

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10448 - L2 Version 2  
Chandra X-Ray Center

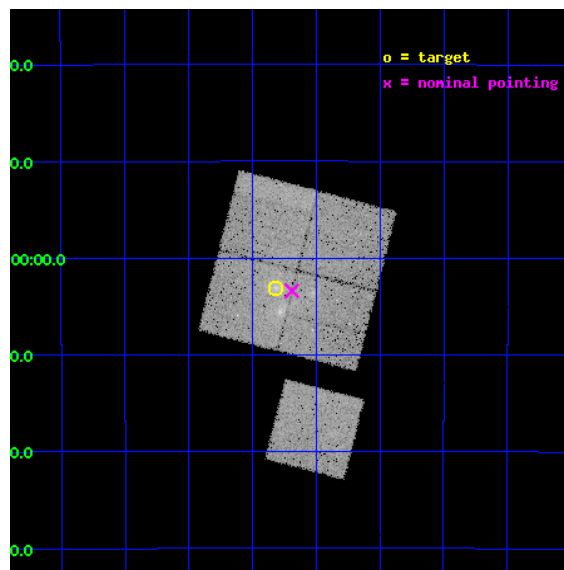
L2 Processing Date : Jun 7 2012

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# 1 Front

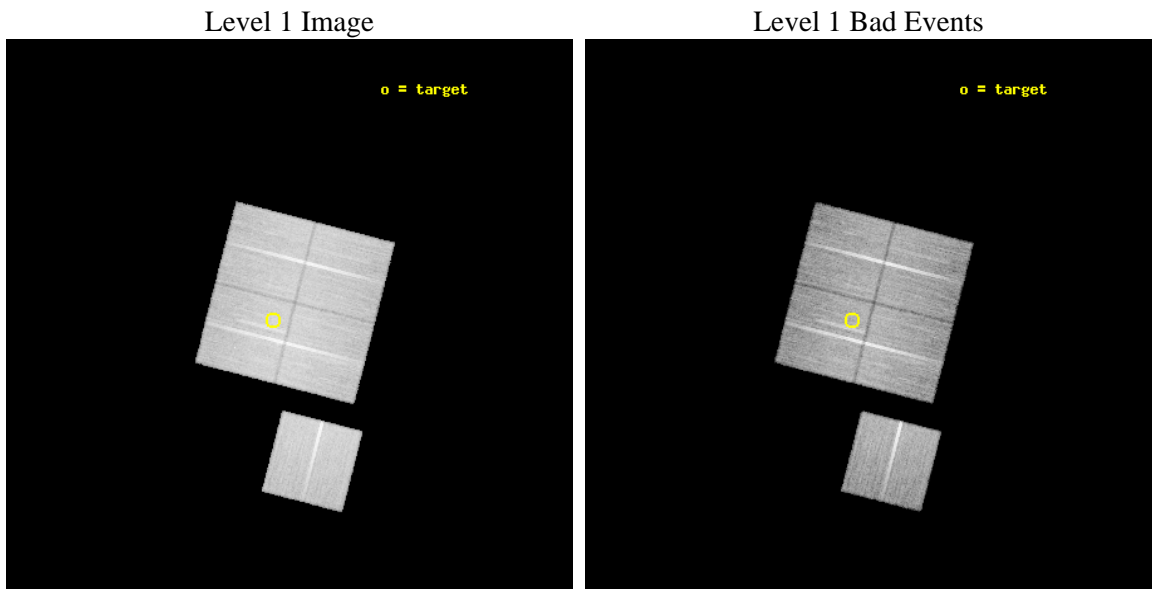
seq_num	800809	Sequence number
obs_id	10448	Observation id
title	The distribution and interactions of luminous and dark matter in strong-lensing clusters at $z>0.3$	Proposal title
observer	Dr. Harald Ebeling	Principal investigator
object	MACSJ0404.2-2703	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.078333	Observer's specified target RA [deg]
dec_targ	-27.051389	Observer's specified target Dec [deg]
ra_nom	61.047696116908	Nominal RA [deg]
dec_nom	-27.056517390506	Nominal Dec [deg]
roll_nom	194.43516134951	Nominal Roll [deg]
revision	2	Processing version of data
ontime	23041.701650918	Sum of GTIs [s]
liveltime	22740.644855794	Livetime [s]
ontime0	23035.296580315	Sum of GTIs [s]
ontime1	23038.478590667	Sum of GTIs [s]
ontime2	23035.378799796	Sum of GTIs [s]
ontime3	23041.701650918	Sum of GTIs [s]
ontime6	23038.396510661	Sum of GTIs [s]
l2events	91194	Number of level 2 events



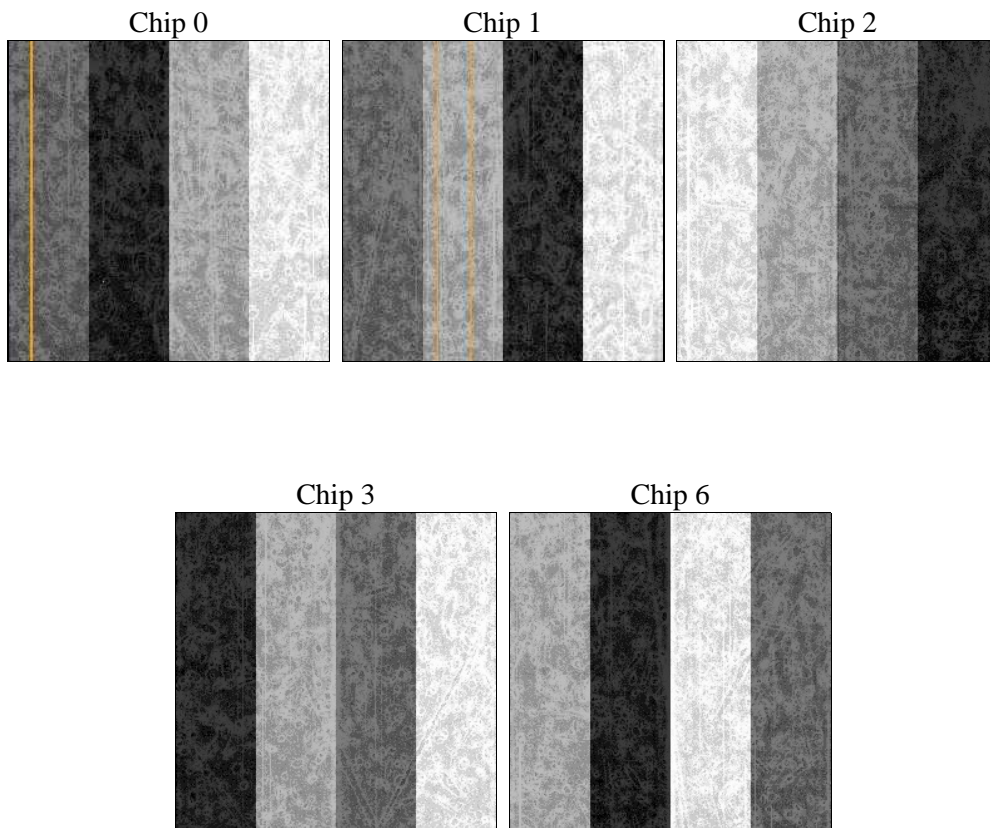
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	23041.701650918	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	23035.296580315	Sum of GTIs [s]
date	2012-06-07T01:18:37	Date and time of file creation	ontime1	23038.478590667	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	23035.378799796	Sum of GTIs [s]
			ontime3	23041.701650918	Sum of GTIs [s]
			ontime6	23038.396510661	Sum of GTIs [s]
			l1events	998424	Number of level 1 events

### 2.1.4 Events

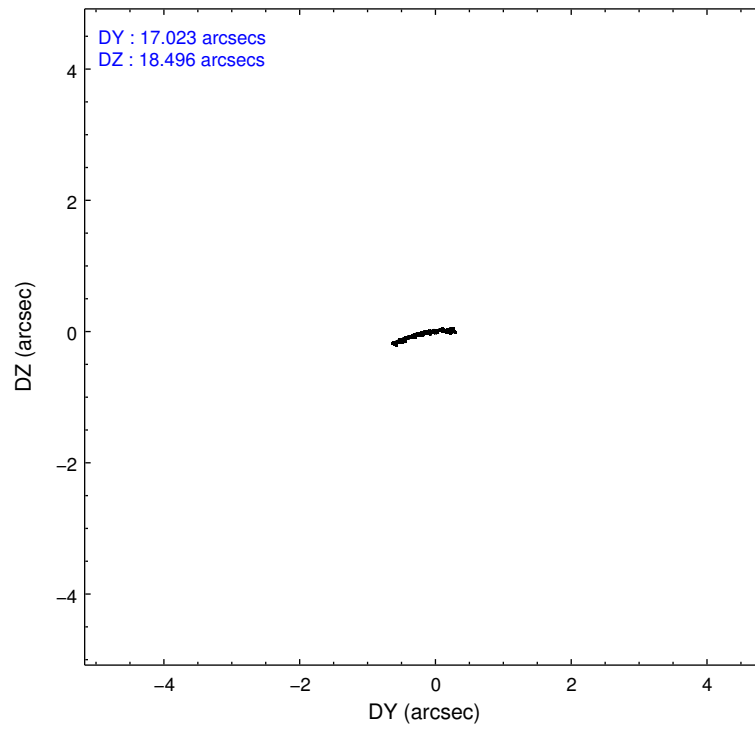
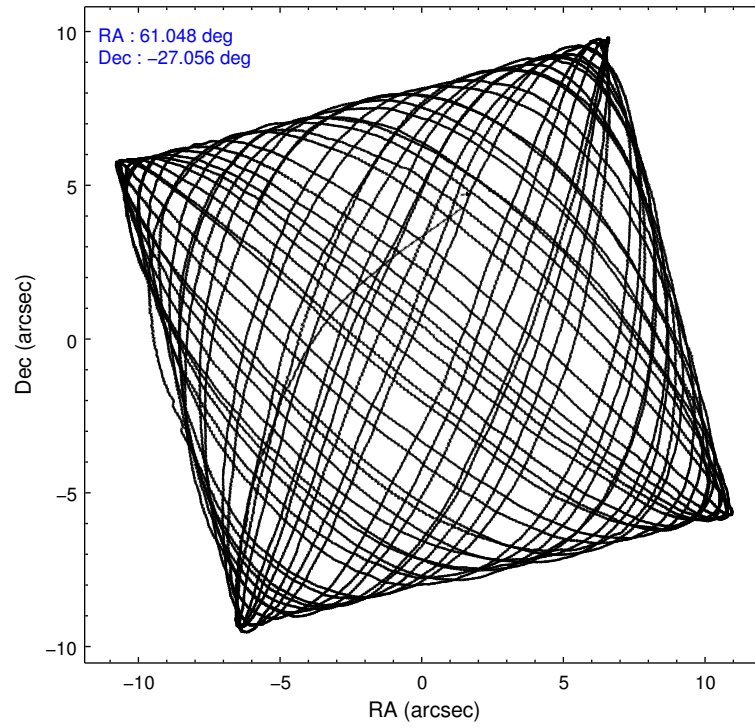
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	189890	192737	210463	203212	202122
rejected events	169230	169433	188770	180755	180945
rejected %	89%	87%	89%	88%	89%

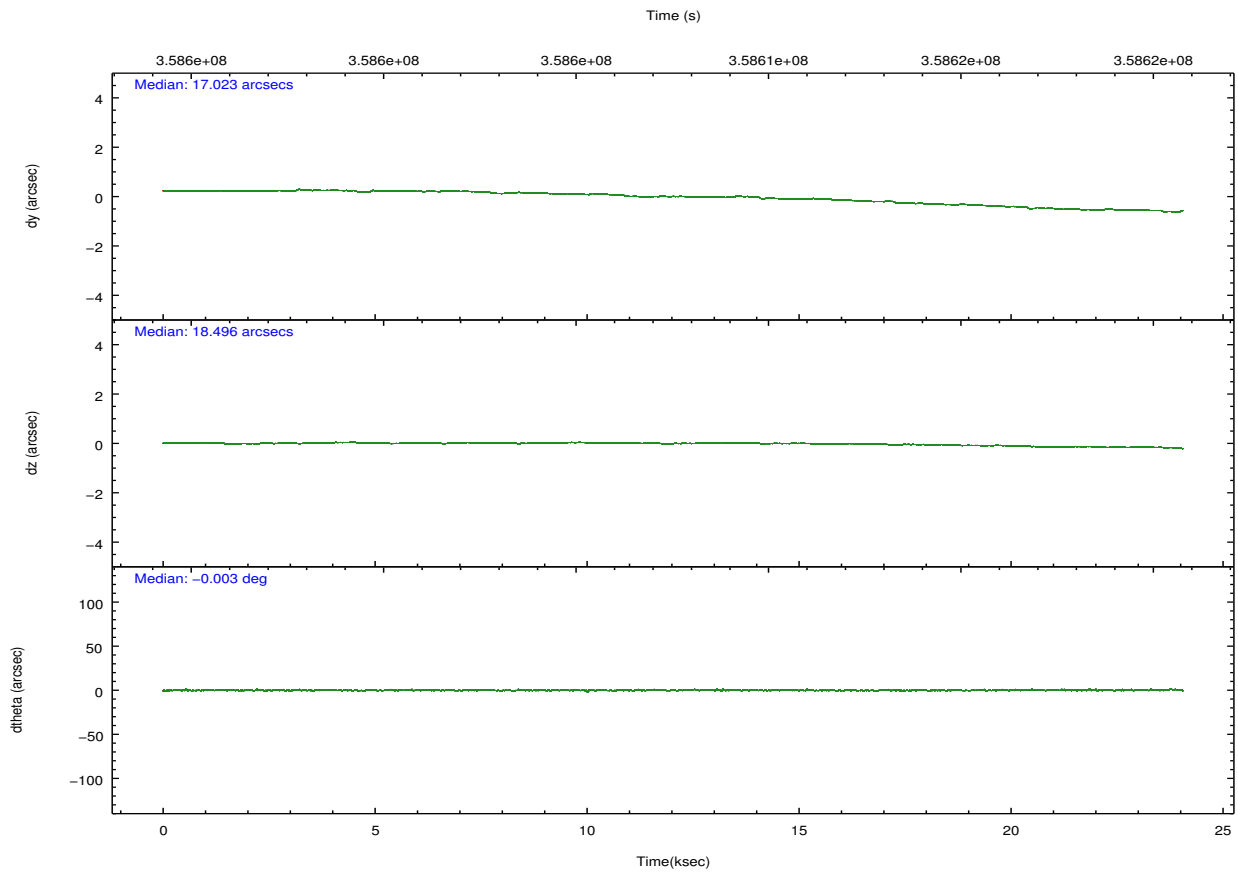
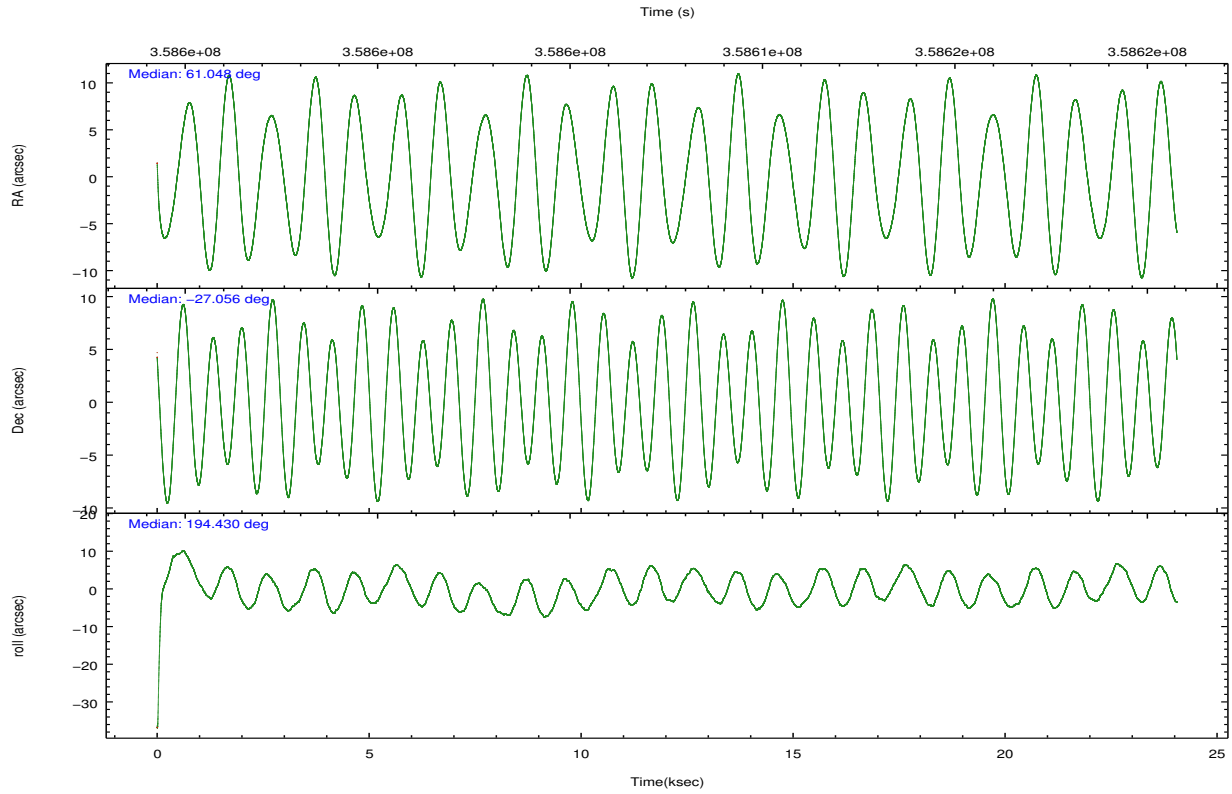
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	7079	8238	8315	9476	7408
	3%	4%	3%	4%	3%
grade 1 events	121	101	110	145	106
	0%	0%	0%	0%	0%
grade 2 events	5113	5505	4965	4571	4733
	2%	2%	2%	2%	2%
grade 3 events	2265	2344	2207	2250	2333
	1%	1%	1%	1%	1%
grade 4 events	2141	2514	2224	2217	2180
	1%	1%	1%	1%	1%
grade 5 events	7392	8042	7091	8517	8060
	3%	4%	3%	4%	3%
grade 6 events	4075	4707	3984	3948	4528
	2%	2%	1%	1%	2%
grade 7 events	161704	161286	181567	172088	172774
	85%	83%	86%	84%	85%

## 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	61.069653	61.04769611690752	Subarray requested	NONE	NONE
[deg] Pointing Dec	-27.037183	-27.05651739050621	Alternating exposures requested	N	N
[deg] Pointing Roll	194.236479	194.4351613495087	[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	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	358596542.184000	358595180.92827			
Observation start date	2009-05-13T10:07:56	2009-05-13T09:46:20			
[s] Observation end time (MET)	358619542.184000	358620007.96701			
Observation end date	2009-05-13T16:31:16	2009-05-13T16:40:07			
Read mode	TIMED	TIMED			

## 2.3 Aspect



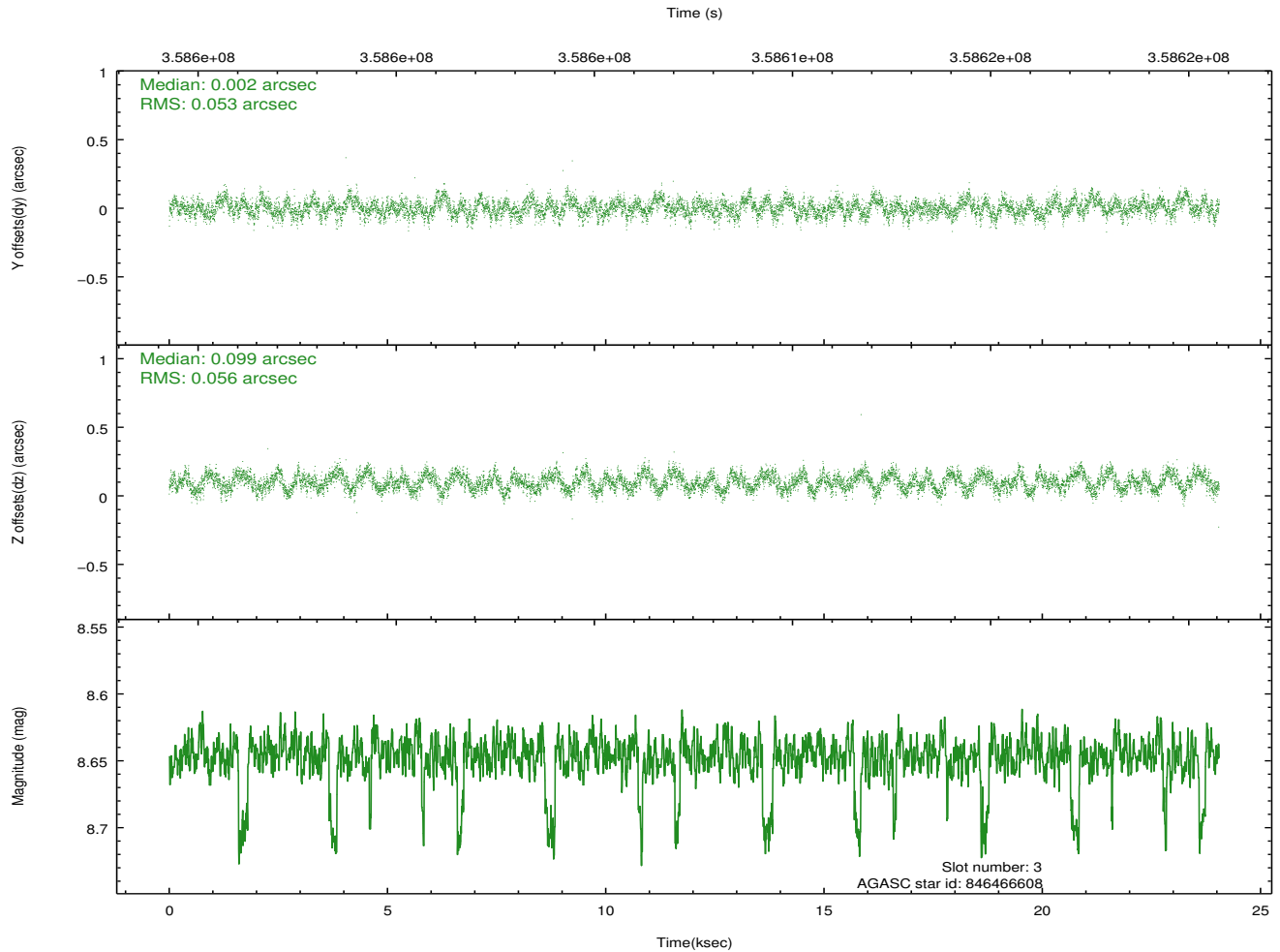
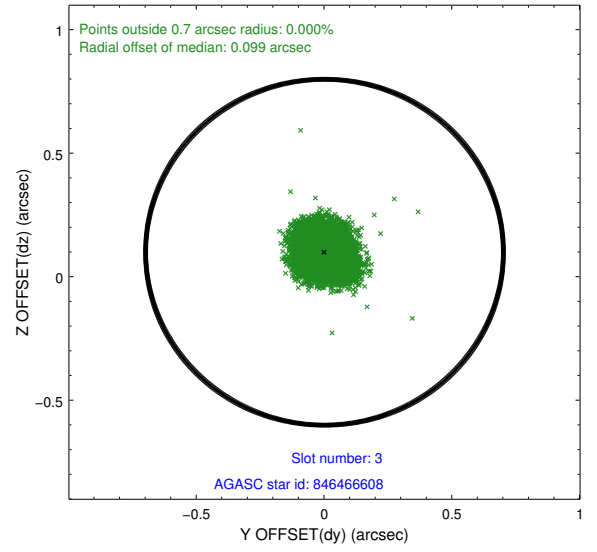
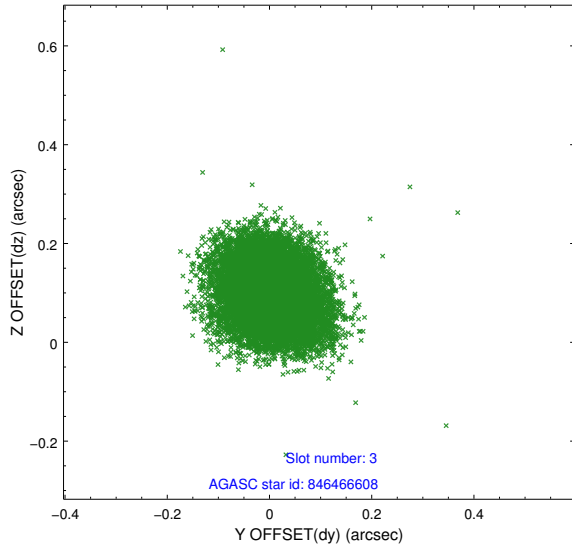


### Slot Statistics

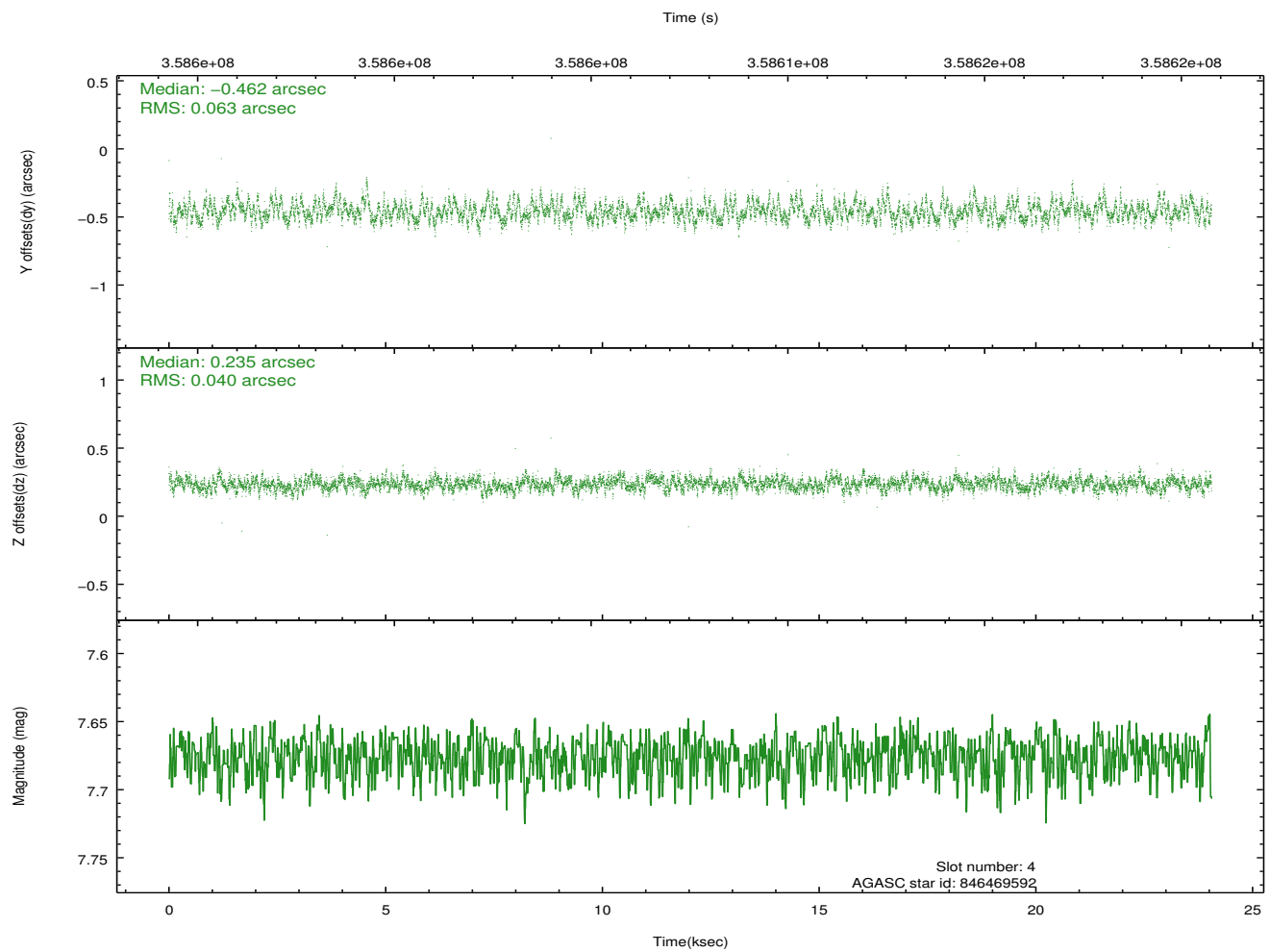
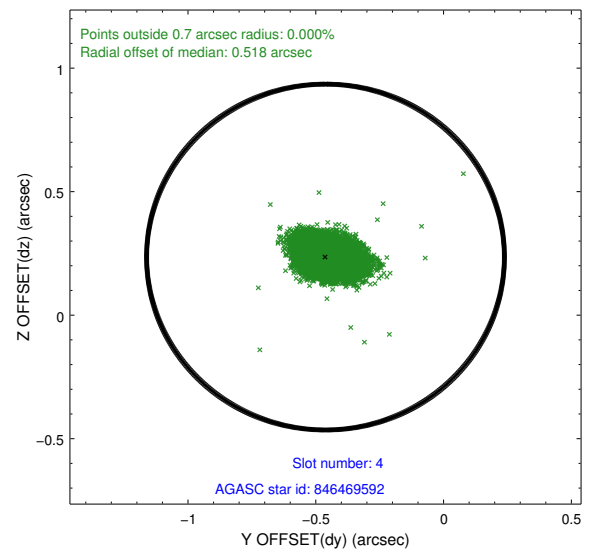
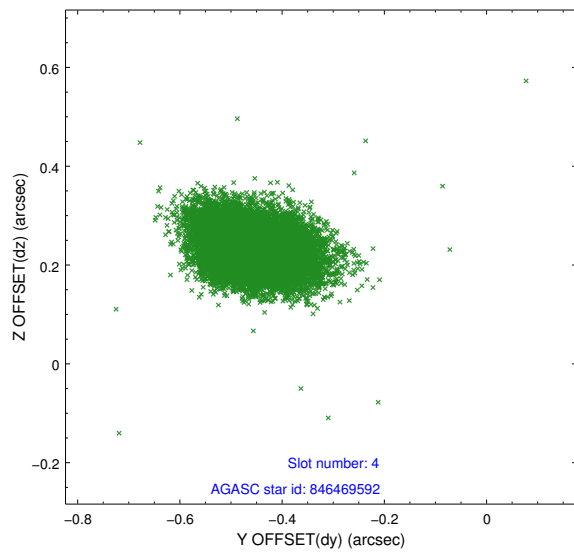
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	5866	0.061	-0.001	0.008	0.017	0.000000	0.000000	922.44	-927.26
1	FID	ACIS-I-5	7.00	5866	-0.236	0.063	0.010	0.016	0.000000	0.000000	-1825.93	970.16
2	FID	ACIS-I-6	7.01	5866	0.083	0.009	0.010	0.015	0.000000	0.000000	387.81	1614.80
3	GUIDE	846466608	8.65	11727	0.002	0.099	0.083	0.130	60.677721	-26.996274	1183.02	-449.53
4	GUIDE	846469592	7.68	11731	-0.462	0.235	0.078	0.131	60.337391	-26.516814	1827.43	-2388.69
5	GUIDE	846594232	9.28	11701	0.107	-0.063	0.101	0.165	61.607331	-27.318404	-1416.82	1407.73
6	GUIDE	846604080	9.39	11724	0.312	0.025	0.123	0.193	61.473155	-26.656707	-1594.56	-1006.09
7	GUIDE	846988160	10.00	11712	0.033	-0.292	0.140	0.223	61.679032	-27.556023	-1424.92	2293.19

## 2.4 Star Slots

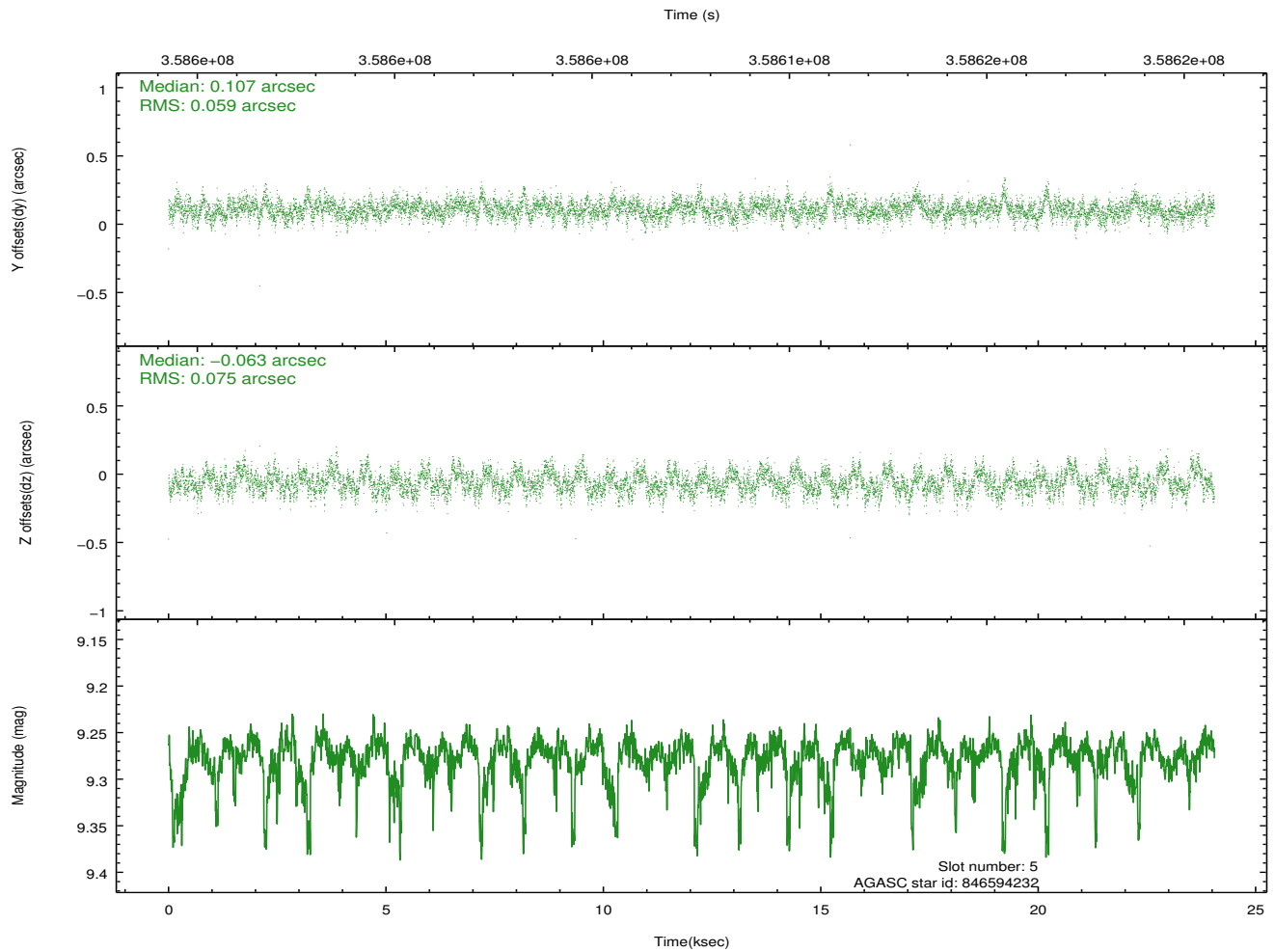
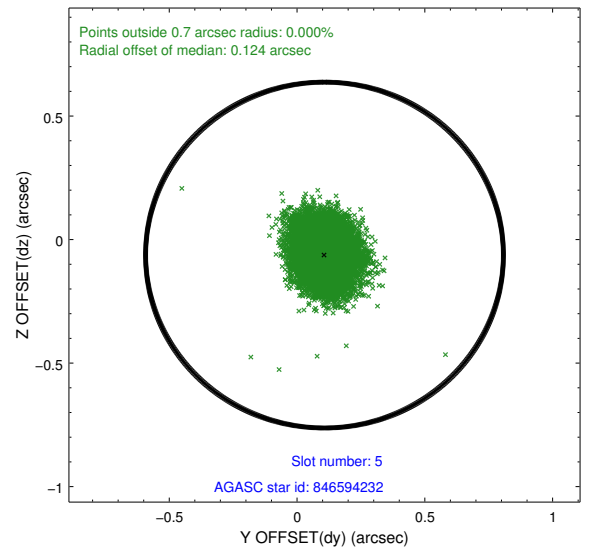
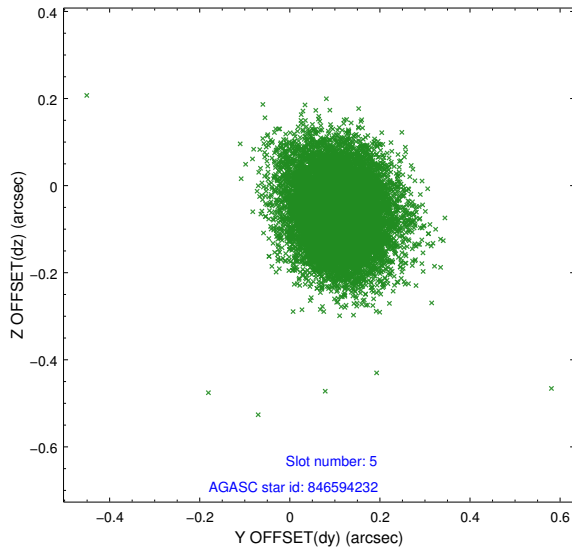
### 2.4.1 Slot 3



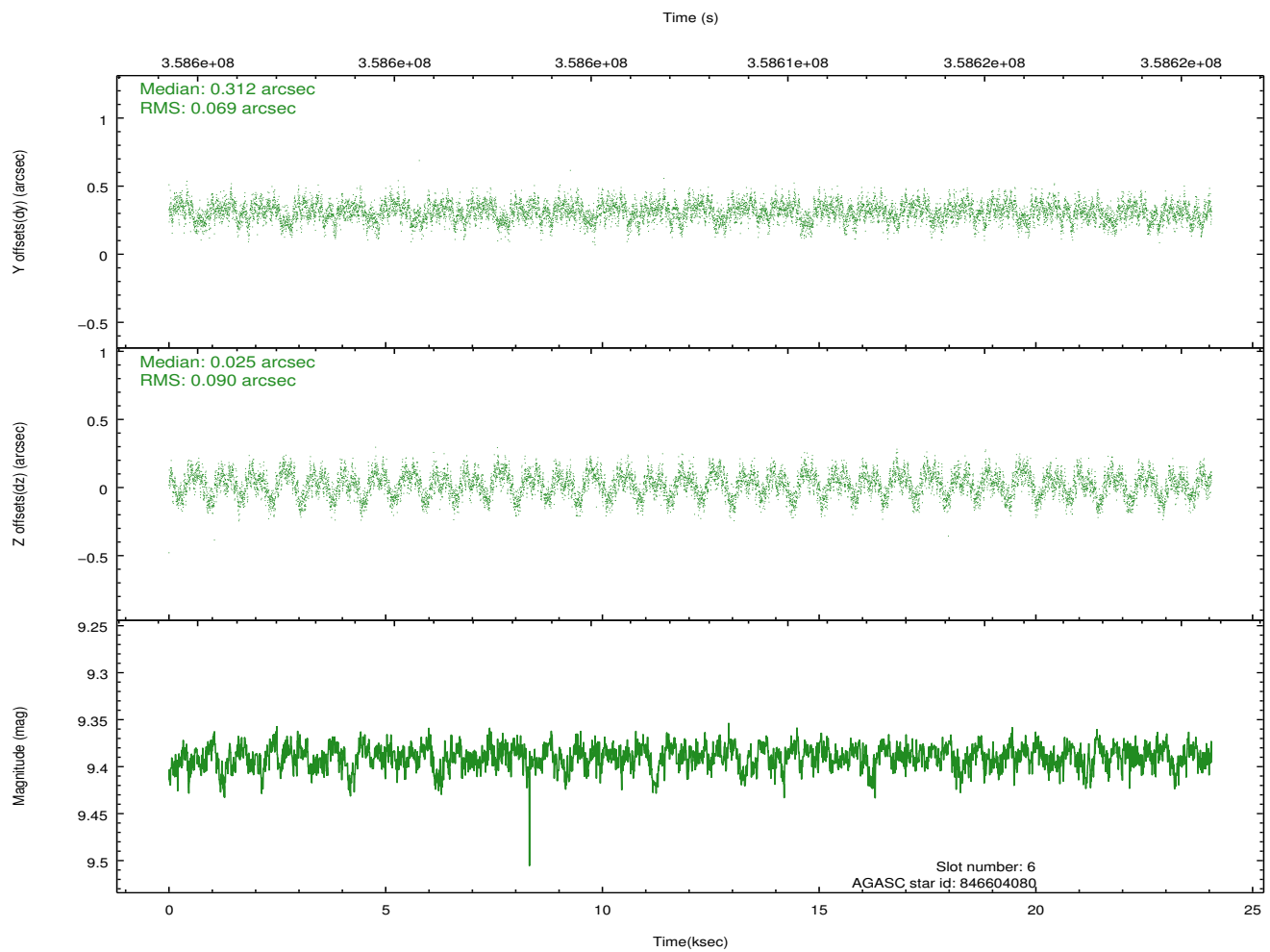
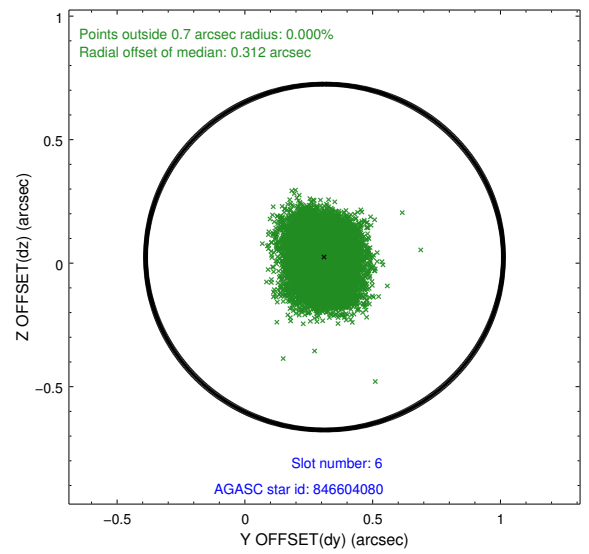
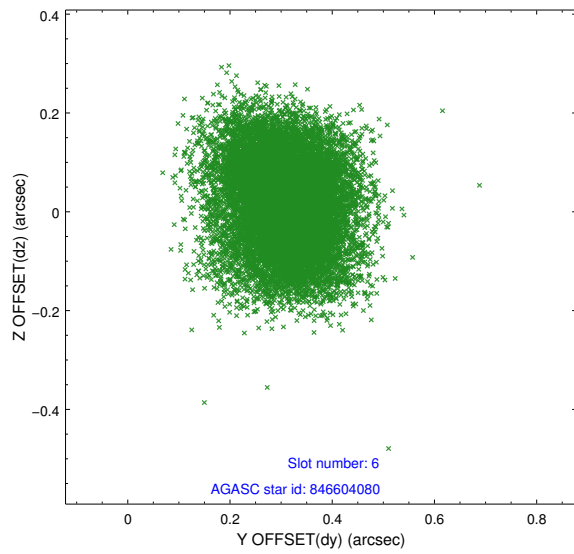
## 2.4.2 Slot 4



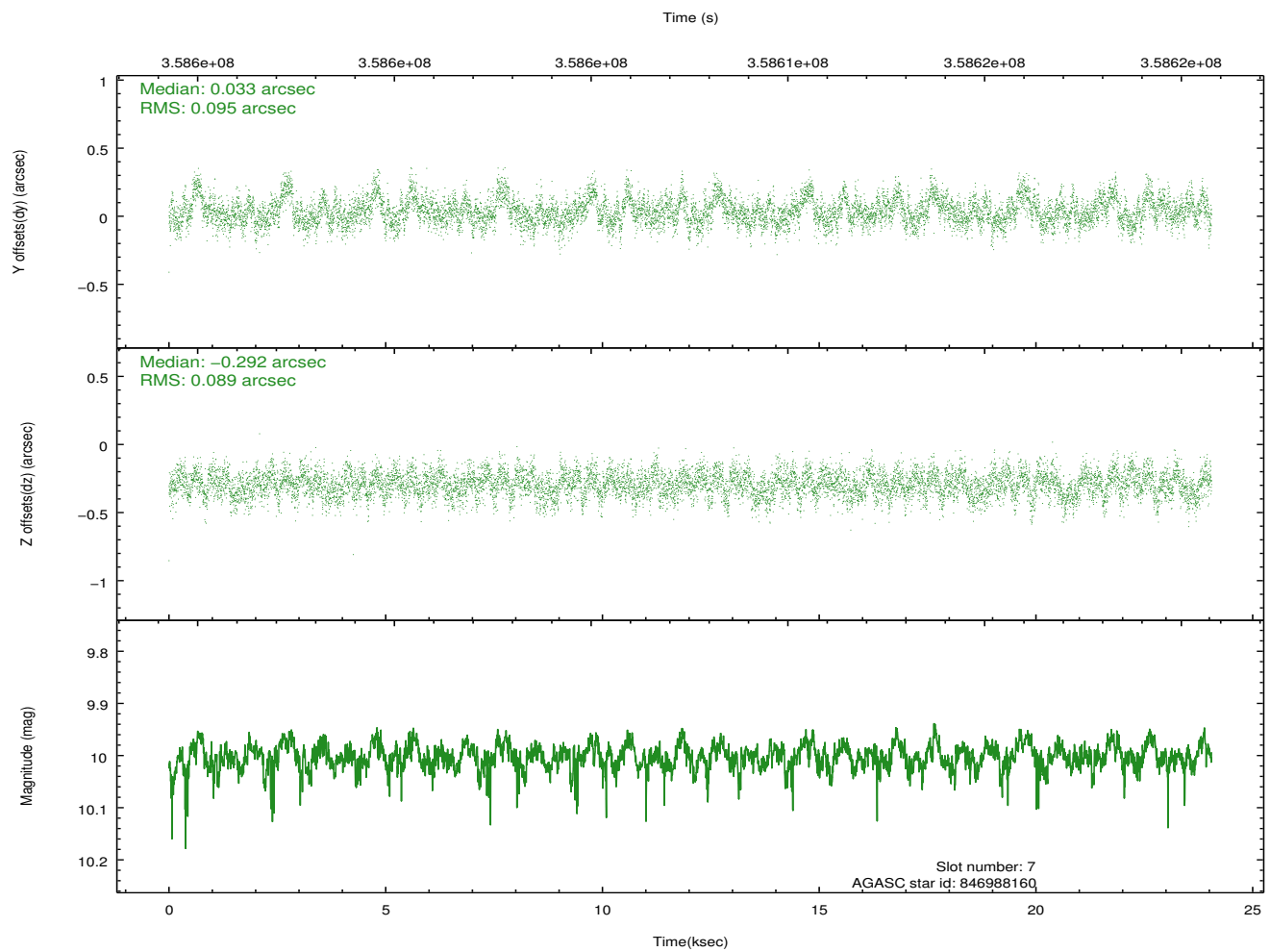
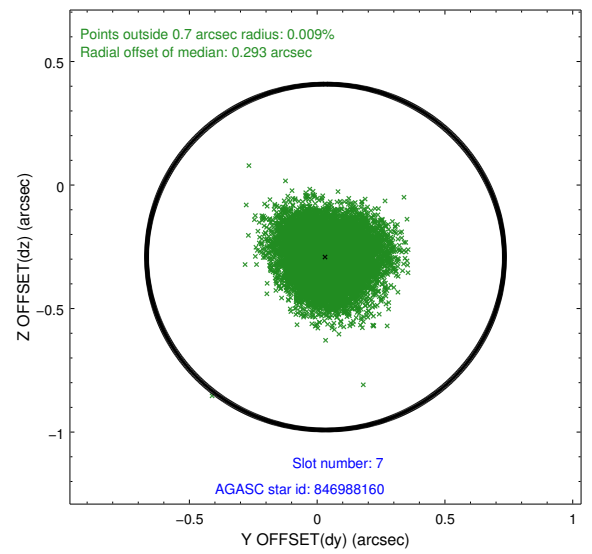
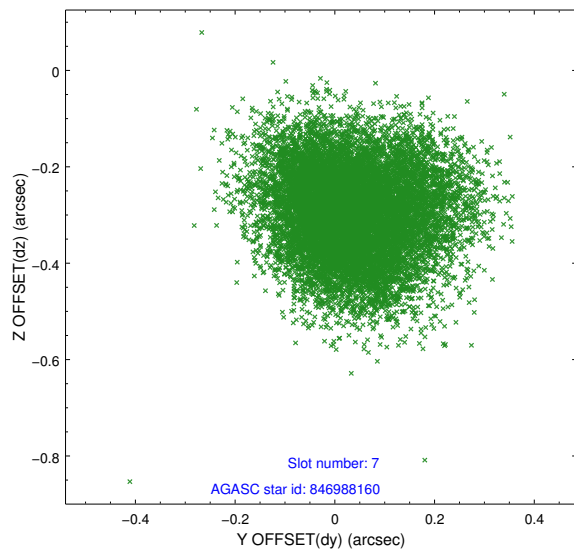
### 2.4.3 Slot 5



## 2.4.4 Slot 6

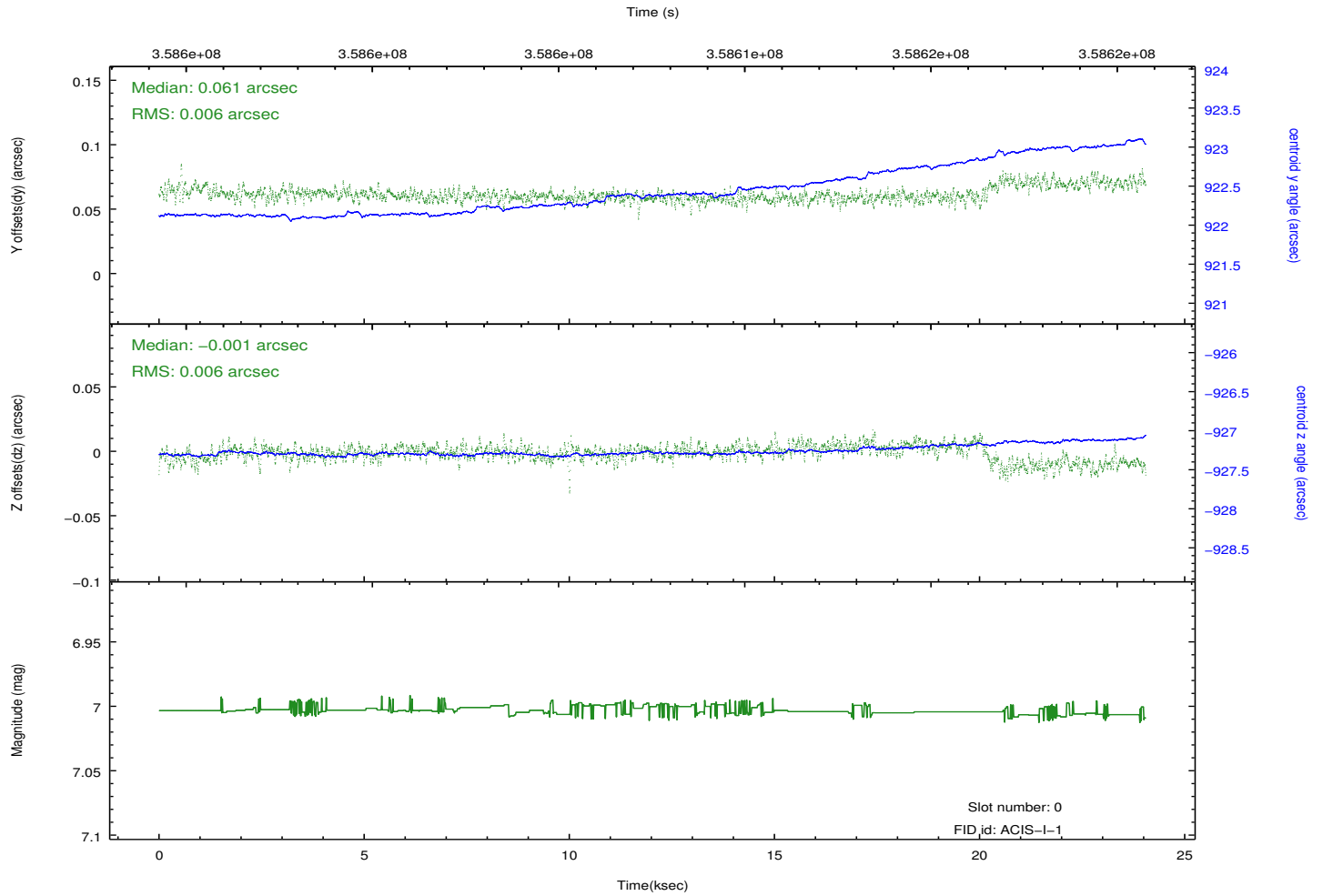
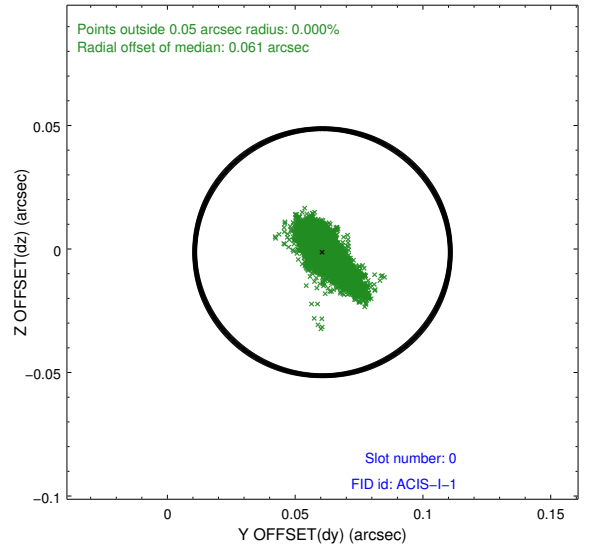
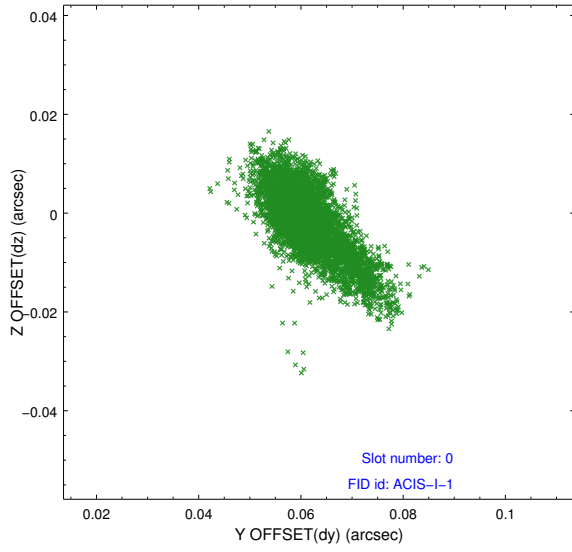


## 2.4.5 Slot 7

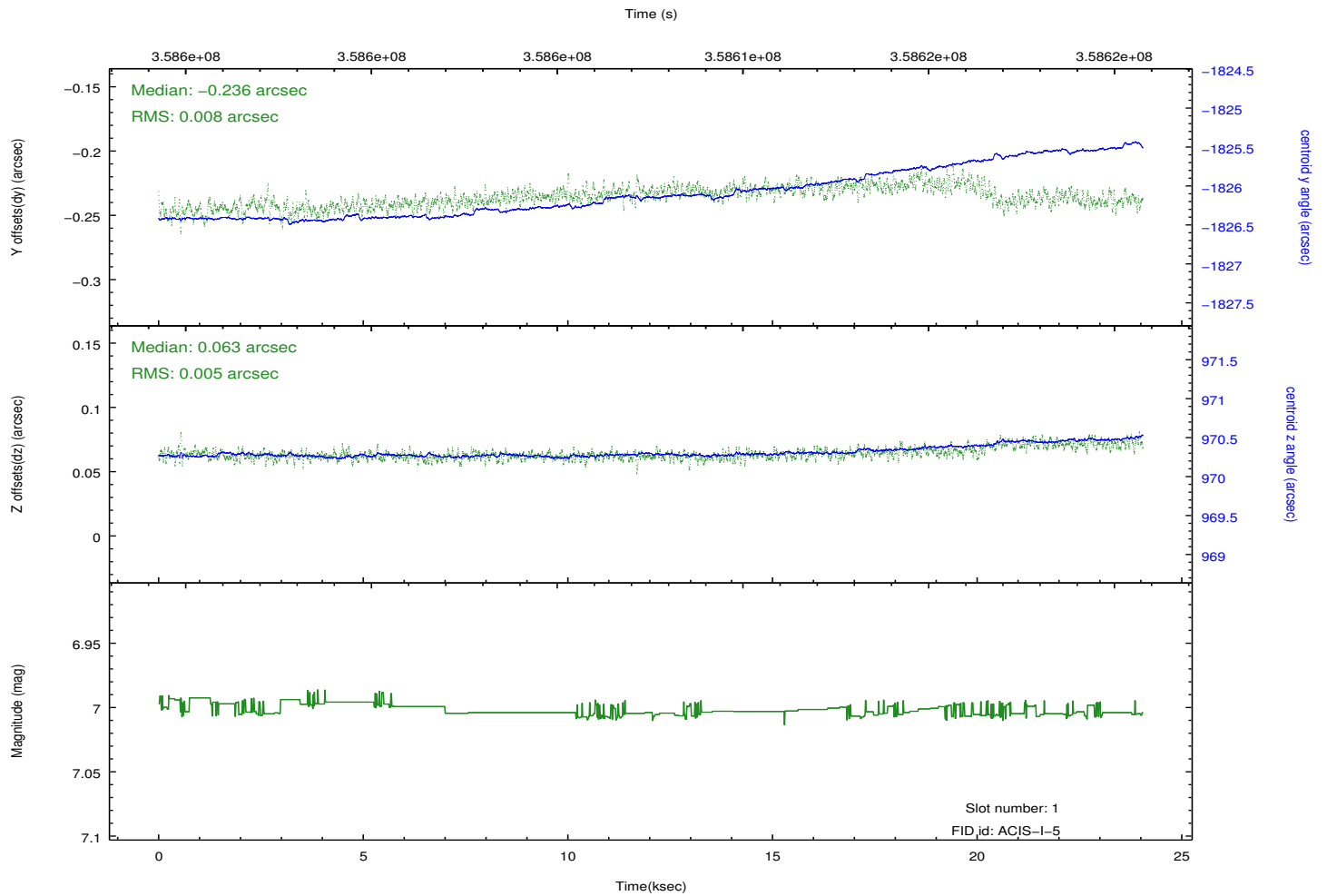
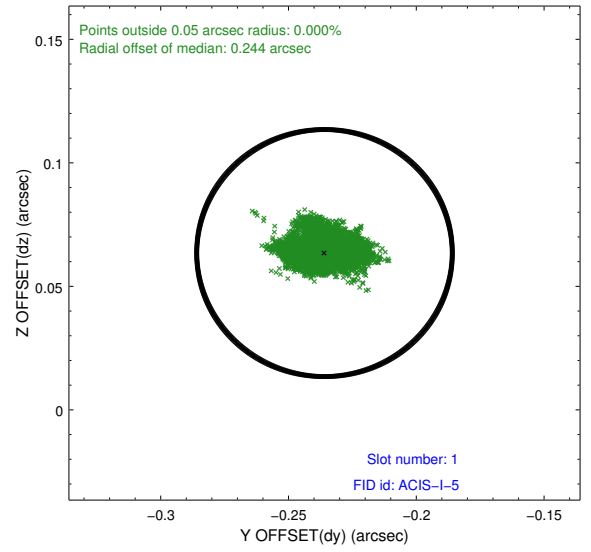
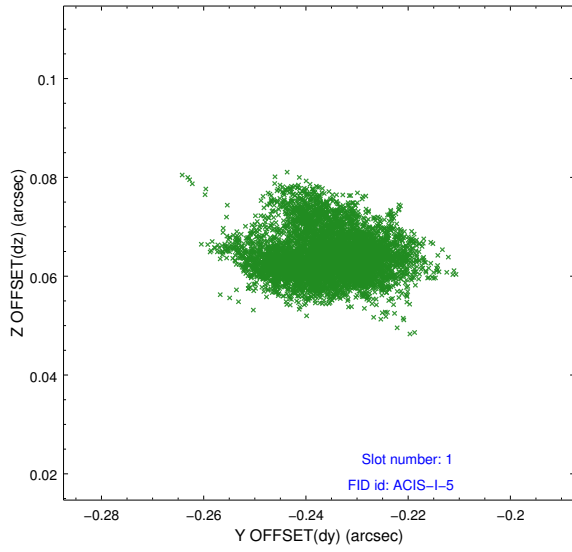


## 2.5 FID Slots

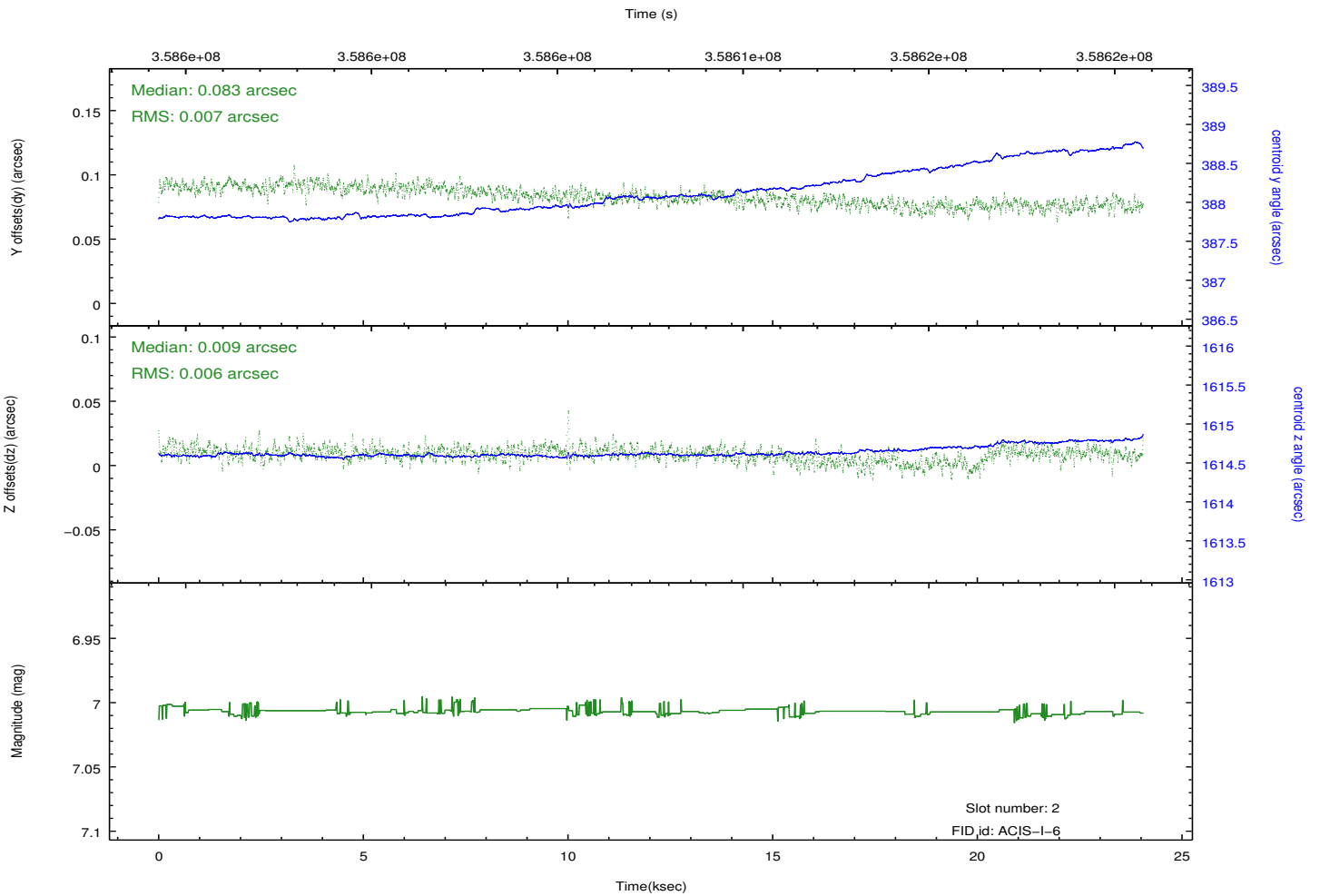
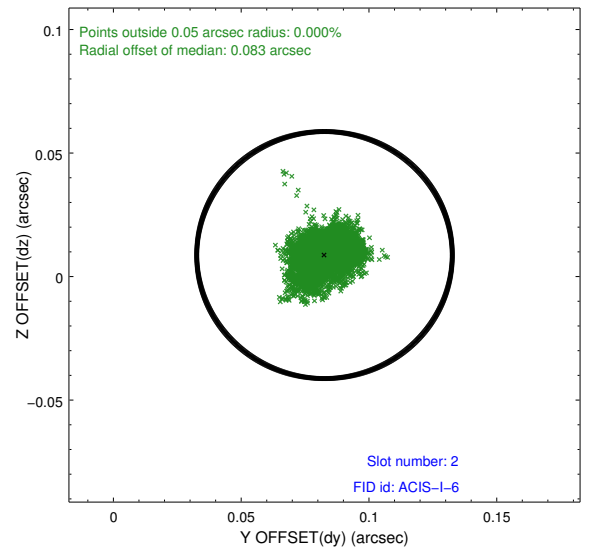
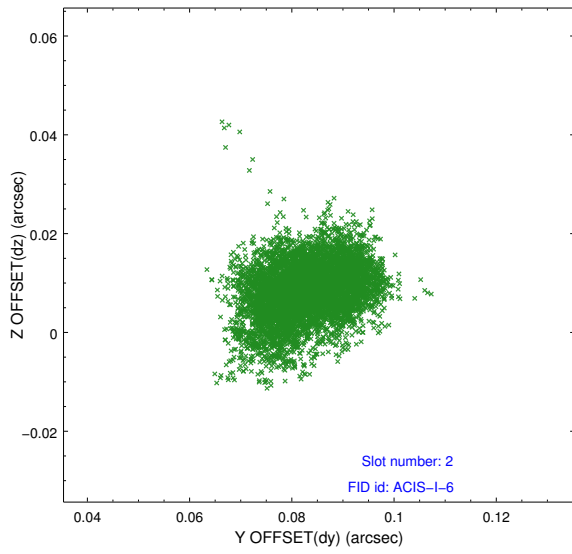
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.0423001

## A.2 Comments