

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15283 - L2 Version 2  
Chandra X-Ray Center

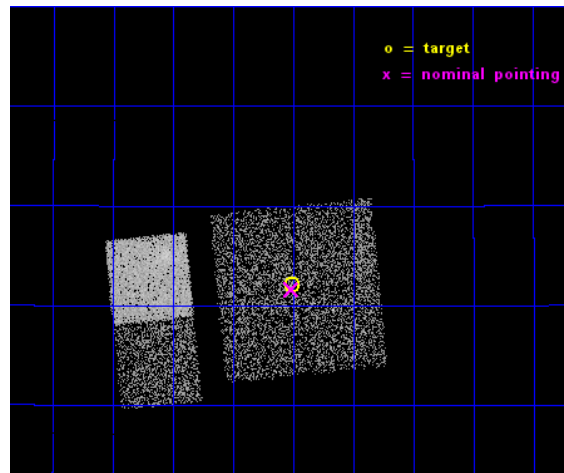
L2 Processing Date : Dec 2 2014

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# 1 Front

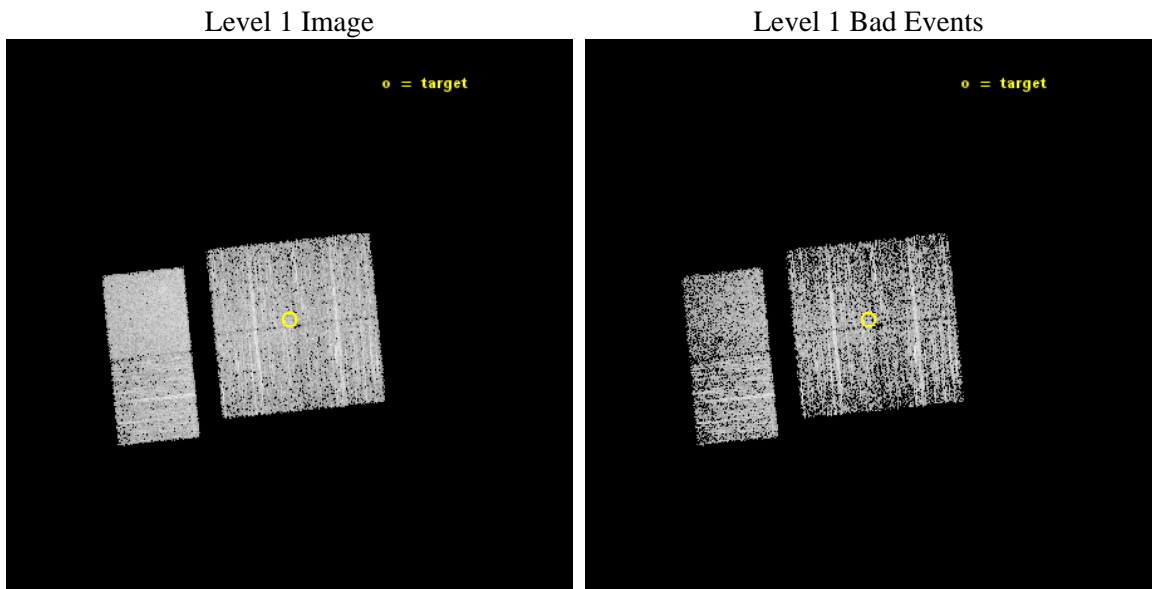
seq_num	801321	Sequence number
obs_id	15283	Observation id
title	Paving the way for eROSITA: with Chandra observations of the CODEX-BOSS clusters	Proposal title
observer	Dr. Peter Predehl	Principal investigator
object	CODEX 29284	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	120.876667	Observer's specified target RA [deg]
dec_targ	33.035139	Observer's specified target Dec [deg]
ra_nom	120.87851003063	Nominal RA [deg]
dec_nom	33.02720747075	Nominal Dec [deg]
roll_nom	264.15715901353	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3971.1974214315	Sum of GTIs [s]
livetime	3920.9117285134	Livetime [s]
ontime0	3971.0743014216	Sum of GTIs [s]
ontime1	3971.1153414249	Sum of GTIs [s]
ontime2	3971.1563814282	Sum of GTIs [s]
ontime3	3971.1974214315	Sum of GTIs [s]
ontime6	3971.1999852657	Sum of GTIs [s]
ontime7	3971.1999852657	Sum of GTIs [s]
l2events	22644	Number of level 2 events



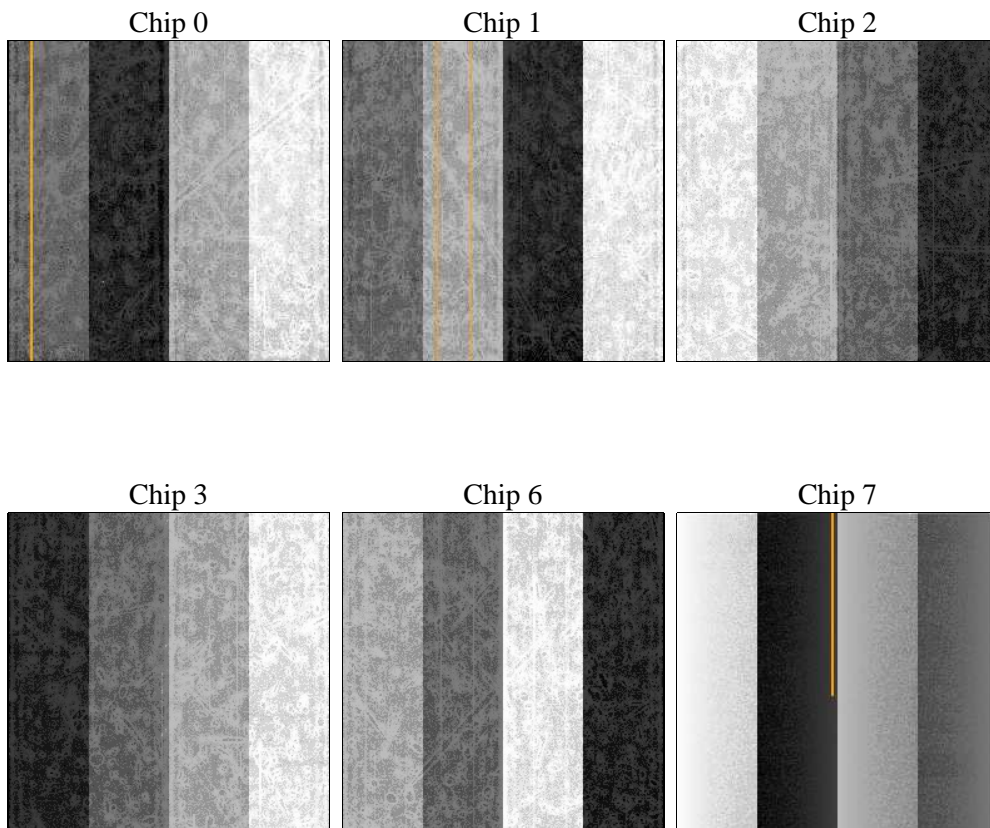
## 2 OBI

### 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	3971.1974214315	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	3971.0743014216	Sum of GTIs [s]
date	2014-12-03T03:52:58	Date and time of file creation	ontime1	3971.1153414249	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3971.1563814282	Sum of GTIs [s]
			ontime3	3971.1974214315	Sum of GTIs [s]
			ontime6	3971.1999852657	Sum of GTIs [s]
			ontime7	3971.1999852657	Sum of GTIs [s]
			l1events	127971	Number of level 1 events

### 2.1.4 Events

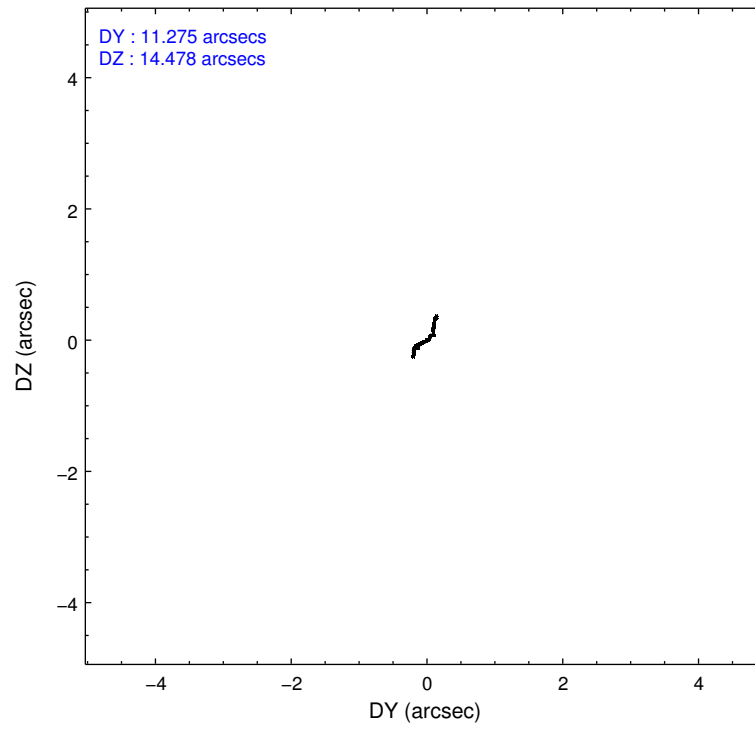
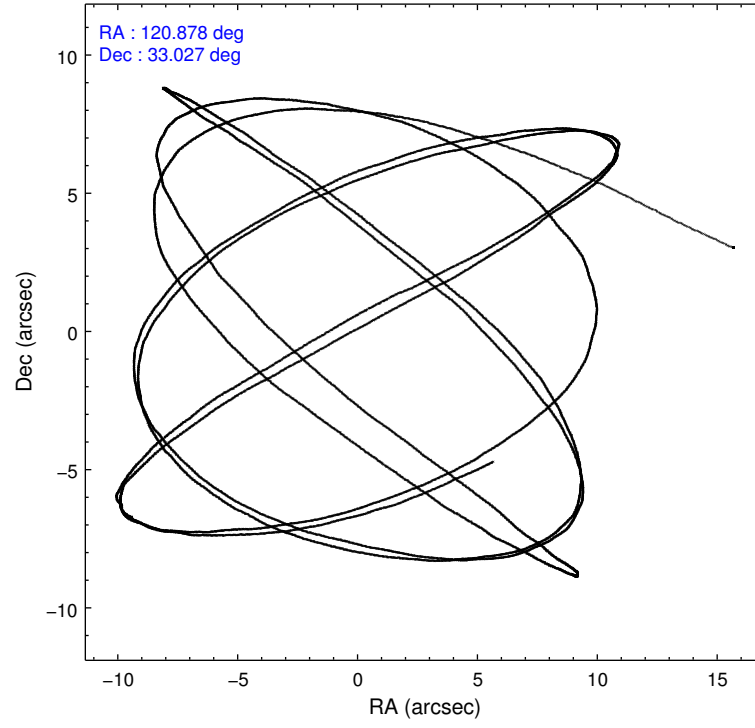
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	20378	18506	20932	19092	21433	27630	grade 0 events	926	946	924	768	866	1161
rejected events	17830	15849	18487	16906	18877	15148		4%	5%	4%	4%	4%	4%
rejected %	87%	85%	88%	88%	88%	54%	grade 1 events	9	5	13	18	11	43
								0%	0%	0%	0%	0%	0%
							grade 2 events	653	615	591	508	594	2602
								3%	3%	2%	2%	2%	9%
							grade 3 events	240	255	242	247	277	1100
								1%	1%	1%	1%	1%	3%
							grade 4 events	228	329	227	222	247	1064
								1%	1%	1%	1%	1%	3%
							grade 5 events	935	958	847	1120	1092	2852
								4%	5%	4%	5%	5%	10%
							grade 6 events	506	516	467	442	574	6586
								2%	2%	2%	2%	2%	23%
							grade 7 events	16881	14882	17621	15767	17772	12222
								82%	80%	84%	82%	82%	44%

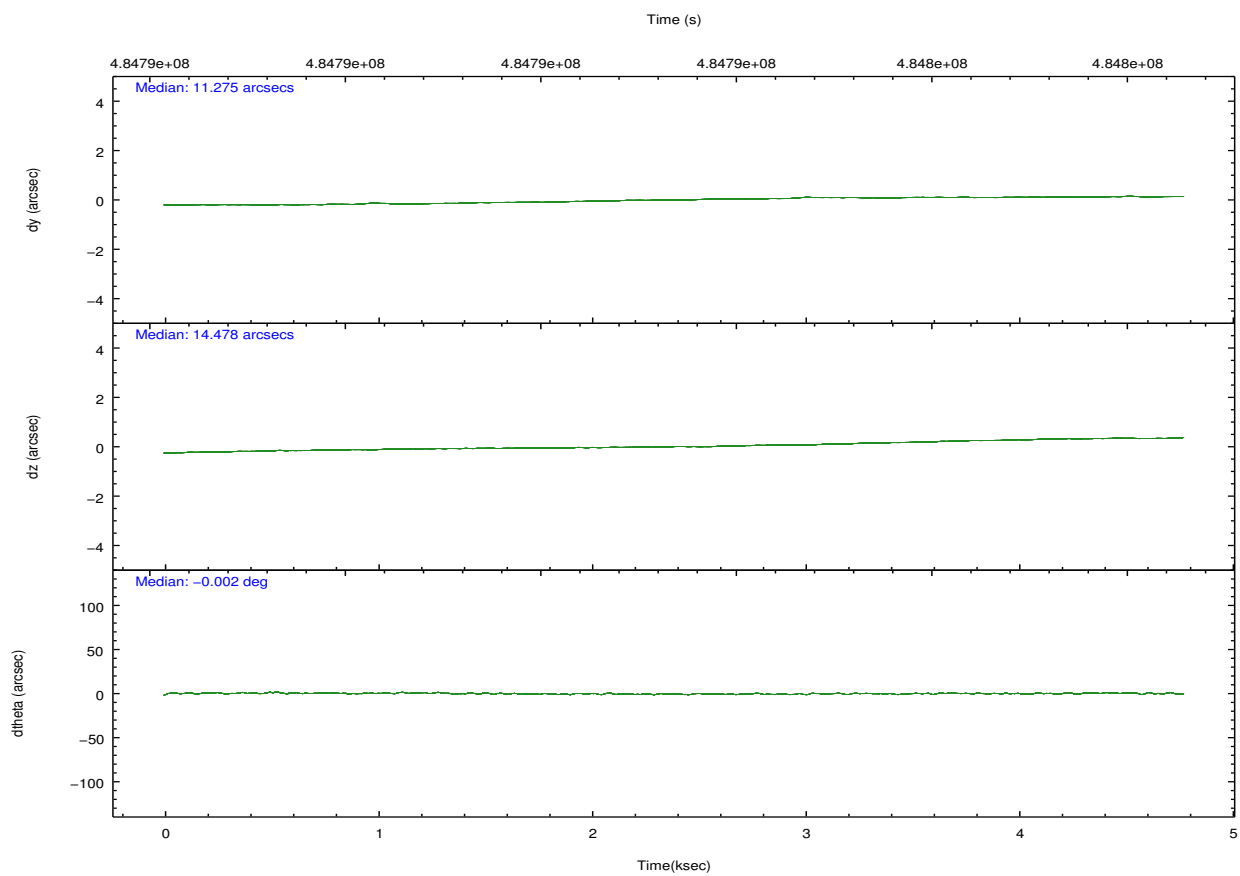
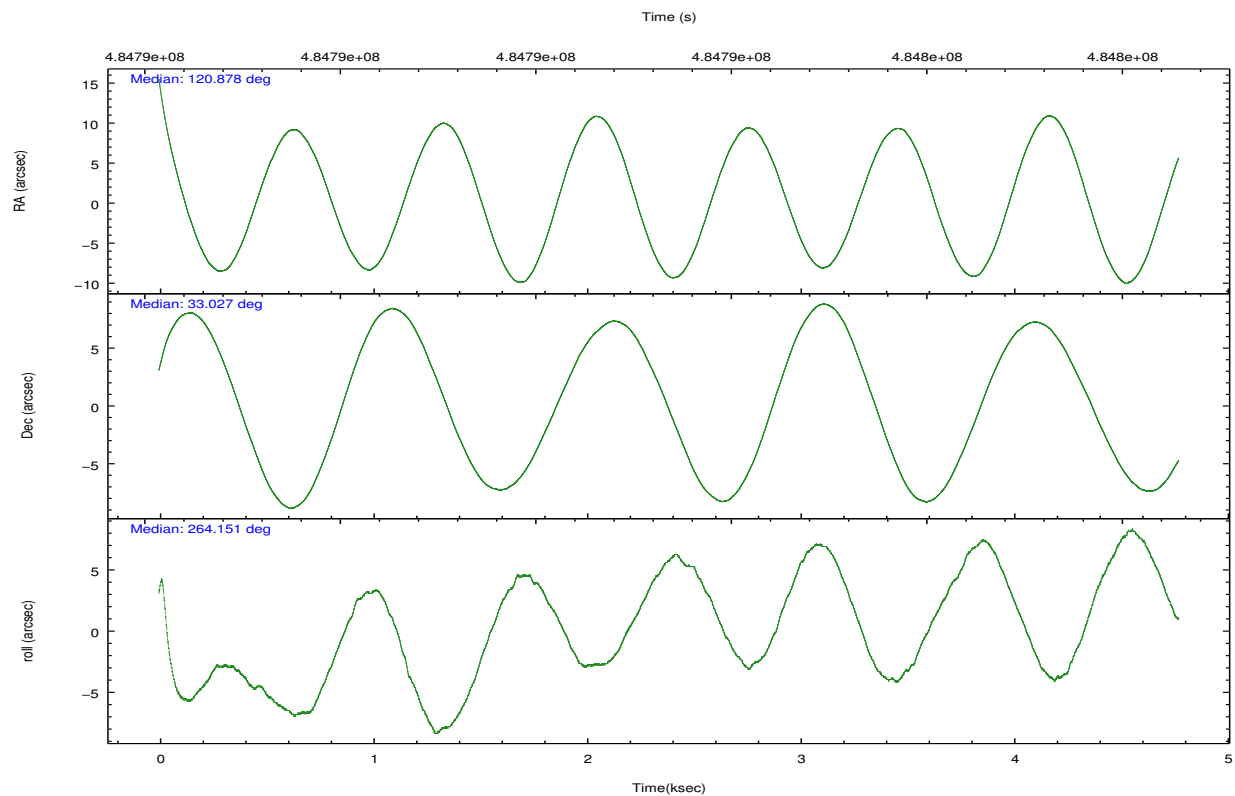


## 2.2 Compared Parameters

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	120.865037	120.8785100306334	CCD I2 on	Y	Y
[deg] Pointing Dec	33.052257	33.02720747074999	CCD I3 on	Y	Y
[deg] Pointing Roll	263.955798	264.1571590135316	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)	484792064.184000	484790805.83289	CCD S5 on	N	N
Observation start date	2013-05-13T00:26:37	2013-05-13T00:06:45	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	484796064.184000	484796779.53321	On-chip summing requested	N	N
Observation end date	2013-05-13T01:33:17	2013-05-13T01:46:19	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



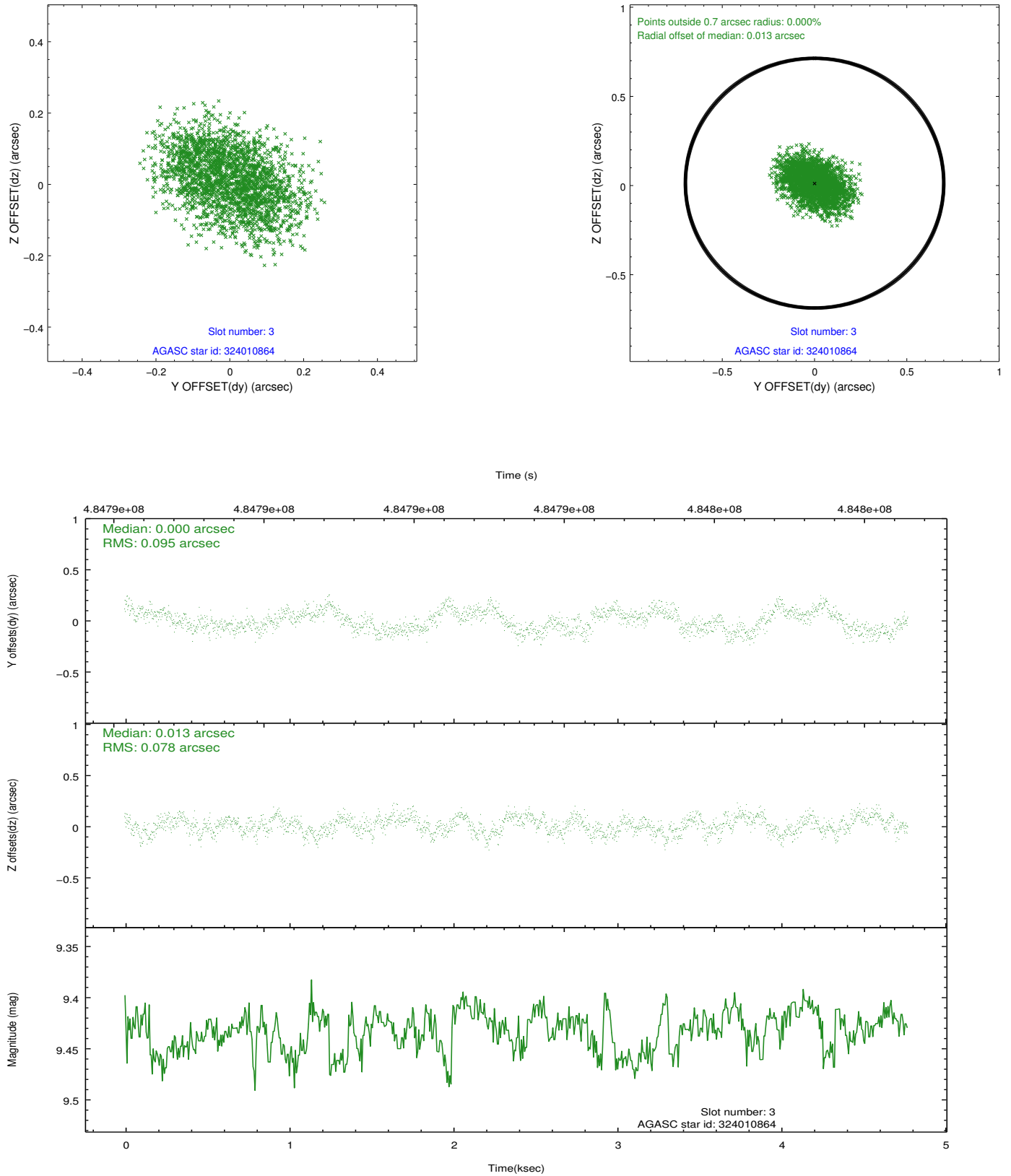


### Slot Statistics

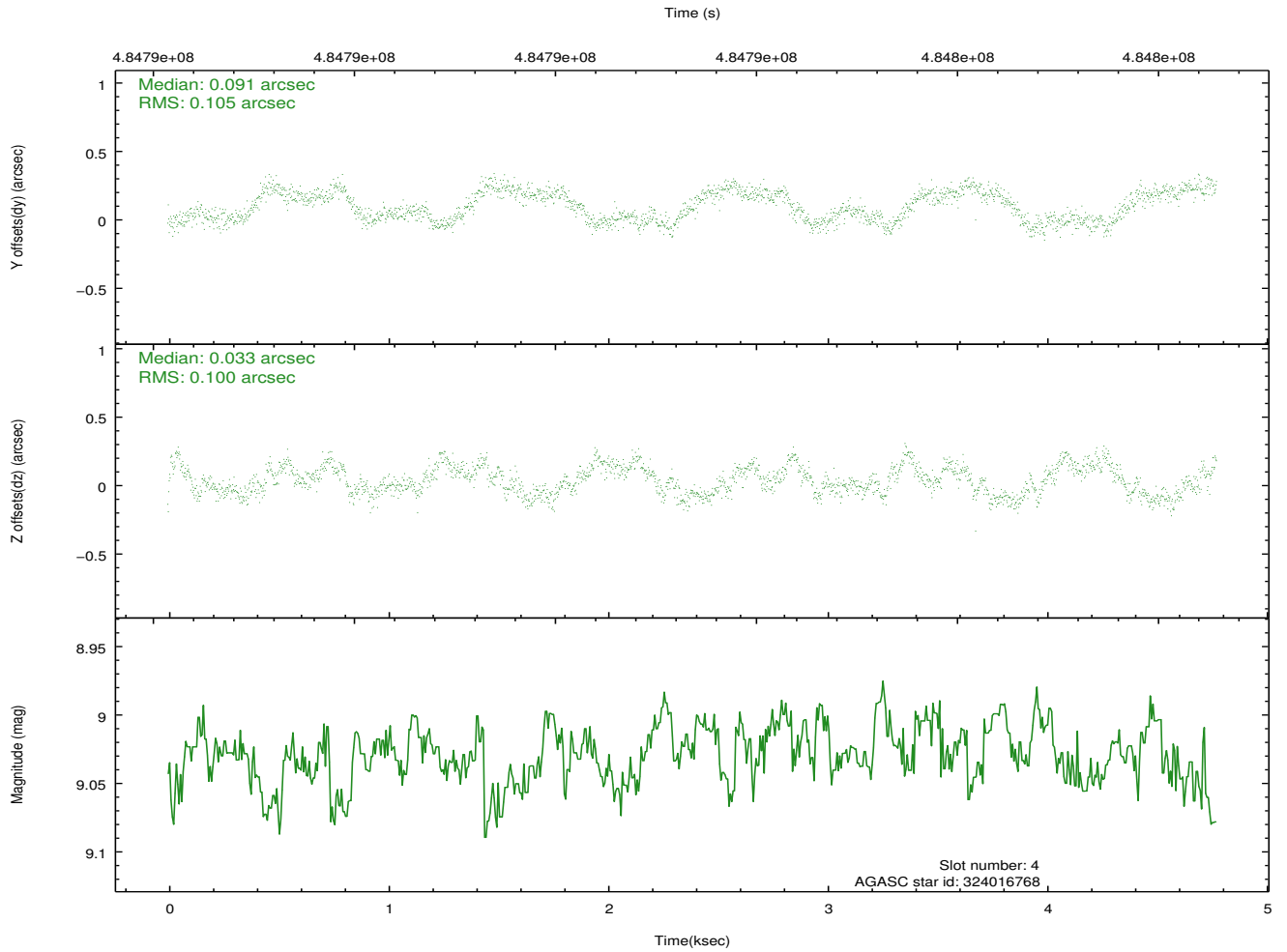
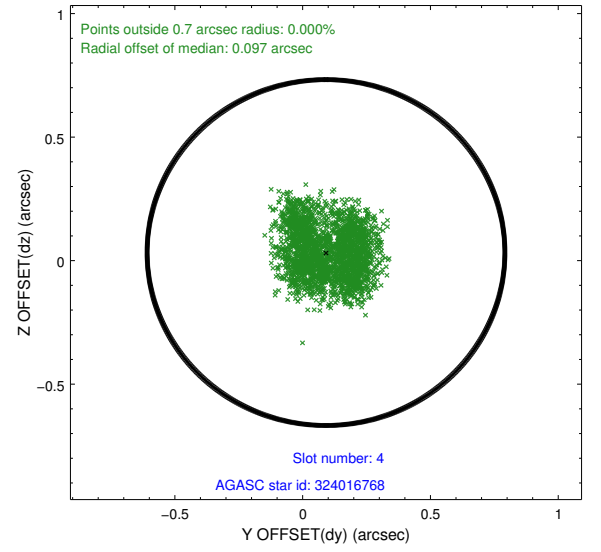
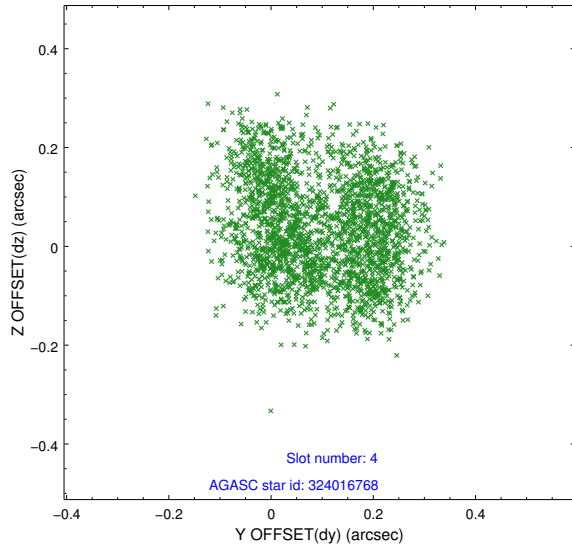
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.13	1165	-0.003	0.022	0.013	0.023	0.000000	0.000000	928.31	-838.08
1	FID		ACIS-I-4	7.06	1165	0.120	0.011	0.011	0.017	0.000000	0.000000	2149.18	1061.08
2	FID		ACIS-I-5	7.12	1165	-0.215	0.039	0.007	0.011	0.000000	0.000000	-1818.27	1060.39
3	GUIDE	used	324010864	9.43	2329	0.000	0.013	0.133	0.207	121.395591	32.499268	1806.16	1812.22
4	GUIDE	used	324016768	9.03	2330	0.091	0.033	0.160	0.226	120.148282	32.920902	692.57	-2103.55
5	GUIDE	used	324018480	8.42	2330	-0.170	0.021	0.096	0.149	121.112986	33.663314	-2266.14	506.47
6	GUIDE	used	324019176	8.92	2330	0.085	0.055	0.103	0.159	121.473294	32.704529	1044.97	1964.47
7	GUIDE	used	324020264	9.62	2325	-0.010	-0.130	0.121	0.195	120.054009	32.778671	1230.05	-2337.22

## 2.4 Star Slots

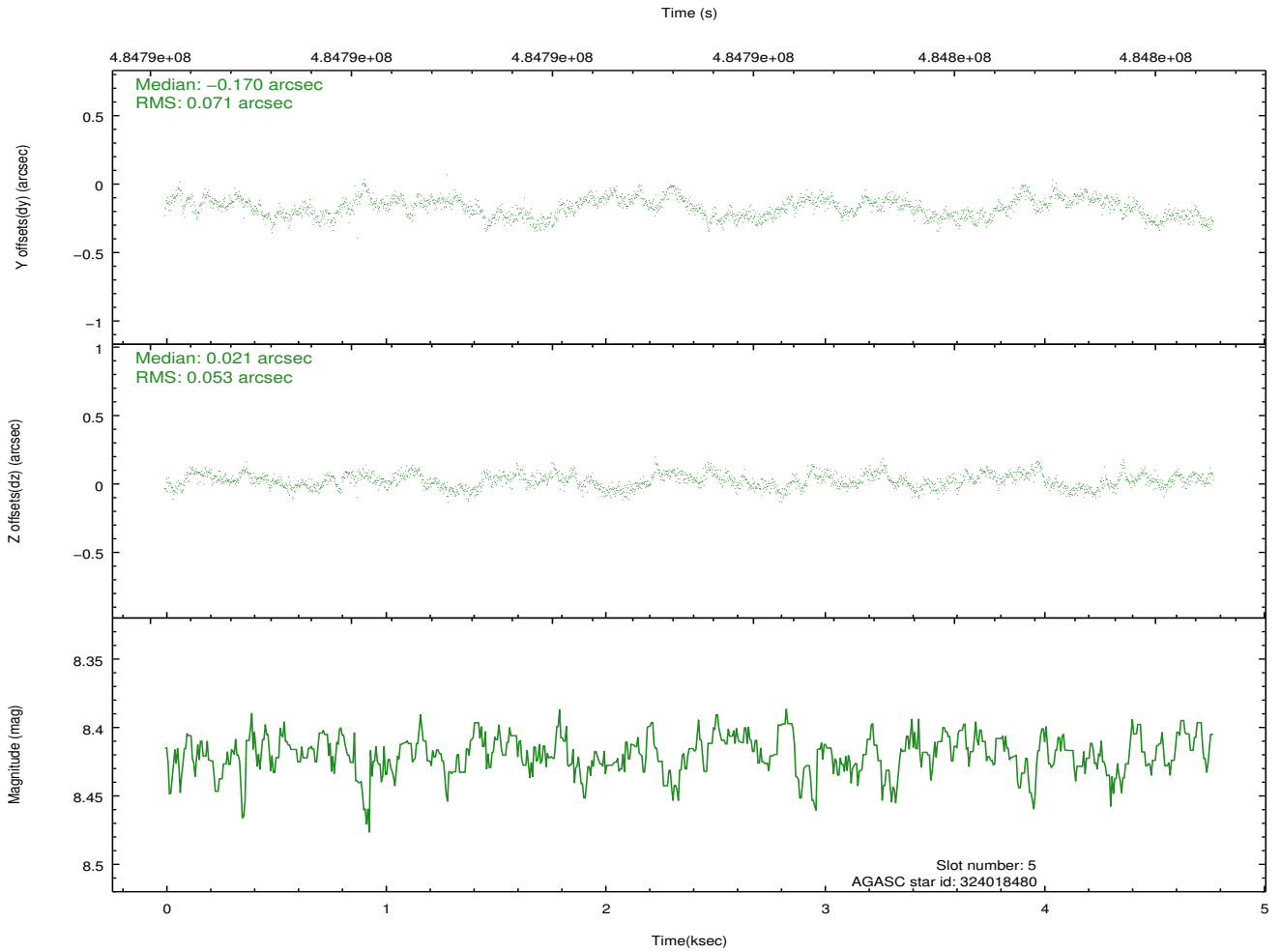
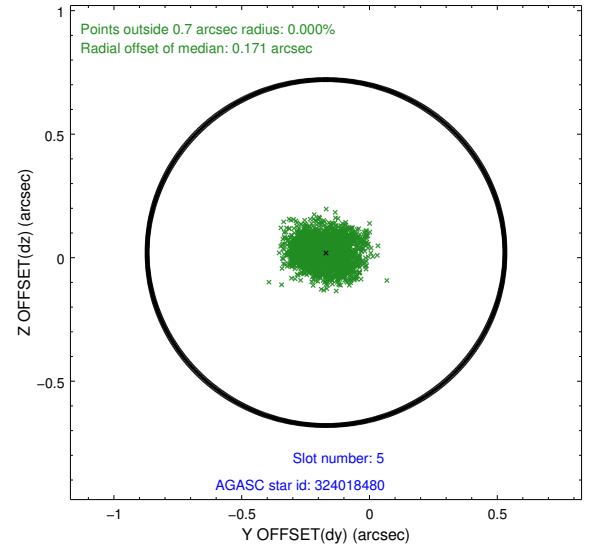
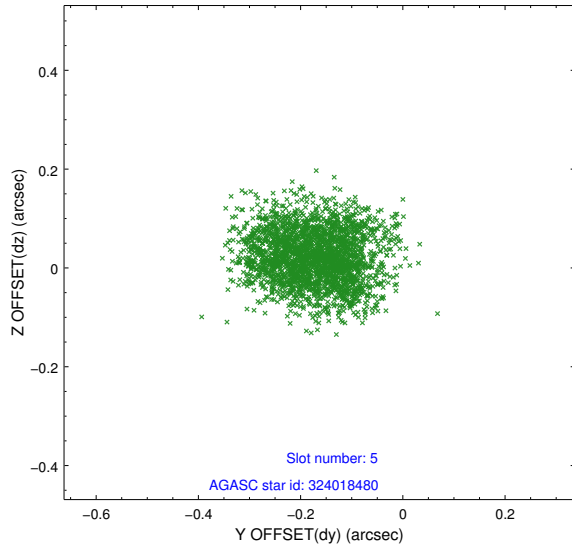
### 2.4.1 Slot 3



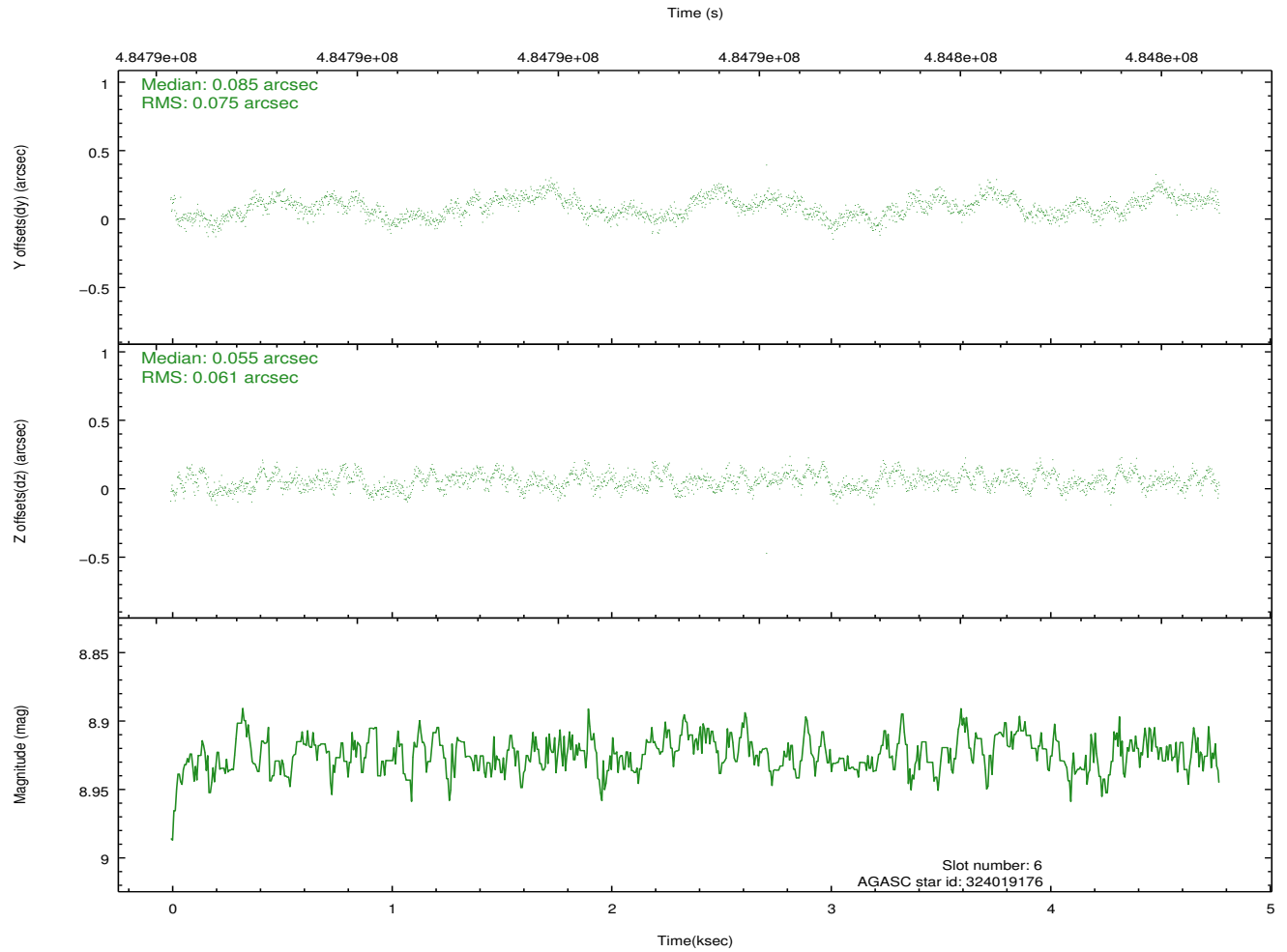
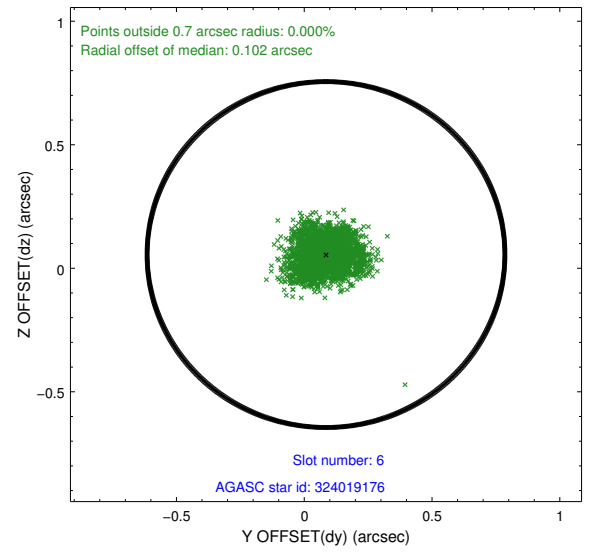
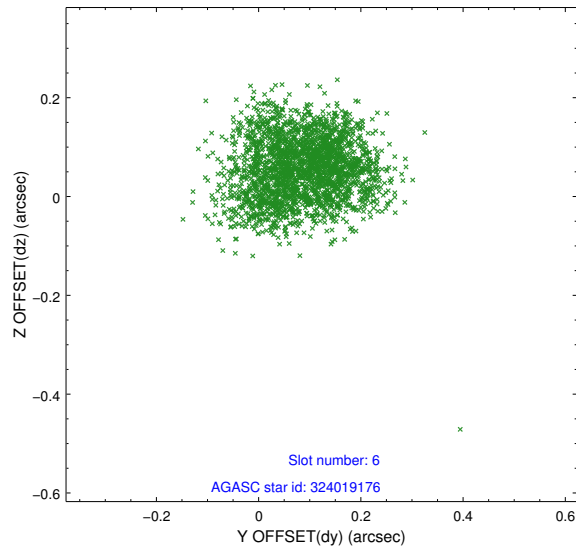
## 2.4.2 Slot 4



### 2.4.3 Slot 5

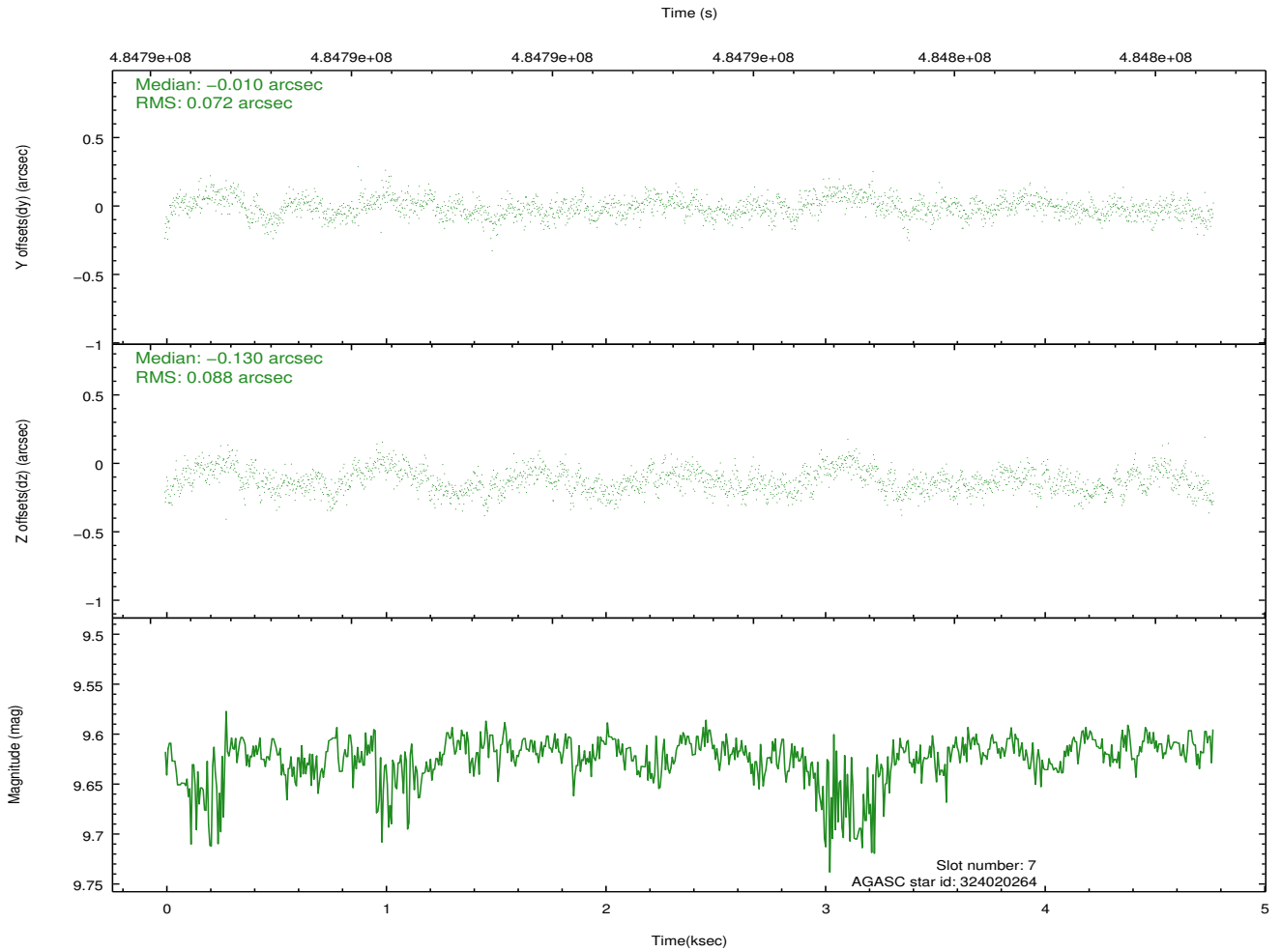
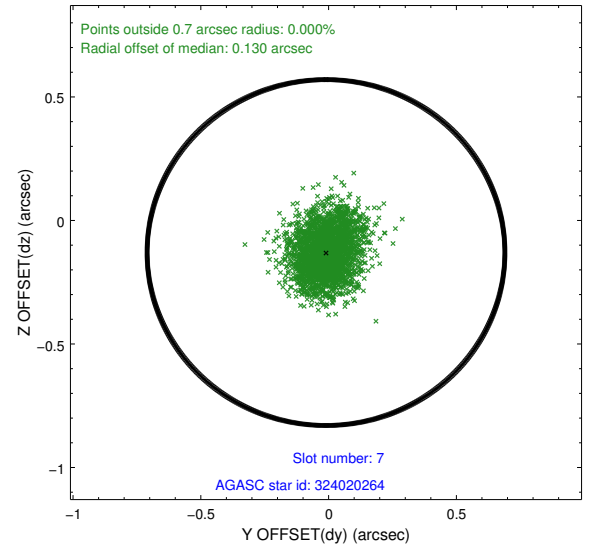
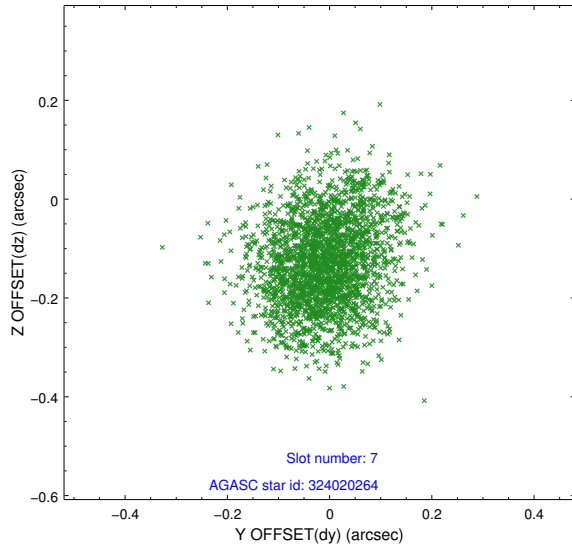


## 2.4.4 Slot 6



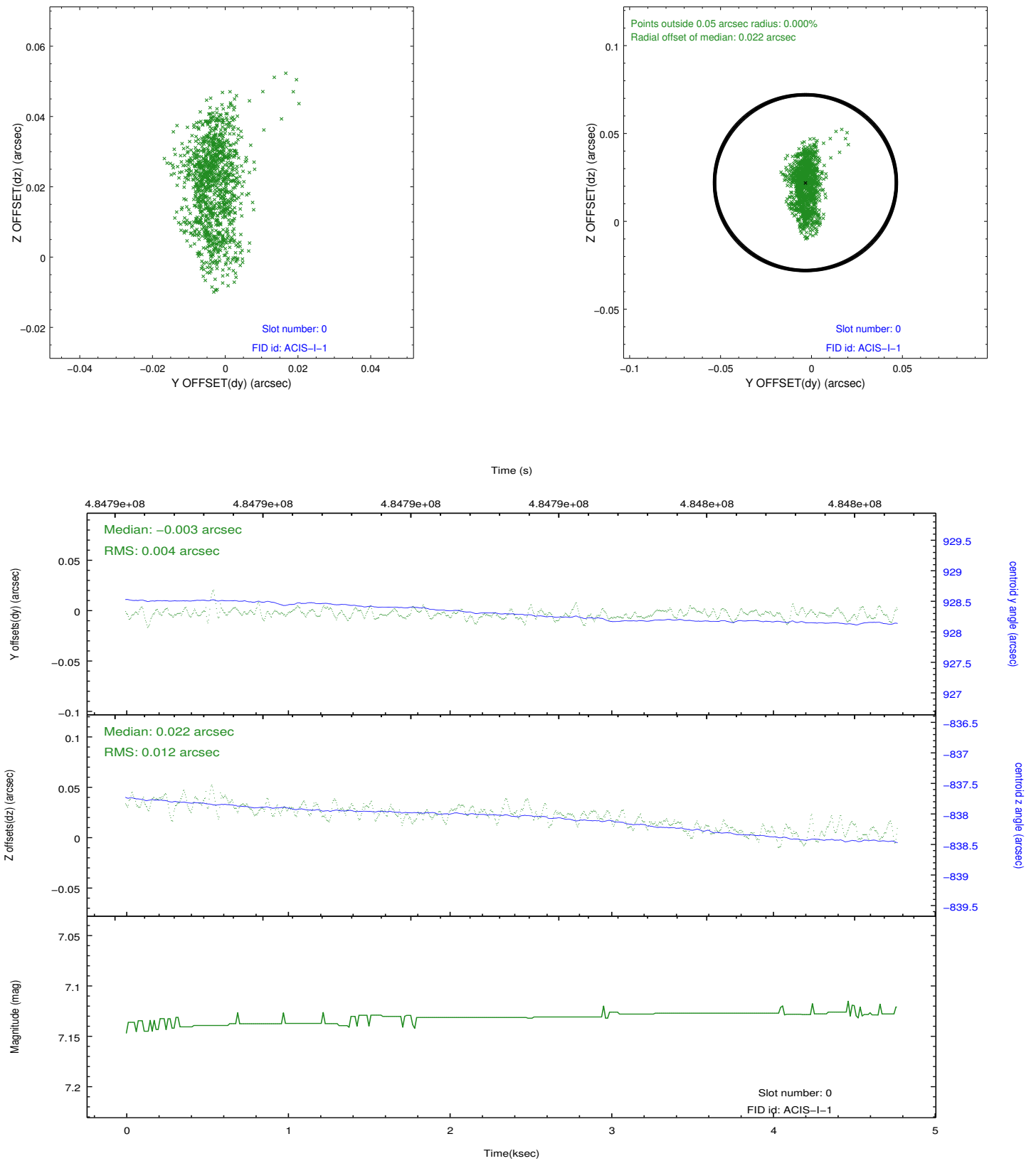


## 2.4.5 Slot 7

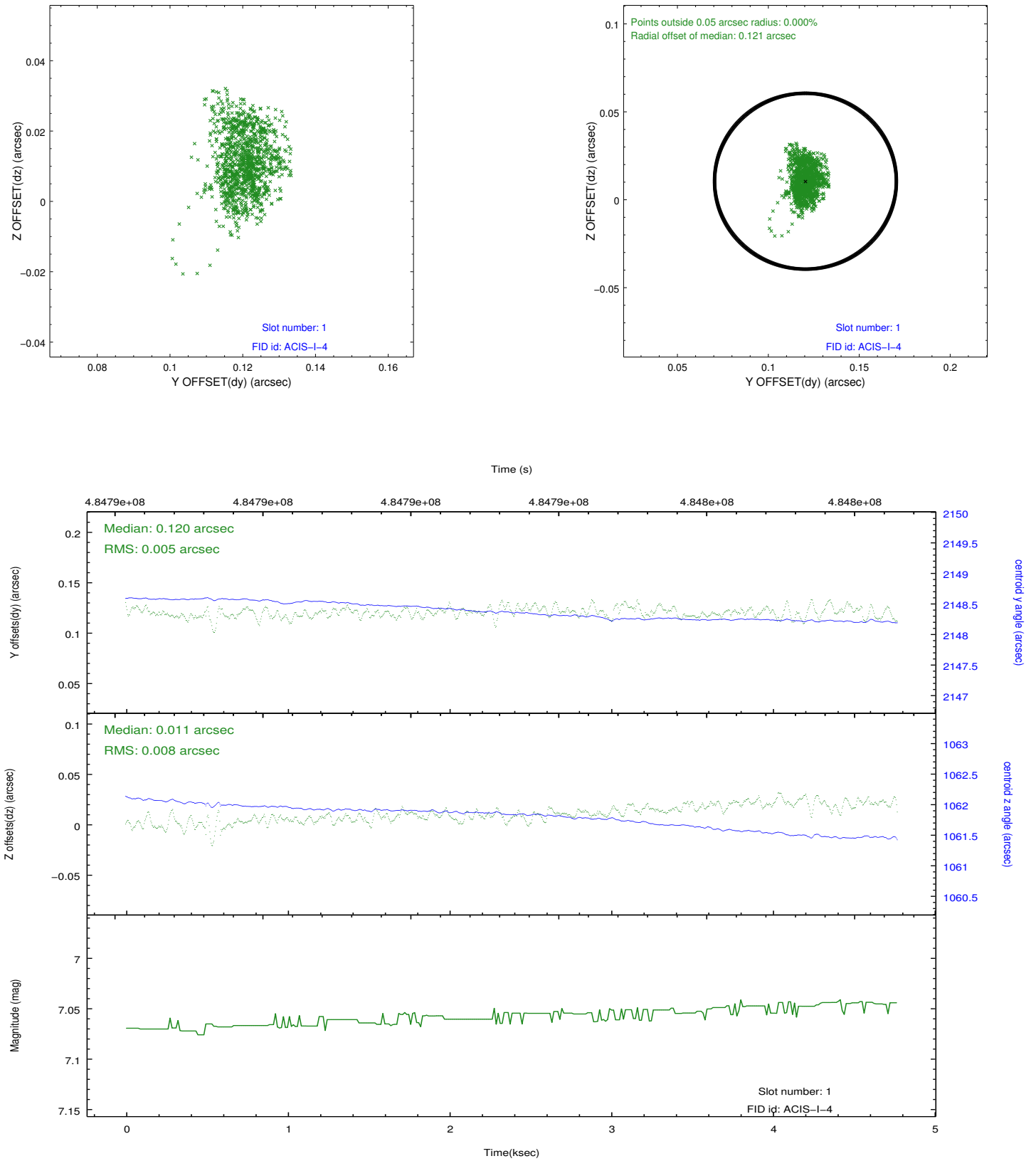


## 2.5 FID Slots

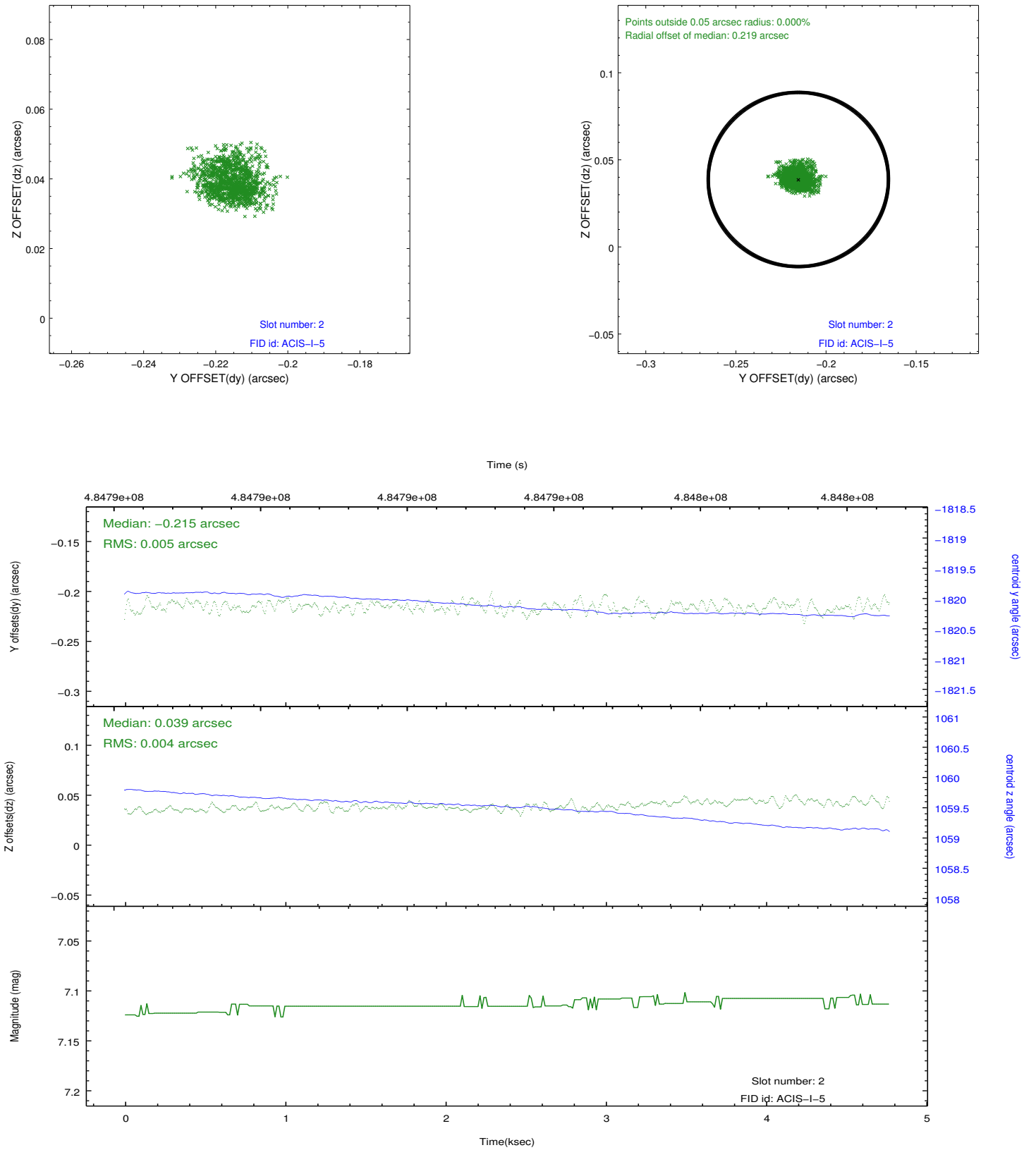
### 2.5.1 Slot 0



## 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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.9711974214315

## 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.