

# V&V Reference Report

## L2 ASCDS Version : 10.8.1

Observation 22626 - L2 Version 1  
Chandra X-Ray Center

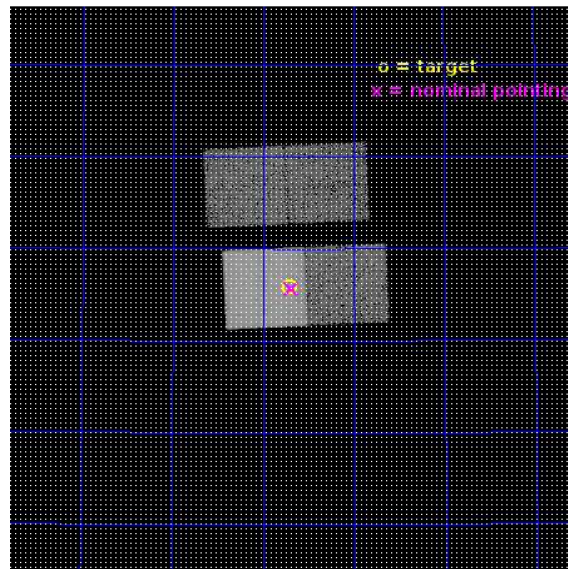
L2 Processing Date : Nov 18 2019

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# 1 Front

seq_num	704010	Sequence number
obs_id	22626	Observation id
title	XRAYING THE UNKNOWN 3CR EXTRAGALACTIC SKY	Proposal title
observer	Francesco Massaro	Principal investigator
object	3CR 91	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	54.429167	Observer's specified target RA [deg]
dec_targ	50.765611	Observer's specified target Dec [deg]
ra_nom	54.422659162241	Nominal RA [deg]
dec_nom	50.761240429219	Nominal Dec [deg]
roll_nom	177.30626270984	Nominal Roll [deg]
revision	1	Processing version of data
ontime	19147.970821738	Sum of GTIs [s]
livetime	18897.788486421	Livetime [s]
ontime2	19147.84770155	Sum of GTIs [s]
ontime3	19144.747631311	Sum of GTIs [s]
ontime6	19144.788721323	Sum of GTIs [s]
ontime7	19147.970821738	Sum of GTIs [s]
l2events	122060	Number of level 2 events

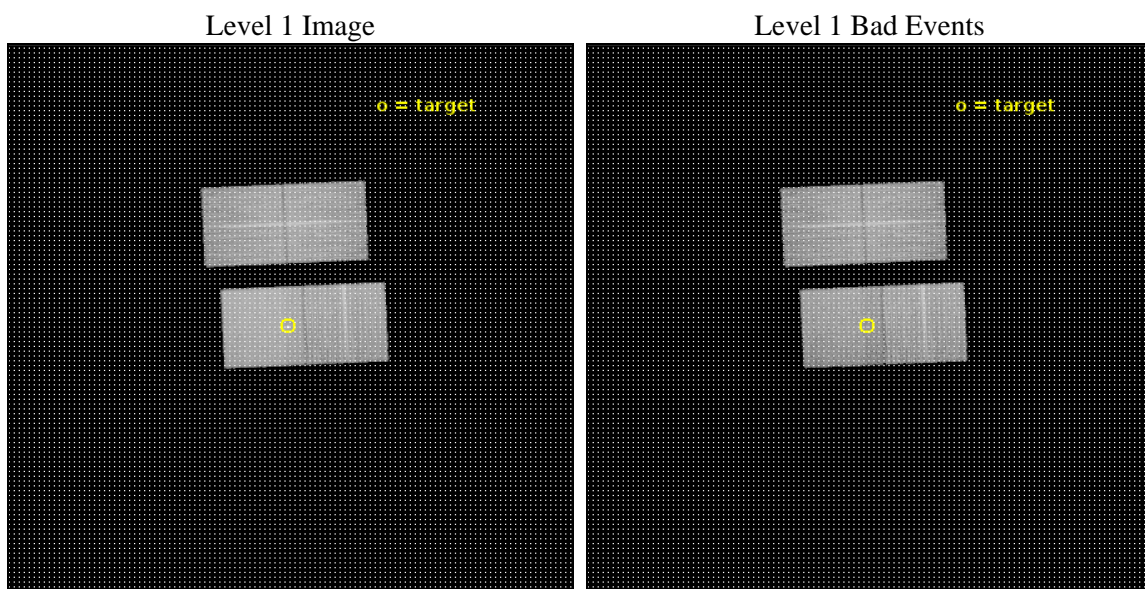




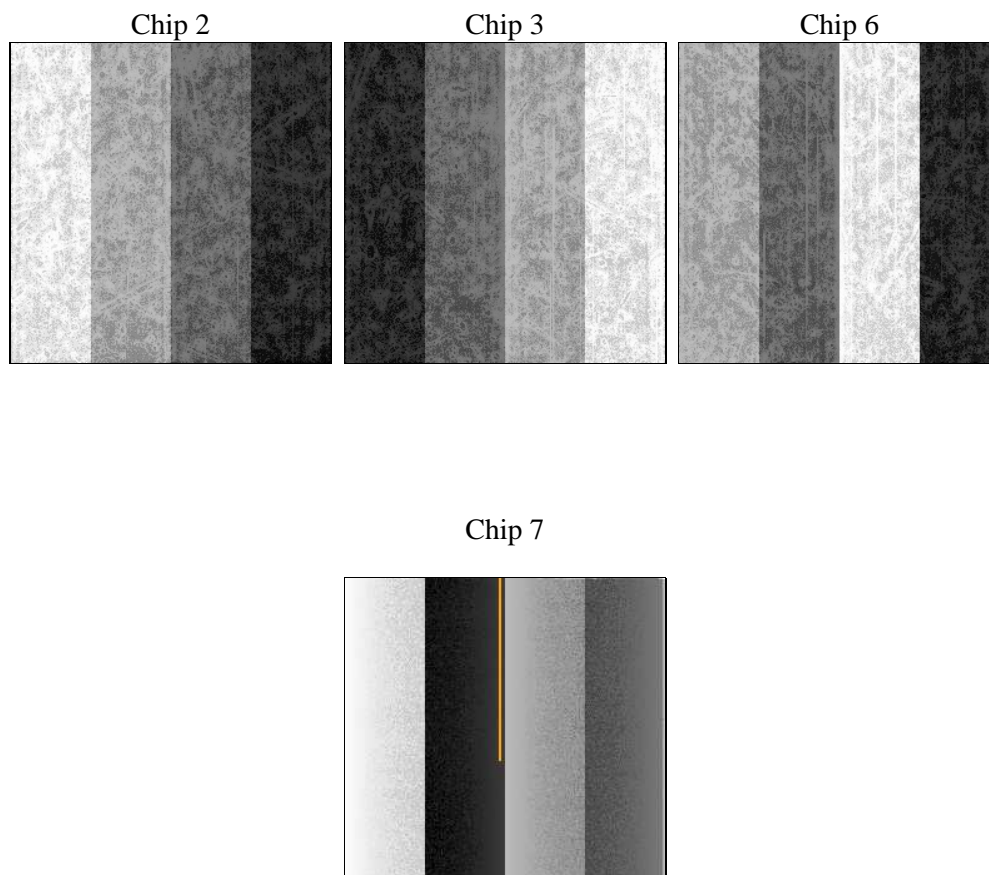
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19241.787000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	19147.970821738	Sum of GTIs [s]
caldsver	4.8.4.2	&#160	ontime2	19147.84770155	Sum of GTIs [s]
date	2019-11-18T15:46:16	Date and time of file creation	ontime3	19144.747631311	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	19144.788721323	Sum of GTIs [s]
			ontime7	19147.970821738	Sum of GTIs [s]
			l1events	652028	Number of level 1 events

### 2.1.4 Events

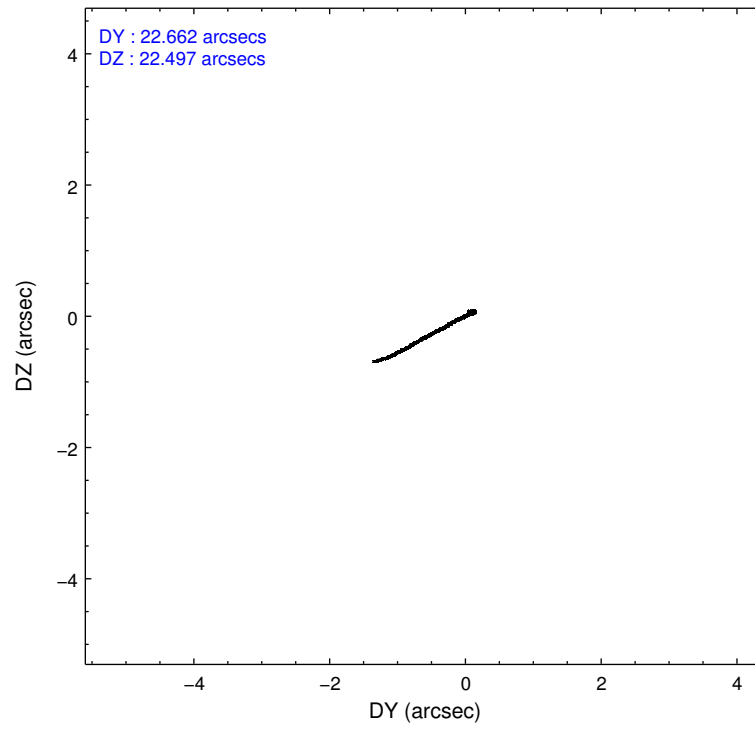
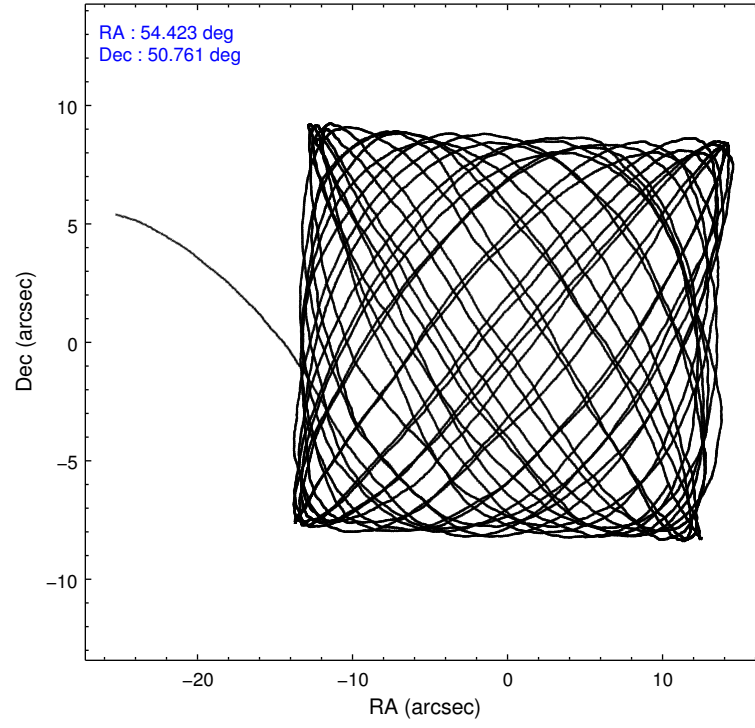
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	155413	146044	156404	194167
rejected events	140619	131187	139790	110462
rejected %	90%	89%	89%	56%

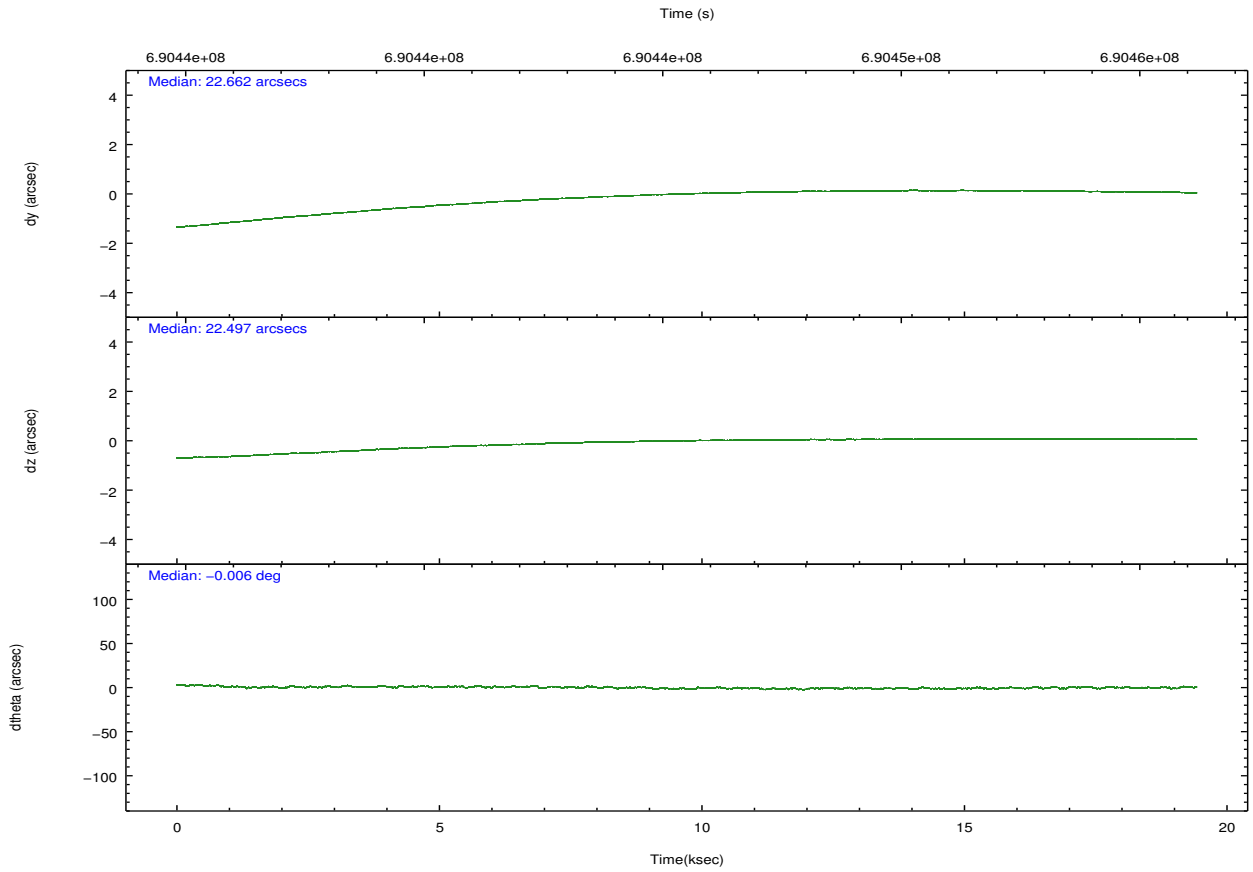
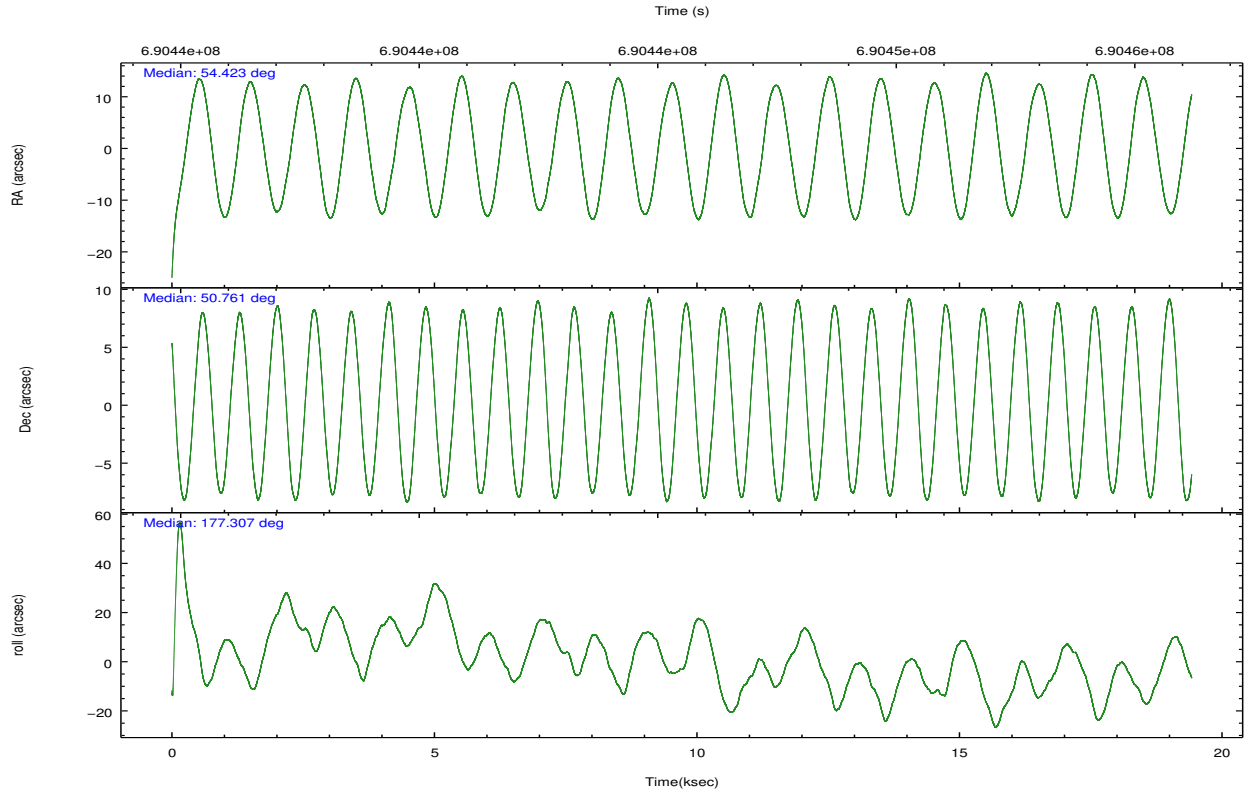
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	4955	5026	4429	7023
	3%	3%	2%	3%
grade 1 events	79	71	67	263
	0%	0%	0%	0%
grade 2 events	3711	3409	4825	17313
	2%	2%	3%	8%
grade 3 events	1387	1624	1319	6509
	0%	1%	0%	3%
grade 4 events	1497	1503	1320	6373
	0%	1%	0%	3%
grade 5 events	5235	6344	5958	18396
	3%	4%	3%	9%
grade 6 events	3246	3301	4725	46517
	2%	2%	3%	23%
grade 7 events	135303	124766	133761	91773
	87%	85%	85%	47%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	54.460980	54.42265916224147	CCD I2 on	O1	Y
[deg] Pointing Dec	50.774165	50.76124042921857	CCD I3 on	O2	Y
[deg] Pointing Roll	177.120012	177.3062627098421	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	N	N
[s] Observation start time (MET)	690435968.184000	690435096.02674	CCD S5 on	N	N
Observation start date	2019-11-18T03:44:59	2019-11-18T03:31:36	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	690455209.184000	690455834.85299	On-chip summing requested	N	N
Observation end date	2019-11-18T09:05:40	2019-11-18T09:17:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



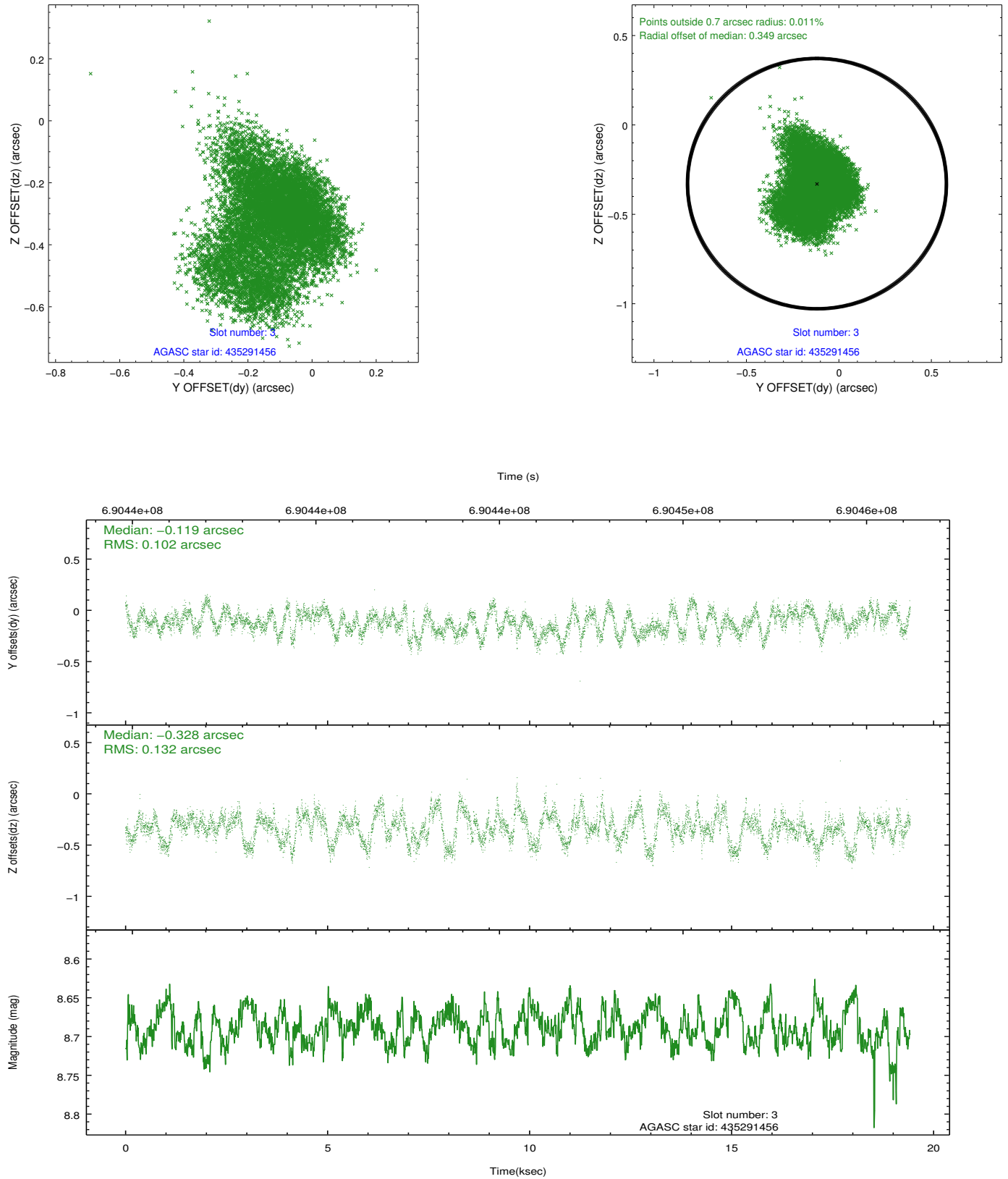


Slot Statistics

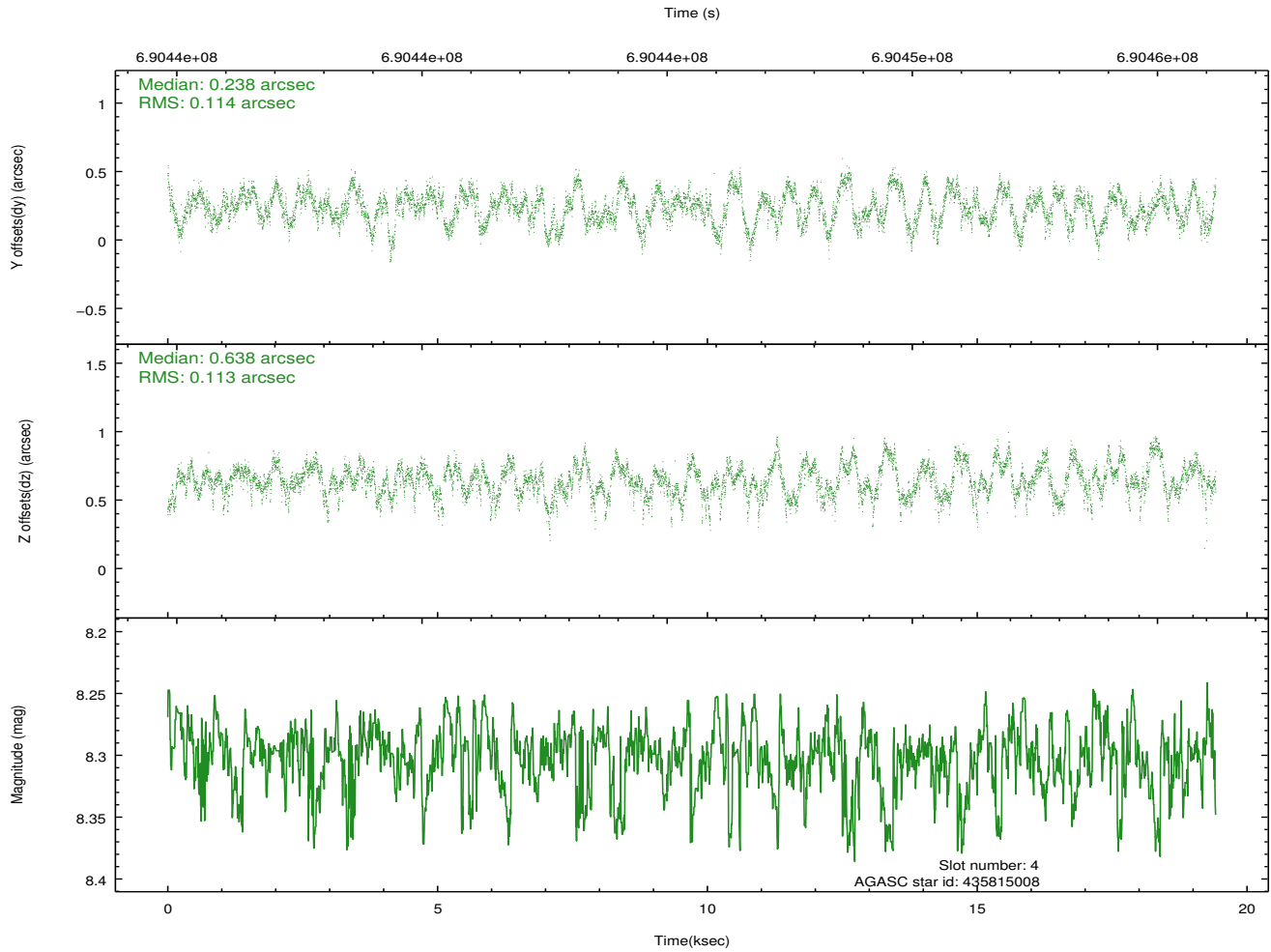
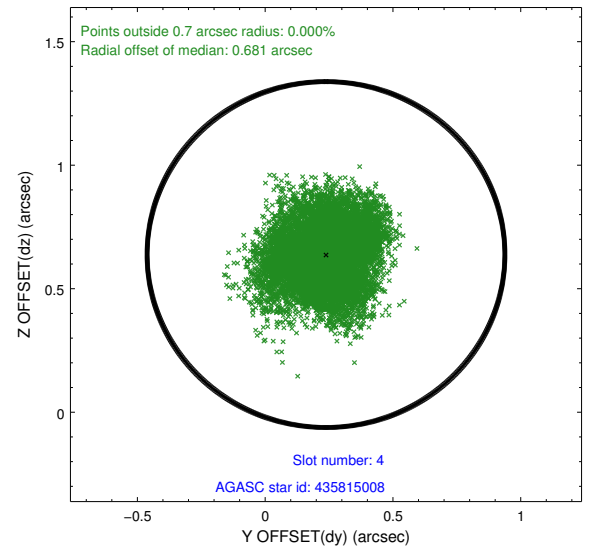
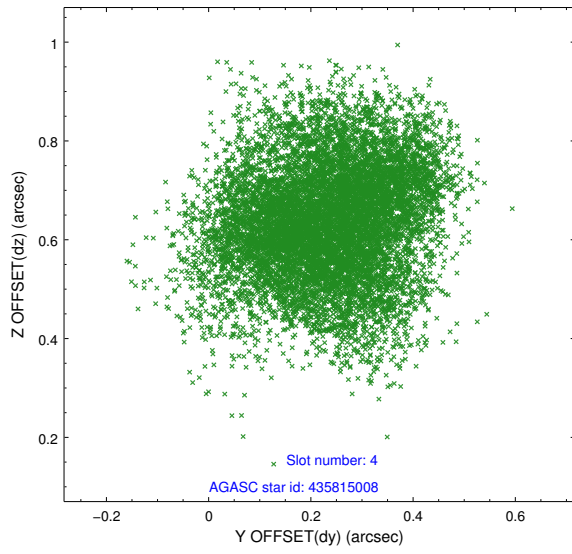
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.22	4736	1.000	-0.360	-0.335	0.017	0.024	0.000000	0.000000	-775.90	-1744
1	FID		ACIS-S-4	7.28	4738	1.000	0.862	0.263	0.026	0.042	0.000000	0.000000	2138.43	164
2	FID		ACIS-S-5	7.28	4738	1.000	-0.532	0.081	0.019	0.033	0.000000	0.000000	-1828.73	158
3	GUIDE	used	435291456	8.69	9461	1.000	-0.119	-0.328	0.180	0.283	54.960276	50.278815	-1235.84	1719
4	GUIDE	used	435815008	8.30	9466	1.000	0.238	0.638	0.176	0.270	55.356887	50.821569	-2023.97	-285
5	GUIDE	used	435815096	8.86	9466	1.000	0.506	0.494	0.191	0.324	54.693408	51.139969	-456.98	-1341
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	435307328	10.04	9174	1.000	-0.661	-0.809	0.430	0.633	53.745568	50.181633	1540.68	2204

## 2.4 Star Slots

### 2.4.1 Slot 3

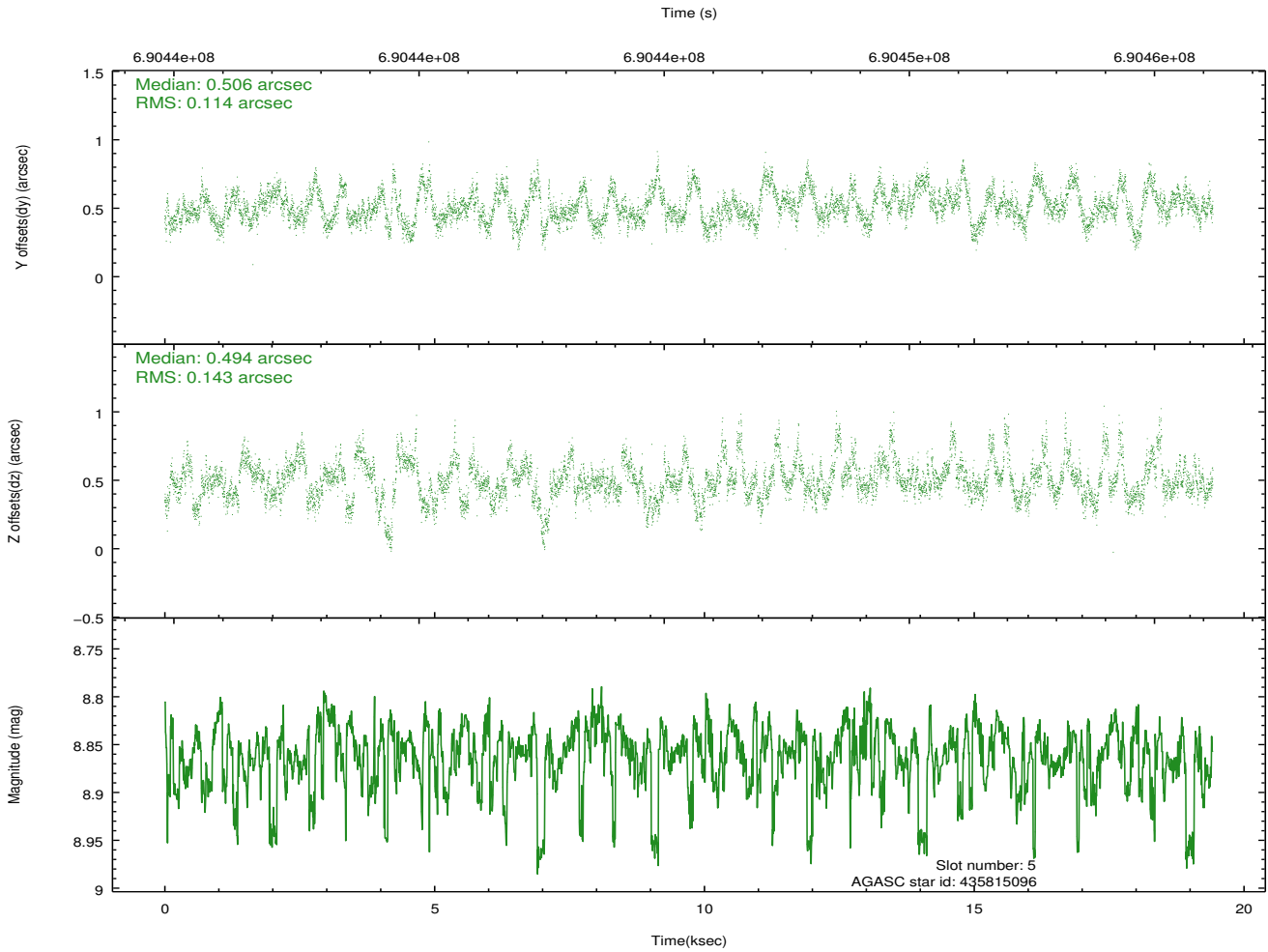
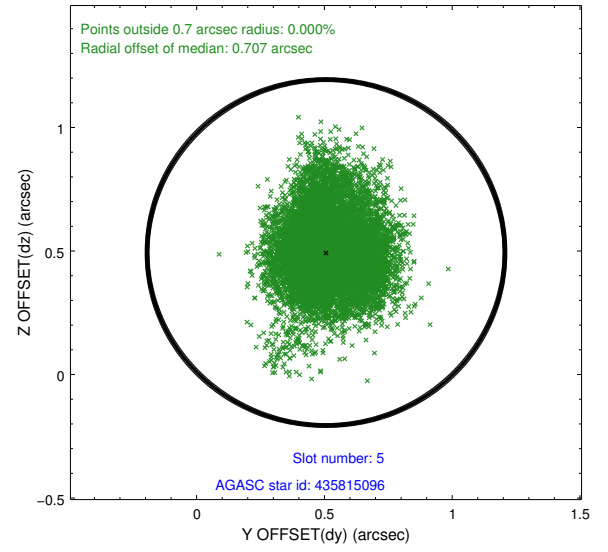
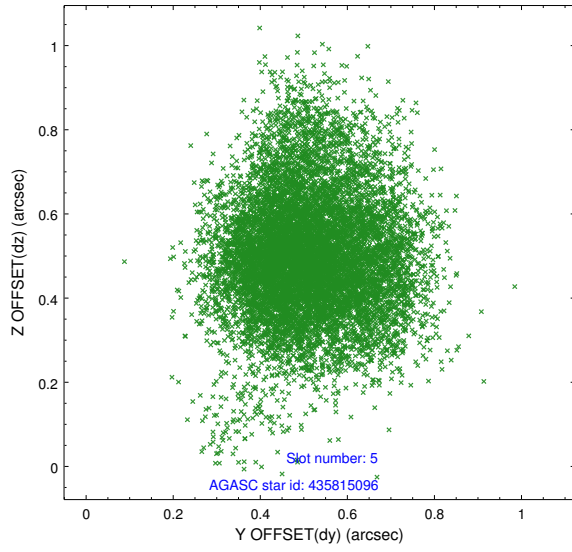


## 2.4.2 Slot 4

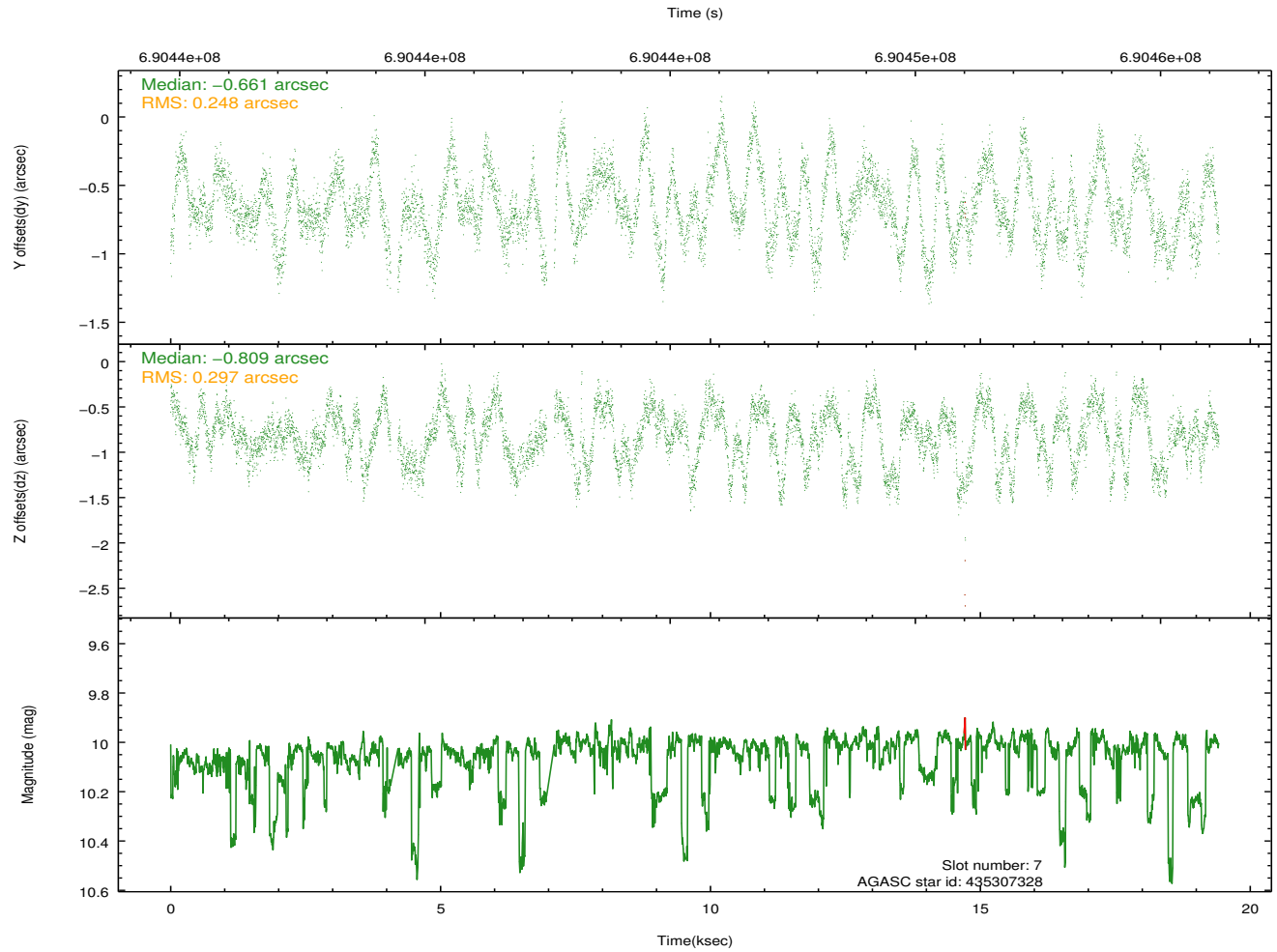
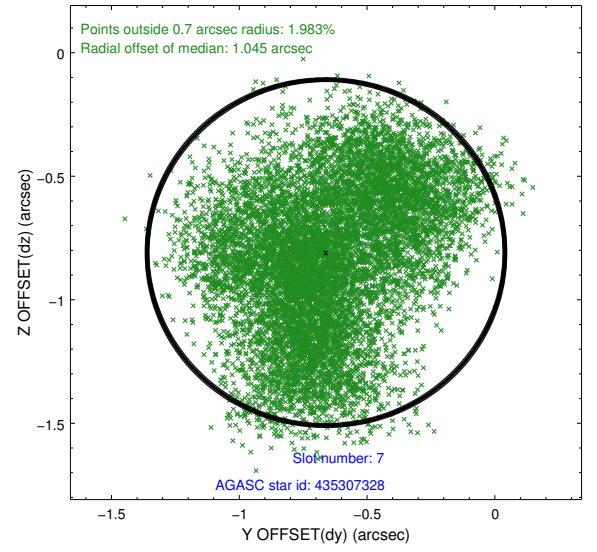
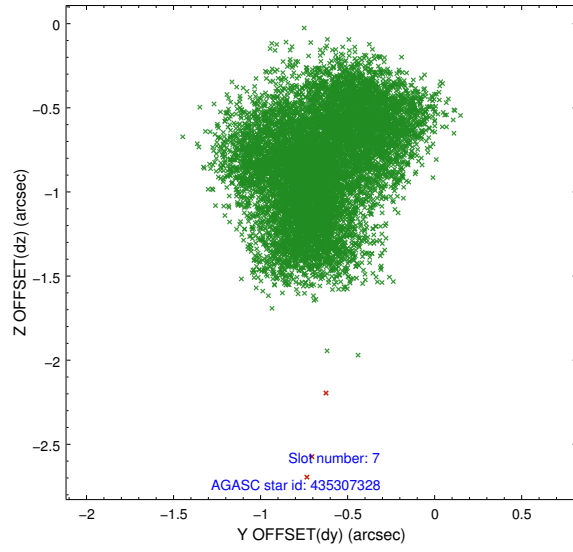




### 2.4.3 Slot 5

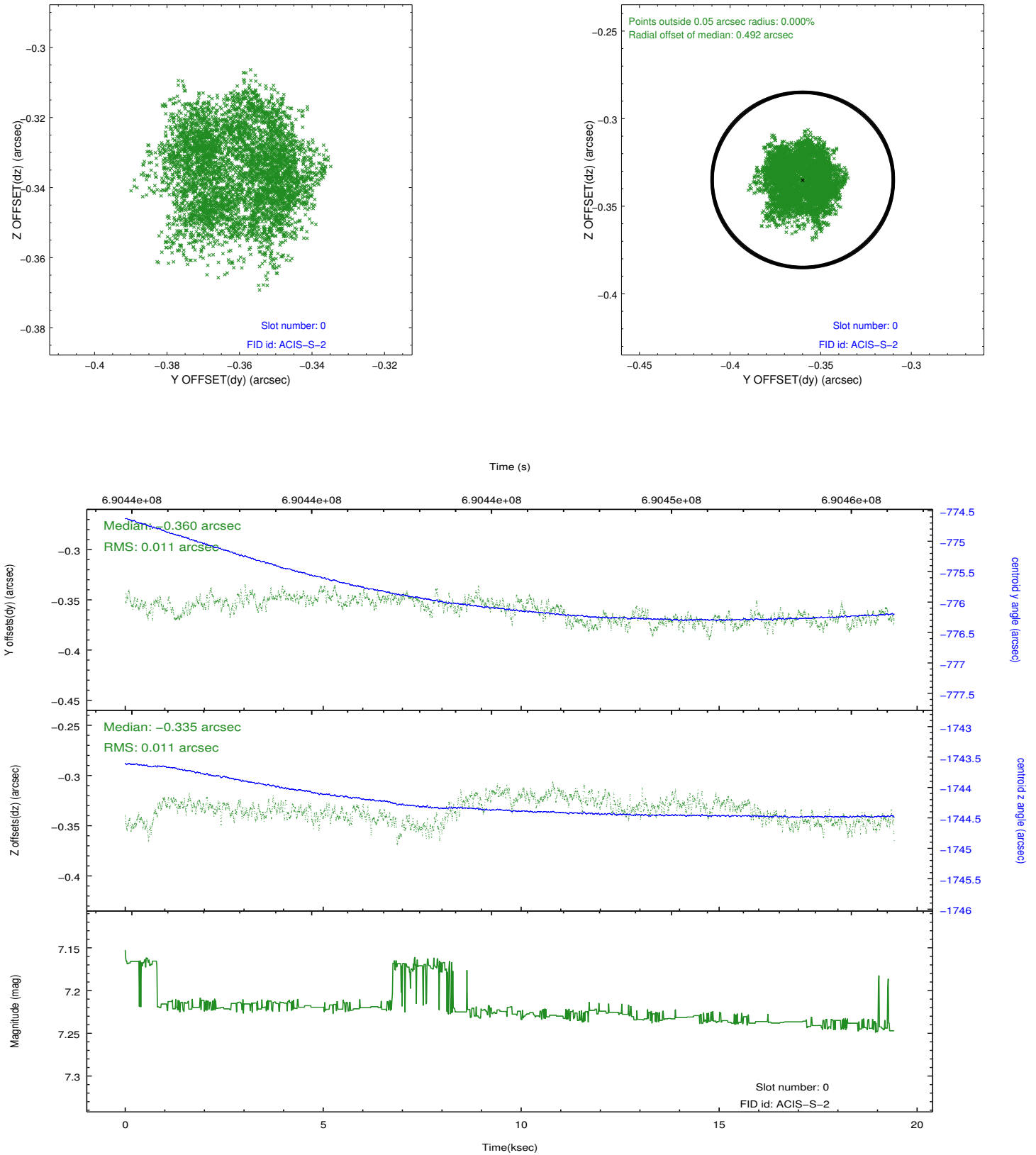


## 2.4.4 Slot 7

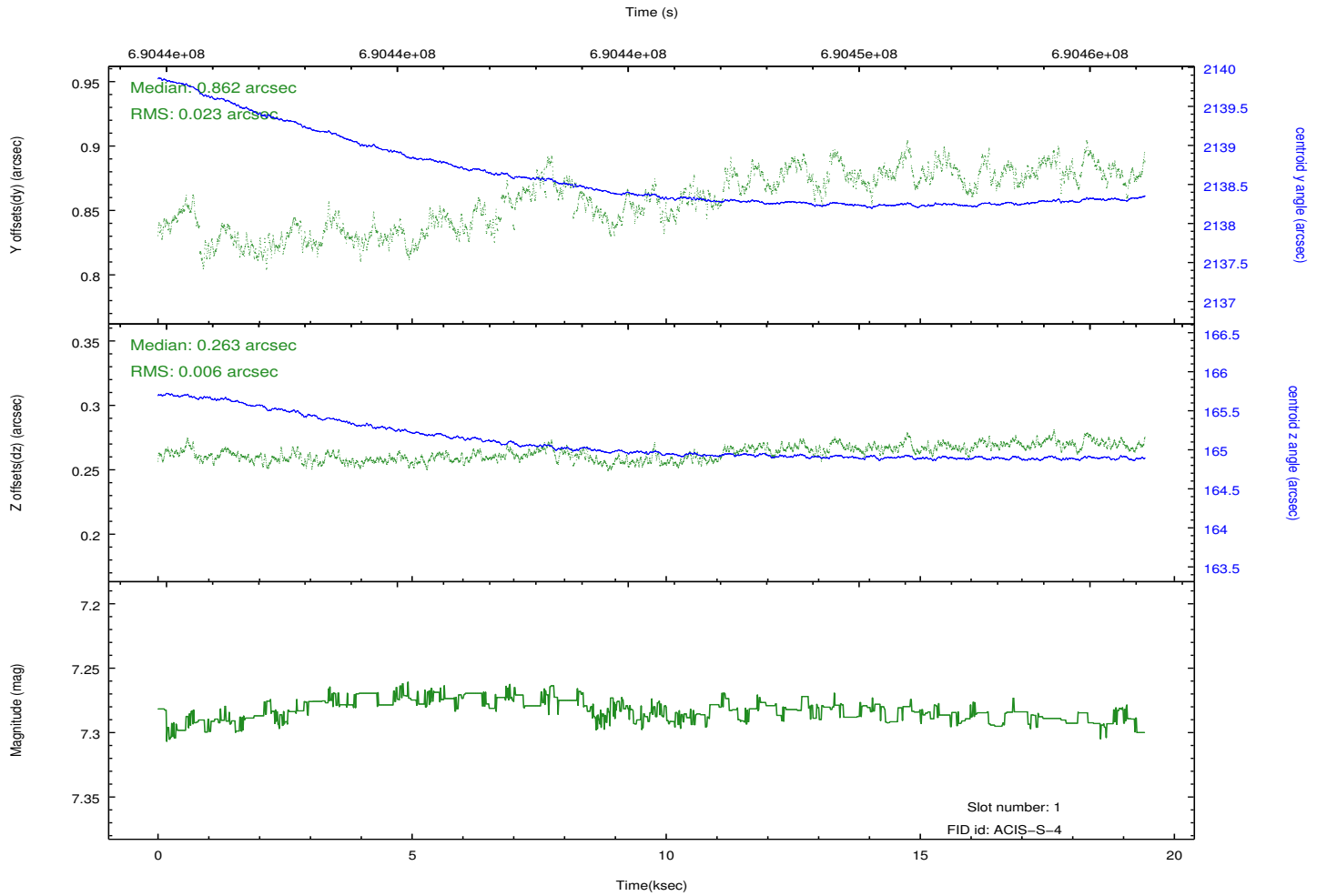
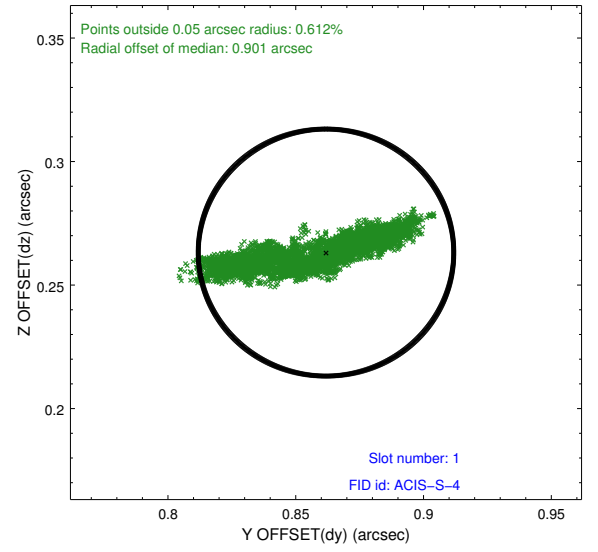
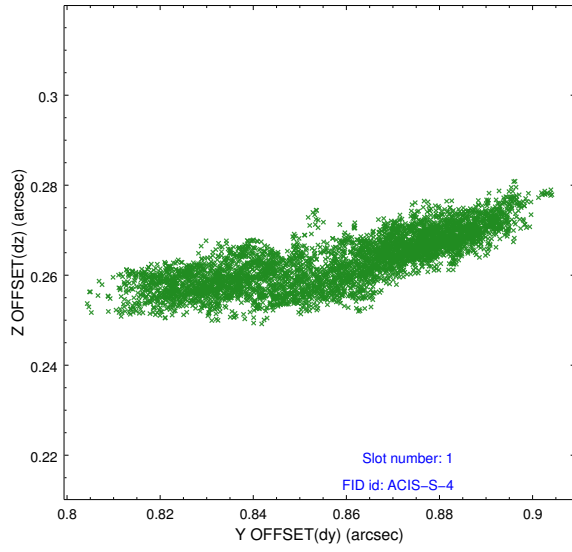


## 2.5 FID Slots

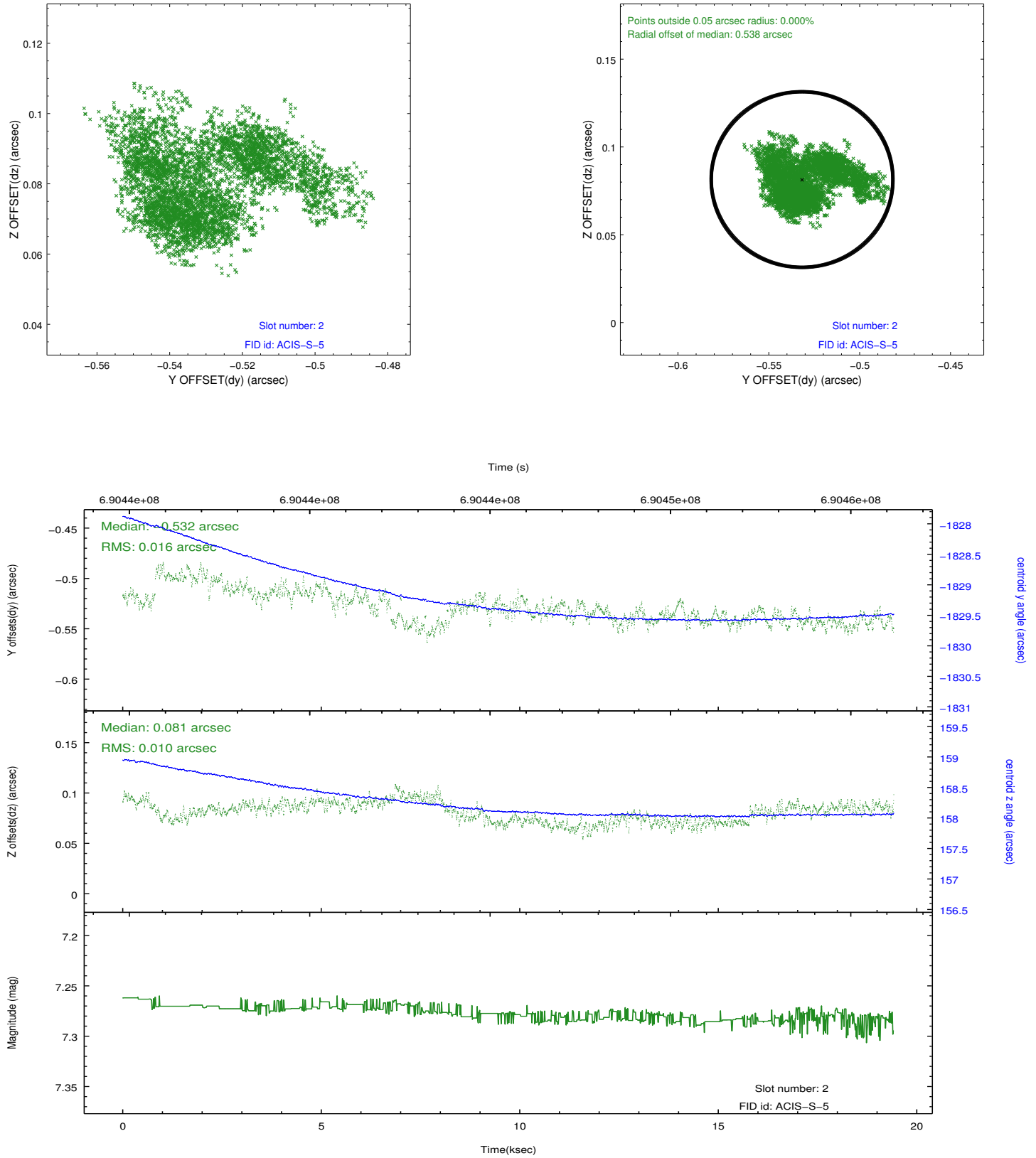
### 2.5.1 Slot 0



## 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)	2019.11.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.147970821738

### A.2 Comments

The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.