

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8187 - L2 Version 2  
Chandra X-Ray Center

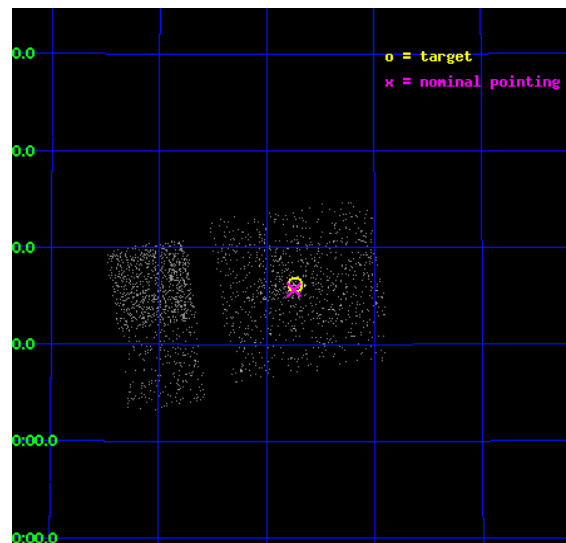
L2 Processing Date : May 5 2012

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# 1 Front

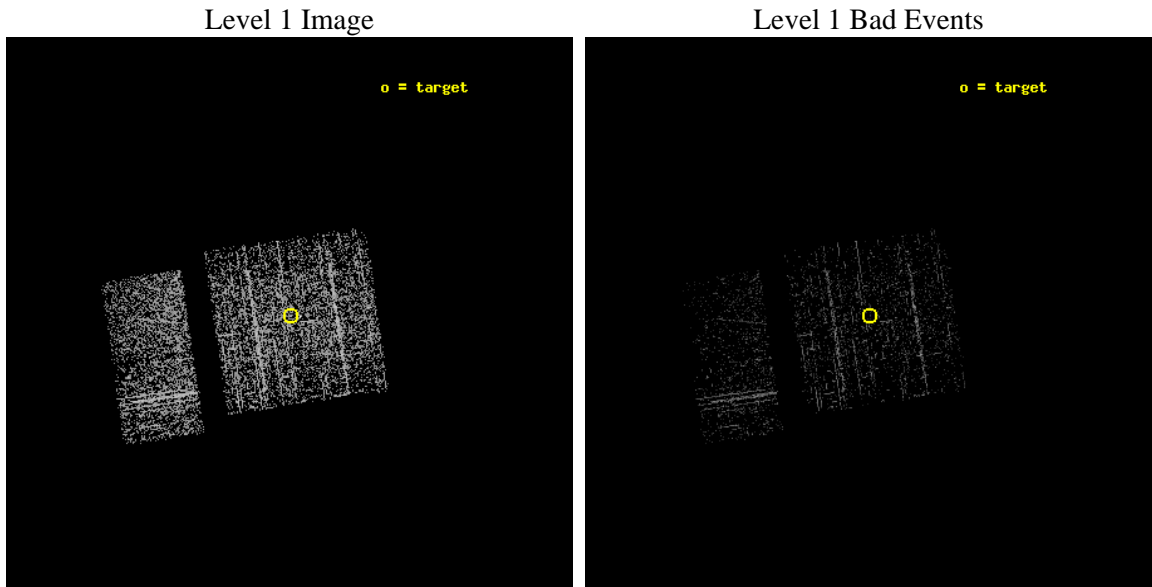
seq_num	600624	Sequence number
obs_id	8187	Observation id
title	Continued M31 Monitoring for Black Hole X-ray Nova	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.686737630126	Nominal RA [deg]
dec_nom	41.260973347719	Nominal Dec [deg]
roll_nom	261.5452927636	Nominal Roll [deg]
revision	2	Processing version of data
ontime	906.61411941051	Sum of GTIs [s]
livetime	142.72293135424	Livetime [s]
ontime0	906.61409956217	Sum of GTIs [s]
ontime1	906.61411941051	Sum of GTIs [s]
ontime2	906.61407965422	Sum of GTIs [s]
ontime3	906.61411941051	Sum of GTIs [s]
ontime6	906.66436636448	Sum of GTIs [s]
ontime7	906.62332636118	Sum of GTIs [s]
l2events	2409	Number of level 2 events



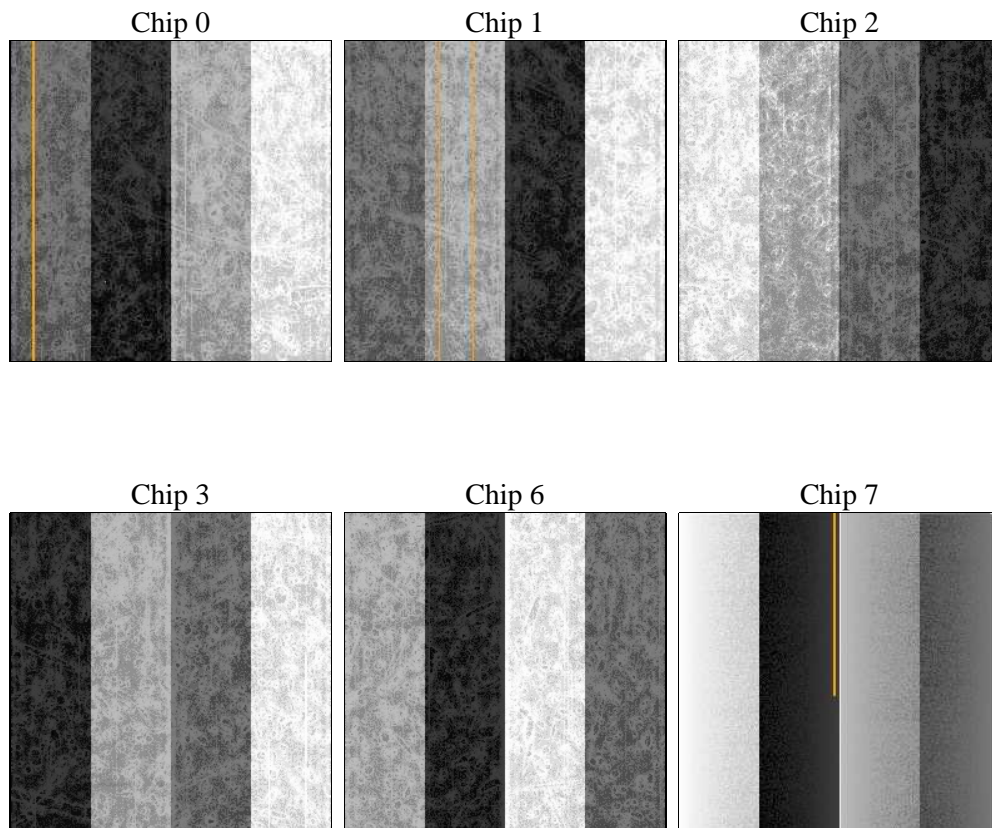
## 2 OBI Primary

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4994.156000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	906.61411941051	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	906.61409956217	Sum of GTIs [s]
date	2012-05-05T05:15:14	Date and time of file creation	ontime1	906.61411941051	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	906.61407965422	Sum of GTIs [s]
			ontime3	906.61411941051	Sum of GTIs [s]
			ontime6	906.66436636448	Sum of GTIs [s]
			ontime7	906.62332636118	Sum of GTIs [s]
			l1events	21949	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3592	3347	4243	3559	4005	3203
rejected events	3267	2888	3918	3145	3732	2233
rejected %	90%	86%	92%	88%	93%	69%

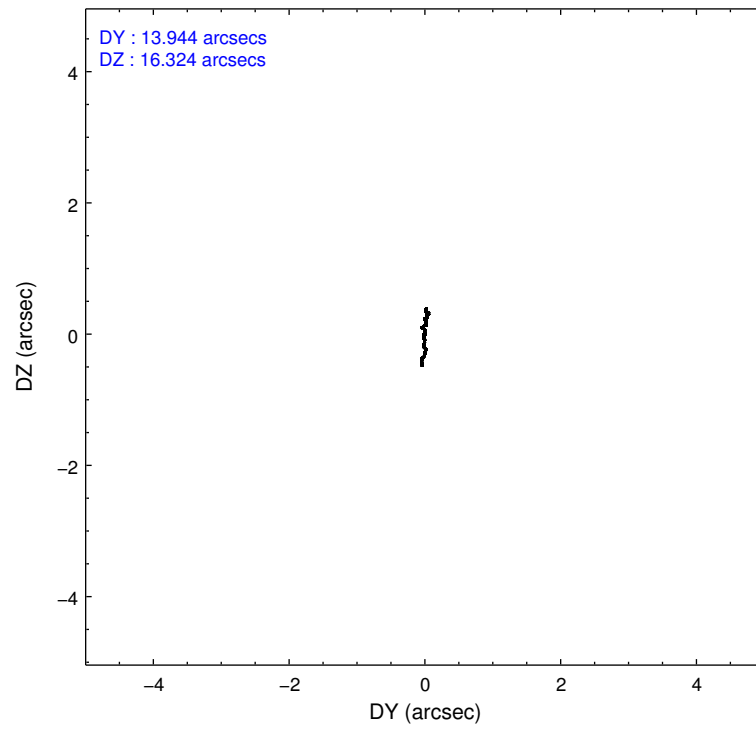
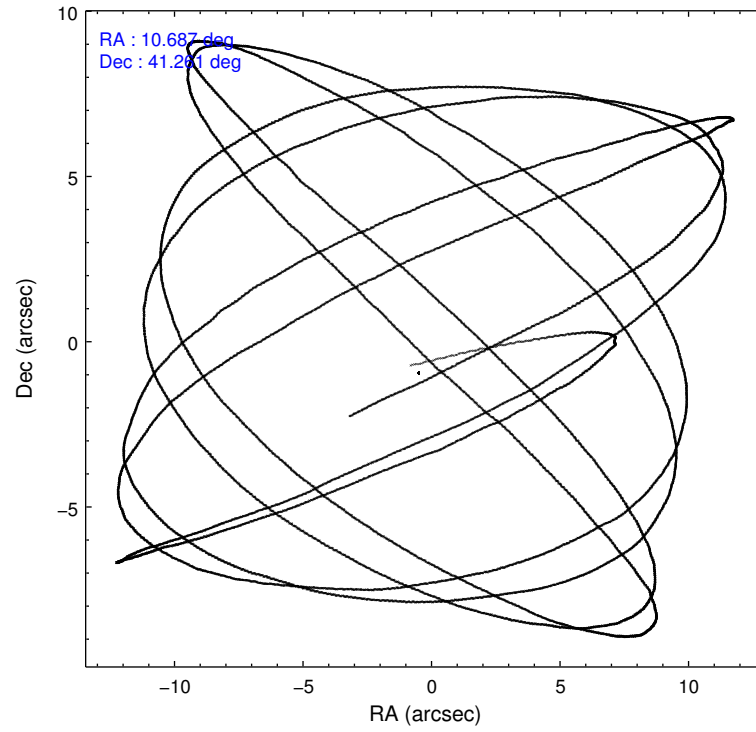
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	127	177	122	199	58	87
	3%	5%	2%	5%	1%	2%
grade 1 events	2	4	2	1	0	4
	0%	0%	0%	0%	0%	0%
grade 2 events	83	101	91	88	83	222
	2%	3%	2%	2%	2%	6%
grade 3 events	43	56	30	45	34	90
	1%	1%	0%	1%	0%	2%
grade 4 events	29	44	38	43	37	118
	0%	1%	0%	1%	0%	3%
grade 5 events	106	124	108	112	135	270
	2%	3%	2%	3%	3%	8%
grade 6 events	57	87	48	48	65	468
	1%	2%	1%	1%	1%	14%
grade 7 events	3145	2754	3804	3023	3593	1944
	87%	82%	89%	84%	89%	60%

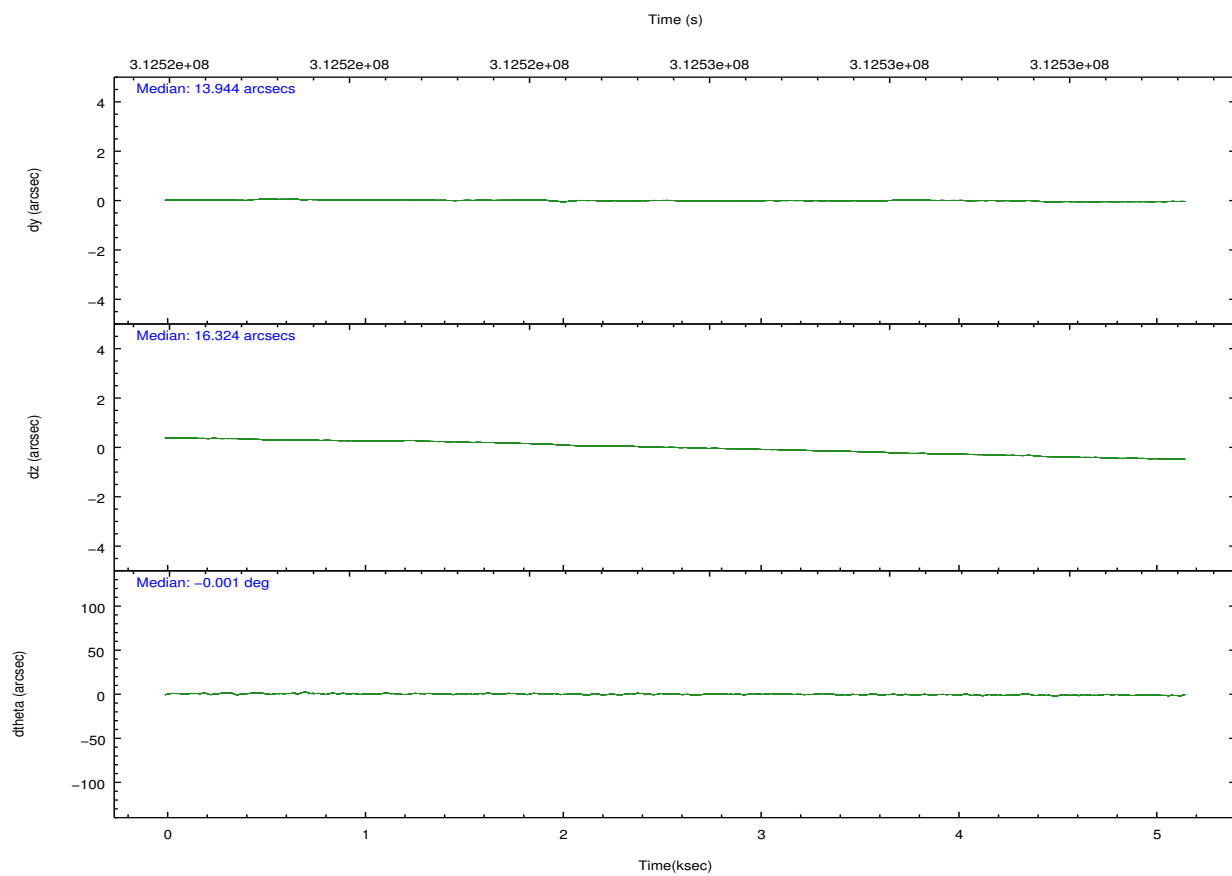
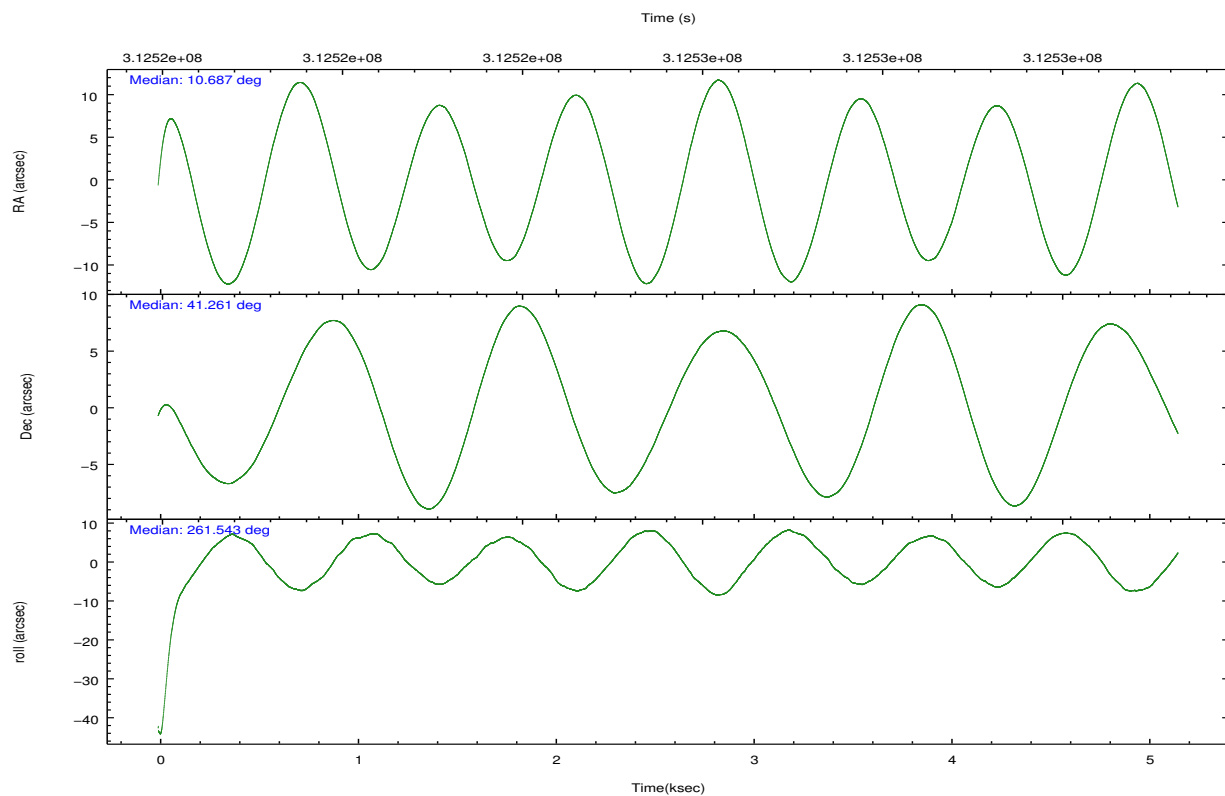


## 2.2 Compared Parameters

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	10.673080	10.686737630126	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.286522	41.26097334771893	Alternating exposures requested	Y	Y
[deg] Pointing Roll	261.345714	261.5452927635987	[s] Primary exposure time	0.600000	0.6
[mm] SIM focus pos	-0.782348	-0.7809083437167272	[s] Secondary exposure time	0.000000	3.2
[mm] SIM defocus	0	0.001439871863259334	Duty cycle	5	5
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	312523381.184000	312522226.8573			
Observation start date	2007-11-27T04:01:56	2007-11-27T03:43:46			
[s] Observation end time (MET)	312528375.184000	312528617.22011			
Observation end date	2007-11-27T05:25:10	2007-11-27T05:30:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect



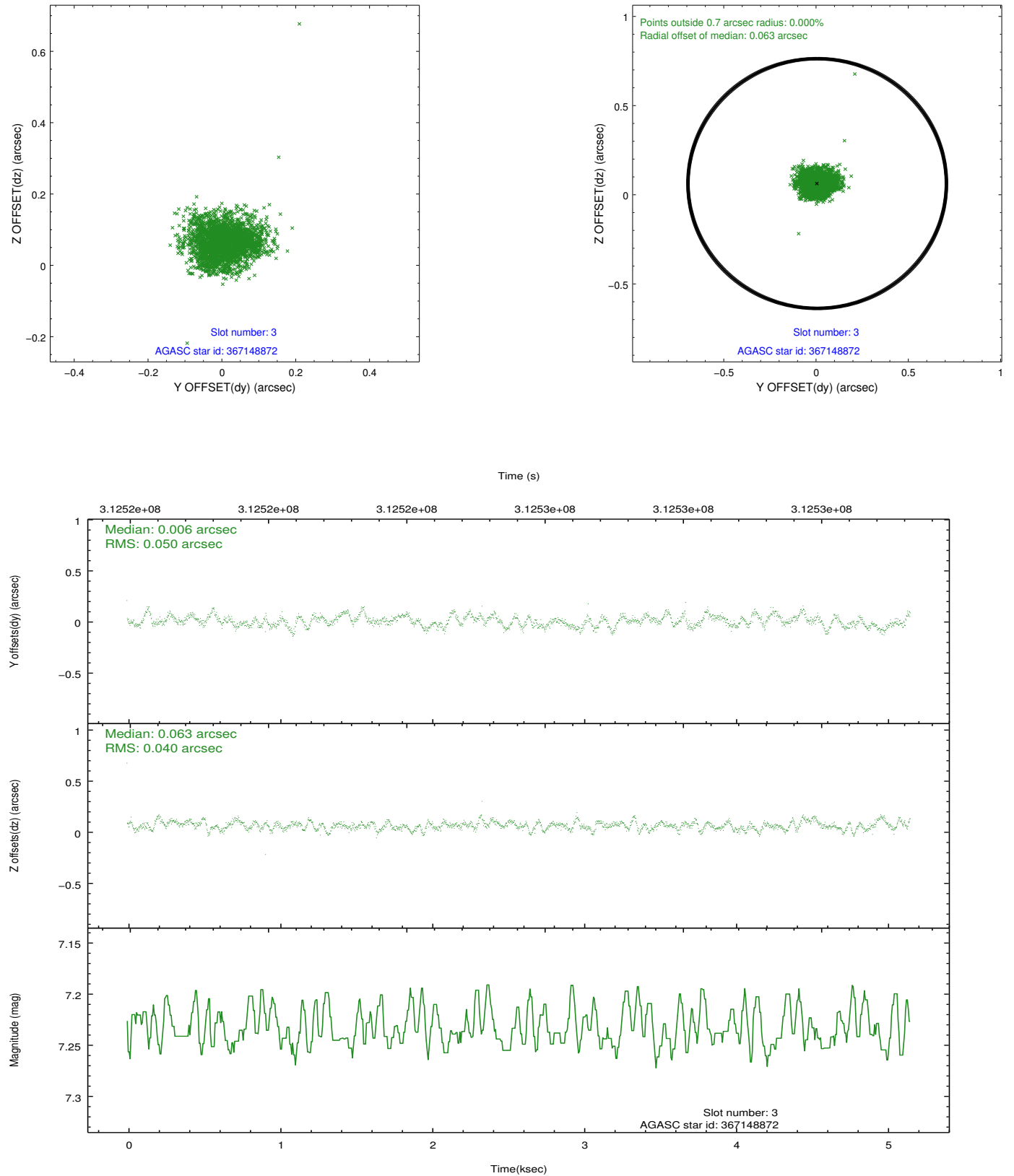


### Slot Statistics

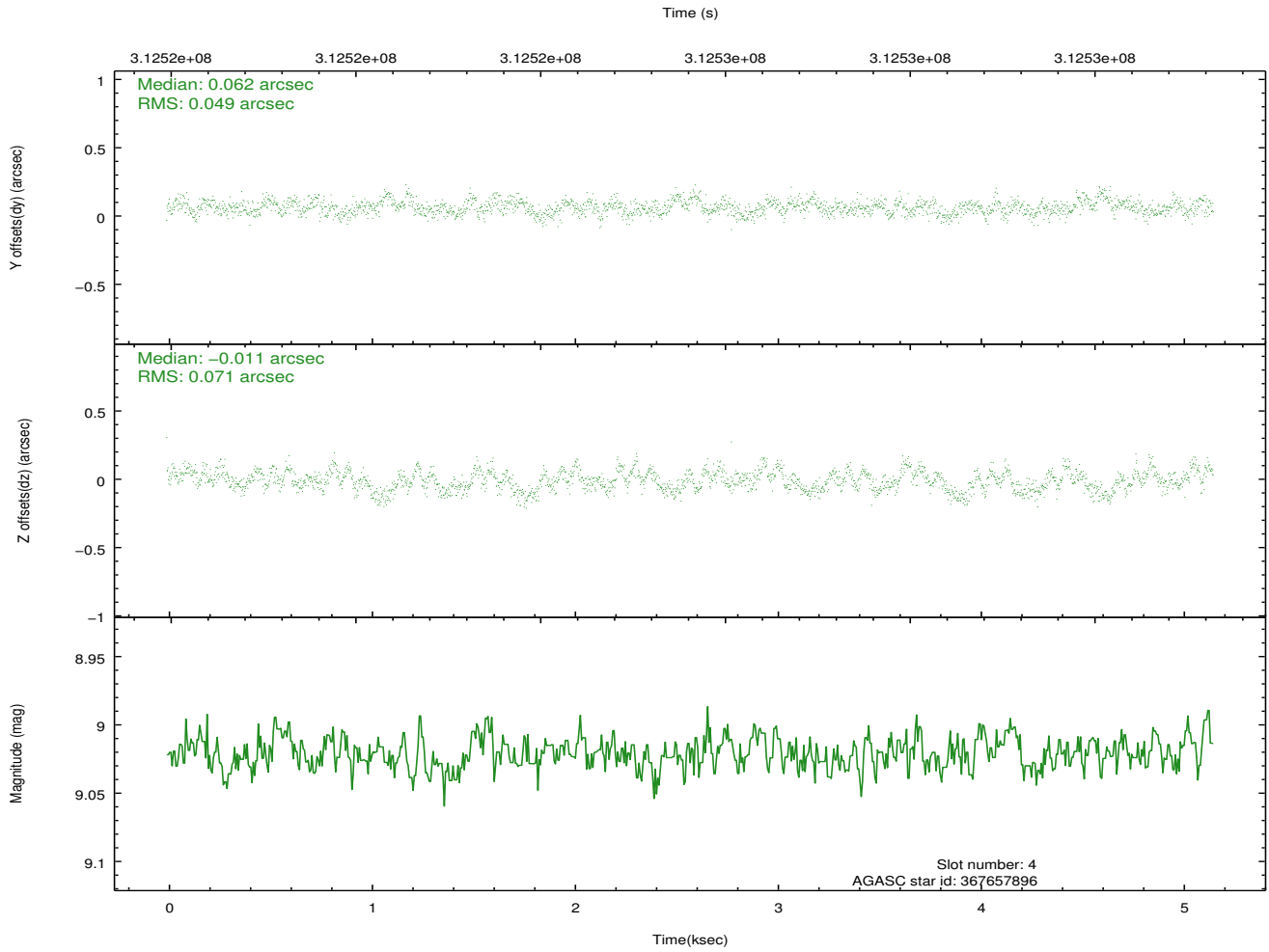
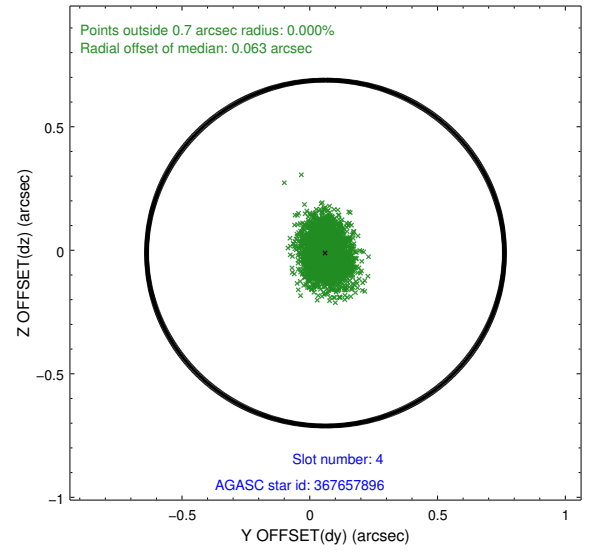
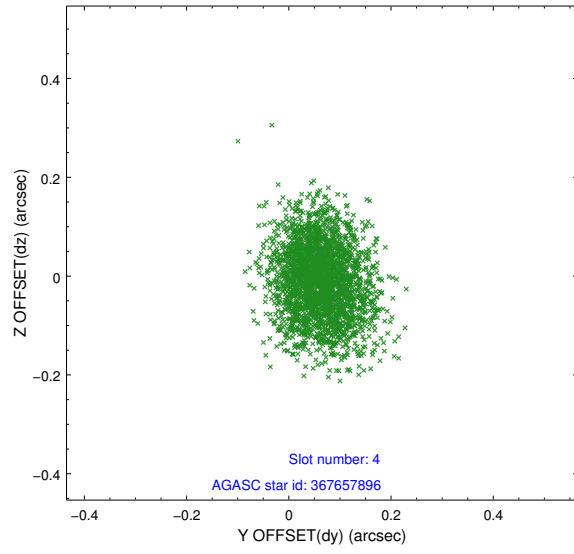
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.22	1258	0.057	-0.038	0.008	0.013	0.000000	0.000000	925.58	-840.00
1	FID	ACIS-I-5	7.22	1258	-0.207	0.059	0.008	0.013	0.000000	0.000000	-1822.10	1057.06
2	FID	ACIS-I-6	7.23	1257	0.059	0.050	0.013	0.019	0.000000	0.000000	389.90	1702.83
3	GUIDE	367148872	7.24	2516	0.006	0.063	0.067	0.109	10.505940	40.688258	2198.27	-126.89
4	GUIDE	367657896	9.02	2511	0.062	-0.011	0.092	0.150	11.197765	41.313576	-312.83	1387.23
5	GUIDE	367663272	9.29	2514	-0.086	0.125	0.101	0.162	10.656279	41.699429	-1462.24	-268.26
6	GUIDE	367665472	9.45	2515	-0.030	-0.087	0.124	0.193	10.241611	41.730843	-1410.04	-1387.37
7	GUIDE	367674552	8.85	2505	0.041	-0.097	0.102	0.167	11.016238	41.570845	-1152.97	758.88

## 2.4 Star Slots

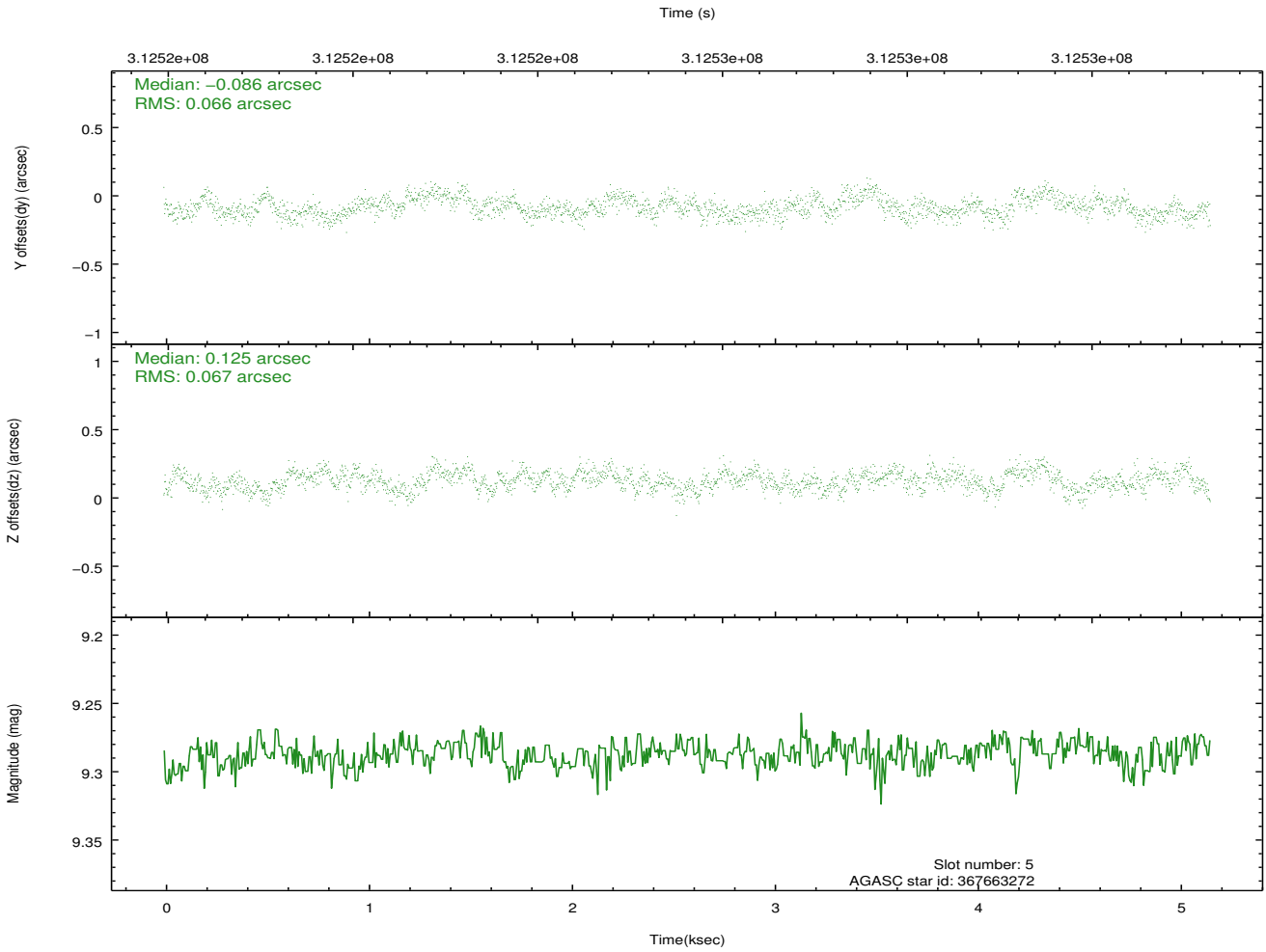
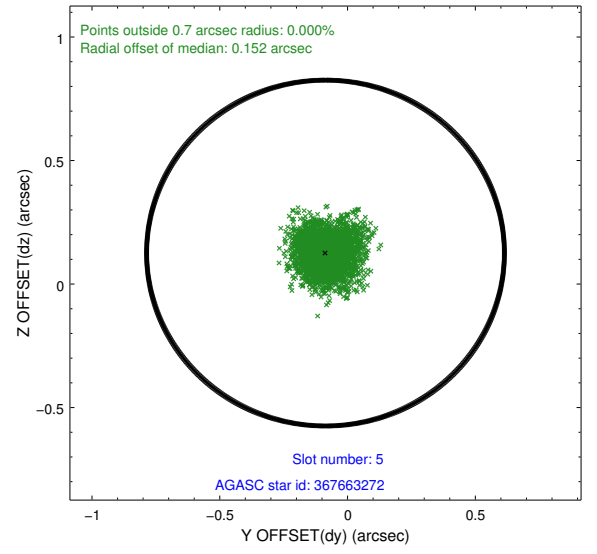
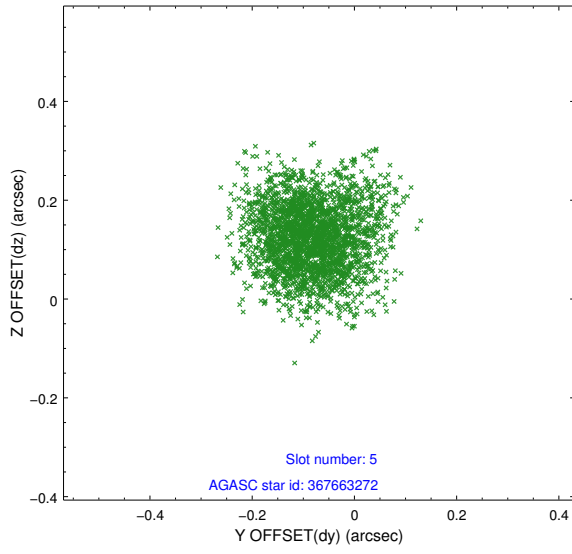
### 2.4.1 Slot 3



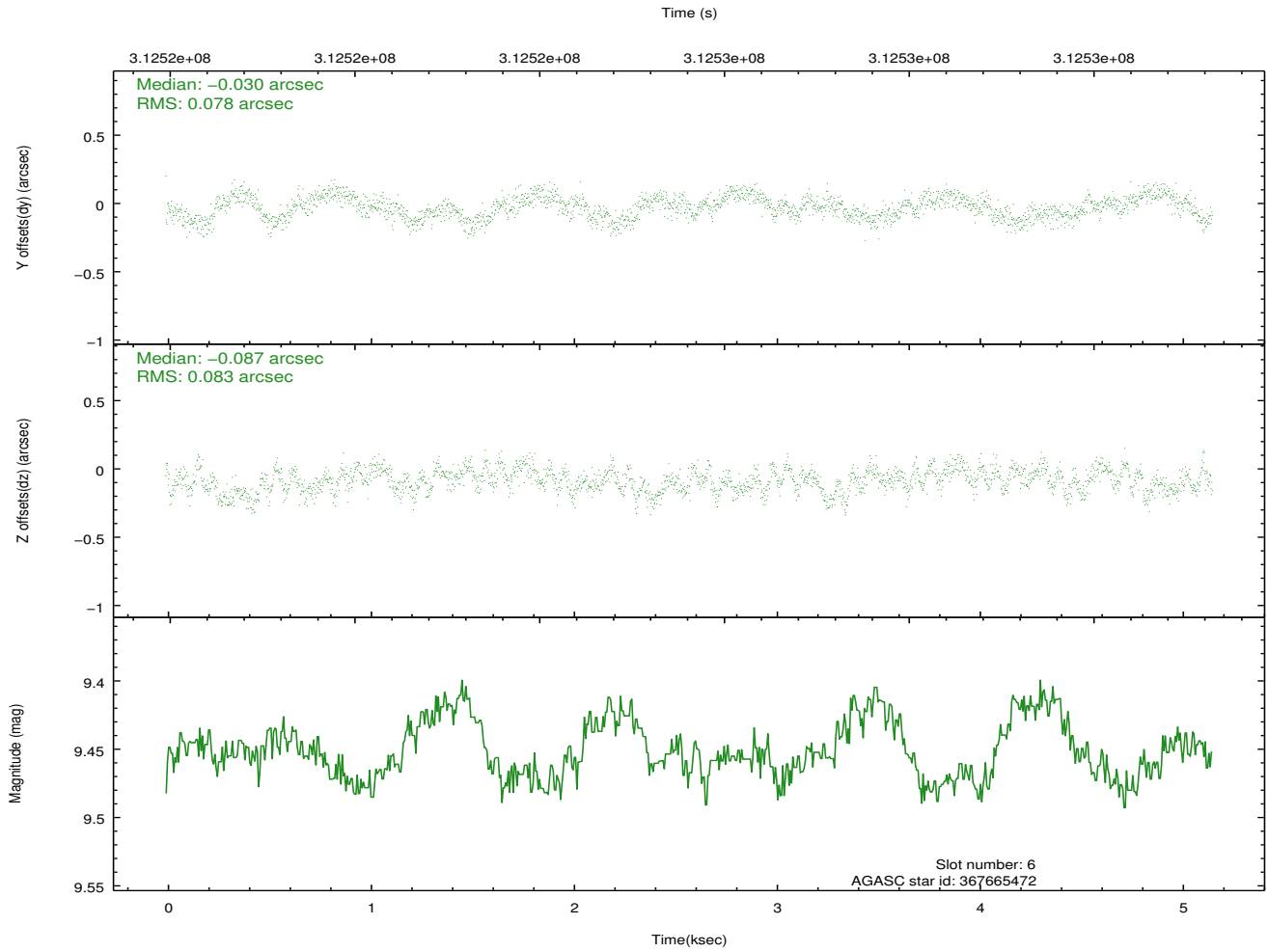
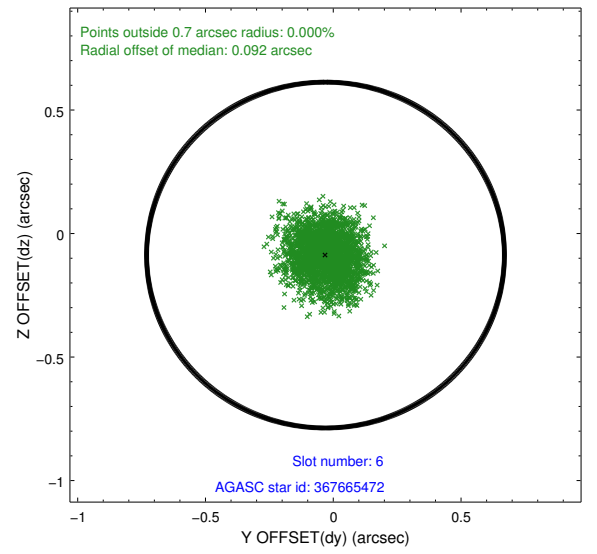
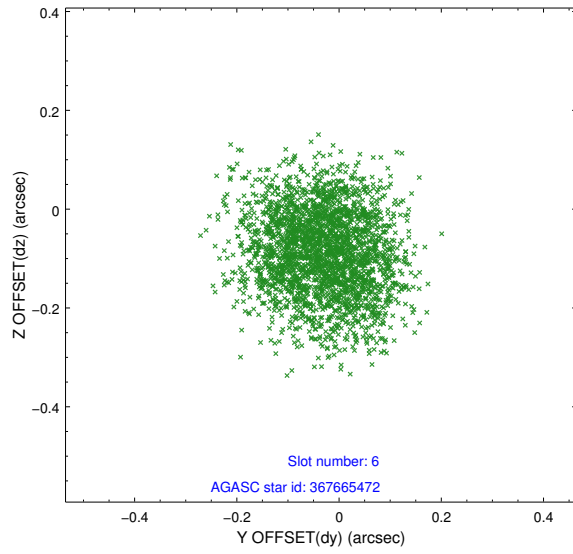
## 2.4.2 Slot 4



### 2.4.3 Slot 5

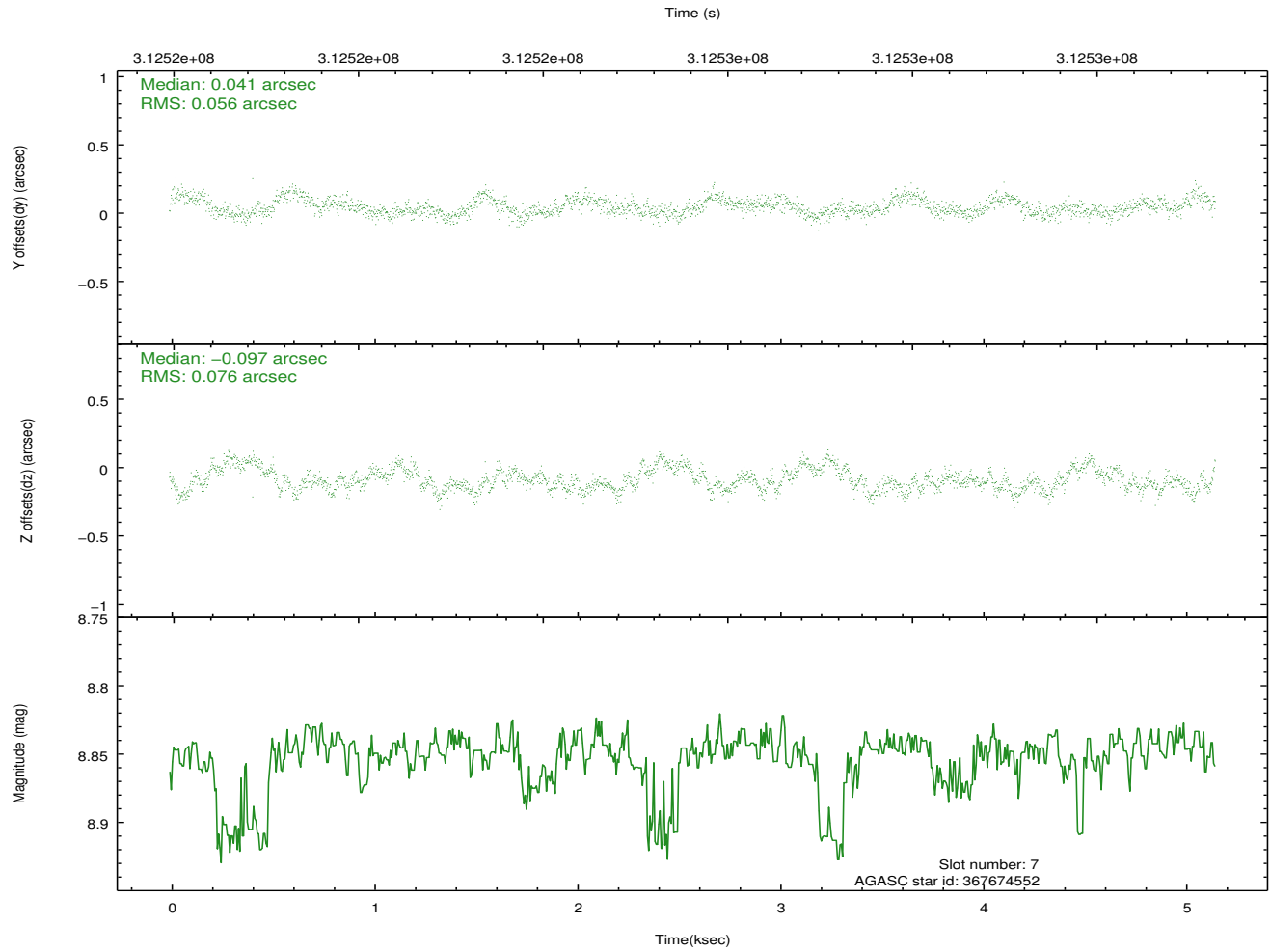
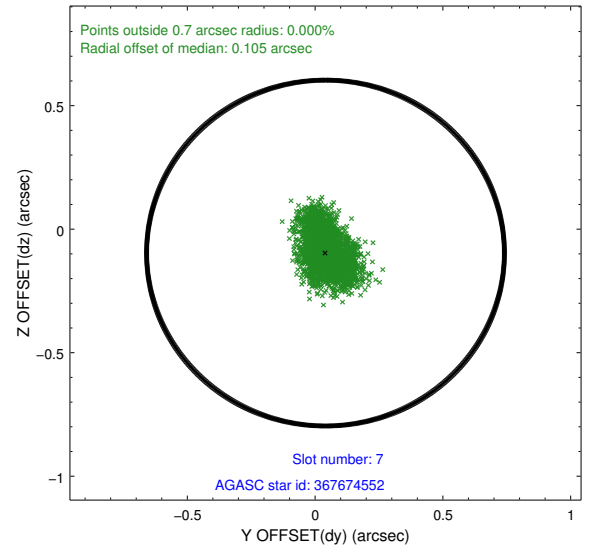
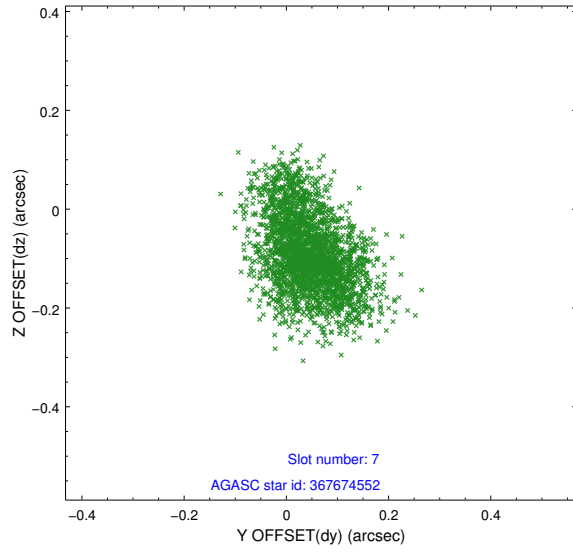


## 2.4.4 Slot 6



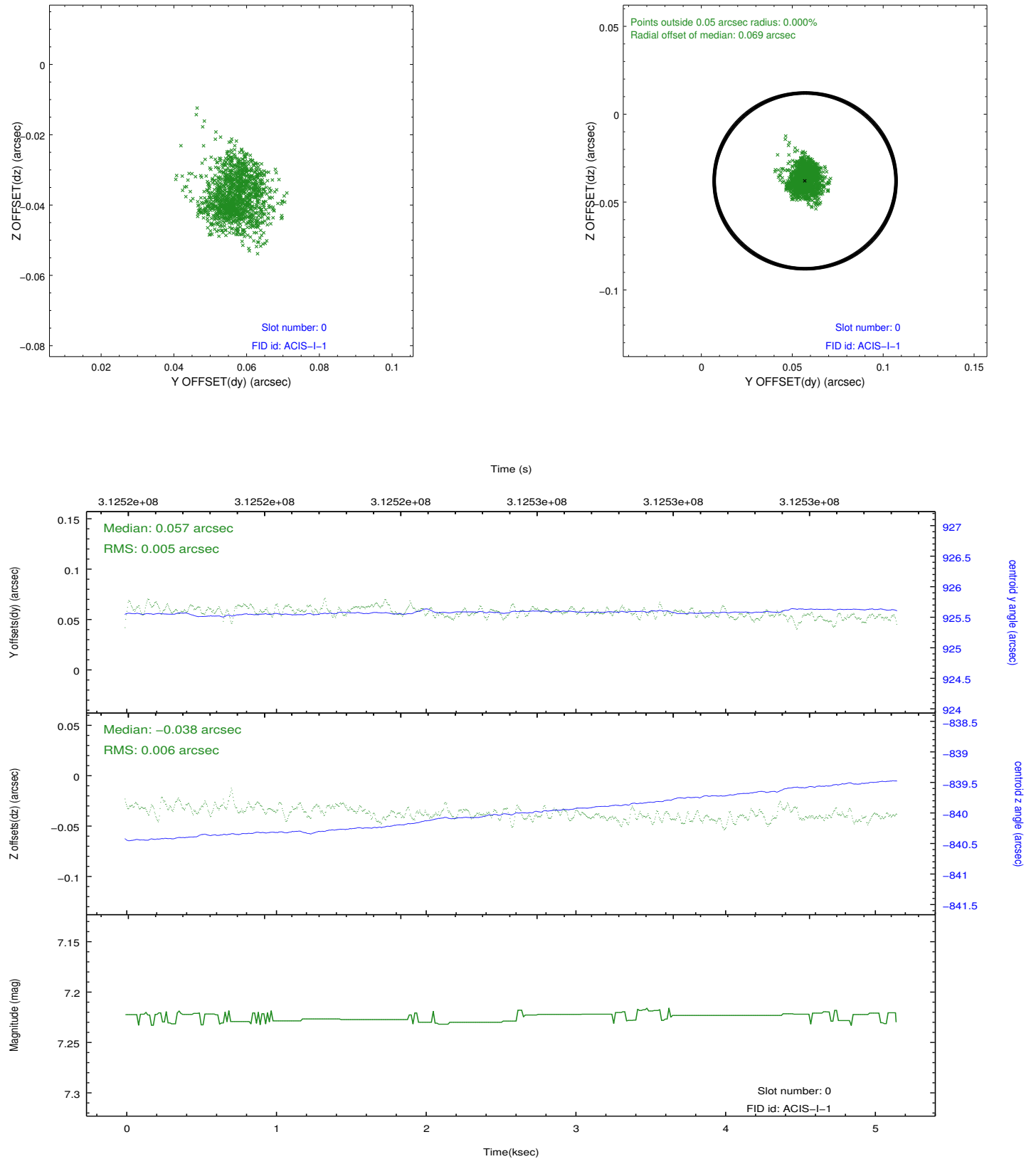


## 2.4.5 Slot 7

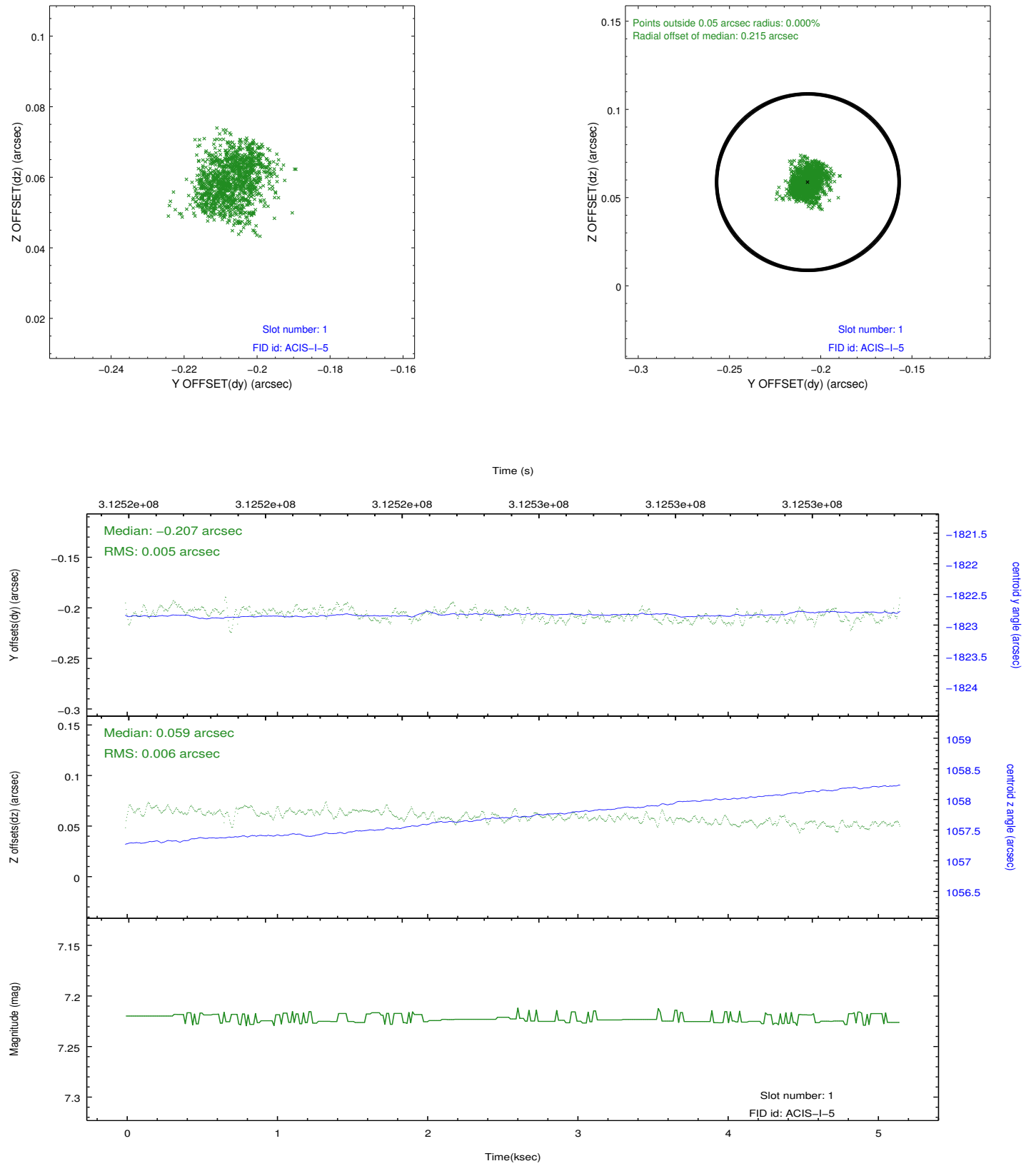


## 2.5 FID Slots

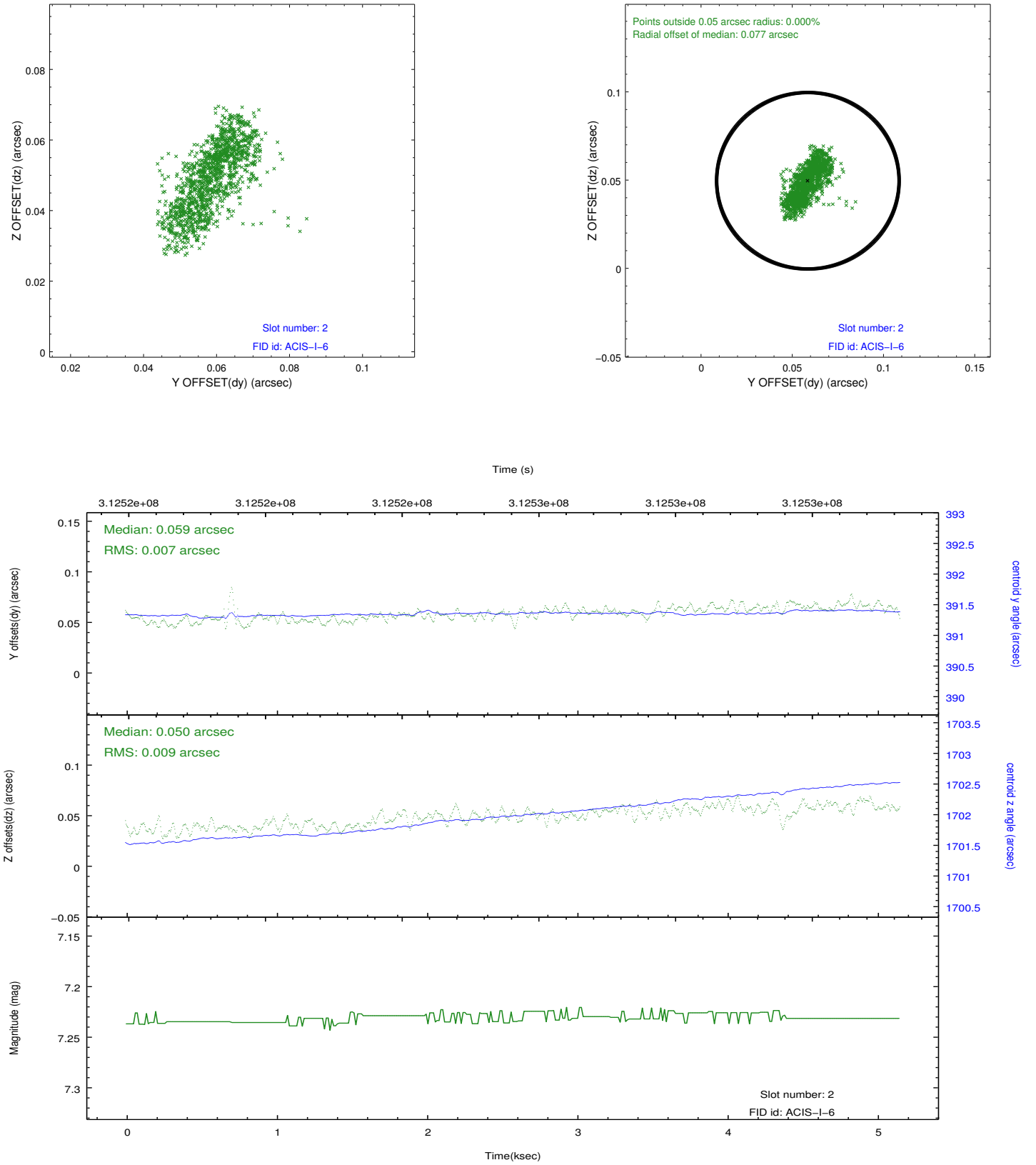
### 2.5.1 Slot 0



## 2.5.2 Slot 1



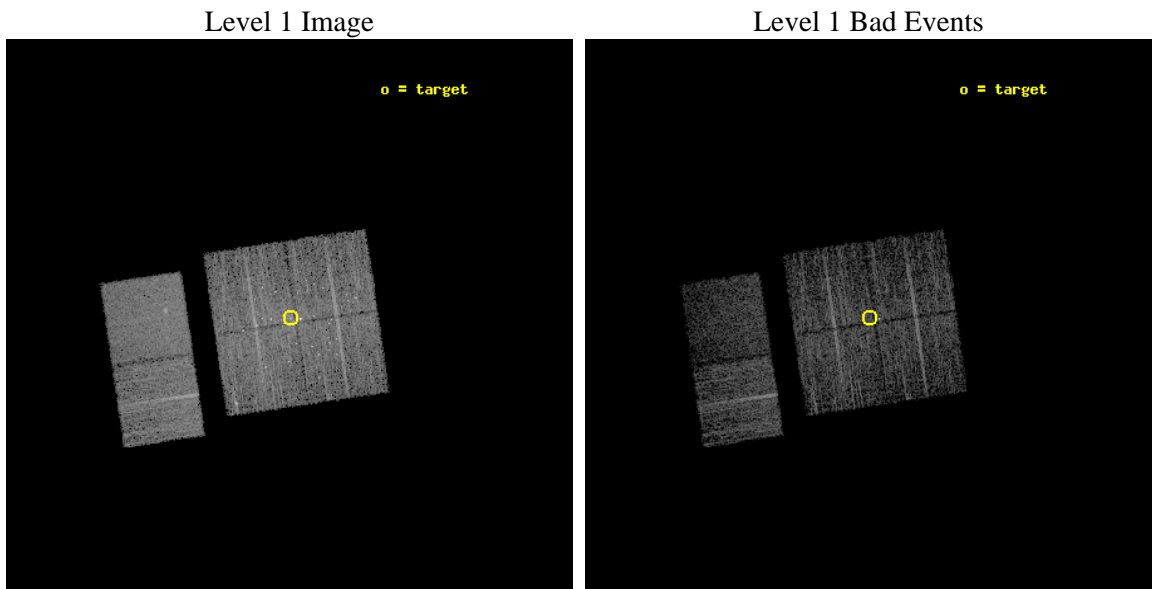
### 2.5.3 Slot 2



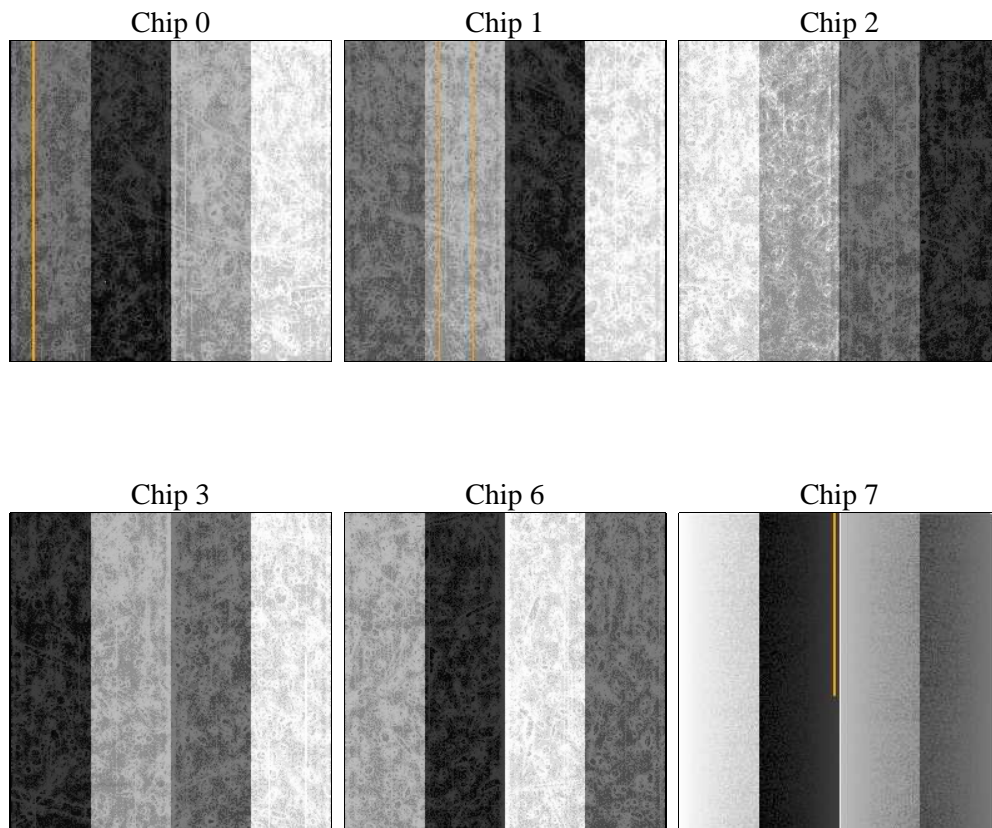
### 3 OBI Secondary

#### 3.1 OBI

##### 3.1.1 Images



##### 3.1.2 Bias



### 3.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4994.156000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	3885.8921458721	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	3885.8920259476	Sum of GTIs [s]
date	2012-05-05T05:16:23	Date and time of file creation	ontime1	3885.8921059966	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3885.8922647238	Sum of GTIs [s]
			ontime3	3885.8921458721	Sum of GTIs [s]
			ontime6	3885.8921958208	Sum of GTIs [s]
			ontime7	3885.8919264078	Sum of GTIs [s]
			l1events	197222	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	30352	31560	33603	33727	33438	34542	grade 0 events	2784	3070	2496	4320	1130	1572
rejected events	25174	25434	28912	26848	30261	18657		9%	9%	7%	12%	3%	4%
rejected %	82%	80%	86%	79%	90%	54%	grade 1 events	31	165	36	71	19	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	975	1175	886	999	711	3284
								3%	3%	2%	2%	2%	9%
							grade 3 events	404	516	347	437	344	1448
								1%	1%	1%	1%	1%	4%
							grade 4 events	372	510	362	464	318	1449
								1%	1%	1%	1%	0%	4%
							grade 5 events	1089	1377	1040	1259	1296	3642
								3%	4%	3%	3%	3%	10%
							grade 6 events	651	867	611	669	685	8161
								2%	2%	1%	1%	2%	23%
							grade 7 events	24046	23880	27825	25508	28935	14947
								79%	75%	82%	75%	86%	43%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.05.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.79277445

### A.2 Comments

Monitoring interval request for this series of observation satisfied.