

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14005 - L2 Version 2  
Chandra X-Ray Center

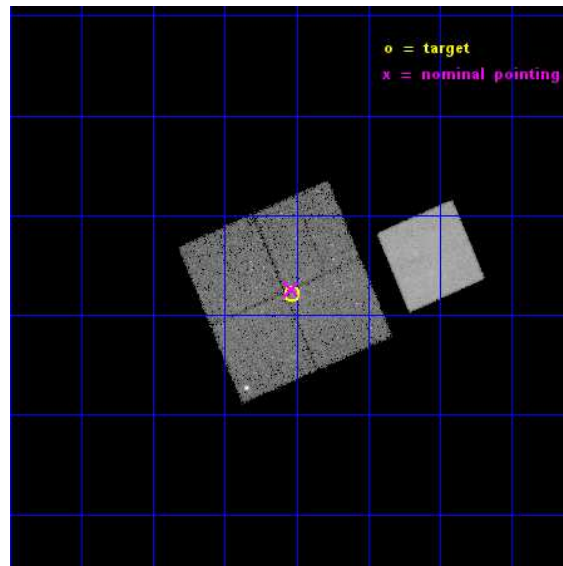
L2 Processing Date : Nov 29 2014

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# 1 Front

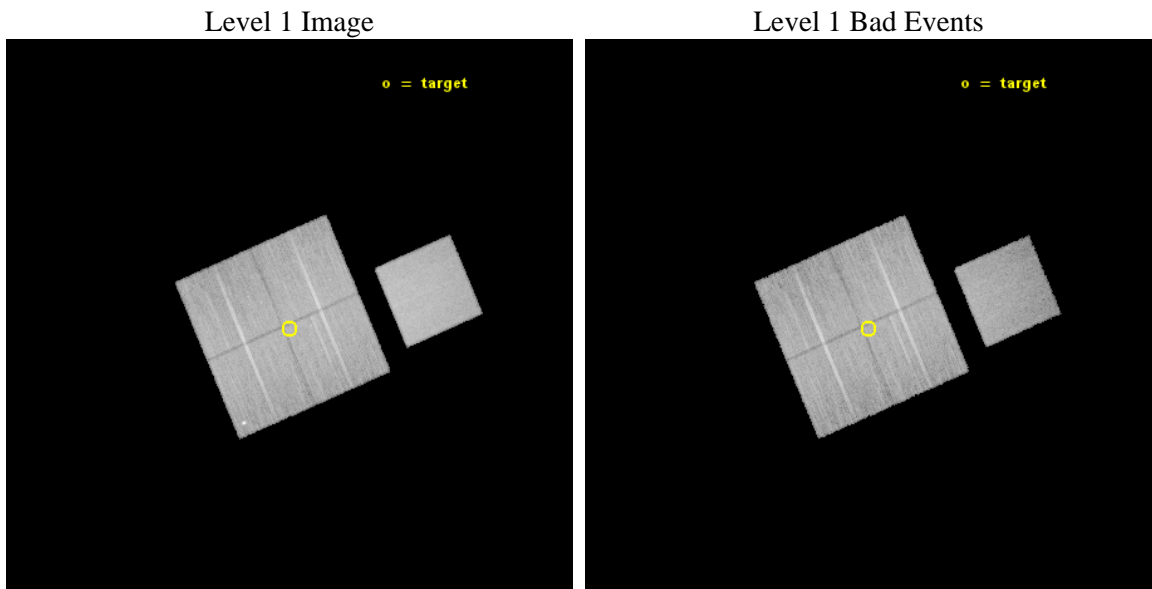
seq_num	801185	Sequence number
obs_id	14005	Observation id
title	GAMA groups and cosmic feedback	Proposal title
observer	Prof Trevor Ponman	Principal investigator
object	G12-14	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	182.257917	Observer's specified target RA [deg]
dec_targ	-0.965167	Observer's specified target Dec [deg]
ra_nom	182.25875003851	Nominal RA [deg]
dec_nom	-0.95712851104253	Nominal Dec [deg]
roll_nom	66.734628299705	Nominal Roll [deg]
revision	2	Processing version of data
ontime	34769.559327006	Sum of GTIs [s]
livetime	34315.269437422	Livetime [s]
ontime0	34769.559307098	Sum of GTIs [s]
ontime1	34769.559277236	Sum of GTIs [s]
ontime2	34769.559307039	Sum of GTIs [s]
ontime3	34769.559327006	Sum of GTIs [s]
ontime7	34772.700267434	Sum of GTIs [s]
l2events	159972	Number of level 2 events



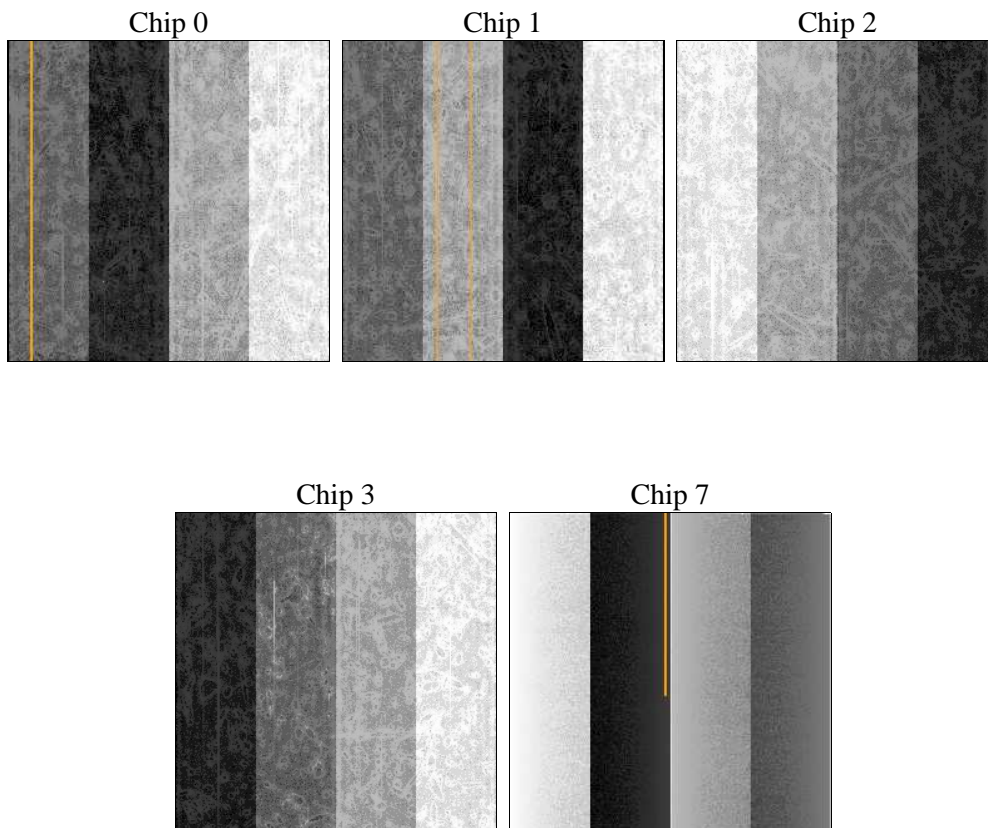
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	34769.559327006	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	34769.559307098	Sum of GTIs [s]
date	2014-11-29T12:09:47	Date and time of file creation	ontime1	34769.559277236	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	34769.559307039	Sum of GTIs [s]
			ontime3	34769.559327006	Sum of GTIs [s]
			ontime7	34772.700267434	Sum of GTIs [s]
			l1events	829926	Number of level 1 events

### 2.1.4 Events

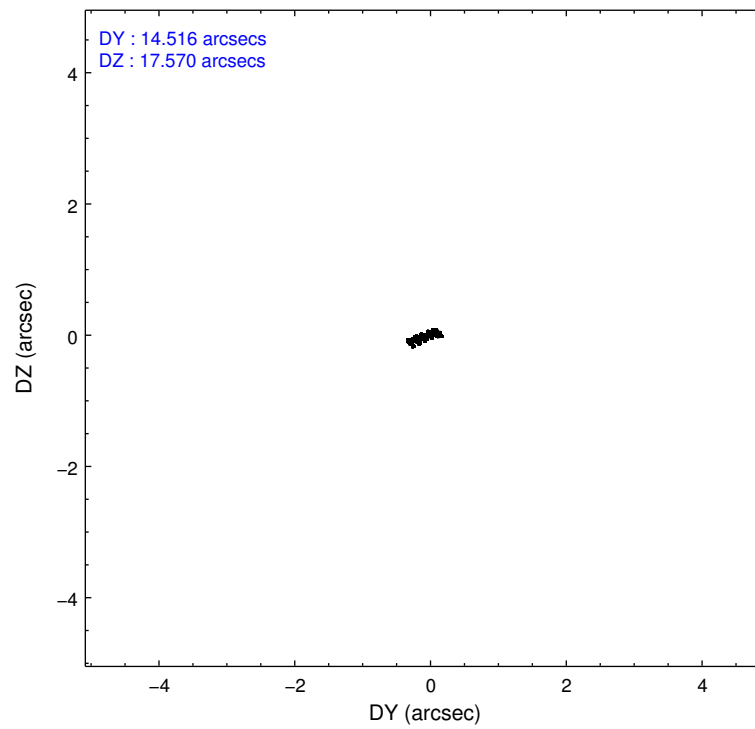
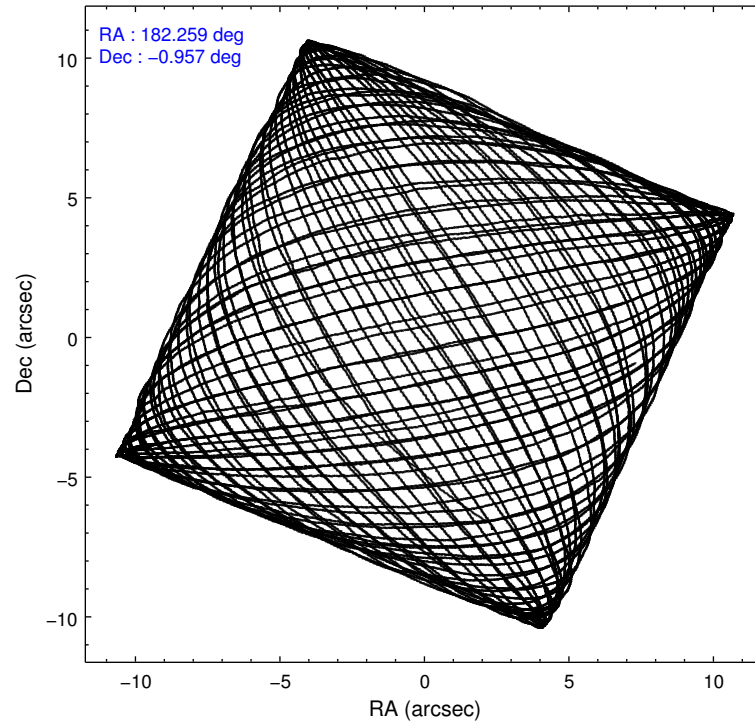
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	150200	154497	164904	163107	197218
rejected events	130211	131751	145379	143810	102499
rejected %	86%	85%	88%	88%	51%

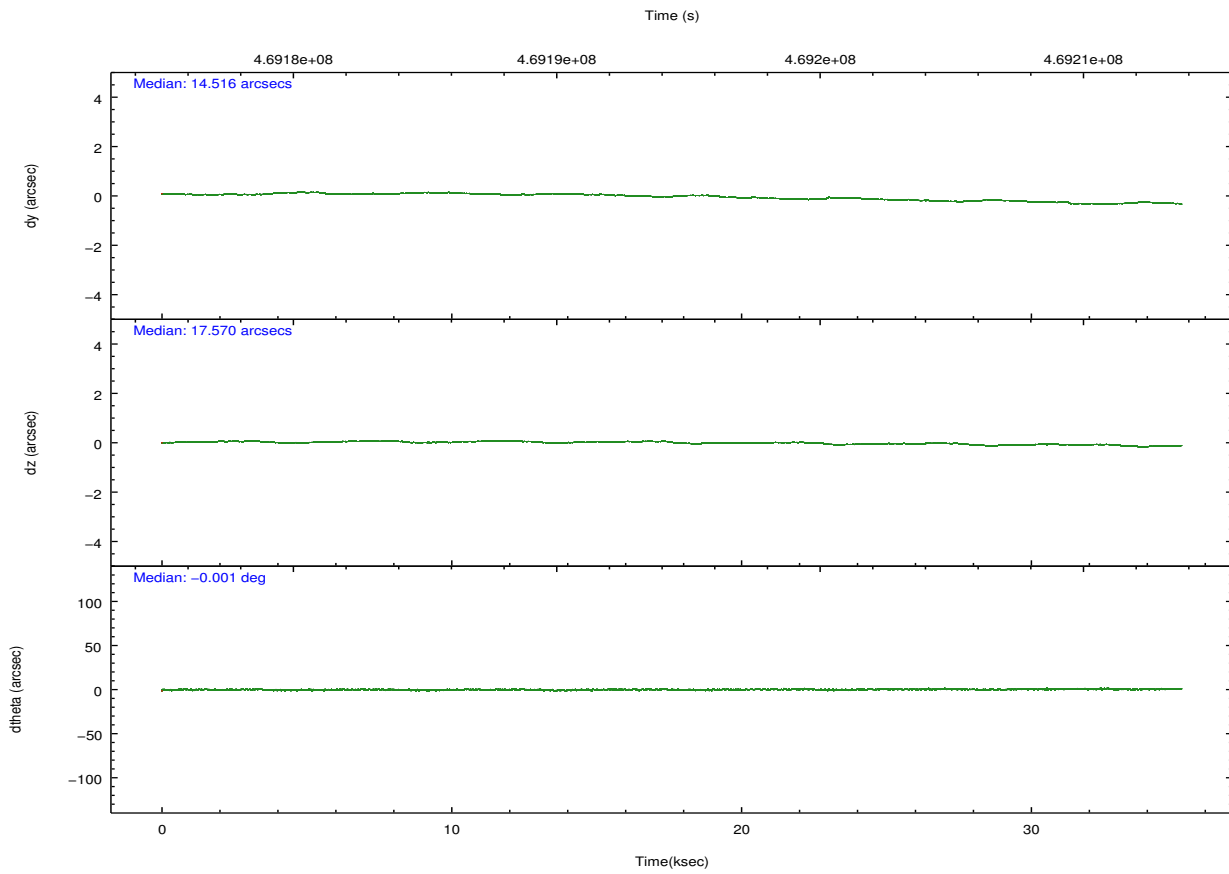
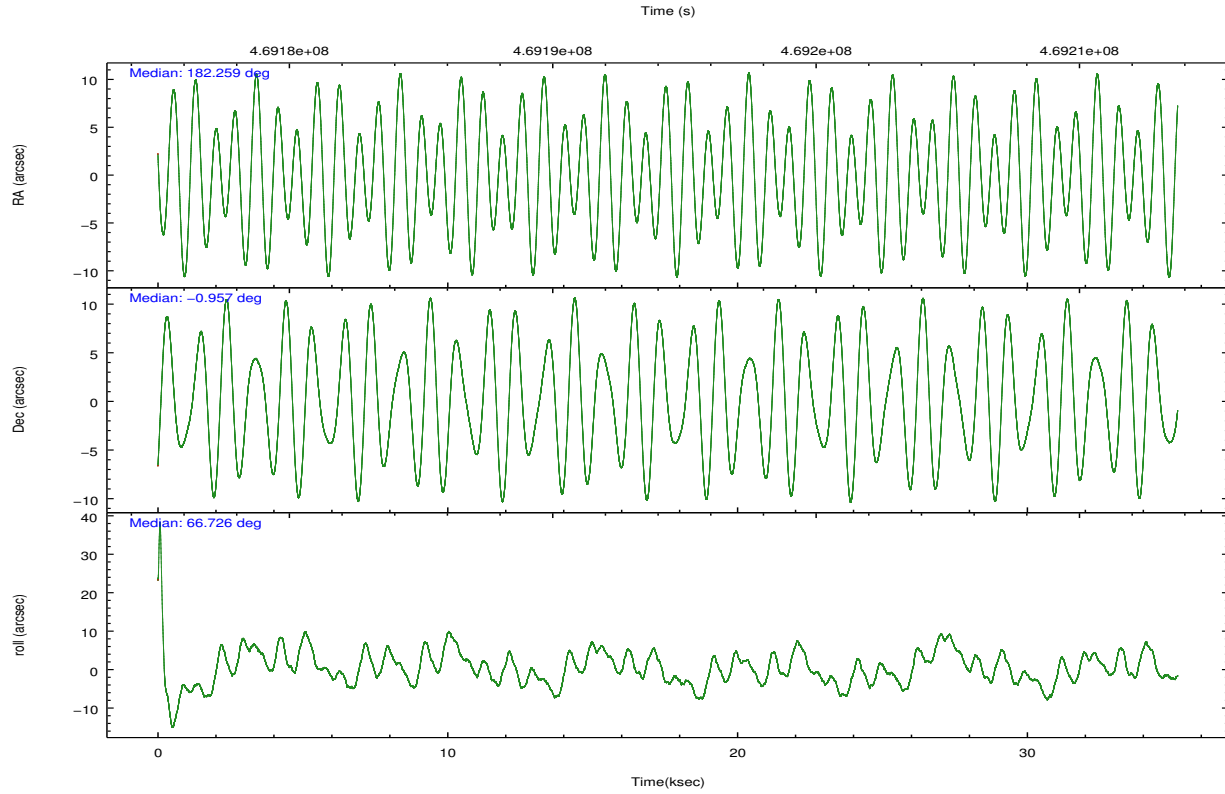
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	7442	8880	7451	7427	9930
	4%	5%	4%	4%	5%
grade 1 events	84	90	88	106	280
	0%	0%	0%	0%	0%
grade 2 events	4842	5001	4751	4183	20223
	3%	3%	2%	2%	10%
grade 3 events	2052	2220	1900	2026	8594
	1%	1%	1%	1%	4%
grade 4 events	1957	2266	1988	1998	8406
	1%	1%	1%	1%	4%
grade 5 events	6393	6910	6062	7654	21074
	4%	4%	3%	4%	10%
grade 6 events	3699	4382	3437	3666	47575
	2%	2%	2%	2%	24%
grade 7 events	123731	124748	139227	136047	81136
	82%	80%	84%	83%	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	182.262099	182.2587500385145	CCD I2 on	Y	Y
[deg] Pointing Dec	-0.984426	-0.9571285110425262	CCD I3 on	Y	Y
[deg] Pointing Roll	66.526007	66.73462829970516	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)	469176953.184000	469176433.15221	CCD S5 on	N	N
Observation start date	2012-11-13T06:54:46	2012-11-13T06:47:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	469211953.184000	469213044.1042	On-chip summing requested	N	N
Observation end date	2012-11-13T16:38:06	2012-11-13T16:57:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





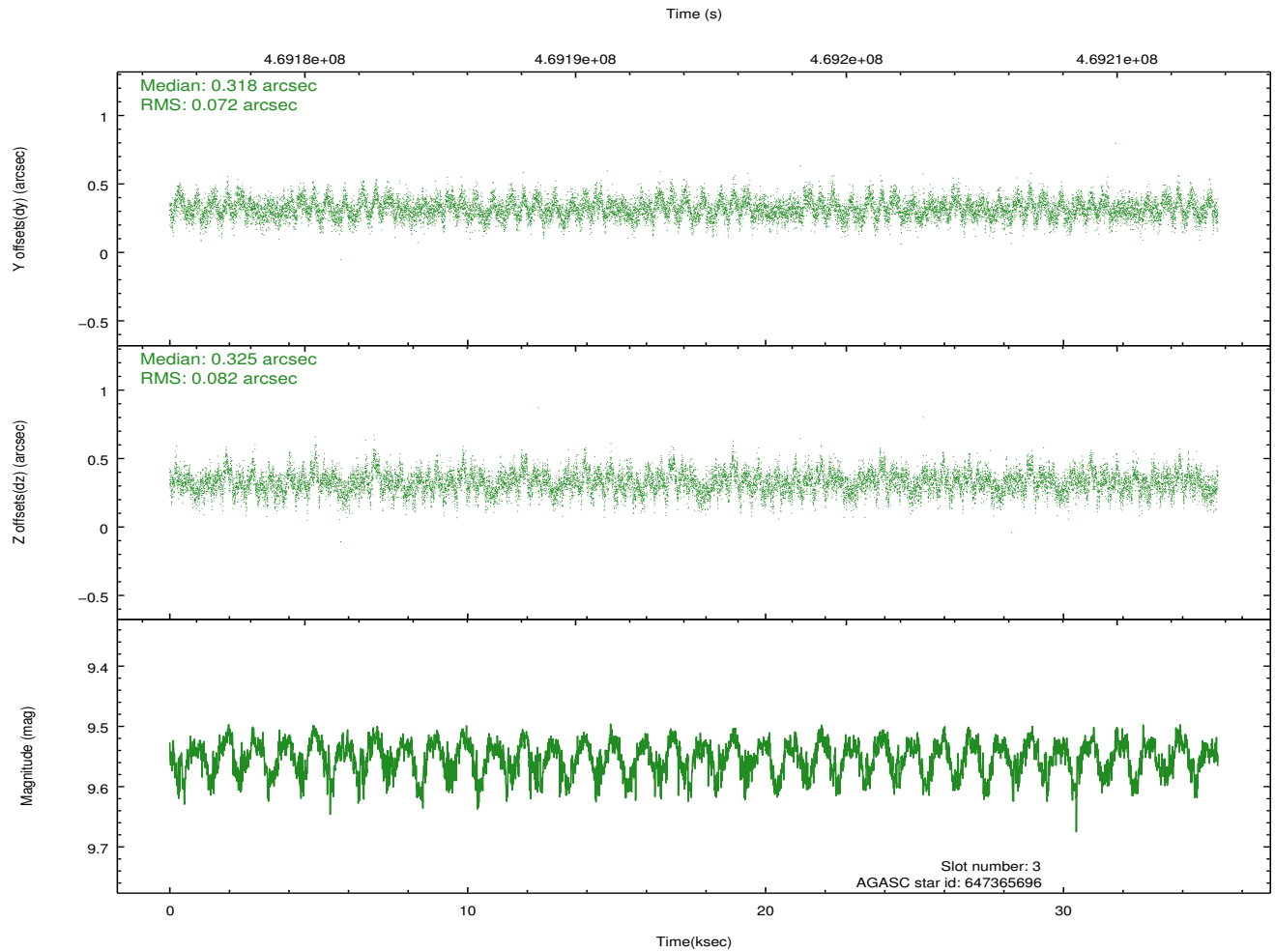
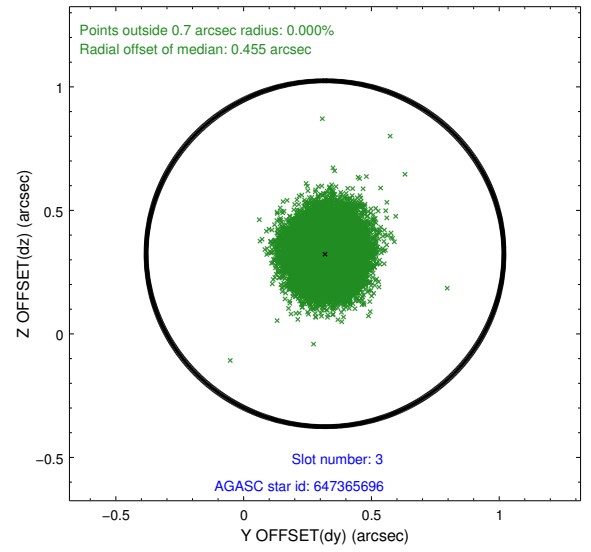
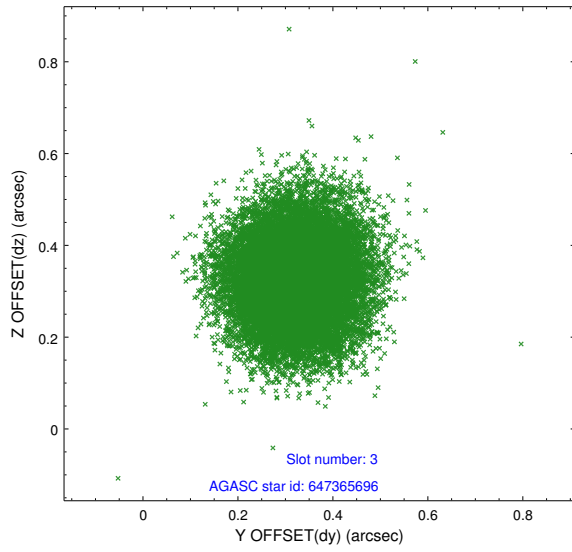
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.05	8583	0.066	-0.002	0.006	0.011	0.000000	0.000000	925.06	-841.24
1	FID		ACIS-I-5	7.04	8582	-0.213	0.076	0.007	0.012	0.000000	0.000000	-1823.28	1056.33
2	FID		ACIS-I-6	7.04	8583	0.056	-0.003	0.007	0.012	0.000000	0.000000	390.58	1700.78
3	GUIDE	used	647365696	9.55	17154	0.318	0.325	0.116	0.187	182.412659	-0.773652	911.58	-194.47
4	GUIDE	used	647365792	10.07	17006	0.210	-0.265	0.174	0.280	181.715467	-0.816714	-230.12	2044.70
5	GUIDE	used	647366520	10.25	17111	0.098	-0.232	0.213	0.371	181.711667	-0.936505	-631.54	1885.31
6	GUIDE	used	647367616	10.03	17127	-0.151	0.250	0.219	0.335	181.986294	-0.660457	673.97	1375.69
7	GUIDE	used	647368440	8.50	17157	-0.468	-0.072	0.095	0.147	182.453364	-1.006149	202.24	-662.59

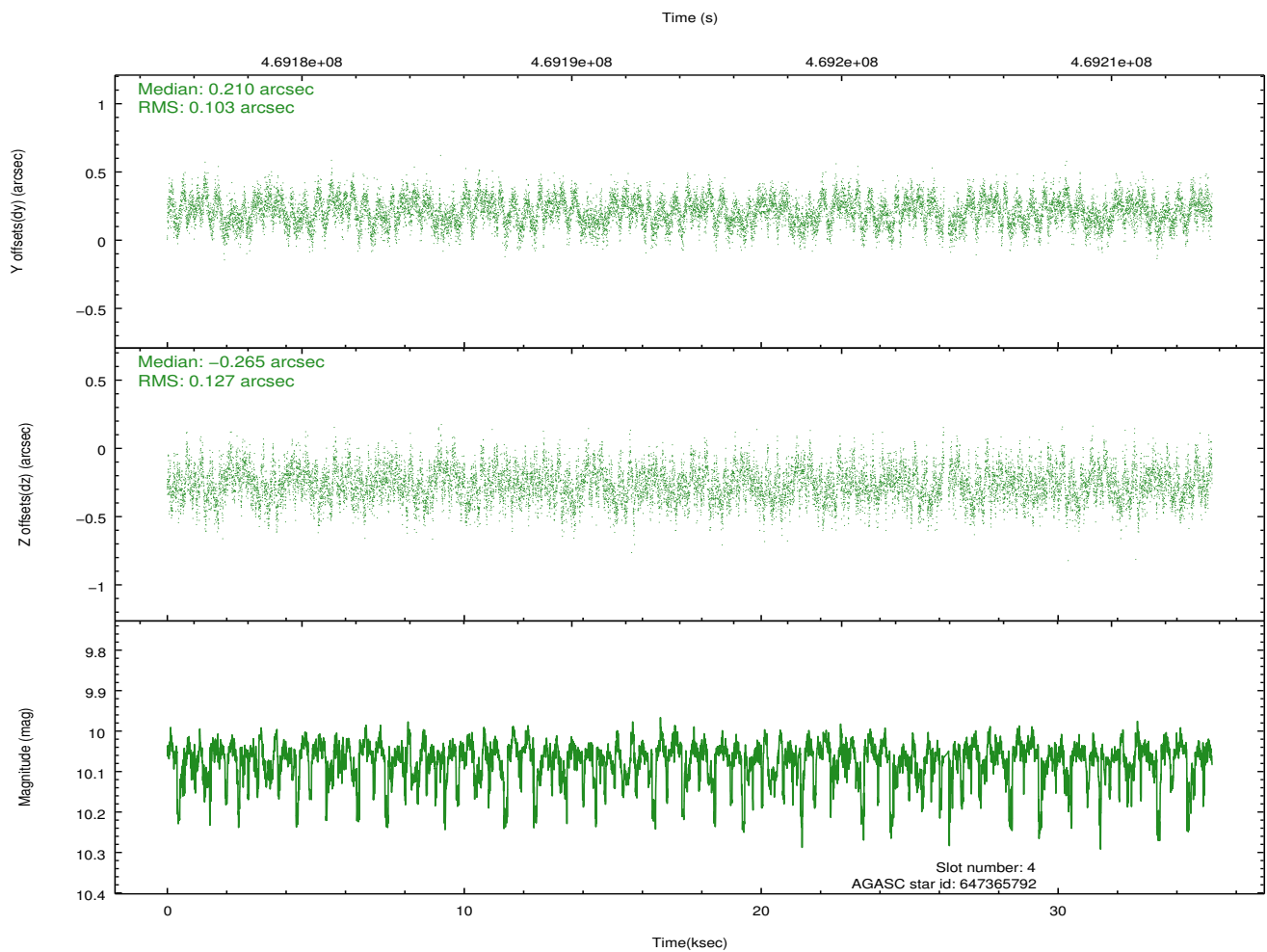
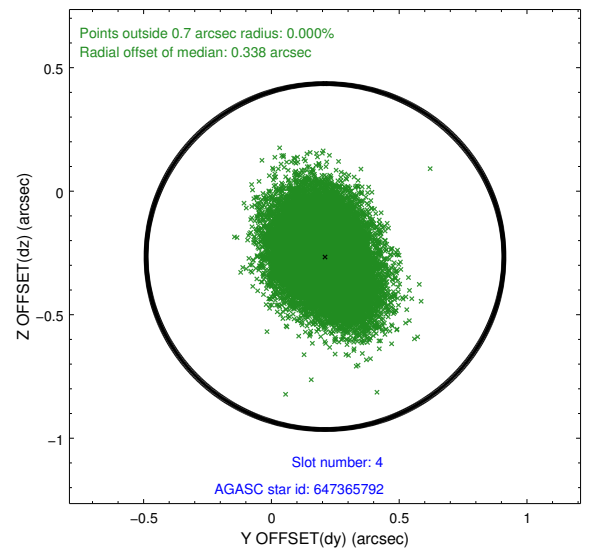
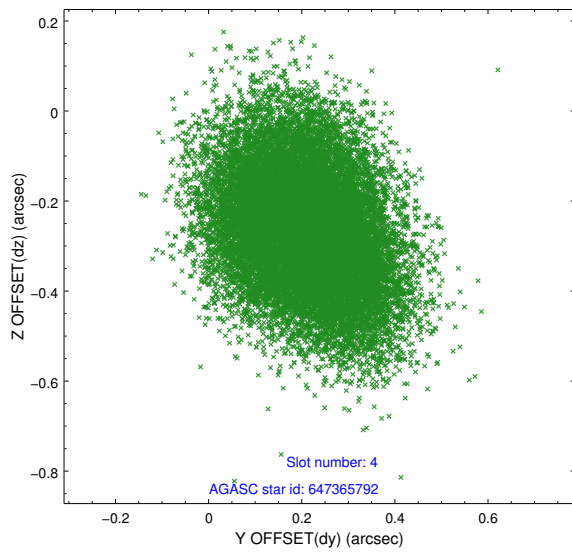
∞

## 2.4 Star Slots

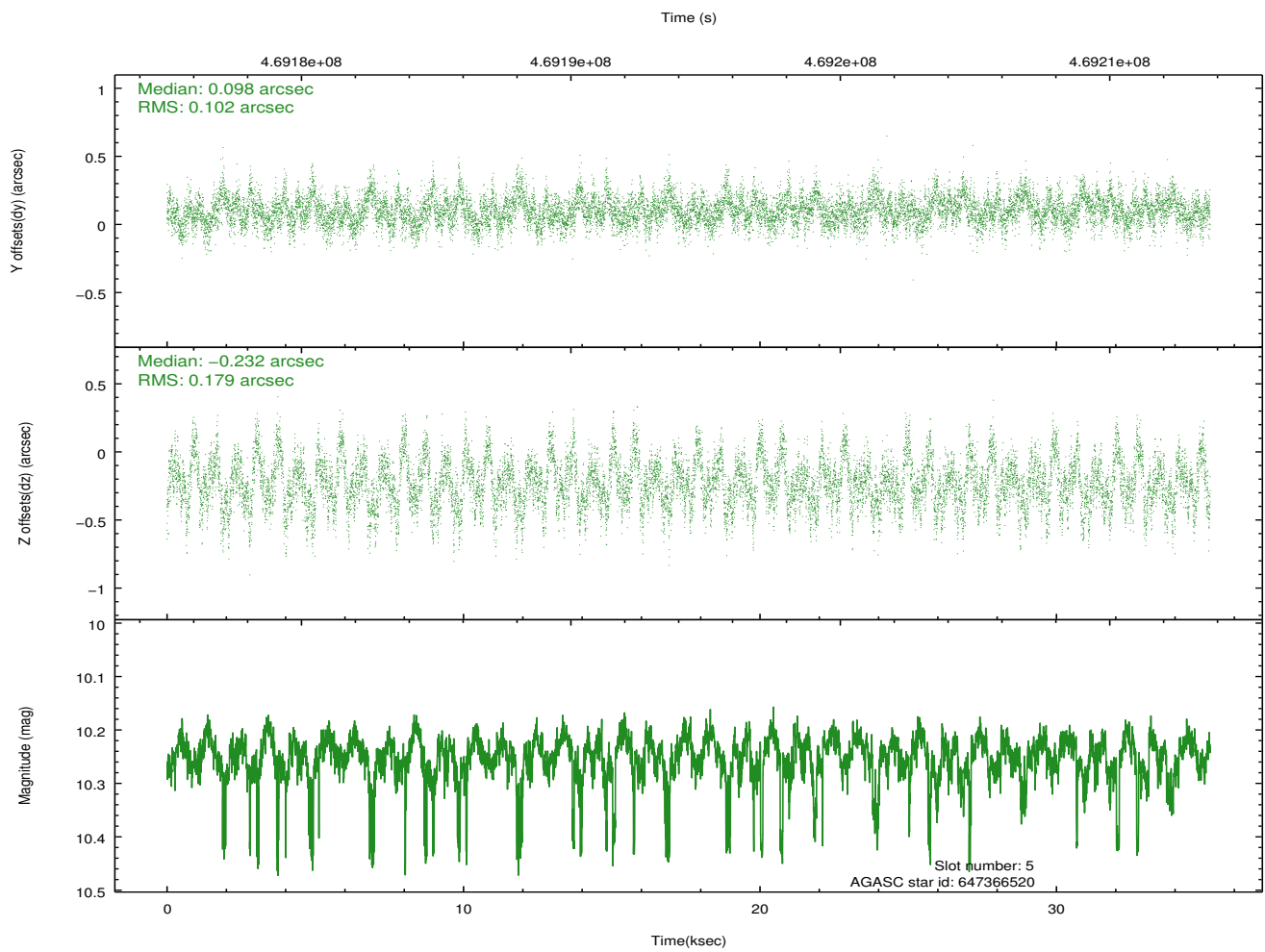
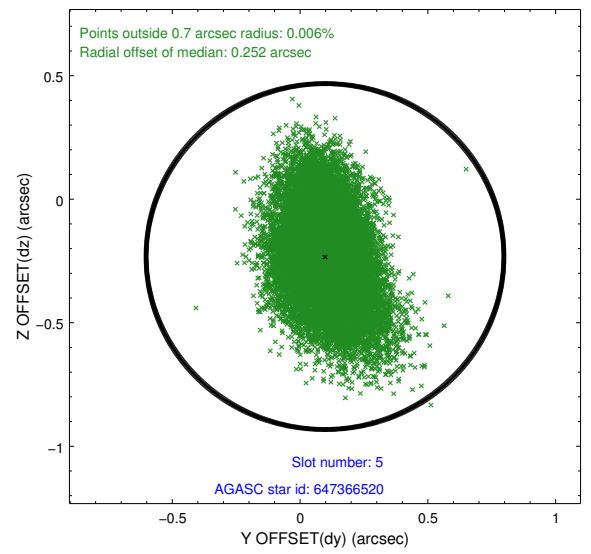
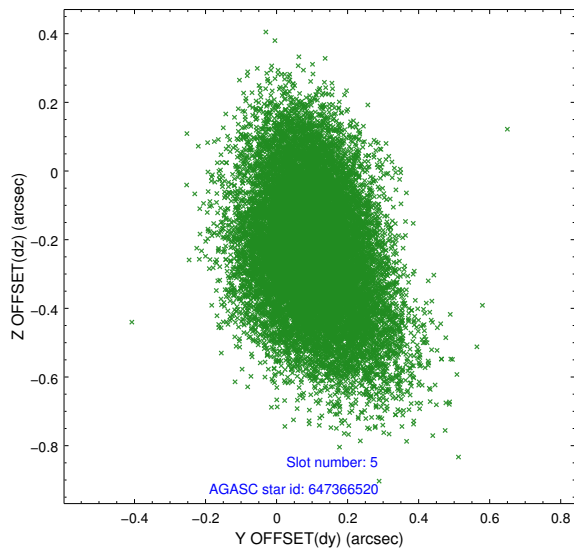
### 2.4.1 Slot 3



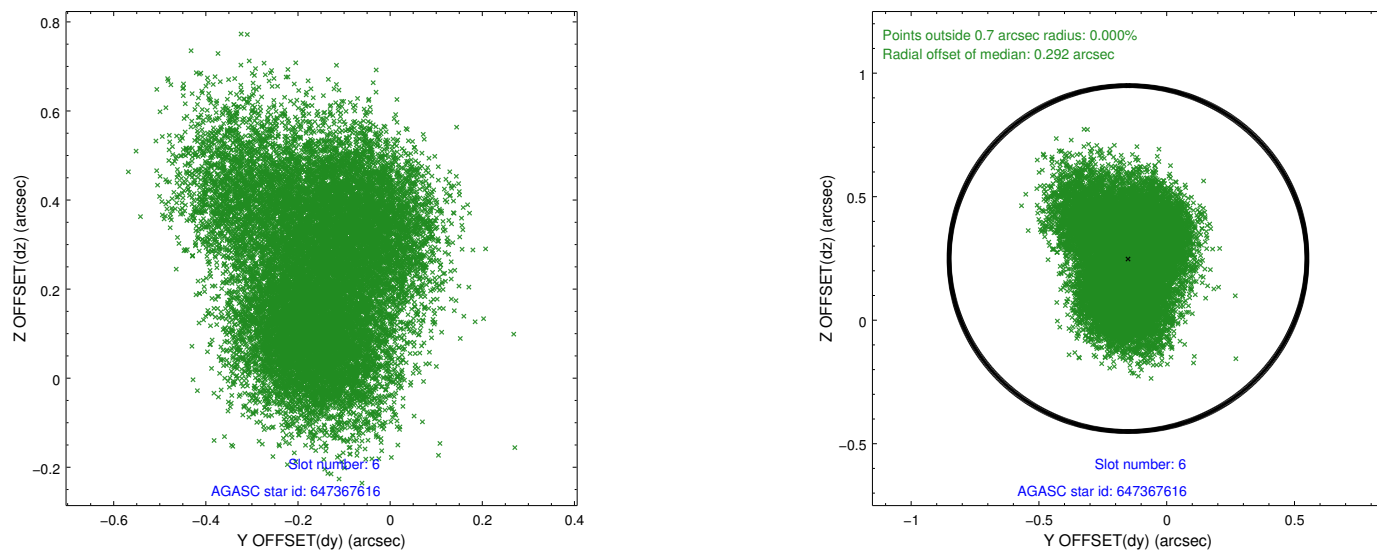
## 2.4.2 Slot 4



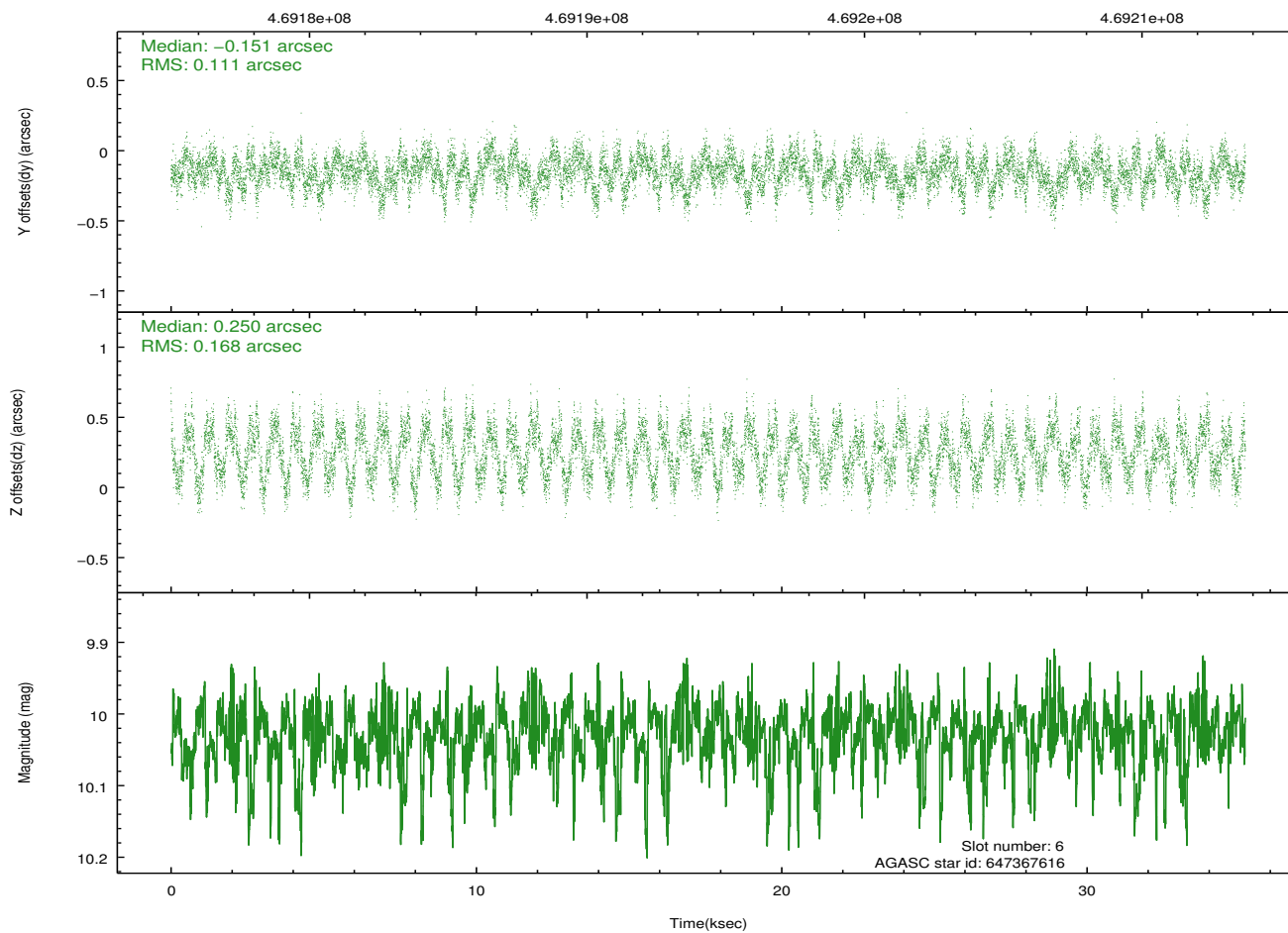
### 2.4.3 Slot 5



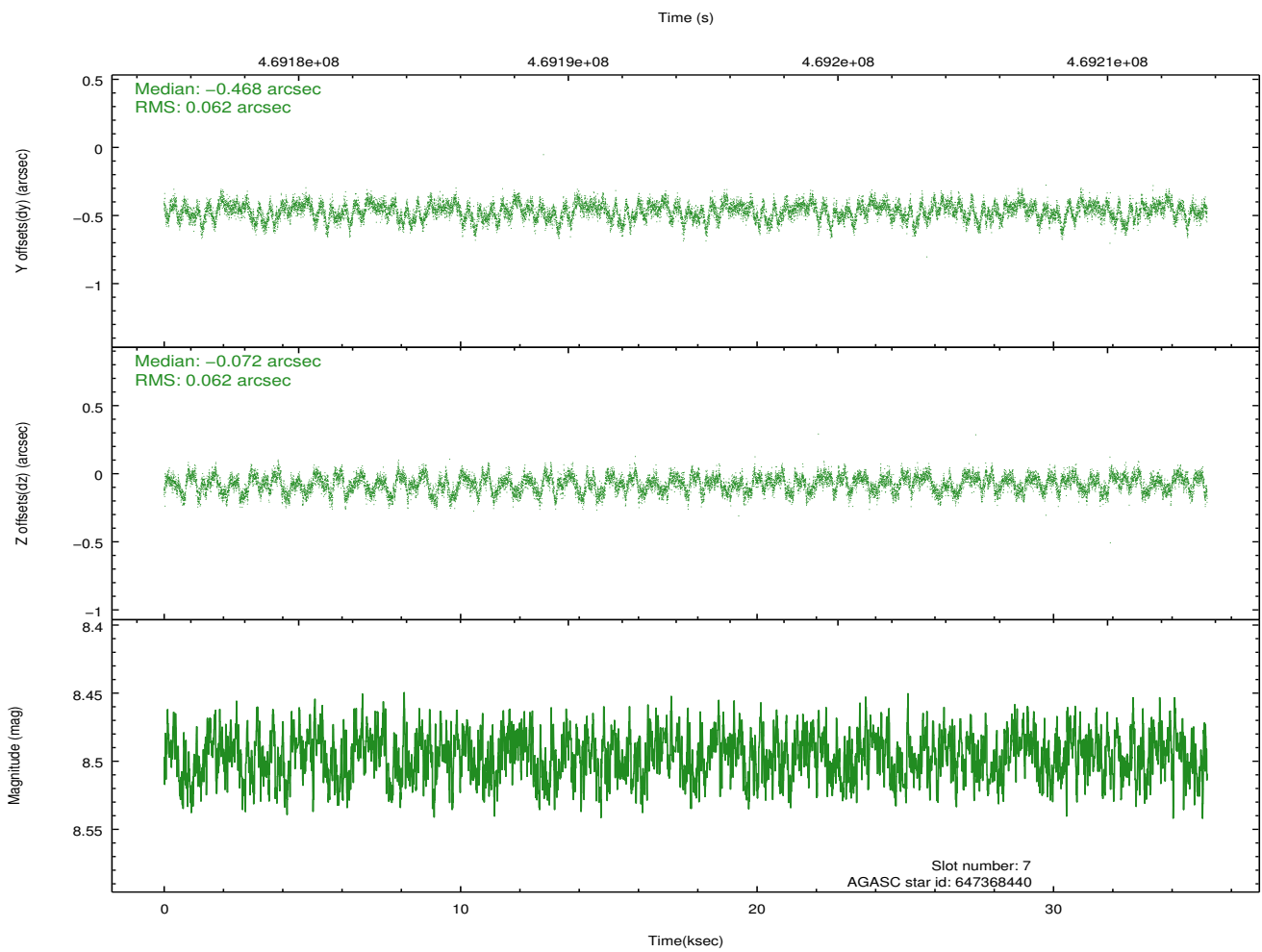
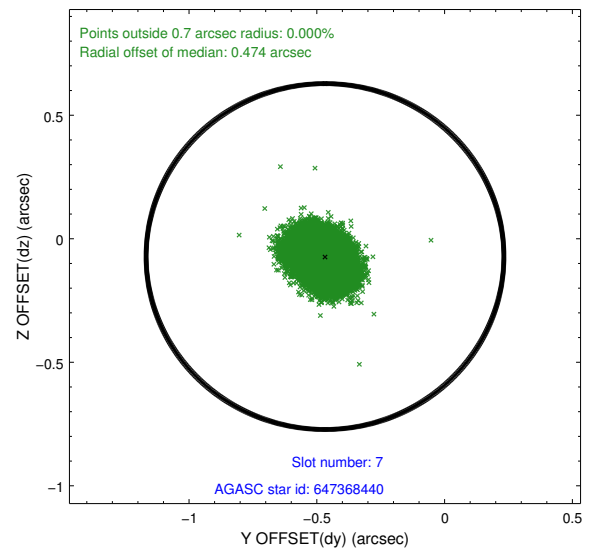
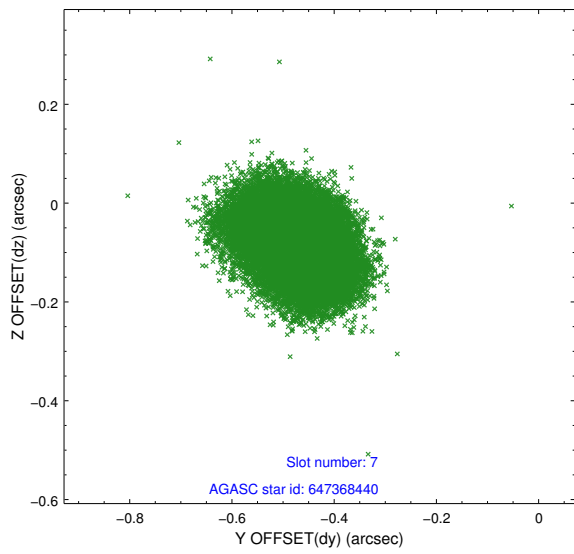
## 2.4.4 Slot 6



Time (s)

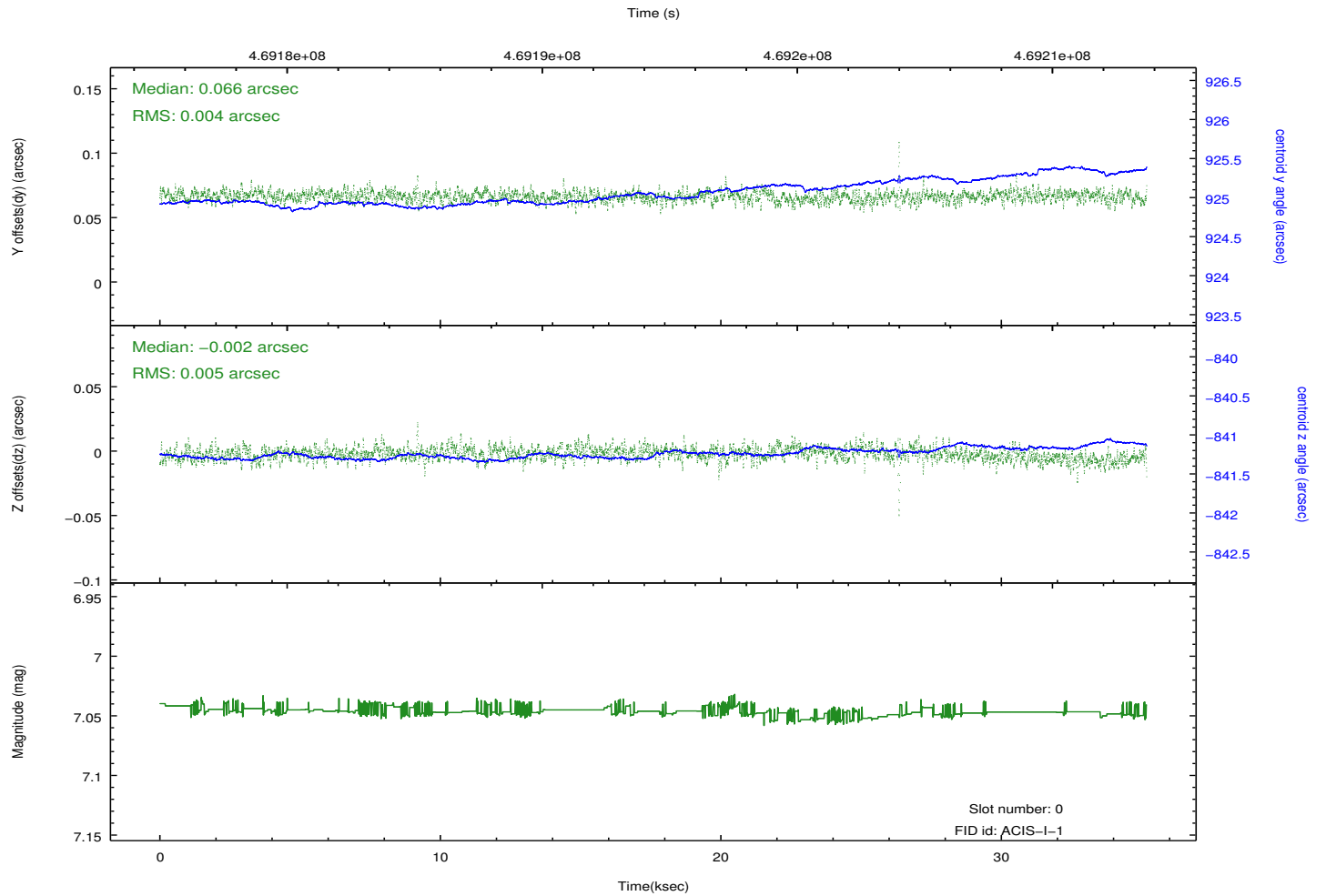
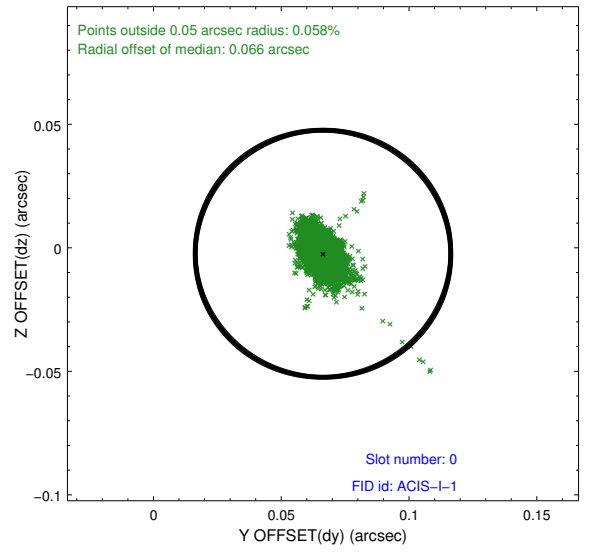
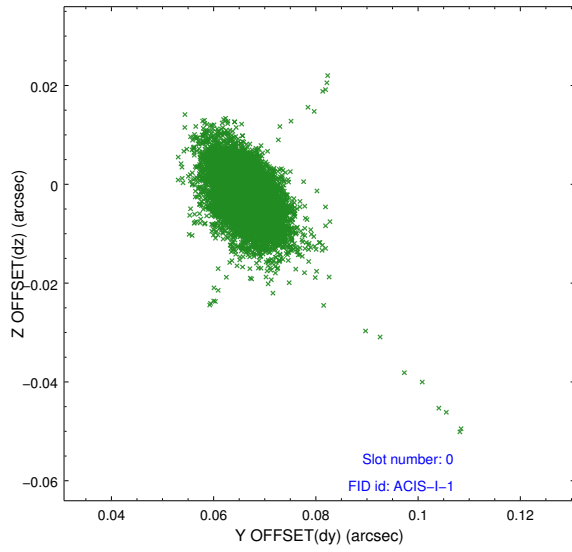


## 2.4.5 Slot 7

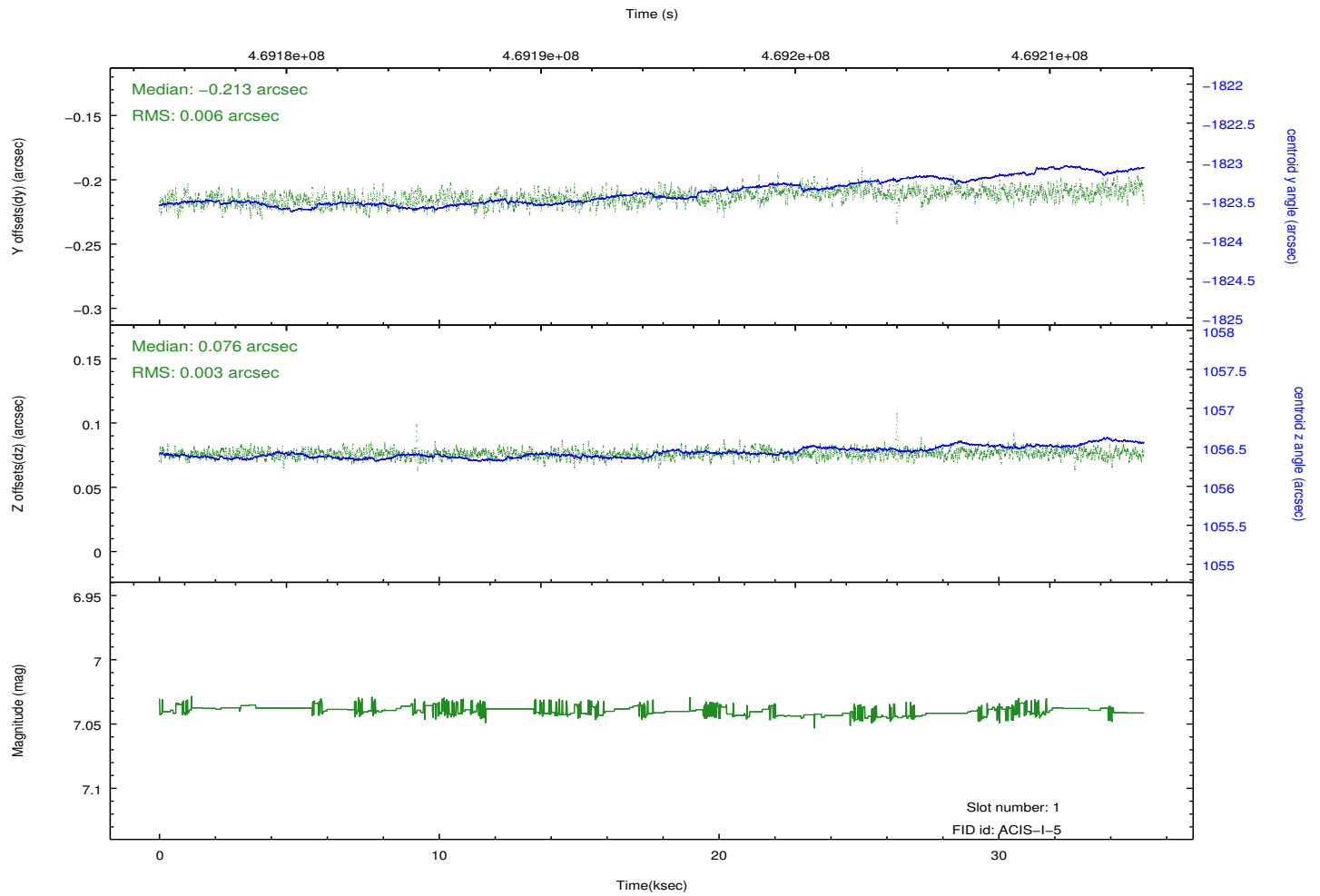
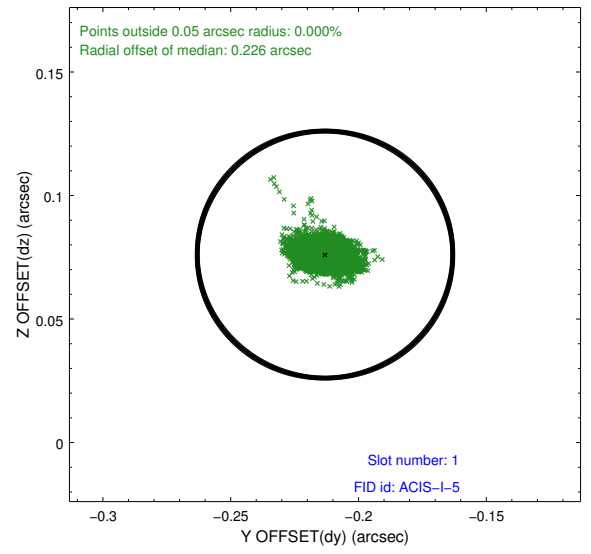
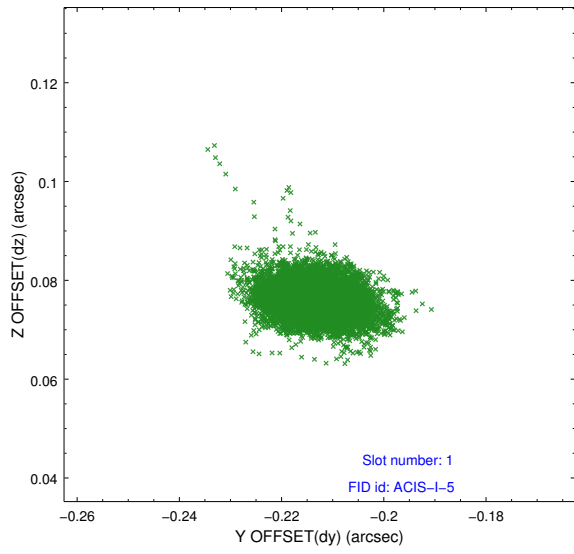


## 2.5 FID Slots

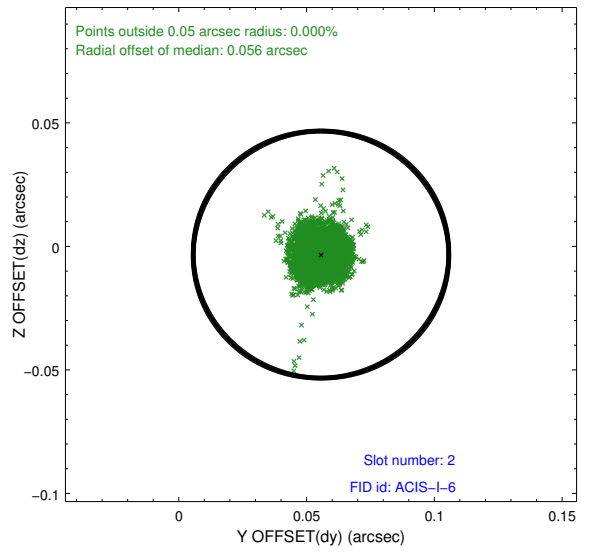
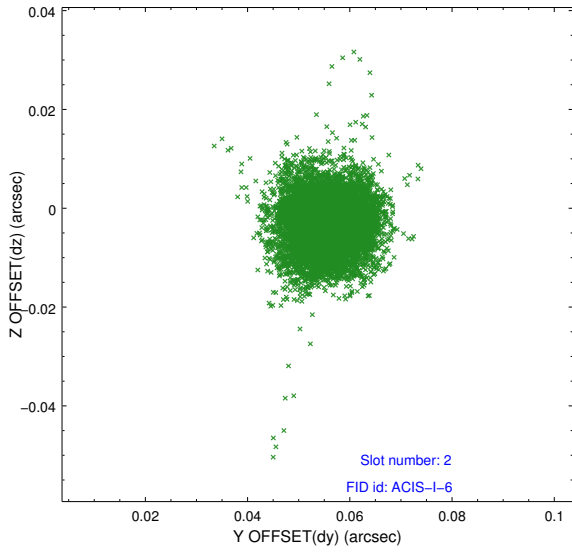
### 2.5.1 Slot 0



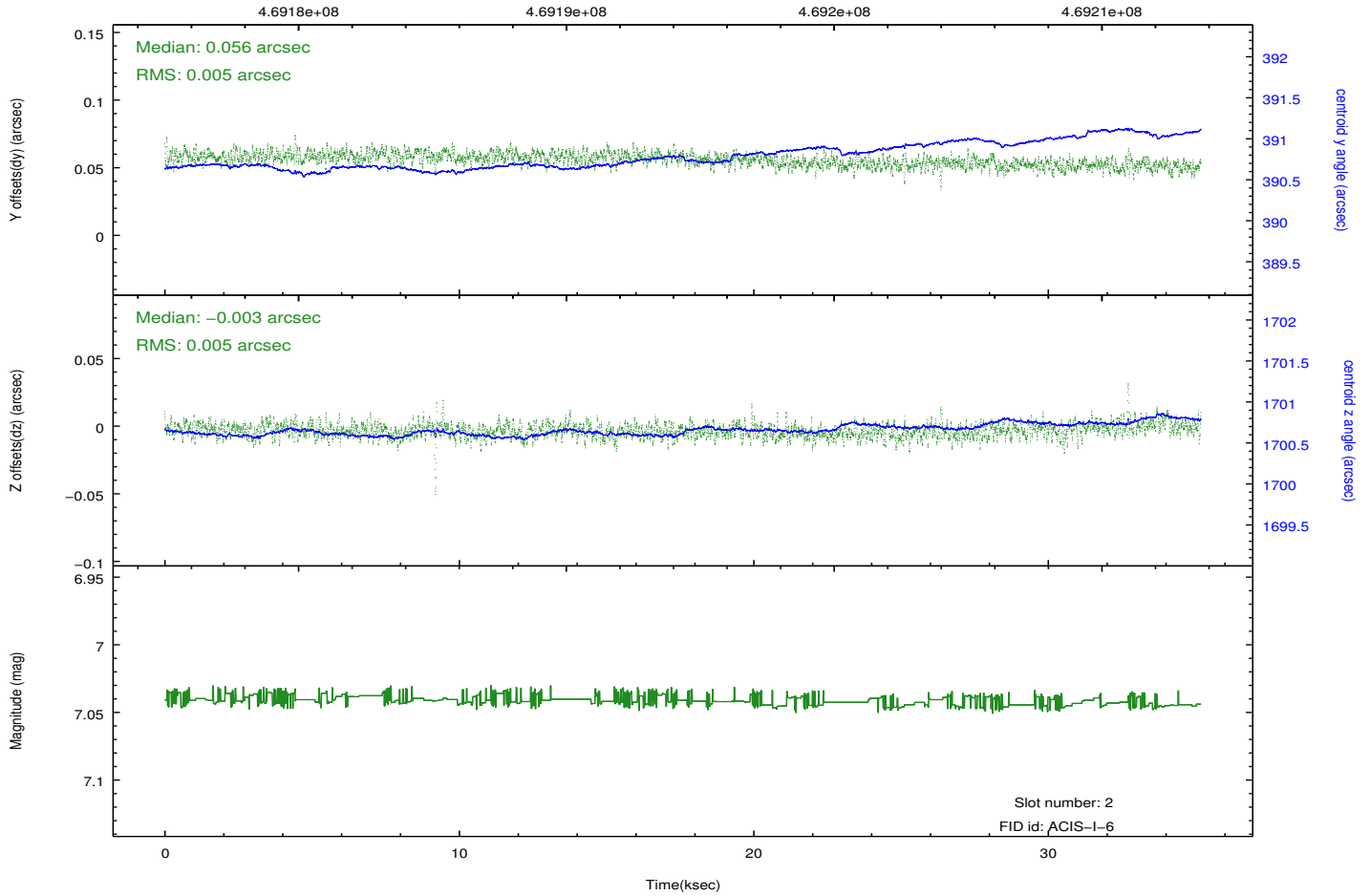
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.769559327006

## 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.