

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 17204 - L2 Version 1  
Chandra X-Ray Center

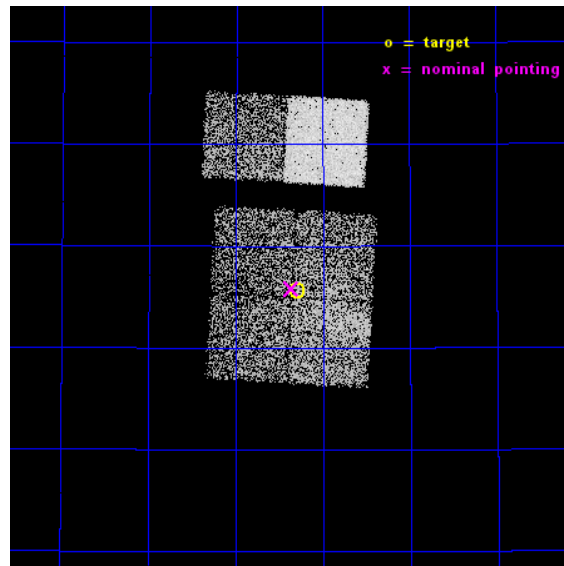
L2 Processing Date : Mar 27 2015

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# 1 Front

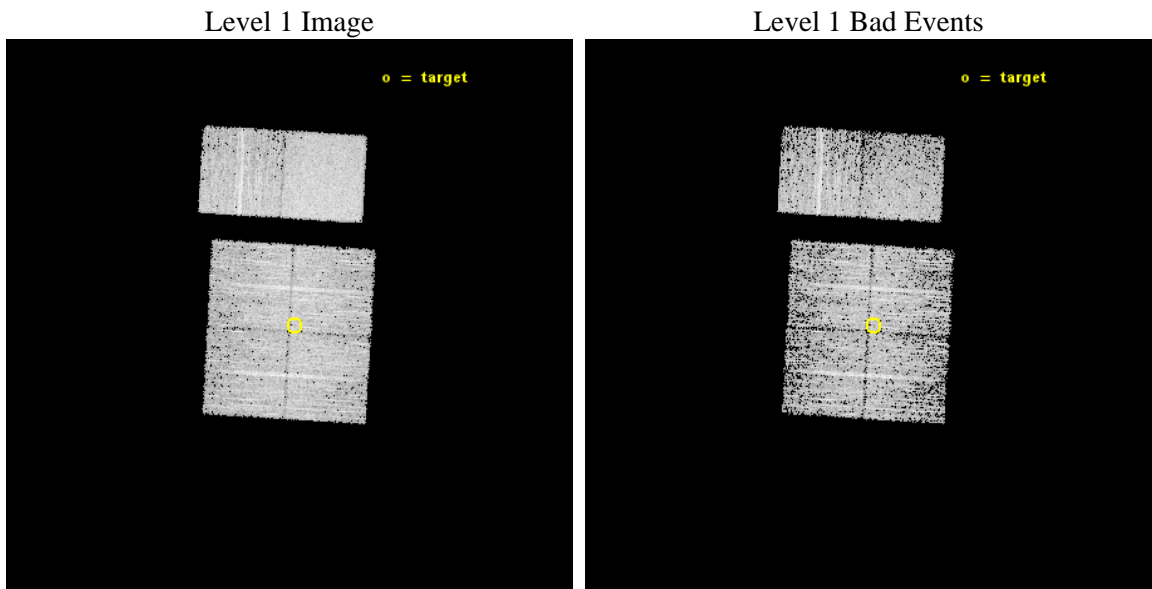
seq_num	801484	Sequence number
obs_id	17204	Observation id
title	Exciting Shock Physics in Faint Galaxy Cluster Outskirts	Proposal
observer	Dr Reinout van Weeren	Principal investigator
object	ZwCl 0008.8+5215 WEST	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	3.075	Observer's specified target RA [deg]
dec_targ	52.593056	Observer's specified target Dec [deg]
ra_nom	3.0903495715729	Nominal RA [deg]
dec_nom	52.596929529007	Nominal Dec [deg]
roll_nom	3.3187459964654	Nominal Roll [deg]
revision	1	Processing version of data
ontime	6467.2000963688	Sum of GTIs [s]
livetime	6385.3085146682	Livetime [s]
ontime0	6467.2000963688	Sum of GTIs [s]
ontime1	6467.2000963688	Sum of GTIs [s]
ontime2	6467.2000963688	Sum of GTIs [s]
ontime3	6467.2000963688	Sum of GTIs [s]
ontime6	6467.2000963688	Sum of GTIs [s]
ontime7	6467.2000963688	Sum of GTIs [s]
l2events	33701	Number of level 2 events



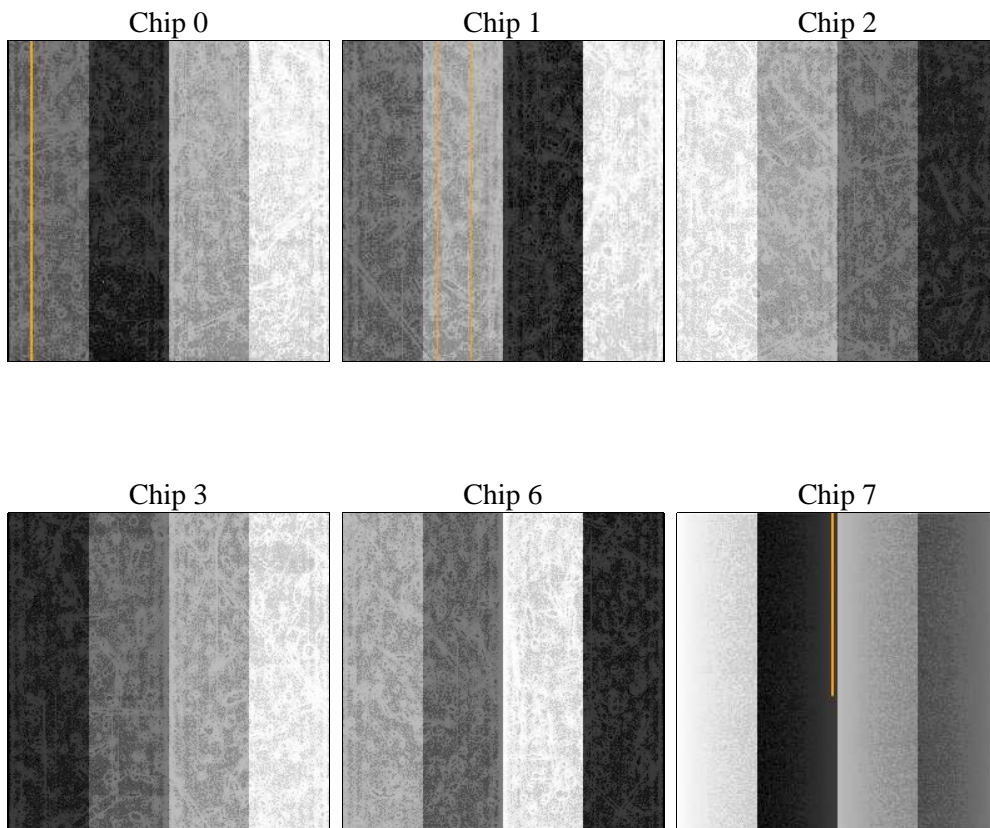
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6500.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	6467.2000963688	Sum of GTIs [s]
caldsver	4.6.7	&#160	ontime0	6467.2000963688	Sum of GTIs [s]
date	2015-03-27T16:48:53	Date and time of file creation	ontime1	6467.2000963688	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	6467.2000963688	Sum of GTIs [s]
			ontime3	6467.2000963688	Sum of GTIs [s]
			ontime6	6467.2000963688	Sum of GTIs [s]
			ontime7	6467.2000963688	Sum of GTIs [s]
			l1events	186943	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	26760	29646	28589	30811	31188	39949	grade 0 events	1308	2778	1201	1477	1175	1340
rejected events	23193	23937	25269	27066	27626	23040		4%	9%	4%	4%	3%	3%
rejected %	86%	80%	88%	87%	88%	57%	grade 1 events	15	22	10	10	14	45
								0%	0%	0%	0%	0%	0%
							grade 2 events	808	1166	799	783	828	3533
								3%	3%	2%	2%	2%	8%
							grade 3 events	380	409	332	388	324	1350
								1%	1%	1%	1%	1%	3%
							grade 4 events	314	428	309	373	360	1259
								1%	1%	1%	1%	1%	3%
							grade 5 events	1297	1352	1257	1550	1599	3903
								4%	4%	4%	5%	5%	9%
							grade 6 events	757	932	681	729	878	9433
								2%	3%	2%	2%	2%	23%
							grade 7 events	21881	22559	24000	25501	26010	19086
								81%	76%	83%	82%	83%	47%

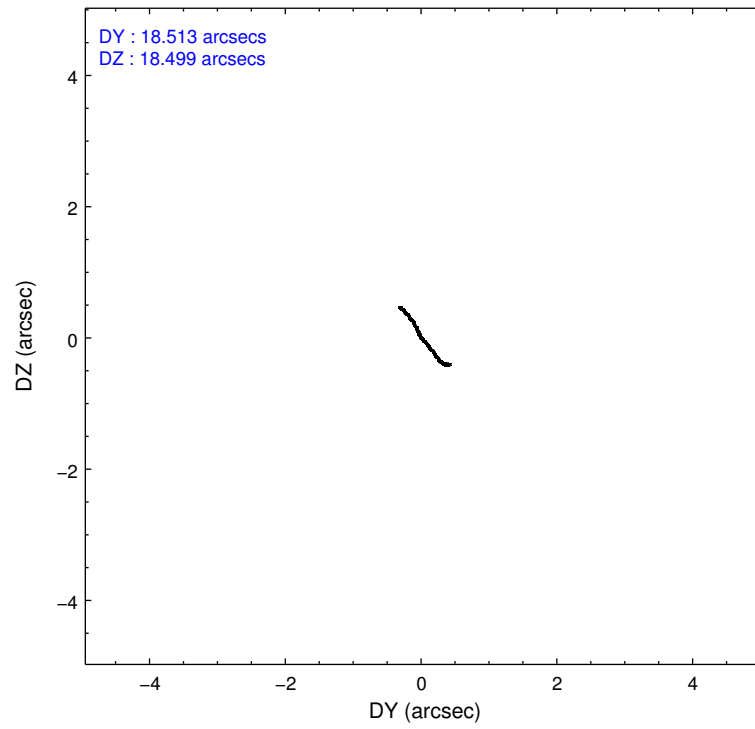
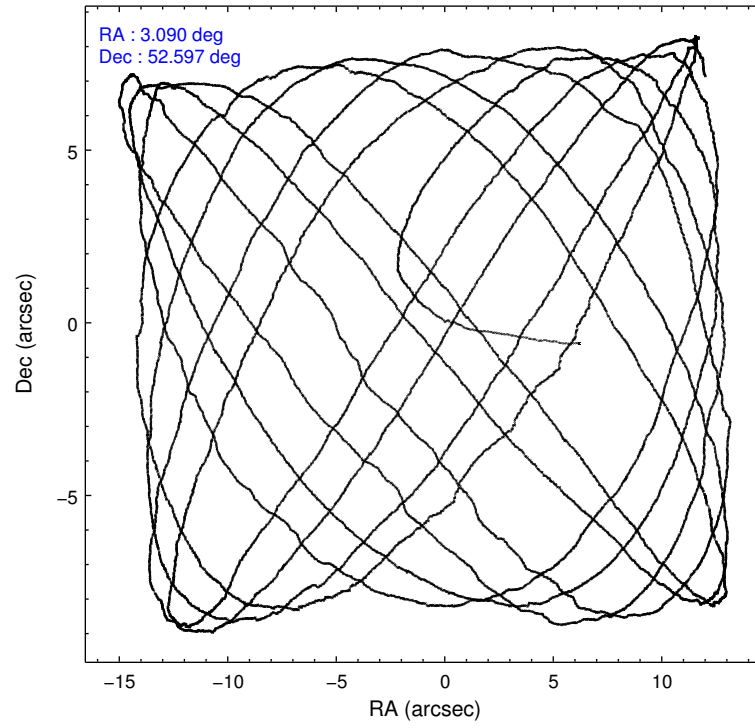


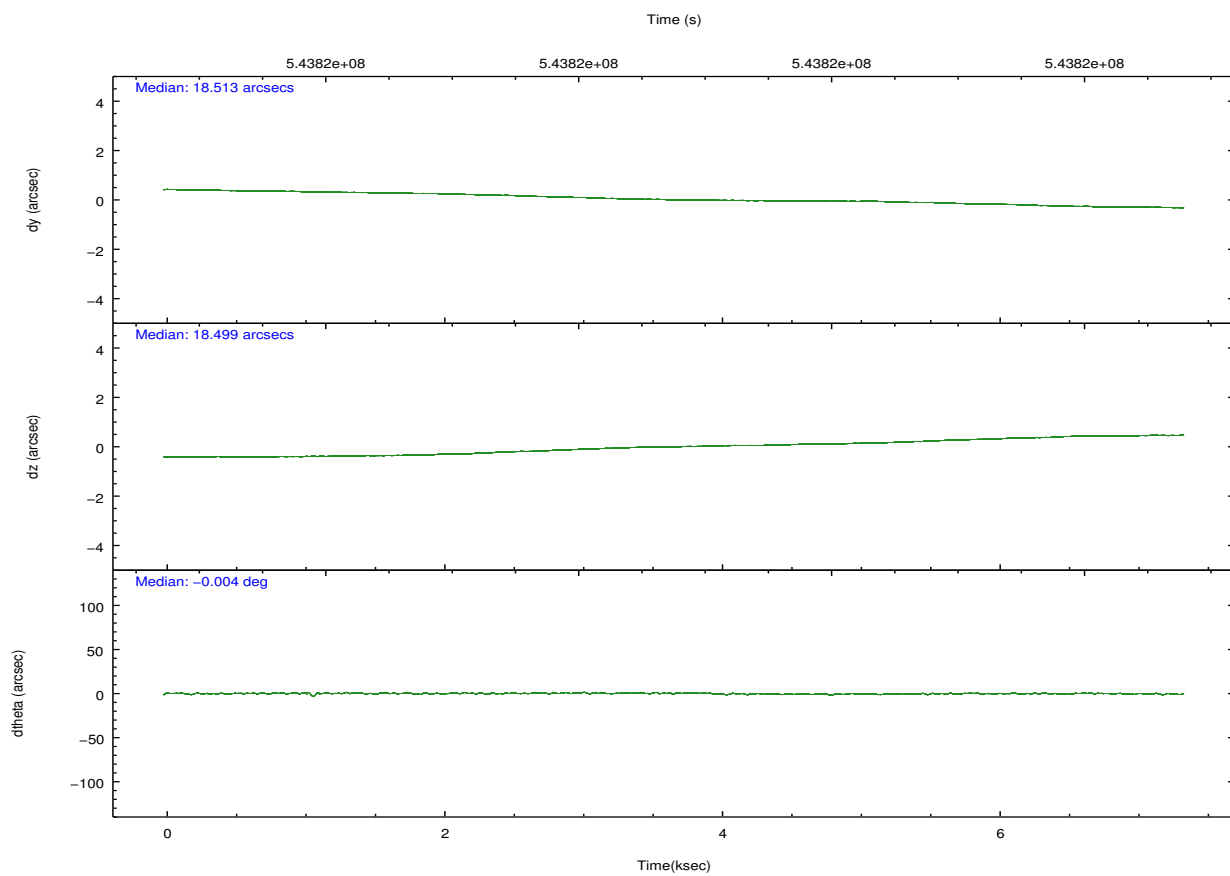
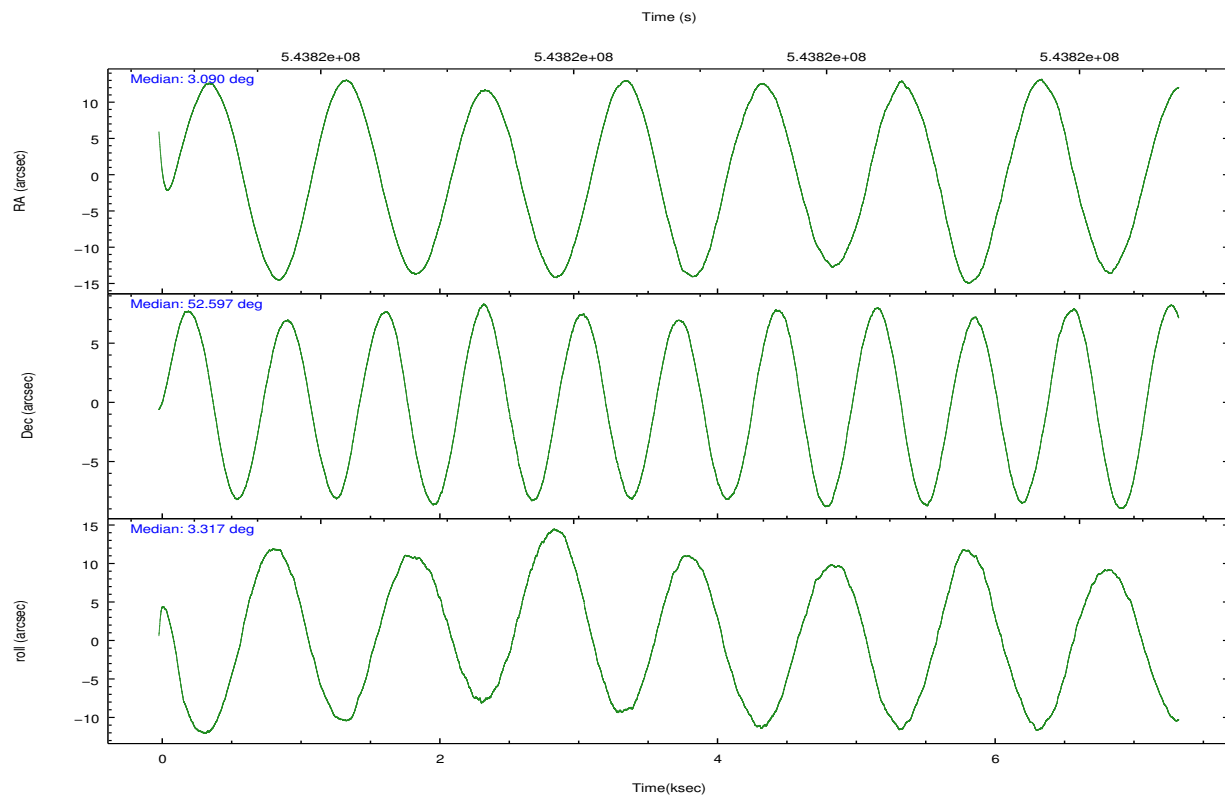
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	3.052397	3.090349571572858
[deg] Pointing Dec	52.581630	52.59692952900663
[deg] Pointing Roll	3.140204	3.318745996465354
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	543815926.184000	543813929.9005899
Observation start date	2015-03-27T03:57:39	2015-03-27T03:25:29
[s] Observation end time (MET)	543822426.184000	543823194.87611
Observation end date	2015-03-27T05:45:59	2015-03-27T05:59:54
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	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O2	Y
CCD S3 on	O1	Y
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



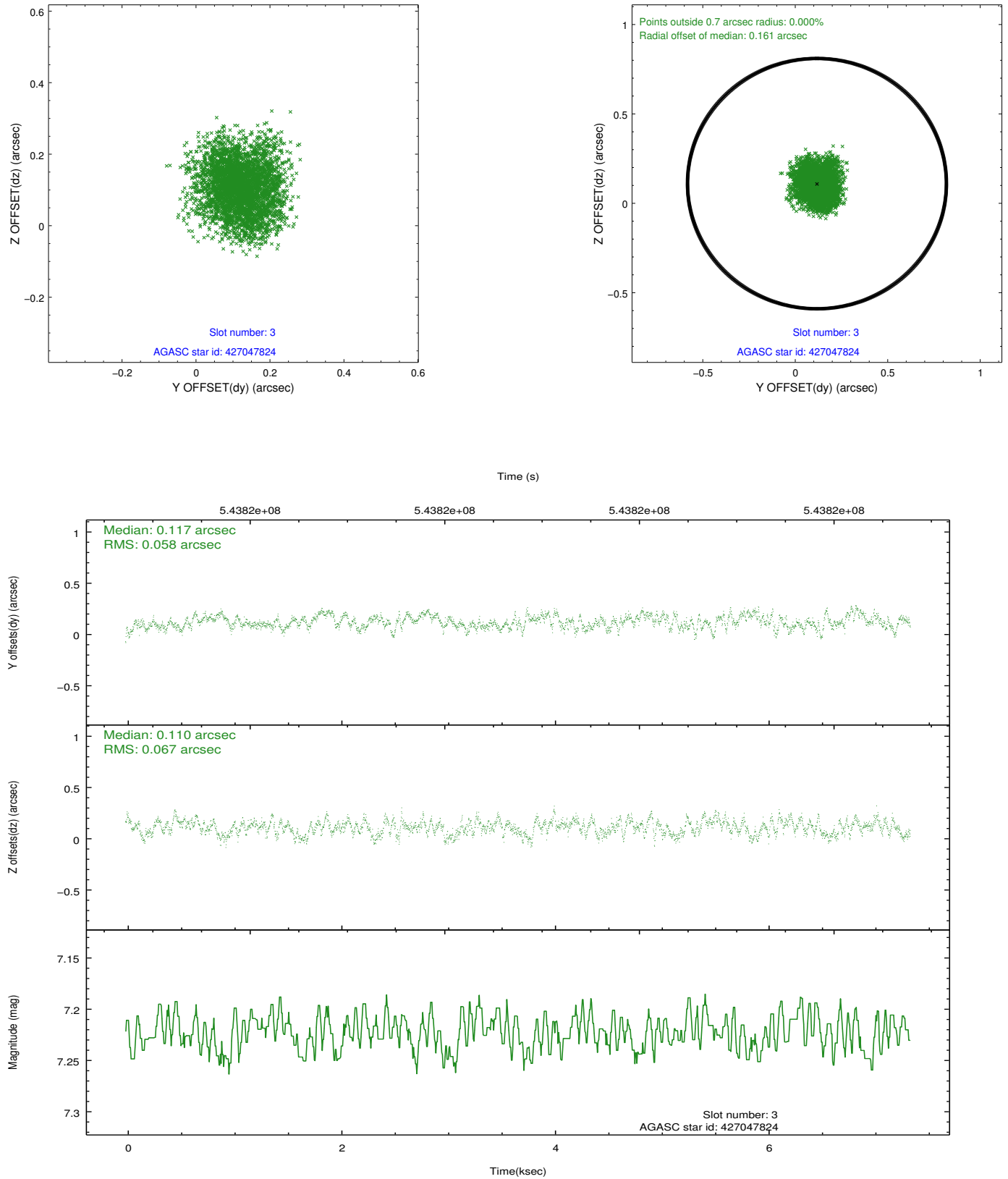


### Slot Statistics

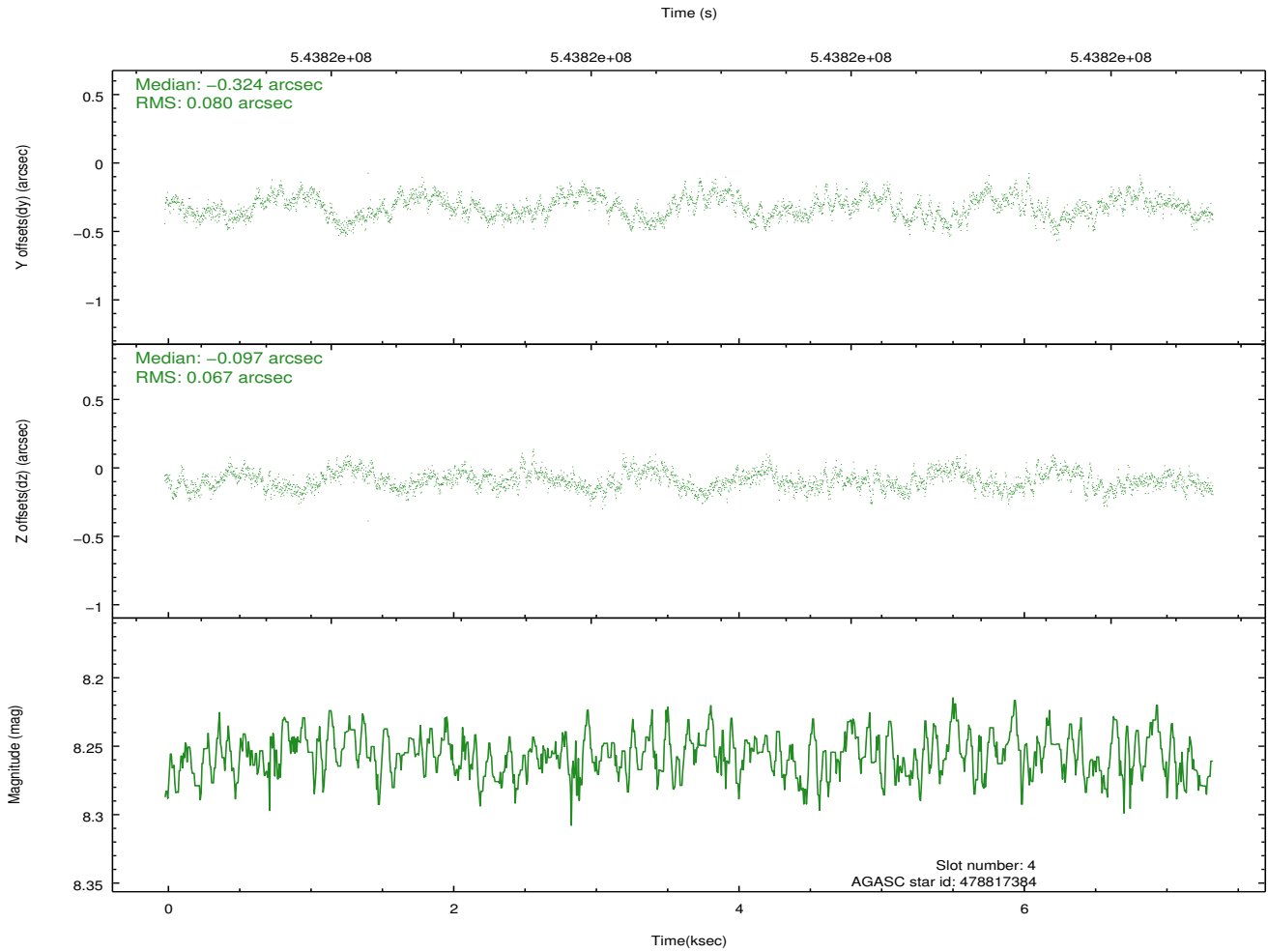
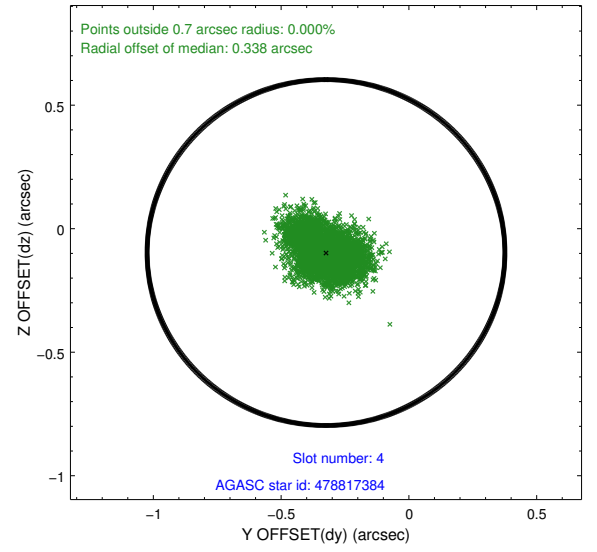
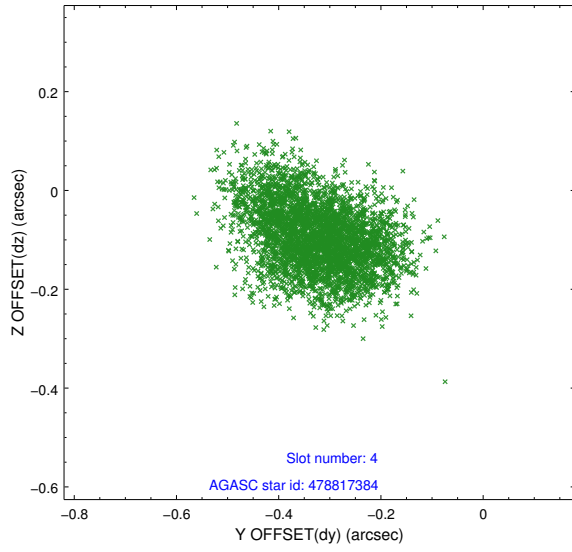
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.13	1792	0.040	0.044	0.014	0.020	0.000000	0.000000	920.87	-842.09
1	FID		ACIS-I-5	7.12	1792	-0.295	0.033	0.011	0.018	0.000000	0.000000	-1827.22	1054.89
2	FID		ACIS-I-6	7.13	1792	0.164	-0.006	0.007	0.012	0.000000	0.000000	385.59	1700.32
3	GUIDE	used	427047824	7.22	3585	0.117	0.110	0.097	0.151	2.434338	52.028309	-1475.21	-1908.23
4	GUIDE	used	478817384	8.26	3585	-0.324	-0.097	0.112	0.176	3.580009	52.860975	1199.67	944.98
5	GUIDE	used	478818512	8.14	3583	0.044	-0.284	0.135	0.199	3.766666	52.639607	1570.31	130.73
6	GUIDE	used	427036424	7.25	3583	0.157	0.341	0.074	0.121	2.620815	51.912344	-1088.23	-2350.37
7	GUIDE	used	478686592	8.79	3581	0.003	-0.075	0.106	0.177	1.932115	53.105725	-2313.47	2034.65

## 2.4 Star Slots

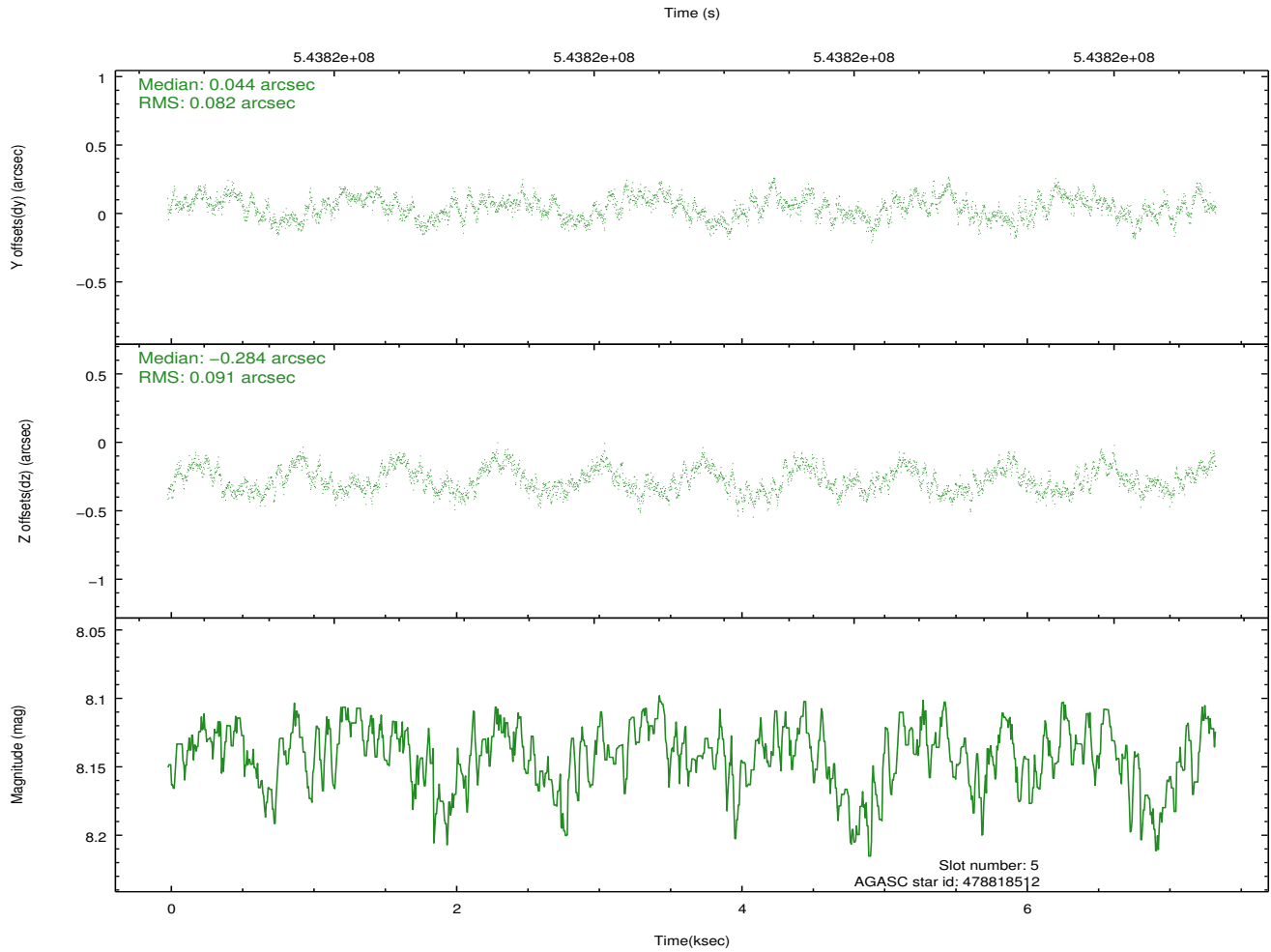
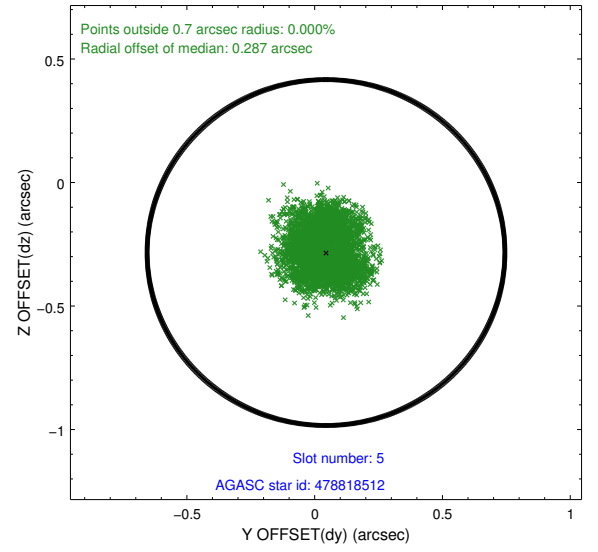
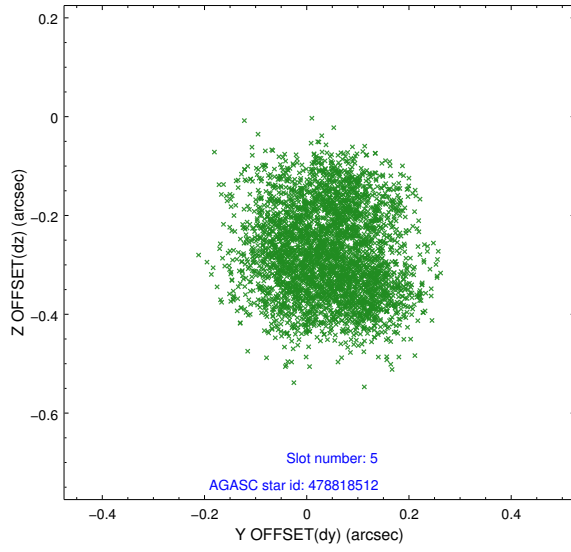
### 2.4.1 Slot 3



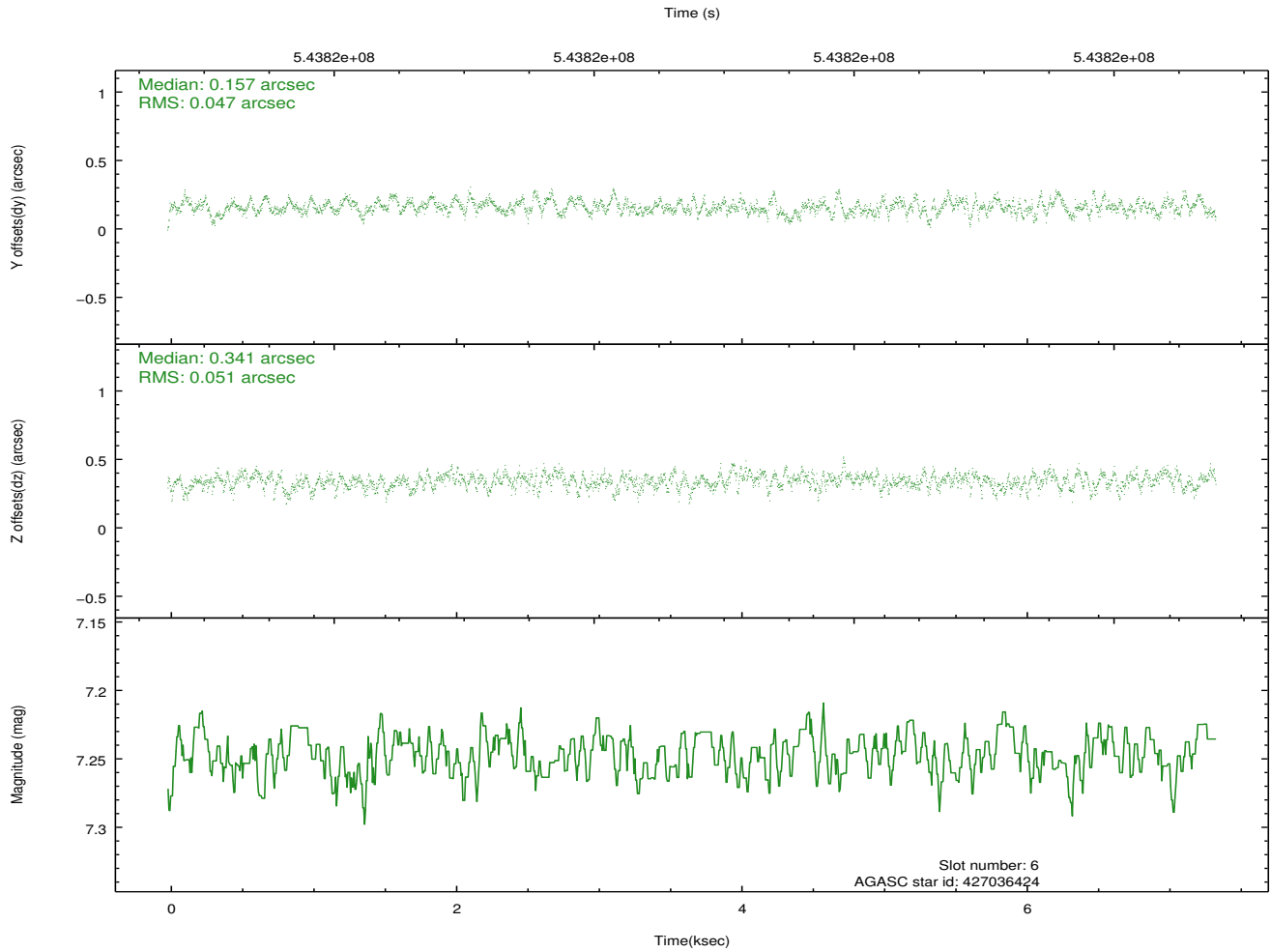
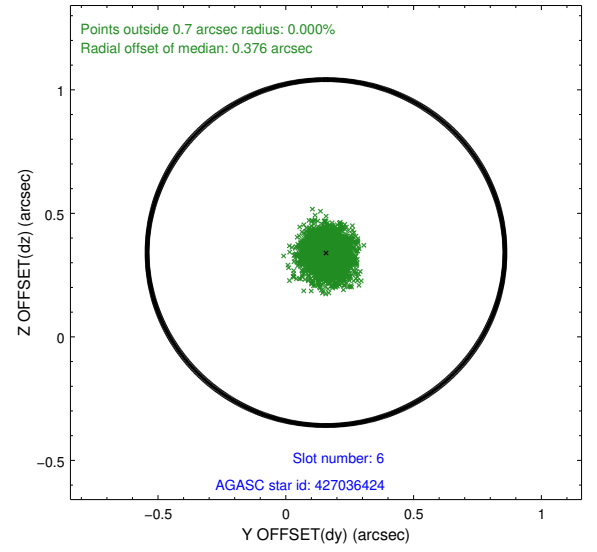
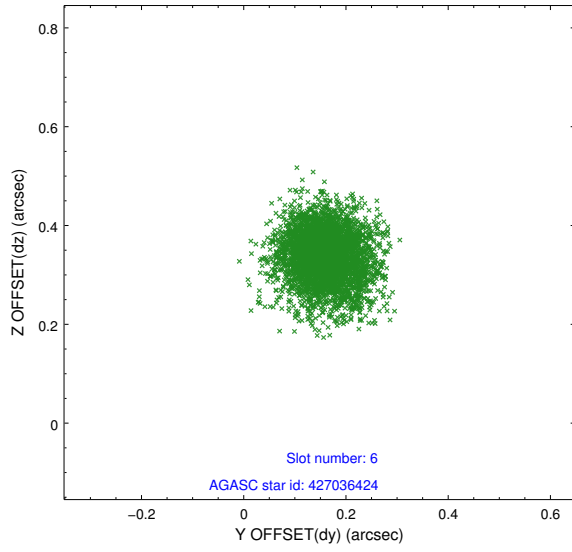
## 2.4.2 Slot 4



### 2.4.3 Slot 5

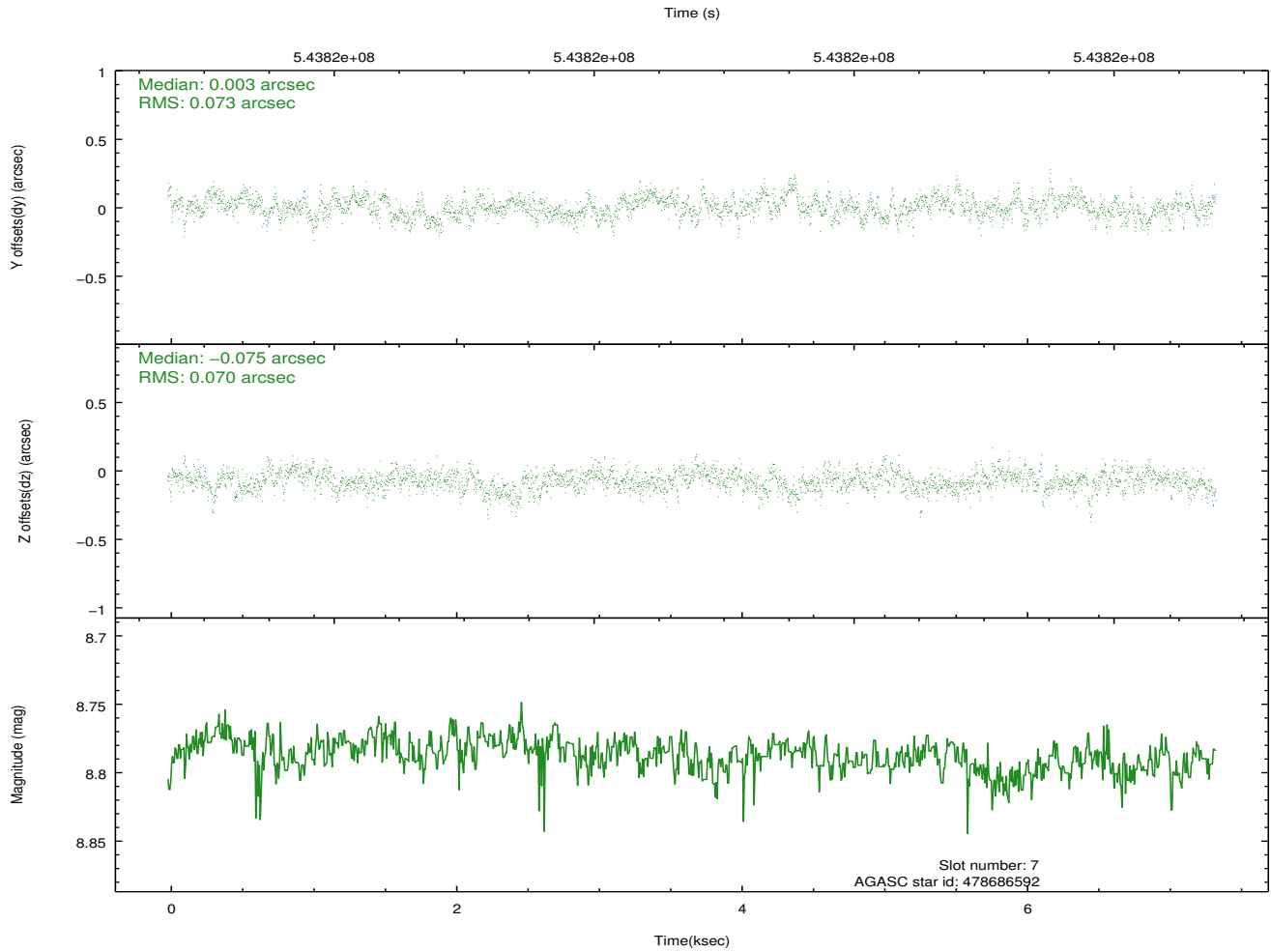
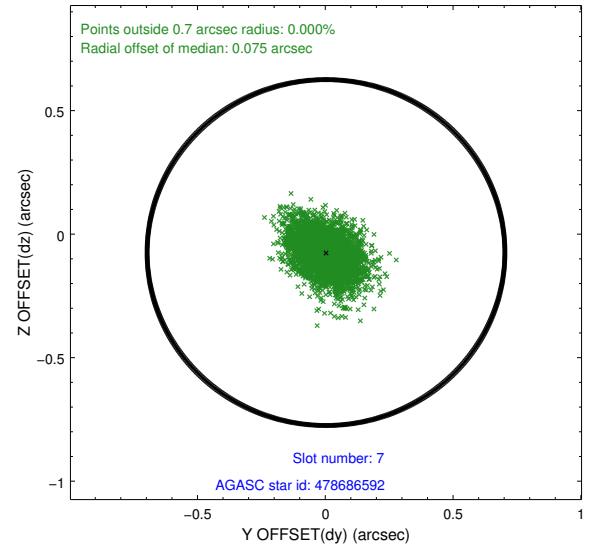
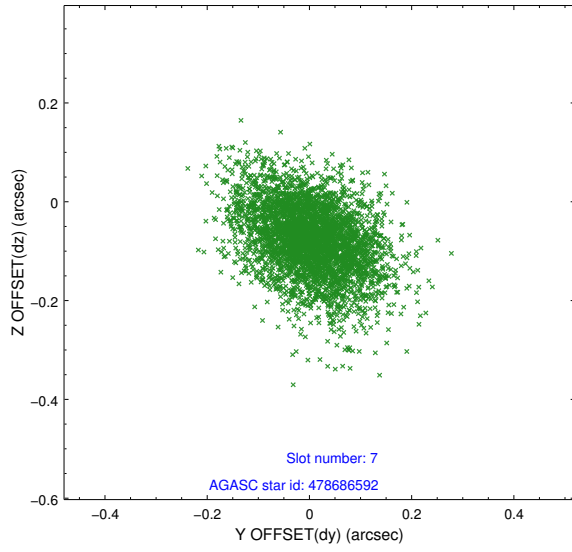


## 2.4.4 Slot 6



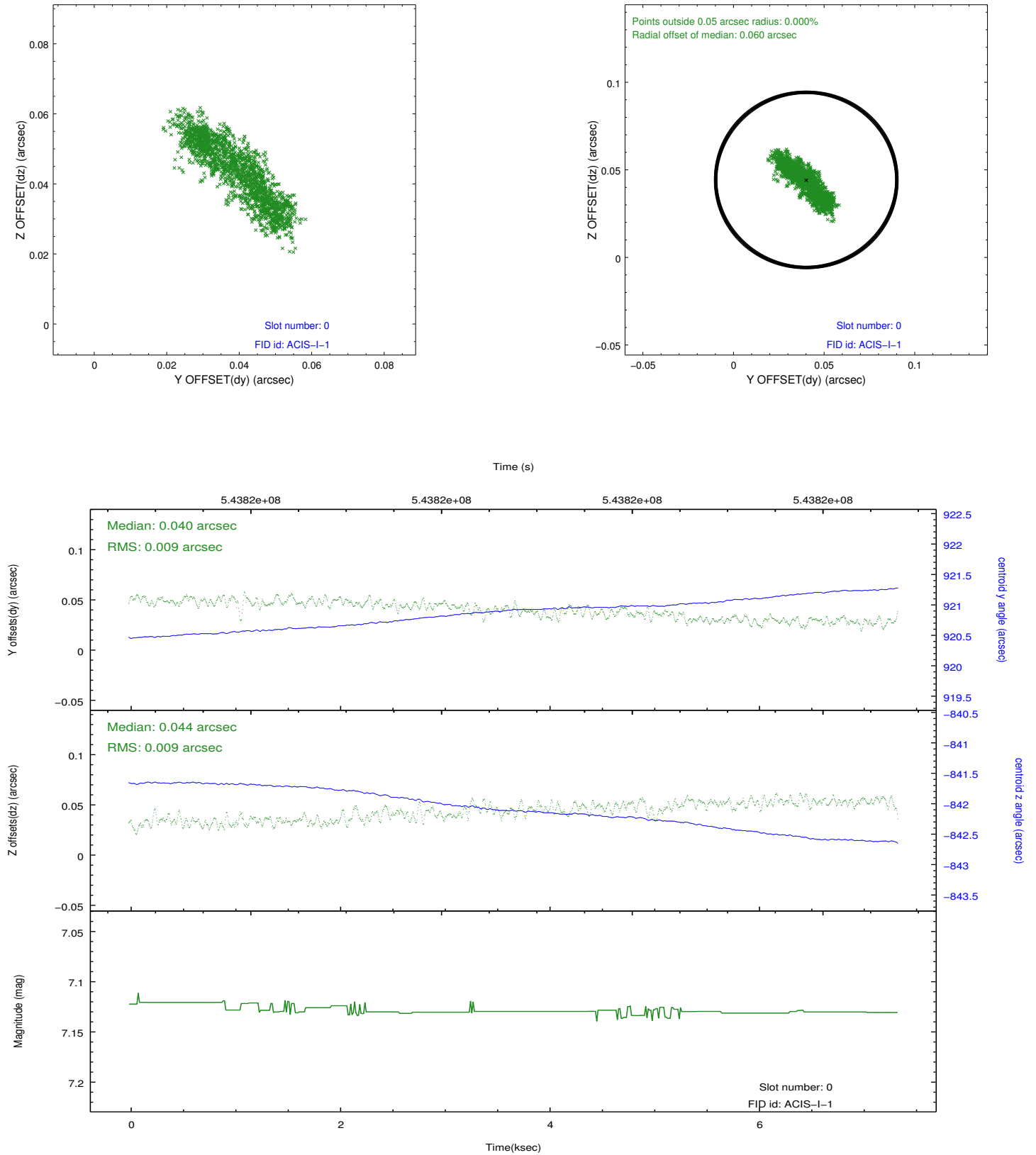


## 2.4.5 Slot 7

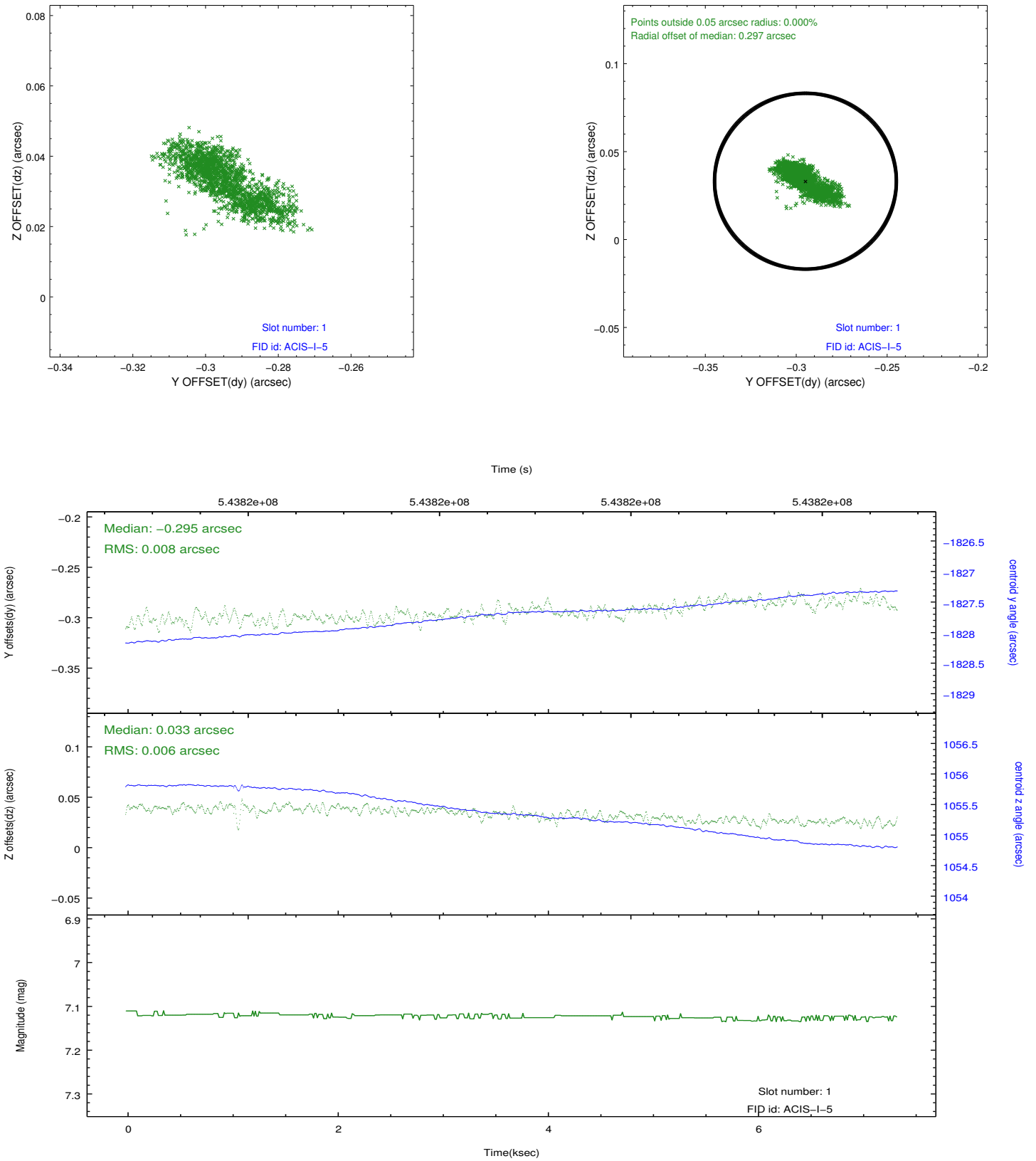


## 2.5 FID Slots

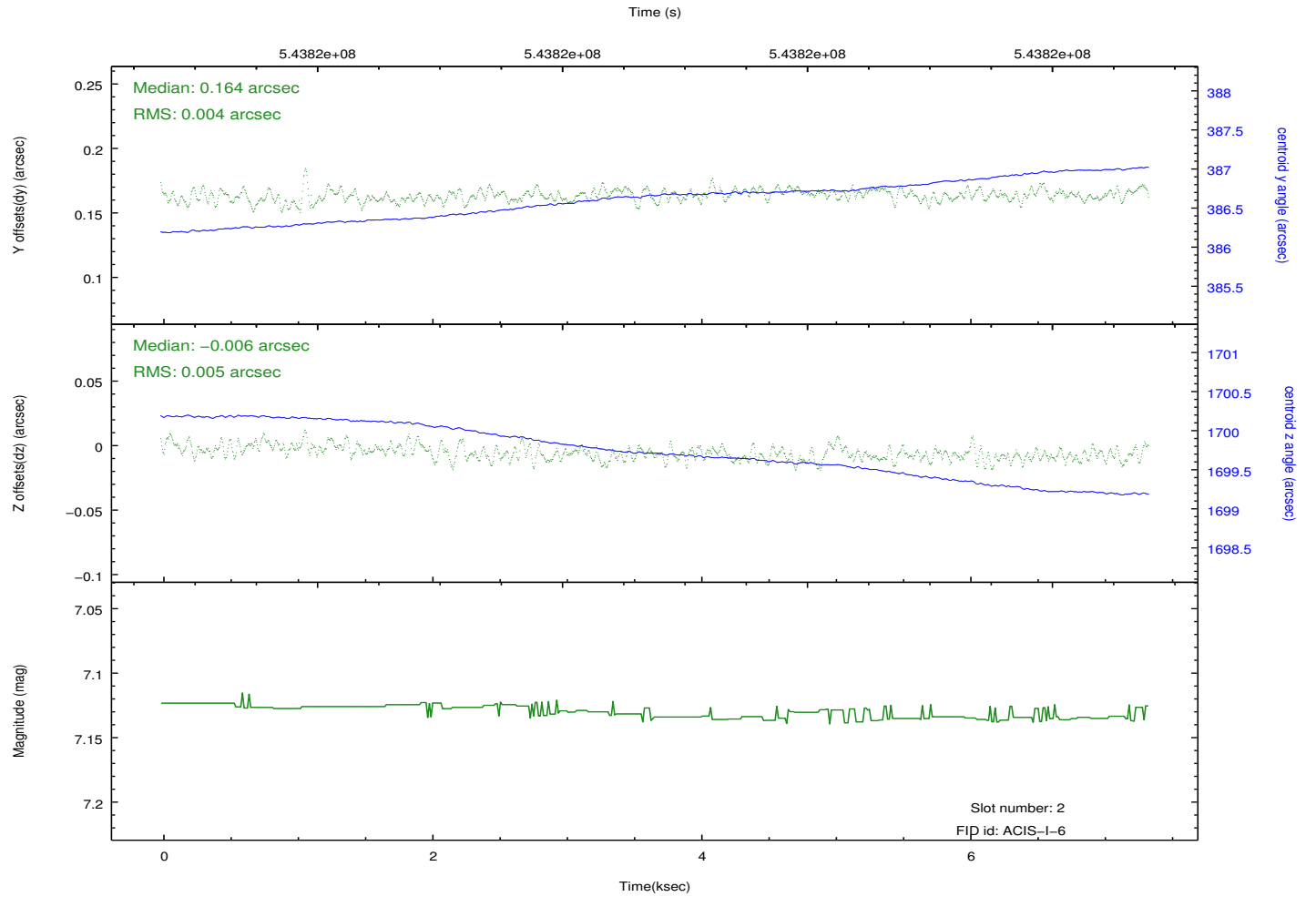
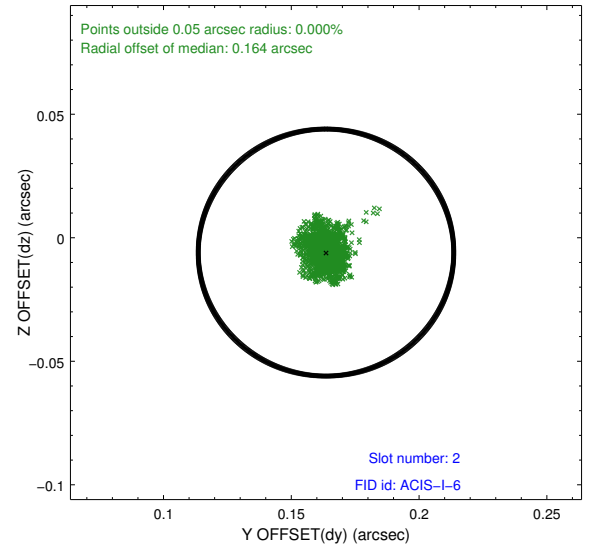
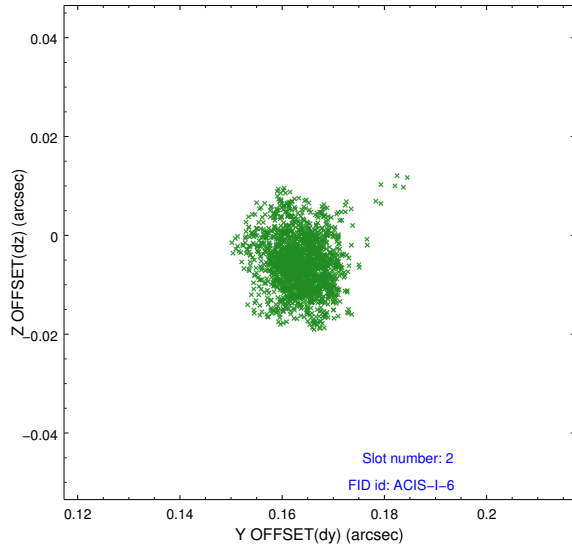
### 2.5.1 Slot 0



## 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)	2015.03.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.4672000963688

### A.2 Comments