

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10551 - L2 Version 2  
Chandra X-Ray Center

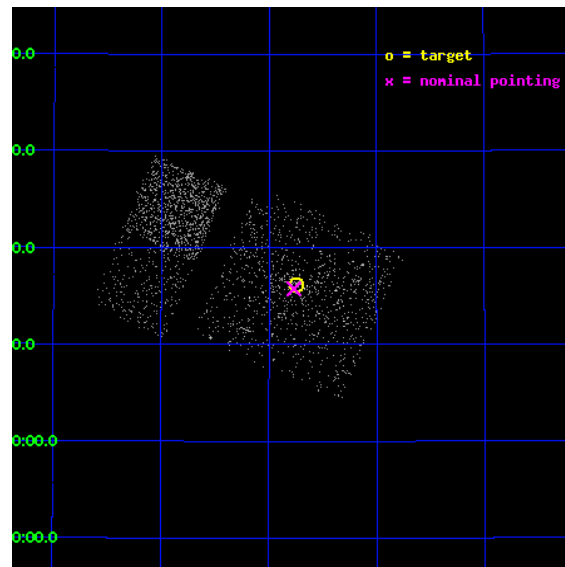
L2 Processing Date : May 28 2012

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# 1 Front

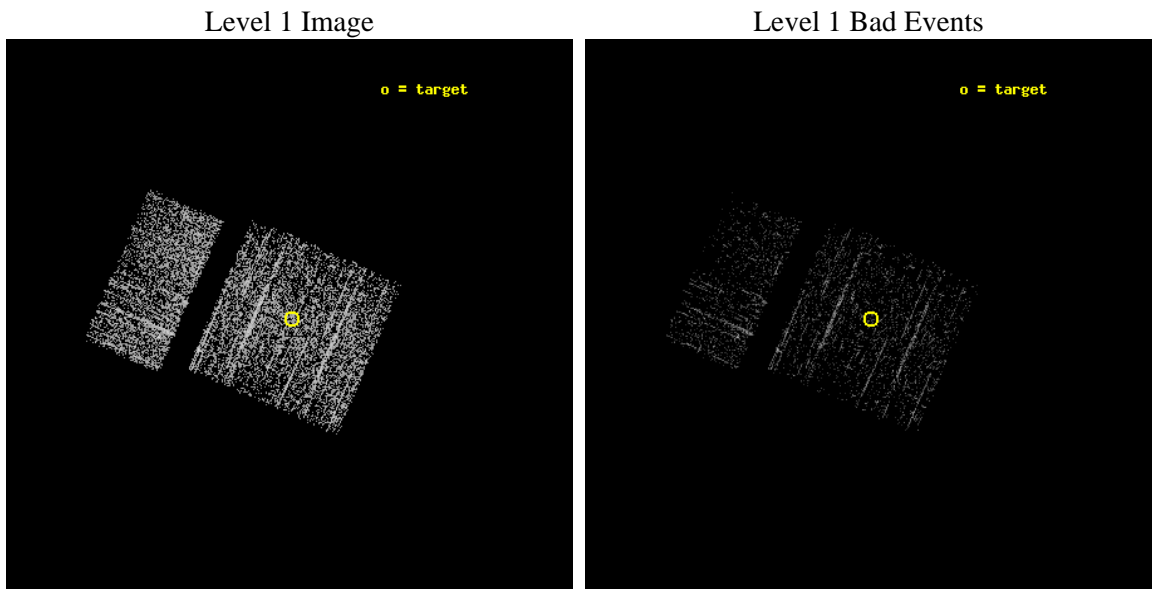
seq_num	600744	Sequence number
obs_id	10551	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr. Michael Garcia	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.692048093112	Nominal RA [deg]
dec_nom	41.262742247795	Nominal Dec [deg]
roll_nom	293.65016739448	Nominal Roll [deg]
revision	2	Processing version of data
ontime	937.74451267719	Sum of GTIs [s]
livetime	147.62360616848	Livetime [s]
ontime0	937.74451267719	Sum of GTIs [s]
ontime1	937.74452263117	Sum of GTIs [s]
ontime2	937.74451267719	Sum of GTIs [s]
ontime3	937.74451267719	Sum of GTIs [s]
ontime6	937.74451267719	Sum of GTIs [s]
ontime7	937.74452263117	Sum of GTIs [s]
l2events	2634	Number of level 2 events



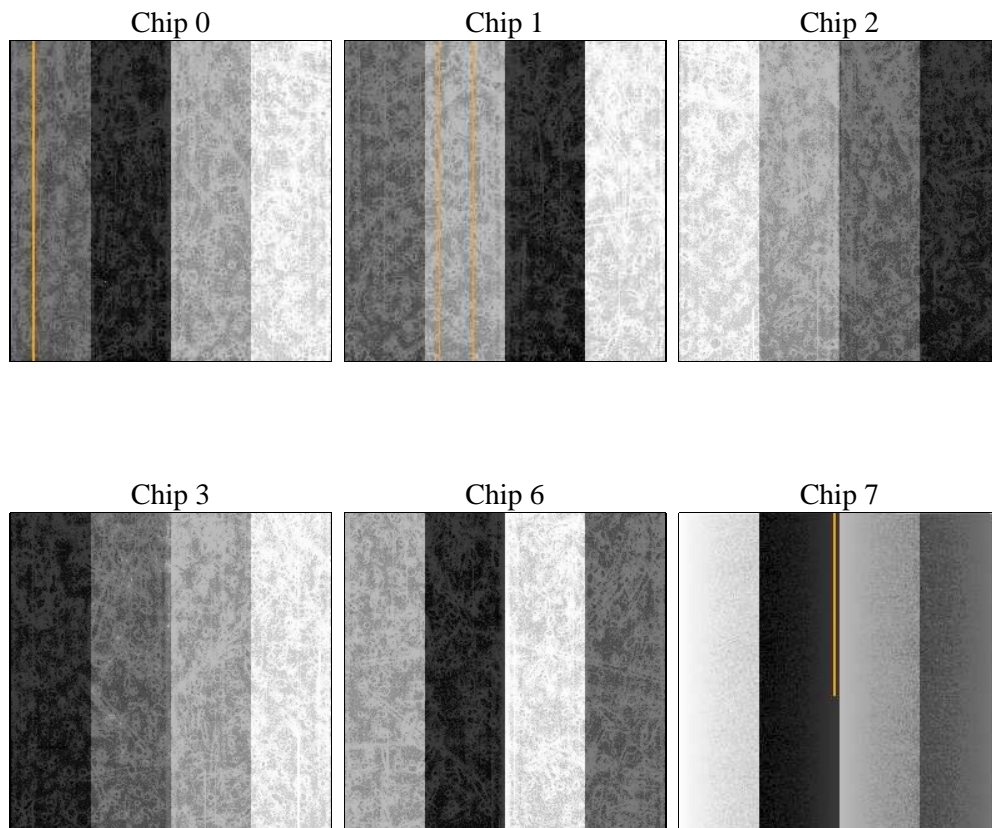
## 2 OBI Primary

### 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	8.4.4	Processing system revision	ontime	937.74451267719	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	937.74451267719	Sum of GTIs [s]
date	2012-05-28T13:35:54	Date and time of file creation	ontime1	937.74452263117	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	937.74451267719	Sum of GTIs [s]
			ontime3	937.74451267719	Sum of GTIs [s]
			ontime6	937.74451267719	Sum of GTIs [s]
			ontime7	937.74452263117	Sum of GTIs [s]
			l1events	23286	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	4010	3696	4090	3826	4182	3482
rejected events	3628	3234	3677	3436	3887	2388
rejected %	90%	87%	89%	89%	92%	68%

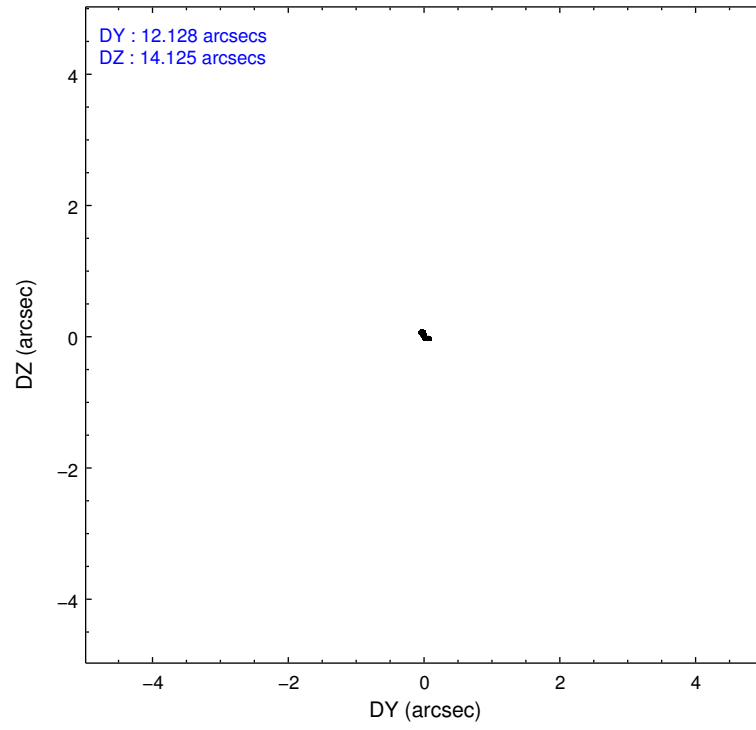
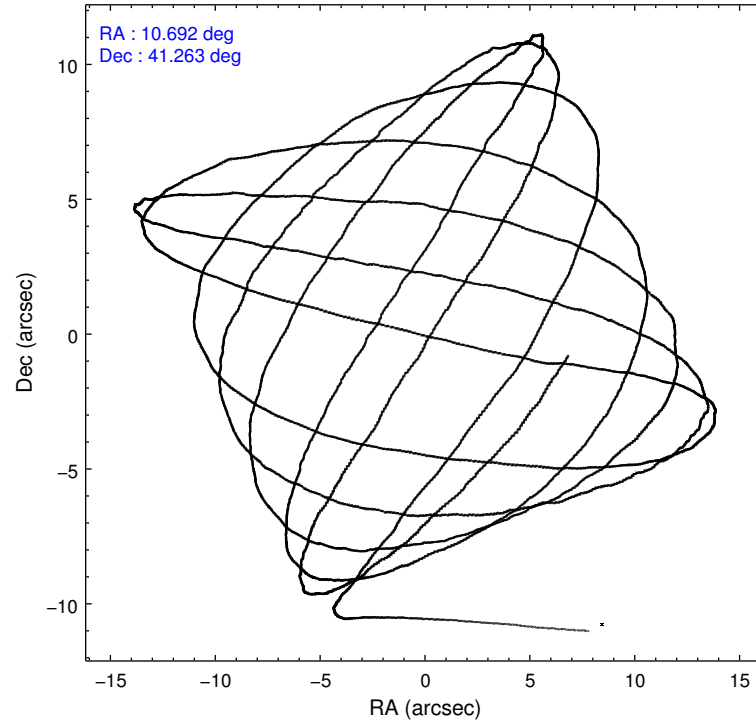
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	132	204	157	182	64	98
	3%	5%	3%	4%	1%	2%
grade 1 events	0	2	1	3	2	4
	0%	0%	0%	0%	0%	0%
grade 2 events	83	104	82	72	82	239
	2%	2%	2%	1%	1%	6%
grade 3 events	59	44	44	43	38	102
	1%	1%	1%	1%	0%	2%
grade 4 events	51	56	58	37	41	106
	1%	1%	1%	0%	0%	3%
grade 5 events	125	135	105	144	129	289
	3%	3%	2%	3%	3%	8%
grade 6 events	60	60	75	62	71	559
	1%	1%	1%	1%	1%	16%
grade 7 events	3500	3091	3568	3283	3755	2085
	87%	83%	87%	85%	89%	59%

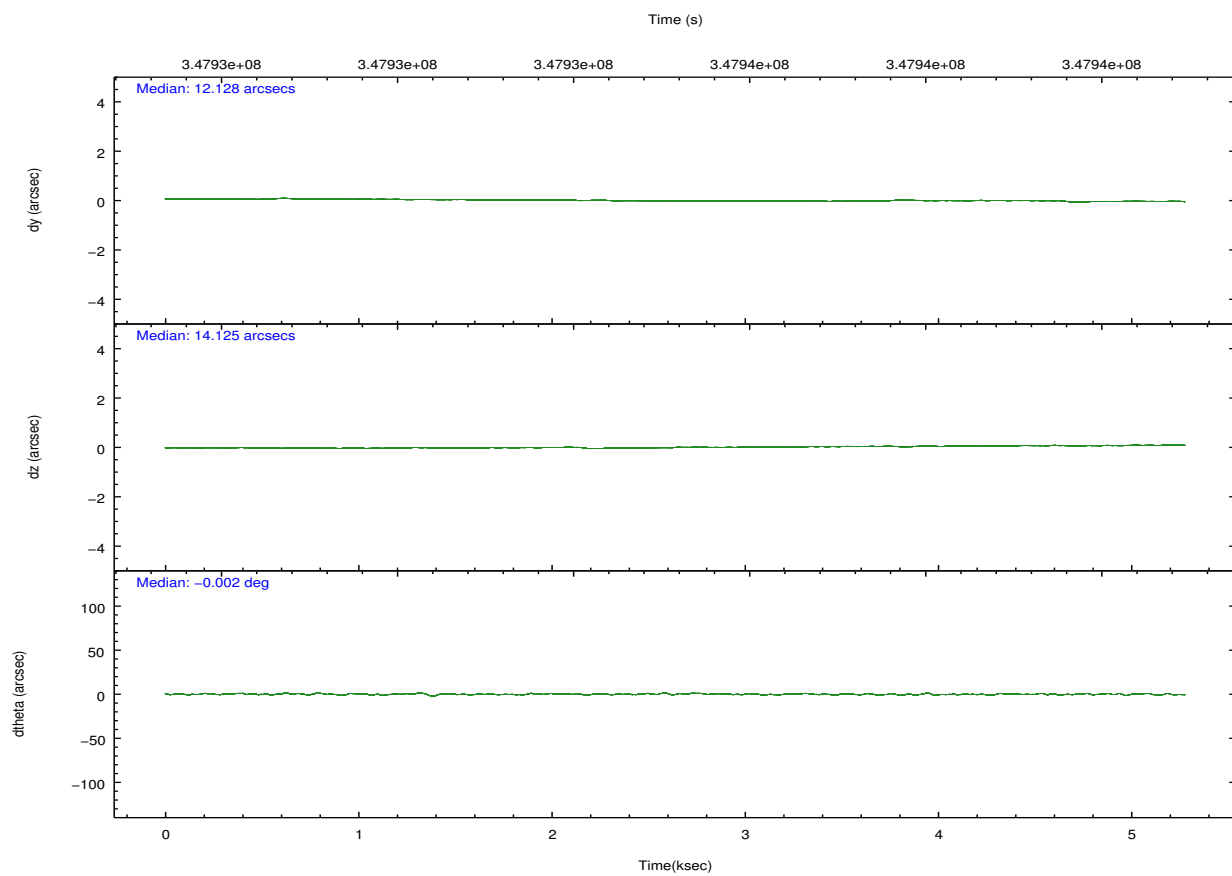
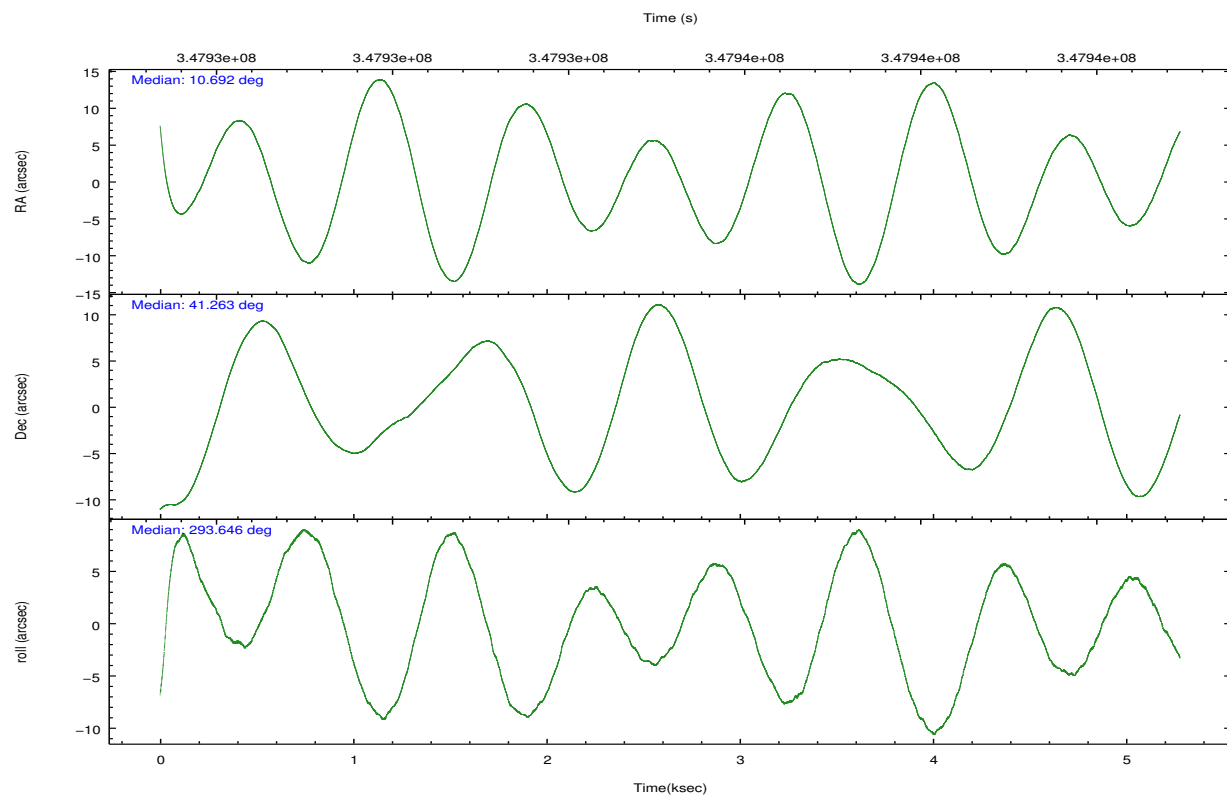


## 2.2 Compared Parameters

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	10.662491	10.69204809311195	CCD I2 on	Y	Y
[deg] Pointing Dec	41.279071	41.26274224779495	CCD I3 on	Y	Y
[deg] Pointing Roll	293.461009	293.6501673944829	CCD S0 on	N	N
[s] Window start time (MET)	347500866.184000	347500866.184000	CCD S1 on	N	N
[s] Window stop time (MET)	348105606.184000	348105606.184000	CCD S2 on	O2	Y
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S3 on	O1	Y
[mm] SIM defocus	0	0.001439871863259334	CCD S4 on	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S5 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	347932212.184000	347931142.41105	On-chip summing requested	N	N
Observation start date	2009-01-09T23:49:06	2009-01-09T23:32:22	Subarray requested	NONE	NONE
[s] Observation end time (MET)	347937212.184000	347938322.0239	Alternating exposures requested	Y	Y
Observation end date	2009-01-10T01:12:26	2009-01-10T01:32:02	[s] Primary exposure time	0.600000	0.6
Read mode	TIMED	TIMED	[s] Secondary exposure time	0.000000	3.2
			Duty cycle	5	5

## 2.3 Aspect



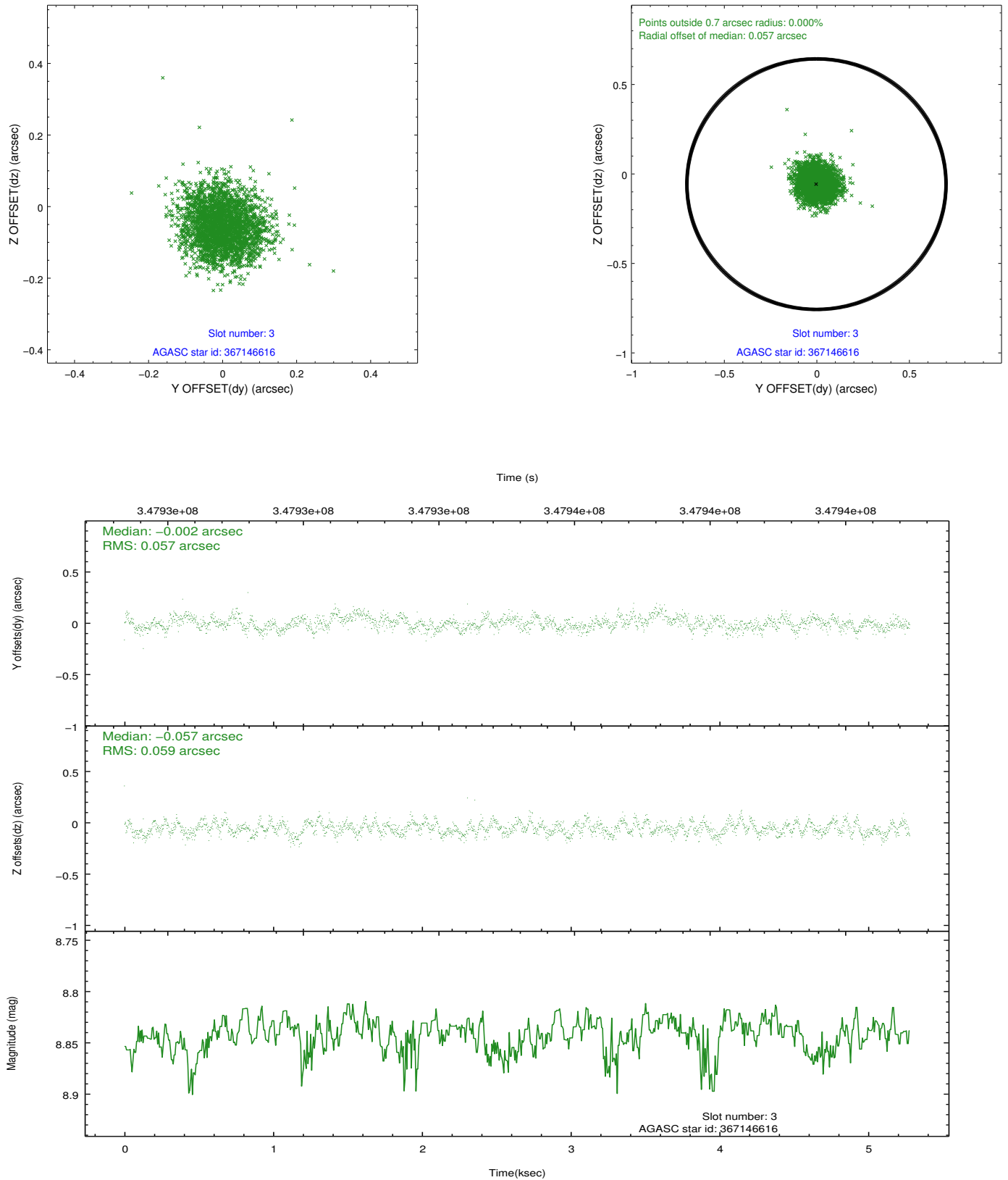


### Slot Statistics

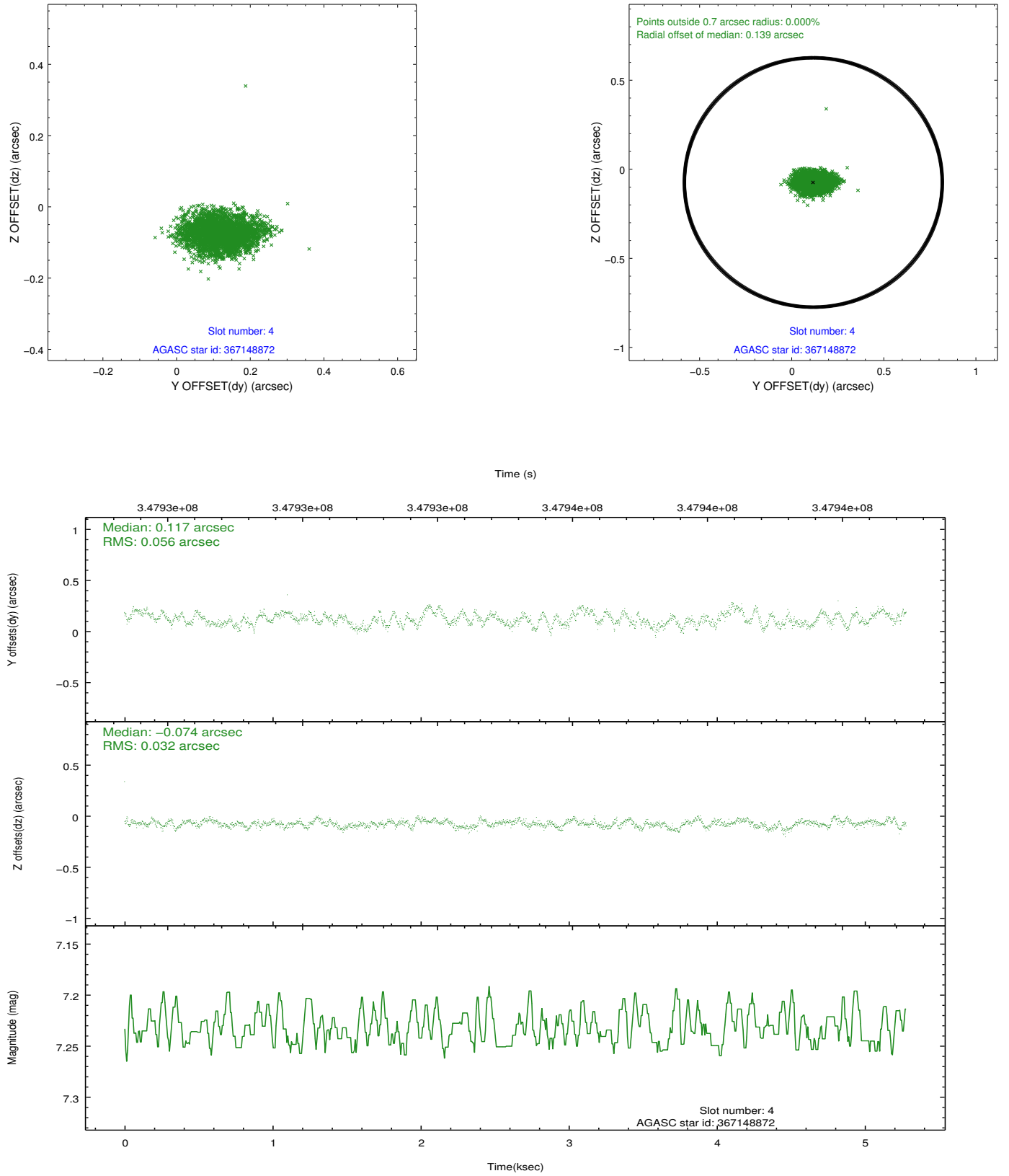
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.07	1288	-0.026	0.035	0.007	0.012	0.000000	0.000000	927.37	-837.68
1	FID	ACIS-I-4	7.00	1288	0.158	0.012	0.007	0.013	0.000000	0.000000	2148.24	1061.53
2	FID	ACIS-I-5	7.05	1288	-0.230	0.024	0.007	0.013	0.000000	0.000000	-1819.36	1060.70
3	GUIDE	367146616	8.84	2572	-0.002	-0.057	0.088	0.138	11.418645	41.190163	1100.68	1755.65
4	GUIDE	367148872	7.23	2576	0.117	-0.074	0.067	0.111	10.505940	40.688258	1781.55	-1237.91
5	GUIDE	367657896	9.00	2559	-0.005	0.077	0.093	0.146	11.197765	41.313576	458.58	1378.93
6	GUIDE	367674552	8.85	2563	0.020	0.030	0.078	0.128	11.016238	41.570845	-586.01	1293.89
7	GUIDE	367663272	9.28	2575	-0.131	0.024	0.084	0.136	10.656279	41.699429	-1395.40	587.14

## 2.4 Star Slots

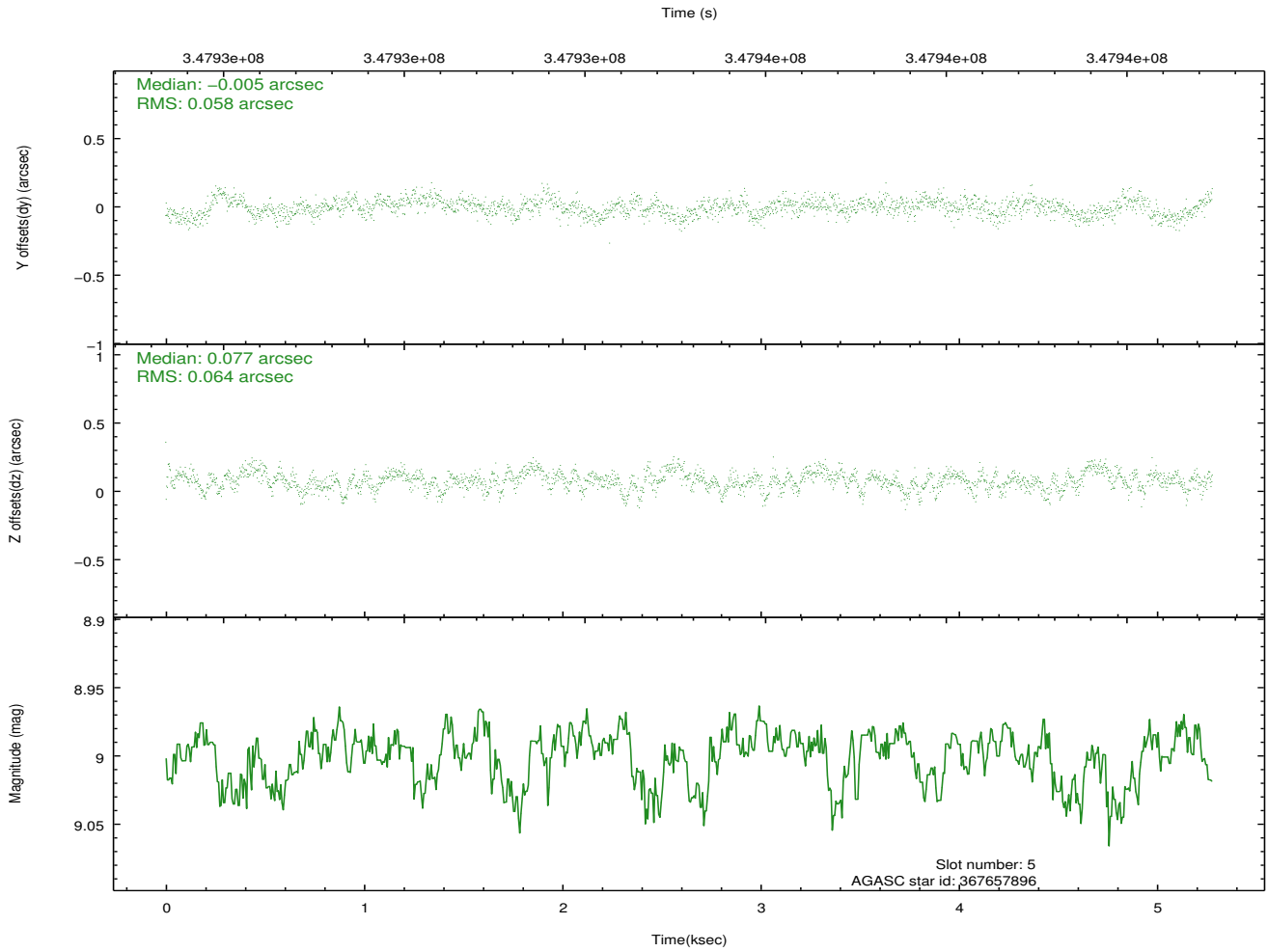
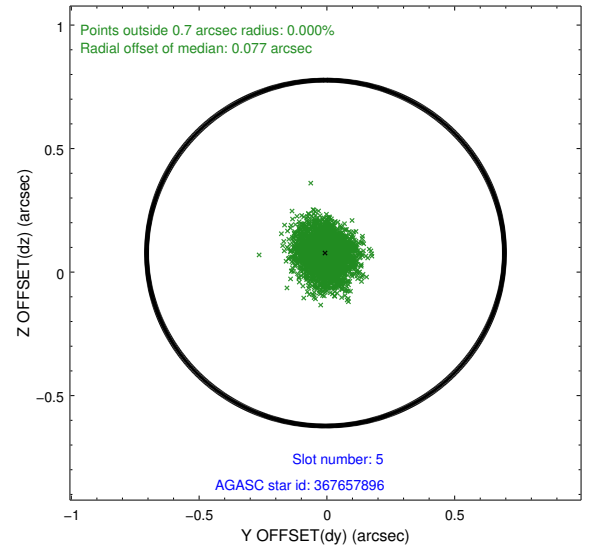
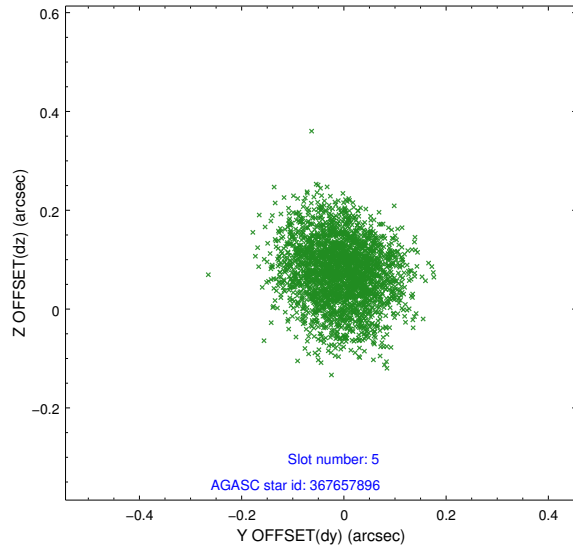
### 2.4.1 Slot 3



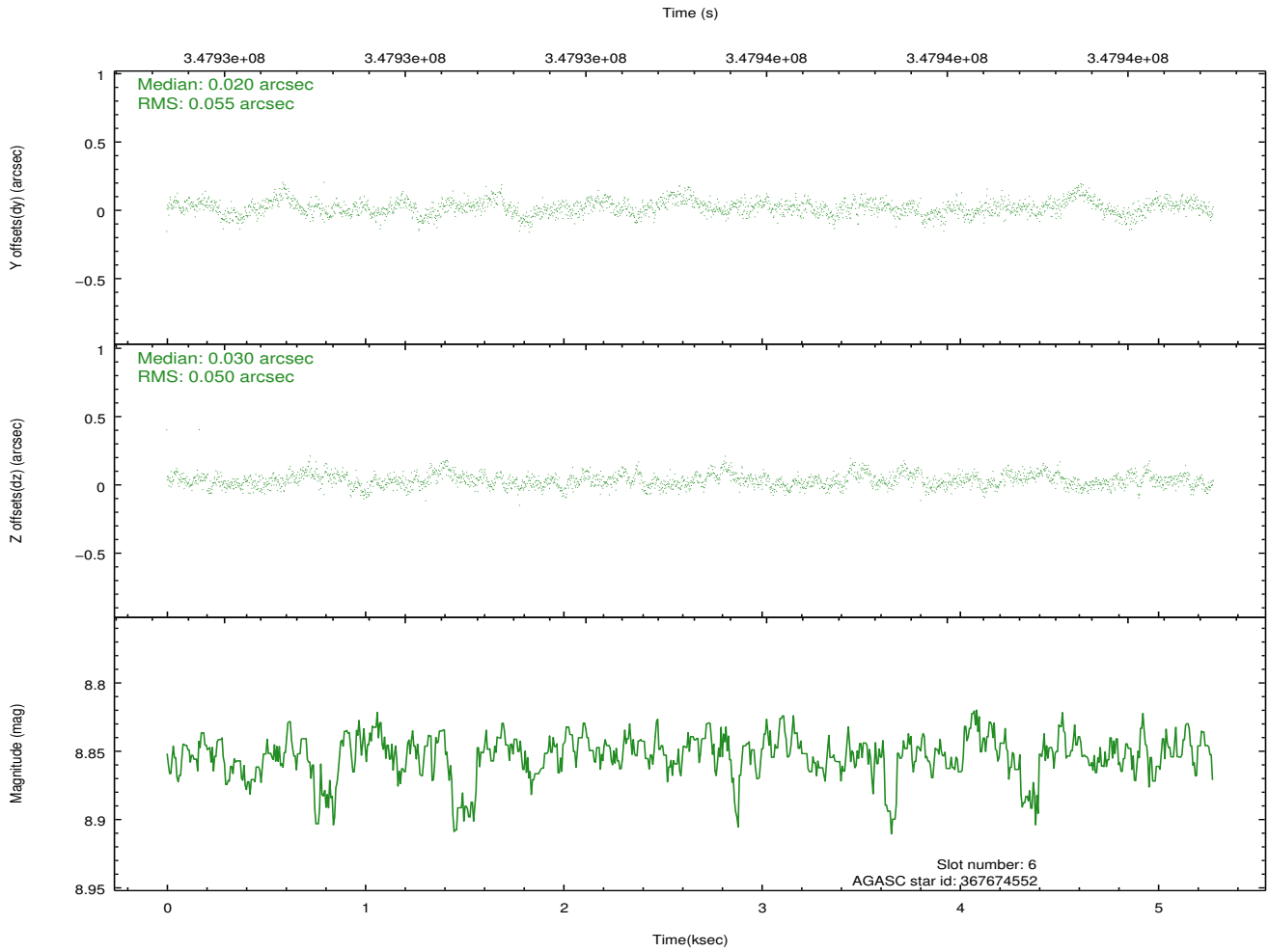
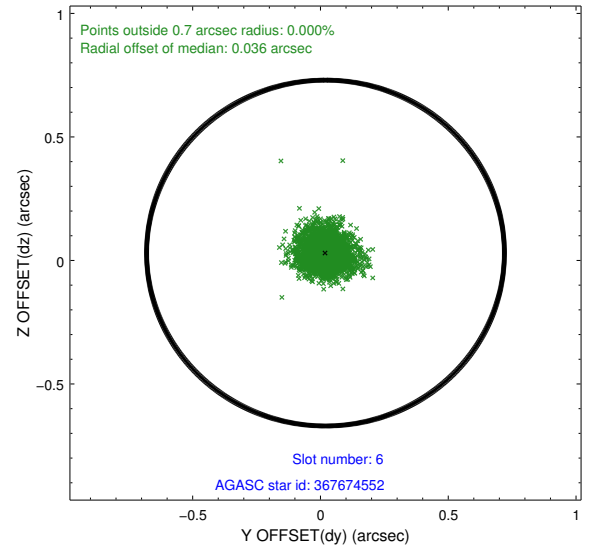
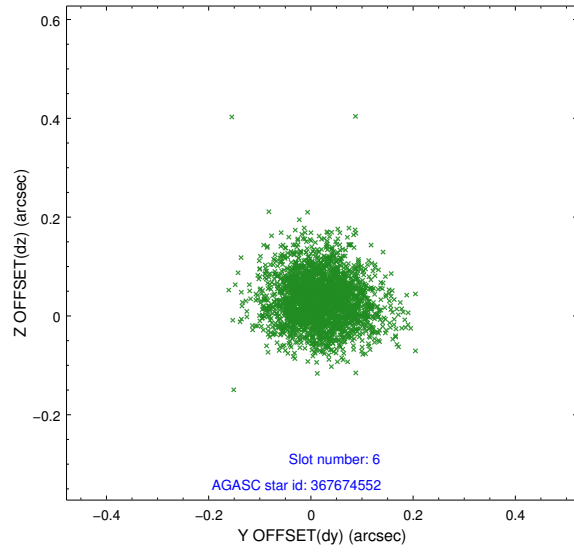
## 2.4.2 Slot 4



### 2.4.3 Slot 5

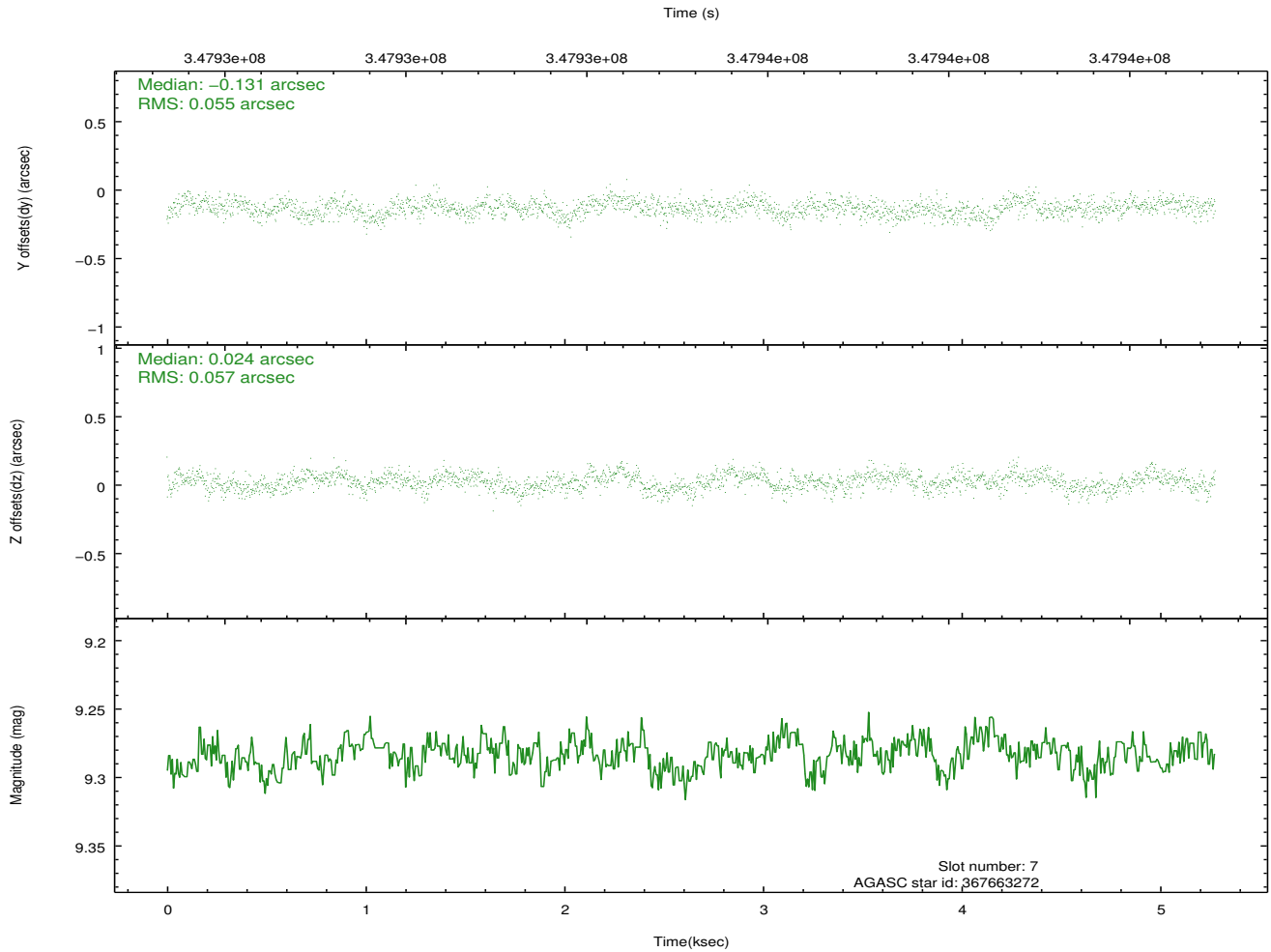
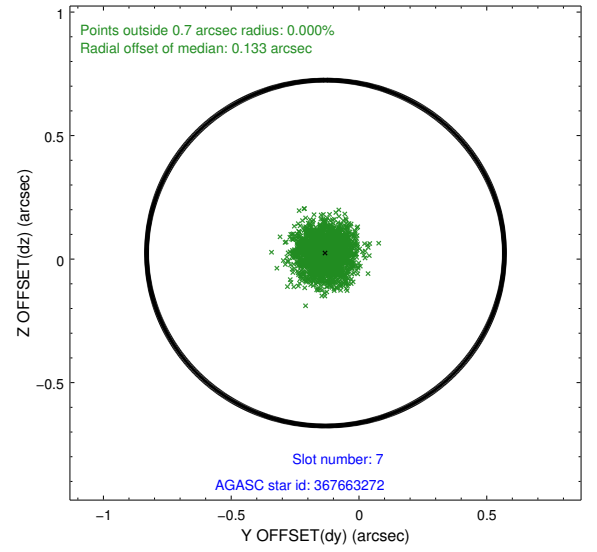
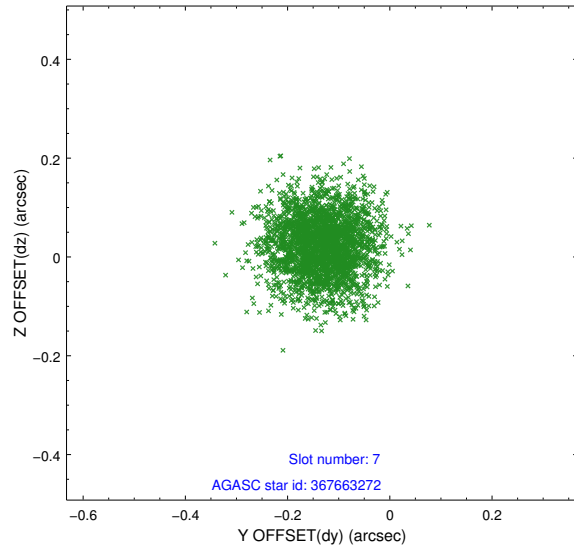


## 2.4.4 Slot 6



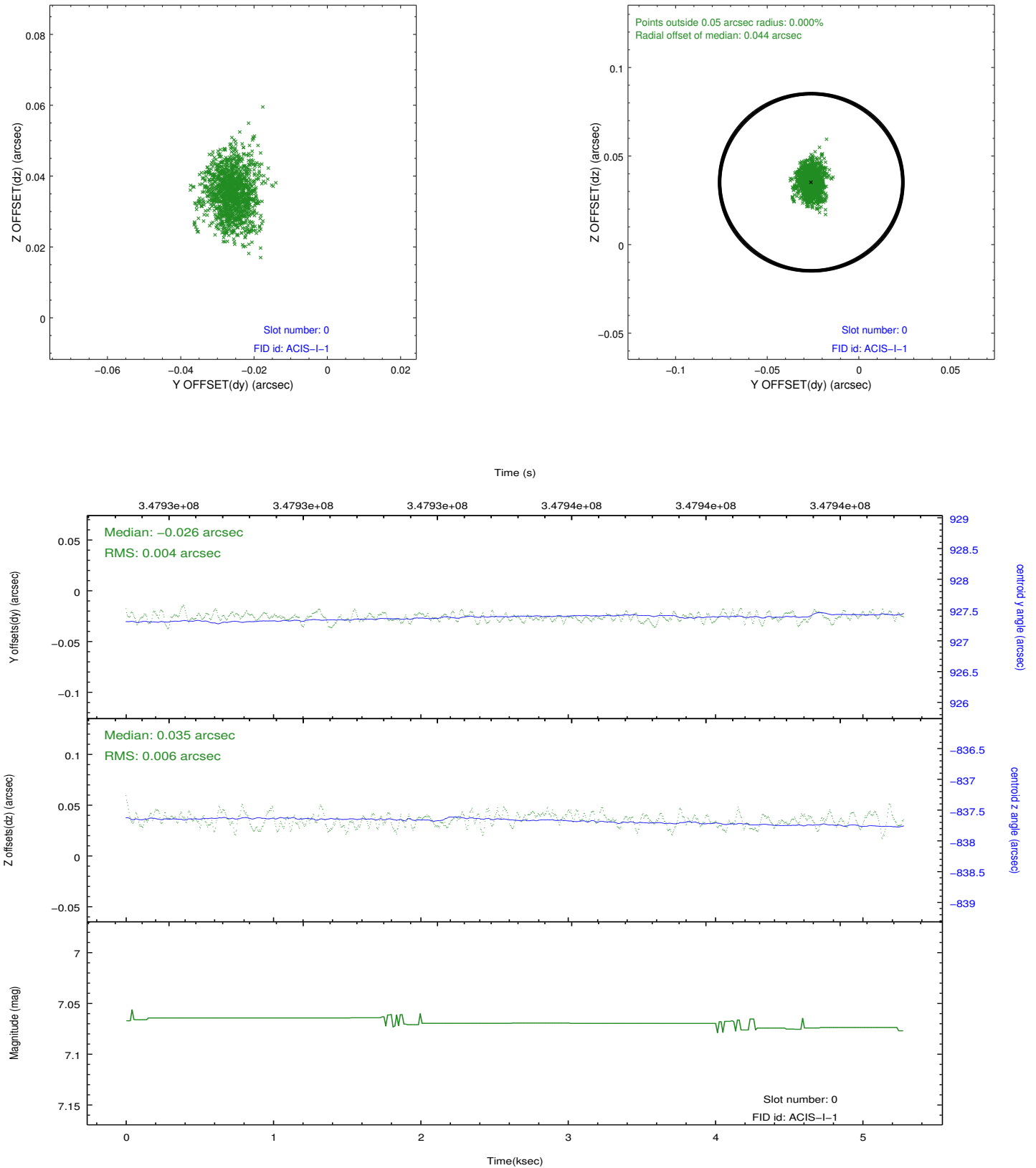


## 2.4.5 Slot 7

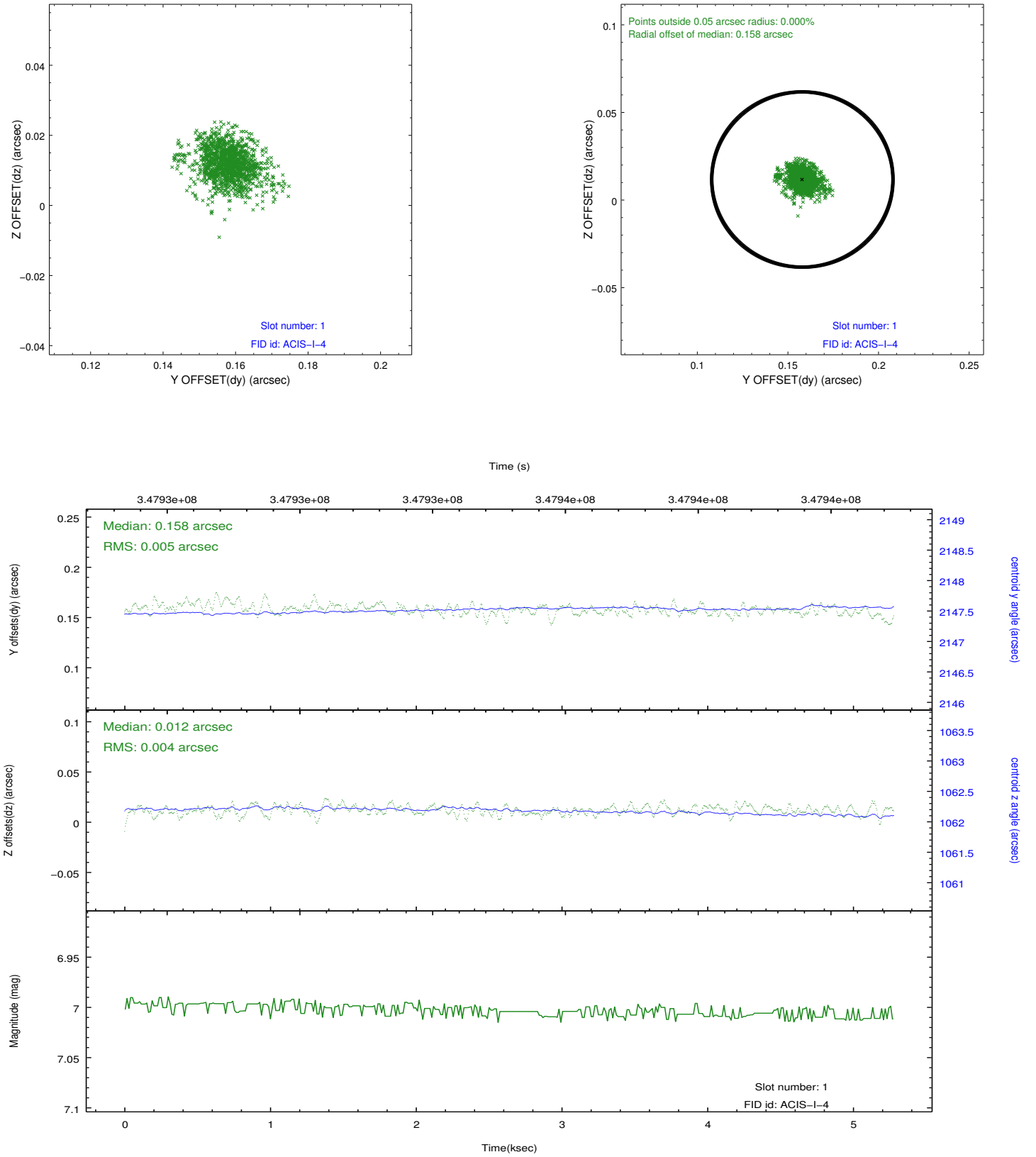


## 2.5 FID Slots

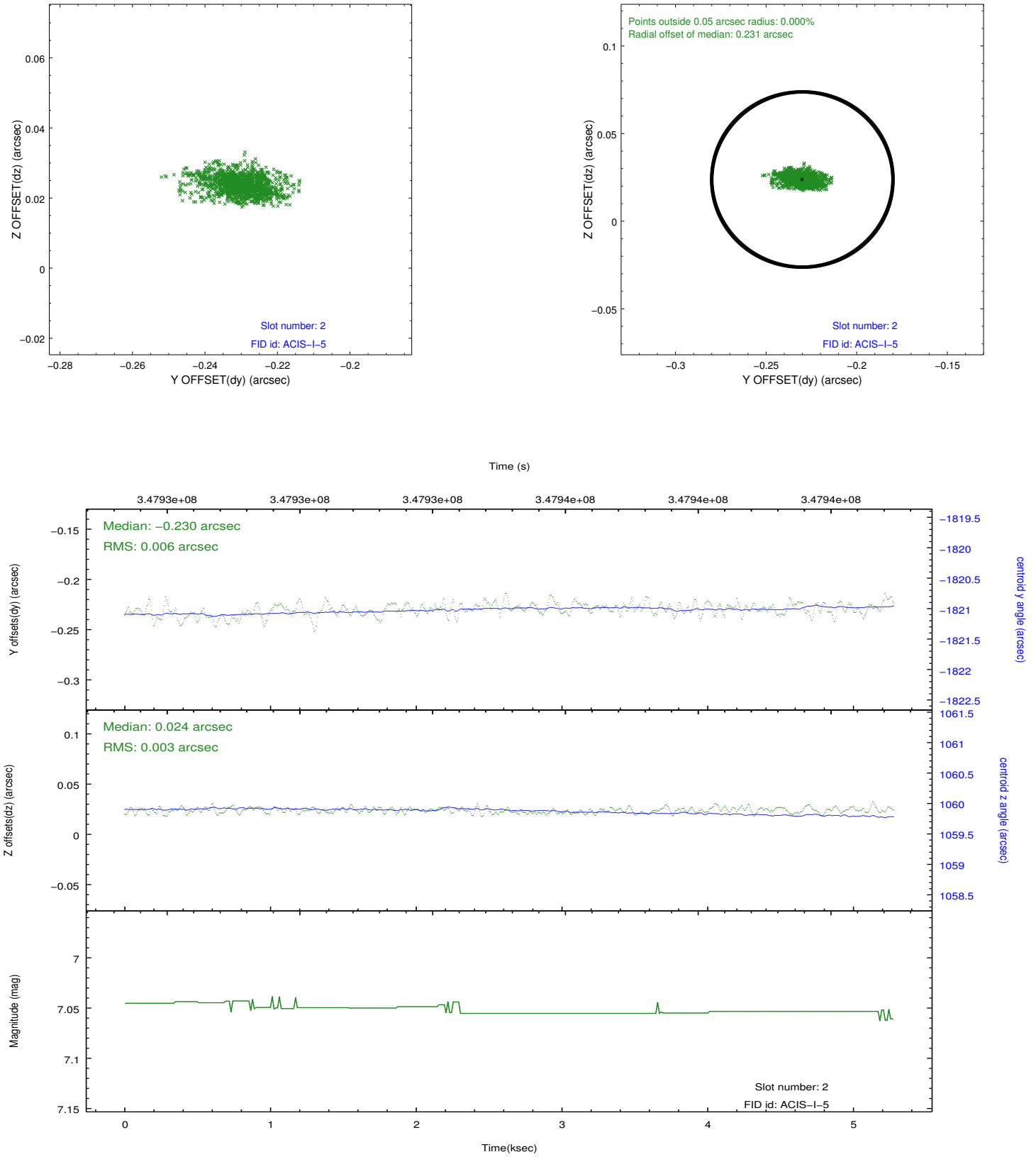
### 2.5.1 Slot 0



## 2.5.2 Slot 1



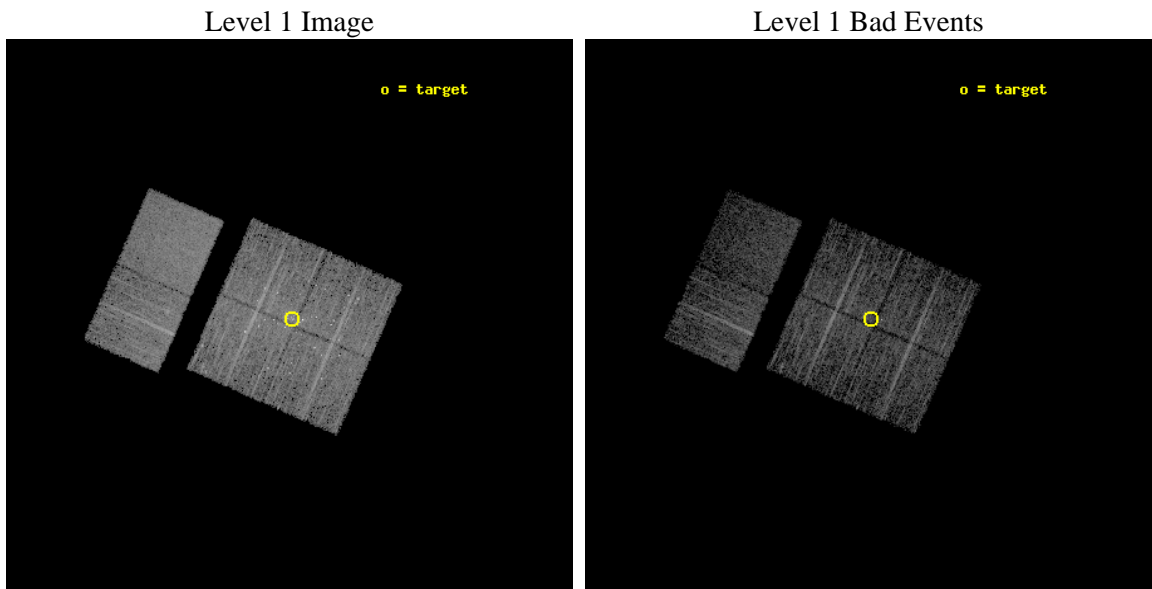
### 2.5.3 Slot 2



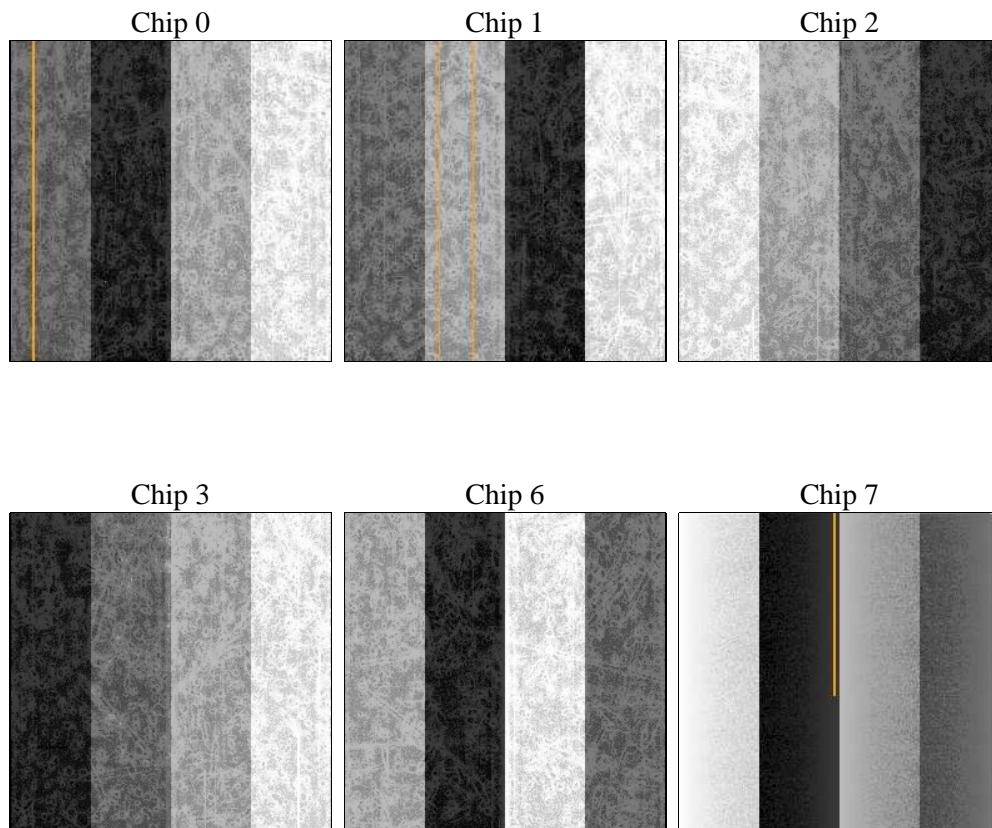
### 3 OBI Secondary

#### 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	8.4.4	Processing system revision	ontime	4015.5914074779	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	4015.5913174748	Sum of GTIs [s]
date	2012-05-28T13:37:26	Date and time of file creation	ontime1	4015.5913962722	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4015.5911588073	Sum of GTIs [s]
			ontime3	4015.5914074779	Sum of GTIs [s]
			ontime6	4012.3503661752	Sum of GTIs [s]
			ontime7	4015.5913485289	Sum of GTIs [s]
			l1events	213443	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	32921	35119	38218	34387	34382	38416	grade 0 events	2802	3987	3705	3474	1409	1642
rejected events	27605	27790	31819	28427	30602	20796		8%	11%	9%	10%	4%	4%
rejected %	83%	79%	83%	82%	89%	54%	grade 1 events	31	126	63	43	21	40
								0%	0%	0%	0%	0%	0%
							grade 2 events	1007	1320	1109	936	814	3670
								3%	3%	2%	2%	2%	9%
							grade 3 events	451	548	441	430	386	1659
								1%	1%	1%	1%	1%	4%
							grade 4 events	391	554	479	420	387	1614
								1%	1%	1%	1%	1%	4%
							grade 5 events	1224	1403	1170	1342	1475	4011
								3%	3%	3%	3%	4%	10%
							grade 6 events	675	923	672	707	791	9058
								2%	2%	1%	2%	2%	23%
							grade 7 events	26340	26258	30579	27035	29099	16722
								80%	74%	80%	78%	84%	43%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.95333592

### A.2 Comments

Joint Proposal: HST. Window constraint met.