

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18650 - L2 Version 1  
Chandra X-Ray Center

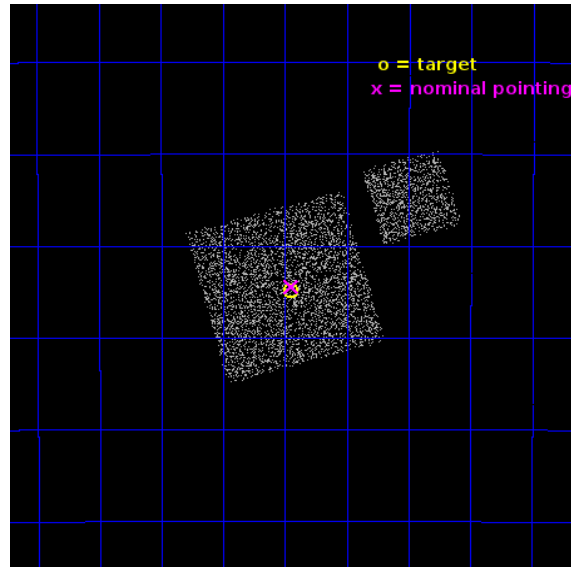
L2 Processing Date : May 22 2016

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# 1 Front

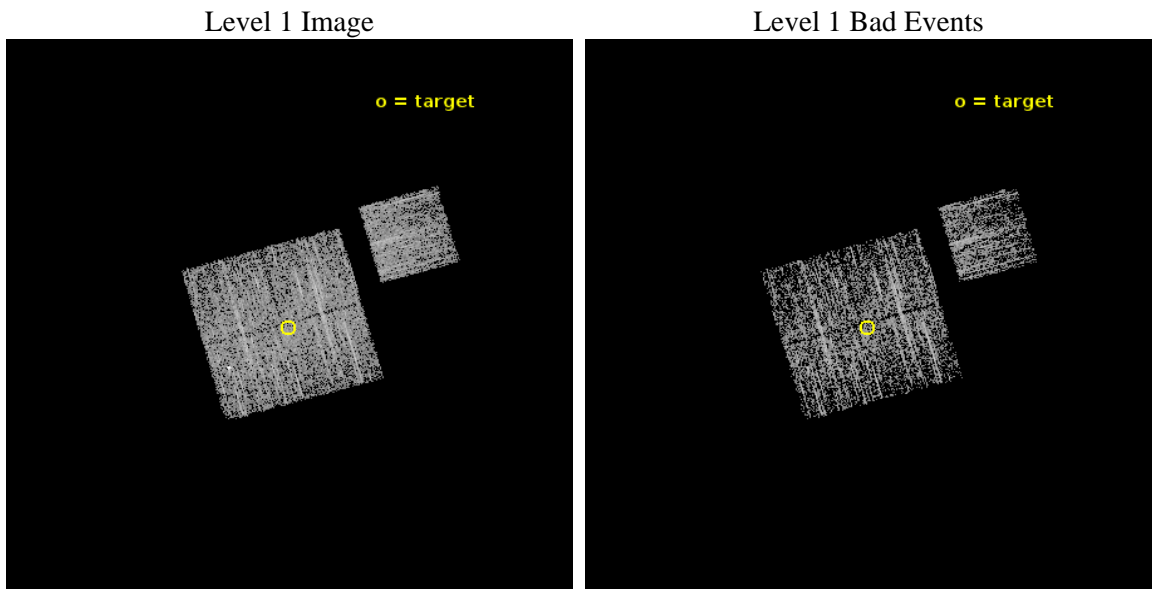
seq_num	300374	Sequence number
obs_id	18650	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	265.86317	Observer's specified target RA [deg]
dec_targ	-30.24793	Observer's specified target Dec [deg]
ra_nom	265.86220767175	Nominal RA [deg]
dec_nom	-30.240995423302	Nominal Dec [deg]
roll_nom	74.183479752147	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1955.6312404871	Sum of GTIs [s]
livetime	1930.0794786154	Livetime [s]
ontime0	1955.5081205368	Sum of GTIs [s]
ontime1	1955.5491604805	Sum of GTIs [s]
ontime2	1955.5902005434	Sum of GTIs [s]
ontime3	1955.6312404871	Sum of GTIs [s]
ontime6	1955.4670703411	Sum of GTIs [s]
l2events	6380	Number of level 2 events



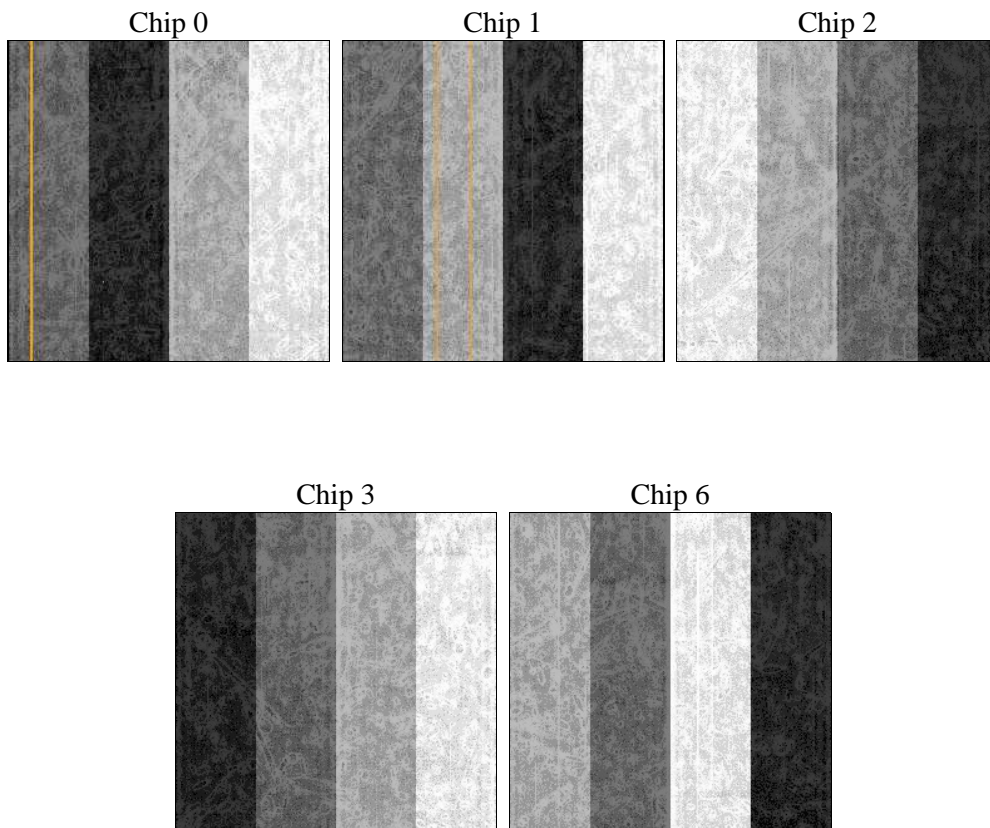
## 2 OBI

### 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	1955.6312404871	Sum of GTIs [s]
caldsver	4.7.1	&#160	ontime0	1955.5081205368	Sum of GTIs [s]
date	2016-05-22T15:21:23	Date and time of file creation	ontime1	1955.5491604805	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1955.5902005434	Sum of GTIs [s]
			ontime3	1955.6312404871	Sum of GTIs [s]
			ontime6	1955.4670703411	Sum of GTIs [s]
			l1events	63089	Number of level 1 events

### 2.1.4 Events

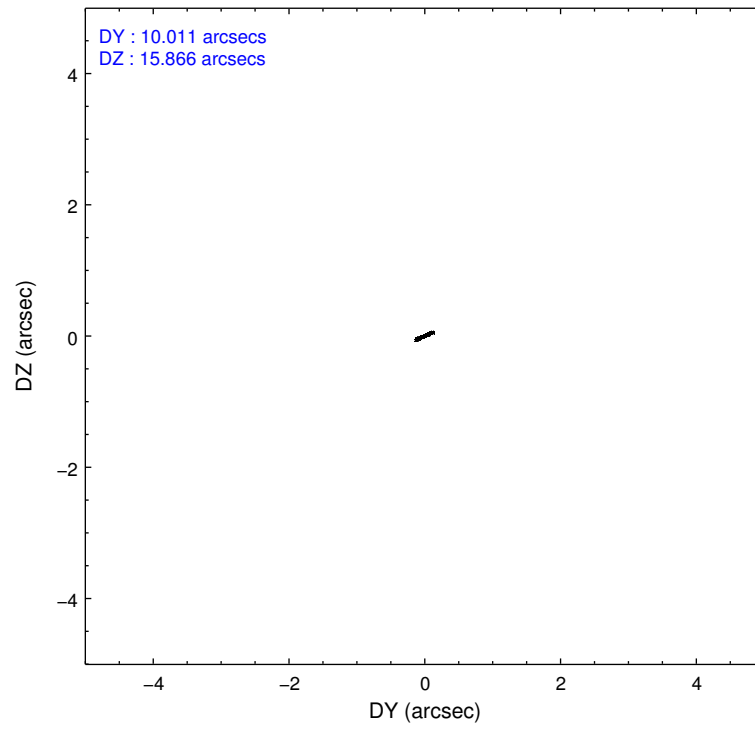
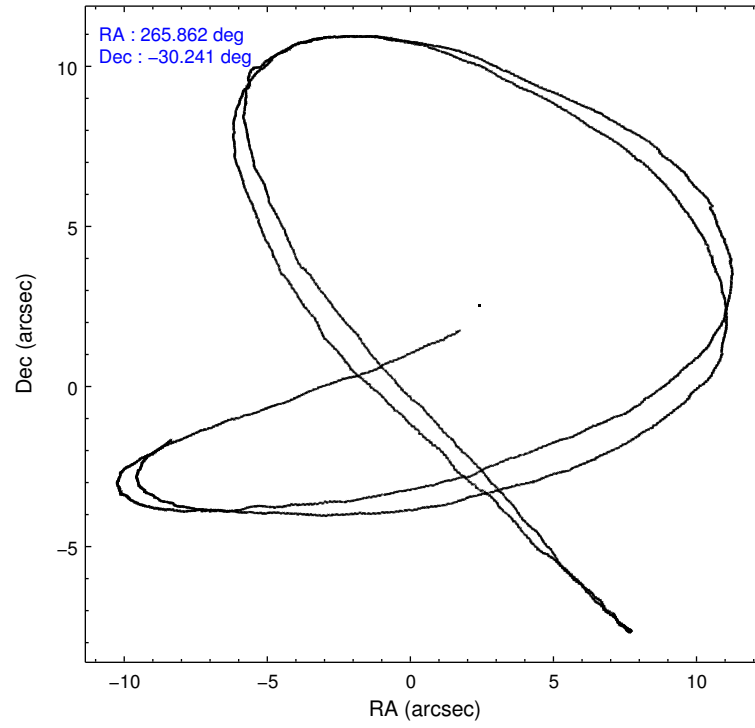
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	11546	14025	12620	12263	12635
rejected events	10049	11874	11160	10884	11163
rejected %	87%	84%	88%	88%	88%

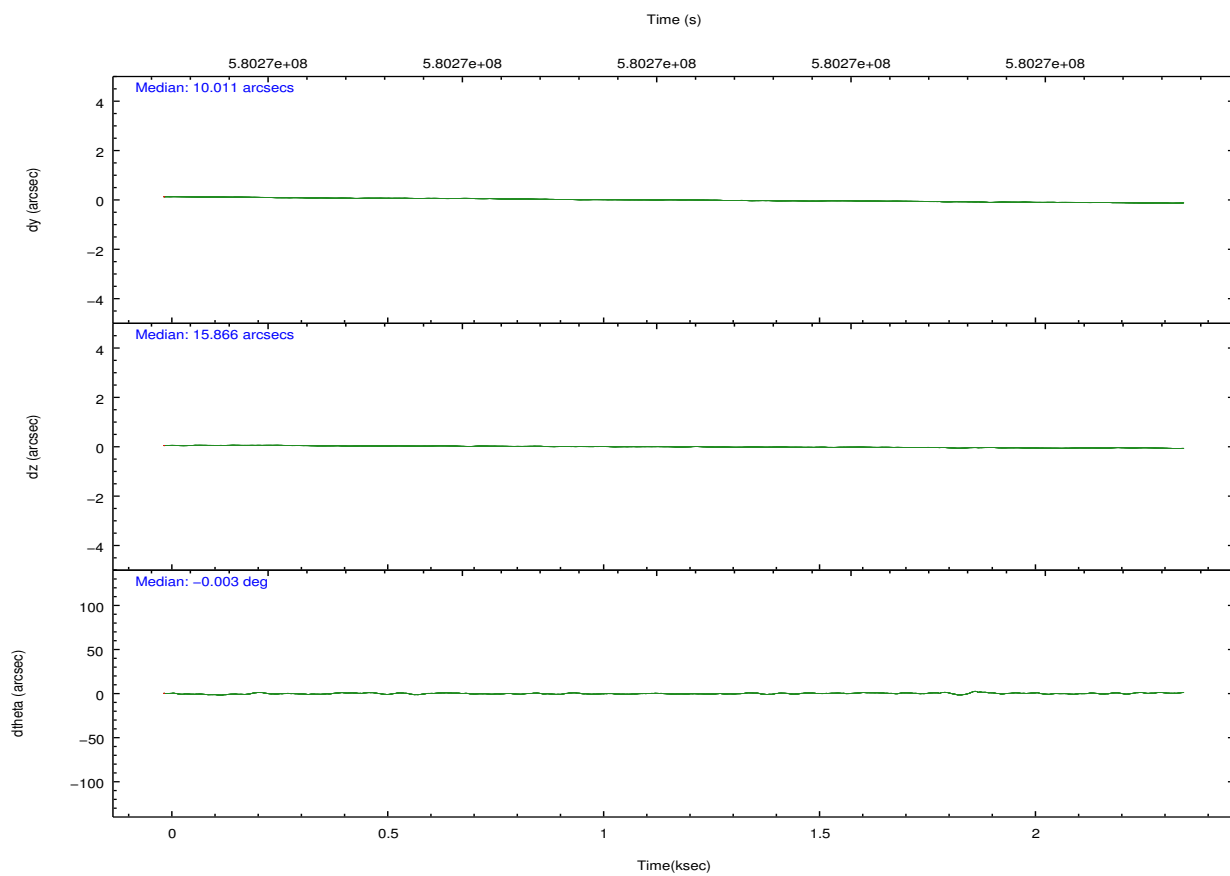
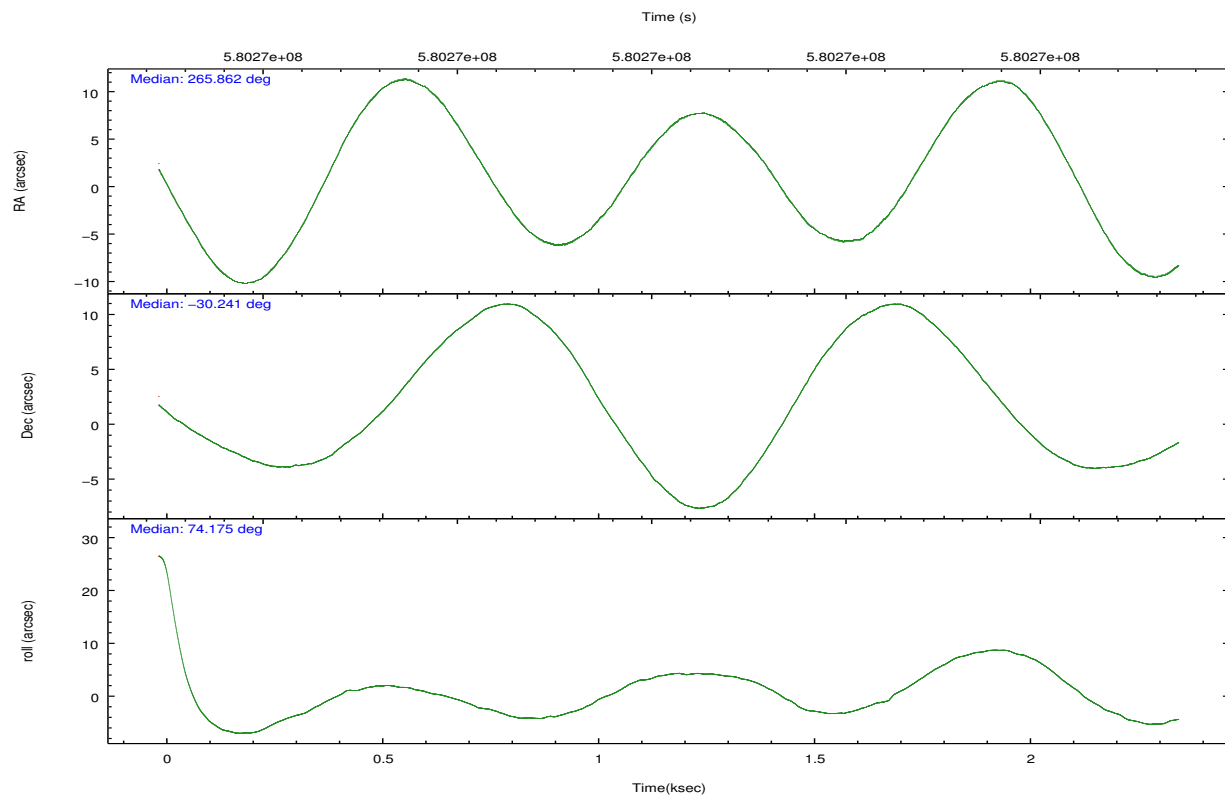
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	581	1148	646	561	508
	5%	8%	5%	4%	4%
grade 1 events	14	17	11	7	4
	0%	0%	0%	0%	0%
grade 2 events	337	379	270	261	360
	2%	2%	2%	2%	2%
grade 3 events	146	135	159	140	128
	1%	0%	1%	1%	1%
grade 4 events	138	145	119	144	130
	1%	1%	0%	1%	1%
grade 5 events	502	564	478	533	551
	4%	4%	3%	4%	4%
grade 6 events	297	351	268	275	348
	2%	2%	2%	2%	2%
grade 7 events	9531	11286	10669	10342	10606
	82%	80%	84%	84%	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	265.870451	265.8622076717483	CCD I2 on	Y	Y
[deg] Pointing Dec	-30.267536	-30.2409954233024	CCD I3 on	Y	Y
[deg] Pointing Roll	73.978783	74.18347975214675	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)	580271523.184000	580271147.03778	CCD S5 on	N	N
Observation start date	2016-05-22T02:30:55	2016-05-22T02:25:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	580273703.184000	580273862.26293	On-chip summing requested	N	N
Observation end date	2016-05-22T03:07:15	2016-05-22T03:11:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





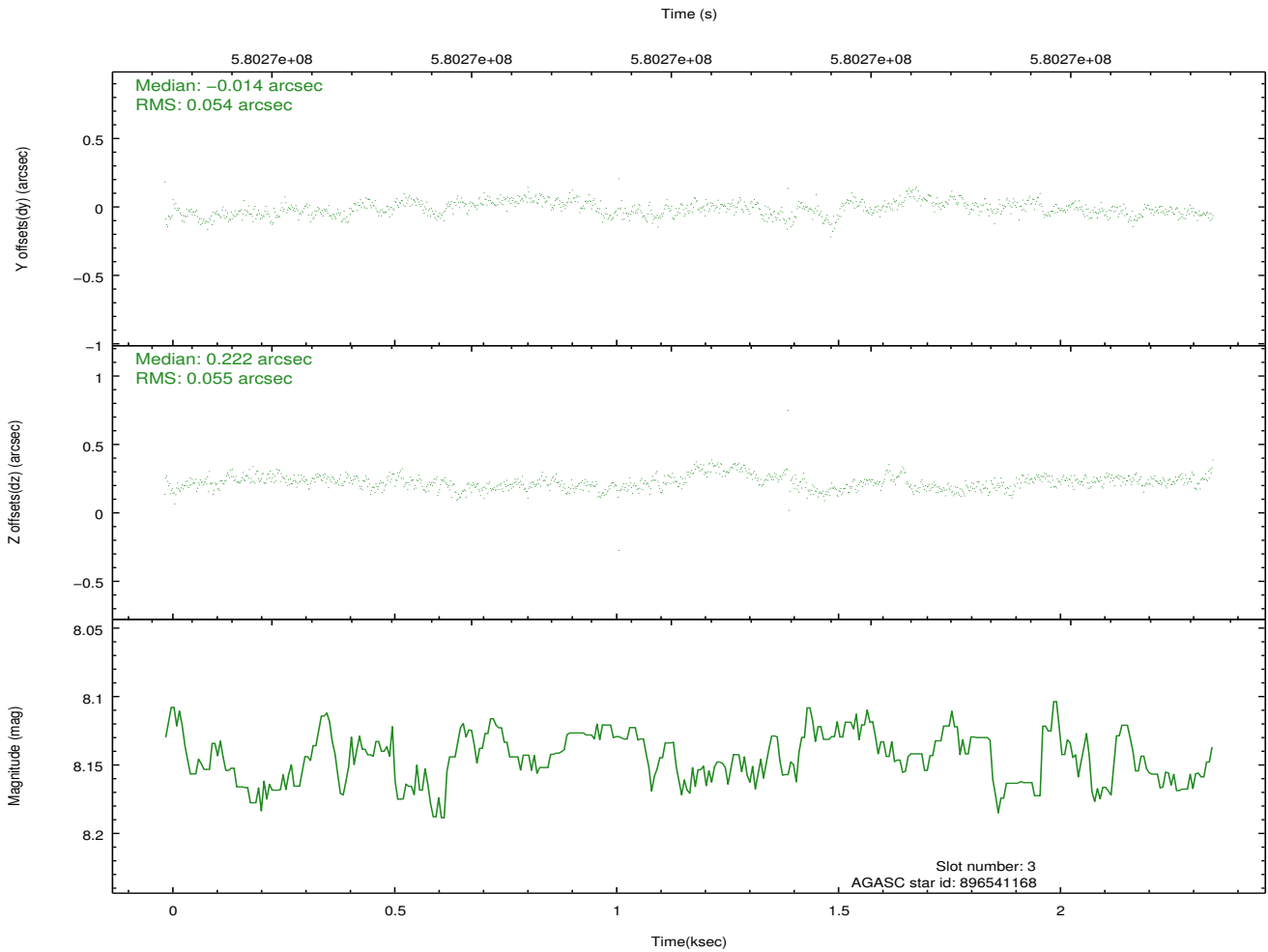
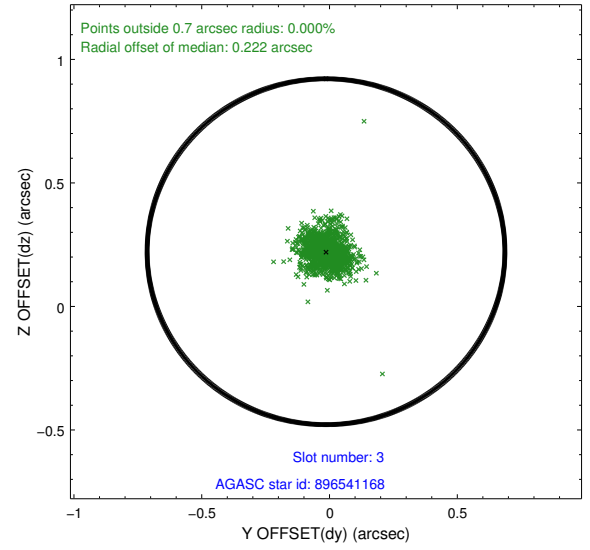
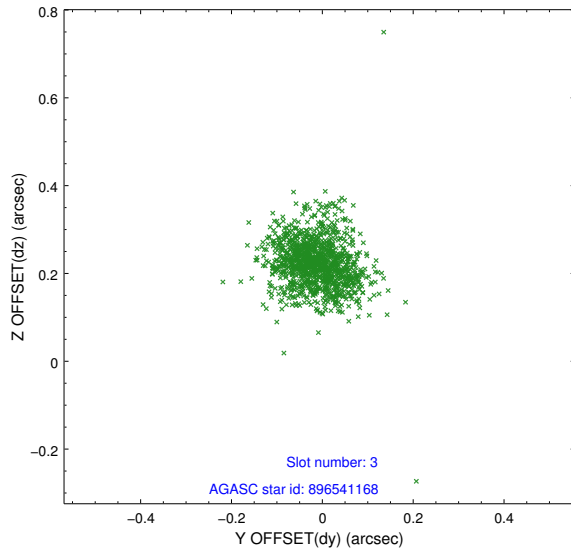
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.27	577	0.005	-0.098	0.010	0.015	0.000000	0.000000	929.61	-839.57
1	FID		ACIS-I-4	7.19	576	0.262	0.090	0.008	0.014	0.000000	0.000000	2151.40	1059.07
2	FID		ACIS-I-5	7.25	576	-0.365	0.080	0.007	0.013	0.000000	0.000000	-1815.26	1059.95
3	GUIDE	used	896541168	8.14	1152	-0.014	0.222	0.079	0.130	266.319970	-29.850801	1827.63	-935.71
4	GUIDE	used	966924920	8.08	1153	-0.270	-0.230	0.089	0.141	265.875401	-30.176961	320.04	73.60
5	GUIDE	used	966788216	9.08	1151	0.112	-0.348	0.098	0.165	265.089173	-30.220730	-516.13	2379.27
6	GUIDE	used	966790944	8.77	1153	-0.097	-0.200	0.088	0.153	265.185568	-30.443091	-1200.06	1867.99
7	GUIDE	used	966925512	8.25	1151	0.272	0.555	0.086	0.138	266.373606	-31.056700	-2305.41	-2275.34

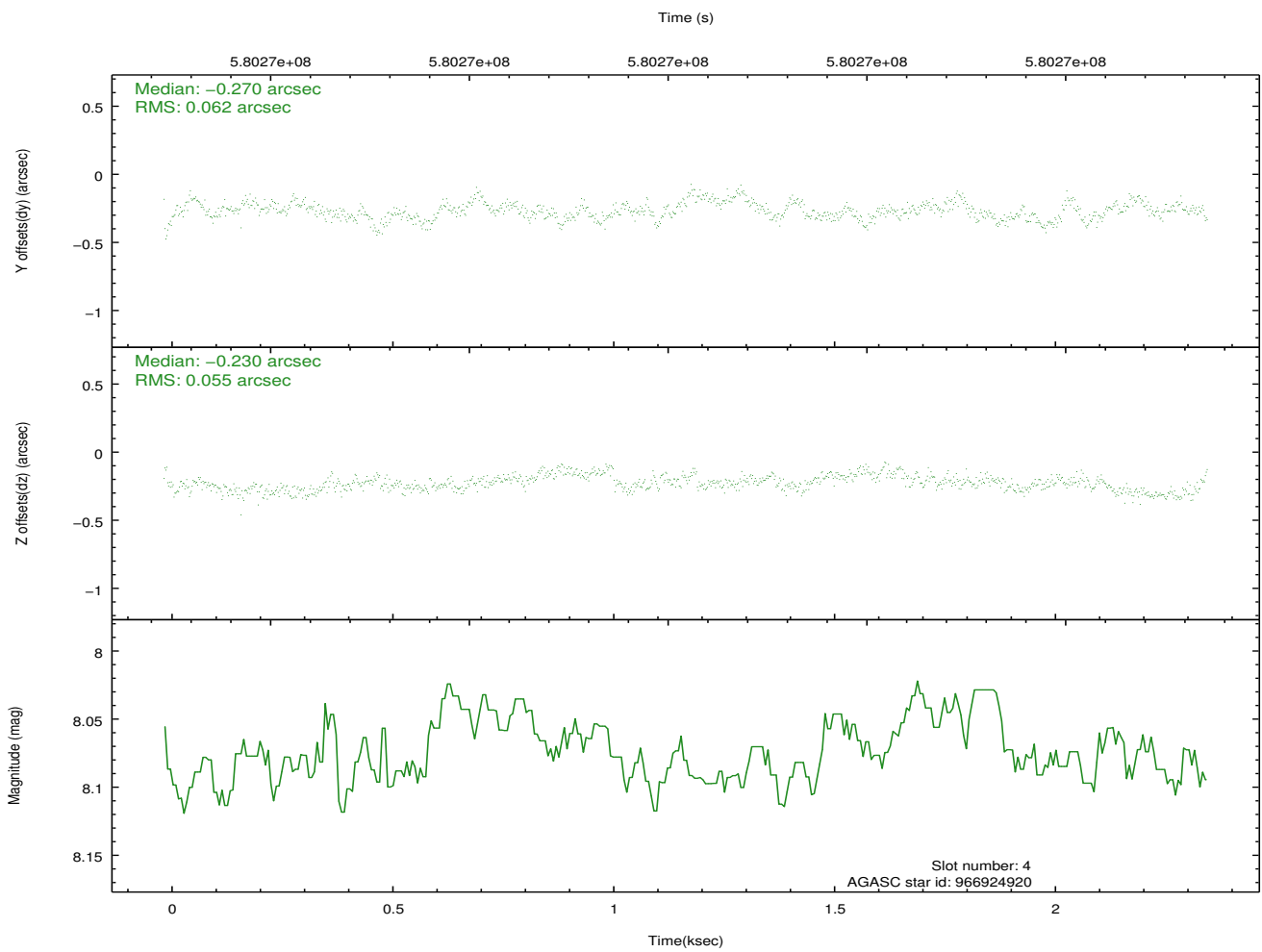
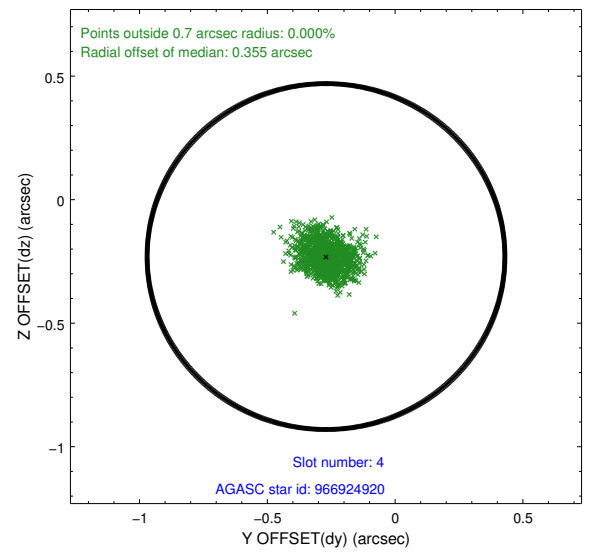
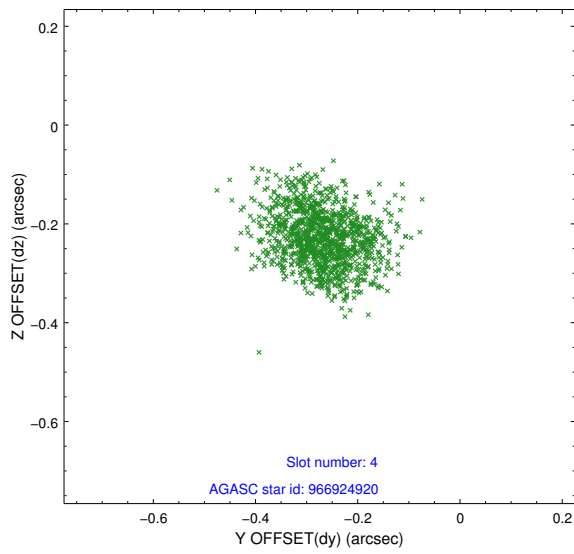


## 2.4 Star Slots

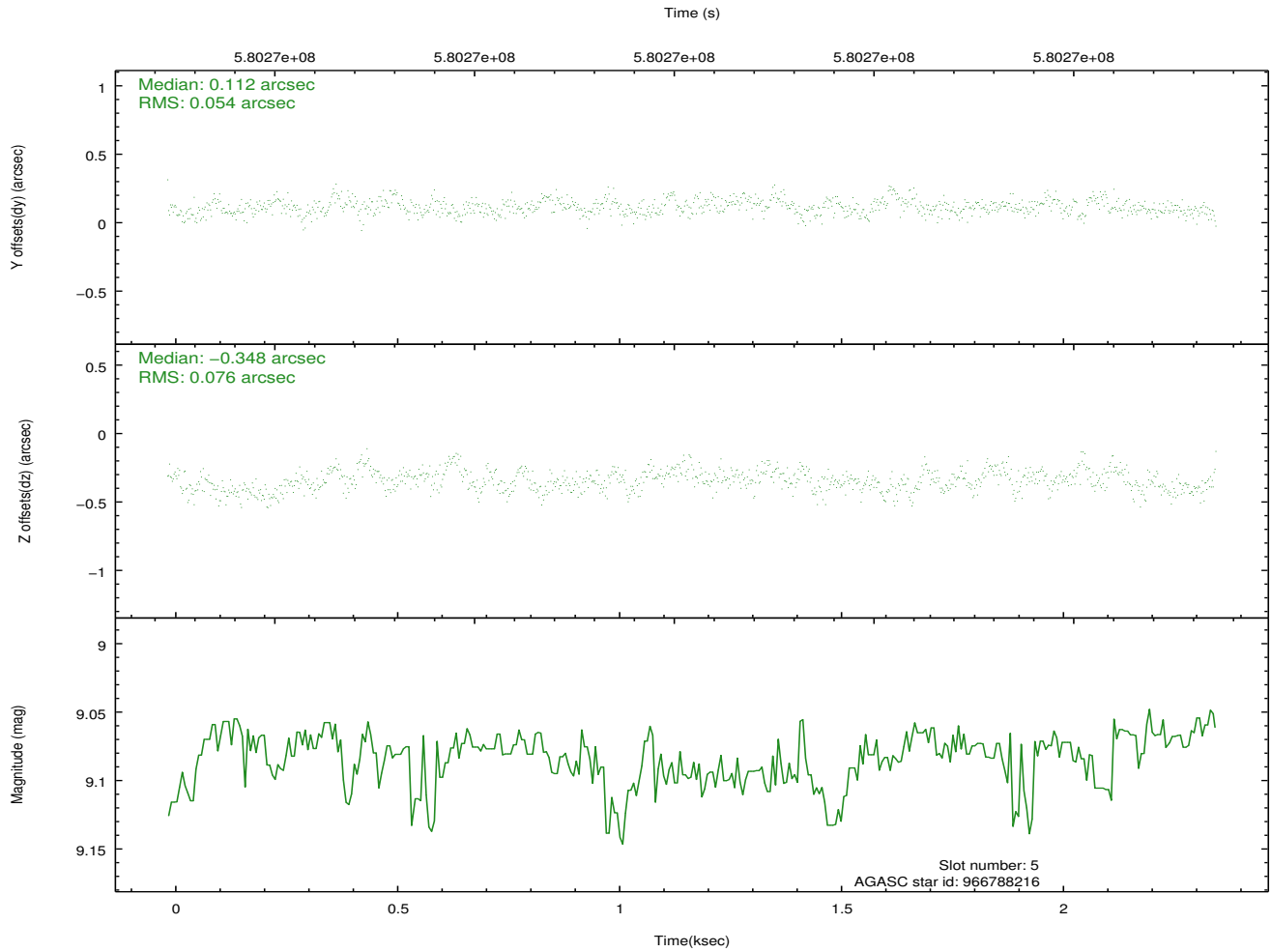
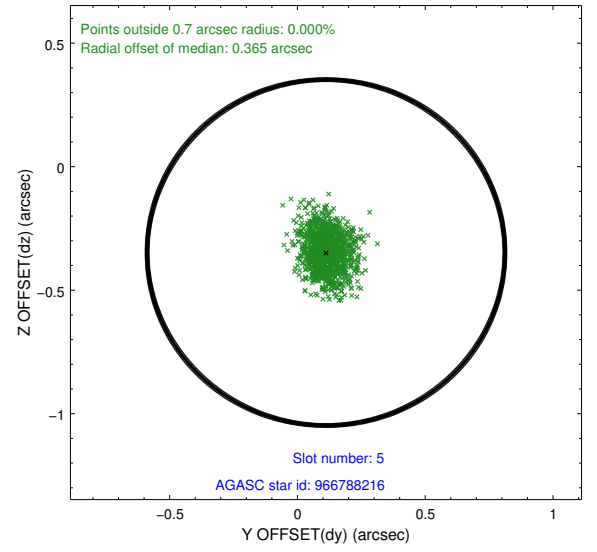
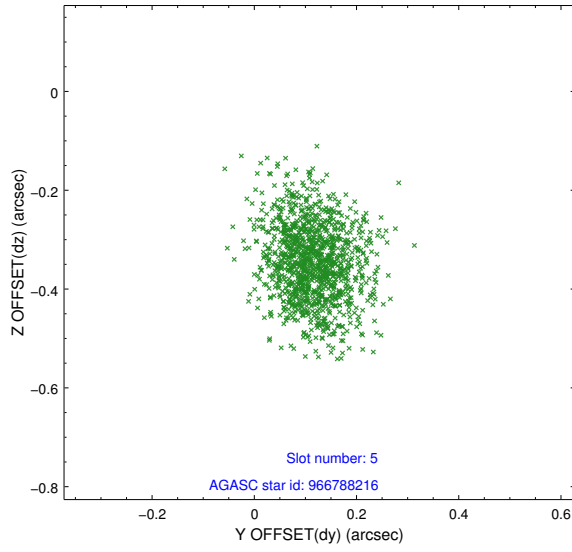
### 2.4.1 Slot 3



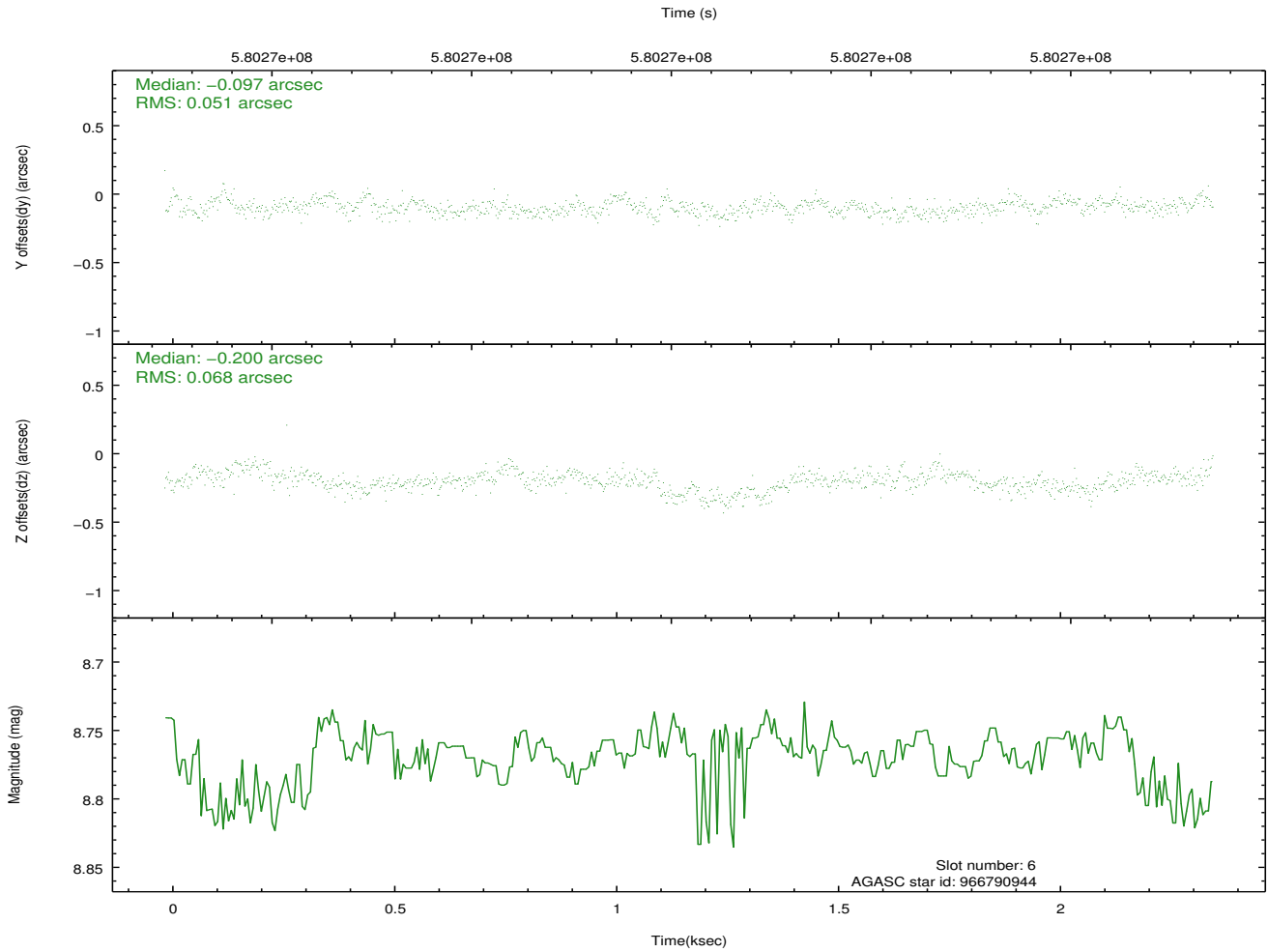
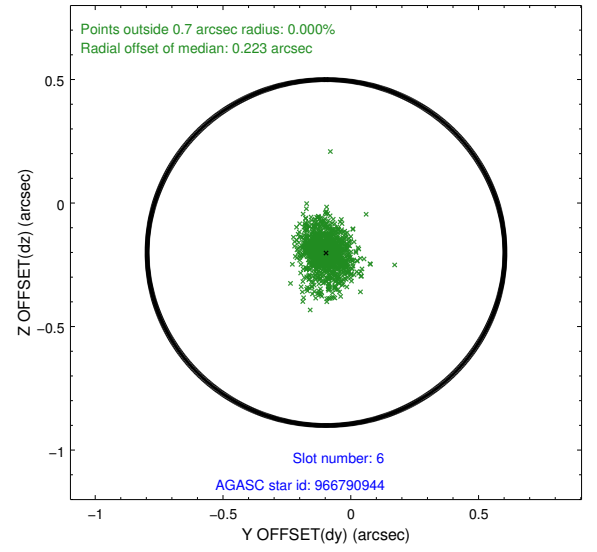
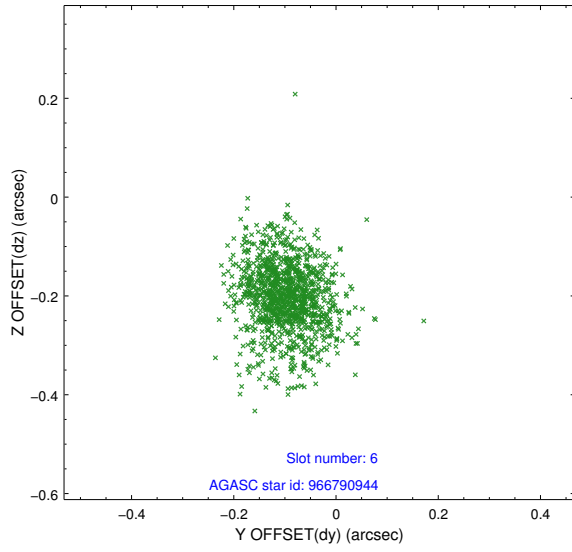
### 2.4.2 Slot 4



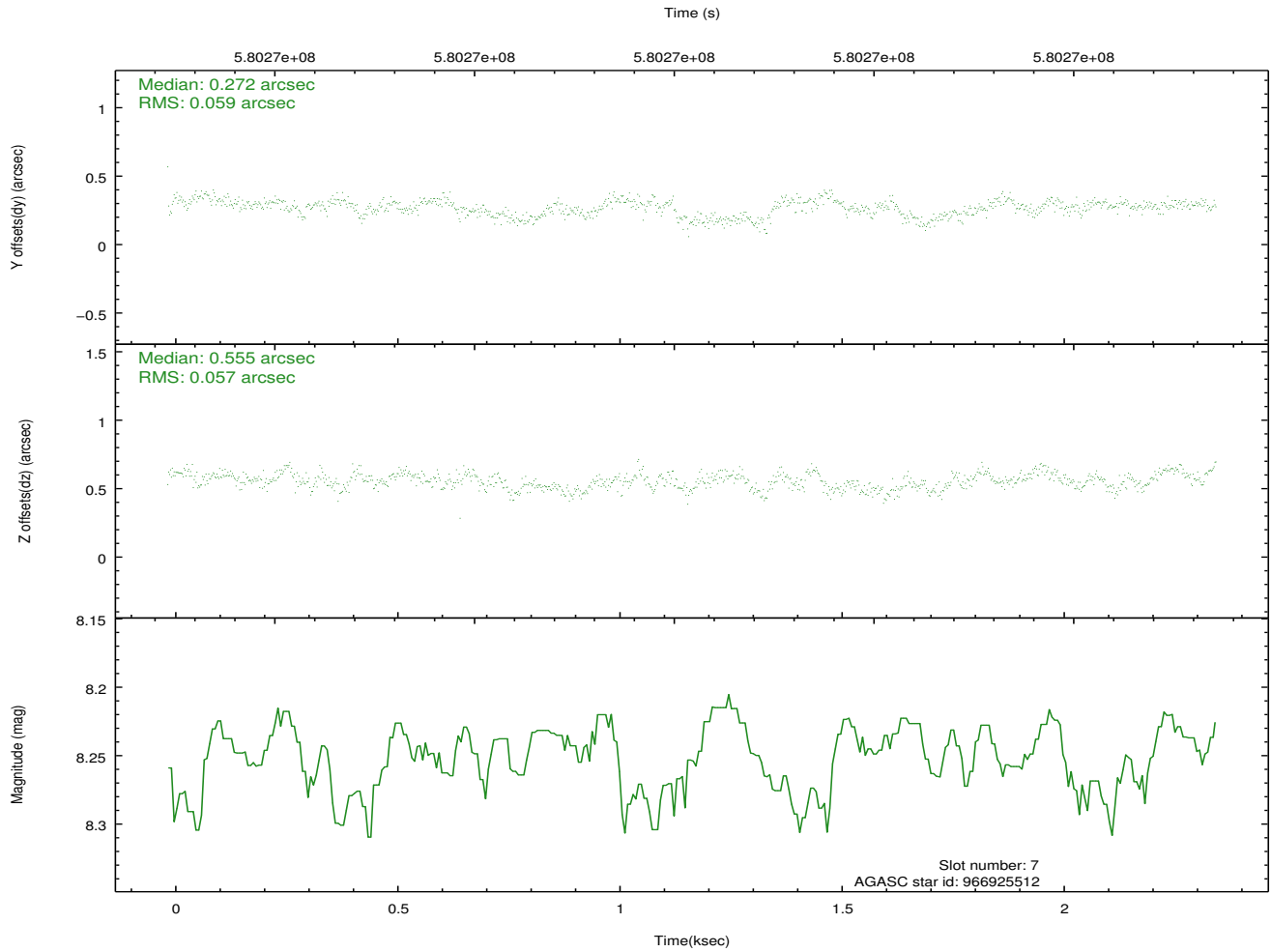
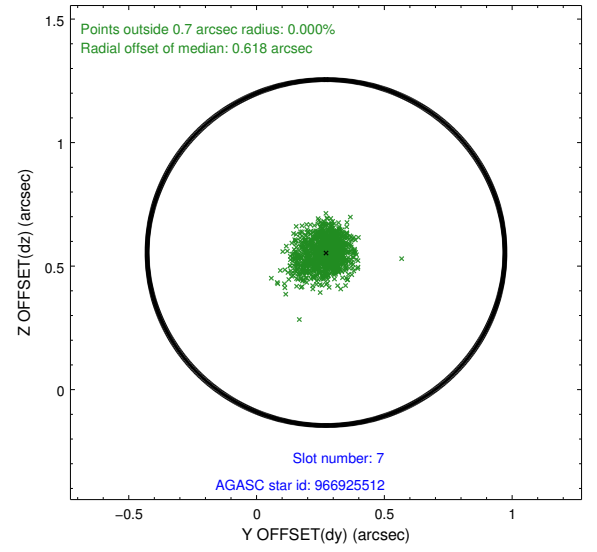
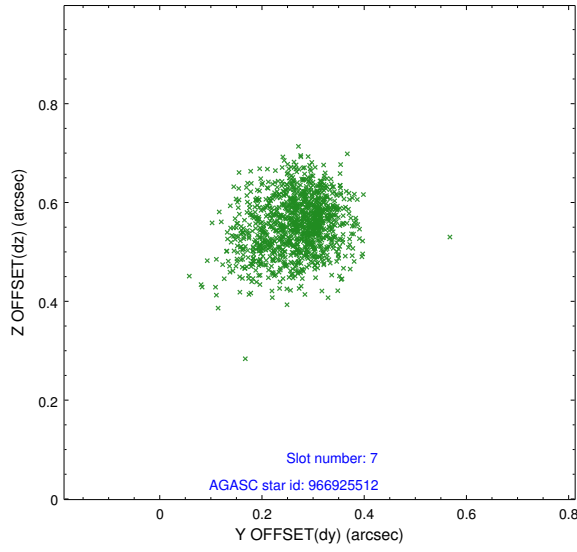
### 2.4.3 Slot 5



## 2.4.4 Slot 6

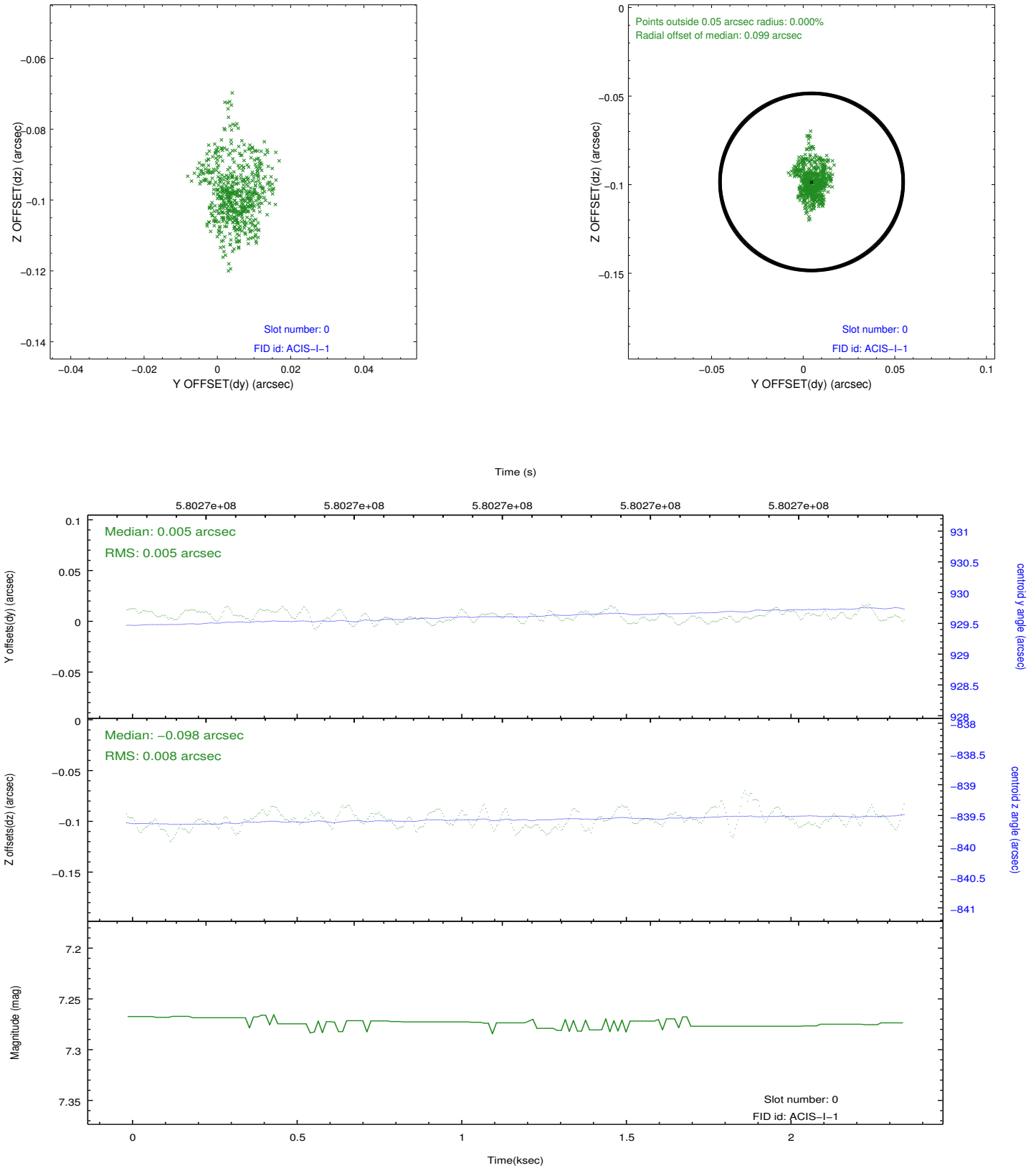


## 2.4.5 Slot 7

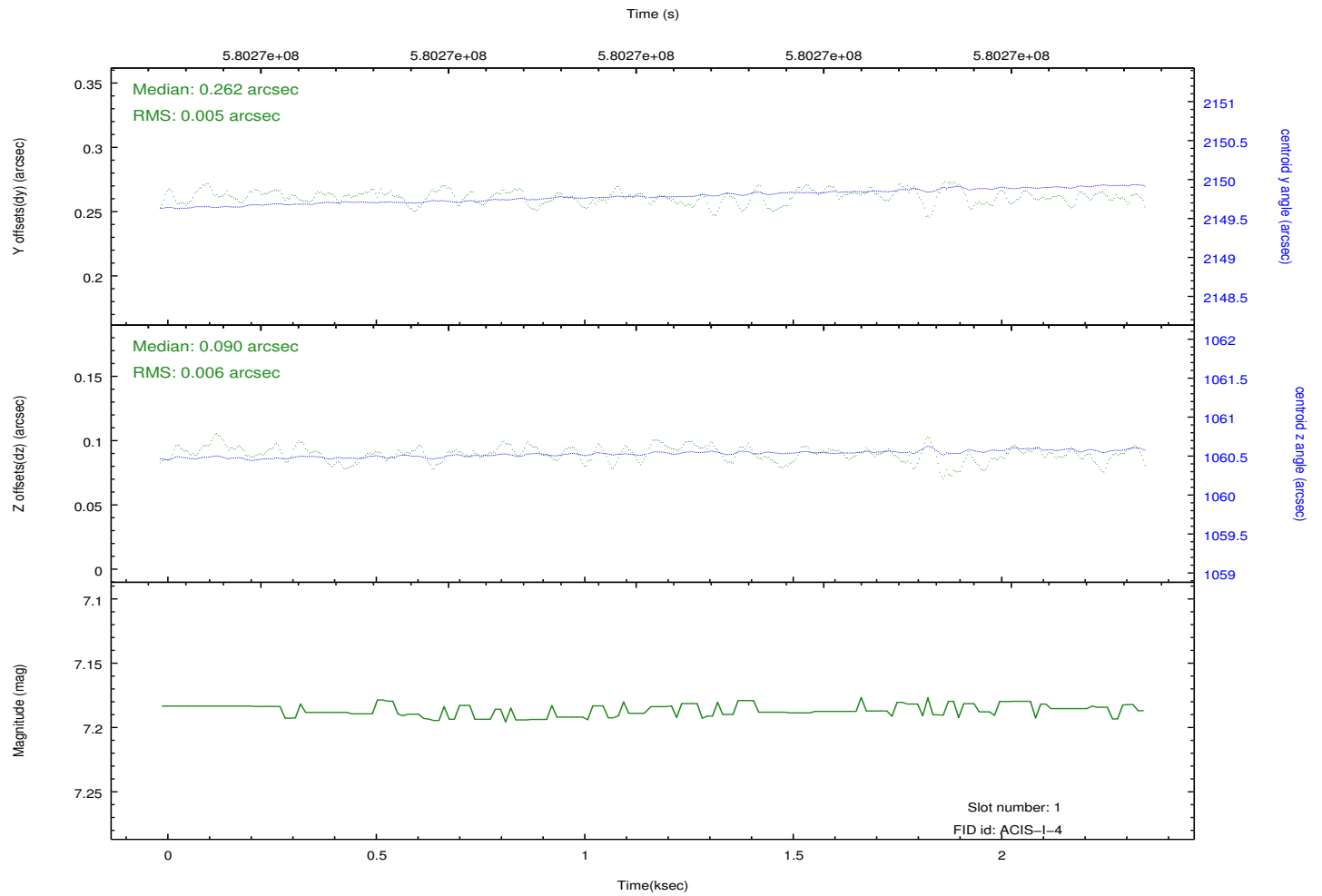
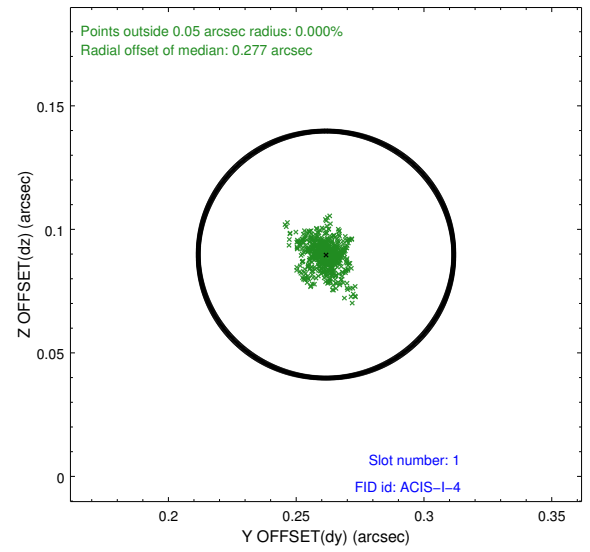
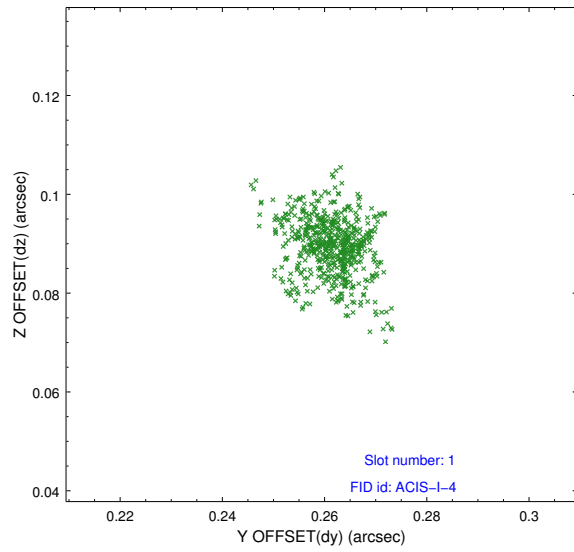


## 2.5 FID Slots

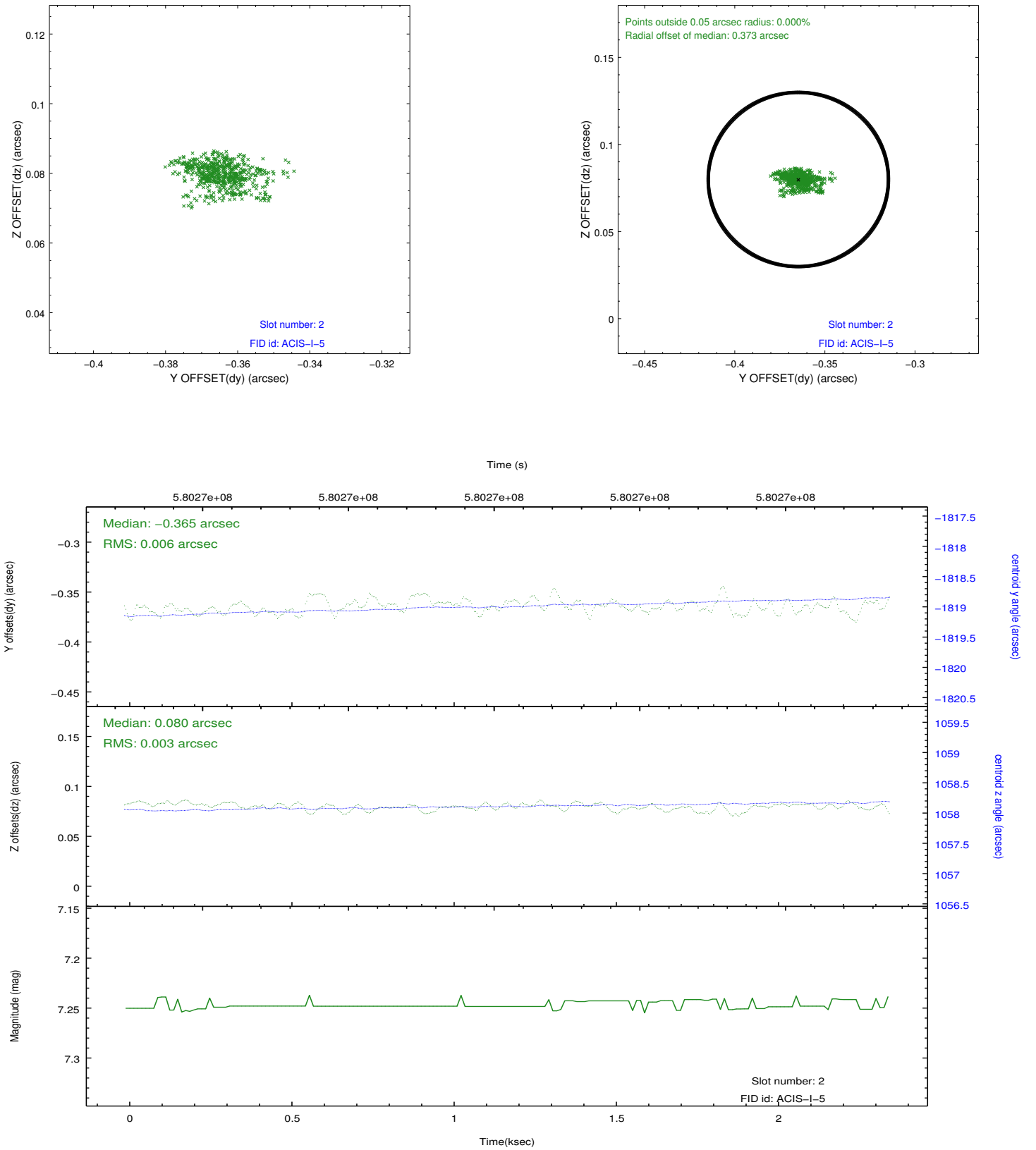
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2016.05.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9556312404871

### A.2 Comments