

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 947 - L2 Version 4  
Chandra X-Ray Center

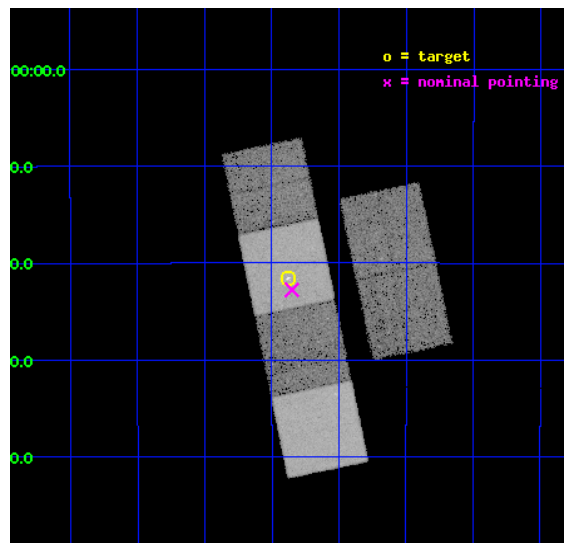
L2 Processing Date : Aug 30 2012

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# 1 Front

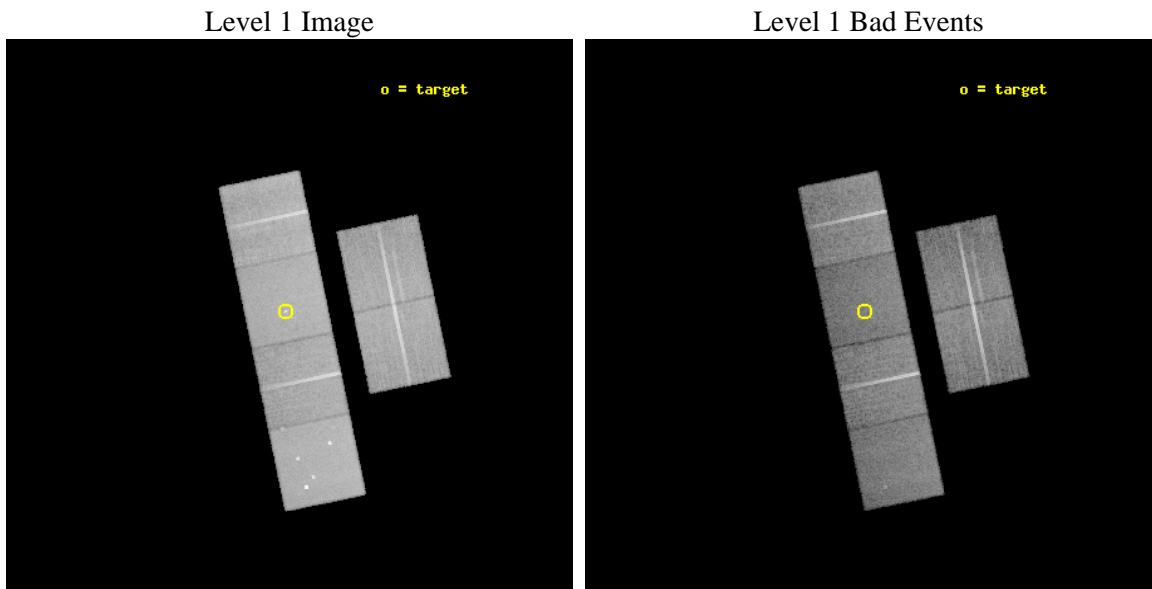
seq_num	300026	Sequence number
obs_id	947	Observation id
title	A STUDY OF THE POPULATIONS OF FAINT X-RAY SOURCES IN GLOBULAR CLUSTERS	Proposal title
observer	Prof. Walter Lewin	Principal investigator
object	NGC 6440	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	267.219167	Observer's specified target RA [deg]
dec_targ	-20.359389	Observer's specified target Dec [deg]
ra_nom	267.21268848779	Nominal RA [deg]
dec_nom	-20.379536667046	Nominal Dec [deg]
roll_nom	258.23263204966	Nominal Roll [deg]
revision	4	Processing version of data
ontime	23576.19827652	Sum of GTIs [s]
livetime	23277.66225806	Livetime [s]
ontime2	23576.239316523	Sum of GTIs [s]
ontime3	23576.075156525	Sum of GTIs [s]
ontime5	23576.157236516	Sum of GTIs [s]
ontime6	23576.116196528	Sum of GTIs [s]
ontime7	23576.19827652	Sum of GTIs [s]
ontime8	23576.034116521	Sum of GTIs [s]
l2events	231010	Number of level 2 events



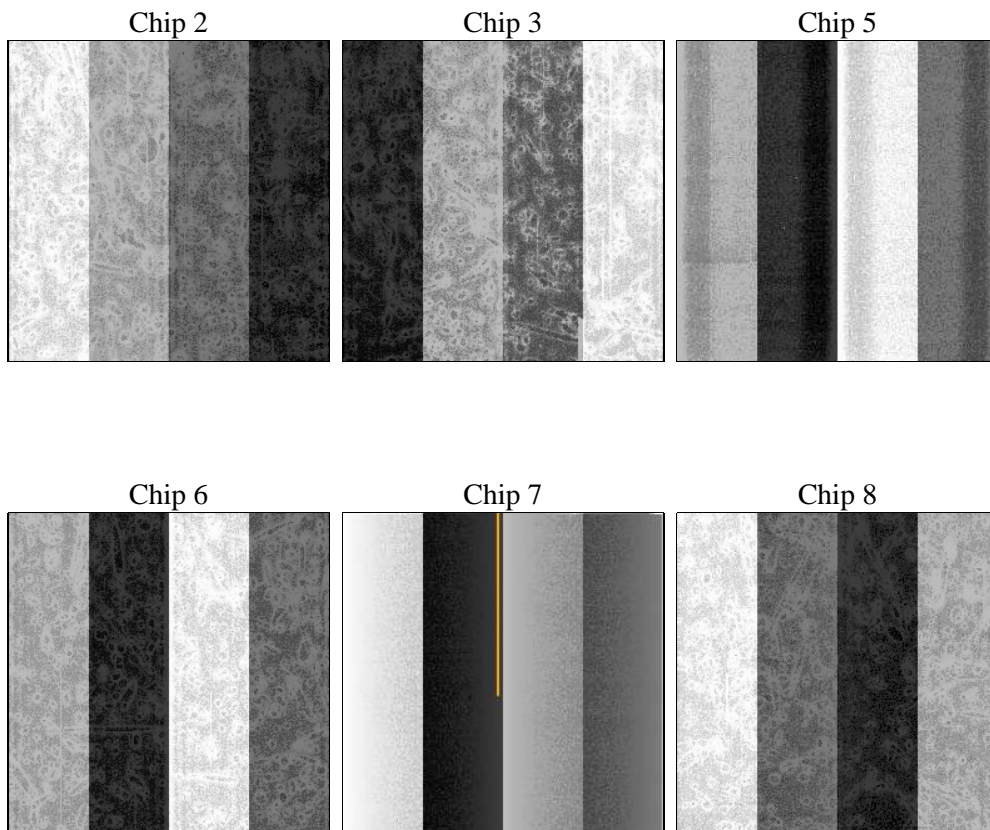
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23625.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	23576.19827652	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime2	23576.239316523	Sum of GTIs [s]
date	2012-08-30T04:16:16	Date and time of file creation	ontime3	23576.075156525	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	23576.157236516	Sum of GTIs [s]
			ontime6	23576.116196528	Sum of GTIs [s]
			ontime7	23576.19827652	Sum of GTIs [s]
			ontime8	23576.034116521	Sum of GTIs [s]
			l1events	1076199	Number of level 1 events

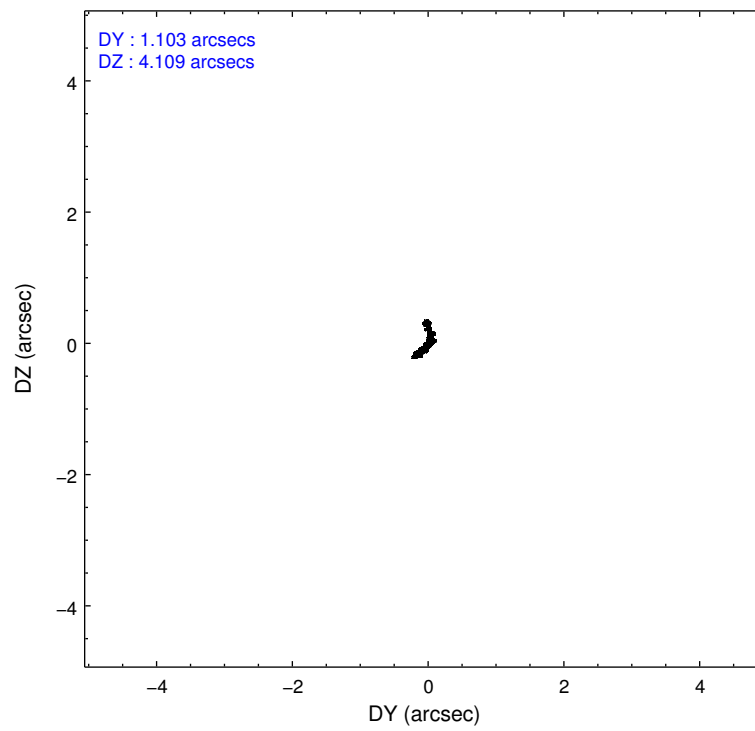
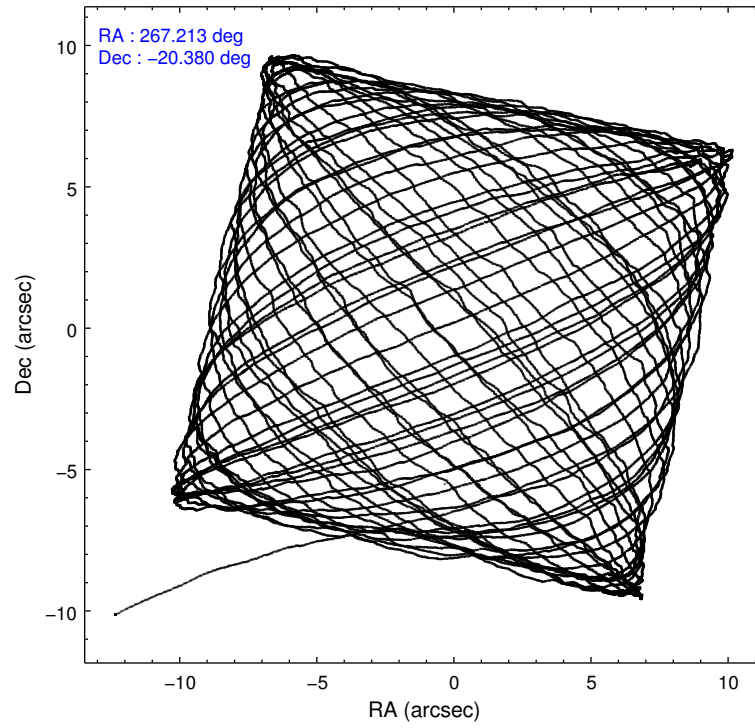
### 2.1.4 Events

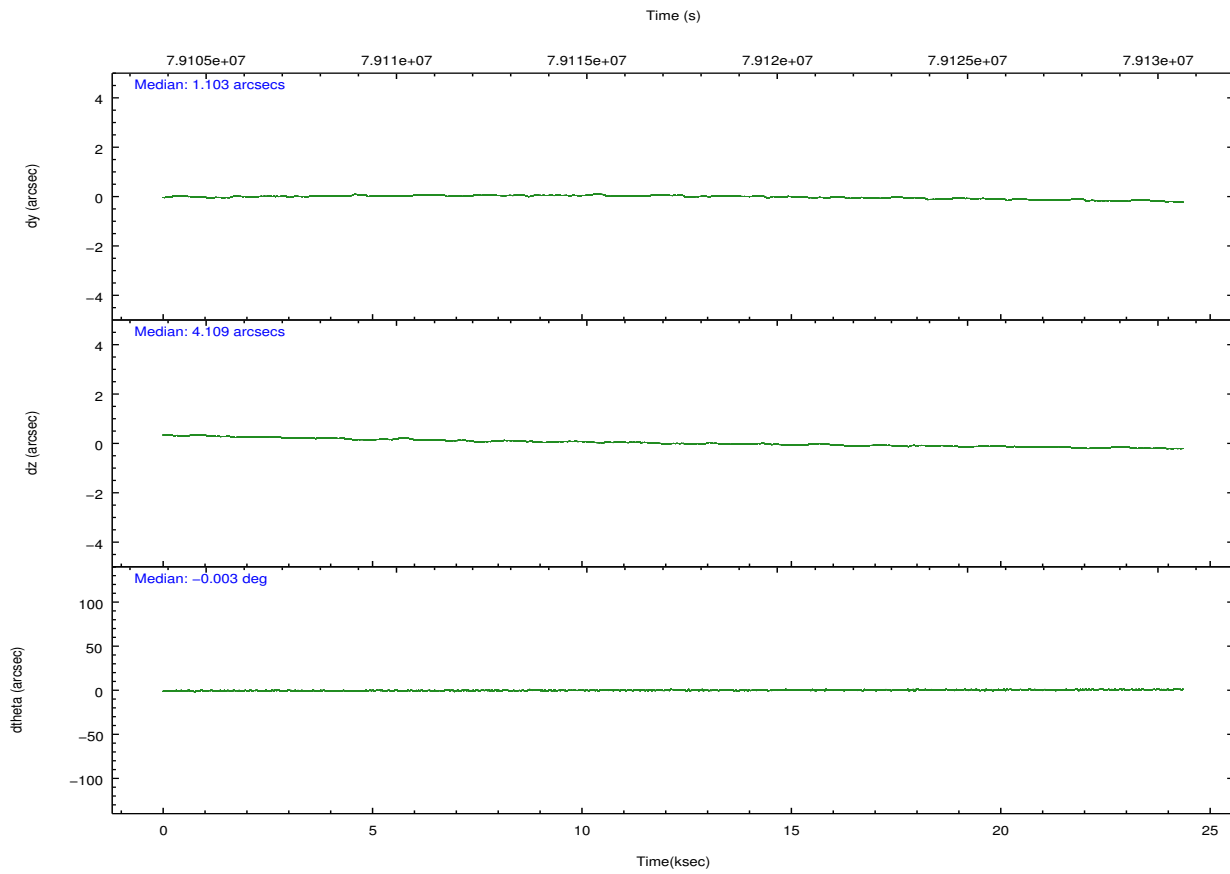
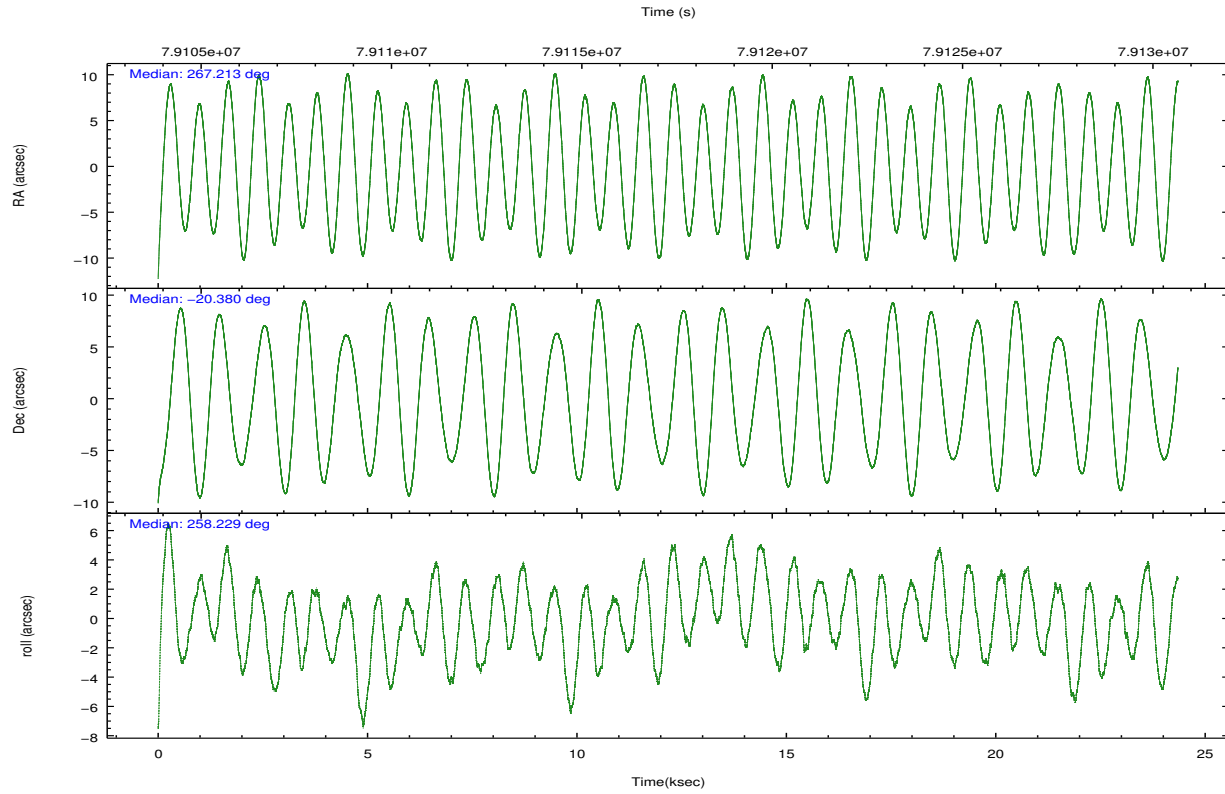
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	167056	154336	210204	161134	188026	195443	grade 0 events	7615	8085	16297	8117	8216	12398
rejected events	149777	136883	109461	142897	107054	158341		4%	5%	7%	5%	4%	6%
rejected %	89%	88%	52%	88%	56%	81%	grade 1 events	67	88	497	70	184	100
								0%	0%	0%	0%	0%	0%
							grade 2 events	3538	3196	27930	3456	16082	7838
								2%	2%	13%	2%	8%	4%
							grade 3 events	1647	1669	4137	1746	7555	3937
								0%	1%	1%	1%	4%	2%
							grade 4 events	1646	1613	3947	1682	7507	3674
								0%	1%	1%	1%	3%	1%
							grade 5 events	4849	5307	15131	5900	17665	7519
								2%	3%	7%	3%	9%	3%
							grade 6 events	2840	2896	48461	3243	41640	9271
								1%	1%	23%	2%	22%	4%
							grade 7 events	144854	131482	93804	136920	89177	150706
								86%	85%	44%	84%	47%	77%

## 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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	267.203399	267.2126884877937	Subarray requested	NONE	NONE
[deg] Pointing Dec	-20.353539	-20.37953666704613	Alternating exposures requested	N	N
[deg] Pointing Roll	258.072772	258.2326320496564	[s] Primary exposure time	0.000000	3.2
[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)	79105812.184000	79104583.201098			
Observation start date	2000-07-04T13:49:08	2000-07-04T13:29:43			
[s] Observation end time (MET)	79129437.184000	79130418.32705			
Observation end date	2000-07-04T20:22:53	2000-07-04T20:40:18			
Read mode	TIMED	TIMED			

## 2.3 Aspect



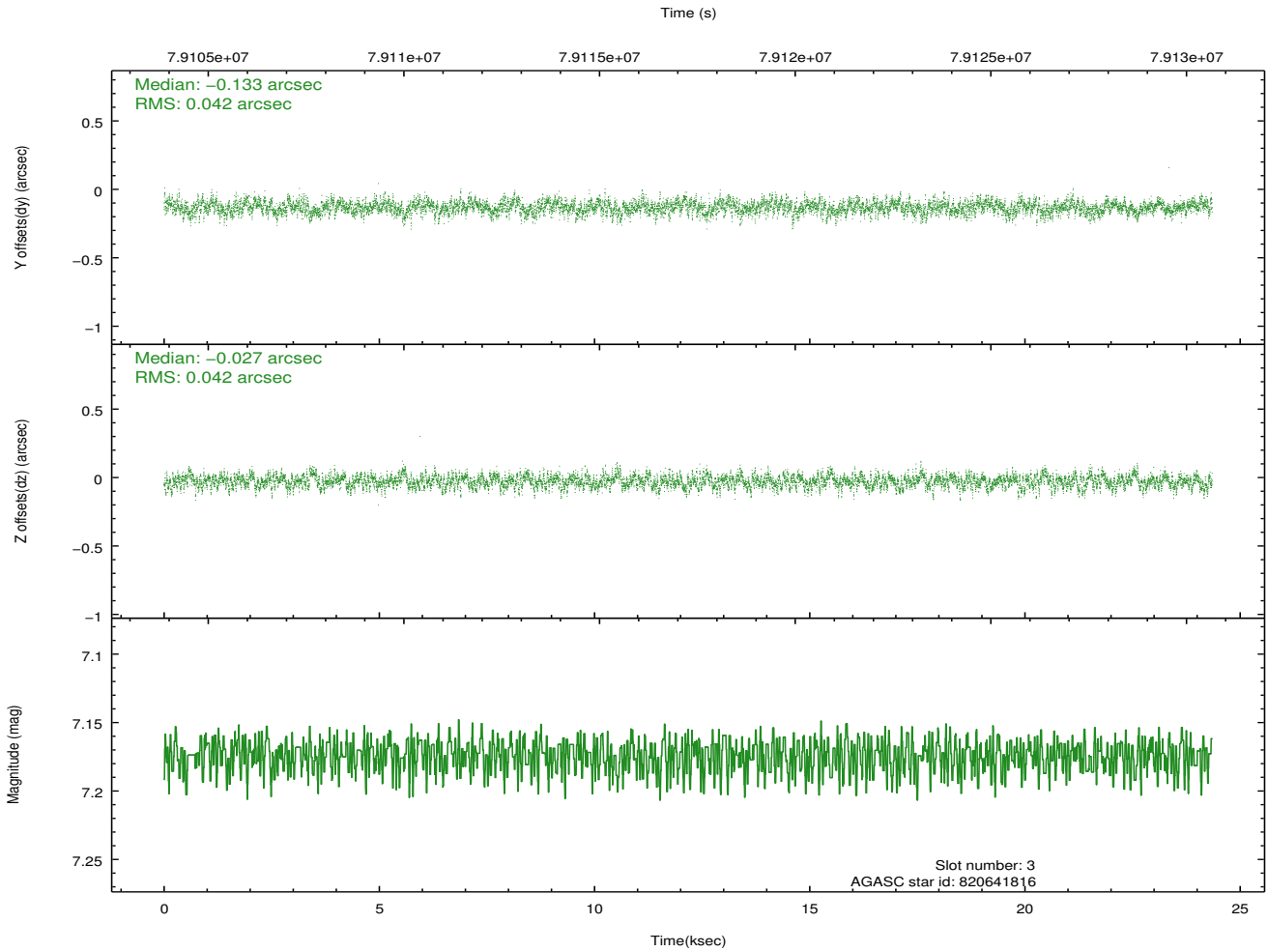
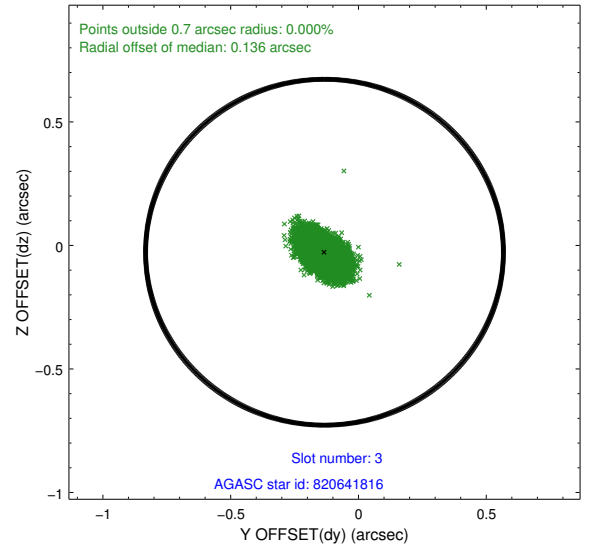
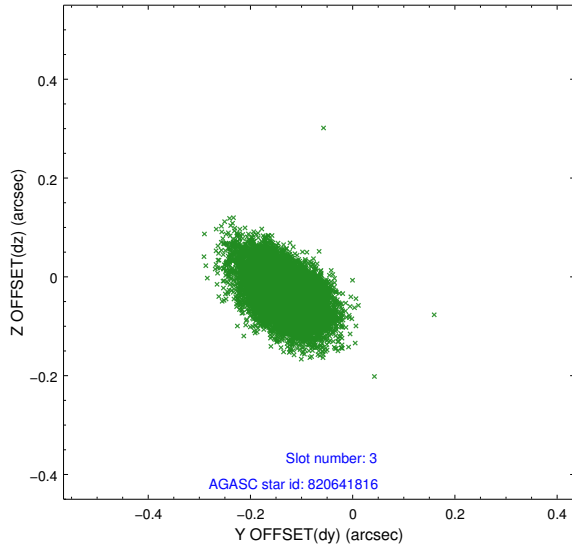


### Slot Statistics

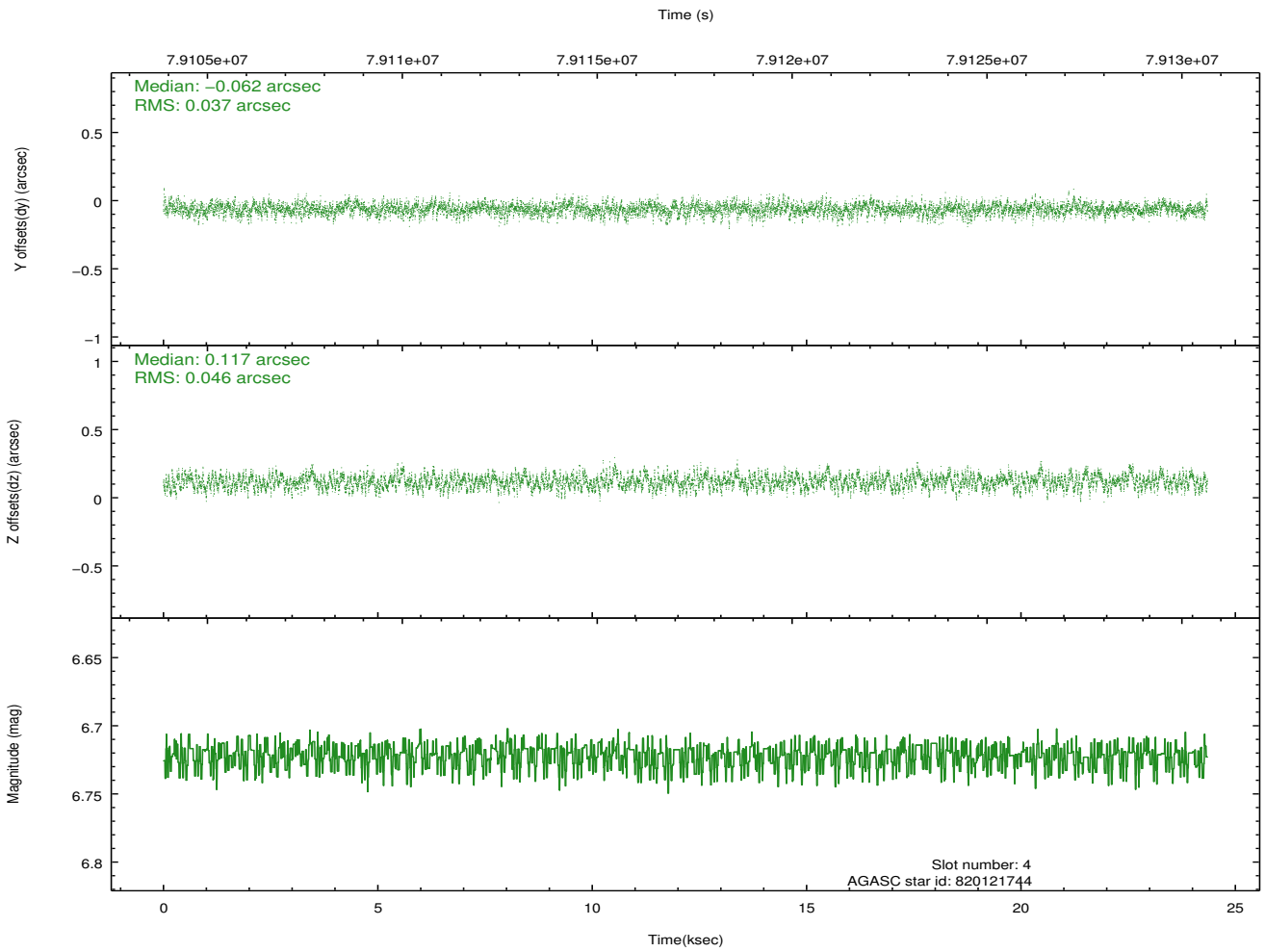
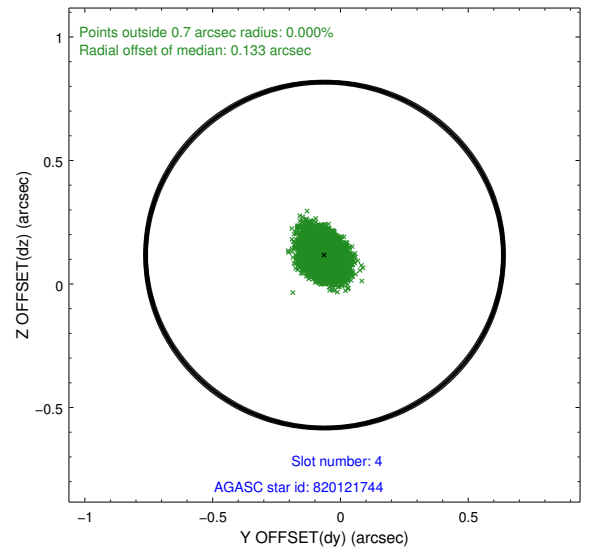
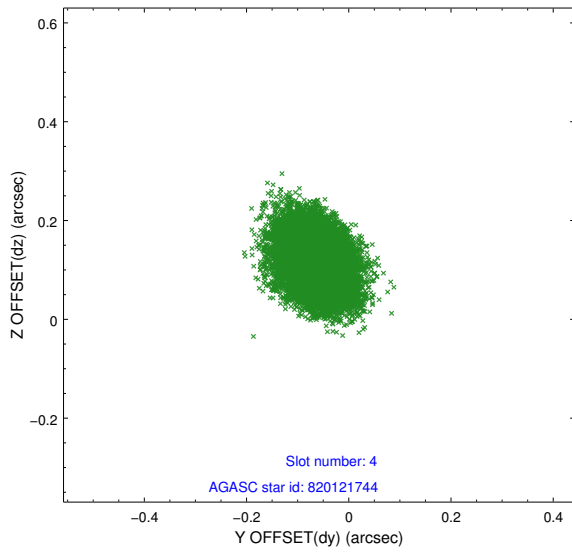
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	5937	-0.017	-0.012	0.008	0.013	0.000000	0.000000	-753.71	-1725.17
1	FID	ACIS-S-4	7.21	5937	-0.009	0.011	0.006	0.011	0.000000	0.000000	2159.55	183.16
2	FID	ACIS-S-5	7.24	5939	-0.006	0.009	0.007	0.012	0.000000	0.000000	-1806.35	177.03
3	GUIDE	820641816	7.17	11878	-0.133	-0.027	0.061	0.105	267.363435	-20.830907	1569.69	882.62
4	GUIDE	820121744	6.72	11878	-0.062	0.117	0.063	0.103	267.173633	-19.779615	-2001.10	-525.15
5	GUIDE	820119072	9.08	11875	0.030	-0.079	0.074	0.128	267.464837	-19.906178	-1758.65	533.40
6	GUIDE	820642232	9.99	11867	0.105	0.018	0.119	0.195	266.751270	-20.704142	1551.17	-1227.80
7	GUIDE	820119848	10.08	11862	0.059	-0.026	0.130	0.217	267.750995	-20.266800	-685.16	1745.77

## 2.4 Star Slots

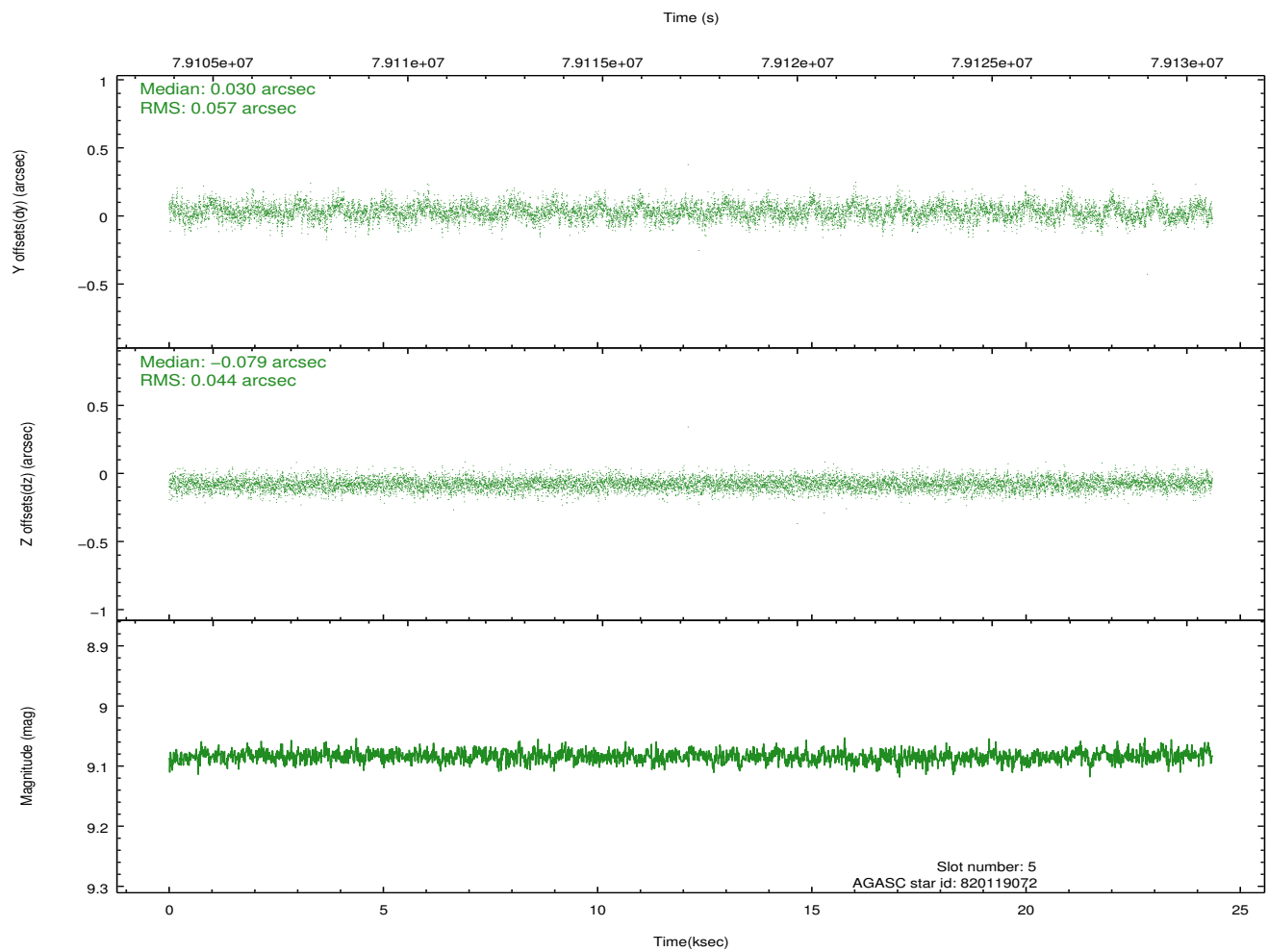
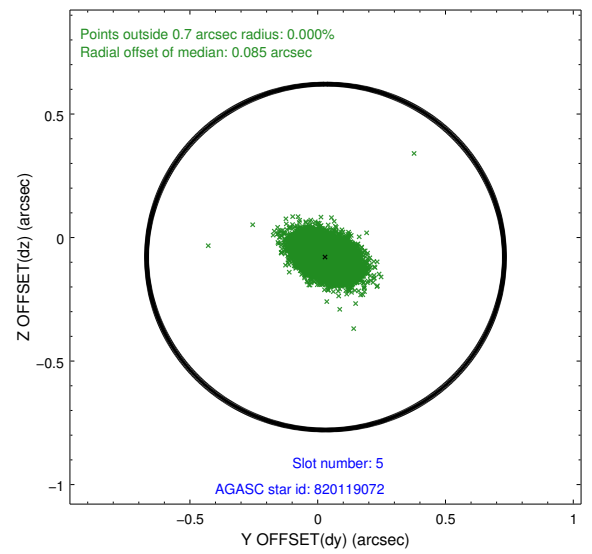
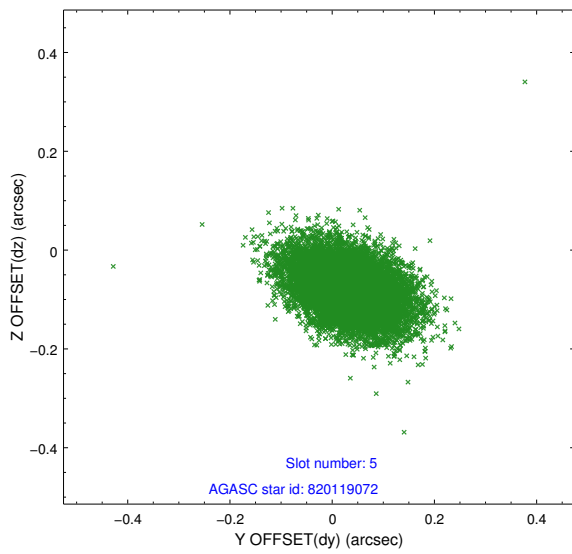
### 2.4.1 Slot 3



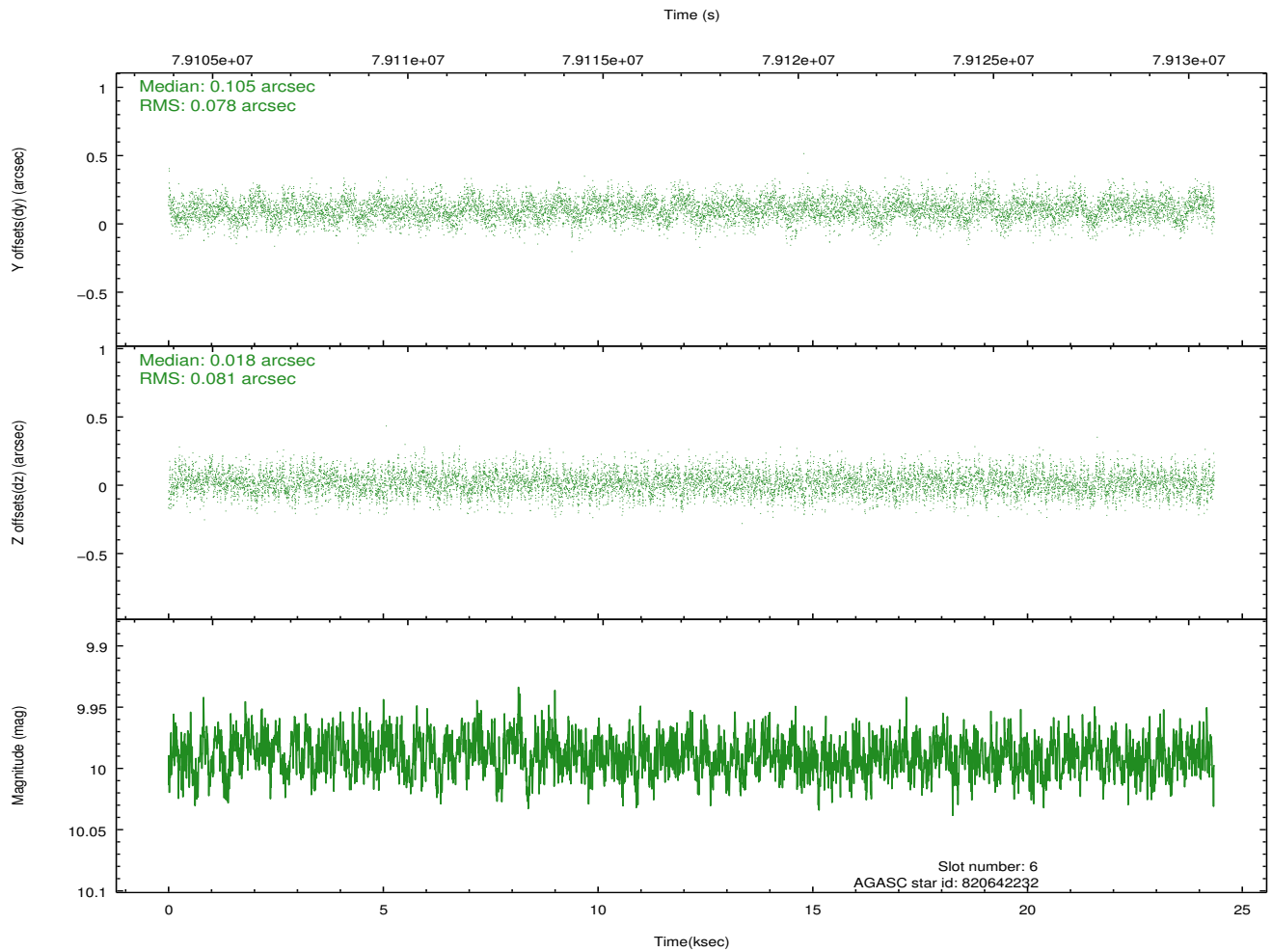
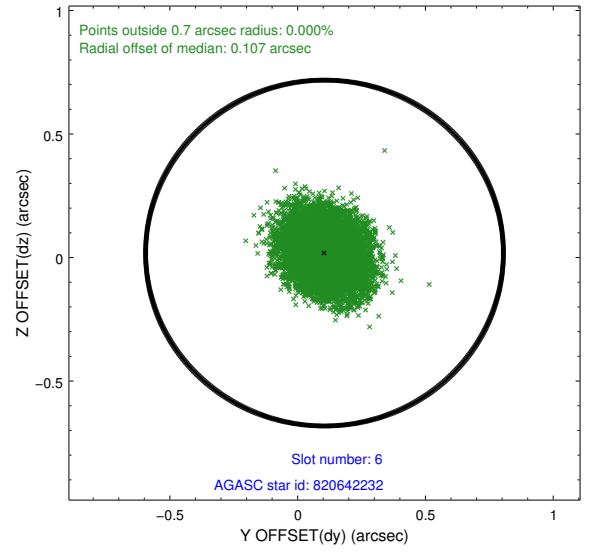
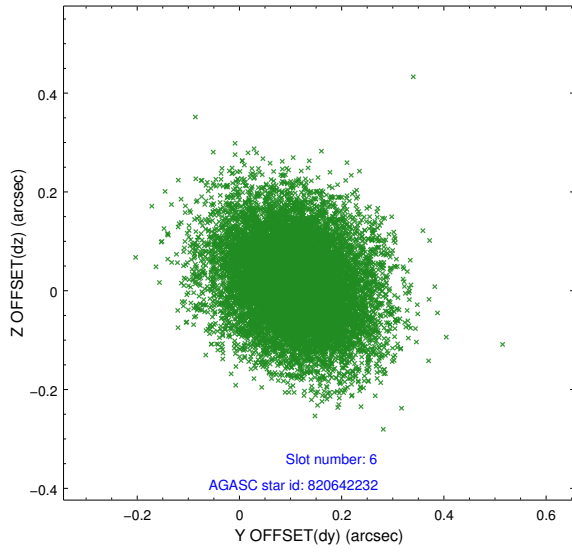
## 2.4.2 Slot 4



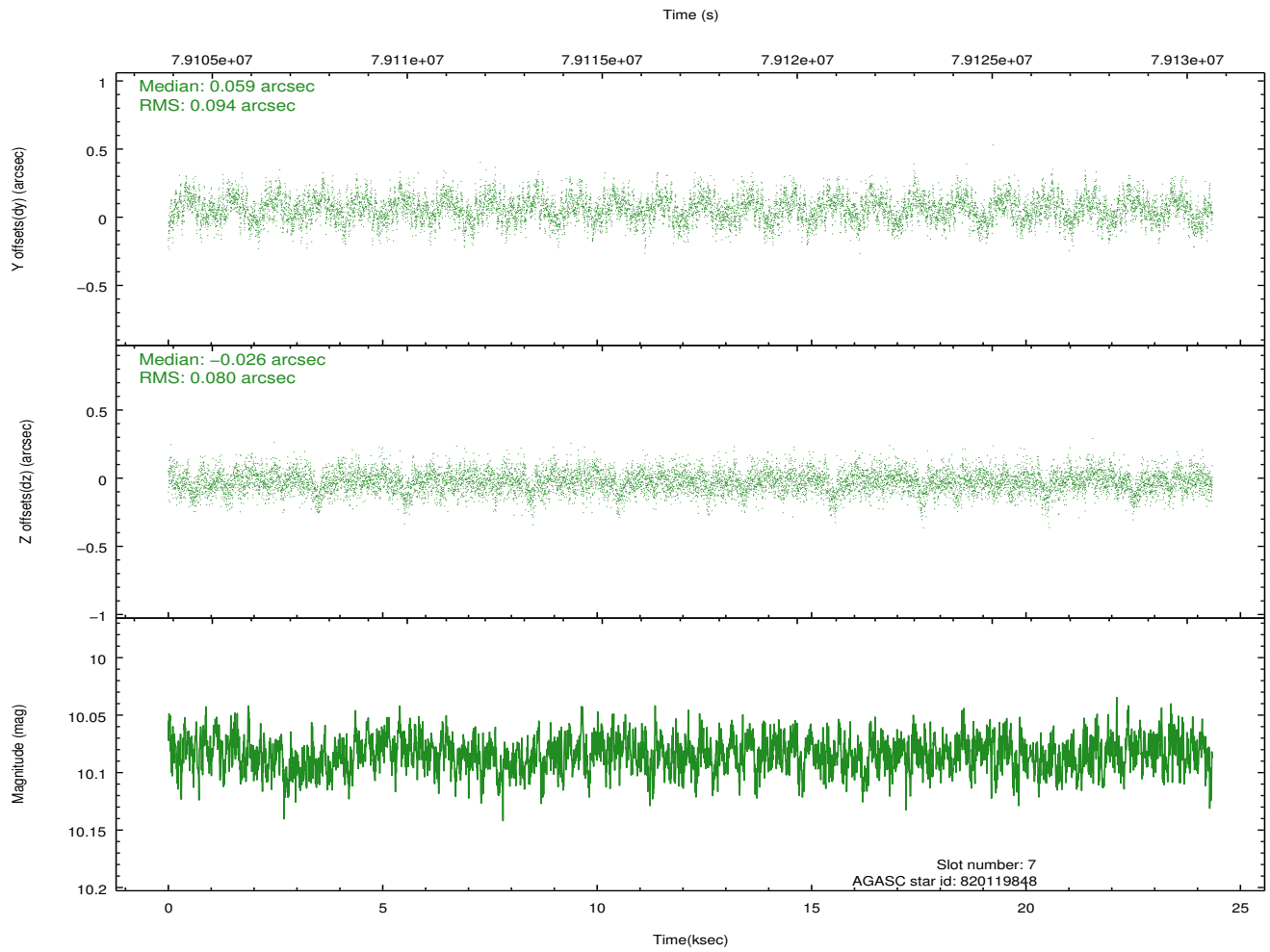
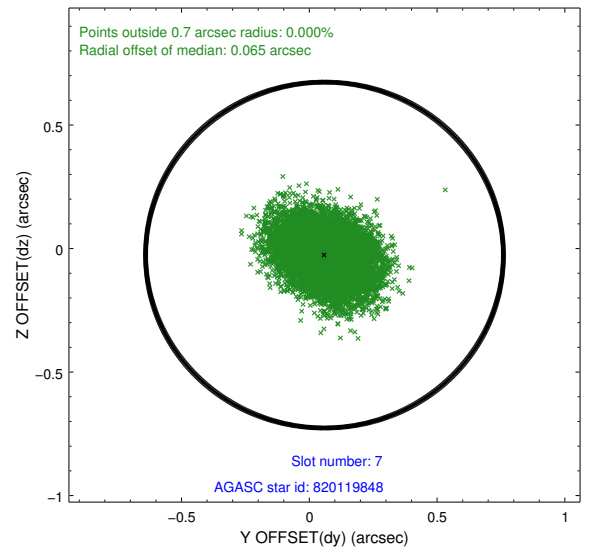
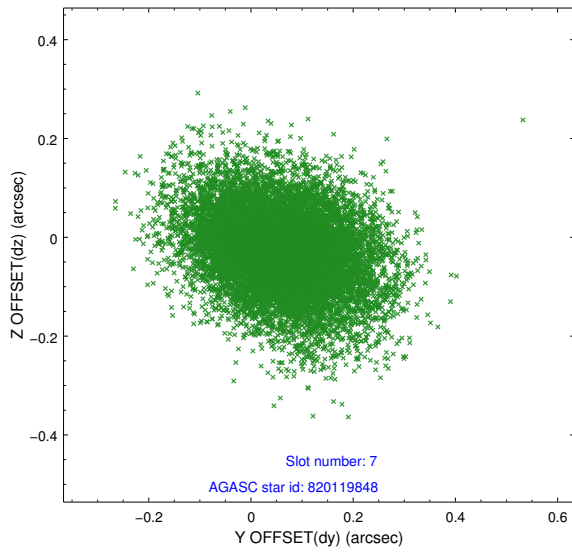
### 2.4.3 Slot 5



## 2.4.4 Slot 6

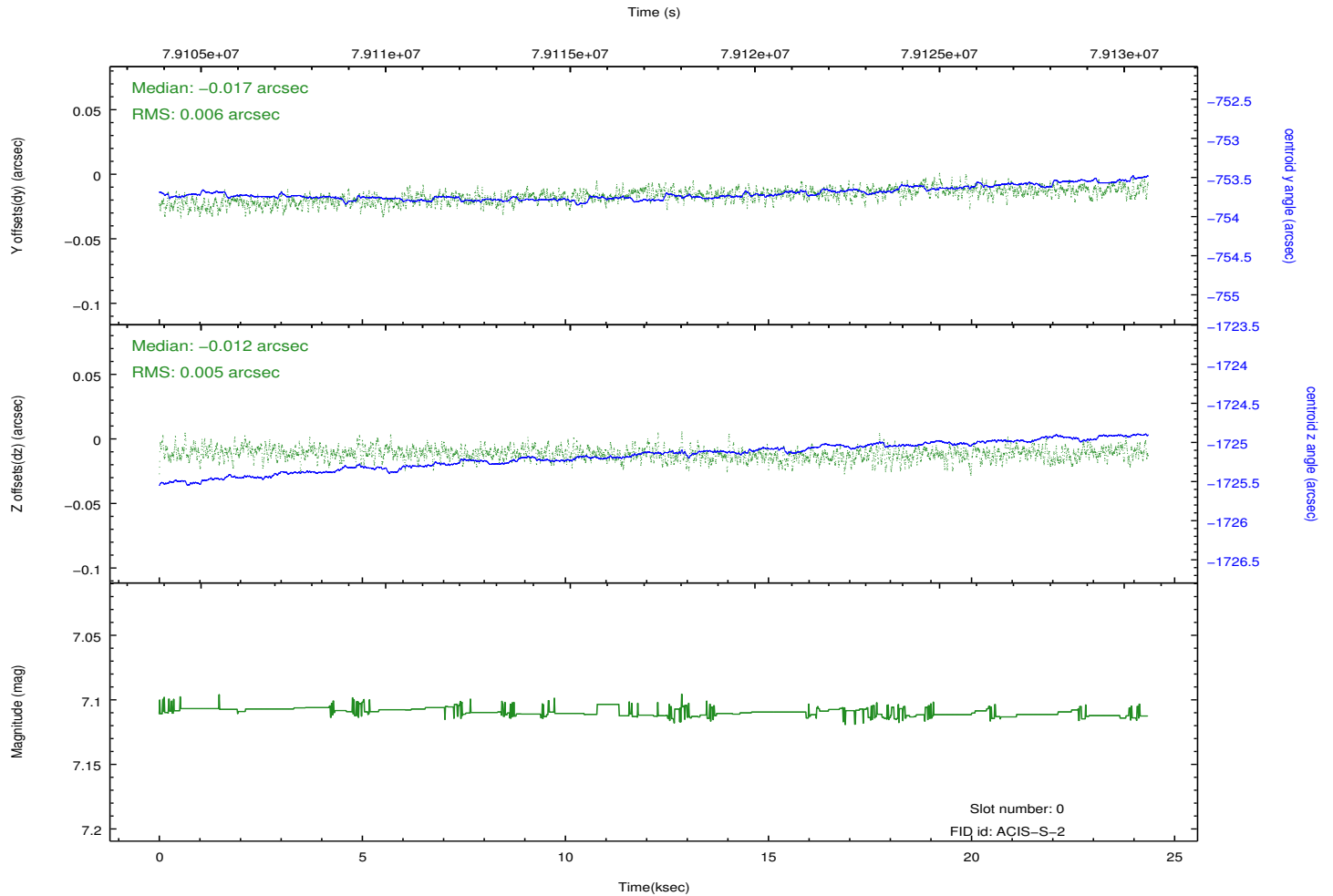
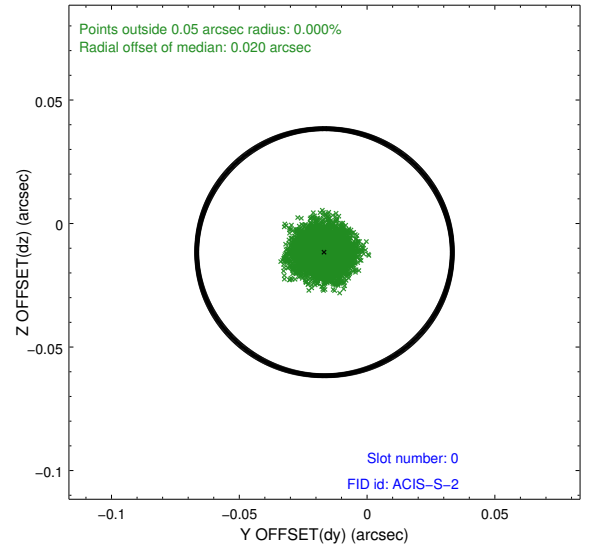
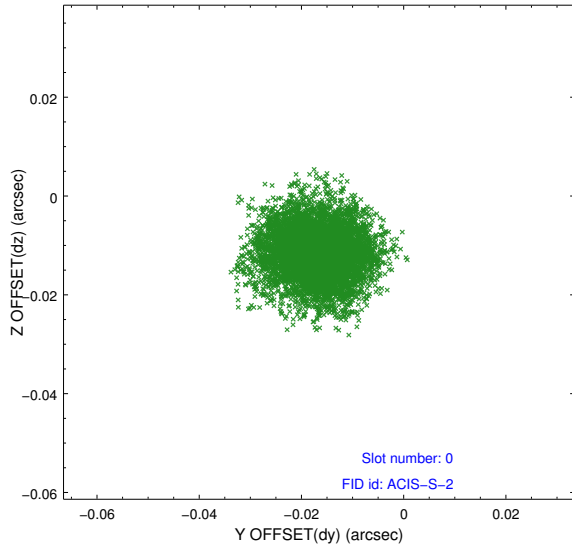


### 2.4.5 Slot 7

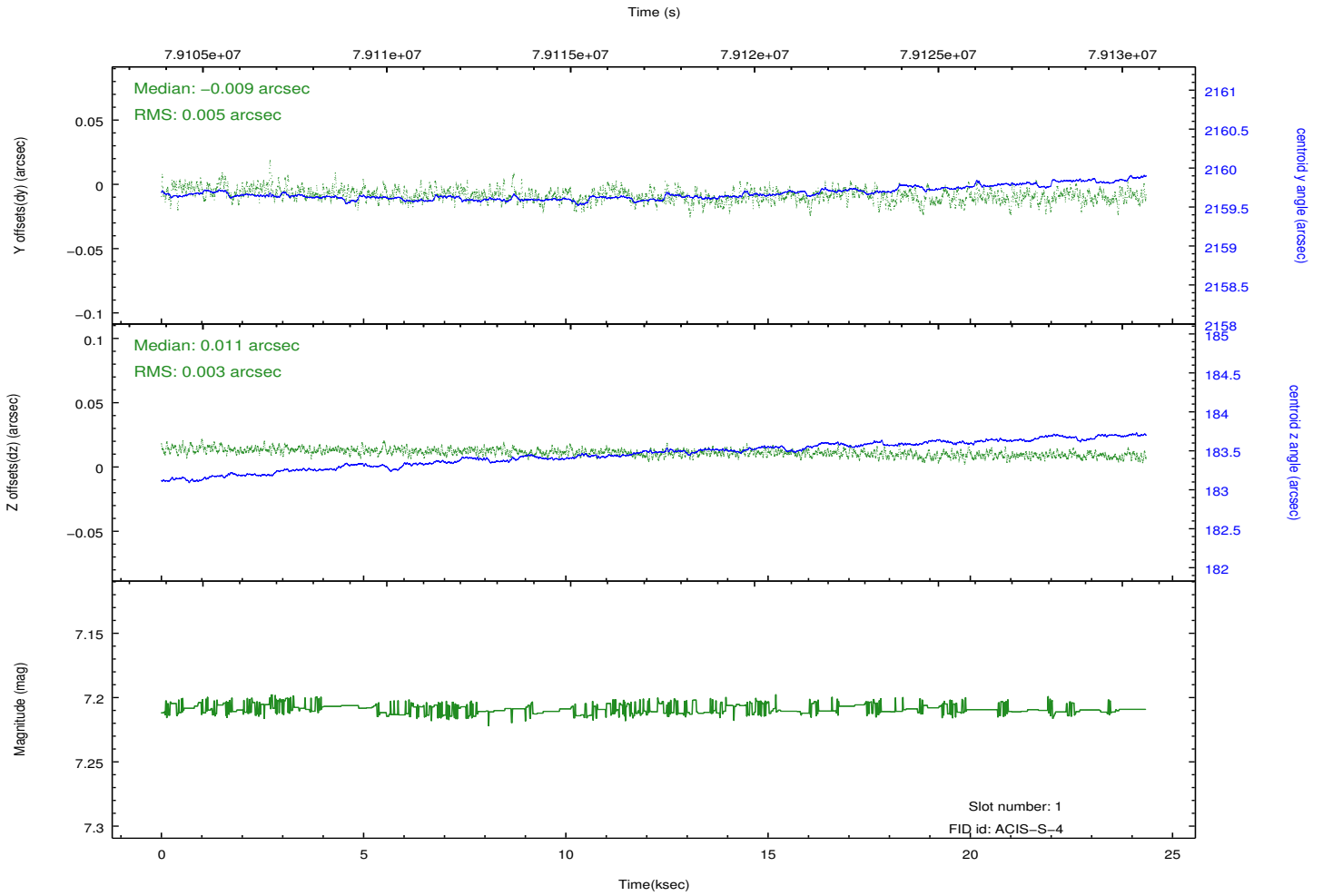
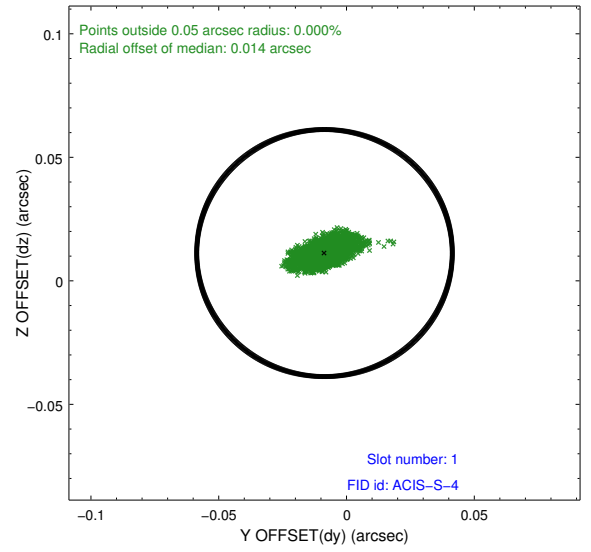
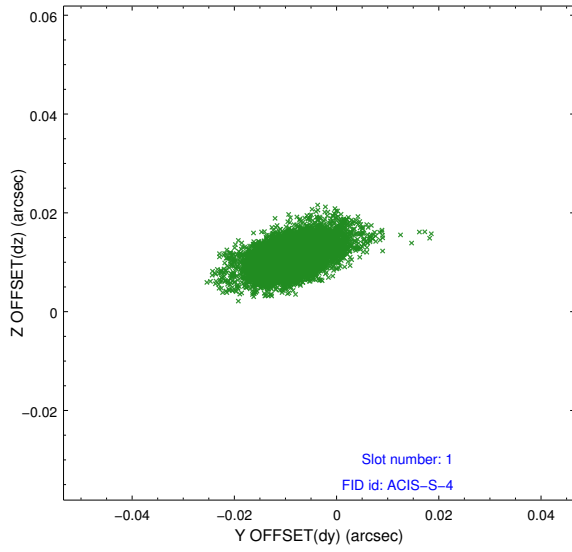


## 2.5 FID Slots

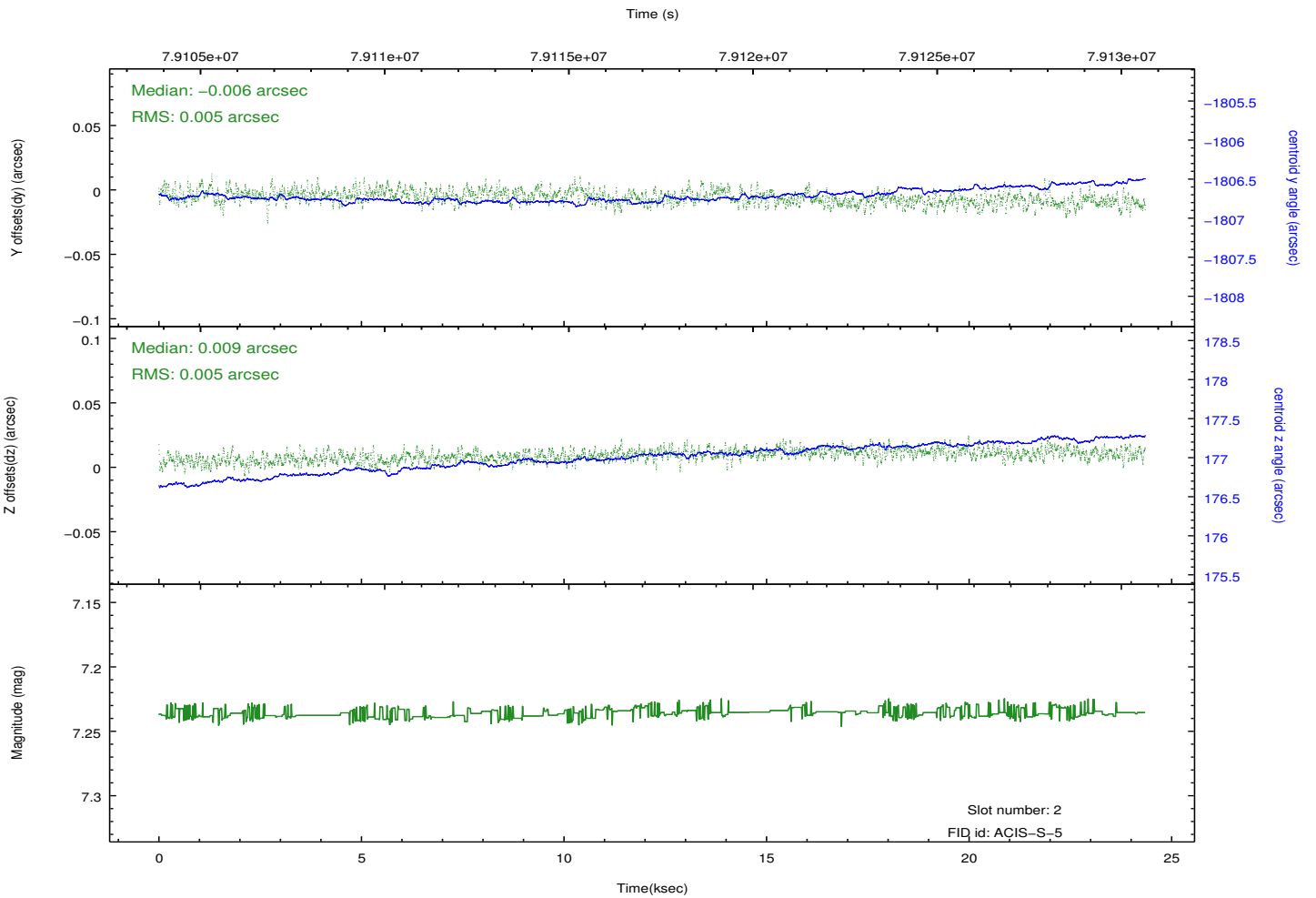
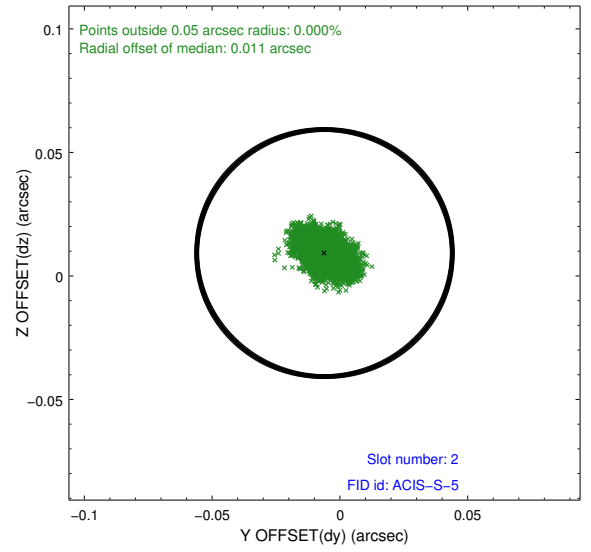
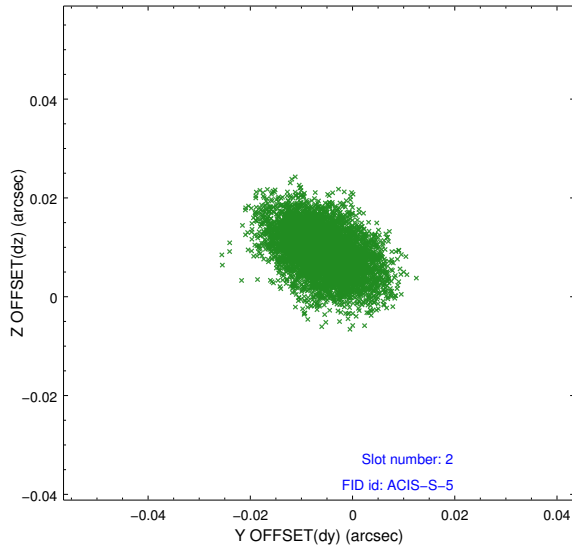
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## **A Summary**

### **A.1 Status**

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.09.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.577

### **A.2 Comments**