

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21635 - L2 Version 1  
Chandra X-Ray Center

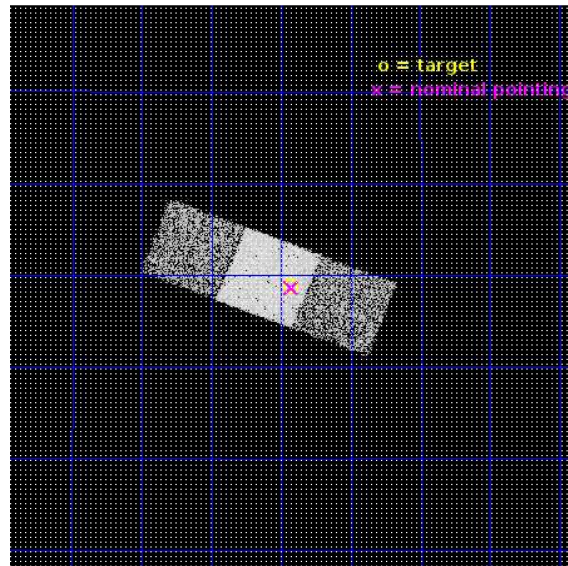
L2 Processing Date : May 2 2019

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# 1 Front

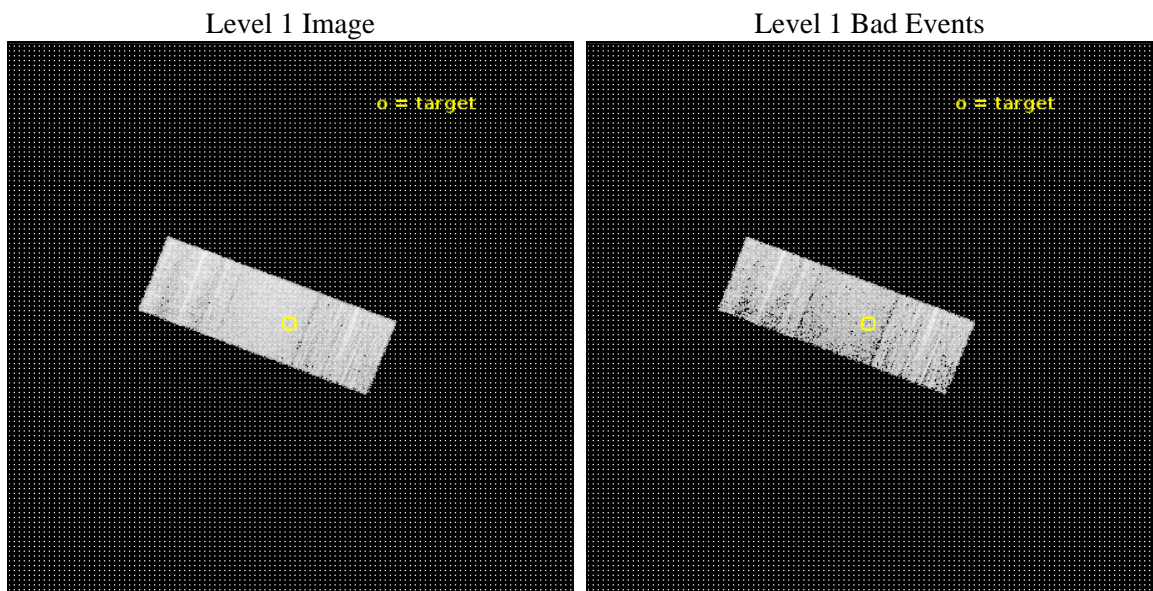
seq_num	402106	Sequence number
obs_id	21635	Observation id
title	Periodic self-lensing from accreting supermassive black hole binaries	Proposal title
observer	Daniel D'Orazio	Principal investigator
object	SDSS_J135225.80+132853.2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	208.1075	Observer's specified target RA [deg]
dec_targ	13.481472	Observer's specified target Dec [deg]
ra_nom	208.10681593225	Nominal RA [deg]
dec_nom	13.477212232986	Nominal Dec [deg]
roll_nom	201.15685524708	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5074.7000391483	Sum of GTIs [s]
livetime	5008.395347197	Livetime [s]
ontime6	5074.6939182281	Sum of GTIs [s]
ontime7	5074.7000391483	Sum of GTIs [s]
ontime8	5074.6528781652	Sum of GTIs [s]
l2events	28912	Number of level 2 events



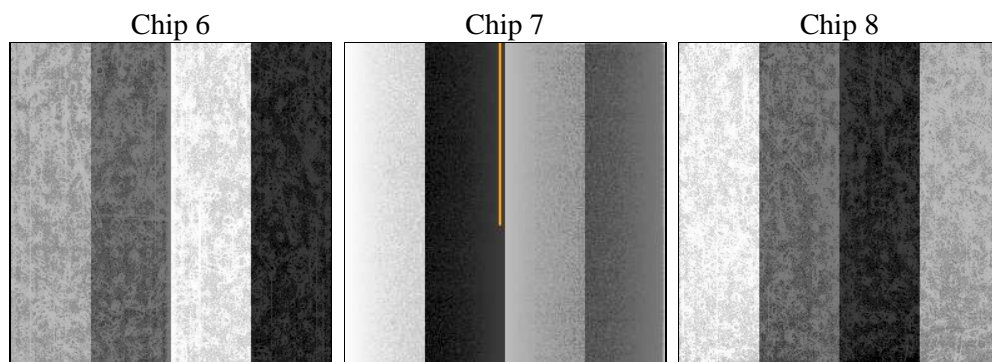
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	5074.7000391483	Sum of GTIs [s]
caldbver	4.8.2	&#160	ontime6	5074.6939182281	Sum of GTIs [s]
date	2019-05-03T01:10:53	Date and time of file creation	ontime7	5074.7000391483	Sum of GTIs [s]
revision	1	Processing version of data	ontime8	5074.6528781652	Sum of GTIs [s]
			l1events	141250	Number of level 1 events

### 2.1.4 Events

	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	40984	49959	50307
rejected events	36466	28491	37163
rejected %	88%	57%	73%

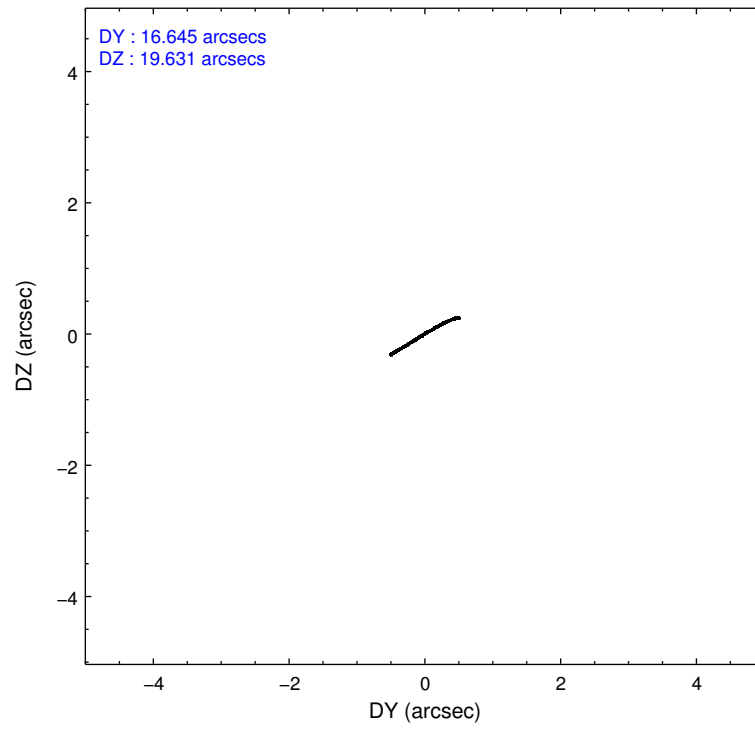
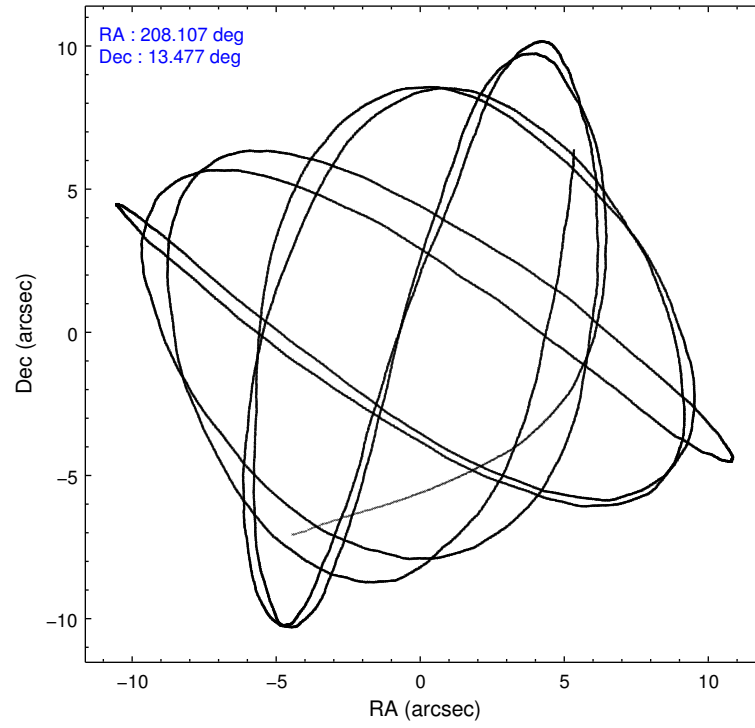
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	1401	1791	3375
	3%	3%	6%
grade 1 events	21	80	39
	0%	0%	0%
grade 2 events	1164	4540	3383
	2%	9%	6%
grade 3 events	420	1688	1262
	1%	3%	2%
grade 4 events	378	1619	1098
	0%	3%	2%
grade 5 events	1723	4774	2692
	4%	9%	5%
grade 6 events	1161	11835	4033
	2%	23%	8%
grade 7 events	34716	23632	34425
	84%	47%	68%

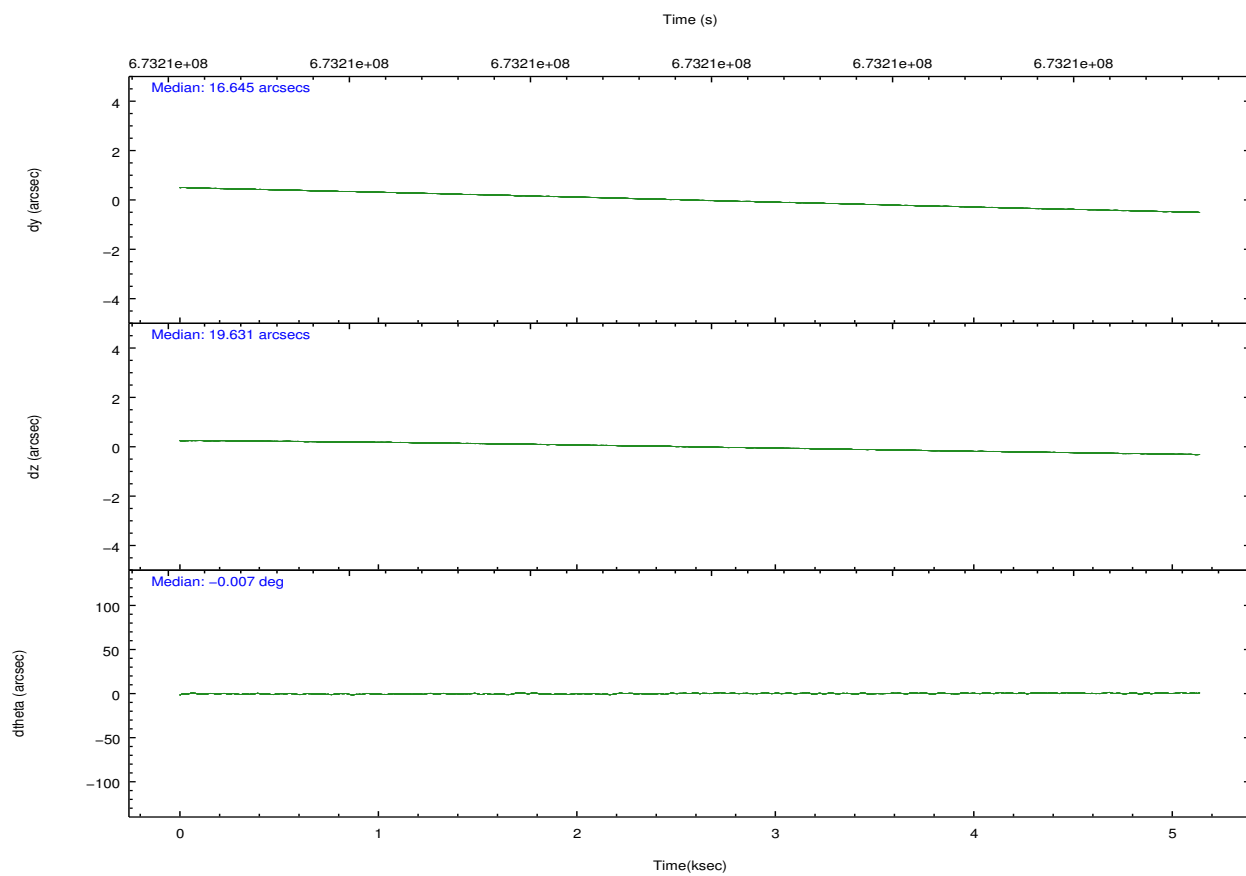
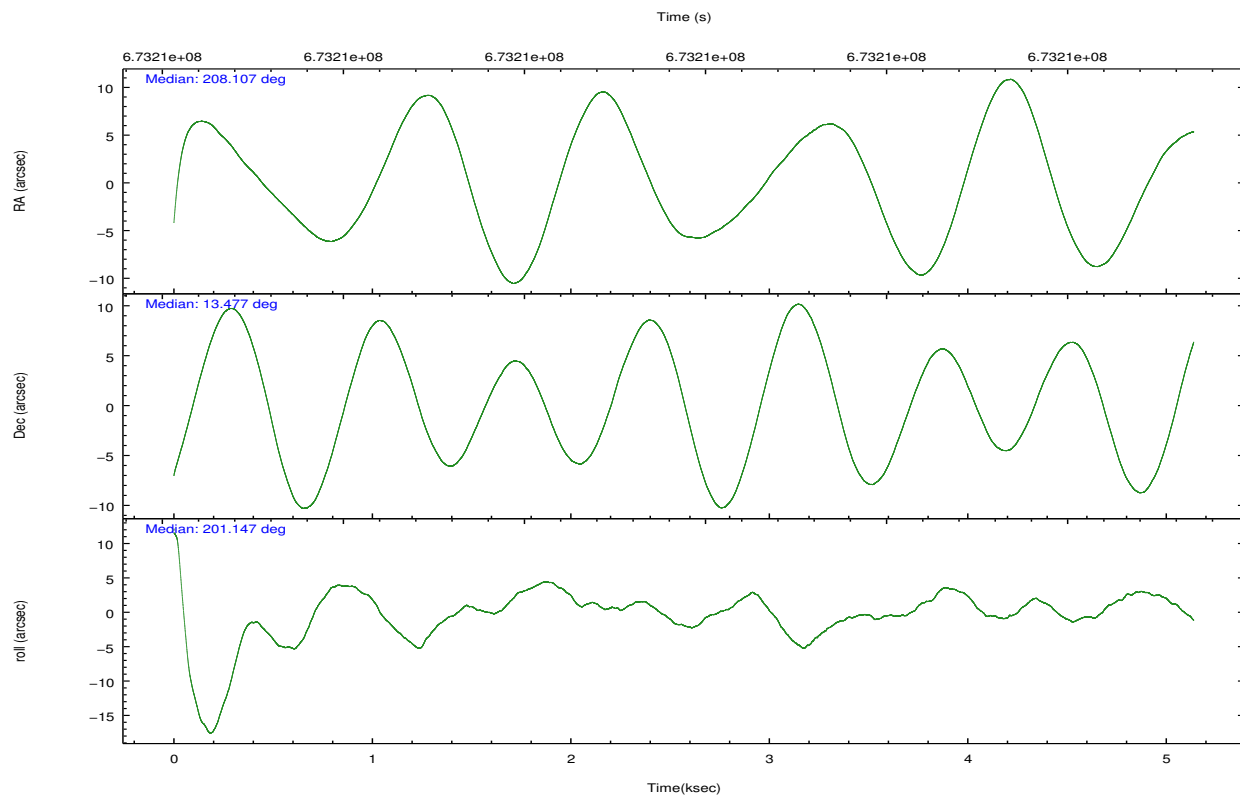


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	208.124184	208.106815932255	Subarray requested	NONE	NONE
[deg] Pointing Dec	13.498848	13.47721223298551	Alternating exposures requested	N	N
[deg] Pointing Roll	200.996106	201.1568552470777	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	673056069.184000	673056069.184000			
[s] Window stop time (MET)	678326469.184000	678326469.184000			
[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)	673208442.184000	673207140.47857			
Observation start date	2019-05-02T18:19:33	2019-05-02T17:59:00			
[s] Observation end time (MET)	673213442.184000	673214323.679			
Observation end date	2019-05-02T19:42:53	2019-05-02T19:58:43			
Read mode	TIMED	TIMED			

## 2.3 Aspect



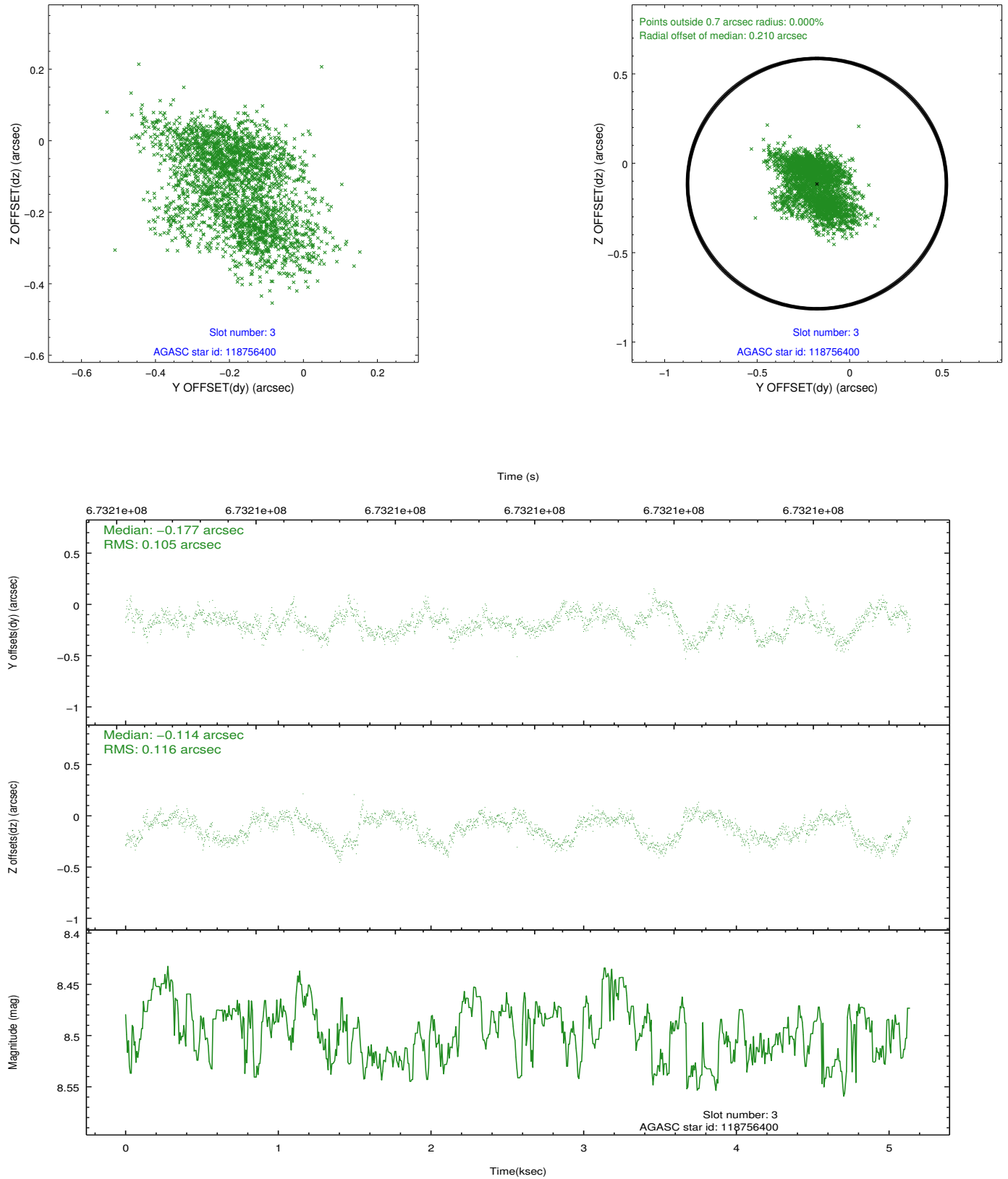


Slot Statistics

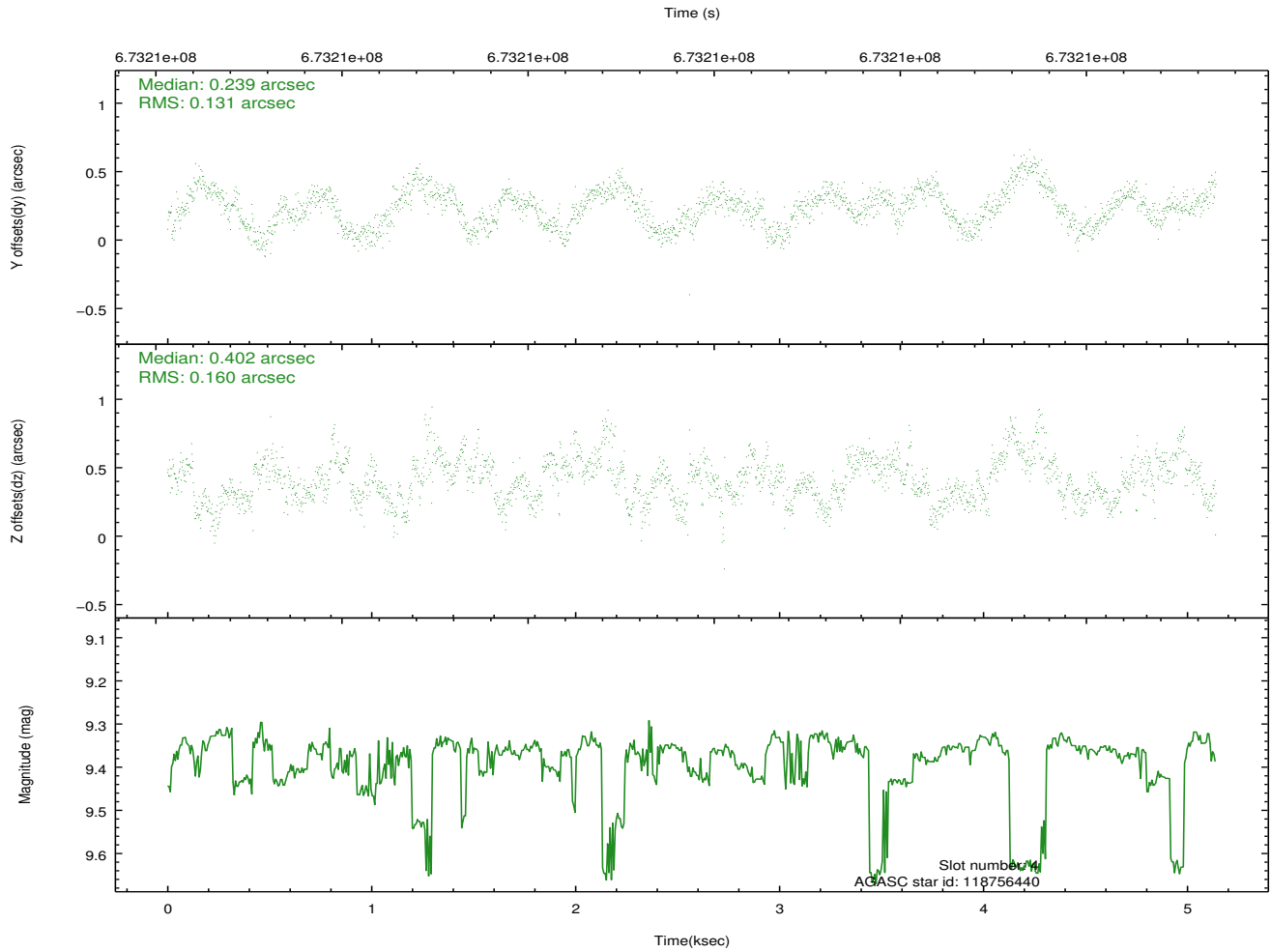
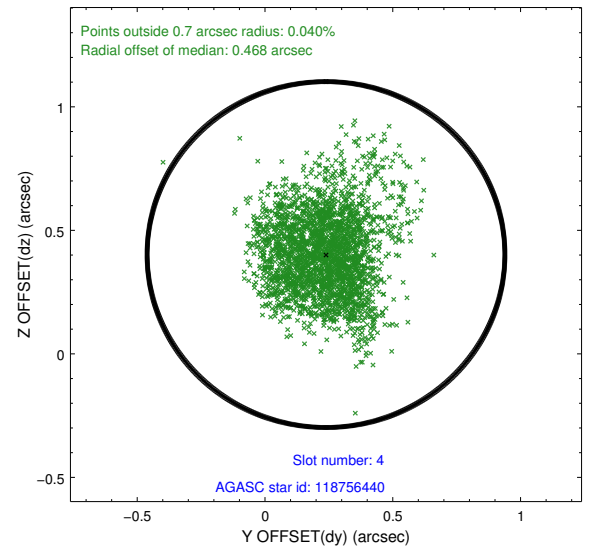
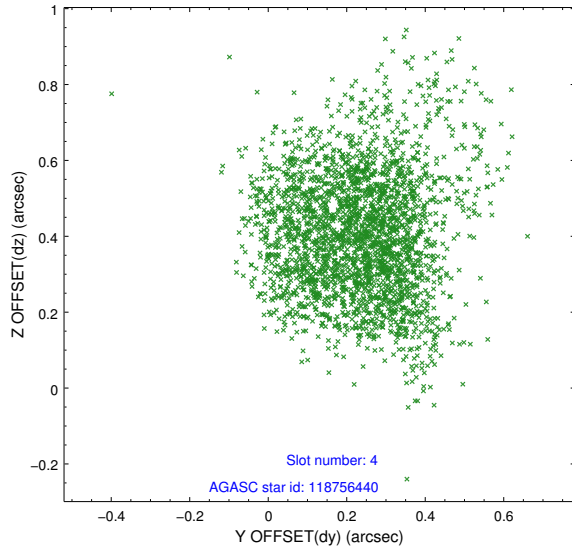
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.08	1254	1.000	-0.349	-0.222	0.009	0.015	0.000000	0.000000	-769.92	-1741
1	FID		ACIS-S-4	7.20	1254	1.000	0.815	0.228	0.008	0.015	0.000000	0.000000	2143.89	166
2	FID		ACIS-S-5	7.16	1254	1.000	-0.498	0.003	0.007	0.012	0.000000	0.000000	-1821.49	161
3	GUIDE	used	118756400	8.50	2506	1.000	-0.177	-0.114	0.167	0.269	207.523207	13.487281	1978.29	-716
4	GUIDE	used	118756440	9.37	2502	1.000	0.239	0.402	0.218	0.363	207.948586	14.056464	-145.29	-2093
5	GUIDE	used	118757488	8.26	2506	1.000	0.164	0.397	0.134	0.205	207.988448	14.023799	-233.76	-1932
6	GUIDE	used	118757672	9.73	2502	1.000	0.042	-0.322	0.282	0.532	207.342972	13.800764	2159.11	-1997
7	GUIDE	used	118757936	9.26	2502	1.000	-0.253	-0.364	0.152	0.260	208.247938	13.052076	171.93	1653

## 2.4 Star Slots

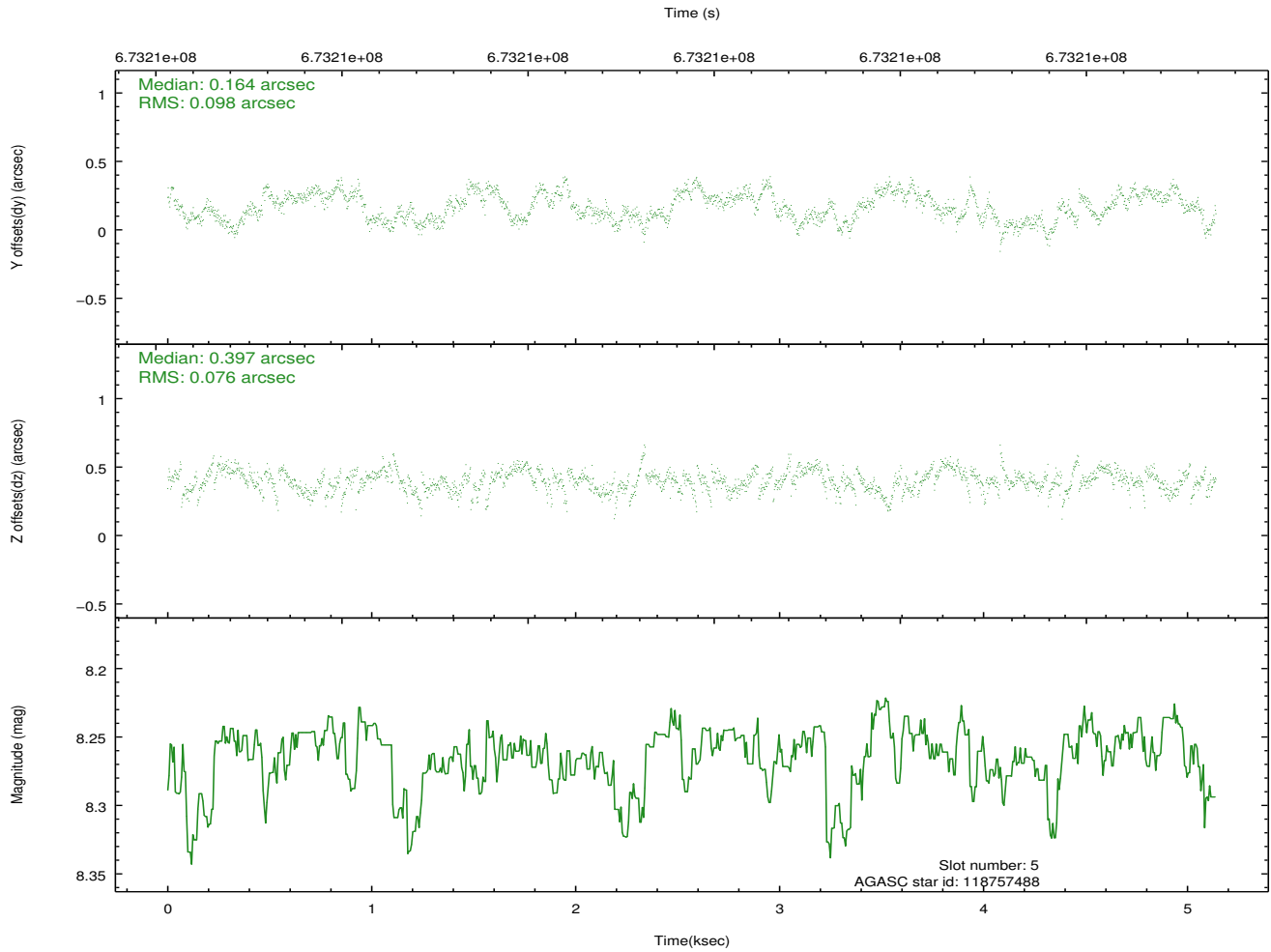
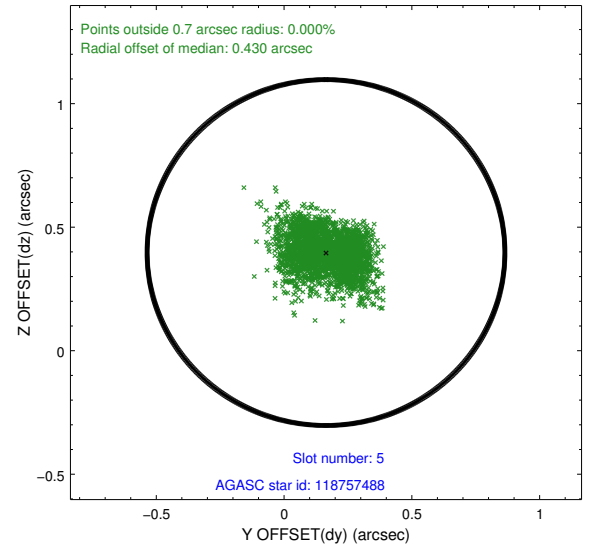
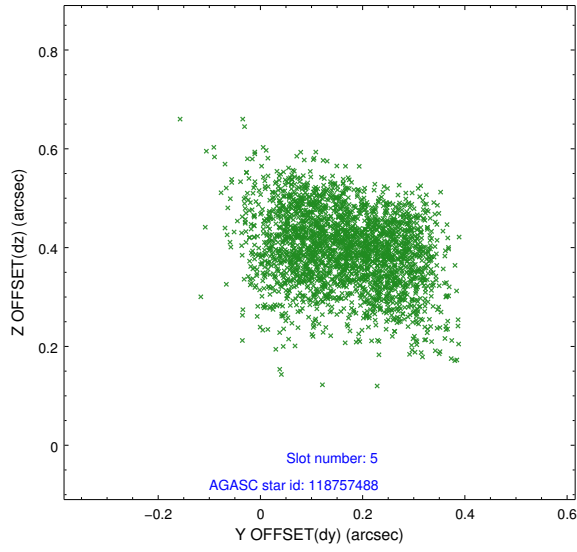
### 2.4.1 Slot 3



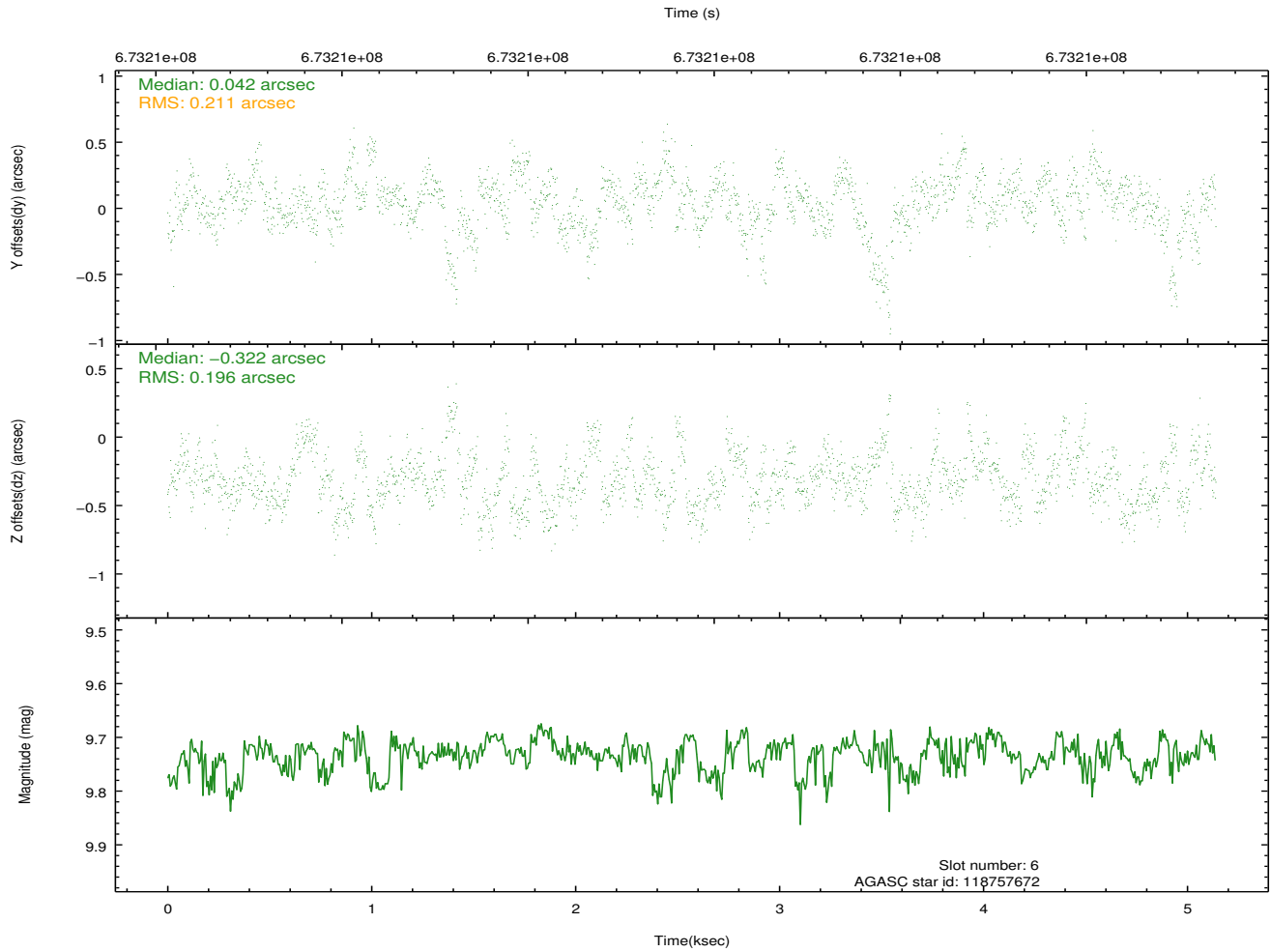
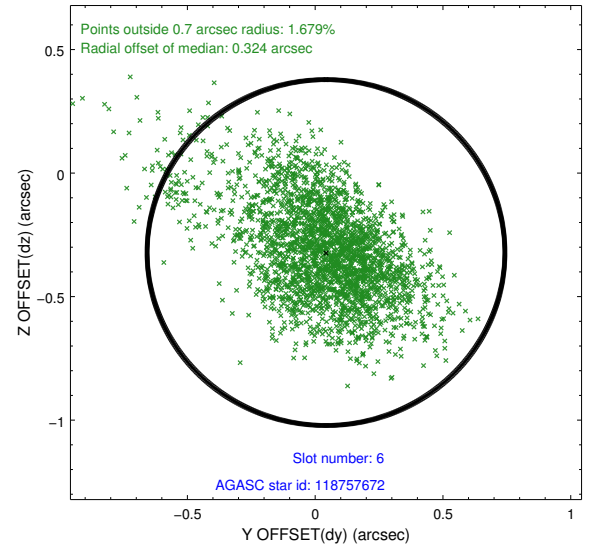
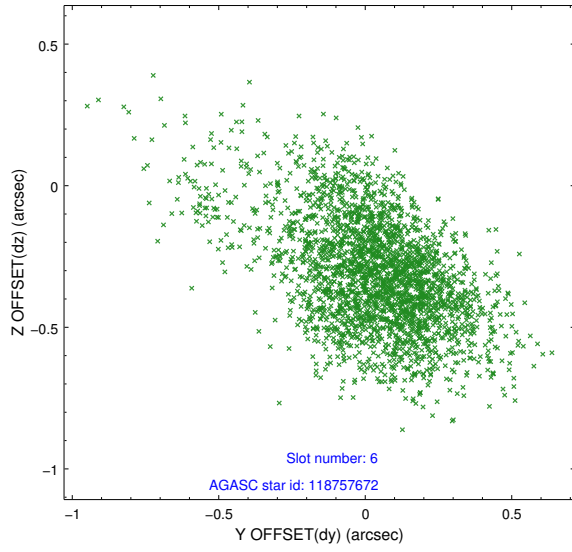
## 2.4.2 Slot 4



### 2.4.3 Slot 5

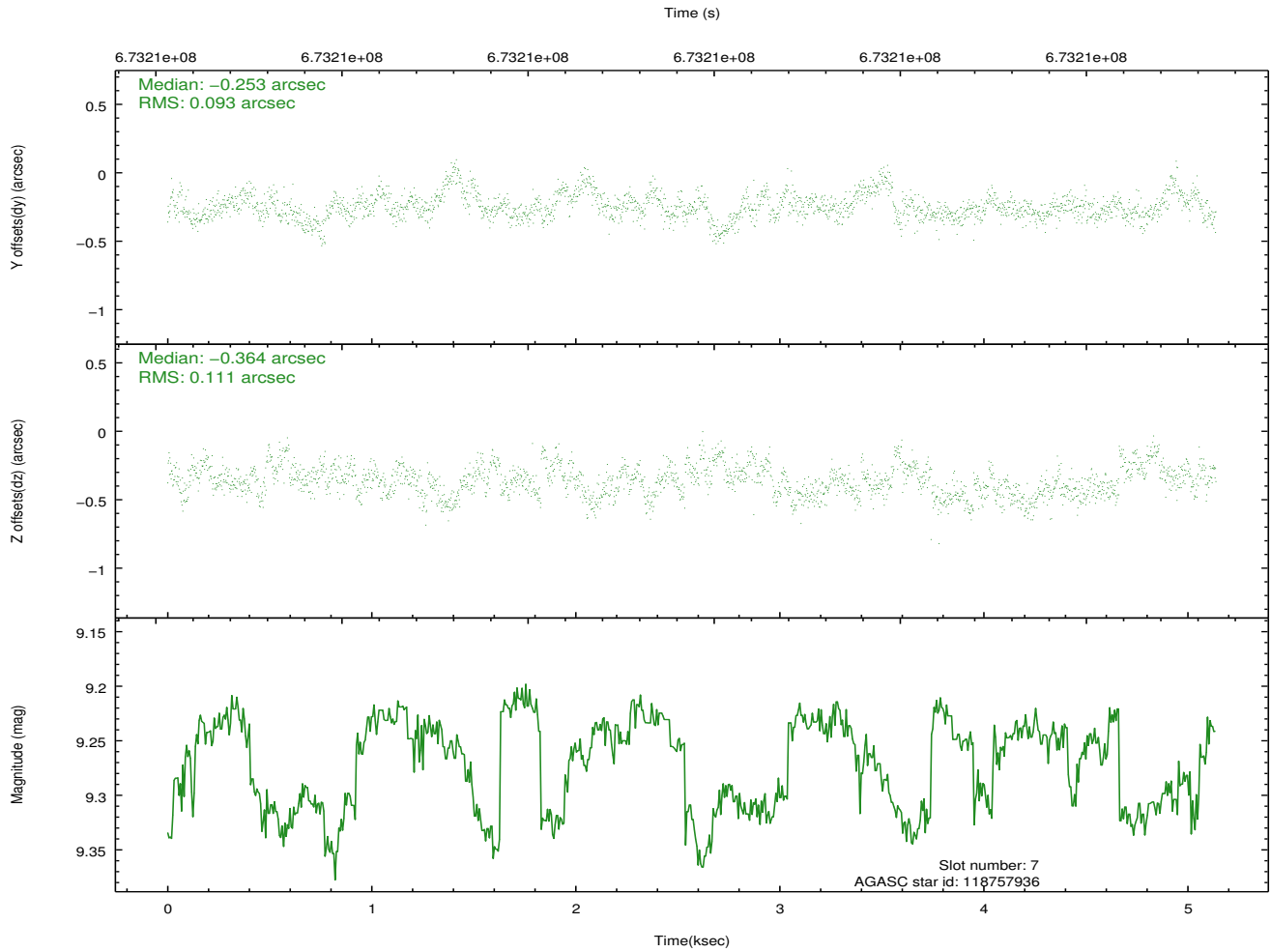
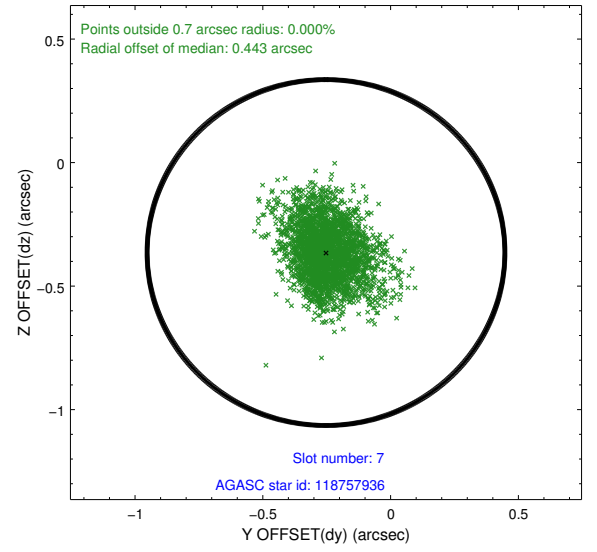
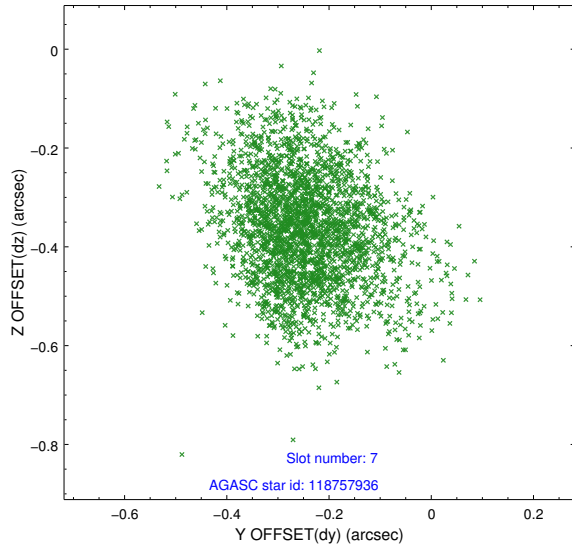


## 2.4.4 Slot 6



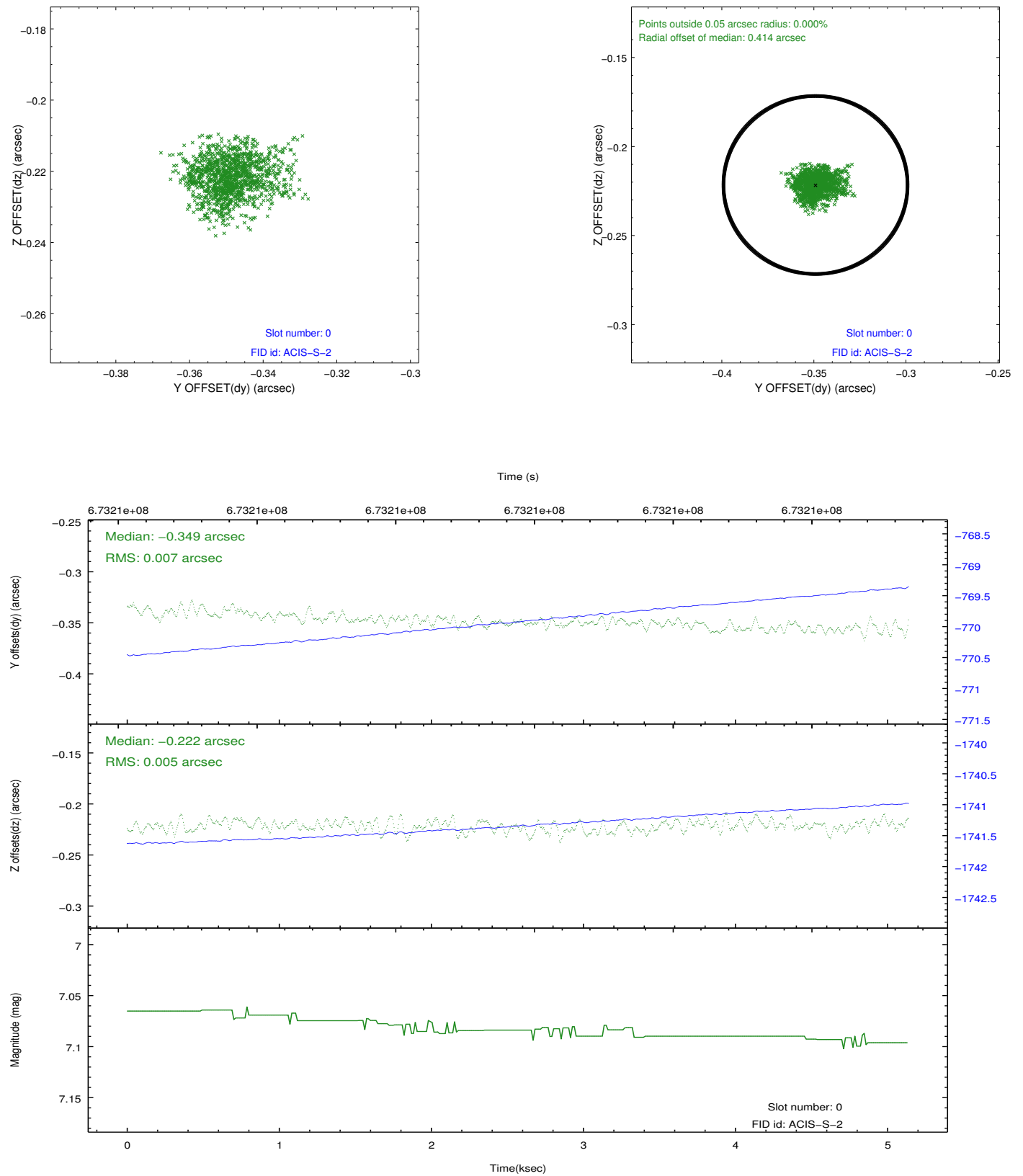


## 2.4.5 Slot 7

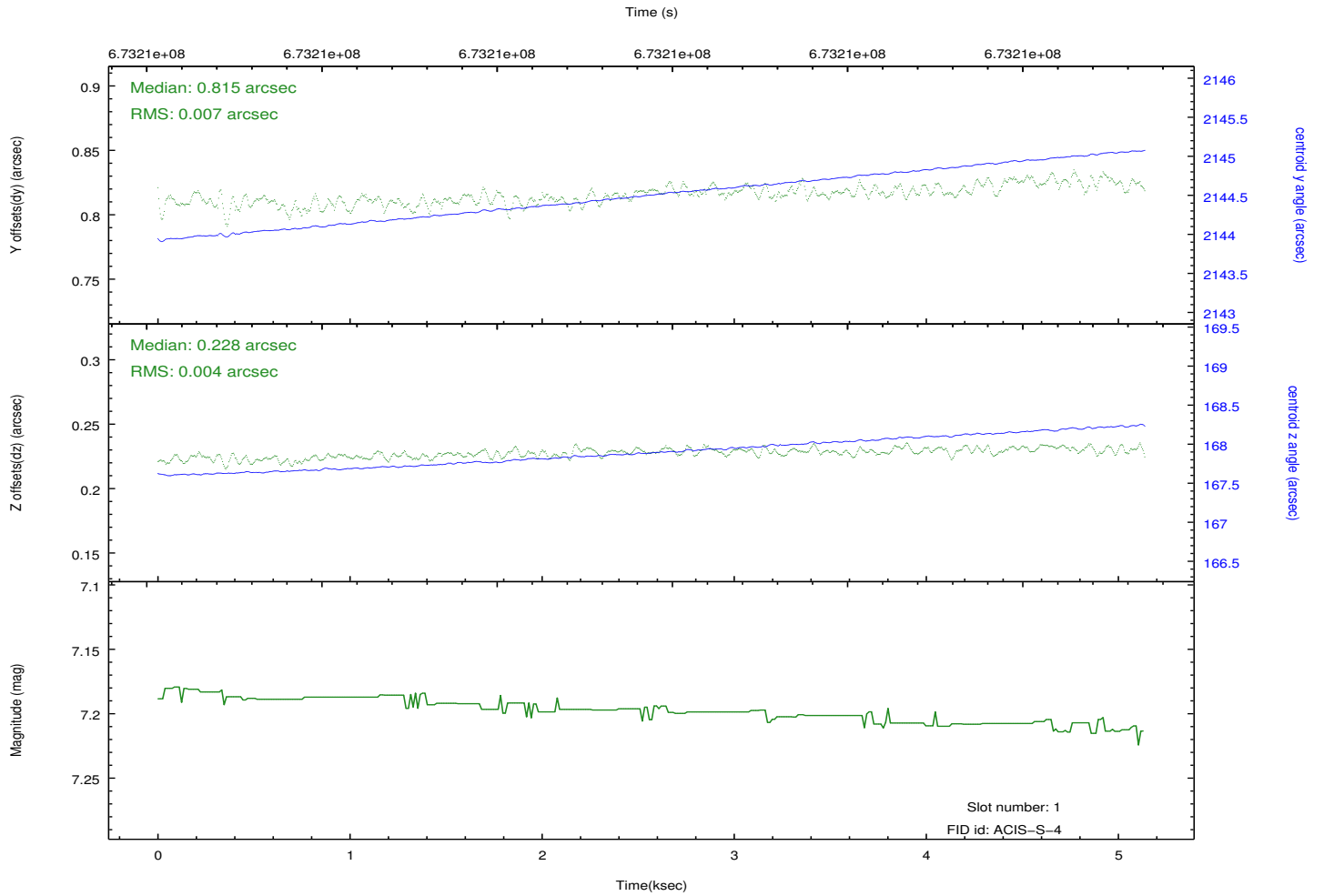
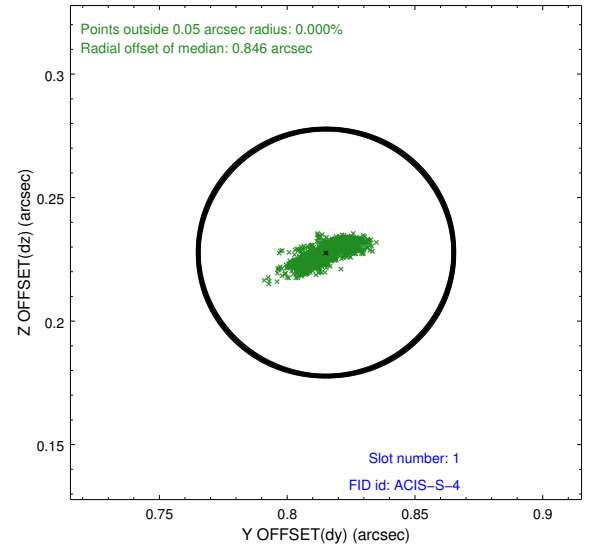
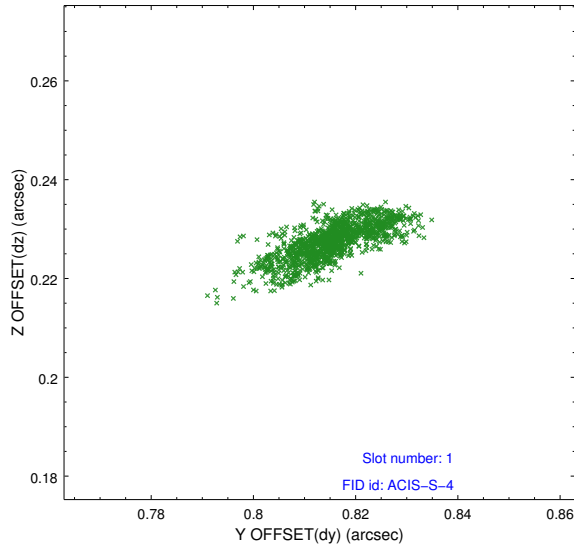


## 2.5 FID Slots

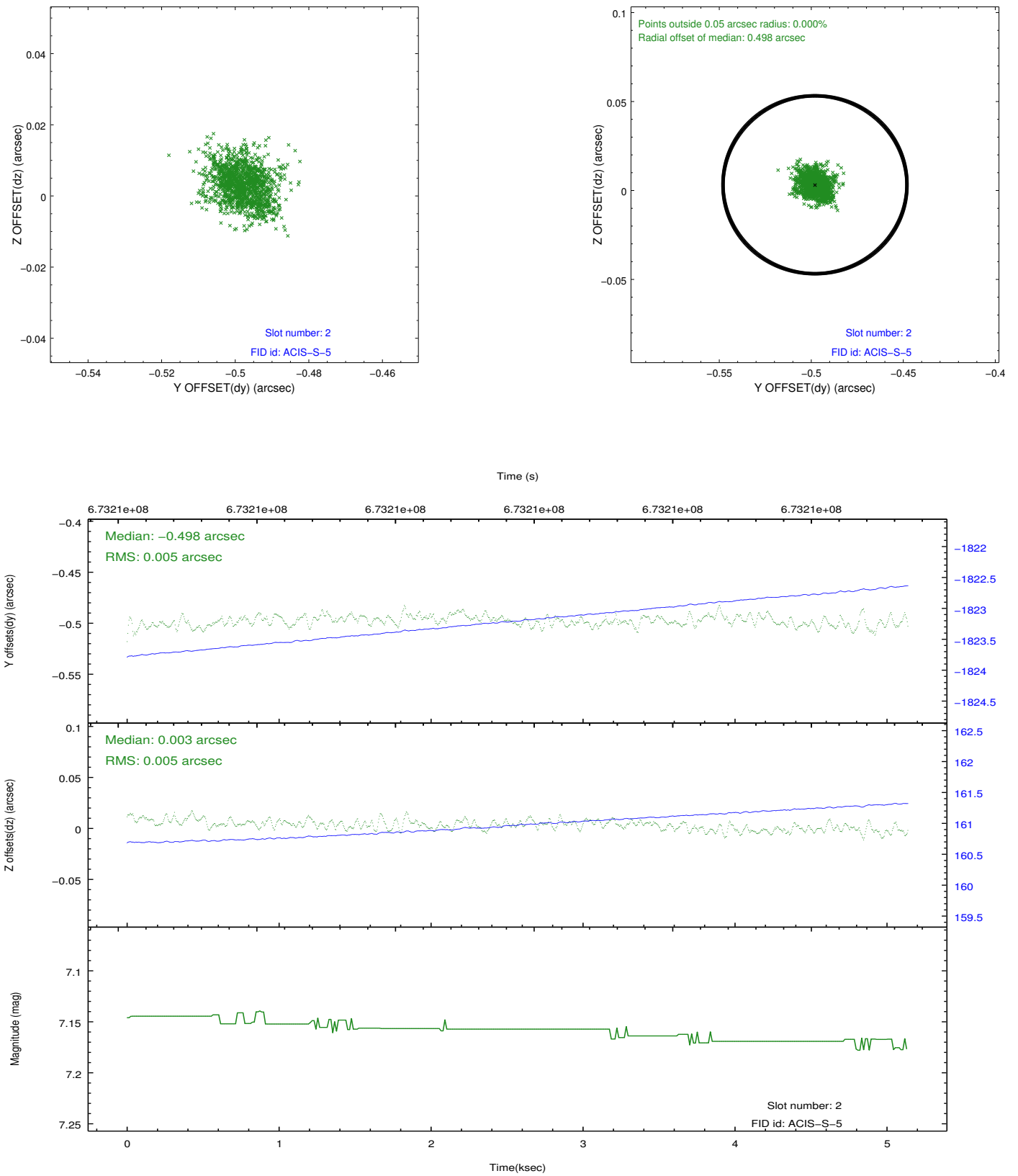
### 2.5.1 Slot 0



## 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)	2019.05.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0747000391483

### A.2 Comments

Window constraint met.