

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 9510 - L2 Version 2  
Chandra X-Ray Center

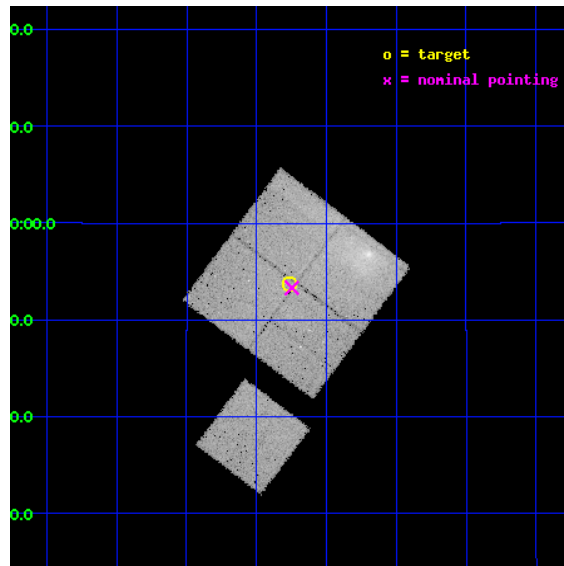
L2 Processing Date : May 12 2012

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# 1 Front

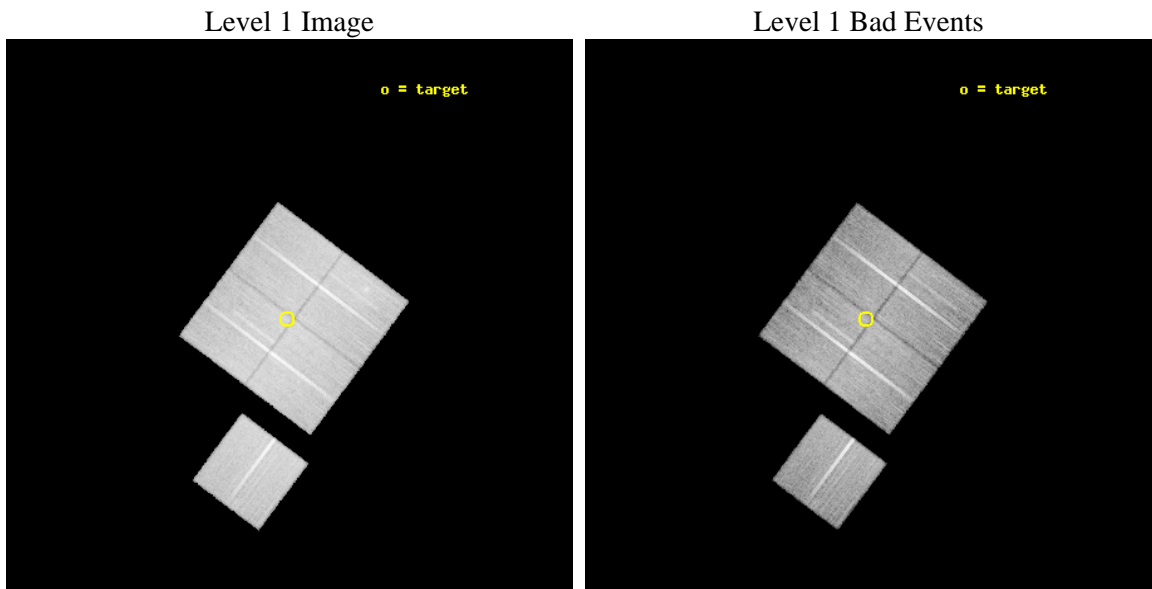
seq_num	600651	Sequence number
obs_id	9510	Observation id
title	Ram Pressure Stripping in the Virgo Cluster - M86 Followup	Proposa
observer	Dr. Stephen Murray	Principal investigator
object	M86 head	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.69158	Observer's specified target RA [deg]
dec_targ	12.895297	Observer's specified target Dec [deg]
ra_nom	186.68674191778	Nominal RA [deg]
dec_nom	12.888746603791	Nominal Dec [deg]
roll_nom	216.82288670527	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25550.159206152	Sum of GTIs [s]
livetime	25216.32756637	Livetime [s]
ontime0	25553.300196528	Sum of GTIs [s]
ontime1	25553.300196528	Sum of GTIs [s]
ontime2	25540.736195445	Sum of GTIs [s]
ontime3	25550.159206152	Sum of GTIs [s]
ontime6	25550.159196258	Sum of GTIs [s]
l2events	135732	Number of level 2 events



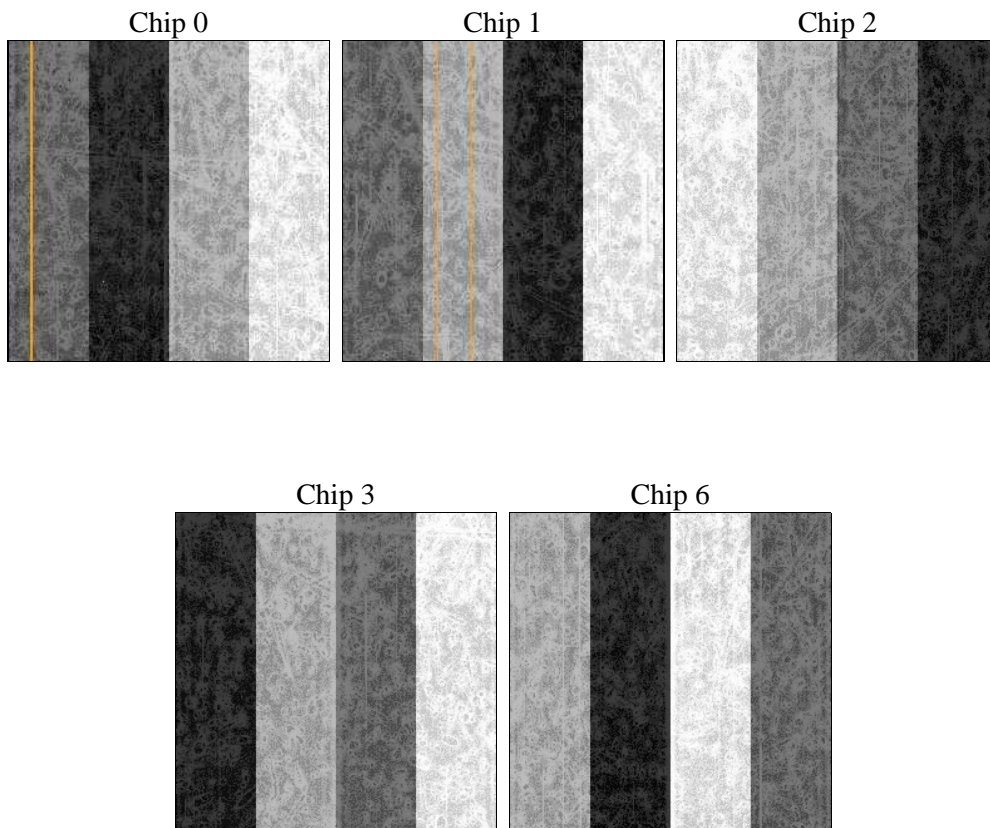
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	25550.159206152	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime0	25553.300196528	Sum of GTIs [s]
date	2012-05-13T01:05:12	Date and time of file creation	ontime1	25553.300196528	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	25540.736195445	Sum of GTIs [s]
			ontime3	25550.159206152	Sum of GTIs [s]
			ontime6	25550.159196258	Sum of GTIs [s]
			l1events	1053655	Number of level 1 events

### 2.1.4 Events

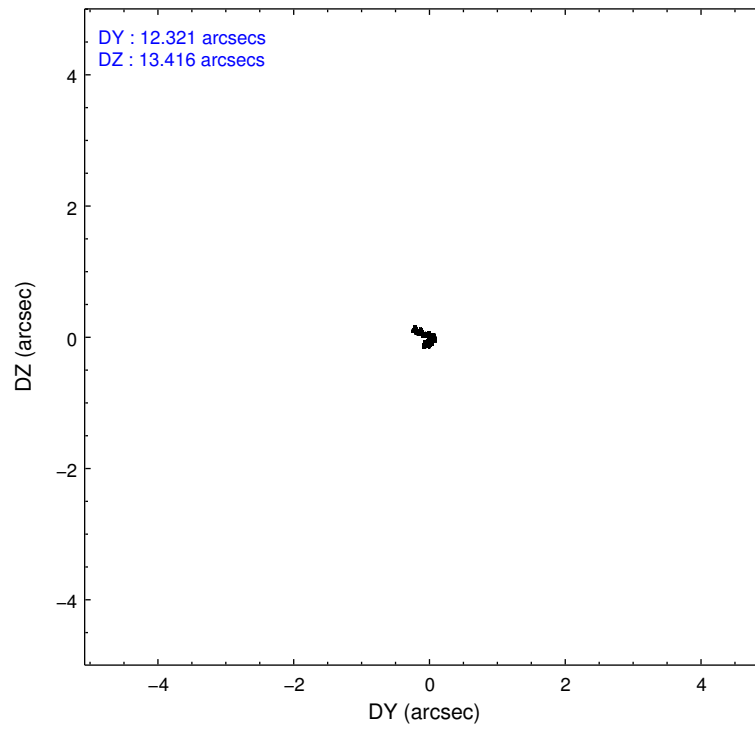
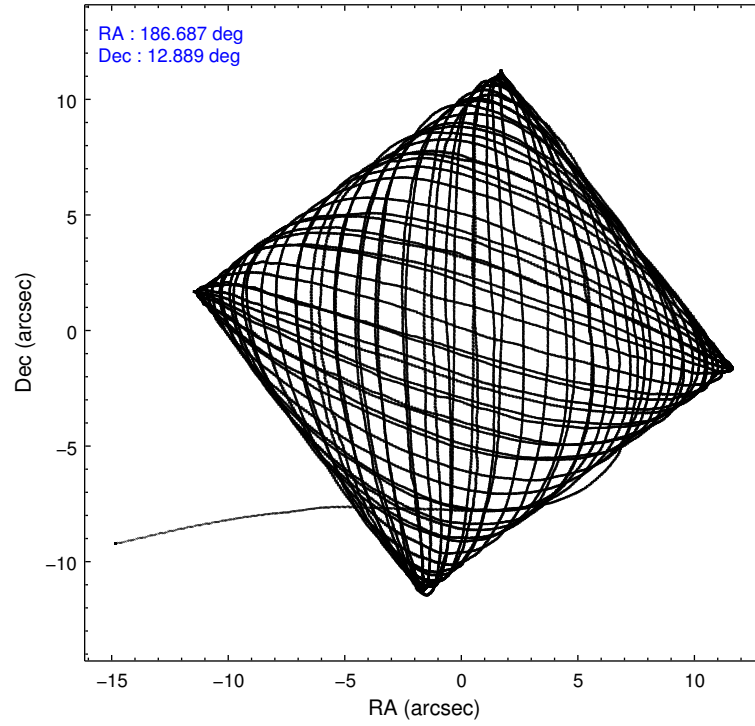
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	214433	197762	226602	209400	205458
rejected events	169633	165183	199024	183259	179978
rejected %	79%	83%	87%	87%	87%

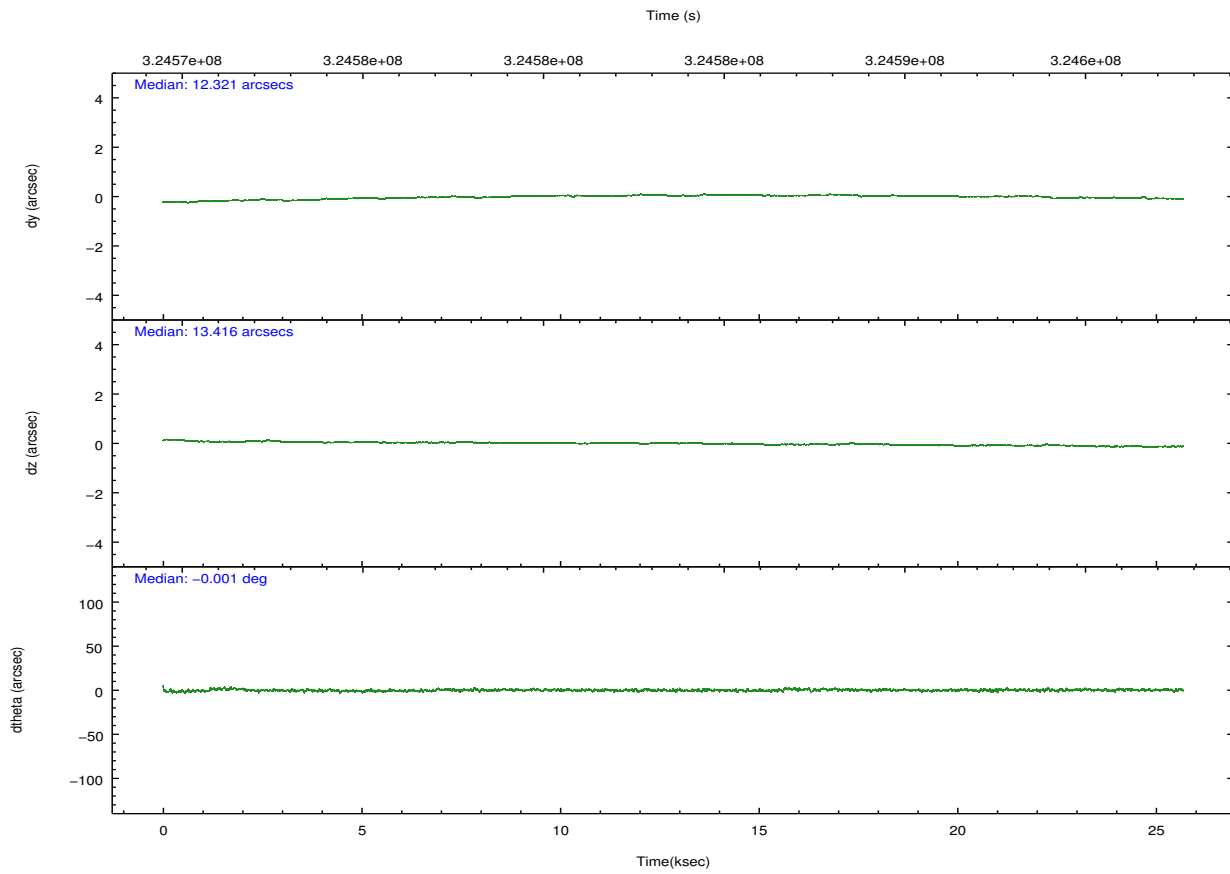
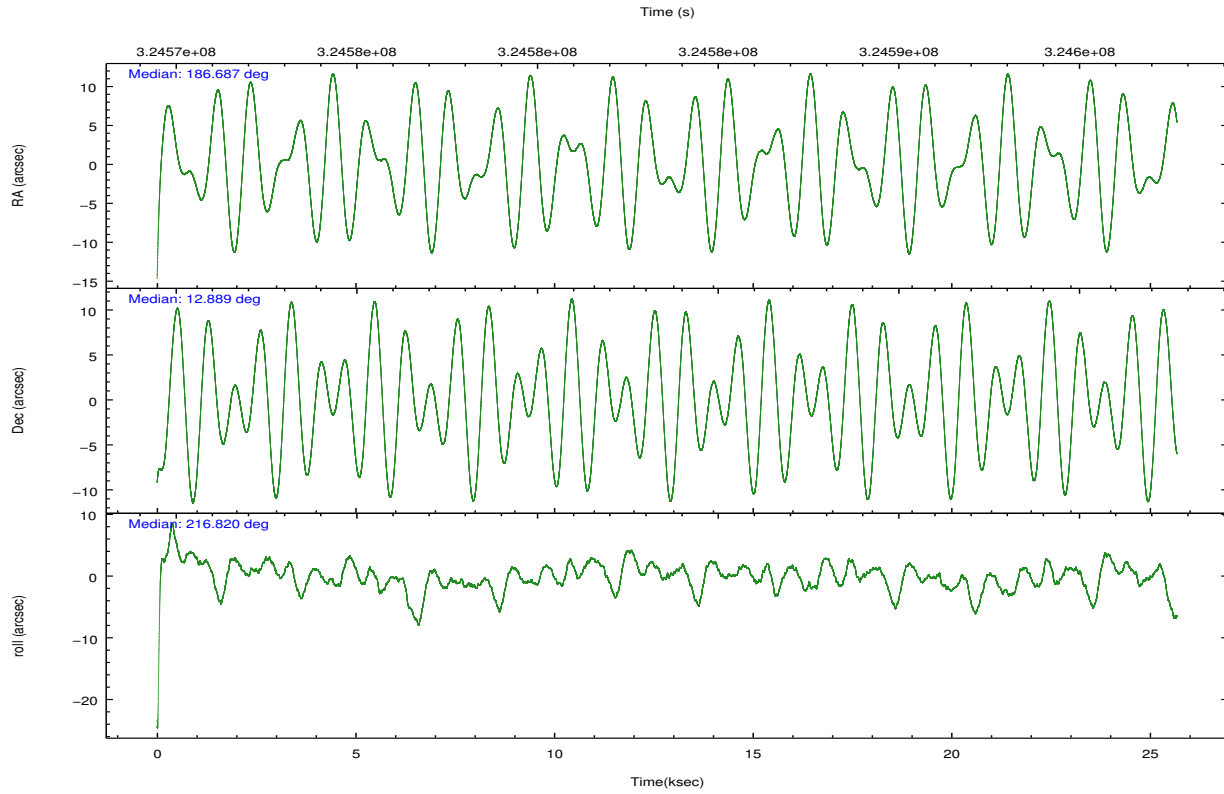
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	28201	16463	13438	12441	11006
	13%	8%	5%	5%	5%
grade 1 events	221	152	176	152	107
	0%	0%	0%	0%	0%
grade 2 events	6909	6029	5425	4981	5017
	3%	3%	2%	2%	2%
grade 3 events	2824	2650	2384	2359	2373
	1%	1%	1%	1%	1%
grade 4 events	2650	2670	2402	2338	2399
	1%	1%	1%	1%	1%
grade 5 events	7478	8148	7040	8623	8287
	3%	4%	3%	4%	4%
grade 6 events	4221	4771	3934	4024	4688
	1%	2%	1%	1%	2%
grade 7 events	161929	156879	191803	174482	171581
	75%	79%	84%	83%	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	186.697721	186.6867419177785	CCD I2 on	Y	Y
[deg] Pointing Dec	12.914073	12.88874660379122	CCD I3 on	Y	Y
[deg] Pointing Roll	216.611755	216.8228867052679	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)	324570920.184000	324569987.24174	CCD S5 on	N	N
Observation start date	2008-04-14T14:34:15	2008-04-14T14:19:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	324596420.184000	324597214.31807	On-chip summing requested	N	N
Observation end date	2008-04-14T21:39:15	2008-04-14T21:53:34	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





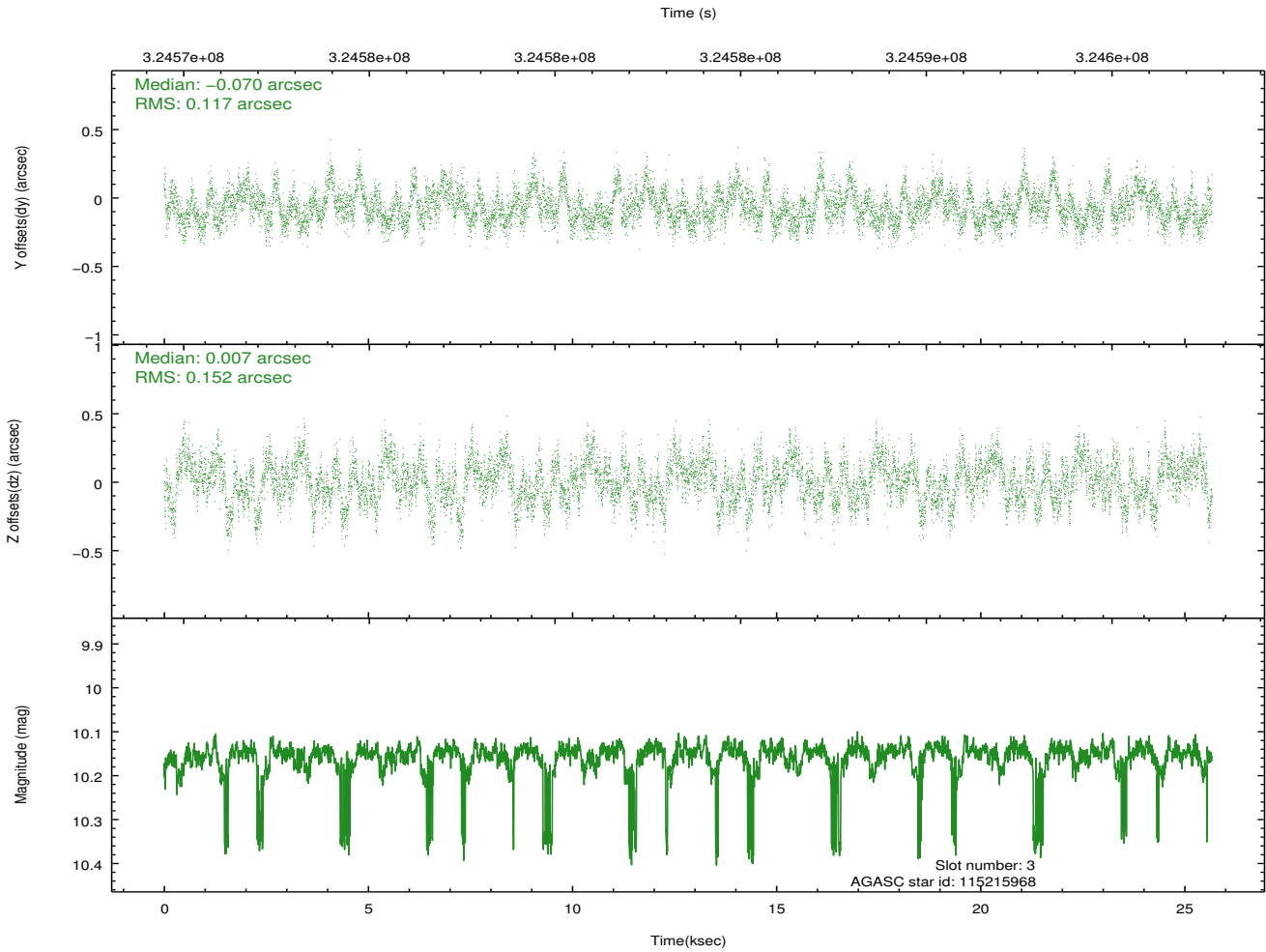
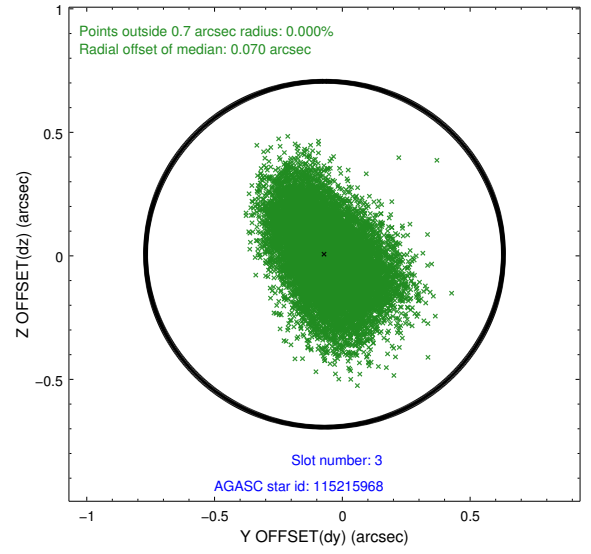
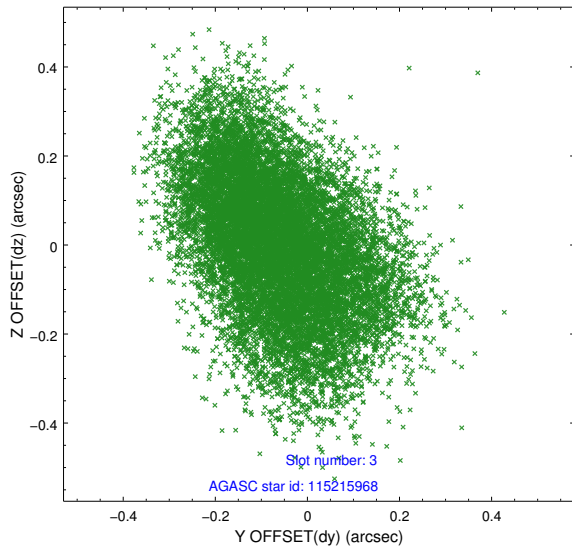
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.05	6262	-0.062	0.081	0.009	0.015	0.000000	0.000000	927.16	-836.89
1	FID	ACIS-I-2	6.96	6261	-0.125	-0.085	0.007	0.012	0.000000	0.000000	-766.93	-843.53
2	FID	ACIS-I-4	6.99	6261	0.090	0.071	0.007	0.014	0.000000	0.000000	2147.18	1062.82
3	GUIDE	115215968	10.15	12457	-0.070	0.007	0.206	0.333	186.327588	13.159527	514.45	-1483.61
4	GUIDE	115215984	9.95	12498	-0.008	-0.023	0.244	0.377	186.134733	12.875031	1669.28	-1066.97
5	GUIDE	115347480	9.64	12503	0.088	-0.024	0.141	0.219	186.668576	13.310410	-768.21	-1206.12
6	GUIDE	115347520	10.20	12485	0.026	0.025	0.188	0.313	187.517505	12.810279	-2089.74	2012.65
7	GUIDE	115348424	9.49	12463	-0.031	-0.025	0.115	0.185	187.199498	13.087929	-1786.29	546.03

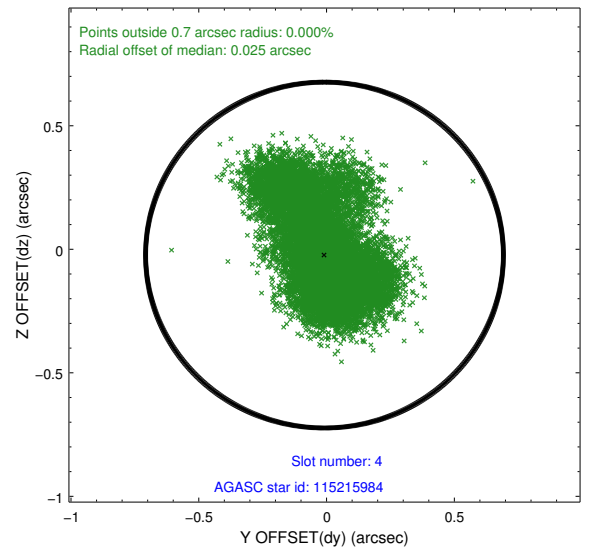
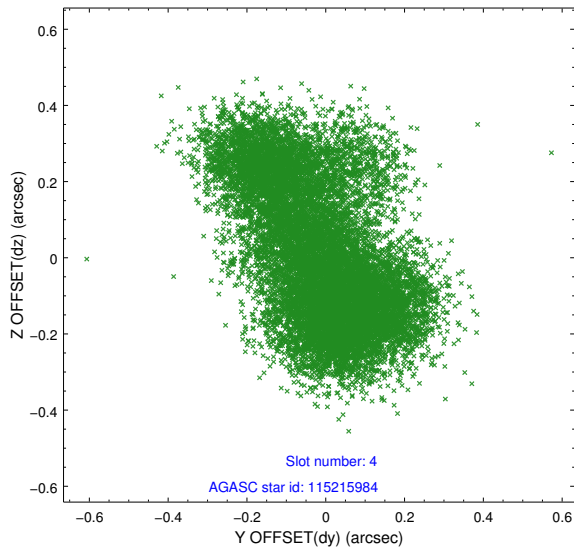
∞

## 2.4 Star Slots

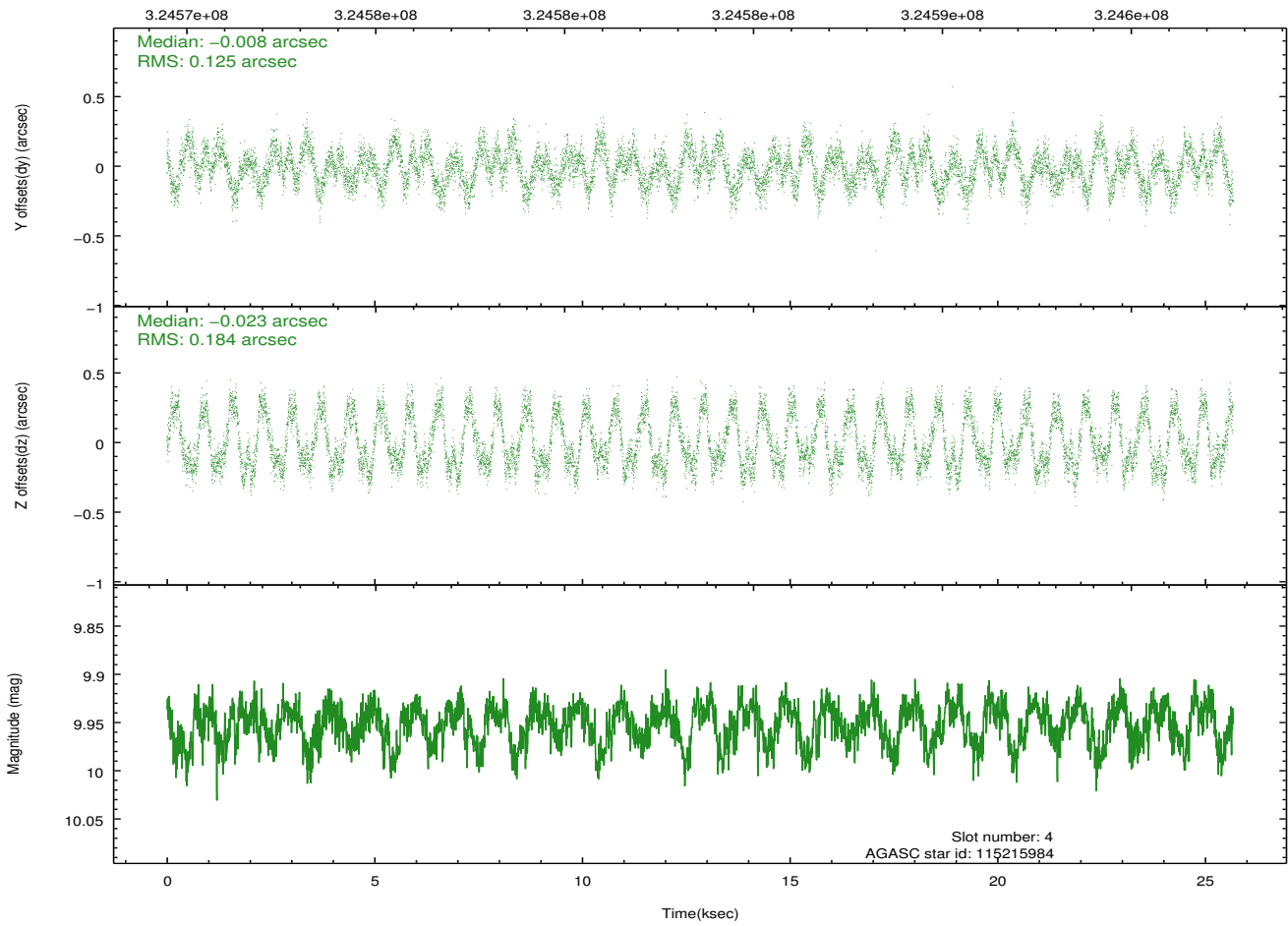
### 2.4.1 Slot 3



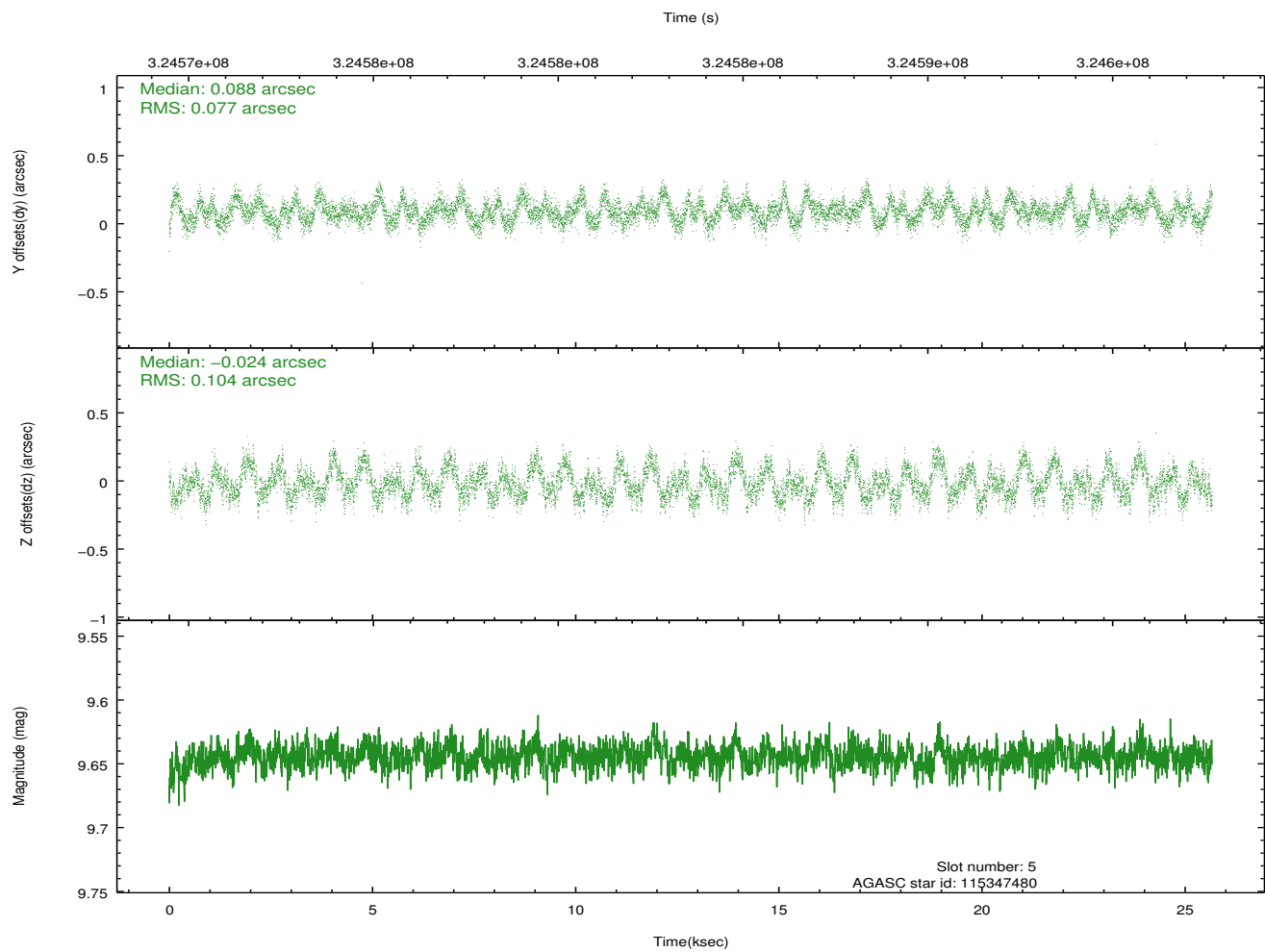
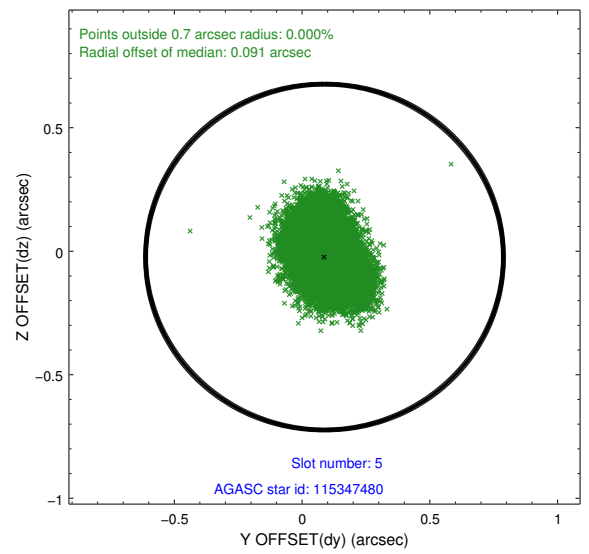
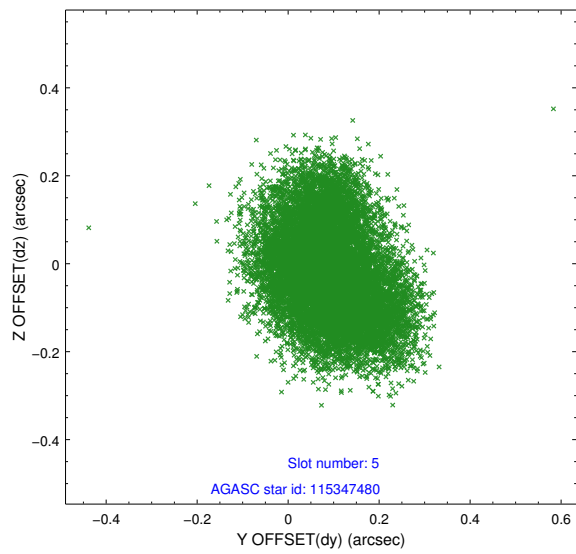
## 2.4.2 Slot 4



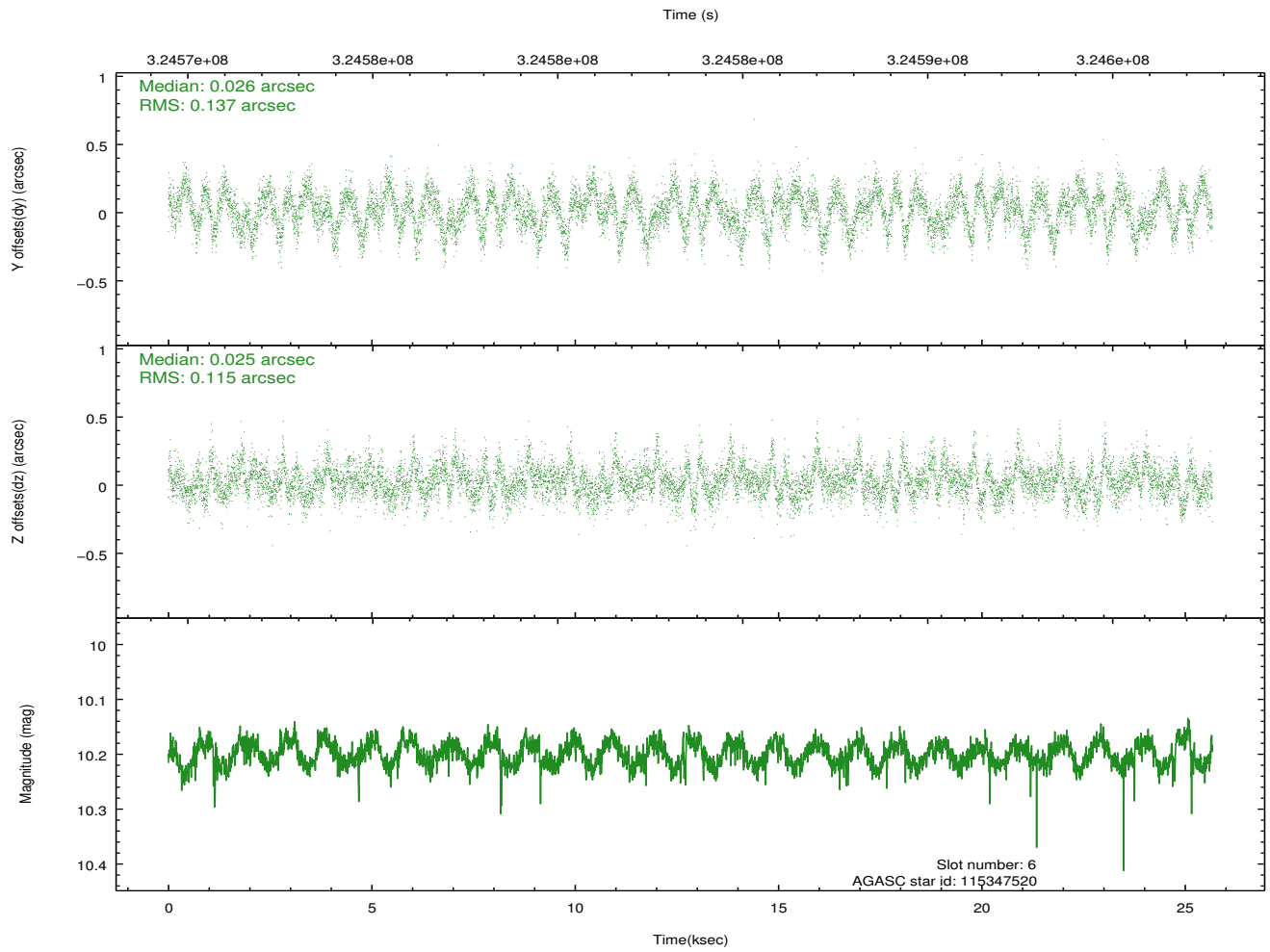
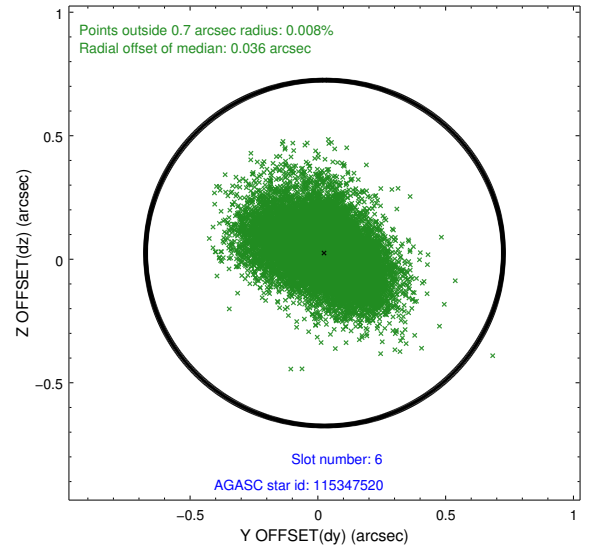
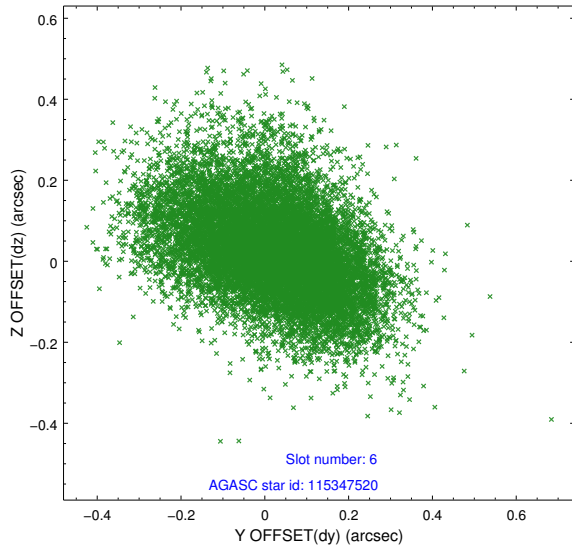
Time (s)



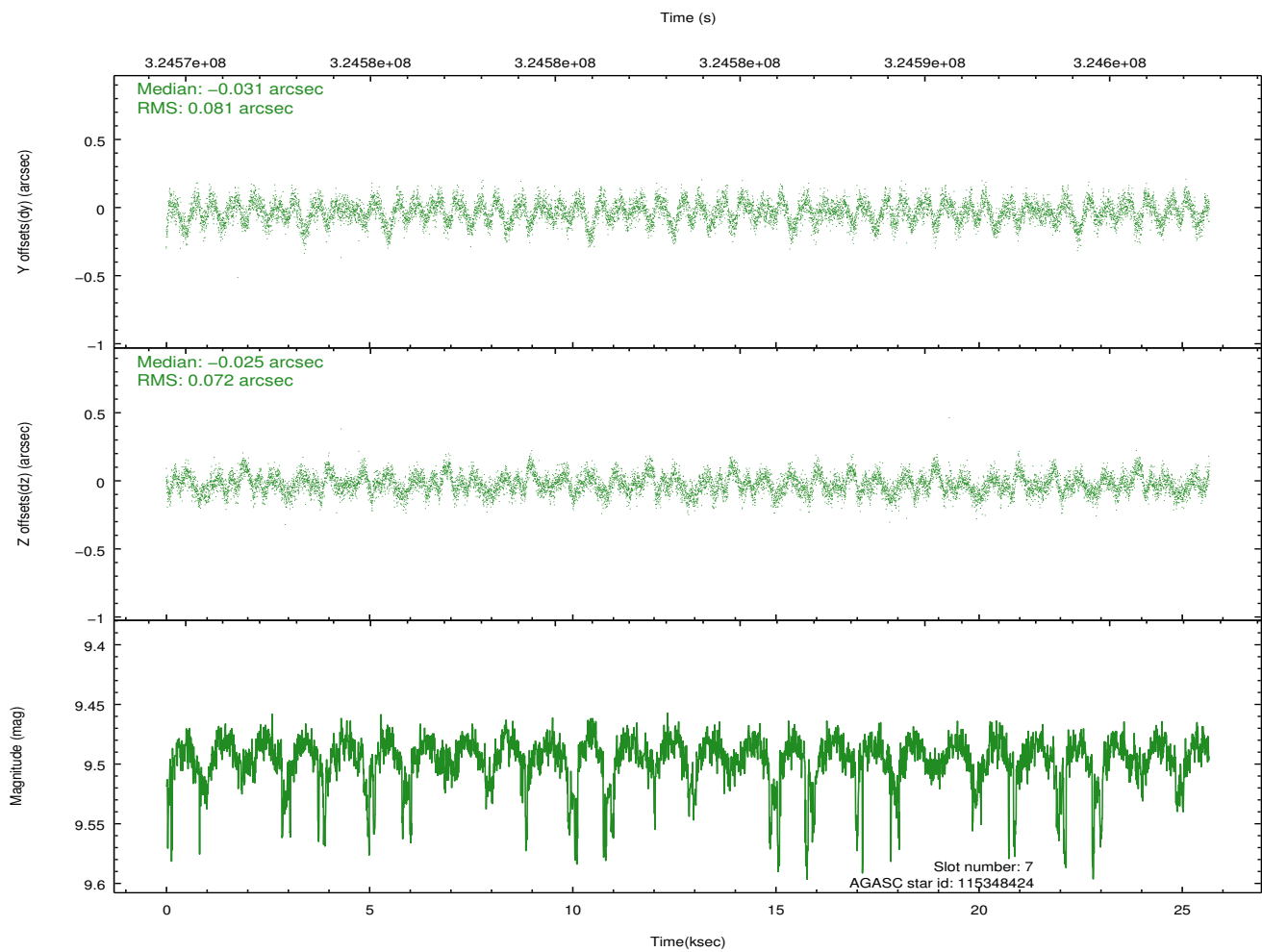
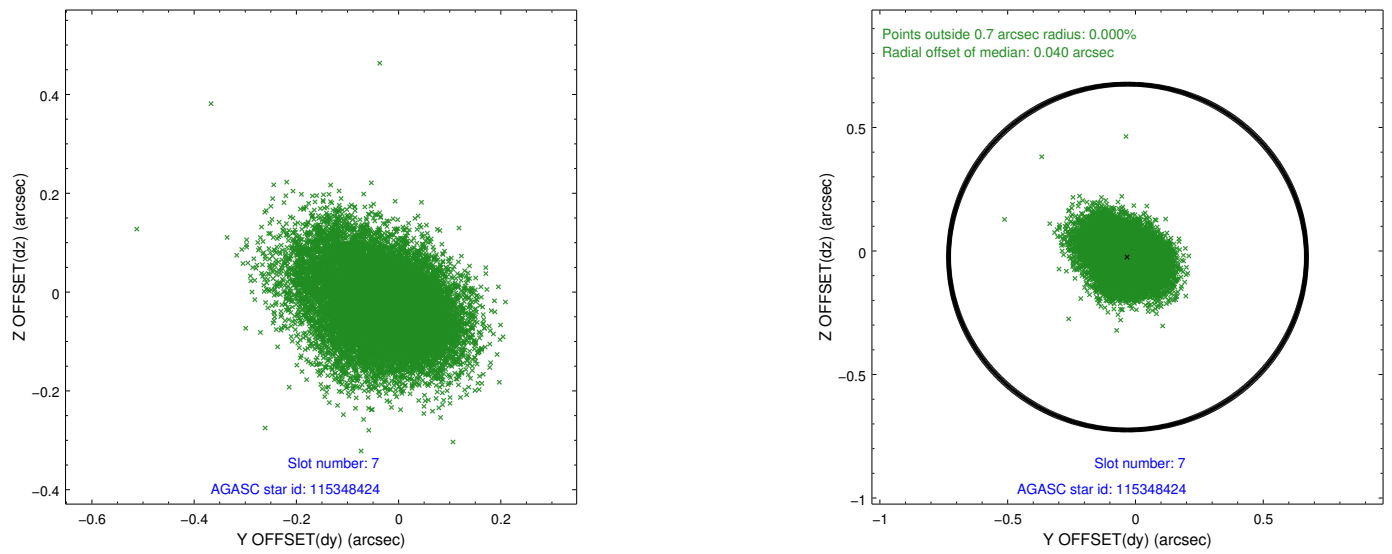
### 2.4.3 Slot 5



### 2.4.4 Slot 6

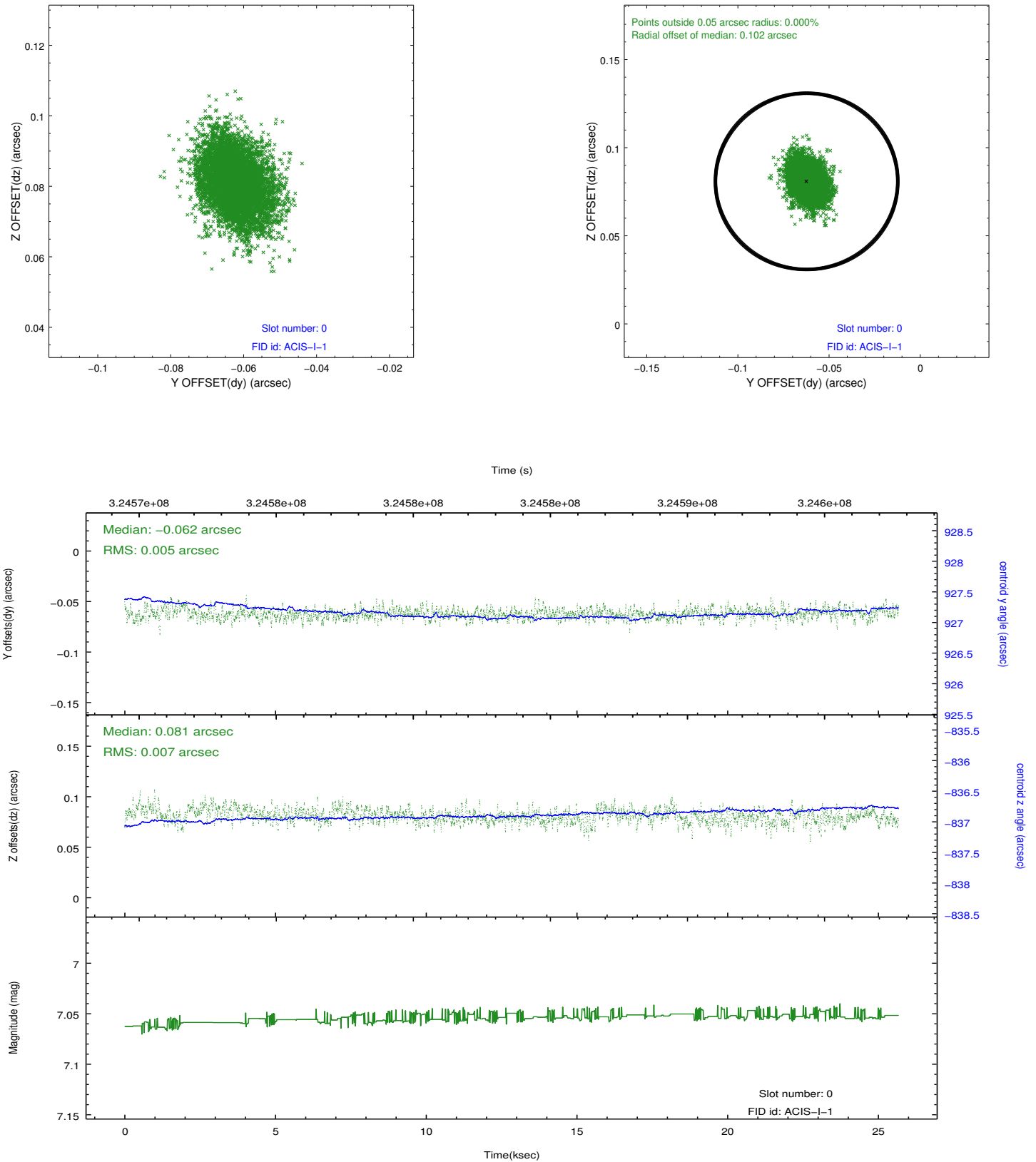


## 2.4.5 Slot 7

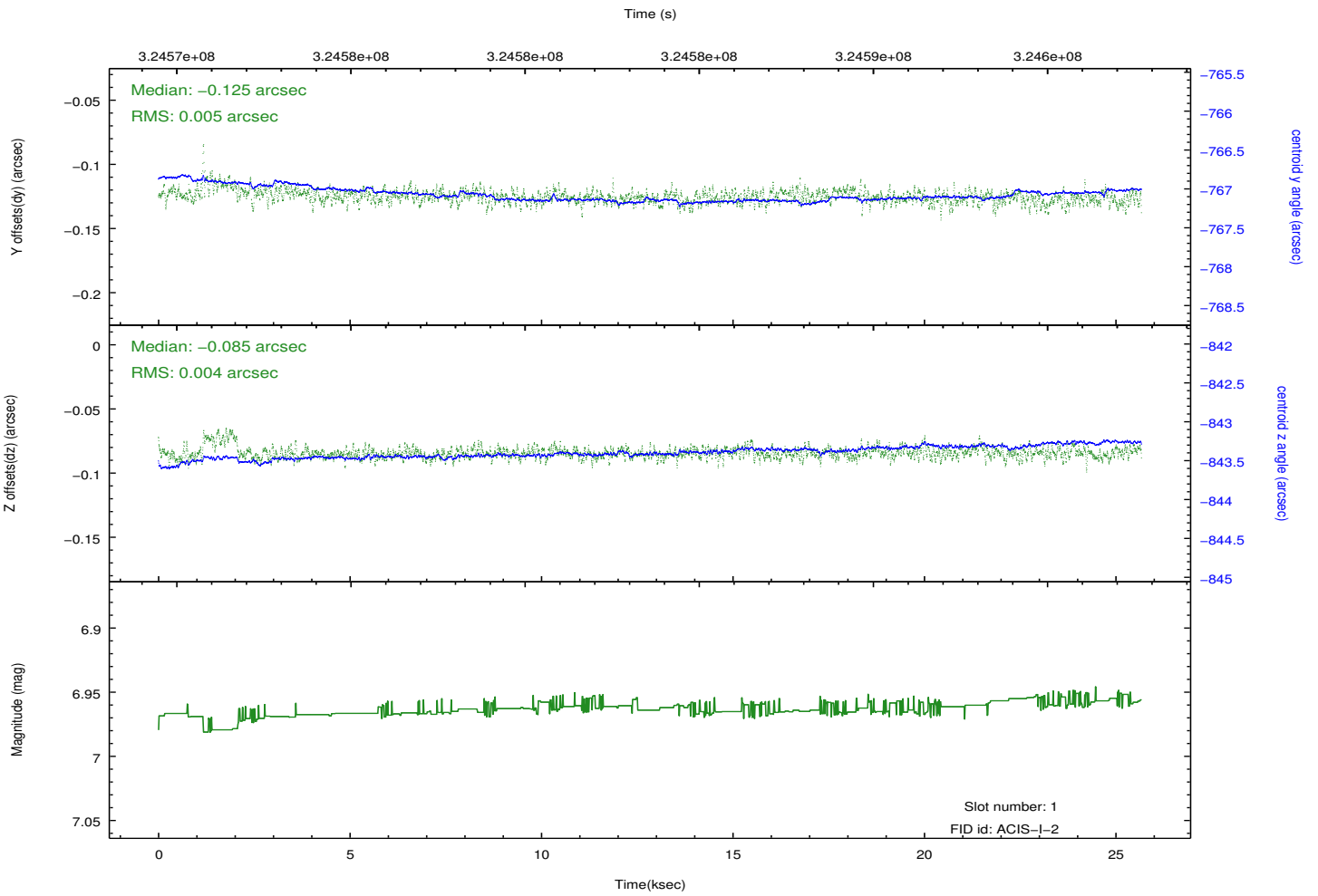
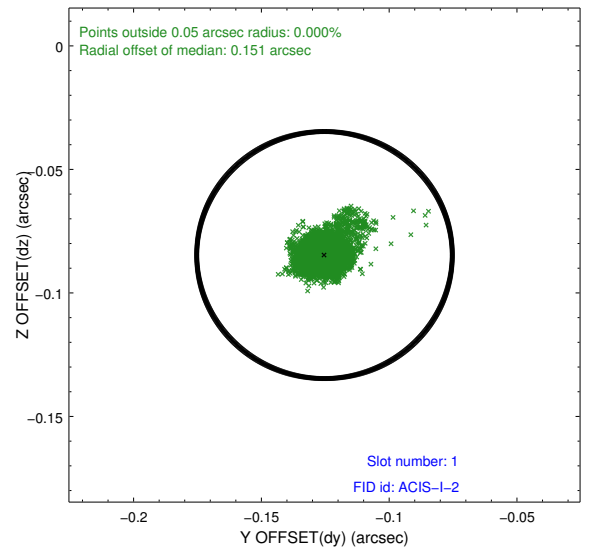
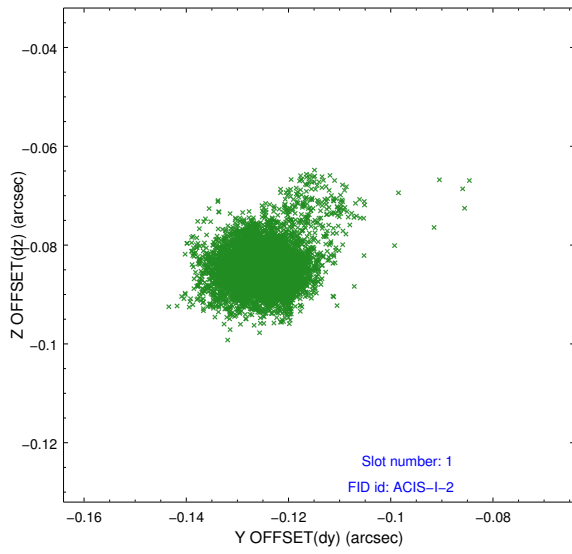


## 2.5 FID Slots

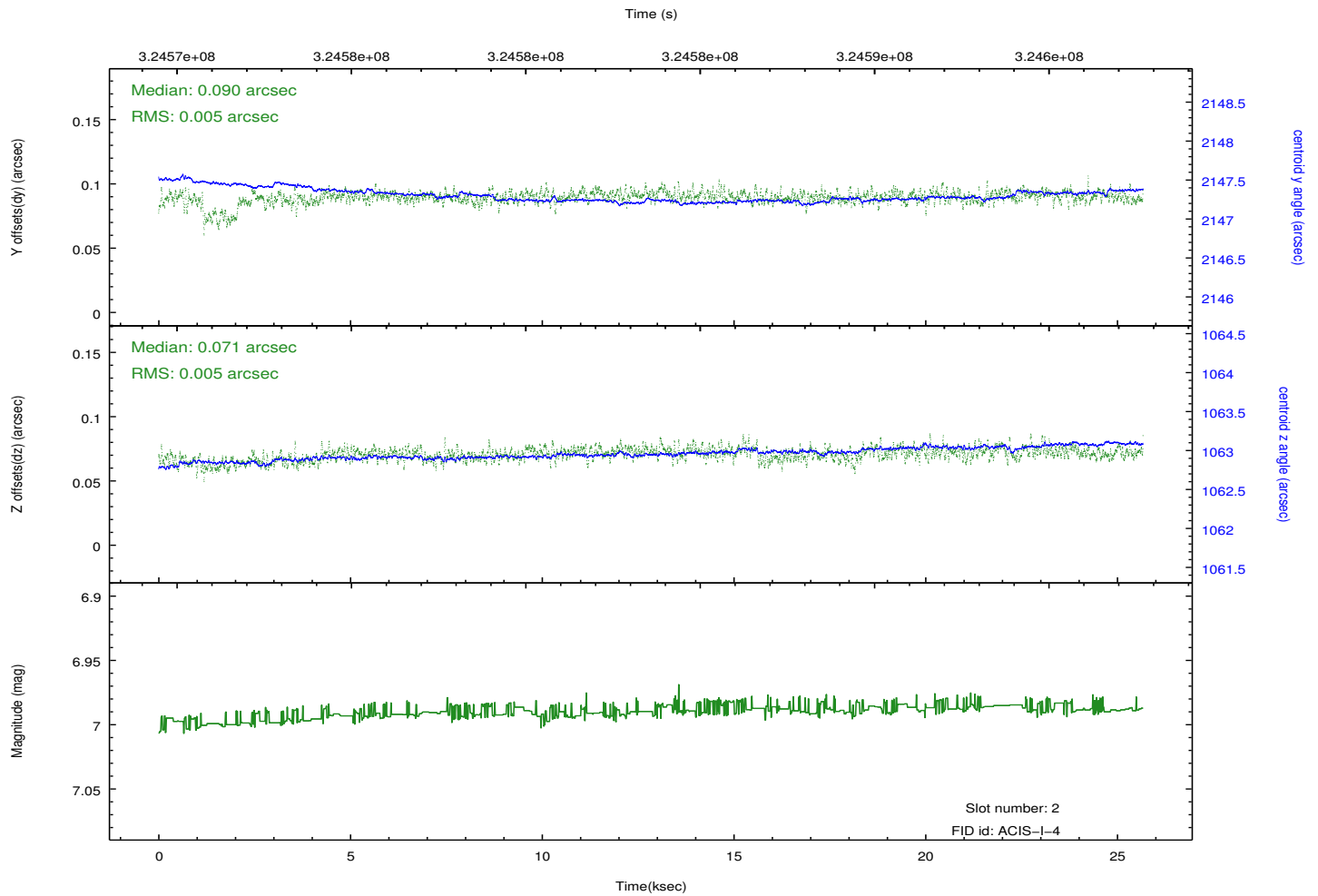
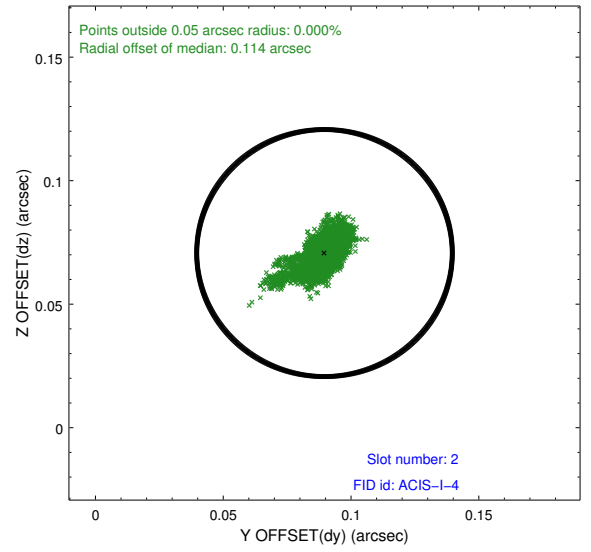
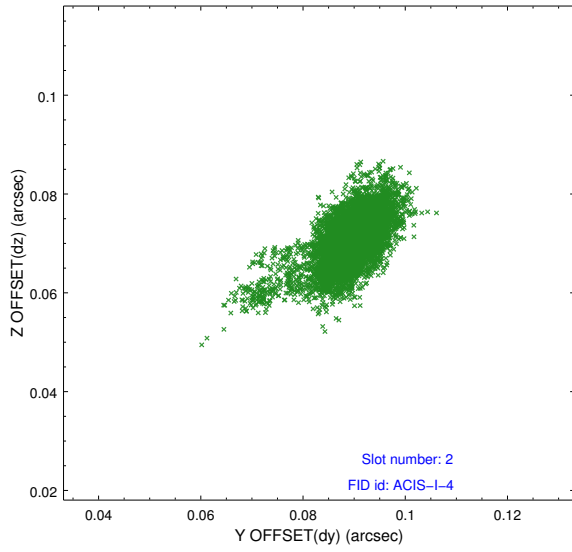
### 2.5.1 Slot 0



## 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)	2012.05.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.5501592

## A.2 Comments

Roll preference met.