

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 17072 - L2 Version 1  
Chandra X-Ray Center

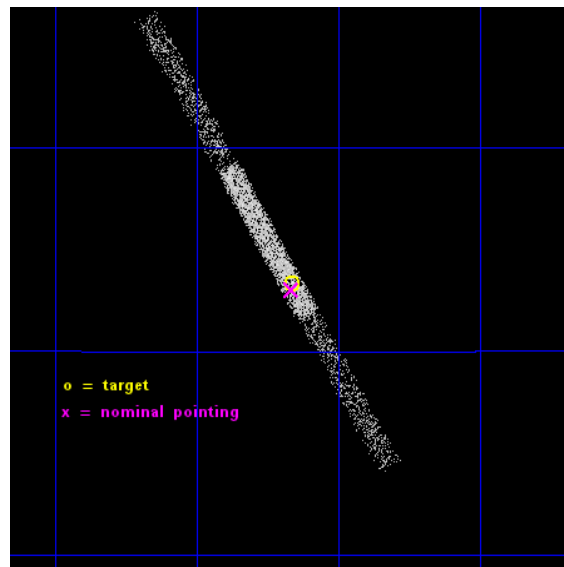
L2 Processing Date : Apr 2 2015

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# 1 Front

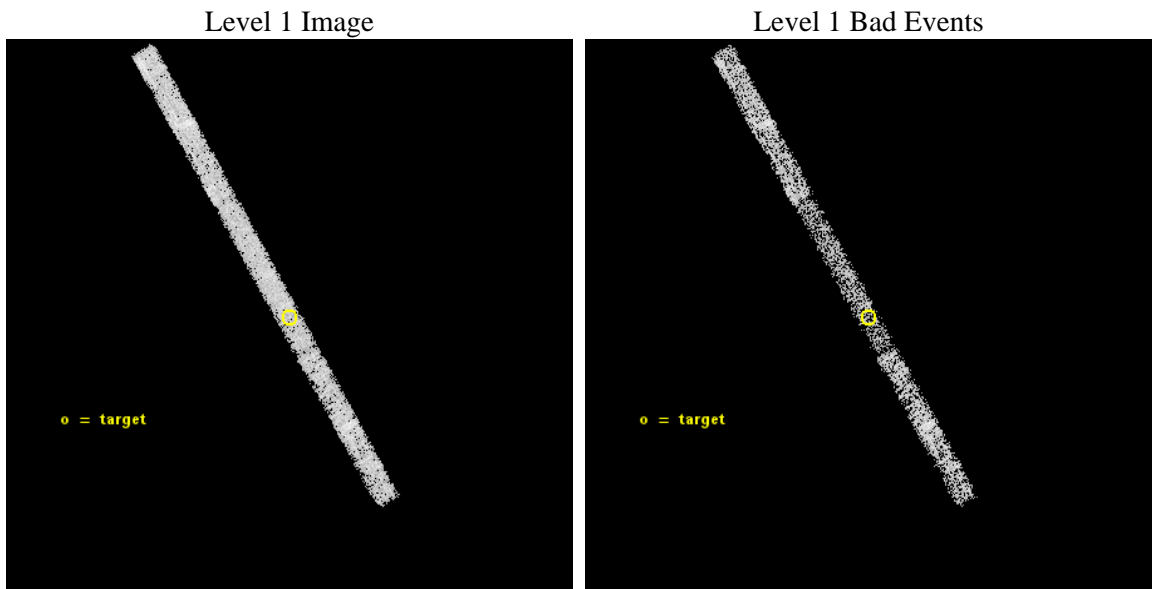
seq_num	703076	Sequence number
obs_id	17072	Observation id
title	MERGER-TRIGGERED NUCLEAR ACTIVITY AT SUB-KILOPARSEC SCALES	Proposa
observer	Dr. Giuseppina Fabbiano	Principal investigator
object	Mrk 731	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	168.165833	Observer's specified target RA [deg]
dec_targ	9.055722	Observer's specified target Dec [deg]
ra_nom	168.16665769172	Nominal RA [deg]
dec_nom	9.050350474542	Nominal Dec [deg]
roll_nom	239.90997633583	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10102.698062181	Sum of GTIs [s]
livetime	9455.9135737378	Livetime [s]
ontime6	10102.657022238	Sum of GTIs [s]
ontime7	10102.698062181	Sum of GTIs [s]
ontime8	10102.615982175	Sum of GTIs [s]
l2events	5181	Number of level 2 events



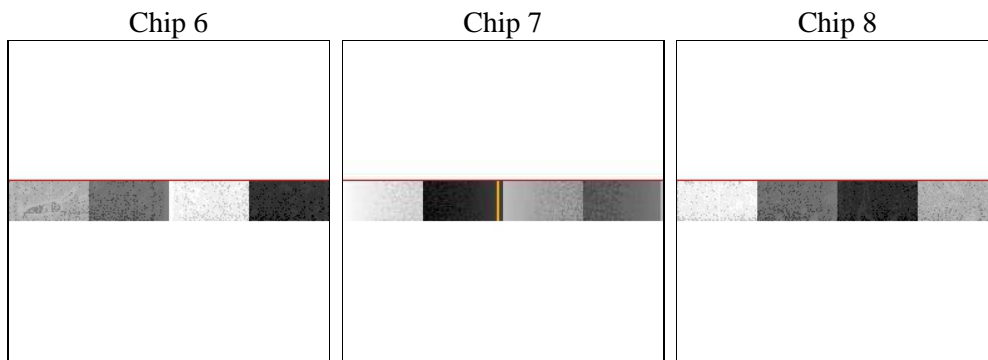
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	10102.698062181	Sum of GTIs [s]
caldbver	4.6.7	&#160	ontime6	10102.657022238	Sum of GTIs [s]
date	2015-04-02T19:41:13	Date and time of file creation	ontime7	10102.698062181	Sum of GTIs [s]
revision	1	Processing version of data	ontime8	10102.615982175	Sum of GTIs [s]
			l1events	27321	Number of level 1 events

### 2.1.4 Events

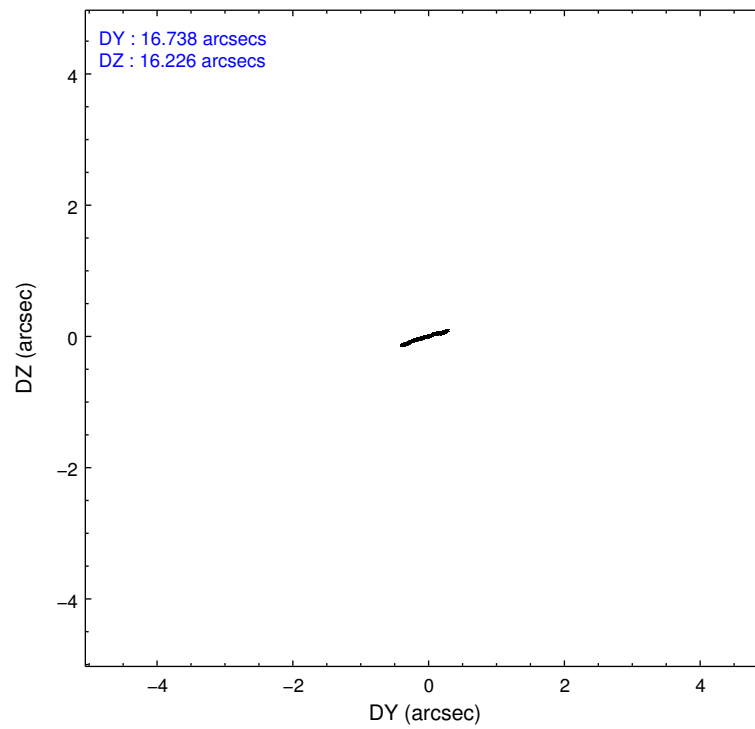
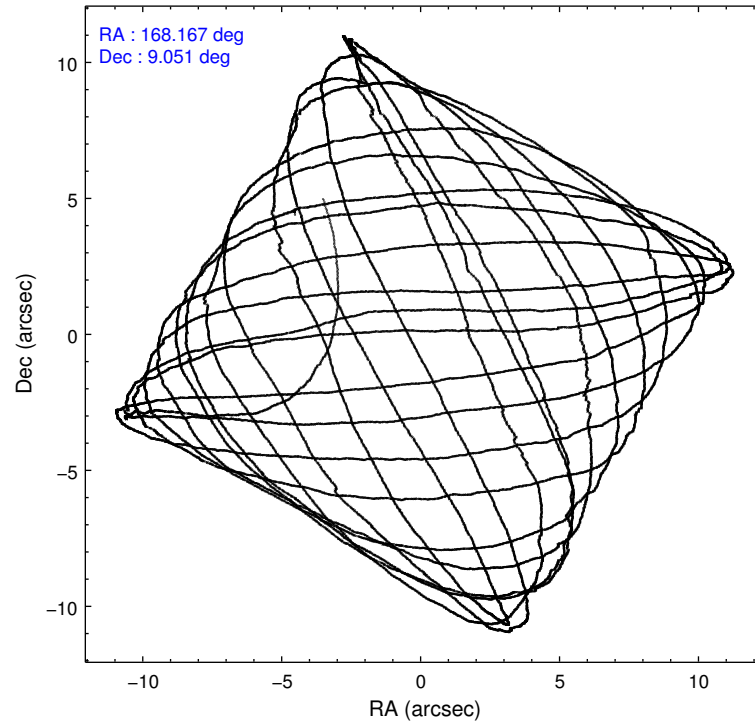
	ccd 6	ccd 7	ccd 8
level 1 events	8340	8365	10616
rejected events	7426	4516	8418
rejected %	89%	53%	79%

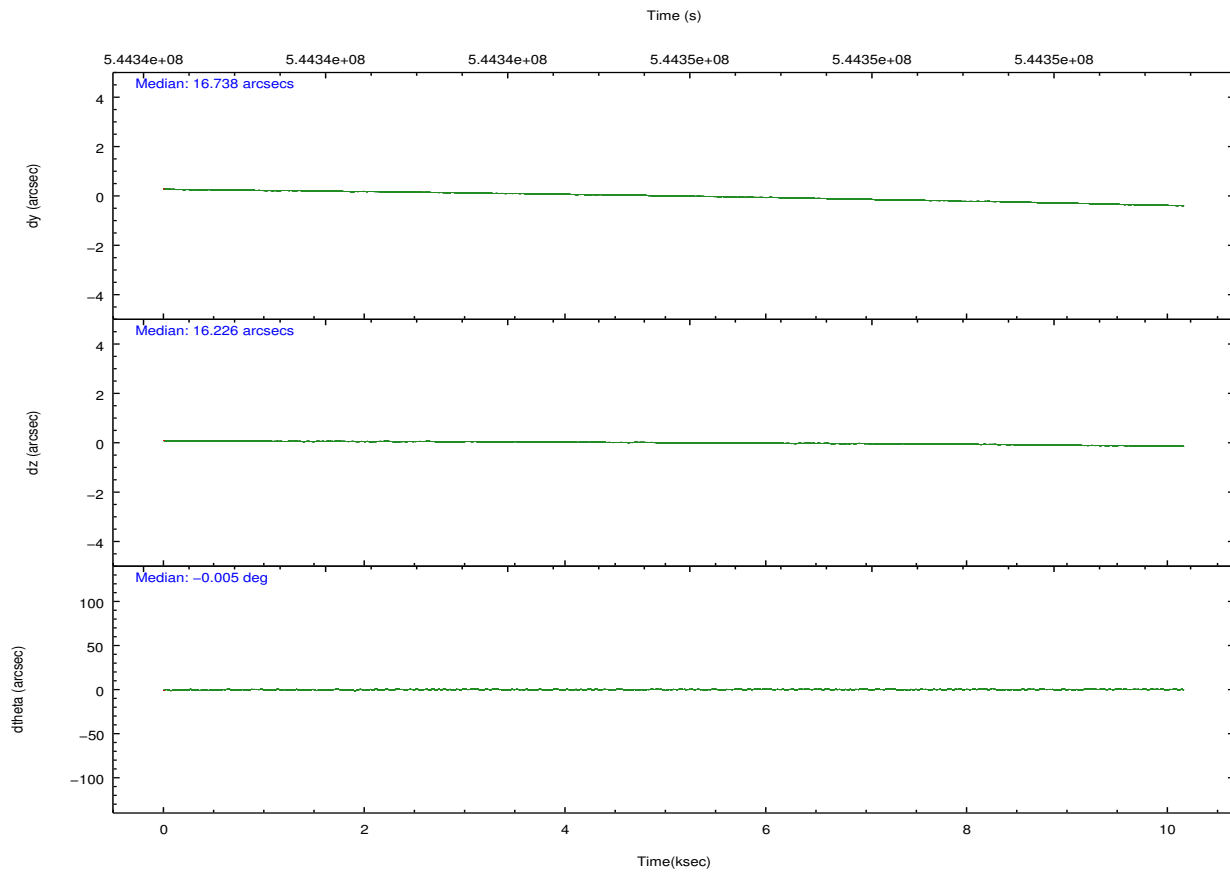
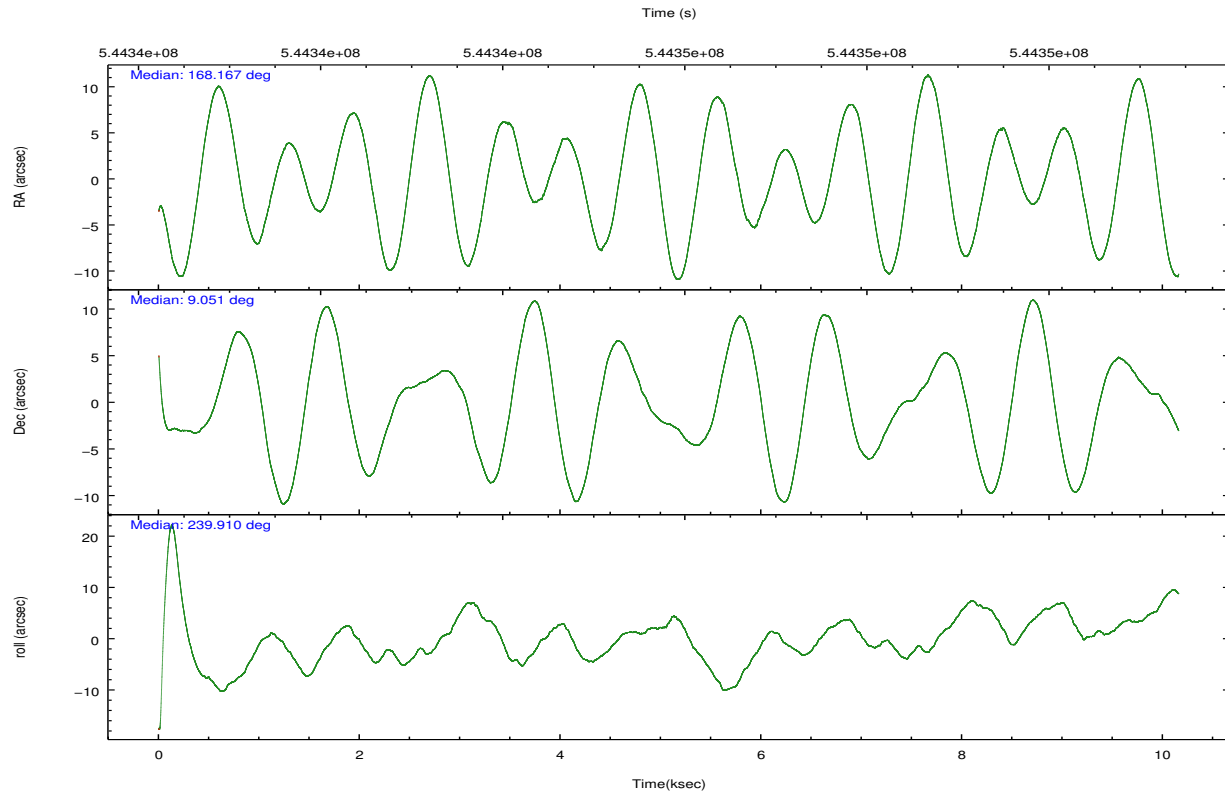
	ccd 6	ccd 7	ccd 8
grade 0 events	233	381	470
	2%	4%	4%
grade 1 events	5	8	3
	0%	0%	0%
grade 2 events	160	780	507
	1%	9%	4%
grade 3 events	180	425	248
	2%	5%	2%
grade 4 events	161	427	257
	1%	5%	2%
grade 5 events	310	835	446
	3%	9%	4%
grade 6 events	180	1836	716
	2%	21%	6%
grade 7 events	7111	3673	7969
	85%	43%	75%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	168.166364	168.1666576917194	CCD I2 on	N	N
[deg] Pointing Dec	9.077794	9.050350474541972	CCD I3 on	N	N
[deg] Pointing Roll	239.753442	239.9099763358301	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	O2	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	O1	Y
[s] Observation start time (MET)	544340900.184000	544339753.39253	CCD S5 on	N	N
Observation start date	2015-04-02T05:47:13	2015-04-02T05:29:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	544350900.184000	544351946.79322	On-chip summing requested	N	N
Observation end date	2015-04-02T08:33:53	2015-04-02T08:52:26	Subarray requested	CUSTOM	1/8
Read mode	TIMED	TIMED	Subarray start row	449	449
			Subarray row count	128	128
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0.6

## 2.3 Aspect





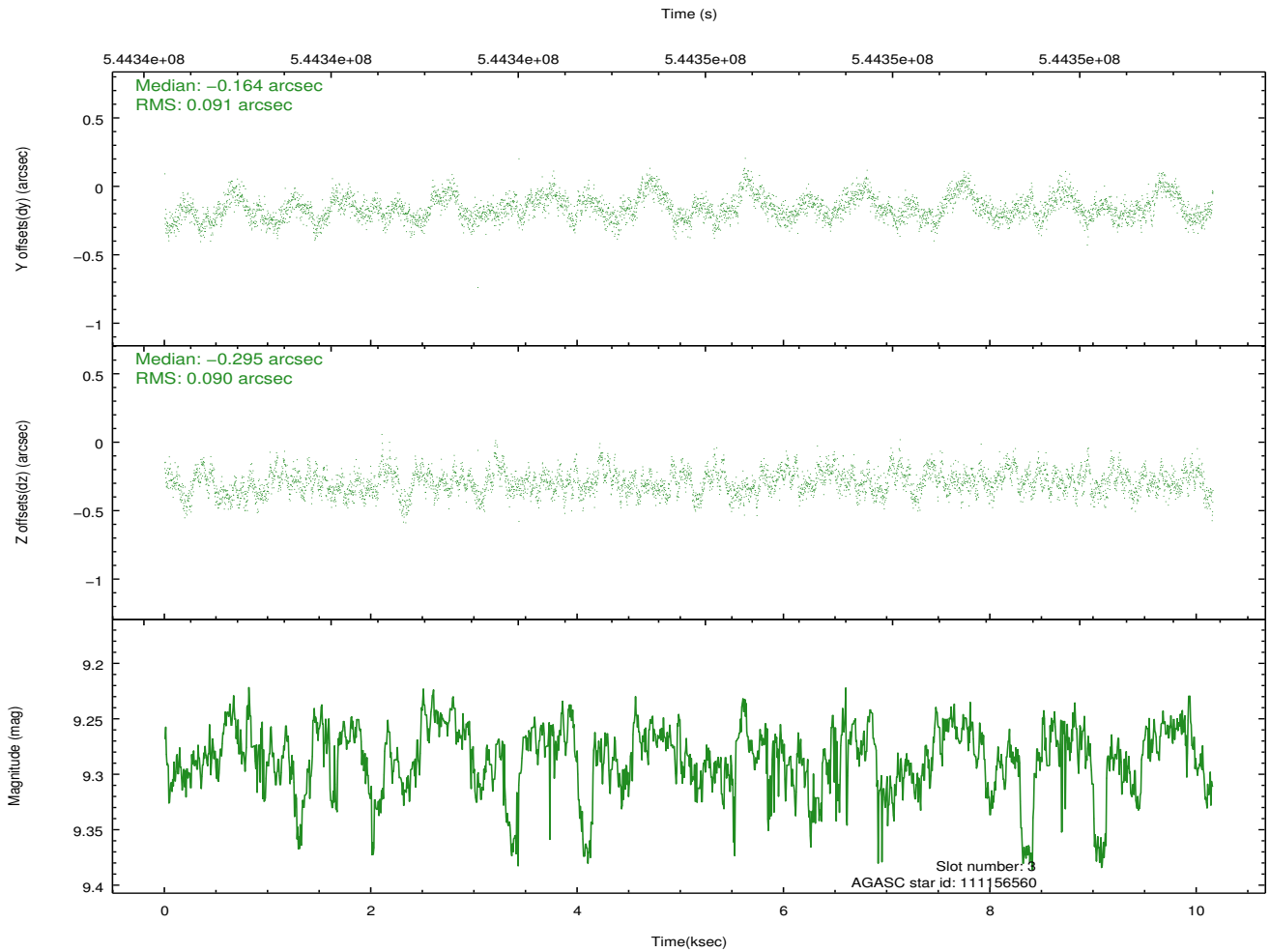
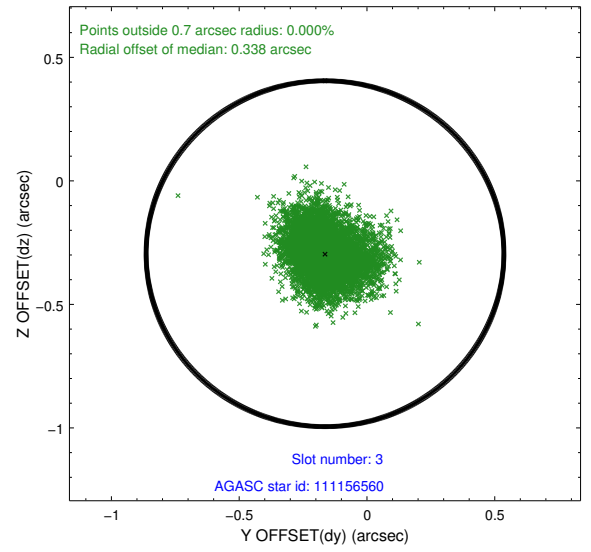
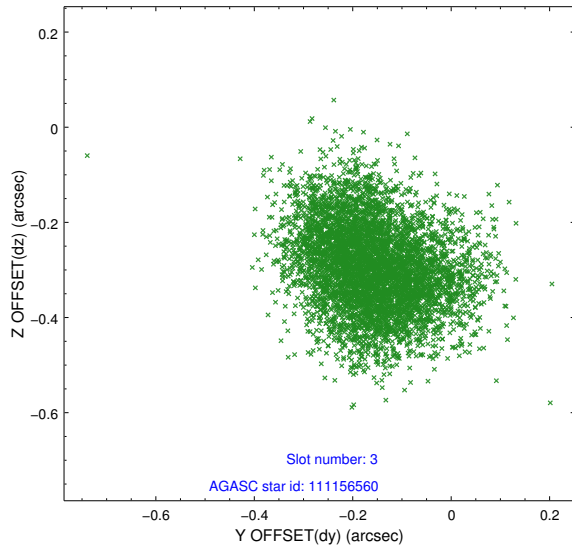
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.14	2478	-0.125	-0.050	0.008	0.013	0.000000	0.000000	-769.82	-1737.64
1	FID		ACIS-S-4	7.23	2477	0.330	0.074	0.006	0.011	0.000000	0.000000	2143.63	170.48
2	FID		ACIS-S-5	7.26	2478	-0.236	-0.015	0.008	0.013	0.000000	0.000000	-1822.14	164.58
3	GUIDE	used	111156560	9.28	4953	-0.164	-0.295	0.137	0.218	168.250782	8.593459	1355.06	1138.02
4	GUIDE	used	111159912	9.97	4893	0.121	0.113	0.211	0.340	167.360777	8.811339	2270.09	-1994.35
5	GUIDE	used	111160288	9.62	4950	0.109	0.245	0.160	0.255	168.020770	9.652583	-1526.13	-1488.77
6	GUIDE	used	111160648	9.84	4941	-0.067	0.267	0.178	0.271	168.018248	9.875027	-2213.20	-1898.11
7	GUIDE	used	112072208	9.36	4952	-0.001	-0.344	0.178	0.284	168.863053	9.302624	-1948.17	1729.01

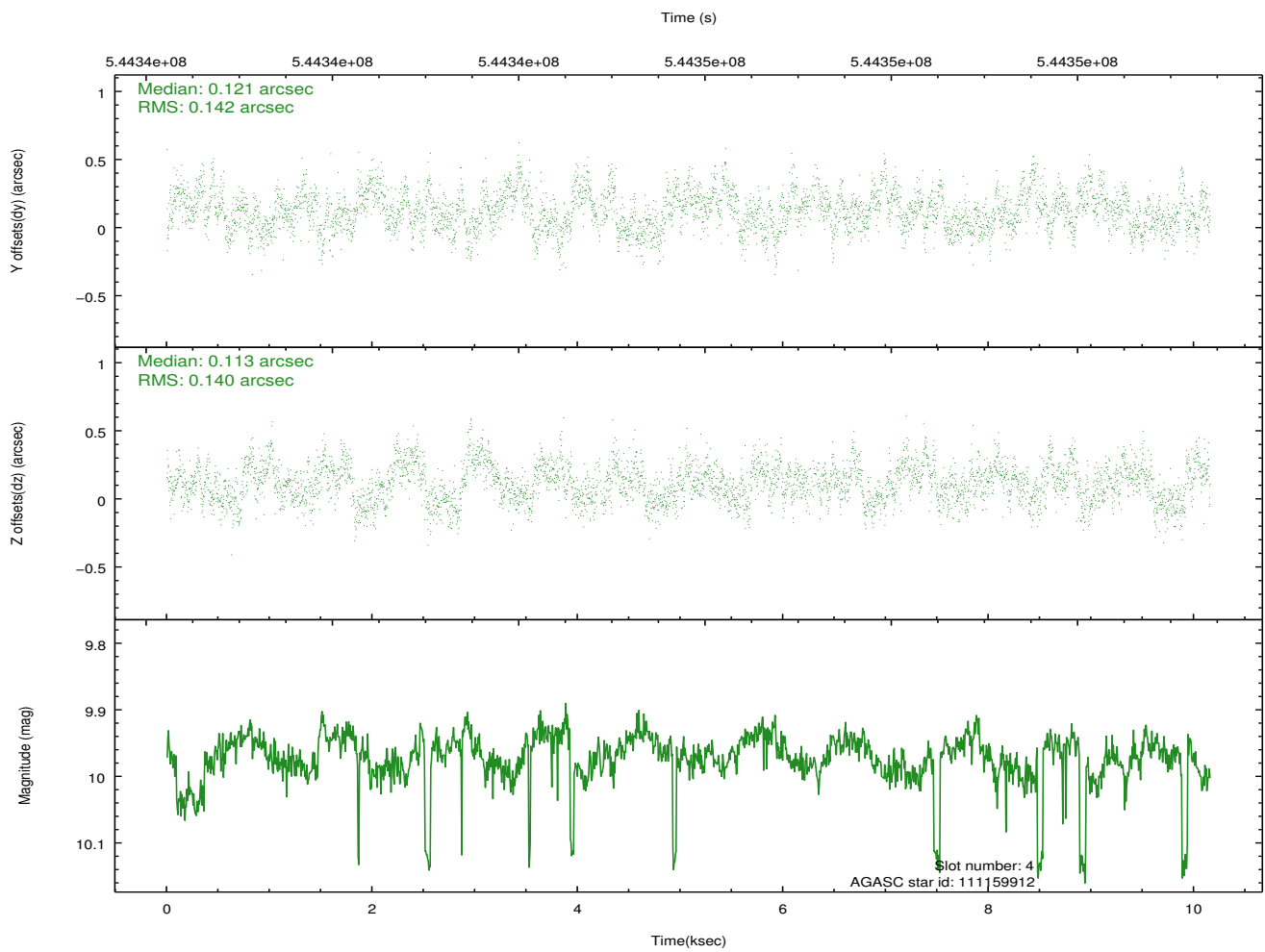
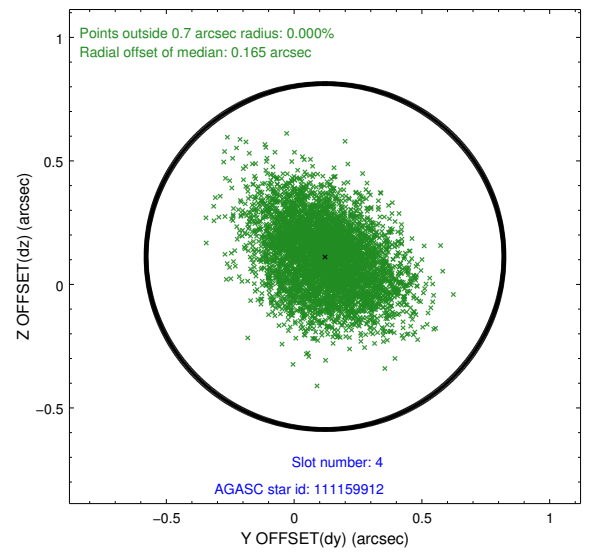
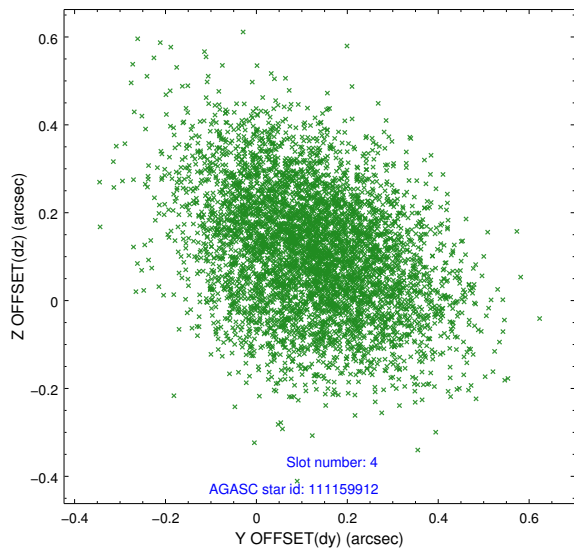
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## 2.4 Star Slots

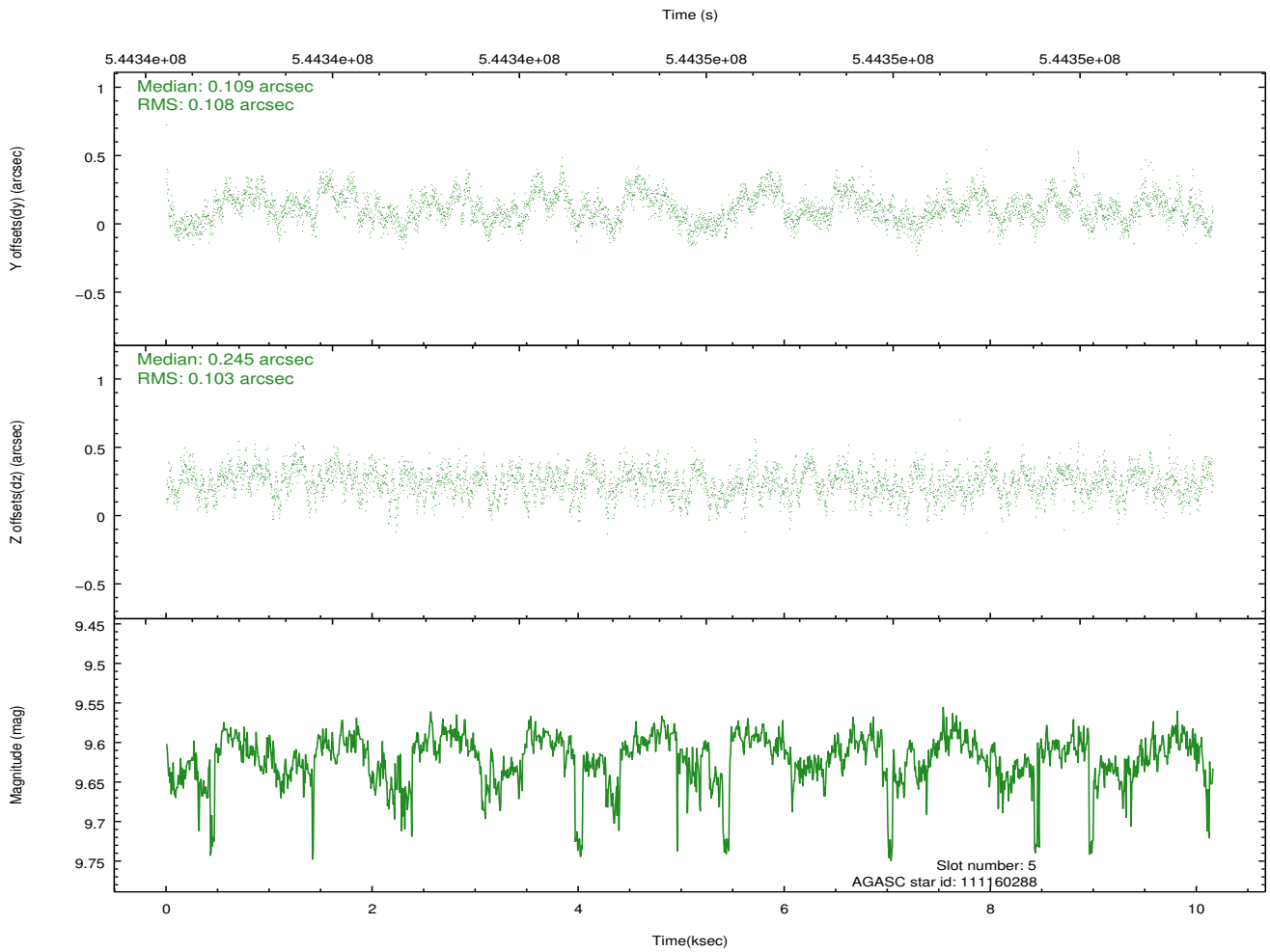
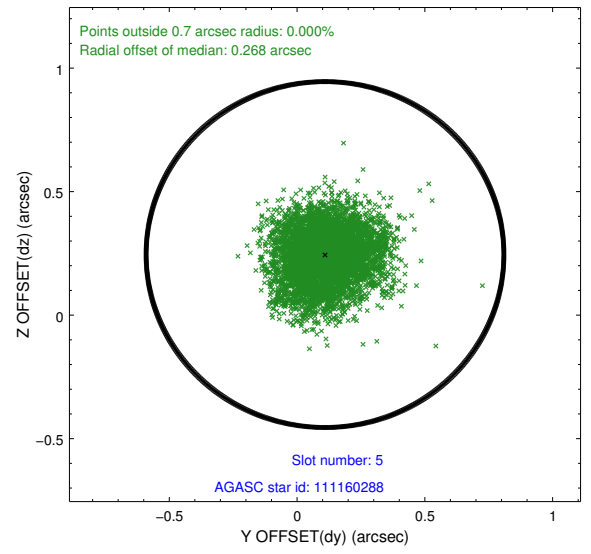
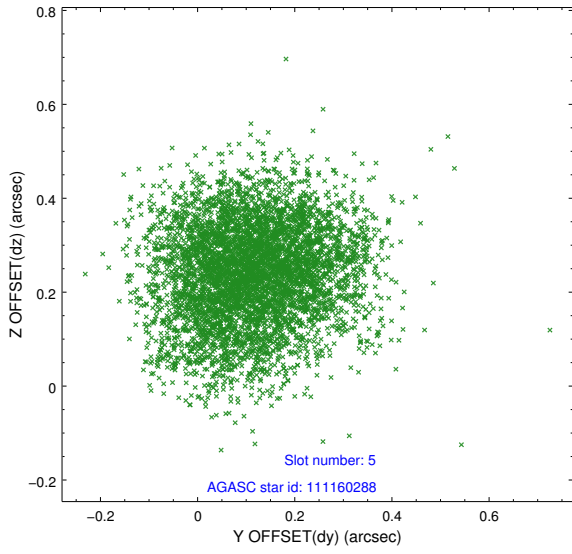
### 2.4.1 Slot 3



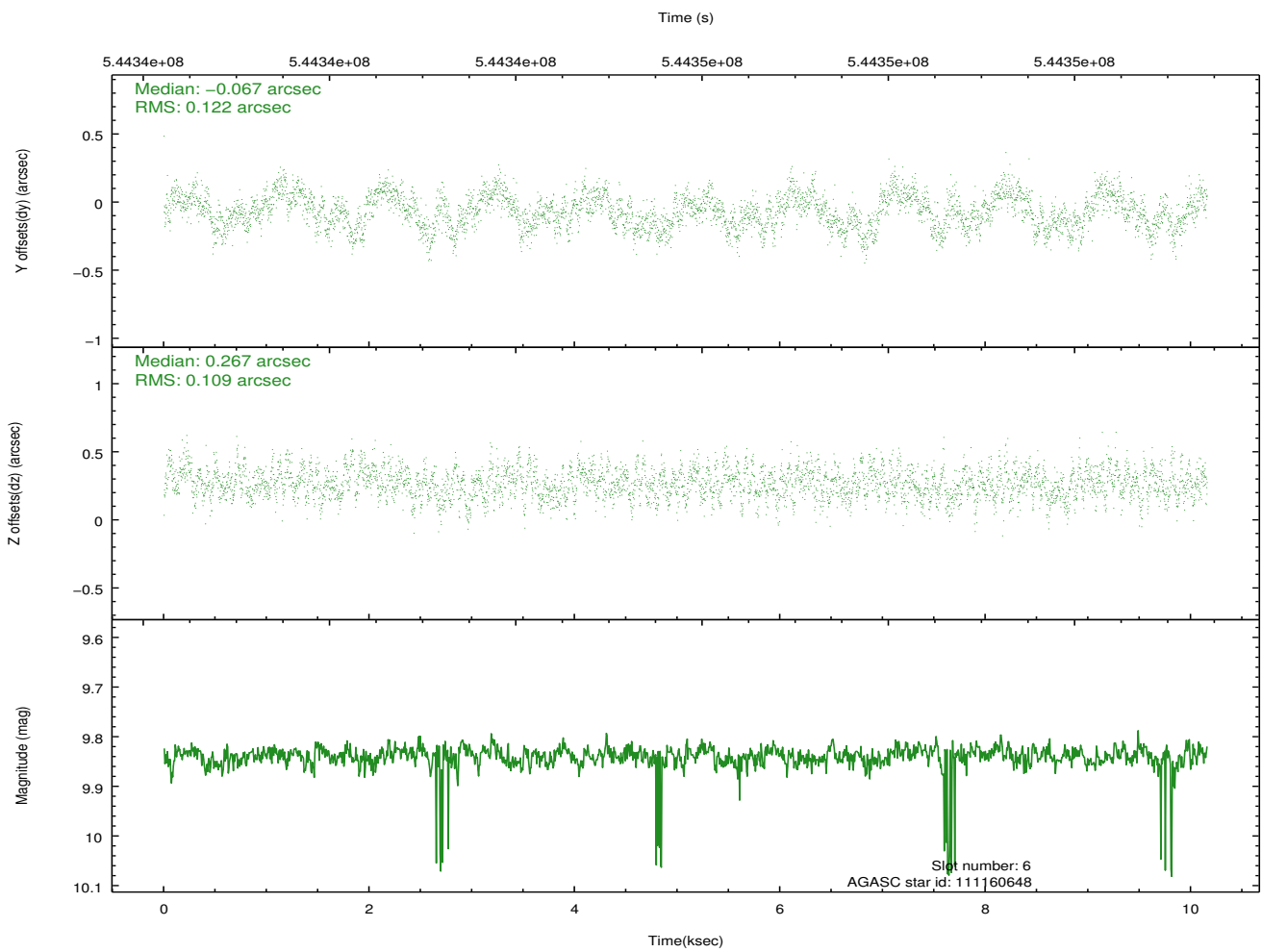
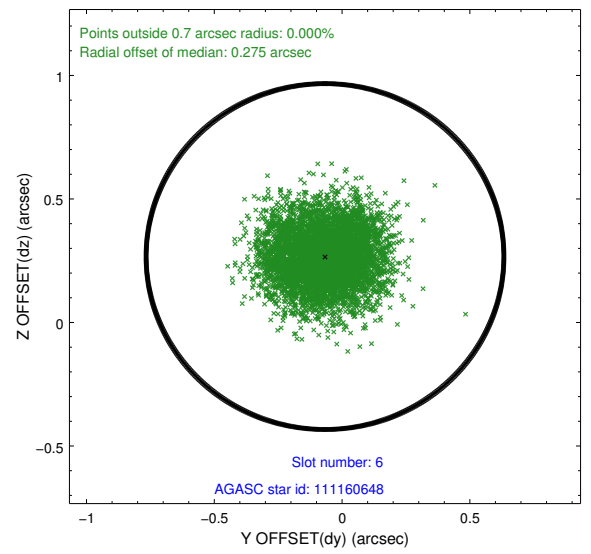
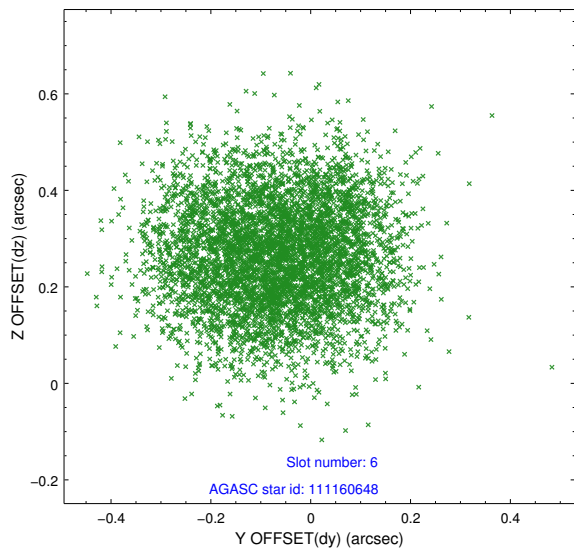
## 2.4.2 Slot 4



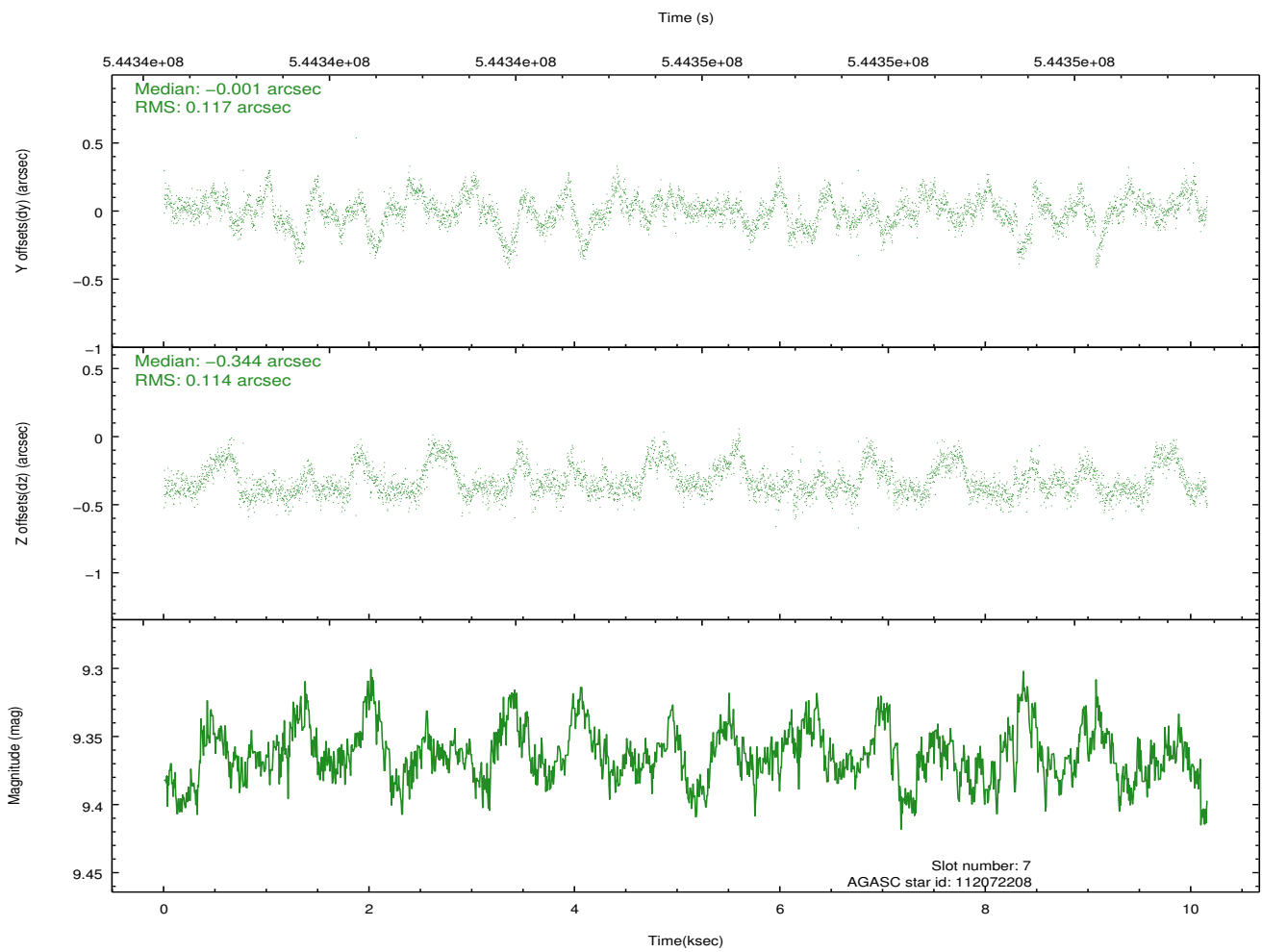
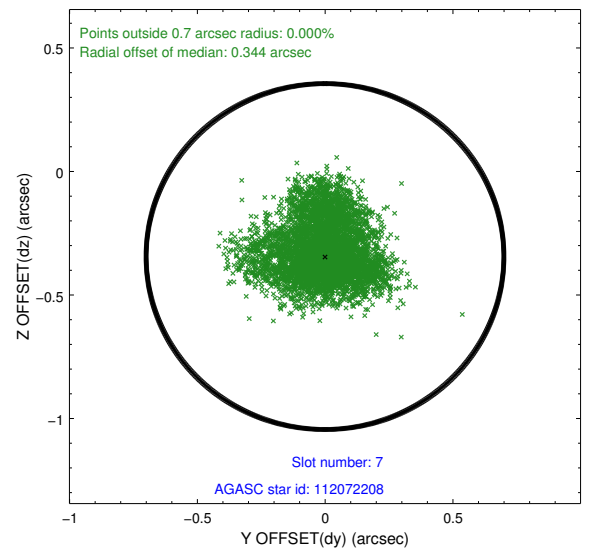
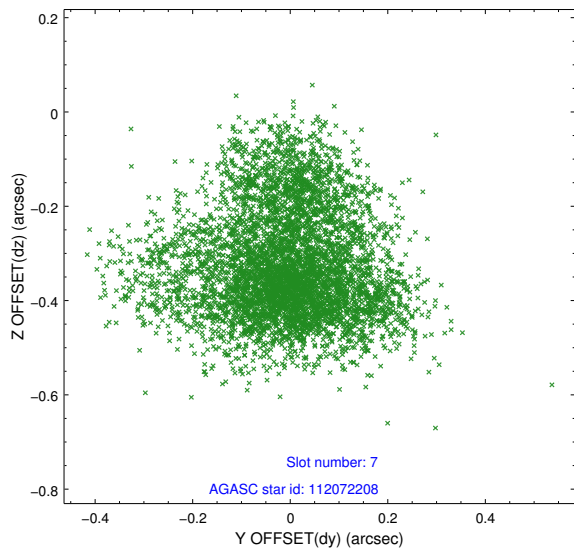
### 2.4.3 Slot 5



## 2.4.4 Slot 6

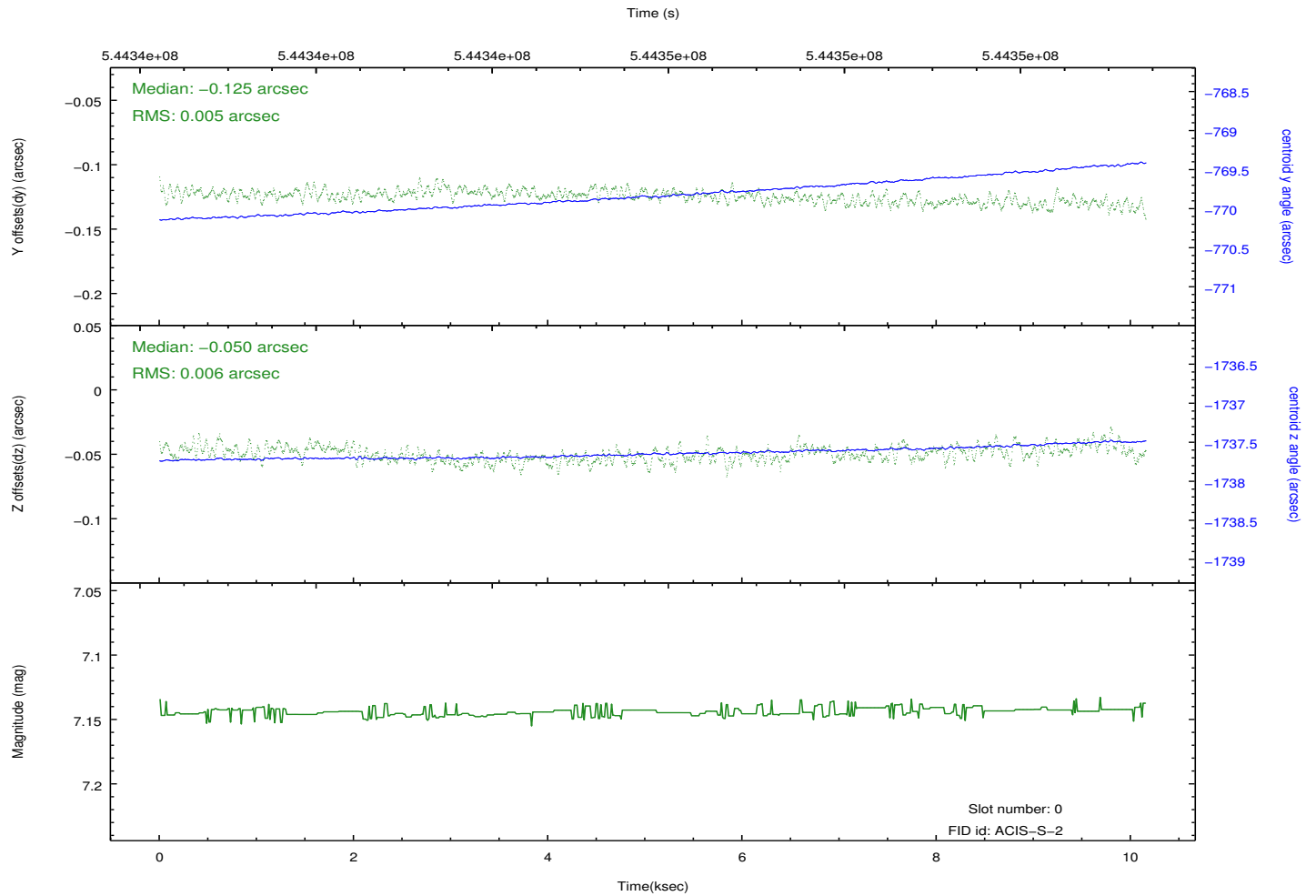
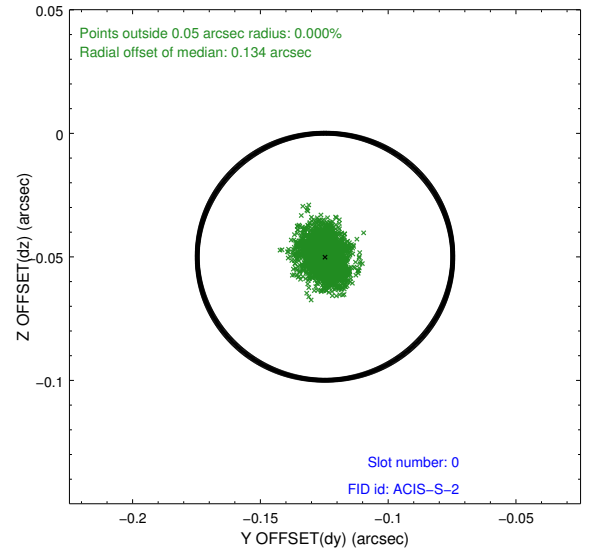
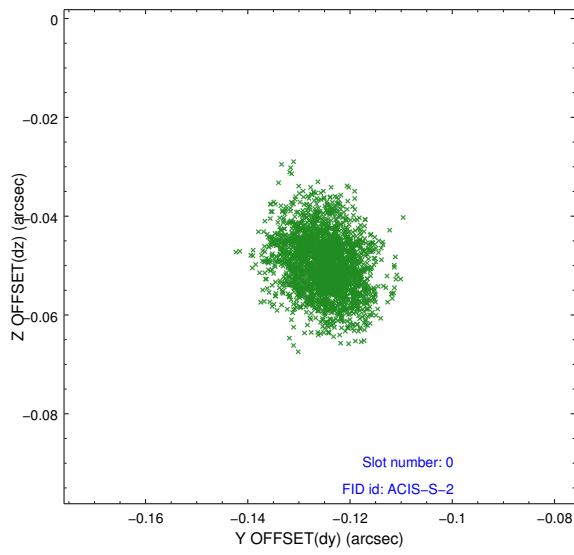


## 2.4.5 Slot 7

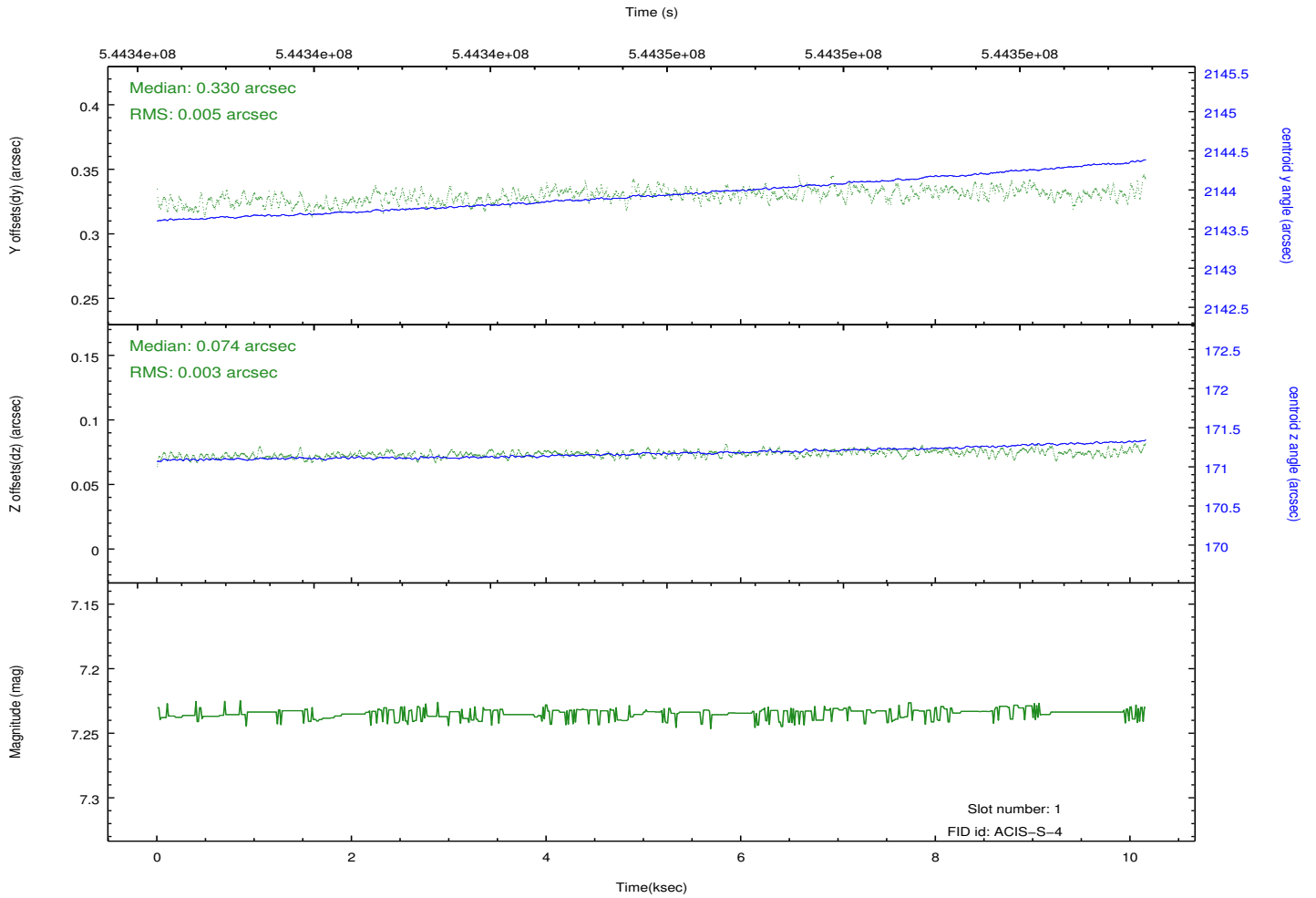
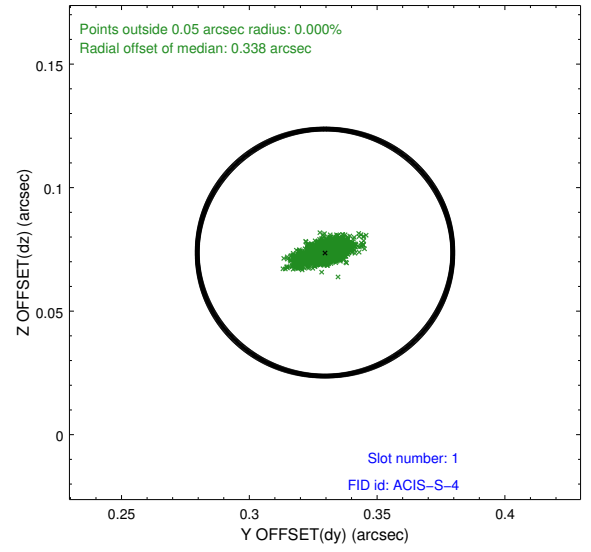
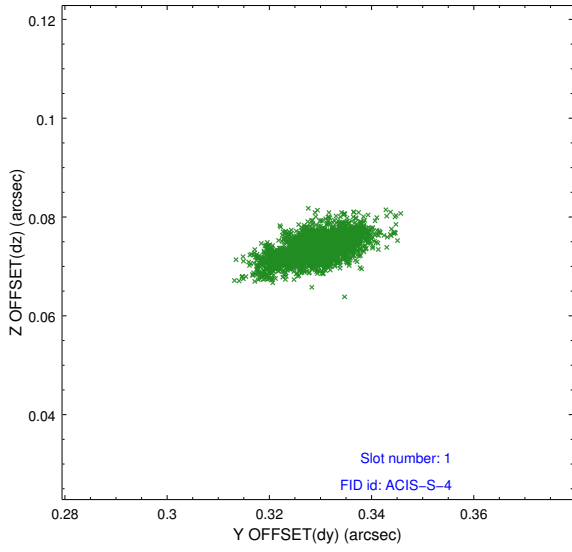


## 2.5 FID Slots

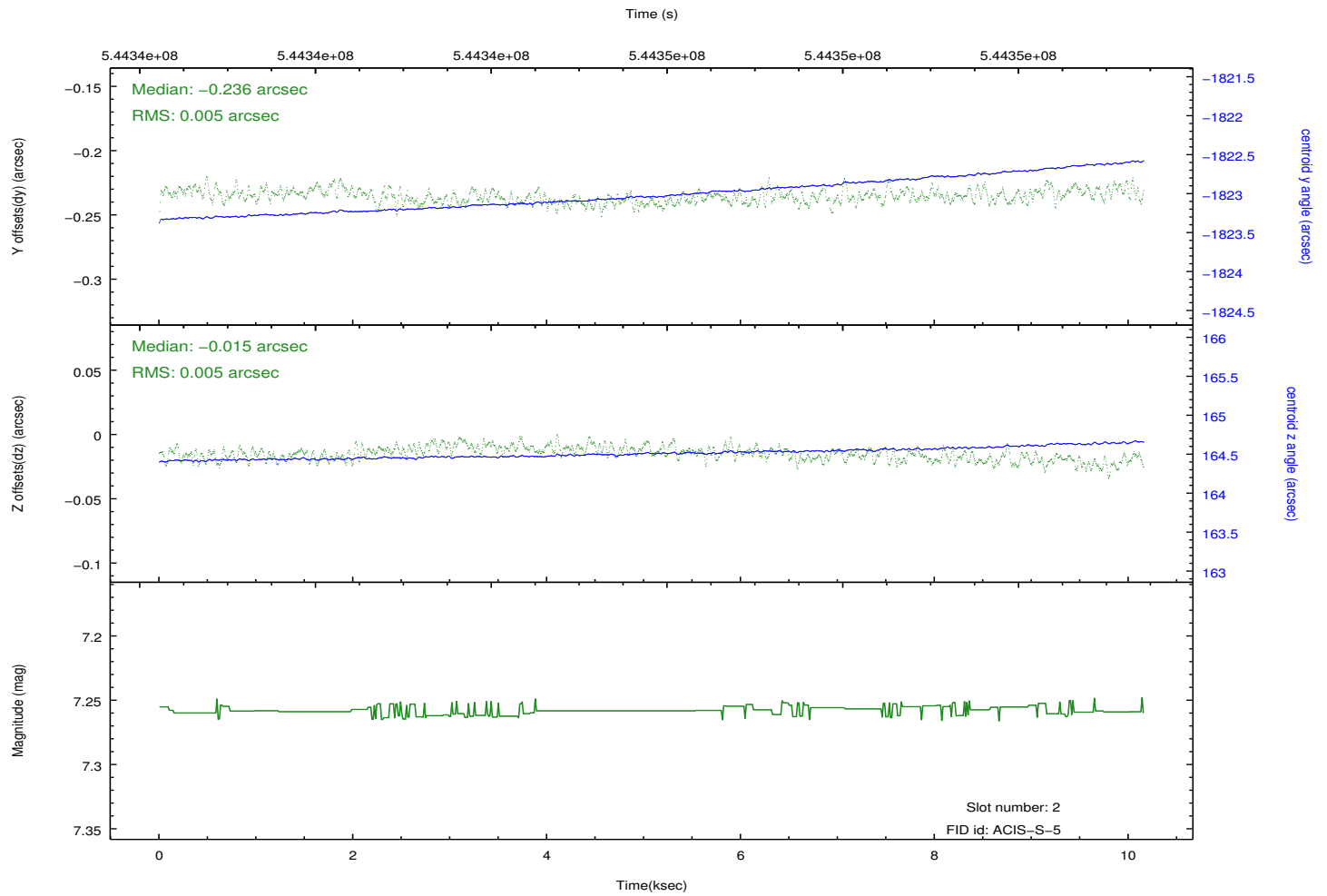
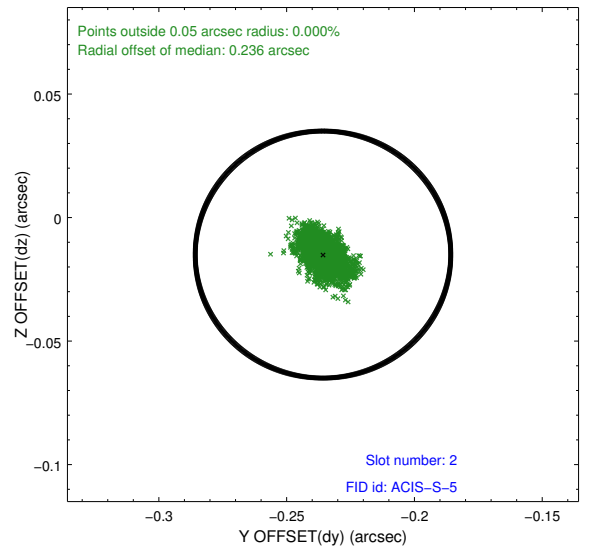
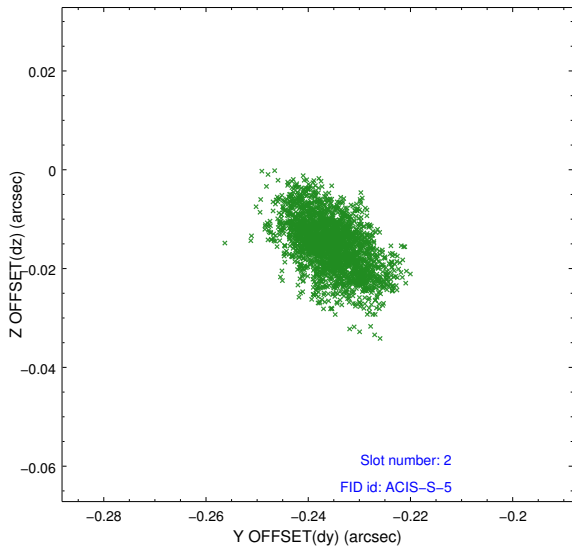
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.04.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.102698062181

## A.2 Comments