

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4605 - L2 Version 4  
Chandra X-Ray Center

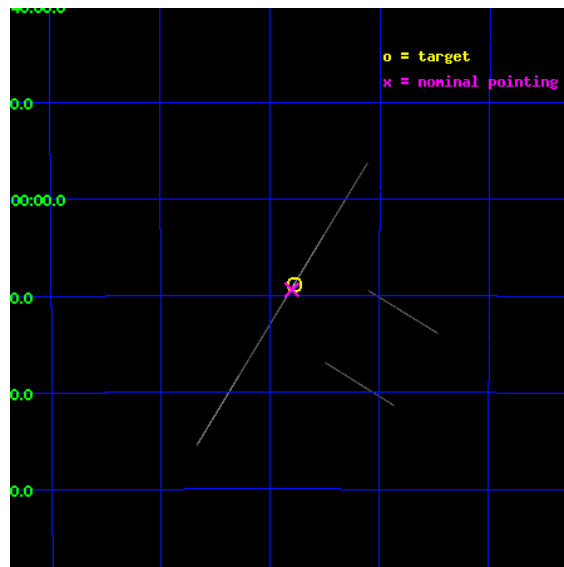
L2 Processing Date : Dec 3 2012

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# 1 Front

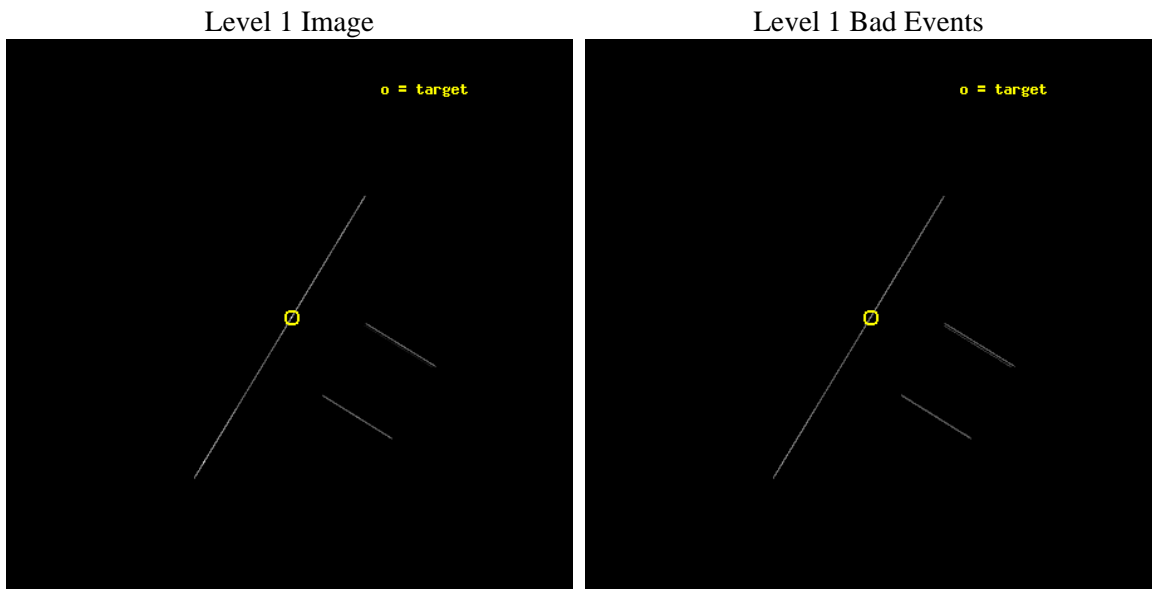
seq_num	500430	Sequence number
obs_id	4605	Observation id
title	Alt: Chandra Observations of the Anomalous X-ray Pulsar RX J1708-4009	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	RX J1708-4009	Source name
ra_targ	257.195417	Observer's specified target RA [deg]
dec_targ	-40.147917	Observer's specified target Dec [deg]
ra_nom	257.20002085729	Nominal RA [deg]
dec_nom	-40.156936276639	Nominal Dec [deg]
roll_nom	301.44659379703	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29179.25	Sum of GTIs [s]
livetime	29065.268554688	Livetime [s]
ontime2	29177.791394323	Sum of GTIs [s]
ontime3	29179.25	Sum of GTIs [s]
ontime5	29179.25	Sum of GTIs [s]
ontime6	29179.25	Sum of GTIs [s]
ontime7	29179.25	Sum of GTIs [s]
ontime8	29179.25	Sum of GTIs [s]
l2events	387124	Number of level 2 events



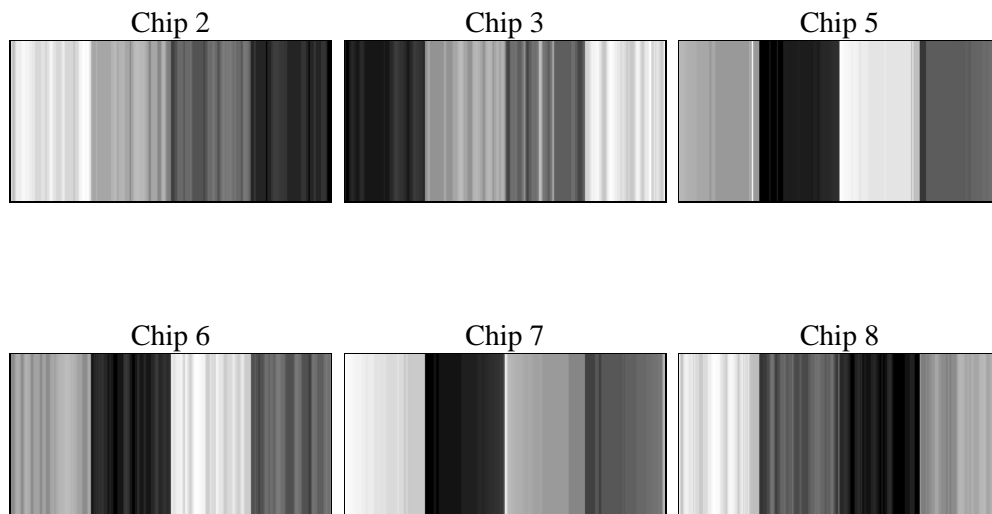
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	29028.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29179.25	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime2	29177.791394323	Sum of GTIs [s]
date	2012-12-03T19:25:48	Date and time of file creation	ontime3	29179.25	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	29179.25	Sum of GTIs [s]
			ontime6	29179.25	Sum of GTIs [s]
			ontime7	29179.25	Sum of GTIs [s]
			ontime8	29179.25	Sum of GTIs [s]
			l1events	578205	Number of level 1 events

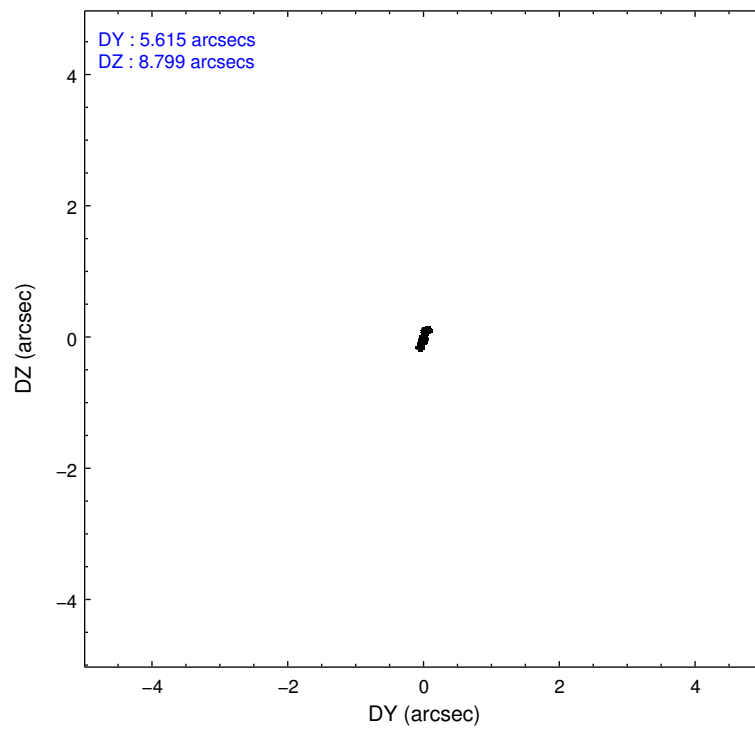
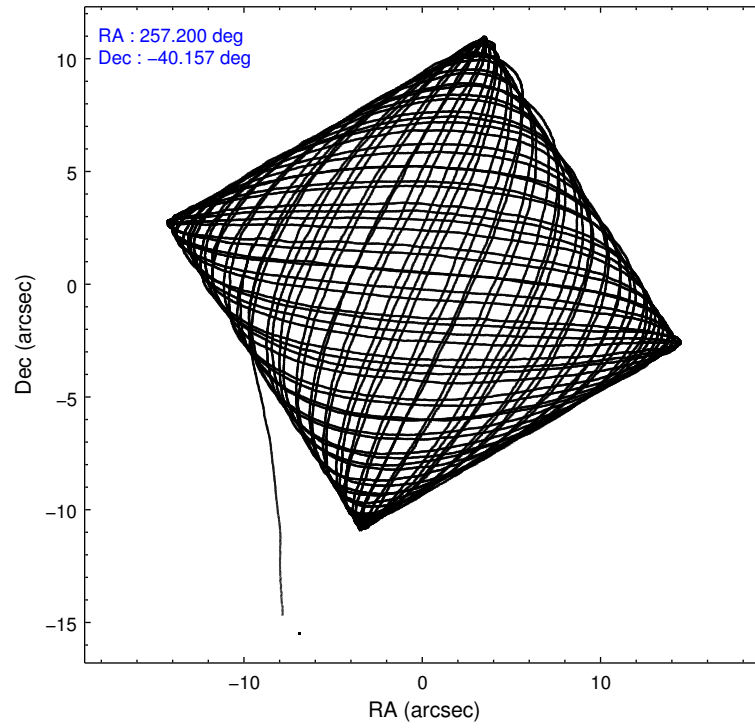
### 2.1.4 Events

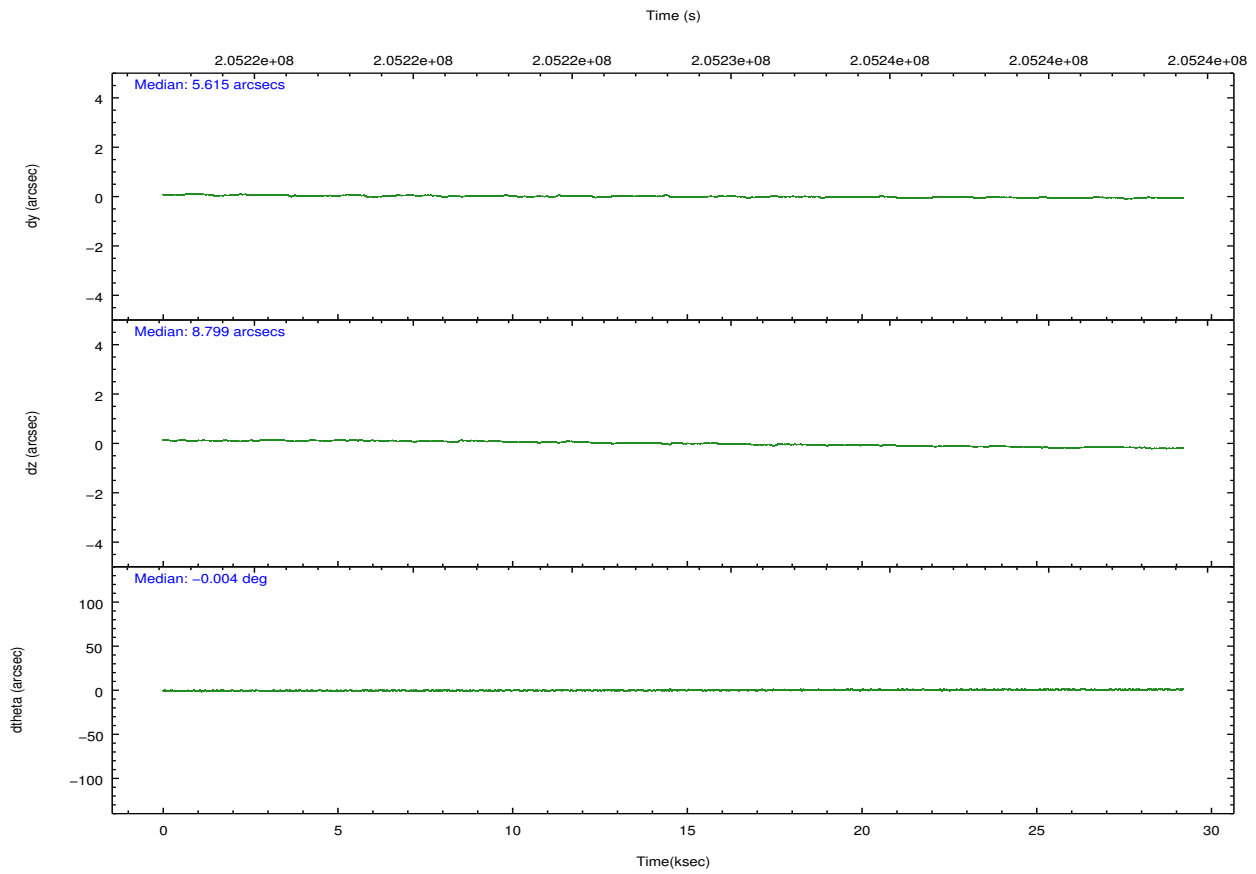
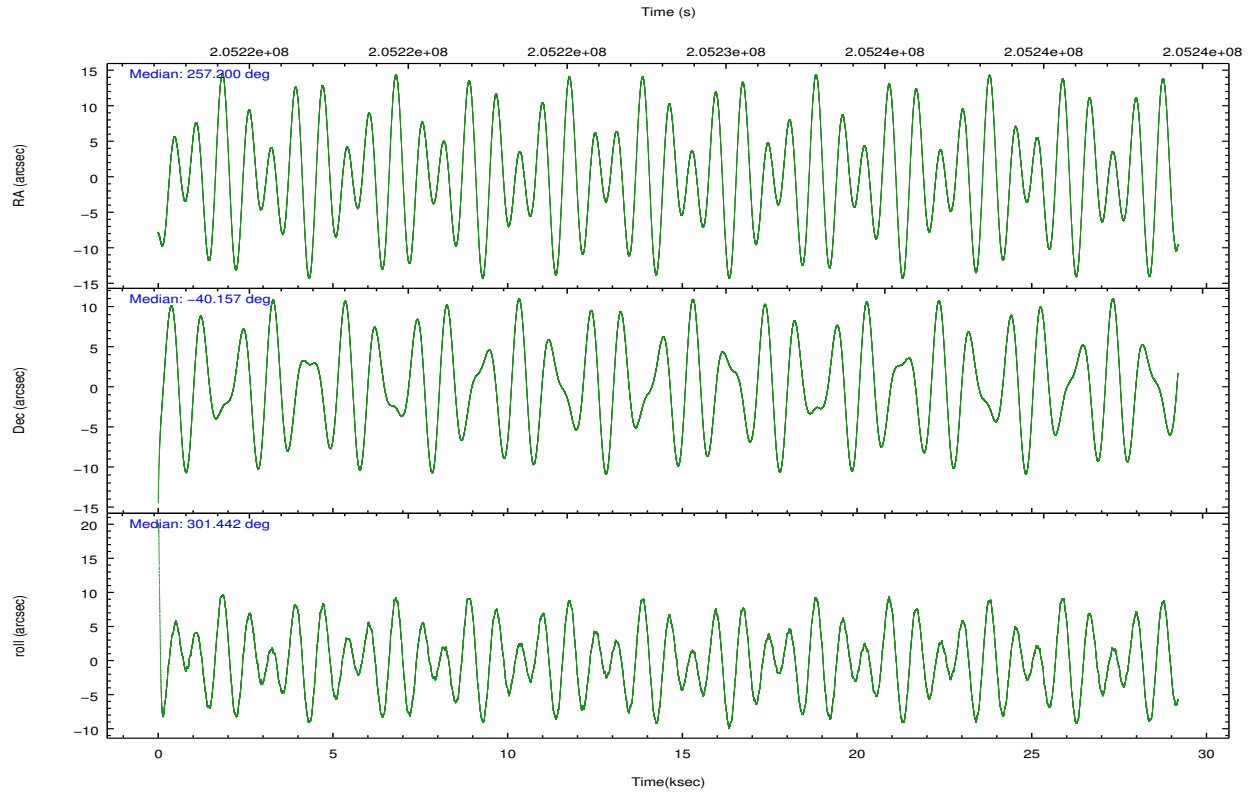
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	29256	30934	180619	34205	228642	74549	grade 0 events	3481	3516	63554	3535	44995	13234
rejected events	5205	5883	18211	6107	19202	10571		11%	11%	35%	10%	19%	17%
rejected %	17%	19%	10%	17%	8%	14%	grade 1 events	115	106	327	141	517	279
								0%	0%	0%	0%	0%	0%
							grade 2 events	8717	8539	43593	11198	57404	18569
								29%	27%	24%	32%	25%	24%
							grade 3 events	4461	5059	4089	4673	23051	9084
								15%	16%	2%	13%	10%	12%
							grade 4 events	4417	4378	3986	4532	22327	8818
								15%	14%	2%	13%	9%	11%
							grade 5 events	4307	5041	13086	5146	15503	8061
								14%	16%	7%	15%	6%	10%
							grade 6 events	3758	4295	51984	4980	64845	16504
								12%	13%	28%	14%	28%	22%
							grade 7 events	0	0	0	0	0	0
								0%	0%	0%	0%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	257.168501	257.2000208572857	Subarray requested	NONE	NONE
[deg] Pointing Dec	-40.144224	-40.15693627663911	Alternating exposures requested	N	N
[deg] Pointing Roll	301.269635	301.4465937970303	[s] Primary exposure time	0.000000	0
[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)	205213739.184000	205212637.94717			
Observation start date	2004-07-03T03:47:55	2004-07-03T03:30:37			
[s] Observation end time (MET)	205242767.184000	205243306.97353			
Observation end date	2004-07-03T11:51:43	2004-07-03T12:01:46			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



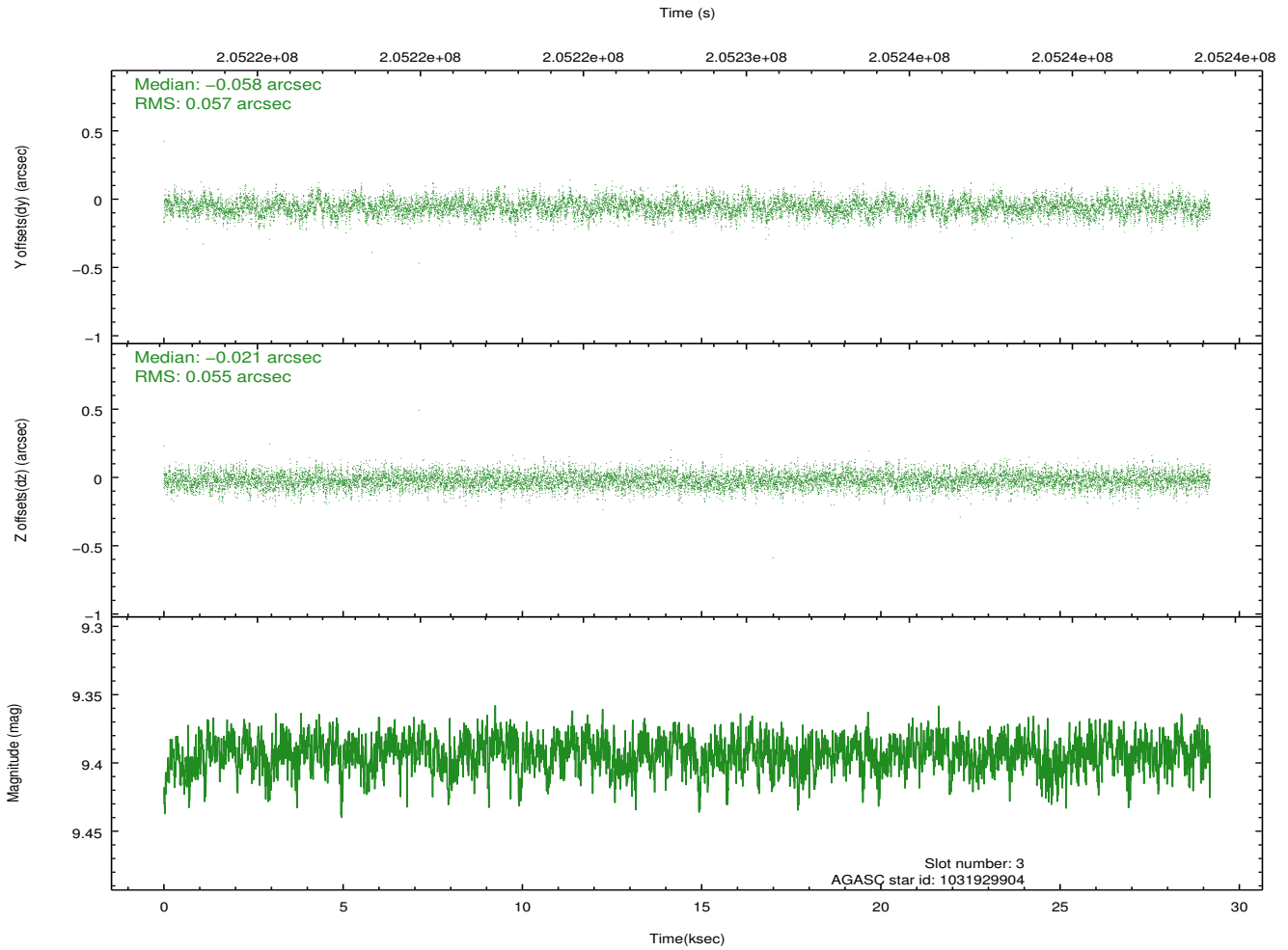
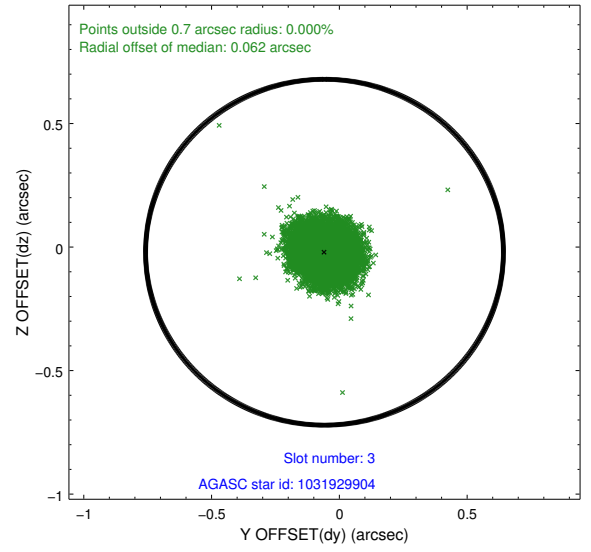
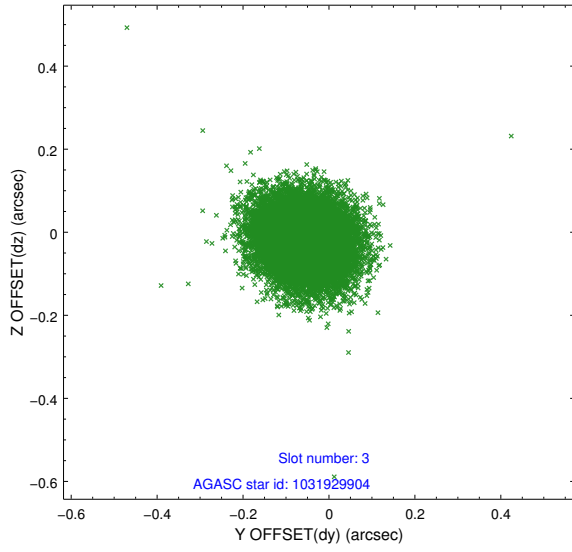


### Slot Statistics

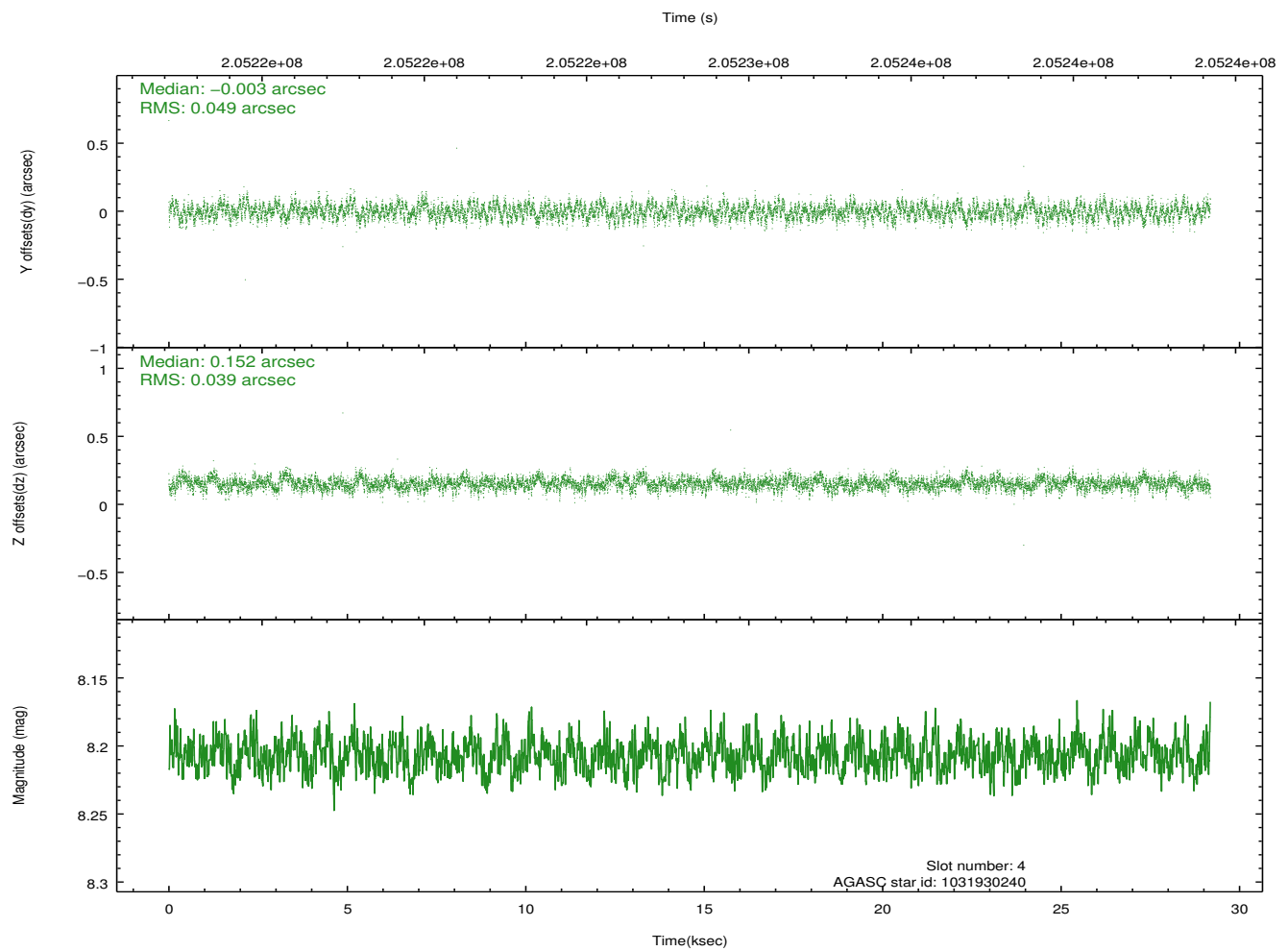
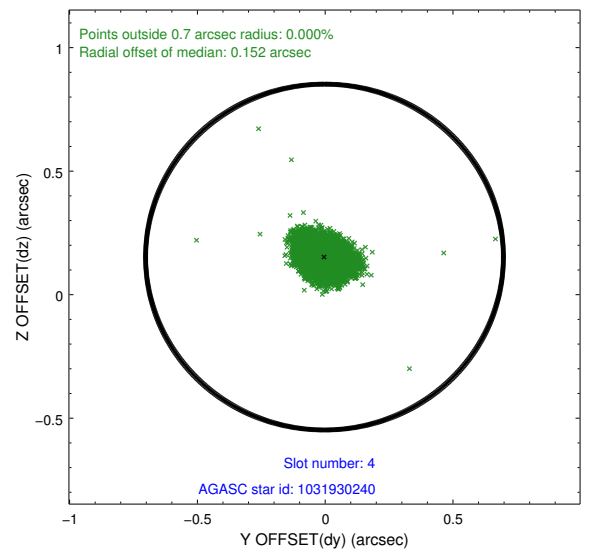
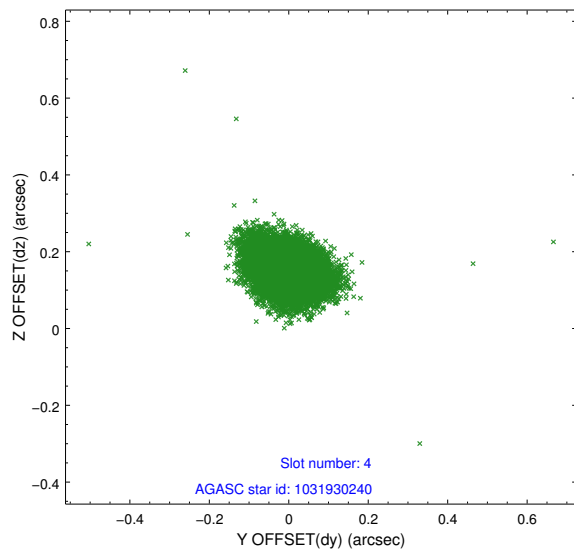
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7118	-0.050	-0.048	0.007	0.012	0.000000	0.000000	-758.39	-1730.04
1	FID	ACIS-S-4	7.21	7118	0.097	0.037	0.007	0.013	0.000000	0.000000	2155.01	178.42
2	FID	ACIS-S-5	7.23	7118	-0.078	0.020	0.007	0.011	0.000000	0.000000	-1811.15	172.19
3	GUIDE	1031929904	9.39	14222	-0.058	-0.021	0.084	0.137	256.776341	-40.685313	1111.86	-1927.15
4	GUIDE	1031930240	8.21	14233	-0.003	0.152	0.066	0.107	257.160708	-40.849868	2160.96	-1336.45
5	GUIDE	1031932008	8.82	14235	0.062	-0.116	0.066	0.104	257.163205	-39.994917	-466.38	266.44
6	GUIDE	1031932624	8.31	14234	0.084	-0.016	0.072	0.118	257.431727	-40.221910	616.02	472.86
7	GUIDE	1031938400	8.57	14234	-0.086	0.006	0.082	0.127	256.247715	-40.044226	-1613.12	-1988.95

## 2.4 Star Slots

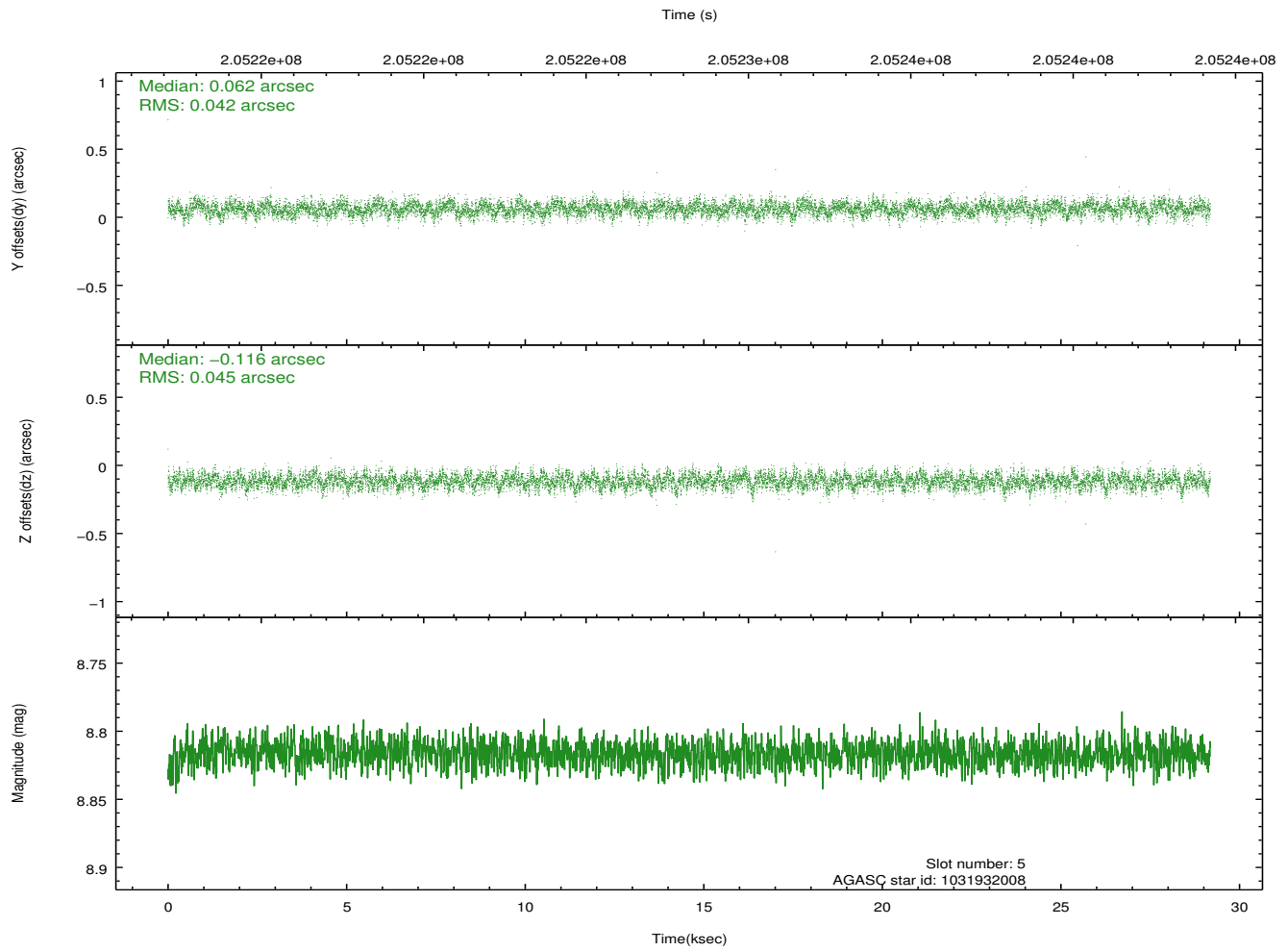
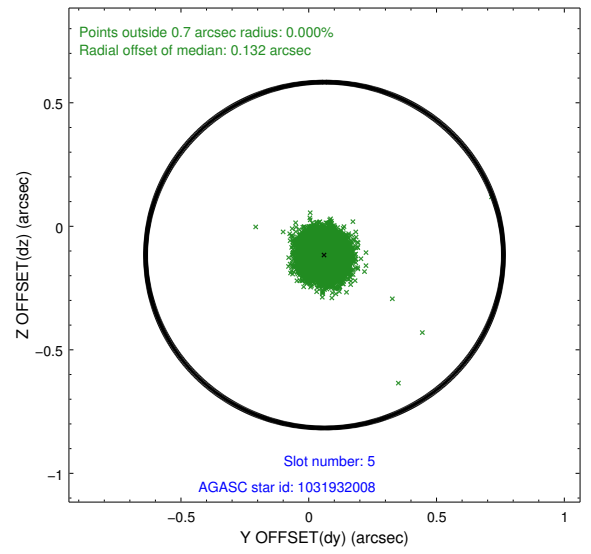
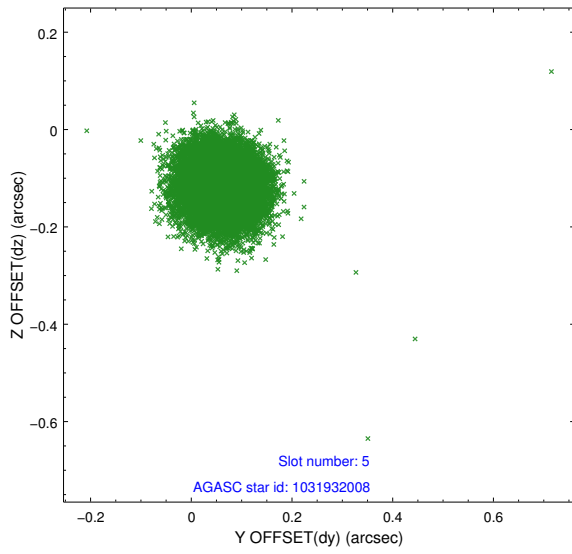
### 2.4.1 Slot 3



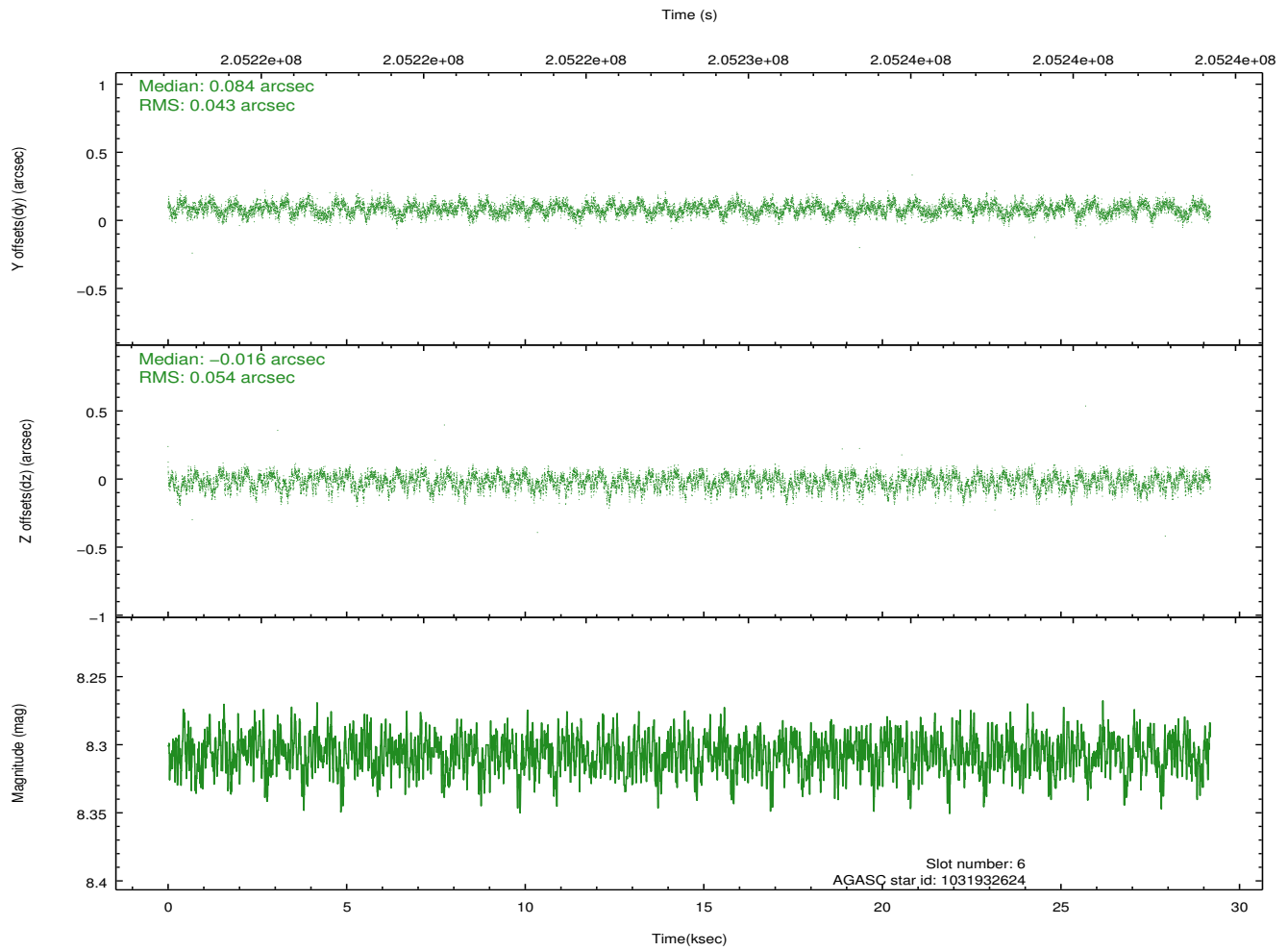
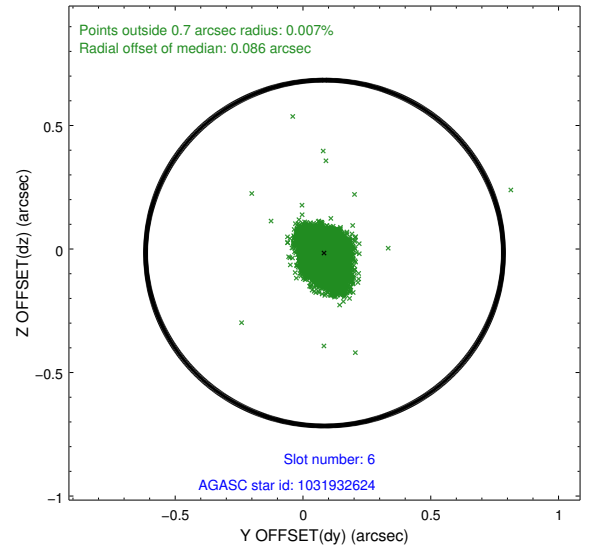
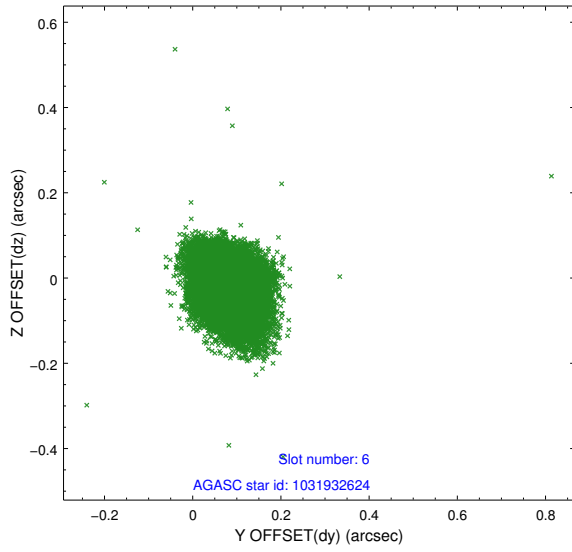
## 2.4.2 Slot 4



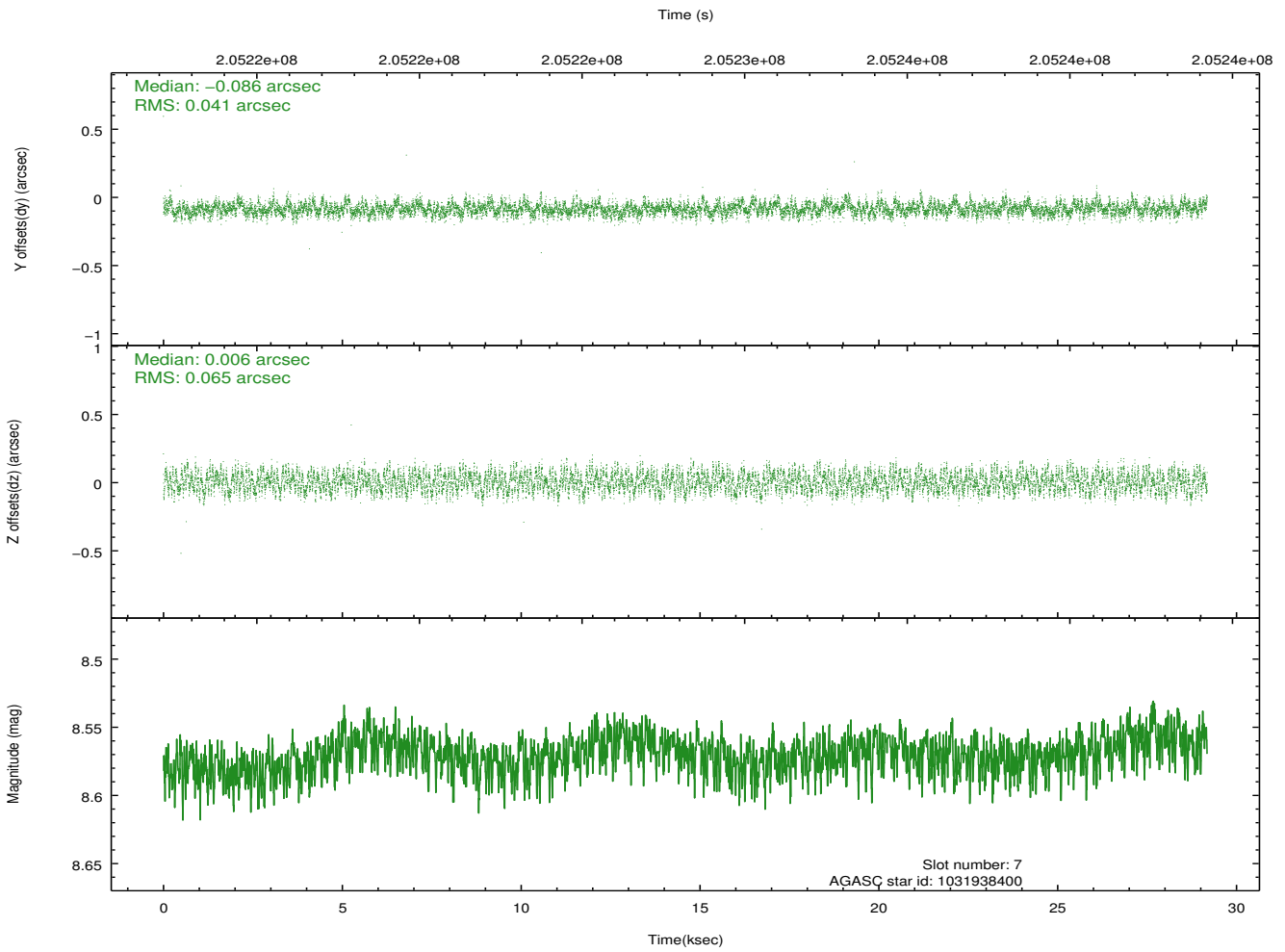
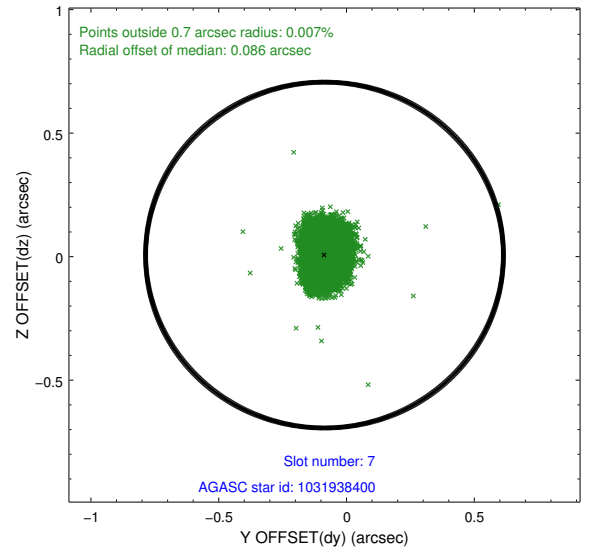
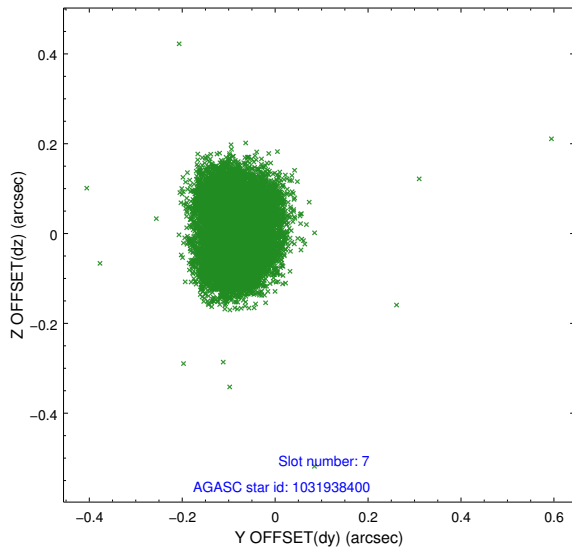
### 2.4.3 Slot 5



## 2.4.4 Slot 6

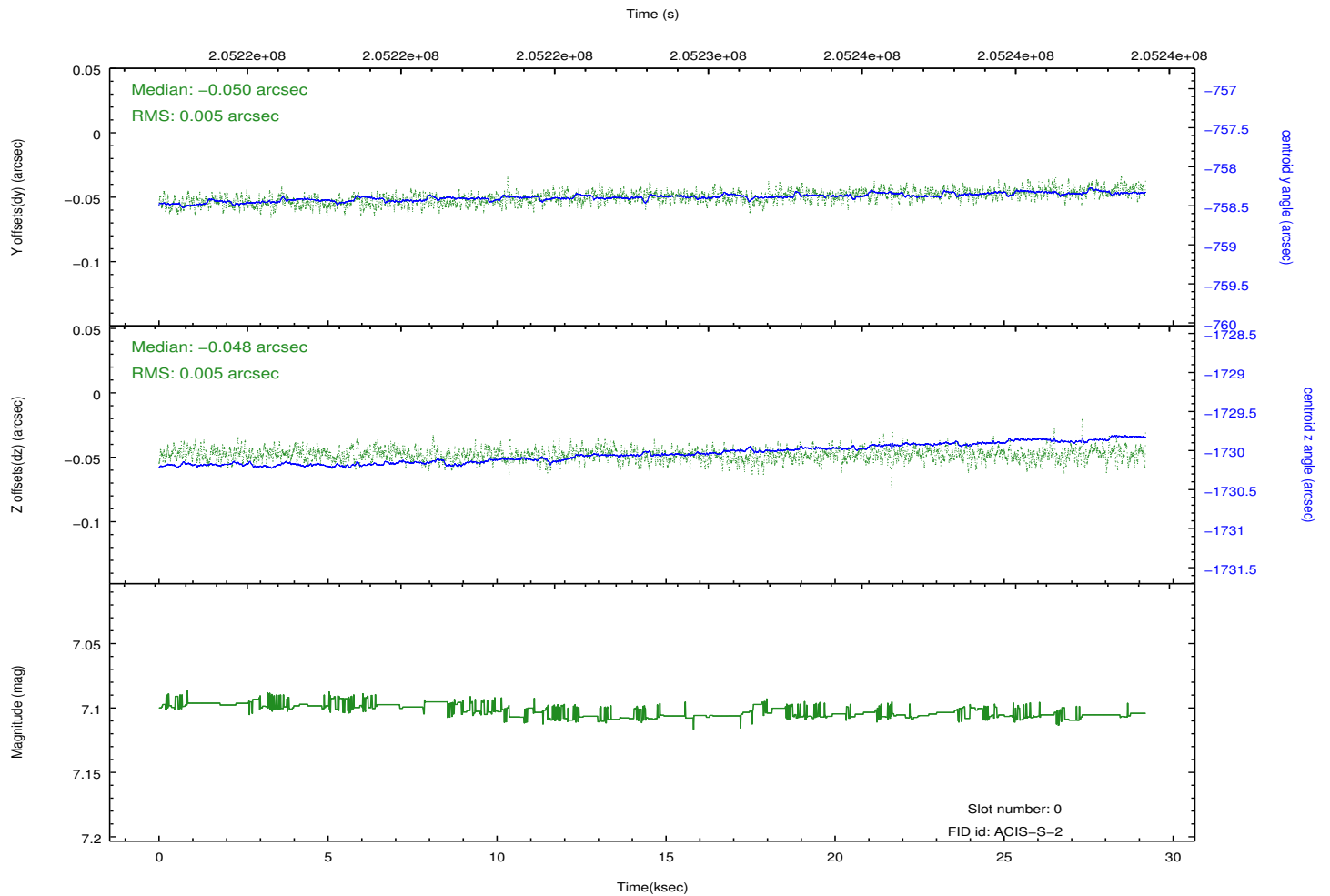
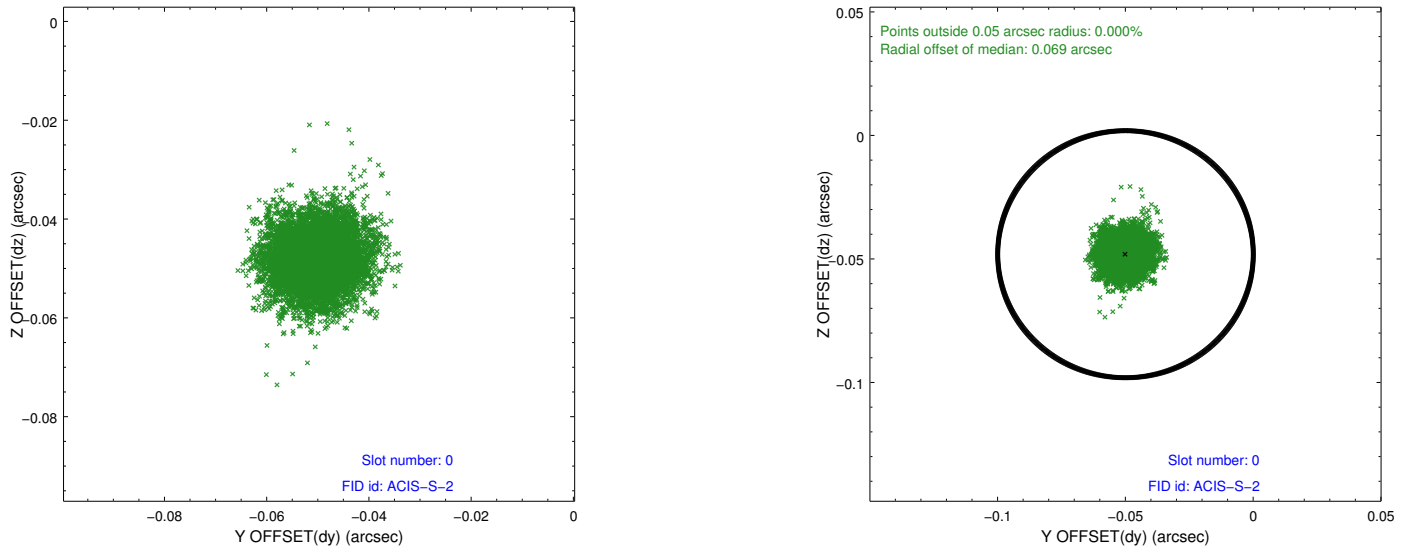


### 2.4.5 Slot 7

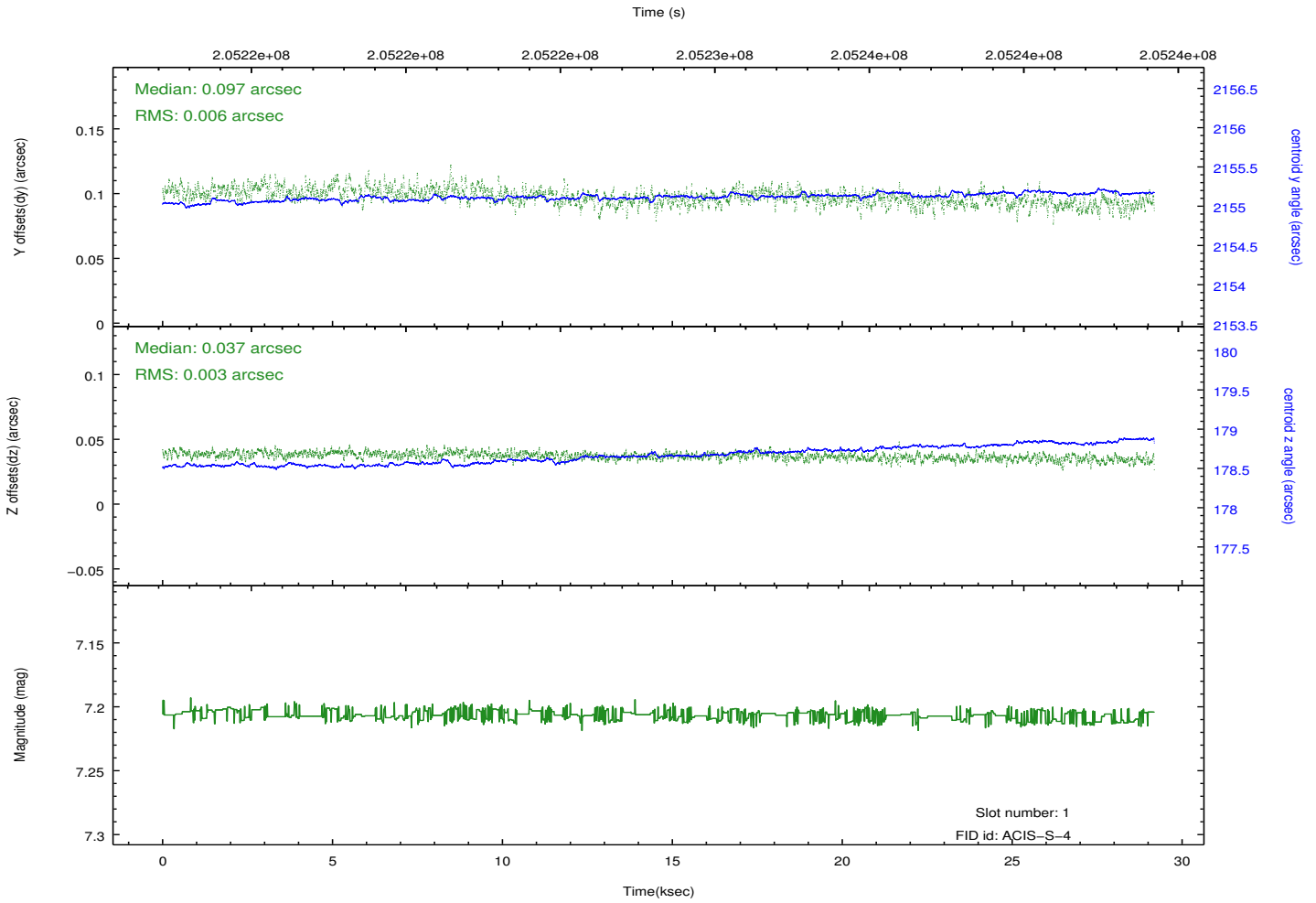
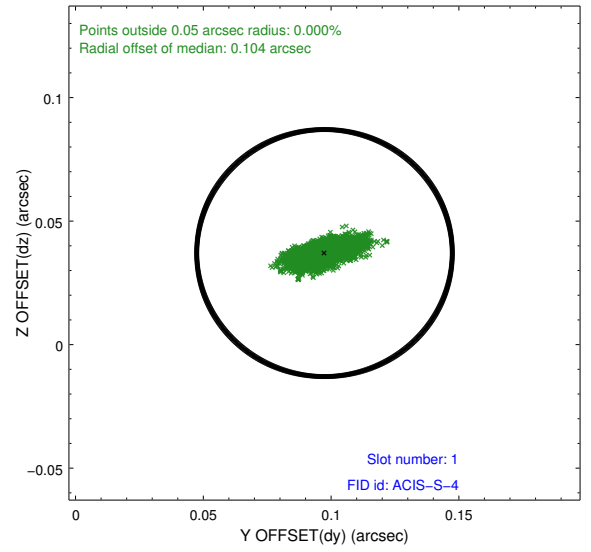
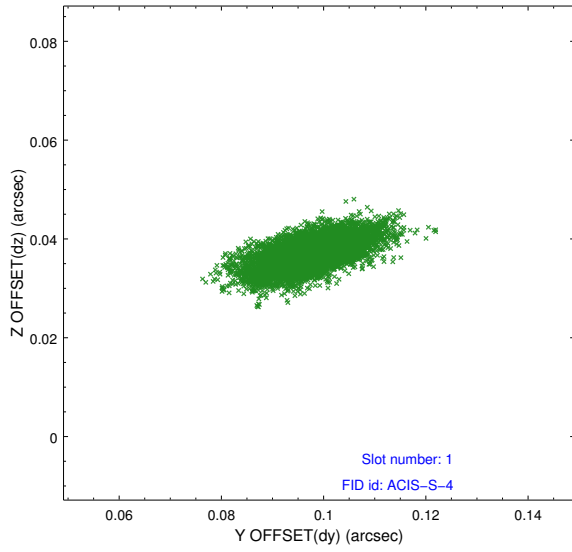


## 2.5 FID Slots

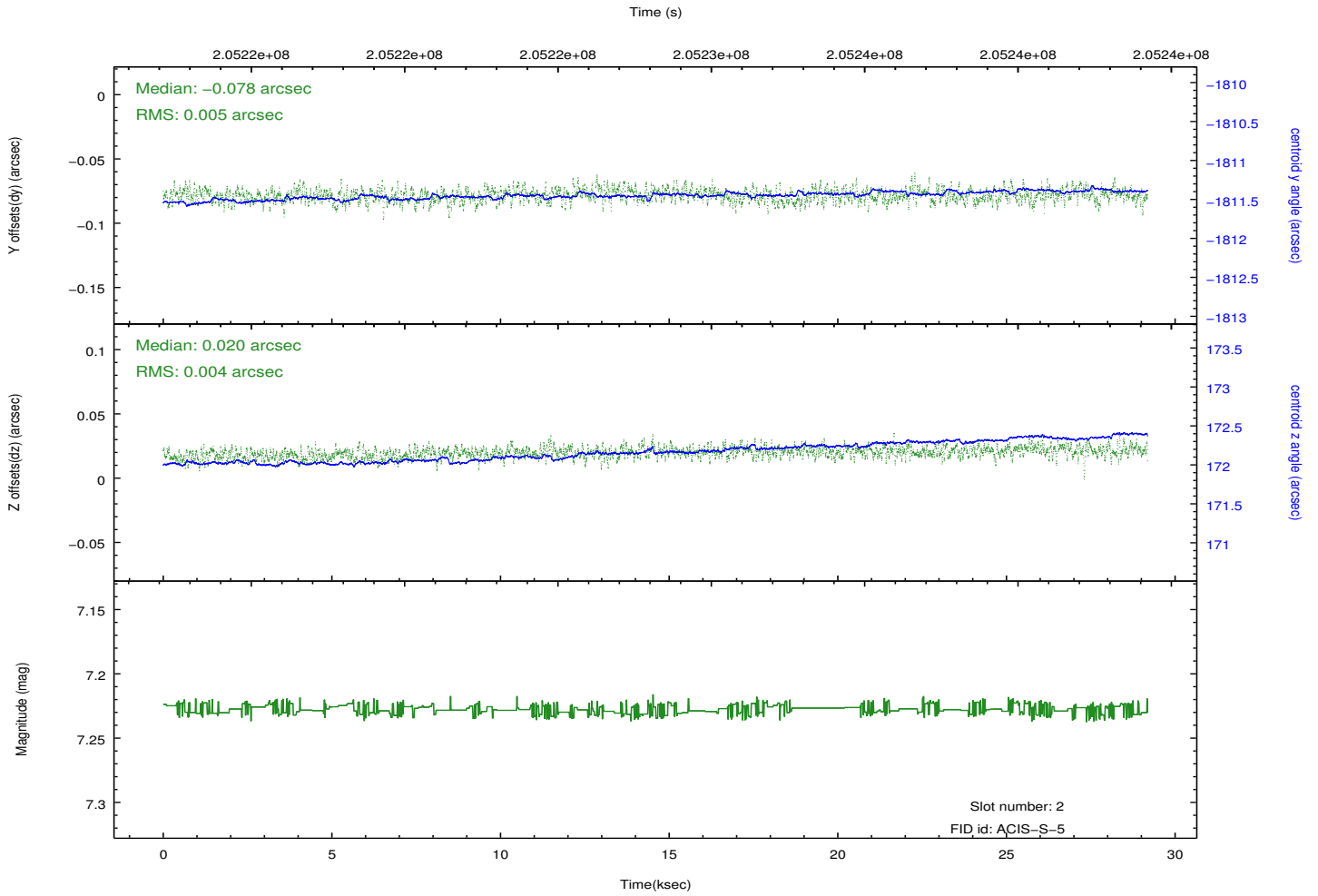
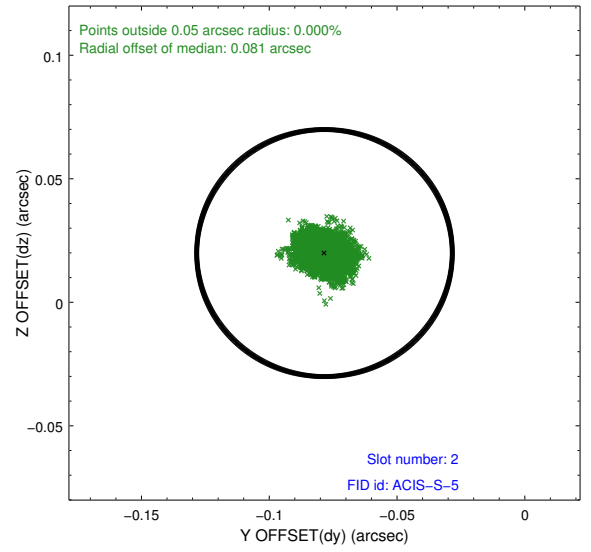
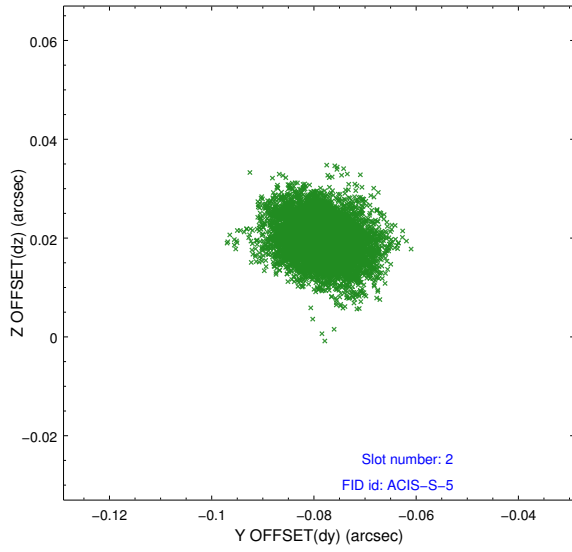
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.12.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.183

### A.2 Comments