

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10722 - L2 Version 2  
Chandra X-Ray Center

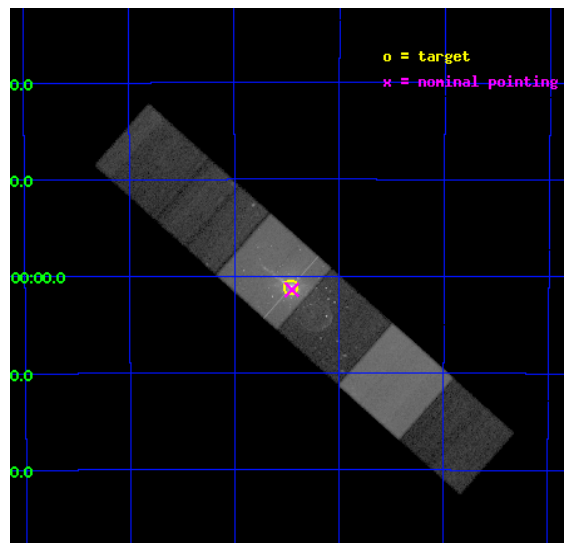
L2 Processing Date : Jun 13 2012

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# 1 Front

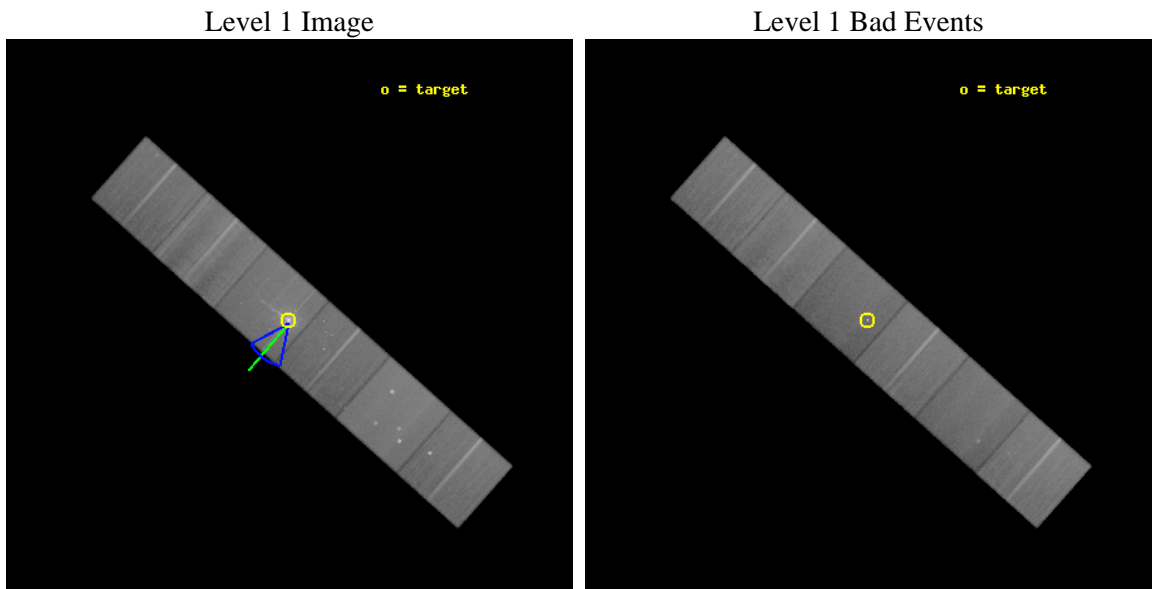
seq_num	701952	Sequence number
obs_id	10722	Observation id
title	Longterm Monitoring of the Centaurus A Jet, ULXs, and Low Mass X-ray Binary Population	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	Centaurus A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	201.365	Observer's specified target RA [deg]
dec_targ	-43.019167	Observer's specified target Dec [deg]
ra_nom	201.36310311259	Nominal RA [deg]
dec_nom	-43.023798469566	Nominal Dec [deg]
roll_nom	221.62858959993	Nominal Roll [deg]
revision	2	Processing version of data
ontime	50035.017738581	Sum of GTIs [s]
livetime	49401.444216504	Livetime [s]
ontime4	50031.817778409	Sum of GTIs [s]
ontime5	50034.976698577	Sum of GTIs [s]
ontime6	50034.935658574	Sum of GTIs [s]
ontime7	50035.017738581	Sum of GTIs [s]
ontime8	50031.653648257	Sum of GTIs [s]
ontime9	50034.853578568	Sum of GTIs [s]
l2events	864485	Number of level 2 events



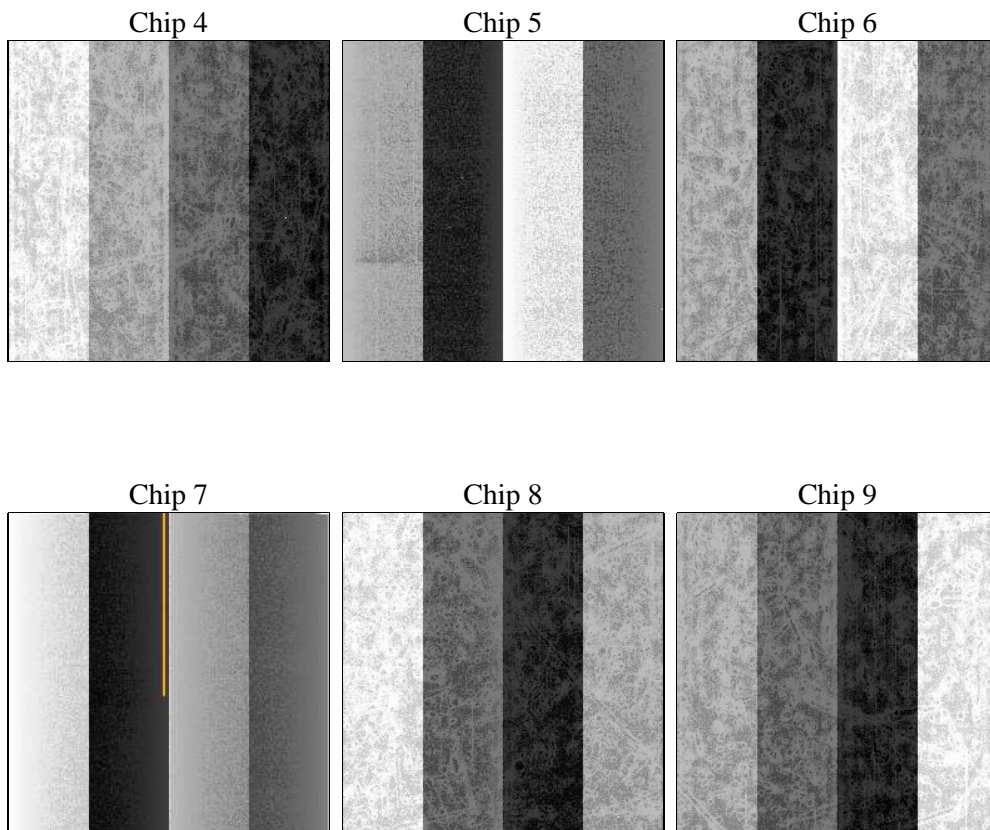
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	50000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	50035.017738581	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime4	50031.817778409	Sum of GTIs [s]
date	2012-06-13T06:17:21	Date and time of file creation	ontime5	50034.976698577	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	50034.935658574	Sum of GTIs [s]
			ontime7	50035.017738581	Sum of GTIs [s]
			ontime8	50031.653648257	Sum of GTIs [s]
			ontime9	50034.853578568	Sum of GTIs [s]
			l1events	3276159	Number of level 1 events

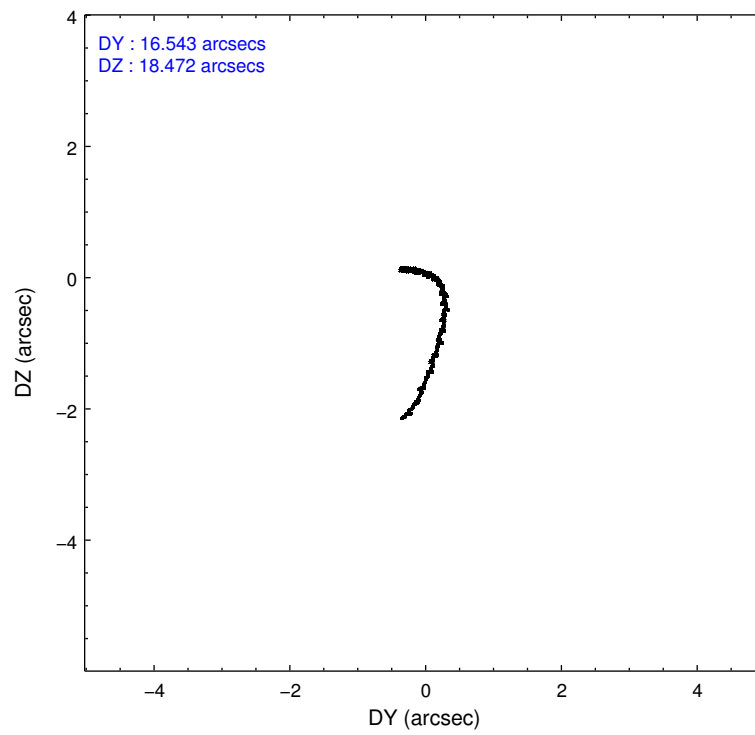
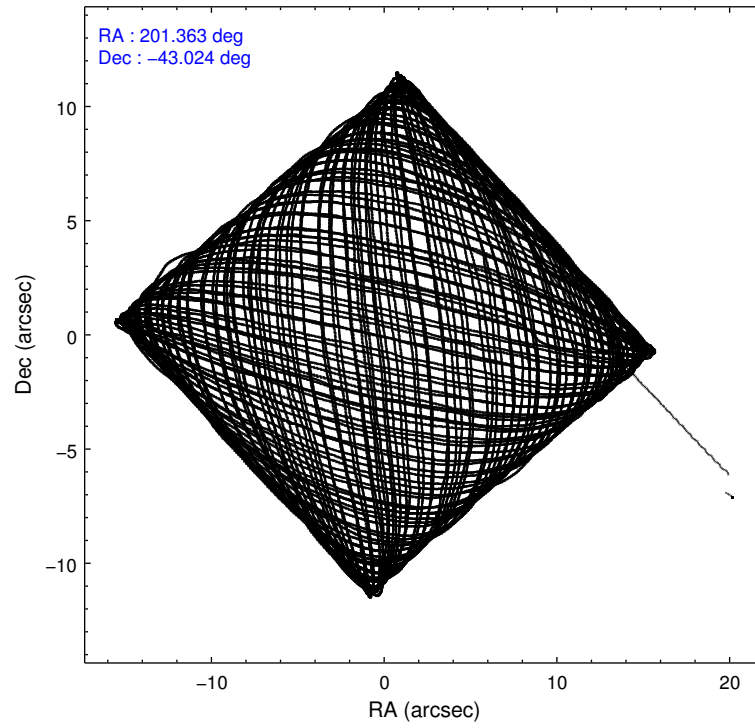
### 2.1.4 Events

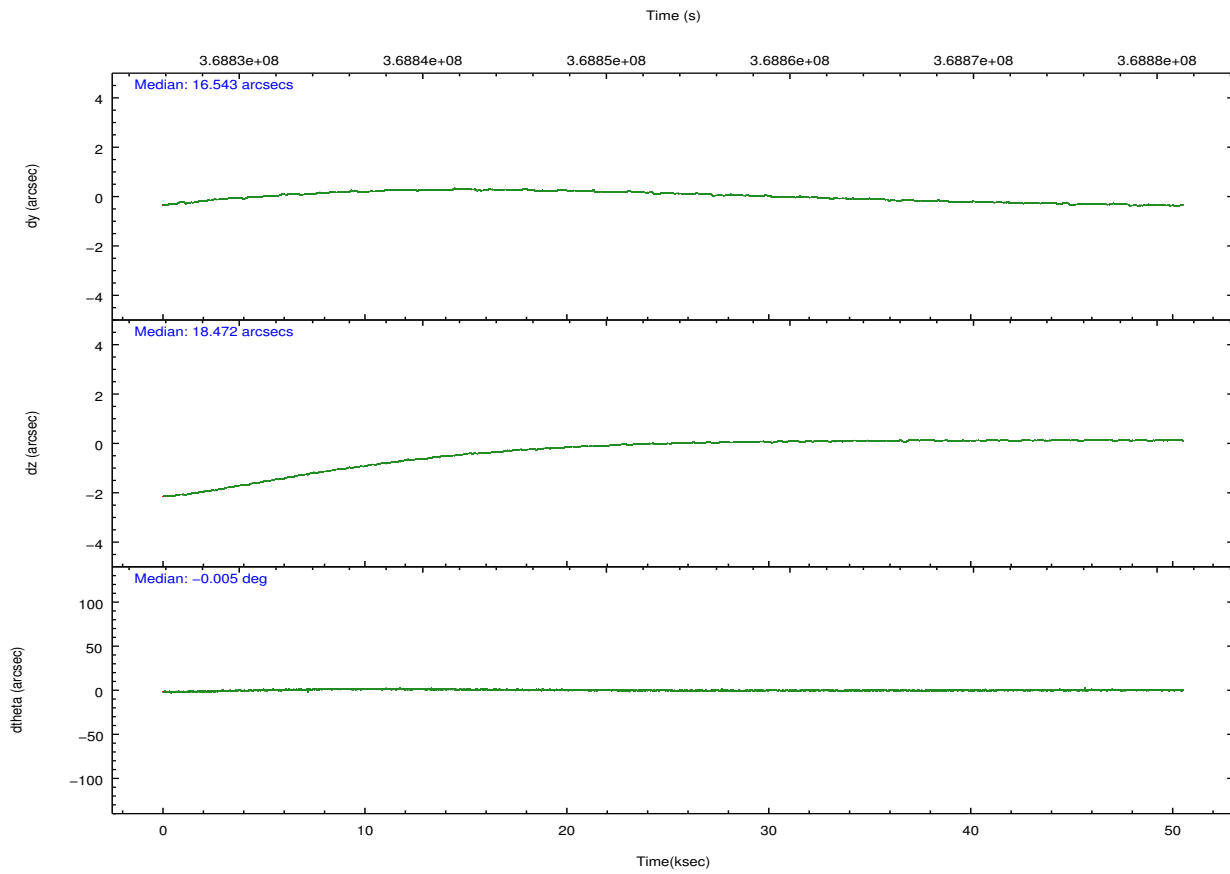
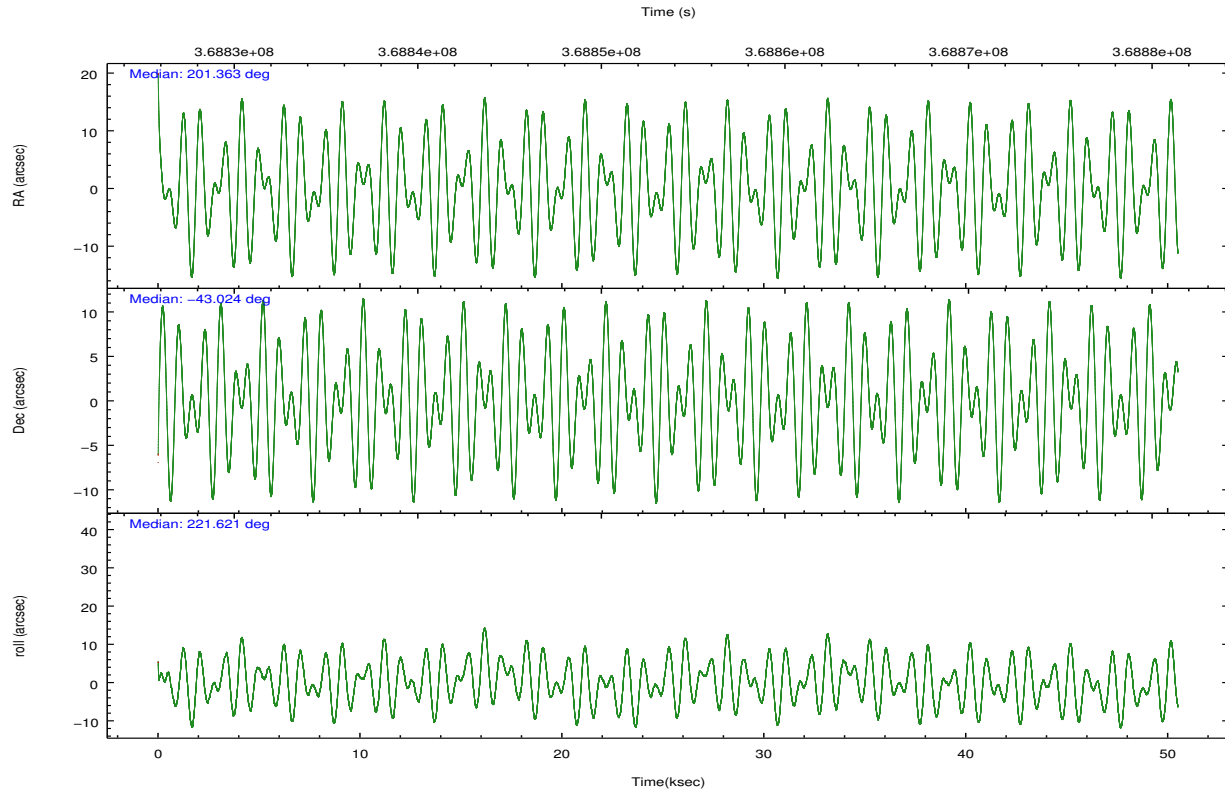
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	515915	634122	456580	659260	566474	443808	grade 0 events	27963	38836	31338	59016	47030	20837
rejected events	457107	313012	390741	277997	419293	391537		5%	6%	6%	8%	8%	4%
rejected %	88%	49%	85%	42%	74%	88%	grade 1 events	547	2169	311	1385	505	379
								0%	0%	0%	0%	0%	0%
							grade 2 events	12204	95308	12530	84368	33603	11046
								2%	15%	2%	12%	5%	2%
							grade 3 events	5256	12861	5506	37195	14839	5147
								1%	2%	1%	5%	2%	1%
							grade 4 events	5104	12649	5473	36733	13961	5124
								0%	1%	1%	5%	2%	1%
							grade 5 events	18308	48272	18055	55551	26691	20426
								3%	7%	3%	8%	4%	4%
							grade 6 events	8290	161500	11002	164010	37760	10122
								1%	25%	2%	24%	6%	2%
							grade 7 events	438243	262527	372365	221002	392085	370727
								84%	41%	81%	33%	69%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	201.374389	201.363103112587	CCD I2 on	N	N
[deg] Pointing Dec	-42.997747	-43.02379846956582	CCD I3 on	N	N
[deg] Pointing Roll	221.479661	221.62858959993	CCD S0 on	O1	Y
[deg] Roll angle	217.000000	217.000000	CCD S1 on	Y	Y
[deg] Roll tolerance	25.000000	25.000000	CCD S2 on	Y	Y
Roll constraint allows 180D rotation	N	N	CCD S3 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S4 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S5 on	O2	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	Number of optional ACIS chips dropped	0	0
[mm] SIM translation stage offset	0	0.00754346686406393	On-chip summing requested	N	N
[s] Observation start time (MET)	368828893.184000	368827577.5773	Subarray requested	NONE	NONE
Observation start date	2009-09-08T20:27:07	2009-09-08T20:06:17	Alternating exposures requested	N	N
[s] Observation end time (MET)	368878893.184000	368879897.16742	[s] Primary exposure time	0.000000	3.2
Observation end date	2009-09-09T10:20:27	2009-09-09T10:38:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect



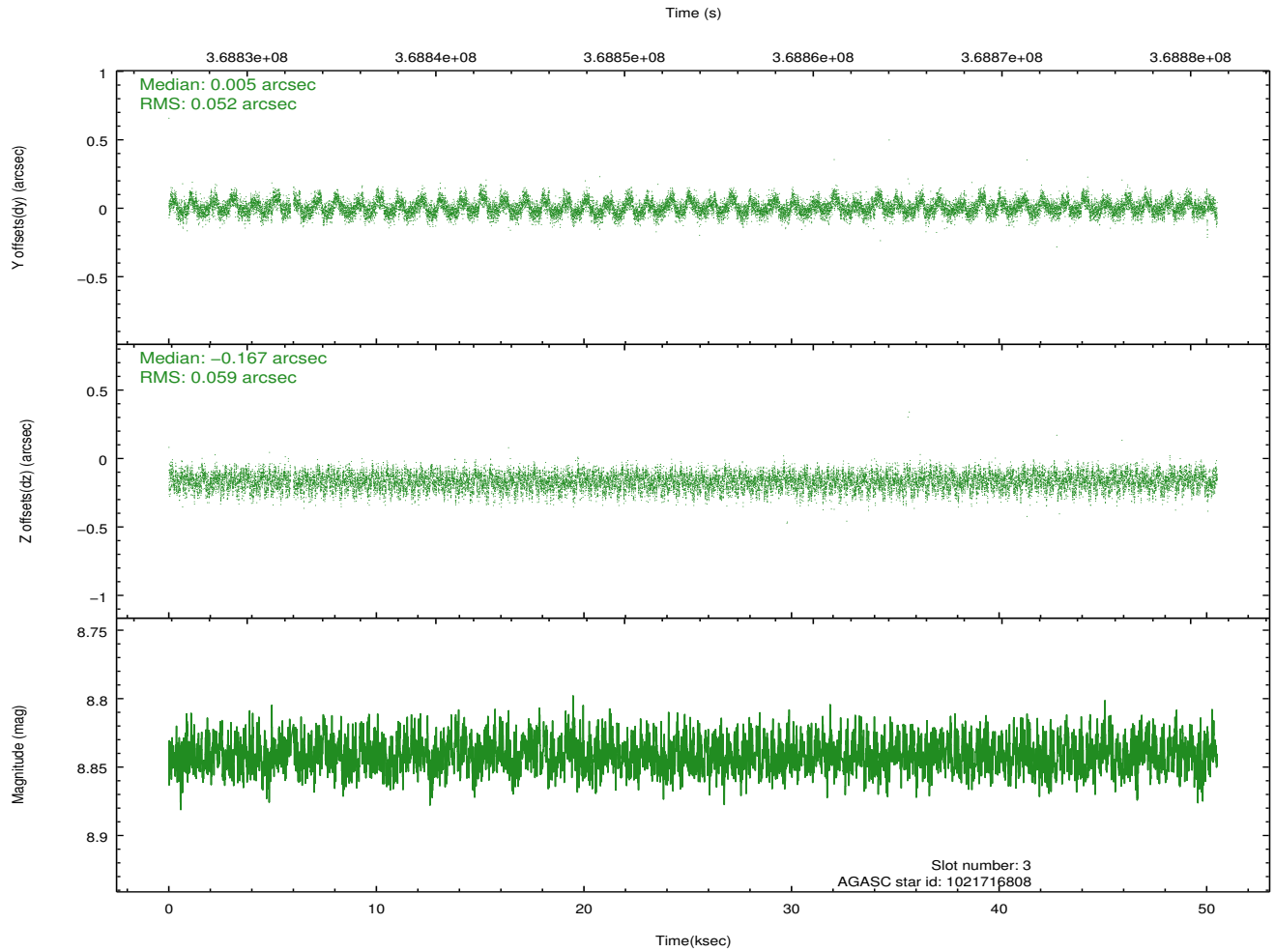
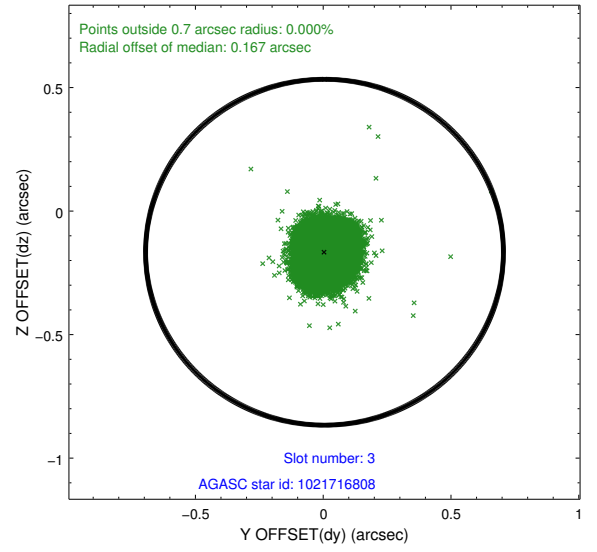
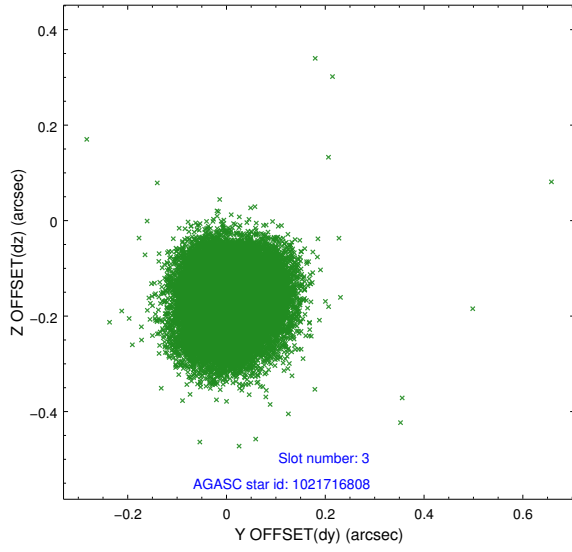


### Slot Statistics

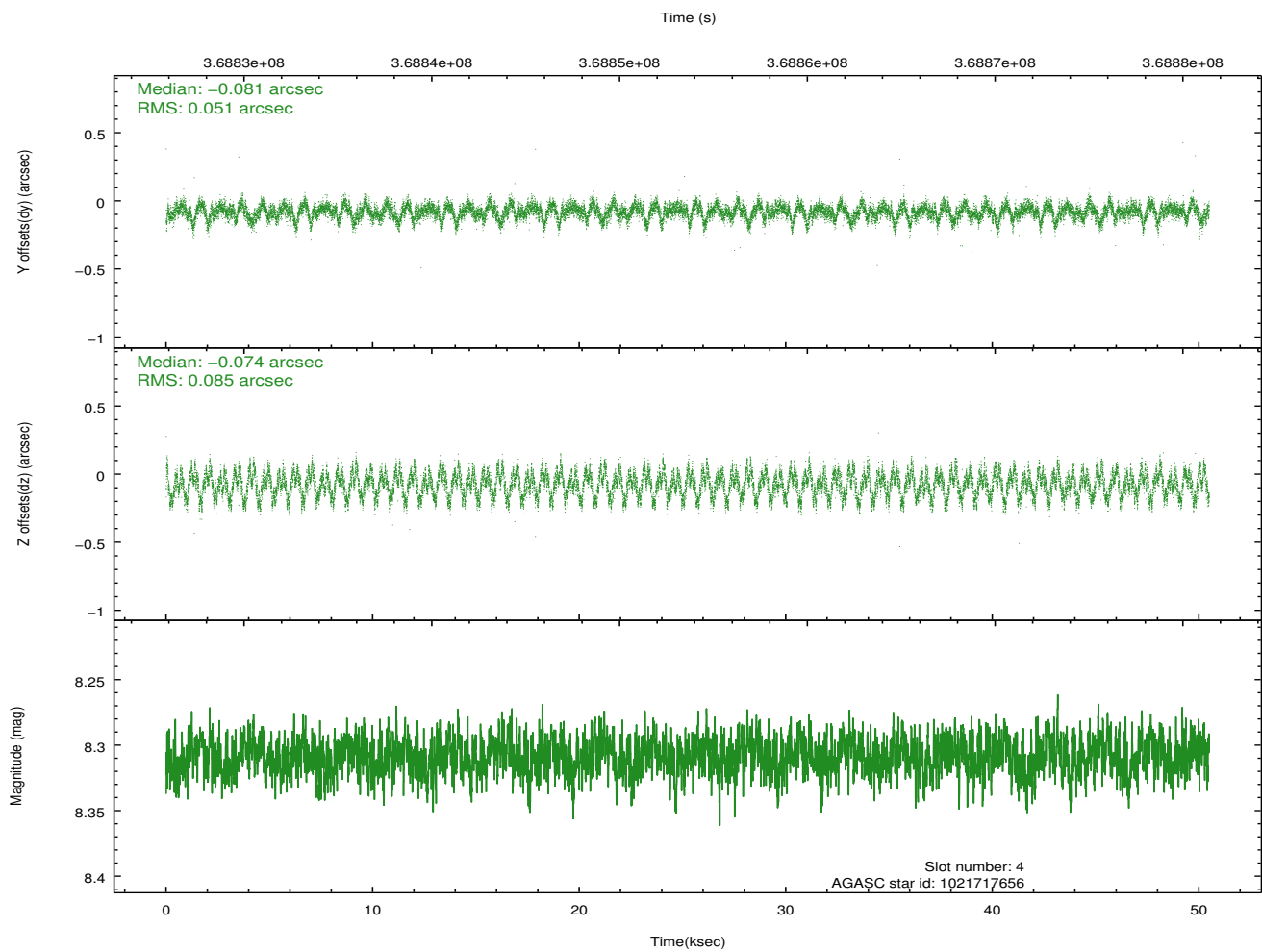
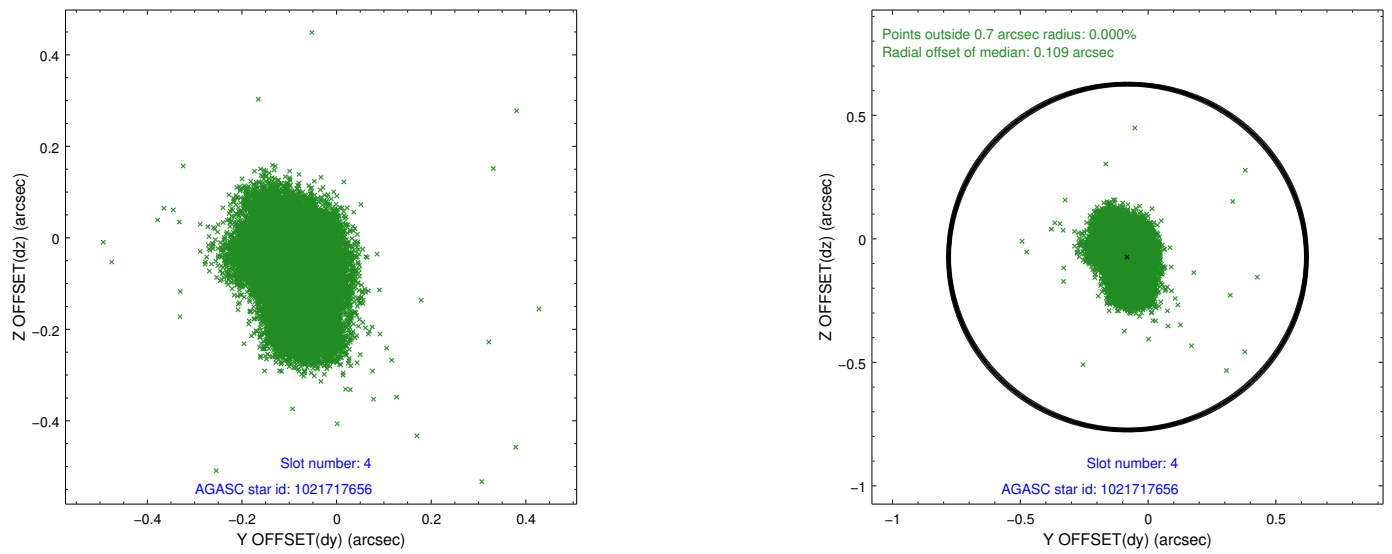
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.94	12318	0.063	0.000	0.023	0.062	0.000000	0.000000	926.52	-1735.23
1	FID	ACIS-S-4	6.94	12317	0.078	-0.027	0.009	0.048	0.000000	0.000000	2143.95	168.92
2	FID	ACIS-S-5	6.98	12317	-0.168	0.040	0.017	0.023	0.000000	0.000000	-1822.58	162.60
3	GUIDE	1021716808	8.84	24546	0.005	-0.167	0.084	0.133	200.901189	-42.531395	-168.25	-2086.81
4	GUIDE	1021717656	8.31	24619	-0.081	-0.074	0.108	0.167	201.139642	-43.082878	666.34	-178.60
5	GUIDE	1021719704	7.58	24631	0.045	-0.057	0.073	0.115	200.511976	-43.050426	1833.71	-1351.53
6	GUIDE	1021721672	9.54	24536	-0.088	-0.017	0.116	0.185	201.740358	-43.079729	-523.66	859.97
7	GUIDE	1022235840	9.43	24573	0.123	0.318	0.160	0.253	201.679306	-43.544276	708.31	2002.64

## 2.4 Star Slots

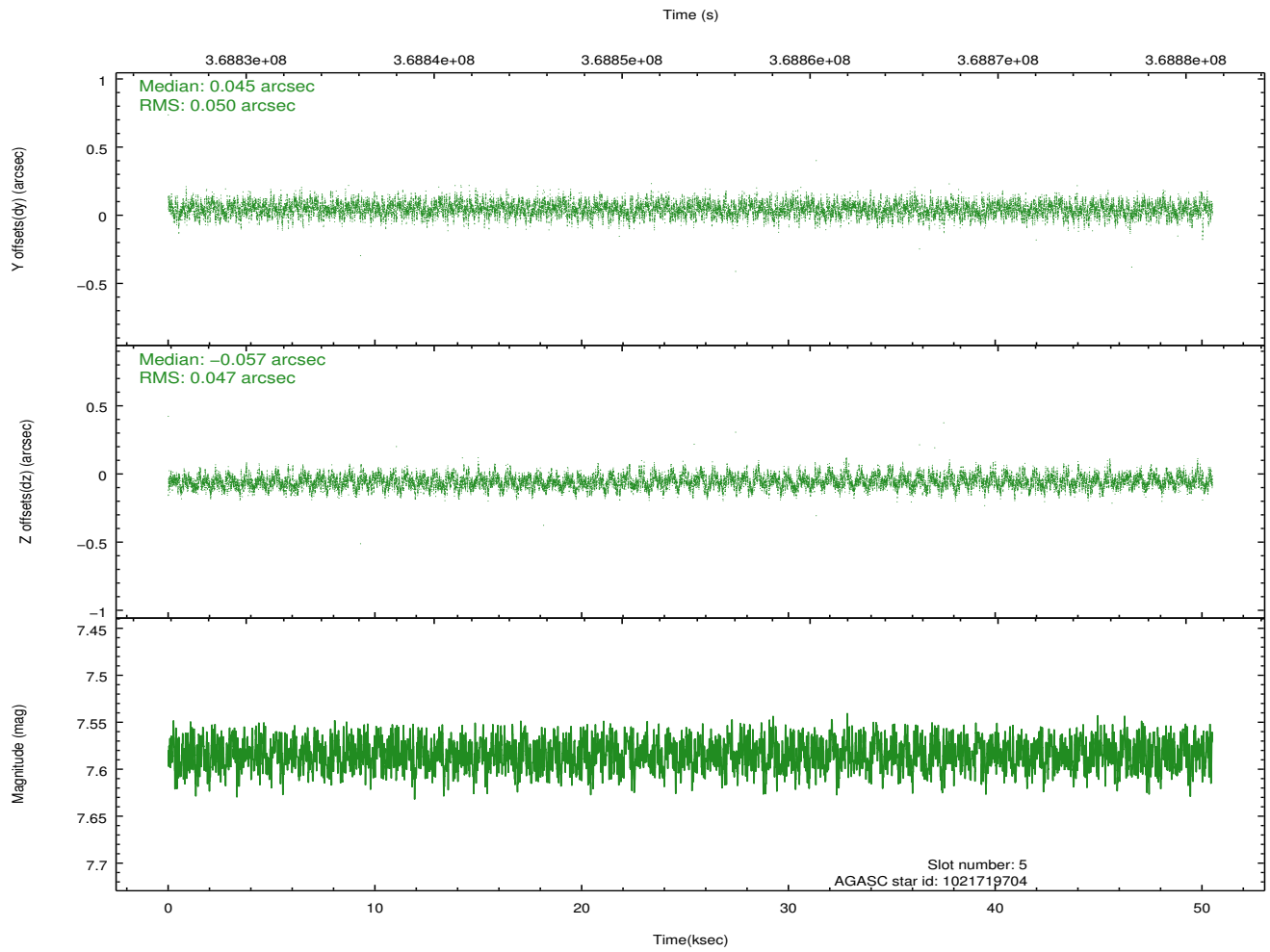
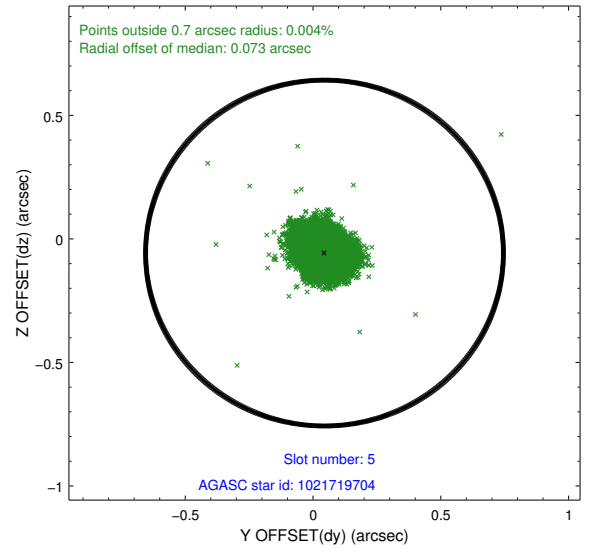
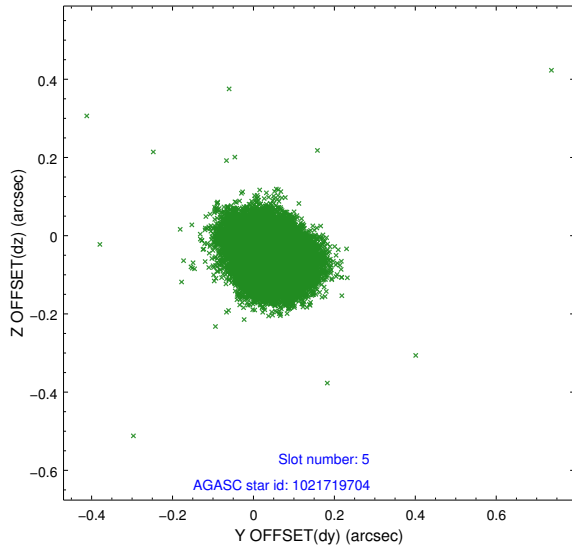
### 2.4.1 Slot 3



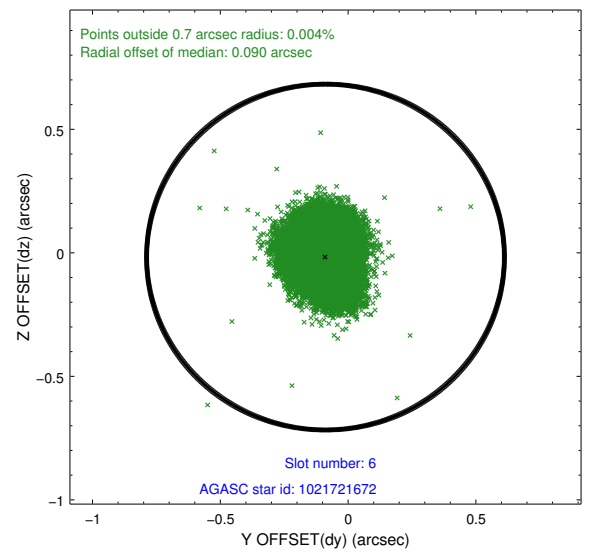
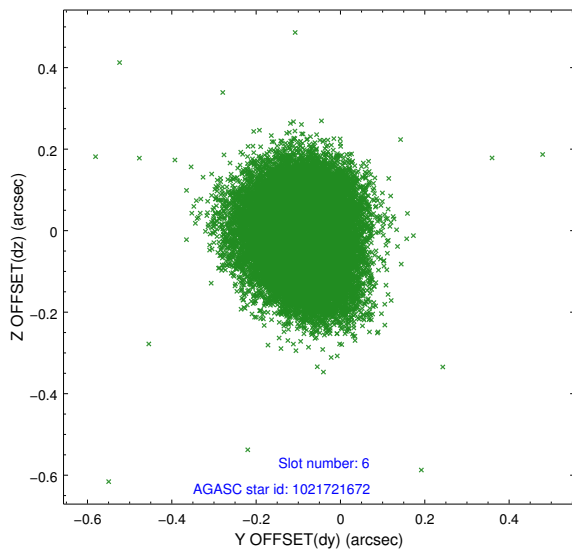
## 2.4.2 Slot 4



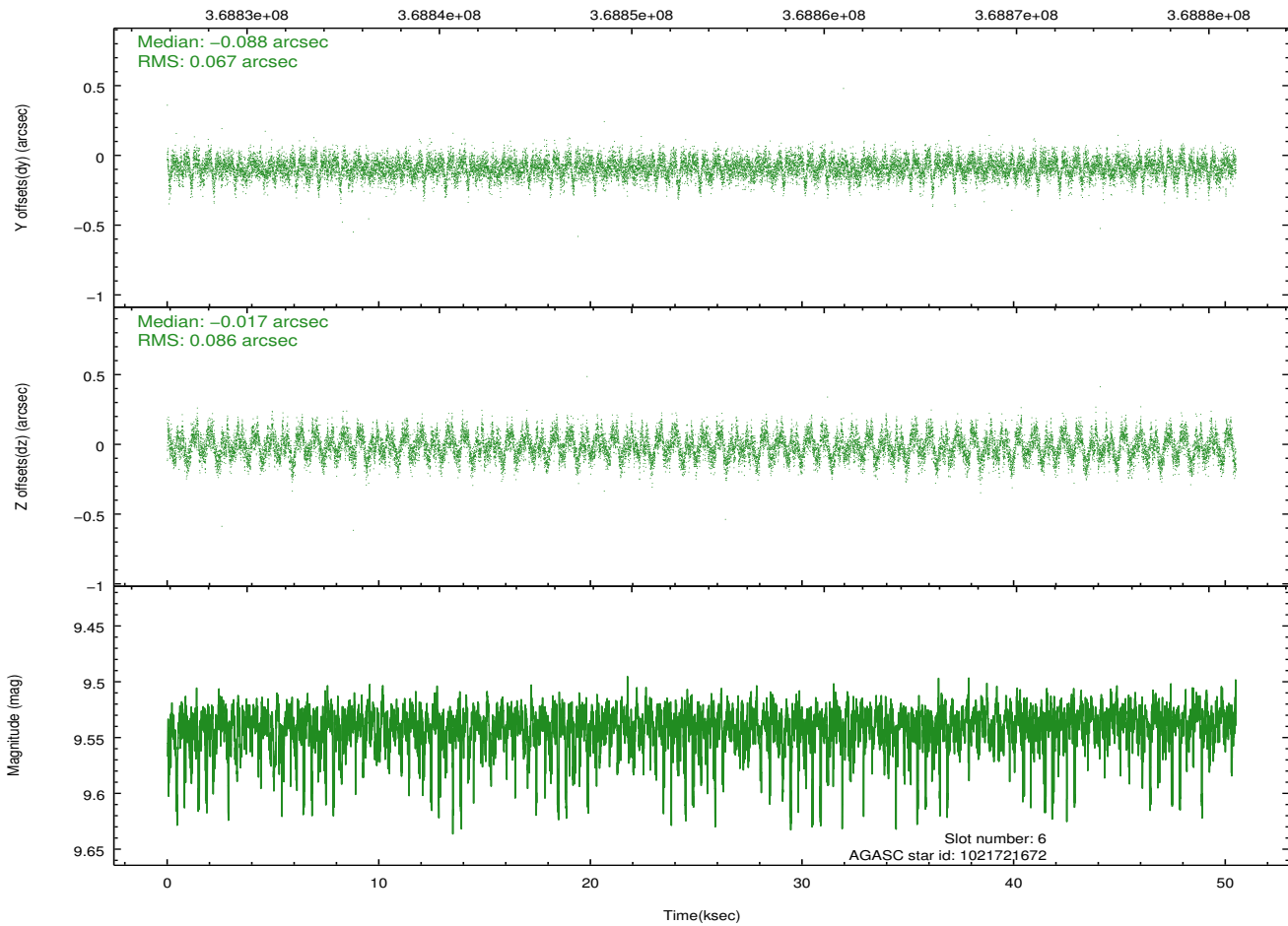
### 2.4.3 Slot 5



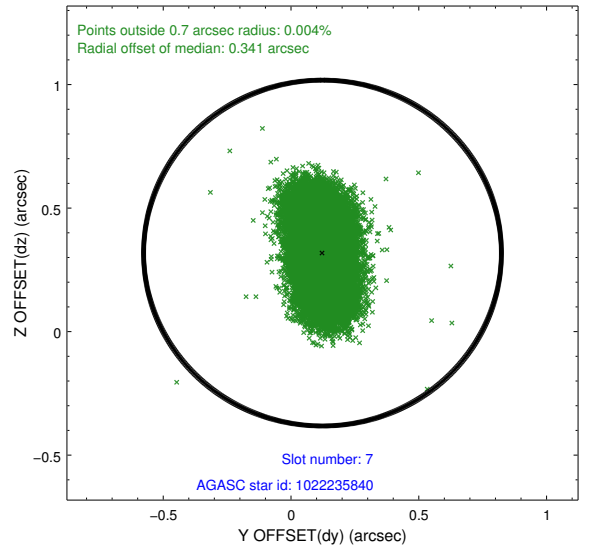
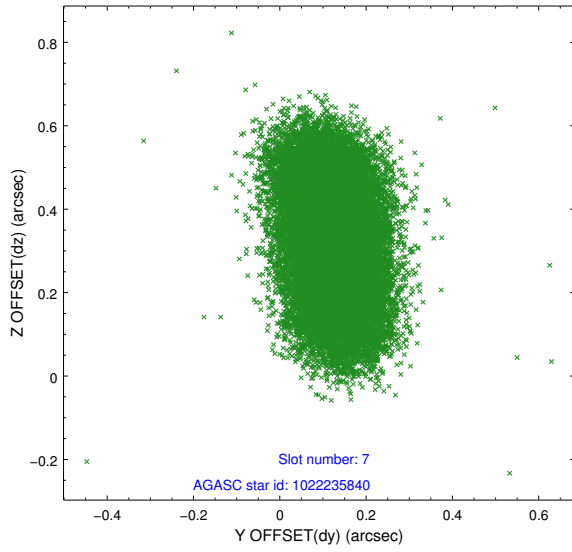
## 2.4.4 Slot 6



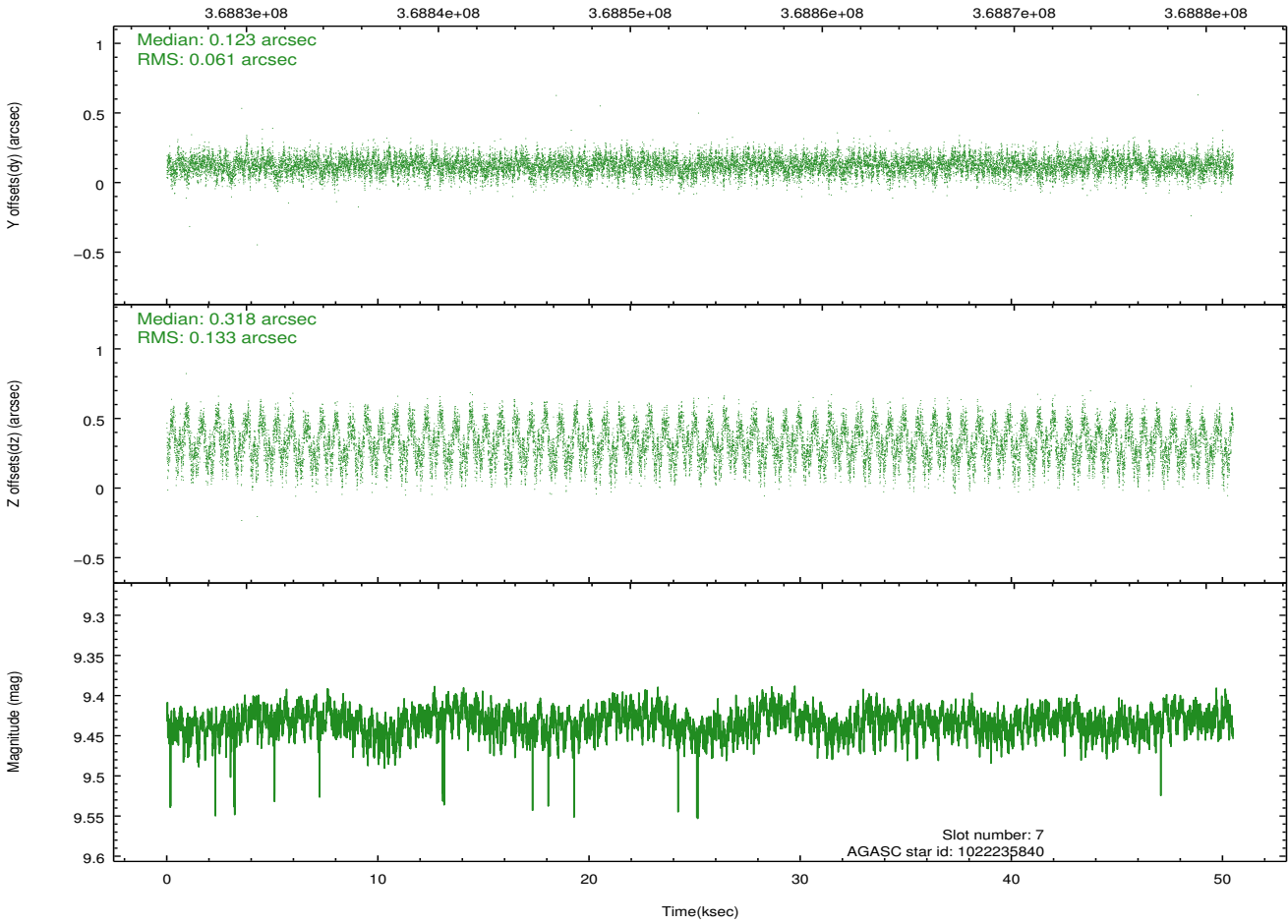
Time (s)



### 2.4.5 Slot 7

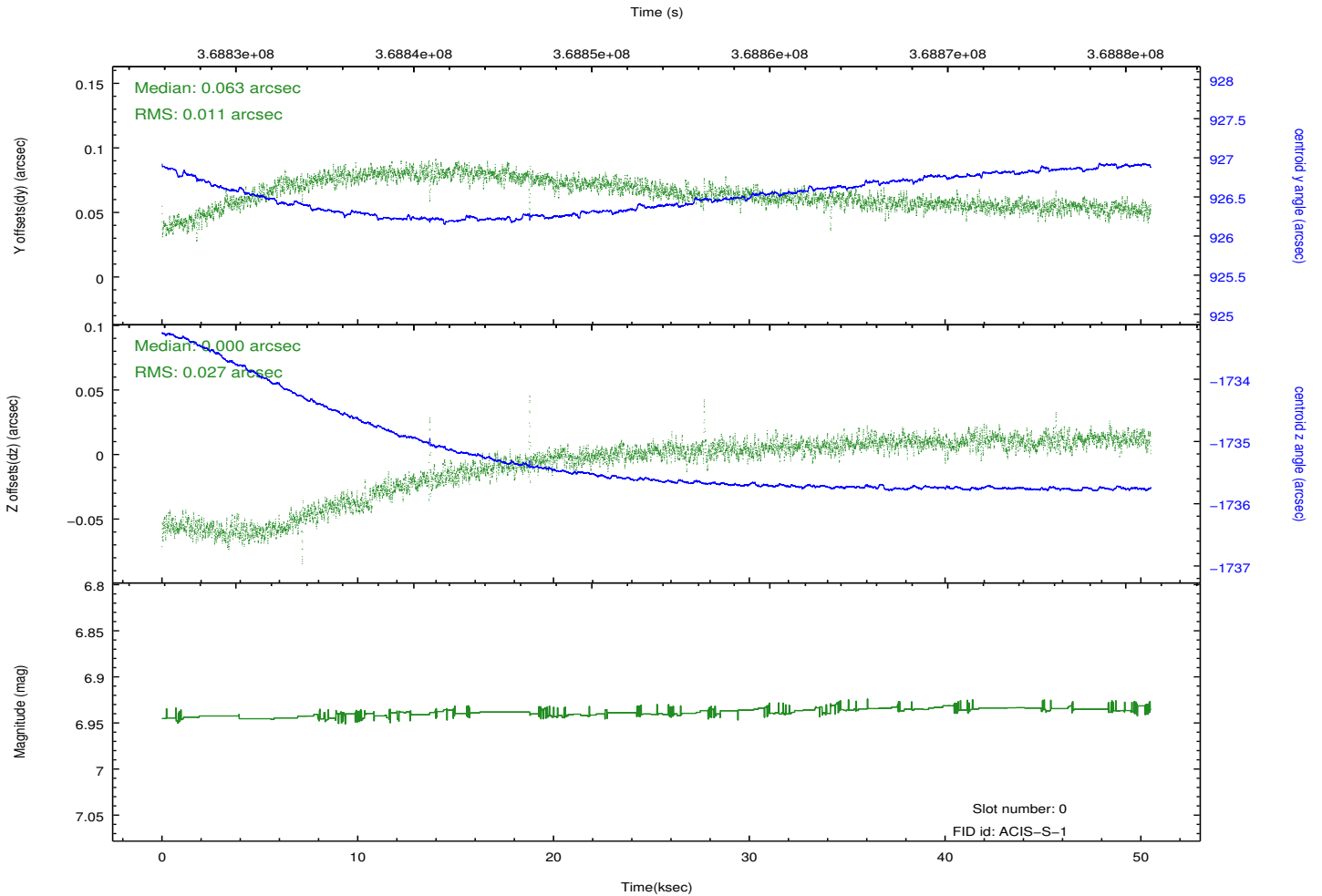
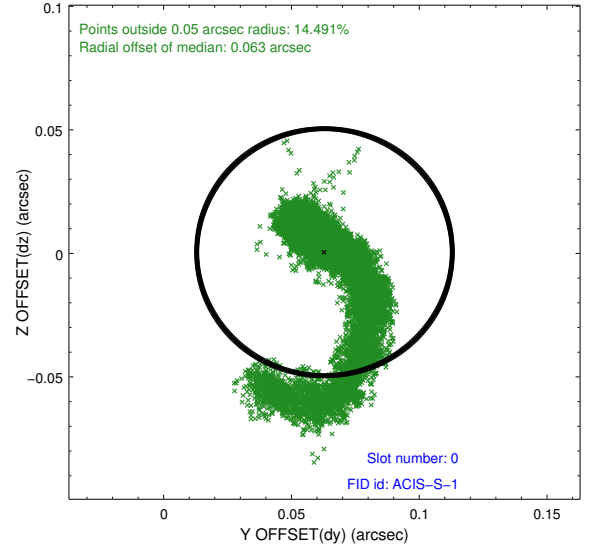
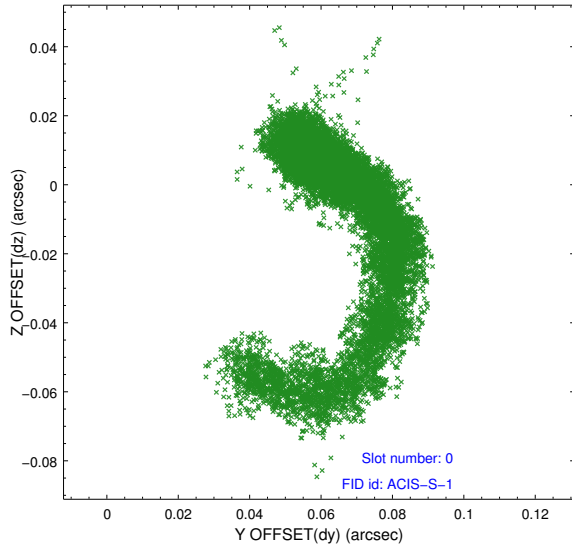


Time (s)

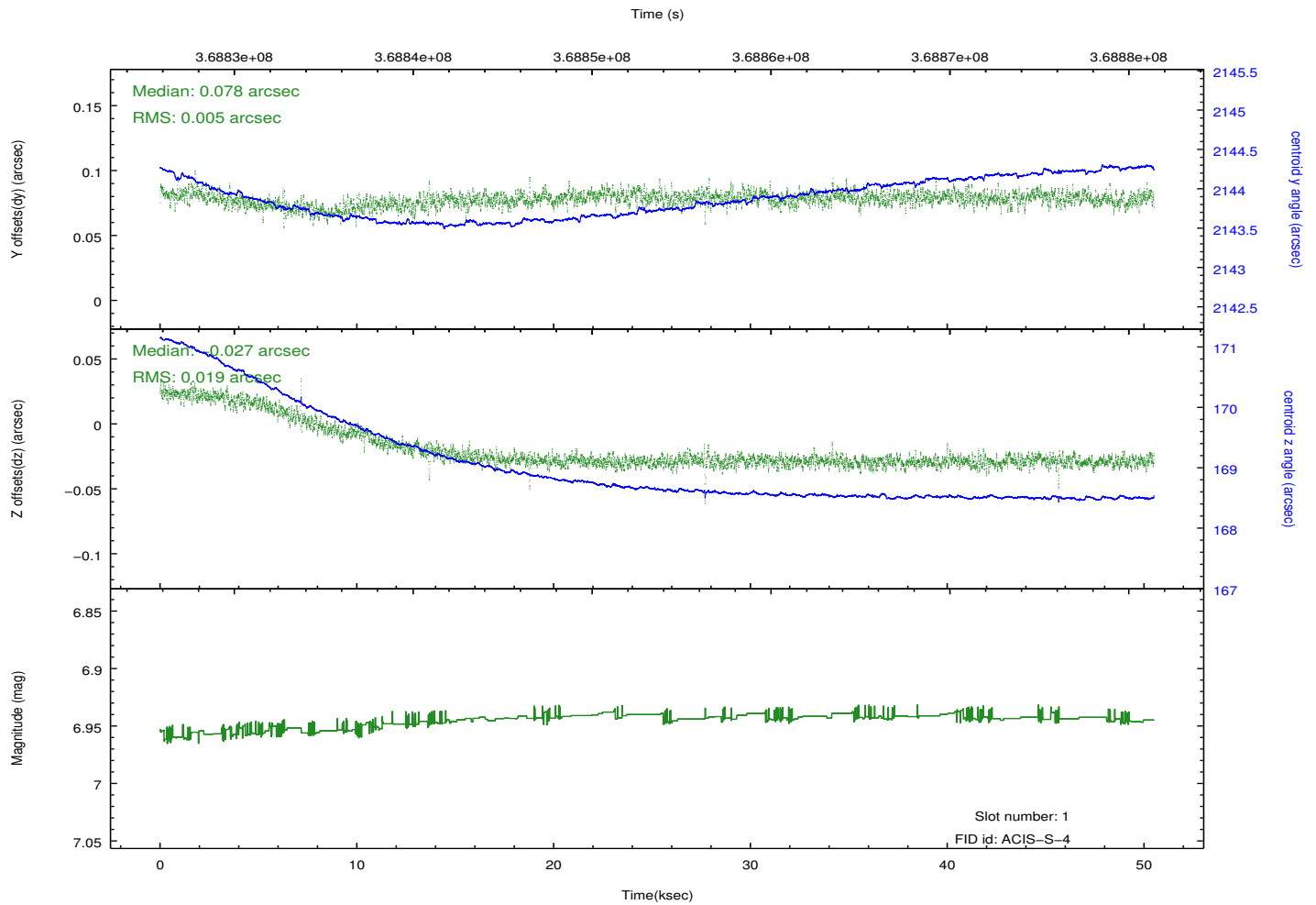
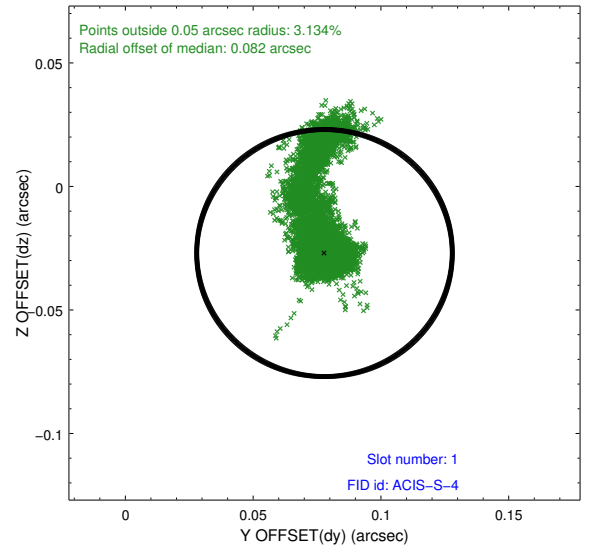
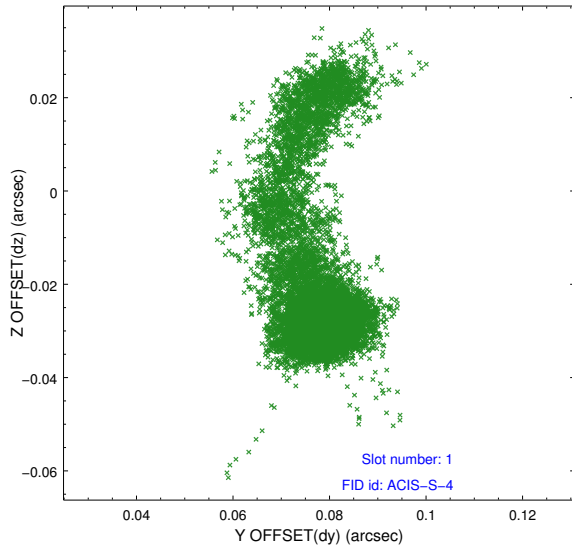


## 2.5 FID Slots

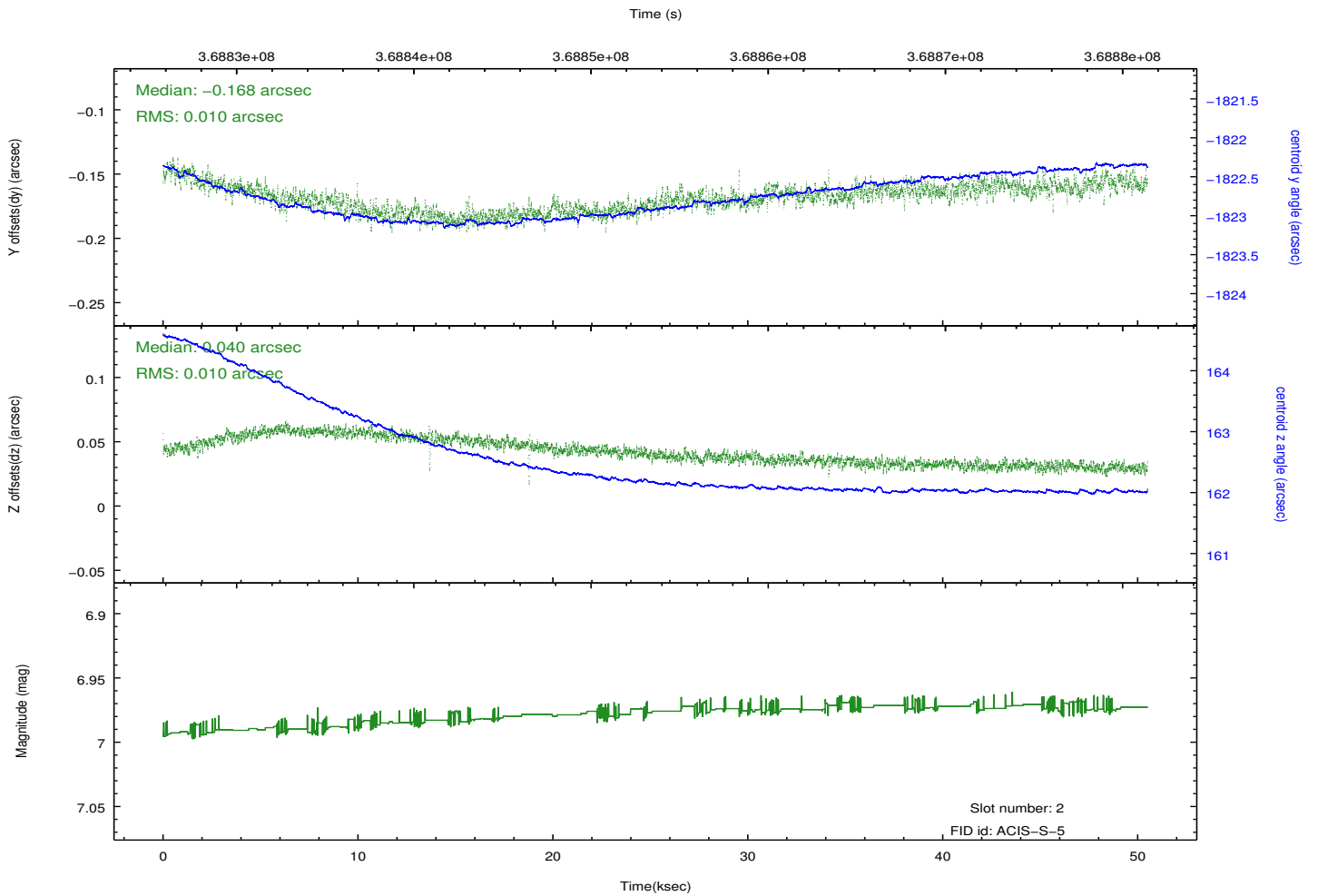
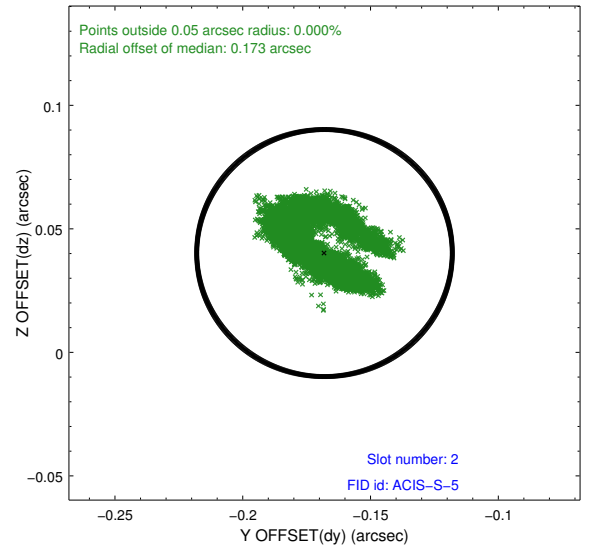
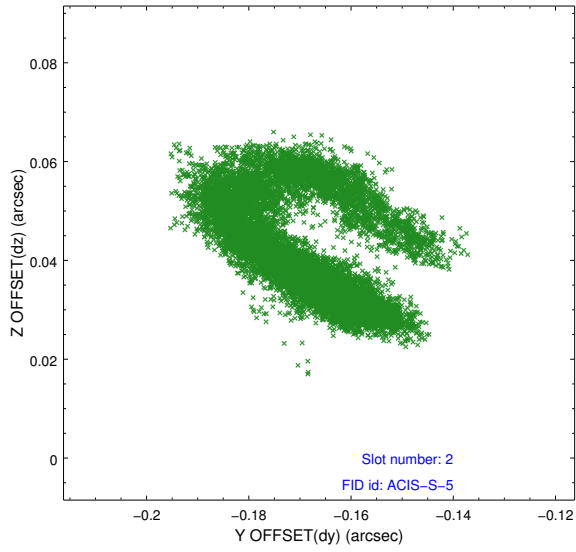
### 2.5.1 Slot 0



## 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)	2012.06.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.035017732203

## A.2 Comments

Roll constraint met.