

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15200 - L2 Version 2  
Chandra X-Ray Center

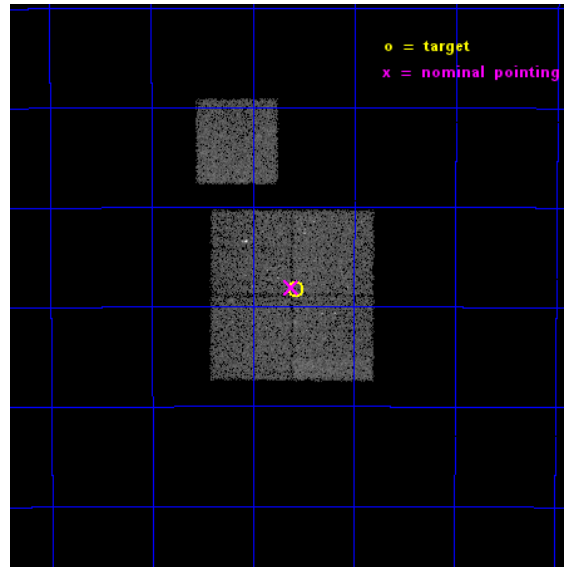
L2 Processing Date : Dec 2 2014

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# 1 Front

seq_num	901030	Sequence number
obs_id	15200	Observation id
title	Studying Giant Filamentary Lobes of Centaurus A	Proposal title
observer	Dr. Yasuyuki Tanaka	Principal investigator
object	Cen A Southern Lobe 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	200.394	Observer's specified target RA [deg]
dec_targ	-45.137	Observer's specified target Dec [deg]
ra_nom	200.40490607619	Nominal RA [deg]
dec_nom	-45.134539443897	Nominal Dec [deg]
roll_nom	0.21643110033941	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19774.859111905	Sum of GTIs [s]
livetime	19516.486019569	Livetime [s]
ontime0	19778.000152111	Sum of GTIs [s]
ontime1	19778.000152111	Sum of GTIs [s]
ontime2	19771.718111336	Sum of GTIs [s]
ontime3	19774.859111905	Sum of GTIs [s]
ontime6	19778.000152111	Sum of GTIs [s]
l2events	52767	Number of level 2 events

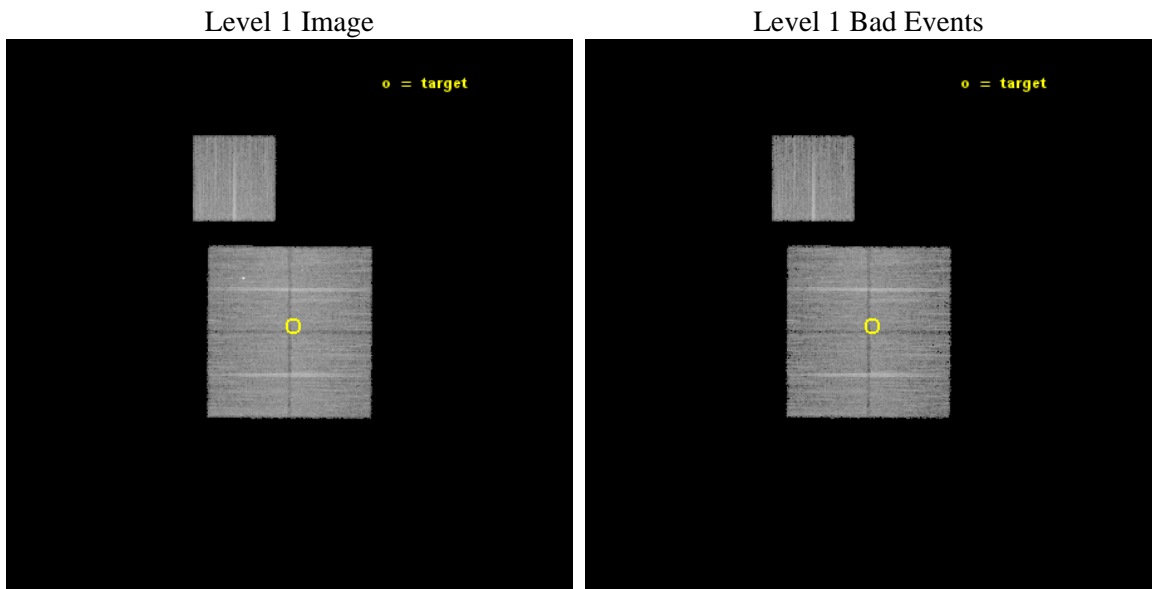




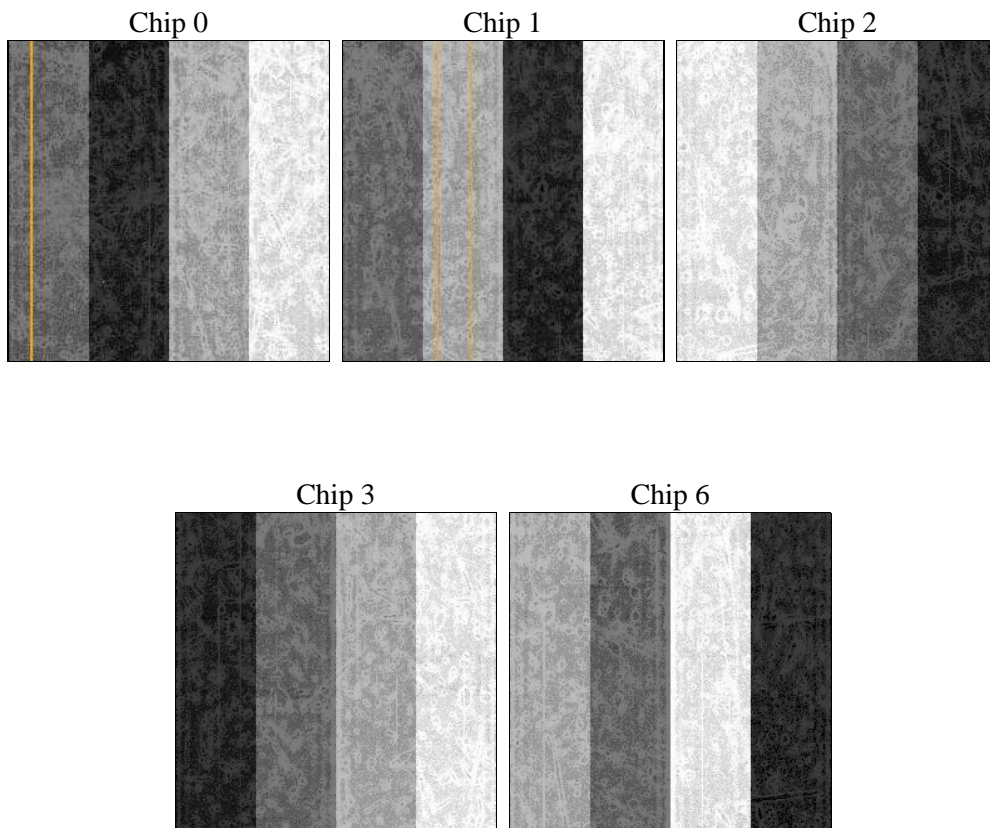
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	19774.859111905	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	19778.000152111	Sum of GTIs [s]
date	2014-12-02T17:42:13	Date and time of file creation	ontime1	19778.000152111	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	19771.718111336	Sum of GTIs [s]
			ontime3	19774.859111905	Sum of GTIs [s]
			ontime6	19778.000152111	Sum of GTIs [s]
			l1events	473843	Number of level 1 events

### 2.1.4 Events

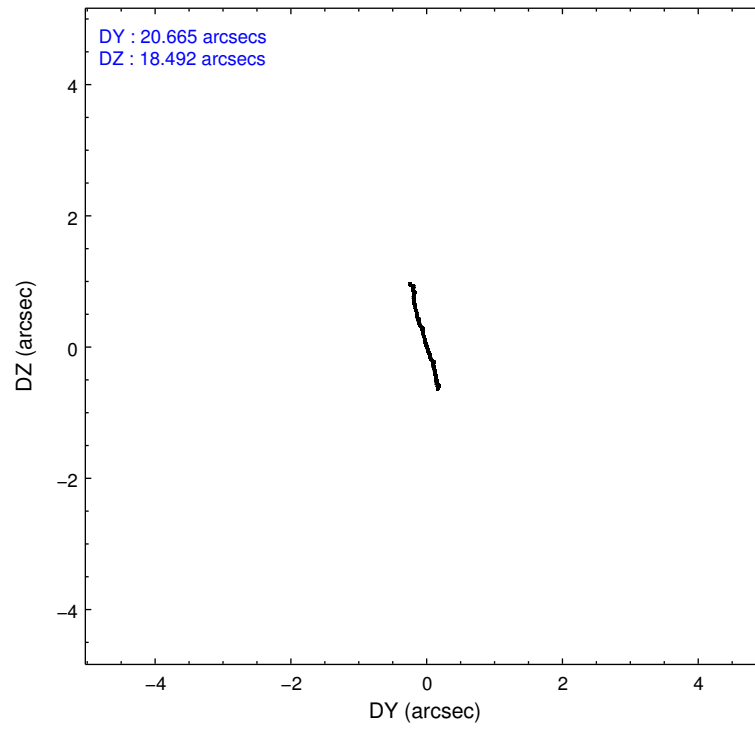
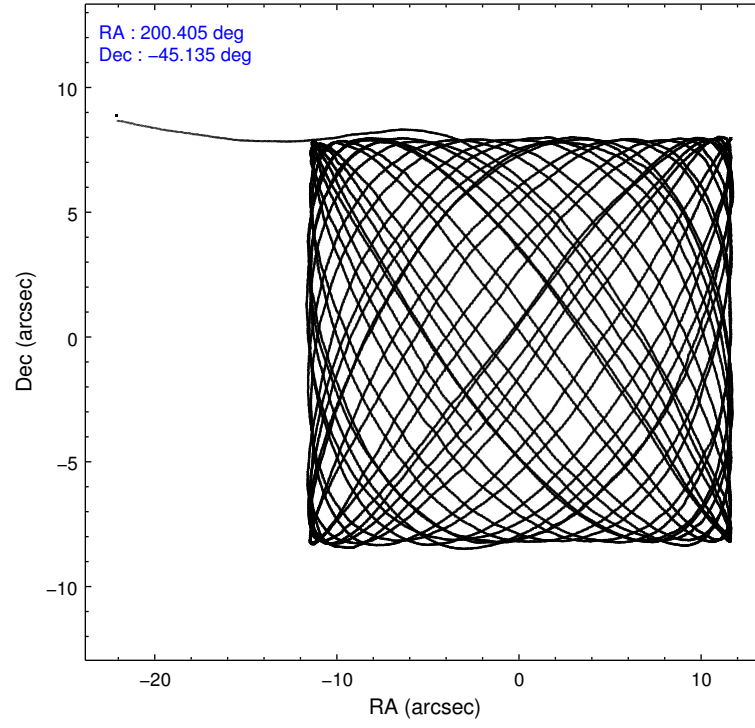
	<b>ccd 0</b>	<b>ccd 1</b>	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>
level 1 events	91351	92449	97967	95039	97037
rejected events	79441	79081	84870	83557	84821
rejected %	86%	85%	86%	87%	87%

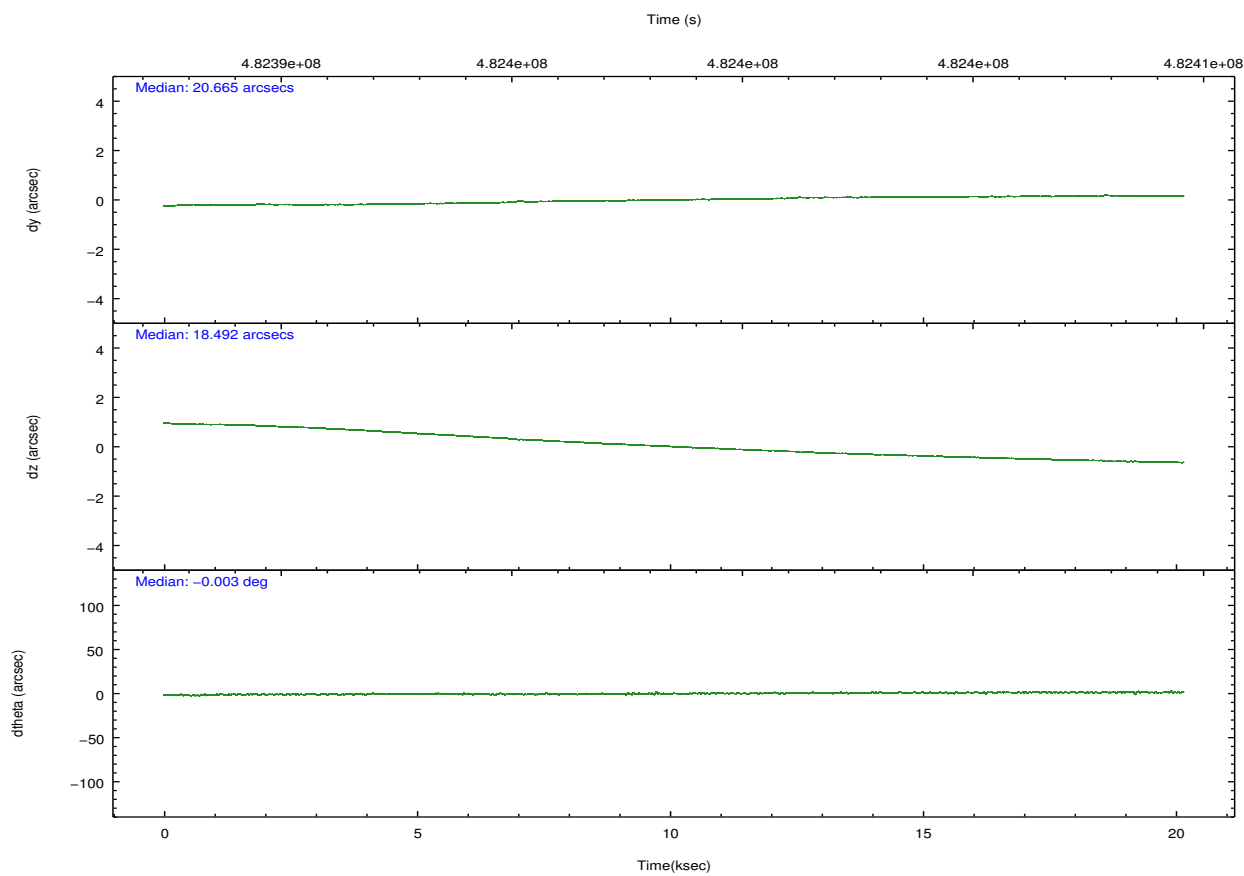
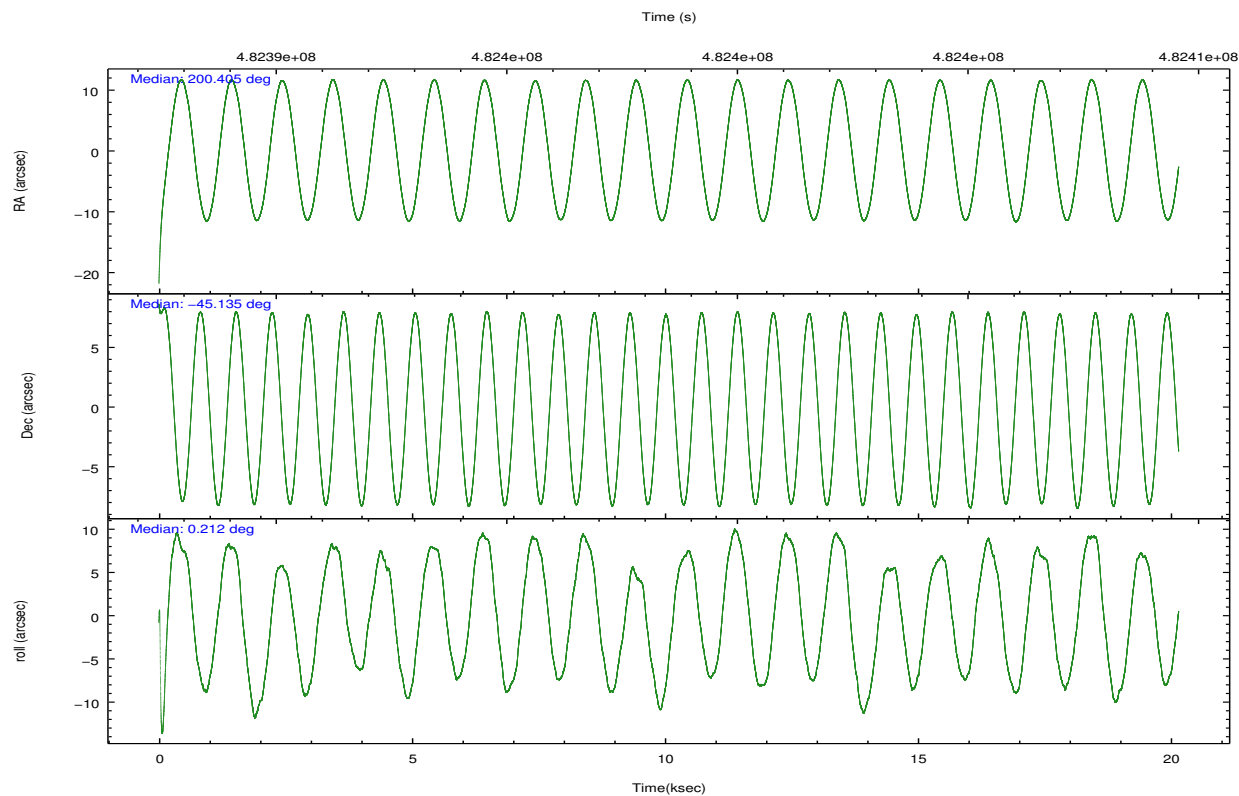
	<b>ccd 0</b>	<b>ccd 1</b>	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>
grade 0 events	4171	4941	5764	4183	4331
	4%	5%	5%	4%	4%
grade 1 events	47	55	69	61	43
	0%	0%	0%	0%	0%
grade 2 events	2993	3081	2793	2510	2696
	3%	3%	2%	2%	2%
grade 3 events	1224	1225	1210	1249	1303
	1%	1%	1%	1%	1%
grade 4 events	1179	1299	1163	1205	1216
	1%	1%	1%	1%	1%
grade 5 events	4576	5033	4215	5190	4947
	5%	5%	4%	5%	5%
grade 6 events	2344	2824	2170	2339	2673
	2%	3%	2%	2%	2%
grade 7 events	74817	73991	80583	78302	79828
	81%	80%	82%	82%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	200.371310	200.4049060761868	Subarray requested	NONE	NONE
[deg] Pointing Dec	-45.148490	-45.13453944389656	Alternating exposures requested	N	N
[deg] Pointing Roll	359.983918	0.2164311003394097	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	482388590.184000	482387424.14017			
Observation start date	2013-04-15T04:48:43	2013-04-15T04:30:24			
[s] Observation end time (MET)	482408590.184000	482408724.15383			
Observation end date	2013-04-15T10:22:03	2013-04-15T10:25:24			
Read mode	TIMED	TIMED			

## 2.3 Aspect



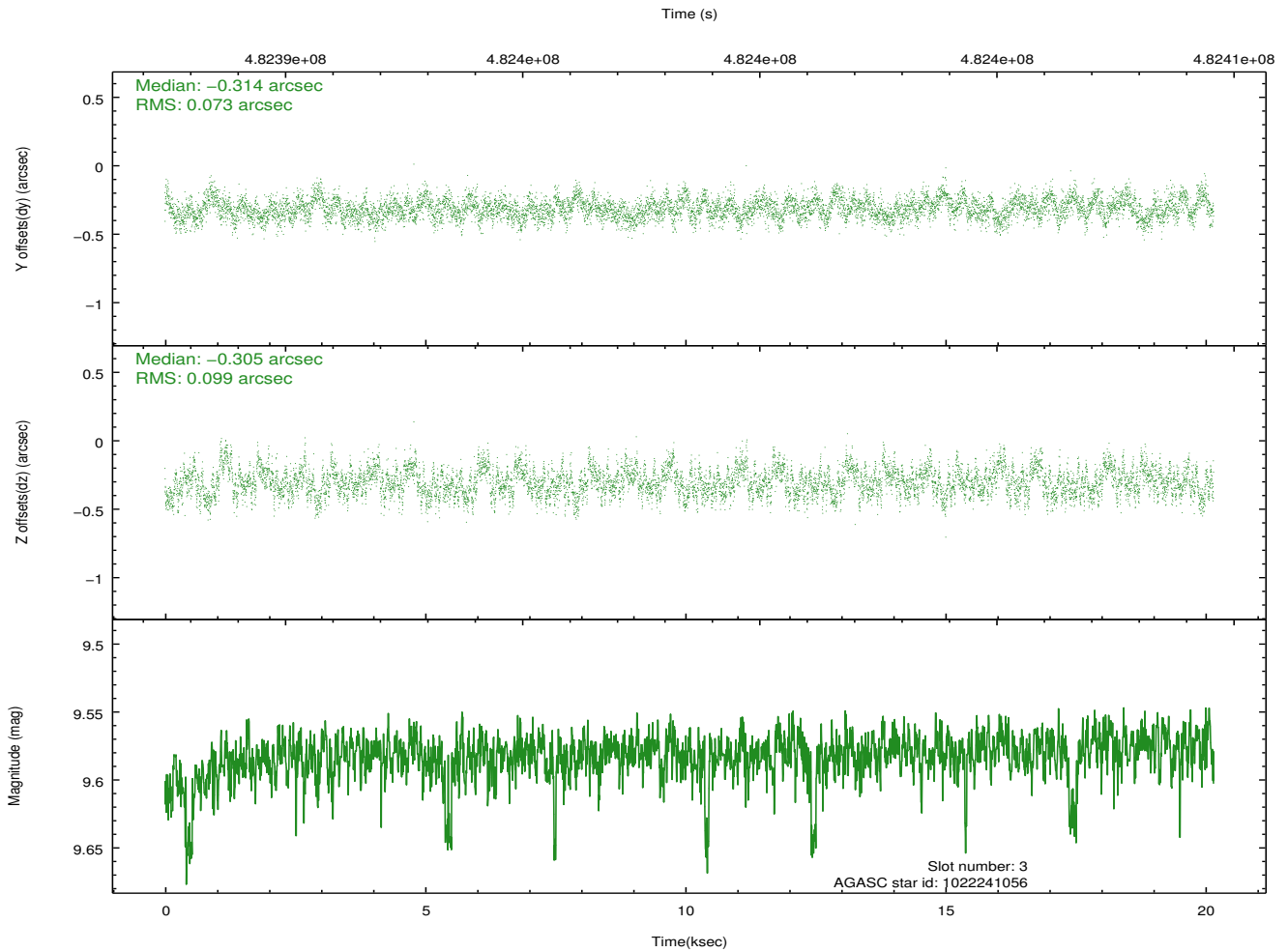
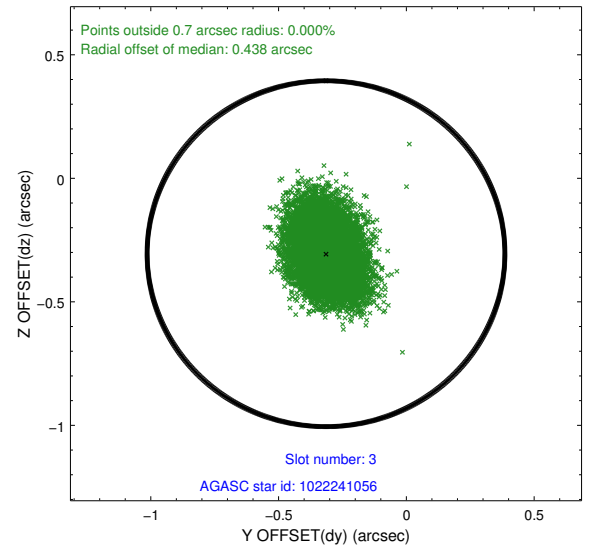
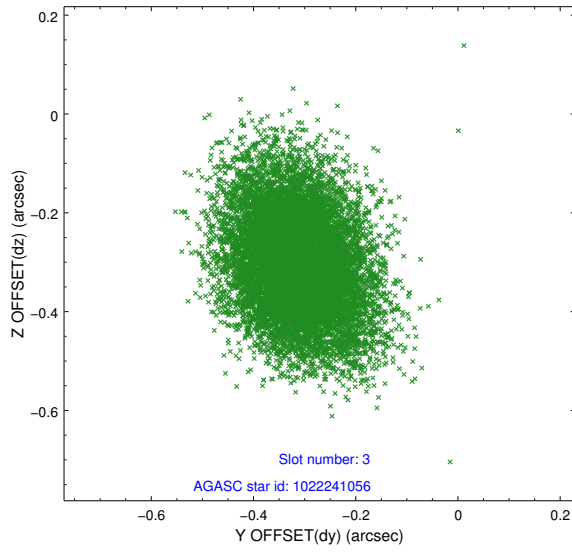


### Slot Statistics

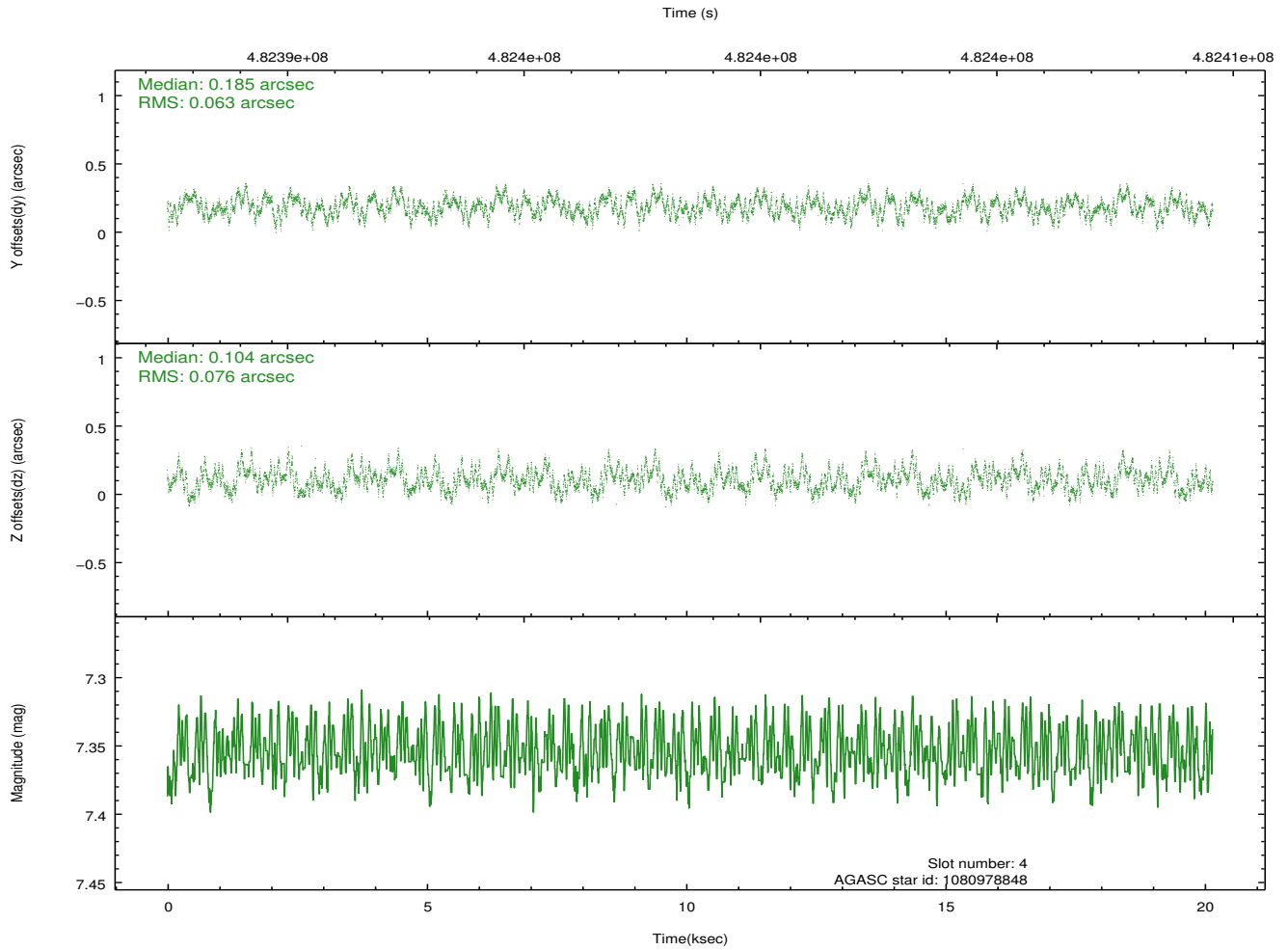
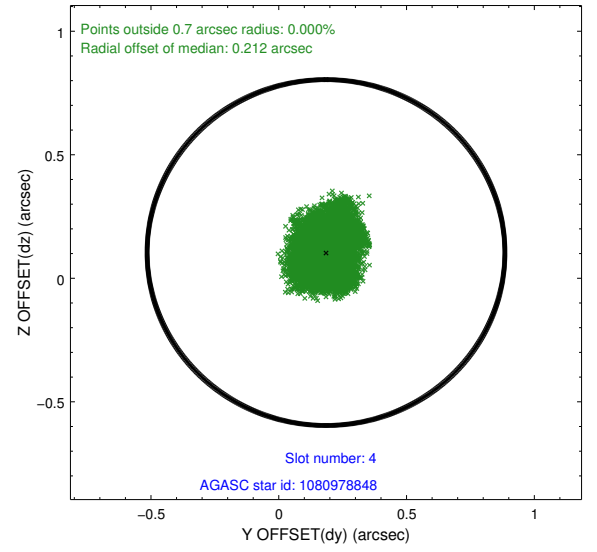
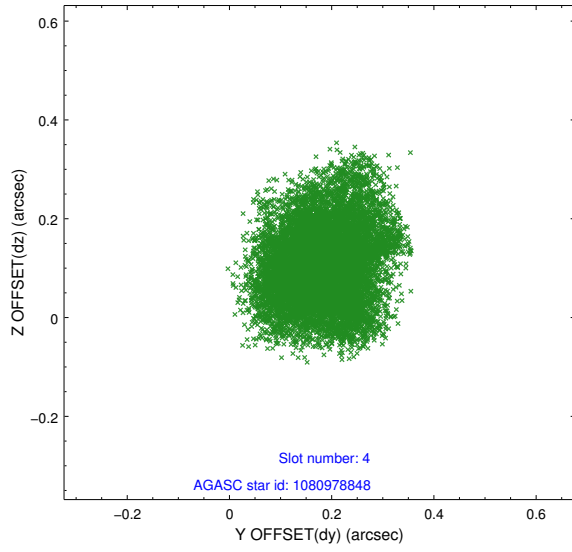
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	4916	0.033	0.039	0.012	0.020	0.000000	0.000000	918.70	-842.20
1	FID		ACIS-I-5	7.07	4917	-0.245	0.040	0.011	0.016	0.000000	0.000000	-1829.63	1055.13
2	FID		ACIS-I-6	7.08	4917	0.119	-0.009	0.011	0.018	0.000000	0.000000	384.07	1699.85
3	GUIDE	used	1022241056	9.58	9812	-0.314	-0.305	0.131	0.214	200.855089	-44.748266	1236.53	1437.32
4	GUIDE	used	1080978848	7.36	9833	0.185	0.104	0.107	0.167	199.603751	-45.764655	-1926.59	-2228.08
5	GUIDE	used	1081082456	9.34	9806	0.002	0.081	0.118	0.188	201.015604	-45.237296	1632.60	-326.04
6	GUIDE	used	1081093912	8.91	9827	0.011	0.313	0.119	0.194	199.711511	-45.683211	-1658.18	-1932.10
7	GUIDE	used	1020529640	9.75	9784	0.126	-0.199	0.165	0.255	199.821066	-44.707439	-1408.47	1582.24

## 2.4 Star Slots

### 2.4.1 Slot 3

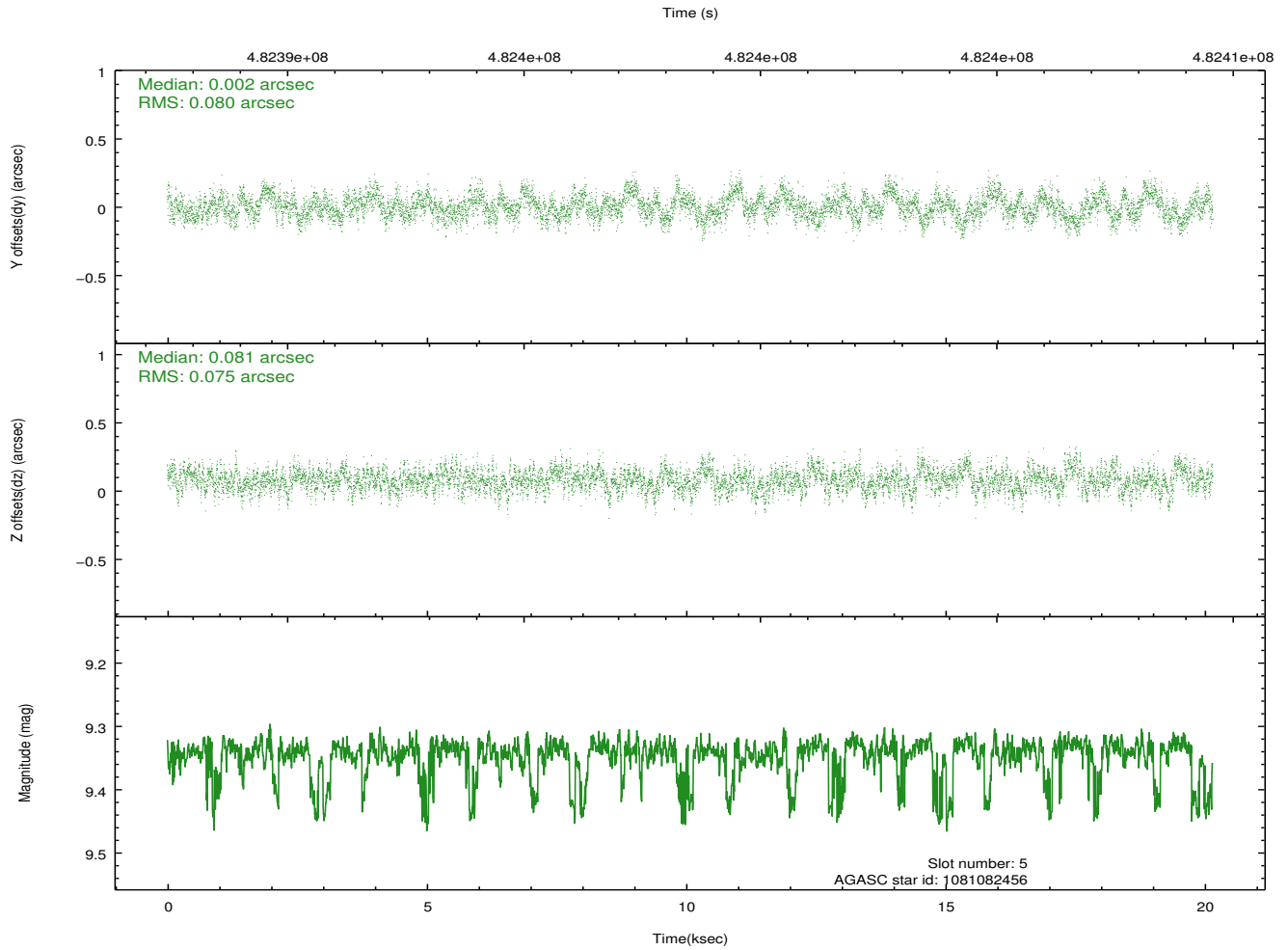
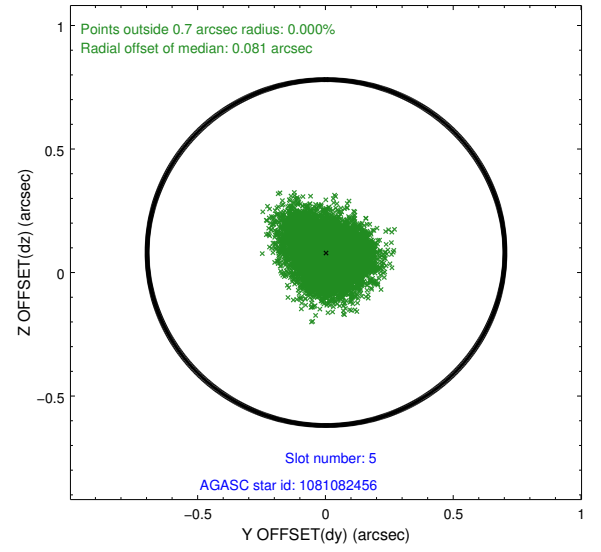
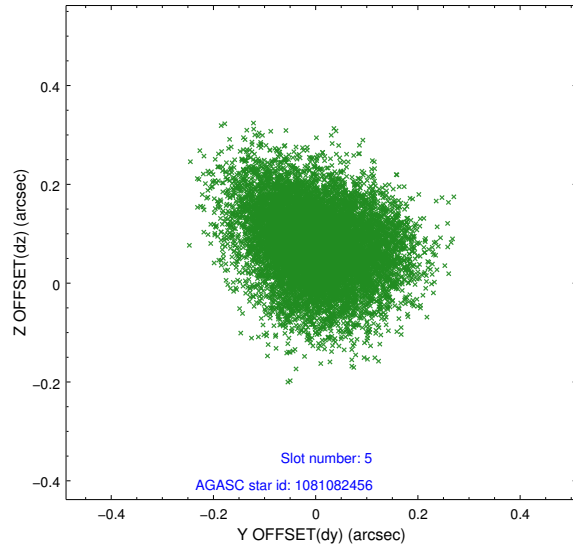


## 2.4.2 Slot 4

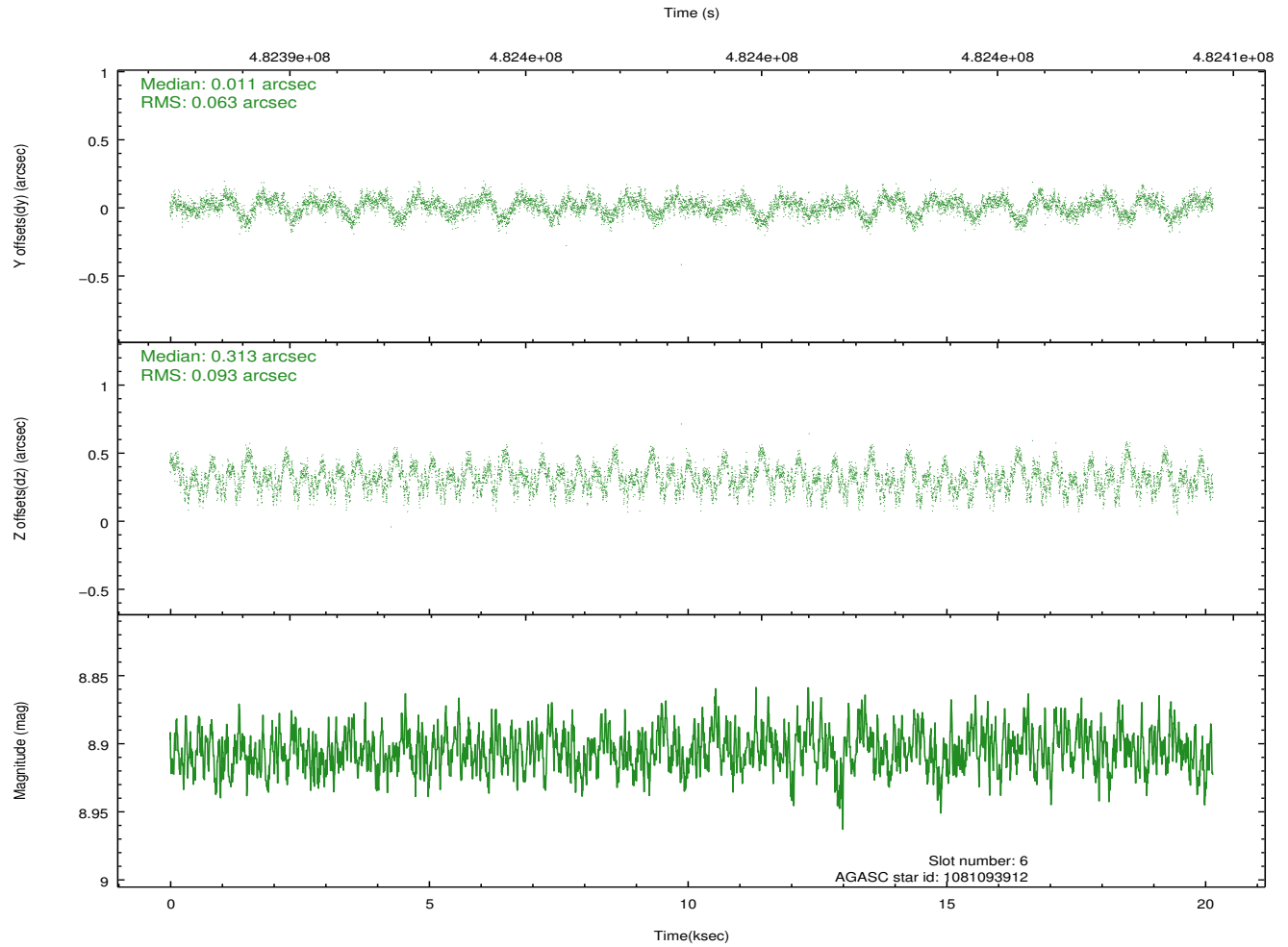
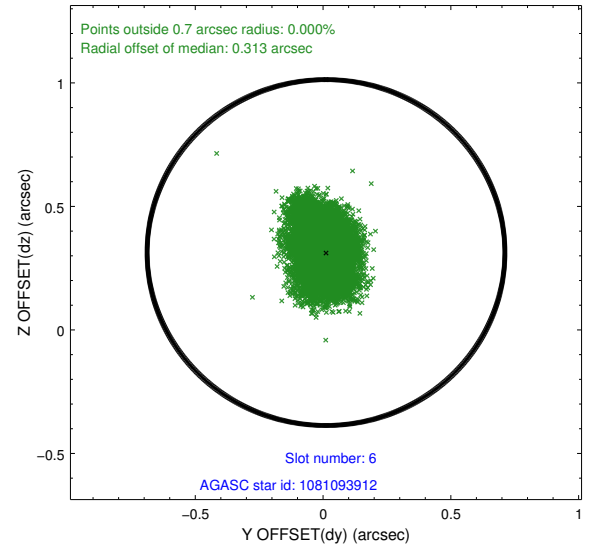
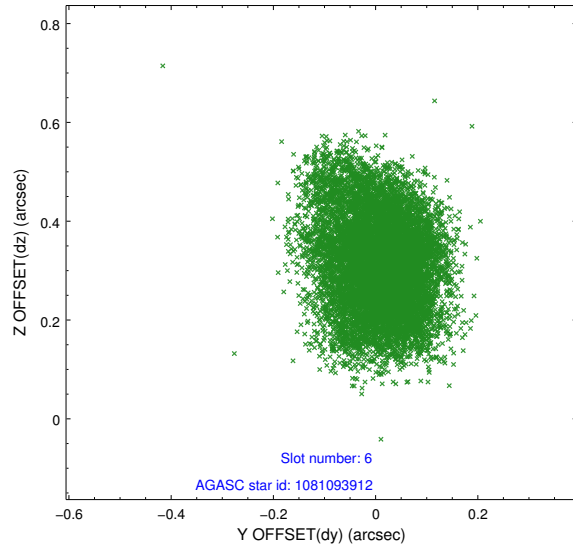




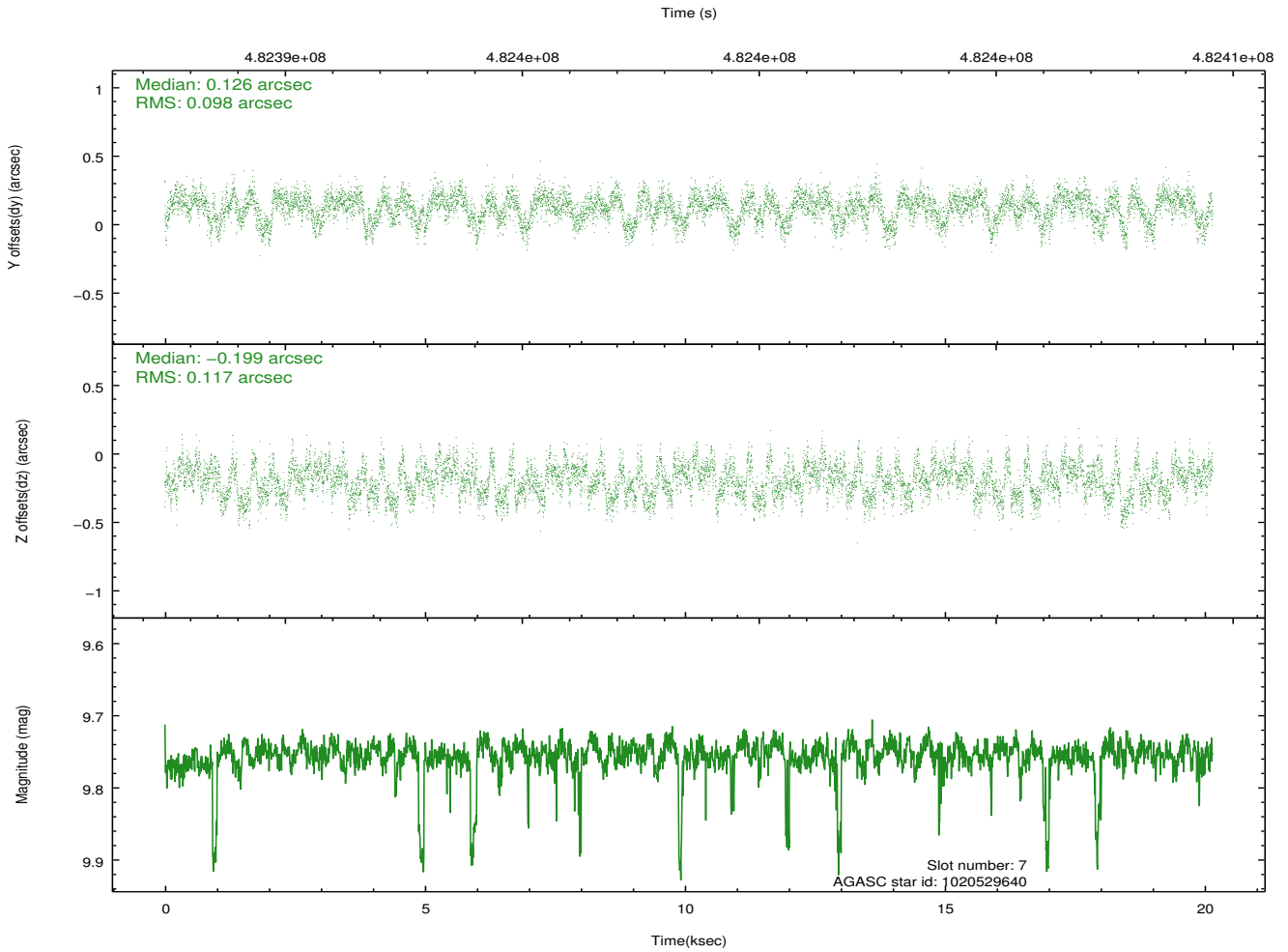
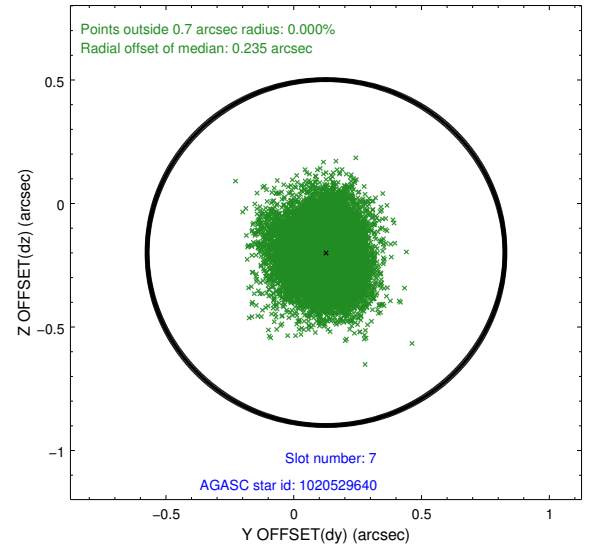
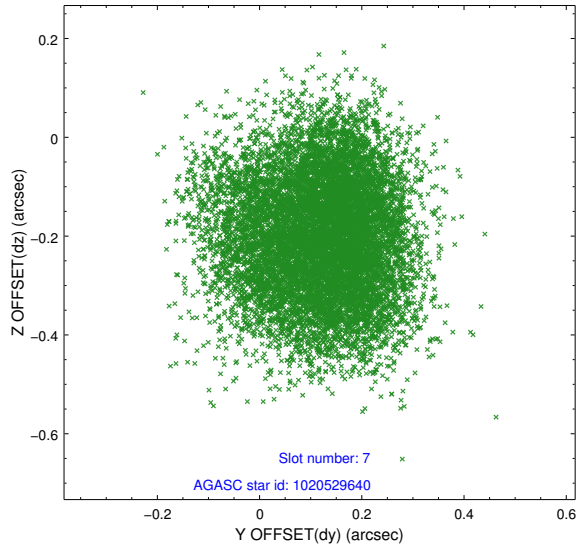
### 2.4.3 Slot 5



## 2.4.4 Slot 6

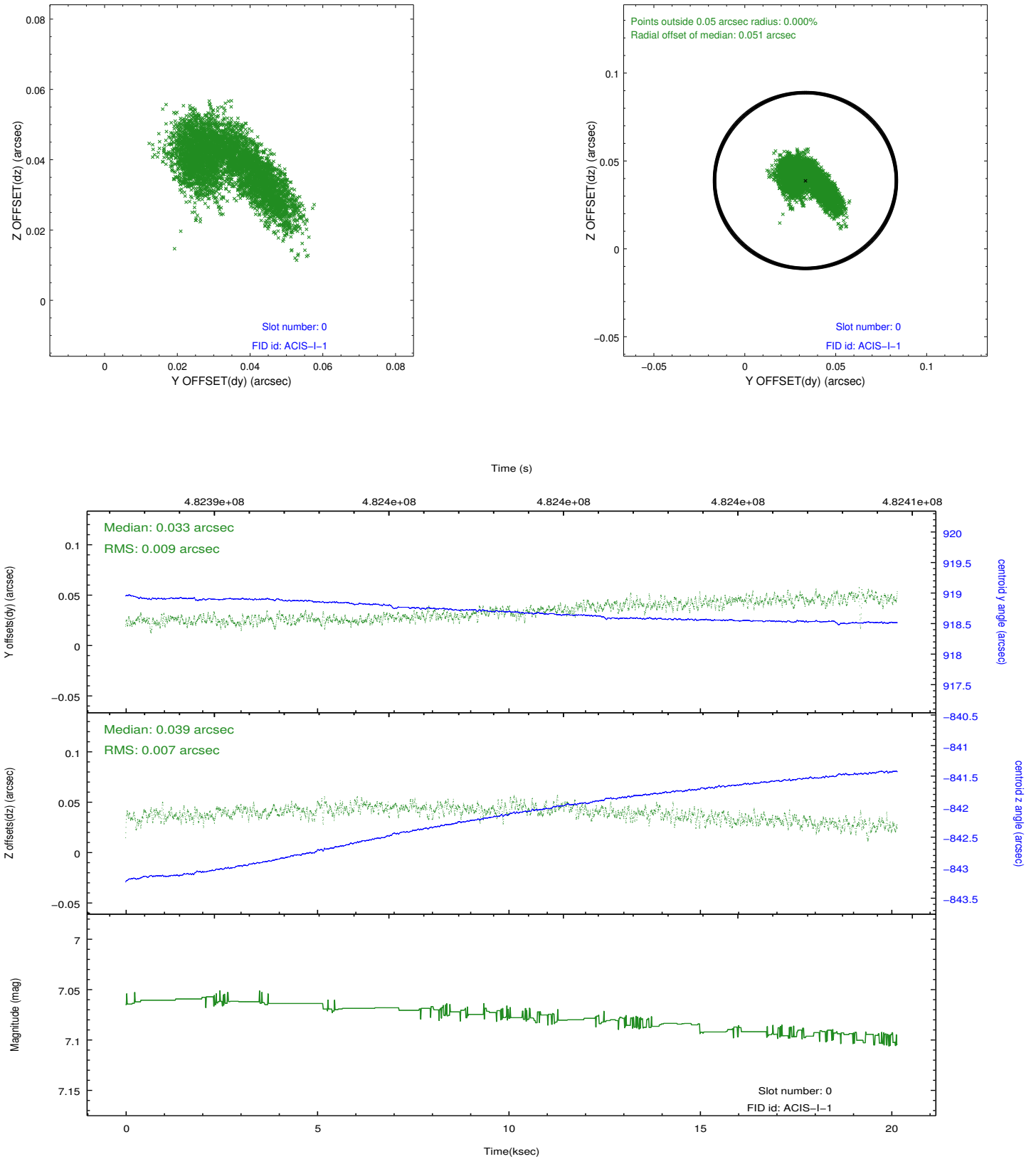


## 2.4.5 Slot 7

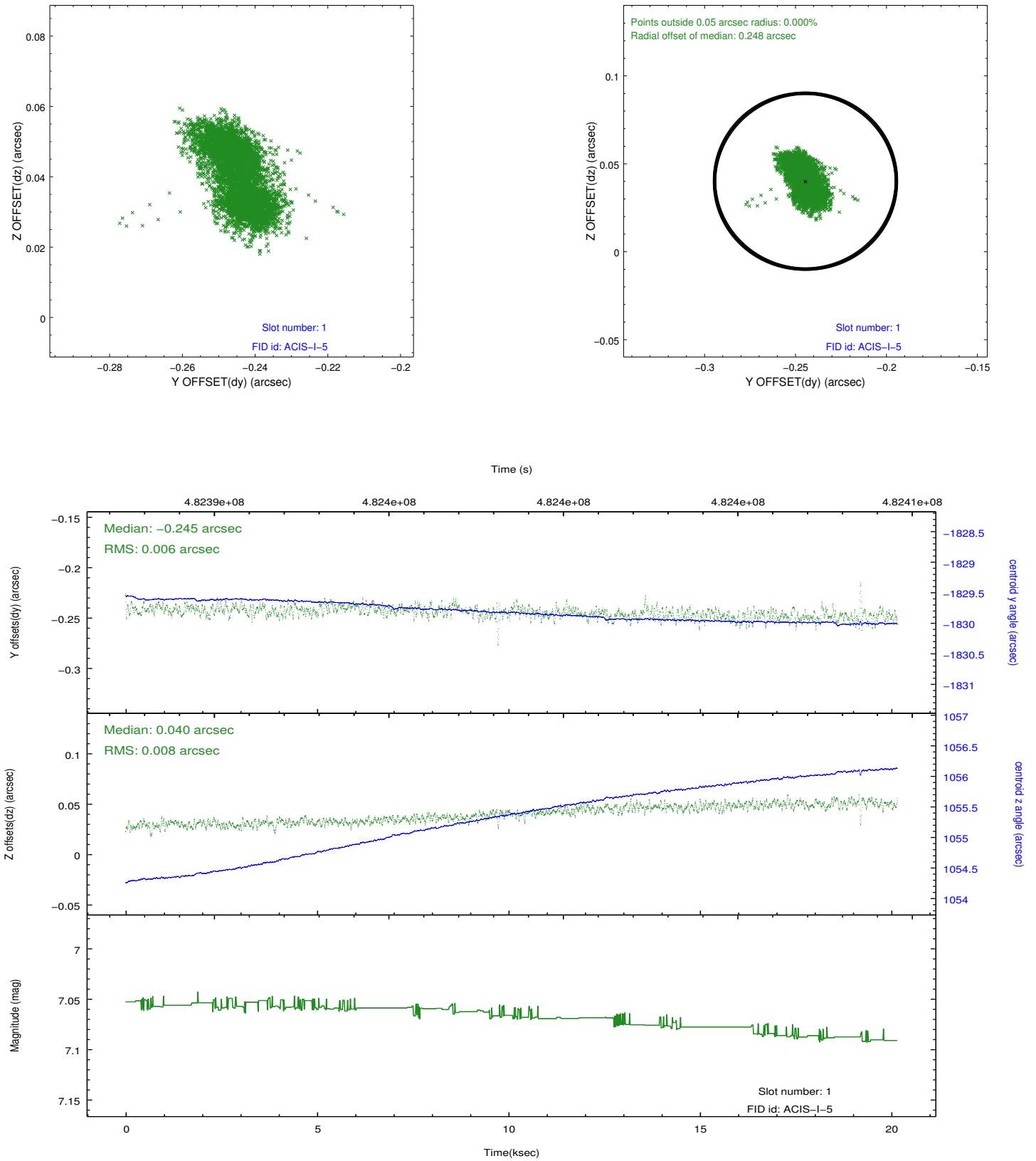


## 2.5 FID Slots

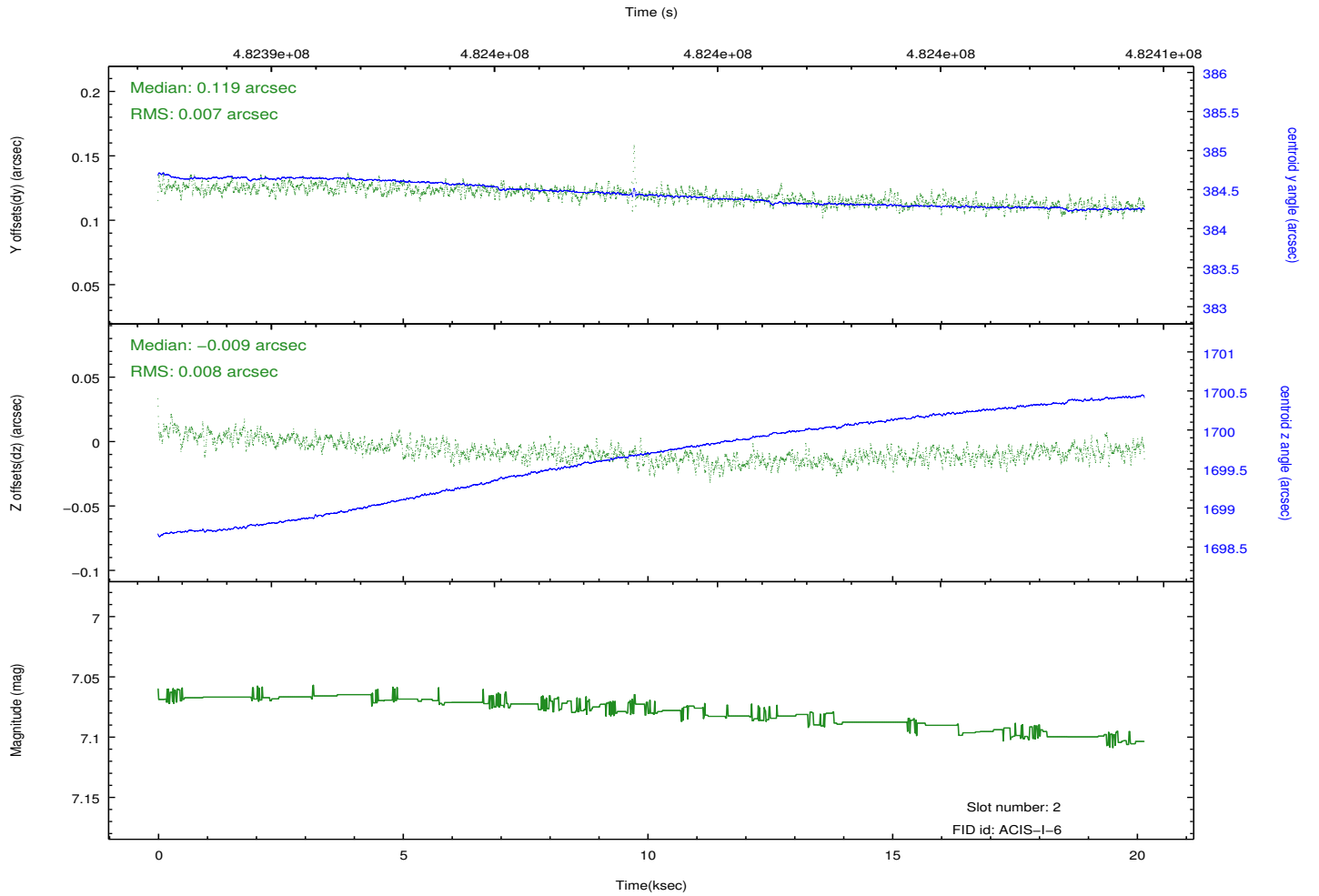
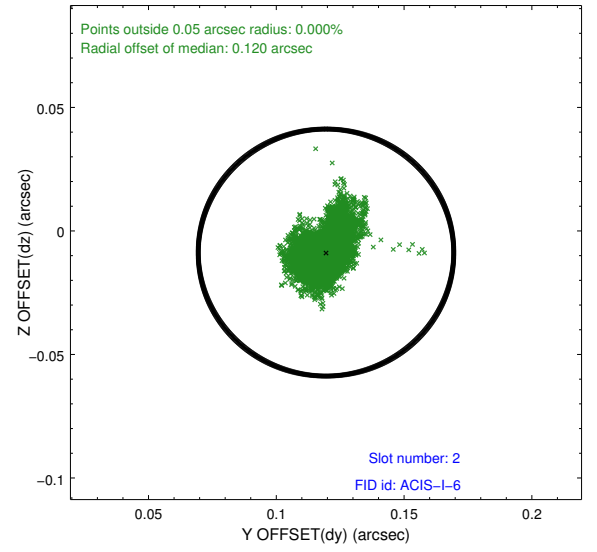
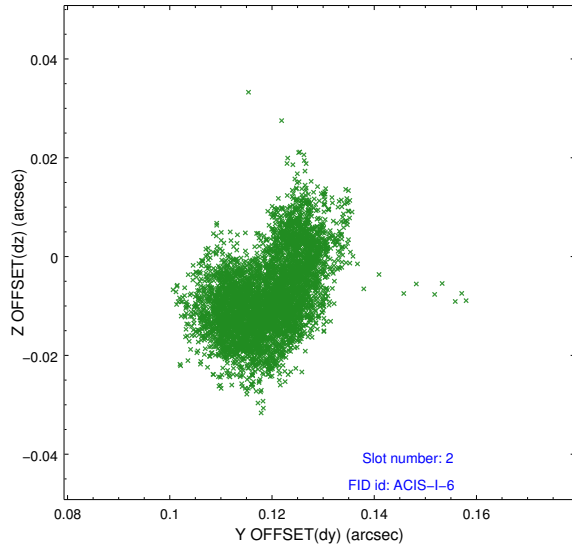
### 2.5.1 Slot 0



## 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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.774859111905

## A.2 Comments

Joint proposal with Suzaku.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.