

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 6252 - L2 Version 3  
Chandra X-Ray Center

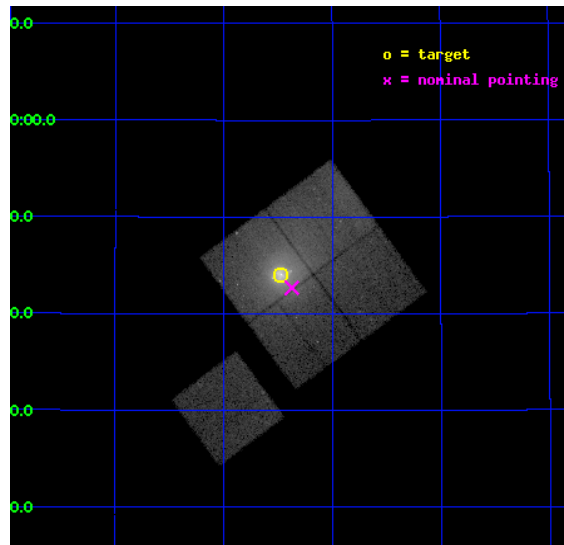
L2 Processing Date : Dec 28 2012

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# 1 Front

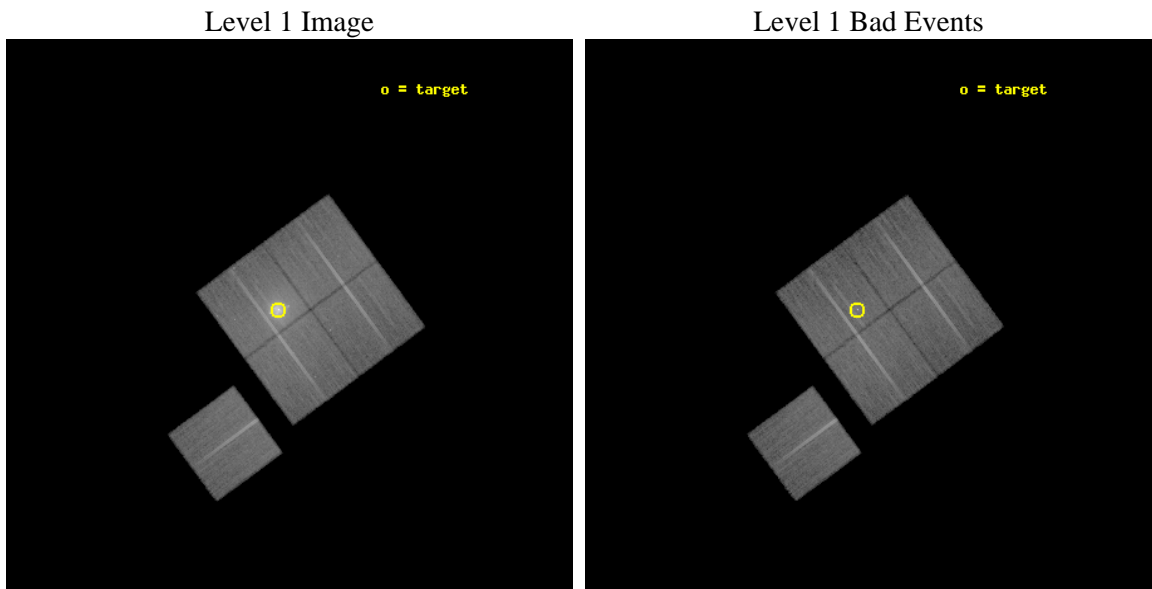
seq_num	800540	Sequence number
obs_id	6252	Observation id
title	Cygnus A --- Shock Heating of the Intra-Cluster Medium	Proposal ti
observer	Dr Andrew Young	Principal investigator
object	Cygnus A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.867917	Observer's specified target RA [deg]
dec_targ	40.733889	Observer's specified target Dec [deg]
ra_nom	299.84297379584	Nominal RA [deg]
dec_nom	40.711422990799	Nominal Dec [deg]
roll_nom	233.61666829424	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30045.158942044	Sum of GTIs [s]
livetime	29652.596821542	Livetime [s]
ontime0	30045.158971965	Sum of GTIs [s]
ontime1	30048.299942195	Sum of GTIs [s]
ontime2	30042.01806131	Sum of GTIs [s]
ontime3	30045.158942044	Sum of GTIs [s]
ontime6	30048.299942195	Sum of GTIs [s]
l2events	275093	Number of level 2 events



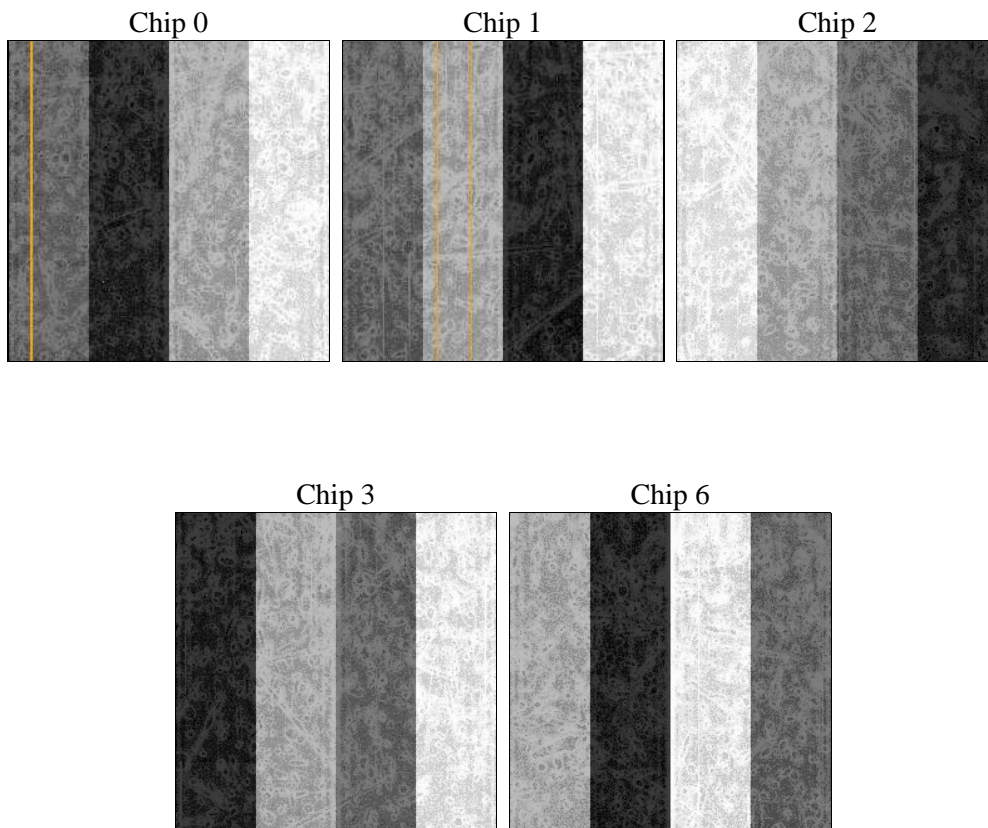
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	30045.158942044	Sum of GTIs [s]
caldbver	4.5.5	&#160	ontime0	30045.158971965	Sum of GTIs [s]
date	2012-12-28T22:26:18	Date and time of file creation	ontime1	30048.299942195	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	30042.01806131	Sum of GTIs [s]
			ontime3	30045.158942044	Sum of GTIs [s]
			ontime6	30048.299942195	Sum of GTIs [s]
			l1events	1140159	Number of level 1 events

### 2.1.4 Events

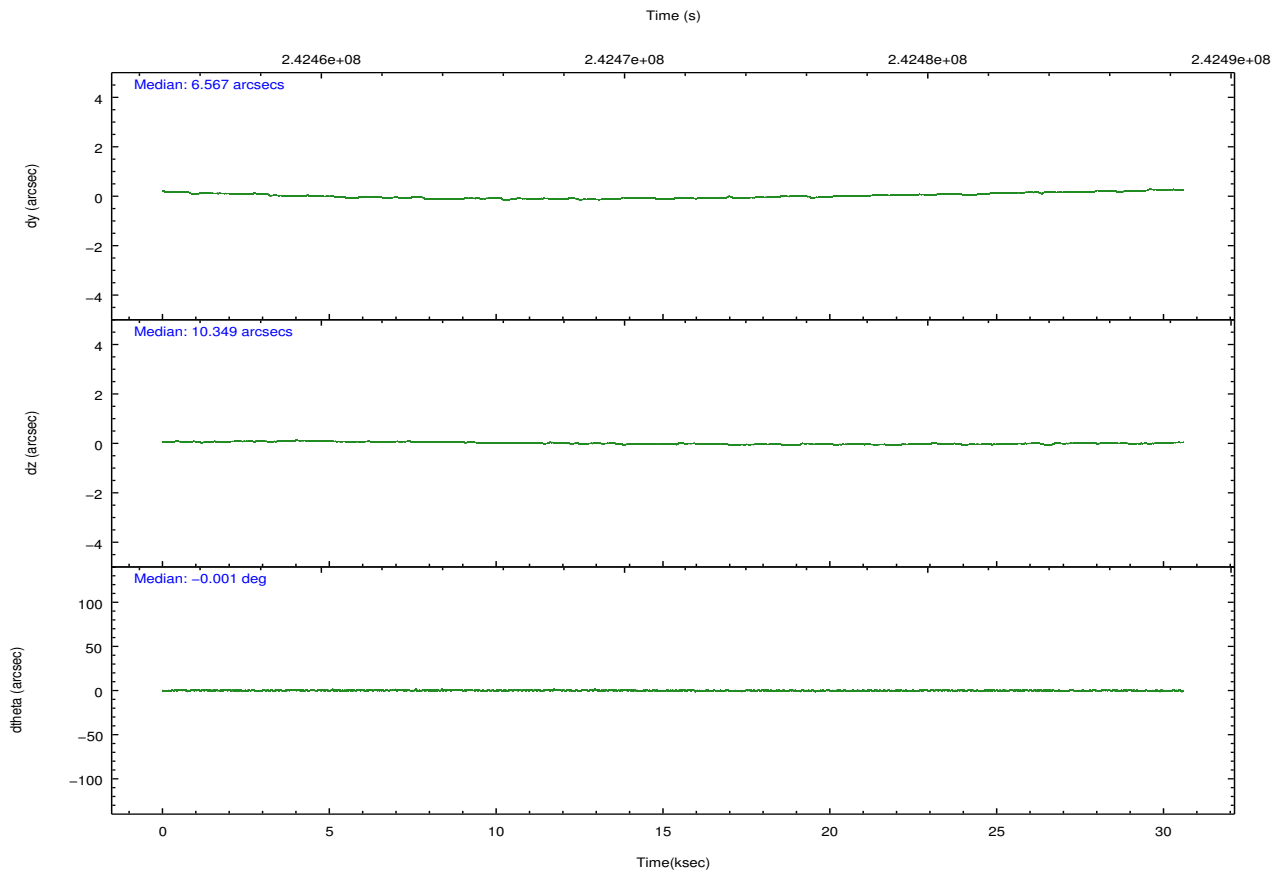
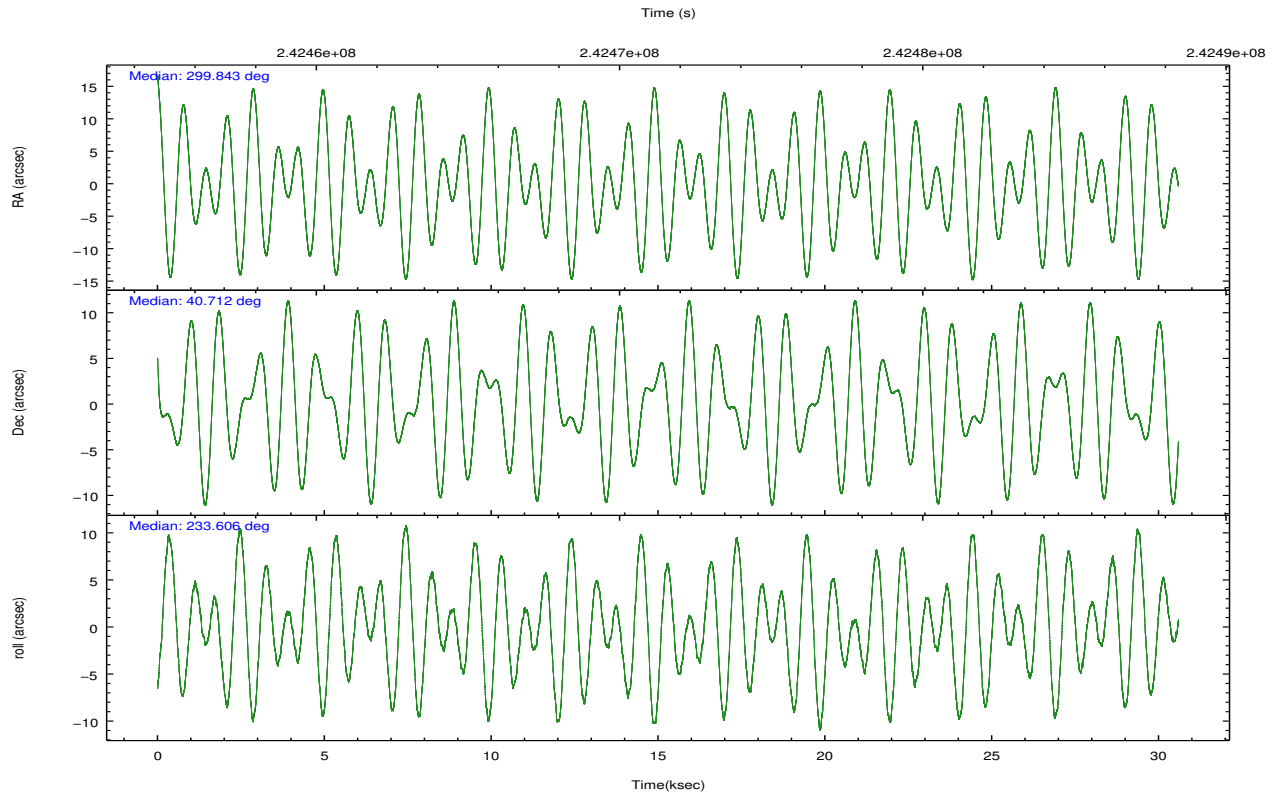
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	183453	212548	216470	336197	191491
rejected events	156036	157300	183759	174617	170183
rejected %	85%	74%	84%	51%	88%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	13528	34551	18237	119413	8470
	7%	16%	8%	35%	4%
grade 1 events	127	216	138	1257	91
	0%	0%	0%	0%	0%
grade 2 events	5291	8243	5522	19263	4240
	2%	3%	2%	5%	2%
grade 3 events	2416	3493	2498	7115	2185
	1%	1%	1%	2%	1%
grade 4 events	2283	3489	2591	7113	2157
	1%	1%	1%	2%	1%
grade 5 events	6263	7181	6033	8480	7329
	3%	3%	2%	2%	3%
grade 6 events	3901	5475	3864	8692	4258
	2%	2%	1%	2%	2%
grade 7 events	149644	149900	177587	164864	162761
	81%	70%	82%	49%	84%

## 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	299.846862	299.8429737958409	Subarray requested	NONE	NONE
[deg] Pointing Dec	40.738677	40.71142299079859	Alternating exposures requested	N	N
[deg] Pointing Roll	233.405442	233.6166682942422	[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	-227.732463	-227.734108438797			
[mm] SIM translation stage offset	-5.86	-5.858344564132665			
[s] Observation start time (MET)	242456903.184000	242455715.84197			
Observation start date	2005-09-07T05:07:19	2005-09-07T04:48:35			
[s] Observation end time (MET)	242486903.184000	242488223.71846			
Observation end date	2005-09-07T13:27:19	2005-09-07T13:50:23			
Read mode	TIMED	TIMED			

## 2.3 Aspect

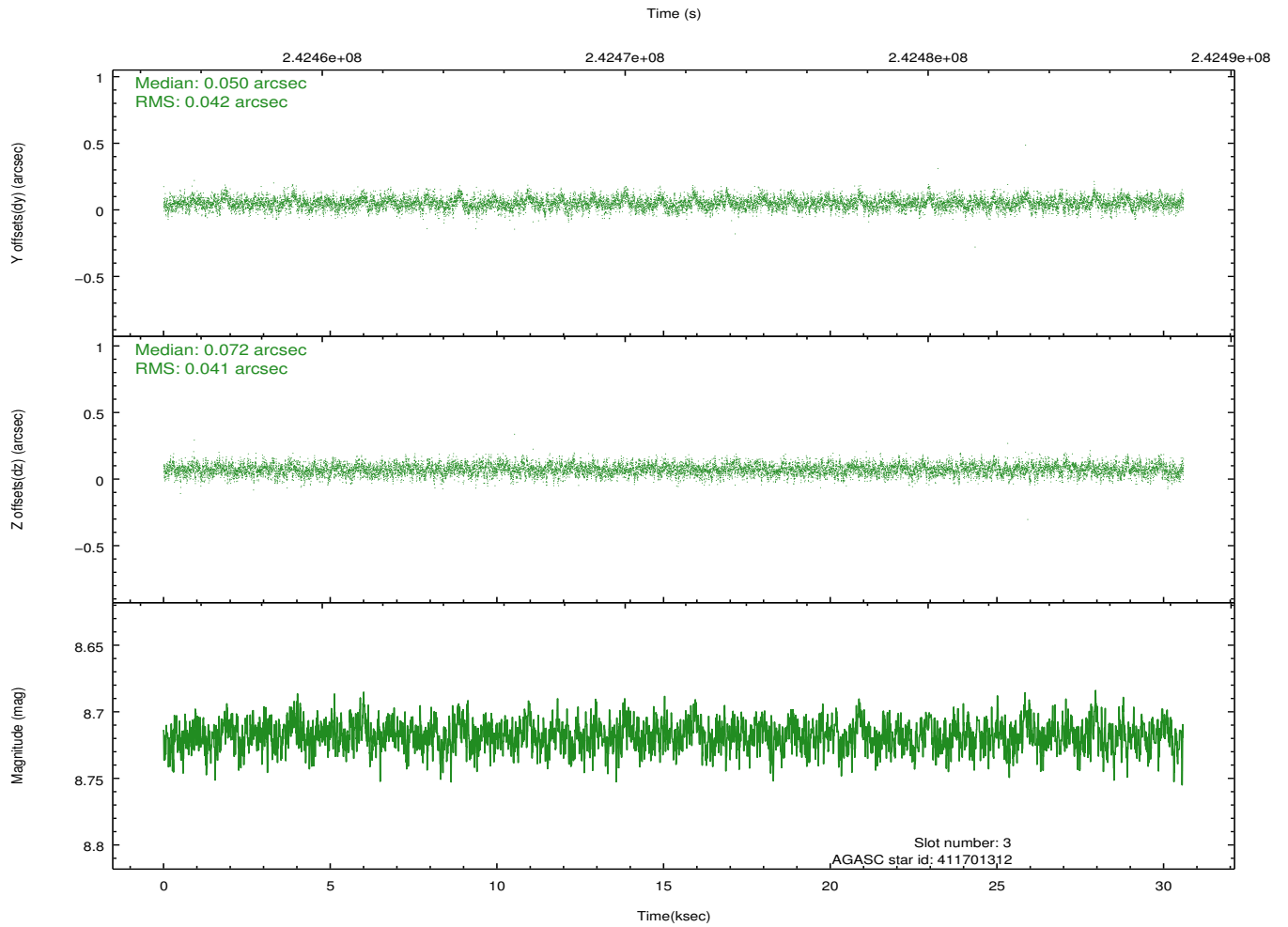
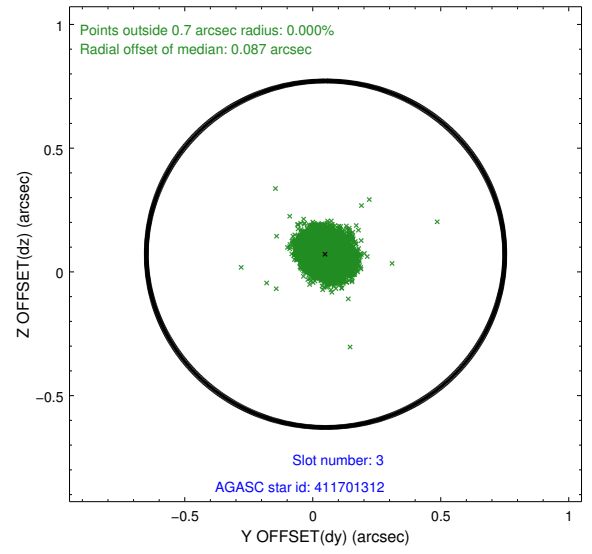
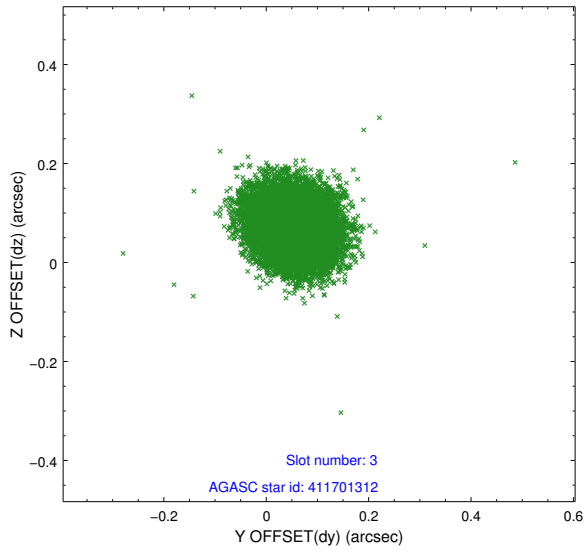


### Slot Statistics

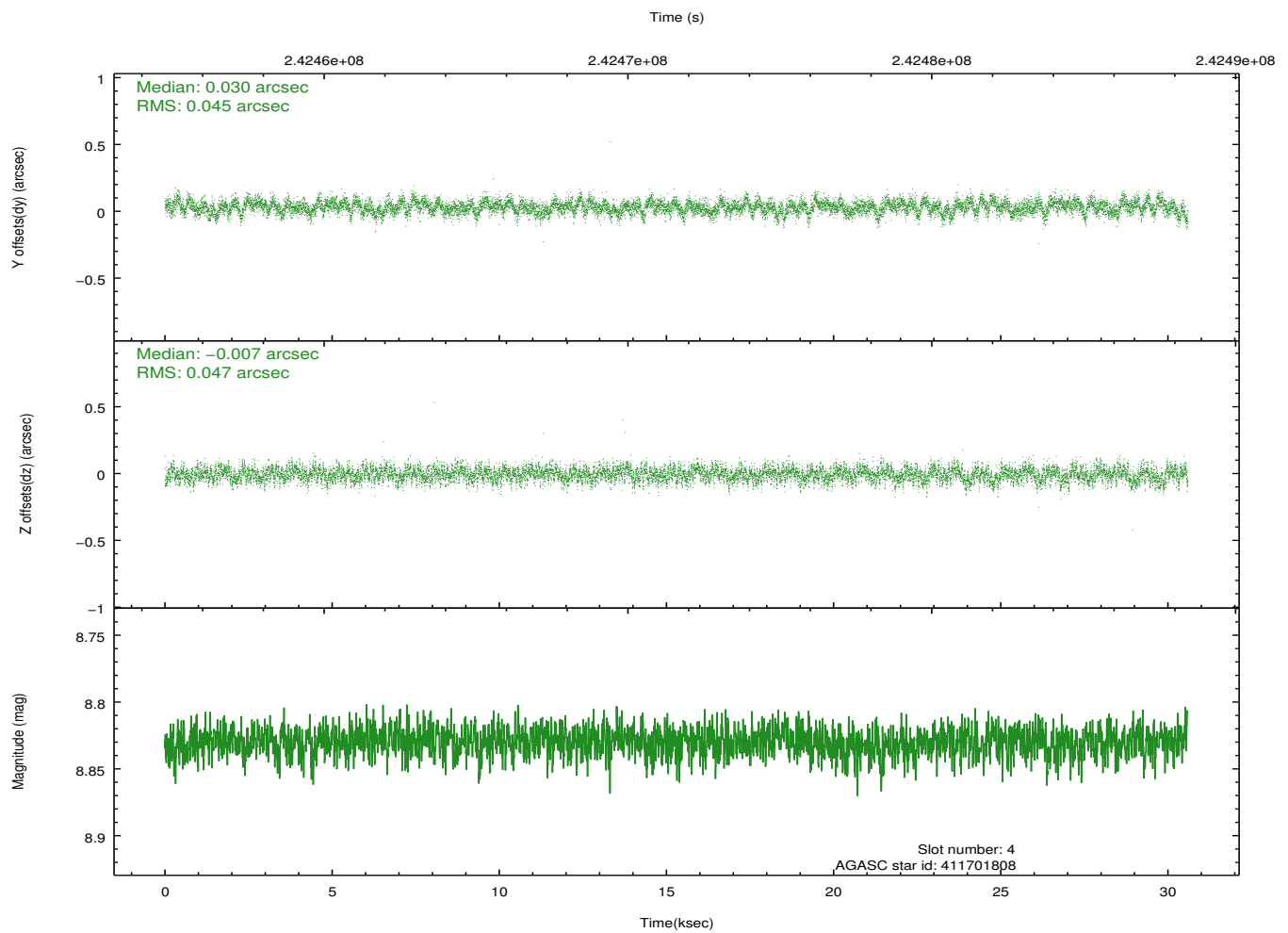
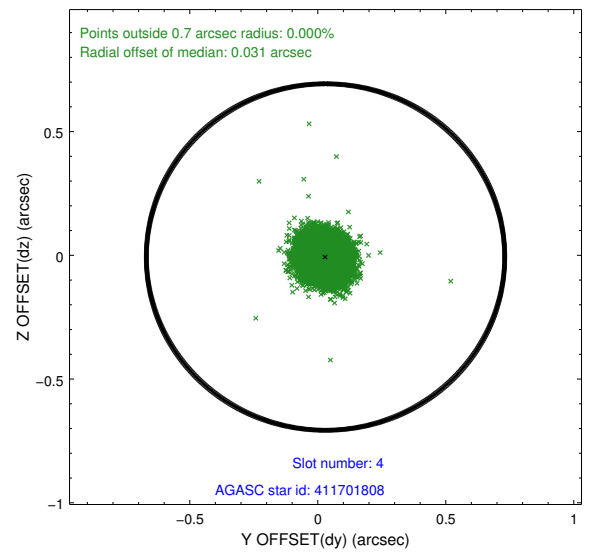
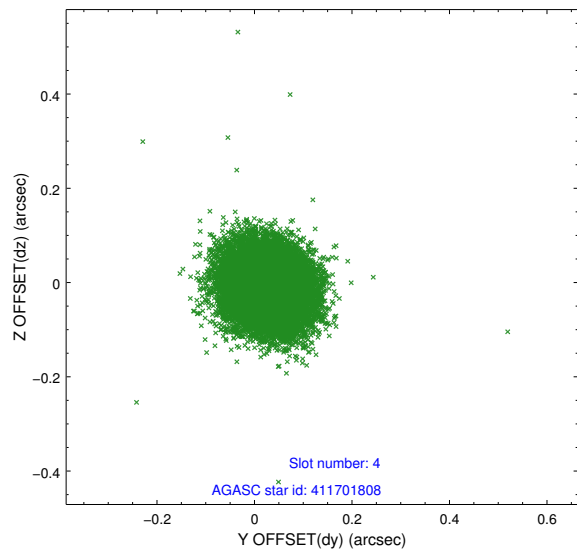
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	7462	0.124	-0.096	0.007	0.011	0.000000	0.000000	933.10	-954.19
1	FID	ACIS-I-5	7.23	7462	-0.244	0.111	0.007	0.011	0.000000	0.000000	-1815.30	943.52
2	FID	ACIS-I-6	7.25	7461	0.029	0.056	0.008	0.012	0.000000	0.000000	398.53	1587.99
3	GUIDE	411701312	8.72	14856	0.050	0.072	0.061	0.100	298.889956	40.820220	1307.63	-2275.82
4	GUIDE	411701808	8.83	14915	0.030	-0.007	0.069	0.112	299.419536	40.880184	282.67	-1238.95
5	GUIDE	412240768	8.28	14922	-0.072	0.228	0.065	0.101	299.999696	41.280279	-1811.91	-830.41
6	GUIDE	413405352	8.35	14922	-0.014	-0.093	0.070	0.109	300.290830	41.091941	-1741.55	207.11
7	GUIDE	413421016	8.71	14919	0.008	-0.195	0.071	0.111	300.612426	40.446254	-412.72	2306.20

## 2.4 Star Slots

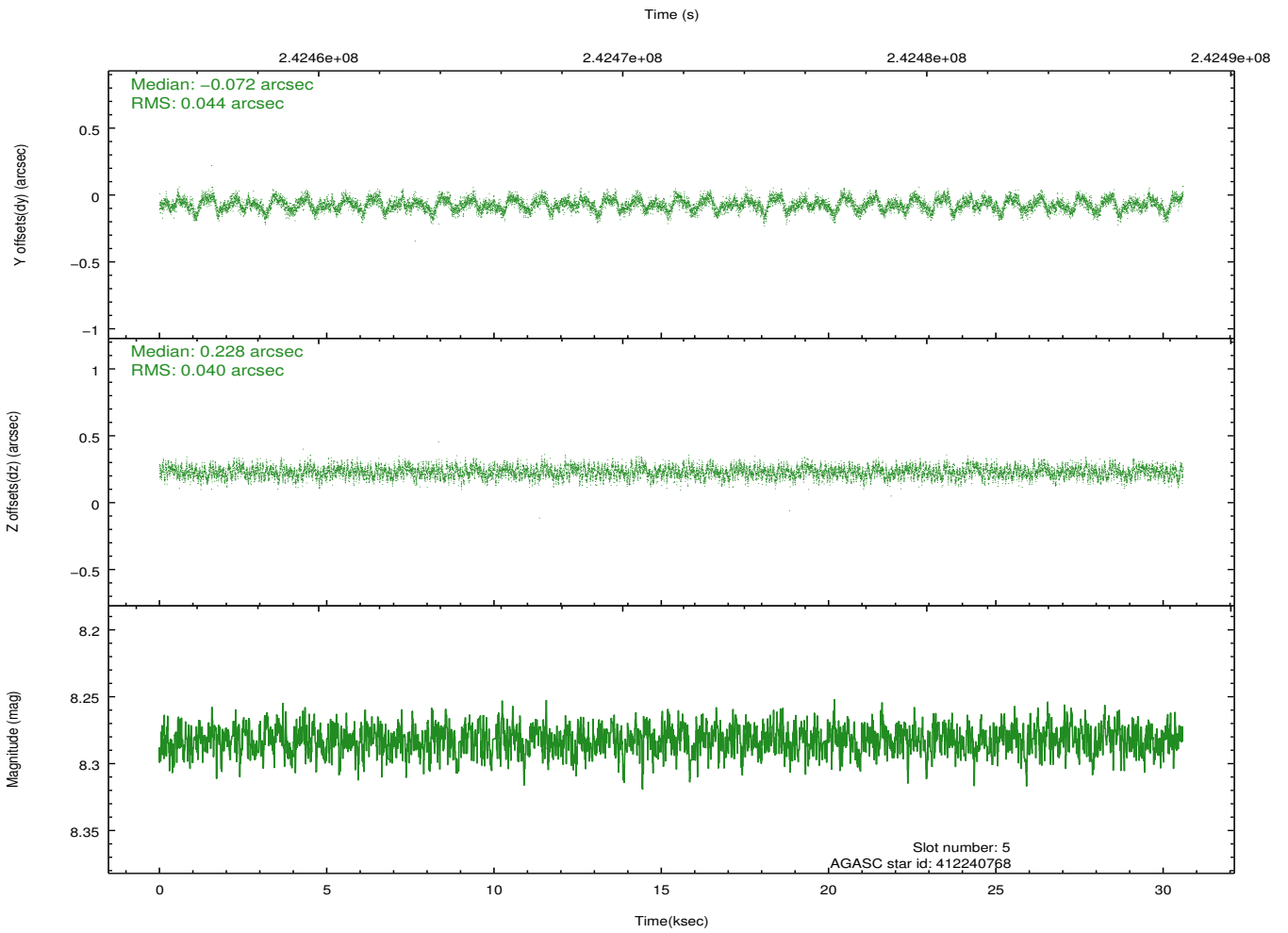
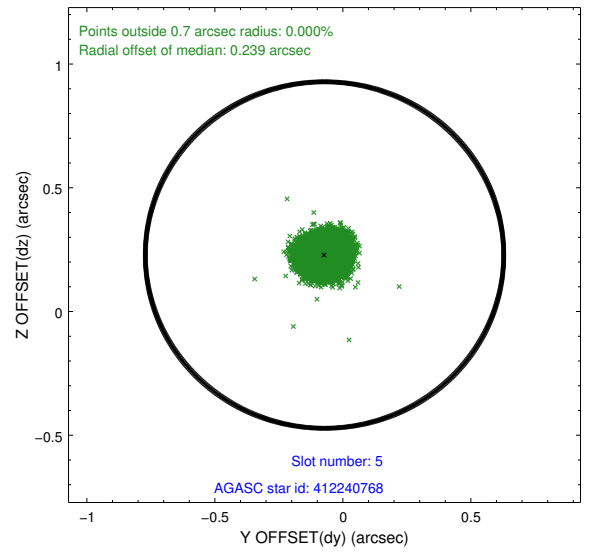
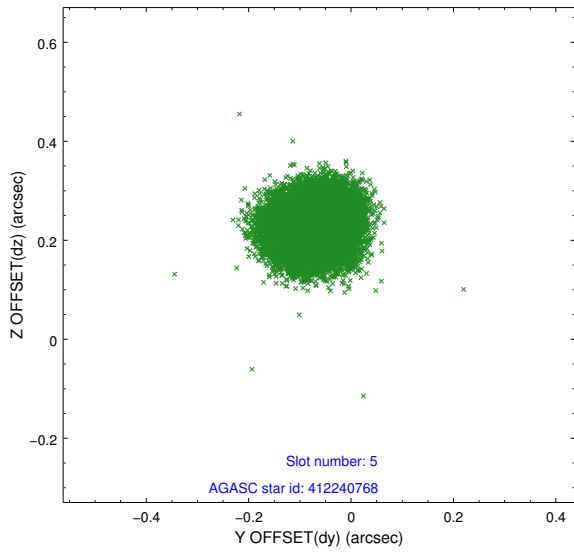
### 2.4.1 Slot 3



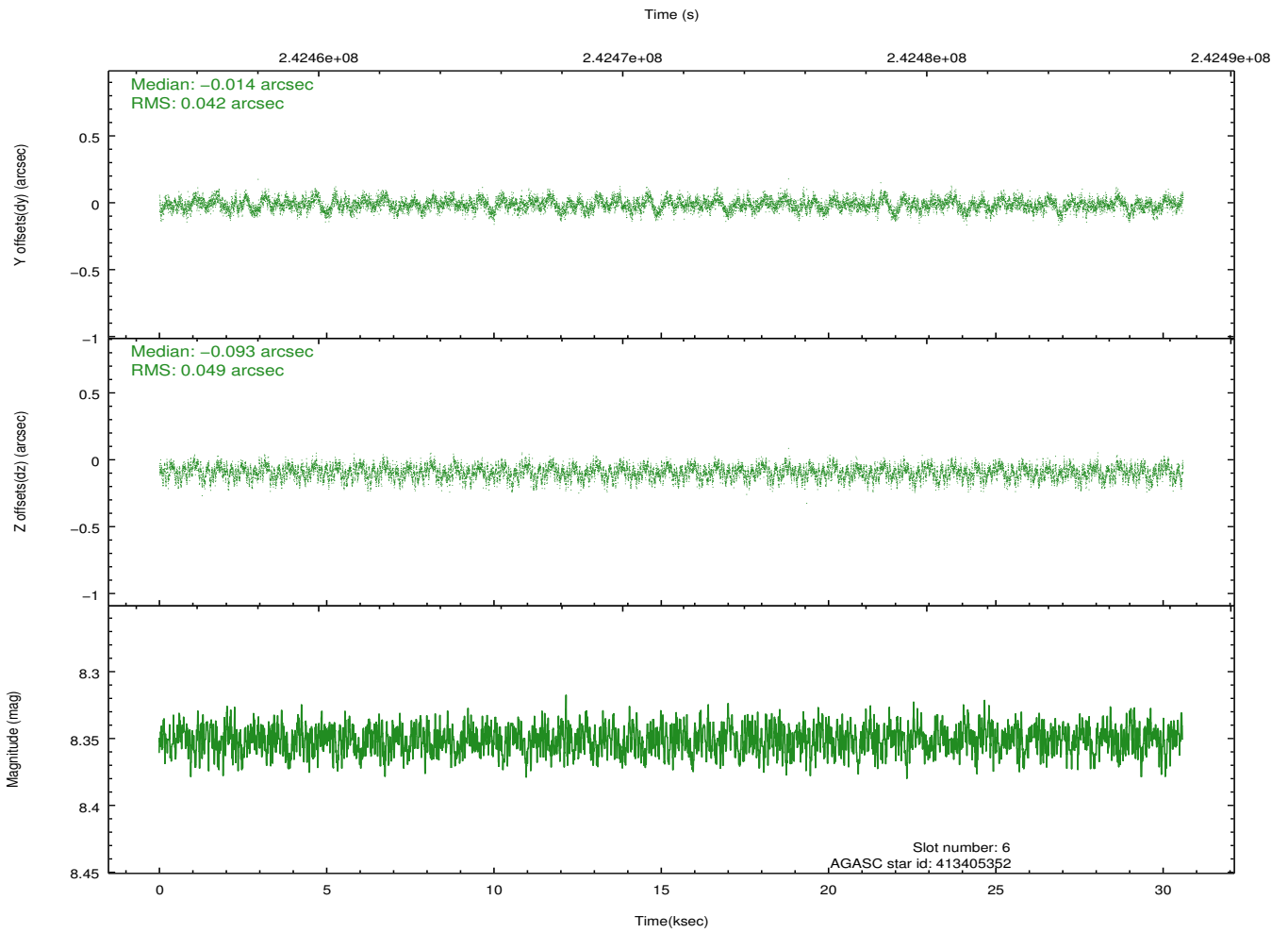
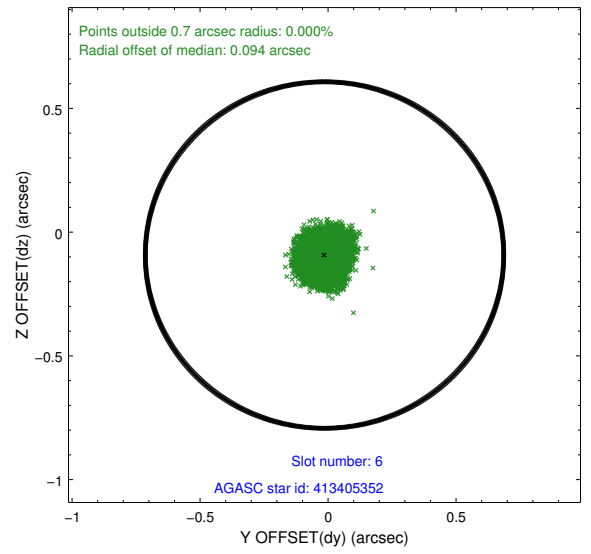
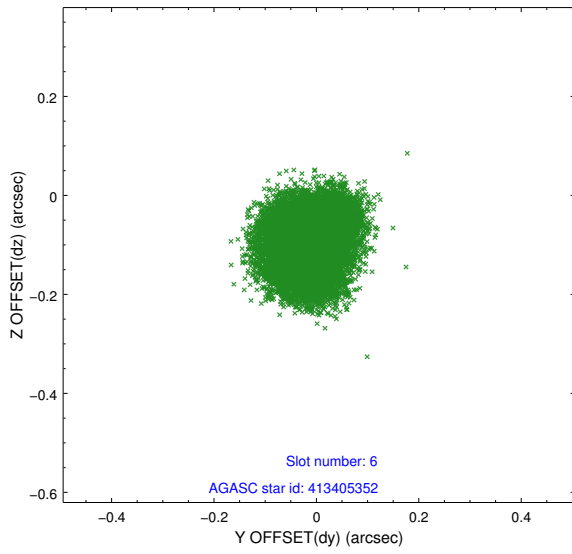
## 2.4.2 Slot 4



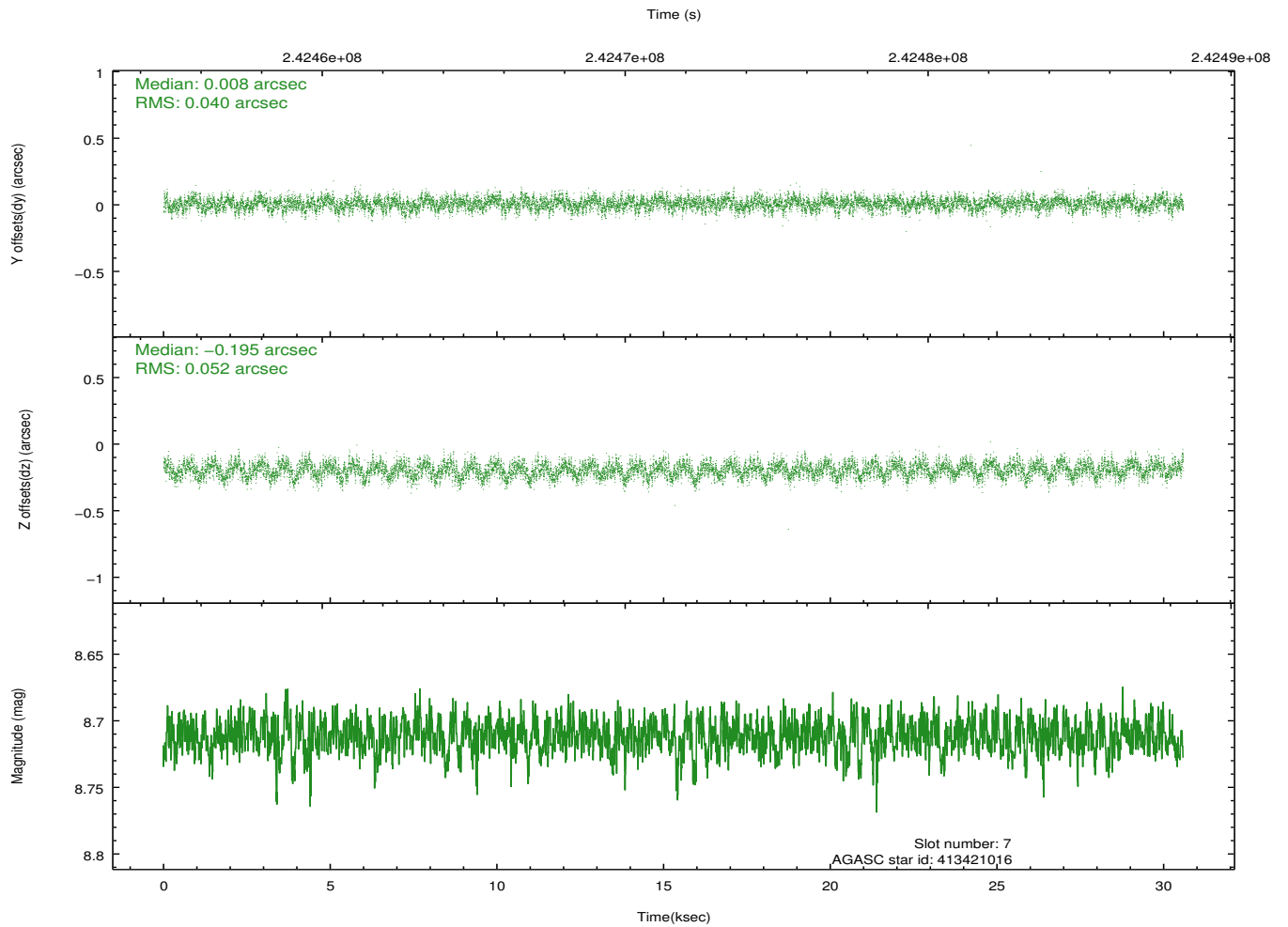
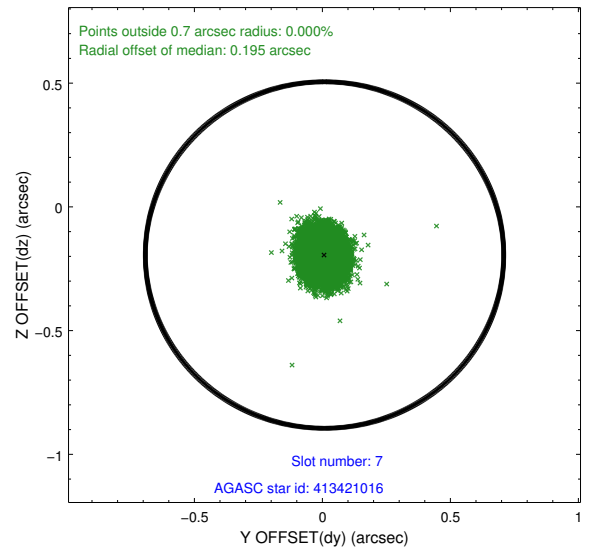
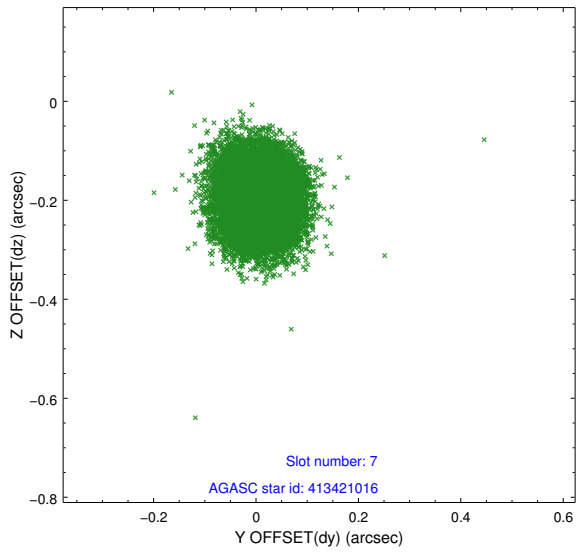
### 2.4.3 Slot 5



## 2.4.4 Slot 6

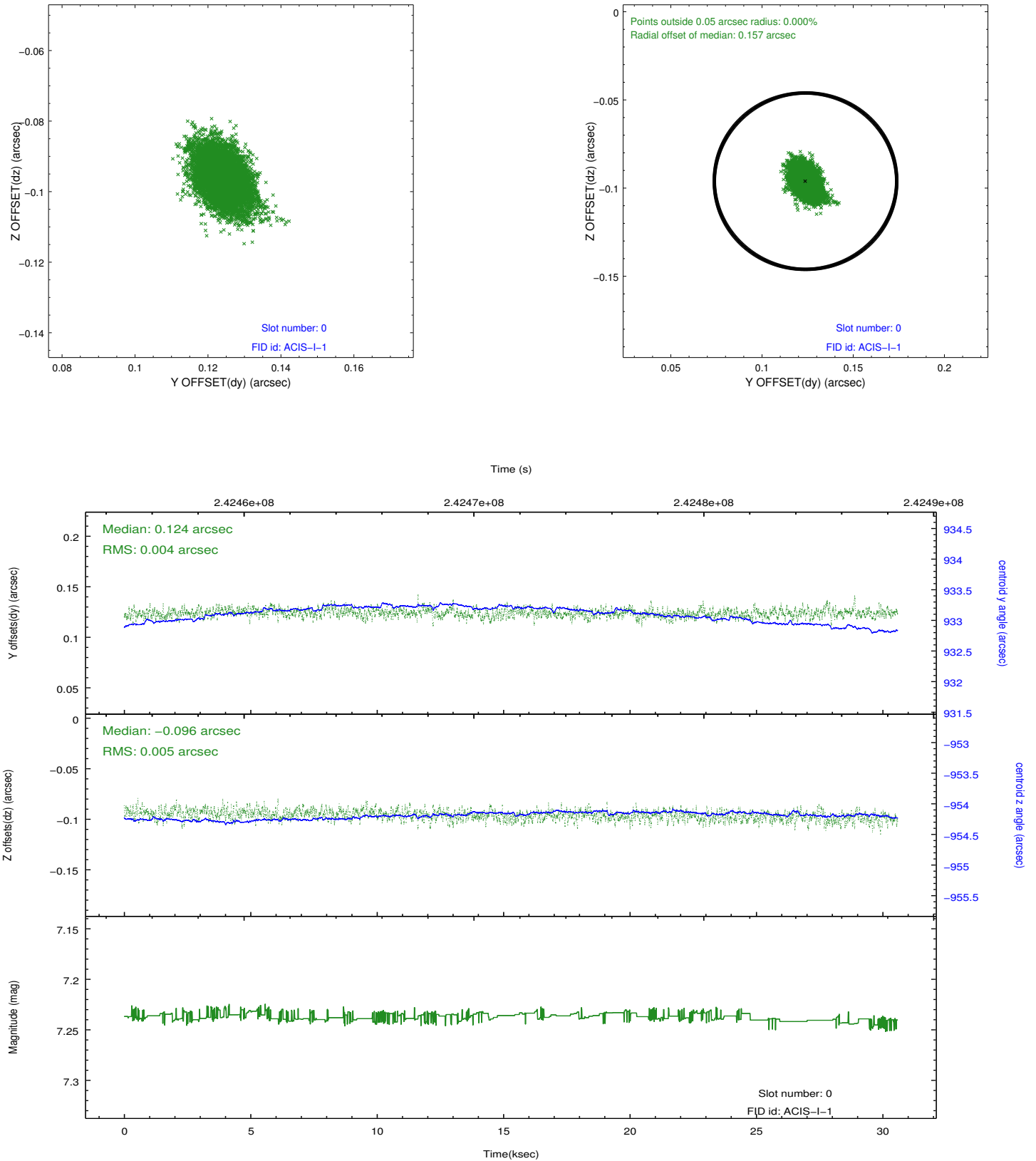


### 2.4.5 Slot 7

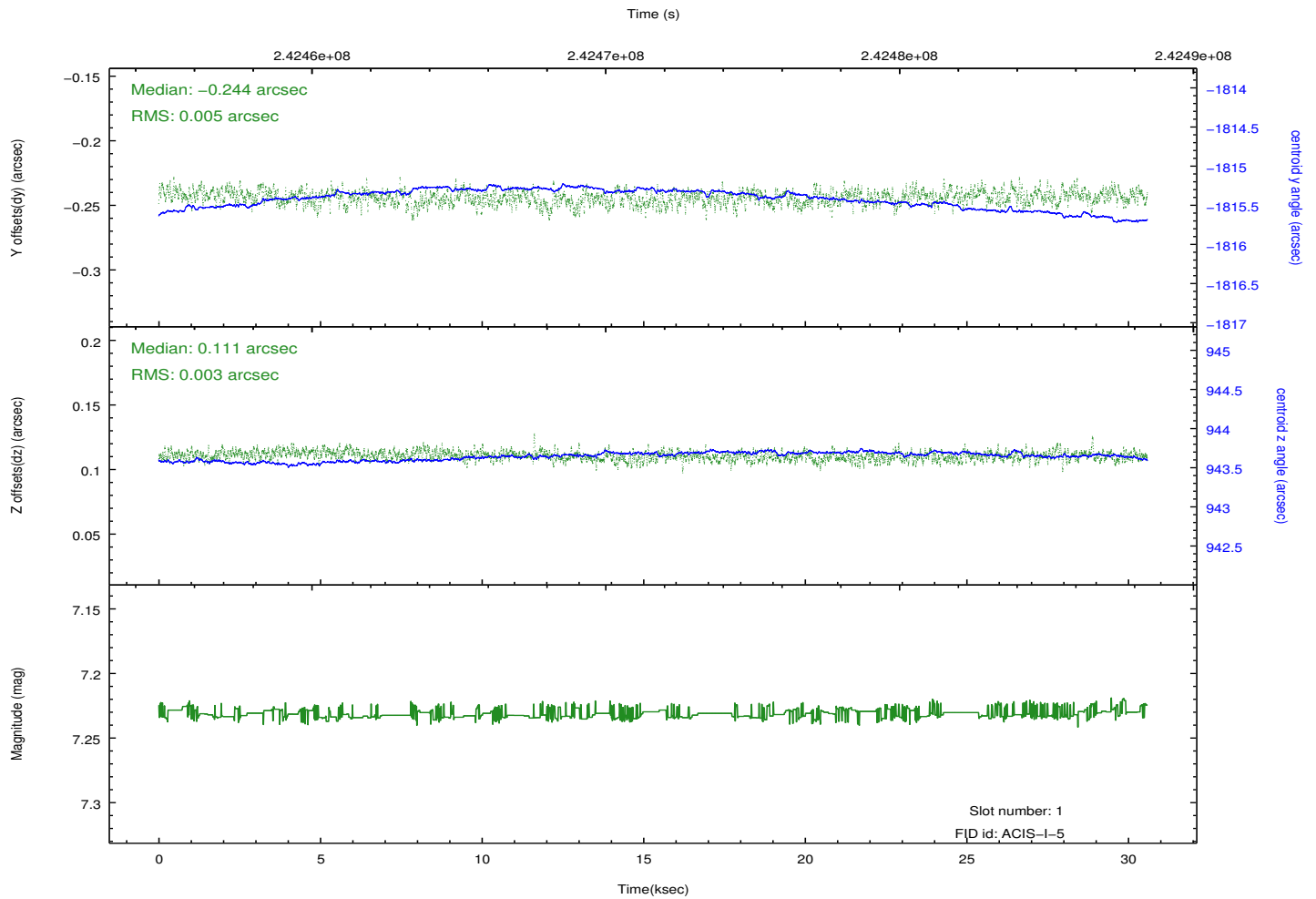
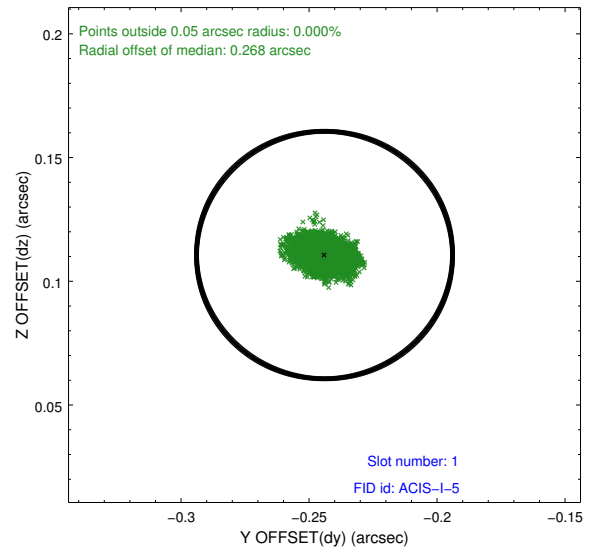
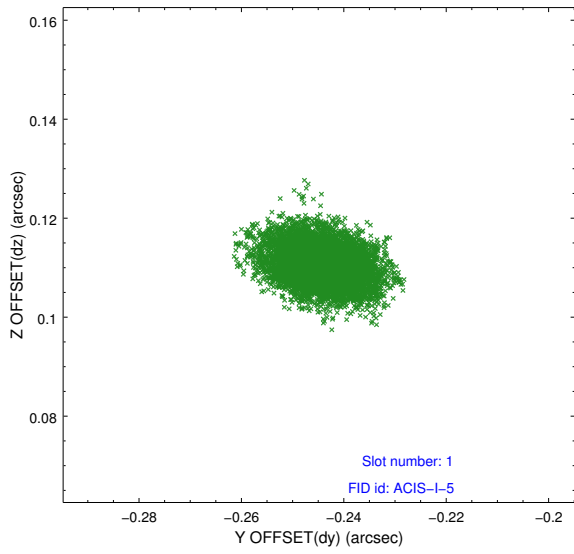


## 2.5 FID Slots

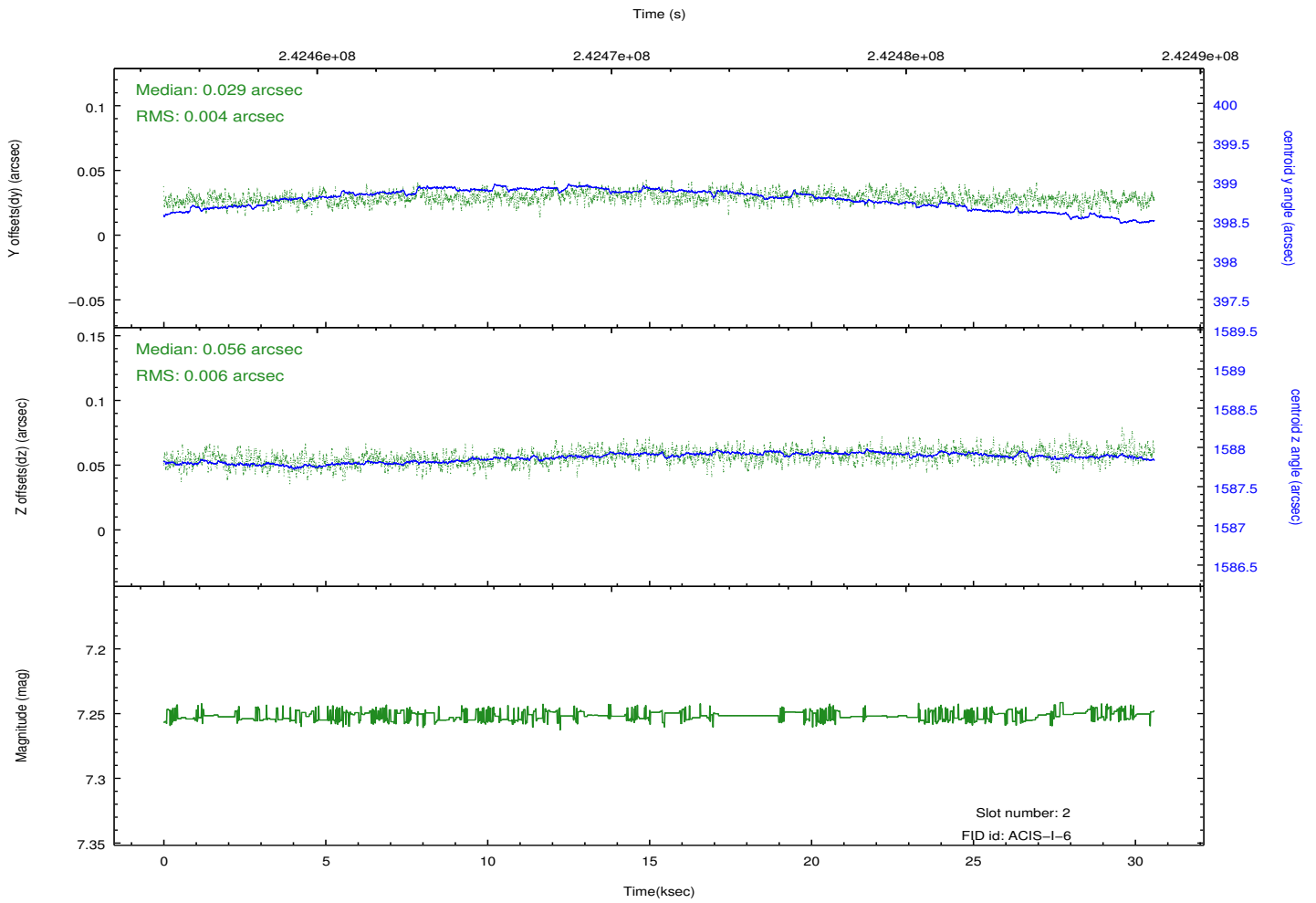
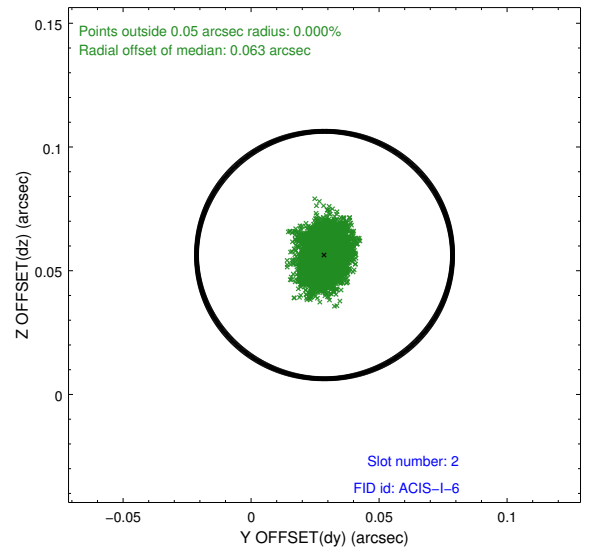
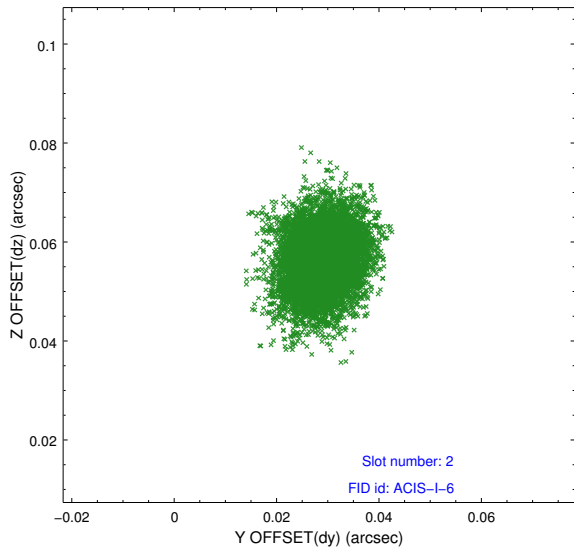
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2013.01.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.04515

## A.2 Comments