

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8185 - L2 Version 3  
Chandra X-Ray Center

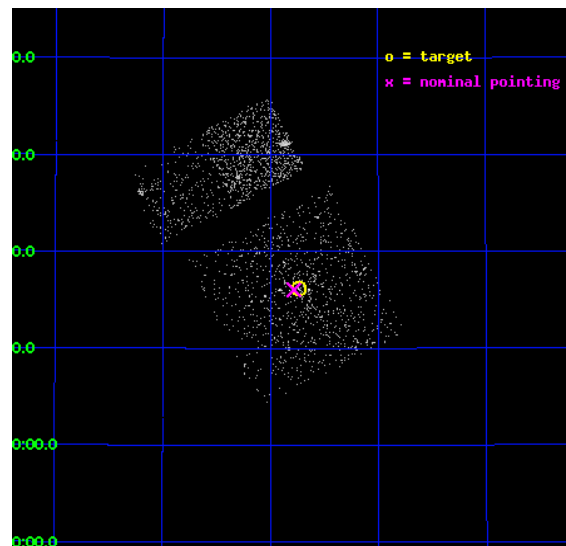
L2 Processing Date : Apr 21 2012

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# 1 Front

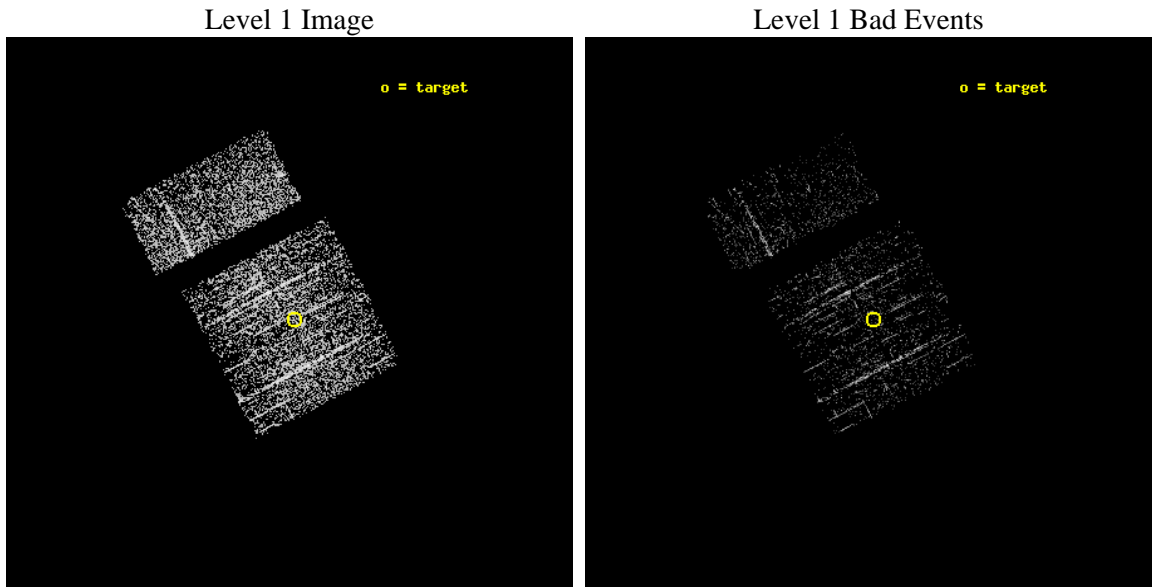
seq_num	600622	Sequence number
obs_id	8185	Observation id
title	Continued M31 Monitoring for Black Hole X-ray Nova	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.695694594576	Nominal RA [deg]
dec_nom	41.267555179389	Nominal Dec [deg]
roll_nom	332.64702218296	Nominal Roll [deg]
revision	3	Processing version of data
ontime	937.18086183071	Sum of GTIs [s]
livetime	147.5348739291	Livetime [s]
ontime0	937.18086183071	Sum of GTIs [s]
ontime1	937.18088167906	Sum of GTIs [s]
ontime2	937.18086183071	Sum of GTIs [s]
ontime3	937.18086183071	Sum of GTIs [s]
ontime6	937.18088167906	Sum of GTIs [s]
ontime7	937.18086183071	Sum of GTIs [s]
l2events	2530	Number of level 2 events



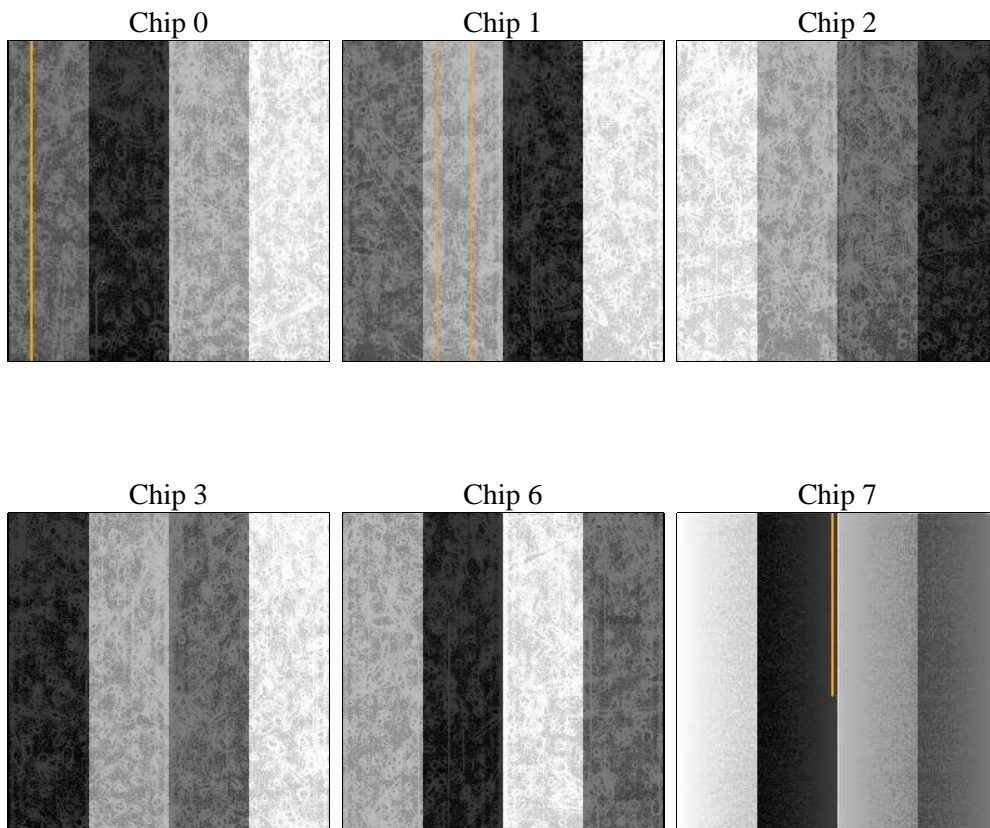
## 2 OBI Primary

### 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	937.18086183071	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	937.18086183071	Sum of GTIs [s]
date	2012-04-21T02:00:26	Date and time of file creation	ontime1	937.18088167906	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	937.18086183071	Sum of GTIs [s]
			ontime3	937.18086183071	Sum of GTIs [s]
			ontime6	937.18088167906	Sum of GTIs [s]
			ontime7	937.18086183071	Sum of GTIs [s]
			l1events	20684	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3645	3392	3763	3328	3491	3065
rejected events	3339	2932	3372	2918	3177	2035
rejected %	91%	86%	89%	87%	91%	66%

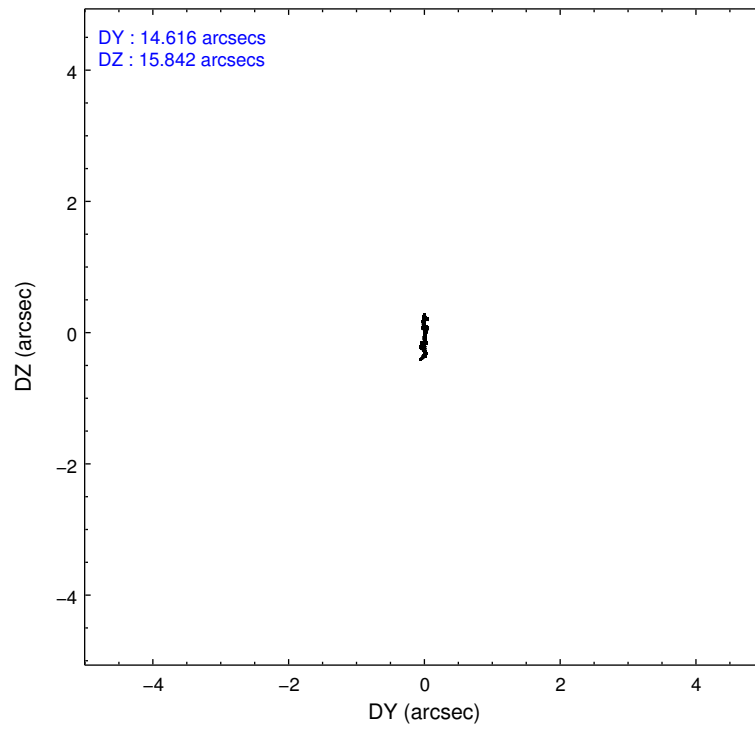
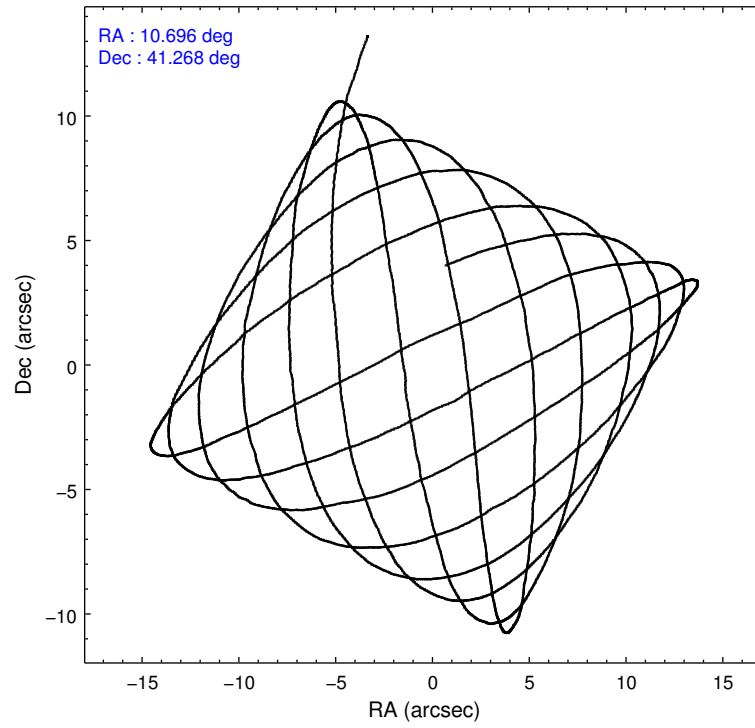
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	86	209	171	196	98	123
	2%	6%	4%	5%	2%	4%
grade 1 events	1	1	4	6	0	6
	0%	0%	0%	0%	0%	0%
grade 2 events	81	96	68	80	70	258
	2%	2%	1%	2%	2%	8%
grade 3 events	45	51	48	42	34	111
	1%	1%	1%	1%	0%	3%
grade 4 events	45	41	41	35	44	110
	1%	1%	1%	1%	1%	3%
grade 5 events	105	122	85	111	117	309
	2%	3%	2%	3%	3%	10%
grade 6 events	53	74	67	59	71	441
	1%	2%	1%	1%	2%	14%
grade 7 events	3229	2798	3279	2799	3057	1707
	88%	82%	87%	84%	87%	55%

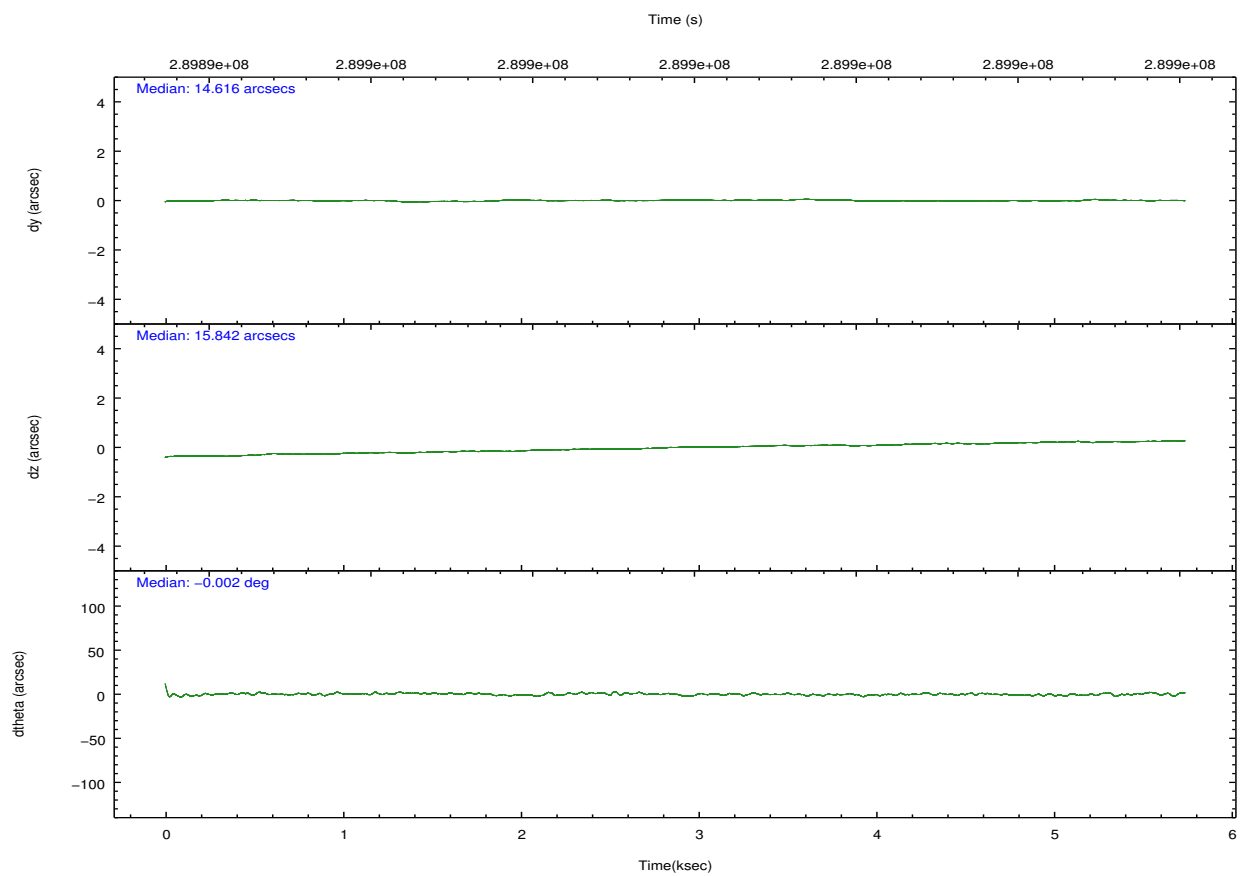
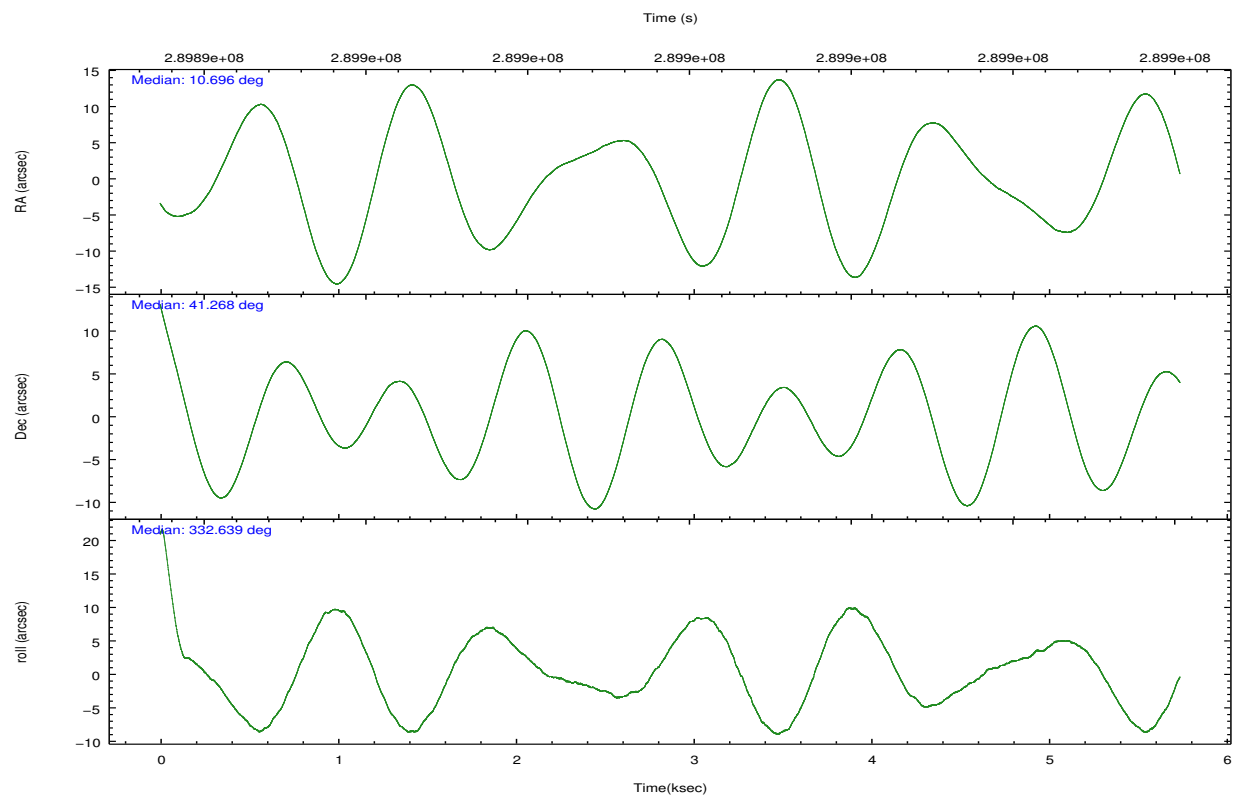


## 2.2 Compared Parameters

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	10.659049	10.6956945945756	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.266180	41.26755517938874	Alternating exposures requested	Y	Y
[deg] Pointing Roll	332.462482	332.6470221829627	[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)	289894750.184000	289893464.25993			
Observation start date	2007-03-10T06:18:05	2007-03-10T05:57:44			
[s] Observation end time (MET)	289899750.184000	289900234.38525			
Observation end date	2007-03-10T07:41:25	2007-03-10T07:50:34			
Read mode	TIMED	TIMED			

## 2.3 Aspect



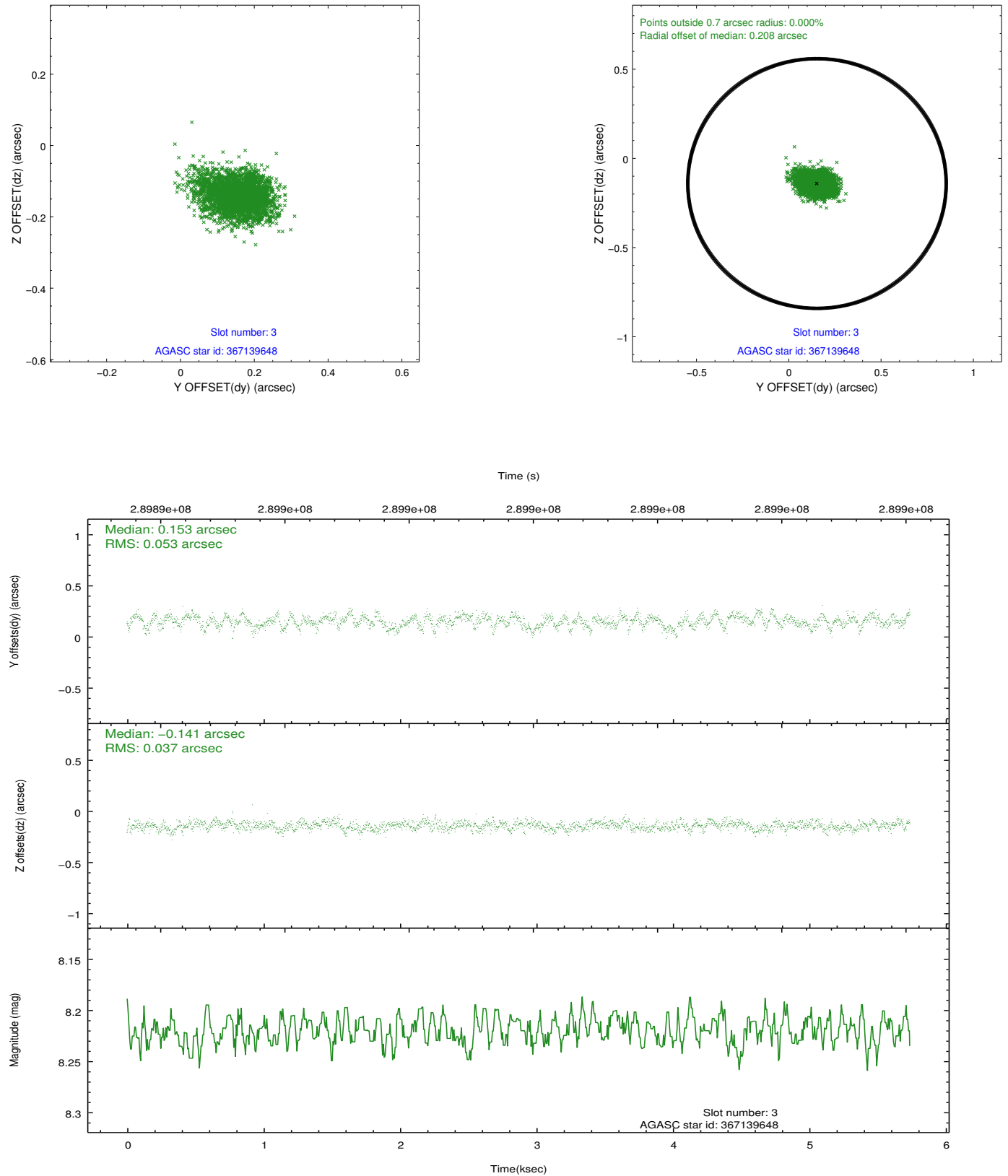


### Slot Statistics

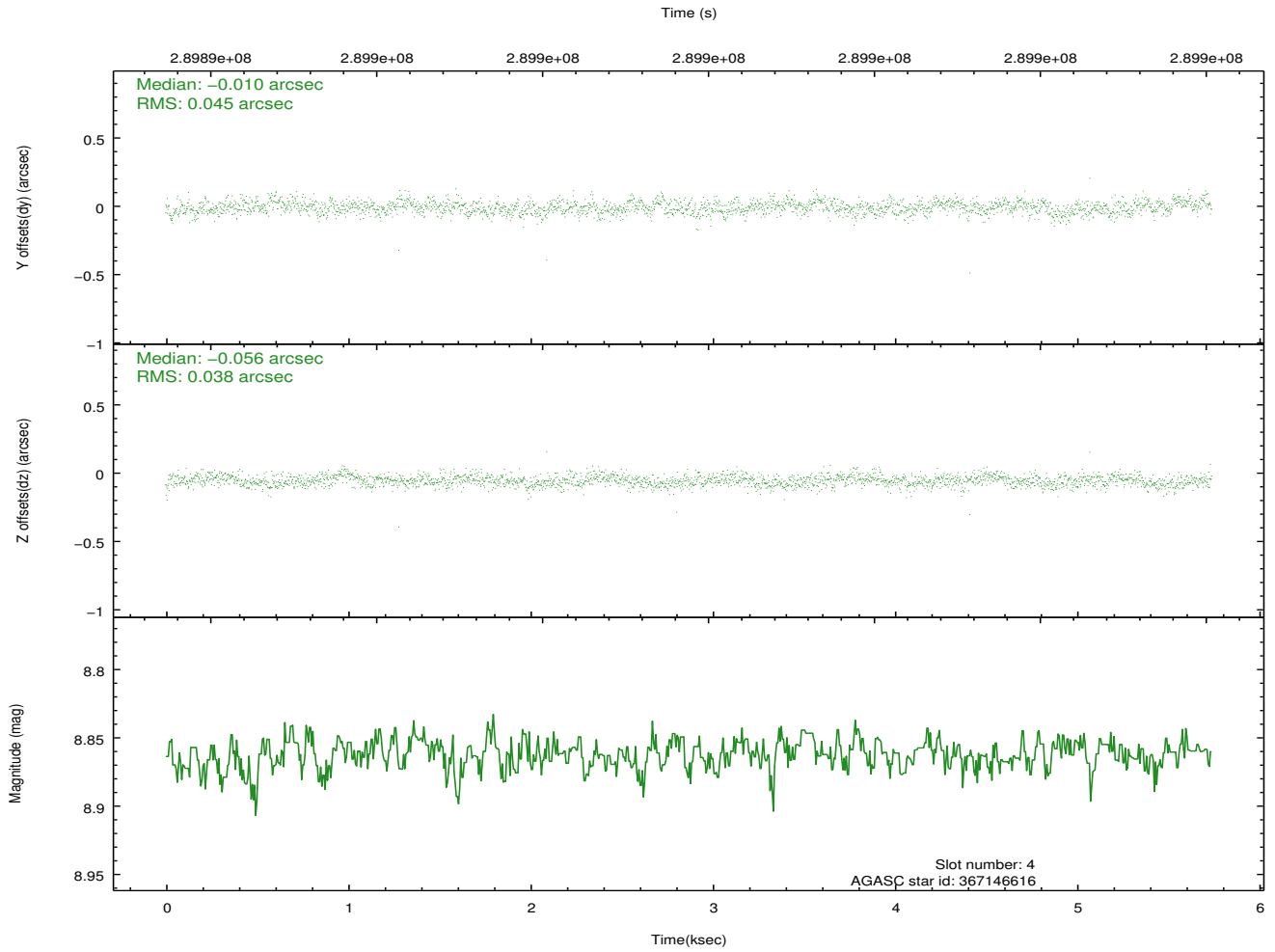
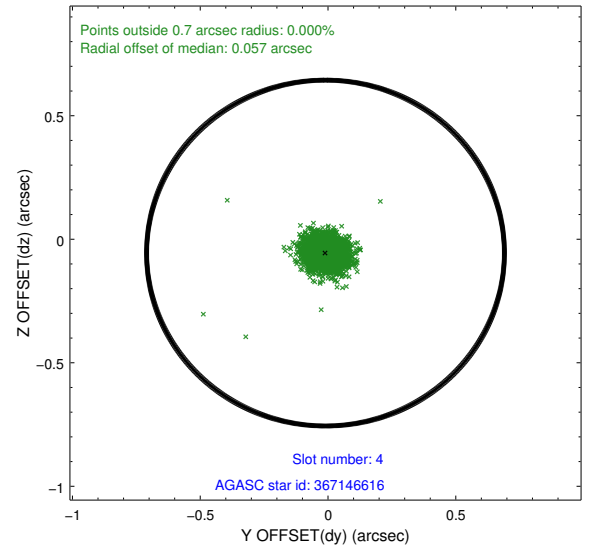
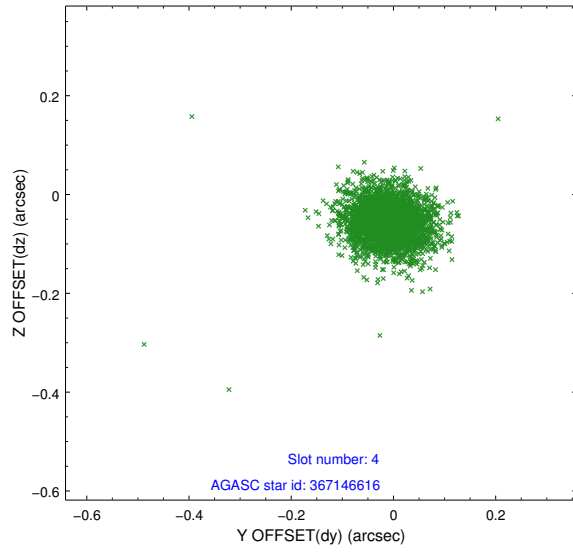
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.22	1400	-0.039	-0.015	0.012	0.022	0.000000	0.000000	924.81	-839.45
1	FID	ACIS-I-2	7.14	1400	-0.169	-0.058	0.007	0.012	0.000000	0.000000	-768.83	-846.45
2	FID	ACIS-I-4	7.16	1399	0.110	0.140	0.009	0.015	0.000000	0.000000	2144.38	1059.98
3	GUIDE	367139648	8.22	2800	0.153	-0.141	0.068	0.113	11.021290	40.433909	2265.31	-2195.96
4	GUIDE	367146616	8.86	2801	-0.010	-0.056	0.060	0.099	11.418645	41.190163	1947.81	716.13
5	GUIDE	367148872	7.22	2801	-0.004	-0.036	0.064	0.105	10.505940	40.688258	592.30	-2037.89
6	GUIDE	367663272	9.28	2800	-0.032	0.152	0.077	0.125	10.656279	41.699429	-728.04	1378.34
7	GUIDE	367674552	8.84	2796	-0.104	0.081	0.084	0.135	11.016238	41.570845	344.65	1419.64

## 2.4 Star Slots

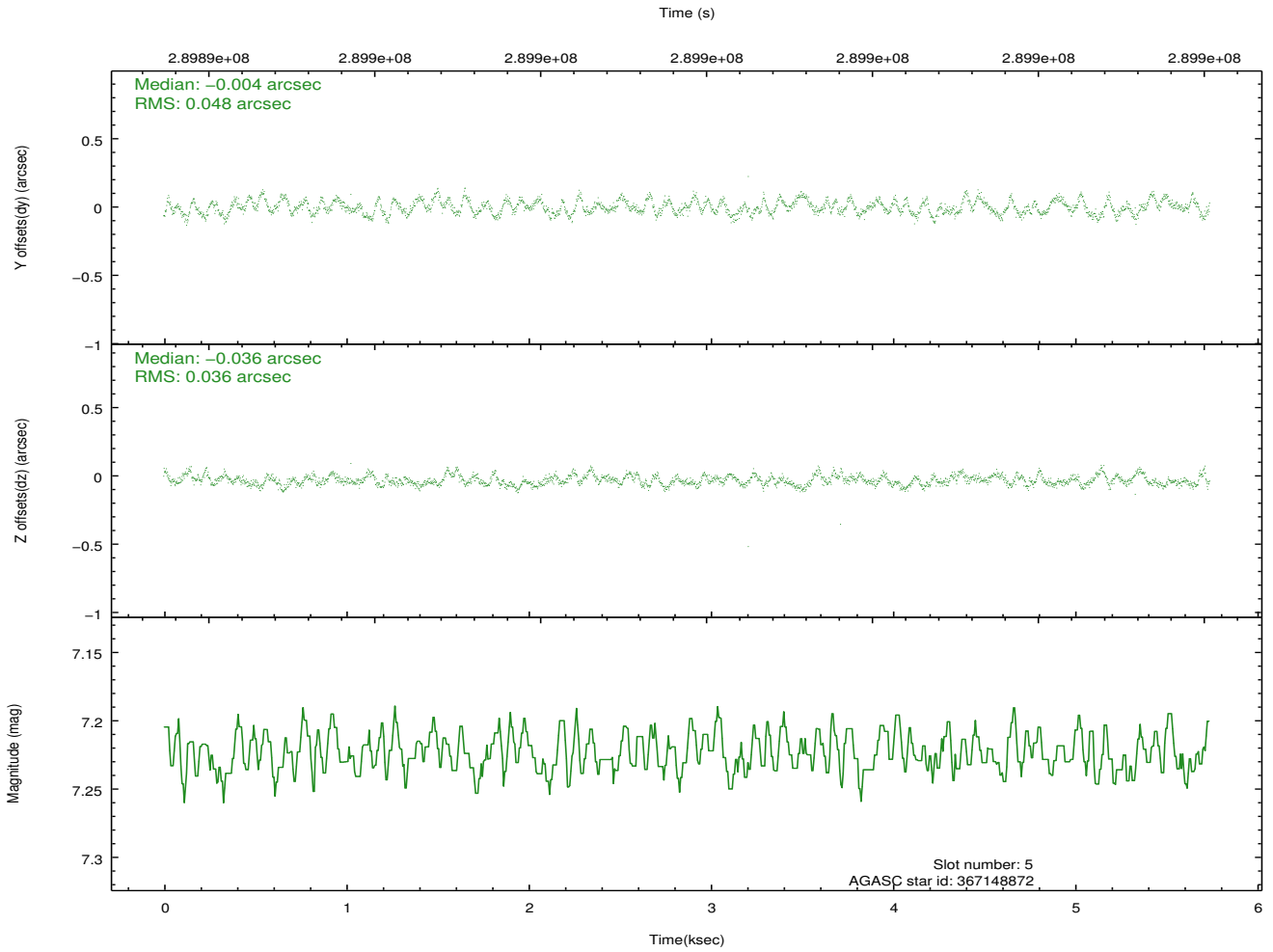
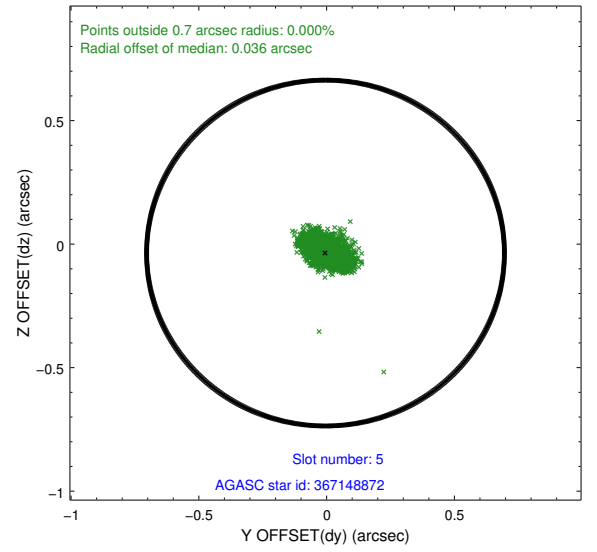
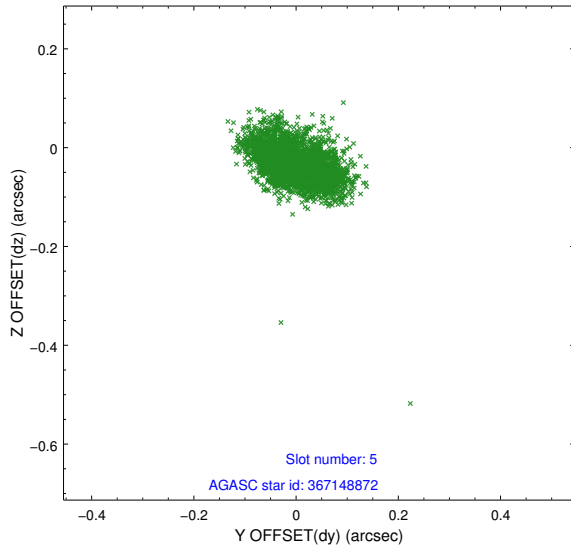
### 2.4.1 Slot 3



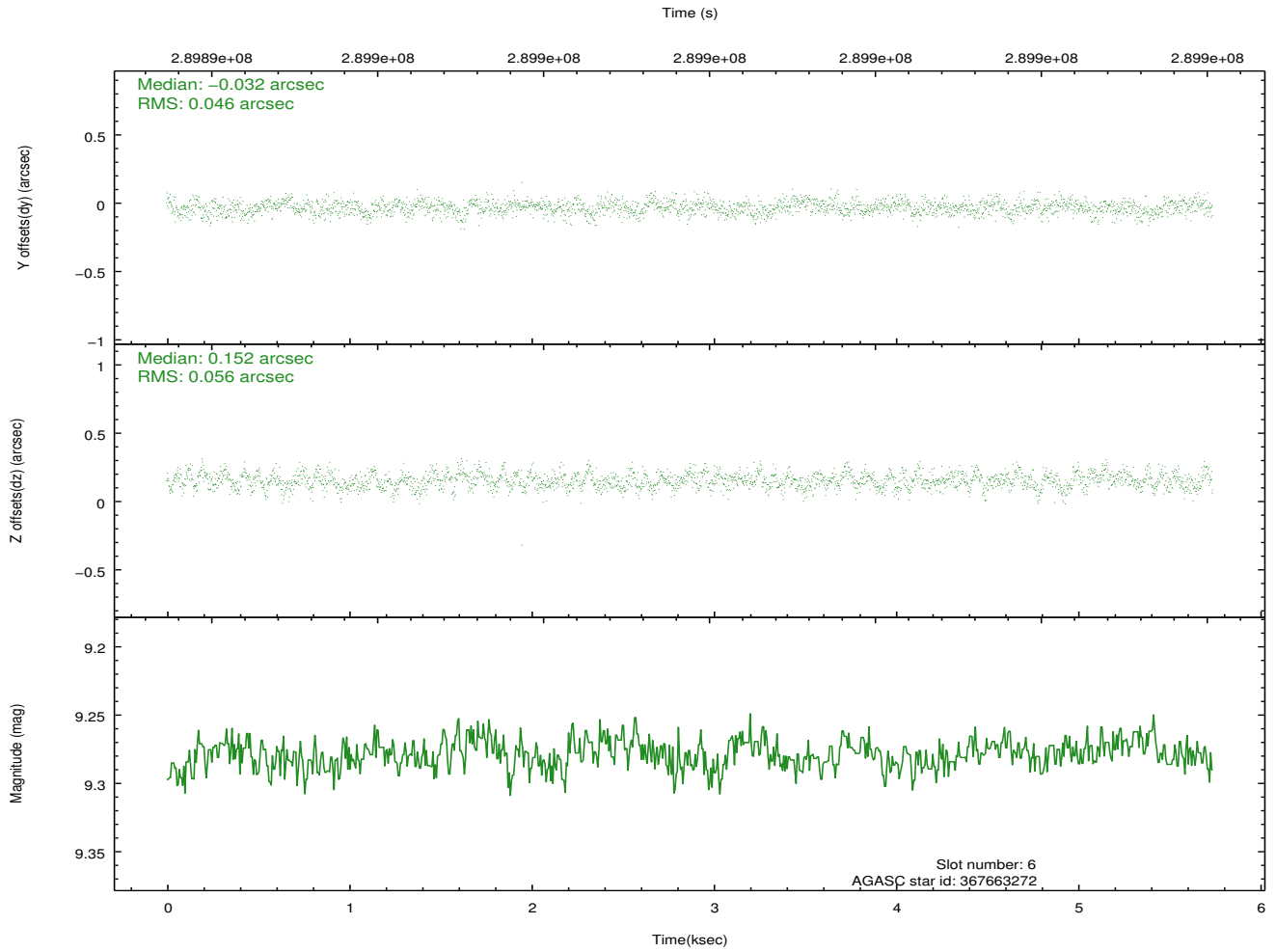
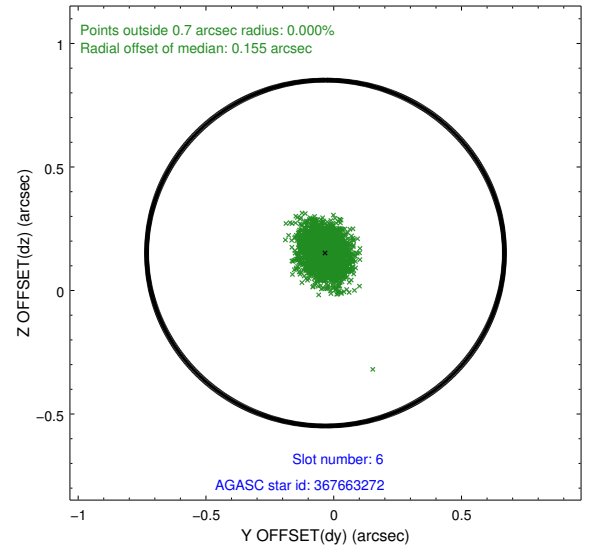
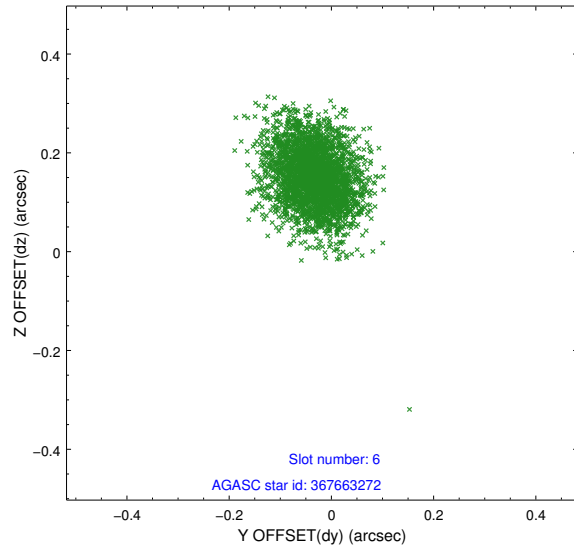
## 2.4.2 Slot 4



### 2.4.3 Slot 5

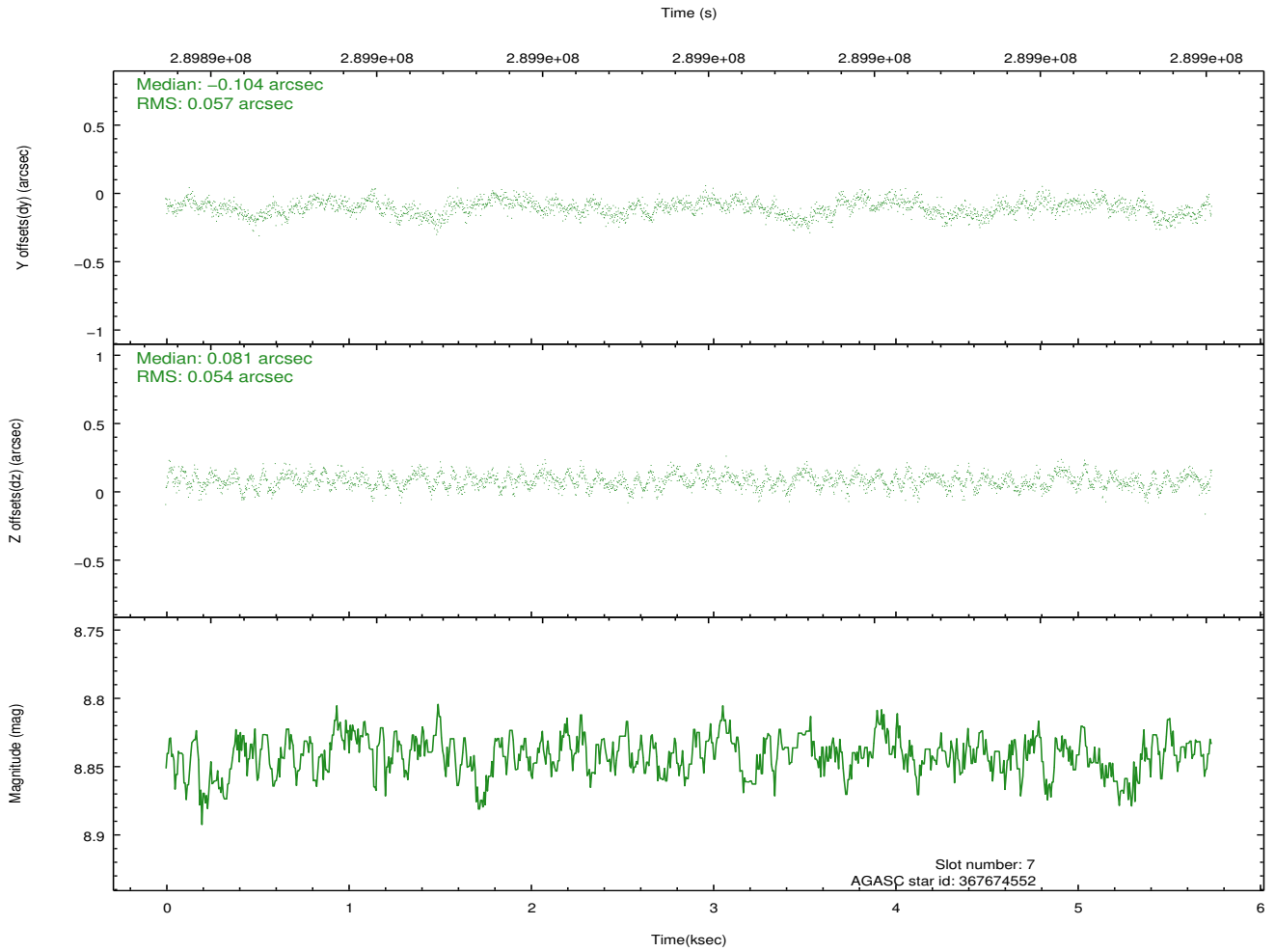
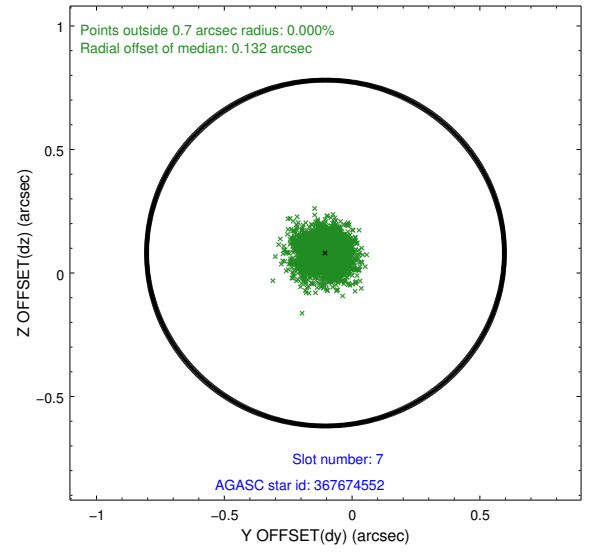
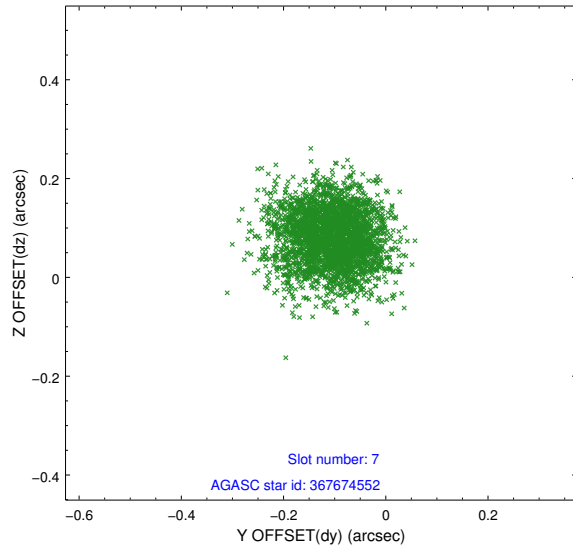


## 2.4.4 Slot 6



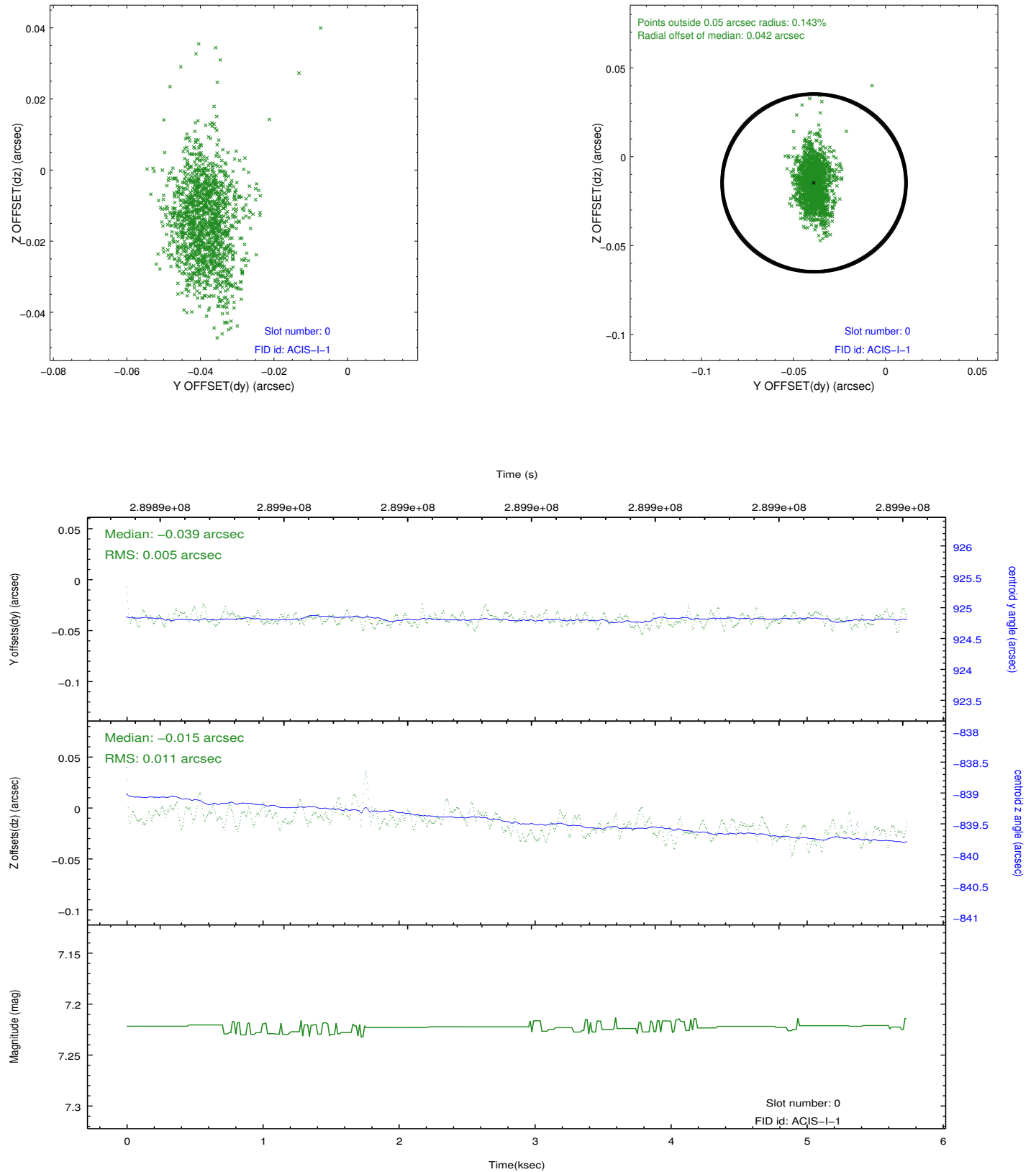


## 2.4.5 Slot 7

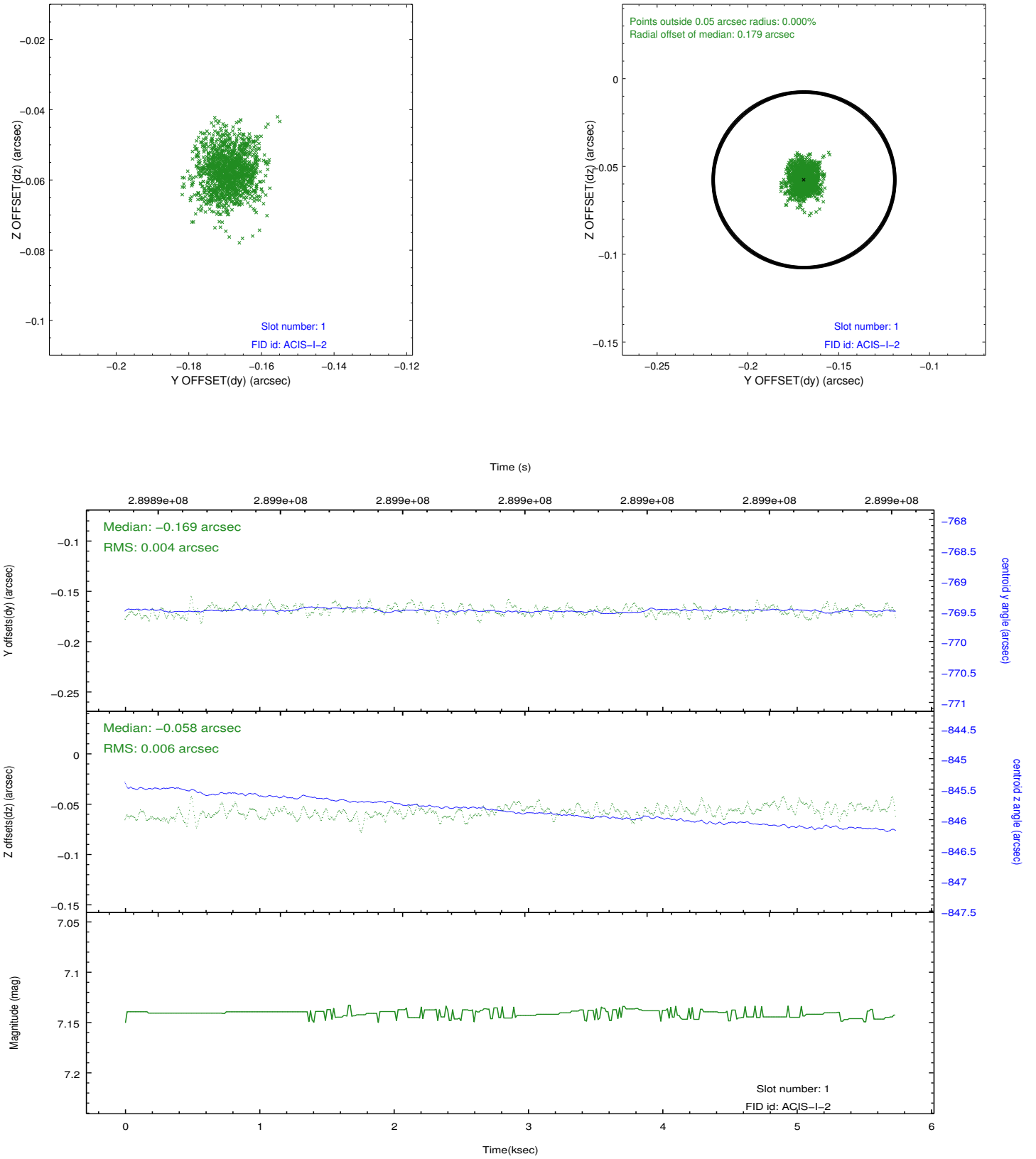


## 2.5 FID Slots

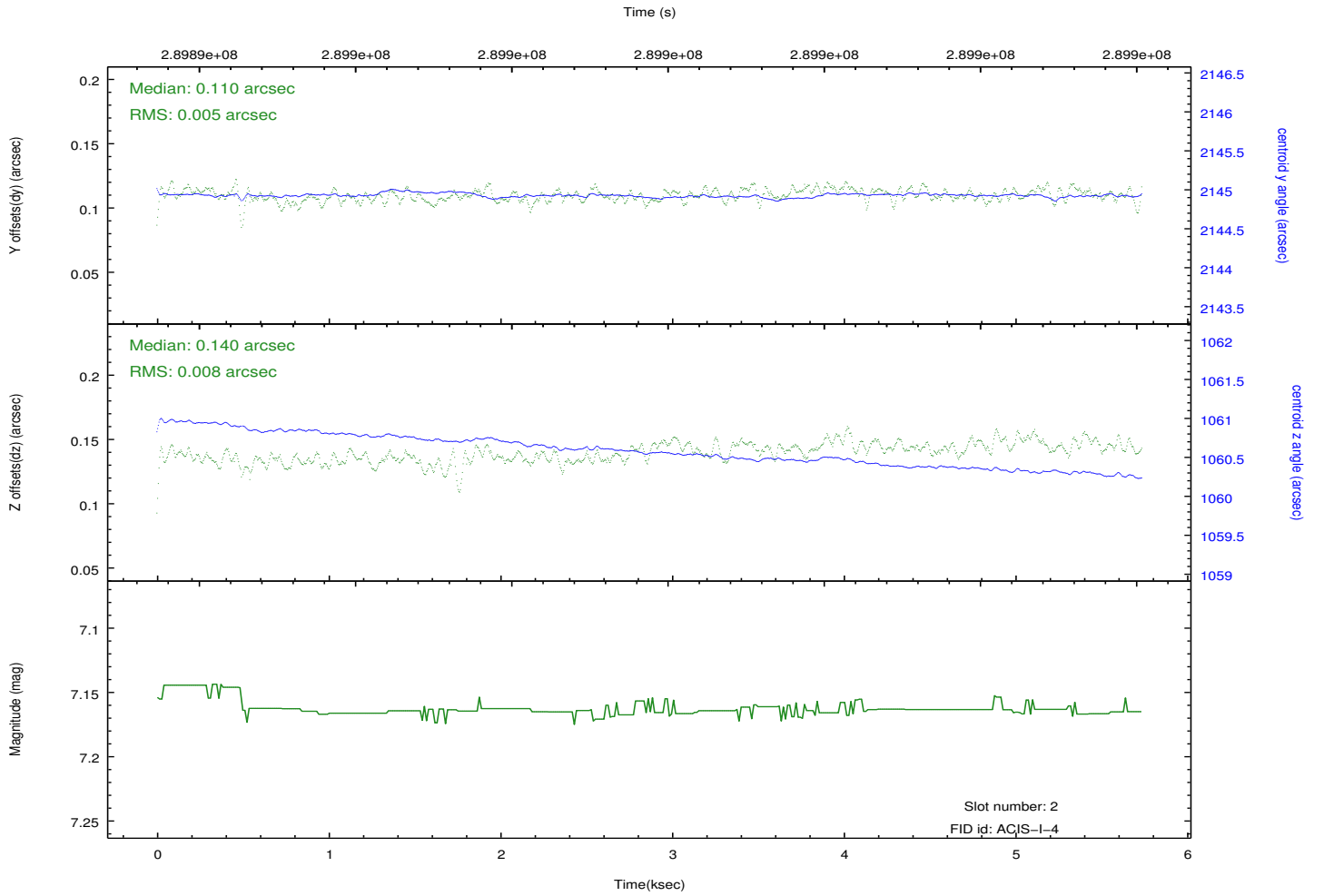
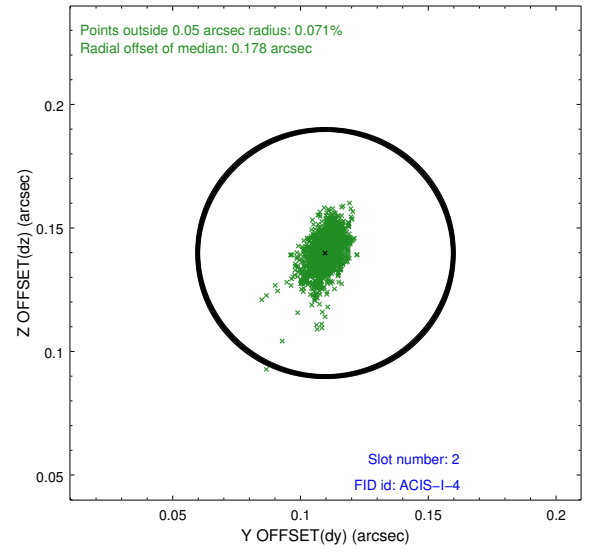
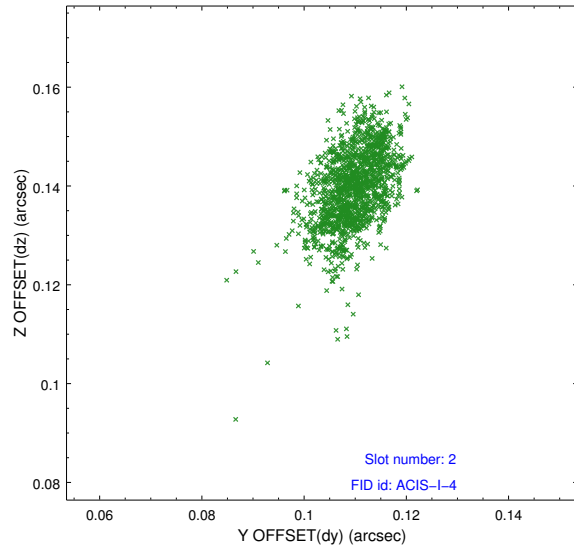
### 2.5.1 Slot 0



## 2.5.2 Slot 1



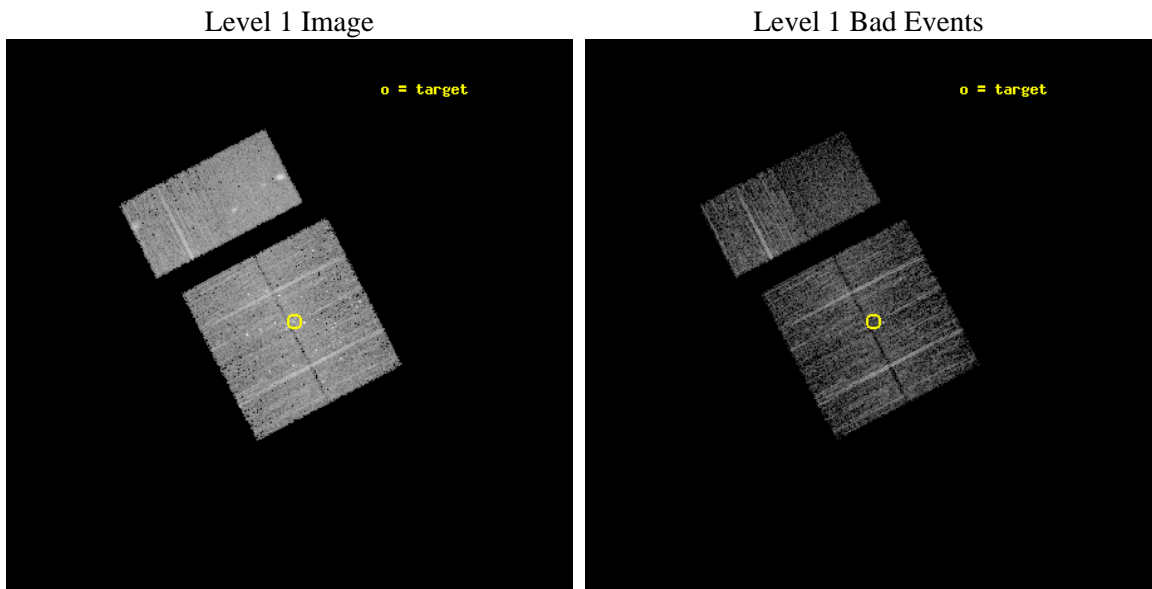
### 2.5.3 Slot 2



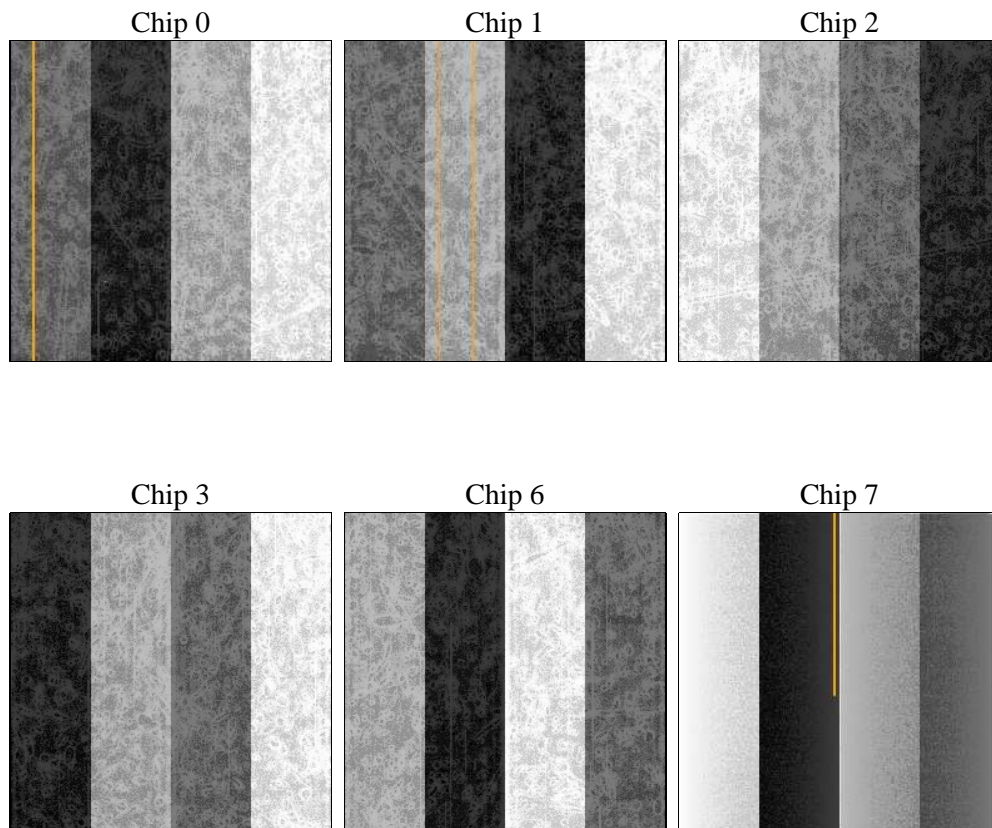
### 3 OBI Secondary

#### 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	4015.6041018963	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	4015.6042318344	Sum of GTIs [s]
date	2012-04-21T02:01:55	Date and time of file creation	ontime1	4015.6045403481	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	4015.6041514874	Sum of GTIs [s]
			ontime3	4015.6041018963	Sum of GTIs [s]
			ontime6	4015.604162097	Sum of GTIs [s]
			ontime7	4015.6042516232	Sum of GTIs [s]
			l1events	200161	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	30092	32074	34275	32922	34015	36783	grade 0 events	1842	4039	3861	3751	1985	2254
rejected events	26050	25101	27930	26628	29739	18568		6%	12%	11%	11%	5%	6%
rejected %	86%	78%	81%	80%	87%	50%	grade 1 events	21	64	47	59	16	43
								0%	0%	0%	0%	0%	0%
							grade 2 events	830	1180	1025	995	845	3823
								2%	3%	2%	3%	2%	10%
							grade 3 events	385	452	411	429	365	1744
								1%	1%	1%	1%	1%	4%
							grade 4 events	357	512	431	474	336	1667
								1%	1%	1%	1%	0%	4%
							grade 5 events	1105	1183	1014	1233	1290	3686
								3%	3%	2%	3%	3%	10%
							grade 6 events	633	804	624	660	751	8772
								2%	2%	1%	2%	2%	23%
							grade 7 events	24919	23840	26862	25321	28427	14794
								82%	74%	78%	76%	83%	40%

## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.04.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.95291684

### A.2 Comments