

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19553 - L2 Version 1  
Chandra X-Ray Center

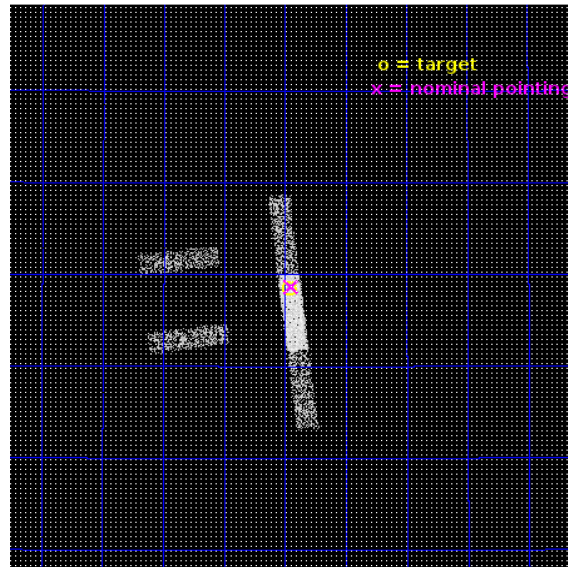
L2 Processing Date : Jan 30 2017

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# 1 Front

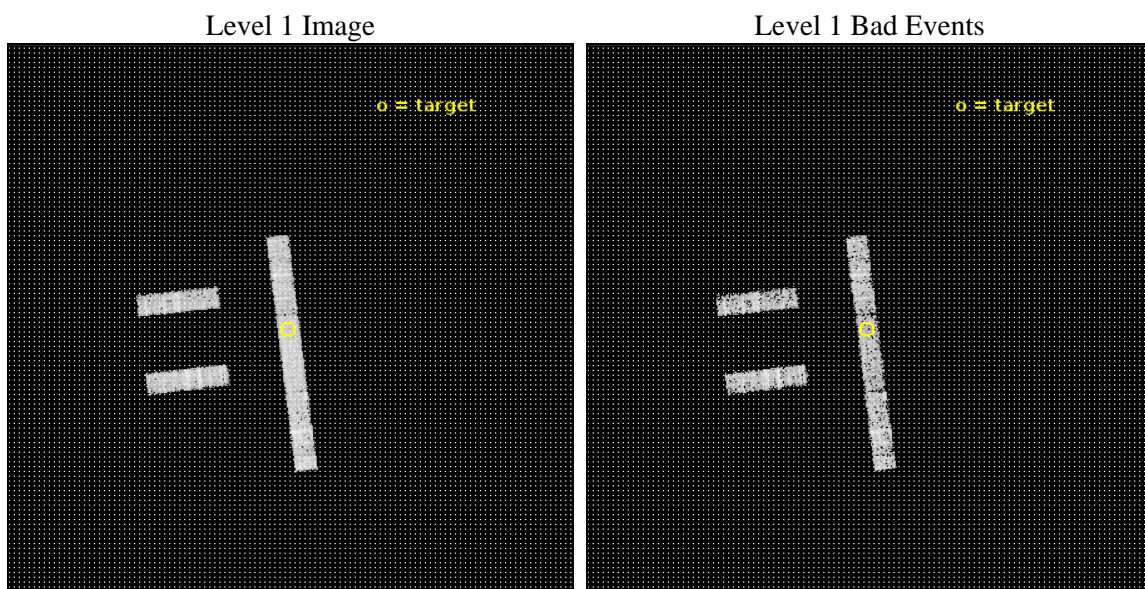
seq_num	703401	Sequence number
obs_id	19553	Observation id
title	Investigating X-ray Bias in Low-L, Low-z Quasars	Proposal title
observer	Gordon Richards	Principal investigator
object	SDSSJ131627.84+315825.7	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	199.11625	Observer's specified target RA [deg]
dec_targ	31.973833	Observer's specified target Dec [deg]
ra_nom	199.11198958079	Nominal RA [deg]
dec_nom	31.977797210357	Nominal Dec [deg]
roll_nom	83.200572038153	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3569.7241711617	Sum of GTIs [s]
livetime	3428.9980895659	Livetime [s]
ontime2	3569.5600111485	Sum of GTIs [s]
ontime3	3569.6420911551	Sum of GTIs [s]
ontime6	3569.683131218	Sum of GTIs [s]
ontime7	3569.7241711617	Sum of GTIs [s]
ontime8	3569.6010512114	Sum of GTIs [s]
l2events	6543	Number of level 2 events



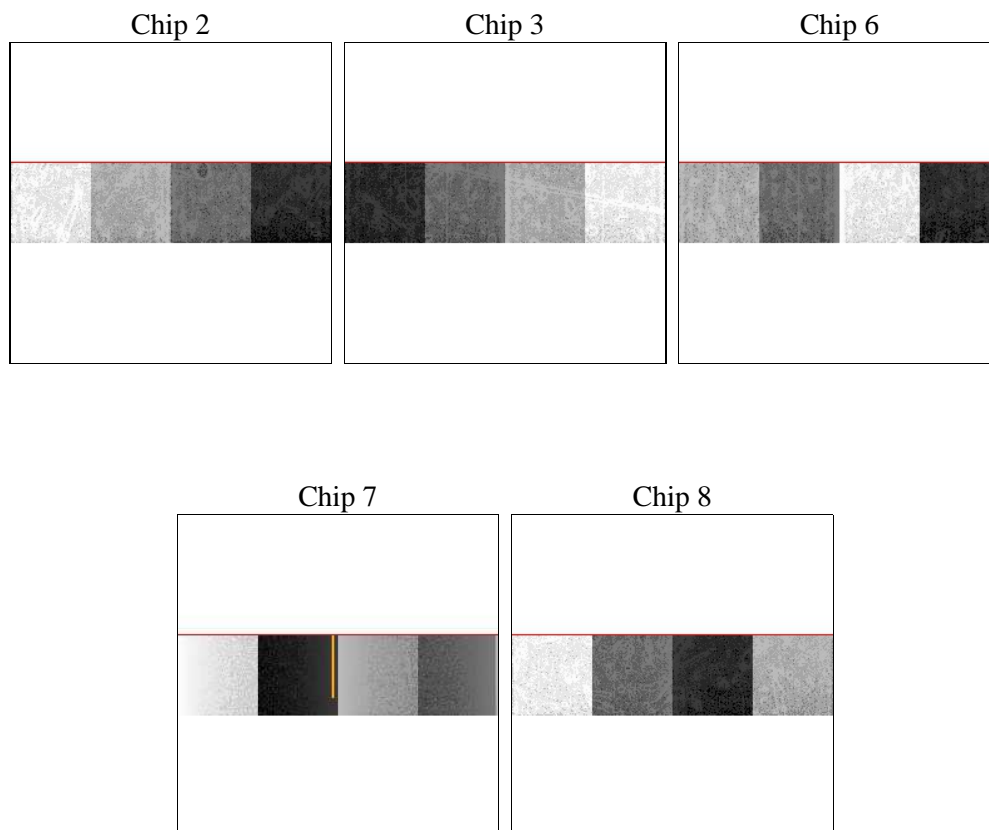
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3500.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	3569.7241711617	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime2	3569.5600111485	Sum of GTIs [s]
date	2017-01-31T00:04:39	Date and time of file creation	ontime3	3569.6420911551	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	3569.683131218	Sum of GTIs [s]
			ontime7	3569.7241711617	Sum of GTIs [s]
			ontime8	3569.6010512114	Sum of GTIs [s]
			l1events	41910	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	6831	8394	7744	9079	9862
rejected events	6133	7627	6811	5156	7630
rejected %	89%	90%	87%	56%	77%

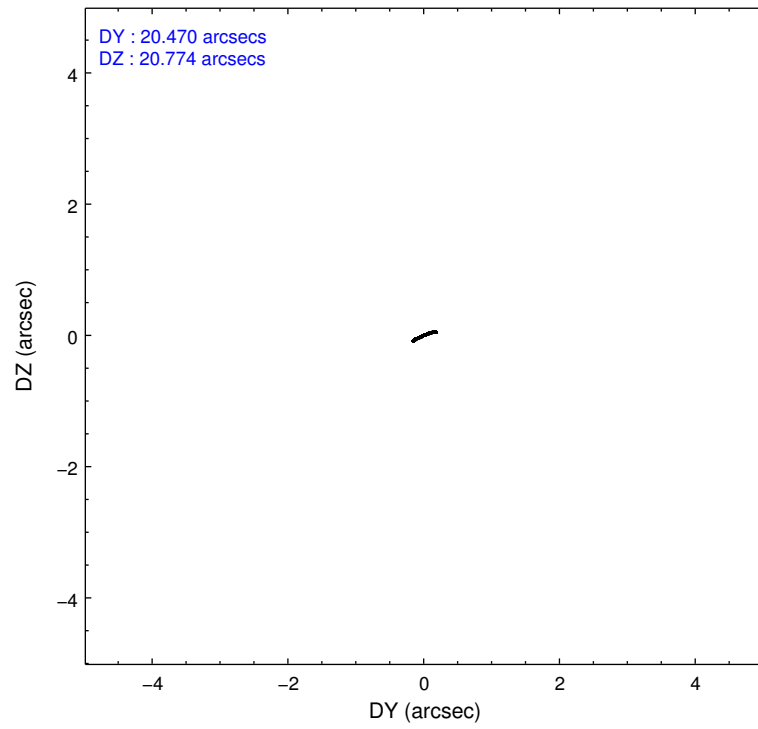
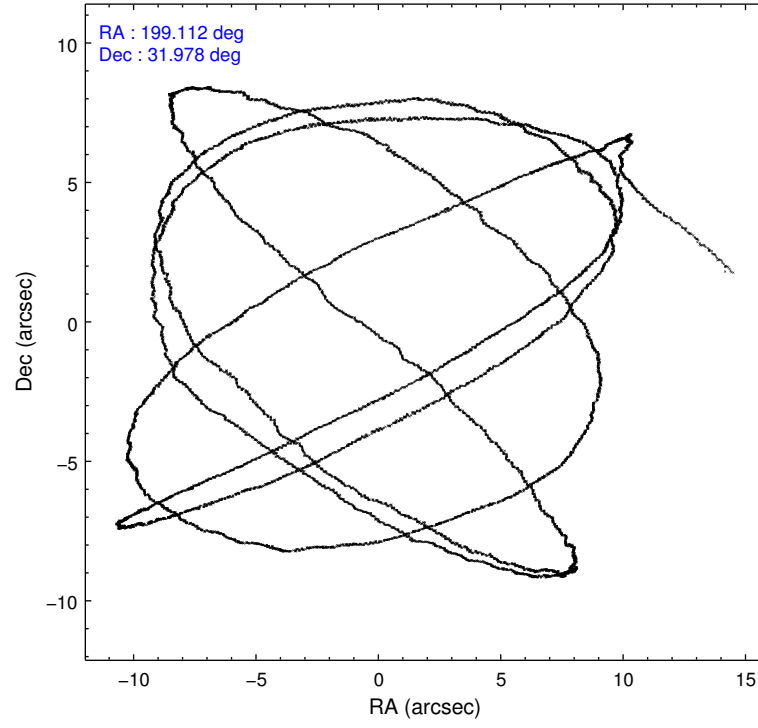
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	215	253	245	341	601
	3%	3%	3%	3%	6%
grade 1 events	4	4	6	9	3
	0%	0%	0%	0%	0%
grade 2 events	151	150	203	791	520
	2%	1%	2%	8%	5%
grade 3 events	116	108	126	363	246
	1%	1%	1%	3%	2%
grade 4 events	87	101	144	373	249
	1%	1%	1%	4%	2%
grade 5 events	218	301	293	880	445
	3%	3%	3%	9%	4%
grade 6 events	129	155	216	2058	618
	1%	1%	2%	22%	6%
grade 7 events	5911	7322	6511	4264	7180
	86%	87%	84%	46%	72%

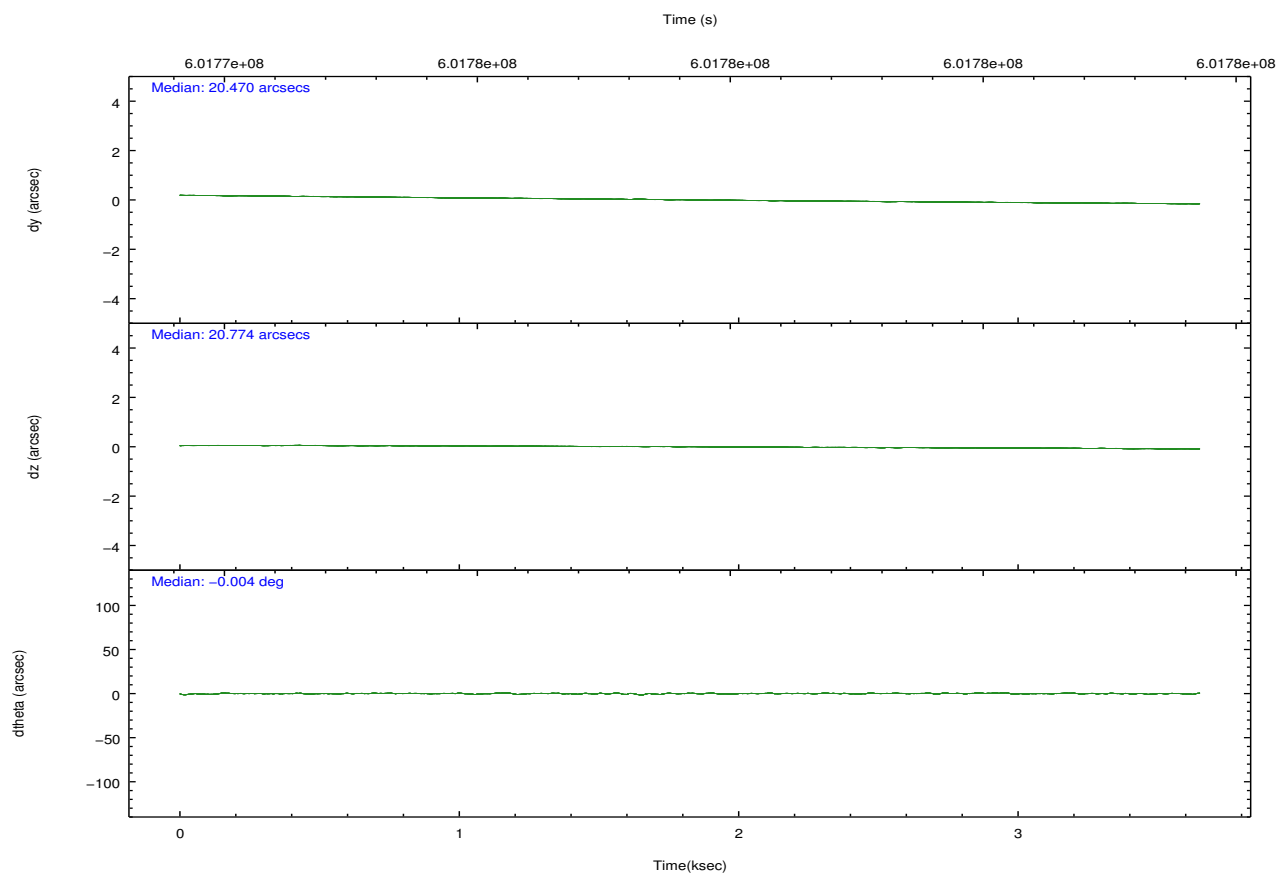
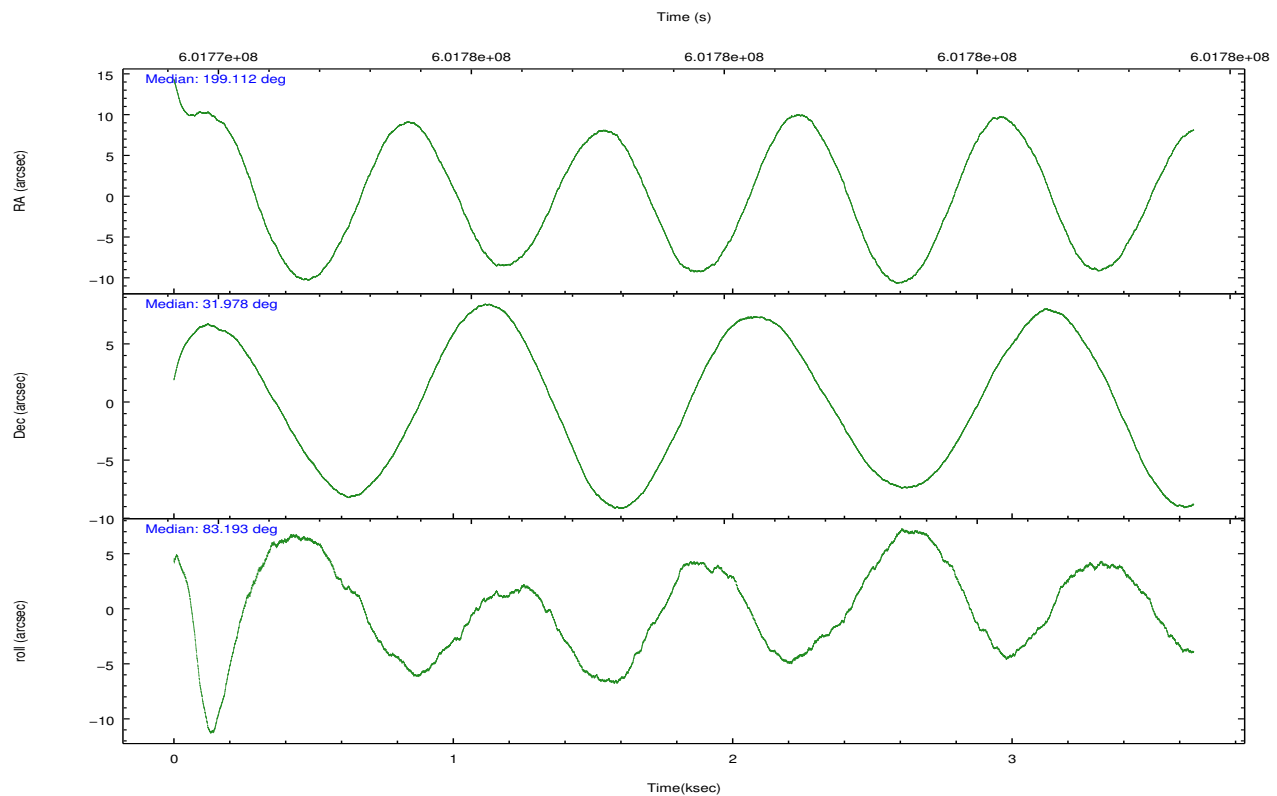


## 2.2 Compared Parameters

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	199.125061	199.1119895807945	CCD I2 on	O1	Y
[deg] Pointing Dec	31.952694	31.9777972103571	CCD I3 on	Y	Y
[deg] Pointing Roll	83.036966	83.20057203815287	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	Y	Y
[s] Observation start time (MET)	601774177.184000	601773210.31326	CCD S5 on	N	N
Observation start date	2017-01-25T23:28:28	2017-01-25T23:13:30	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	601777677.184000	601778533.65107	On-chip summing requested	N	N
Observation end date	2017-01-26T00:26:48	2017-01-26T00:42:13	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



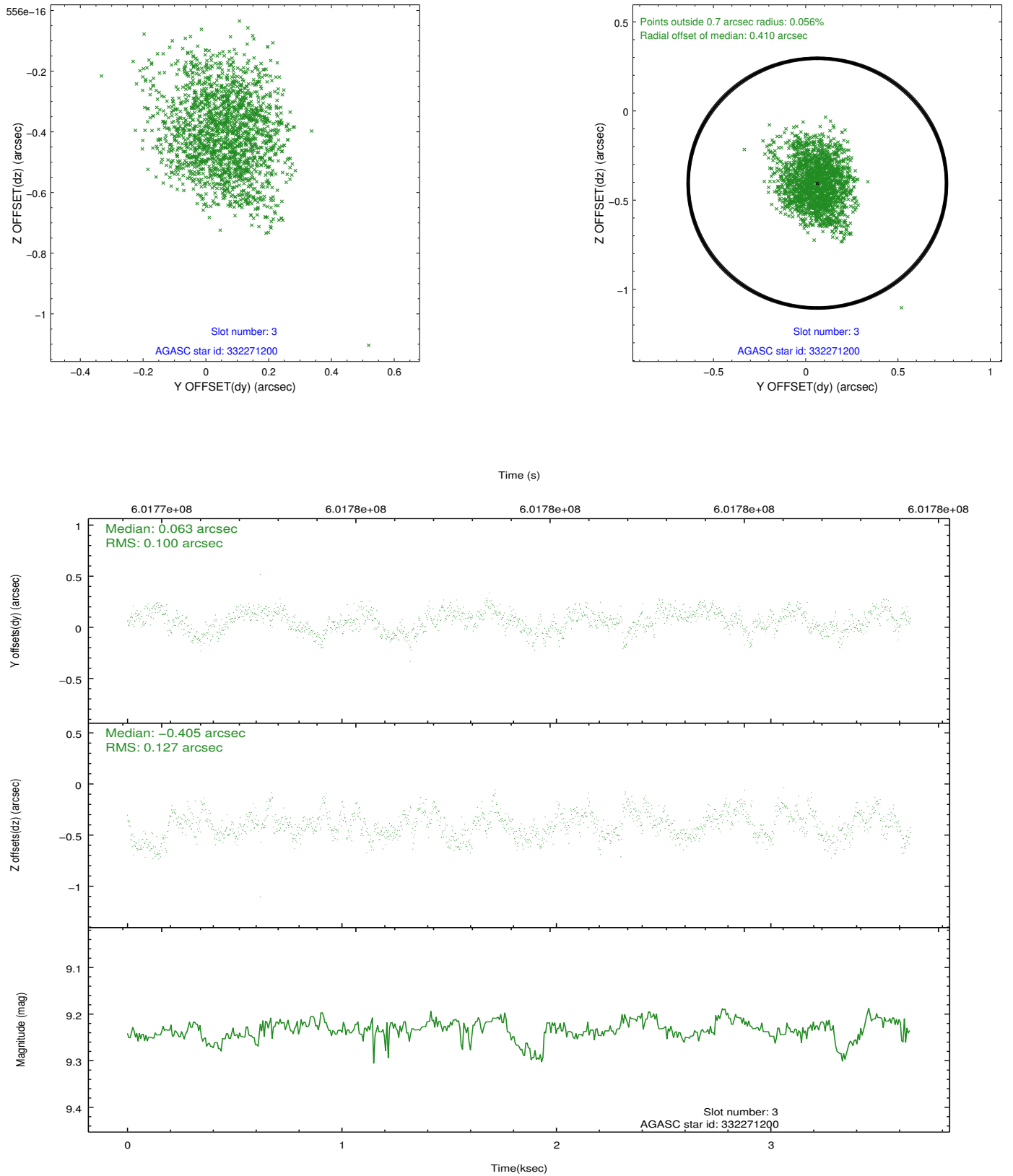


### Slot Statistics

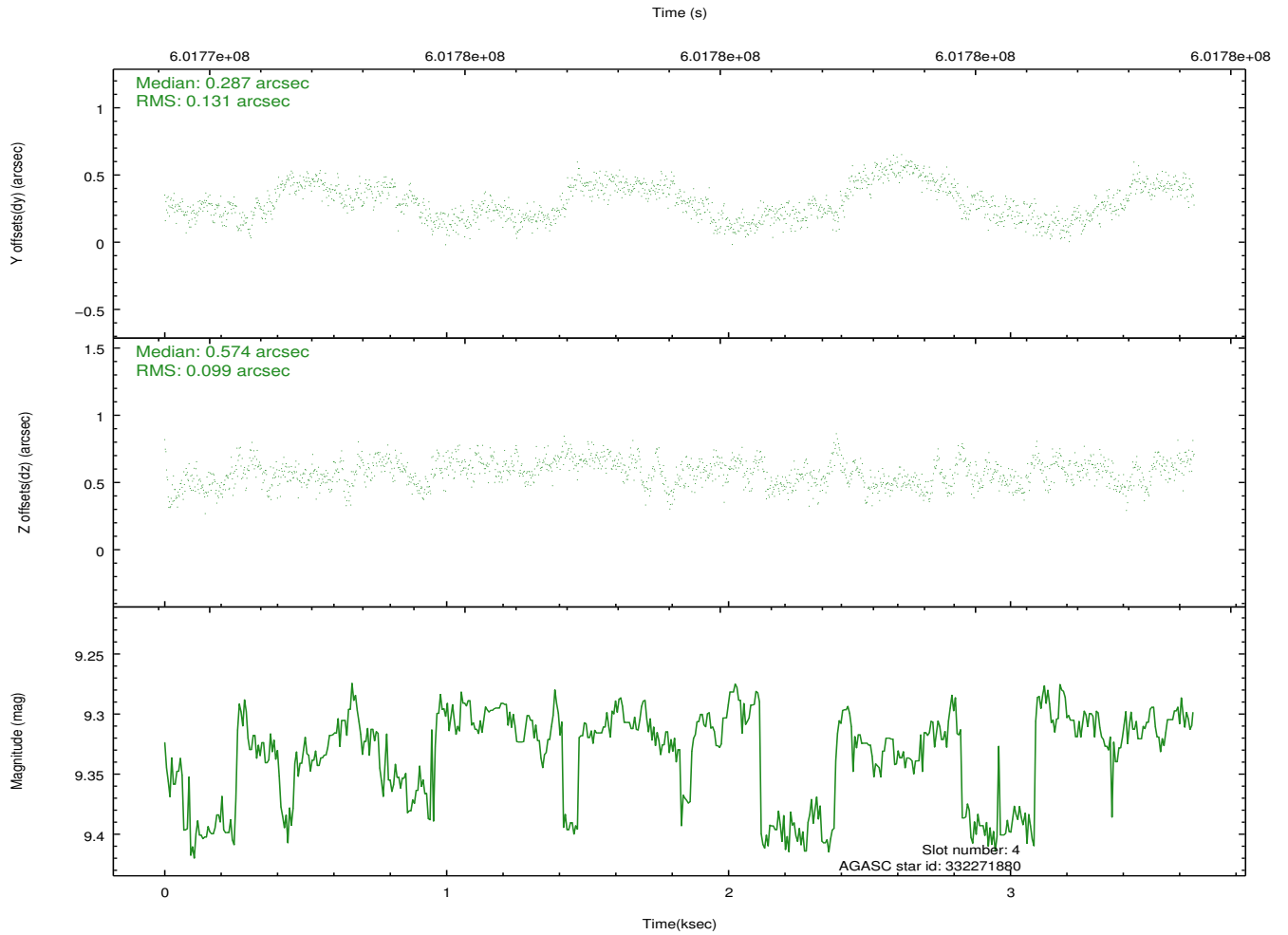
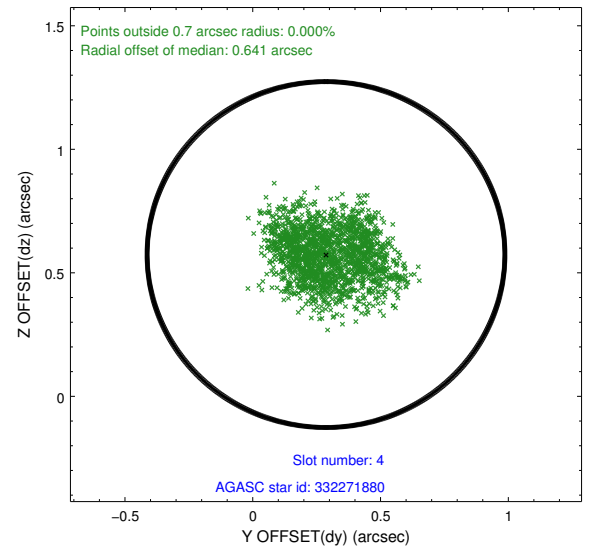
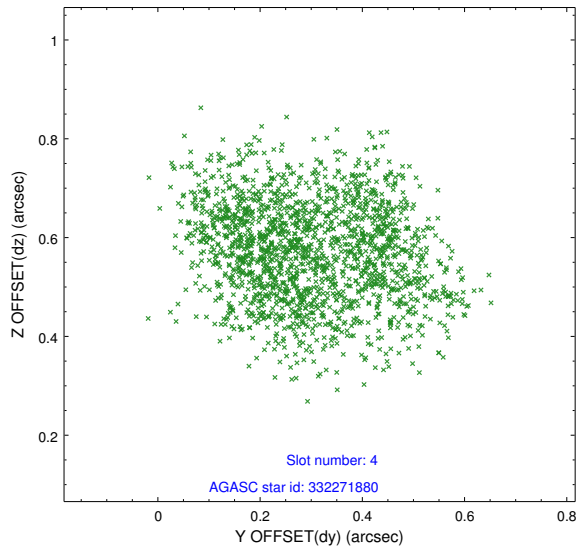
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.13	891	-0.254	-0.141	0.007	0.012	0.000000	0.000000	-773.83	-1742.40
1	FID		ACIS-S-4	7.25	891	0.526	0.160	0.007	0.012	0.000000	0.000000	2139.41	164.61
2	FID		ACIS-S-5	7.24	891	-0.303	-0.010	0.007	0.012	0.000000	0.000000	-1824.54	160.04
3	GUIDE	used	332271200	9.23	1779	0.063	-0.405	0.172	0.270	198.369636	31.671909	-1276.10	2176.54
4	GUIDE	used	332271880	9.32	1781	0.287	0.574	0.178	0.270	199.135537	31.533059	-1496.97	-215.13
5	GUIDE	used	332272104	8.14	1782	0.438	0.583	0.130	0.213	199.549727	31.630301	-992.29	-1431.61
6	GUIDE	used	332277032	9.64	1779	-0.211	-0.275	0.364	0.580	198.857401	32.308804	1173.97	963.48
7	GUIDE	used	332663304	6.68	1781	-0.555	-0.469	0.133	0.190	198.435907	32.530433	1817.18	2330.36

## 2.4 Star Slots

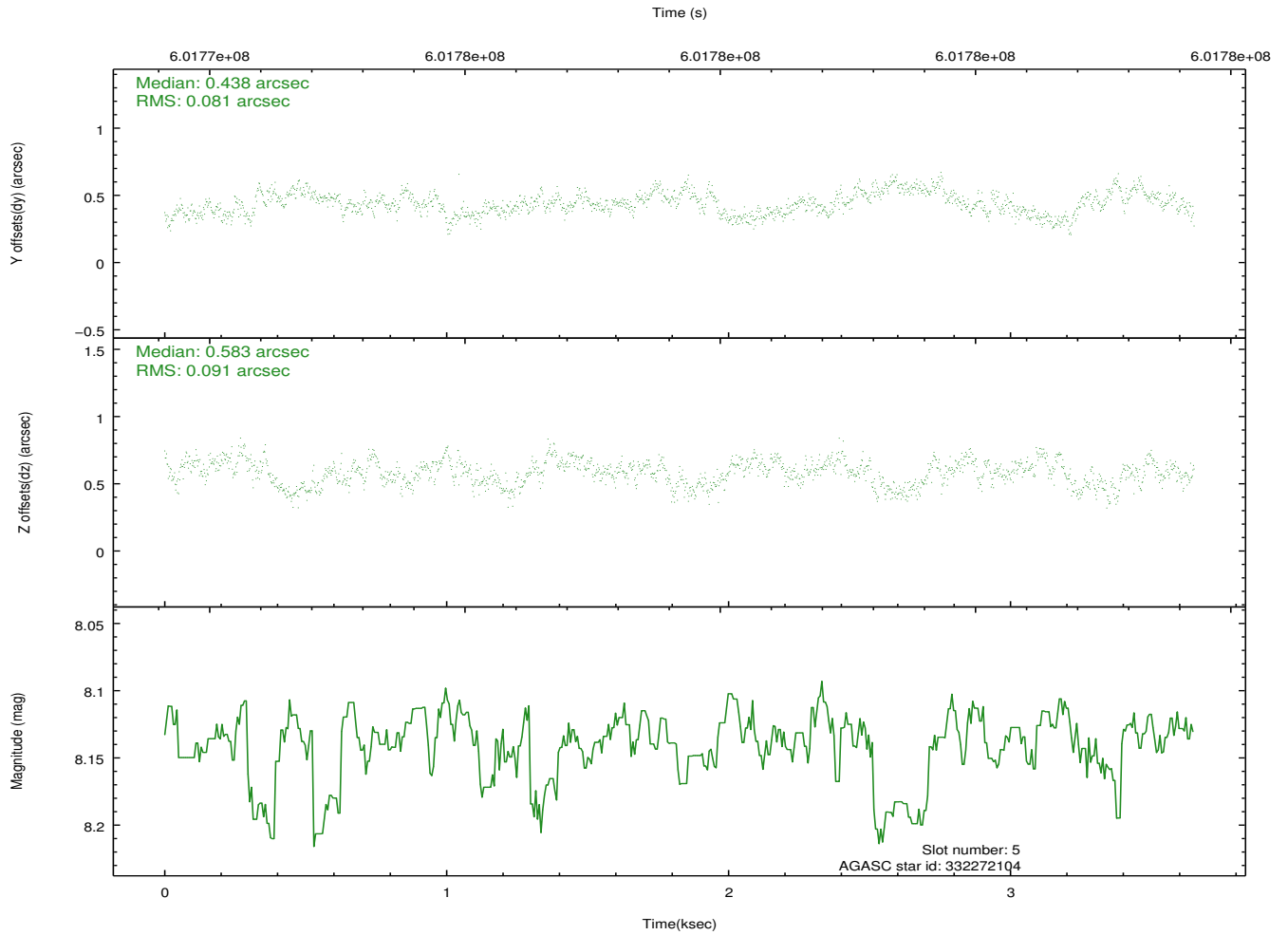
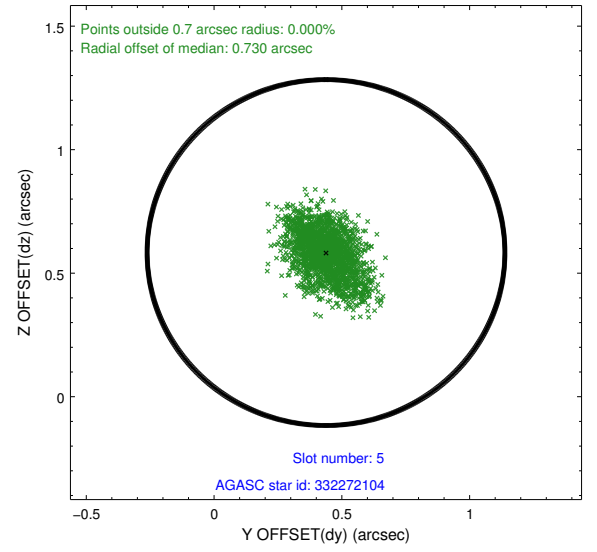
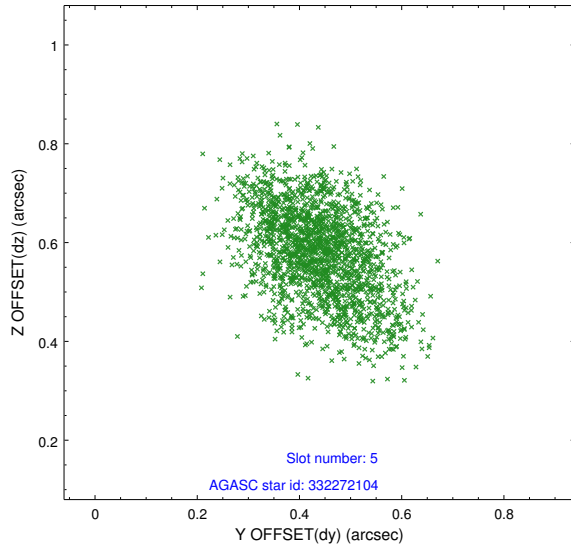
### 2.4.1 Slot 3



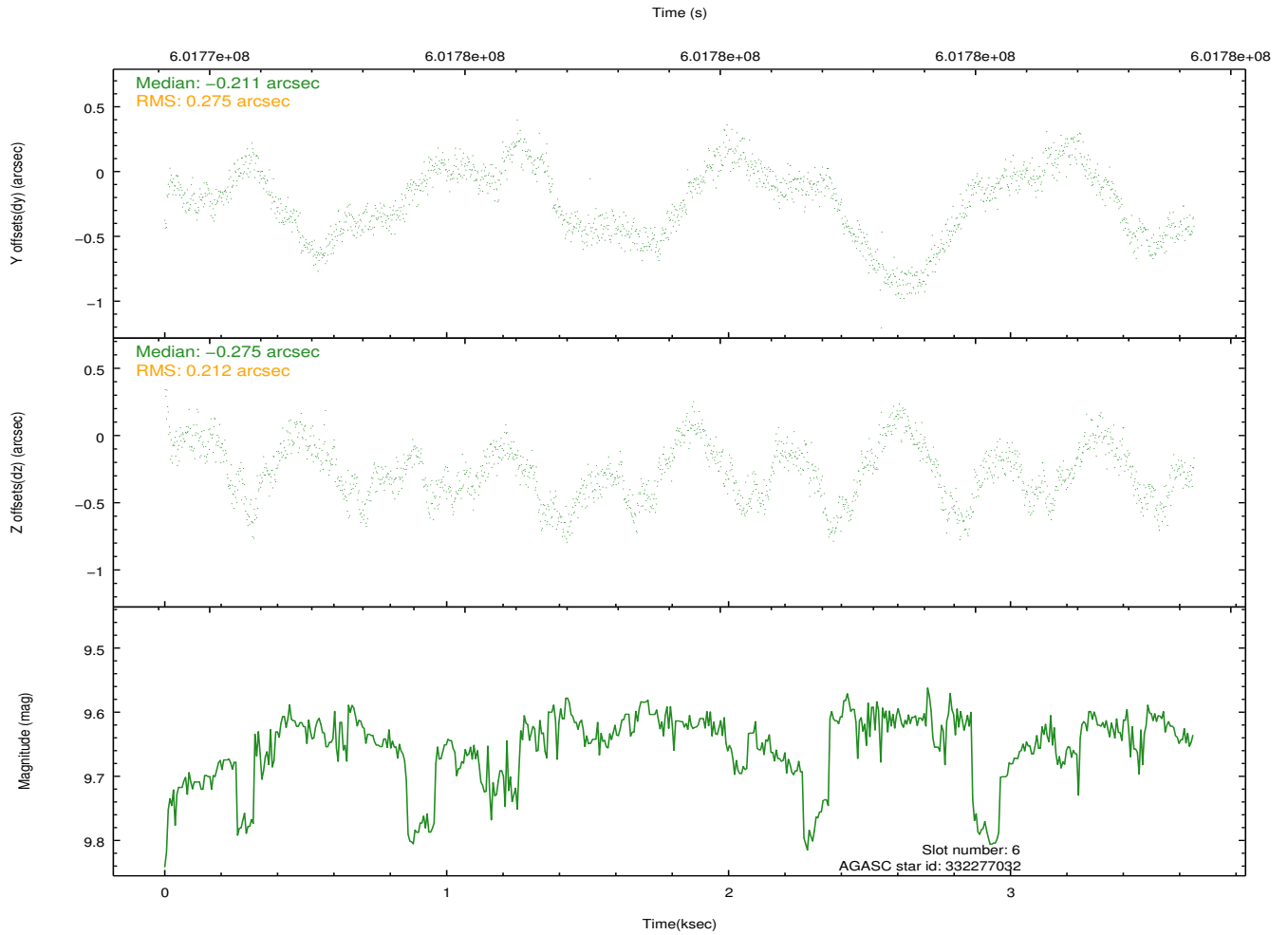
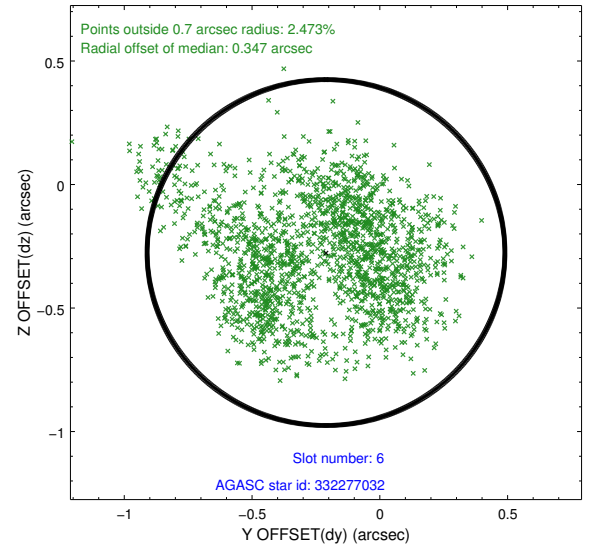
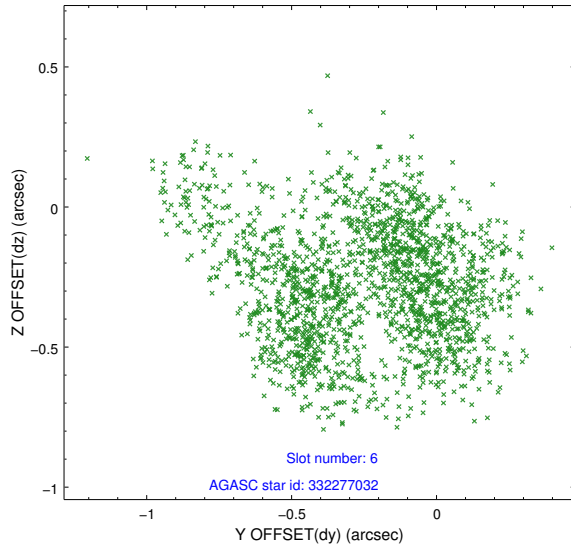
## 2.4.2 Slot 4



### 2.4.3 Slot 5

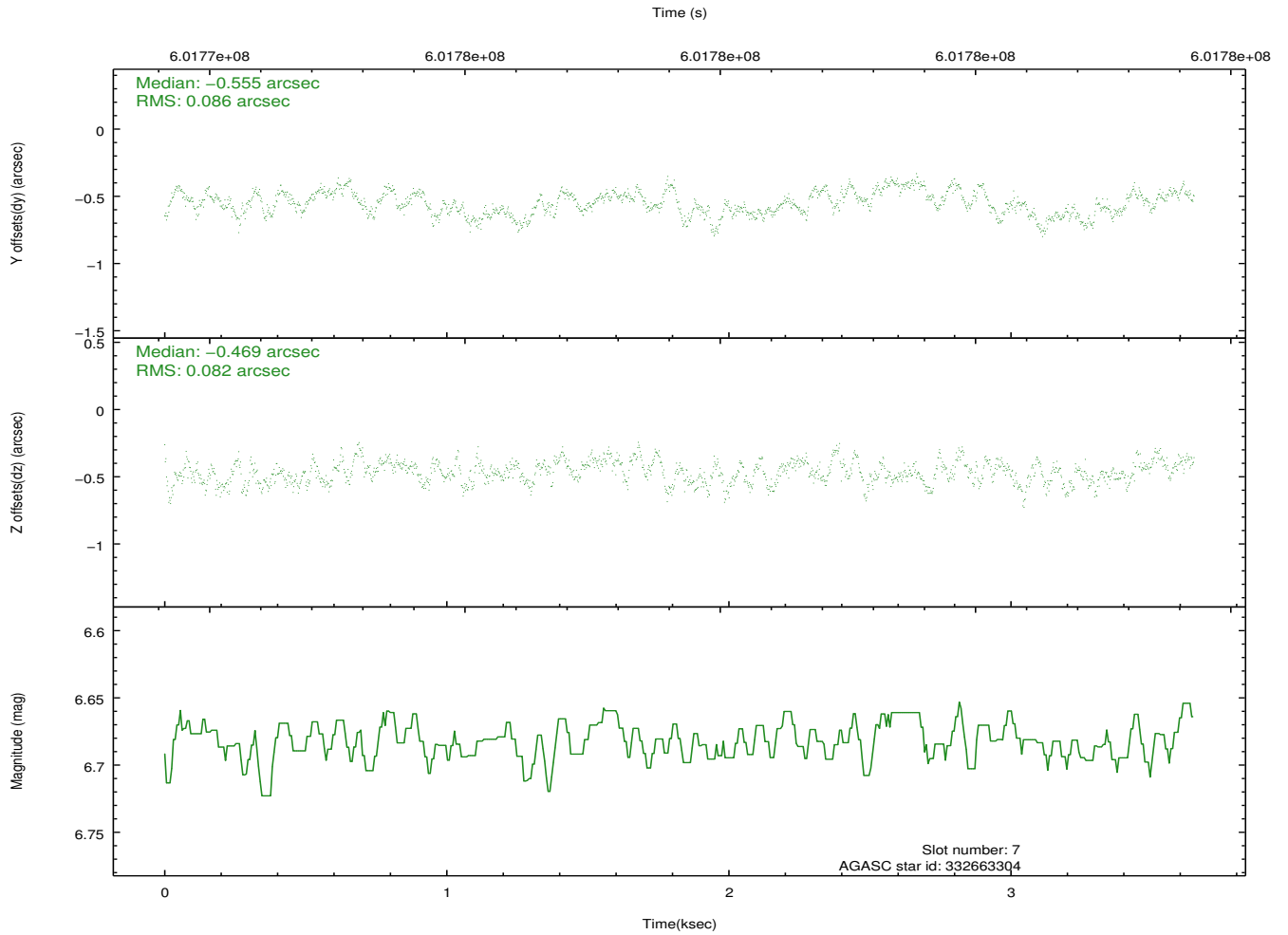
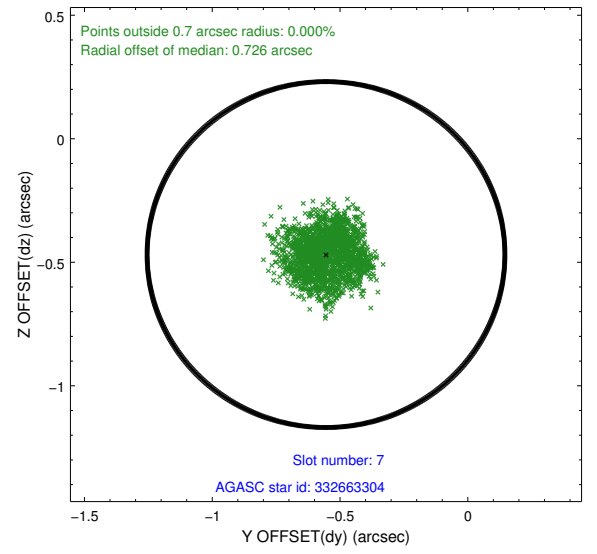
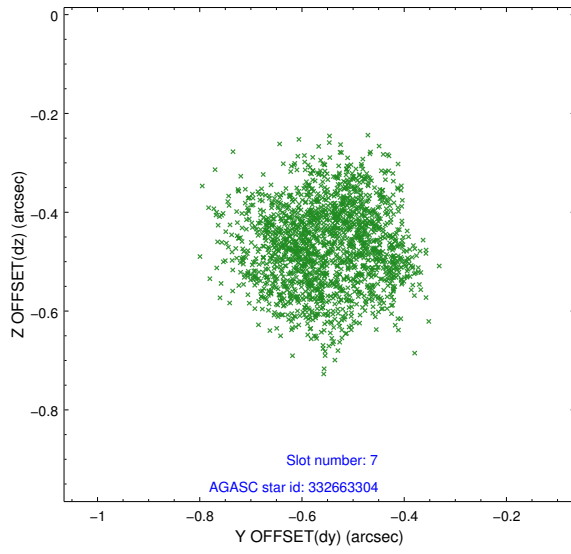


## 2.4.4 Slot 6



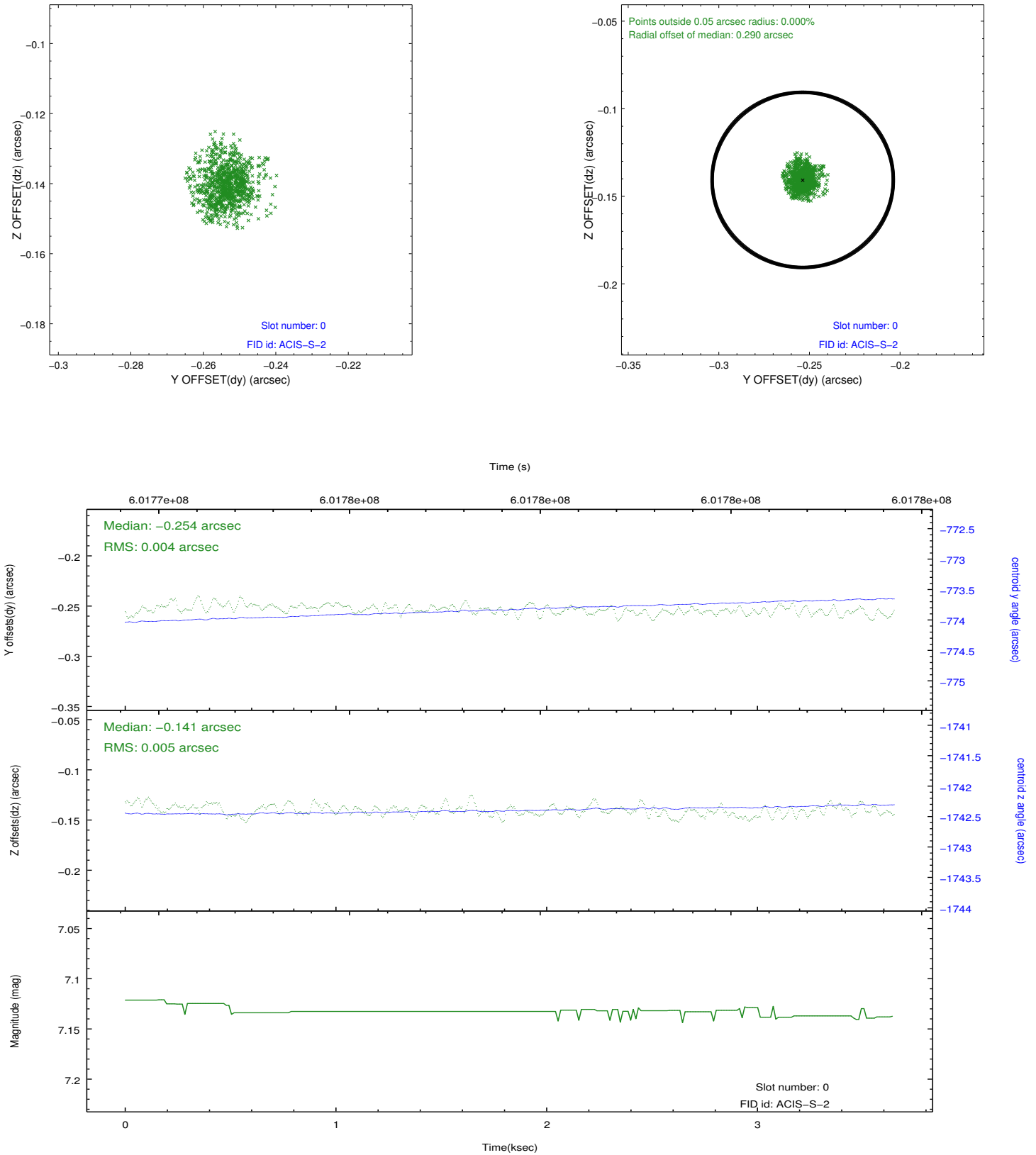


## 2.4.5 Slot 7

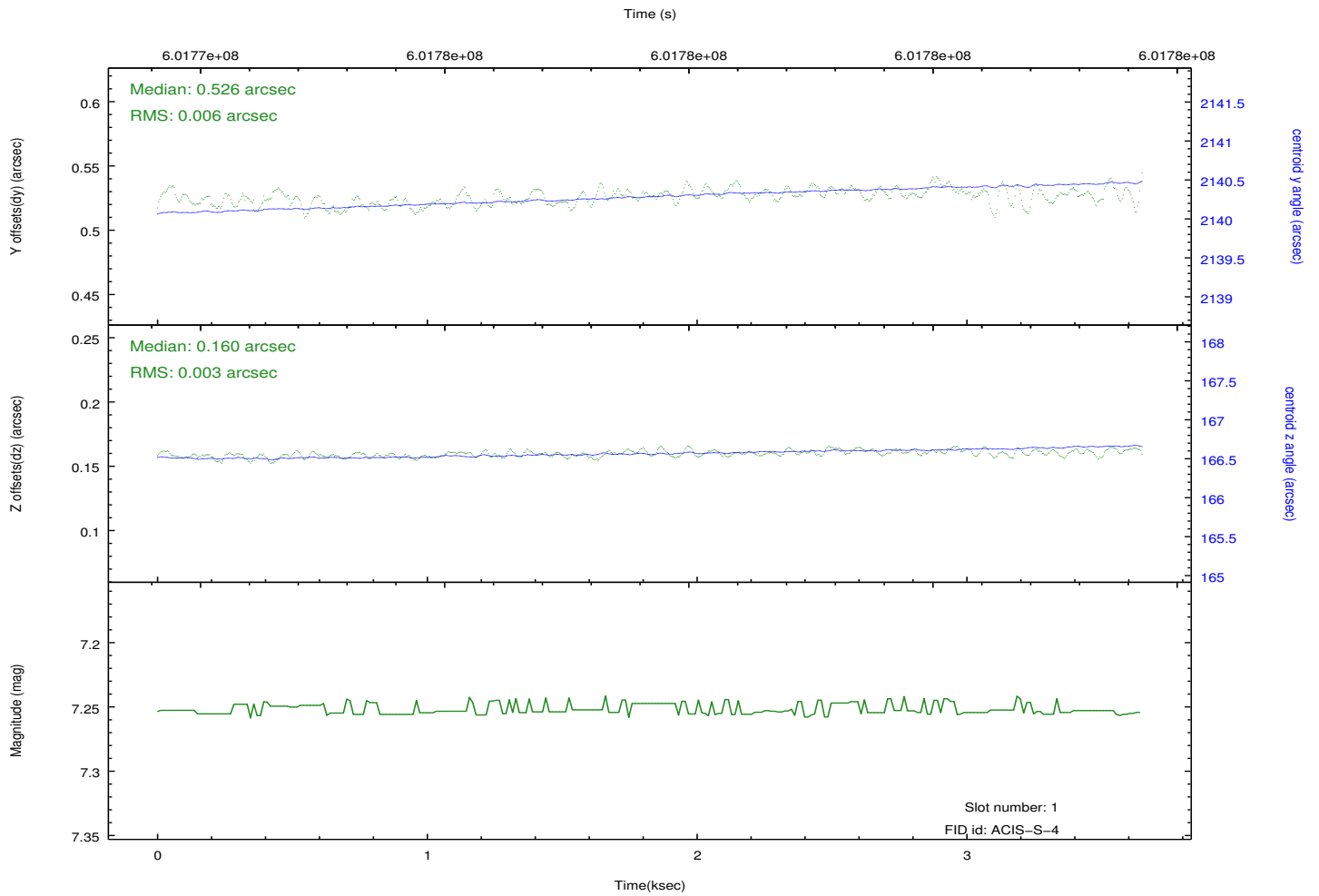
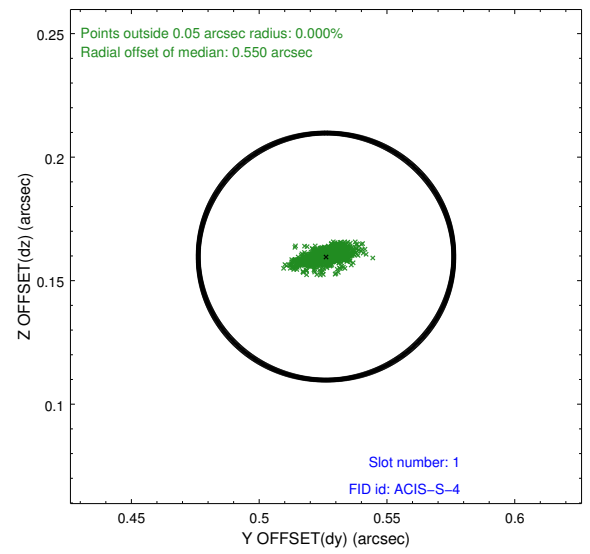
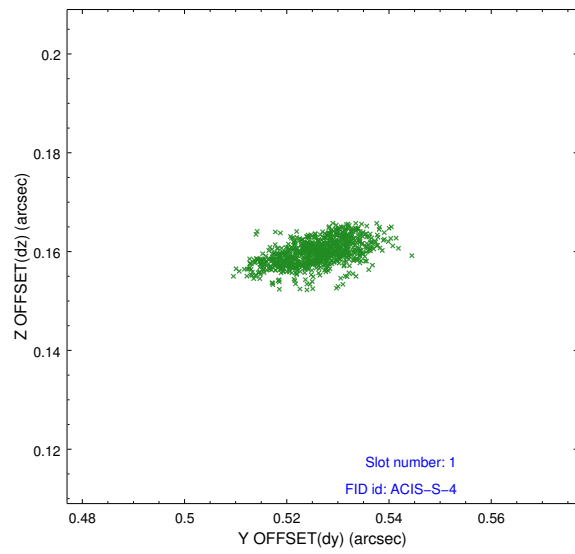


## 2.5 FID Slots

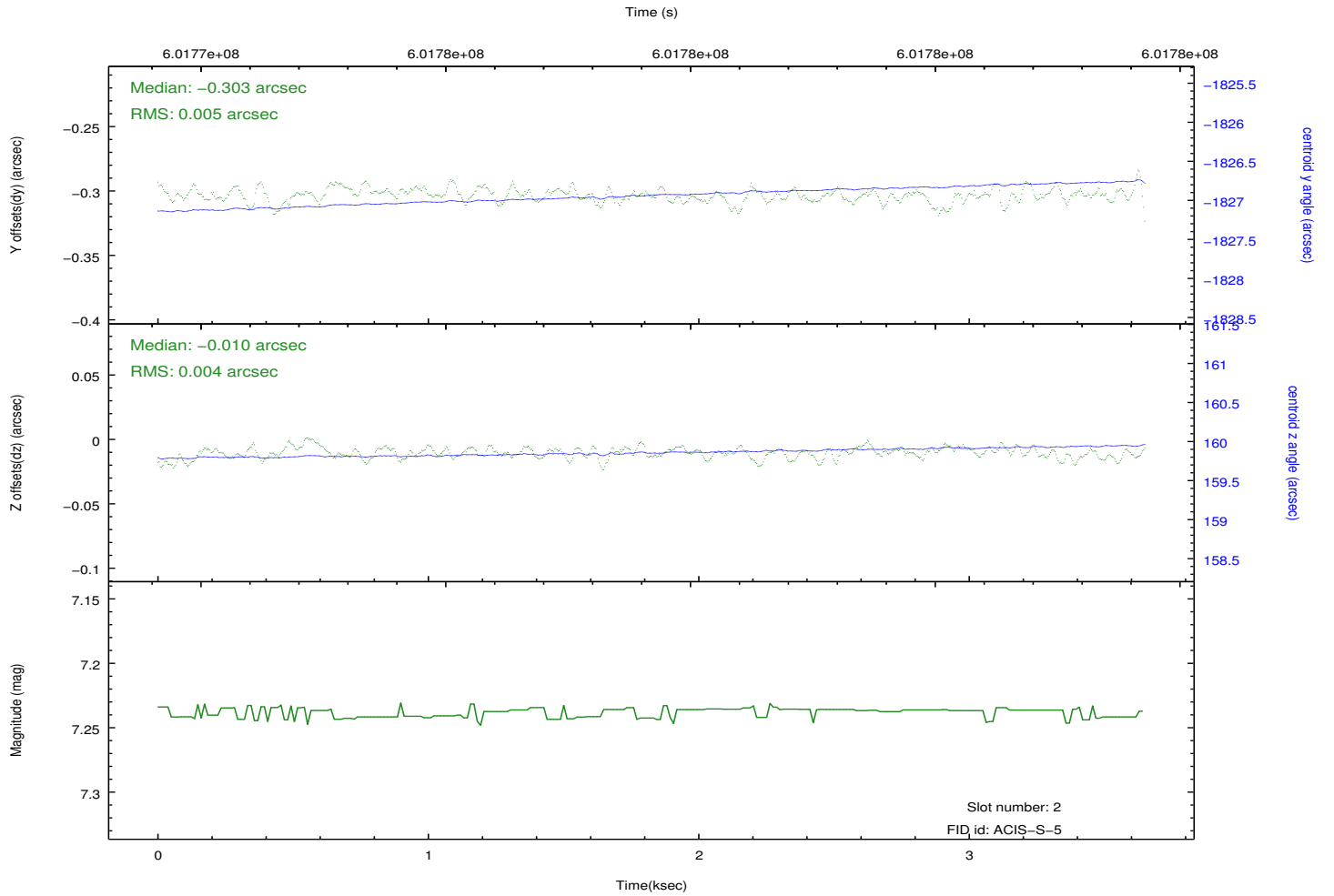
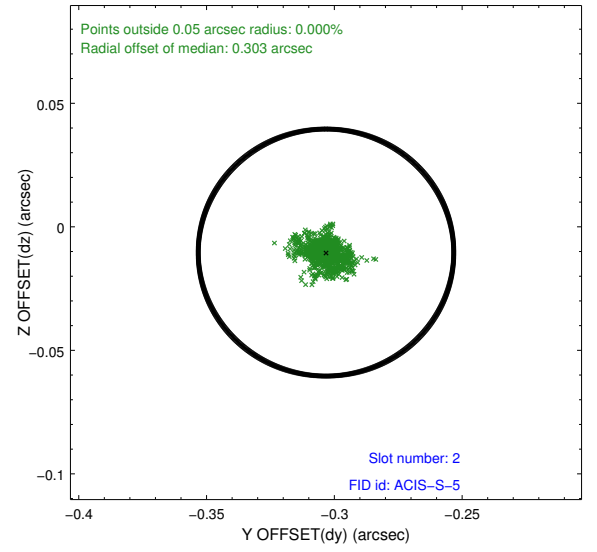
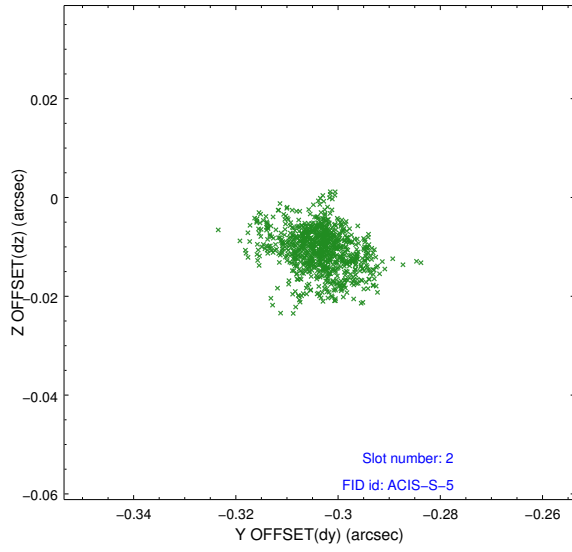
### 2.5.1 Slot 0



## 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)	2017.01.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.5697241711617

### A.2 Comments