

# V&V Reference Report

## L2 ASCDS Version : 10.5.4

Observation 19555 - L2 Version 1  
Chandra X-Ray Center

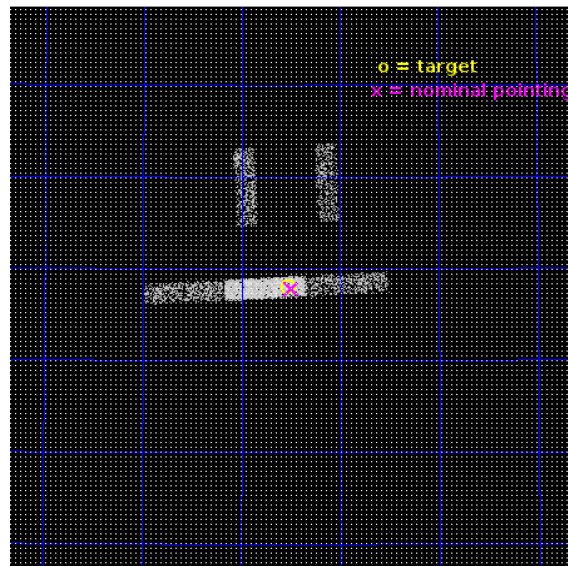
L2 Processing Date : Apr 20 2017

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# 1 Front

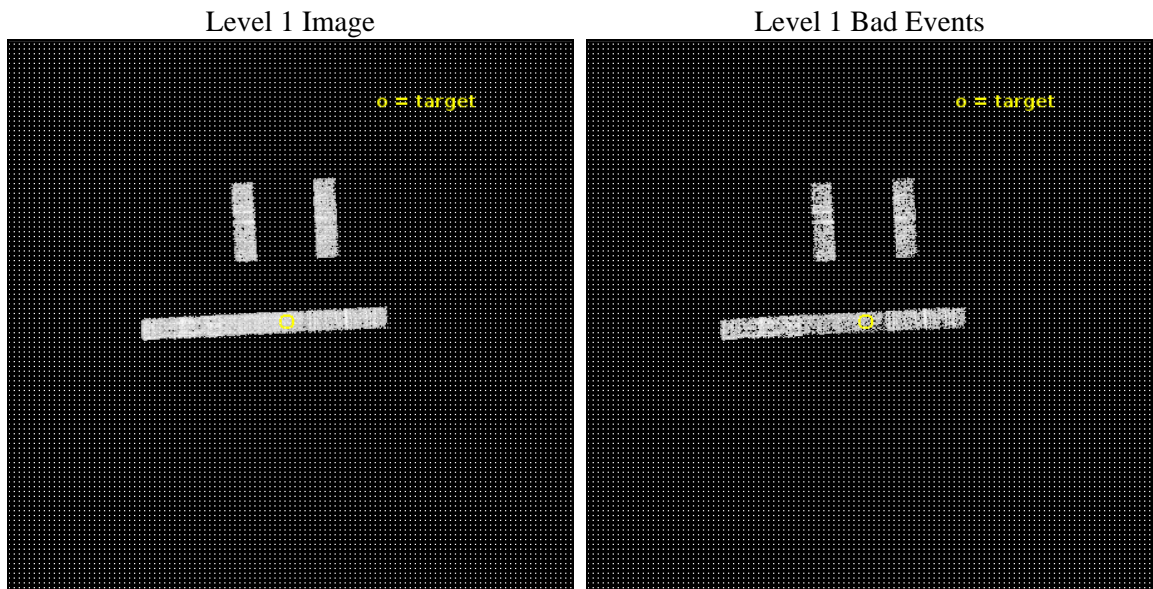
seq_num	703403	Sequence number
obs_id	19555	Observation id
title	Investigating X-ray Bias in Low-L, Low-z Quasars	Proposal title
observer	Gordon Richards	Principal investigator
object	SDSSJ140331.29+462804.8	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	210.880417	Observer's specified target RA [deg]
dec_targ	46.468028	Observer's specified target Dec [deg]
ra_nom	210.87376371773	Nominal RA [deg]
dec_nom	46.463843611606	Nominal Dec [deg]
roll_nom	177.01252884484	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3071.6811236143	Sum of GTIs [s]
livetime	2950.5889529839	Livetime [s]
ontime2	3071.5169636011	Sum of GTIs [s]
ontime3	3071.5990436077	Sum of GTIs [s]
ontime6	3071.6400836706	Sum of GTIs [s]
ontime7	3071.6811236143	Sum of GTIs [s]
ontime8	3071.558003664	Sum of GTIs [s]
l2events	6007	Number of level 2 events



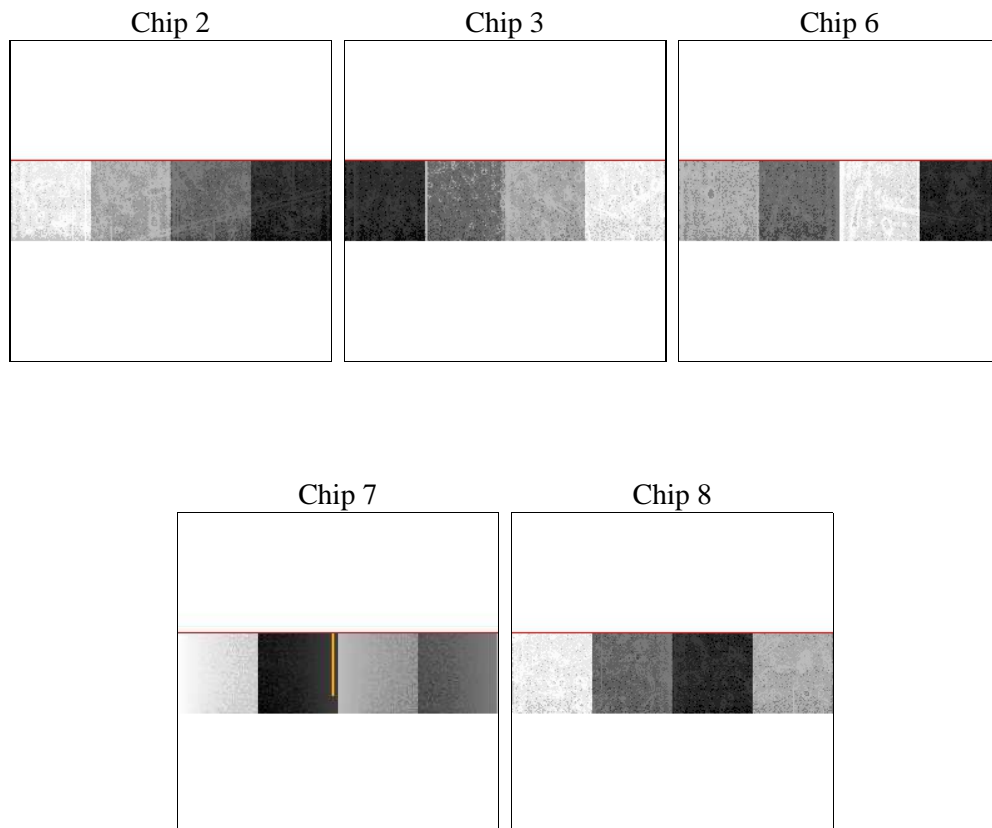
## 2 OBI

### 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	10.5.4	Processing system revision	ontime	3071.6811236143	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime2	3071.5169636011	Sum of GTIs [s]
date	2017-04-20T22:29:51	Date and time of file creation	ontime3	3071.5990436077	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	3071.6400836706	Sum of GTIs [s]
			ontime7	3071.6811236143	Sum of GTIs [s]
			ontime8	3071.558003664	Sum of GTIs [s]
			l1events	35890	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	6076	6155	6782	7796	9081
rejected events	5433	5424	5983	4194	6973
rejected %	89%	88%	88%	53%	76%

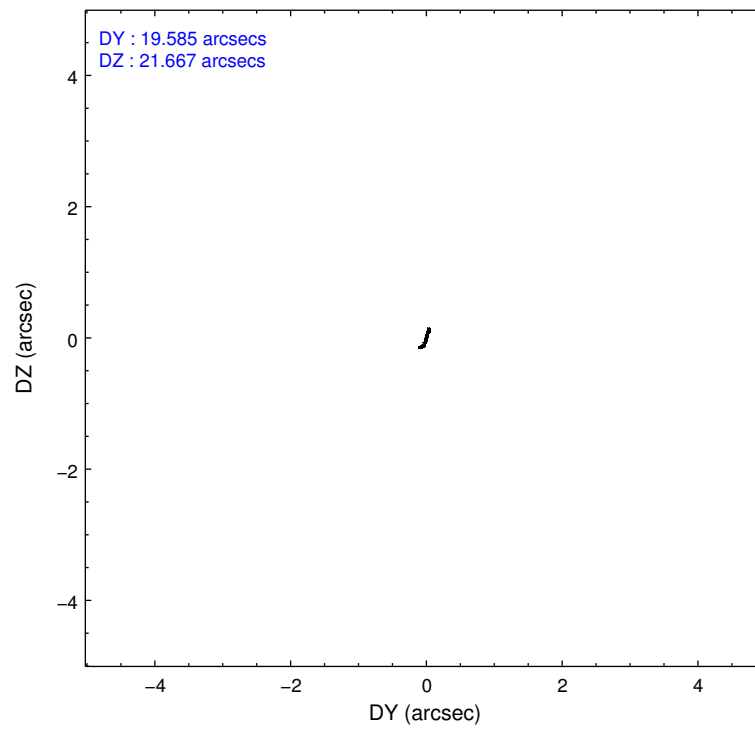
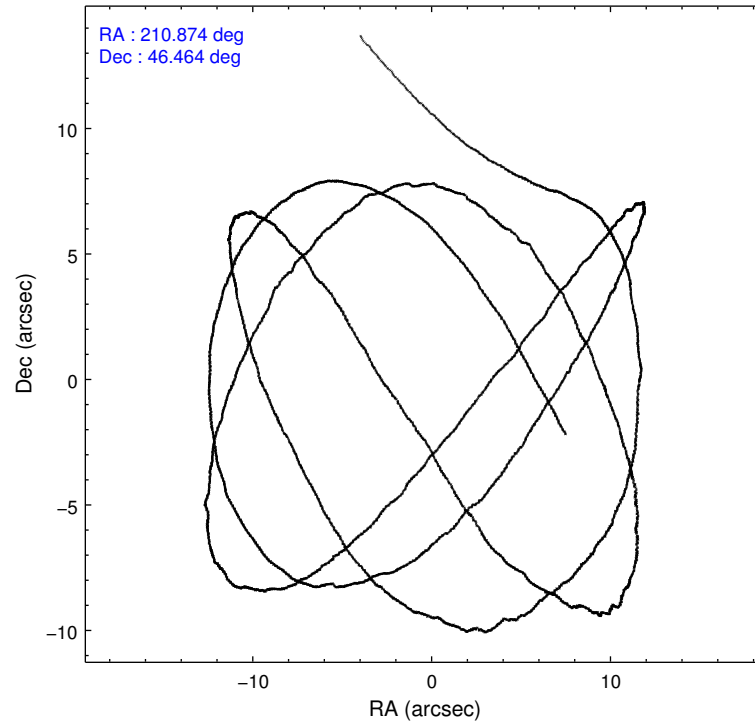
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	199	255	227	361	586
	3%	4%	3%	4%	6%
grade 1 events	5	3	4	15	9
	0%	0%	0%	0%	0%
grade 2 events	135	131	161	756	513
	2%	2%	2%	9%	5%
grade 3 events	92	109	123	384	203
	1%	1%	1%	4%	2%
grade 4 events	94	98	114	397	188
	1%	1%	1%	5%	2%
grade 5 events	188	248	278	782	404
	3%	4%	4%	10%	4%
grade 6 events	124	139	174	1705	619
	2%	2%	2%	21%	6%
grade 7 events	5239	5172	5701	3396	6559
	86%	84%	84%	43%	72%

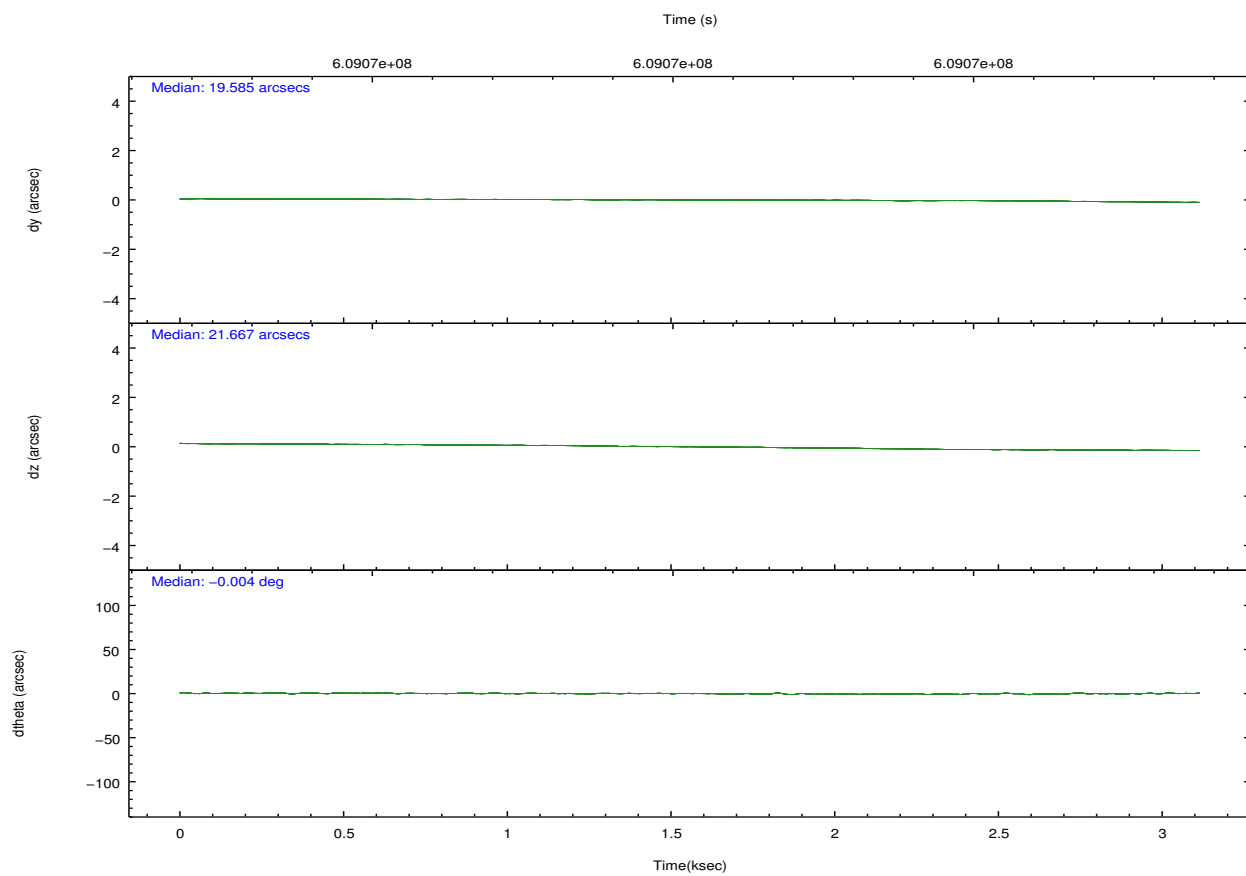
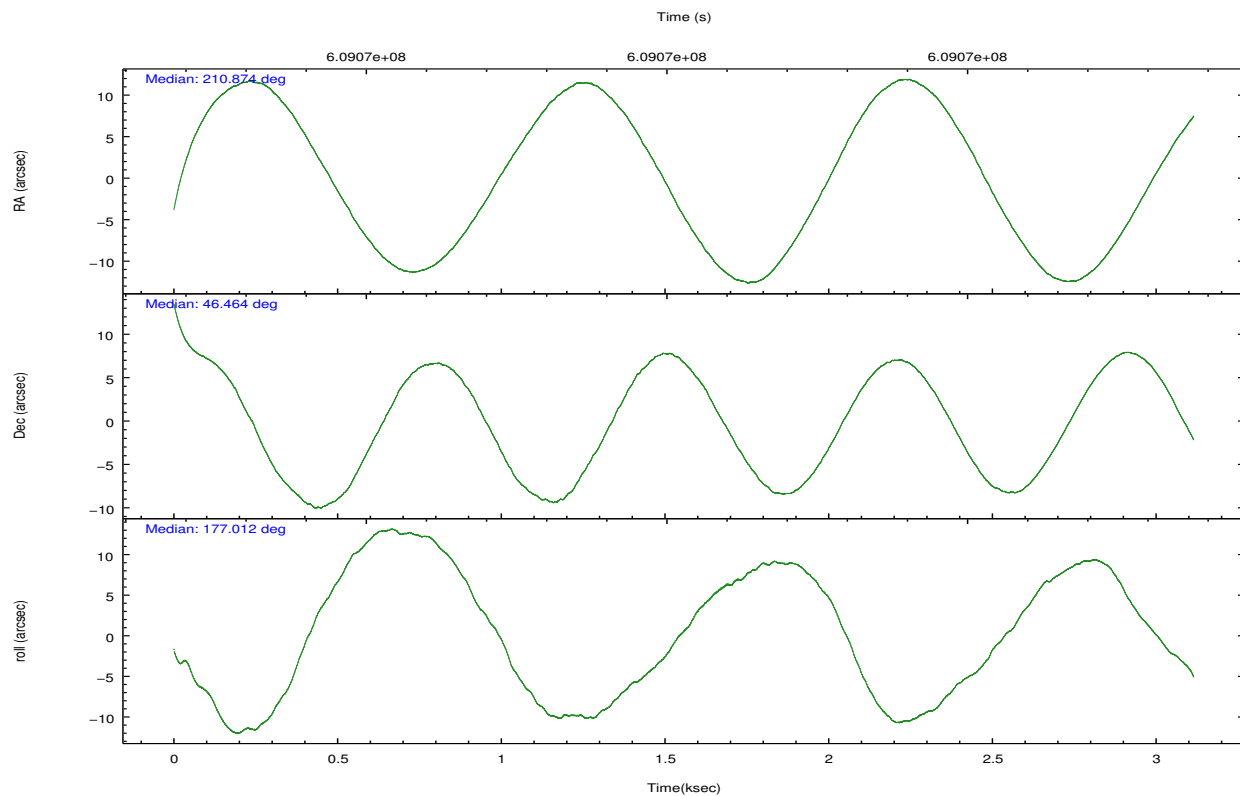


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	210.908996	210.8737637177323	CCD I2 on	O1	Y
[deg] Pointing Dec	46.476483	46.46384361160631	CCD I3 on	Y	Y
[deg] Pointing Roll	176.830330	177.0125288448441	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	609071621.184000	609070174.97399	CCD S5 on	N	N
Observation start date	2017-04-20T10:32:32	2017-04-20T10:09:34	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	609074621.184000	609075208.23678	On-chip summing requested	N	N
Observation end date	2017-04-20T11:22:32	2017-04-20T11:33:28	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1

## 2.3 Aspect



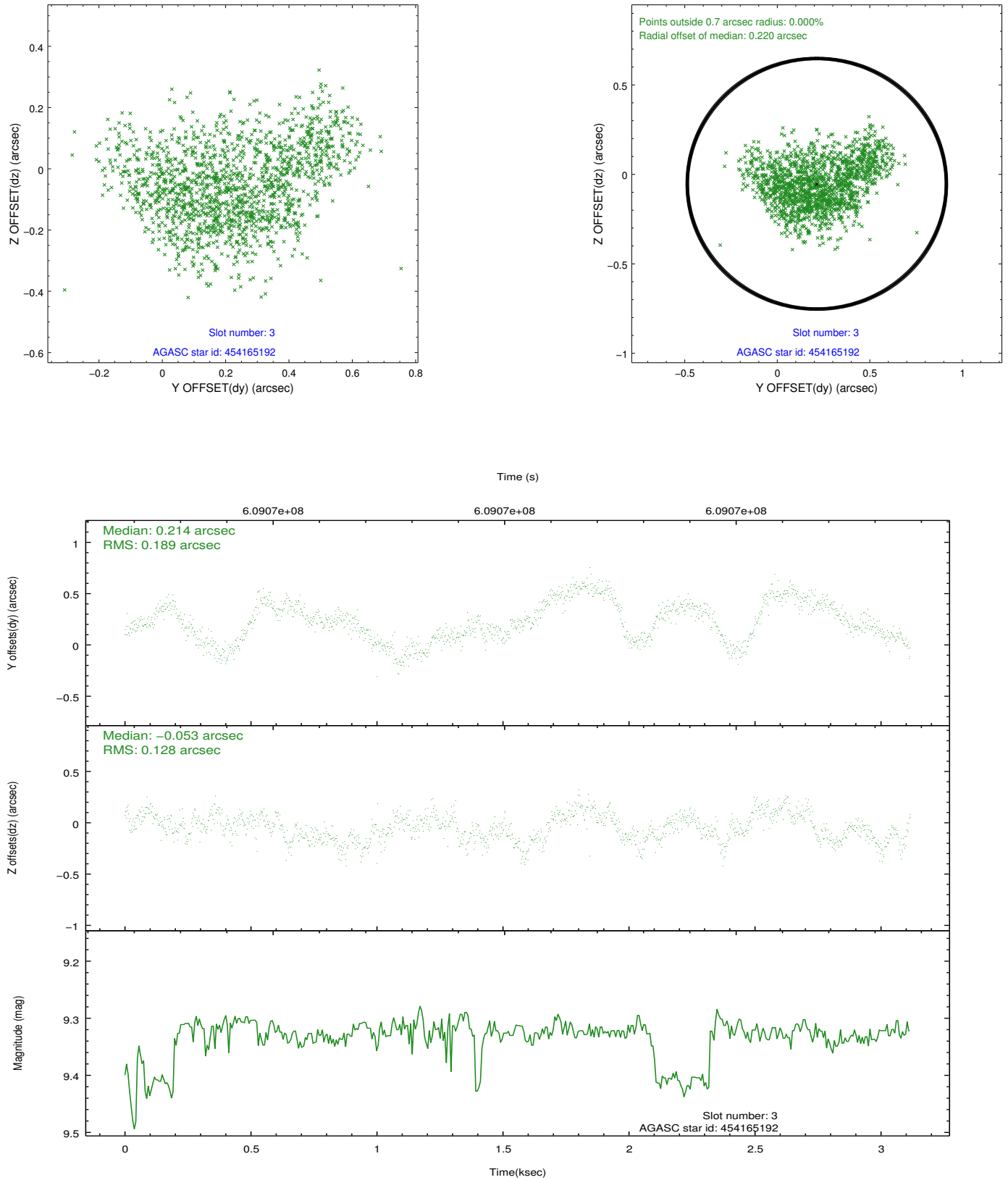


### Slot Statistics

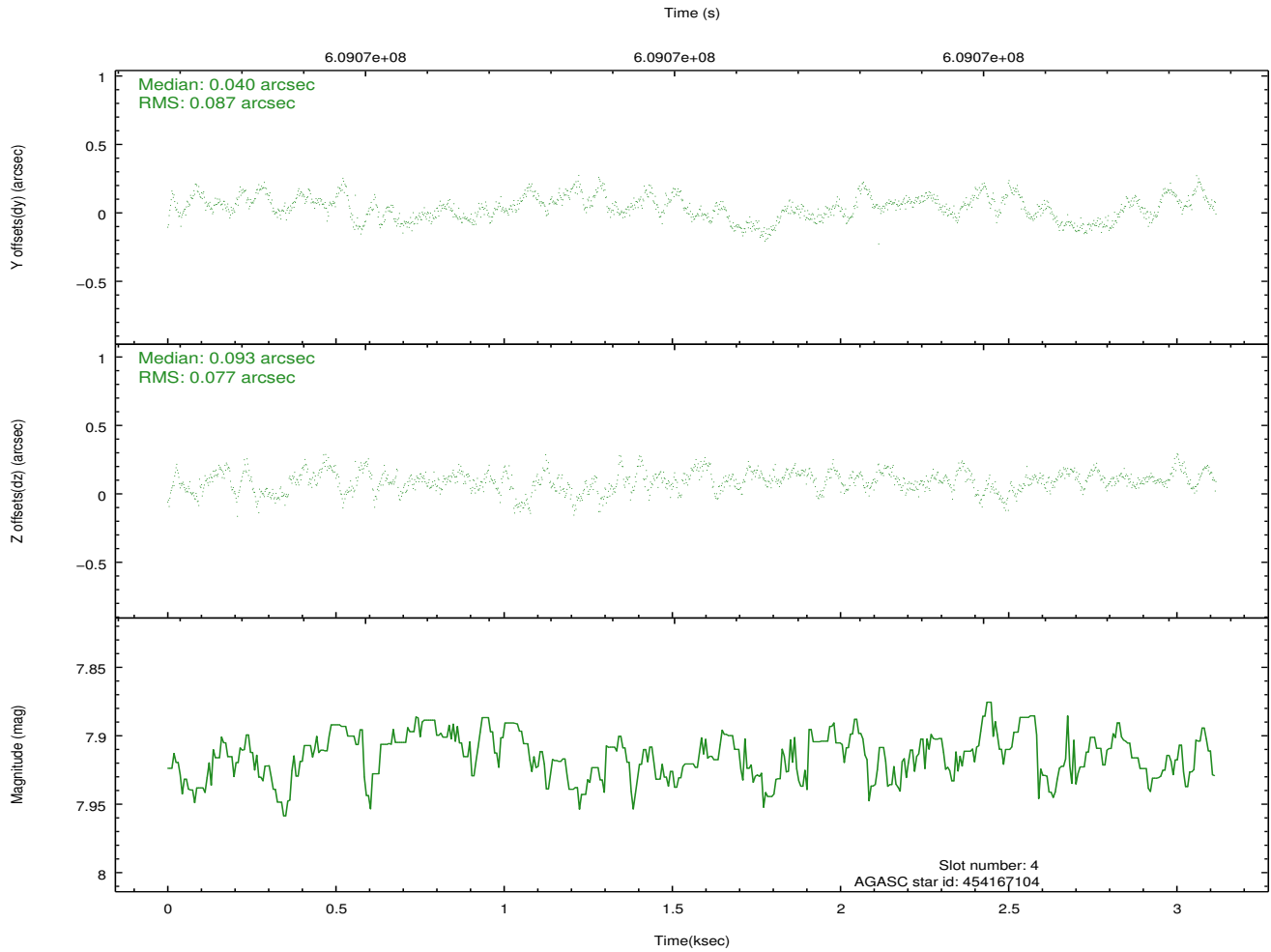
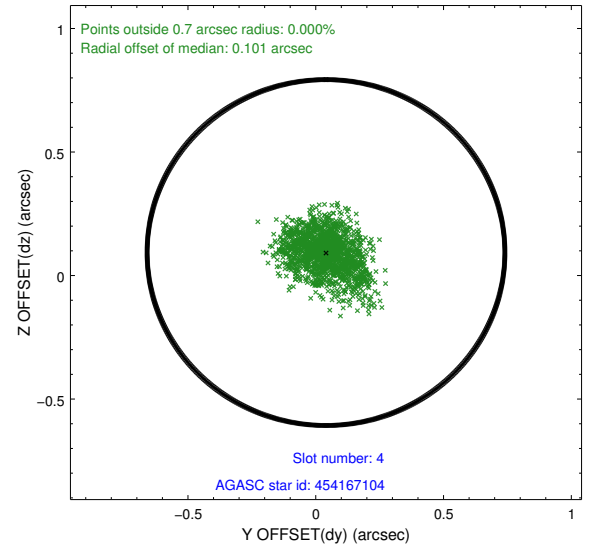
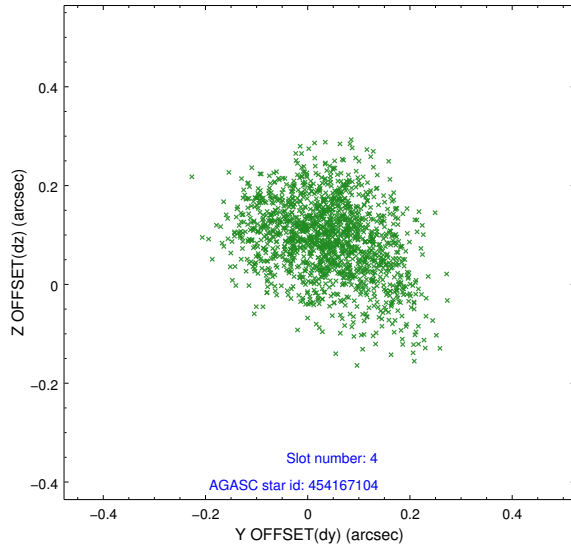
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.98	760	-0.239	-0.127	0.007	0.011	0.000000	0.000000	-772.91	-1743.34
1	FID		ACIS-S-4	7.09	760	0.509	0.149	0.006	0.011	0.000000	0.000000	2140.17	163.28
2	FID		ACIS-S-5	7.09	760	-0.301	-0.013	0.007	0.012	0.000000	0.000000	-1823.20	159.12
3	GUIDE	used	454165192	9.33	1516	0.214	-0.053	0.249	0.389	211.022958	46.554319	-265.43	-294.67
4	GUIDE	used	454167104	7.91	1521	0.040	0.093	0.126	0.195	211.315741	46.591707	-980.67	-471.99
5	GUIDE	used	454170408	7.81	1521	-0.181	-0.264	0.131	0.199	211.101728	46.296799	-514.82	618.95
6	GUIDE	used	454171568	8.53	1520	0.096	0.443	0.137	0.218	211.798338	46.836253	-2113.07	-1425.47
7	GUIDE	used	454172440	8.98	1518	-0.175	-0.201	0.159	0.257	211.253479	45.948301	-967.40	1848.67

## 2.4 Star Slots

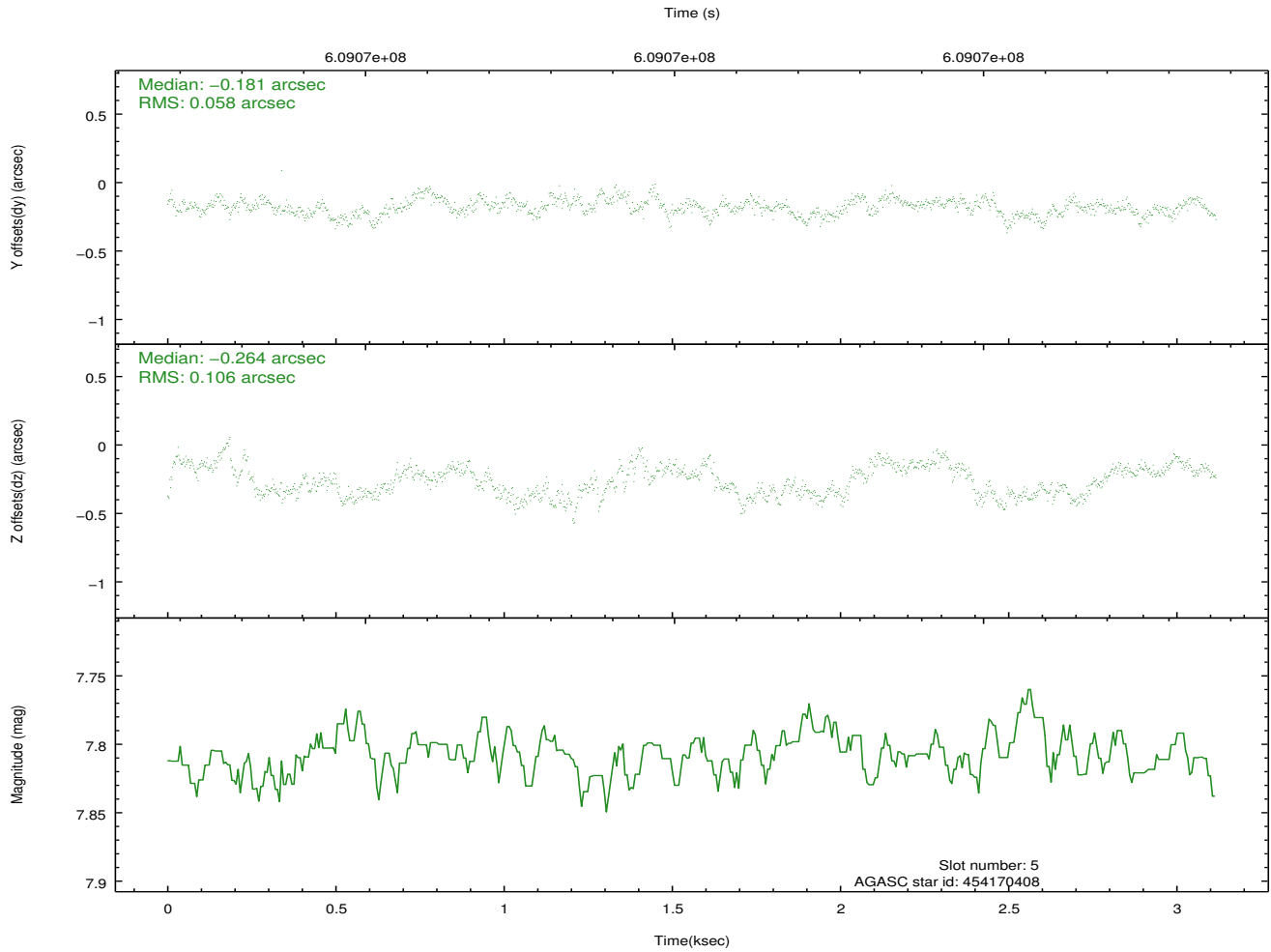
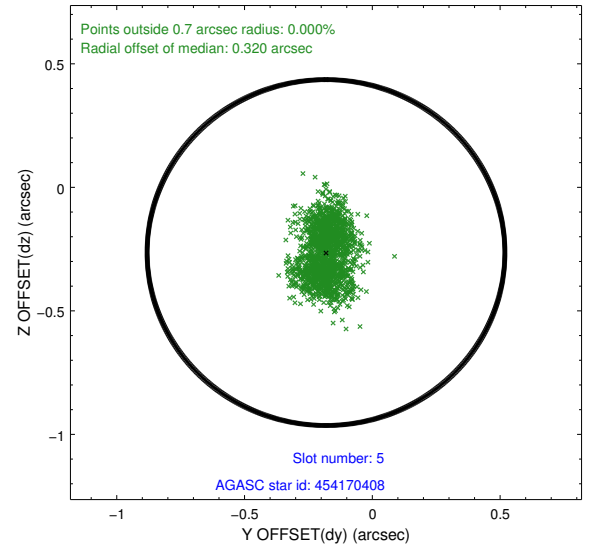
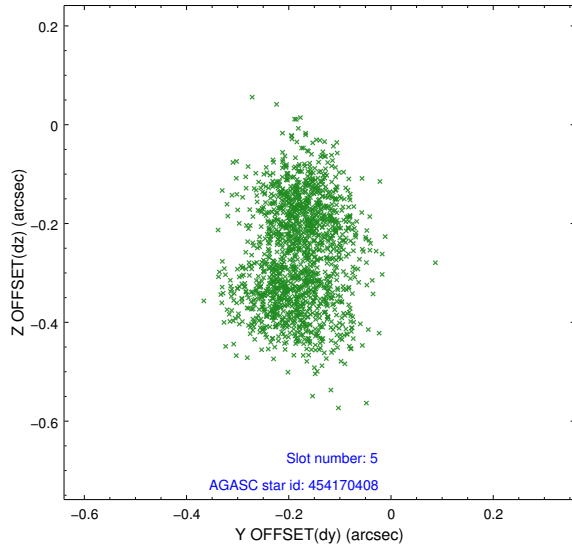
### 2.4.1 Slot 3



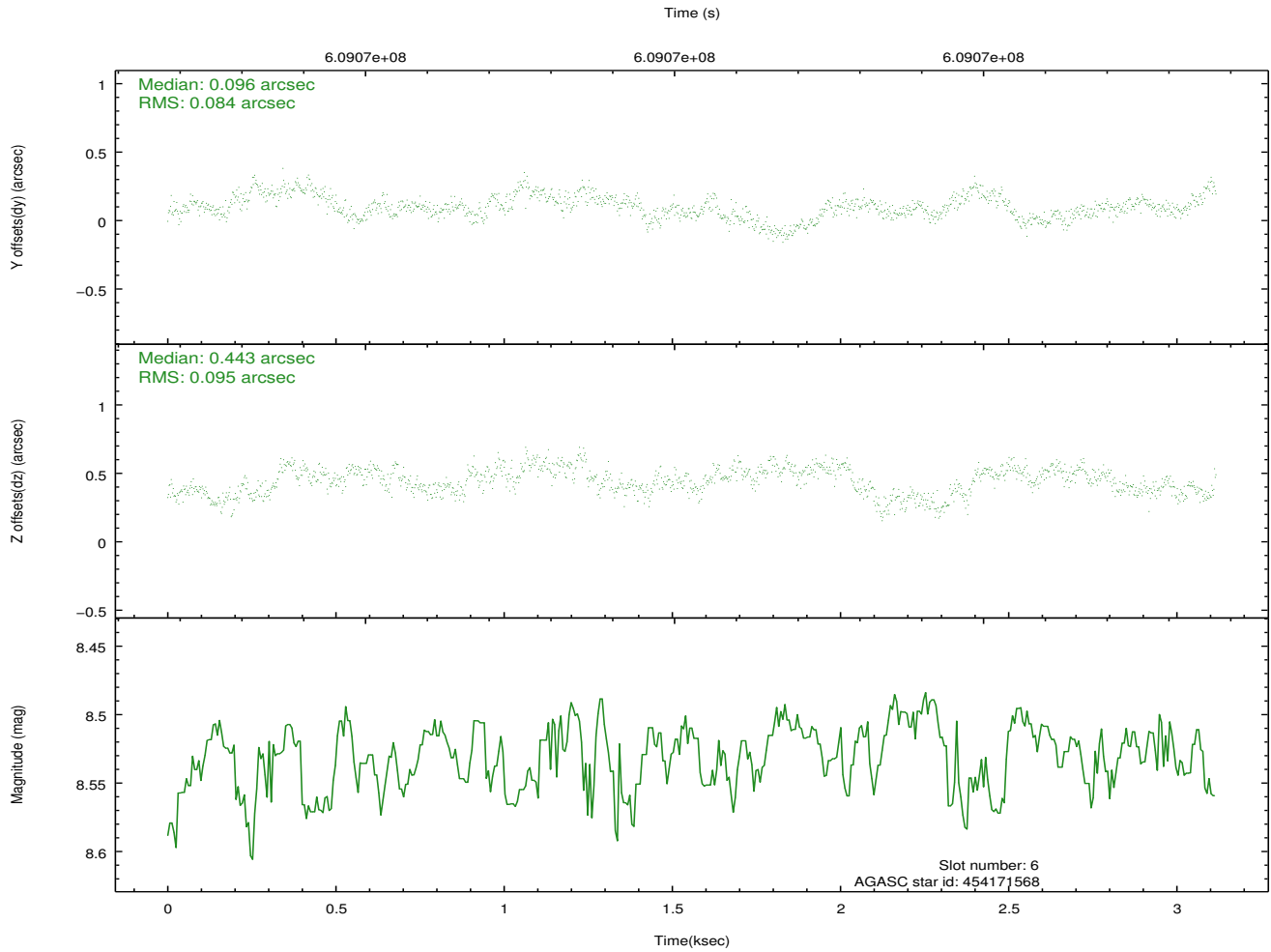
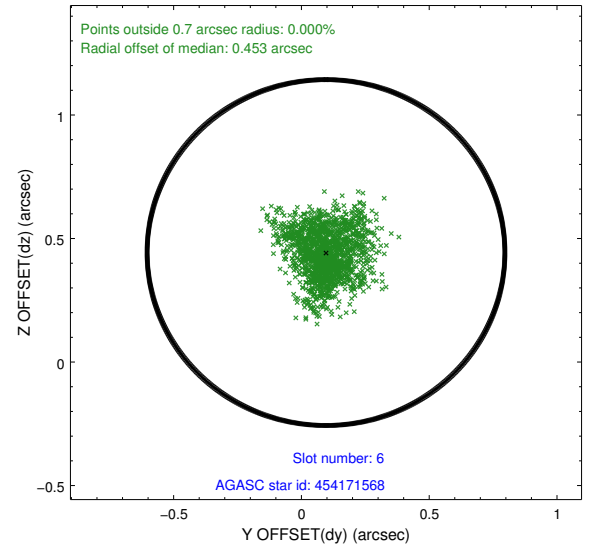
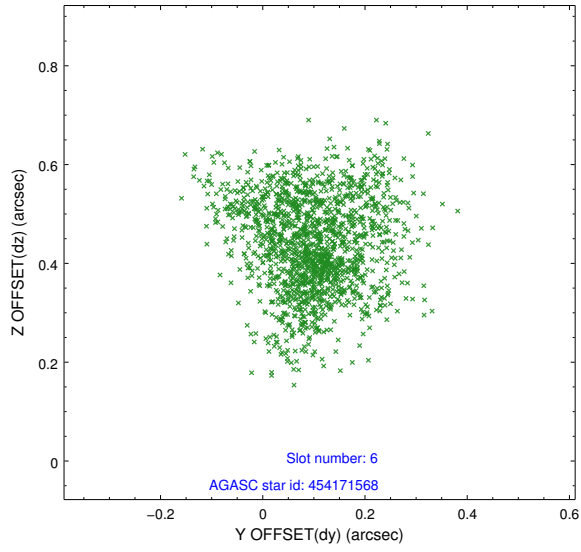
## 2.4.2 Slot 4



### 2.4.3 Slot 5

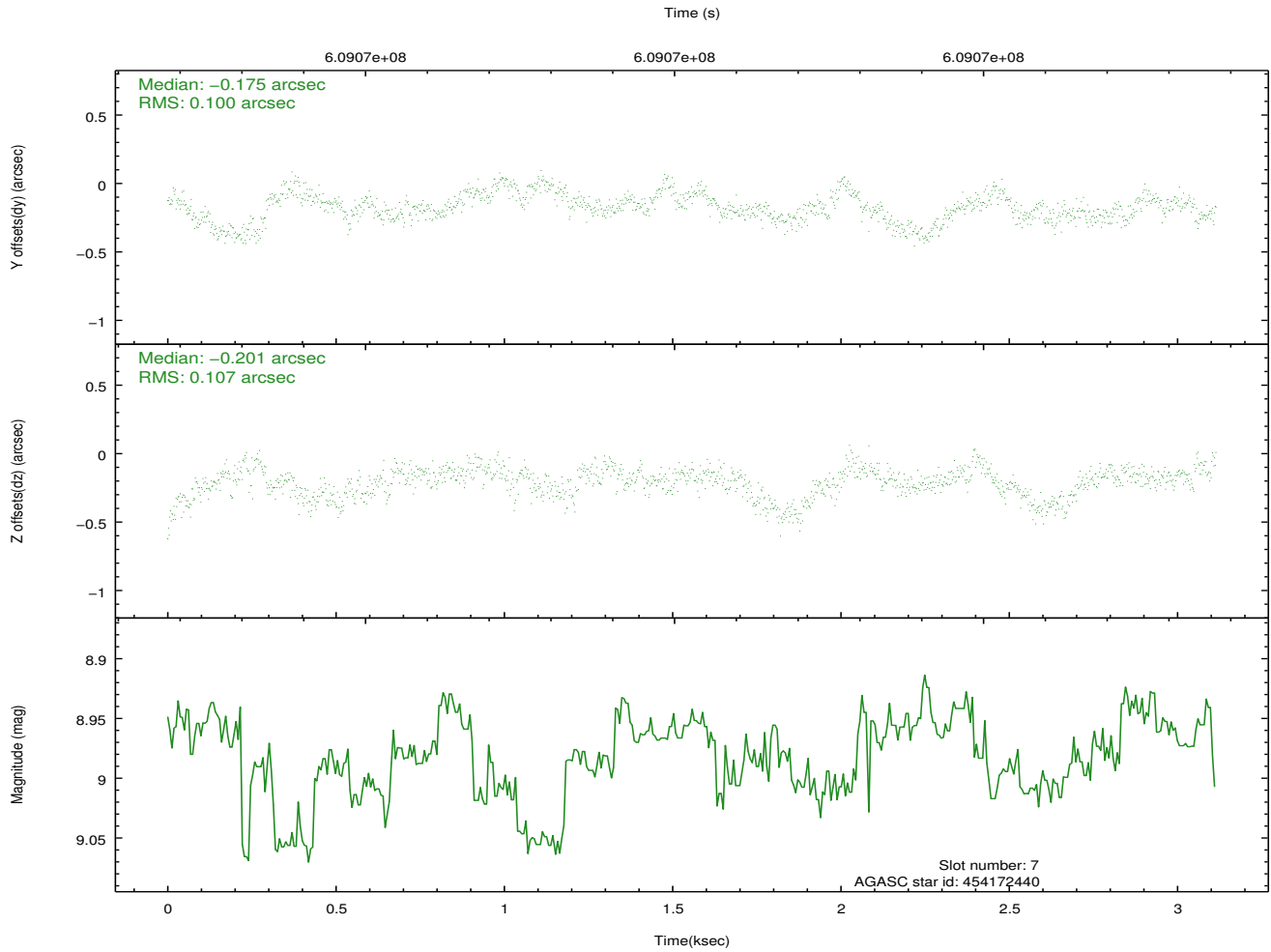
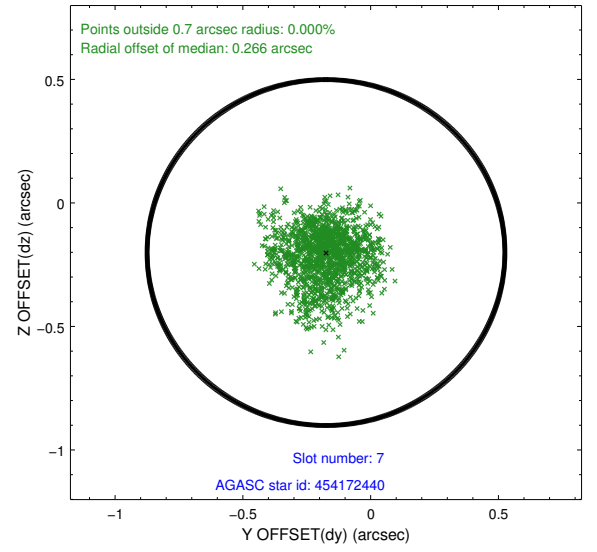
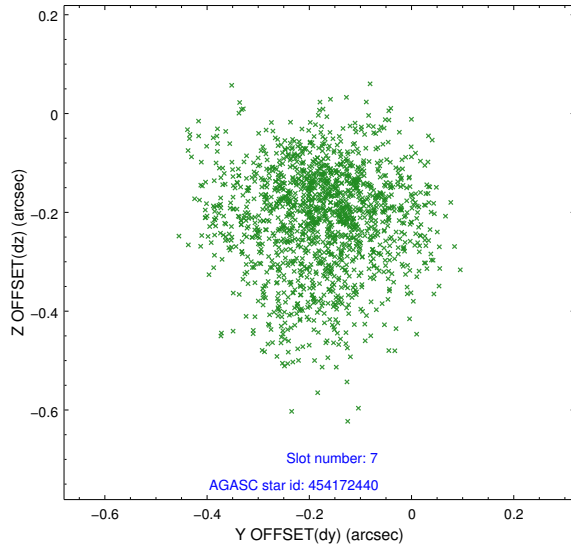


## 2.4.4 Slot 6



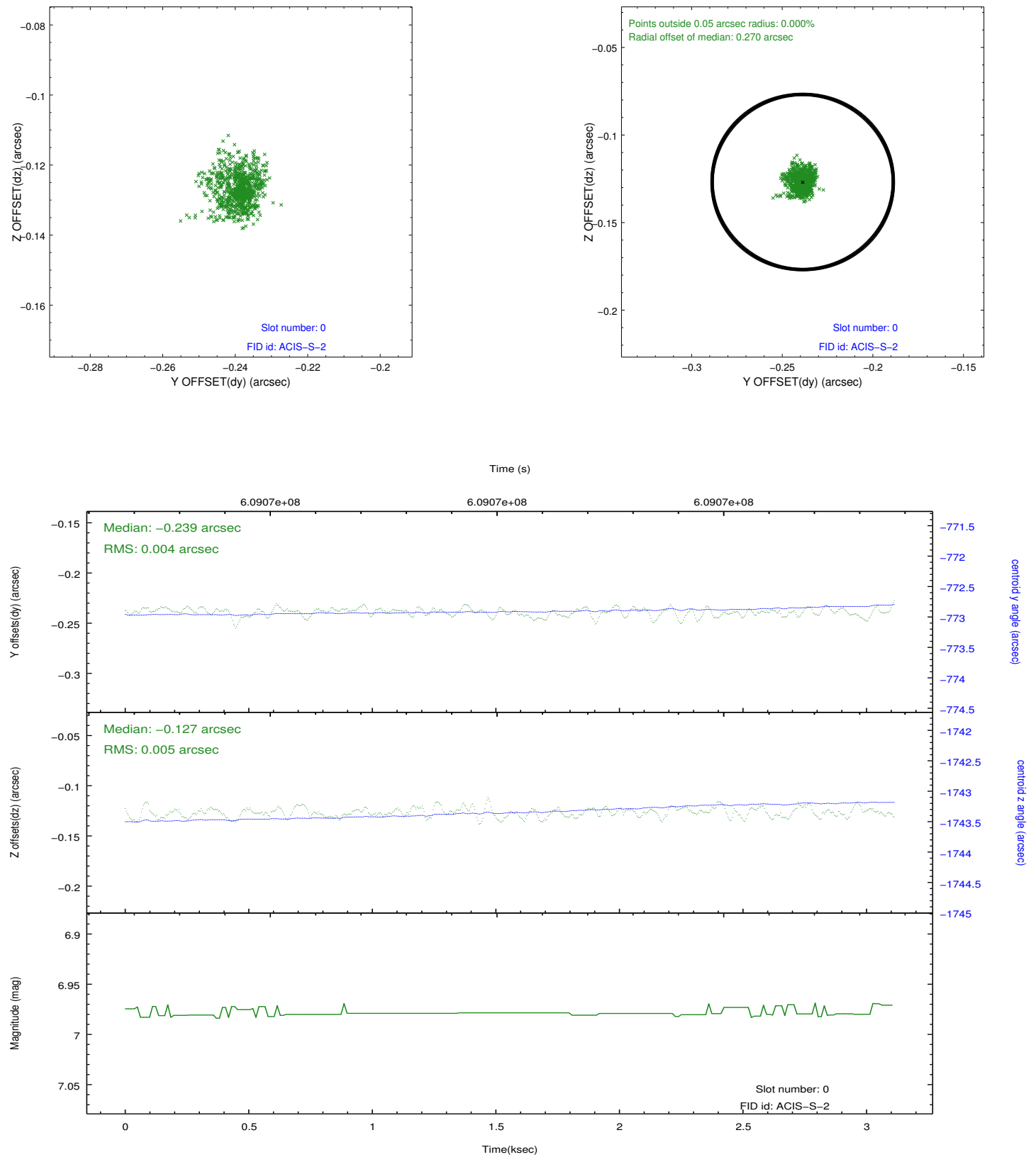


## 2.4.5 Slot 7

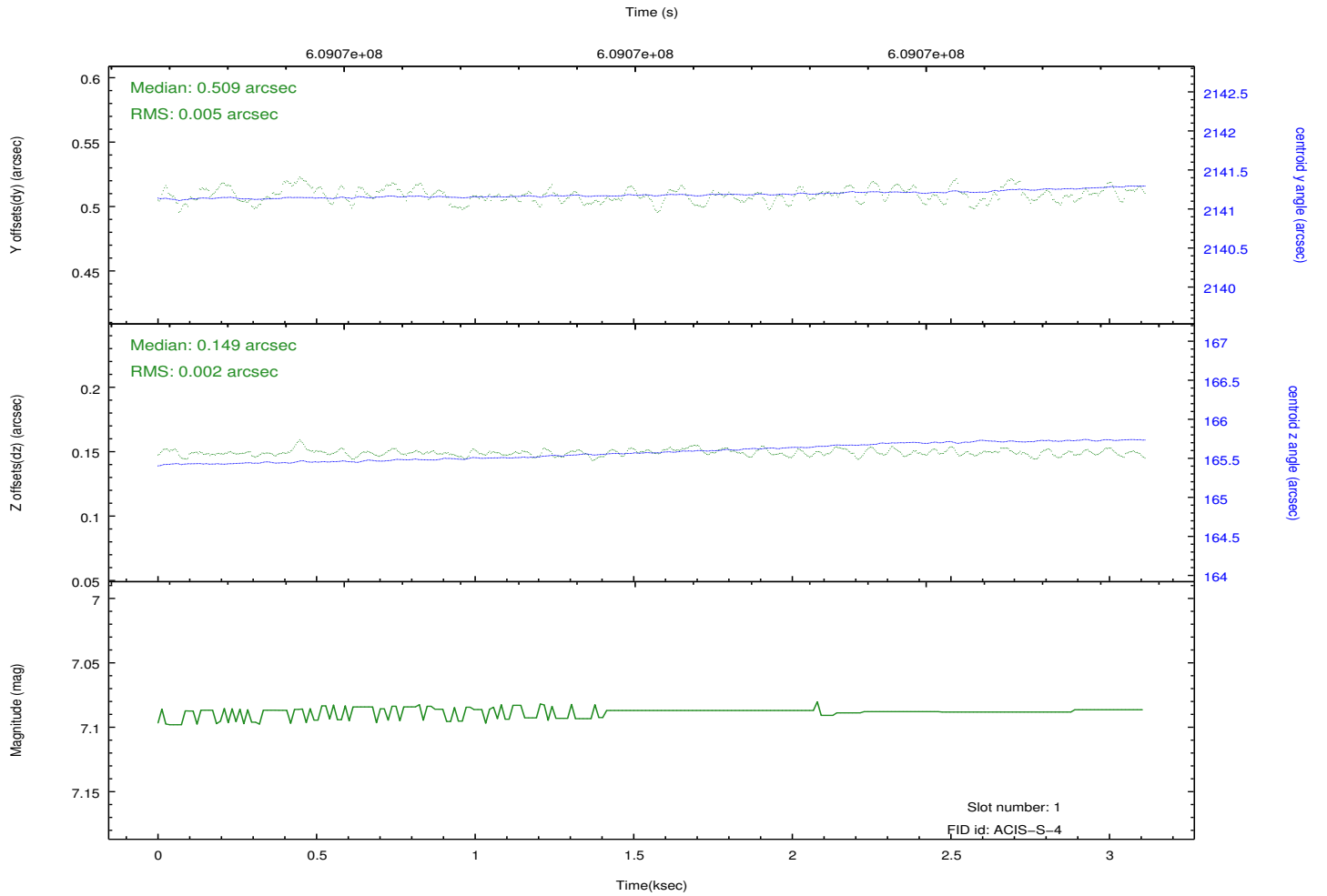
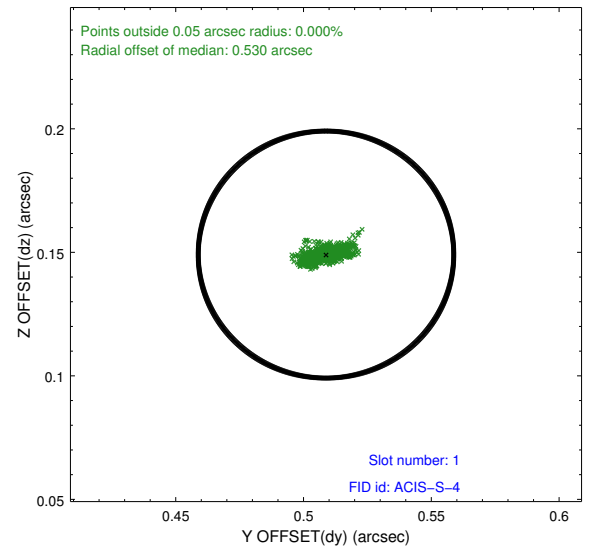
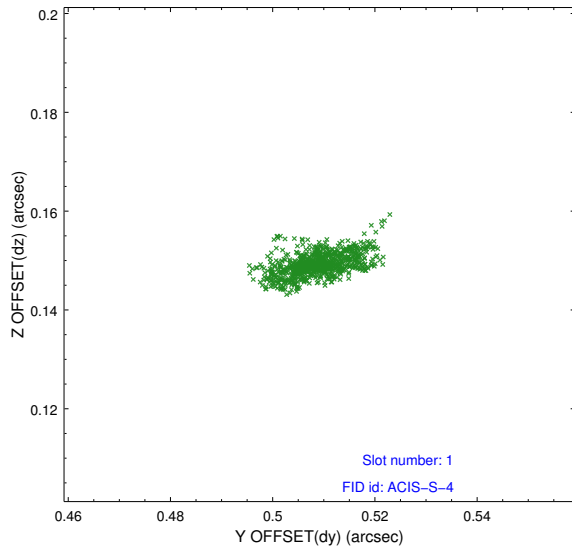


## 2.5 FID Slots

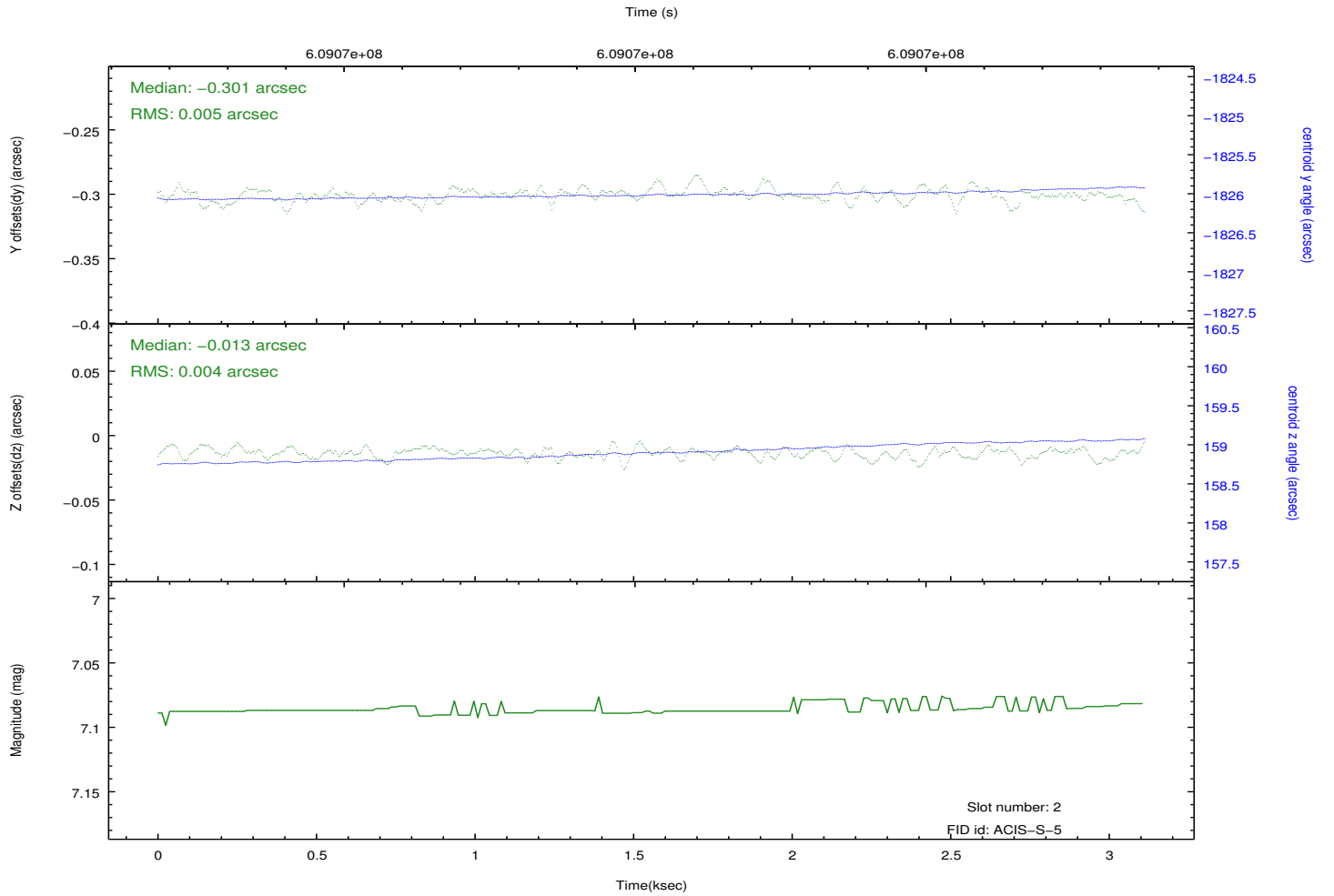
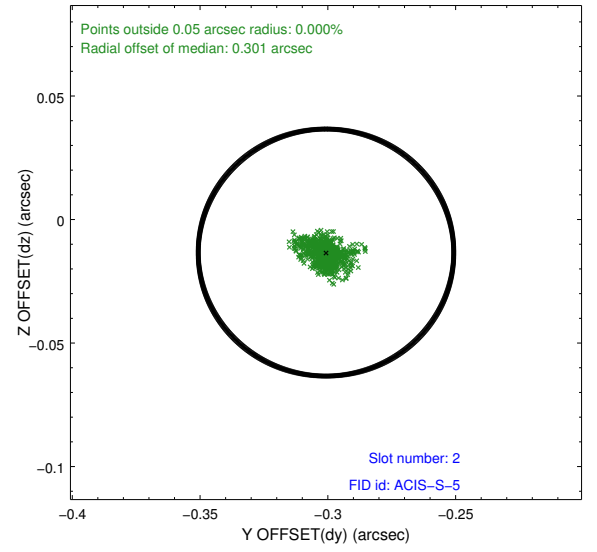
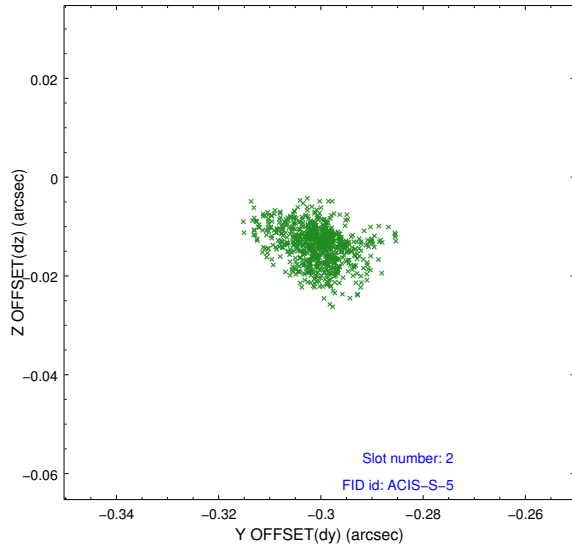
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.04.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.0716811236143

### A.2 Comments