

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 18996 - L2 Version 1  
Chandra X-Ray Center

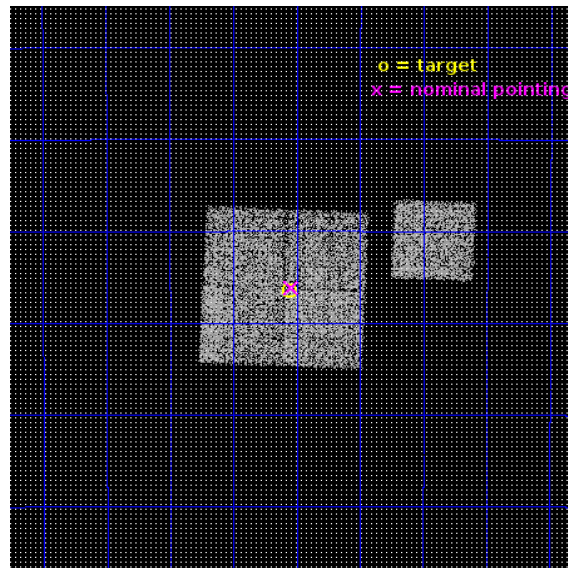
L2 Processing Date : Feb 13 2017

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# 1 Front

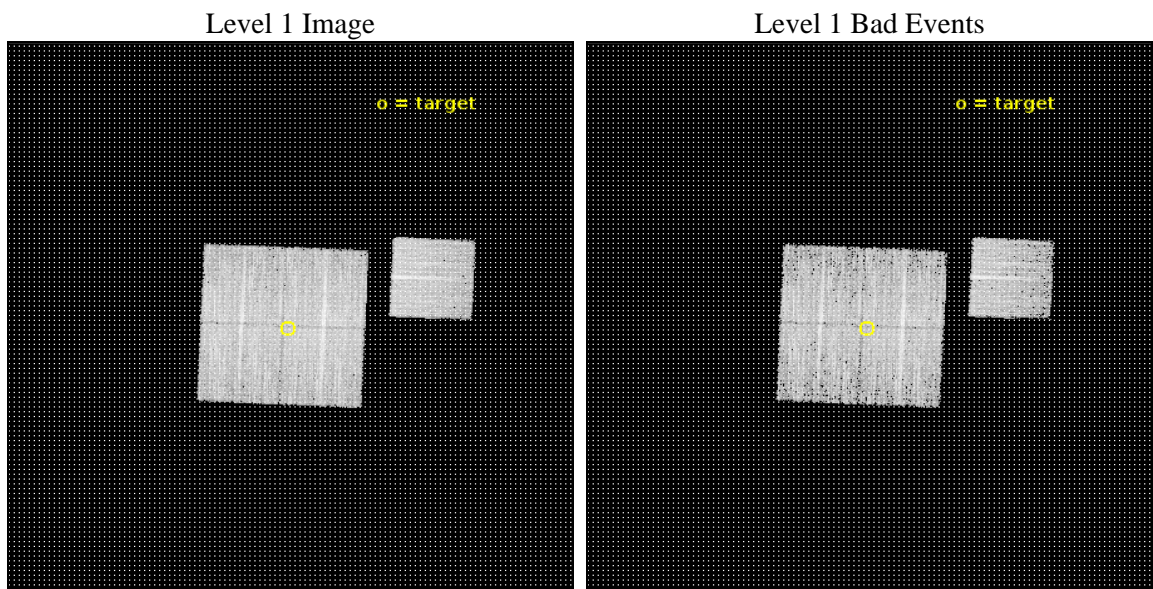
seq_num	401864	Sequence number
obs_id	18996	Observation id
title	Accurate localization of hard X-ray sources in the Galactic Center region. Search for HMXBs in the bulge	Proposal title
observer	Alexander Lutovinov	Principal investigator
object	AX J1753.5-2745	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	268.38875	Observer's specified target RA [deg]
dec_targ	-27.774833	Observer's specified target Dec [deg]
ra_nom	268.38533657464	Nominal RA [deg]
dec_nom	-27.769525495994	Nominal Dec [deg]
roll_nom	92.516153676978	Nominal Roll [deg]
revision	1	Processing version of data
ontime	7071.1000545025	Sum of GTIs [s]
livetime	6978.7109266223	Livetime [s]
ontime0	7071.1000545025	Sum of GTIs [s]
ontime1	7064.8181240559	Sum of GTIs [s]
ontime2	7071.1000545025	Sum of GTIs [s]
ontime3	7071.1000545025	Sum of GTIs [s]
ontime6	7071.1000545025	Sum of GTIs [s]
l2events	26647	Number of level 2 events



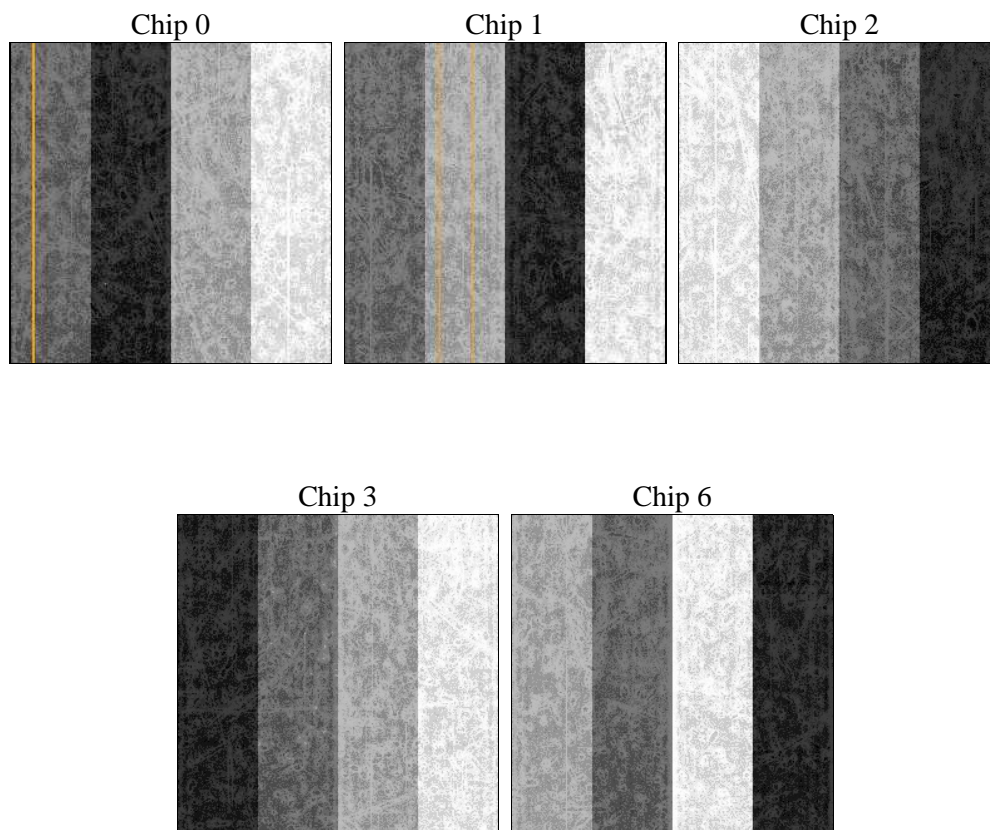
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	7071.1000545025	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime0	7071.1000545025	Sum of GTIs [s]
date	2017-02-13T08:10:50	Date and time of file creation	ontime1	7064.8181240559	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	7071.1000545025	Sum of GTIs [s]
			ontime3	7071.1000545025	Sum of GTIs [s]
			ontime6	7071.1000545025	Sum of GTIs [s]
			l1events	248524	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	48264	48076	52165	49847	50172
rejected events	42102	41305	46206	43576	43984
rejected %	87%	85%	88%	87%	87%

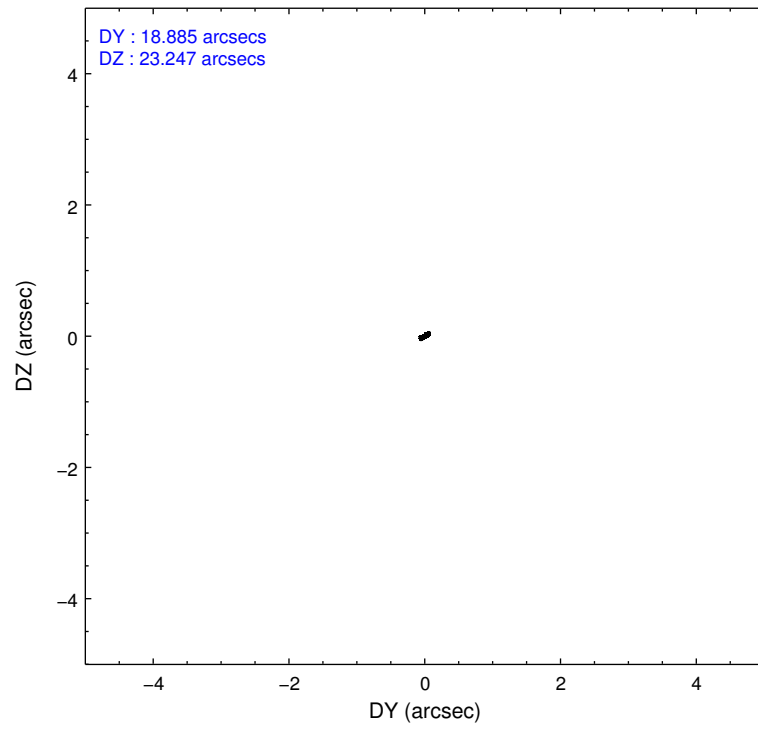
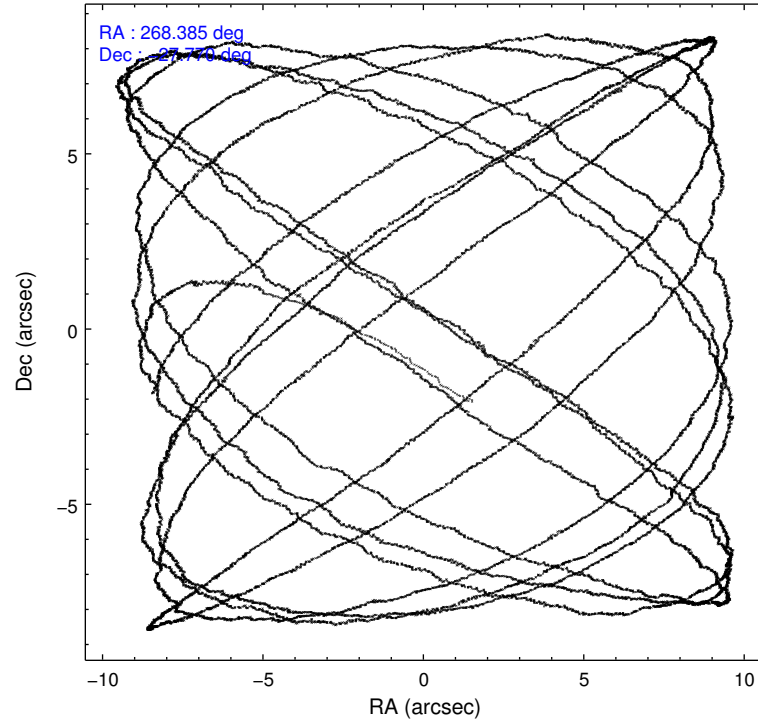
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2297	2608	2307	2633	2305
	4%	5%	4%	5%	4%
grade 1 events	18	35	31	40	25
	0%	0%	0%	0%	0%
grade 2 events	1510	1576	1434	1252	1354
	3%	3%	2%	2%	2%
grade 3 events	623	628	543	607	603
	1%	1%	1%	1%	1%
grade 4 events	555	637	579	608	594
	1%	1%	1%	1%	1%
grade 5 events	2227	2297	2044	2497	2397
	4%	4%	3%	5%	4%
grade 6 events	1181	1324	1102	1175	1332
	2%	2%	2%	2%	2%
grade 7 events	39853	38971	44125	41035	41562
	82%	81%	84%	82%	82%

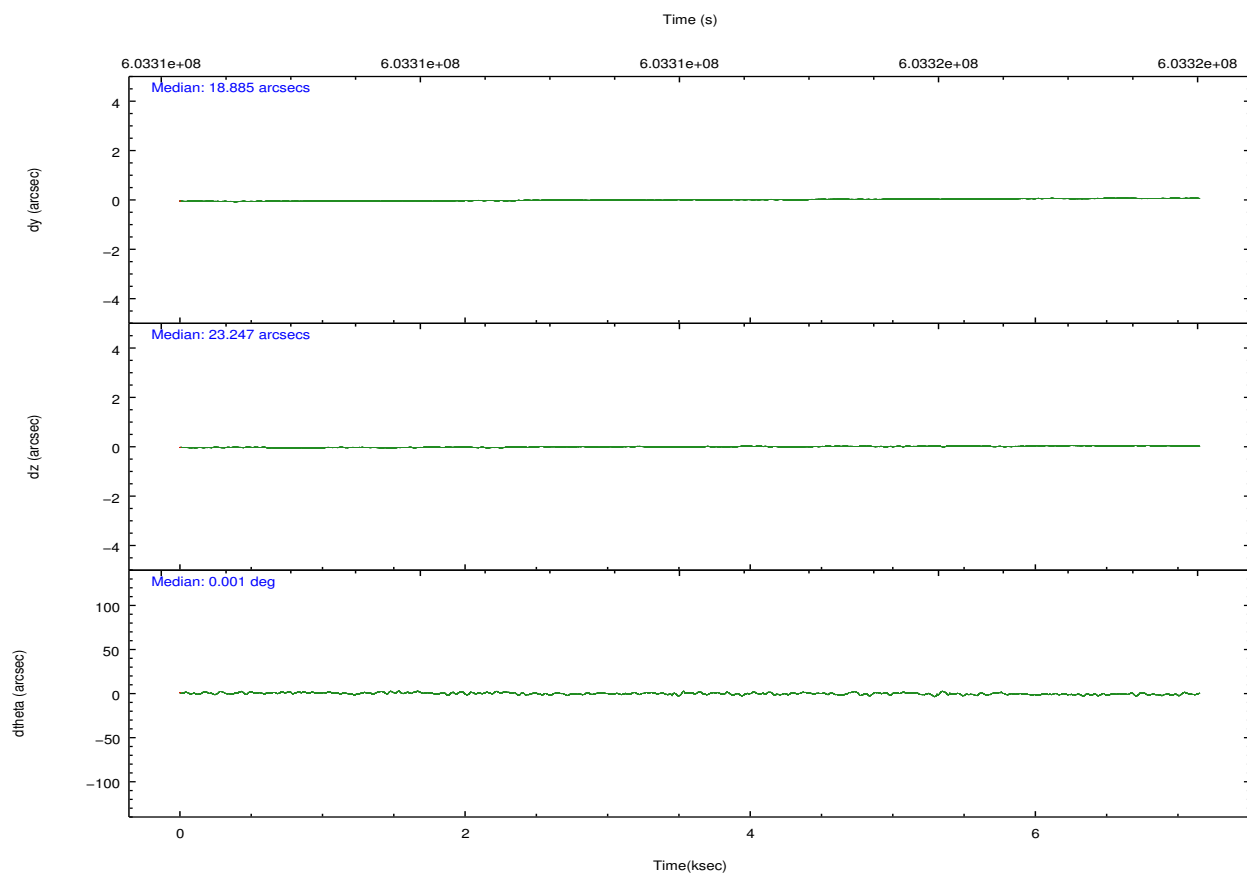
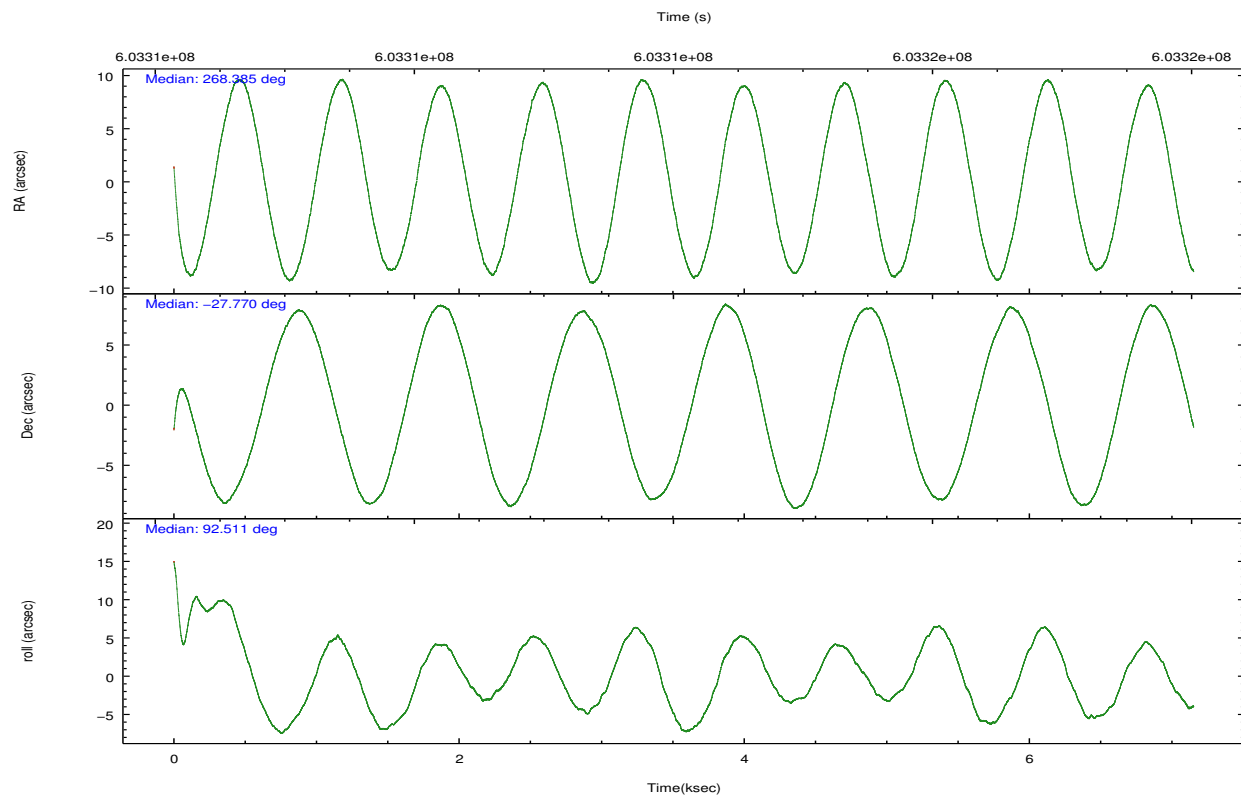


## 2.2 Compared Parameters

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	268.402219	268.385336574642	Subarray requested	NONE	NONE
[deg] Pointing Dec	-27.792755	-27.76952549599365	Alternating exposures requested	N	N
[deg] Pointing Roll	92.315327	92.51615367697762	[s] Primary exposure time	0.000000	3.1
[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)	603310634.184000	603309435.30223			
Observation start date	2017-02-12T18:16:05	2017-02-12T17:57:15			
[s] Observation end time (MET)	603317634.184000	603318644.41526			
Observation end date	2017-02-12T20:12:45	2017-02-12T20:30:44			
Read mode	TIMED	TIMED			

## 2.3 Aspect



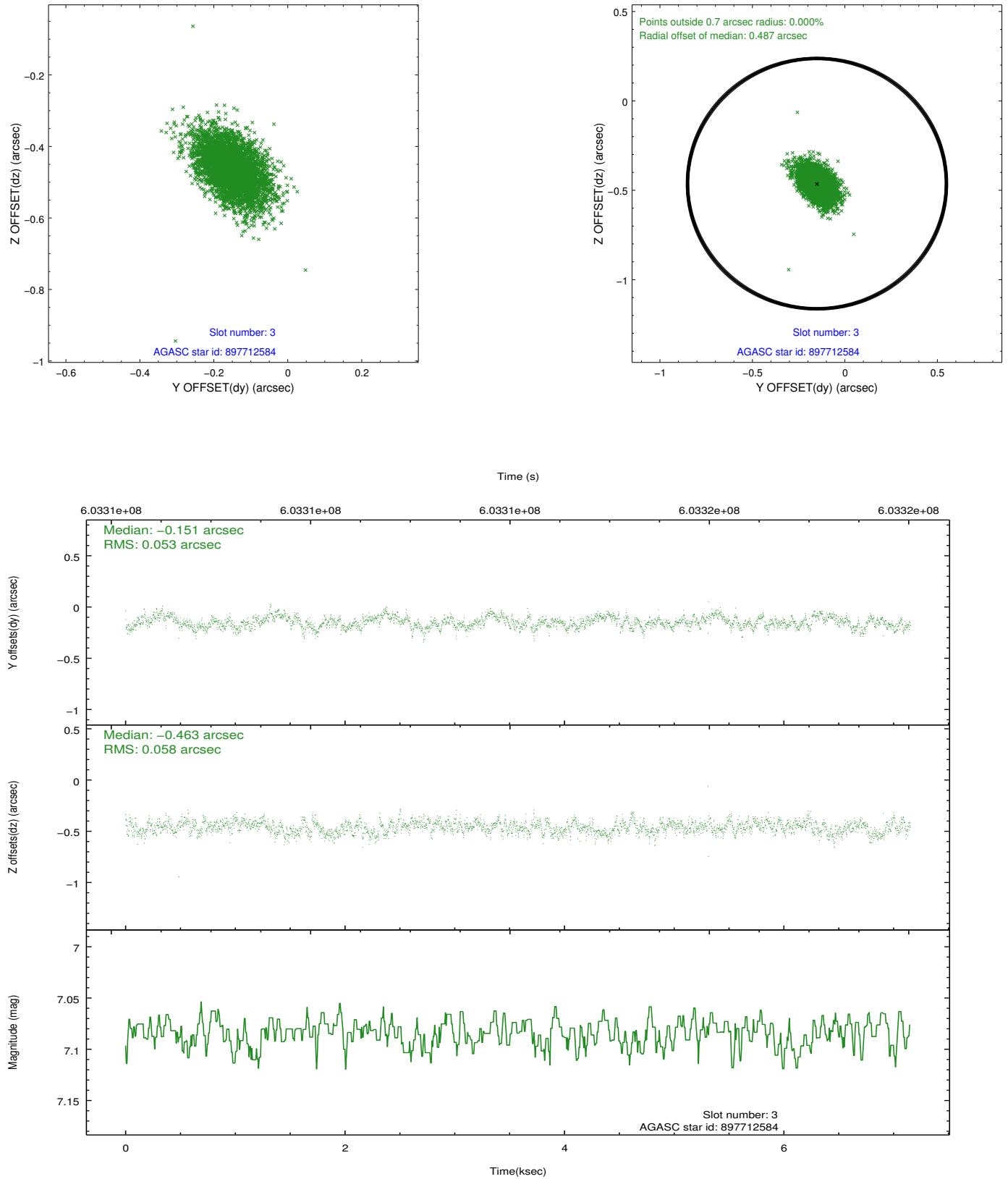


### Slot Statistics

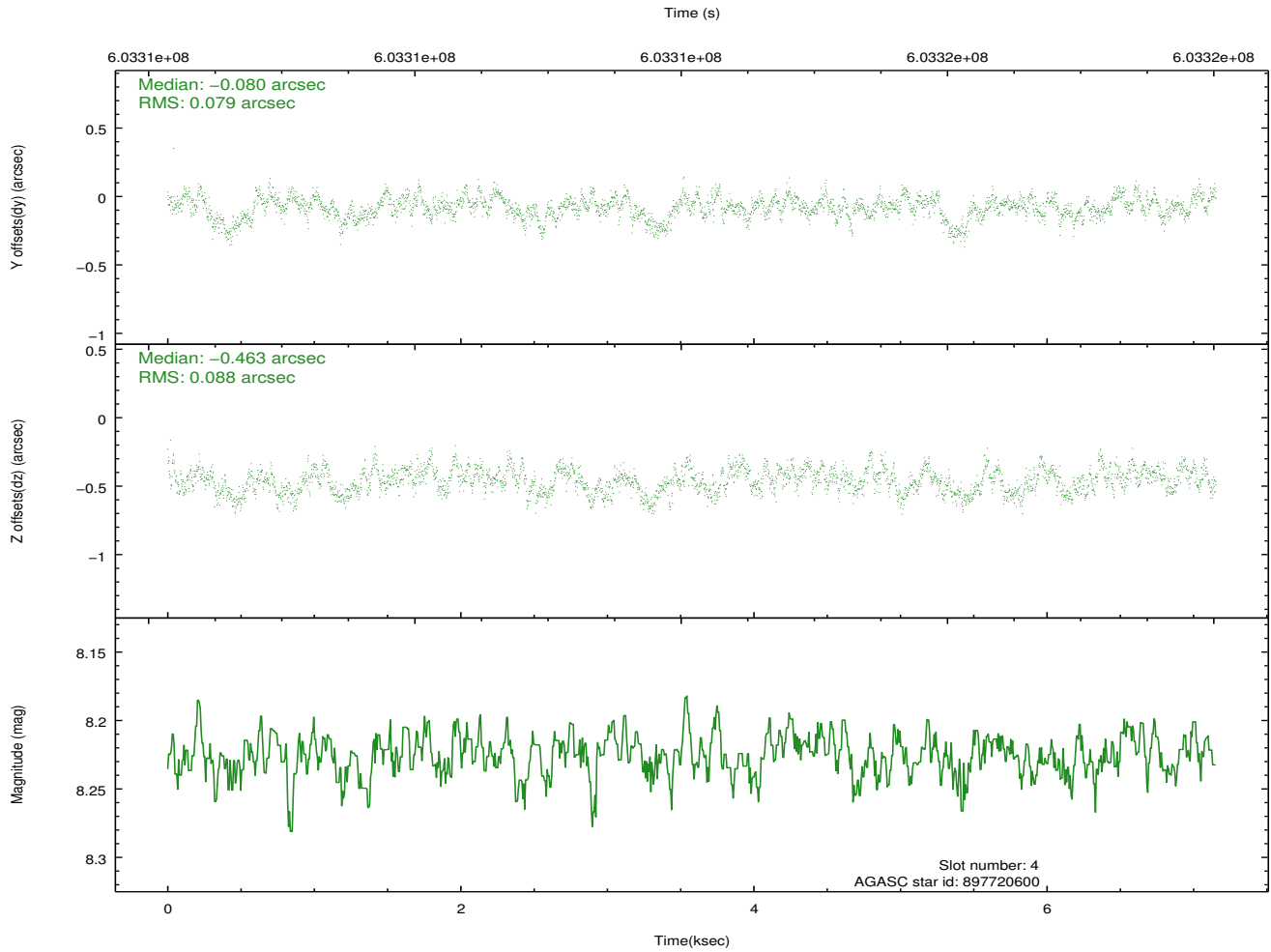
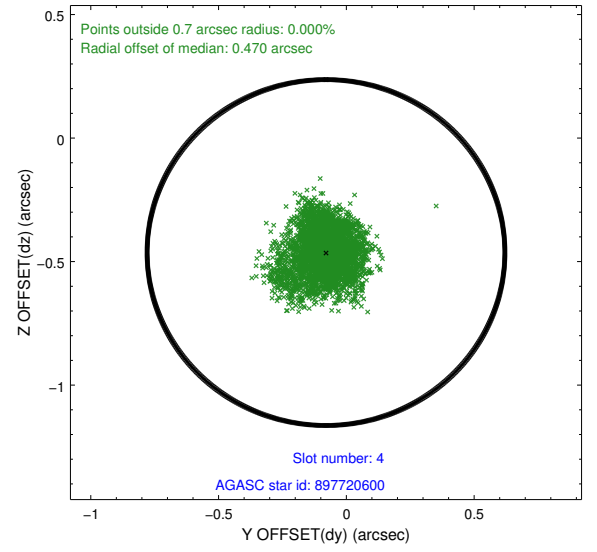
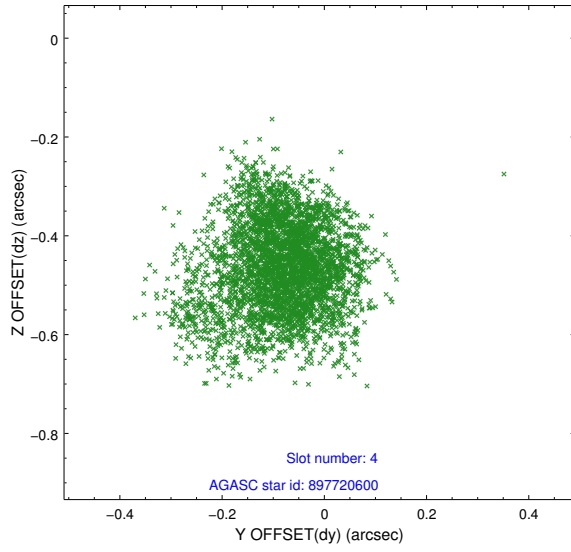
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	1745	-0.058	0.039	0.010	0.018	0.000000	0.000000	920.36	-847.07
1	FID		ACIS-I-2	7.00	1745	-0.290	-0.172	0.007	0.012	0.000000	0.000000	-773.52	-854.04
2	FID		ACIS-I-4	7.06	1745	0.251	0.201	0.007	0.011	0.000000	0.000000	2140.28	1052.42
3	GUIDE	used	897712584	7.08	3487	-0.151	-0.463	0.082	0.138	268.003029	-28.022394	-776.84	1300.70
4	GUIDE	used	897720600	8.23	3489	-0.080	-0.463	0.126	0.206	268.319864	-27.628963	599.42	239.09
5	GUIDE	used	897721048	7.69	3487	0.144	0.440	0.079	0.131	268.989561	-28.030814	-935.44	-1829.48
6	GUIDE	used	897722208	8.36	3487	-0.287	0.066	0.117	0.184	268.617190	-27.294090	1765.14	-759.81
7	GUIDE	used	898236640	8.97	3485	0.380	0.418	0.135	0.230	268.893541	-28.185549	-1478.38	-1499.72

## 2.4 Star Slots

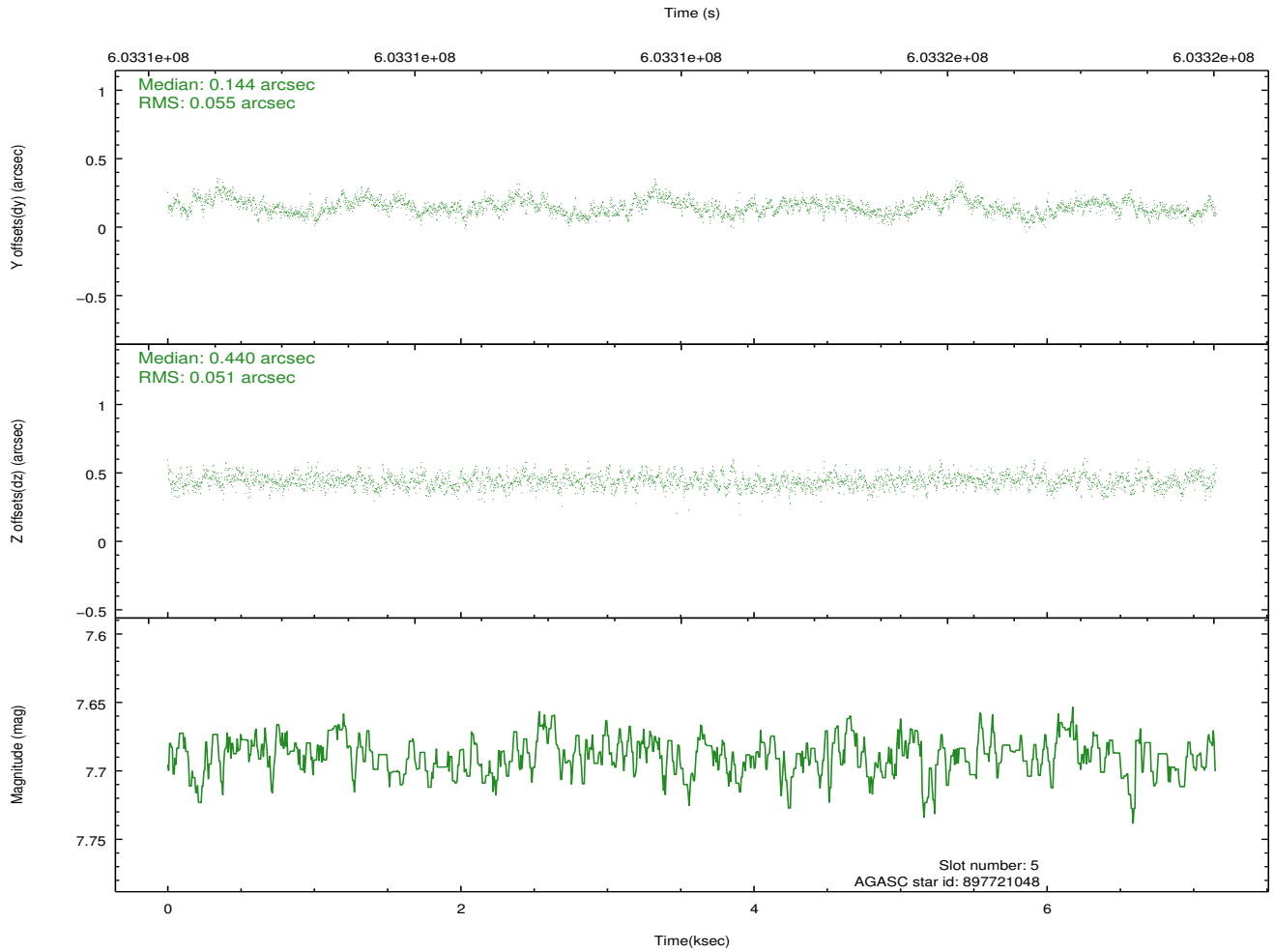
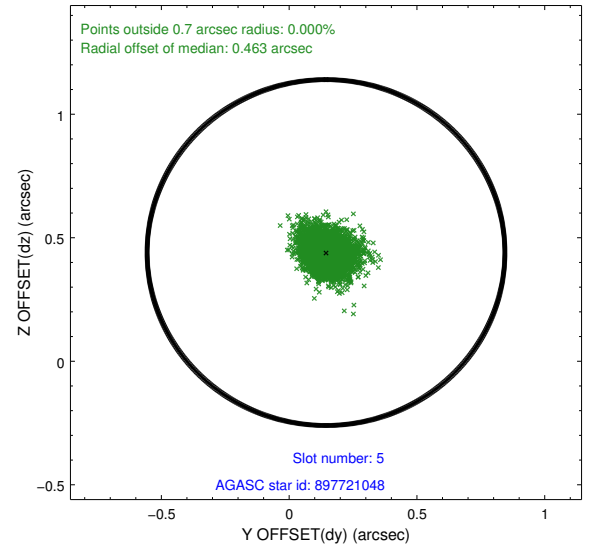
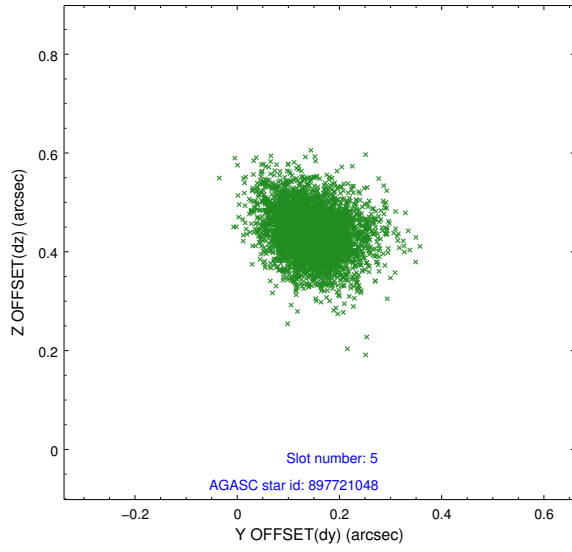
### 2.4.1 Slot 3



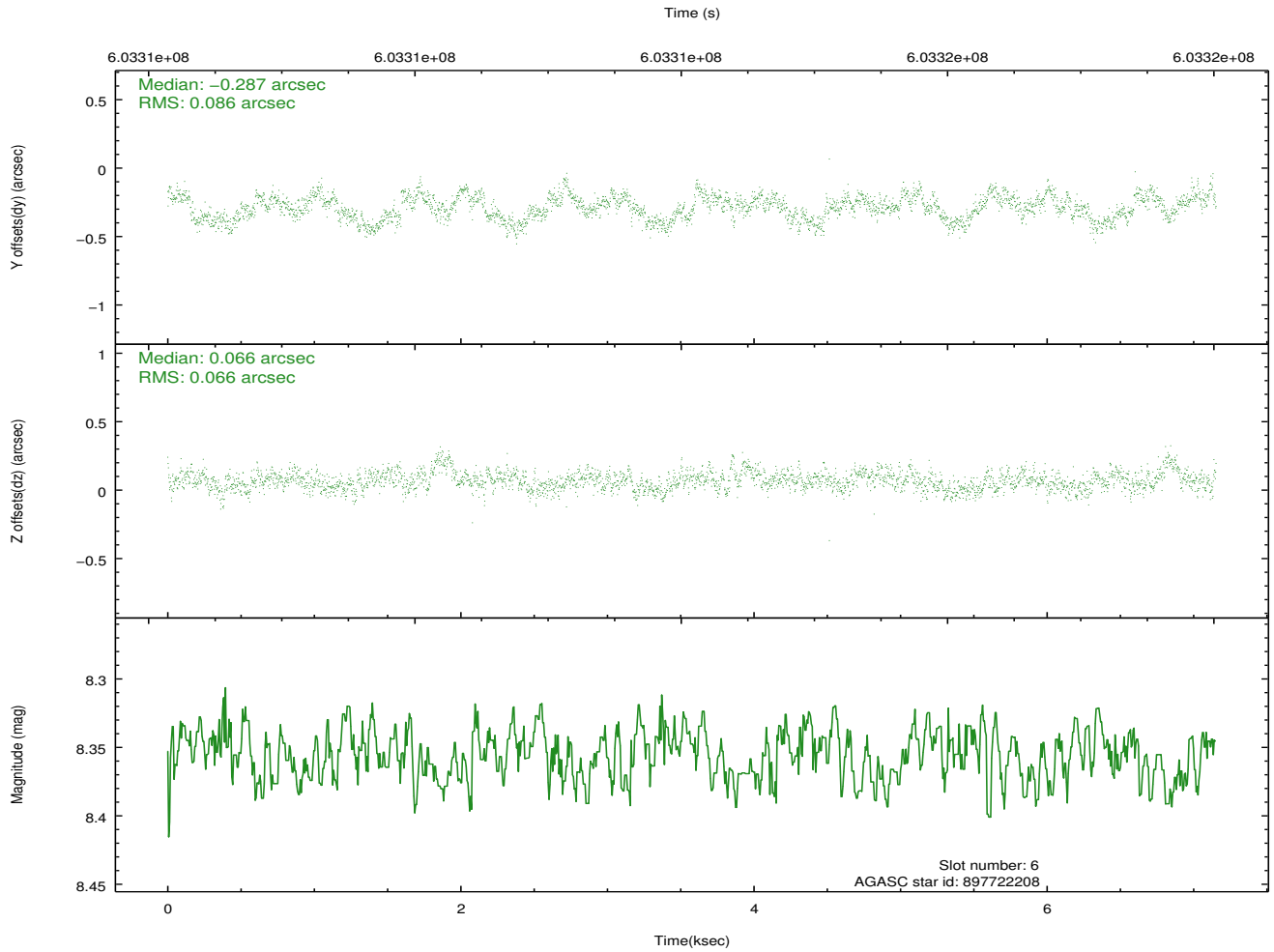
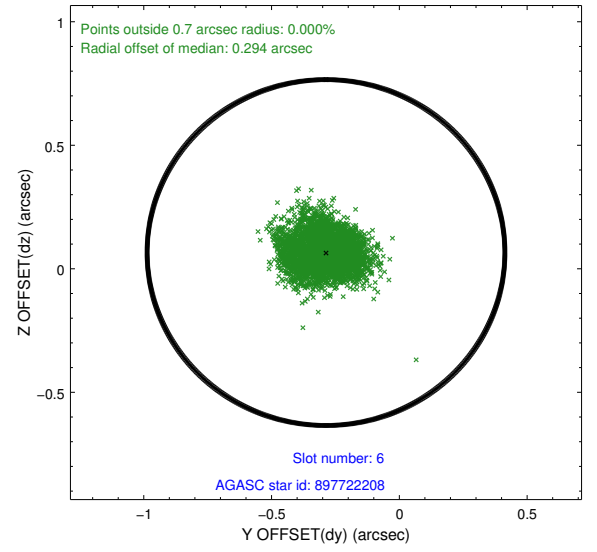
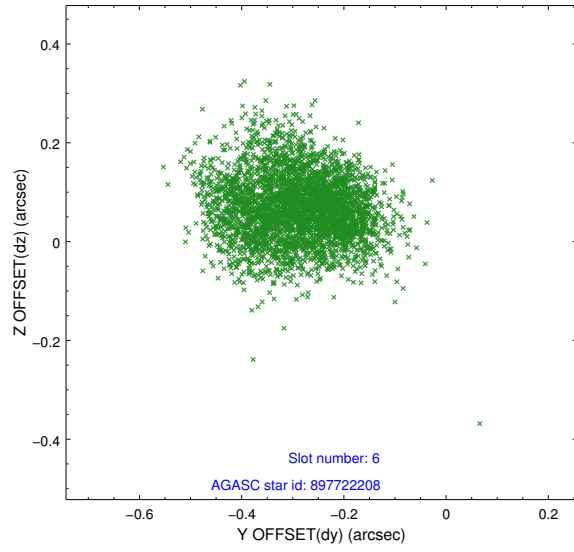
## 2.4.2 Slot 4



### 2.4.3 Slot 5

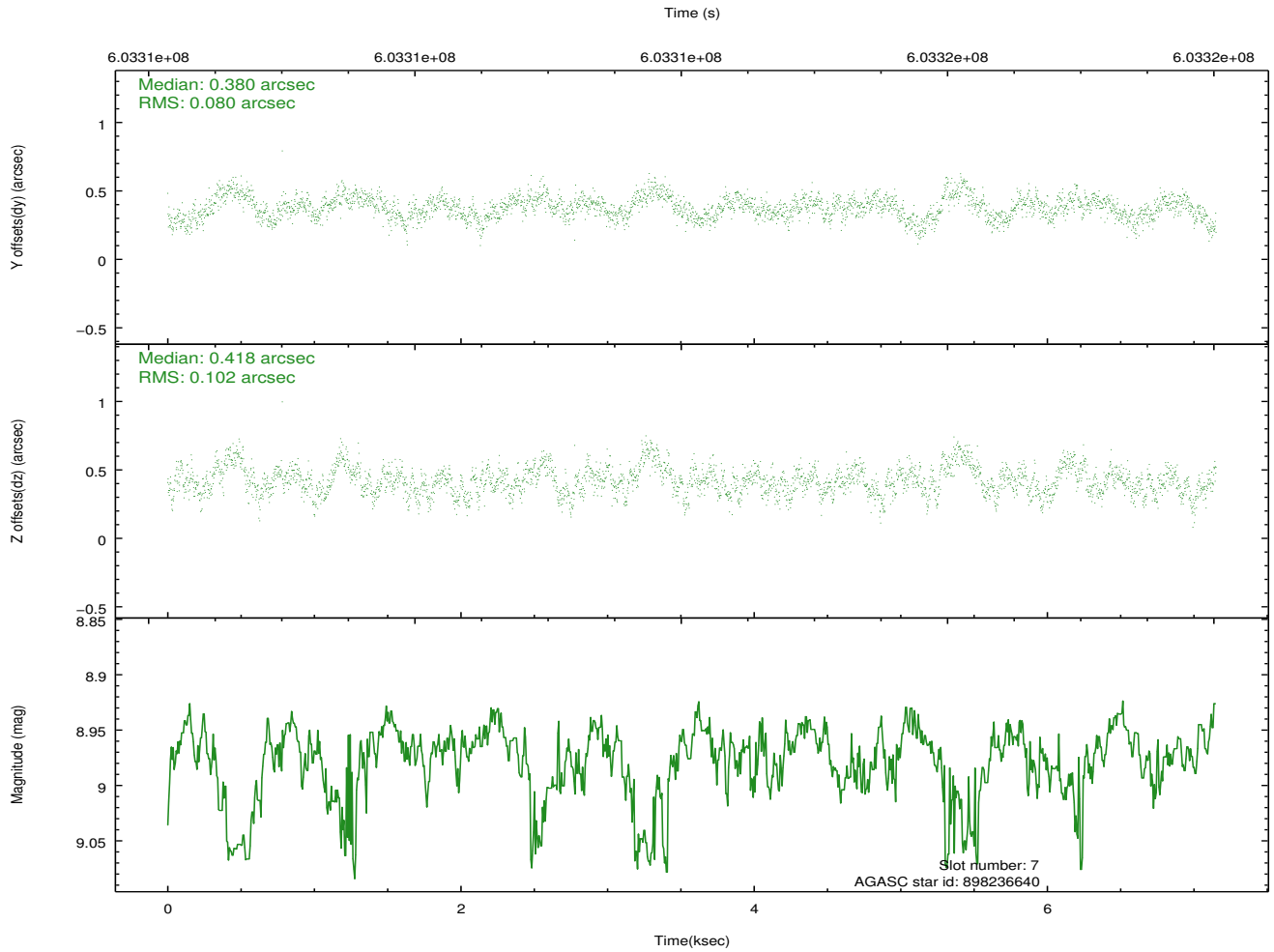
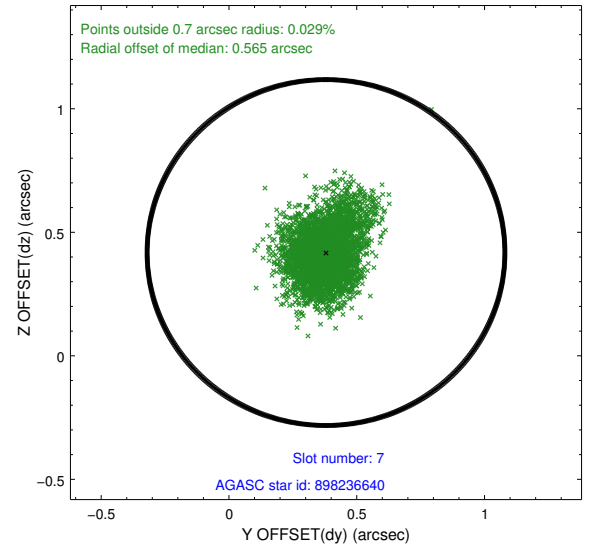
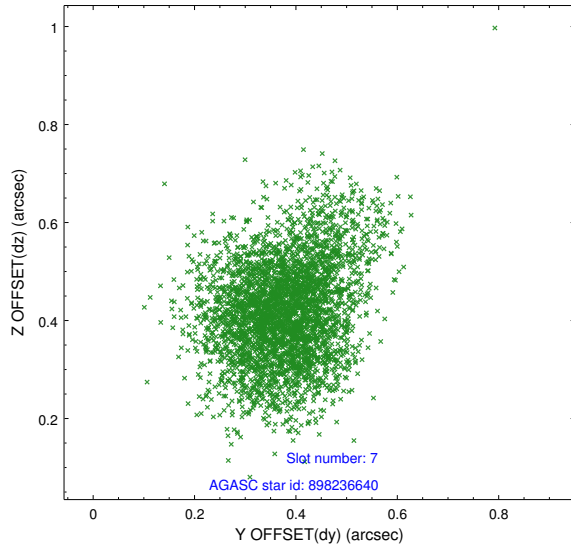


## 2.4.4 Slot 6



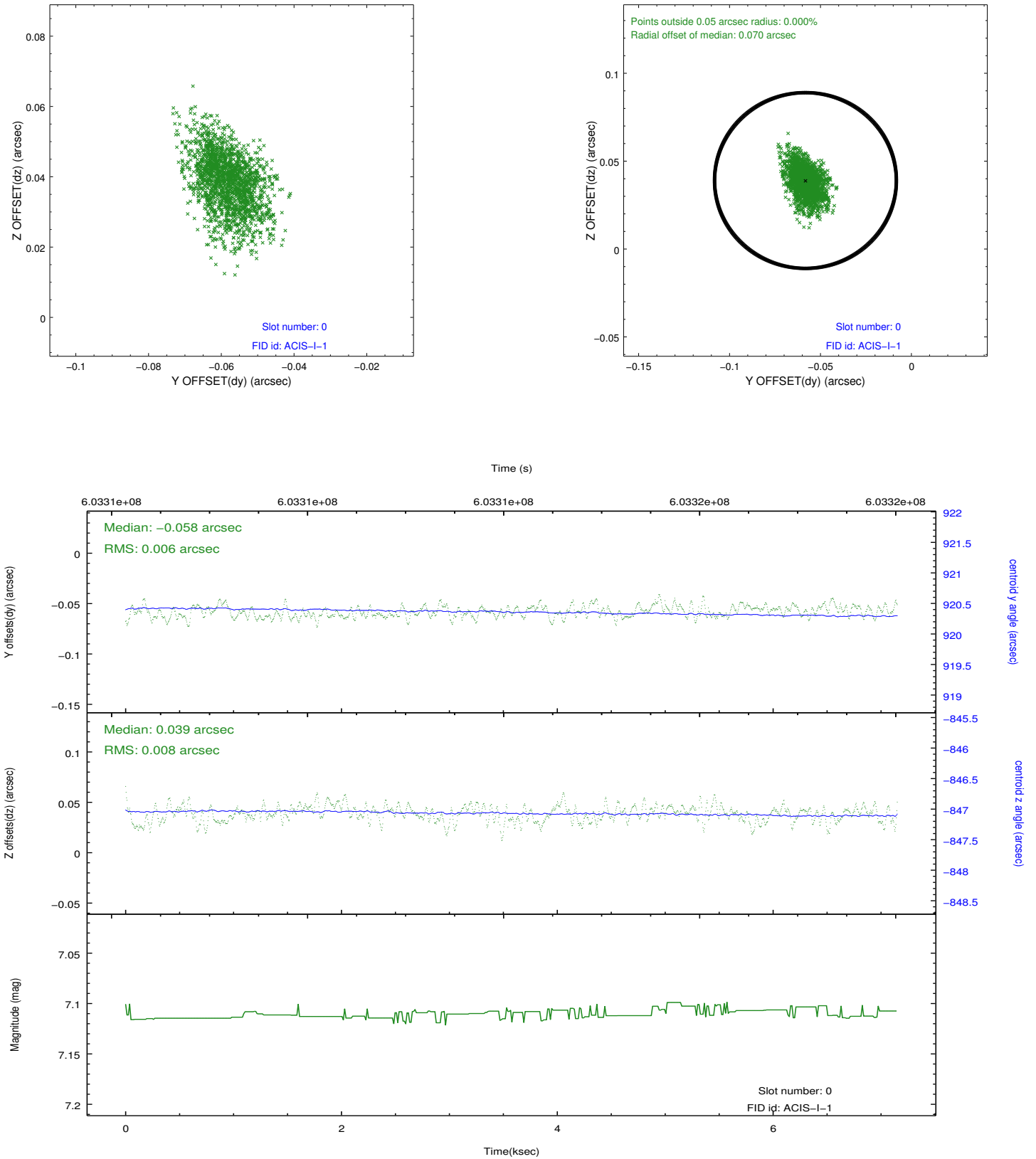


## 2.4.5 Slot 7

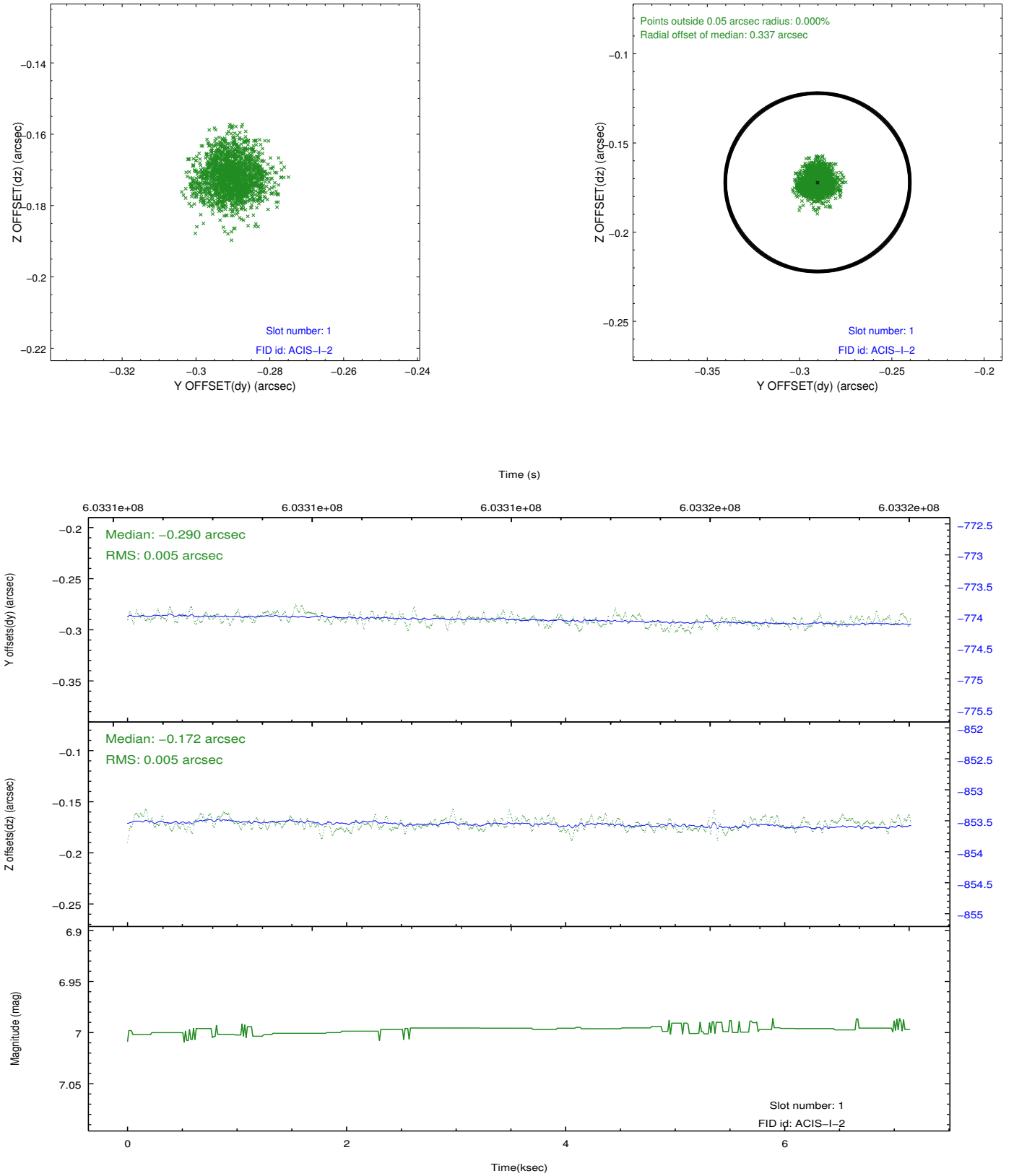


## 2.5 FID Slots

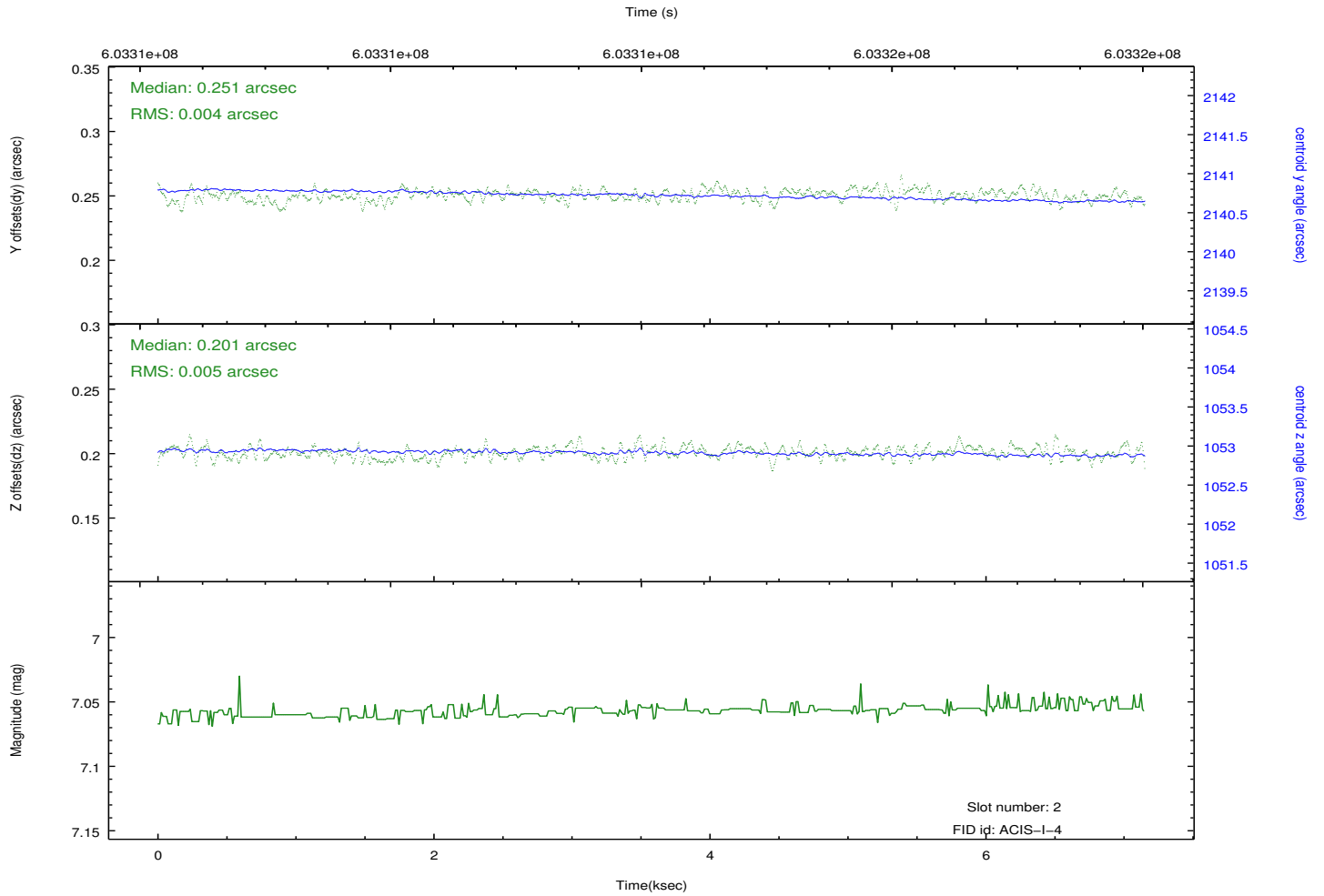
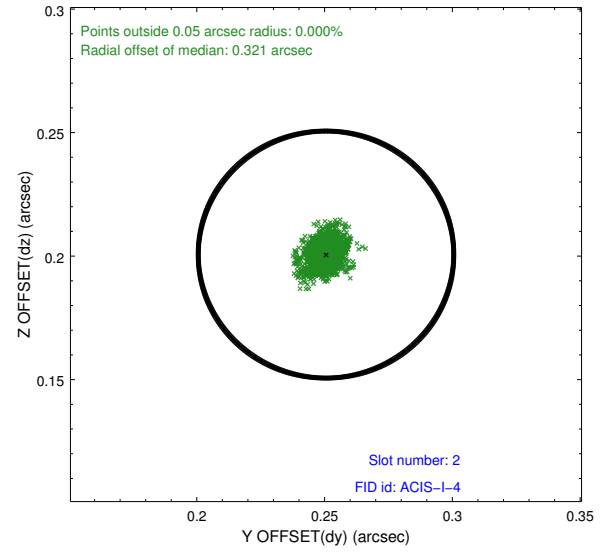
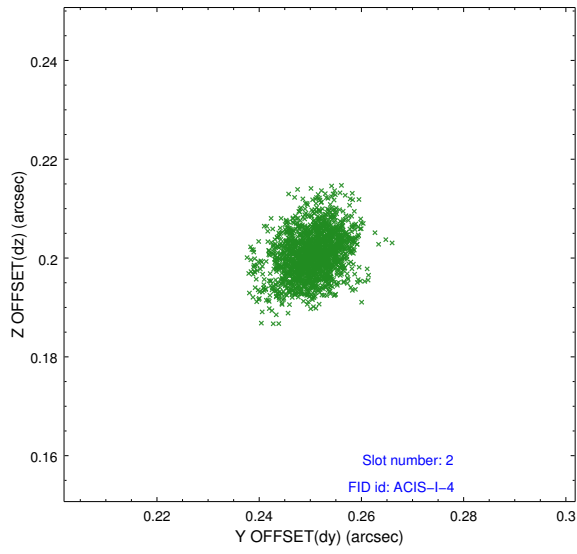
### 2.5.1 Slot 0



## 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)	2017.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.0711000545025

### A.2 Comments