

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21295 - L2 Version 1  
Chandra X-Ray Center

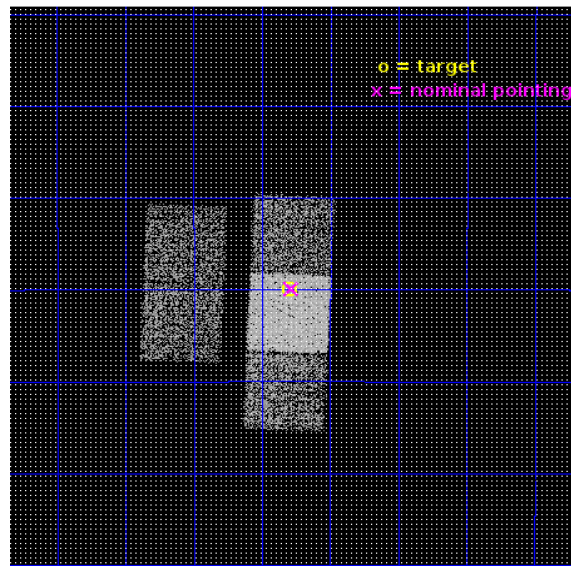
L2 Processing Date : Feb 28 2019

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# 1 Front

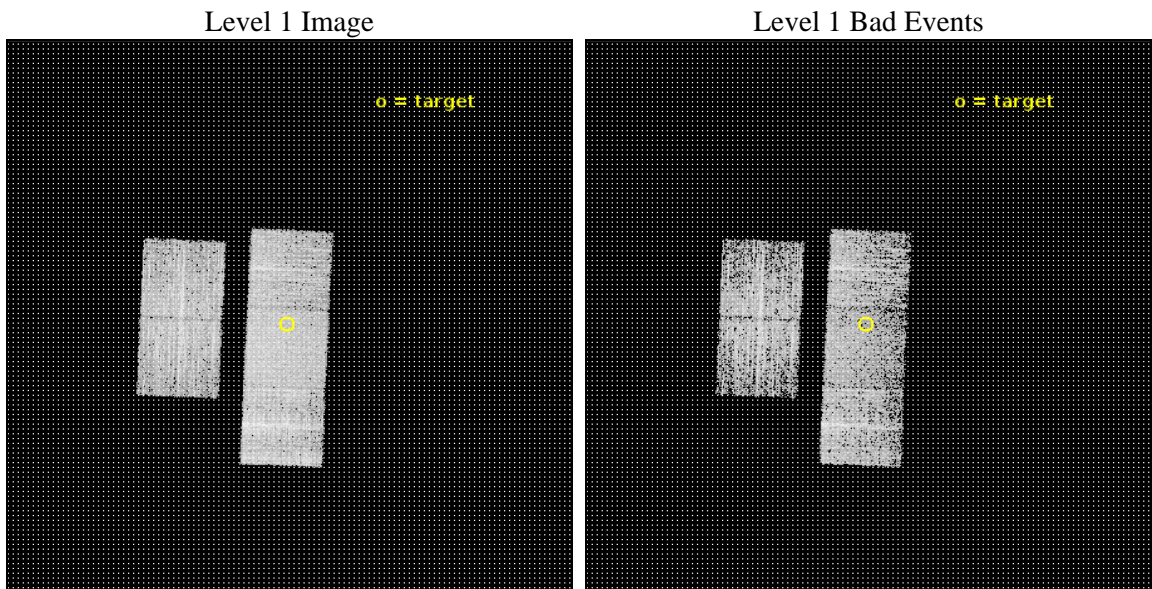
seq_num	503068	Sequence number
obs_id	21295	Observation id
title	Where Have All the Central Compact Objects Gone?	Proposal title
observer	Eric Gotthelf	Principal investigator
object	PSR J1901-1740	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	285.325	Observer's specified target RA [deg]
dec_targ	-17.666667	Observer's specified target Dec [deg]
ra_nom	285.32115830742	Nominal RA [deg]
dec_nom	-17.665044050156	Nominal Dec [deg]
roll_nom	92.585661128859	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3552.600027442	Sum of GTIs [s]
livetime	3506.1826926974	Livetime [s]
ontime2	3552.600027442	Sum of GTIs [s]
ontime3	3552.600027442	Sum of GTIs [s]
ontime6	3543.1771461964	Sum of GTIs [s]
ontime7	3552.600027442	Sum of GTIs [s]
ontime8	3552.600027442	Sum of GTIs [s]
l2events	26087	Number of level 2 events



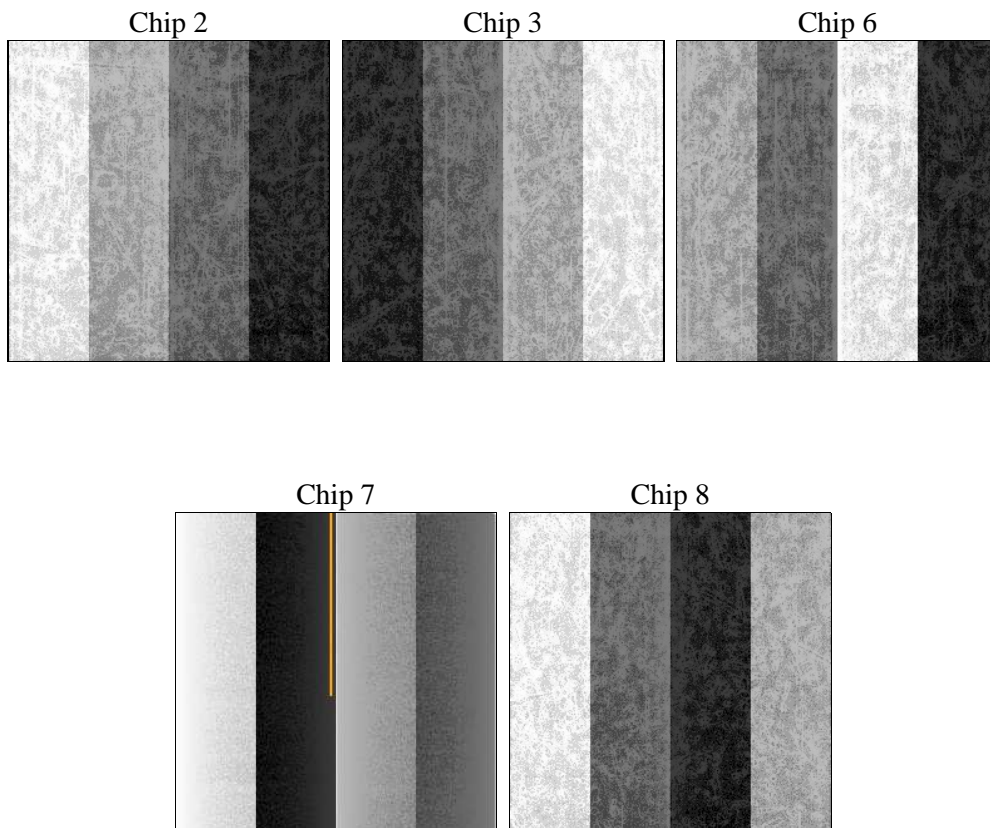
## 2 OBI

### 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	10.7.1	Processing system revision	ontime	3552.600027442	Sum of GTIs [s]
caldsver	4.8.2	&#160	ontime2	3552.600027442	Sum of GTIs [s]
date	2019-02-28T05:29:47	Date and time of file creation	ontime3	3552.600027442	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	3543.1771461964	Sum of GTIs [s]
			ontime7	3552.600027442	Sum of GTIs [s]
			ontime8	3552.600027442	Sum of GTIs [s]
			l1events	150416	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	26173	25969	26852	34933	36489
rejected events	23253	23059	23609	19743	26090
rejected %	88%	88%	87%	56%	71%

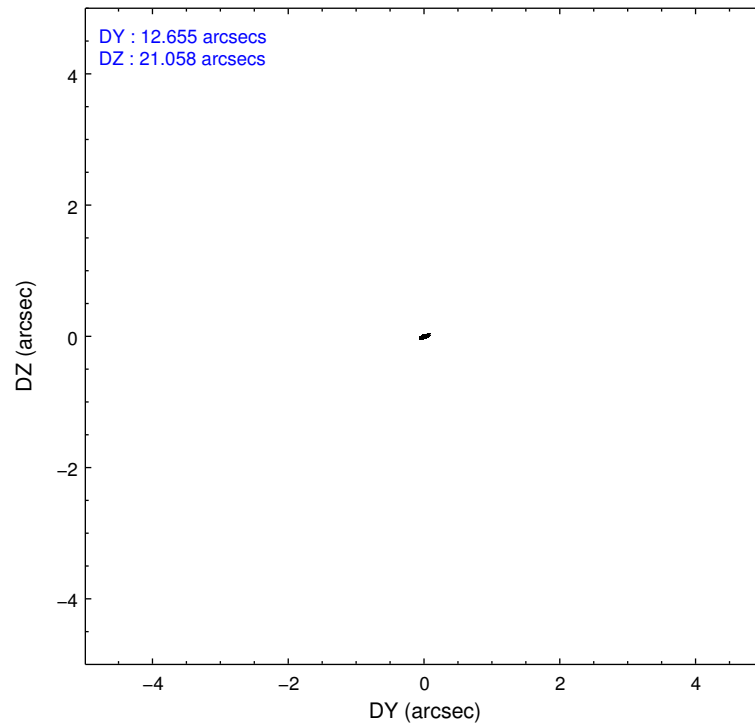
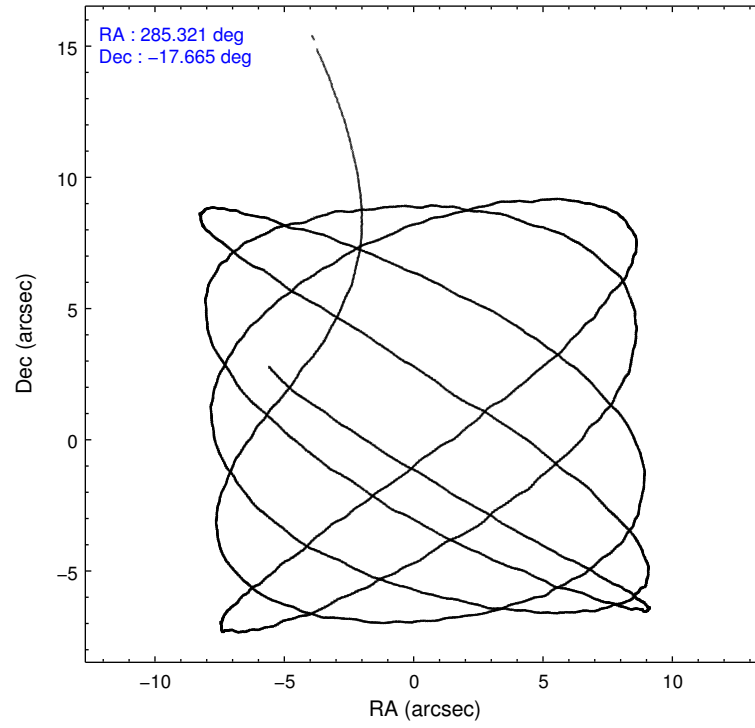
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1020	1064	1122	1253	3019
	3%	4%	4%	3%	8%
grade 1 events	15	21	16	56	24
	0%	0%	0%	0%	0%
grade 2 events	732	641	742	3299	2484
	2%	2%	2%	9%	6%
grade 3 events	292	298	335	1228	1040
	1%	1%	1%	3%	2%
grade 4 events	343	344	319	1165	1000
	1%	1%	1%	3%	2%
grade 5 events	1037	1283	1342	3475	1943
	3%	4%	4%	9%	5%
grade 6 events	542	569	728	8274	2867
	2%	2%	2%	23%	7%
grade 7 events	22192	21749	22248	16183	24112
	84%	83%	82%	46%	66%

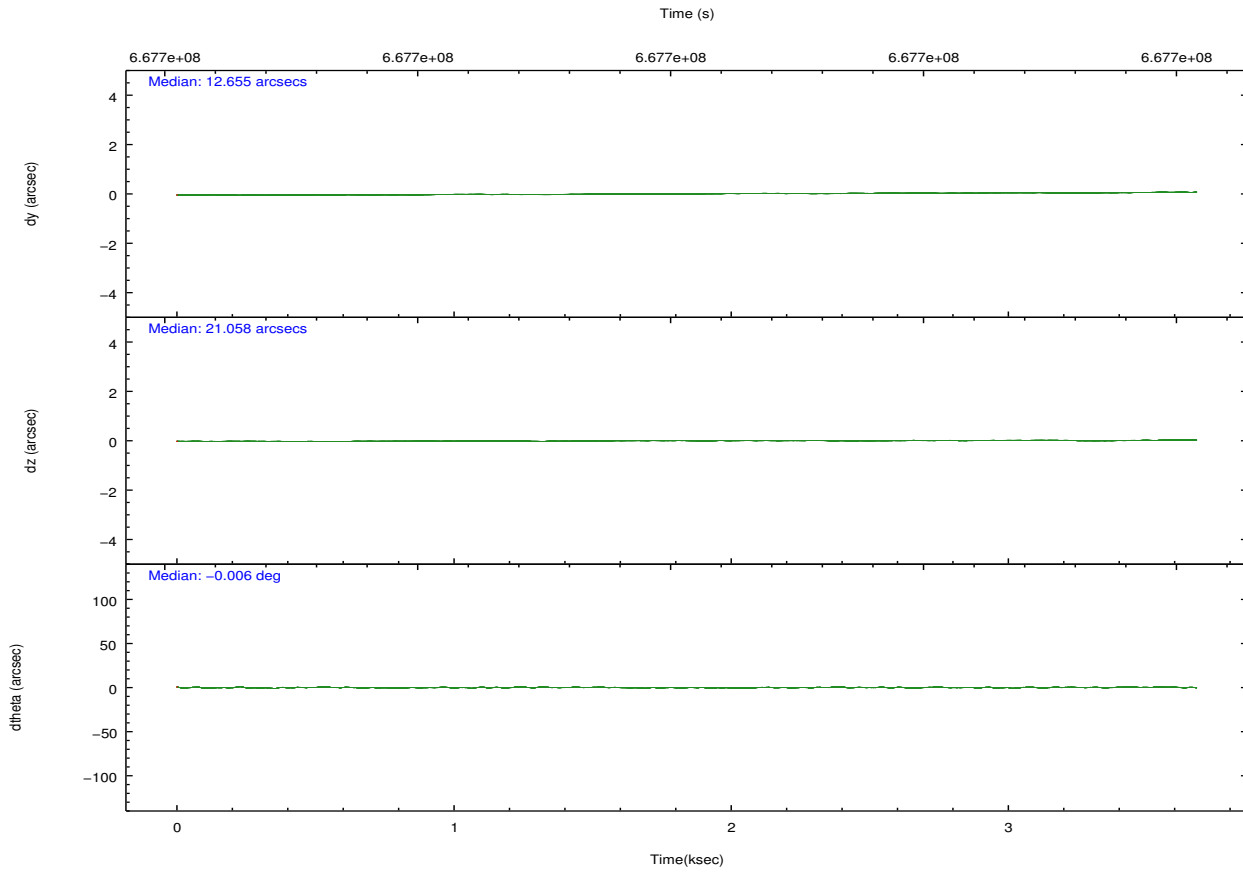
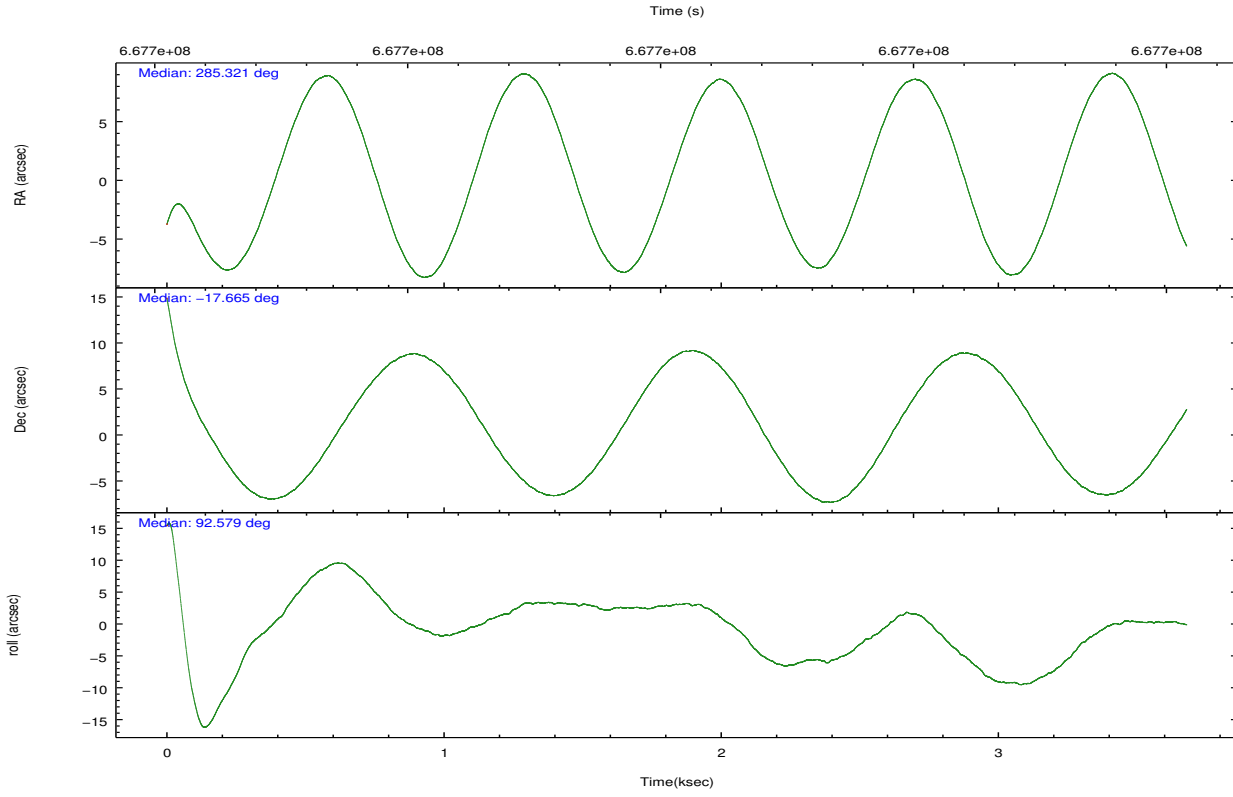


## 2.2 Compared Parameters

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	285.337030	285.3211583074225	CCD I2 on	O1	Y
[deg] Pointing Dec	-17.687841	-17.66504405015577	CCD I3 on	O2	Y
[deg] Pointing Roll	92.433774	92.58566112885887	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)	667698390.184000	667697228.04887	CCD S5 on	N	N
Observation start date	2019-02-27T23:45:21	2019-02-27T23:27:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	667701890.184000	667702919.87421	On-chip summing requested	N	N
Observation end date	2019-02-28T00:43:41	2019-02-28T01:01:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



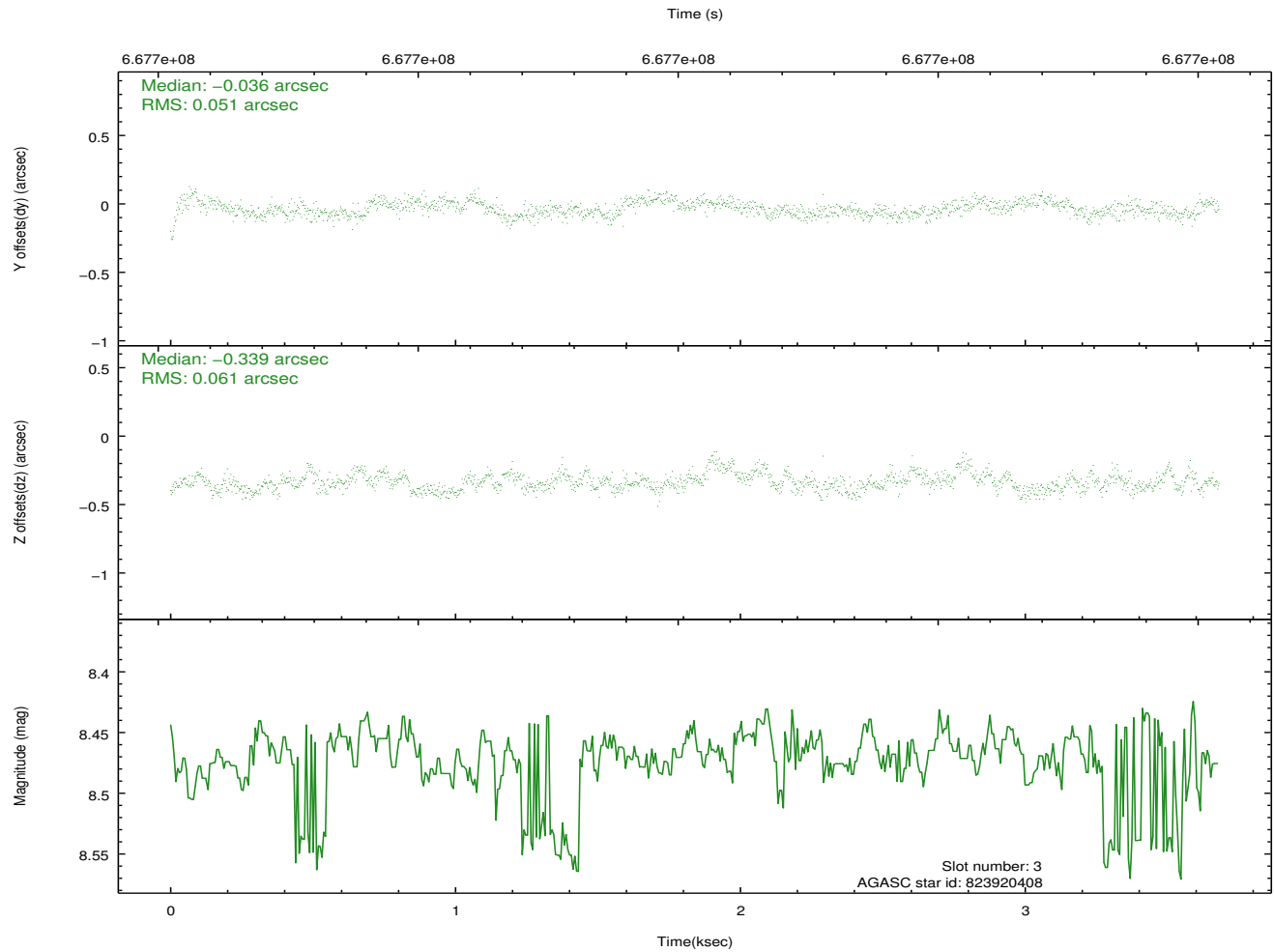
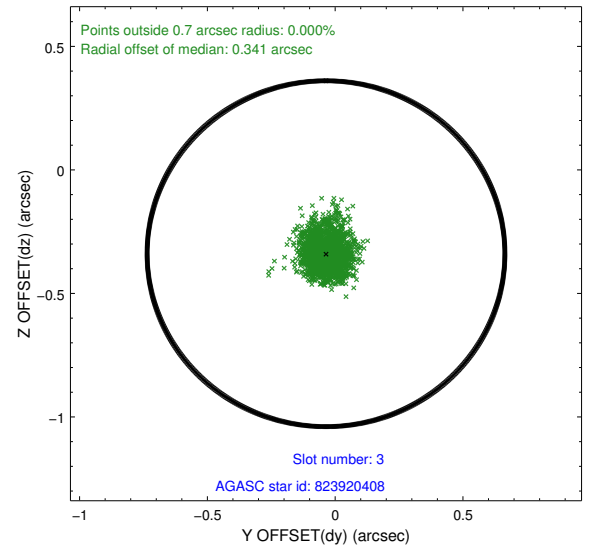
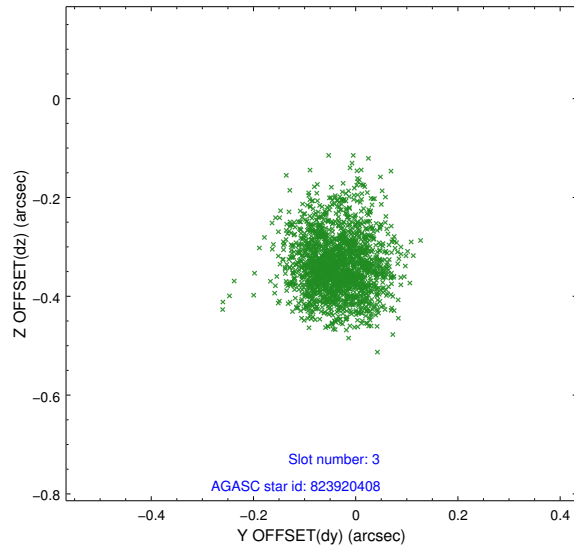


Slot Statistics

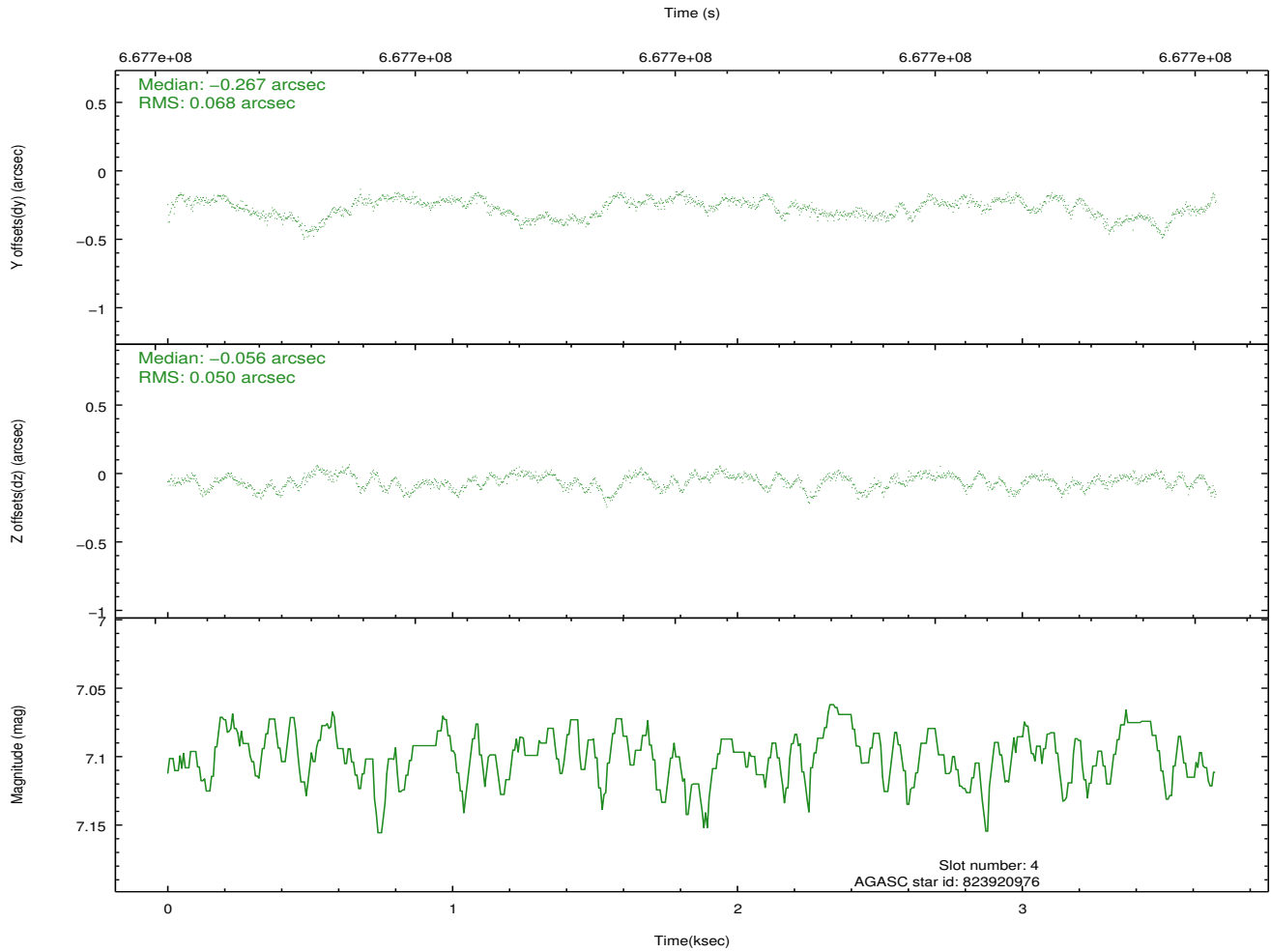
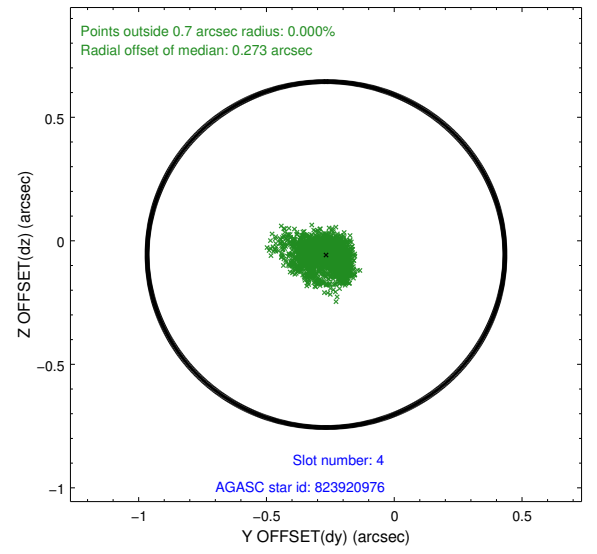
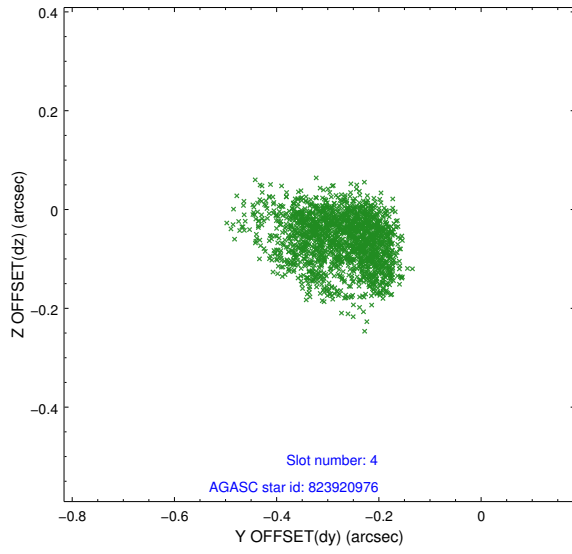
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.94	898	1.000	-0.274	-0.119	0.008	0.012	0.000000	0.000000	-765.76	-1742
1	FID		ACIS-S-4	7.07	898	1.000	0.669	0.164	0.007	0.014	0.000000	0.000000	2147.59	164
2	FID		ACIS-S-5	7.07	898	1.000	-0.426	-0.036	0.007	0.015	0.000000	0.000000	-1816.64	159
3	GUIDE	used	823920408	8.47	1794	1.000	-0.036	-0.339	0.084	0.136	284.644356	-17.120451	2137.85	2294
4	GUIDE	used	823920976	7.10	1796	1.000	-0.267	-0.056	0.090	0.141	285.178526	-17.216275	1720.57	473
5	GUIDE	used	823922368	7.94	1796	1.000	-0.034	0.075	0.125	0.229	285.106979	-17.484365	766.27	757
6	GUIDE	used	823922856	8.19	1796	1.000	0.232	0.461	0.088	0.148	285.460016	-17.351623	1191.98	-472
7	GUIDE	used	823925832	8.38	1794	1.000	0.121	-0.143	0.110	0.187	284.707575	-17.939583	-816.12	2191

## 2.4 Star Slots

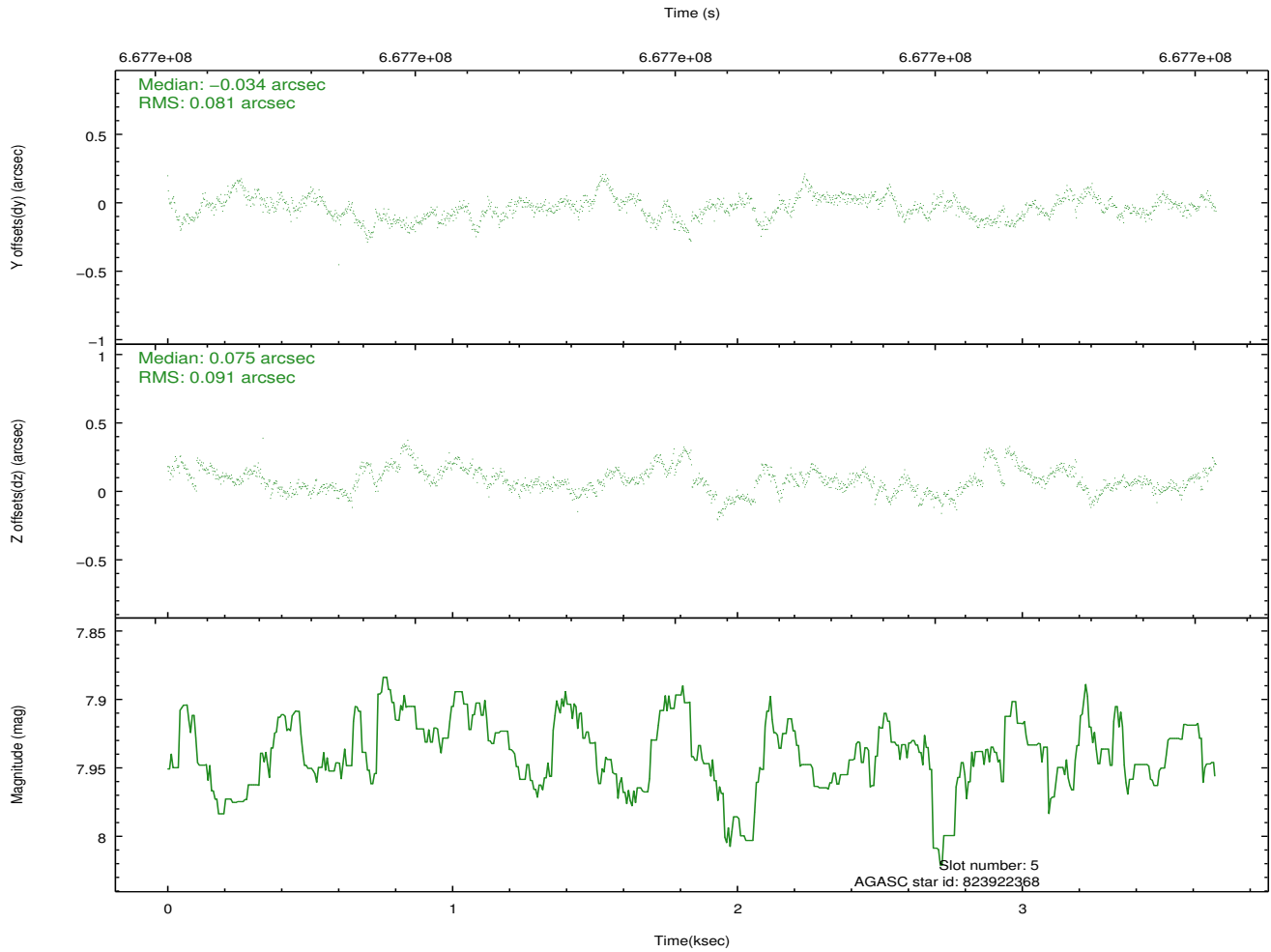
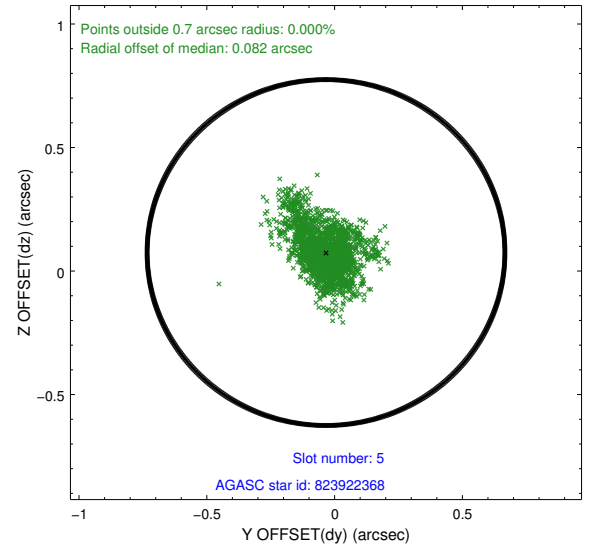
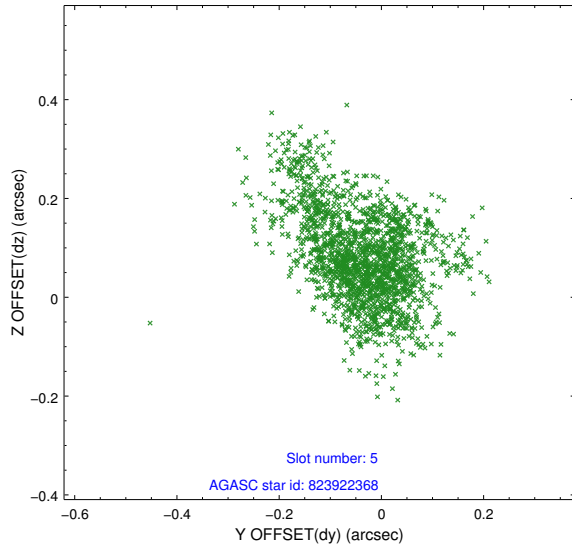
### 2.4.1 Slot 3



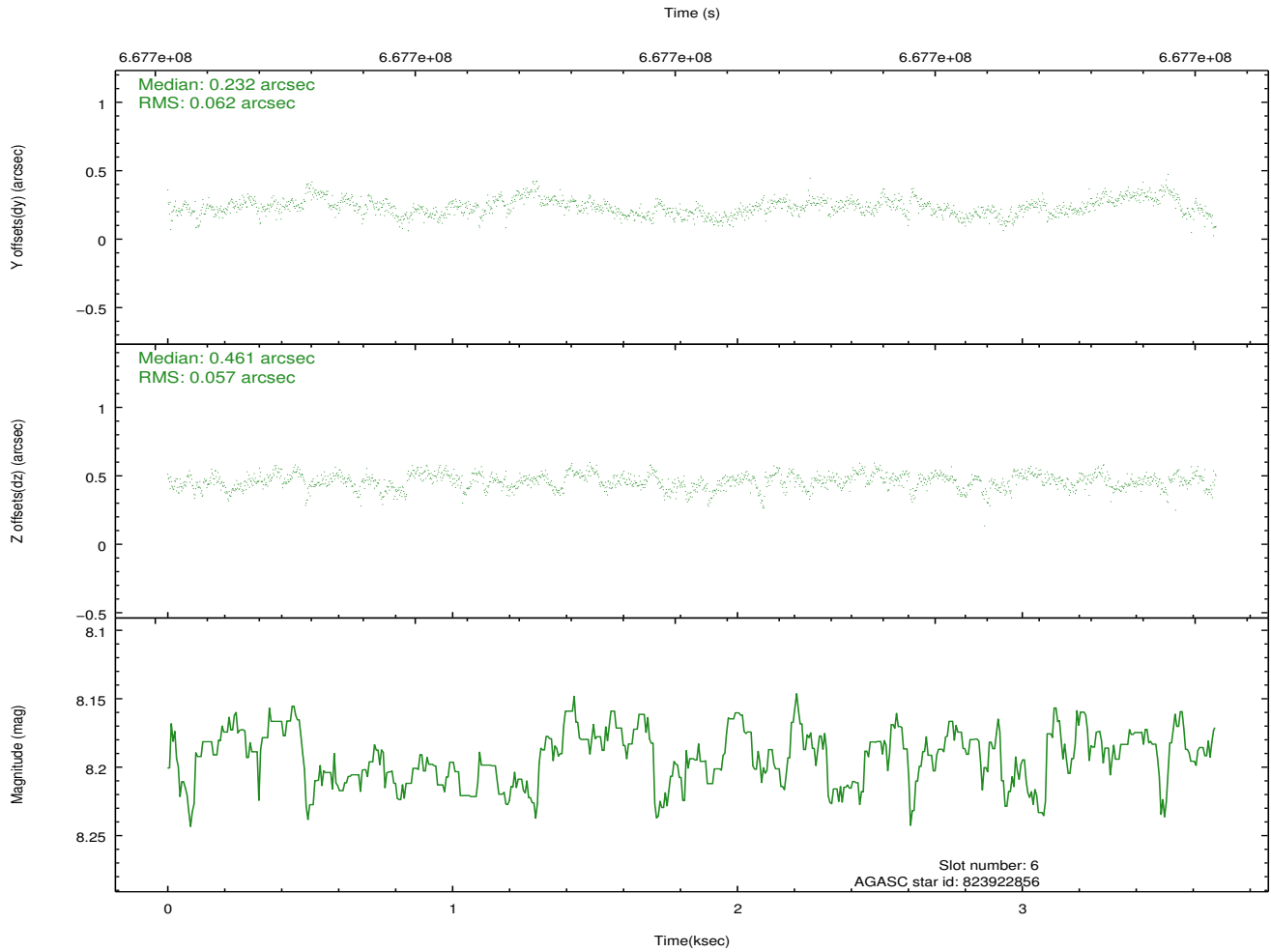
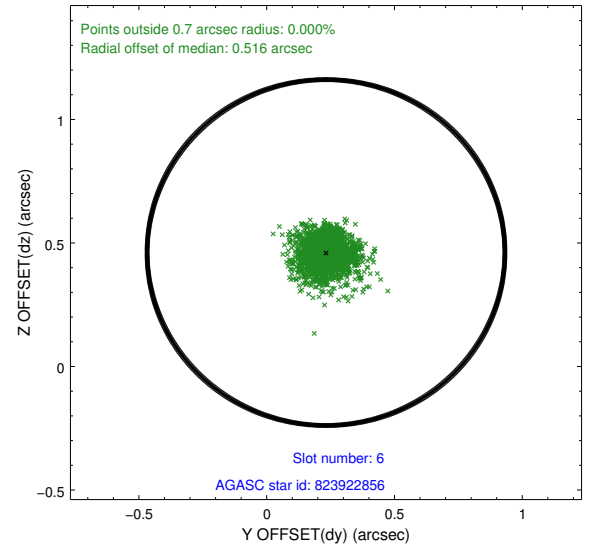
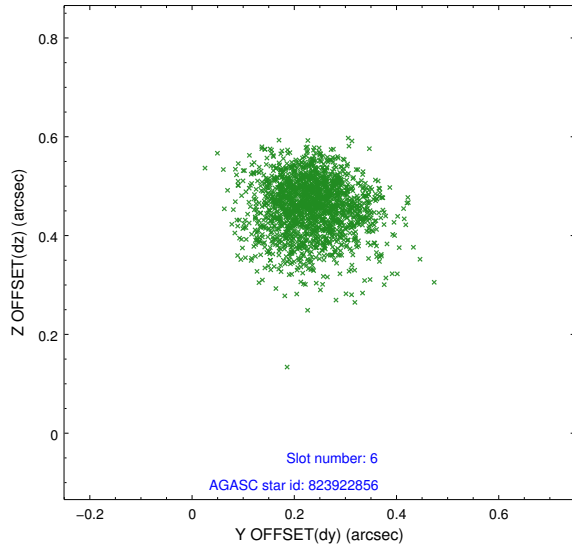
## 2.4.2 Slot 4



### 2.4.3 Slot 5

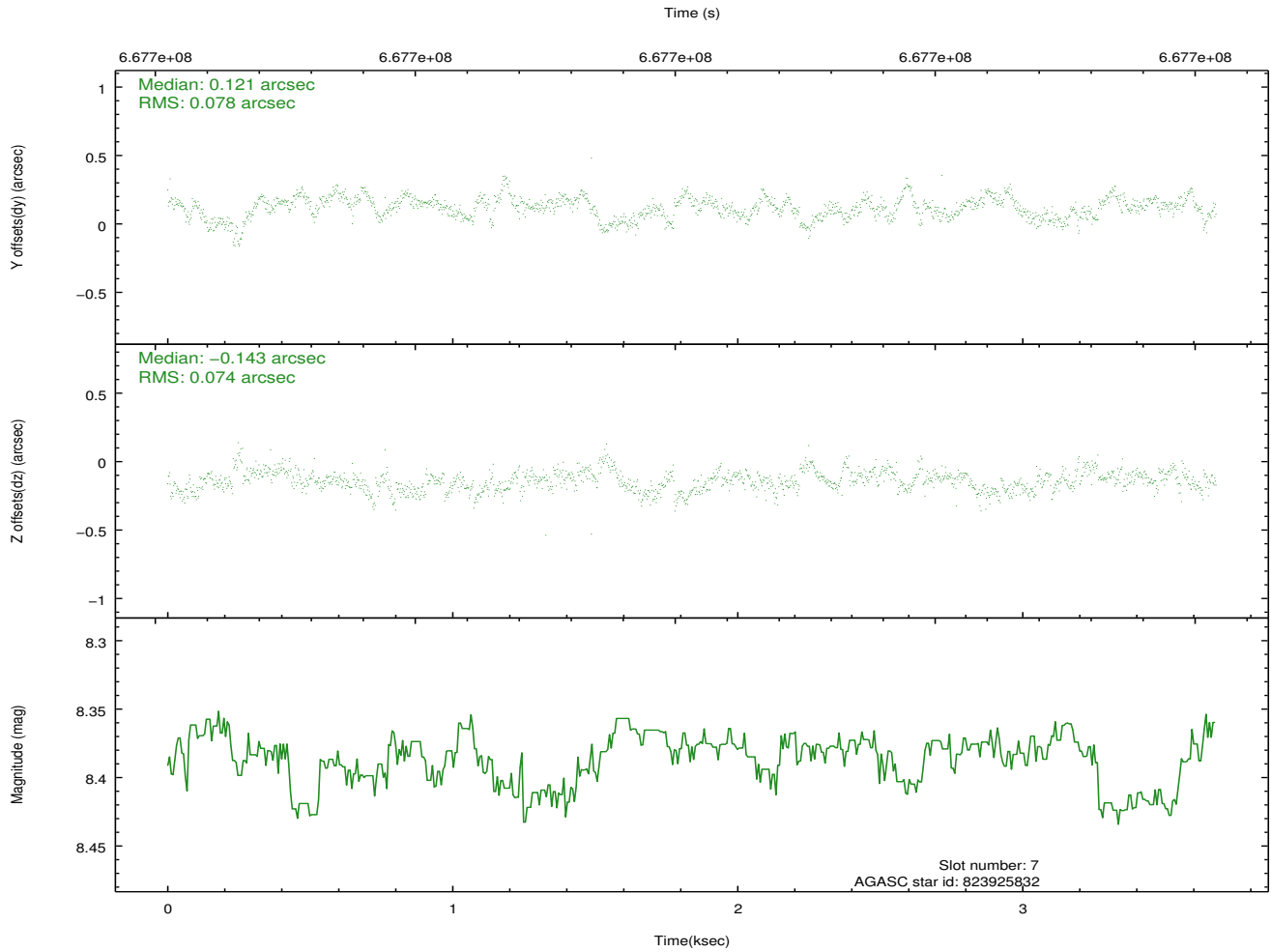
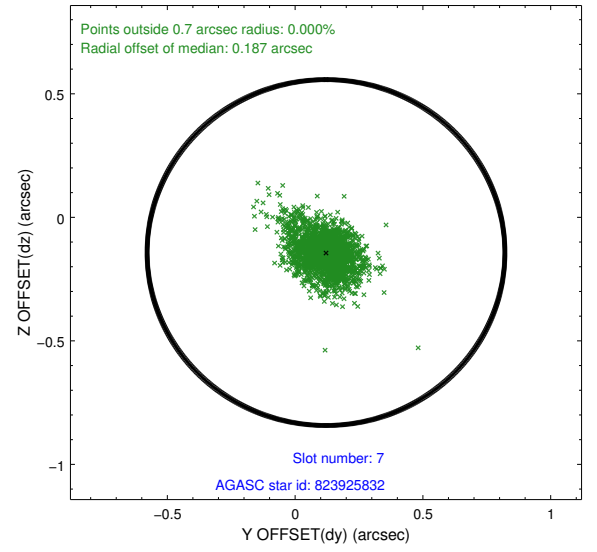
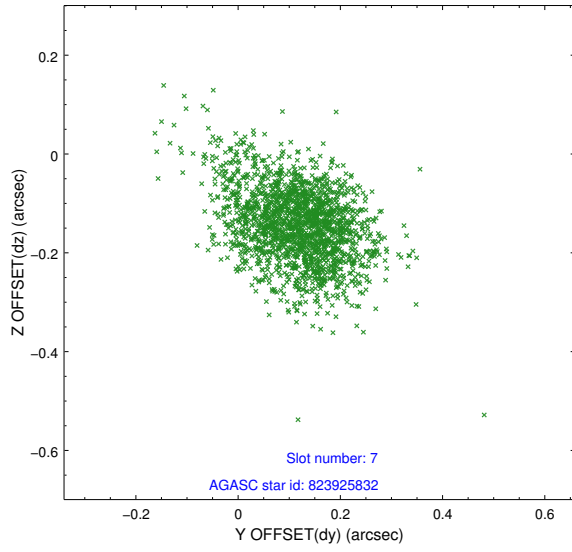


## 2.4.4 Slot 6



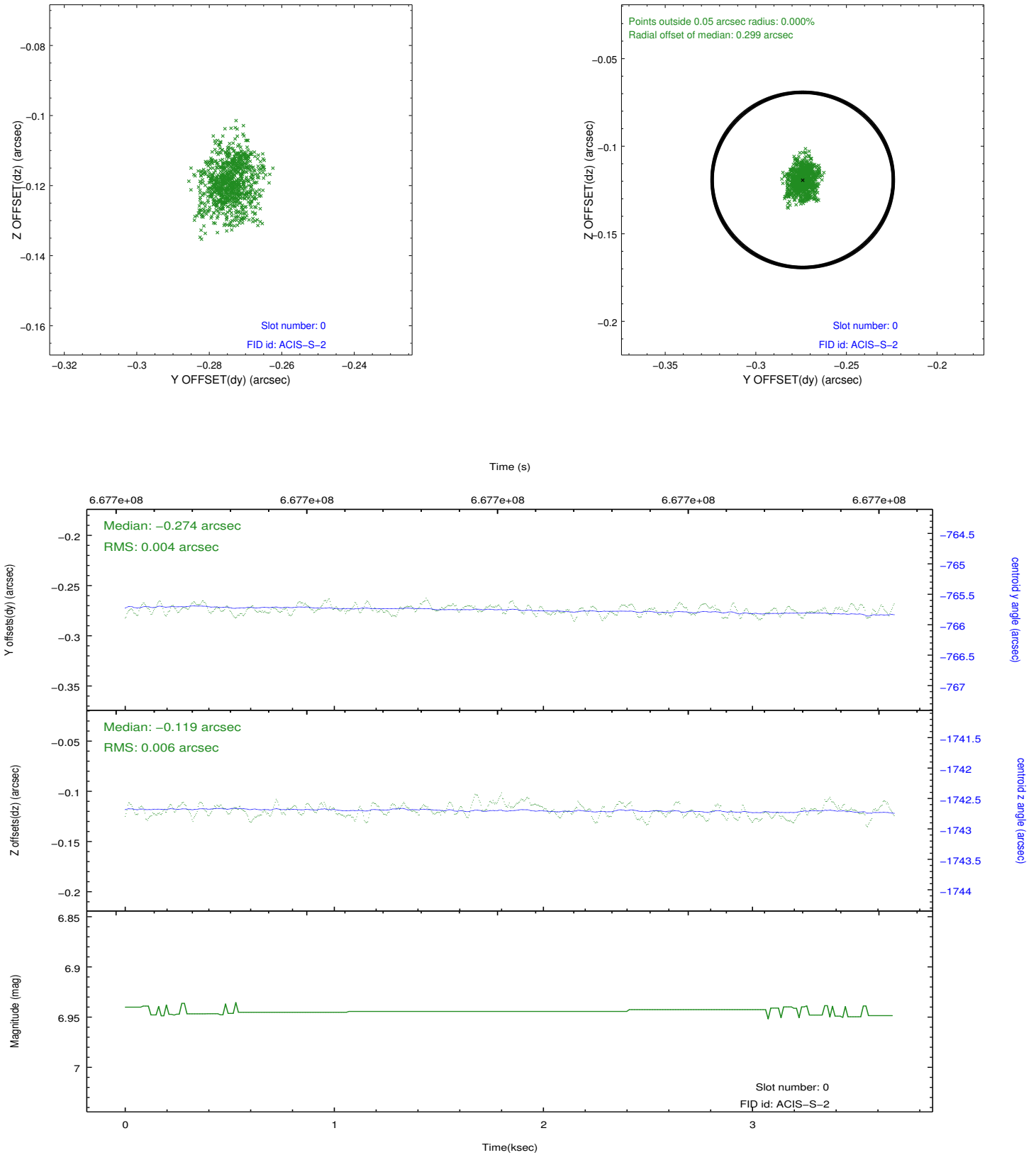


## 2.4.5 Slot 7

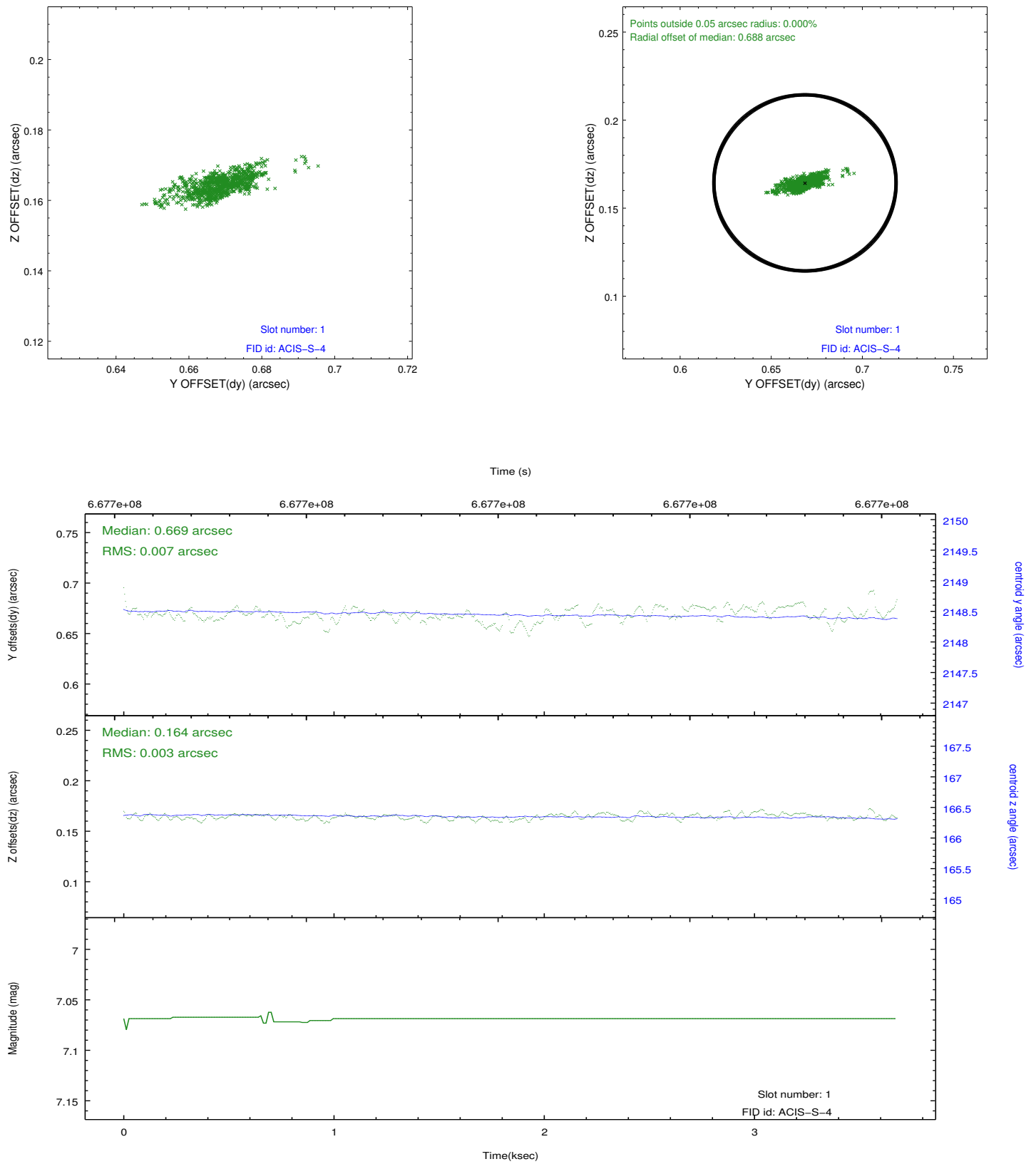


## 2.5 FID Slots

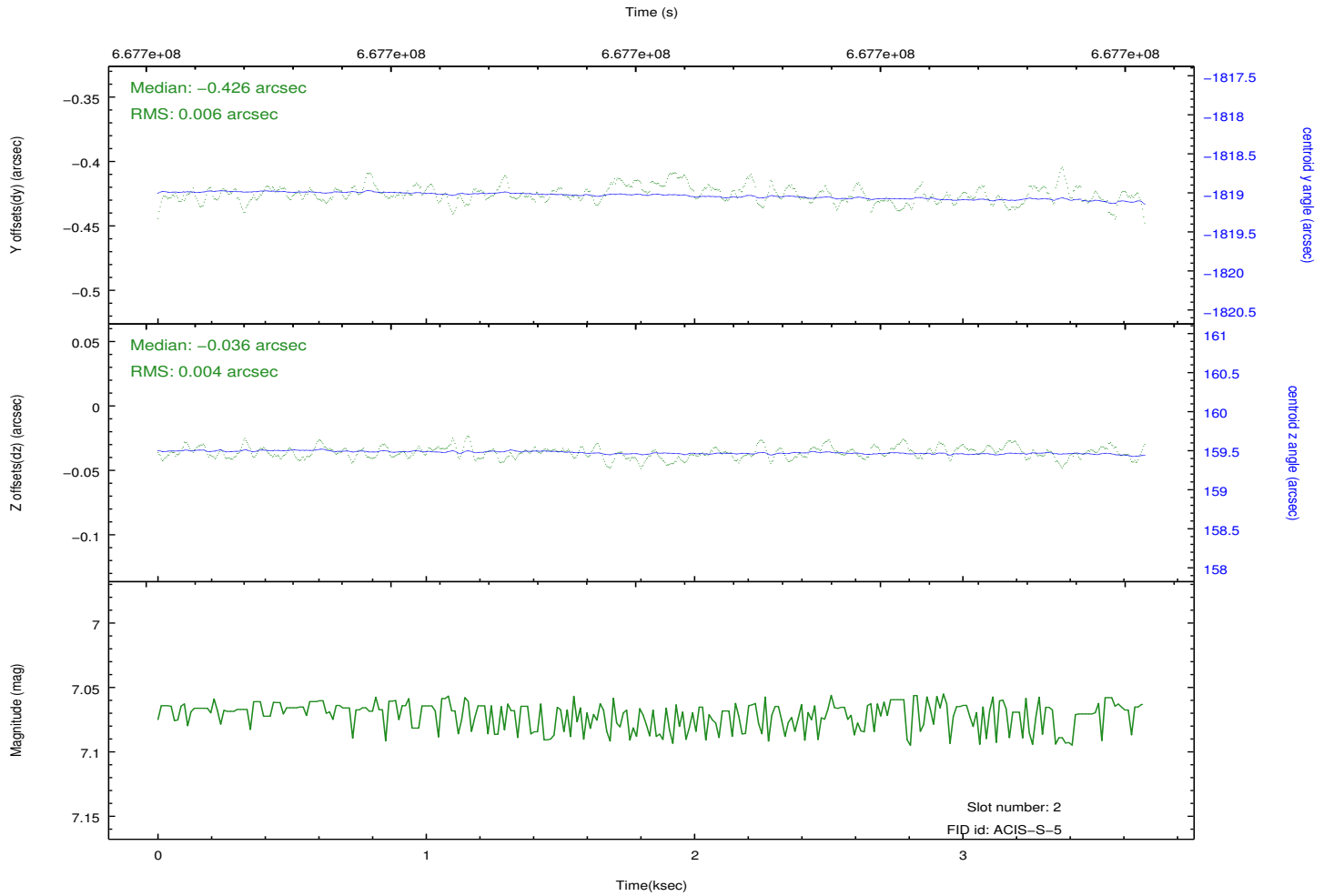
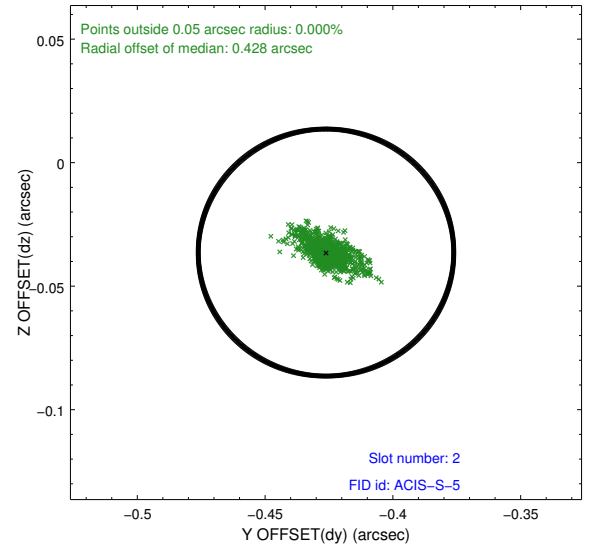
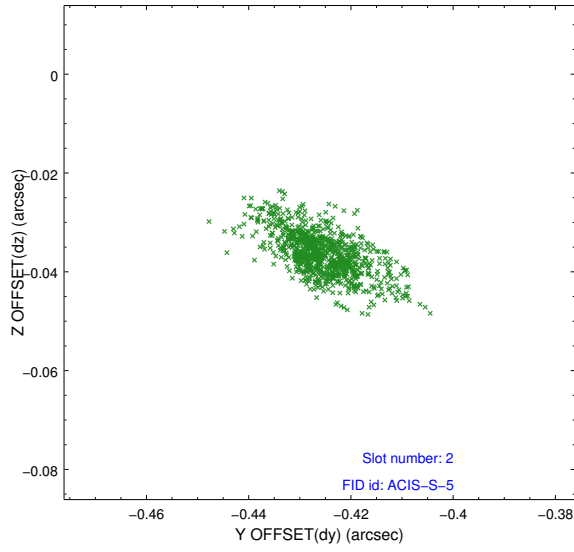
### 2.5.1 Slot 0



## 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)	2019.02.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.552600027442

### A.2 Comments