

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5134 - L2 Version 3  
Chandra X-Ray Center

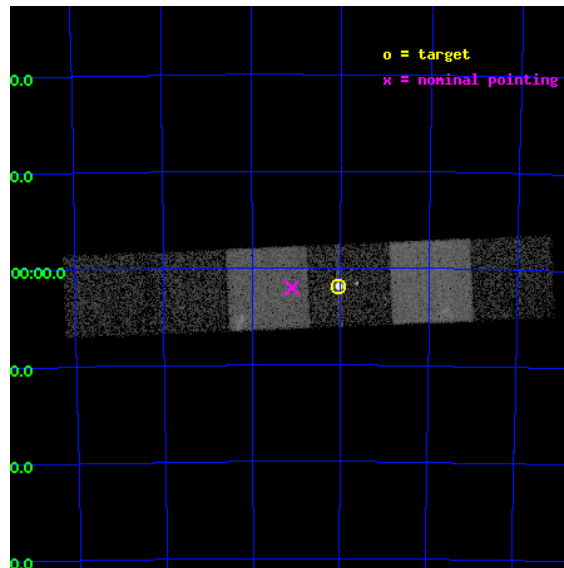
L2 Processing Date : Nov 30 2012

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# 1 Front

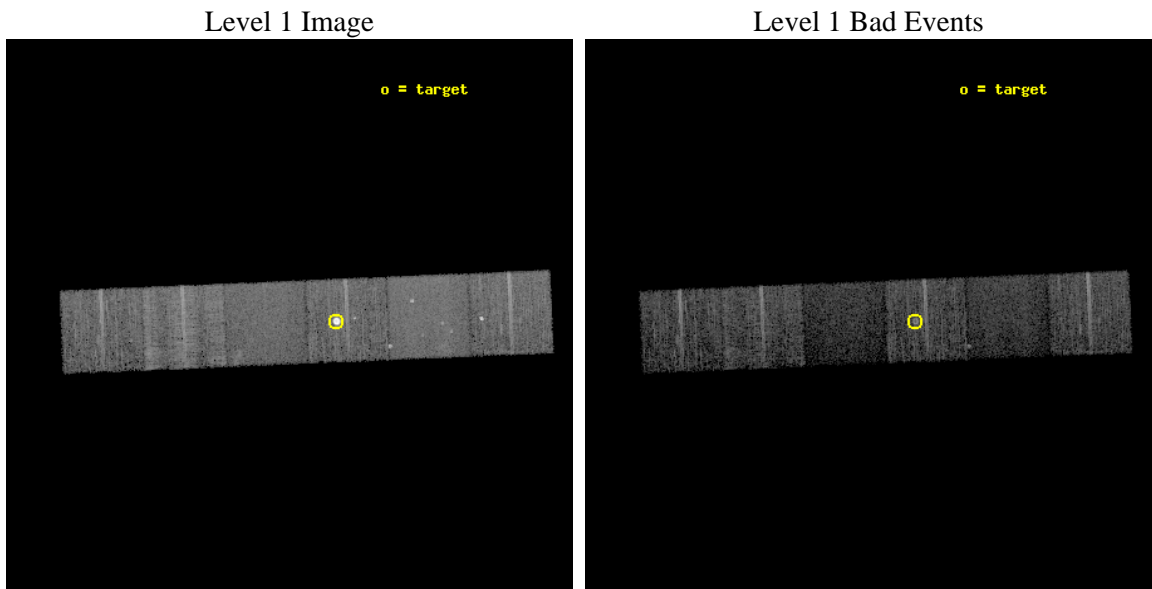
seq_num	590332	Sequence number
obs_id	5134	Observation id
title	AO5B ACIS-S Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[S2,-120,5.15,0,0]	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.275112909582	Nominal RA [deg]
dec_nom	-72.034168110948	Nominal Dec [deg]
roll_nom	177.58153702753	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7596.7999716997	Sum of GTIs [s]
livetime	7500.6047162143	Livetime [s]
ontime4	7590.318021208	Sum of GTIs [s]
ontime5	7596.7999716997	Sum of GTIs [s]
ontime6	7596.7999716997	Sum of GTIs [s]
ontime7	7596.7999716997	Sum of GTIs [s]
ontime8	7593.5590114295	Sum of GTIs [s]
ontime9	7593.559001416	Sum of GTIs [s]
l2events	89406	Number of level 2 events



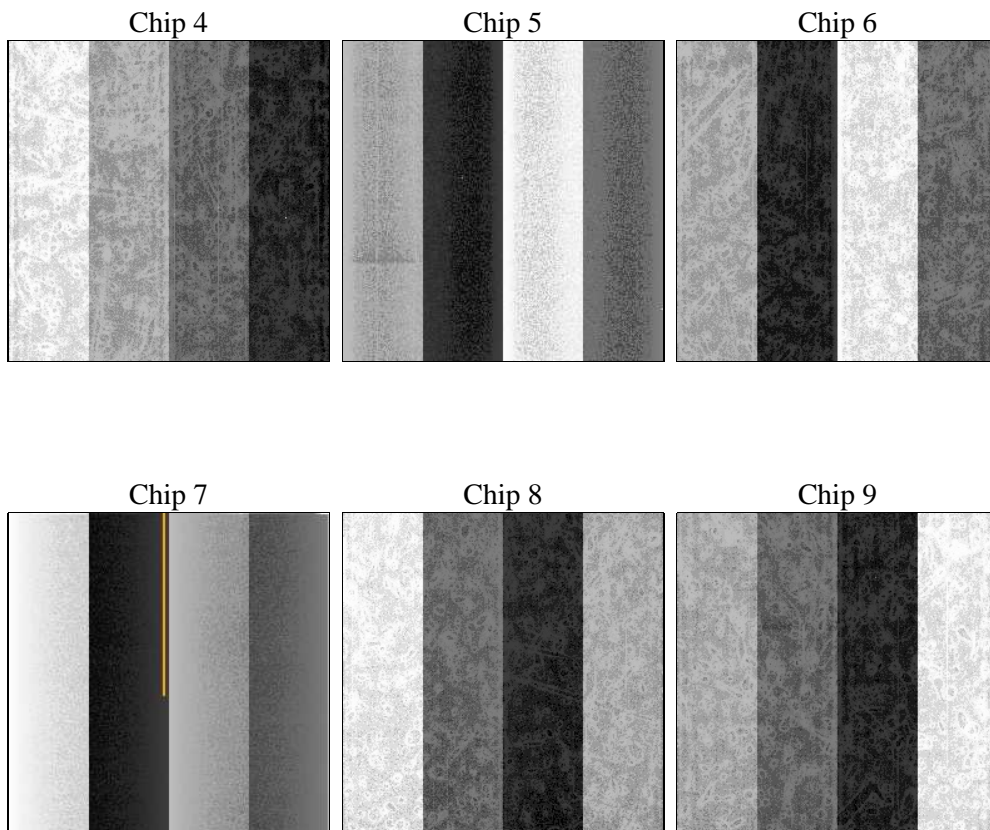
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7840.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7596.7999716997	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime4	7590.318021208	Sum of GTIs [s]
date	2012-11-30T14:00:32	Date and time of file creation	ontime5	7596.7999716997	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	7596.7999716997	Sum of GTIs [s]
			ontime7	7596.7999716997	Sum of GTIs [s]
			ontime8	7593.5590114295	Sum of GTIs [s]
			ontime9	7593.559001416	Sum of GTIs [s]
			l1events	319044	Number of level 1 events

### 2.1.4 Events

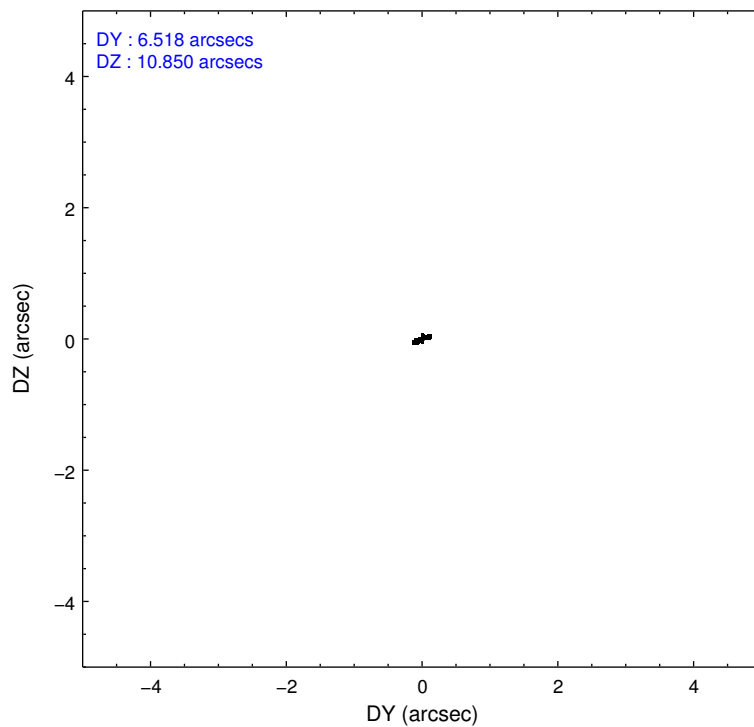
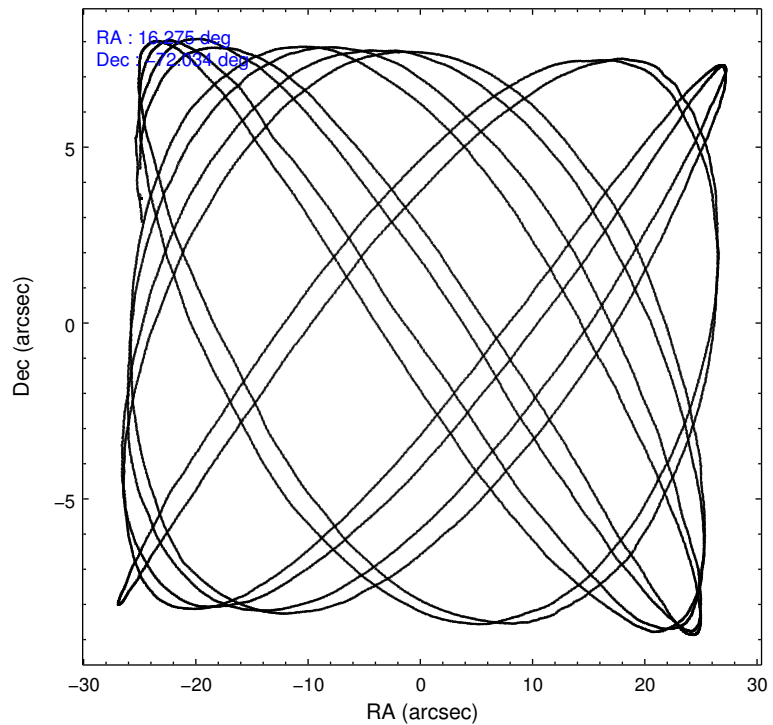
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	51344	53071	72939	41122	59761	40807
rejected events	44133	24644	39794	20129	41513	36232
rejected %	85%	46%	54%	48%	69%	88%

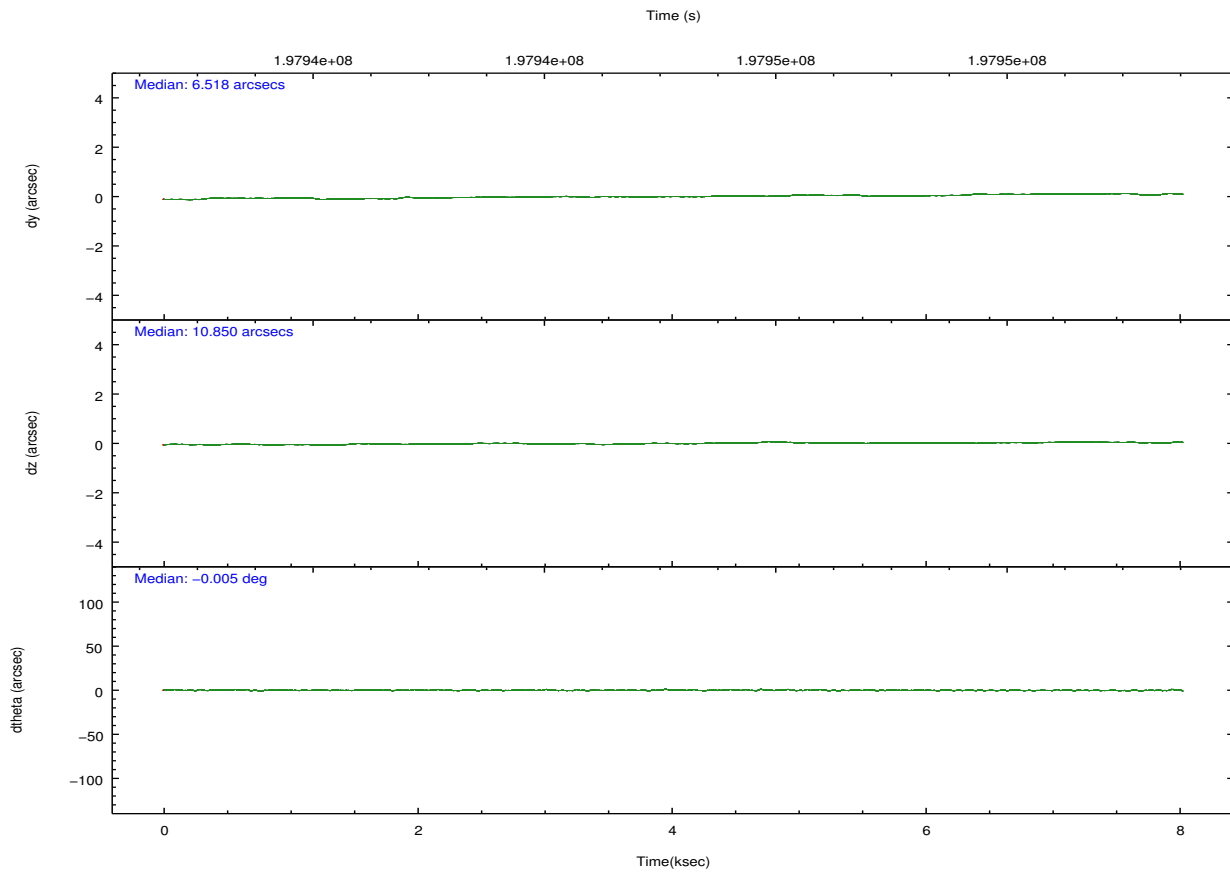
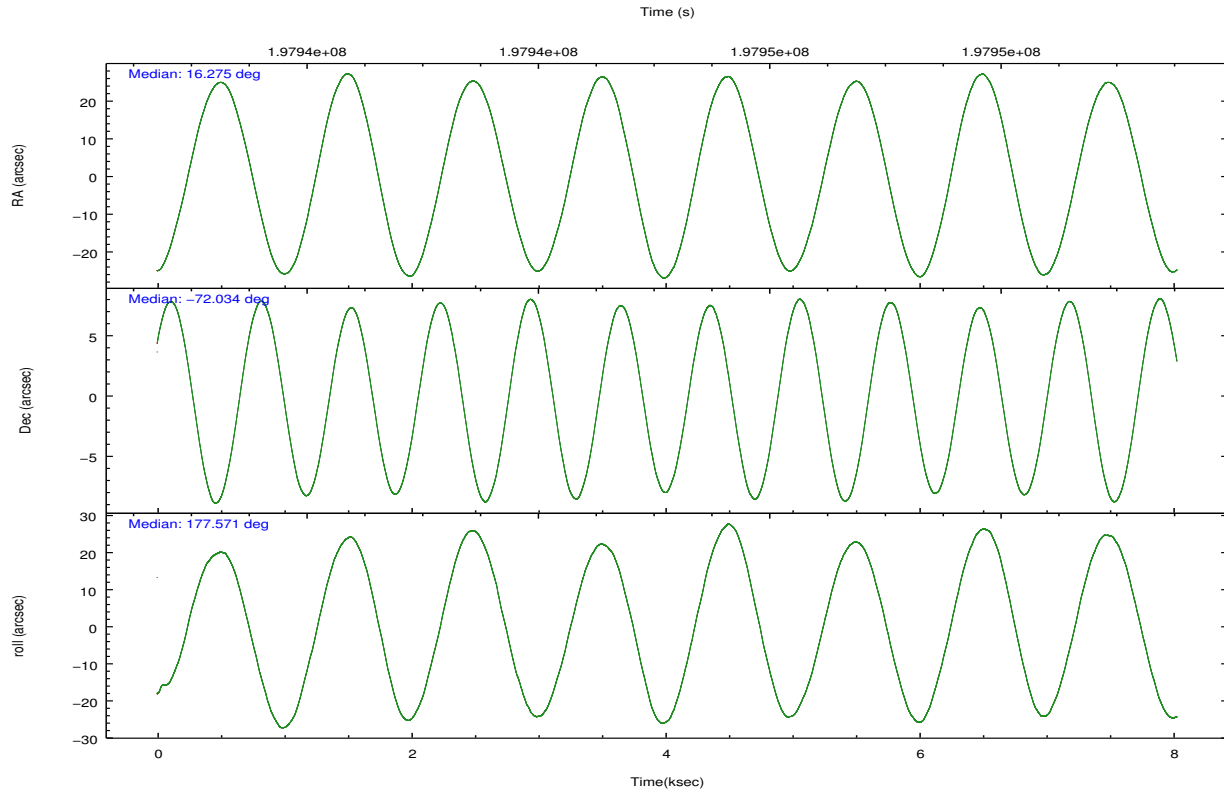
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	4407	3580	27186	2325	6380	1842
	8%	6%	37%	5%	10%	4%
grade 1 events	53	210	270	40	69	18
	0%	0%	0%	0%	0%	0%
grade 2 events	1067	8092	2988	4458	2921	951
	2%	15%	4%	10%	4%	2%
grade 3 events	485	1508	953	2111	2820	468
	0%	2%	1%	5%	4%	1%
grade 4 events	543	1407	965	2105	2636	435
	1%	2%	1%	5%	4%	1%
grade 5 events	1288	4355	1475	4375	2163	1587
	2%	8%	2%	10%	3%	3%
grade 6 events	714	13865	1083	10009	3506	882
	1%	26%	1%	24%	5%	2%
grade 7 events	42787	20054	38019	15699	39266	34624
	83%	37%	52%	38%	65%	84%

## 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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.352793	16.27511290958184	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.021282	-72.03416811094844	Alternating exposures requested	N	N
[deg] Pointing Roll	177.498798	177.5815370275319	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	197164864.184000	197164864.184000			
[s] Window stop time (MET)	199670464.184000	199670464.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	197941287.184000	197940911.45099			
Observation start date	2004-04-09T23:40:23	2004-04-09T23:35:11			
[s] Observation end time (MET)	197949127.184000	197949908.38889			
Observation end date	2004-04-10T01:51:03	2004-04-10T02:05:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect



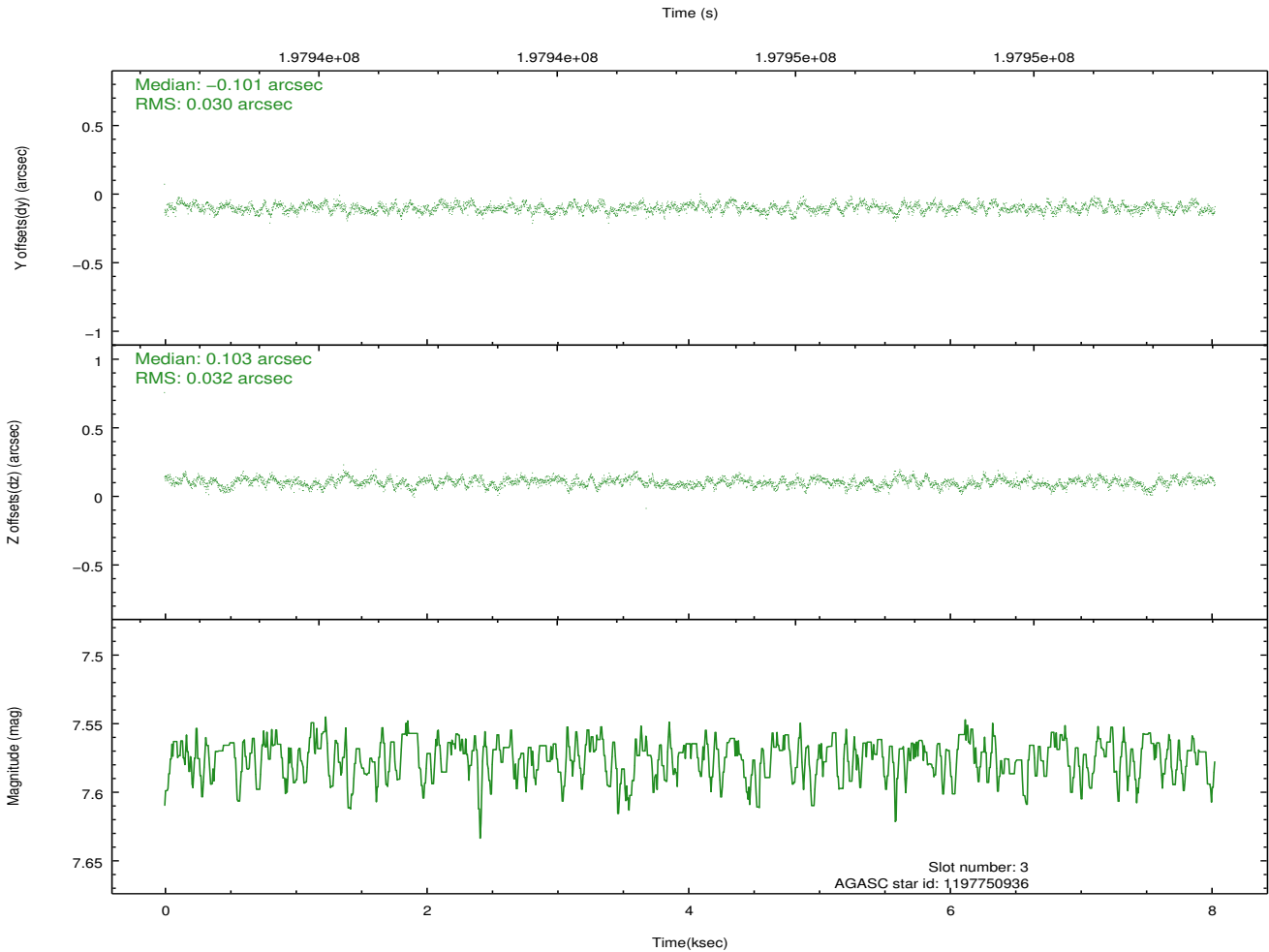
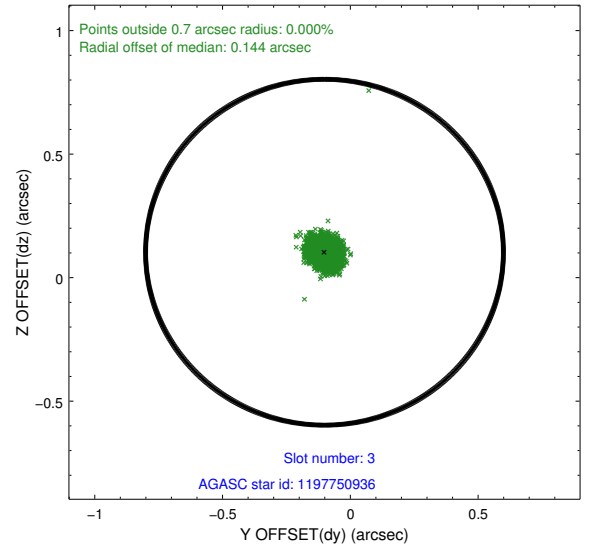
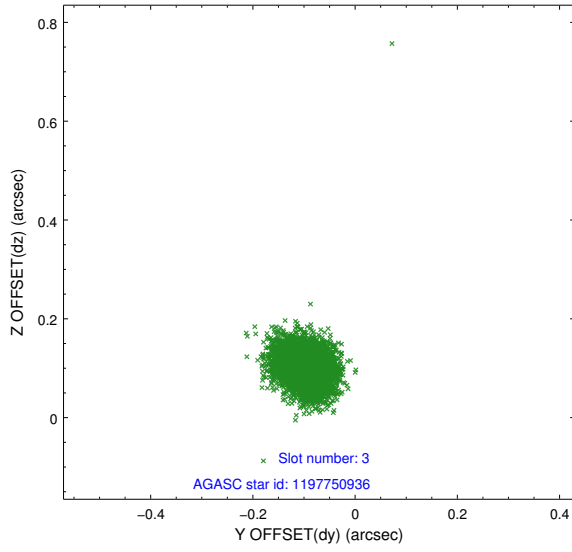


### Slot Statistics

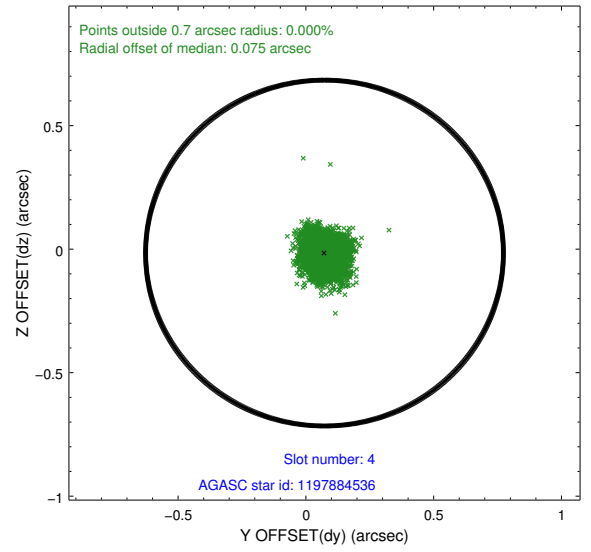
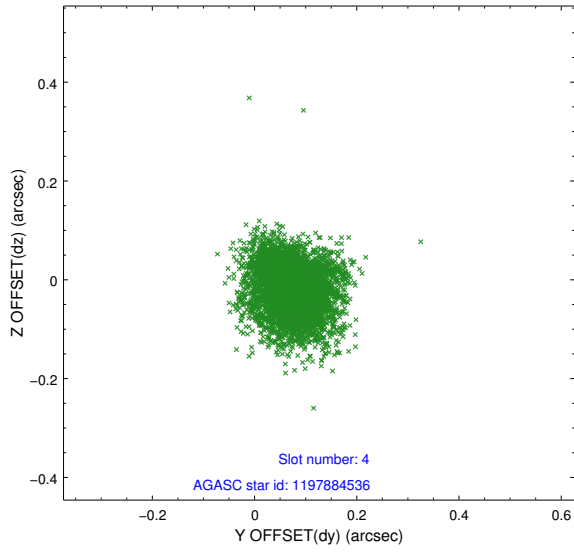
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1959	-0.059	-0.020	0.007	0.011	0.000000	0.000000	-759.29	-1732.15
1	FID	ACIS-S-4	7.21	1959	0.082	0.034	0.006	0.010	0.000000	0.000000	2153.78	175.71
2	FID	ACIS-S-5	7.23	1959	-0.054	-0.005	0.007	0.011	0.000000	0.000000	-1811.26	170.08
3	GUIDE	1197750936	7.57	3918	-0.101	0.103	0.046	0.073	15.387940	-71.549550	1172.37	-1638.91
4	GUIDE	1197884536	8.50	3918	0.073	-0.016	0.072	0.115	17.160729	-71.835289	-876.14	-702.57
5	GUIDE	1197884712	8.29	3917	-0.051	-0.089	0.051	0.085	16.087398	-72.252690	254.38	845.90
6	GUIDE	1197885104	9.36	3915	0.111	-0.027	0.074	0.124	17.845067	-72.189368	-1668.29	553.82
7	GUIDE	1197885328	7.23	3917	-0.032	0.036	0.046	0.076	16.283090	-71.733943	123.27	-1029.51

## 2.4 Star Slots

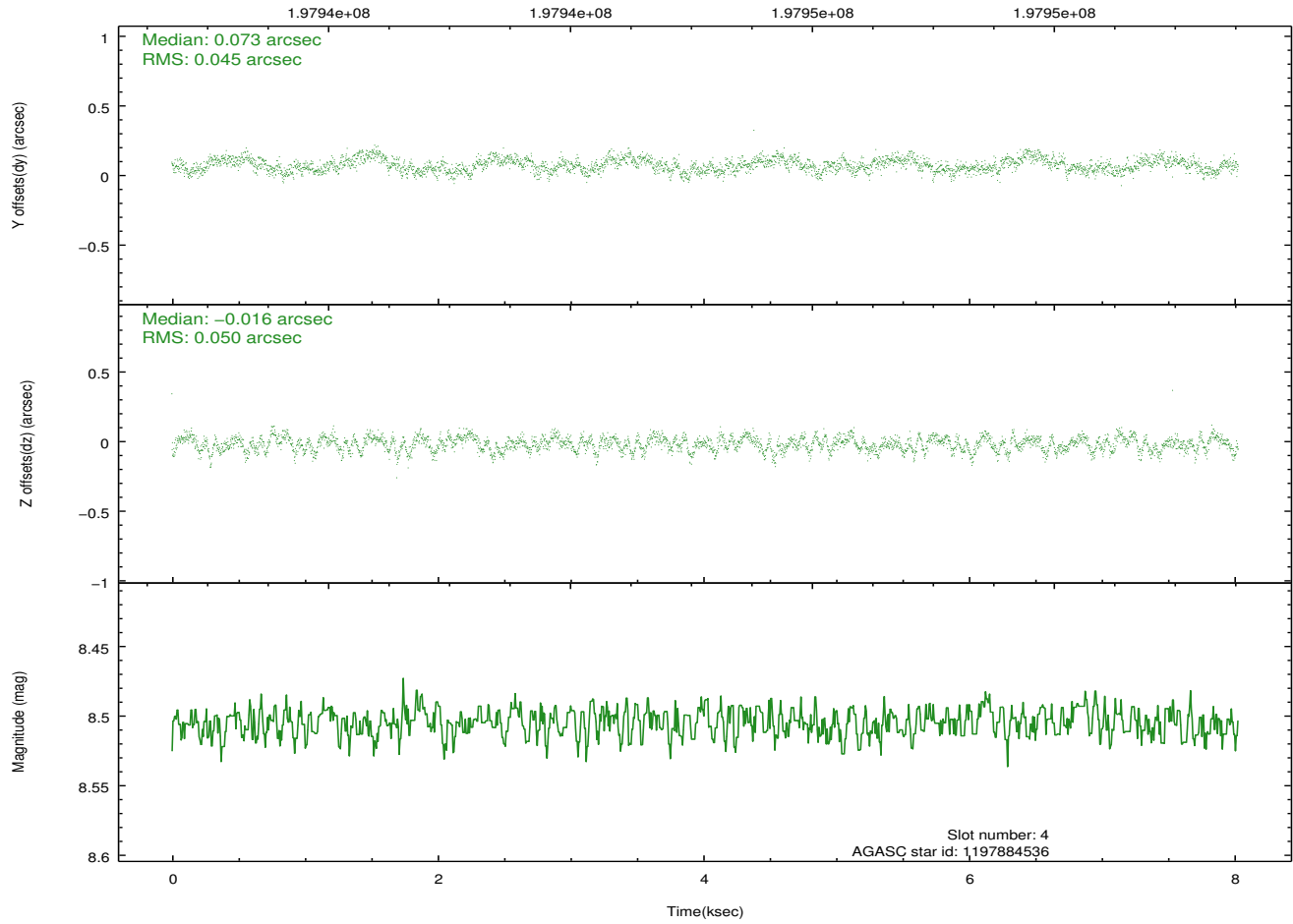
### 2.4.1 Slot 3



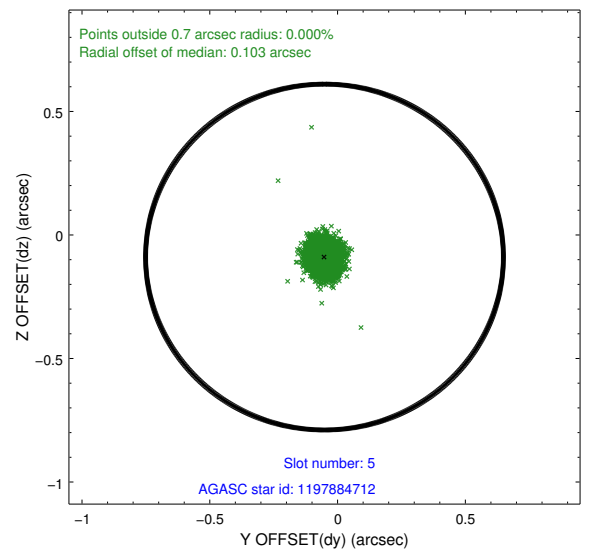
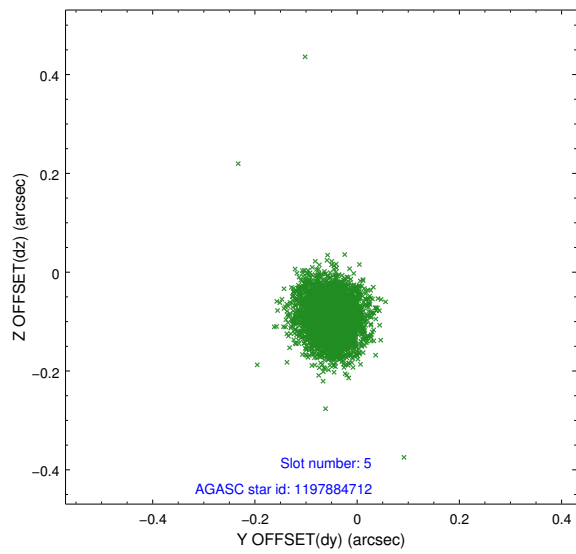
## 2.4.2 Slot 4



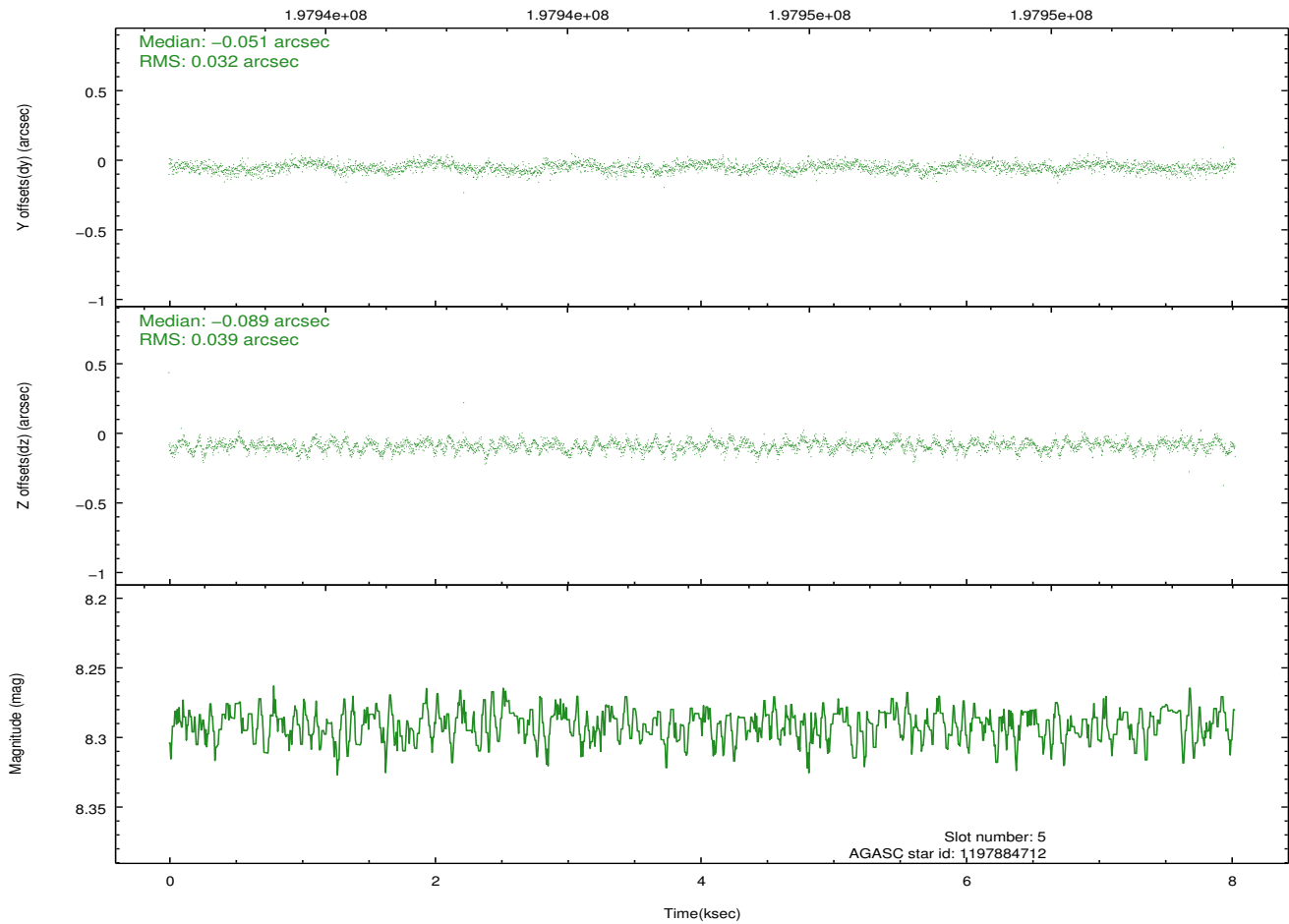
Time (s)



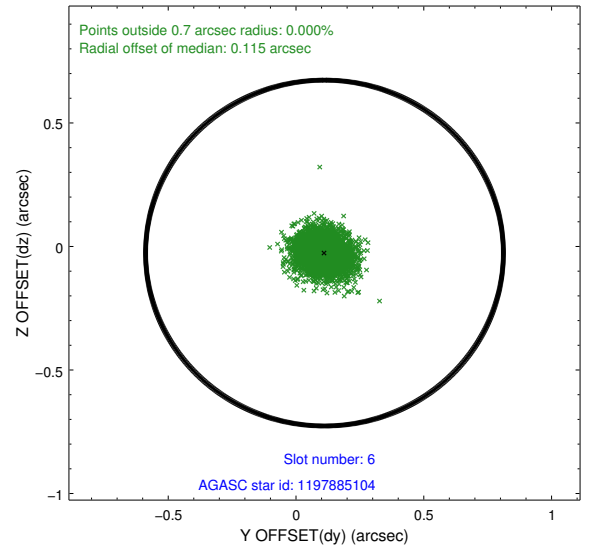
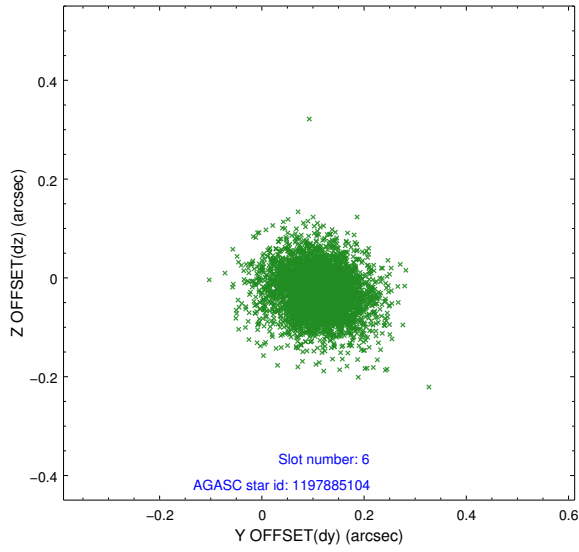
### 2.4.3 Slot 5



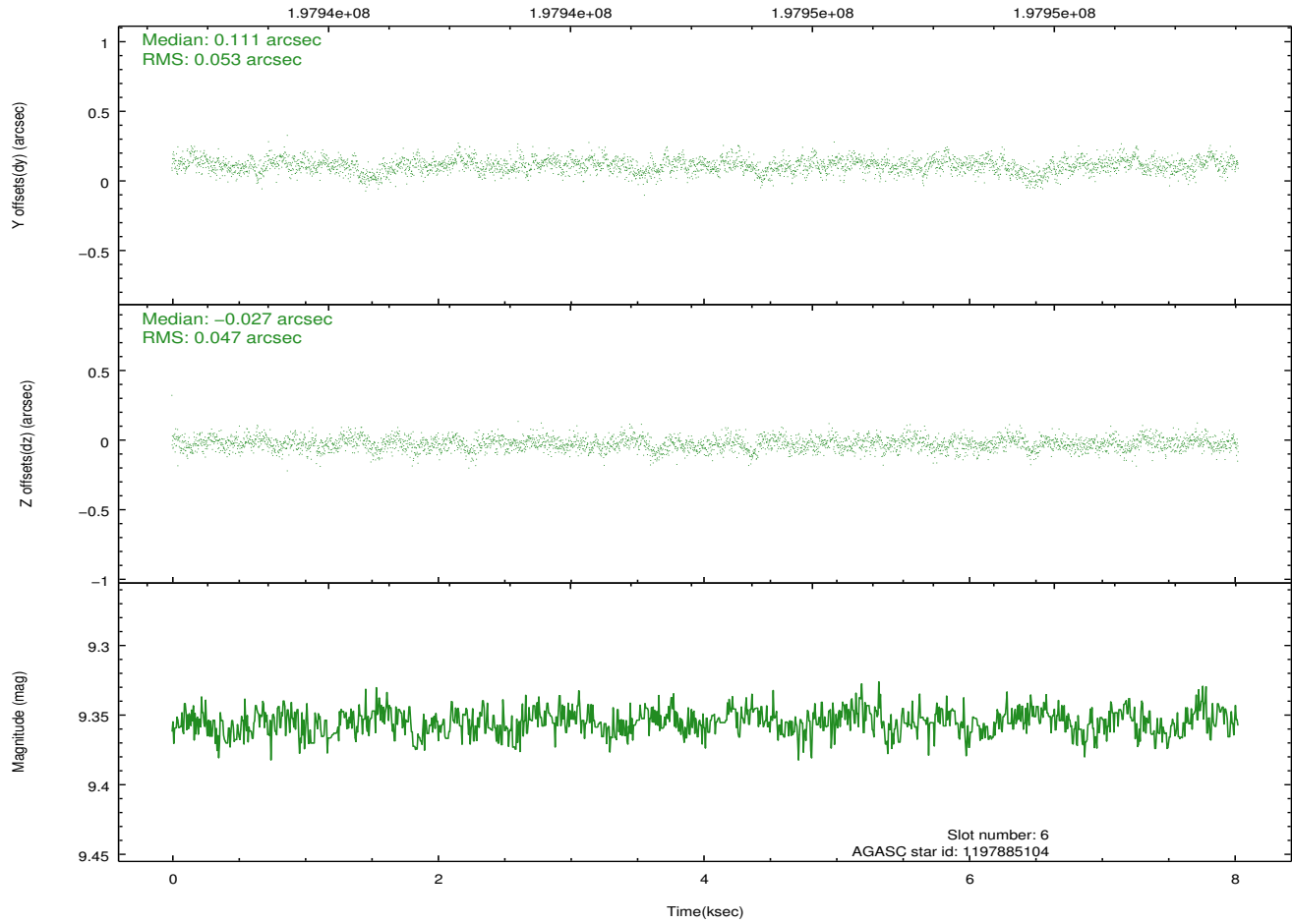
Time (s)



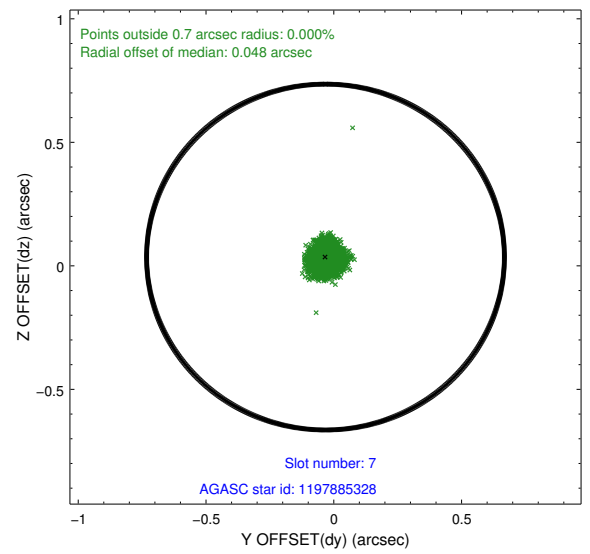
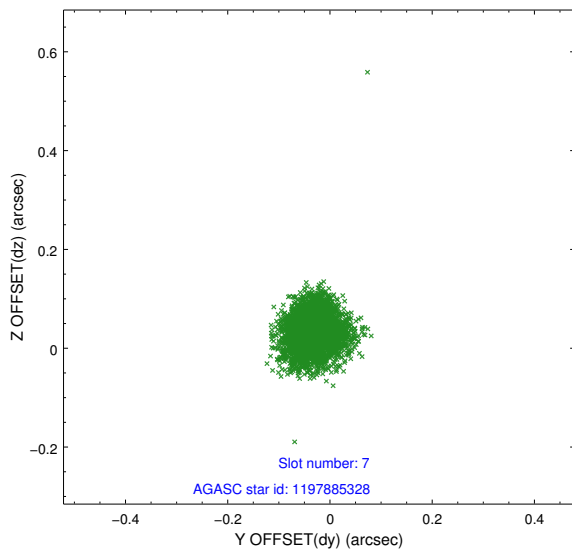
### 2.4.4 Slot 6



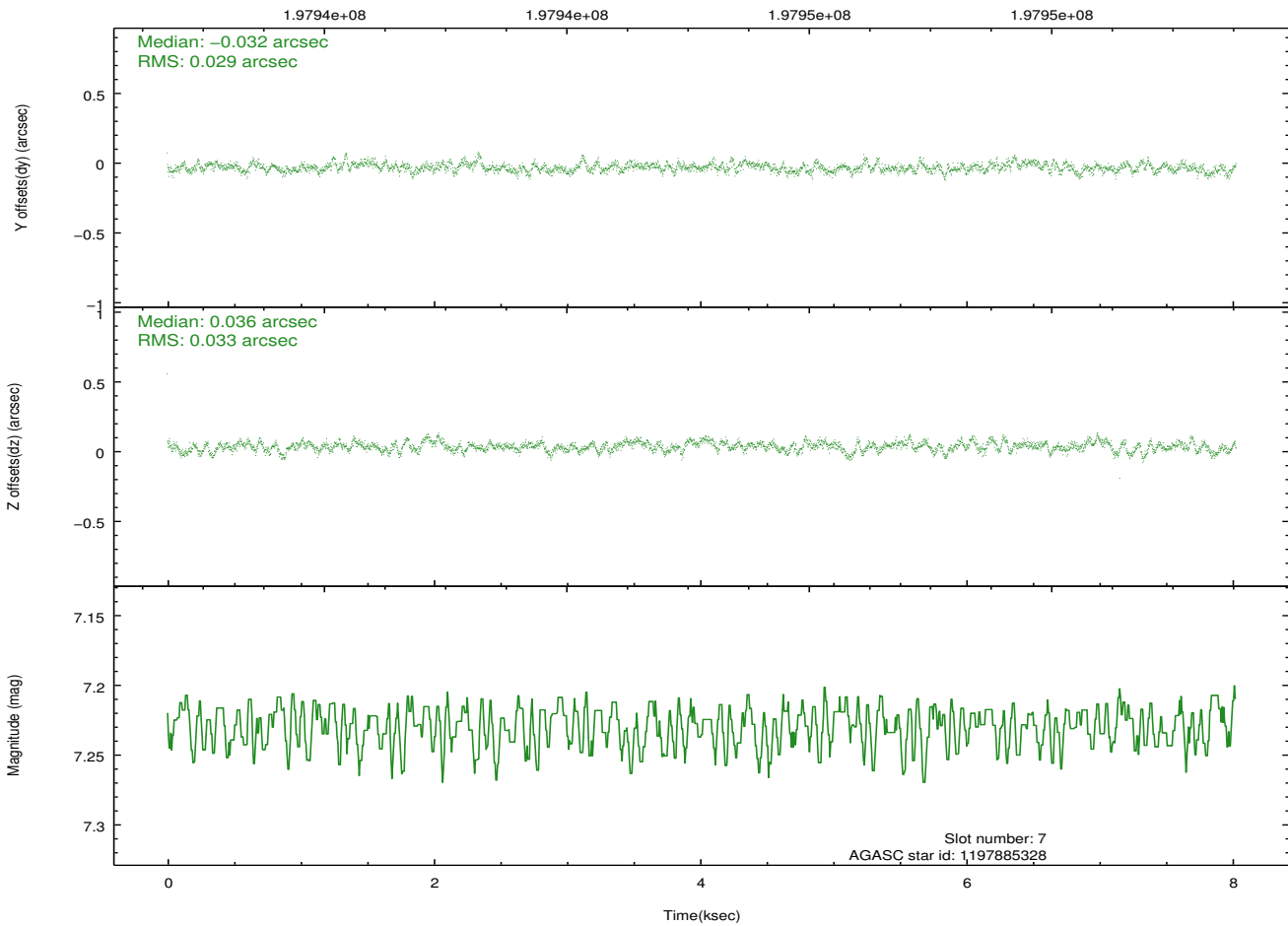
Time (s)



## 2.4.5 Slot 7

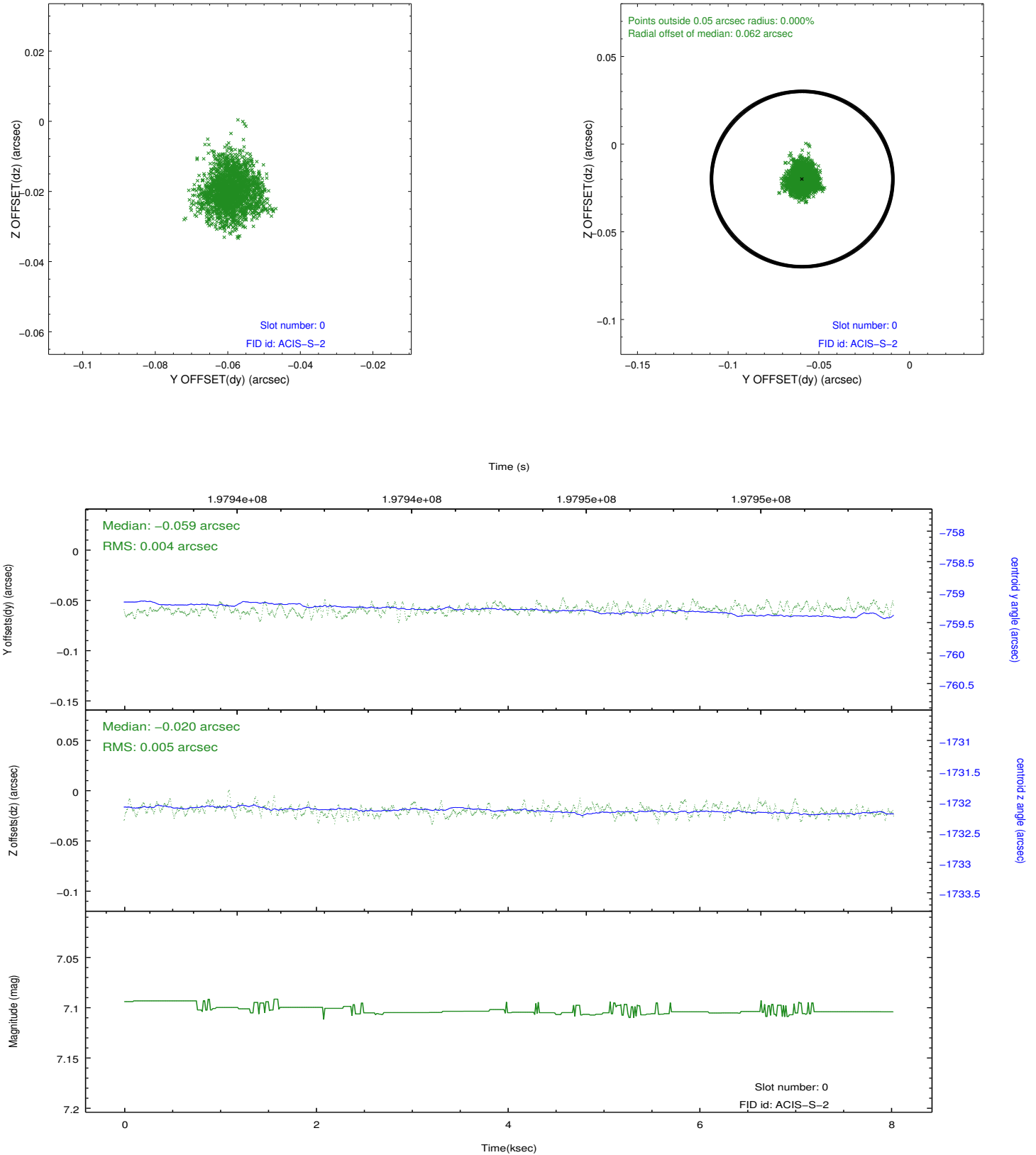


Time (s)

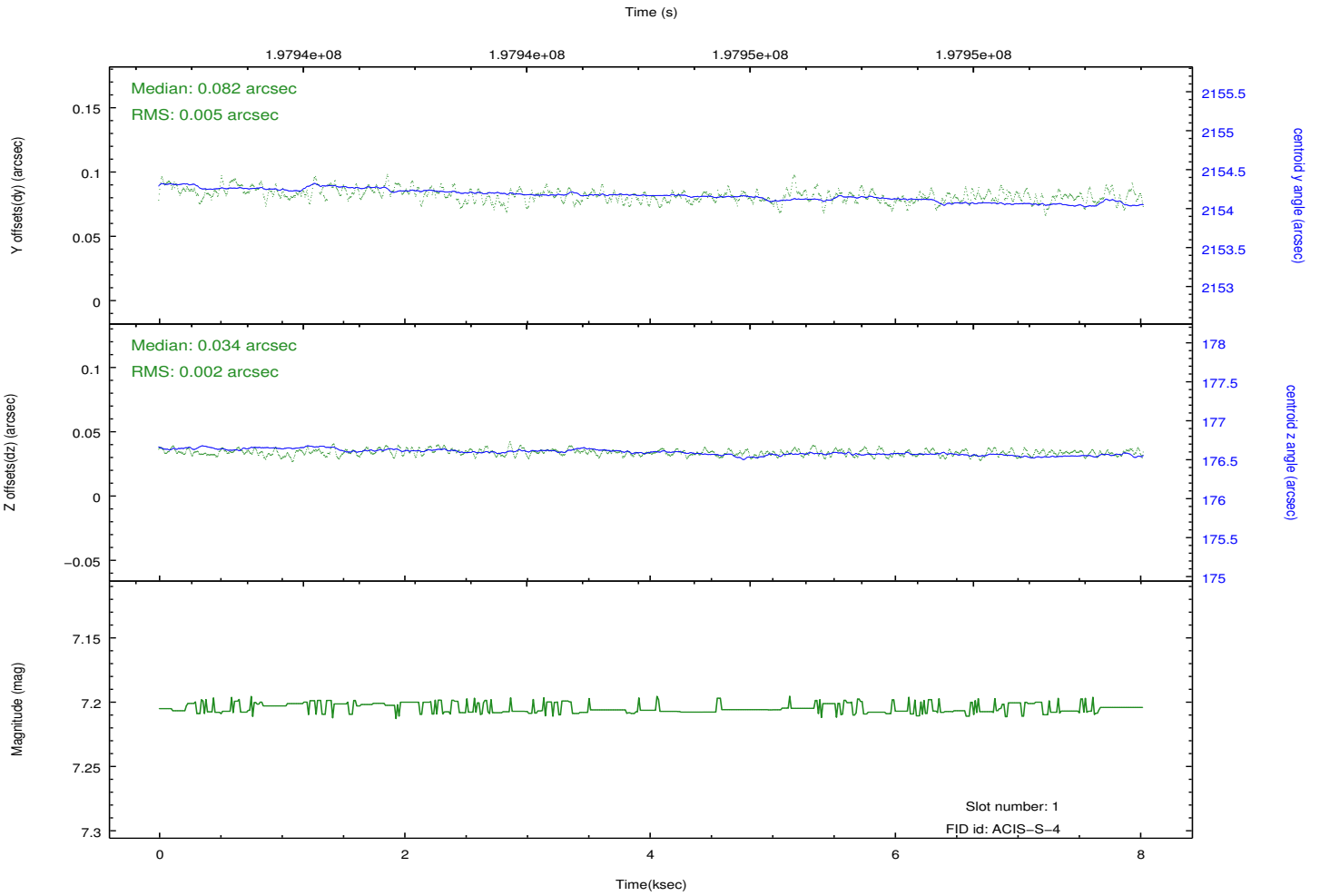
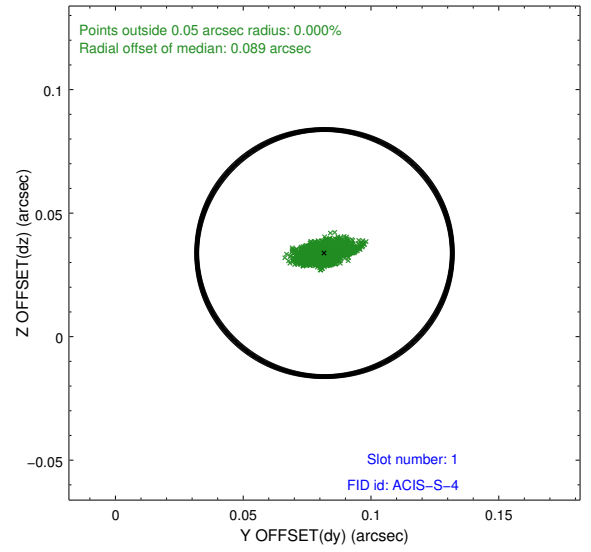
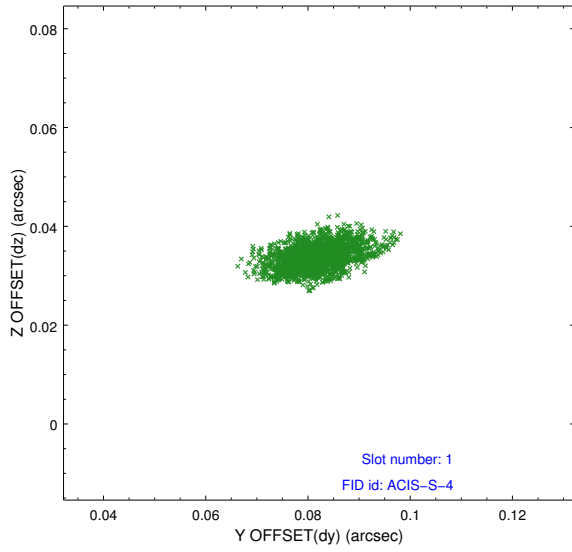


## 2.5 FID Slots

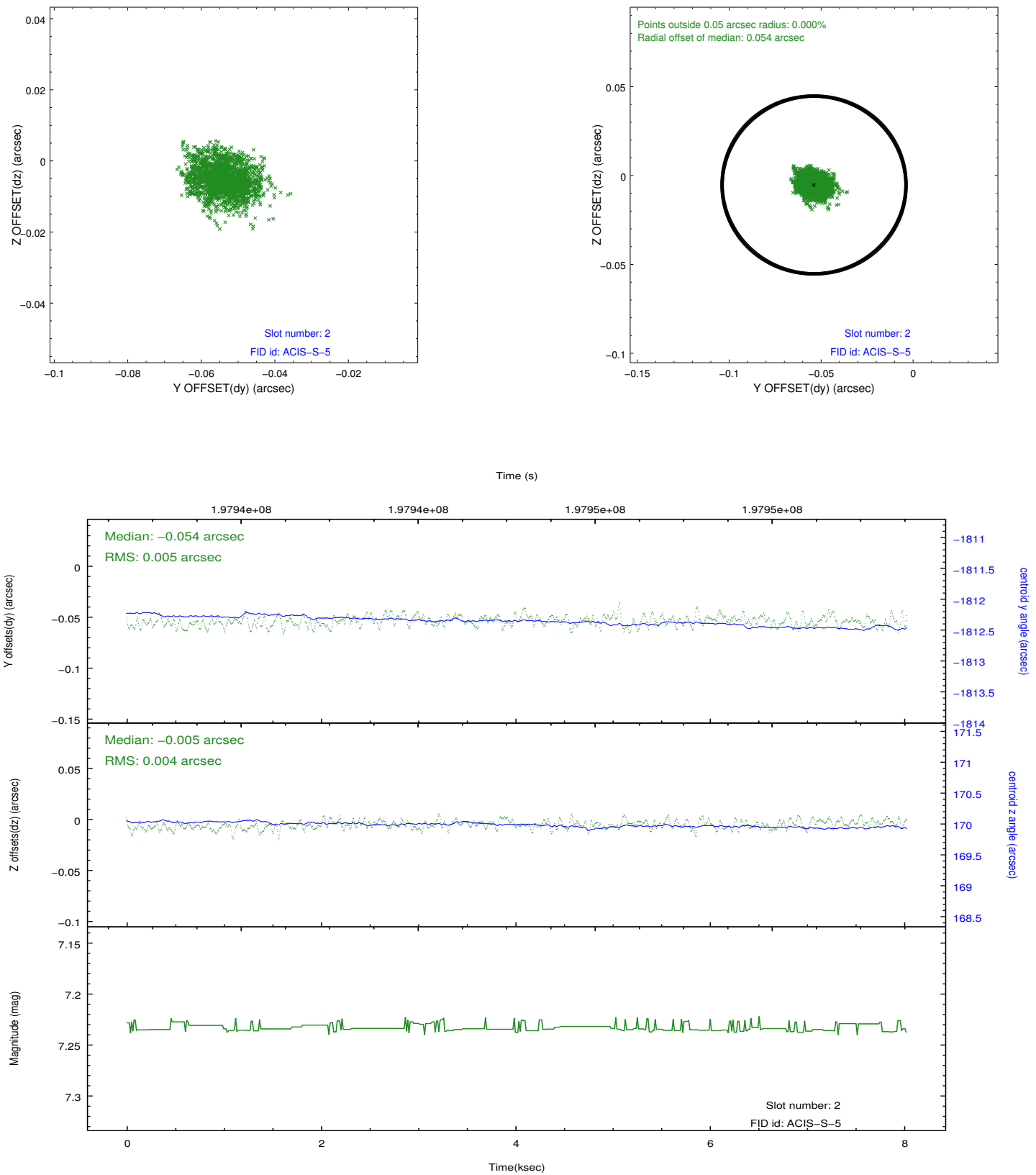
### 2.5.1 Slot 0



## 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)	2012.12.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.599

## A.2 Comments

Window constraint met.