

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18322 - L2 Version 1  
Chandra X-Ray Center

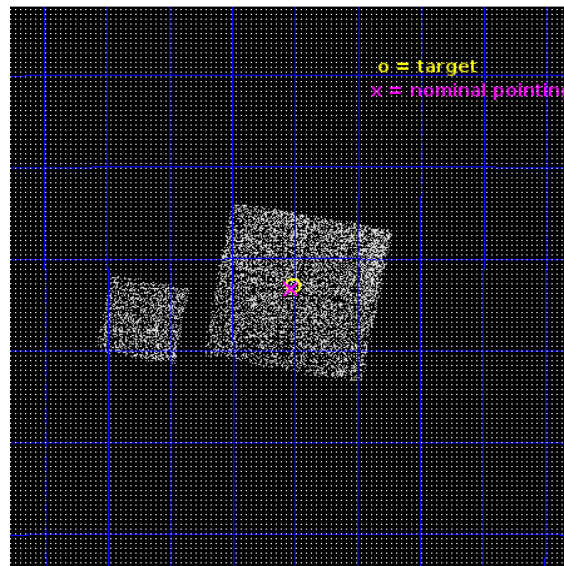
L2 Processing Date : Jul 15 2016

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# 1 Front

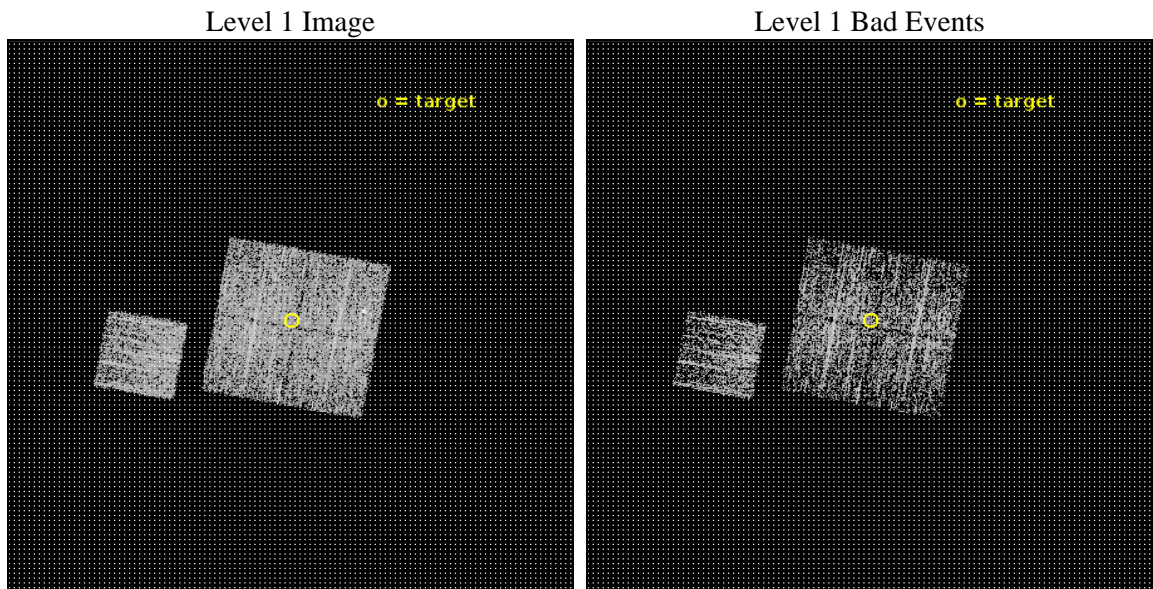
seq_num	300353	Sequence number
obs_id	18322	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.7533	Observer's specified target RA [deg]
dec_targ	-29.048812	Observer's specified target Dec [deg]
ra_nom	266.75735490272	Nominal RA [deg]
dec_nom	-29.054796485506	Nominal Dec [deg]
roll_nom	280.43274688956	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1951.7083090544	Sum of GTIs [s]
livetime	1926.2078031698	Livetime [s]
ontime0	1951.5851891041	Sum of GTIs [s]
ontime1	1951.6262290478	Sum of GTIs [s]
ontime2	1951.6672691107	Sum of GTIs [s]
ontime3	1951.7083090544	Sum of GTIs [s]
ontime6	1951.5441490412	Sum of GTIs [s]
l2events	8403	Number of level 2 events



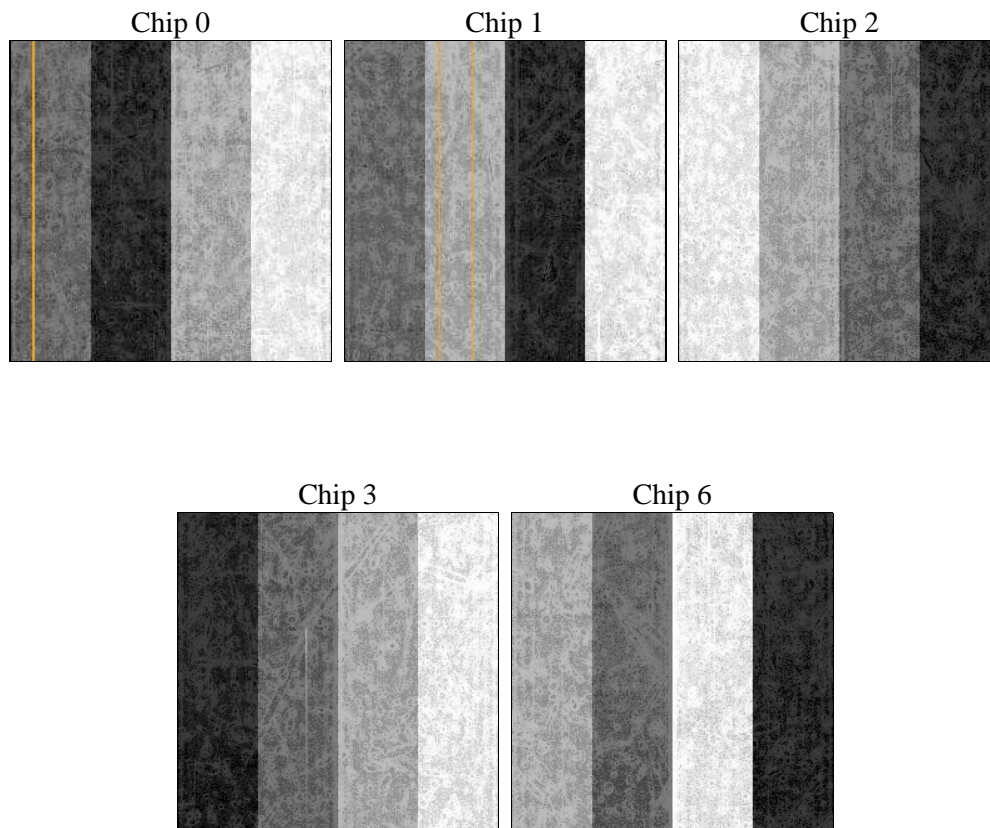
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2180.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	1951.7083090544	Sum of GTIs [s]
caldbver	4.7.2	&#160	ontime0	1951.5851891041	Sum of GTIs [s]
date	2016-07-15T14:33:14	Date and time of file creation	ontime1	1951.6262290478	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1951.6672691107	Sum of GTIs [s]
			ontime3	1951.7083090544	Sum of GTIs [s]
			ontime6	1951.5441490412	Sum of GTIs [s]
			l1events	59916	Number of level 1 events

### 2.1.4 Events

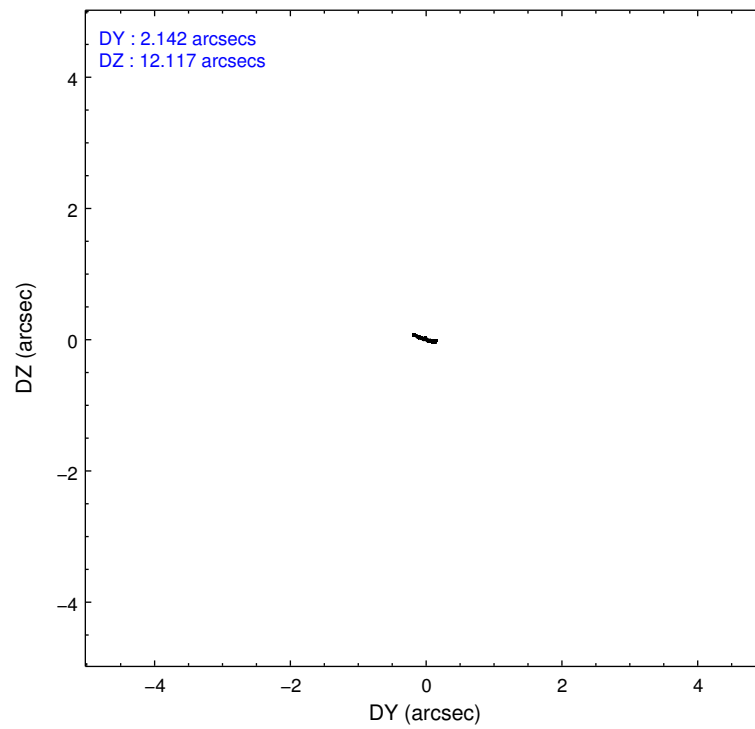
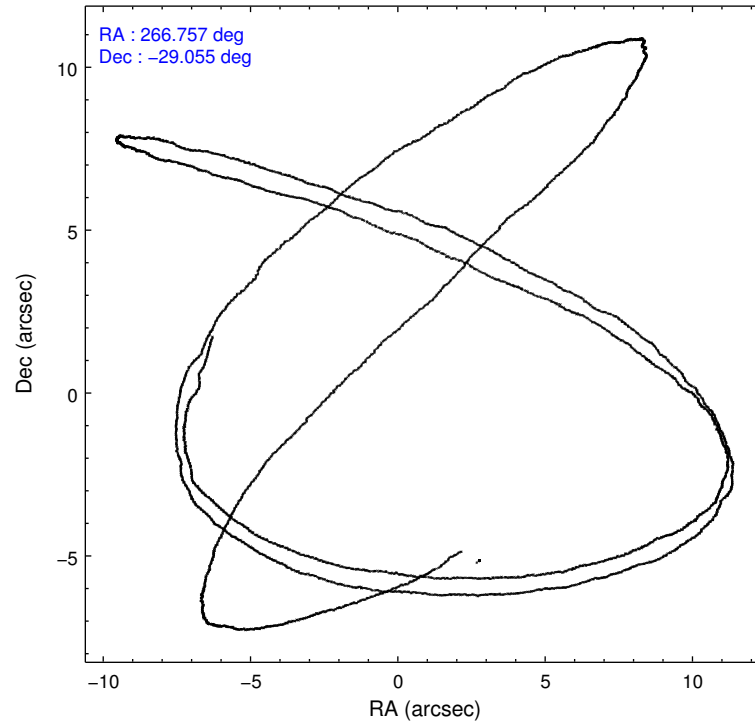
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	10651	12702	11982	12050	12531
rejected events	8812	9837	10329	10040	10904
rejected %	82%	77%	86%	83%	87%

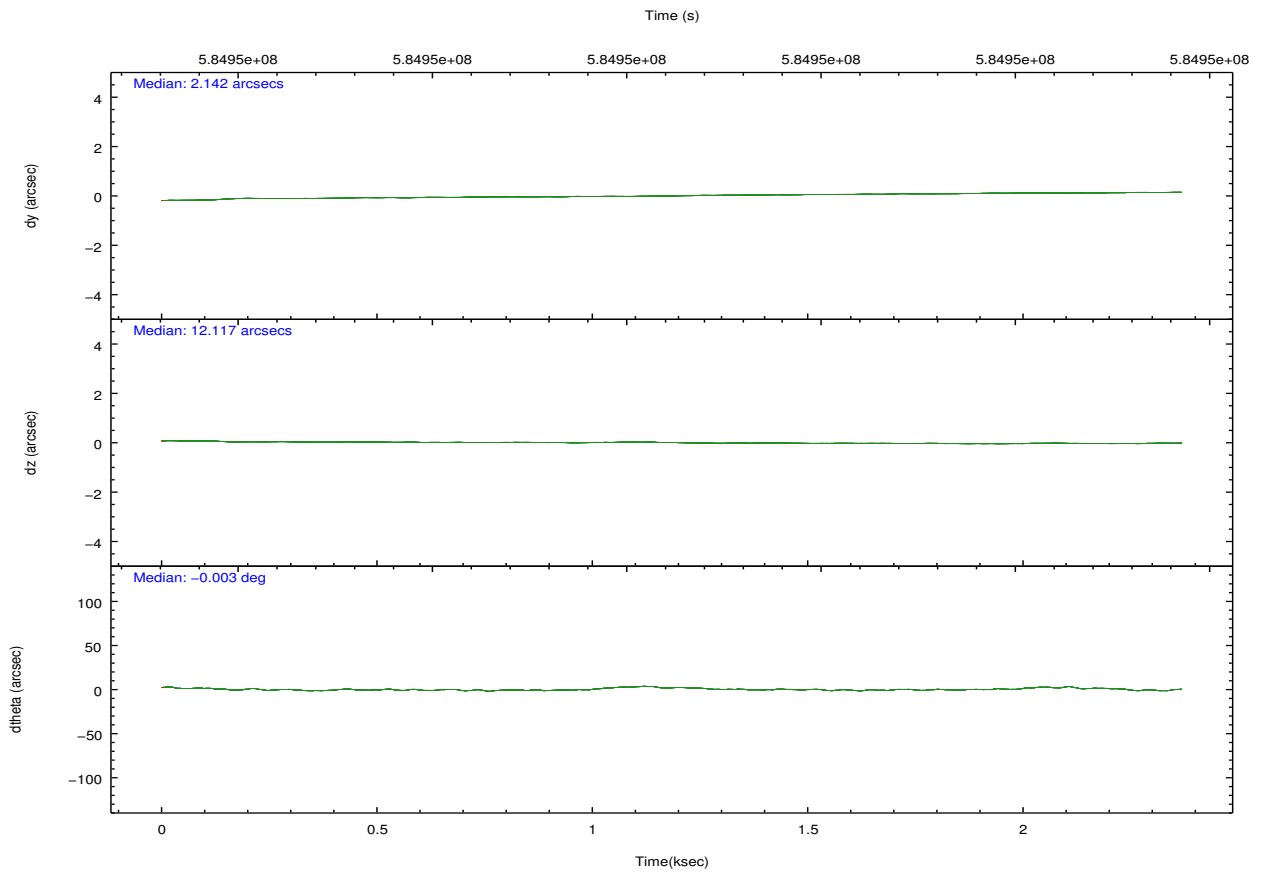
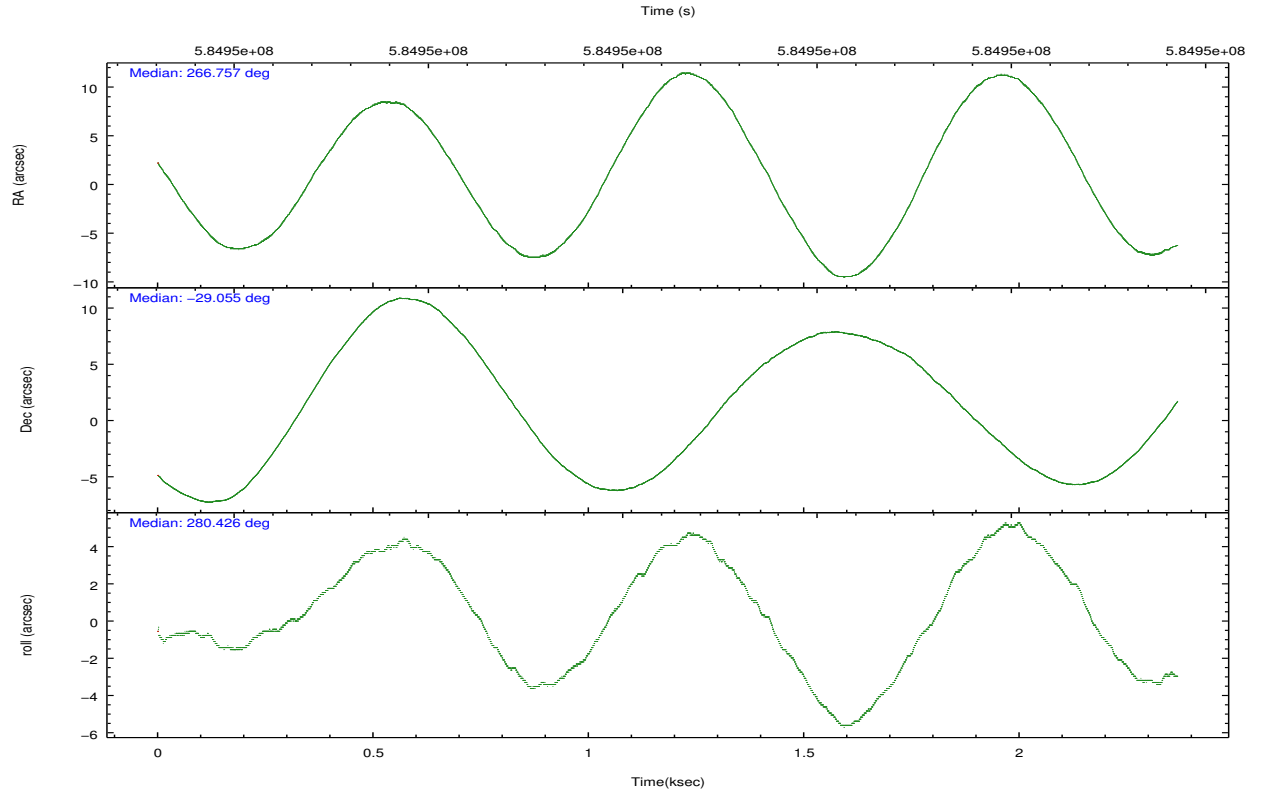
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	830	1553	731	977	634
	7%	12%	6%	8%	5%
grade 1 events	4	9	7	12	7
	0%	0%	0%	0%	0%
grade 2 events	413	539	364	366	327
	3%	4%	3%	3%	2%
grade 3 events	157	194	162	178	165
	1%	1%	1%	1%	1%
grade 4 events	137	208	154	192	145
	1%	1%	1%	1%	1%
grade 5 events	541	556	511	559	612
	5%	4%	4%	4%	4%
grade 6 events	310	378	249	302	359
	2%	2%	2%	2%	2%
grade 7 events	8259	9265	9804	9464	10282
	77%	72%	81%	78%	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	266.736879	266.7573549027204	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.033591	-29.05479648550647	CCD I3 on	Y	Y
[deg] Pointing Roll	280.214128	280.4327468895625	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)	584946620.184000	584946244.05566	CCD S5 on	N	N
Observation start date	2016-07-15T05:09:12	2016-07-15T05:04:04	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	584948800.184000	584948934.16831	On-chip summing requested	N	N
Observation end date	2016-07-15T05:45:32	2016-07-15T05:48:54	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





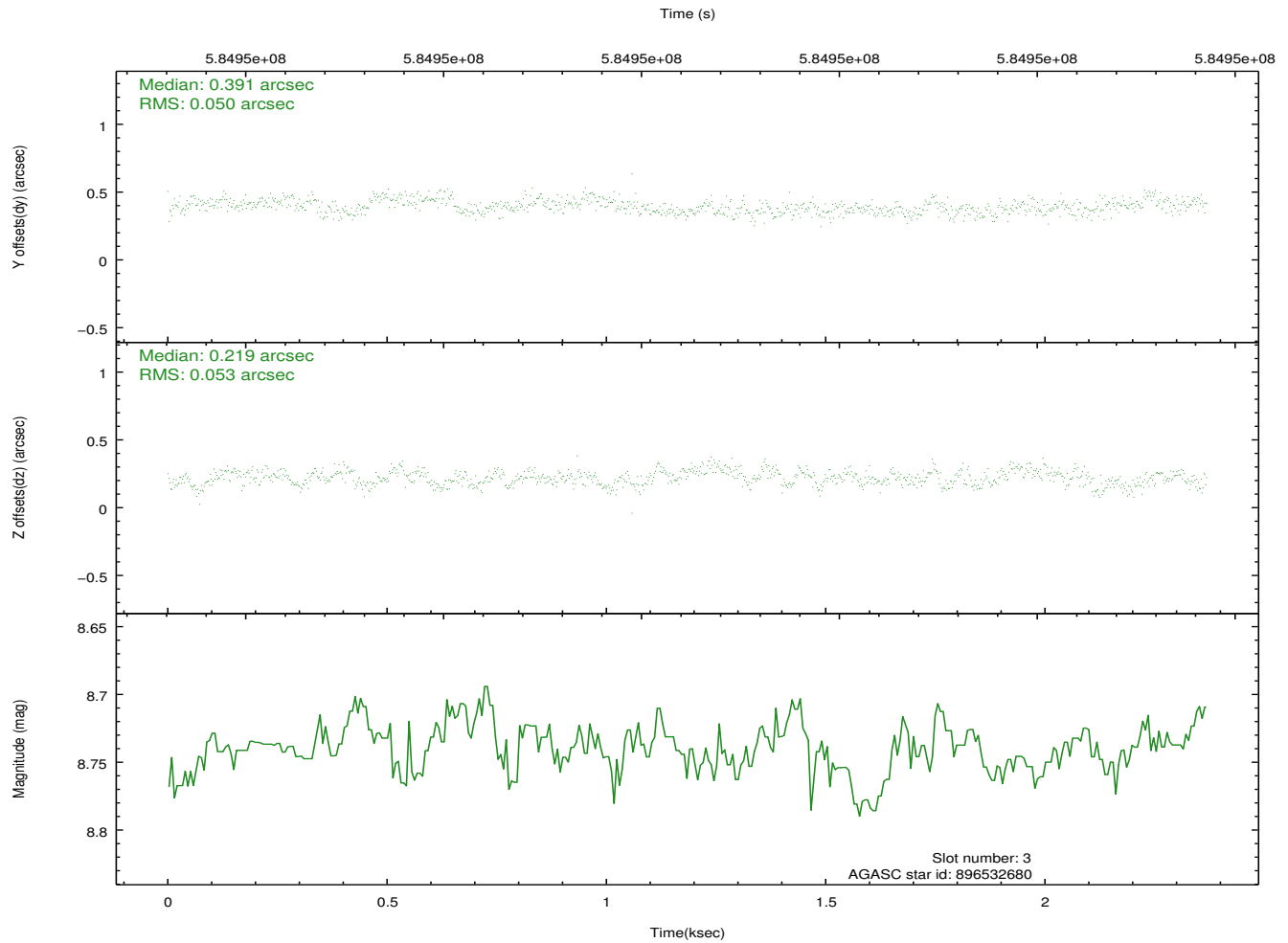
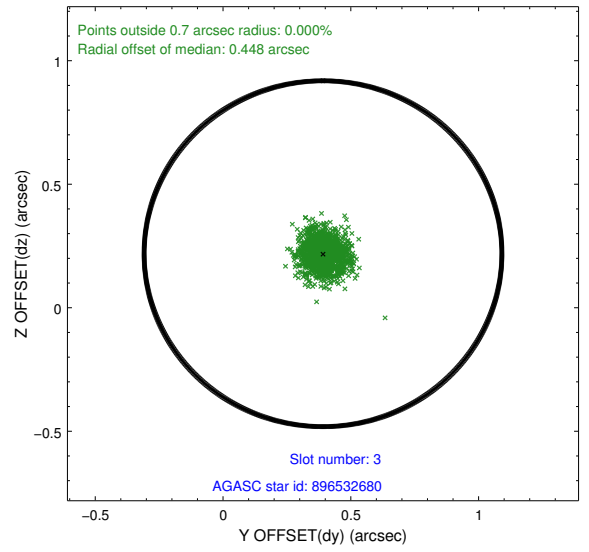
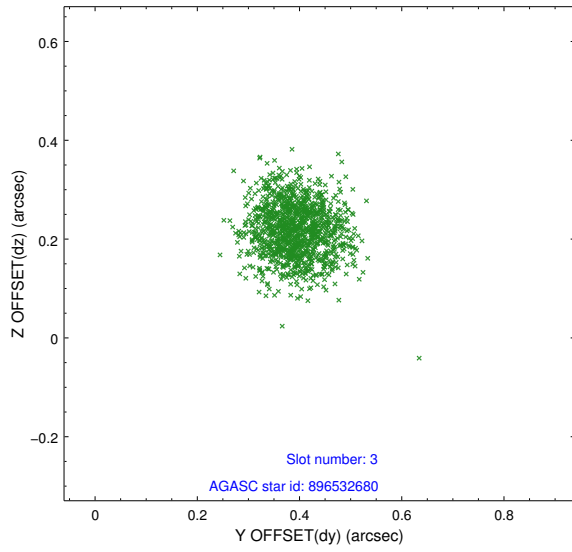
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.24	578	0.076	-0.097	0.012	0.032	0.000000	0.000000	937.75	-835.74
1	FID		ACIS-I-4	7.19	578	0.185	0.054	0.014	0.032	0.000000	0.000000	2159.43	1062.85
2	FID		ACIS-I-5	7.21	578	-0.359	0.113	0.011	0.024	0.000000	0.000000	-1807.17	1063.85
3	GUIDE	used	896532680	8.74	1156	0.391	0.219	0.078	0.122	266.342632	-28.496299	-2122.81	-884.57
4	GUIDE	used	896537776	7.52	1156	-0.085	-0.015	0.065	0.107	266.655684	-29.665673	2192.10	-653.60
5	GUIDE	used	896538208	7.92	1156	-0.134	-0.080	0.067	0.111	267.176969	-28.671626	-1032.37	1598.35
6	GUIDE	used	896541360	7.71	1155	-0.037	-0.150	0.074	0.110	266.684478	-29.453744	1458.06	-428.05
7	GUIDE	used	896541576	8.17	1155	-0.142	0.025	0.076	0.120	267.051055	-28.762912	-781.45	1148.35

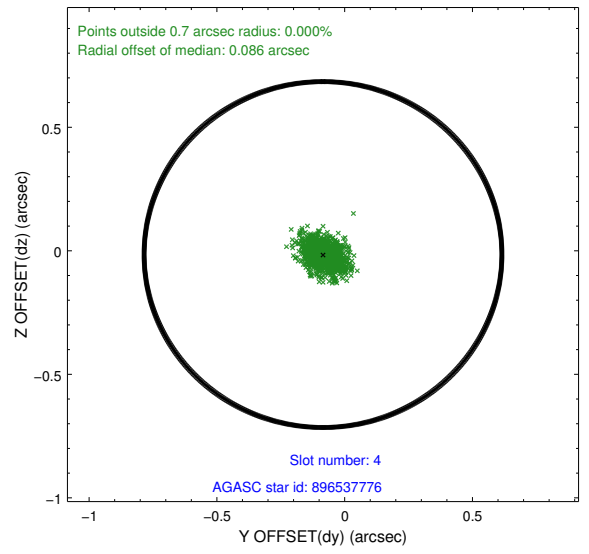
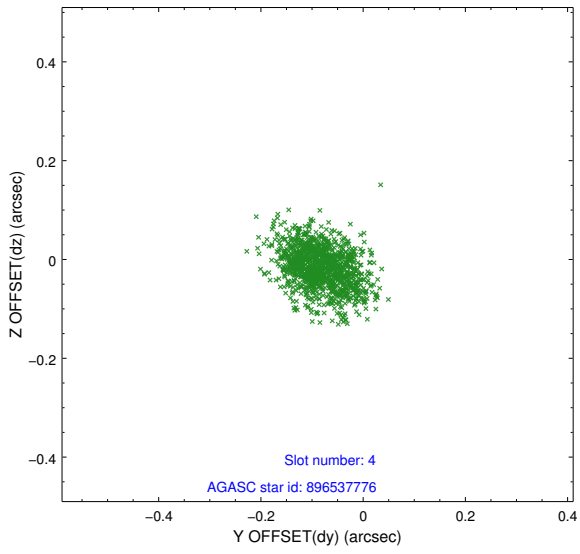
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## 2.4 Star Slots

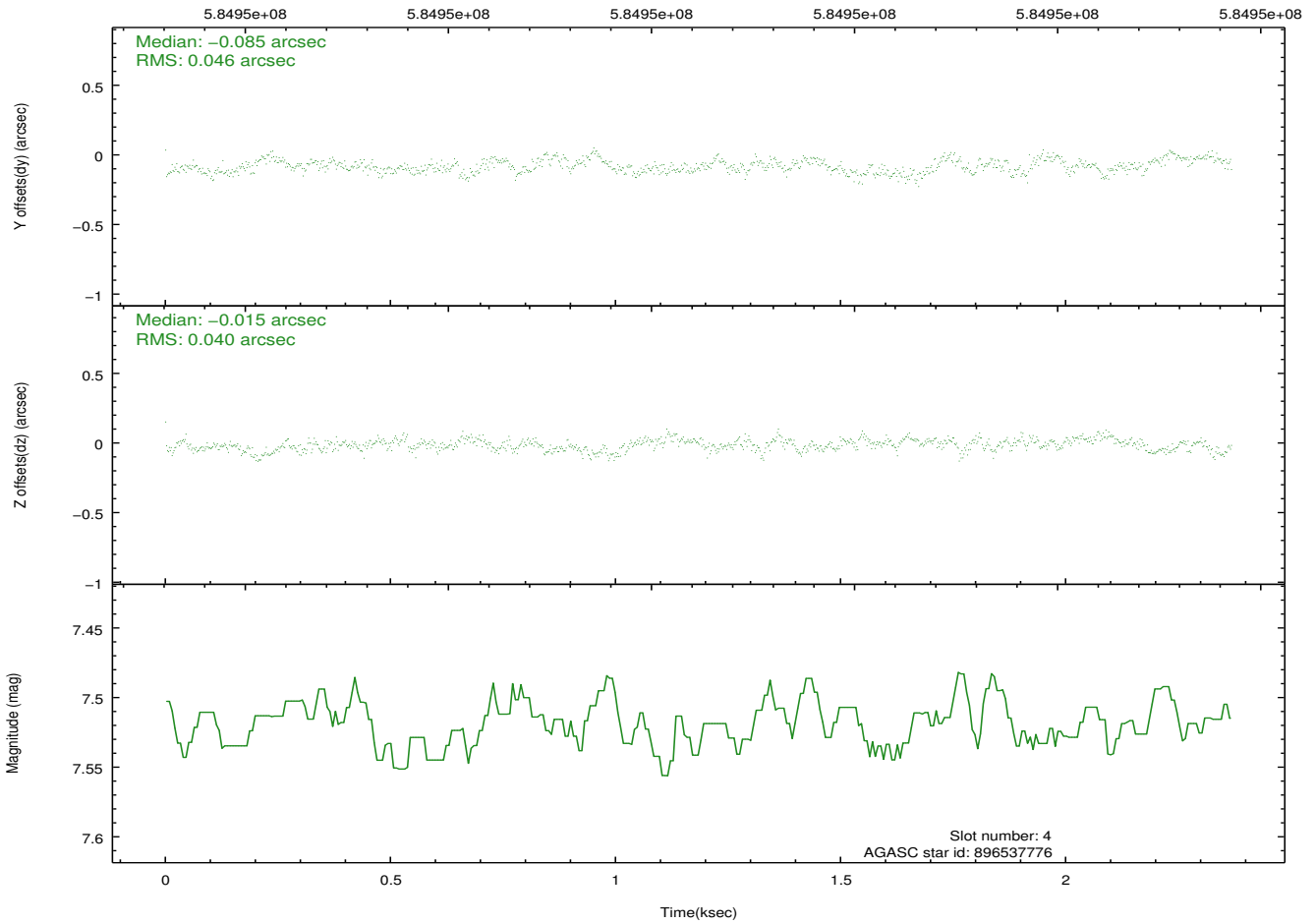
### 2.4.1 Slot 3



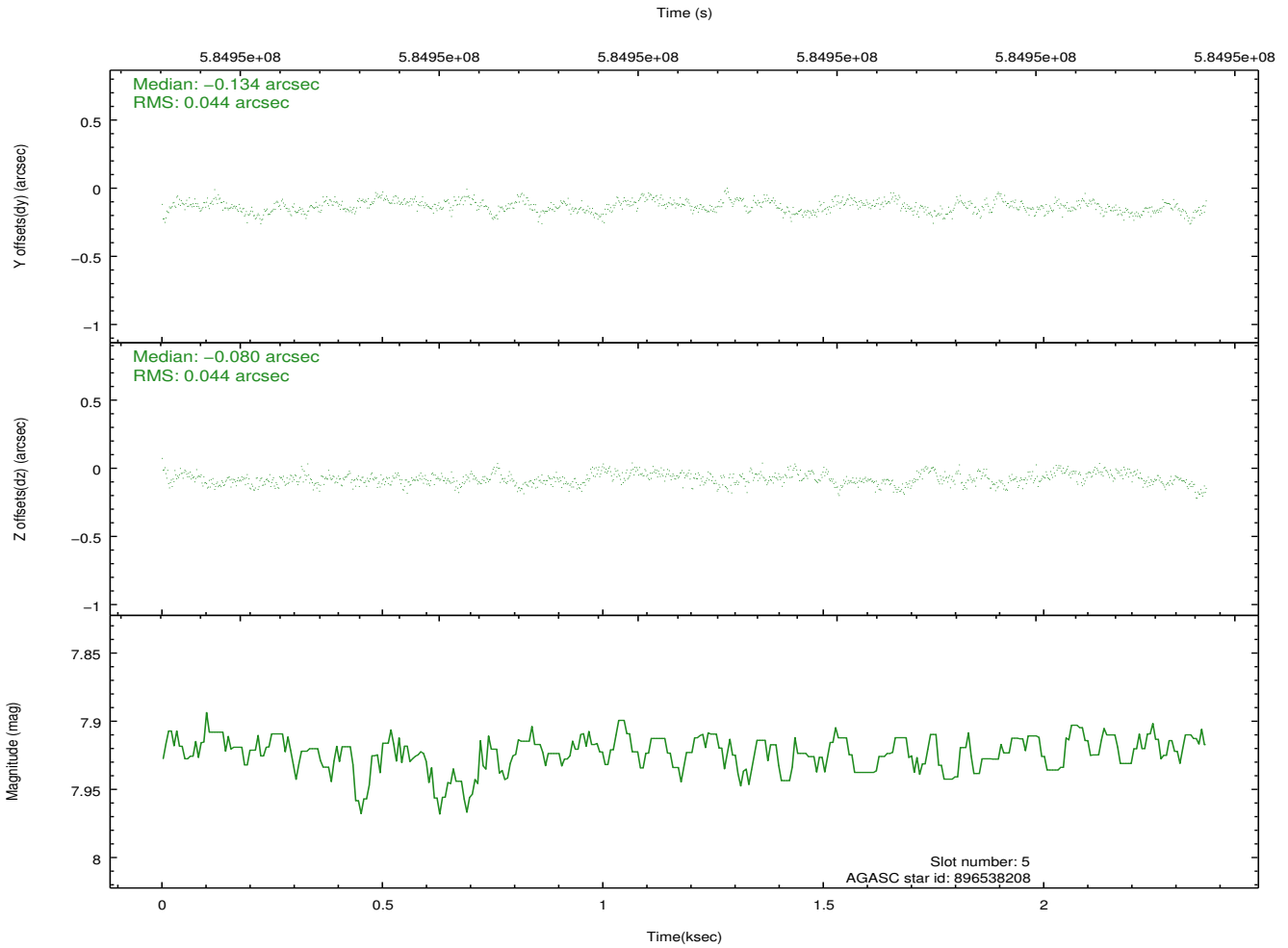
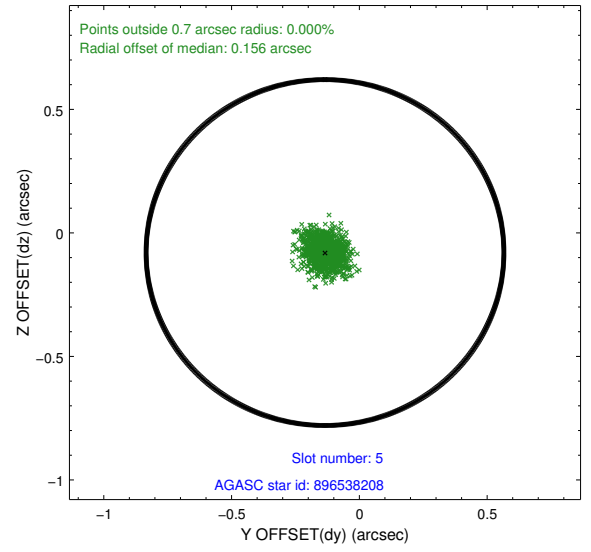
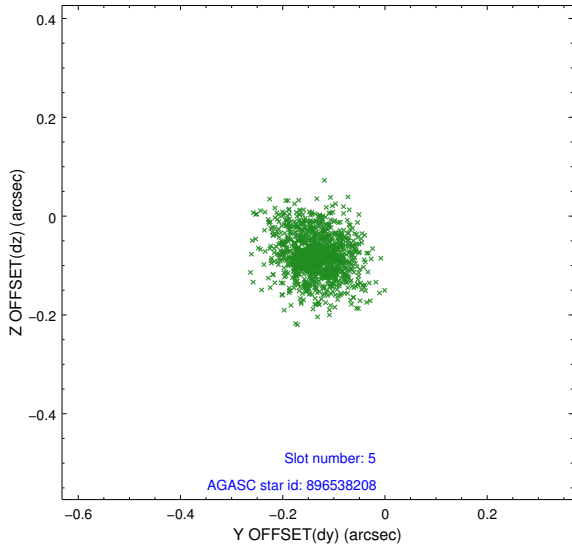
### 2.4.2 Slot 4



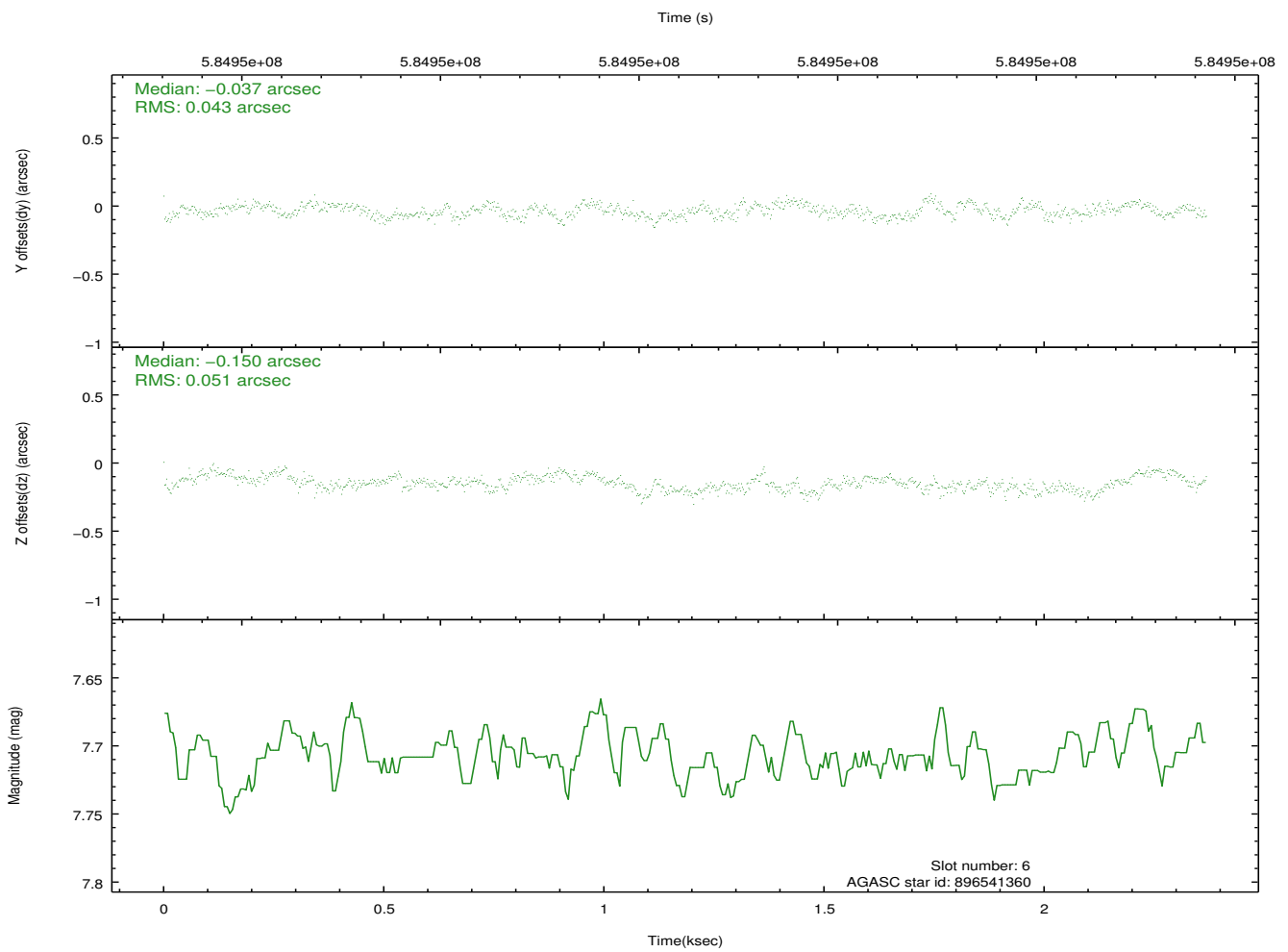
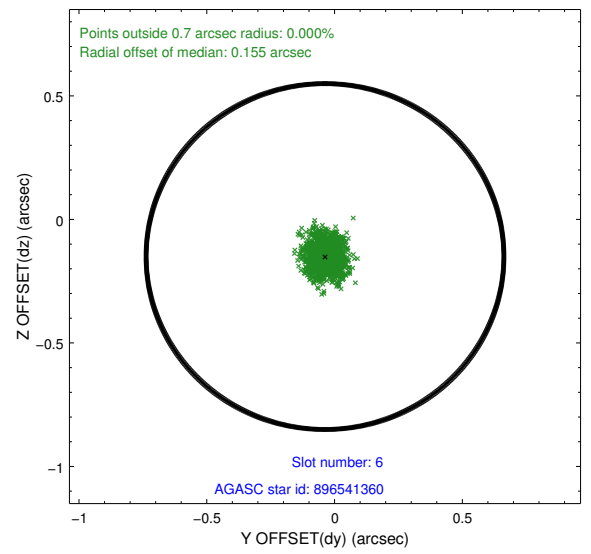
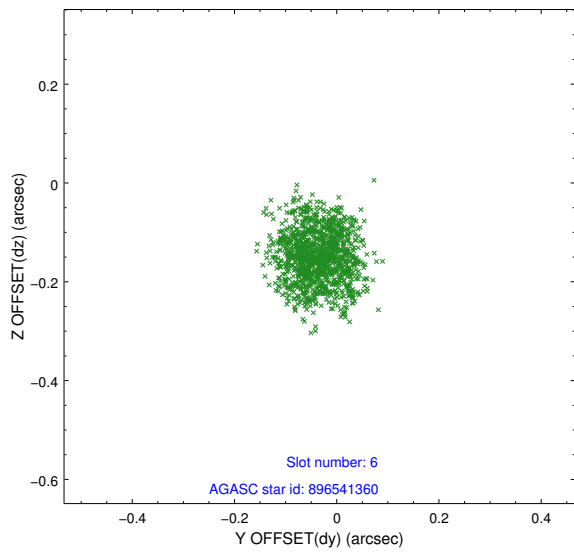
Time (s)



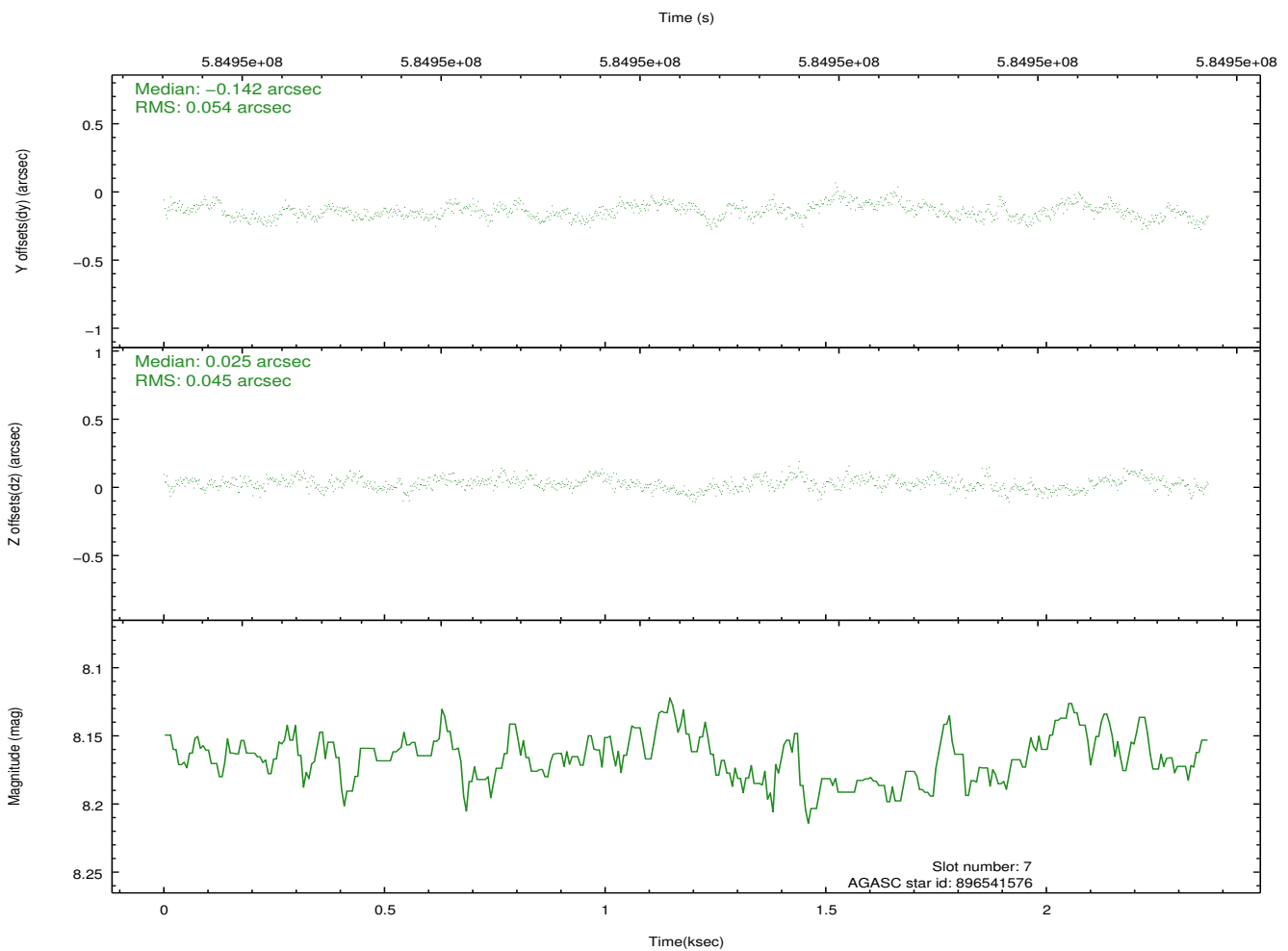
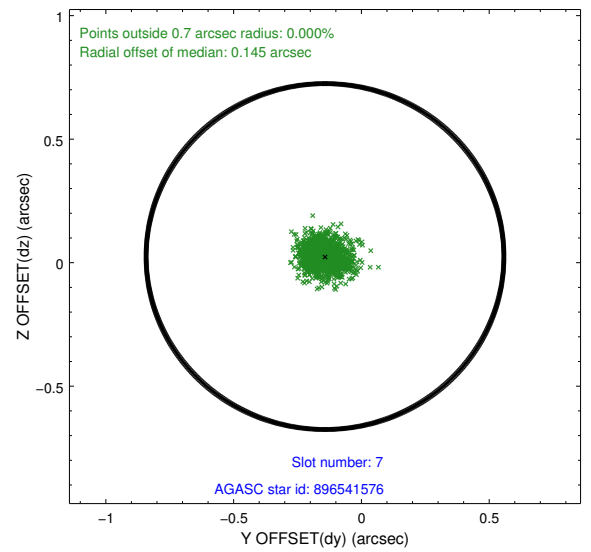
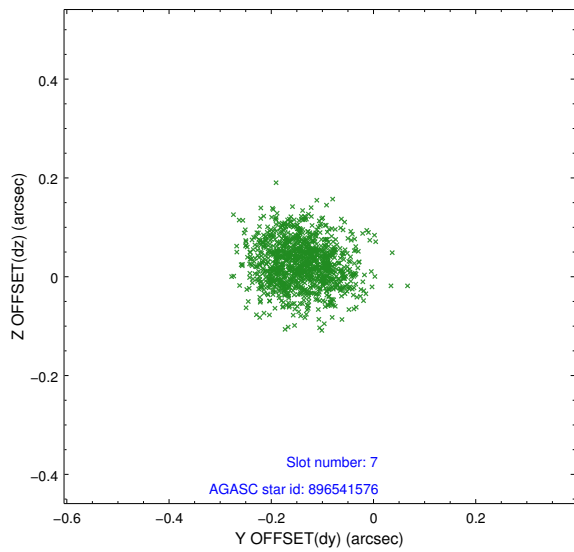
### 2.4.3 Slot 5



### 2.4.4 Slot 6

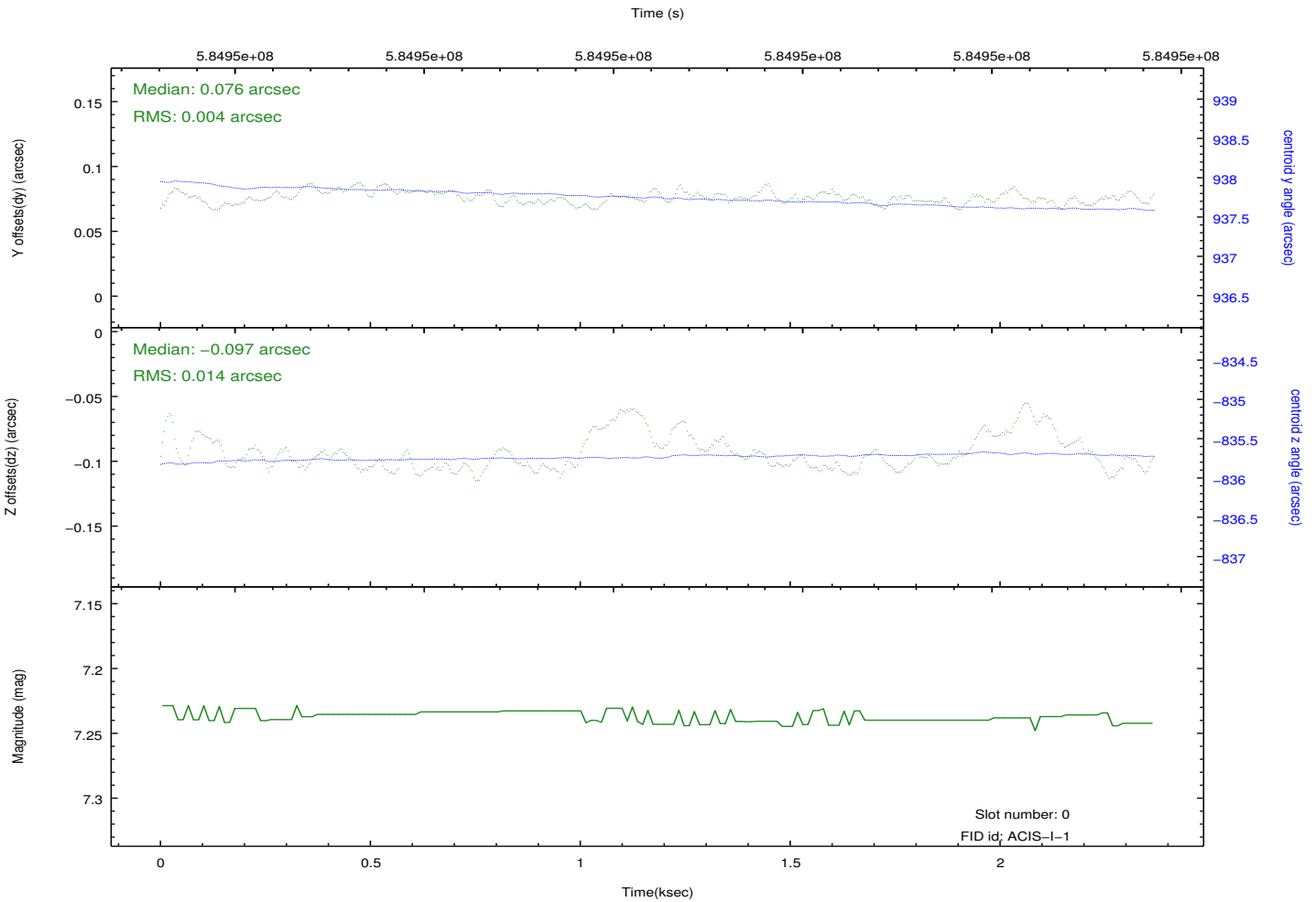
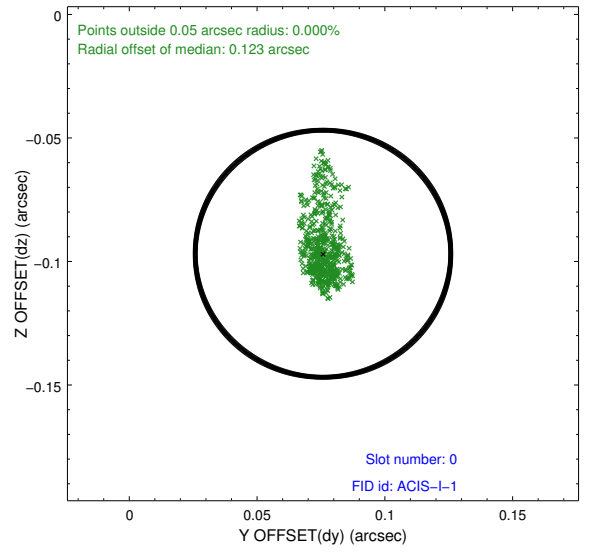
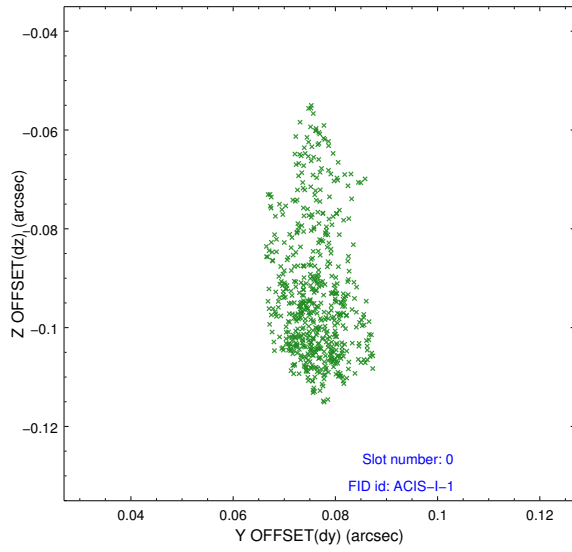


## 2.4.5 Slot 7

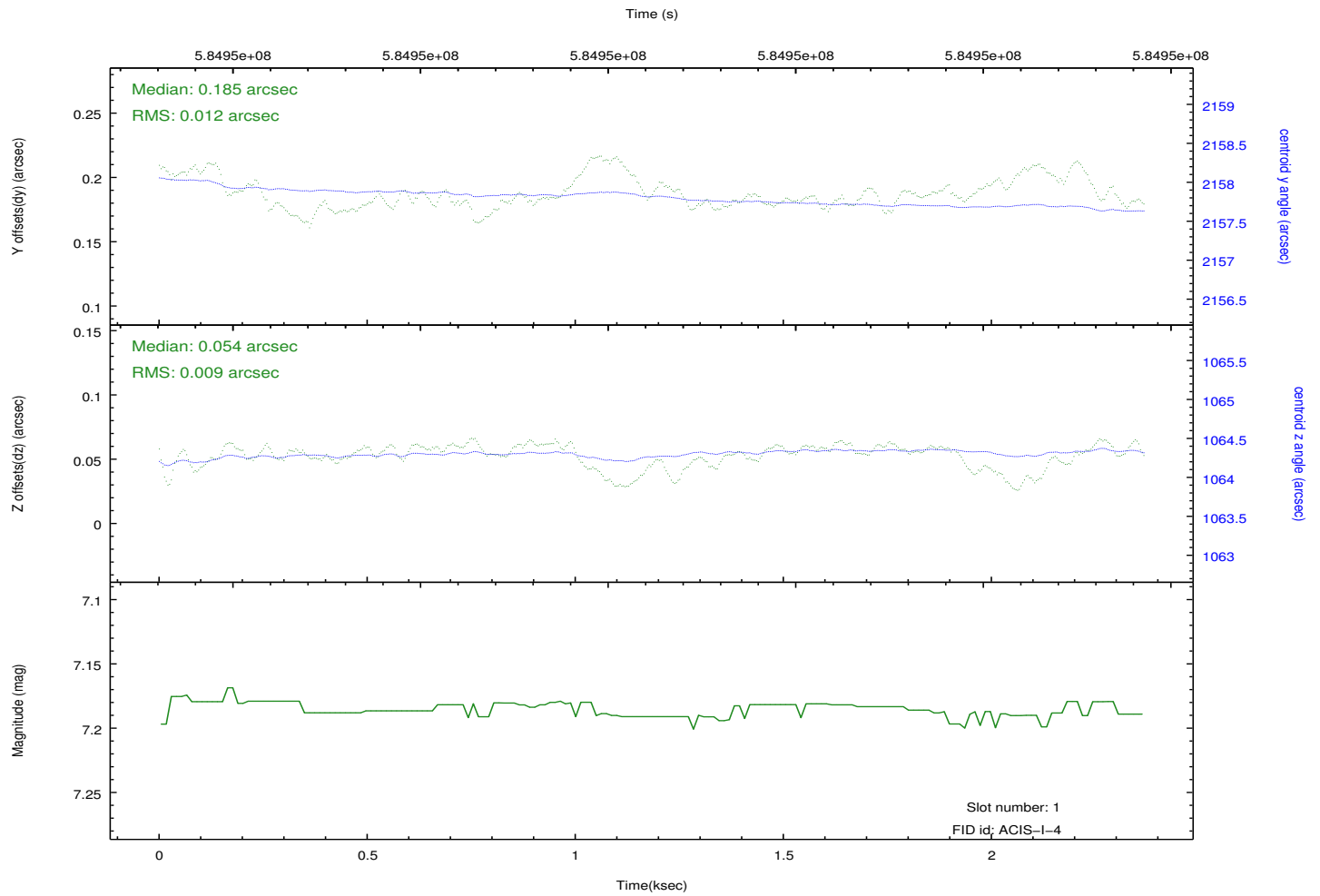
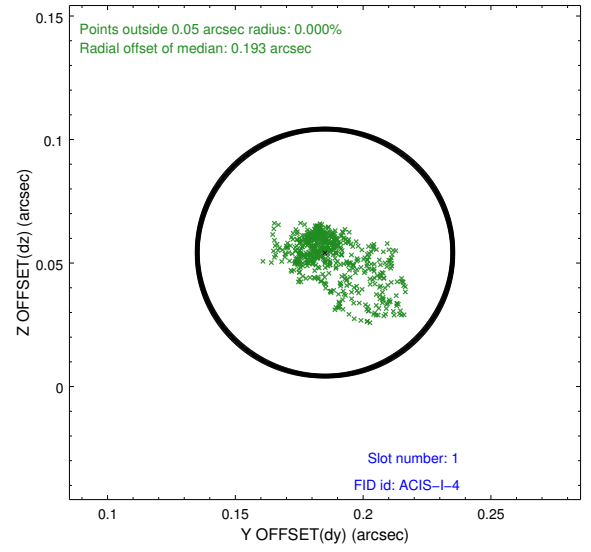
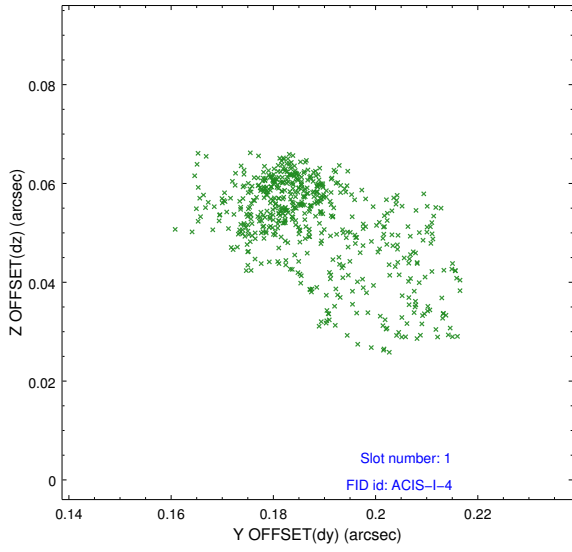


## 2.5 FID Slots

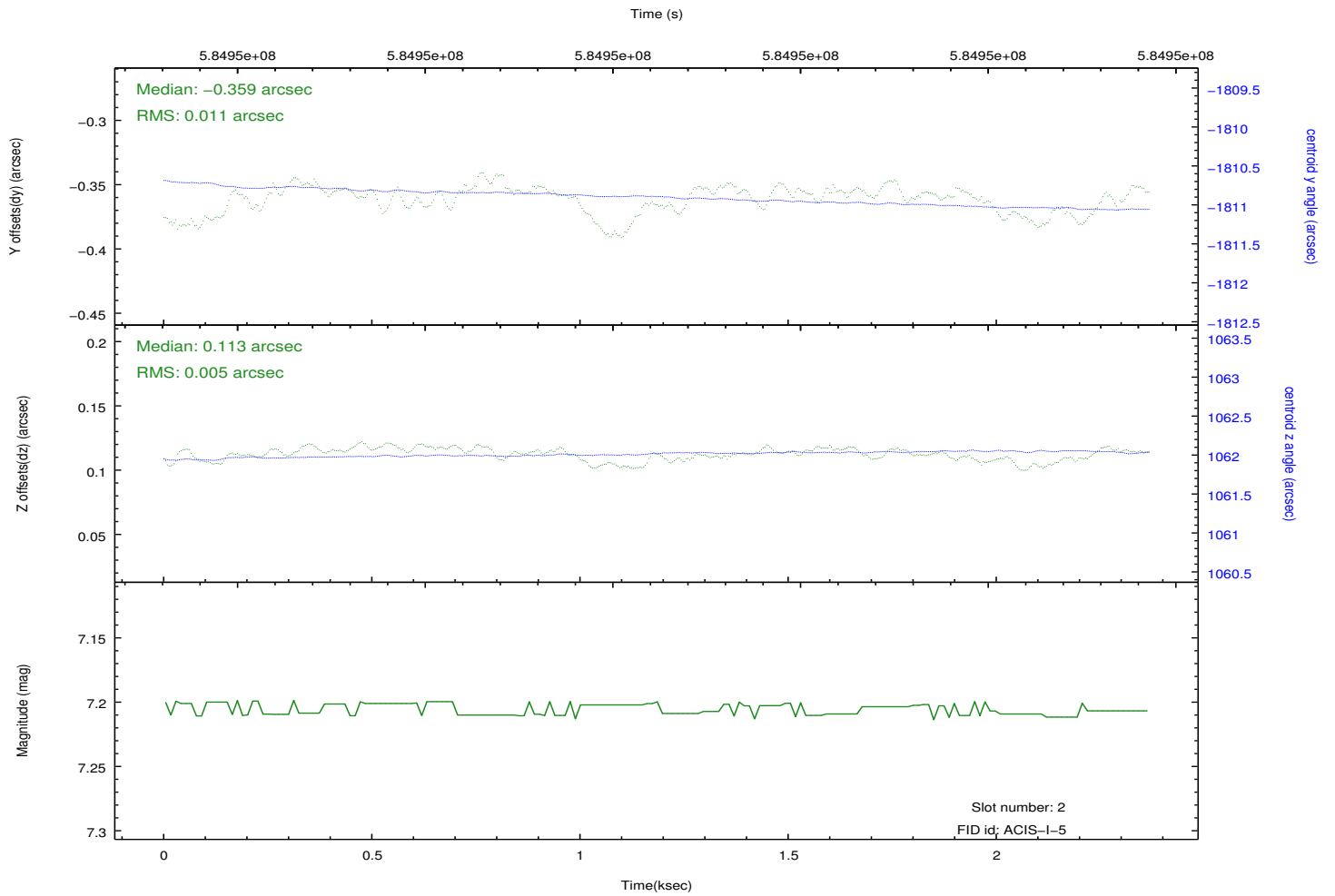
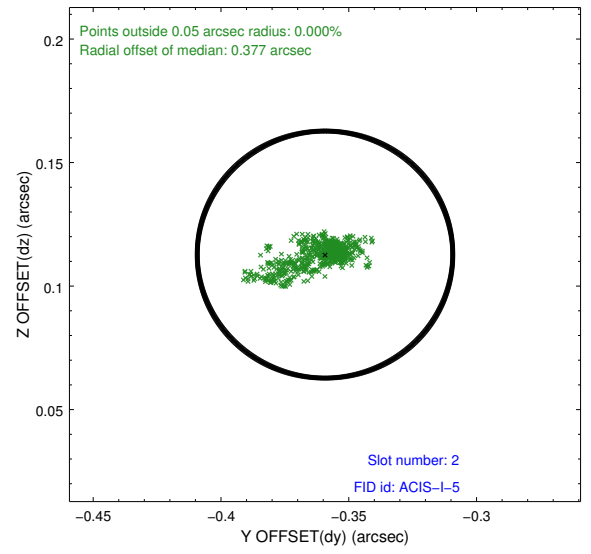
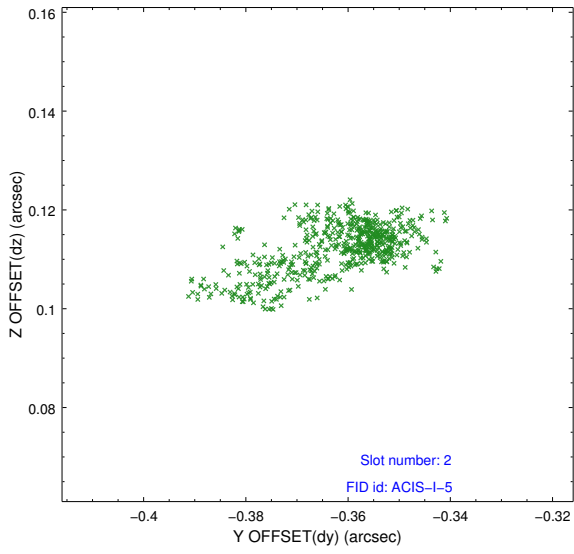
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2016.07.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9517083090544

### A.2 Comments