

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18656 - L2 Version 1  
Chandra X-Ray Center

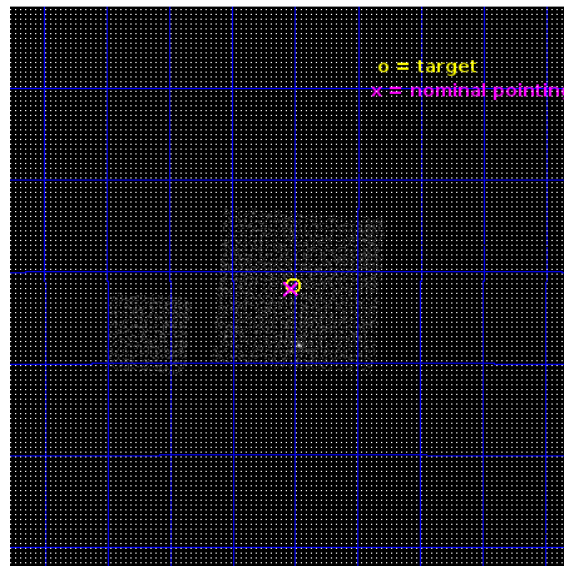
L2 Processing Date : Jul 31 2016

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# 1 Front

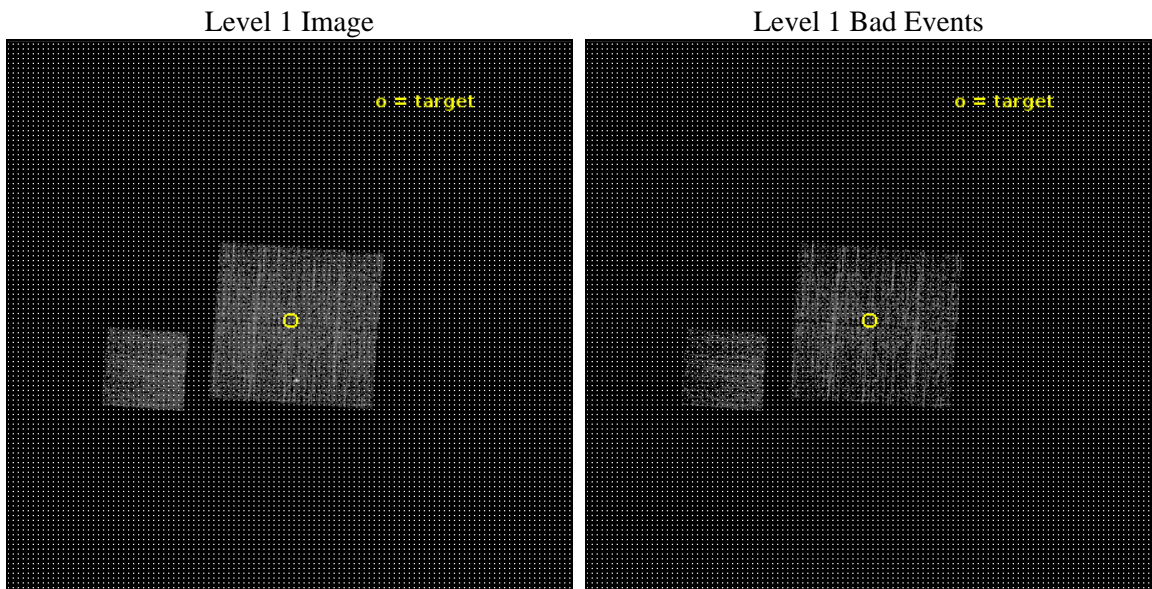
seq_num	300380	Sequence number
obs_id	18656	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	264.37893	Observer's specified target RA [deg]
dec_targ	-29.02574	Observer's specified target Dec [deg]
ra_nom	264.38242802974	Nominal RA [deg]
dec_nom	-29.031829660836	Nominal Dec [deg]
roll_nom	274.0425224009	Nominal Roll [deg]
revision	1	Processing version of data
ontime	2073.9000160694	Sum of GTIs [s]
livetime	2046.8029855765	Livetime [s]
ontime0	2073.9000160694	Sum of GTIs [s]
ontime1	2073.9000160694	Sum of GTIs [s]
ontime2	2073.9000160694	Sum of GTIs [s]
ontime3	2073.9000160694	Sum of GTIs [s]
ontime6	2073.9000160694	Sum of GTIs [s]
l2events	10426	Number of level 2 events



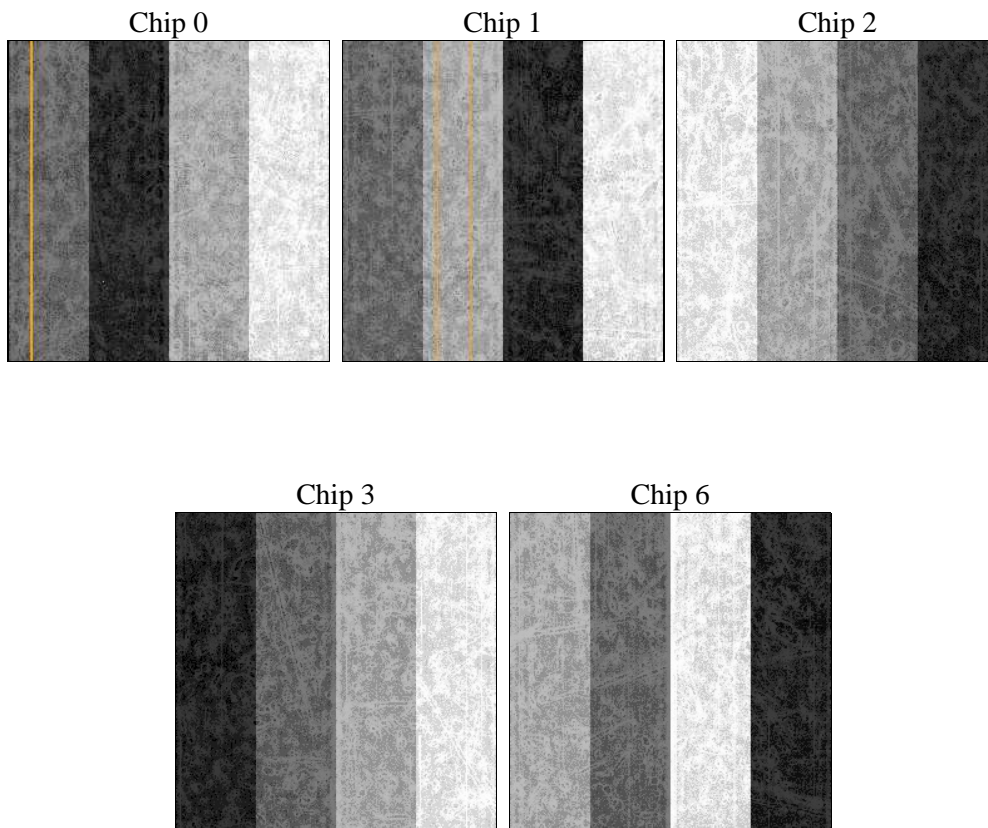
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	2073.9000160694	Sum of GTIs [s]
caldbver	4.7.2	&#160	ontime0	2073.9000160694	Sum of GTIs [s]
date	2016-07-31T12:45:47	Date and time of file creation	ontime1	2073.9000160694	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	2073.9000160694	Sum of GTIs [s]
			ontime3	2073.9000160694	Sum of GTIs [s]
			ontime6	2073.9000160694	Sum of GTIs [s]
			l1events	68388	Number of level 1 events

### 2.1.4 Events

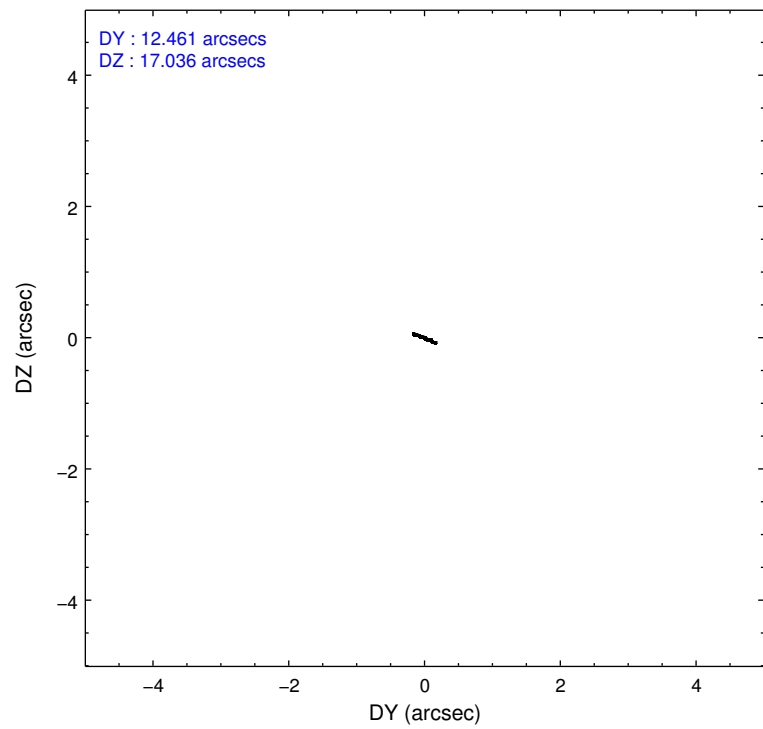
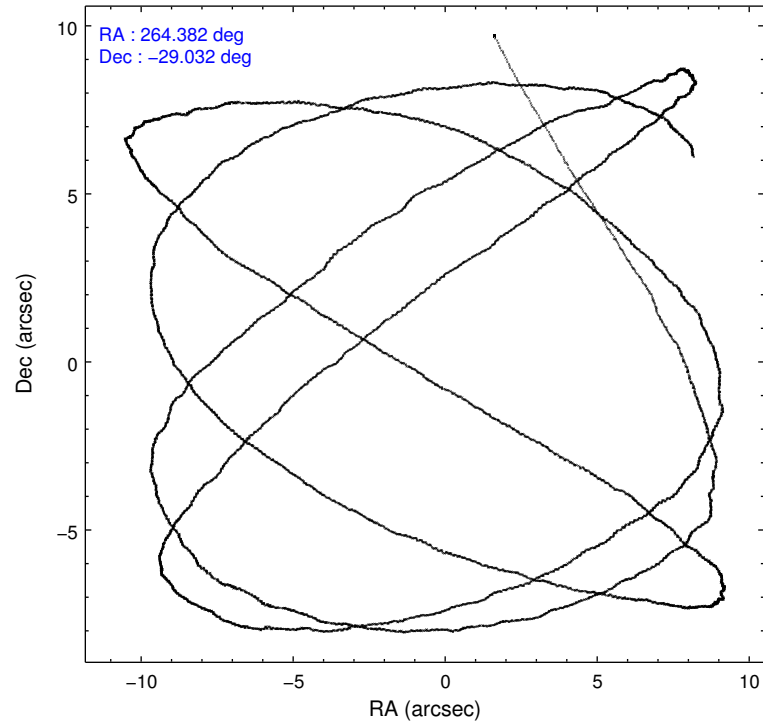
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	15725	11968	14011	13472	13212
rejected events	10873	10030	12108	11864	11533
rejected %	69%	83%	86%	88%	87%

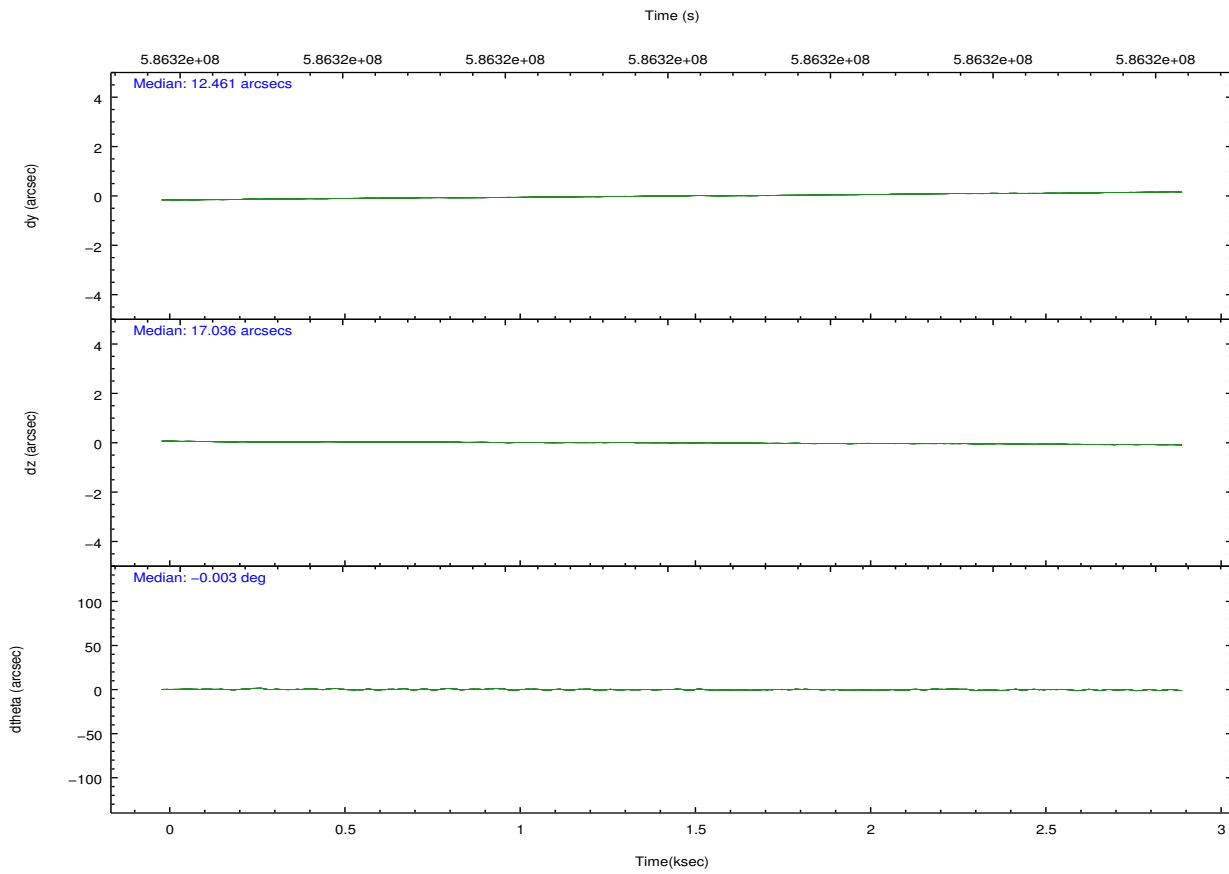
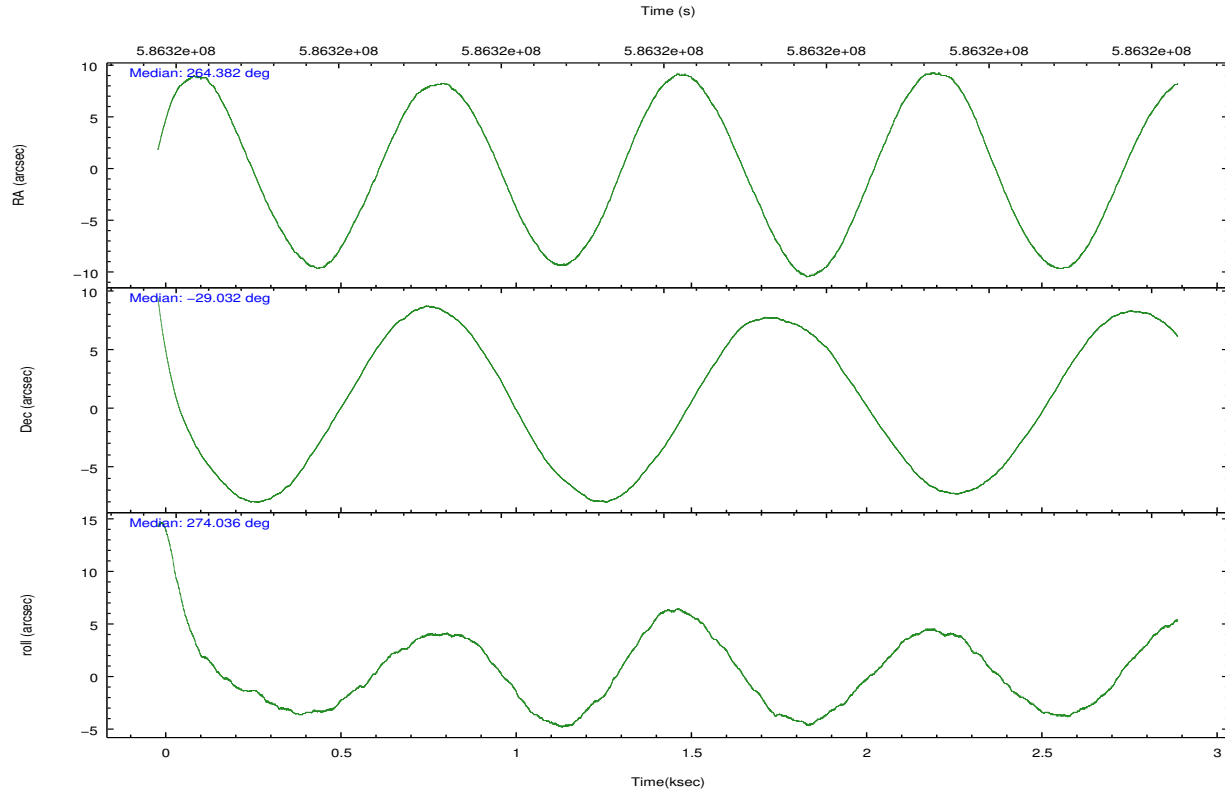
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2649	770	838	632	615
	16%	6%	5%	4%	4%
grade 1 events	159	7	11	9	7
	1%	0%	0%	0%	0%
grade 2 events	925	441	470	350	355
	5%	3%	3%	2%	2%
grade 3 events	324	160	143	154	172
	2%	1%	1%	1%	1%
grade 4 events	309	164	163	163	183
	1%	1%	1%	1%	1%
grade 5 events	714	641	609	628	656
	4%	5%	4%	4%	4%
grade 6 events	651	407	291	312	358
	4%	3%	2%	2%	2%
grade 7 events	9994	9378	11486	11224	10866
	63%	78%	81%	83%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	264.364574	264.3824280297442	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.009025	-29.031829660836	CCD I3 on	Y	Y
[deg] Pointing Roll	273.825125	274.0425224009001	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	586315960.184000	586313433.2091399	CCD S5 on	N	N
Observation start date	2016-07-31T01:31:32	2016-07-31T00:50:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	586317960.184000	586318093.37191	On-chip summing requested	N	N
Observation end date	2016-07-31T02:04:52	2016-07-31T02:08:13	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





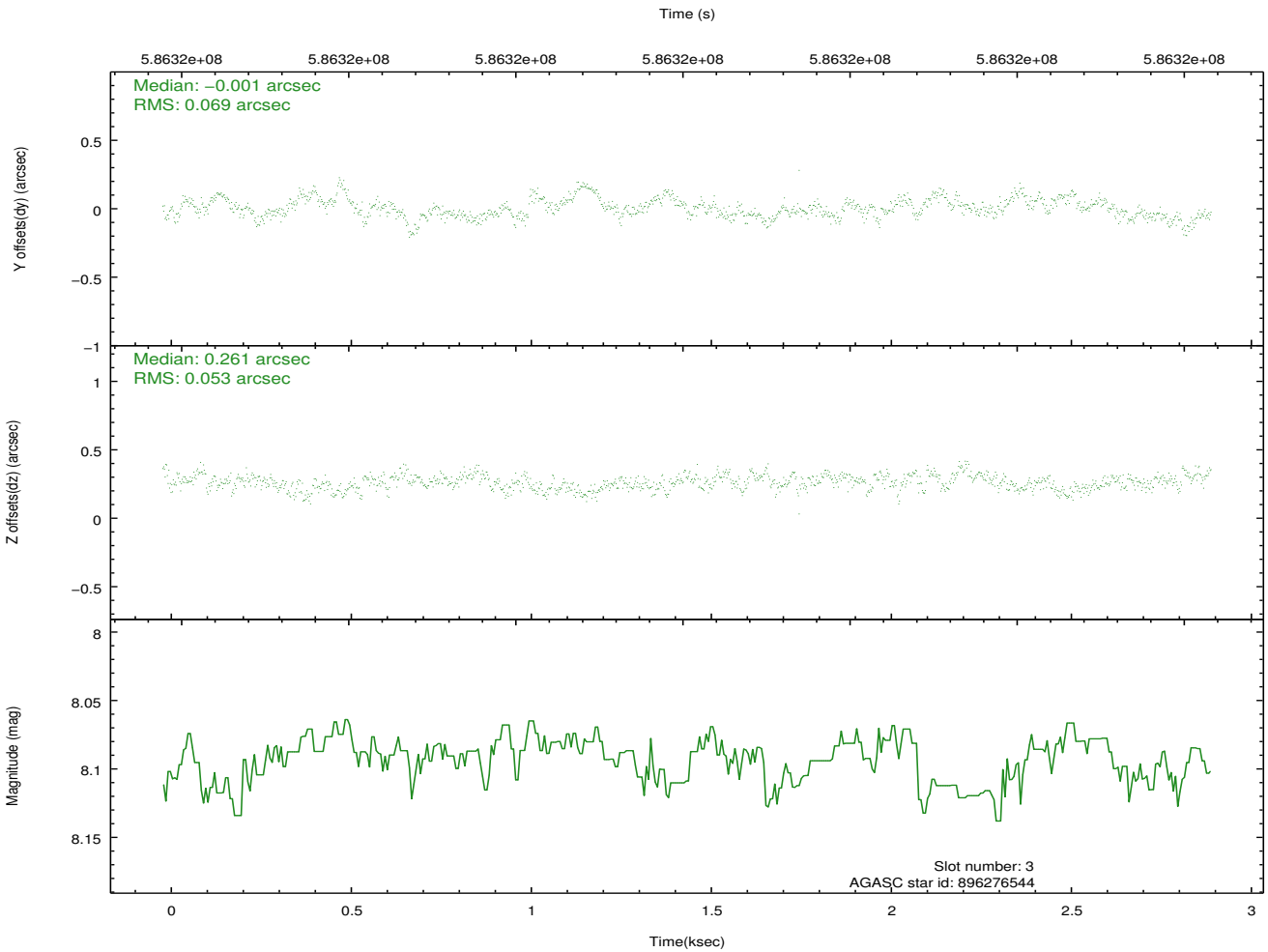
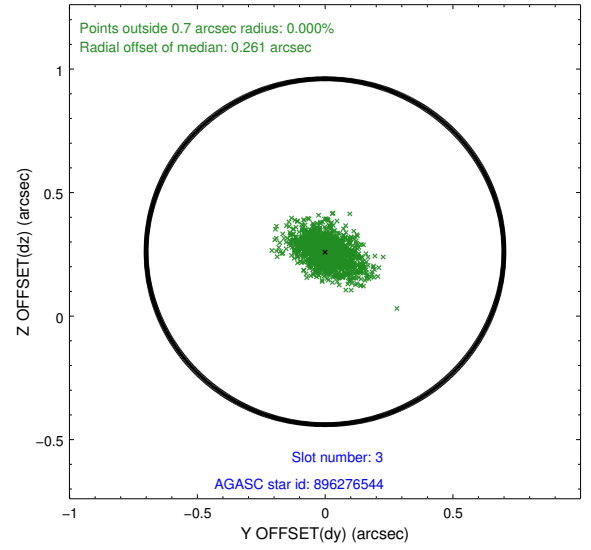
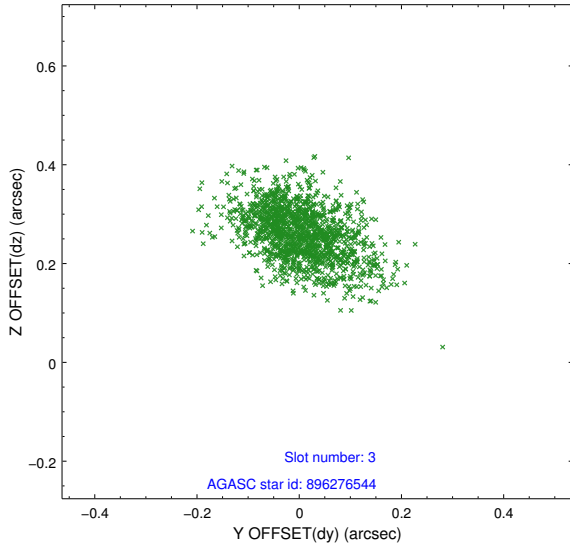
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.03	710	0.082	-0.062	0.007	0.013	0.000000	0.000000	927.17	-840.73
1	FID		ACIS-I-5	7.03	710	-0.296	0.055	0.006	0.011	0.000000	0.000000	-1820.14	1055.71
2	FID		ACIS-I-6	7.03	710	0.123	0.078	0.007	0.012	0.000000	0.000000	390.30	1702.78
3	GUIDE	used	896276544	8.09	1421	-0.001	0.261	0.091	0.158	263.666616	-29.255819	747.37	-2246.74
4	GUIDE	used	896403072	8.33	1421	0.117	0.104	0.127	0.183	263.956439	-28.943077	-319.29	-1268.84
5	GUIDE	used	896404376	6.65	1421	0.012	-0.222	0.098	0.144	264.835179	-29.530972	1976.14	1344.31
6	GUIDE	used	896406568	8.22	1421	-0.031	0.077	0.084	0.132	264.435951	-28.437282	-2036.85	363.45
7	GUIDE	used	896402976	7.51	1420	-0.109	-0.222	0.092	0.142	265.099474	-28.923203	-148.05	2330.51

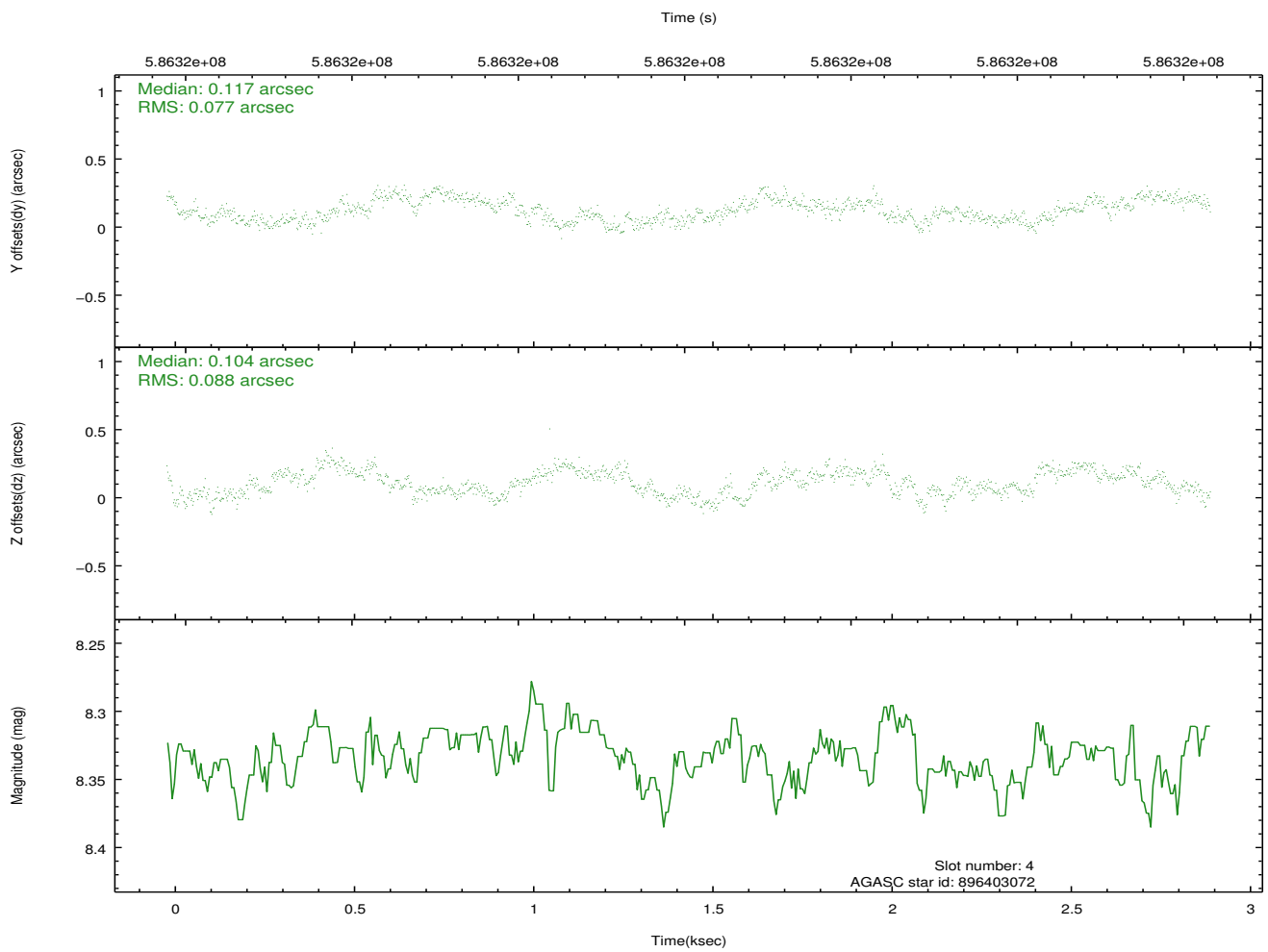
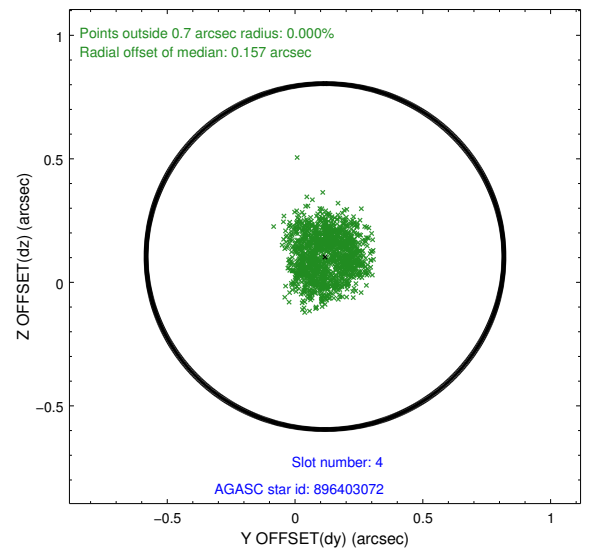
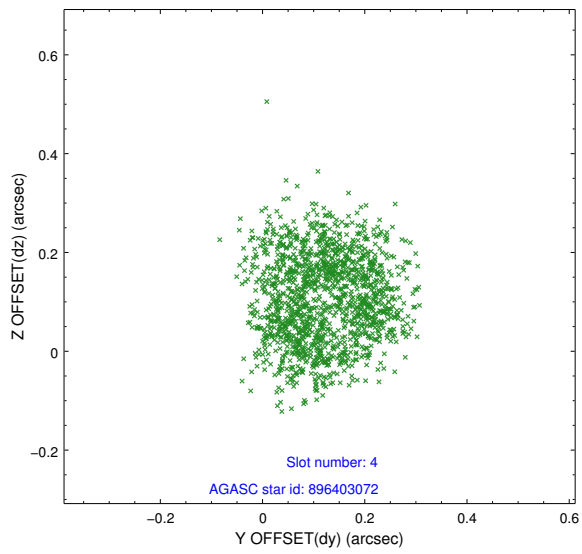
∞

## 2.4 Star Slots

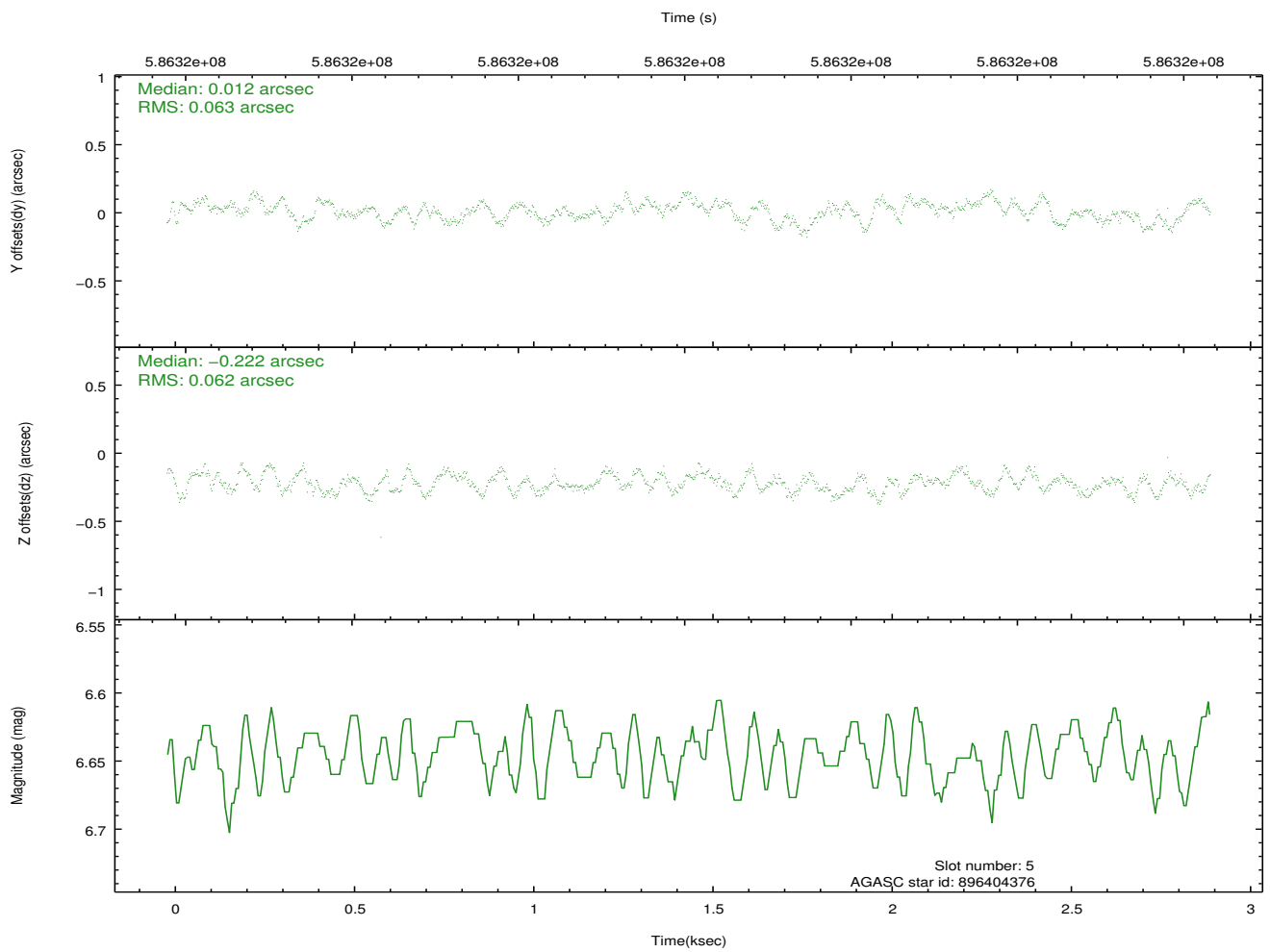
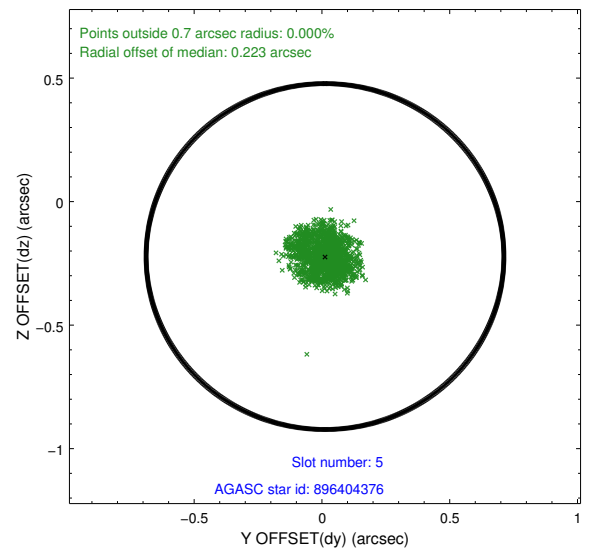
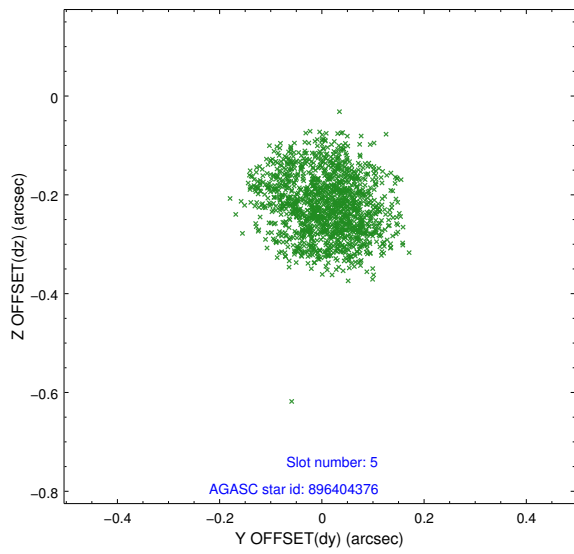
### 2.4.1 Slot 3



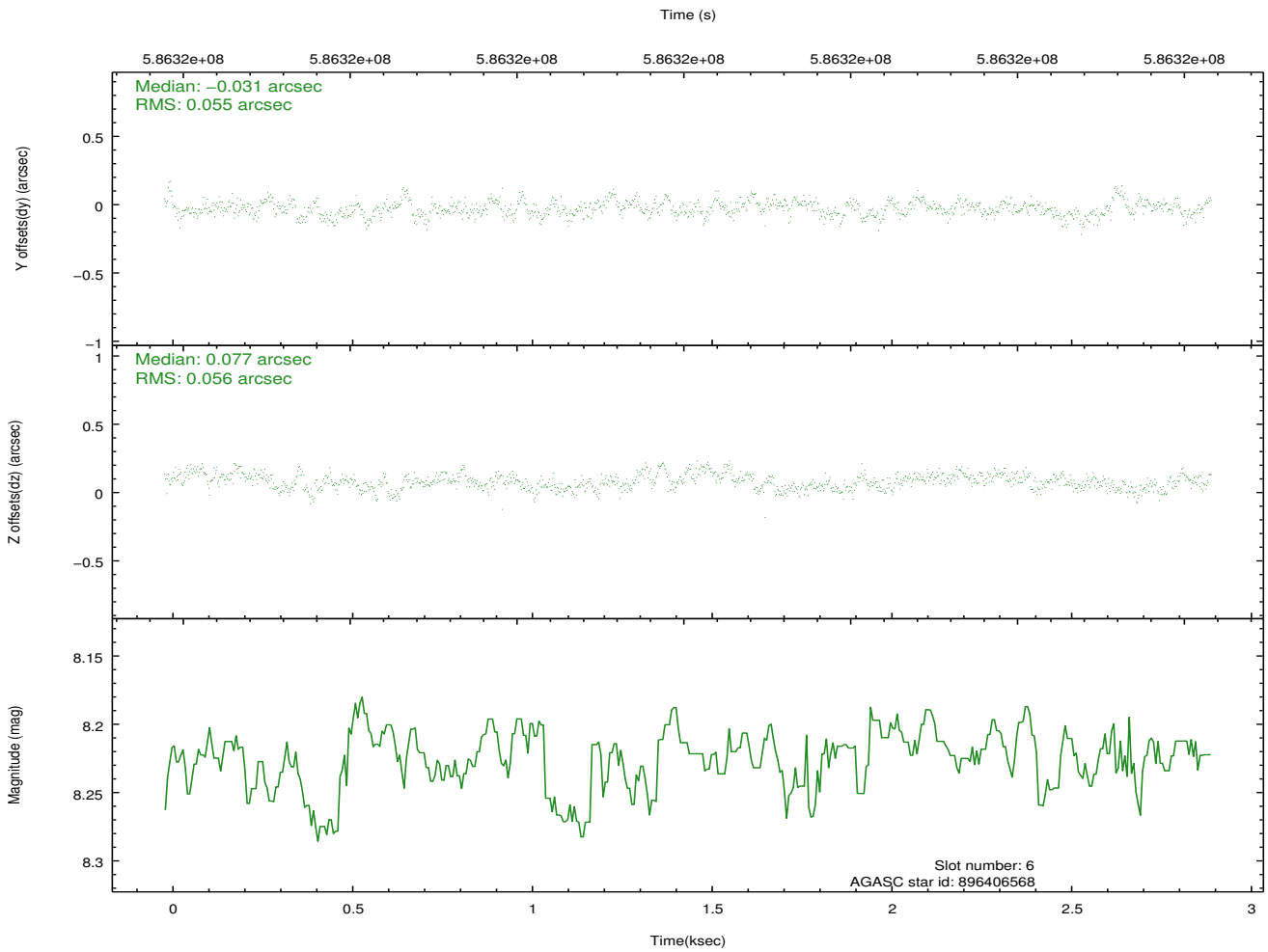
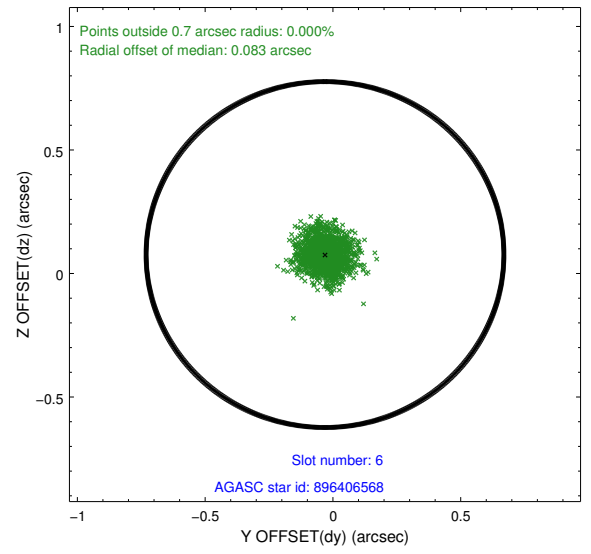
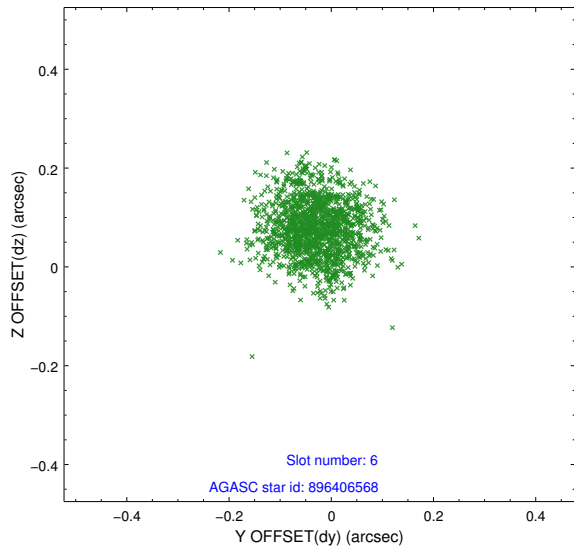
## 2.4.2 Slot 4



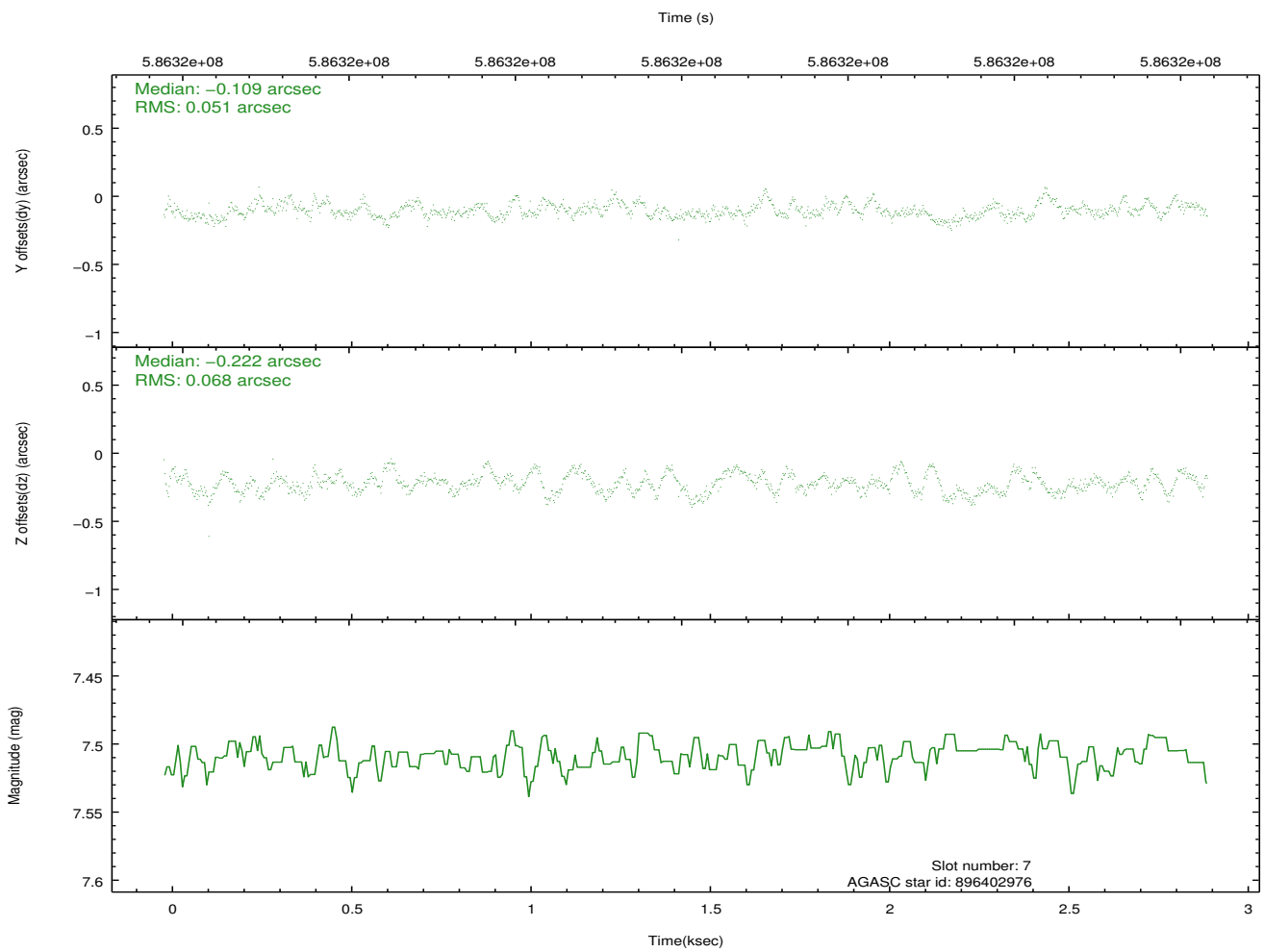
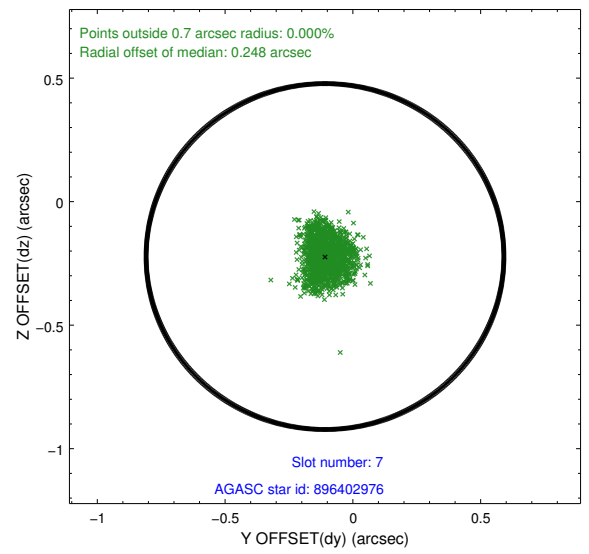
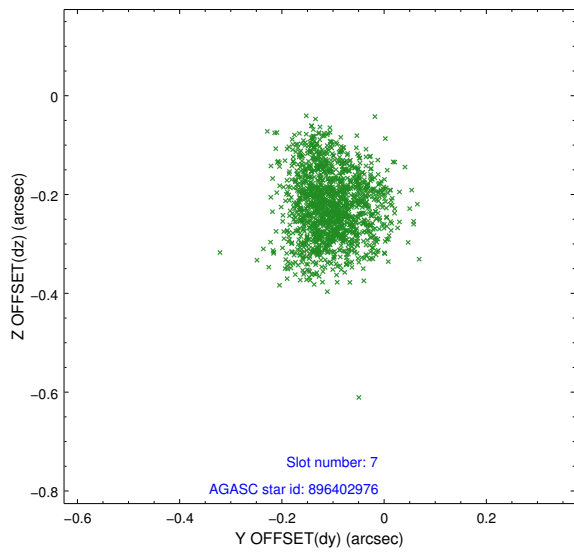
### 2.4.3 Slot 5



## 2.4.4 Slot 6

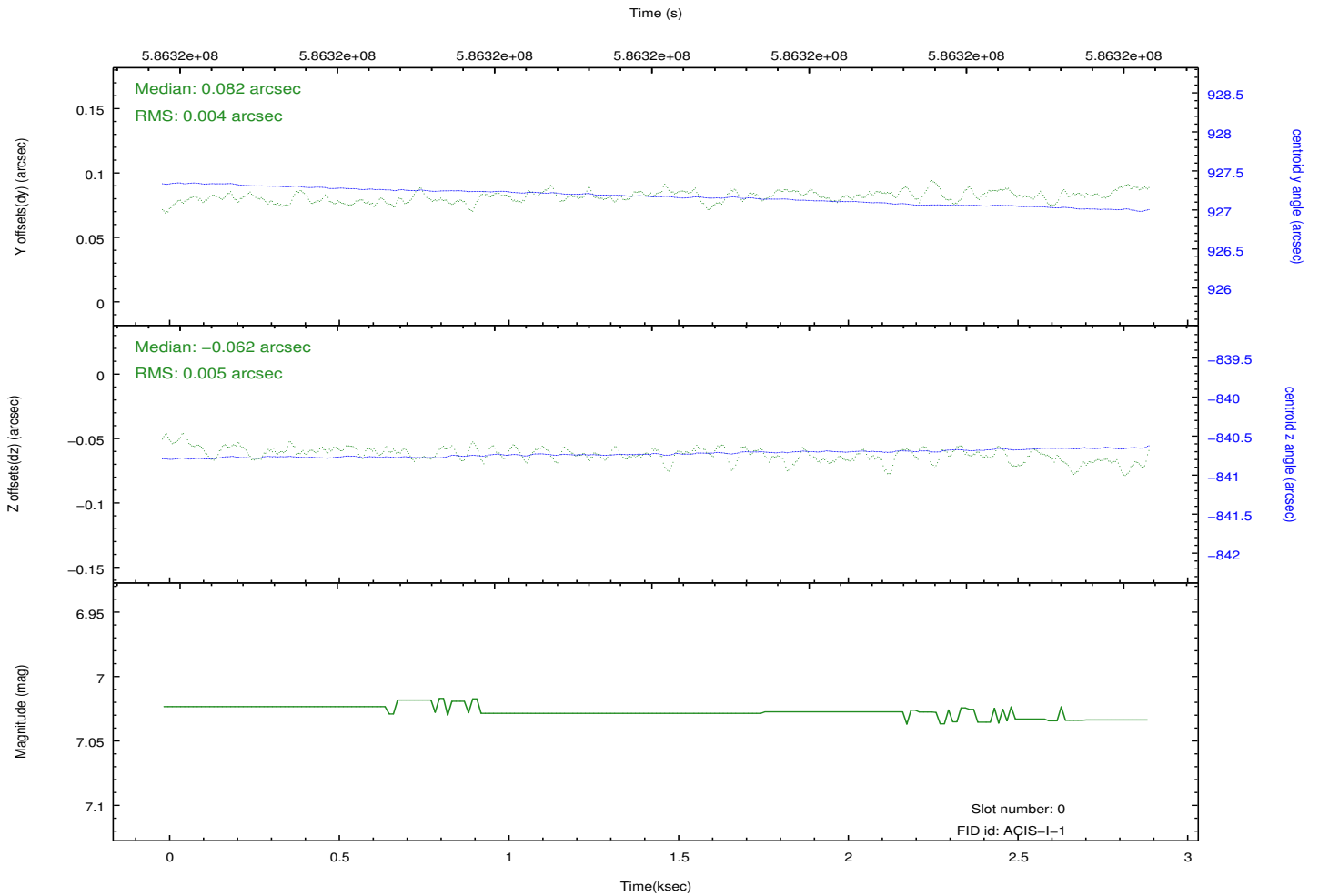
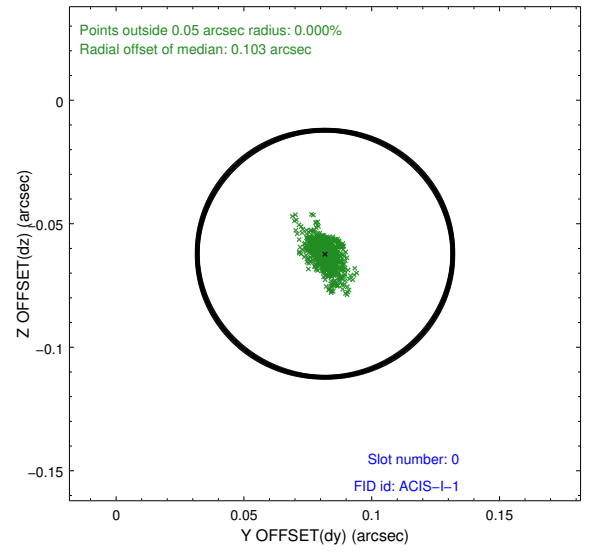
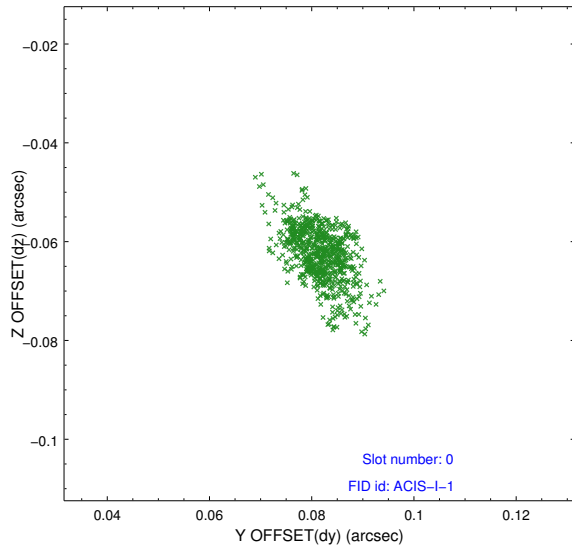


## 2.4.5 Slot 7

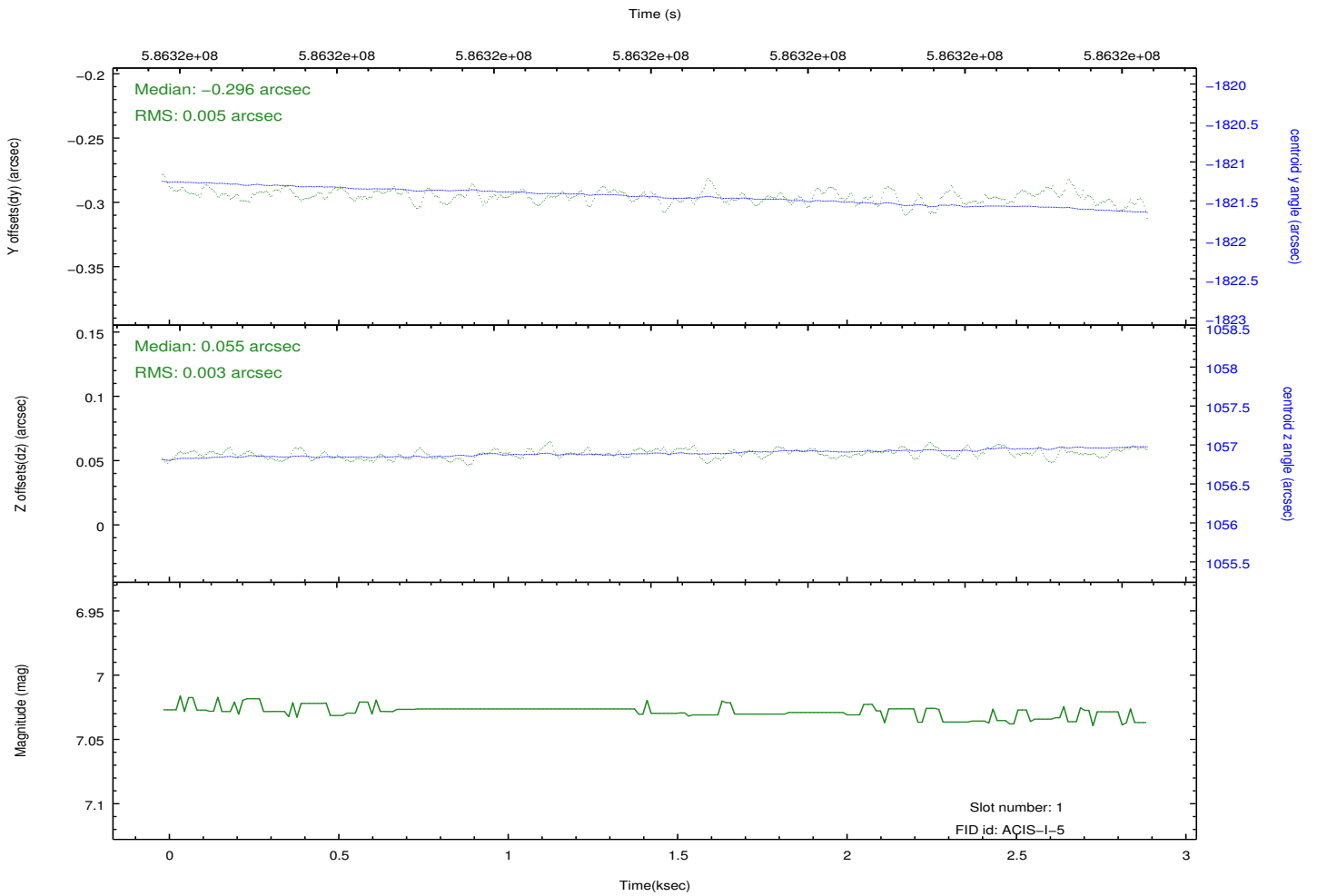
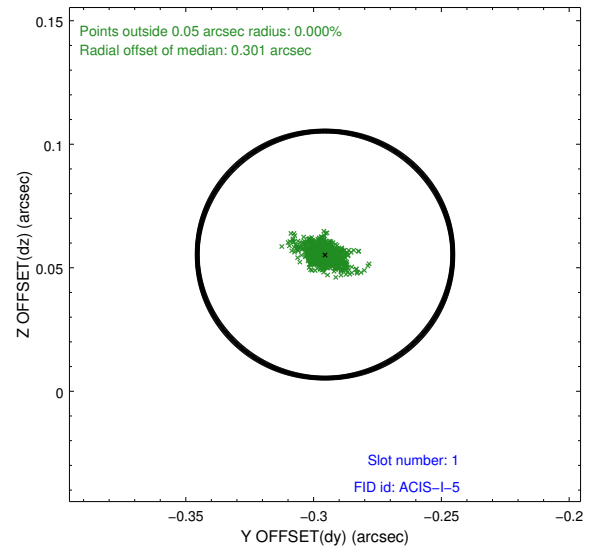
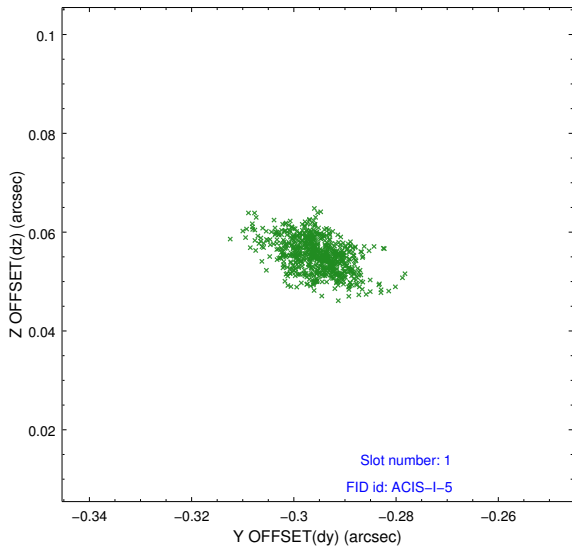


## 2.5 FID Slots

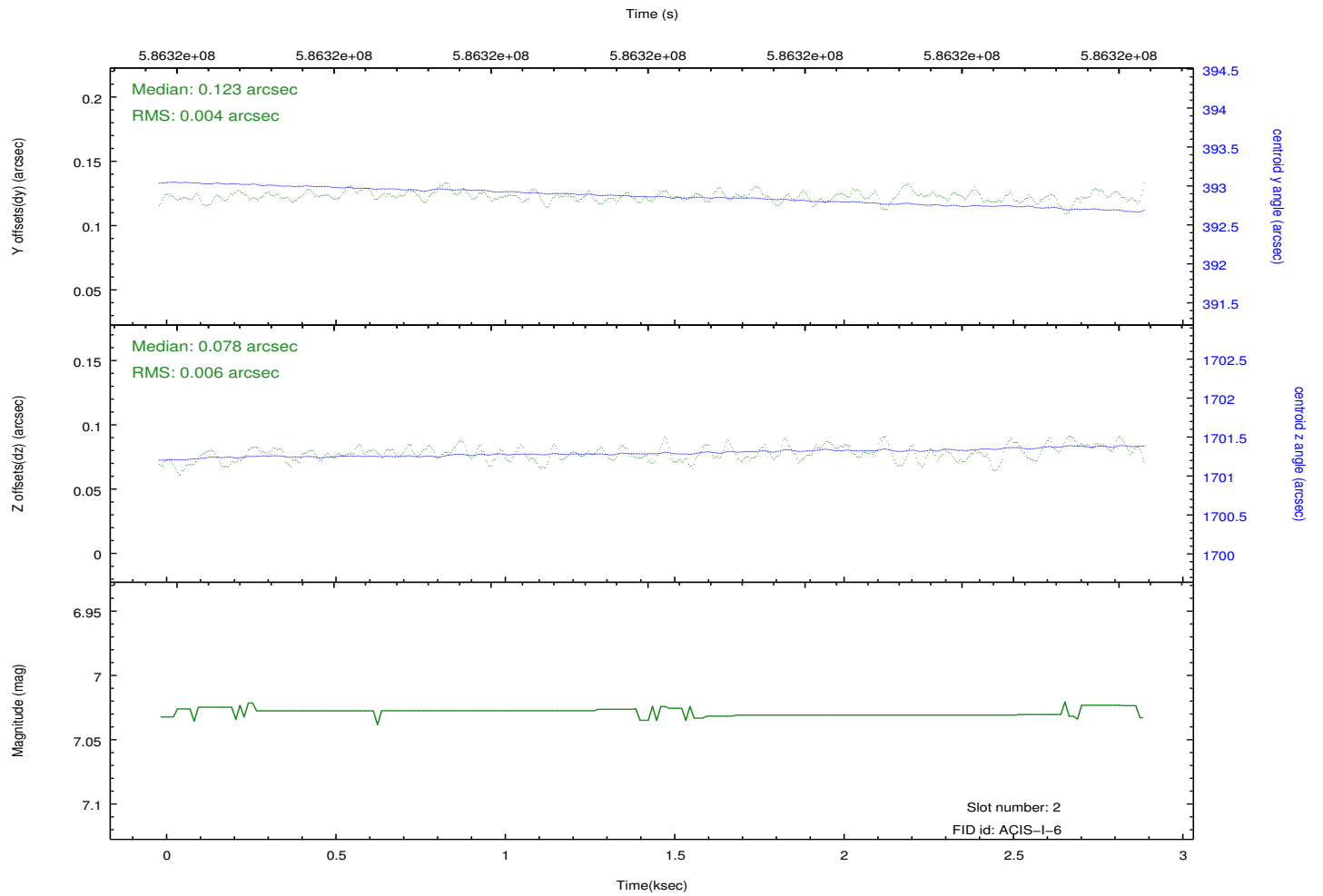
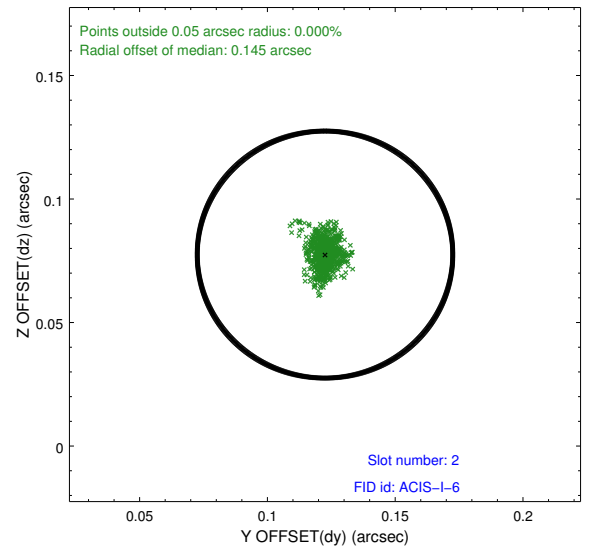
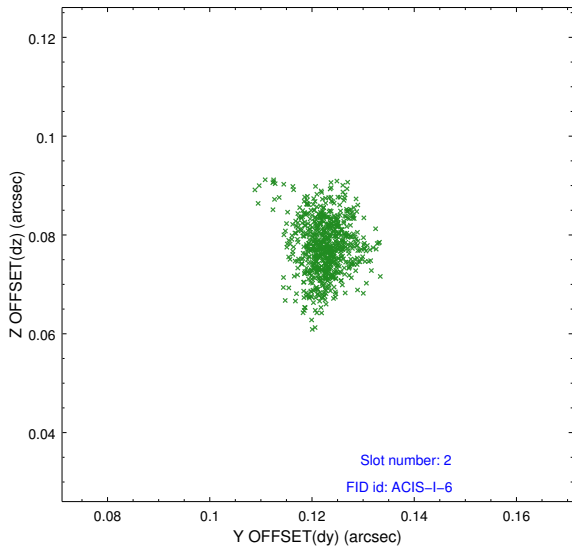
### 2.5.1 Slot 0



## 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)	2016.08.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.0739000160694

### **A.2 Comments**