

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12971 - L2 Version 2  
Chandra X-Ray Center

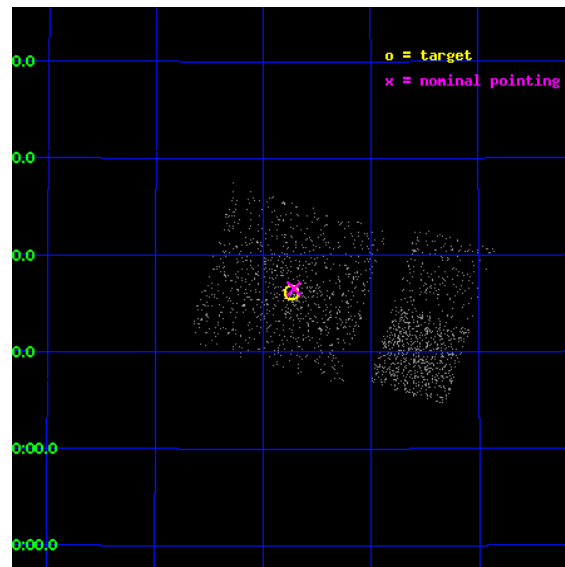
L2 Processing Date : Feb 13 2012

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# 1 Front

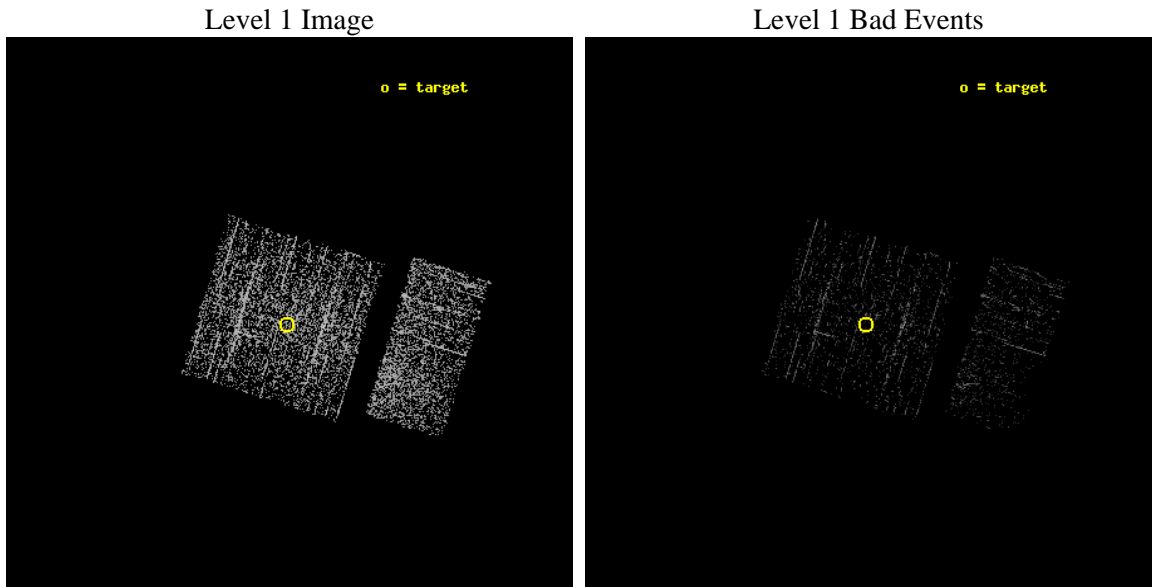
seq_num	600939	Sequence number
obs_id	12971	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Michael Garcia	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.67889385564	Nominal RA [deg]
dec_nom	41.275719593215	Nominal Dec [deg]
roll_nom	106.96094295566	Nominal Roll [deg]
revision	2	Processing version of data
ontime	941.37214940786	Sum of GTIs [s]
livetime	148.1946836942	Livetime [s]
ontime0	941.37217926979	Sum of GTIs [s]
ontime1	941.37214940786	Sum of GTIs [s]
ontime2	941.37217926979	Sum of GTIs [s]
ontime3	941.37214940786	Sum of GTIs [s]
ontime6	941.37215936184	Sum of GTIs [s]
ontime7	941.37217926979	Sum of GTIs [s]
l2events	2237	Number of level 2 events



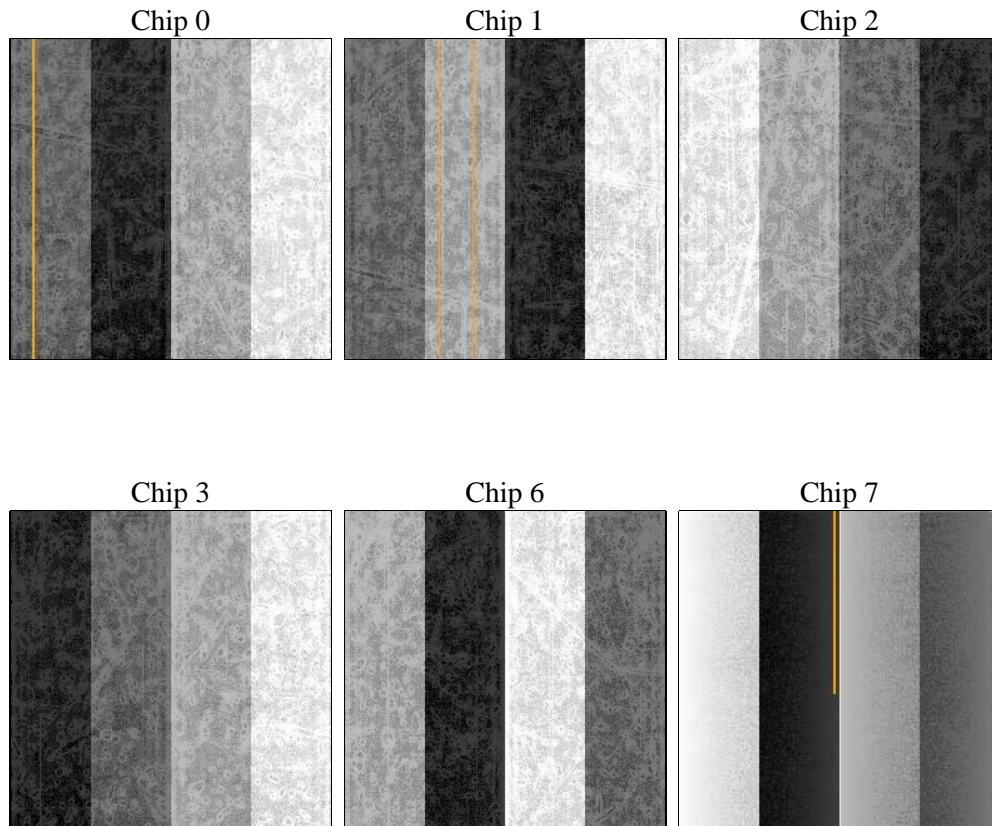
## 2 OBI Primary

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	941.37214940786	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	941.37217926979	Sum of GTIs [s]
date	2012-02-13T12:40:06	Date and time of file creation	ontime1	941.37214940786	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	941.37217926979	Sum of GTIs [s]
			ontime3	941.37214940786	Sum of GTIs [s]
			ontime6	941.37215936184	Sum of GTIs [s]
			ontime7	941.37217926979	Sum of GTIs [s]
			l1events	17314	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2896	2911	2994	2778	2995	2740
rejected events	2580	2578	2649	2320	2765	1908
rejected %	89%	88%	88%	83%	92%	69%

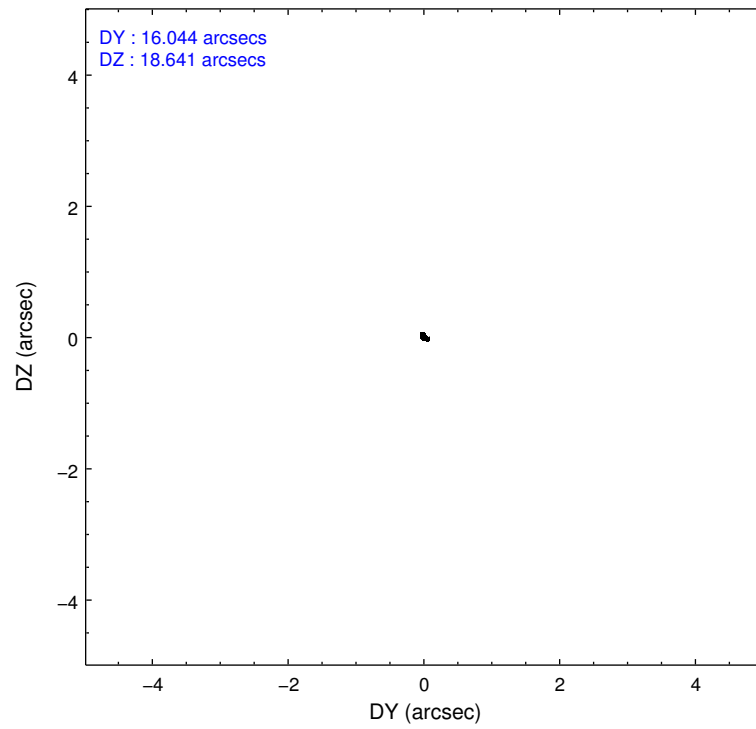
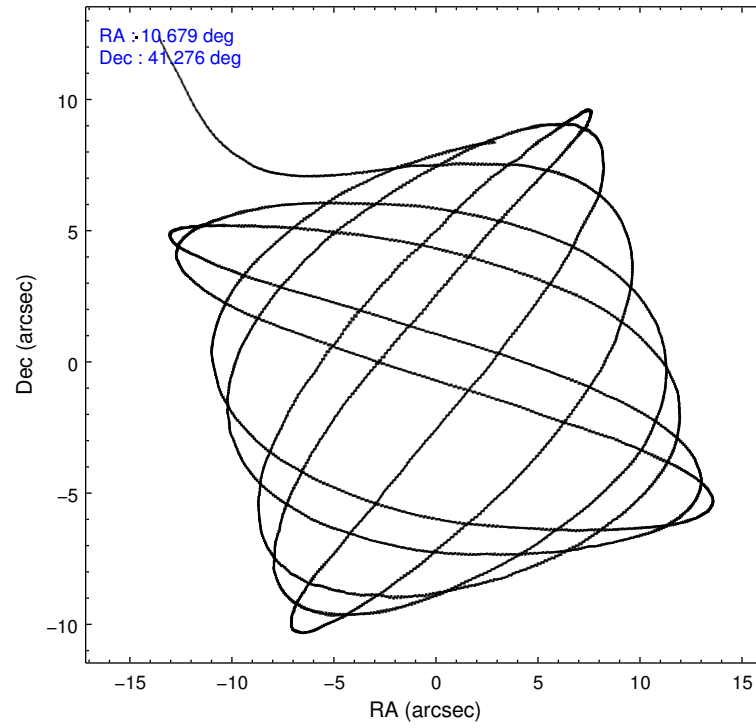
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	123	141	154	236	65	77
	4%	4%	5%	8%	2%	2%
grade 1 events	2	0	1	4	2	5
	0%	0%	0%	0%	0%	0%
grade 2 events	80	78	75	97	66	184
	2%	2%	2%	3%	2%	6%
grade 3 events	32	33	34	32	28	86
	1%	1%	1%	1%	0%	3%
grade 4 events	30	31	31	35	32	60
	1%	1%	1%	1%	1%	2%
grade 5 events	95	110	101	100	122	233
	3%	3%	3%	3%	4%	8%
grade 6 events	52	55	52	60	41	430
	1%	1%	1%	2%	1%	15%
grade 7 events	2482	2463	2546	2214	2639	1665
	85%	84%	85%	79%	88%	60%

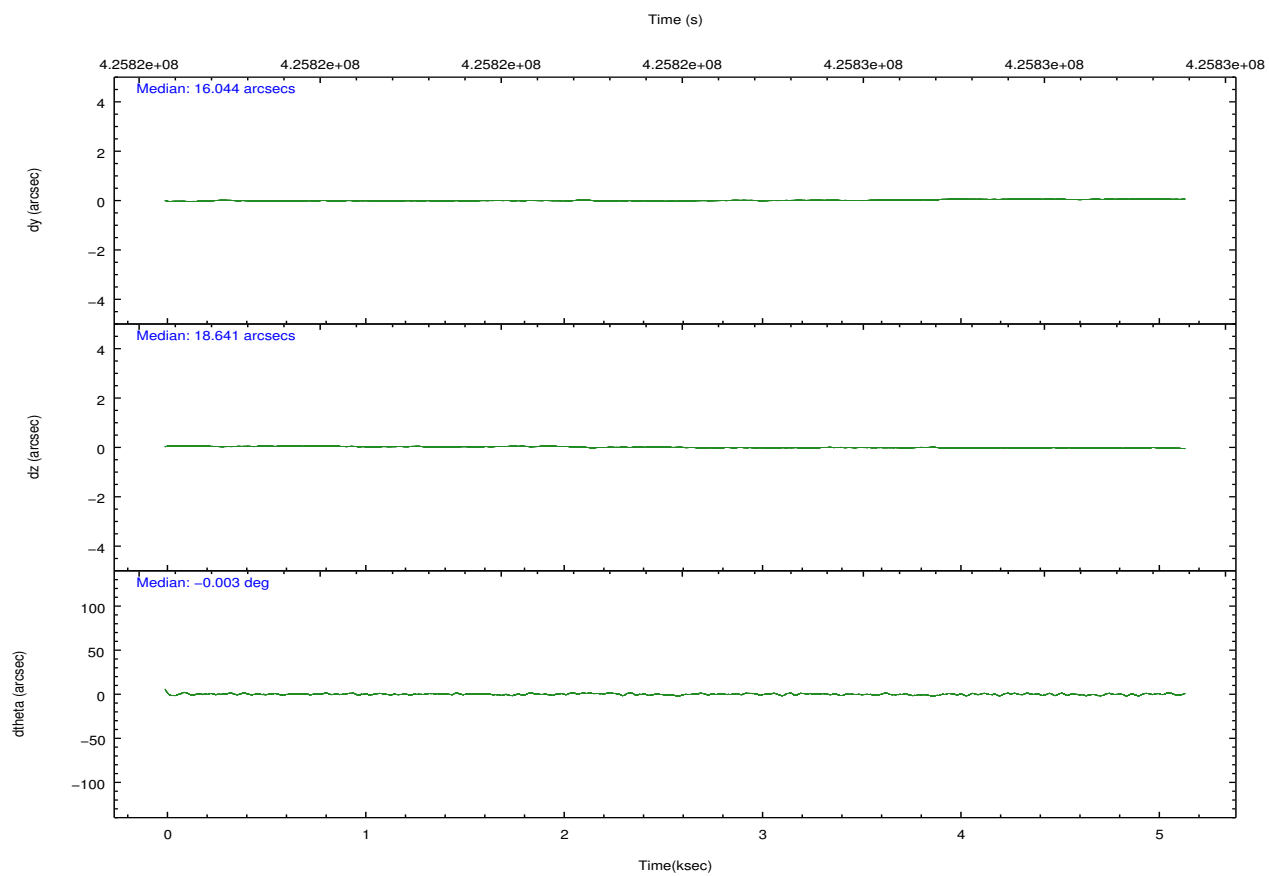
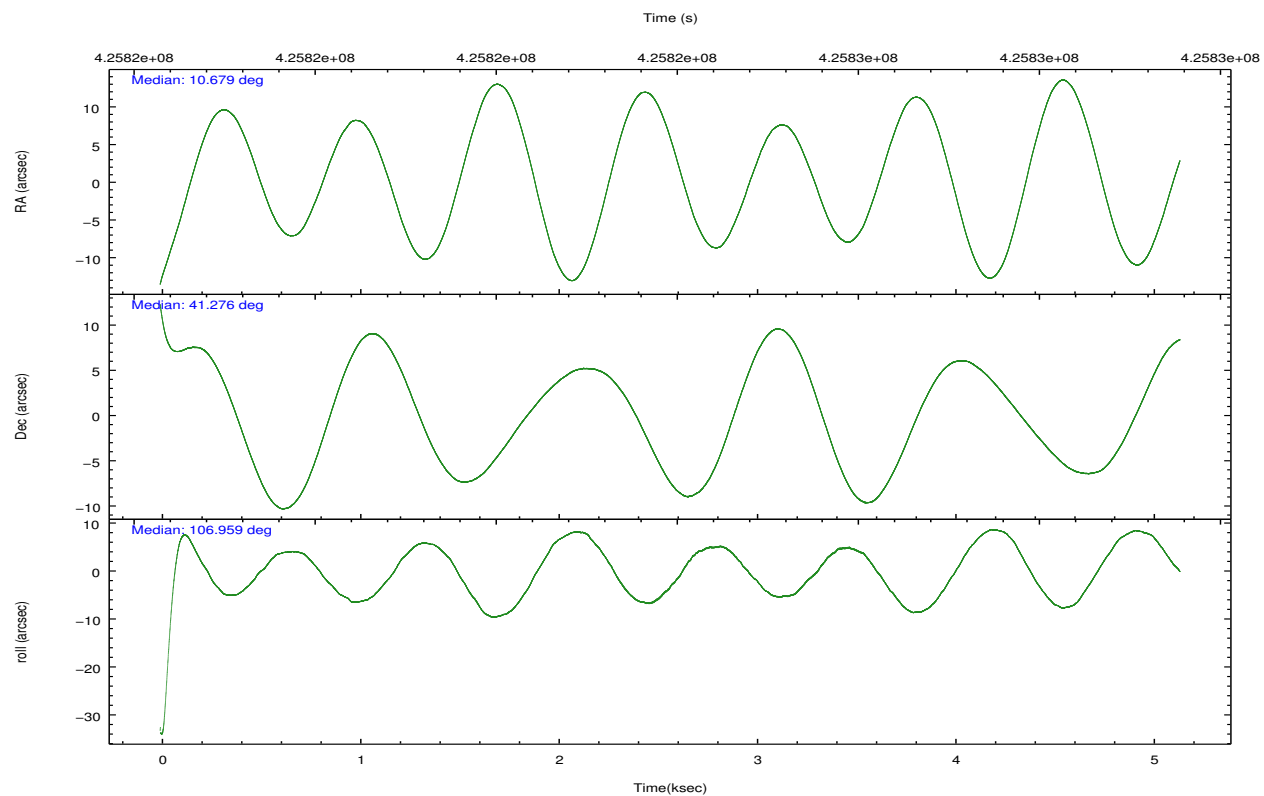


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	10.705781	10.6788938556396	CCD I2 on	Y	Y
[deg] Pointing Dec	41.256962	41.27571959321476	CCD I3 on	Y	Y
[deg] Pointing Roll	106.734668	106.9609429556634	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	425822529.184000	425821171.58116	CCD S5 on	N	N
Observation start date	2011-06-30T12:01:03	2011-06-30T11:39:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	425827529.184000	425828452.15653	On-chip summing requested	N	N
Observation end date	2011-06-30T13:24:23	2011-06-30T13:40:52	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	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



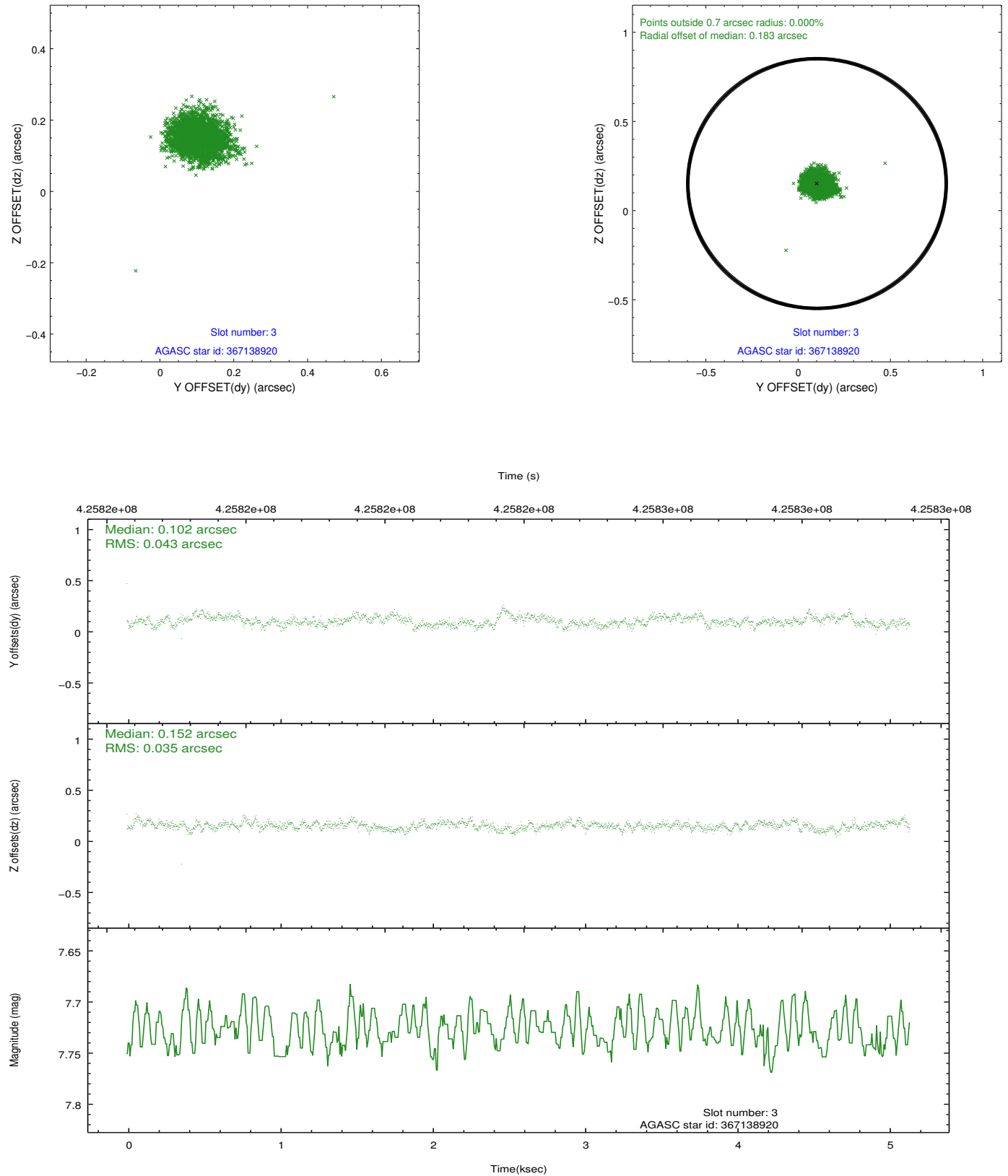


### Slot Statistics

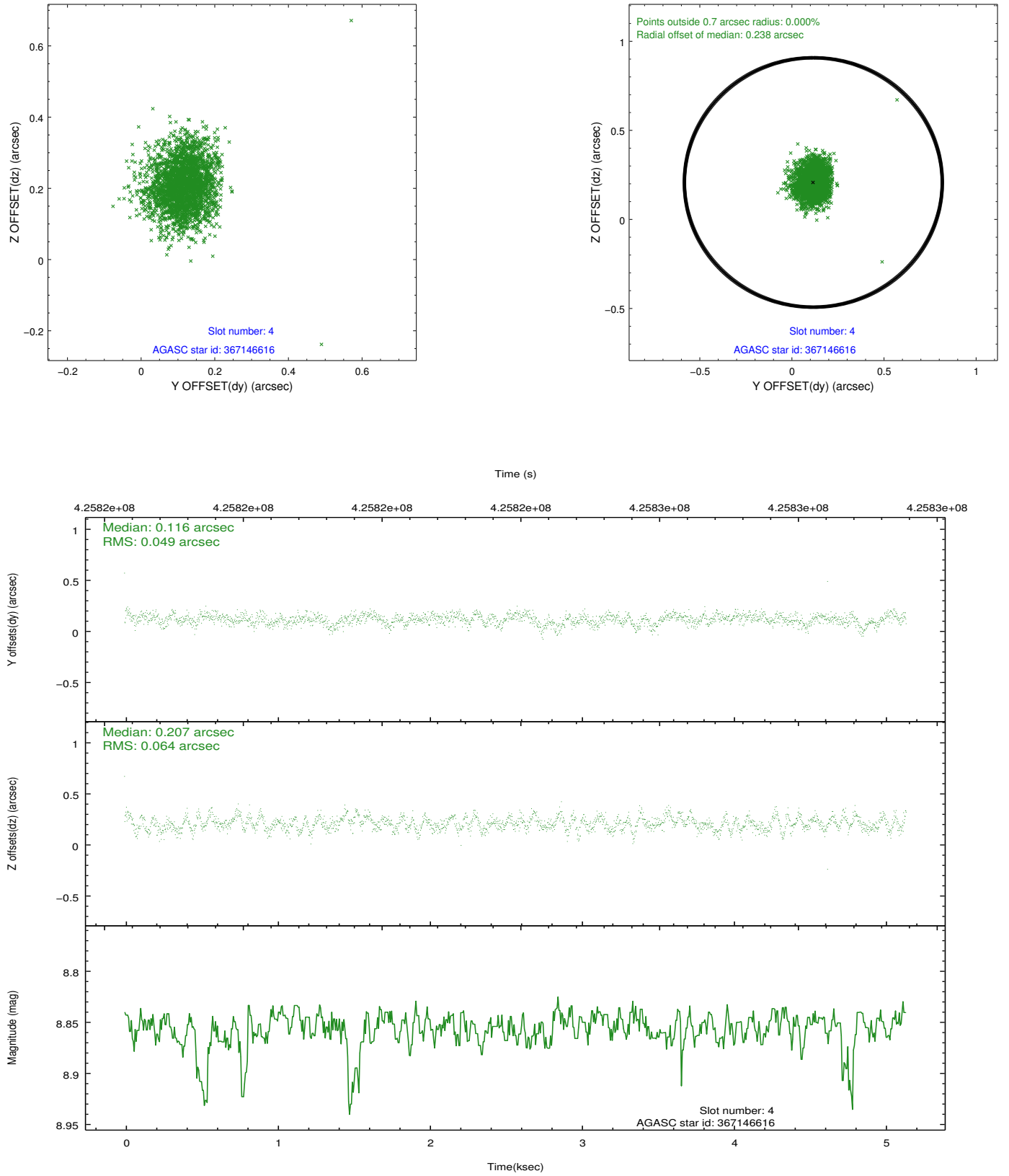
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.93	1254	-0.152	-0.060	0.006	0.011	0.000000	0.000000	-770.94	-848.78
1	FID	ACIS-I-4	6.96	1254	0.079	0.098	0.007	0.013	0.000000	0.000000	2142.79	1056.98
2	FID	ACIS-I-6	7.03	1254	-0.027	0.025	0.009	0.016	0.000000	0.000000	390.75	1700.42
3	GUIDE	367138920	7.73	2509	0.102	0.152	0.058	0.091	11.513485	40.808909	-2169.35	-1646.73
4	GUIDE	367146616	8.86	2508	0.116	0.207	0.083	0.138	11.418645	41.190163	-779.39	-1782.77
5	GUIDE	367148872	7.22	2509	0.081	-0.290	0.063	0.106	10.505940	40.688258	-1803.79	1111.23
6	GUIDE	367663272	9.26	2506	-0.144	-0.050	0.101	0.159	10.656279	41.699429	1562.86	-329.61
7	GUIDE	367674552	8.85	2507	-0.159	-0.018	0.092	0.148	11.016238	41.570845	843.26	-1126.60

## 2.4 Star Slots

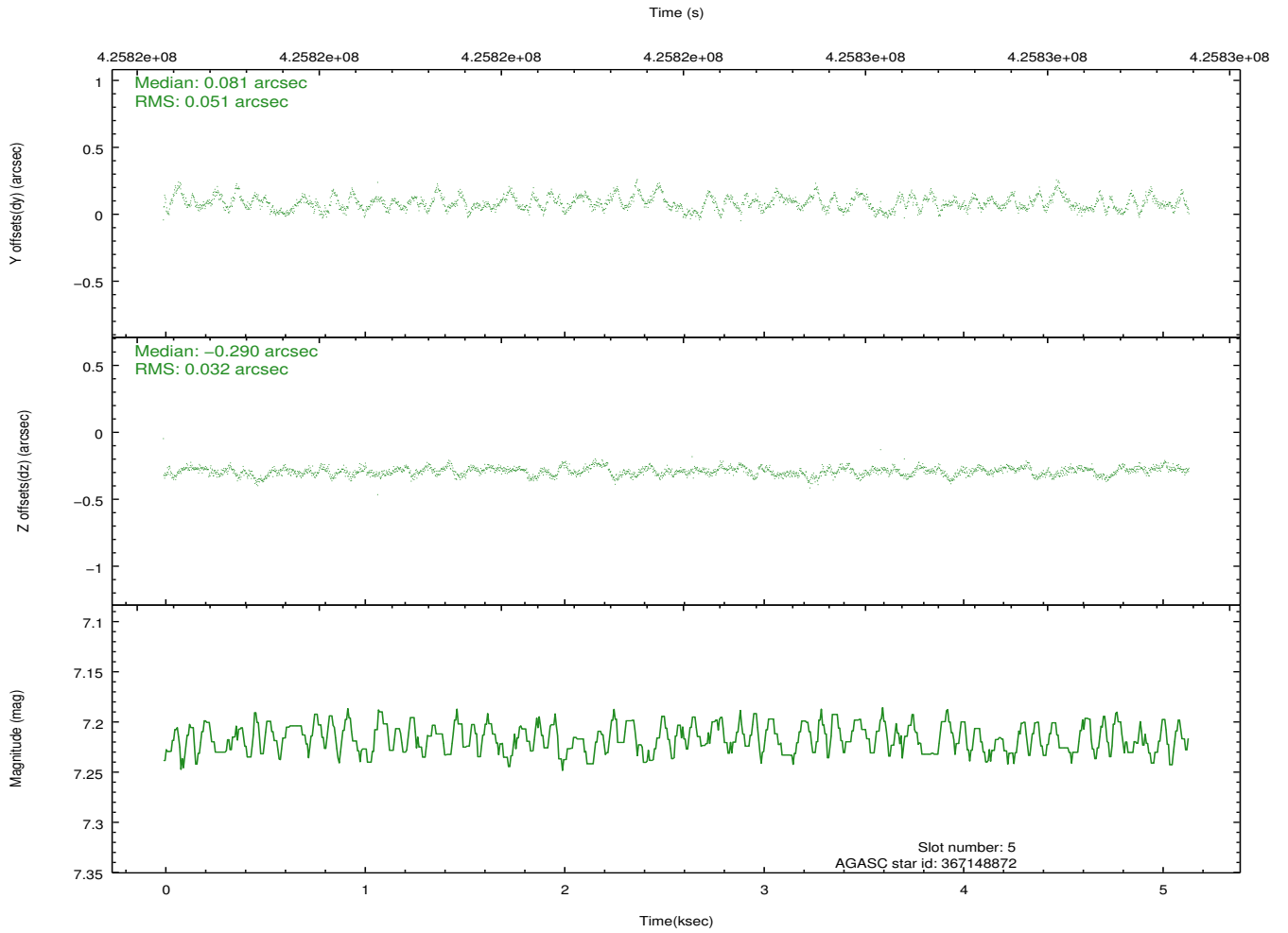
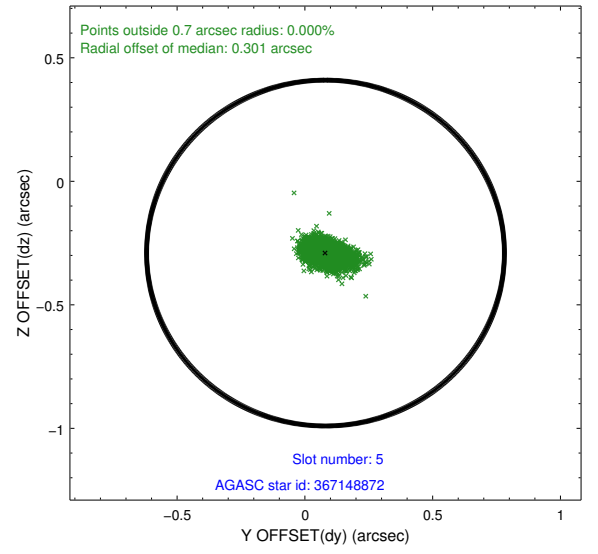
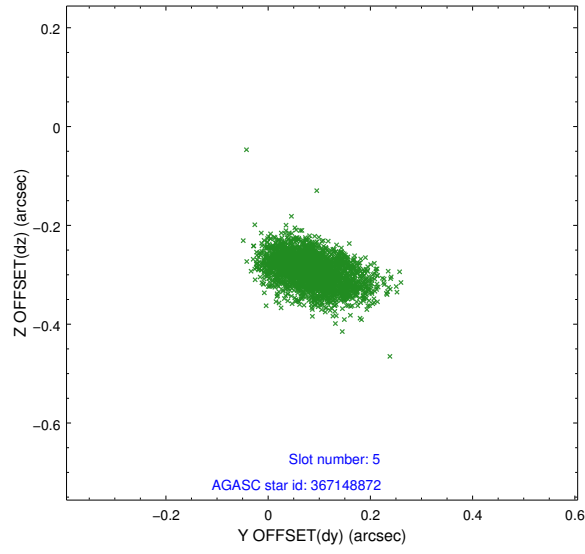
### 2.4.1 Slot 3



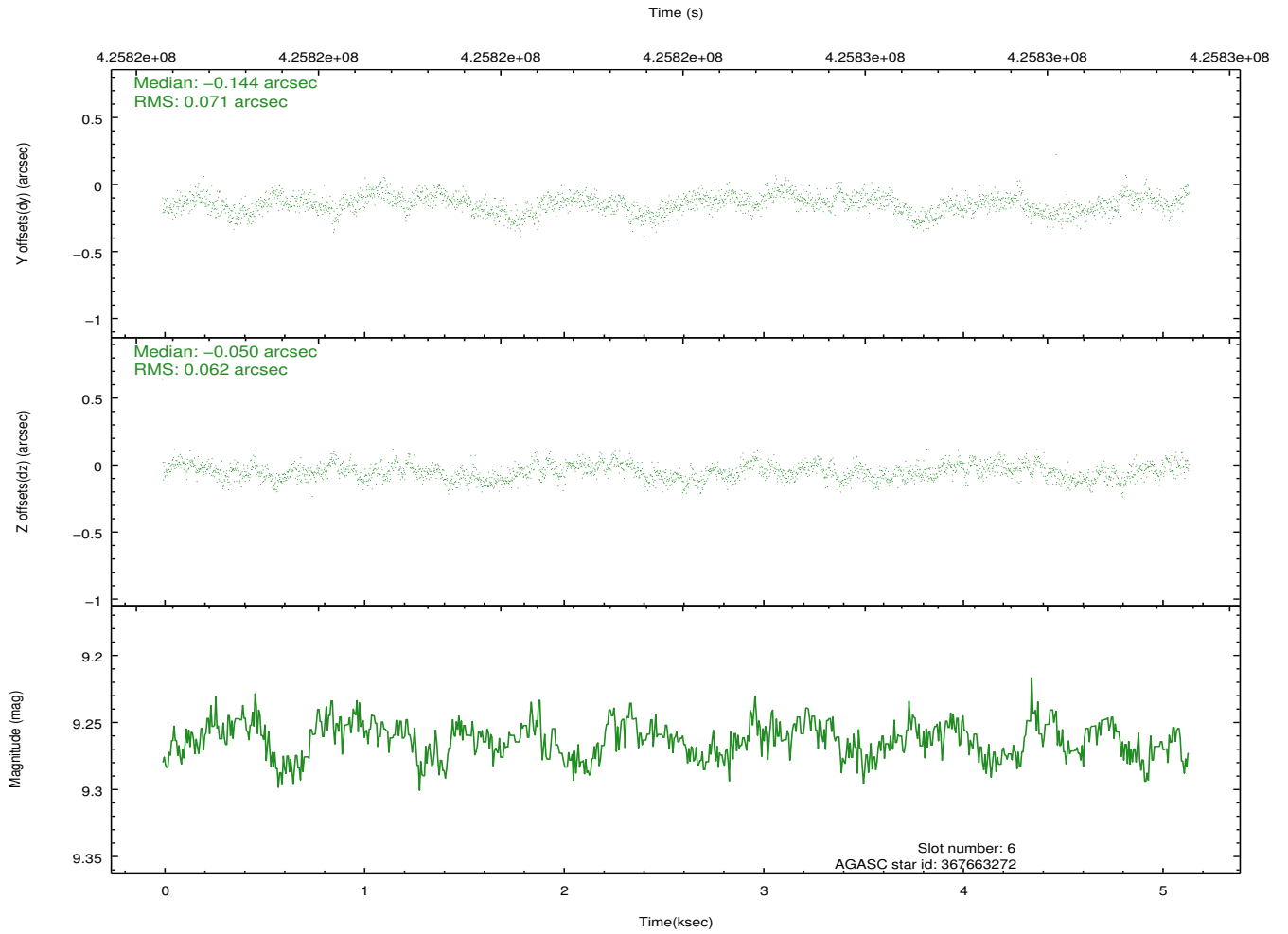
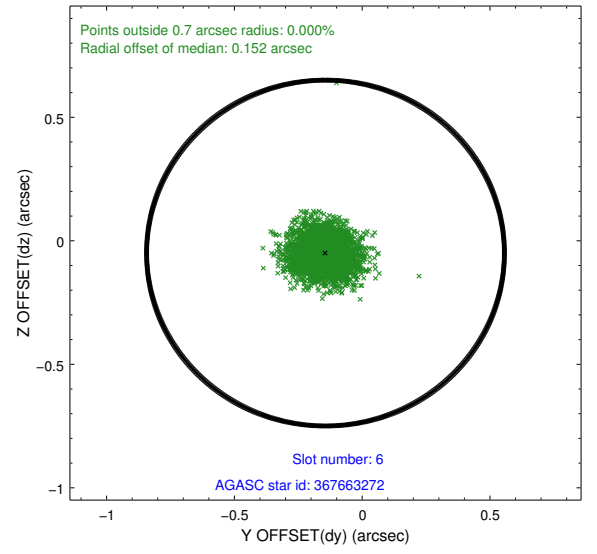
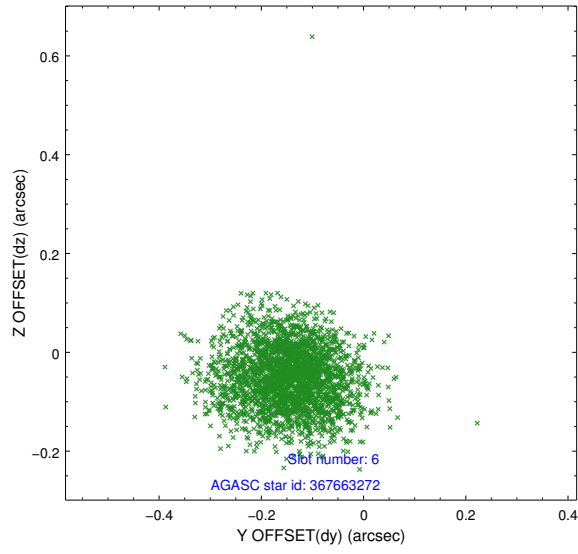
## 2.4.2 Slot 4



### 2.4.3 Slot 5

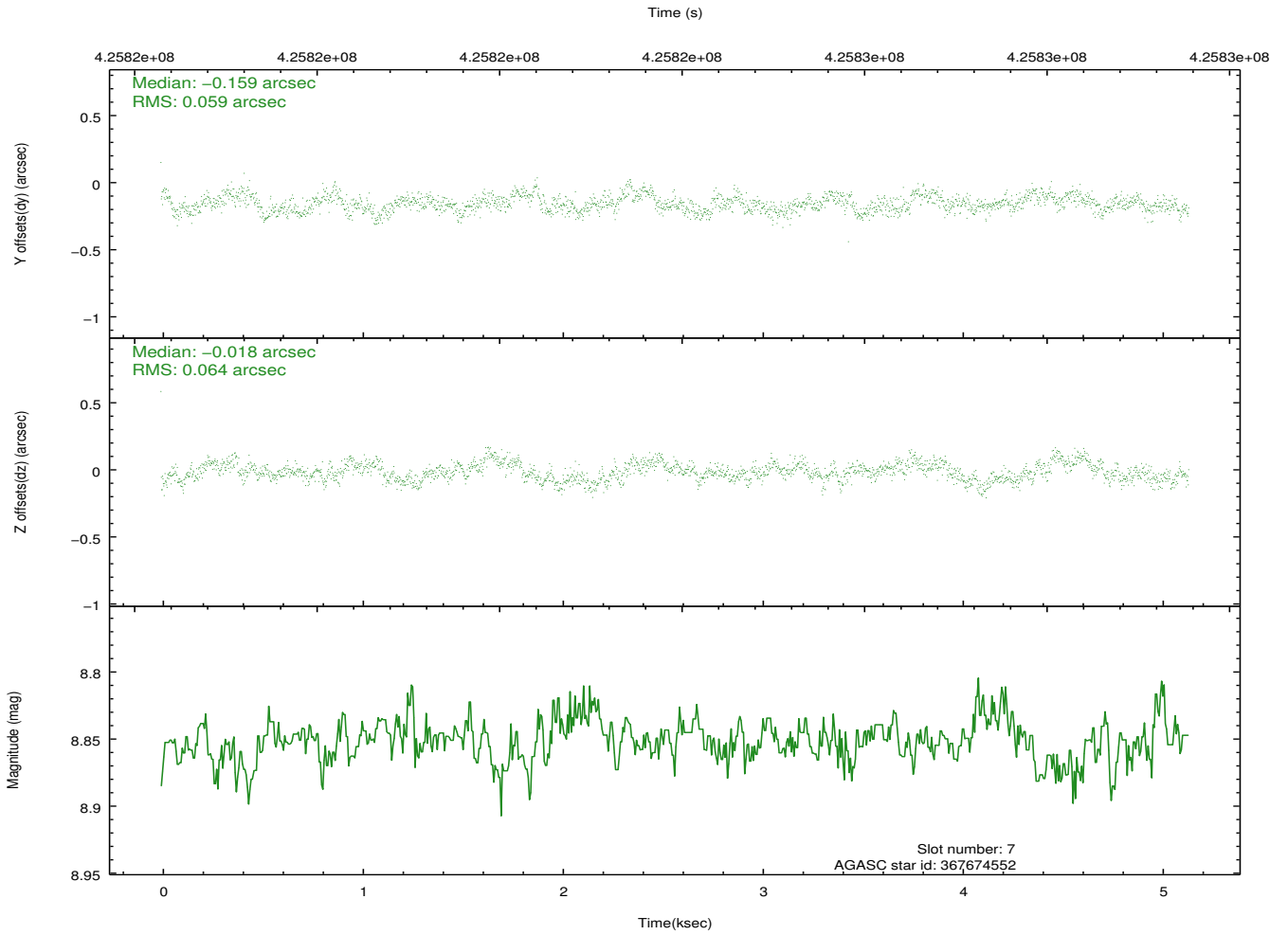
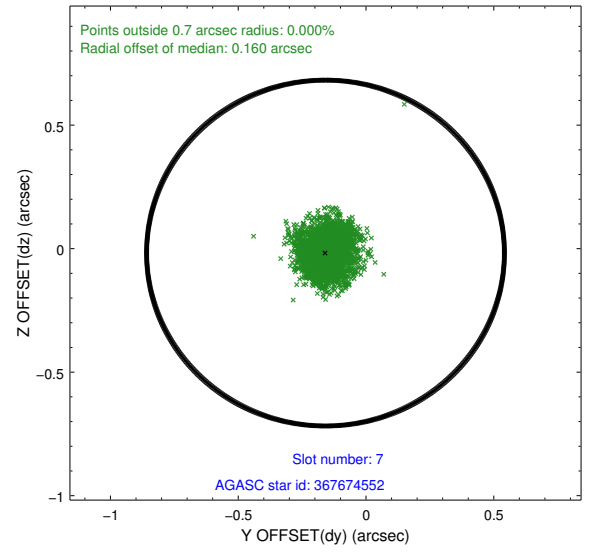
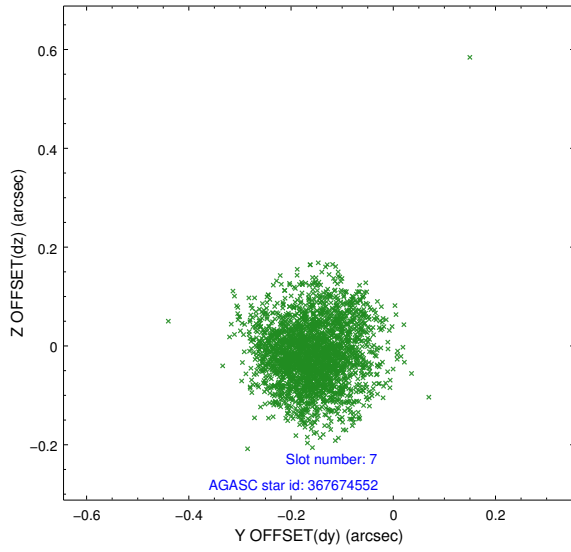


## 2.4.4 Slot 6



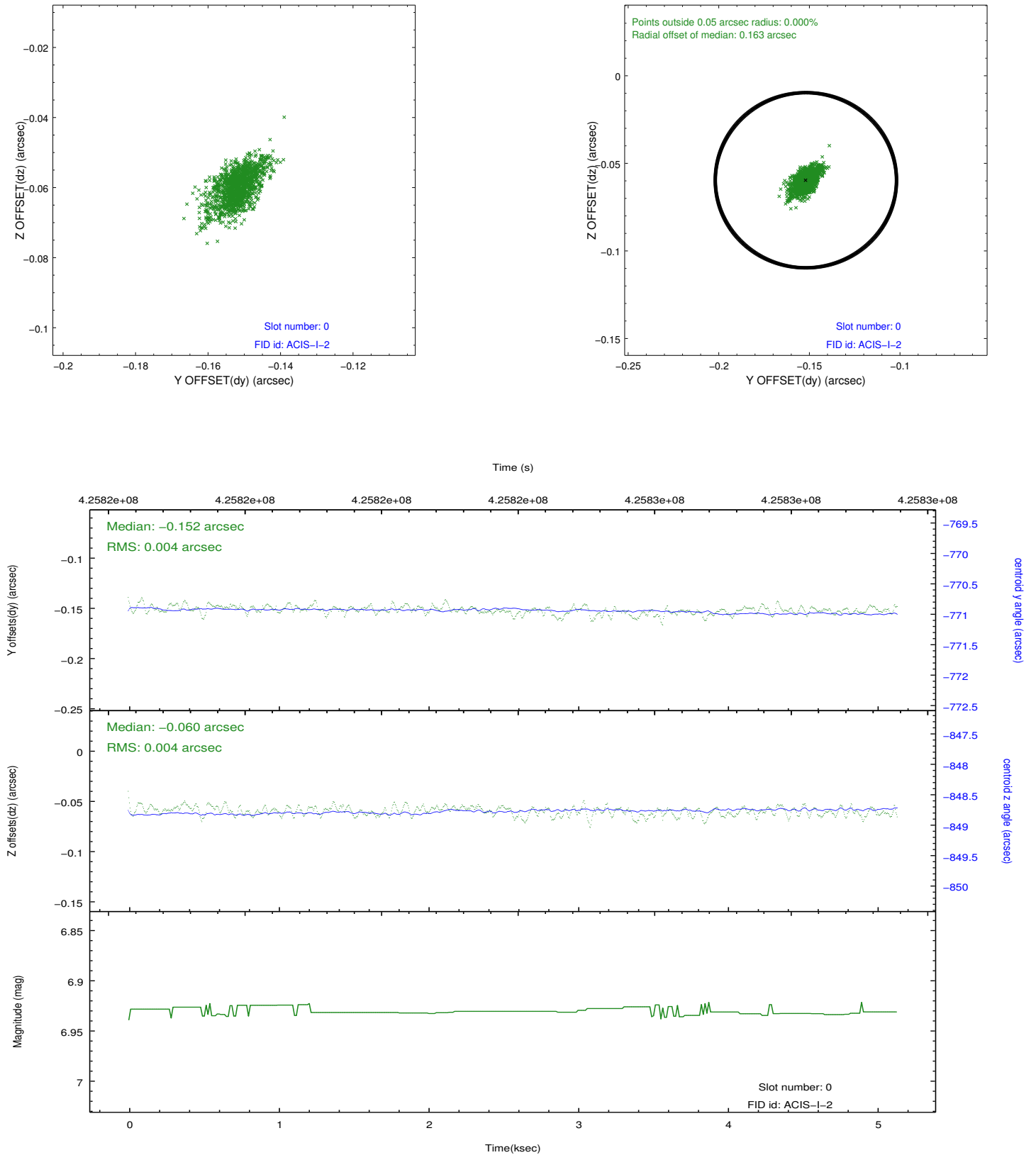


## 2.4.5 Slot 7

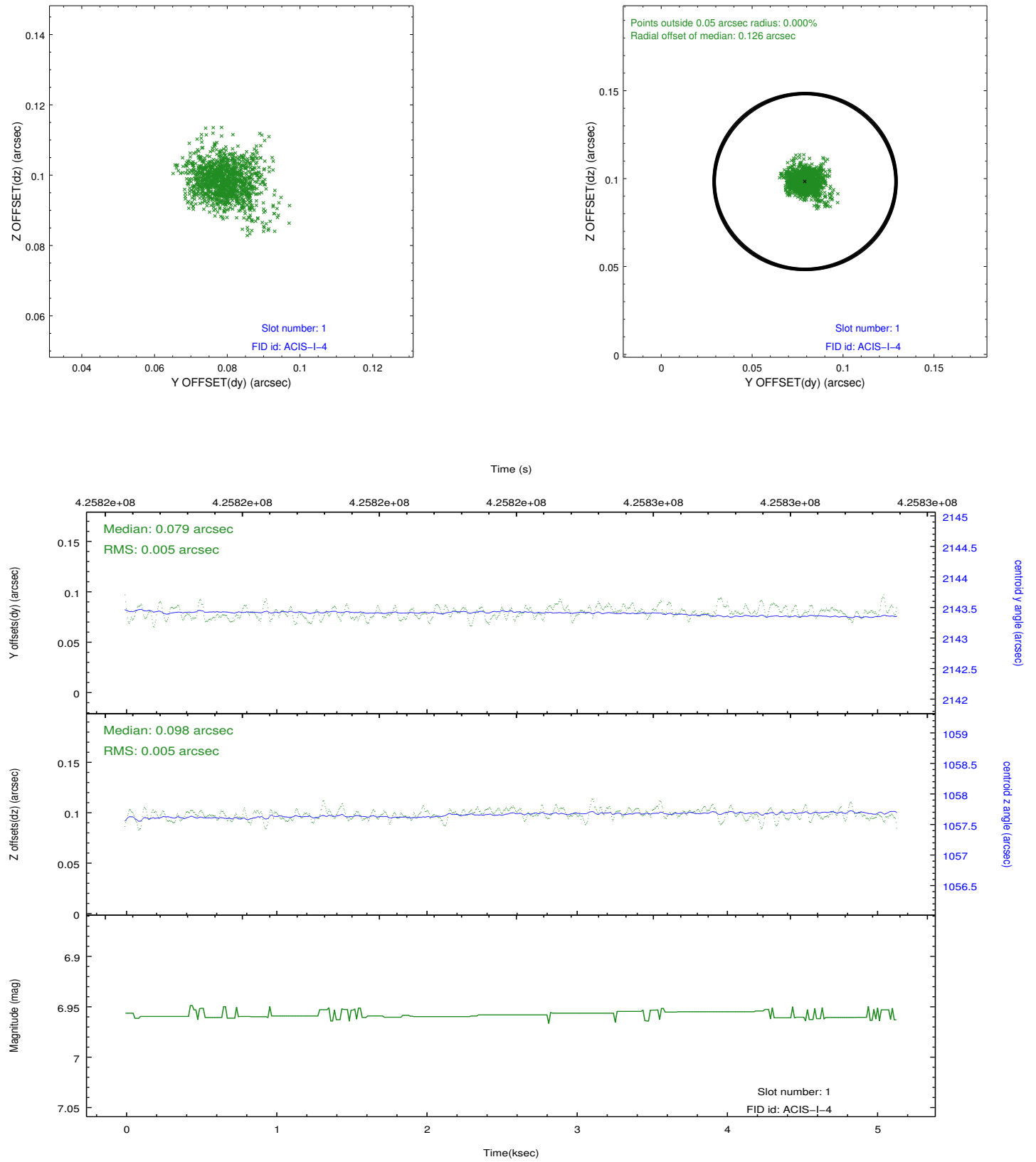


## 2.5 FID Slots

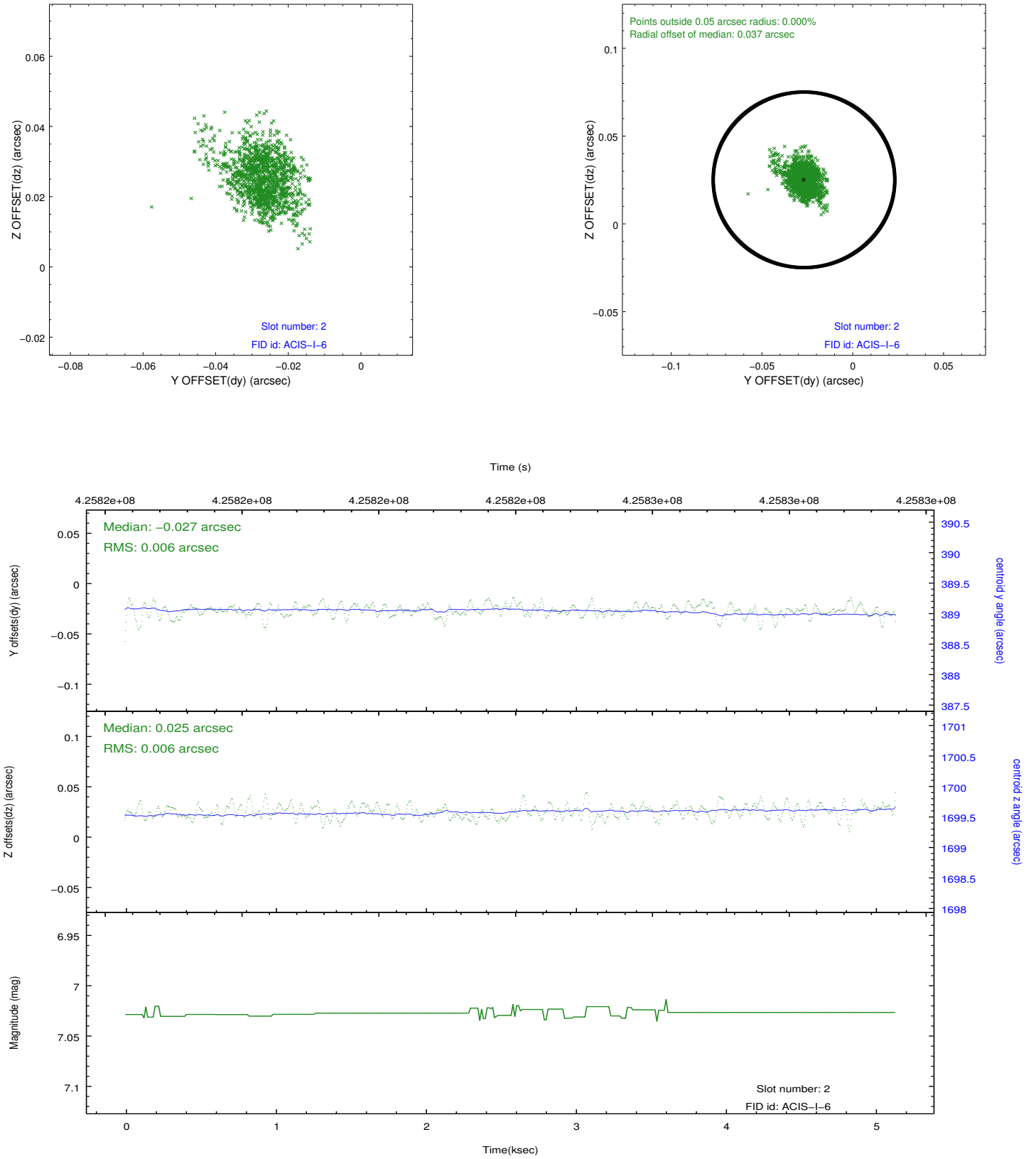
### 2.5.1 Slot 0



## 2.5.2 Slot 1



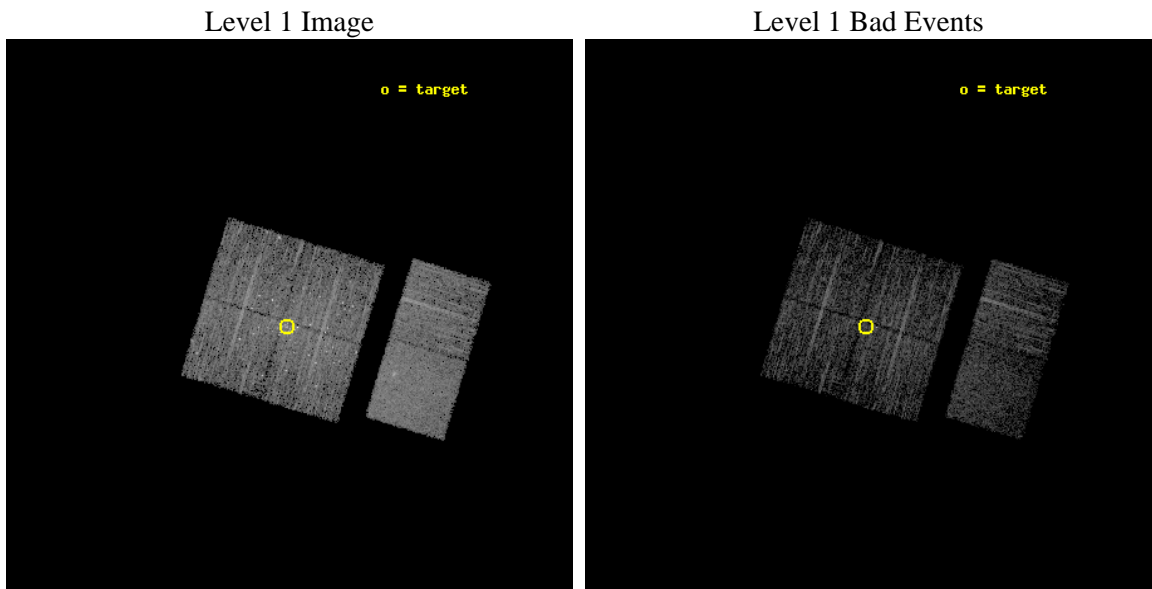
### 2.5.3 Slot 2



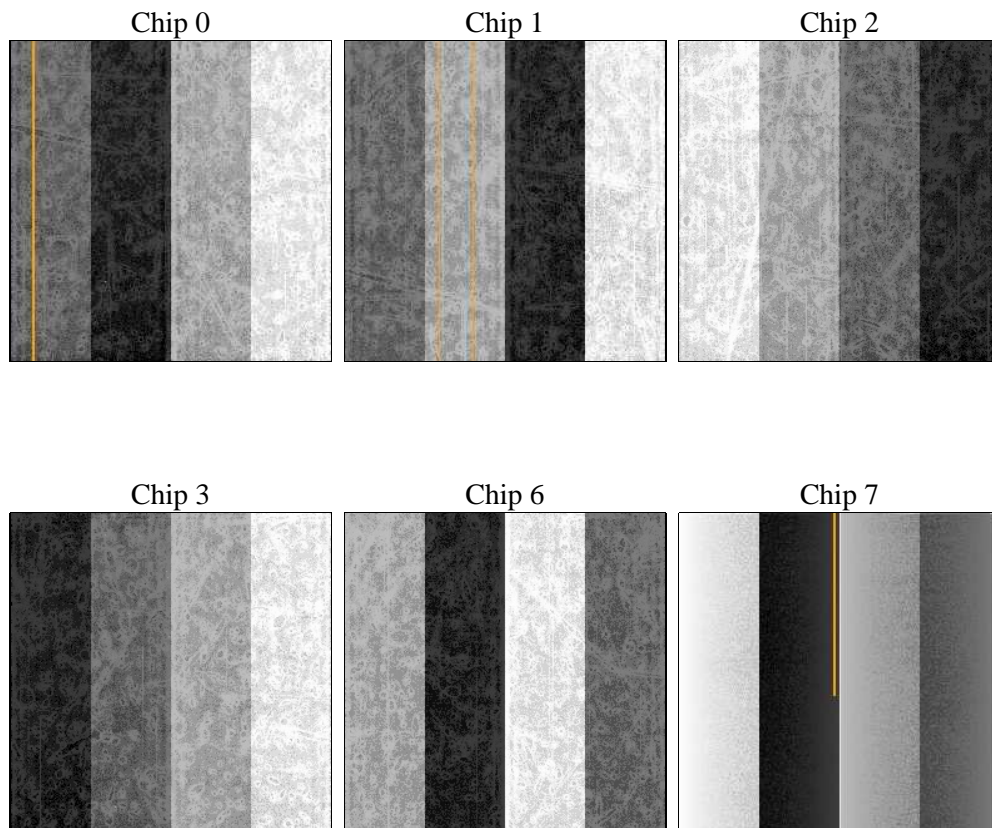
### 3 OBI Secondary

#### 3.1 OBI

##### 3.1.1 Images



##### 3.1.2 Bias



### 3.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	4025.8027053475	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	4025.8033828735	Sum of GTIs [s]
date	2012-02-13T12:40:58	Date and time of file creation	ontime1	4025.8028838038	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4025.8029739261	Sum of GTIs [s]
			ontime3	4025.8027053475	Sum of GTIs [s]
			ontime6	4025.8026950359	Sum of GTIs [s]
			ontime7	4025.8028441072	Sum of GTIs [s]
			l1events	159374	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	23561	25170	25906	28545	24817	31375	grade 0 events	2355	2772	2857	4612	1030	1309
rejected events	19088	20008	20905	21204	21887	17313		9%	11%	11%	16%	4%	4%
rejected %	81%	79%	80%	74%	88%	55%	grade 1 events	26	25	42	132	10	27
								0%	0%	0%	0%	0%	0%
							grade 2 events	845	983	896	1123	662	2907
								3%	3%	3%	3%	2%	9%
							grade 3 events	353	366	382	422	299	1241
								1%	1%	1%	1%	1%	3%
							grade 4 events	324	389	349	481	314	1215
								1%	1%	1%	1%	1%	3%
							grade 5 events	1095	1049	994	1311	1166	3292
								4%	4%	3%	4%	4%	10%
							grade 6 events	605	660	524	714	628	7434
								2%	2%	2%	2%	2%	23%
							grade 7 events	17958	18926	19862	19750	20708	13950
								76%	75%	76%	69%	83%	44%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.96717485368254

### A.2 Comments

Joint Proposal: HST. Monitor constraint met, follows obs12970 by 34 days.