

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3521 - L2 Version 3  
Chandra X-Ray Center

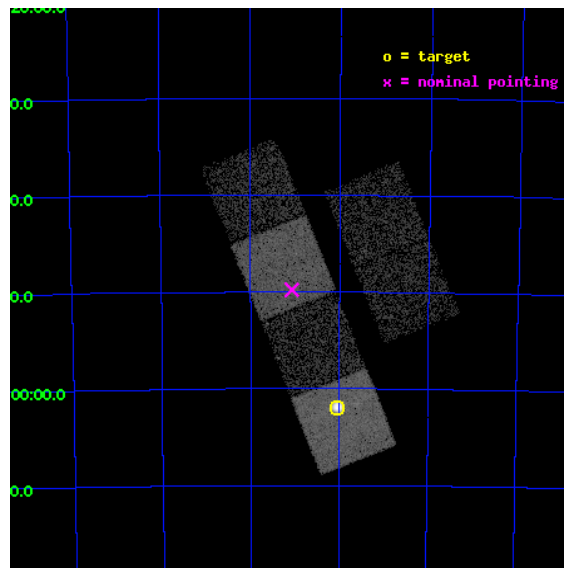
L2 Processing Date : Oct 22 2012

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# 1 Front

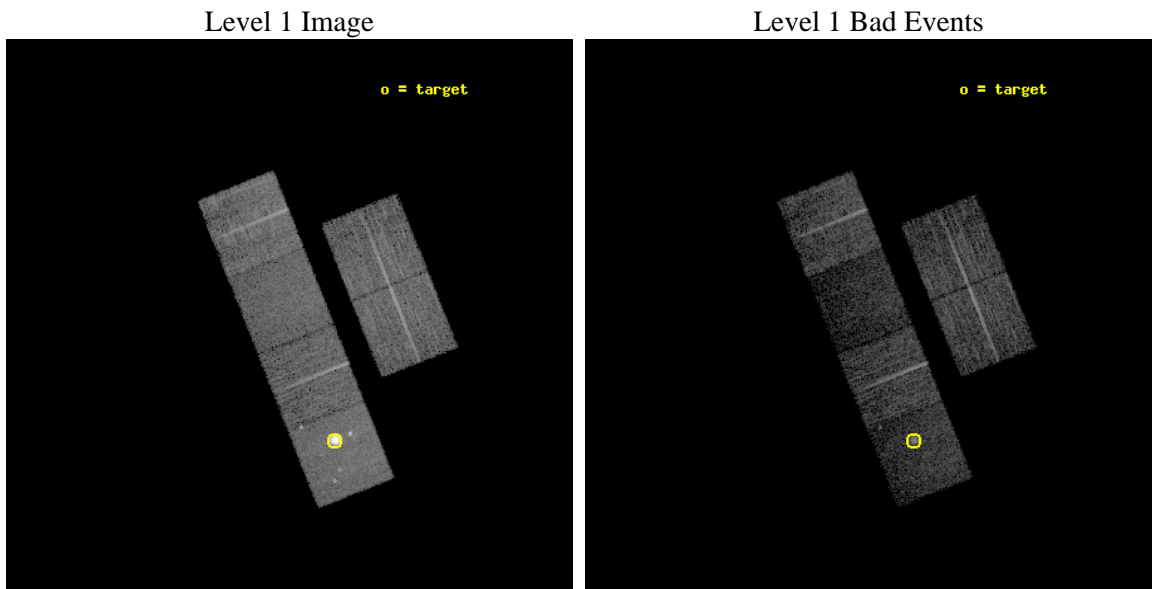
seq_num	590276	Sequence number
obs_id	3521	Observation id
title	AO4A ACIS-S CALIBRATION OBSERVATIONS OF E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[S1,-120,13.29,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.267808567717	Nominal RA [deg]
dec_nom	-71.829778063132	Nominal Dec [deg]
roll_nom	248.28074251229	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7731.199971199	Sum of GTIs [s]
livetime	7633.302861994	Livetime [s]
ontime2	7727.9589810371	Sum of GTIs [s]
ontime3	7731.199971199	Sum of GTIs [s]
ontime5	7731.199971199	Sum of GTIs [s]
ontime6	7731.199971199	Sum of GTIs [s]
ontime7	7731.199971199	Sum of GTIs [s]
ontime8	7727.9590109289	Sum of GTIs [s]
l2events	99170	Number of level 2 events



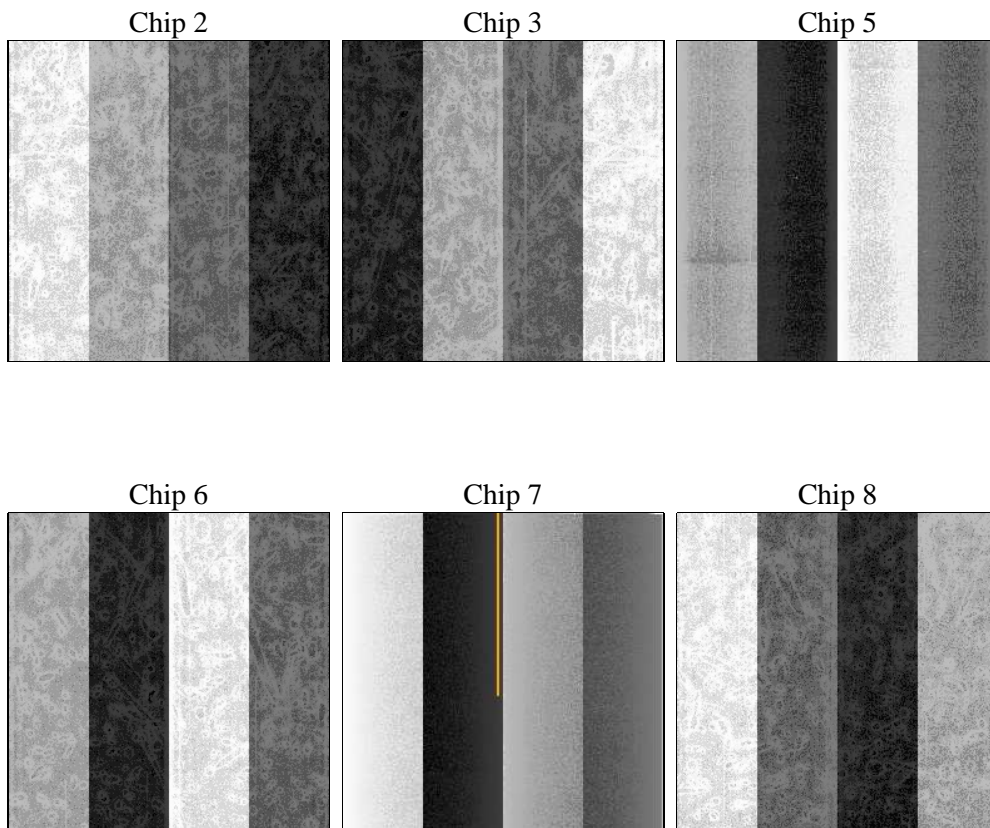
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7973.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7731.199971199	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime2	7727.9589810371	Sum of GTIs [s]
date	2012-10-22T04:01:20	Date and time of file creation	ontime3	7731.199971199	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	7731.199971199	Sum of GTIs [s]
			ontime6	7731.199971199	Sum of GTIs [s]
			ontime7	7731.199971199	Sum of GTIs [s]
			ontime8	7727.9590109289	Sum of GTIs [s]
			l1events	302067	Number of level 1 events

### 2.1.4 Events

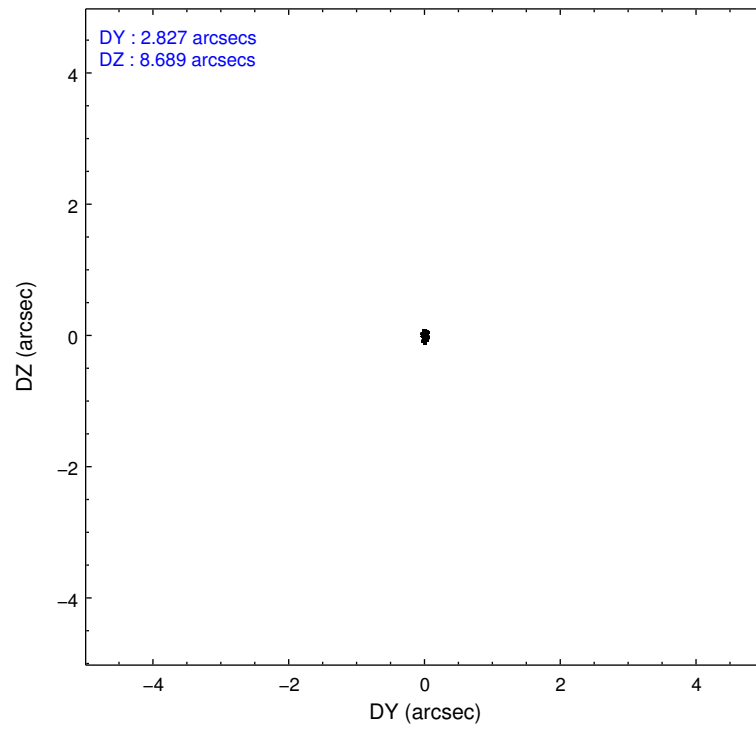
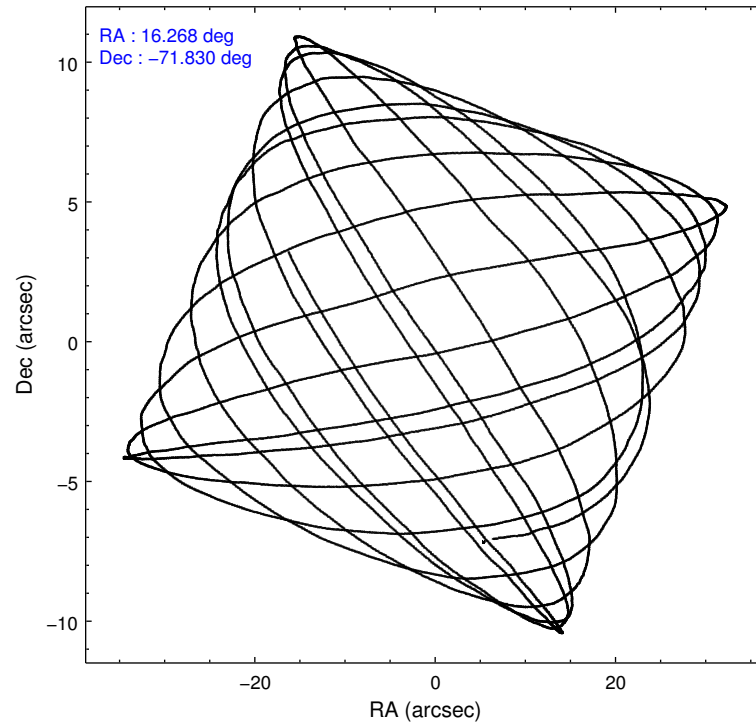
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	42963	39539	95662	37772	36151	49980	grade 0 events	1437	1297	25795	1571	1877	2977
rejected events	39232	36040	23019	33711	18187	39413		3%	3%	26%	4%	5%	5%
rejected %	91%	91%	24%	89%	50%	78%	grade 1 events	24	24	253	14	34	43
								0%	0%	0%	0%	0%	0%
							grade 2 events	871	736	20196	815	3755	2365
								2%	1%	21%	2%	10%	4%
							grade 3 events	406	397	5375	461	1773	1249
								0%	1%	5%	1%	4%	2%
							grade 4 events	431	419	5390	447	1796	1155
								1%	1%	5%	1%	4%	2%
							grade 5 events	1123	1220	4625	1267	4029	1840
								2%	3%	4%	3%	11%	3%
							grade 6 events	587	652	15919	768	8768	2823
								1%	1%	16%	2%	24%	5%
							grade 7 events	38084	34794	18109	32429	14119	37528
								88%	87%	18%	85%	39%	75%

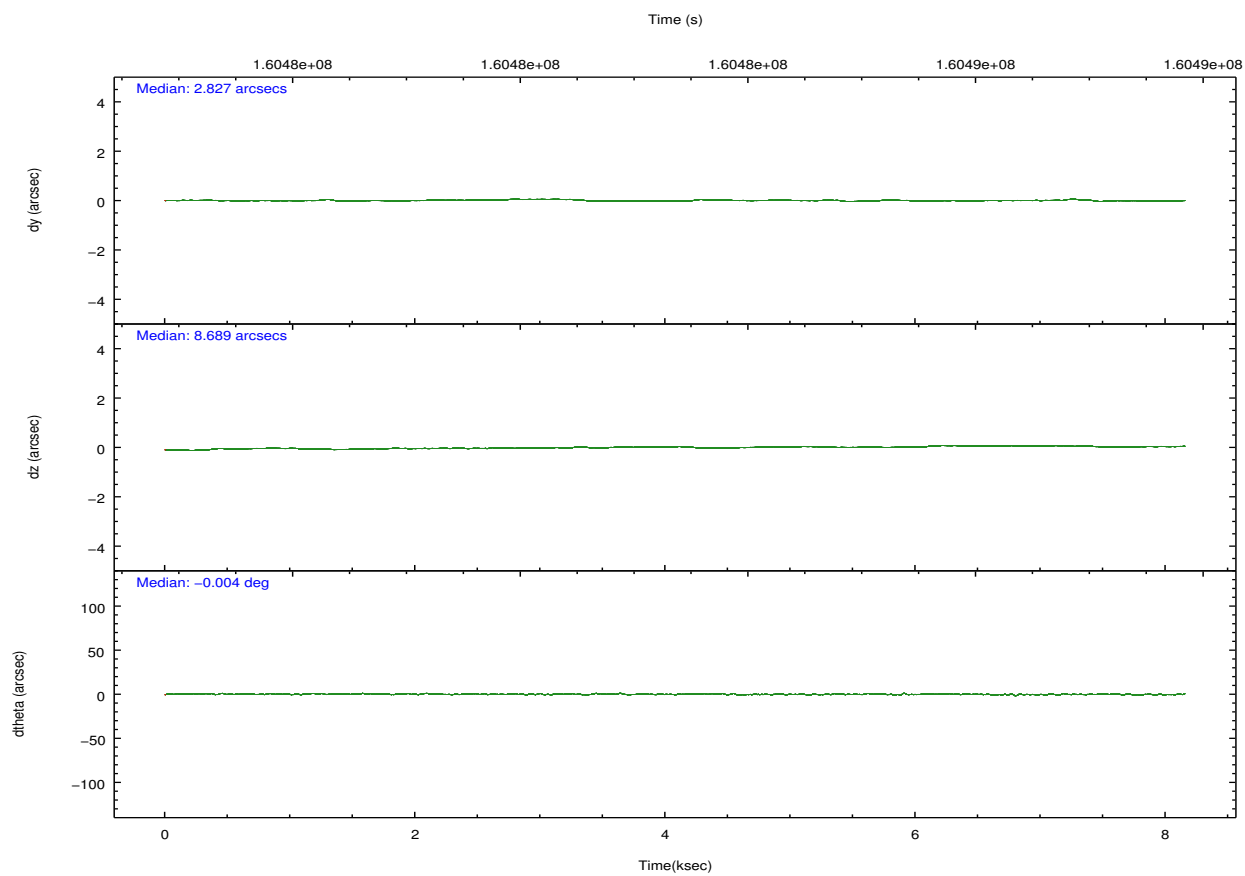
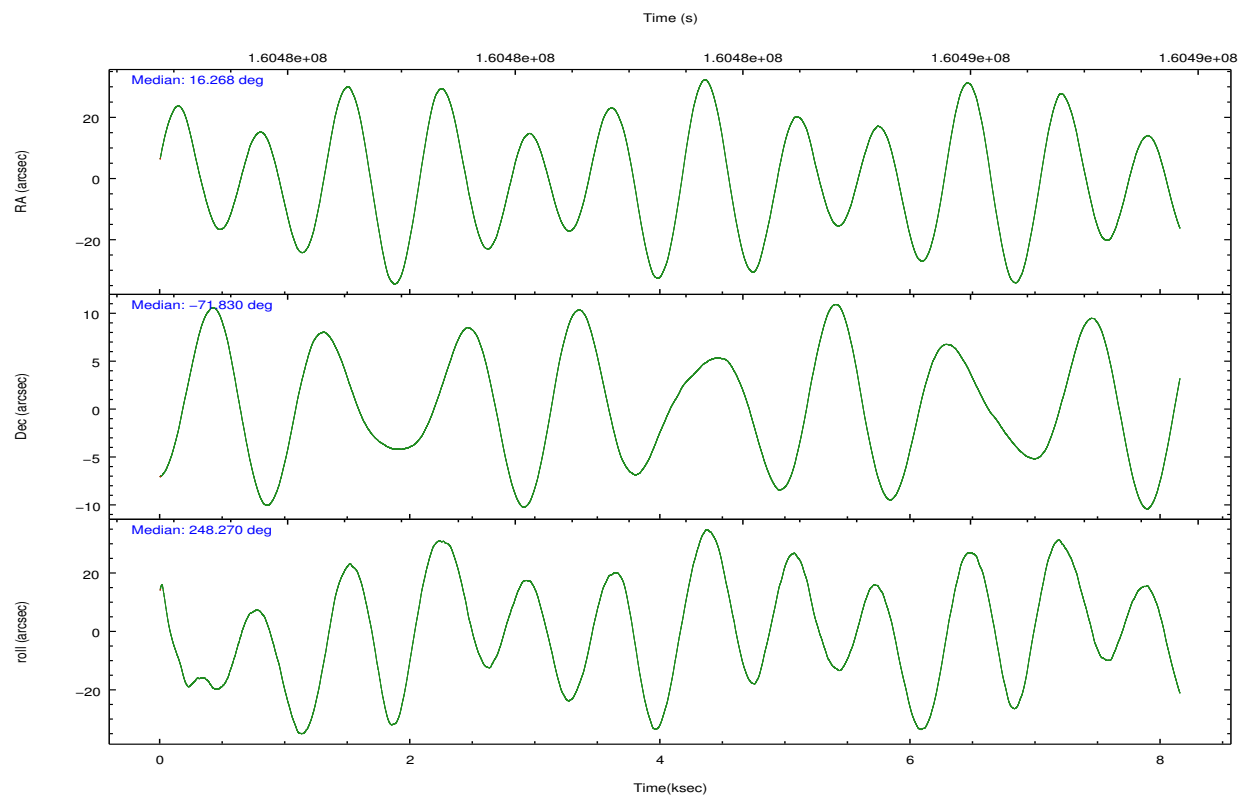


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	16.253913	16.26780856771664	Subarray requested	NONE	NONE
[deg] Pointing Dec	-71.802868	-71.82977806313224	Alternating exposures requested	N	N
[deg] Pointing Roll	248.110846	248.2807425122884	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	158976064.184000	158976064.184000			
[s] Window stop time (MET)	161654464.184000	161654464.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	160479467.184000	160479090.94334			
Observation start date	2003-02-01T09:36:43	2003-02-01T09:31:30			
[s] Observation end time (MET)	160487440.184000	160487574.3562			
Observation end date	2003-02-01T11:49:36	2003-02-01T11:52:54			
Read mode	TIMED	TIMED			

## 2.3 Aspect



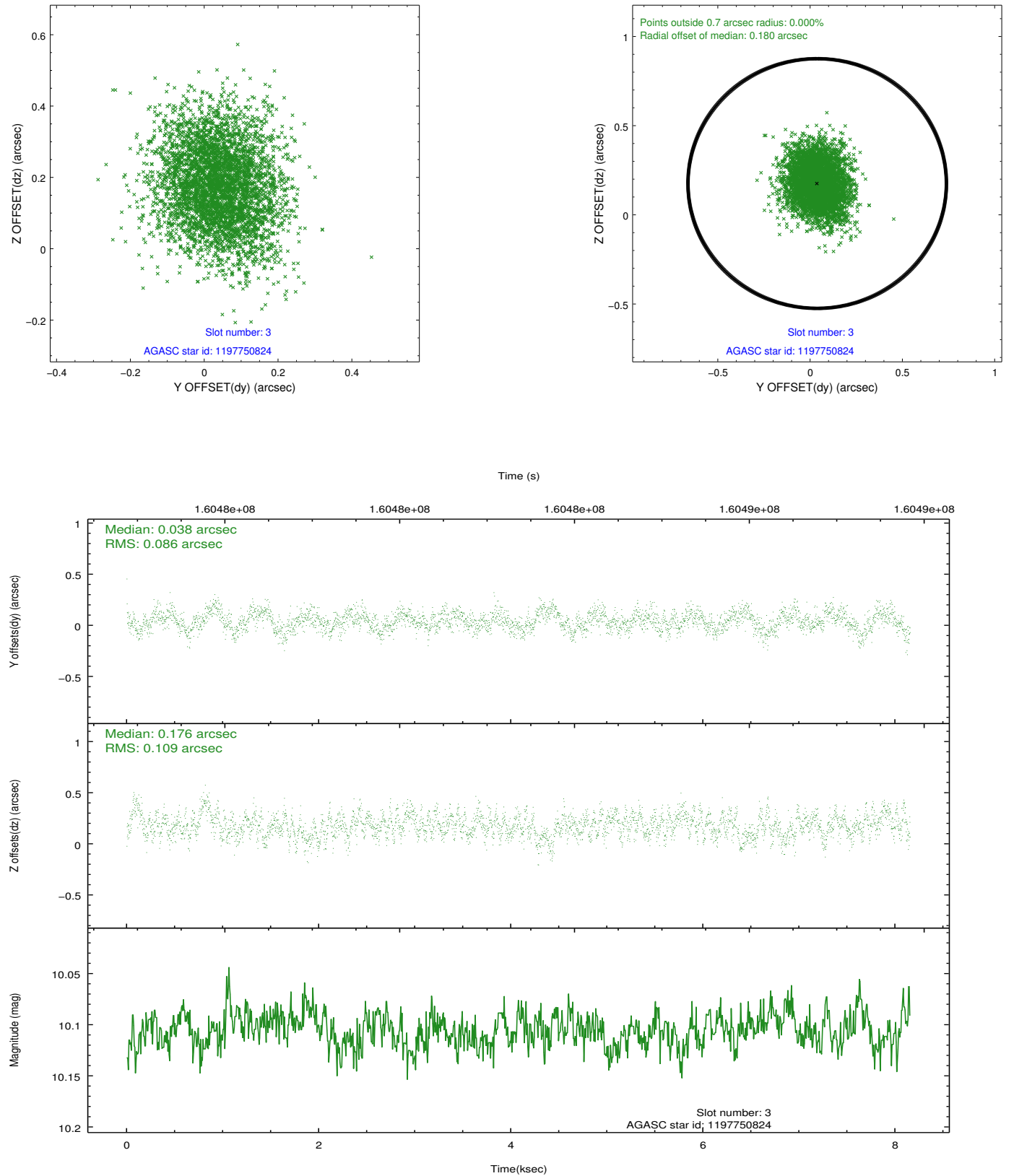


### Slot Statistics

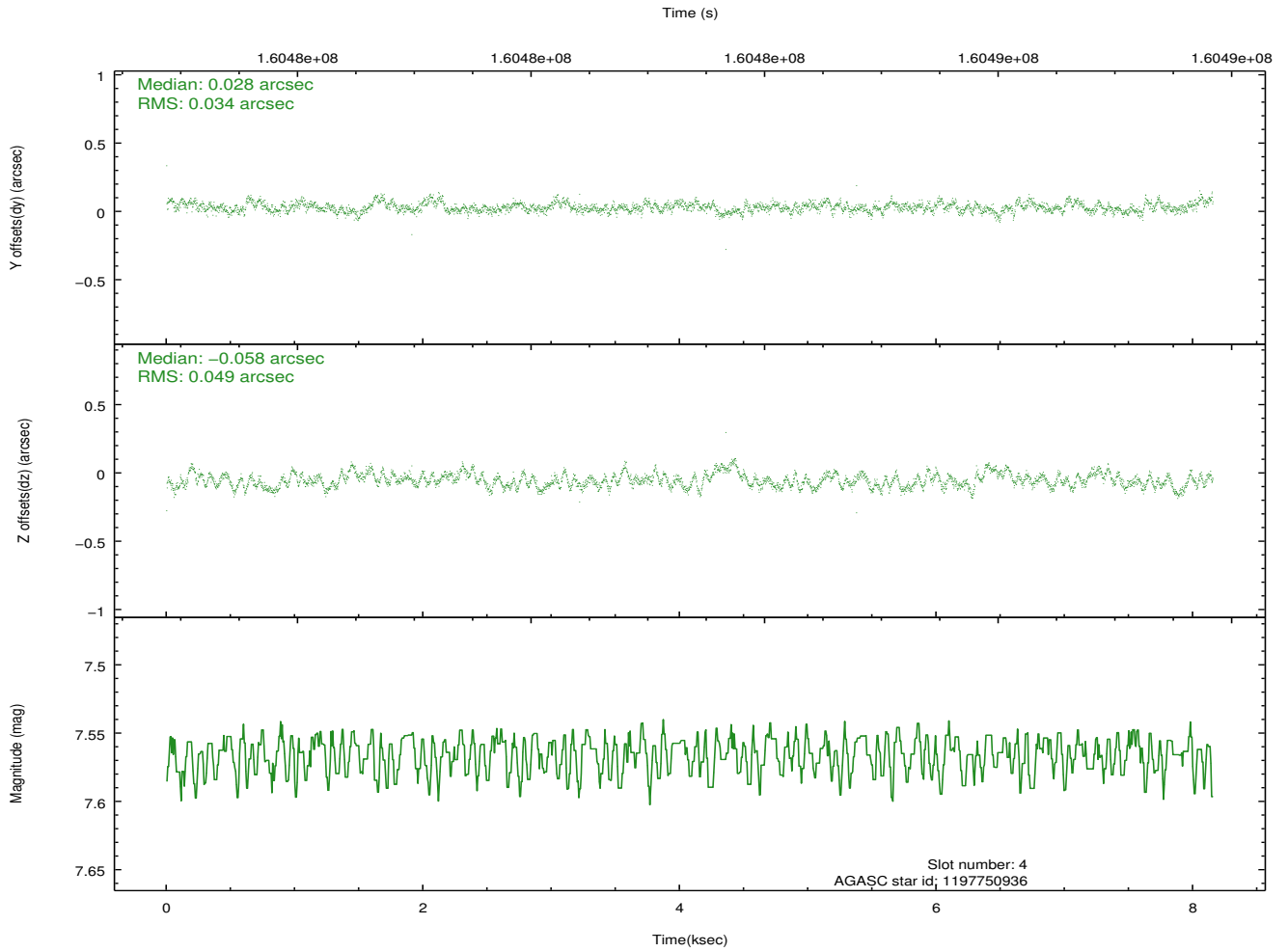
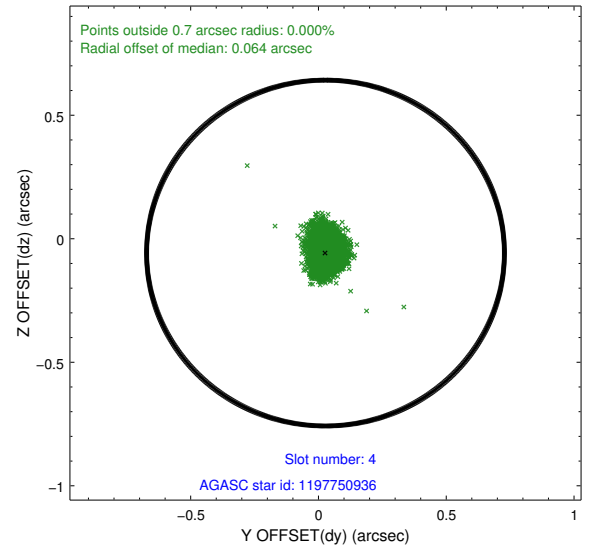
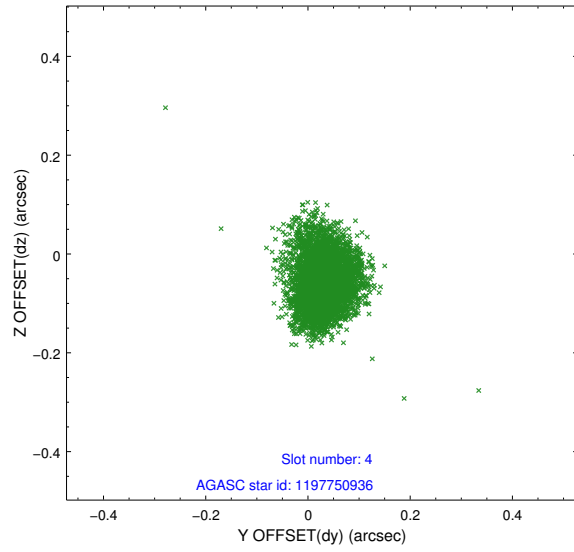
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1990	-0.016	-0.011	0.007	0.011	0.000000	0.000000	-755.48	-1729.85
1	FID	ACIS-S-4	7.20	1990	-0.006	0.011	0.005	0.010	0.000000	0.000000	2157.49	177.95
2	FID	ACIS-S-5	7.23	1989	-0.009	0.009	0.007	0.011	0.000000	0.000000	-1807.43	172.39
3	GUIDE	1197750824	10.11	3976	0.038	0.176	0.148	0.240	14.791487	-71.393477	-721.79	-2100.41
4	GUIDE	1197750936	7.57	3979	0.028	-0.058	0.063	0.103	15.387940	-71.549550	-471.35	-1253.42
5	GUIDE	1197884536	8.49	3975	-0.018	-0.022	0.077	0.124	17.160729	-71.835289	-264.06	990.28
6	GUIDE	1197749664	9.59	3975	-0.018	-0.037	0.101	0.164	15.809015	-72.366369	2064.99	307.40
7	GUIDE	1197885104	9.35	3978	-0.032	-0.061	0.109	0.171	17.845067	-72.189368	660.02	2153.05

## 2.4 Star Slots

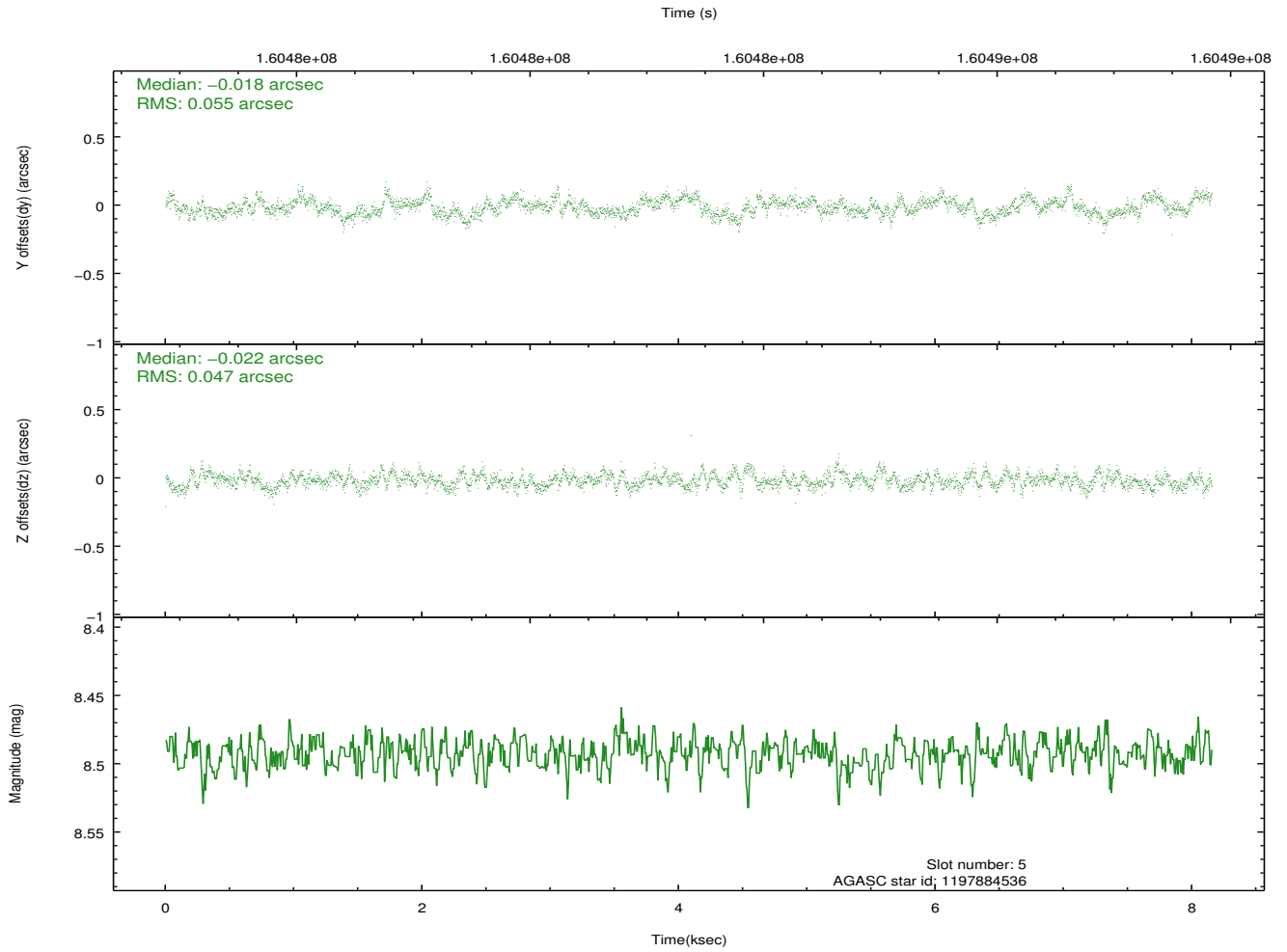
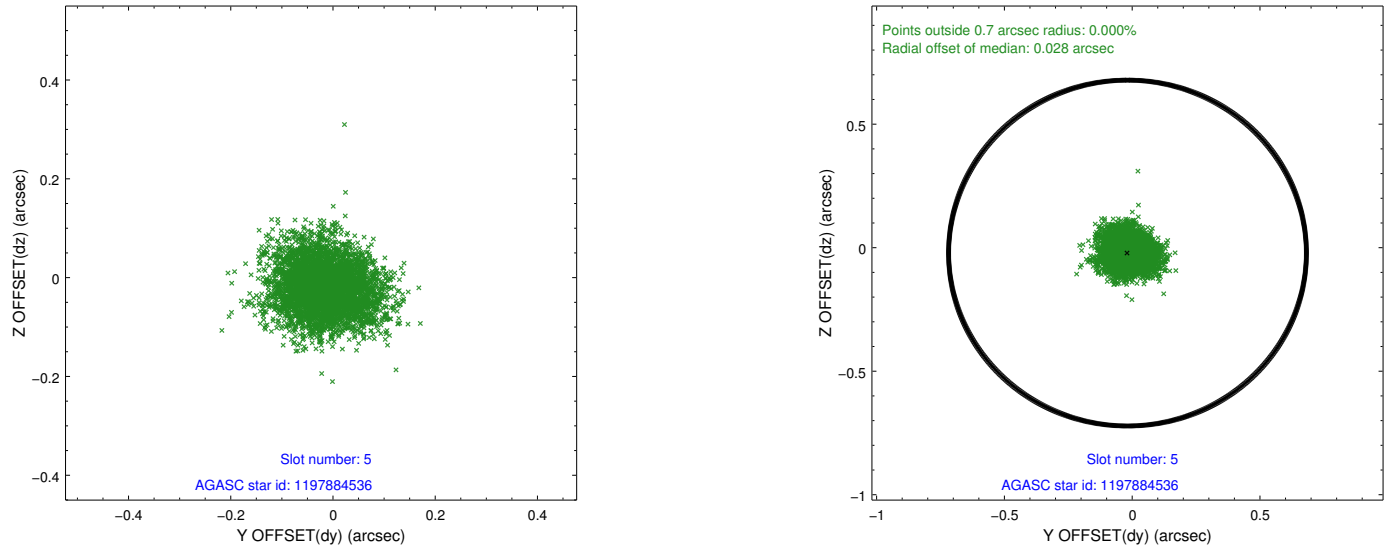
### 2.4.1 Slot 3



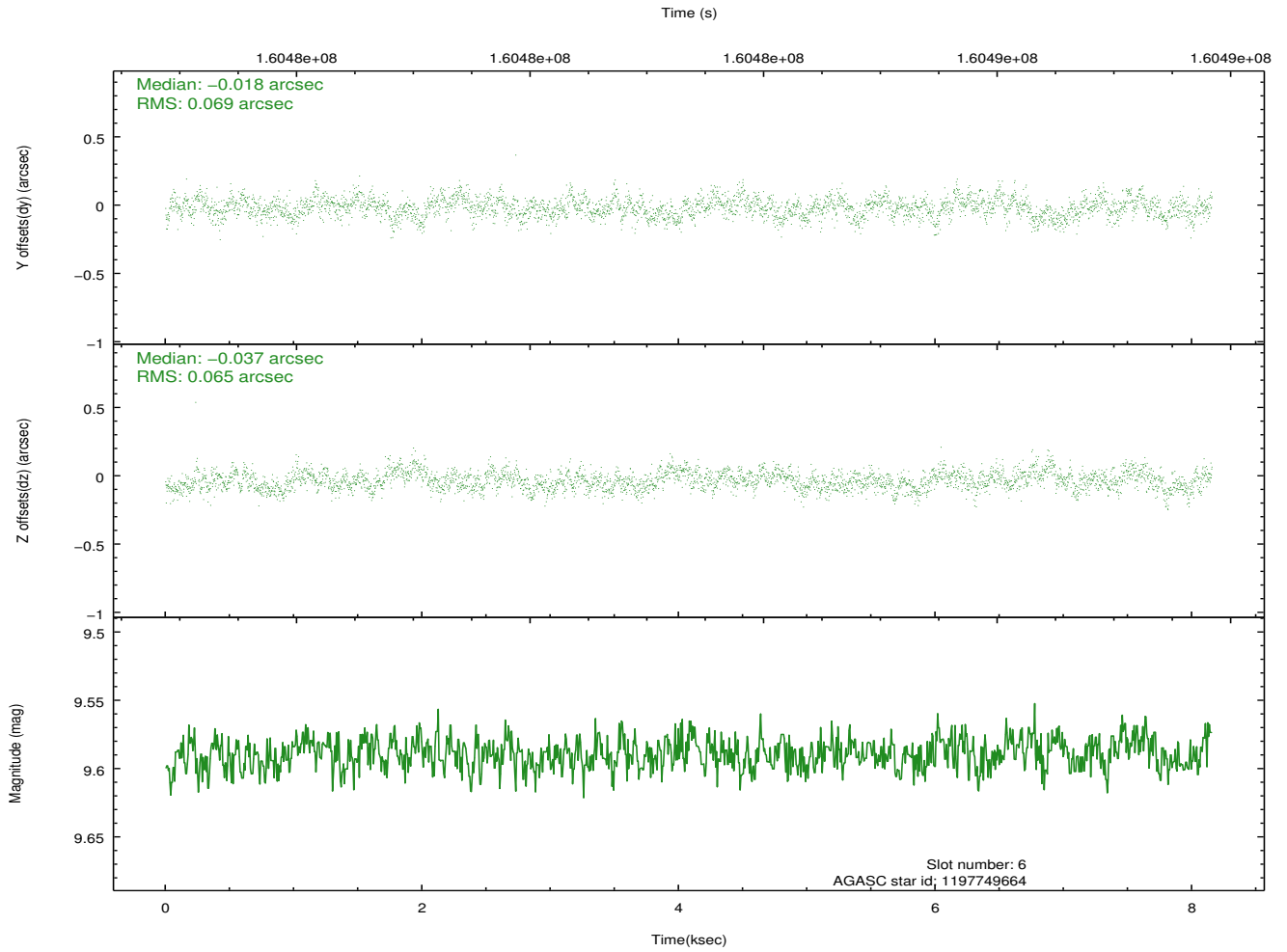
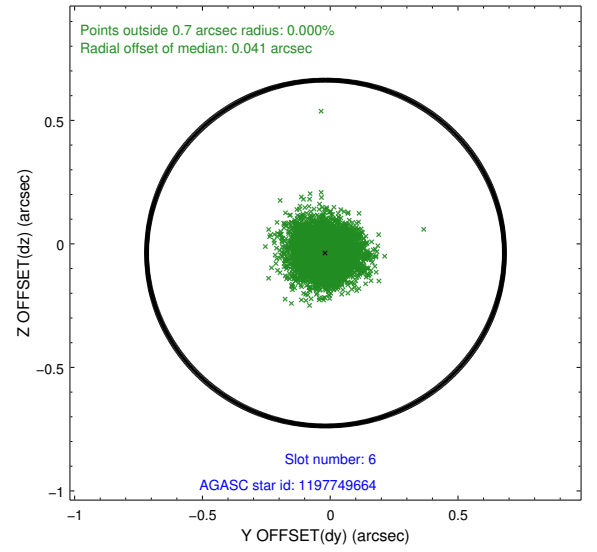
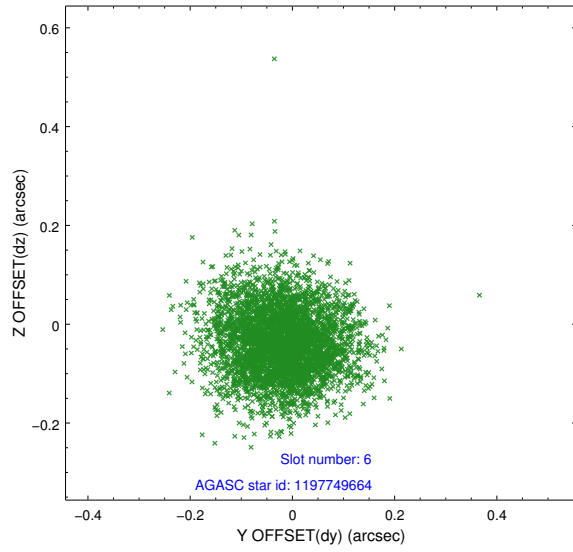
## 2.4.2 Slot 4



### 2.4.3 Slot 5

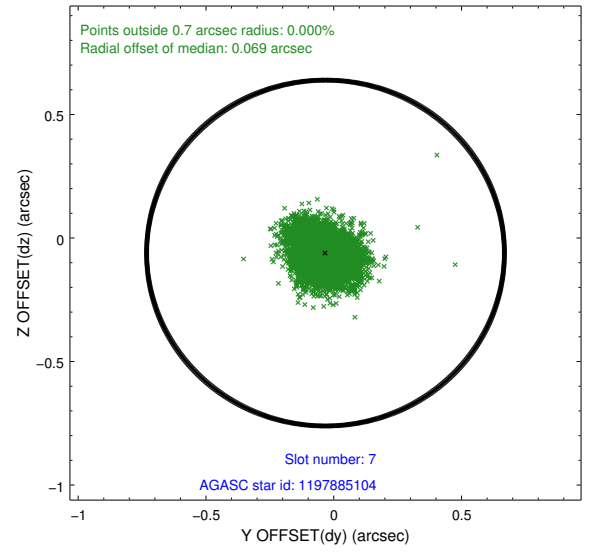
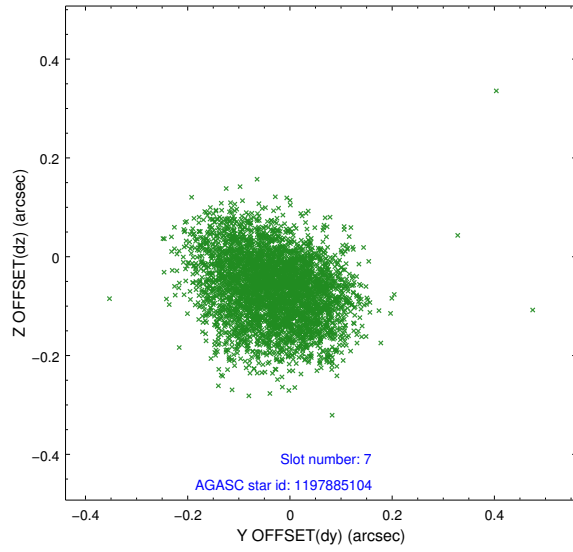


## 2.4.4 Slot 6

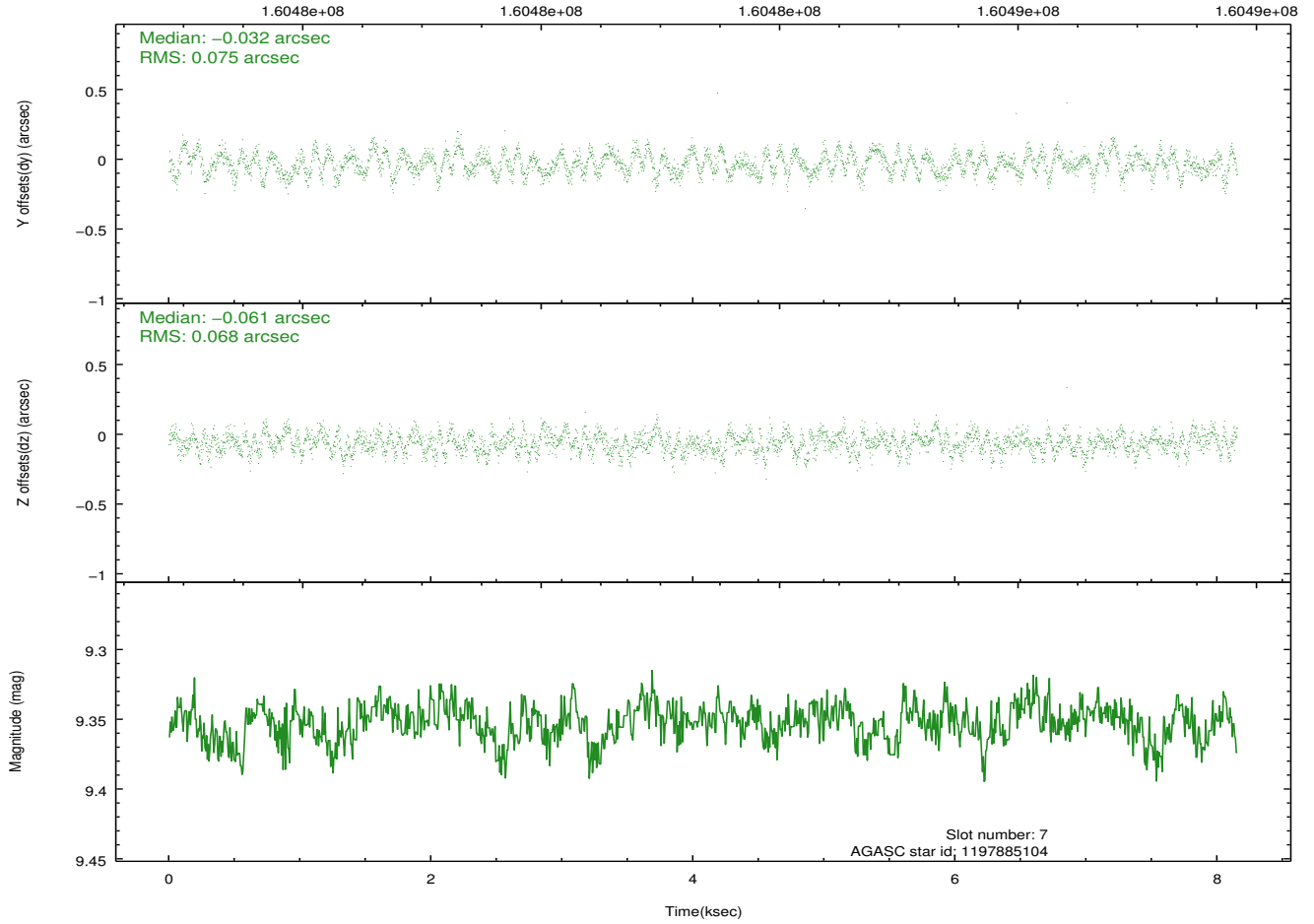




## 2.4.5 Slot 7

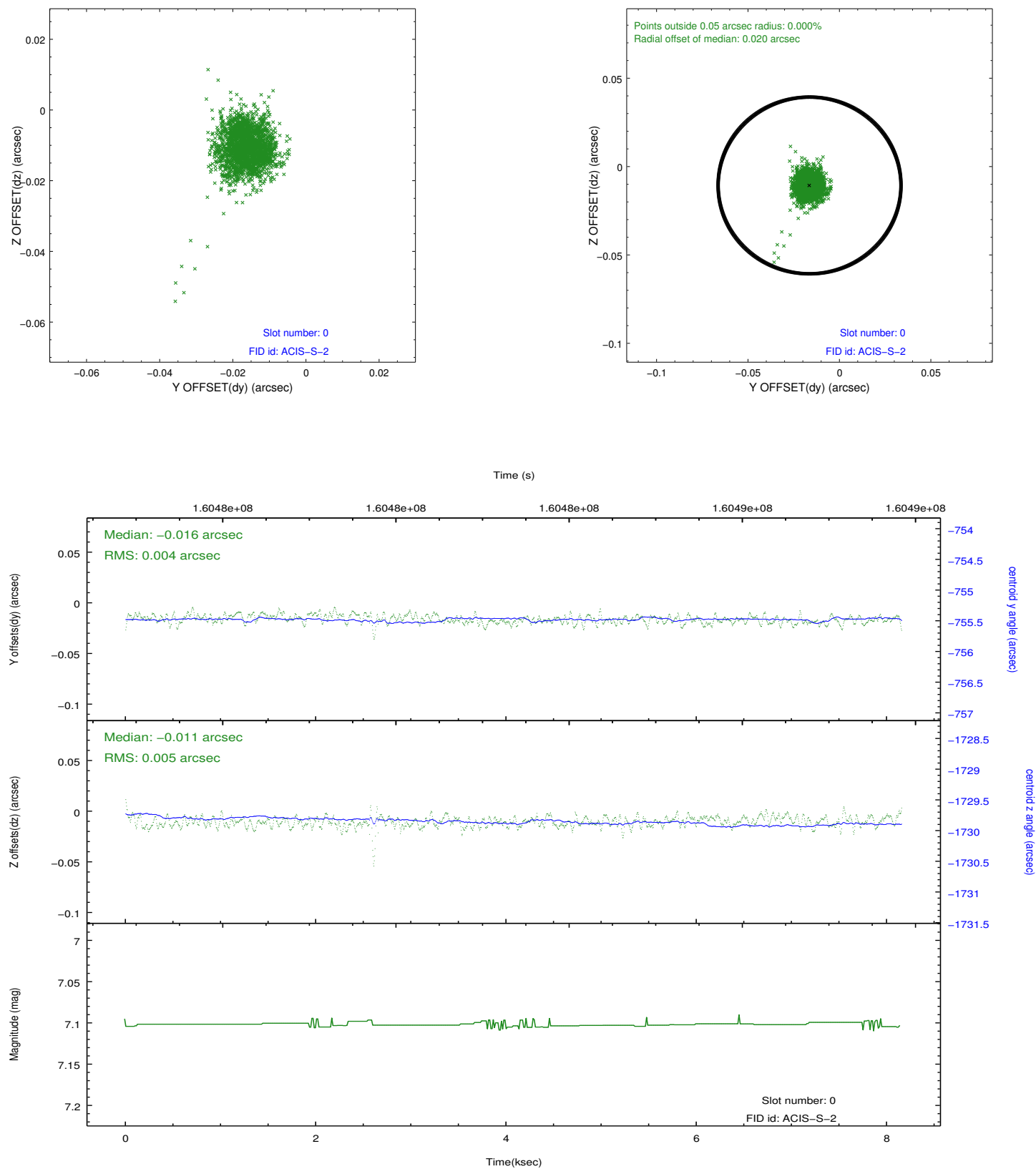


Time (s)

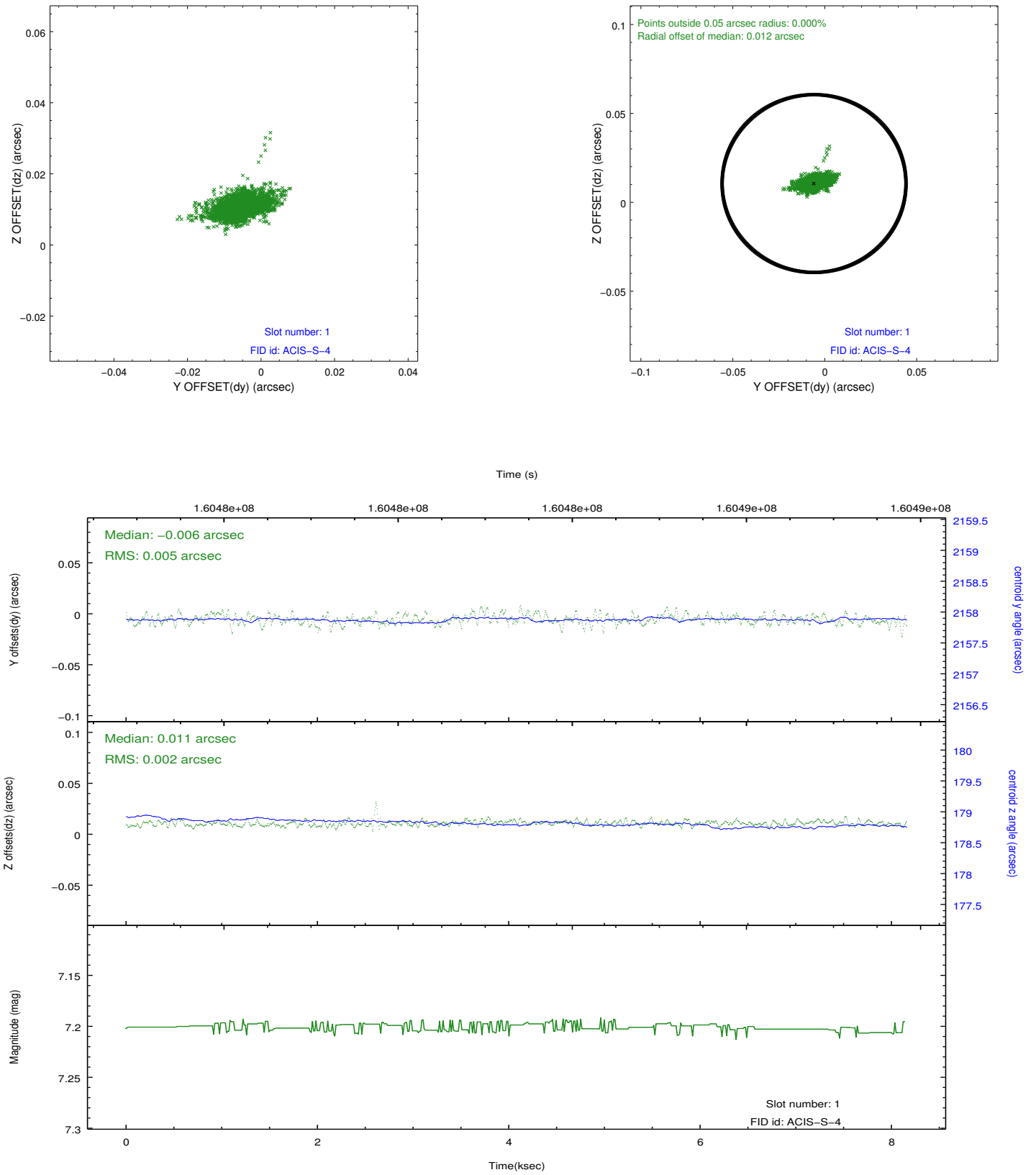


## 2.5 FID Slots

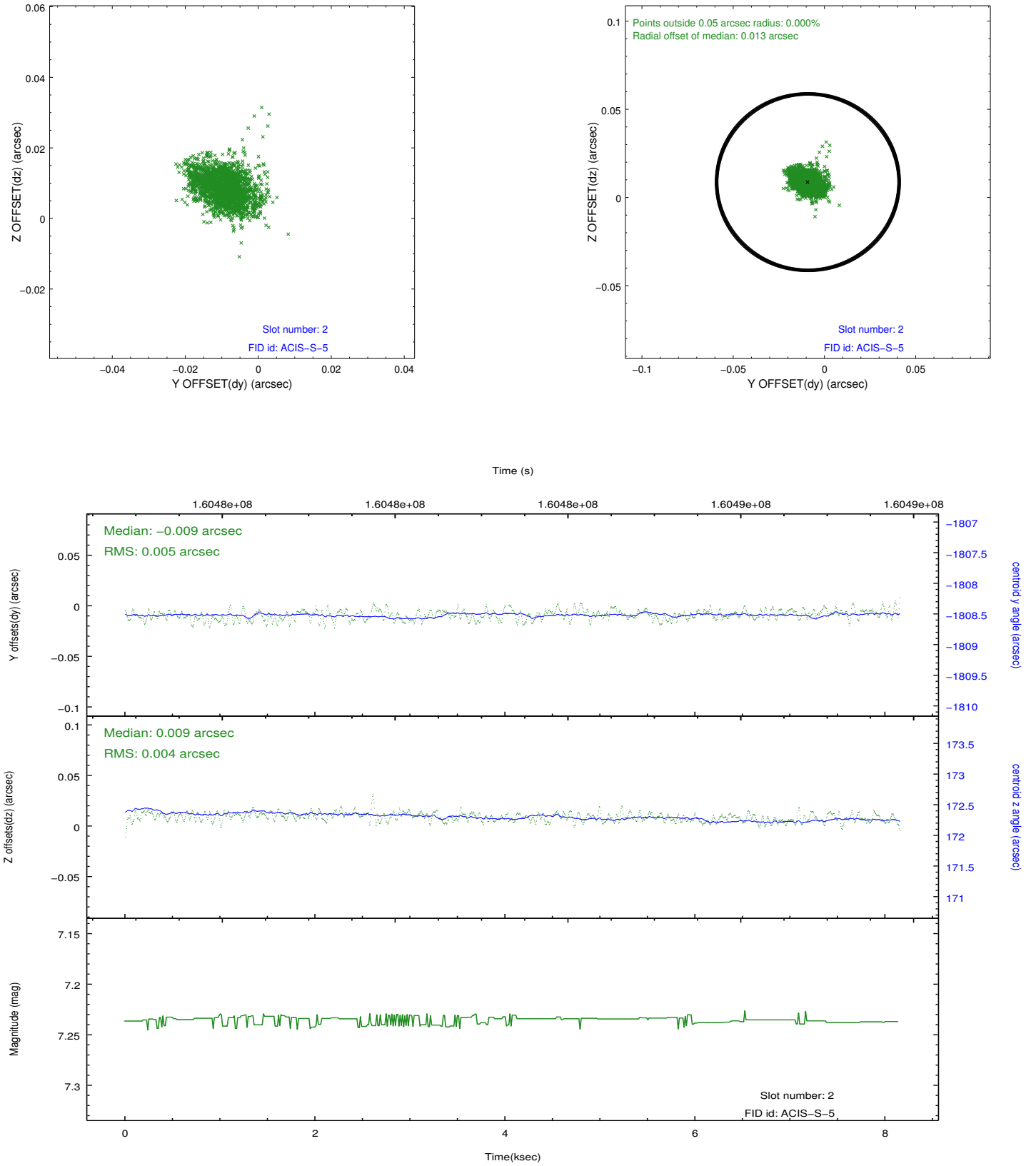
### 2.5.1 Slot 0



## 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)	2012.11.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.734

### A.2 Comments

Window constraint met.