

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8101 - L2 Version 3  
Chandra X-Ray Center

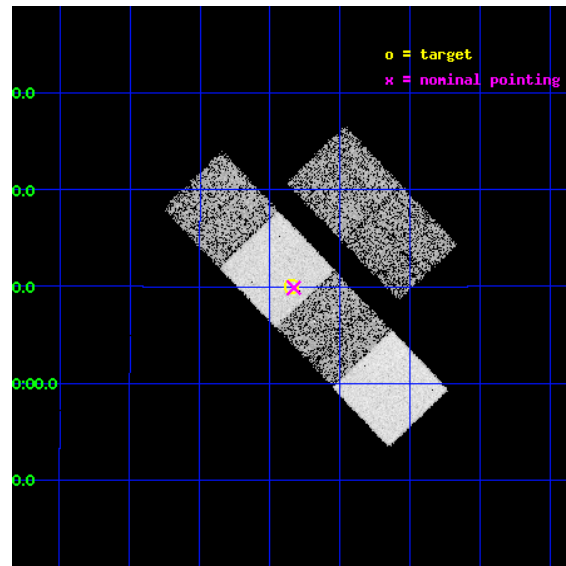
L2 Processing Date : Apr 24 2012

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# 1 Front

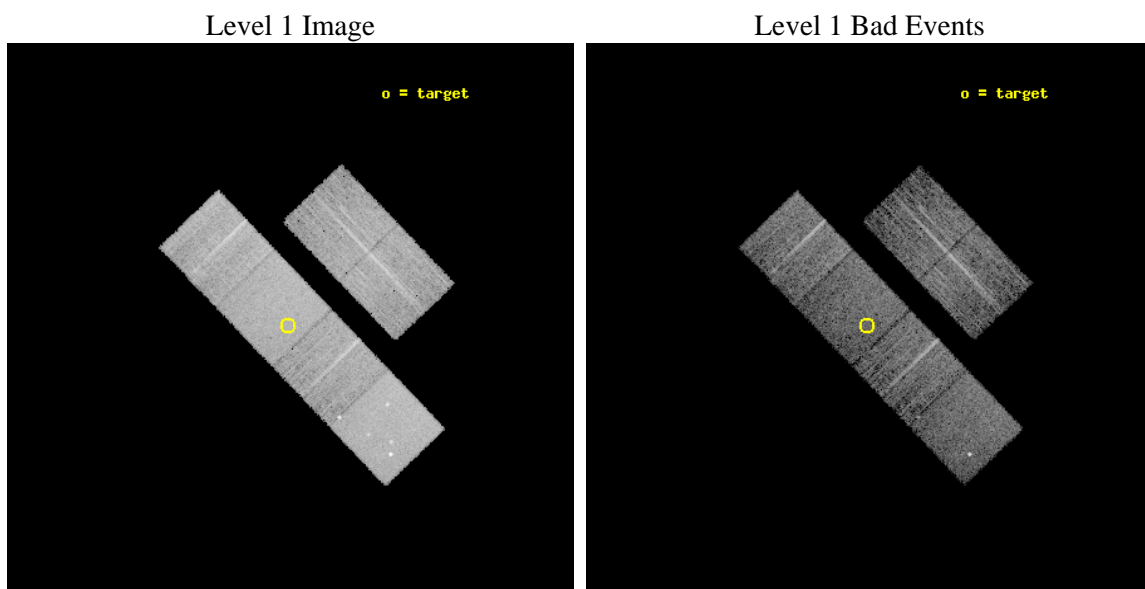
seq_num	900642	Sequence number
obs_id	8101	Observation id
title	The Duty Cycle of Supermassive Black Holes: X-raying Virgo	Proposa
observer	Prof Tommaso Treu	Principal investigator
object	2050	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	191.83625	Observer's specified target RA [deg]
dec_targ	12.166306	Observer's specified target Dec [deg]
ra_nom	191.83222455143	Nominal RA [deg]
dec_nom	12.164550165397	Nominal Dec [deg]
roll_nom	226.15748697511	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5155.199980855	Sum of GTIs [s]
livetime	5089.9217346086	Livetime [s]
ontime2	5155.199980855	Sum of GTIs [s]
ontime3	5155.199980855	Sum of GTIs [s]
ontime5	5155.199980855	Sum of GTIs [s]
ontime6	5155.199980855	Sum of GTIs [s]
ontime7	5155.199980855	Sum of GTIs [s]
ontime8	5151.9589805603	Sum of GTIs [s]
l2events	81839	Number of level 2 events



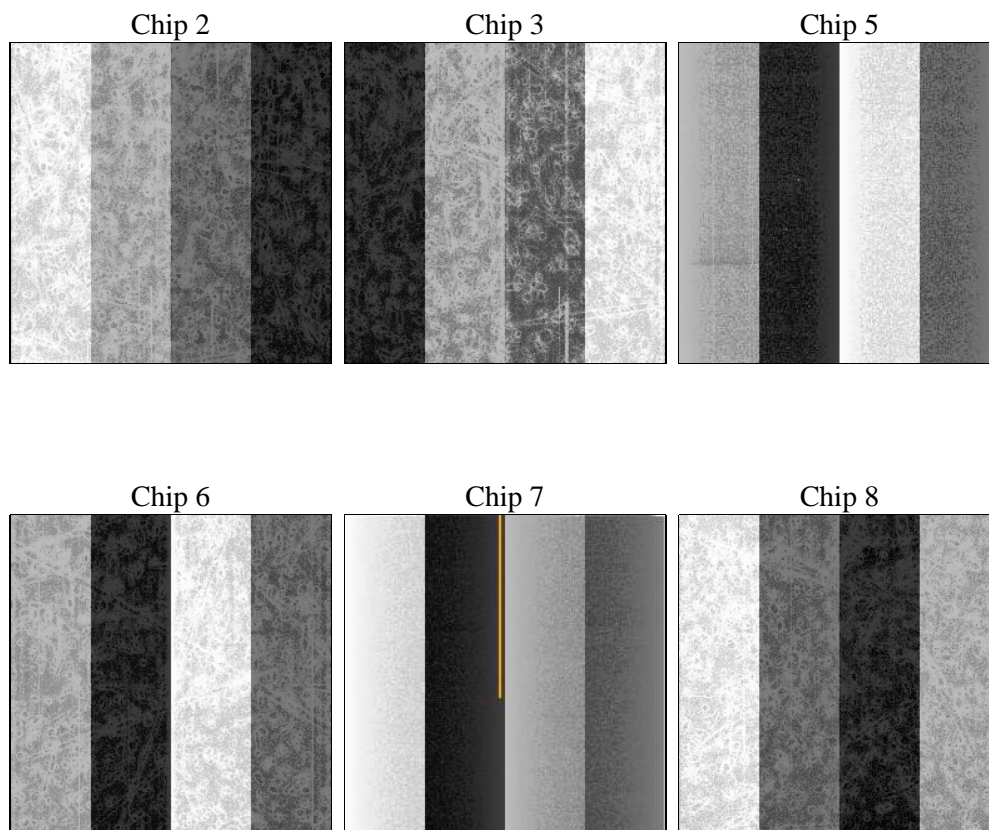
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	5155.199980855	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime2	5155.199980855	Sum of GTIs [s]
date	2012-04-24T09:22:44	Date and time of file creation	ontime3	5155.199980855	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	5155.199980855	Sum of GTIs [s]
			ontime6	5155.199980855	Sum of GTIs [s]
			ontime7	5155.199980855	Sum of GTIs [s]
			ontime8	5151.9589805603	Sum of GTIs [s]
			l1events	362323	Number of level 1 events

### 2.1.4 Events

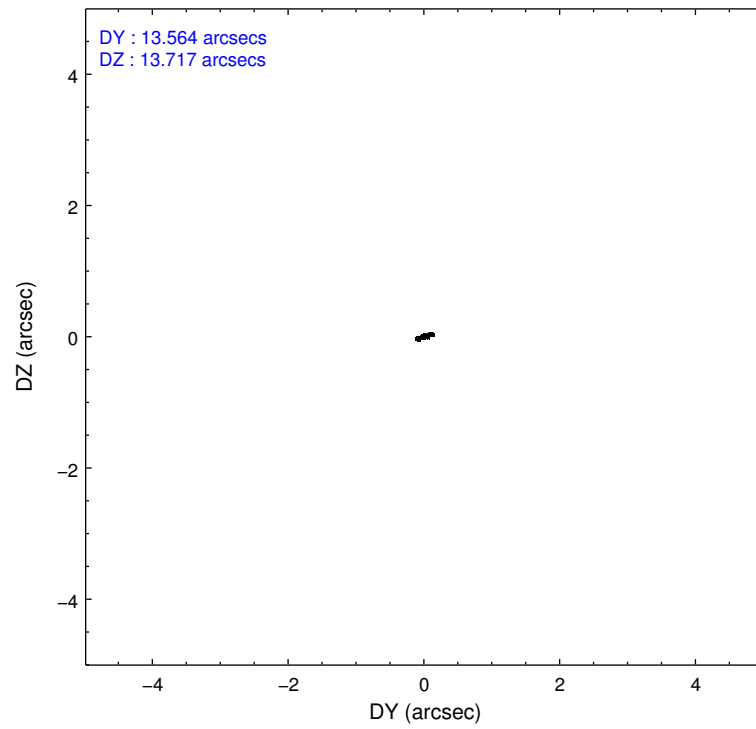
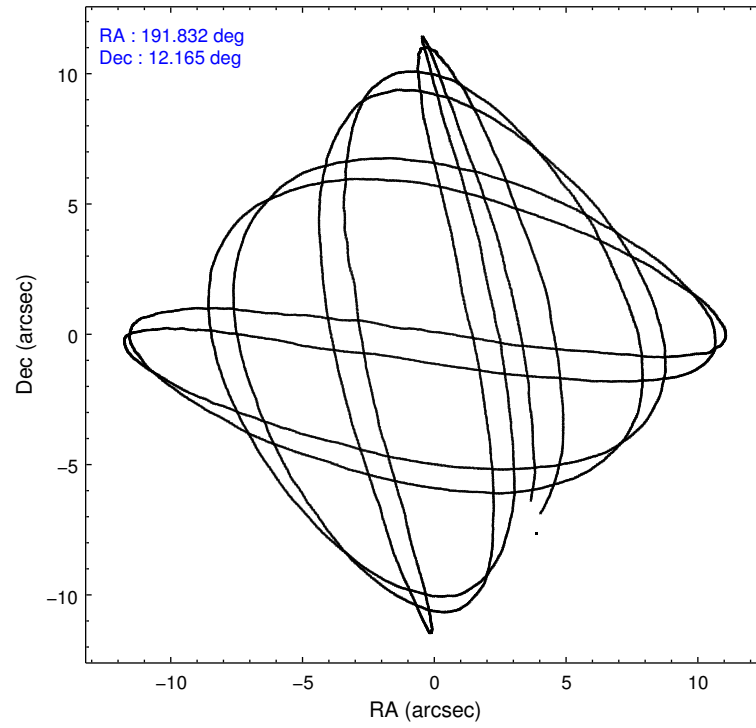
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	50734	48131	78077	50838	68740	65803	grade 0 events	2377	2520	3303	2385	2462	4244
rejected events	45112	42329	42307	44848	40339	52121		4%	5%	4%	4%	3%	6%
rejected %	88%	87%	54%	88%	58%	79%	grade 1 events	26	34	175	31	61	52
								0%	0%	0%	0%	0%	0%
							grade 2 events	1208	1109	10789	1310	5798	3075
								2%	2%	13%	2%	8%	4%
							grade 3 events	509	564	1407	559	2396	1462
								1%	1%	1%	1%	3%	2%
							grade 4 events	547	567	1263	560	2434	1228
								1%	1%	1%	1%	3%	1%
							grade 5 events	1928	2226	5896	2303	6458	2936
								3%	4%	7%	4%	9%	4%
							grade 6 events	983	1045	19026	1182	15334	3676
								1%	2%	24%	2%	22%	5%
							grade 7 events	43156	40066	36218	42508	33797	49130
								85%	83%	46%	83%	49%	74%

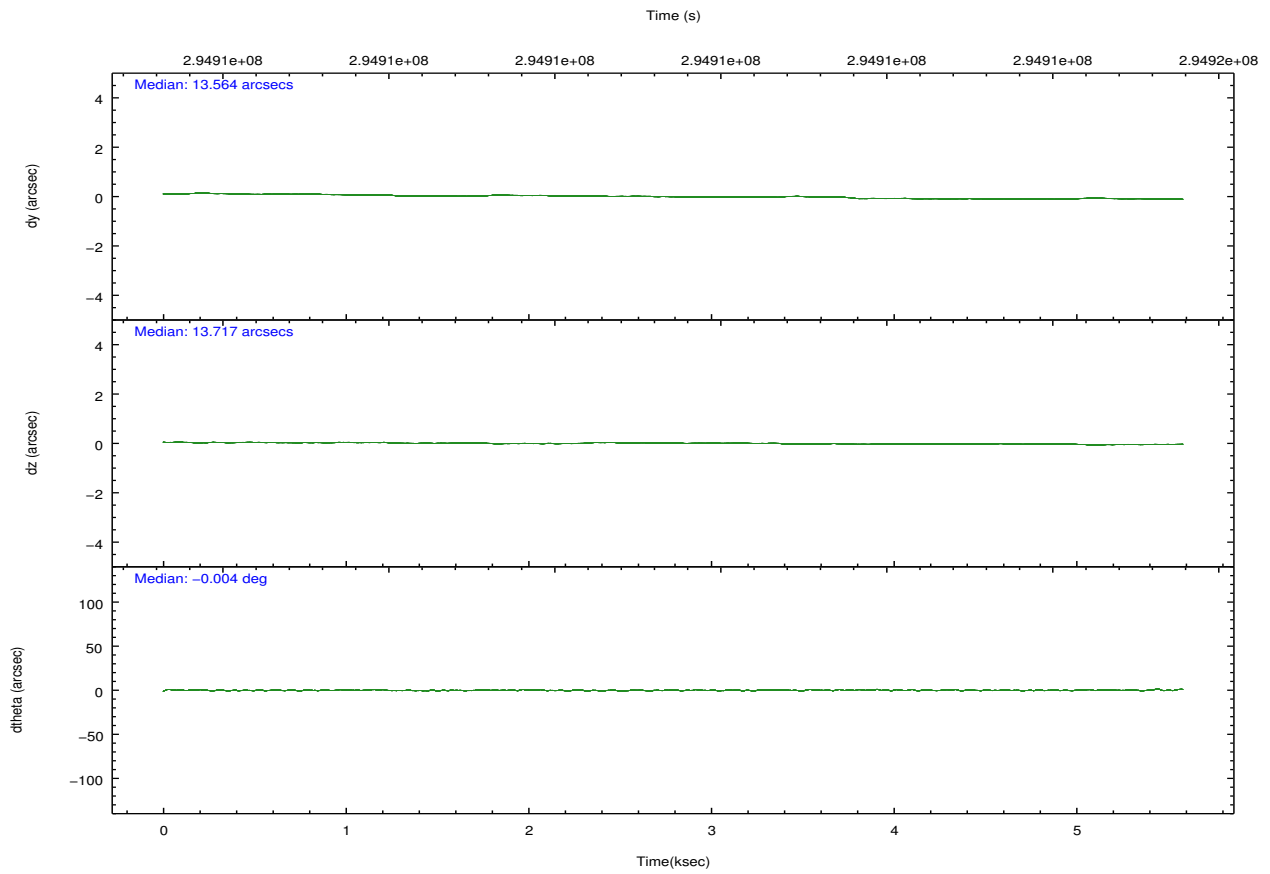
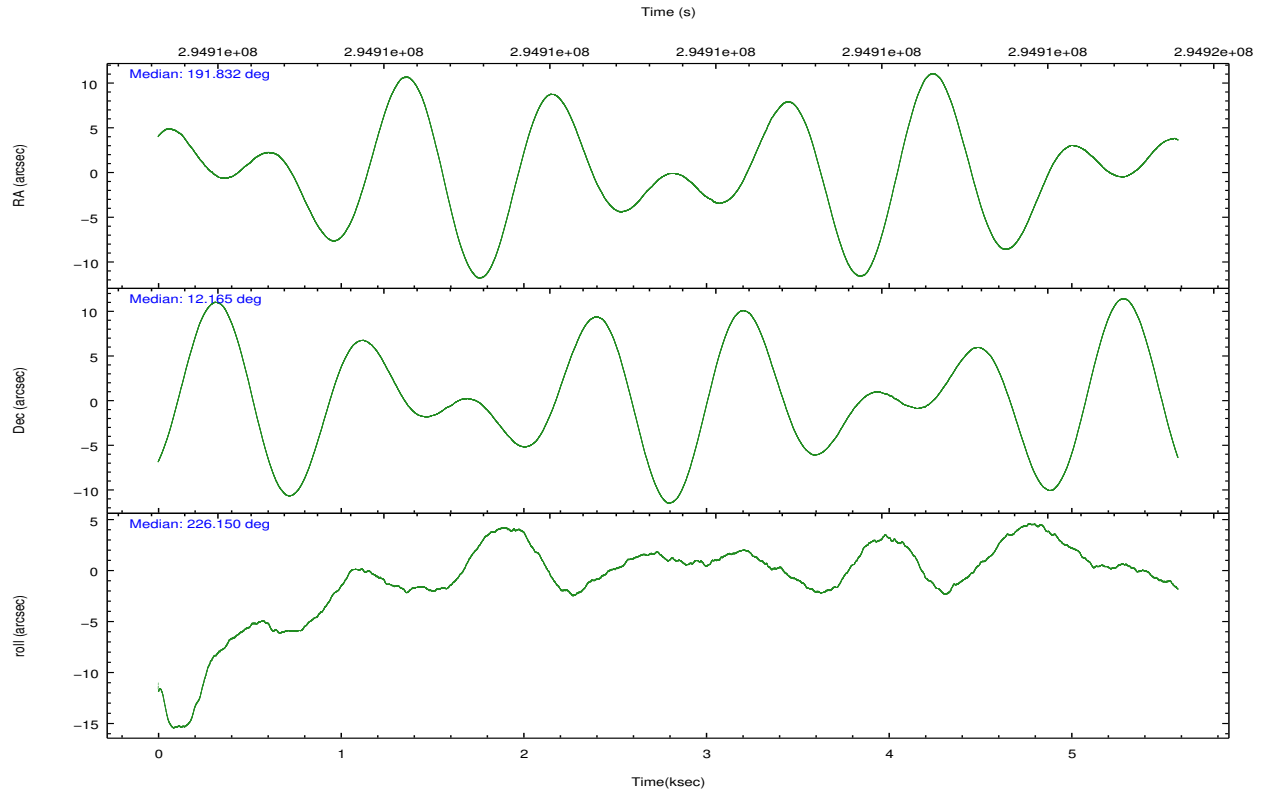


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	191.838463	191.8322245514316	Subarray requested	NONE	NONE
[deg] Pointing Dec	12.191098	12.164550165397	Alternating exposures requested	N	N
[deg] Pointing Roll	225.999537	226.1574869751084	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	294909108.184000	294908697.2489			
Observation start date	2007-05-07T07:10:43	2007-05-07T07:04:57			
[s] Observation end time (MET)	294914508.184000	294915482.74922			
Observation end date	2007-05-07T08:40:43	2007-05-07T08:58:02			
Read mode	TIMED	TIMED			

## 2.3 Aspect



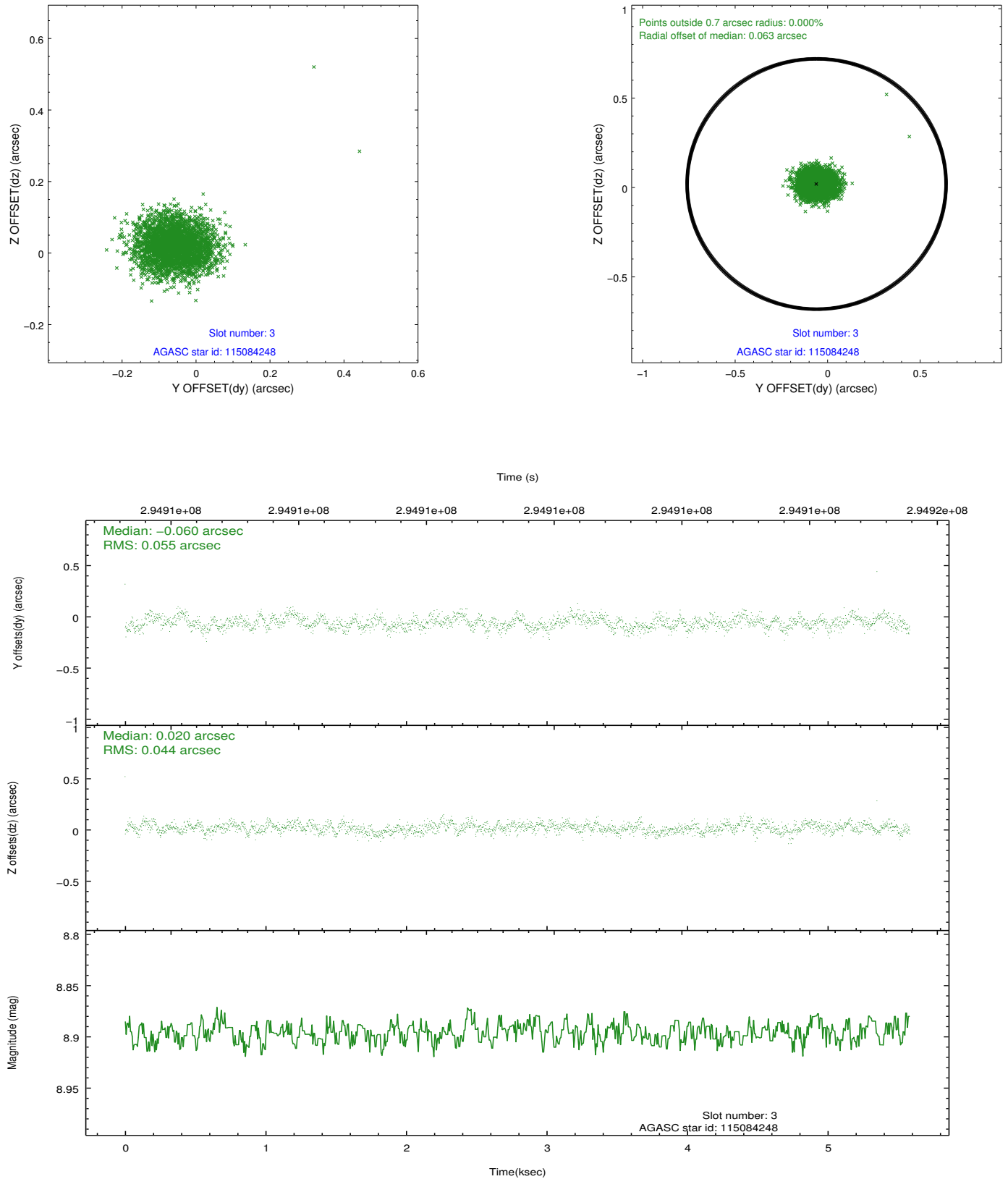


### Slot Statistics

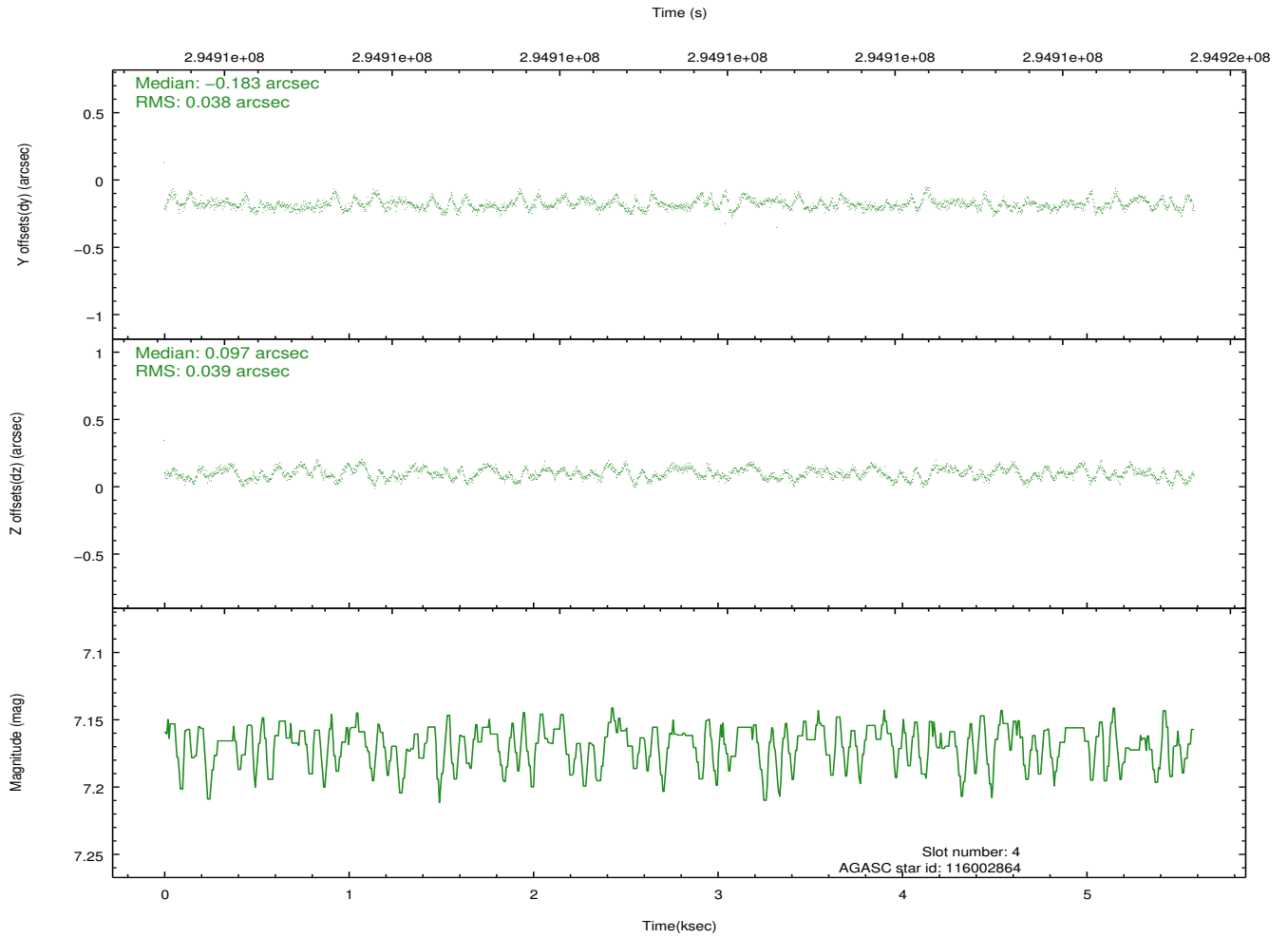
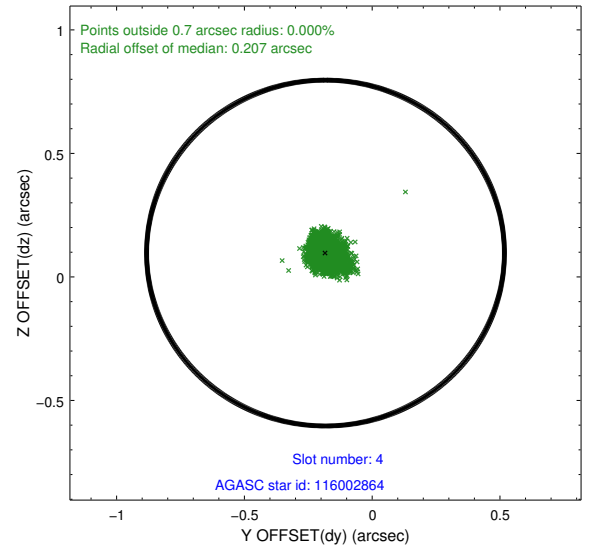
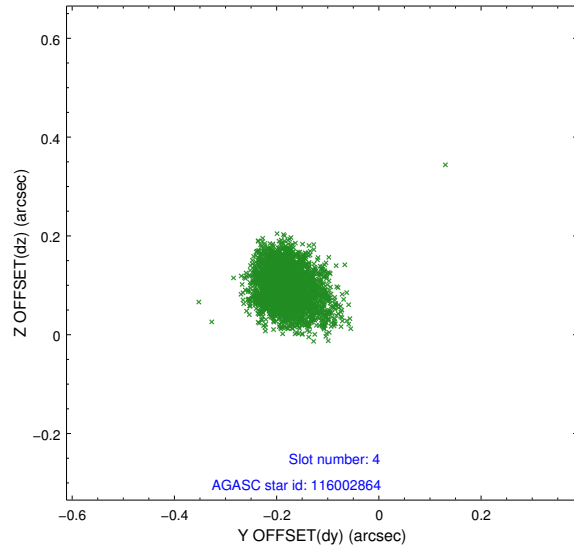
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1362	-0.049	-0.073	0.008	0.013	0.000000	0.000000	-766.54	-1735.08
1	FID	ACIS-S-4	7.19	1362	0.204	0.043	0.007	0.012	0.000000	0.000000	2146.50	172.40
2	FID	ACIS-S-5	7.23	1362	-0.186	0.039	0.007	0.012	0.000000	0.000000	-1818.14	167.30
3	GUIDE	115084248	8.90	2725	-0.060	0.020	0.075	0.118	191.376307	11.903207	1876.33	-451.55
4	GUIDE	116002864	7.17	2724	-0.183	0.097	0.057	0.091	192.218425	12.096366	-683.67	1200.28
5	GUIDE	116008360	6.51	2725	-0.133	-0.231	0.072	0.119	191.806843	11.958085	681.08	503.36
6	GUIDE	116393552	9.18	2718	0.085	0.494	0.108	0.167	191.999954	12.627463	-1522.92	-682.70
7	GUIDE	116394504	9.30	2719	0.291	-0.378	0.081	0.131	191.897813	12.552217	-1079.34	-753.74

## 2.4 Star Slots

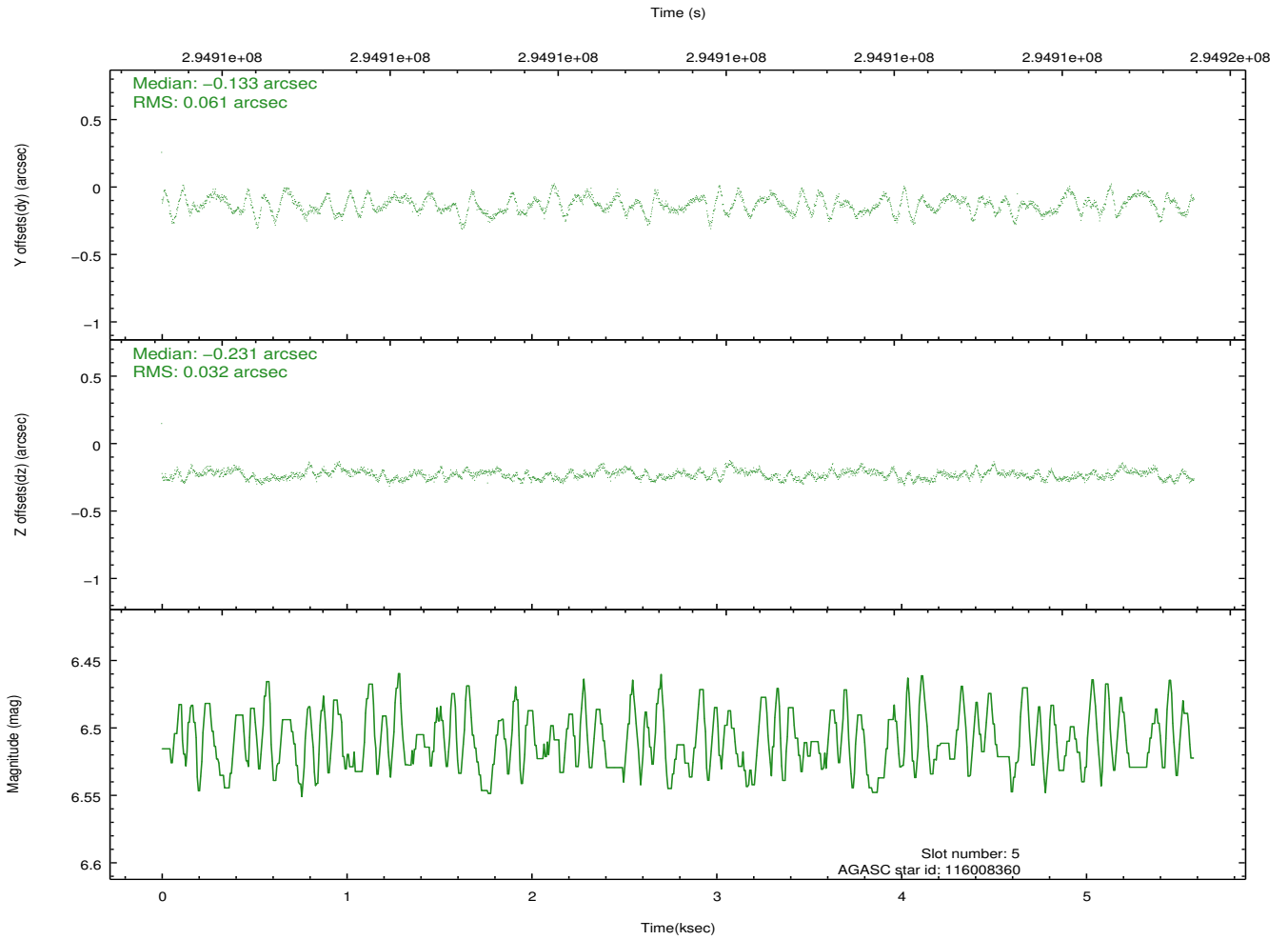
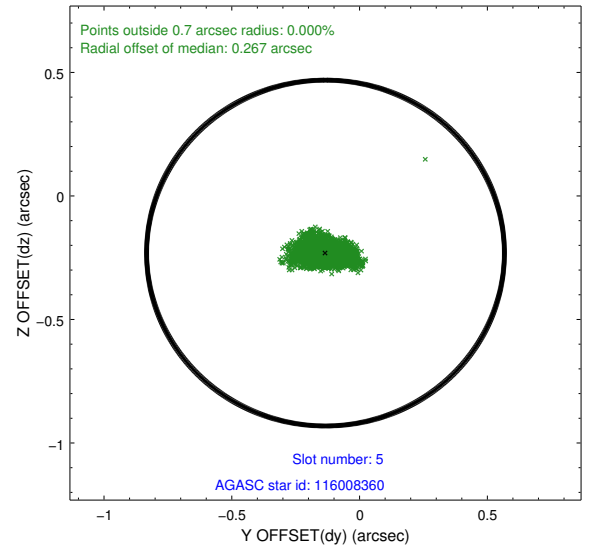
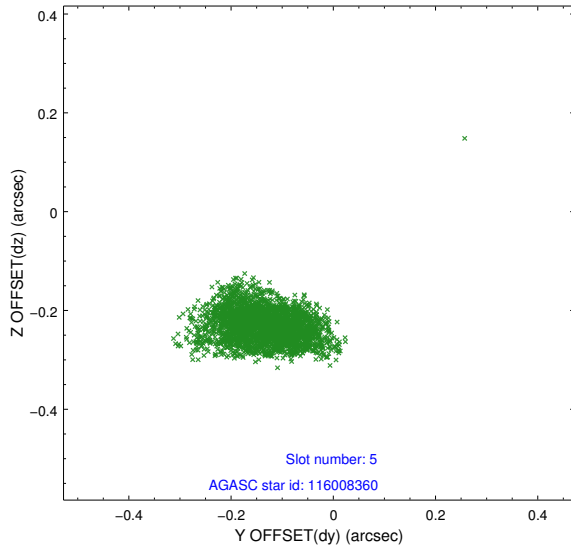
### 2.4.1 Slot 3



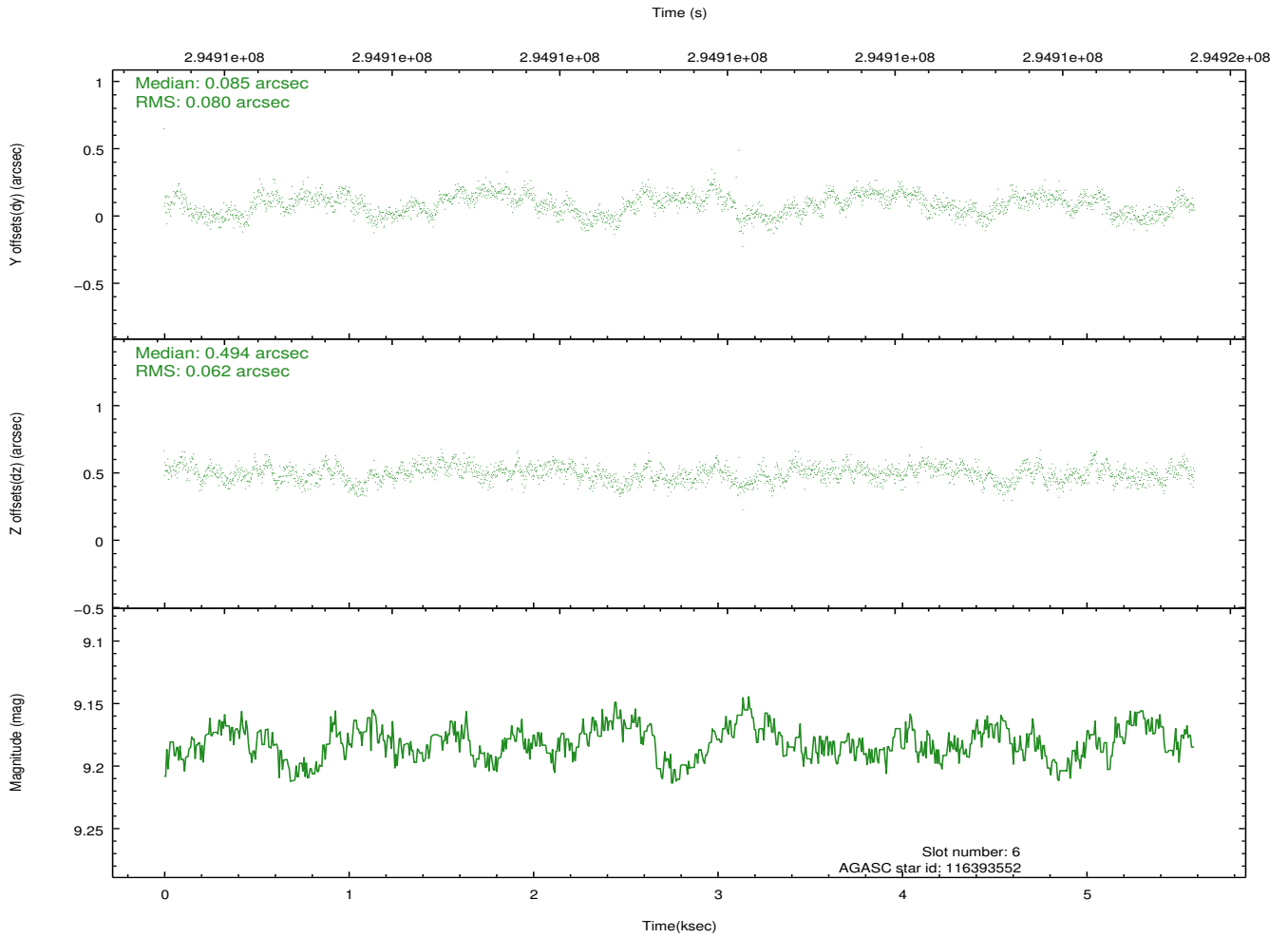
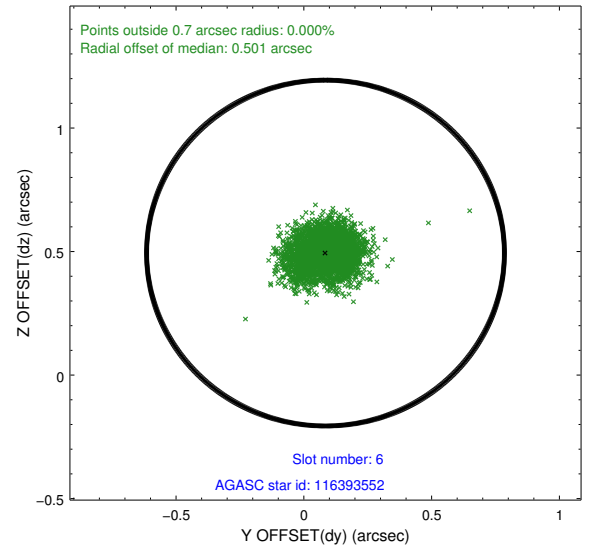
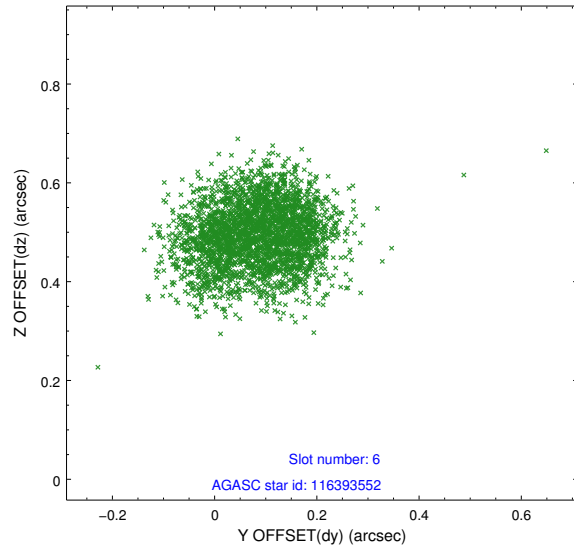
## 2.4.2 Slot 4



### 2.4.3 Slot 5

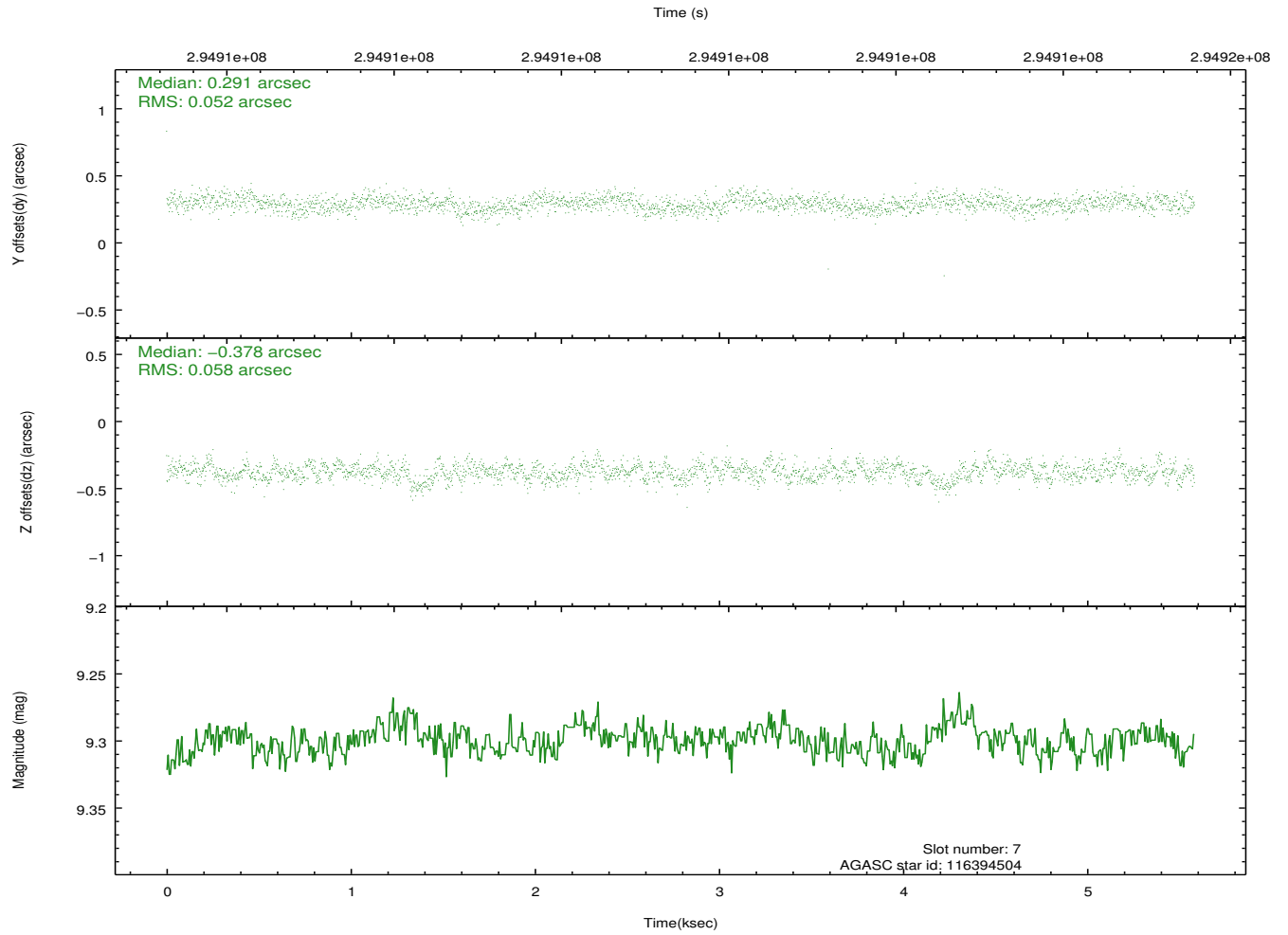
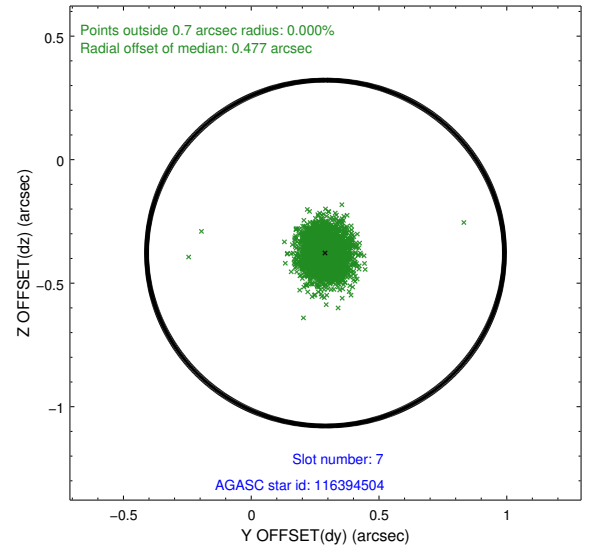
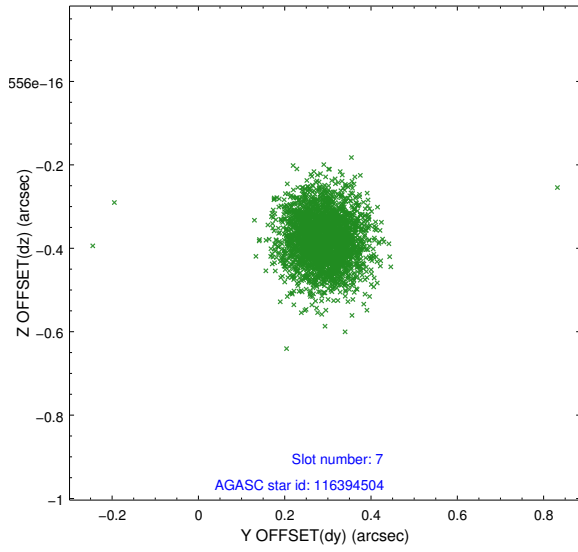


## 2.4.4 Slot 6



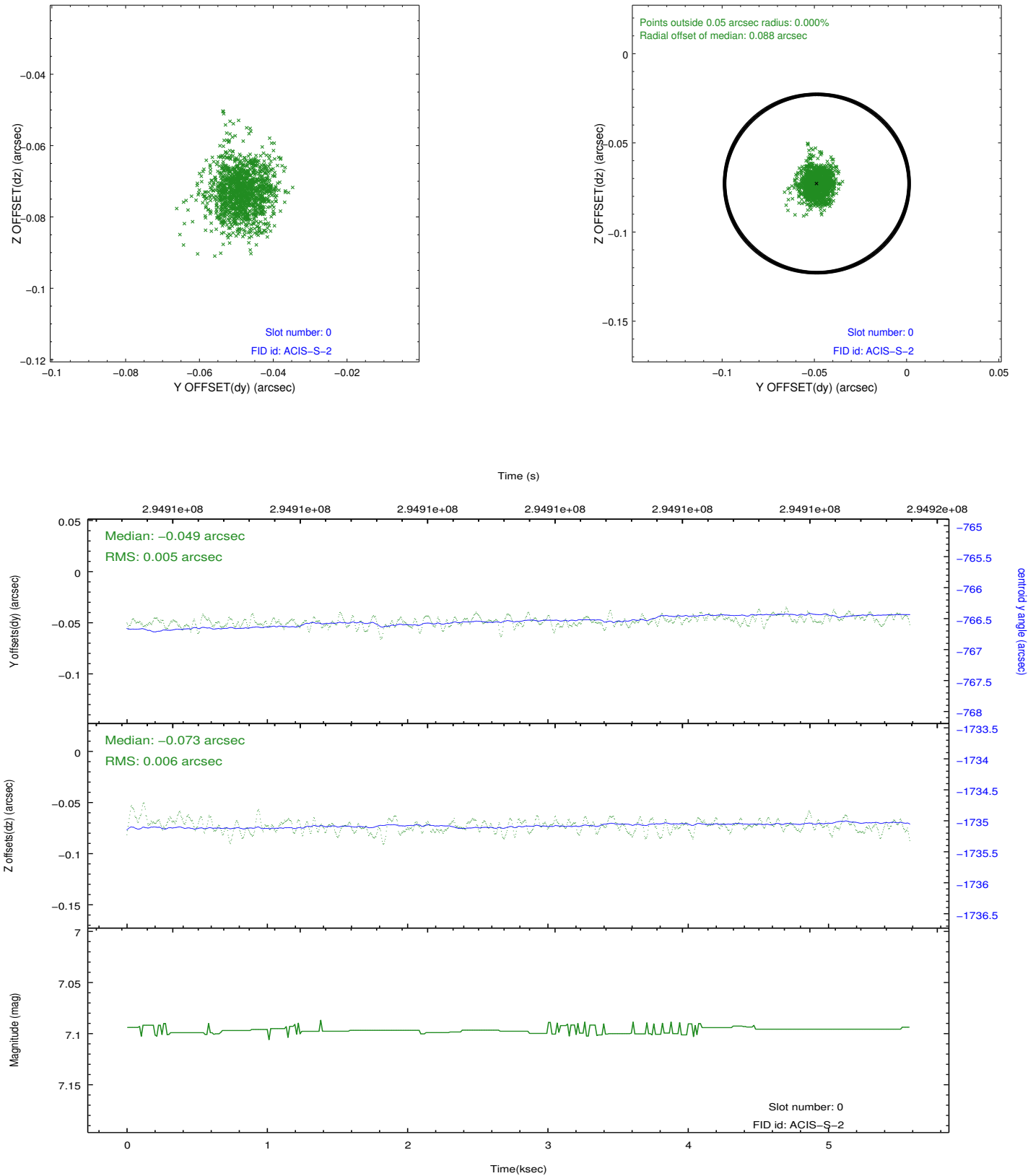


## 2.4.5 Slot 7

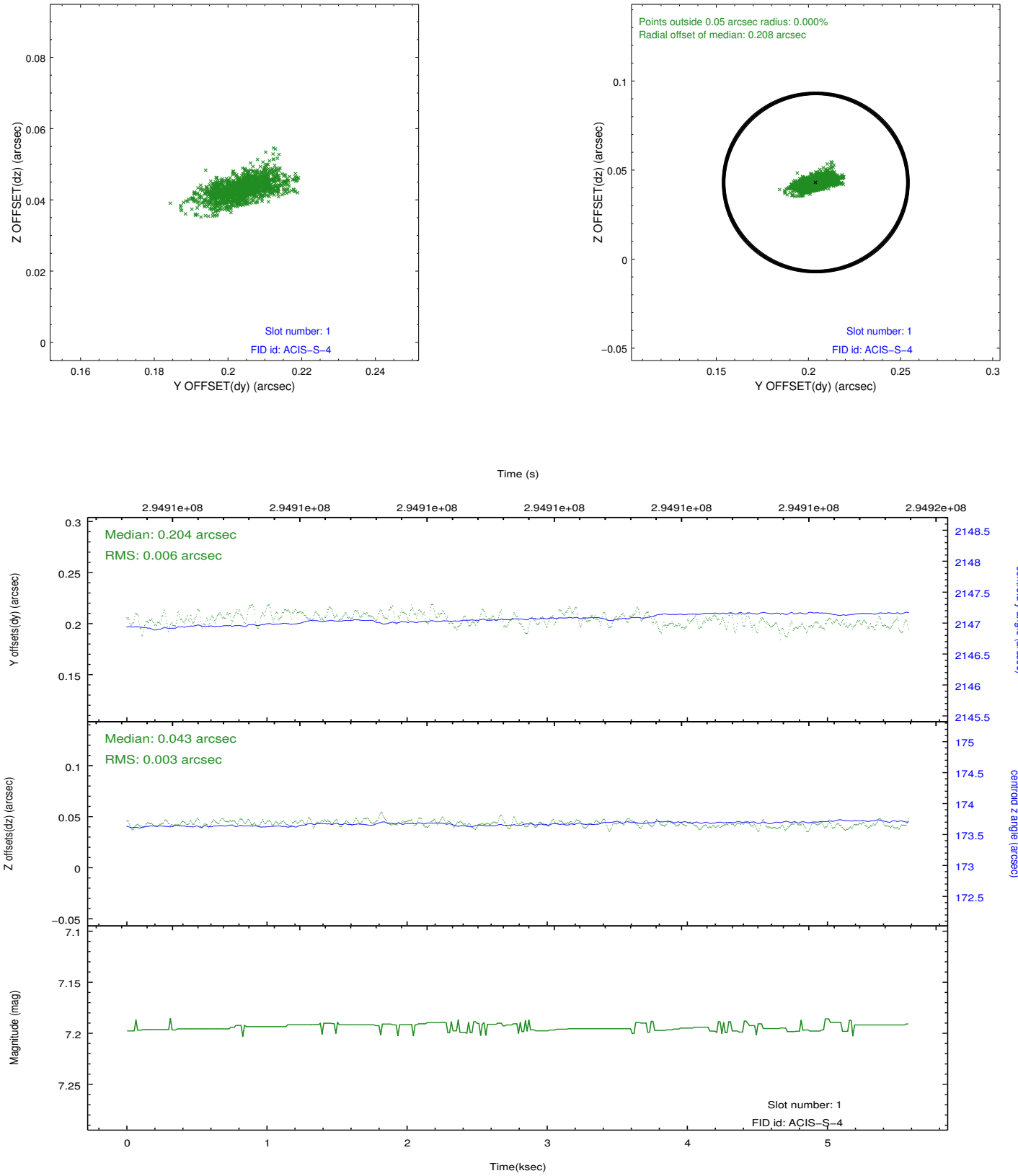


## 2.5 FID Slots

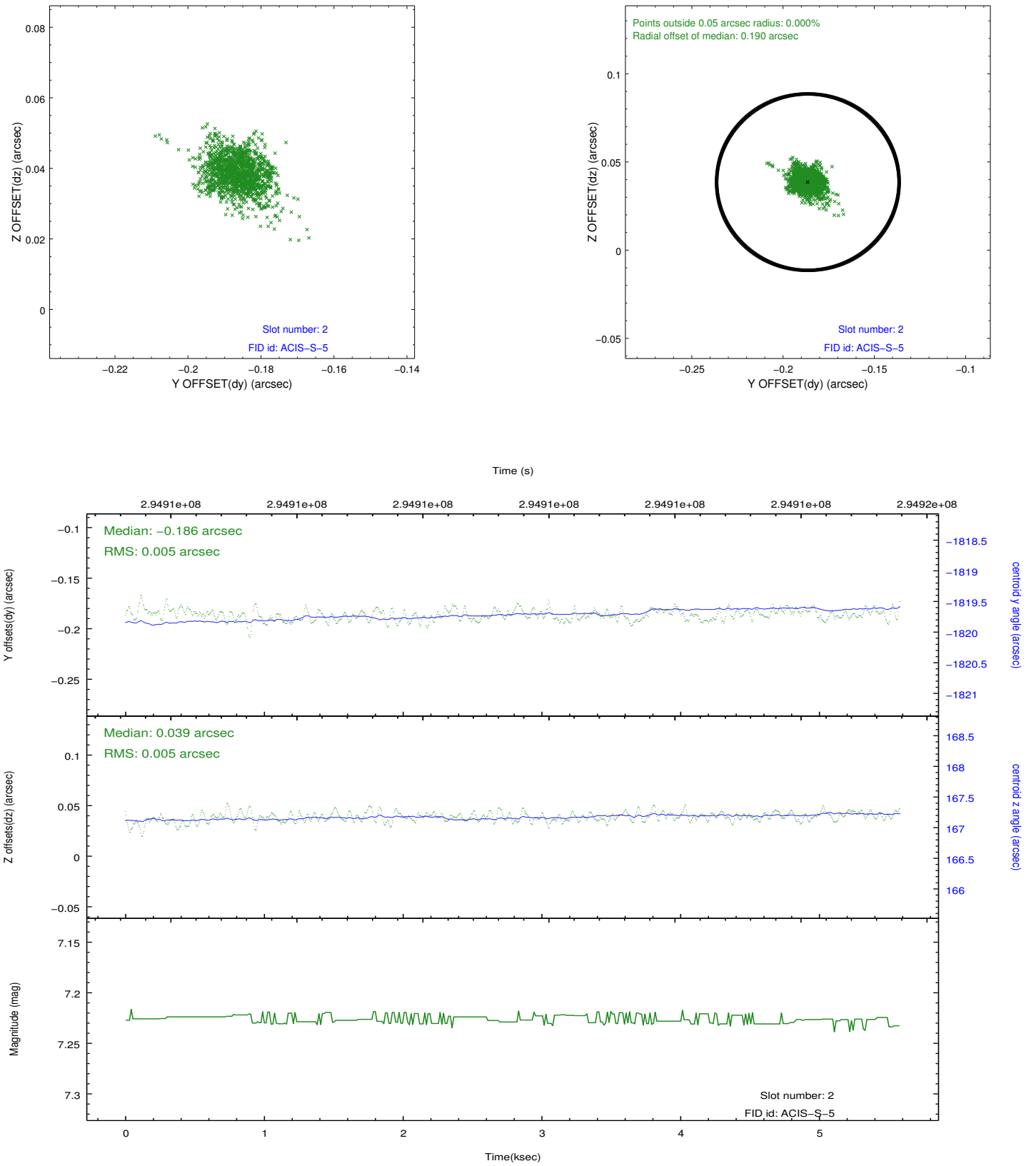
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.15519998

### A.2 Comments