

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4728 - L2 Version 3  
Chandra X-Ray Center

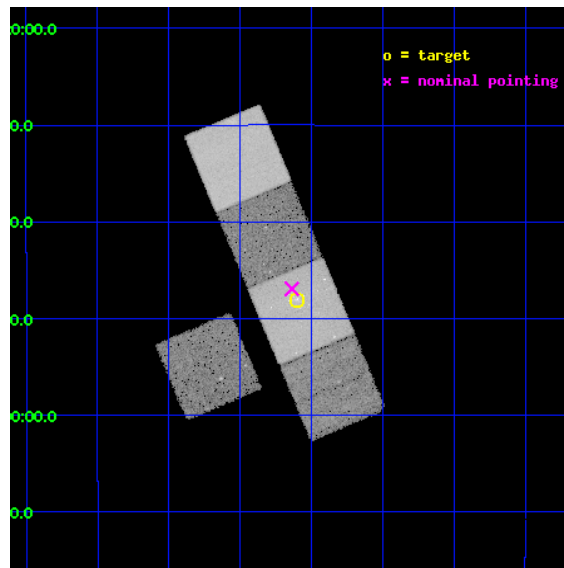
L2 Processing Date : Nov 10 2012

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# 1 Front

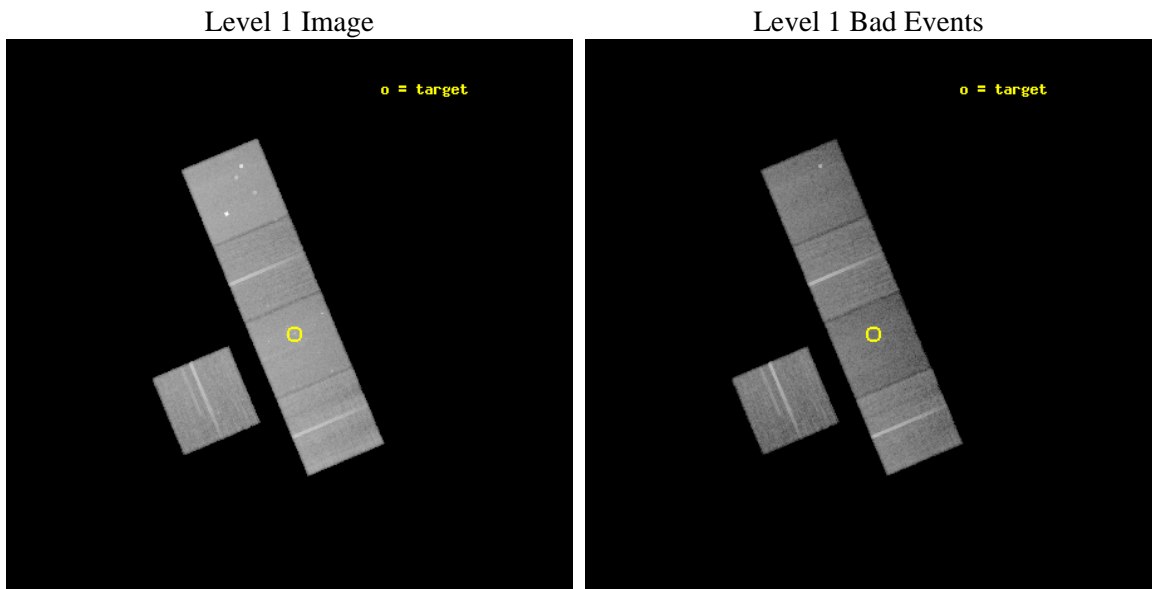
seq_num	600383	Sequence number
obs_id	4728	Observation id
title	Deep Chandra and Hubble Observations NGC 4697, the Nearest Optically Luminous, X-ray Faint Elliptical Galaxy	Proposal title
observer	Dr. CRAIG SARAZIN	Principal investigator
object	NGC4697	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.149583	Observer's specified target RA [deg]
dec_targ	-5.800556	Observer's specified target Dec [deg]
ra_nom	192.15923283028	Nominal RA [deg]
dec_nom	-5.7821472446713	Nominal Dec [deg]
roll_nom	67.211914203641	Nominal Roll [deg]
revision	3	Processing version of data
ontime	36155.299930453	Sum of GTIs [s]
livetime	35682.904319717	Livetime [s]
ontime3	36155.299930453	Sum of GTIs [s]
ontime5	36155.299930453	Sum of GTIs [s]
ontime6	36152.159069866	Sum of GTIs [s]
ontime7	36155.299930453	Sum of GTIs [s]
ontime8	36155.299930453	Sum of GTIs [s]
l2events	277102	Number of level 2 events



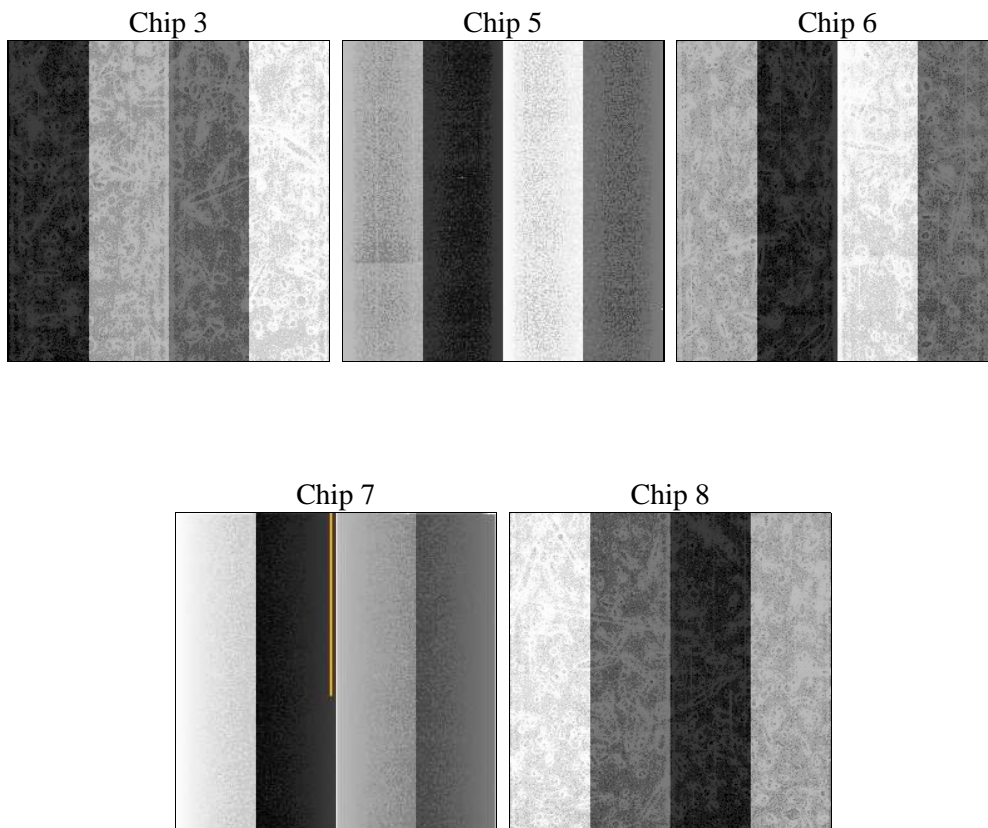
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	36155.299930453	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime3	36155.299930453	Sum of GTIs [s]
date	2012-11-10T04:04:19	Date and time of file creation	ontime5	36155.299930453	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	36152.159069866	Sum of GTIs [s]
			ontime7	36155.299930453	Sum of GTIs [s]
			ontime8	36155.299930453	Sum of GTIs [s]
			l1events	1115302	Number of level 1 events

### 2.1.4 Events

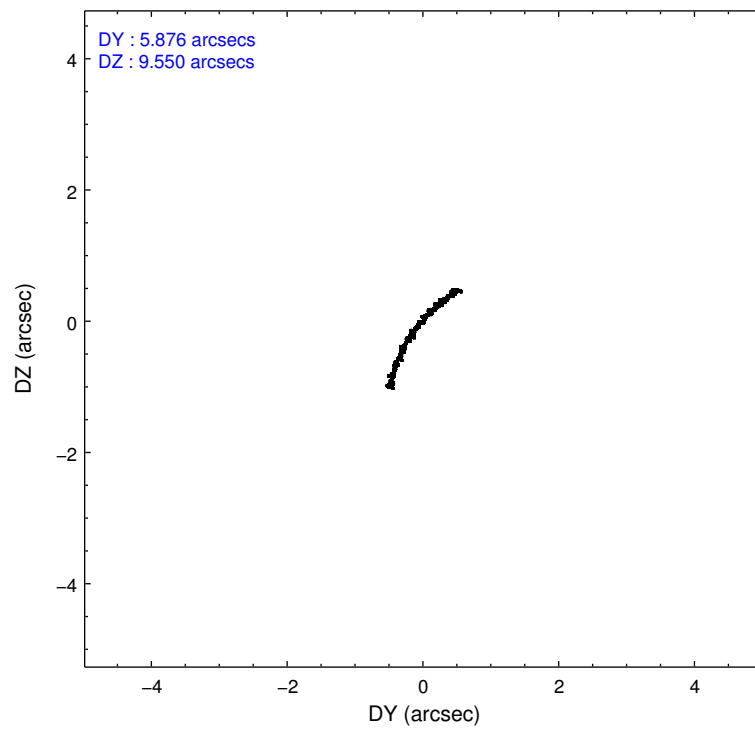
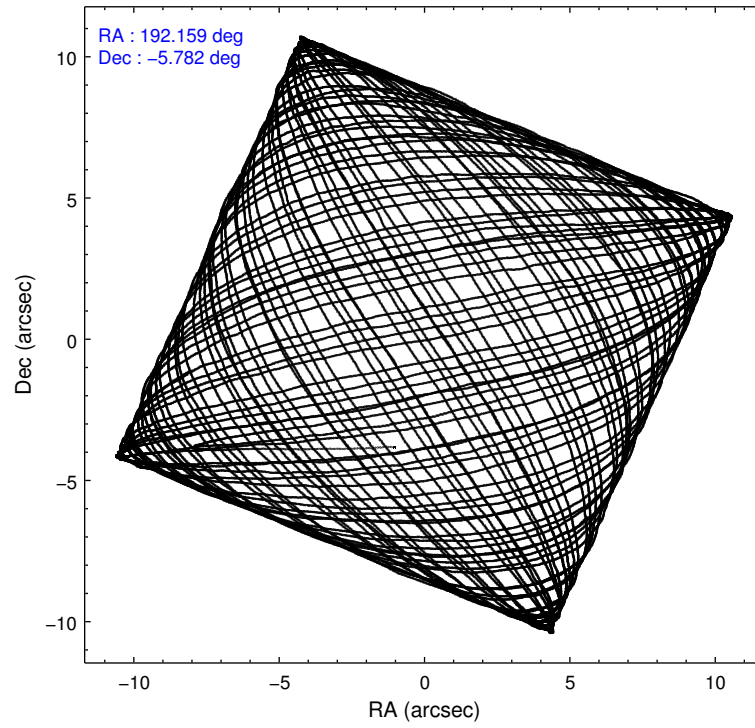
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	183532	274548	195012	223421	238789
rejected events	165488	137358	174126	118928	185137
rejected %	90%	50%	89%	53%	77%

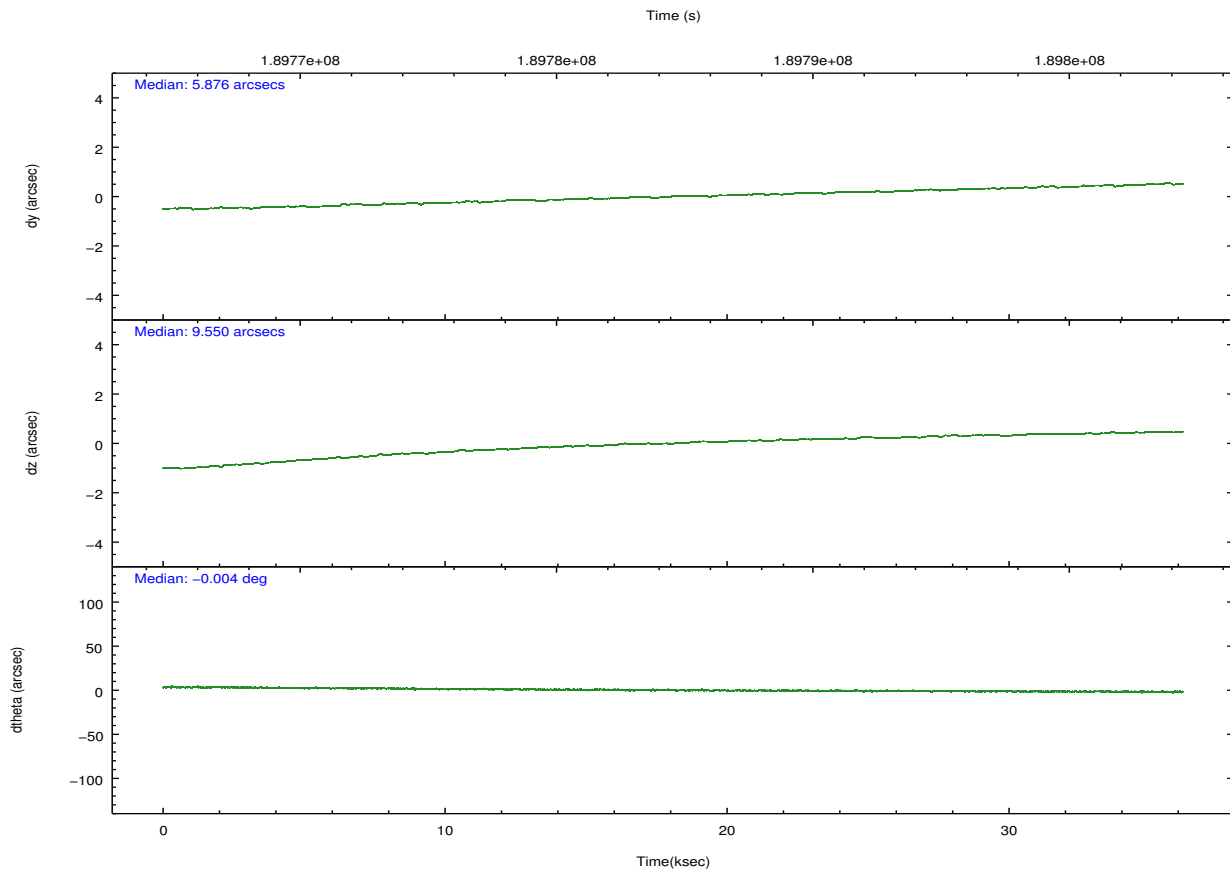
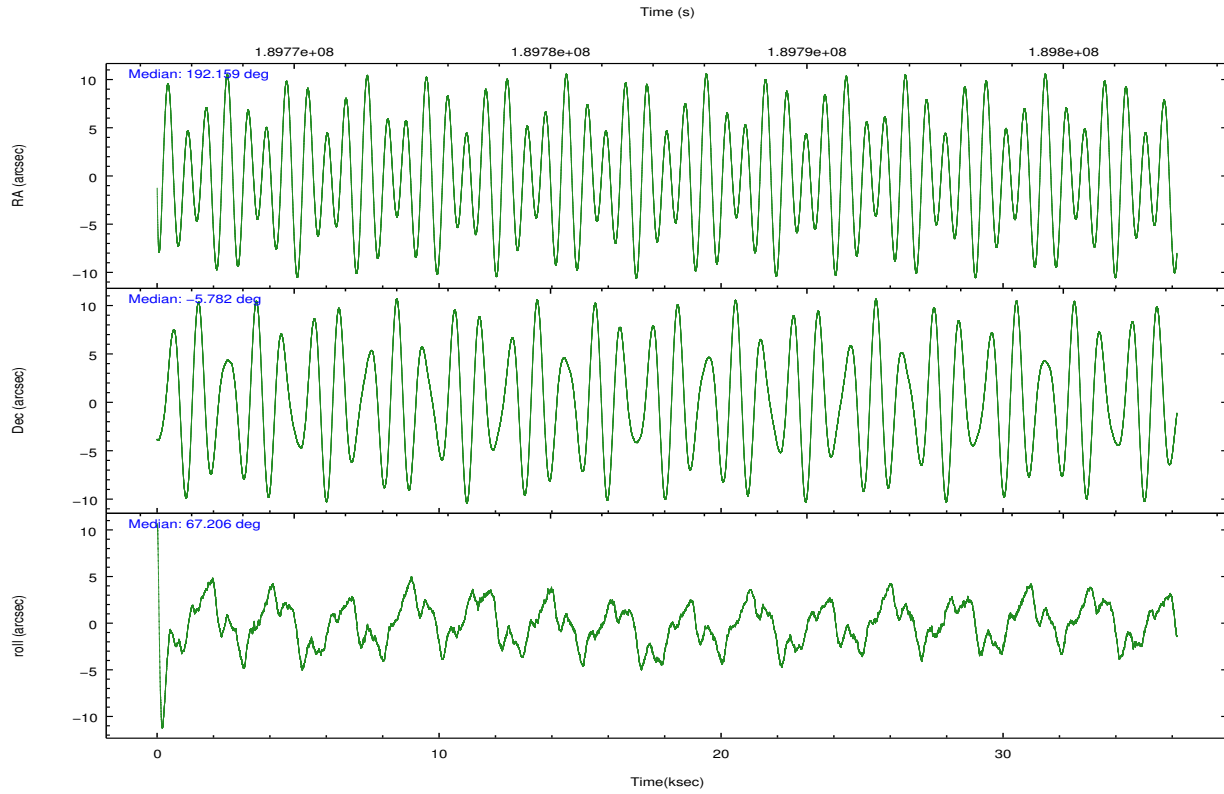
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	6946	21983	8160	12289	17422
	3%	8%	4%	5%	7%
grade 1 events	94	240	100	173	161
	0%	0%	0%	0%	0%
grade 2 events	3863	39059	4292	21585	12009
	2%	14%	2%	9%	5%
grade 3 events	2102	6270	2270	10181	5794
	1%	2%	1%	4%	2%
grade 4 events	2029	6069	2277	10044	5466
	1%	2%	1%	4%	2%
grade 5 events	7359	21915	7715	22841	10710
	4%	7%	3%	10%	4%
grade 6 events	3433	66465	4230	52259	14095
	1%	24%	2%	23%	5%
grade 7 events	157706	112547	165968	94049	173132
	85%	40%	85%	42%	72%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	192.163042	192.1592328302831	Subarray requested	NONE	NONE
[deg] Pointing Dec	-5.809121	-5.782147244671311	Alternating exposures requested	N	N
[deg] Pointing Roll	67.055666	67.21191420364102	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	189766630.184000	189764171.93054			
Observation start date	2004-01-06T08:56:06	2004-01-06T08:16:11			
[s] Observation end time (MET)	189802630.184000	189803250.05724			
Observation end date	2004-01-06T18:56:06	2004-01-06T19:07:30			
Read mode	TIMED	TIMED			

## 2.3 Aspect



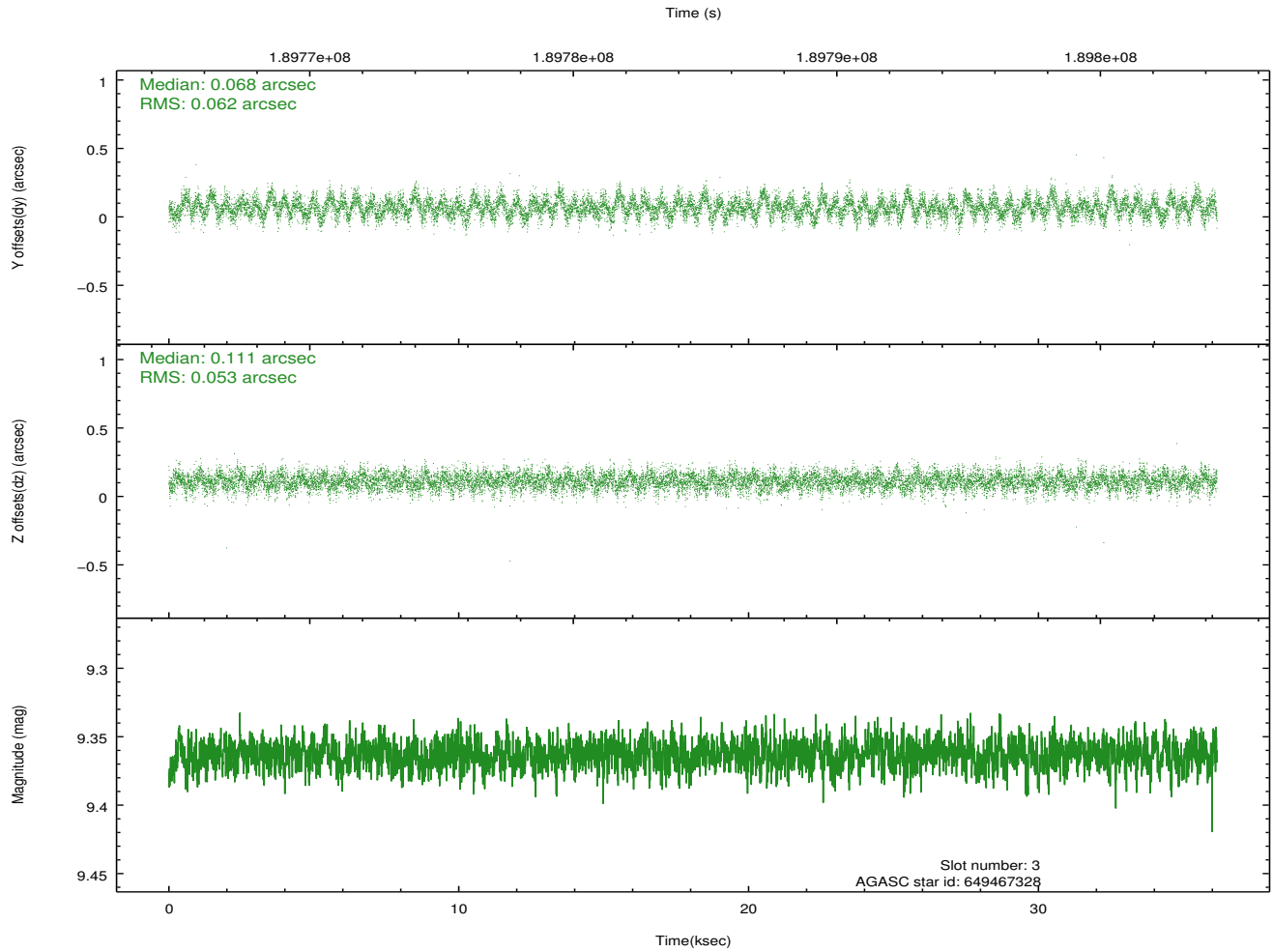
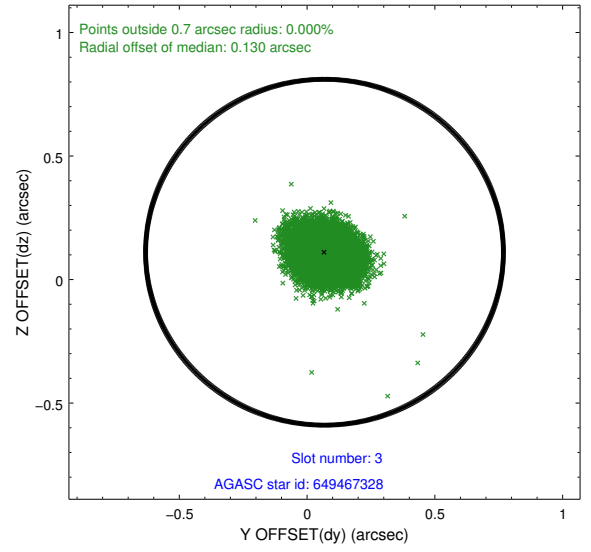
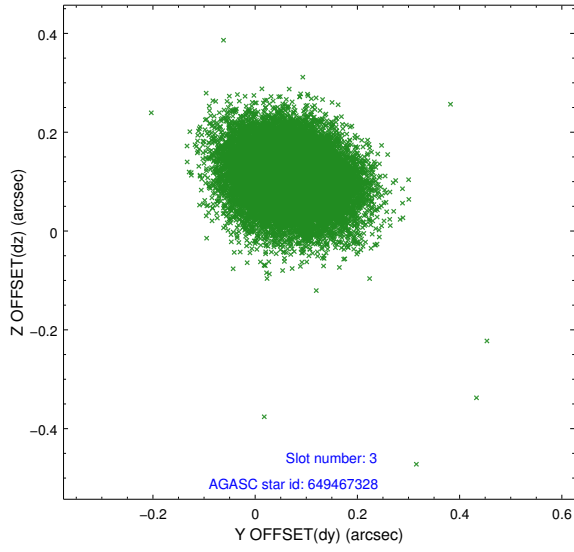


### Slot Statistics

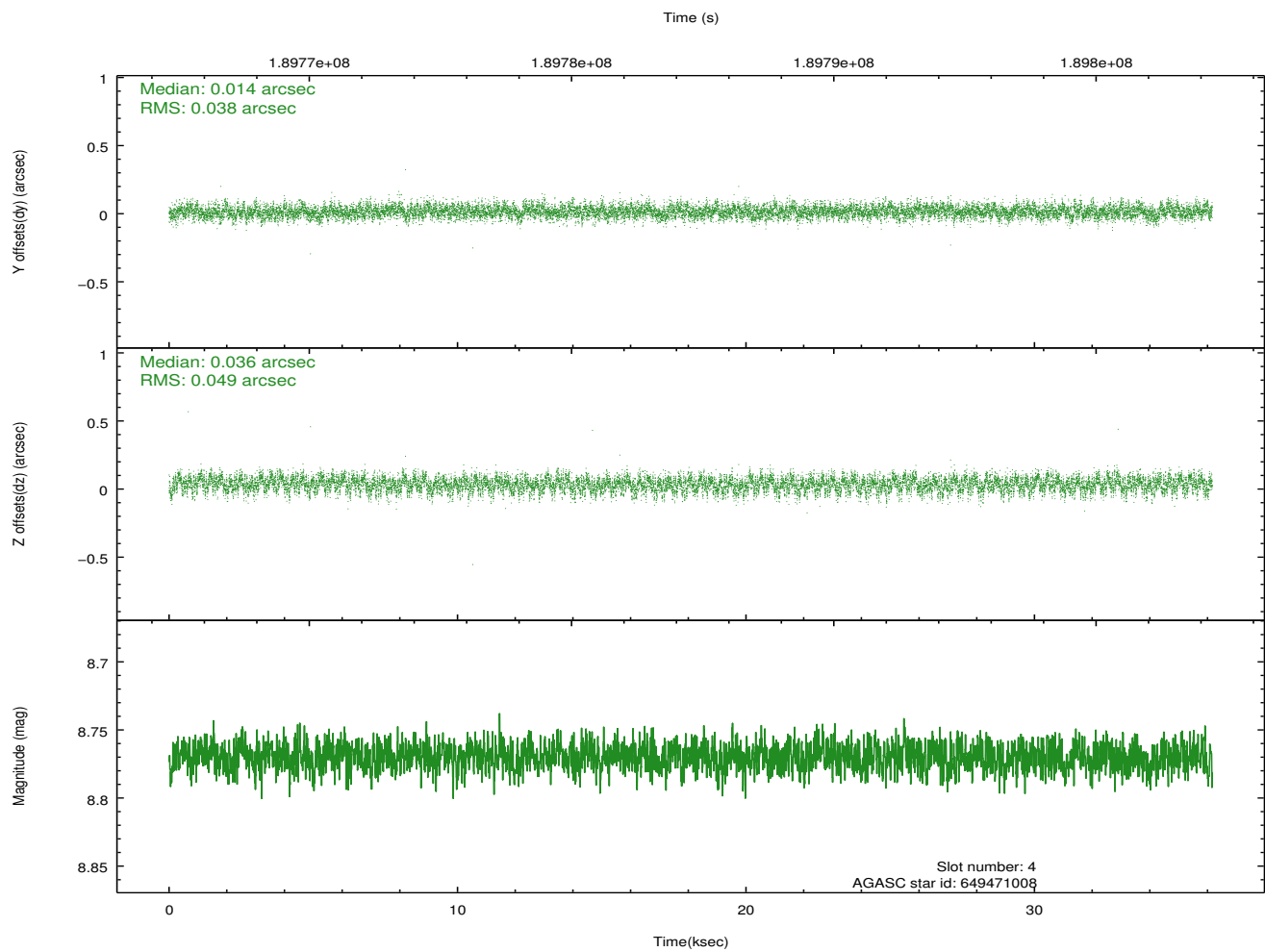
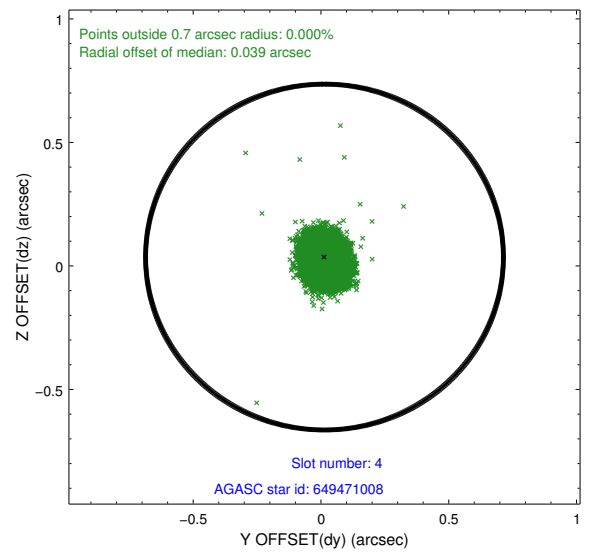
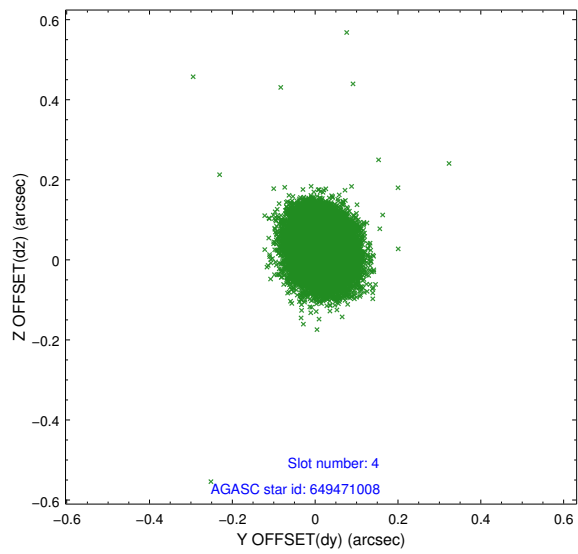
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	8821	-0.053	-0.029	0.012	0.030	0.000000	0.000000	-758.63	-1730.73
1	FID	ACIS-S-4	7.20	8821	0.083	0.034	0.008	0.025	0.000000	0.000000	2154.75	177.80
2	FID	ACIS-S-5	7.23	8821	-0.060	0.004	0.012	0.041	0.000000	0.000000	-1811.46	171.46
3	GUIDE	649467328	9.36	17621	0.068	0.111	0.087	0.140	192.312268	-5.822418	164.72	-510.46
4	GUIDE	649471008	8.77	17639	0.014	0.036	0.065	0.106	191.883055	-5.890695	-661.31	808.91
5	GUIDE	649471216	9.00	17635	0.044	-0.268	0.077	0.126	192.046748	-5.955581	-647.68	177.76
6	GUIDE	649471800	8.61	17637	-0.135	-0.148	0.056	0.090	192.288030	-5.445033	1381.49	98.67
7	GUIDE	649594712	8.43	17632	0.007	0.270	0.075	0.120	192.730305	-6.061024	-43.80	-2223.48

## 2.4 Star Slots

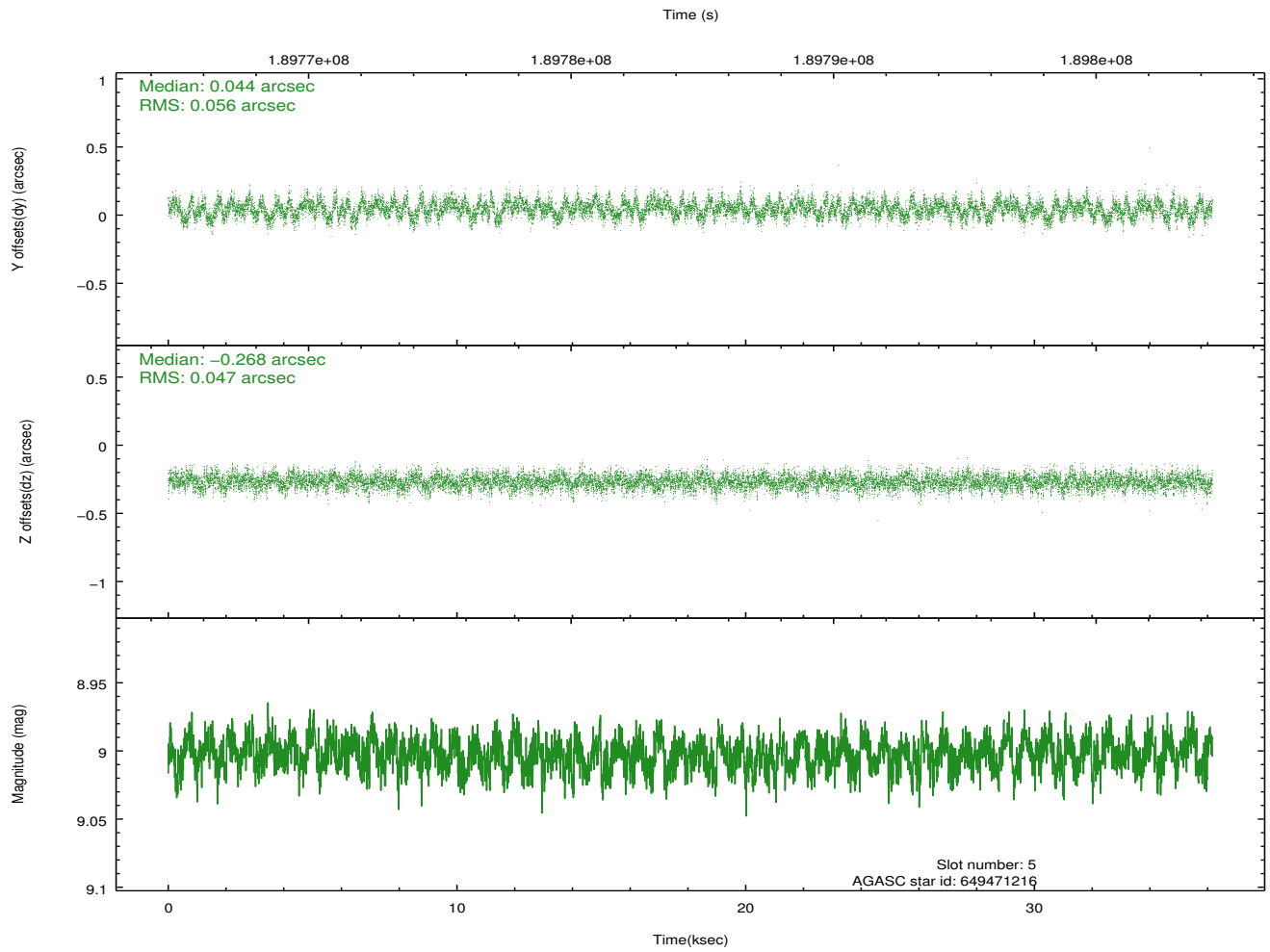
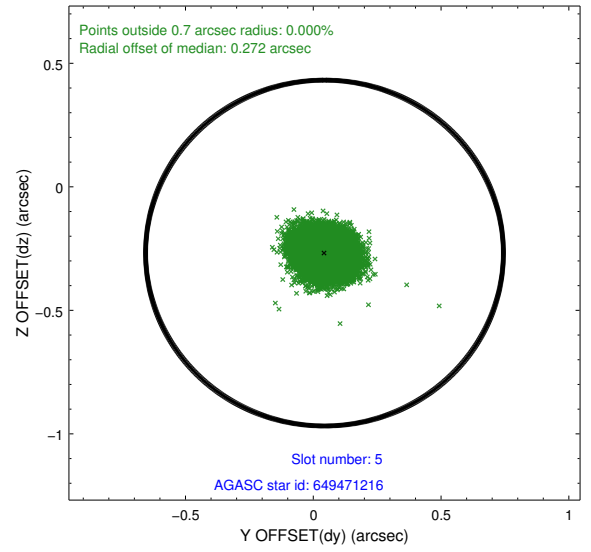
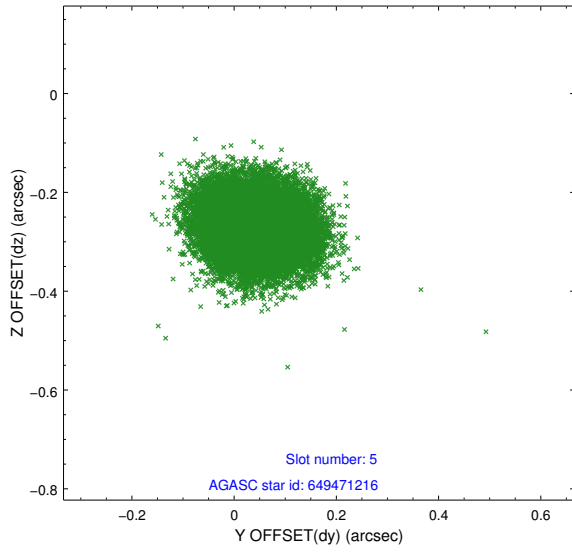
### 2.4.1 Slot 3



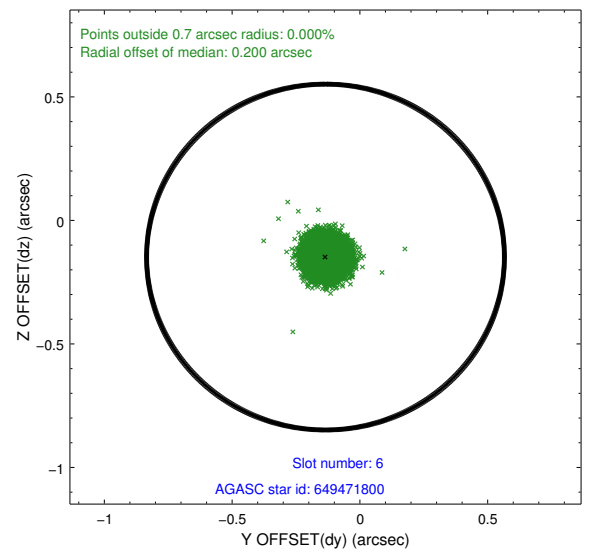
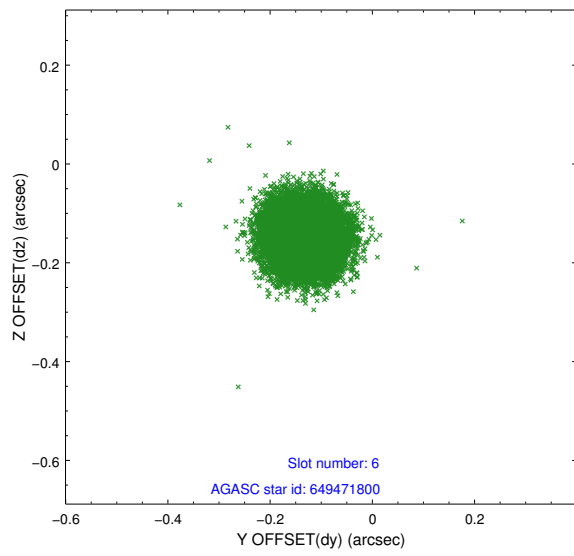
## 2.4.2 Slot 4



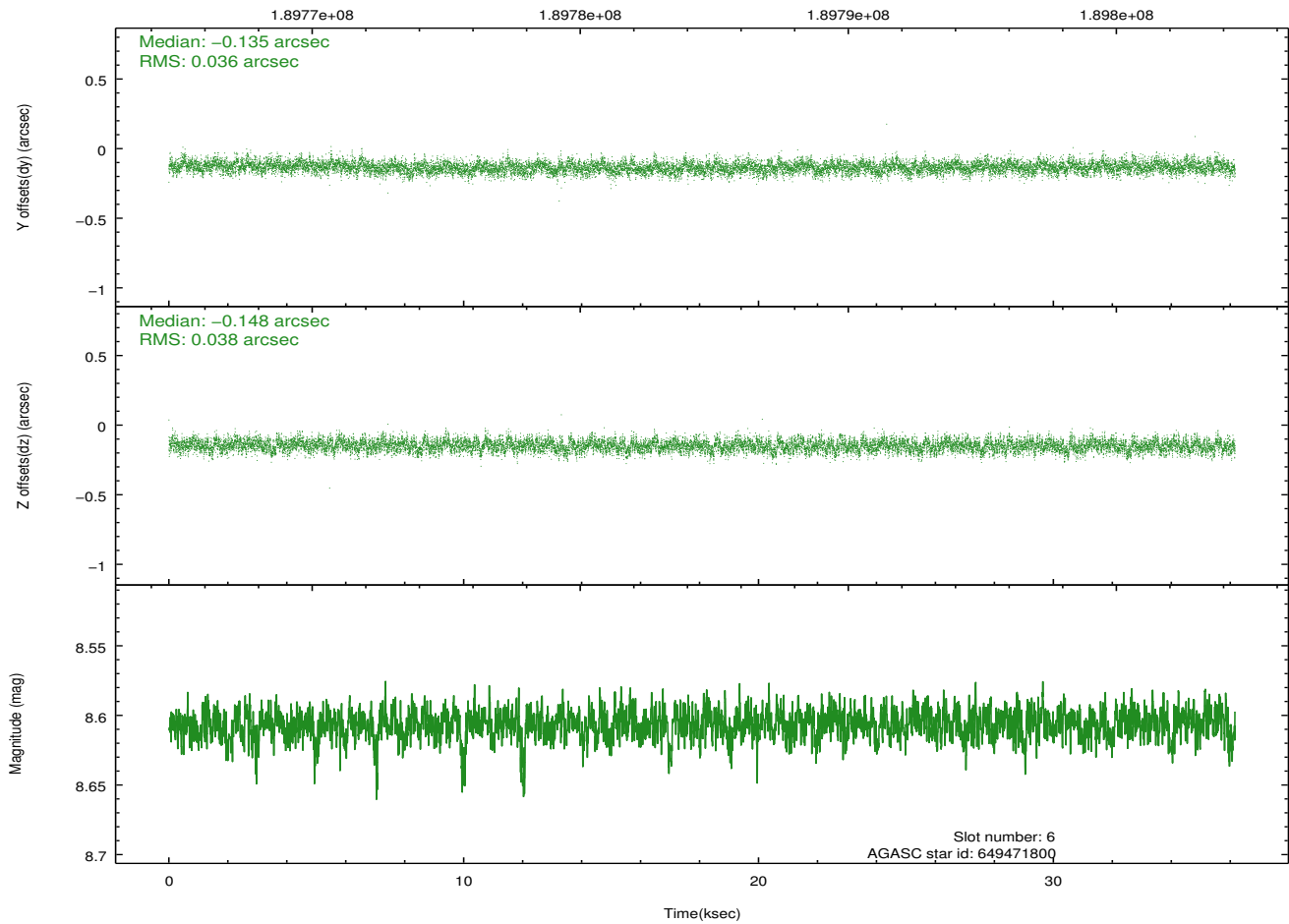
### 2.4.3 Slot 5



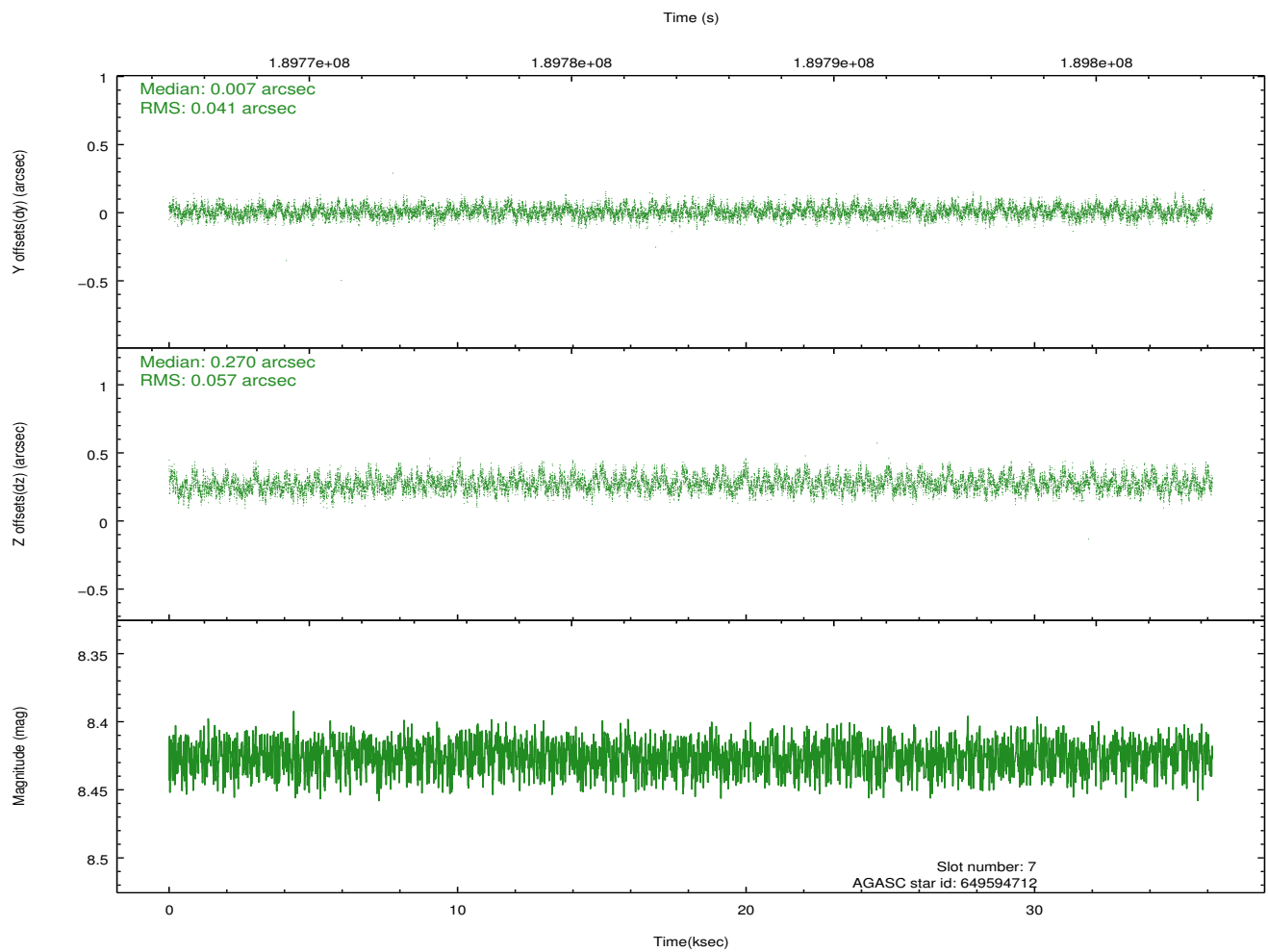
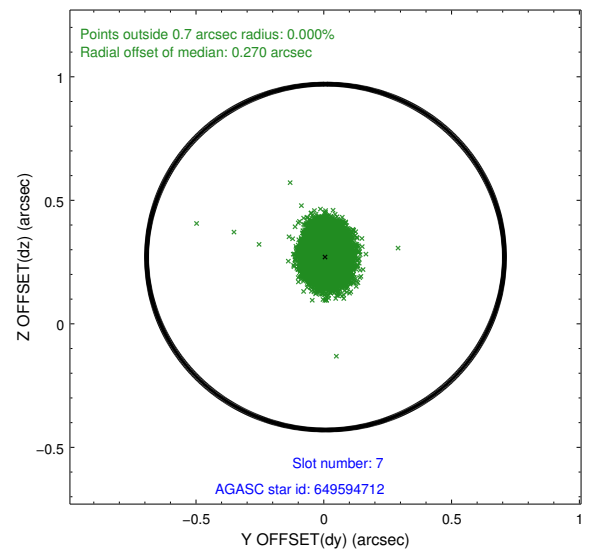
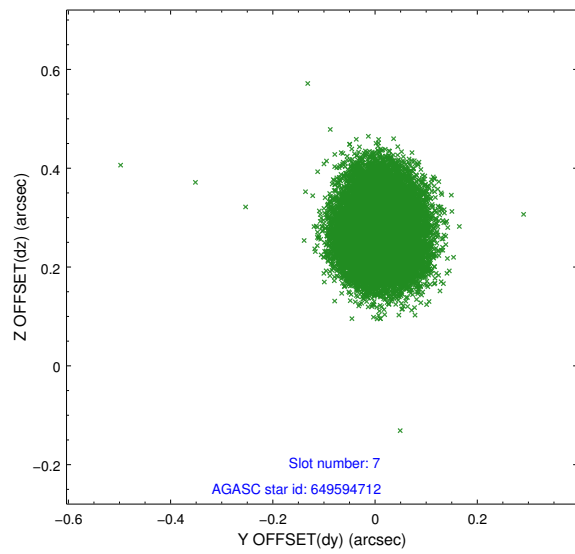
## 2.4.4 Slot 6



Time (s)

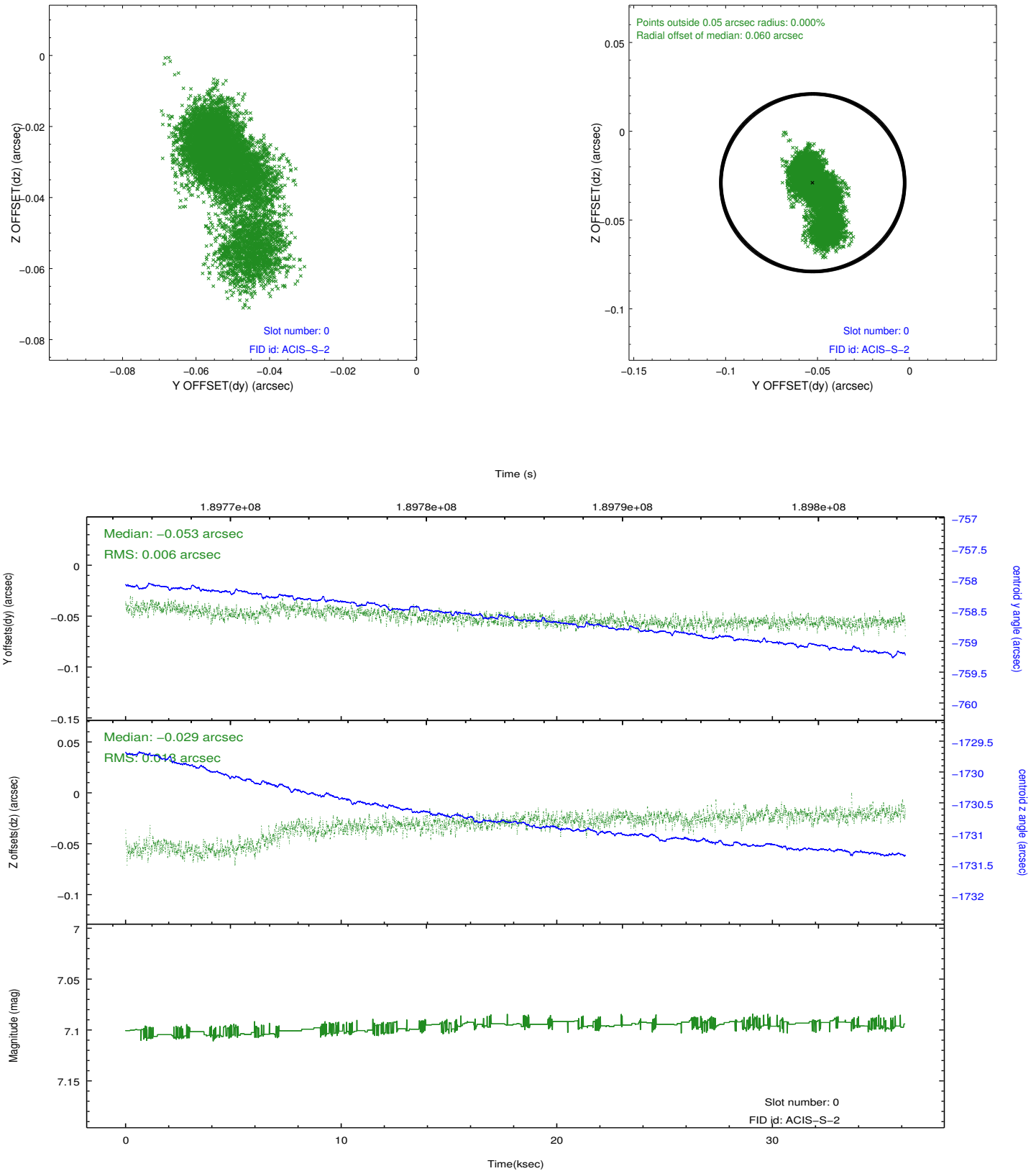


## 2.4.5 Slot 7

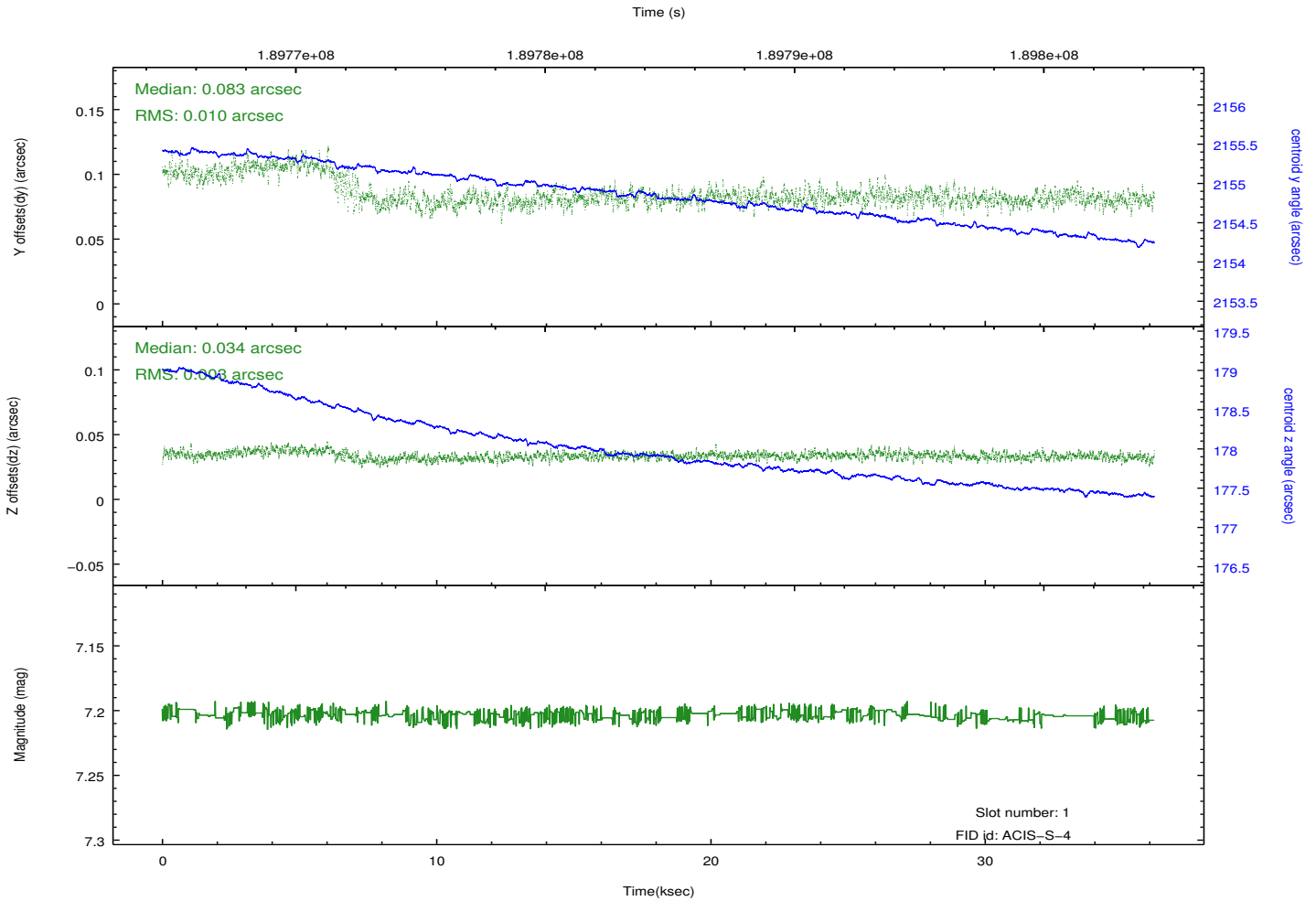
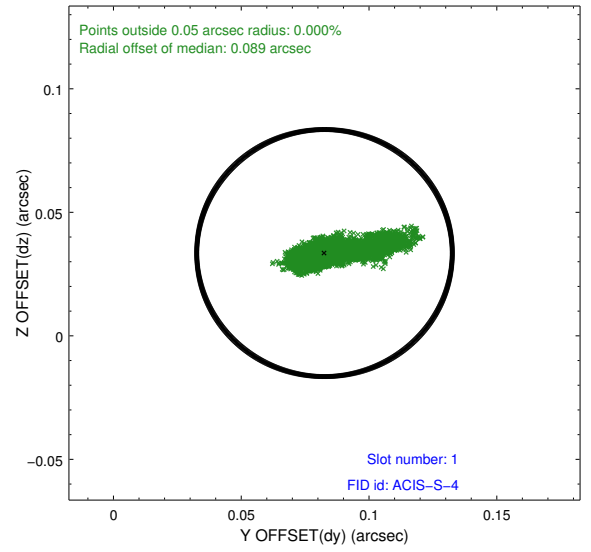
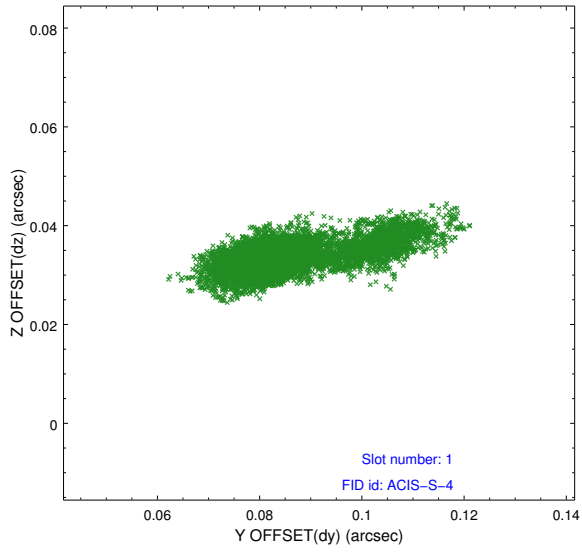


## 2.5 FID Slots

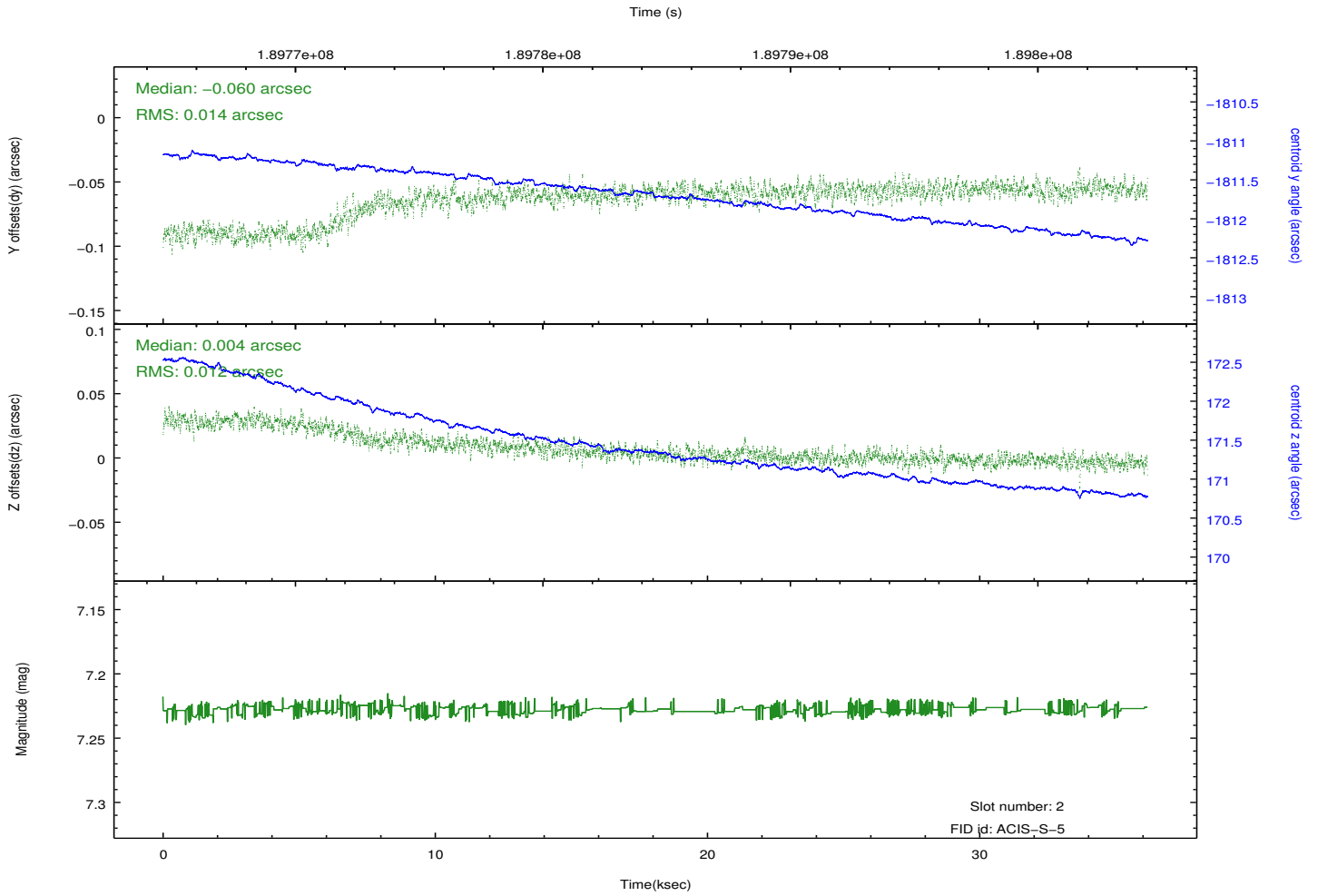
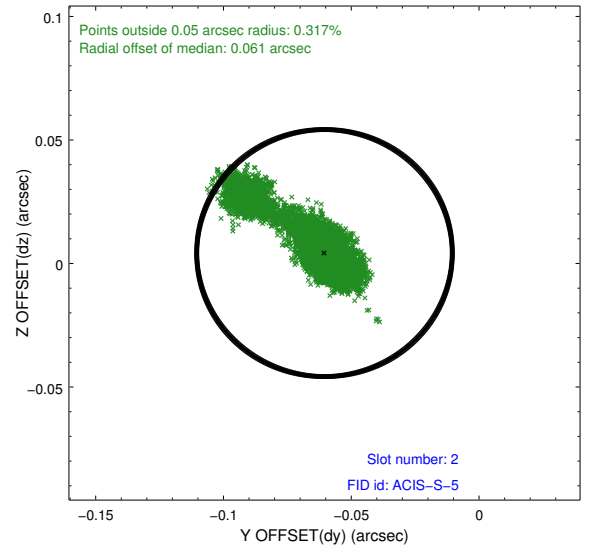
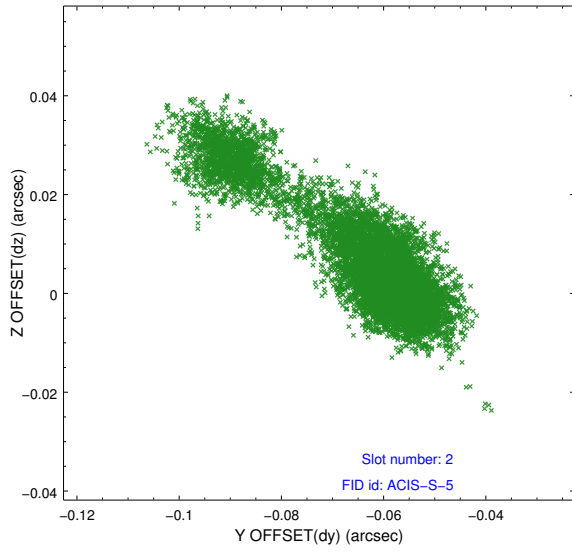
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.155

## A.2 Comments

Joint Proposal with HST. Window preference met. Some of the numerous x-ray point sources fall on the gap between the nodes of the CCD chip and have been dithered over this gap. Dithering over the node boundary, which has lower sensitivity, can give a false indication of variability.