

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 923 - L2 Version 3  
Chandra X-Ray Center

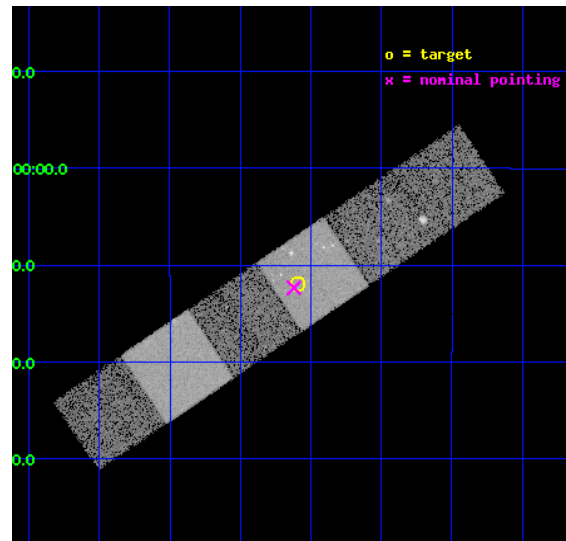
L2 Processing Date : Sep 3 2012

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# 1 Front

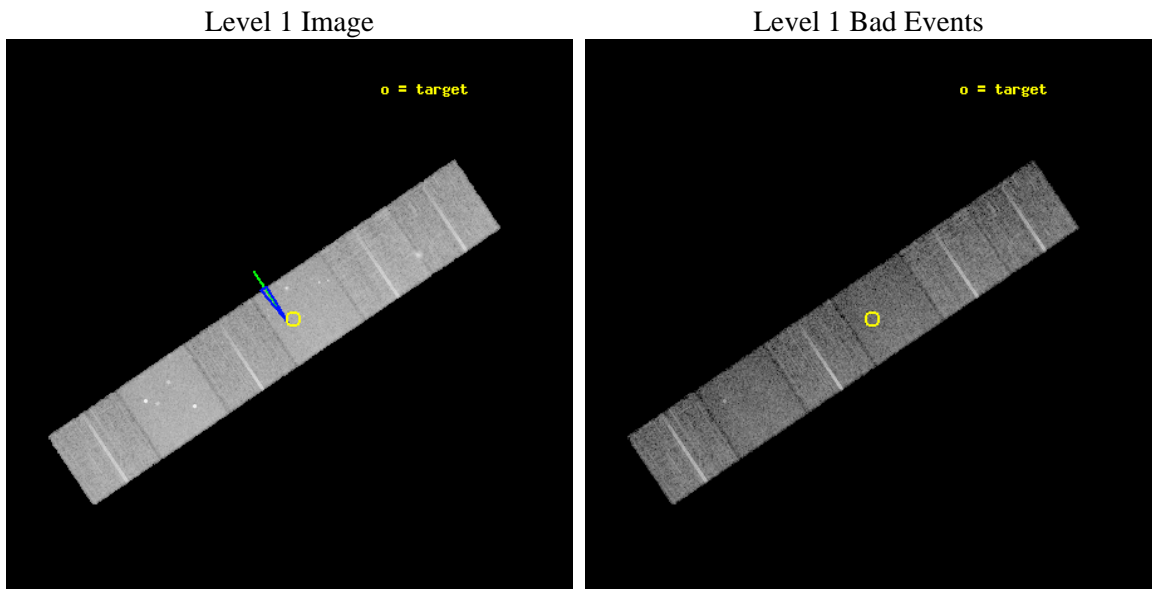
seq_num	800099	Sequence number
obs_id	923	Observation id
title	X-RAY DIAGNOSTICS OF VIRIALIZED GALAXY SYSTEMS AND THE NATURE OF COMPACT GALAXY GROUPS	Proposal title
observer	Dr. Gary Mamon	Principal investigator
object	HCG 16	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	32.398	Observer's specified target RA [deg]
dec_targ	-10.199	Observer's specified target Dec [deg]
ra_nom	32.405130954064	Nominal RA [deg]
dec_nom	-10.205879075117	Nominal Dec [deg]
roll_nom	325.9787673165	Nominal Roll [deg]
revision	3	Processing version of data
ontime	12726.400011837	Sum of GTIs [s]
livetime	12565.25067197	Livetime [s]
ontime4	12726.400011837	Sum of GTIs [s]
ontime5	12726.400011837	Sum of GTIs [s]
ontime6	12726.400011837	Sum of GTIs [s]
ontime7	12726.400011837	Sum of GTIs [s]
ontime8	12726.400011837	Sum of GTIs [s]
ontime9	12726.400011837	Sum of GTIs [s]
l2events	120044	Number of level 2 events



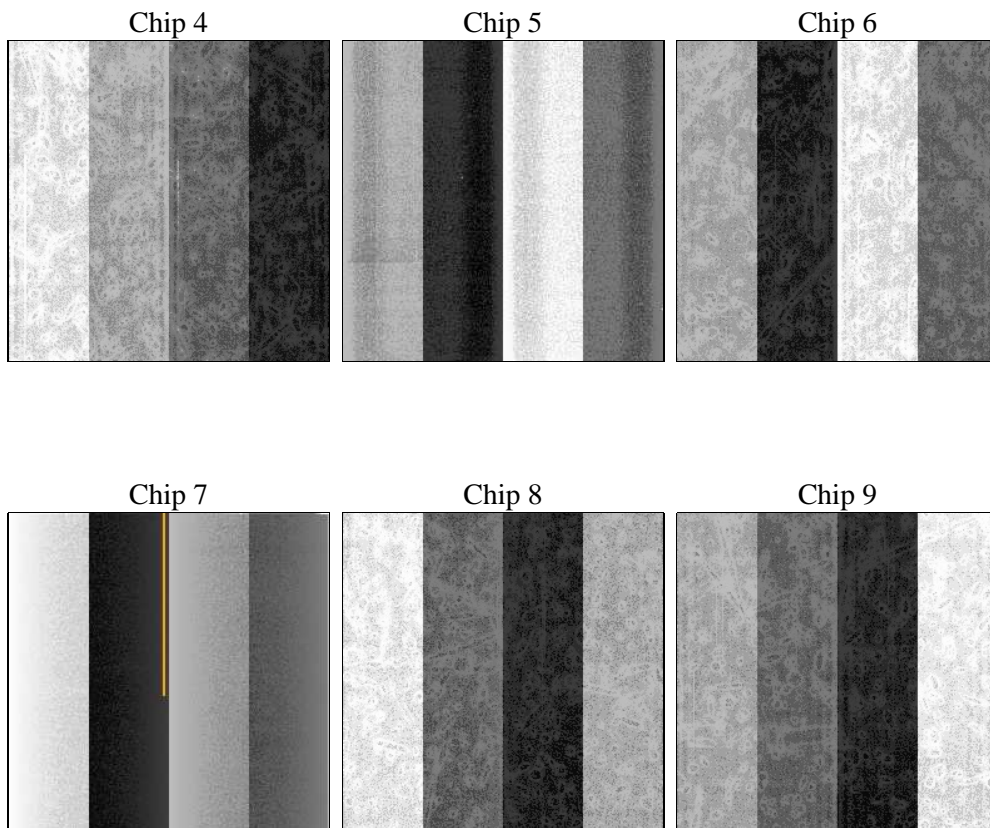
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12775.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	12726.400011837	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime4	12726.400011837	Sum of GTIs [s]
date	2012-09-03T16:09:08	Date and time of file creation	ontime5	12726.400011837	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	12726.400011837	Sum of GTIs [s]
			ontime7	12726.400011837	Sum of GTIs [s]
			ontime8	12726.400011837	Sum of GTIs [s]
			ontime9	12726.400011837	Sum of GTIs [s]
			l1events	532811	Number of level 1 events

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	82140	107221	75324	97081	97131	73914	grade 0 events	3896	7978	3986	4604	7180	4074
rejected events	72884	56019	66117	55202	76726	64429		4%	7%	5%	4%	7%	5%
rejected %	88%	52%	87%	56%	78%	87%	grade 1 events	31	342	45	94	57	37
								0%	0%	0%	0%	0%	0%
							grade 2 events	2043	14022	1865	8213	4121	1863
								2%	13%	2%	8%	4%	2%
							grade 3 events	940	2125	841	3815	2114	878
								1%	1%	1%	3%	2%	1%
							grade 4 events	824	2128	836	3858	1911	881
								1%	1%	1%	3%	1%	1%
							grade 5 events	2640	7902	3166	9053	3947	3176
								3%	7%	4%	9%	4%	4%
							grade 6 events	1555	24966	1682	21409	5085	1789
								1%	23%	2%	22%	5%	2%
							grade 7 events	70211	47758	62903	46035	72716	61216
								85%	44%	83%	47%	74%	82%

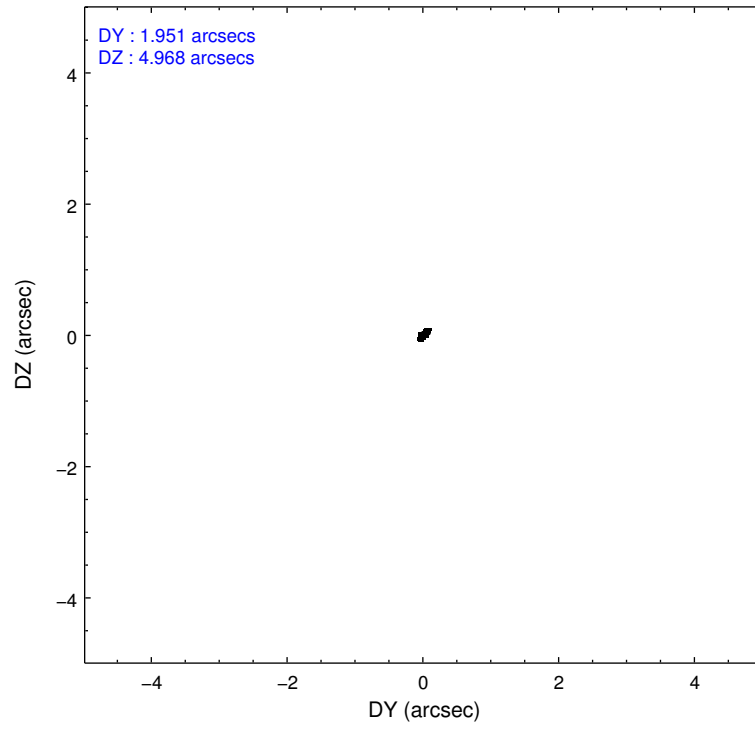
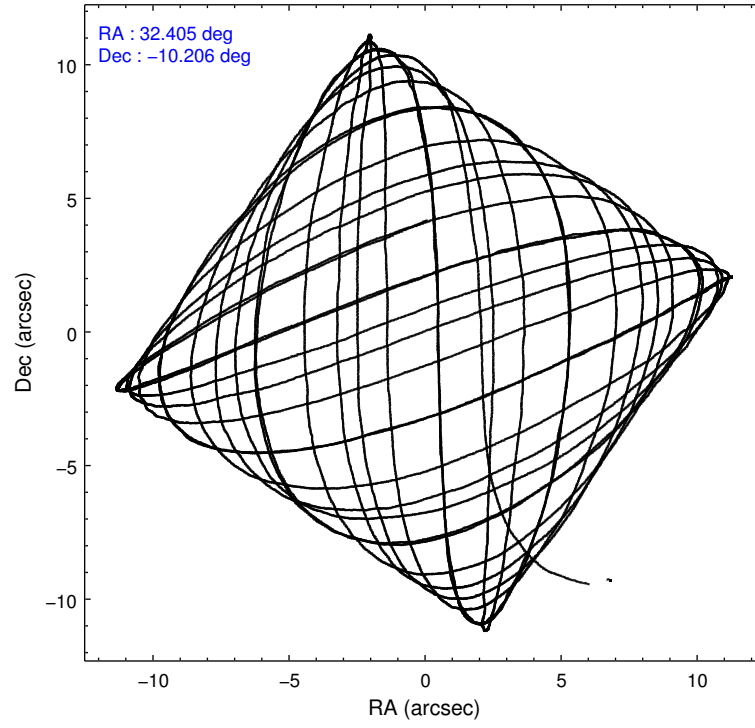


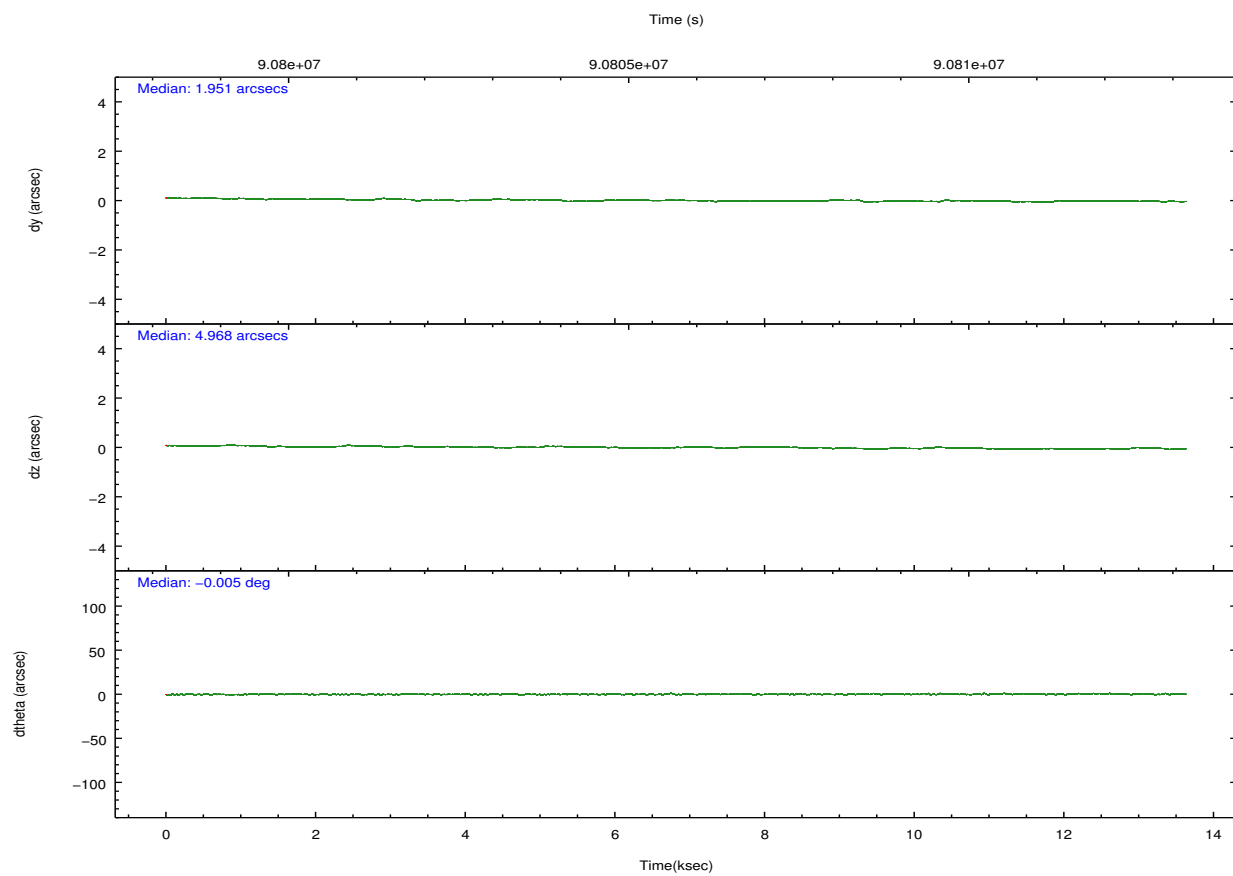
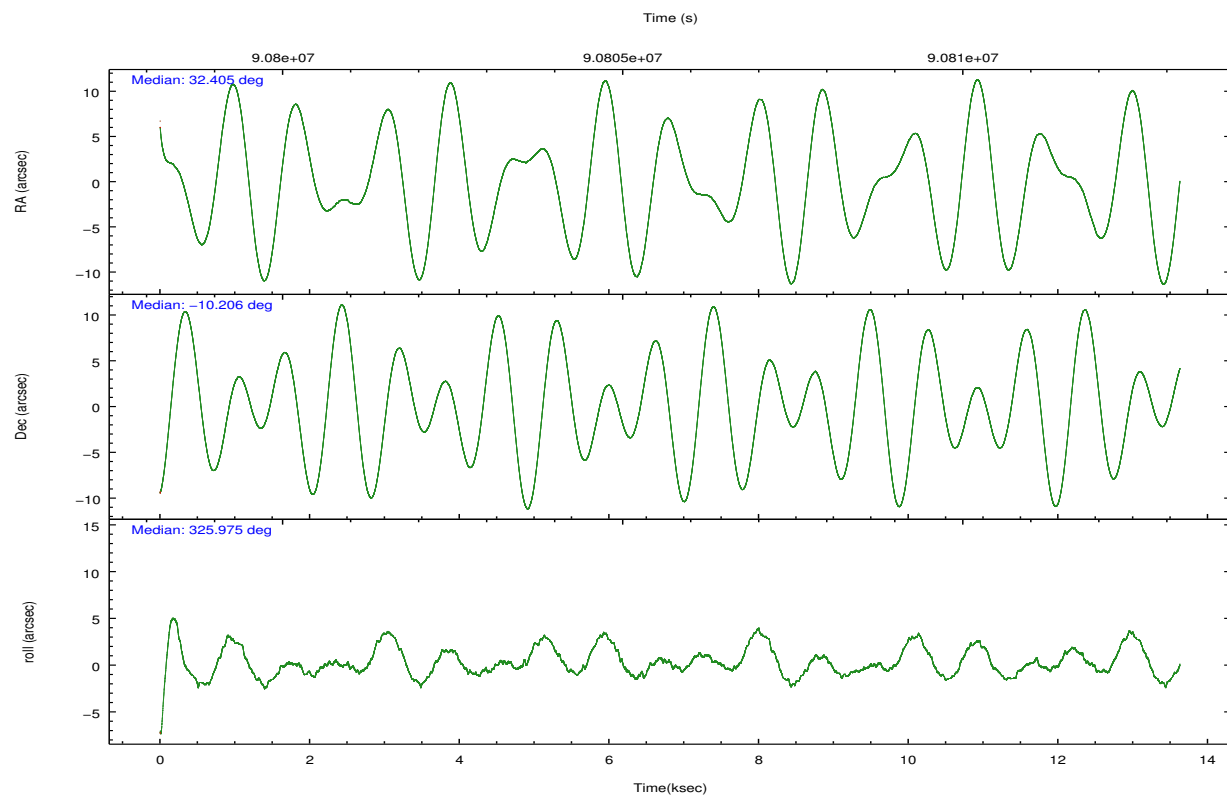
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	32.377430	32.40513095406443
[deg] Pointing Dec	-10.204191	-10.205879075117
[deg] Pointing Roll	325.817228	325.9787673165015
[deg] Roll angle	323.000000	323.000000
[deg] Roll tolerance	5.000000	5.000000
Roll constraint allows 180D rotation	N	N
[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)	90799736.184000	90798446.814851
Observation start date	2000-11-16T22:07:52	2000-11-16T21:47:26
[s] Observation end time (MET)	90812511.184000	90813489.202925
Observation end date	2000-11-17T01:40:47	2000-11-17T01:58:09
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



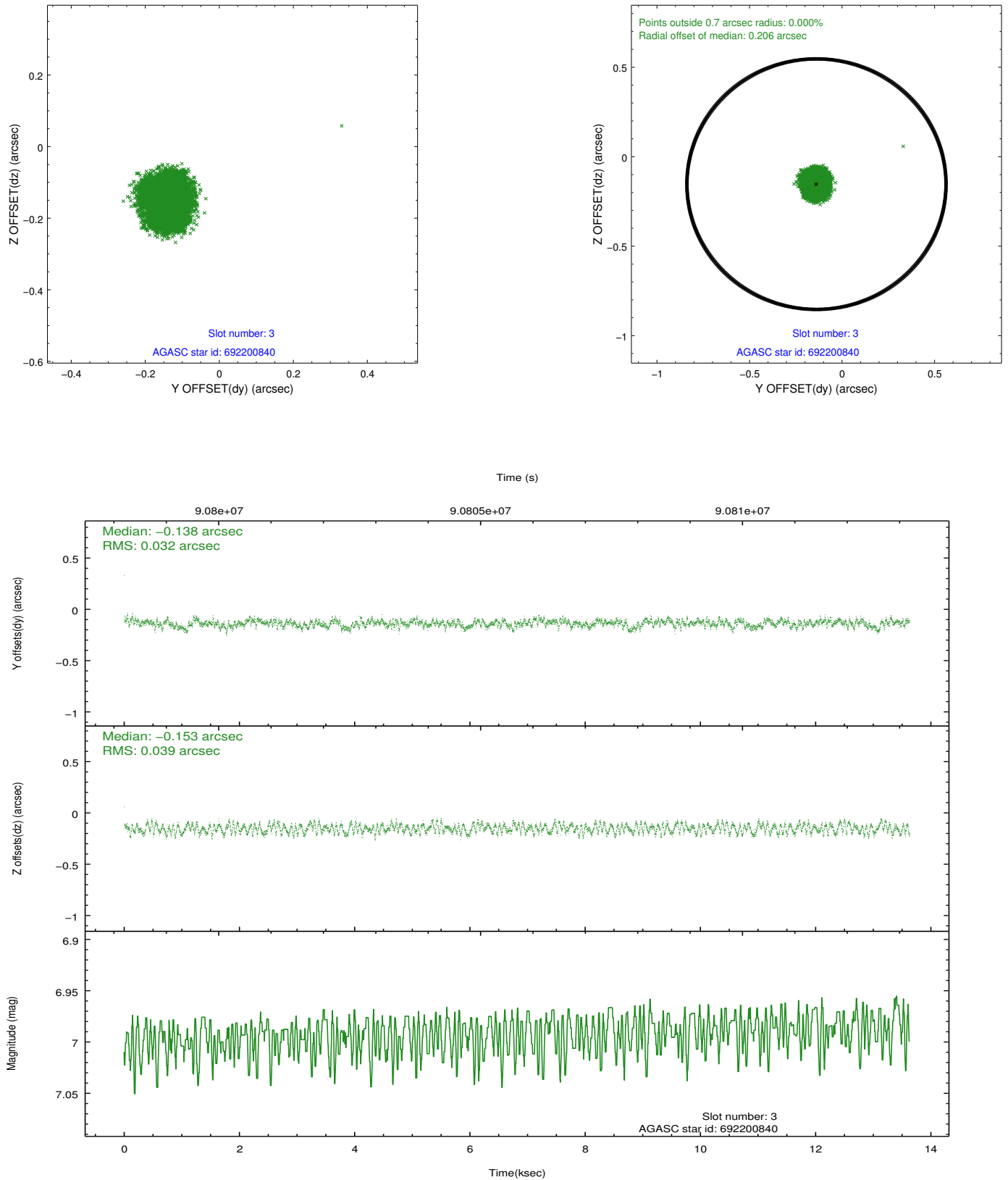


### Slot Statistics

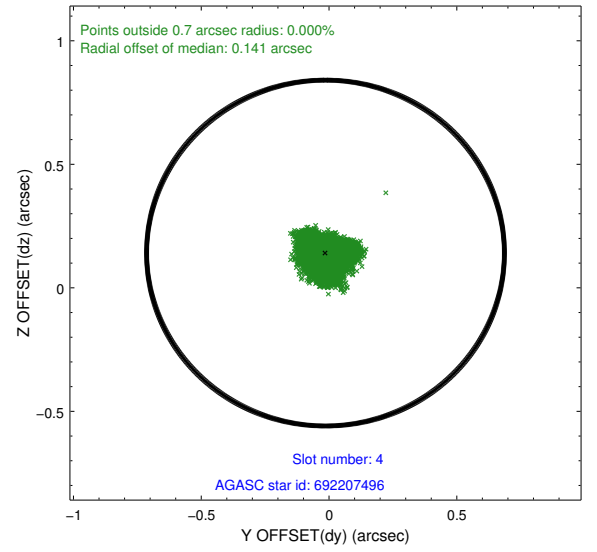
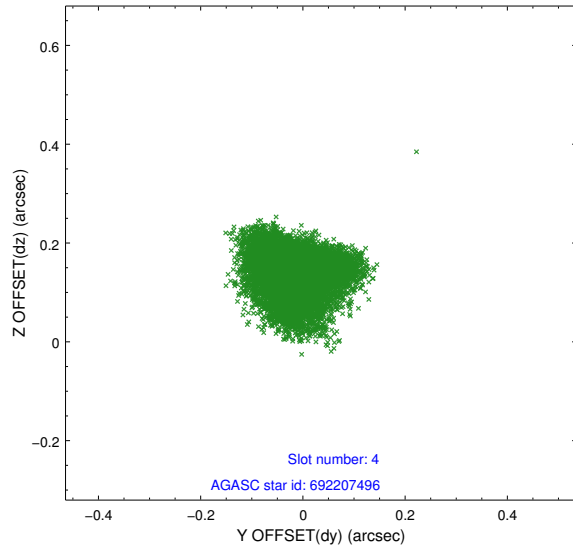
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	3323	-0.038	-0.009	0.007	0.011	0.000000	0.000000	-754.59	-1726.04
1	FID	ACIS-S-4	7.21	3322	-0.005	0.021	0.006	0.011	0.000000	0.000000	2158.54	182.15
2	FID	ACIS-S-5	7.24	3324	0.012	-0.003	0.007	0.012	0.000000	0.000000	-1806.96	176.14
3	GUIDE	692200840	6.99	6648	-0.138	-0.153	0.055	0.083	31.544710	-10.276216	-2292.46	-1875.38
4	GUIDE	692207496	7.35	6646	-0.014	0.141	0.078	0.115	32.082363	-10.041338	-1194.82	-103.37
5	GUIDE	692207400	8.26	6646	0.009	0.032	0.051	0.083	32.382891	-9.868805	-662.67	1009.57
6	GUIDE	692205768	8.19	6647	0.144	0.015	0.055	0.088	32.434117	-10.419931	602.38	-529.65
7	GUIDE	692202464	9.10	6645	-0.002	-0.031	0.084	0.137	31.840289	-10.514654	-943.86	-1994.39

## 2.4 Star Slots

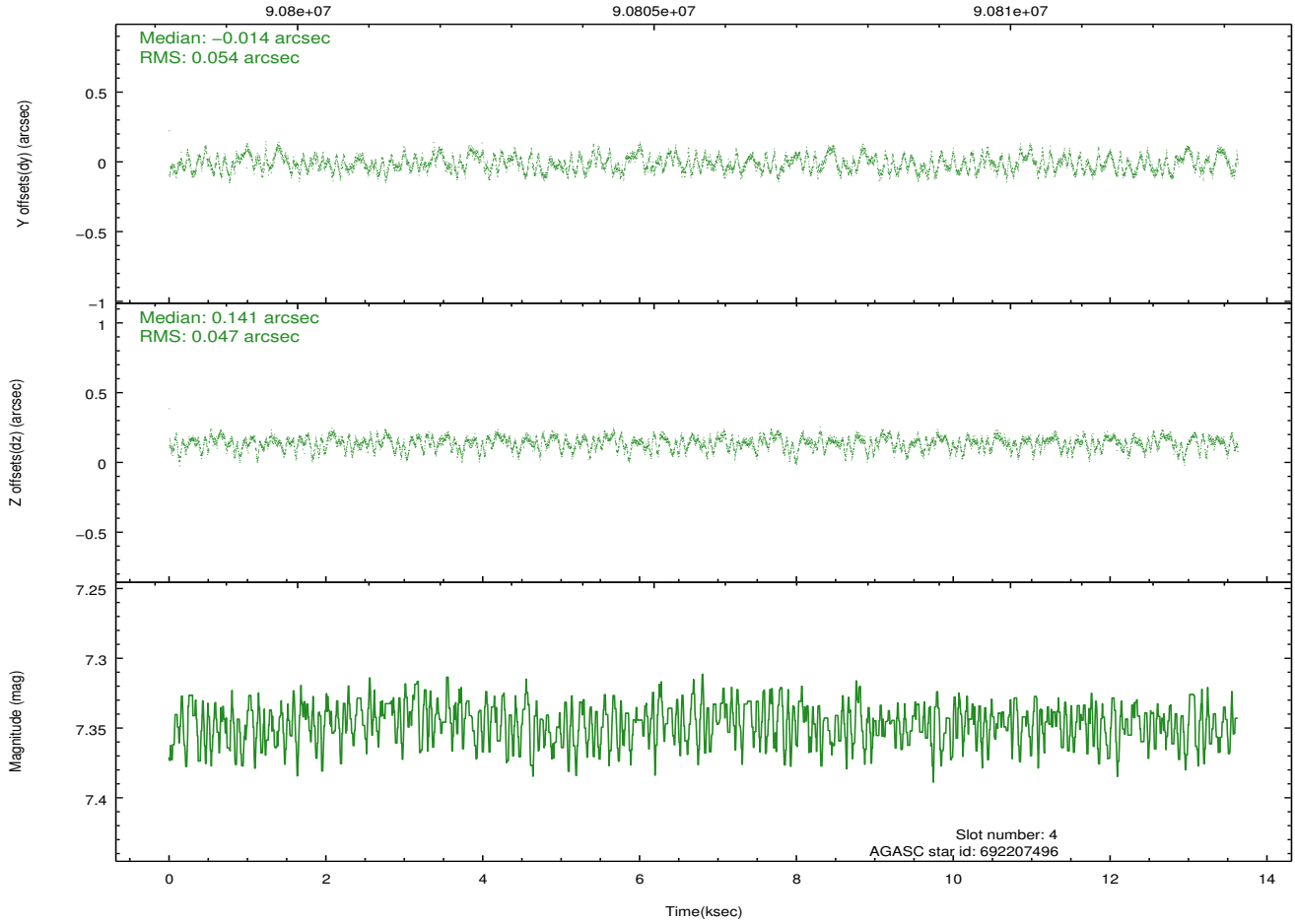
### 2.4.1 Slot 3



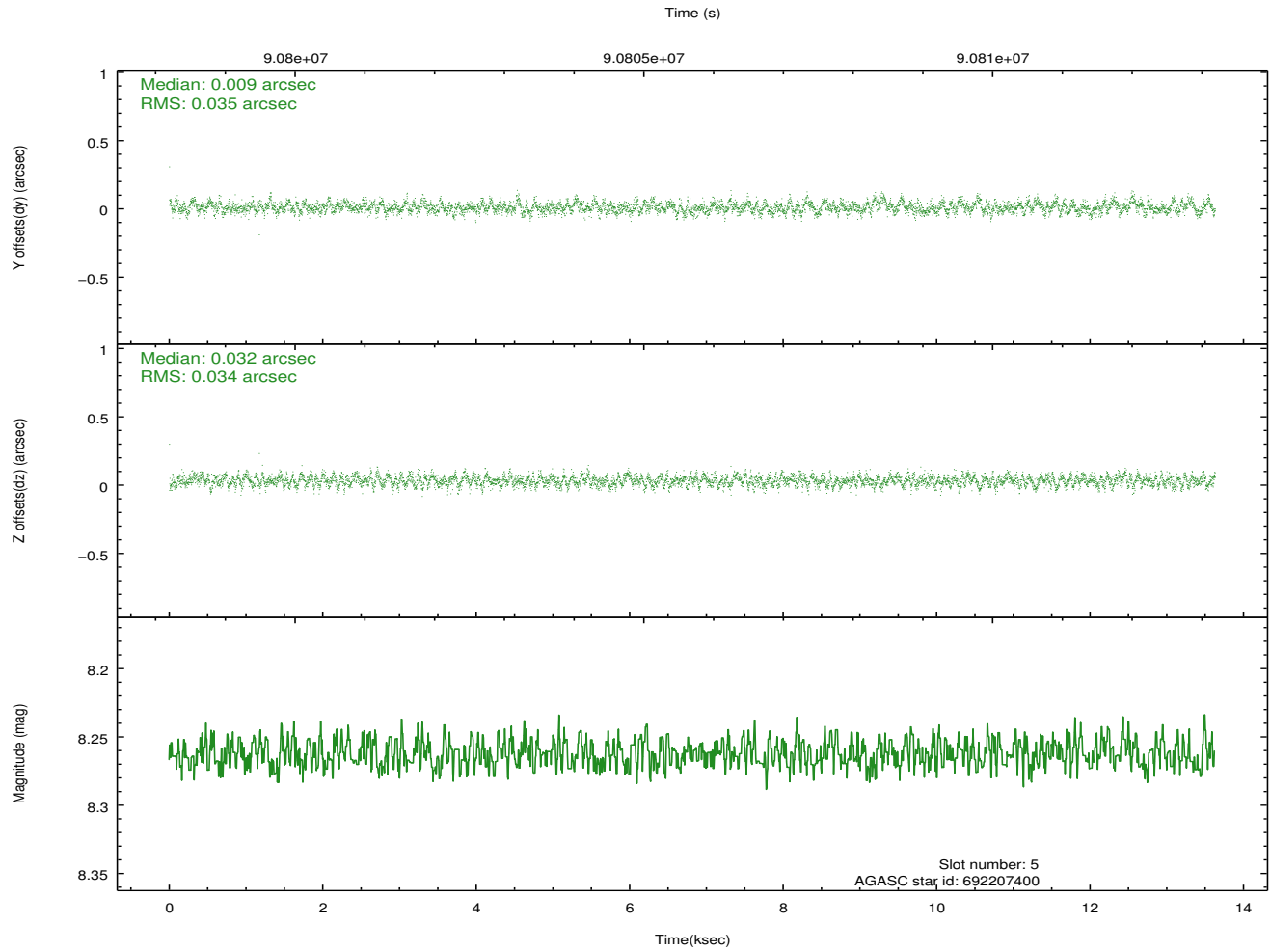
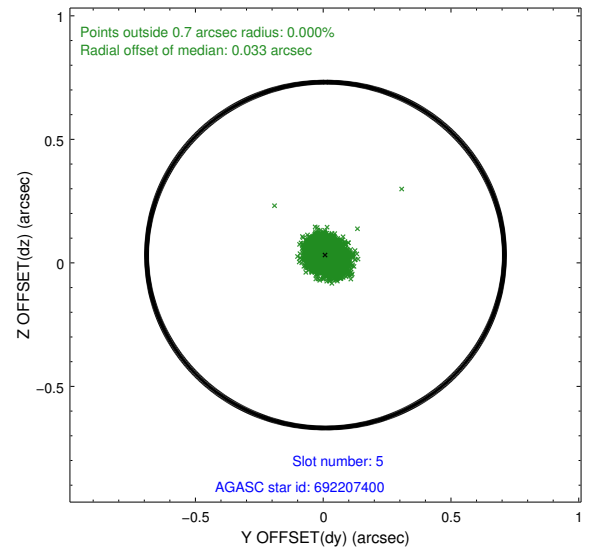
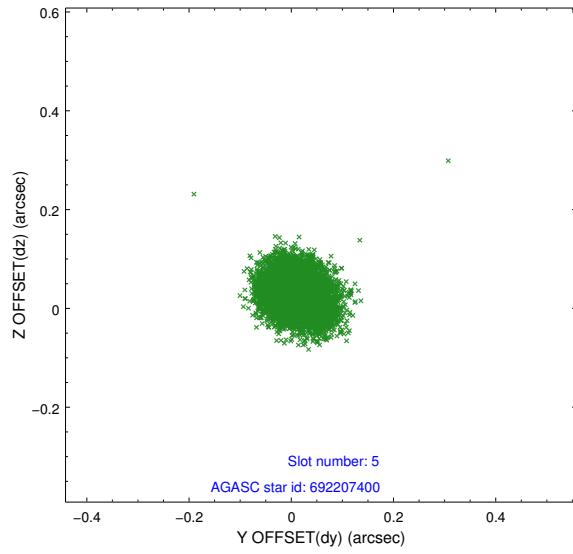
## 2.4.2 Slot 4



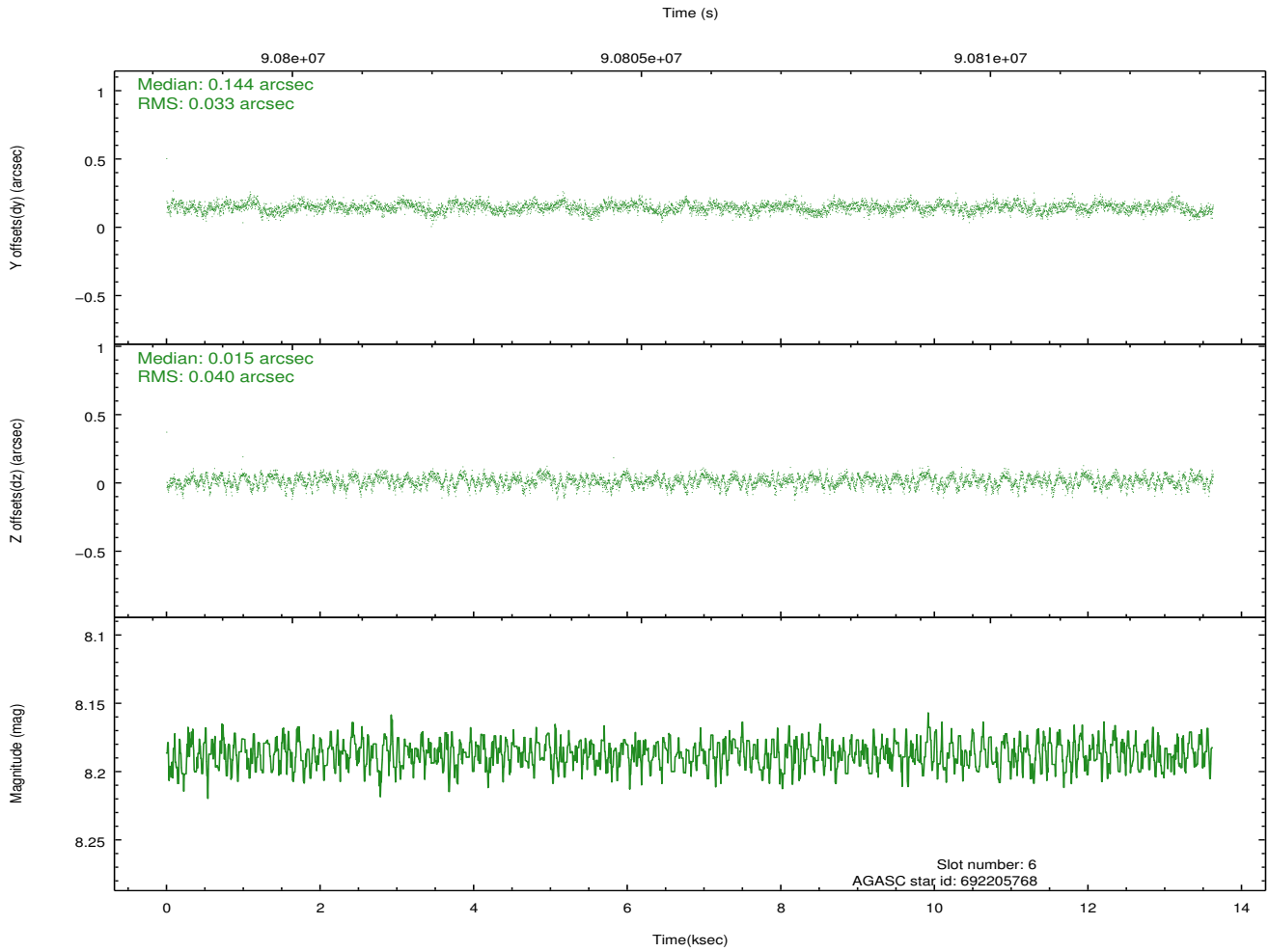
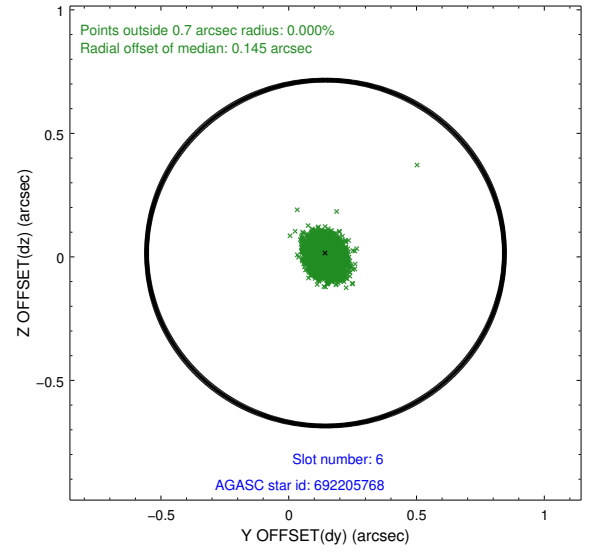
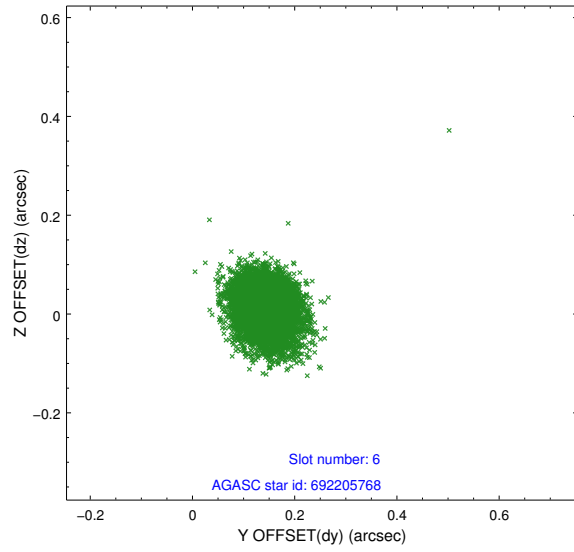
Time (s)



### 2.4.3 Slot 5

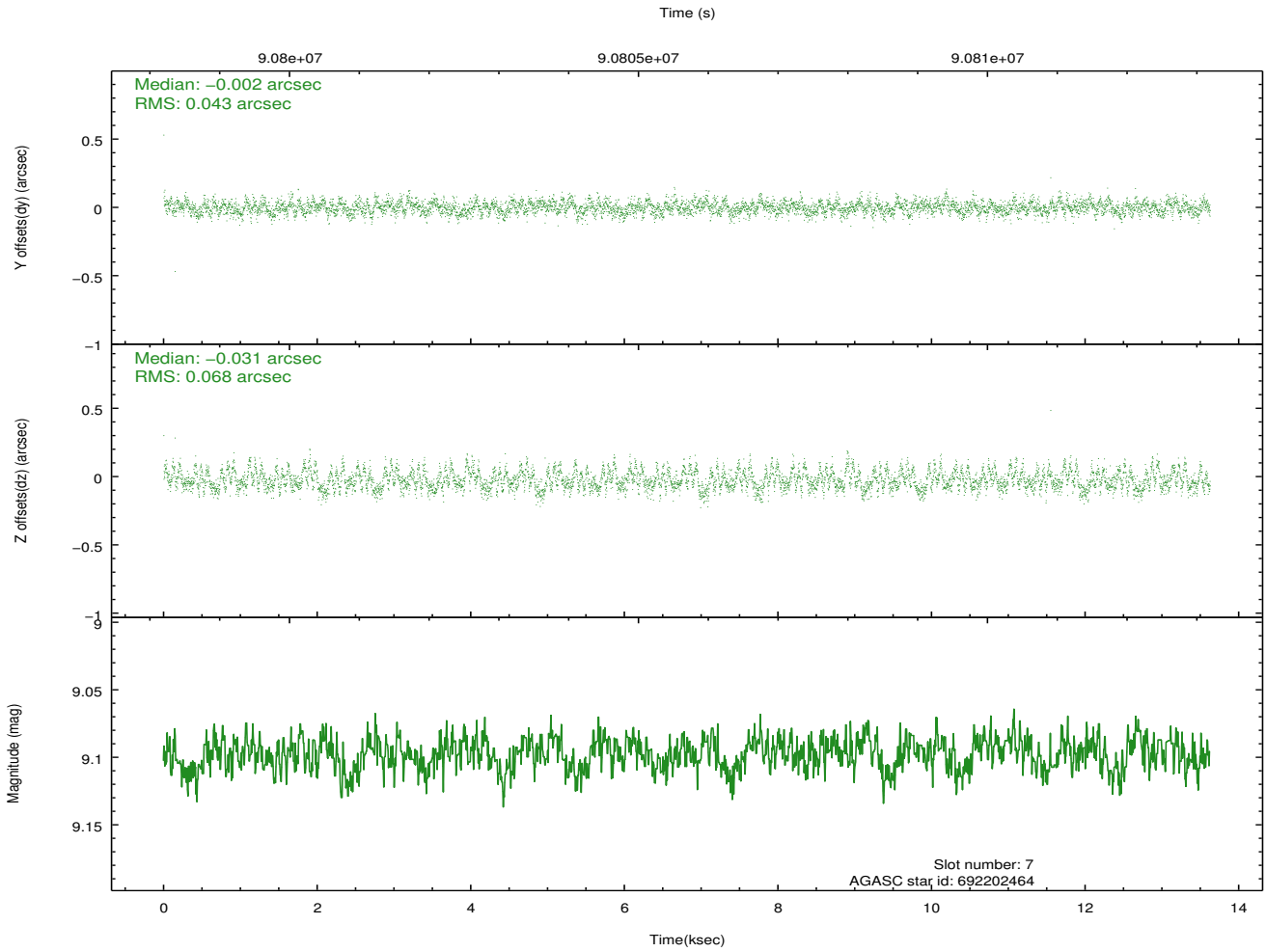
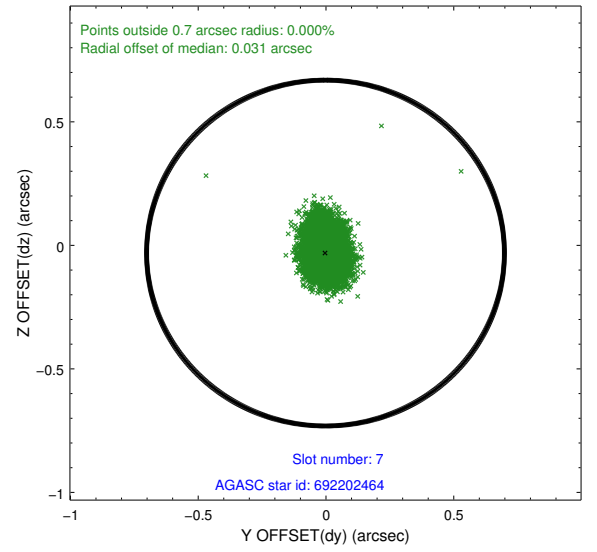
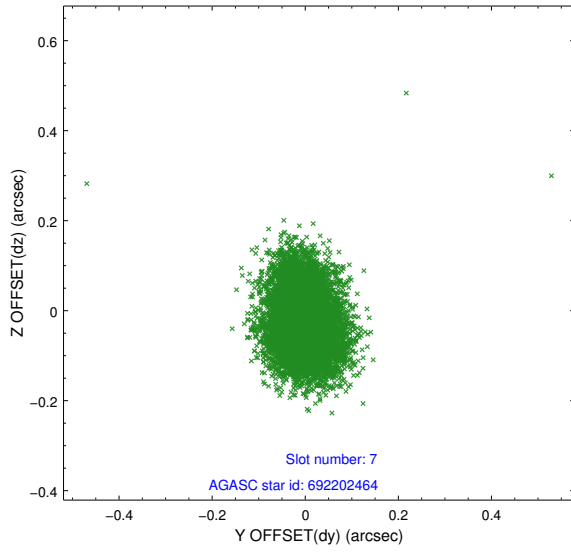


## 2.4.4 Slot 6



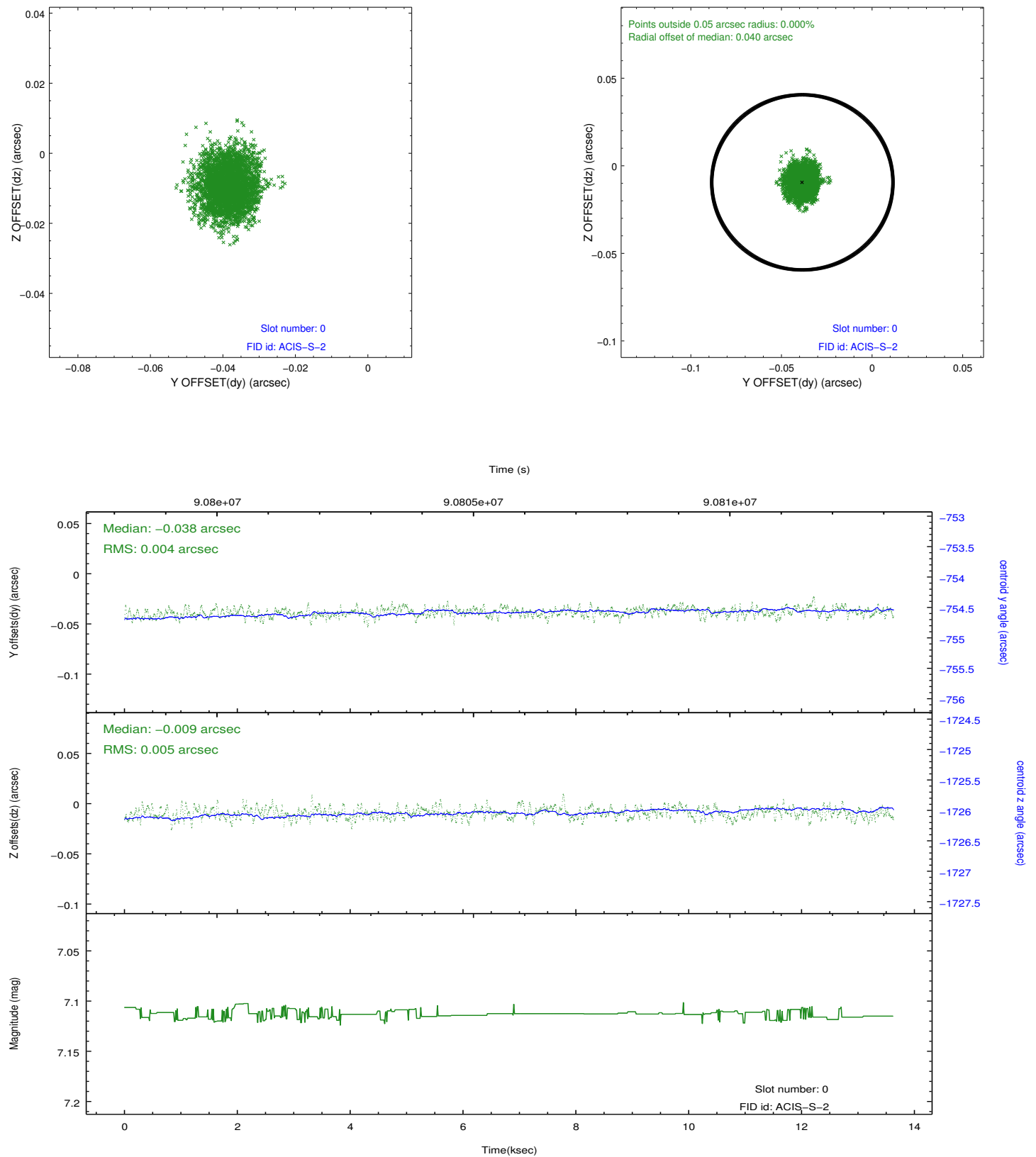


## 2.4.5 Slot 7

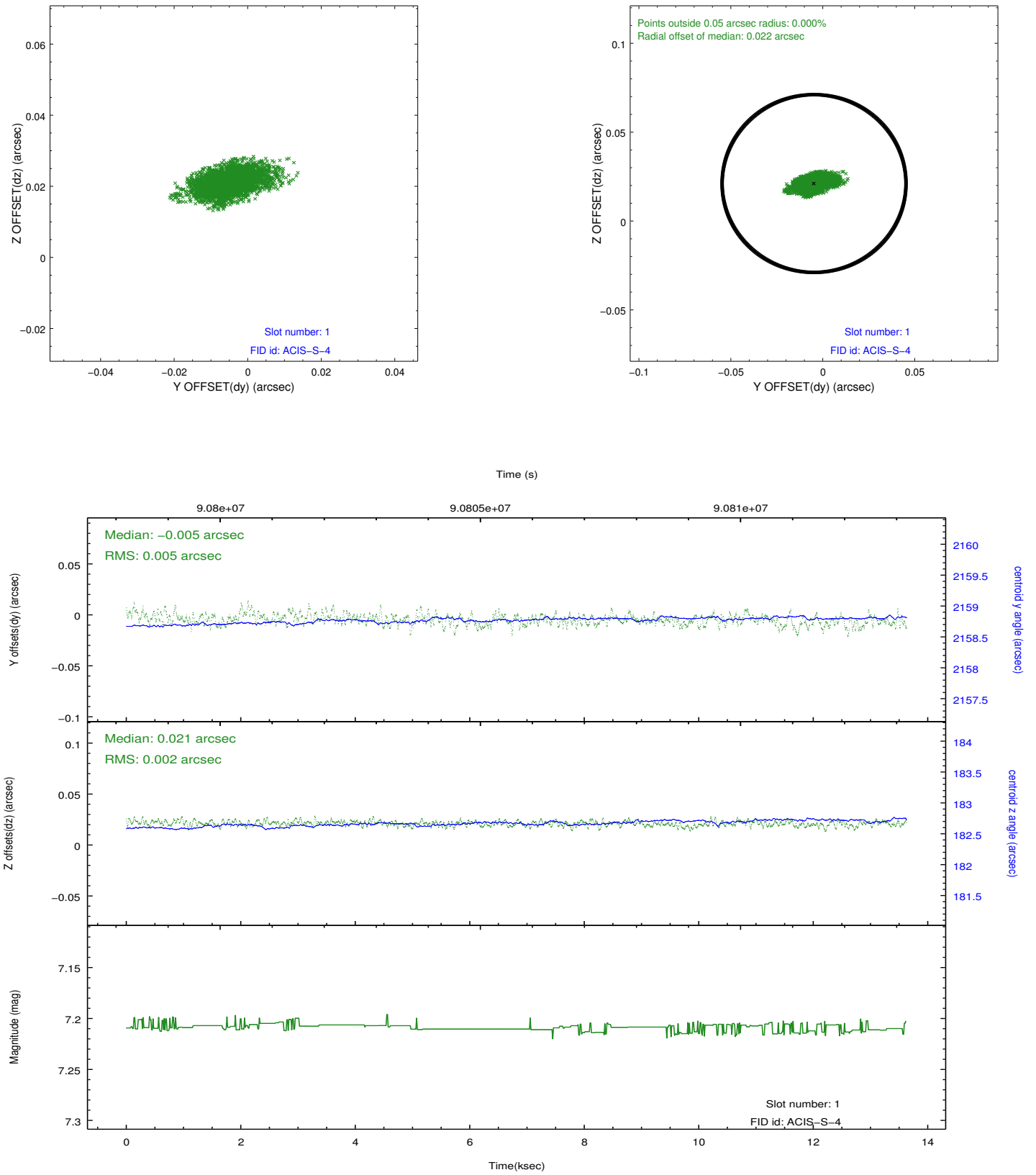


## 2.5 FID Slots

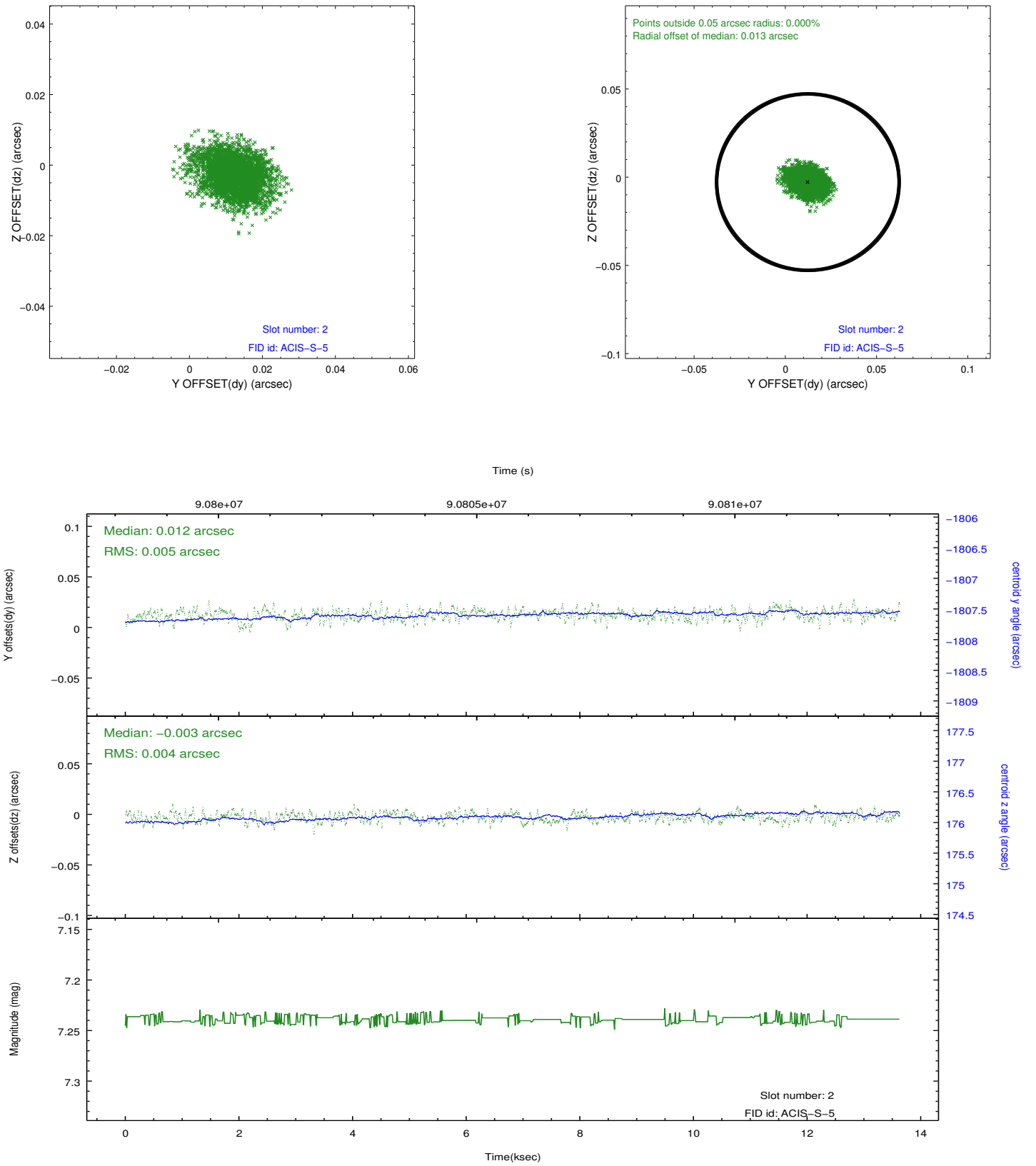
### 2.5.1 Slot 0



## 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)	2012.09.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.729

### A.2 Comments

Roll constraint met.