

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18657 - L2 Version 1  
Chandra X-Ray Center

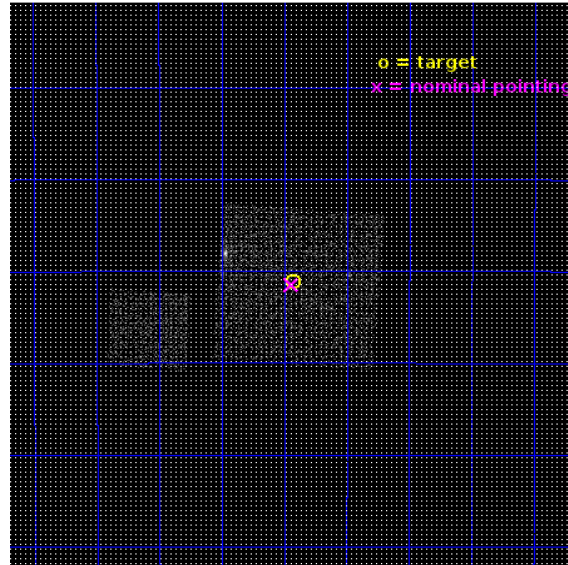
L2 Processing Date : Jul 31 2016

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# 1 Front

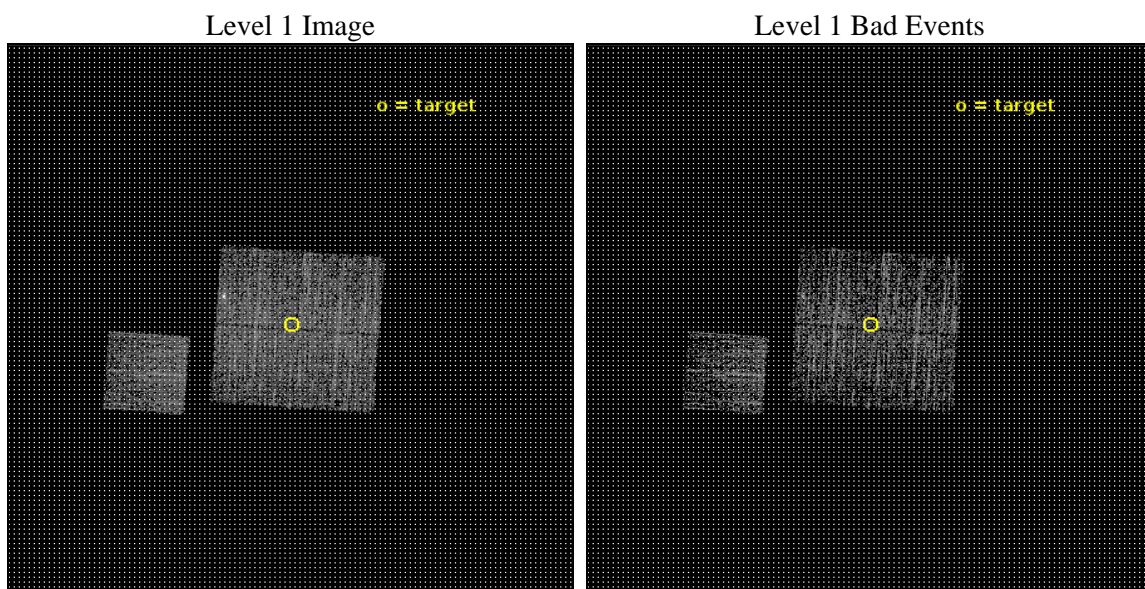
seq_num	300381	Sequence number
obs_id	18657	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	264.23223	Observer's specified target RA [deg]
dec_targ	-29.18521	Observer's specified target Dec [deg]
ra_nom	264.23554927218	Nominal RA [deg]
dec_nom	-29.19149342041	Nominal Dec [deg]
roll_nom	274.1260878787	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1949.9000151157	Sum of GTIs [s]
livetime	1924.4231359227	Livetime [s]
ontime0	1949.9000151157	Sum of GTIs [s]
ontime1	1949.9000151157	Sum of GTIs [s]
ontime2	1949.9000151157	Sum of GTIs [s]
ontime3	1949.9000151157	Sum of GTIs [s]
ontime6	1949.9000151157	Sum of GTIs [s]
l2events	10148	Number of level 2 events



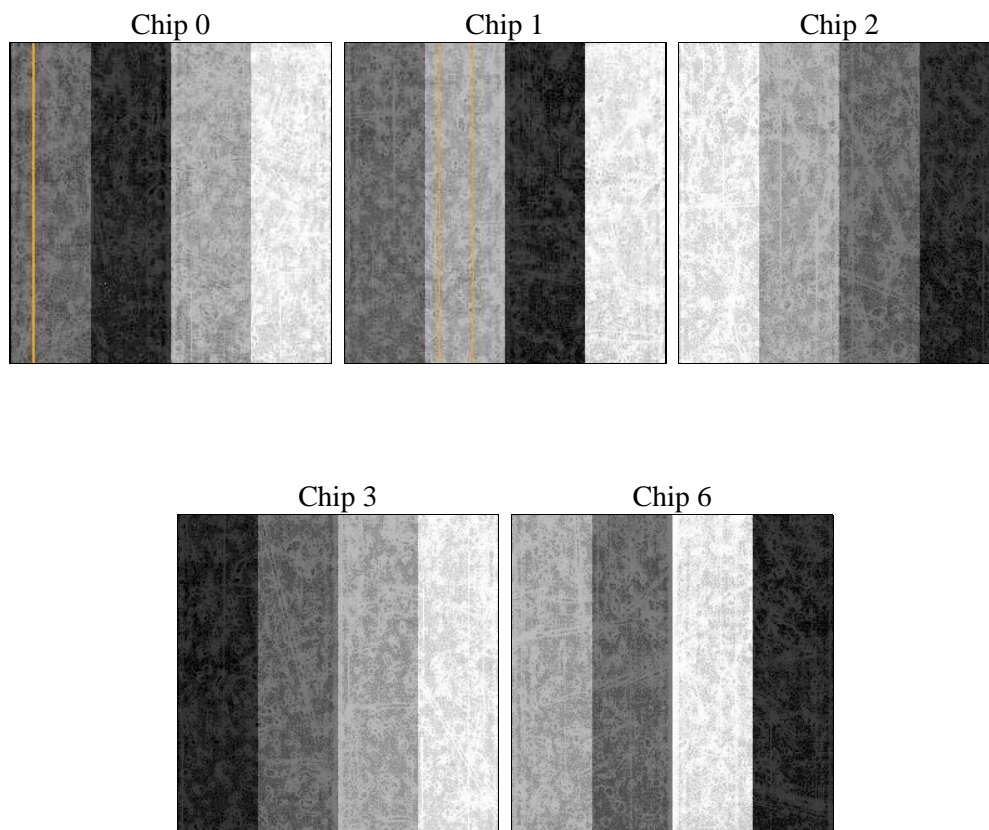
## 2 OBI

### 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	1949.9000151157	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	1949.9000151157	Sum of GTIs [s]
date	2016-07-31T12:46:42	Date and time of file creation	ontime1	1949.9000151157	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1949.9000151157	Sum of GTIs [s]
			ontime3	1949.9000151157	Sum of GTIs [s]
			ontime6	1949.9000151157	Sum of GTIs [s]
			l1events	67035	Number of level 1 events

### 2.1.4 Events

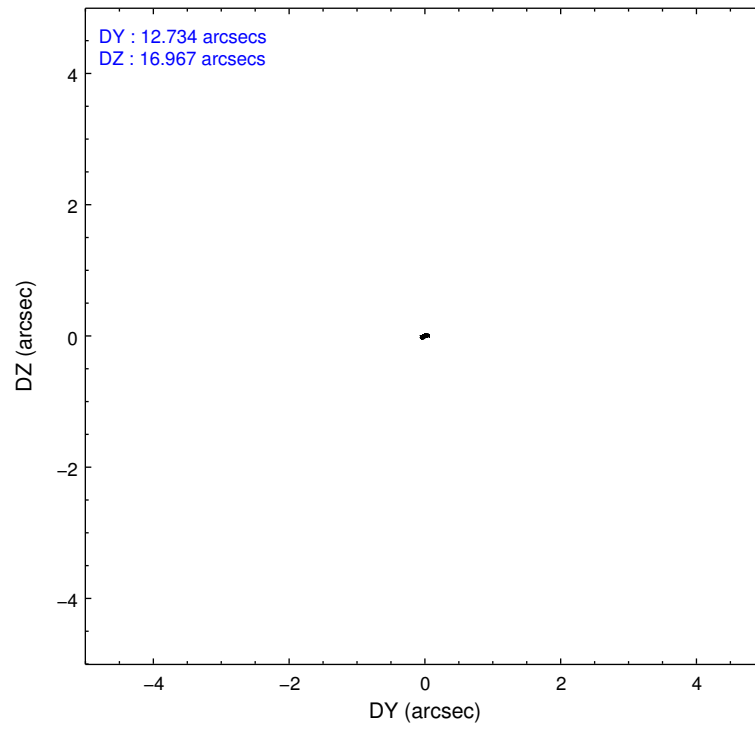
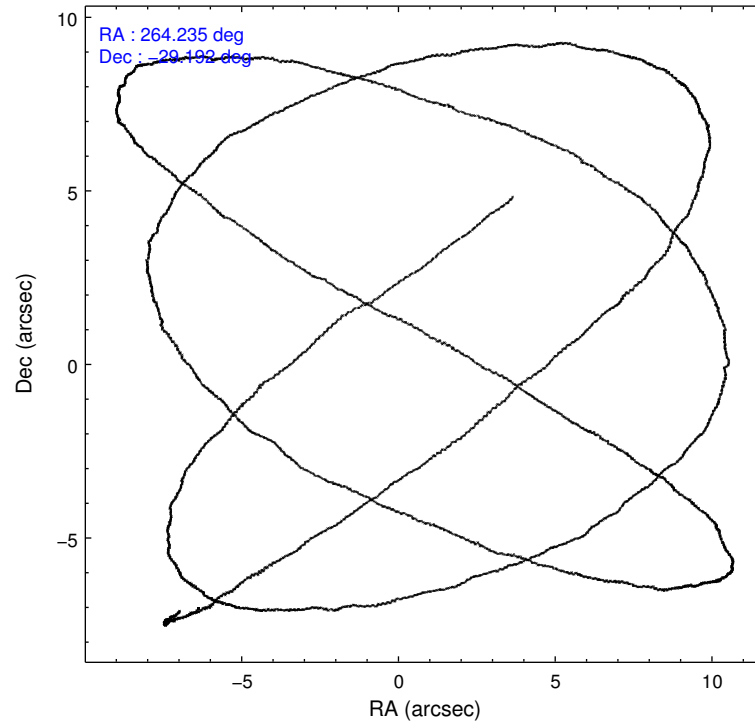
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	12415	13924	13012	15011	12673
rejected events	10882	11964	11338	10323	11120
rejected %	87%	85%	87%	68%	87%

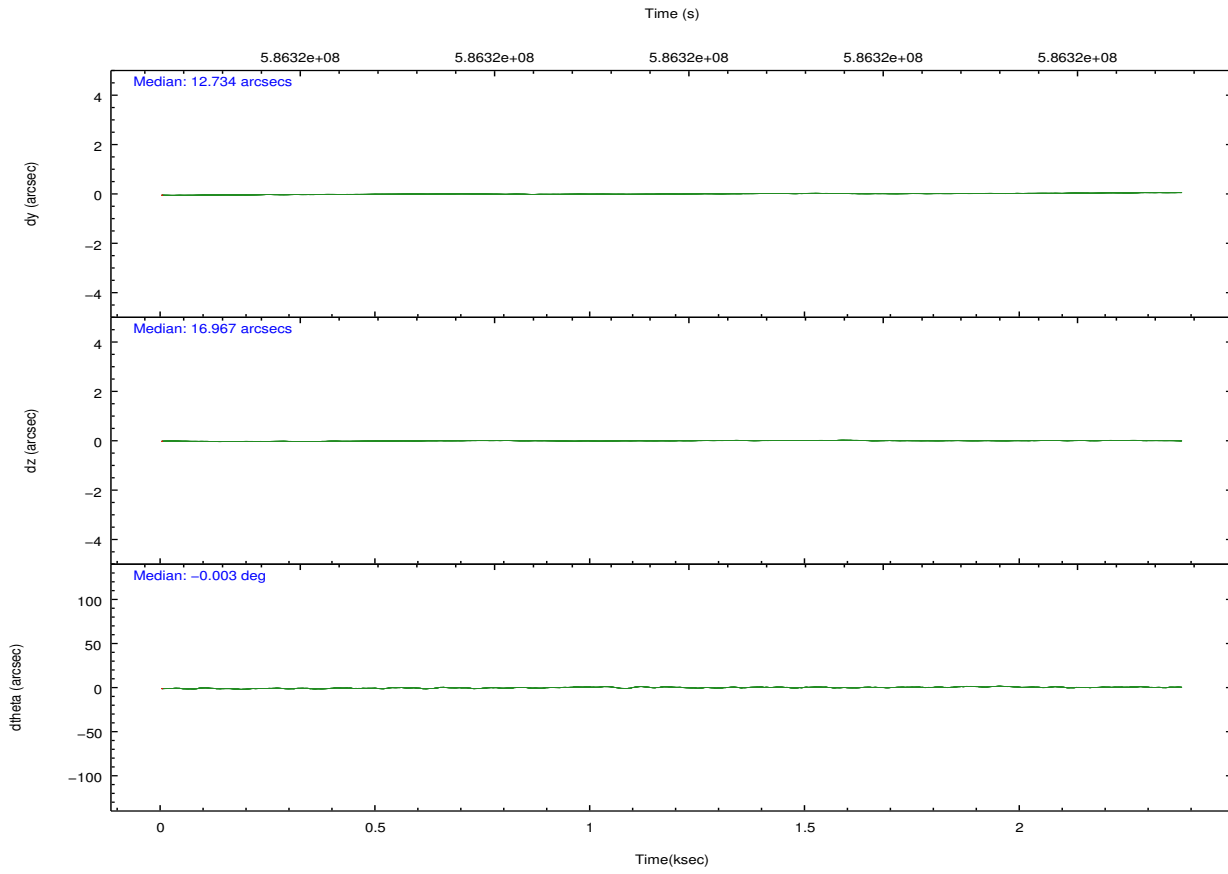
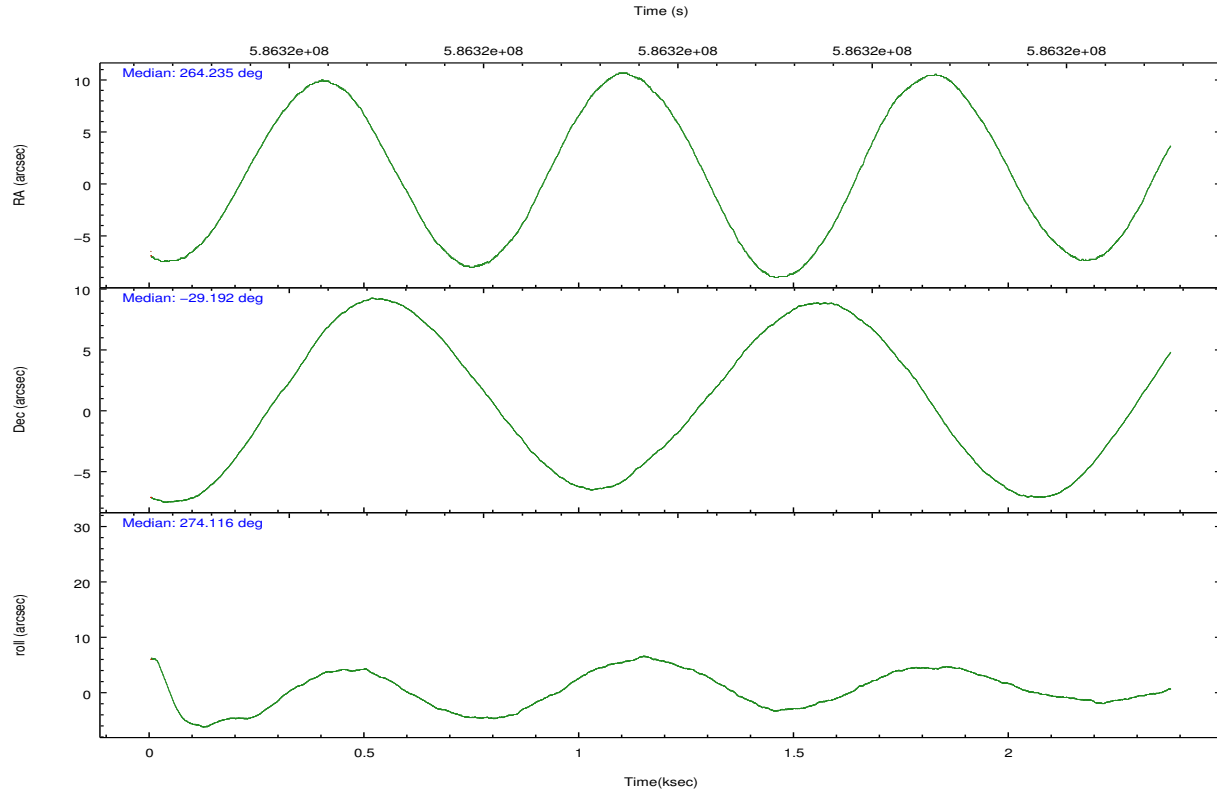
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	628	887	701	2714	575
	5%	6%	5%	18%	4%
grade 1 events	6	9	13	125	5
	0%	0%	0%	0%	0%
grade 2 events	382	440	373	808	366
	3%	3%	2%	5%	2%
grade 3 events	132	148	174	323	148
	1%	1%	1%	2%	1%
grade 4 events	138	162	127	316	128
	1%	1%	0%	2%	1%
grade 5 events	629	588	525	750	613
	5%	4%	4%	4%	4%
grade 6 events	259	333	304	540	340
	2%	2%	2%	3%	2%
grade 7 events	10241	11357	10795	9435	10498
	82%	81%	82%	62%	82%

## 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	264.217828	264.2355492721813	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.168516	-29.19149342040989	CCD I3 on	Y	Y
[deg] Pointing Roll	273.908691	274.1260878787033	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)	586318470.184000	586318093.37191	CCD S5 on	N	N
Observation start date	2016-07-31T02:13:22	2016-07-31T02:08:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	586320650.184000	586320783.9970599	On-chip summing requested	N	N
Observation end date	2016-07-31T02:49:42	2016-07-31T02:53:03	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





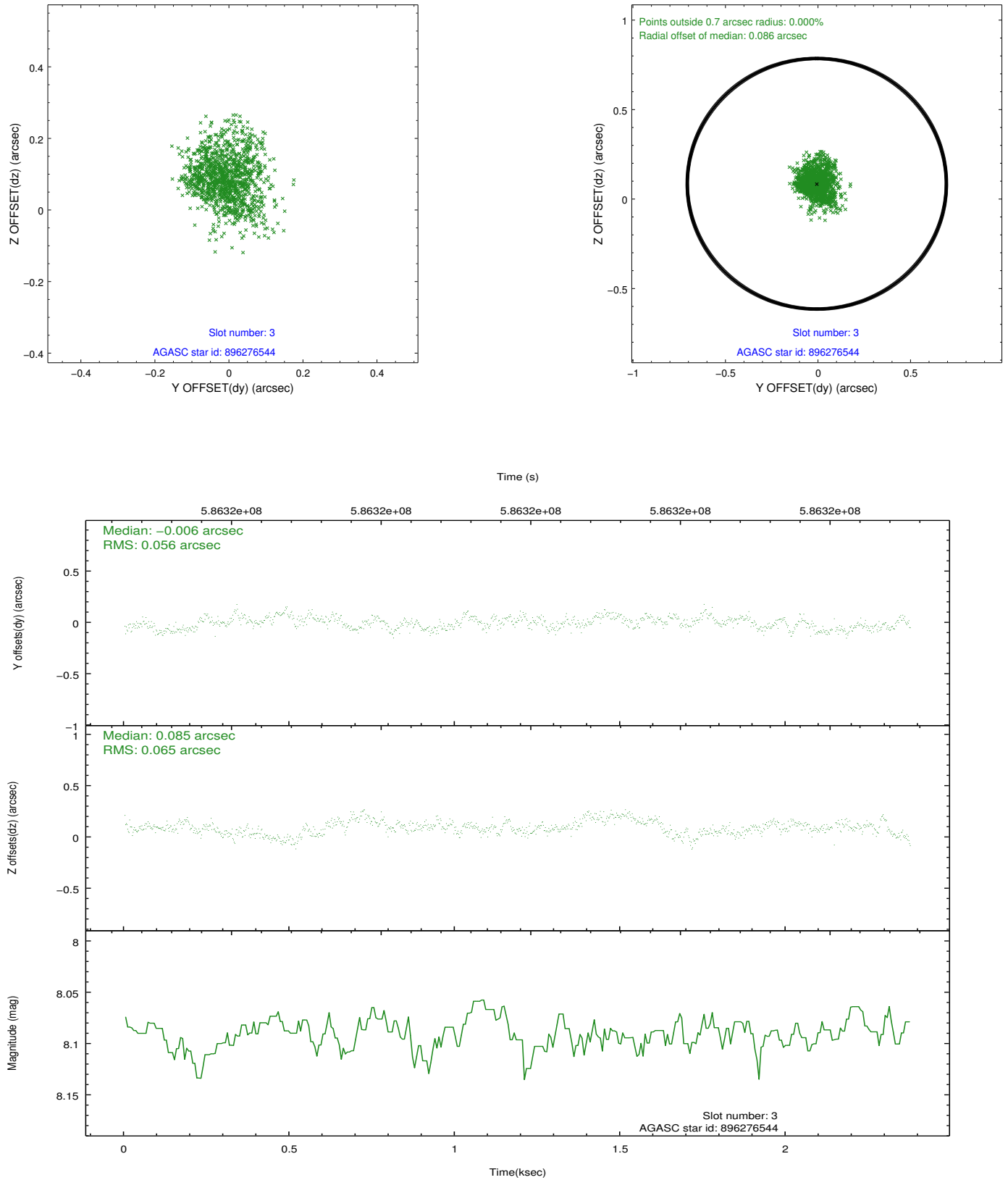
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.03	579	0.075	-0.056	0.007	0.011	0.000000	0.000000	926.88	-840.65
1	FID		ACIS-I-5	7.04	580	-0.284	0.053	0.007	0.010	0.000000	0.000000	-1820.12	1055.52
2	FID		ACIS-I-6	7.03	580	0.117	0.073	0.007	0.012	0.000000	0.000000	389.44	1703.18
3	GUIDE	used	896276544	8.09	1155	-0.006	0.085	0.093	0.151	263.666616	-29.255819	199.57	-1748.24
4	GUIDE	used	896278192	8.67	1159	0.113	0.119	0.099	0.172	263.596121	-29.333327	464.39	-1988.18
5	GUIDE	used	896403072	8.33	1159	0.039	0.099	0.075	0.119	263.956439	-28.943077	-864.69	-767.49
6	GUIDE	used	896404376	6.65	1159	-0.055	-0.314	0.098	0.161	264.835179	-29.530972	1437.31	1839.82
7	GUIDE	used	896405976	9.08	1090	-0.094	0.017	0.111	0.181	264.638127	-28.604395	-1932.49	1465.33

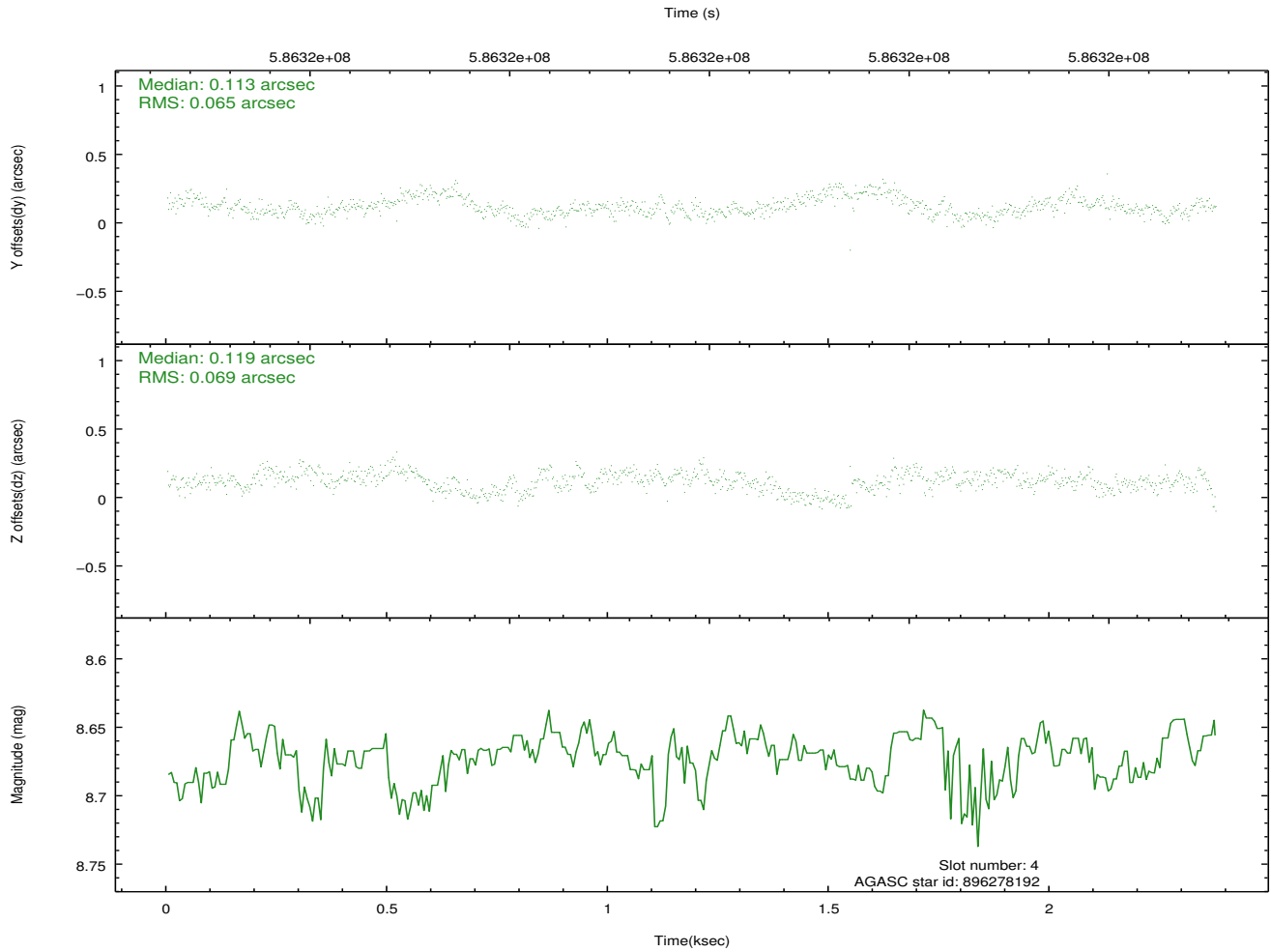
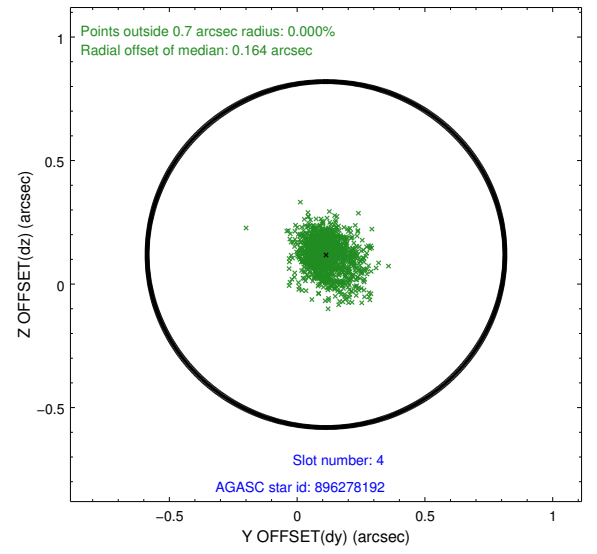
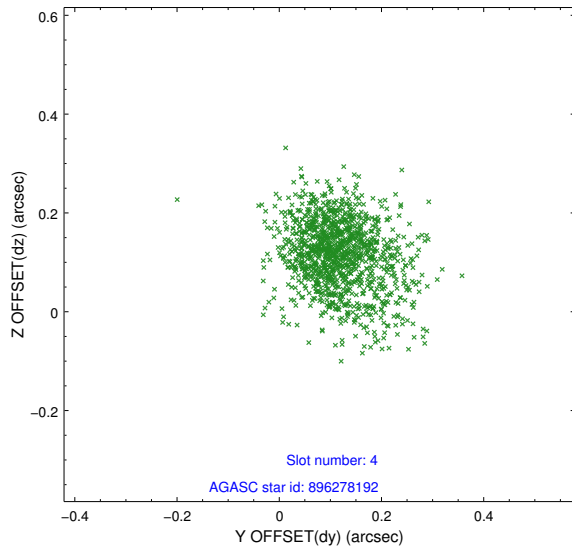


## 2.4 Star Slots

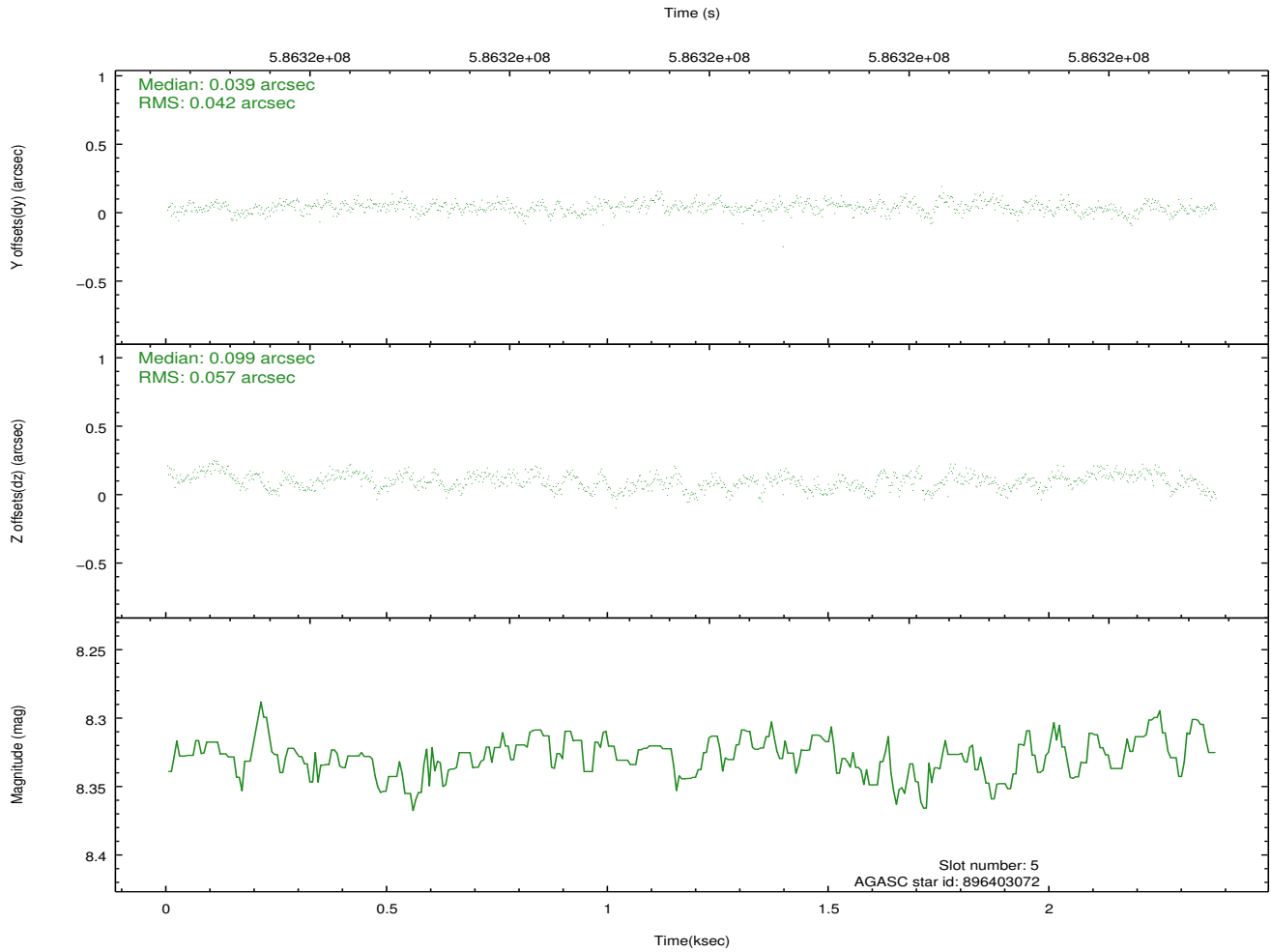
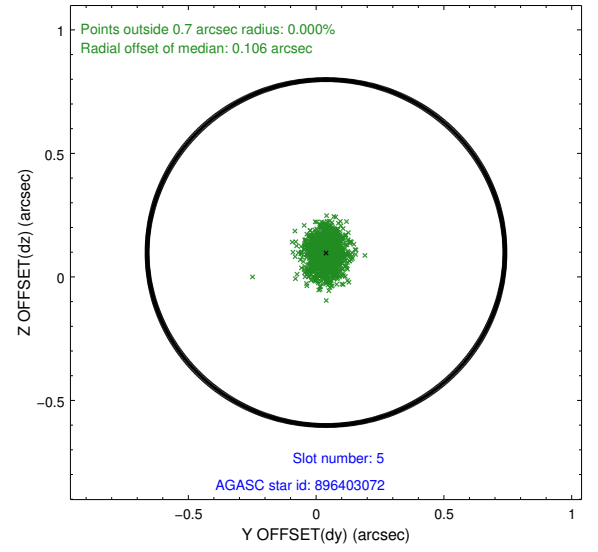
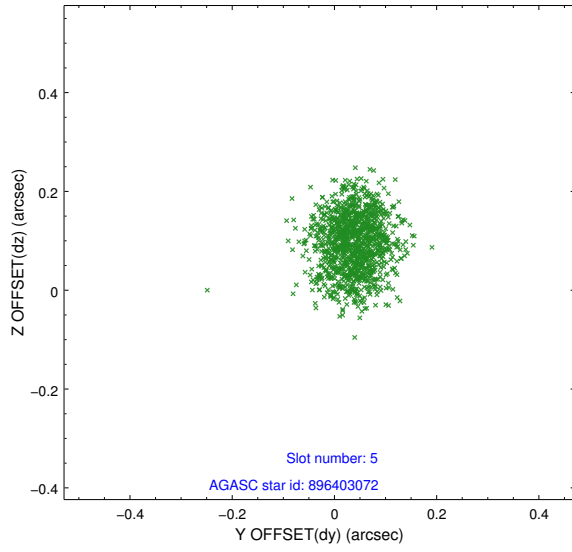
### 2.4.1 Slot 3



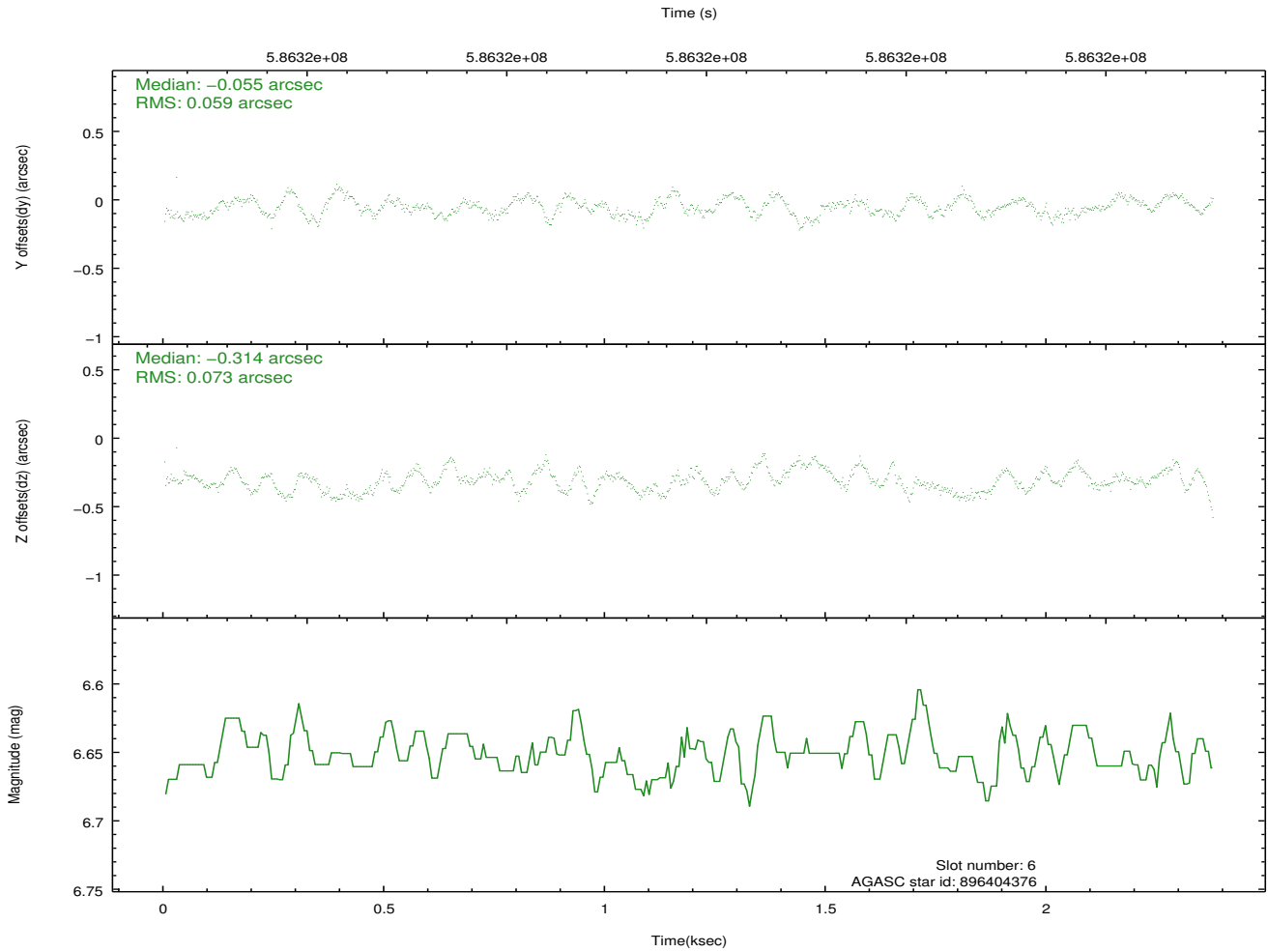
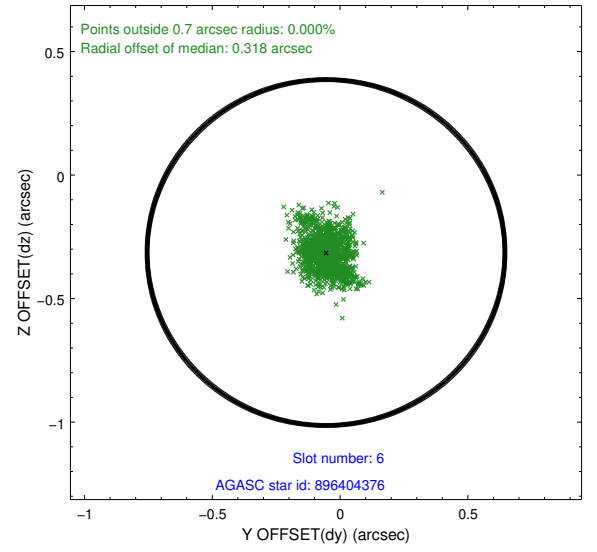
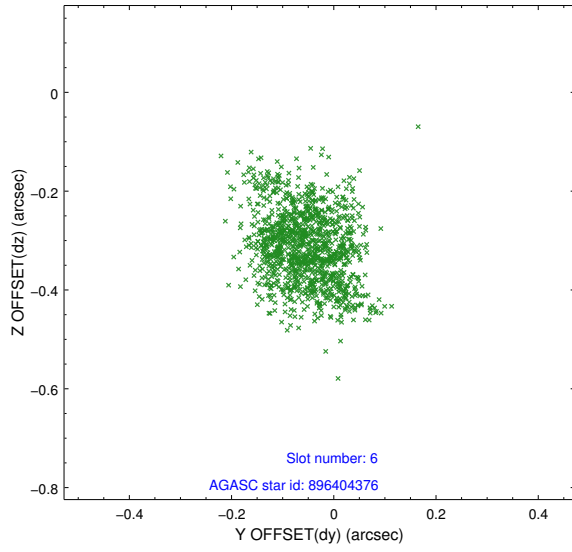
## 2.4.2 Slot 4



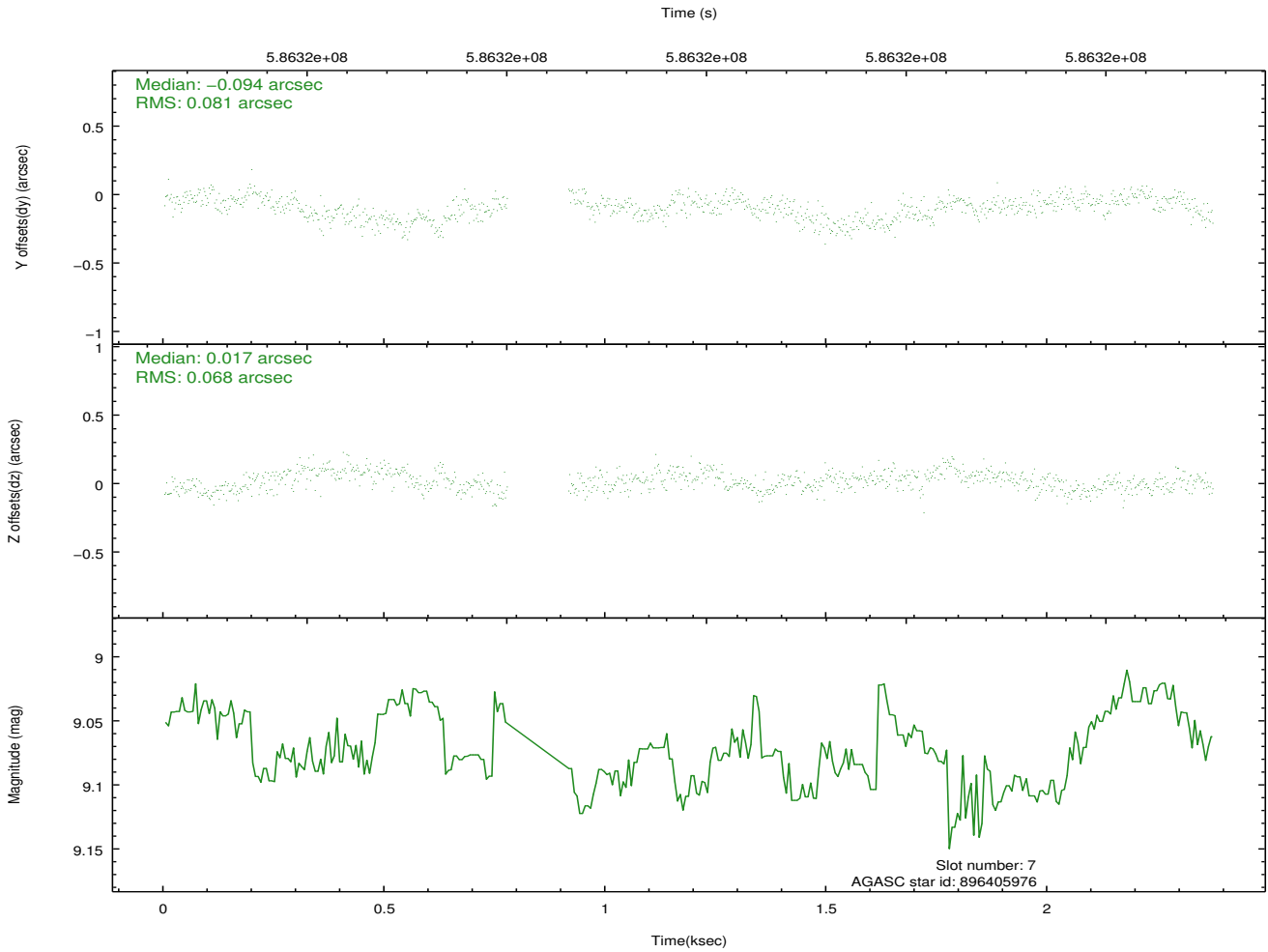
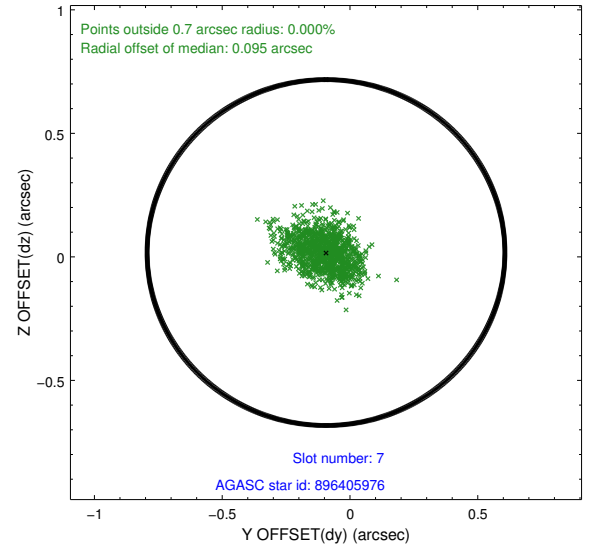
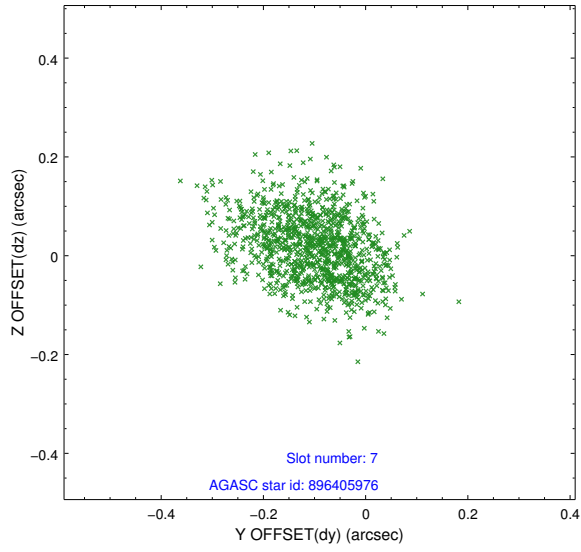
### 2.4.3 Slot 5



## 2.4.4 Slot 6

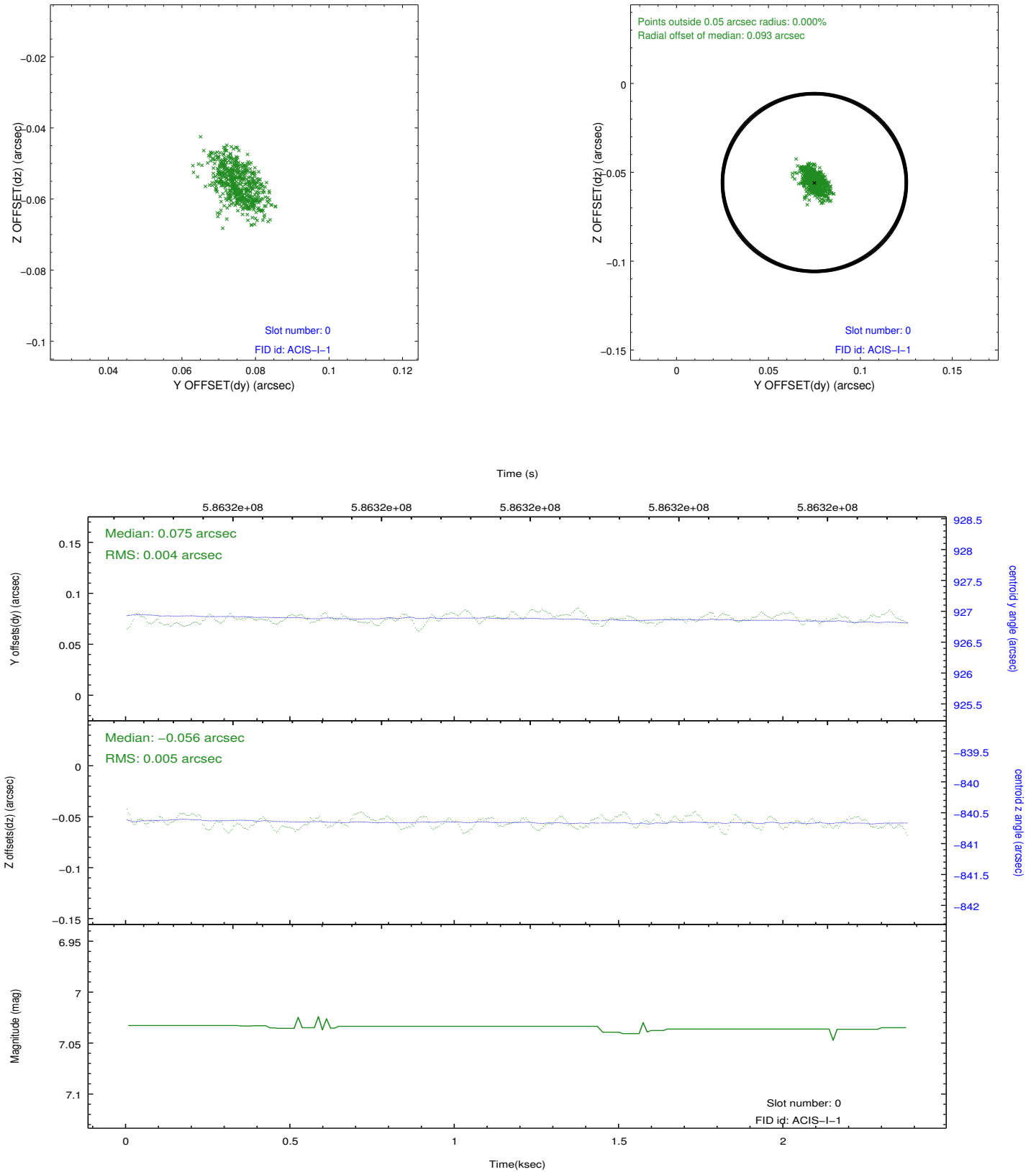


## 2.4.5 Slot 7

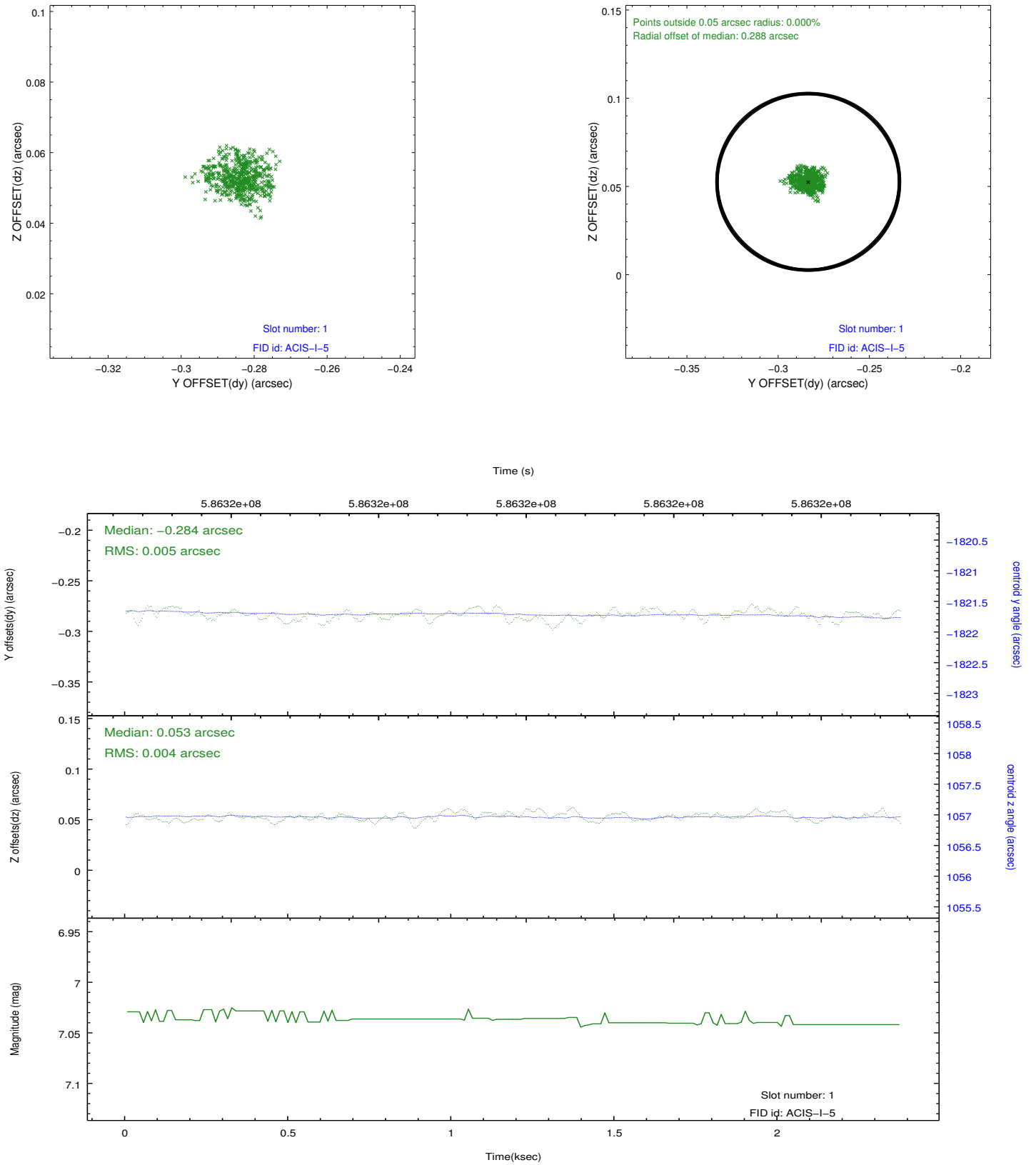


## 2.5 FID Slots

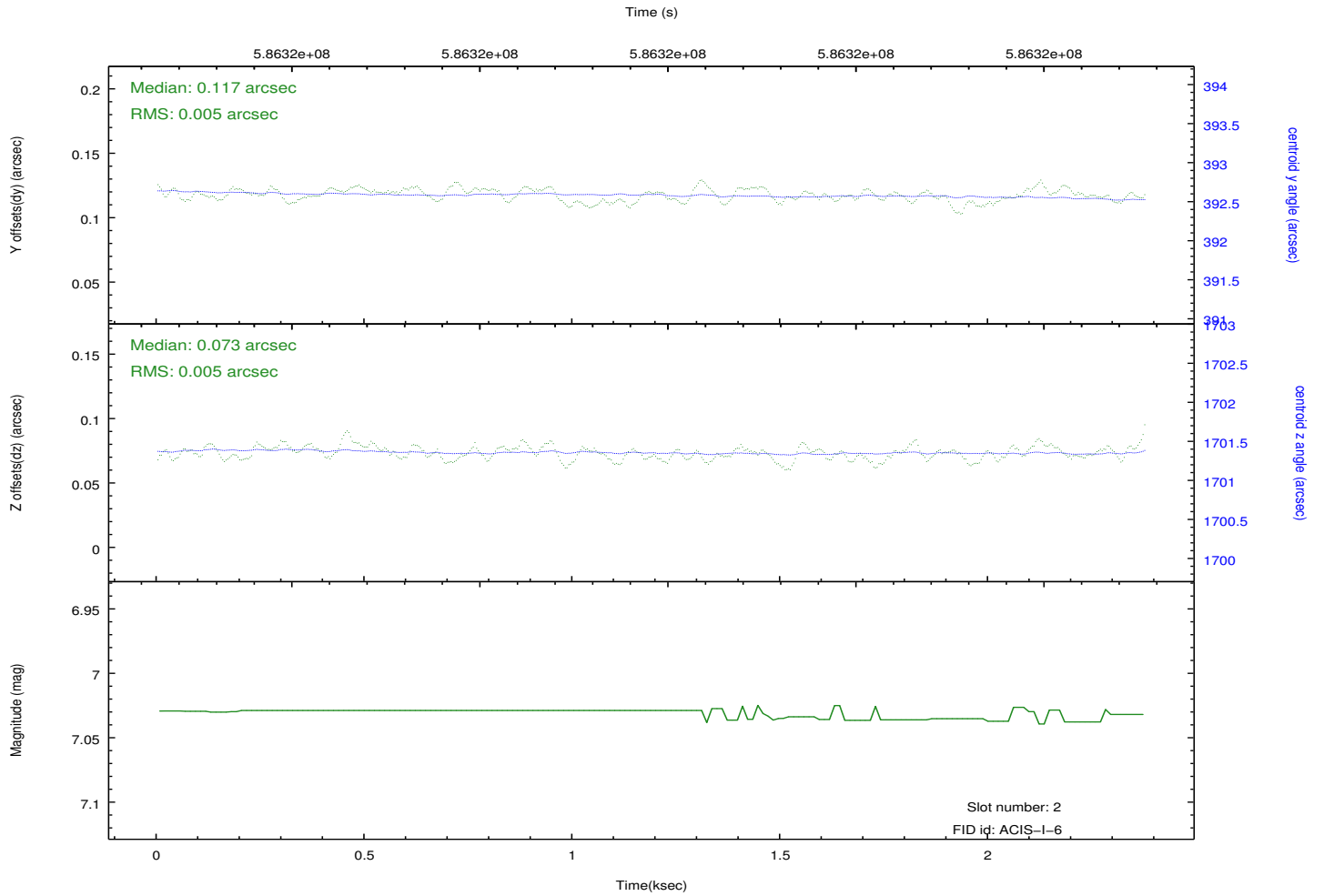
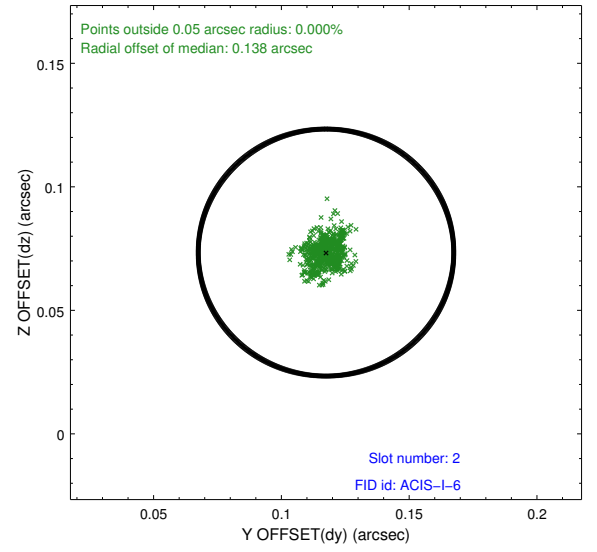
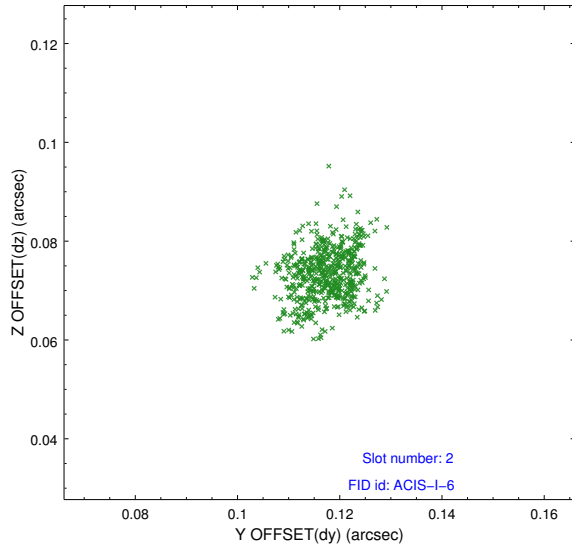
### 2.5.1 Slot 0



## 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)	2016.08.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9499000151157

### A.2 Comments