

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15285 - L2 Version 2  
Chandra X-Ray Center

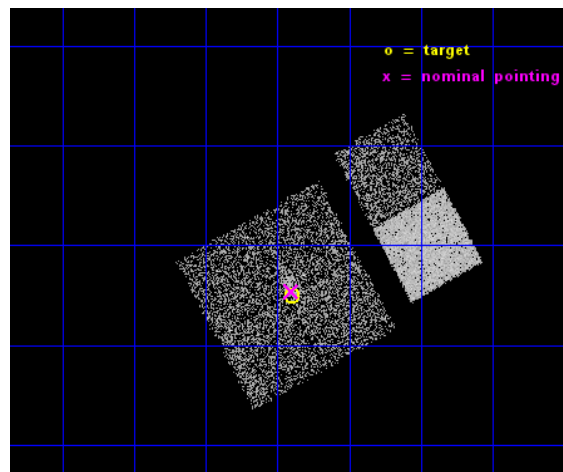
L2 Processing Date : Dec 1 2014

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# 1 Front

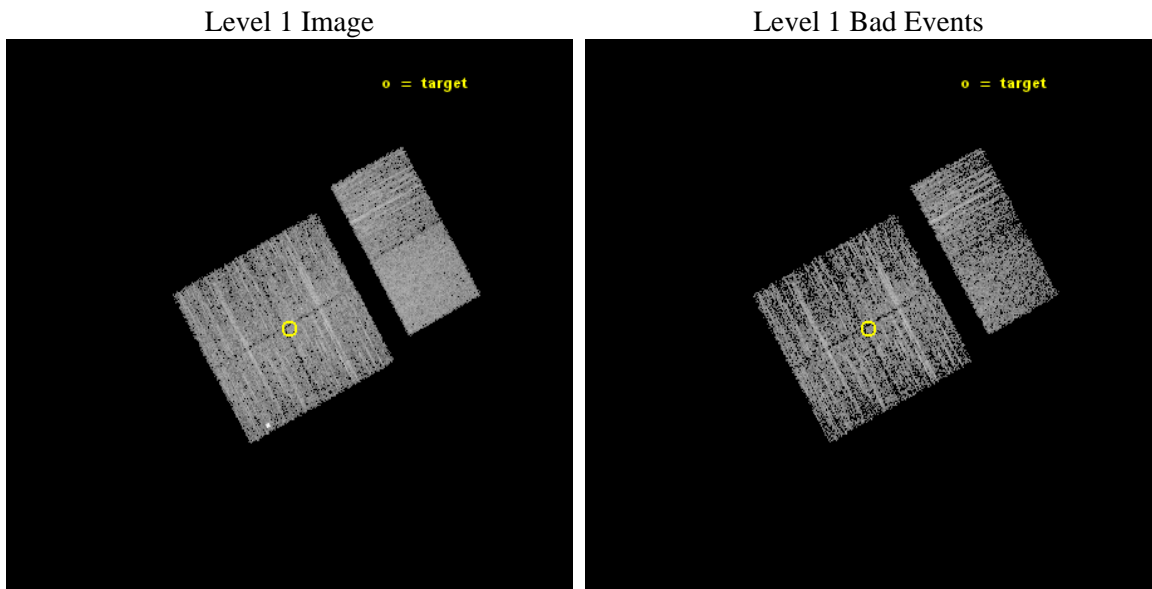
seq_num	801323	Sequence number
obs_id	15285	Observation id
title	Paving the way for eROSITA: with Chandra observations of the CODEX-BOSS clusters	Proposal title
observer	Dr. Peter Predehl	Principal investigator
object	CODEX 57507	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	174.224167	Observer's specified target RA [deg]
dec_targ	0.081917	Observer's specified target Dec [deg]
ra_nom	174.22576225258	Nominal RA [deg]
dec_nom	0.089962909590928	Nominal Dec [deg]
roll_nom	61.208718892278	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3967.9999852777	Sum of GTIs [s]
livetime	3917.7547802213	Livetime [s]
ontime0	3967.9999852777	Sum of GTIs [s]
ontime1	3967.9999852777	Sum of GTIs [s]
ontime2	3967.9999852777	Sum of GTIs [s]
ontime3	3967.9999852777	Sum of GTIs [s]
ontime6	3967.9999852777	Sum of GTIs [s]
ontime7	3967.9999852777	Sum of GTIs [s]
l2events	23971	Number of level 2 events



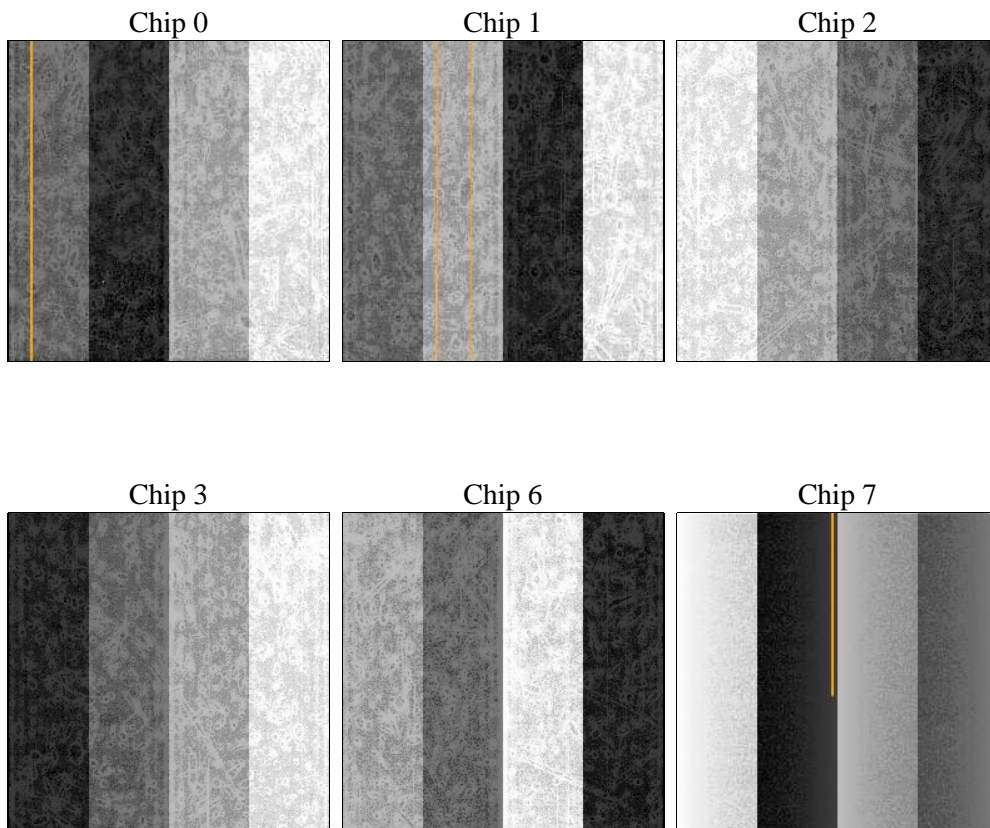
## 2 OBI

### 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	3967.9999852777	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	3967.9999852777	Sum of GTIs [s]
date	2014-12-01T11:24:18	Date and time of file creation	ontime1	3967.9999852777	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3967.9999852777	Sum of GTIs [s]
			ontime3	3967.9999852777	Sum of GTIs [s]
			ontime6	3967.9999852777	Sum of GTIs [s]
			ontime7	3967.9999852777	Sum of GTIs [s]
			l1events	139732	Number of level 1 events

### 2.1.4 Events

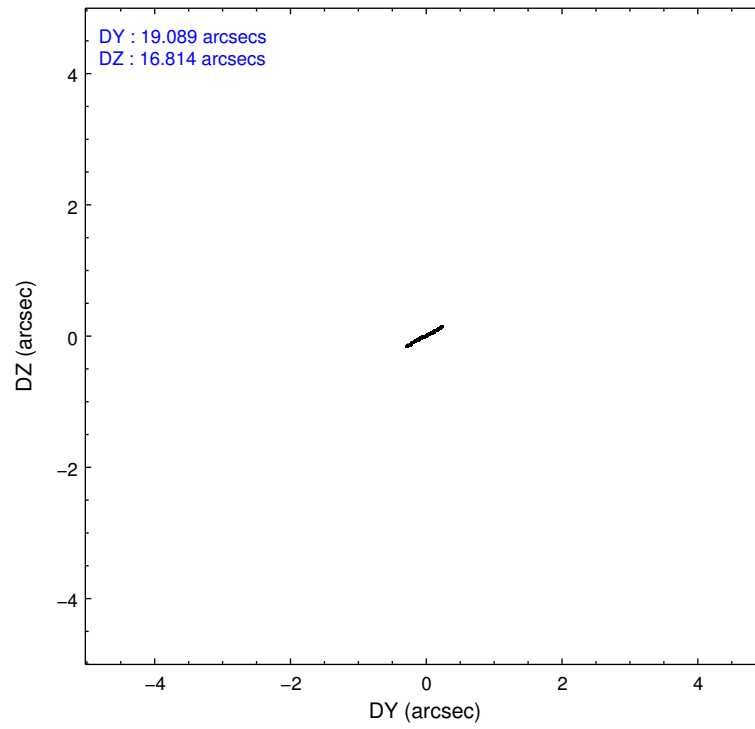
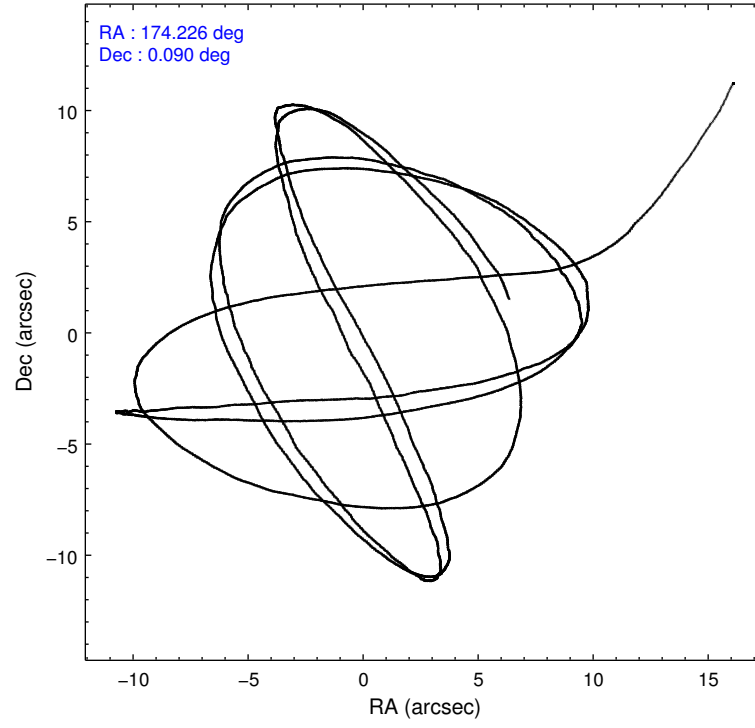
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	19926	23144	21711	22708	22442	29801	grade 0 events	870	1458	1066	1021	921	1178
rejected events	17358	18757	18971	20056	19814	16956		4%	6%	4%	4%	4%	3%
rejected %	87%	81%	87%	88%	88%	56%	grade 1 events	6	18	18	18	11	28
								0%	0%	0%	0%	0%	0%
							grade 2 events	626	1763	673	558	617	2568
								3%	7%	3%	2%	2%	8%
							grade 3 events	276	307	235	288	261	1147
								1%	1%	1%	1%	1%	3%
							grade 4 events	262	276	282	306	259	1113
								1%	1%	1%	1%	1%	3%
							grade 5 events	1001	1041	967	1078	1166	3114
								5%	4%	4%	4%	5%	10%
							grade 6 events	538	591	487	484	572	6850
								2%	2%	2%	2%	2%	22%
							grade 7 events	16347	17690	17983	18955	18635	13803
								82%	76%	82%	83%	83%	46%

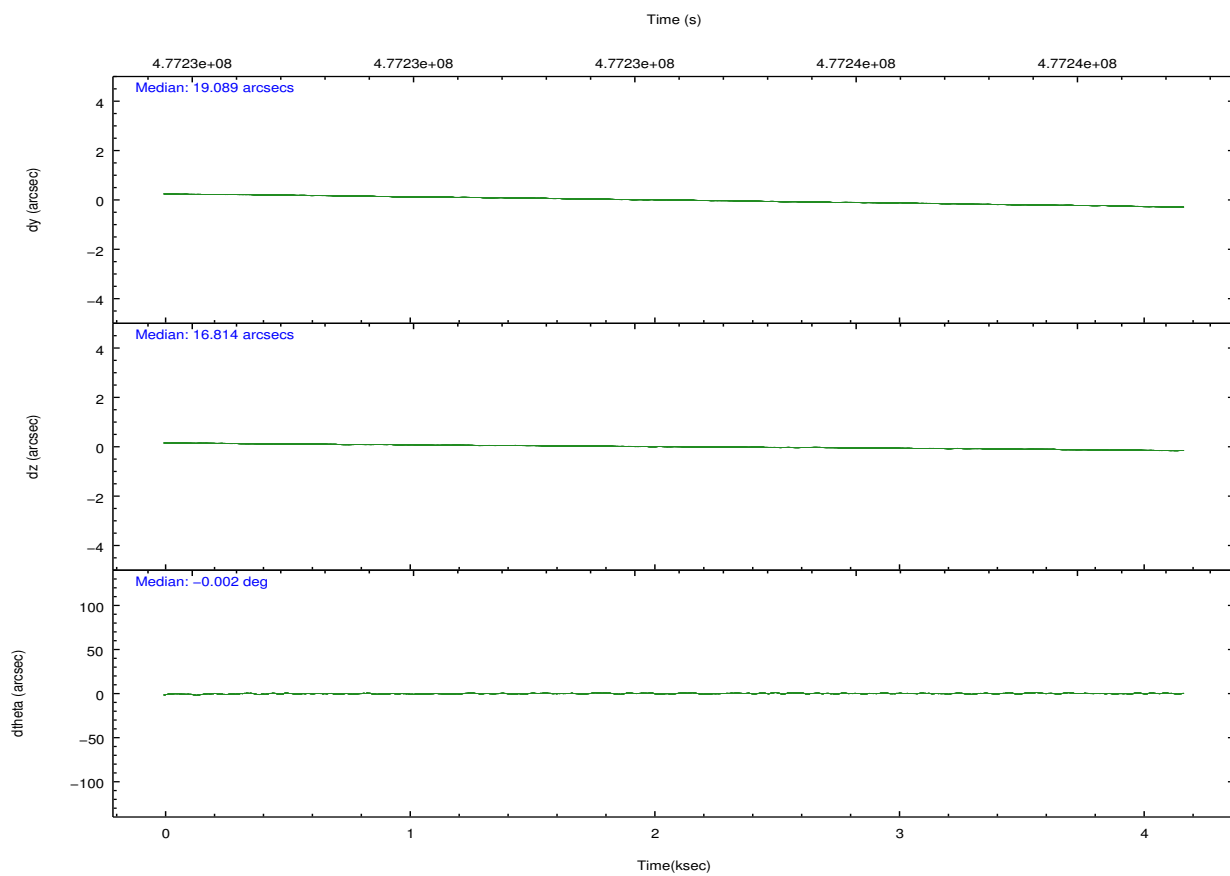
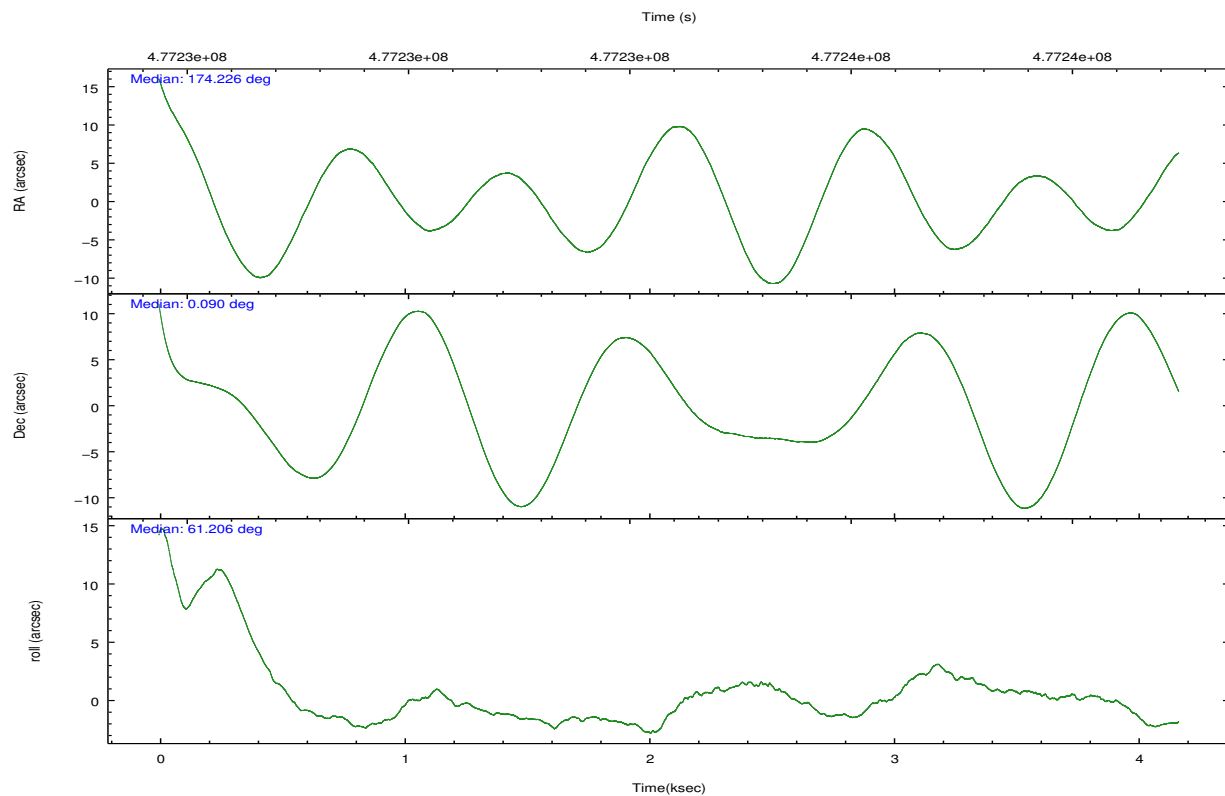


## 2.2 Compared Parameters

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	174.226466	174.2257622525803	CCD I2 on	Y	Y
[deg] Pointing Dec	0.062349	0.0899629095909284	CCD I3 on	Y	Y
[deg] Pointing Roll	60.999995	61.20871889227837	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)	477232257.184000	477231127.02377	CCD S5 on	N	N
Observation start date	2013-02-14T12:29:50	2013-02-14T12:12:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	477236257.184000	477237093.03659	On-chip summing requested	N	N
Observation end date	2013-02-14T13:36:30	2013-02-14T13:51:33	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



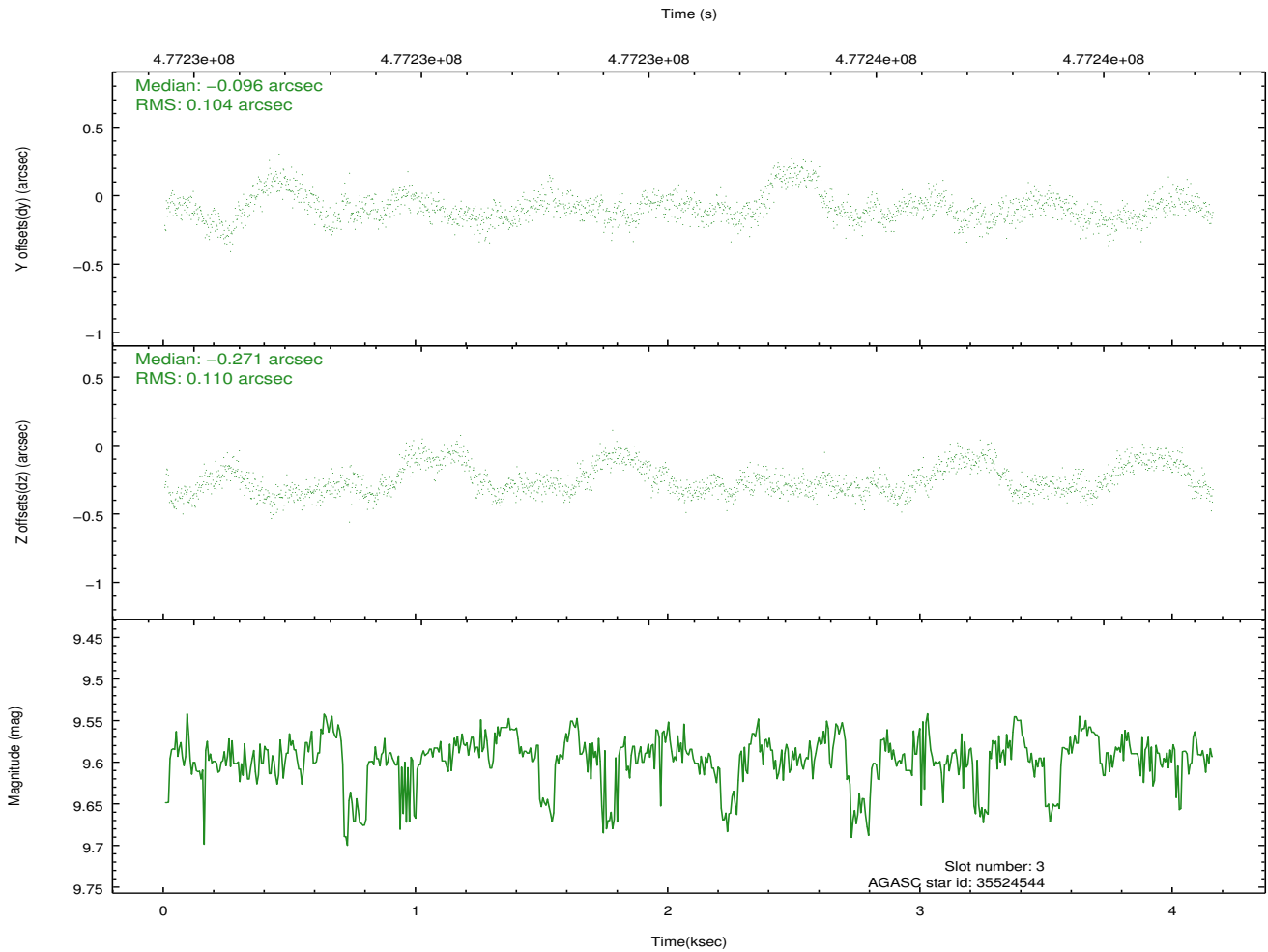
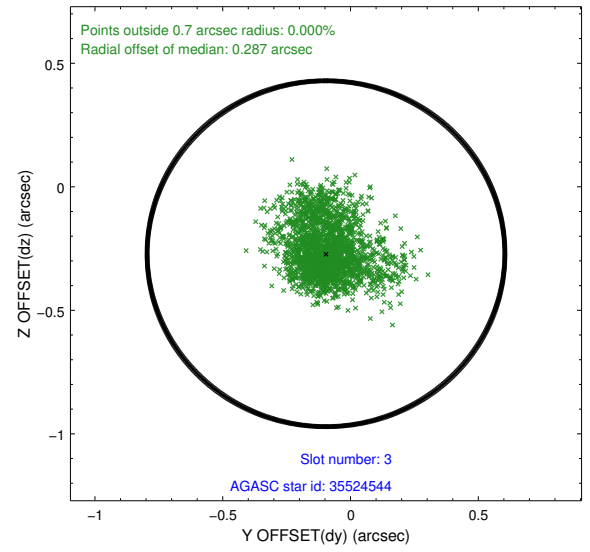
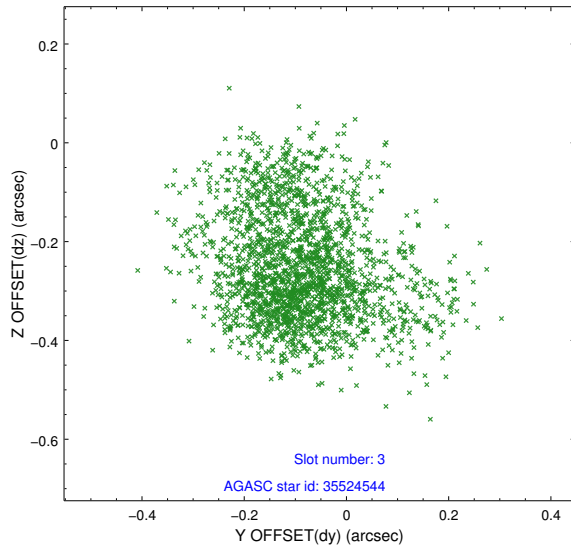


### Slot Statistics

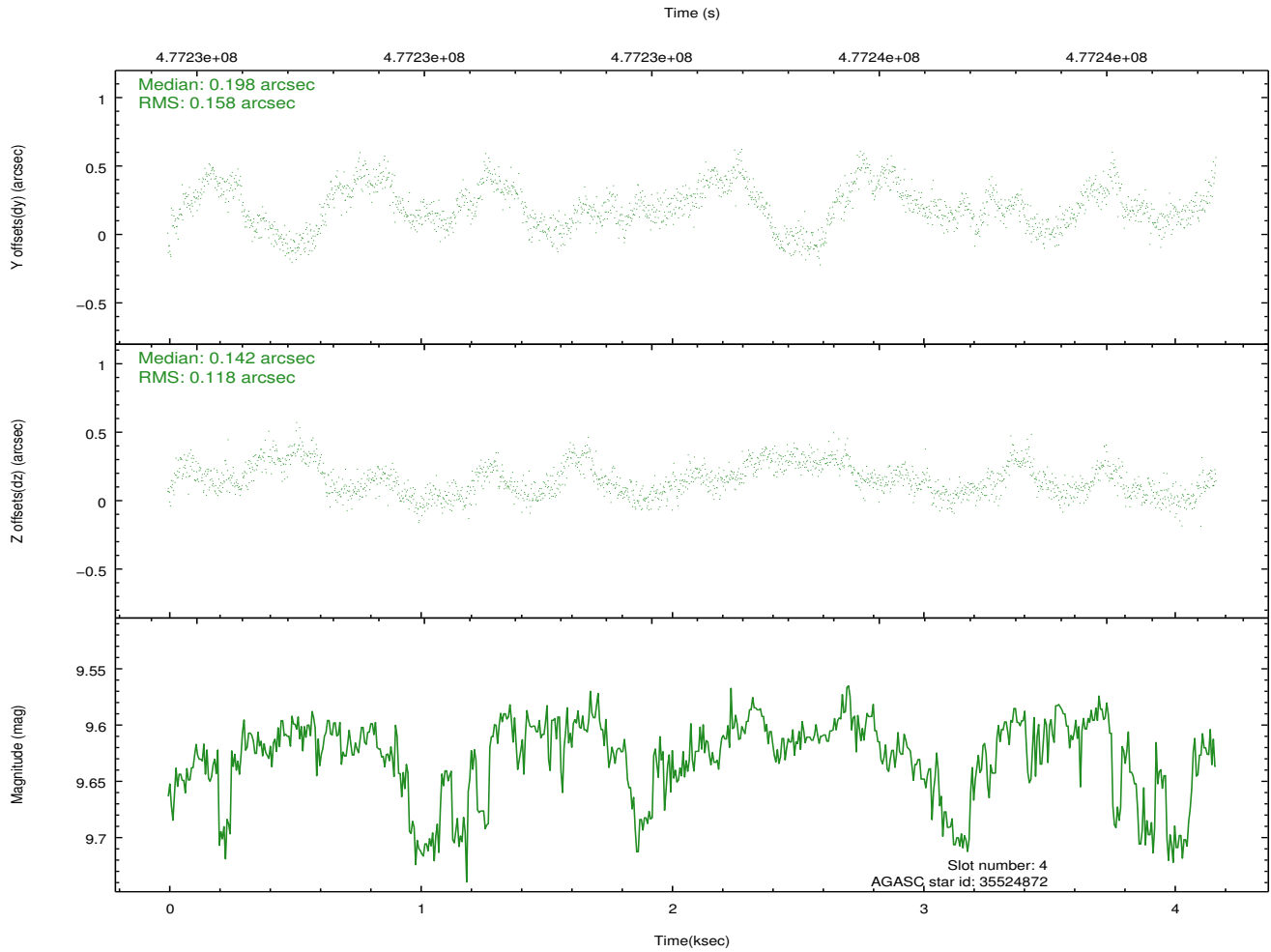
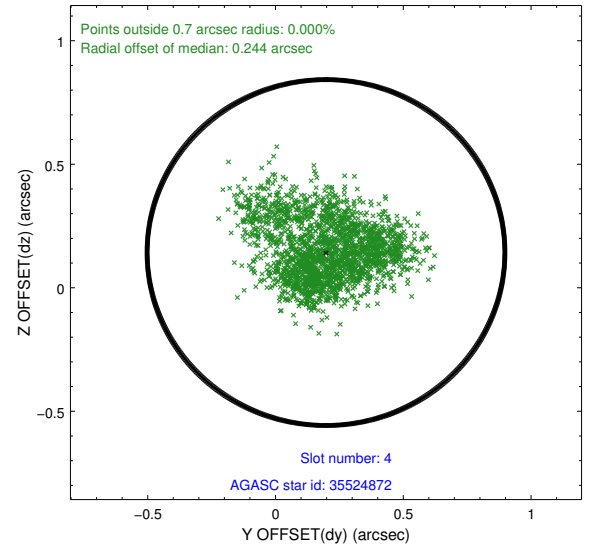
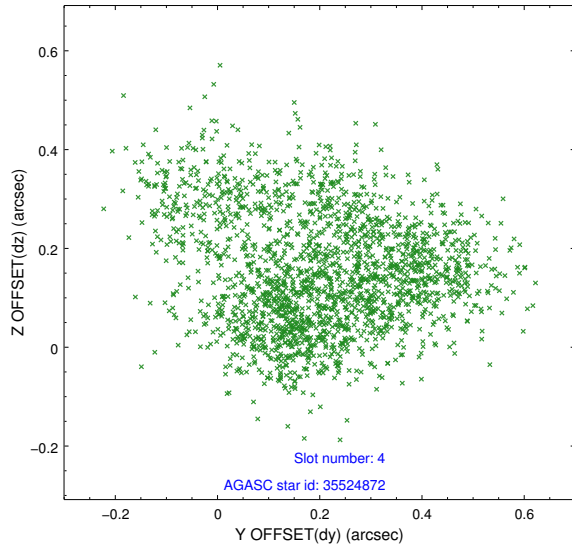
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.14	1017	0.079	-0.036	0.006	0.010	0.000000	0.000000	920.35	-840.50
1	FID		ACIS-I-5	7.14	1017	-0.282	0.063	0.006	0.010	0.000000	0.000000	-1827.30	1056.35
2	FID		ACIS-I-6	7.15	1017	0.111	0.043	0.008	0.012	0.000000	0.000000	384.30	1702.52
3	GUIDE	used	35524544	9.59	2020	-0.096	-0.271	0.160	0.269	174.199466	0.694615	1943.52	1188.53
4	GUIDE	used	35524872	9.62	2029	0.198	0.142	0.209	0.339	174.618593	0.517450	2118.38	-439.27
5	GUIDE	used	35525048	9.72	2020	-0.094	-0.188	0.169	0.264	173.991700	0.420225	716.96	1363.60
6	GUIDE	used	35525072	8.17	2034	-0.292	-0.069	0.101	0.152	174.085218	0.597078	1437.11	1378.57
7	GUIDE	used	646191304	7.55	2034	0.250	0.358	0.102	0.152	174.319835	-0.578030	-1852.46	-1410.81

## 2.4 Star Slots

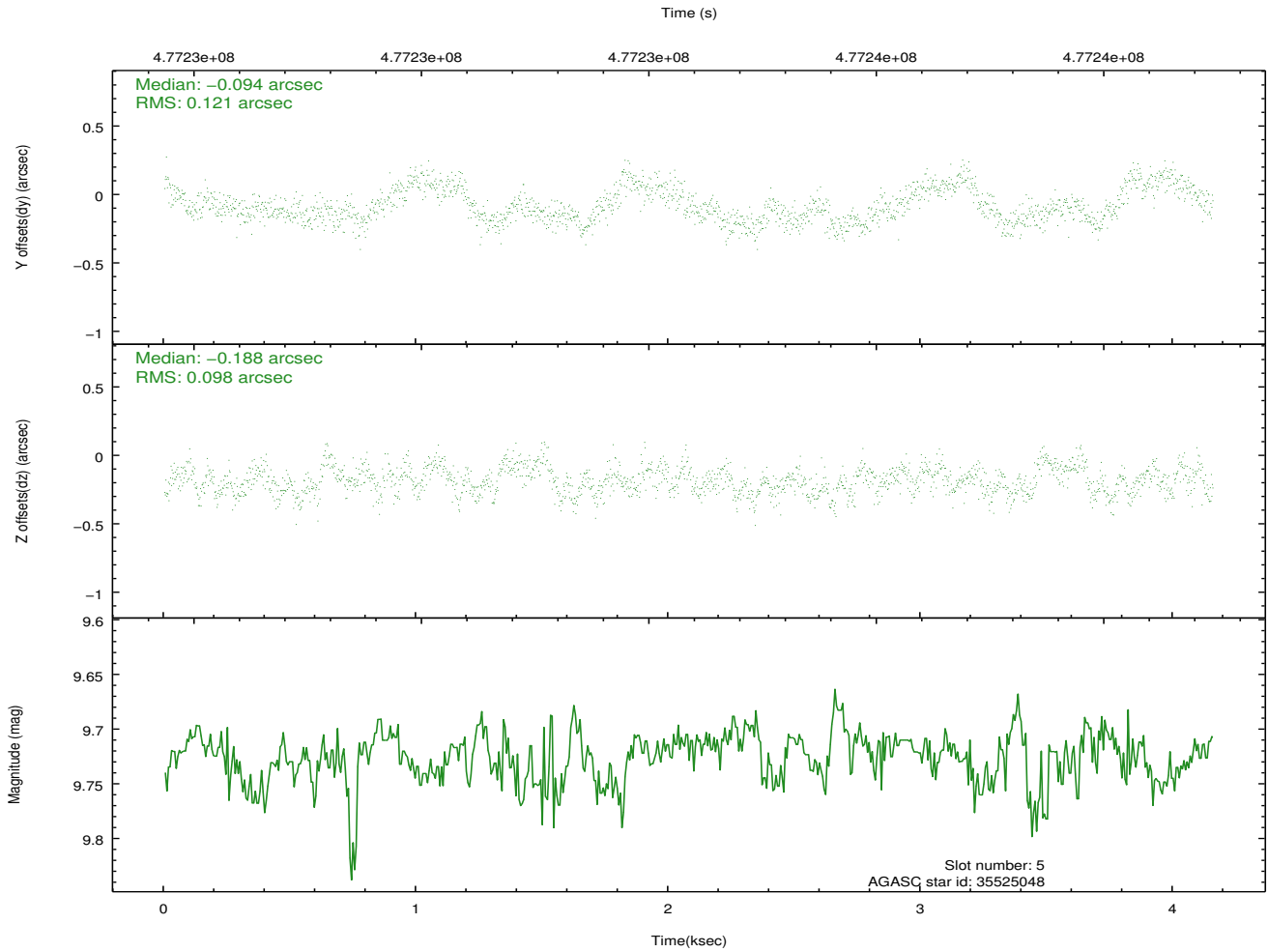
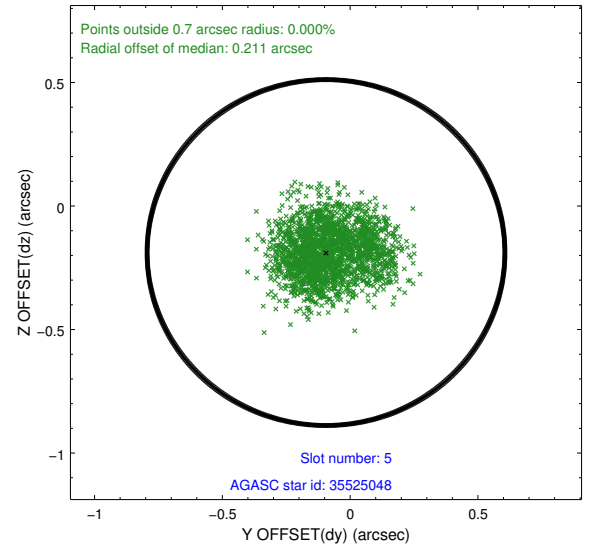
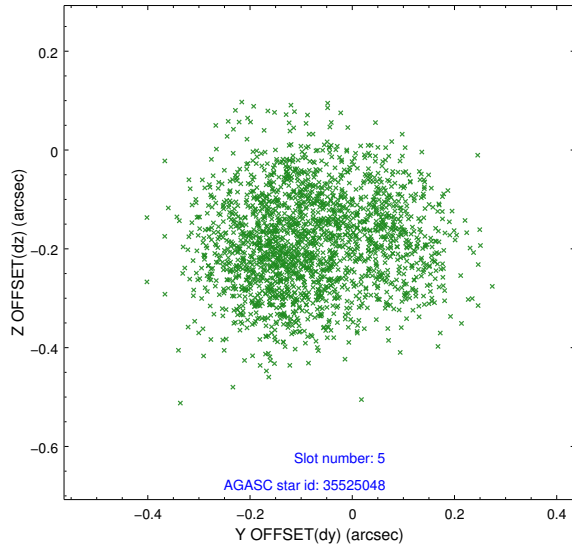
### 2.4.1 Slot 3



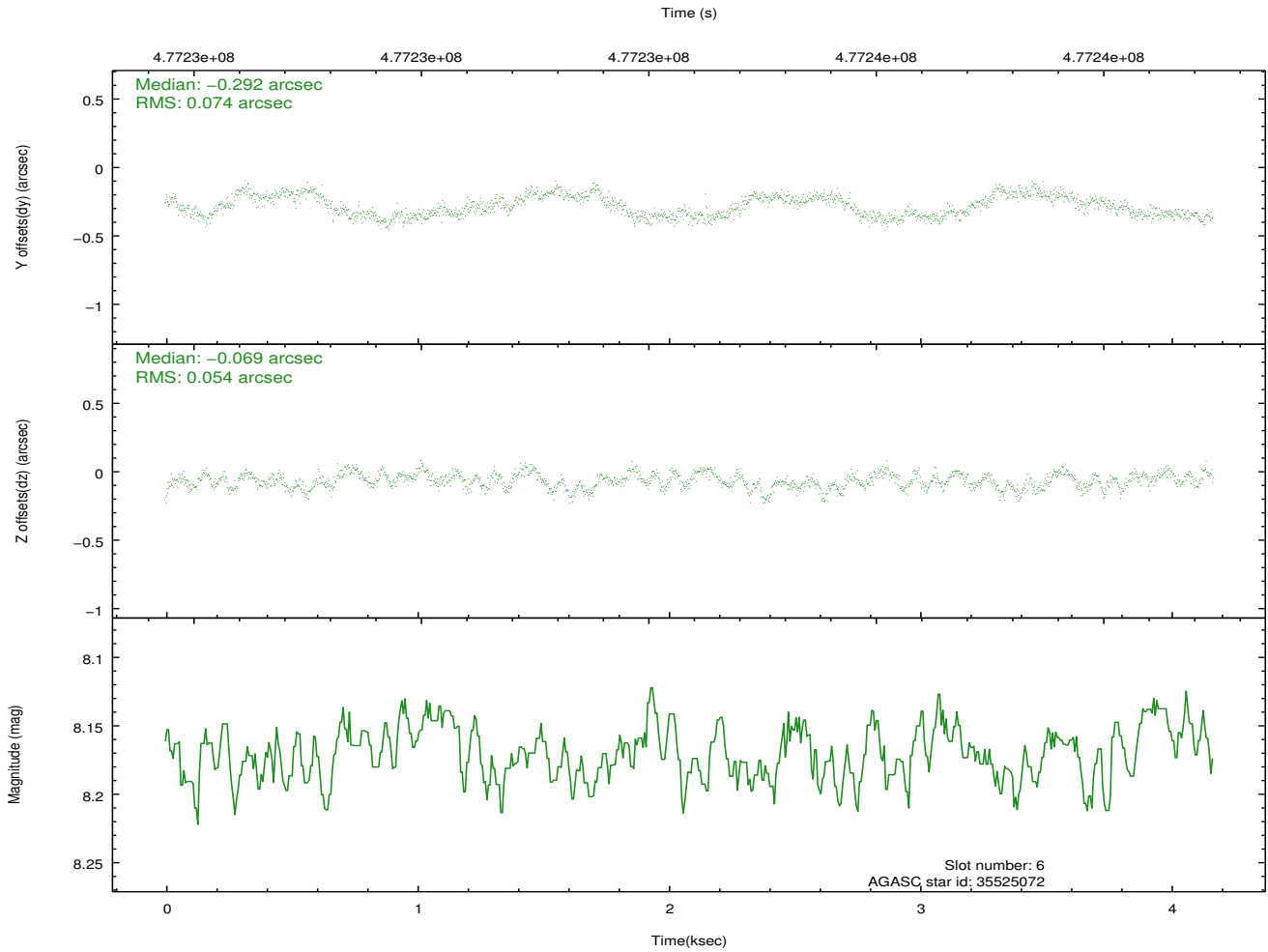
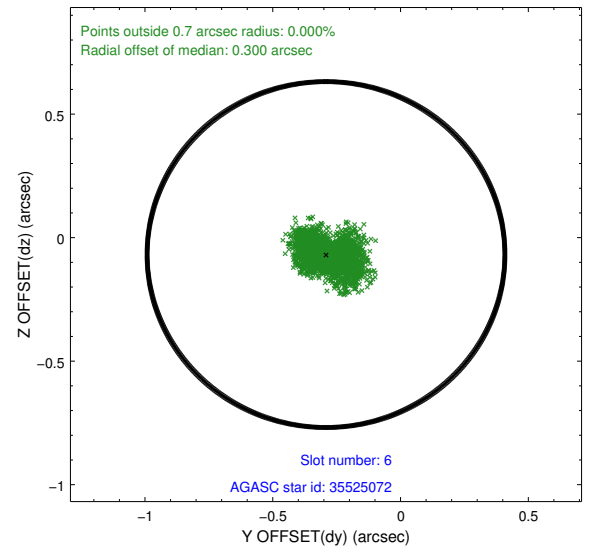
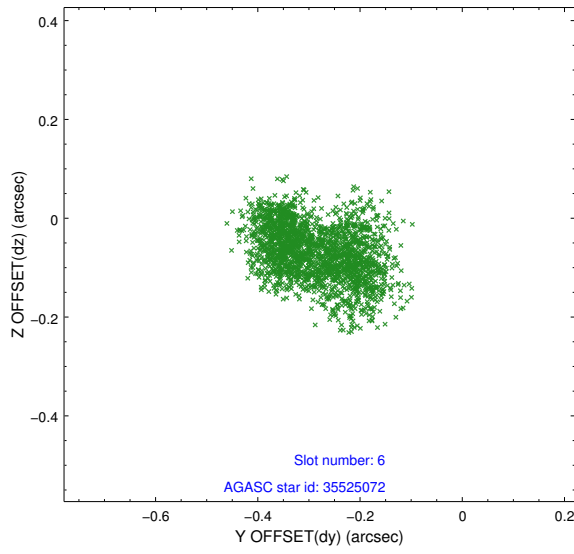
## 2.4.2 Slot 4



### 2.4.3 Slot 5

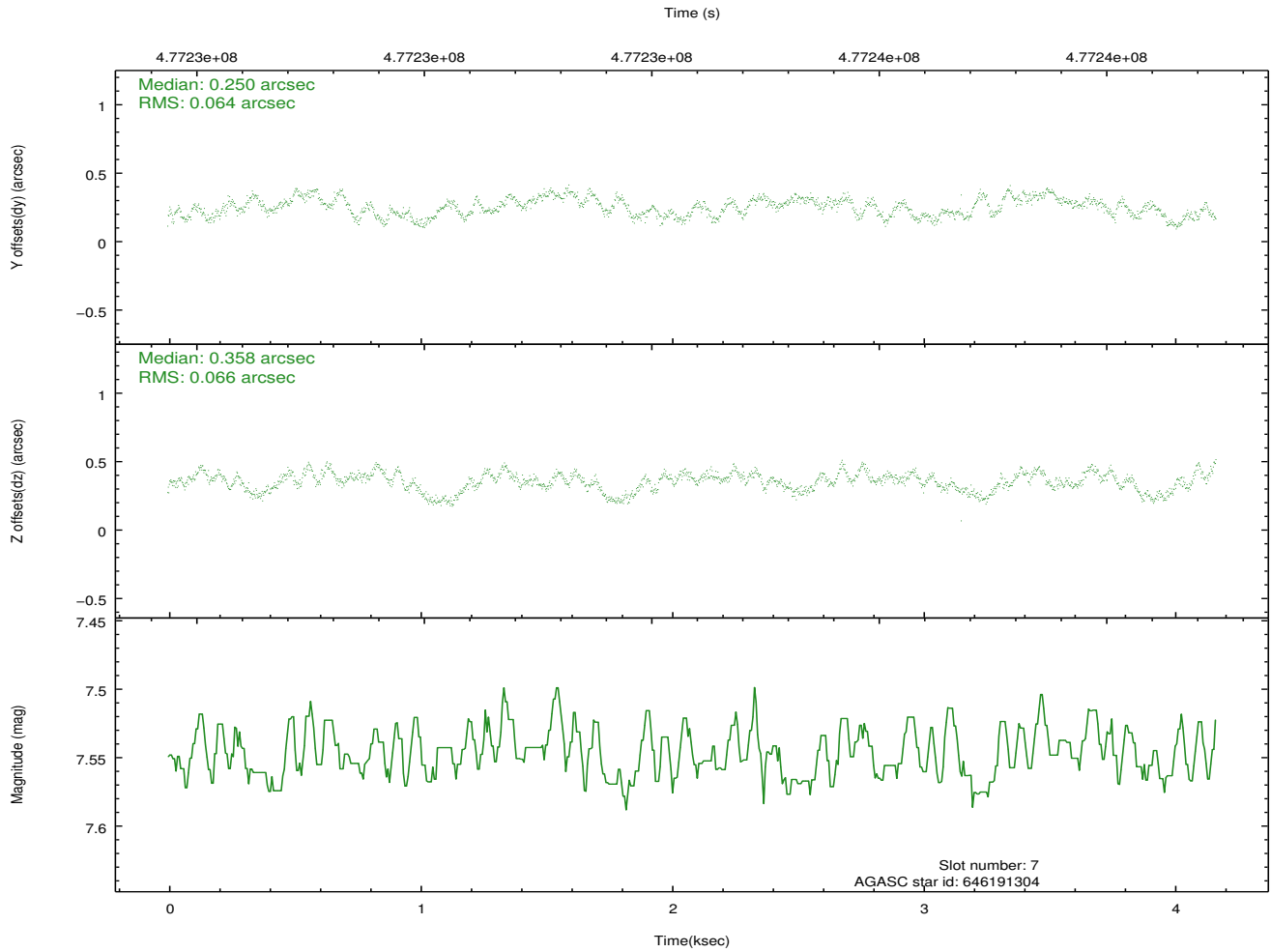
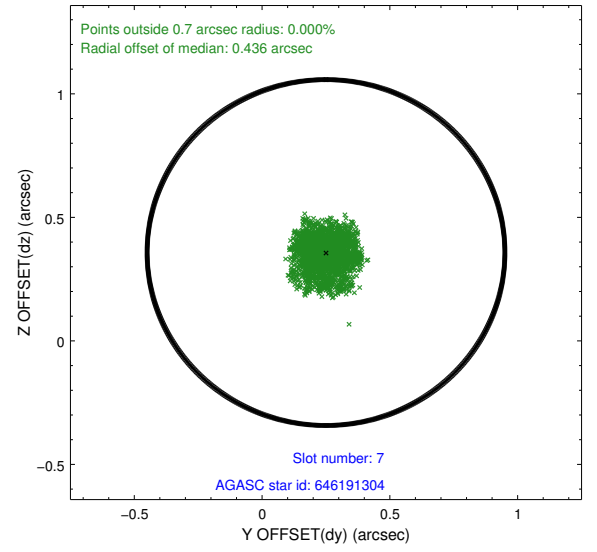
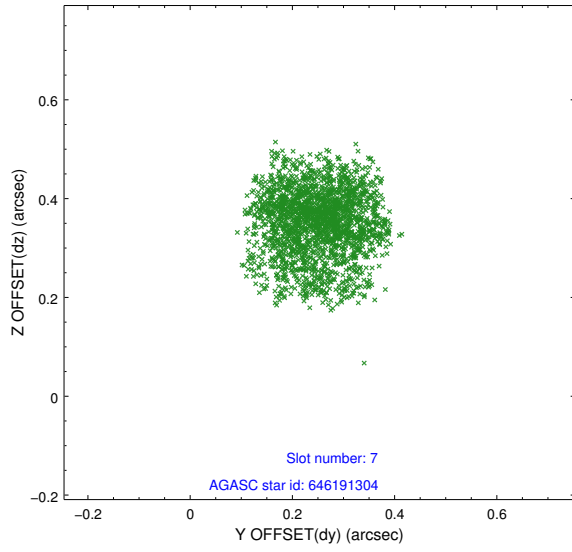


## 2.4.4 Slot 6



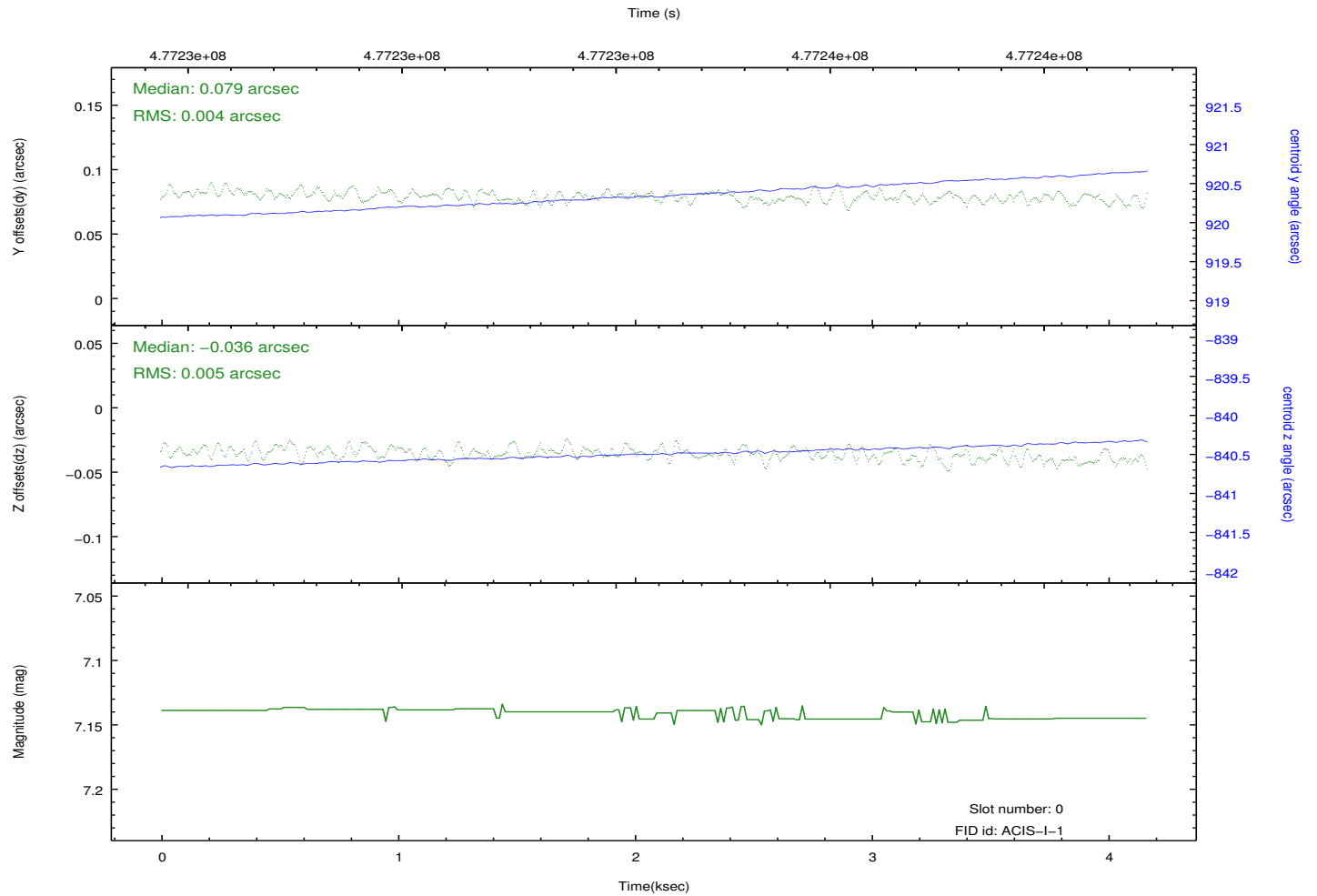
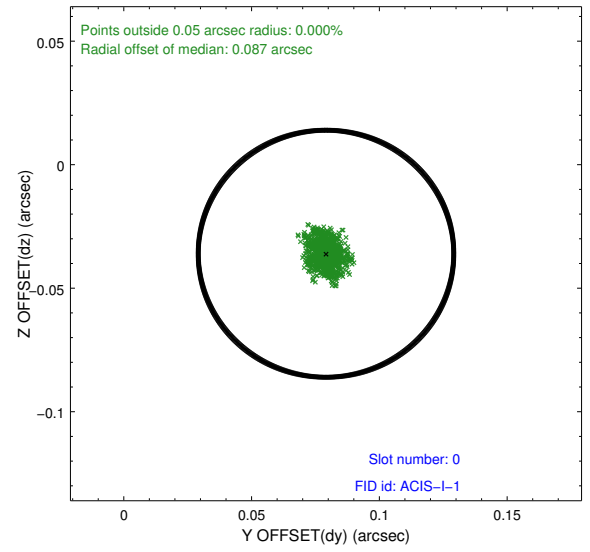
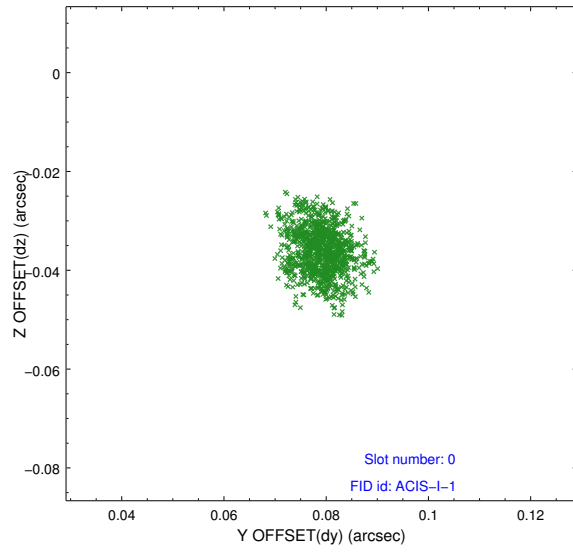


## 2.4.5 Slot 7

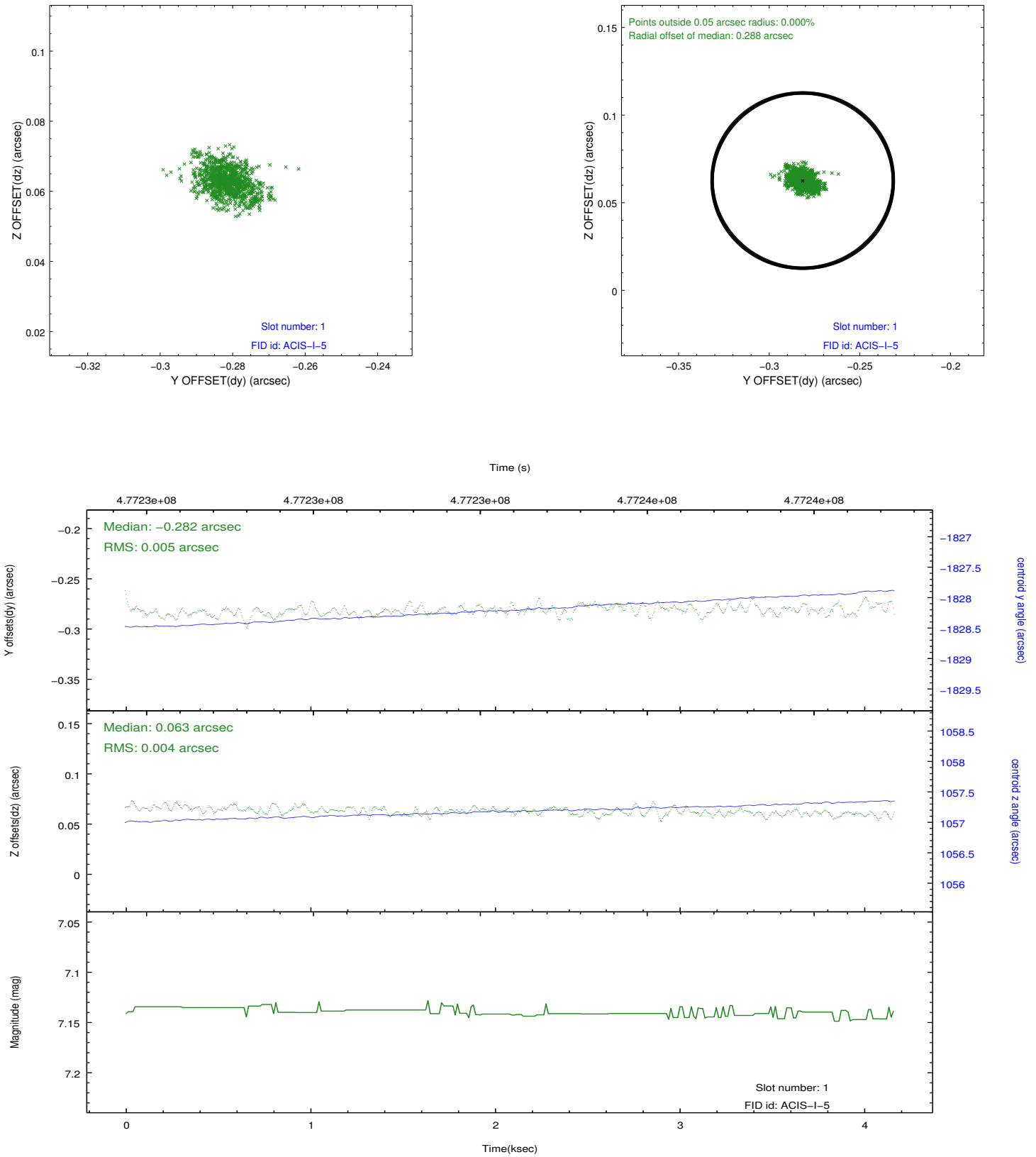


## 2.5 FID Slots

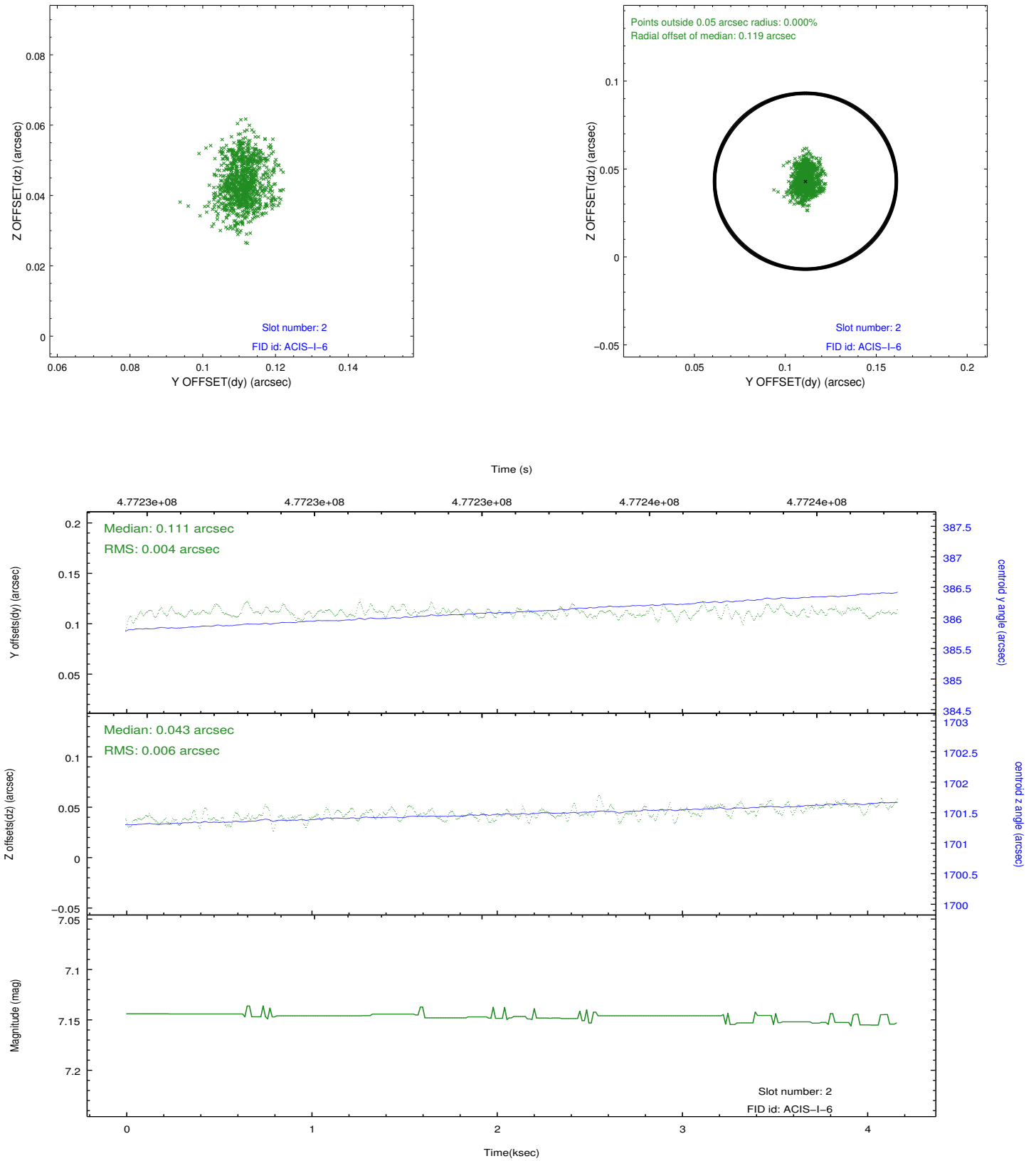
### 2.5.1 Slot 0



## 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	3.9679999852777

## 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.