

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4354 - L2 Version 3  
Chandra X-Ray Center

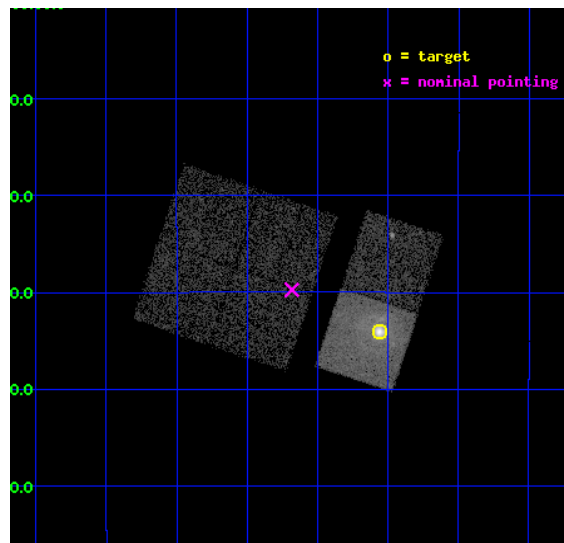
L2 Processing Date : Oct 28 2012

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# 1 Front

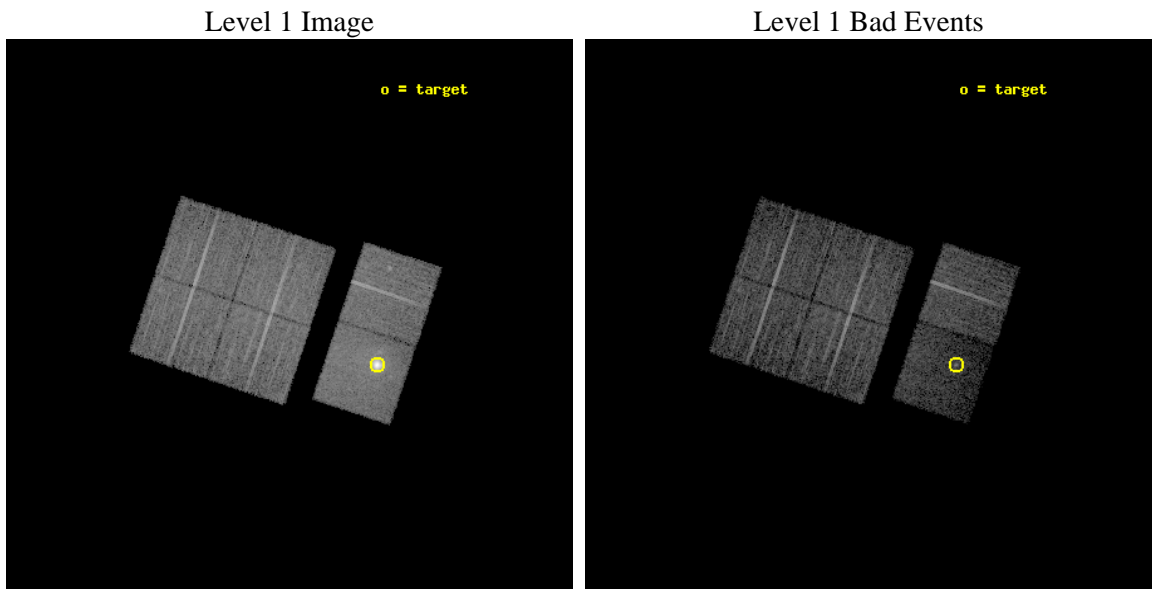
seq_num	590319	Sequence number
obs_id	4354	Observation id
title	AO4 CALIBRATION OBSERVATIONS TO MEASURE THE MIRROR VIGNETTING	Prop
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9[Chip S3, T=120, Offsets=-1,10,-17]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.54555421648	Nominal RA [deg]
dec_nom	-10.495756253745	Nominal Dec [deg]
roll_nom	108.52881614274	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9980.7999628186	Sum of GTIs [s]
livetime	9854.4170639732	Livetime [s]
ontime0	9866.7270089984	Sum of GTIs [s]
ontime1	9867.3657950163	Sum of GTIs [s]
ontime2	9853.8450983465	Sum of GTIs [s]
ontime3	9860.368039012	Sum of GTIs [s]
ontime6	9860.4502286017	Sum of GTIs [s]
ontime7	9980.7999628186	Sum of GTIs [s]
l2events	75432	Number of level 2 events



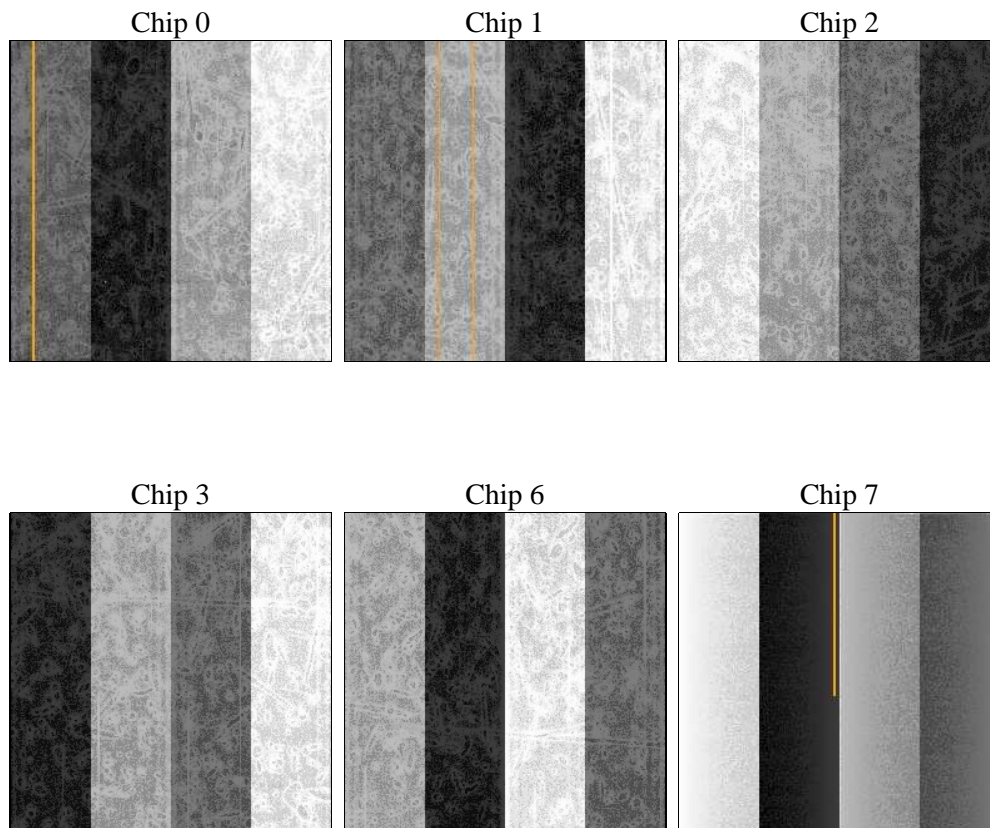
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9806.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9980.7999628186	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime0	9866.7270089984	Sum of GTIs [s]
date	2012-10-28T13:33:08	Date and time of file creation	ontime1	9867.3657950163	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	9853.8450983465	Sum of GTIs [s]
			ontime3	9860.368039012	Sum of GTIs [s]
			ontime6	9860.4502286017	Sum of GTIs [s]
			ontime7	9980.7999628186	Sum of GTIs [s]
			l1events	435677	Number of level 1 events

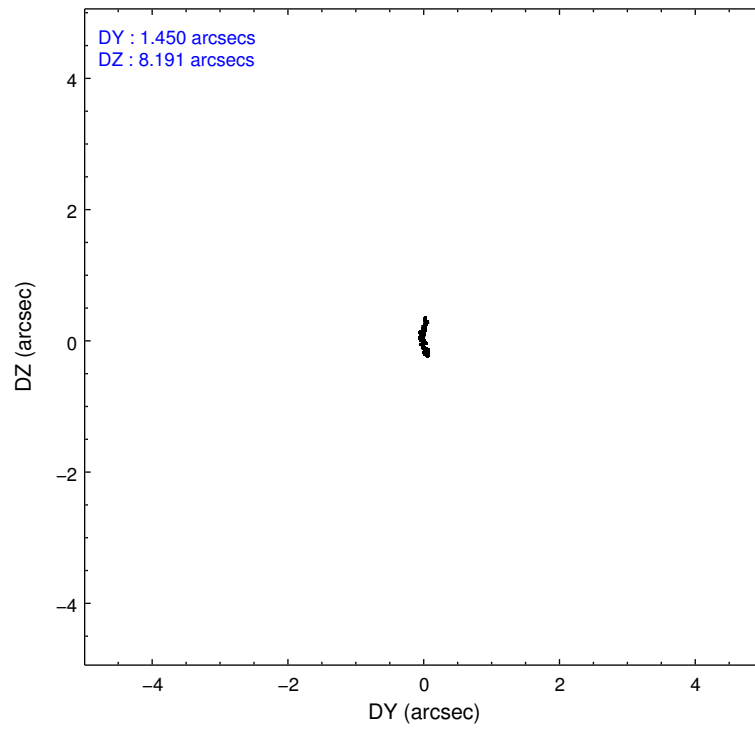
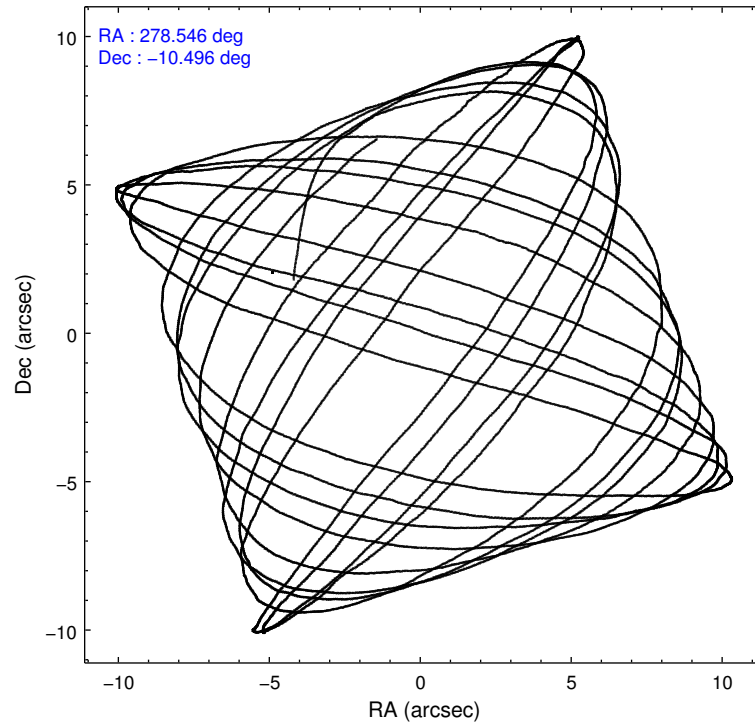
### 2.1.4 Events

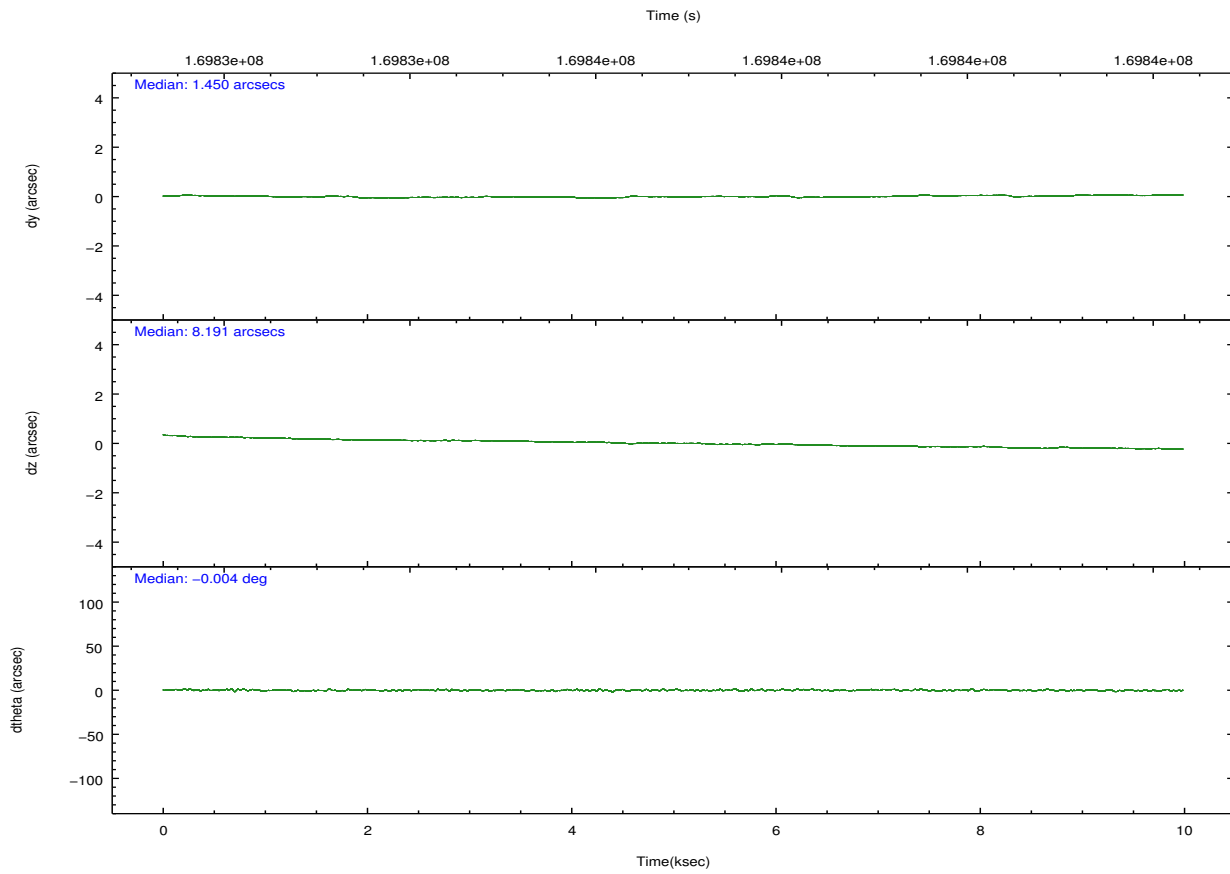
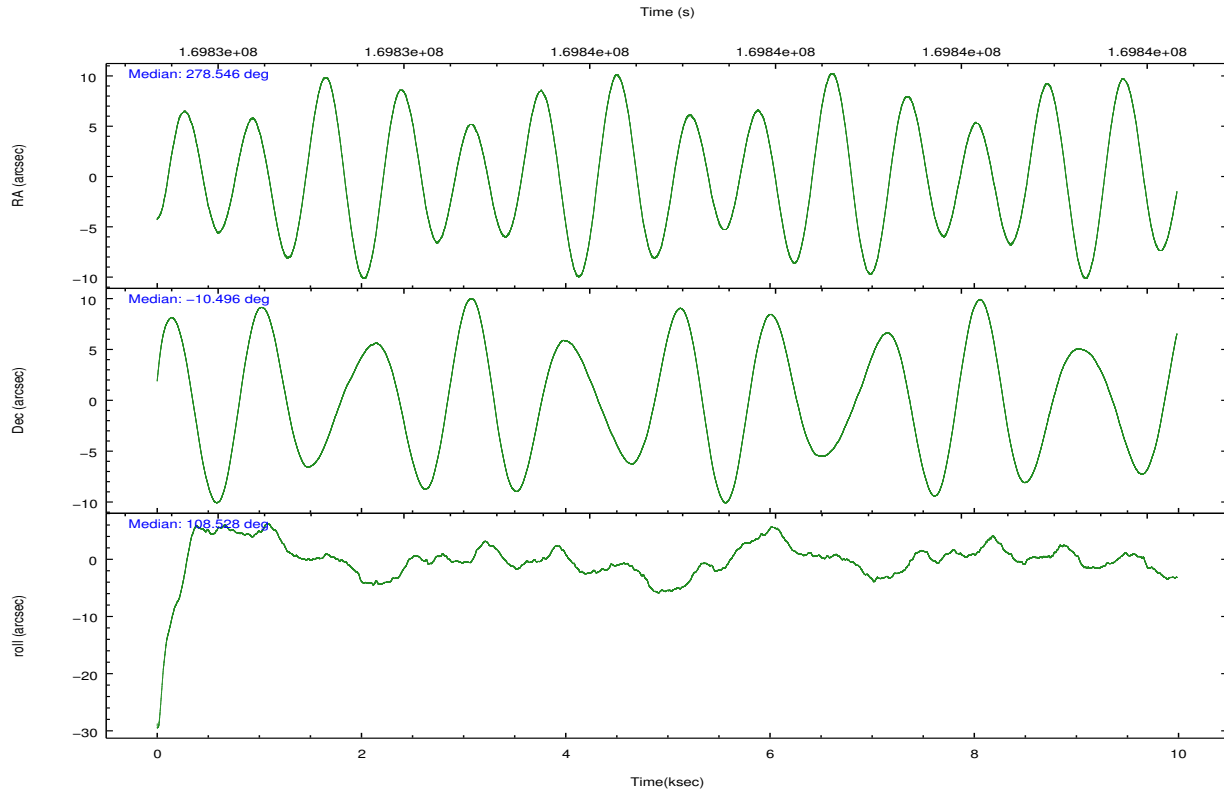
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	60427	61102	66934	64638	66211	116365	grade 0 events	8993	9205	9233	9282	10152	18174
rejected events	55593	55914	61774	60051	59712	62052		14%	15%	13%	14%	15%	15%
rejected %	92%	91%	92%	92%	90%	53%	grade 1 events	57	51	59	62	69	87
								0%	0%	0%	0%	0%	0%
							grade 2 events	3411	3344	3428	3213	3604	20975
								5%	5%	5%	4%	5%	18%
							grade 3 events	1405	1476	1453	1421	1536	9438
								2%	2%	2%	2%	2%	8%
							grade 4 events	1311	1460	1403	1400	1501	9182
								2%	2%	2%	2%	2%	7%
							grade 5 events	1500	1637	1500	1705	1750	6072
								2%	2%	2%	2%	2%	5%
							grade 6 events	2809	2957	2664	2717	3174	31785
								4%	4%	3%	4%	4%	27%
							grade 7 events	40941	40972	47194	44838	44425	20652
								67%	67%	70%	69%	67%	17%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	278.566512	278.5455542164764	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.513787	-10.49575625374545	Alternating exposures requested	N	N
[deg] Pointing Roll	108.323955	108.5288161427429	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	168134464.184000	168134464.184000			
[s] Window stop time (MET)	173318464.184000	173318464.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-216.595463	-216.5906630222831			
[mm] SIM translation stage offset	-16.997	-17.00178998064661			
[s] Observation start time (MET)	169832019.184000	169830135.0751			
Observation start date	2003-05-20T15:32:35	2003-05-20T15:02:15			
[s] Observation end time (MET)	169841825.184000	169841966.6506			
Observation end date	2003-05-20T18:16:01	2003-05-20T18:19:26			
Read mode	TIMED	TIMED			

## 2.3 Aspect



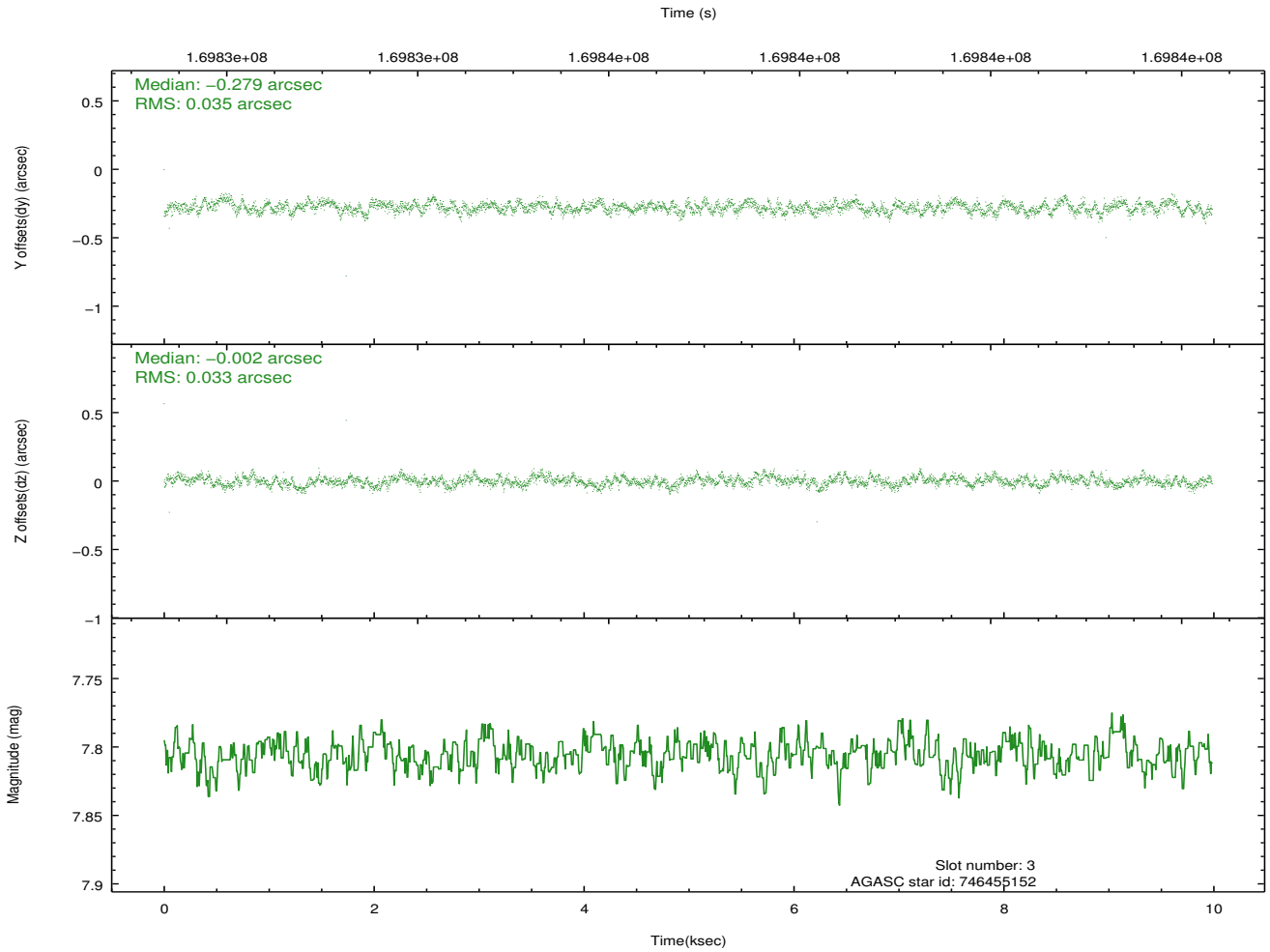
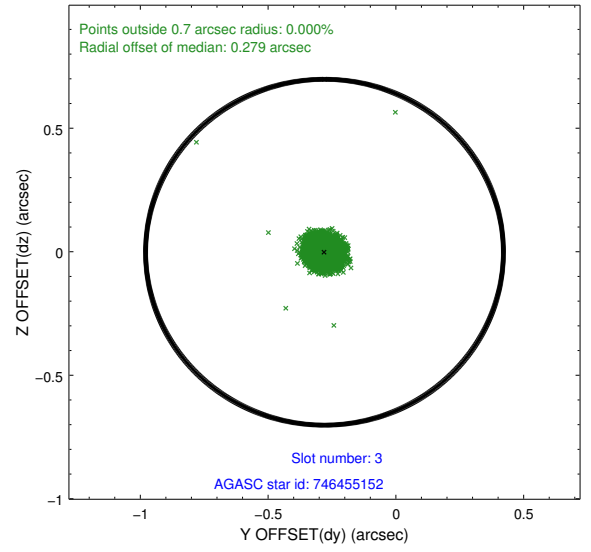
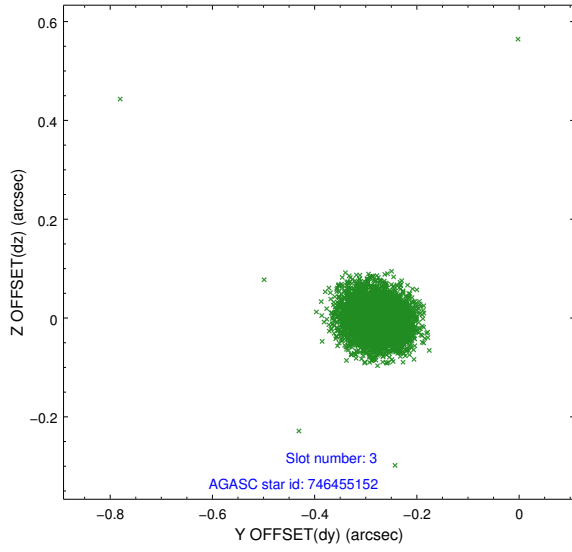


### Slot Statistics

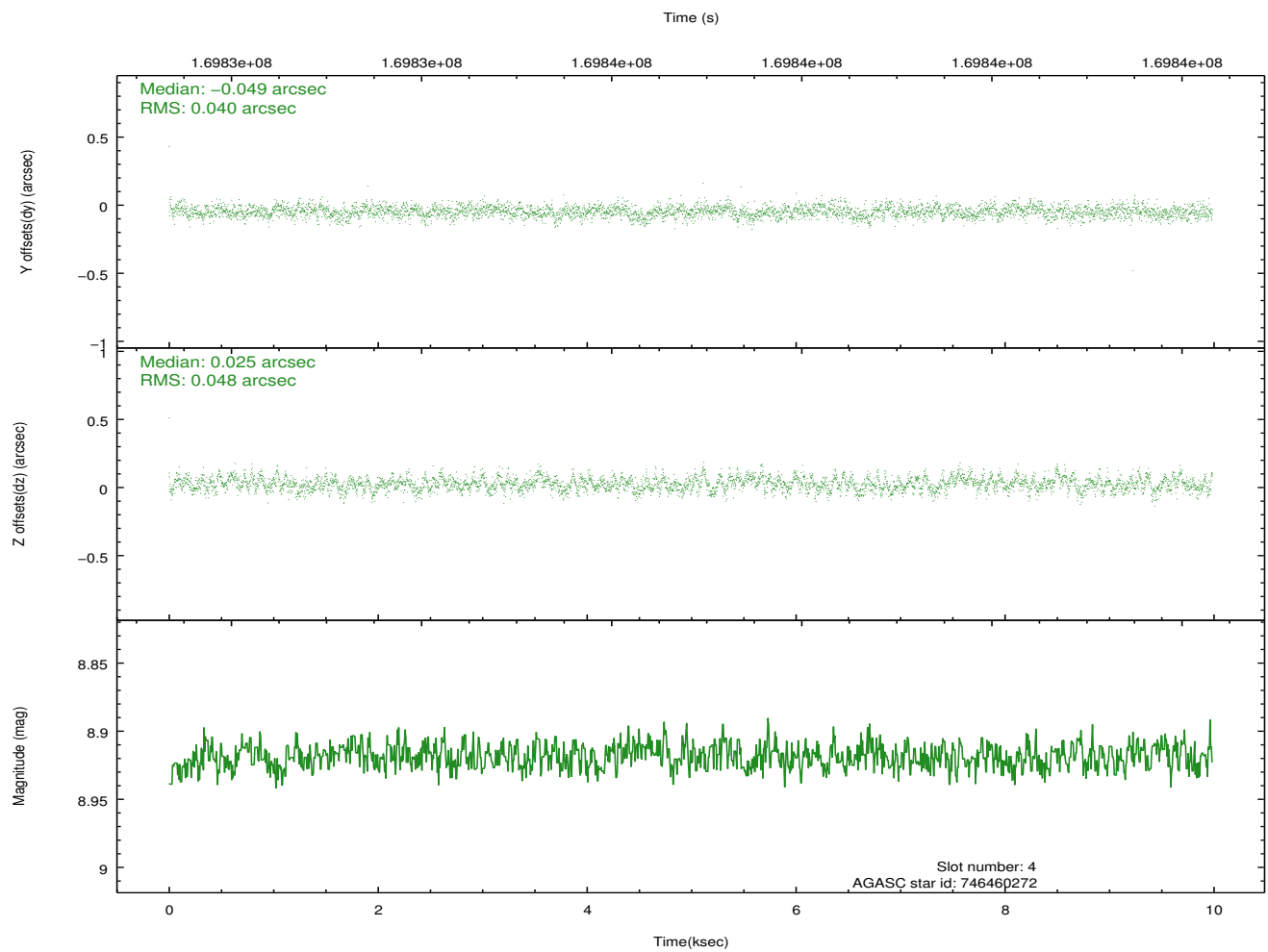
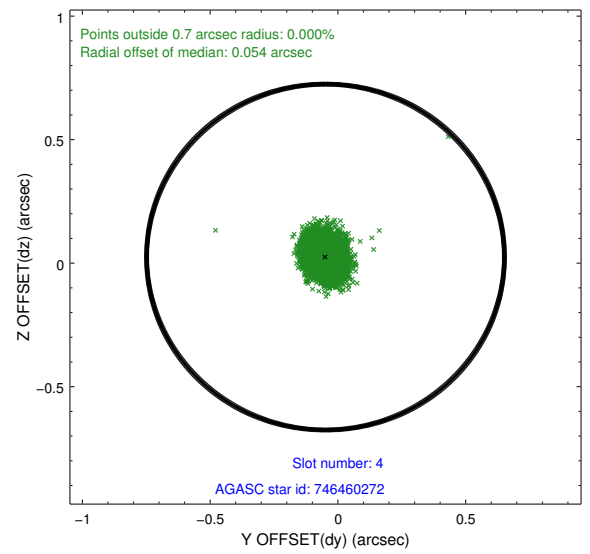
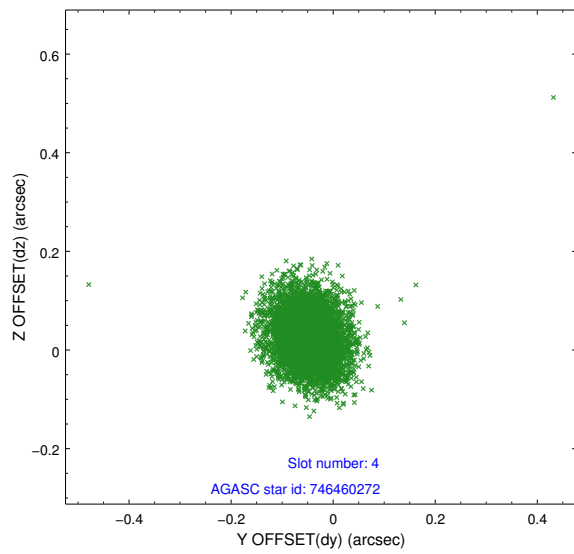
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-4	7.18	2436	-0.128	0.129	0.009	0.016	0.000000	0.000000	2156.91	721.37
1	FID	ACIS-I-5	7.22	2436	-0.180	0.041	0.006	0.011	0.000000	0.000000	-1809.45	717.07
2	FID	ACIS-I-6	7.27	2436	0.209	-0.099	0.009	0.016	0.000000	0.000000	403.20	1361.34
3	GUIDE	746455152	7.81	4872	-0.279	-0.002	0.049	0.078	278.447893	-9.976732	1967.65	-208.48
4	GUIDE	746460272	8.92	4870	-0.049	0.025	0.065	0.107	278.847488	-10.152127	923.29	-1354.33
5	GUIDE	746460328	9.80	4865	-0.043	-0.032	0.119	0.202	278.603974	-9.898096	2062.65	-823.09
6	GUIDE	746462392	8.53	4869	0.212	0.045	0.068	0.106	279.038421	-10.890715	-1813.55	-1156.99
7	GUIDE	746462456	8.39	4869	0.159	-0.029	0.069	0.114	278.652171	-10.530173	-151.62	-269.39

## 2.4 Star Slots

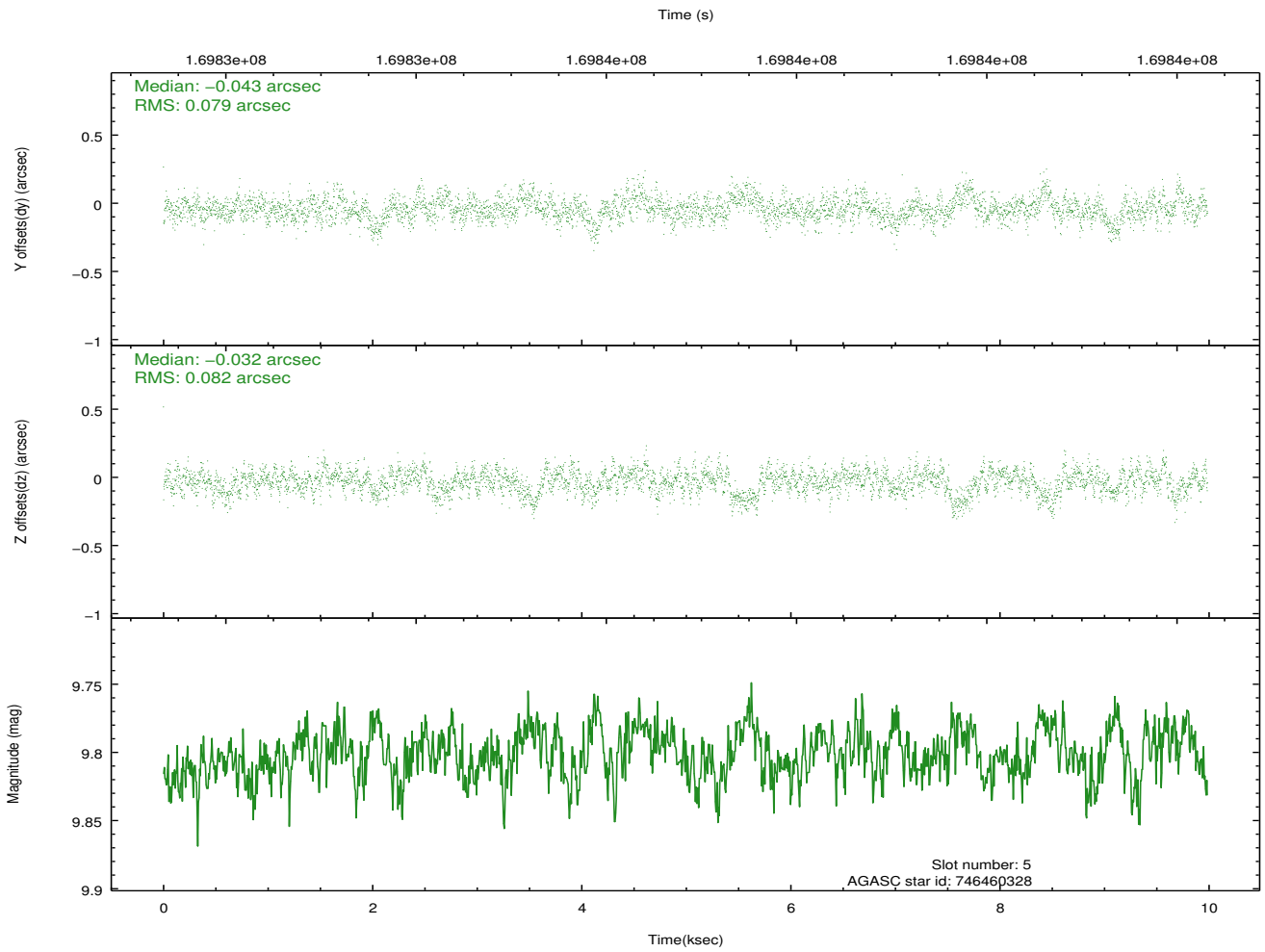
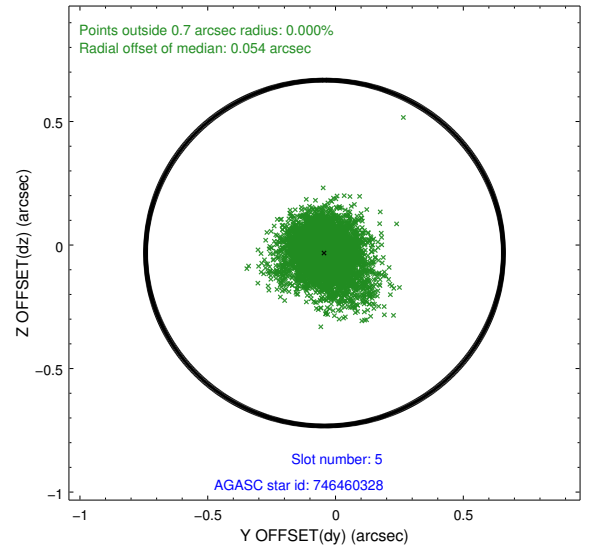
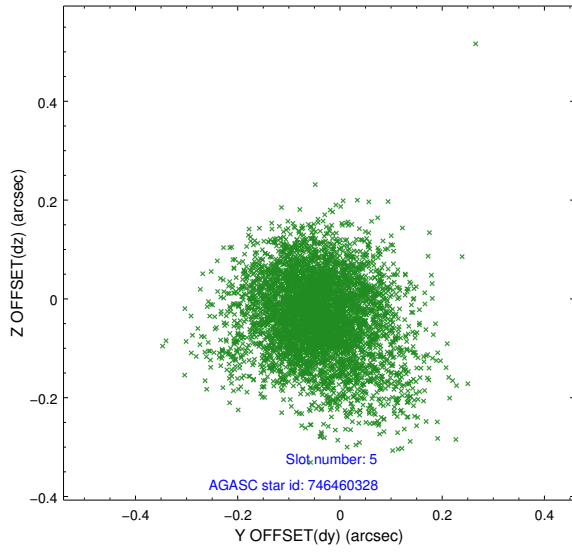
### 2.4.1 Slot 3



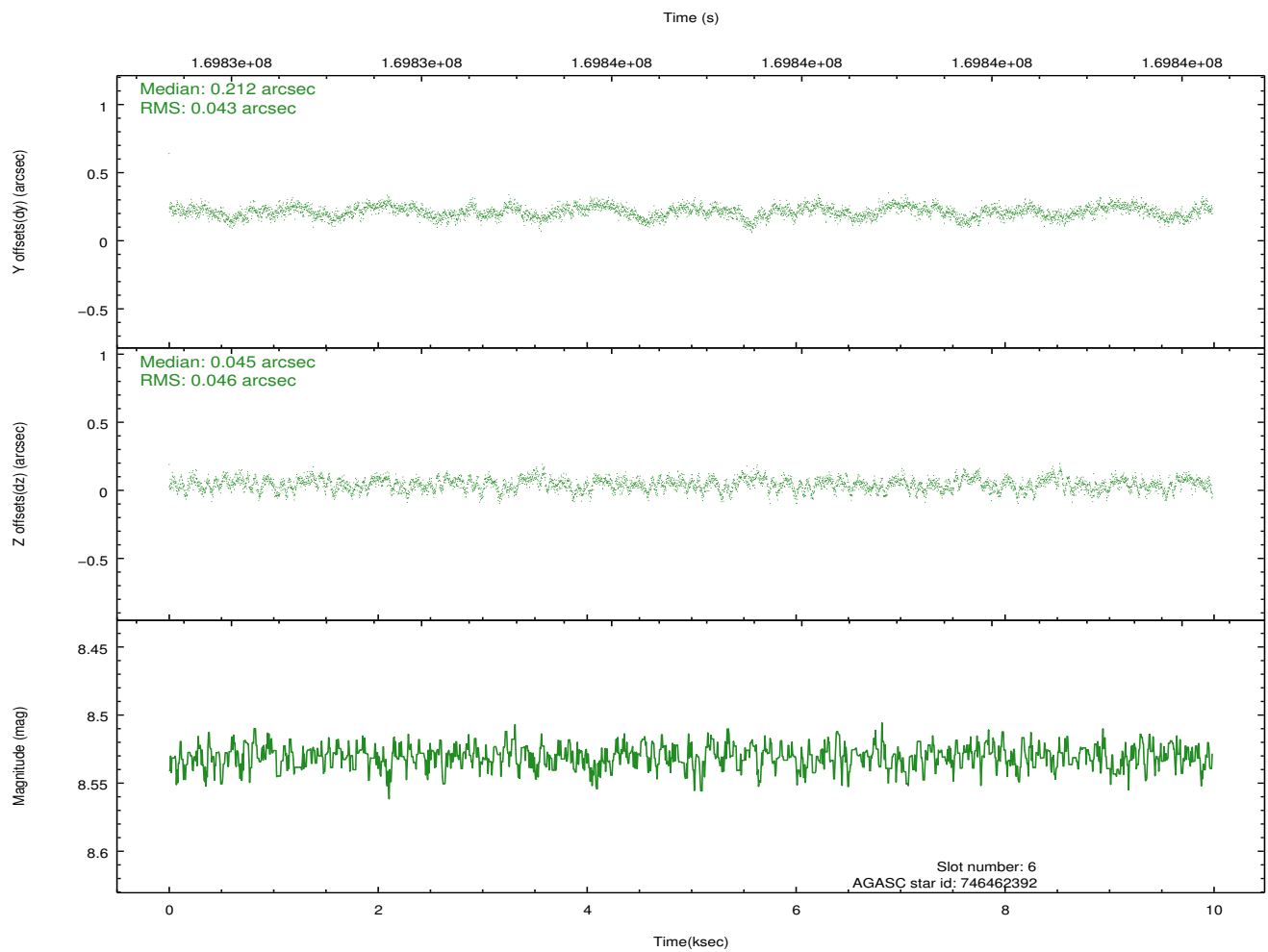
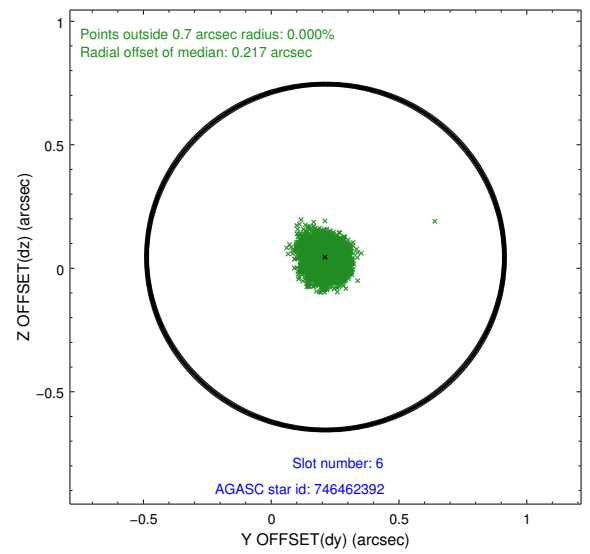
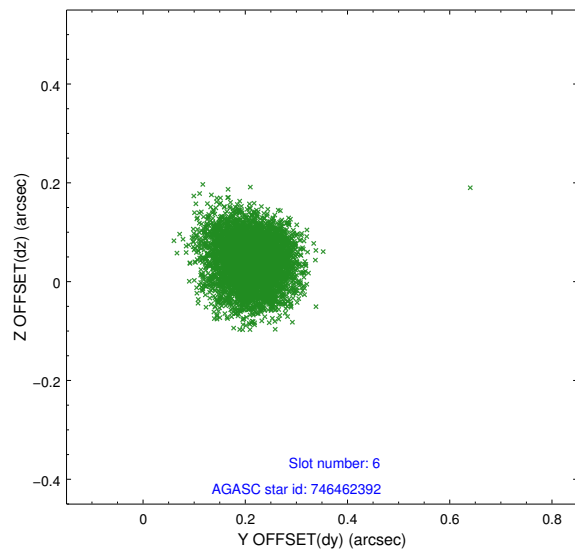
## 2.4.2 Slot 4



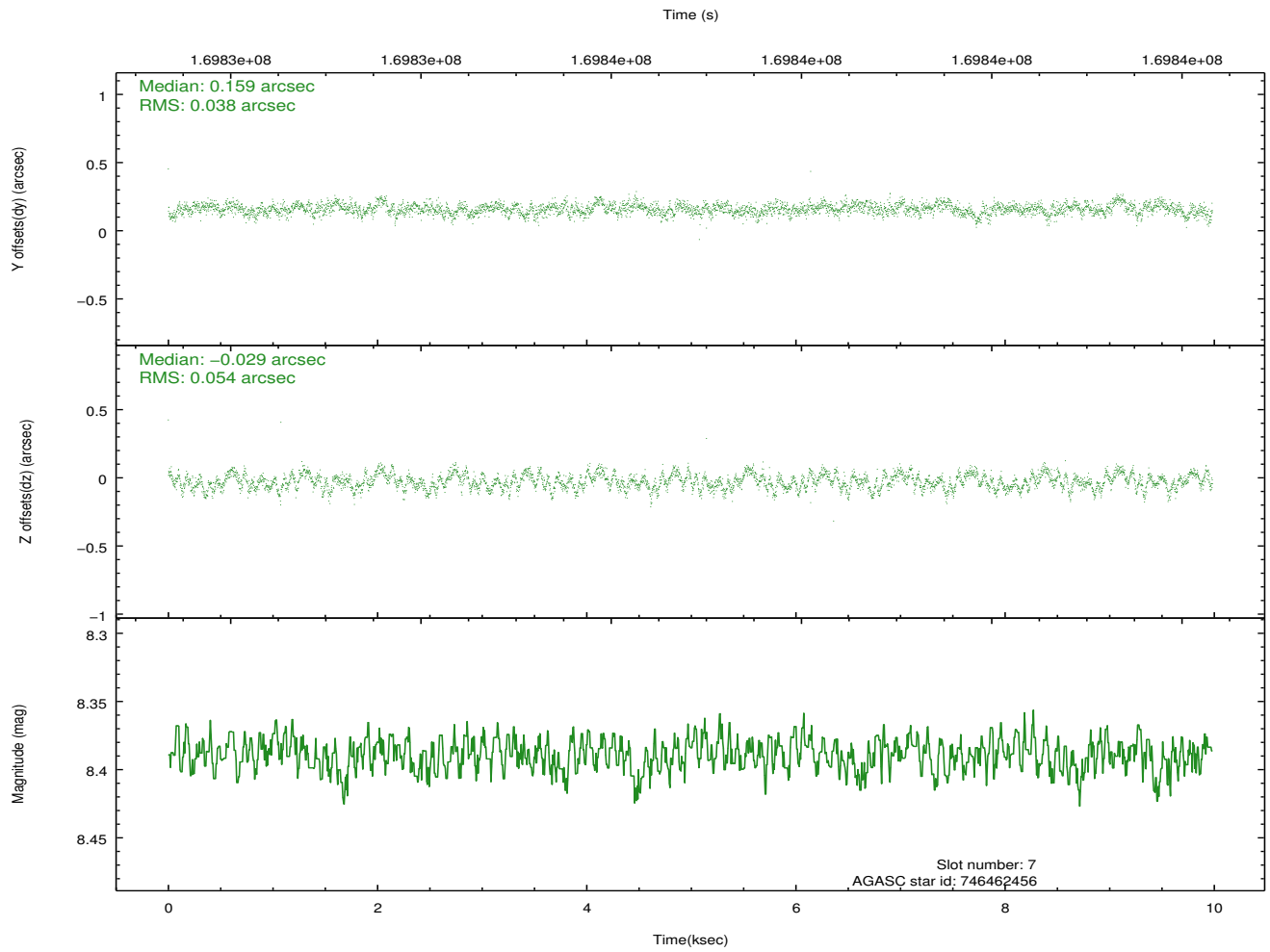
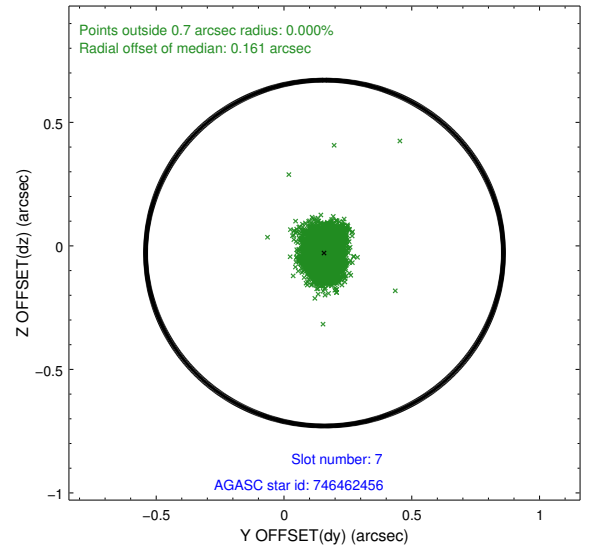
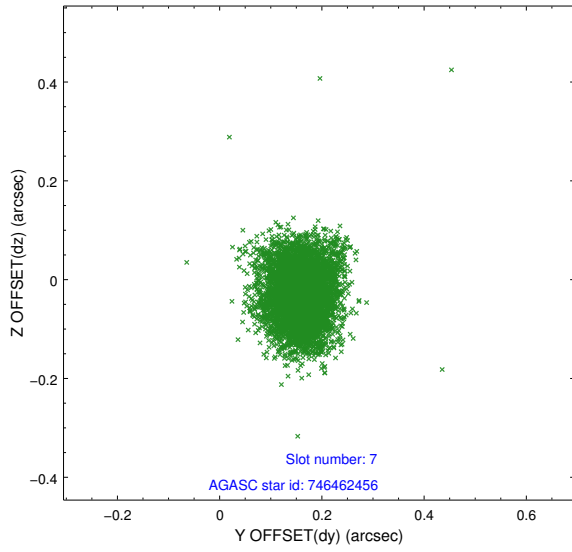
### 2.4.3 Slot 5



## 2.4.4 Slot 6

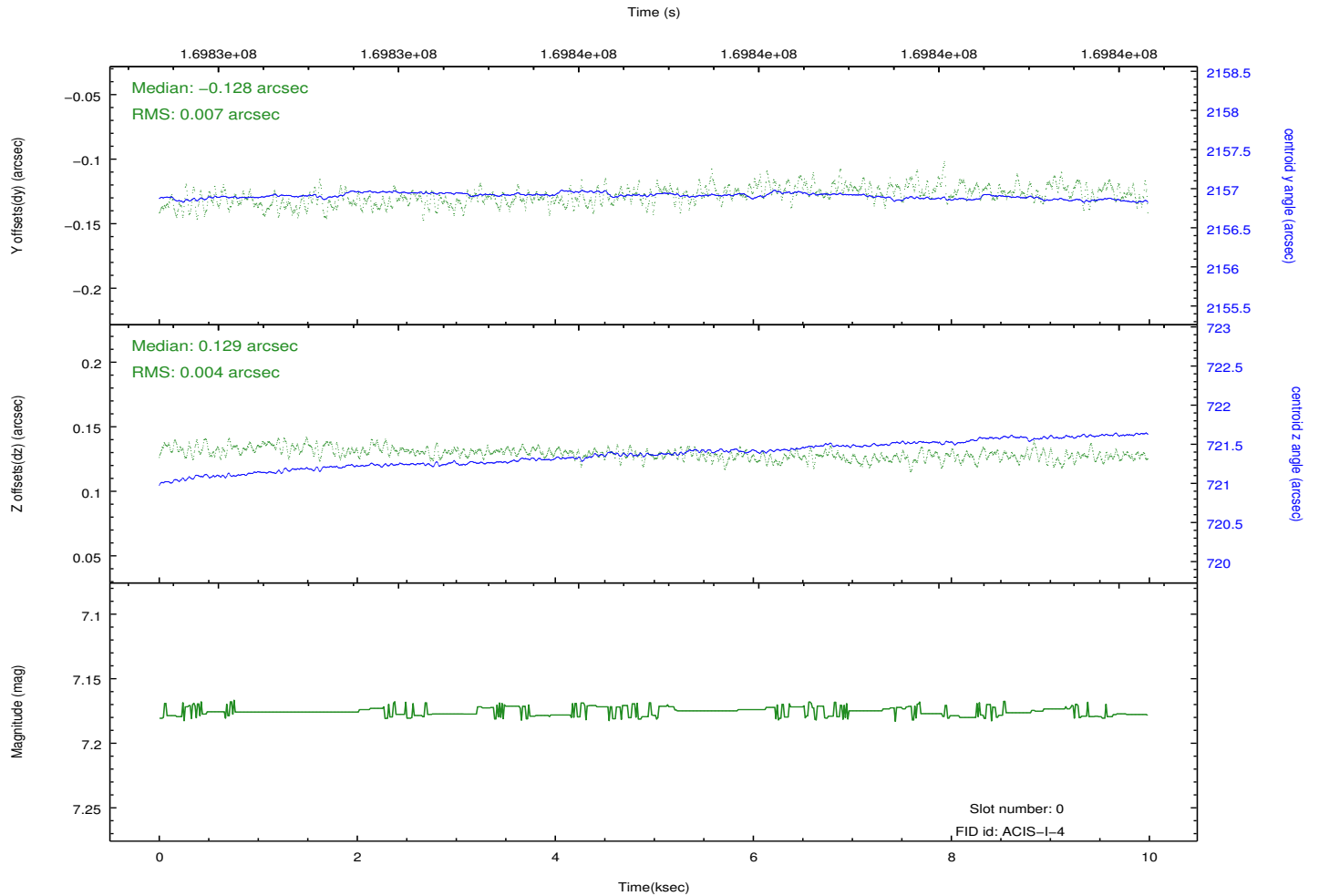
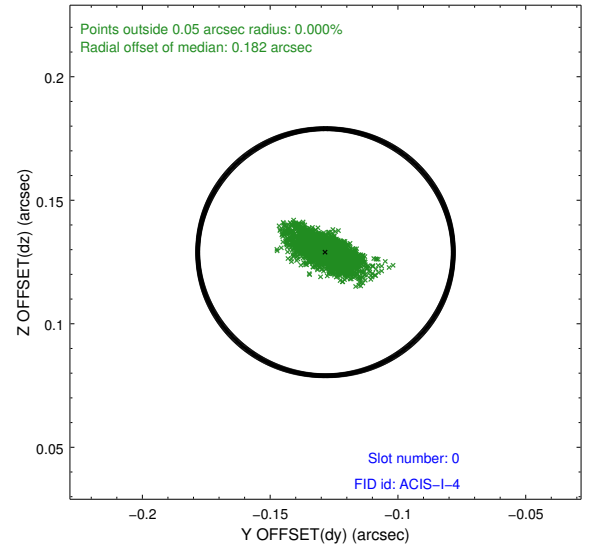
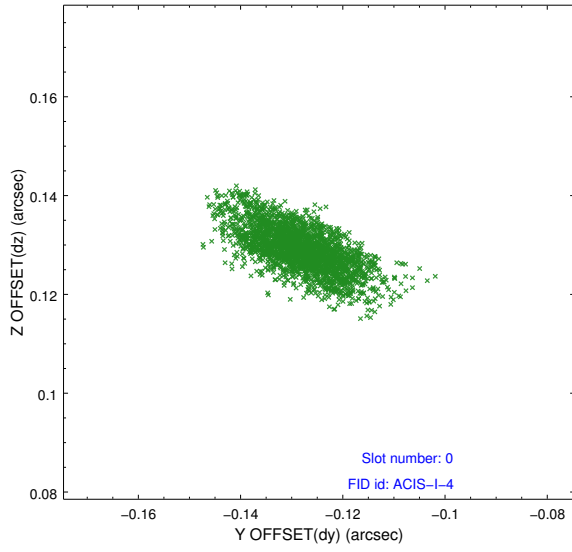


### 2.4.5 Slot 7

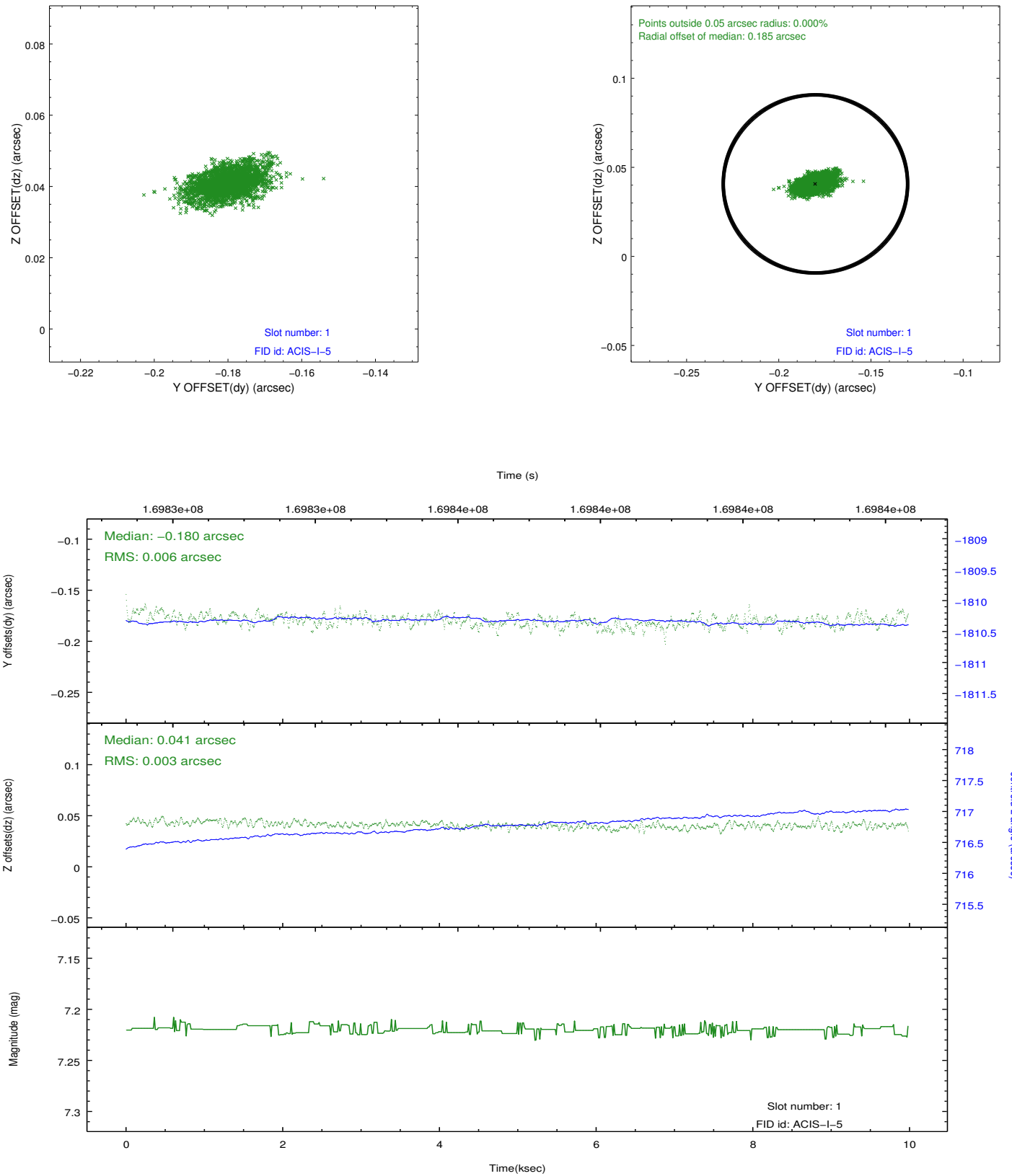


## 2.5 FID Slots

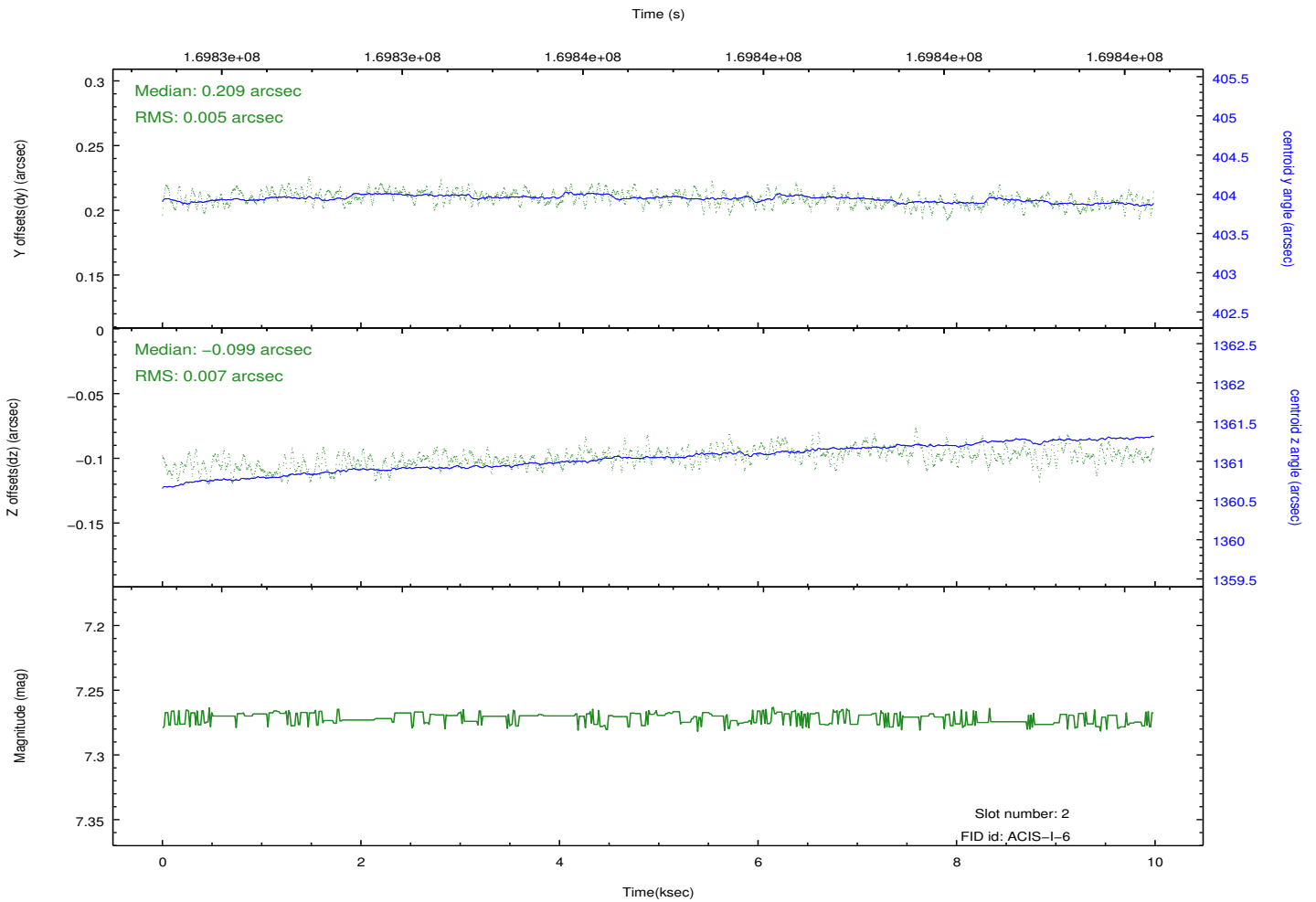
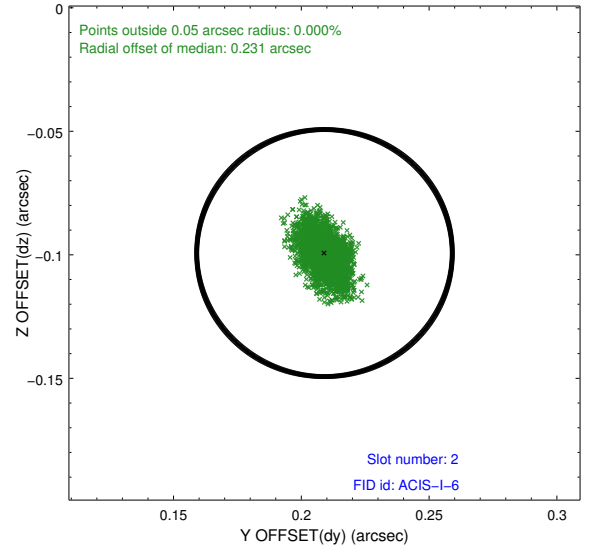
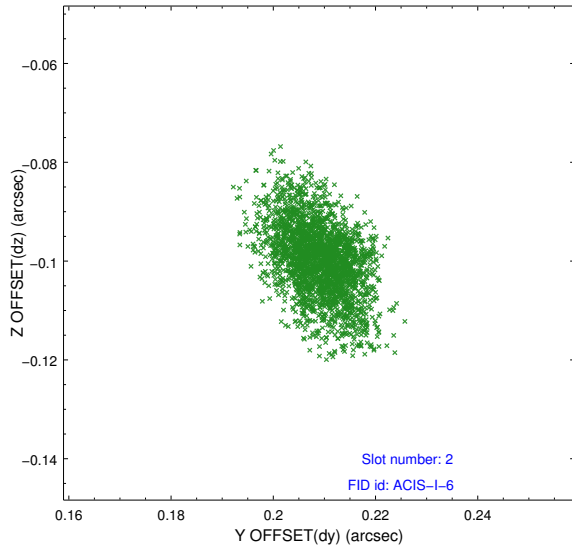
### 2.5.1 Slot 0



## 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)	2012.11.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.98

## A.2 Comments