

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21250 - L2 Version 1  
Chandra X-Ray Center

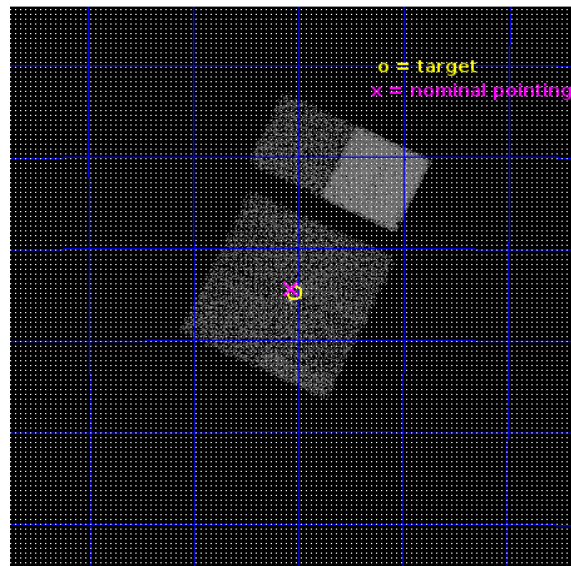
L2 Processing Date : May 29 2019

## 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

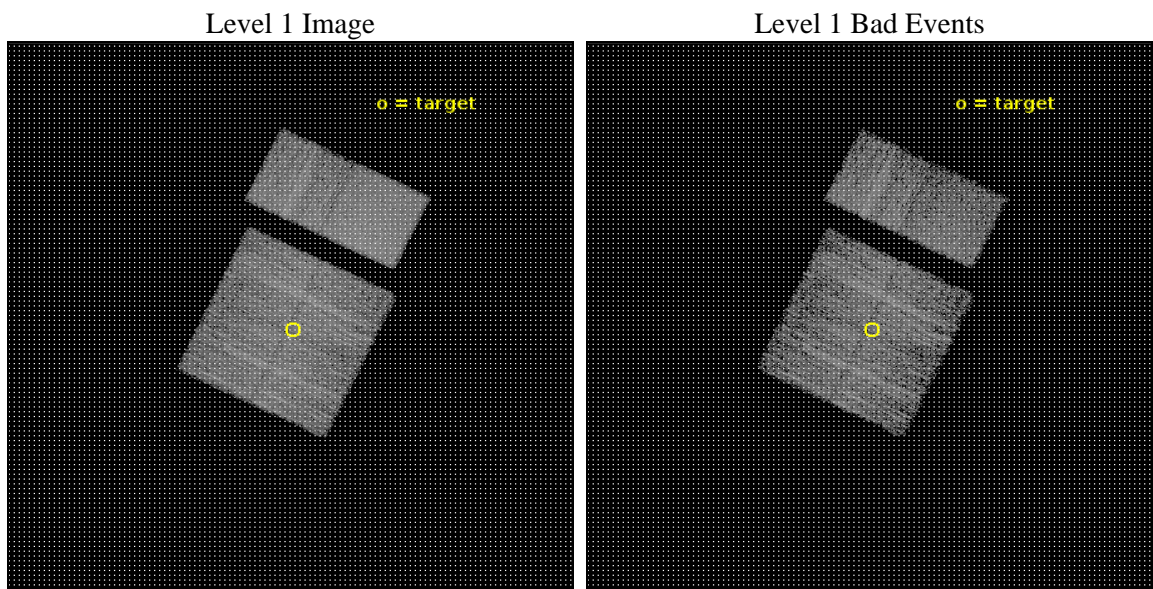
seq_num	402082	Sequence number
obs_id	21250	Observation id
title	The Nature of INTEGRAL Sources in the Galactic Plane	Proposal titl
observer	John Tomsick	Principal investigator
object	IGR J17040-4305	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	256.01	Observer's specified target RA [deg]
dec_targ	-43.08	Observer's specified target Dec [deg]
ra_nom	256.0169108097	Nominal RA [deg]
dec_nom	-43.073348611592	Nominal Dec [deg]
roll_nom	25.810630759764	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4952.776881814	Sum of GTIs [s]
livetime	4890.0618387323	Livetime [s]
ontime0	4952.6537618637	Sum of GTIs [s]
ontime1	4952.6948018074	Sum of GTIs [s]
ontime2	4952.7358418703	Sum of GTIs [s]
ontime3	4952.776881814	Sum of GTIs [s]
ontime6	4952.8589618206	Sum of GTIs [s]
ontime7	4952.8179218769	Sum of GTIs [s]
l2events	40232	Number of level 2 events



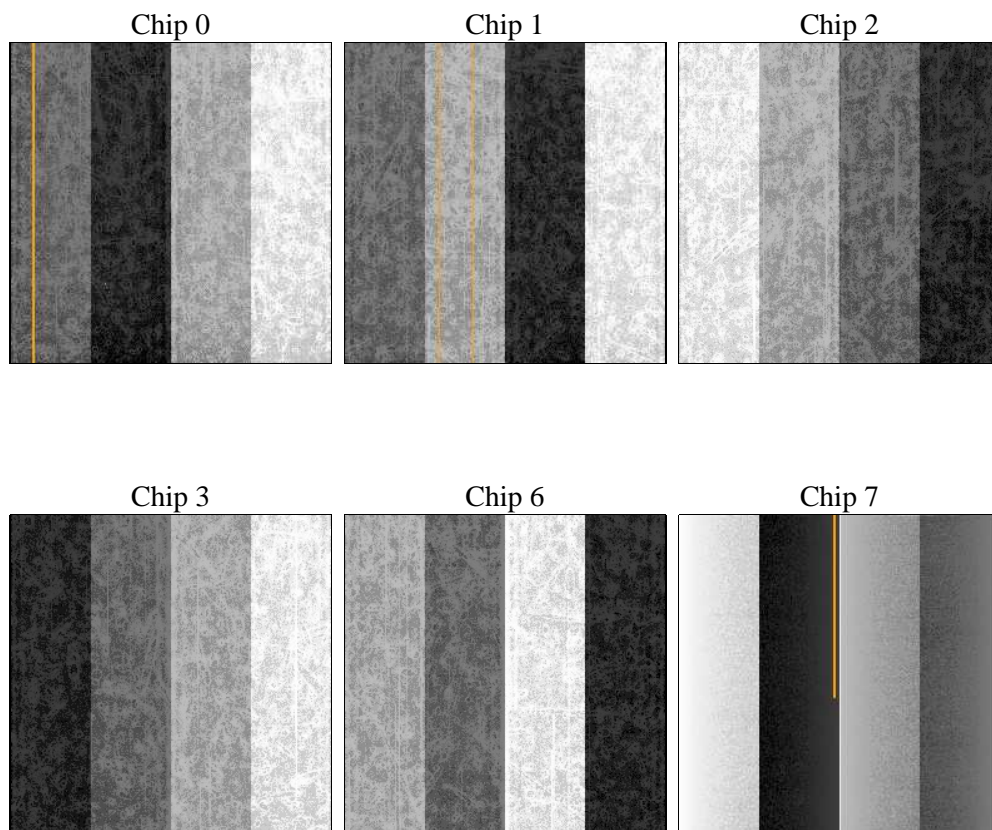
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	4952.776881814	Sum of GTIs [s]
caldsver	4.8.3	&#160	ontime0	4952.6537618637	Sum of GTIs [s]
date	2019-05-29T13:40:01	Date and time of file creation	ontime1	4952.6948018074	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	4952.7358418703	Sum of GTIs [s]
			ontime3	4952.776881814	Sum of GTIs [s]
			ontime6	4952.8589618206	Sum of GTIs [s]
			ontime7	4952.8179218769	Sum of GTIs [s]
			l1events	228273	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	33809	37248	35836	35952	37096	48332	grade 0 events	1602	2389	1562	1607	1457	1854
rejected events	29465	31180	31555	31783	32821	27134		4%	6%	4%	4%	3%	3%
rejected %	87%	83%	88%	88%	88%	56%	grade 1 events	21	87	25	25	22	73
								0%	0%	0%	0%	0%	0%
							grade 2 events	1061	1475	1158	875	1039	4652
								3%	3%	3%	2%	2%	9%
							grade 3 events	424	500	394	437	390	1702
								1%	1%	1%	1%	1%	3%
							grade 4 events	390	504	389	387	441	1629
								1%	1%	1%	1%	1%	3%
							grade 5 events	1547	1749	1426	1864	1832	4903
								4%	4%	3%	5%	4%	10%
							grade 6 events	872	1209	782	870	956	11382
								2%	3%	2%	2%	2%	23%
							grade 7 events	27892	29335	30100	29887	30959	22137
								82%	78%	83%	83%	83%	45%

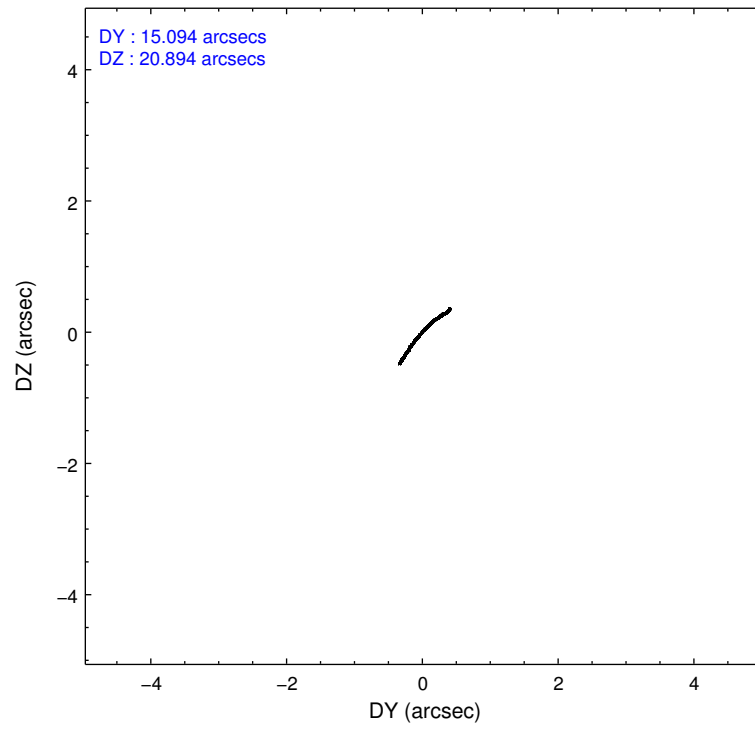
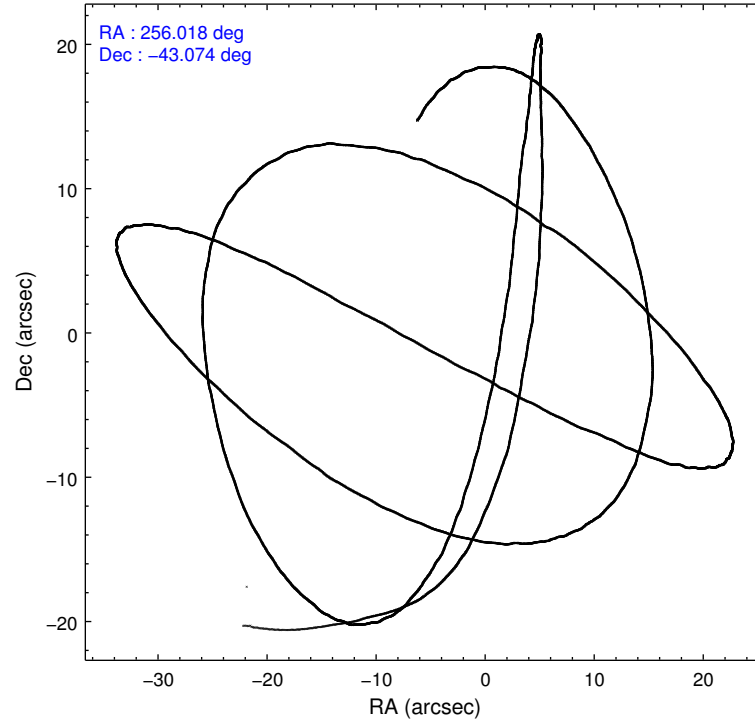


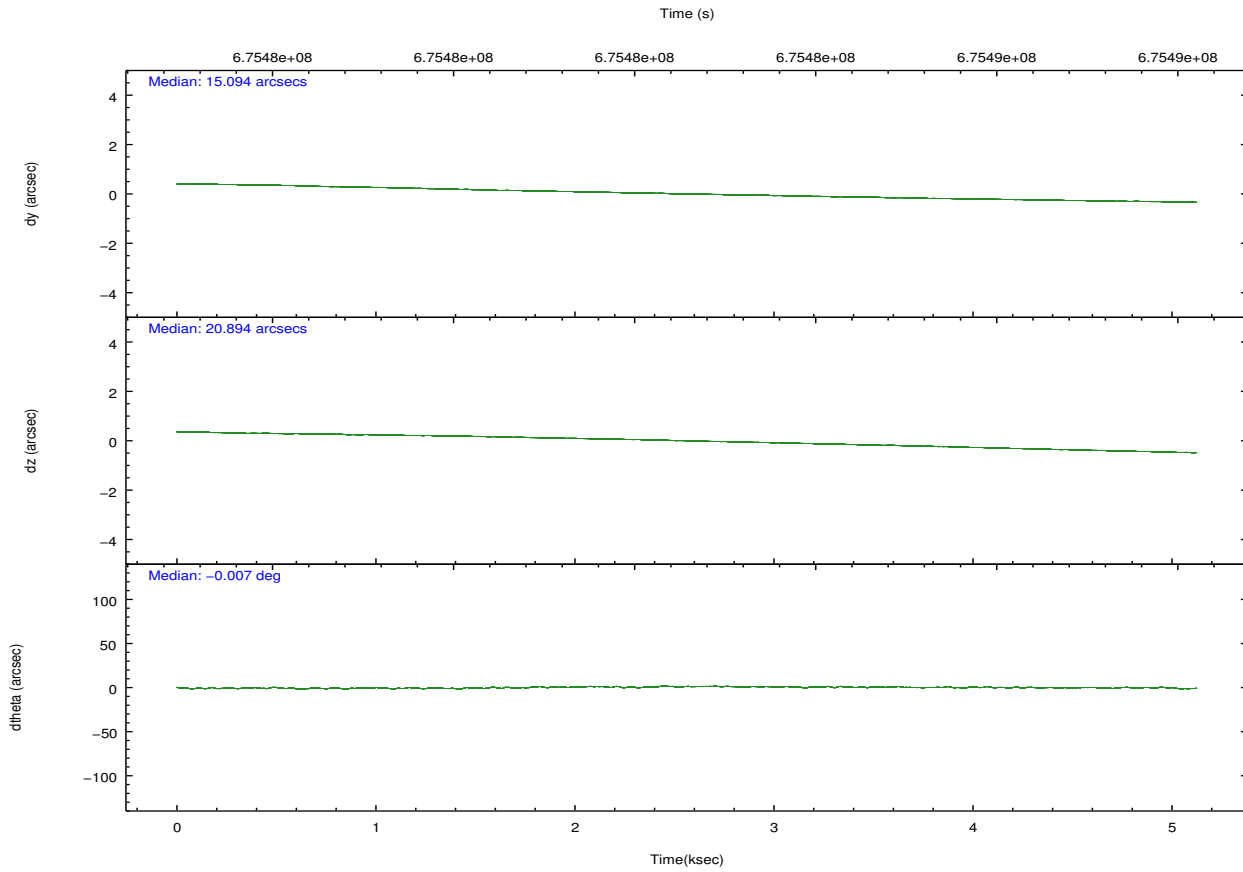
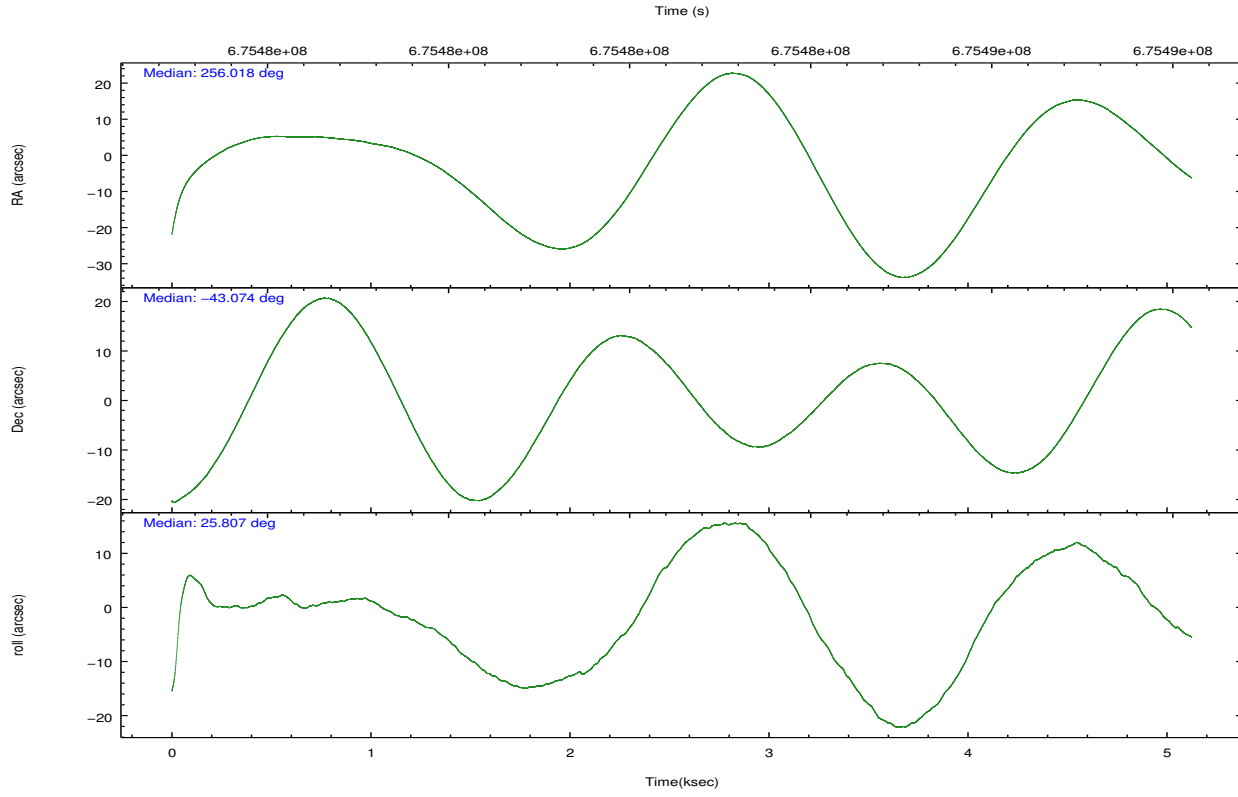
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	255.995269	256.0169108096972
[deg] Pointing Dec	-43.096473	-43.07334861159159
[deg] Pointing Roll	25.587187	25.81063075976438
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	675481845.184000	675480535.2647901
Observation start date	2019-05-29T01:49:36	2019-05-29T01:28:55
[s] Observation end time (MET)	675486845.184000	675487655.42772
Observation end date	2019-05-29T03:12:56	2019-05-29T03:27:35
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	O2	Y
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



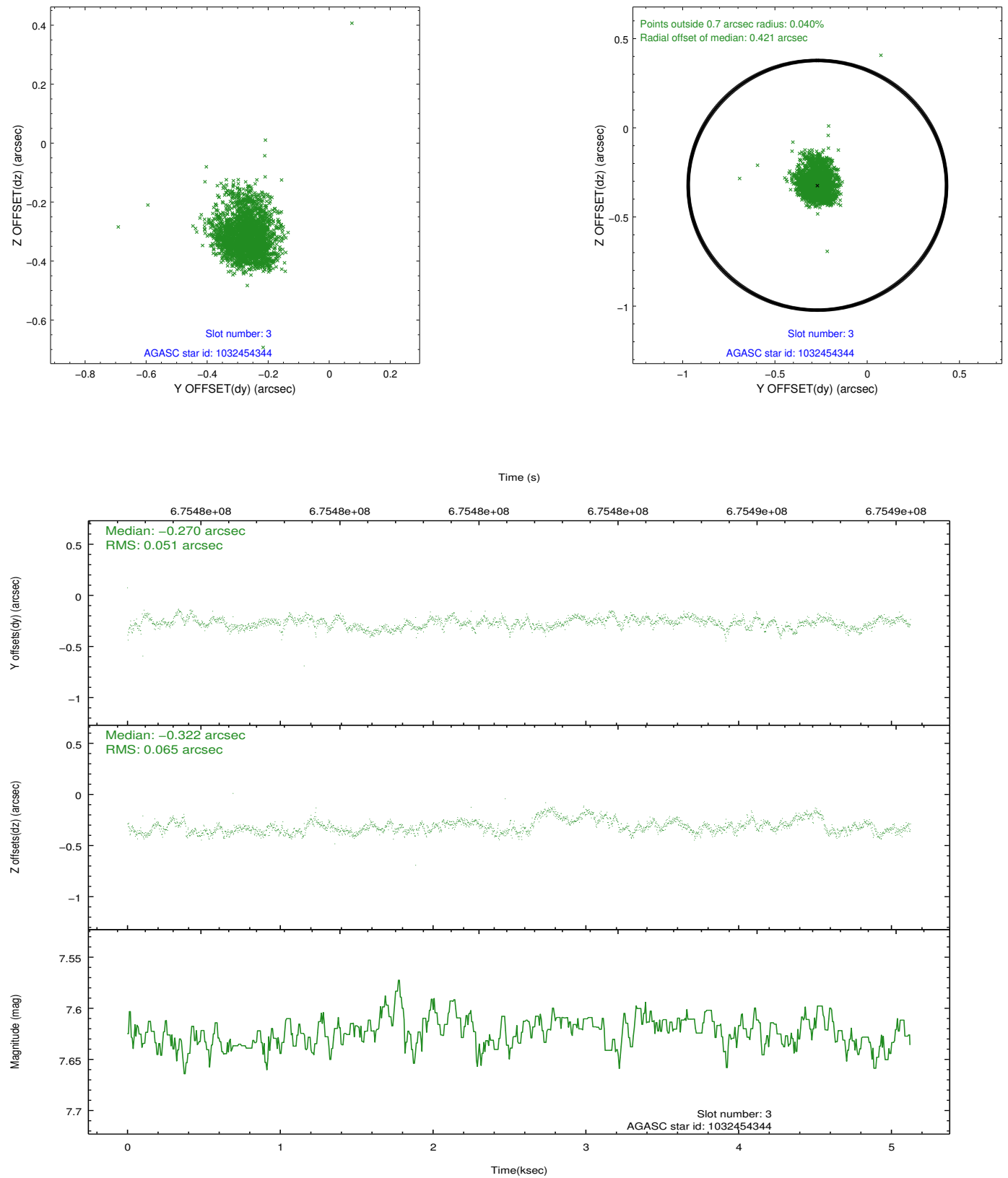


Slot Statistics

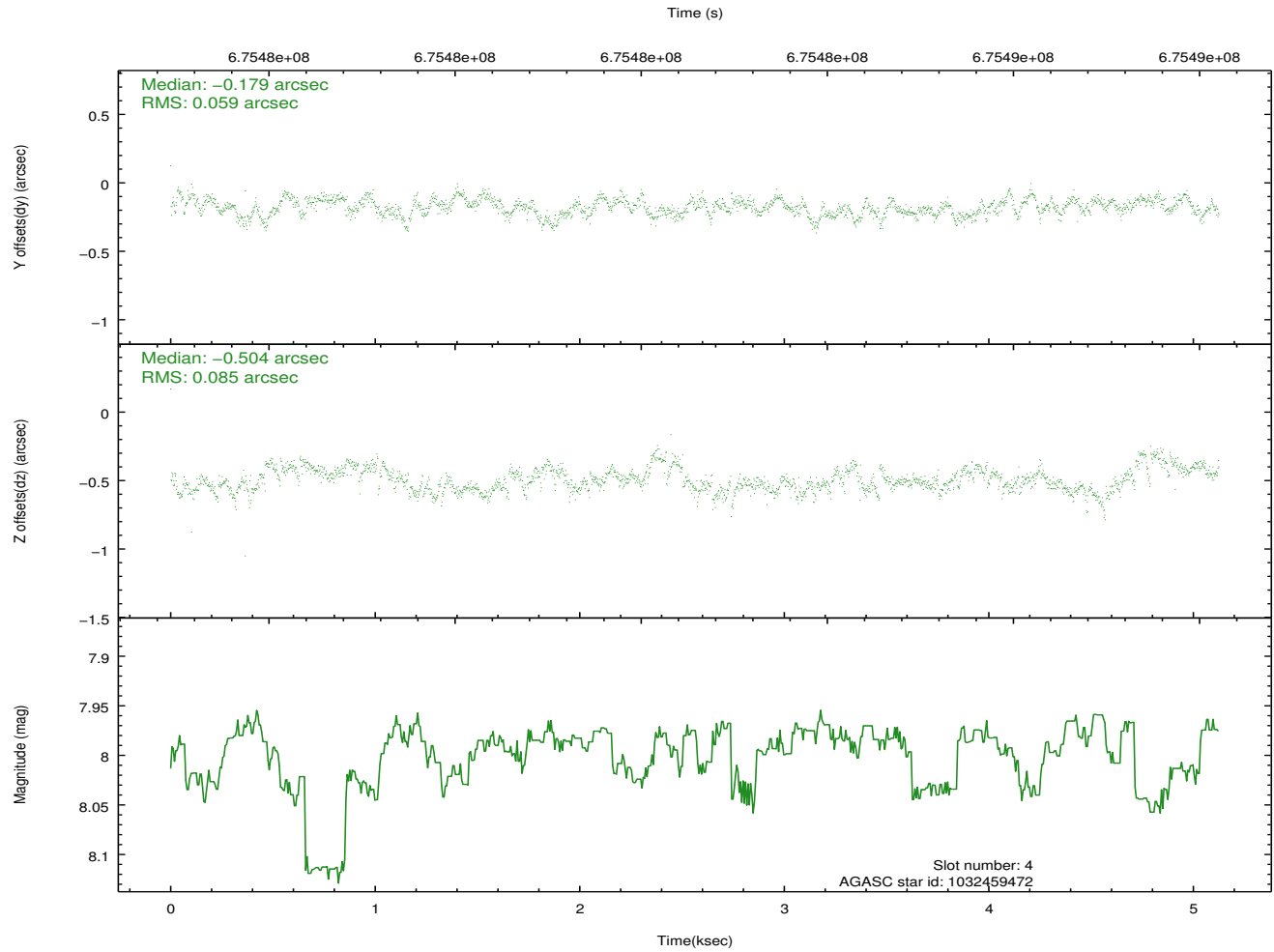
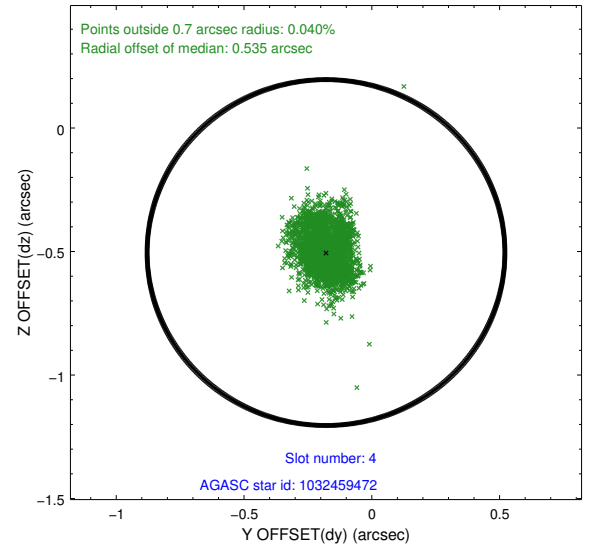
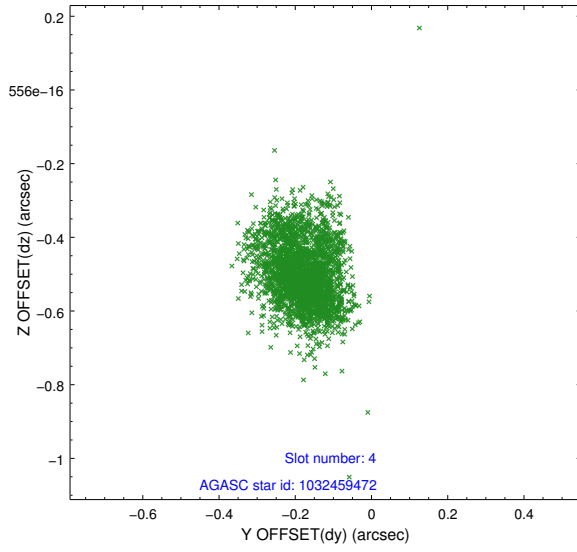
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.10	1250	1.000	0.099	-0.087	0.010	0.017	0.000000	0.000000	924.52	-844
1	FID		ACIS-I-5	7.08	1250	1.000	-0.502	0.009	0.008	0.012	0.000000	0.000000	-1823.71	1052
2	FID		ACIS-I-6	7.10	1250	1.000	0.312	0.149	0.008	0.013	0.000000	0.000000	388.76	1698
3	GUIDE	used	1032454344	7.62	2500	1.000	-0.270	-0.322	0.084	0.141	256.002431	-42.969272	213.27	404
4	GUIDE	used	1032459472	8.00	2496	1.000	-0.179	-0.504	0.109	0.179	255.556457	-42.628143	-322.88	2019
5	GUIDE	used	1032982224	7.52	2501	1.000	0.201	0.117	0.115	0.192	256.128626	-43.309766	-16.89	-845
6	GUIDE	used	1032982728	8.10	2501	1.000	-0.127	-0.061	0.095	0.155	256.778641	-43.148541	1768.57	-1066
7	GUIDE	used	1032985800	8.62	2496	1.000	0.380	0.758	0.109	0.185	255.753641	-43.846988	-1733.23	-2166

## 2.4 Star Slots

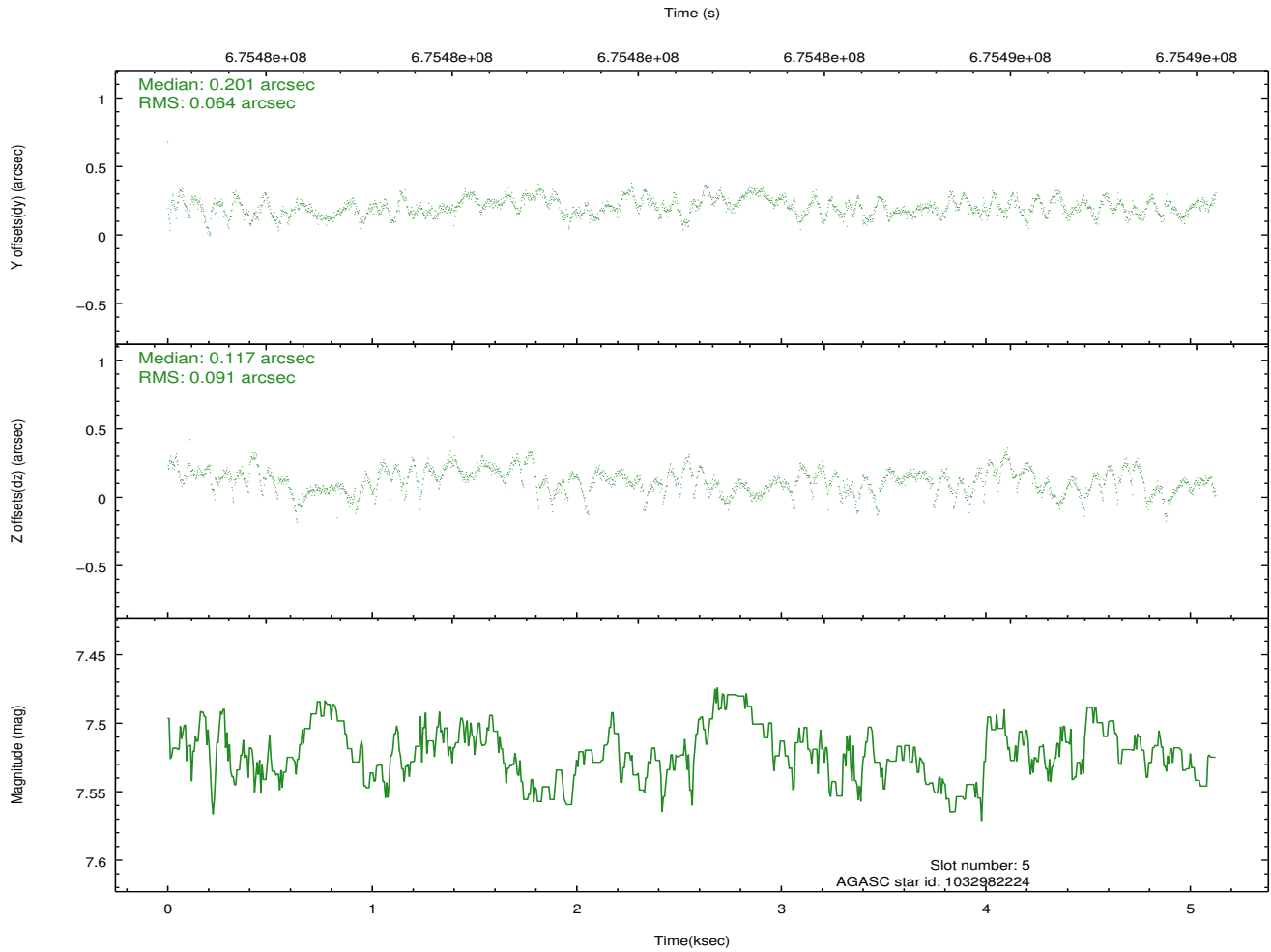
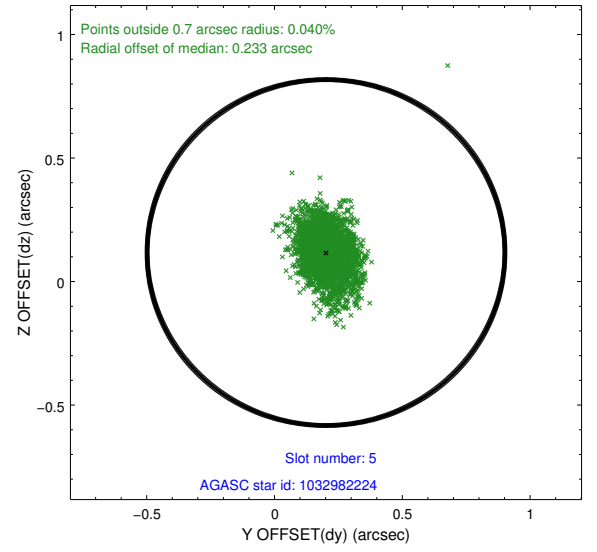
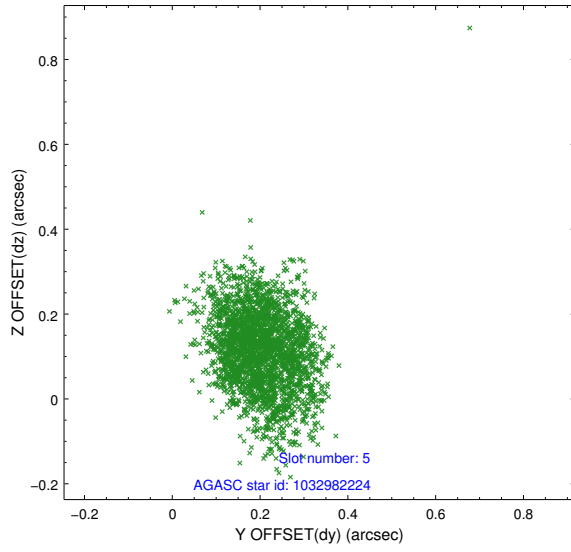
### 2.4.1 Slot 3



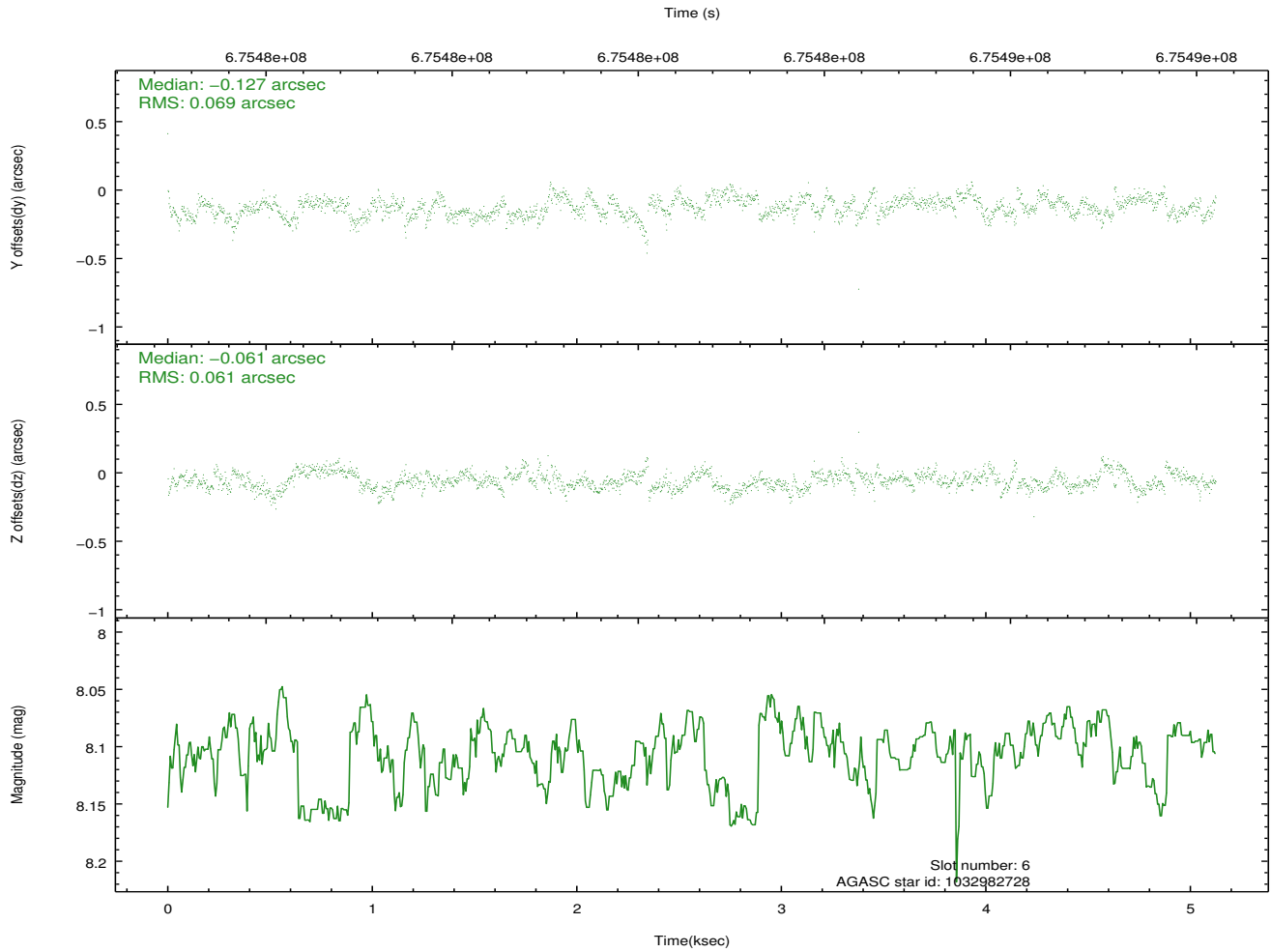
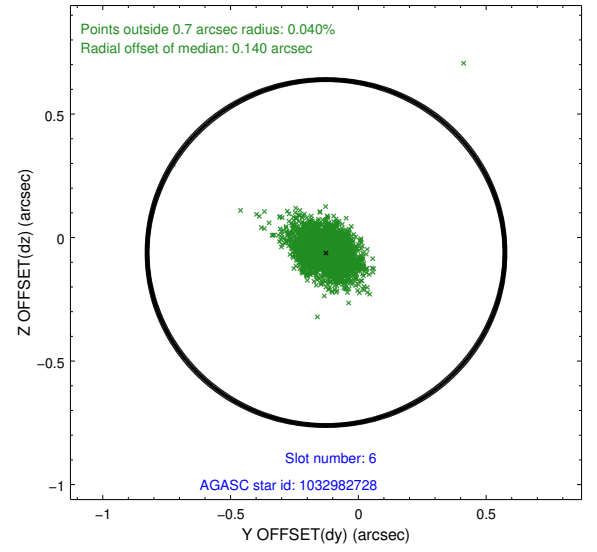
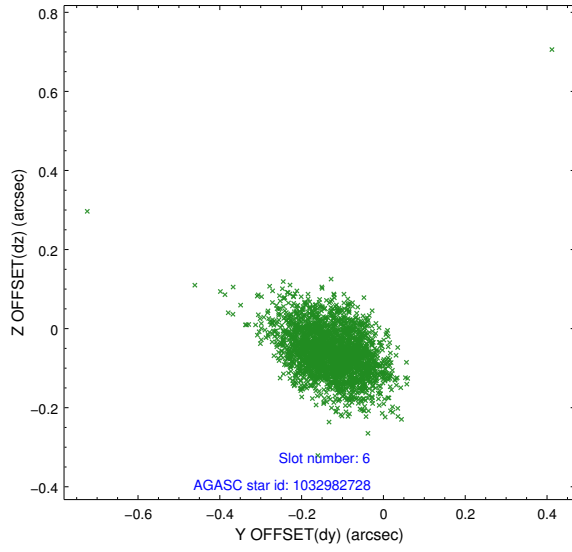
## 2.4.2 Slot 4



### 2.4.3 Slot 5

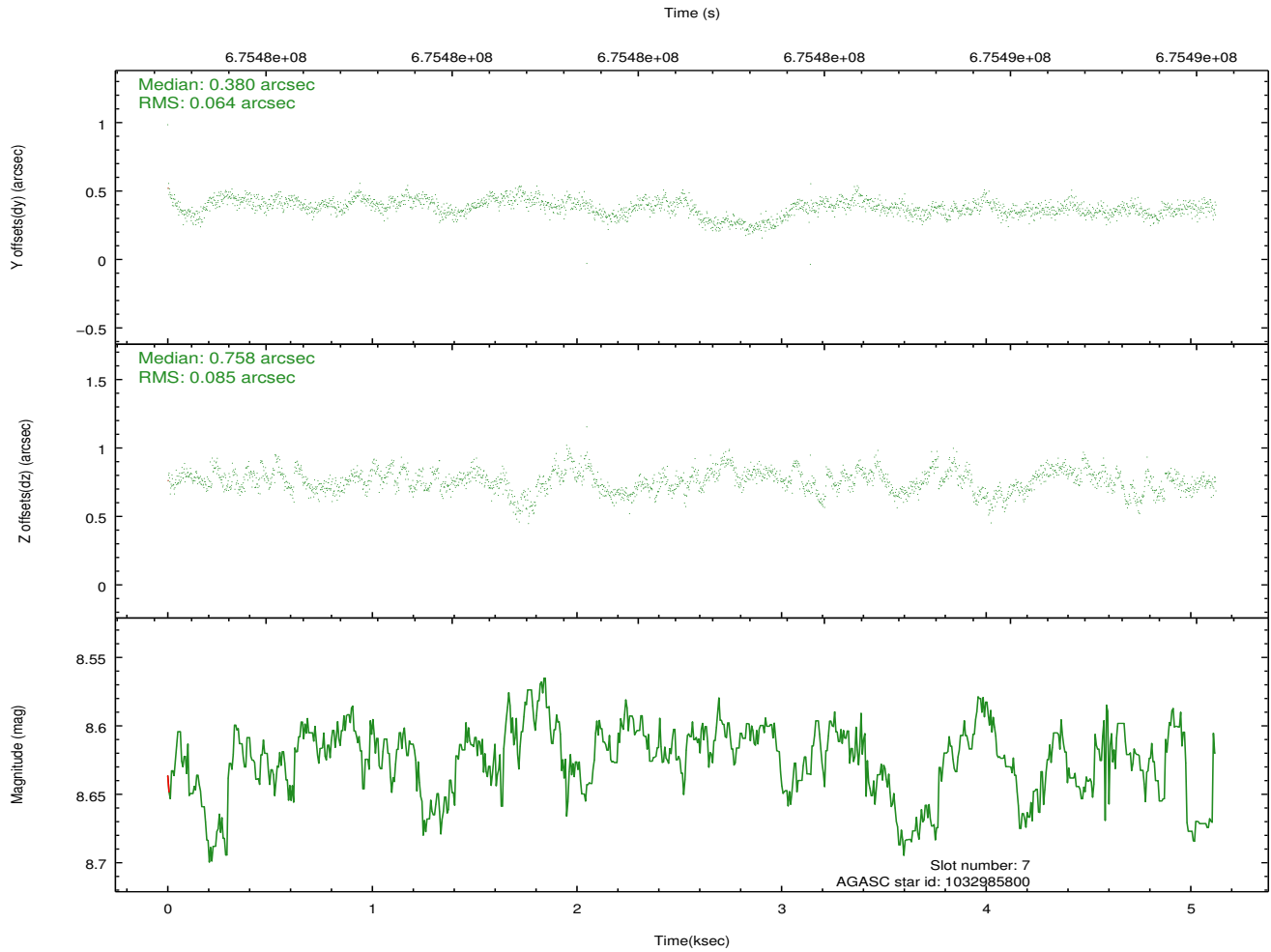
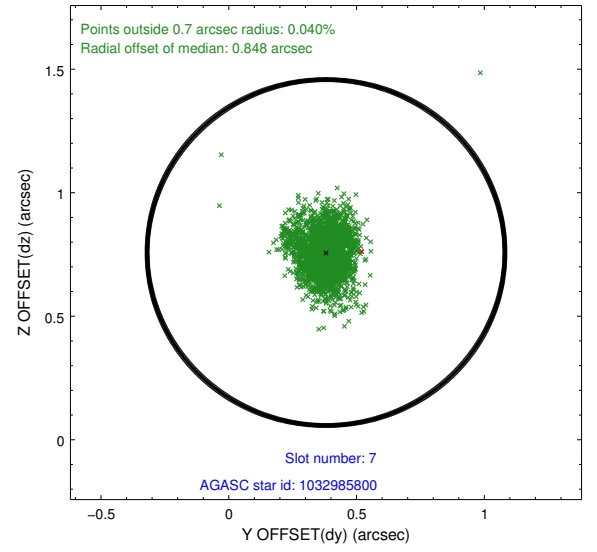
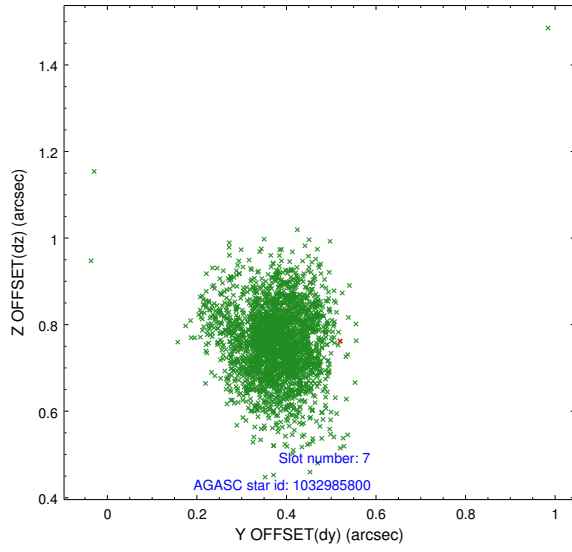


## 2.4.4 Slot 6



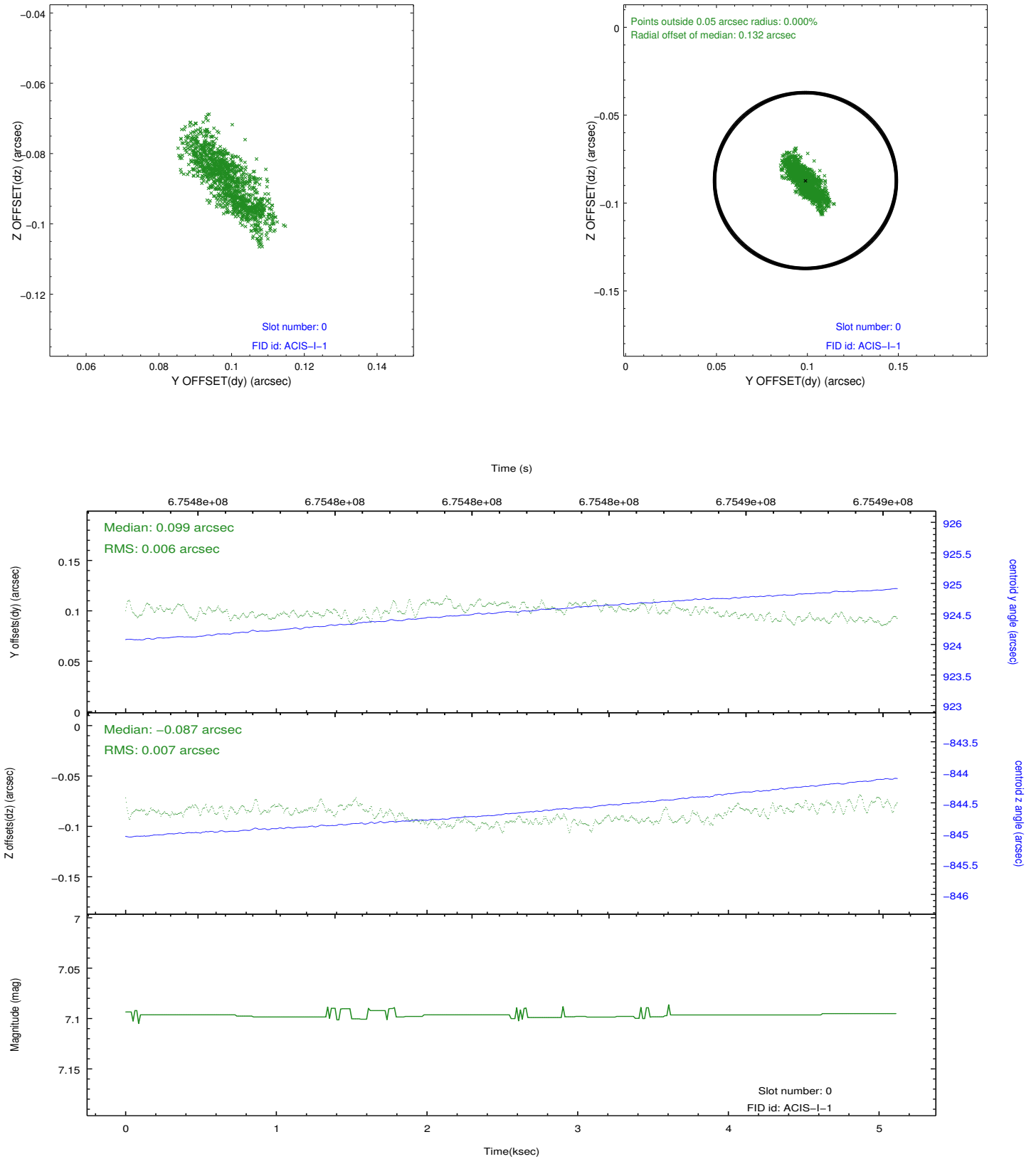


## 2.4.5 Slot 7

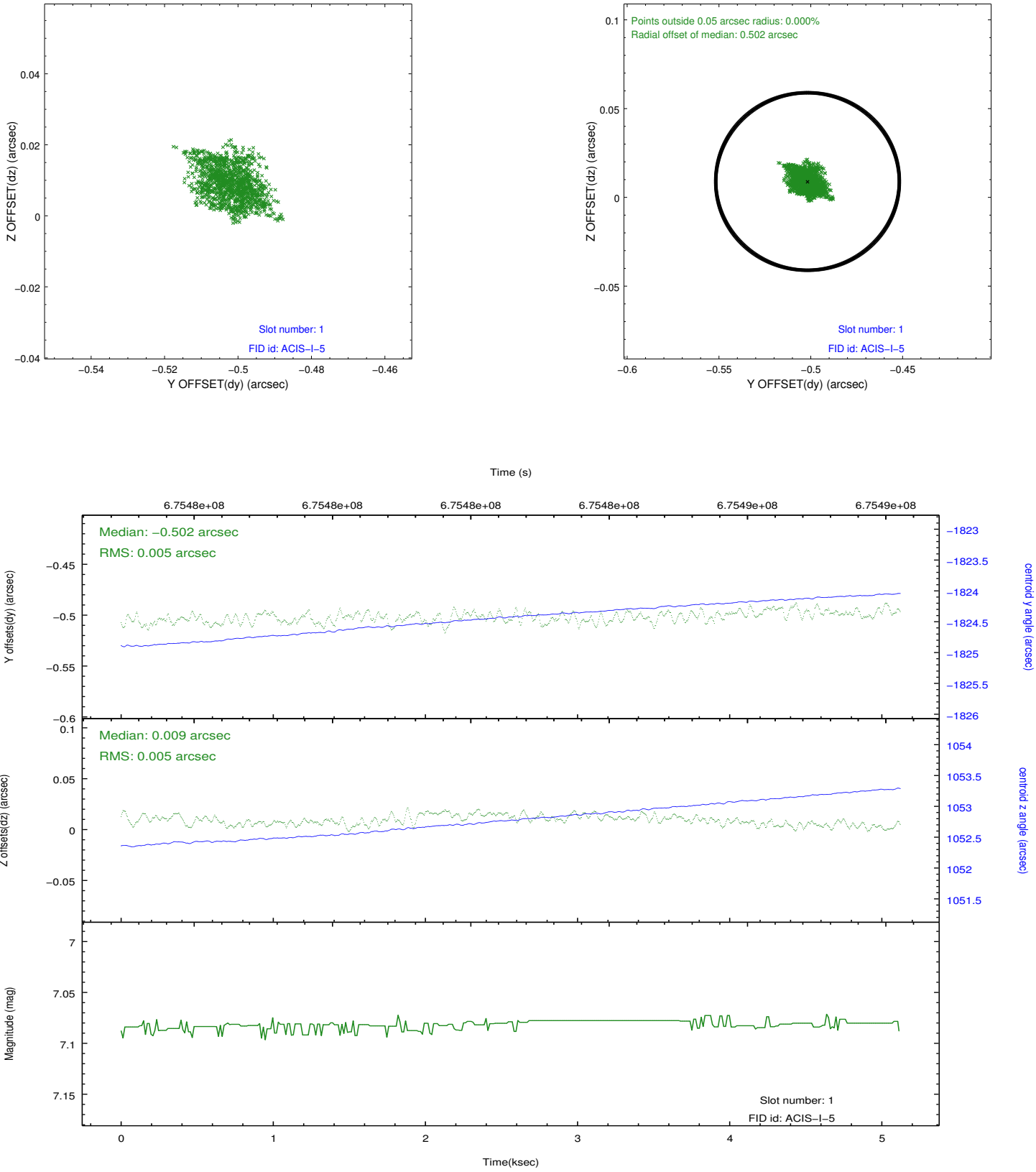


## 2.5 FID Slots

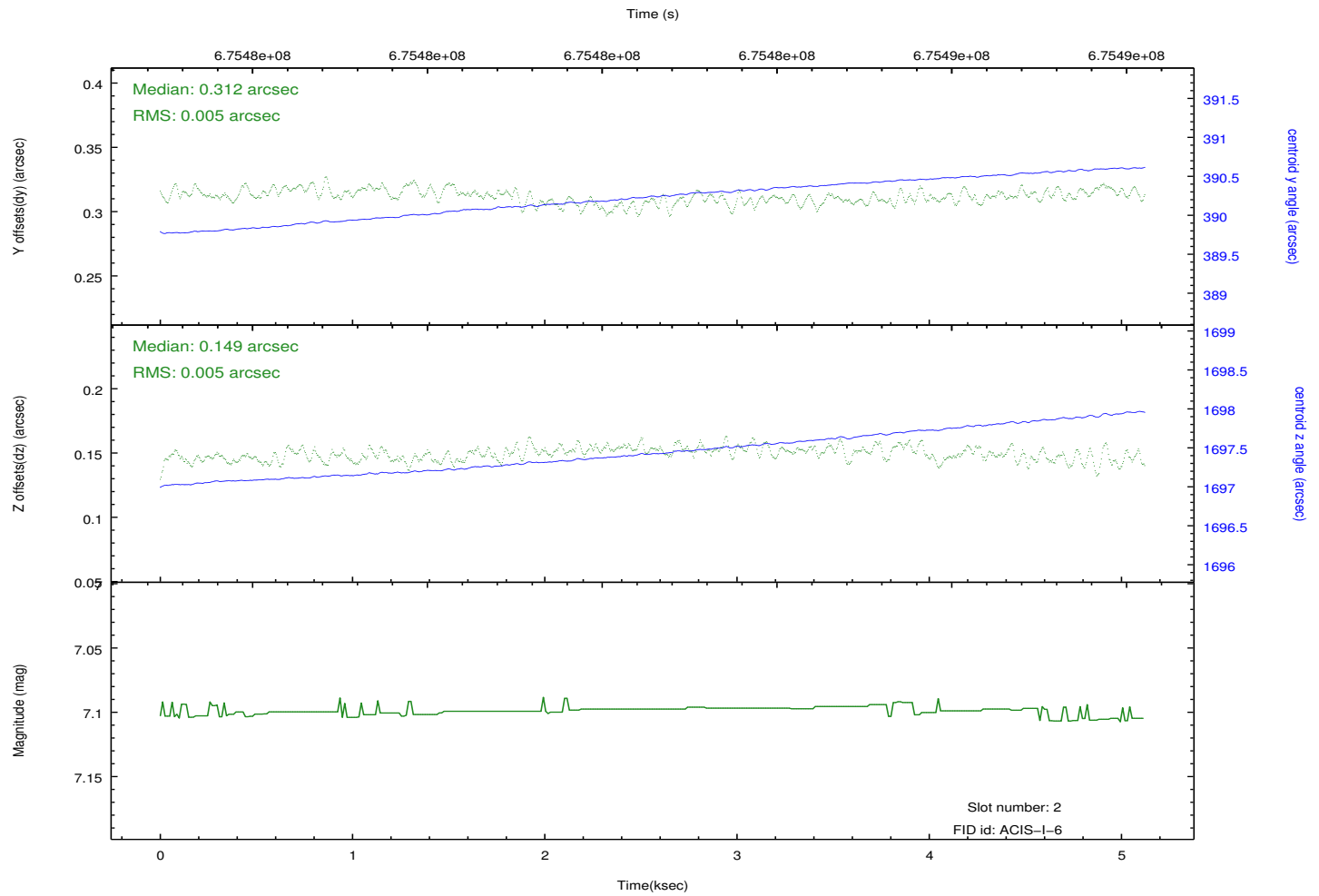
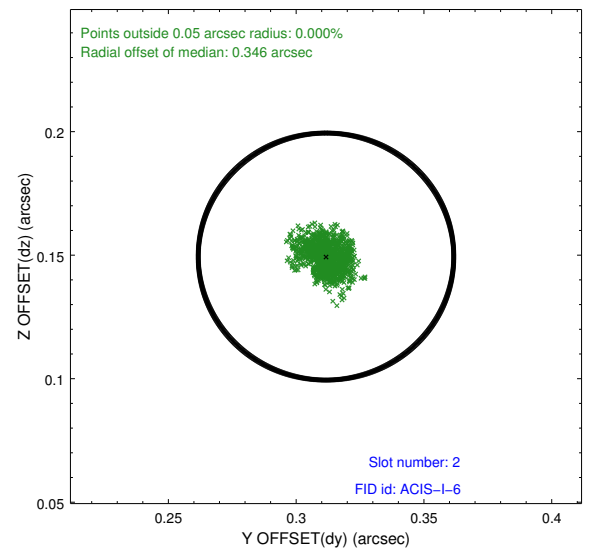
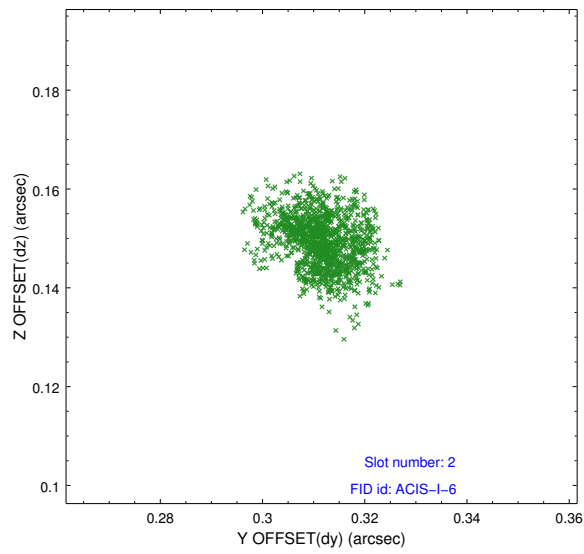
### 2.5.1 Slot 0



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)	2019.05.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.952776881814

### A.2 Comments