

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18334 - L2 Version 1  
Chandra X-Ray Center

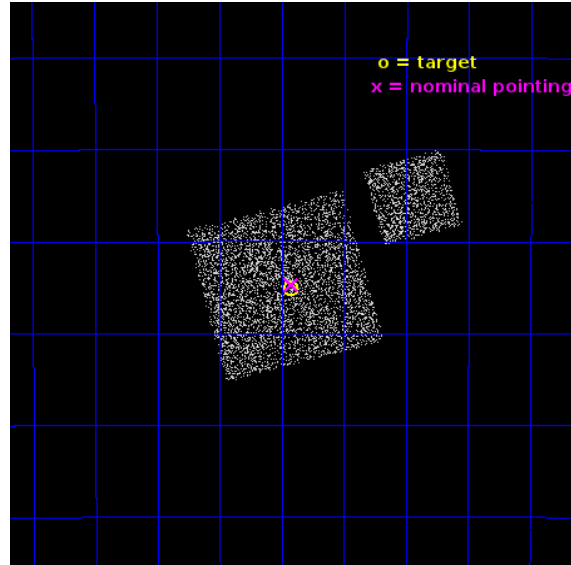
L2 Processing Date : May 22 2016

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# 1 Front

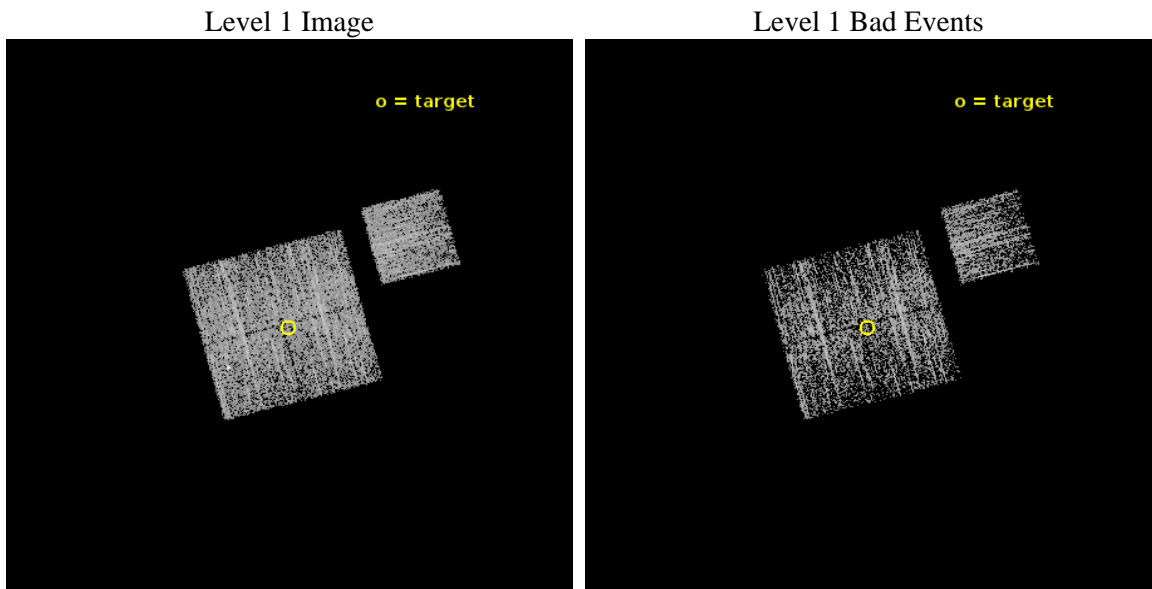
seq_num	300365	Sequence number
obs_id	18334	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	265.60642	Observer's specified target RA [deg]
dec_targ	-29.7526	Observer's specified target Dec [deg]
ra_nom	265.60569229347	Nominal RA [deg]
dec_nom	-29.74545654919	Nominal Dec [deg]
roll_nom	75.055211460199	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1955.6617152691	Sum of GTIs [s]
livetime	1930.1095552219	Livetime [s]
ontime0	1955.5385950804	Sum of GTIs [s]
ontime1	1955.5796350241	Sum of GTIs [s]
ontime2	1955.6206753254	Sum of GTIs [s]
ontime3	1955.6617152691	Sum of GTIs [s]
ontime6	1955.4975552559	Sum of GTIs [s]
l2events	6973	Number of level 2 events



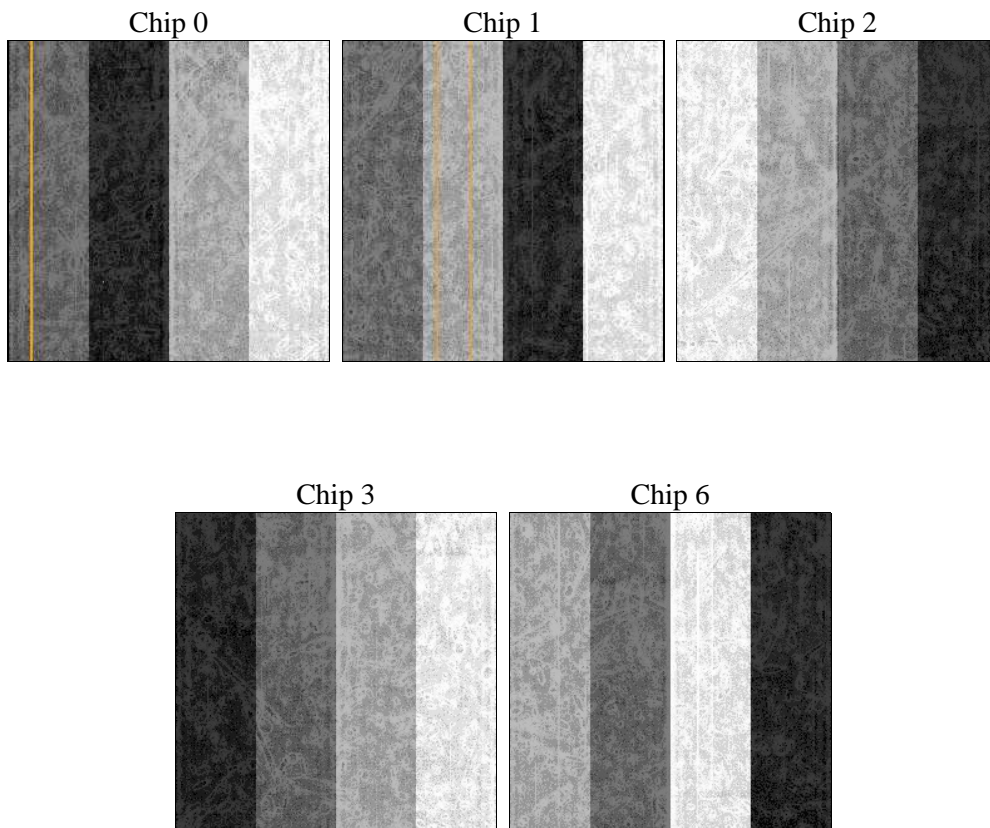
## 2 OBI

### 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	10.4.3.1	Processing system revision	ontime	1955.6617152691	Sum of GTIs [s]
caldsver	4.7.1	&#160	ontime0	1955.5385950804	Sum of GTIs [s]
date	2016-05-22T07:31:59	Date and time of file creation	ontime1	1955.5796350241	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1955.6206753254	Sum of GTIs [s]
			ontime3	1955.6617152691	Sum of GTIs [s]
			ontime6	1955.4975552559	Sum of GTIs [s]
			l1events	62599	Number of level 1 events

### 2.1.4 Events

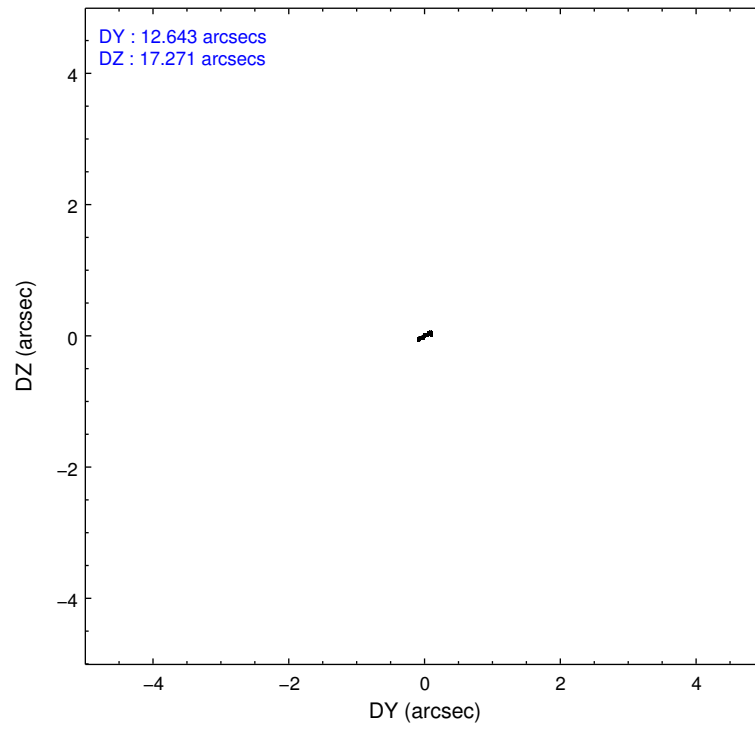
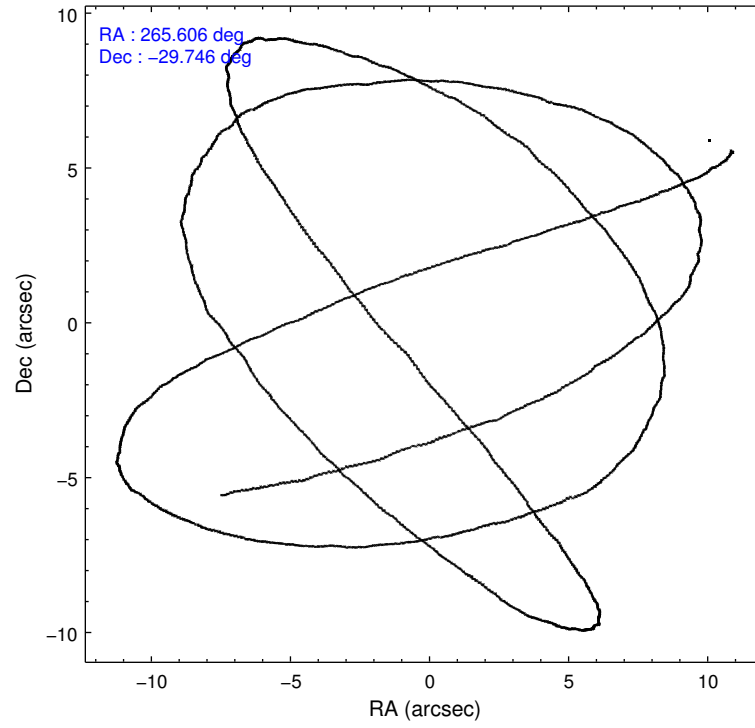
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	12617	12068	13243	11716	12955
rejected events	10866	9968	11731	10255	11347
rejected %	86%	82%	88%	87%	87%

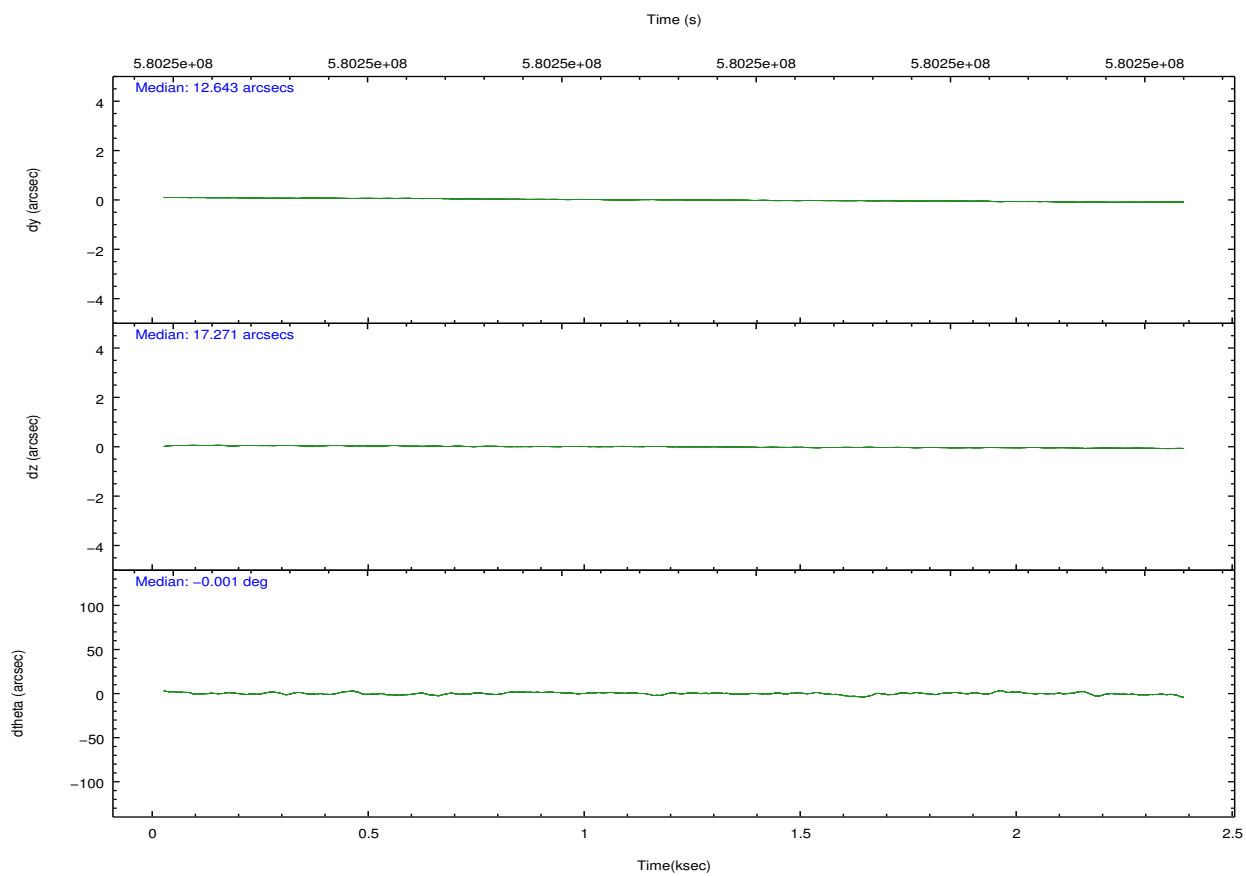
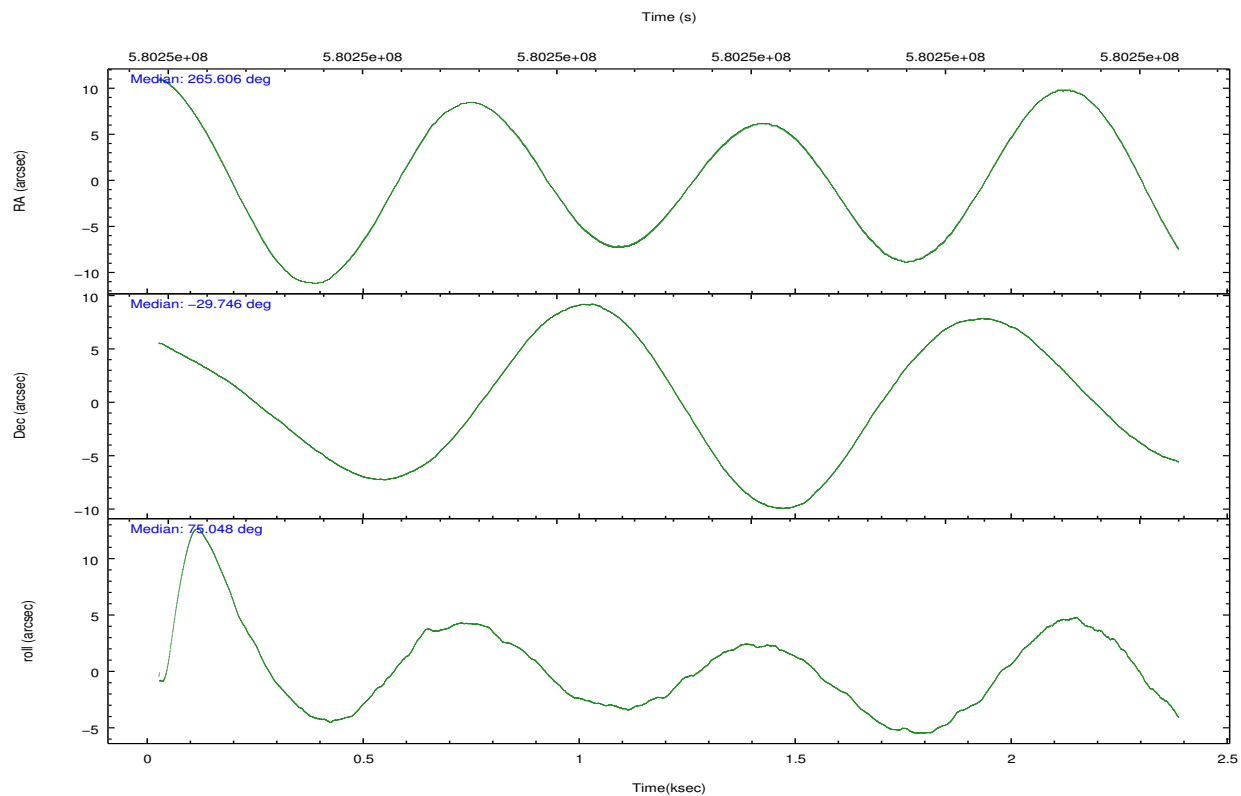
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	716	1067	616	587	577
	5%	8%	4%	5%	4%
grade 1 events	11	16	5	3	5
	0%	0%	0%	0%	0%
grade 2 events	408	401	337	296	369
	3%	3%	2%	2%	2%
grade 3 events	170	129	139	145	141
	1%	1%	1%	1%	1%
grade 4 events	149	152	144	154	153
	1%	1%	1%	1%	1%
grade 5 events	552	568	495	581	555
	4%	4%	3%	4%	4%
grade 6 events	308	360	278	281	370
	2%	2%	2%	2%	2%
grade 7 events	10303	9375	11229	9669	10785
	81%	77%	84%	82%	83%

## 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	265.614012	265.6056922934685	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.772113	-29.74545654918962	CCD I3 on	Y	Y
[deg] Pointing Roll	74.850661	75.05521146019886	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)	580247313.184000	580246937.04889	CCD S5 on	N	N
Observation start date	2016-05-21T19:47:25	2016-05-21T19:42:17	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	580249493.184000	580249627.16154	On-chip summing requested	N	N
Observation end date	2016-05-21T20:23:45	2016-05-21T20:27:07	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





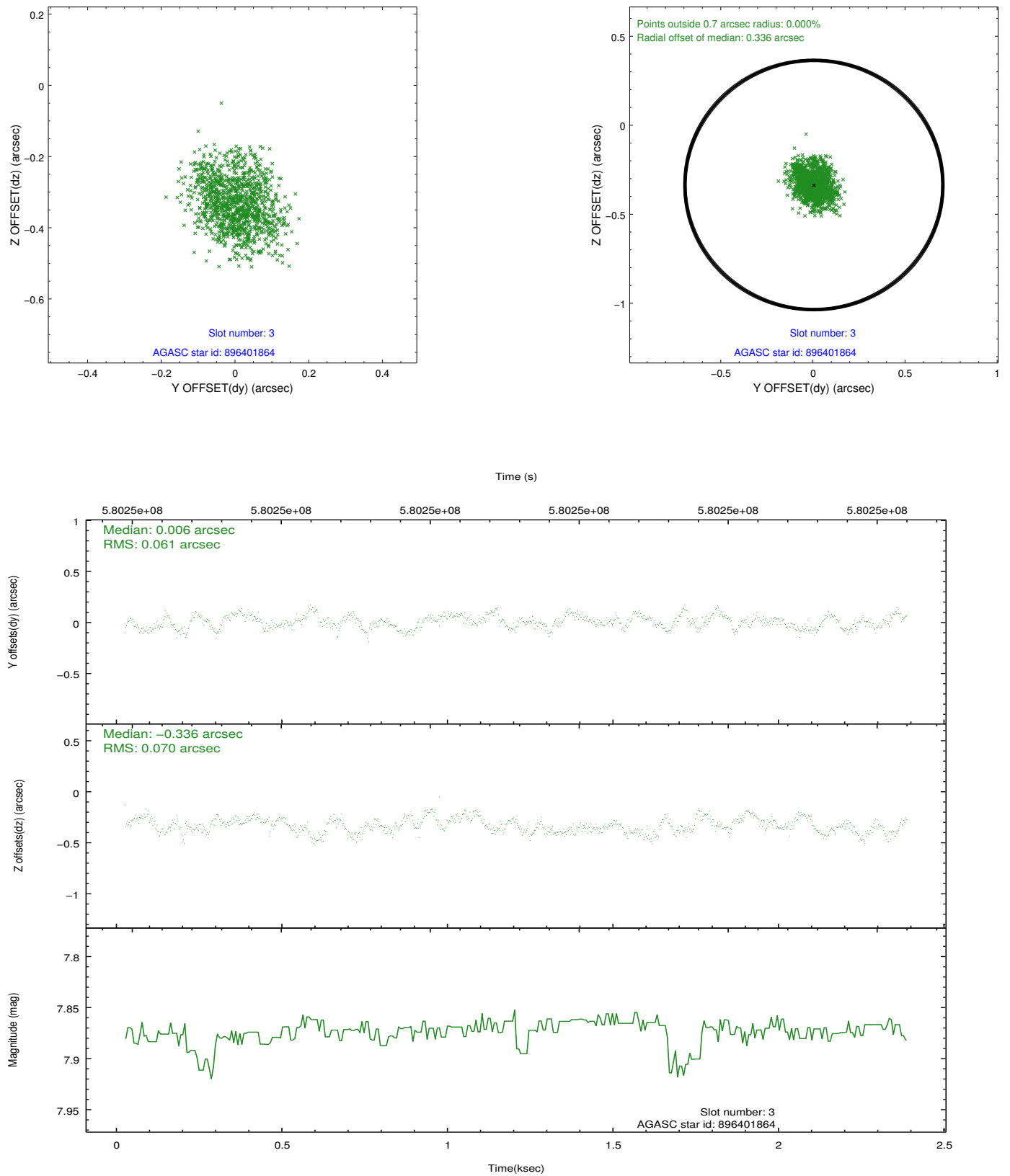
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.26	576	-0.023	-0.038	0.009	0.017	0.000000	0.000000	926.85	-840.98
1	FID		ACIS-I-2	7.15	576	-0.329	-0.142	0.007	0.012	0.000000	0.000000	-766.03	-848.88
2	FID		ACIS-I-4	7.17	576	0.253	0.248	0.008	0.016	0.000000	0.000000	2145.77	1057.71
3	GUIDE	used	896401864	7.87	1153	0.006	-0.336	0.101	0.155	264.861768	-29.959752	-1272.71	2085.94
4	GUIDE	used	896403224	8.26	1153	0.112	-0.301	0.105	0.167	265.612825	-29.438915	1155.66	318.76
5	GUIDE	used	896540808	7.48	1153	-0.194	0.061	0.073	0.112	265.985401	-29.308604	1914.57	-688.96
6	GUIDE	used	896541168	8.12	1151	0.011	0.384	0.095	0.169	266.319970	-29.850801	297.93	-2203.17
7	GUIDE	used	966924920	8.06	1152	0.052	0.195	0.092	0.142	265.875401	-30.176961	-1194.52	-1167.94

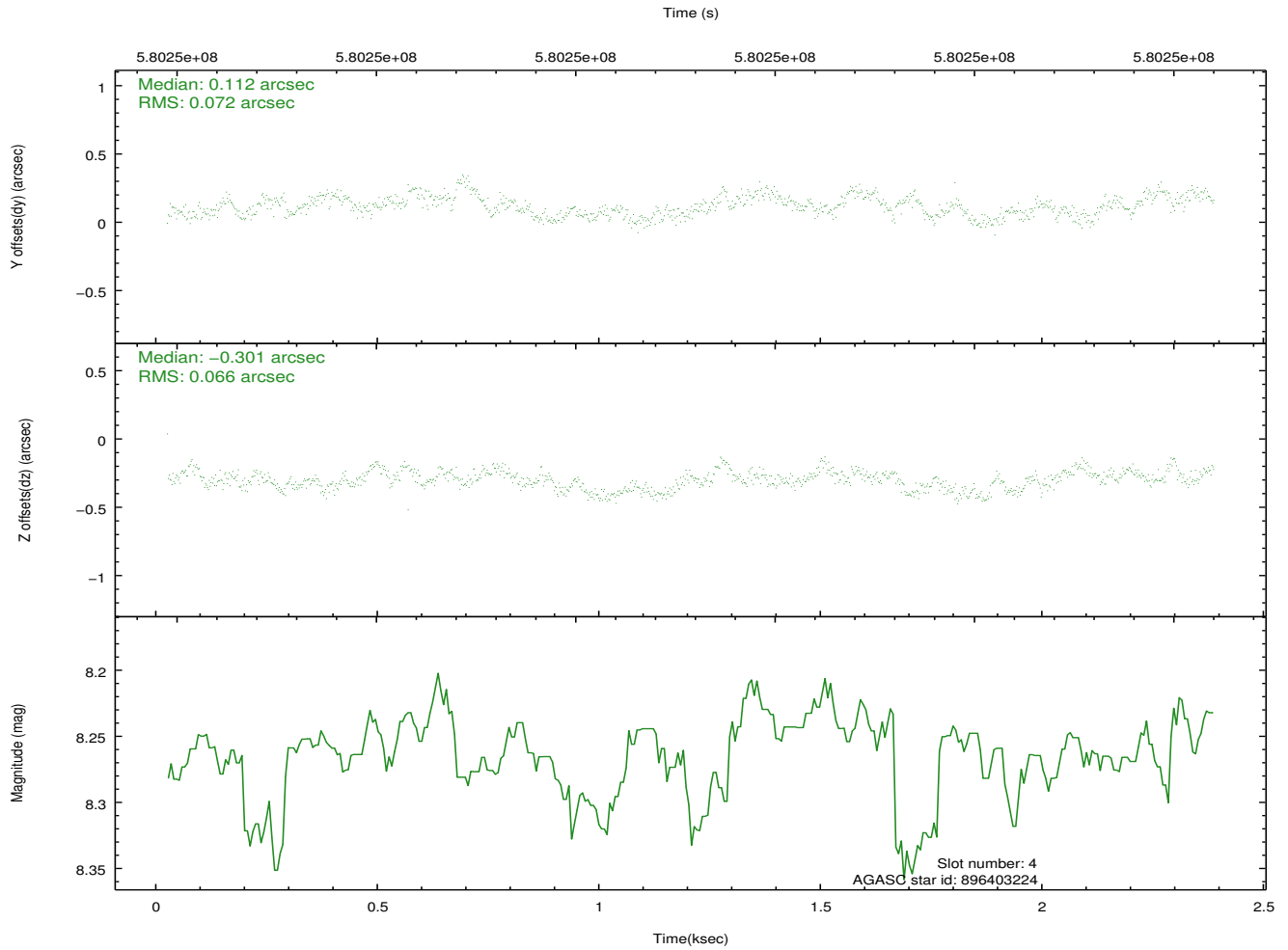
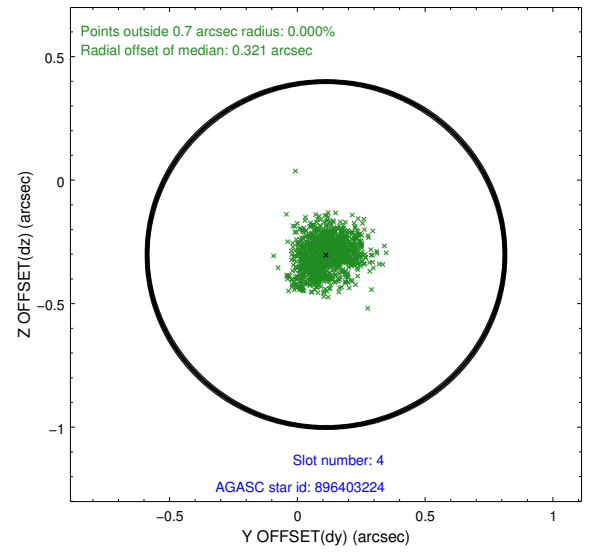
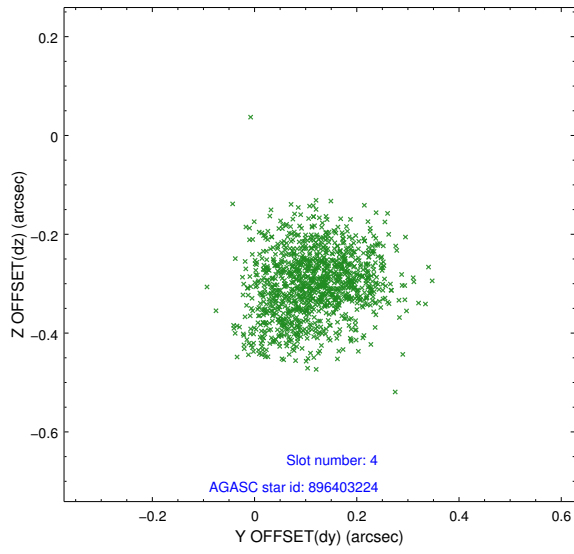


## 2.4 Star Slots

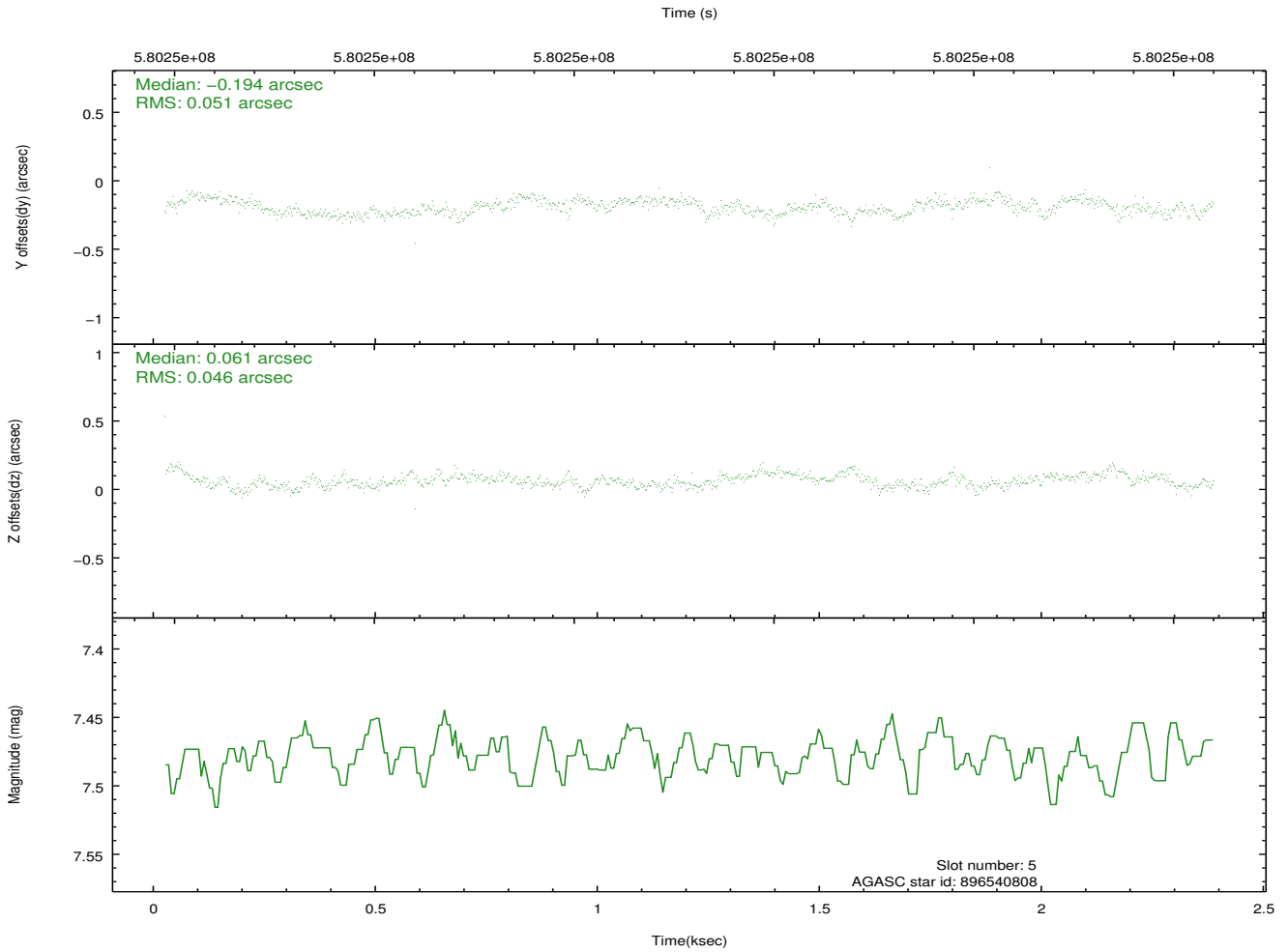
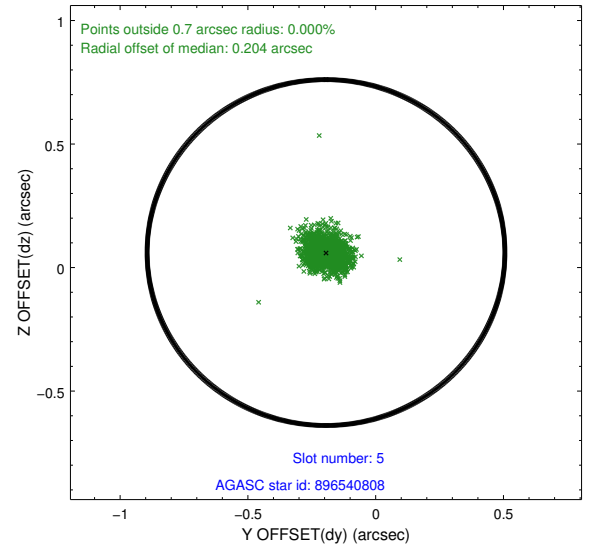
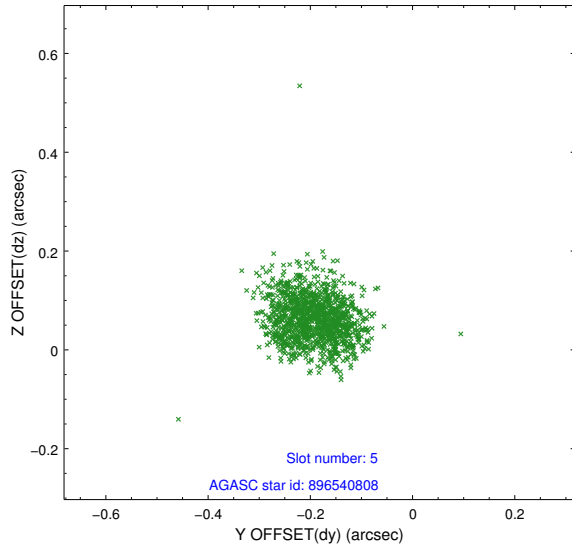
### 2.4.1 Slot 3



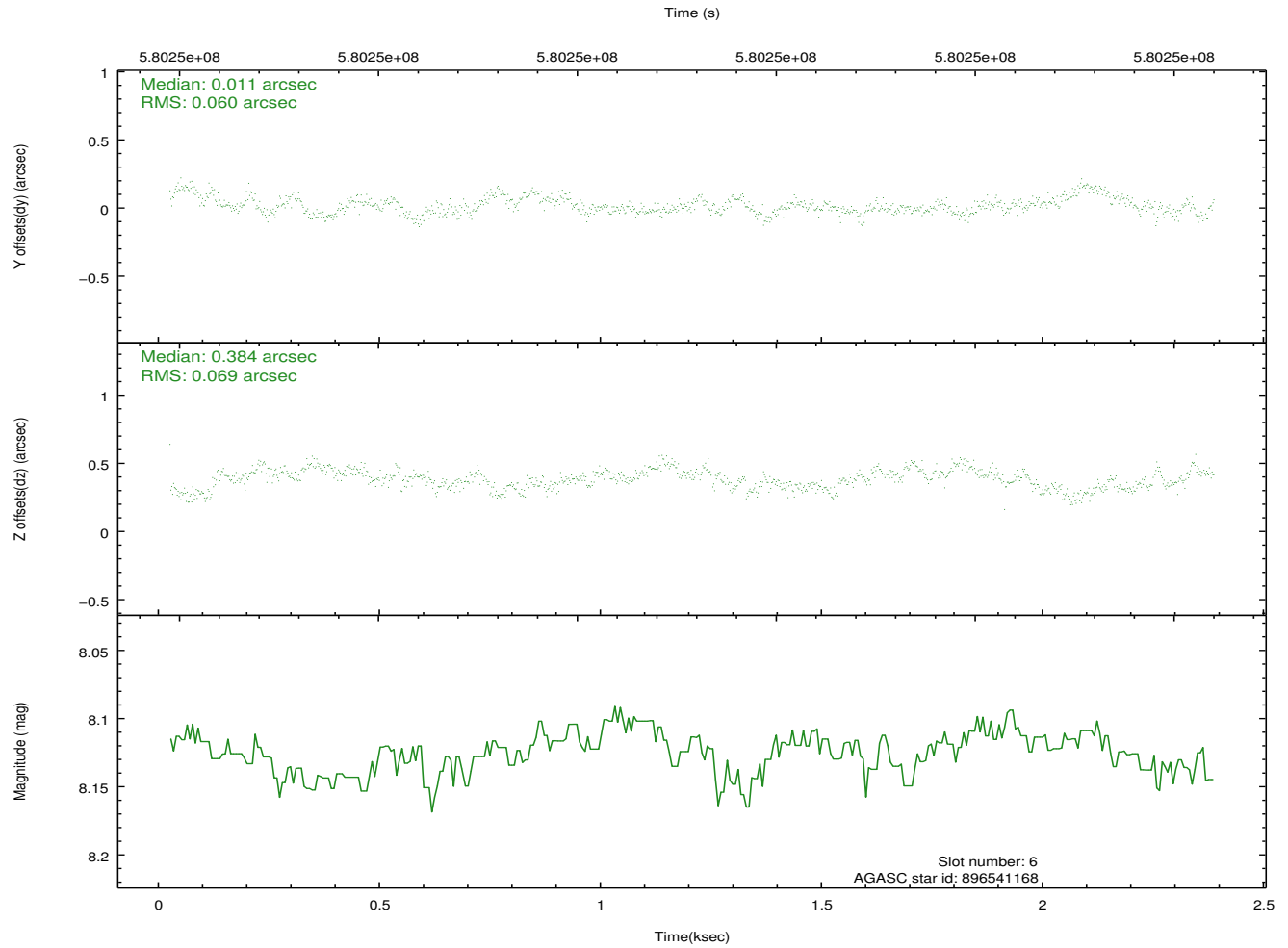
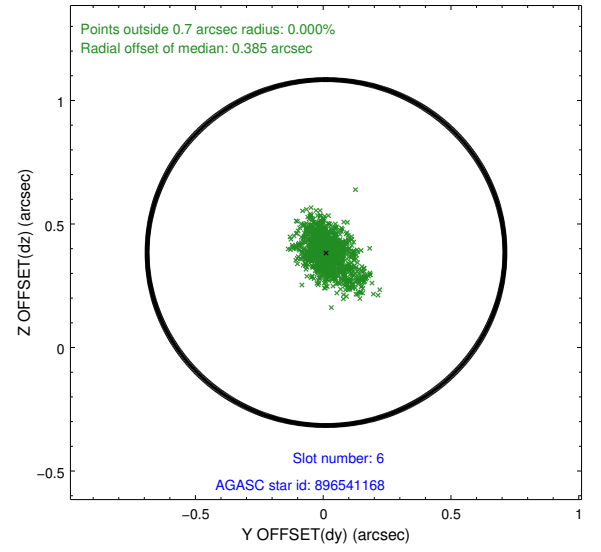
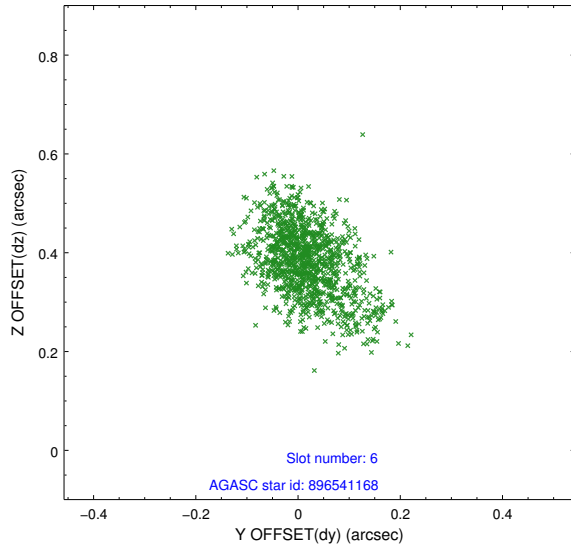
## 2.4.2 Slot 4



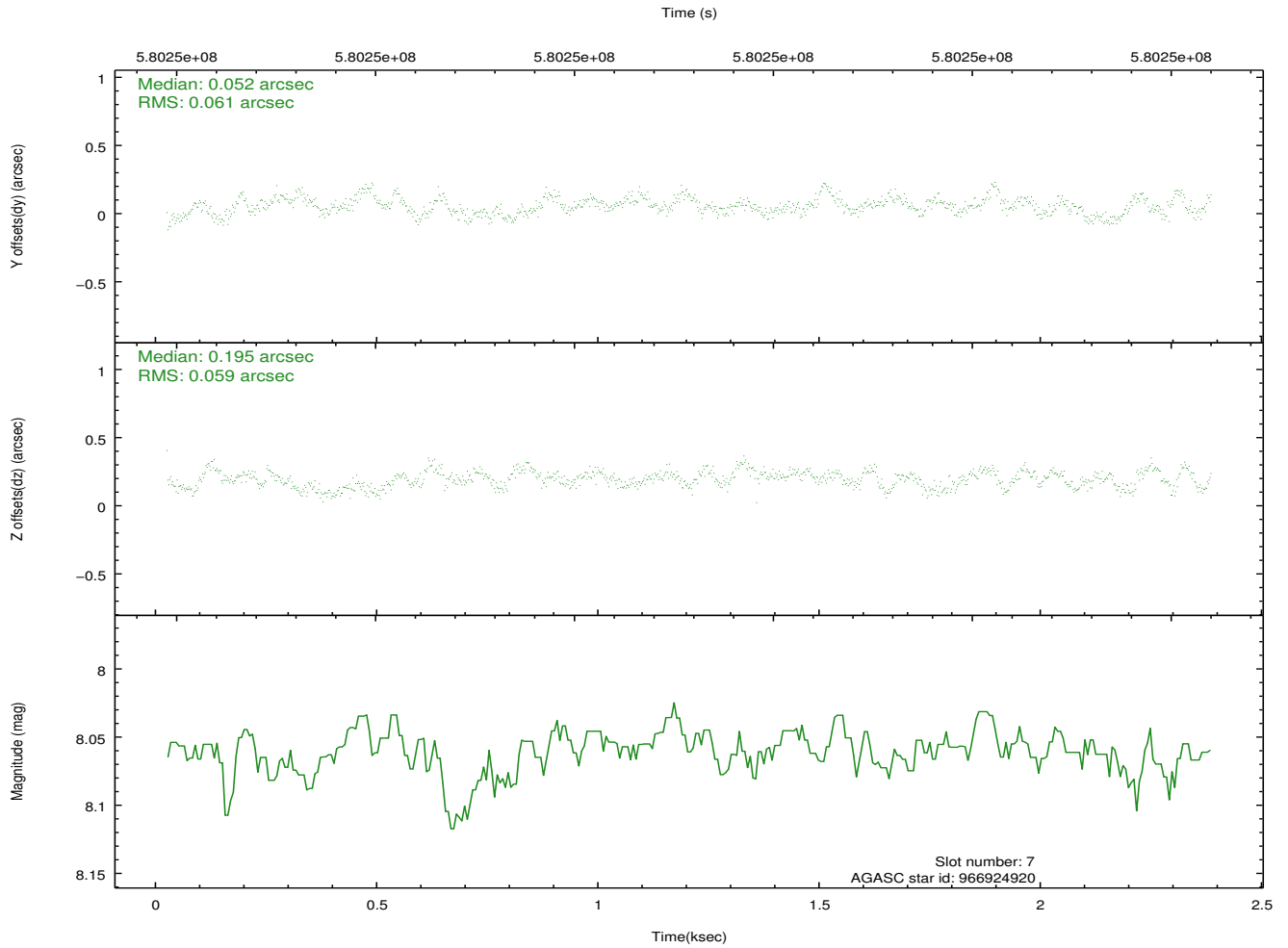
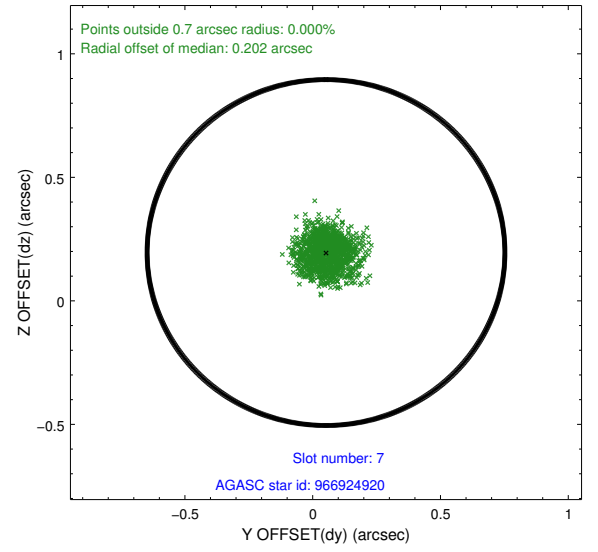
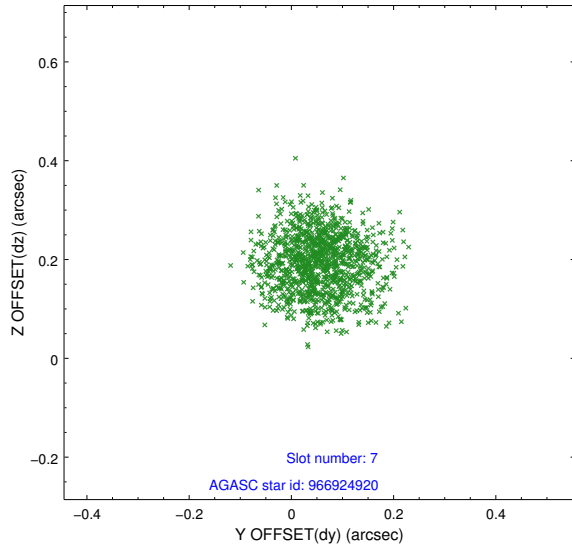
### 2.4.3 Slot 5



## 2.4.4 Slot 6

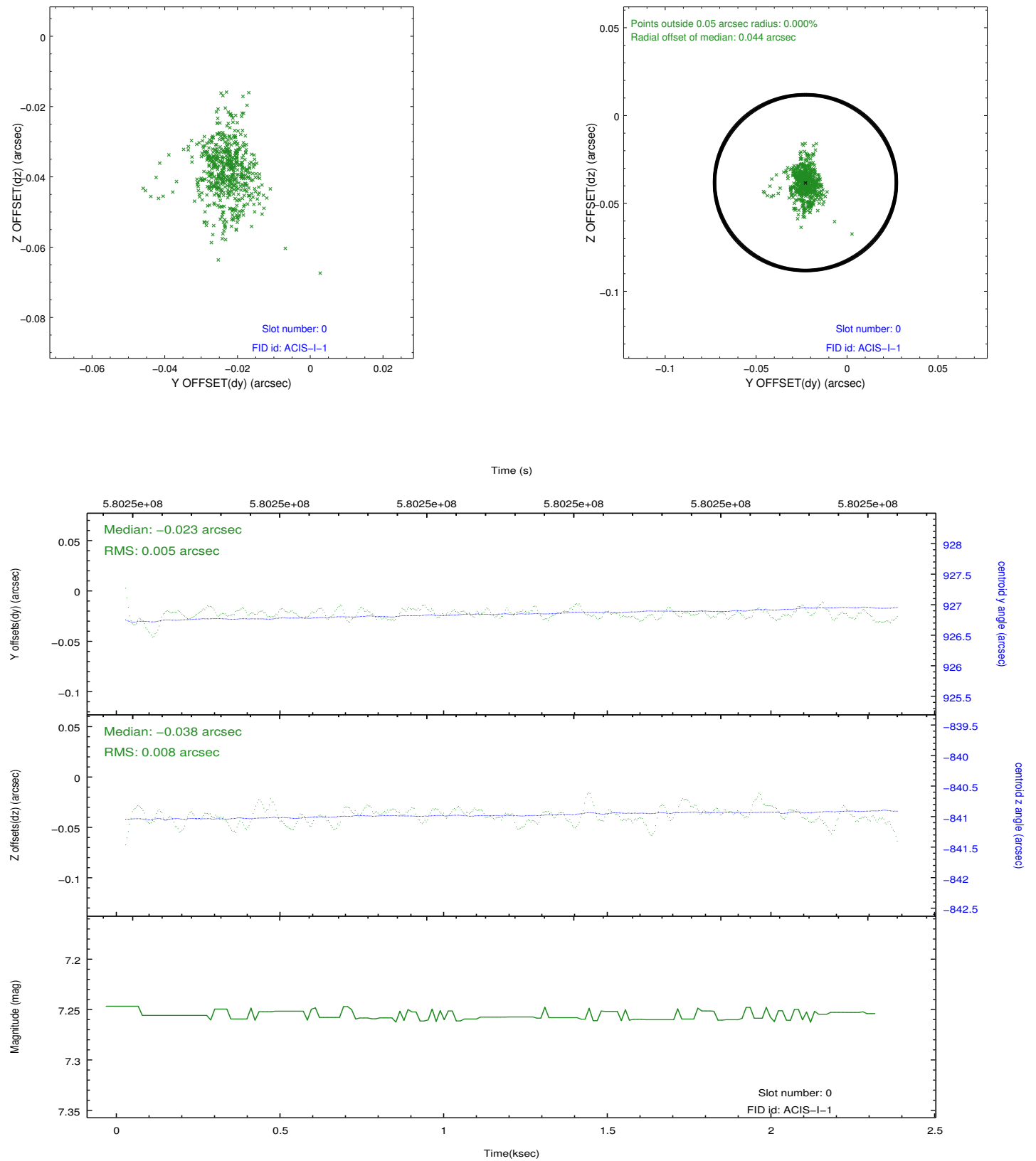


## 2.4.5 Slot 7

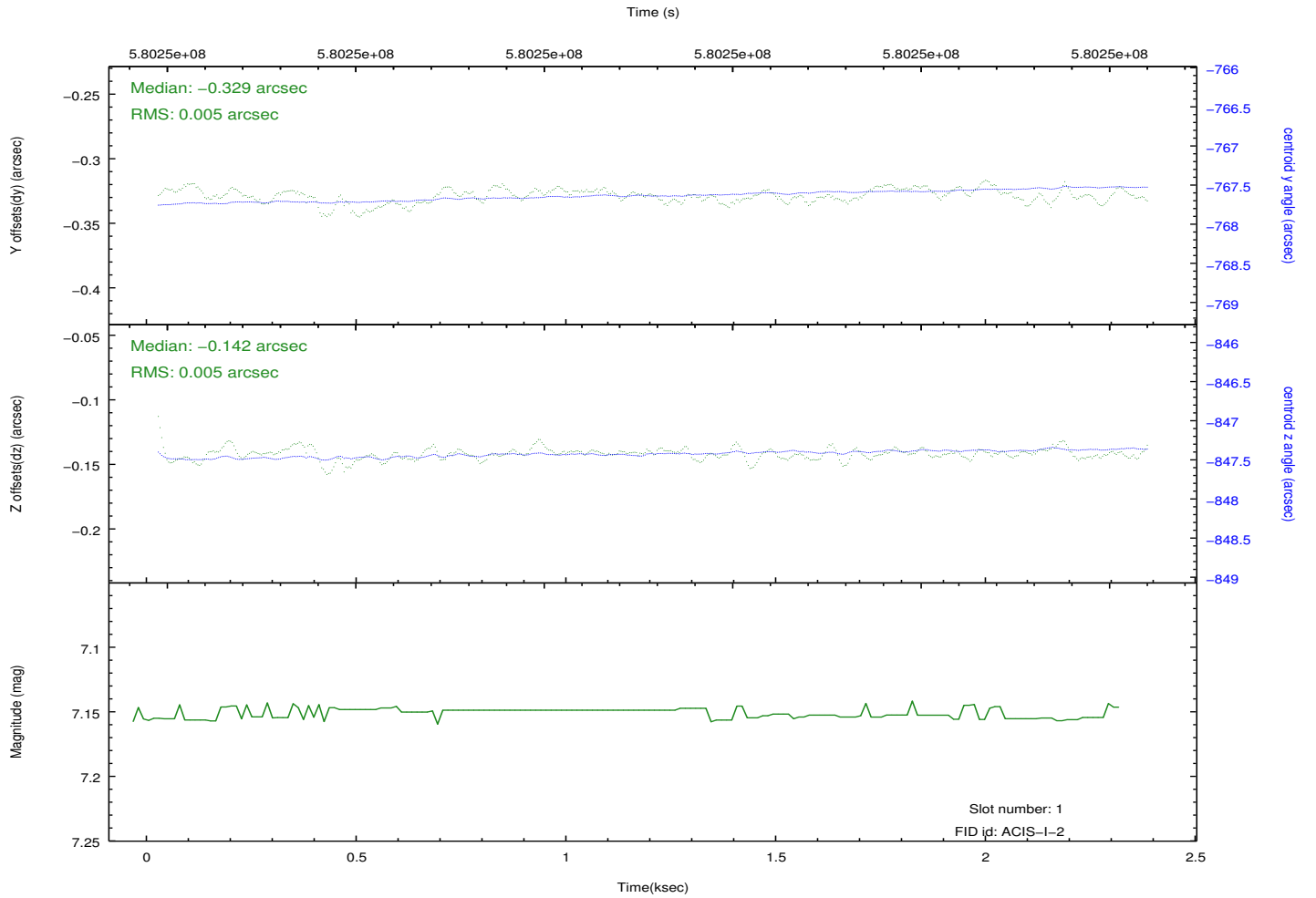
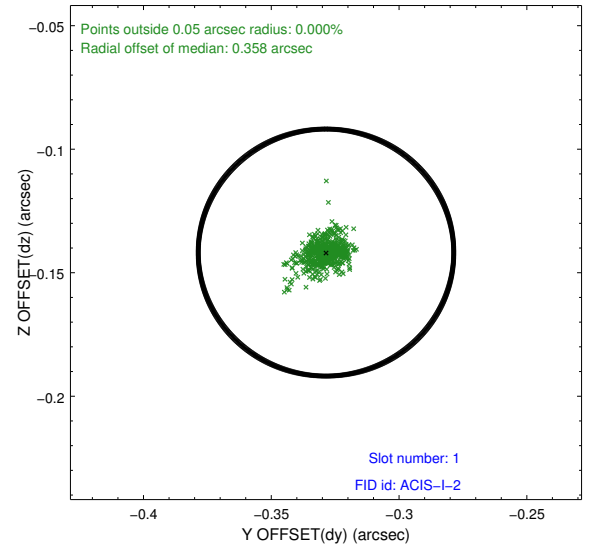
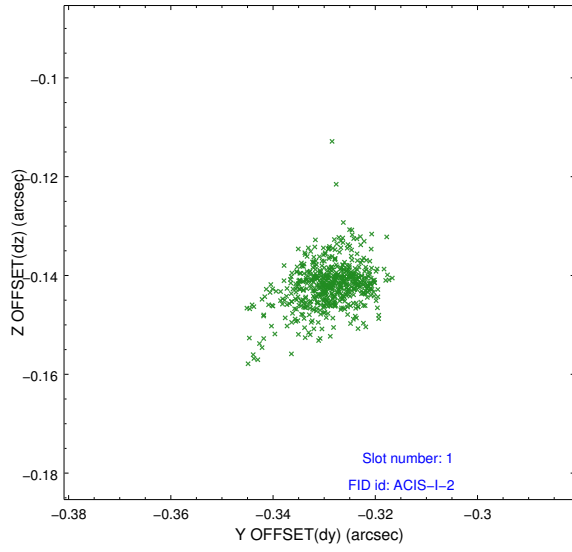


## 2.5 FID Slots

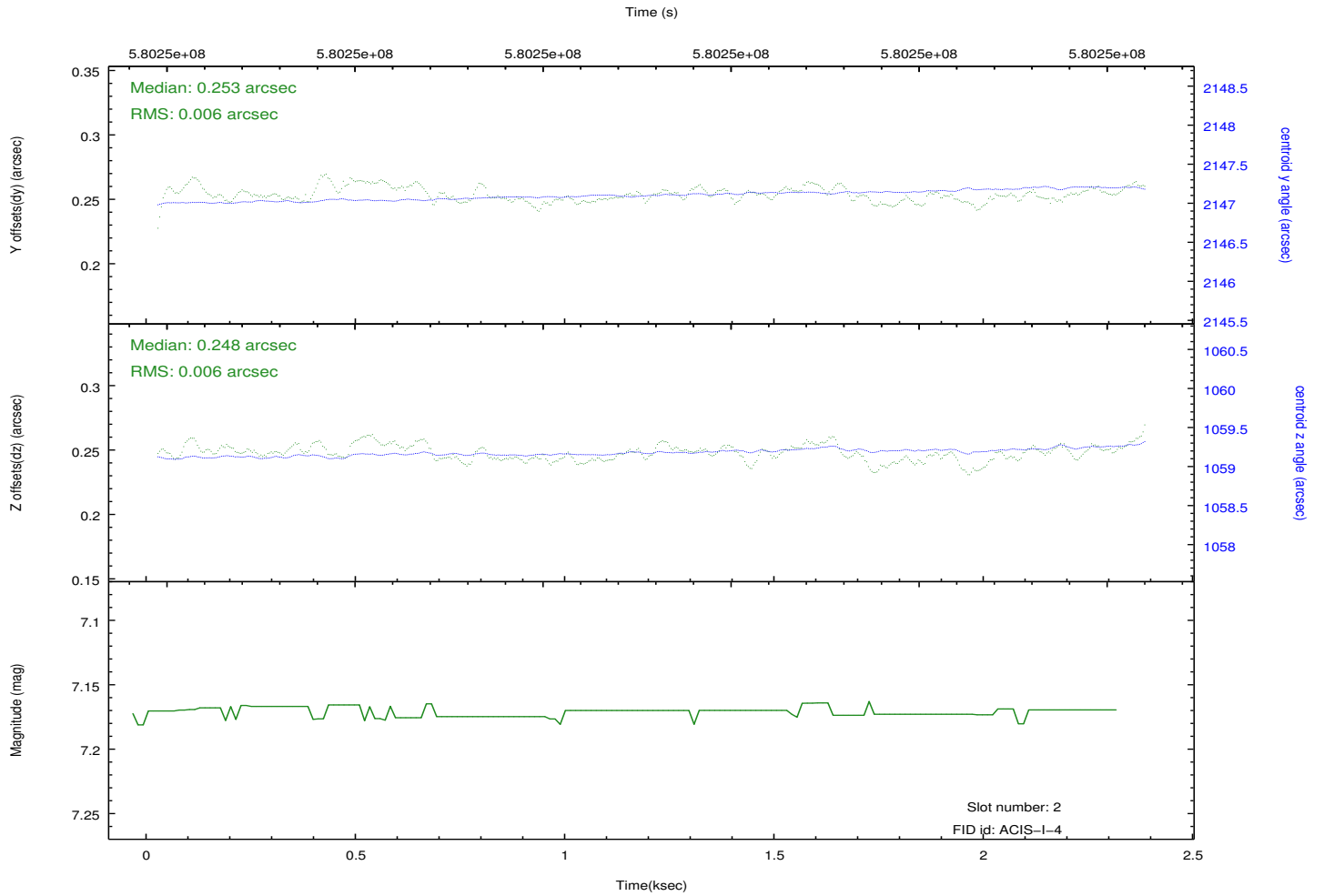
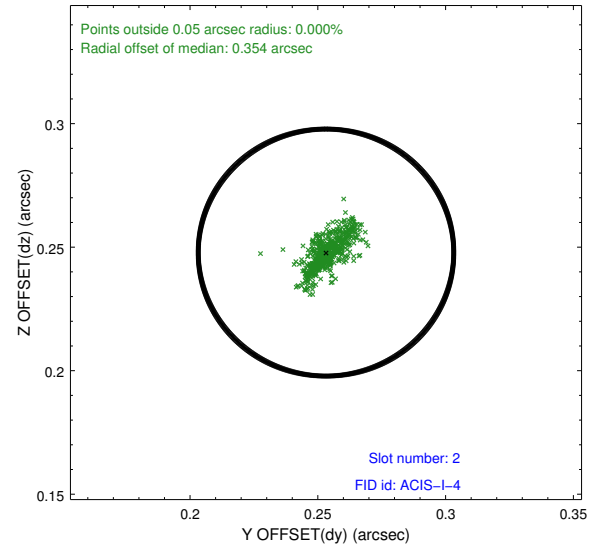
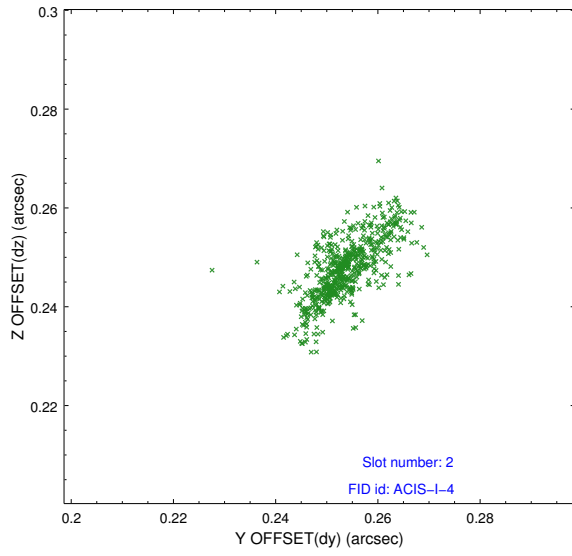
### 2.5.1 Slot 0



## 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)	2016.05.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9556617152691

### A.2 Comments