

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10552 - L2 Version 2  
Chandra X-Ray Center

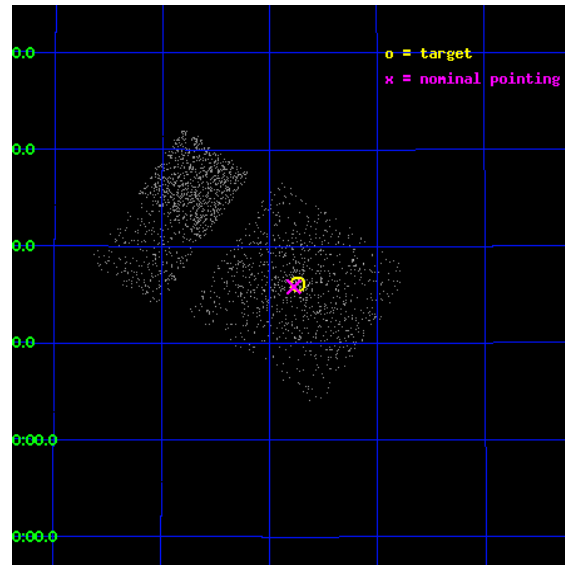
L2 Processing Date : Jun 1 2012

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# 1 Front

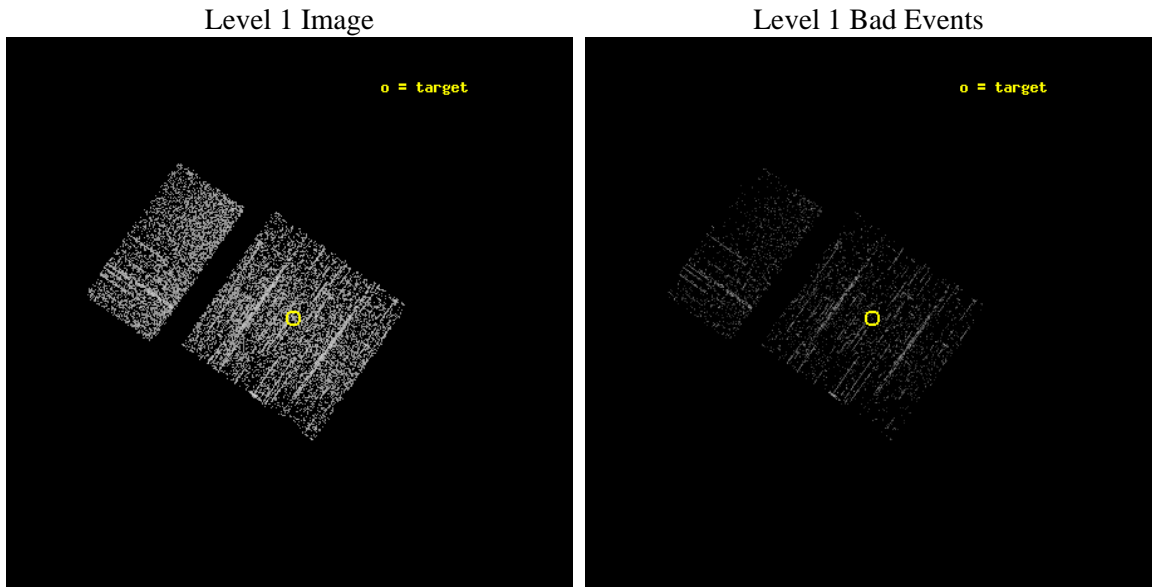
seq_num	600745	Sequence number
obs_id	10552	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr. Michael Garcia	Principal investigator
object	M31	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.693560327043	Nominal RA [deg]
dec_nom	41.264050487003	Nominal Dec [deg]
roll_nom	305.20303062616	Nominal Roll [deg]
revision	2	Processing version of data
ontime	937.77964174747	Sum of GTIs [s]
livetime	147.62913633151	Livetime [s]
ontime0	937.77964174747	Sum of GTIs [s]
ontime1	937.77964174747	Sum of GTIs [s]
ontime2	937.77961182594	Sum of GTIs [s]
ontime3	937.77964174747	Sum of GTIs [s]
ontime6	937.77961182594	Sum of GTIs [s]
ontime7	937.77961182594	Sum of GTIs [s]
l2events	2556	Number of level 2 events



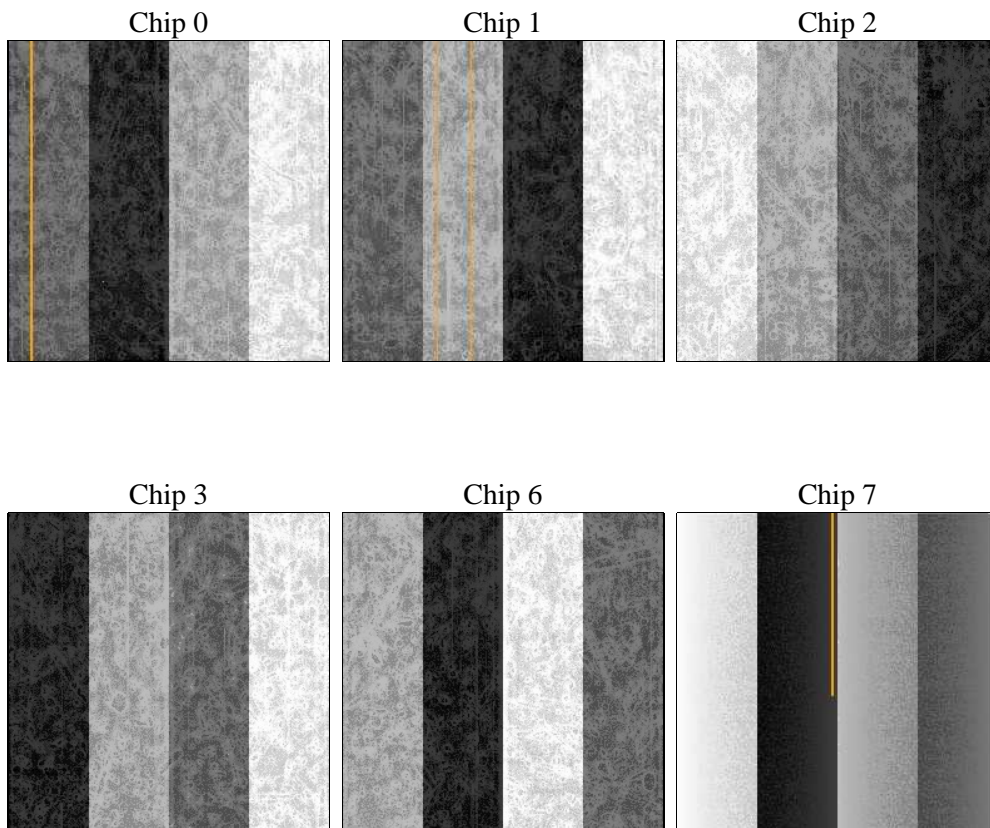
## 2 OBI Primary

### 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	937.77964174747	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	937.77964174747	Sum of GTIs [s]
date	2012-06-01T08:48:28	Date and time of file creation	ontime1	937.77964174747	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	937.77961182594	Sum of GTIs [s]
			ontime3	937.77964174747	Sum of GTIs [s]
			ontime6	937.77961182594	Sum of GTIs [s]
			ontime7	937.77961182594	Sum of GTIs [s]
			l1events	23262	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	3664	4097	4419	3581	4142	3359
rejected events	3318	3635	4001	3194	3818	2314
rejected %	90%	88%	90%	89%	92%	68%

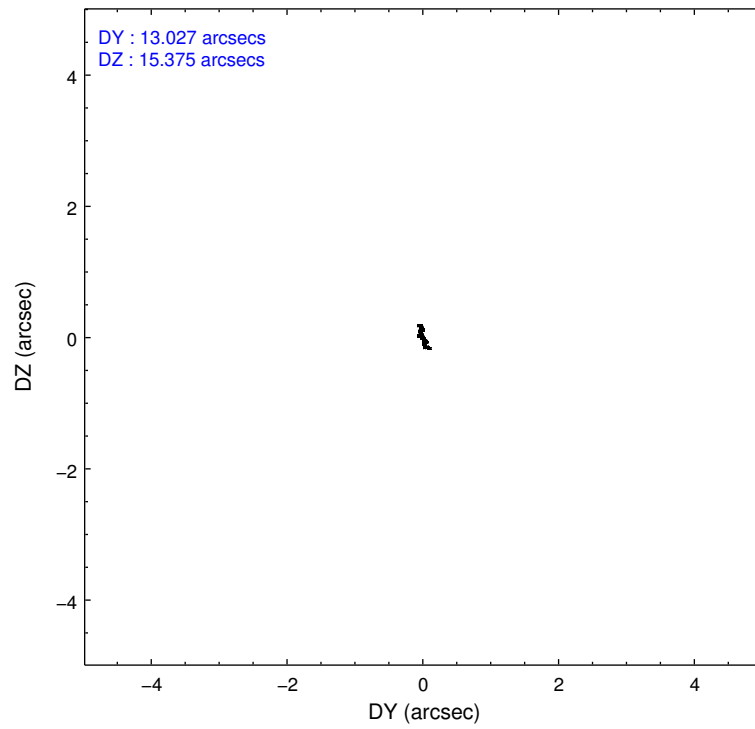
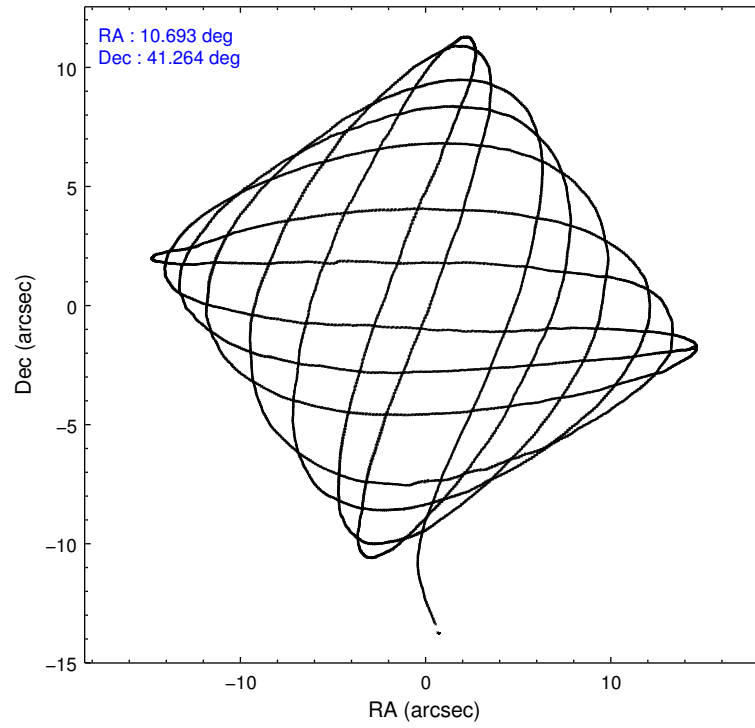
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	112	229	154	190	75	104
	3%	5%	3%	5%	1%	3%
grade 1 events	2	3	3	2	1	4
	0%	0%	0%	0%	0%	0%
grade 2 events	82	74	95	61	83	237
	2%	1%	2%	1%	2%	7%
grade 3 events	45	51	53	42	52	102
	1%	1%	1%	1%	1%	3%
grade 4 events	43	38	57	31	37	106
	1%	0%	1%	0%	0%	3%
grade 5 events	111	123	109	150	151	313
	3%	3%	2%	4%	3%	9%
grade 6 events	69	76	63	66	79	498
	1%	1%	1%	1%	1%	14%
grade 7 events	3200	3503	3885	3039	3664	1995
	87%	85%	87%	84%	88%	59%

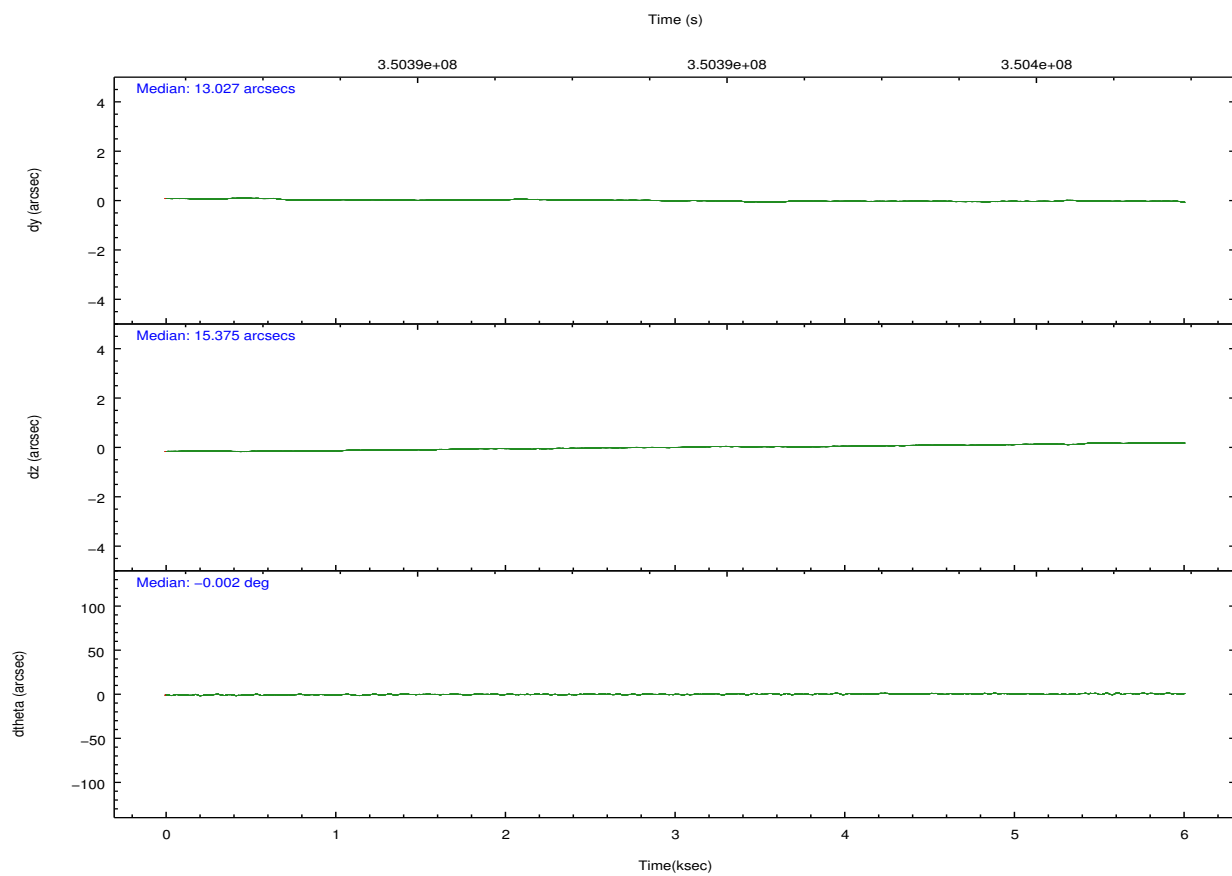
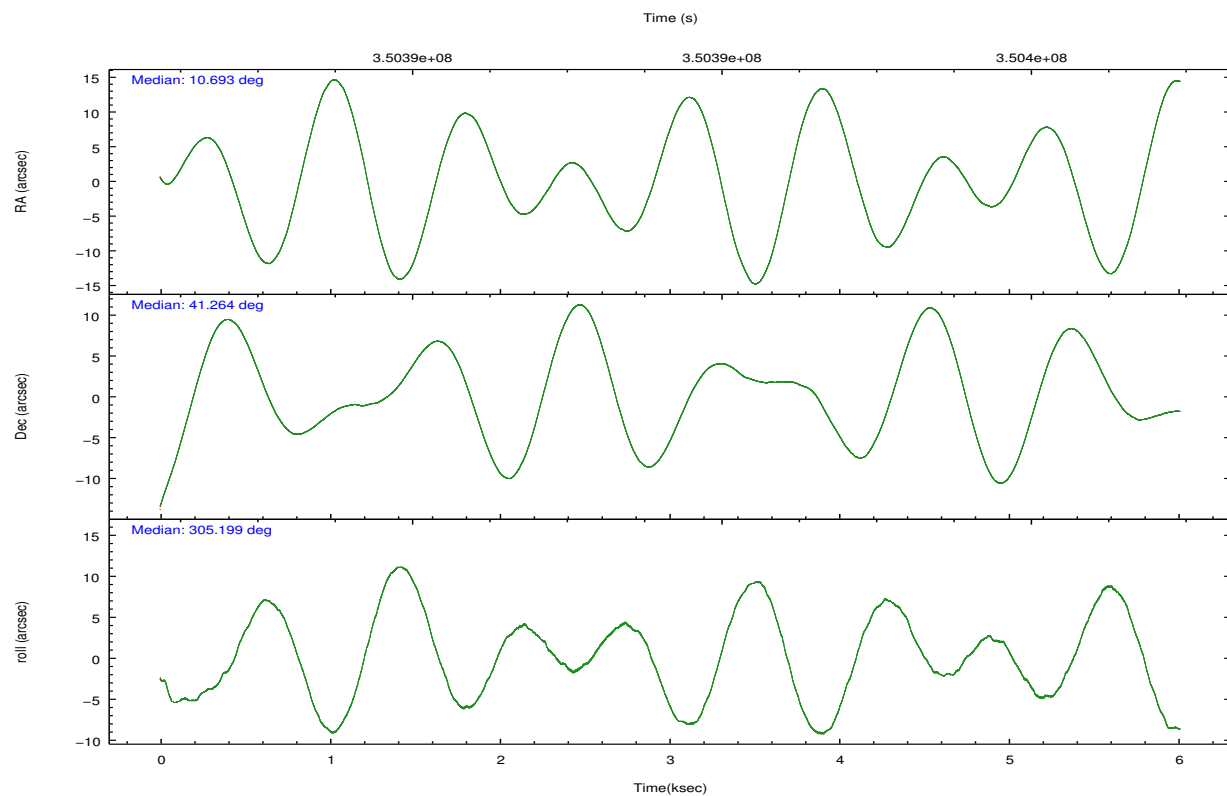


## 2.2 Compared Parameters

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	10.660259	10.69356032704315	CCD I2 on	Y	Y
[deg] Pointing Dec	41.275478	41.26405048700261	CCD I3 on	Y	Y
[deg] Pointing Roll	305.016327	305.2030306261556	CCD S0 on	N	N
[s] Window start time (MET)	350179266.184000	350179266.184000	CCD S1 on	N	N
[s] Window stop time (MET)	350524806.184000	350524806.184000	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)	350391662.184000	350390242.07034	On-chip summing requested	N	N
Observation start date	2009-02-07T10:59:56	2009-02-07T10:37:22	Subarray requested	NONE	NONE
[s] Observation end time (MET)	350396662.184000	350398019.25822	Alternating exposures requested	Y	Y
Observation end date	2009-02-07T12:23:16	2009-02-07T12:46:59	[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



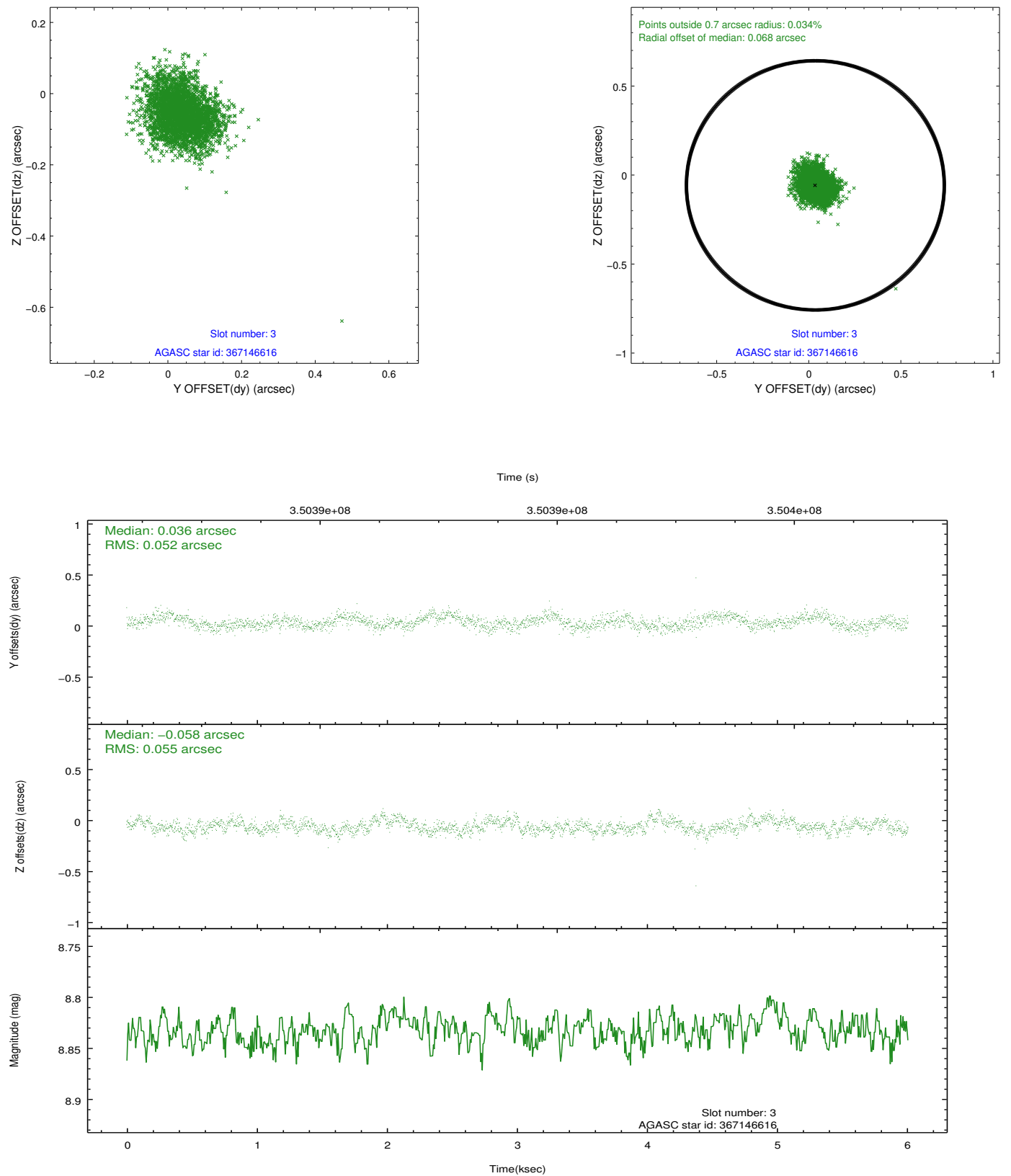


### Slot Statistics

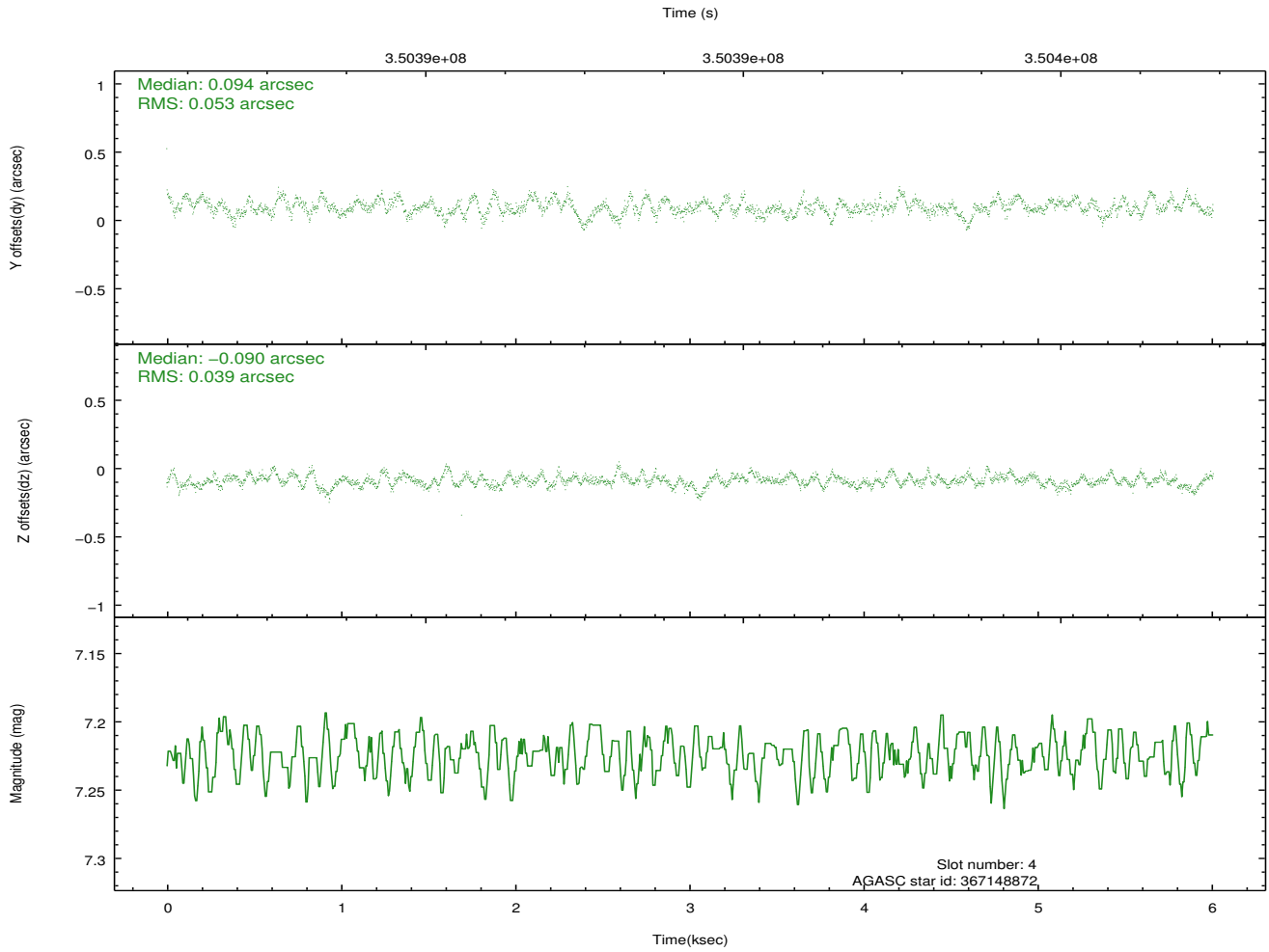
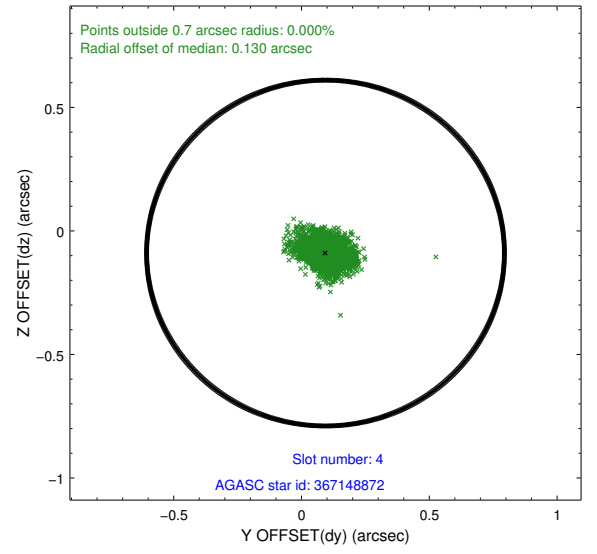
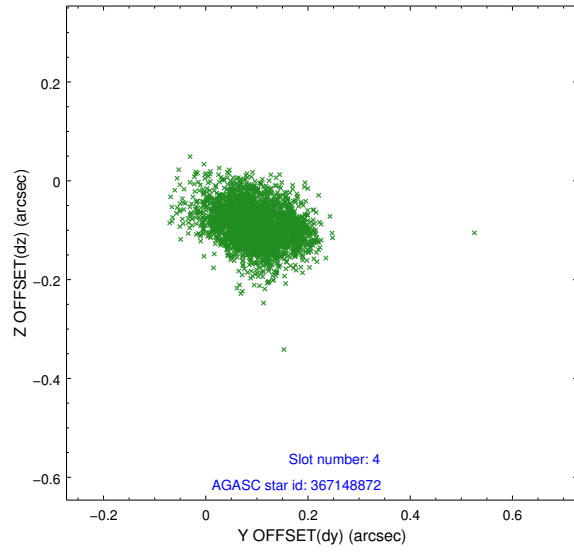
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.05	1467	0.028	-0.006	0.007	0.012	0.000000	0.000000	926.51	-838.99
1	FID	ACIS-I-5	7.05	1467	-0.184	0.040	0.006	0.011	0.000000	0.000000	-1821.26	1058.05
2	FID	ACIS-I-6	7.05	1467	0.064	0.035	0.008	0.012	0.000000	0.000000	391.02	1703.67
3	GUIDE	367146616	8.83	2925	0.036	-0.058	0.080	0.128	11.418645	41.190163	1423.26	1511.74
4	GUIDE	367148872	7.22	2931	0.094	-0.090	0.069	0.116	10.505940	40.688258	1490.66	-1557.62
5	GUIDE	367657896	9.00	2932	-0.021	0.074	0.077	0.126	11.197765	41.313576	718.57	1271.31
6	GUIDE	367663272	9.28	2932	-0.125	0.034	0.110	0.170	10.656279	41.699429	-1255.98	866.69
7	GUIDE	367674552	8.86	2932	0.015	0.037	0.072	0.117	11.016238	41.570845	-322.49	1396.95

## 2.4 Star Slots

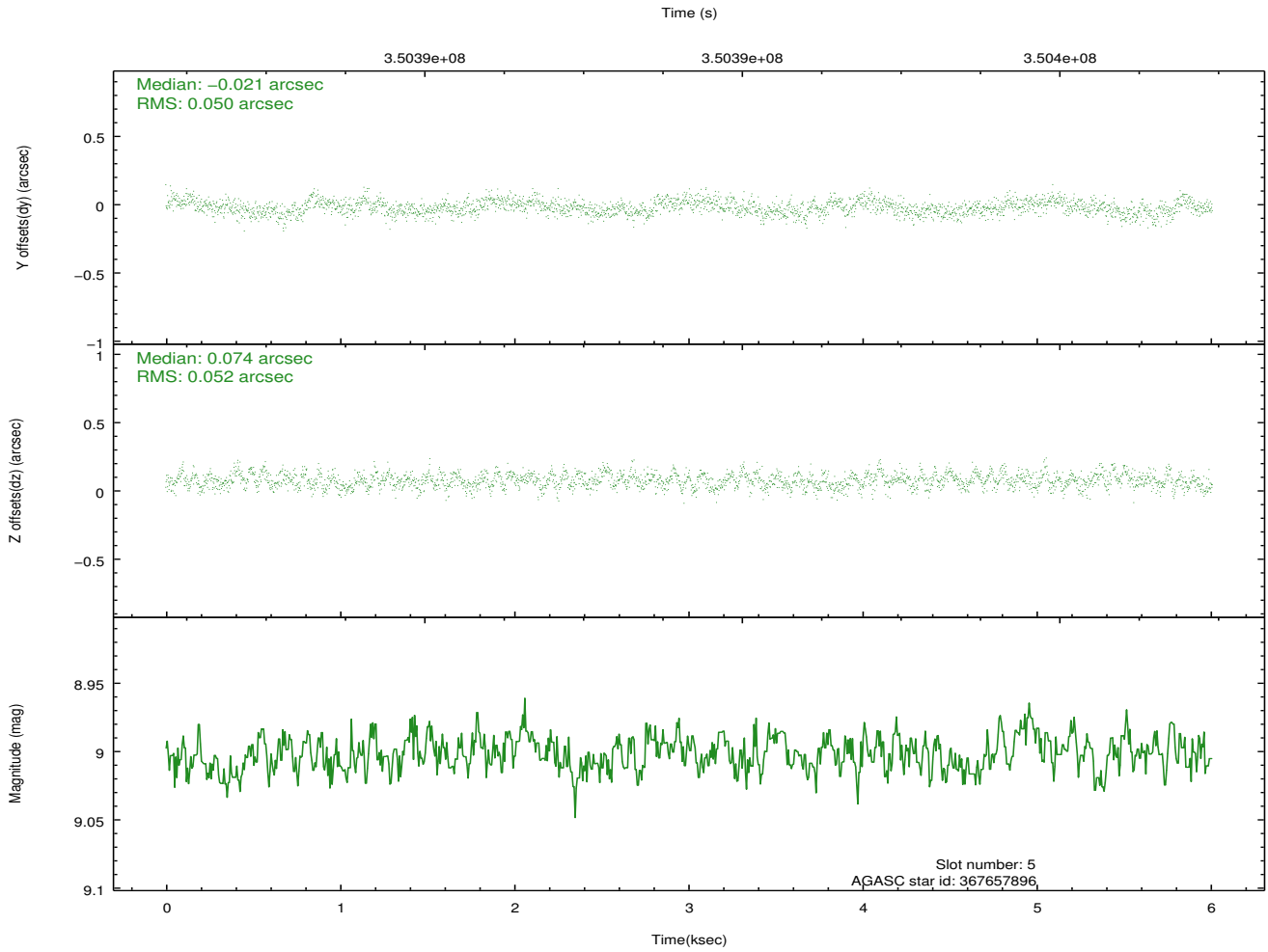
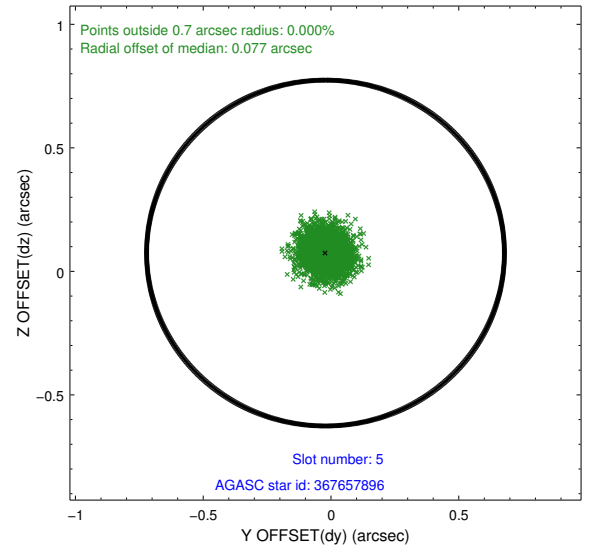
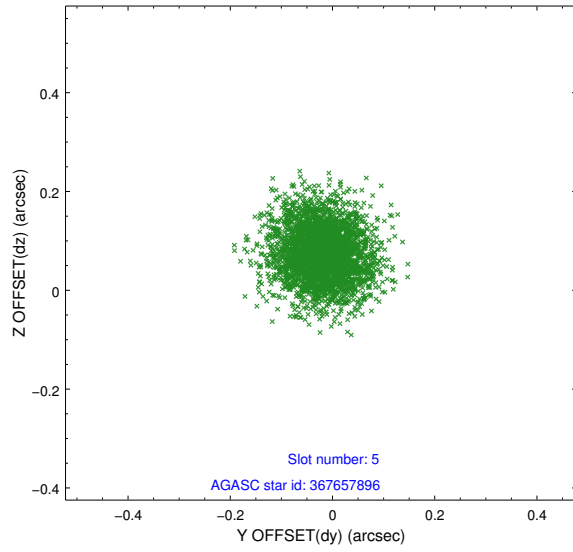
### 2.4.1 Slot 3



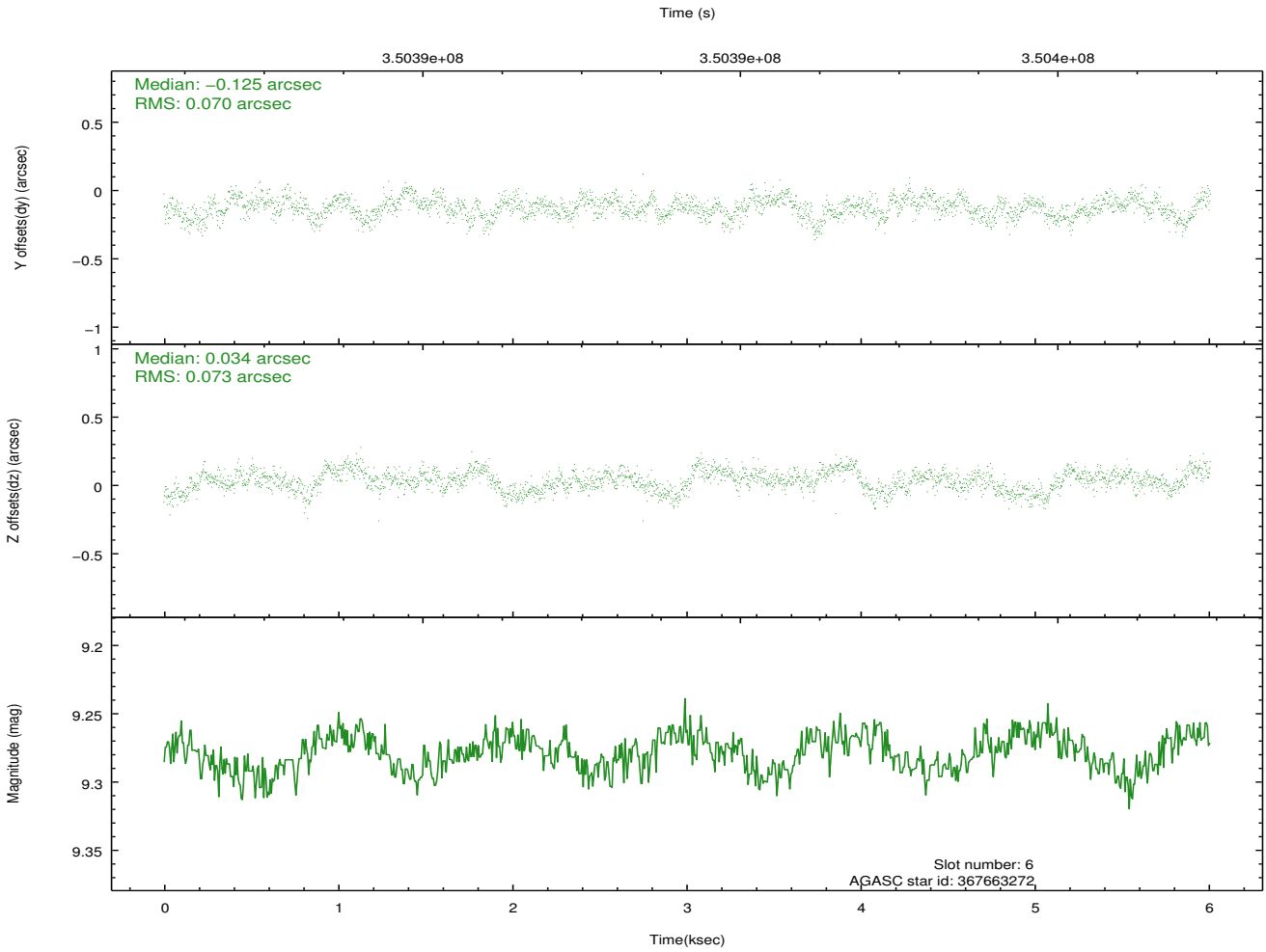
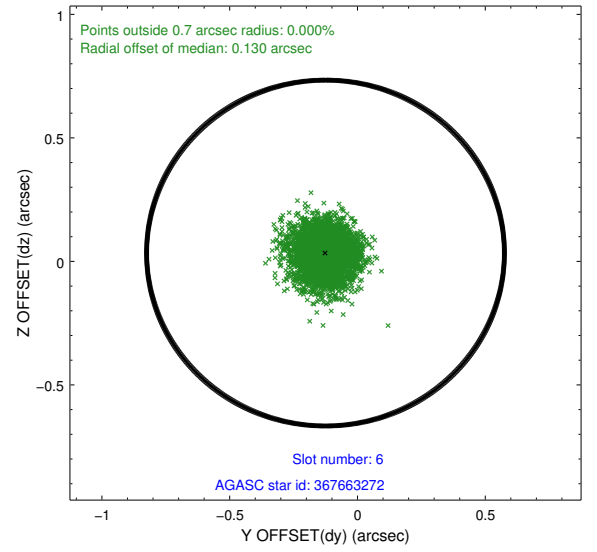
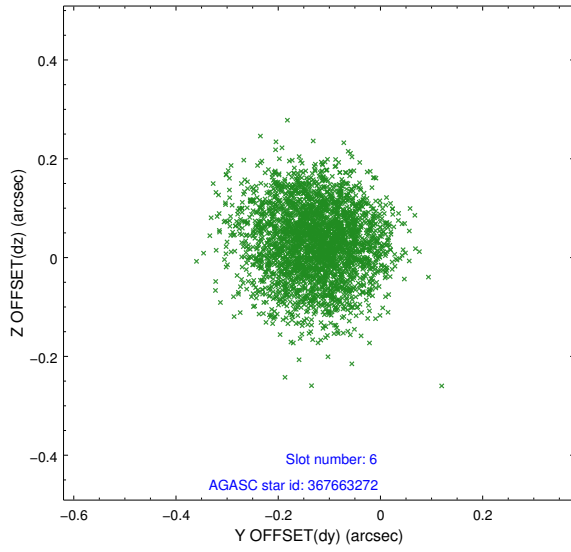
## 2.4.2 Slot 4



### 2.4.3 Slot 5

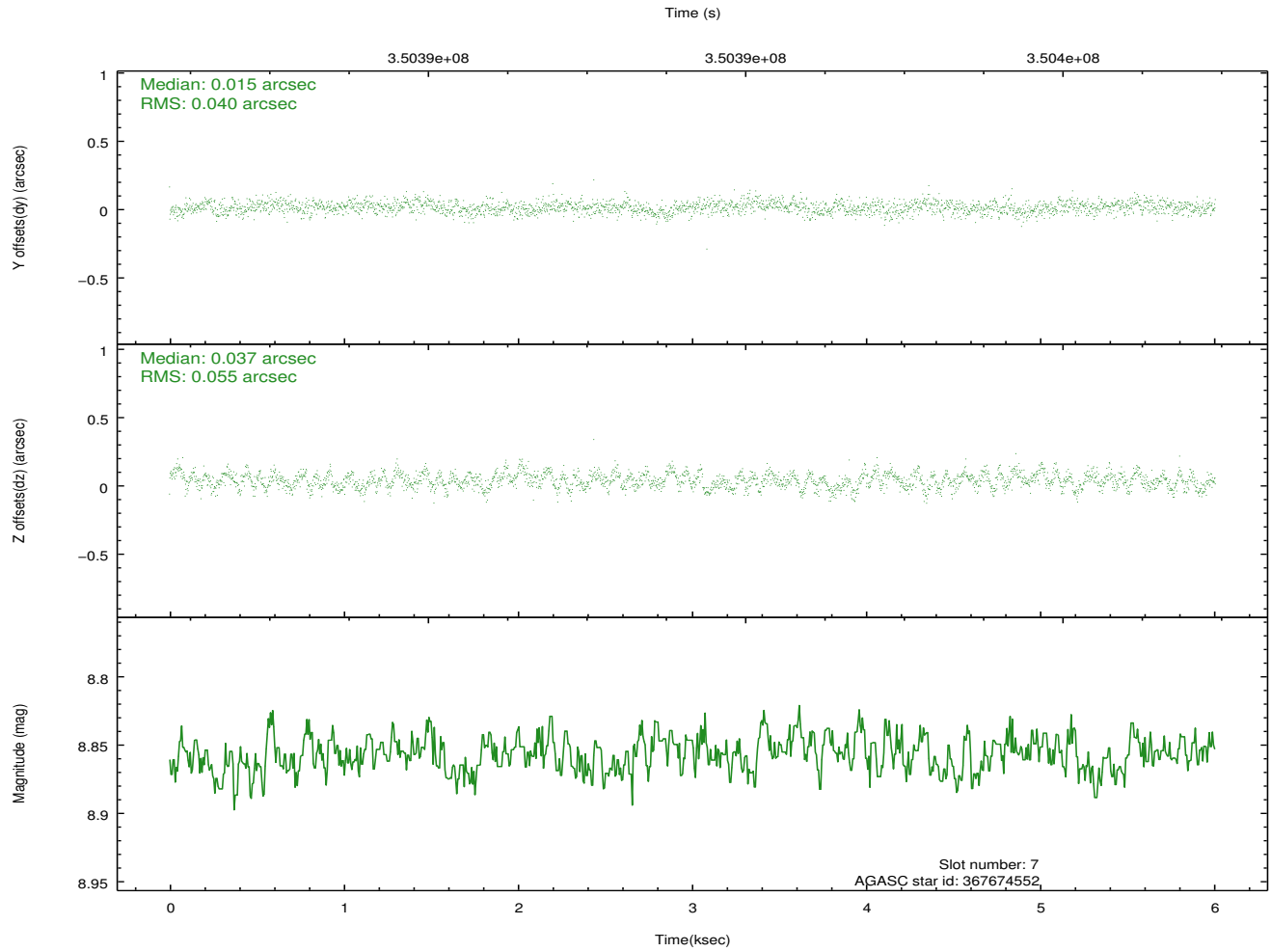
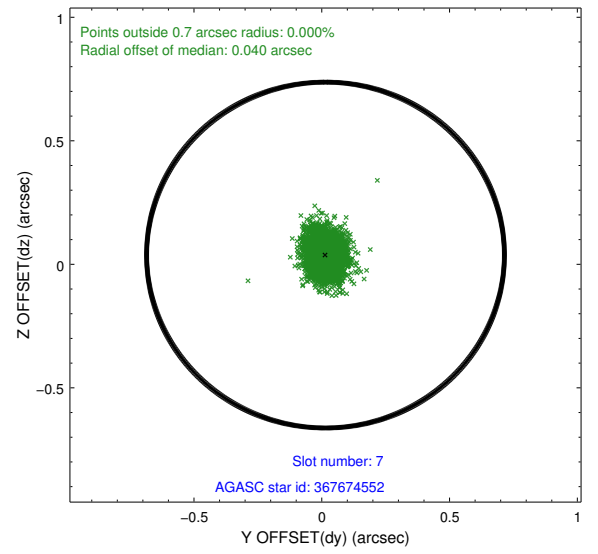
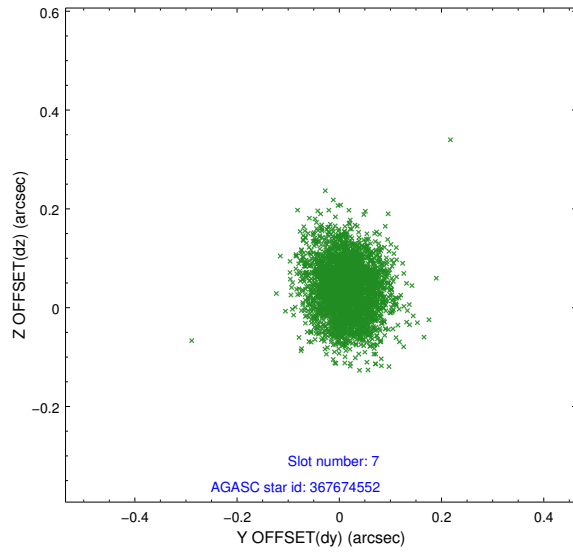


## 2.4.4 Slot 6



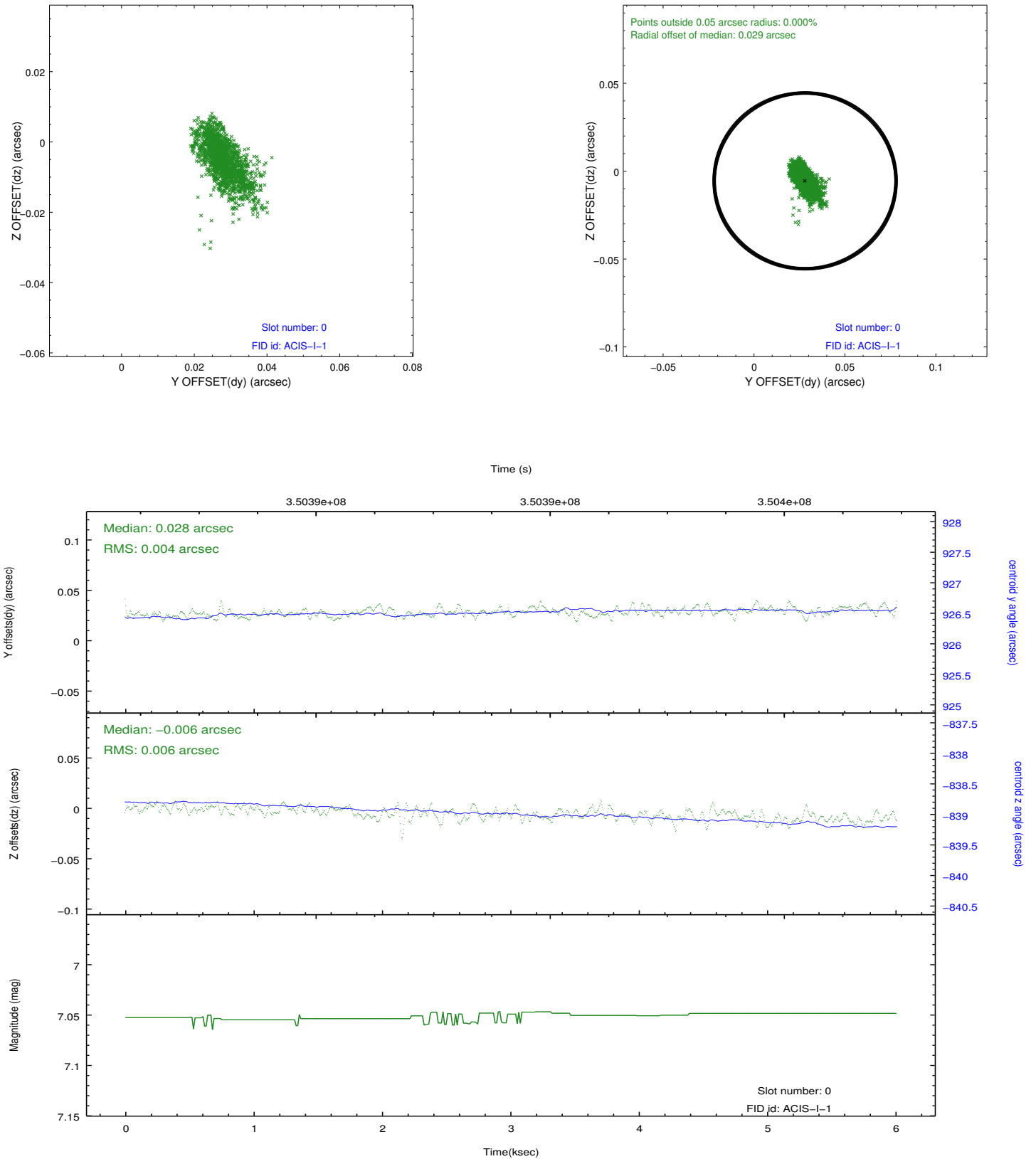


## 2.4.5 Slot 7

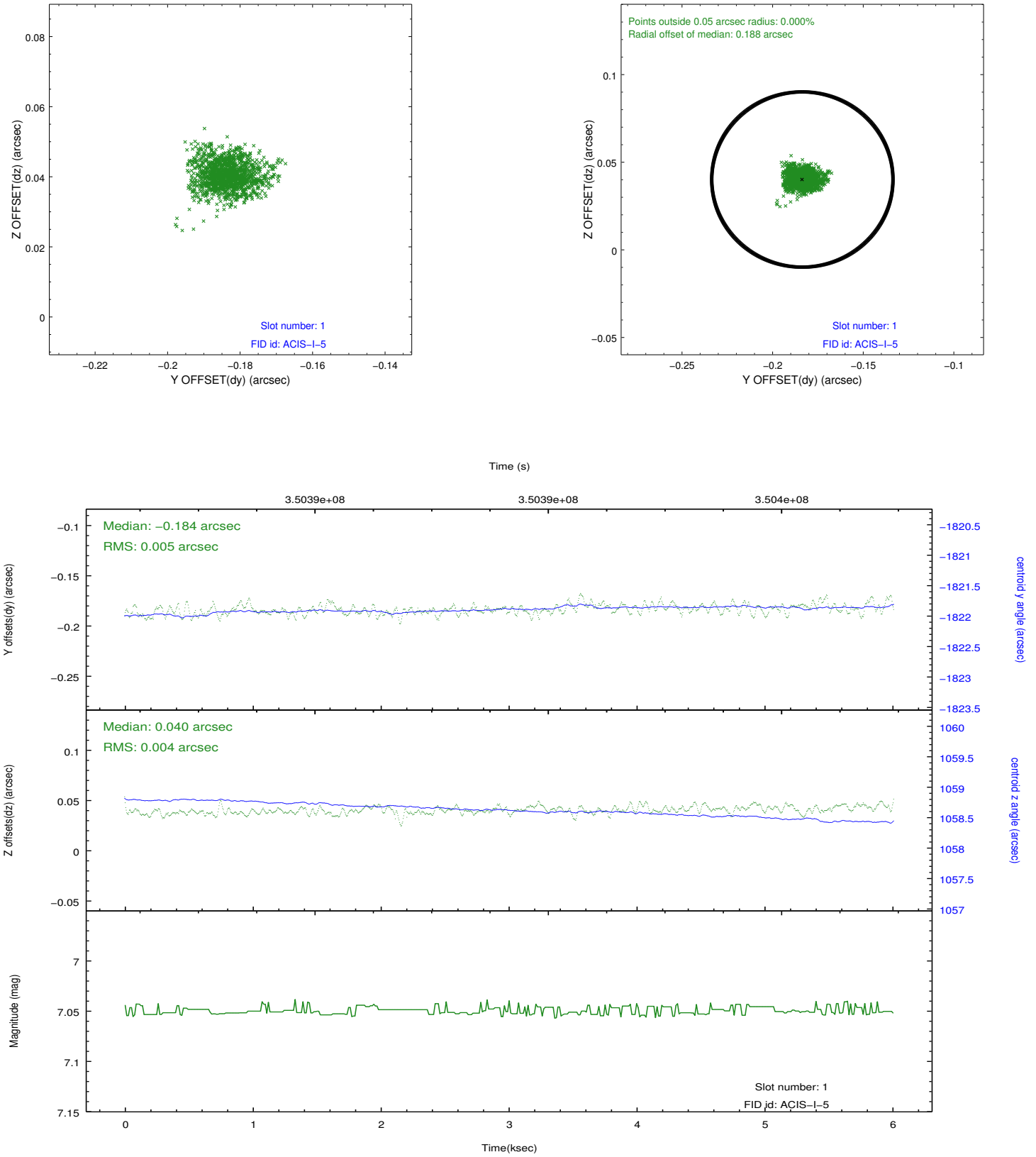


## 2.5 FID Slots

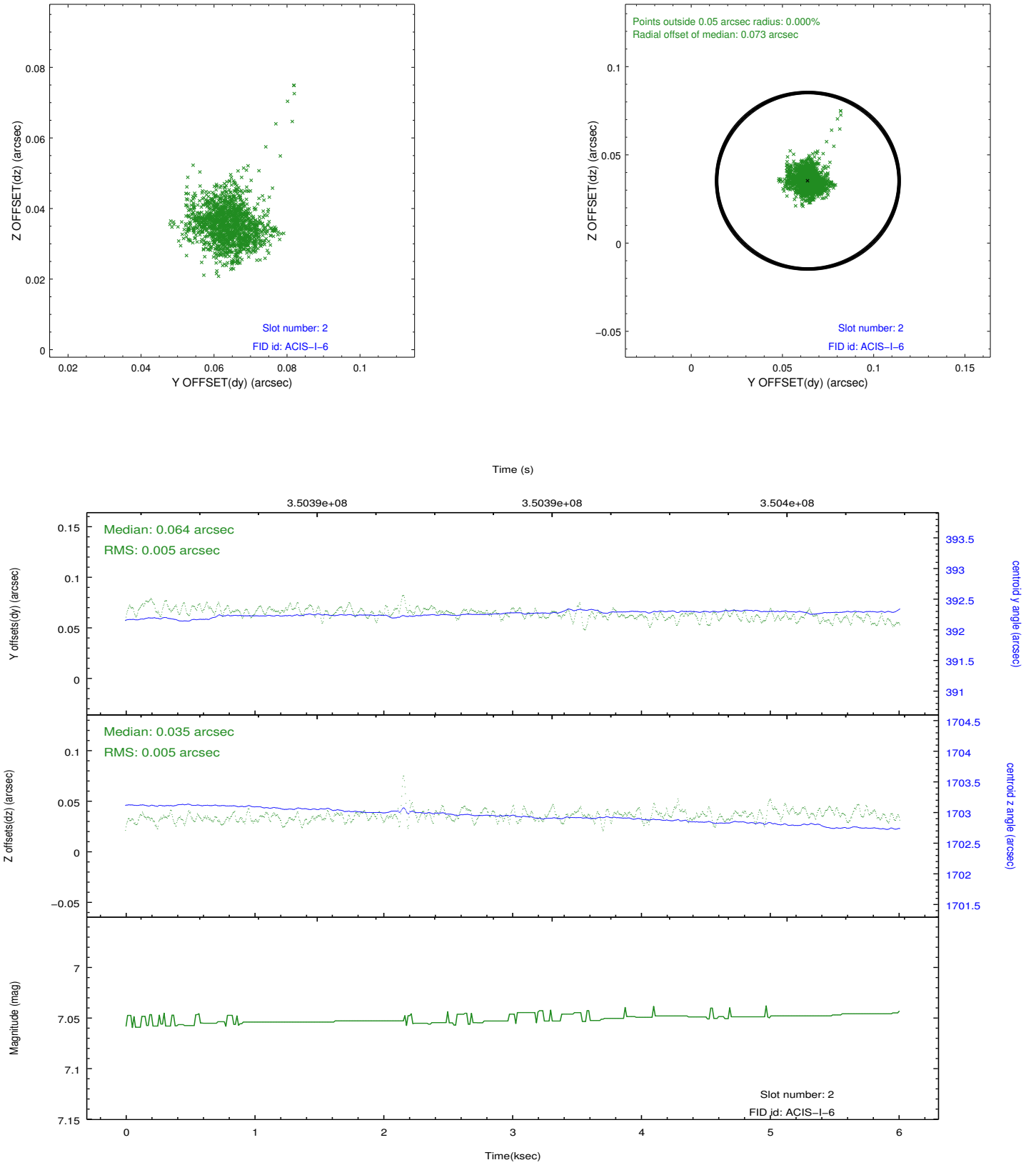
### 2.5.1 Slot 0



## 2.5.2 Slot 1



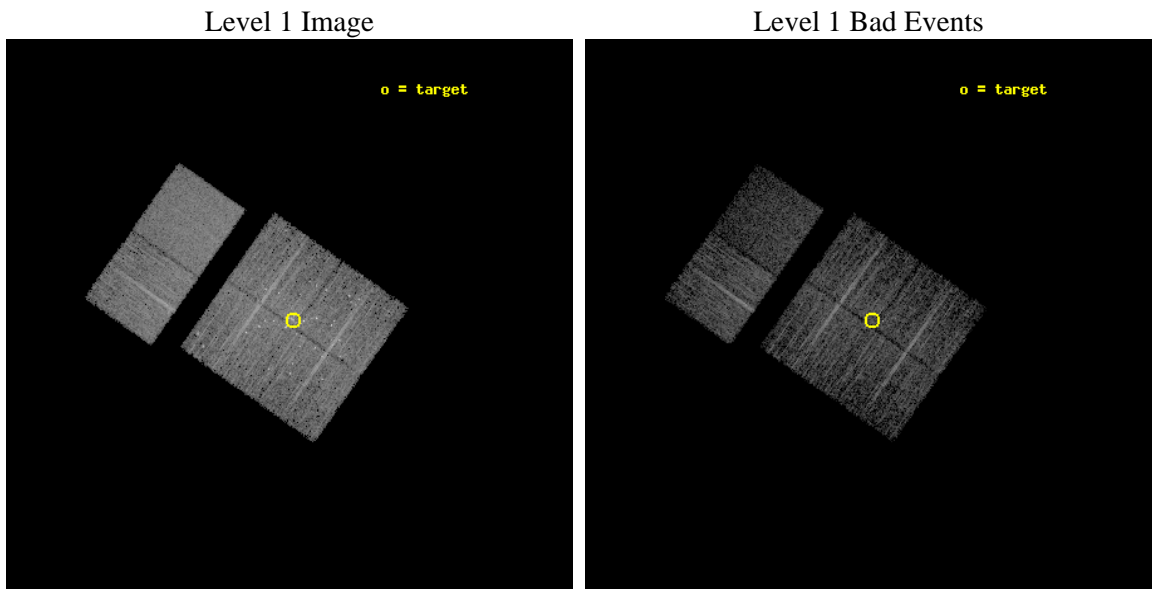
### 2.5.3 Slot 2



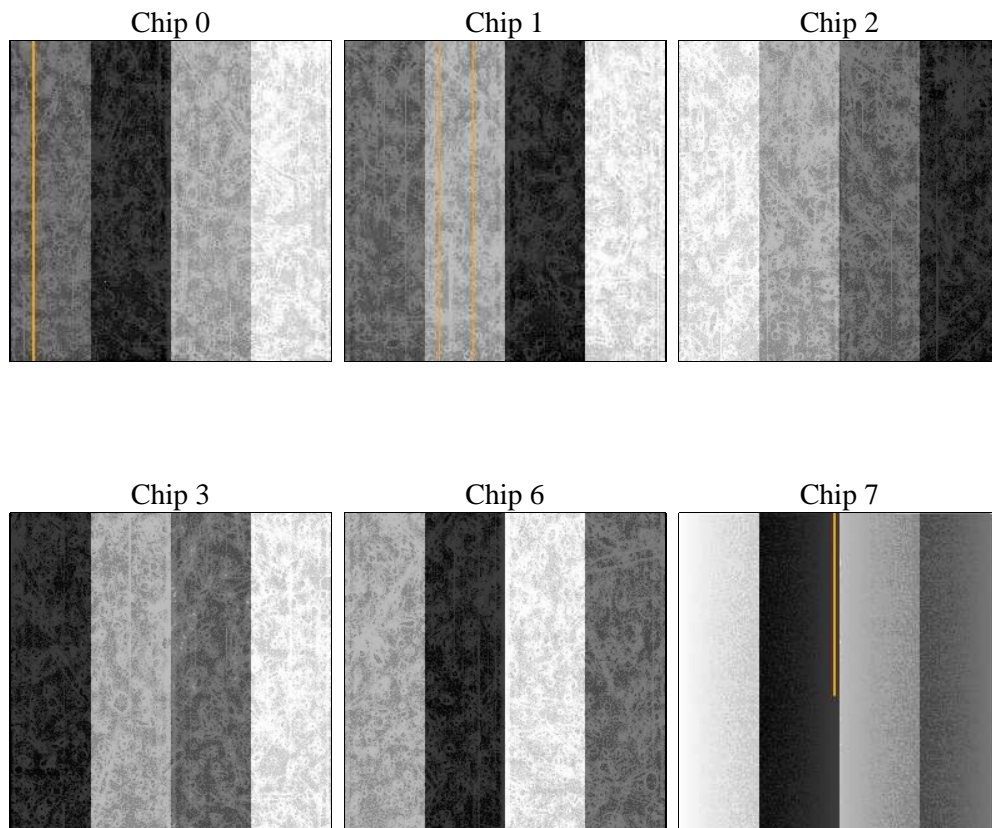
### 3 OBI Secondary

#### 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	4013.2031802535	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	4013.2035591006	Sum of GTIs [s]
date	2012-06-01T08:50:55	Date and time of file creation	ontime1	4013.2040180564	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4013.2039062977	Sum of GTIs [s]
			ontime3	4013.2031802535	Sum of GTIs [s]
			ontime6	4013.203997314	Sum of GTIs [s]
			ontime7	4013.203617692	Sum of GTIs [s]
			l1events	216422	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	31695	35245	37704	36321	37029	38428	grade 0 events	2609	4337	3500	3776	1527	1696
rejected events	26518	27463	31517	29883	33131	20645		8%	12%	9%	10%	4%	4%
rejected %	83%	77%	83%	82%	89%	53%	grade 1 events	34	137	66	61	25	43
								0%	0%	0%	0%	0%	0%
							grade 2 events	1024	1314	1072	1017	865	3607
								3%	3%	2%	2%	2%	9%
							grade 3 events	414	584	469	461	375	1622
								1%	1%	1%	1%	1%	4%
							grade 4 events	417	586	454	445	391	1633
								1%	1%	1%	1%	1%	4%
							grade 5 events	1154	1492	1224	1389	1386	4066
								3%	4%	3%	3%	3%	10%
							grade 6 events	723	967	696	744	744	9240
								2%	2%	1%	2%	2%	24%
							grade 7 events	25320	25828	30223	28428	31716	16521
								79%	73%	80%	78%	85%	42%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.95098282

### A.2 Comments

Joint Proposal: HST. Window constraint met.