

# V&V Reference Report

## L2 ASCDS Version : 10.8

Observation 21497 - L2 Version 1  
Chandra X-Ray Center

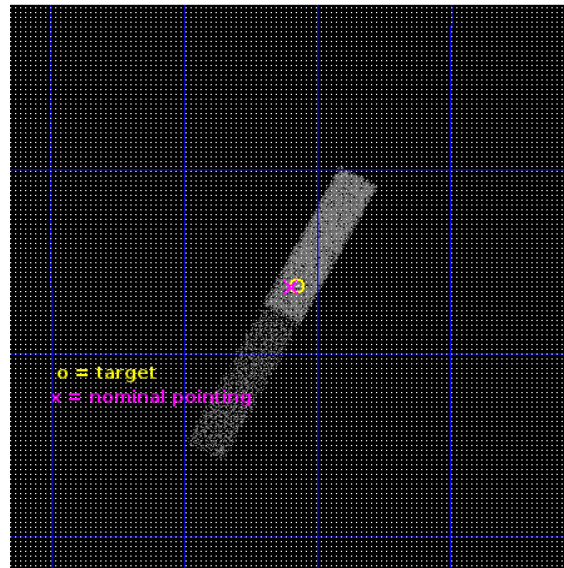
L2 Processing Date : Aug 12 2019

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# 1 Front

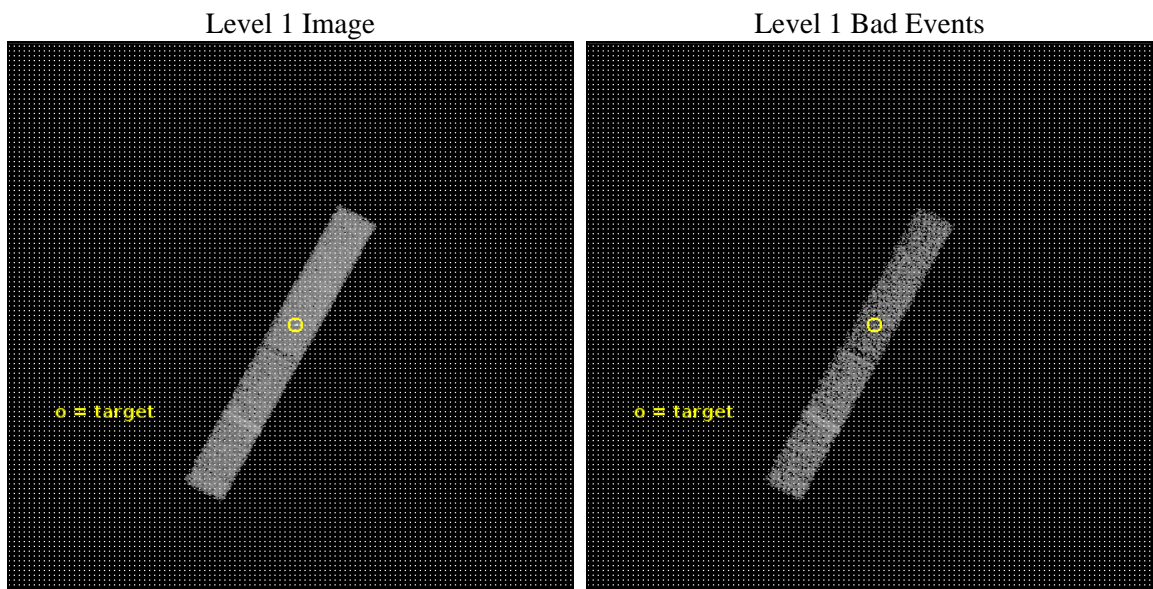
seq_num	703790	Sequence number
obs_id	21497	Observation id
title	Synchrotron emission in low-redshift quasars	Proposal title
observer	Mark Birkinshaw	Principal investigator
object	MRC2024-217	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	306.768333	Observer's specified target RA [deg]
dec_targ	-21.605306	Observer's specified target Dec [deg]
ra_nom	306.77414211887	Nominal RA [deg]
dec_nom	-21.606316373927	Nominal Dec [deg]
roll_nom	298.15876721376	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10103.358692288	Sum of GTIs [s]
livetime	9662.7378464885	Livetime [s]
ontime6	10103.358692288	Sum of GTIs [s]
ontime7	10103.358692288	Sum of GTIs [s]
l2events	14868	Number of level 2 events



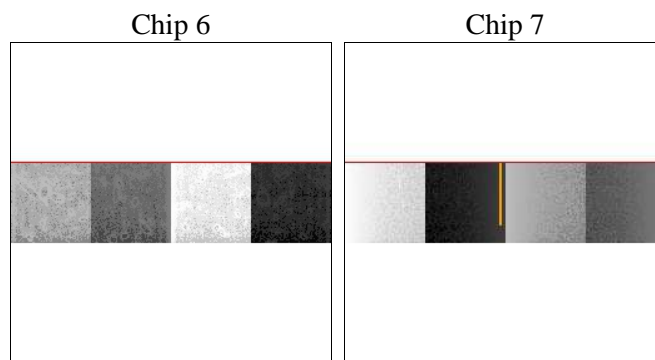
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	10103.358692288	Sum of GTIs [s]
caldsver	4.8.3.1	&#160	ontime6	10103.358692288	Sum of GTIs [s]
date	2019-08-12T06:05:54	Date and time of file creation	ontime7	10103.358692288	Sum of GTIs [s]
revision	1	Processing version of data	l1events	48190	Number of level 1 events

### 2.1.4 Events

	<b>ccd 6</b>	<b>ccd 7</b>
level 1 events	21318	26872
rejected events	18675	13762
rejected %	87%	51%

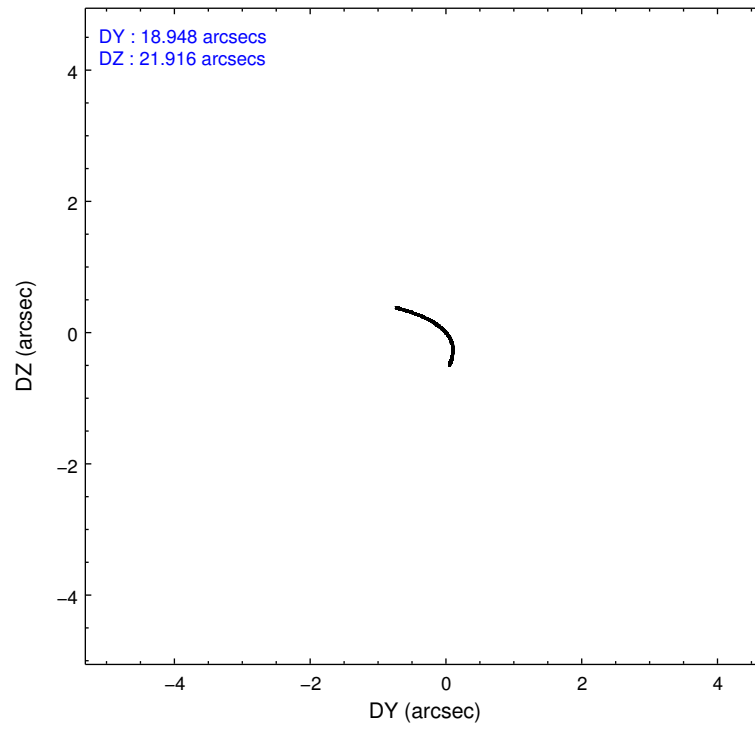
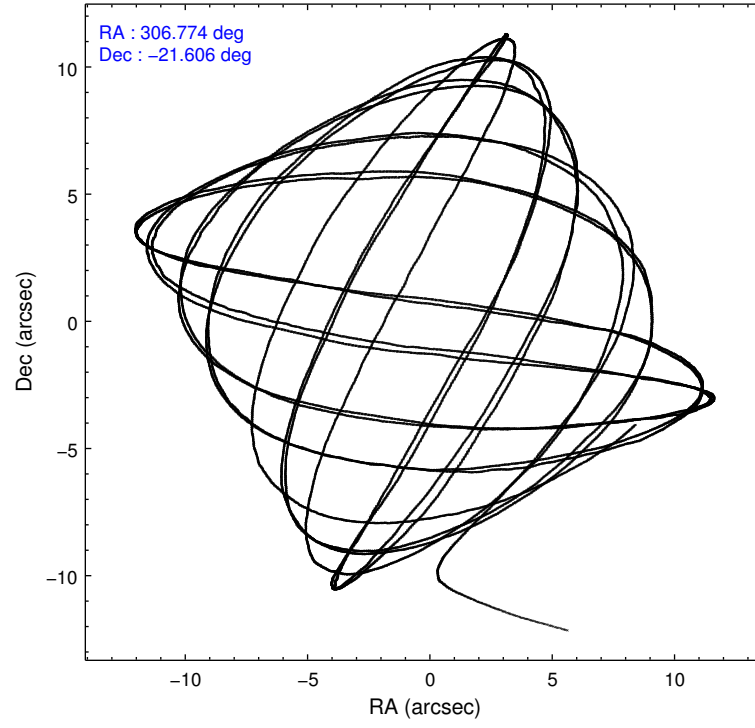
	<b>ccd 6</b>	<b>ccd 7</b>
grade 0 events	770	1381
	3%	5%
grade 1 events	4	41
	0%	0%
grade 2 events	531	2850
	2%	10%
grade 3 events	399	1424
	1%	5%
grade 4 events	405	1359
	1%	5%
grade 5 events	991	2724
	4%	10%
grade 6 events	538	6096
	2%	22%
grade 7 events	17680	10997
	82%	40%

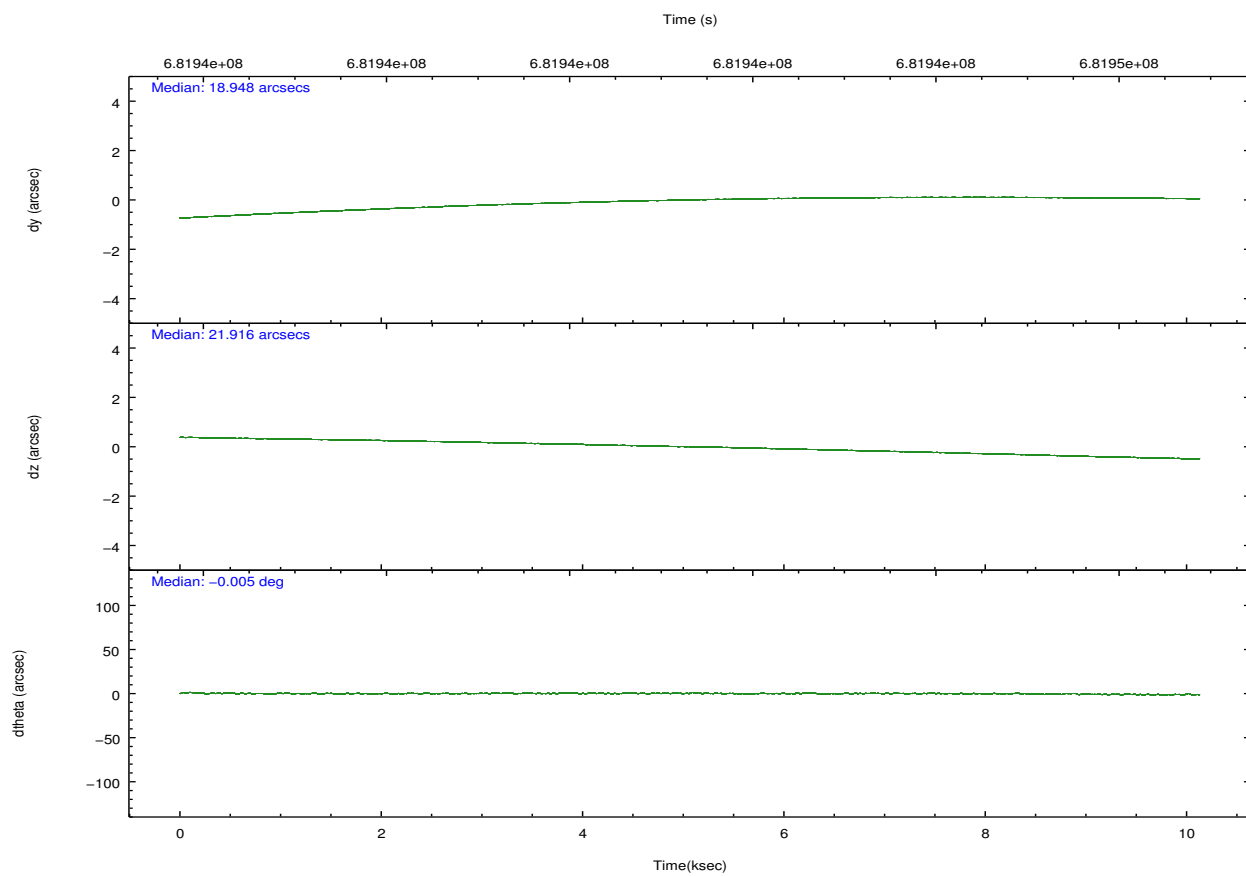
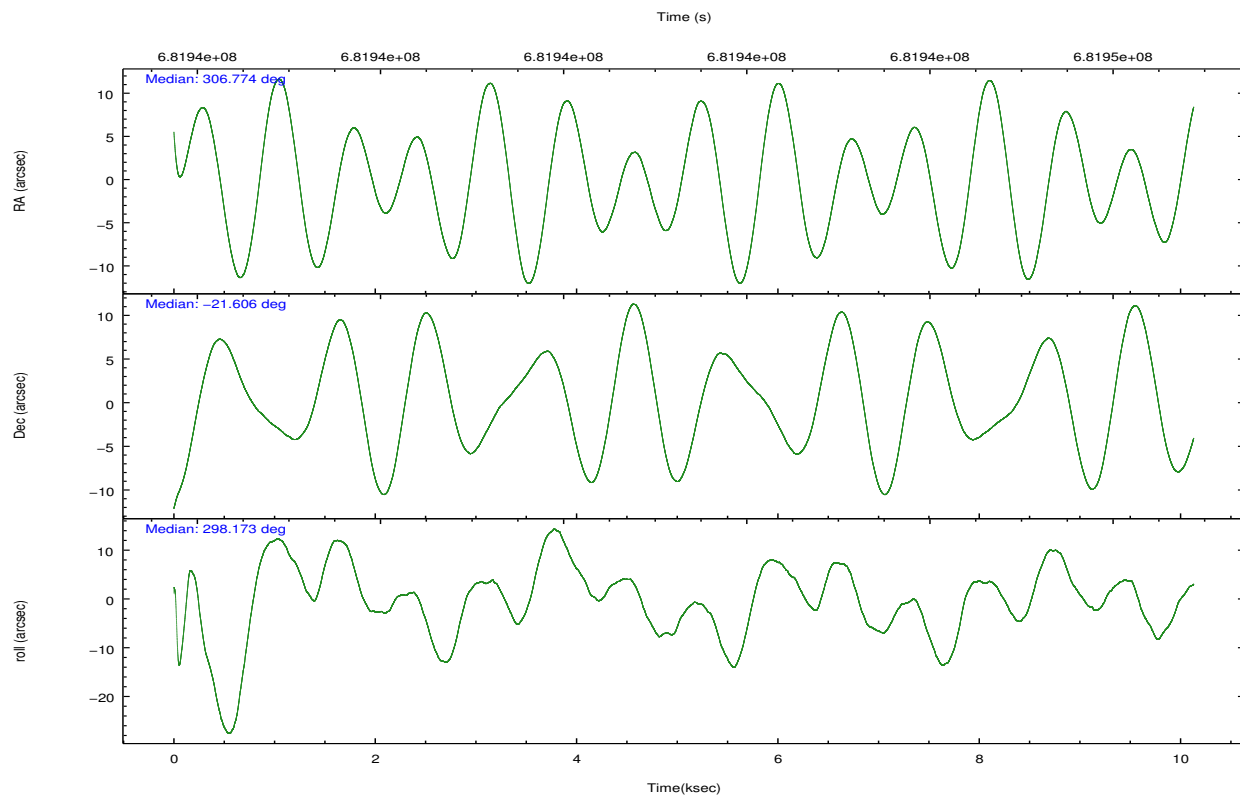


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-67	ACIS-67	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	306.748841	306.7741421188675	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-21.592115	-21.60631637392711	Subarray start row	385	385
[deg] Pointing Roll	297.992827	298.1587672137597	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	0.9
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	681936395.184000	681935111.8398401			
Observation start date	2019-08-11T18:45:26	2019-08-11T18:25:11			
[s] Observation end time (MET)	681946395.184000	681947309.85307			
Observation end date	2019-08-11T21:32:06	2019-08-11T21:48:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect



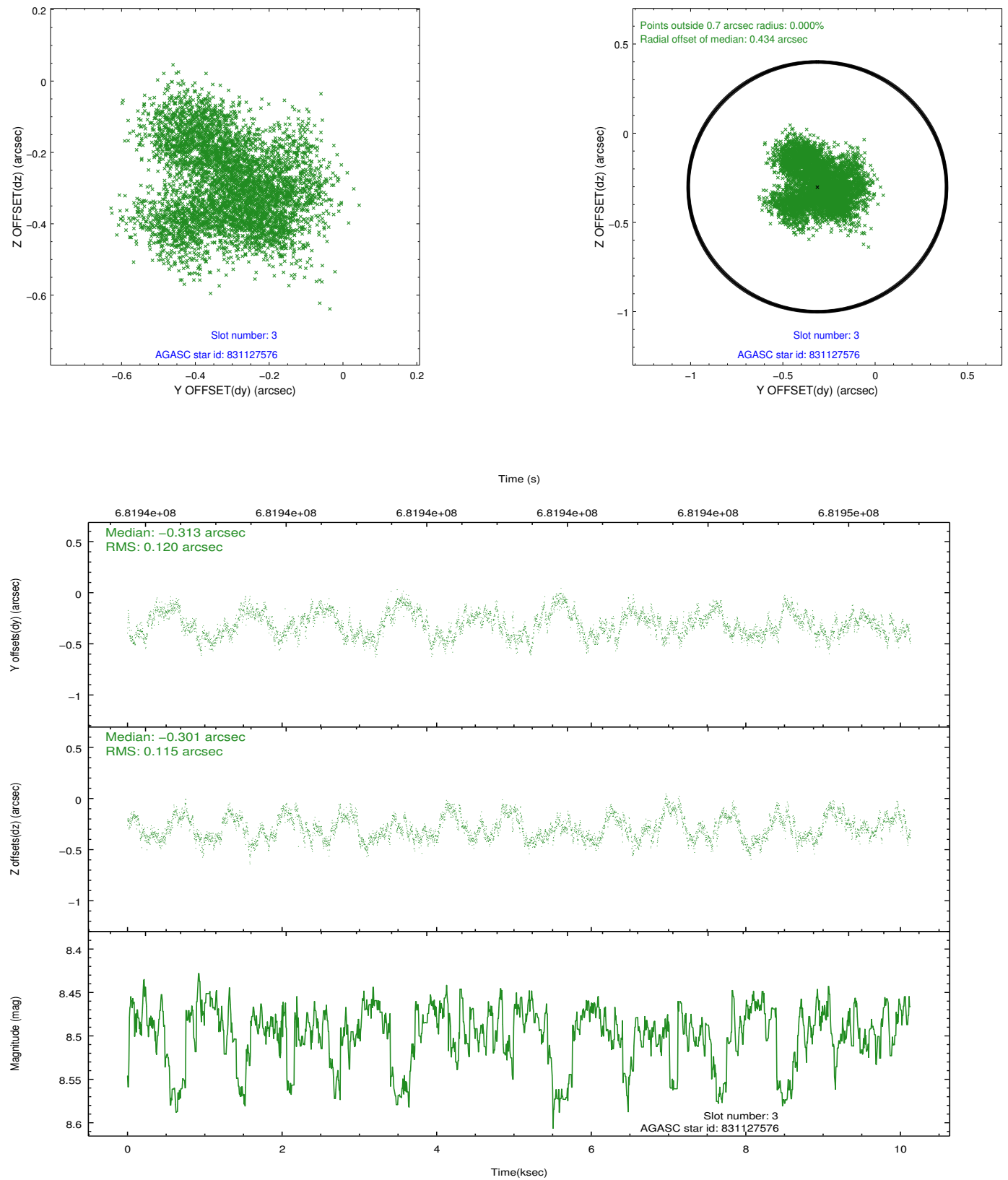


Slot Statistics

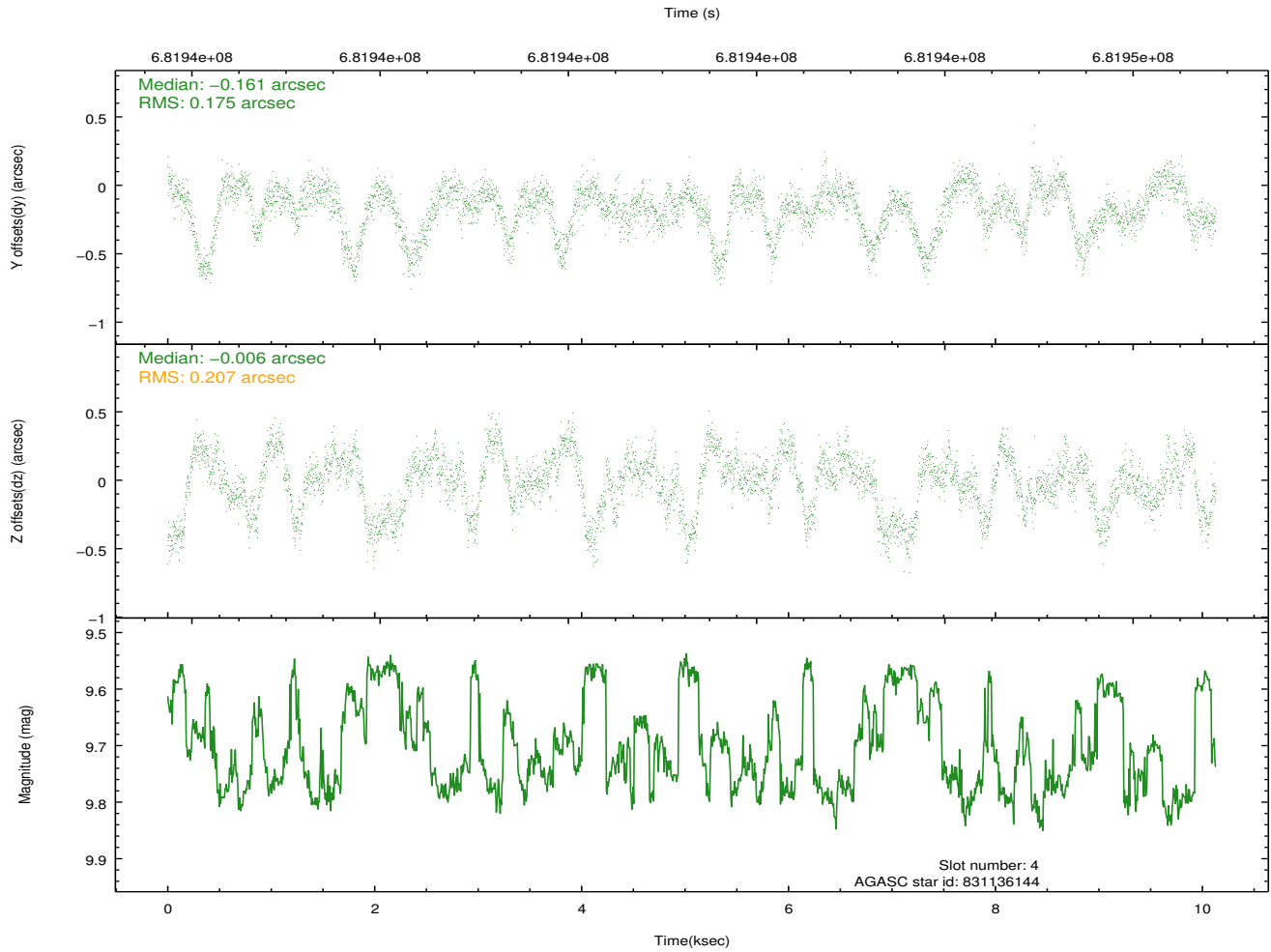
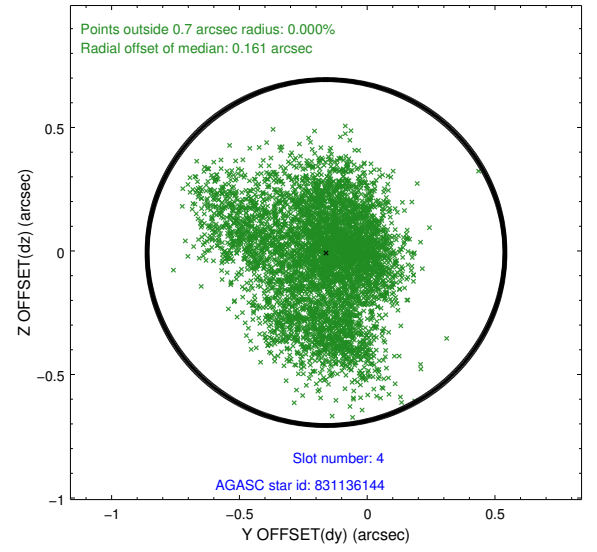
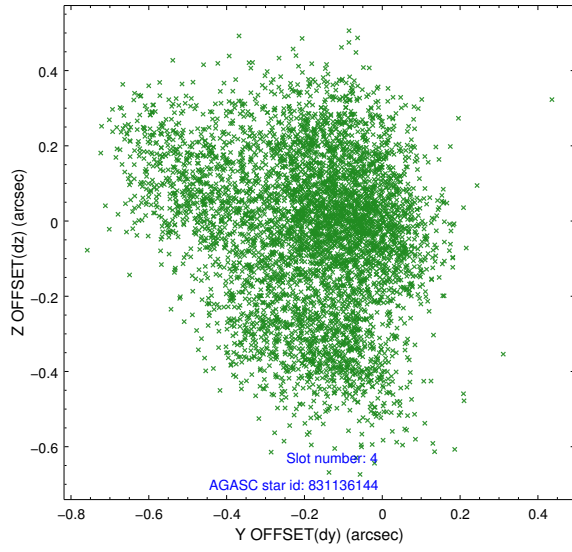
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.01	2470	1.000	-0.310	-0.269	0.018	0.032	0.000000	0.000000	-772.18	-1743
1	FID		ACIS-S-4	7.12	2470	1.000	0.749	0.222	0.017	0.029	0.000000	0.000000	2141.88	164
2	FID		ACIS-S-5	7.09	2470	1.000	-0.474	0.058	0.013	0.022	0.000000	0.000000	-1824.55	158
3	GUIDE	used	831127576	8.49	4939	1.000	-0.313	-0.301	0.185	0.269	307.022108	-22.023331	1800.39	76
4	GUIDE	used	831136144	9.72	4932	1.000	-0.161	-0.006	0.294	0.465	306.749413	-21.537520	-172.00	94
5	GUIDE	used	831136840	8.75	4935	1.000	0.055	0.122	0.138	0.215	306.632359	-21.915798	846.71	-889
6	GUIDE	used	831137584	8.25	4940	1.000	0.218	0.086	0.114	0.182	306.388453	-21.660991	-345.14	-1180
7	GUIDE	used	831138296	9.22	4931	1.000	0.244	0.112	0.266	0.370	306.373725	-21.487261	-920.89	-932

## 2.4 Star Slots

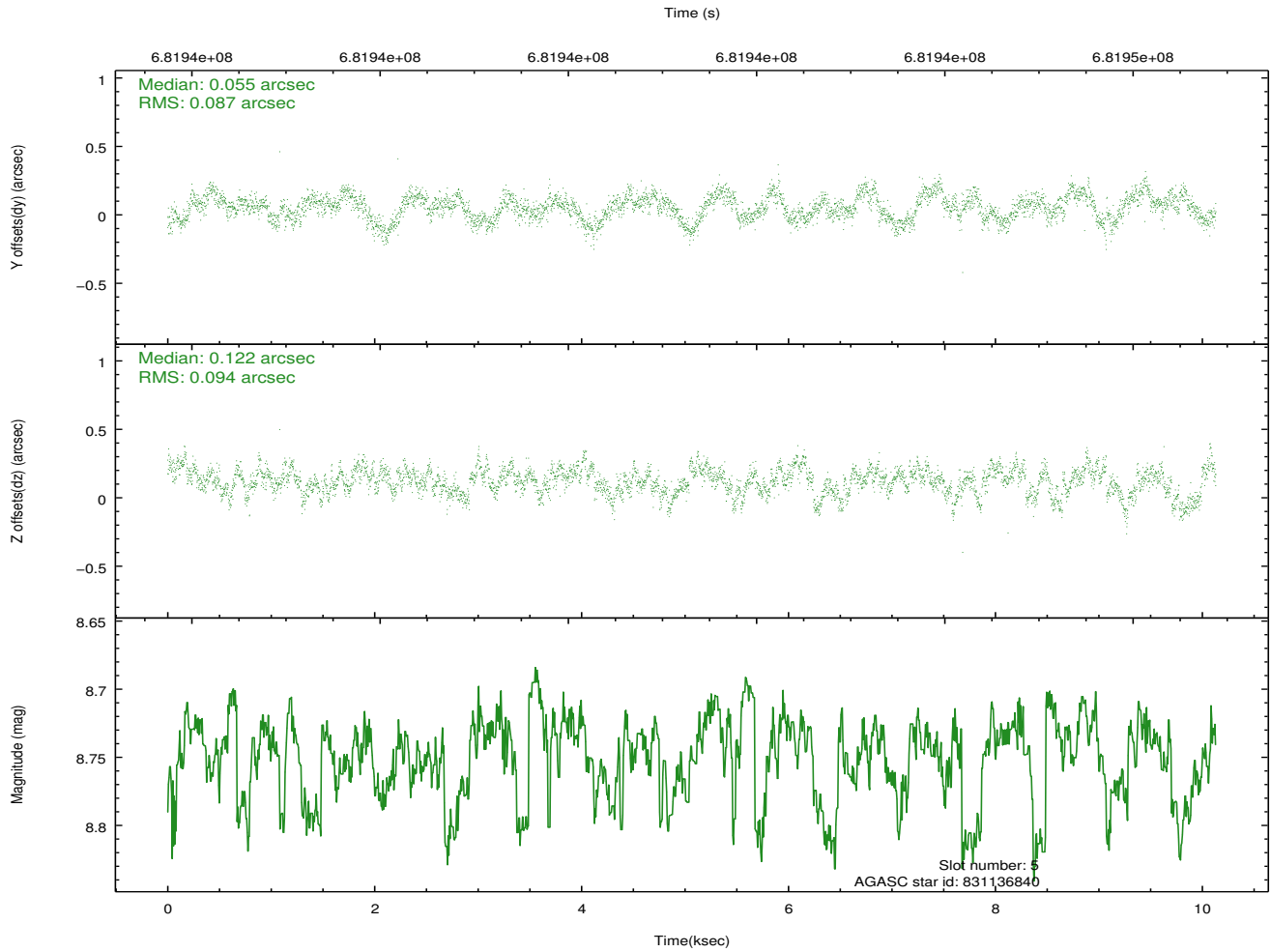
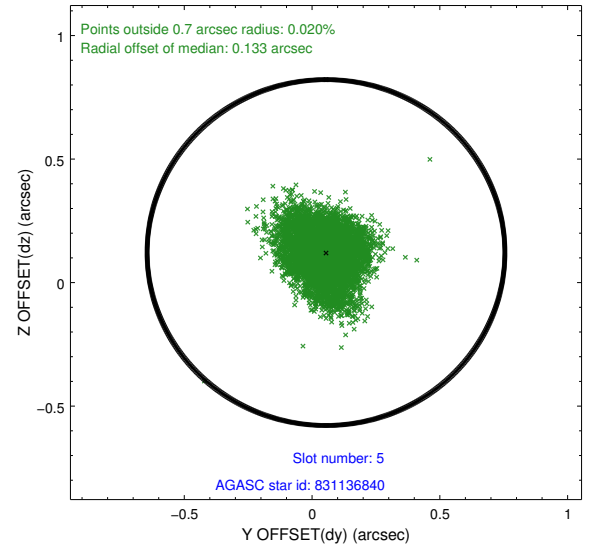
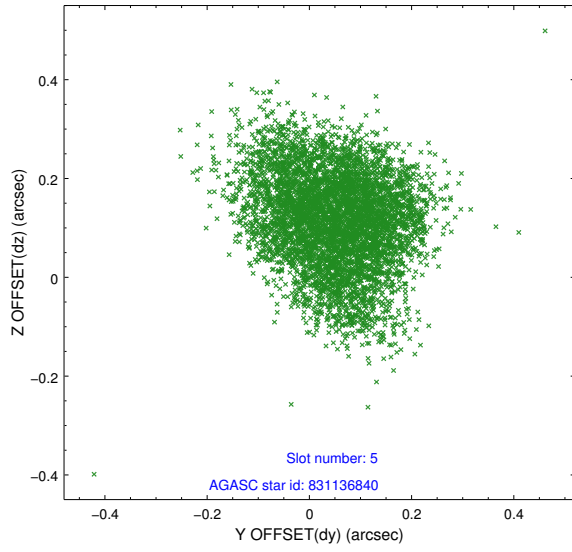
### 2.4.1 Slot 3



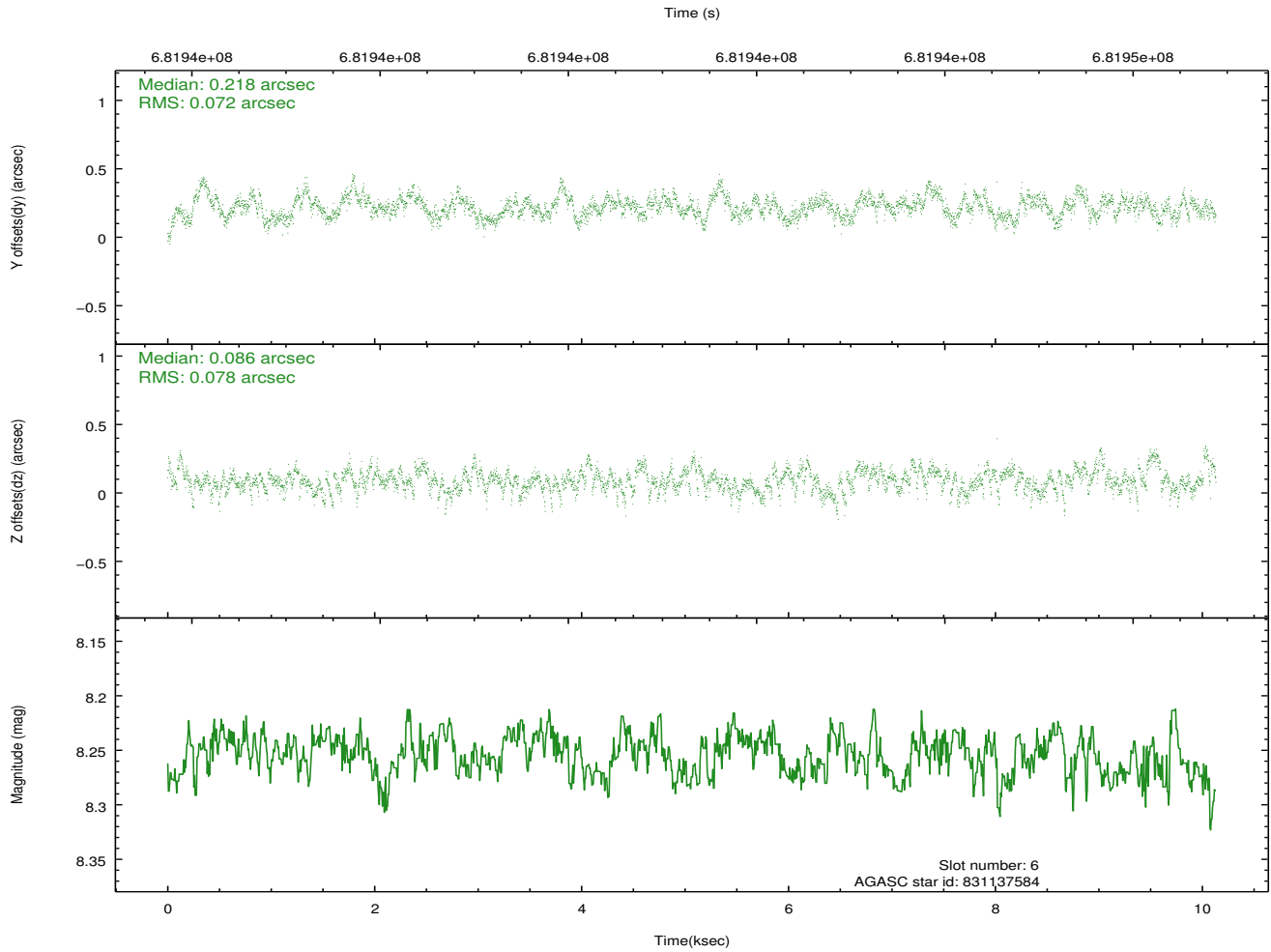
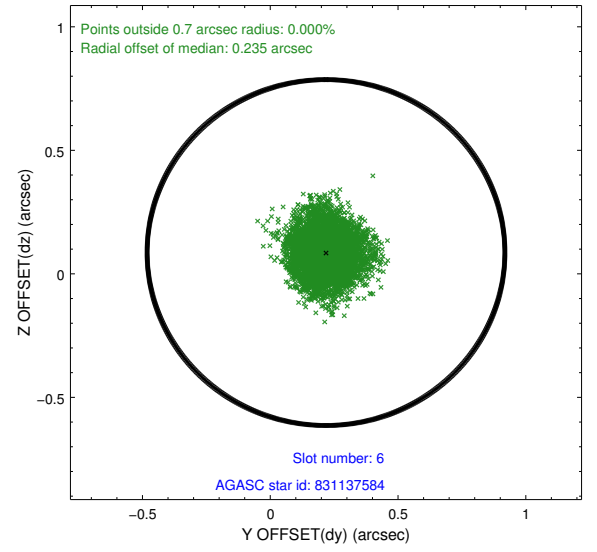
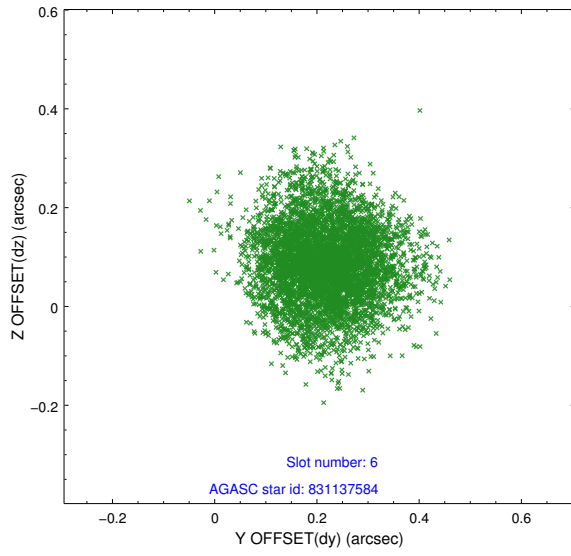
## 2.4.2 Slot 4



### 2.4.3 Slot 5

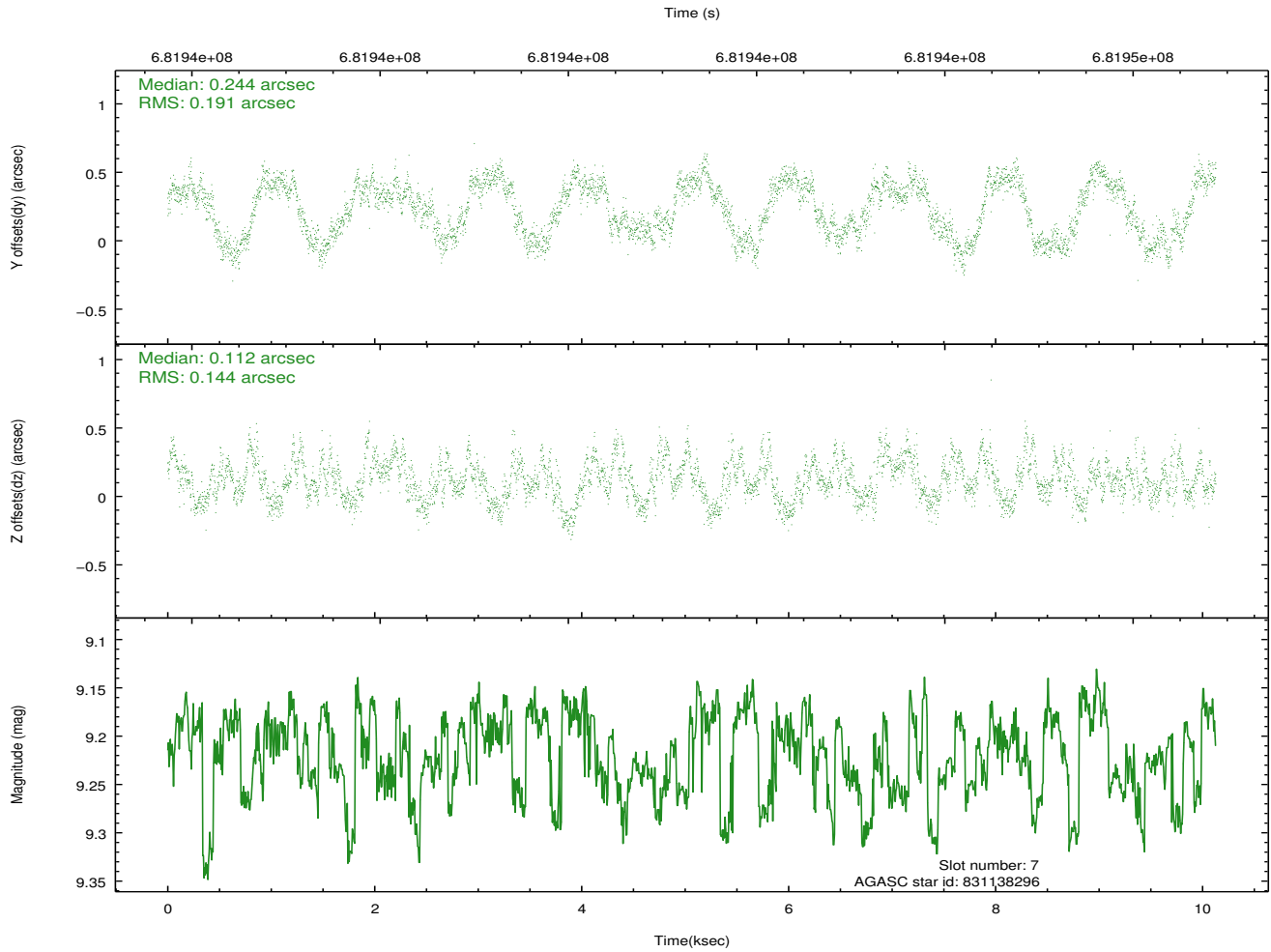
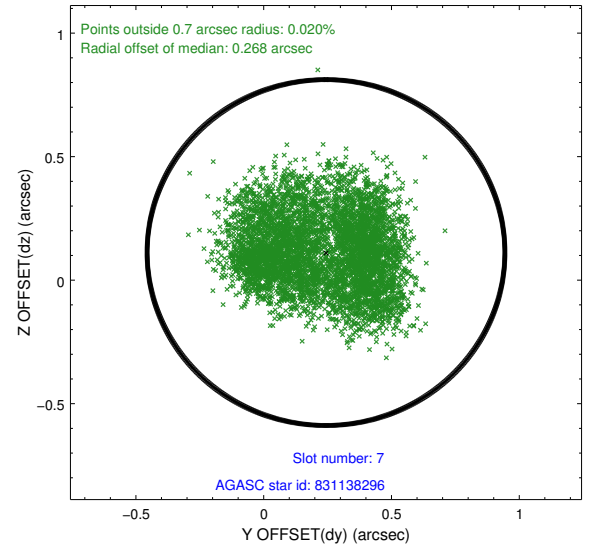
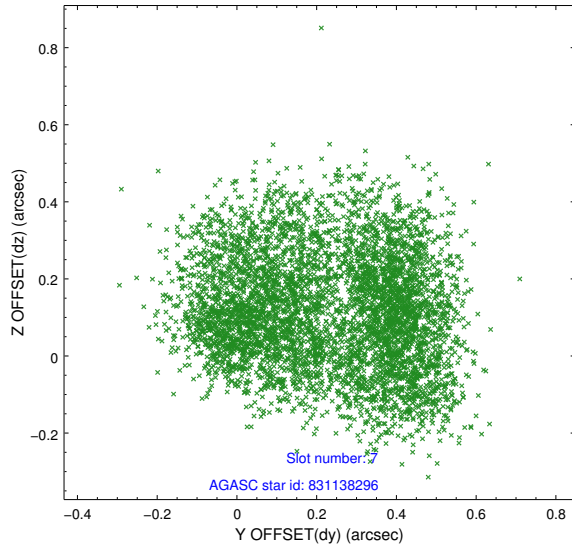


## 2.4.4 Slot 6



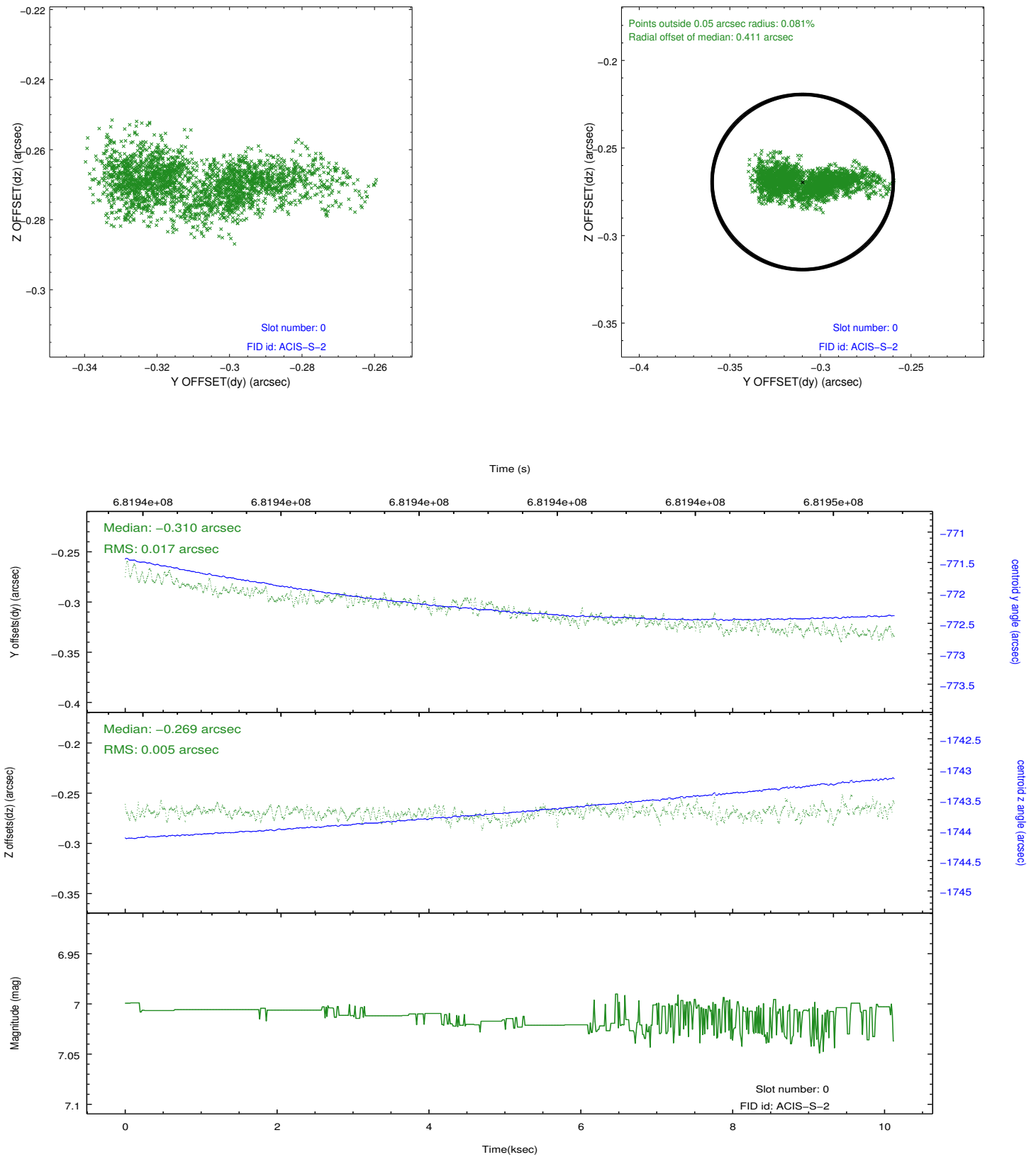


## 2.4.5 Slot 7

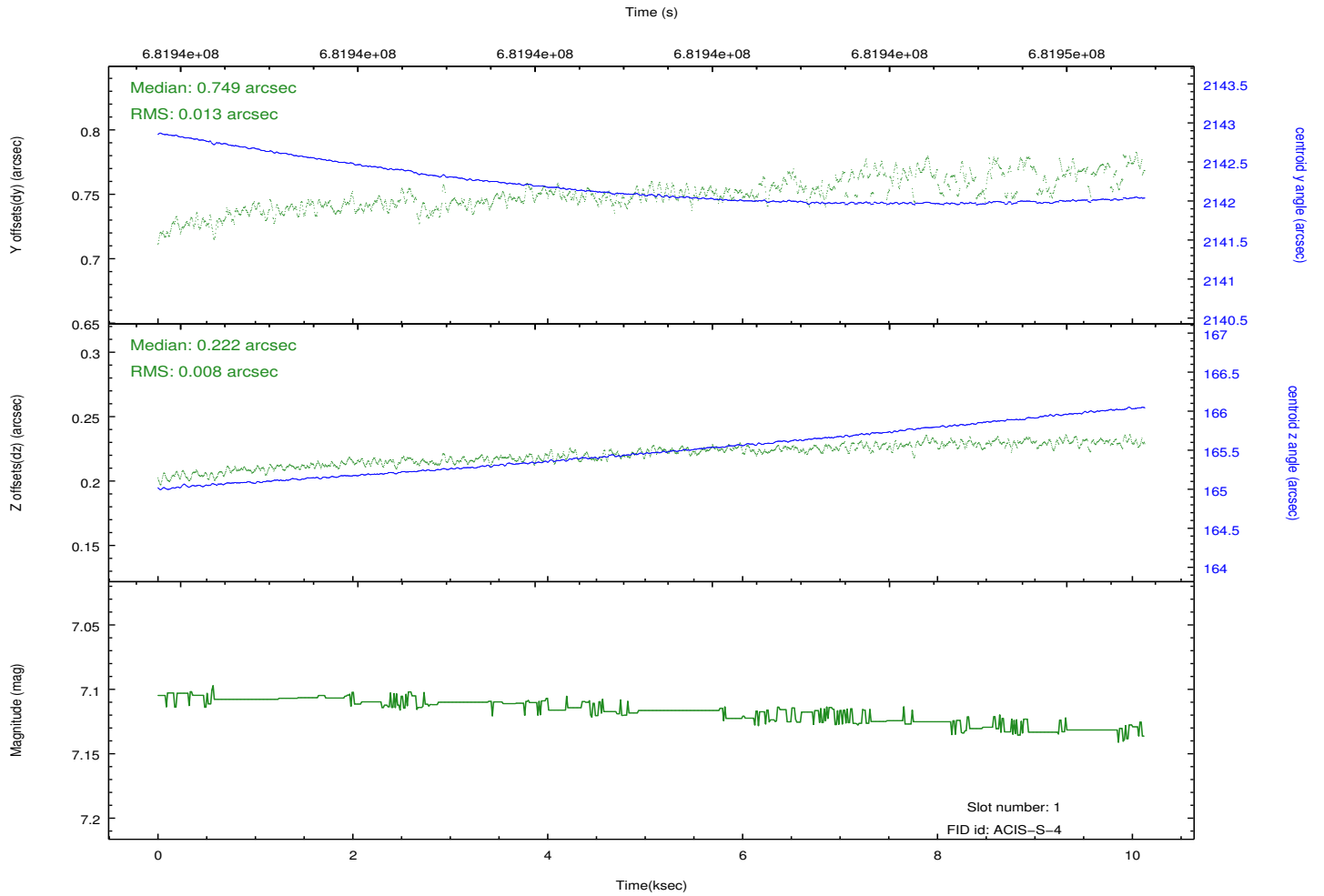
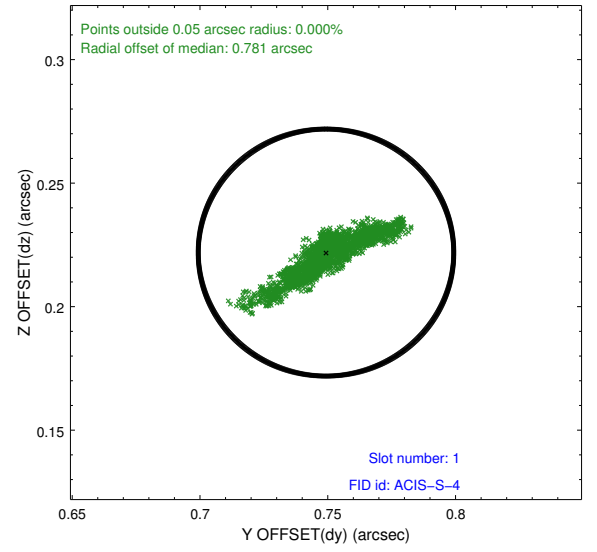
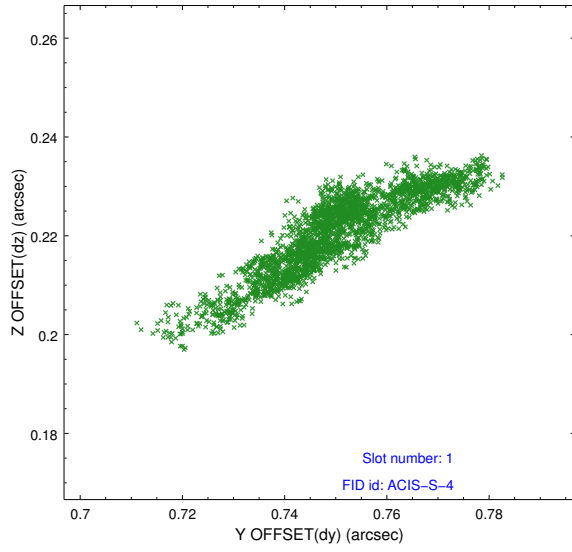


## 2.5 FID Slots

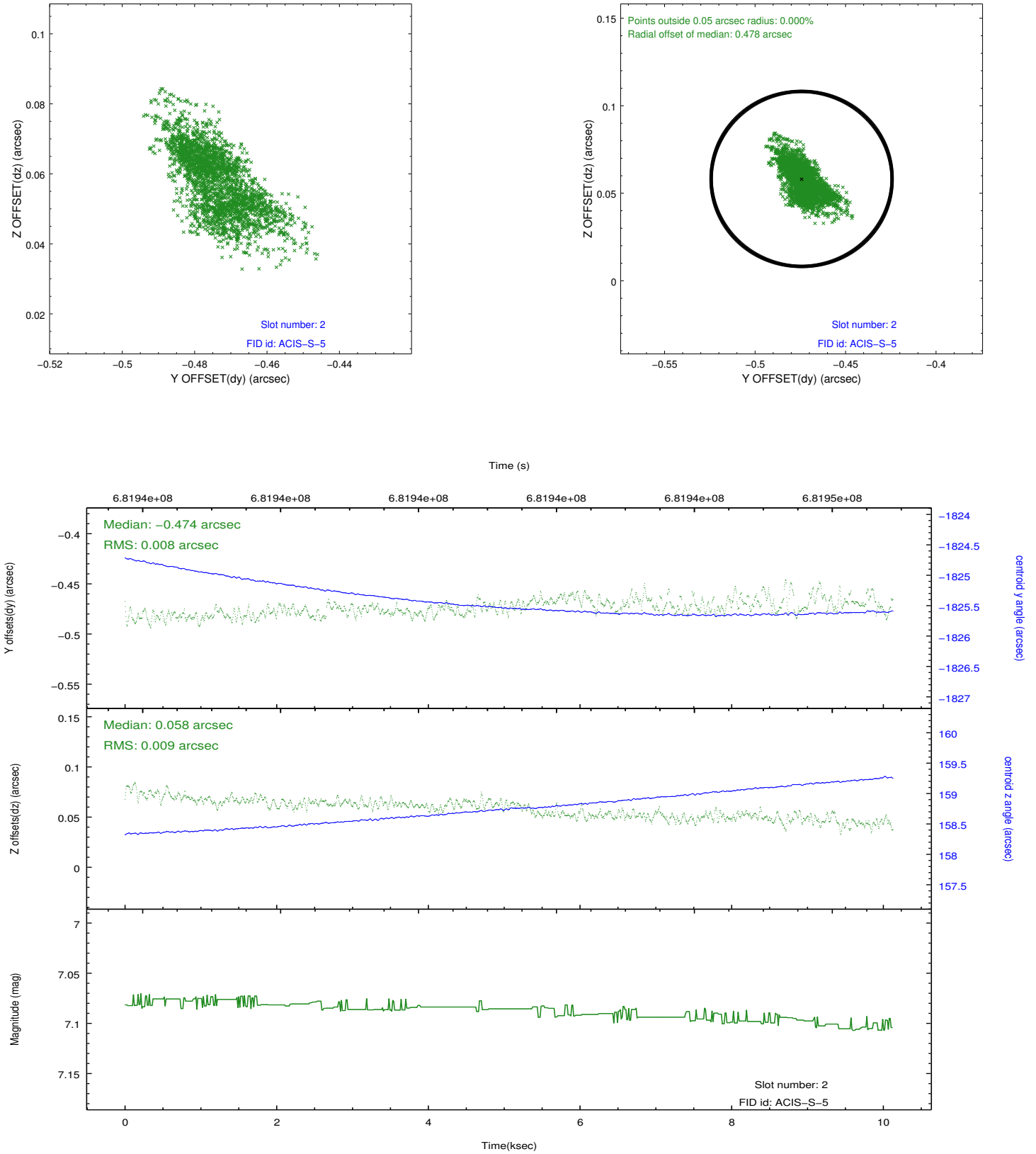
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.08.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.103358692288

### A.2 Comments