

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15288 - L2 Version 2  
Chandra X-Ray Center

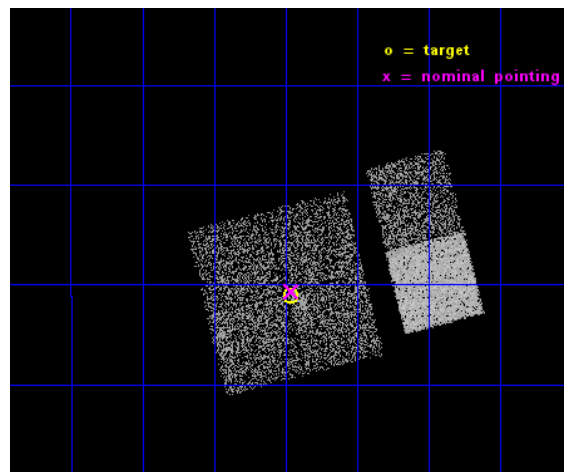
L2 Processing Date : Dec 1 2014

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# 1 Front

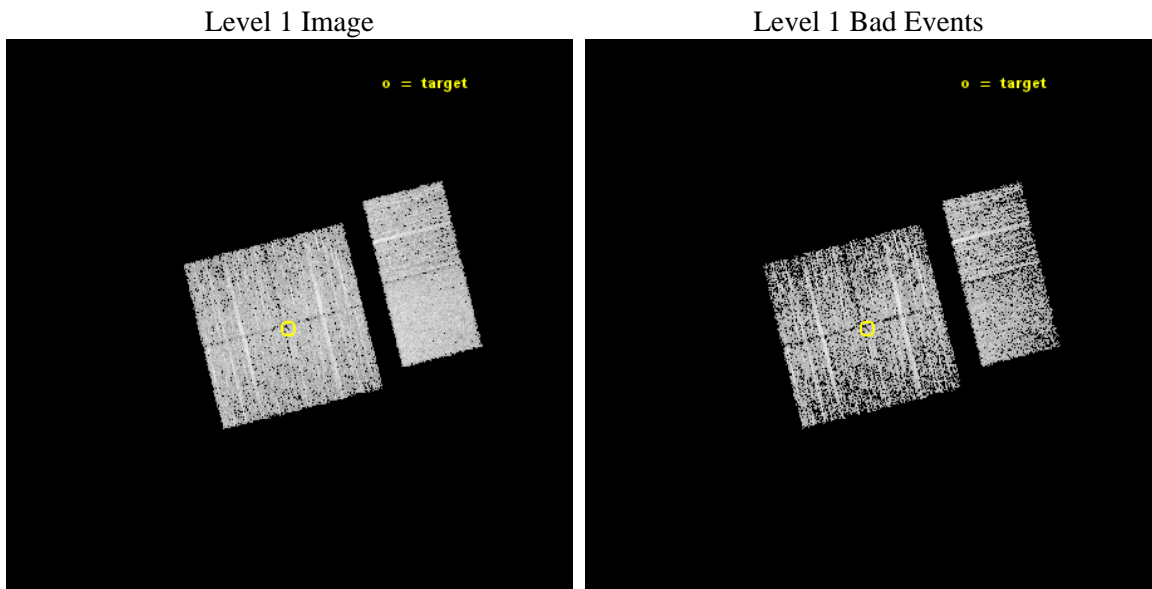
seq_num	801326	Sequence number
obs_id	15288	Observation id
title	Paving the way for eROSITA: with Chandra observations of the CODEX-BOSS clusters	Proposal title
observer	Dr. Peter Predehl	Principal investigator
object	CODEX 57892	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	199.365417	Observer's specified target RA [deg]
dec_targ	-2.019139	Observer's specified target Dec [deg]
ra_nom	199.36490834353	Nominal RA [deg]
dec_nom	-2.0110607906897	Nominal Dec [deg]
roll_nom	75.942735857335	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3971.1999852657	Sum of GTIs [s]
livetime	3920.9142598827	Livetime [s]
ontime0	3971.1999852657	Sum of GTIs [s]
ontime1	3971.1999852657	Sum of GTIs [s]
ontime2	3971.1999852657	Sum of GTIs [s]
ontime3	3971.1999852657	Sum of GTIs [s]
ontime6	3971.1999852657	Sum of GTIs [s]
ontime7	3971.1999852657	Sum of GTIs [s]
l2events	23259	Number of level 2 events



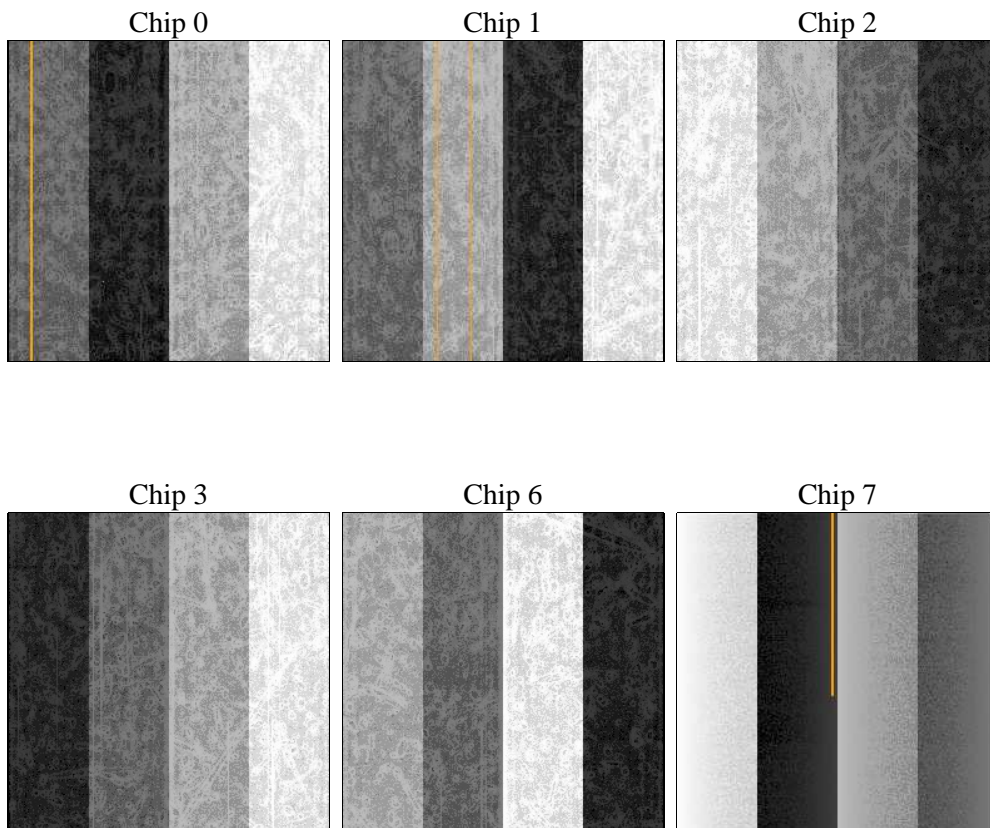
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	3971.1999852657	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	3971.1999852657	Sum of GTIs [s]
date	2014-12-01T19:09:25	Date and time of file creation	ontime1	3971.1999852657	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3971.1999852657	Sum of GTIs [s]
			ontime3	3971.1999852657	Sum of GTIs [s]
			ontime6	3971.1999852657	Sum of GTIs [s]
			ontime7	3971.1999852657	Sum of GTIs [s]
			l1events	132012	Number of level 1 events

### 2.1.4 Events

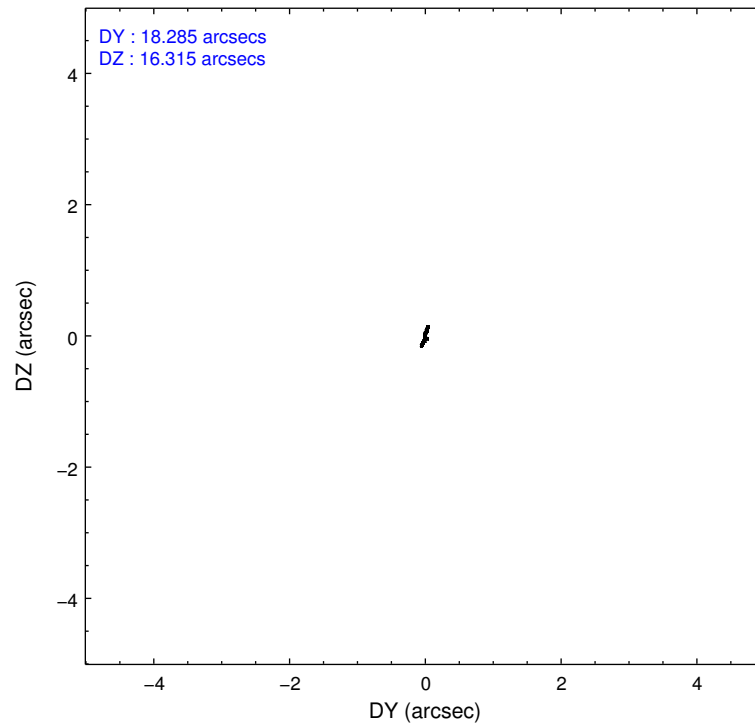
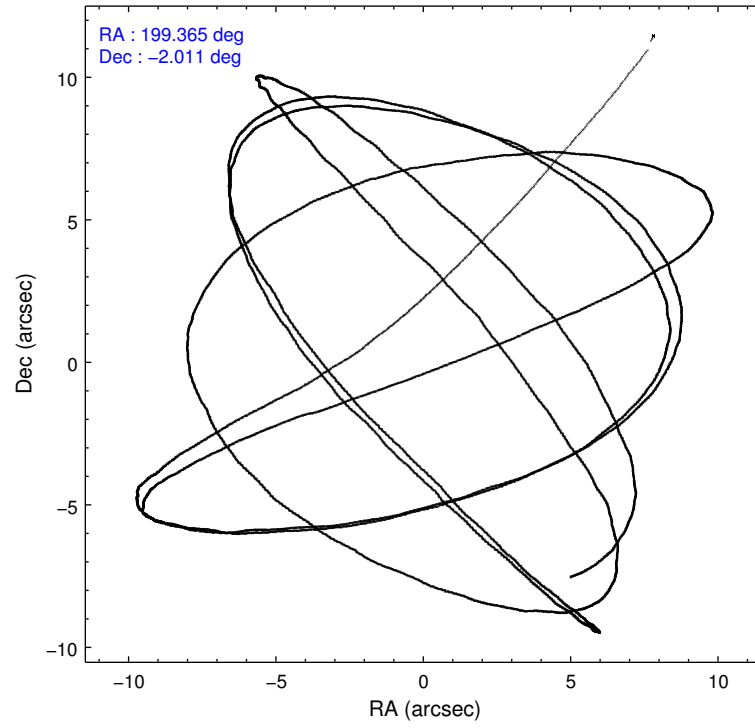
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	19195	20164	21471	20352	21794	29036	grade 0 events	866	1038	890	940	891	1076
rejected events	16697	17345	18992	17857	19122	16475		4%	5%	4%	4%	4%	3%
rejected %	86%	86%	88%	87%	87%	56%	grade 1 events	9	5	17	11	15	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	640	647	612	522	623	2595
								3%	3%	2%	2%	2%	8%
							grade 3 events	241	254	252	266	279	1075
								1%	1%	1%	1%	1%	3%
							grade 4 events	252	264	236	250	261	1093
								1%	1%	1%	1%	1%	3%
							grade 5 events	1022	1049	989	1108	1145	3095
								5%	5%	4%	5%	5%	10%
							grade 6 events	501	620	490	520	619	6731
								2%	3%	2%	2%	2%	23%
							grade 7 events	15664	16287	17985	16735	17961	13332
								81%	80%	83%	82%	82%	45%

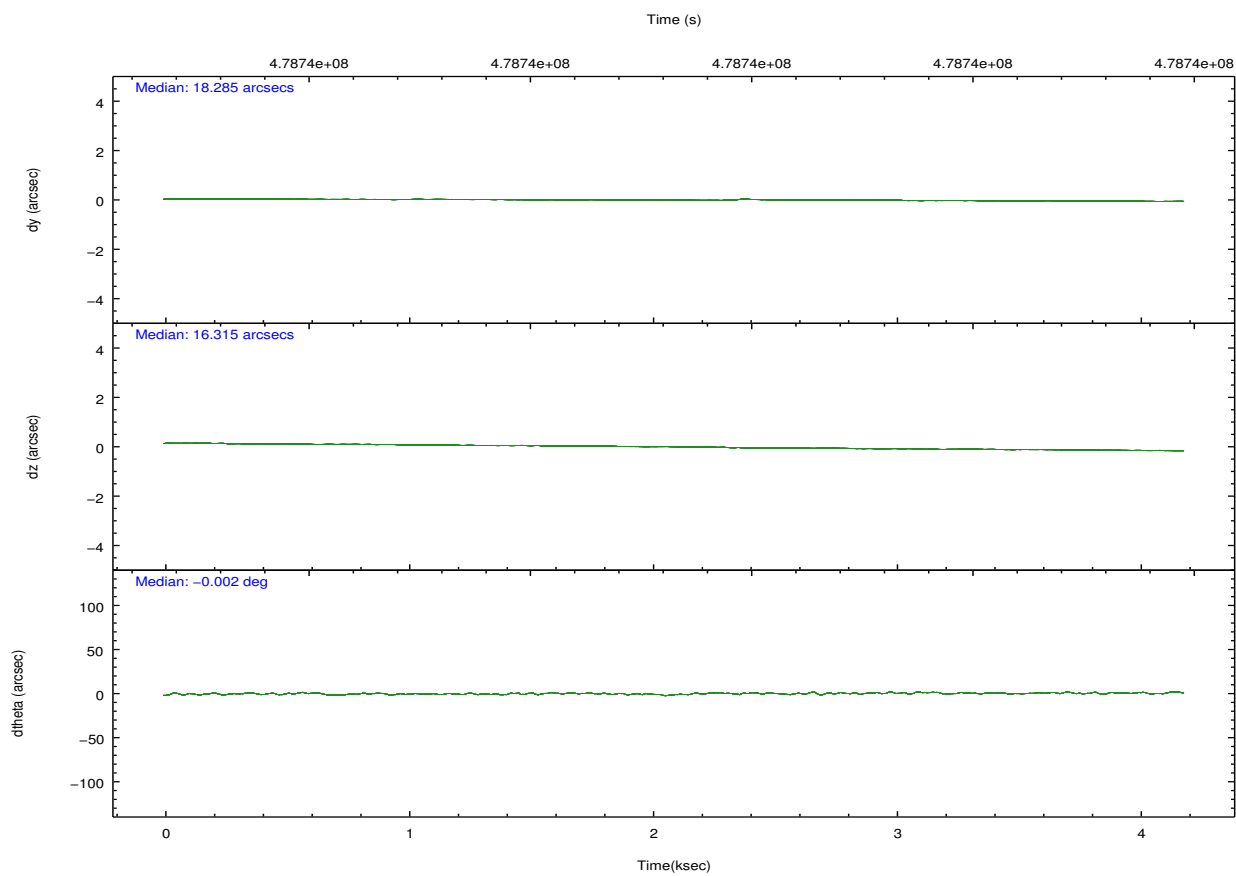
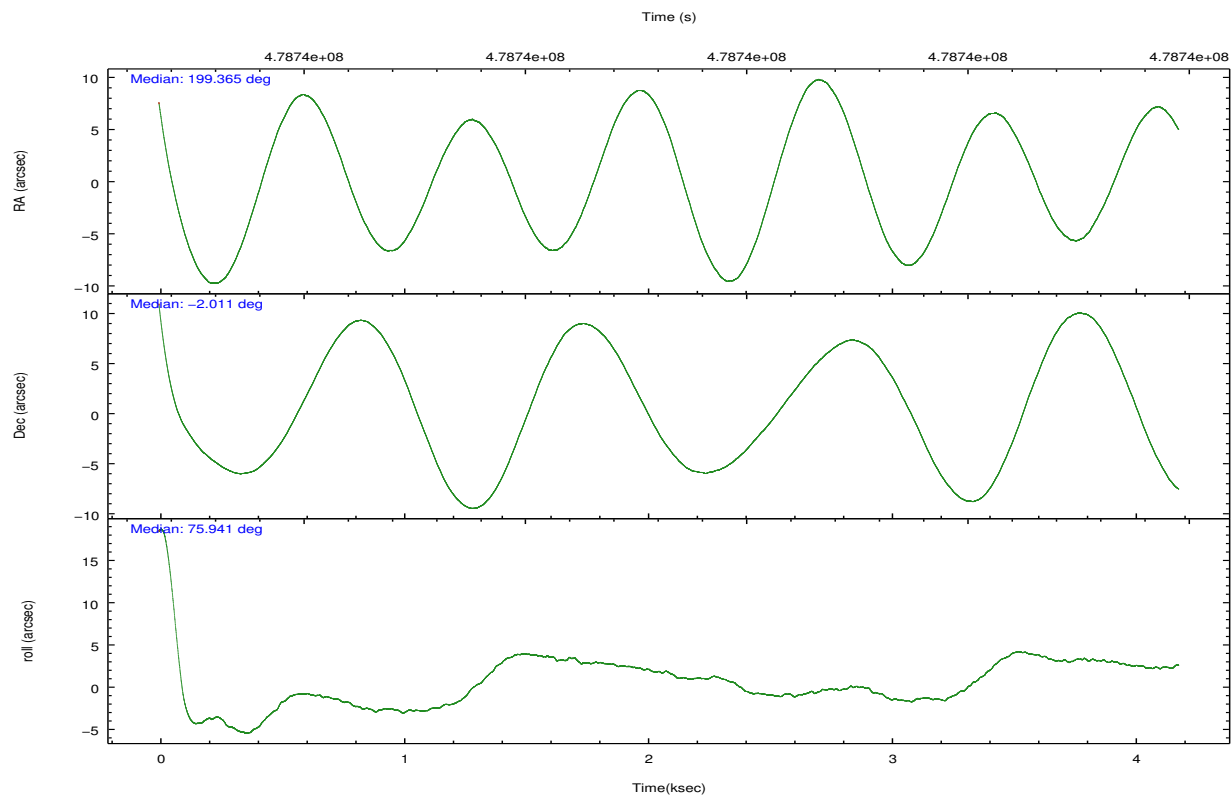


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	199.372629	199.3649083435331	CCD I2 on	Y	Y
[deg] Pointing Dec	-2.037480	-2.01106079068967	CCD I3 on	Y	Y
[deg] Pointing Roll	75.734240	75.94273585733545	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	478737743.184000	478736771.13017	CCD S5 on	N	N
Observation start date	2013-03-03T22:41:16	2013-03-03T22:26:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	478741743.184000	478742580.31798	On-chip summing requested	N	N
Observation end date	2013-03-03T23:47:56	2013-03-04T00:03:00	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



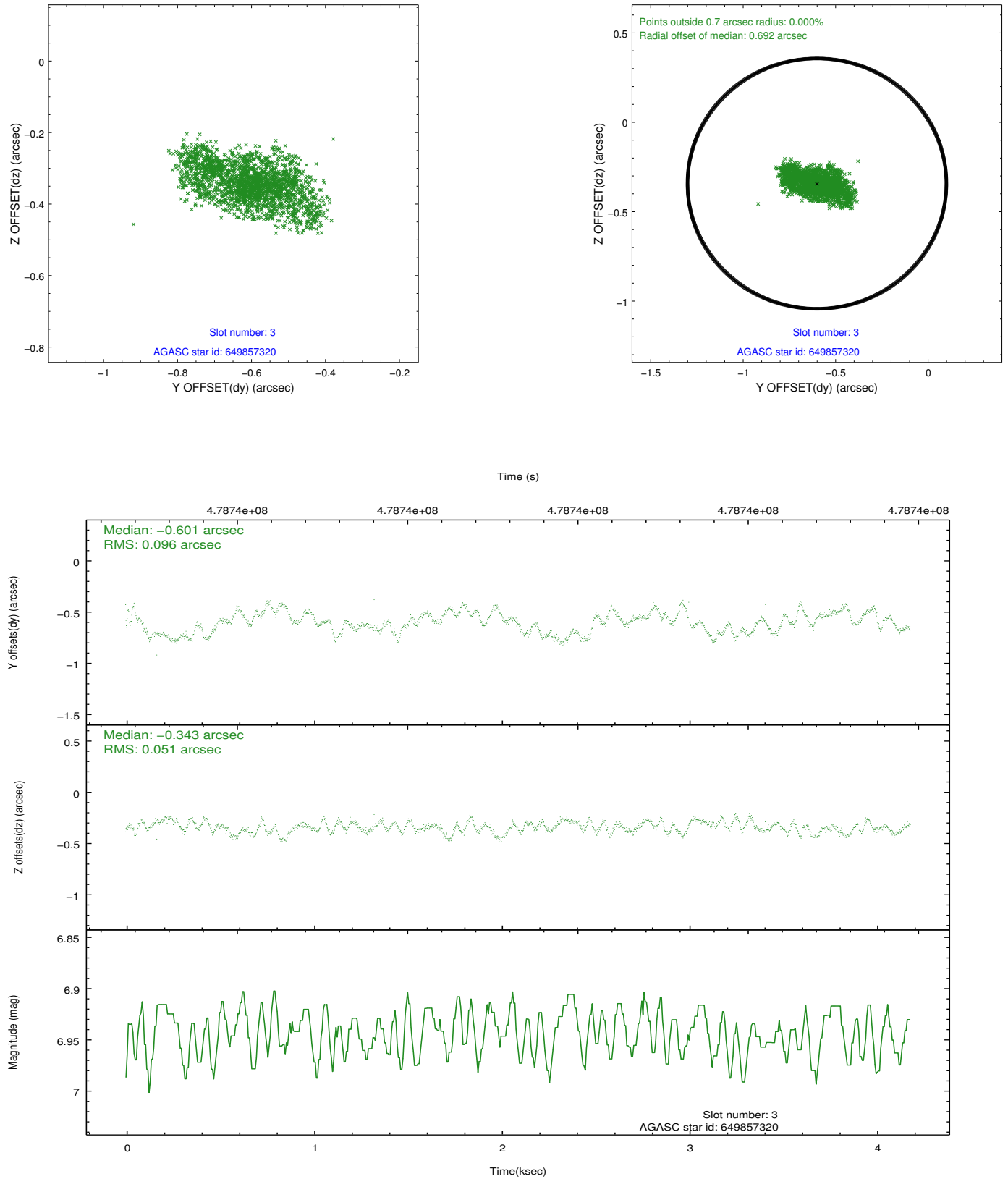


### Slot Statistics

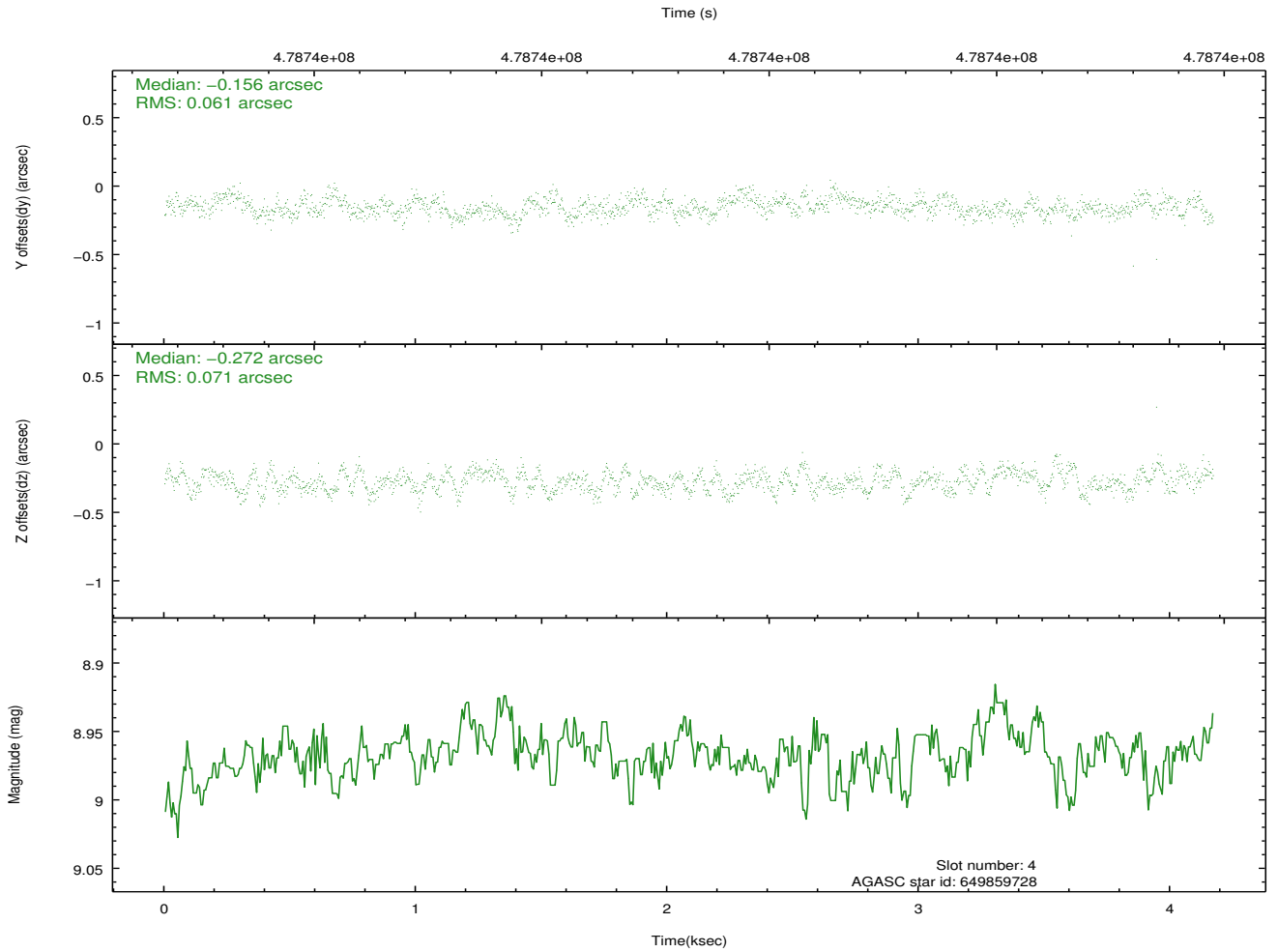
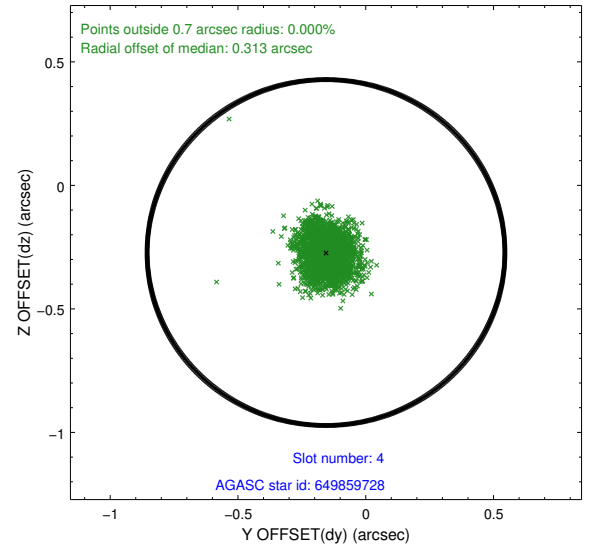
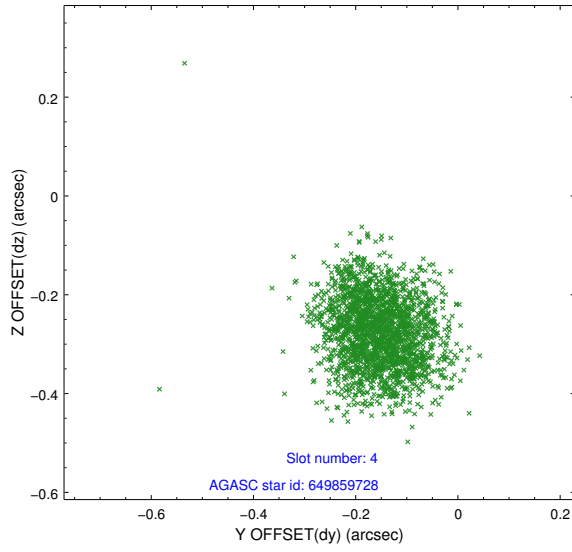
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	1021	-0.116	-0.049	0.008	0.013	0.000000	0.000000	920.97	-839.99
1	FID		ACIS-I-4	6.99	1021	0.092	0.122	0.010	0.015	0.000000	0.000000	2142.05	1059.23
2	FID		ACIS-I-6	7.06	1021	-0.072	-0.008	0.009	0.015	0.000000	0.000000	388.83	1702.98
3	GUIDE	used	649857320	6.94	2041	-0.601	-0.343	0.119	0.190	199.106181	-1.390542	2020.04	1503.26
4	GUIDE	used	649859728	8.97	2021	-0.156	-0.272	0.100	0.153	199.363235	-1.684132	1225.69	347.14
5	GUIDE	used	649860992	9.51	2040	0.132	0.203	0.147	0.246	199.516571	-2.344823	-943.75	-774.18
6	GUIDE	used	650249752	10.03	2039	0.303	0.162	0.270	0.392	199.507935	-2.651200	-2022.14	-1016.32
7	GUIDE	used	650250232	9.38	2039	0.304	0.266	0.175	0.279	199.730071	-2.531534	-1407.77	-1684.81

## 2.4 Star Slots

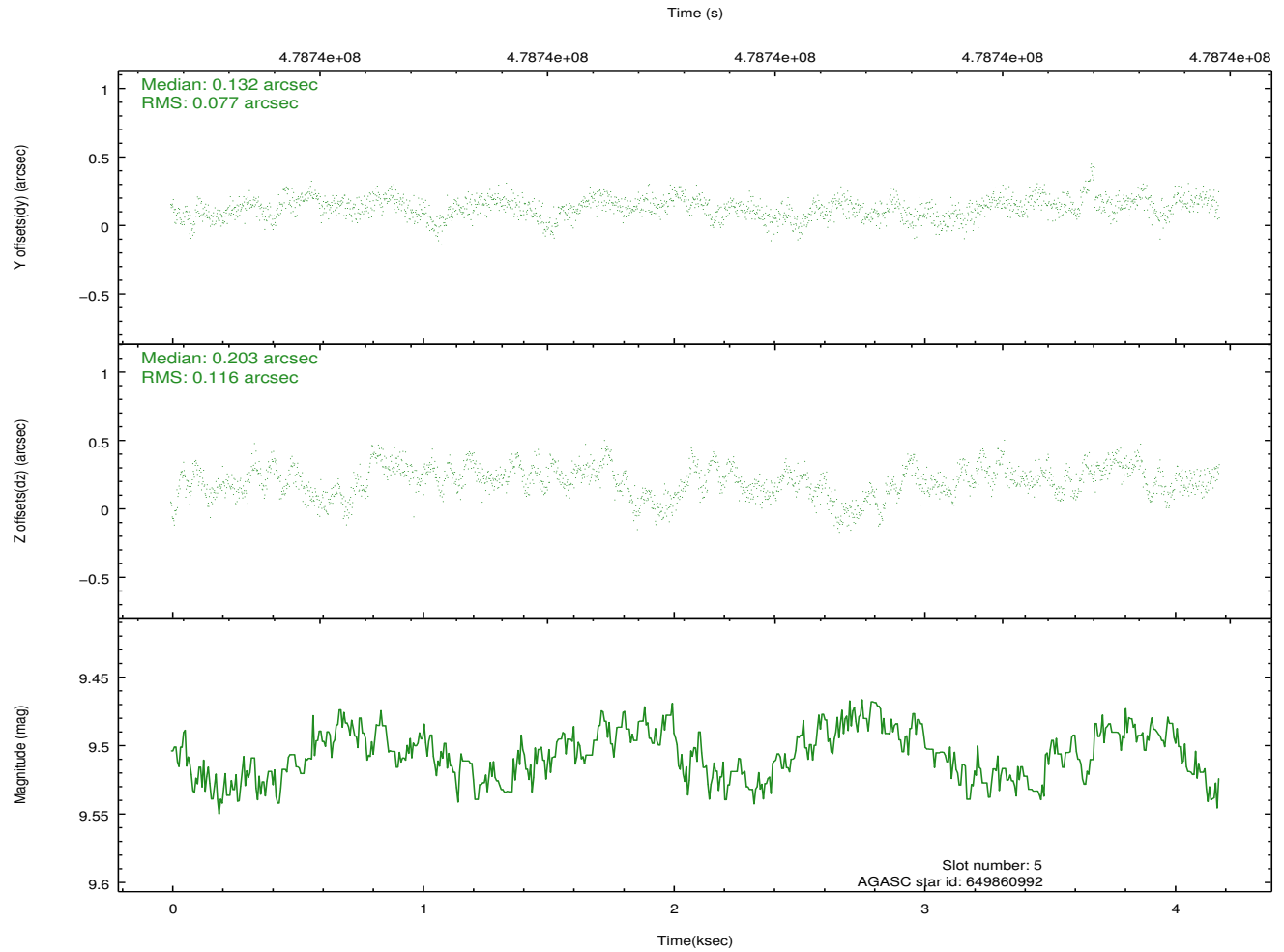
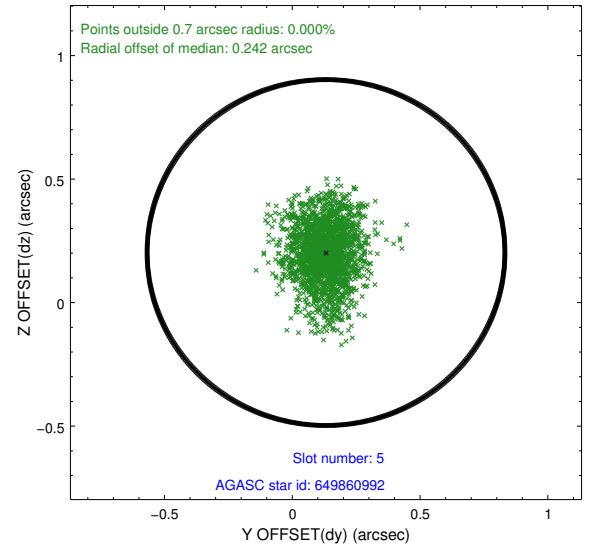
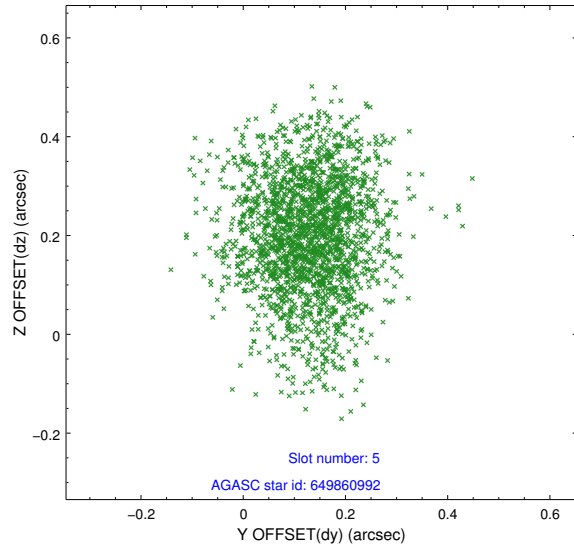
### 2.4.1 Slot 3



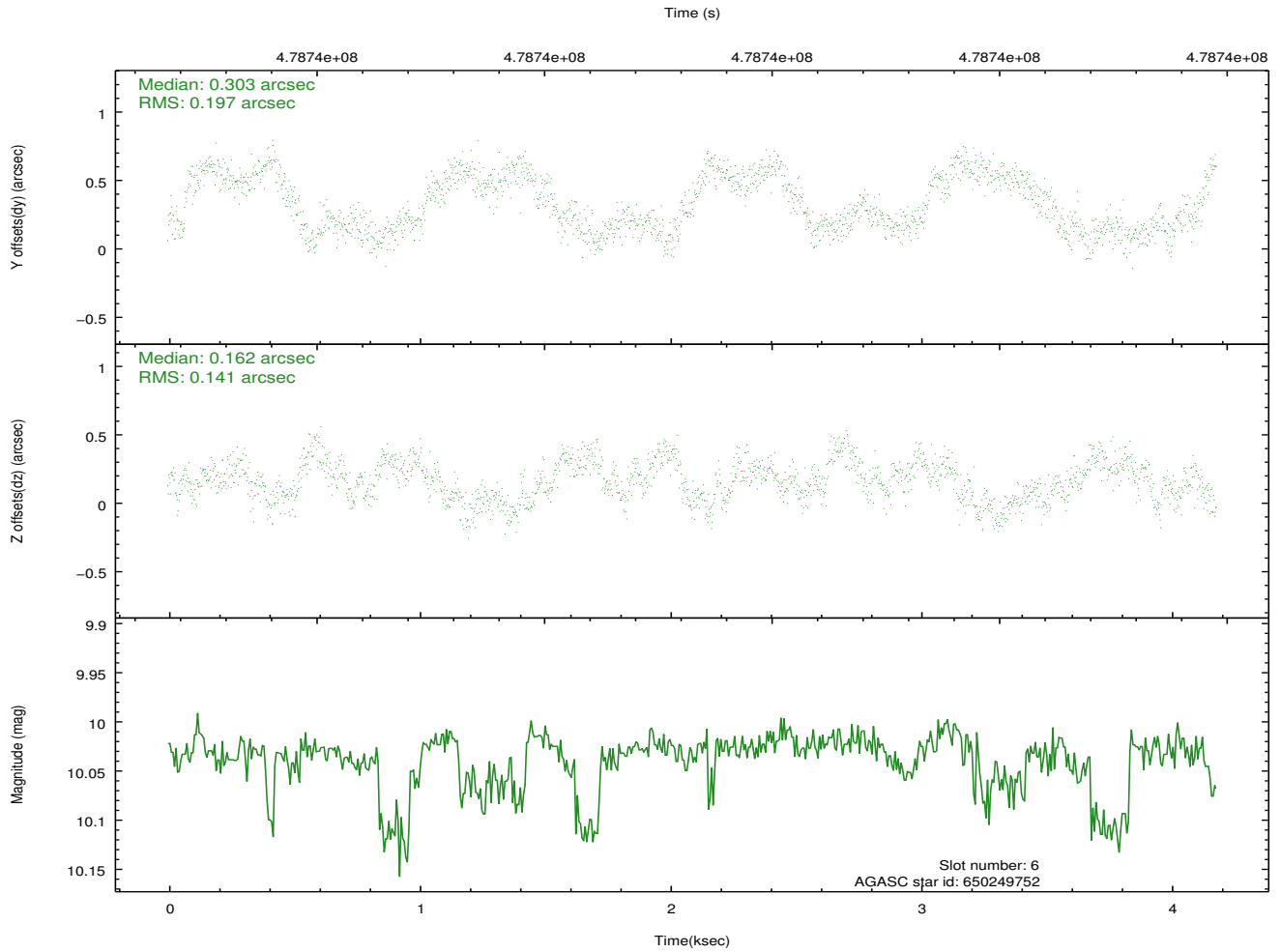
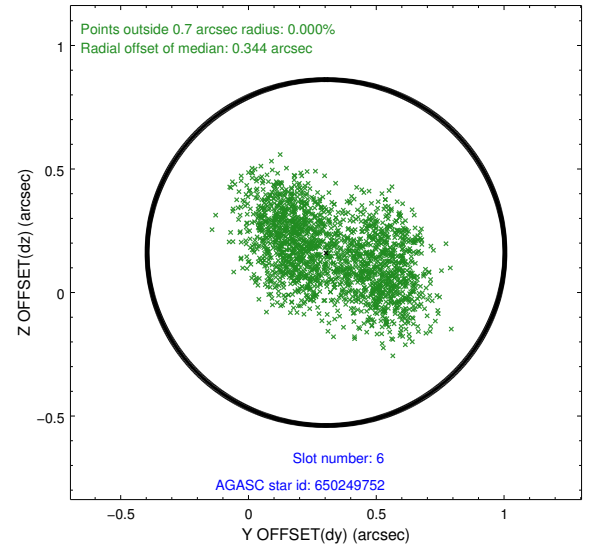
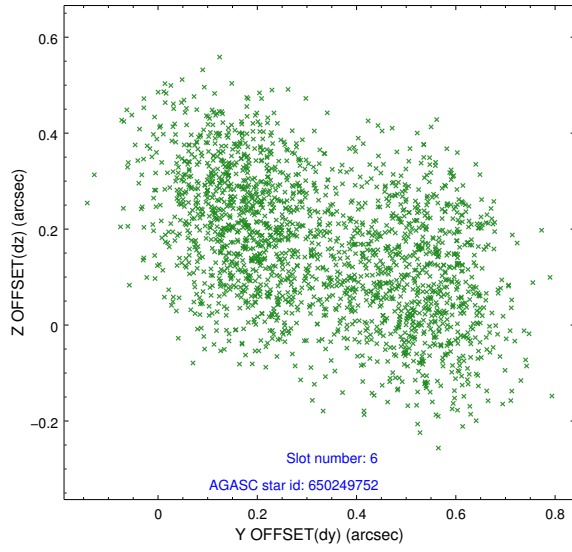
## 2.4.2 Slot 4



### 2.4.3 Slot 5

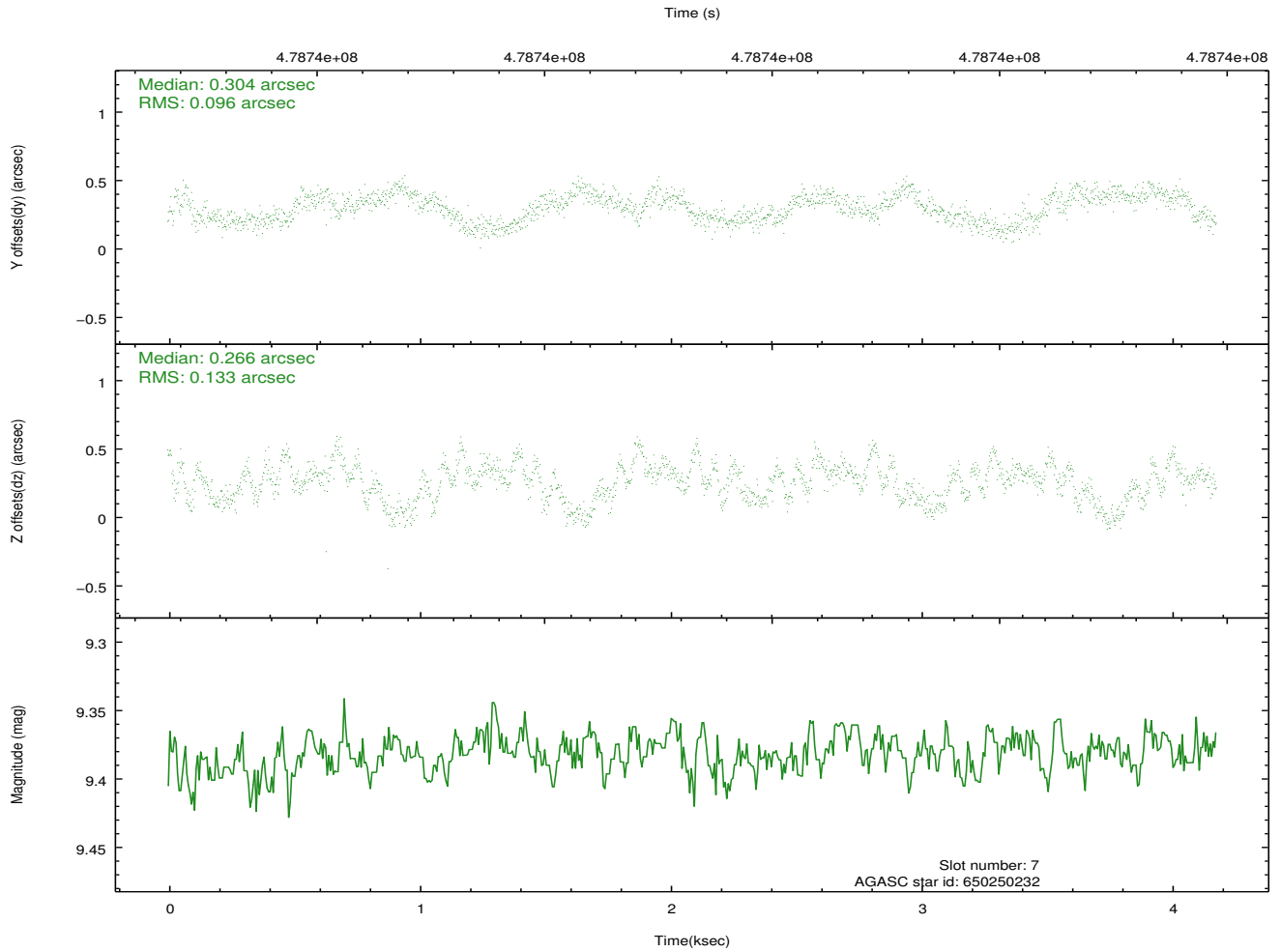
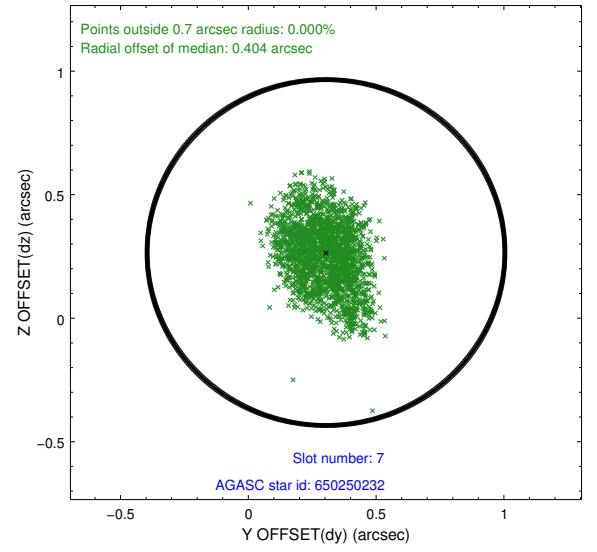
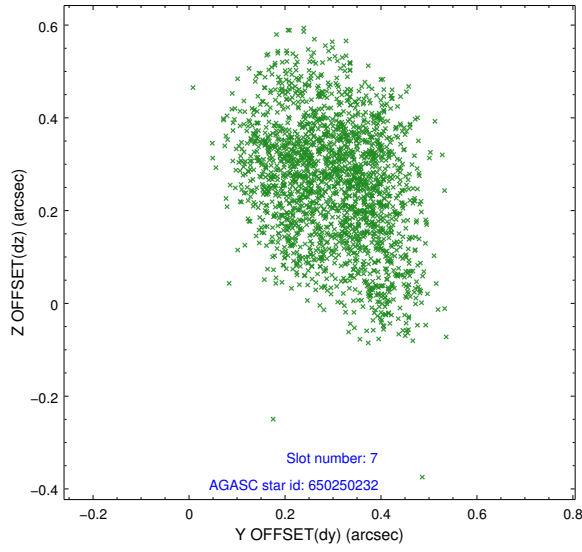


## 2.4.4 Slot 6



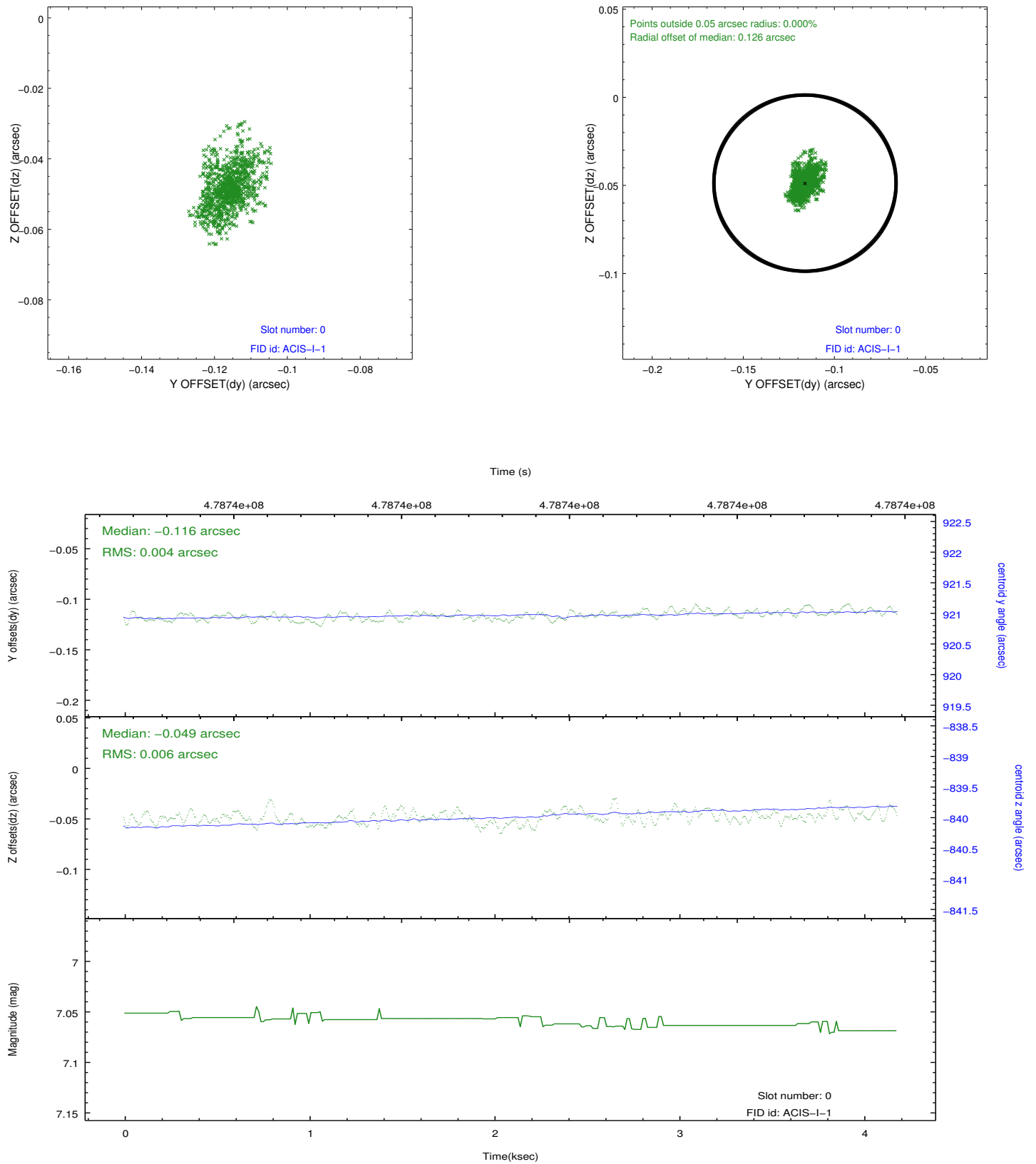


## 2.4.5 Slot 7

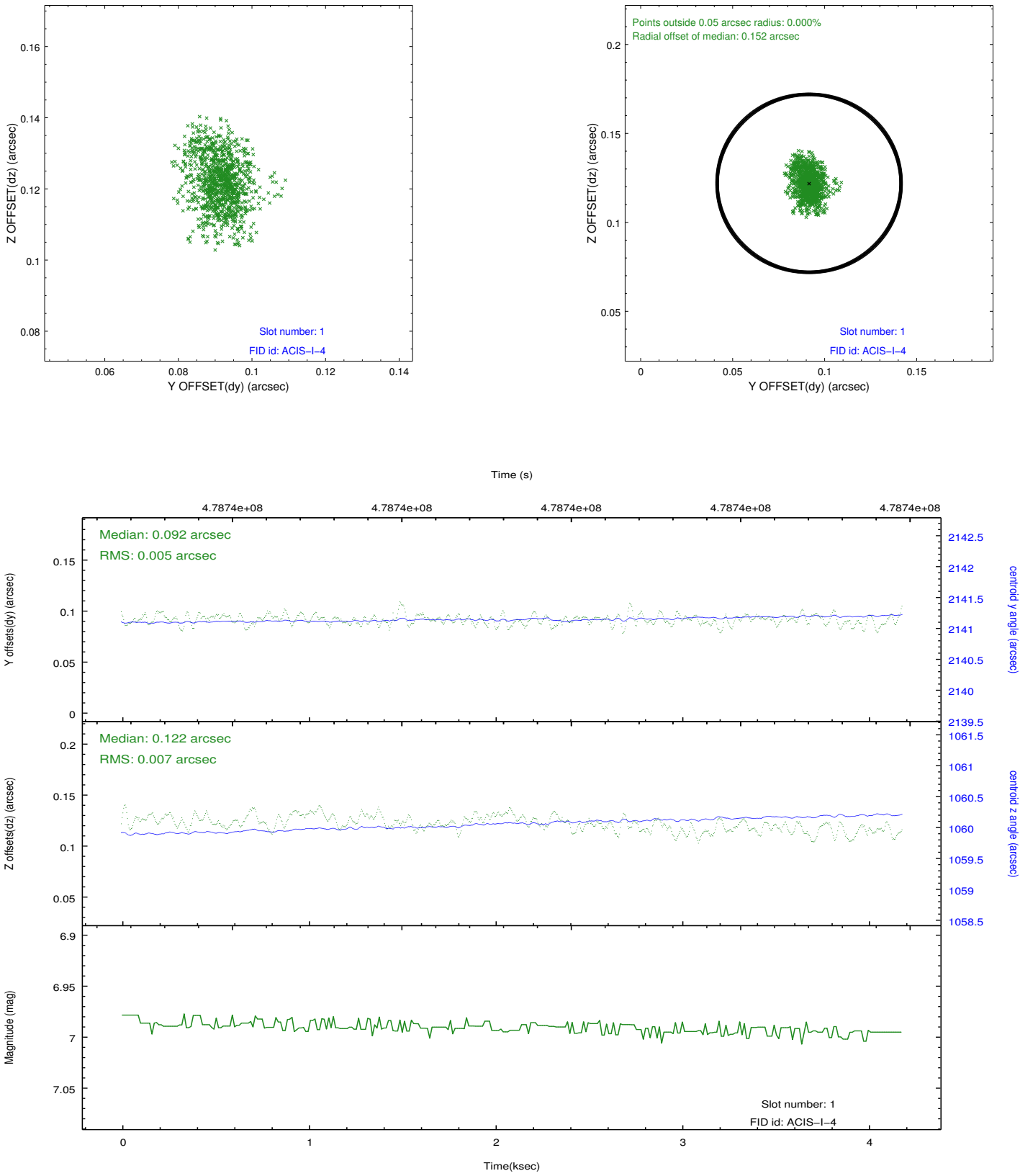


## 2.5 FID Slots

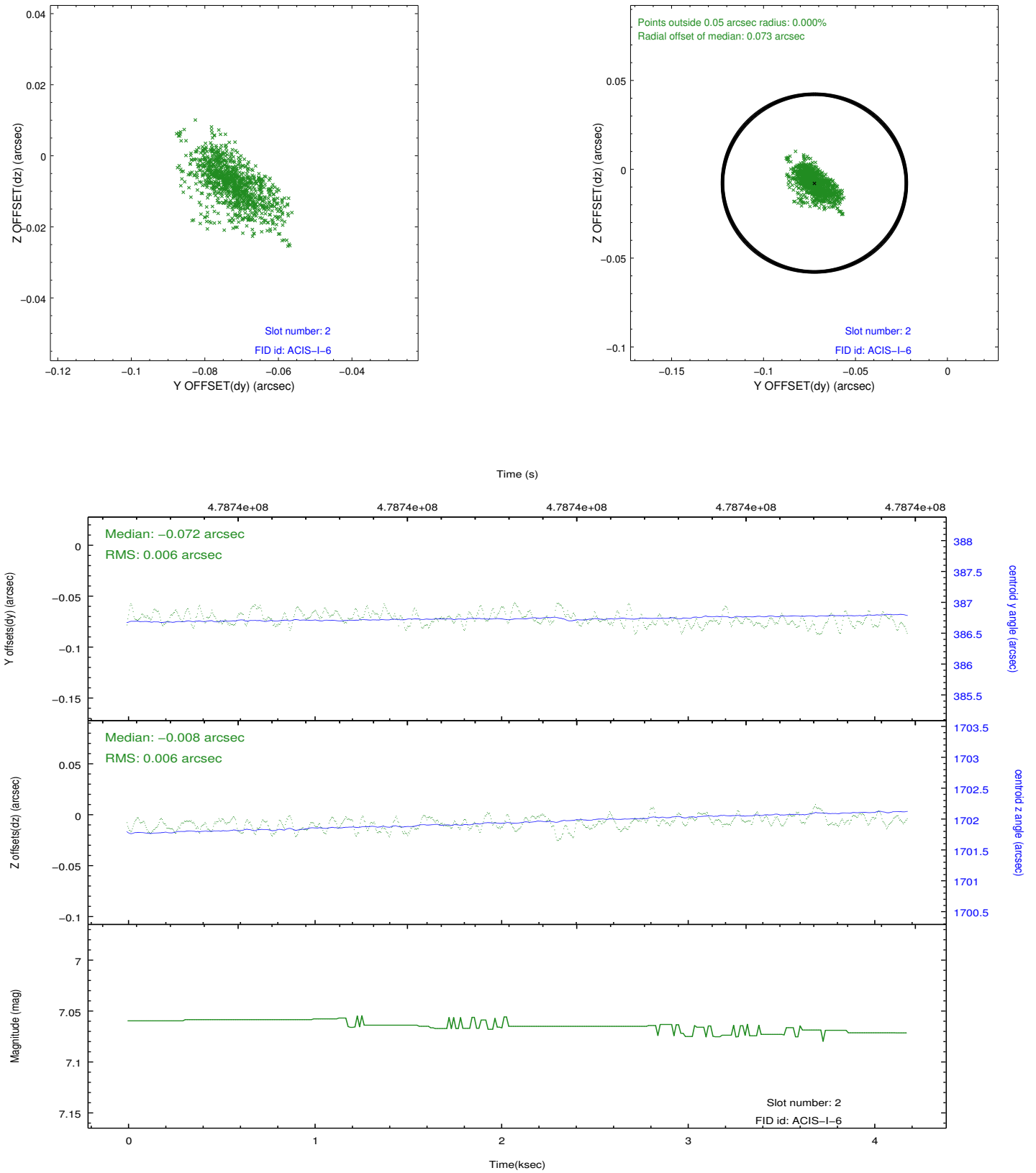
### 2.5.1 Slot 0



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)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.9711999852657

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.