

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13837 - L2 Version 1  
Chandra X-Ray Center

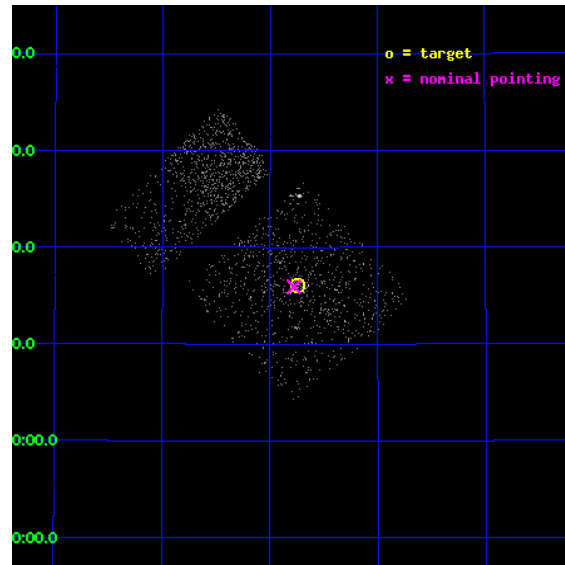
L2 Processing Date : Feb 19 2012

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# 1 Front

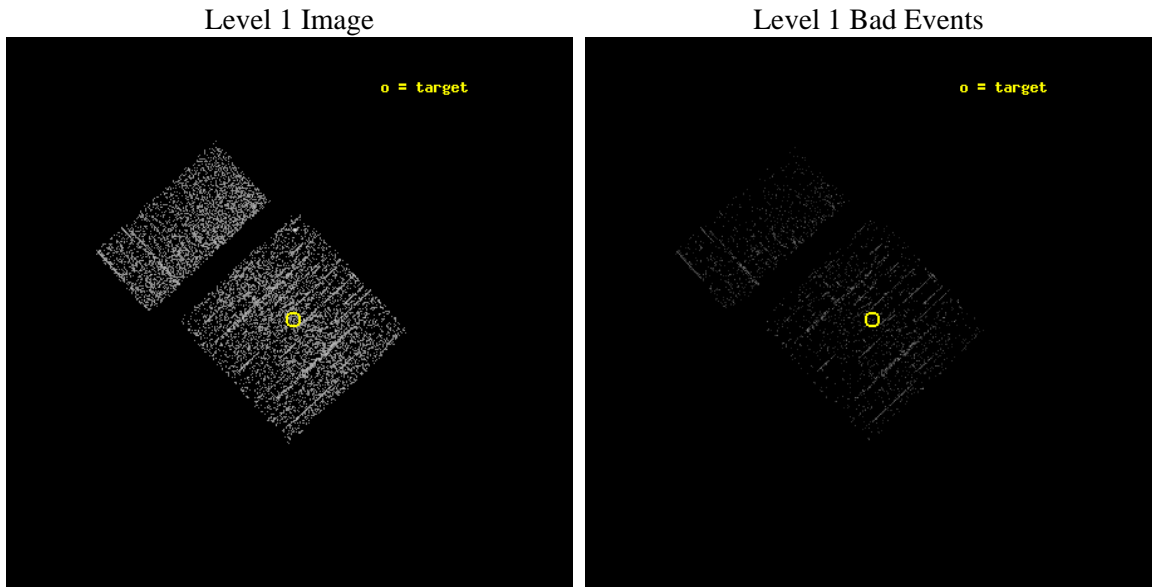
seq_num	601011	Sequence number
obs_id	13837	Observation id
title	Monitoring M31 for BHXNe	Proposal title
observer	Dr Michael Garcia	Principal investigator
object	M31 BHXN	Source name
dtcycle	0	&#160
cycle	P	events are from which exps? P[rimary] S[econdar]
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.694642650701	Nominal RA [deg]
dec_nom	41.26548775433	Nominal Dec [deg]
roll_nom	317.31575518508	Nominal Roll [deg]
revision	1	Processing version of data
ontime	922.80102568865	Sum of GTIs [s]
livetime	145.27114085607	Livetime [s]
ontime0	922.80102568865	Sum of GTIs [s]
ontime1	922.80102568865	Sum of GTIs [s]
ontime2	922.80102568865	Sum of GTIs [s]
ontime3	922.80102568865	Sum of GTIs [s]
ontime6	922.80102568865	Sum of GTIs [s]
ontime7	922.80102568865	Sum of GTIs [s]
l2events	2255	Number of level 2 events



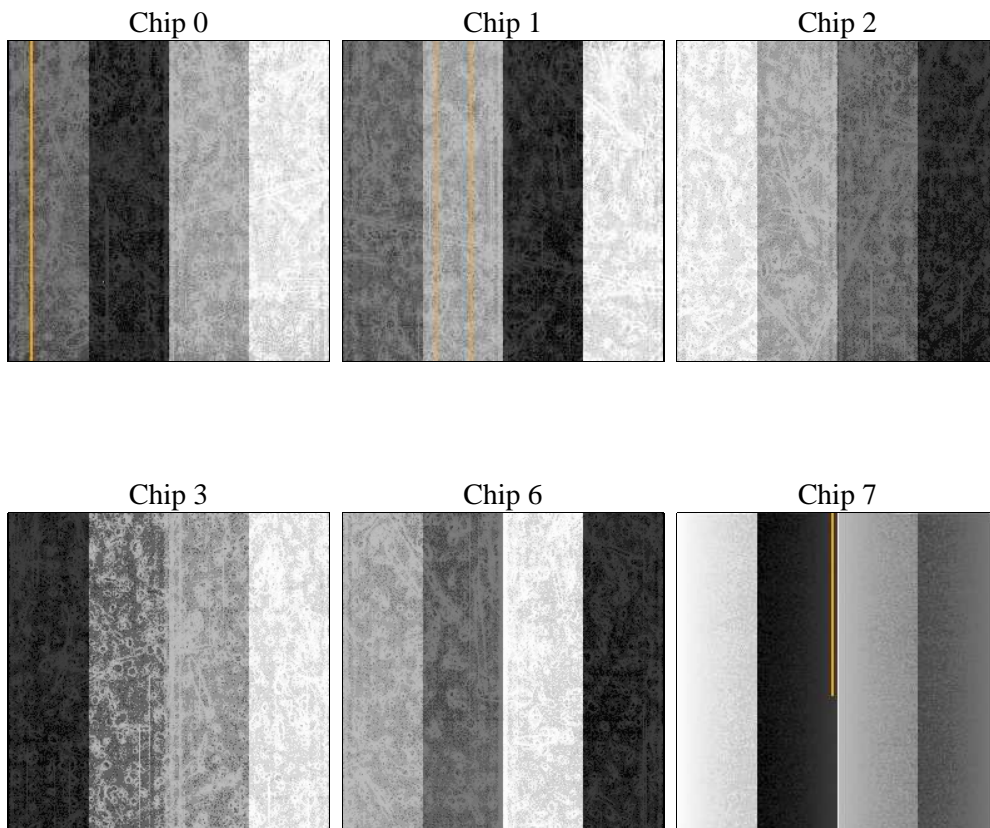
## 2 OBI Primary

### 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	8.4.3	Processing system revision	ontime	922.80102568865	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	922.80102568865	Sum of GTIs [s]
date	2012-02-19T23:03:06	Date and time of file creation	ontime1	922.80102568865	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	922.80102568865	Sum of GTIs [s]
			ontime3	922.80102568865	Sum of GTIs [s]
			ontime6	922.80102568865	Sum of GTIs [s]
			ontime7	922.80102568865	Sum of GTIs [s]
			l1events	15573	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2251	2923	2436	2732	2591	2640
rejected events	2027	2457	2105	2222	2359	1875
rejected %	90%	84%	86%	81%	91%	71%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	80	220	128	311	59	71
	3%	7%	5%	11%	2%	2%
grade 1 events	2	3	2	0	1	1
	0%	0%	0%	0%	0%	0%
grade 2 events	59	105	67	78	62	152
	2%	3%	2%	2%	2%	5%
grade 3 events	26	39	36	42	31	63
	1%	1%	1%	1%	1%	2%
grade 4 events	16	39	41	28	23	71
	0%	1%	1%	1%	0%	2%
grade 5 events	129	108	94	109	113	247
	5%	3%	3%	3%	4%	9%
grade 6 events	44	64	59	53	58	414
	1%	2%	2%	1%	2%	15%
grade 7 events	1895	2345	2009	2111	2244	1621
	84%	80%	82%	77%	86%	61%

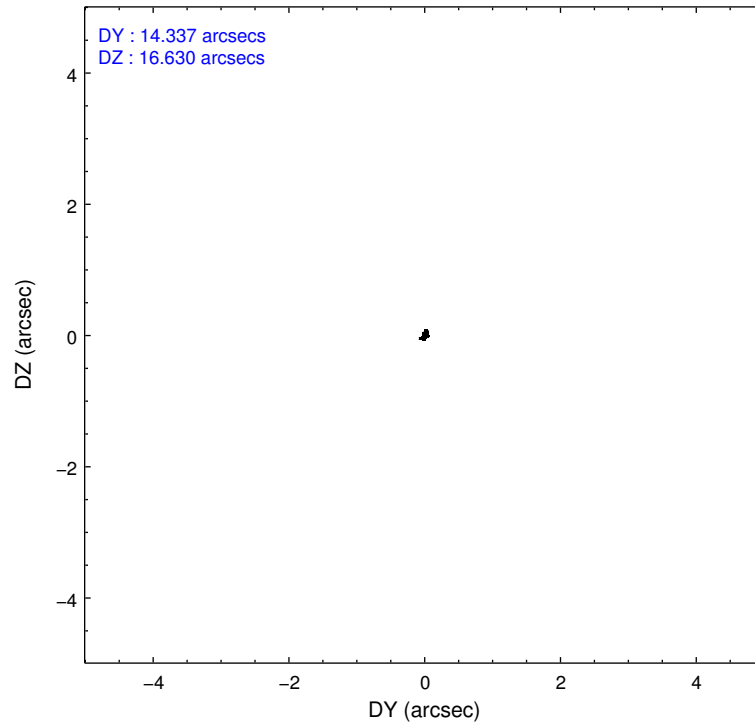
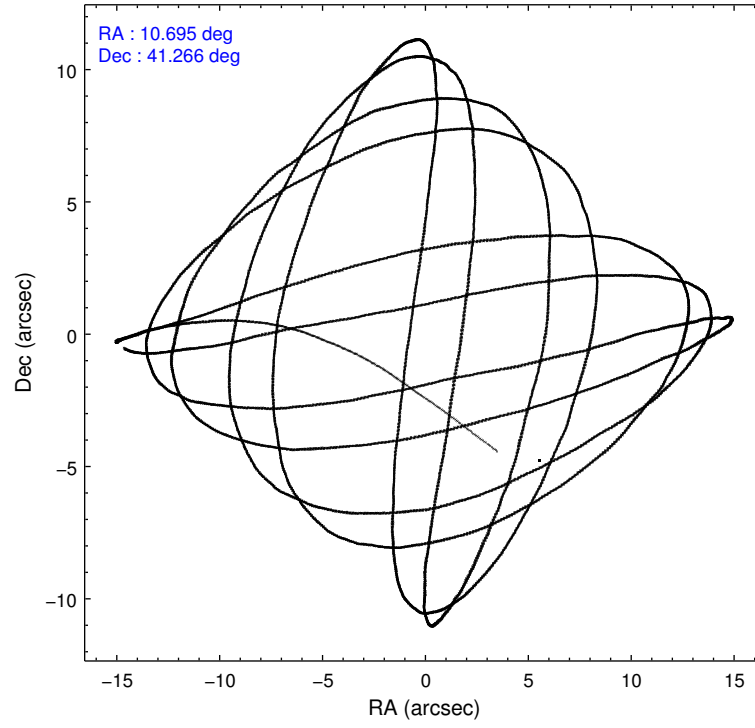


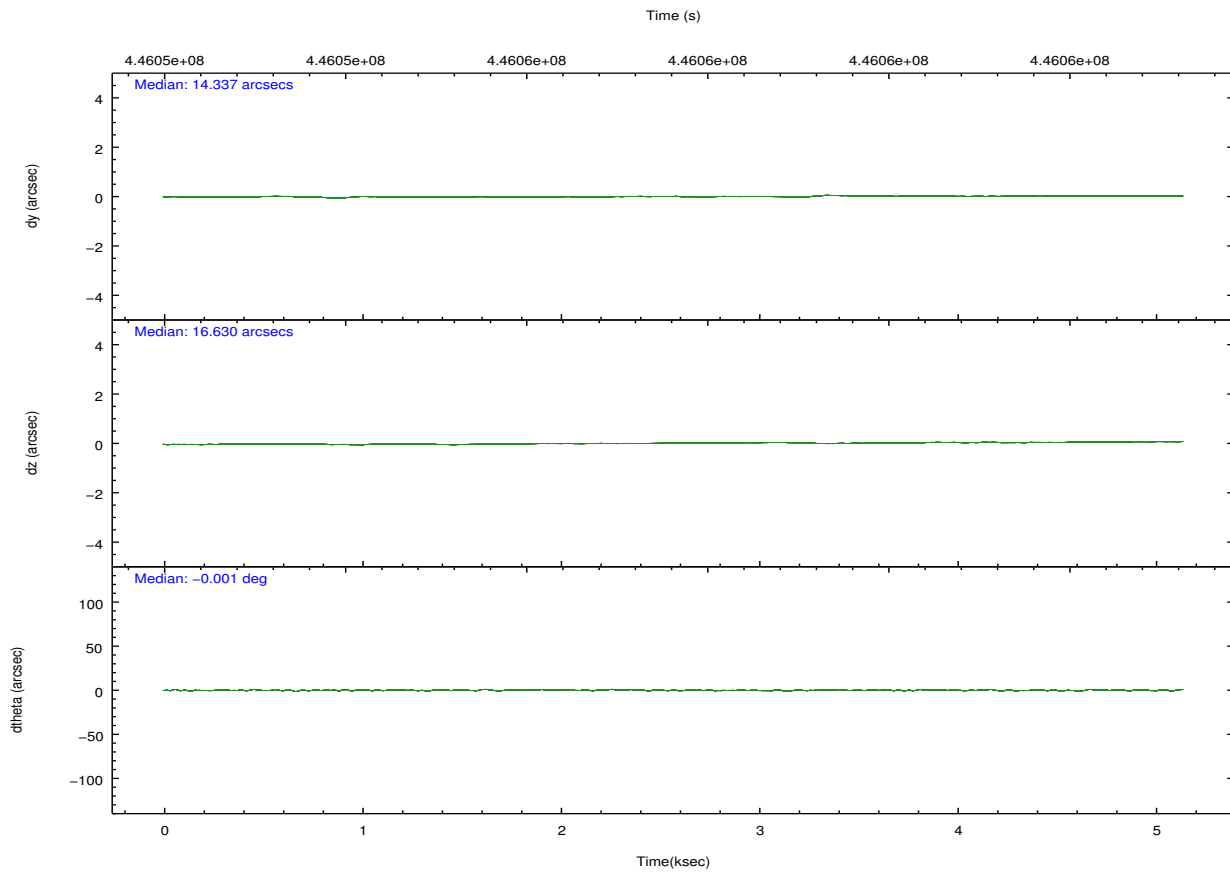
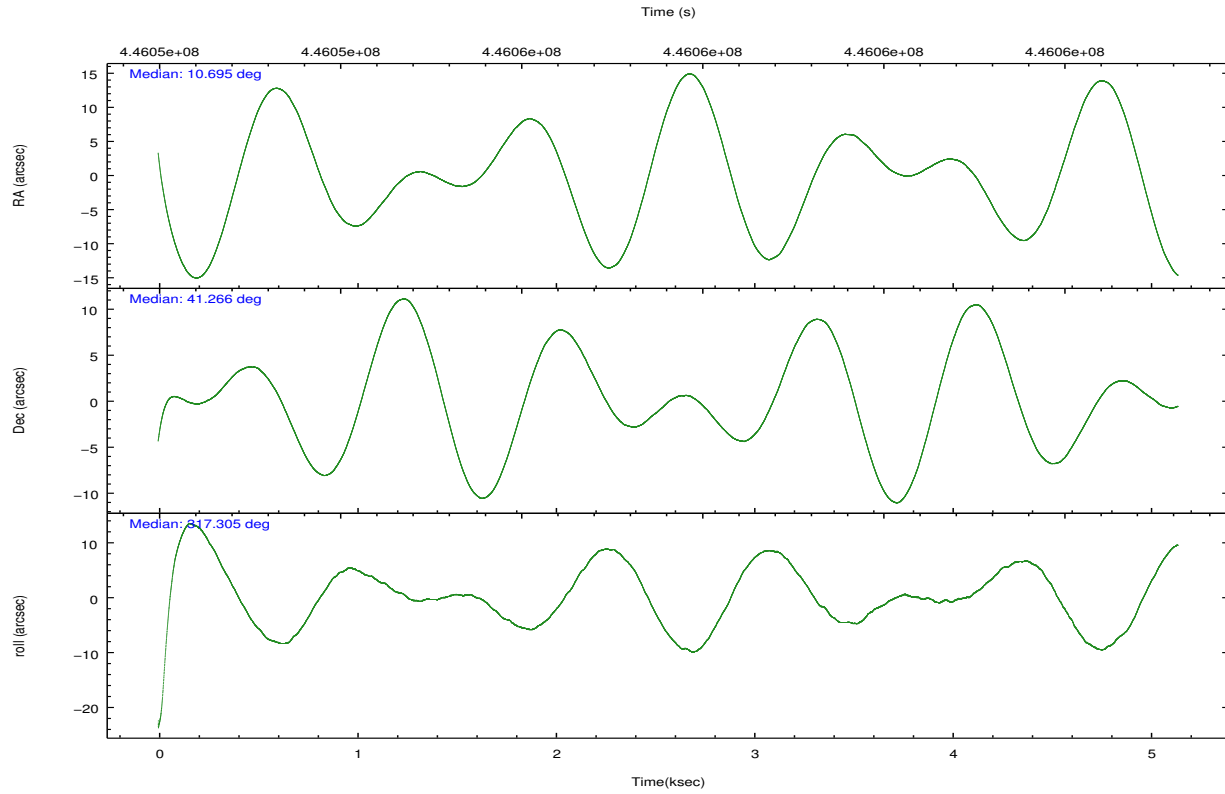
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	10.658994	10.69464265070098
[deg] Pointing Dec	41.271424	41.26548775432963
[deg] Pointing Roll	317.130653	317.3157551850766
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	446053382.184000	446051877.9102
Observation start date	2012-02-19T15:41:56	2012-02-19T15:17:57
[s] Observation end time (MET)	446058382.184000	446059274.31059
Observation end date	2012-02-19T17:05:16	2012-02-19T17:21:14
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	O2	Y
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	Y	Y
[s] Primary exposure time	0.600000	0.6
[s] Secondary exposure time	0.000000	3.2
Duty cycle	5	5

## 2.3 Aspect



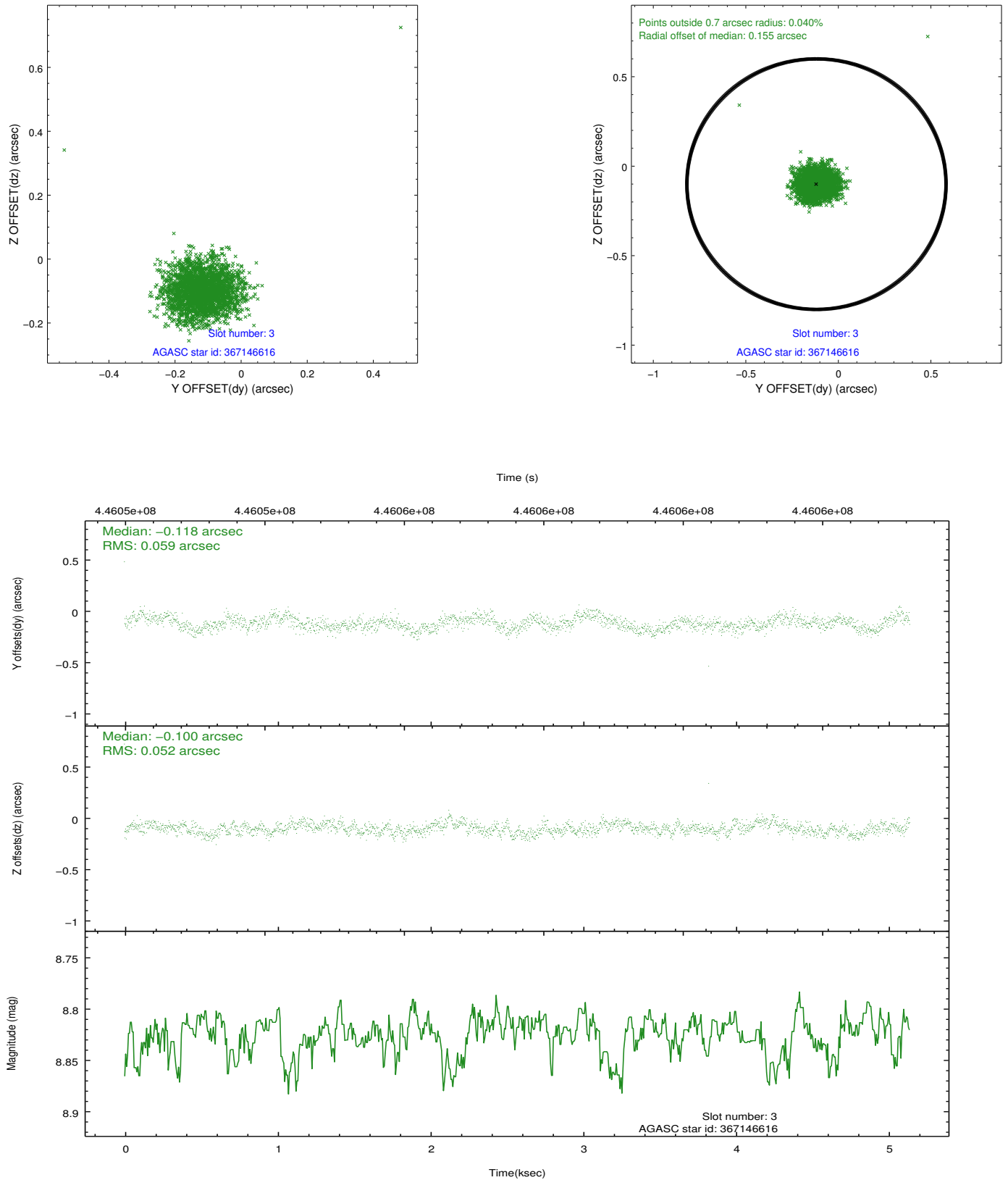


### Slot Statistics

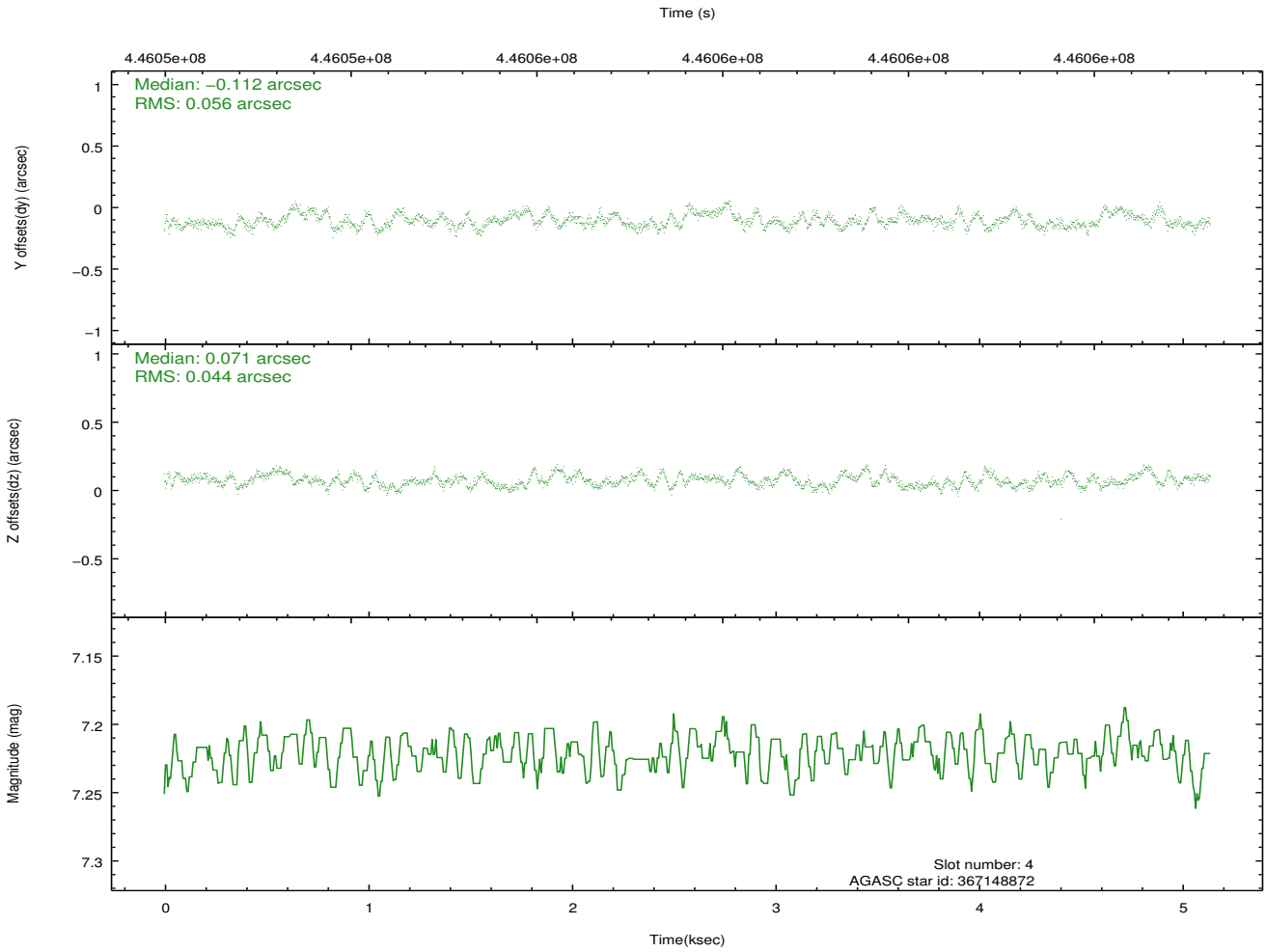
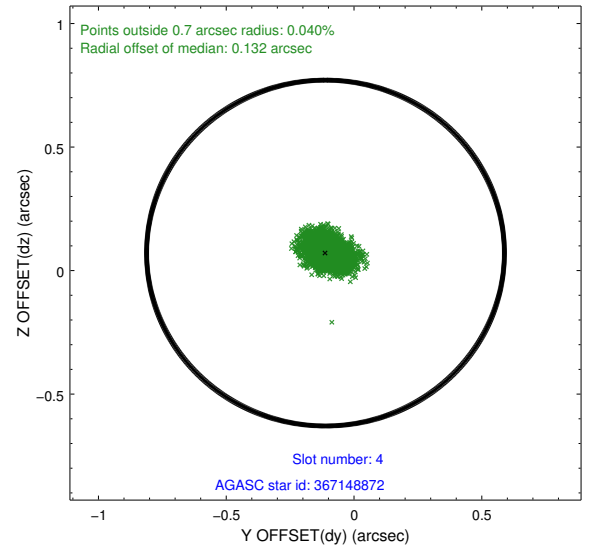
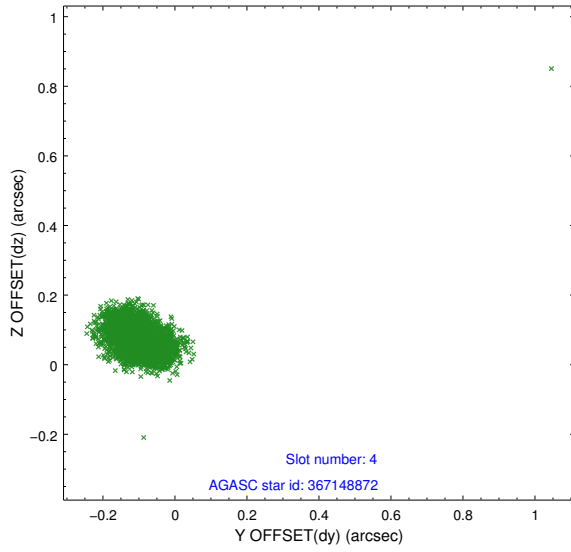
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	1254	0.069	-0.034	0.006	0.011	0.000000	0.000000	925.19	-840.33
1	FID	ACIS-I-5	7.00	1254	-0.216	0.070	0.006	0.010	0.000000	0.000000	-1822.52	1056.72
2	FID	ACIS-I-6	6.99	1254	0.056	0.034	0.006	0.010	0.000000	0.000000	389.48	1702.49
3	GUIDE	367146616	8.82	2508	-0.118	-0.100	0.081	0.127	11.418645	41.190163	1701.31	1192.51
4	GUIDE	367148872	7.22	2509	-0.112	0.071	0.072	0.113	10.505940	40.688258	1123.64	-1822.56
5	GUIDE	367657272	8.41	2507	0.061	0.027	0.069	0.115	11.834471	41.298907	2248.65	2250.93
6	GUIDE	367674552	8.84	2509	-0.051	0.129	0.079	0.125	11.016238	41.570845	-28.30	1447.08
7	GUIDE	367145856	9.29	2505	0.213	-0.130	0.122	0.205	10.744946	40.402085	2302.83	-2132.81

## 2.4 Star Slots

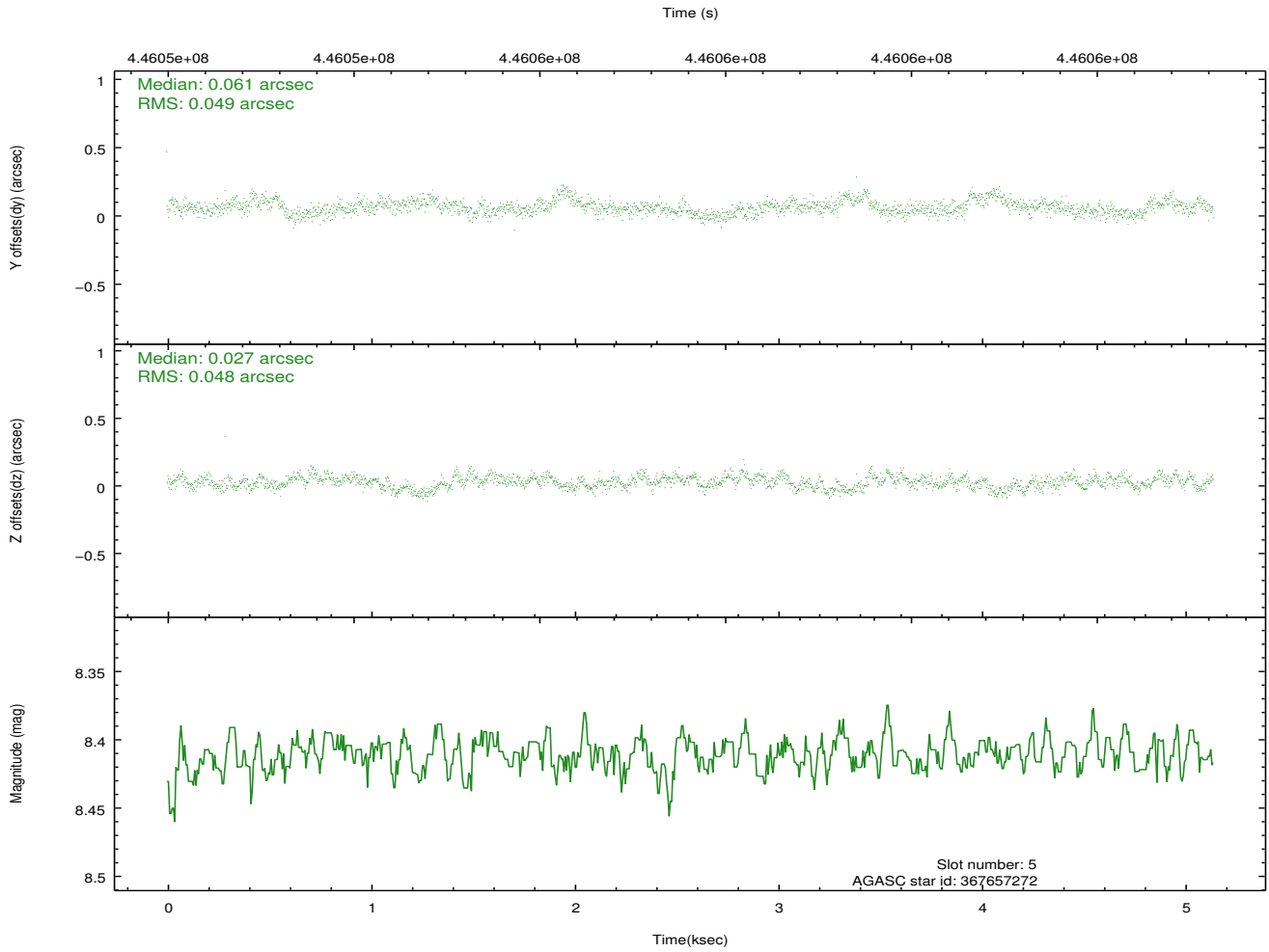
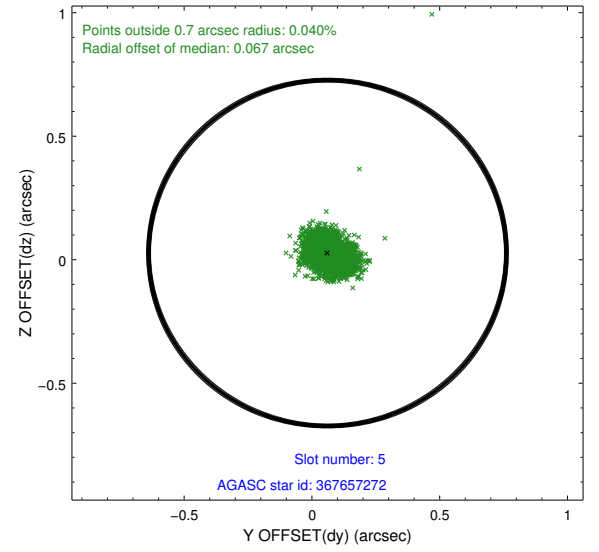
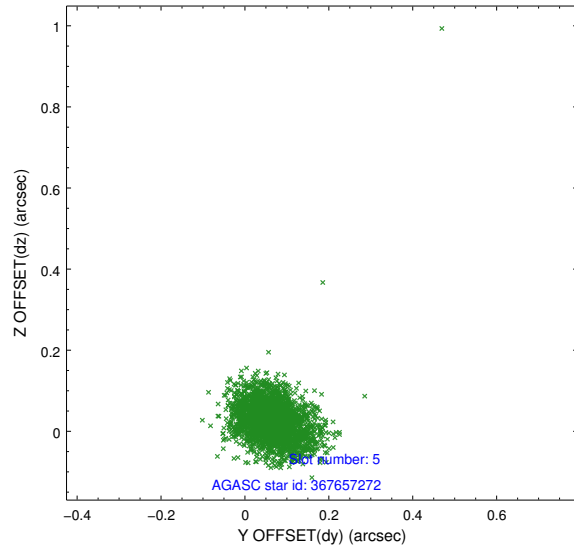
### 2.4.1 Slot 3



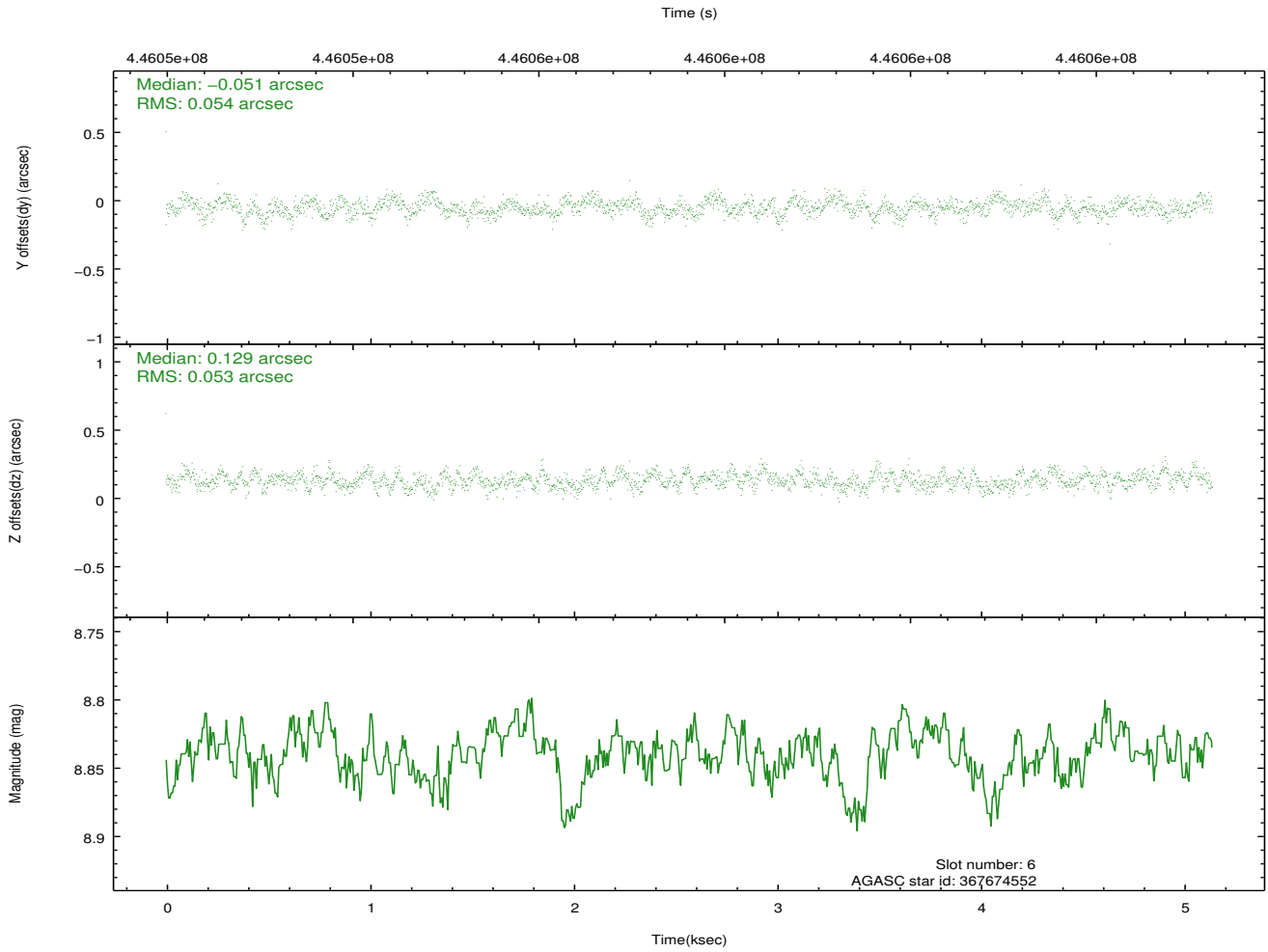
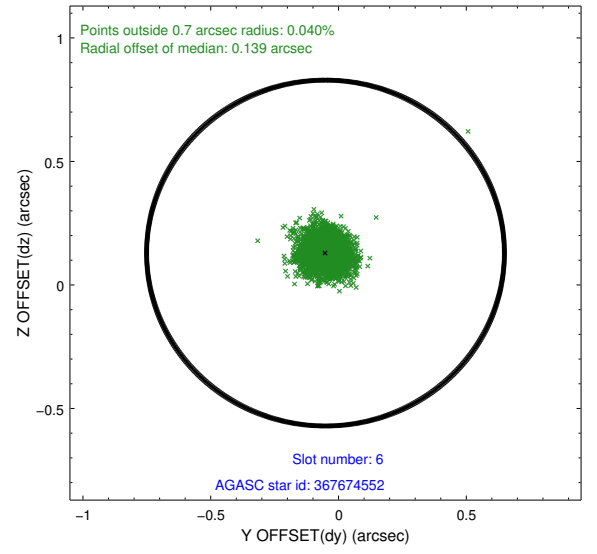
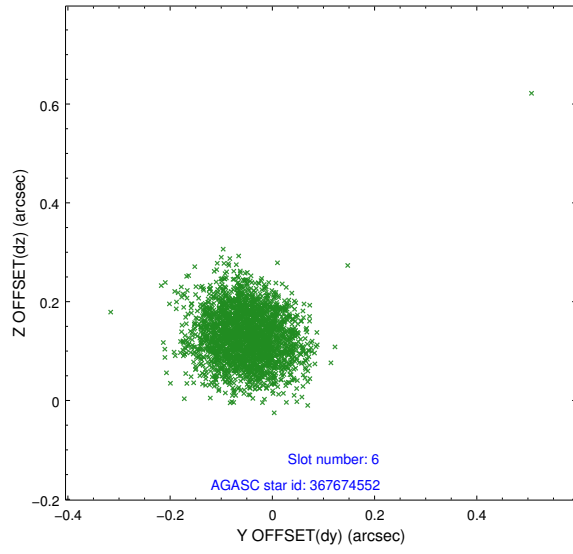
## 2.4.2 Slot 4



### 2.4.3 Slot 5

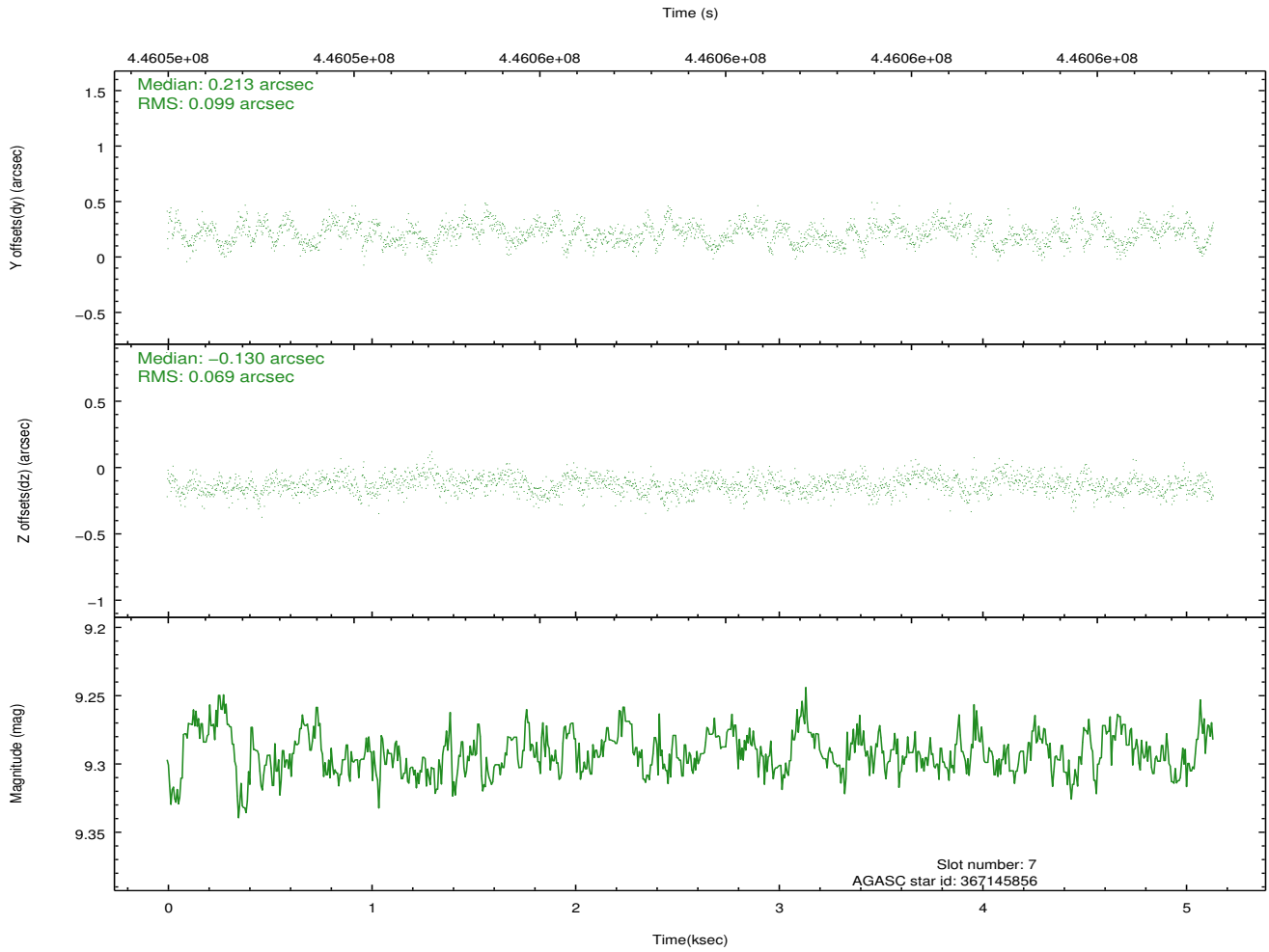
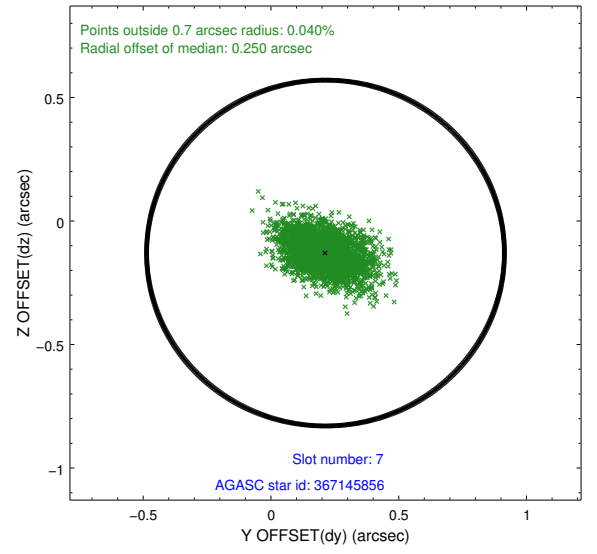
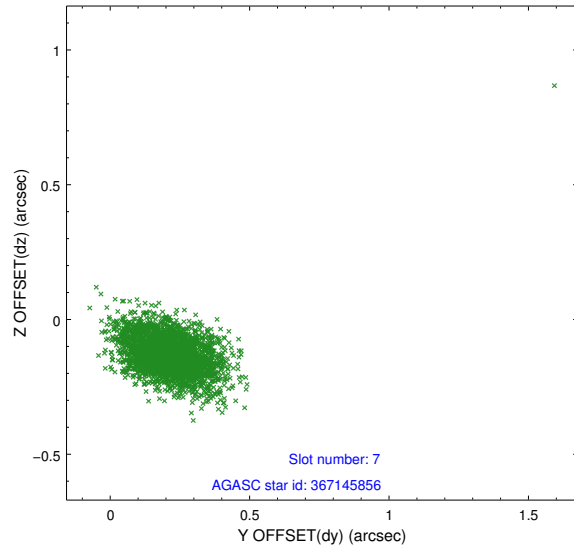


## 2.4.4 Slot 6



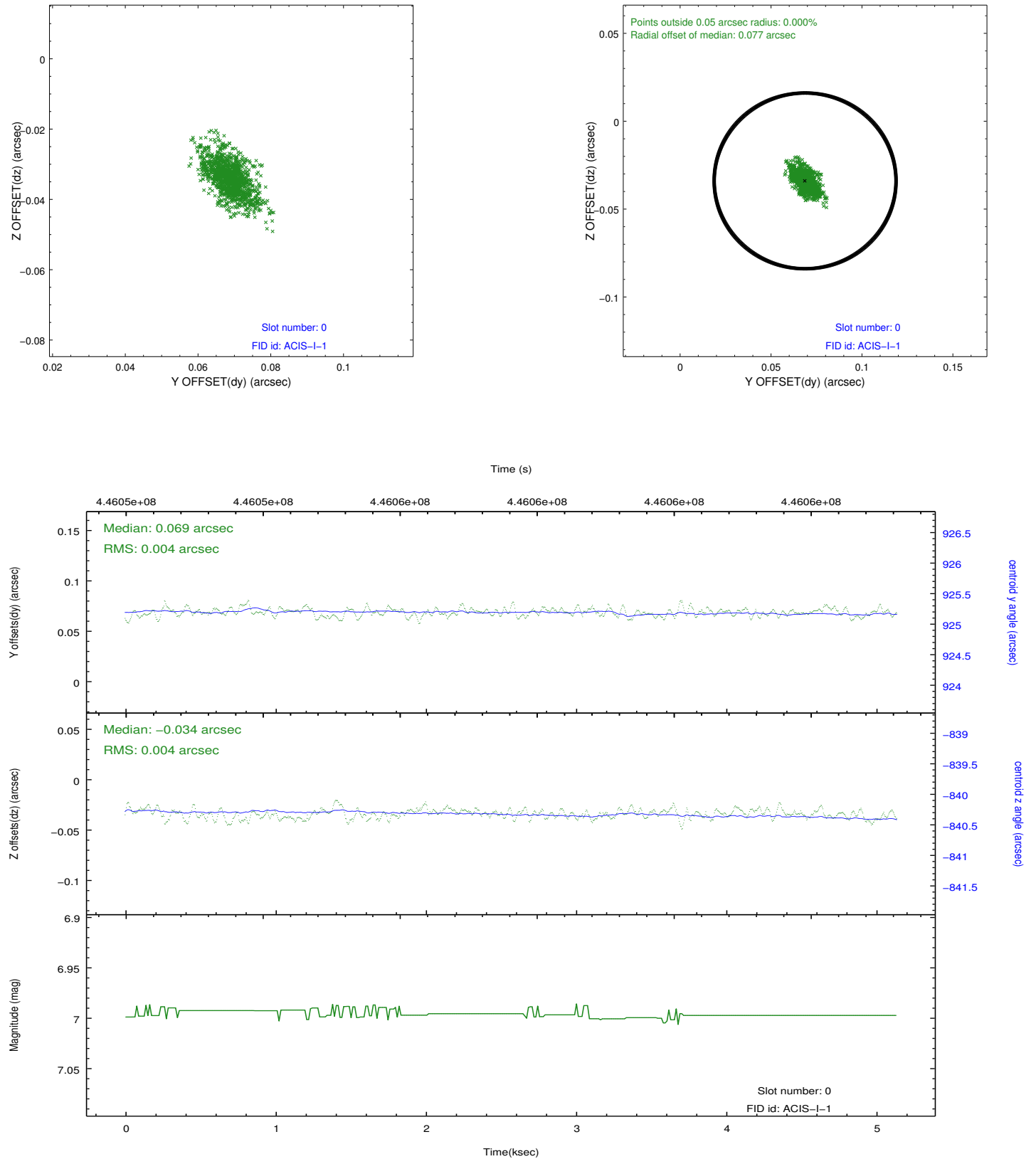


## 2.4.5 Slot 7

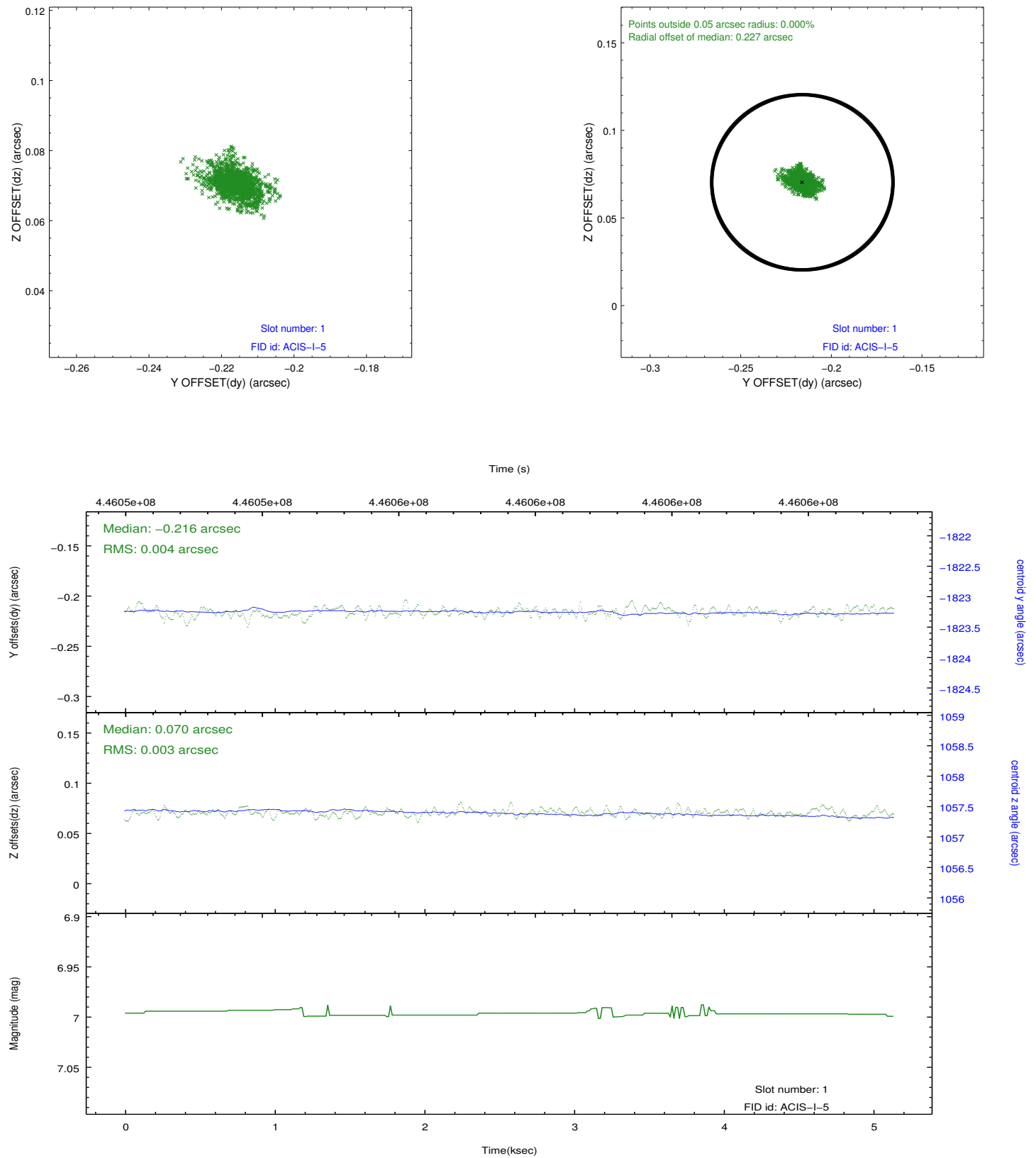


## 2.5 FID Slots

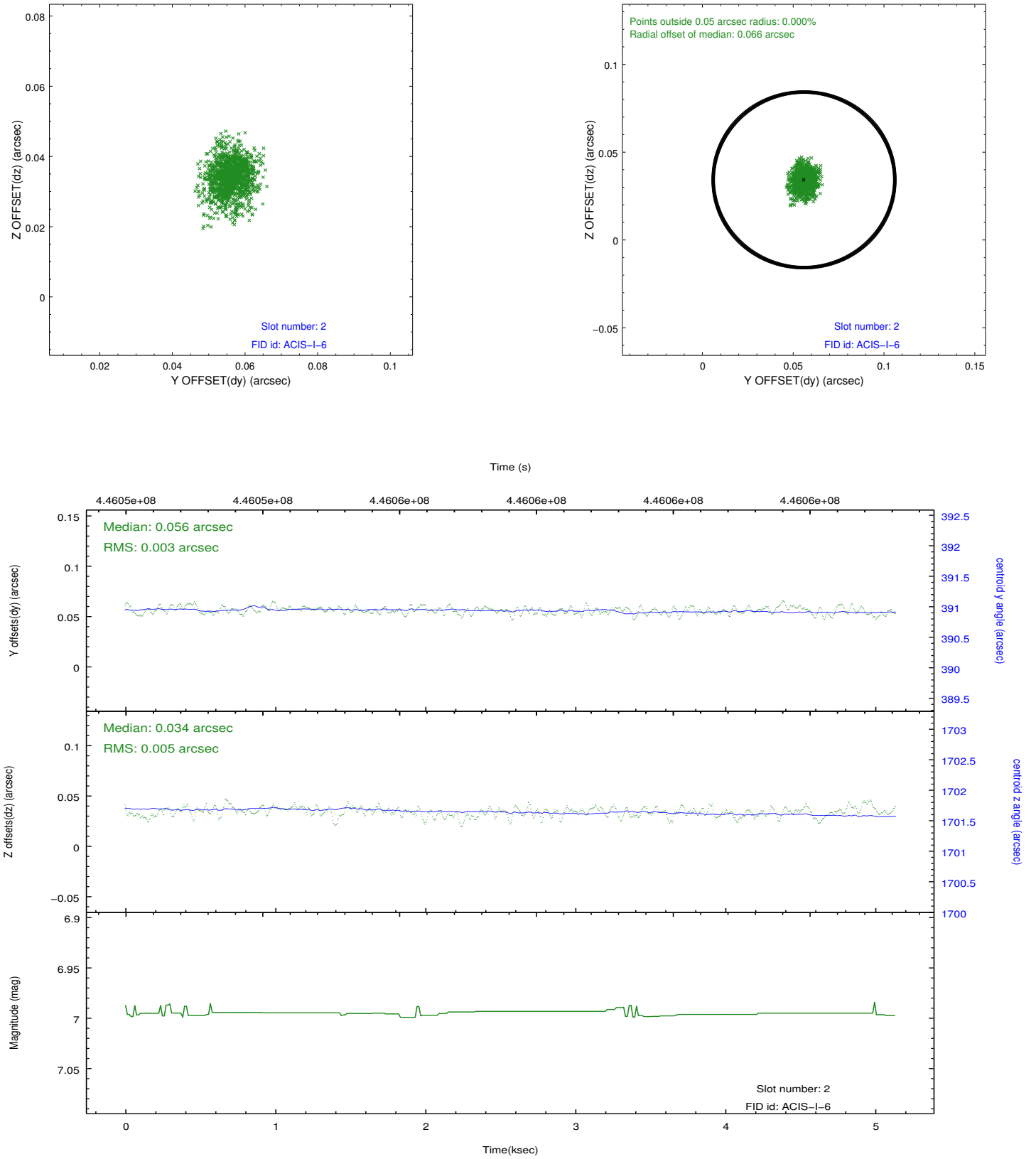
### 2.5.1 Slot 0



## 2.5.2 Slot 1



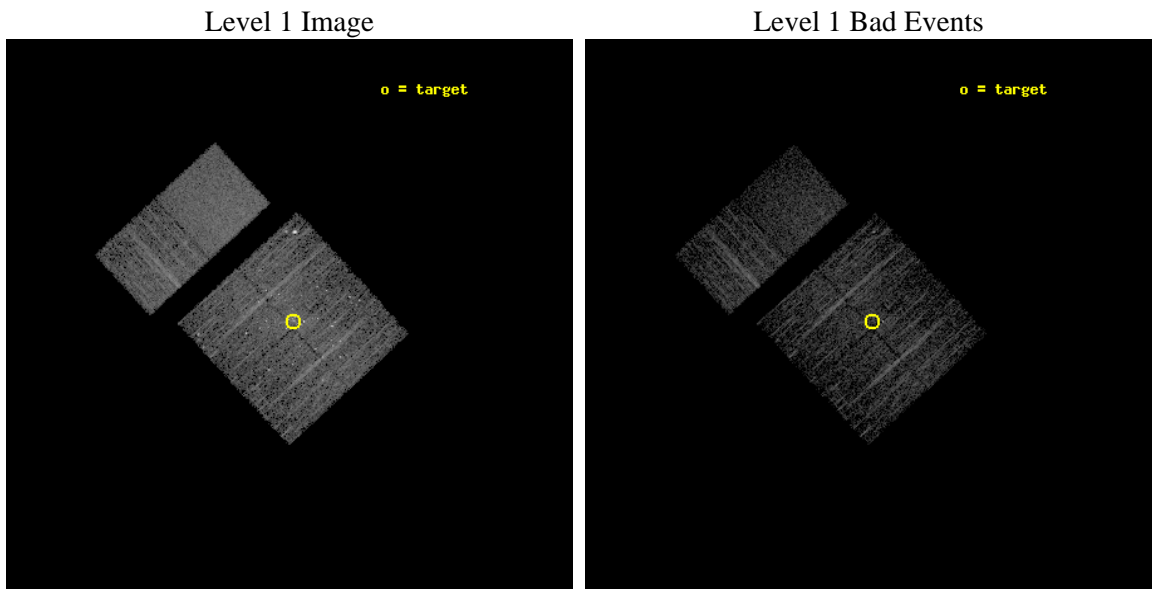
### 2.5.3 Slot 2



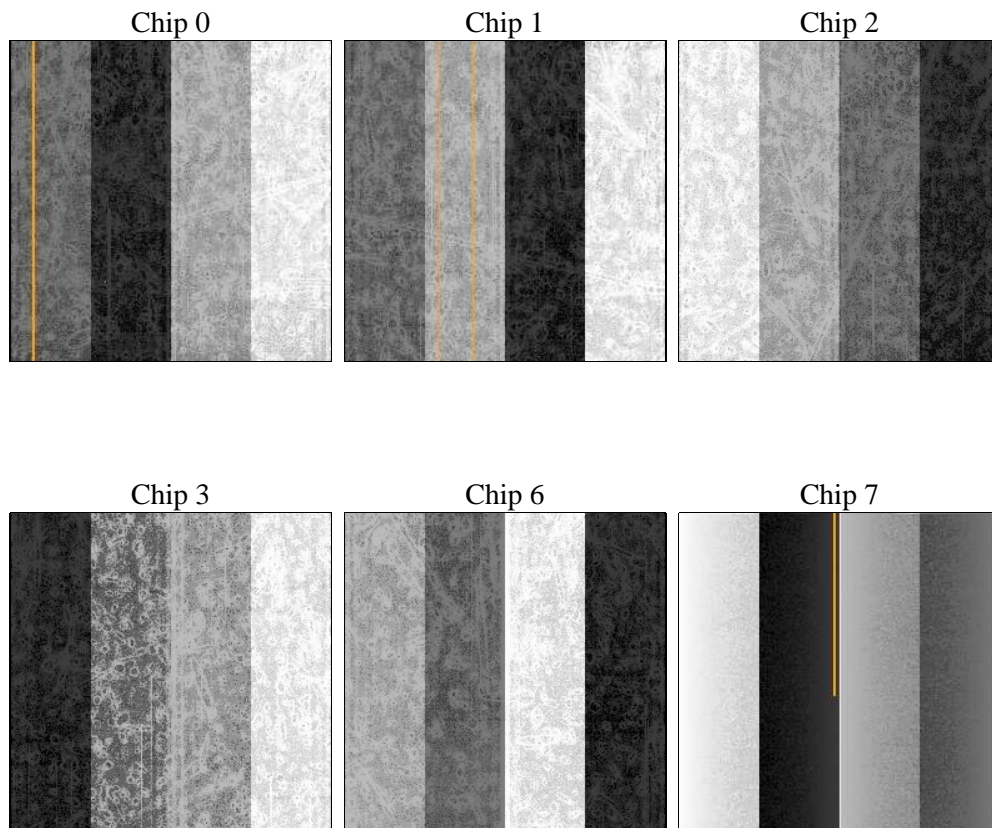
### 3 OBI Secondary

#### 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	8.4.3	Processing system revision	ontime	3957.049431622	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	3957.0495911241	Sum of GTIs [s]
date	2012-02-19T23:03:06	Date and time of file creation	ontime1	3957.0494611859	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	3957.0495605469	Sum of GTIs [s]
			ontime3	3957.049431622	Sum of GTIs [s]
			ontime6	3957.0494514704	Sum of GTIs [s]
			ontime7	3957.0495119095	Sum of GTIs [s]
			l1events	157299	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	21350	26480	24355	30050	24323	30741	grade 0 events	1619	4296	2859	6641	1138	1266
rejected events	17796	19268	19347	20337	21270	16878		7%	16%	11%	22%	4%	4%
rejected %	83%	72%	79%	67%	87%	54%	grade 1 events	21	135	25	120	15	37
								0%	0%	0%	0%	0%	0%
							grade 2 events	758	1269	902	1322	675	2979
								3%	4%	3%	4%	2%	9%
							grade 3 events	329	415	349	506	276	1225
								1%	1%	1%	1%	1%	3%
							grade 4 events	288	480	326	509	313	1174
								1%	1%	1%	1%	1%	3%
							grade 5 events	1005	1221	953	1189	1159	3128
								4%	4%	3%	3%	4%	10%
							grade 6 events	565	764	581	750	655	7245
								2%	2%	2%	2%	2%	23%
							grade 7 events	16765	17900	18360	19013	20092	13687
								78%	67%	75%	63%	82%	44%

## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.87985045731065

### A.2 Comments

Joint Proposal: HST. Monitor constraint met.