

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12973 - L2 Version 2  
Chandra X-Ray Center

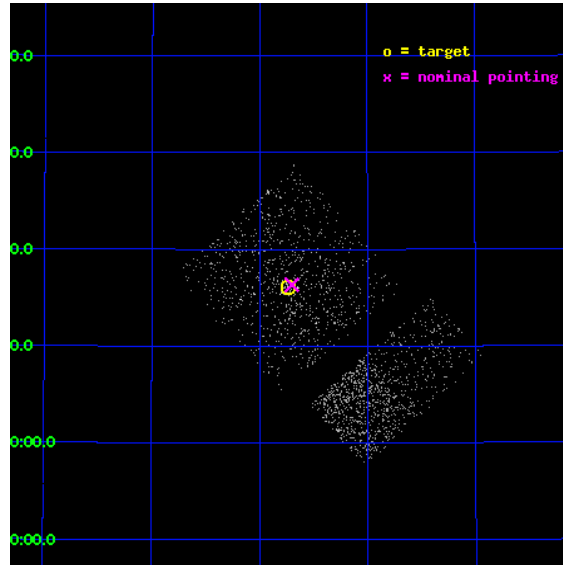
L2 Processing Date : Feb 20 2012

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# 1 Front

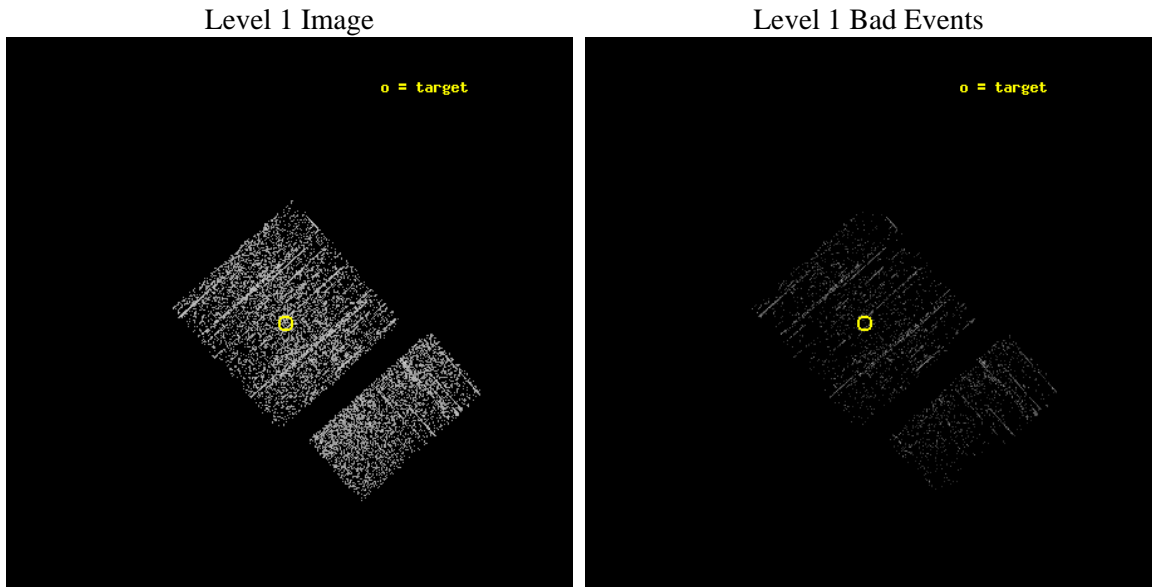
seq_num	600941	Sequence number
obs_id	12973	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Michael Garcia	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.675167623458	Nominal RA [deg]
dec_nom	41.272242952546	Nominal Dec [deg]
roll_nom	138.31178809898	Nominal Roll [deg]
revision	2	Processing version of data
ontime	934.13574808836	Sum of GTIs [s]
livetime	147.05549957312	Livetime [s]
ontime0	934.13574808836	Sum of GTIs [s]
ontime1	934.13574808836	Sum of GTIs [s]
ontime2	934.13573825359	Sum of GTIs [s]
ontime3	934.13574808836	Sum of GTIs [s]
ontime6	934.13574808836	Sum of GTIs [s]
ontime7	934.13574808836	Sum of GTIs [s]
l2events	2258	Number of level 2 events



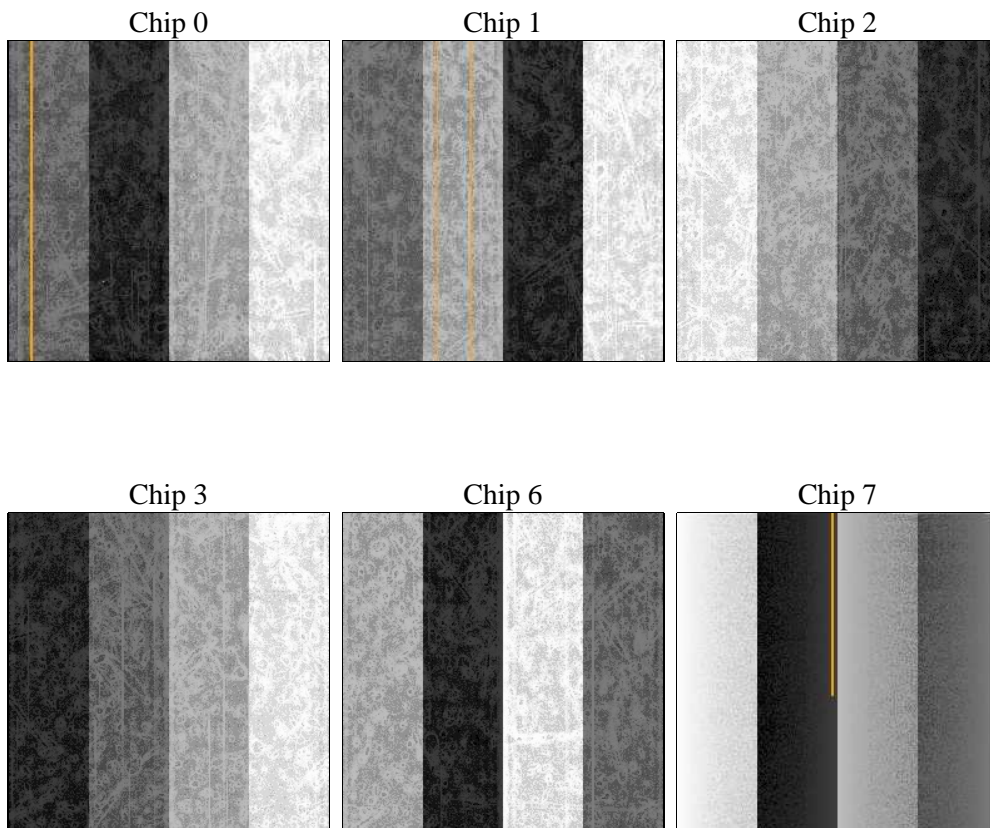
## 2 OBI Primary

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4960.539000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	934.13574808836	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	934.13574808836	Sum of GTIs [s]
date	2012-02-20T22:50:59	Date and time of file creation	ontime1	934.13574808836	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	934.13573825359	Sum of GTIs [s]
			ontime3	934.13574808836	Sum of GTIs [s]
			ontime6	934.13574808836	Sum of GTIs [s]
			ontime7	934.13574808836	Sum of GTIs [s]
			l1events	17486	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2685	2879	3224	2706	3151	2841
rejected events	2384	2521	2825	2324	2905	1981
rejected %	88%	87%	87%	85%	92%	69%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	104	149	216	178	65	99
	3%	5%	6%	6%	2%	3%
grade 1 events	1	2	6	1	1	2
	0%	0%	0%	0%	0%	0%
grade 2 events	72	82	68	88	70	179
	2%	2%	2%	3%	2%	6%
grade 3 events	30	31	41	34	37	77
	1%	1%	1%	1%	1%	2%
grade 4 events	43	37	33	35	27	76
	1%	1%	1%	1%	0%	2%
grade 5 events	98	101	107	126	121	251
	3%	3%	3%	4%	3%	8%
grade 6 events	54	62	43	48	47	432
	2%	2%	1%	1%	1%	15%
grade 7 events	2283	2415	2710	2196	2783	1725
	85%	83%	84%	81%	88%	60%

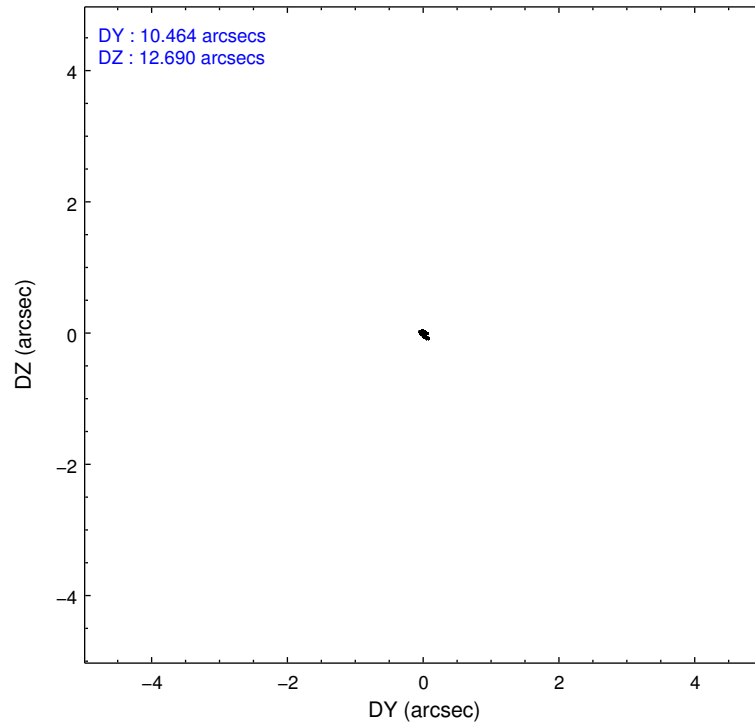
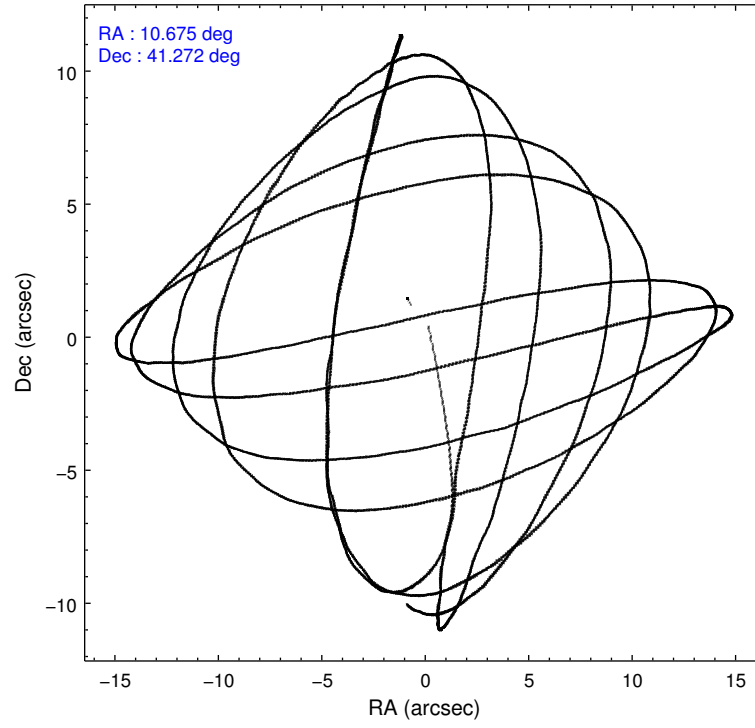


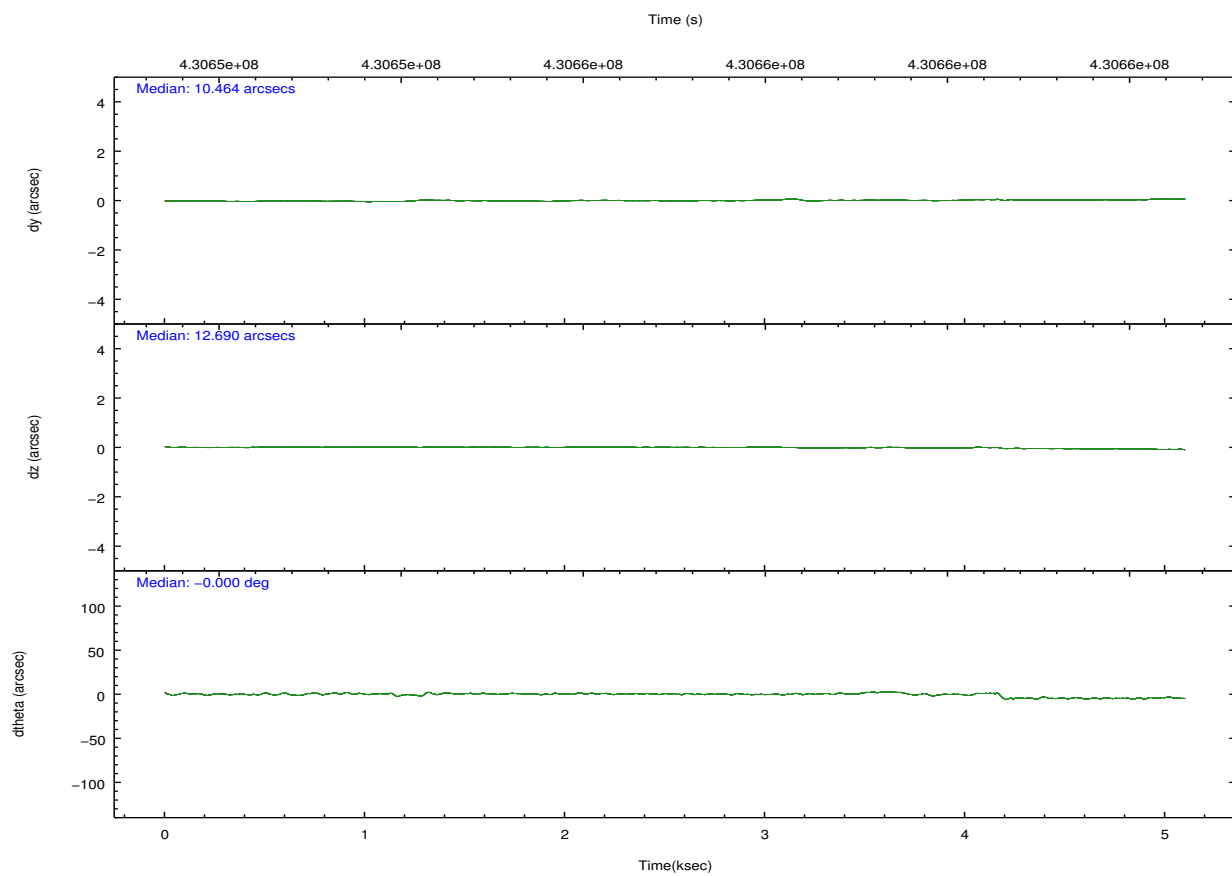
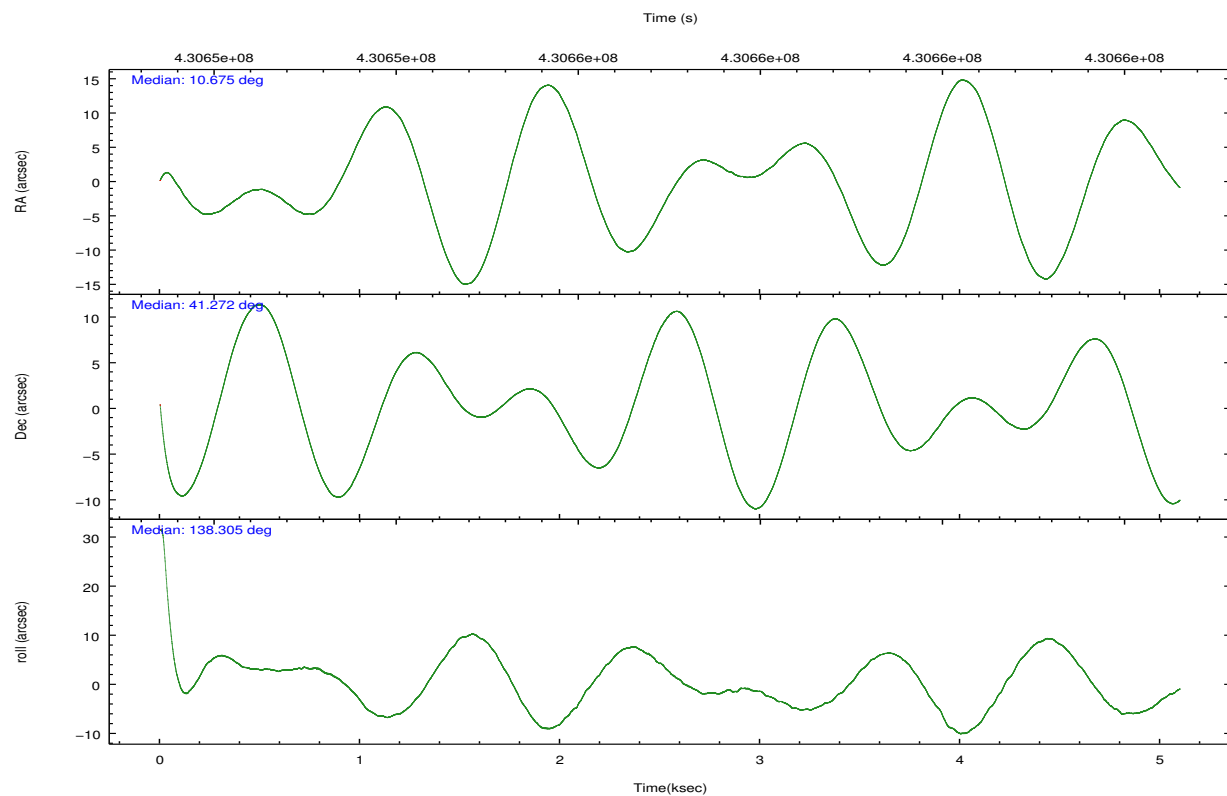
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	10.711062	10.67516762345756
[deg] Pointing Dec	41.266848	41.27224295254567
[deg] Pointing Roll	138.079319	138.3117880989802
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	430653102.184000	430651947.2616
Observation start date	2011-08-25T09:50:36	2011-08-25T09:32:27
[s] Observation end time (MET)	430658063.184000	430658299.69943
Observation end date	2011-08-25T11:13:17	2011-08-25T11:18:19
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O2	Y
CCD S3 on	O1	Y
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	Y	Y
[s] Primary exposure time	0.600000	0.6
[s] Secondary exposure time	0.000000	3.2
Duty cycle	5	5

## 2.3 Aspect



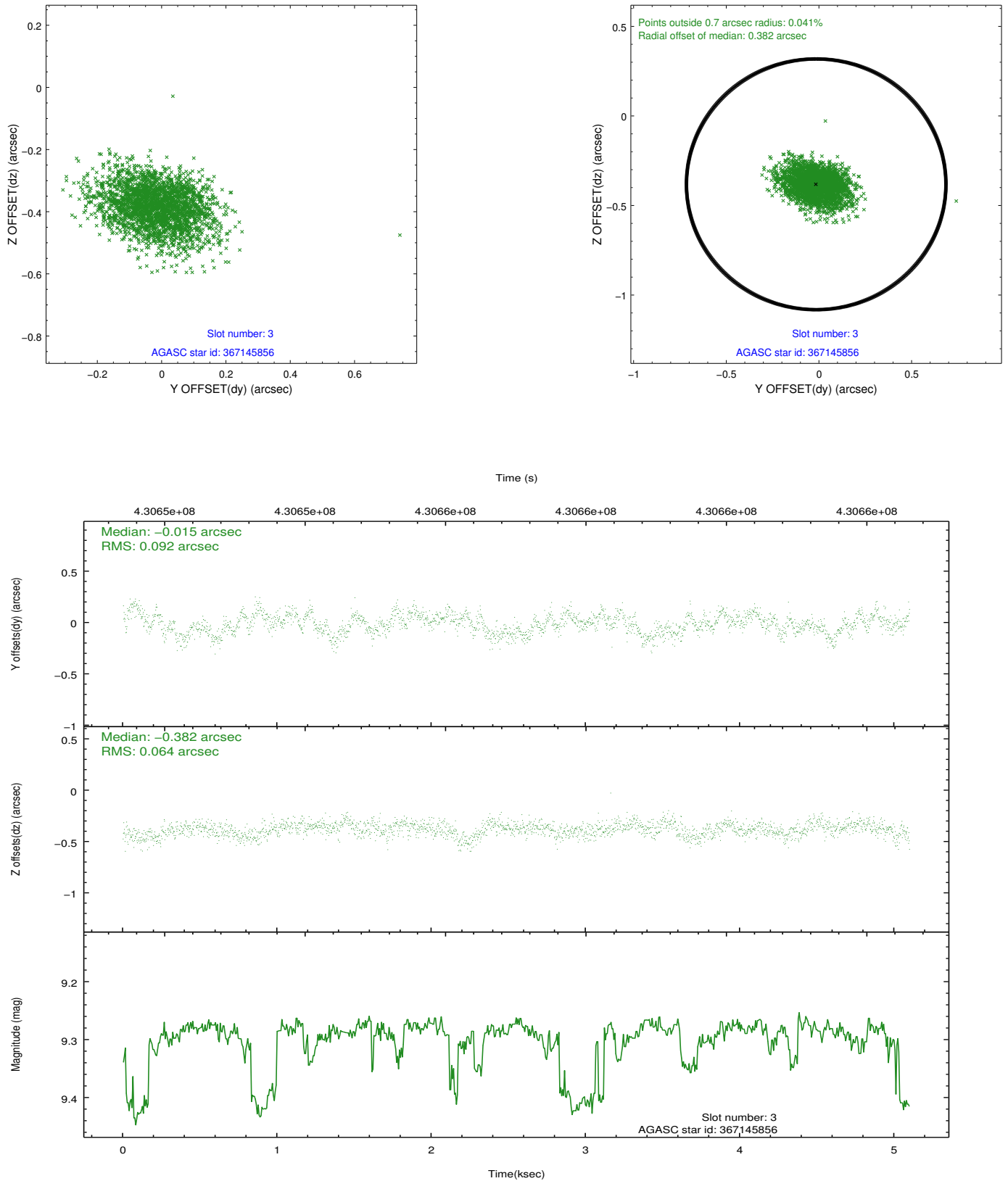


### Slot Statistics

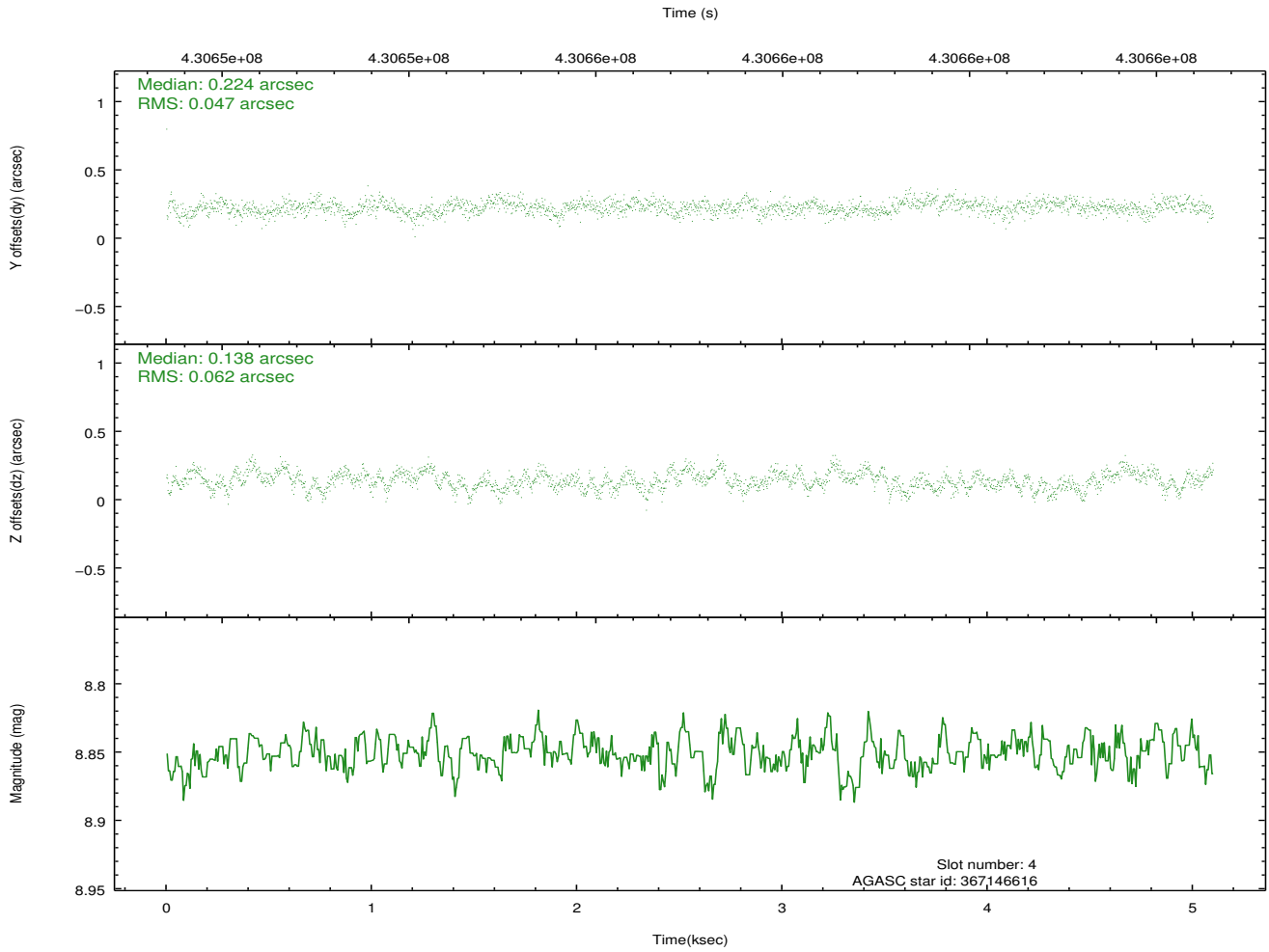
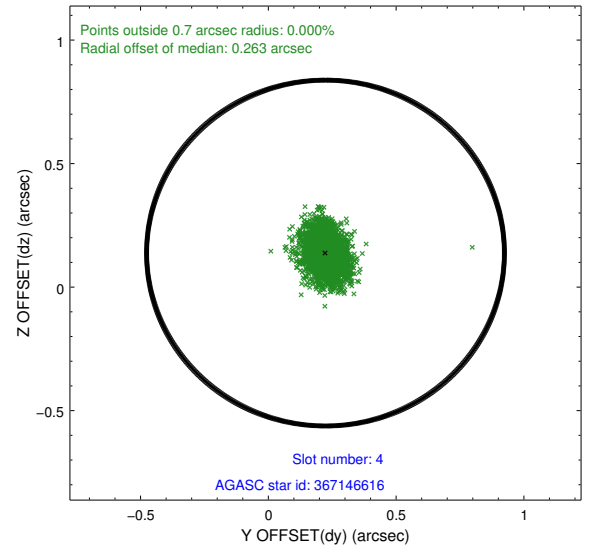
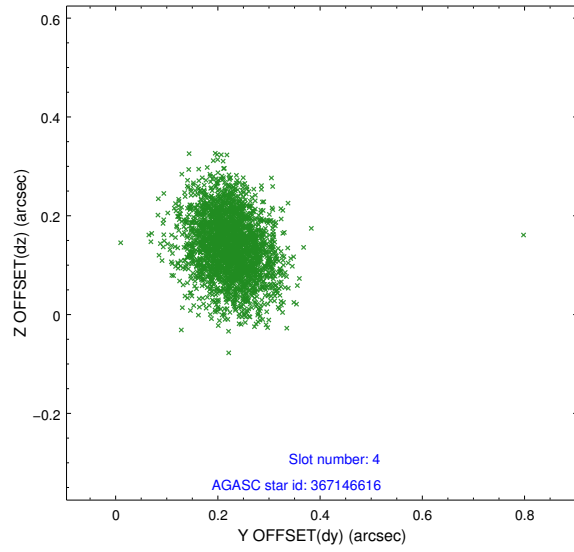
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-4	7.07	1243	0.172	0.034	0.011	0.036	0.000000	0.000000	2149.27	1063.65
1	FID	ACIS-I-5	7.12	1244	-0.266	0.029	0.008	0.014	0.000000	0.000000	-1817.59	1062.27
2	FID	ACIS-I-6	7.13	1244	-0.005	0.004	0.012	0.044	0.000000	0.000000	393.41	1706.52
3	GUIDE	367145856	9.29	2469	-0.015	-0.382	0.116	0.198	10.744946	40.402085	-2148.87	2254.10
4	GUIDE	367146616	8.85	2486	0.224	0.138	0.082	0.136	11.418645	41.190163	-1605.69	-1080.16
5	GUIDE	367657272	8.42	2486	0.023	0.281	0.080	0.125	11.834471	41.298907	-2170.53	-2130.79
6	GUIDE	367663272	9.28	2486	-0.144	-0.056	0.101	0.161	10.656279	41.699429	1149.92	-1060.12
7	GUIDE	367674552	8.84	2485	-0.091	0.023	0.077	0.126	11.016238	41.570845	121.28	-1364.82

## 2.4 Star Slots

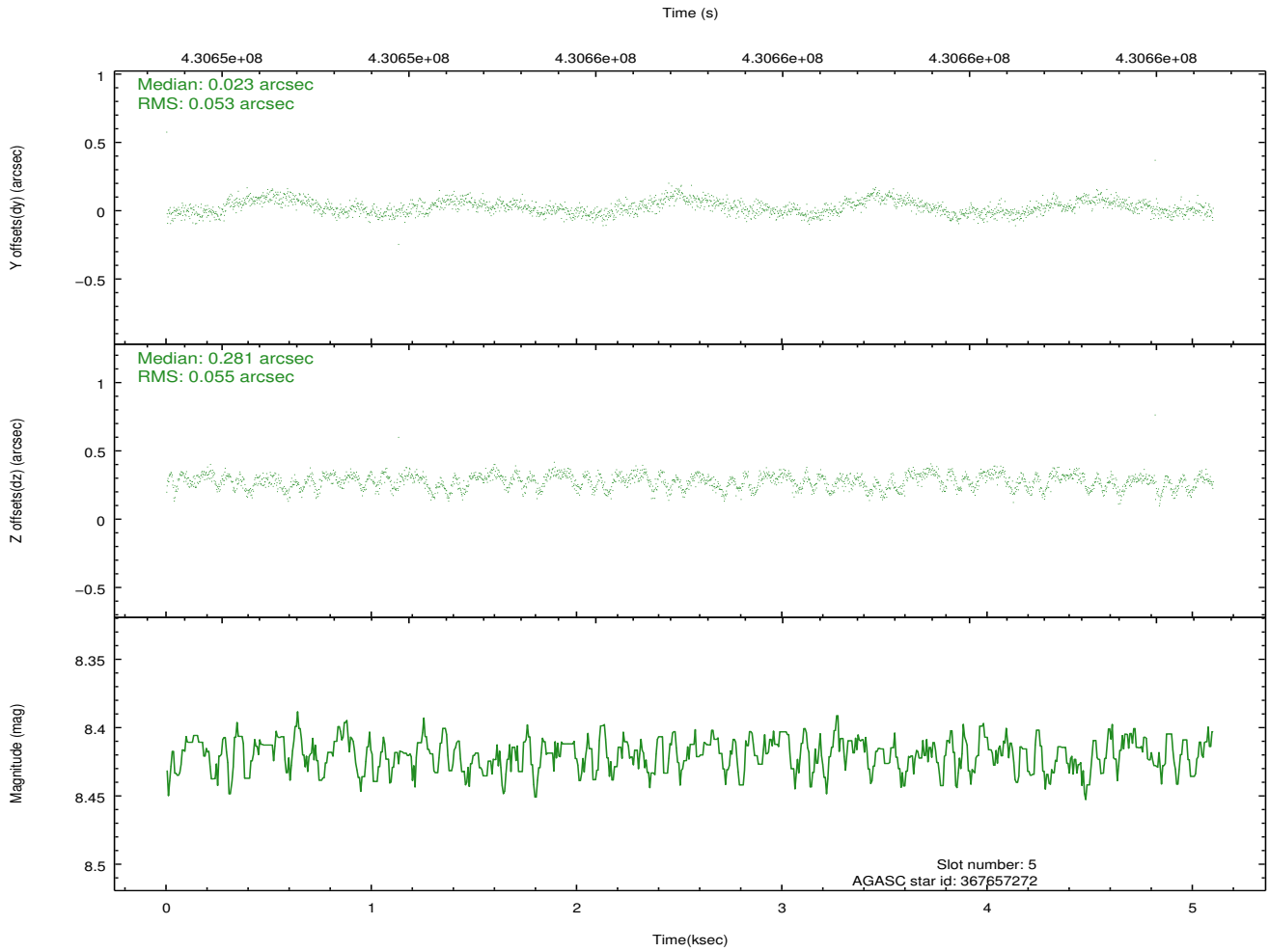
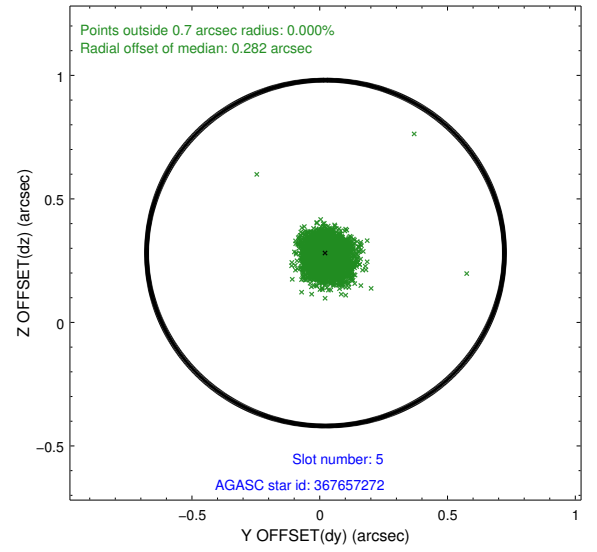
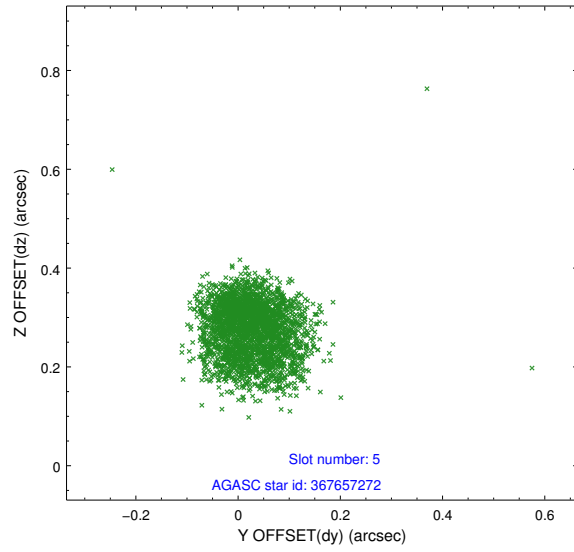
### 2.4.1 Slot 3



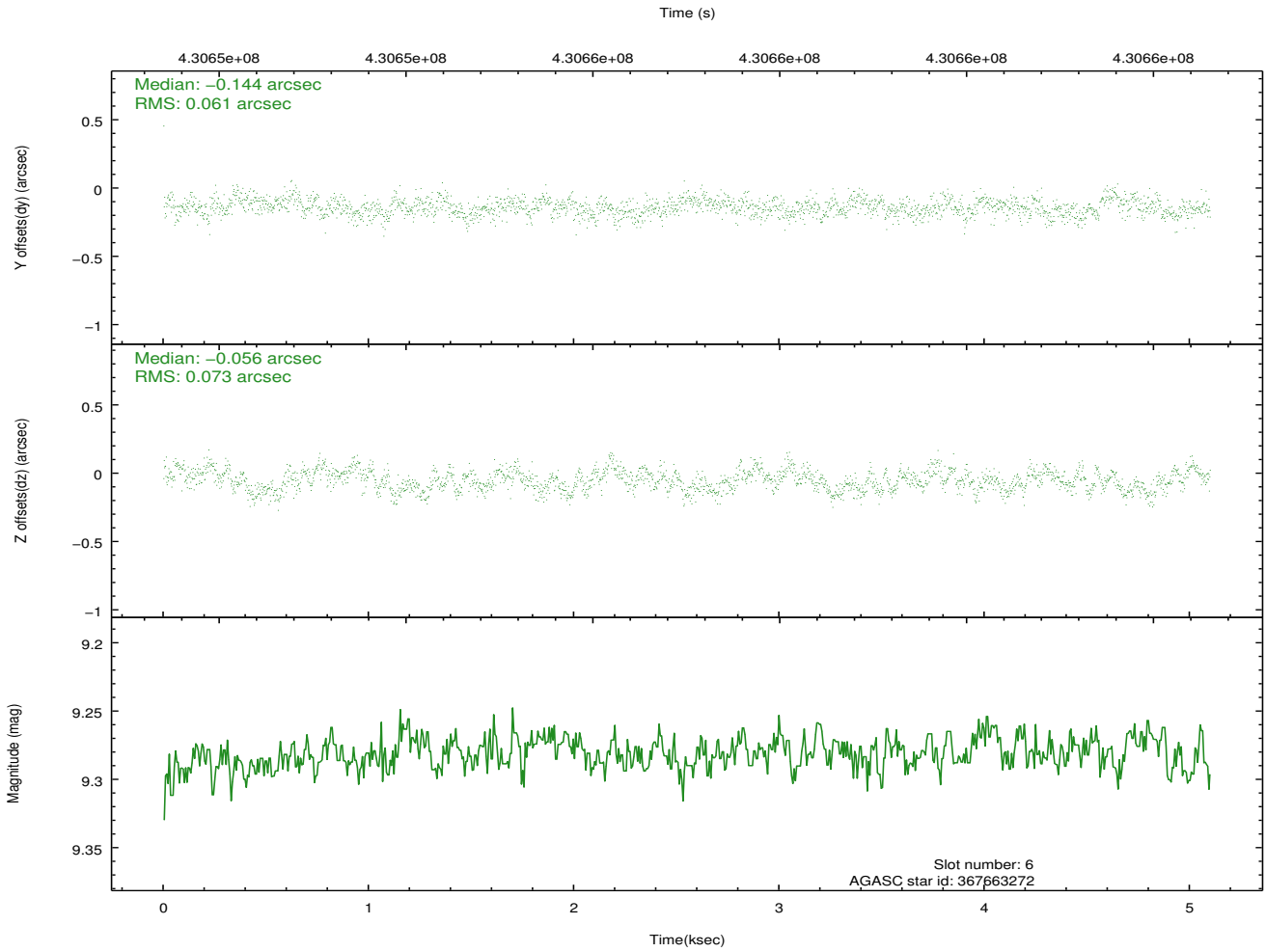
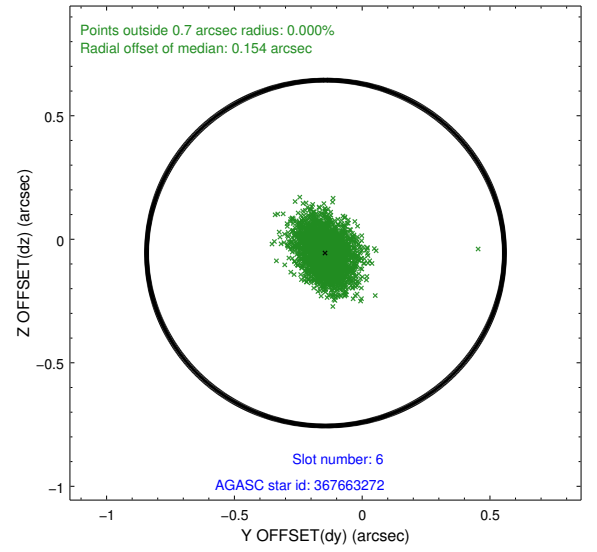
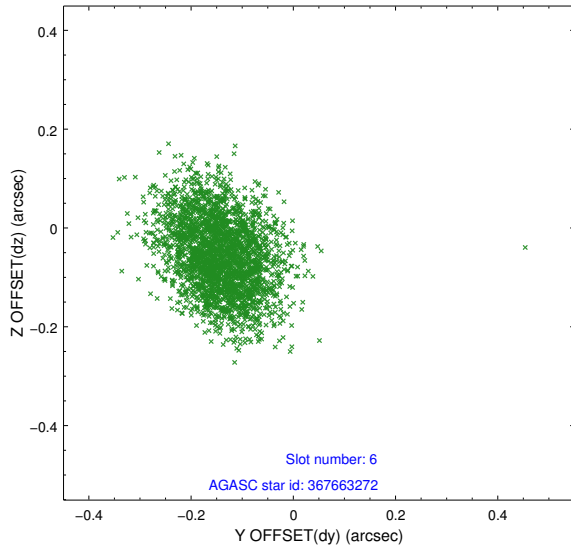
## 2.4.2 Slot 4



### 2.4.3 Slot 5

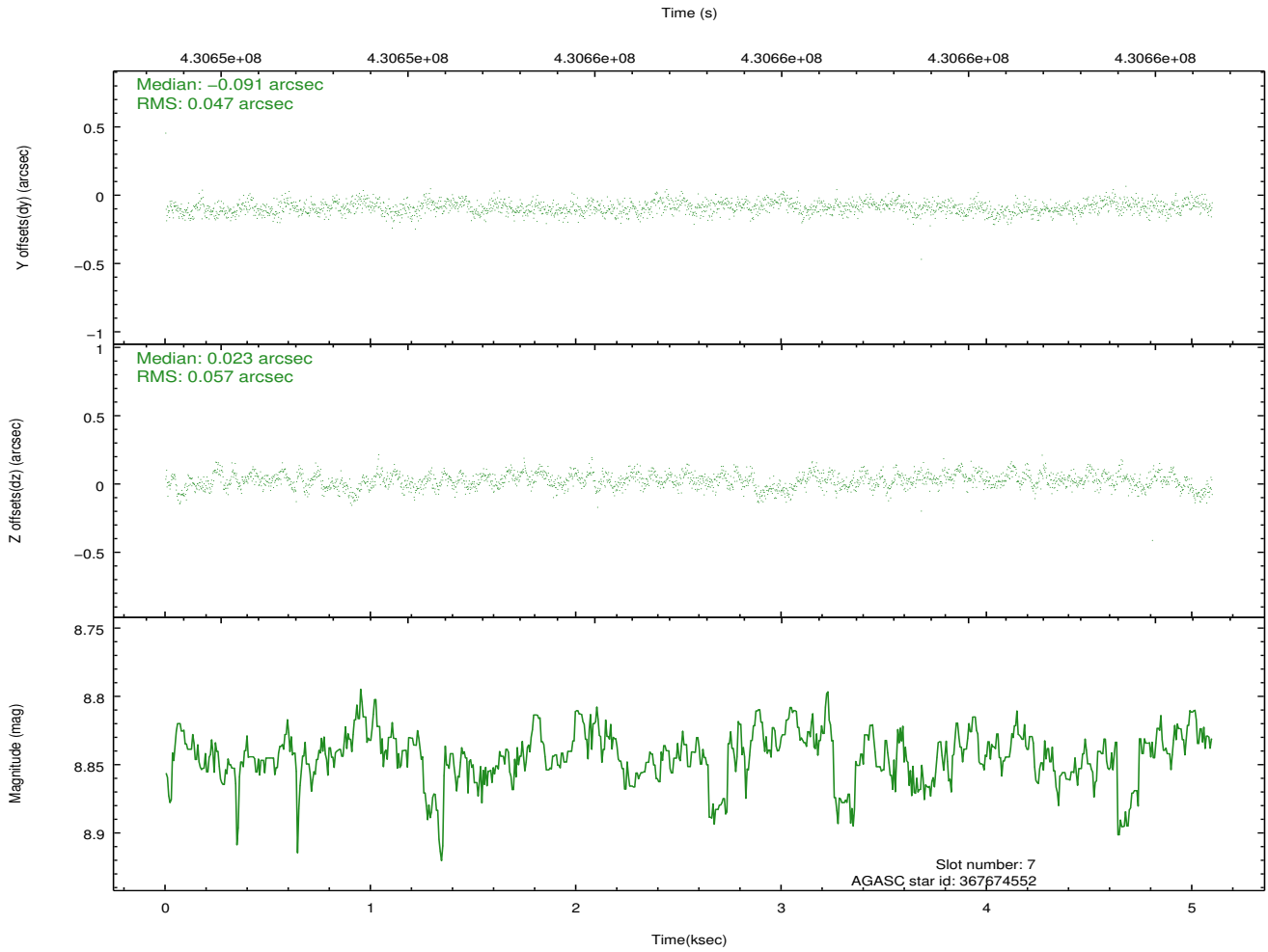
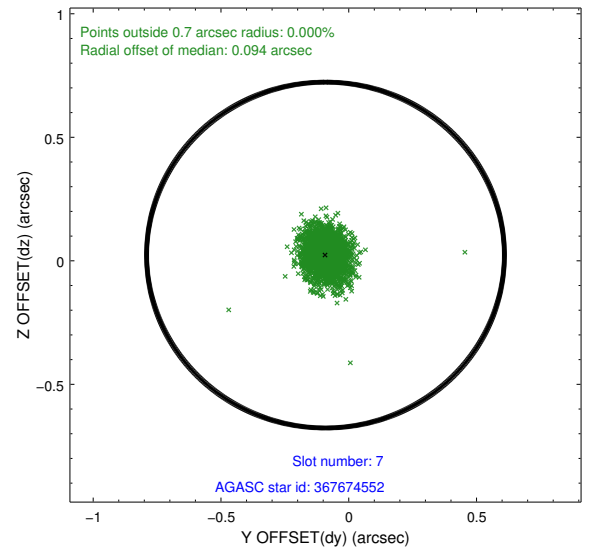
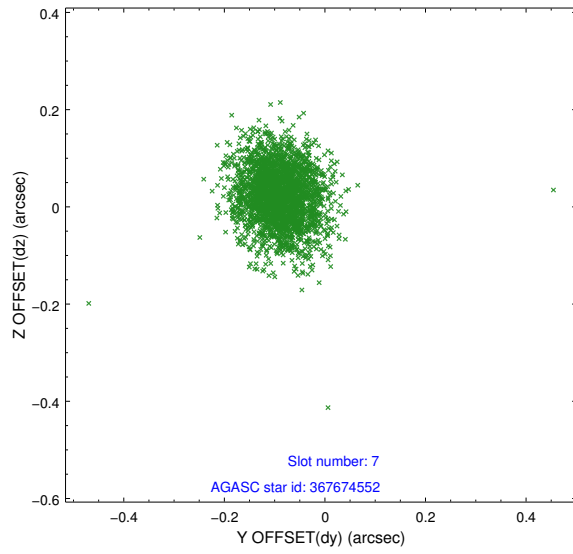


## 2.4.4 Slot 6



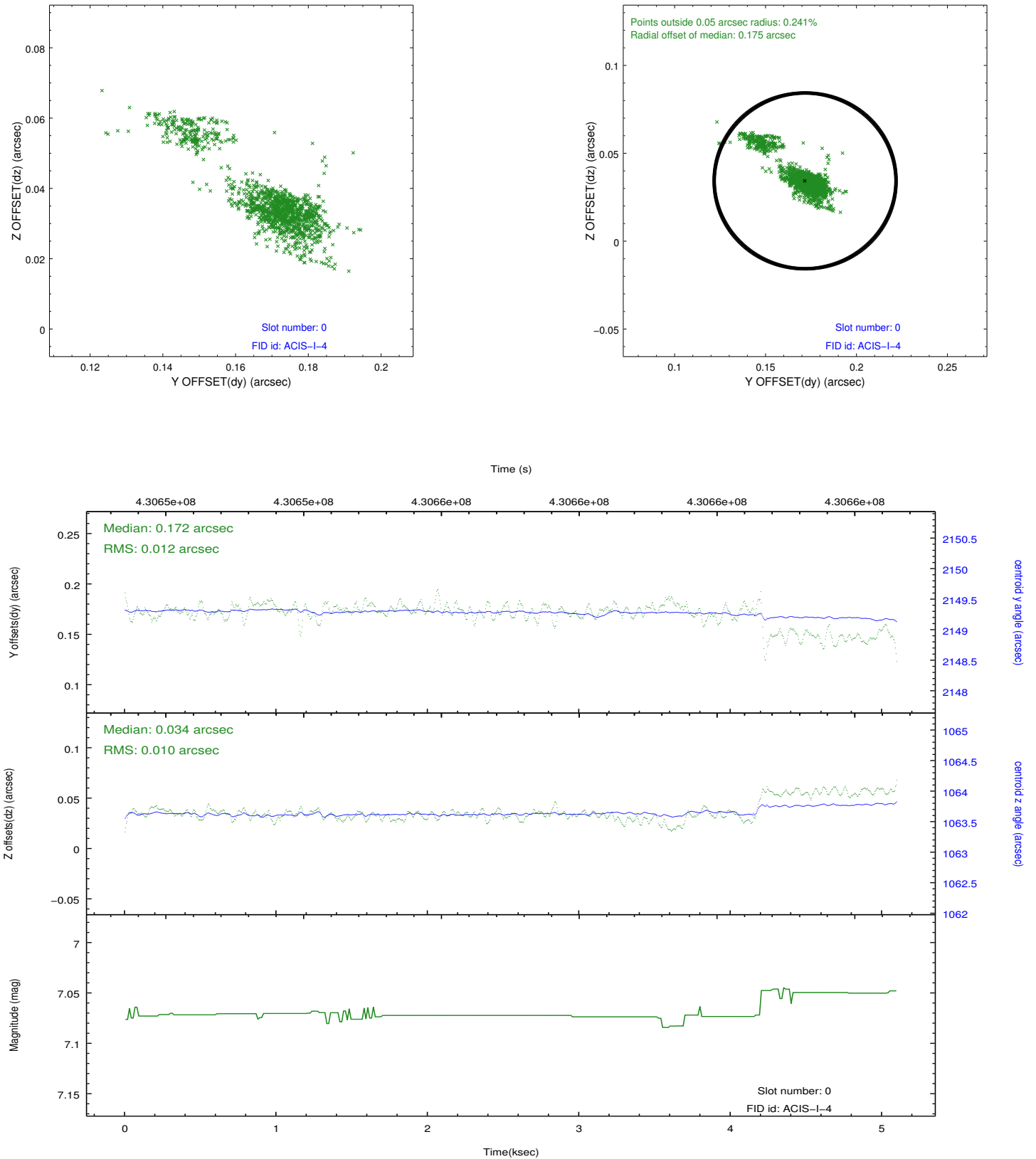


## 2.4.5 Slot 7

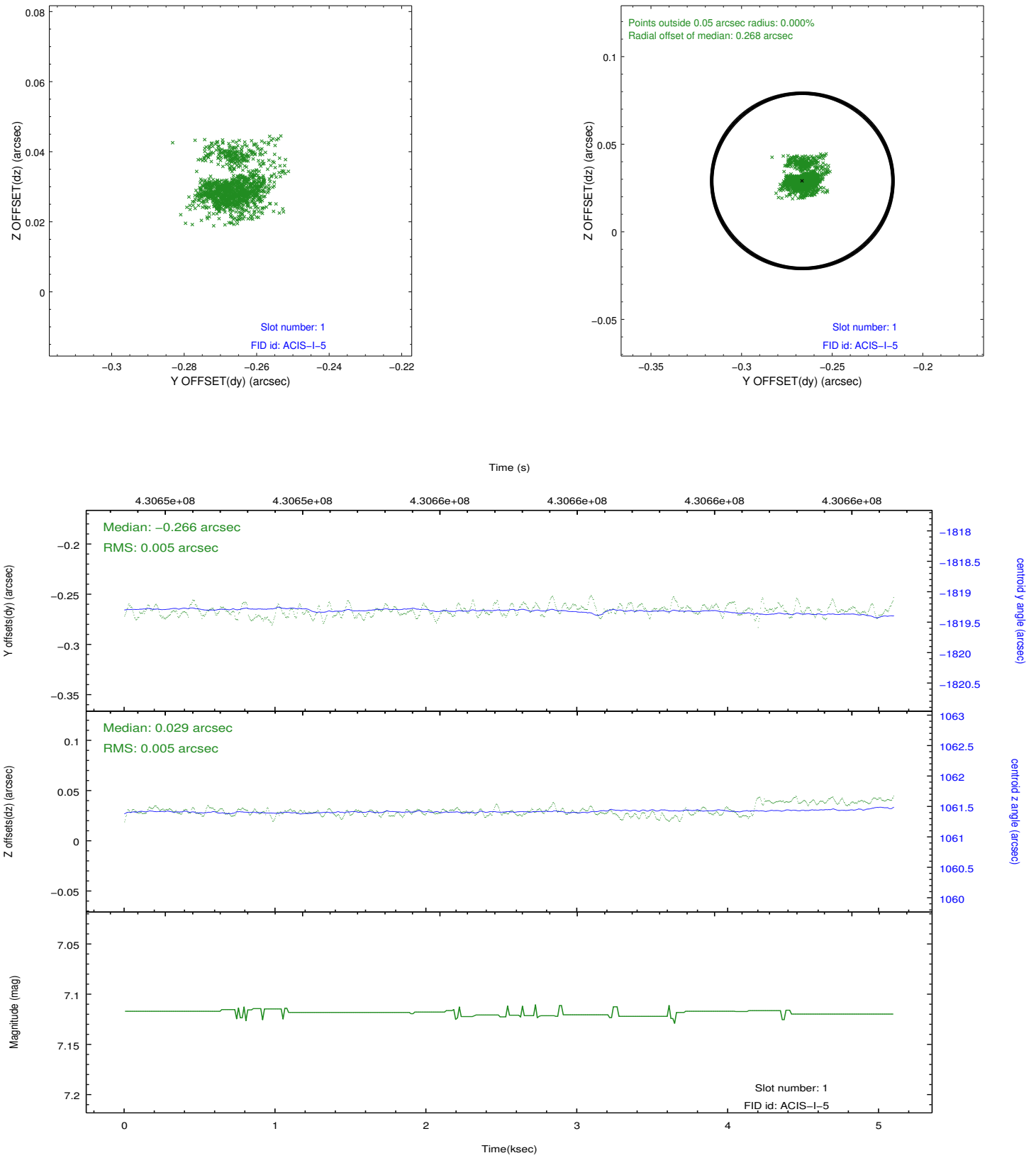


## 2.5 FID Slots

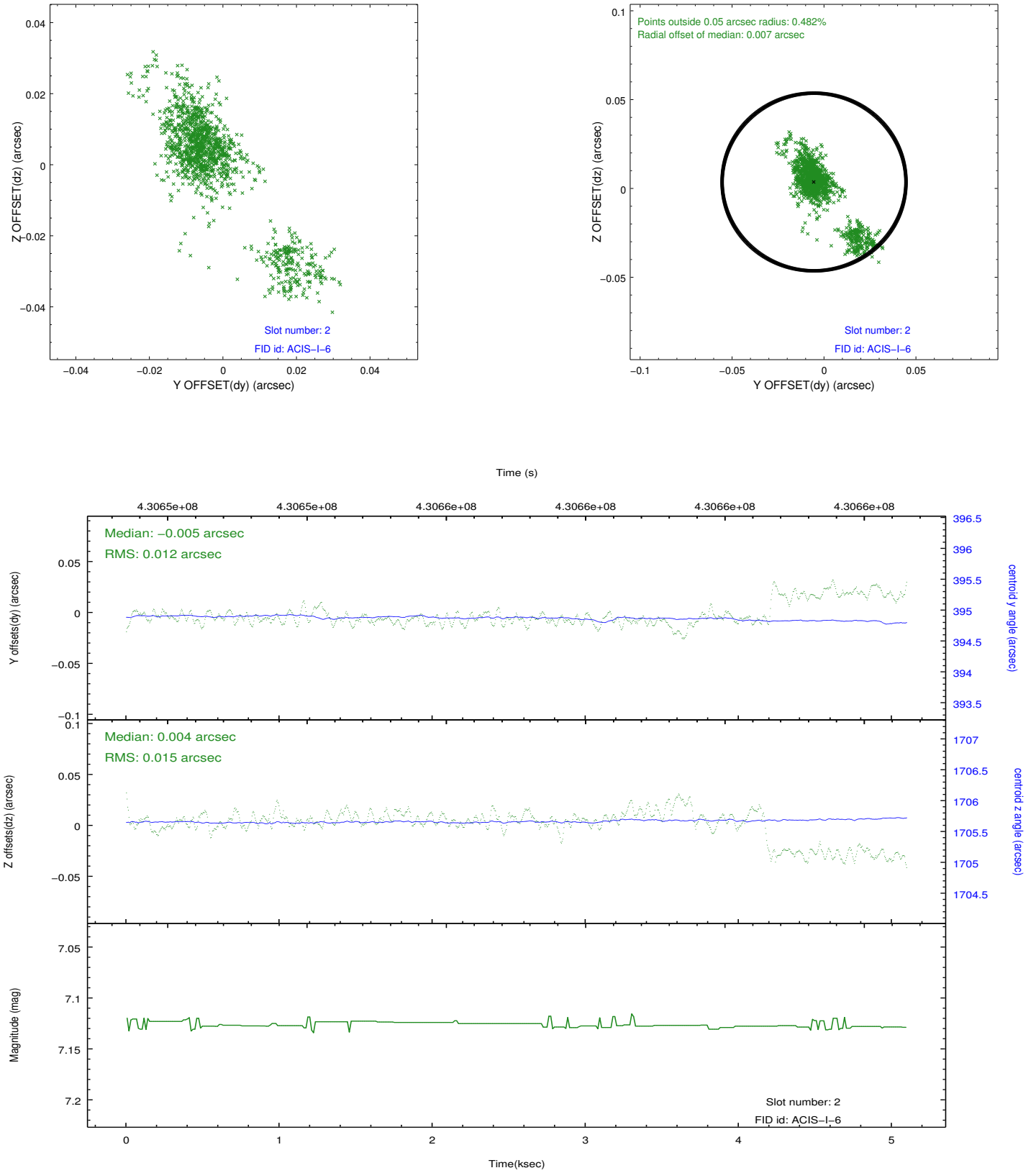
### 2.5.1 Slot 0



## 2.5.2 Slot 1



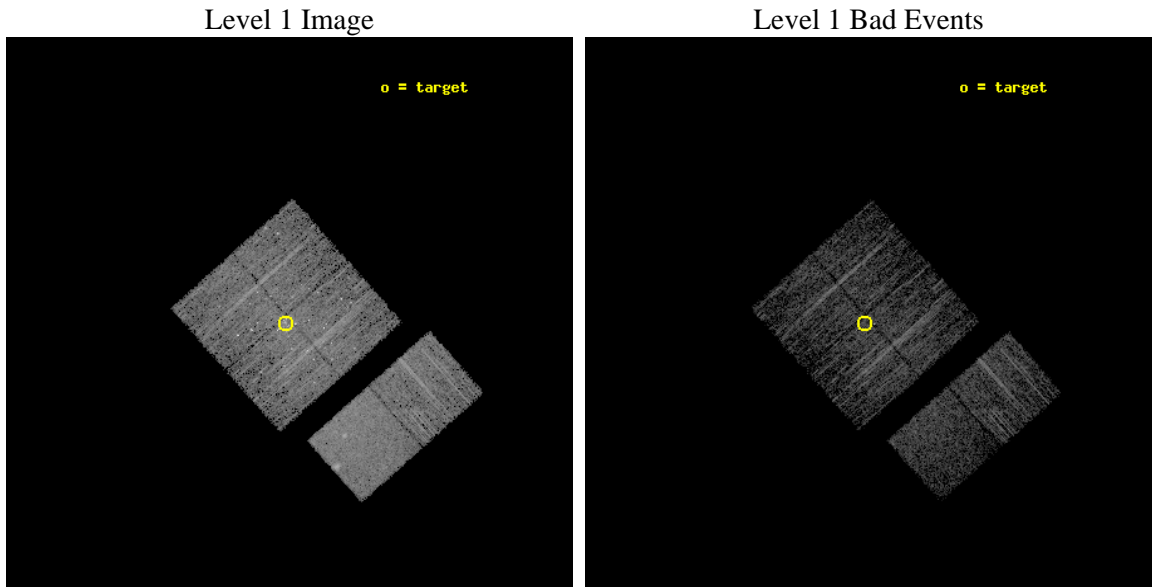
### 2.5.3 Slot 2



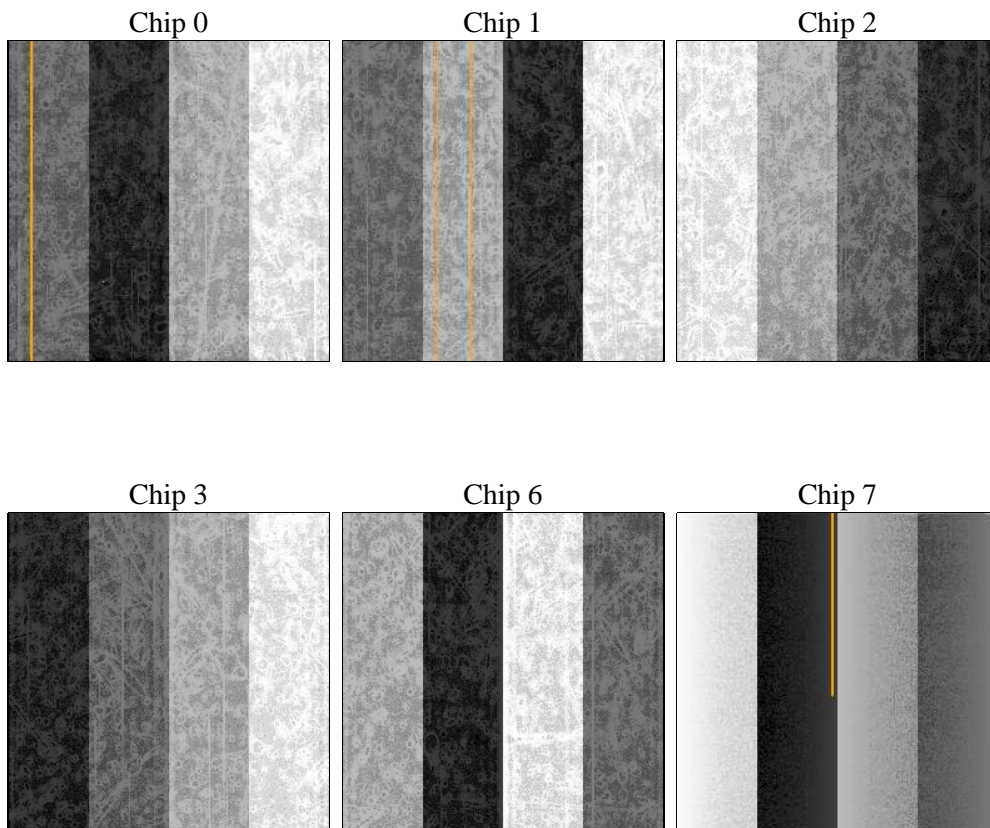
## 3 OBI Secondary

### 3.1 OBI

#### 3.1.1 Images



#### 3.1.2 Bias



### 3.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4960.539000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	3993.2091014981	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	3993.208864212	Sum of GTIs [s]
date	2012-02-20T22:51:51	Date and time of file creation	ontime1	3993.2089728713	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3993.2089719176	Sum of GTIs [s]
			ontime3	3993.2091014981	Sum of GTIs [s]
			ontime6	3993.2089533806	Sum of GTIs [s]
			ontime7	3993.2089237571	Sum of GTIs [s]
			l1events	165875	Number of level 1 events

### 3.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	23095	25254	29019	28039	26719	33749	grade 0 events	1881	2985	3889	3727	1065	1545
rejected events	19244	19752	22611	22072	23679	18345		8%	11%	13%	13%	3%	4%
rejected %	83%	78%	77%	78%	88%	54%	grade 1 events	19	31	158	57	12	52
								0%	0%	0%	0%	0%	0%
							grade 2 events	778	965	1024	891	632	3278
								3%	3%	3%	3%	2%	9%
							grade 3 events	305	381	413	390	336	1309
								1%	1%	1%	1%	1%	3%
							grade 4 events	319	416	423	361	325	1303
								1%	1%	1%	1%	1%	3%
							grade 5 events	1027	1154	1140	1219	1240	3269
								4%	4%	3%	4%	4%	9%
							grade 6 events	574	757	668	604	688	7991
								2%	2%	2%	2%	2%	23%
							grade 7 events	18192	18565	21304	20790	22421	15002
								78%	73%	73%	74%	83%	44%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.92734484964608

### A.2 Comments

Joint Proposal: HST