

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 18479 - L2 Version 1  
Chandra X-Ray Center

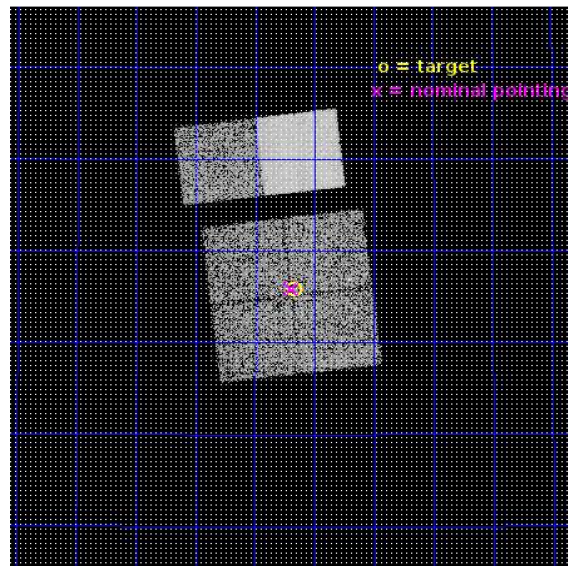
L2 Processing Date : Oct 28 2016

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# 1 Front

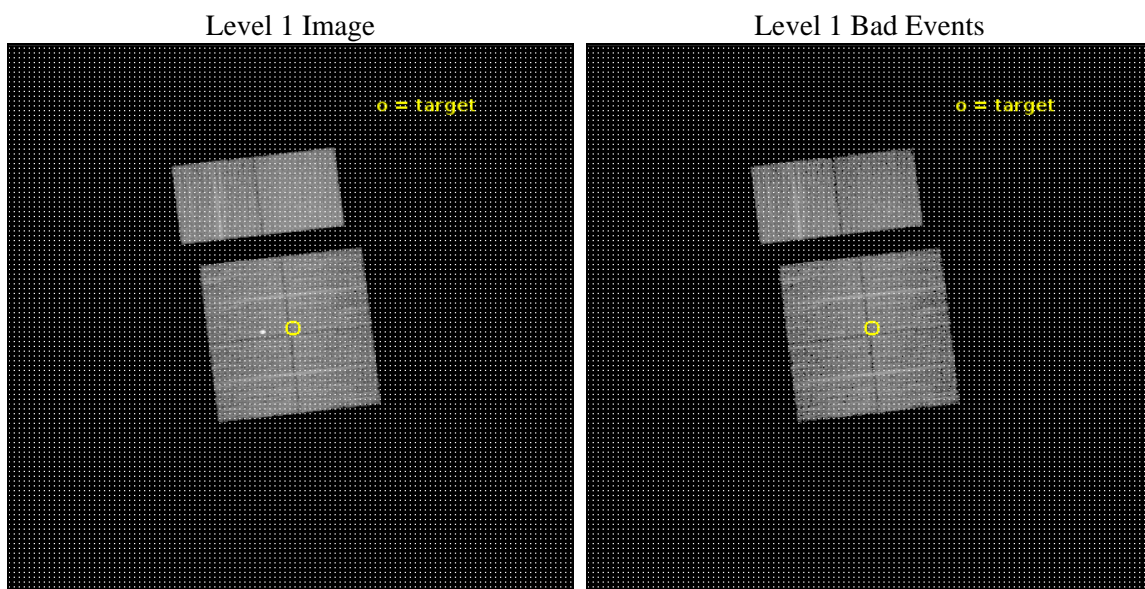
seq_num	901212	Sequence number
obs_id	18479	Observation id
title	An extended moderate-depth contiguous layer of the Chandra Bootes field	Proposal title
observer	Ralph Kraft	Principal investigator
object	Bootes Cy17-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	217.54167	Observer's specified target RA [deg]
dec_targ	33.929806	Observer's specified target Dec [deg]
ra_nom	217.54868437092	Nominal RA [deg]
dec_nom	33.931411970154	Nominal Dec [deg]
roll_nom	353.20478705869	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9939.2001481056	Sum of GTIs [s]
livetime	9813.3440111625	Livetime [s]
ontime0	9939.2001481056	Sum of GTIs [s]
ontime1	9939.2001481056	Sum of GTIs [s]
ontime2	9939.2001481056	Sum of GTIs [s]
ontime3	9939.2001481056	Sum of GTIs [s]
ontime6	9935.959097743	Sum of GTIs [s]
ontime7	9939.2001481056	Sum of GTIs [s]
l2events	65292	Number of level 2 events



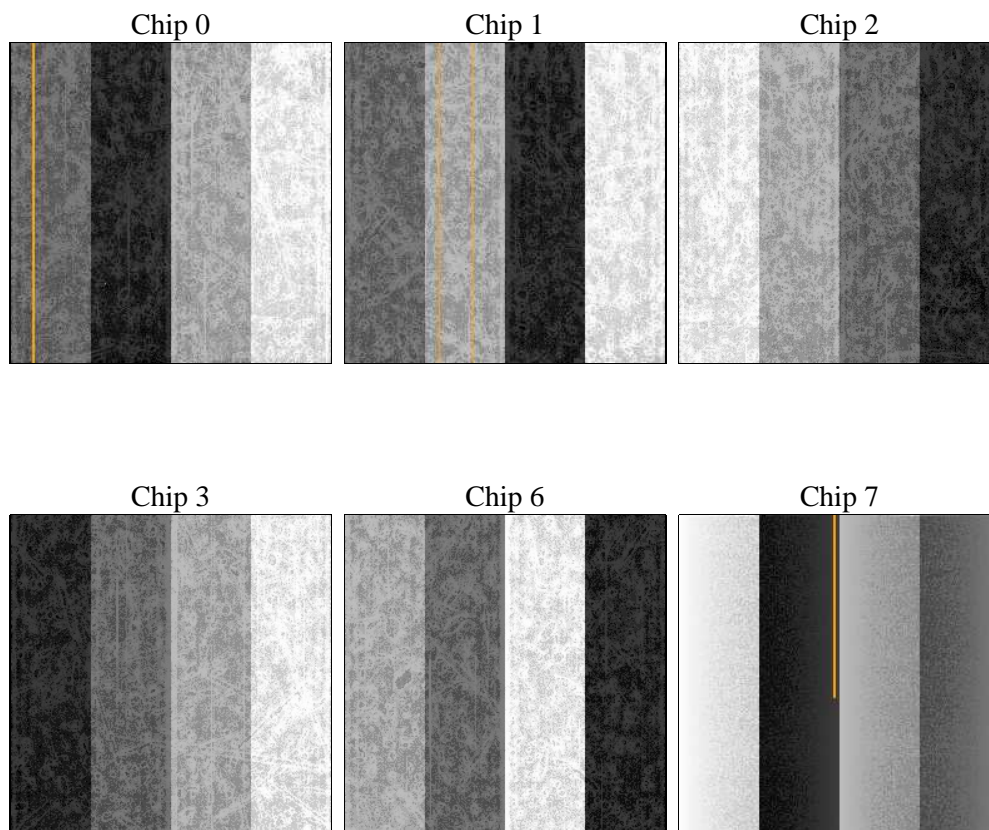
## 2 OBI

### 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	10.5.2	Processing system revision	ontime	9939.2001481056	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	9939.2001481056	Sum of GTIs [s]
date	2016-10-28T04:28:39	Date and time of file creation	ontime1	9939.2001481056	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	9939.2001481056	Sum of GTIs [s]
			ontime3	9939.2001481056	Sum of GTIs [s]
			ontime6	9935.959097743	Sum of GTIs [s]
			ontime7	9939.2001481056	Sum of GTIs [s]
			l1events	416687	Number of level 1 events

### 2.1.4 Events

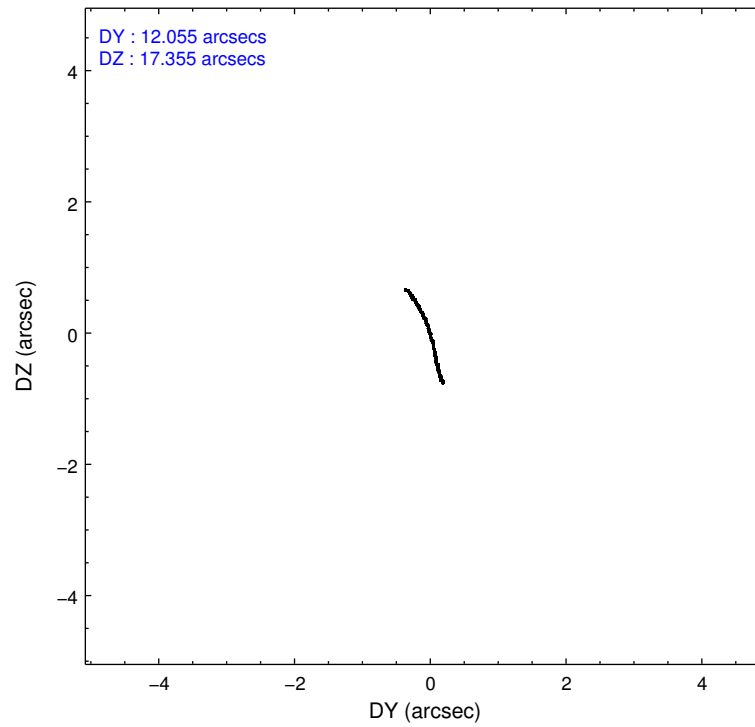
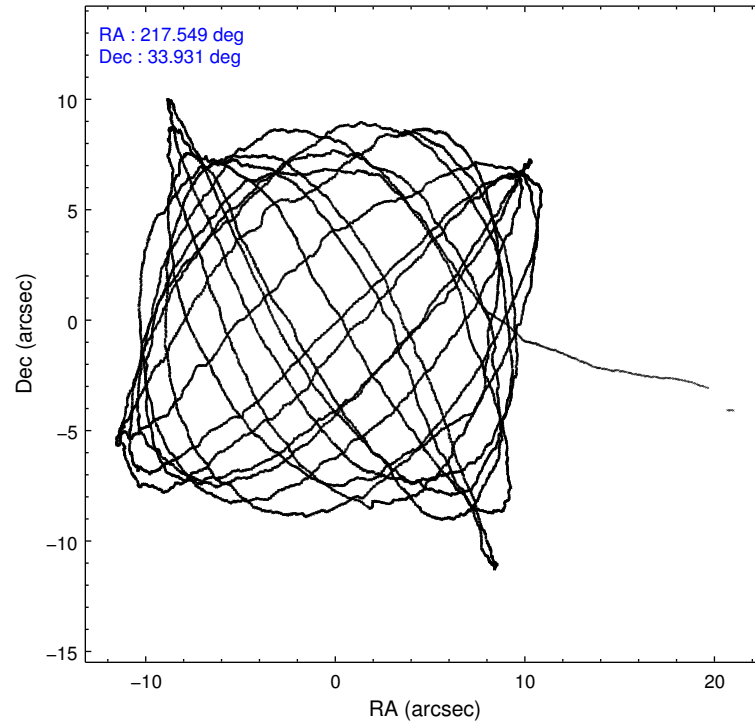
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	60831	60737	72966	66285	71091	84777	grade 0 events	2351	2638	4290	2490	2271	2834
rejected events	53753	52838	58951	59401	63776	48921		3%	4%	5%	3%	3%	3%
rejected %	88%	86%	80%	89%	89%	57%	grade 1 events	26	29	58	41	37	119
								0%	0%	0%	0%	0%	0%
							grade 2 events	1739	1977	6917	1438	1818	7773
								2%	3%	9%	2%	2%	9%
							grade 3 events	716	711	703	711	713	2772
								1%	1%	0%	1%	1%	3%
							grade 4 events	653	699	698	785	672	2587
								1%	1%	0%	1%	0%	3%
							grade 5 events	2716	2777	2520	3057	3062	8101
								4%	4%	3%	4%	4%	9%
							grade 6 events	1620	1876	1412	1463	1843	19898
								2%	3%	1%	2%	2%	23%
							grade 7 events	51010	50030	56368	56300	60675	40693
								83%	82%	77%	84%	85%	48%

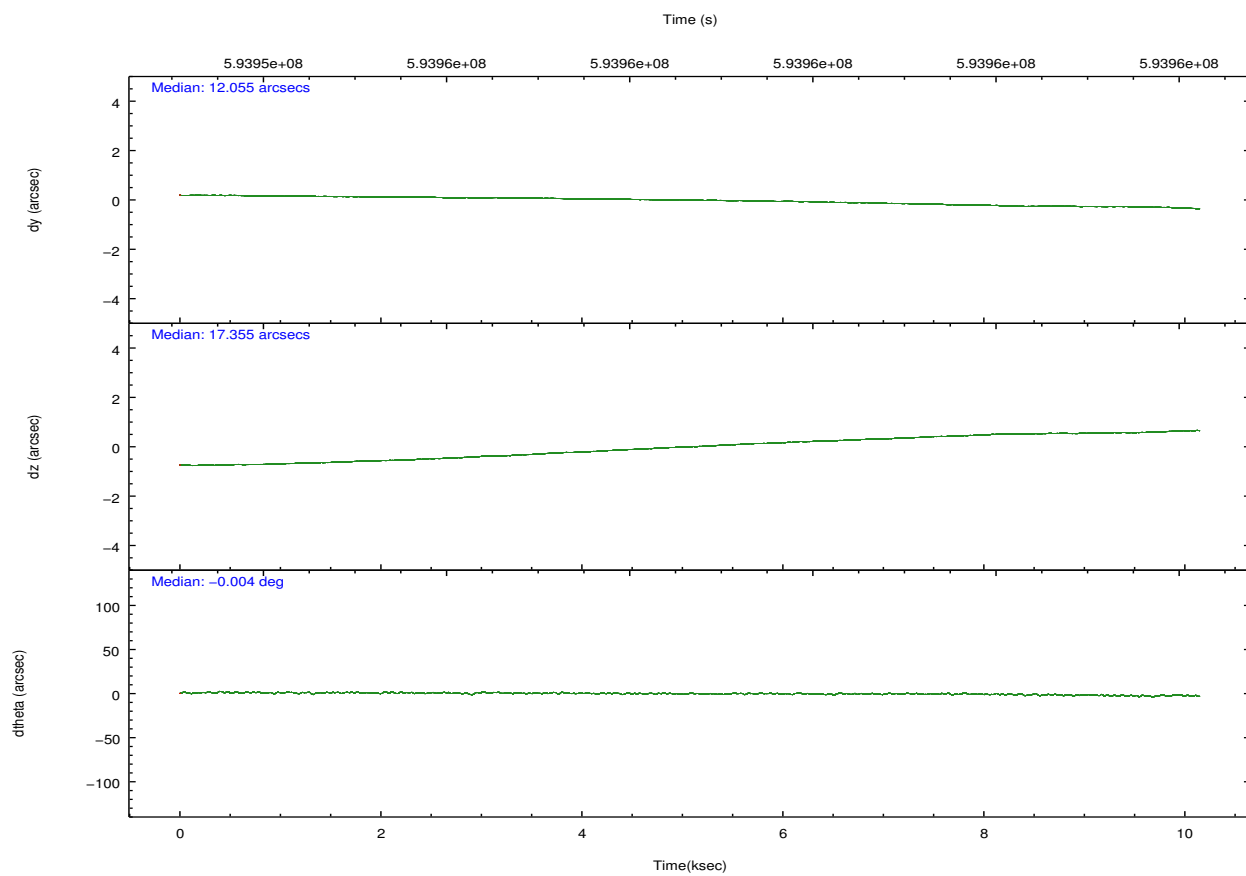
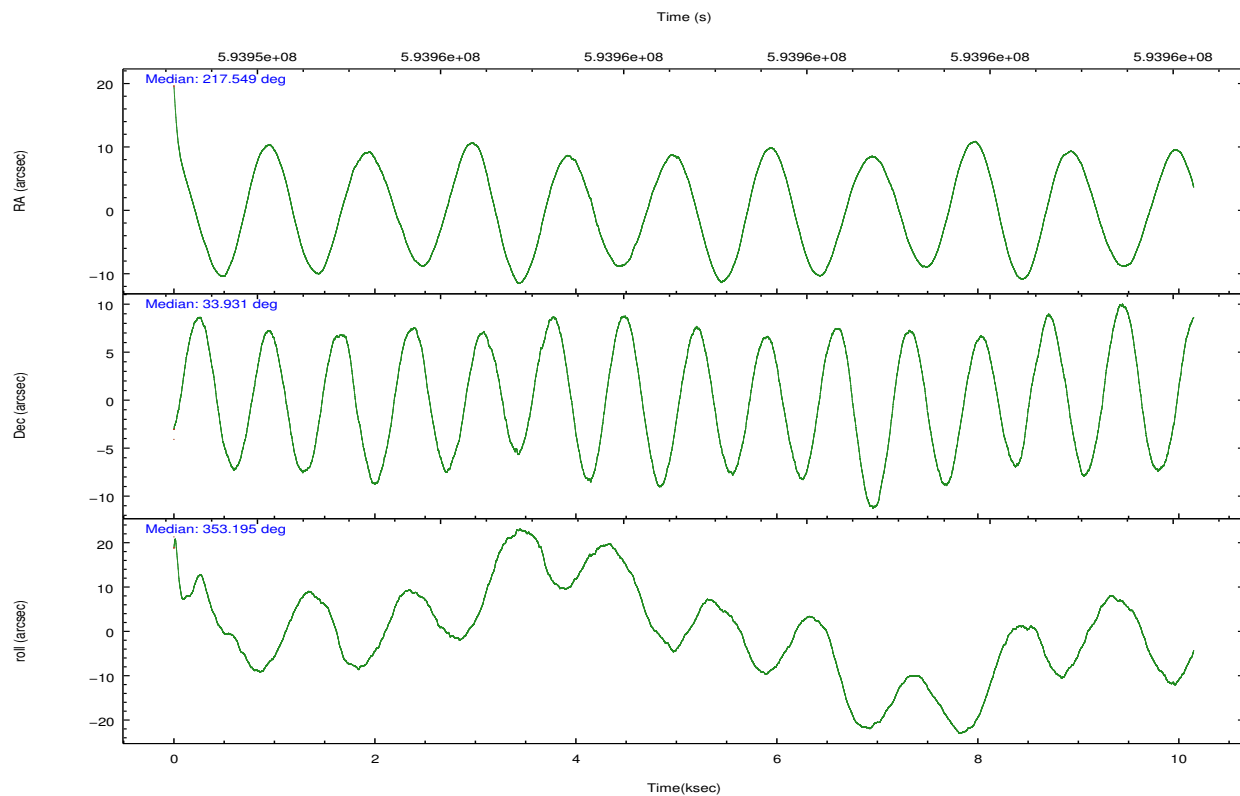


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	217.518116	217.548684370917	CCD I2 on	Y	Y
[deg] Pointing Dec	33.920422	33.93141197015392	CCD I3 on	Y	Y
[deg] Pointing Roll	353.013150	353.2047870586863	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	593953740.184000	593952408.09876	CCD S5 on	N	N
Observation start date	2016-10-27T11:07:52	2016-10-27T10:46:48	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	593963740.184000	593964802.39948	On-chip summing requested	N	N
Observation end date	2016-10-27T13:54:32	2016-10-27T14:13:22	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



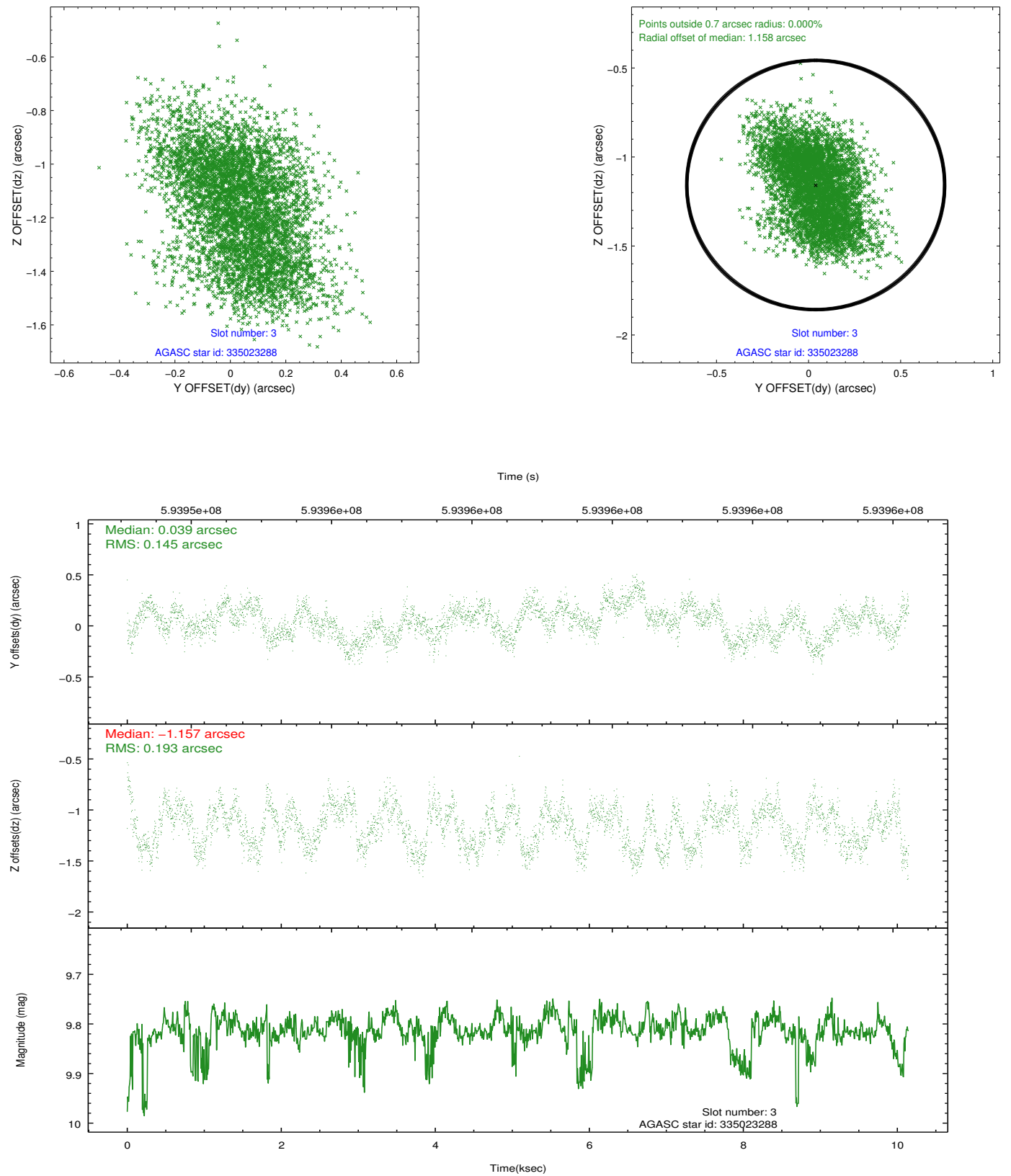


### Slot Statistics

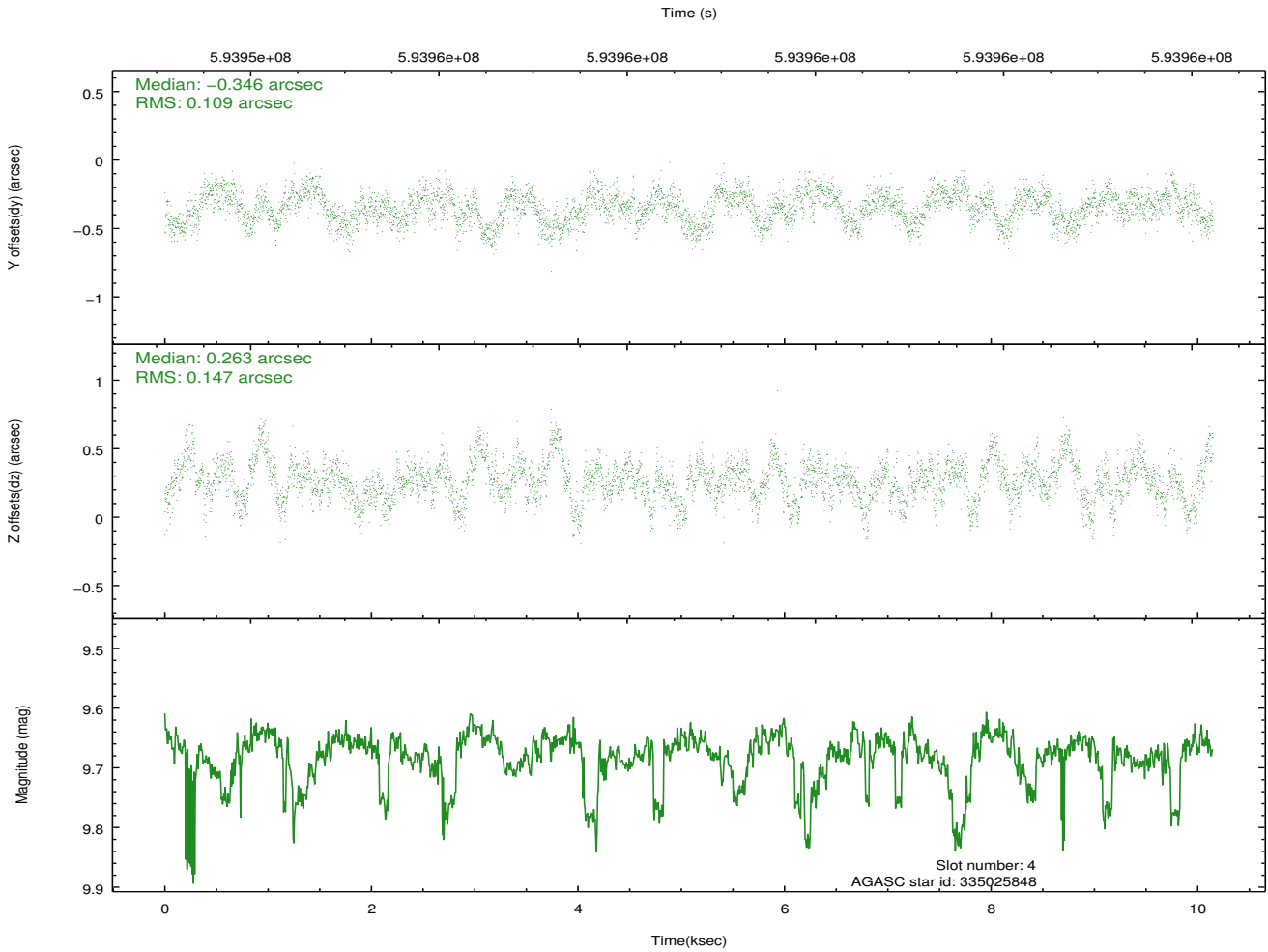
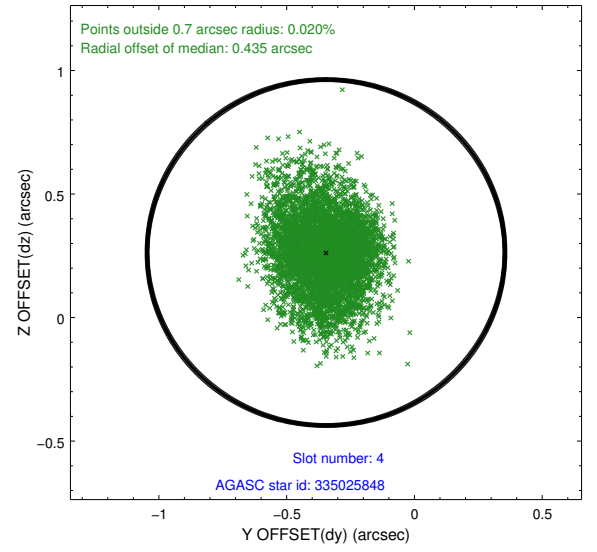
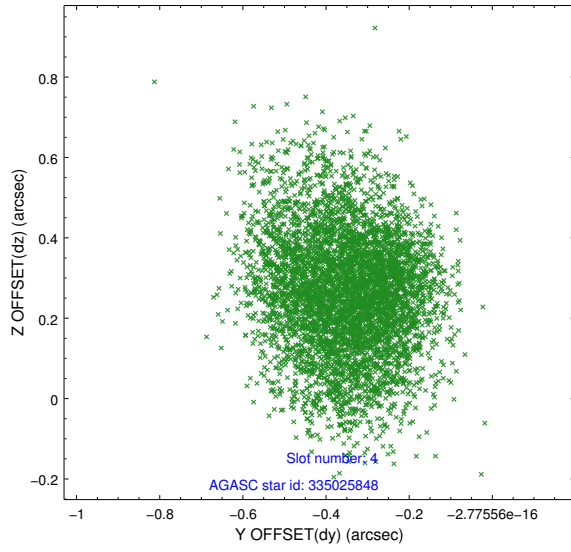
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	2476	-0.031	-0.093	0.024	0.038	0.000000	0.000000	927.53	-841.04
1	FID		ACIS-I-4	7.18	2476	0.317	0.102	0.015	0.023	0.000000	0.000000	2148.13	1058.74
2	FID		ACIS-I-5	7.25	2474	-0.386	0.061	0.015	0.025	0.000000	0.000000	-1820.23	1056.99
3	GUIDE	used	335023288	9.81	4948	0.039	-1.157	0.262	0.409	217.791365	34.425735	583.72	1904.33
4	GUIDE	used	335025848	9.68	4946	-0.346	0.263	0.193	0.318	217.530531	33.778292	98.96	-502.69
5	GUIDE	used	335028240	9.10	4944	0.504	0.686	0.155	0.262	216.746851	33.385009	-2068.05	-2185.98
6	GUIDE	used	335028696	9.17	4947	-0.815	0.148	0.137	0.230	217.260519	33.844112	-732.37	-365.82
7	GUIDE	used	335027640	9.09	4947	0.631	0.062	0.210	0.332	218.092211	33.193770	2035.28	-2381.12

## 2.4 Star Slots

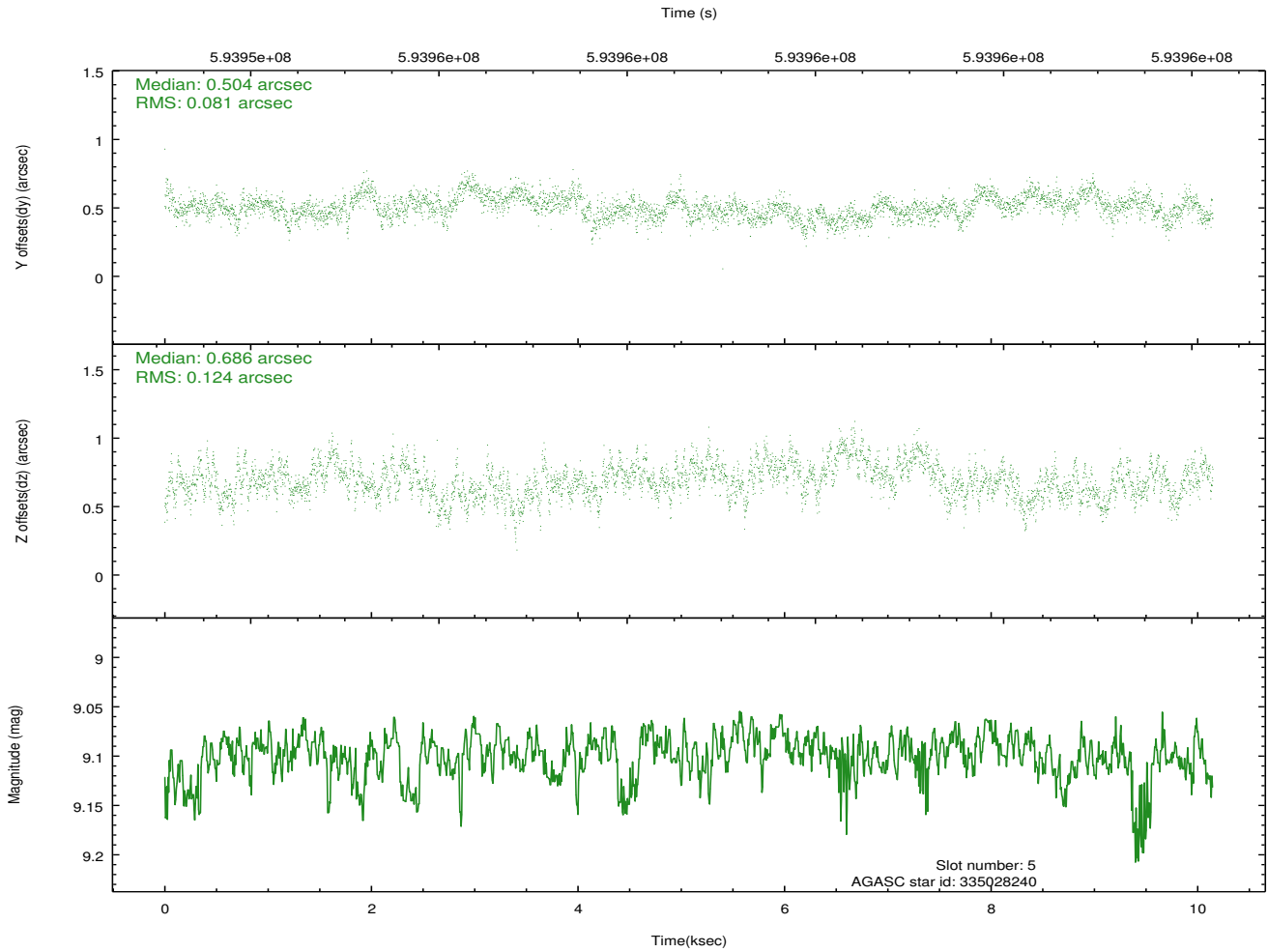
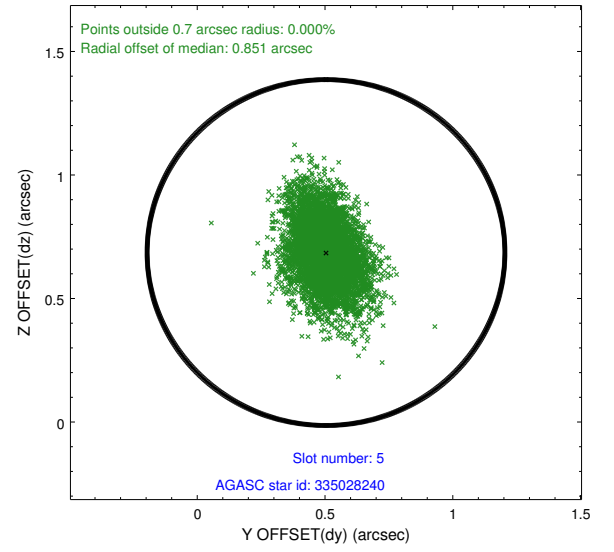
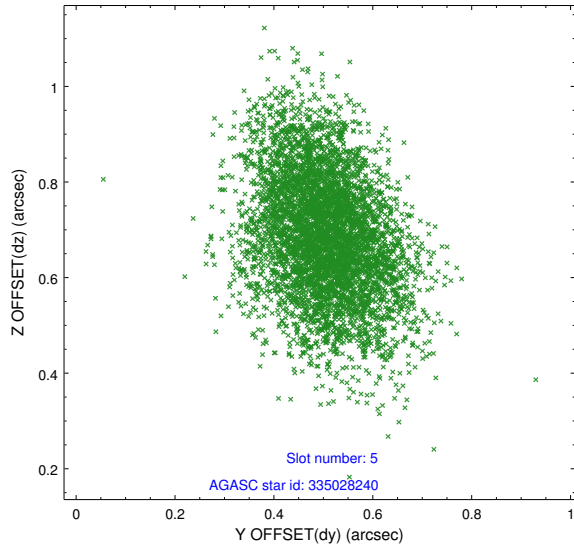
### 2.4.1 Slot 3



## 2.4.2 Slot 4

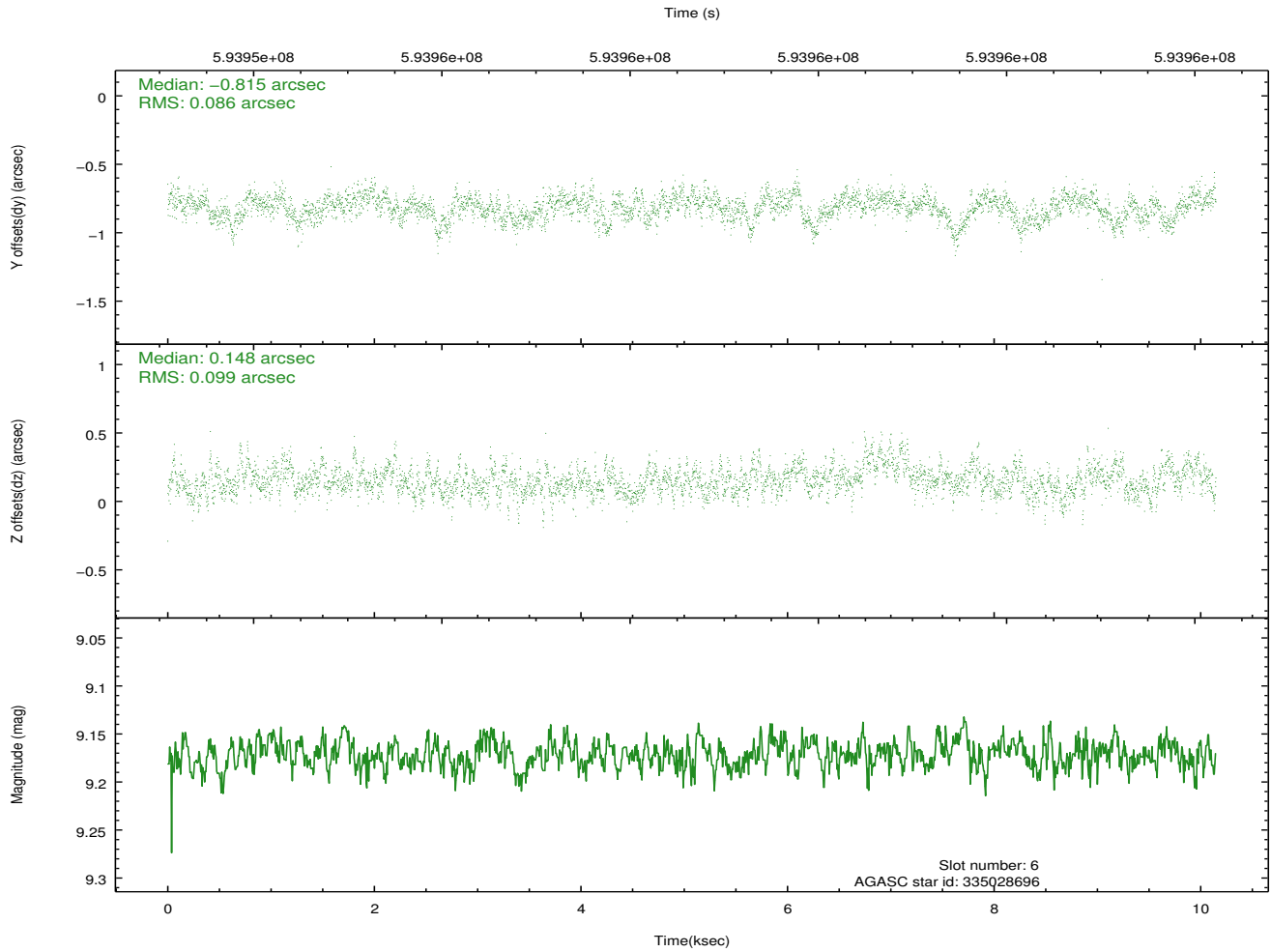
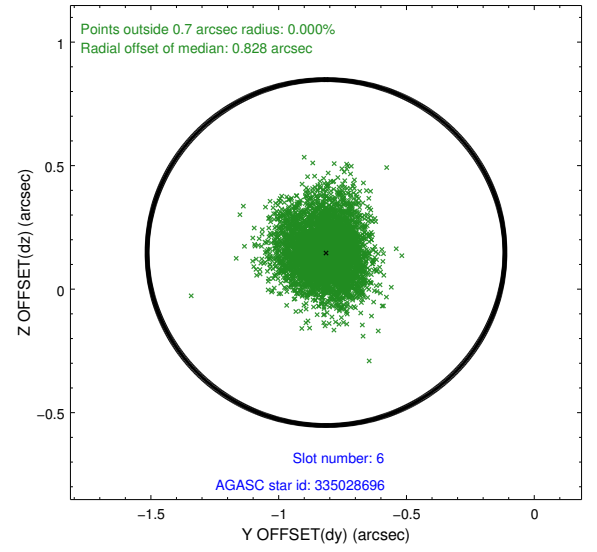
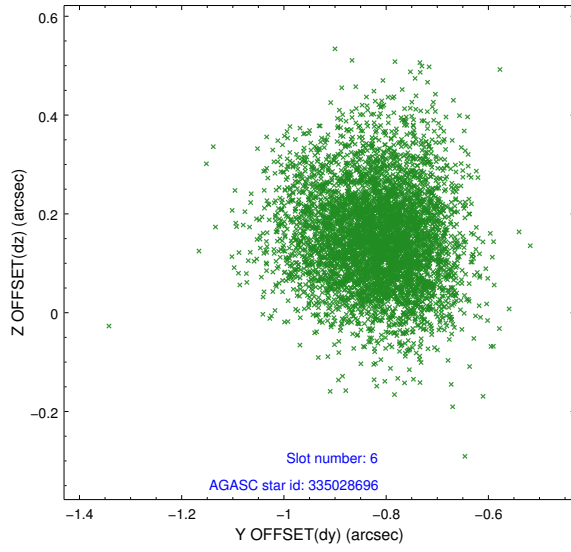


### 2.4.3 Slot 5

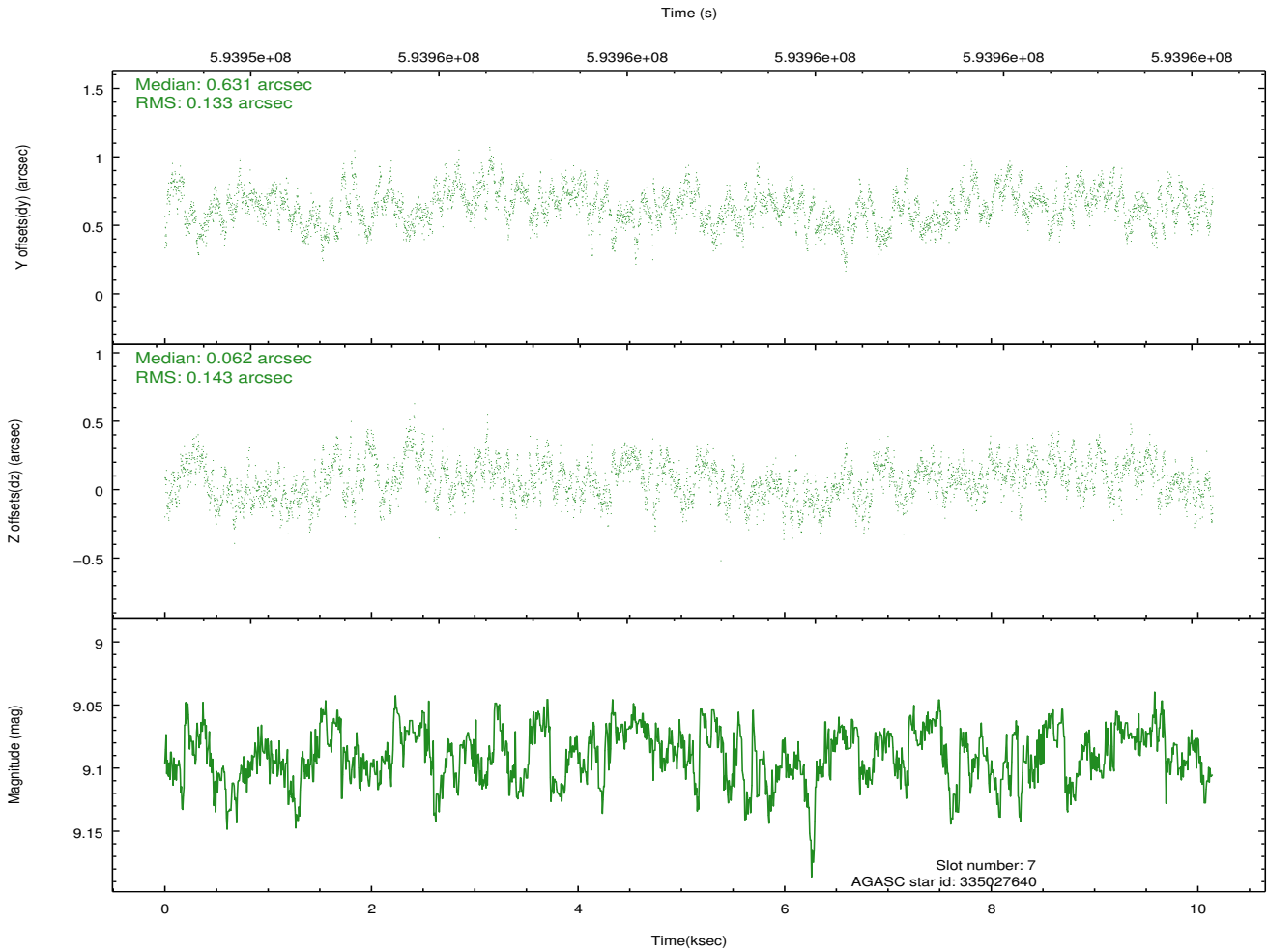
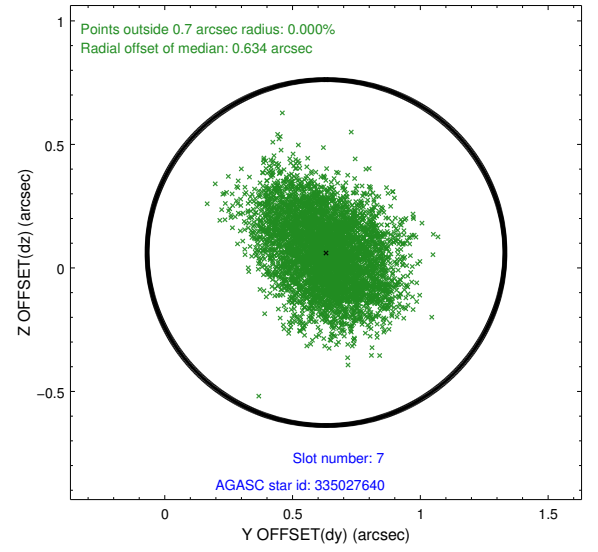
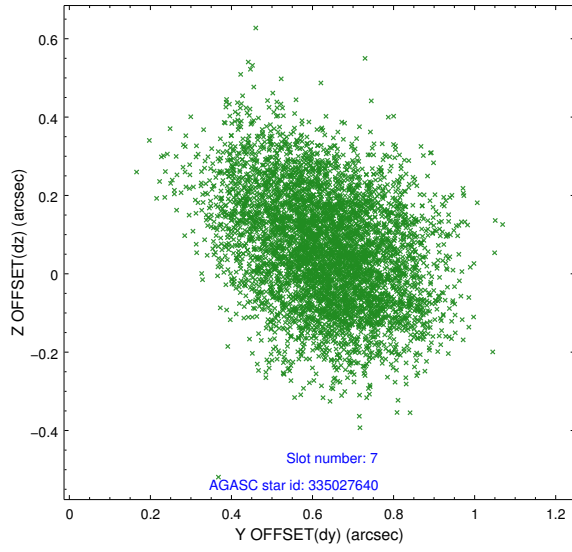




## 2.4.4 Slot 6

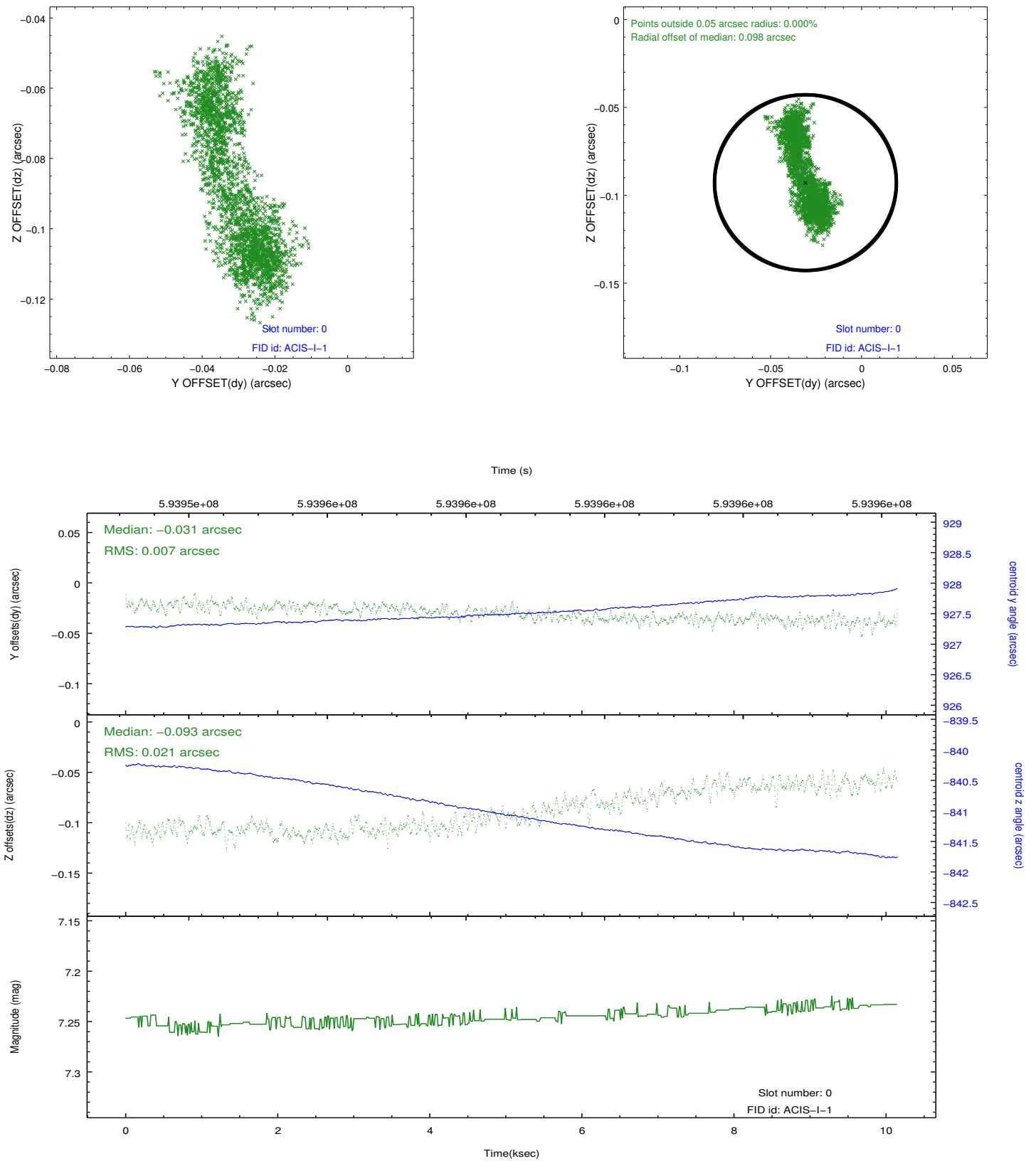


## 2.4.5 Slot 7

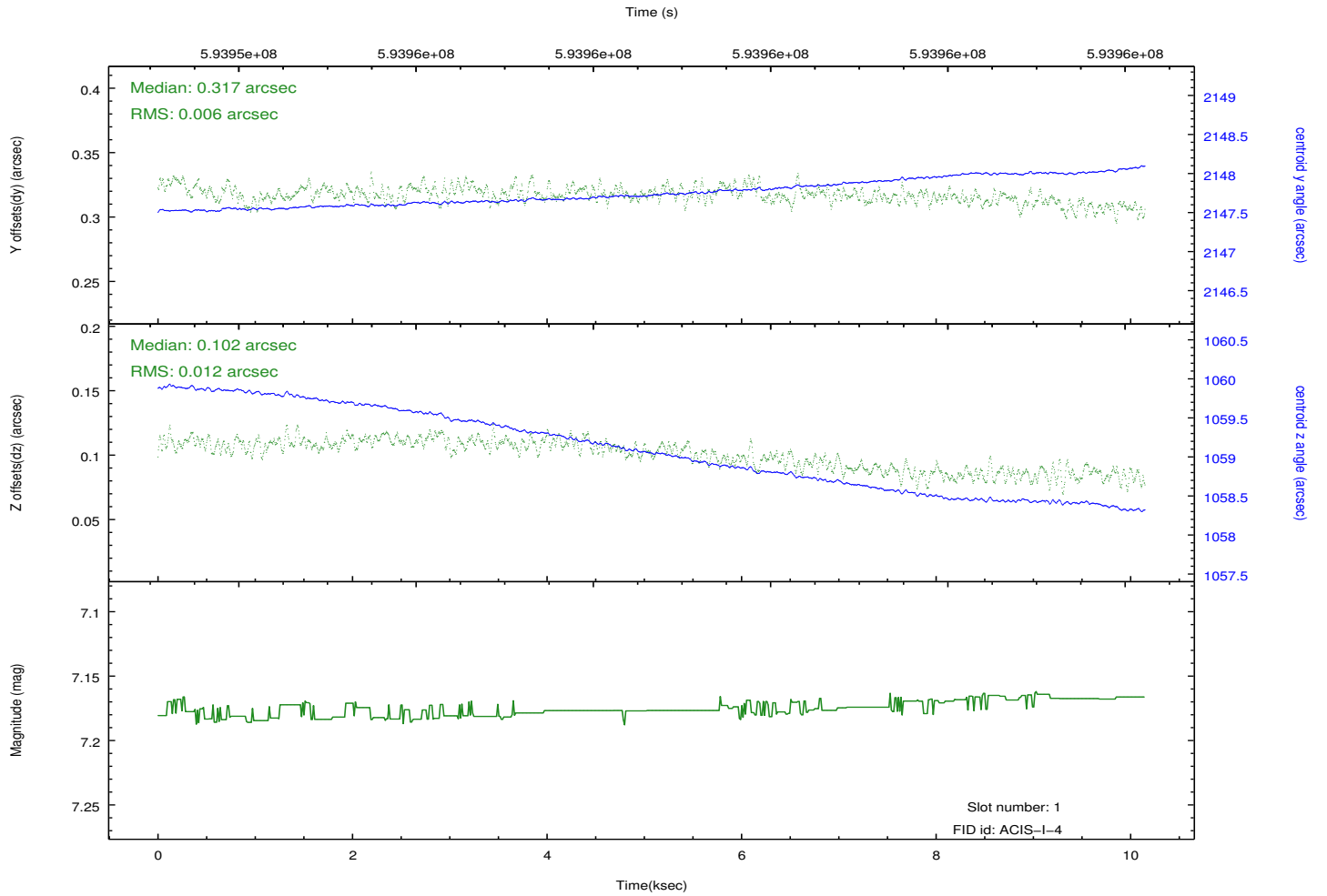
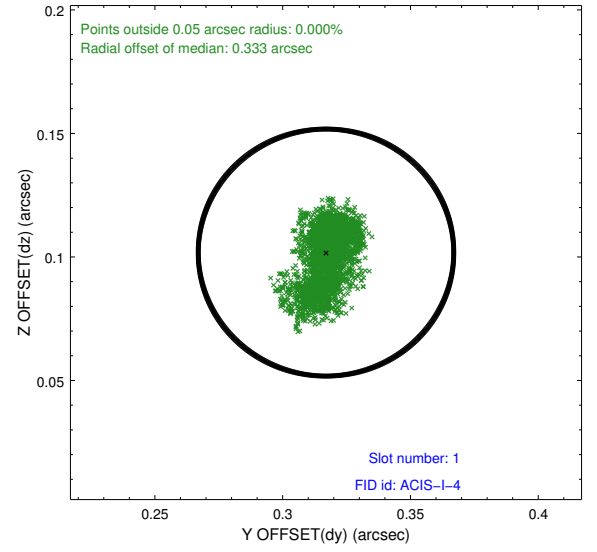
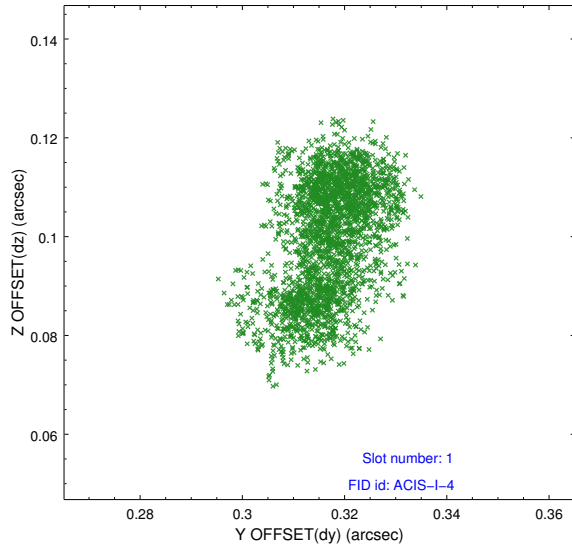


## 2.5 FID Slots

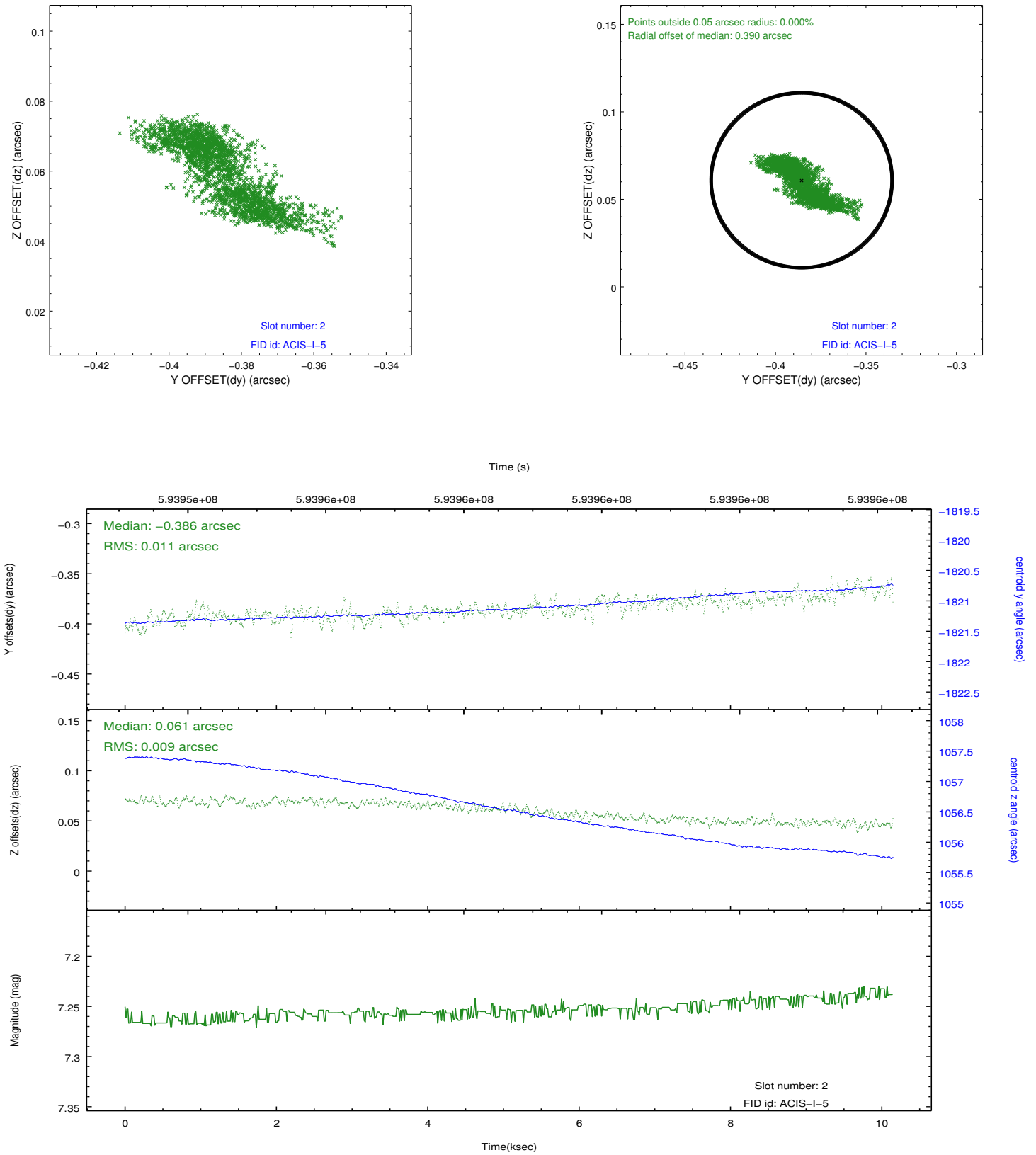
### 2.5.1 Slot 0



## 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)	2016.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.9392001481056

### A.2 Comments