

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19542 - L2 Version 1  
Chandra X-Ray Center

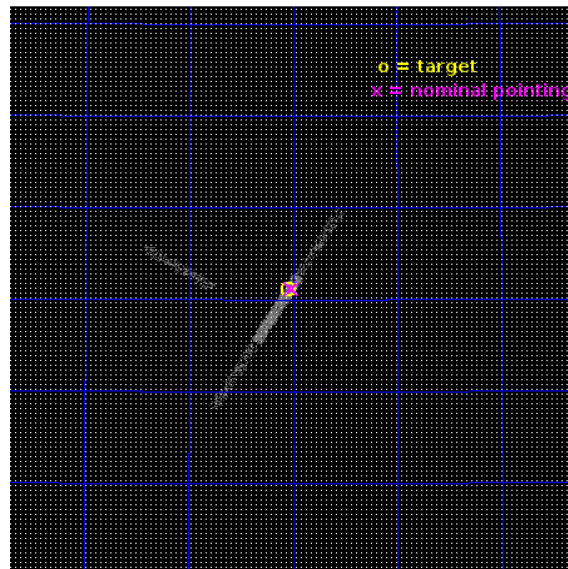
L2 Processing Date : Jan 12 2017

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# 1 Front

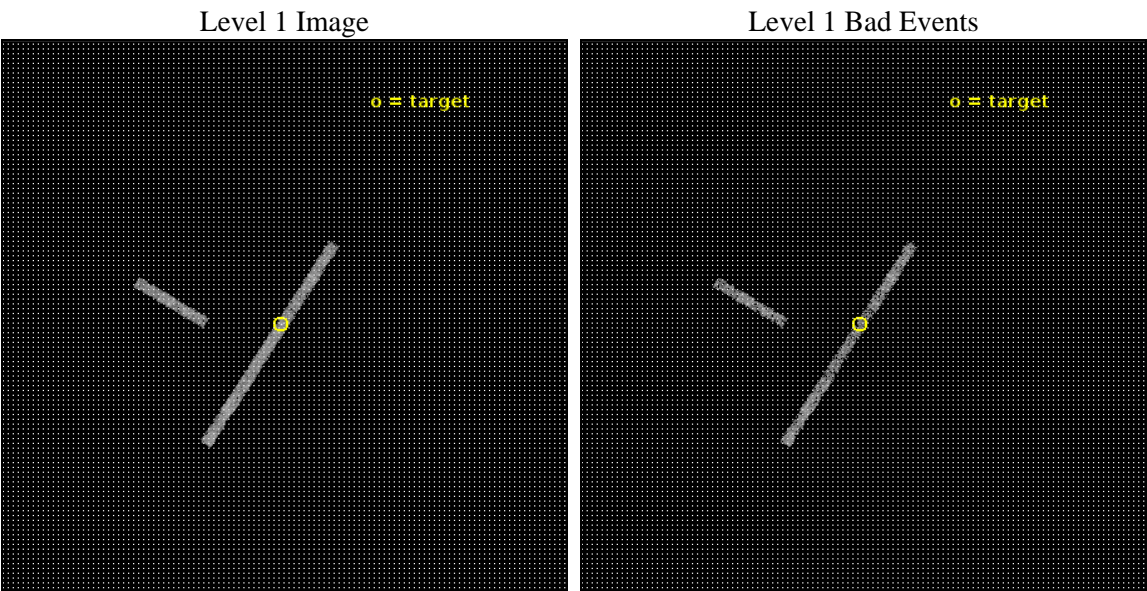
seq_num	703390	Sequence number
obs_id	19542	Observation id
title	Investigating X-ray Bias in Low-L, Low-z Quasars	Proposal title
observer	Gordon Richards	Principal investigator
object	SDSSJ093502.52+433110.6	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	143.760417	Observer's specified target RA [deg]
dec_targ	43.519639	Observer's specified target Dec [deg]
ra_nom	143.75417836432	Nominal RA [deg]
dec_nom	43.519818799768	Nominal Dec [deg]
roll_nom	121.62352182002	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3088.6507761478	Sum of GTIs [s]
livetime	2890.9123700373	Livetime [s]
ontime3	3088.5686961412	Sum of GTIs [s]
ontime6	3088.6097362041	Sum of GTIs [s]
ontime7	3088.6507761478	Sum of GTIs [s]
ontime8	3088.5276561975	Sum of GTIs [s]
l2events	3161	Number of level 2 events



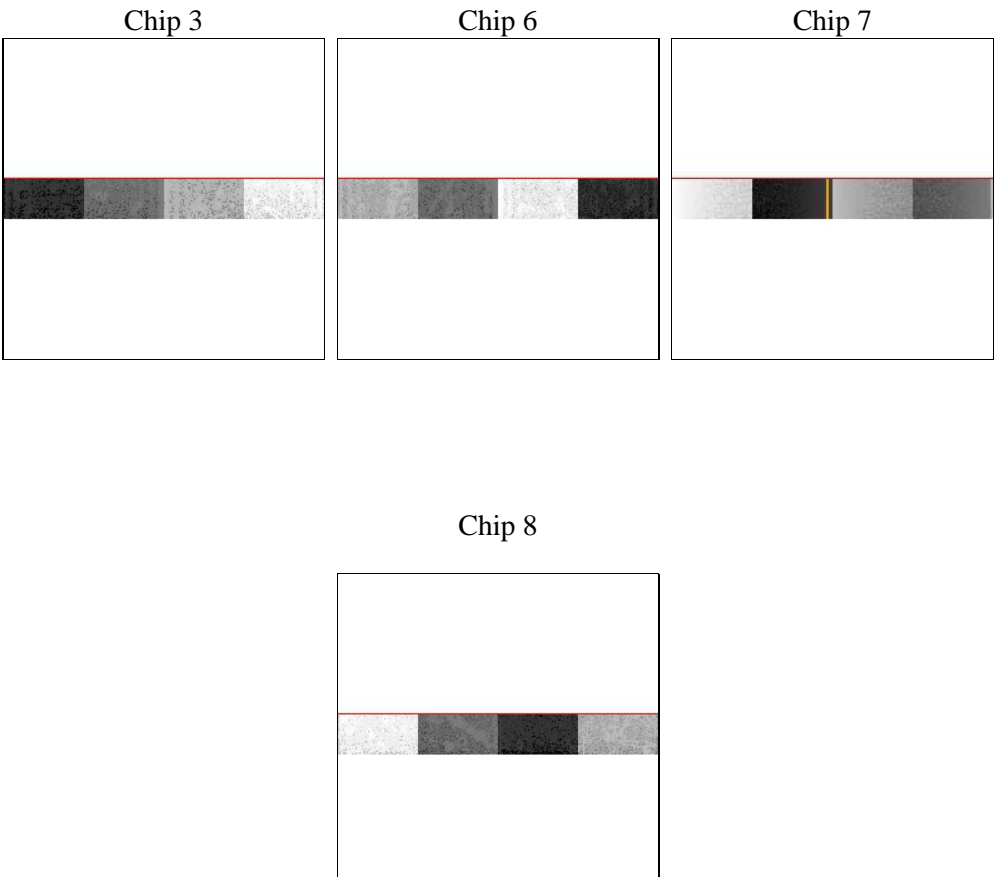
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	3088.6507761478	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime3	3088.5686961412	Sum of GTIs [s]
date	2017-01-12T16:16:45	Date and time of file creation	ontime6	3088.6097362041	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	3088.6507761478	Sum of GTIs [s]
			ontime8	3088.5276561975	Sum of GTIs [s]
			l1events	17496	Number of level 1 events

### 2.1.4 Events

	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	3772	3995	4656	5073
rejected events	3402	3644	2273	4072
rejected %	90%	91%	48%	80%

	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	107	87	334	201
	2%	2%	7%	3%
grade 1 events	1	0	11	4
	0%	0%	0%	0%
grade 2 events	48	59	503	226
	1%	1%	10%	4%
grade 3 events	87	66	260	107
	2%	1%	5%	2%
grade 4 events	60	56	250	97
	1%	1%	5%	1%
grade 5 events	152	137	380	216
	4%	3%	8%	4%
grade 6 events	69	83	1036	370
	1%	2%	22%	7%
grade 7 events	3248	3507	1882	3852
	86%	87%	40%	75%

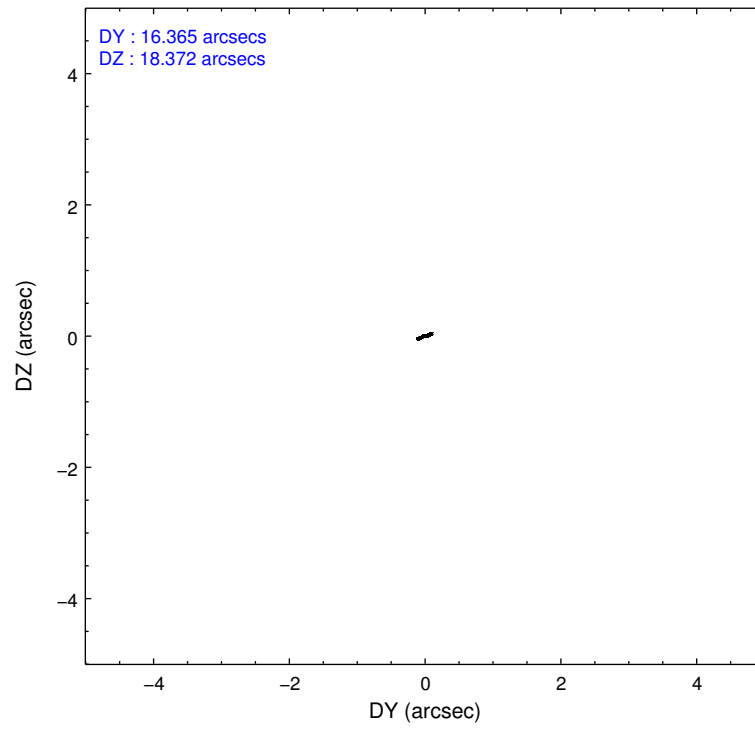
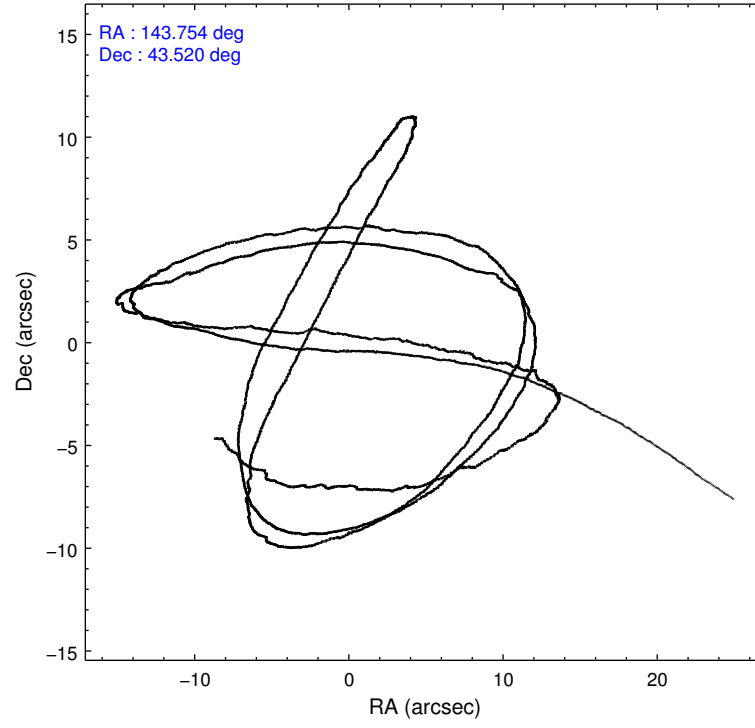


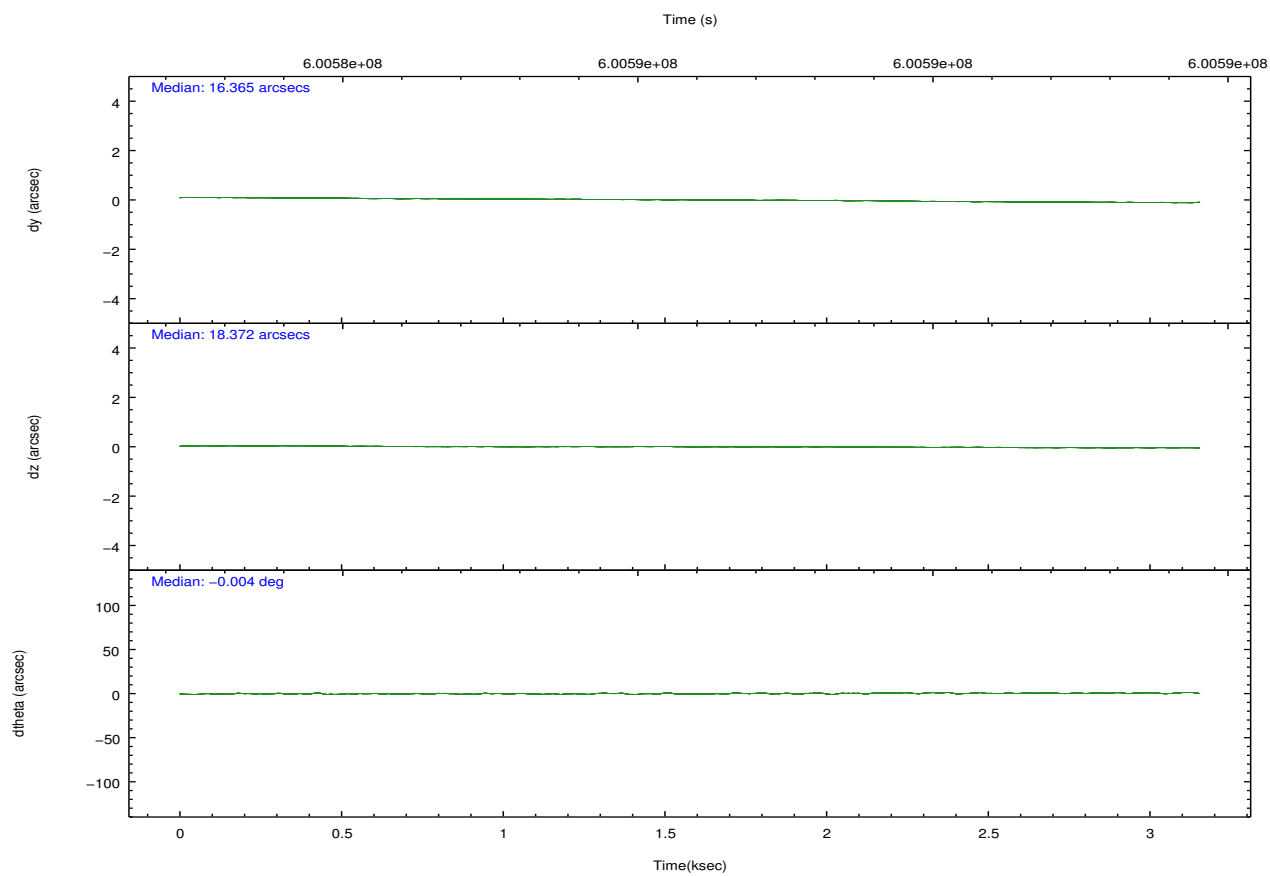
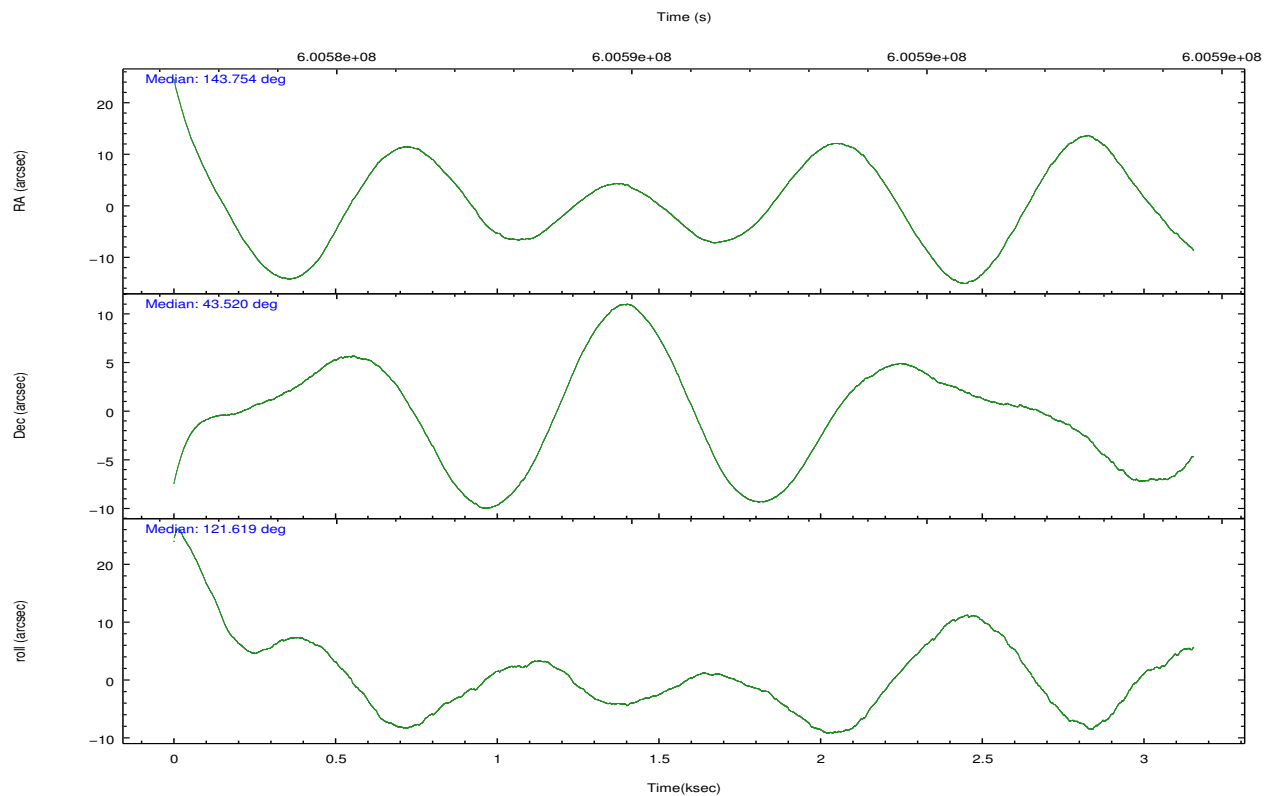
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-3678	ACIS-3678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	143.787718	143.7541783643238
[deg] Pointing Dec	43.507209	43.51981879976826
[deg] Pointing Roll	121.443691	121.6235218200245
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.145094680475
[mm] SIM translation stage offset	0	0.01257209746719923
[s] Observation start time (MET)	600584751.184000	600583483.00687
Observation start date	2017-01-12T05:04:42	2017-01-12T04:44:43
[s] Observation end time (MET)	600587751.184000	600588302.0446399
Observation end date	2017-01-12T05:54:42	2017-01-12T06:05:02
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	N
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	1	1
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.6

## 2.3 Aspect



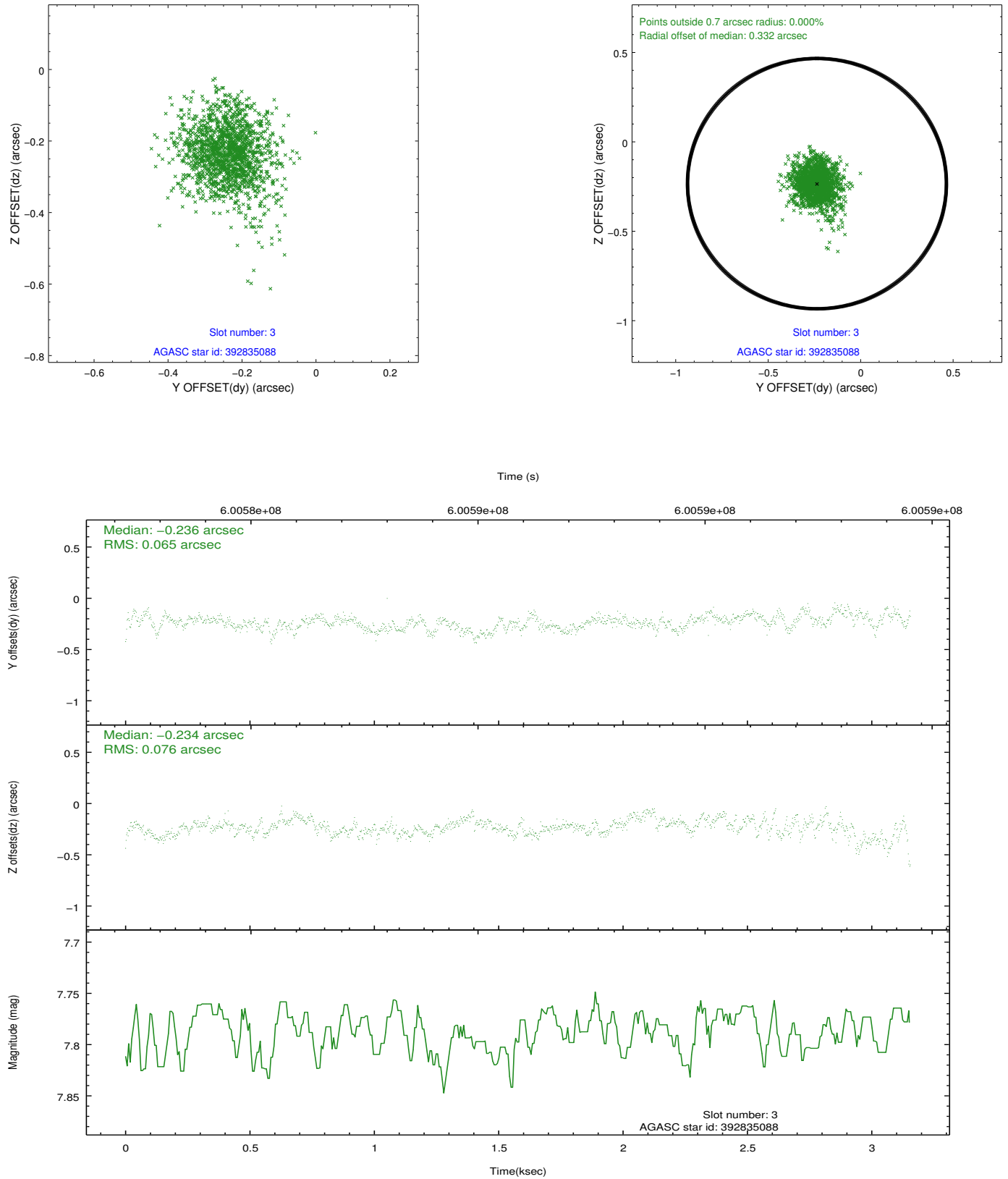


### Slot Statistics

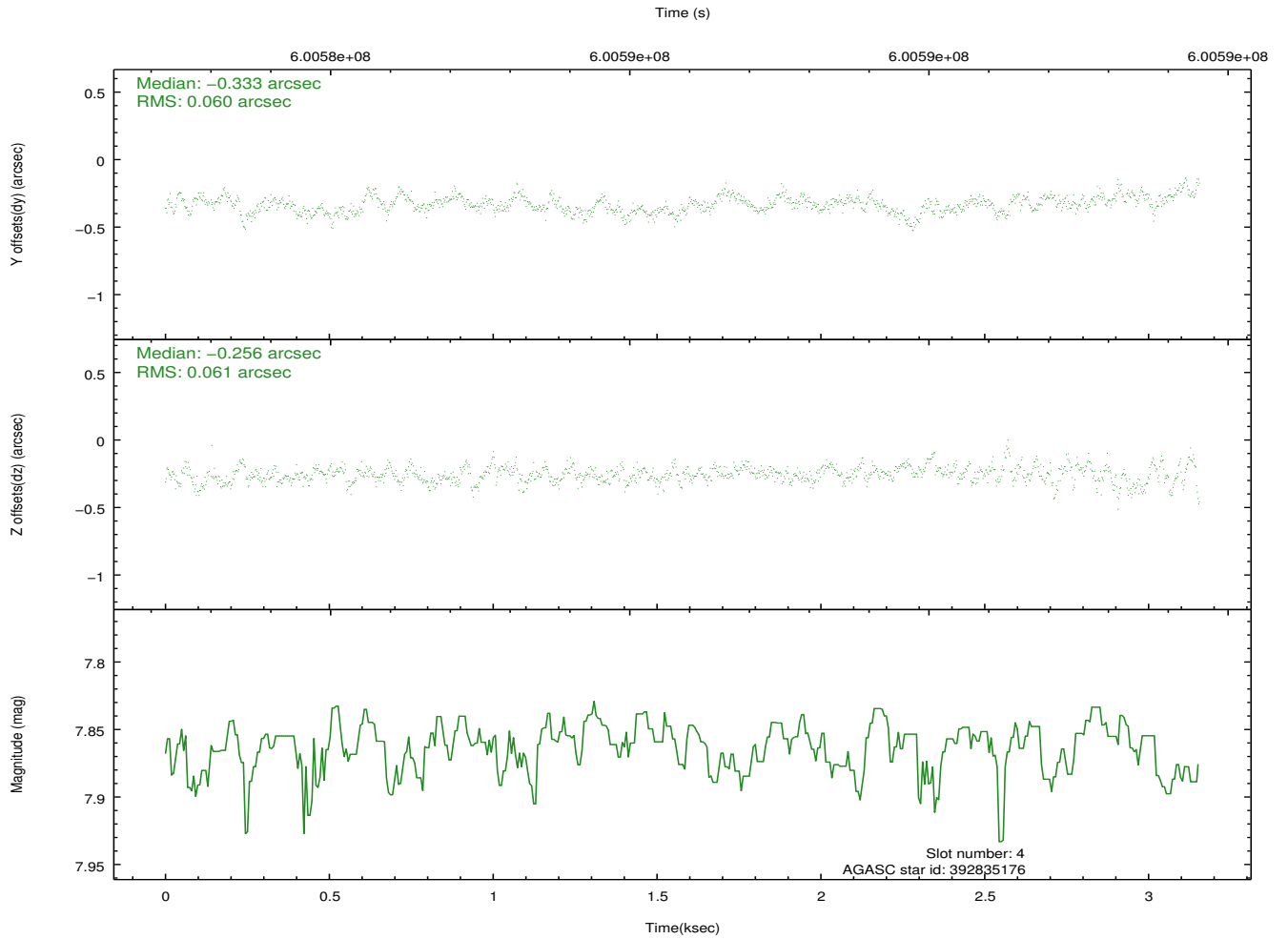
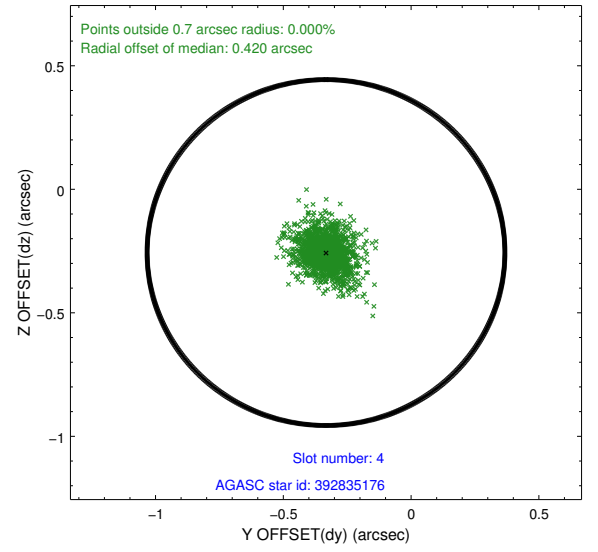
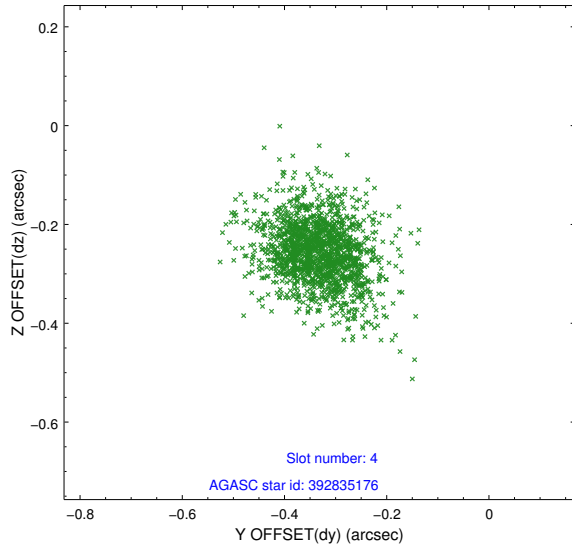
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.16	770	-0.187	-0.158	0.009	0.013	0.000000	0.000000	-769.55	-1739.90
1	FID		ACIS-S-4	7.28	770	0.471	0.133	0.006	0.011	0.000000	0.000000	2143.45	166.79
2	FID		ACIS-S-5	7.27	770	-0.315	0.034	0.007	0.012	0.000000	0.000000	-1819.94	162.65
3	GUIDE	used	392835088	7.79	1540	-0.236	-0.234	0.103	0.175	143.060192	43.738554	1703.55	1177.43
4	GUIDE	used	392835176	7.86	1538	-0.333	-0.256	0.087	0.156	143.257450	43.310623	125.74	1552.94
5	GUIDE	used	392960600	8.86	1540	-0.016	0.210	0.141	0.227	143.785517	43.673302	513.58	-306.52
6	GUIDE	used	392960784	9.37	1539	0.421	0.303	0.169	0.273	144.370707	43.087878	-2081.65	-522.41
7	GUIDE	used	392965888	8.96	1539	0.173	-0.020	0.106	0.180	144.037082	42.966708	-2001.98	455.13

## 2.4 Star Slots

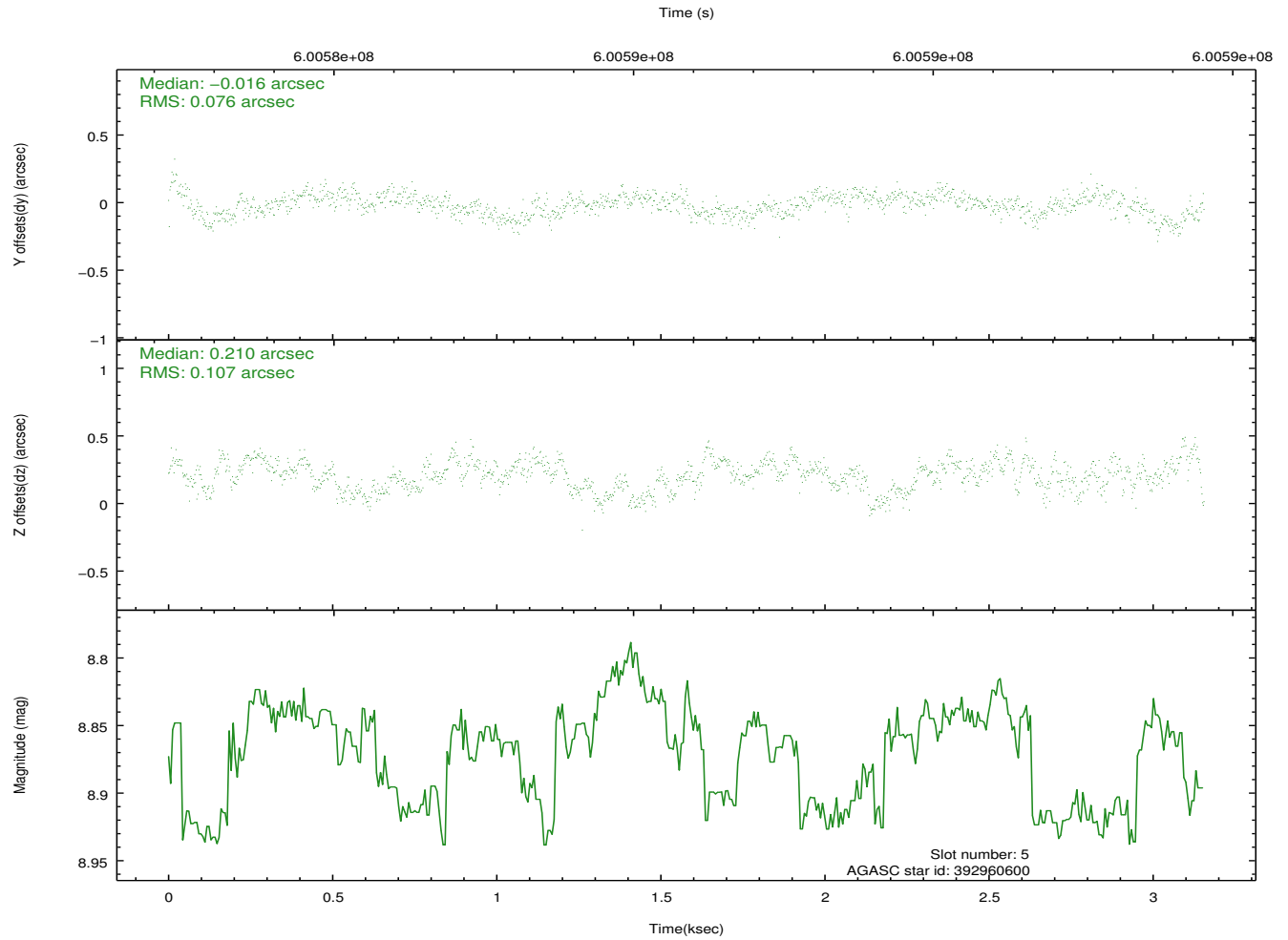
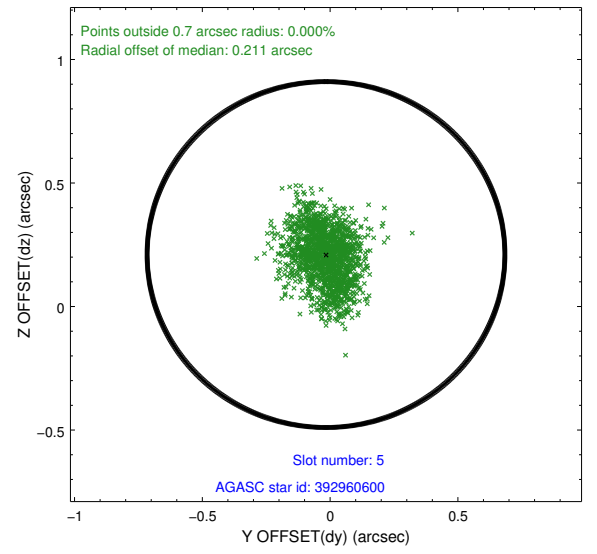
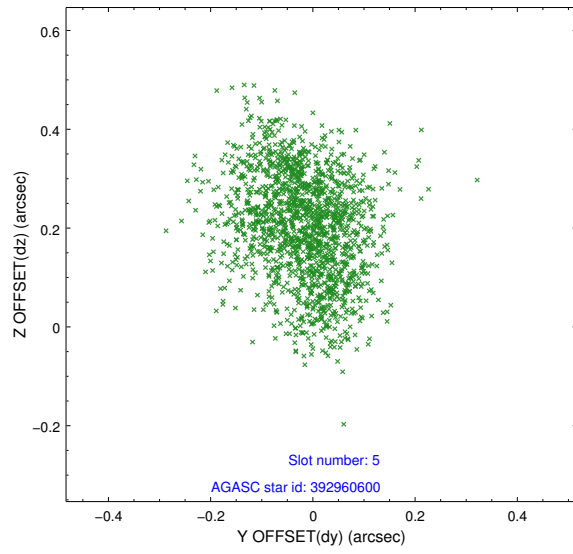
### 2.4.1 Slot 3



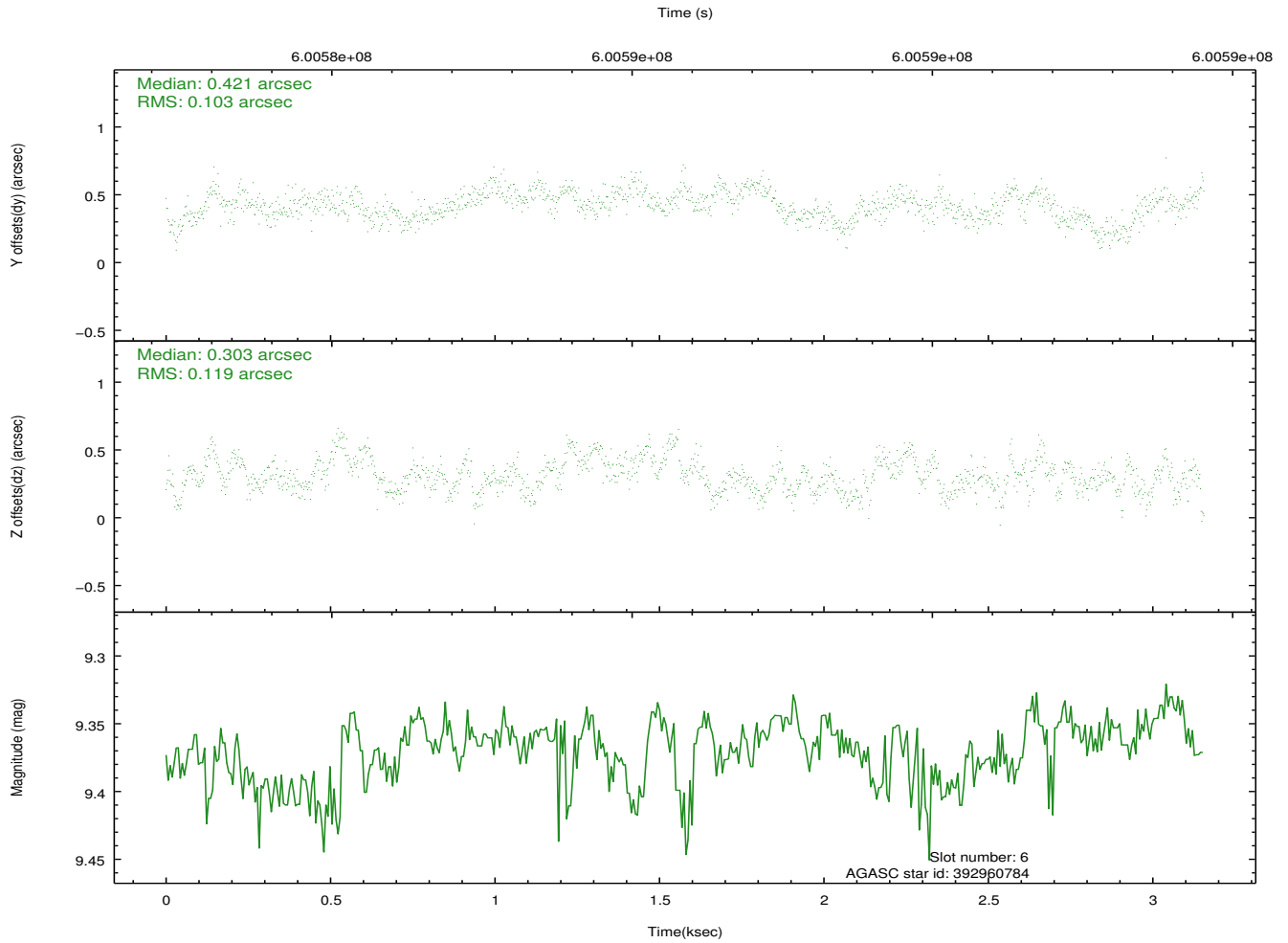
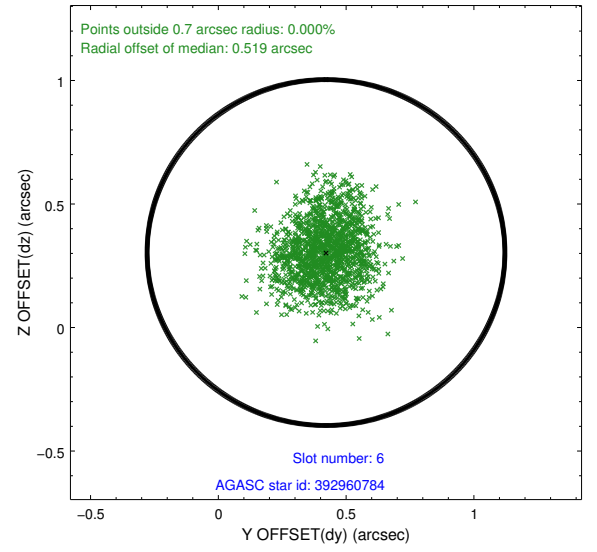
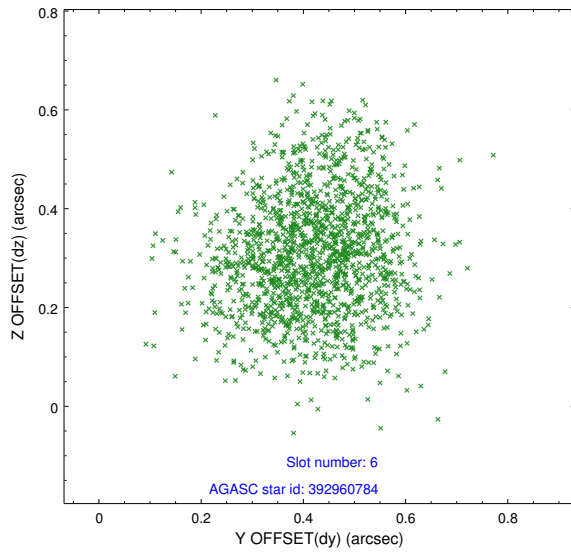
## 2.4.2 Slot 4



### 2.4.3 Slot 5

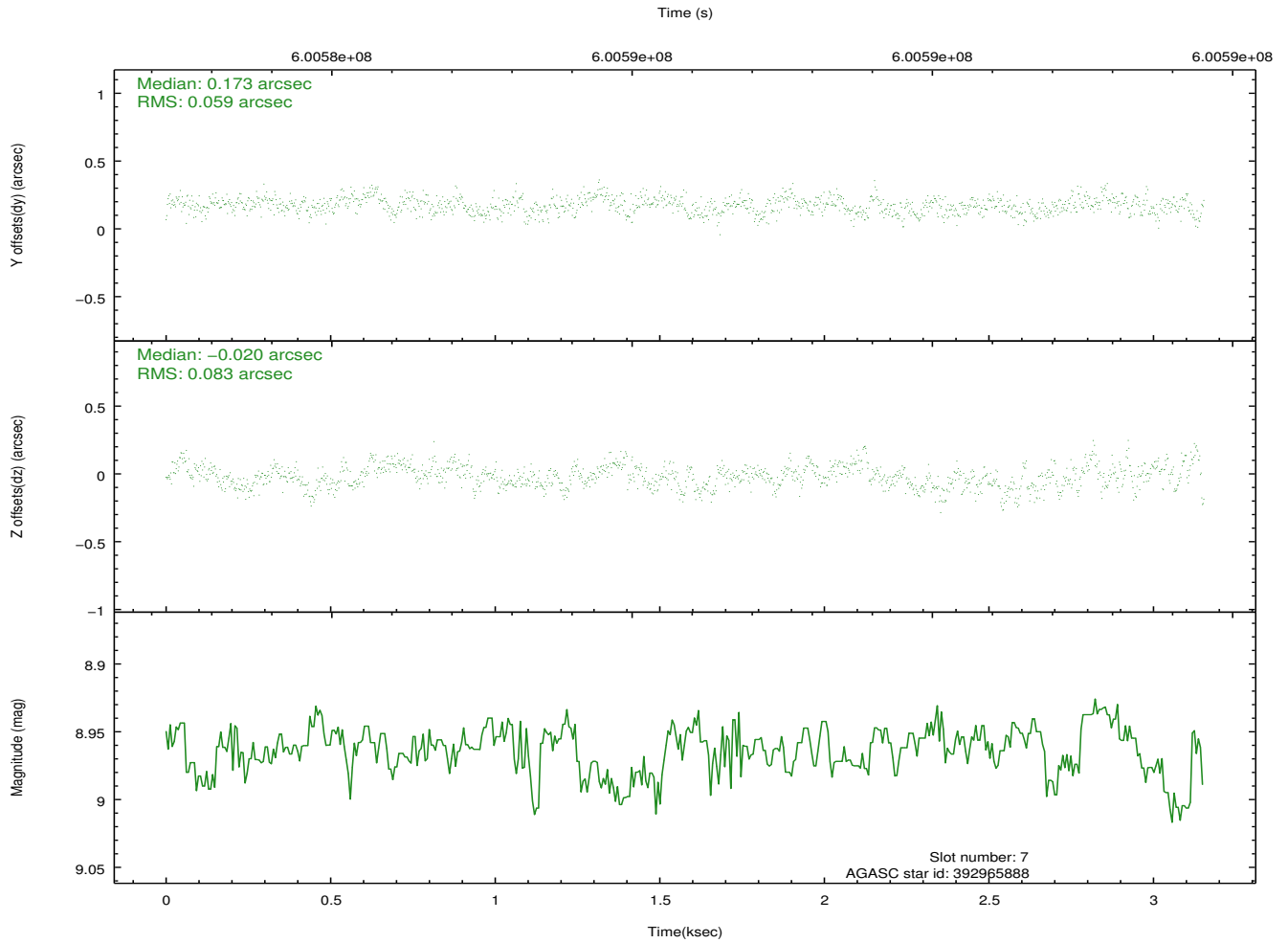
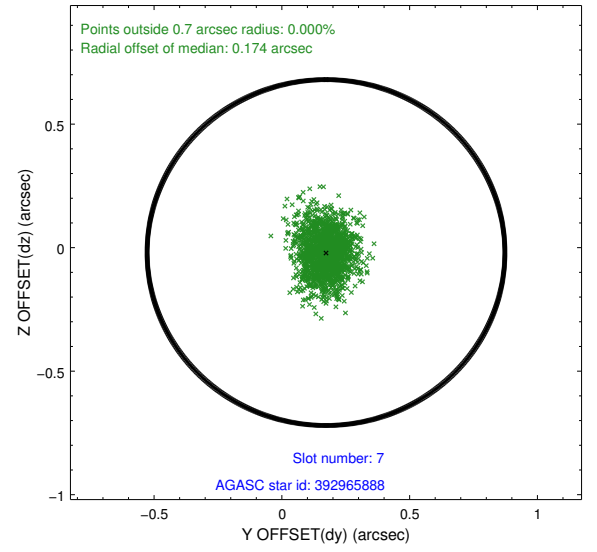
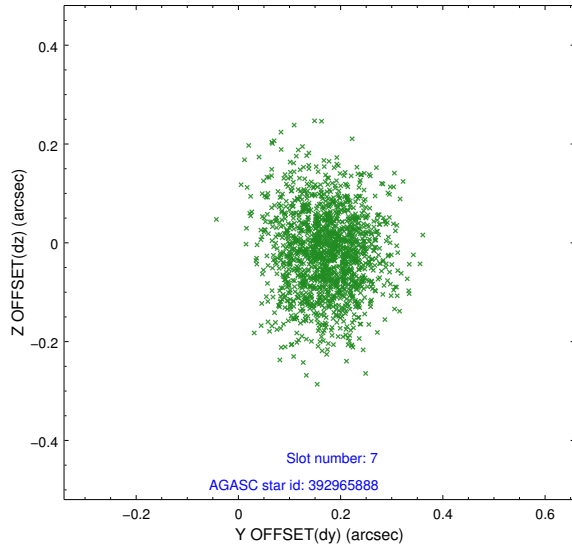


## 2.4.4 Slot 6



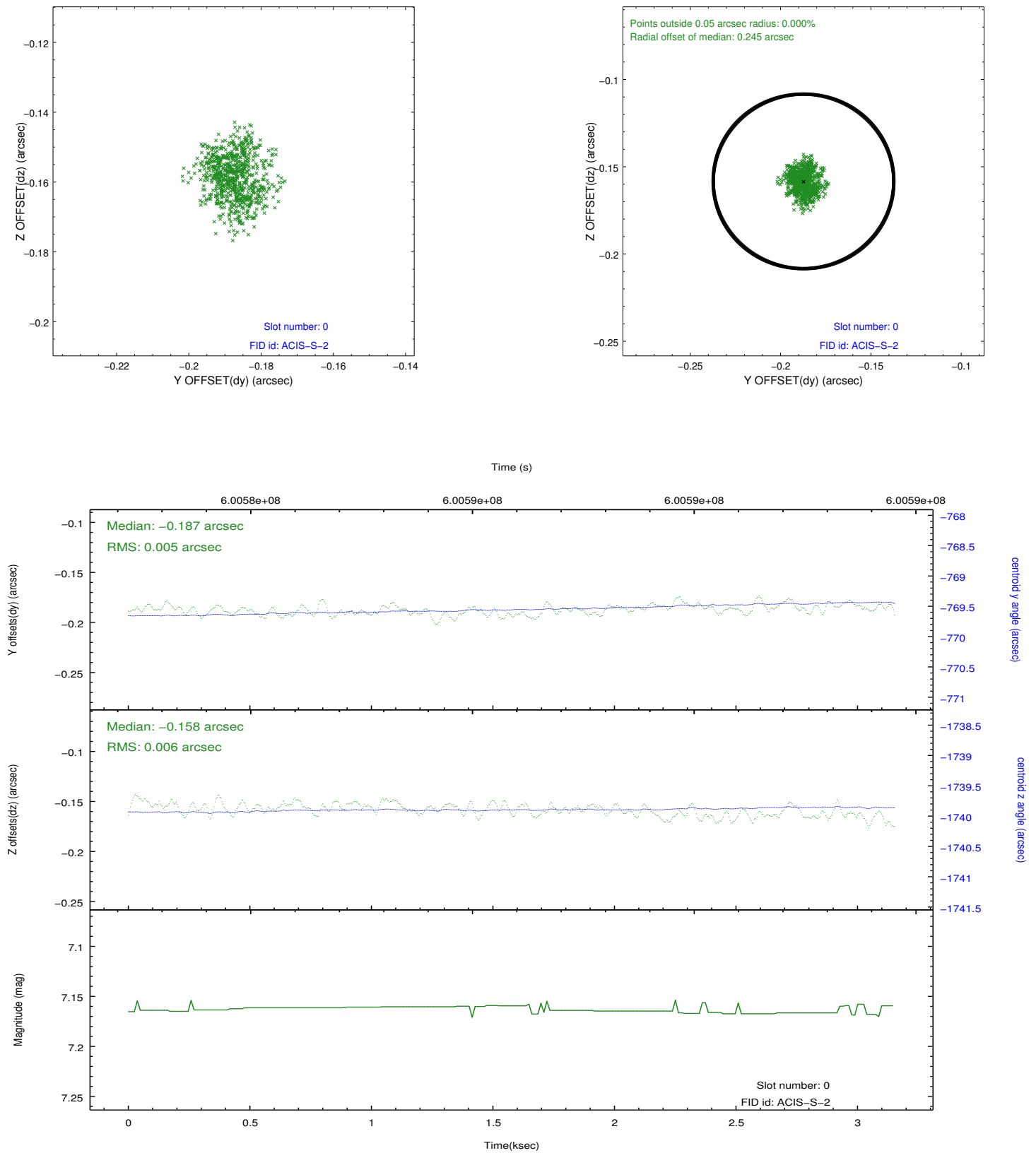


## 2.4.5 Slot 7

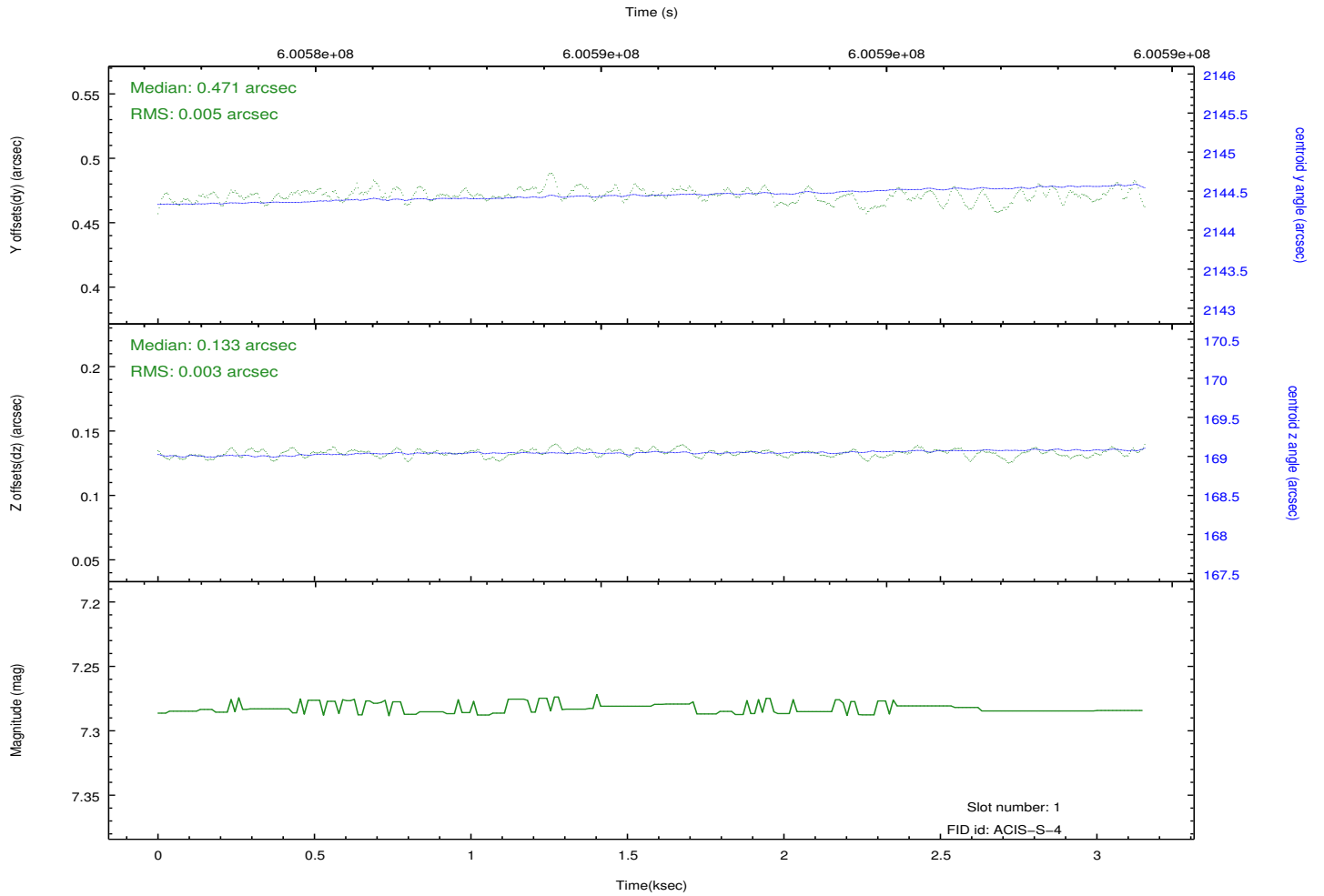
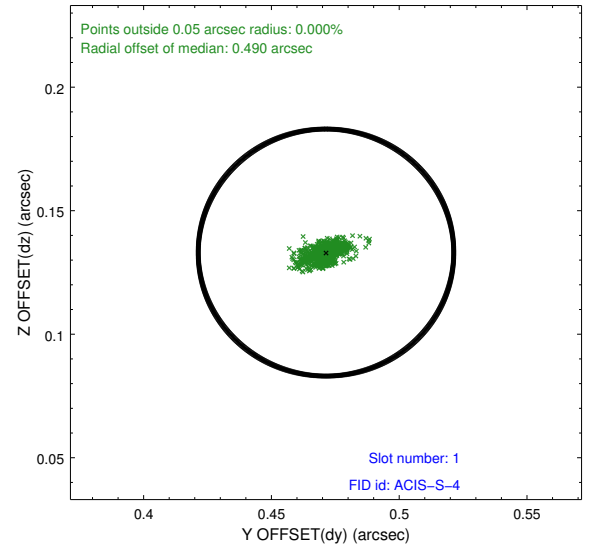
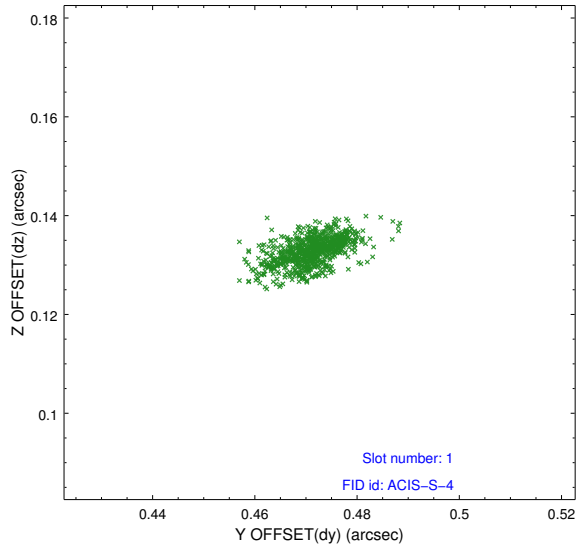


## 2.5 FID Slots

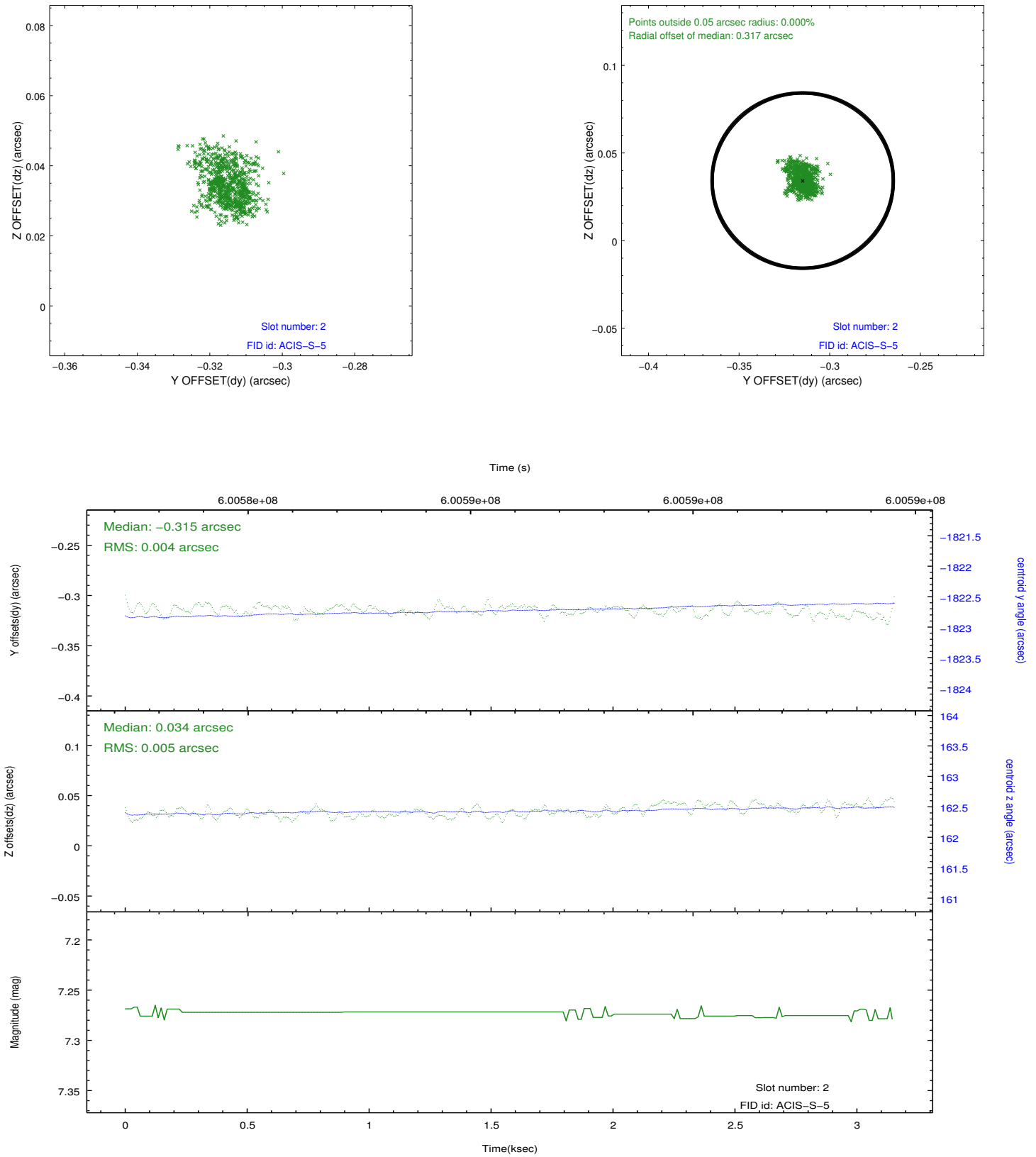
### 2.5.1 Slot 0



## 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)	2017.01.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.0886507761478

### A.2 Comments

One optional chip was dropped.