

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18663 - L2 Version 1  
Chandra X-Ray Center

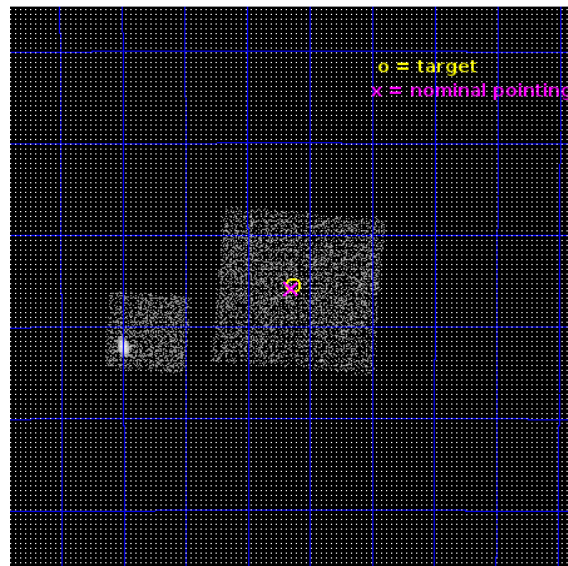
L2 Processing Date : Jul 31 2016

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

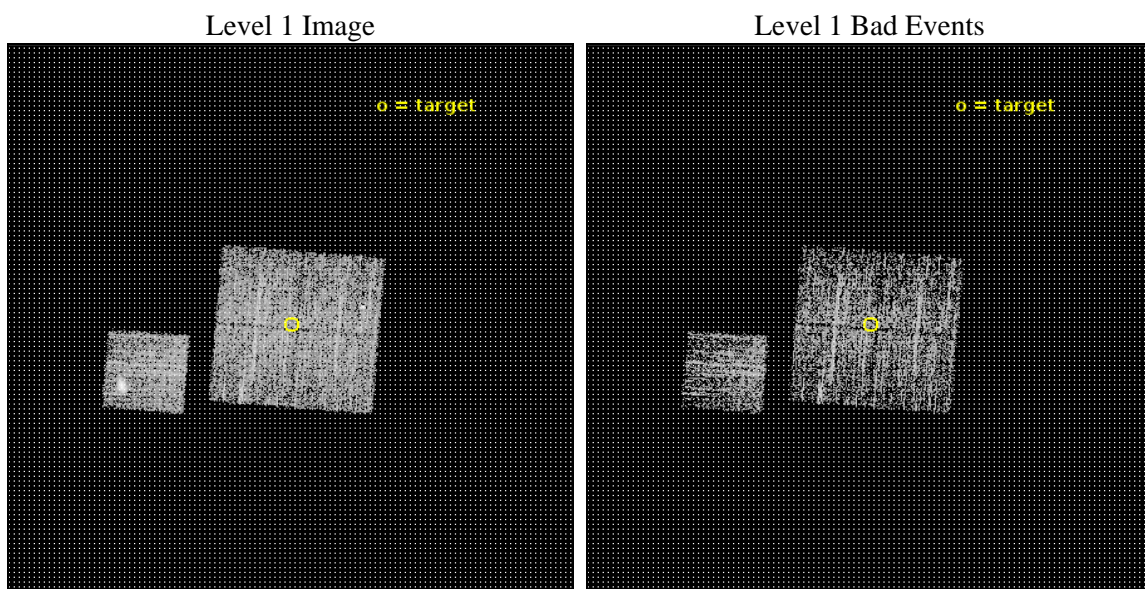
seq_num	300387	Sequence number
obs_id	18663	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	264.53368	Observer's specified target RA [deg]
dec_targ	-29.59197	Observer's specified target Dec [deg]
ra_nom	264.5370355027	Nominal RA [deg]
dec_nom	-29.597992568103	Nominal Dec [deg]
roll_nom	274.69690174272	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	1952.9589648247	Sum of GTIs [s]
ontime3	1956.1000151634	Sum of GTIs [s]
ontime6	1956.0659679174	Sum of GTIs [s]
l2events	8803	Number of level 2 events



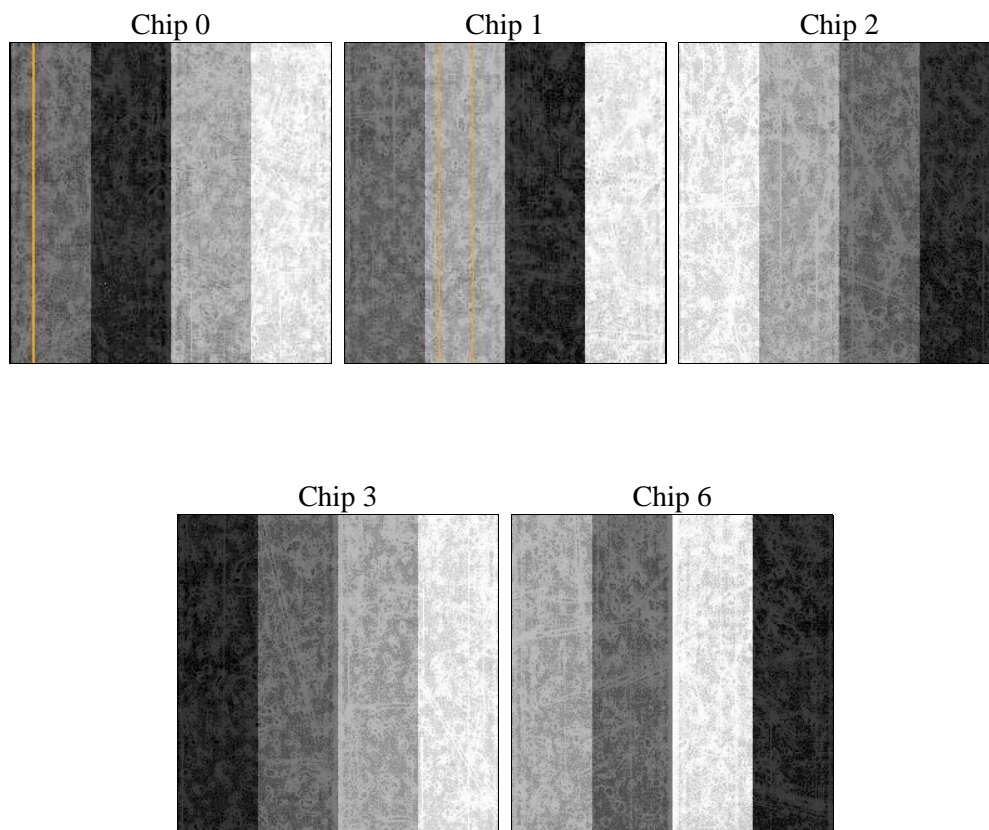
## 2 OBI

### 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	2016-07-31T17:55:24	Date and time of file creation	ontime1	1956.1000151634	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1952.9589648247	Sum of GTIs [s]
			ontime3	1956.1000151634	Sum of GTIs [s]
			ontime6	1956.0659679174	Sum of GTIs [s]
			l1events	65406	Number of level 1 events

### 2.1.4 Events

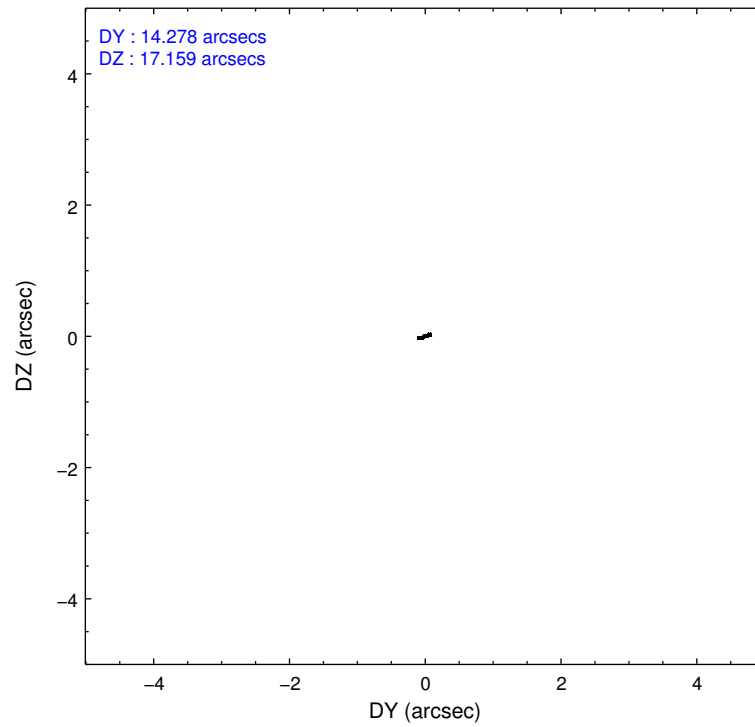
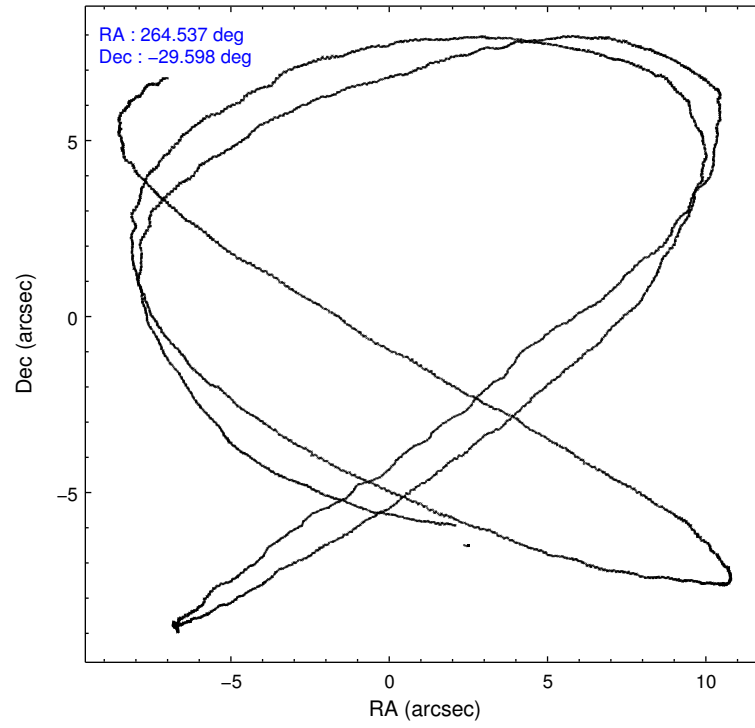
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	12273	12639	13436	12464	14594
rejected events	10660	10484	11806	10887	11172
rejected %	86%	82%	87%	87%	76%

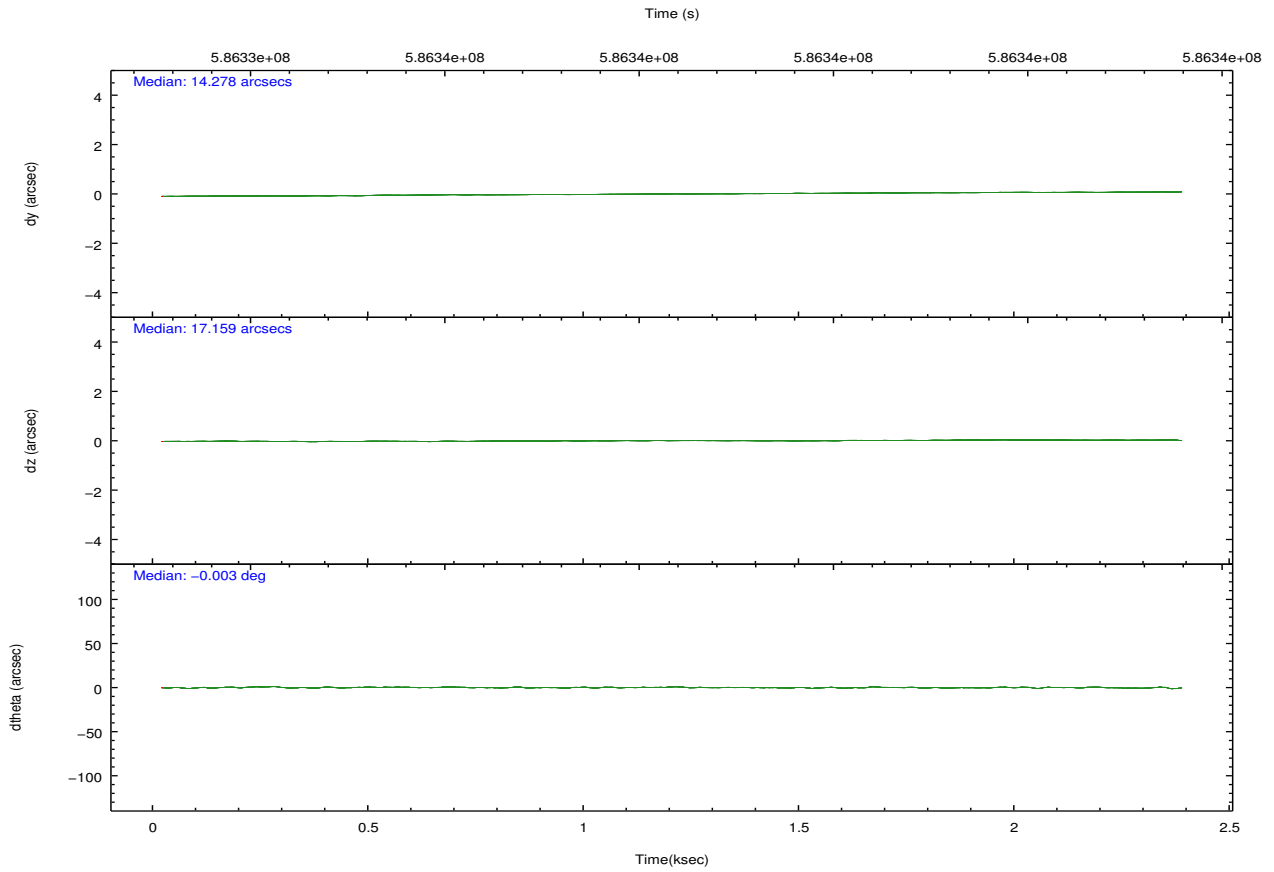
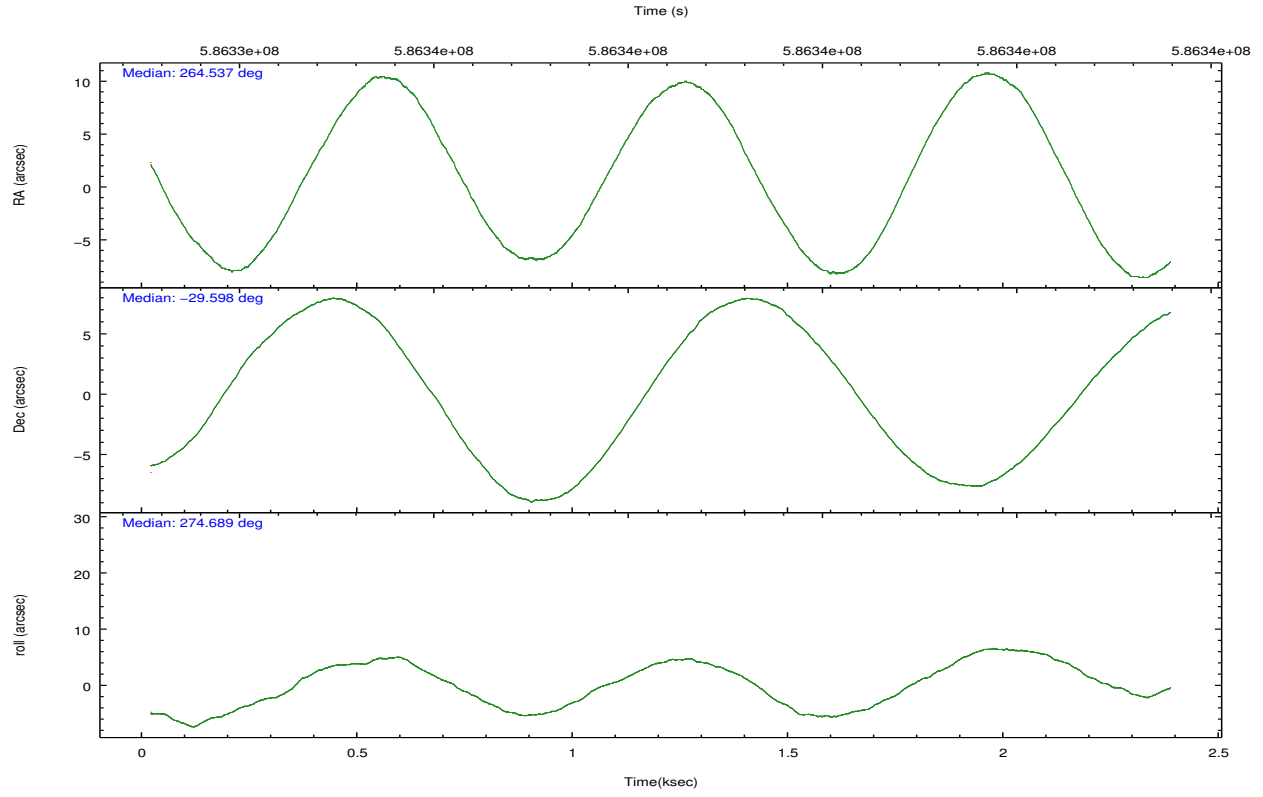
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	632	1061	686	623	1943
	5%	8%	5%	4%	13%
grade 1 events	7	8	9	13	10
	0%	0%	0%	0%	0%
grade 2 events	368	415	381	332	570
	2%	3%	2%	2%	3%
grade 3 events	151	149	147	158	239
	1%	1%	1%	1%	1%
grade 4 events	138	169	141	164	241
	1%	1%	1%	1%	1%
grade 5 events	626	560	552	583	625
	5%	4%	4%	4%	4%
grade 6 events	326	363	276	305	433
	2%	2%	2%	2%	2%
grade 7 events	10025	9914	11244	10286	10533
	81%	78%	83%	82%	72%

## 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	264.519027	264.5370355027011	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.575401	-29.59799256810323	CCD I3 on	Y	Y
[deg] Pointing Roll	274.479339	274.6969017427166	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)	586334610.184000	586334234.04784	CCD S5 on	N	N
Observation start date	2016-07-31T06:42:22	2016-07-31T06:37:14	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	586336790.184000	586336934.41049	On-chip summing requested	N	N
Observation end date	2016-07-31T07:18:42	2016-07-31T07:22:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





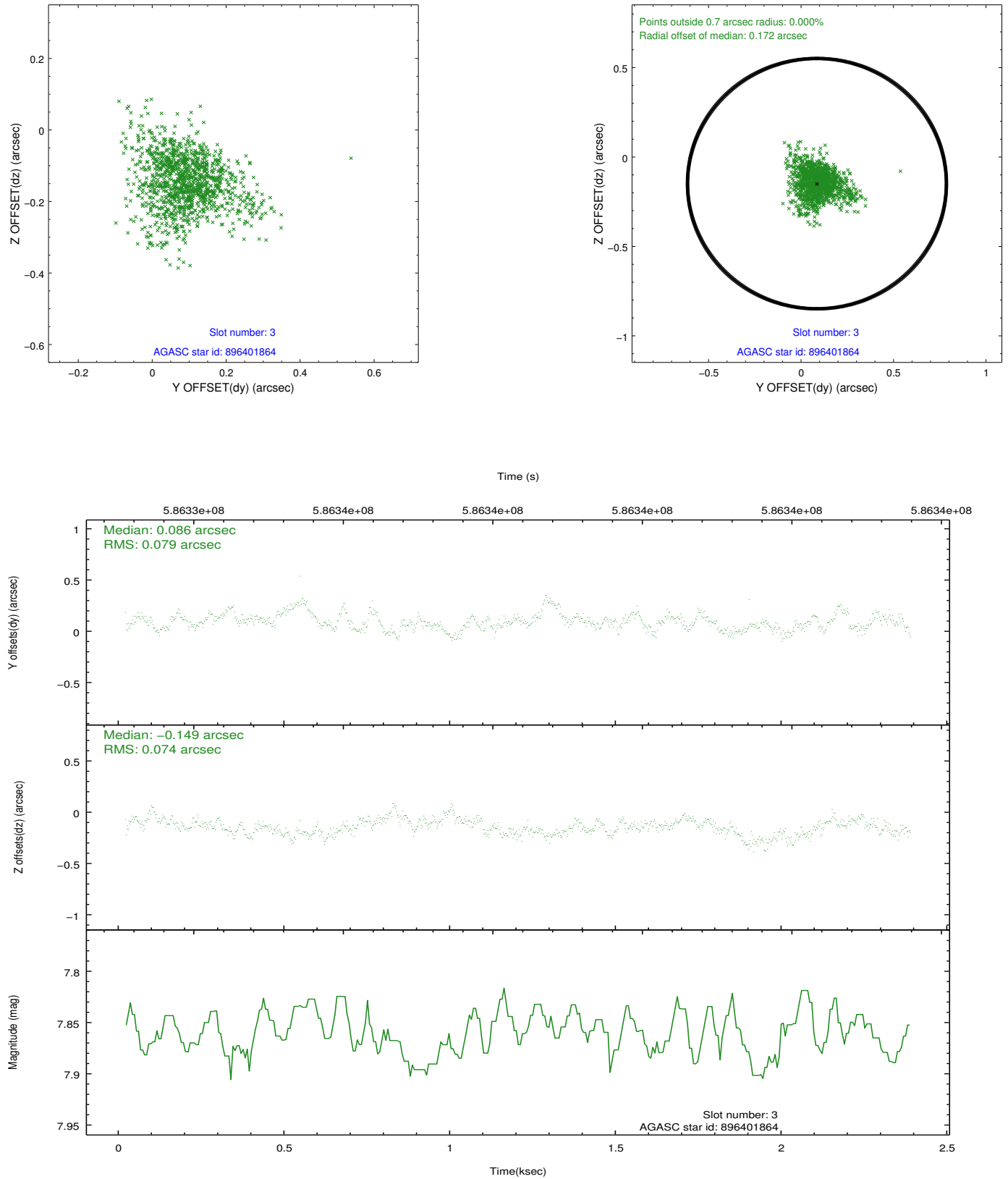
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	578	0.087	-0.067	0.007	0.014	0.000000	0.000000	925.31	-840.86
1	FID		ACIS-I-5	7.11	578	-0.331	0.050	0.007	0.012	0.000000	0.000000	-1821.74	1055.31
2	FID		ACIS-I-6	7.10	578	0.153	0.087	0.008	0.012	0.000000	0.000000	387.89	1703.00
3	GUIDE	used	896401864	7.86	1155	0.086	-0.149	0.110	0.198	264.861768	-29.959752	1465.00	958.18
4	GUIDE	used	896402976	7.50	1156	-0.267	0.212	0.099	0.163	265.099474	-28.923203	-2192.19	2007.80
5	GUIDE	used	896404376	6.65	1156	0.046	-0.017	0.107	0.166	264.835179	-29.530972	-82.24	1001.92
6	GUIDE	used	966787648	8.86	1156	-0.013	-0.100	0.107	0.174	265.297931	-30.077843	2001.14	2278.85
7	GUIDE	used	966794640	9.30	1155	0.149	0.057	0.134	0.224	263.854004	-30.029028	1474.91	-2191.65

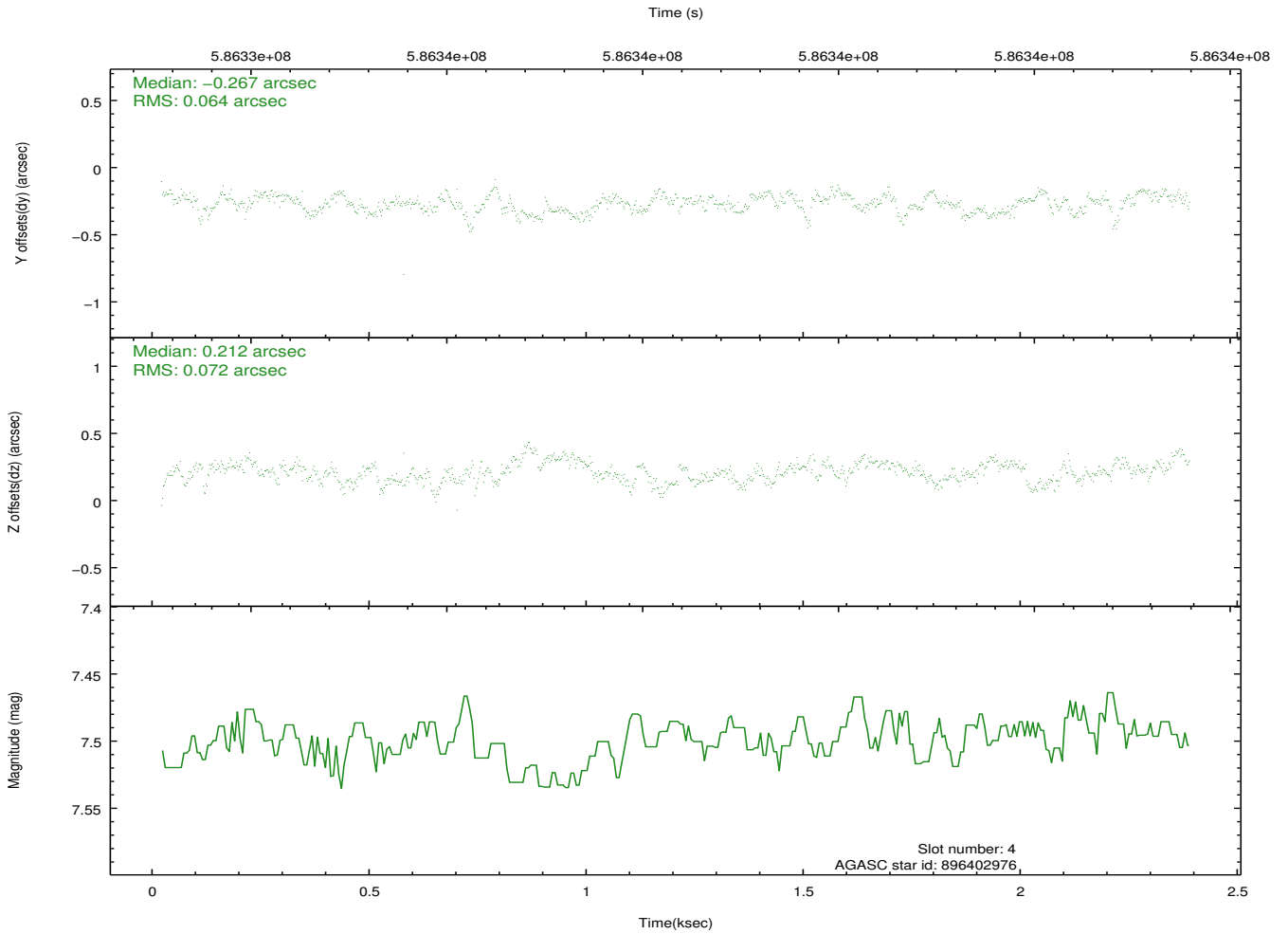
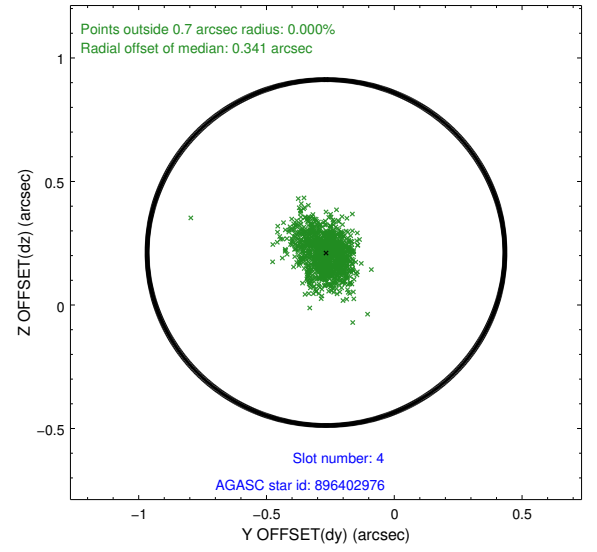
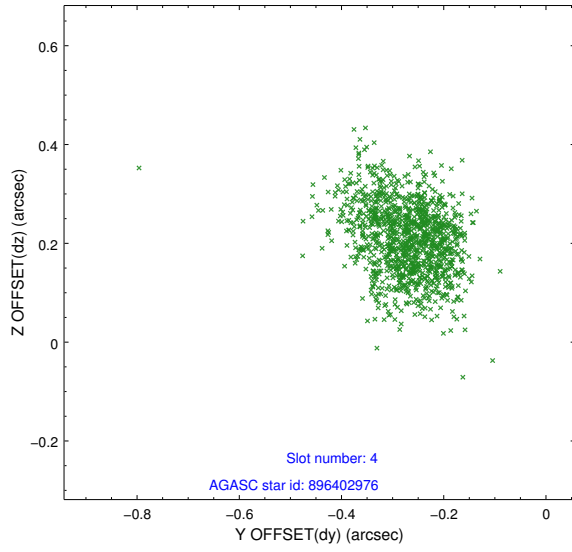


## 2.4 Star Slots

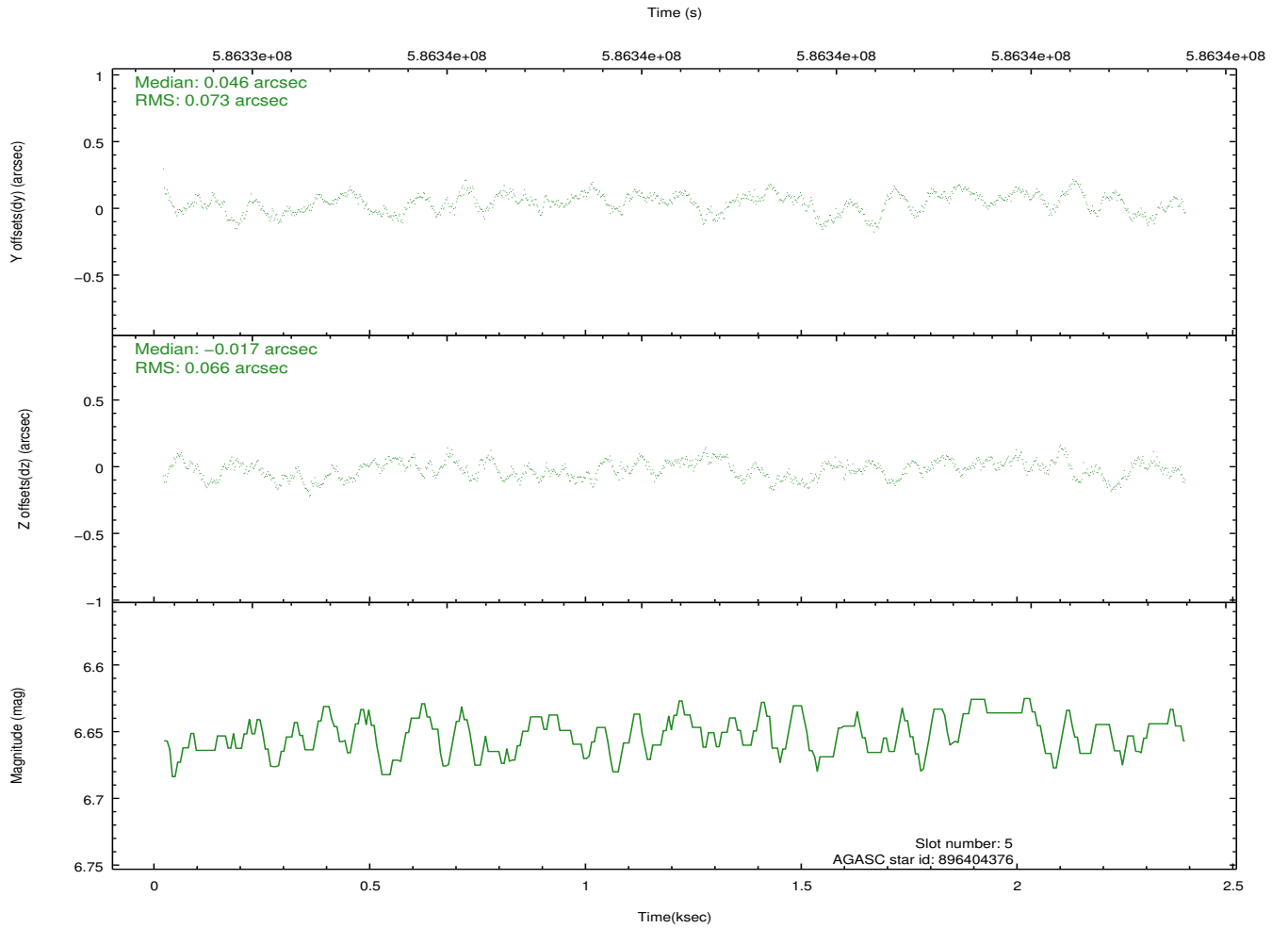
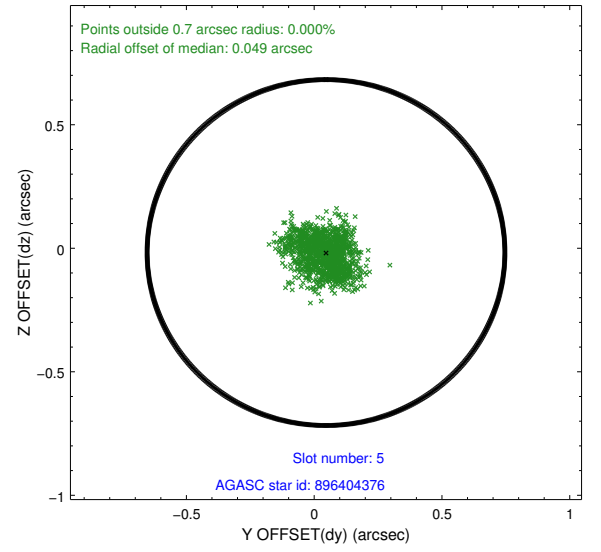
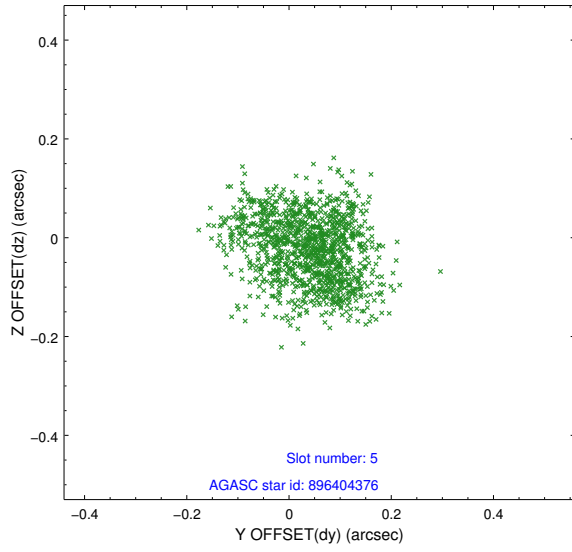
### 2.4.1 Slot 3



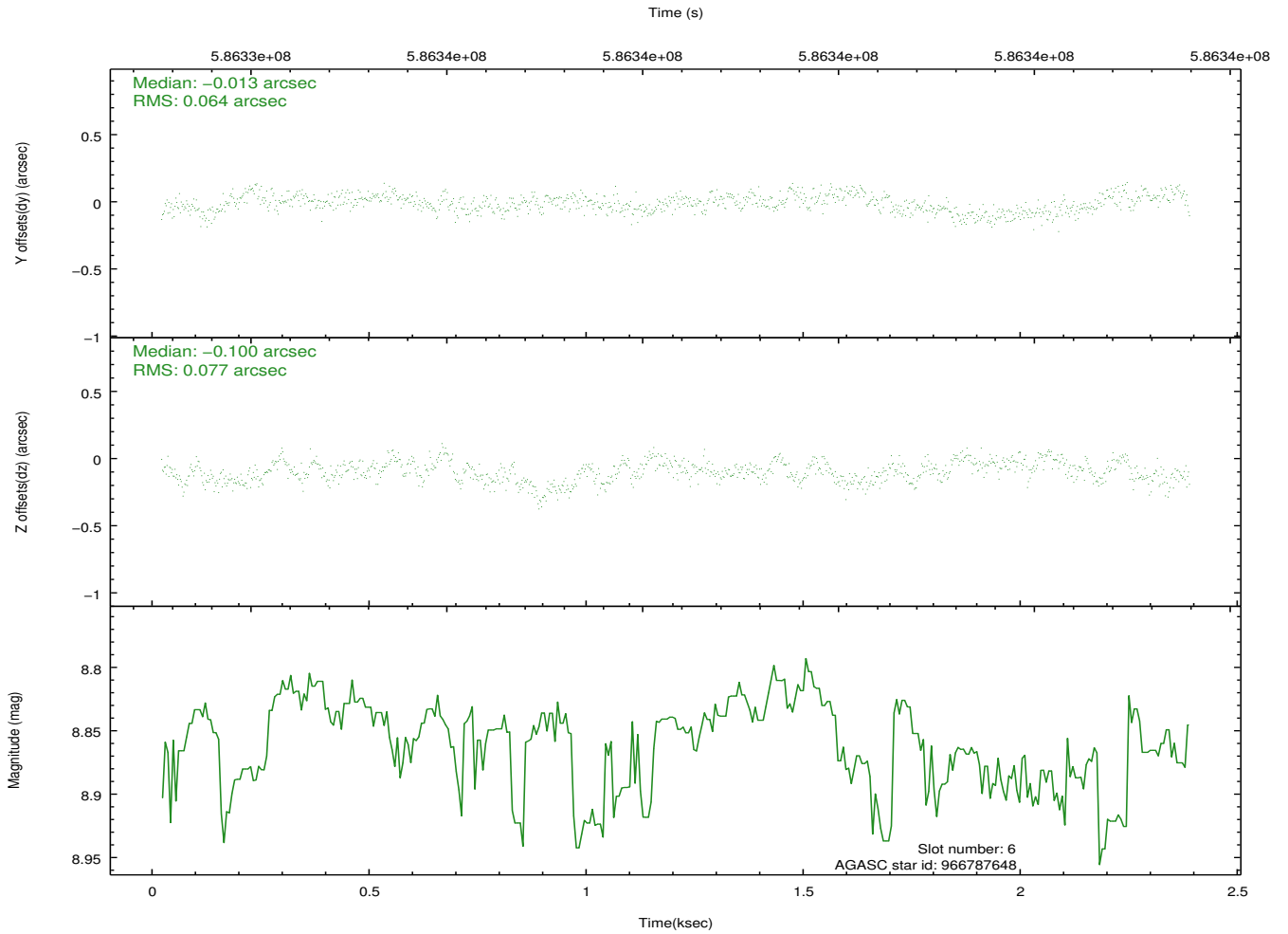
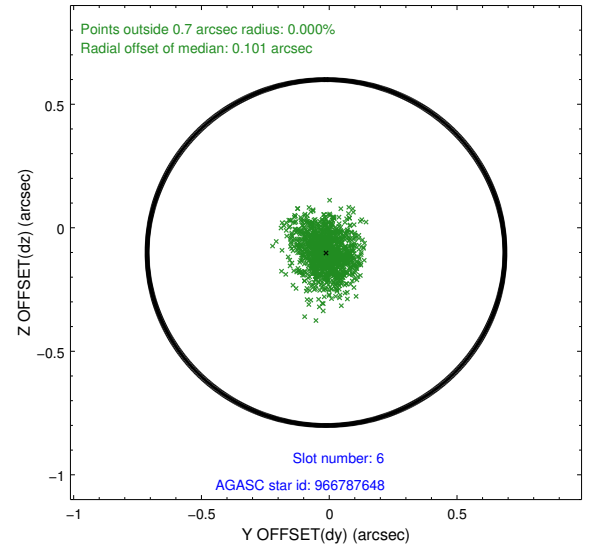
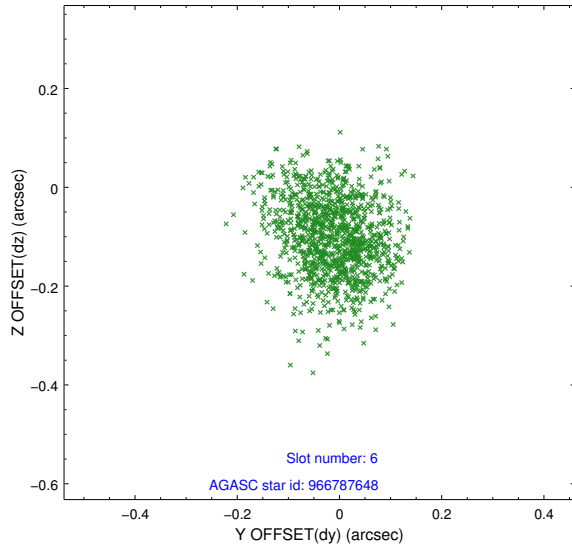
## 2.4.2 Slot 4



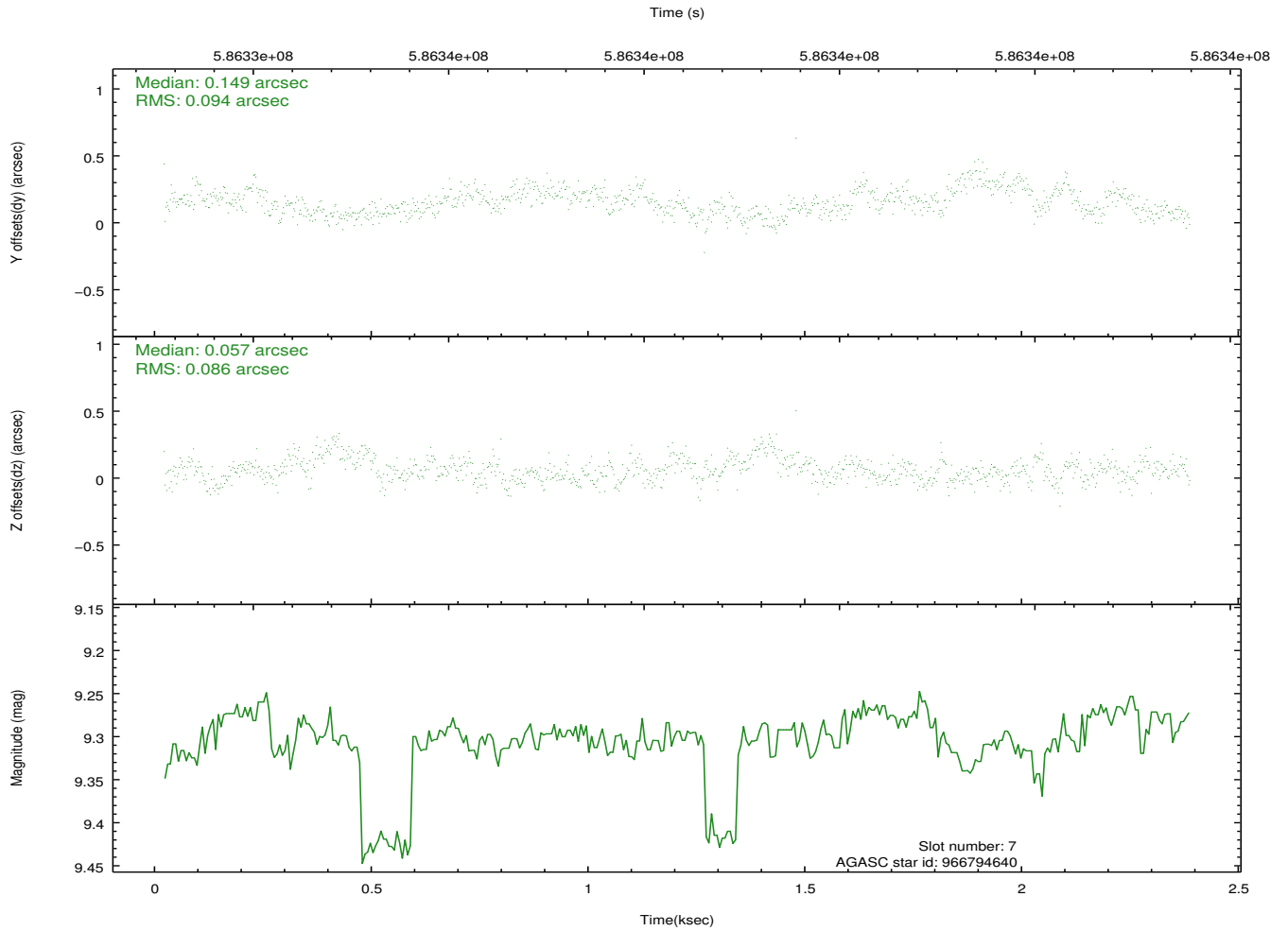
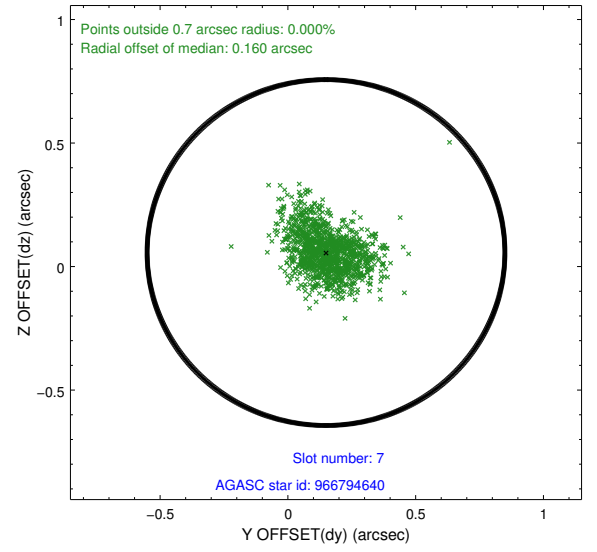
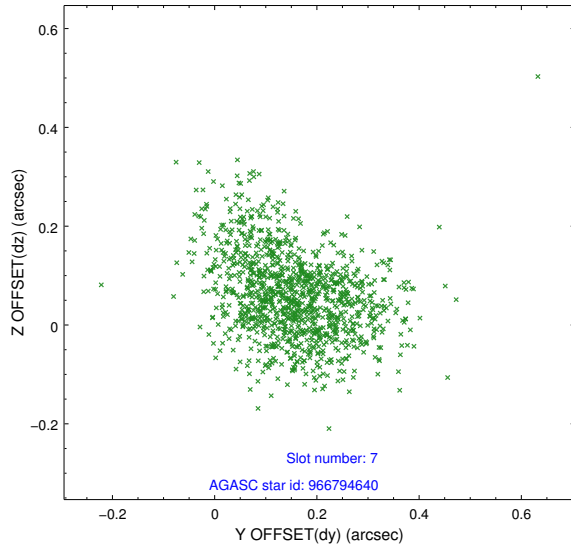
### 2.4.3 Slot 5



## 2.4.4 Slot 6

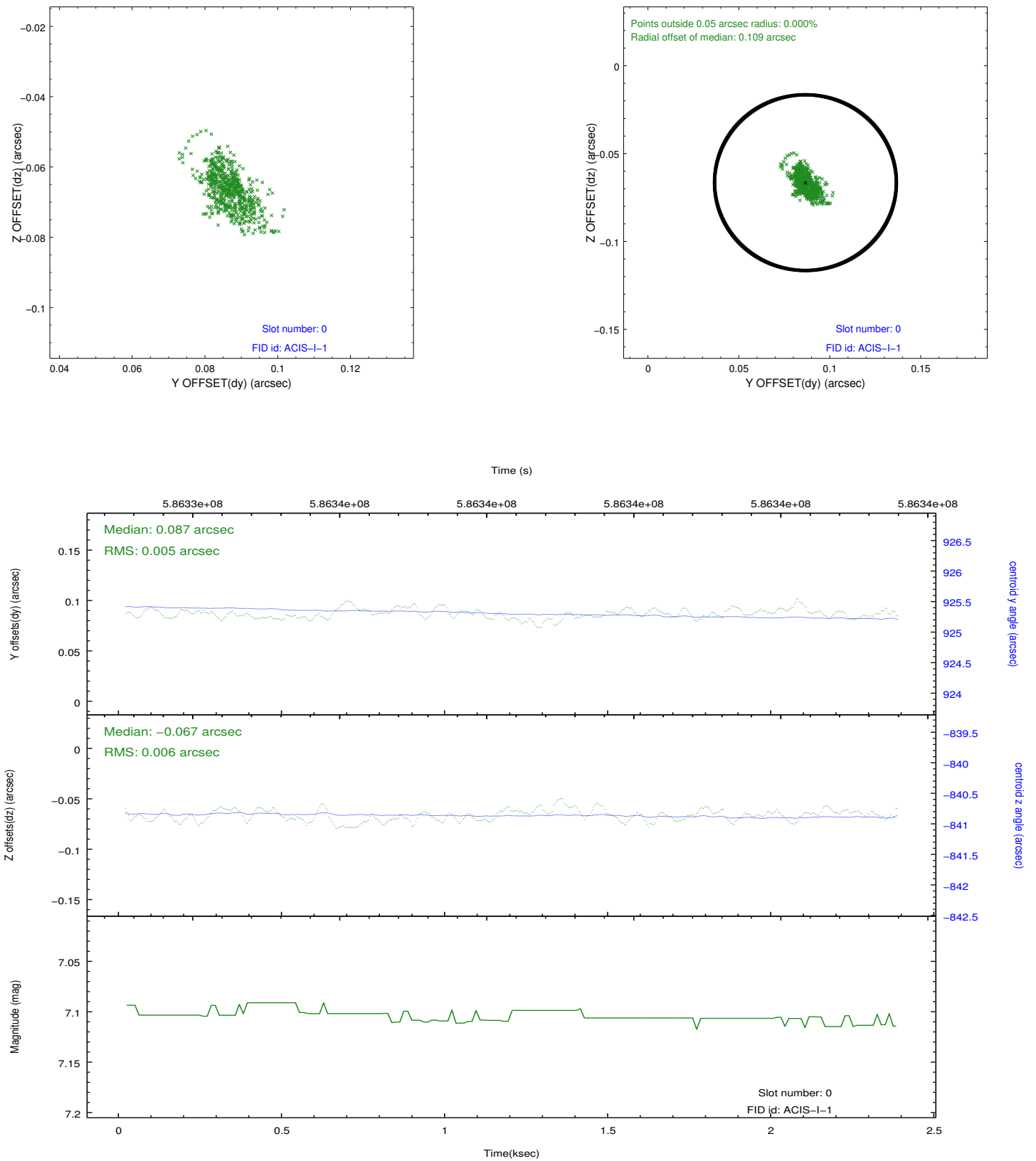


## 2.4.5 Slot 7

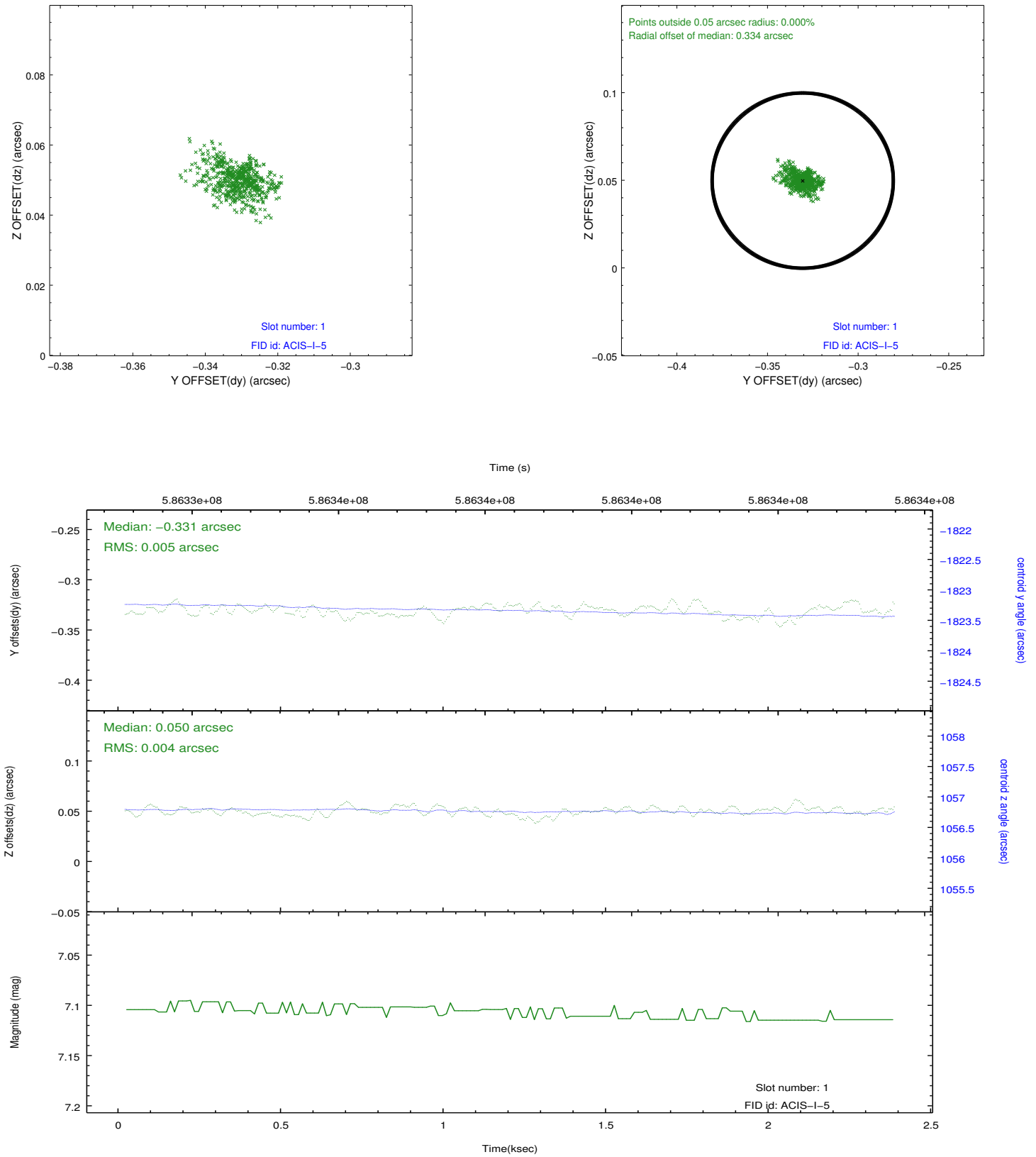


## 2.5 FID Slots

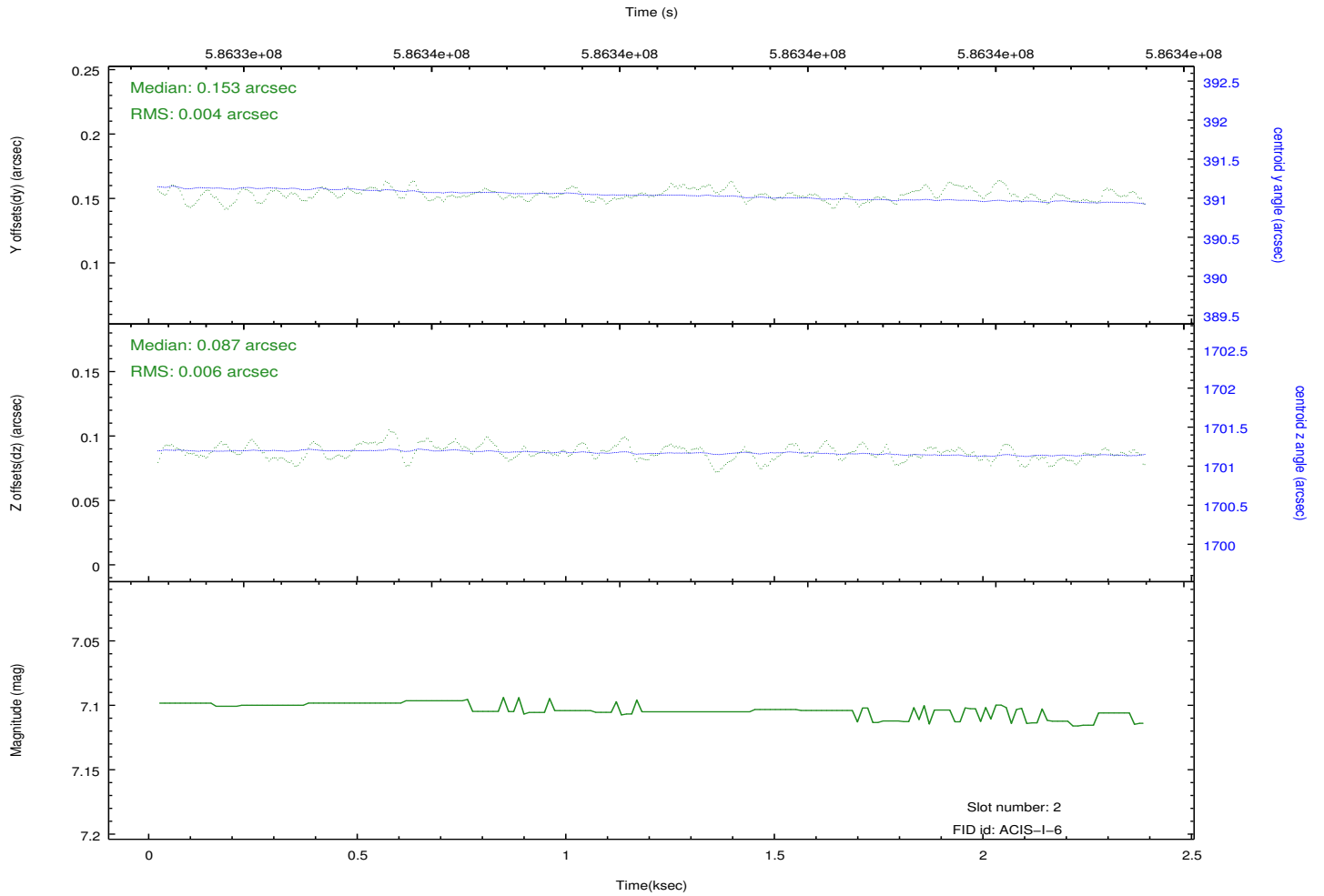
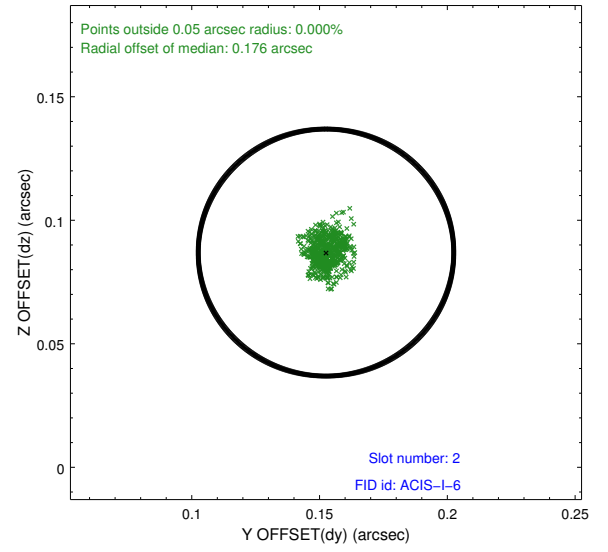
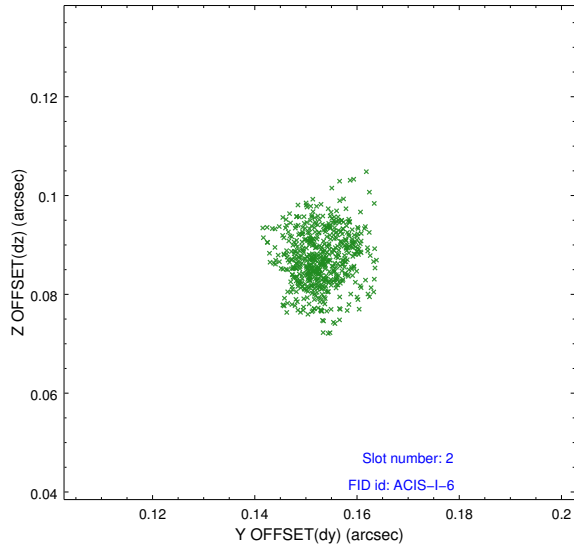
### 2.5.1 Slot 0



## 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