

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13190 - L2 Version 2  
Chandra X-Ray Center

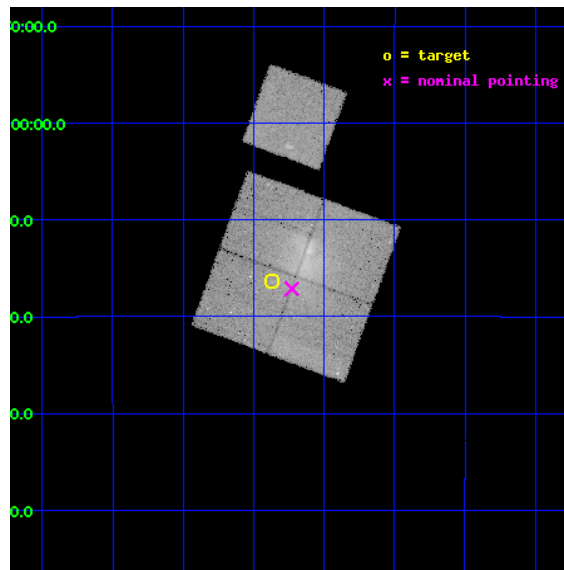
L2 Processing Date : Jul 7 2012

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# 1 Front

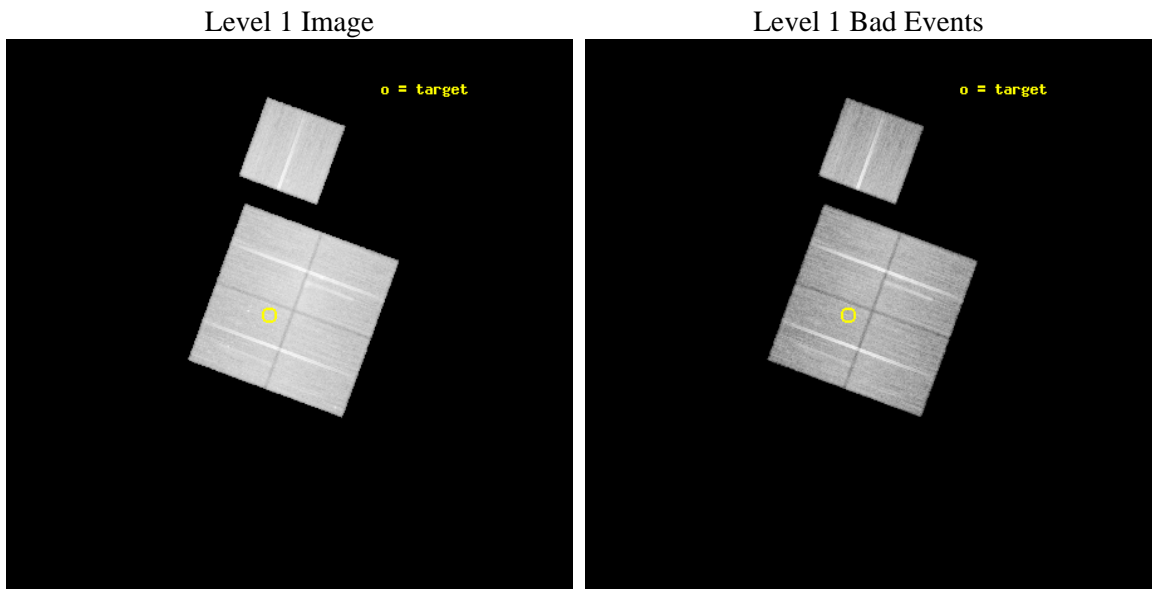
seq_num	801019	Sequence number
obs_id	13190	Observation id
title	A SHOCK FRONT IN A521 AND A NEW METHOD OF MEASURING THE INTRACLUSTER MAGNETIC FIELD	Proposal title
observer	Dr Maxim Markevitch	Principal investigator
object	A521	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	73.592083	Observer's specified target RA [deg]
dec_targ	-10.271083	Observer's specified target Dec [deg]
ra_nom	73.557070735105	Nominal RA [deg]
dec_nom	-10.285459386161	Nominal Dec [deg]
roll_nom	20.202444423709	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39768.794525146	Sum of GTIs [s]
livetime	39249.185947315	Livetime [s]
ontime0	39768.794525146	Sum of GTIs [s]
ontime1	39768.835565388	Sum of GTIs [s]
ontime2	39768.876625299	Sum of GTIs [s]
ontime3	39768.917625248	Sum of GTIs [s]
ontime6	39771.894515455	Sum of GTIs [s]
l2events	156309	Number of level 2 events



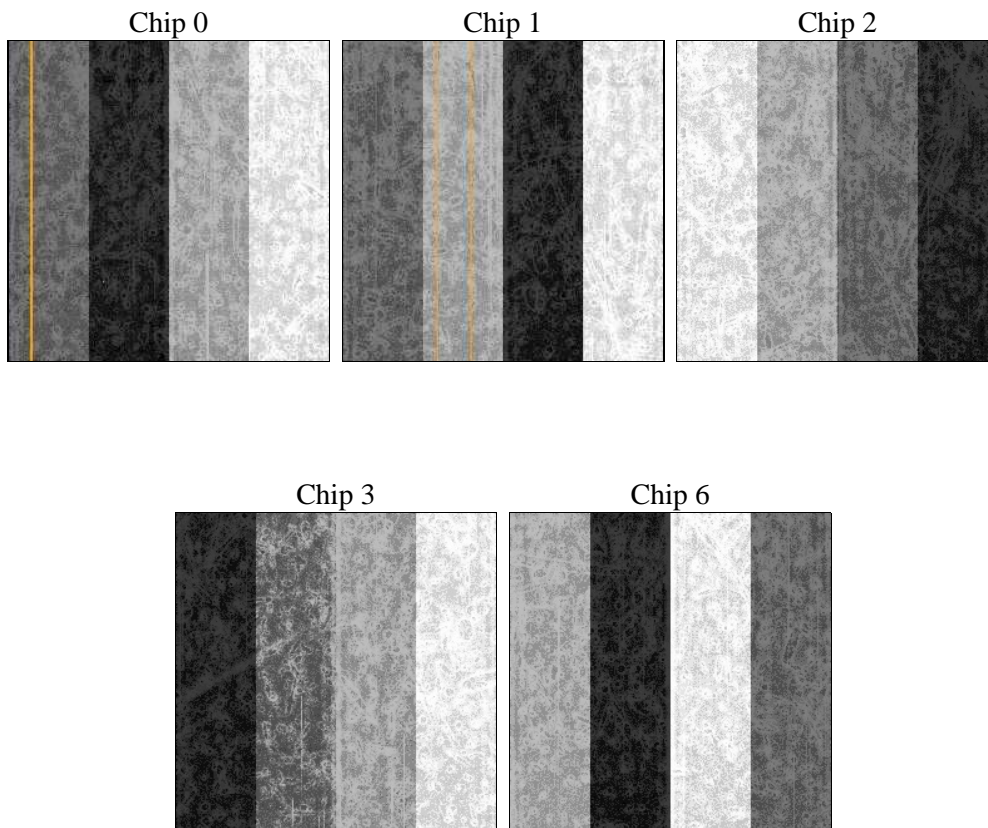
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	39768.794525146	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	39768.794525146	Sum of GTIs [s]
date	2012-07-07T17:54:20	Date and time of file creation	ontime1	39768.835565388	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	39768.876625299	Sum of GTIs [s]
			ontime3	39768.917625248	Sum of GTIs [s]
			ontime6	39771.894515455	Sum of GTIs [s]
			l1events	1405412	Number of level 1 events

### 2.1.4 Events

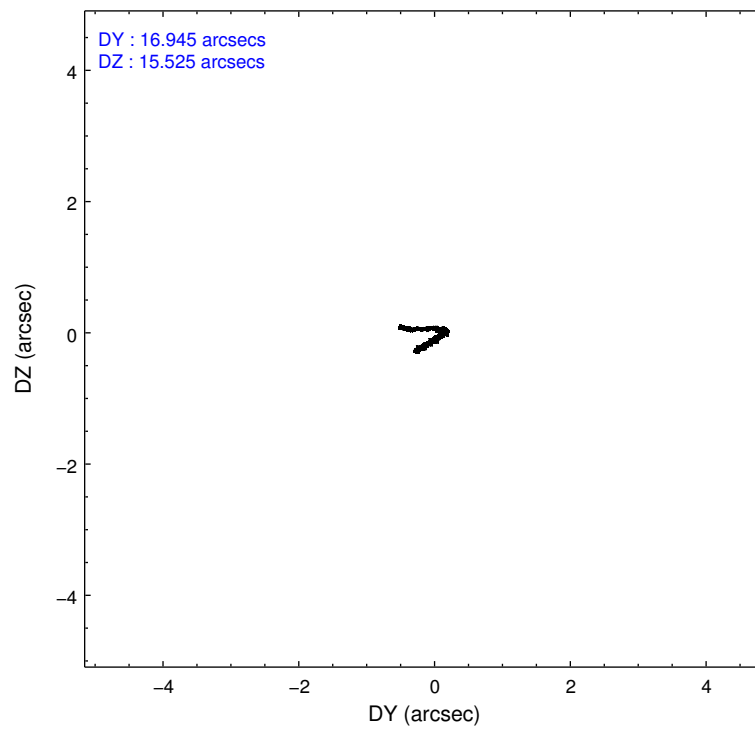
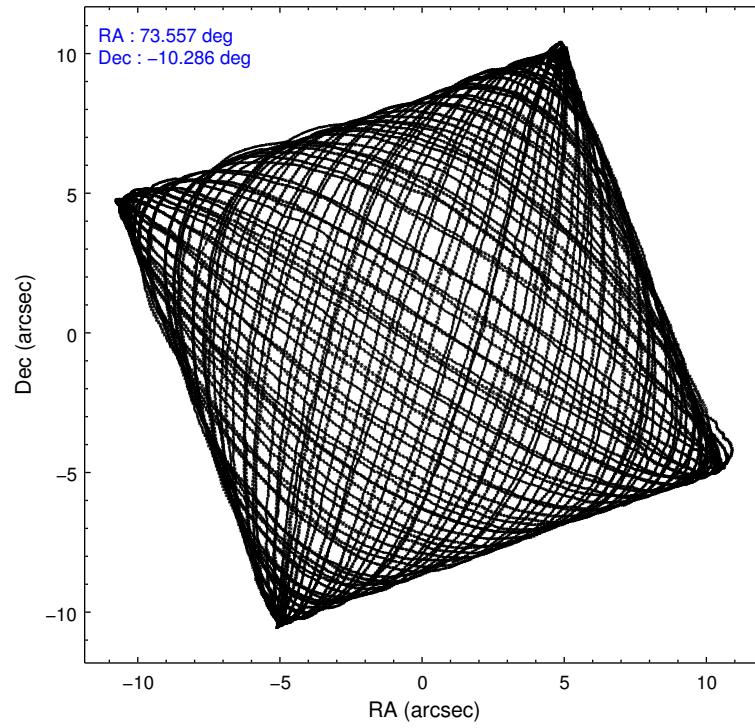
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	258615	274244	293271	293140	286142
rejected events	225628	236451	255187	252069	253169
rejected %	87%	86%	87%	85%	88%

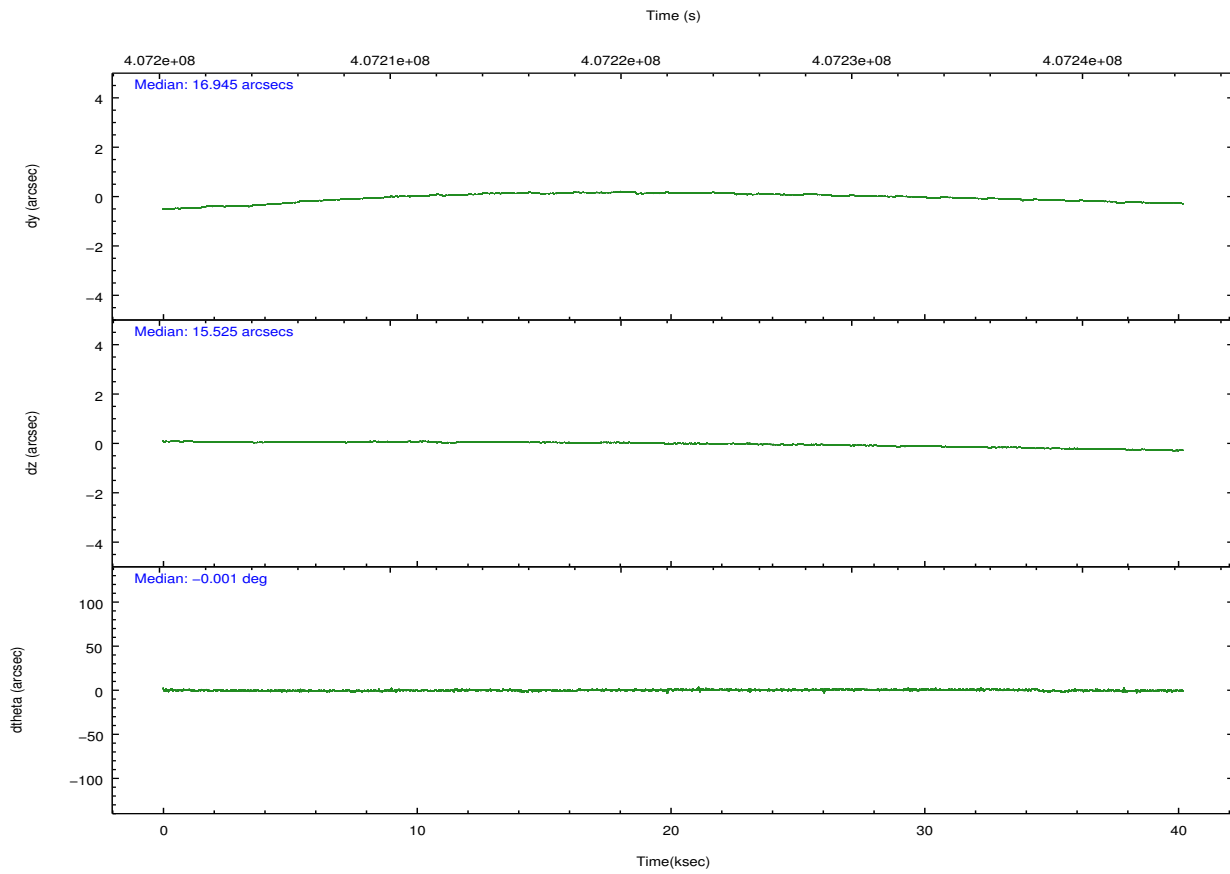
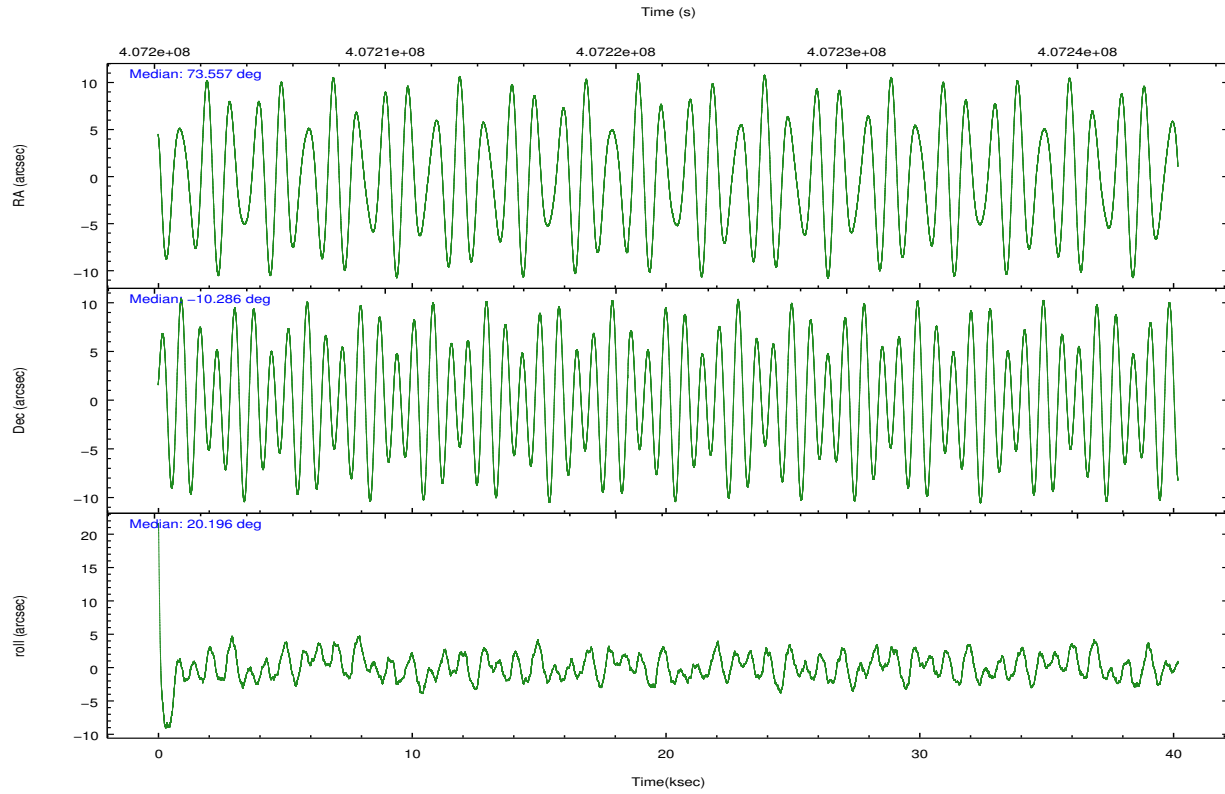
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	12205	14608	17091	19297	11977
	4%	5%	5%	6%	4%
grade 1 events	190	173	200	241	173
	0%	0%	0%	0%	0%
grade 2 events	7778	8595	8128	8226	7190
	3%	3%	2%	2%	2%
grade 3 events	3473	3595	3430	3655	3435
	1%	1%	1%	1%	1%
grade 4 events	3209	3652	3378	3571	3389
	1%	1%	1%	1%	1%
grade 5 events	12056	12598	11499	13516	13137
	4%	4%	3%	4%	4%
grade 6 events	6330	7349	6064	6327	6988
	2%	2%	2%	2%	2%
grade 7 events	213374	223674	243481	238307	239853
	82%	81%	83%	81%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	73.539275	73.55707073510536	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.306662	-10.28545938616139	Alternating exposures requested	N	N
[deg] Pointing Roll	19.990570	20.20244442370936	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-239.592463	-239.5815621397477			
[mm] SIM translation stage offset	6	5.98910913681803			
[s] Observation start time (MET)	407202348.184000	407201532.09148			
Observation start date	2010-11-26T23:44:42	2010-11-26T23:32:12			
[s] Observation end time (MET)	407242348.184000	407243224.48113			
Observation end date	2010-11-27T10:51:22	2010-11-27T11:07:04			
Read mode	TIMED	TIMED			

## 2.3 Aspect



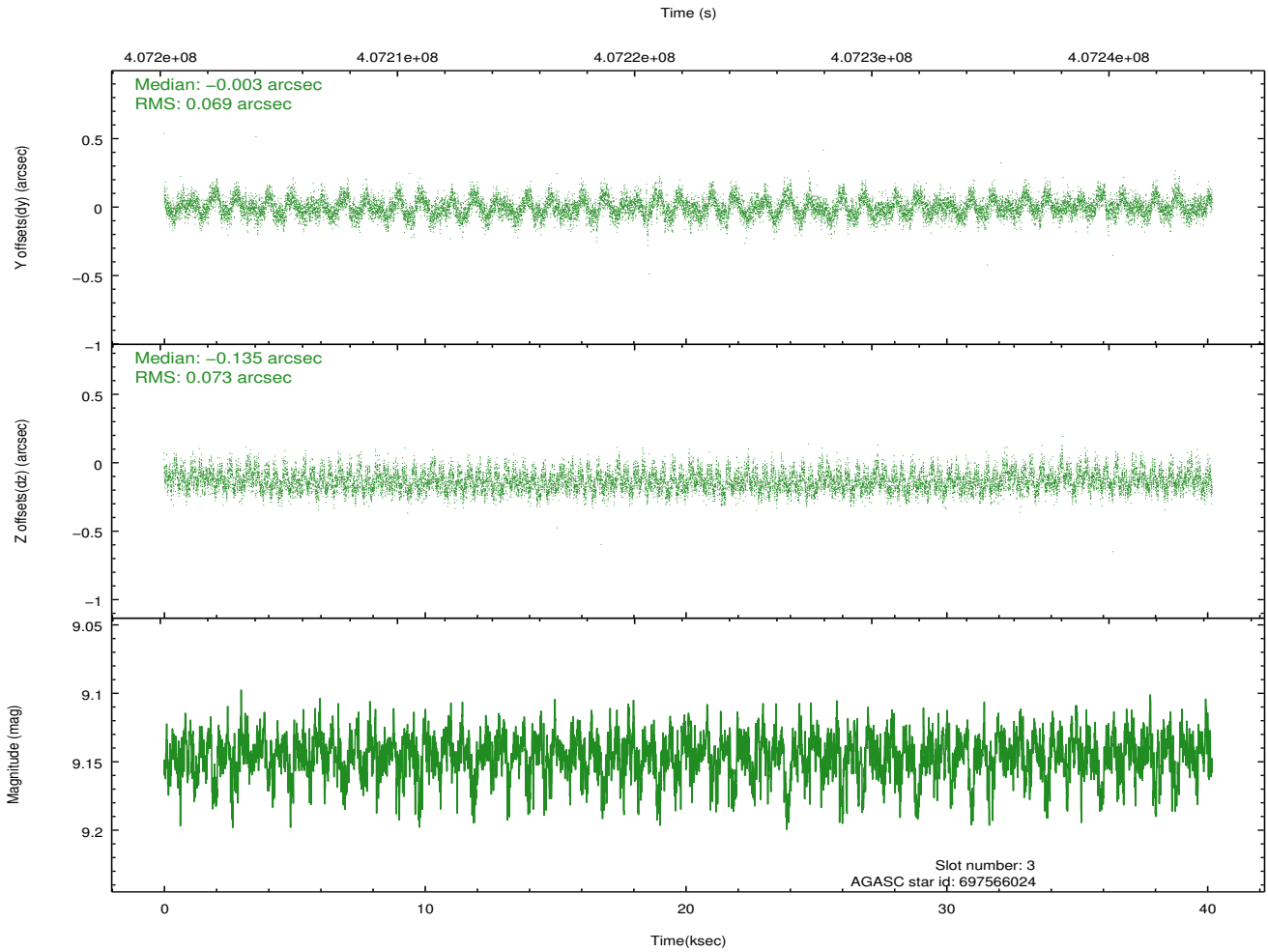
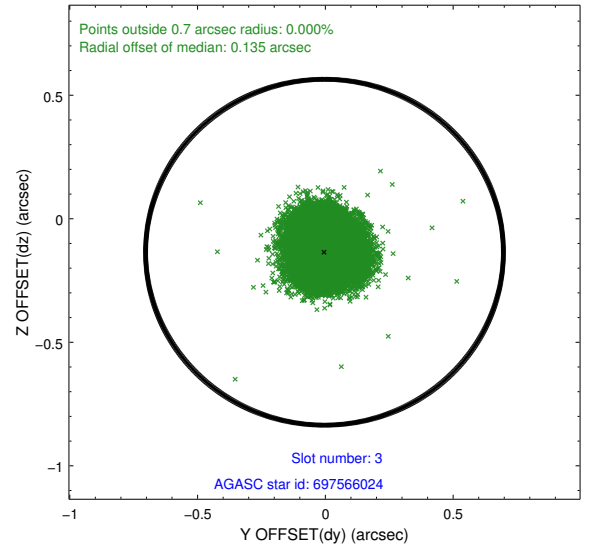
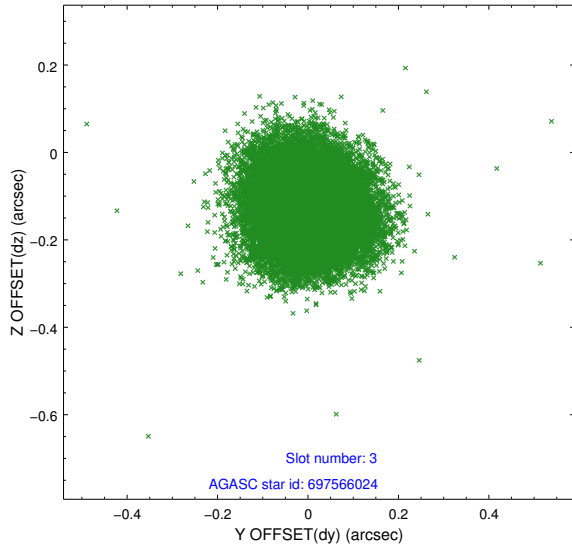


### Slot Statistics

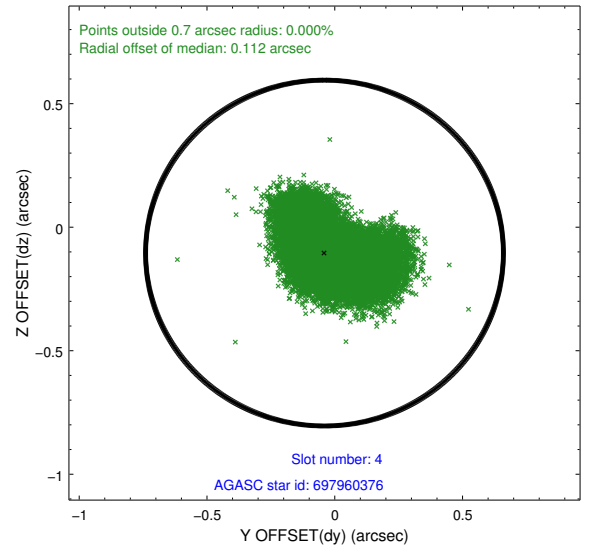
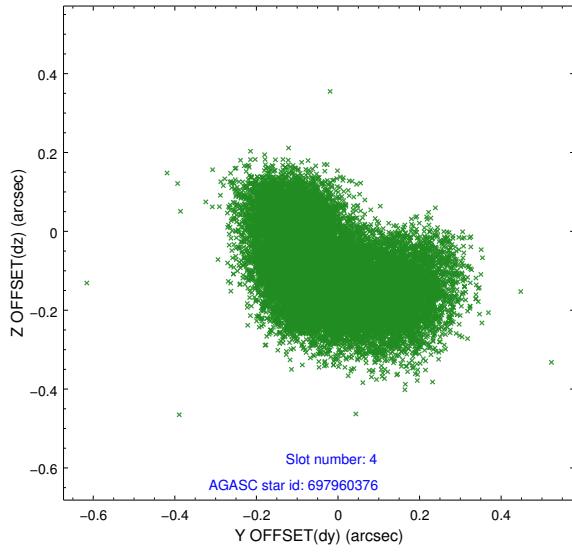
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.00	9800	-0.056	-0.070	0.011	0.018	0.000000	0.000000	-771.31	-723.18
1	FID	ACIS-I-4	7.05	9798	0.259	0.057	0.008	0.013	0.000000	0.000000	2143.12	1183.11
2	FID	ACIS-I-5	7.07	9801	-0.304	0.082	0.010	0.017	0.000000	0.000000	-1825.64	1181.83
3	GUIDE	697566024	9.15	19578	-0.003	-0.135	0.108	0.170	73.679996	-9.786030	1109.99	1590.71
4	GUIDE	697960376	9.24	19577	-0.040	-0.105	0.163	0.269	73.874751	-10.069538	1409.36	395.38
5	GUIDE	697961888	8.68	19588	0.045	0.281	0.091	0.147	73.697929	-10.615567	147.87	-1236.67
6	GUIDE	697569384	9.63	19560	-0.208	-0.242	0.145	0.232	73.412714	-9.650636	385.18	2372.62
7	GUIDE	697962984	9.90	19567	0.184	0.193	0.141	0.233	73.049153	-10.843577	-2289.21	-1225.13

## 2.4 Star Slots

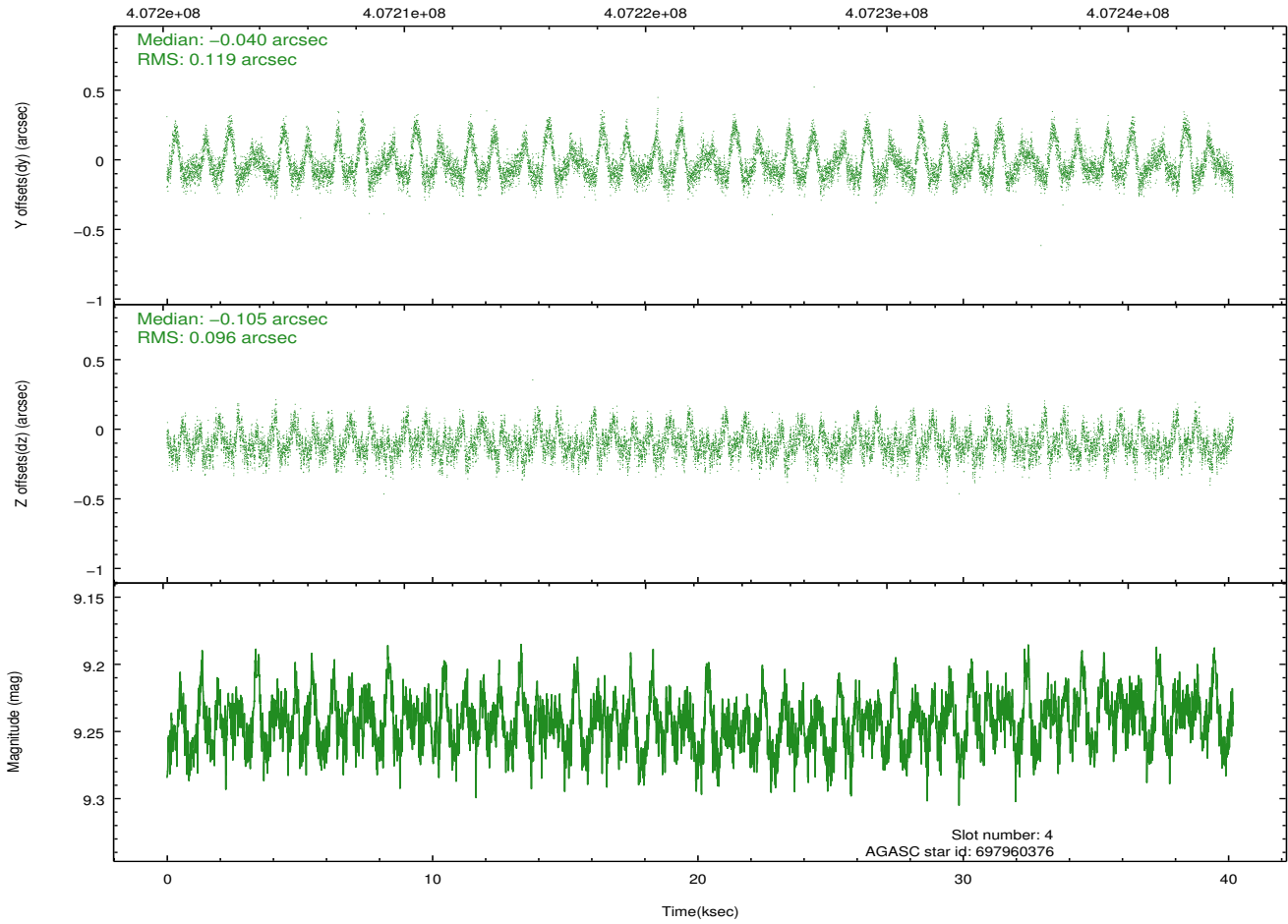
### 2.4.1 Slot 3



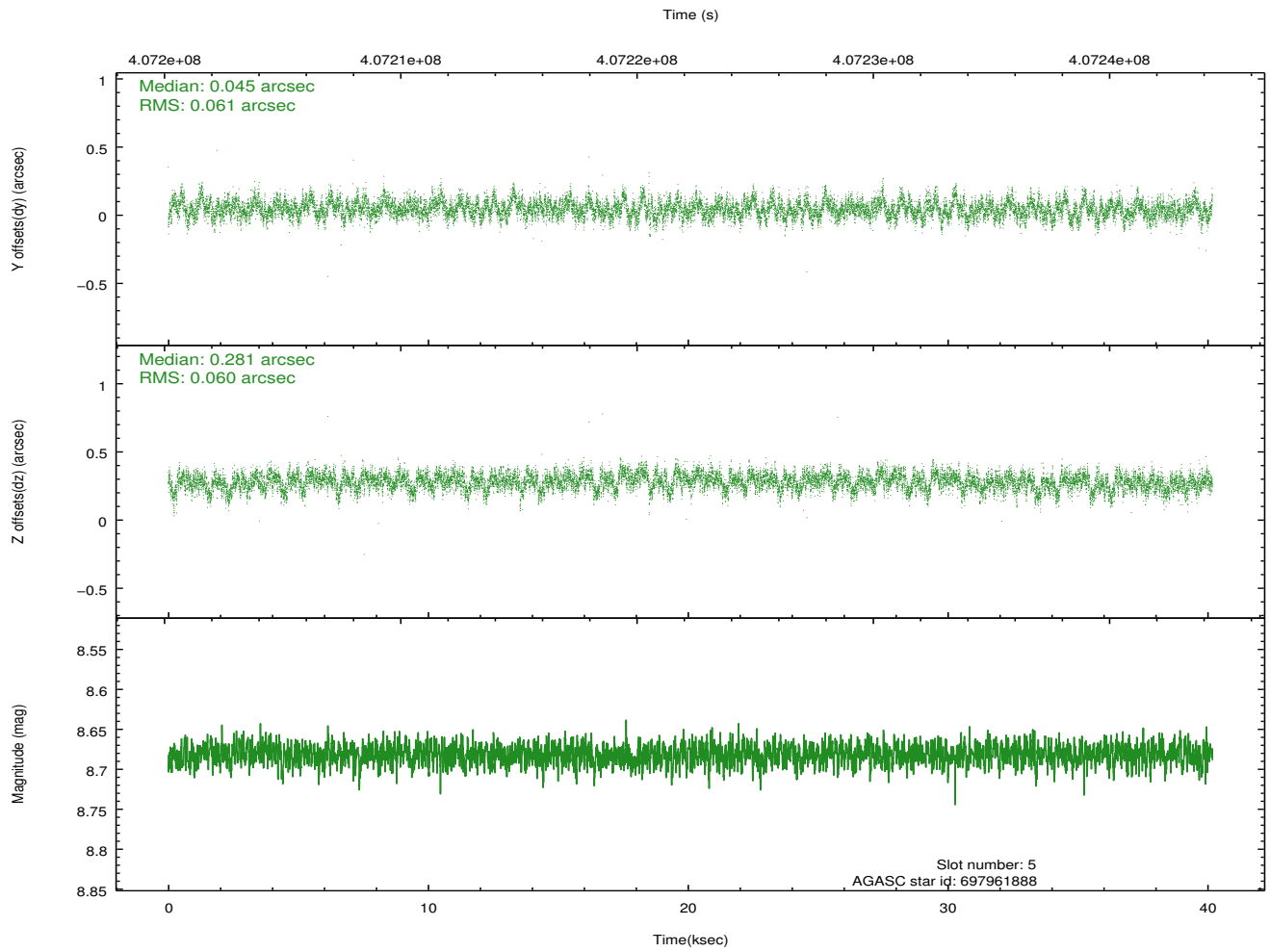
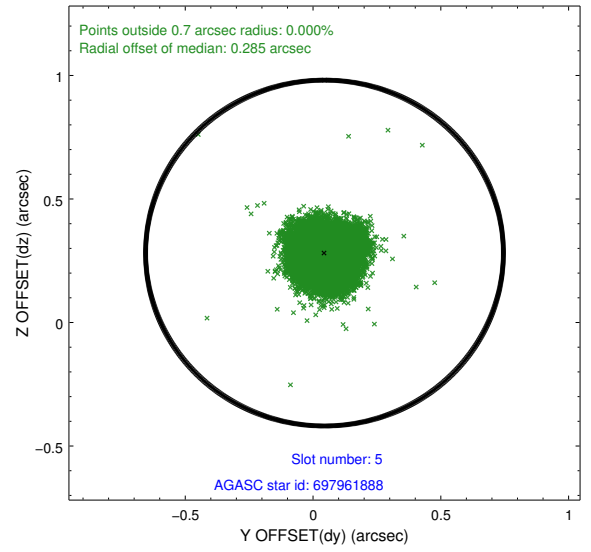
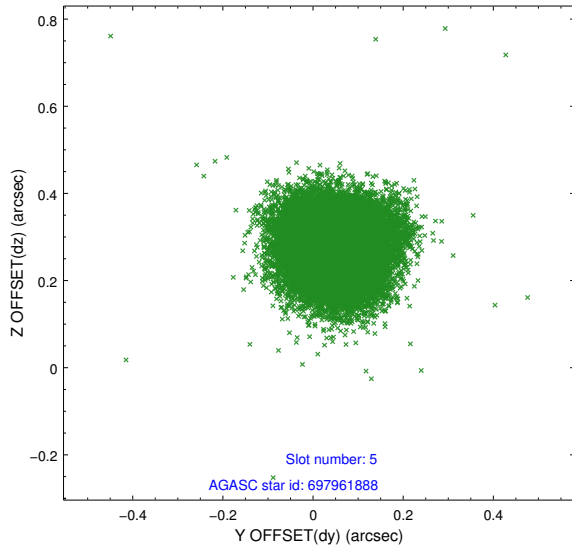
### 2.4.2 Slot 4



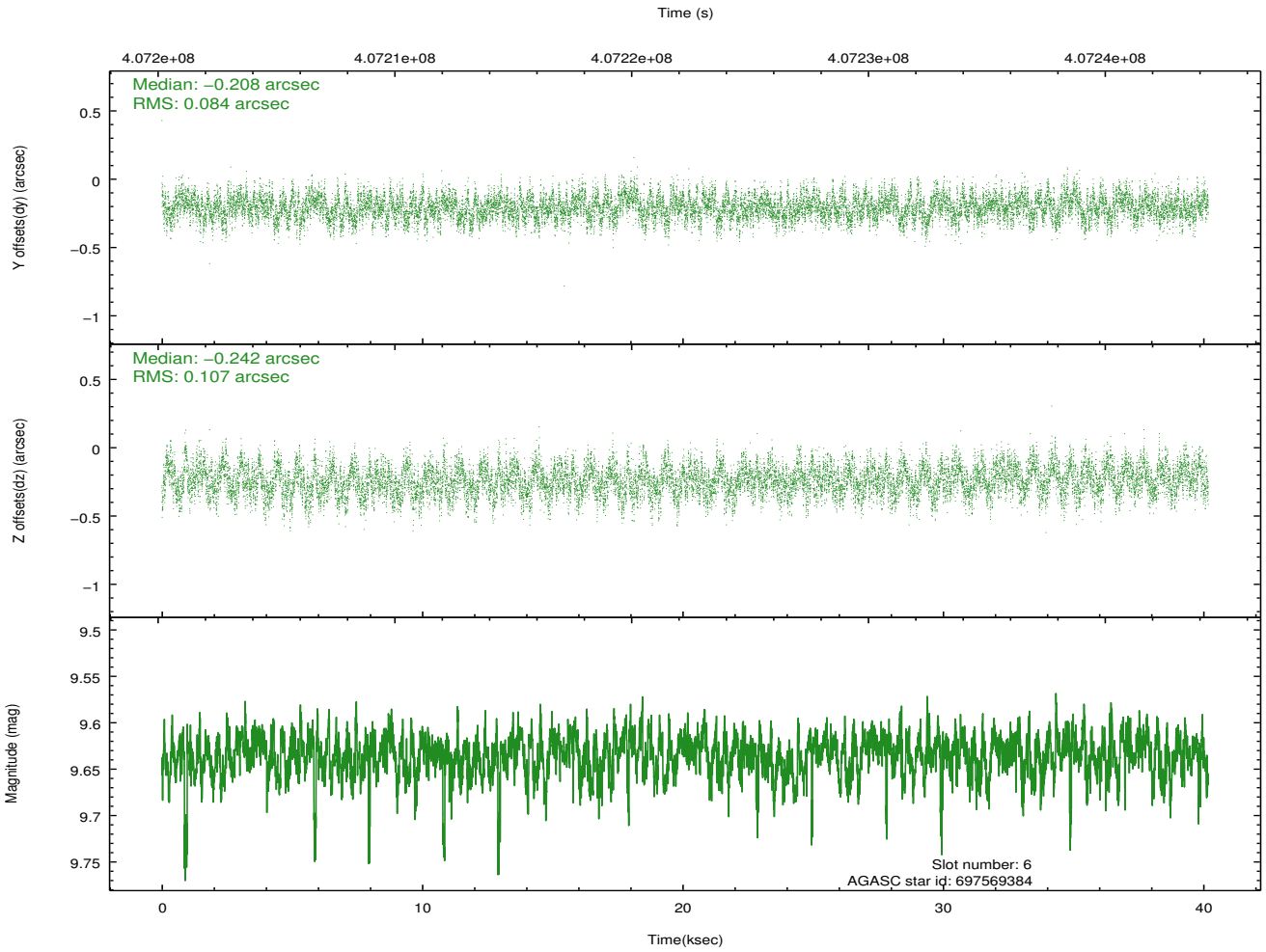
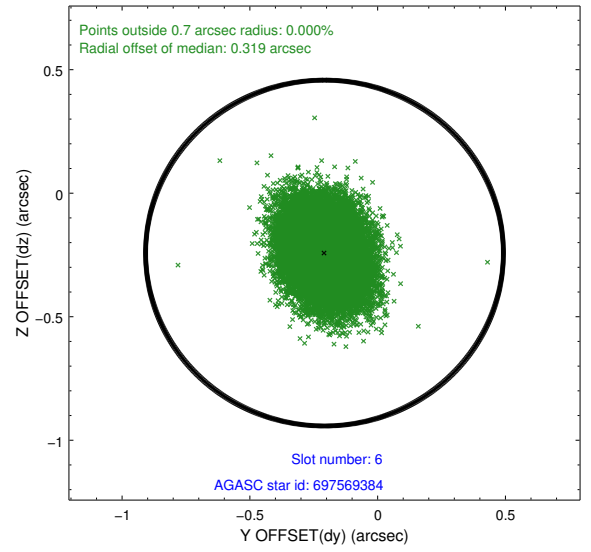
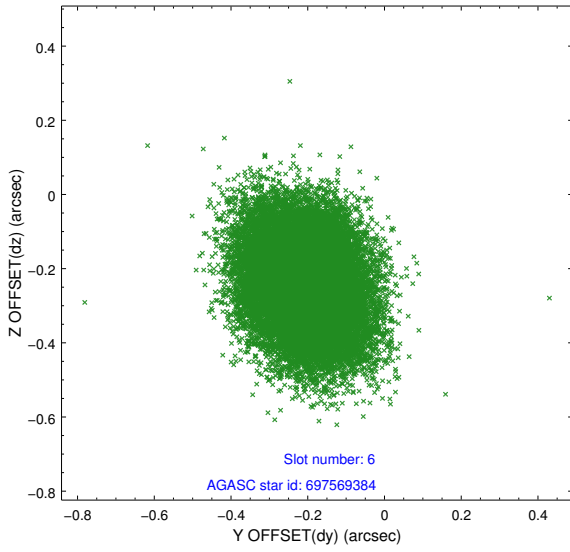
Time (s)



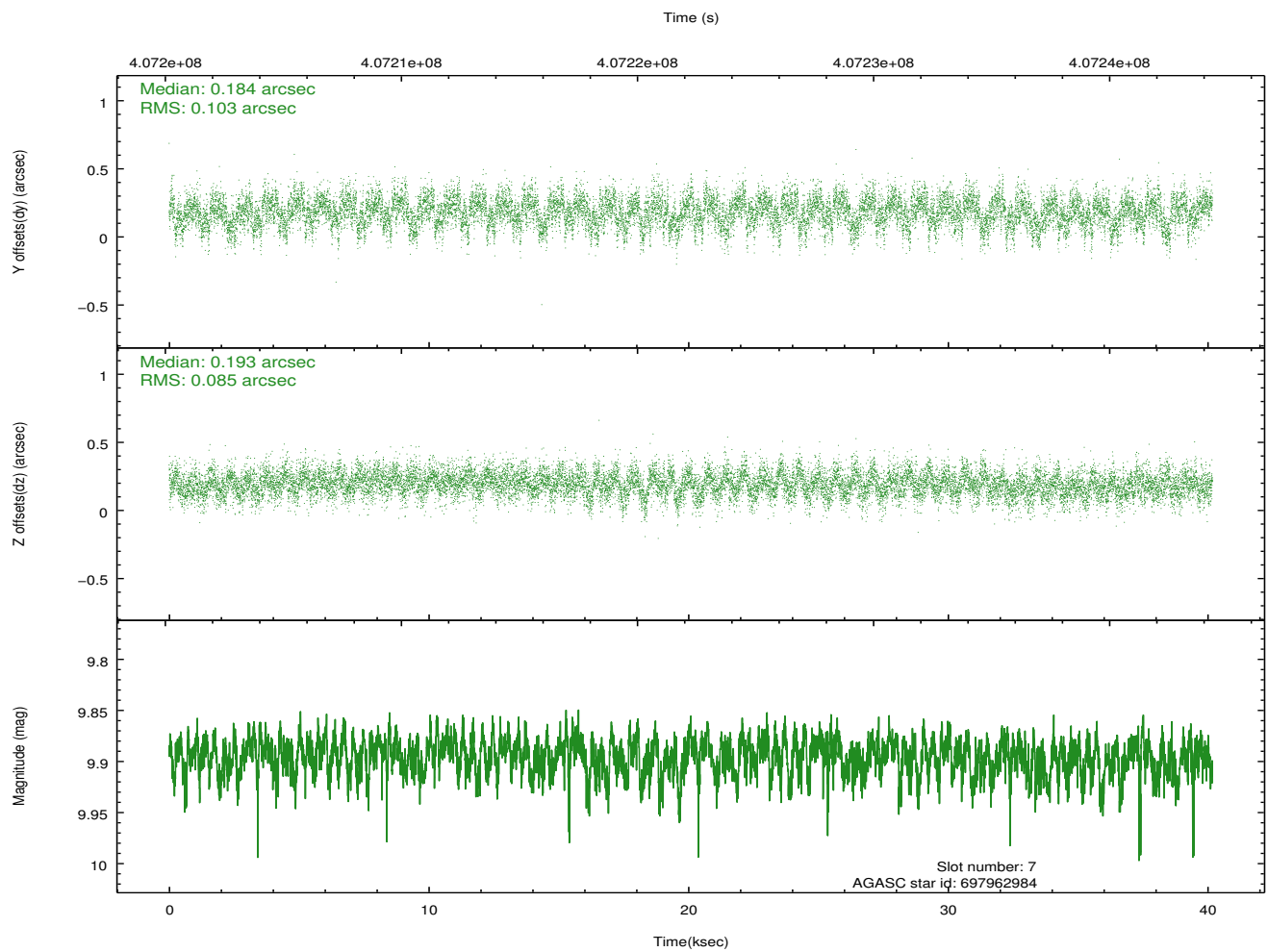
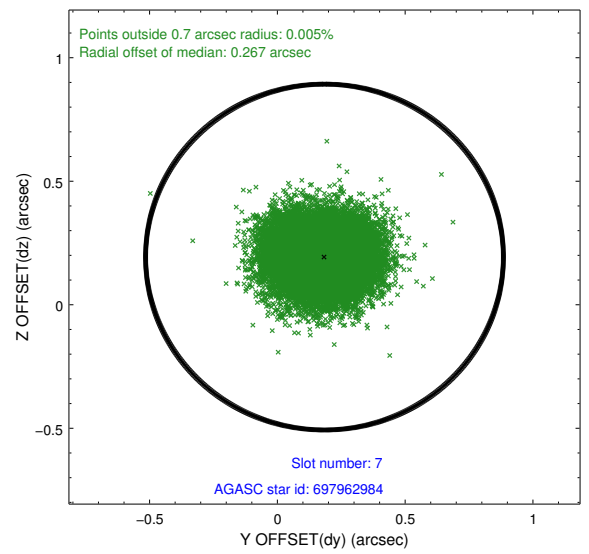
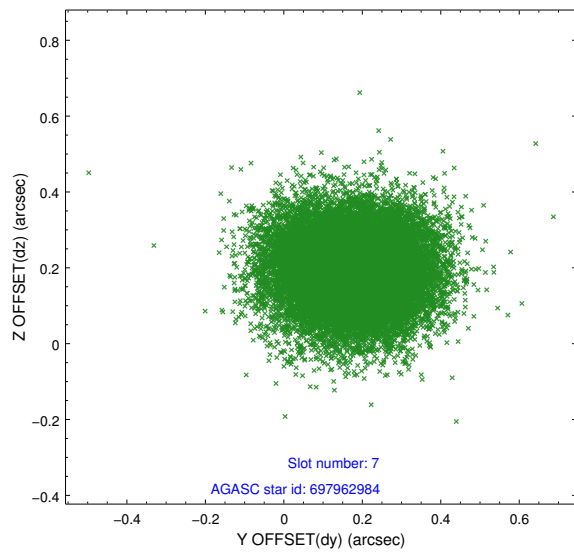
### 2.4.3 Slot 5



### 2.4.4 Slot 6

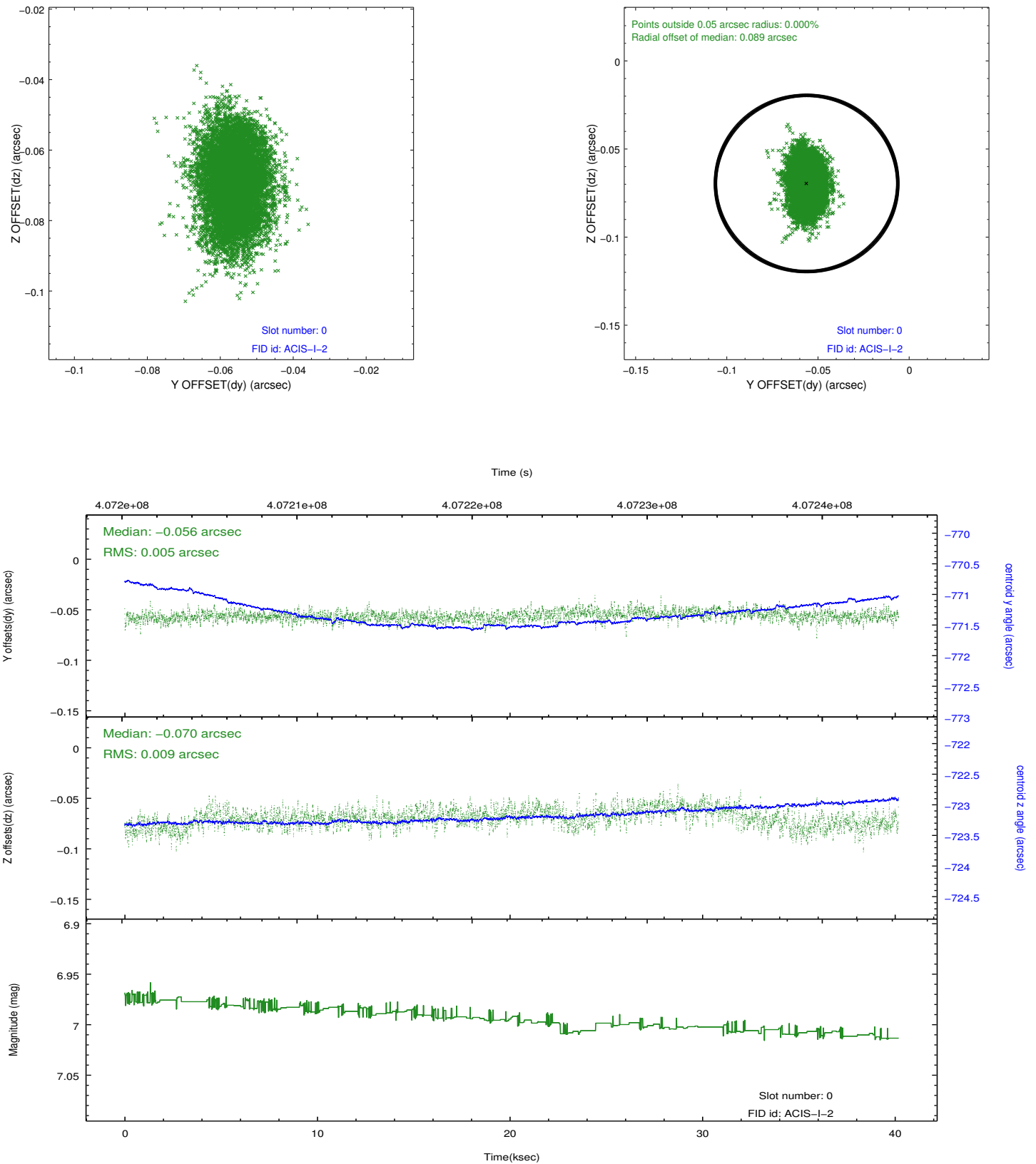


## 2.4.5 Slot 7

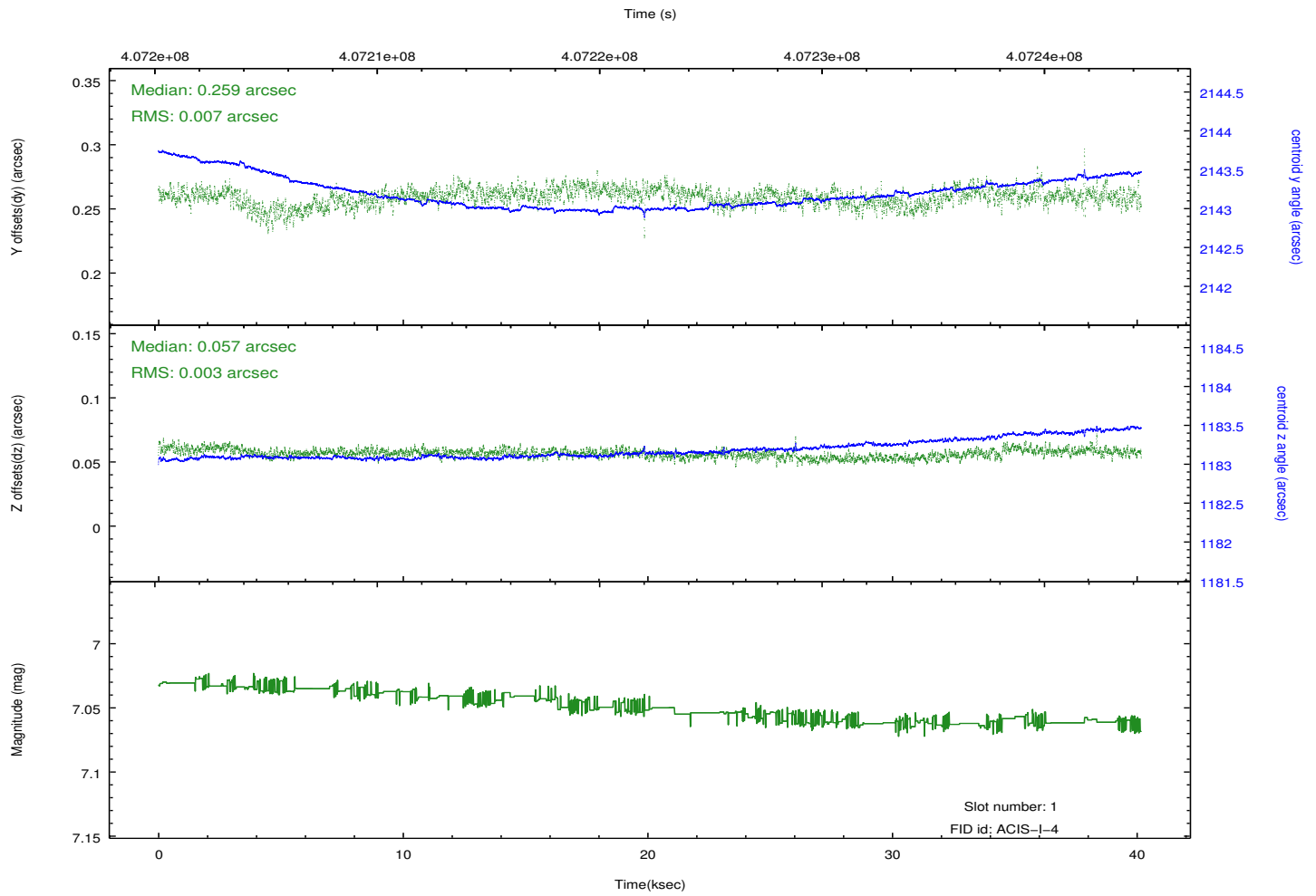
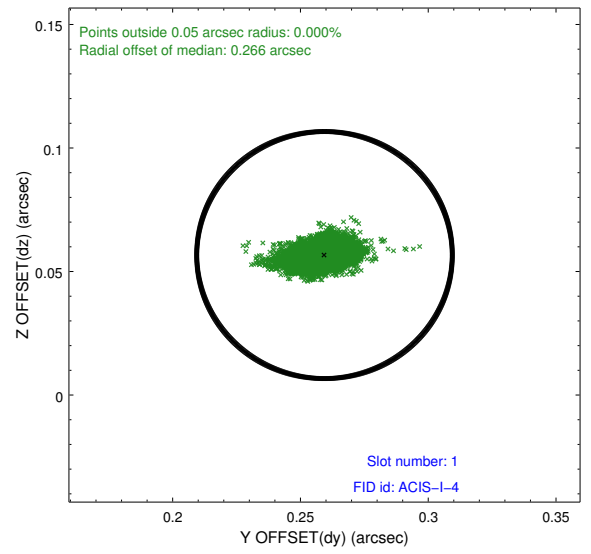
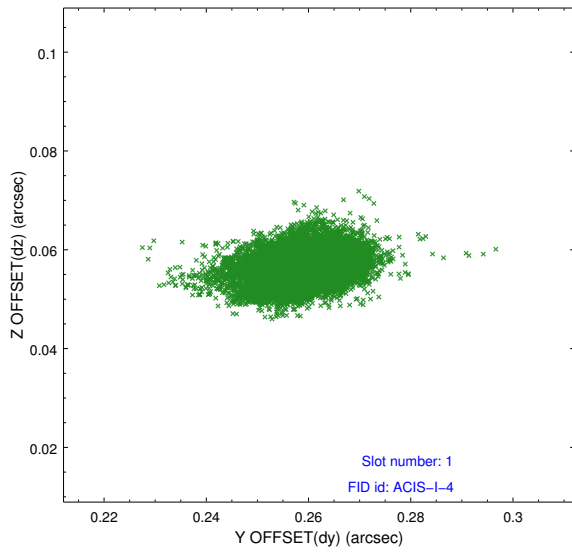


## 2.5 FID Slots

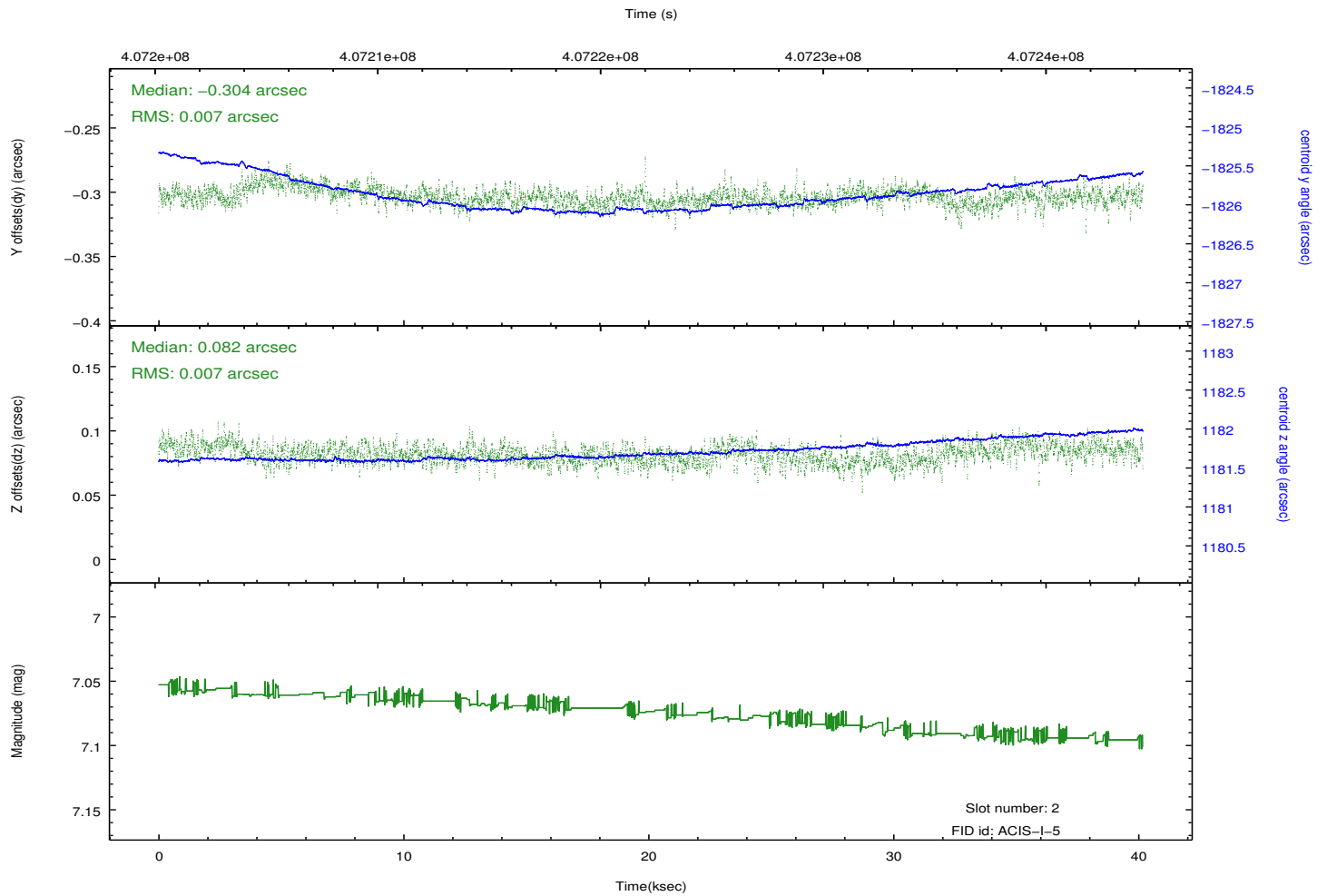
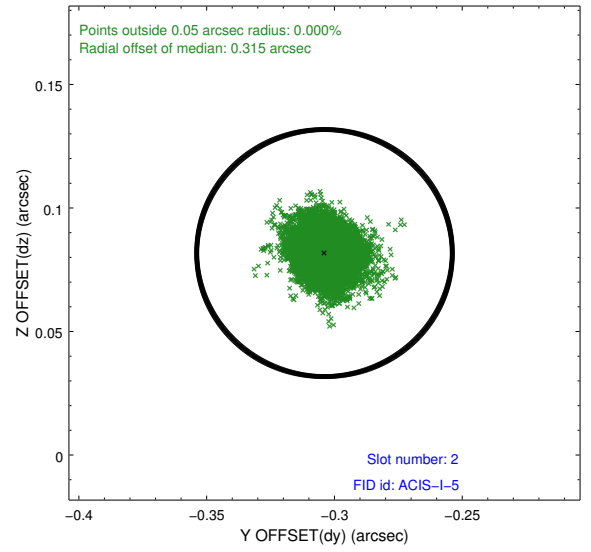
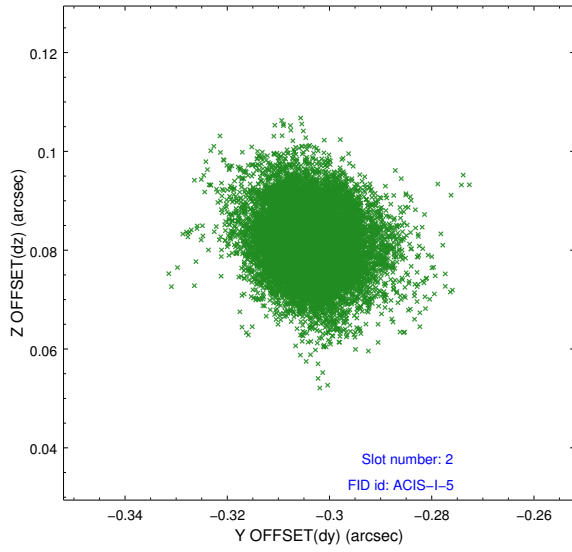
### 2.5.1 Slot 0



## 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)	2012.07.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.768794526696

### A.2 Comments