

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7859 - L2 Version 3  
Chandra X-Ray Center

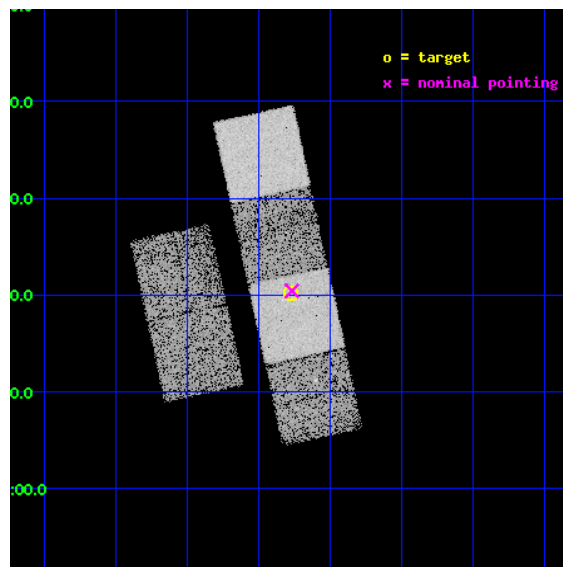
L2 Processing Date : Apr 20 2012

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# 1 Front

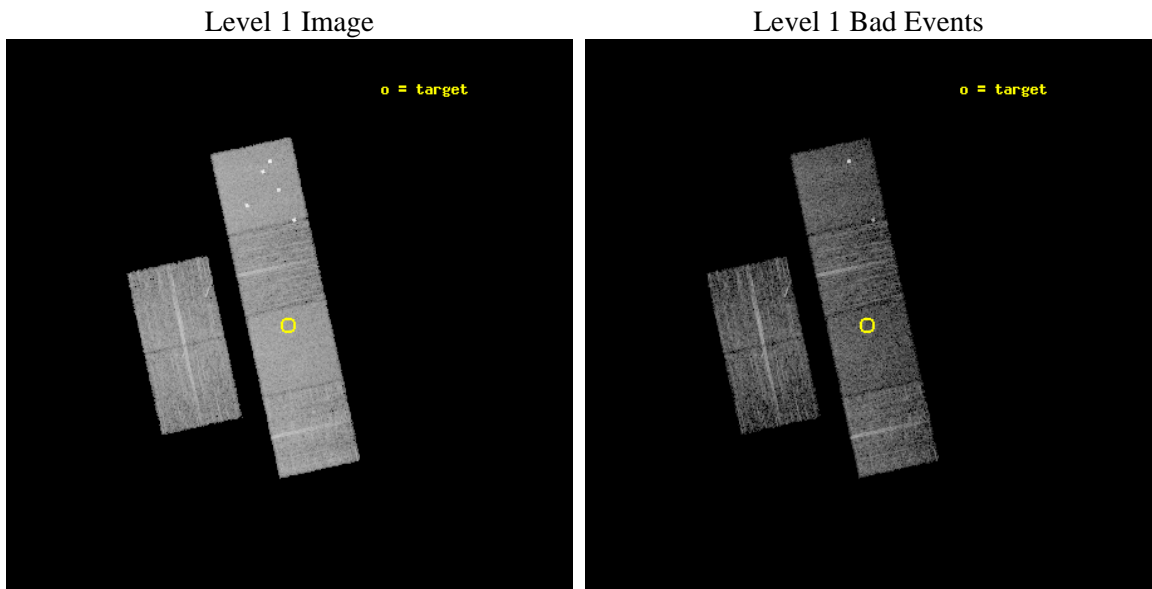
seq_num	701523	Sequence number
obs_id	7859	Observation id
title	Demographics of black holes in the local Universe.	Proposal title
observer	Prof. Smita Mathur	Principal investigator
object	NGC 4688	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	191.94375	Observer's specified target RA [deg]
dec_targ	4.336083	Observer's specified target Dec [deg]
ra_nom	191.94204363113	Nominal RA [deg]
dec_nom	4.3407104595317	Nominal Dec [deg]
roll_nom	77.688696190068	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4754.272797823	Sum of GTIs [s]
livetime	4694.0713329775	Livetime [s]
ontime2	4751.0728176236	Sum of GTIs [s]
ontime3	4754.1496778131	Sum of GTIs [s]
ontime5	4754.2317578197	Sum of GTIs [s]
ontime6	4754.1907178164	Sum of GTIs [s]
ontime7	4754.272797823	Sum of GTIs [s]
ontime8	4750.867587924	Sum of GTIs [s]
l2events	85197	Number of level 2 events



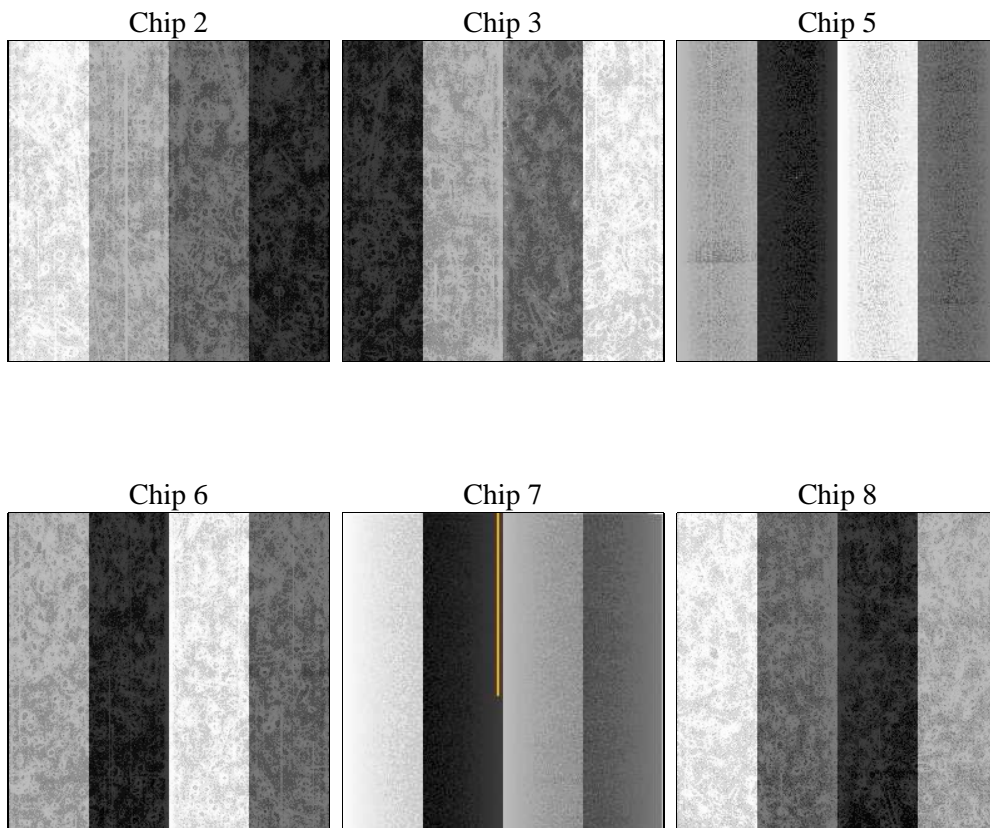
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4999.095000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	4754.272797823	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime2	4751.0728176236	Sum of GTIs [s]
date	2012-04-20T04:52:40	Date and time of file creation	ontime3	4754.1496778131	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	4754.2317578197	Sum of GTIs [s]
			ontime6	4754.1907178164	Sum of GTIs [s]
			ontime7	4754.272797823	Sum of GTIs [s]
			ontime8	4750.867587924	Sum of GTIs [s]
			l1events	343515	Number of level 1 events

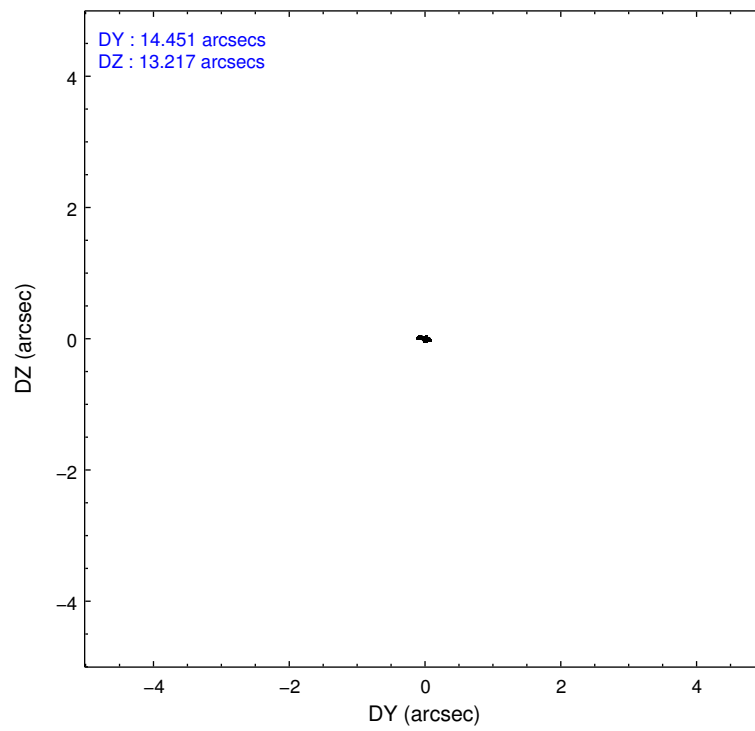
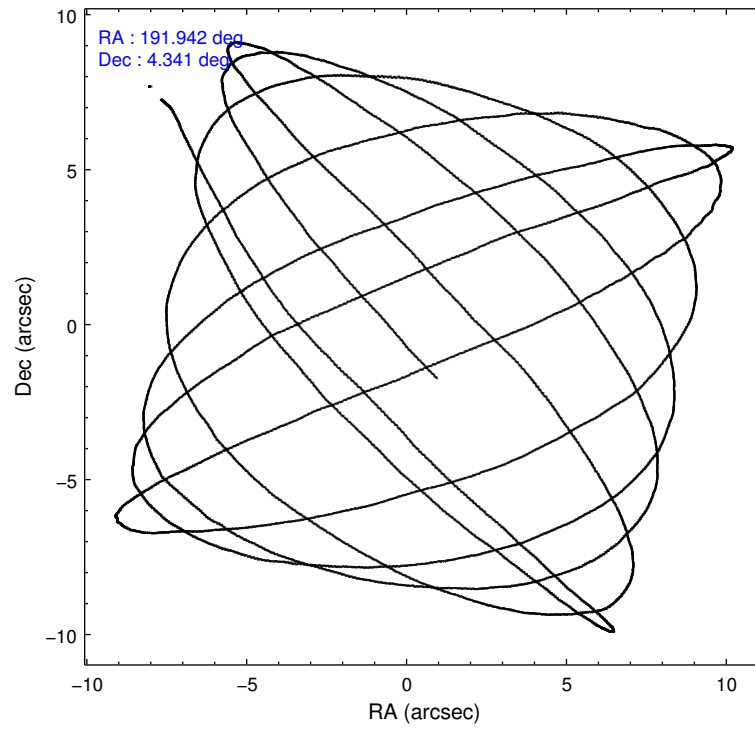
### 2.1.4 Events

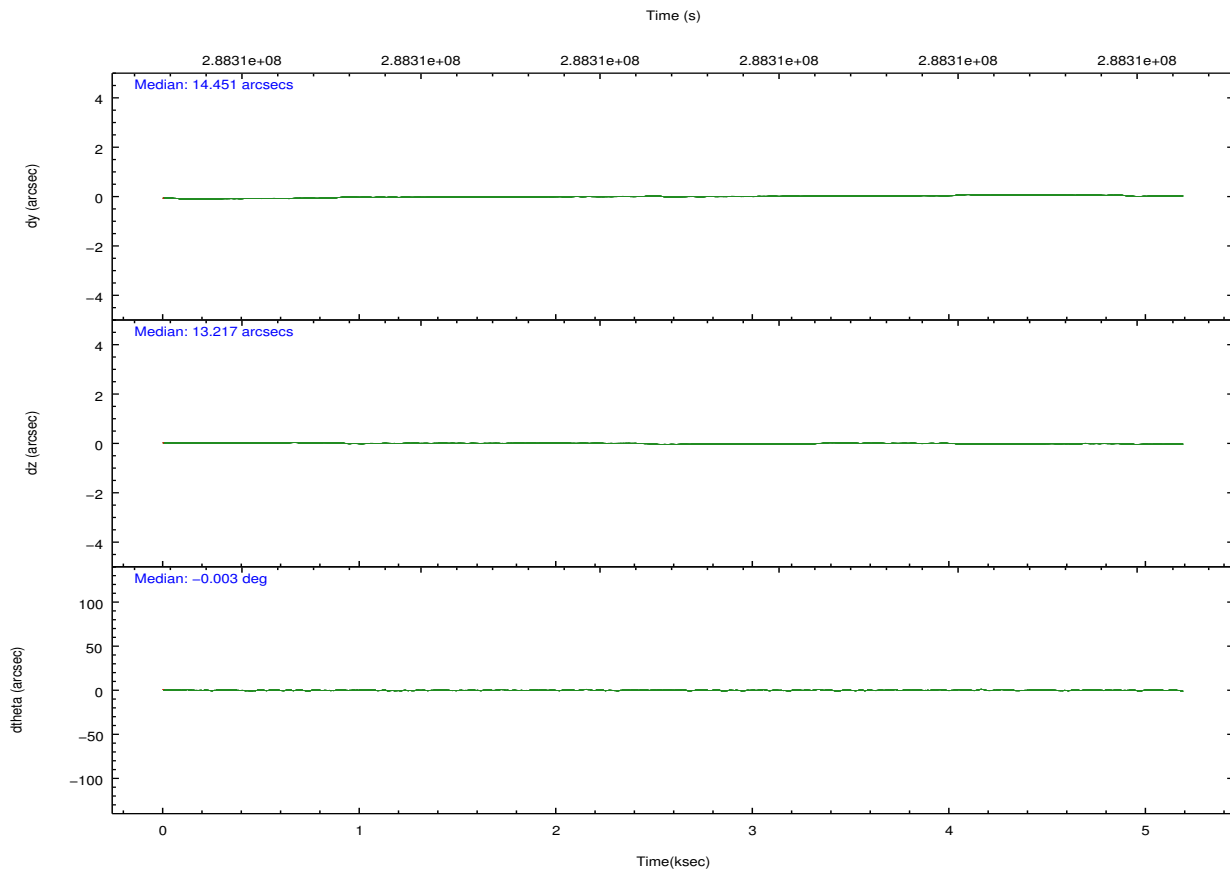
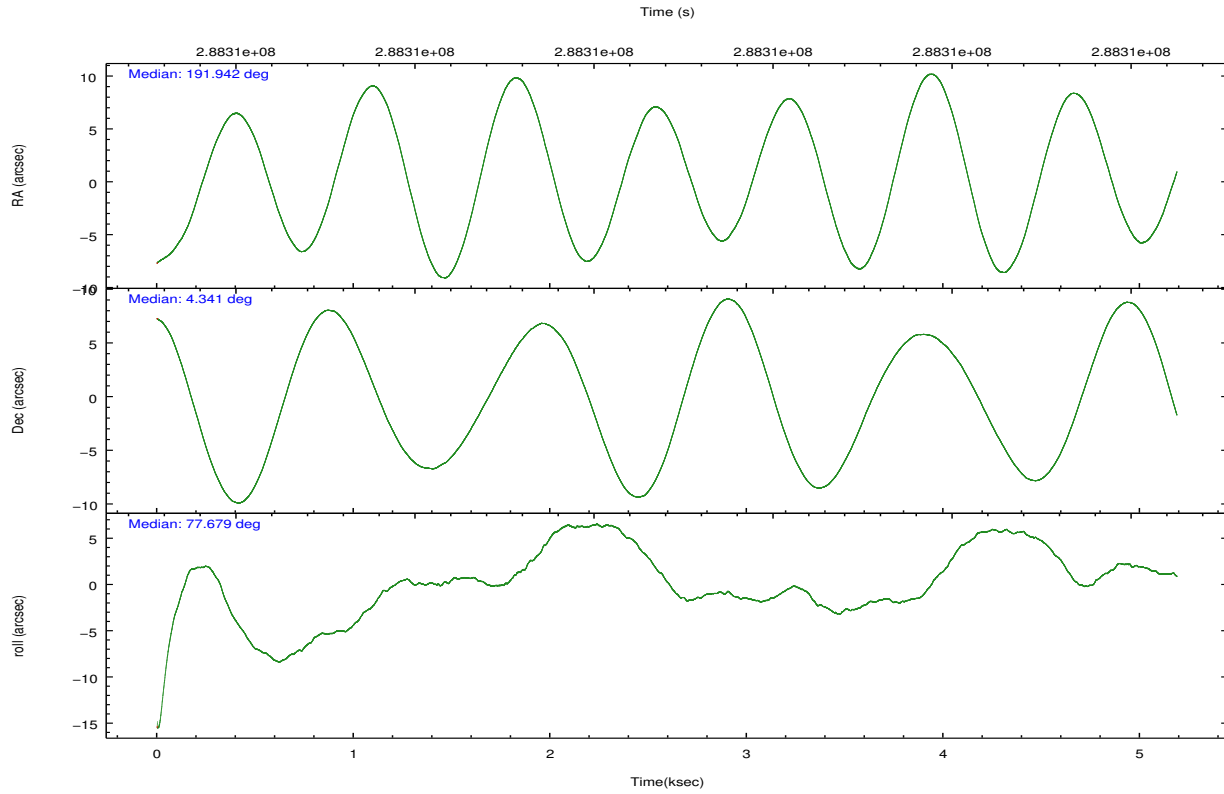
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	49289	45108	76701	47811	63555	61051	grade 0 events	3797	3920	5953	3679	2387	5922
rejected events	42168	37917	38285	40426	35513	46127		7%	8%	7%	7%	3%	9%
rejected %	85%	84%	49%	84%	55%	75%	grade 1 events	33	41	122	38	55	78
								0%	0%	0%	0%	0%	0%
							grade 2 events	1298	1223	11425	1418	5697	3072
								2%	2%	14%	2%	8%	5%
							grade 3 events	540	548	1168	580	2274	1401
								1%	1%	1%	1%	3%	2%
							grade 4 events	567	572	1133	545	2366	1294
								1%	1%	1%	1%	3%	2%
							grade 5 events	1758	2034	5207	2022	5670	2699
								3%	4%	6%	4%	8%	4%
							grade 6 events	923	931	18765	1167	15335	3241
								1%	2%	24%	2%	24%	5%
							grade 7 events	40373	35839	32928	38362	29771	43344
								81%	79%	42%	80%	46%	70%

## 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	191.950825	191.94204363113	Subarray requested	NONE	NONE
[deg] Pointing Dec	4.314719	4.340710459531739	Alternating exposures requested	N	N
[deg] Pointing Roll	77.531418	77.6886961900678	[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)	288307008.184000	288306422.85949			
Observation start date	2007-02-19T21:15:43	2007-02-19T21:07:02			
[s] Observation end time (MET)	288312007.184000	288312231.53477			
Observation end date	2007-02-19T22:39:02	2007-02-19T22:43:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



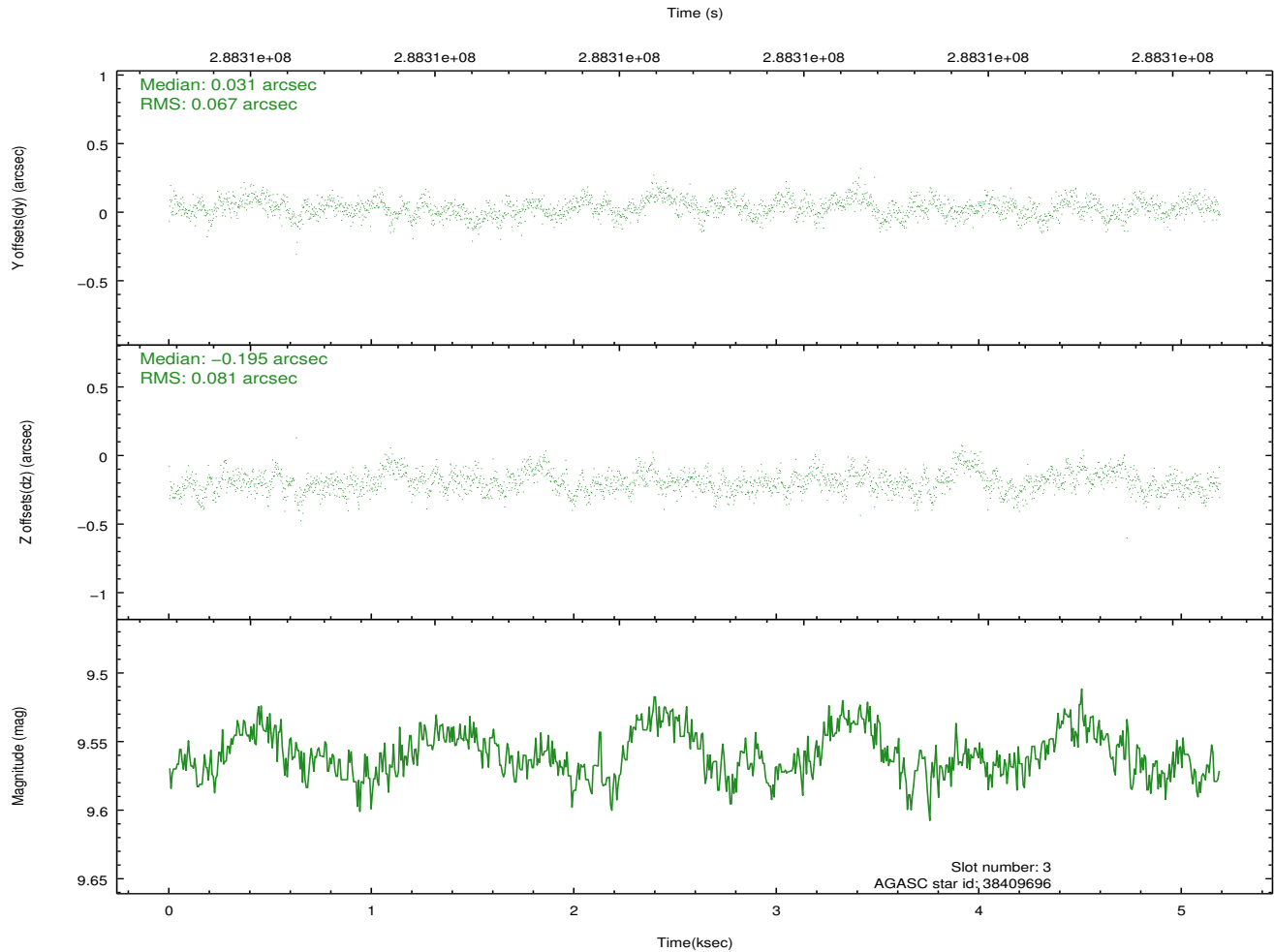
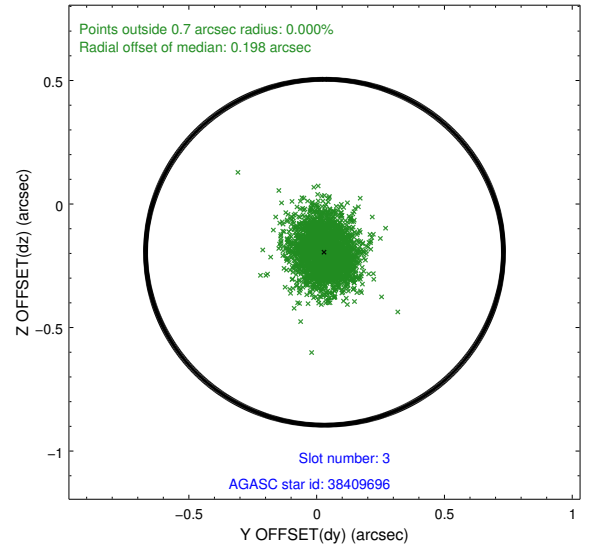
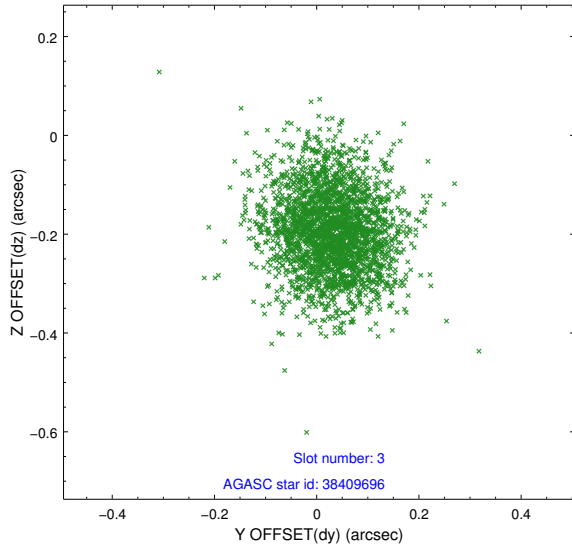


### Slot Statistics

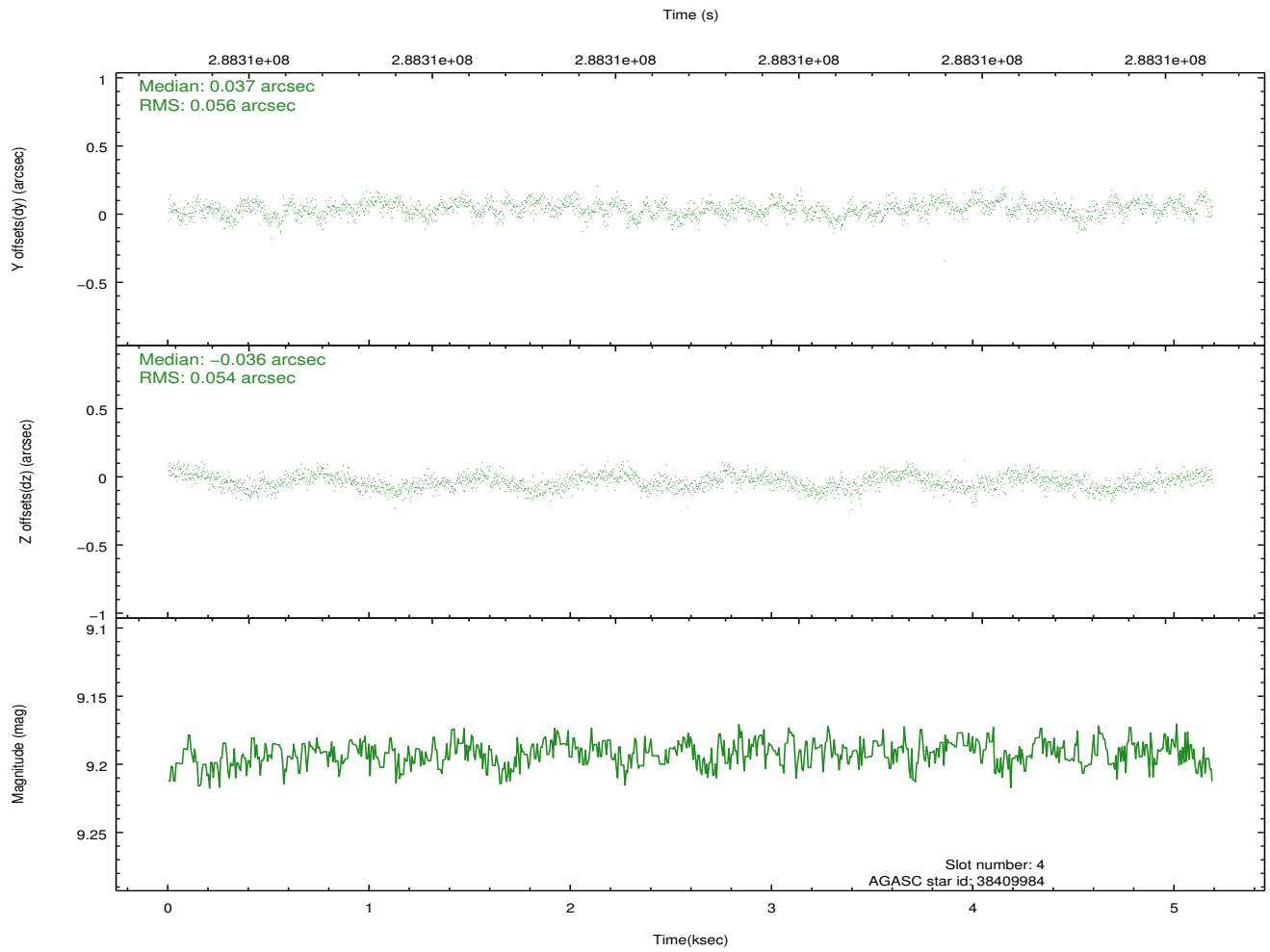
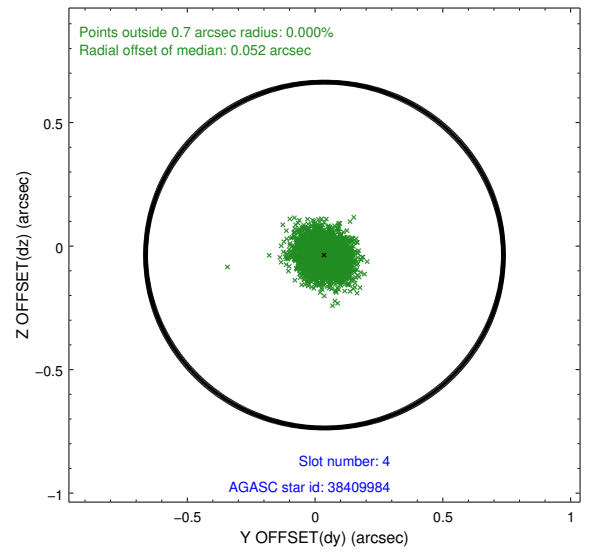
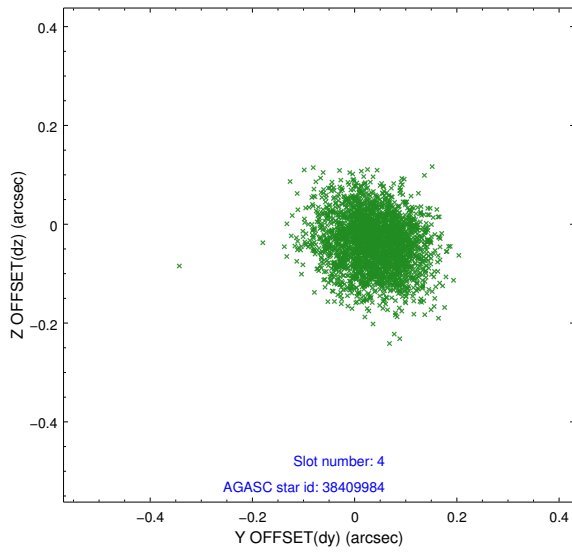
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1266	-0.059	-0.071	0.007	0.011	0.000000	0.000000	-767.49	-1734.55
1	FID	ACIS-S-4	7.21	1266	0.192	0.047	0.006	0.010	0.000000	0.000000	2145.53	172.80
2	FID	ACIS-S-5	7.23	1266	-0.164	0.032	0.006	0.011	0.000000	0.000000	-1818.91	167.84
3	GUIDE	38409696	9.56	2527	0.031	-0.195	0.110	0.181	191.346940	4.359960	-310.03	2151.21
4	GUIDE	38409984	9.19	2525	0.037	-0.036	0.083	0.132	191.373330	3.998040	-1560.66	1779.78
5	GUIDE	38410024	9.68	2530	0.003	0.155	0.127	0.204	192.333413	4.217820	-44.10	-1415.86
6	GUIDE	38411264	9.81	2530	0.027	0.038	0.124	0.210	192.060573	4.117571	-607.77	-538.70
7	GUIDE	38412104	9.71	2526	-0.078	0.038	0.140	0.225	191.441736	3.758453	-2350.16	1352.86

## 2.4 Star Slots

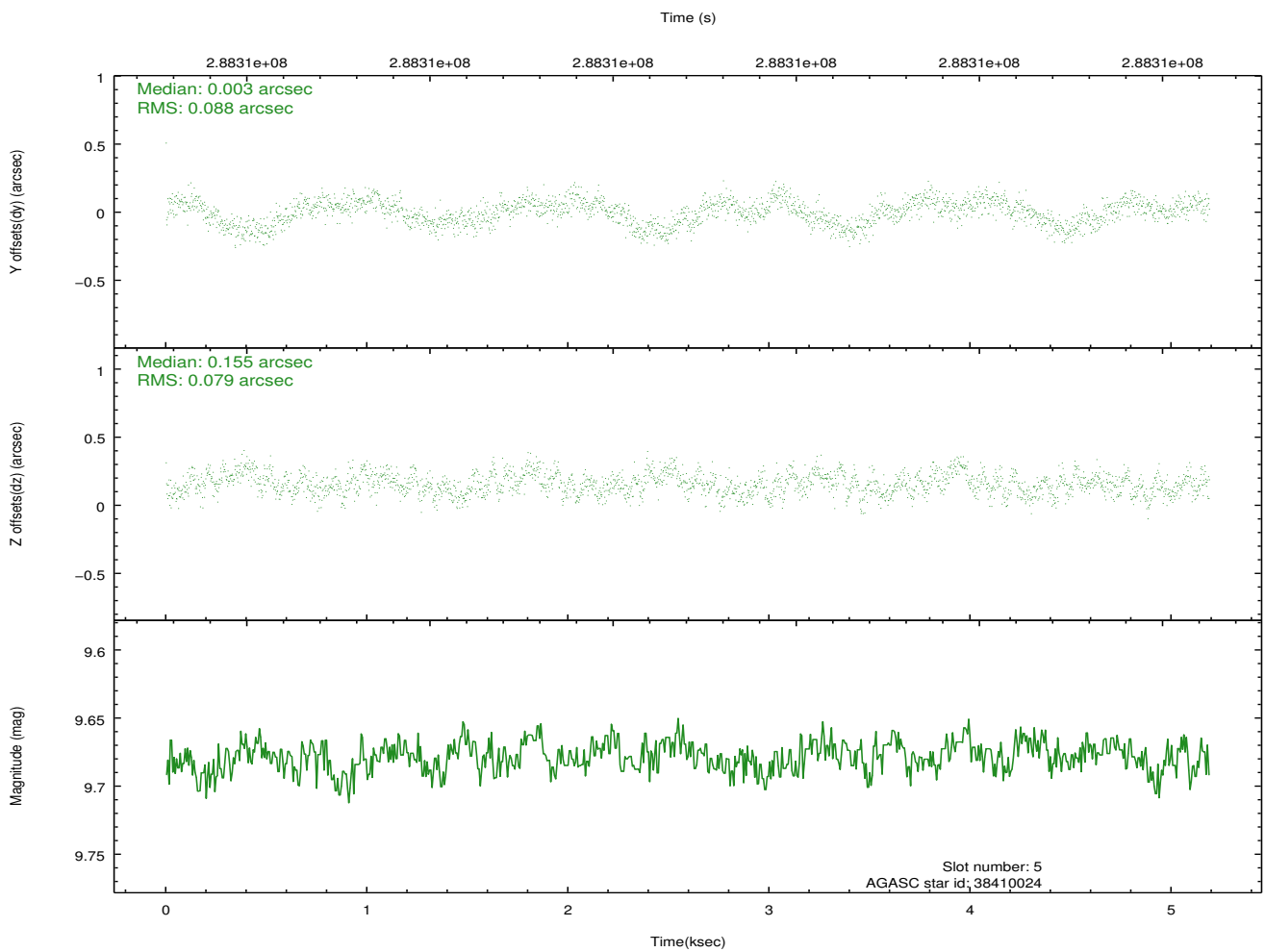
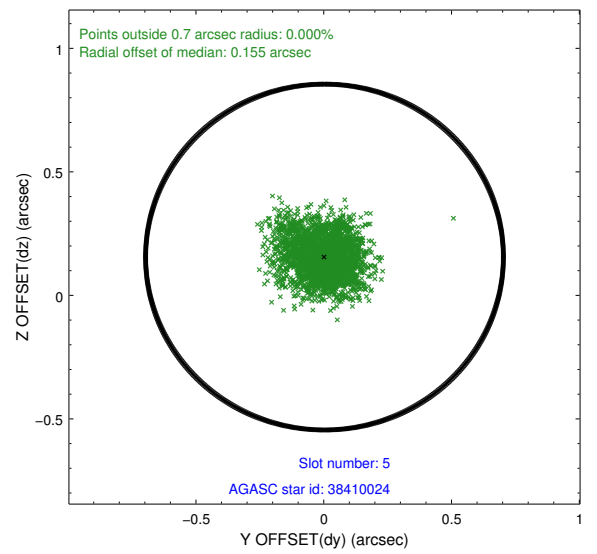
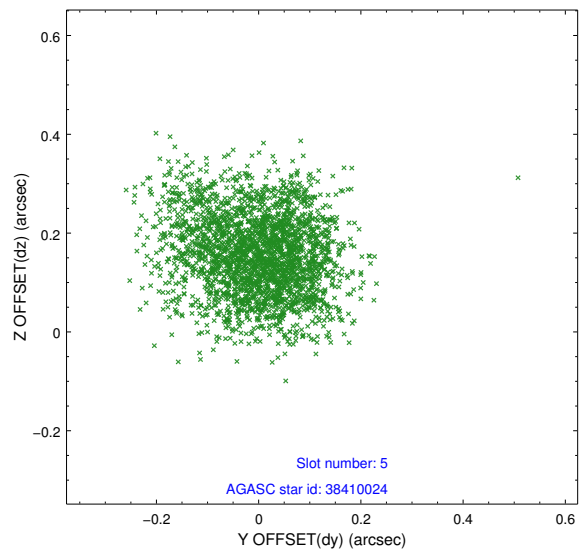
### 2.4.1 Slot 3



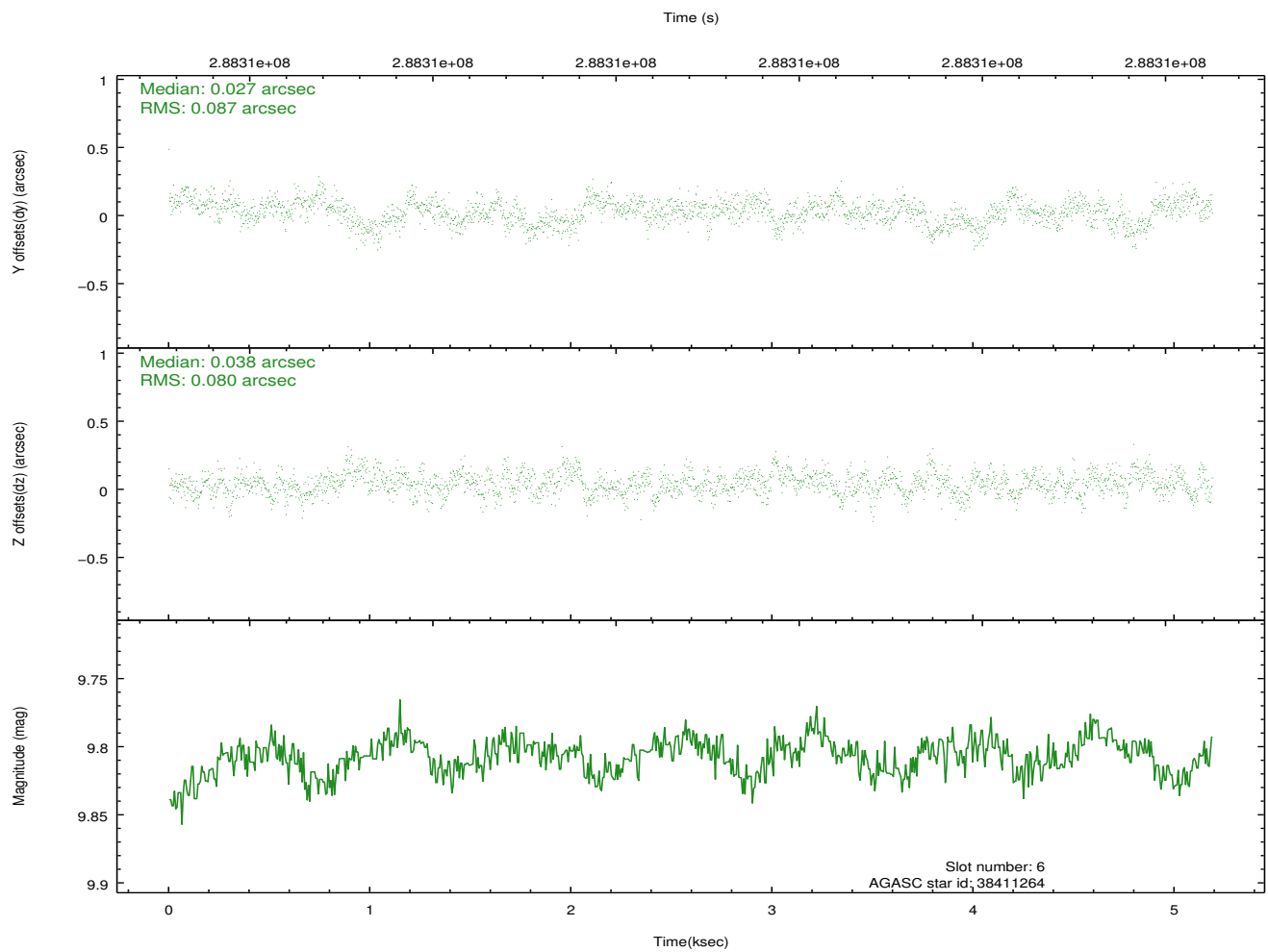
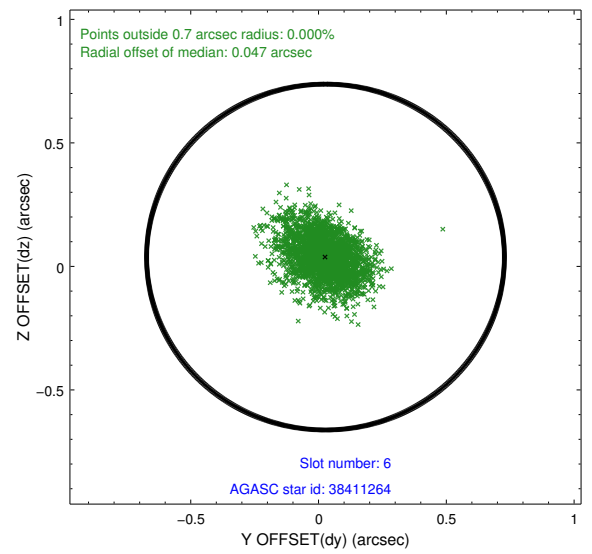
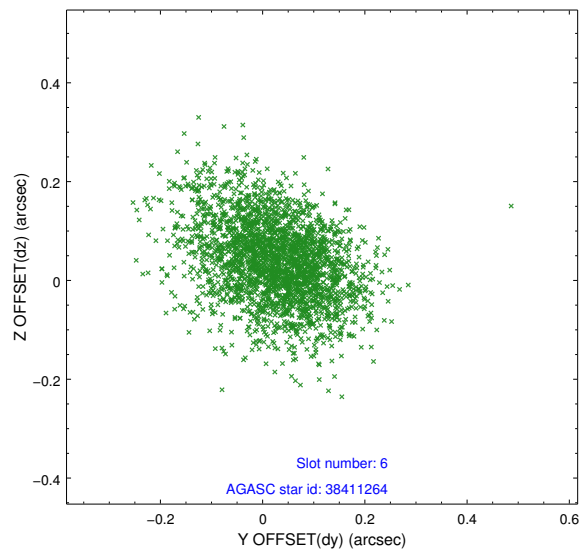
## 2.4.2 Slot 4



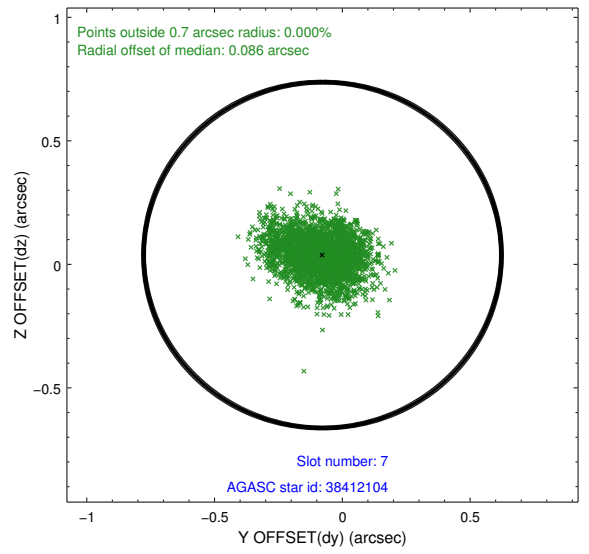
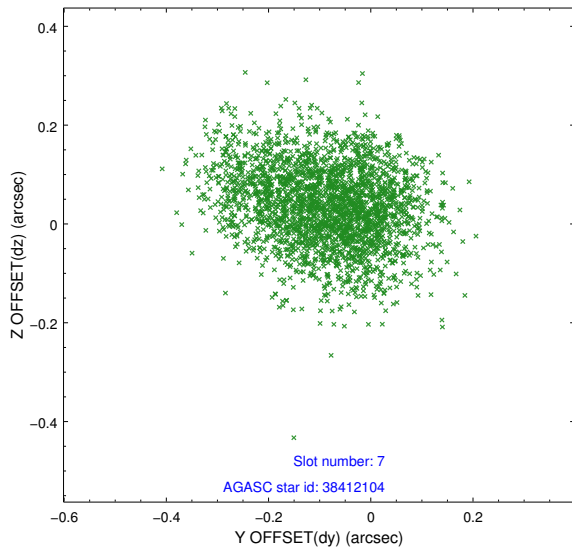
### 2.4.3 Slot 5



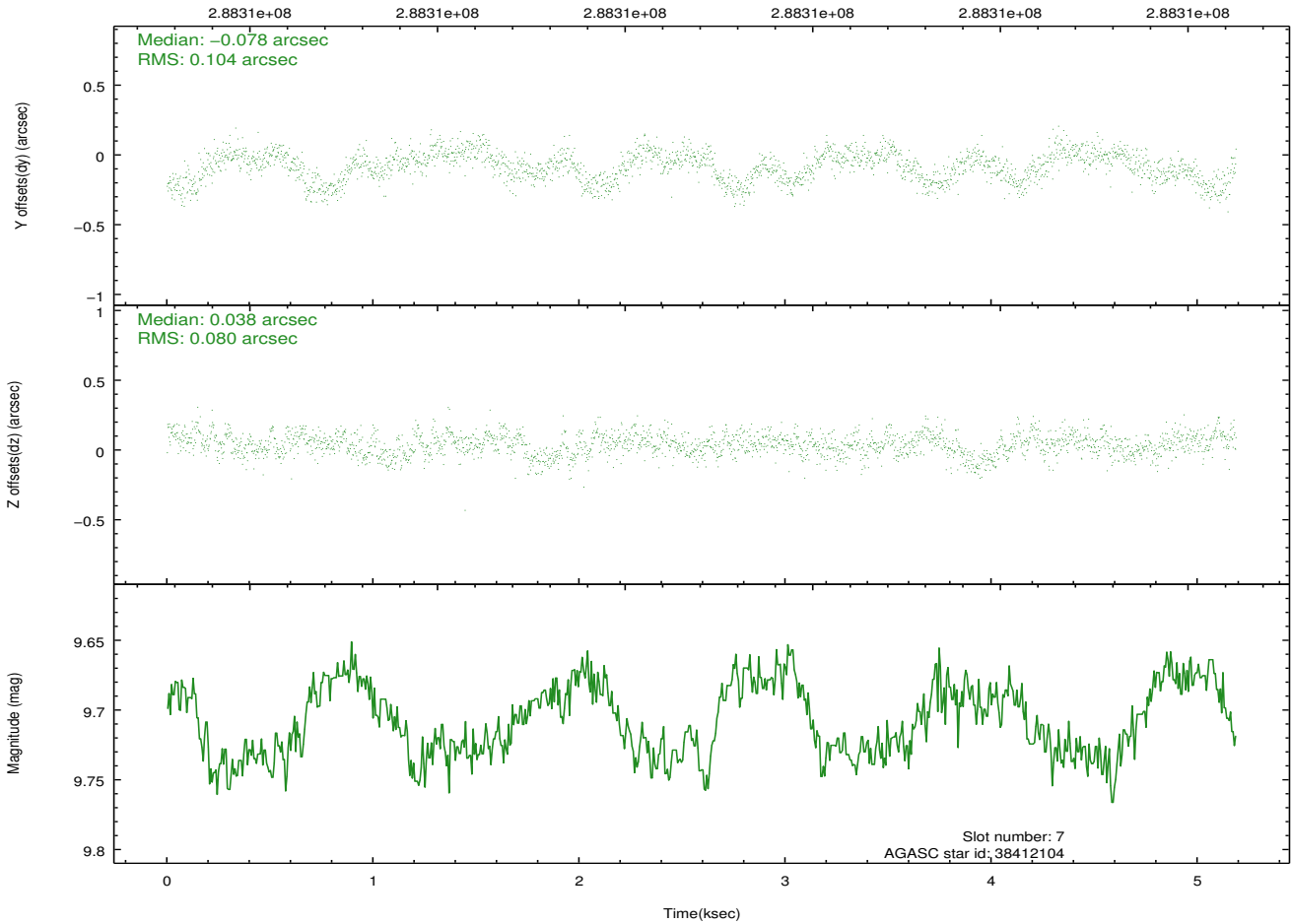
## 2.4.4 Slot 6



### 2.4.5 Slot 7

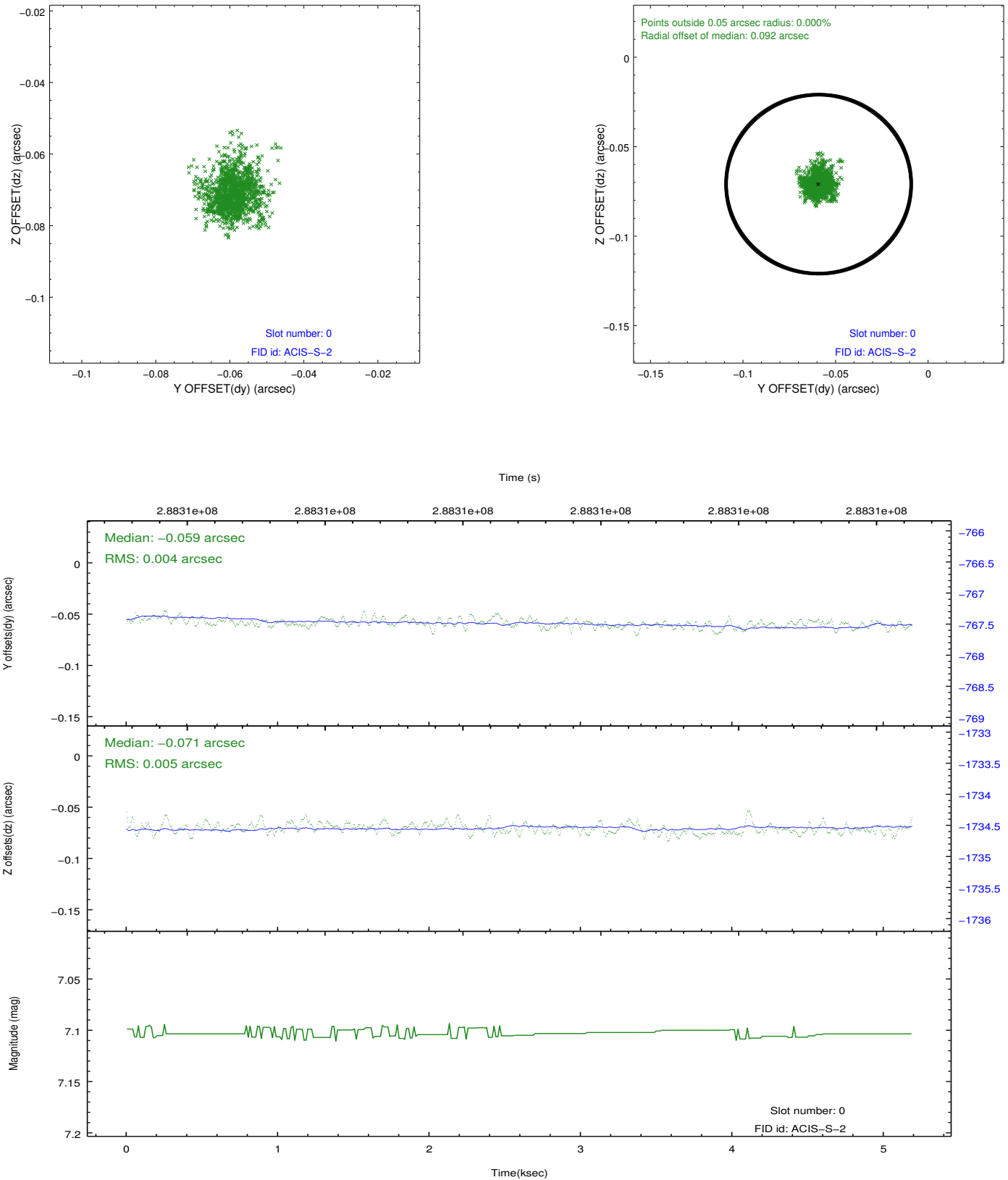


Time (s)

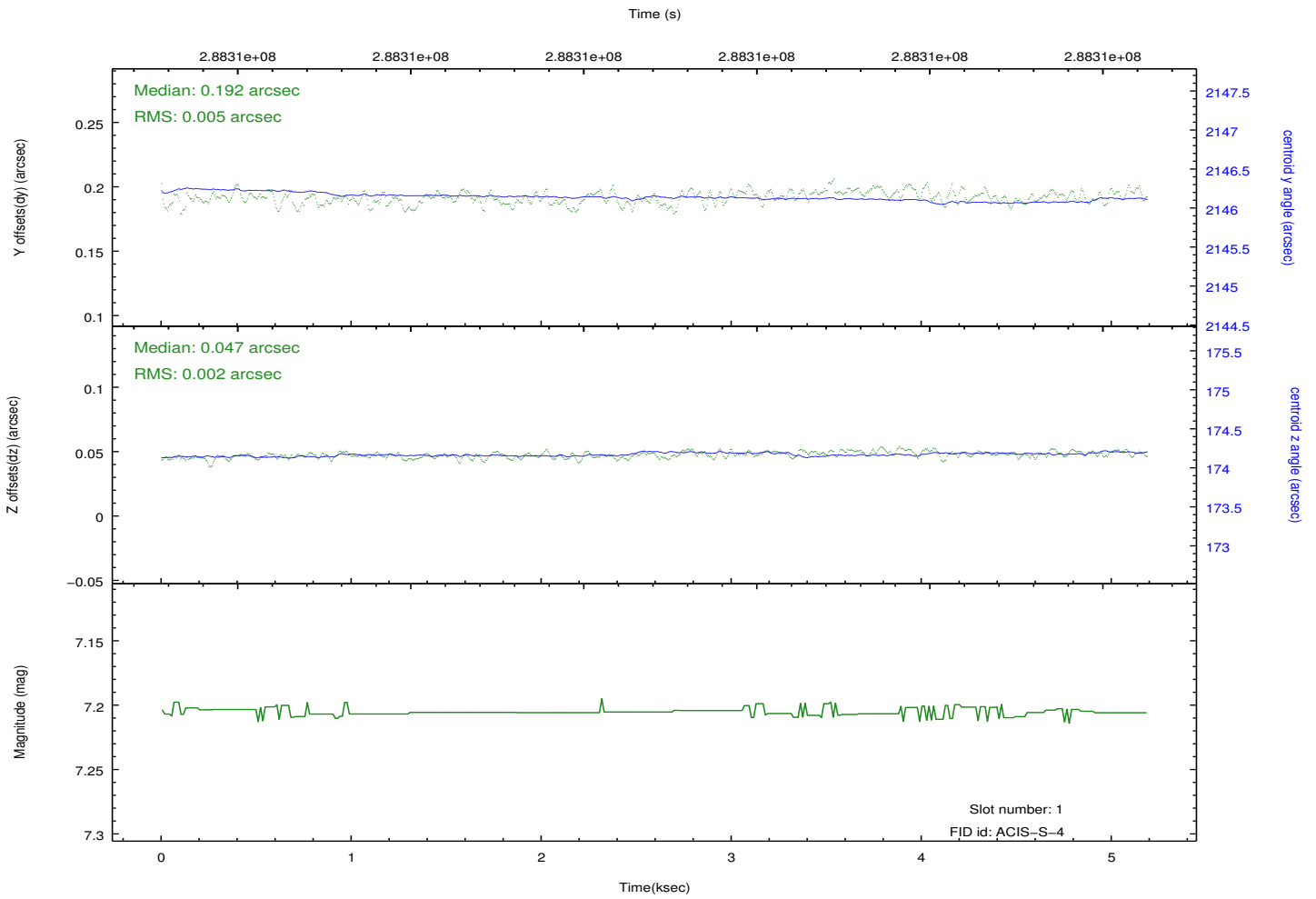
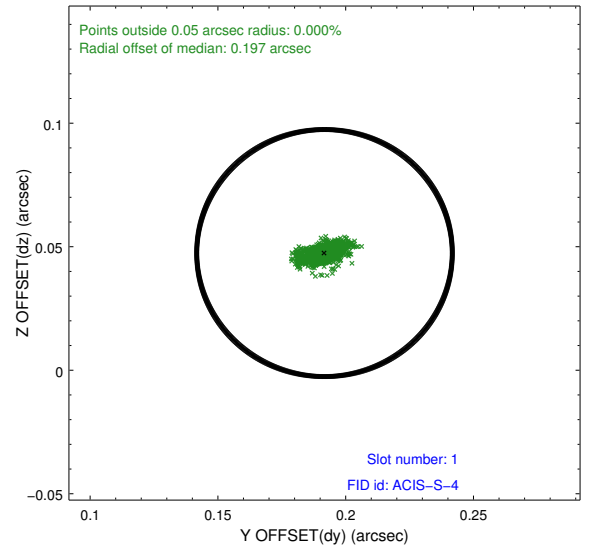
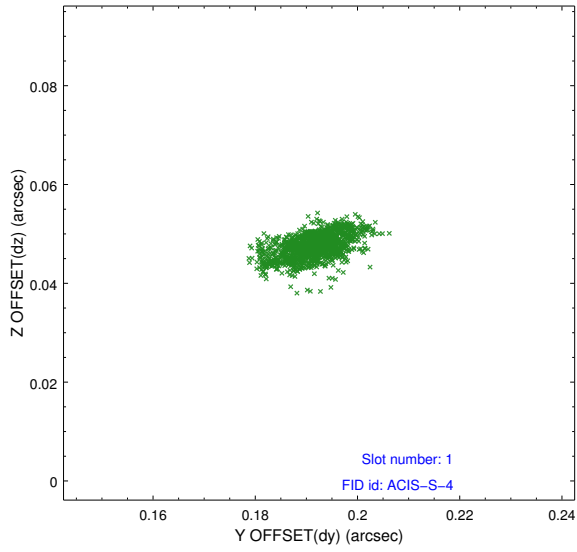


## 2.5 FID Slots

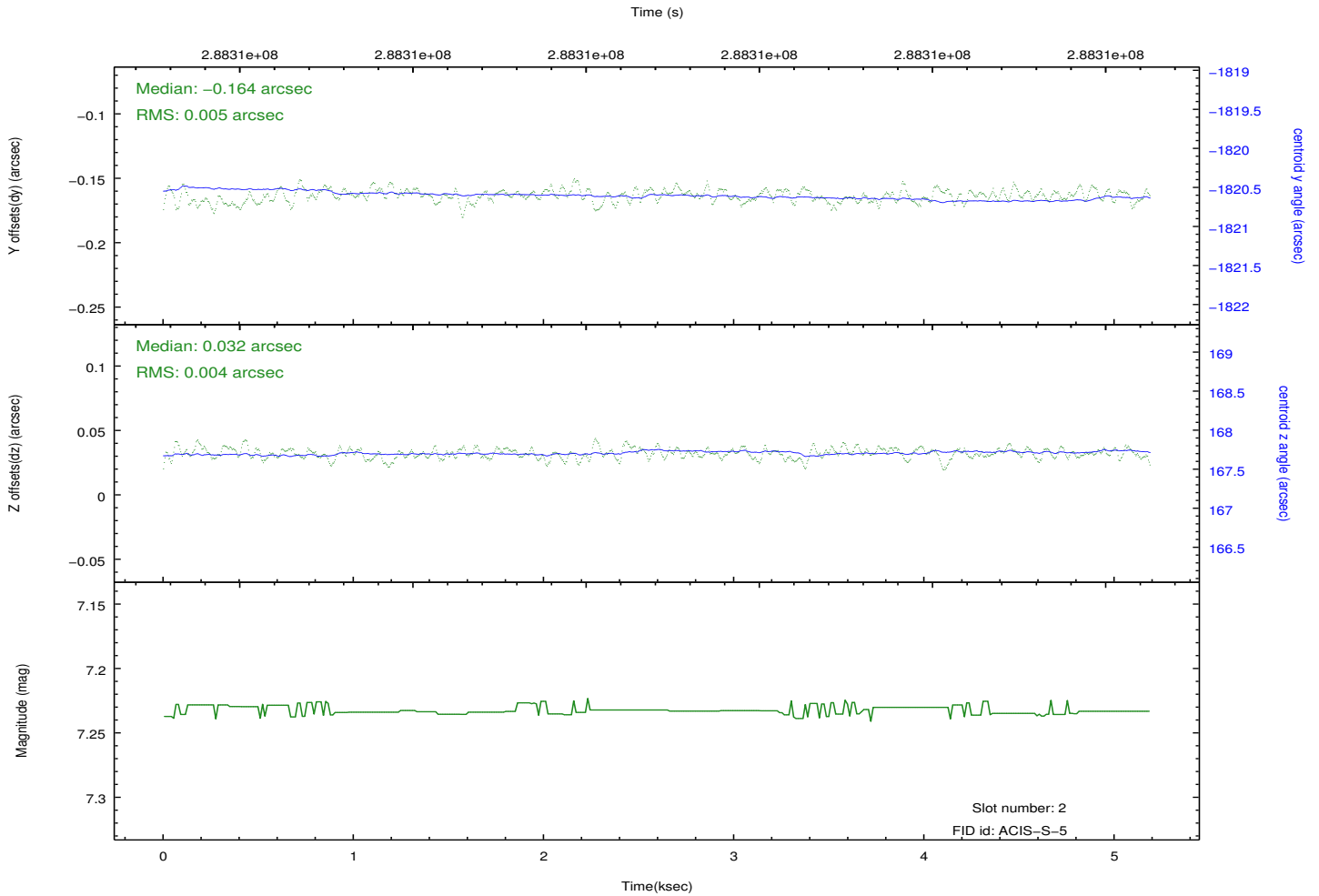
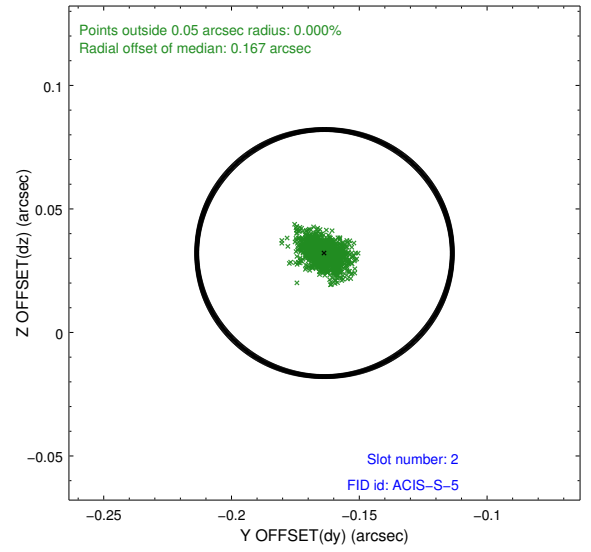
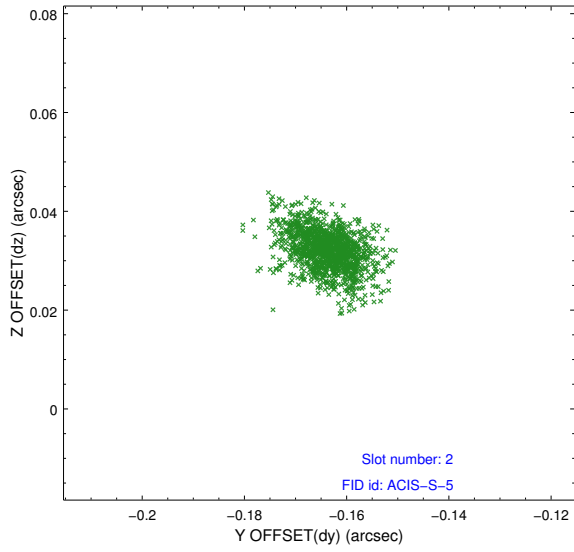
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.04.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.75519998

## A.2 Comments