

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11886 - L2 Version 2  
Chandra X-Ray Center

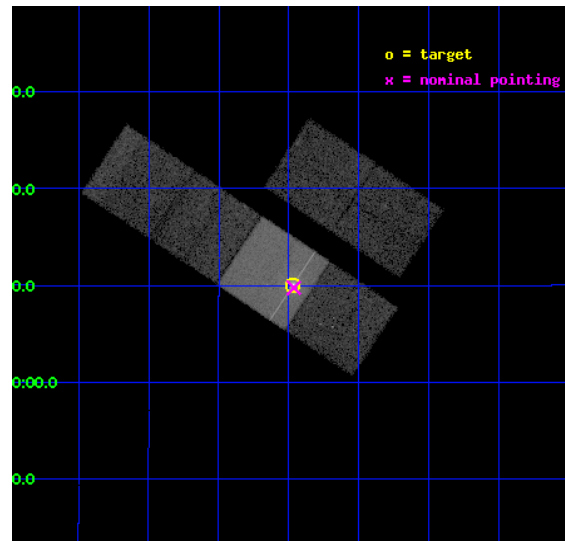
L2 Processing Date : Jun 12 2012

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# 1 Front

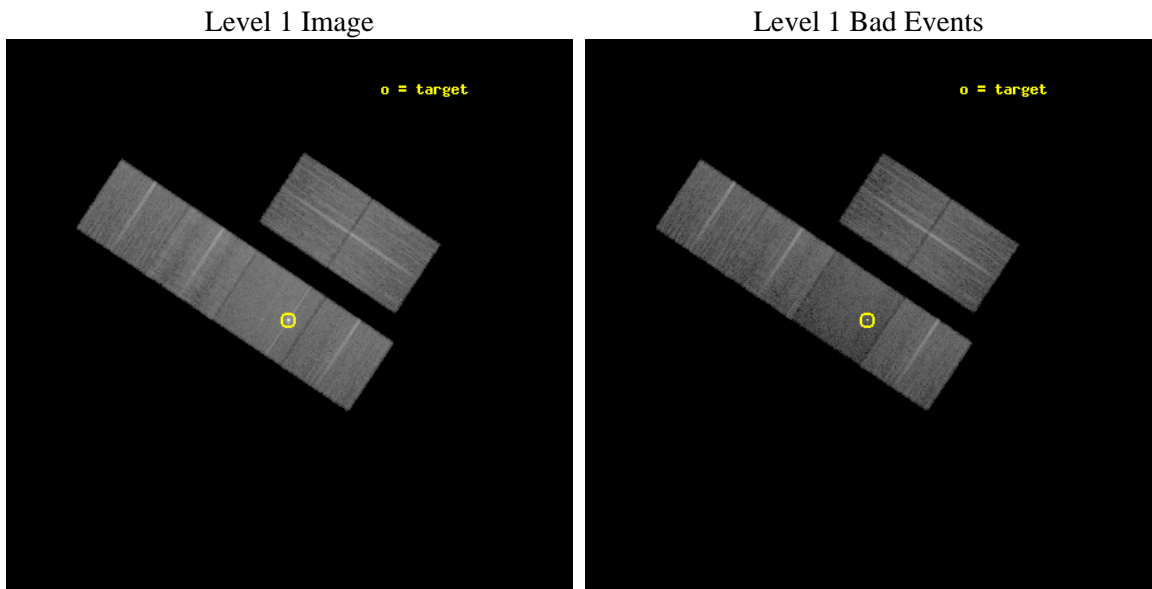
seq_num	300269	Sequence number
obs_id	11886	Observation id
title	Deep X-ray observations of the Globular Cluster M15: A complete census of the interacting binary population	Proposal title
observer	Dr. Andrea Dieball	Principal investigator
object	M15	Source name
dtcycle	0	&#160
cycle	P	events from which 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	322.49089409168	Nominal RA [deg]
dec_nom	12.162529151069	Nominal Dec [deg]
roll_nom	213.65703592937	Nominal Roll [deg]
revision	2	Processing version of data
ontime	13795.199948668	Sum of GTIs [s]
livetime	13620.516820446	Livetime [s]
ontime2	13795.199948668	Sum of GTIs [s]
ontime3	13795.199948668	Sum of GTIs [s]
ontime6	13795.199948668	Sum of GTIs [s]
ontime7	13795.199948668	Sum of GTIs [s]
ontime8	13795.199948668	Sum of GTIs [s]
ontime9	13795.199948668	Sum of GTIs [s]
l2events	136533	Number of level 2 events



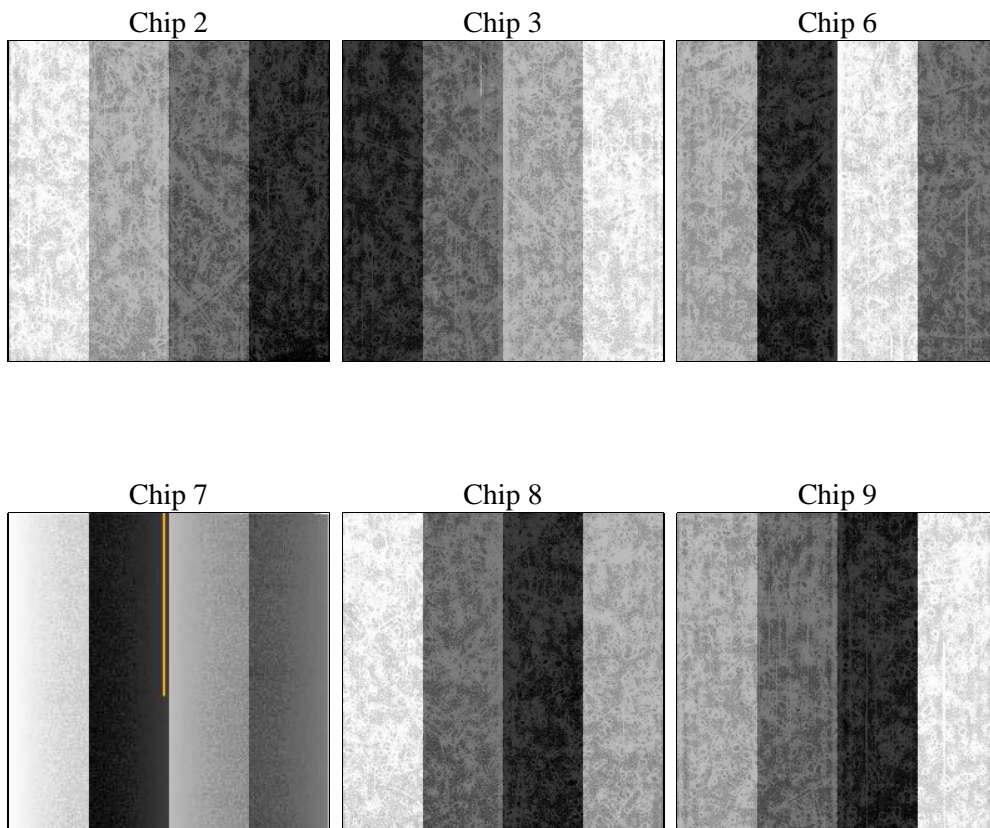
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	13754.433000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	13795.199948668	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime2	13795.199948668	Sum of GTIs [s]
date	2012-06-12T14:07:17	Date and time of file creation	ontime3	13795.199948668	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	13795.199948668	Sum of GTIs [s]
			ontime7	13795.199948668	Sum of GTIs [s]
			ontime8	13795.199948668	Sum of GTIs [s]
			ontime9	13795.199948668	Sum of GTIs [s]
			l1events	807092	Number of level 1 events

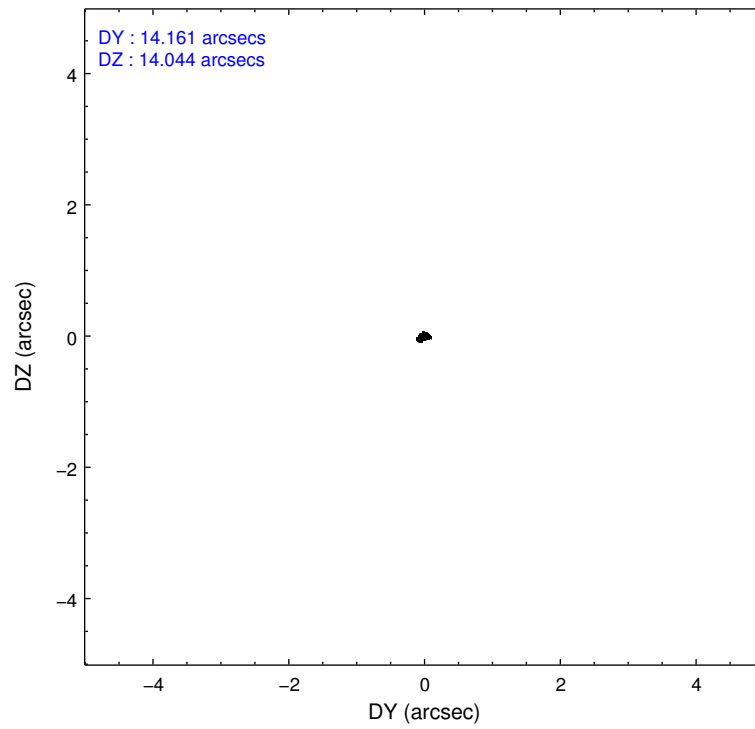
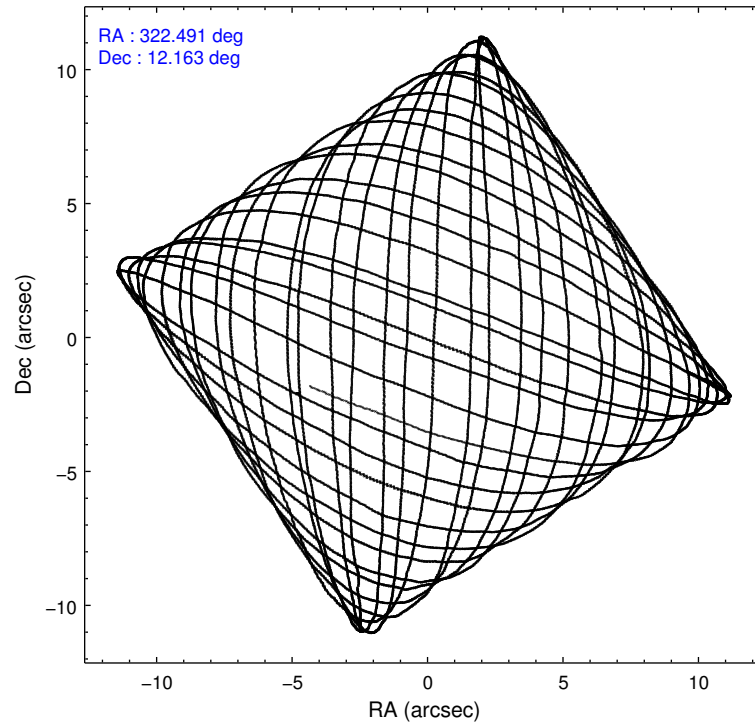
### 2.1.4 Events

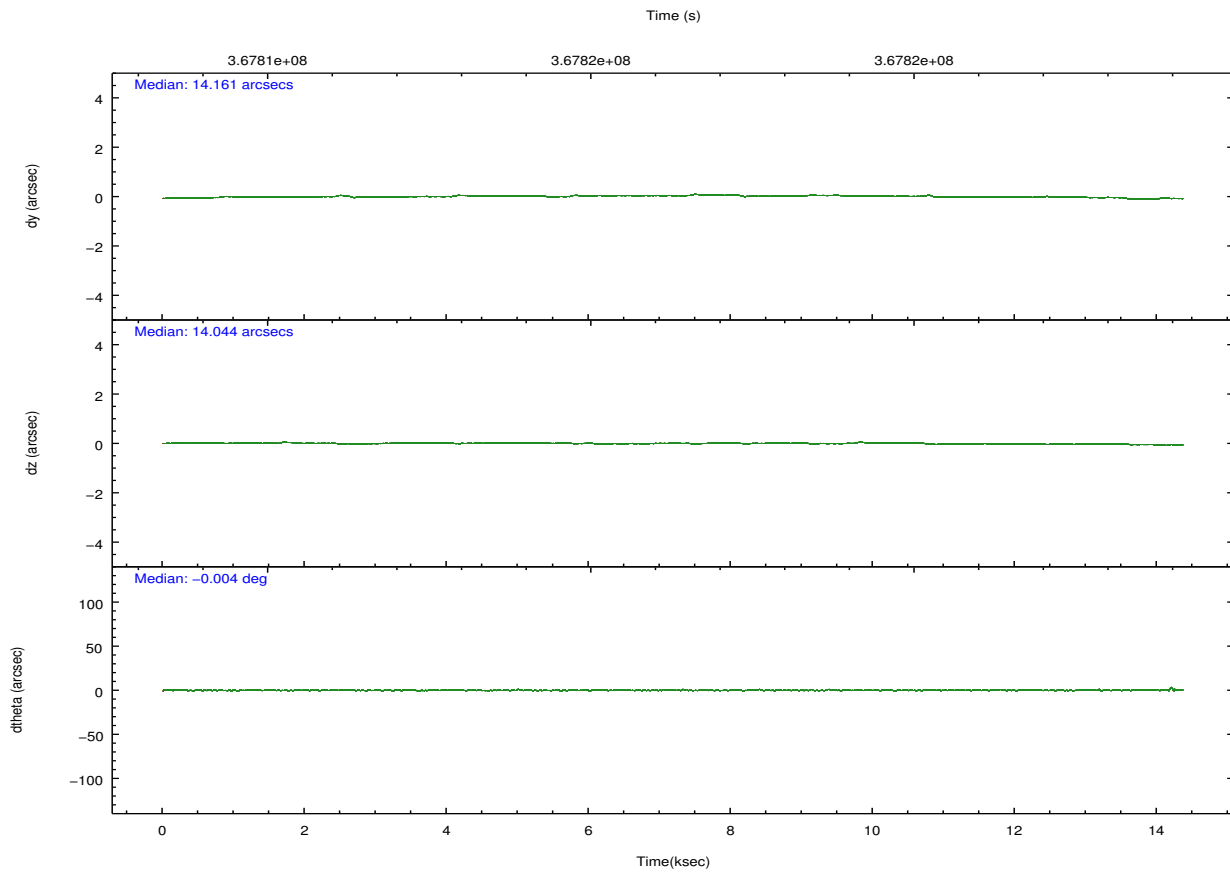
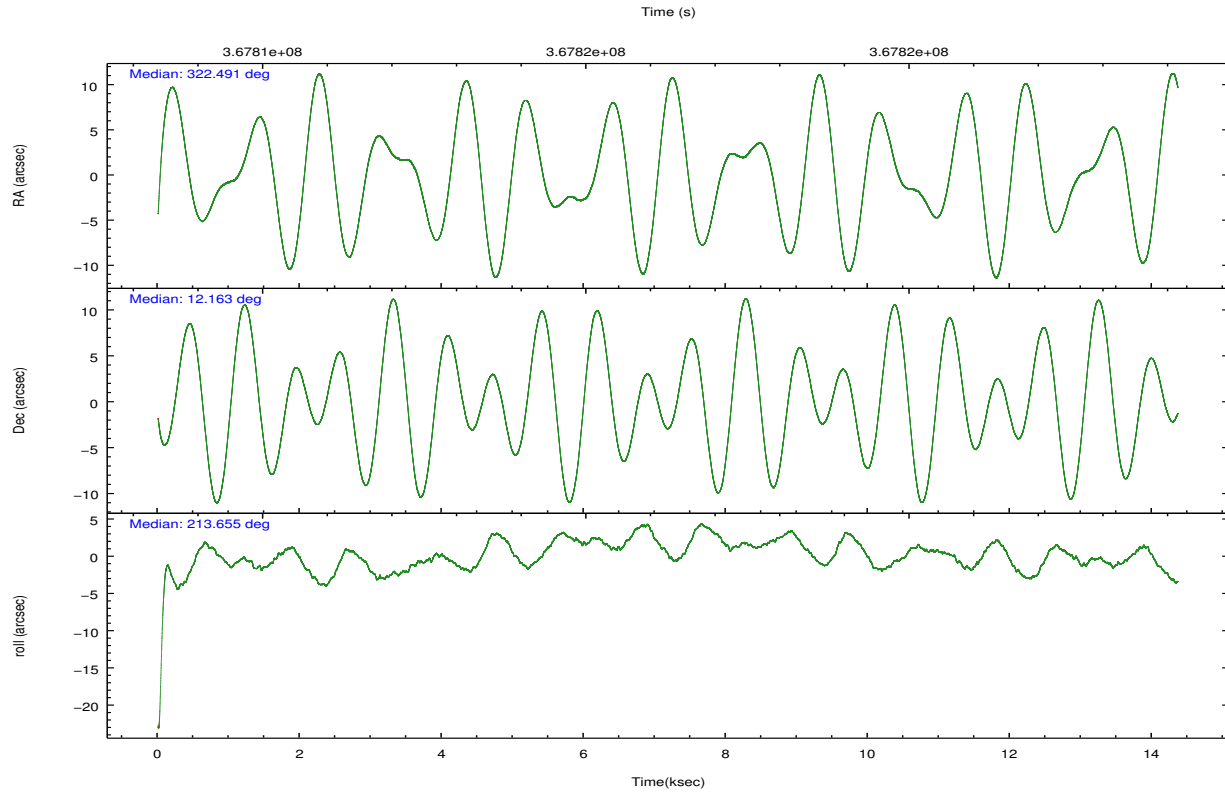
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9		ccd 2	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	126024	118037	125410	160887	152147	124587	grade 0 events	4252	4041	5214	9989	10840	4981
rejected events	114368	106636	111667	78321	114808	110966		3%	3%	4%	6%	7%	3%
rejected %	90%	90%	89%	48%	75%	89%	grade 1 events	79	84	59	448	121	89
								0%	0%	0%	0%	0%	0%
							grade 2 events	2736	2437	2954	17970	8755	2954
								2%	2%	2%	11%	5%	2%
							grade 3 events	1224	1296	1369	7679	4142	1462
								0%	1%	1%	4%	2%	1%
							grade 4 events	1239	1308	1405	7623	3762	1397
								0%	1%	1%	4%	2%	1%
							grade 5 events	3819	4979	4996	15194	7276	5761
								3%	4%	3%	9%	4%	4%
							grade 6 events	2206	2320	2801	39332	9842	2830
								1%	1%	2%	24%	6%	2%
							grade 7 events	110469	101572	106612	62652	107409	105113
								87%	86%	85%	38%	70%	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	322.4908940916827	CCD I2 on	O4	Y
[deg] Pointing Dec	12.187208	12.1625291510688	CCD I3 on	O3	Y
[deg] Pointing Roll	213.497894	213.6570359293676	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	-190.145094680475	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01257209746719923	CCD S4 on	O1	Y
[s] Observation start time (MET)	367809709.184000	367808493.82621	CCD S5 on	O5	Y
Observation start date	2009-08-28T01:20:43	2009-08-28T01:01:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	367823464.184000	367823682.27697	On-chip summing requested	N	N
Observation end date	2009-08-28T05:09:58	2009-08-28T05:14:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



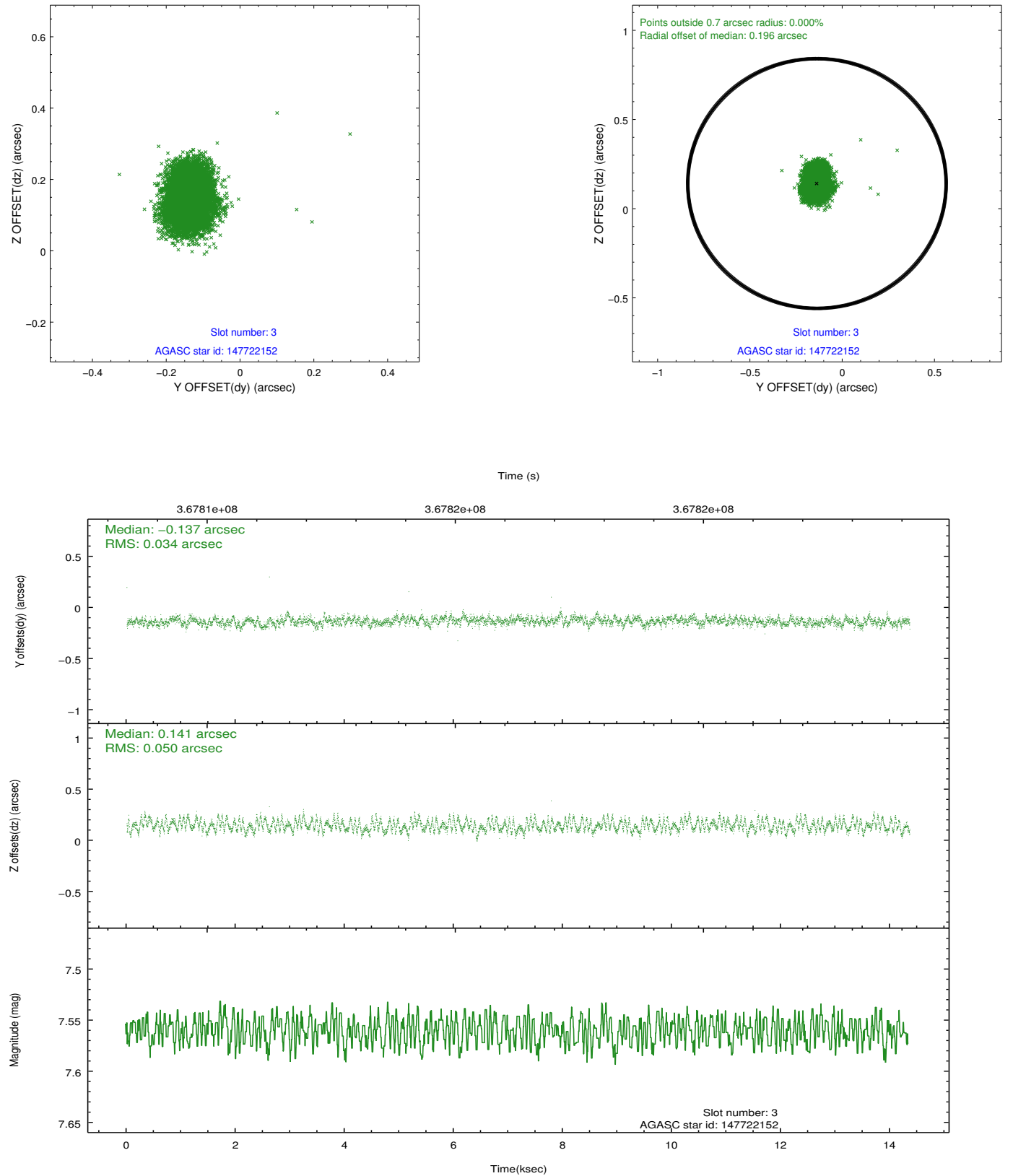


### Slot Statistics

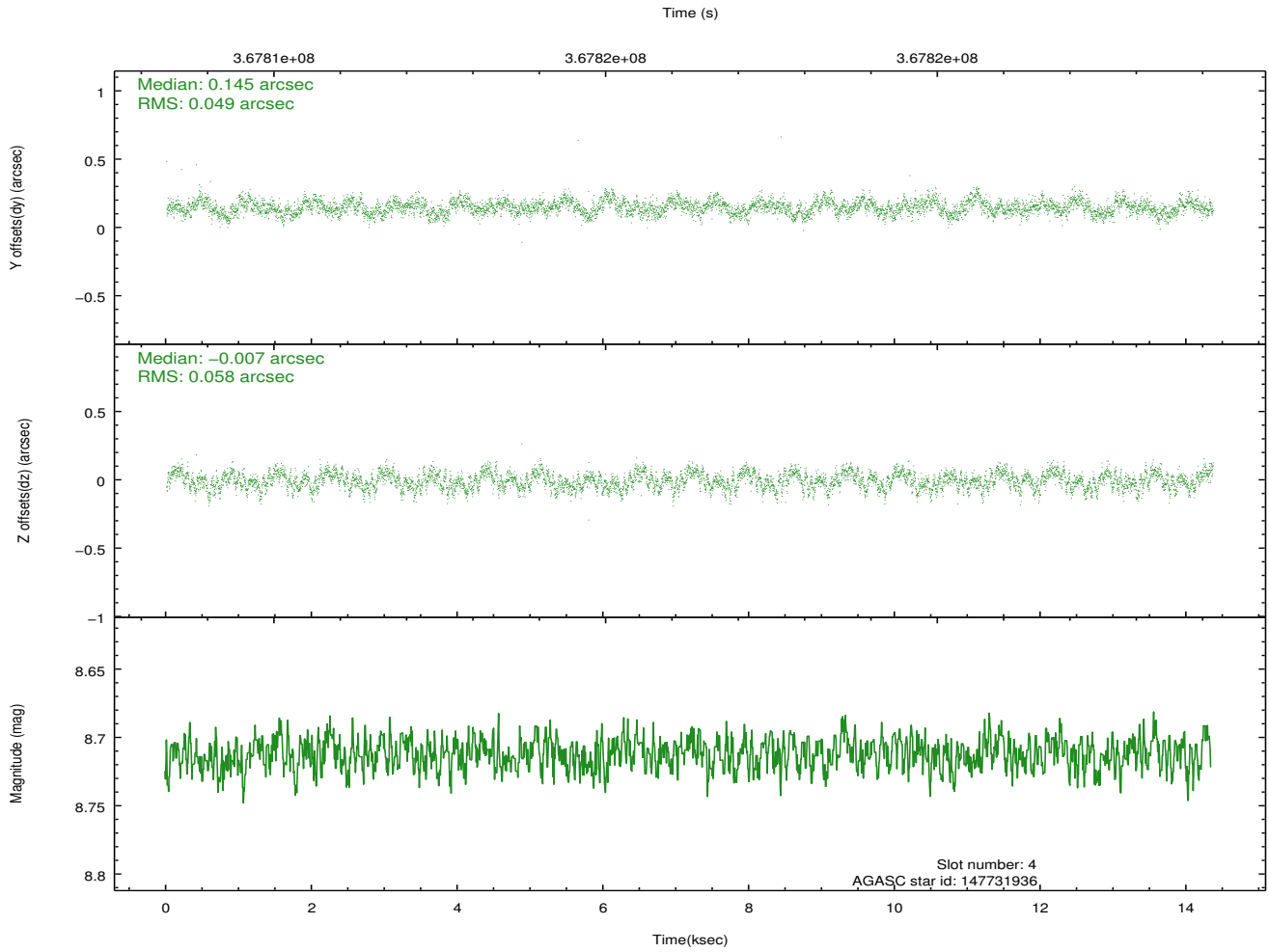
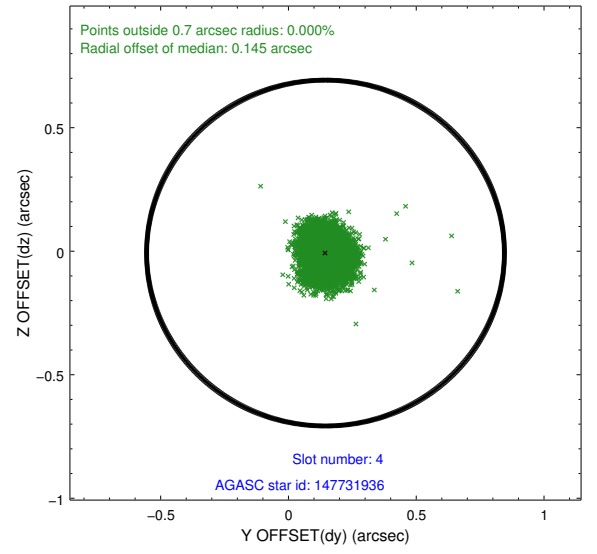
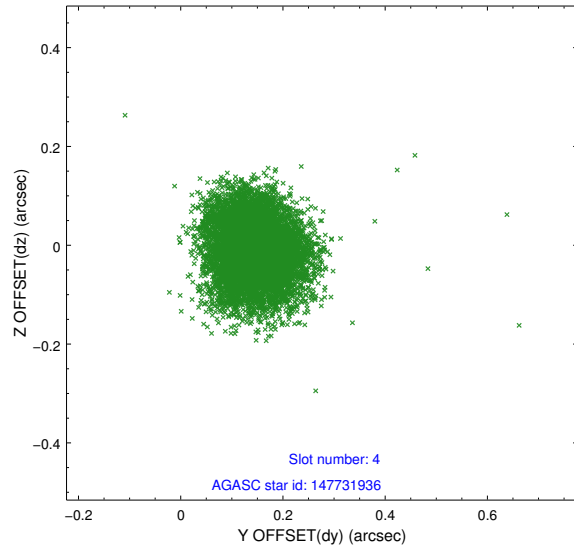
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	3503	-0.058	-0.047	0.009	0.015	0.000000	0.000000	-767.17	-1735.33
1	FID	ACIS-S-4	7.01	3503	0.187	0.040	0.011	0.017	0.000000	0.000000	2146.21	172.90
2	FID	ACIS-S-5	7.03	3503	-0.160	0.015	0.011	0.017	0.000000	0.000000	-1819.70	166.91
3	GUIDE	147722152	7.56	7004	-0.137	0.141	0.064	0.101	322.735072	12.555367	-1411.51	-655.07
4	GUIDE	147731936	8.71	6997	0.145	-0.007	0.082	0.128	322.421133	12.450297	-282.46	-948.48
5	GUIDE	147733944	9.42	7000	0.149	0.043	0.114	0.187	322.398395	12.904544	-1118.51	-2355.86
6	GUIDE	147735328	8.66	7000	-0.034	0.052	0.071	0.116	321.823462	12.214663	1937.83	-1404.44
7	GUIDE	147735992	6.97	7004	-0.123	-0.222	0.077	0.119	322.299566	11.952911	1063.17	308.43

## 2.4 Star Slots

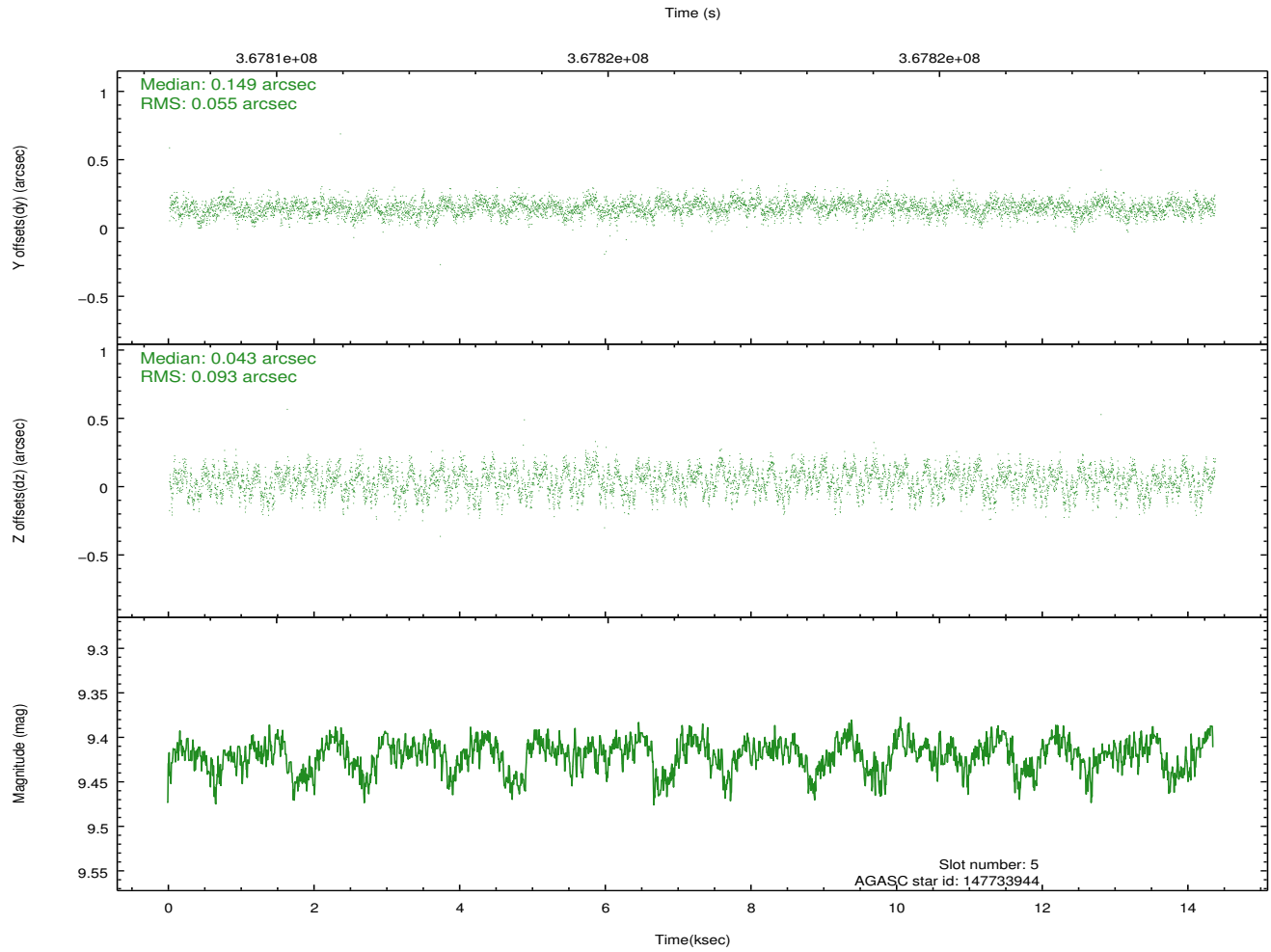
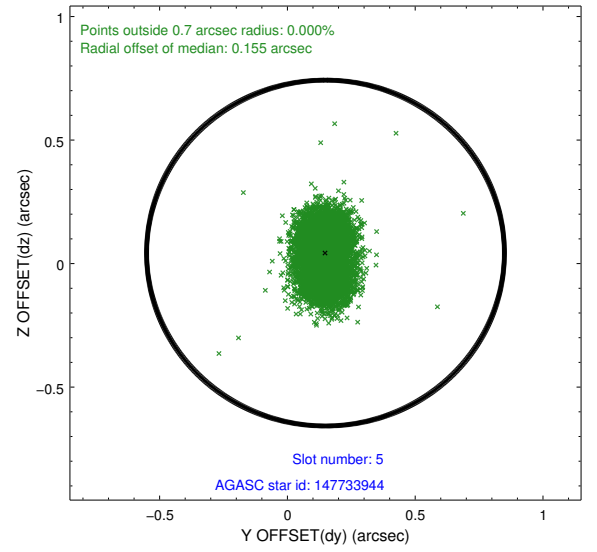
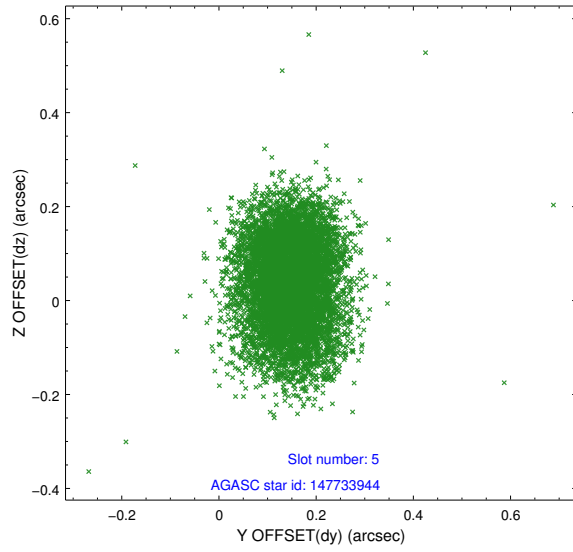
### 2.4.1 Slot 3



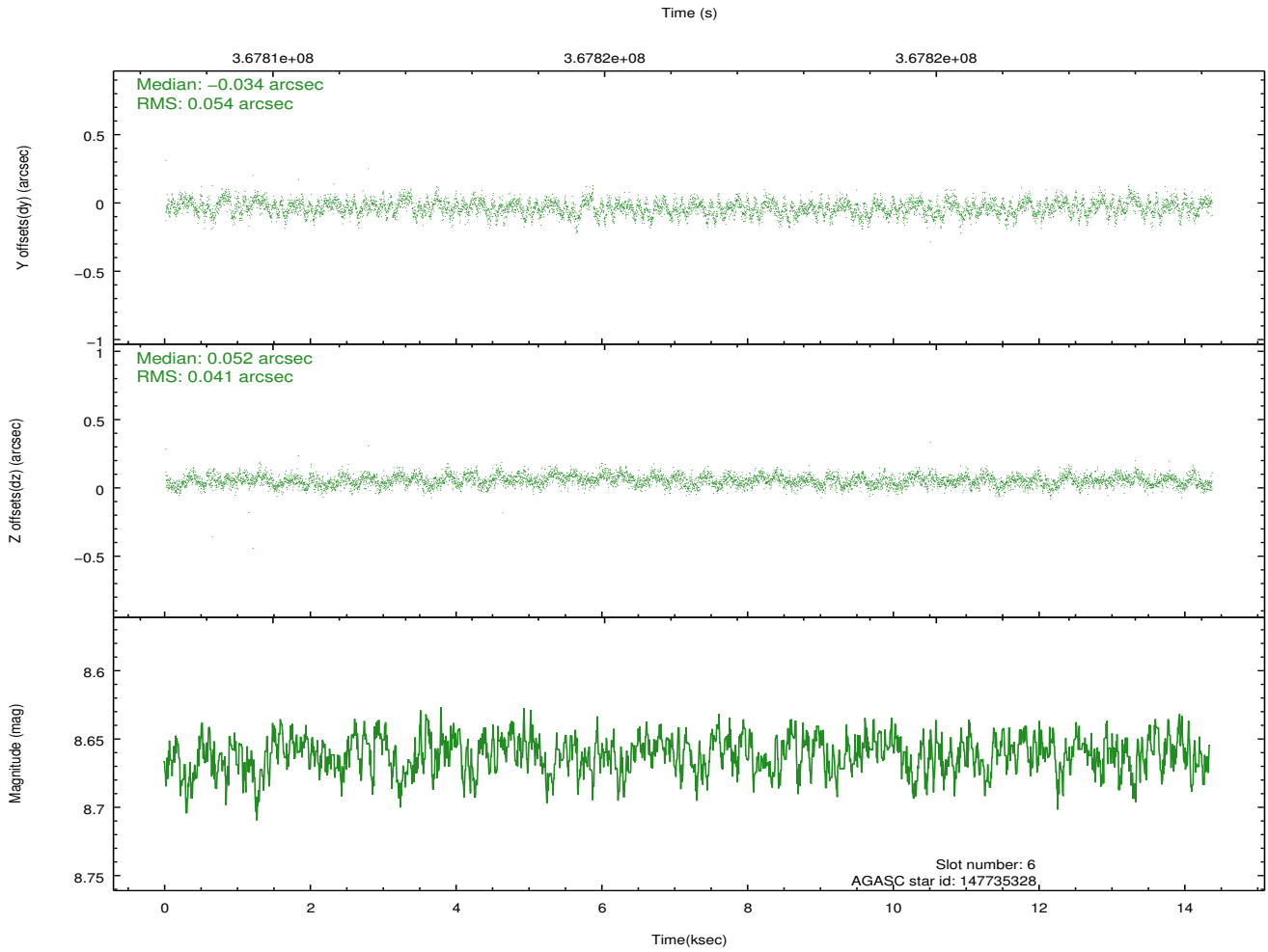
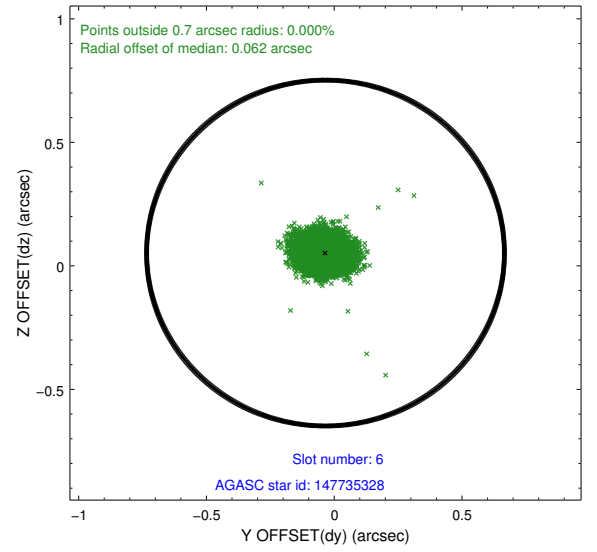
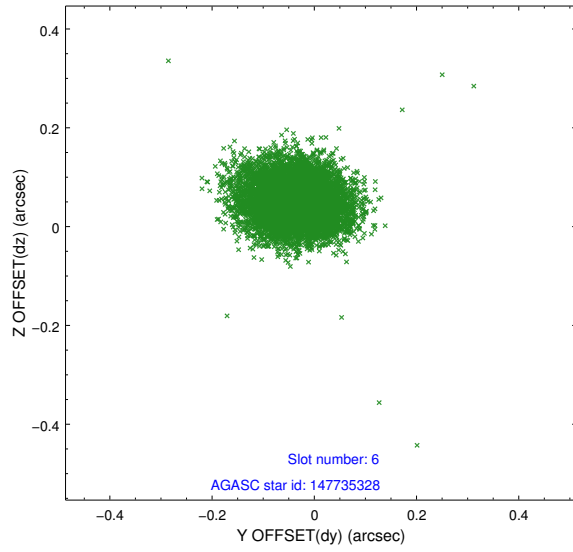
## 2.4.2 Slot 4



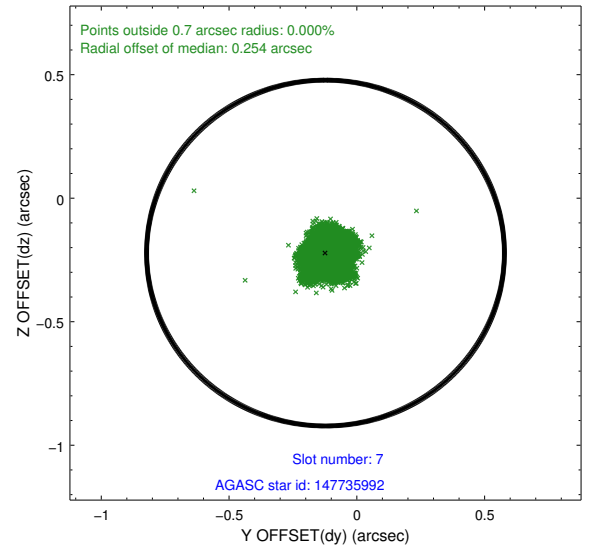
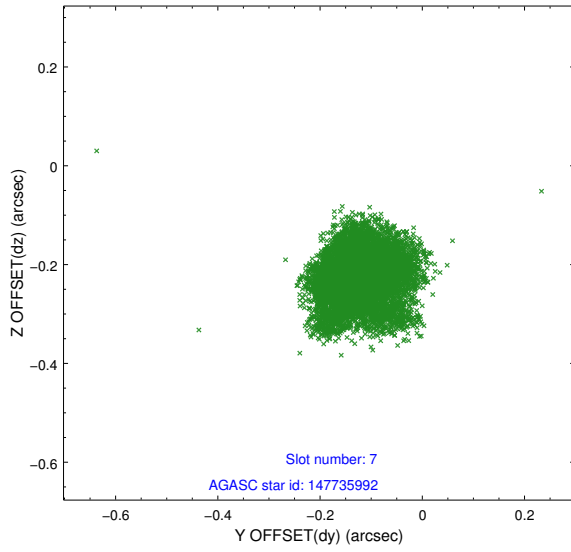
### 2.4.3 Slot 5



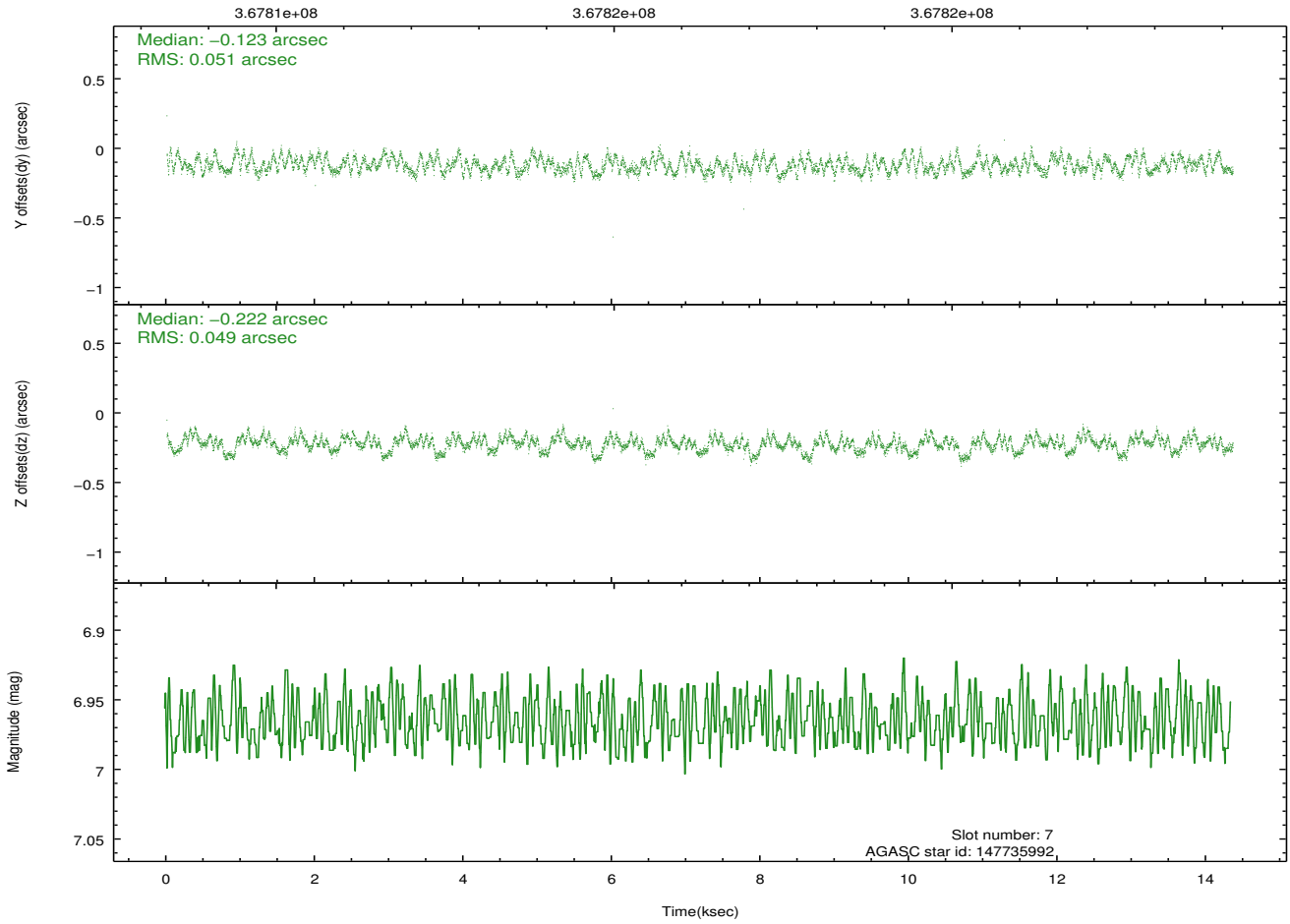
## 2.4.4 Slot 6



## 2.4.5 Slot 7

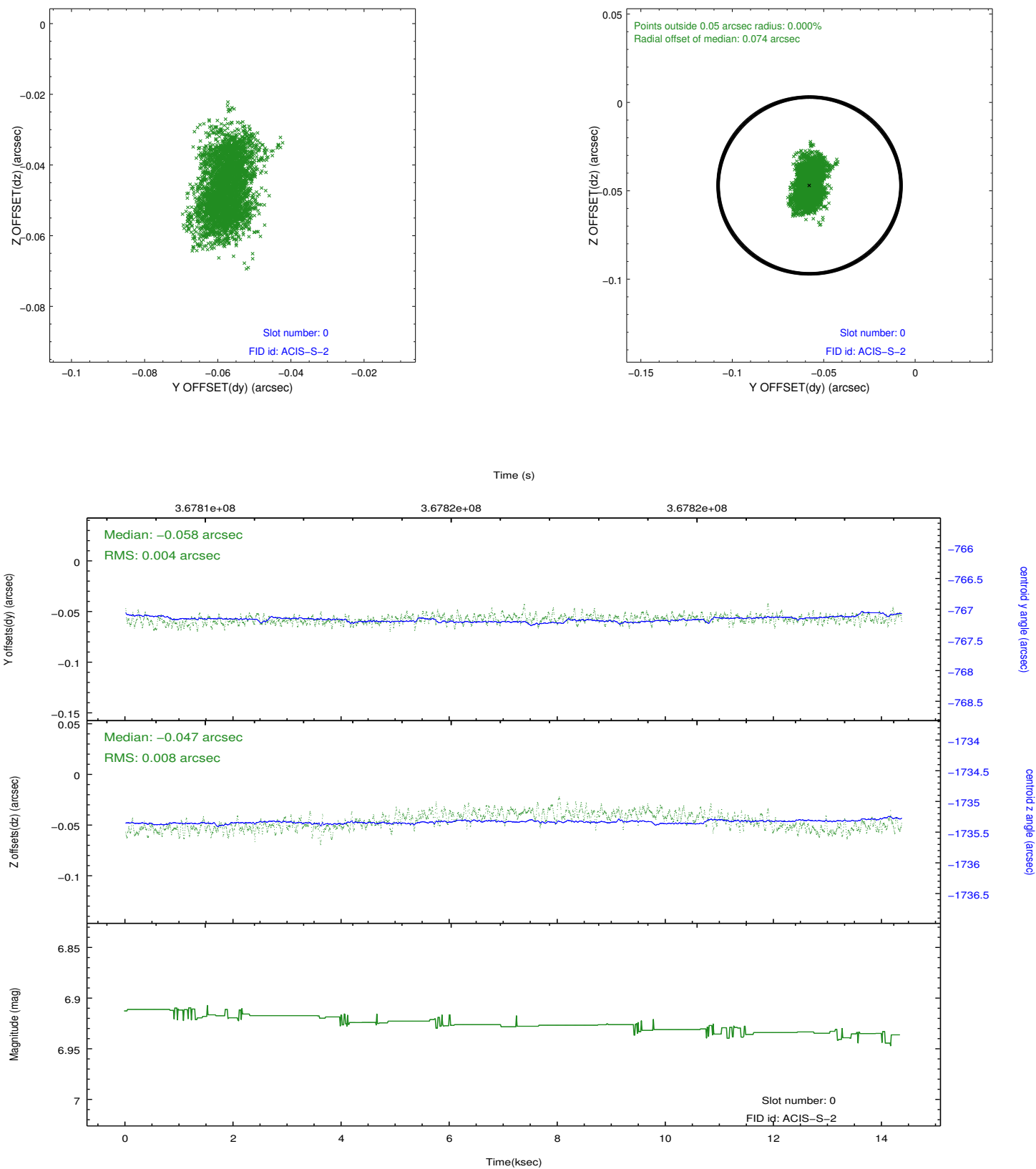


Time (s)

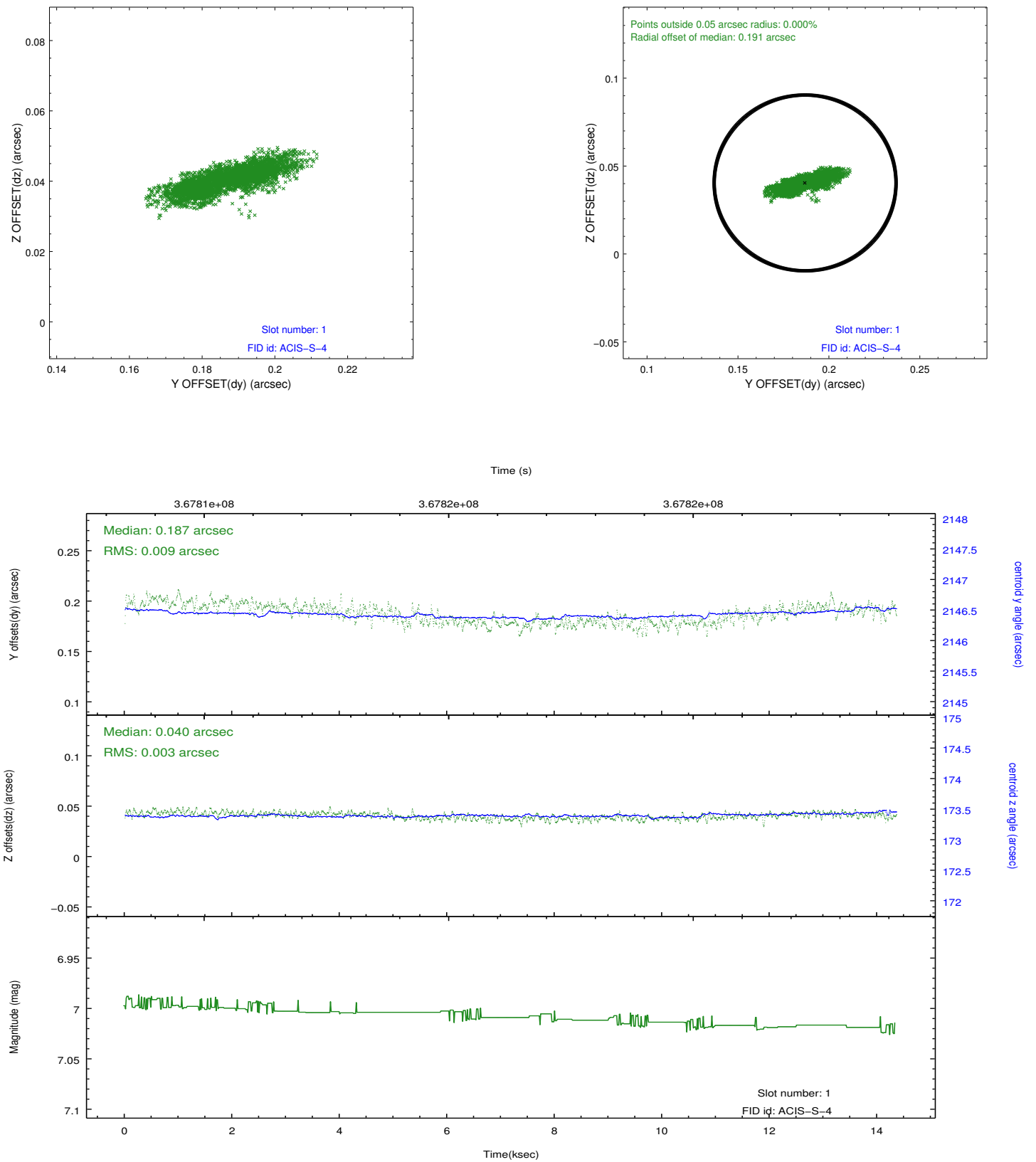


## 2.5 FID Slots

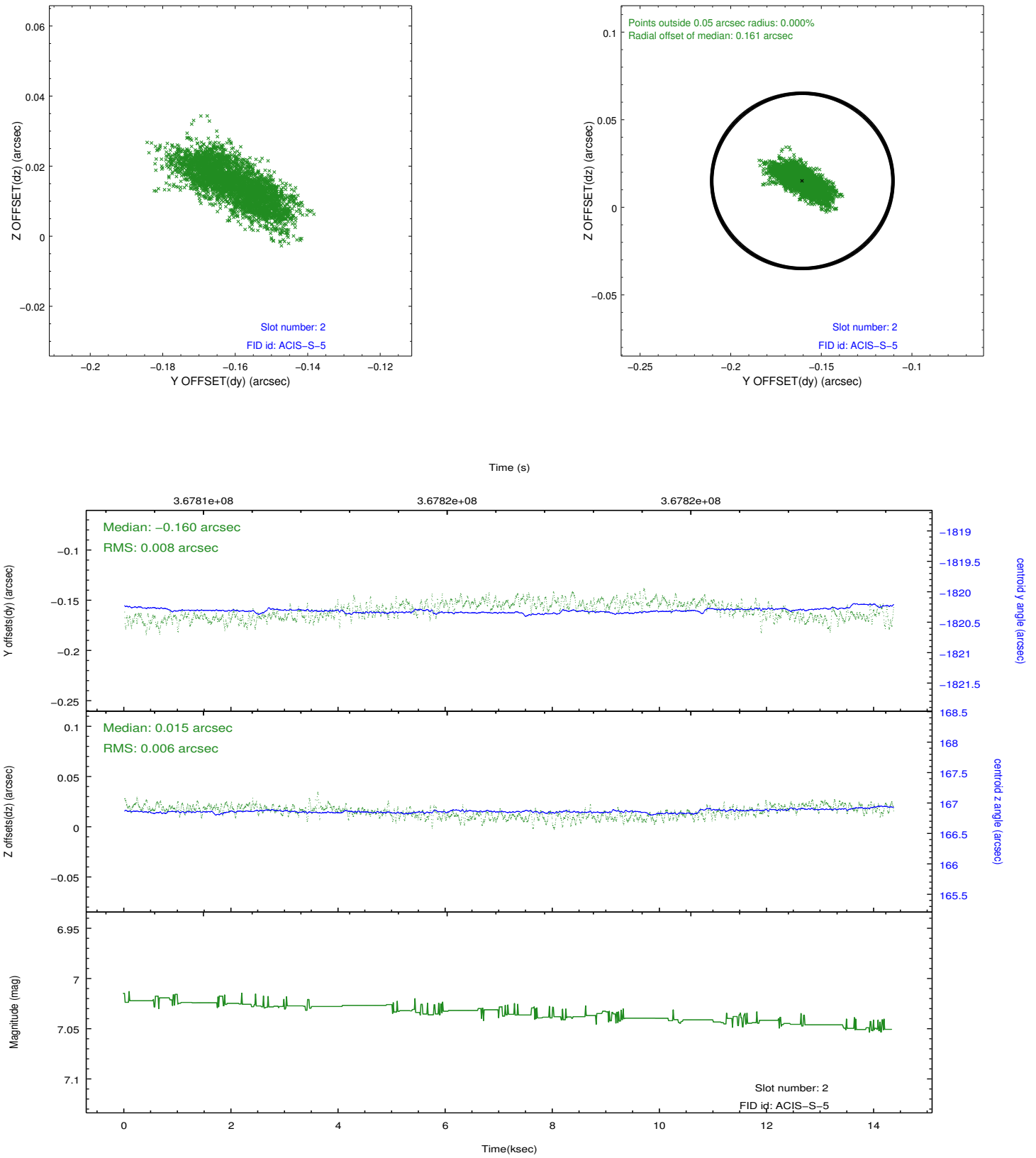
### 2.5.1 Slot 0



## 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	13.7951999

### A.2 Comments