

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18848 - L2 Version 1  
Chandra X-Ray Center

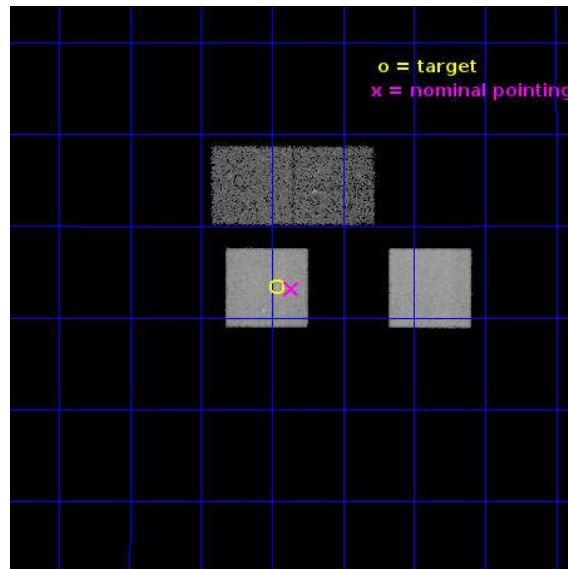
L2 Processing Date : May 12 2016

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# 1 Front

seq_num	801553	Sequence number
obs_id	18848	Observation id
title	The corona and the cold front in A 2028	Proposal title
observer	Fabio Gastaldello	Principal investigator
object	Abell 2028	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	227.366667	Observer's specified target RA [deg]
dec_targ	7.555556	Observer's specified target Dec [deg]
ra_nom	227.34073531725	Nominal RA [deg]
dec_nom	7.5531140376688	Nominal Dec [deg]
roll_nom	180.16001874017	Nominal Roll [deg]
revision	1	Processing version of data
ontime	19392.883293629	Sum of GTIs [s]
livetime	19139.500996564	Livetime [s]
ontime2	19392.760173678	Sum of GTIs [s]
ontime3	19386.519203067	Sum of GTIs [s]
ontime5	19392.842253685	Sum of GTIs [s]
ontime7	19392.883293629	Sum of GTIs [s]
l2events	183300	Number of level 2 events

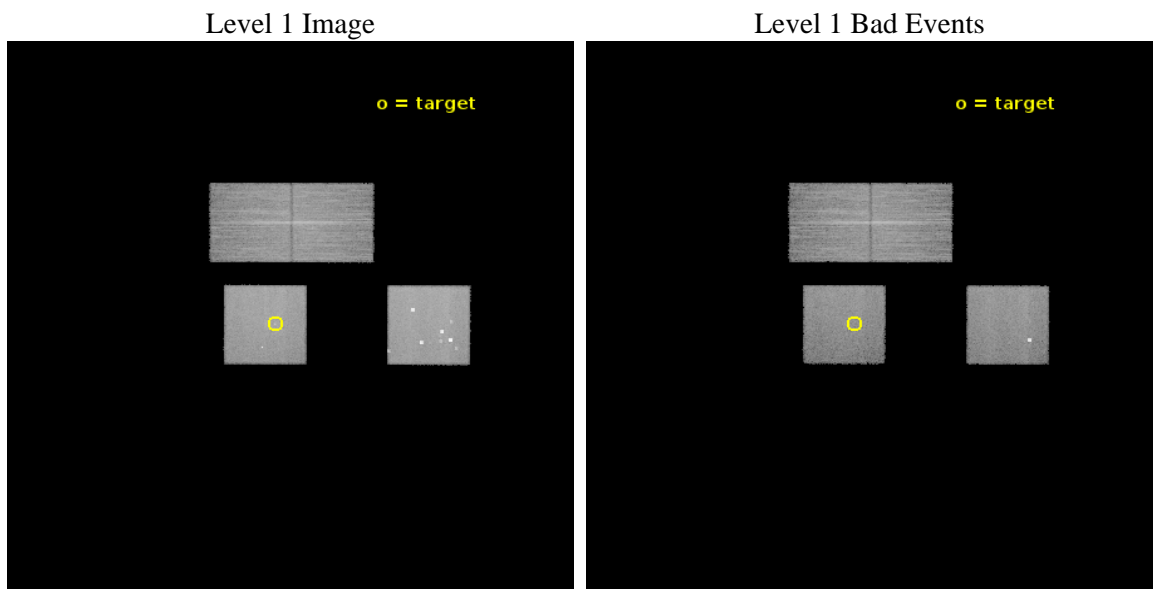




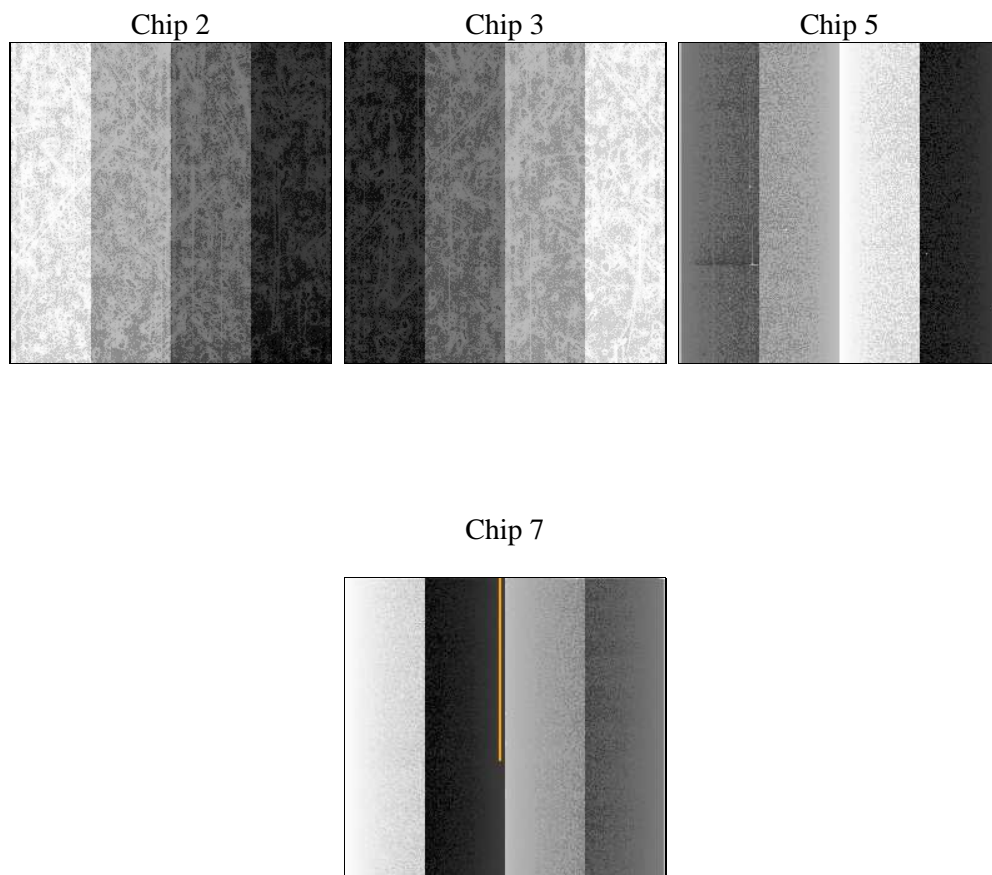
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19326.904000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	19392.883293629	Sum of GTIs [s]
caldsver	4.7.1	&#160	ontime2	19392.760173678	Sum of GTIs [s]
date	2016-05-12T16:53:01	Date and time of file creation	ontime3	19386.519203067	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	19392.842253685	Sum of GTIs [s]
			ontime7	19392.883293629	Sum of GTIs [s]
			l1events	623061	Number of level 1 events

### 2.1.4 Events

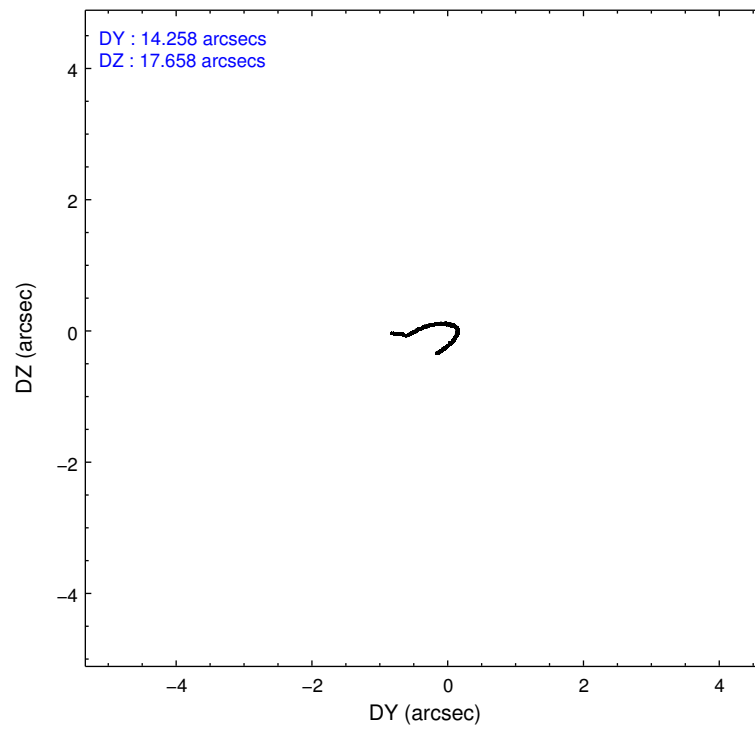
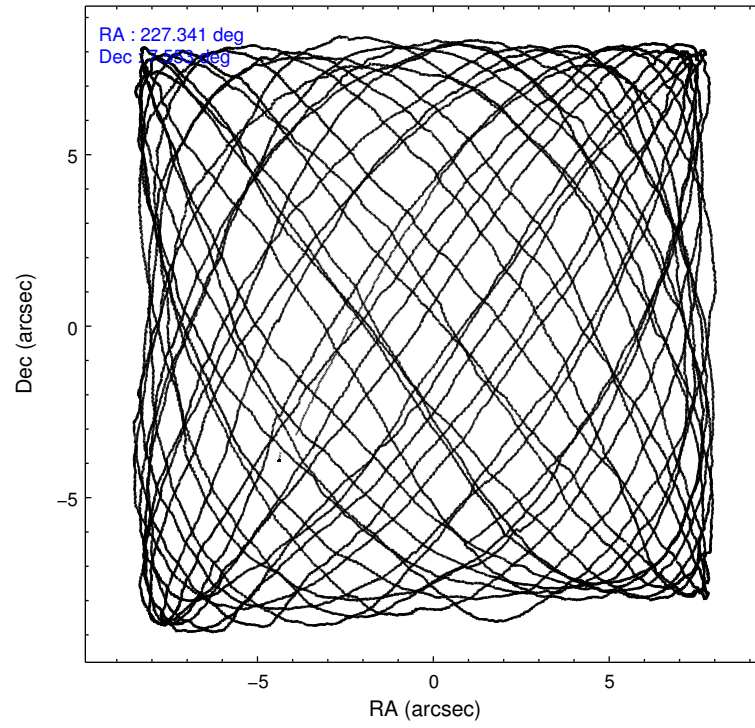
	ccd 2	ccd 3	ccd 5	ccd 7
level 1 events	125530	117228	214232	166071
rejected events	112245	104426	105634	90526
rejected %	89%	89%	49%	54%

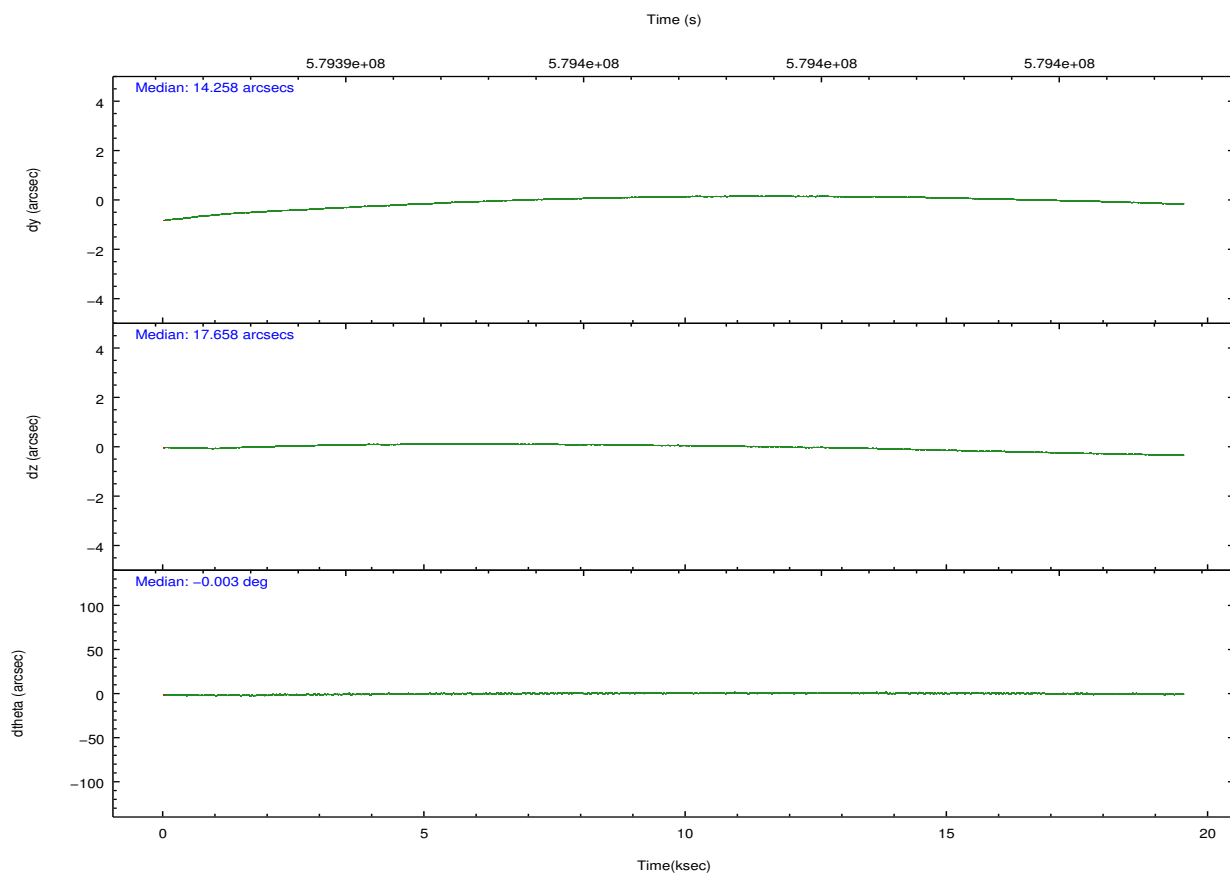
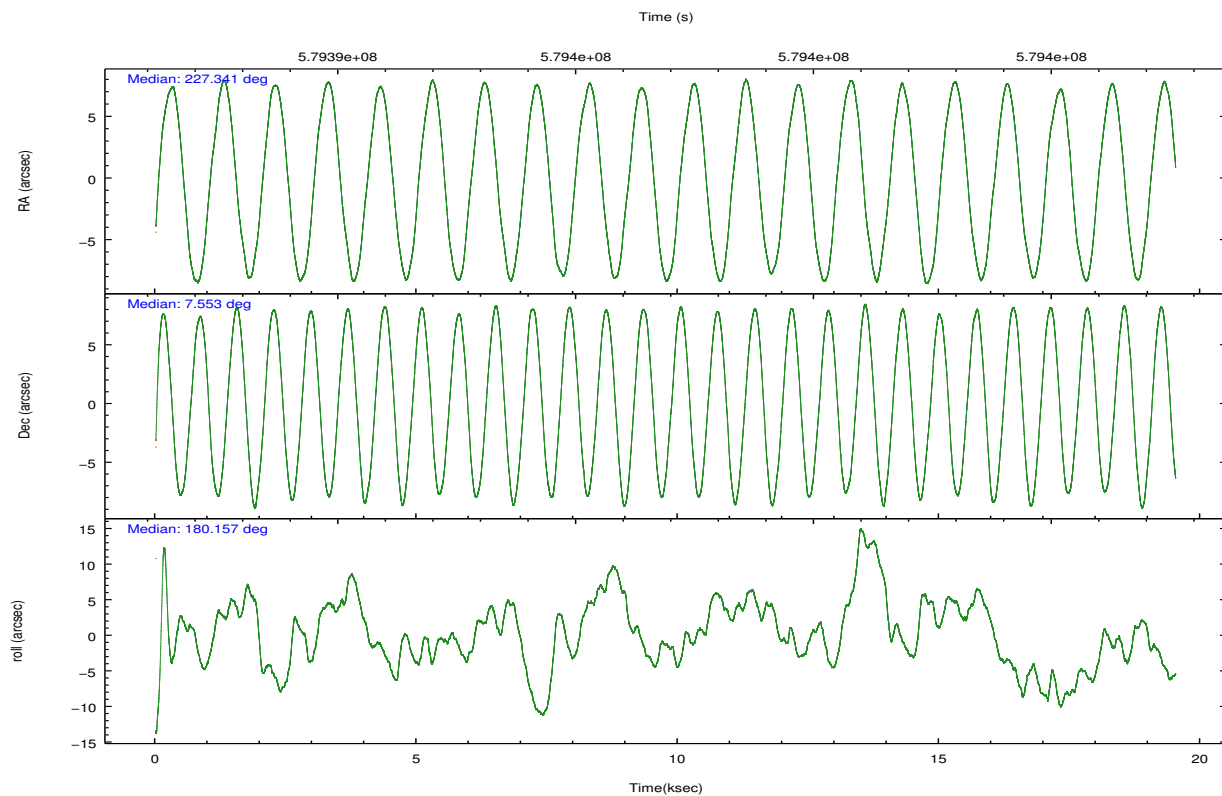
	ccd 2	ccd 3	ccd 5	ccd 7
grade 0 events	4980	4637	21157	7888
	3%	3%	9%	4%
grade 1 events	72	61	435	215
	0%	0%	0%	0%
grade 2 events	3135	2786	30634	16315
	2%	2%	14%	9%
grade 3 events	1305	1391	3080	5965
	1%	1%	1%	3%
grade 4 events	1370	1355	2729	5916
	1%	1%	1%	3%
grade 5 events	4762	5819	13356	15429
	3%	4%	6%	9%
grade 6 events	2500	2633	51043	39479
	1%	2%	23%	23%
grade 7 events	107406	98546	91798	74864
	85%	84%	42%	45%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2357	ACIS-2357	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	227.364454	227.3407353172474	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.567207	7.553114037668832	Alternating exposures requested	N	N
[deg] Pointing Roll	180.000285	180.1600187401715	[s] Primary exposure time	0.000000	3.1
[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)	579387351.184000	579386251.16216			
Observation start date	2016-05-11T20:54:43	2016-05-11T20:37:31			
[s] Observation end time (MET)	579406677.184000	579406905.42585			
Observation end date	2016-05-12T02:16:49	2016-05-12T02:21:45			
Read mode	TIMED	TIMED			

## 2.3 Aspect



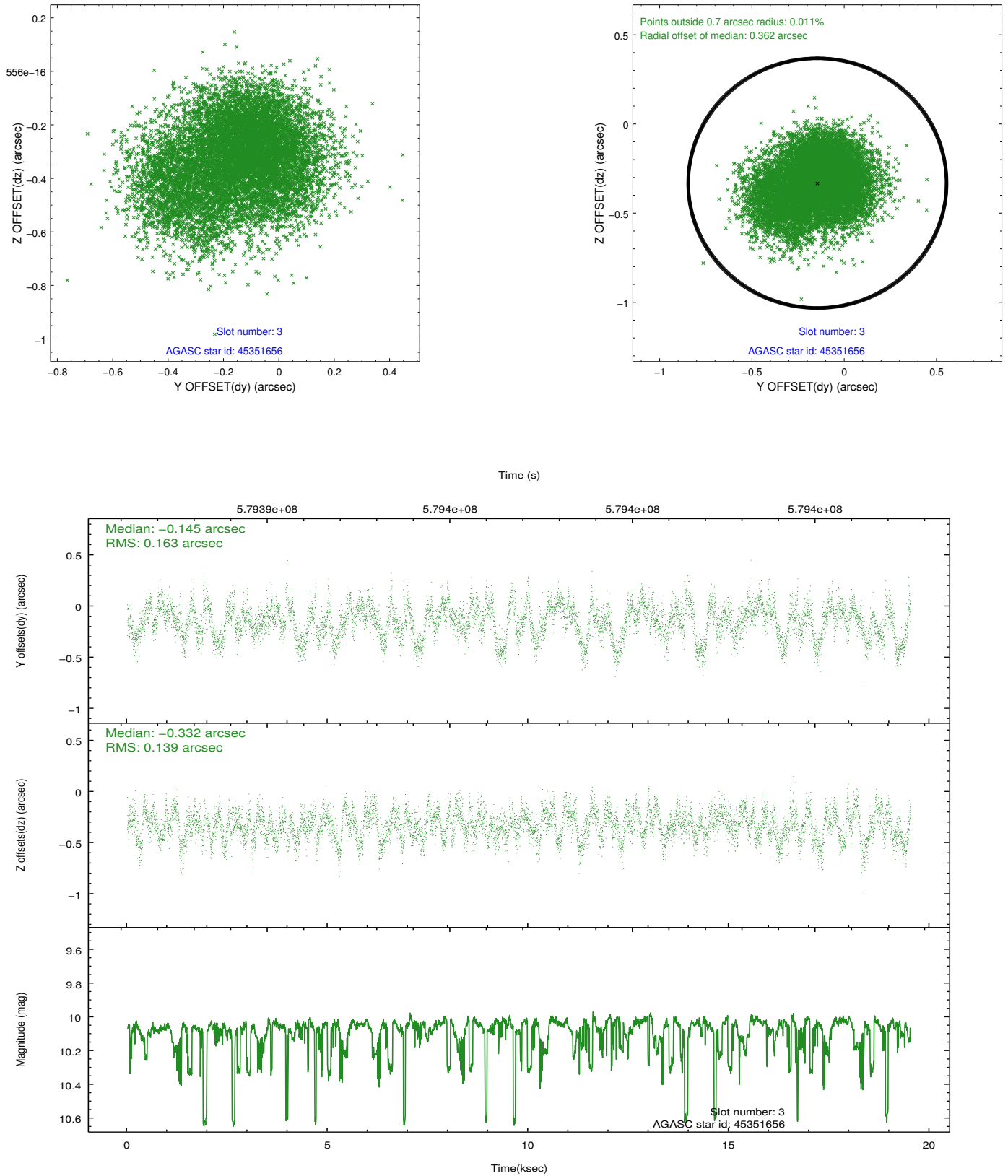


### Slot Statistics

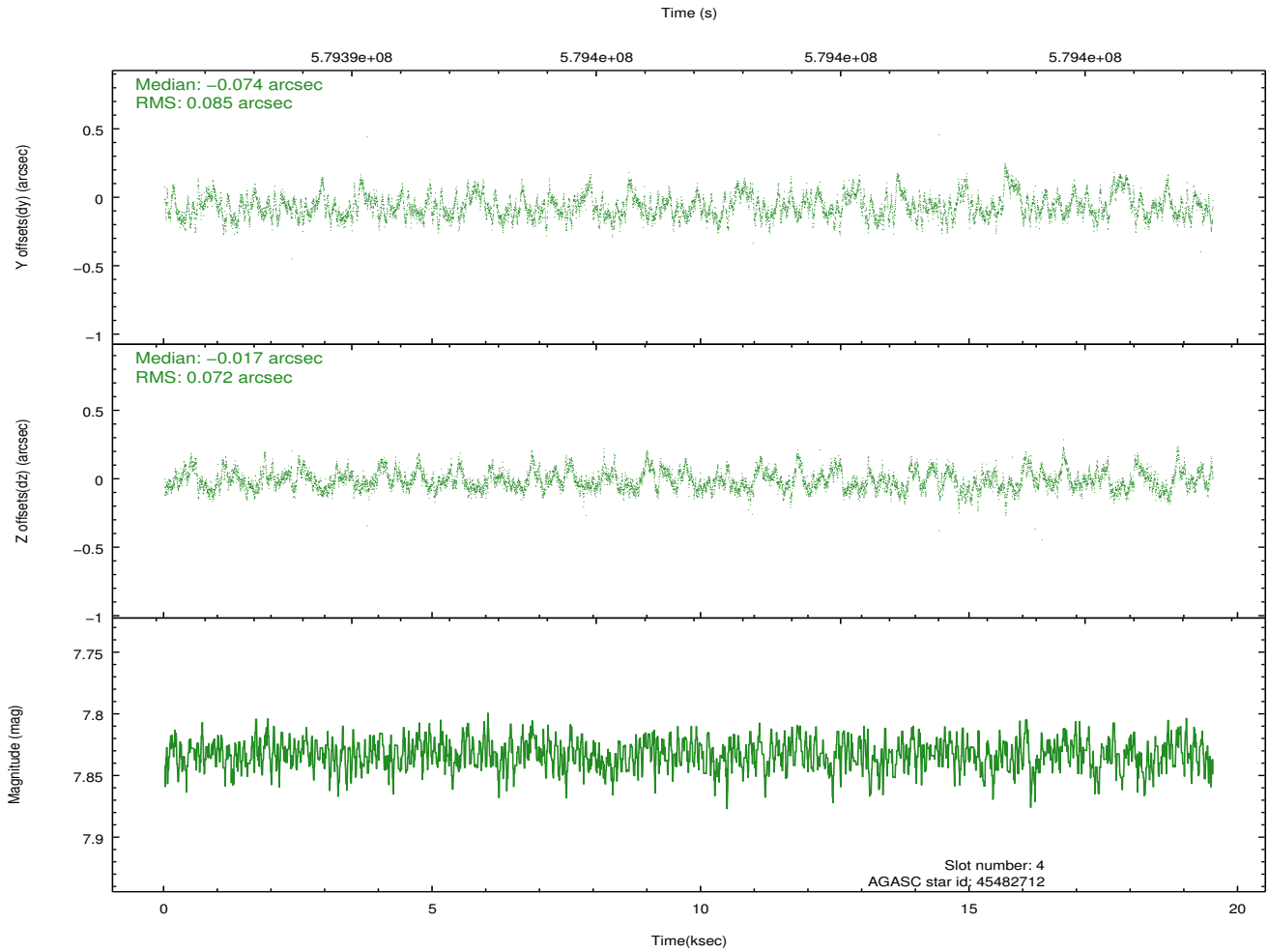
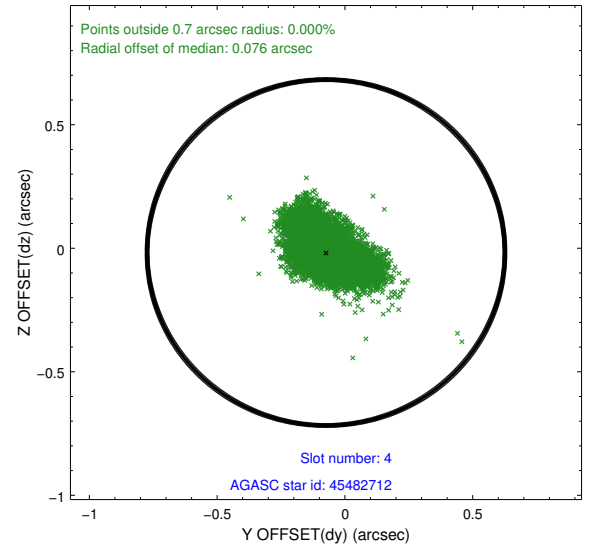
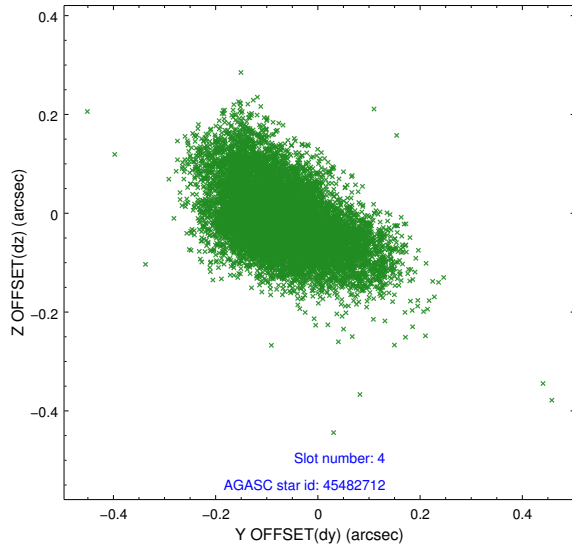
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	4761	-0.155	-0.134	0.011	0.031	0.000000	0.000000	-767.29	-1739.14
1	FID		ACIS-S-4	7.21	4761	0.441	0.111	0.010	0.029	0.000000	0.000000	2146.50	169.35
2	FID		ACIS-S-5	7.23	4761	-0.318	0.033	0.008	0.014	0.000000	0.000000	-1820.03	163.21
3	GUIDE	used	45351656	10.07	9432	-0.145	-0.332	0.233	0.360	226.796394	7.042588	2029.88	1887.39
4	GUIDE	used	45482712	7.83	9522	-0.074	-0.017	0.115	0.198	227.751708	7.324466	-1382.21	873.59
5	GUIDE	used	45485928	10.44	9389	-0.056	-0.059	0.375	0.654	227.462844	6.954580	-351.63	2205.65
6	GUIDE	used	120596952	9.69	9510	0.114	0.209	0.195	0.310	227.716417	8.053463	-1253.57	-1750.17
7	GUIDE	used	120599496	9.83	9440	0.218	0.229	0.195	0.316	227.494863	7.838891	-464.95	-977.10

## 2.4 Star Slots

### 2.4.1 Slot 3

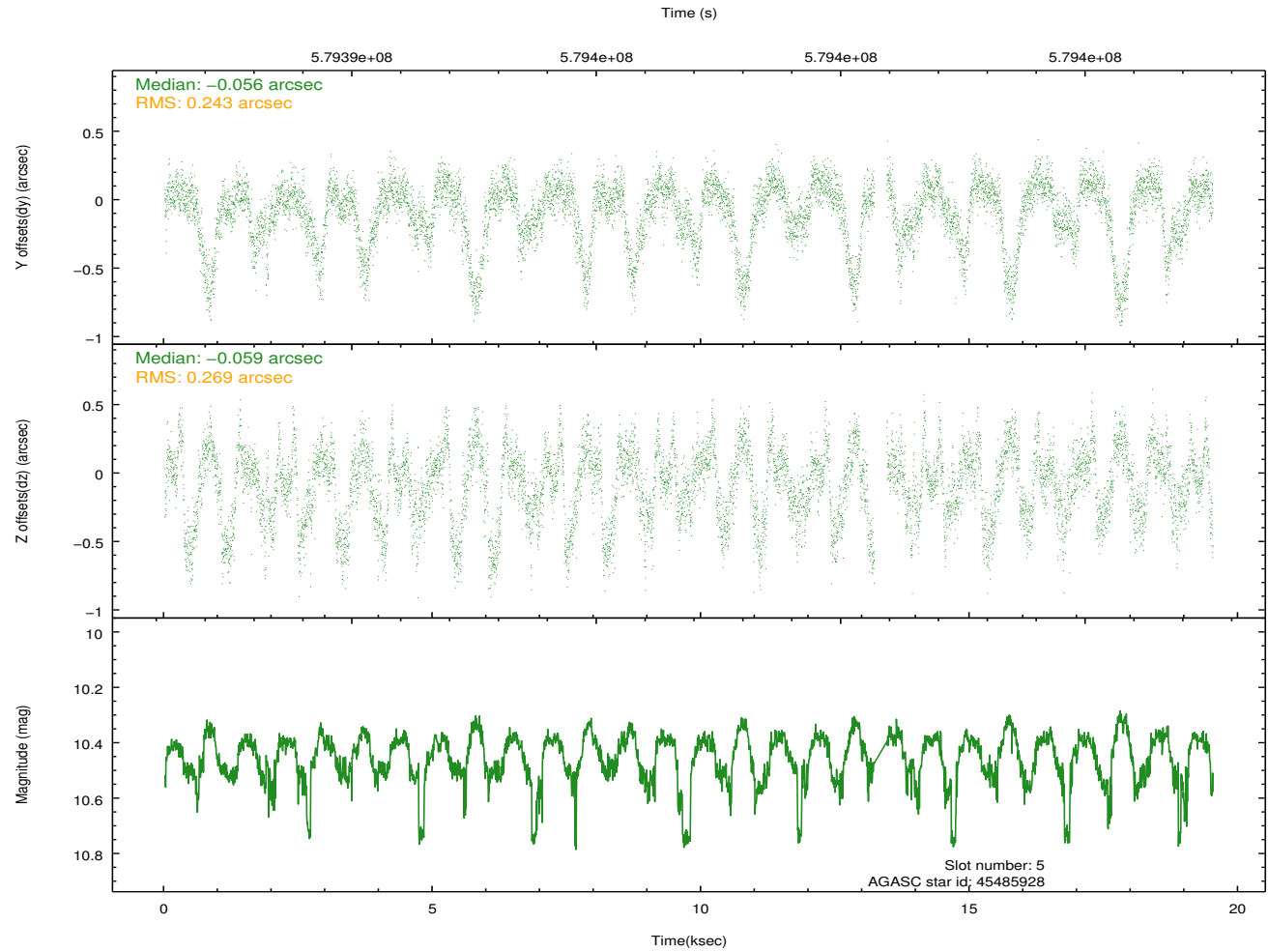
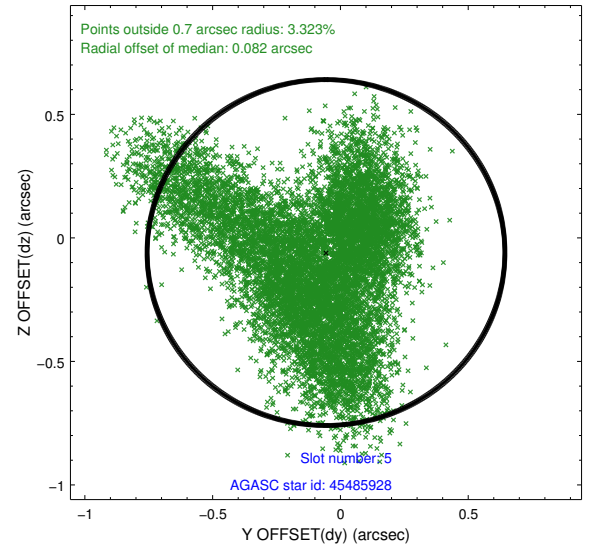
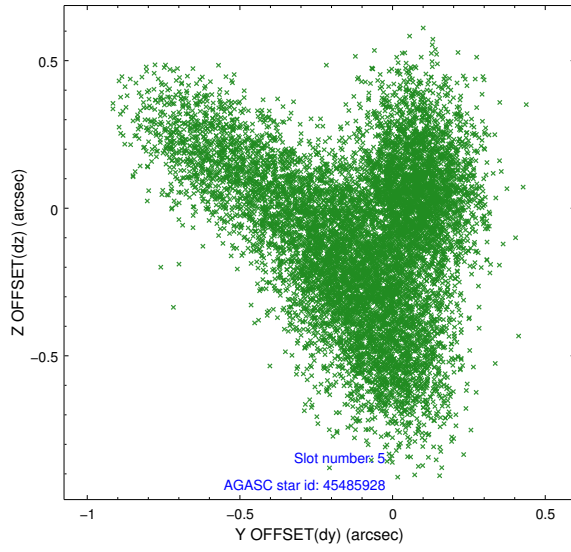


## 2.4.2 Slot 4

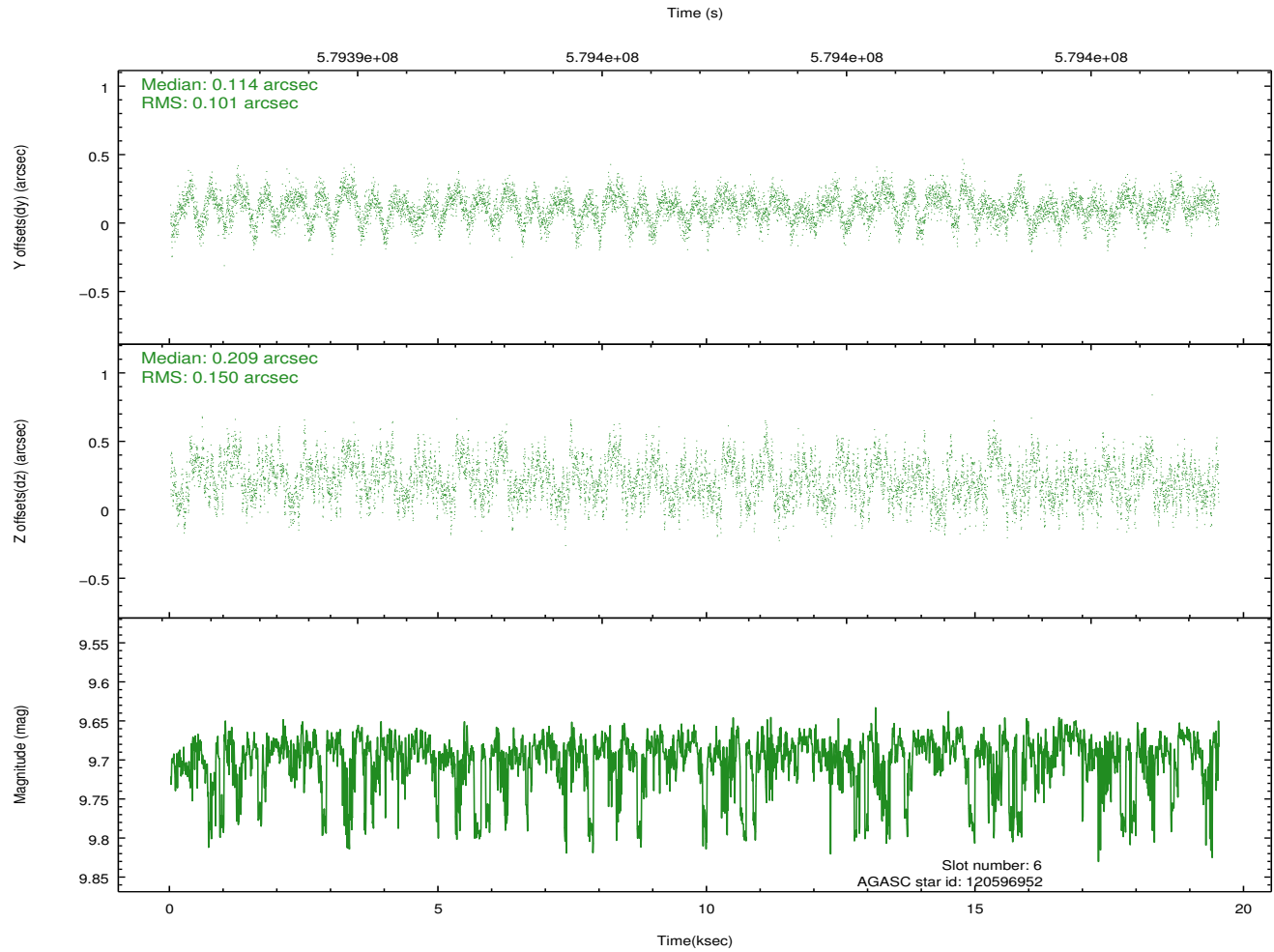
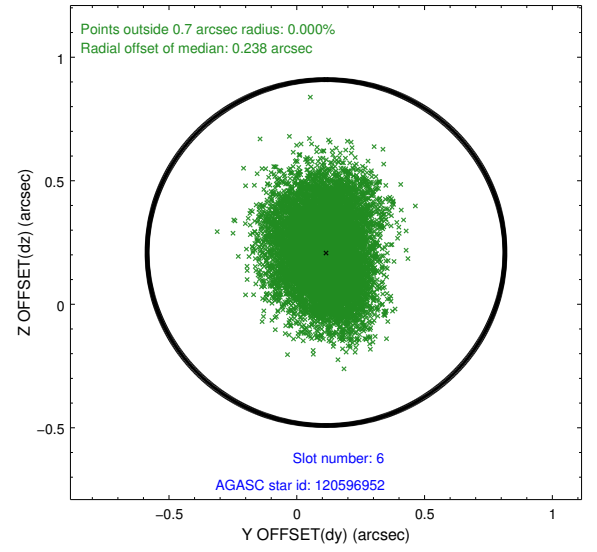
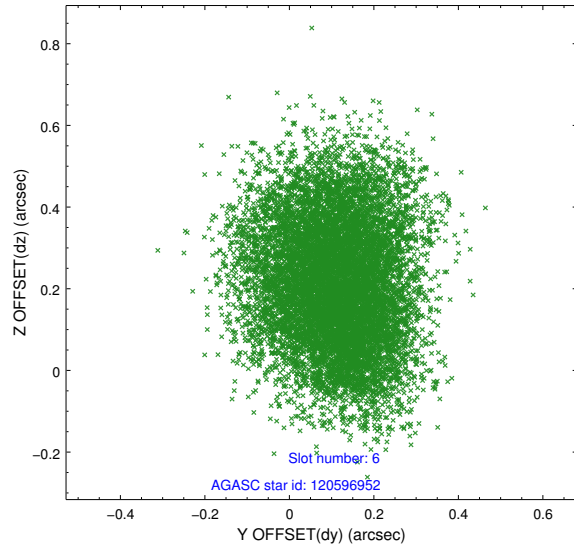




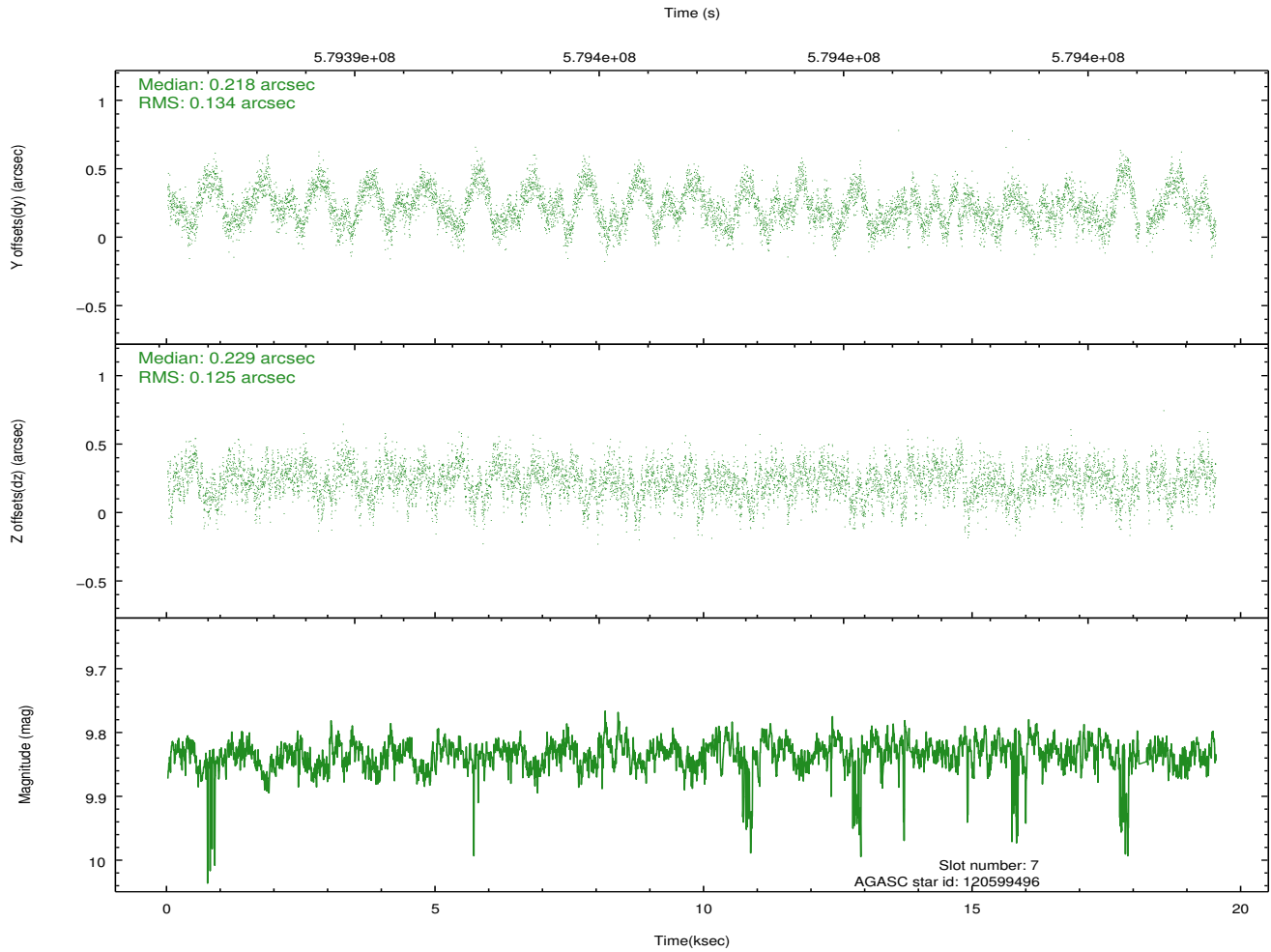
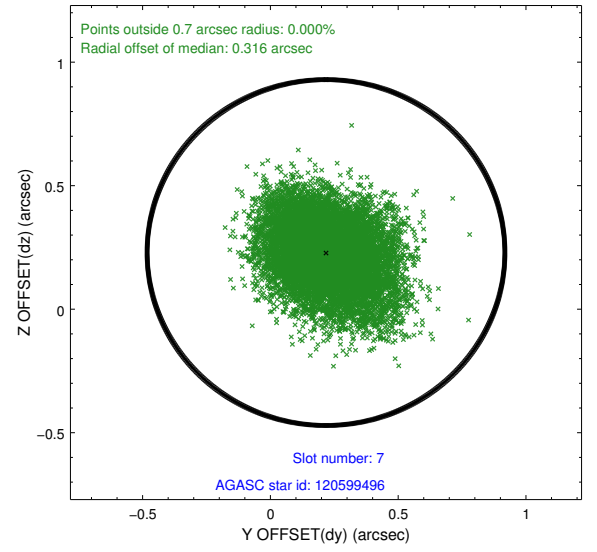
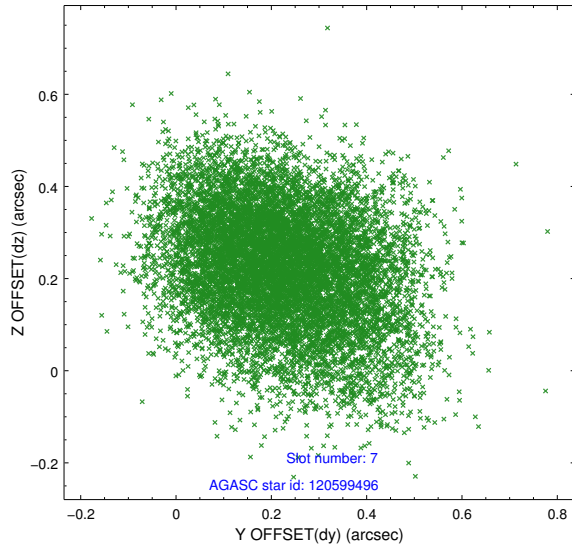
### 2.4.3 Slot 5



## 2.4.4 Slot 6

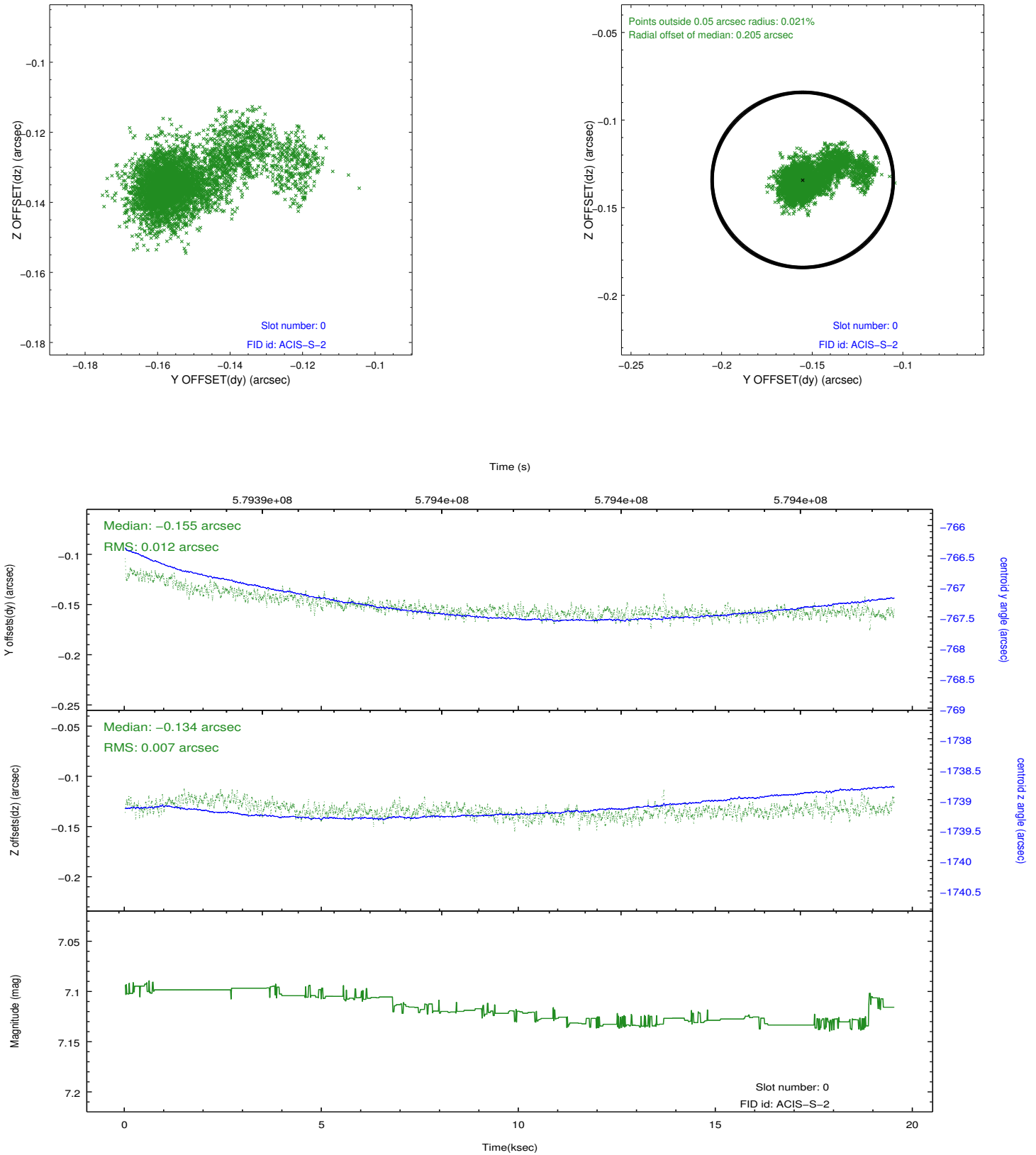


## 2.4.5 Slot 7

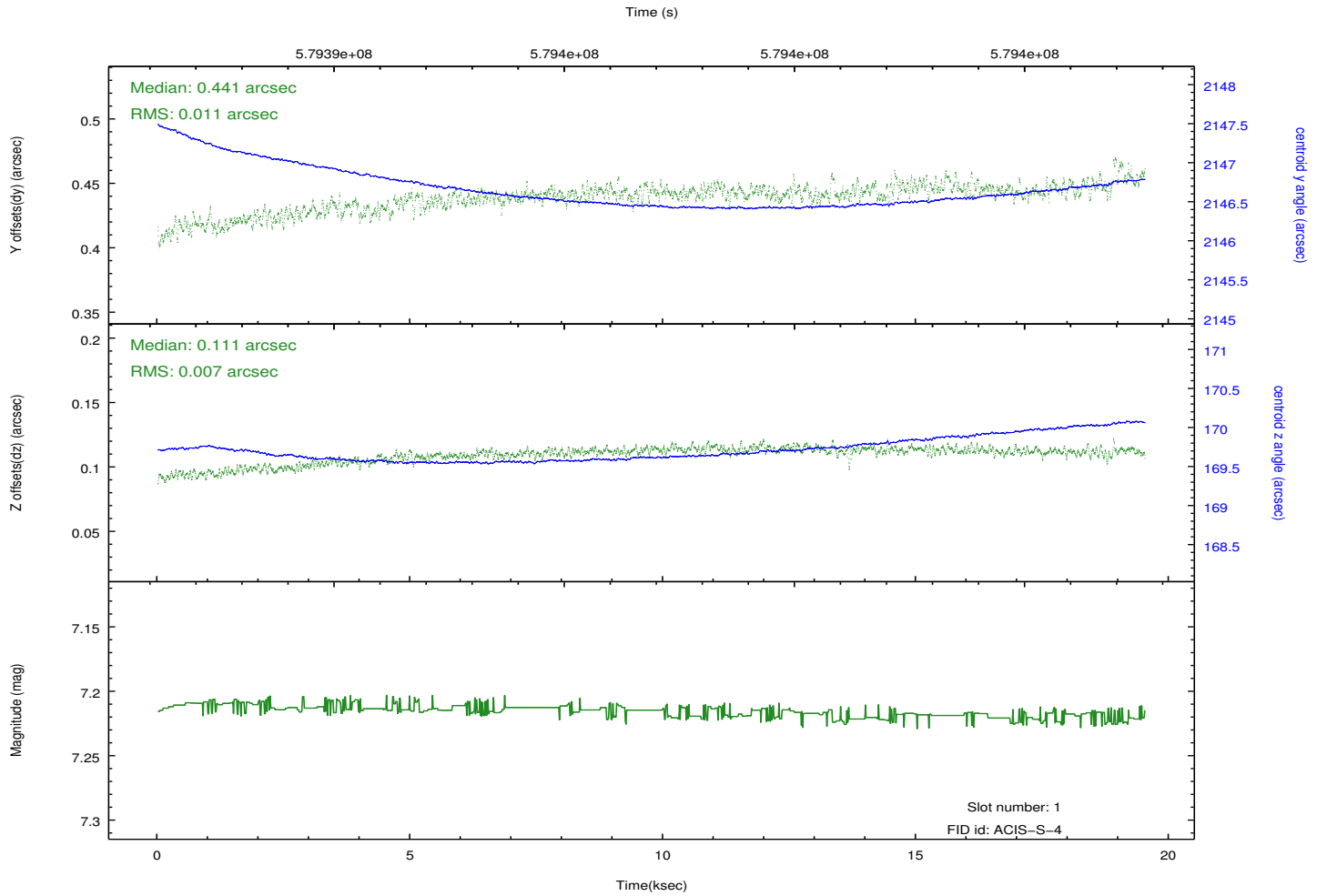
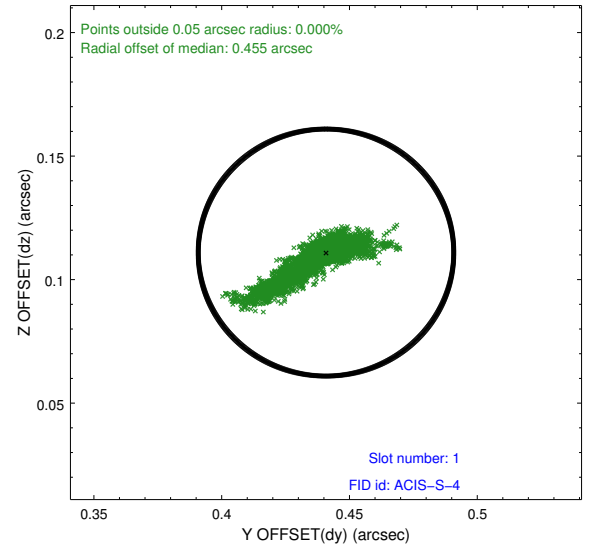
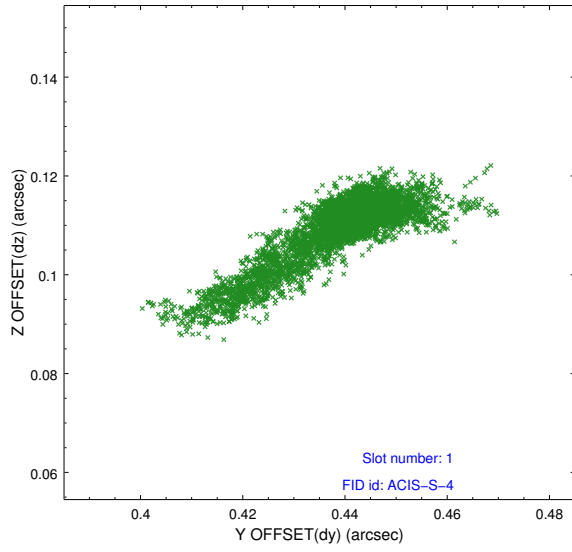


## 2.5 FID Slots

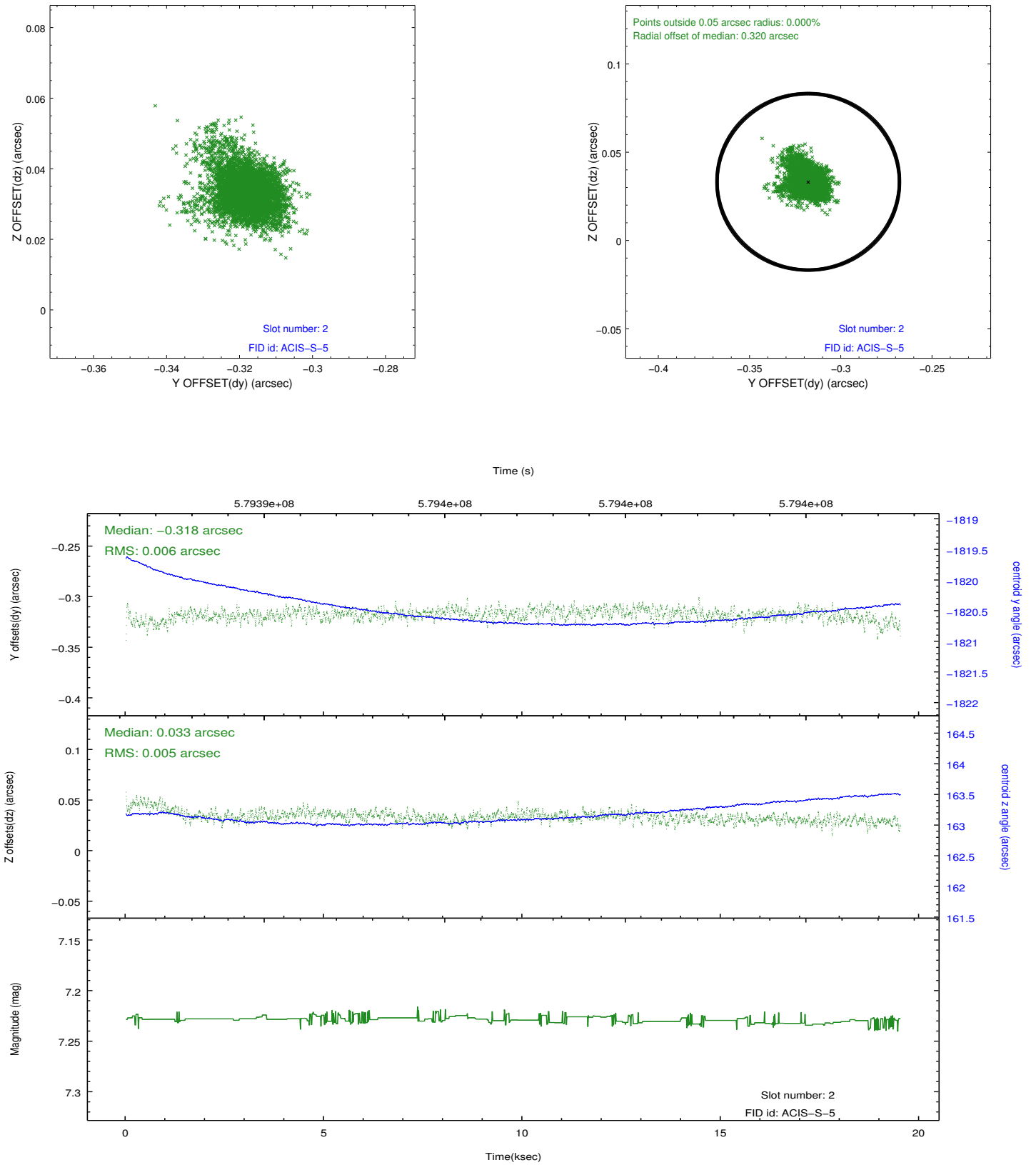
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2016.05.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.392883293629

### A.2 Comments