

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 19598 - L2 Version 1  
Chandra X-Ray Center

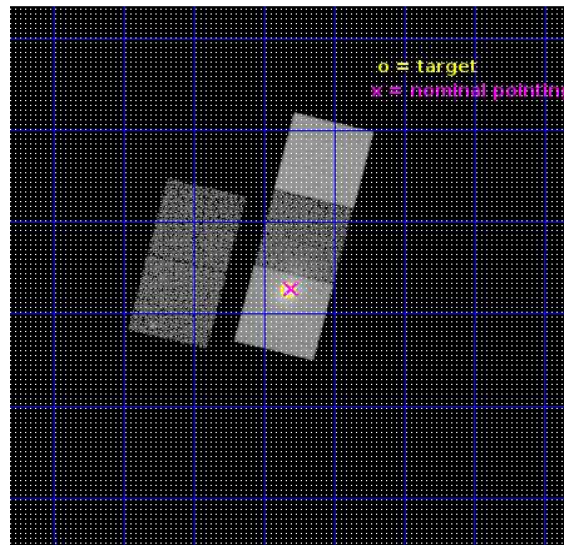
L2 Processing Date : Aug 15 2017

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# 1 Front

seq_num	801685	Sequence number
obs_id	19598	Observation id
title	The Hot Phase of a Cold Black Hole Fountain: Unifying Chandra with ALMA	Proposal title
observer	Grant Tremblay	Principal investigator
object	Abell 2597	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	351.332208	Observer's specified target RA [deg]
dec_targ	-12.124214	Observer's specified target Dec [deg]
ra_nom	351.32661387703	Nominal RA [deg]
dec_nom	-12.121178003425	Nominal Dec [deg]
roll_nom	104.15543574159	Nominal Roll [deg]
revision	1	Processing version of data
ontime	14529.700111866	Sum of GTIs [s]
livetime	14339.858883295	Livetime [s]
ontime2	14529.700111866	Sum of GTIs [s]
ontime3	14529.700111866	Sum of GTIs [s]
ontime5	14529.700111866	Sum of GTIs [s]
ontime6	14526.559051633	Sum of GTIs [s]
ontime7	14529.700111866	Sum of GTIs [s]
l2events	198129	Number of level 2 events

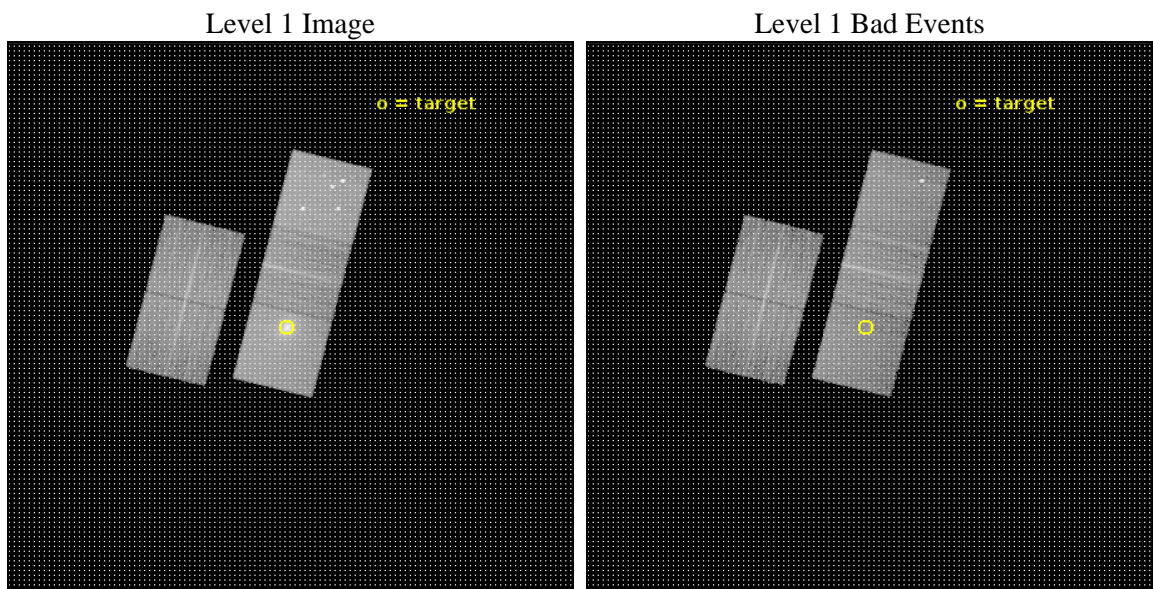




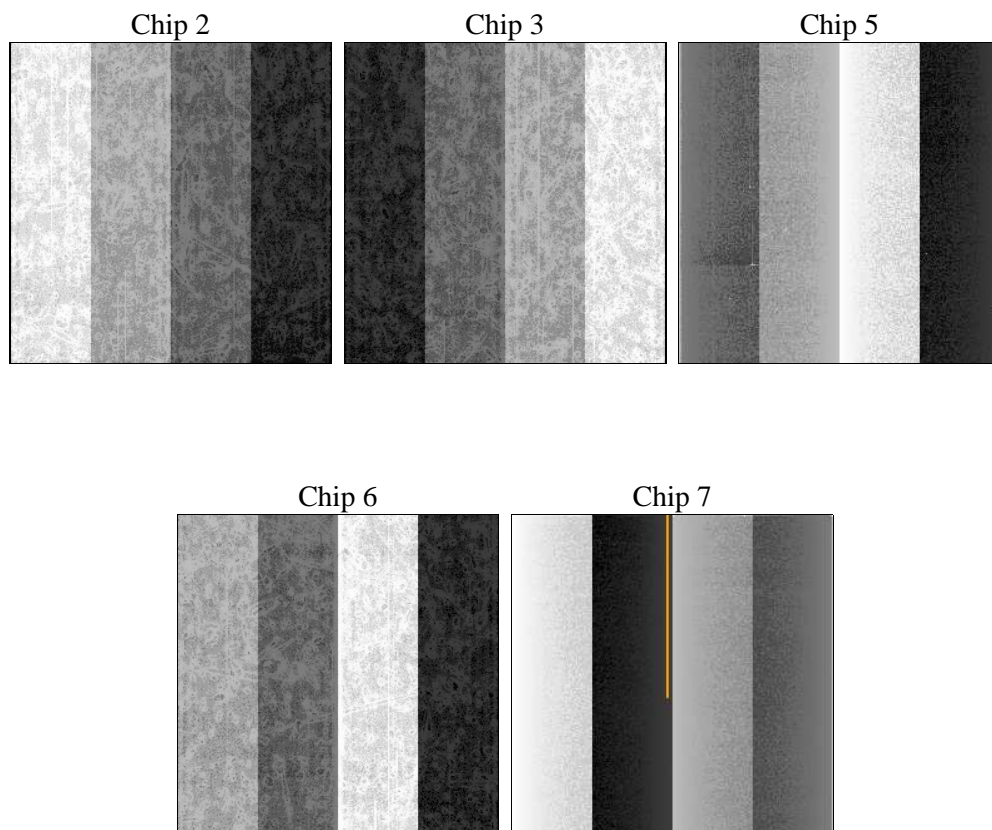
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14471.546000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	14529.700111866	Sum of GTIs [s]
caldsver	4.7.5	&#160	ontime2	14529.700111866	Sum of GTIs [s]
date	2017-08-15T17:52:40	Date and time of file creation	ontime3	14529.700111866	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	14529.700111866	Sum of GTIs [s]
			ontime6	14526.559051633	Sum of GTIs [s]
			ontime7	14529.700111866	Sum of GTIs [s]
			l1events	643236	Number of level 1 events

### 2.1.4 Events

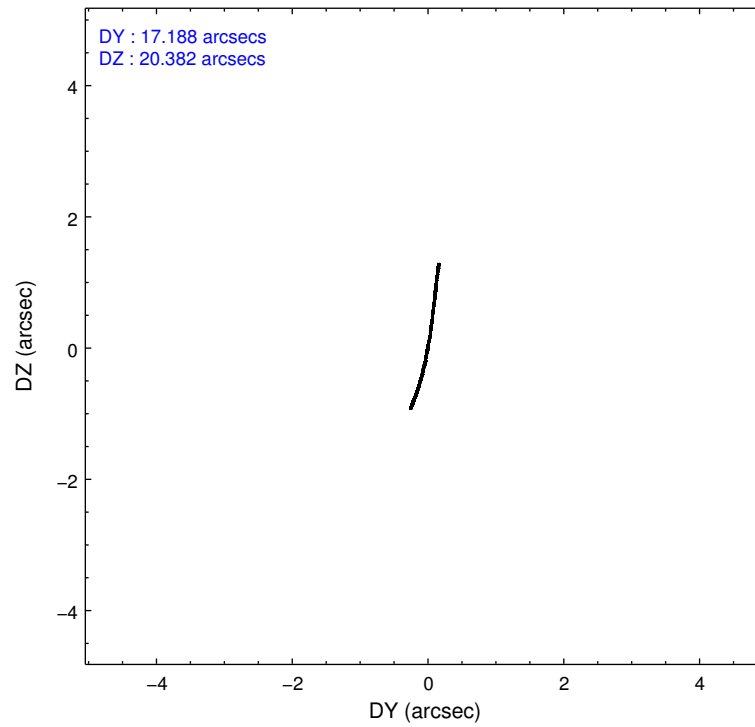
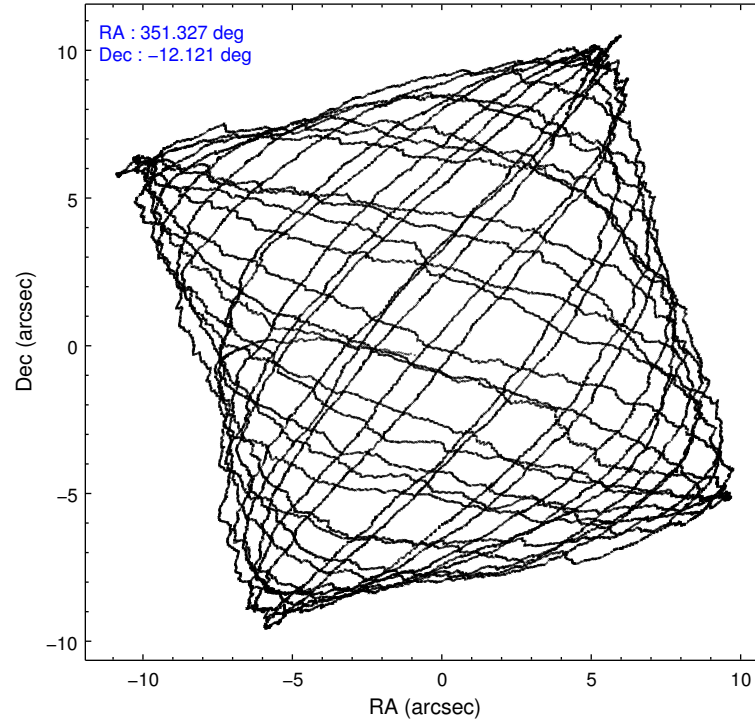
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	96318	93084	176198	108248	169388
rejected events	85532	82379	87887	94572	74101
rejected %	88%	88%	49%	87%	43%

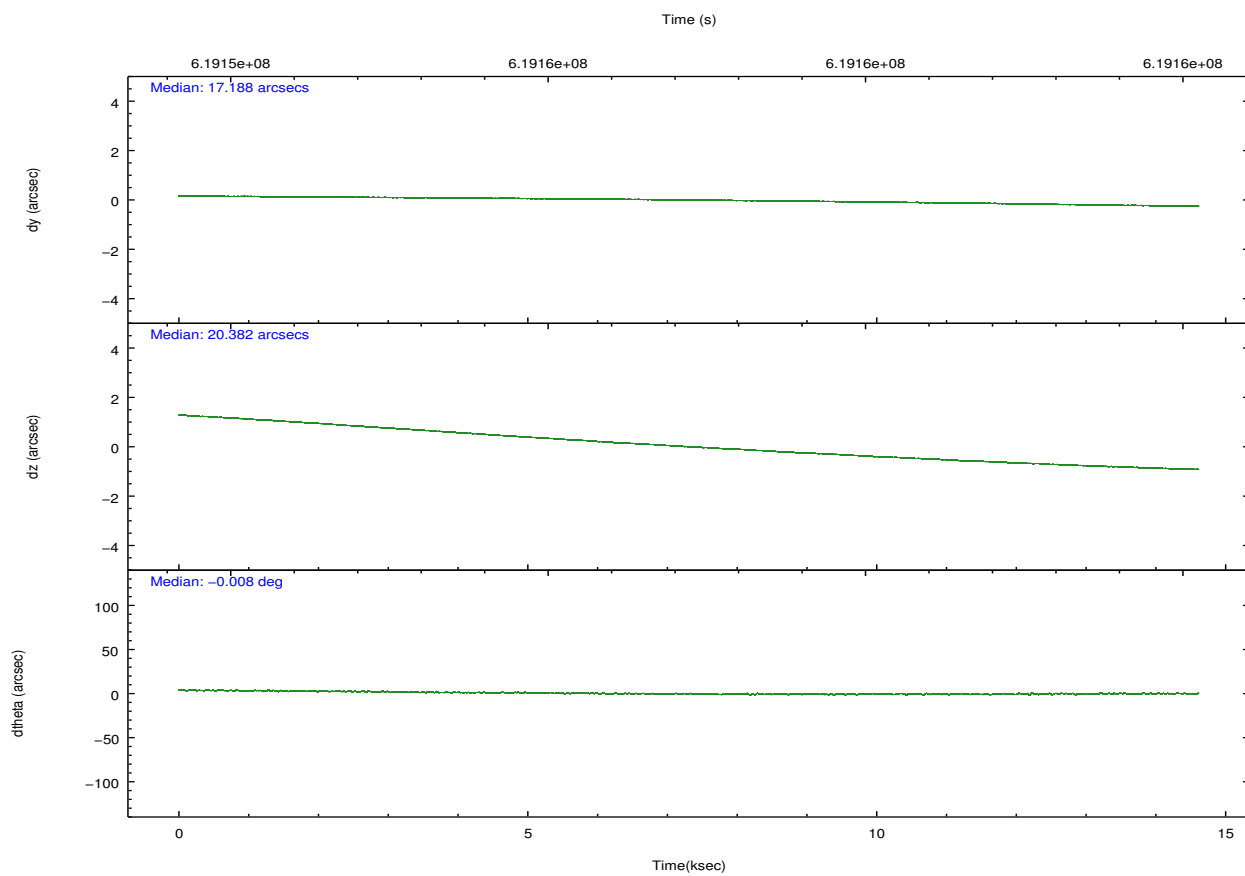
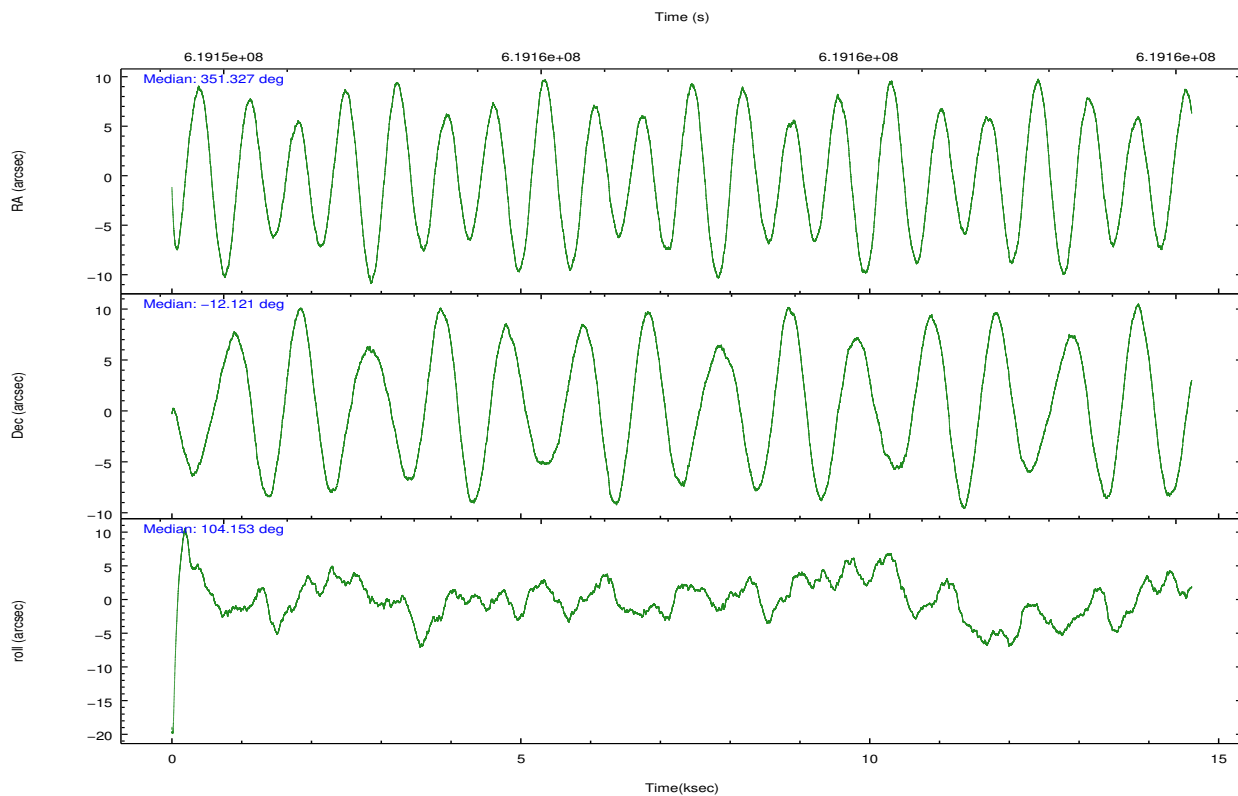
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	3883	3918	14989	5738	15403
	4%	4%	8%	5%	9%
grade 1 events	59	53	375	55	233
	0%	0%	0%	0%	0%
grade 2 events	2658	2309	26093	2835	22123
	2%	2%	14%	2%	13%
grade 3 events	1099	1111	2467	1212	8969
	1%	1%	1%	1%	5%
grade 4 events	1117	1143	2390	1196	8869
	1%	1%	1%	1%	5%
grade 5 events	3998	4781	11727	4801	13482
	4%	5%	6%	4%	7%
grade 6 events	2034	2228	42423	2700	39961
	2%	2%	24%	2%	23%
grade 7 events	81470	77541	75734	89711	60348
	84%	83%	42%	82%	35%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	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	351.346426	351.3266138770317	Subarray requested	NONE	NONE
[deg] Pointing Dec	-12.140570	-12.12117800342501	Alternating exposures requested	N	N
[deg] Pointing Roll	104.002991	104.1554357415925	[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)	619150052.184000	619149047.71105			
Observation start date	2017-08-15T02:06:23	2017-08-15T01:50:47			
[s] Observation end time (MET)	619164524.184000	619164745.07446			
Observation end date	2017-08-15T06:07:35	2017-08-15T06:12:25			
Read mode	TIMED	TIMED			

## 2.3 Aspect



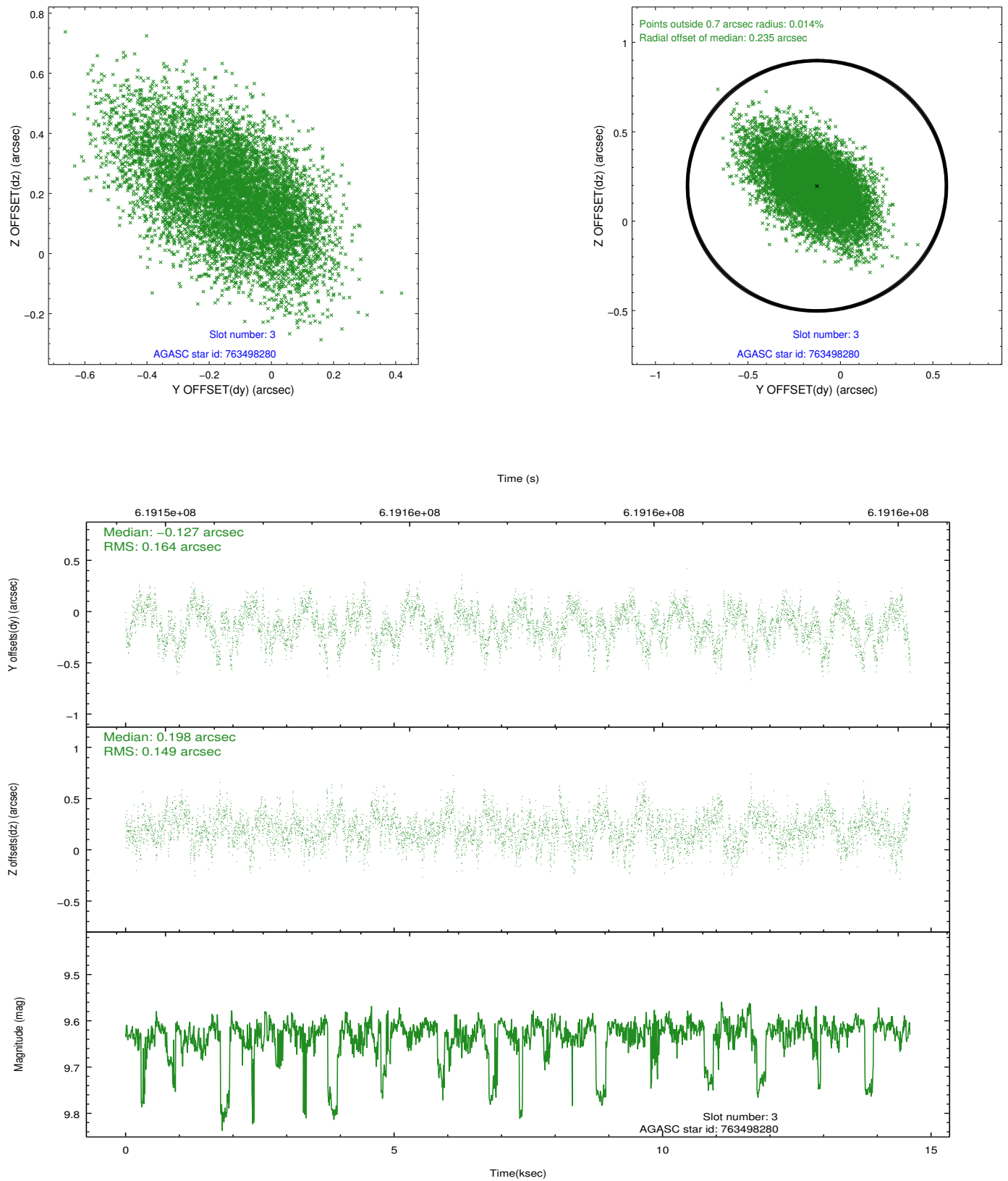


### Slot Statistics

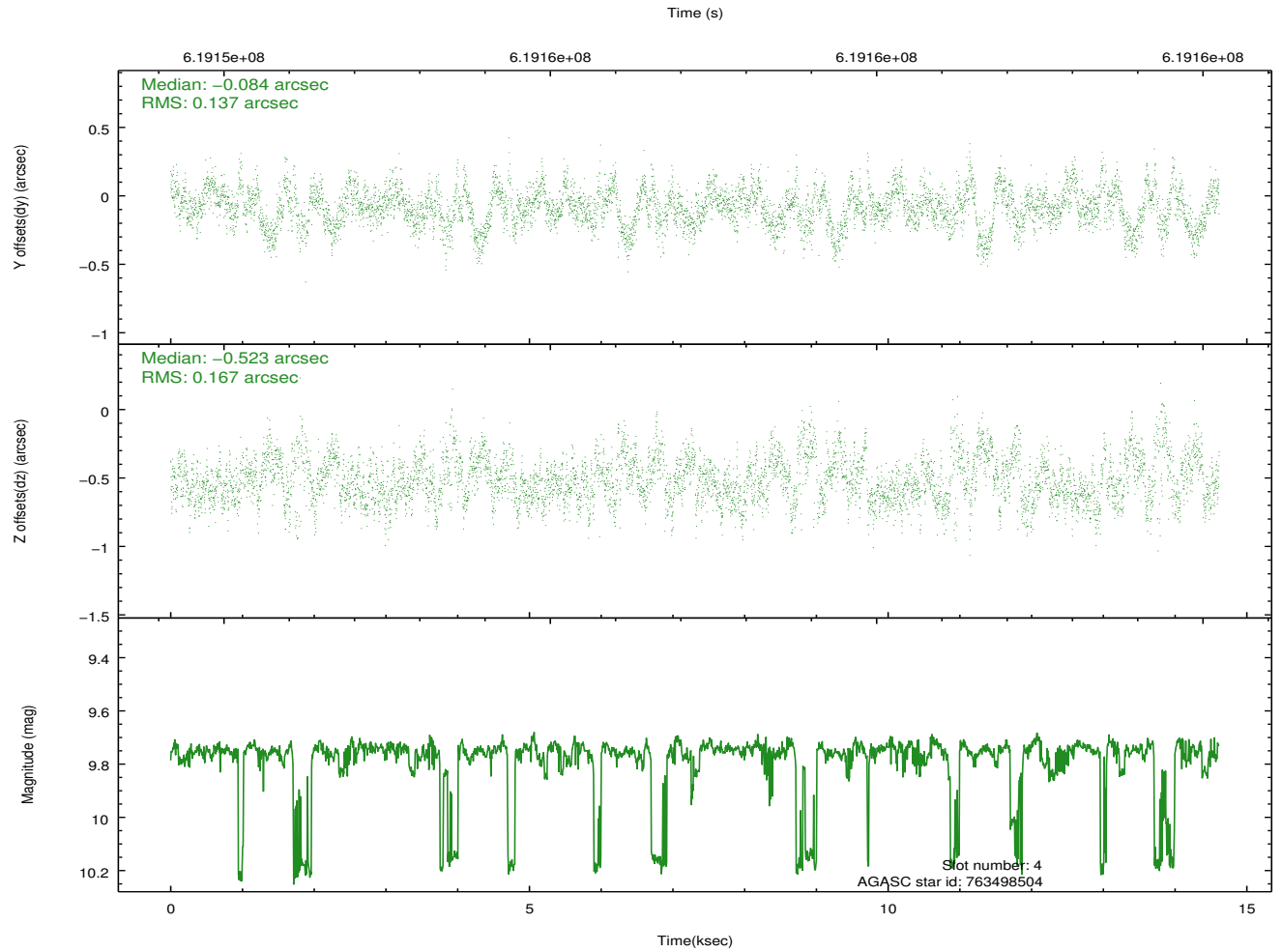
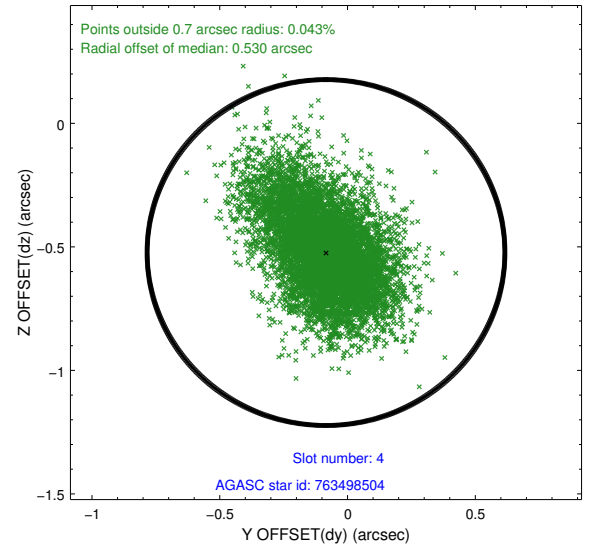
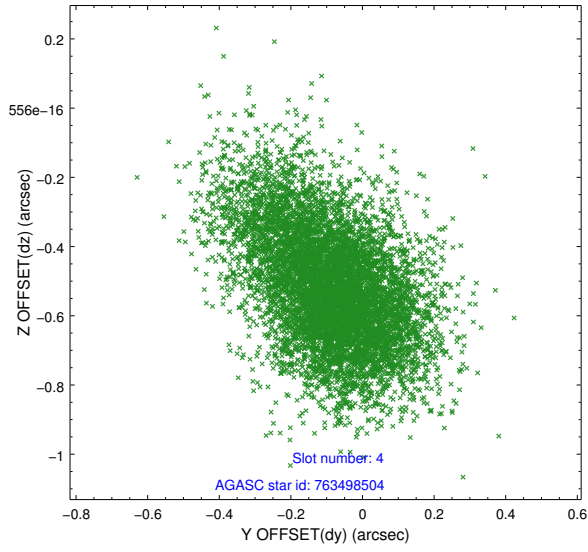
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.09	3565	0.040	-0.083	0.022	0.040	0.000000	0.000000	925.94	-1737.60
1	FID		ACIS-S-4	7.11	3565	0.351	0.041	0.017	0.027	0.000000	0.000000	2143.75	166.39
2	FID		ACIS-S-5	7.10	3565	-0.418	0.053	0.011	0.016	0.000000	0.000000	-1823.06	160.20
3	GUIDE	used	763498280	9.63	7121	-0.127	0.198	0.232	0.394	351.715548	-11.532836	1807.49	-1791.89
4	GUIDE	used	763498504	9.75	6945	-0.084	-0.523	0.225	0.387	351.252498	-11.852907	1085.26	69.86
5	GUIDE	used	763499608	9.50	7108	0.204	0.263	0.269	0.401	351.830271	-12.196099	-606.42	-1602.55
6	GUIDE	used	763500112	6.20	7130	-0.026	0.391	0.157	0.280	352.030274	-12.212329	-835.27	-2270.89
7	GUIDE	used	763888952	8.96	7126	0.043	-0.346	0.140	0.239	351.077405	-12.782990	-2015.49	1475.21

## 2.4 Star Slots

### 2.4.1 Slot 3

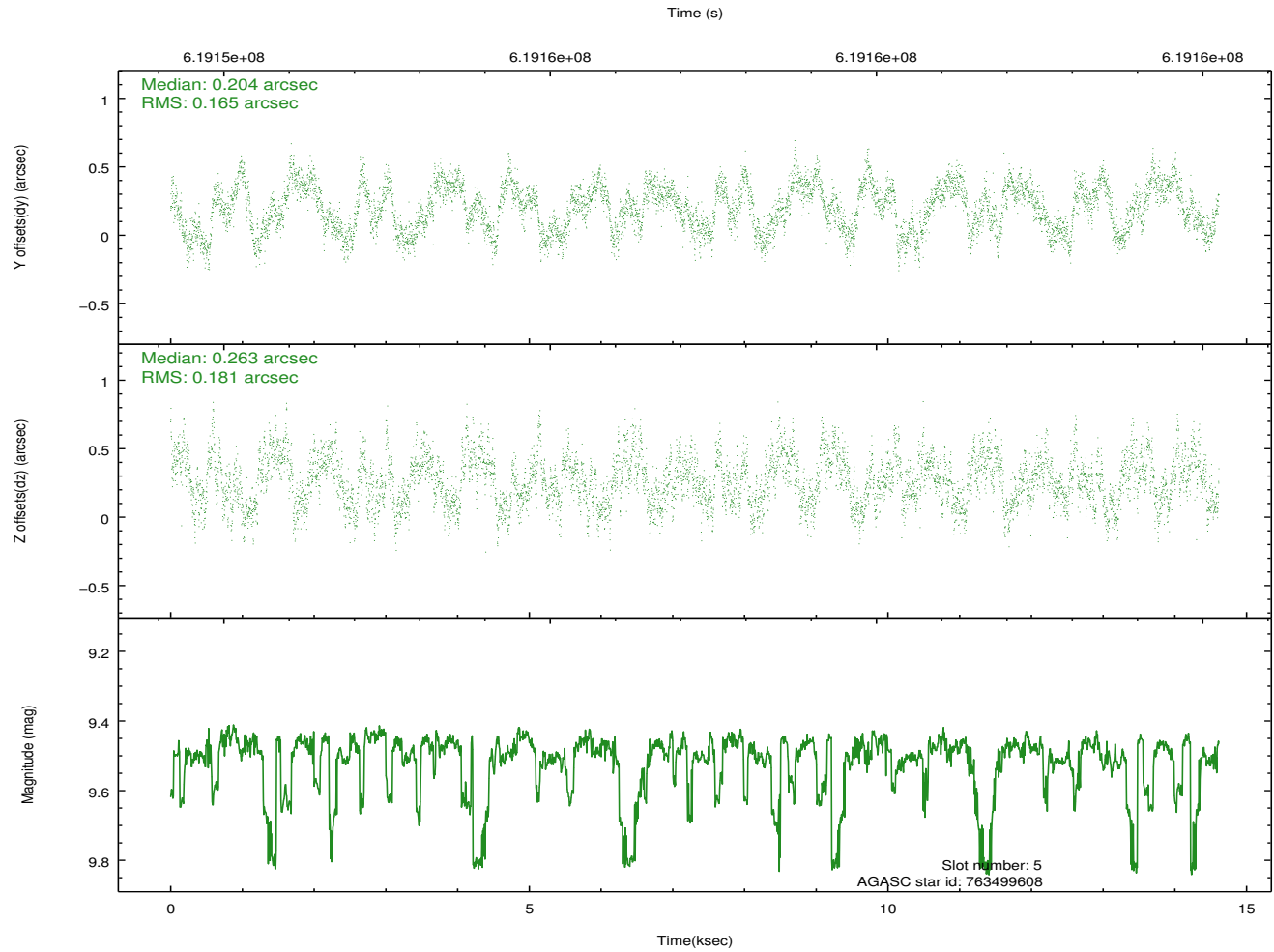
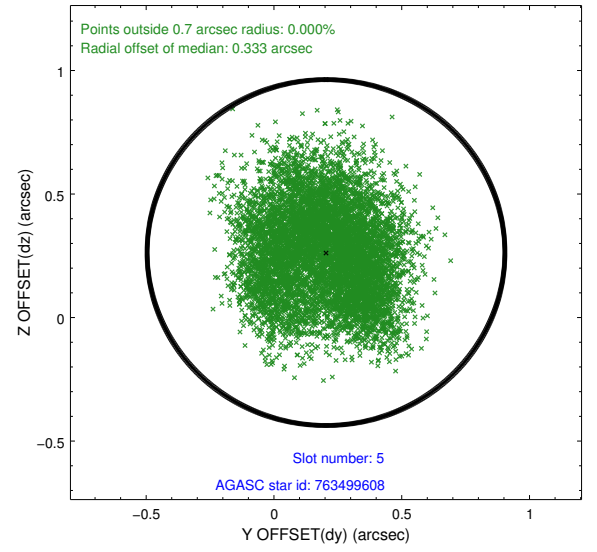
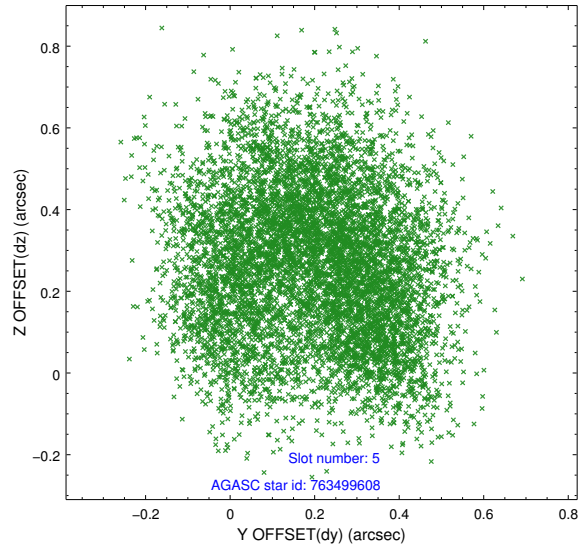


## 2.4.2 Slot 4

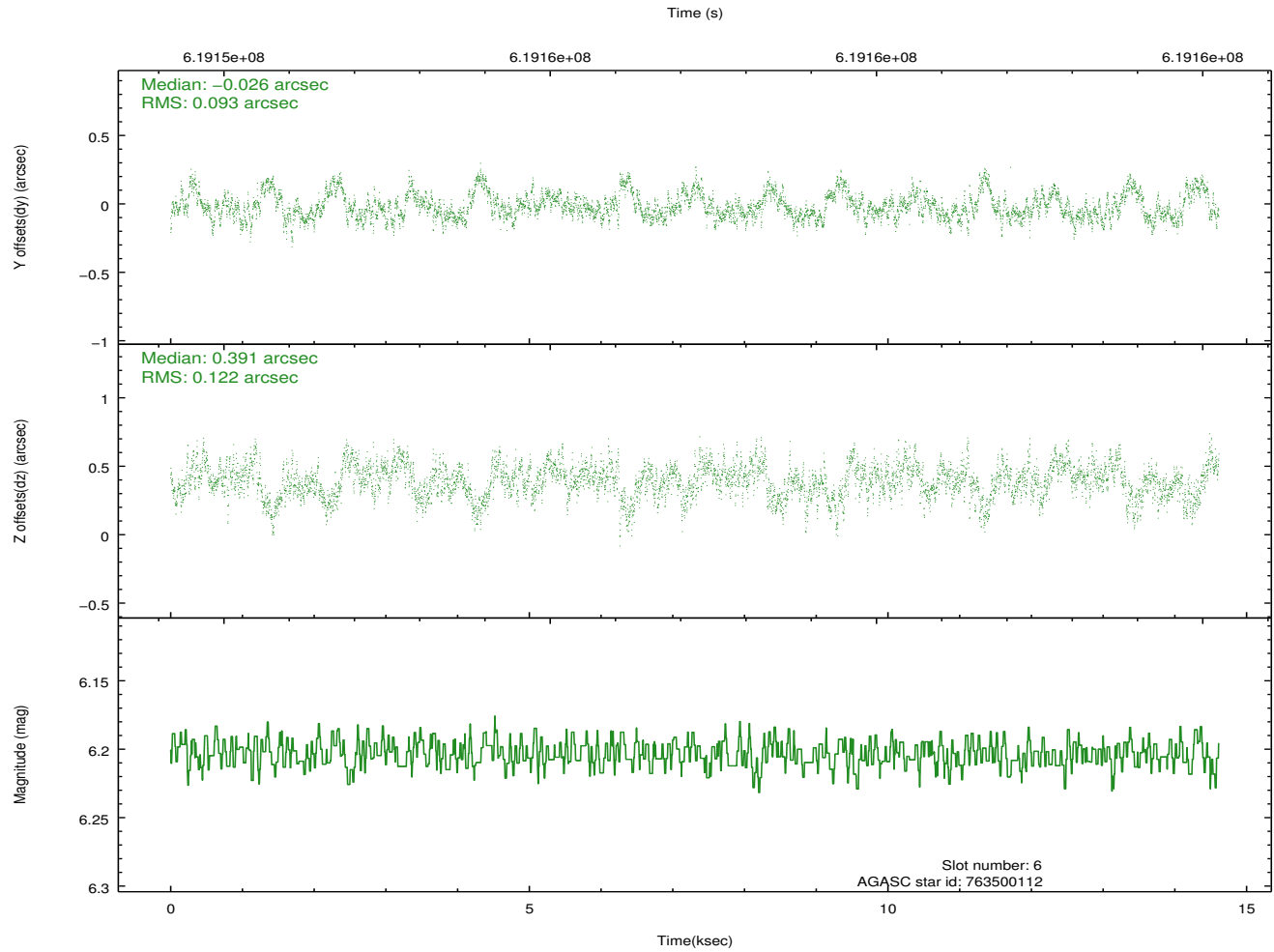
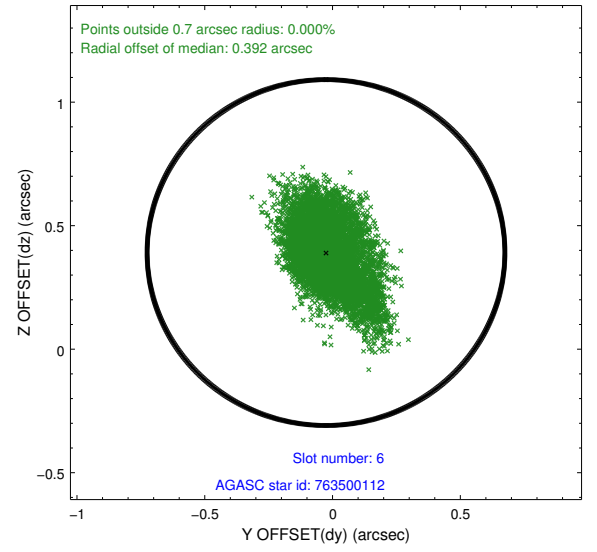
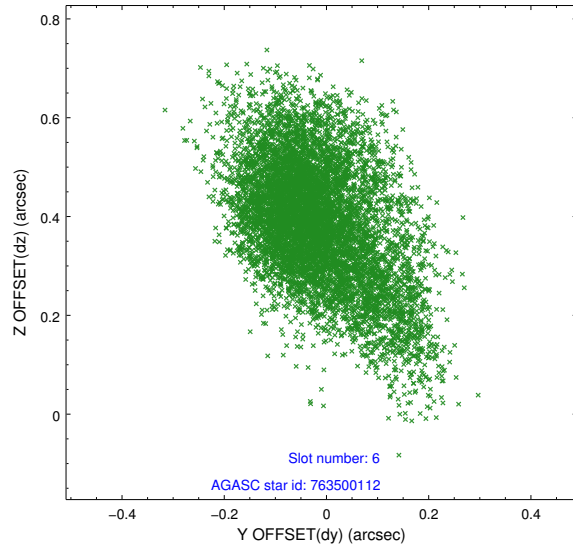




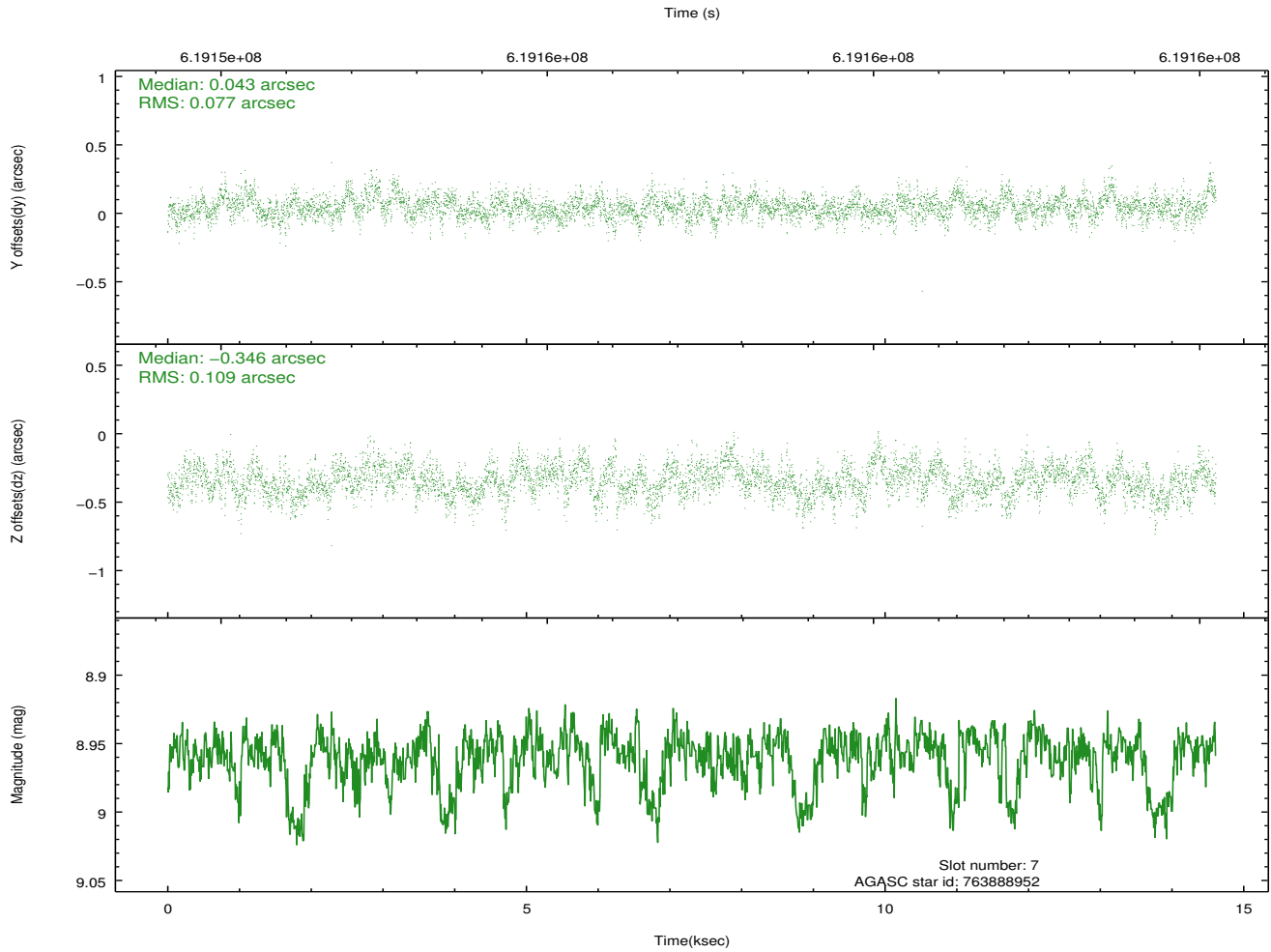
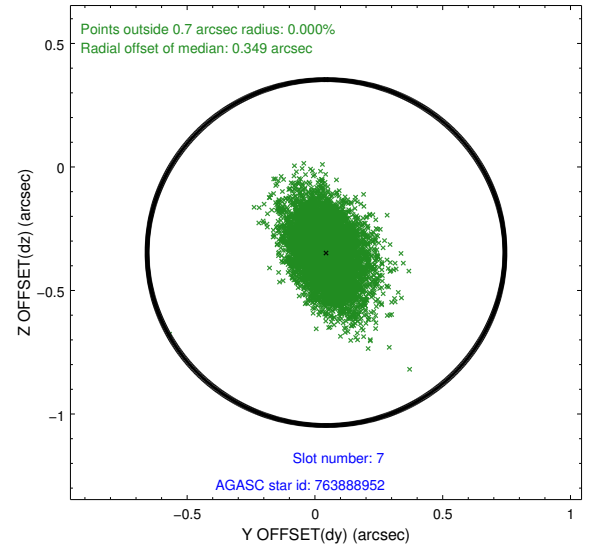
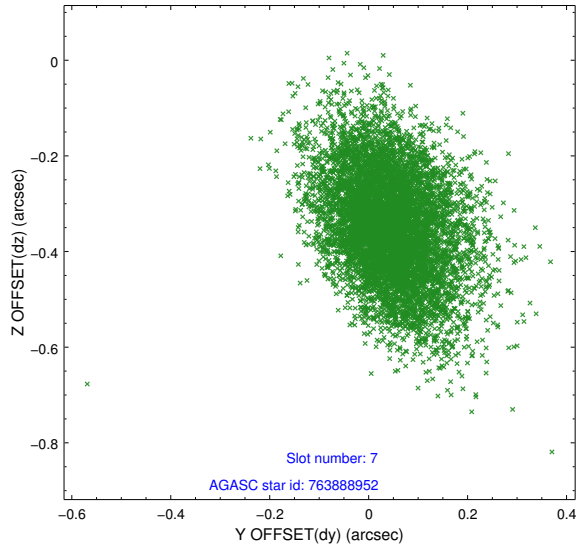
### 2.4.3 Slot 5



## 2.4.4 Slot 6

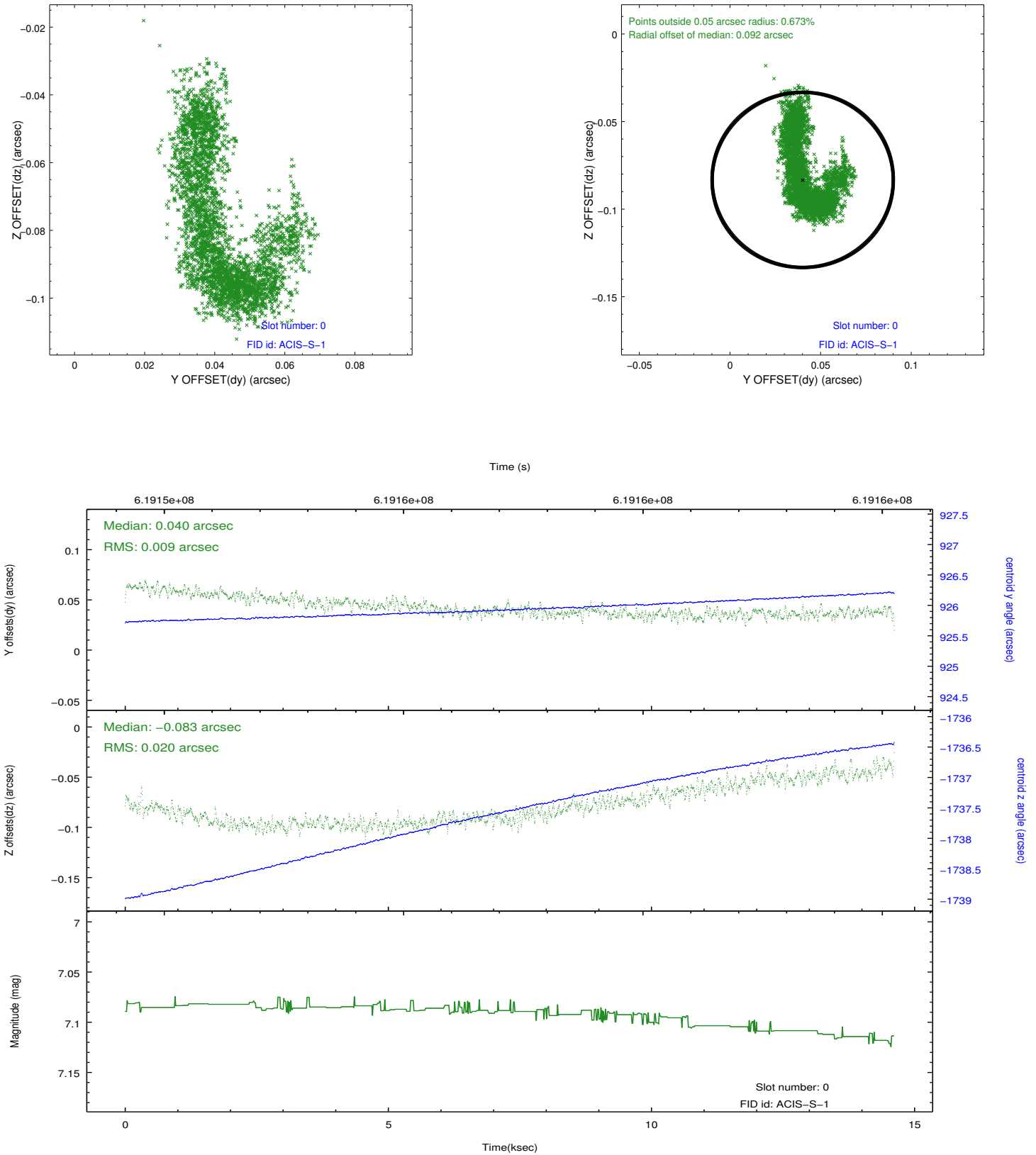


## 2.4.5 Slot 7

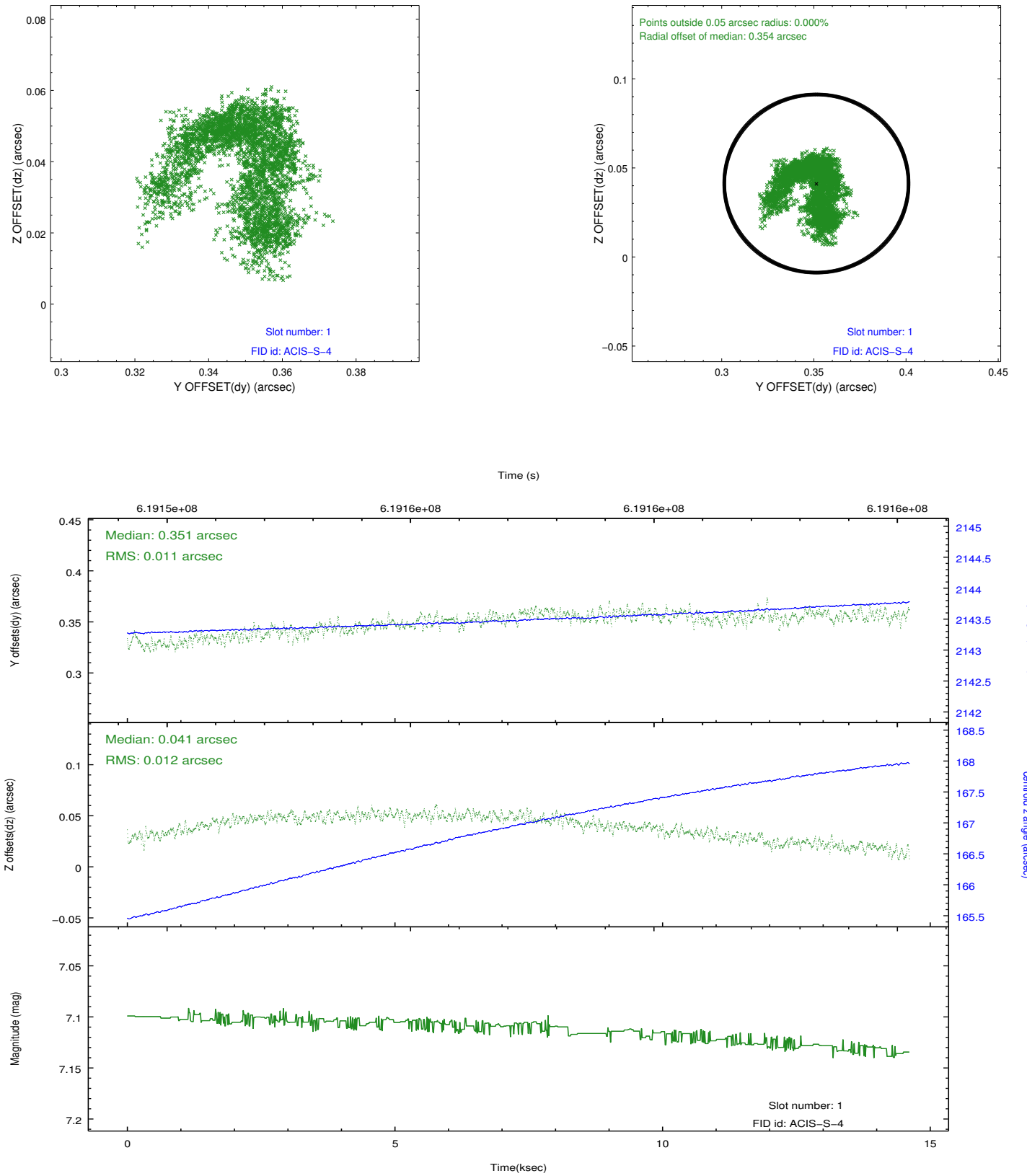


## 2.5 FID Slots

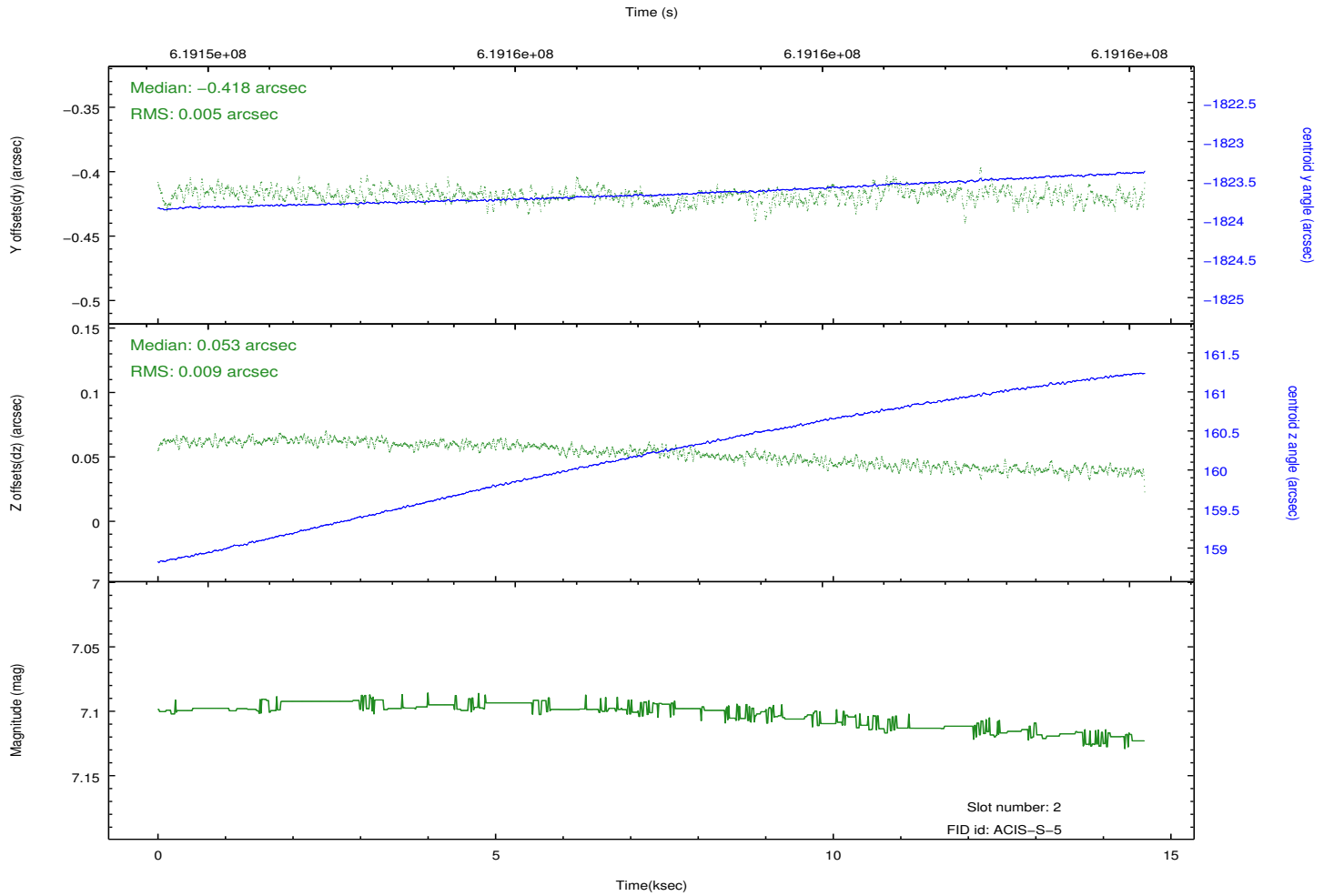
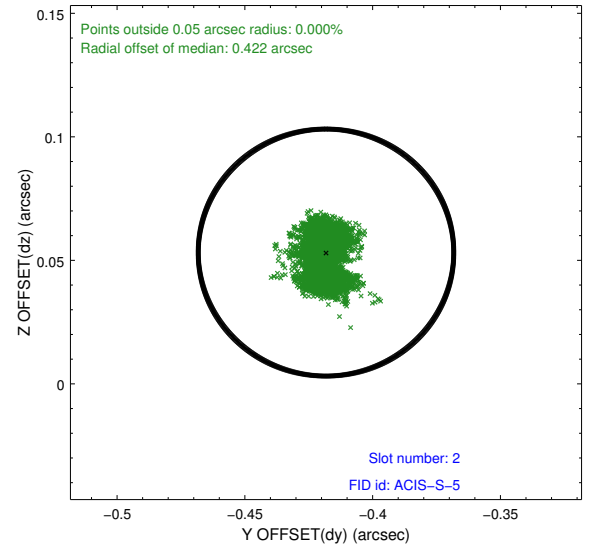
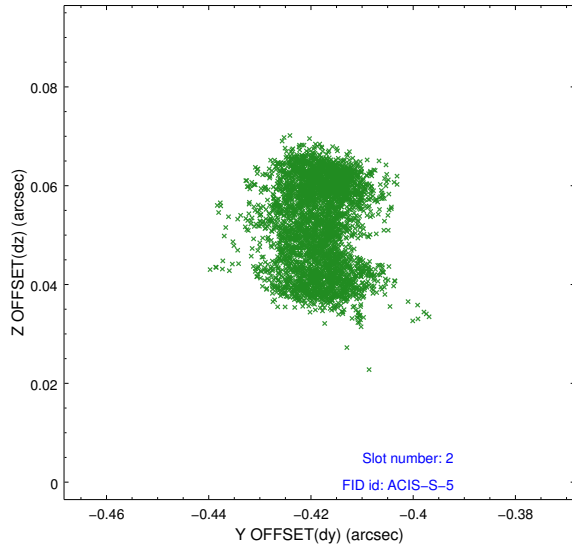
### 2.5.1 Slot 0



## 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)	2017.08.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.529700111866

### A.2 Comments