

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18323 - L2 Version 1  
Chandra X-Ray Center

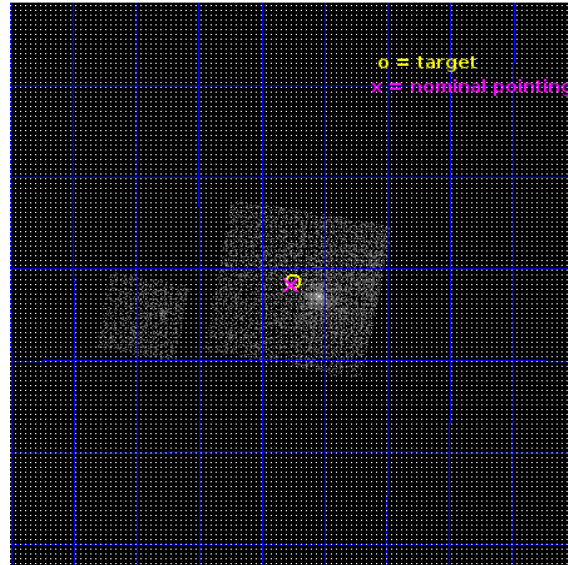
L2 Processing Date : Jul 15 2016

## 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

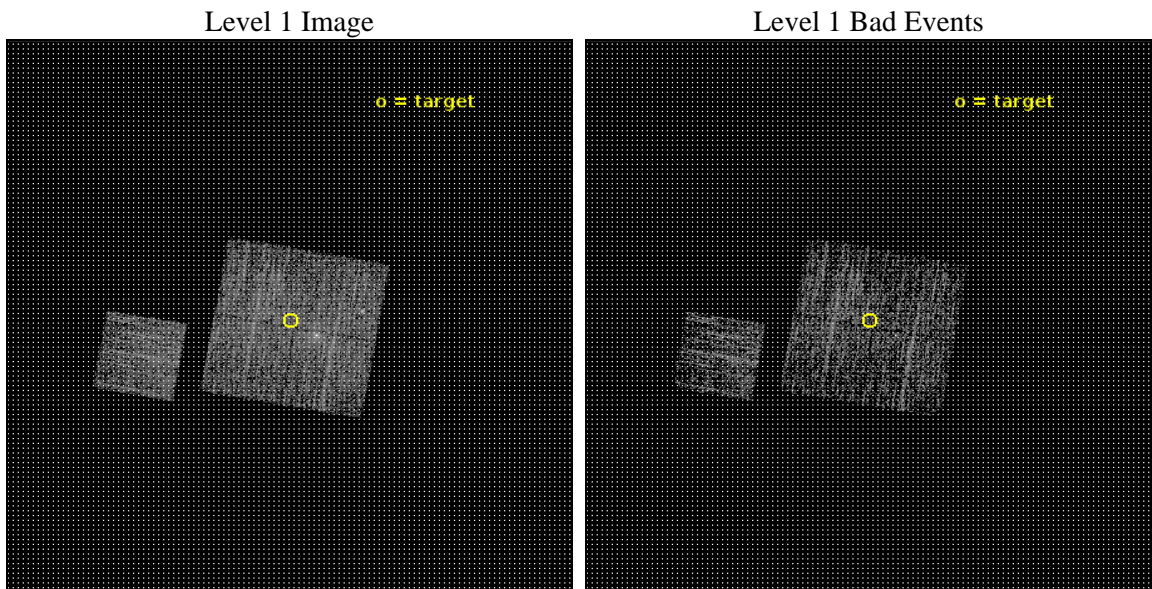
seq_num	300354	Sequence number
obs_id	18323	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.81121	Observer's specified target RA [deg]
dec_targ	-28.85719	Observer's specified target Dec [deg]
ra_nom	266.81540943151	Nominal RA [deg]
dec_nom	-28.862976209778	Nominal Dec [deg]
roll_nom	280.08696717509	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1955.773135066	Sum of GTIs [s]
livetime	1930.2195192372	Livetime [s]
ontime0	1955.6500151157	Sum of GTIs [s]
ontime1	1955.6910550594	Sum of GTIs [s]
ontime2	1955.7321150303	Sum of GTIs [s]
ontime3	1955.773135066	Sum of GTIs [s]
ontime6	1955.6089949608	Sum of GTIs [s]
l2events	11179	Number of level 2 events



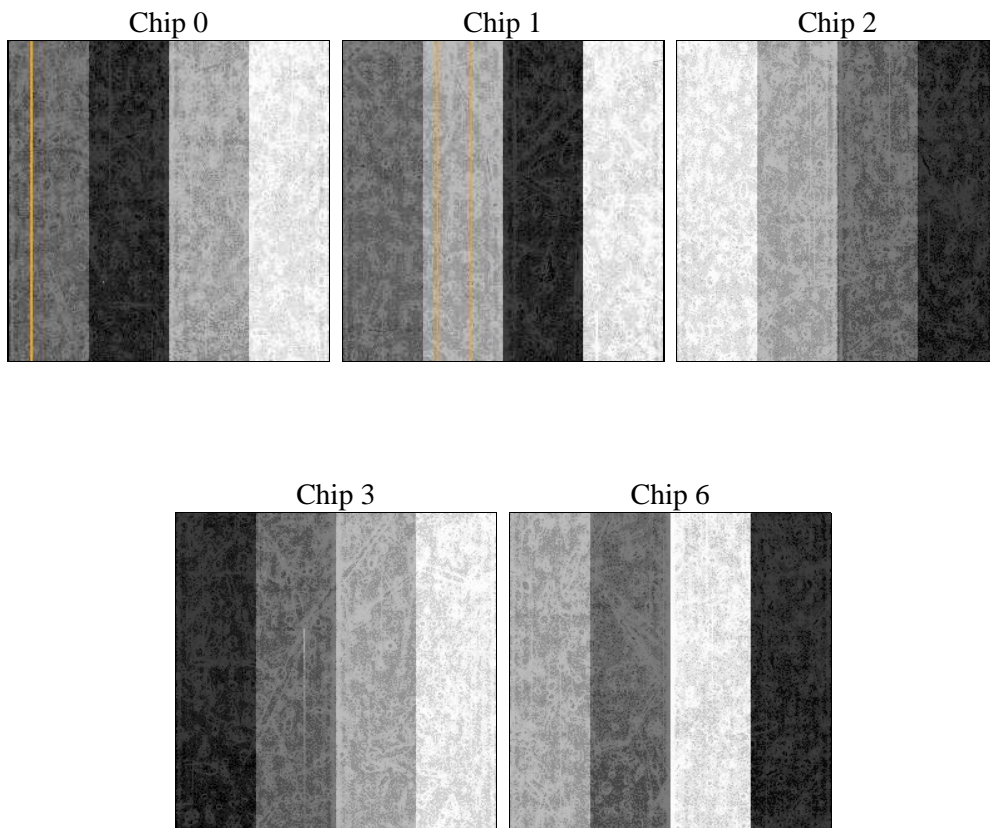
## 2 OBI

### 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	1955.773135066	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	1955.6500151157	Sum of GTIs [s]
date	2016-07-15T14:33:18	Date and time of file creation	ontime1	1955.6910550594	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1955.7321150303	Sum of GTIs [s]
			ontime3	1955.773135066	Sum of GTIs [s]
			ontime6	1955.6089949608	Sum of GTIs [s]
			l1events	64107	Number of level 1 events

### 2.1.4 Events

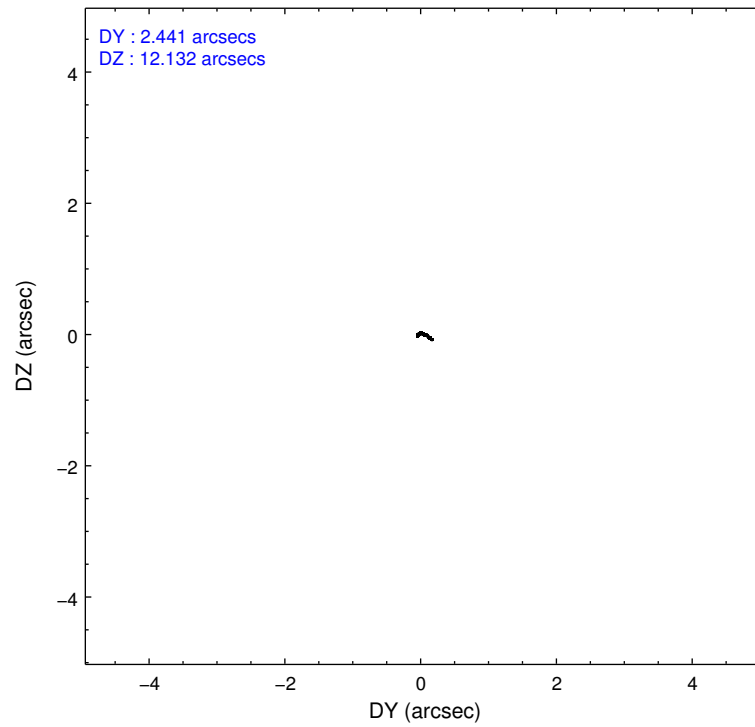
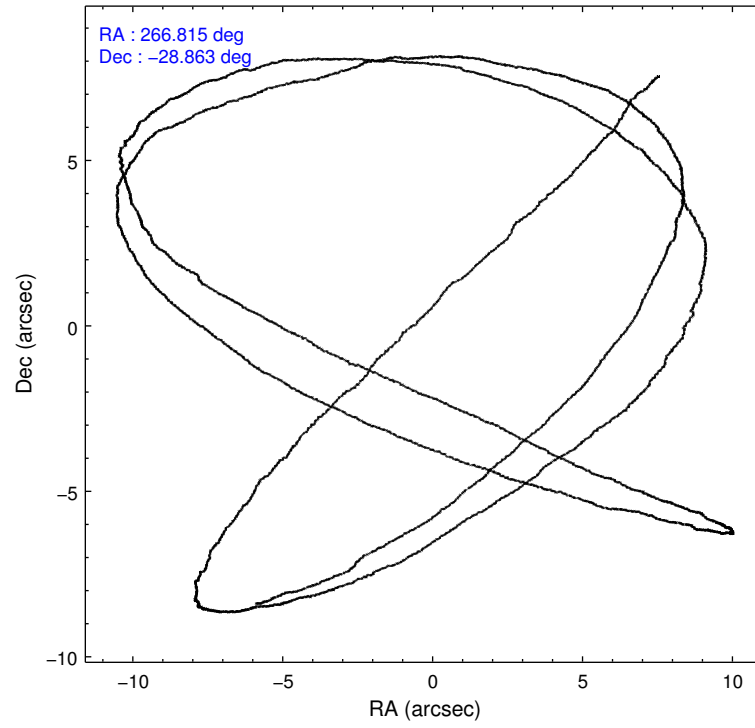
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	14215	12422	11614	13377	12479
rejected events	10036	8939	9889	11587	10845
rejected %	70%	71%	85%	86%	86%

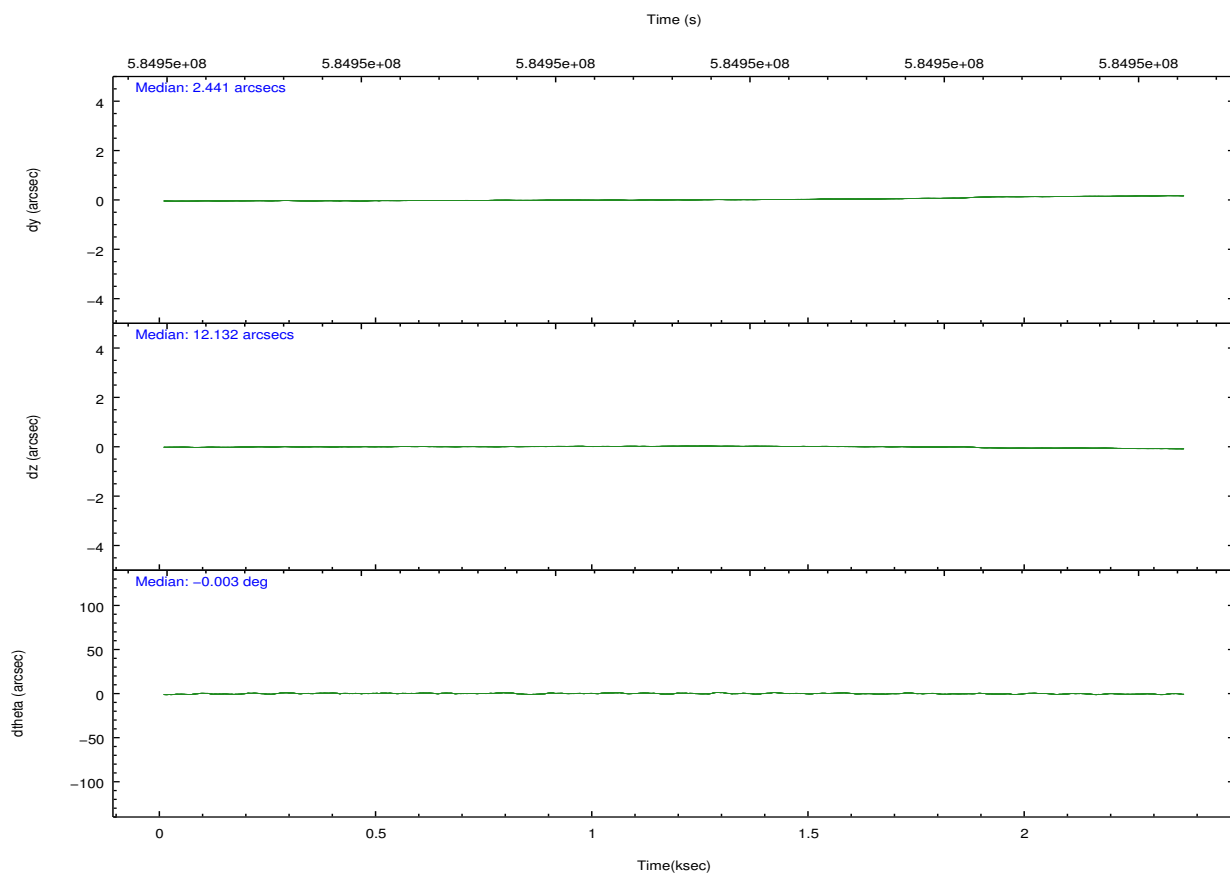
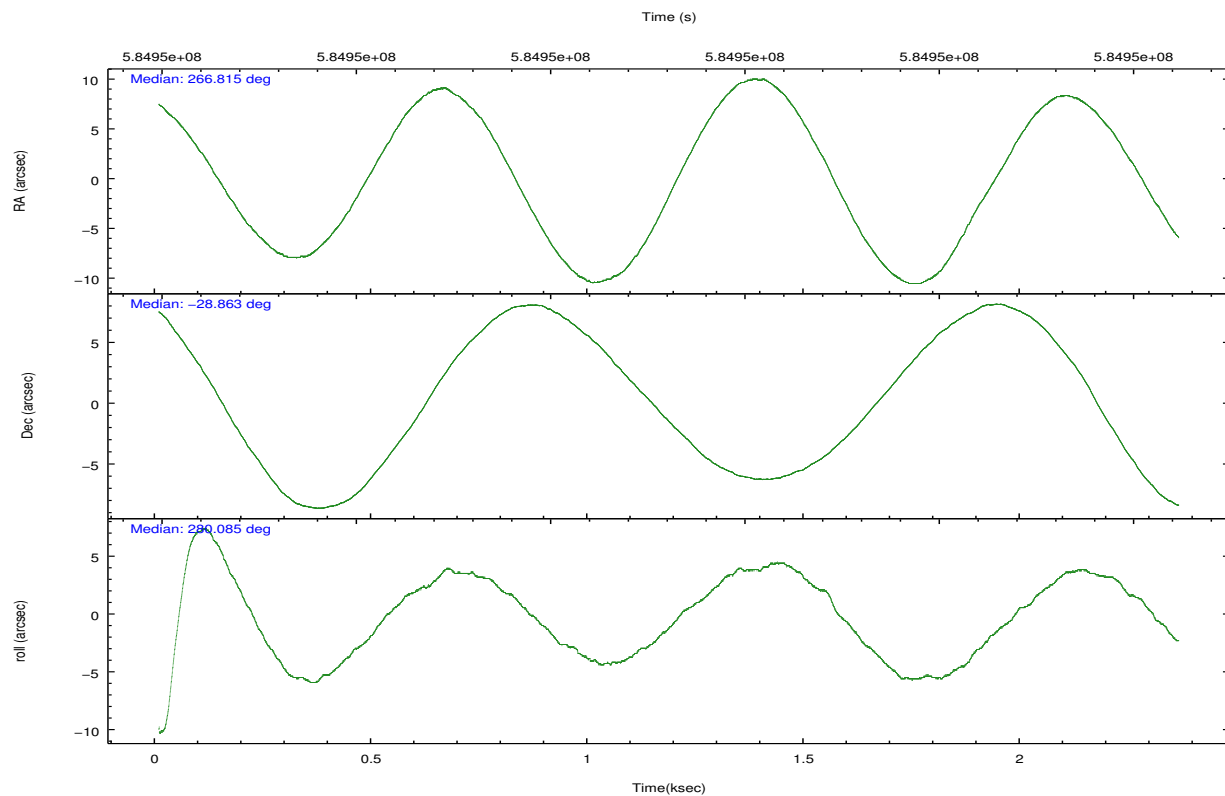
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2259	1999	795	830	689
	15%	16%	6%	6%	5%
grade 1 events	125	13	5	11	1
	0%	0%	0%	0%	0%
grade 2 events	750	615	338	317	335
	5%	4%	2%	2%	2%
grade 3 events	271	220	133	180	151
	1%	1%	1%	1%	1%
grade 4 events	295	221	144	161	146
	2%	1%	1%	1%	1%
grade 5 events	708	555	532	586	570
	4%	4%	4%	4%	4%
grade 6 events	609	433	320	303	318
	4%	3%	2%	2%	2%
grade 7 events	9198	8366	9347	10989	10269
	64%	67%	80%	82%	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	266.794927	266.8154094315054	CCD I2 on	Y	Y
[deg] Pointing Dec	-28.841887	-28.86297620977835	CCD I3 on	Y	Y
[deg] Pointing Roll	279.868390	280.0869671750873	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)	584949310.184000	584948934.16831	CCD S5 on	N	N
Observation start date	2016-07-15T05:54:02	2016-07-15T05:48:54	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	584951490.184000	584951623.76846	On-chip summing requested	N	N
Observation end date	2016-07-15T06:30:22	2016-07-15T06:33:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





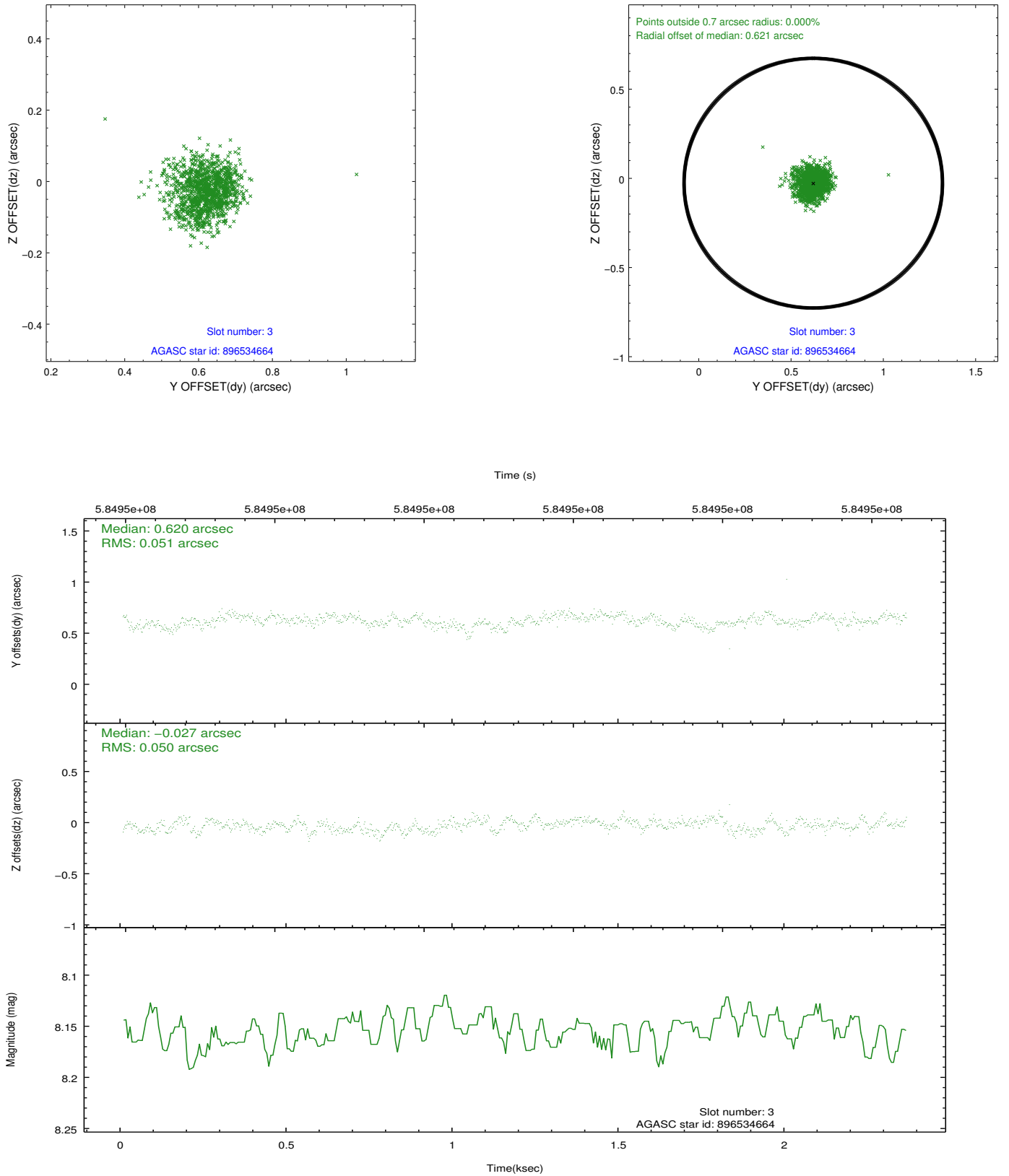
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.24	576	0.144	-0.102	0.012	0.019	0.000000	0.000000	937.49	-835.75
1	FID		ACIS-I-5	7.21	576	-0.276	0.124	0.009	0.014	0.000000	0.000000	-1809.52	1060.56
2	FID		ACIS-I-6	7.23	575	0.040	0.050	0.008	0.014	0.000000	0.000000	399.92	1708.14
3	GUIDE	used	896534664	8.15	1152	0.620	-0.027	0.076	0.119	266.405570	-28.407461	-1749.30	-947.37
4	GUIDE	used	896538696	6.78	1152	-0.311	0.214	0.065	0.110	266.298470	-28.325572	-2099.28	-1232.99
5	GUIDE	used	896540888	7.88	1152	-0.360	-0.006	0.082	0.135	267.212234	-28.246138	-1885.96	1669.66
6	GUIDE	used	896536400	8.53	1152	0.200	-0.026	0.085	0.135	267.359146	-29.438655	2422.66	1375.12
7	GUIDE	used	896540528	8.23	1151	-0.147	-0.152	0.078	0.125	267.368305	-29.314773	1992.49	1482.22

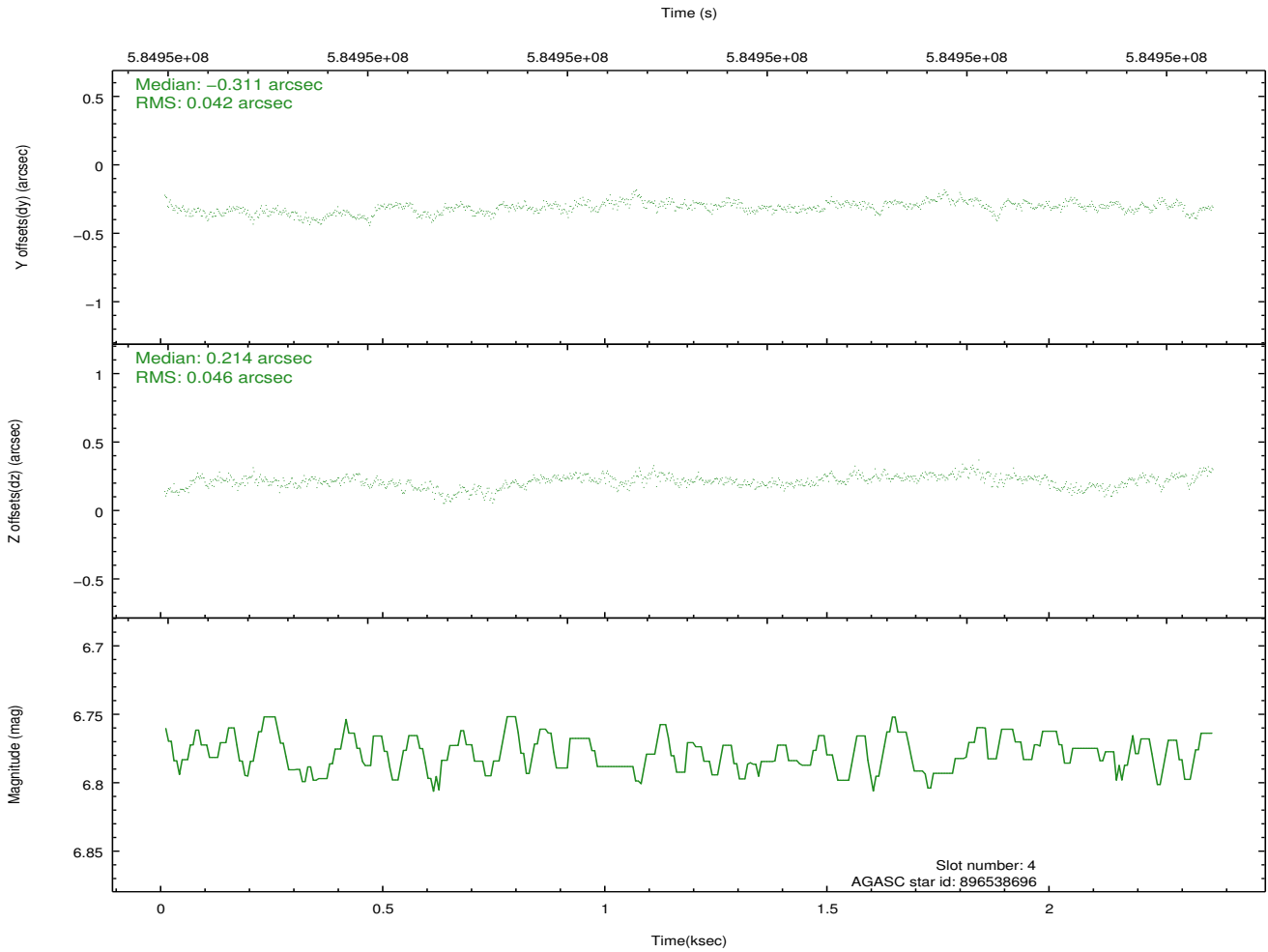
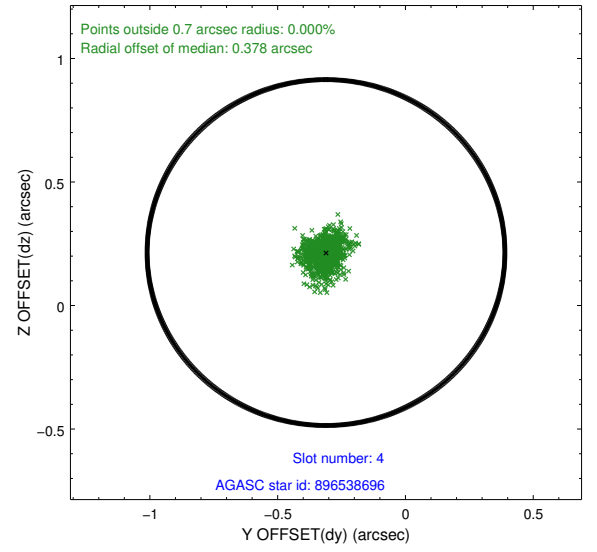
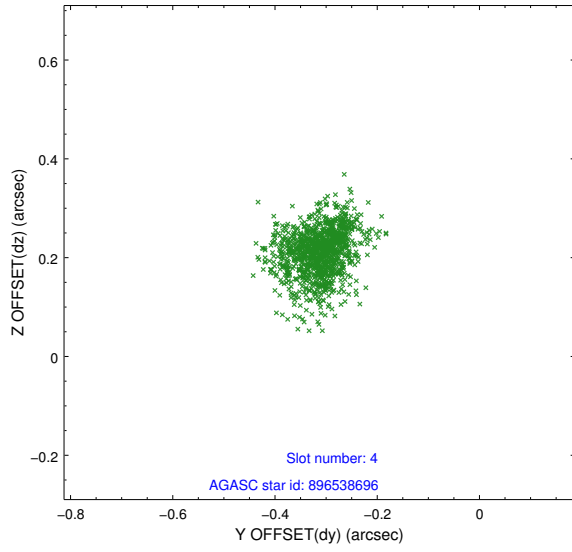


## 2.4 Star Slots

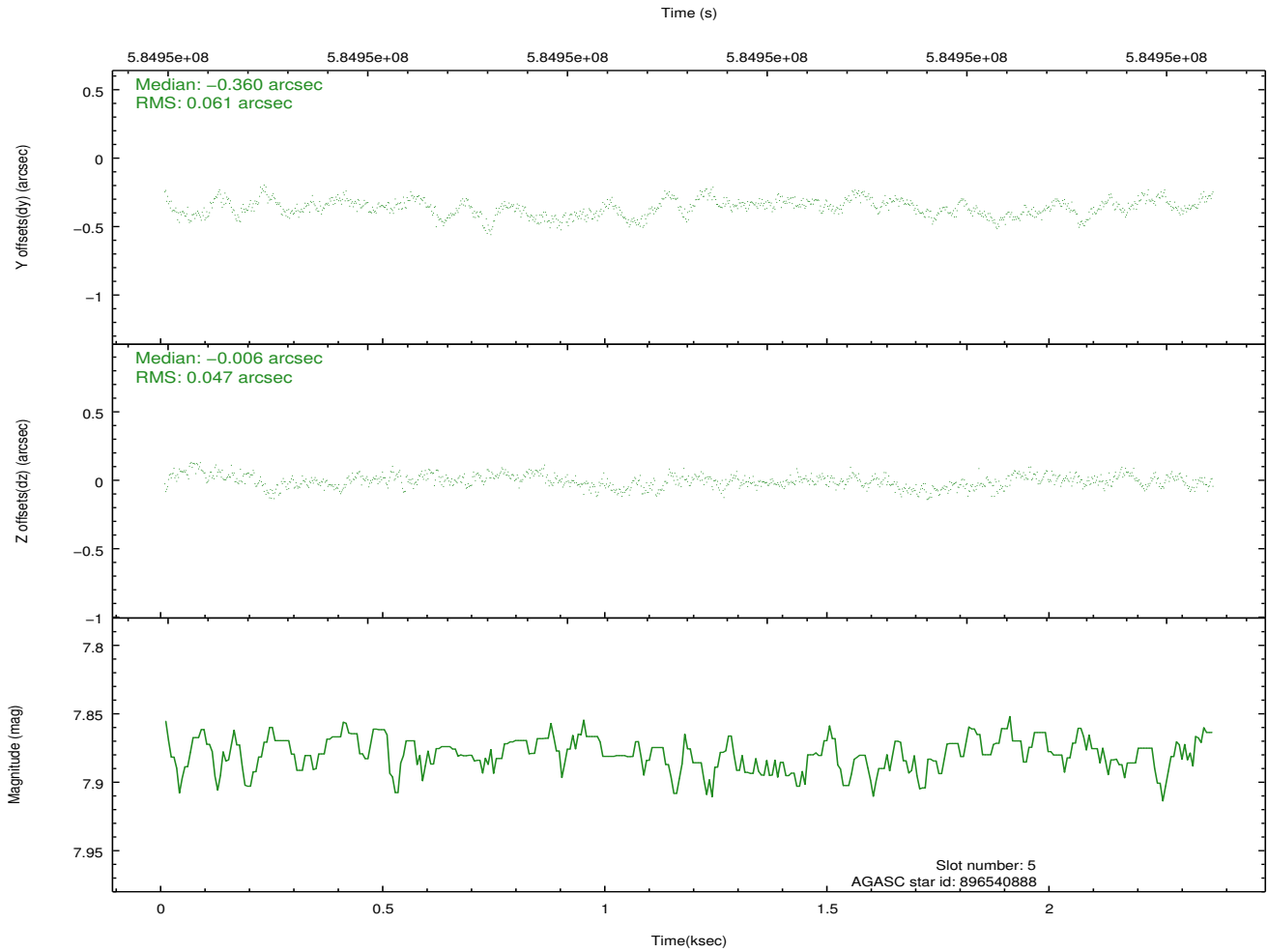
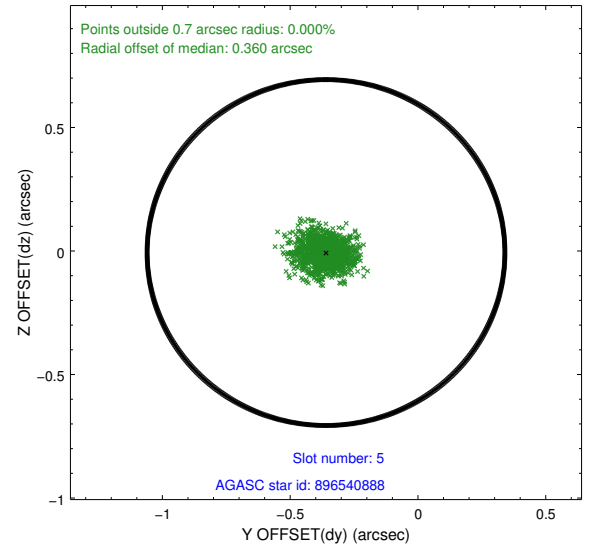
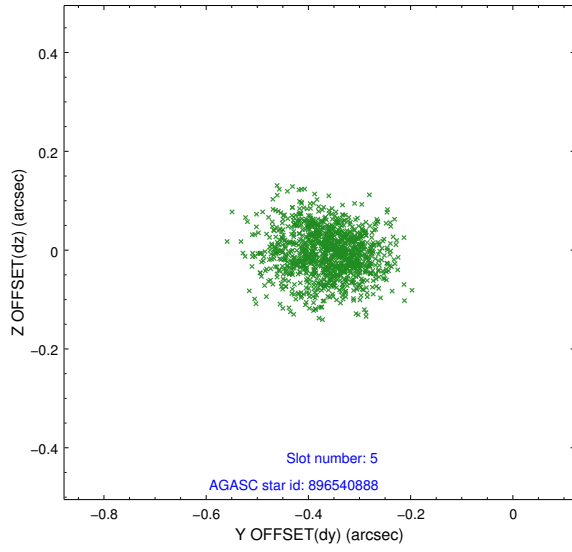
### 2.4.1 Slot 3



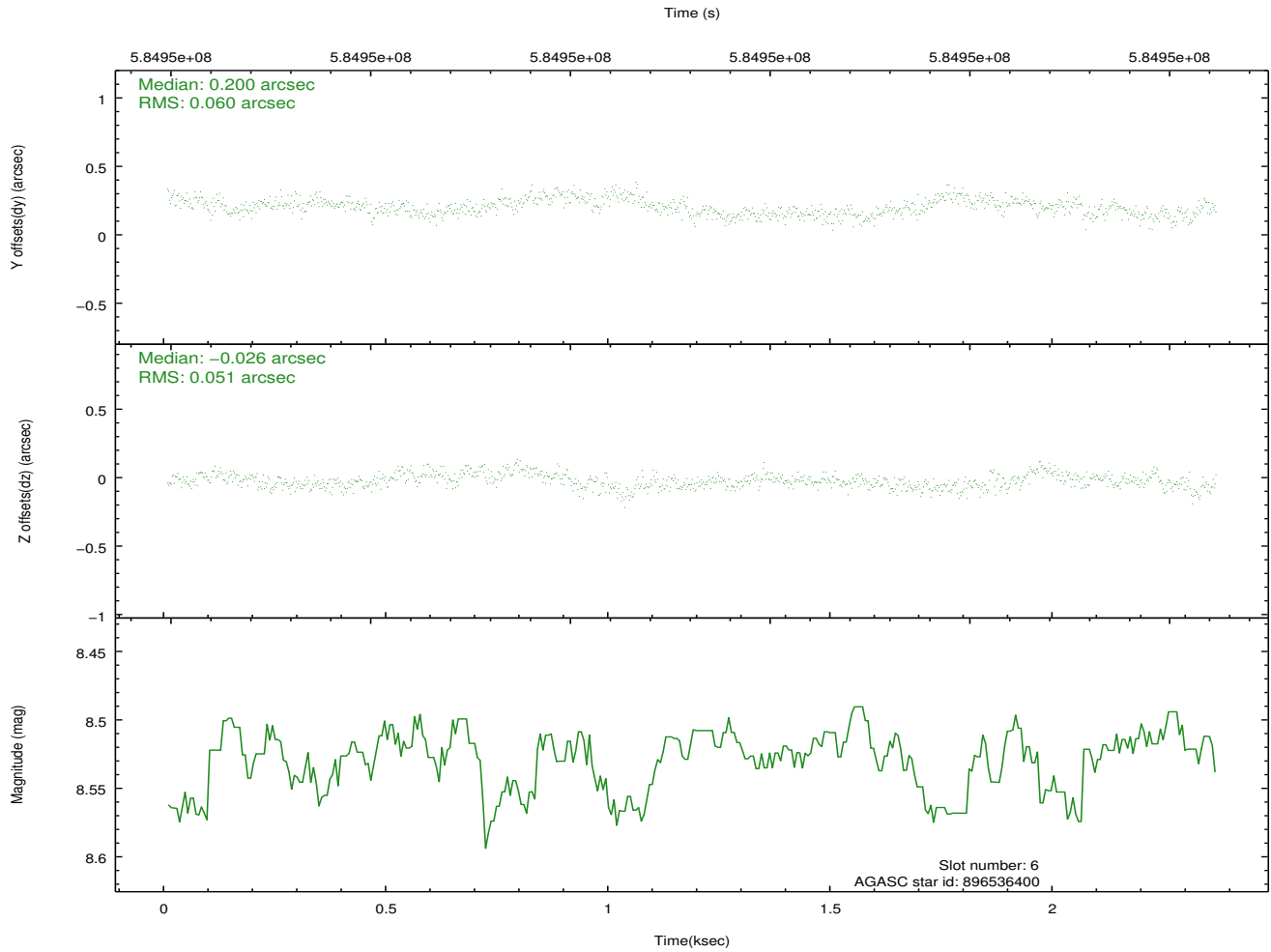
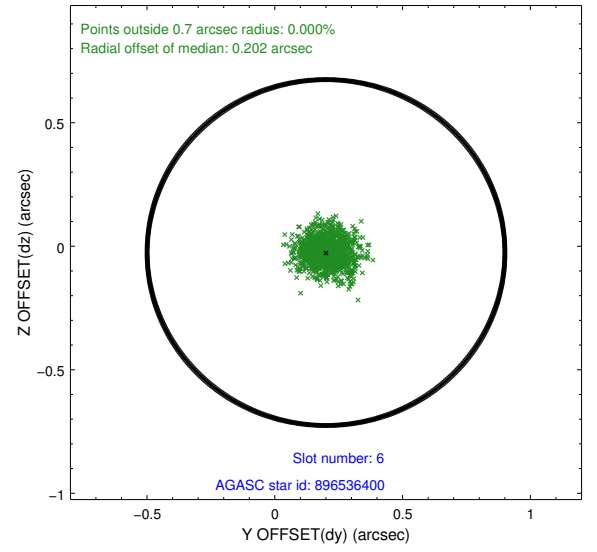
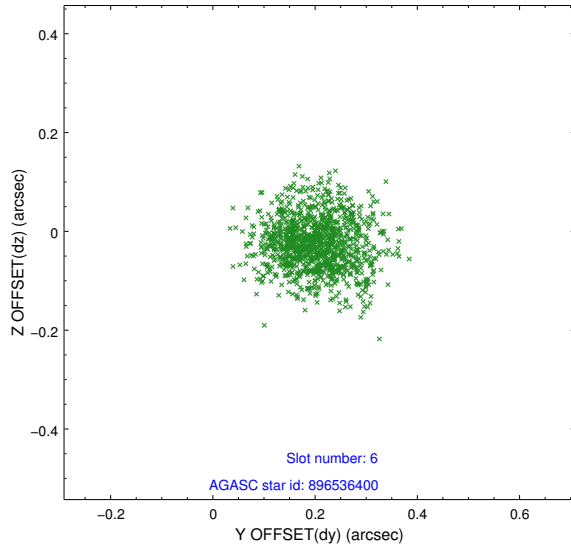
## 2.4.2 Slot 4



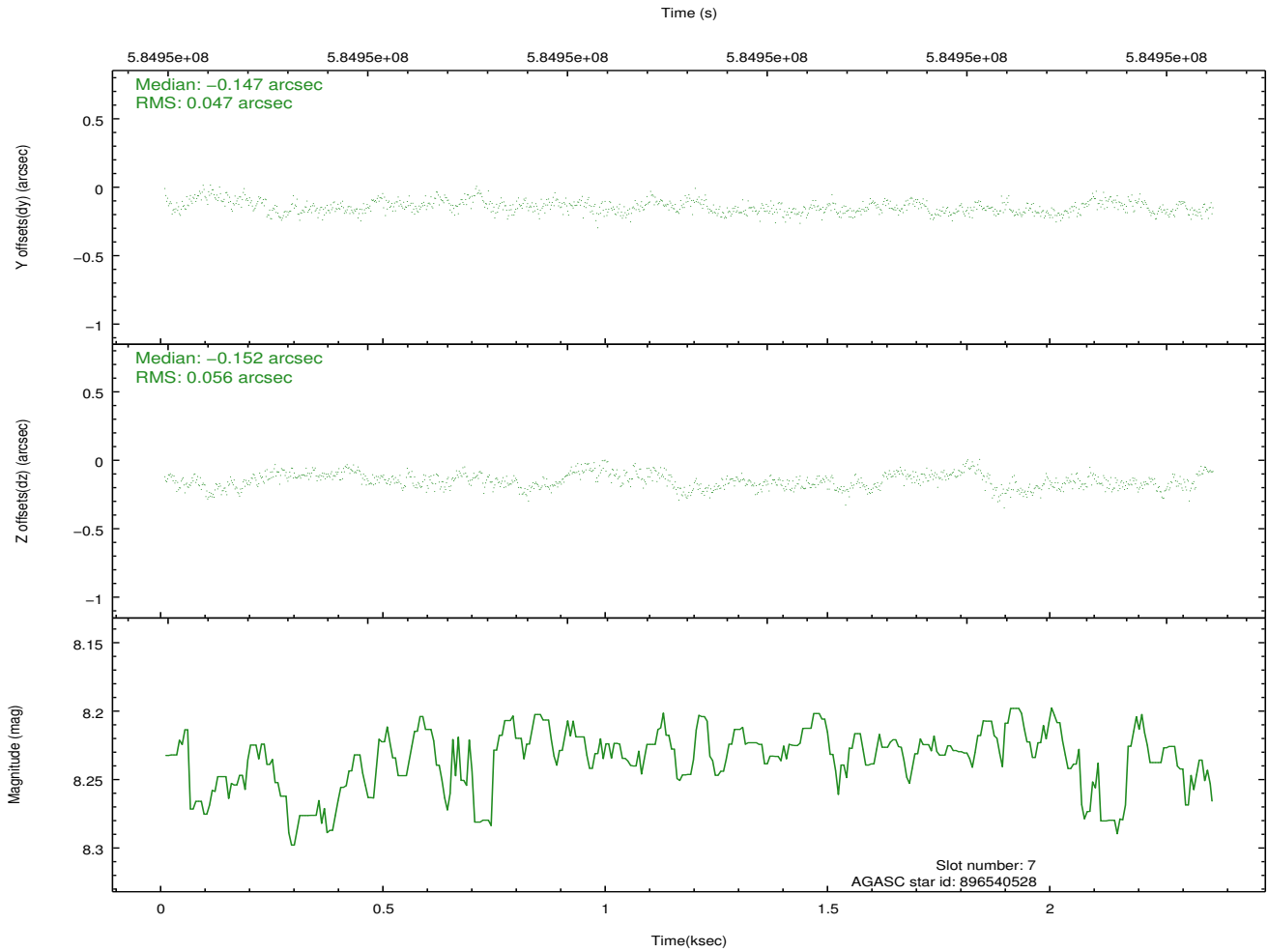
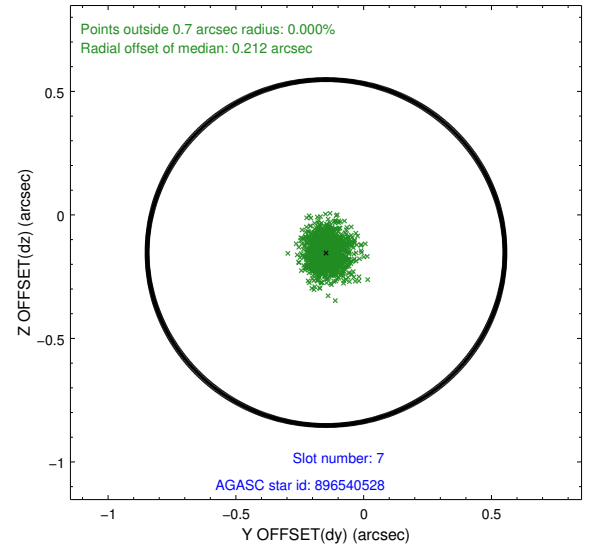
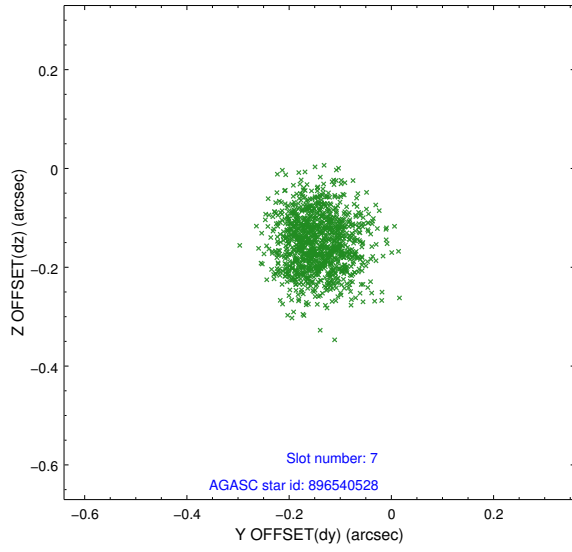
### 2.4.3 Slot 5



## 2.4.4 Slot 6

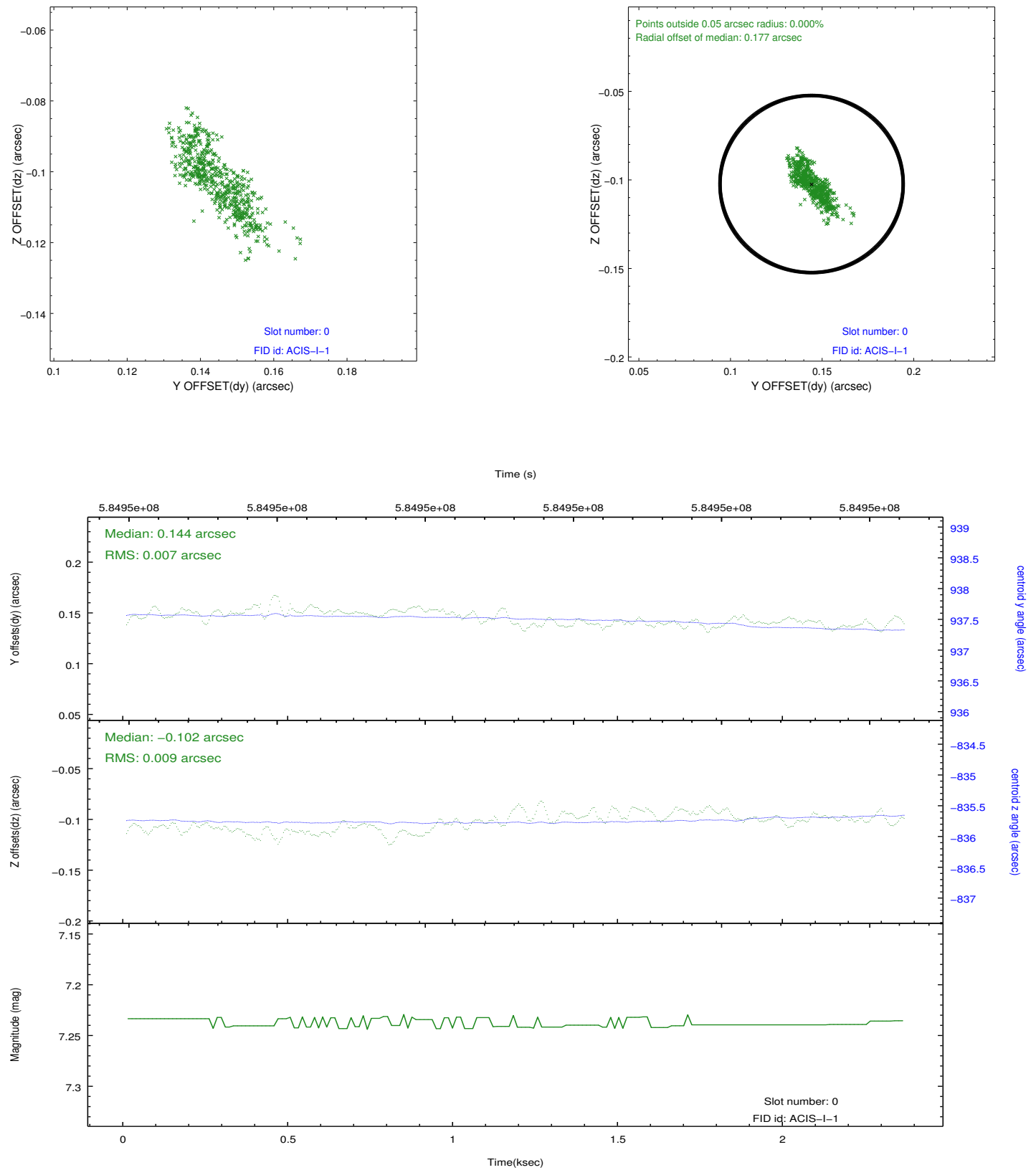


## 2.4.5 Slot 7

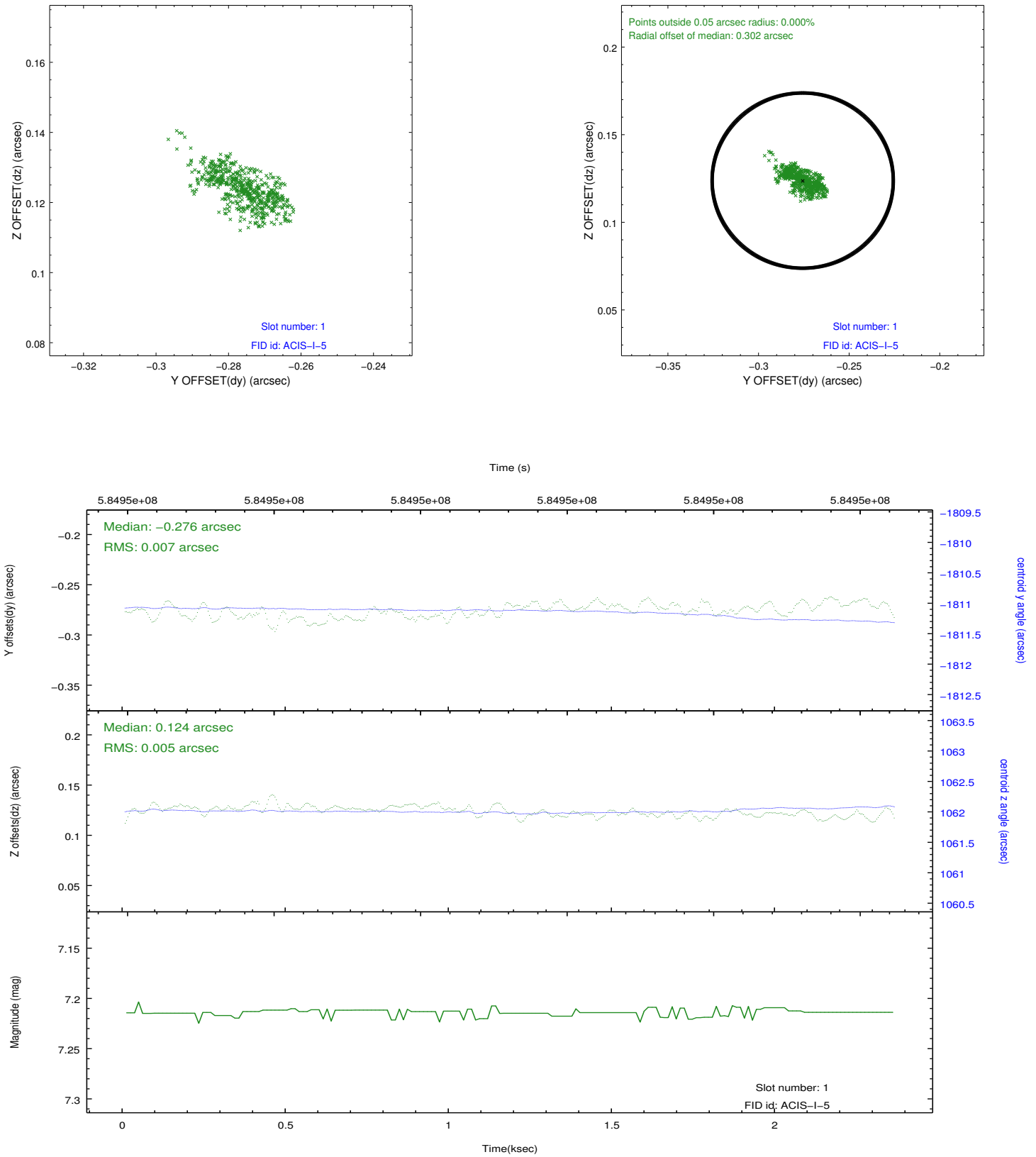


## 2.5 FID Slots

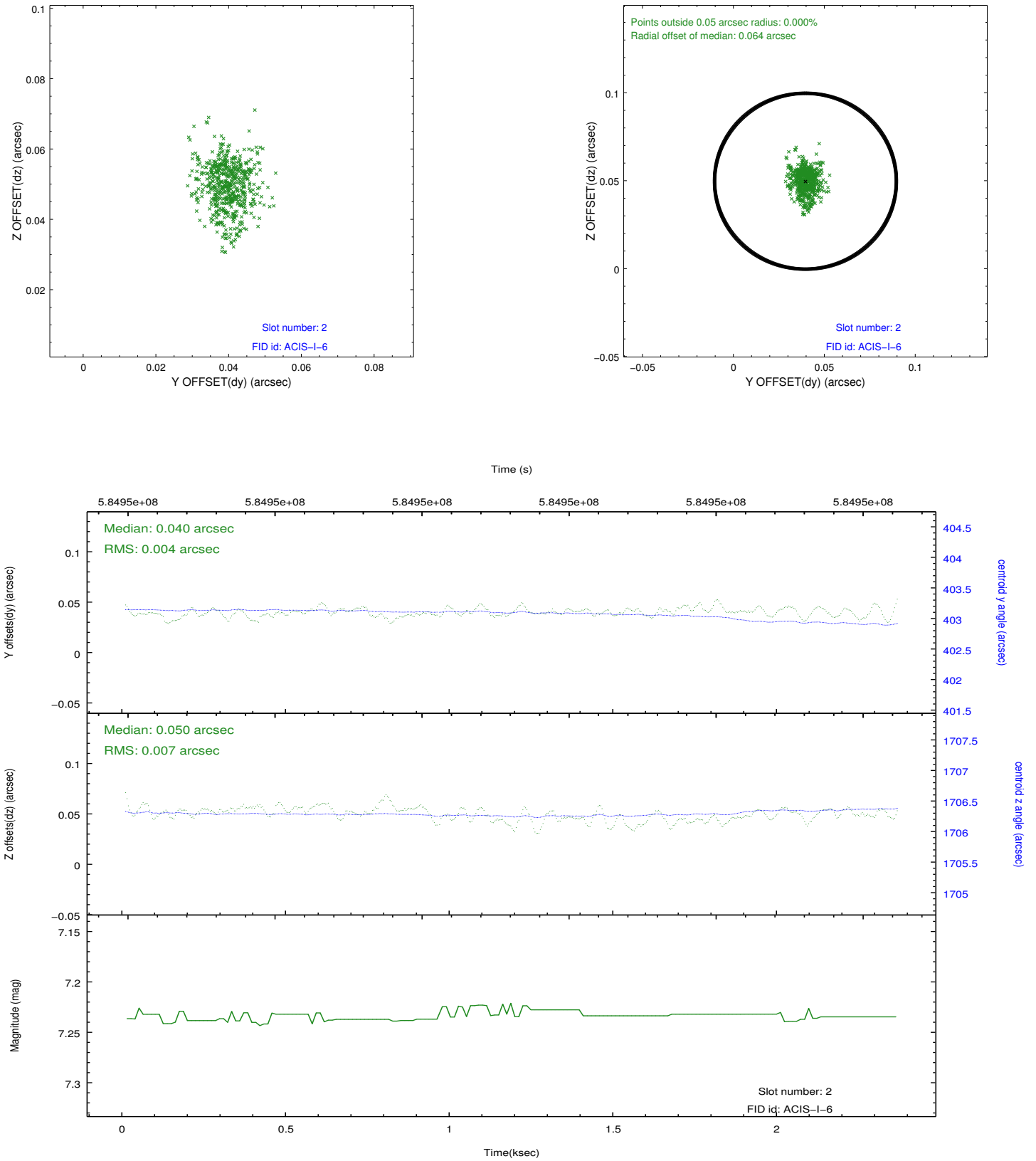
### 2.5.1 Slot 0



## 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)	2016.07.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.955773135066

### A.2 Comments