

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14000 - L2 Version 2  
Chandra X-Ray Center

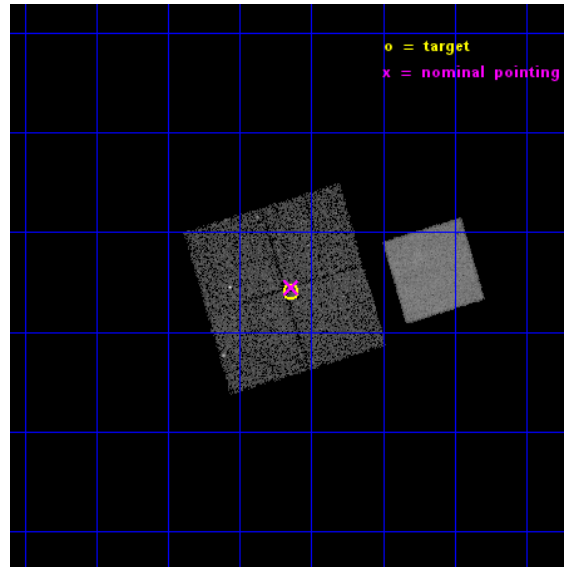
L2 Processing Date : Nov 29 2014

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# 1 Front

seq_num	801180	Sequence number
obs_id	14000	Observation id
title	GAMA groups and cosmic feedback	Proposal title
observer	Prof Trevor Ponman	Principal investigator
object	G12-34	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	174.91	Observer's specified target RA [deg]
dec_targ	-1.1	Observer's specified target Dec [deg]
ra_nom	174.90995169279	Nominal RA [deg]
dec_nom	-1.0919099033604	Nominal Dec [deg]
roll_nom	73.270589689009	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15065.065602064	Sum of GTIs [s]
livetime	14868.229429233	Livetime [s]
ontime0	15064.942482054	Sum of GTIs [s]
ontime1	15064.983522058	Sum of GTIs [s]
ontime2	15065.024562061	Sum of GTIs [s]
ontime3	15065.065602064	Sum of GTIs [s]
ontime7	15065.106642067	Sum of GTIs [s]
l2events	70894	Number of level 2 events

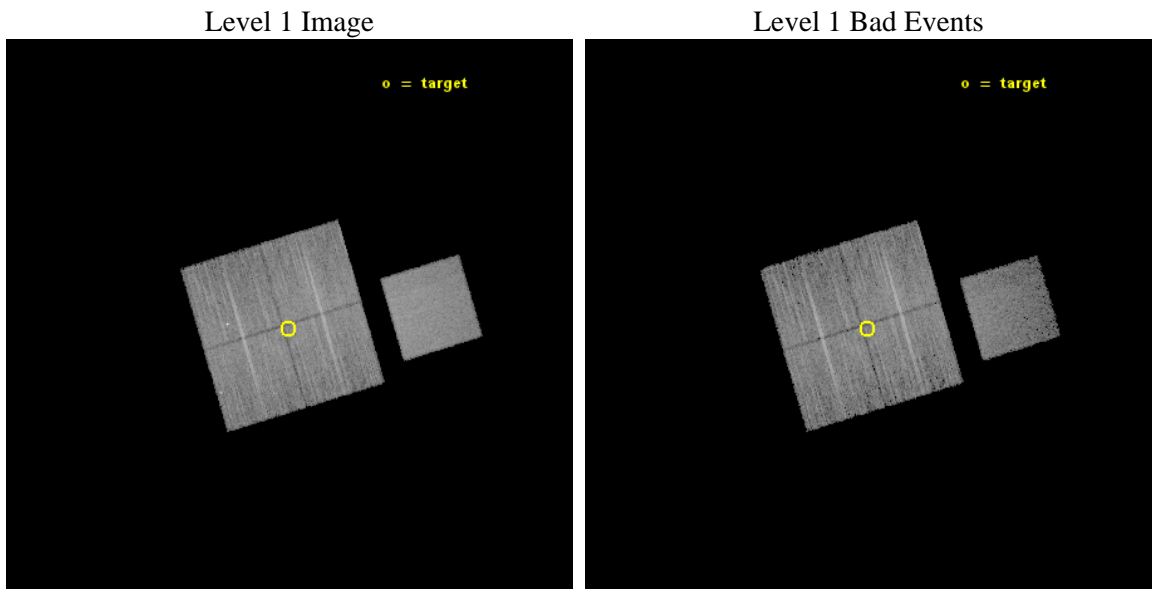




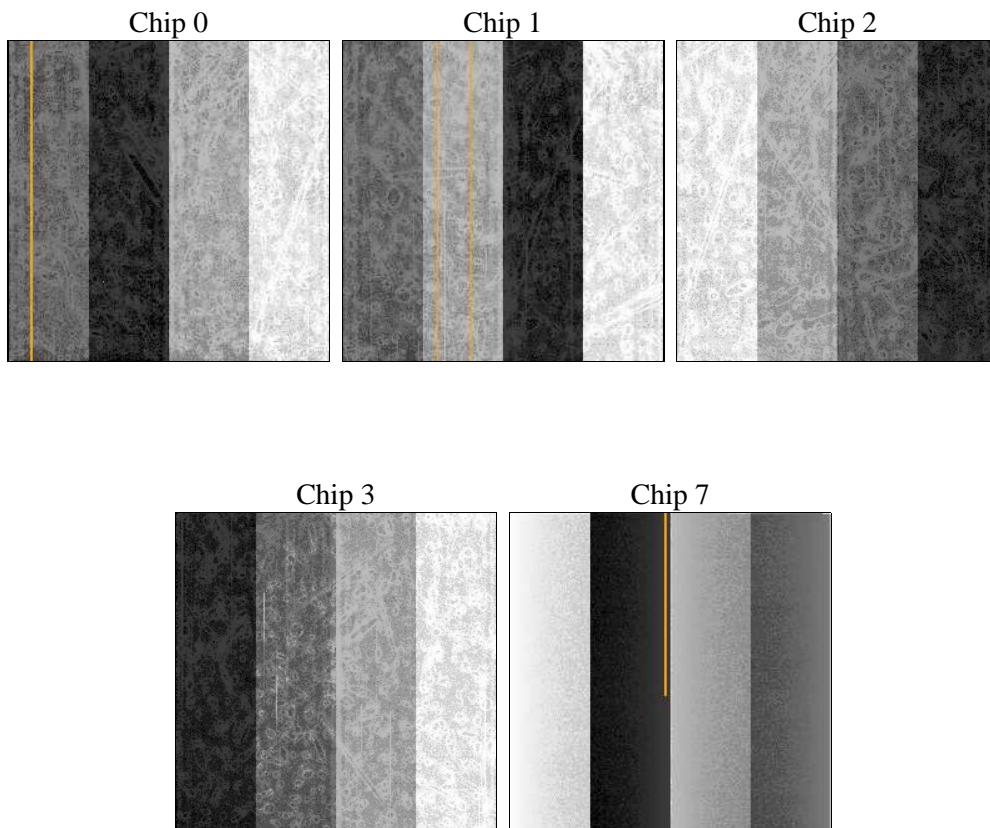
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	15065.065602064	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	15064.942482054	Sum of GTIs [s]
date	2014-11-29T12:44:54	Date and time of file creation	ontime1	15064.983522058	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	15065.024562061	Sum of GTIs [s]
			ontime3	15065.065602064	Sum of GTIs [s]
			ontime7	15065.106642067	Sum of GTIs [s]
			l1events	382321	Number of level 1 events

### 2.1.4 Events

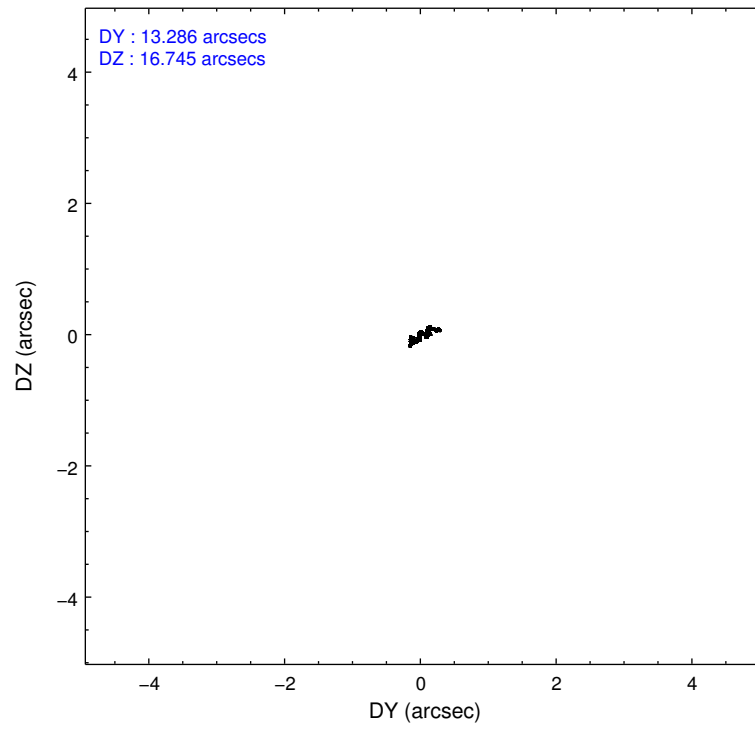
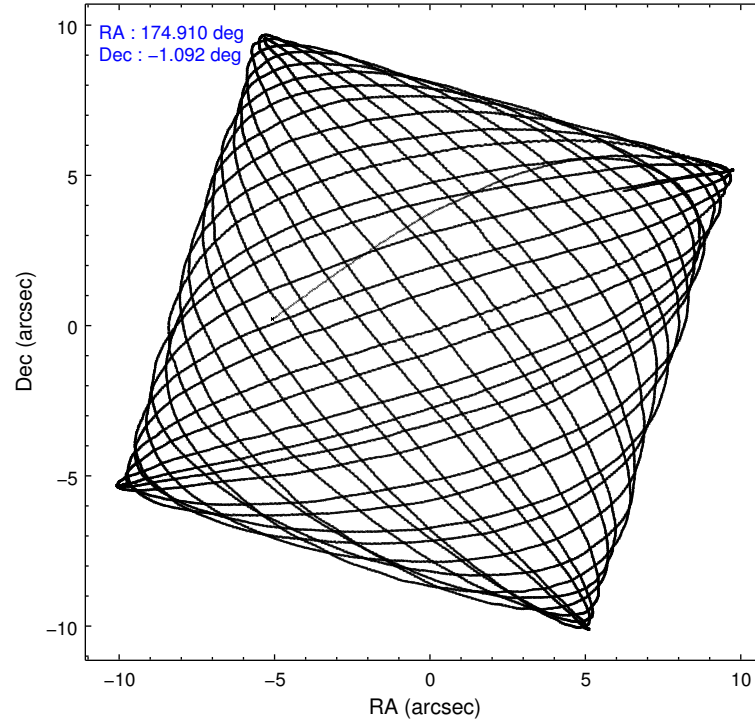
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	69457	72167	78603	75226	86868
rejected events	59216	62977	69716	66761	45427
rejected %	85%	87%	88%	88%	52%

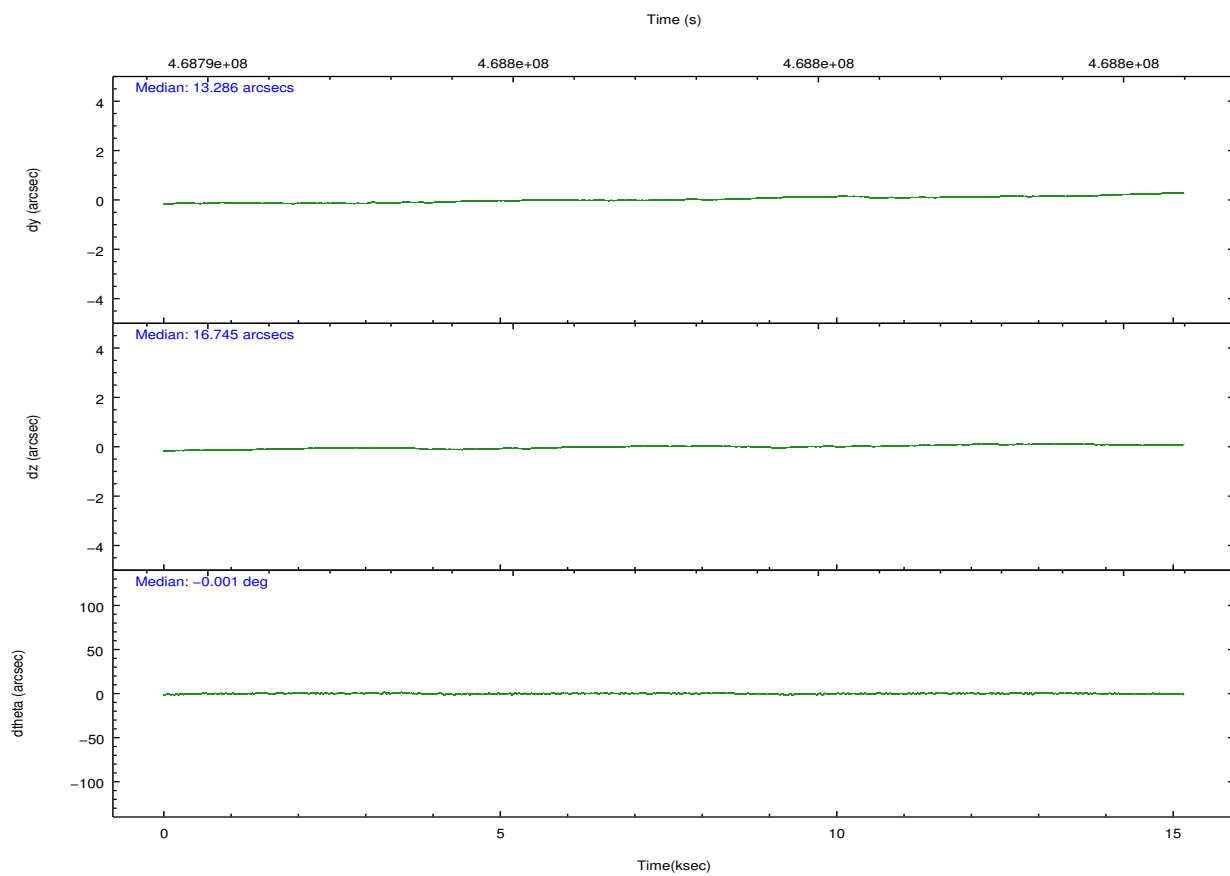
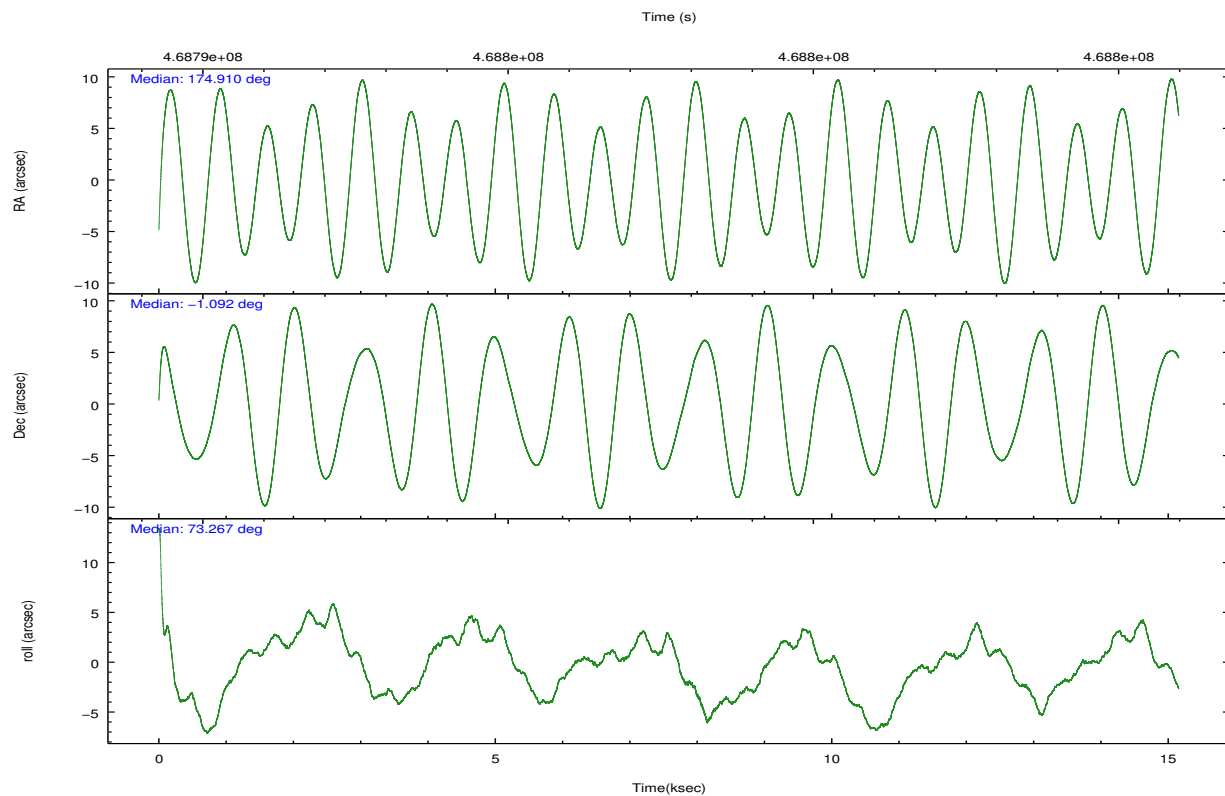
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	4364	3251	3358	3108	4223
	6%	4%	4%	4%	4%
grade 1 events	56	43	36	52	136
	0%	0%	0%	0%	0%
grade 2 events	2312	2109	2184	1879	8952
	3%	2%	2%	2%	10%
grade 3 events	971	961	851	923	3636
	1%	1%	1%	1%	4%
grade 4 events	903	951	898	903	3591
	1%	1%	1%	1%	4%
grade 5 events	2950	3162	2928	3203	9173
	4%	4%	3%	4%	10%
grade 6 events	1693	1922	1600	1656	21050
	2%	2%	2%	2%	24%
grade 7 events	56208	59768	66748	63502	36107
	80%	82%	84%	84%	41%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	174.916345	174.9099516927947	CCD I2 on	Y	Y
[deg] Pointing Dec	-1.118656	-1.091909903360425	CCD I3 on	Y	Y
[deg] Pointing Roll	73.062014	73.27058968900873	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	N	N
[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)	468790205.184000	468789013.88143	CCD S5 on	N	N
Observation start date	2012-11-08T19:28:58	2012-11-08T19:10:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	468805205.184000	468806171.35736	On-chip summing requested	N	N
Observation end date	2012-11-08T23:38:58	2012-11-08T23:56:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



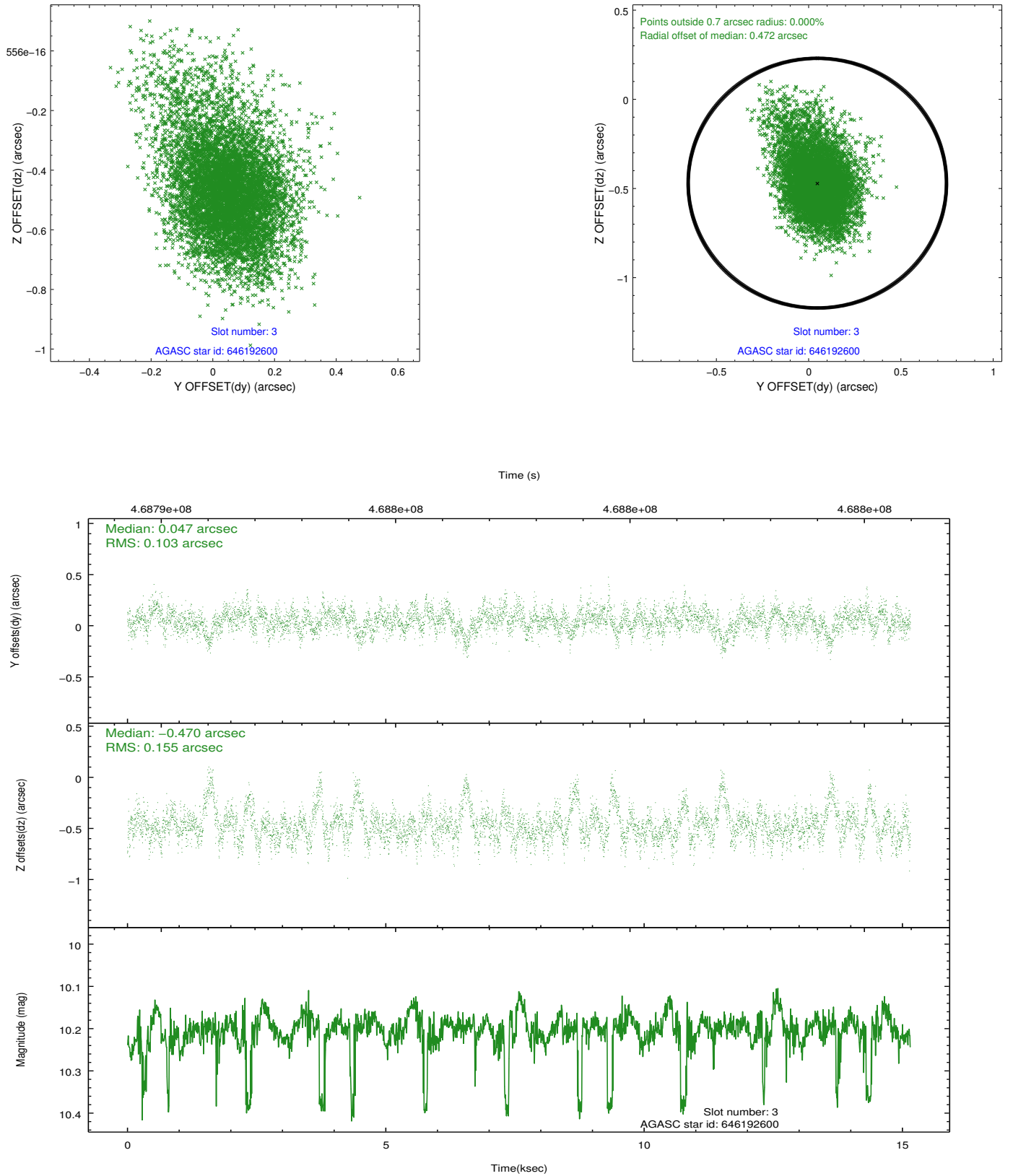


### Slot Statistics

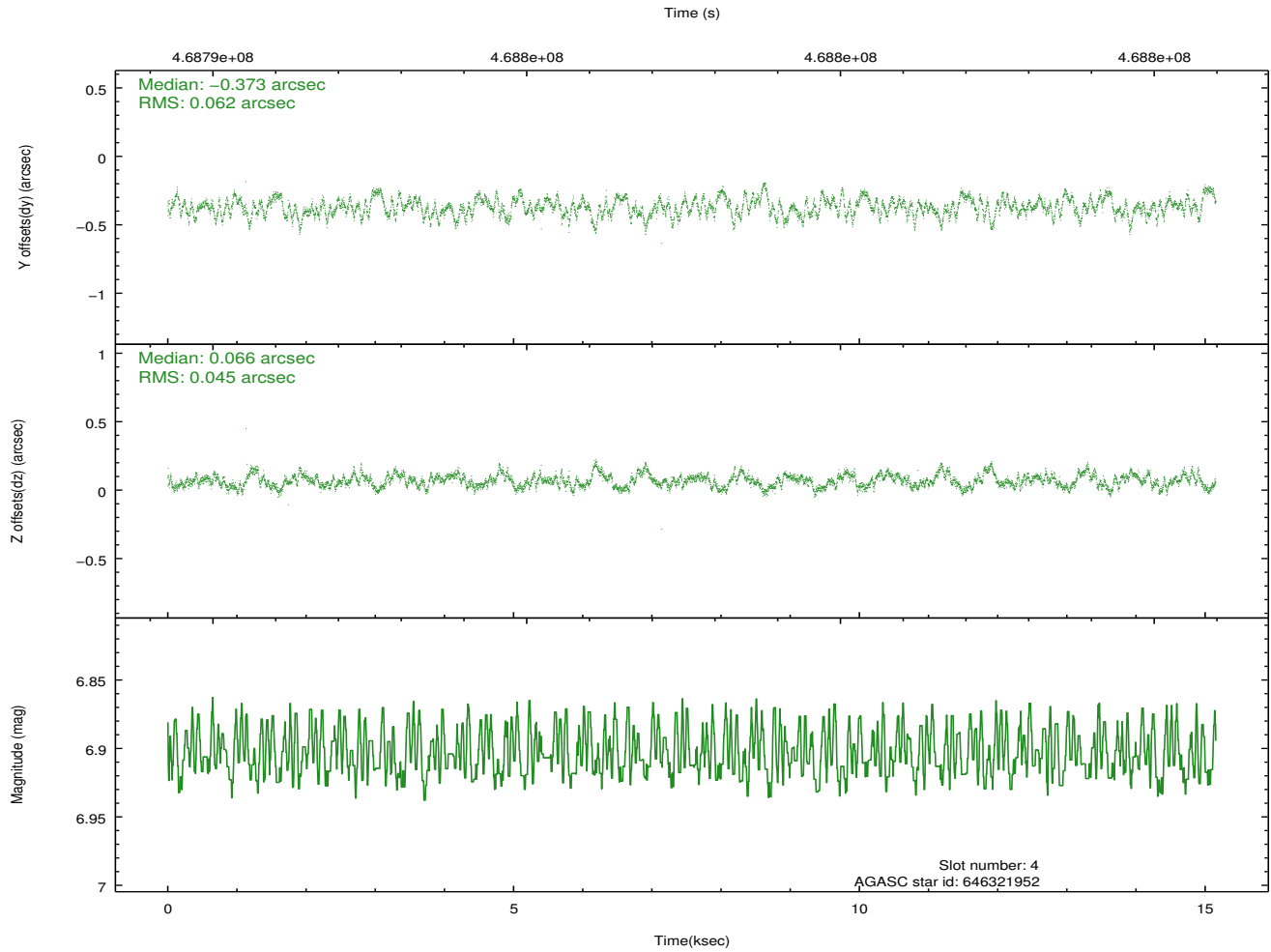
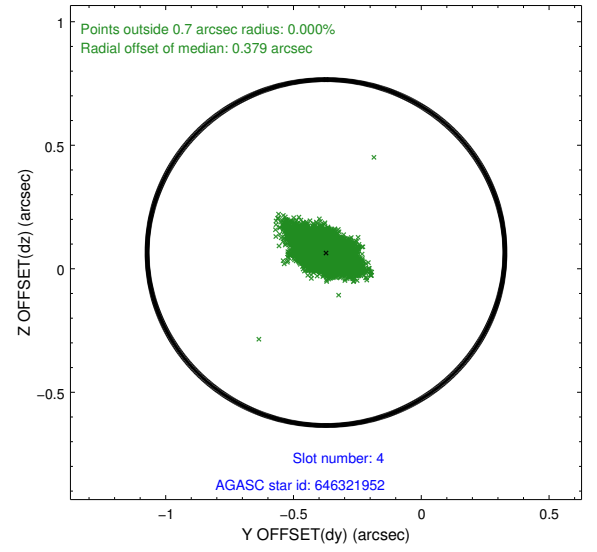
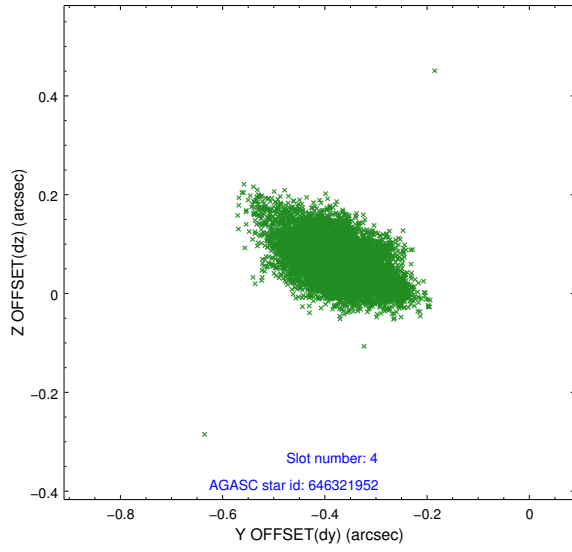
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.04	3697	0.068	-0.038	0.006	0.011	0.000000	0.000000	926.25	-840.43
1	FID		ACIS-I-5	7.04	3697	-0.197	0.074	0.007	0.011	0.000000	0.000000	-1821.93	1057.06
2	FID		ACIS-I-6	7.03	3697	0.037	0.034	0.007	0.011	0.000000	0.000000	391.48	1701.82
3	GUIDE	used	646192600	10.20	7355	0.047	-0.470	0.184	0.347	174.489014	-1.041720	-183.27	1553.08
4	GUIDE	used	646321952	6.90	7394	-0.373	0.066	0.079	0.136	175.232908	-0.674327	1861.90	-623.63
5	GUIDE	used	646322952	9.77	7325	0.169	0.020	0.141	0.223	175.354154	-1.823942	-1970.19	-2246.11
6	GUIDE	used	646323688	9.87	7383	0.076	0.323	0.165	0.272	175.182675	-1.523064	-1113.36	-1340.74
7	GUIDE	used	646324808	8.38	7385	0.090	0.044	0.094	0.157	175.125728	-1.837660	-2256.61	-1474.29

## 2.4 Star Slots

### 2.4.1 Slot 3

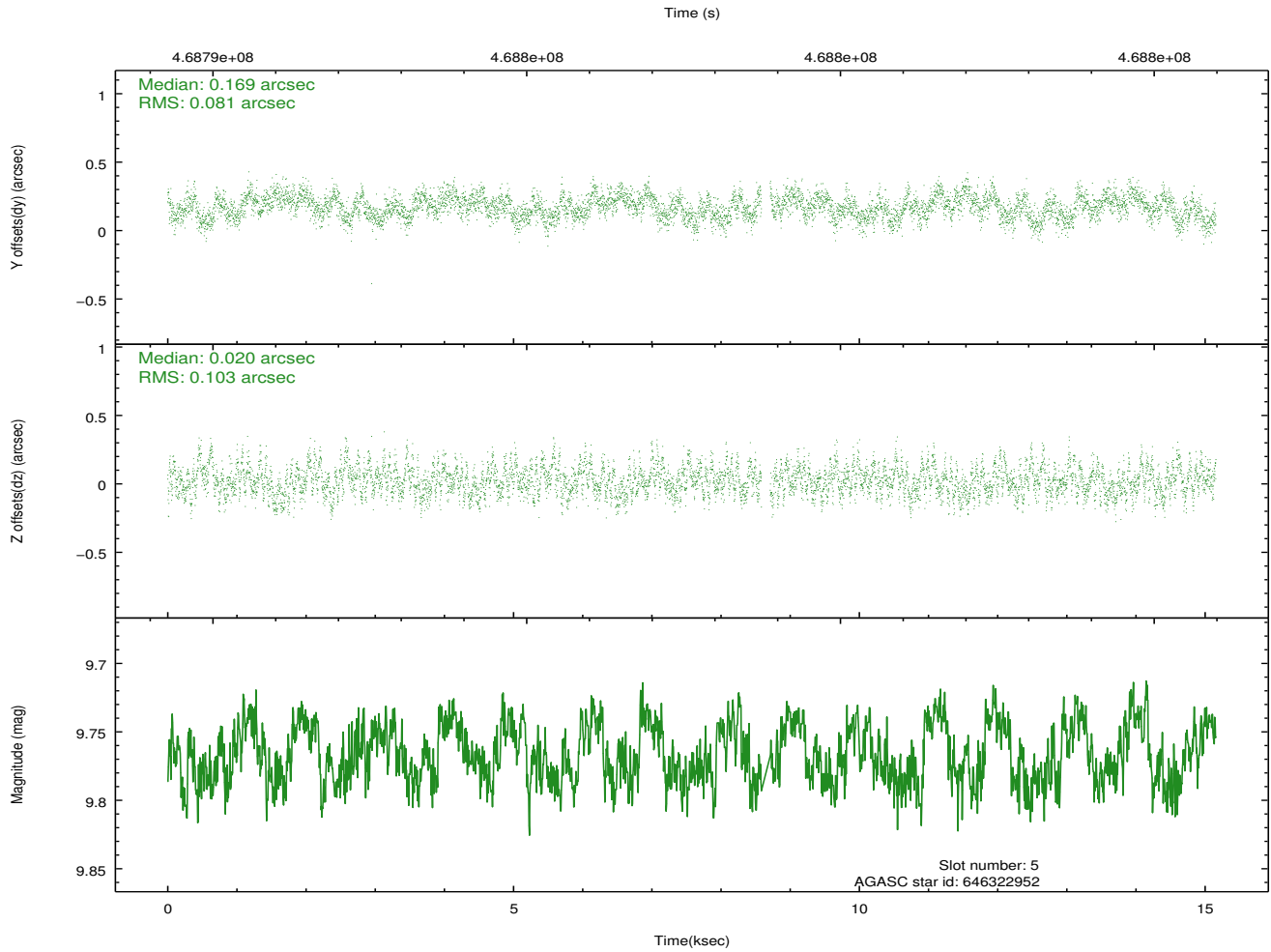
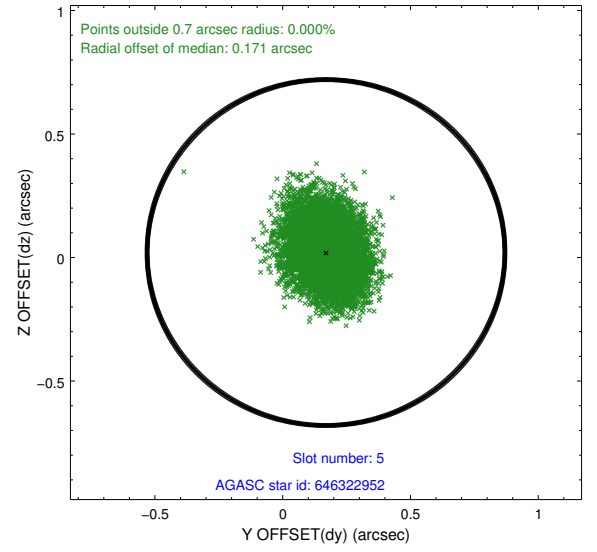
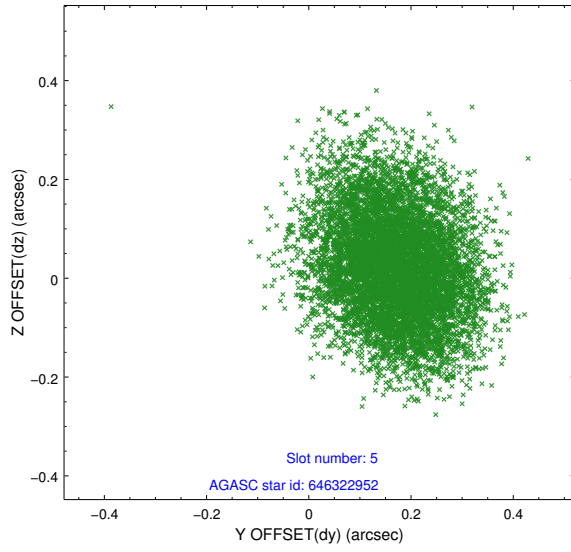


## 2.4.2 Slot 4

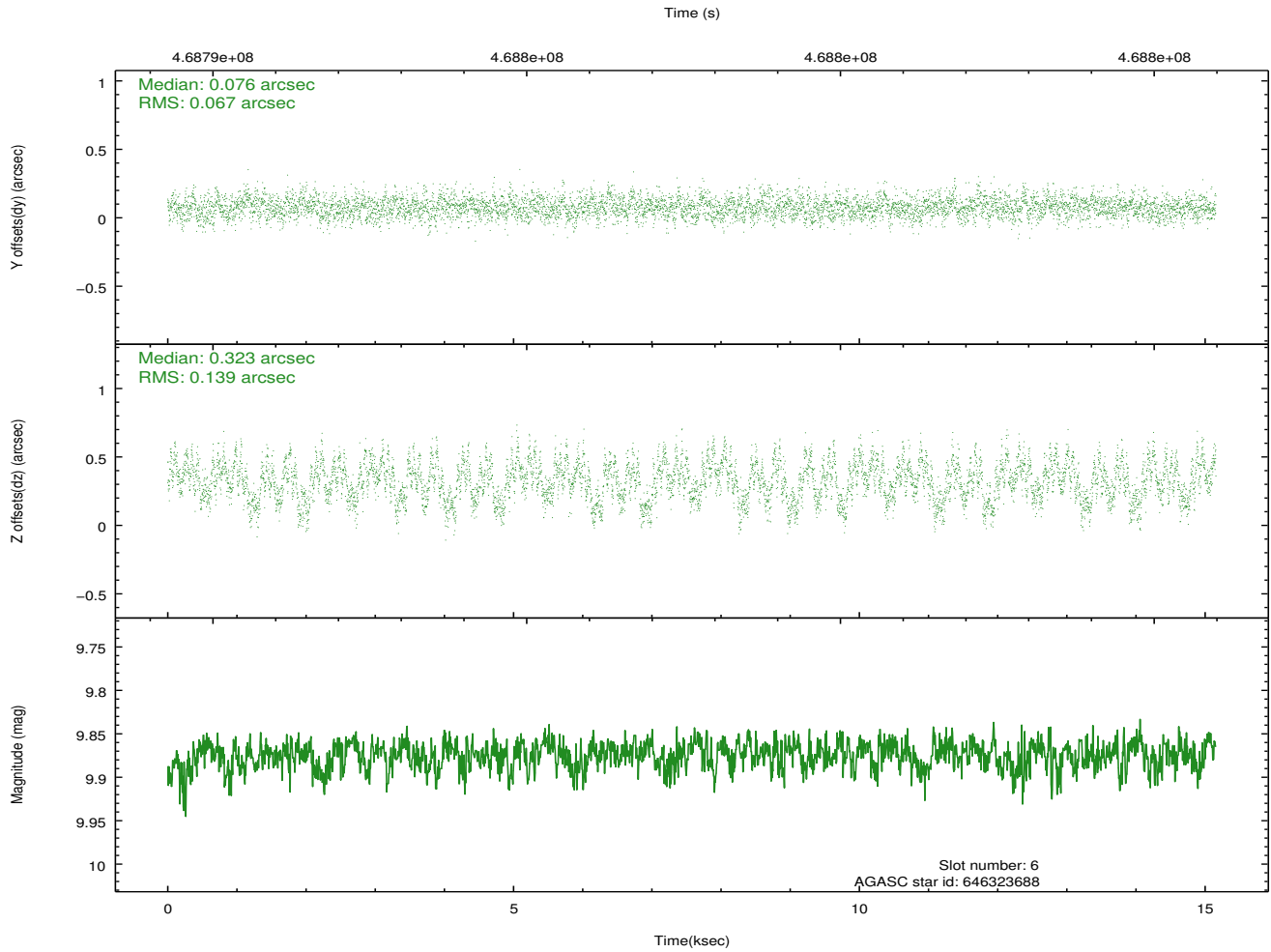
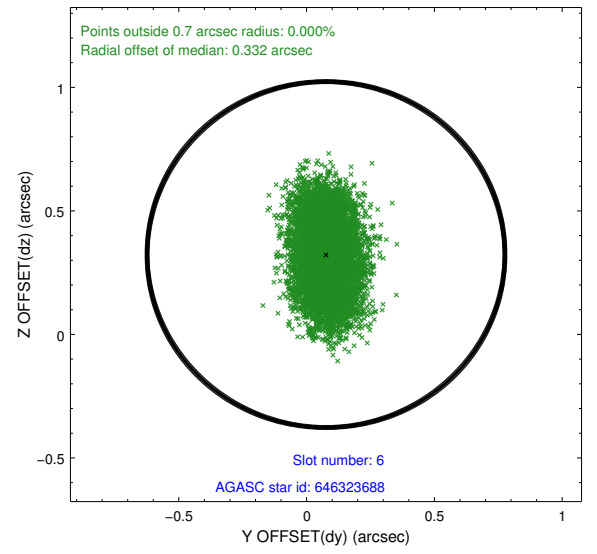
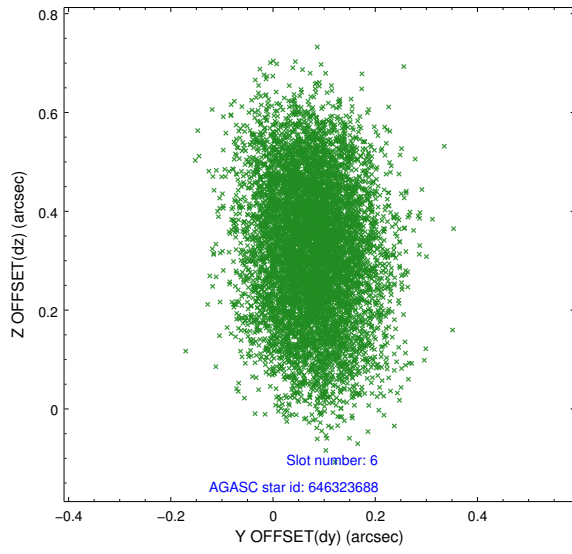




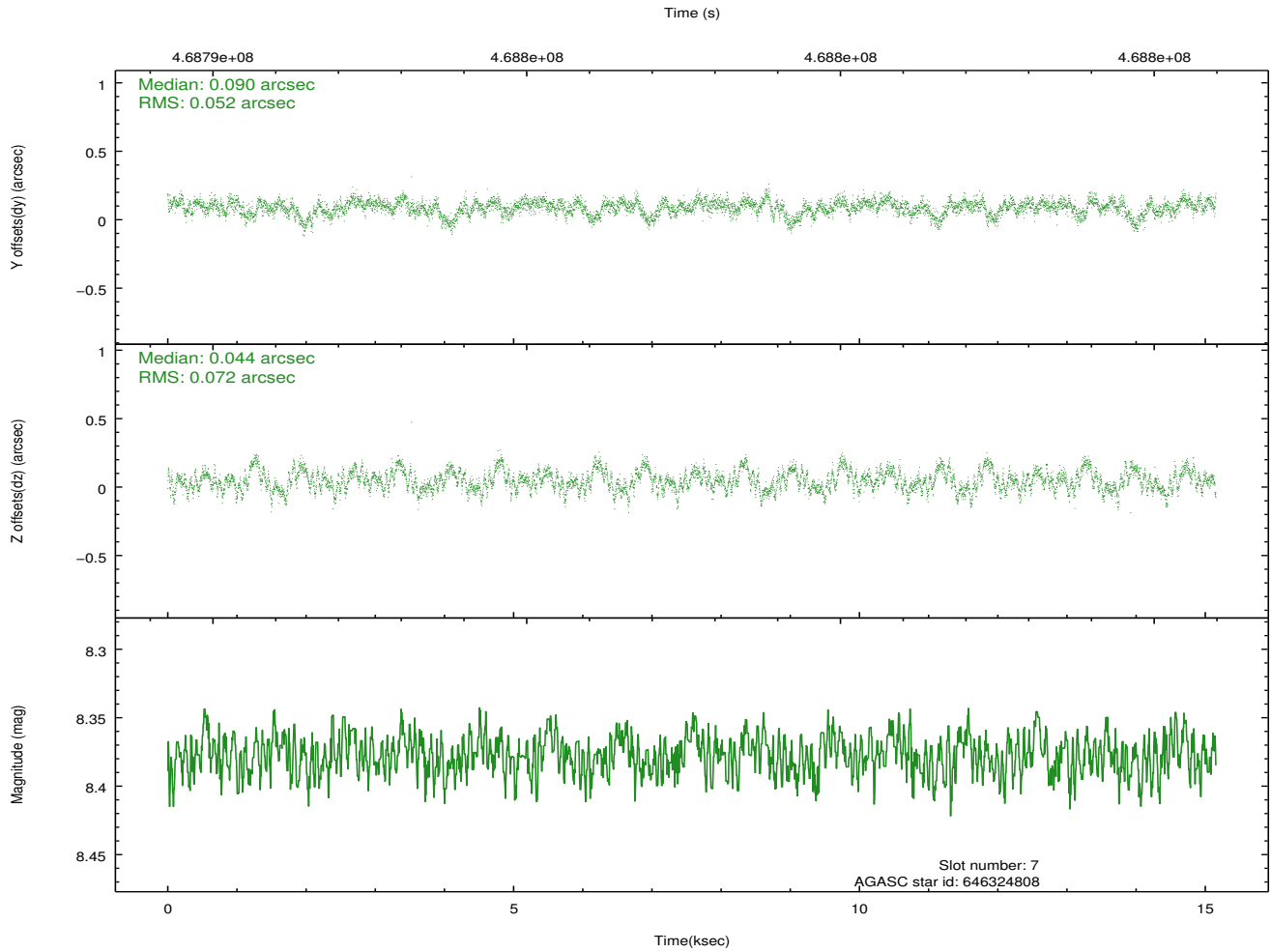
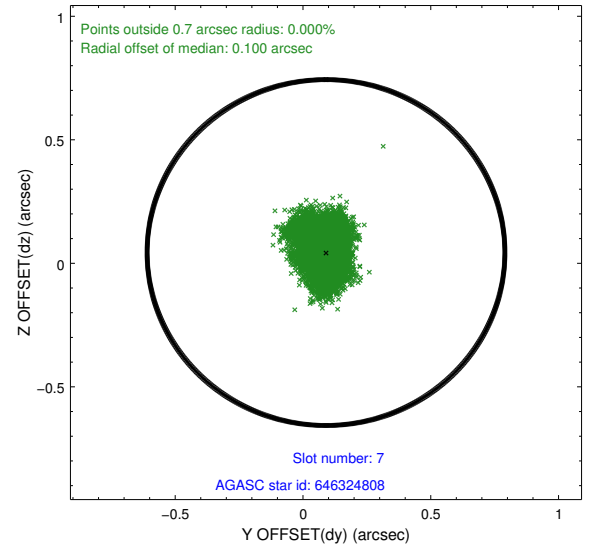
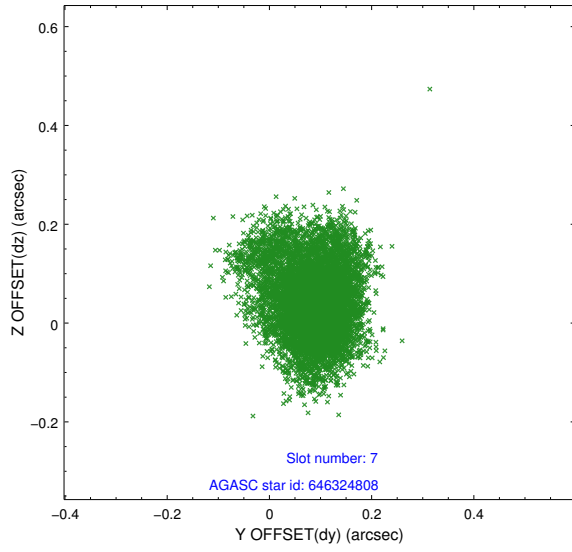
### 2.4.3 Slot 5



## 2.4.4 Slot 6

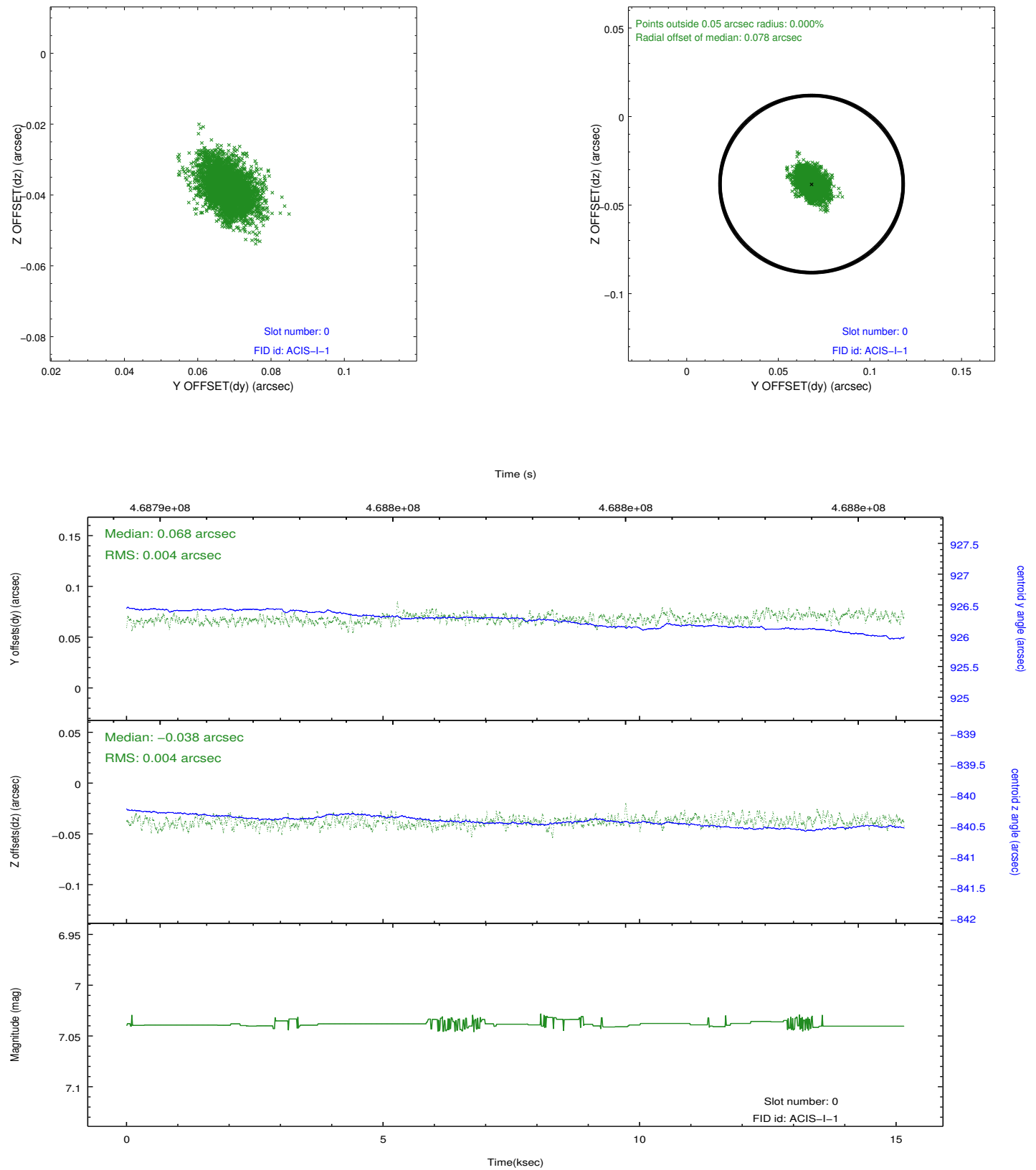


## 2.4.5 Slot 7

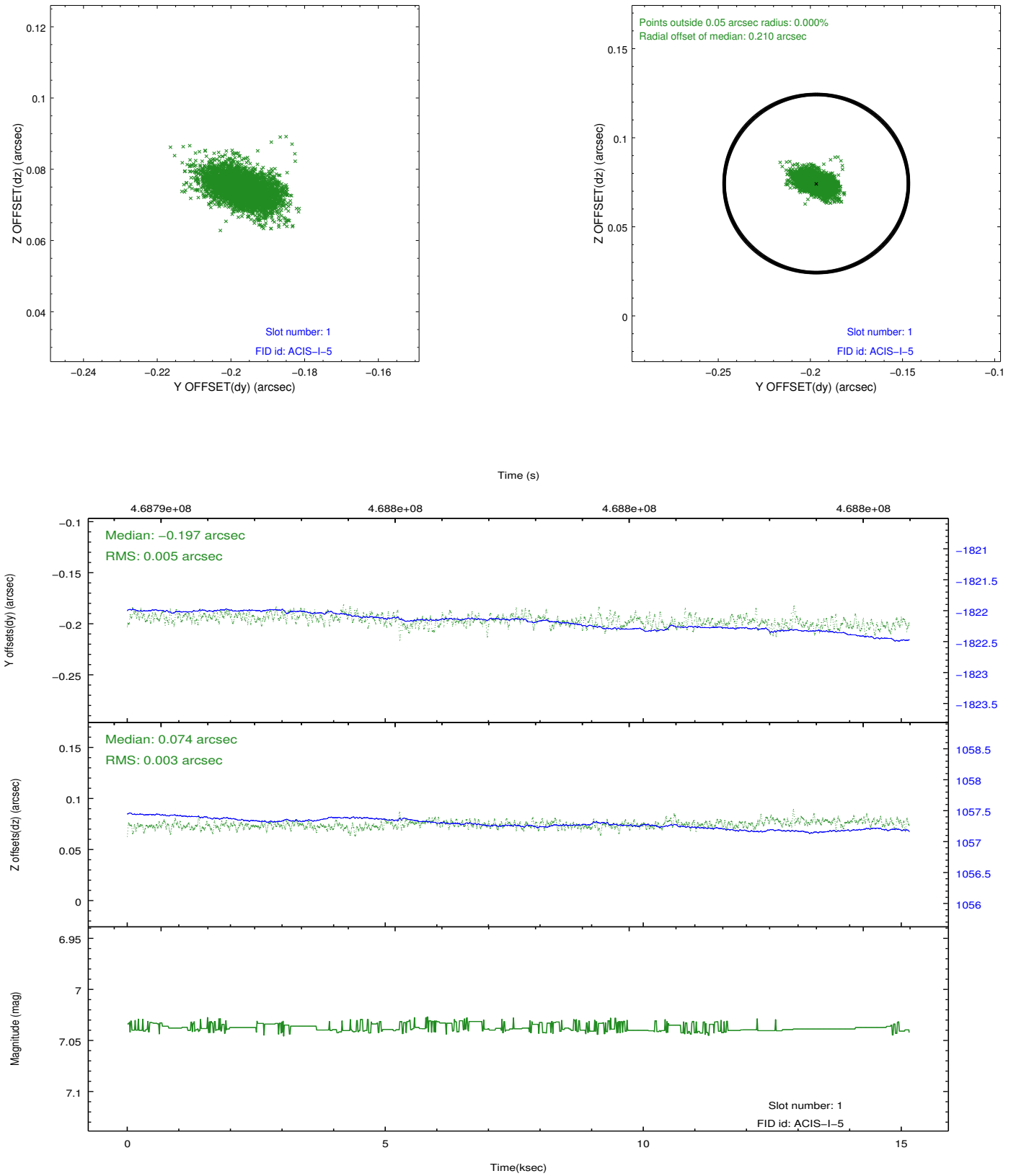


## 2.5 FID Slots

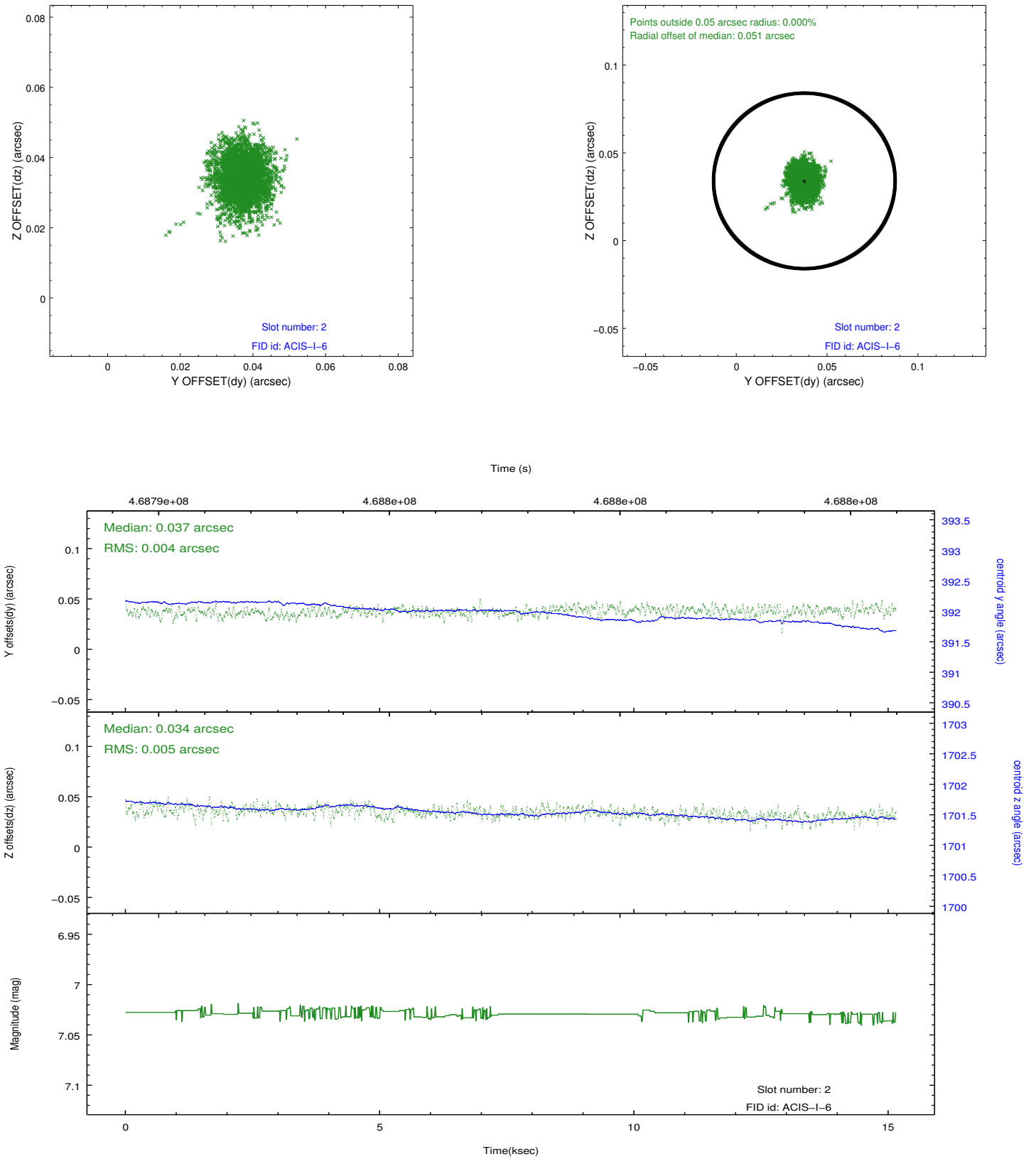
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.065065602064

## 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.