

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18665 - L2 Version 1  
Chandra X-Ray Center

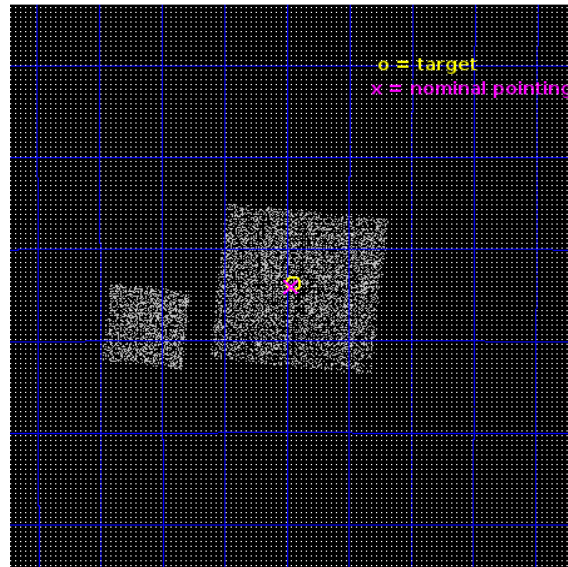
L2 Processing Date : Jul 31 2016

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# 1 Front

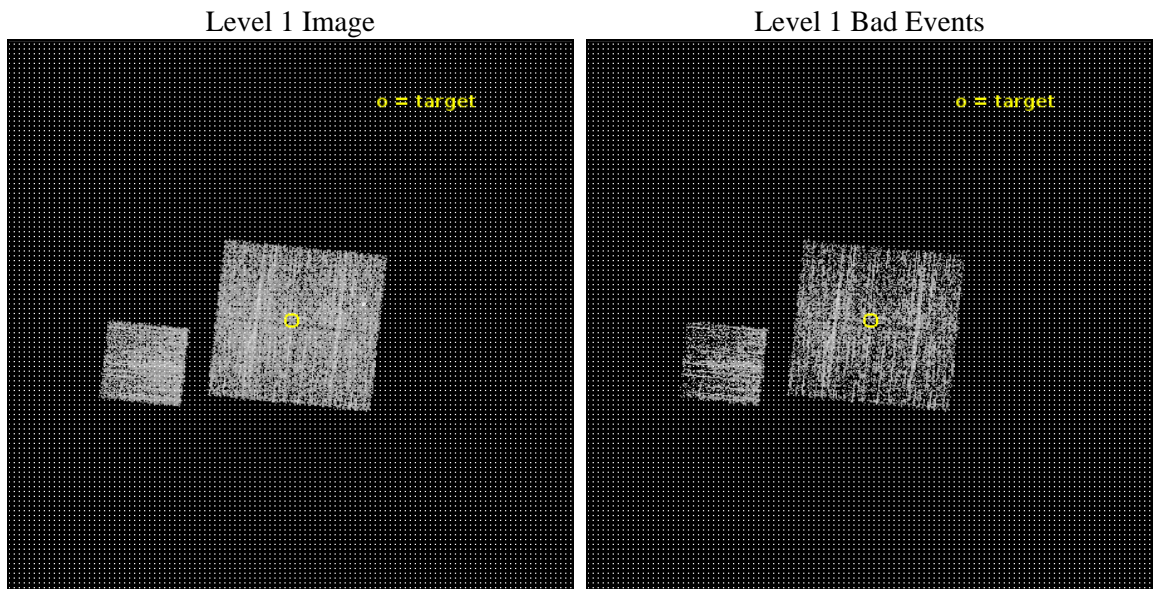
seq_num	300389	Sequence number
obs_id	18665	Observation id
title	X-raying the Galactic center/bulge interface	Proposal title
observer	Q. Daniel Wang	Principal investigator
object	GC-GB interface	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	267.23665	Observer's specified target RA [deg]
dec_targ	-29.56281	Observer's specified target Dec [deg]
ra_nom	267.24044436016	Nominal RA [deg]
dec_nom	-29.568874381939	Nominal Dec [deg]
roll_nom	276.22483041633	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1954.6669712067	Sum of GTIs [s]
livetime	1929.127808223	Livetime [s]
ontime0	1954.5438412428	Sum of GTIs [s]
ontime1	1954.5848811865	Sum of GTIs [s]
ontime2	1954.6259212494	Sum of GTIs [s]
ontime3	1954.6669712067	Sum of GTIs [s]
ontime6	1954.5028011799	Sum of GTIs [s]
l2events	7874	Number of level 2 events



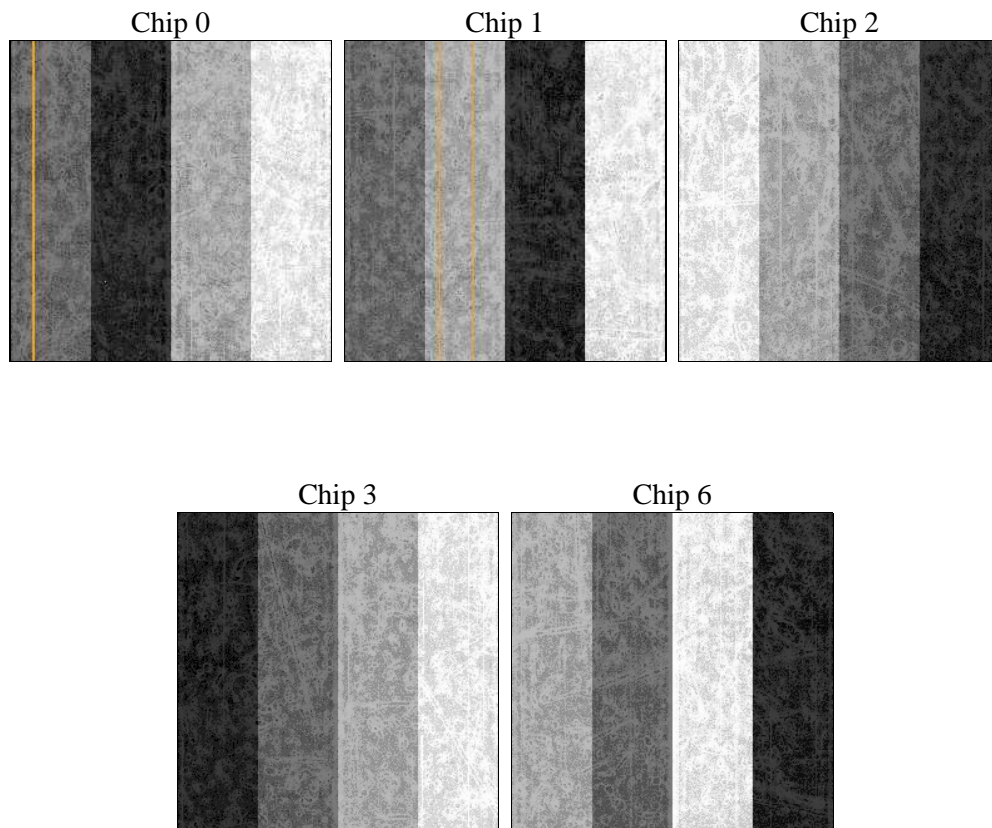
## 2 OBI

### 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	1954.6669712067	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime0	1954.5438412428	Sum of GTIs [s]
date	2016-07-31T17:56:34	Date and time of file creation	ontime1	1954.5848811865	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	1954.6259212494	Sum of GTIs [s]
			ontime3	1954.6669712067	Sum of GTIs [s]
			ontime6	1954.5028011799	Sum of GTIs [s]
			l1events	66275	Number of level 1 events

### 2.1.4 Events

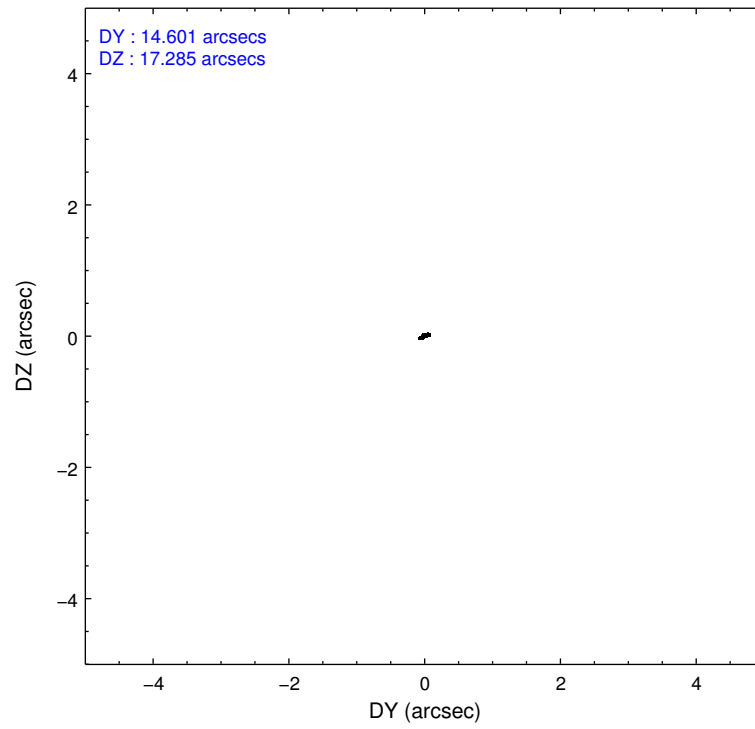
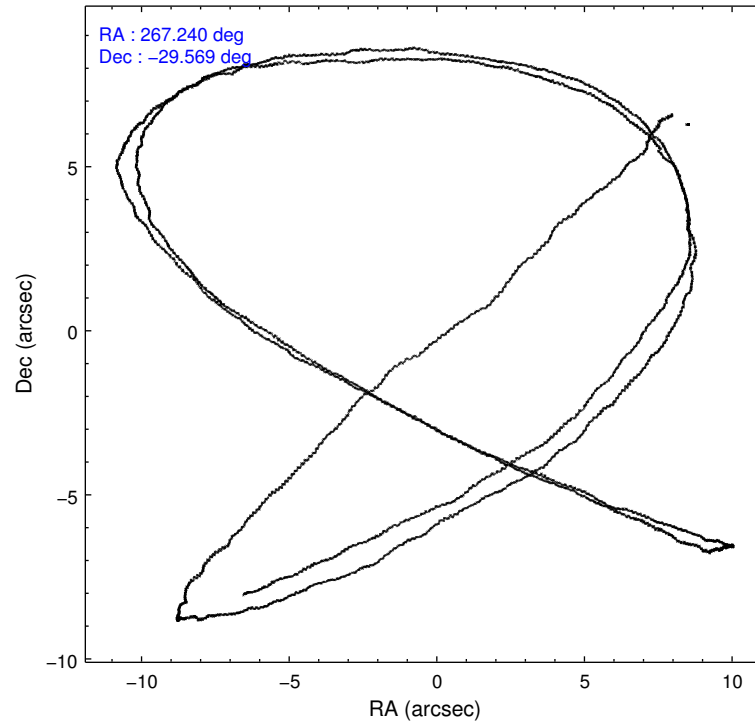
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	12545	13512	14062	12850	13306
rejected events	10836	11139	12323	11078	11301
rejected %	86%	82%	87%	86%	84%

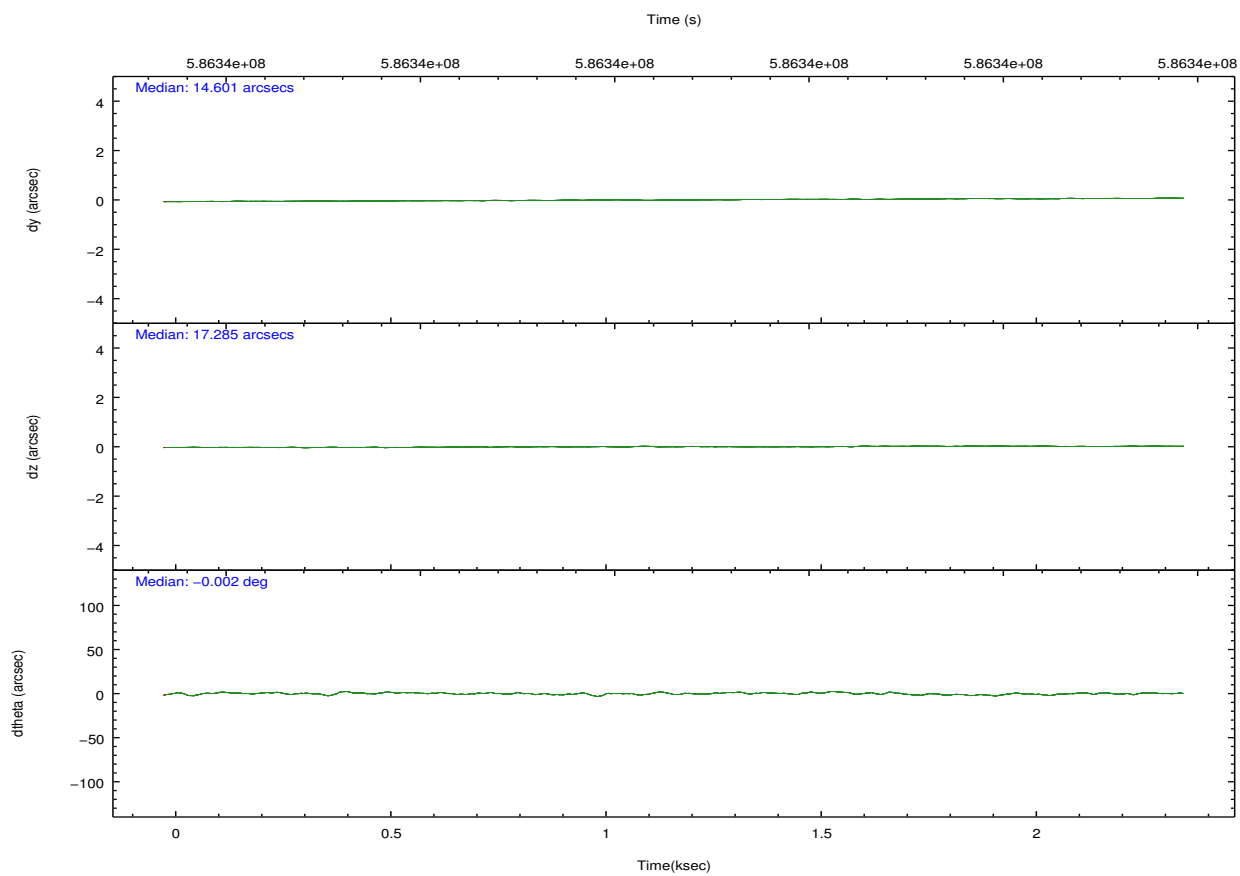
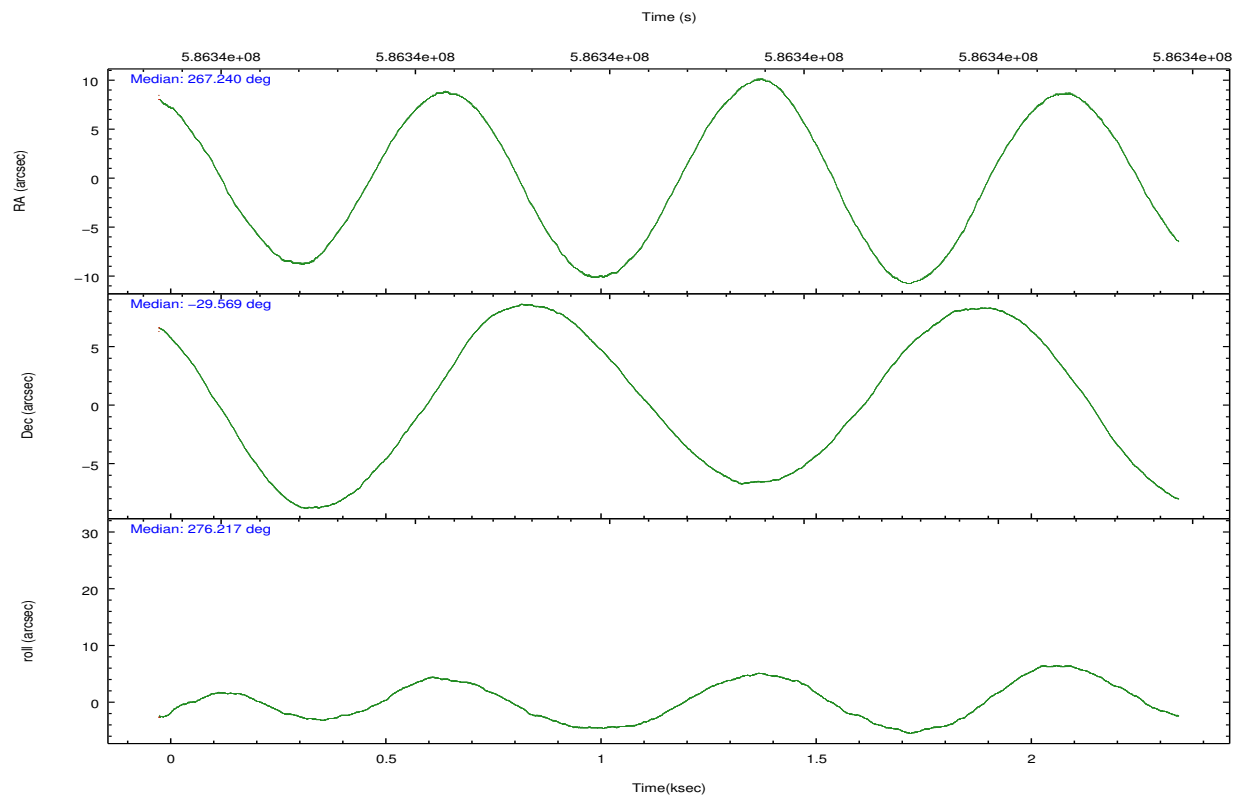
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	729	1261	712	738	914
	5%	9%	5%	5%	6%
grade 1 events	3	9	6	14	7
	0%	0%	0%	0%	0%
grade 2 events	368	416	400	379	388
	2%	3%	2%	2%	2%
grade 3 events	170	145	174	164	158
	1%	1%	1%	1%	1%
grade 4 events	144	169	150	175	160
	1%	1%	1%	1%	1%
grade 5 events	551	556	538	680	632
	4%	4%	3%	5%	4%
grade 6 events	305	388	312	320	390
	2%	2%	2%	2%	2%
grade 7 events	10275	10568	11770	10380	10657
	81%	78%	83%	80%	80%

## 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	267.221494	267.2404443601595	CCD I2 on	Y	Y
[deg] Pointing Dec	-29.546591	-29.56887438193885	CCD I3 on	Y	Y
[deg] Pointing Roll	276.006807	276.2248304163319	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)	586340131.184000	586339695.24815	CCD S5 on	N	N
Observation start date	2016-07-31T08:14:23	2016-07-31T08:08:15	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	586342311.184000	586342445.32331	On-chip summing requested	N	N
Observation end date	2016-07-31T08:50:43	2016-07-31T08:54:05	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





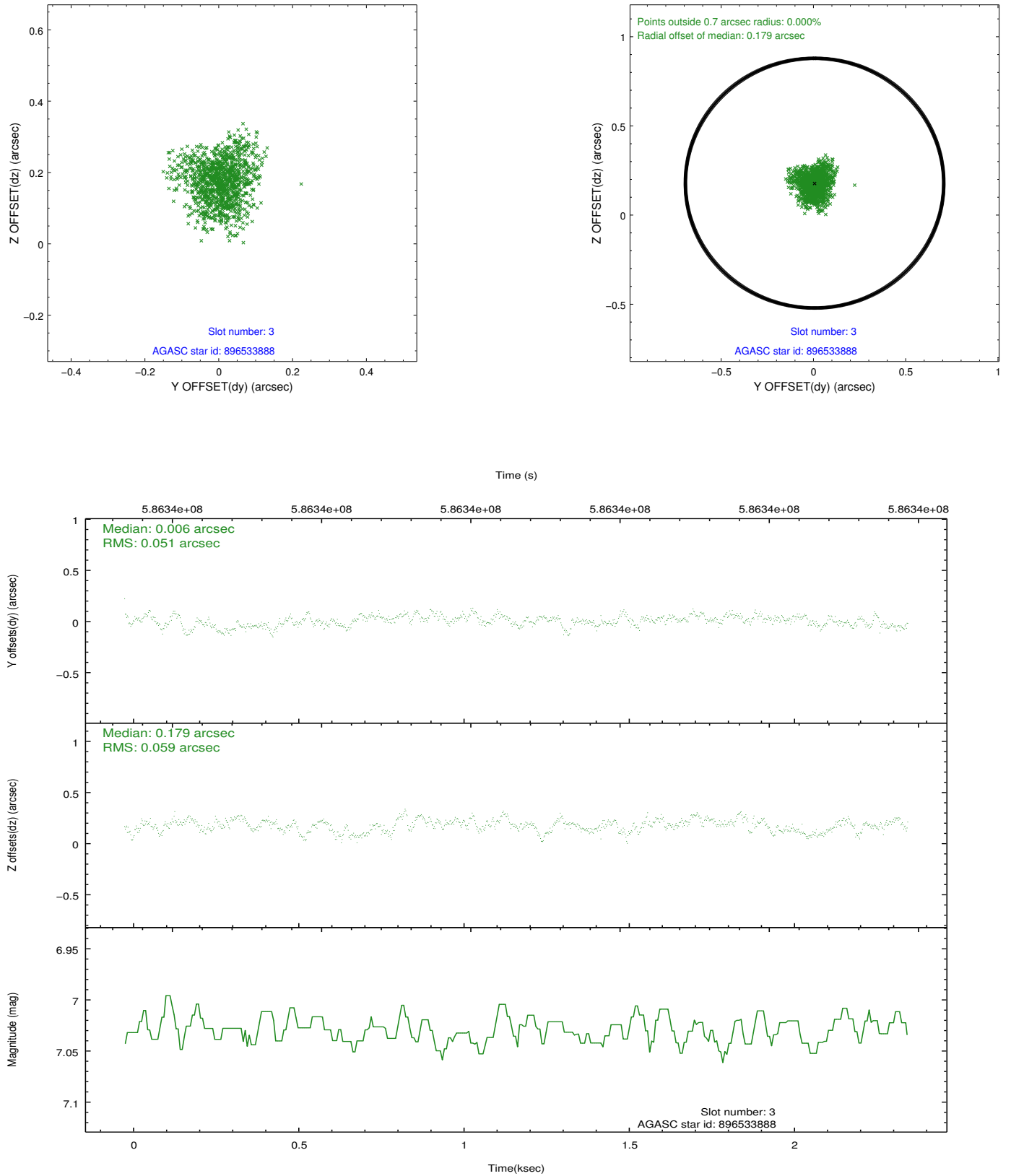
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.13	579	-0.024	-0.033	0.009	0.016	0.000000	0.000000	924.84	-840.98
1	FID		ACIS-I-2	7.03	579	-0.313	-0.135	0.007	0.013	0.000000	0.000000	-768.03	-848.89
2	FID		ACIS-I-4	7.05	579	0.239	0.234	0.007	0.013	0.000000	0.000000	2143.74	1057.70
3	GUIDE	used	896533888	7.03	1157	0.006	0.179	0.083	0.134	266.666434	-29.392757	-728.54	-1674.07
4	GUIDE	used	896540528	8.24	1157	0.048	0.030	0.102	0.159	267.368305	-29.314773	-781.70	544.57
5	GUIDE	used	896541360	7.72	1157	0.046	0.103	0.086	0.128	266.684478	-29.453744	-505.06	-1639.29
6	GUIDE	used	966923896	8.95	1157	0.130	0.029	0.108	0.177	267.026258	-30.213470	2324.58	-856.81
7	GUIDE	used	898248800	8.19	1153	-0.235	-0.337	0.090	0.146	267.977609	-29.931731	1635.05	2199.06

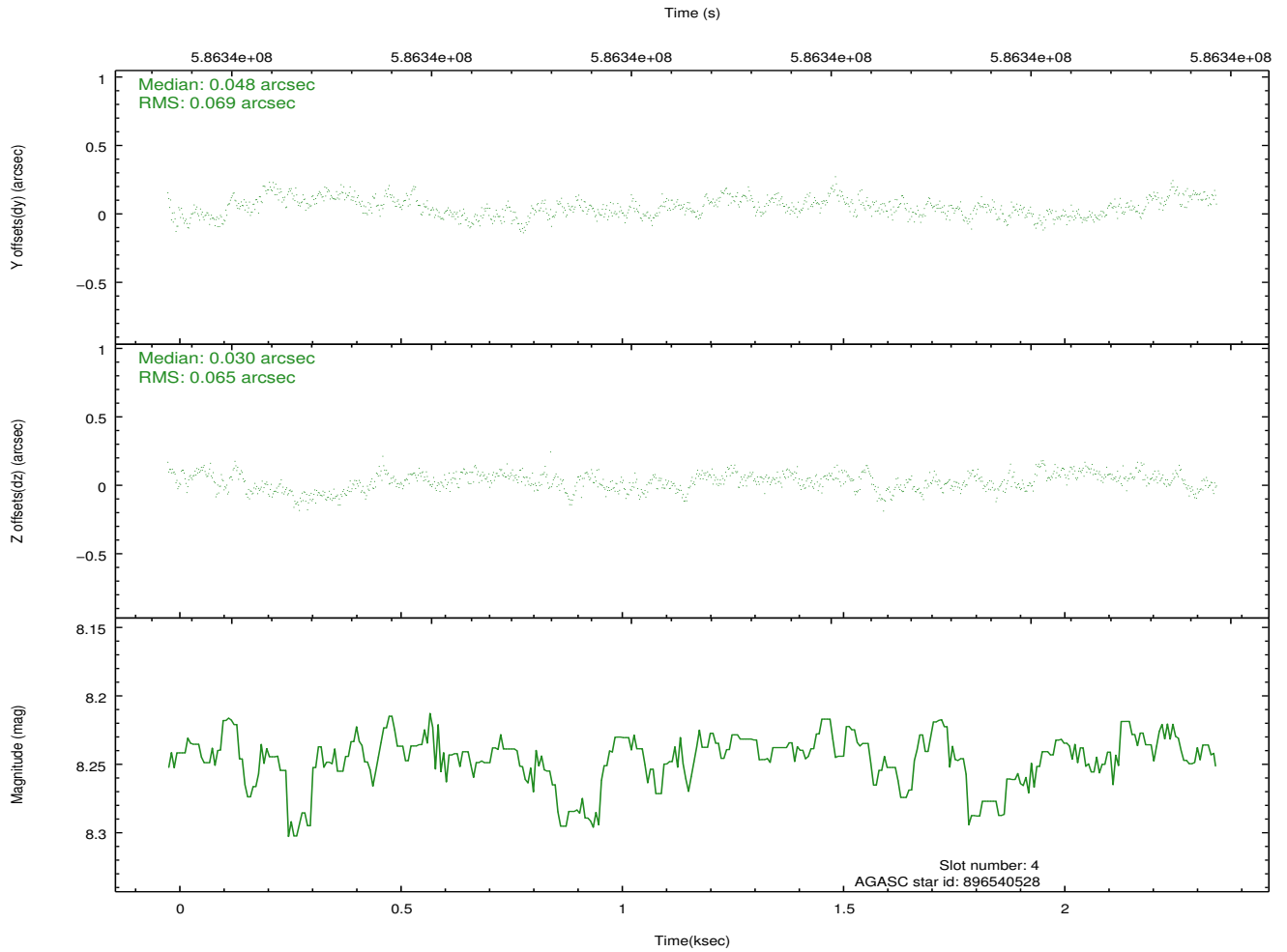
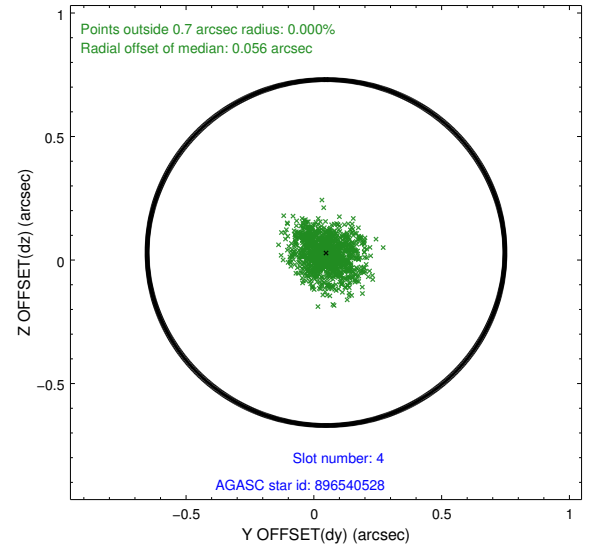
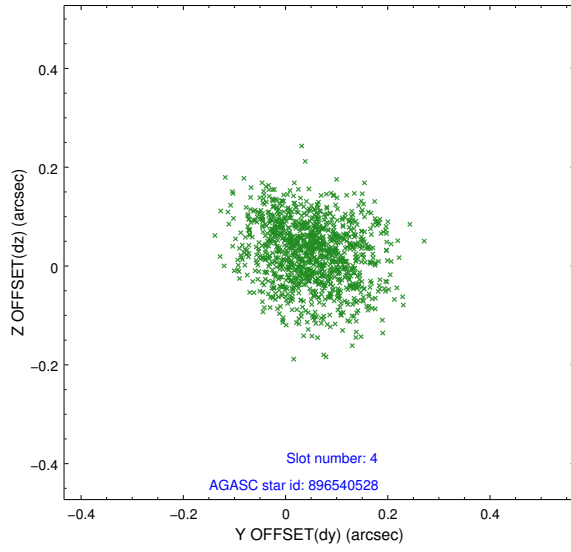


## 2.4 Star Slots

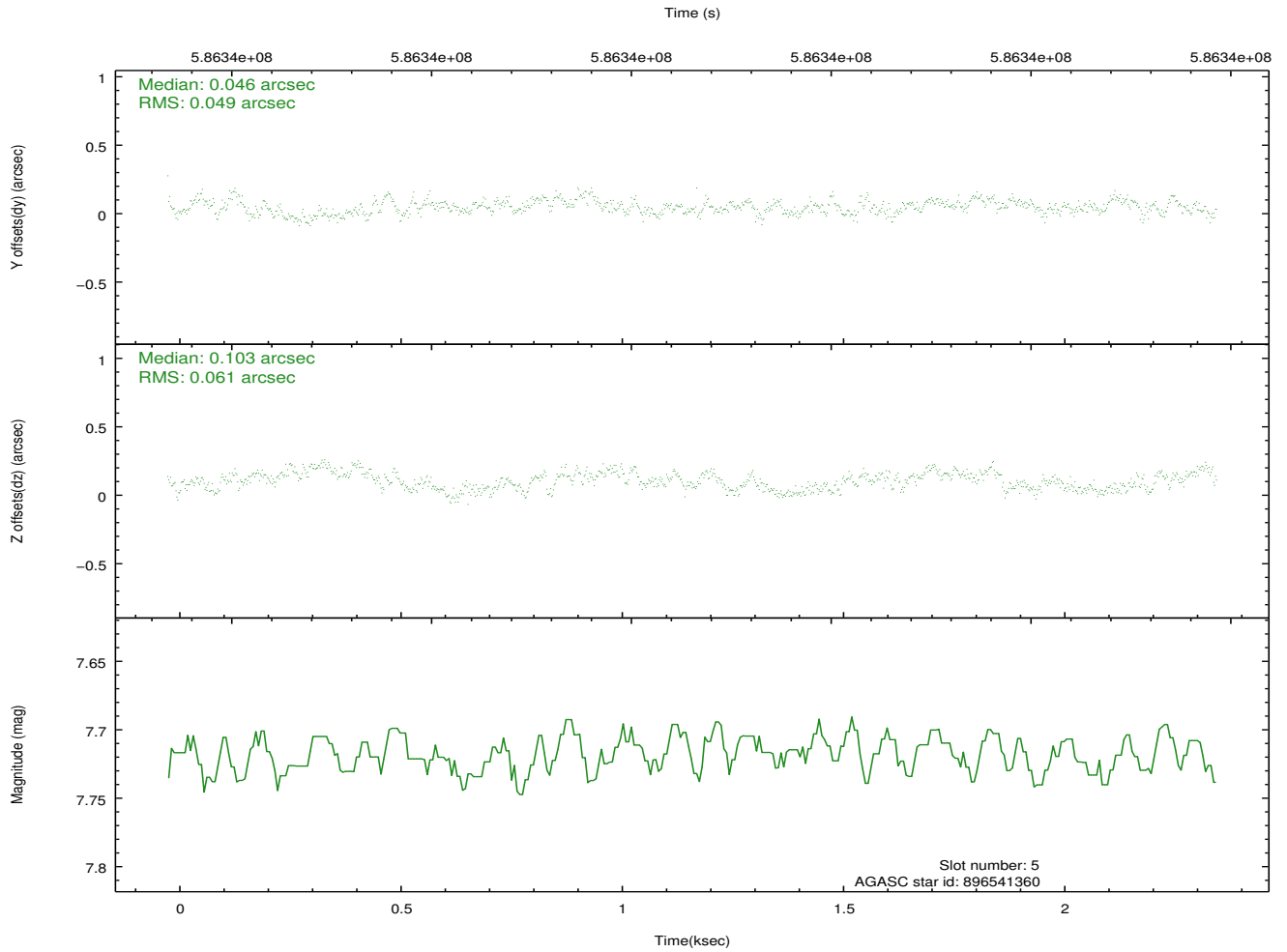
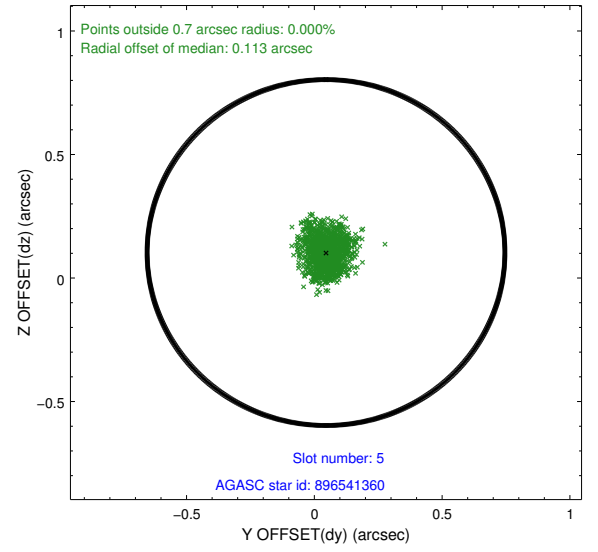
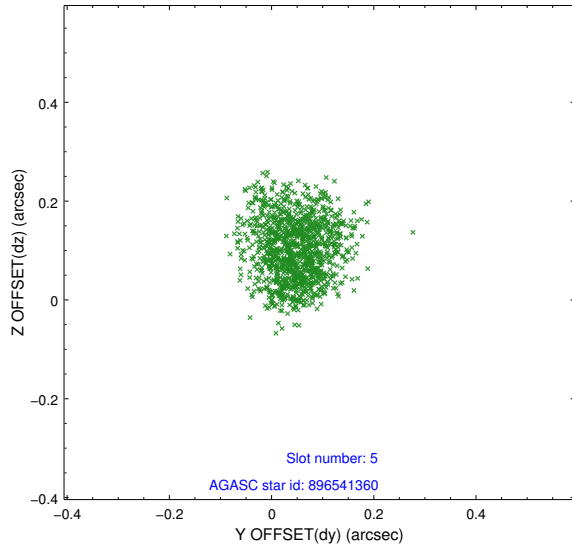
### 2.4.1 Slot 3



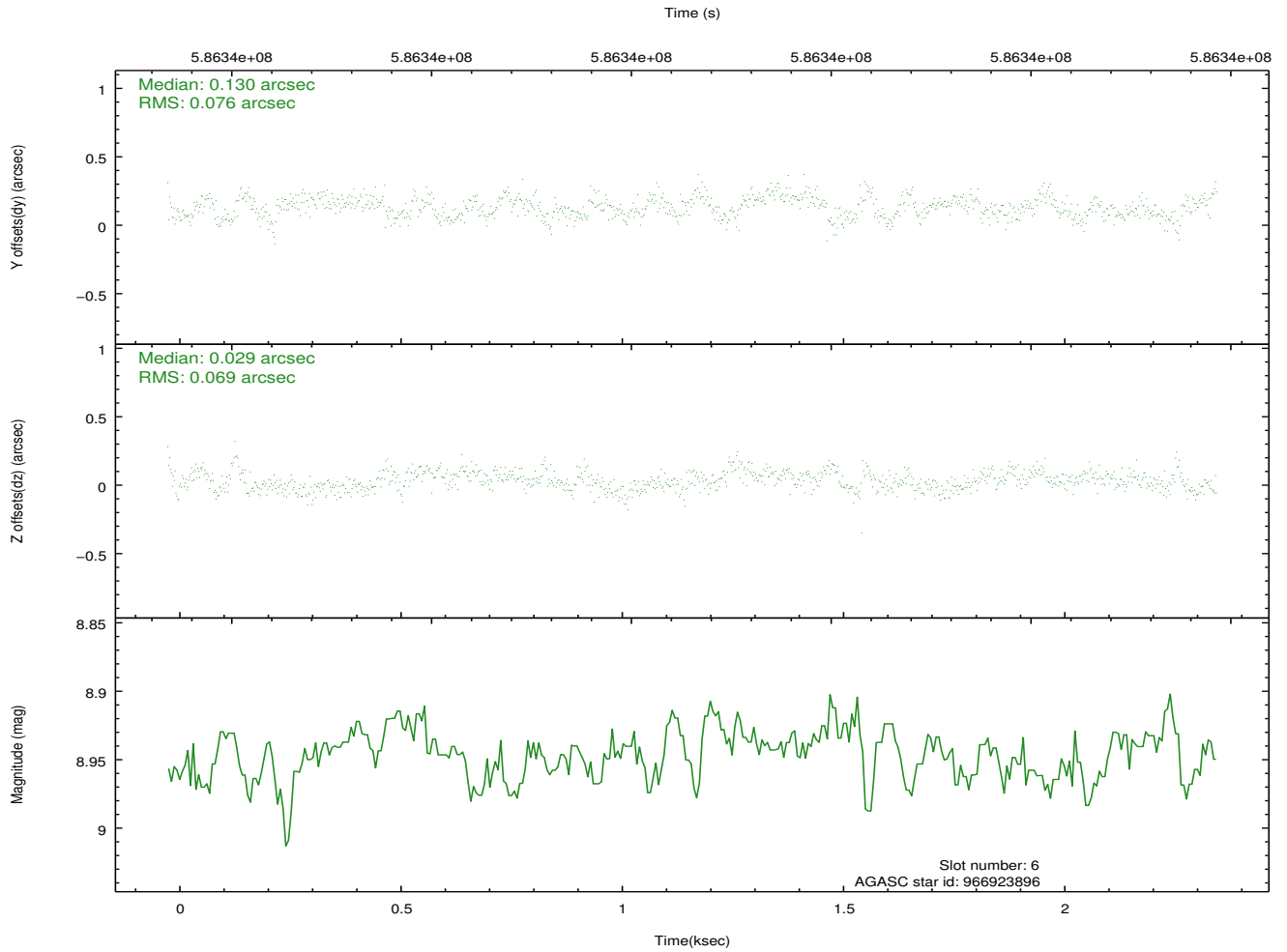
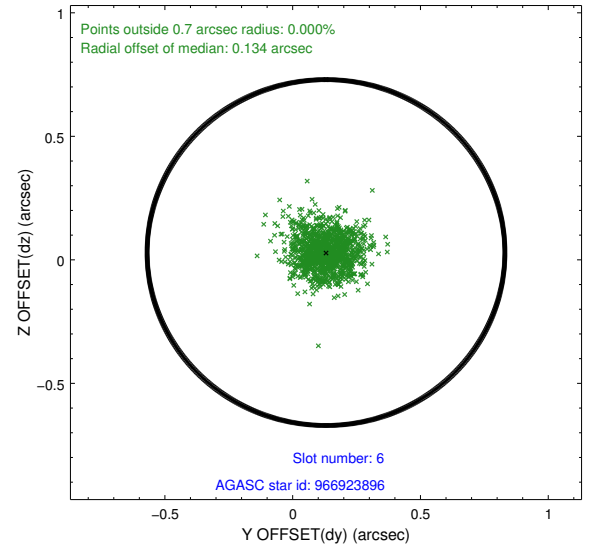
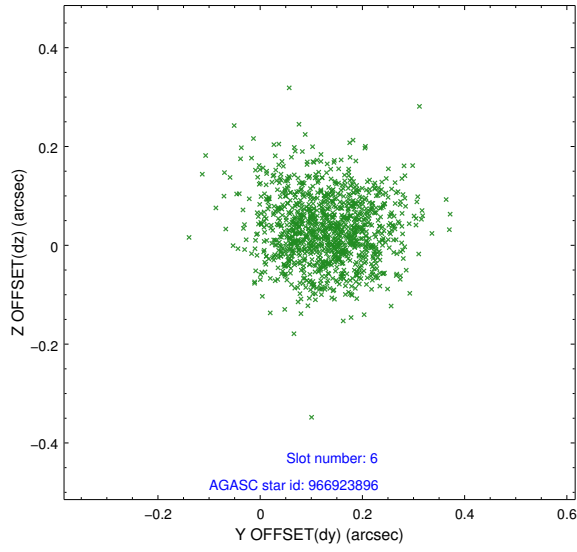
## 2.4.2 Slot 4



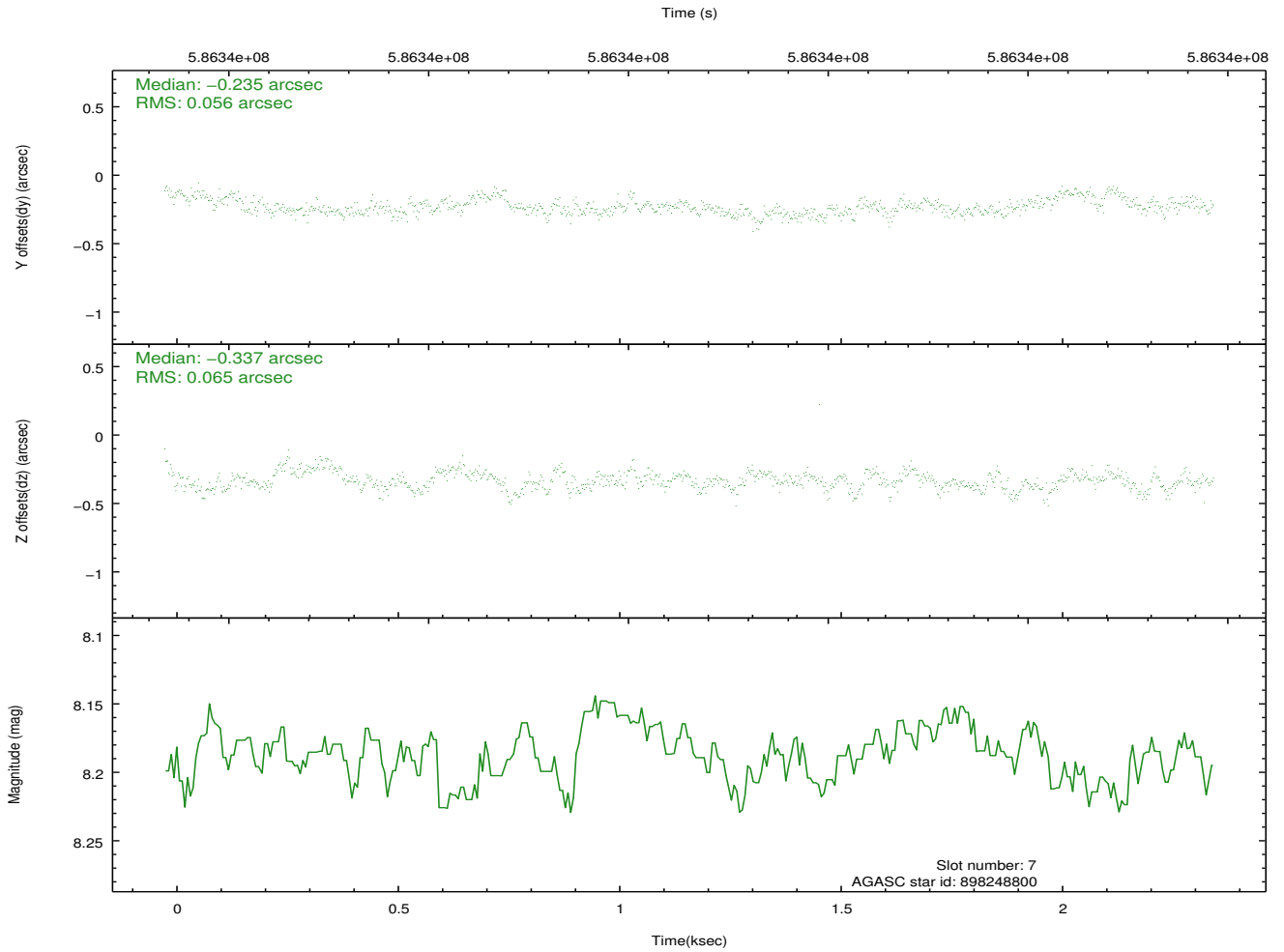
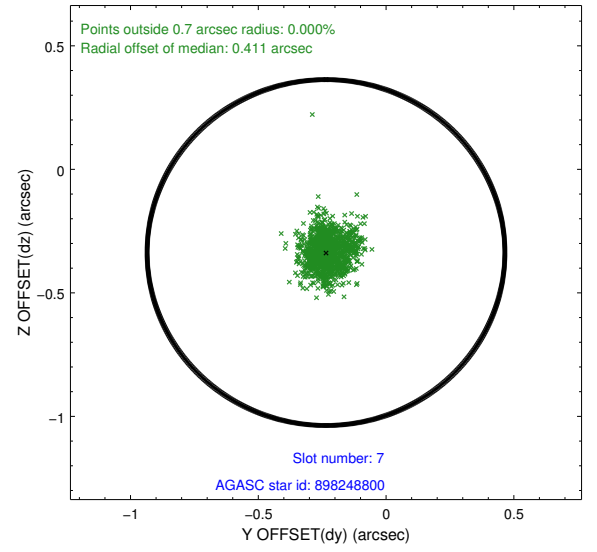
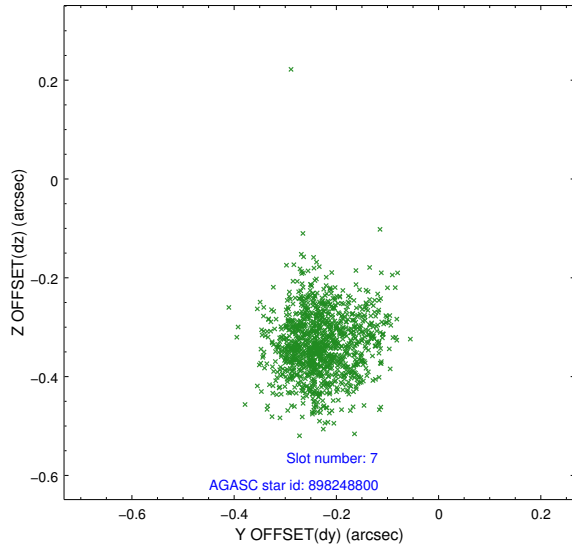
### 2.4.3 Slot 5



## 2.4.4 Slot 6

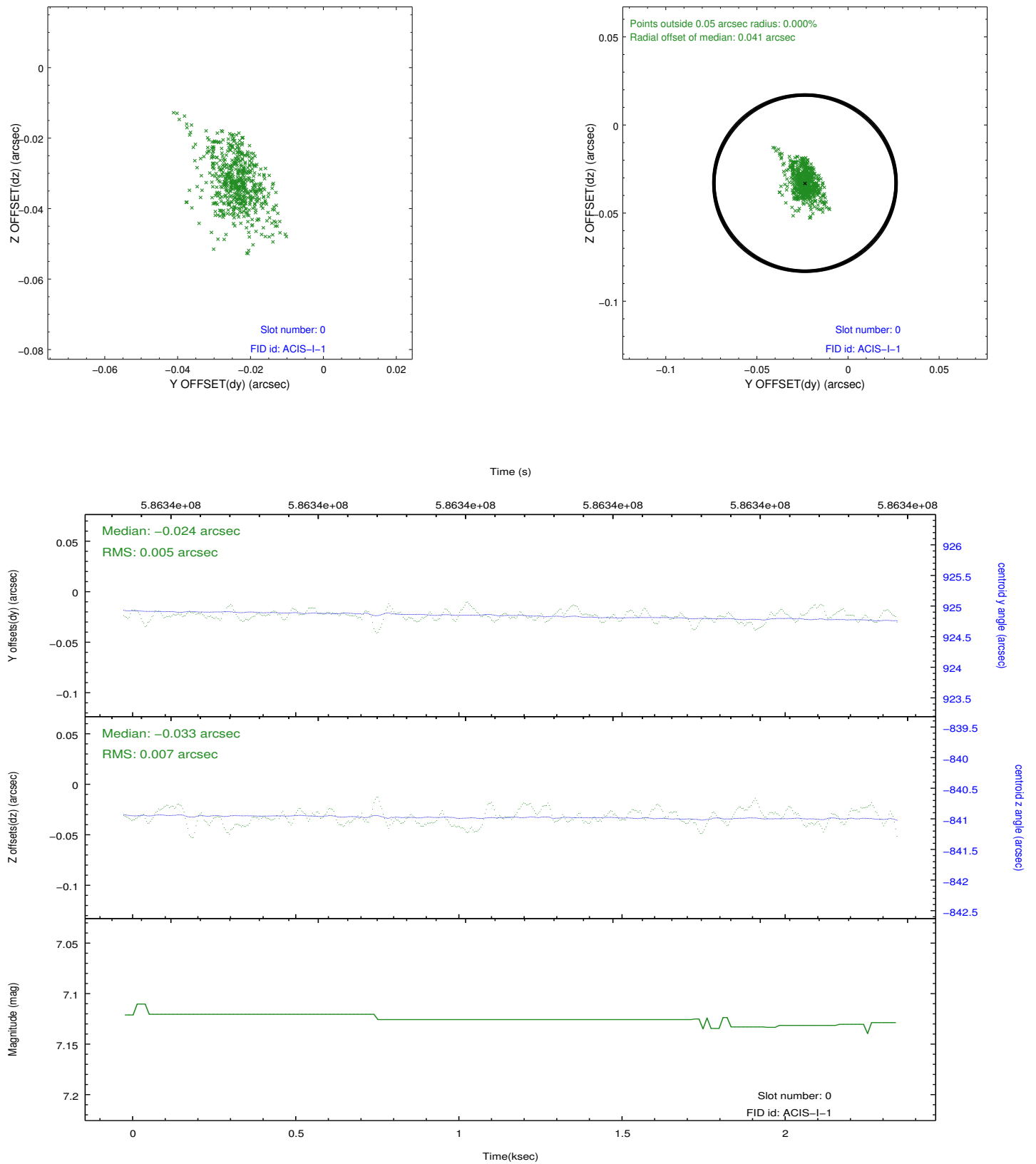


## 2.4.5 Slot 7

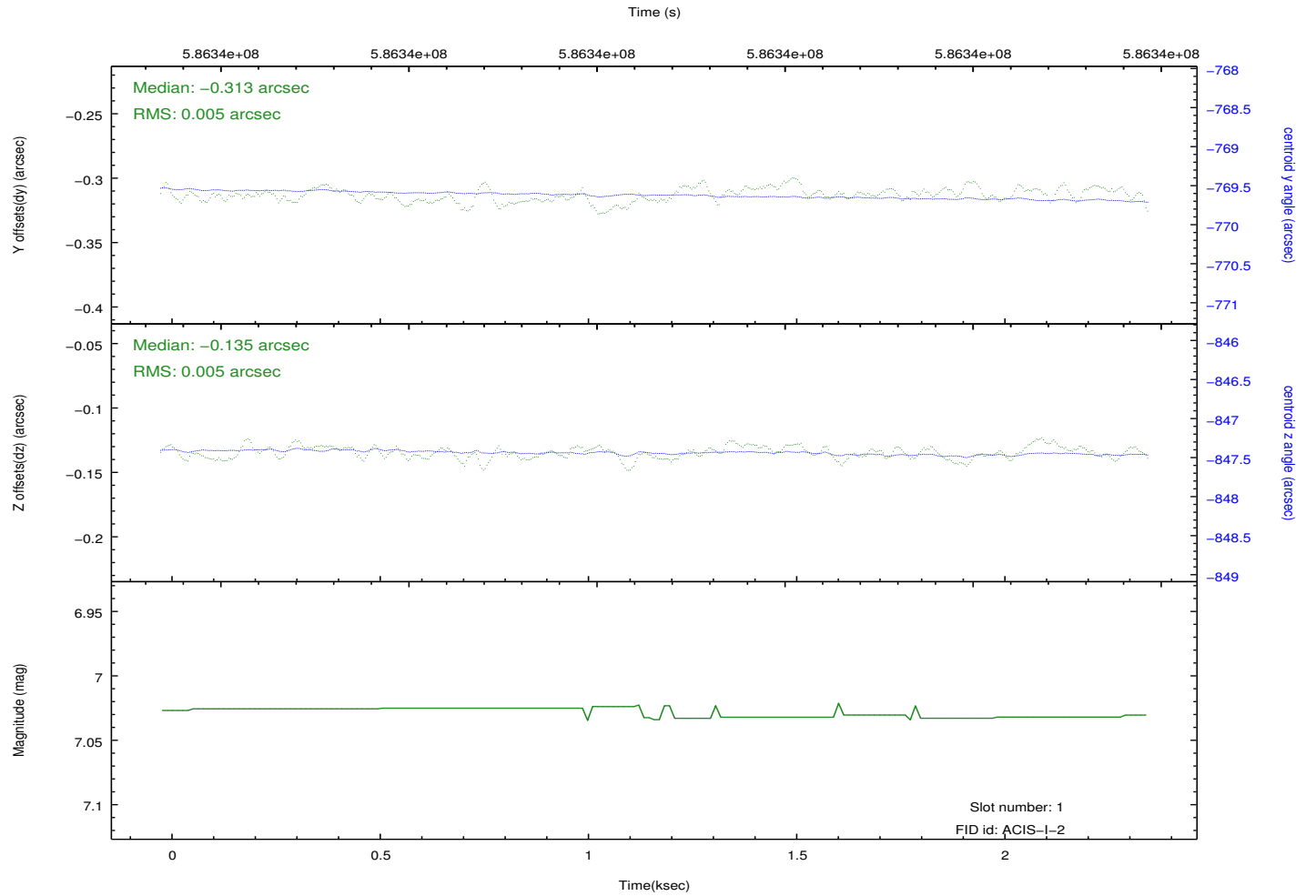
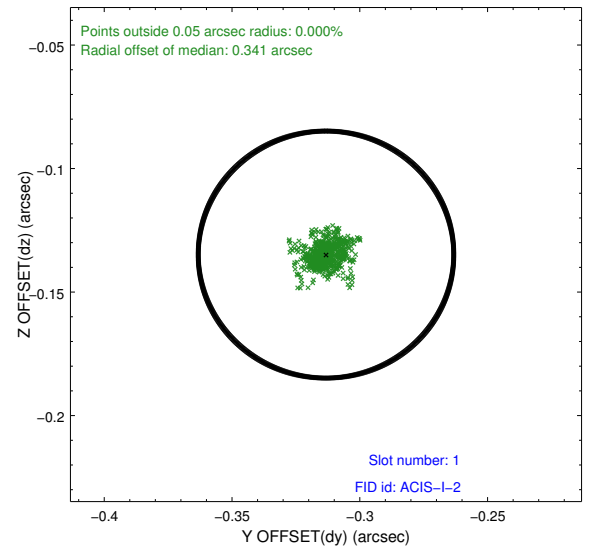
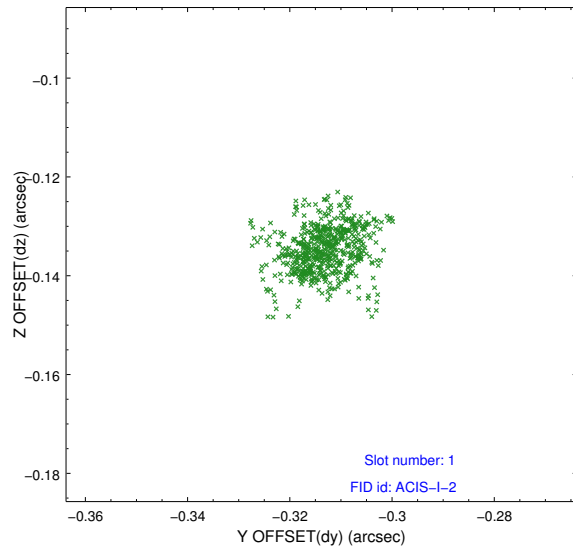


## 2.5 FID Slots

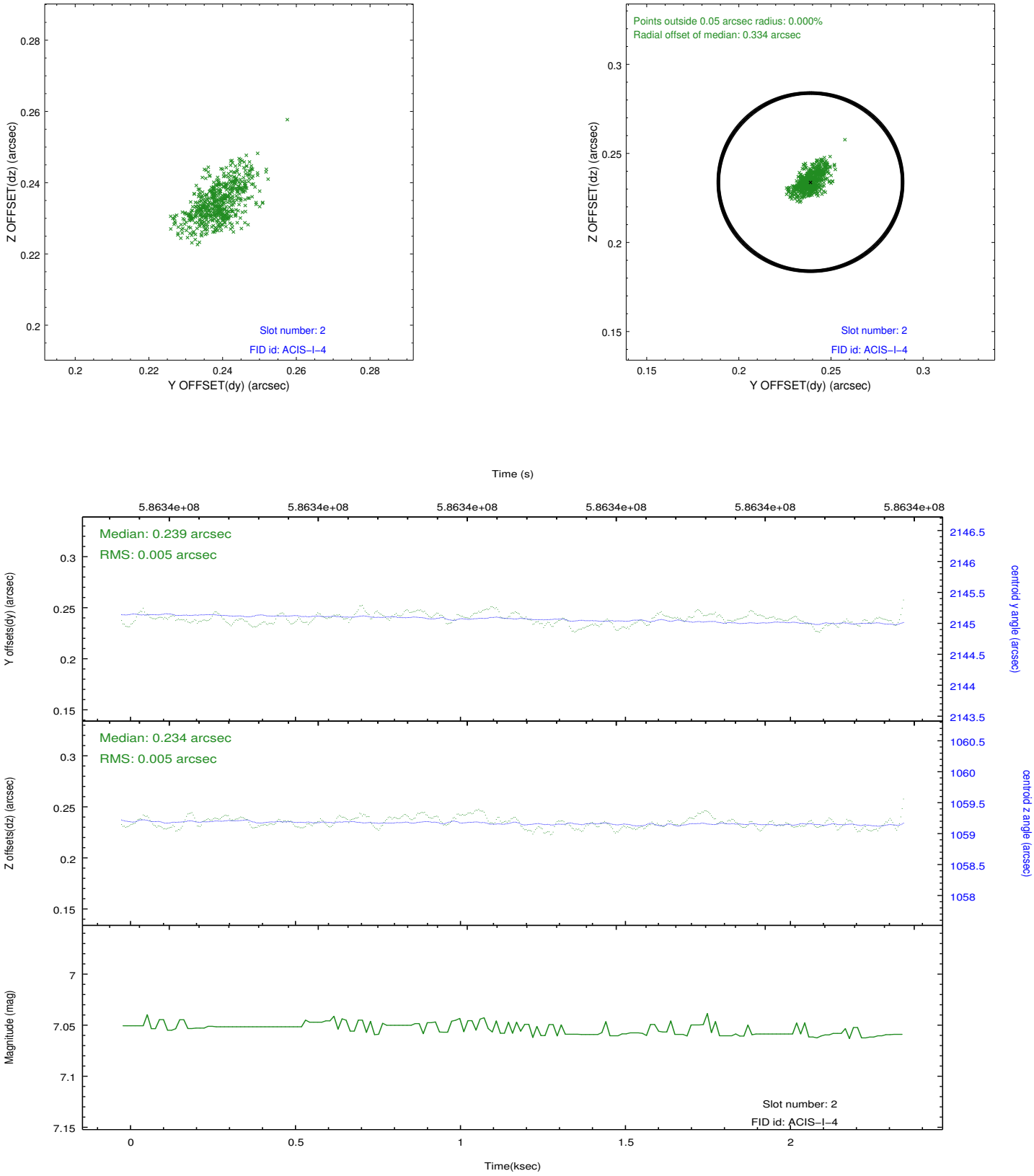
### 2.5.1 Slot 0



## 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)	2016.08.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.9546669712067

### A.2 Comments