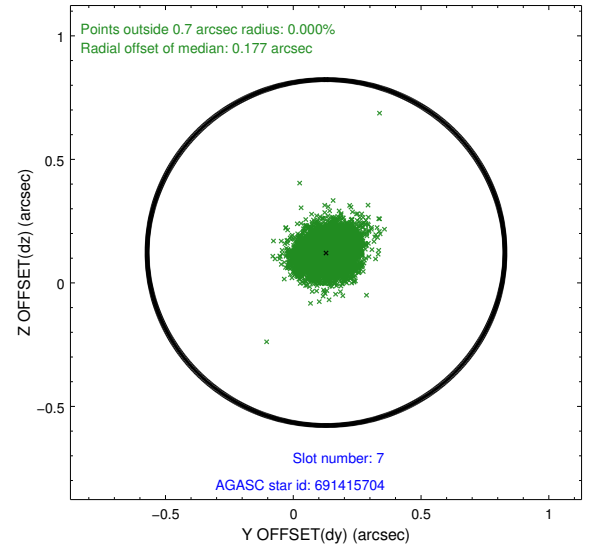
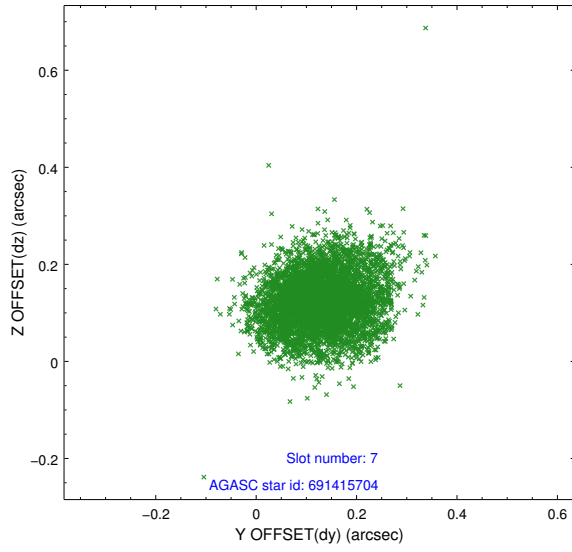
## 2.4.2 Slot 4



### 2.4.3 Slot 6



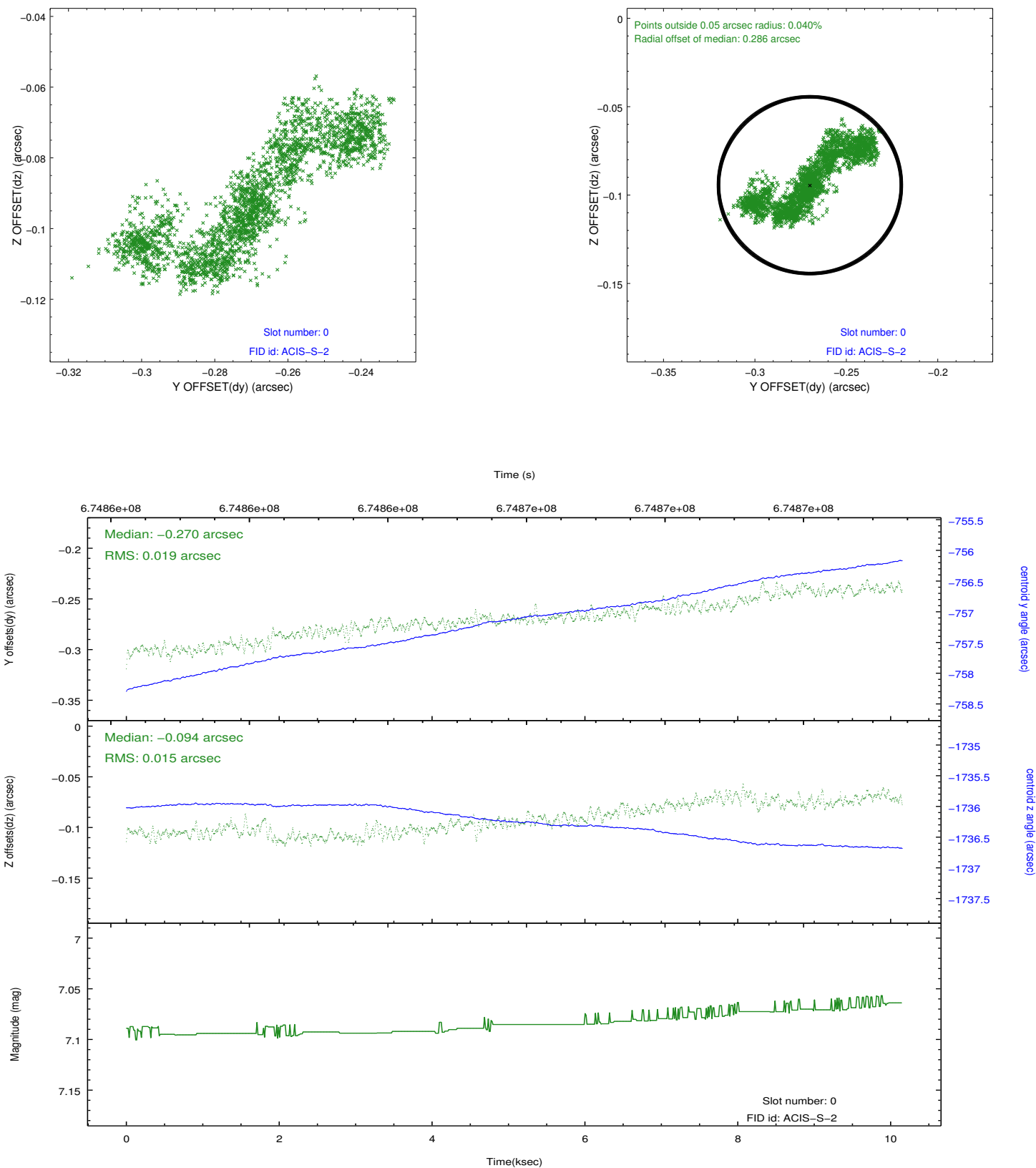
## 2.4.4 Slot 7



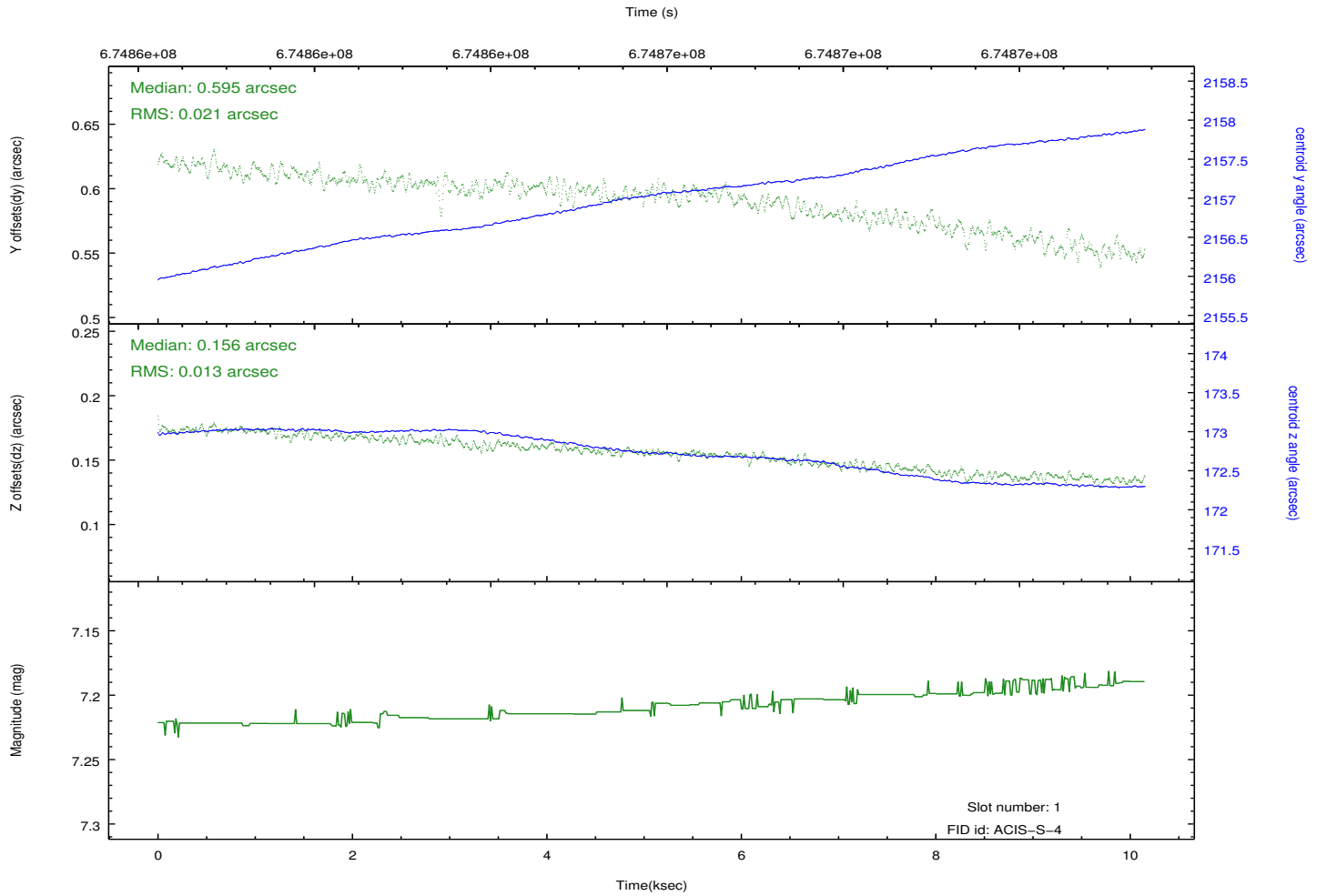
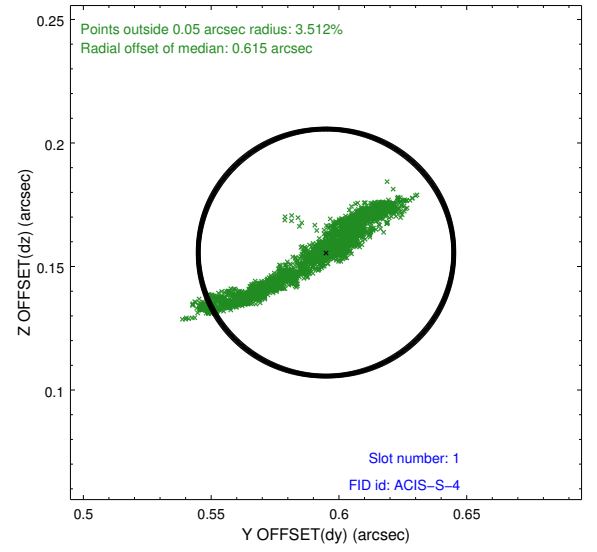
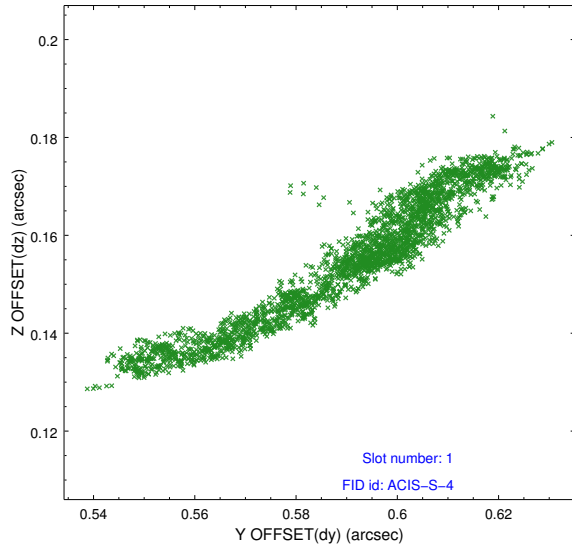


## 2.5 FID Slots

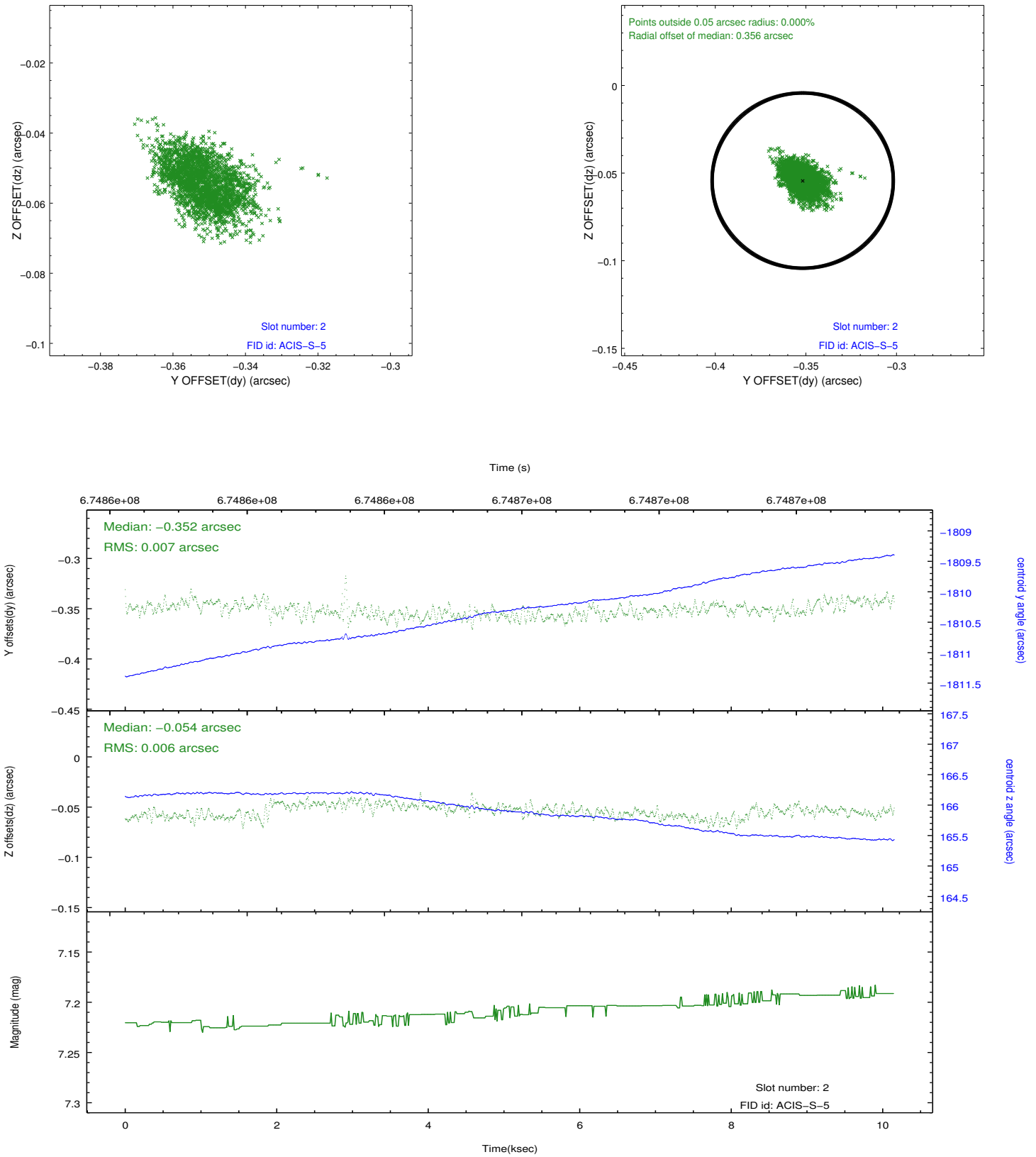
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.05.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.091841519594

### A.2 Comments

The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.