

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11029 - L2 Version 2  
Chandra X-Ray Center

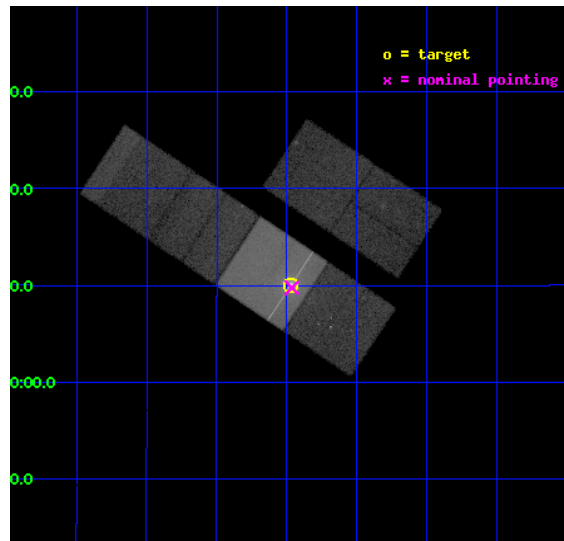
L2 Processing Date : Jun 12 2012

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# 1 Front

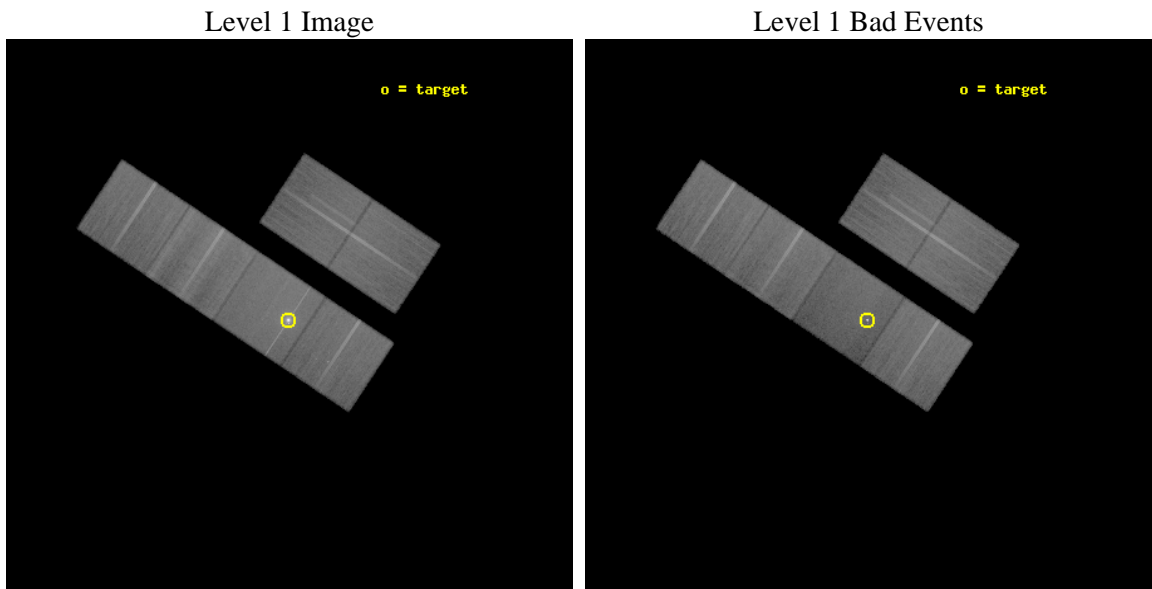
seq_num	300269	Sequence number
obs_id	11029	Observation id
title	Deep X-ray observations of the Globular Cluster M15: A complete census of the interacting binary population	Proposal title
observer	Dr. Andrea Dieball	Principal investigator
object	M15	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	322.492917	Observer's specified target RA [deg]
dec_targ	12.166944	Observer's specified target Dec [deg]
ra_nom	322.49084454531	Nominal RA [deg]
dec_nom	12.162537377418	Nominal Dec [deg]
roll_nom	213.6570778099	Nominal Roll [deg]
revision	2	Processing version of data
ontime	34620.799871087	Sum of GTIs [s]
livetime	34182.410456976	Livetime [s]
ontime2	34617.558840811	Sum of GTIs [s]
ontime3	34620.799871087	Sum of GTIs [s]
ontime6	34620.799871087	Sum of GTIs [s]
ontime7	34620.799871087	Sum of GTIs [s]
ontime8	34620.799871087	Sum of GTIs [s]
ontime9	34620.799871087	Sum of GTIs [s]
l2events	356824	Number of level 2 events



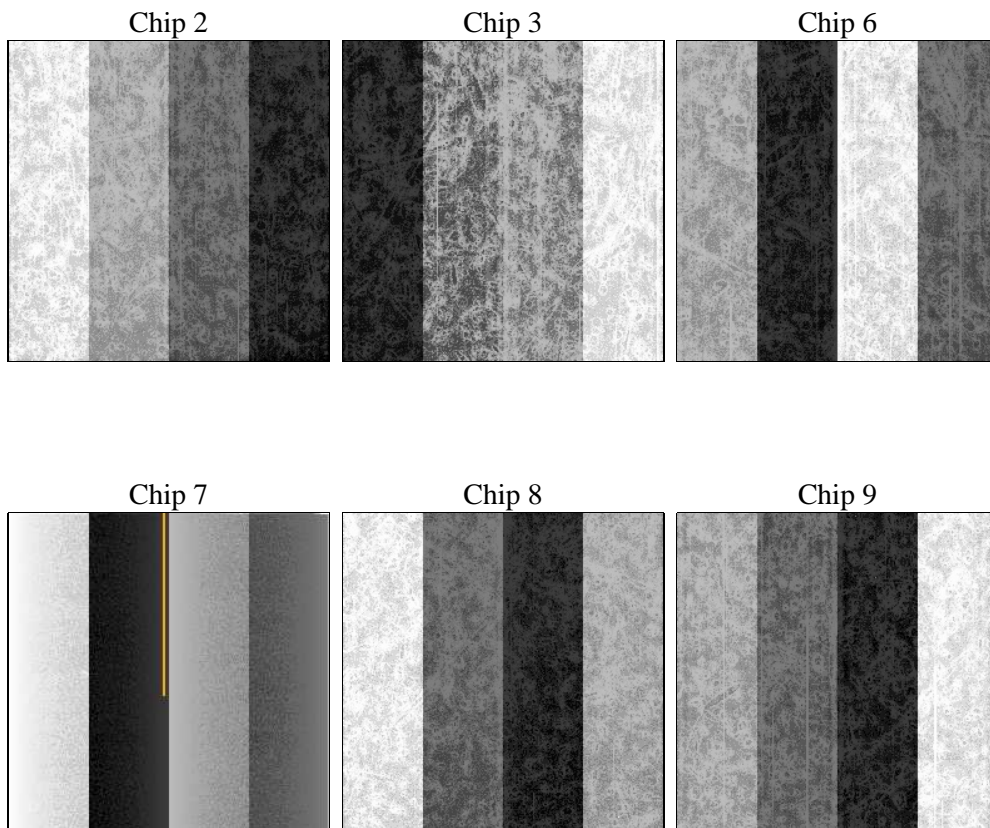
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34788.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	34620.799871087	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime2	34617.558840811	Sum of GTIs [s]
date	2012-06-12T14:39:18	Date and time of file creation	ontime3	34620.799871087	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	34620.799871087	Sum of GTIs [s]
			ontime7	34620.799871087	Sum of GTIs [s]
			ontime8	34620.799871087	Sum of GTIs [s]
			ontime9	34620.799871087	Sum of GTIs [s]
			l1events	2020691	Number of level 1 events

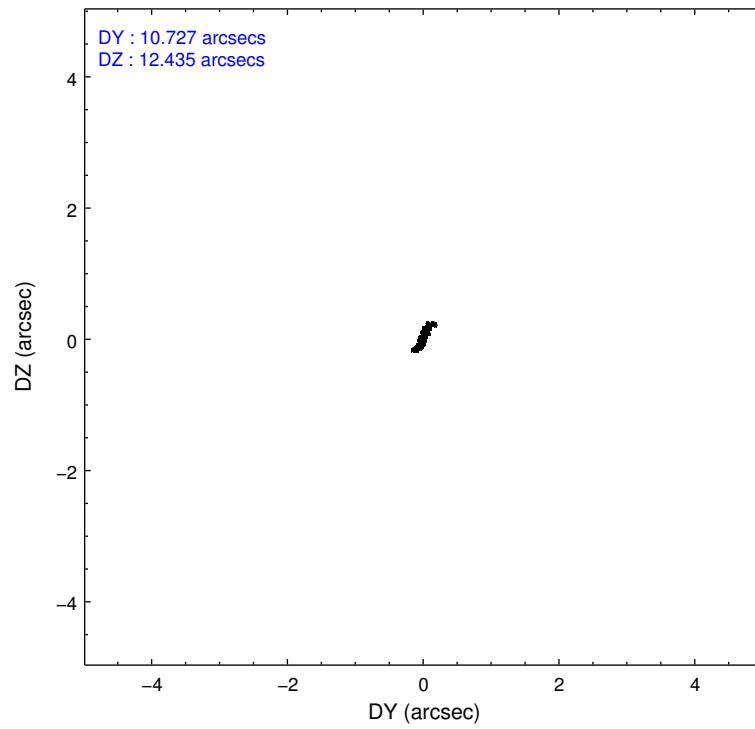
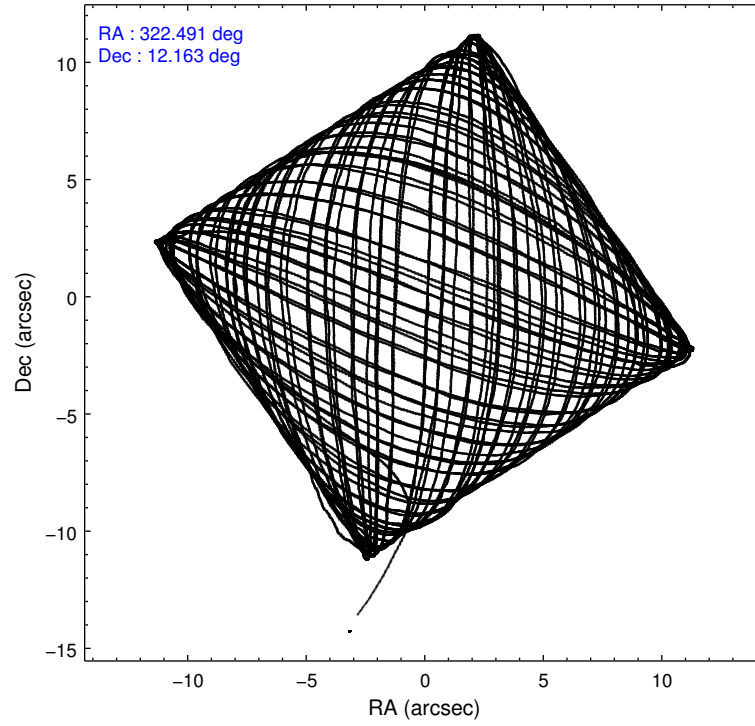
### 2.1.4 Events

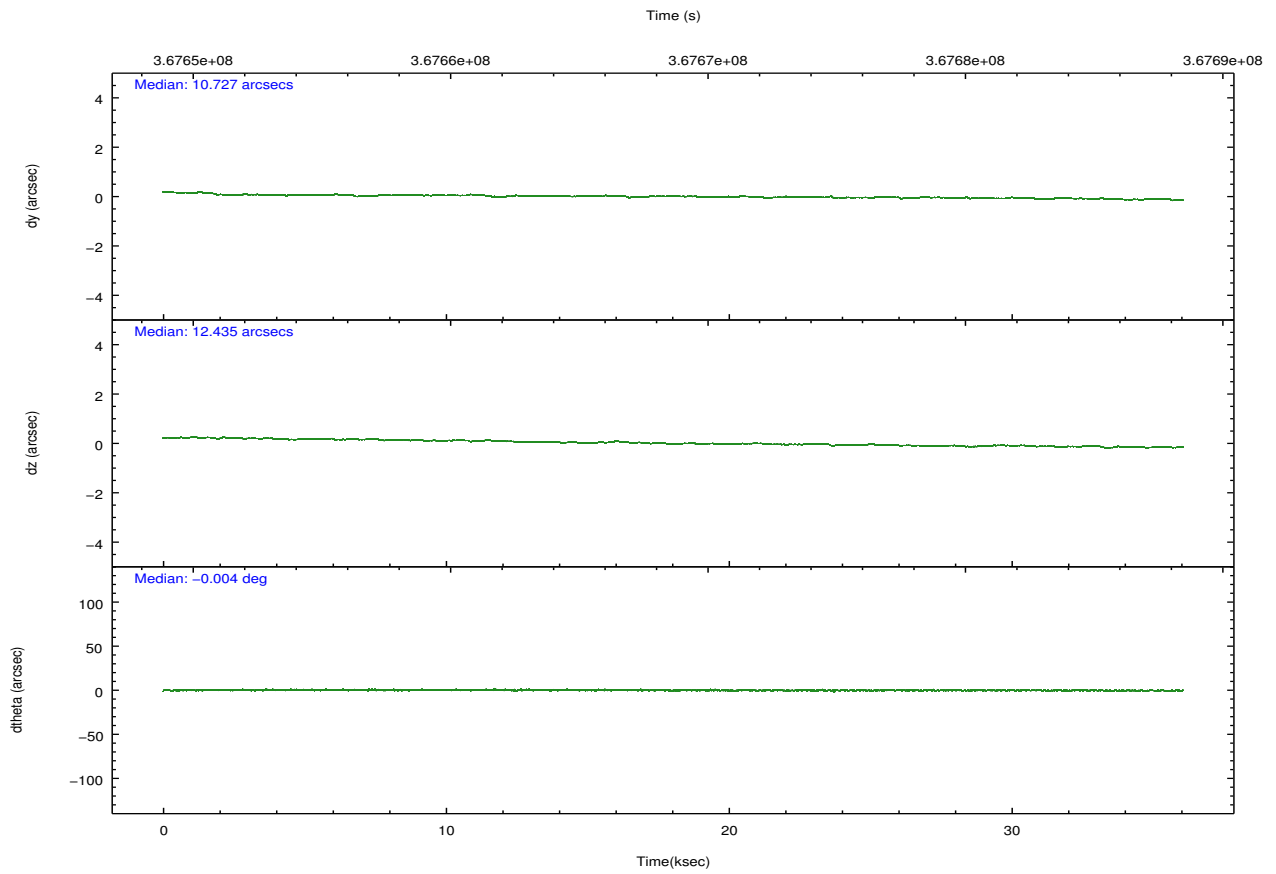
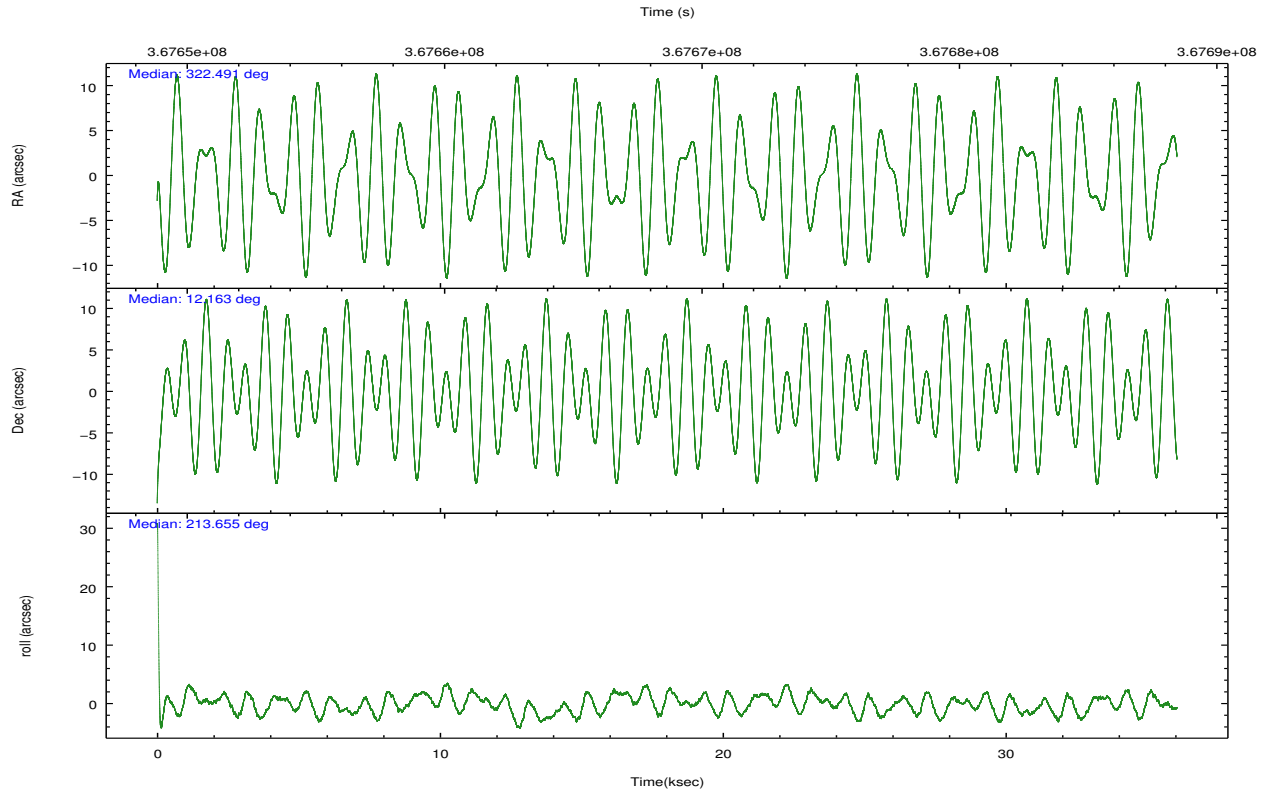
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9		ccd 2	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	303836	294742	311162	415850	381247	313854	grade 0 events	10813	10425	13634	27882	27954	12679
rejected events	274141	266079	275855	196320	283906	279441		3%	3%	4%	6%	7%	4%
rejected %	90%	90%	88%	47%	74%	89%	grade 1 events	174	184	180	1167	341	182
								0%	0%	0%	0%	0%	0%
							grade 2 events	7092	6078	7595	48067	22738	7433
								2%	2%	2%	11%	5%	2%
							grade 3 events	3119	3229	3524	20833	10474	3574
								1%	1%	1%	5%	2%	1%
							grade 4 events	3222	3164	3385	20621	9622	3461
								1%	1%	1%	4%	2%	1%
							grade 5 events	9878	12402	12610	38400	18080	14251
								3%	4%	4%	9%	4%	4%
							grade 6 events	5453	5774	7175	102172	26559	7272
								1%	1%	2%	24%	6%	2%
							grade 7 events	264085	253486	263059	156708	265479	265002
								86%	86%	84%	37%	69%	84%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-236789	ACIS-236789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	322.502918	322.4908445453118	CCD I2 on	O4	Y
[deg] Pointing Dec	12.187208	12.16253737741838	CCD I3 on	O3	Y
[deg] Pointing Roll	213.497894	213.6570778098996	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O1	Y
[s] Observation start time (MET)	367651873.184000	367649107.85572	CCD S5 on	O5	Y
Observation start date	2009-08-26T05:30:07	2009-08-26T04:45:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	367686661.184000	367687238.37013	On-chip summing requested	N	N
Observation end date	2009-08-26T15:09:55	2009-08-26T15:20:38	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



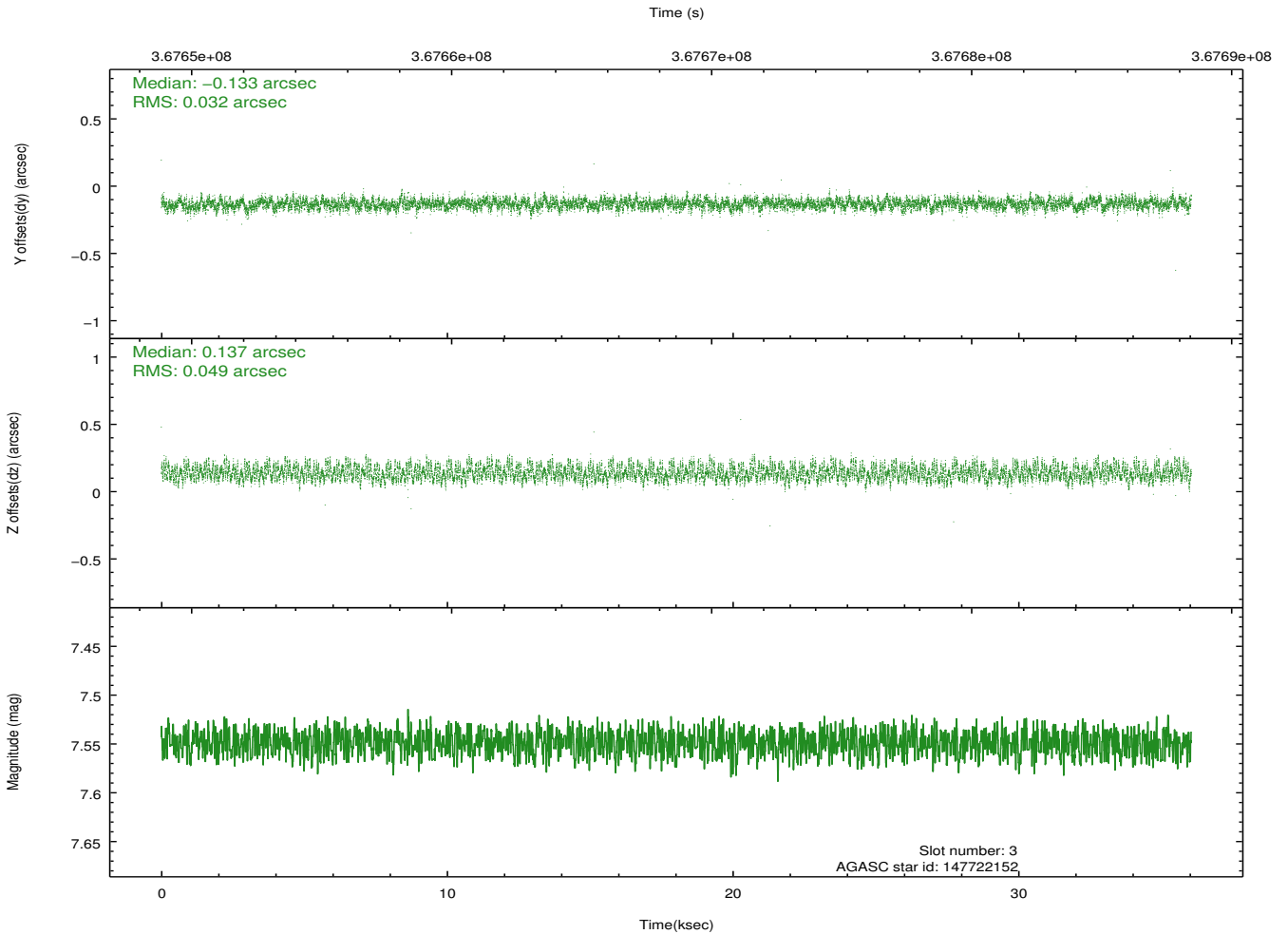
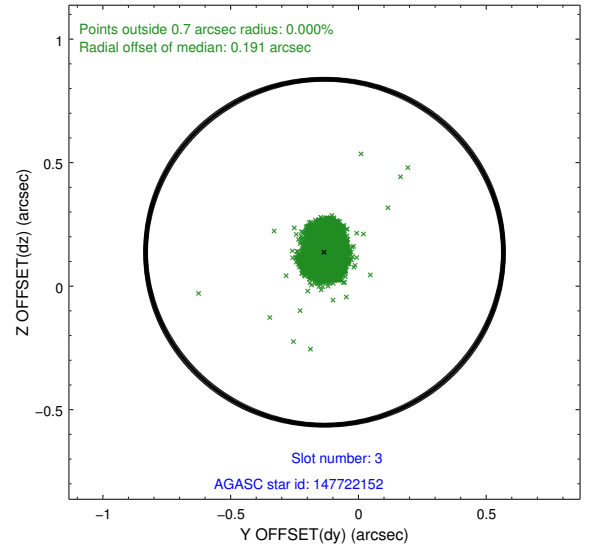
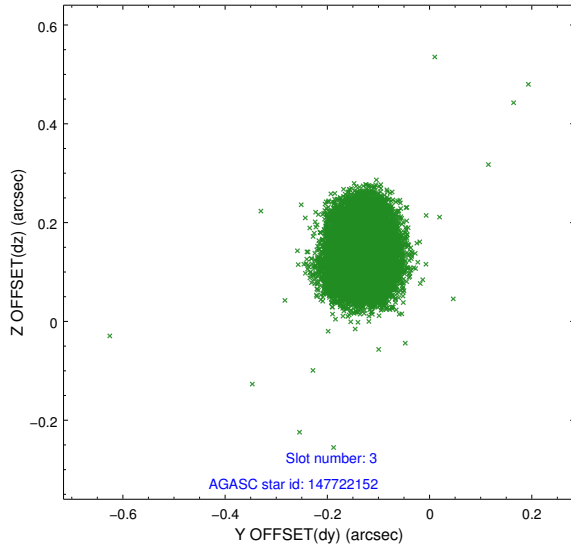


### Slot Statistics

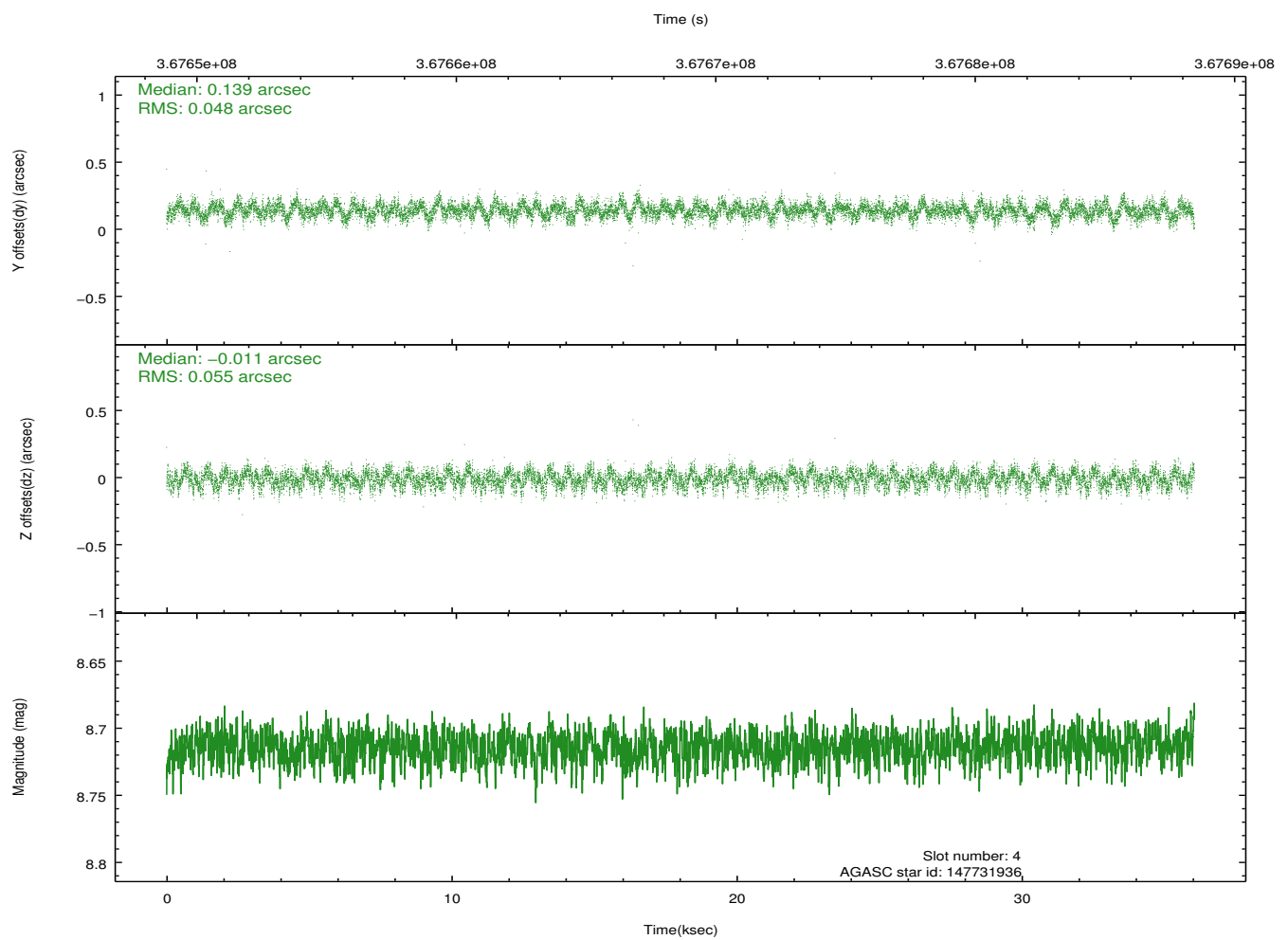
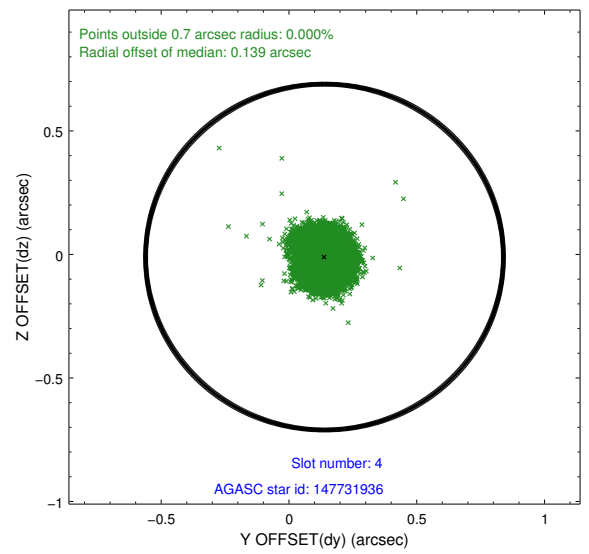
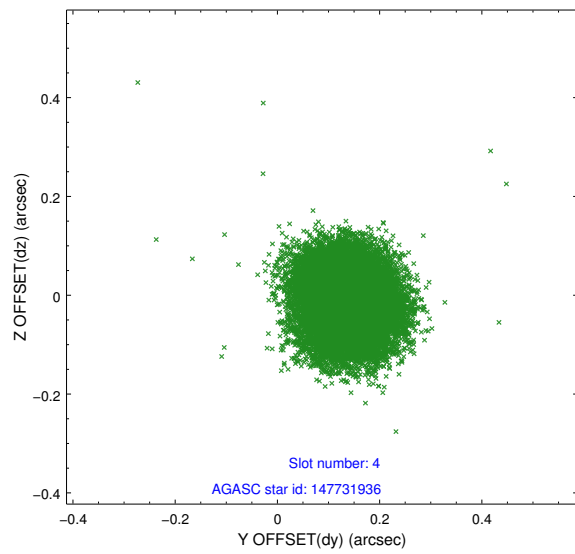
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	8792	-0.031	-0.026	0.009	0.014	0.000000	0.000000	-763.62	-1733.79
1	FID	ACIS-S-4	7.01	8793	0.128	0.022	0.010	0.017	0.000000	0.000000	2149.81	174.68
2	FID	ACIS-S-5	7.04	8791	-0.128	0.013	0.009	0.015	0.000000	0.000000	-1816.50	168.42
3	GUIDE	147722152	7.55	17580	-0.133	0.137	0.062	0.098	322.735072	12.555367	-1411.65	-654.96
4	GUIDE	147731936	8.71	17567	0.139	-0.011	0.079	0.124	322.421133	12.450297	-282.47	-948.31
5	GUIDE	147733944	9.42	17571	0.126	0.027	0.115	0.185	322.398395	12.904544	-1118.64	-2355.68
6	GUIDE	147735328	8.66	17576	-0.028	0.055	0.068	0.109	321.823462	12.214663	1937.80	-1404.11
7	GUIDE	147735992	6.96	17586	-0.104	-0.203	0.075	0.113	322.299566	11.952911	1062.88	308.69

## 2.4 Star Slots

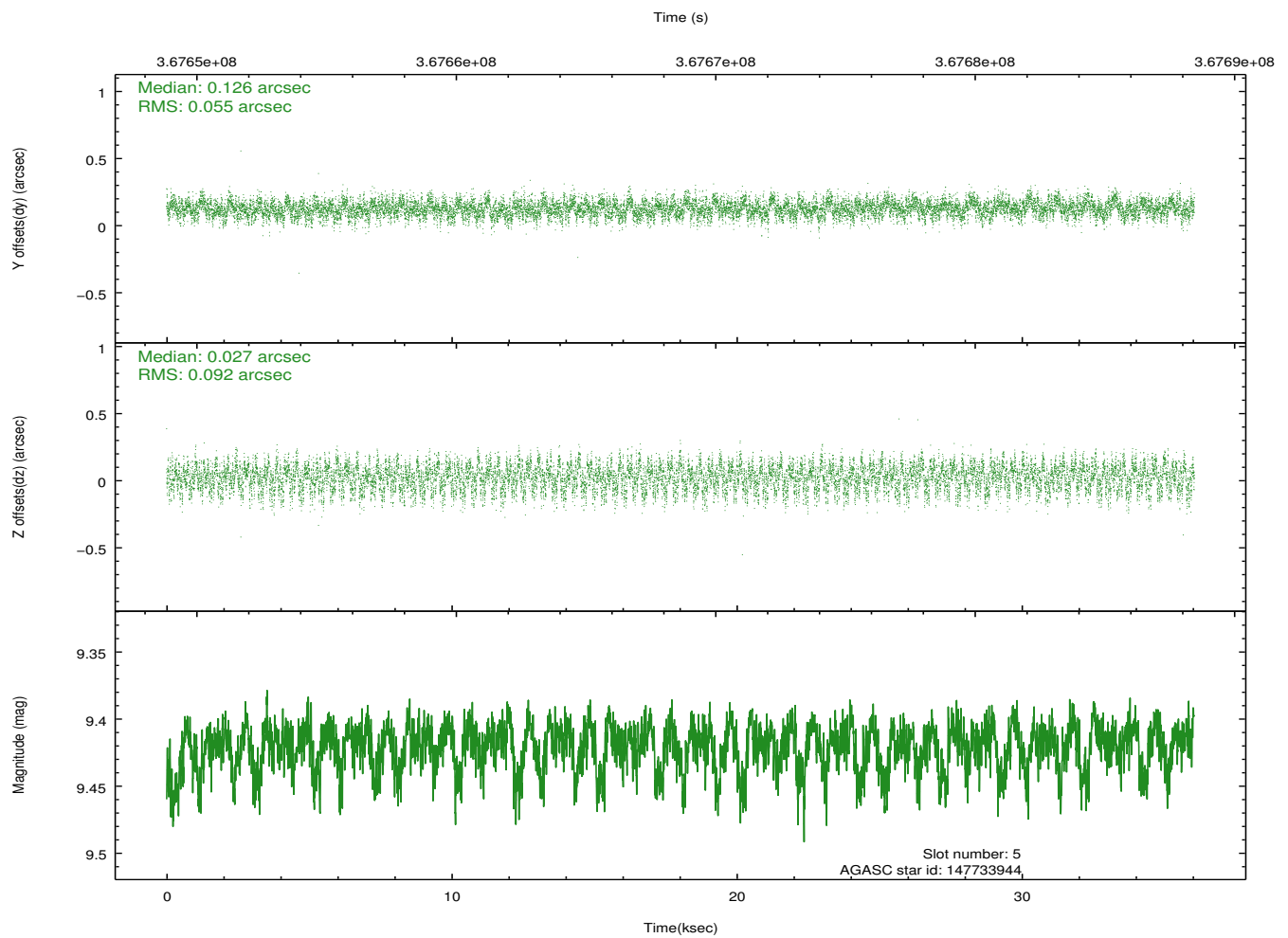
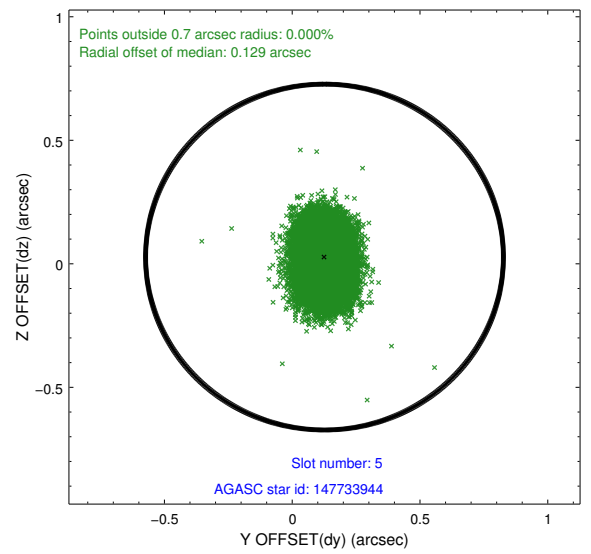
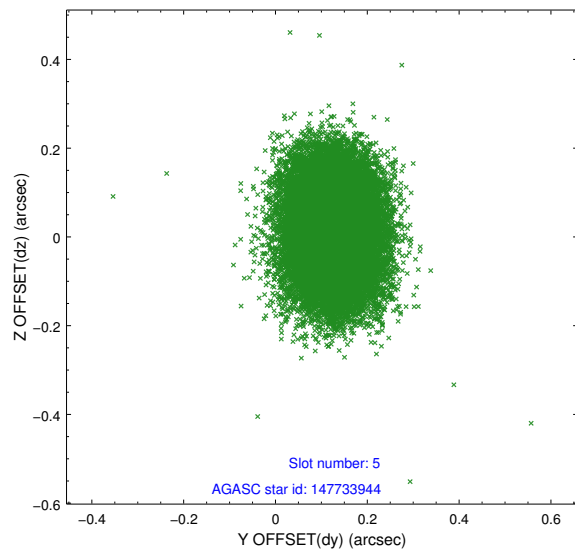
### 2.4.1 Slot 3



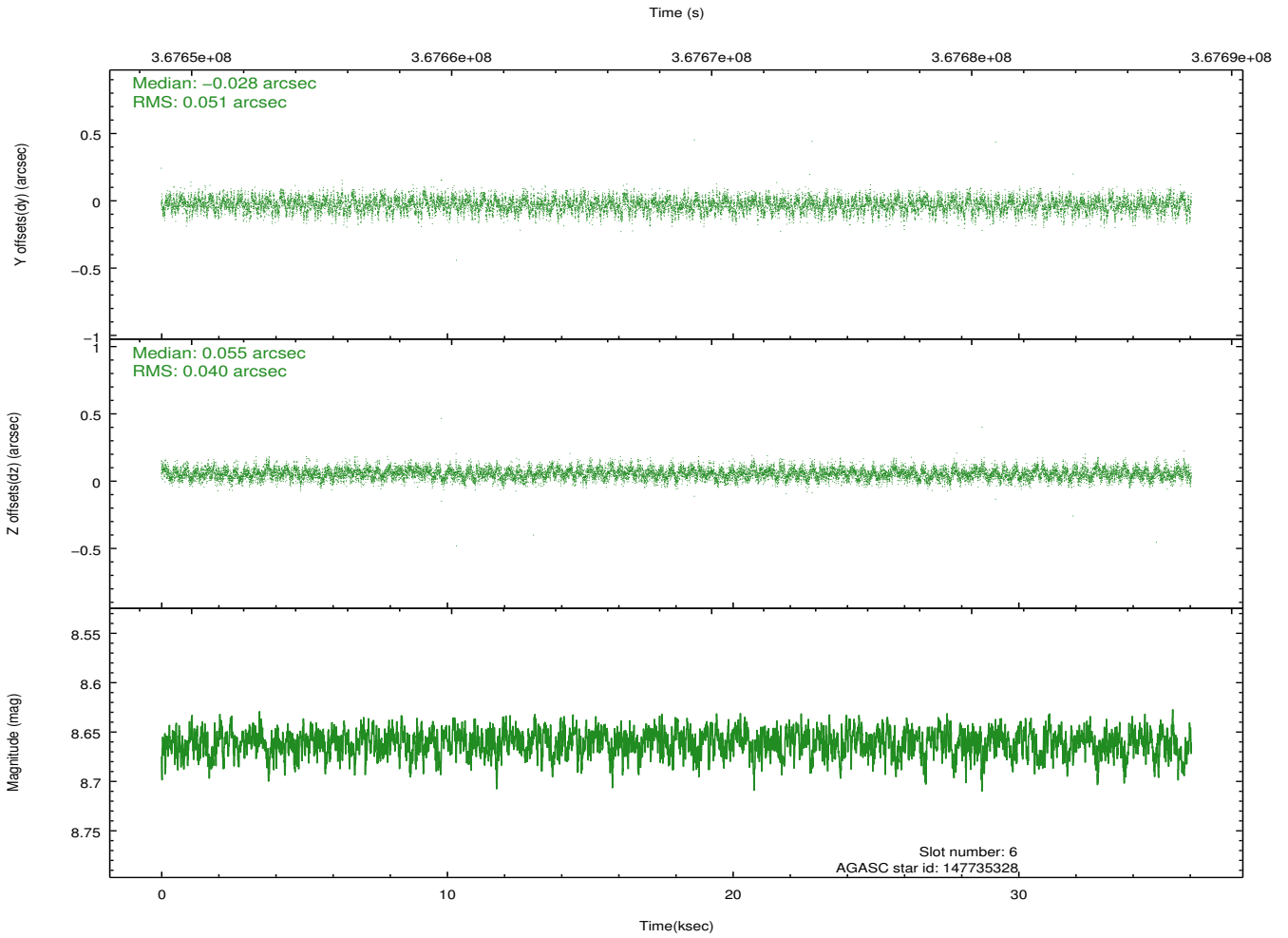
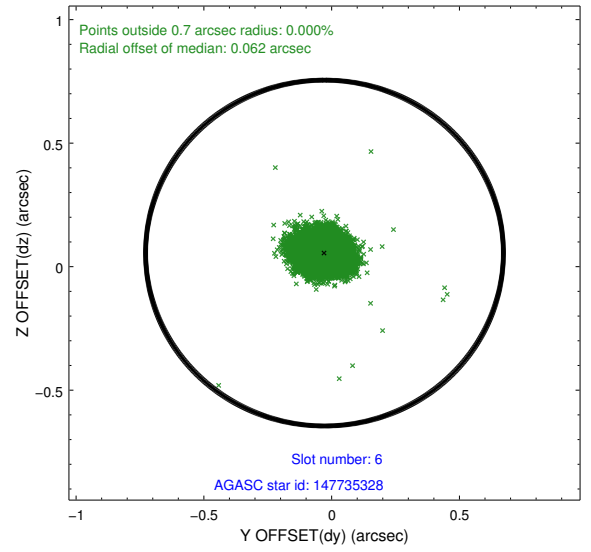
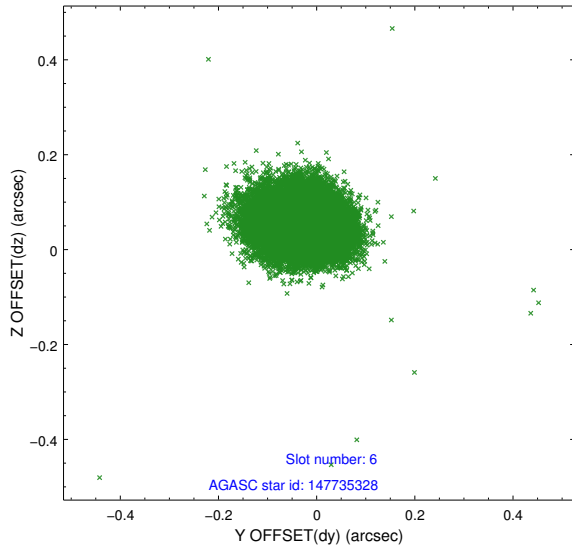
## 2.4.2 Slot 4



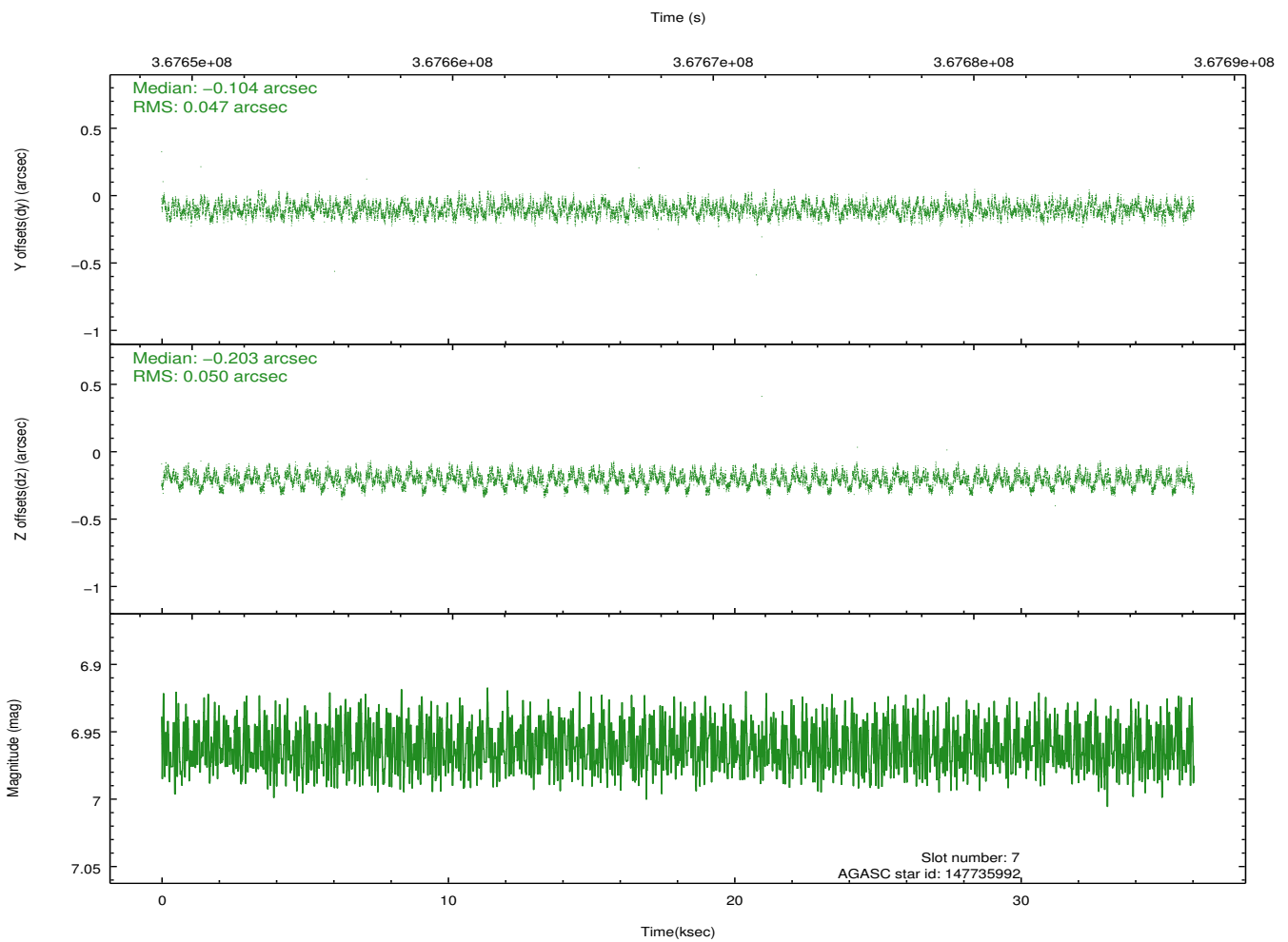
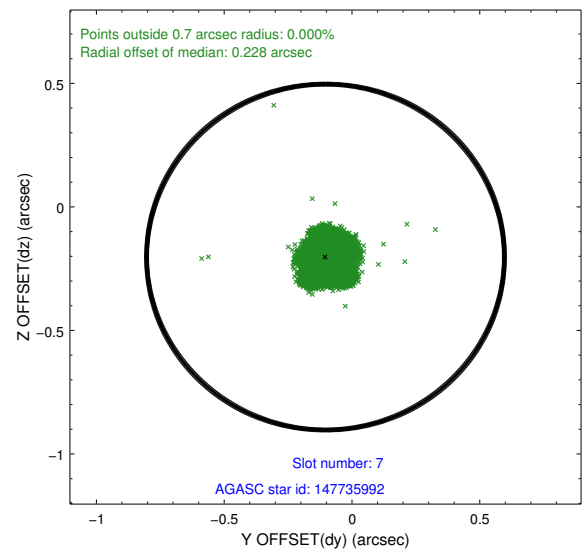
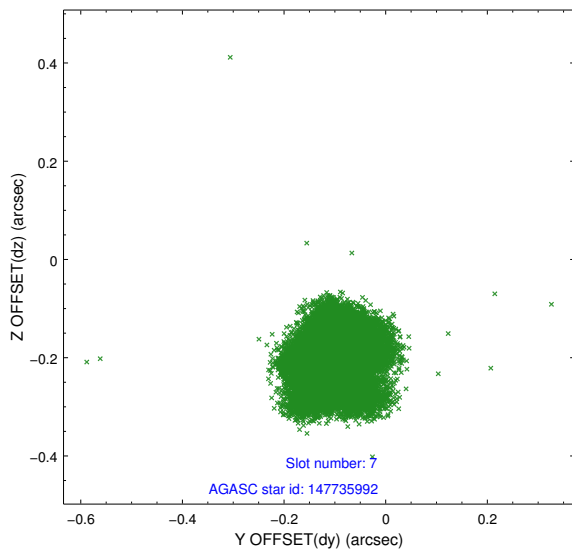
### 2.4.3 Slot 5



### 2.4.4 Slot 6

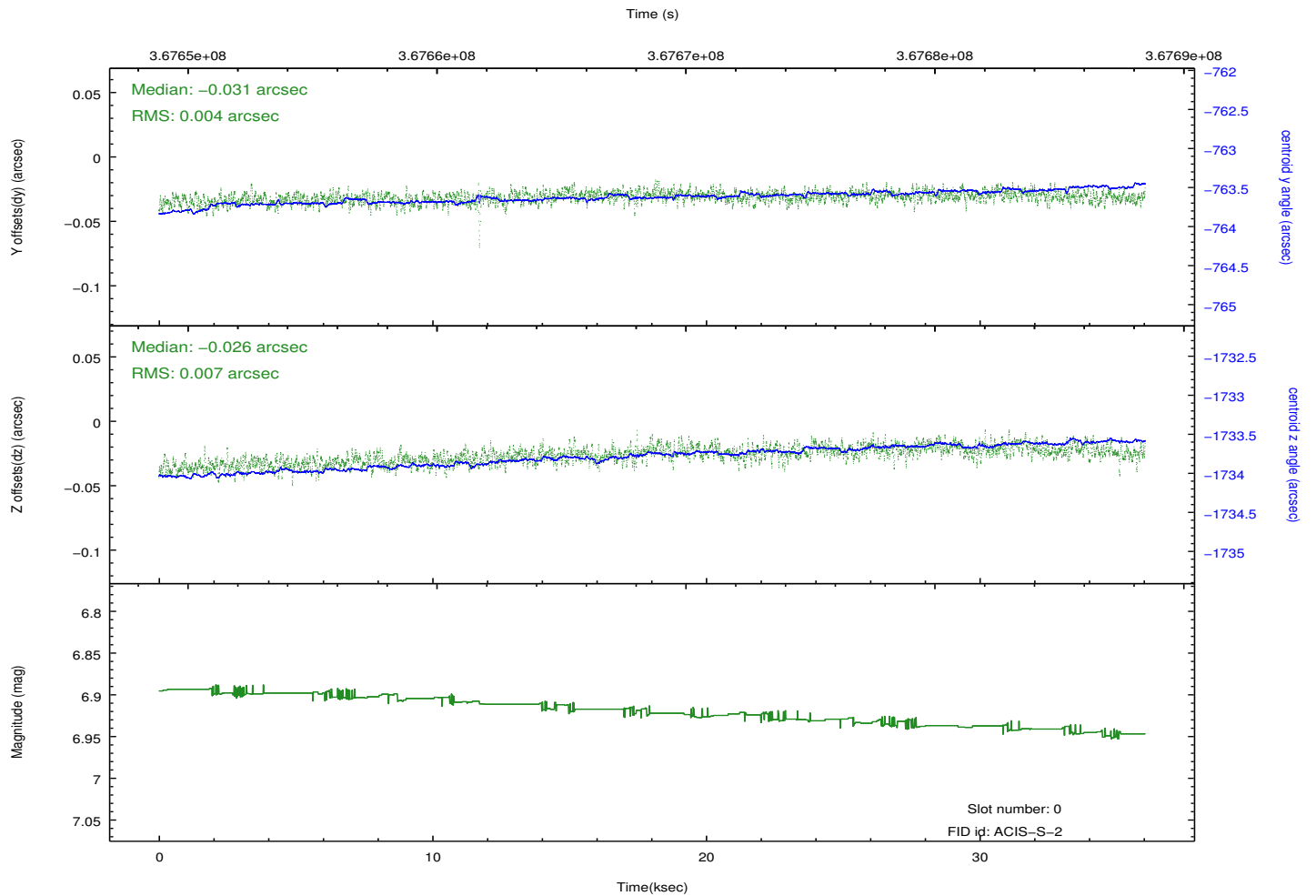
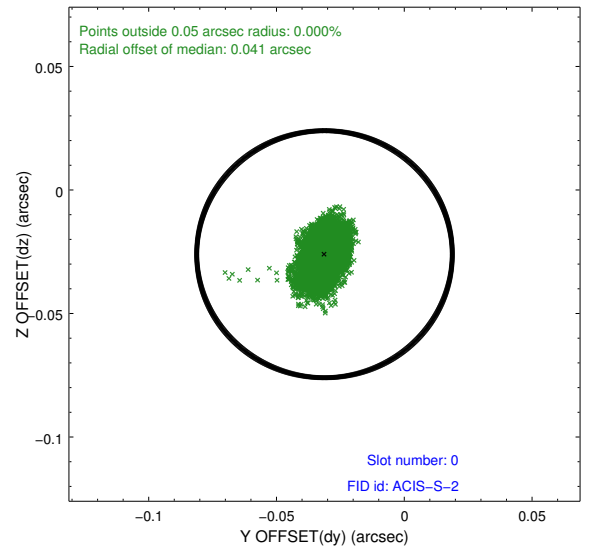
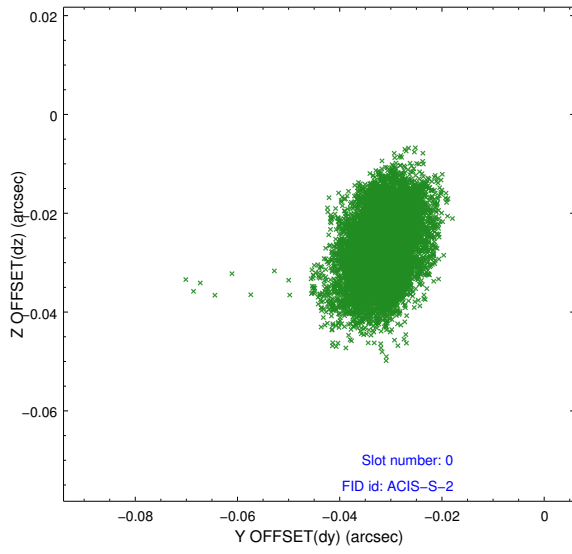


## 2.4.5 Slot 7

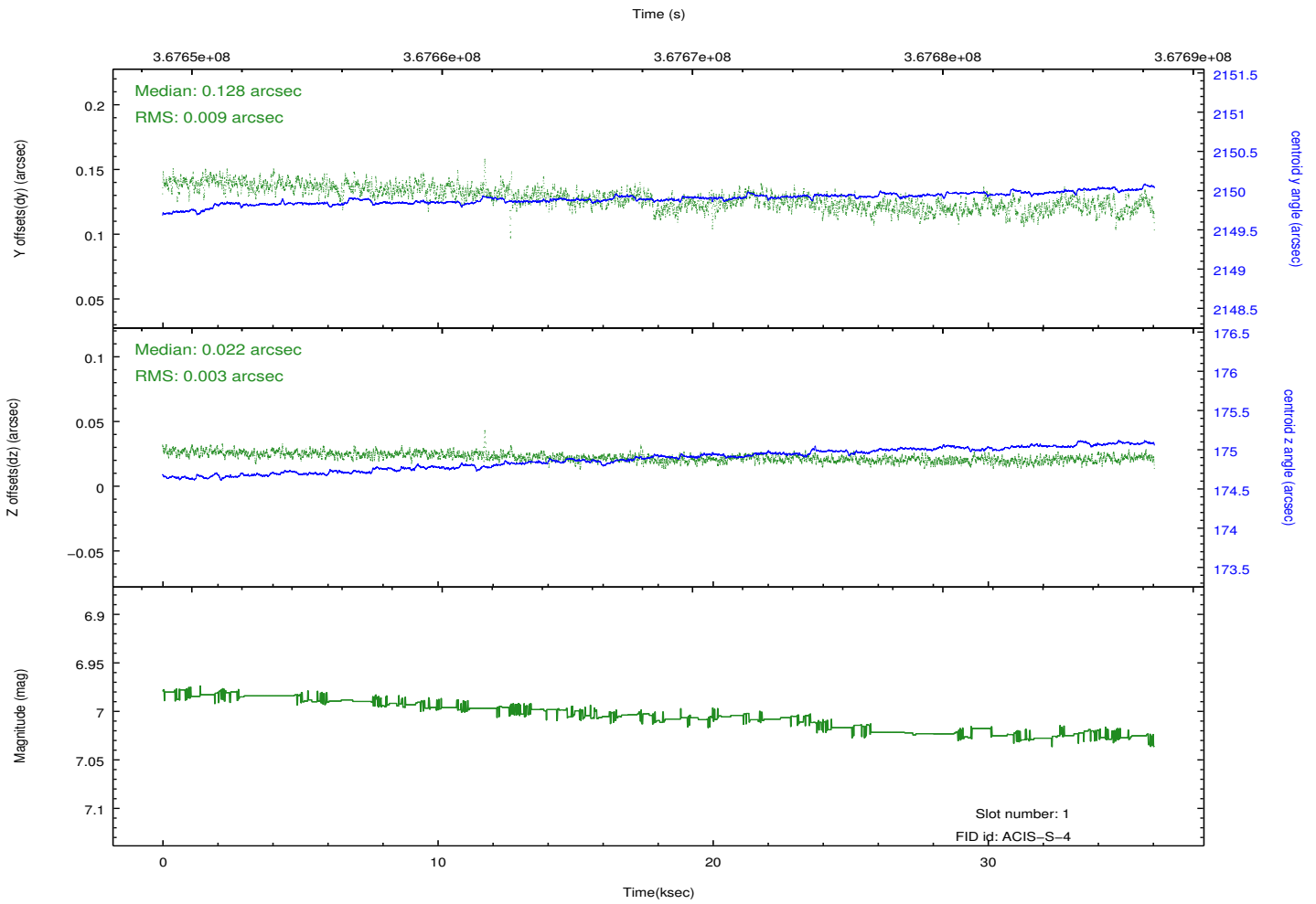
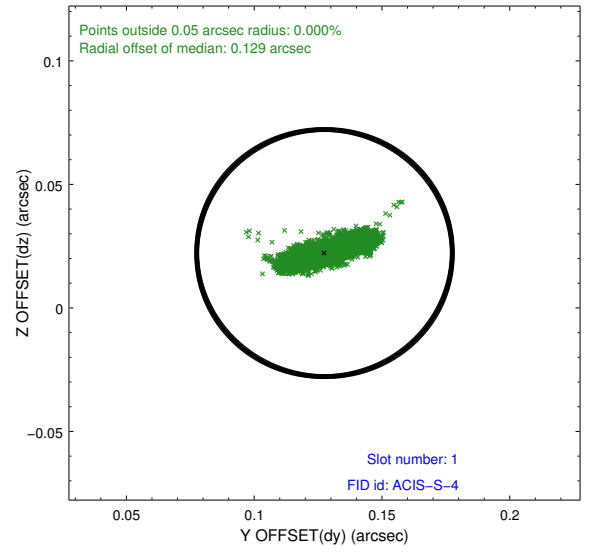
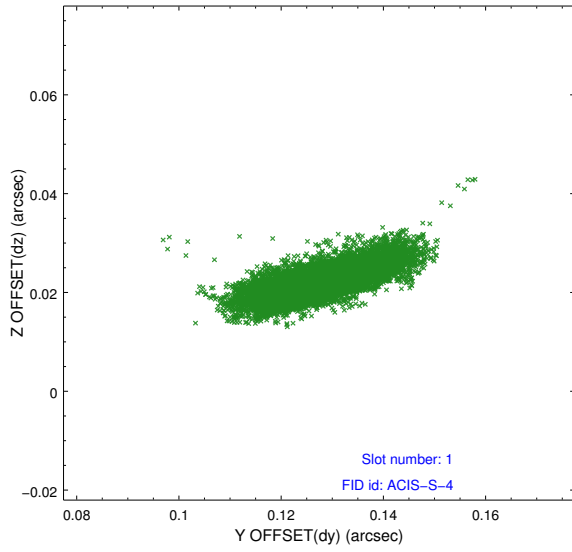


## 2.5 FID Slots

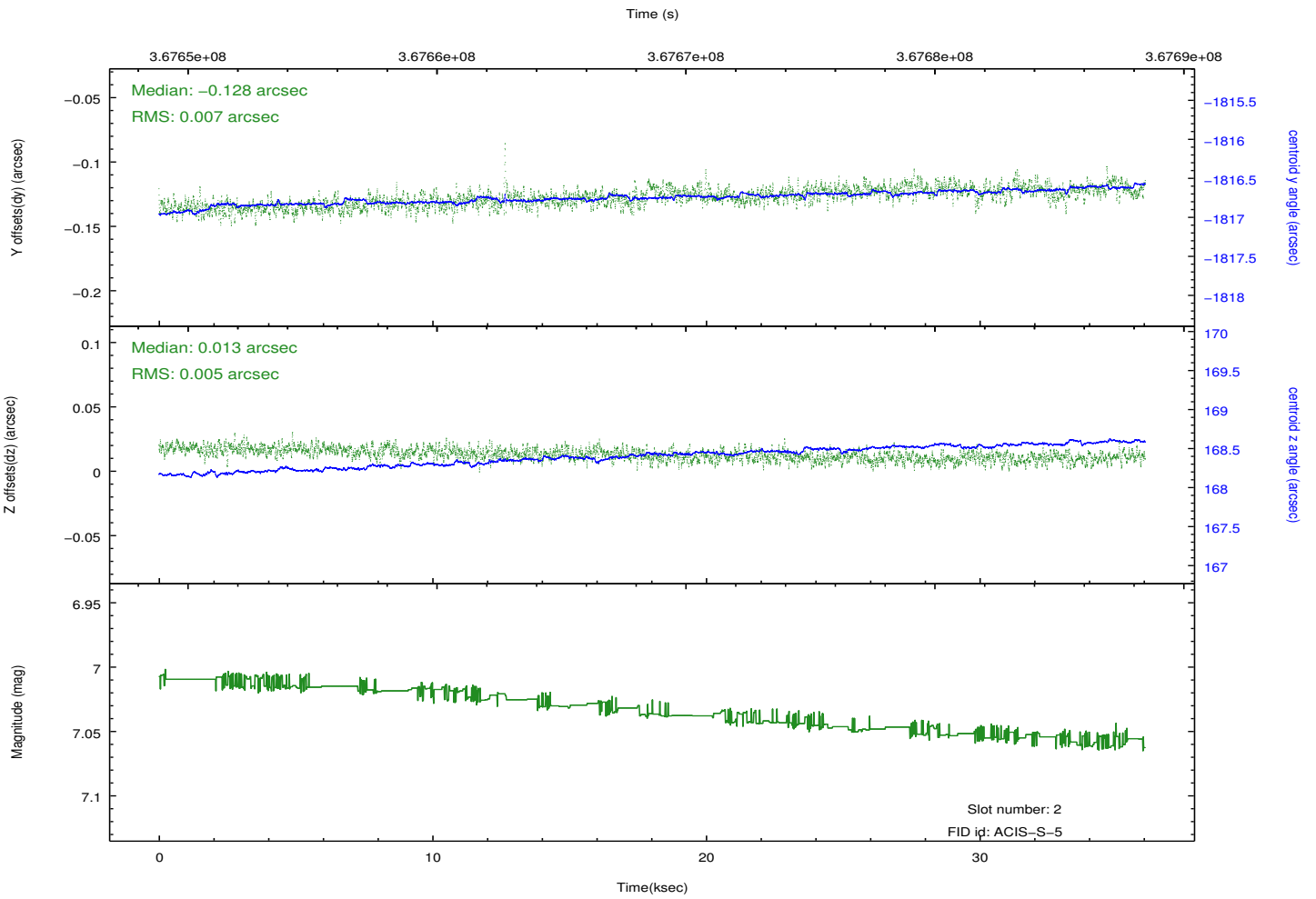
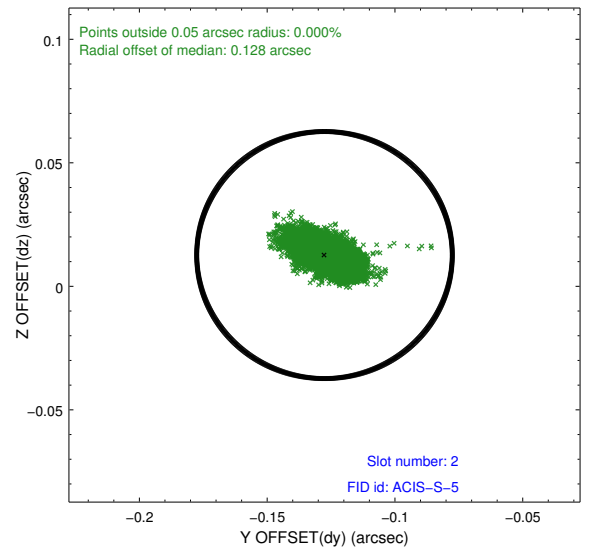
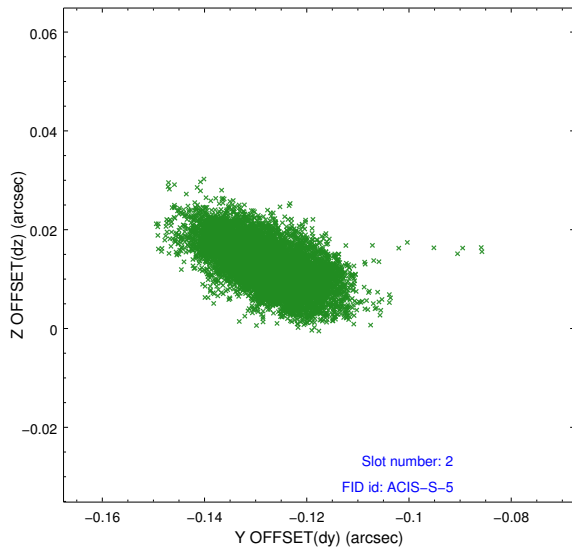
### 2.5.1 Slot 0



## 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)	2012.06.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.620799871087

### **A.2 Comments**