

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10555 - L2 Version 2  
Chandra X-Ray Center

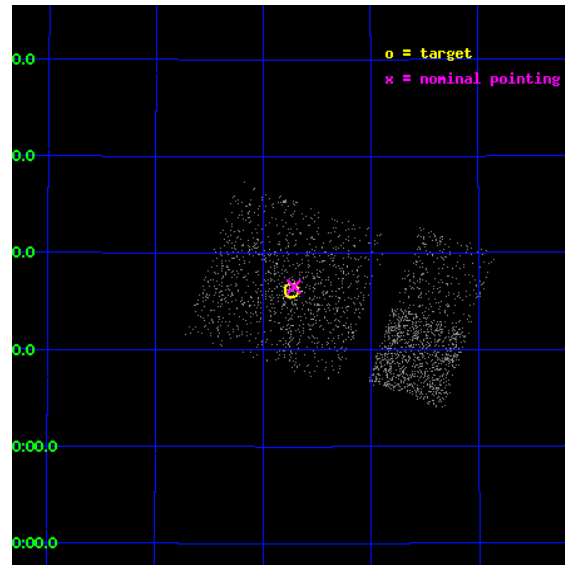
L2 Processing Date : Jun 9 2012

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# 1 Front

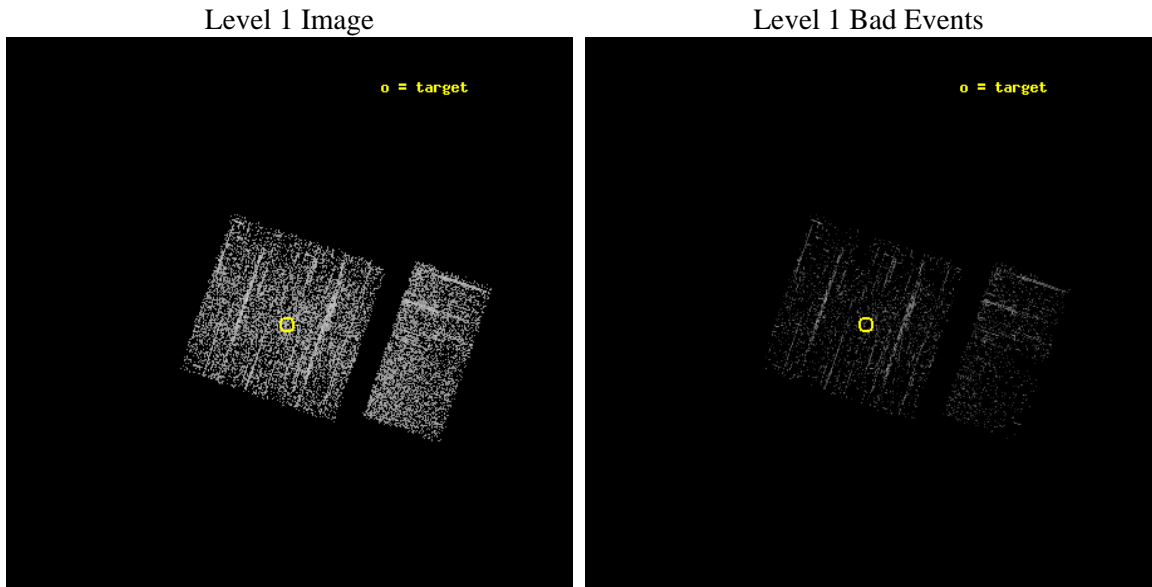
seq_num	600748	Sequence number
obs_id	10555	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr. Michael Garcia	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.678648535312	Nominal RA [deg]
dec_nom	41.275457030815	Nominal Dec [deg]
roll_nom	108.86278240858	Nominal Roll [deg]
revision	2	Processing version of data
ontime	960.55024886131	Sum of GTIs [s]
liveltime	151.2137791541	Livetime [s]
ontime0	960.55024886131	Sum of GTIs [s]
ontime1	960.55026870966	Sum of GTIs [s]
ontime2	960.55024886131	Sum of GTIs [s]
ontime3	960.55024886131	Sum of GTIs [s]
ontime6	960.55026870966	Sum of GTIs [s]
ontime7	960.55024886131	Sum of GTIs [s]
l2events	2781	Number of level 2 events



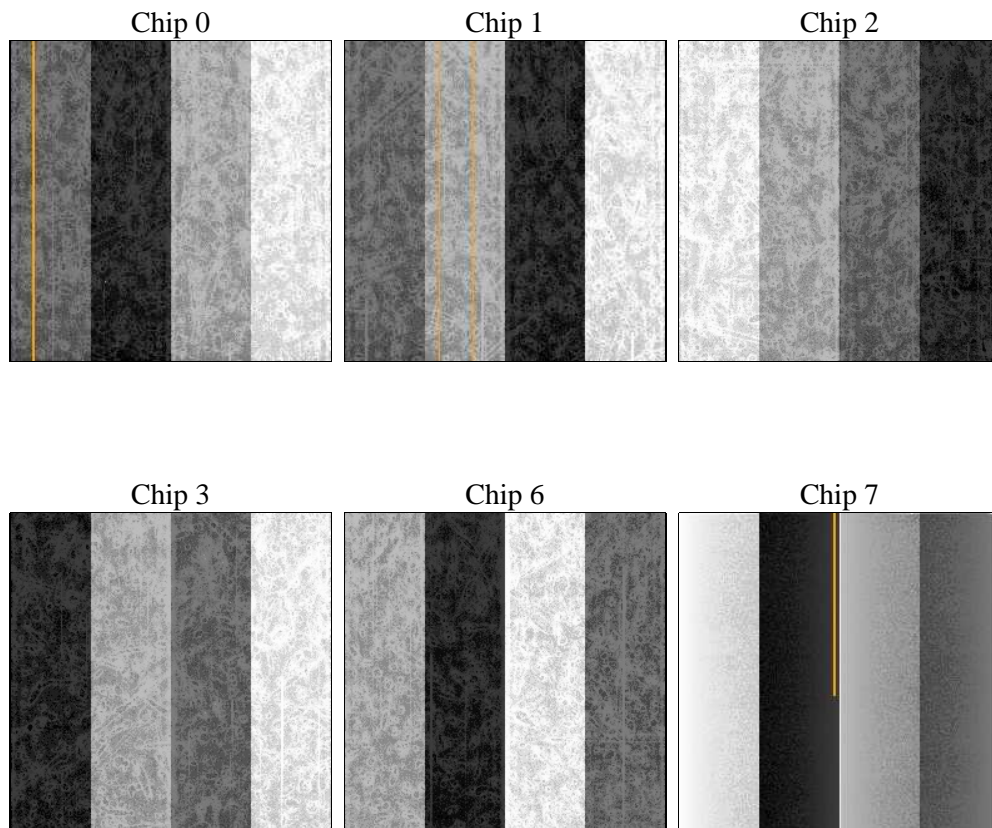
## 2 OBI Primary

### 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	8.4.5	Processing system revision	ontime	960.55024886131	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	960.55024886131	Sum of GTIs [s]
date	2012-06-09T21:45:51	Date and time of file creation	ontime1	960.55026870966	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	960.55024886131	Sum of GTIs [s]
			ontime3	960.55024886131	Sum of GTIs [s]
			ontime6	960.55026870966	Sum of GTIs [s]
			ontime7	960.55024886131	Sum of GTIs [s]
			l1events	24567	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3647	3912	4469	4455	4539	3545
rejected events	3272	3454	4056	3931	4223	2414
rejected %	89%	88%	90%	88%	93%	68%

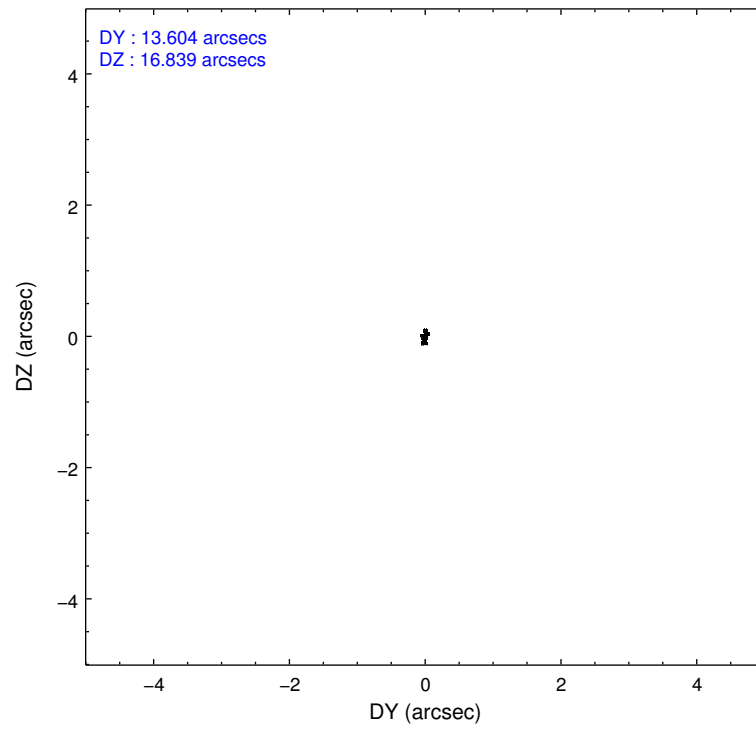
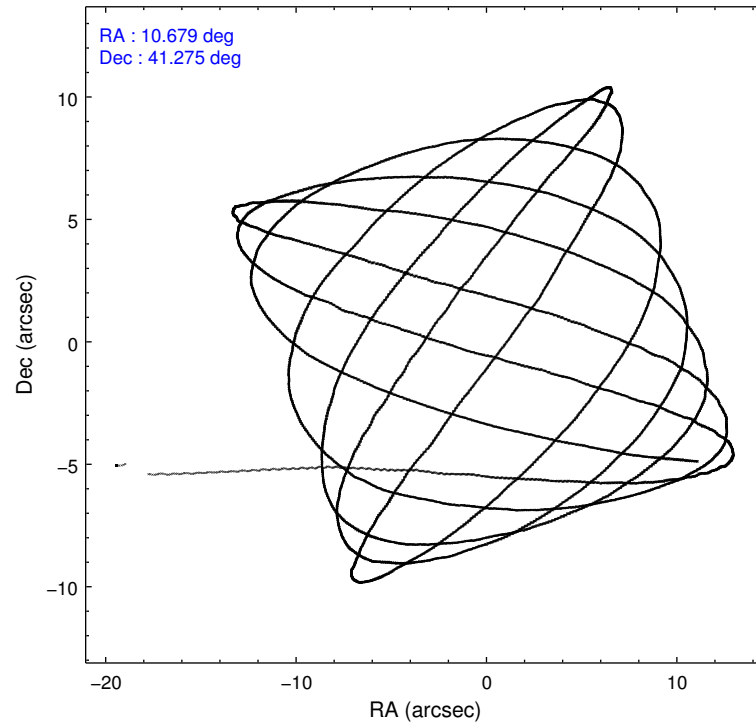
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	136	183	164	250	70	98
	3%	4%	3%	5%	1%	2%
grade 1 events	0	0	0	7	2	4
	0%	0%	0%	0%	0%	0%
grade 2 events	82	83	94	87	95	250
	2%	2%	2%	1%	2%	7%
grade 3 events	46	58	55	56	44	114
	1%	1%	1%	1%	0%	3%
grade 4 events	47	60	39	51	36	111
	1%	1%	0%	1%	0%	3%
grade 5 events	130	142	125	148	143	324
	3%	3%	2%	3%	3%	9%
grade 6 events	65	79	65	82	72	568
	1%	2%	1%	1%	1%	16%
grade 7 events	3141	3307	3927	3774	4077	2076
	86%	84%	87%	84%	89%	58%

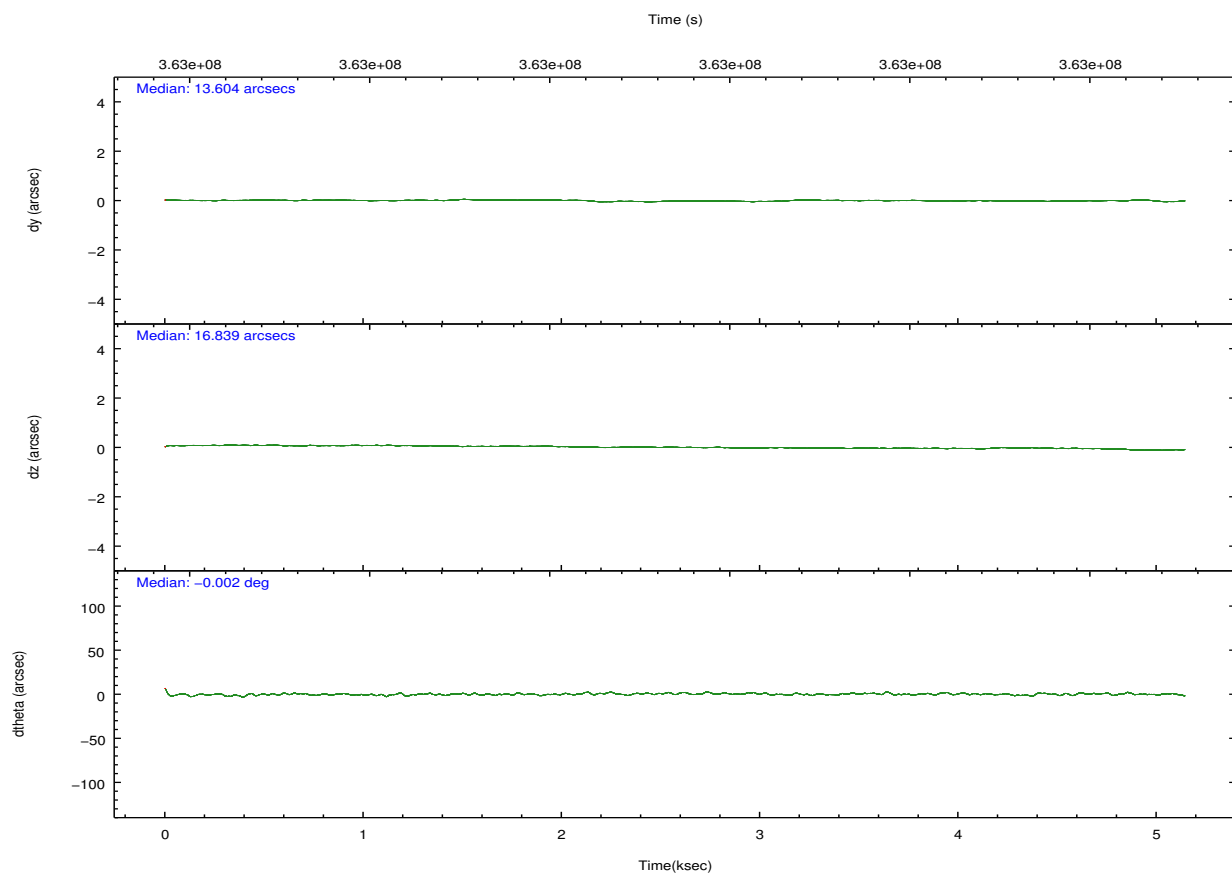
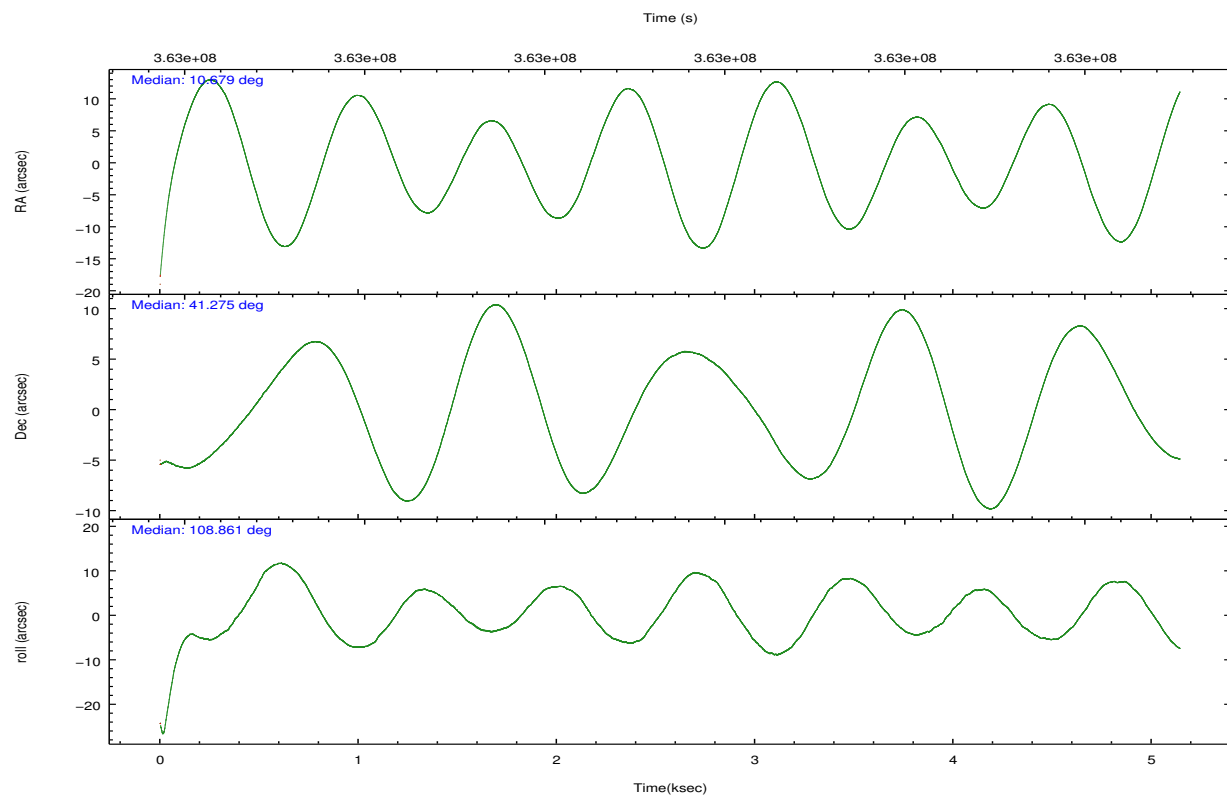


## 2.2 Compared Parameters

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	10.706297	10.67864853531216	CCD I2 on	Y	Y
[deg] Pointing Dec	41.257491	41.27545703081529	CCD I3 on	Y	Y
[deg] Pointing Roll	108.635958	108.8627824085764	CCD S0 on	N	N
[s] Window start time (MET)	362620866.184000	362620866.184000	CCD S1 on	N	N
[s] Window stop time (MET)	363225606.184000	363225606.184000	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)	362997266.184000	362996196.9978	On-chip summing requested	N	N
Observation start date	2009-07-03T08:33:20	2009-07-03T08:16:36	Subarray requested	NONE	NONE
[s] Observation end time (MET)	363002266.184000	363002900.49813	Alternating exposures requested	Y	Y
Observation end date	2009-07-03T09:56:40	2009-07-03T10:08:20	[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



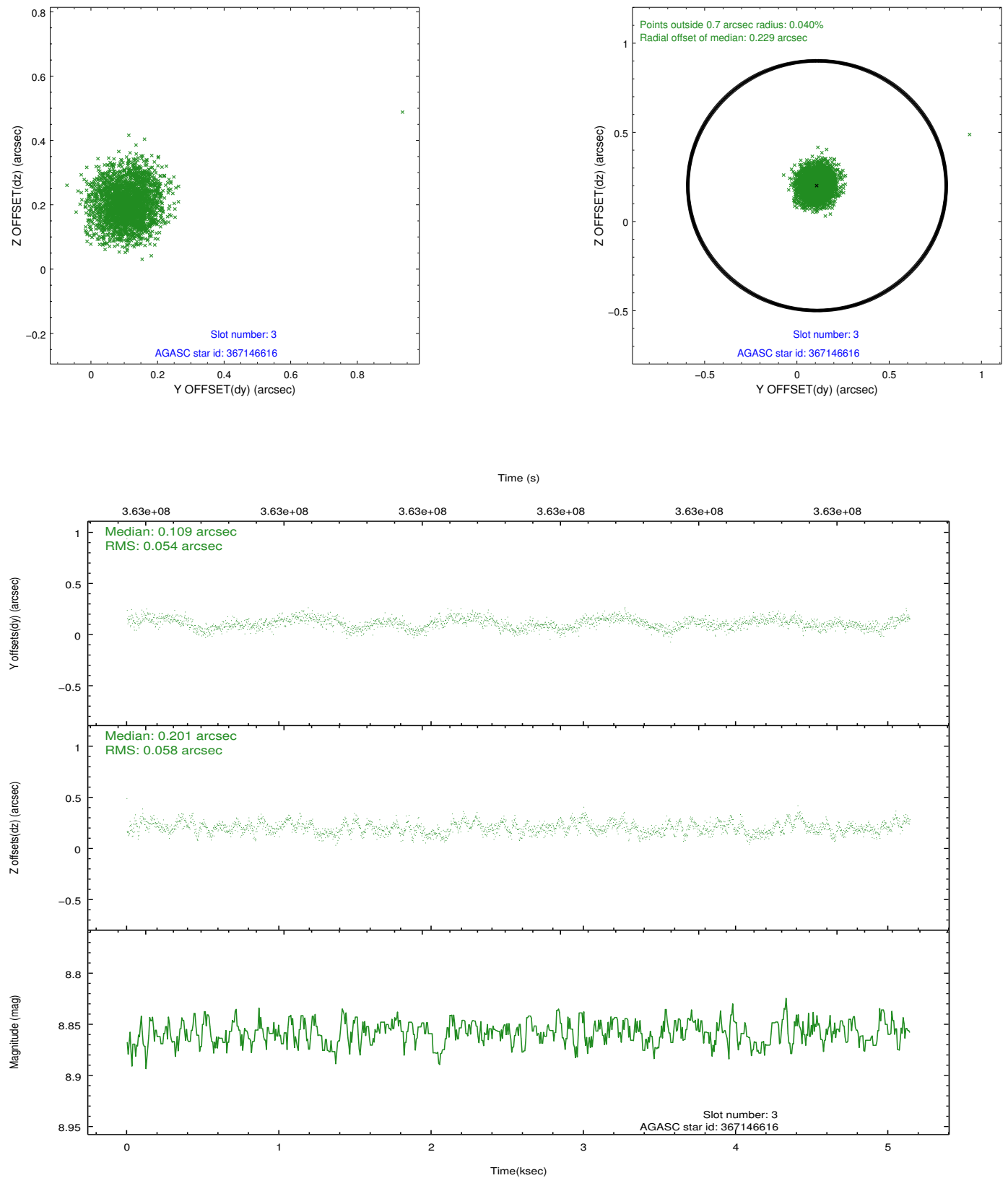


### Slot Statistics

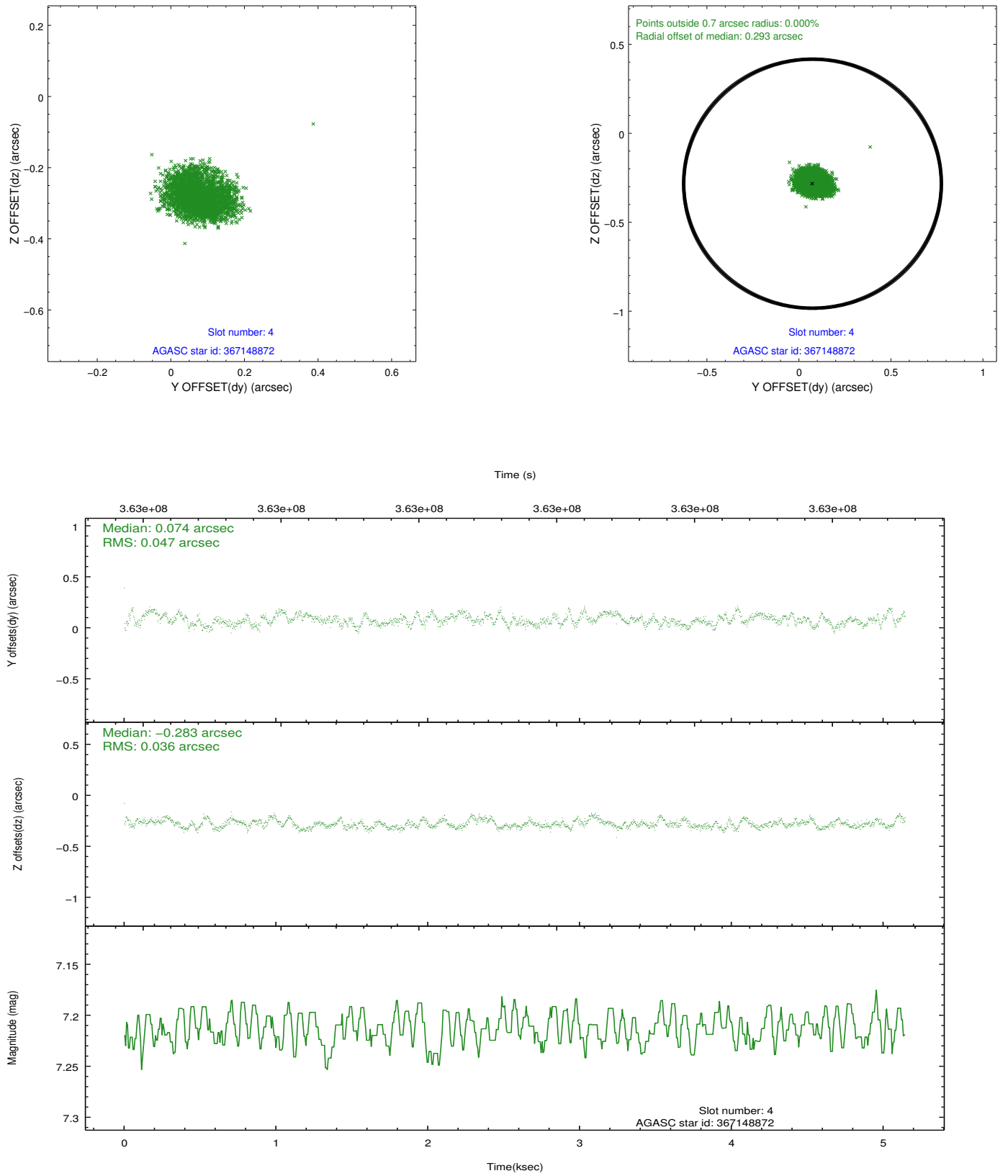
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	1255	-0.044	-0.037	0.009	0.013	0.000000	0.000000	925.85	-840.53
1	FID	ACIS-I-2	6.94	1255	-0.164	-0.048	0.007	0.011	0.000000	0.000000	-767.71	-847.57
2	FID	ACIS-I-4	6.92	1255	0.109	0.152	0.006	0.011	0.000000	0.000000	2145.36	1058.86
3	GUIDE	367146616	8.86	2508	0.109	0.201	0.086	0.132	11.418645	41.190163	-838.22	-1753.37
4	GUIDE	367148872	7.21	2510	0.074	-0.283	0.065	0.100	10.505940	40.688258	-1766.78	1172.35
5	GUIDE	367663272	9.27	2508	-0.061	-0.051	0.119	0.196	10.656279	41.699429	1550.18	-379.55
6	GUIDE	367674552	8.84	2506	-0.128	0.037	0.075	0.120	11.016238	41.570845	804.49	-1151.97
7	GUIDE	367138920	7.73	2509	0.015	0.097	0.053	0.087	11.513485	40.808909	-2223.37	-1572.29

## 2.4 Star Slots

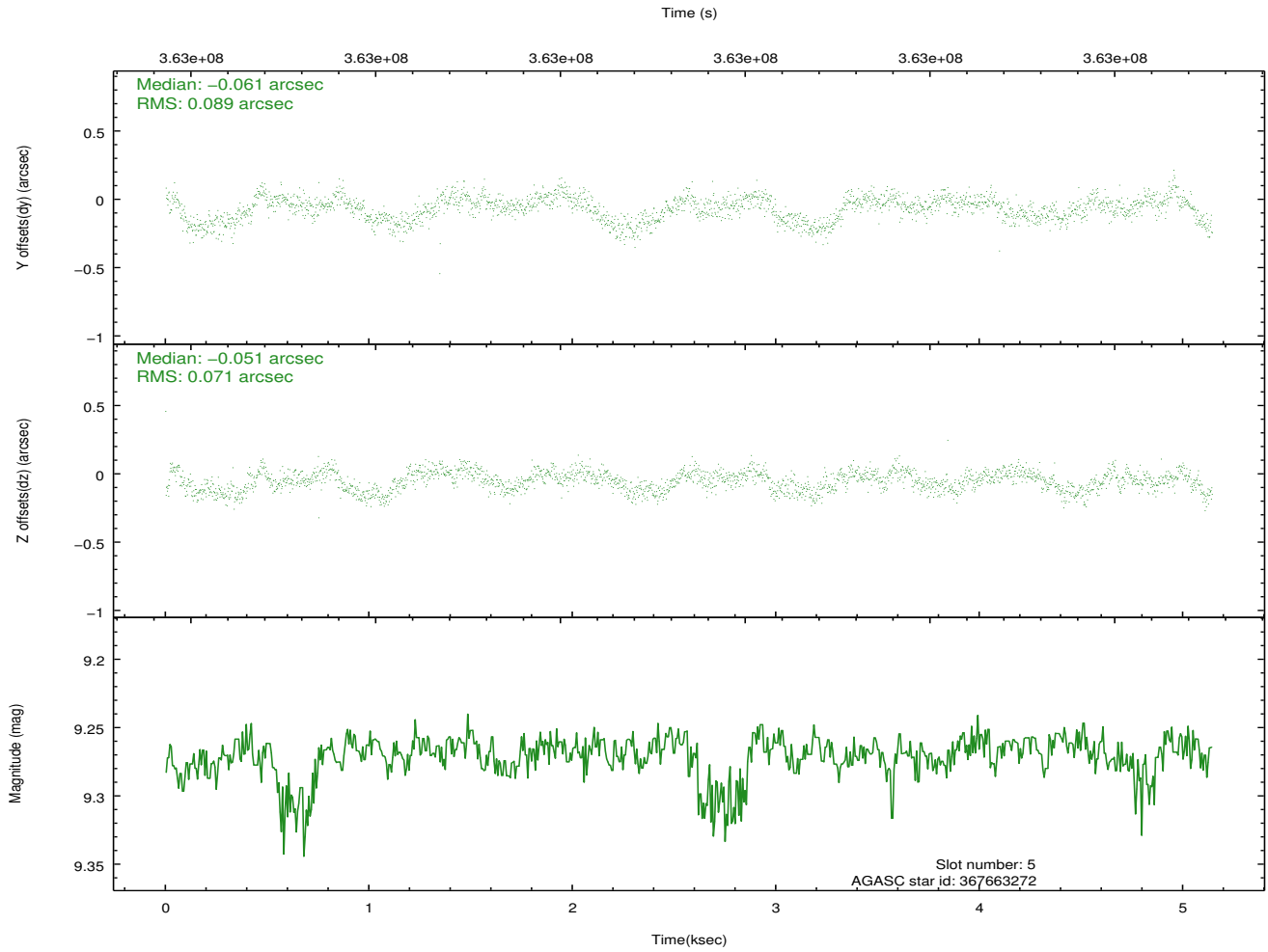
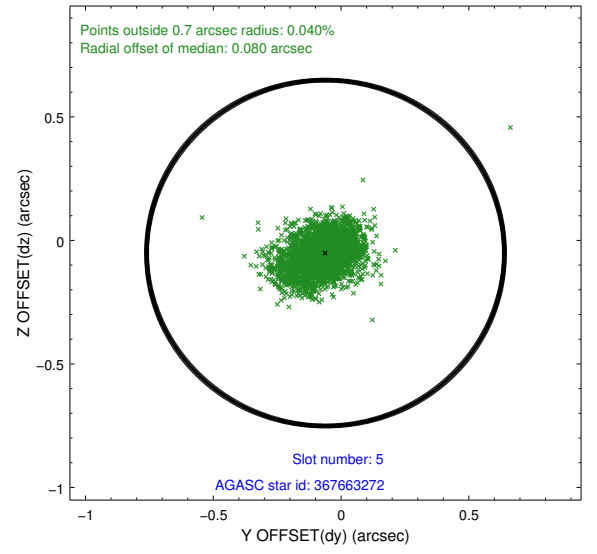
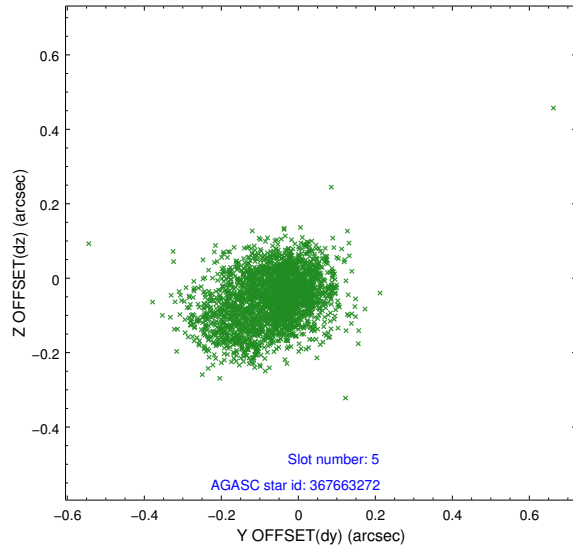
### 2.4.1 Slot 3



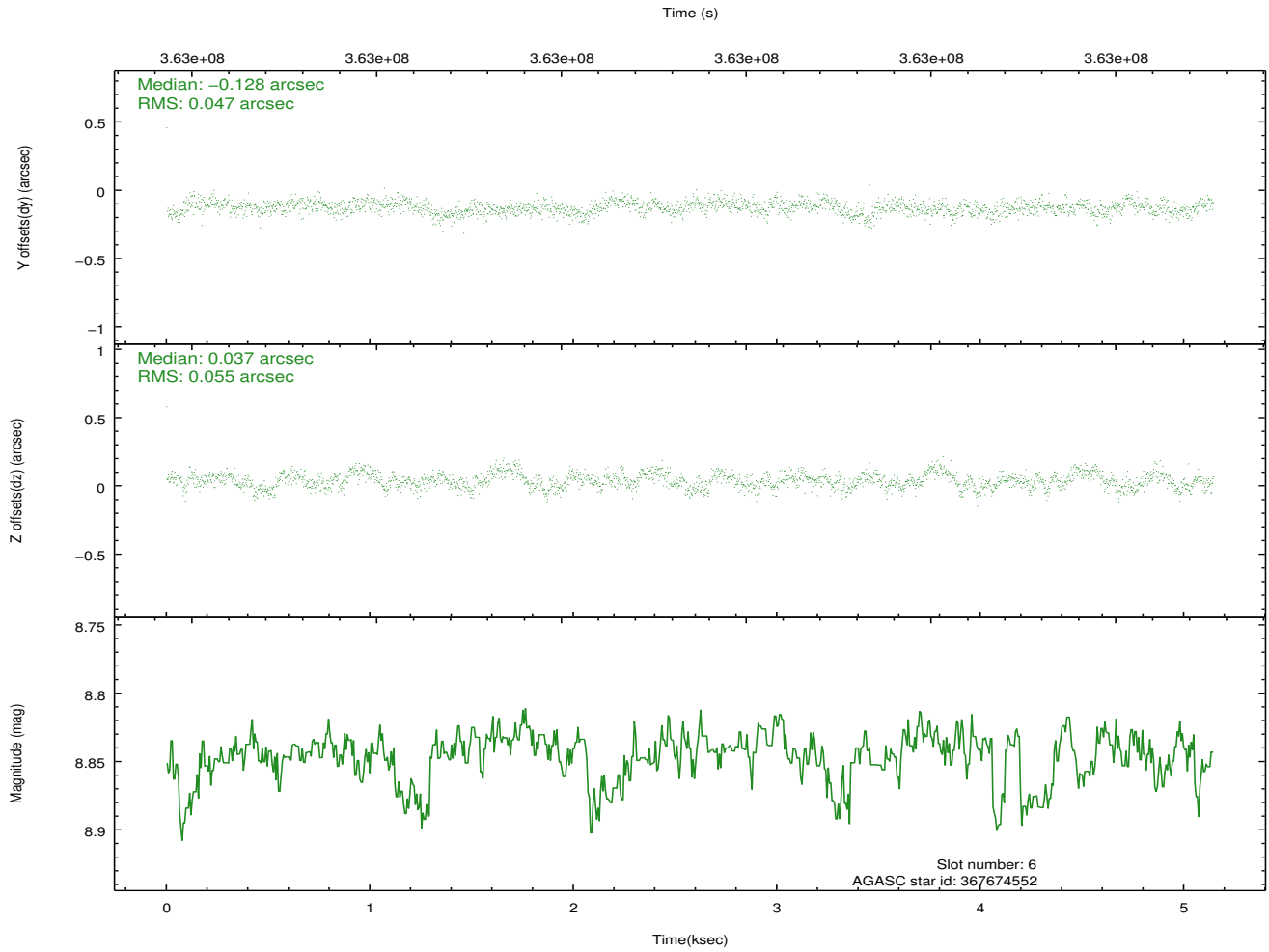
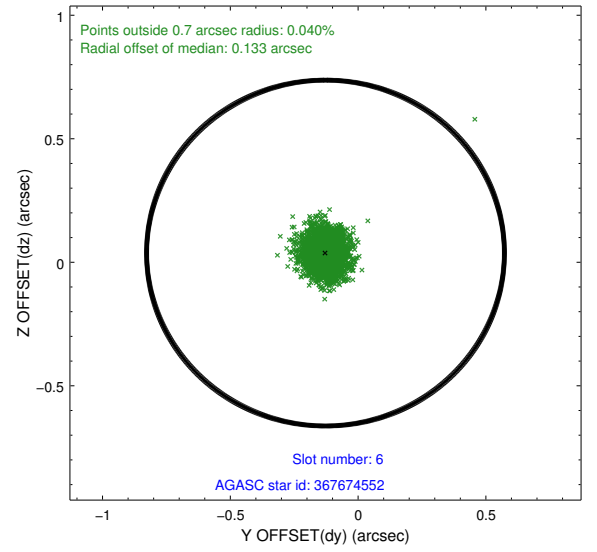
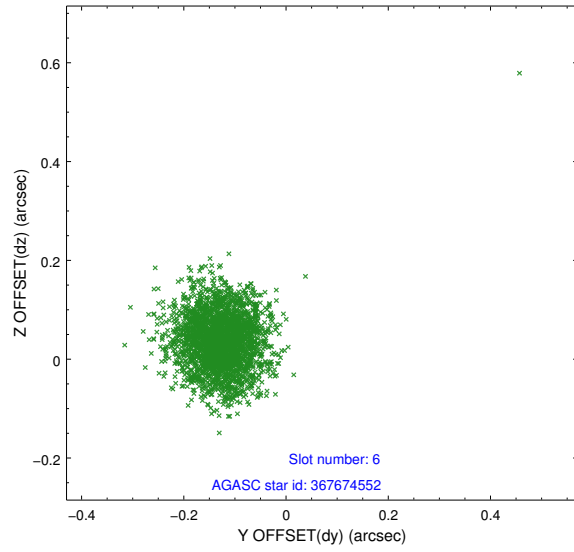
## 2.4.2 Slot 4



### 2.4.3 Slot 5

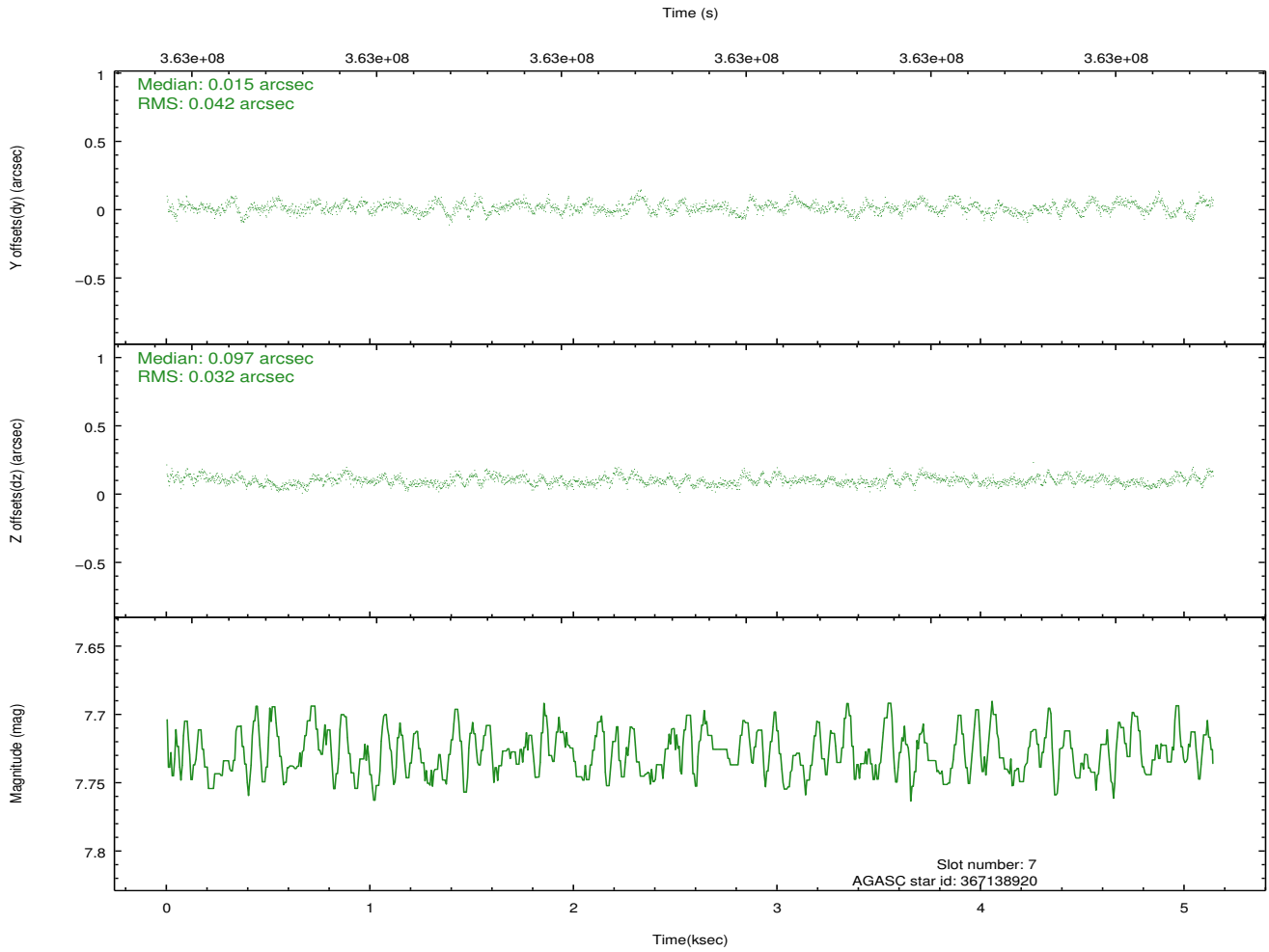
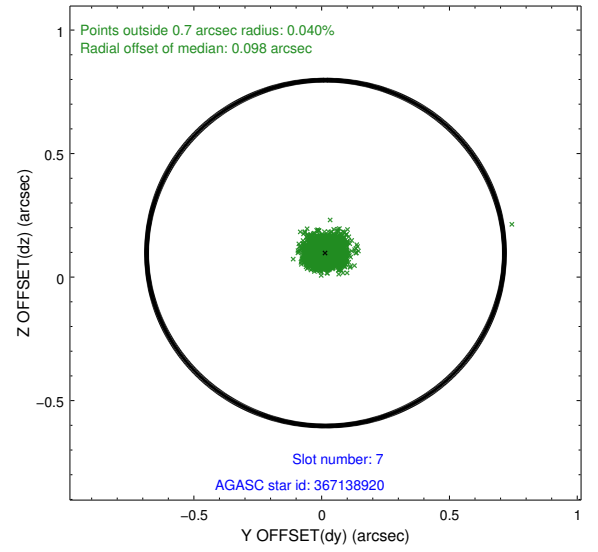
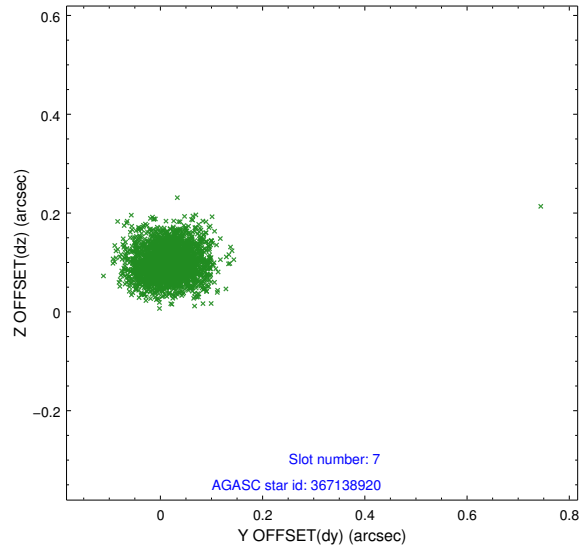


## 2.4.4 Slot 6



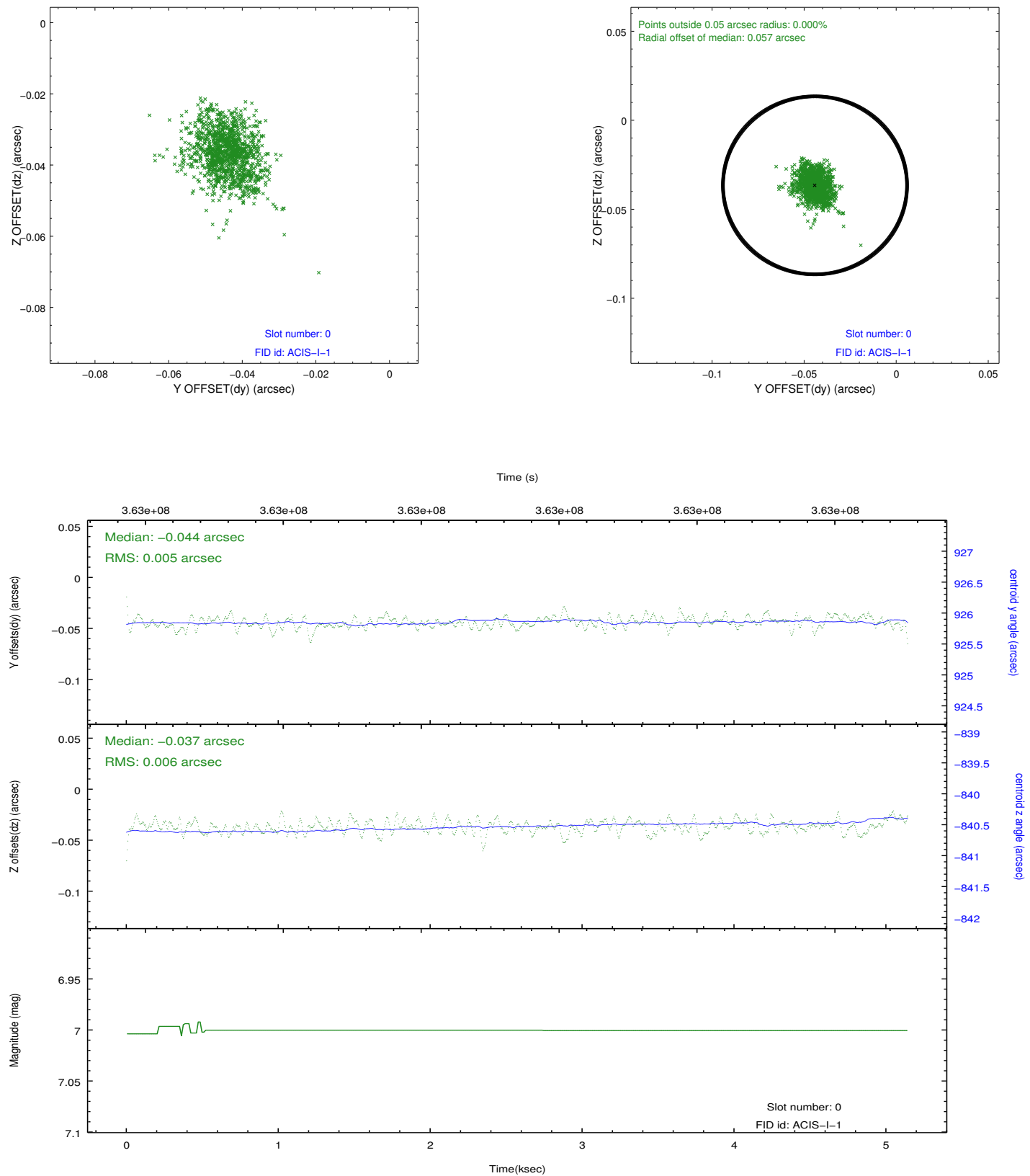


## 2.4.5 Slot 7

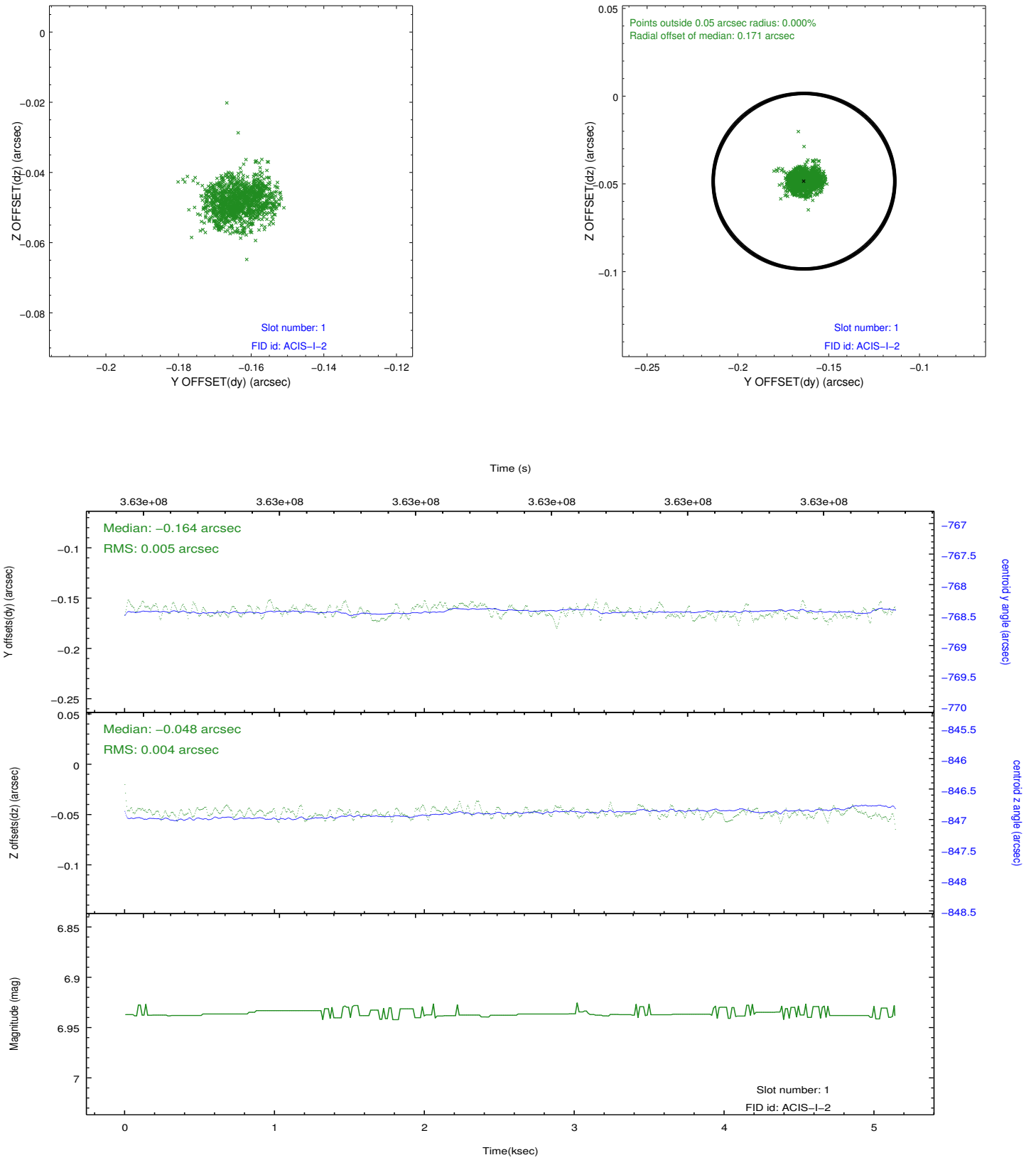


## 2.5 FID Slots

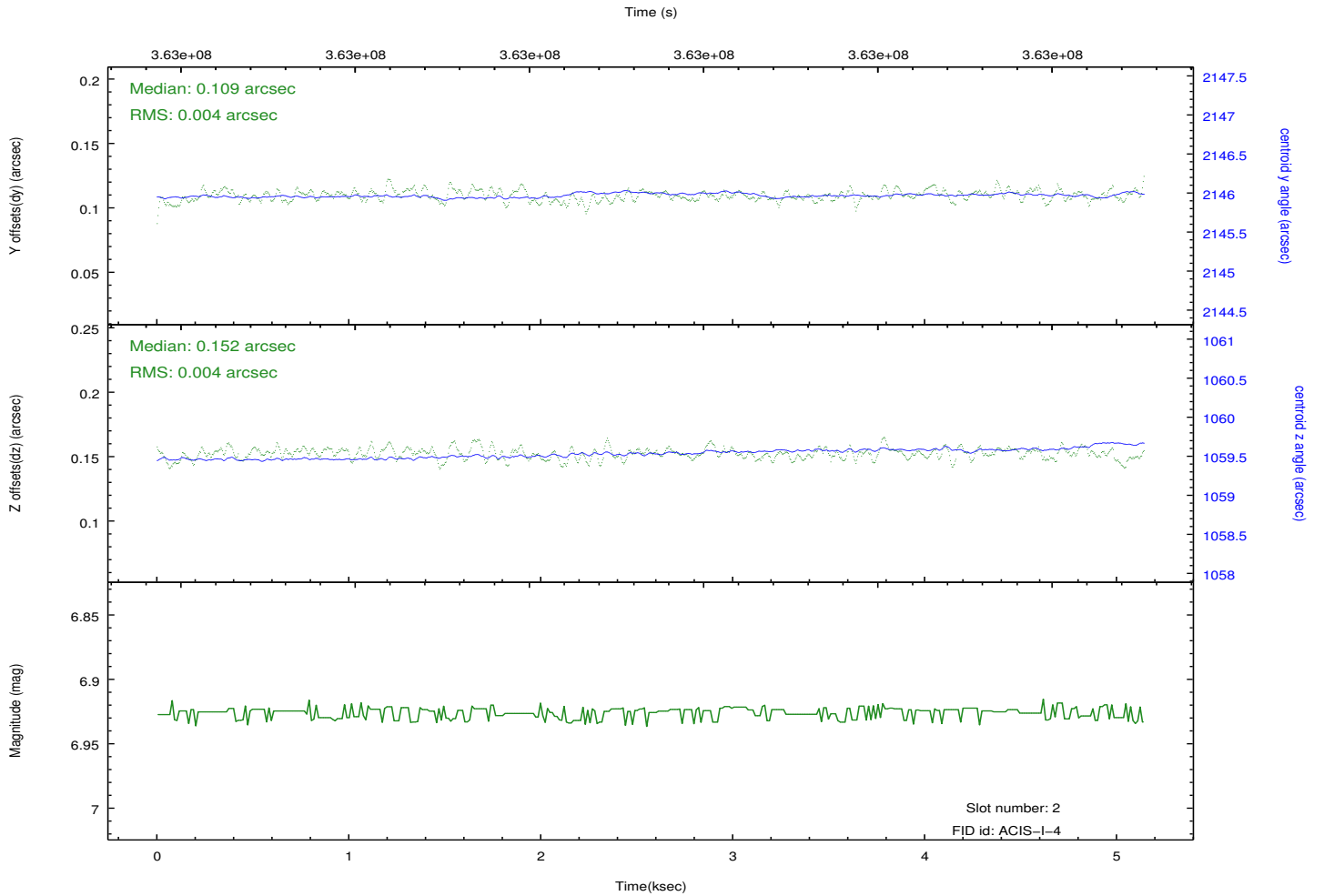
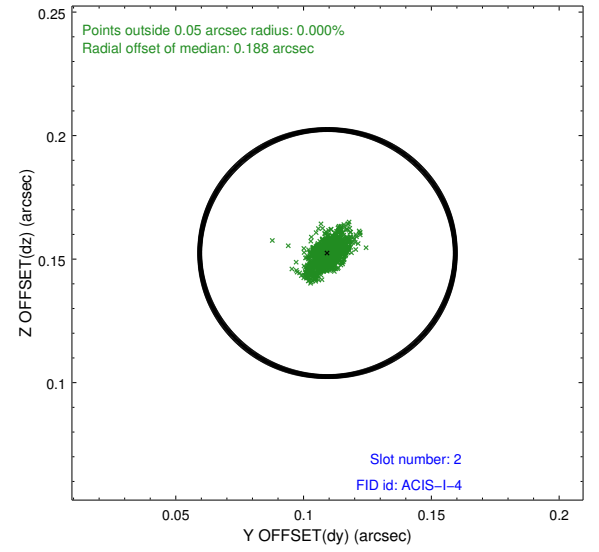
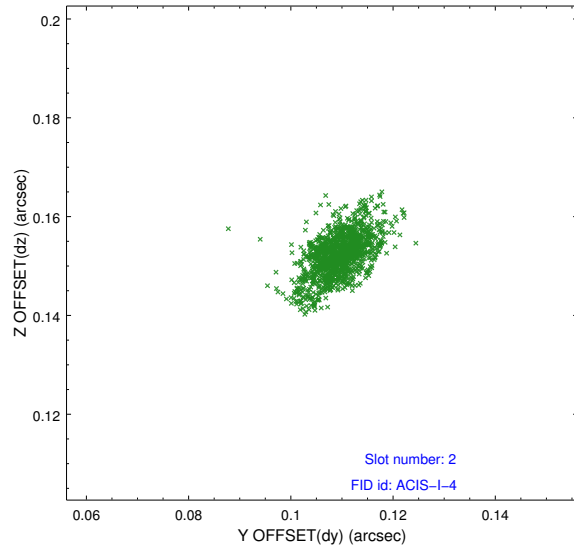
### 2.5.1 Slot 0



## 2.5.2 Slot 1



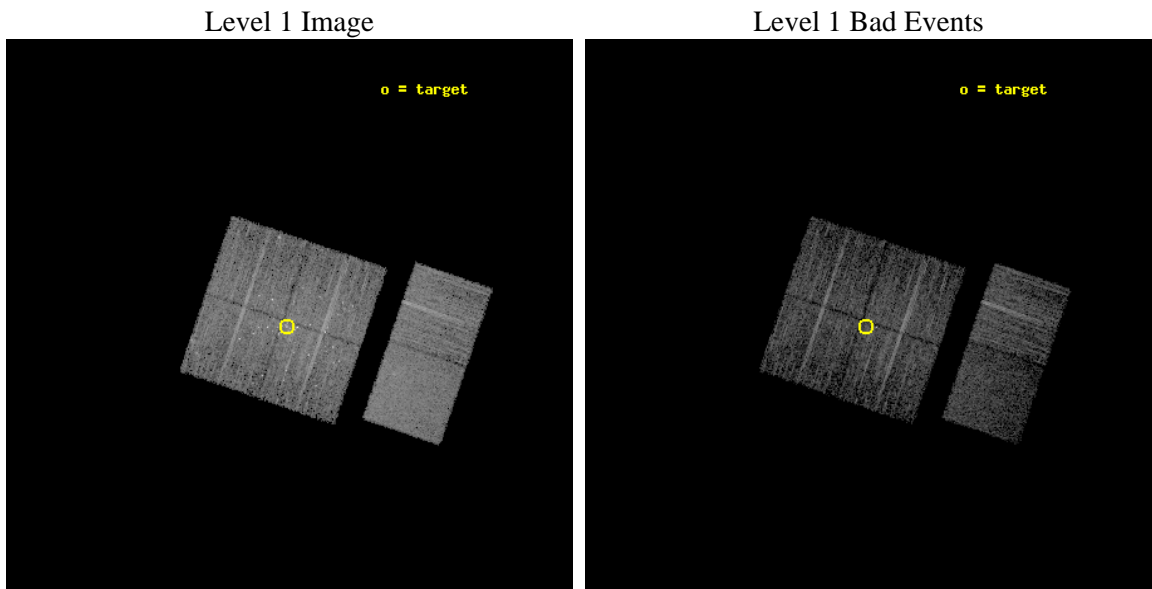
### 2.5.3 Slot 2



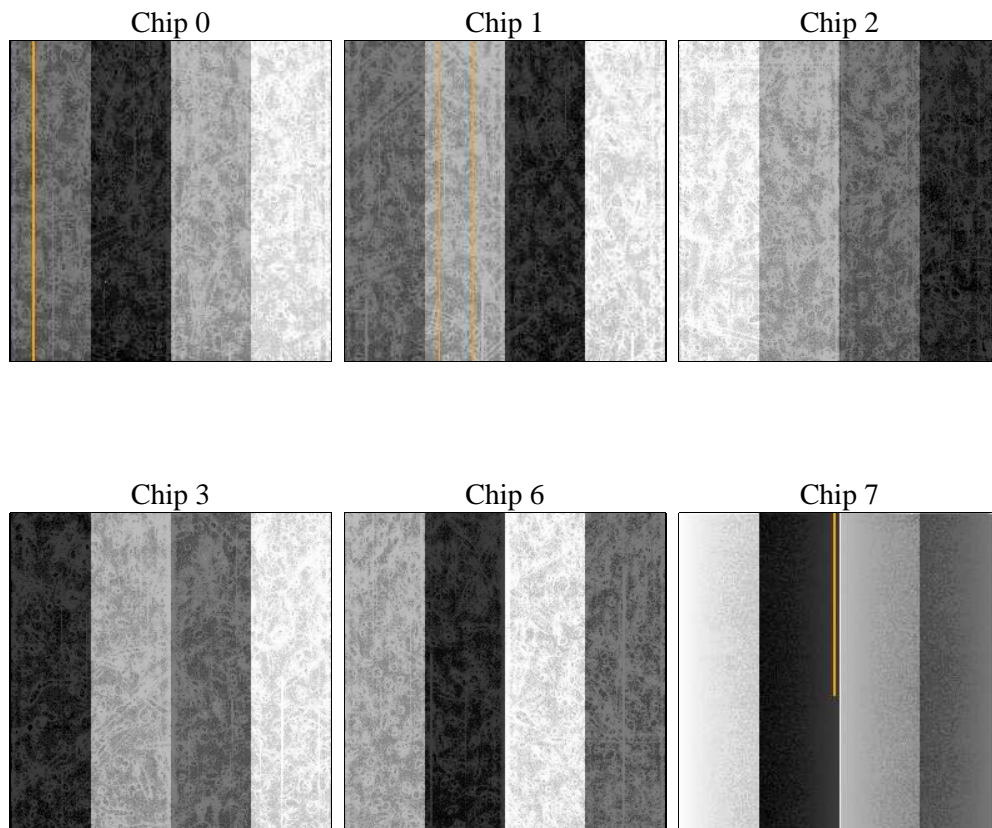
## 3 OBI Secondary

### 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	8.4.5	Processing system revision	ontime	4112.7362790108	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	4112.7367376685	Sum of GTIs [s]
date	2012-06-09T21:47:09	Date and time of file creation	ontime1	4112.7363594174	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4112.7362800241	Sum of GTIs [s]
			ontime3	4112.7362790108	Sum of GTIs [s]
			ontime6	4112.7364791632	Sum of GTIs [s]
			ontime7	4112.7362505198	Sum of GTIs [s]
			l1events	228823	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	34578	36119	39343	39010	38232	41541	grade 0 events	2383	3651	3109	4776	1364	1757
rejected events	29626	29401	33466	31058	34327	22487		6%	10%	7%	12%	3%	4%
rejected %	85%	81%	85%	79%	89%	54%	grade 1 events	36	47	60	173	39	69
								0%	0%	0%	0%	0%	0%
							grade 2 events	1018	1180	1094	1241	965	4042
								2%	3%	2%	3%	2%	9%
							grade 3 events	433	513	464	554	396	1760
								1%	1%	1%	1%	1%	4%
							grade 4 events	402	500	469	527	422	1728
								1%	1%	1%	1%	1%	4%
							grade 5 events	1282	1398	1219	1566	1441	4404
								3%	3%	3%	4%	3%	10%
							grade 6 events	722	895	751	865	768	9797
								2%	2%	1%	2%	2%	23%
							grade 7 events	28302	27935	32177	29308	32837	17984
								81%	77%	81%	75%	85%	43%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.07328652

### A.2 Comments

Joint Proposal: HST. Window constraint met.