

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18666 - L2 Version 1  
Chandra X-Ray Center

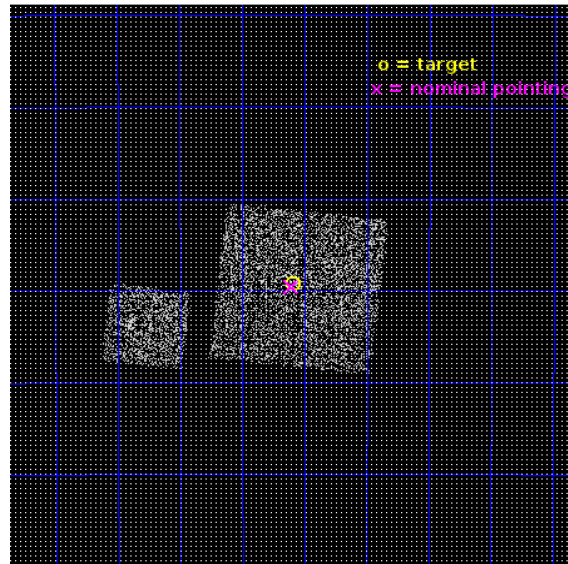
L2 Processing Date : Jul 31 2016

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# 1 Front

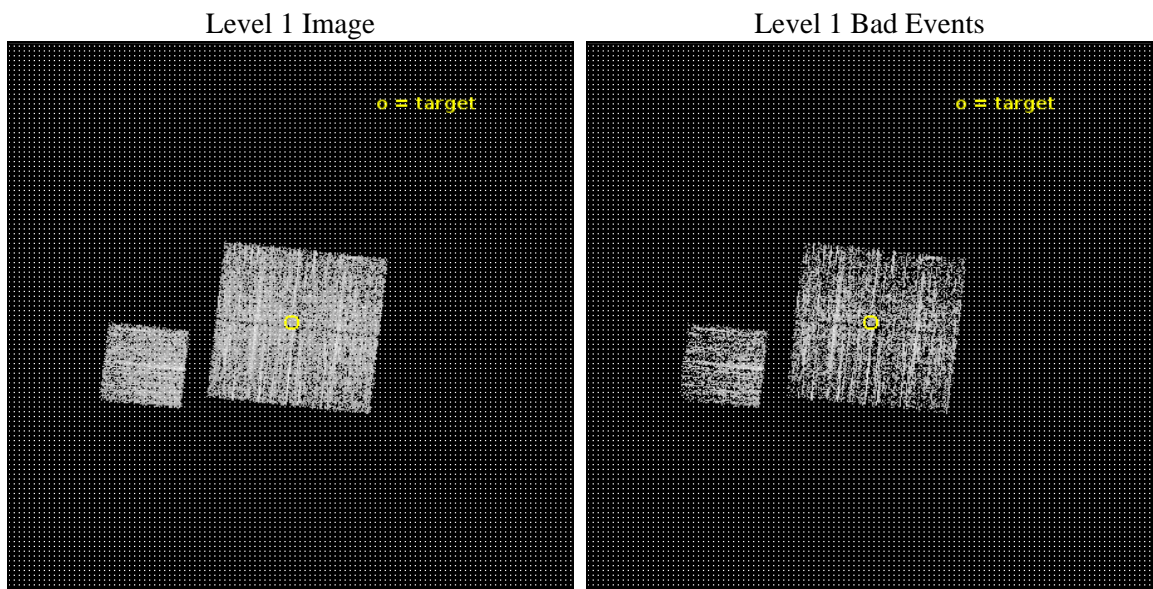
seq_num	300390	Sequence number
obs_id	18666	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	267.14745	Observer's specified target RA [deg]
dec_targ	-29.65393	Observer's specified target Dec [deg]
ra_nom	267.15138359226	Nominal RA [deg]
dec_nom	-29.659609974463	Nominal Dec [deg]
roll_nom	276.26909872837	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1956.1000151634	Sum of GTIs [s]
livetime	1930.5421284054	Livetime [s]
ontime0	1956.1000151634	Sum of GTIs [s]
ontime1	1956.1000151634	Sum of GTIs [s]
ontime2	1956.1000151634	Sum of GTIs [s]
ontime3	1956.1000151634	Sum of GTIs [s]
ontime6	1956.0593861341	Sum of GTIs [s]
l2events	7308	Number of level 2 events



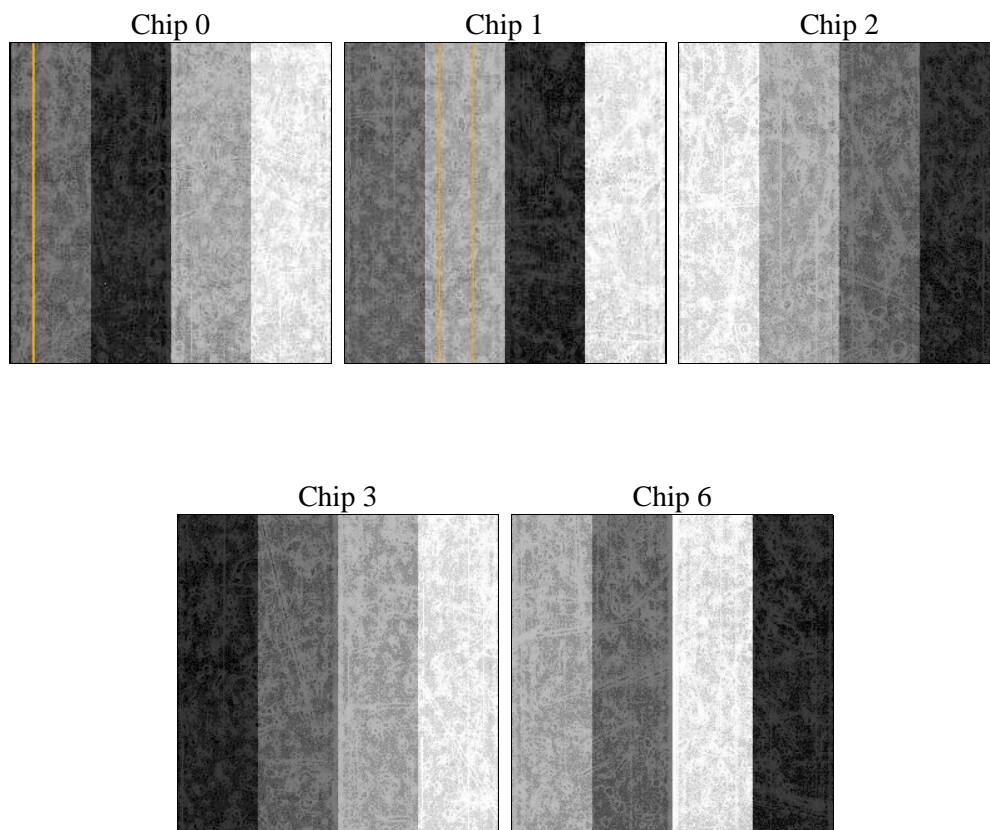
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2180.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	1956.1000151634	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	1956.1000151634	Sum of GTIs [s]
date	2016-08-01T00:43:51	Date and time of file creation	ontime1	1956.1000151634	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1956.1000151634	Sum of GTIs [s]
			ontime3	1956.1000151634	Sum of GTIs [s]
			ontime6	1956.0593861341	Sum of GTIs [s]
			l1events	65339	Number of level 1 events

### 2.1.4 Events

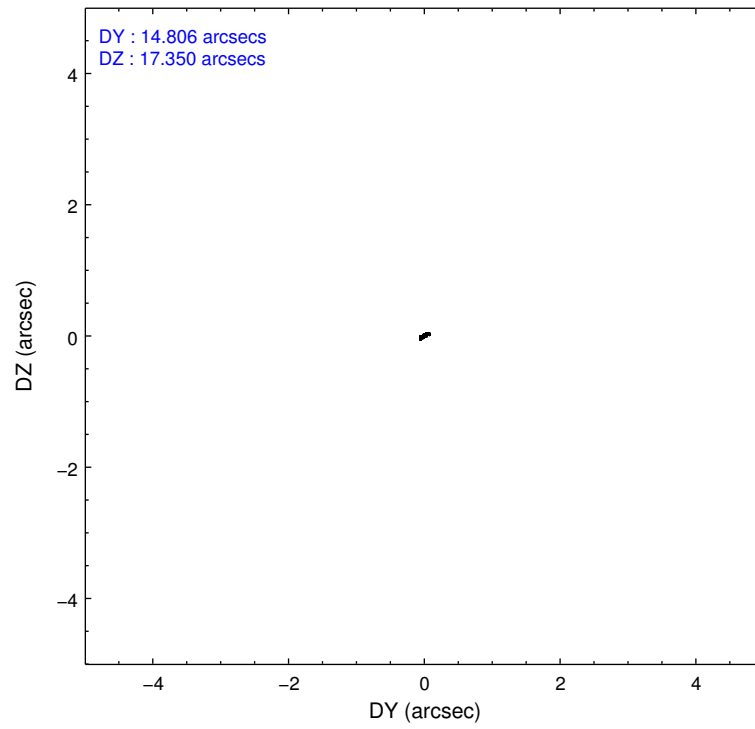
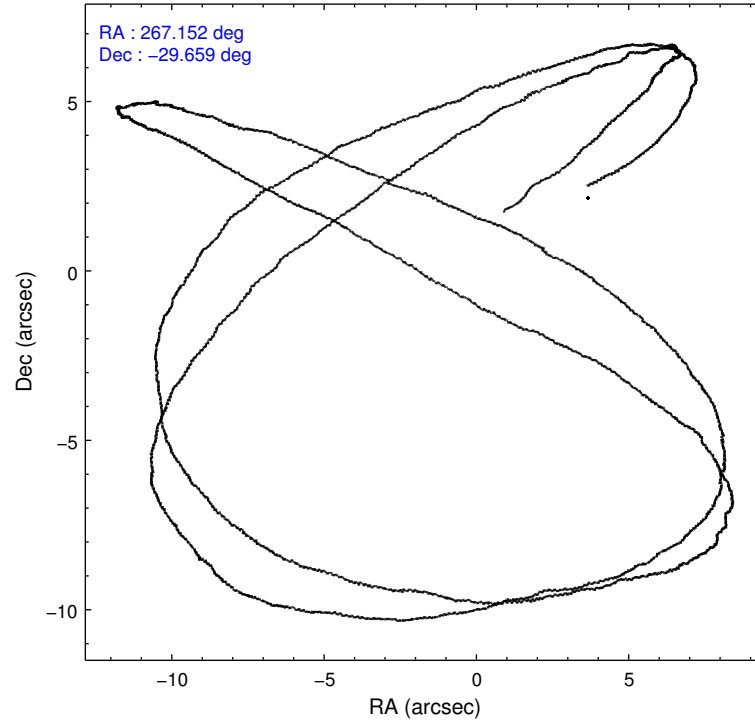
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	12634	11857	14440	13213	13195
rejected events	10940	9919	12888	11563	11411
rejected %	86%	83%	89%	87%	86%

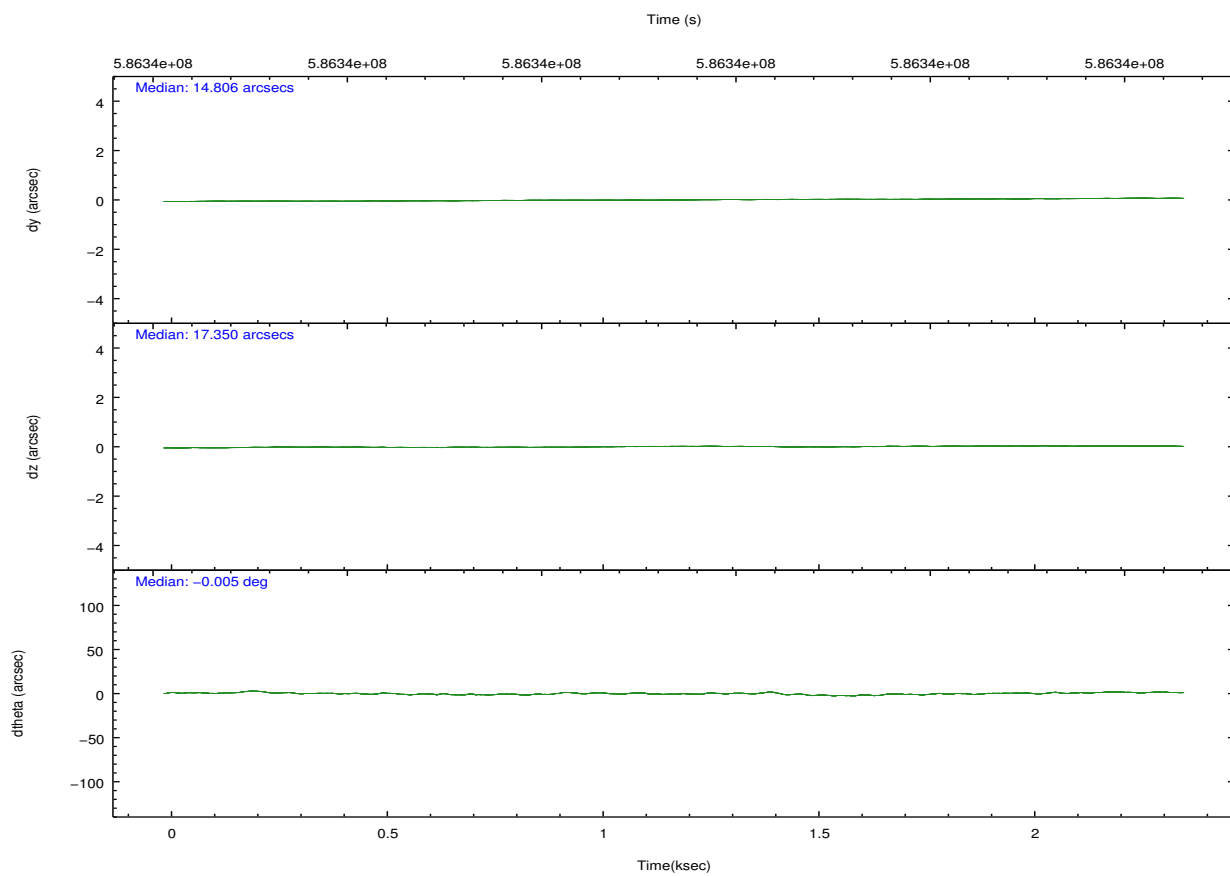
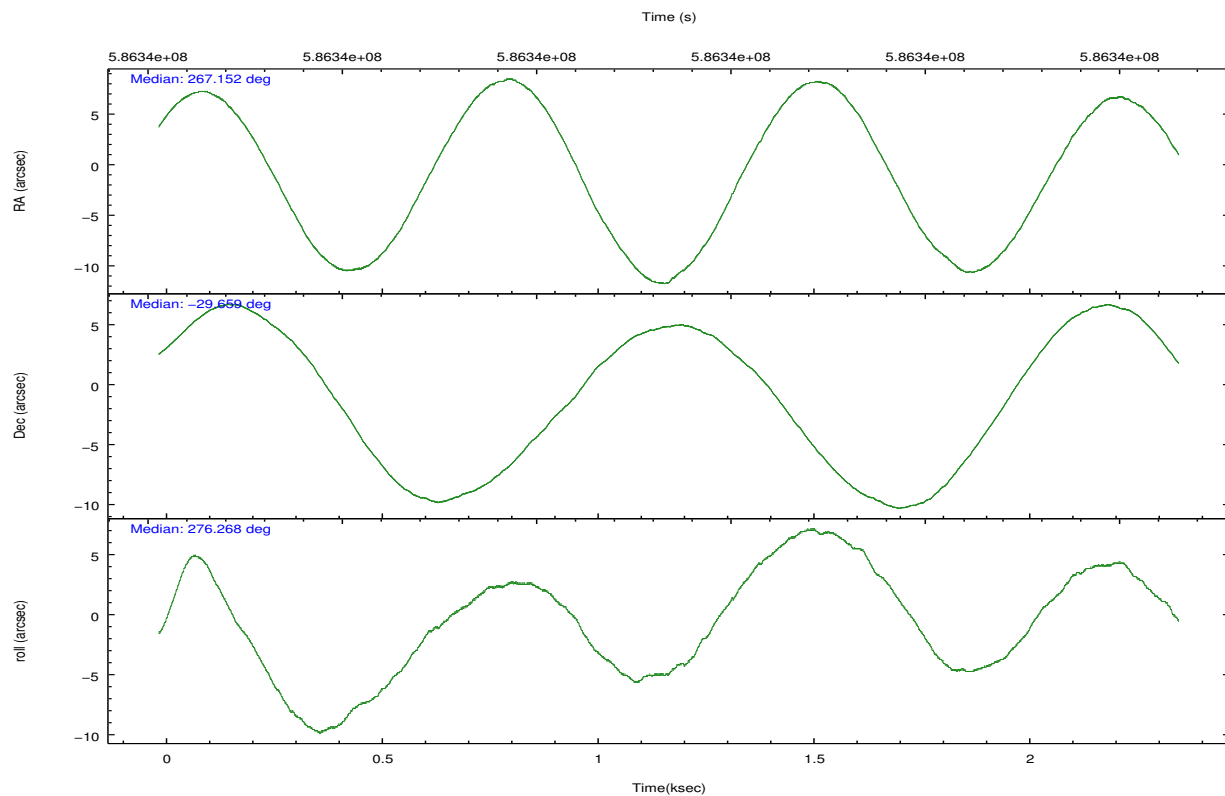
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	722	841	661	699	715
	5%	7%	4%	5%	5%
grade 1 events	5	9	4	9	12
	0%	0%	0%	0%	0%
grade 2 events	375	418	366	335	382
	2%	3%	2%	2%	2%
grade 3 events	164	158	142	136	168
	1%	1%	0%	1%	1%
grade 4 events	128	157	134	162	141
	1%	1%	0%	1%	1%
grade 5 events	550	573	547	665	657
	4%	4%	3%	5%	4%
grade 6 events	307	367	251	320	380
	2%	3%	1%	2%	2%
grade 7 events	10383	9334	12335	10887	10740
	82%	78%	85%	82%	81%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	267.132269	267.1513835922628	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.637714	-29.65960997446293	CCD I3 on	Y	Y
[deg] Pointing Roll	276.050931	276.2690987283742	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	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	586342821.184000	586342445.32331	CCD S5 on	N	N
Observation start date	2016-07-31T08:59:13	2016-07-31T08:54:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	586345001.184000	586345707.386	On-chip summing requested	N	N
Observation end date	2016-07-31T09:35:33	2016-07-31T09:48:27	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





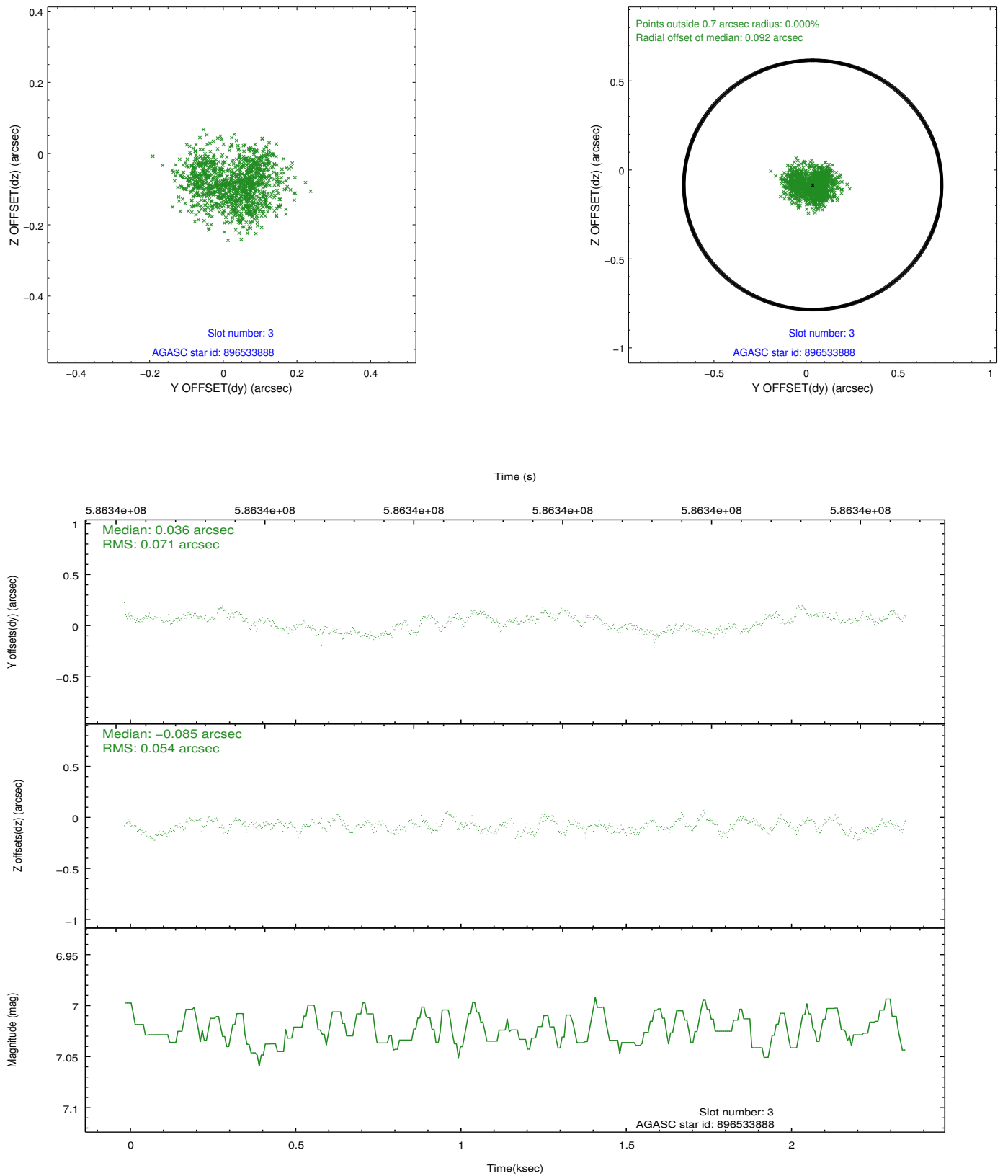
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.14	577	-0.044	-0.109	0.015	0.025	0.000000	0.000000	924.66	-841.07
1	FID		ACIS-I-4	7.07	577	0.326	0.119	0.011	0.018	0.000000	0.000000	2146.49	1057.65
2	FID		ACIS-I-5	7.14	577	-0.381	0.060	0.009	0.015	0.000000	0.000000	-1820.26	1058.34
3	GUIDE	used	896533888	7.02	1153	0.036	-0.085	0.099	0.146	266.666434	-29.392757	-1026.47	-1361.15
4	GUIDE	used	896534128	8.67	1154	-0.012	0.257	0.083	0.143	266.503837	-29.080853	-2196.04	-1757.12
5	GUIDE	used	896540528	8.24	1153	-0.084	-0.218	0.105	0.166	267.368305	-29.314773	-1077.42	857.53
6	GUIDE	used	966923896	8.91	1153	0.060	0.025	0.195	0.278	267.026258	-30.213470	2027.40	-546.49
7	GUIDE	used	966926496	8.14	1153	-0.001	0.012	0.147	0.217	267.109389	-30.299474	2364.97	-323.62

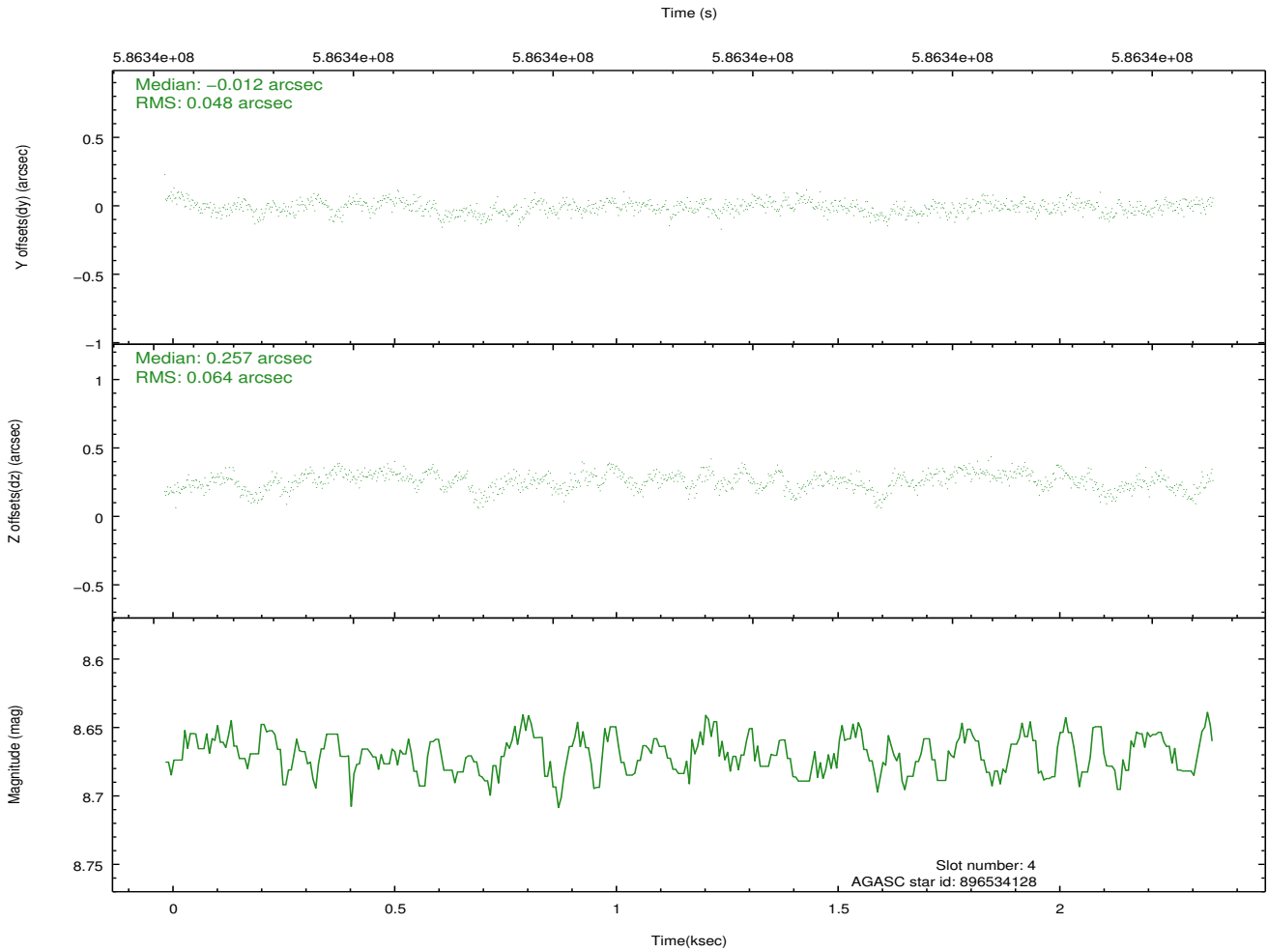
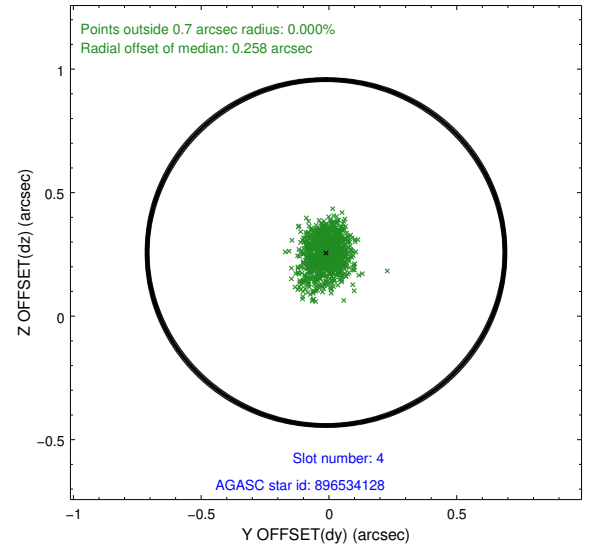
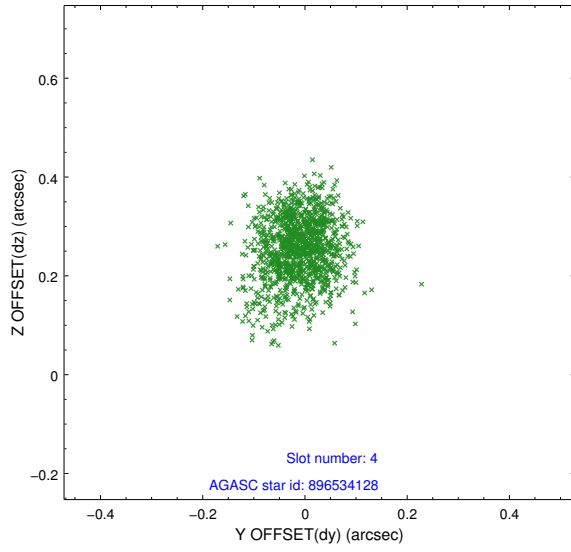


## 2.4 Star Slots

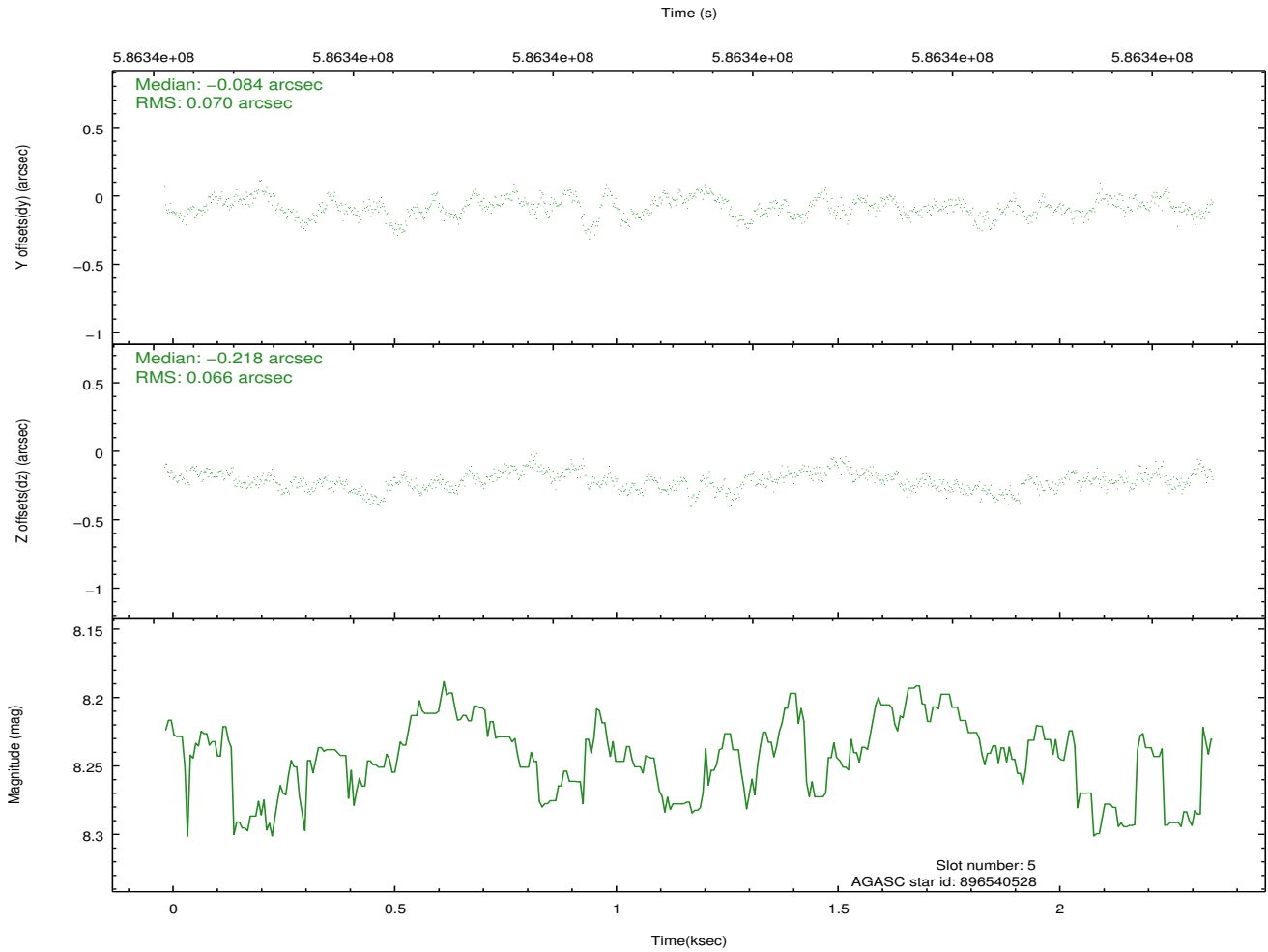
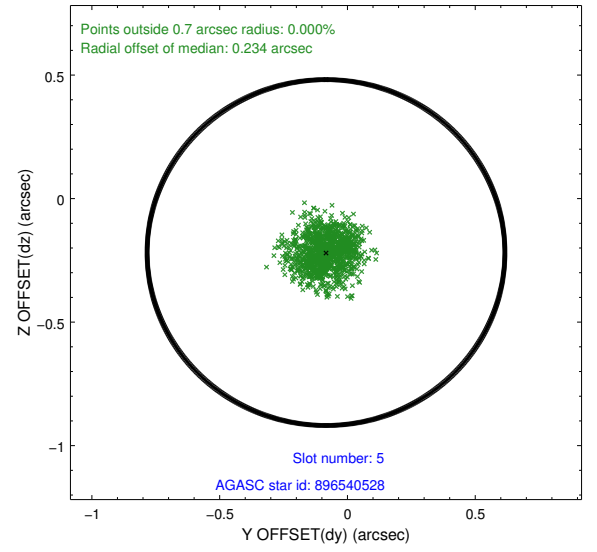
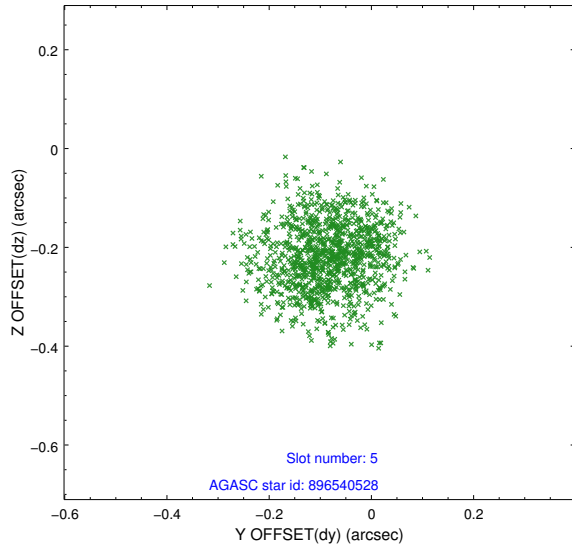
### 2.4.1 Slot 3



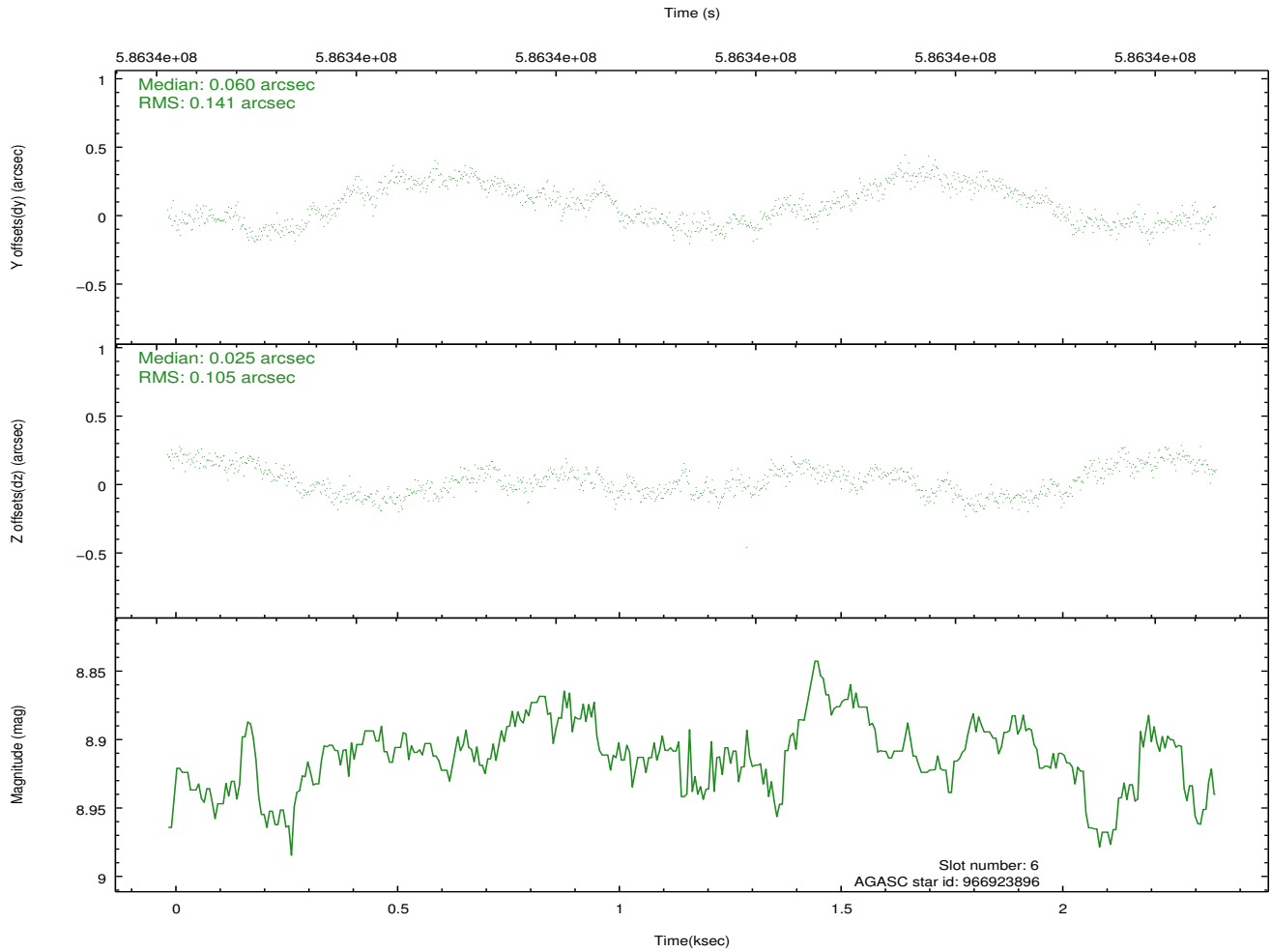
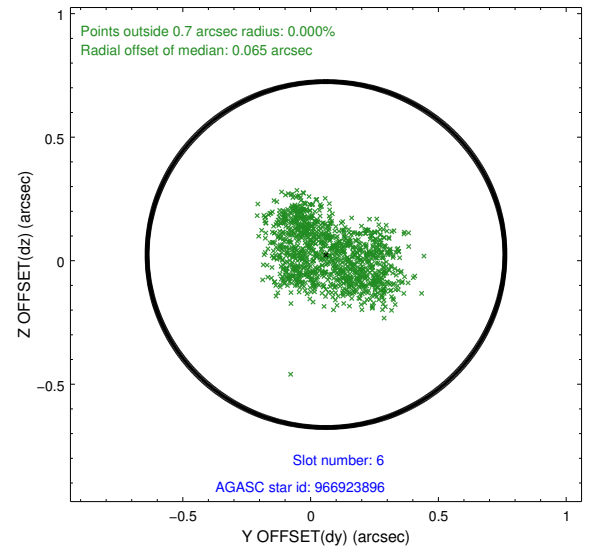
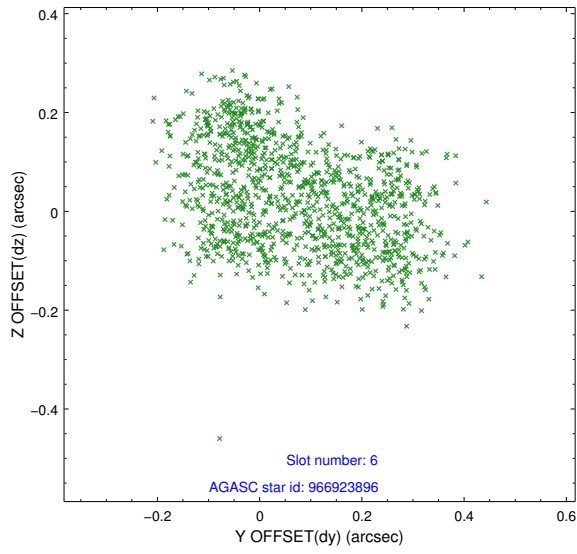
## 2.4.2 Slot 4



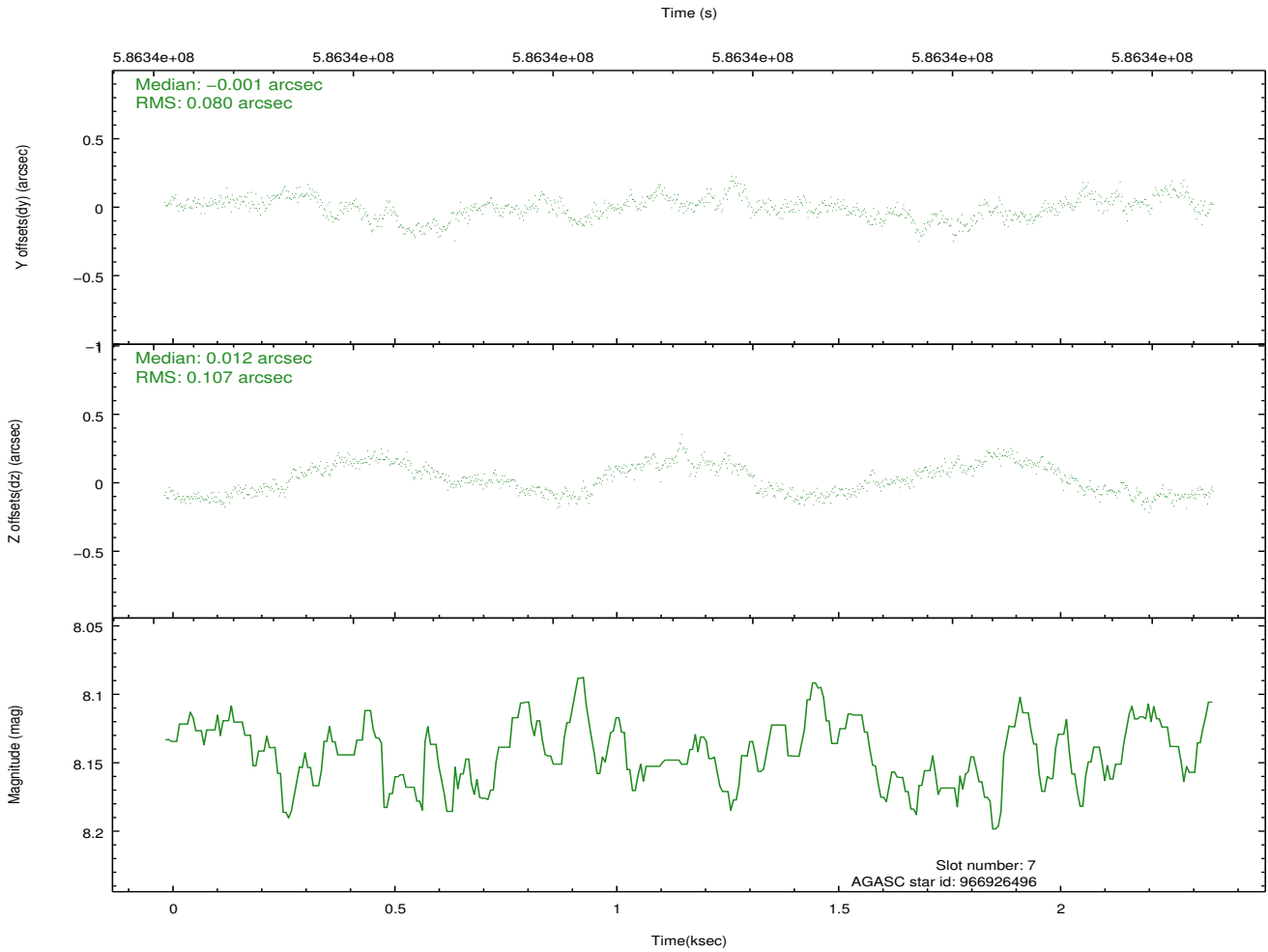
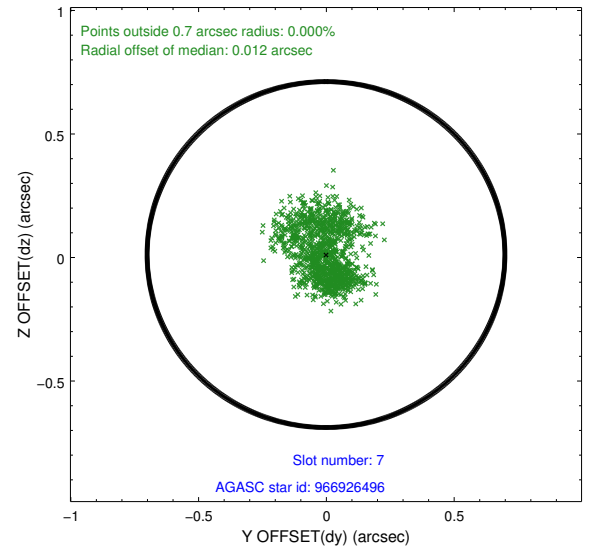
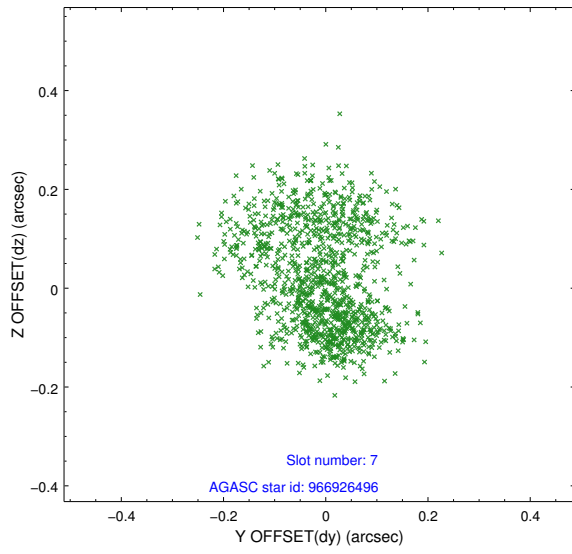
### 2.4.3 Slot 5



## 2.4.4 Slot 6

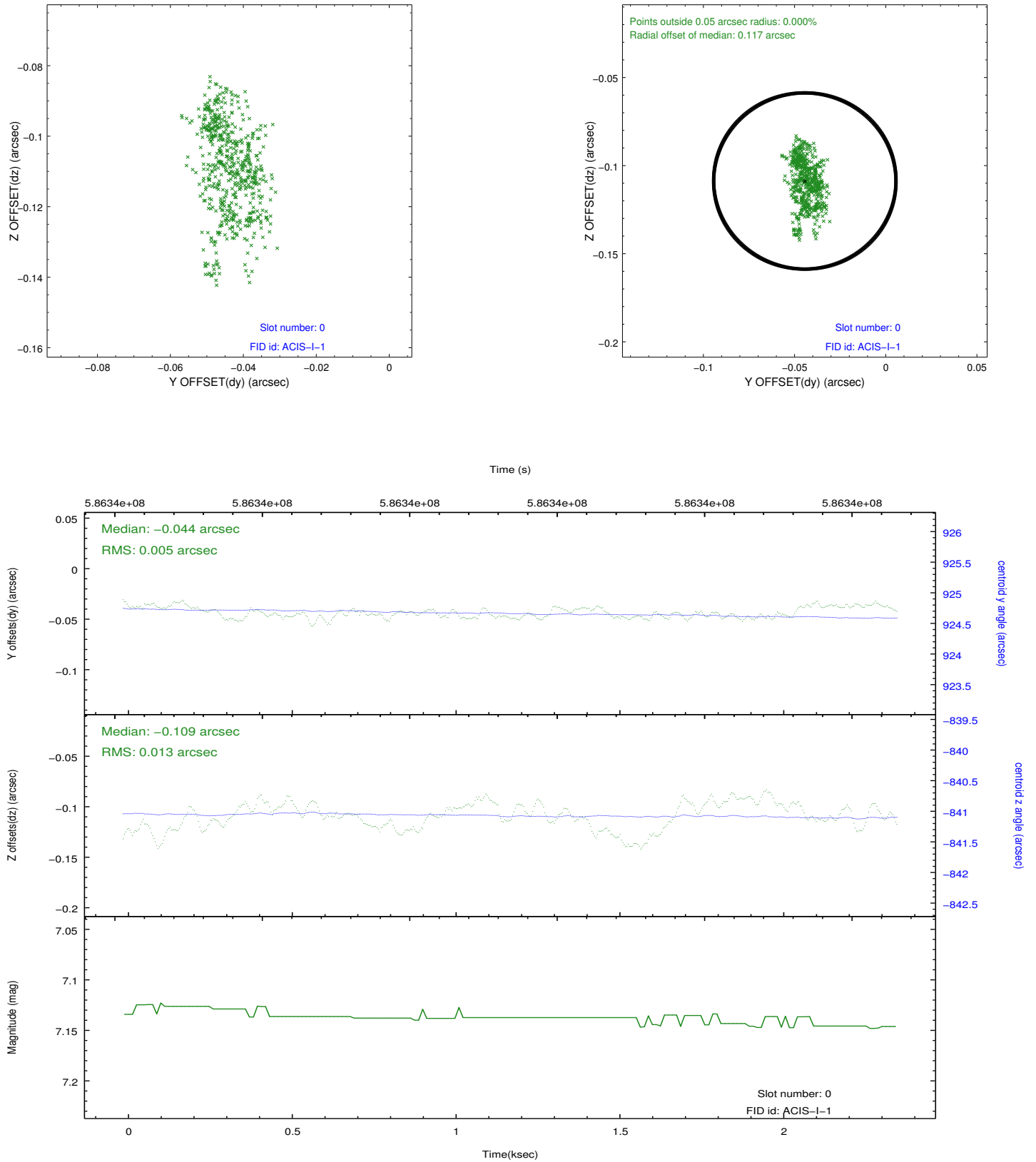


## 2.4.5 Slot 7

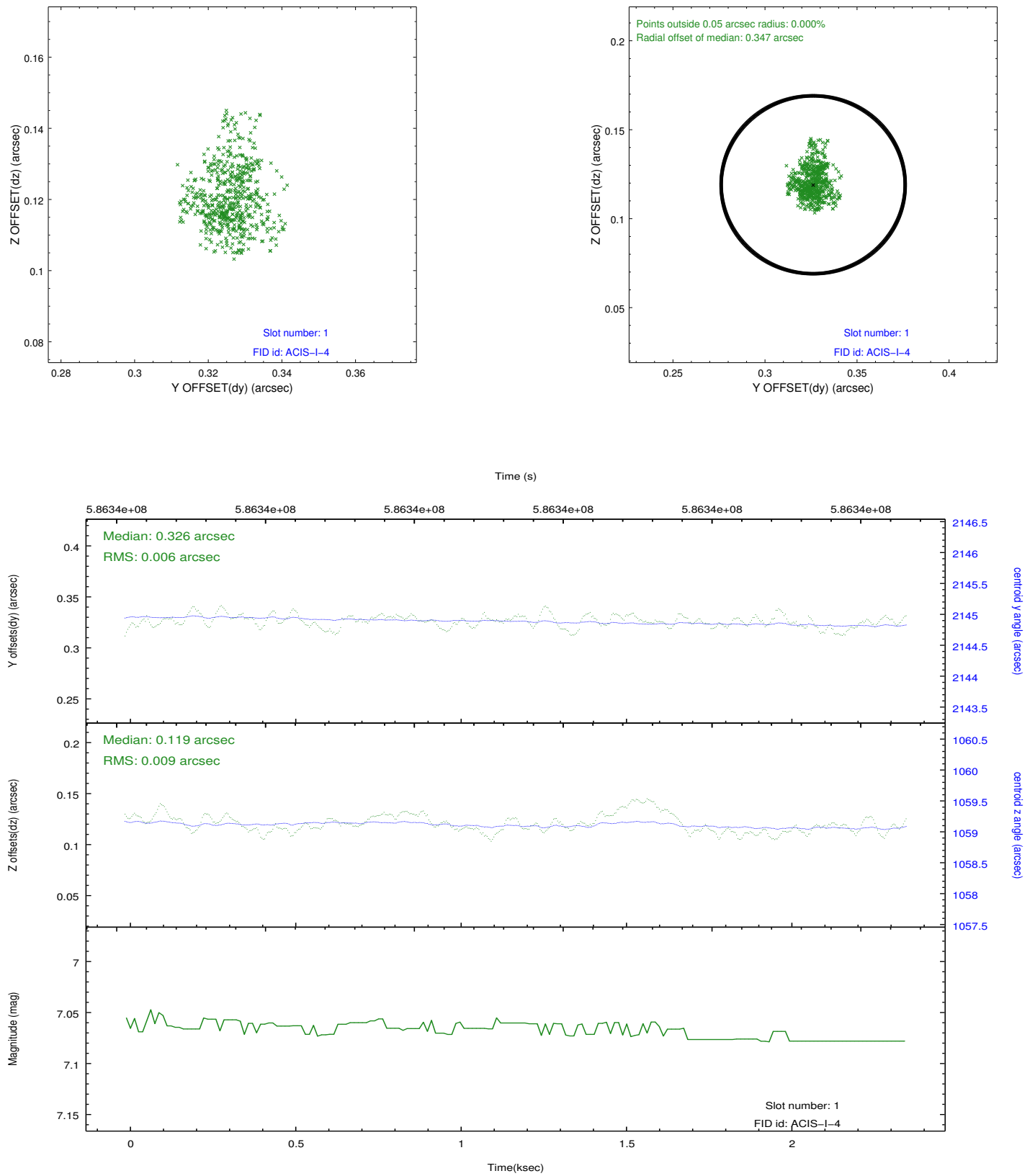


## 2.5 FID Slots

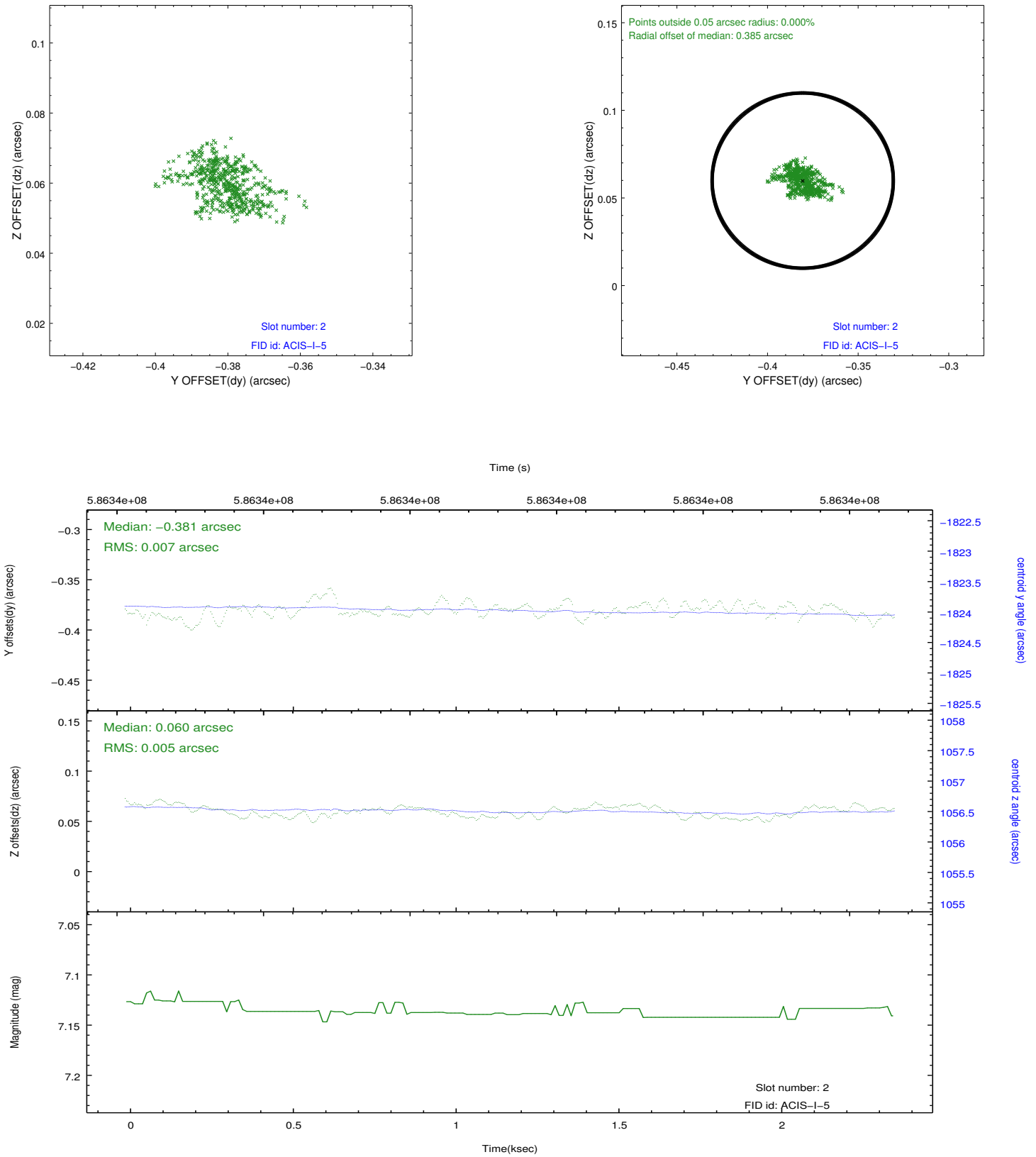
### 2.5.1 Slot 0



## 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)	2016.08.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9561000151634

### A.2 Comments