

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18653 - L2 Version 1  
Chandra X-Ray Center

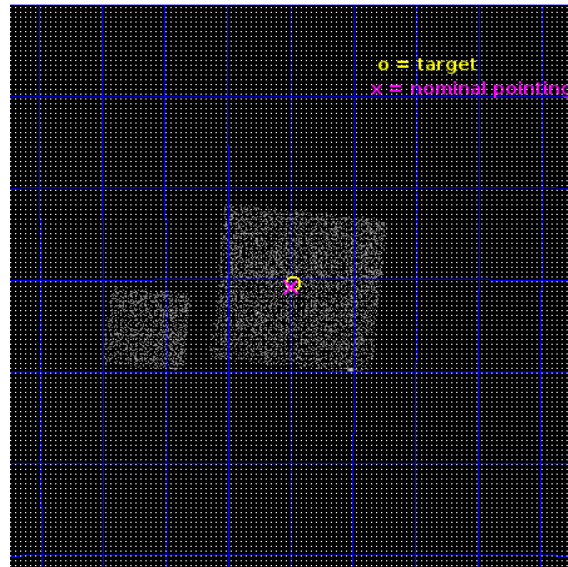
L2 Processing Date : Jul 25 2016

## 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

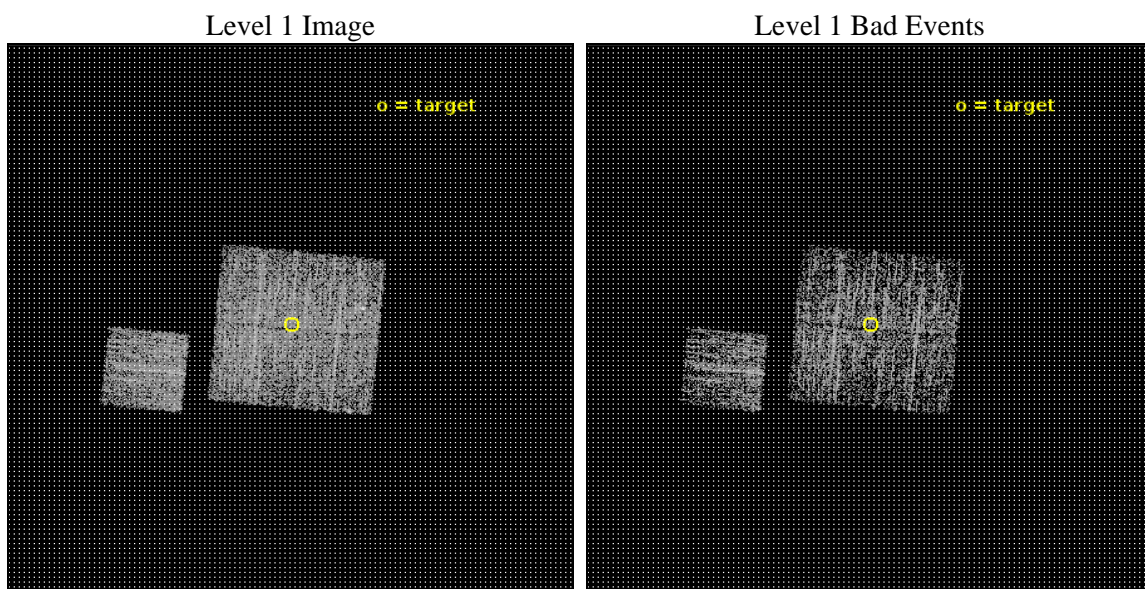
seq_num	300377	Sequence number
obs_id	18653	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	264.99434	Observer's specified target RA [deg]
dec_targ	-29.00778	Observer's specified target Dec [deg]
ra_nom	264.99776034271	Nominal RA [deg]
dec_nom	-29.013537857594	Nominal Dec [deg]
roll_nom	275.54771010576	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1952.2060178518	Sum of GTIs [s]
livetime	1926.6990090354	Livetime [s]
ontime0	1952.0828979015	Sum of GTIs [s]
ontime1	1952.1239378452	Sum of GTIs [s]
ontime2	1952.1649779081	Sum of GTIs [s]
ontime3	1952.2060178518	Sum of GTIs [s]
ontime6	1952.0418578386	Sum of GTIs [s]
l2events	7094	Number of level 2 events



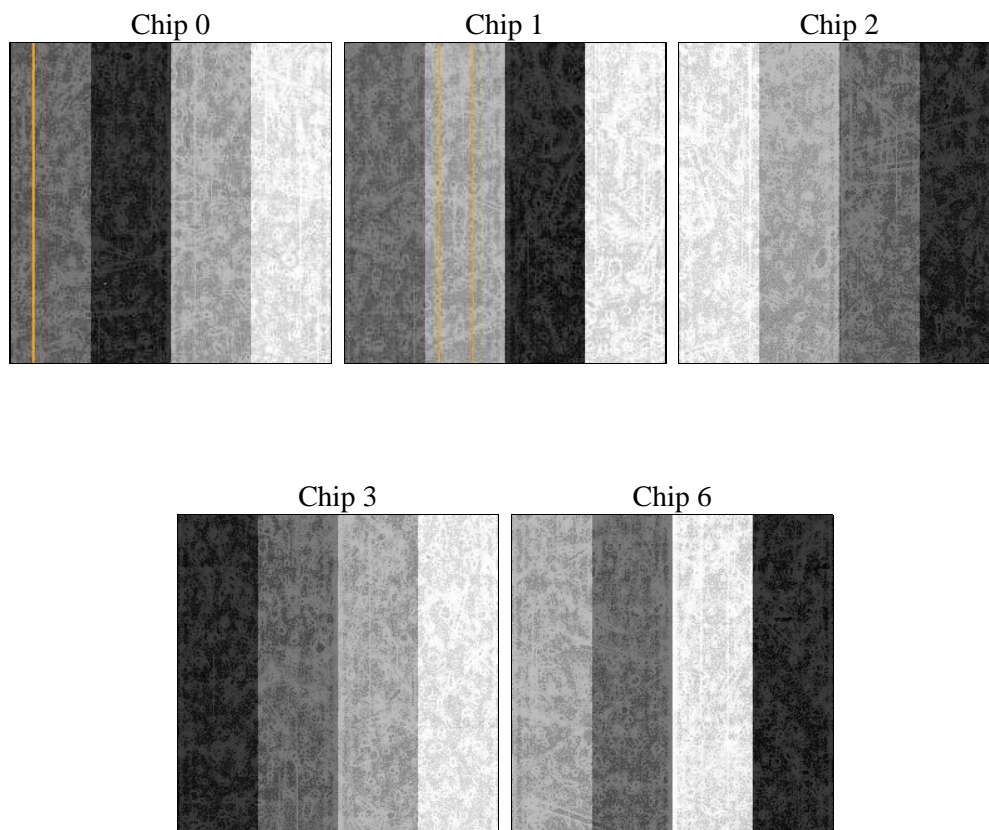
## 2 OBI

### 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	1952.2060178518	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	1952.0828979015	Sum of GTIs [s]
date	2016-07-26T03:14:23	Date and time of file creation	ontime1	1952.1239378452	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1952.1649779081	Sum of GTIs [s]
			ontime3	1952.2060178518	Sum of GTIs [s]
			ontime6	1952.0418578386	Sum of GTIs [s]
			l1events	61160	Number of level 1 events

### 2.1.4 Events

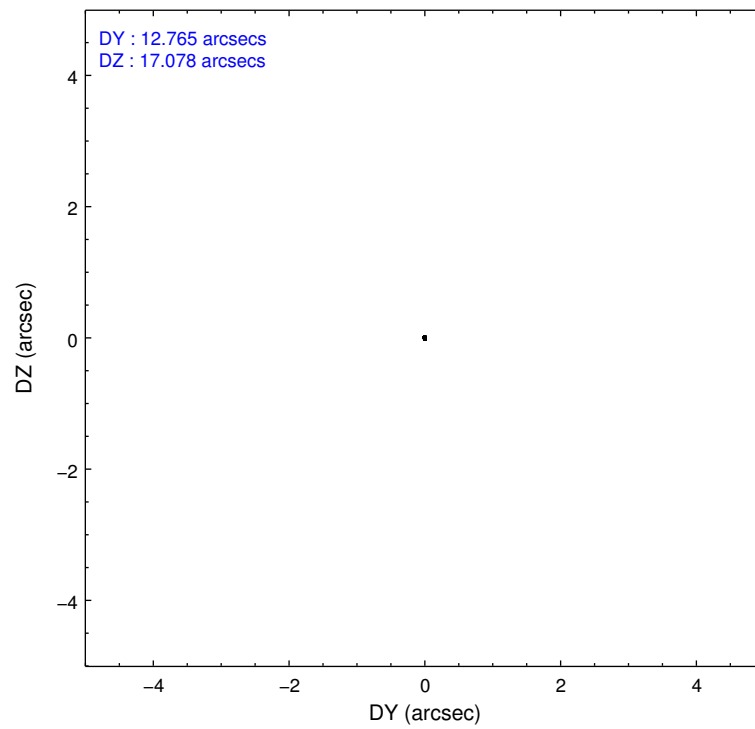
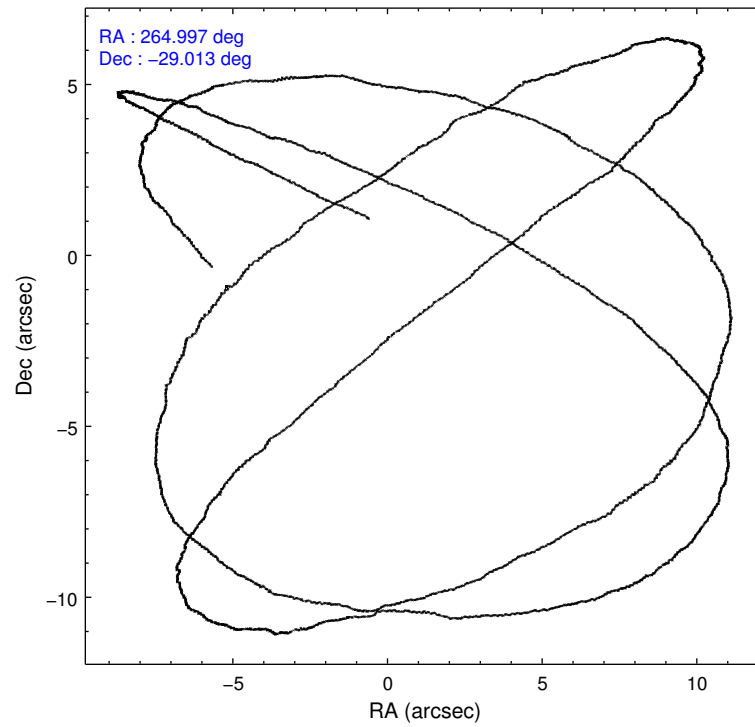
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	10898	12387	13126	11958	12791
rejected events	9215	10201	11430	10439	11255
rejected %	84%	82%	87%	87%	87%

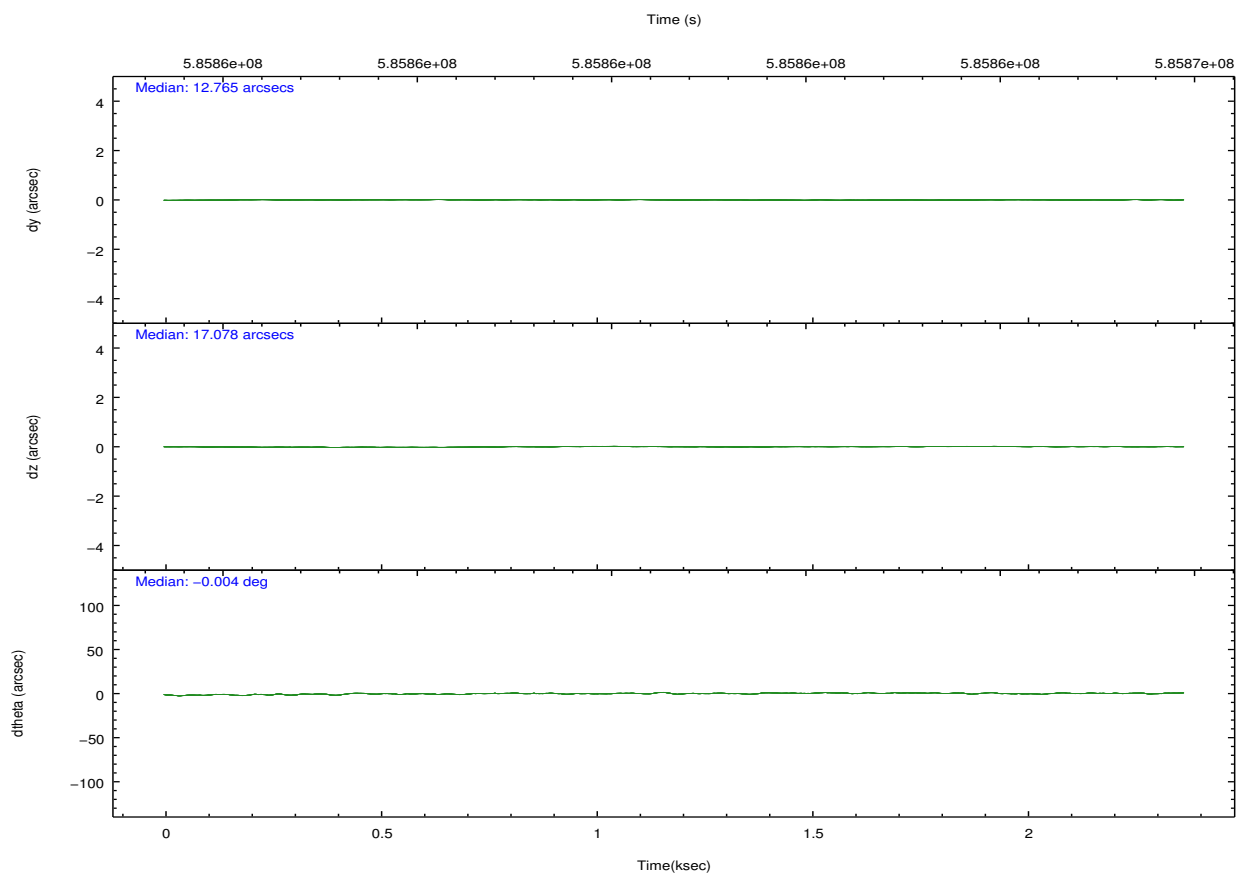
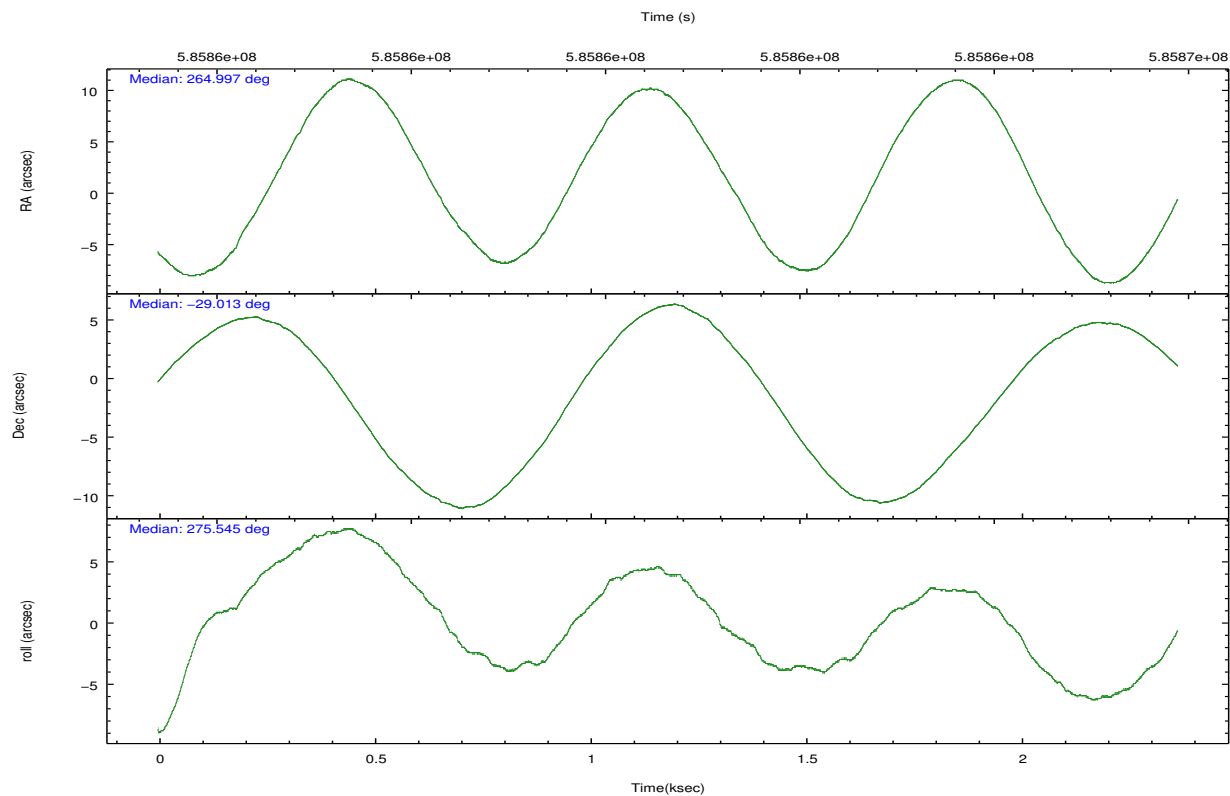
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	726	1113	675	664	547
	6%	8%	5%	5%	4%
grade 1 events	9	4	12	6	7
	0%	0%	0%	0%	0%
grade 2 events	361	426	413	318	354
	3%	3%	3%	2%	2%
grade 3 events	149	164	156	138	136
	1%	1%	1%	1%	1%
grade 4 events	160	160	156	149	143
	1%	1%	1%	1%	1%
grade 5 events	565	646	542	611	603
	5%	5%	4%	5%	4%
grade 6 events	293	329	299	252	360
	2%	2%	2%	2%	2%
grade 7 events	8635	9545	10873	9820	10641
	79%	77%	82%	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	264.979491	264.9977603427105	CCD I2 on	Y	Y
[deg] Pointing Dec	-28.991399	-29.01353785759356	CCD I3 on	Y	Y
[deg] Pointing Roll	275.330159	275.5477101057617	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)	585863157.184000	585862781.17072	CCD S5 on	N	N
Observation start date	2016-07-25T19:44:49	2016-07-25T19:39:41	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	585865337.184000	585865470.77087	On-chip summing requested	N	N
Observation end date	2016-07-25T20:21:09	2016-07-25T20:24:30	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





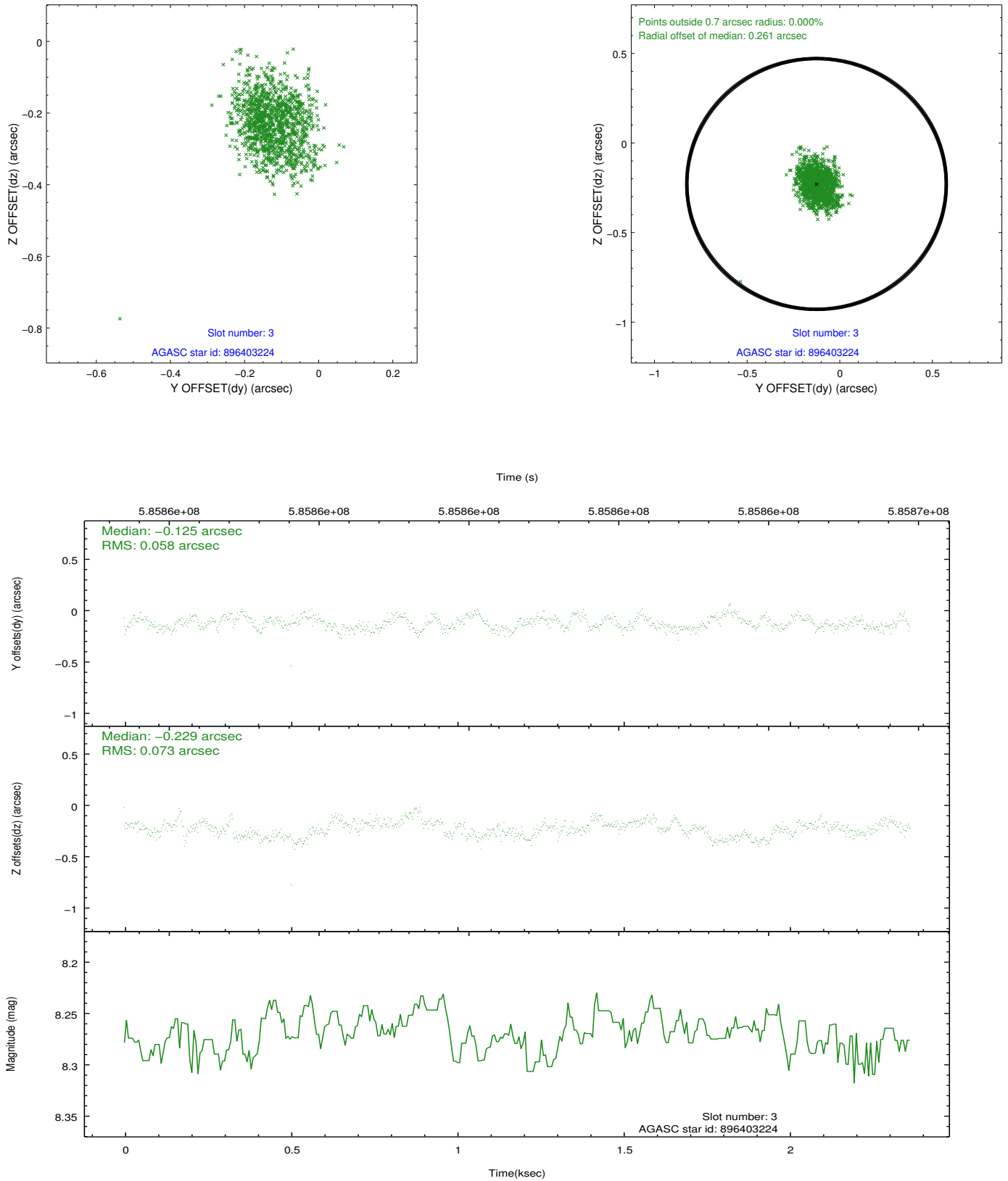
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.05	577	-0.045	-0.098	0.008	0.013	0.000000	0.000000	926.75	-840.79
1	FID		ACIS-I-4	6.98	577	0.314	0.113	0.007	0.012	0.000000	0.000000	2148.59	1057.90
2	FID		ACIS-I-5	7.04	577	-0.368	0.056	0.007	0.011	0.000000	0.000000	-1818.13	1058.64
3	GUIDE	used	896403224	8.27	1155	-0.125	-0.229	0.097	0.158	265.612825	-29.438915	1795.30	1827.53
4	GUIDE	used	896404376	6.68	1154	0.326	-0.065	0.122	0.206	264.835179	-29.530972	1895.49	-628.31
5	GUIDE	used	896405616	7.82	1155	-0.032	0.175	0.090	0.136	264.752771	-28.412560	-2136.82	-522.39
6	GUIDE	used	896406568	8.21	1153	0.096	0.226	0.090	0.142	264.435951	-28.437282	-2142.63	-1528.00
7	GUIDE	used	896402272	7.60	1154	-0.269	-0.111	0.108	0.184	265.637294	-28.313189	-2232.70	2301.31

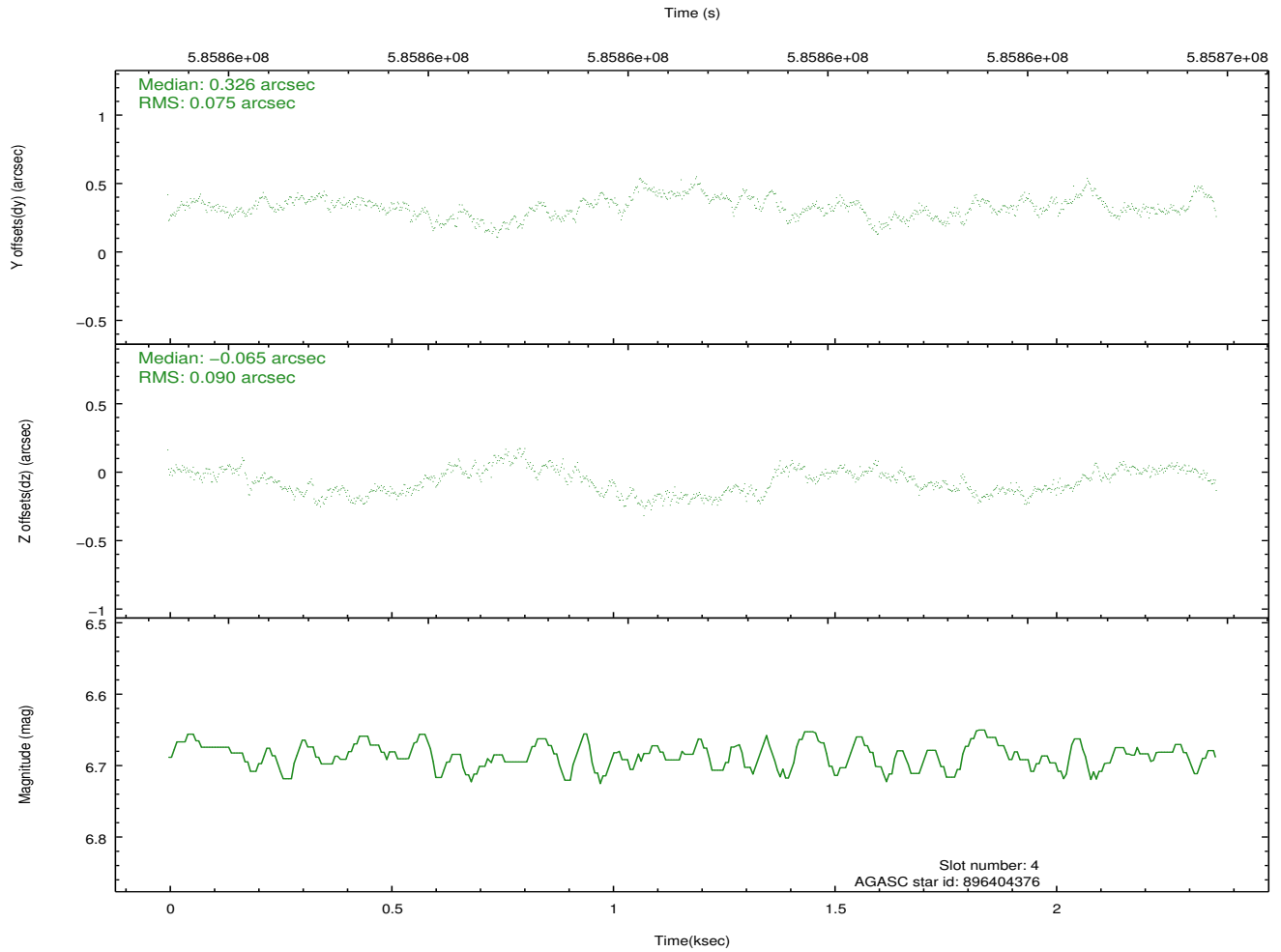
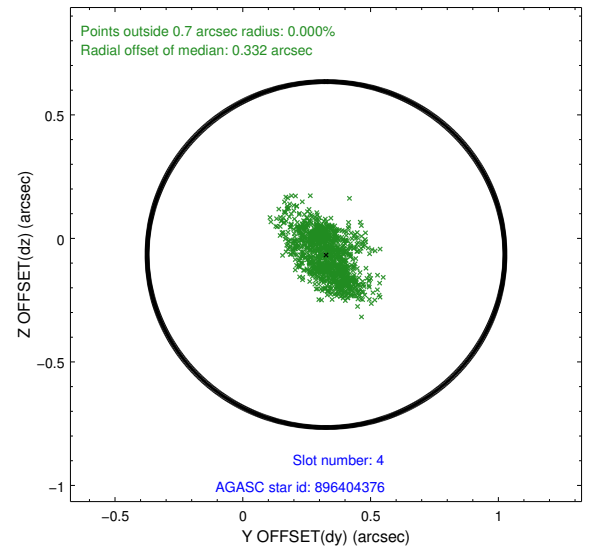
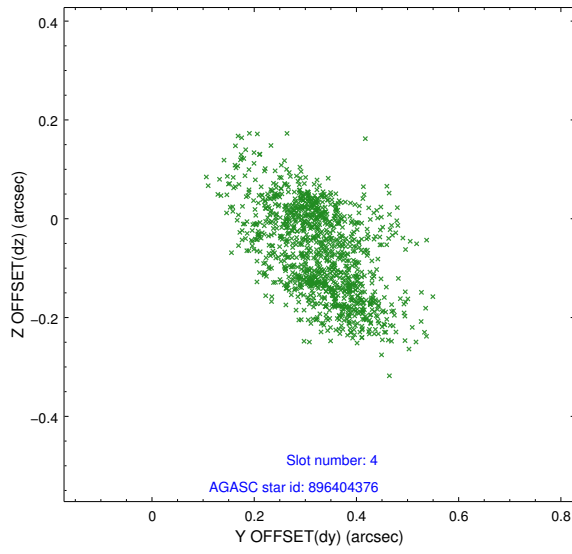


## 2.4 Star Slots

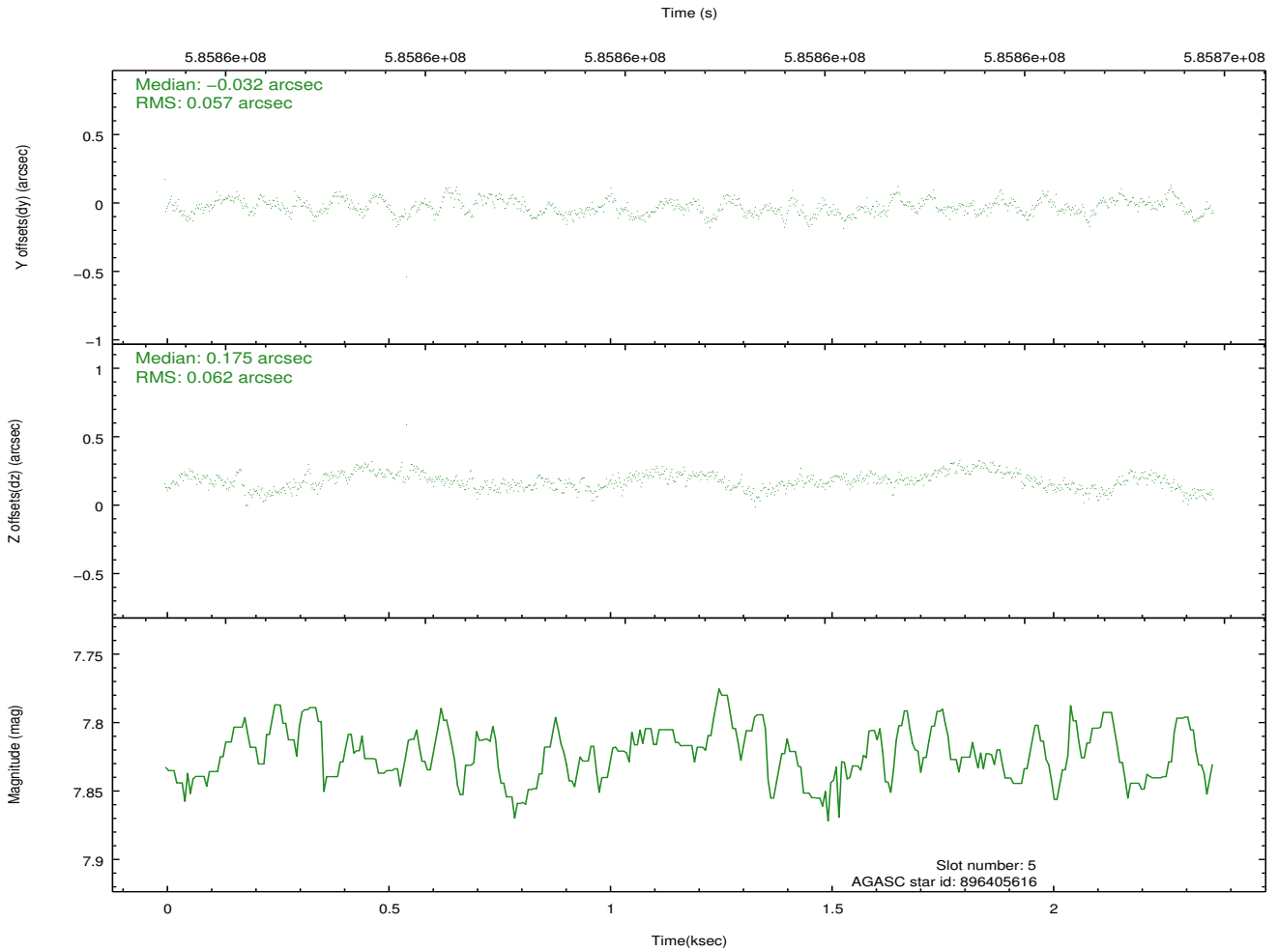
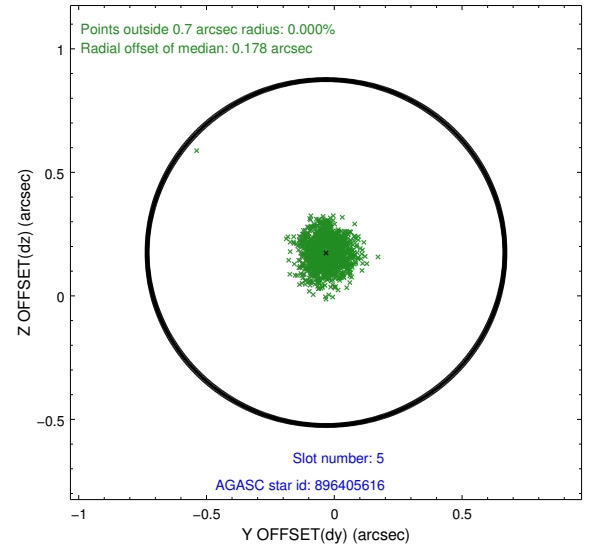
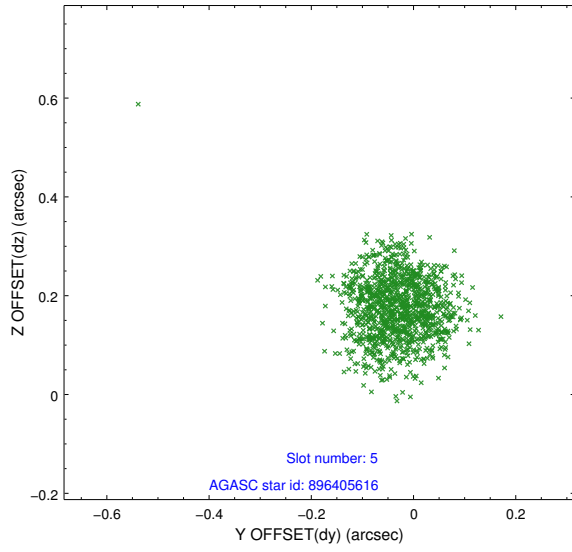
### 2.4.1 Slot 3



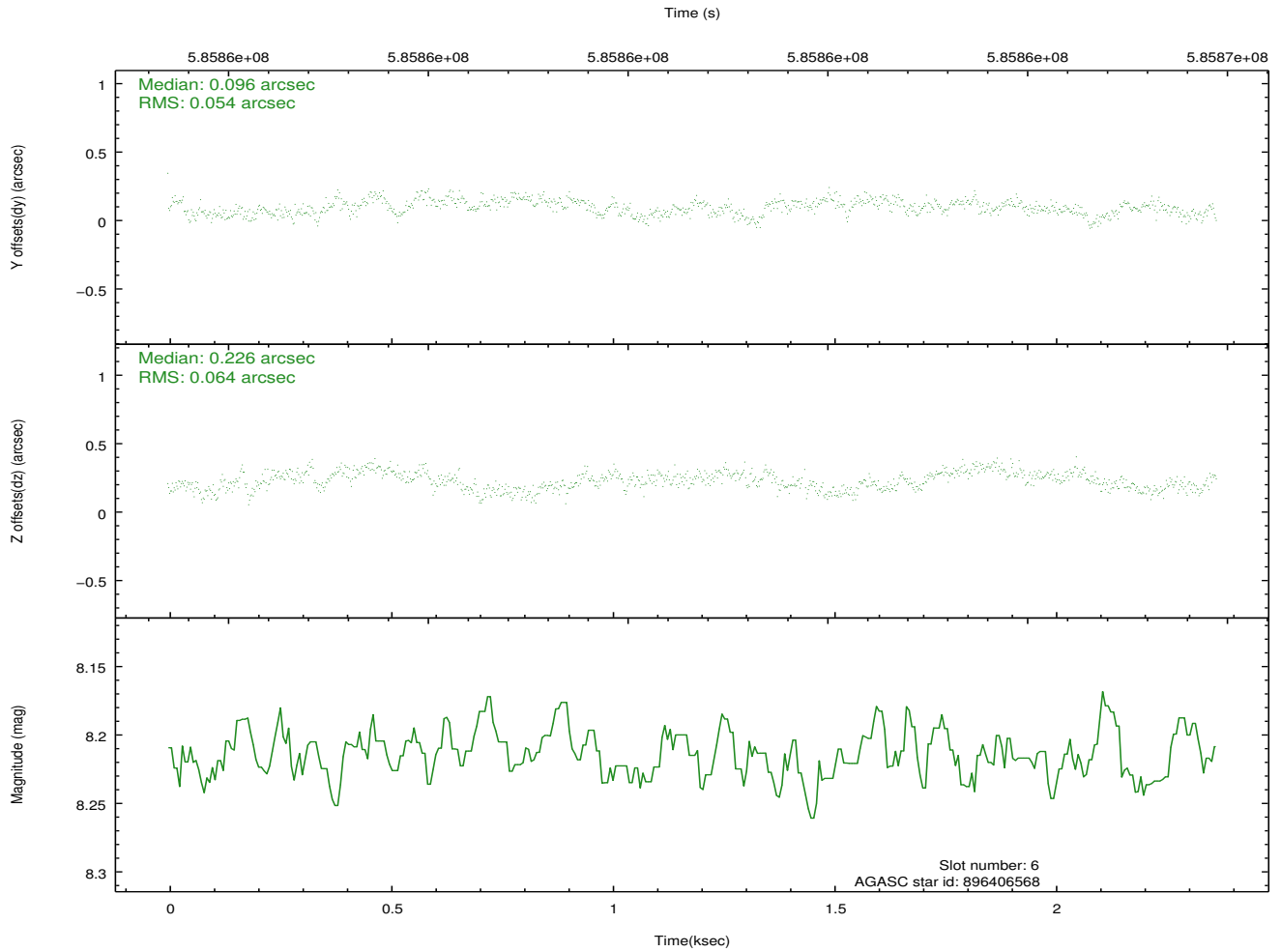
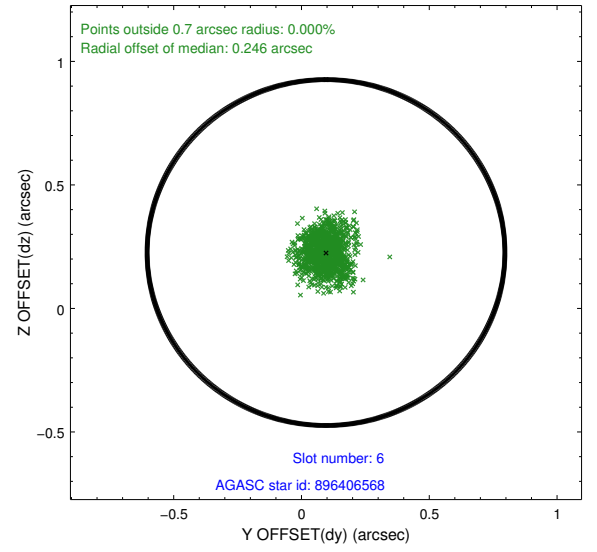
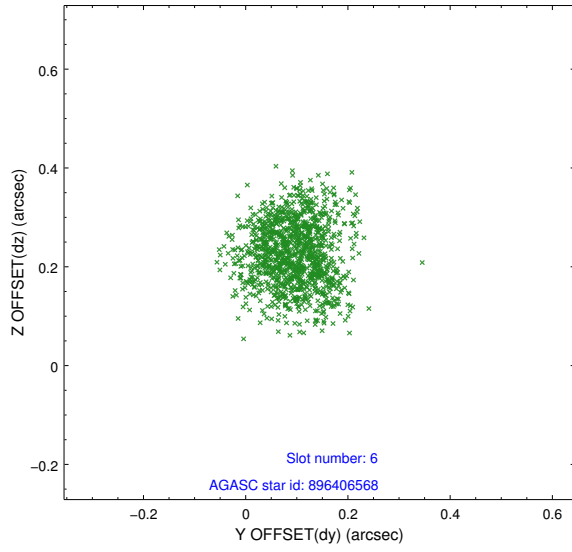
## 2.4.2 Slot 4



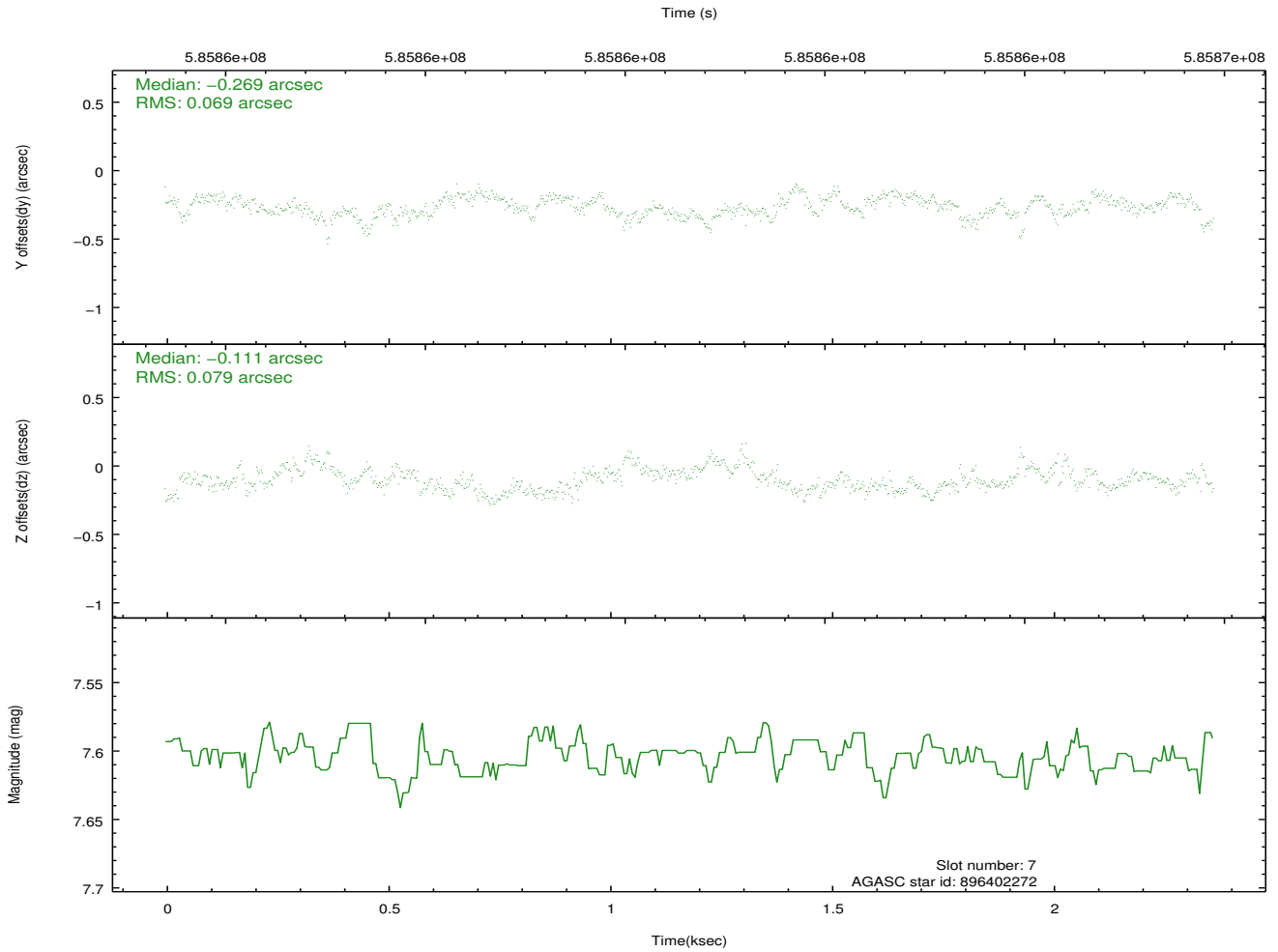
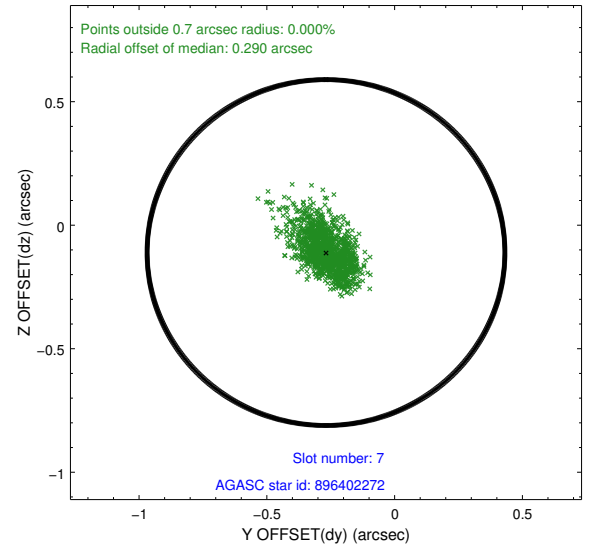
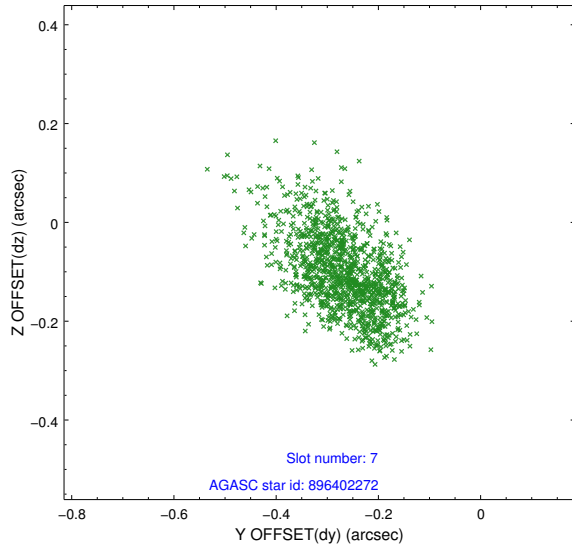
### 2.4.3 Slot 5



## 2.4.4 Slot 6

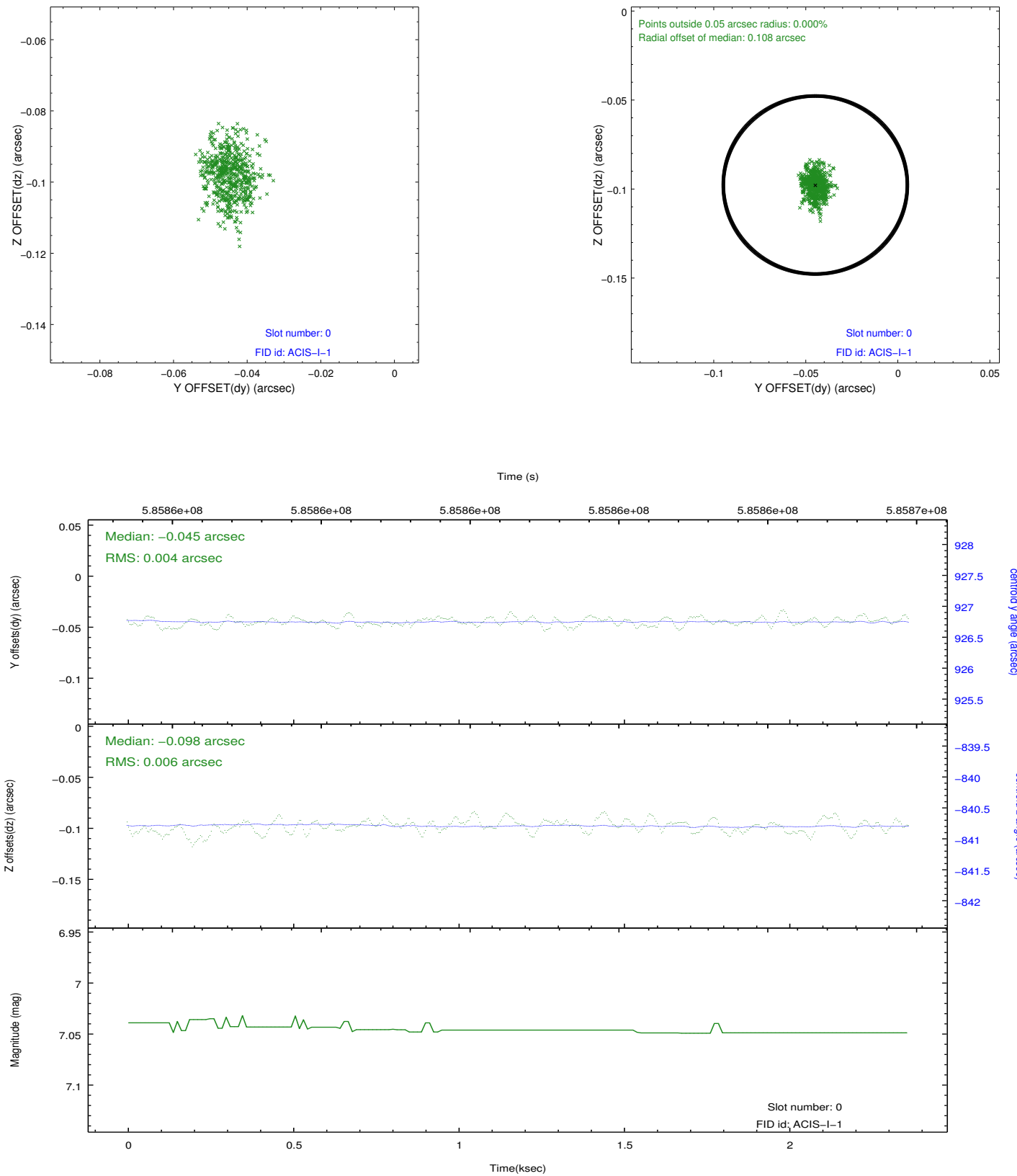


## 2.4.5 Slot 7

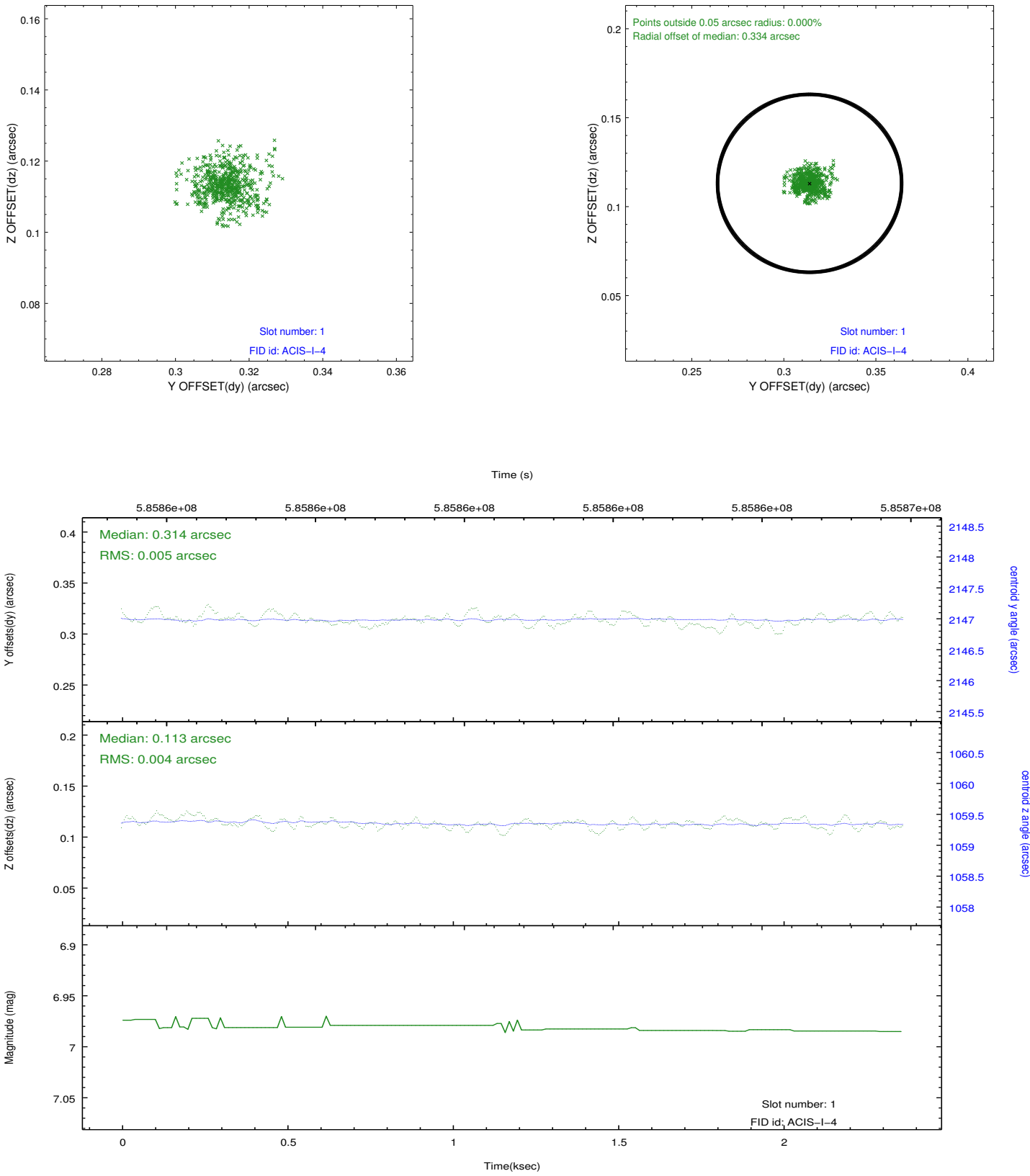


## 2.5 FID Slots

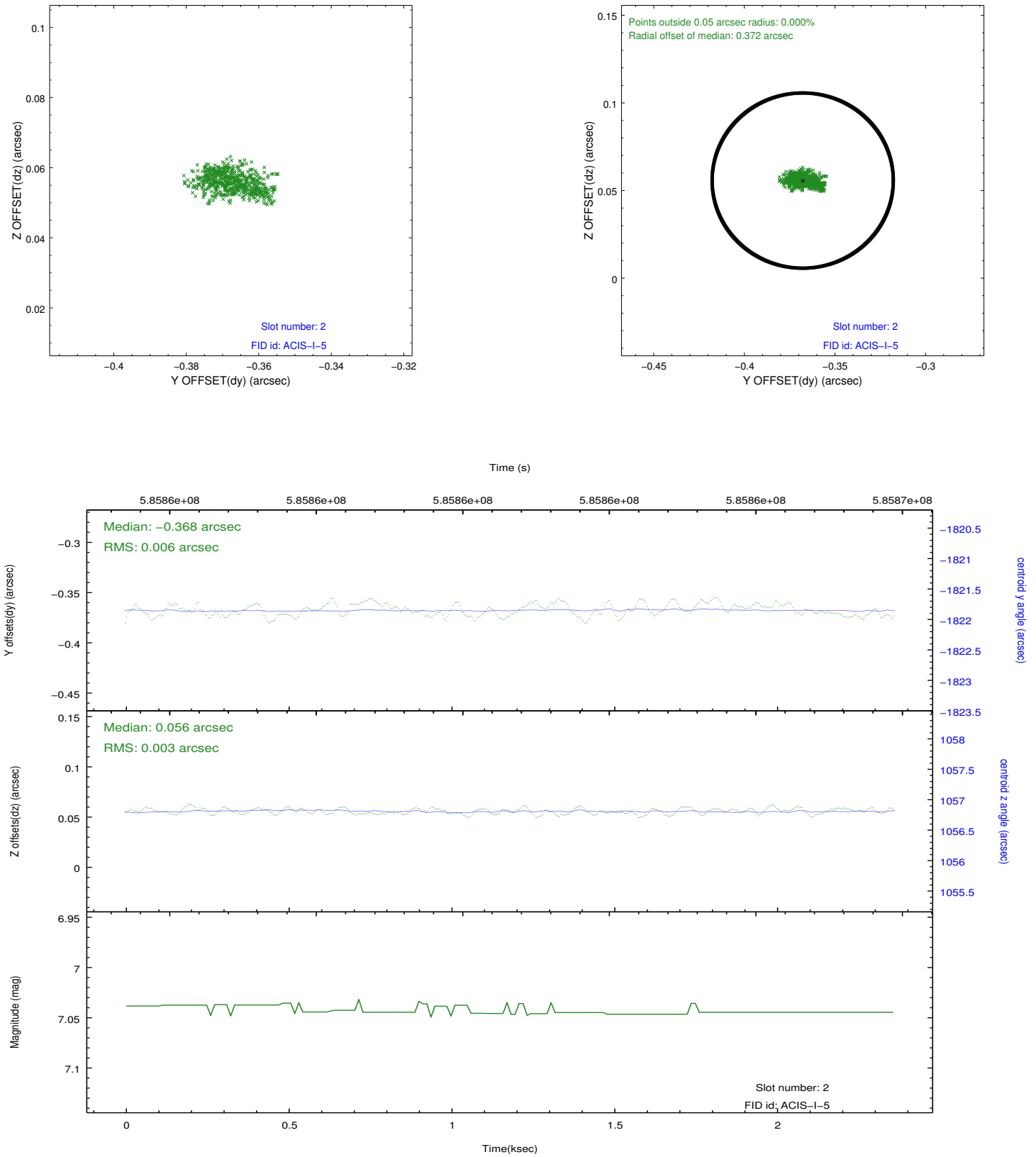
### 2.5.1 Slot 0



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)	2016.07.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9522060178518

### A.2 Comments