

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11712 - L2 Version 2  
Chandra X-Ray Center

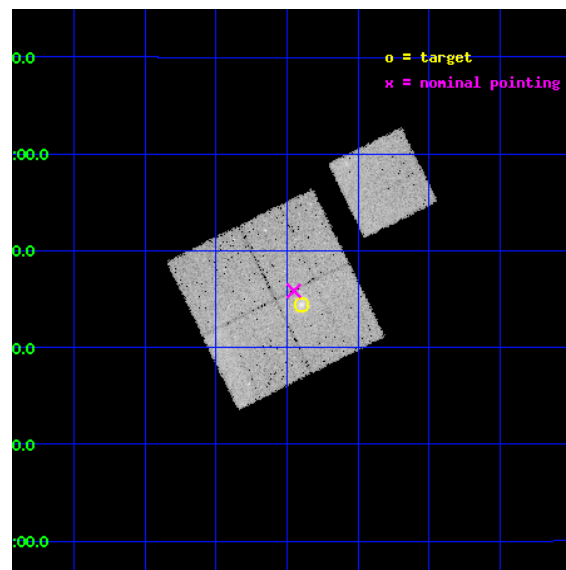
L2 Processing Date : Jun 19 2012

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# 1 Front

seq_num	800854	Sequence number
obs_id	11712	Observation id
title	The distribution and interactions of luminous and dark matter in strong-lensing clusters at $z>0.3$	Proposal title
observer	Dr. Harald Ebeling	Principal investigator
object	MACSJ0940.9+0744	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	145.22375	Observer's specified target RA [deg]
dec_targ	7.740278	Observer's specified target Dec [deg]
ra_nom	145.23781821399	Nominal RA [deg]
dec_nom	7.7643066935649	Nominal Dec [deg]
roll_nom	63.67599101939	Nominal Roll [deg]
revision	2	Processing version of data
ontime	27205.55920893	Sum of GTIs [s]
livetime	26850.098549424	Livetime [s]
ontime0	27199.277198195	Sum of GTIs [s]
ontime1	27202.418218493	Sum of GTIs [s]
ontime2	27199.277218163	Sum of GTIs [s]
ontime3	27205.55920893	Sum of GTIs [s]
ontime6	27202.418188691	Sum of GTIs [s]
l2events	107019	Number of level 2 events

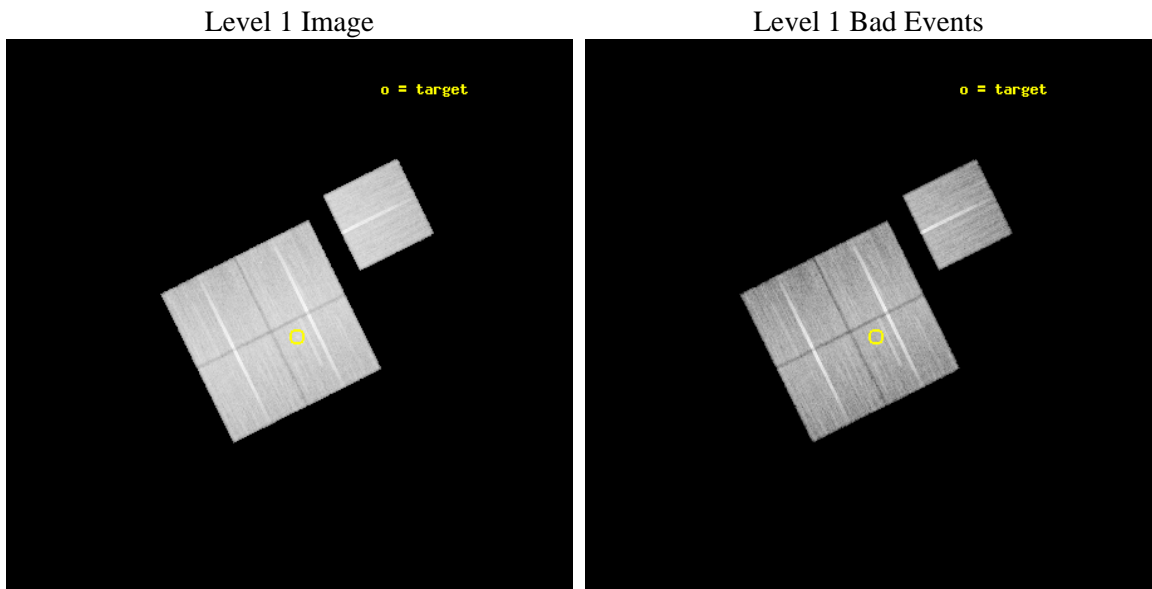




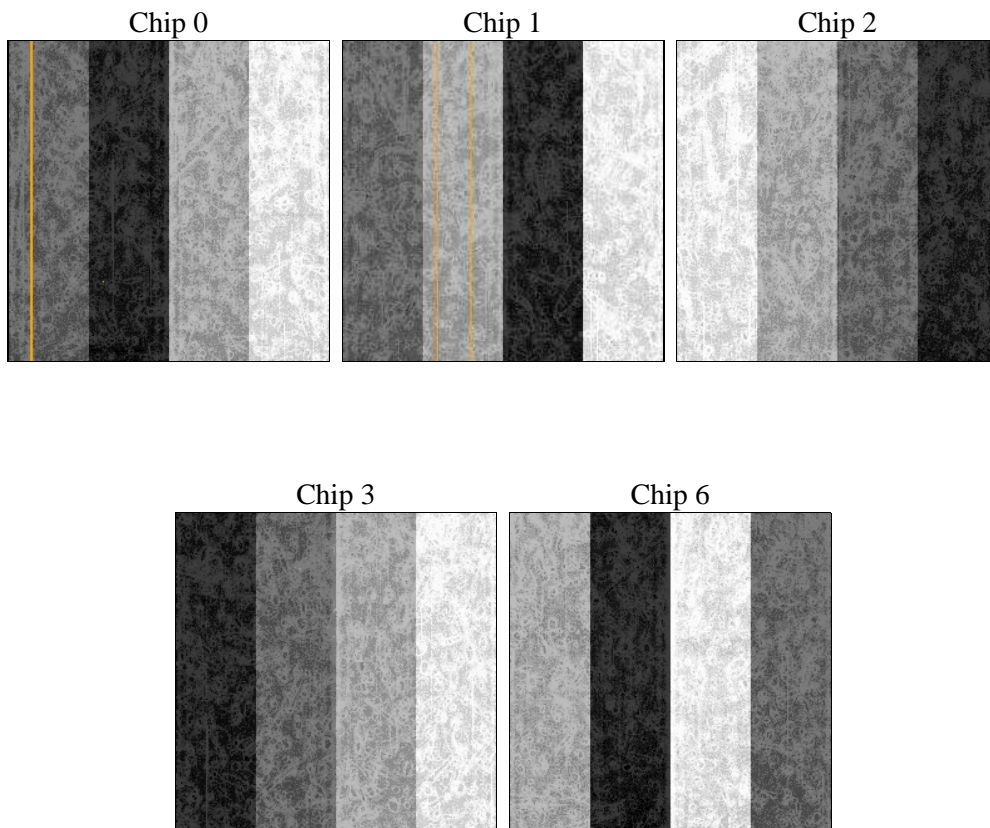
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27059.435000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	27205.55920893	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	27199.277198195	Sum of GTIs [s]
date	2012-06-19T07:57:08	Date and time of file creation	ontime1	27202.418218493	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	27199.277218163	Sum of GTIs [s]
			ontime3	27205.55920893	Sum of GTIs [s]
			ontime6	27202.418188691	Sum of GTIs [s]
			l1events	1190365	Number of level 1 events

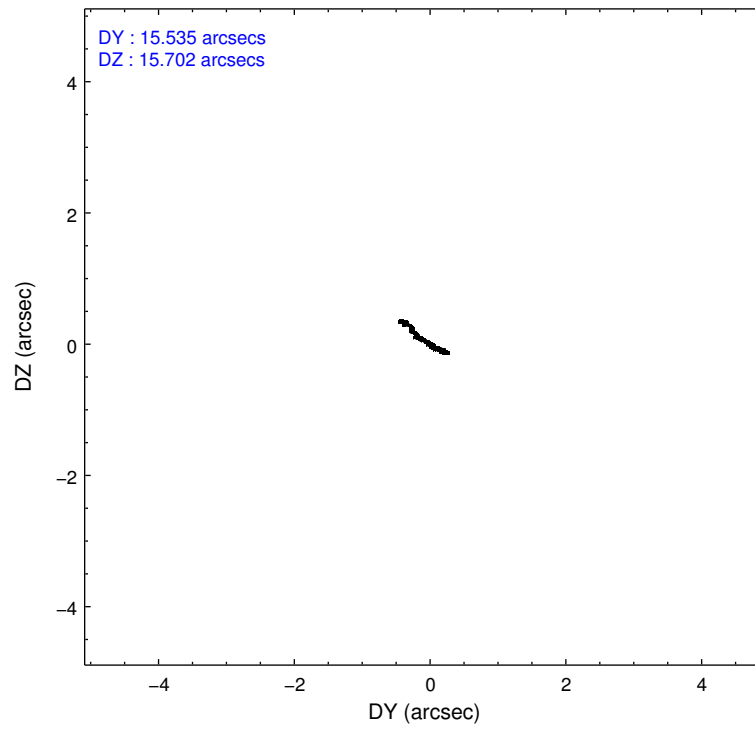
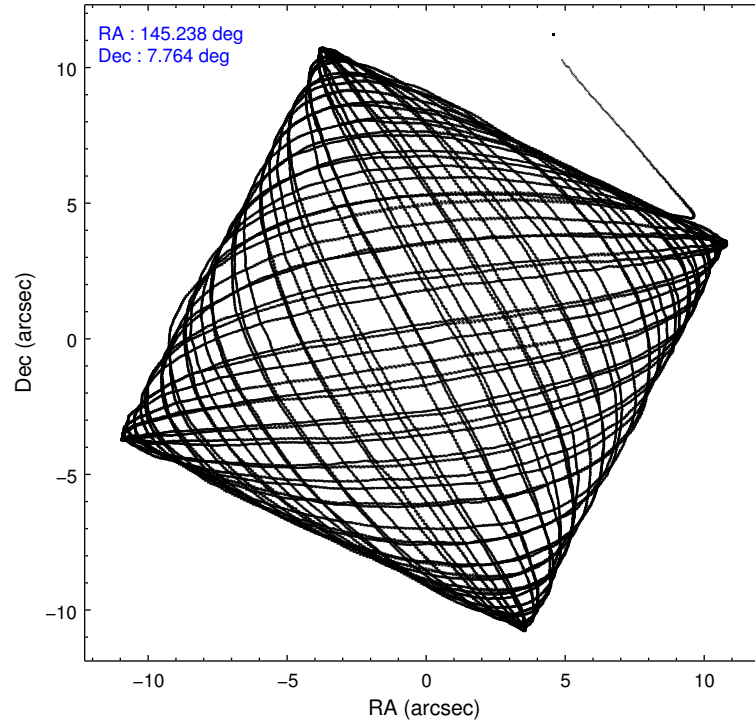
### 2.1.4 Events

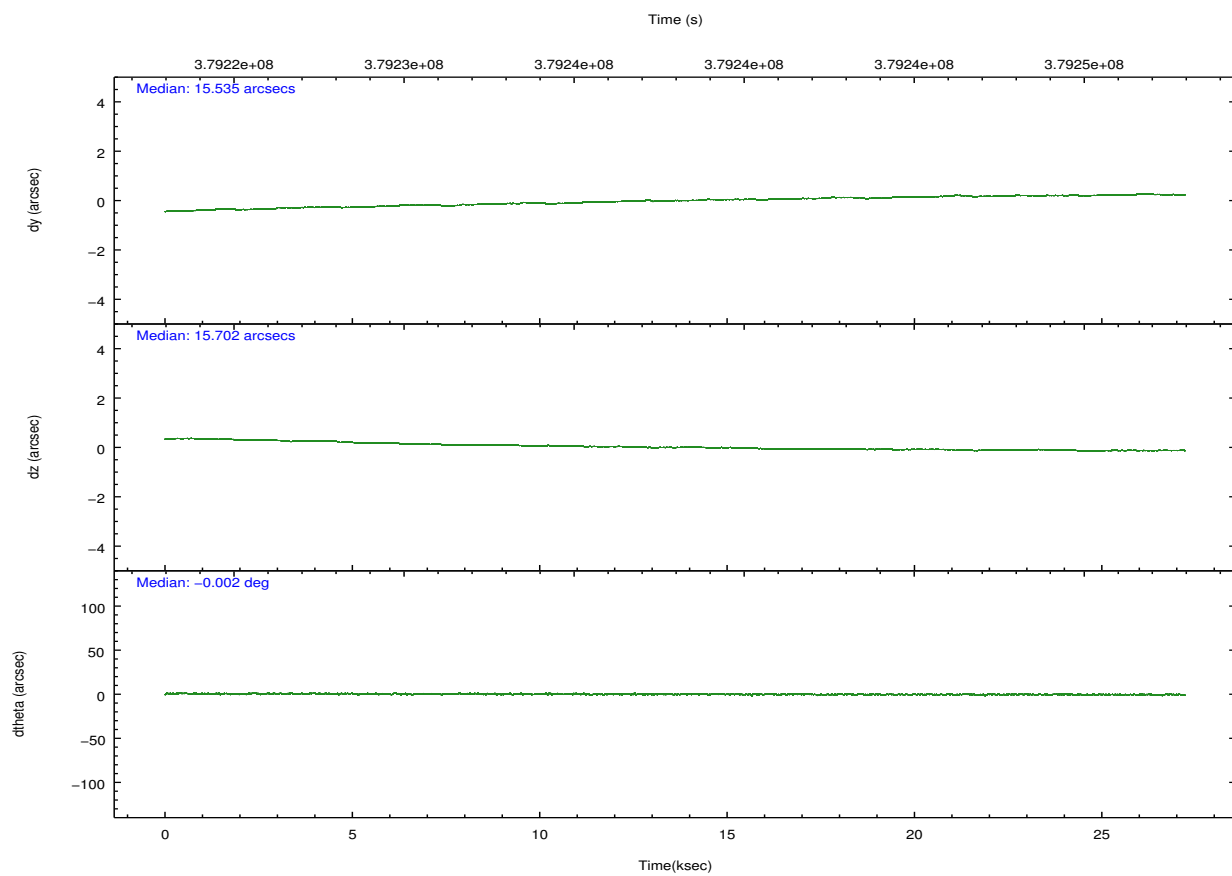
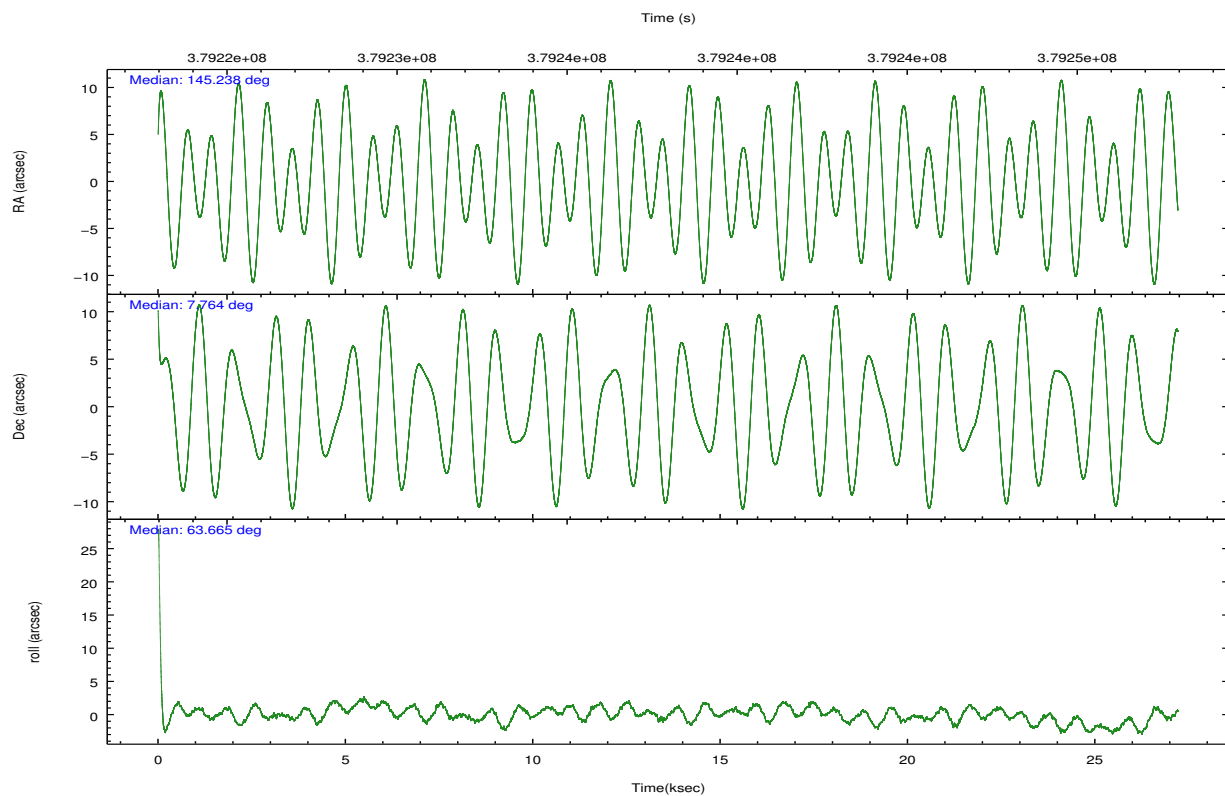
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	224216	234577	246847	239715	245010	grade 0 events	8424	9963	8949	9749	8975
rejected events	199470	206472	222385	214582	219487		3%	4%	3%	4%	3%
rejected %	88%	88%	90%	89%	89%	grade 1 events	105	124	169	174	129
							0%	0%	0%	0%	0%
						grade 2 events	6272	6585	5934	5330	5693
							2%	2%	2%	2%	2%
						grade 3 events	2746	2998	2558	2609	2734
							1%	1%	1%	1%	1%
						grade 4 events	2627	2973	2556	2634	2628
							1%	1%	1%	1%	1%
						grade 5 events	9340	9752	8530	10295	9855
							4%	4%	3%	4%	4%
						grade 6 events	4865	5754	4626	5005	5660
							2%	2%	1%	2%	2%
						grade 7 events	189837	196428	213525	203919	209336
							84%	83%	86%	85%	85%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	145.239700	145.2378182139868	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.736863	7.764306693564928	Alternating exposures requested	N	N
[deg] Pointing Roll	63.467038	63.67599101939008	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	379224511.184000	379223289.0261			
Observation start date	2010-01-07T04:07:25	2010-01-07T03:48:09			
[s] Observation end time (MET)	379251570.184000	379251805.04004			
Observation end date	2010-01-07T11:38:24	2010-01-07T11:43:25			
Read mode	TIMED	TIMED			

## 2.3 Aspect



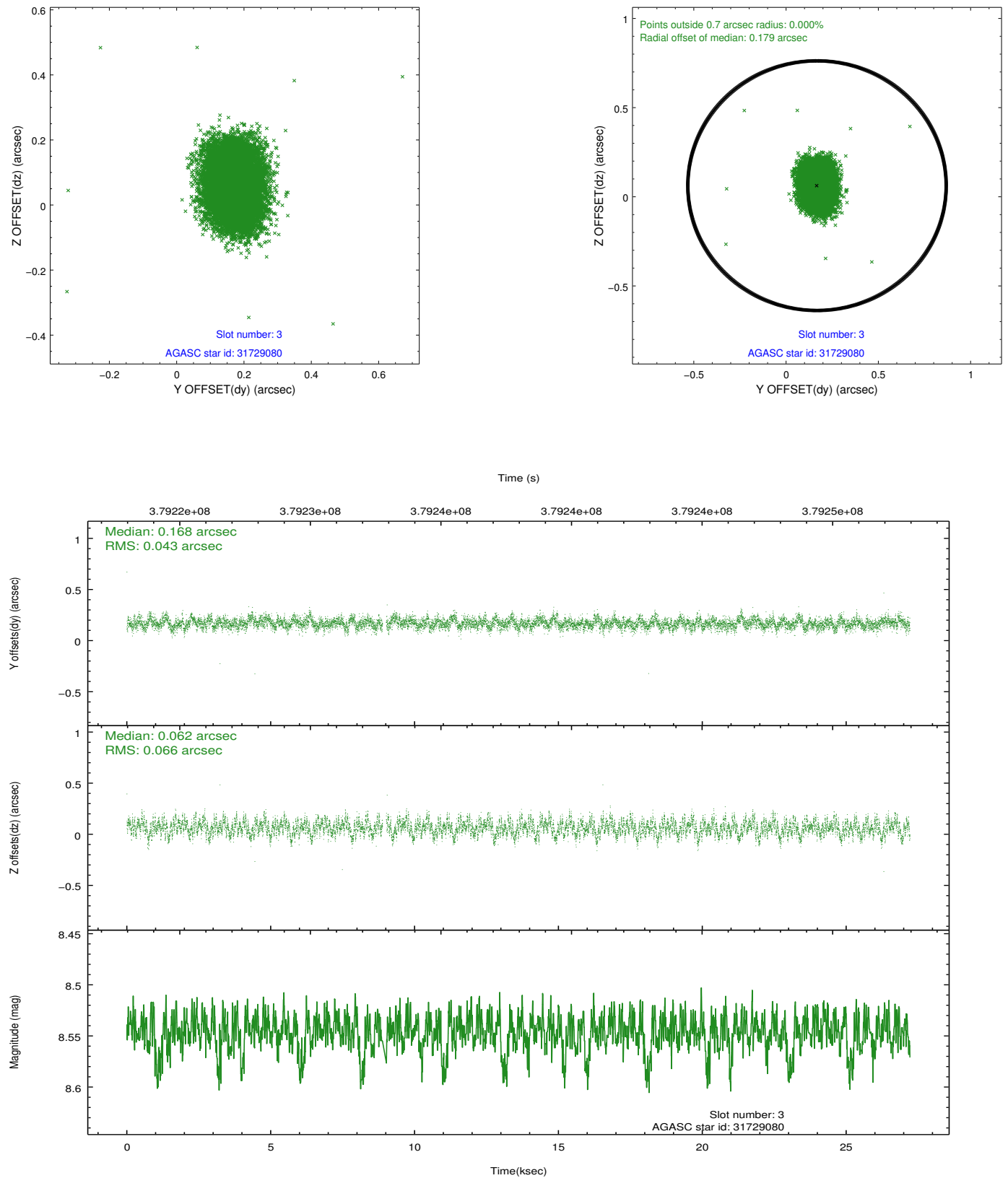


### Slot Statistics

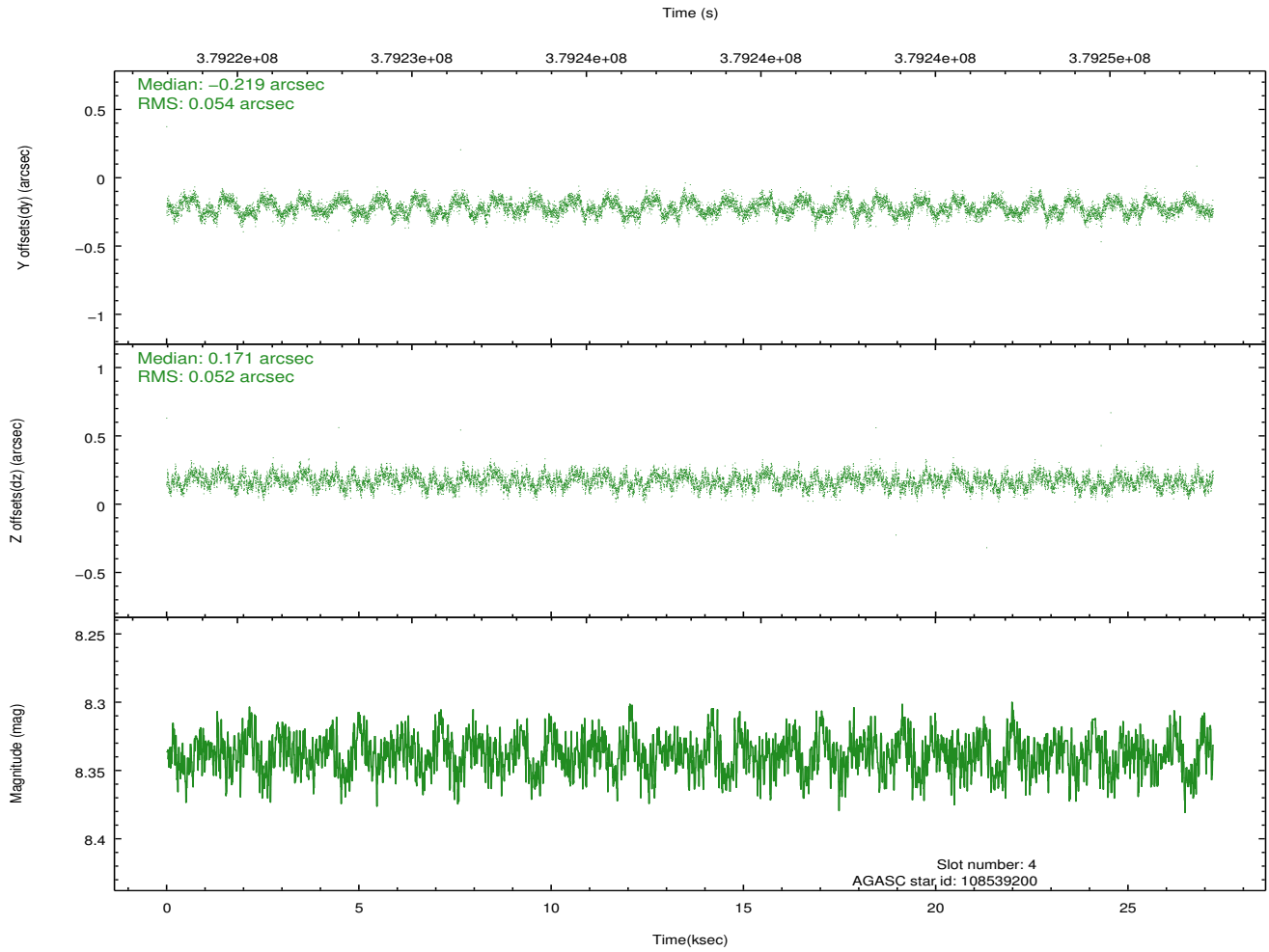
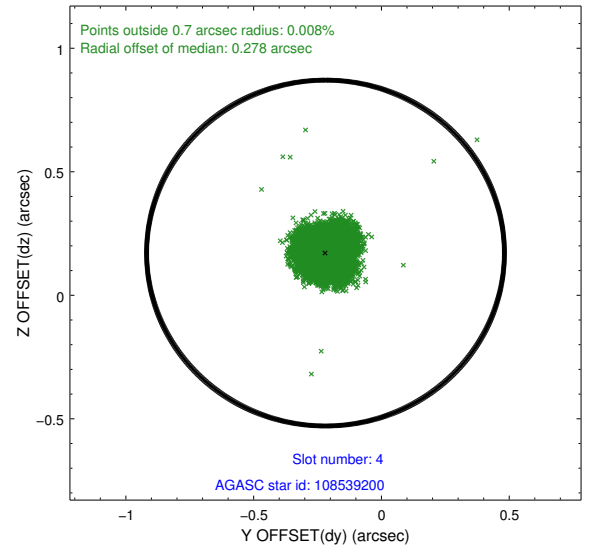
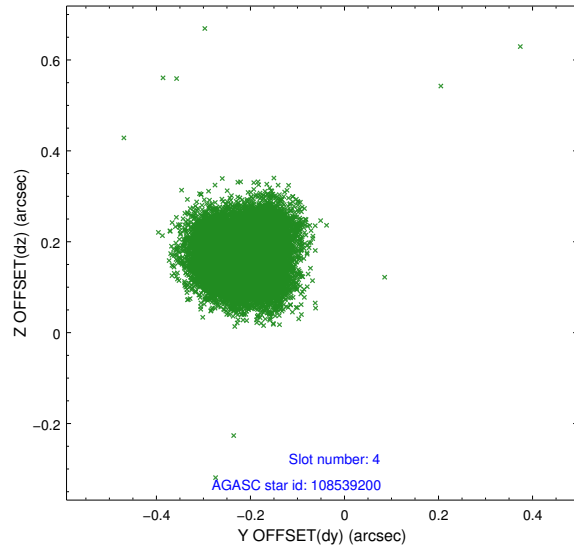
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.10	6637	0.132	-0.080	0.008	0.012	0.000000	0.000000	923.99	-924.56
1	FID	ACIS-I-5	7.08	6636	-0.278	0.114	0.007	0.011	0.000000	0.000000	-1824.46	973.07
2	FID	ACIS-I-6	7.09	6637	0.055	0.038	0.010	0.016	0.000000	0.000000	389.36	1617.60
3	GUIDE	31729080	8.55	13206	0.168	0.062	0.083	0.137	145.610309	7.394969	-509.23	-1735.13
4	GUIDE	108539200	8.34	13266	-0.219	0.171	0.080	0.121	145.670507	7.629987	343.36	-1546.55
5	GUIDE	108541832	8.04	13263	-0.027	0.016	0.090	0.149	145.932421	7.952983	1801.40	-1861.63
6	GUIDE	107624360	7.74	13270	0.263	-0.258	0.068	0.112	144.594151	7.709018	-1117.14	2016.31
7	GUIDE	107619864	7.07	13273	-0.188	-0.000	0.071	0.115	145.043288	8.278113	1430.51	1497.11

## 2.4 Star Slots

### 2.4.1 Slot 3

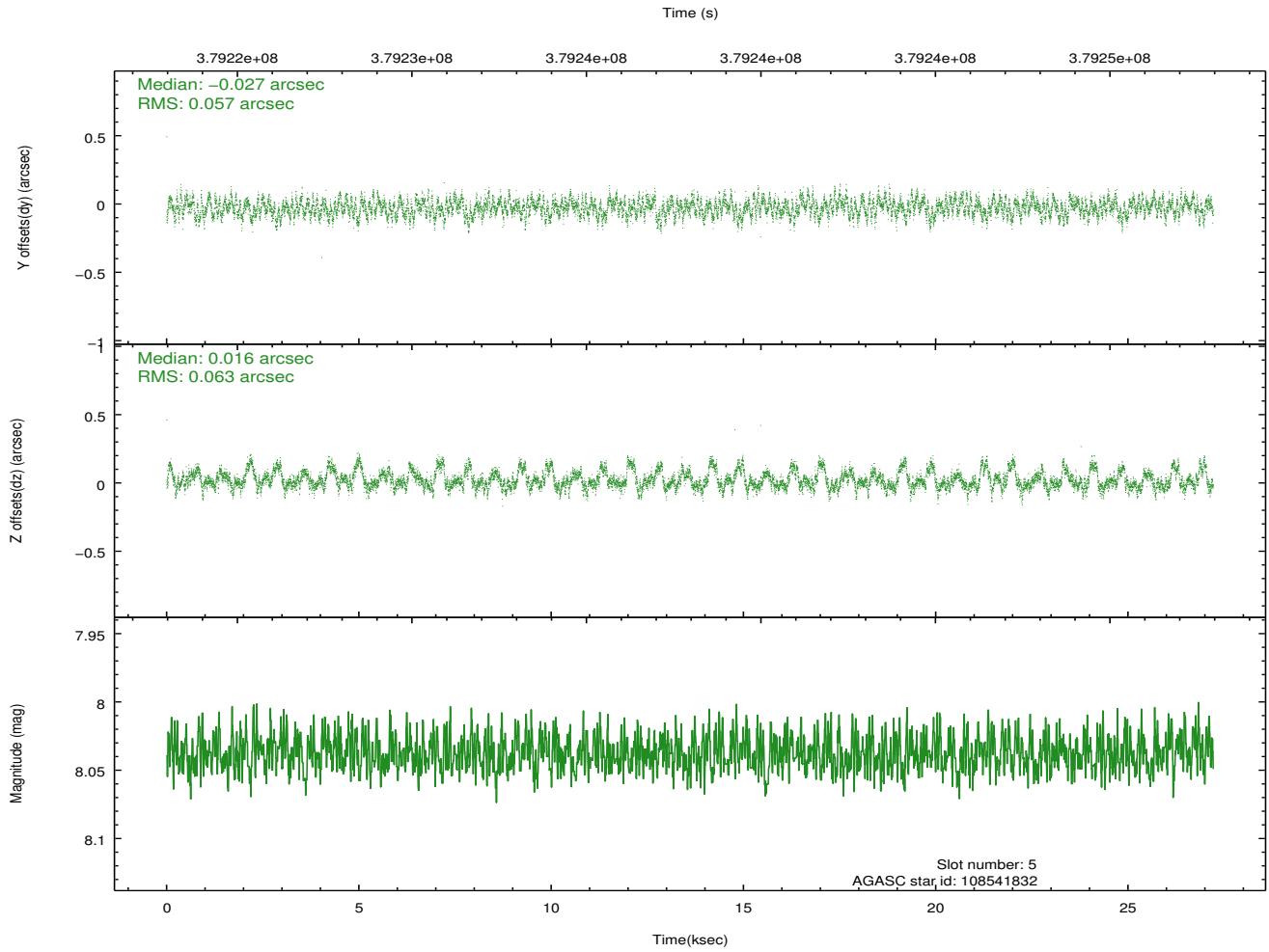
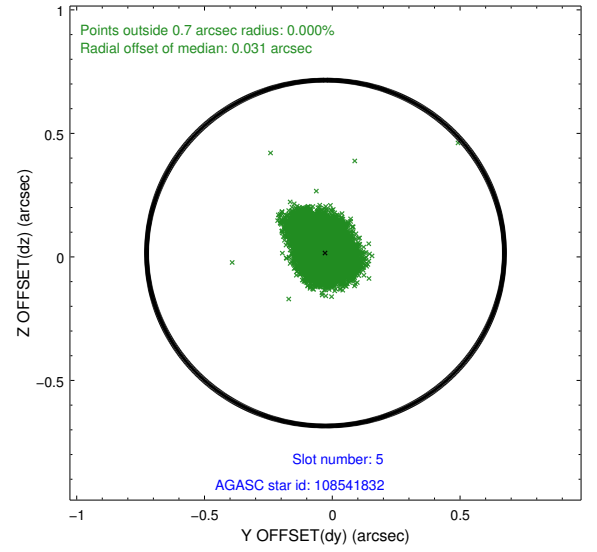
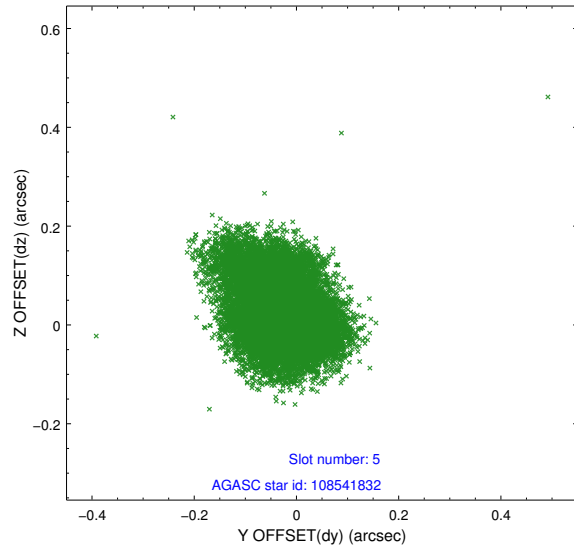


## 2.4.2 Slot 4

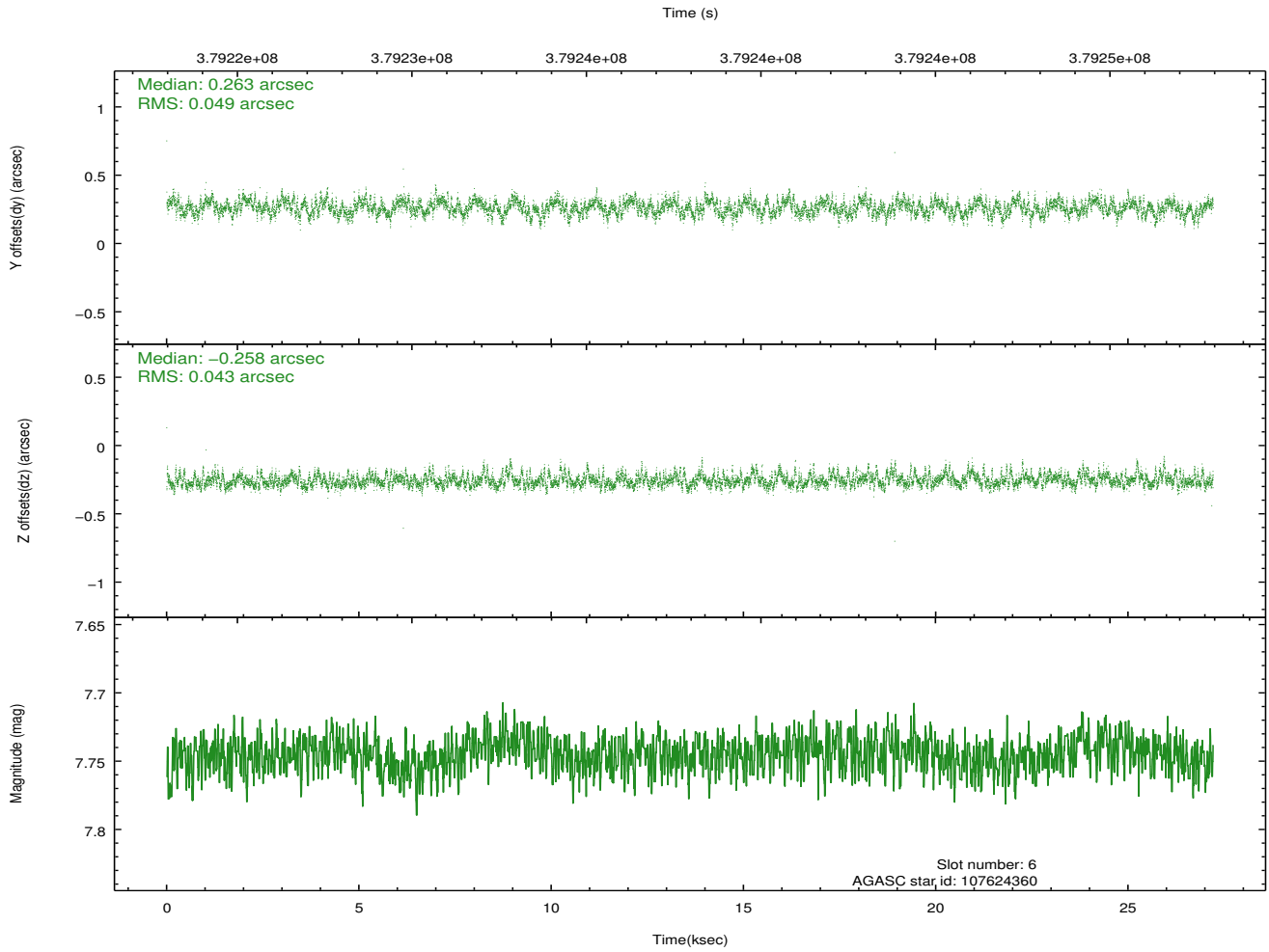
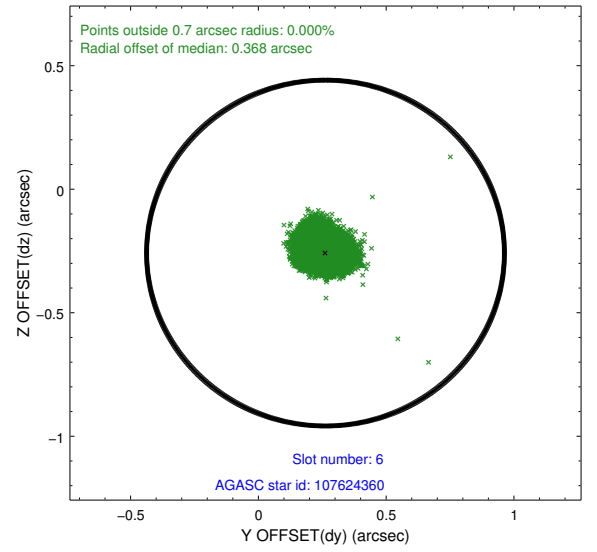
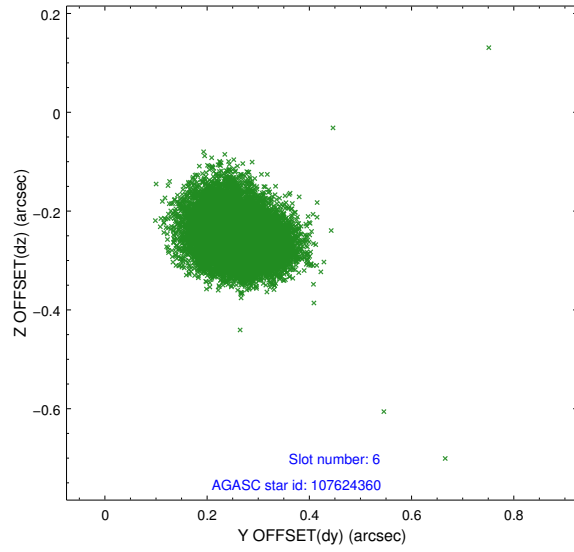




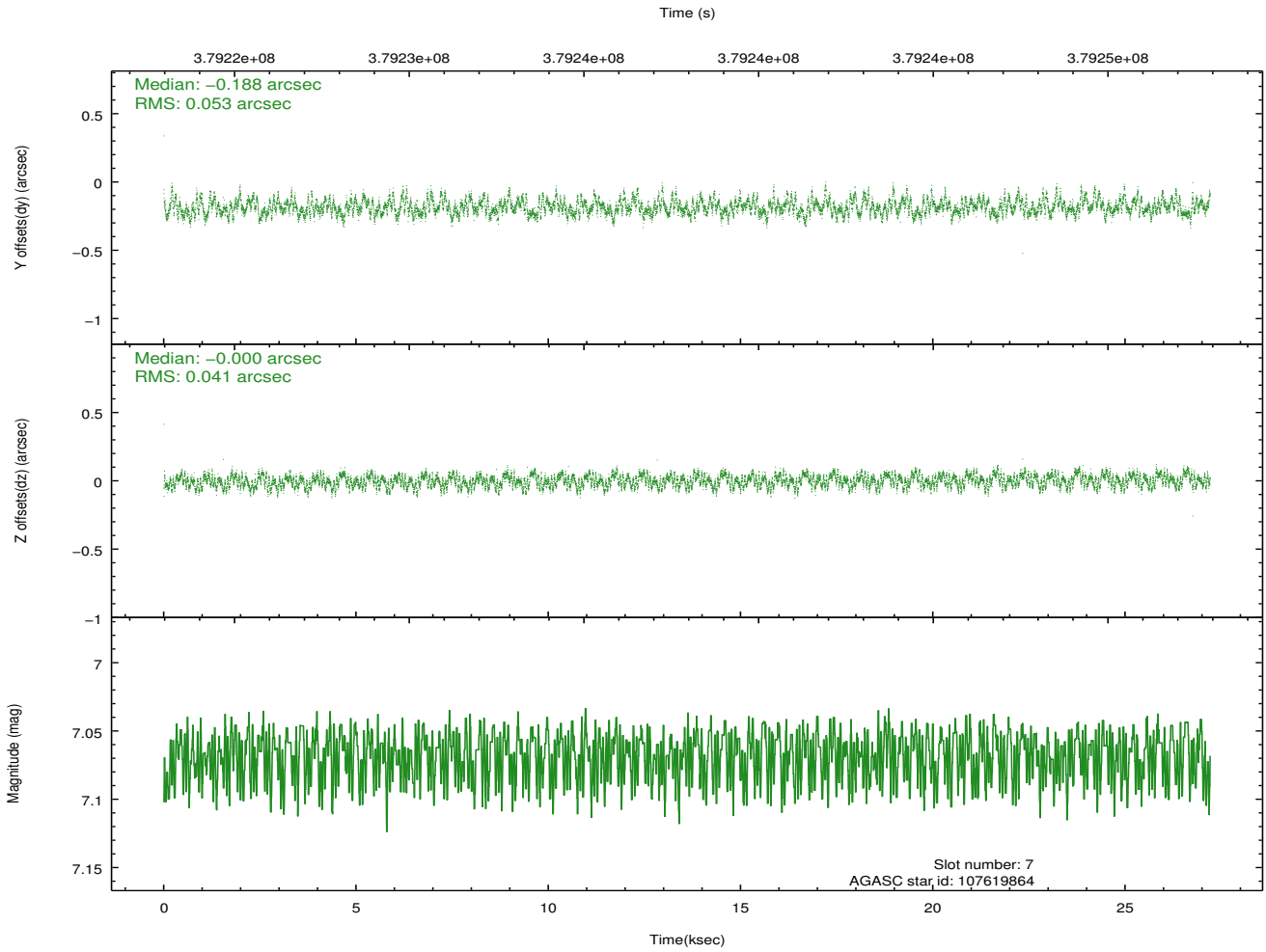
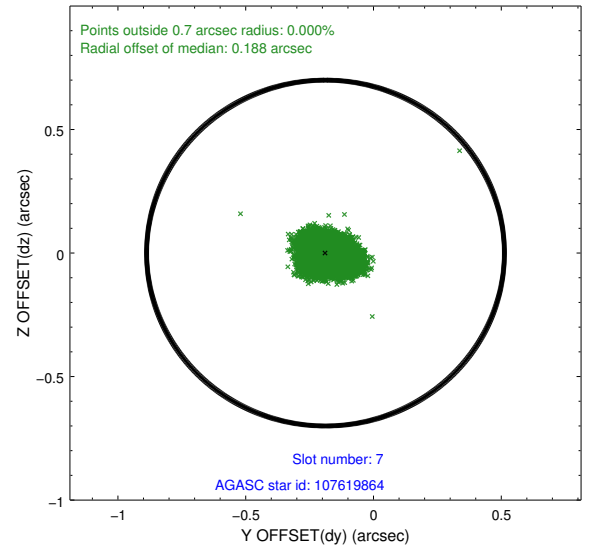
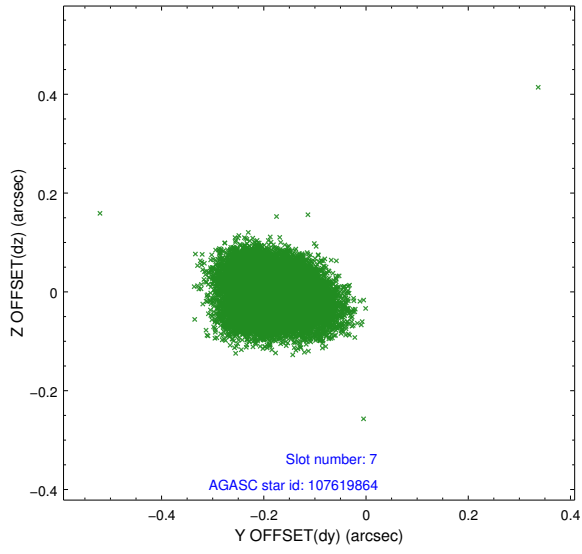
### 2.4.3 Slot 5



## 2.4.4 Slot 6

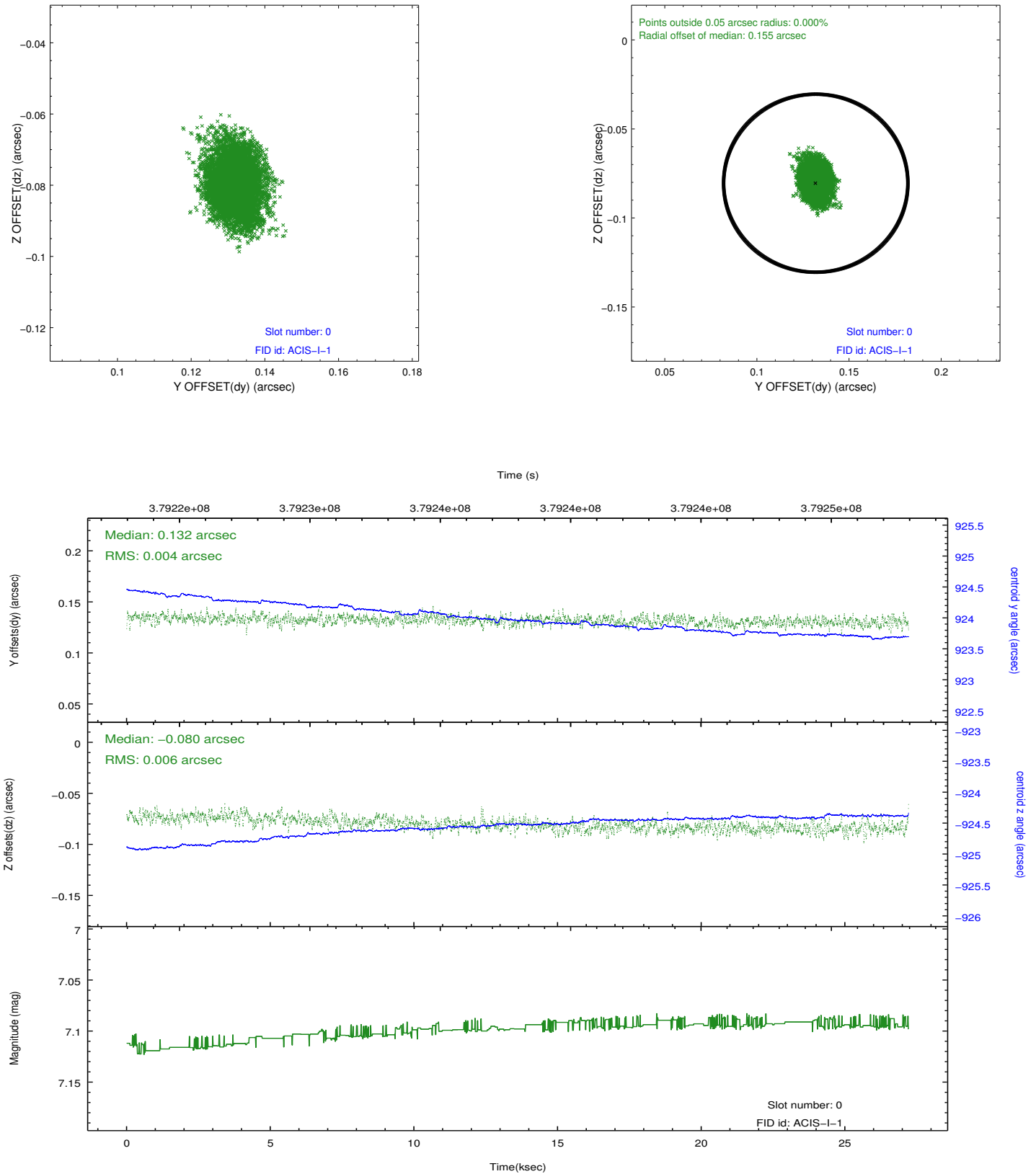


## 2.4.5 Slot 7

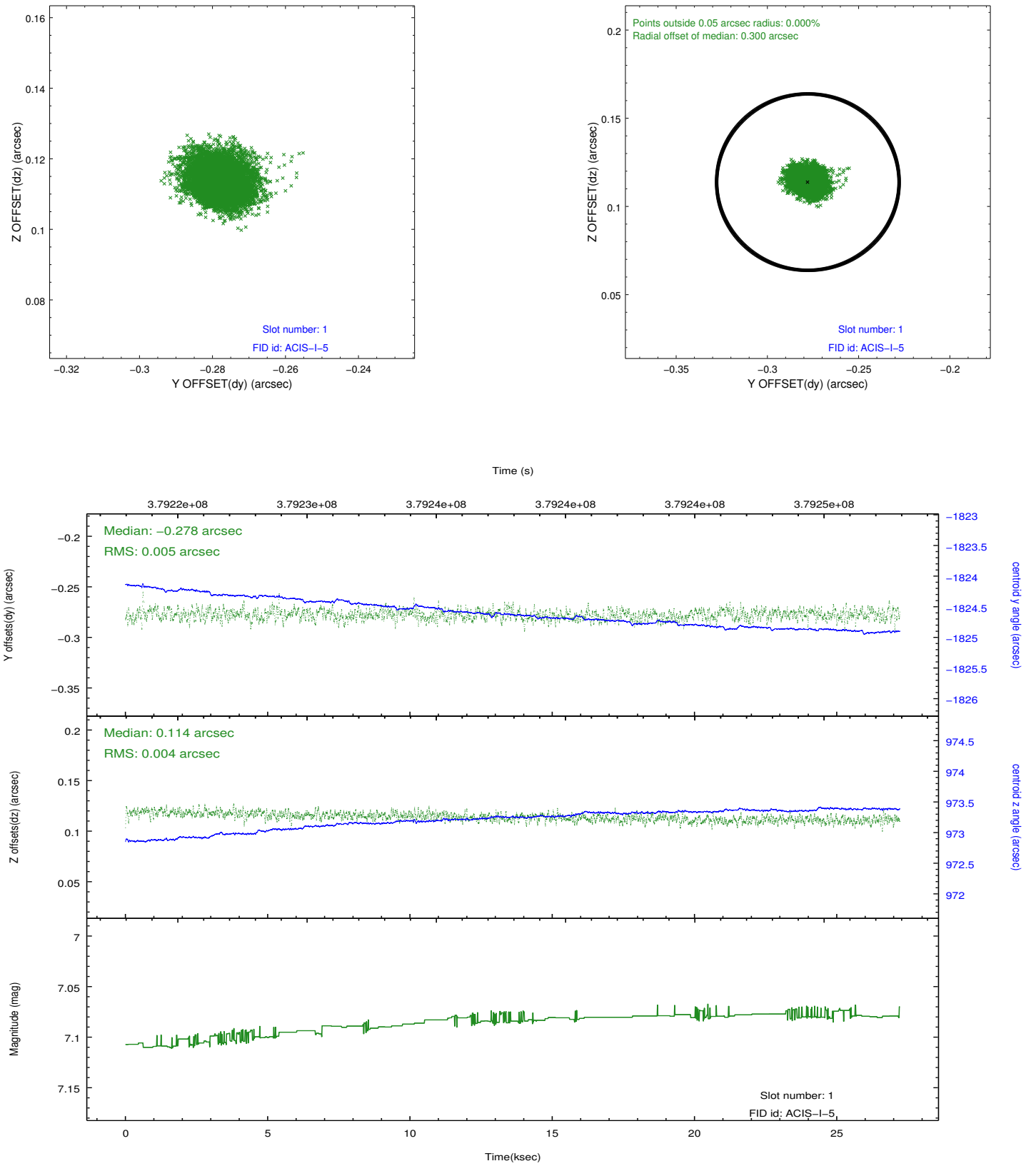


## 2.5 FID Slots

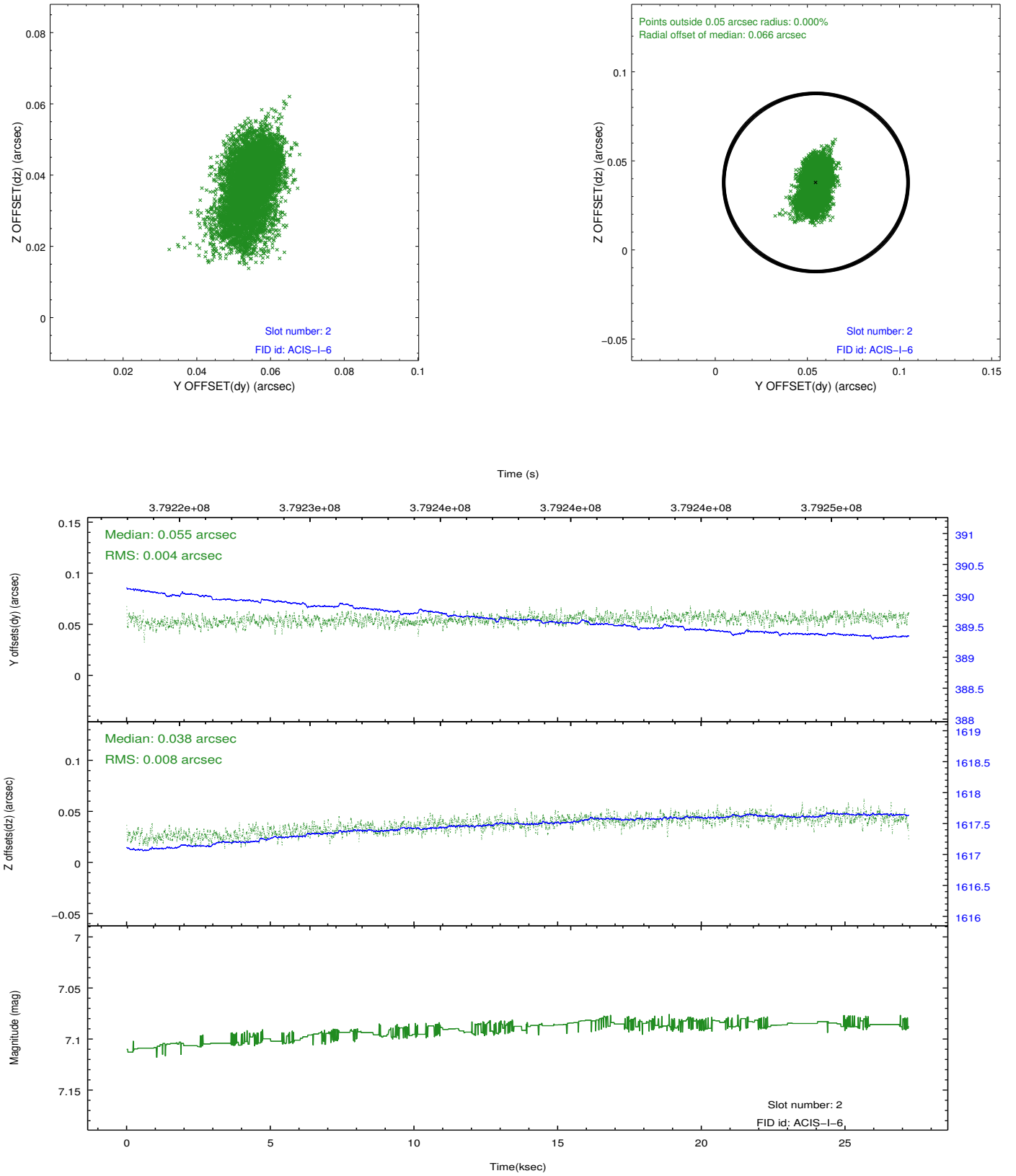
### 2.5.1 Slot 0



## 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)	2012.06.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.20555920893

### A.2 Comments