

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4353 - L2 Version 3  
Chandra X-Ray Center

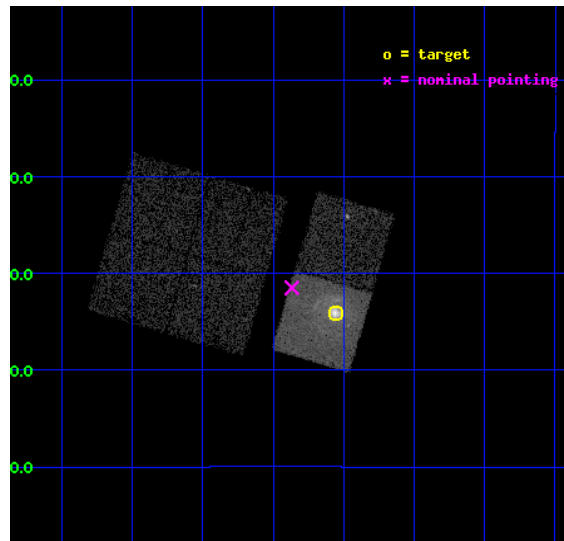
L2 Processing Date : Oct 28 2012

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# 1 Front

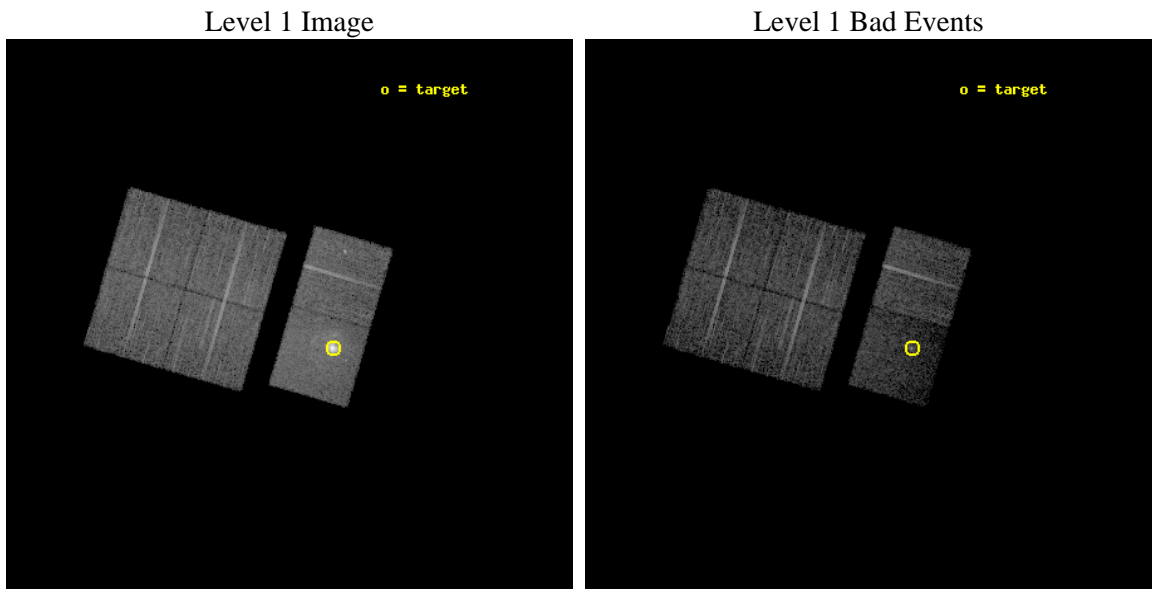
seq_num	590318	Sequence number
obs_id	4353	Observation id
title	AO4 CALIBRATION OBSERVATIONS TO MEASURE THE MIRROR VIGNETTING	Prop
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9[Chip S3, T=120, Offsets=-1,5,11.7]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.46678899229	Nominal RA [deg]
dec_nom	-10.525108298503	Nominal Dec [deg]
roll_nom	106.28407314678	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9478.3180141747	Sum of GTIs [s]
livetime	9358.2978443213	Livetime [s]
ontime0	9484.7999646664	Sum of GTIs [s]
ontime1	9484.7999646664	Sum of GTIs [s]
ontime2	9484.7999646664	Sum of GTIs [s]
ontime3	9484.7999646664	Sum of GTIs [s]
ontime6	9484.7999646664	Sum of GTIs [s]
ontime7	9478.3180141747	Sum of GTIs [s]
l2events	74474	Number of level 2 events



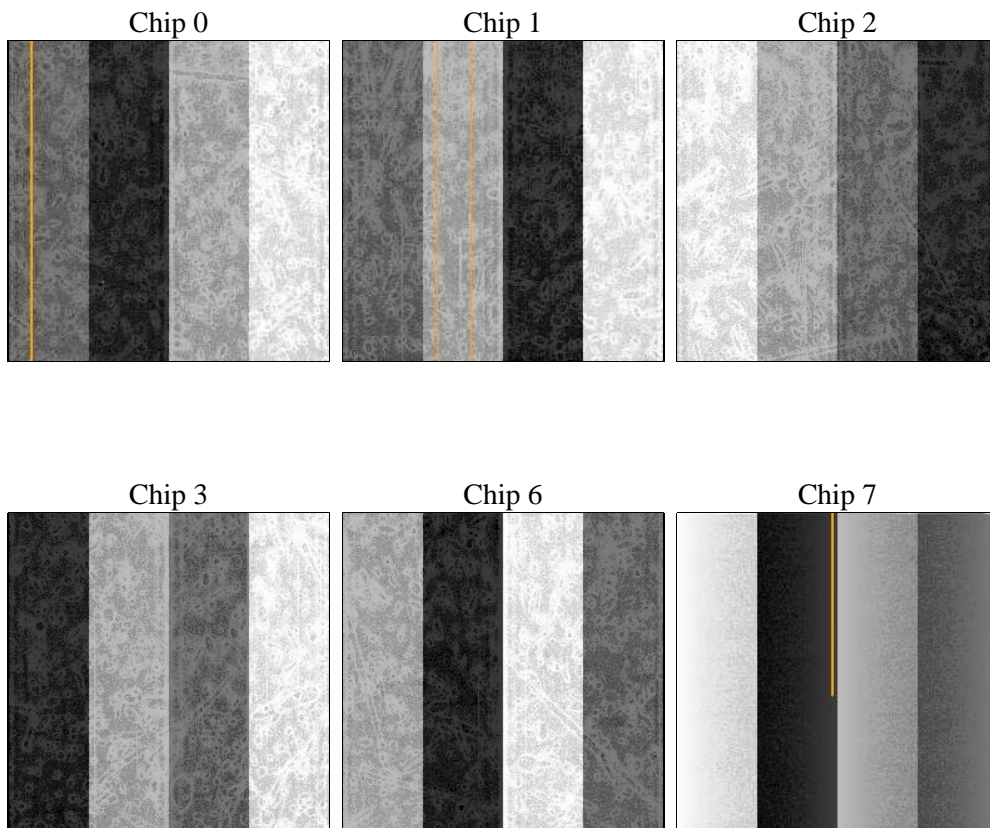
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9520.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9478.3180141747	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime0	9484.7999646664	Sum of GTIs [s]
date	2012-10-28T13:29:58	Date and time of file creation	ontime1	9484.7999646664	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	9484.7999646664	Sum of GTIs [s]
			ontime3	9484.7999646664	Sum of GTIs [s]
			ontime6	9484.7999646664	Sum of GTIs [s]
			ontime7	9478.3180141747	Sum of GTIs [s]
			l1events	301037	Number of level 1 events

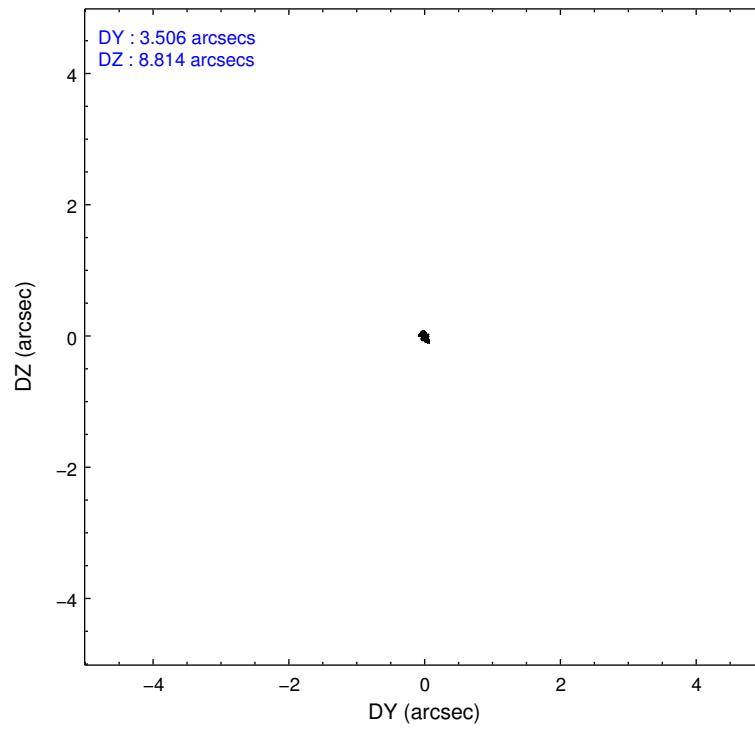
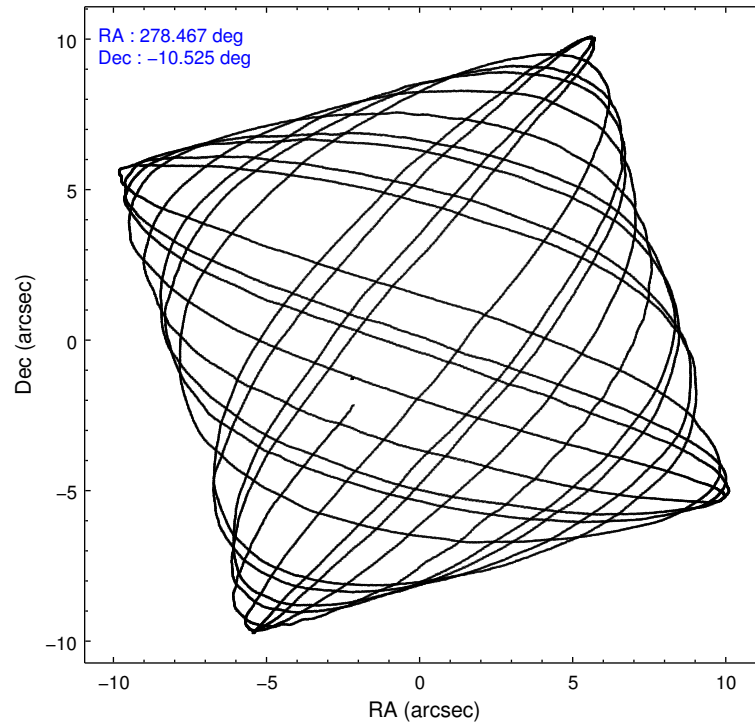
### 2.1.4 Events

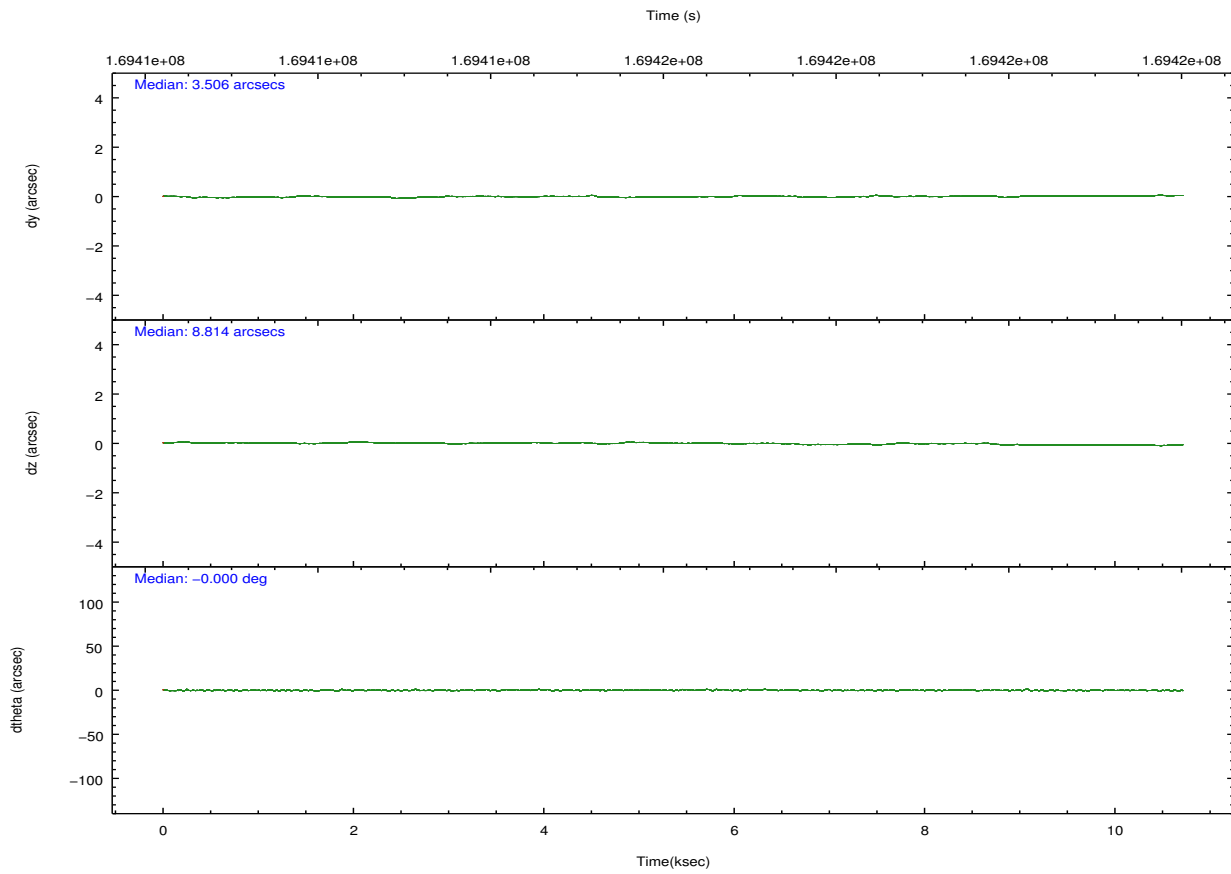
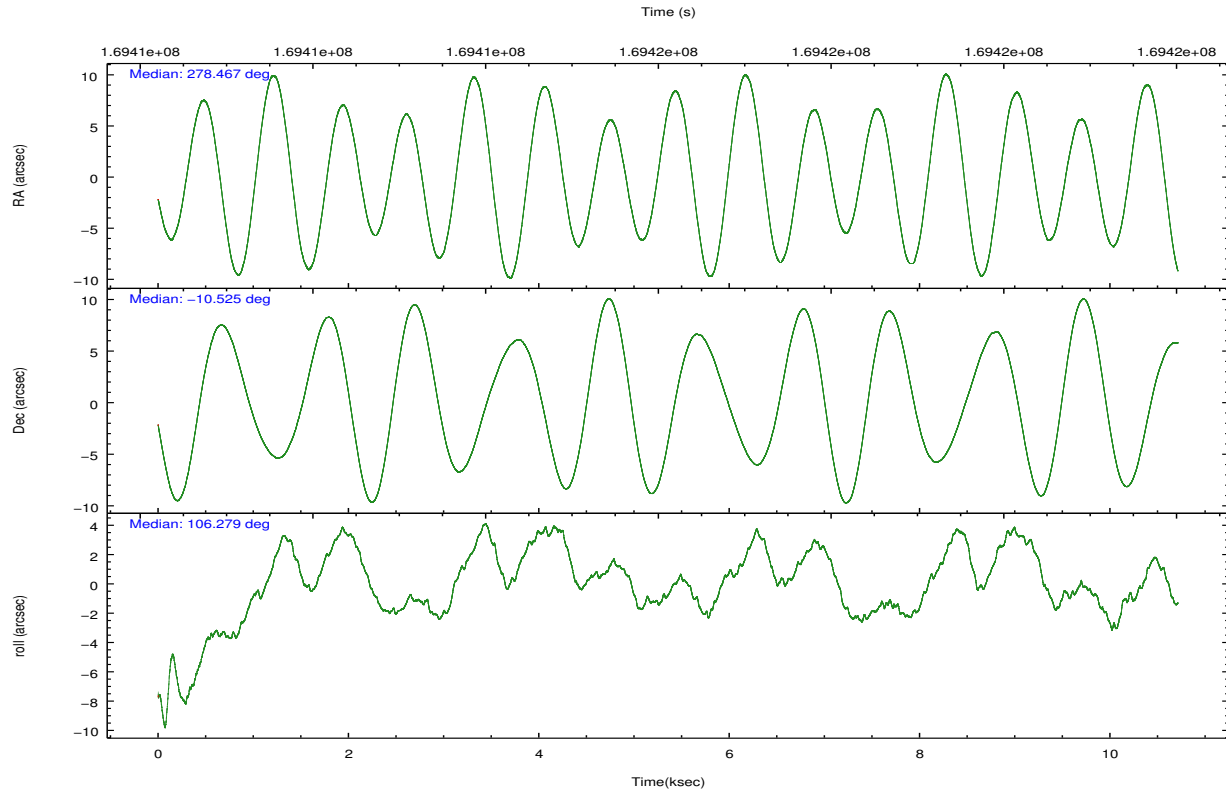
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	43762	41790	46916	44672	46643	77254	grade 0 events	1698	1680	1787	1823	2900	9529
rejected events	39043	37111	42234	40182	40425	22596		3%	4%	3%	4%	6%	12%
rejected %	89%	88%	90%	89%	86%	29%	grade 1 events	23	28	33	31	18	99
								0%	0%	0%	0%	0%	0%
							grade 2 events	1073	958	1049	913	1178	13005
								2%	2%	2%	2%	2%	16%
							grade 3 events	547	588	507	521	578	5944
								1%	1%	1%	1%	1%	7%
							grade 4 events	556	550	518	484	558	5769
								1%	1%	1%	1%	1%	7%
							grade 5 events	1375	1438	1287	1527	1613	4988
								3%	3%	2%	3%	3%	6%
							grade 6 events	848	907	822	751	1004	20432
								1%	2%	1%	1%	2%	26%
							grade 7 events	37642	35641	40913	38622	38794	17488
								86%	85%	87%	86%	83%	22%

## 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	278.487085	278.4667889922862	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.543601	-10.525108298503	Alternating exposures requested	N	N
[deg] Pointing Roll	106.131154	106.2840731467751	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	168134464.184000	168134464.184000			
[s] Window stop time (MET)	170640064.184000	170640064.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-201.840523	-201.8467180939352			
[mm] SIM translation stage offset	11.708	11.71419551092742			
[s] Observation start time (MET)	169411946.184000	169410483.14482			
Observation start date	2003-05-15T18:51:22	2003-05-15T18:28:03			
[s] Observation end time (MET)	169421466.184000	169423094.74535			
Observation end date	2003-05-15T21:30:02	2003-05-15T21:58:14			
Read mode	TIMED	TIMED			

## 2.3 Aspect





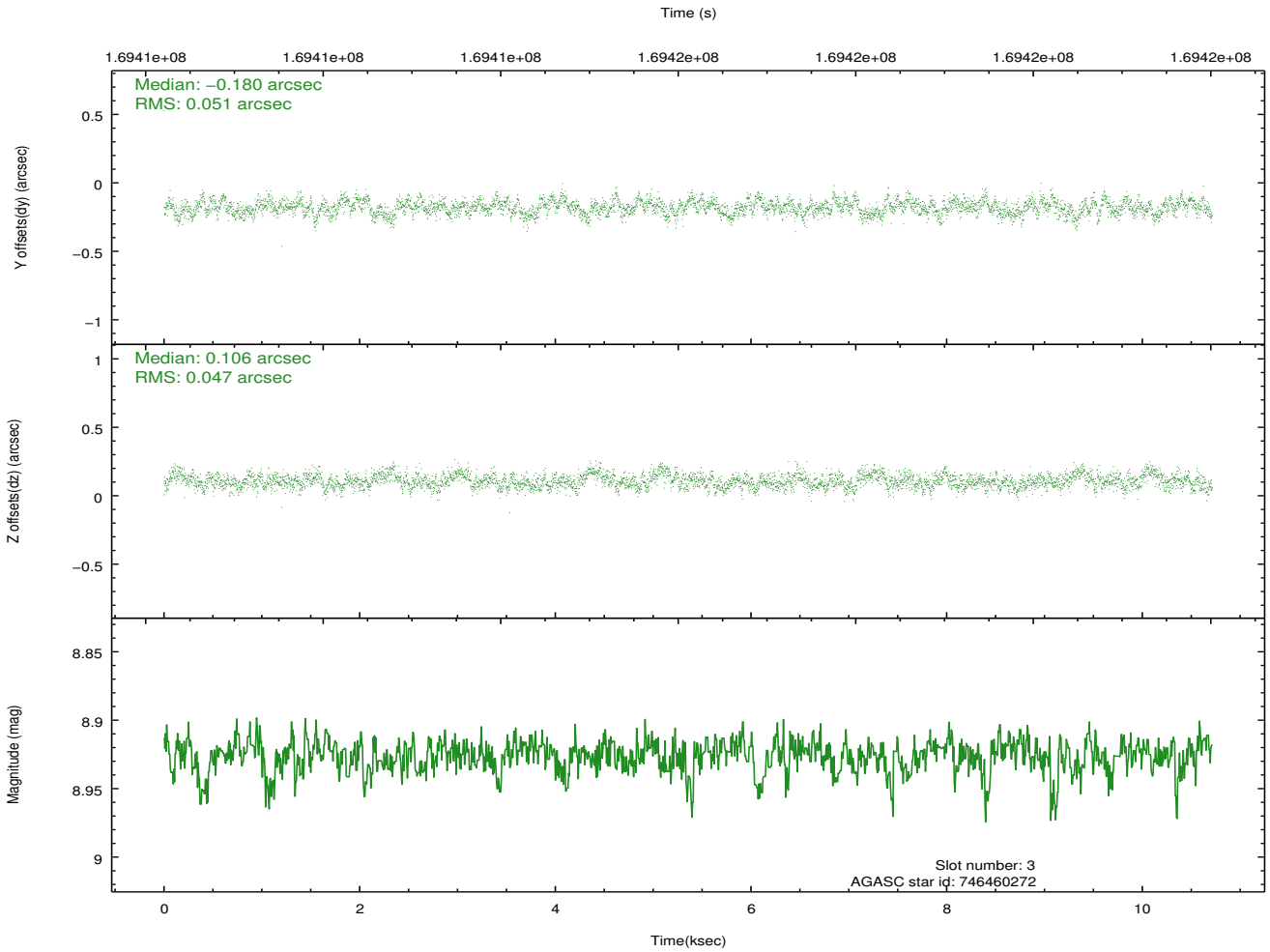
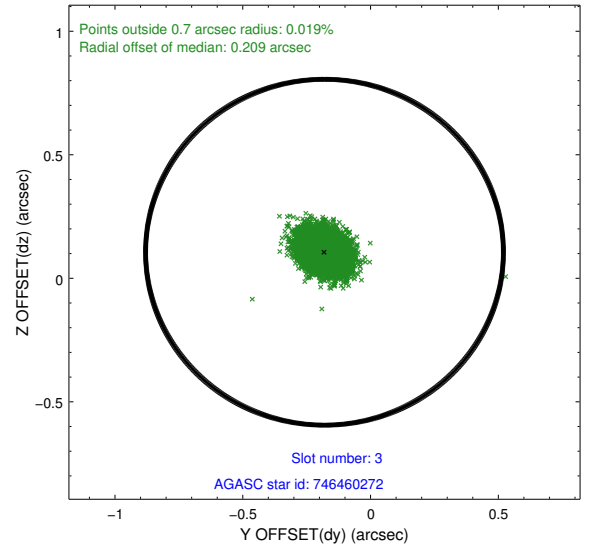
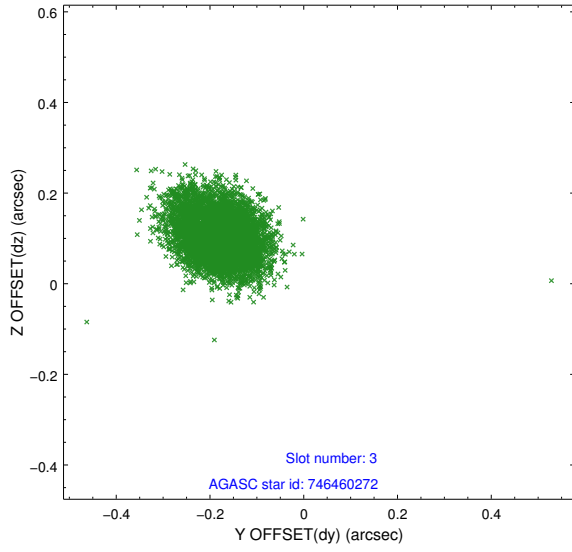
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.15	2612	0.107	0.151	0.007	0.012	0.000000	0.000000	-756.84	-1488.26
1	FID	ACIS-S-4	7.23	2611	0.014	-0.091	0.006	0.011	0.000000	0.000000	2156.25	419.39
2	FID	ACIS-S-5	7.22	2611	-0.152	-0.050	0.007	0.011	0.000000	0.000000	-1809.19	413.92
3	GUIDE	746460272	8.93	5223	-0.180	0.106	0.073	0.120	278.847488	-10.152127	998.64	-1617.82
4	GUIDE	746460328	9.83	5219	-0.194	0.093	0.108	0.170	278.603974	-9.898096	2117.31	-1043.58
5	GUIDE	746462392	8.53	5222	0.110	0.067	0.090	0.137	279.038421	-10.890715	-1743.36	-1525.02
6	GUIDE	746462456	8.39	5222	0.049	0.006	0.060	0.098	278.652171	-10.530173	-116.38	-574.74
7	GUIDE	746995400	9.61	5220	0.222	-0.270	0.112	0.188	278.078957	-11.289885	-2181.16	2130.55

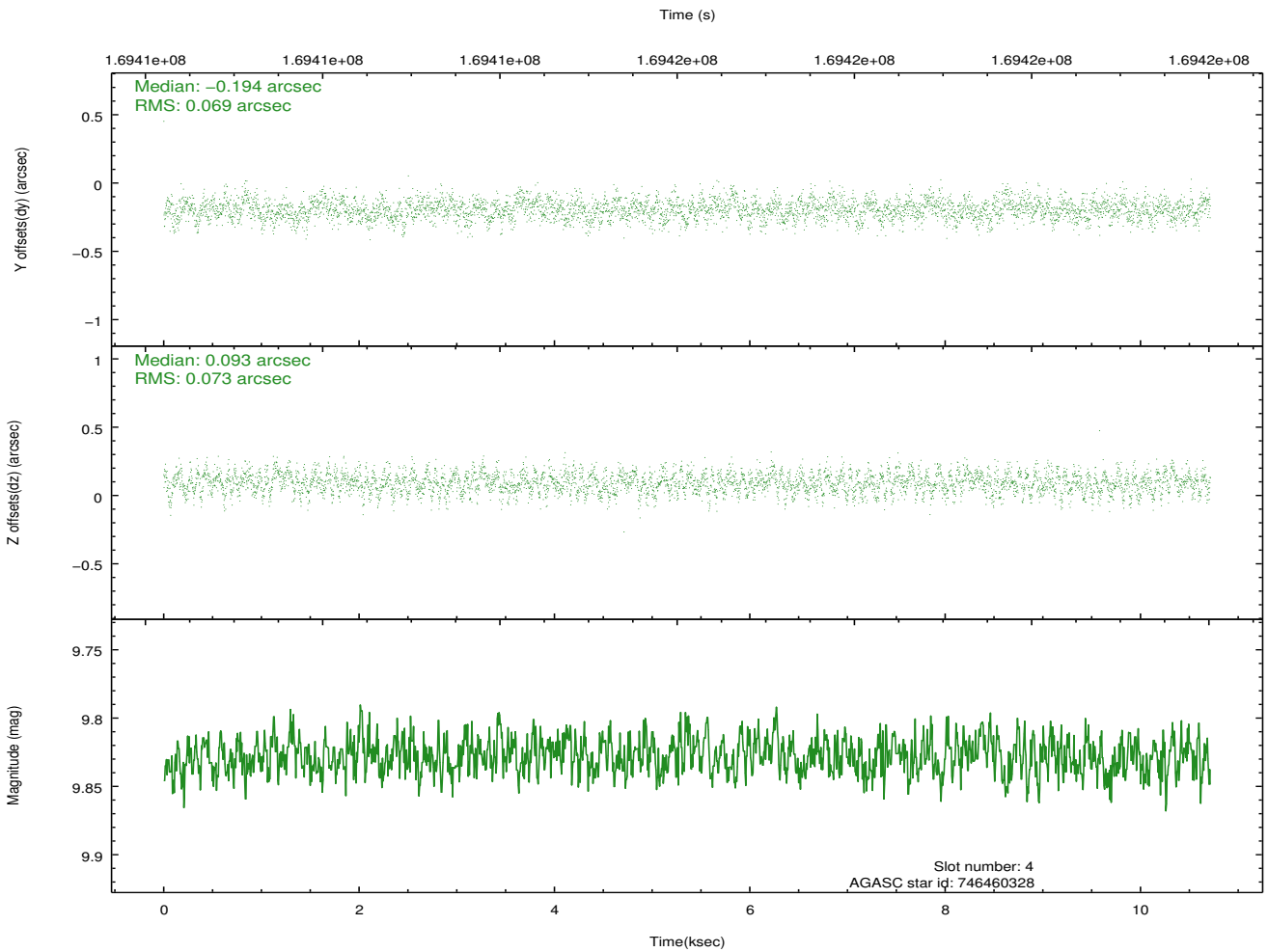
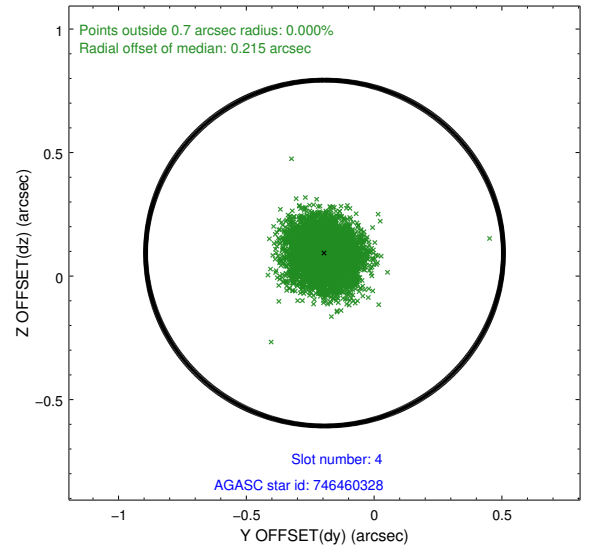
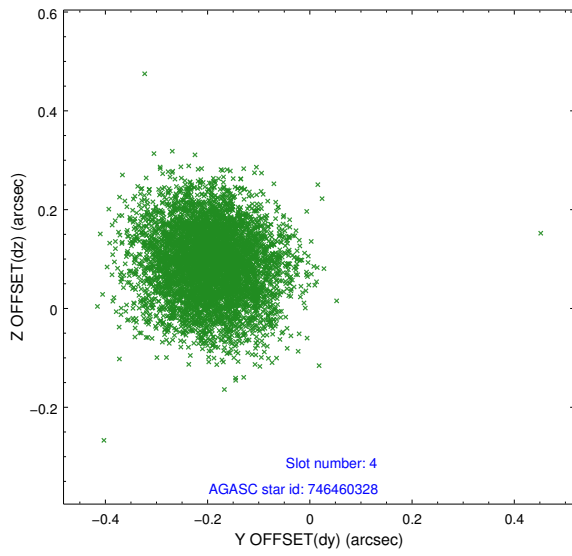
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## 2.4 Star Slots

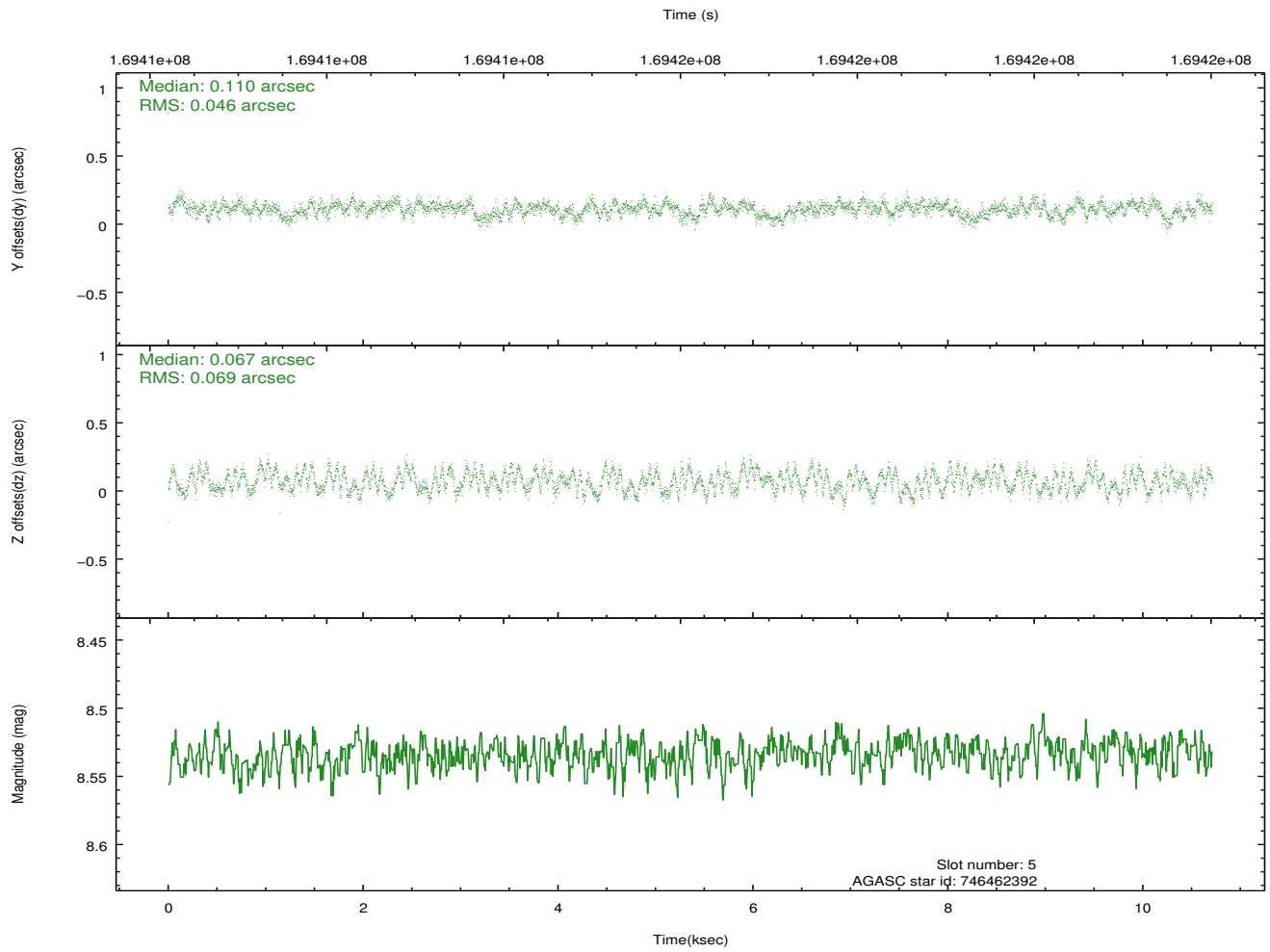
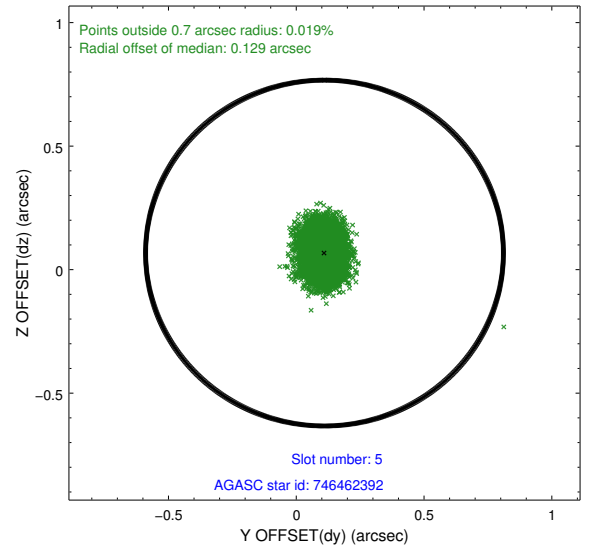
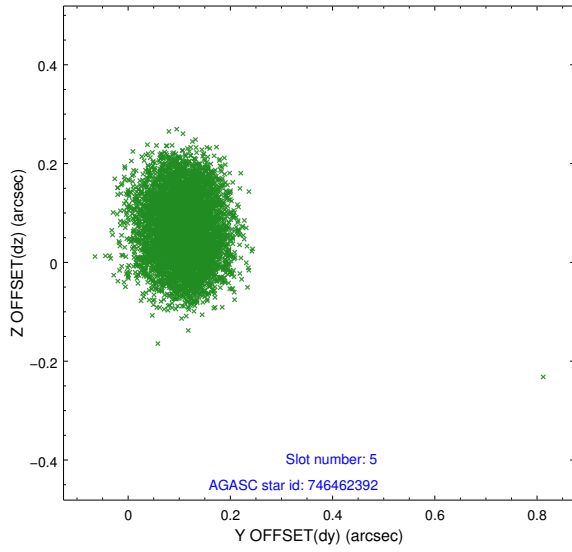
### 2.4.1 Slot 3



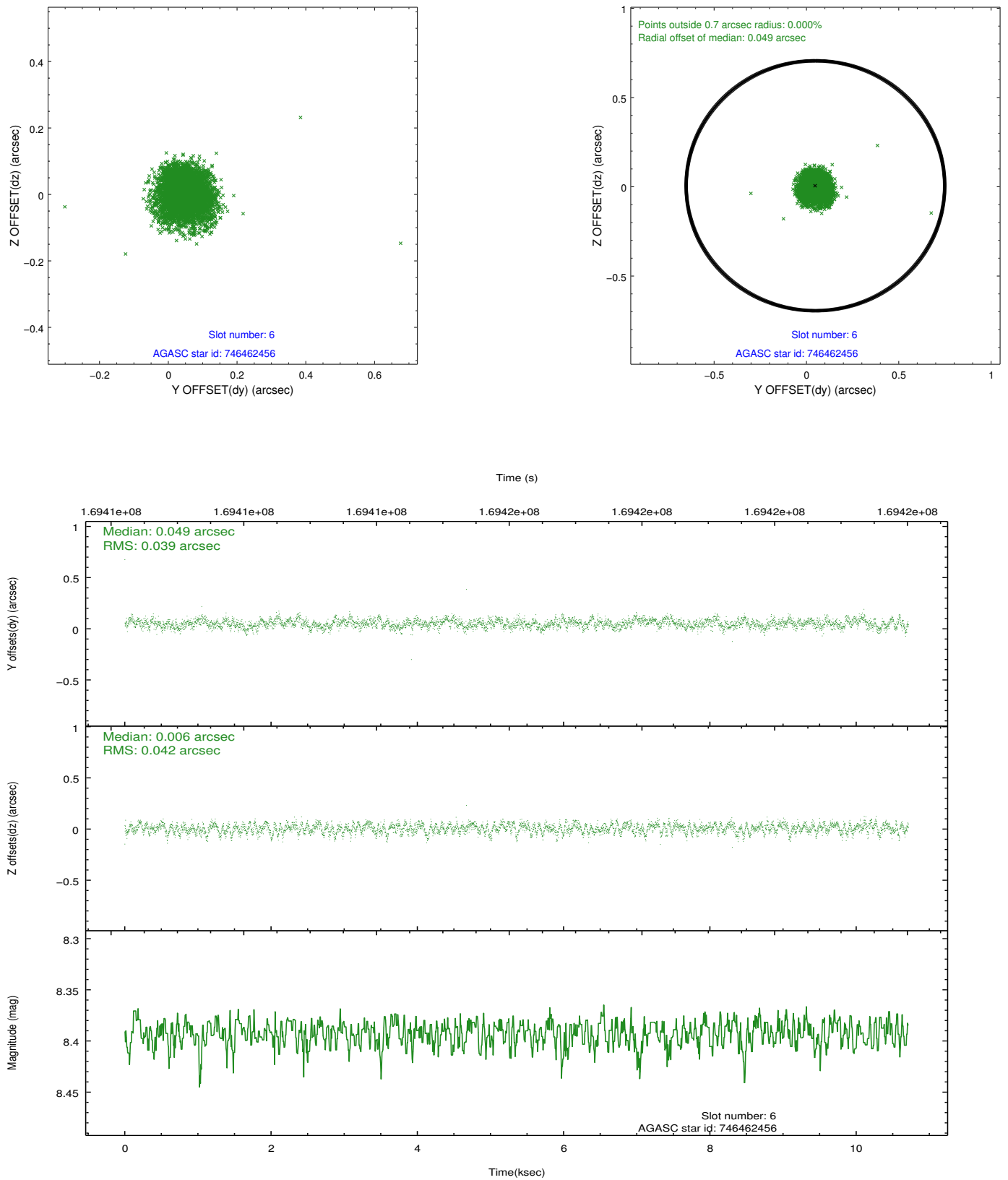
## 2.4.2 Slot 4



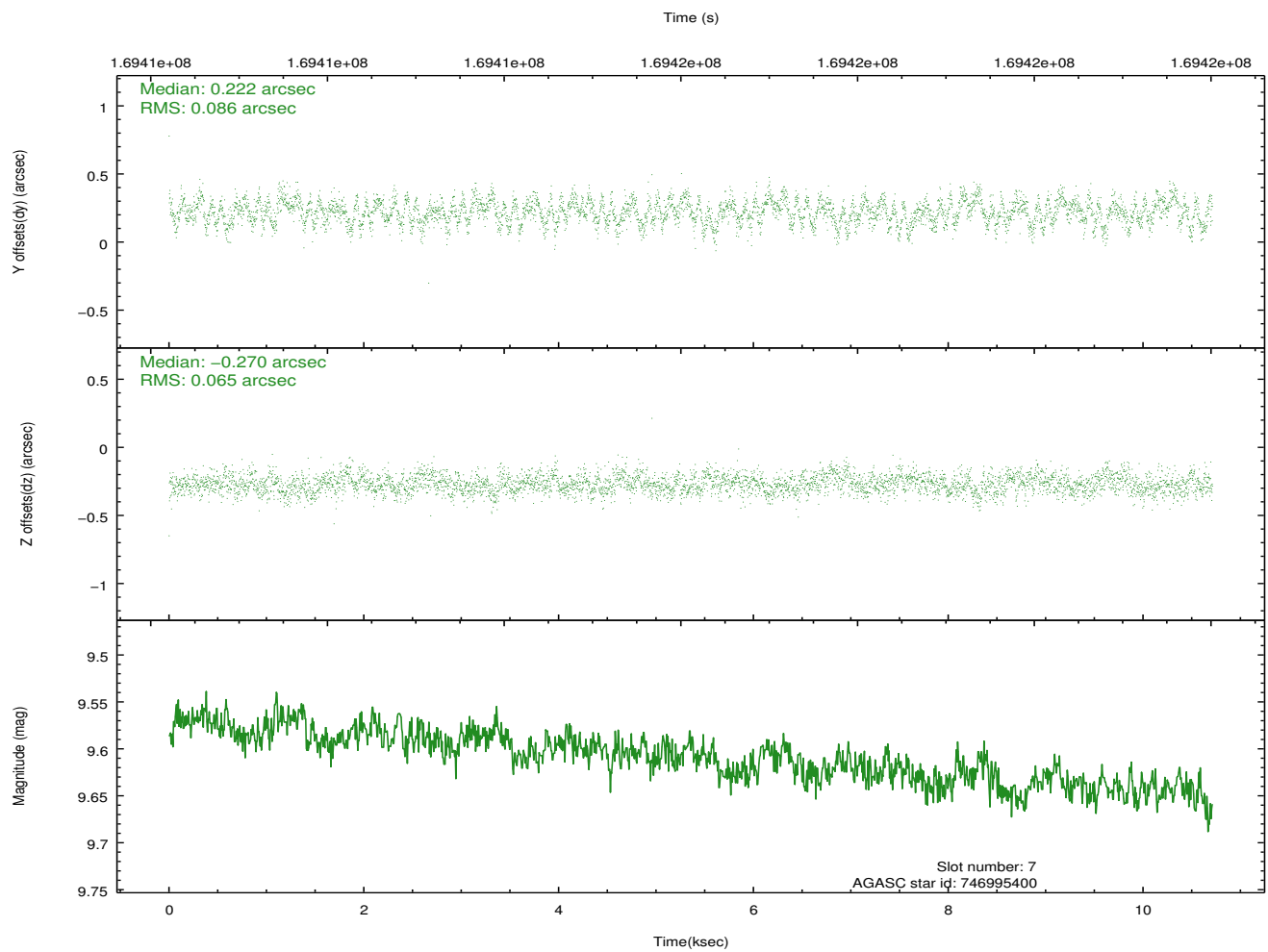
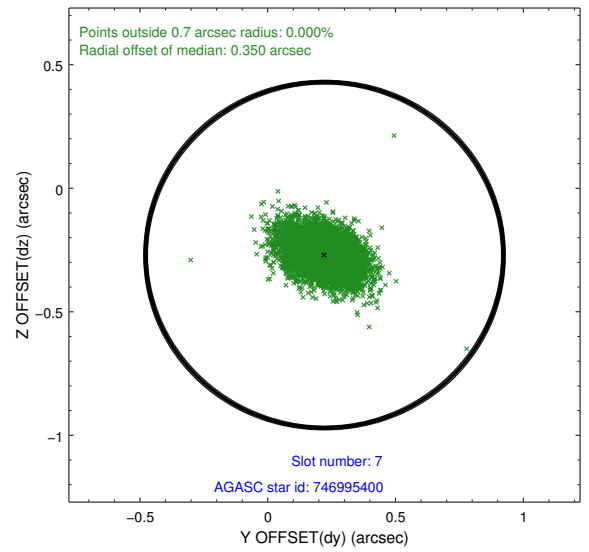
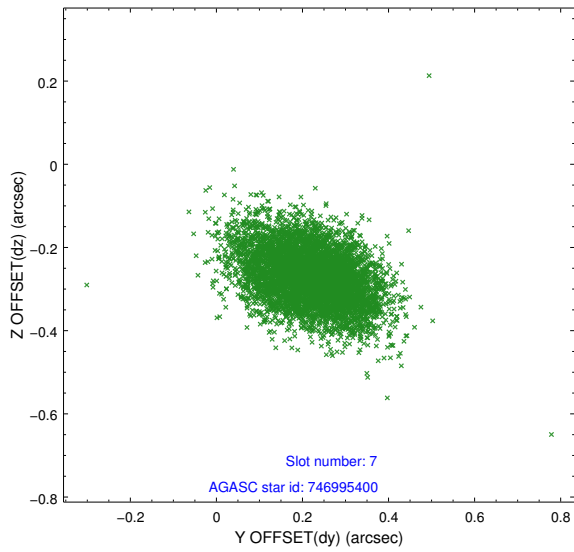
### 2.4.3 Slot 5



## 2.4.4 Slot 6

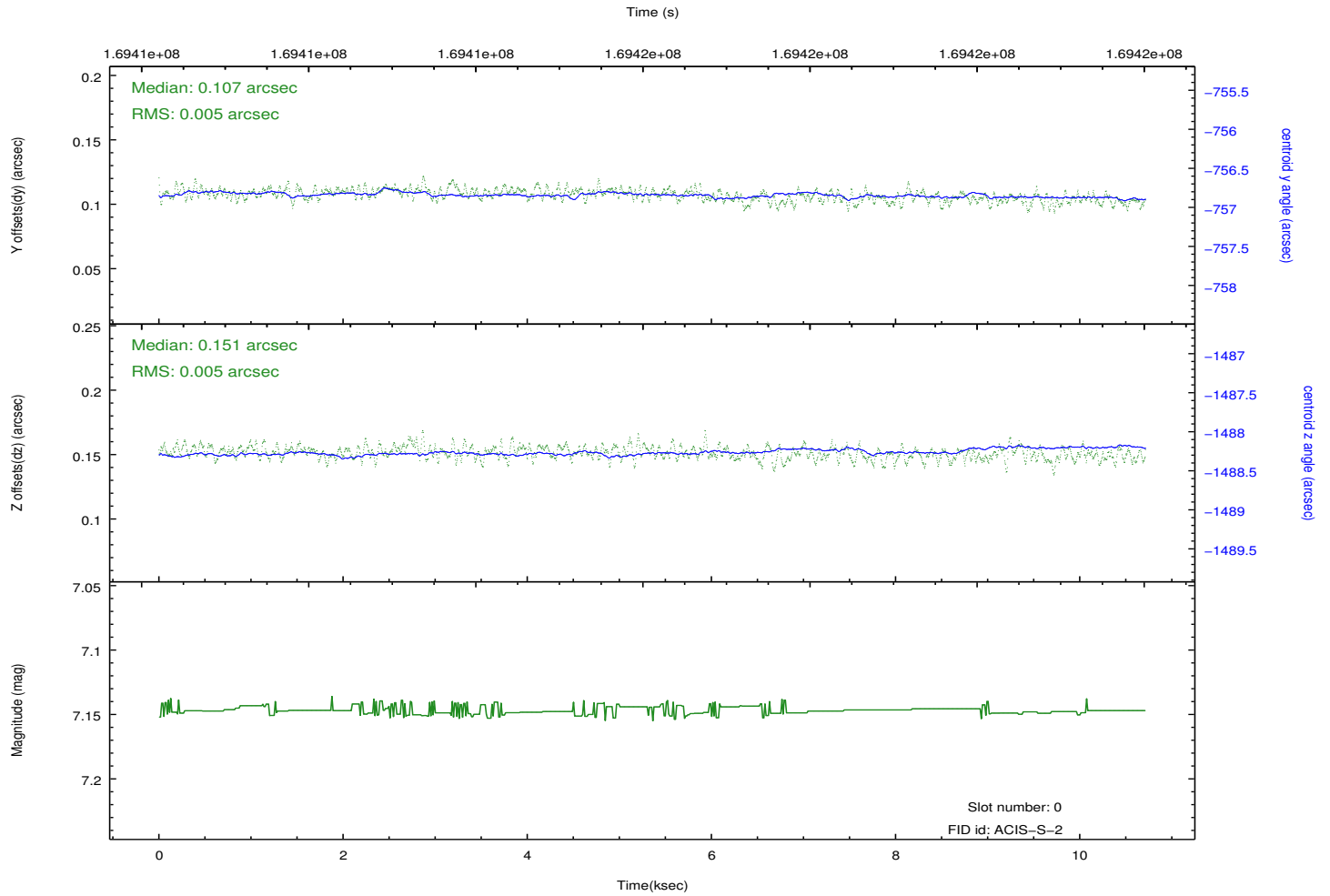
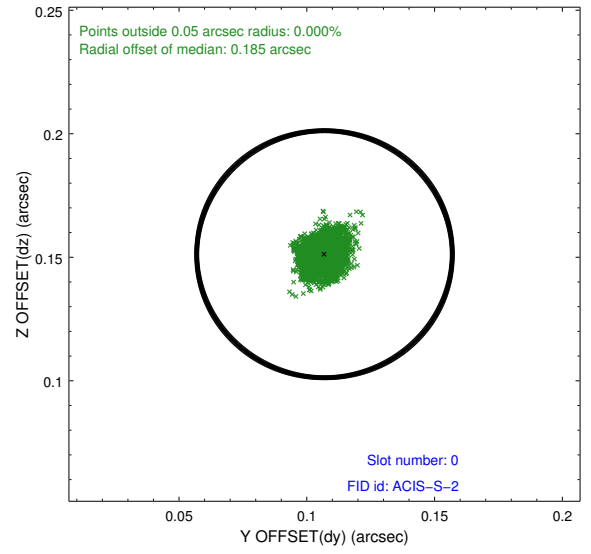
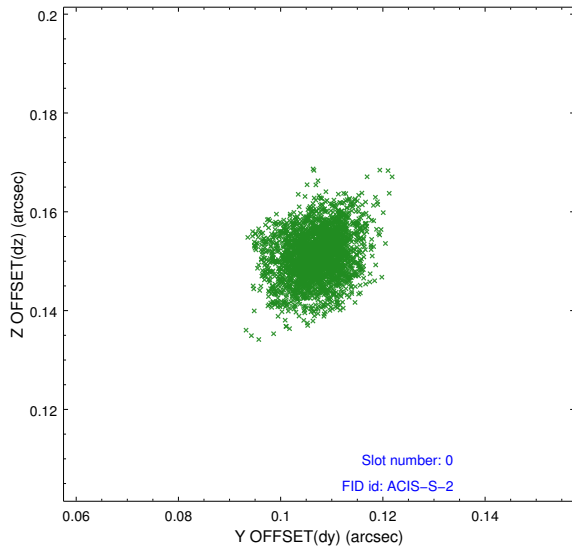


## 2.4.5 Slot 7

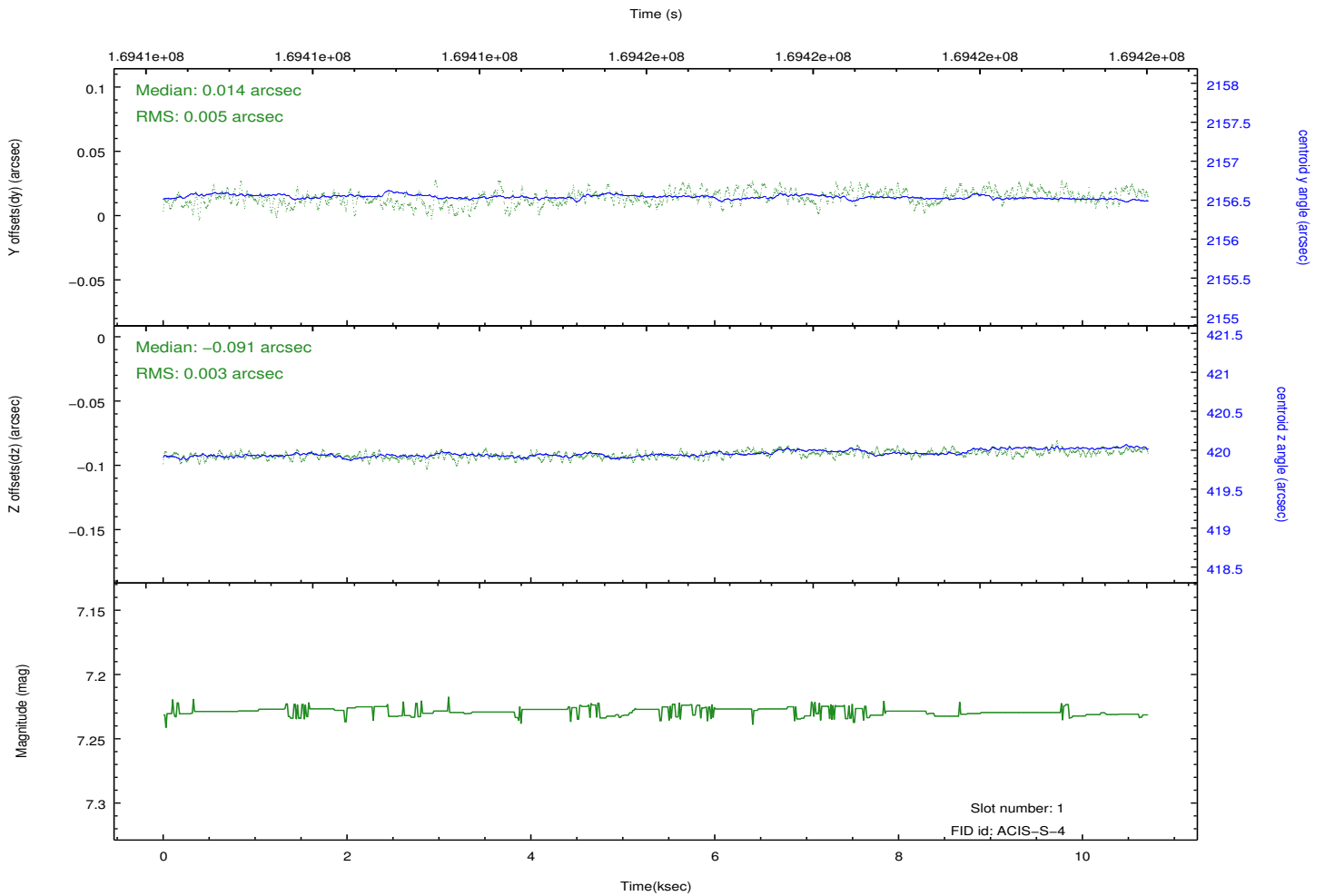
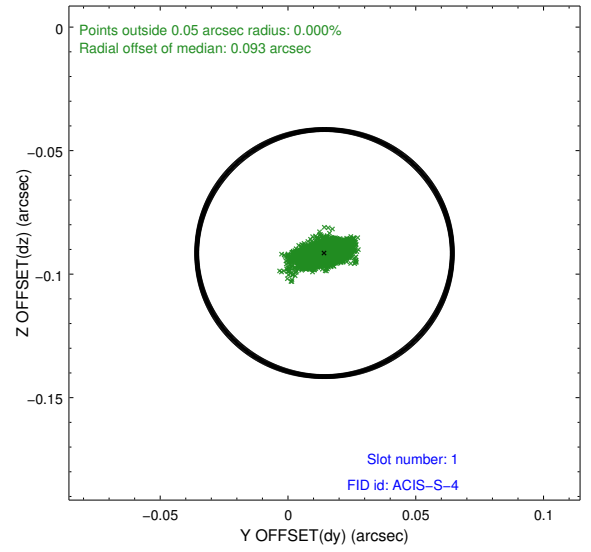
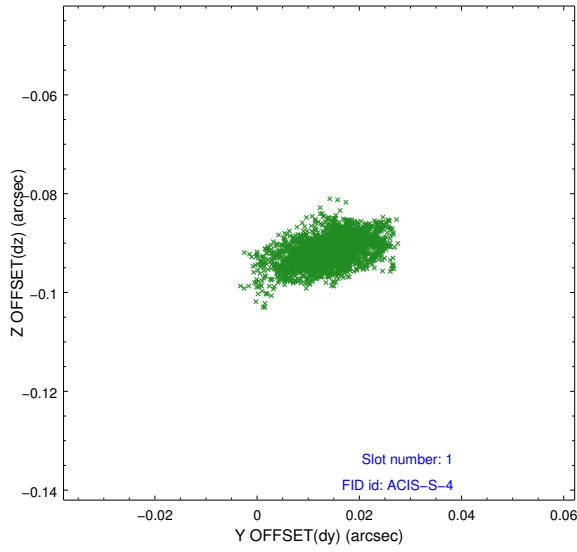


## 2.5 FID Slots

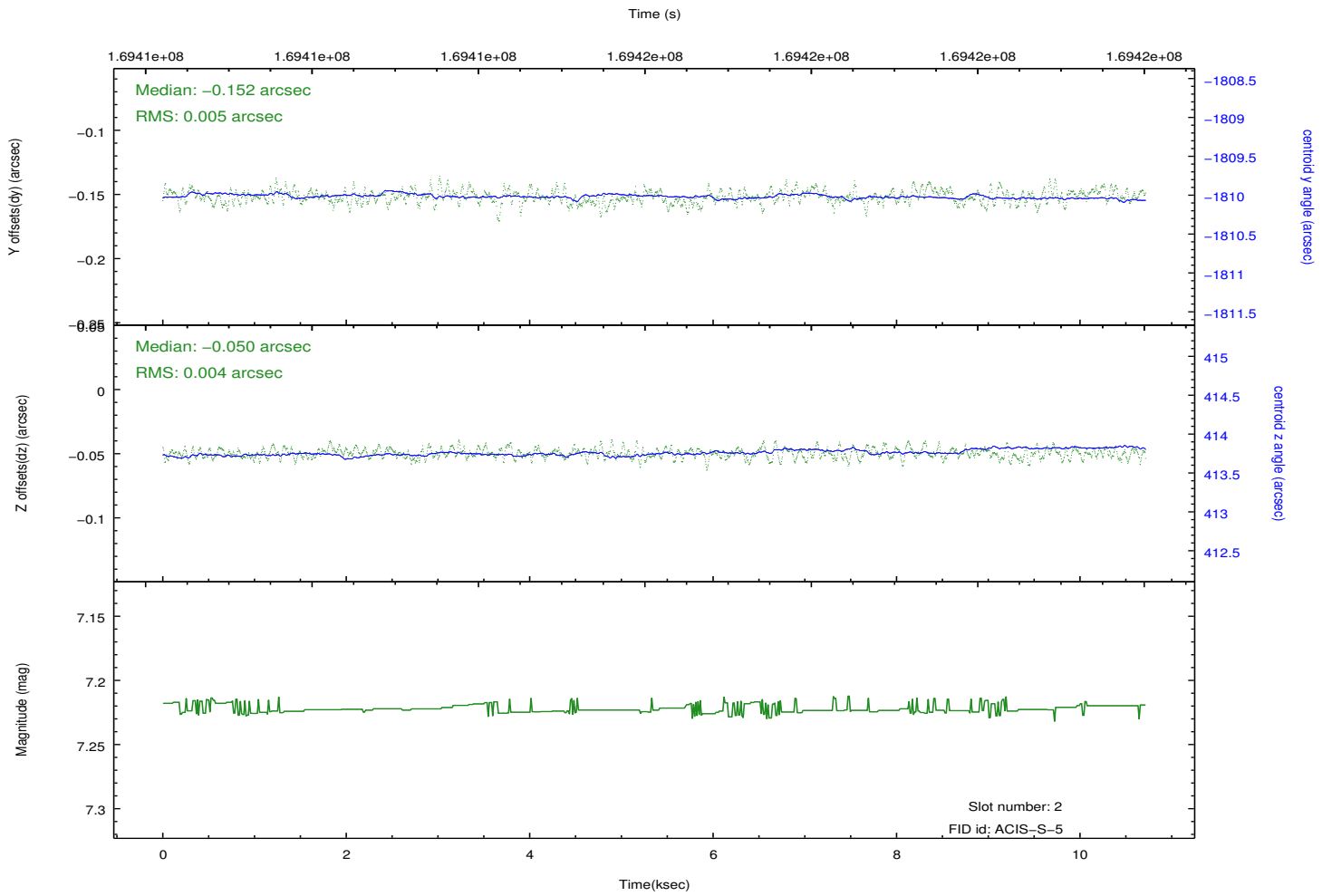
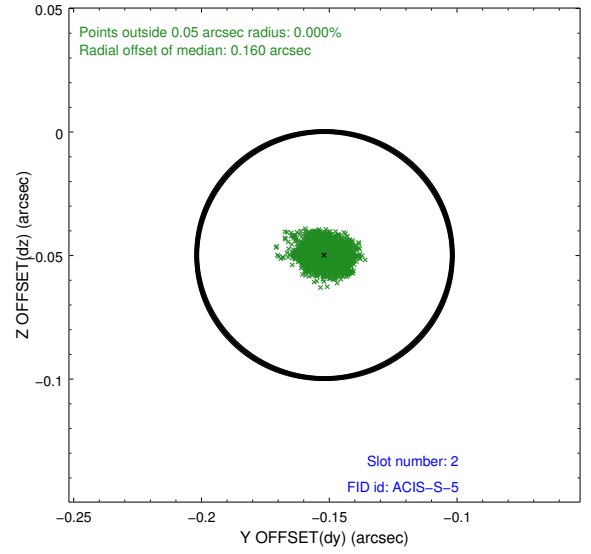
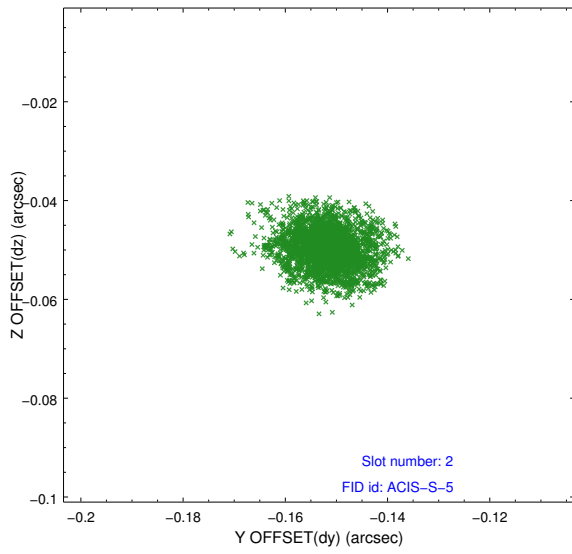
### 2.5.1 Slot 0



## 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	9.48

## A.2 Comments

Window constraint met.