

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12277 - L2 Version 2  
Chandra X-Ray Center

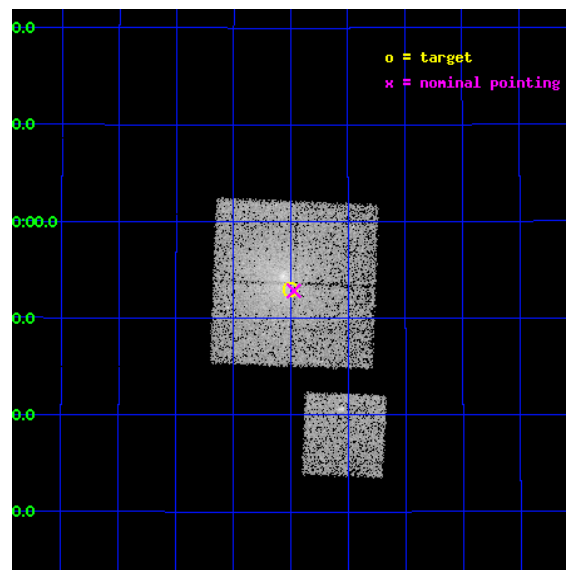
L2 Processing Date : Jul 6 2012

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# 1 Front

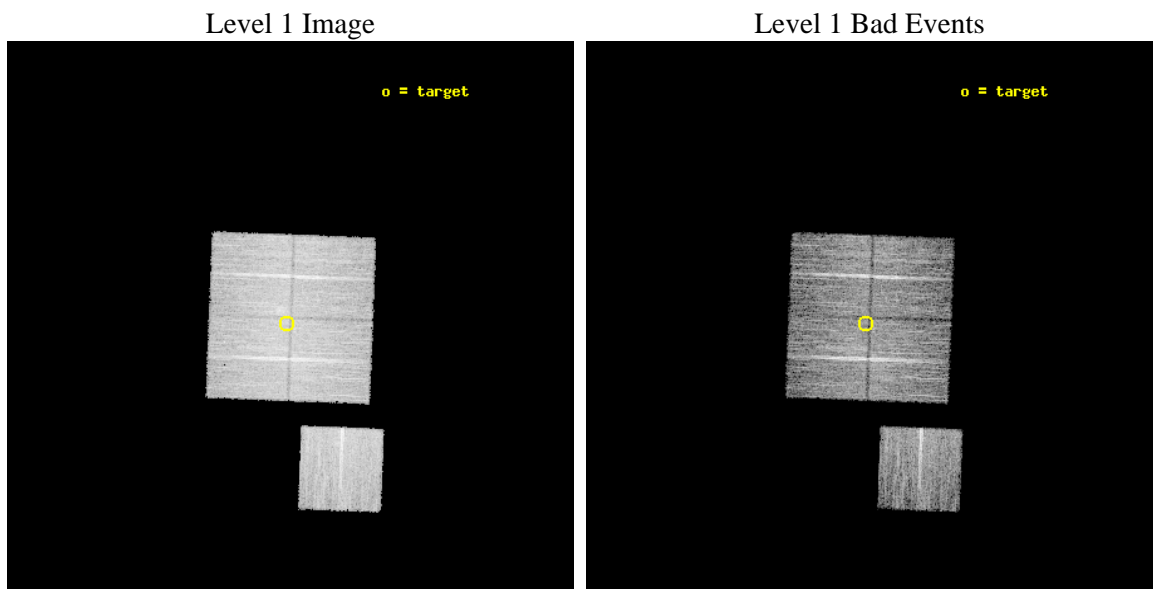
seq_num	800996	Sequence number
obs_id	12277	Observation id
title	A 'CENTENNIAL' SAMPLE OF THE 100 X-RAY BRIGHTEST GALAXY CLUSTERS	&#160
observer	Dr. Alexey Vikhlinin	Principal investigator
object	A376	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.5025	Observer's specified target RA [deg]
dec_targ	36.883472	Observer's specified target Dec [deg]
ra_nom	41.493027284178	Nominal RA [deg]
dec_nom	36.880751695294	Nominal Dec [deg]
roll_nom	182.20562840645	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10552.400081158	Sum of GTIs [s]
livetime	10414.525205533	Livetime [s]
ontime0	10552.400081158	Sum of GTIs [s]
ontime1	10552.400081158	Sum of GTIs [s]
ontime2	10552.400081158	Sum of GTIs [s]
ontime3	10552.400081158	Sum of GTIs [s]
ontime6	10552.400081158	Sum of GTIs [s]
l2events	49815	Number of level 2 events



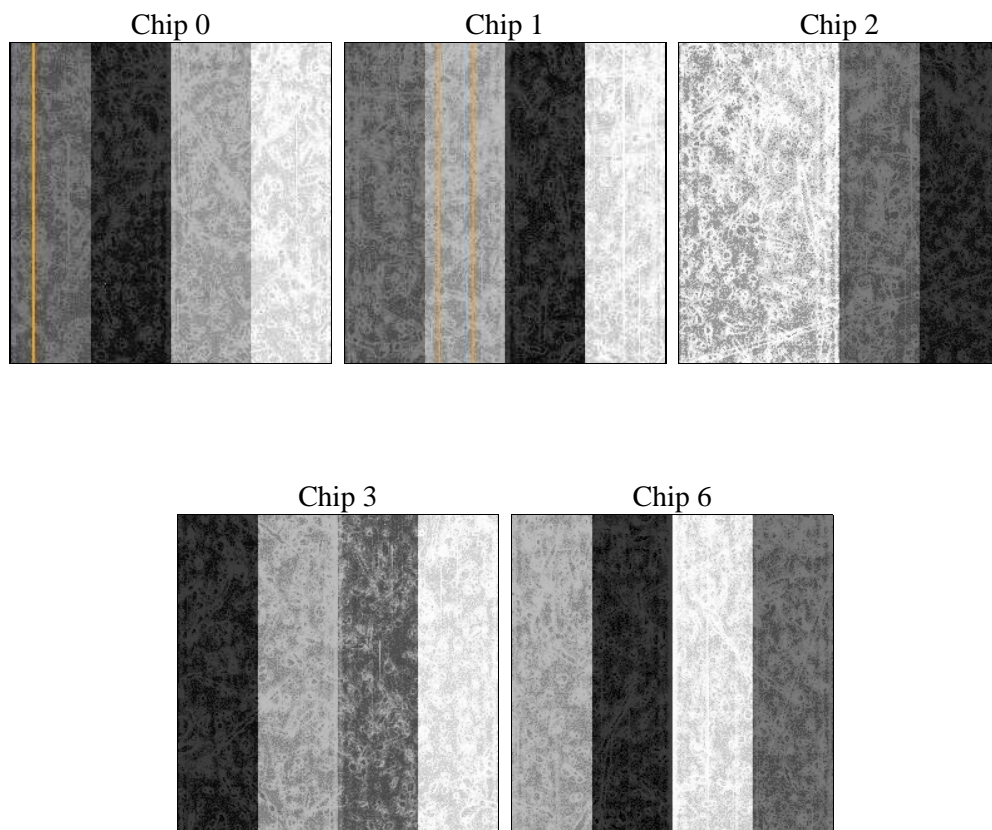
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10552.400081158	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	10552.400081158	Sum of GTIs [s]
date	2012-07-06T12:46:40	Date and time of file creation	ontime1	10552.400081158	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10552.400081158	Sum of GTIs [s]
			ontime3	10552.400081158	Sum of GTIs [s]
			ontime6	10552.400081158	Sum of GTIs [s]
			l1events	390153	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	72294	79410	80515	80019	77915
rejected events	61750	64042	70208	67723	68929
rejected %	85%	80%	87%	84%	88%

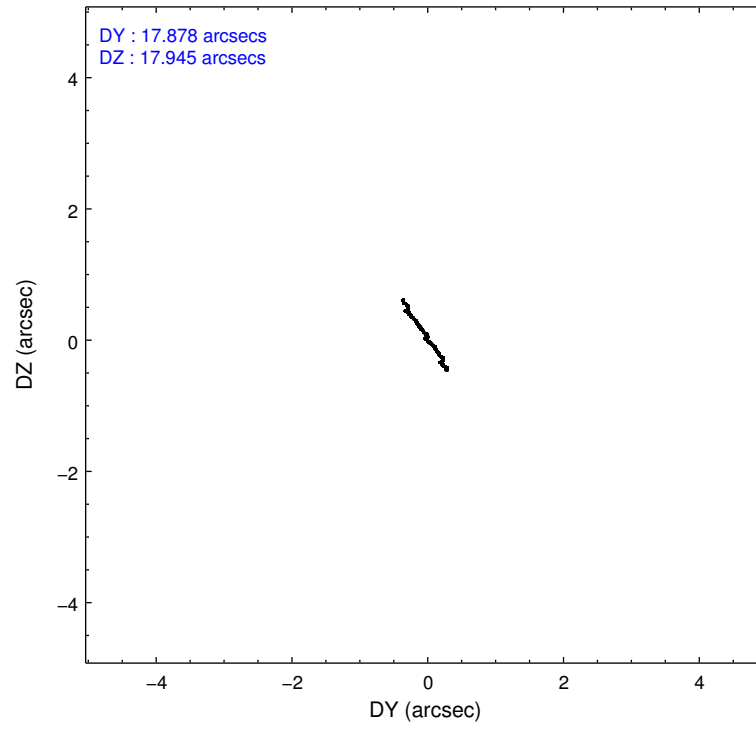
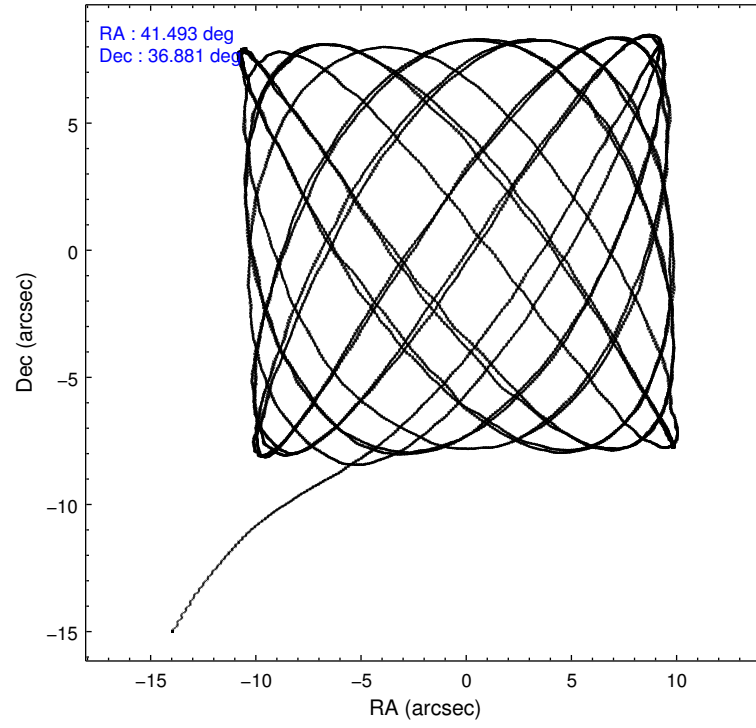
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4542	8177	4633	6282	3234
	6%	10%	5%	7%	4%
grade 1 events	48	54	65	59	52
	0%	0%	0%	0%	0%
grade 2 events	2381	2789	2207	2181	1964
	3%	3%	2%	2%	2%
grade 3 events	948	1157	932	1042	925
	1%	1%	1%	1%	1%
grade 4 events	932	1073	907	1014	935
	1%	1%	1%	1%	1%
grade 5 events	3190	3485	3013	3575	3510
	4%	4%	3%	4%	4%
grade 6 events	1747	2177	1629	1781	1932
	2%	2%	2%	2%	2%
grade 7 events	58506	60498	67129	64085	65363
	80%	76%	83%	80%	83%

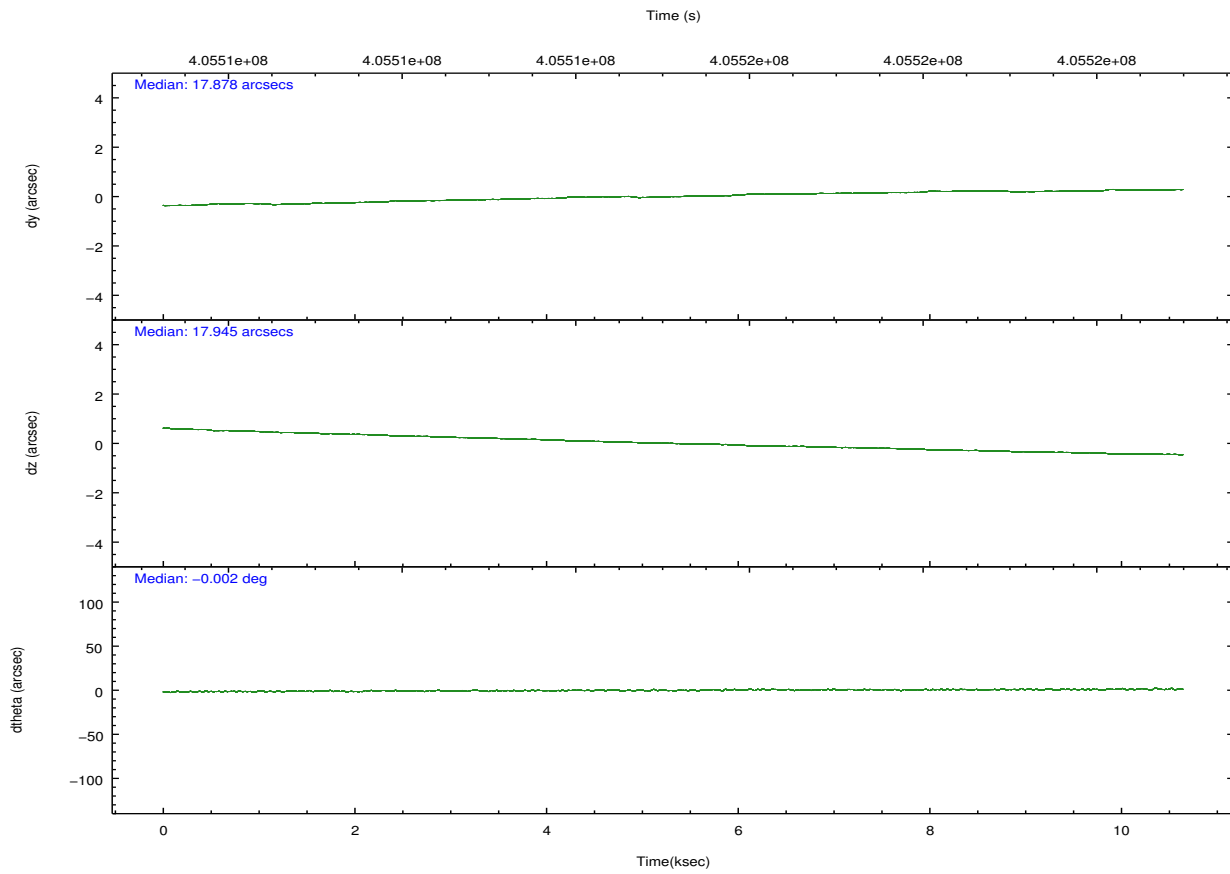
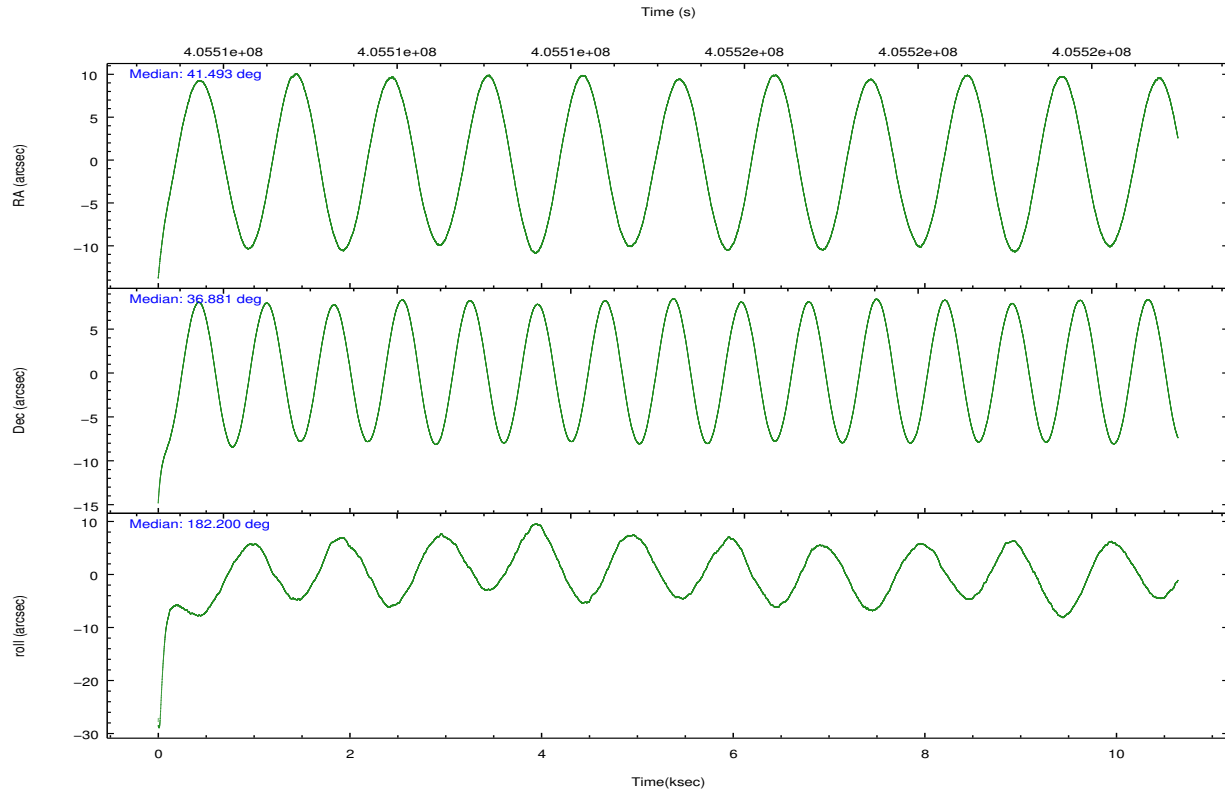


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	41.521990	41.49302728417757	CCD I2 on	Y	Y
[deg] Pointing Dec	36.895513	36.88075169529396	CCD I3 on	Y	Y
[deg] Pointing Roll	181.979583	182.2056284064527	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	405509933.184000	405508837.77927	CCD S5 on	N	N
Observation start date	2010-11-07T09:37:47	2010-11-07T09:20:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	405520433.184000	405521295.62992	On-chip summing requested	N	N
Observation end date	2010-11-07T12:32:47	2010-11-07T12:48:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



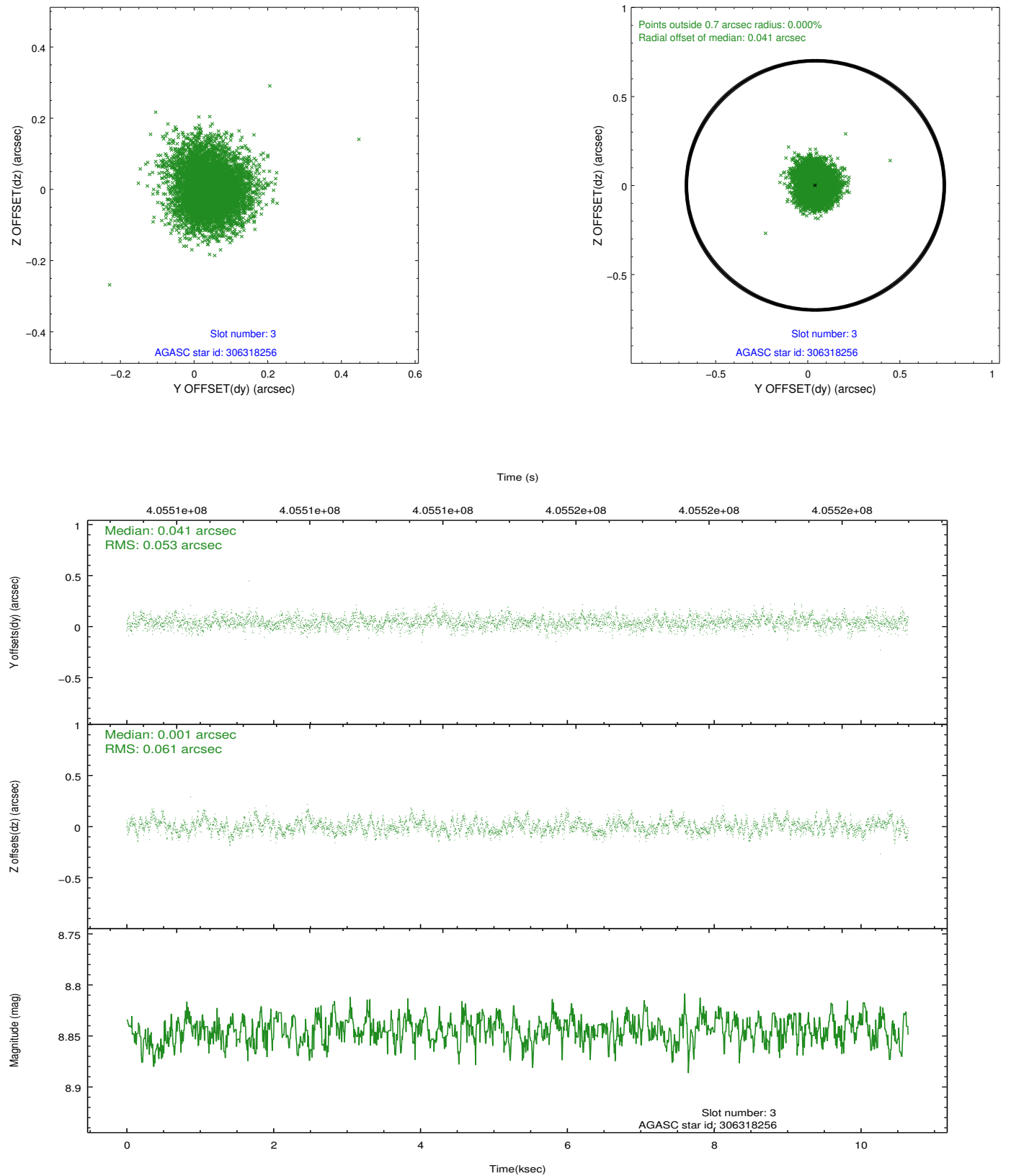


### Slot Statistics

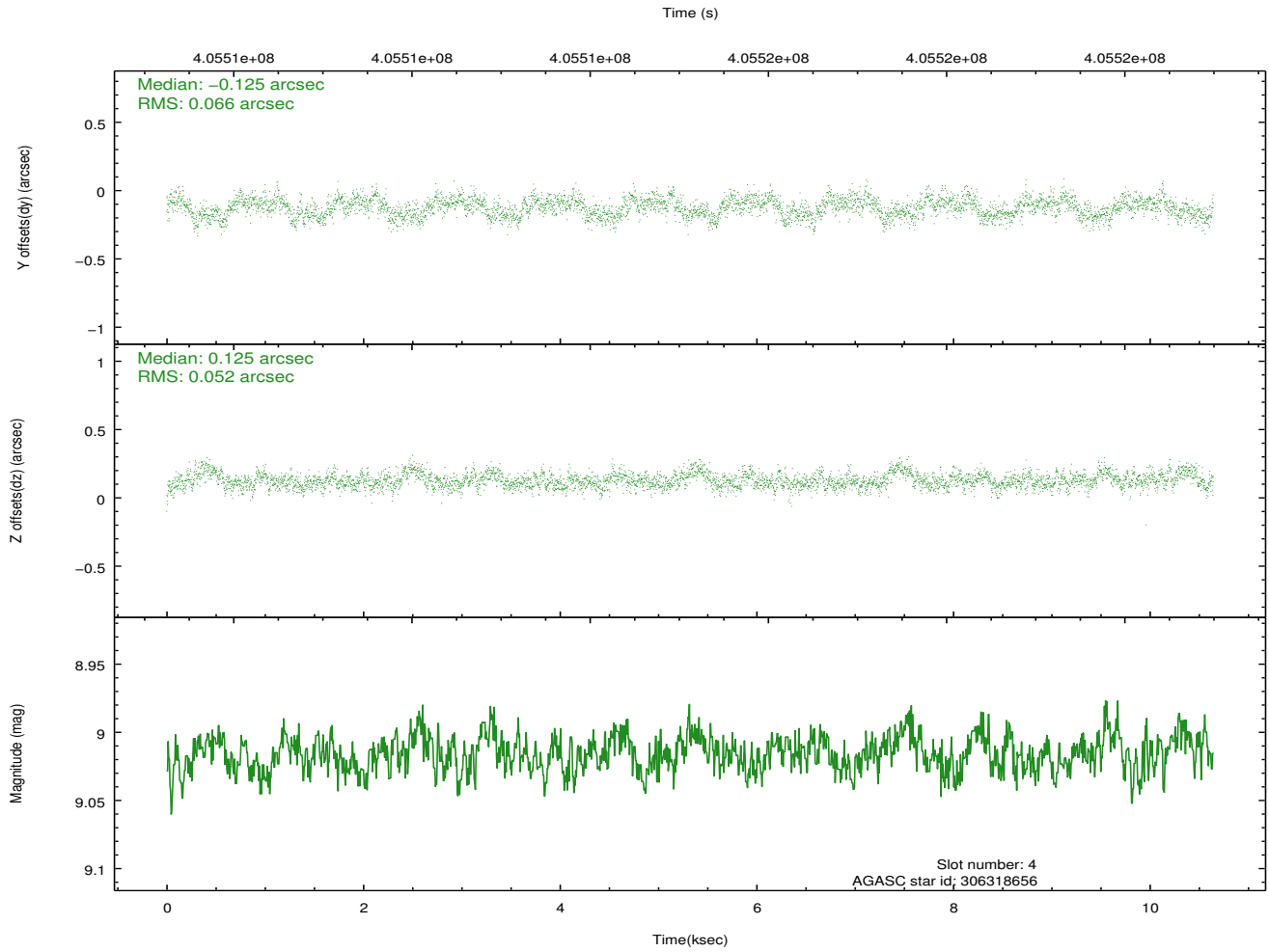
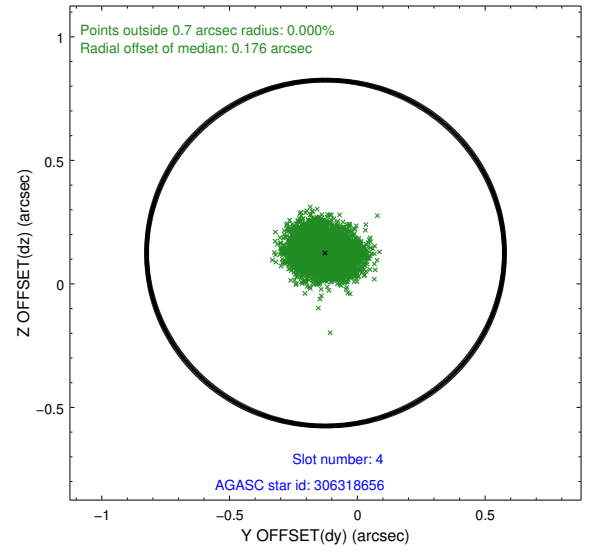
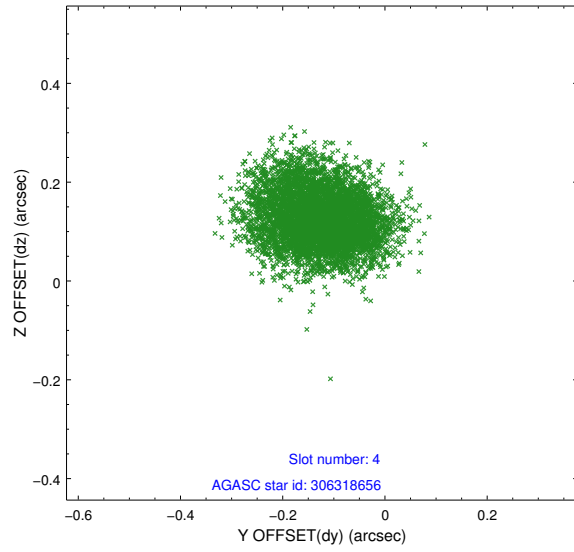
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.02	2596	0.047	0.016	0.021	0.031	0.000000	0.000000	921.55	-841.63
1	FID	ACIS-I-5	7.00	2597	-0.228	0.054	0.016	0.025	0.000000	0.000000	-1826.56	1055.65
2	FID	ACIS-I-6	7.03	2596	0.089	0.001	0.008	0.014	0.000000	0.000000	386.60	1700.66
3	GUIDE	306318256	8.84	5191	0.041	0.001	0.086	0.139	40.831601	36.938590	1979.76	-230.08
4	GUIDE	306318656	9.02	5192	-0.125	0.125	0.090	0.143	41.038920	37.008057	1374.64	-456.14
5	GUIDE	306321248	9.62	5186	0.100	0.180	0.154	0.239	41.916344	37.279229	-1175.72	-1343.84
6	GUIDE	306322096	9.03	5190	-0.015	-0.377	0.097	0.152	41.345976	36.309674	583.31	2089.15
7	GUIDE	306316824	9.67	5182	0.001	0.064	0.127	0.211	40.745723	37.425243	2152.73	-1990.96

## 2.4 Star Slots

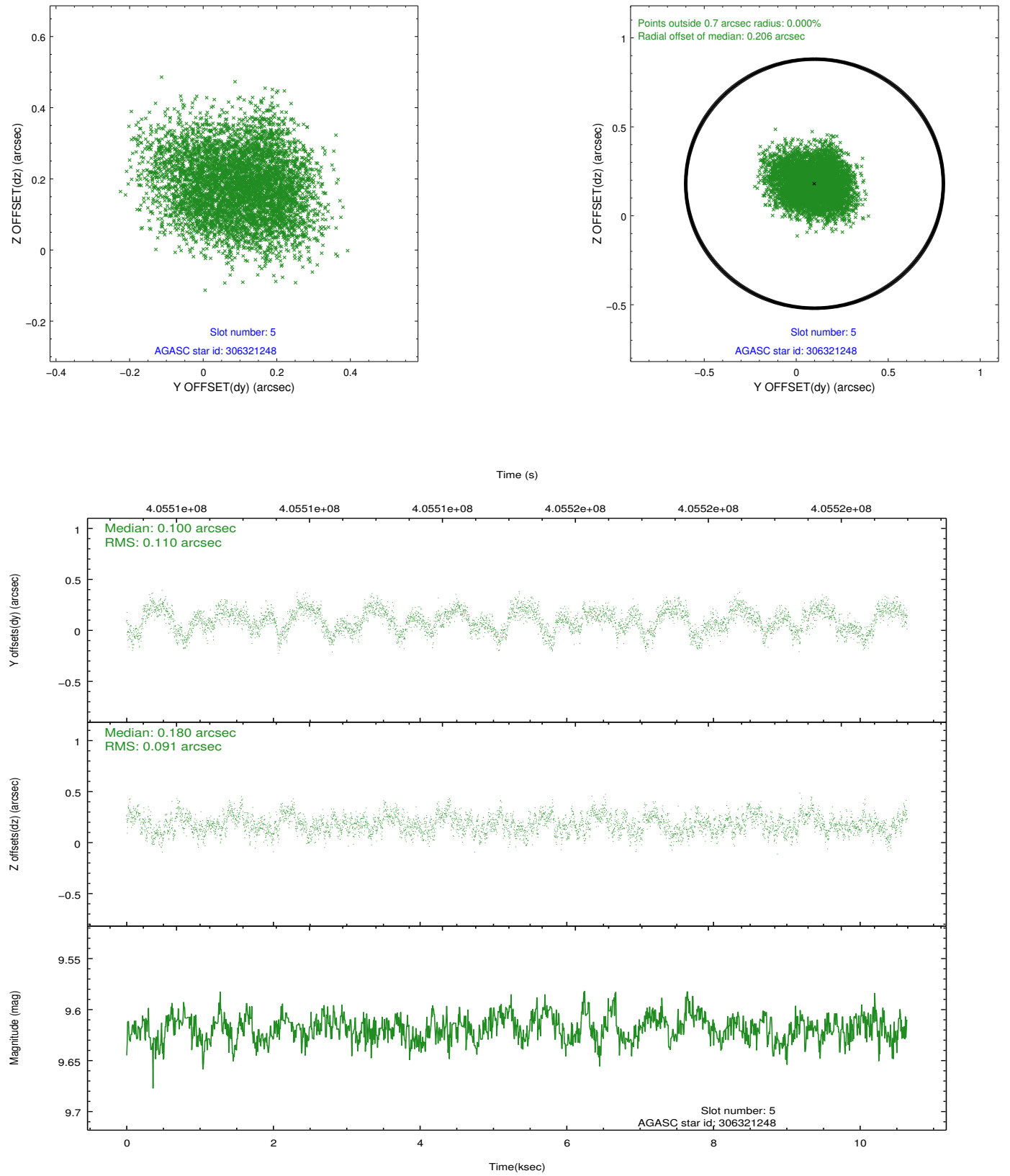
### 2.4.1 Slot 3



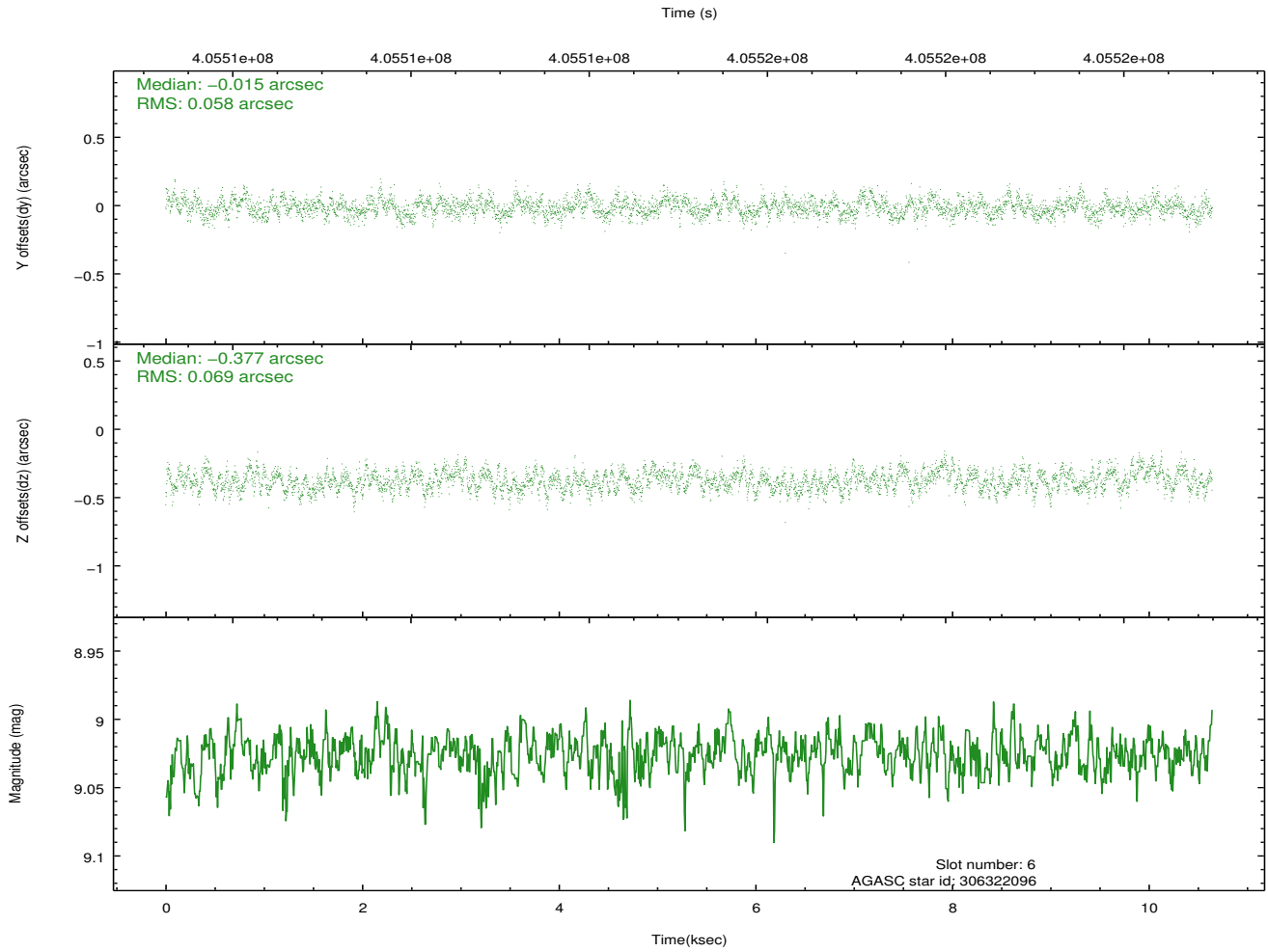
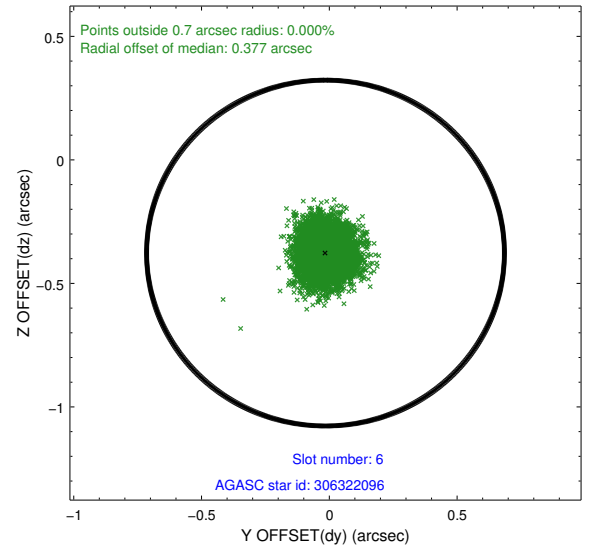
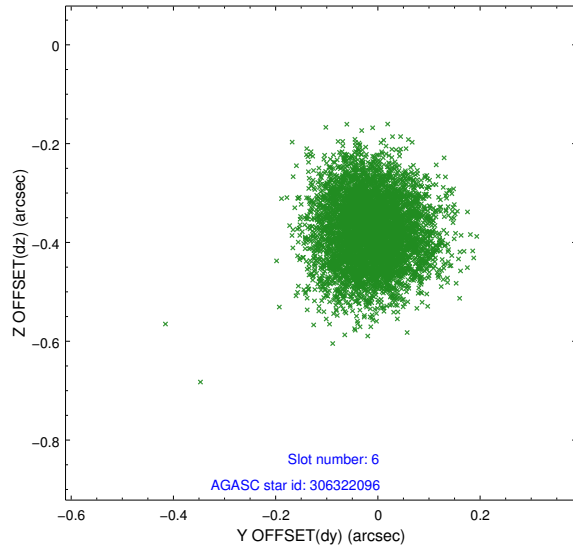
## 2.4.2 Slot 4



### 2.4.3 Slot 5

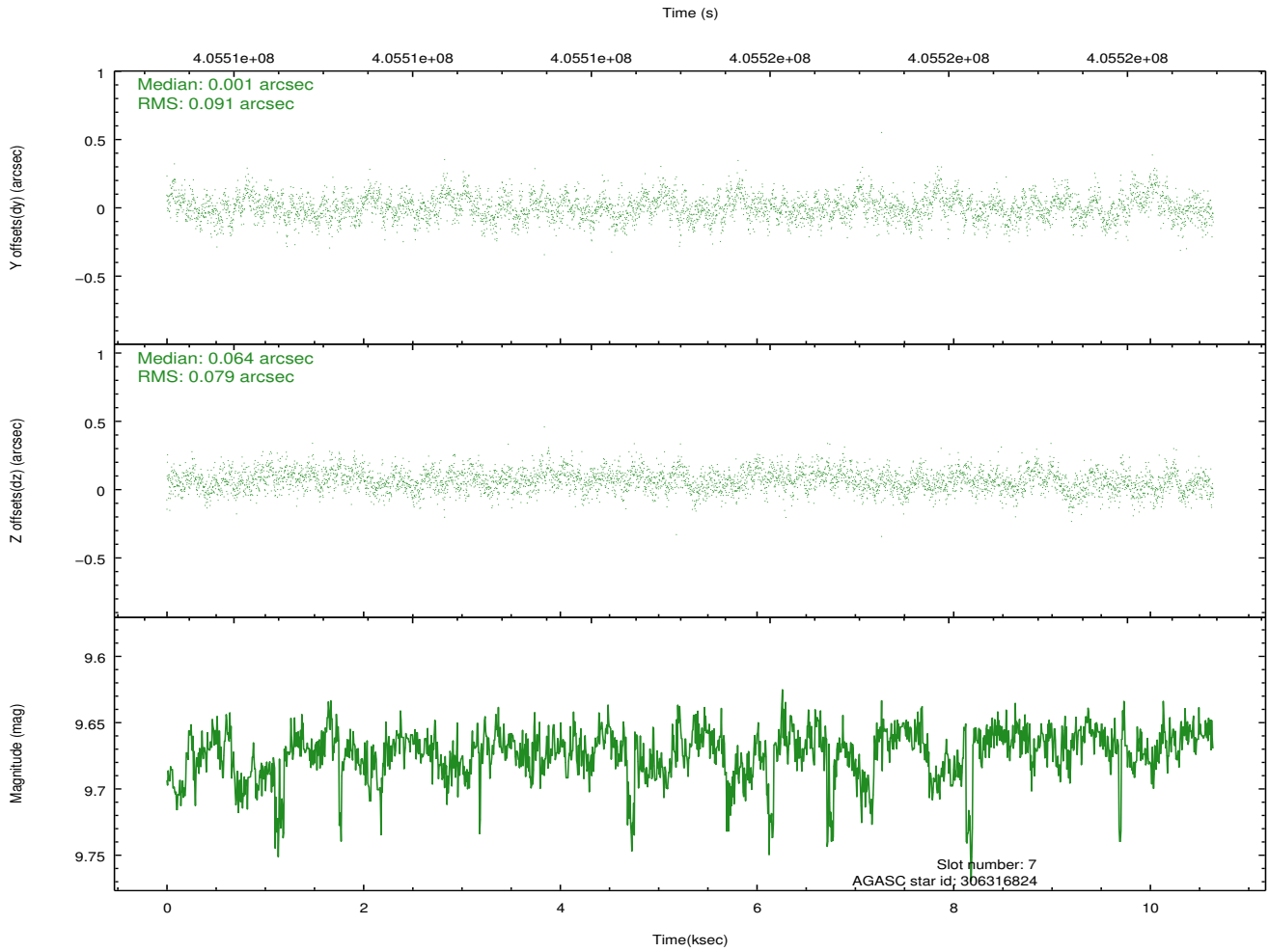
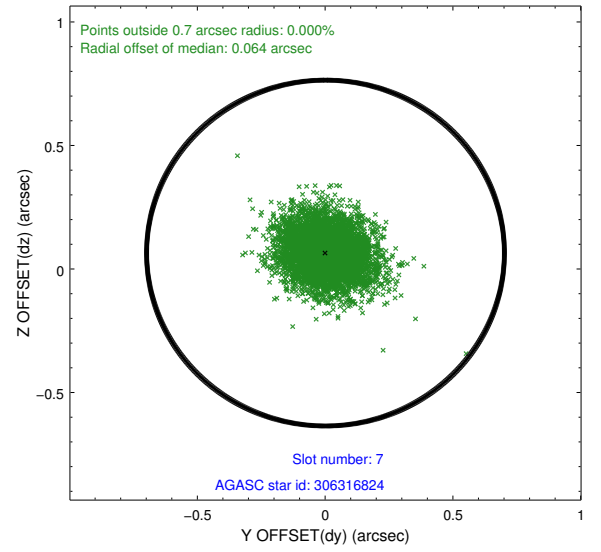
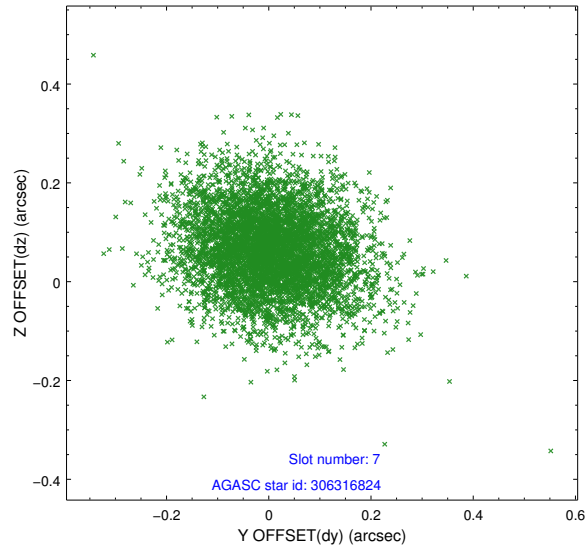


## 2.4.4 Slot 6



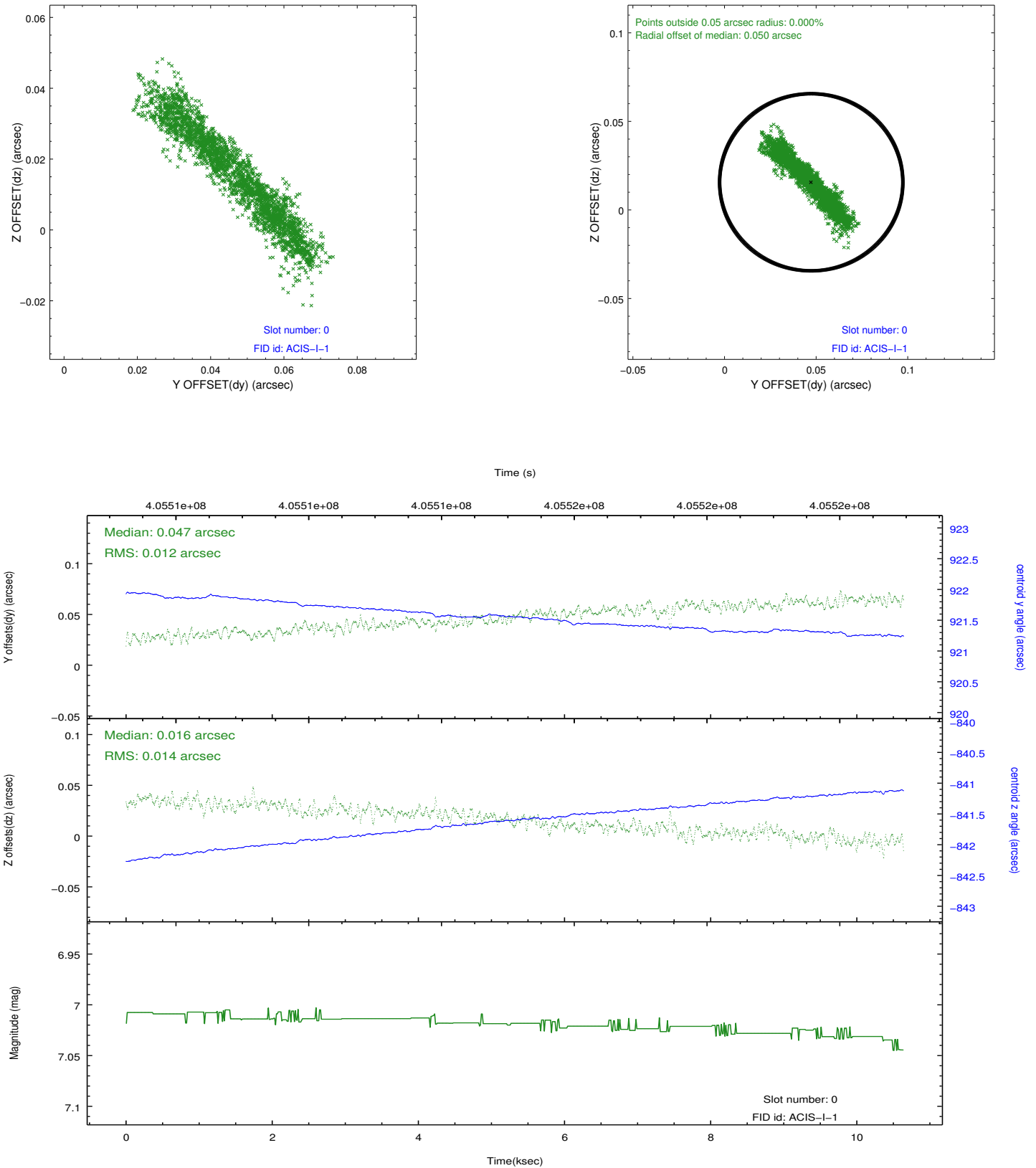


### 2.4.5 Slot 7

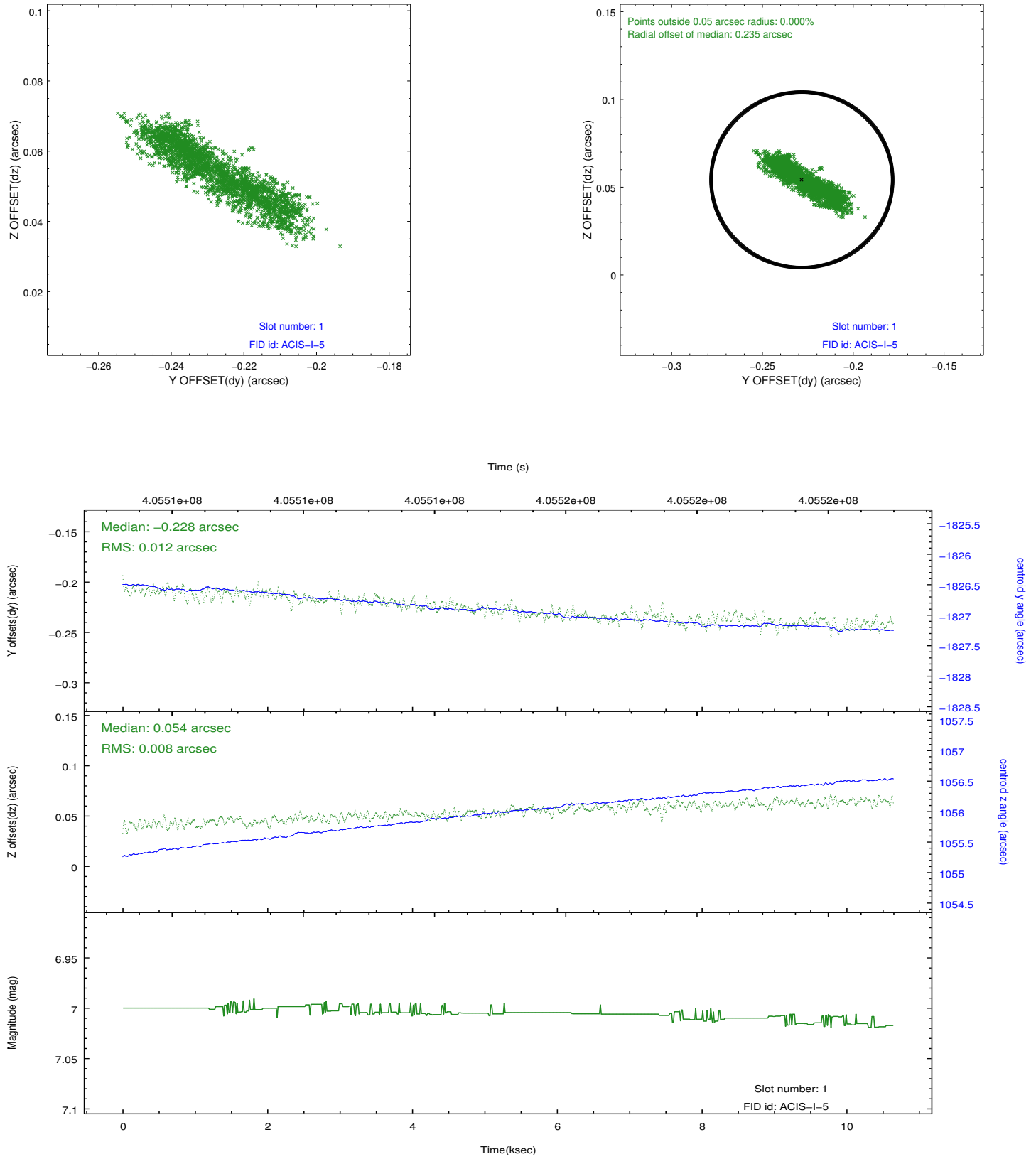


## 2.5 FID Slots

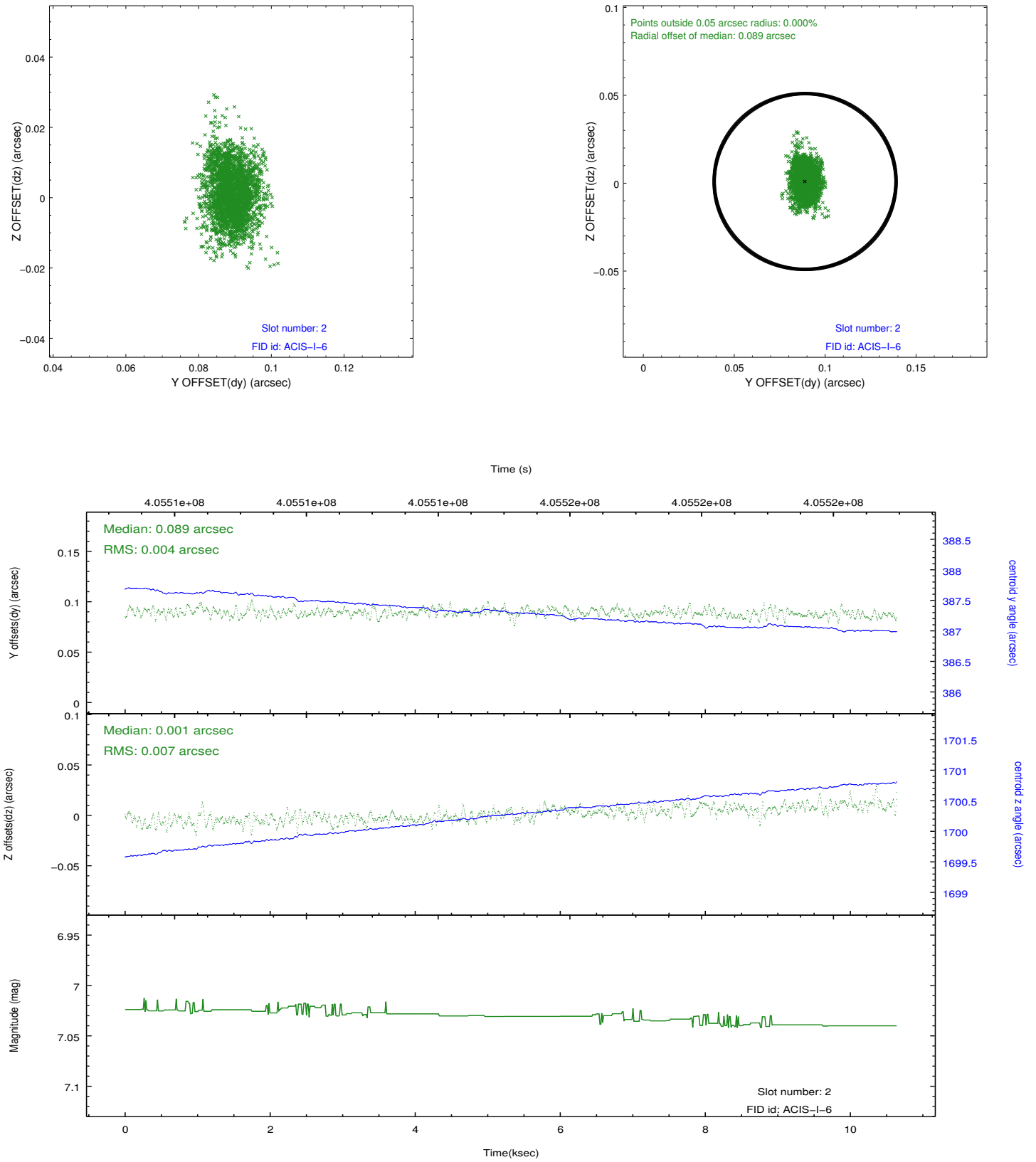
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.552400081158

### A.2 Comments