

# V&V Reference Report

## L2 ASCDS Version : 10.2.2

Observation 16282 - L2 Version 2  
Chandra X-Ray Center

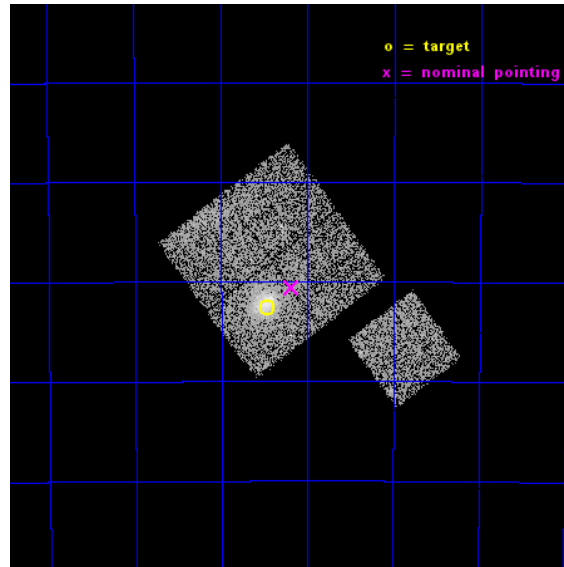
L2 Processing Date : Dec 11 2014

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# 1 Front

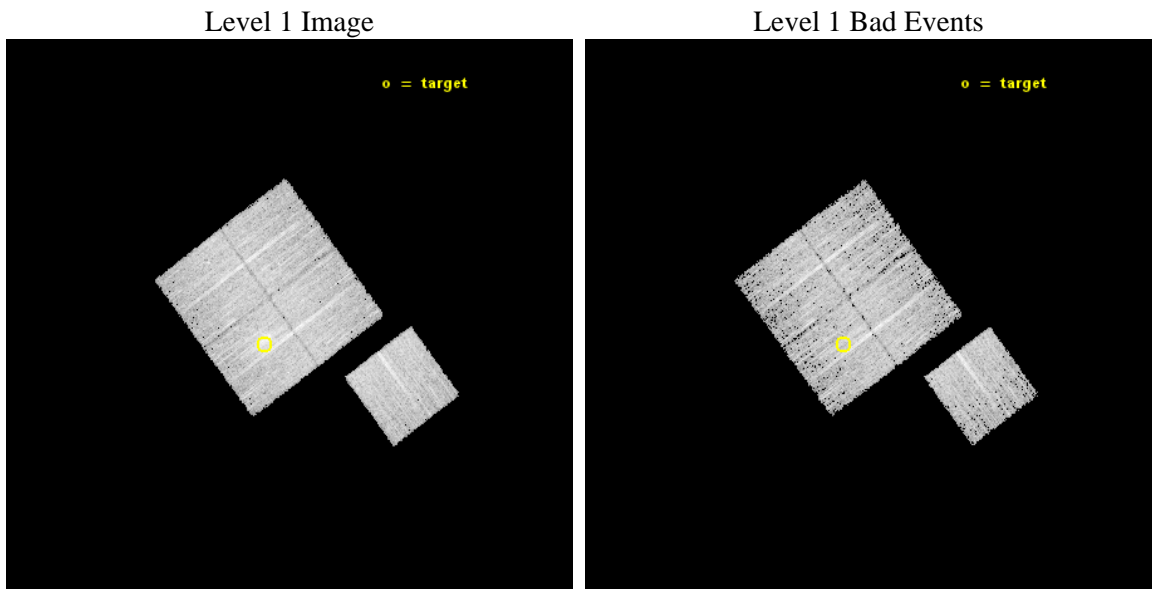
seq_num	801424	Sequence number
obs_id	16282	Observation id
title	Chandra observations of the Planck ESZ Cluster Sample	Proposal tit
observer	Dr. Stephen Murray	Principal investigator
object	G271.50-56.55	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.367083	Observer's specified target RA [deg]
dec_targ	-53.044	Observer's specified target Dec [deg]
ra_nom	41.296469425162	Nominal RA [deg]
dec_nom	-53.009911994668	Nominal Dec [deg]
roll_nom	143.27276537438	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9145.0000703335	Sum of GTIs [s]
livetime	9025.5139119635	Livetime [s]
ontime0	9145.0000703335	Sum of GTIs [s]
ontime1	9145.0000703335	Sum of GTIs [s]
ontime2	9145.0000703335	Sum of GTIs [s]
ontime3	9145.0000703335	Sum of GTIs [s]
ontime6	9145.0000703335	Sum of GTIs [s]
l2events	26762	Number of level 2 events



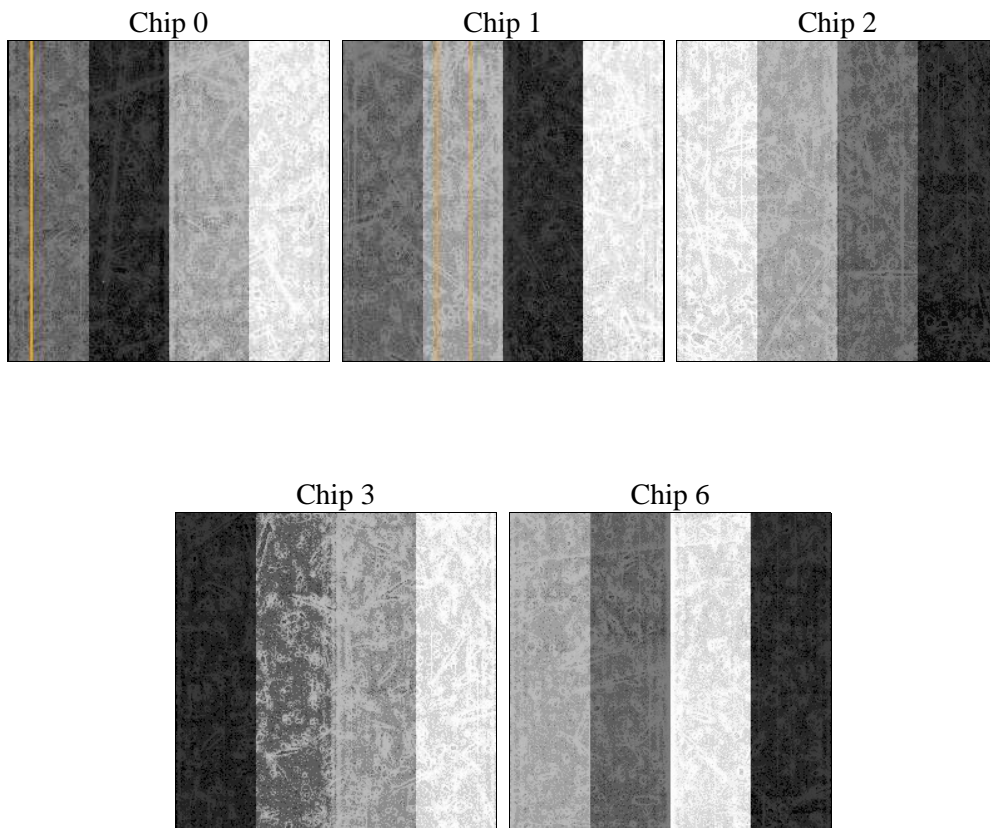
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9058.459000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	9145.0000703335	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	9145.0000703335	Sum of GTIs [s]
date	2014-12-12T02:54:40	Date and time of file creation	ontime1	9145.0000703335	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	9145.0000703335	Sum of GTIs [s]
			ontime3	9145.0000703335	Sum of GTIs [s]
			ontime6	9145.0000703335	Sum of GTIs [s]
			l1events	219273	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	41556	41729	44273	47829	43886
rejected events	36213	35560	39098	38825	38348
rejected %	87%	85%	88%	81%	87%

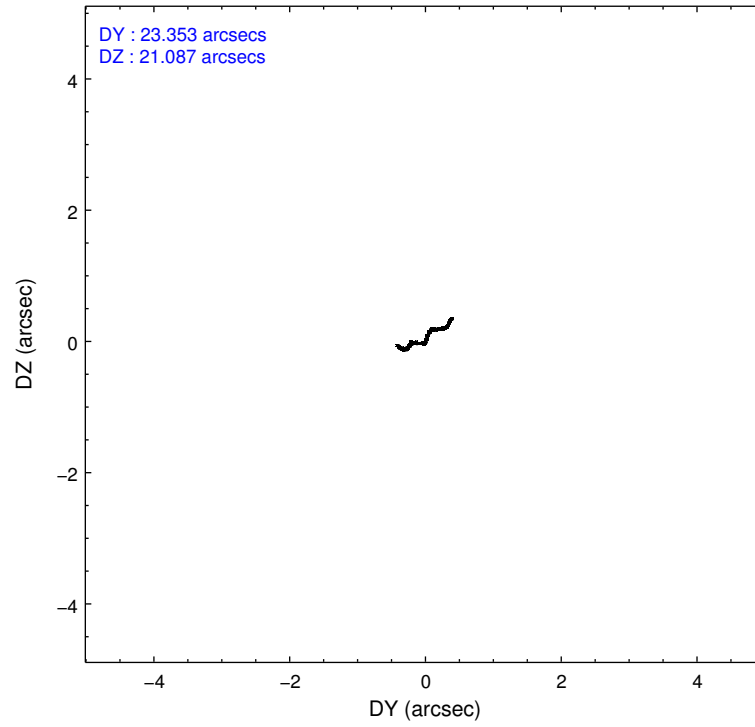
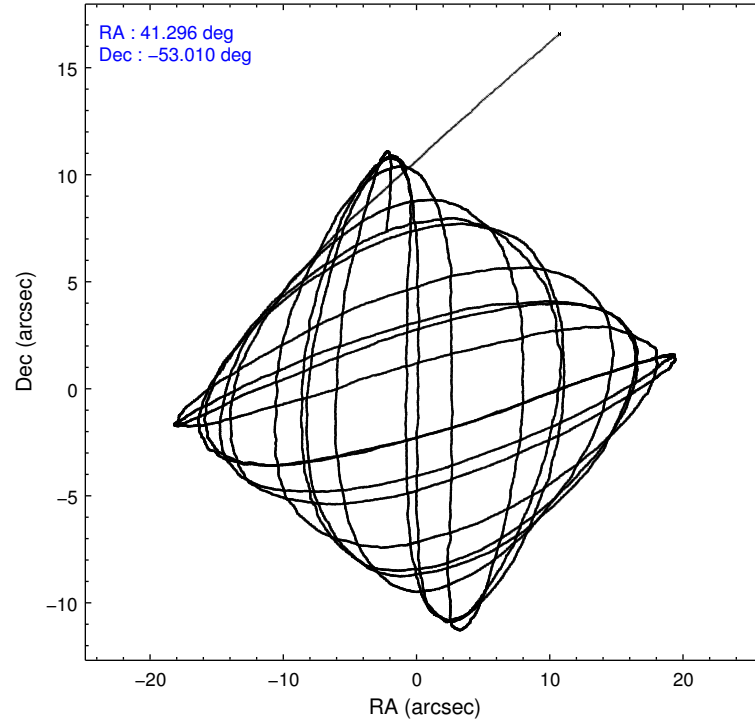
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1903	2242	1897	4969	1922
	4%	5%	4%	10%	4%
grade 1 events	25	25	28	38	28
	0%	0%	0%	0%	0%
grade 2 events	1305	1537	1267	1535	1192
	3%	3%	2%	3%	2%
grade 3 events	526	568	504	657	587
	1%	1%	1%	1%	1%
grade 4 events	529	581	492	688	555
	1%	1%	1%	1%	1%
grade 5 events	2077	2312	1930	2477	2384
	4%	5%	4%	5%	5%
grade 6 events	1082	1244	1018	1158	1287
	2%	2%	2%	2%	2%
grade 7 events	34109	33220	37137	36307	35931
	82%	79%	83%	75%	81%

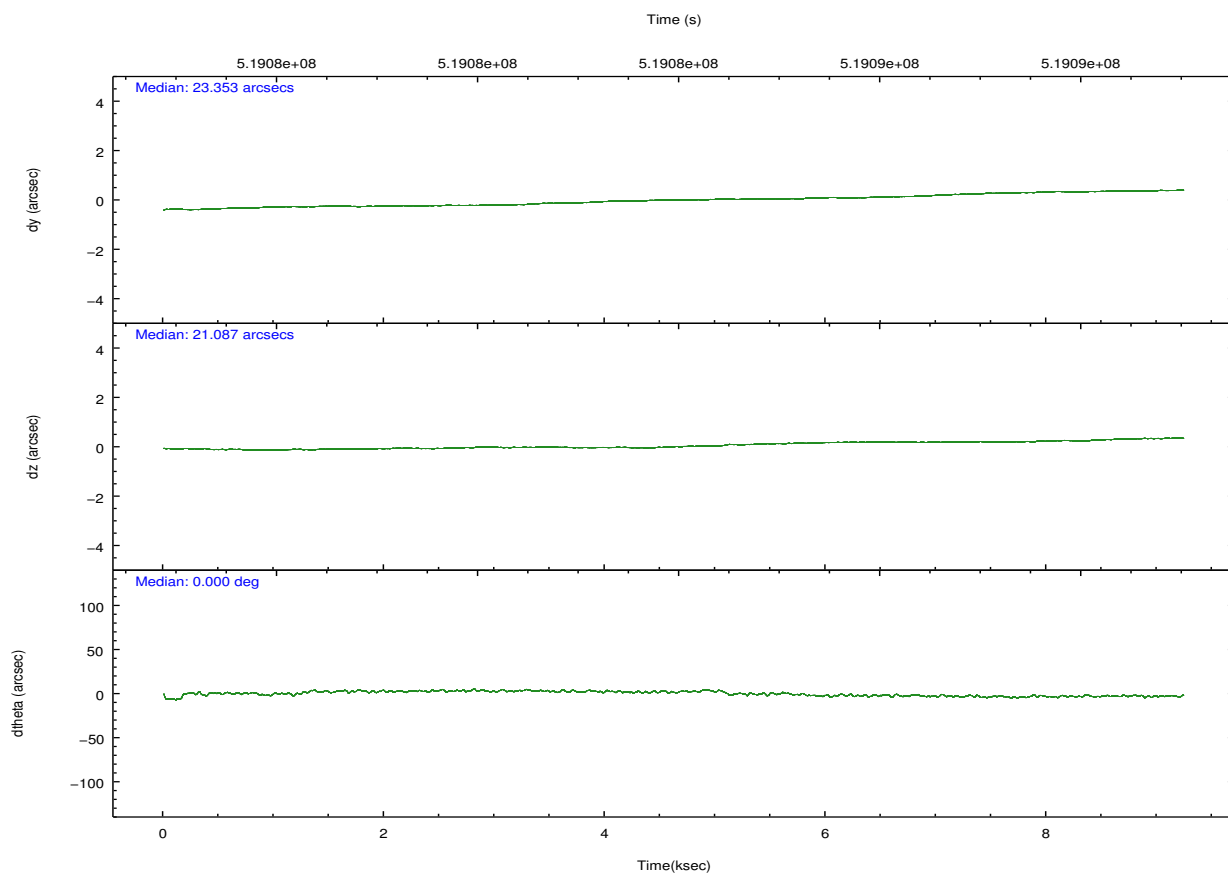
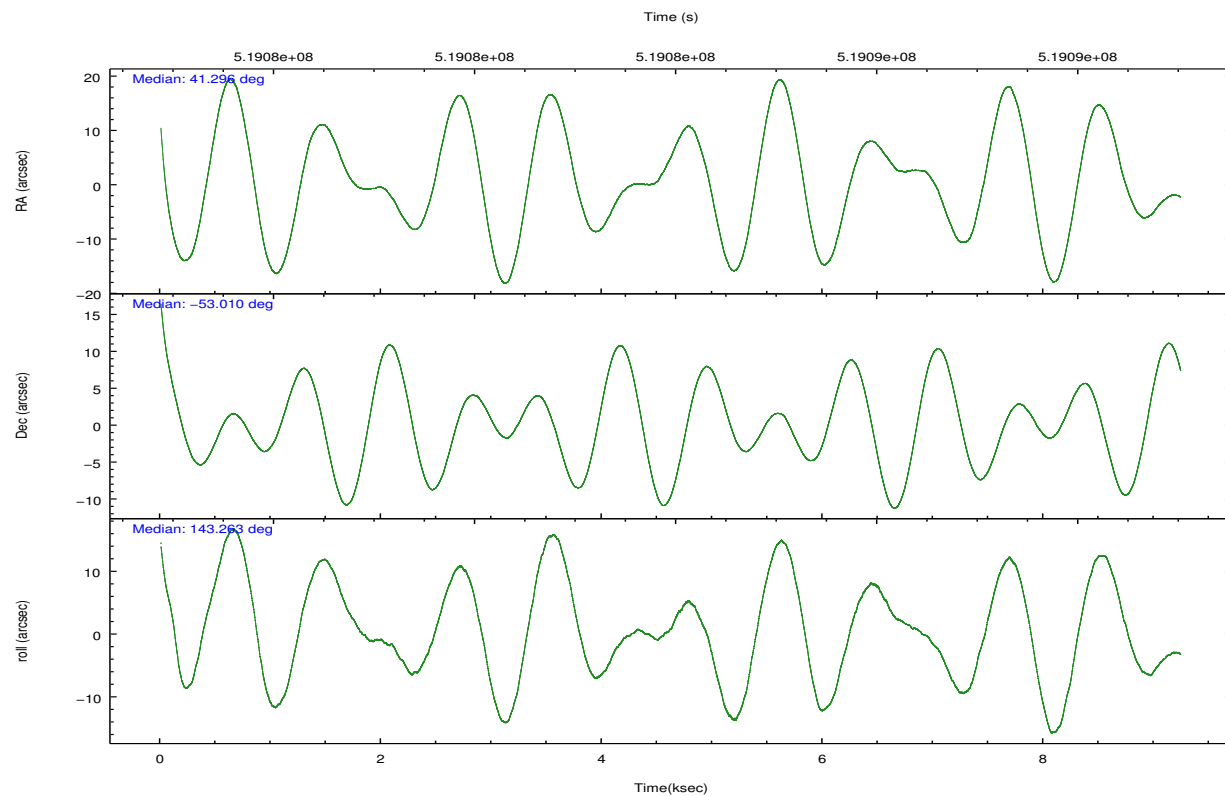


## 2.2 Compared Parameters

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	41.341941	41.29646942516153	CCD I2 on	Y	Y
[deg] Pointing Dec	-53.013054	-53.00991199466821	CCD I3 on	Y	Y
[deg] Pointing Roll	143.100408	143.272765374382	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	-225.792463	-225.7829997647864	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.8	-7.809453238143249	CCD S4 on	N	N
[s] Observation start time (MET)	519079519.184000	519078249.78675	CCD S5 on	N	N
Observation start date	2014-06-13T20:44:12	2014-06-13T20:24:09	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	519088577.184000	519088812.41233	On-chip summing requested	N	N
Observation end date	2014-06-13T23:15:10	2014-06-13T23:20:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



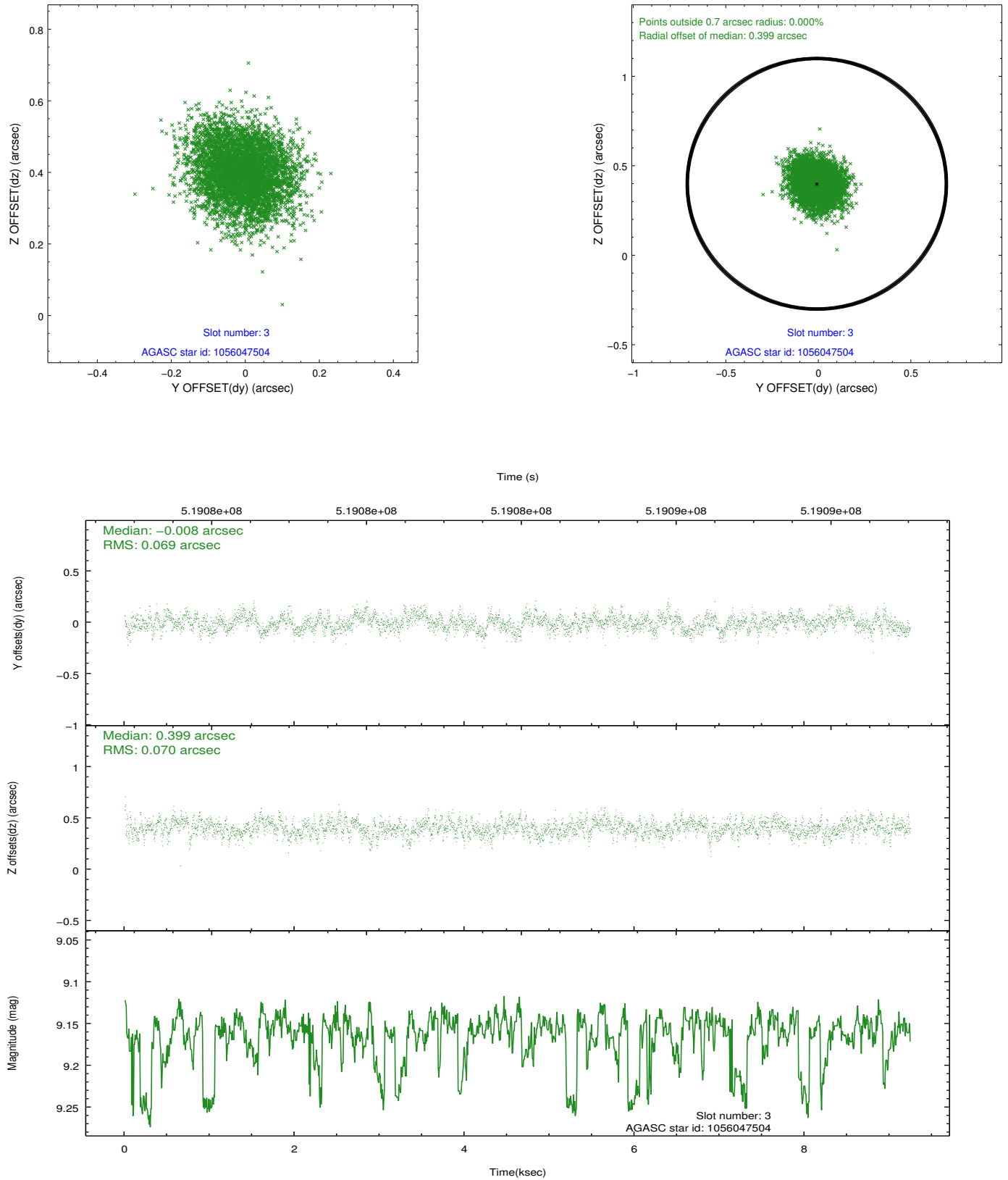


### Slot Statistics

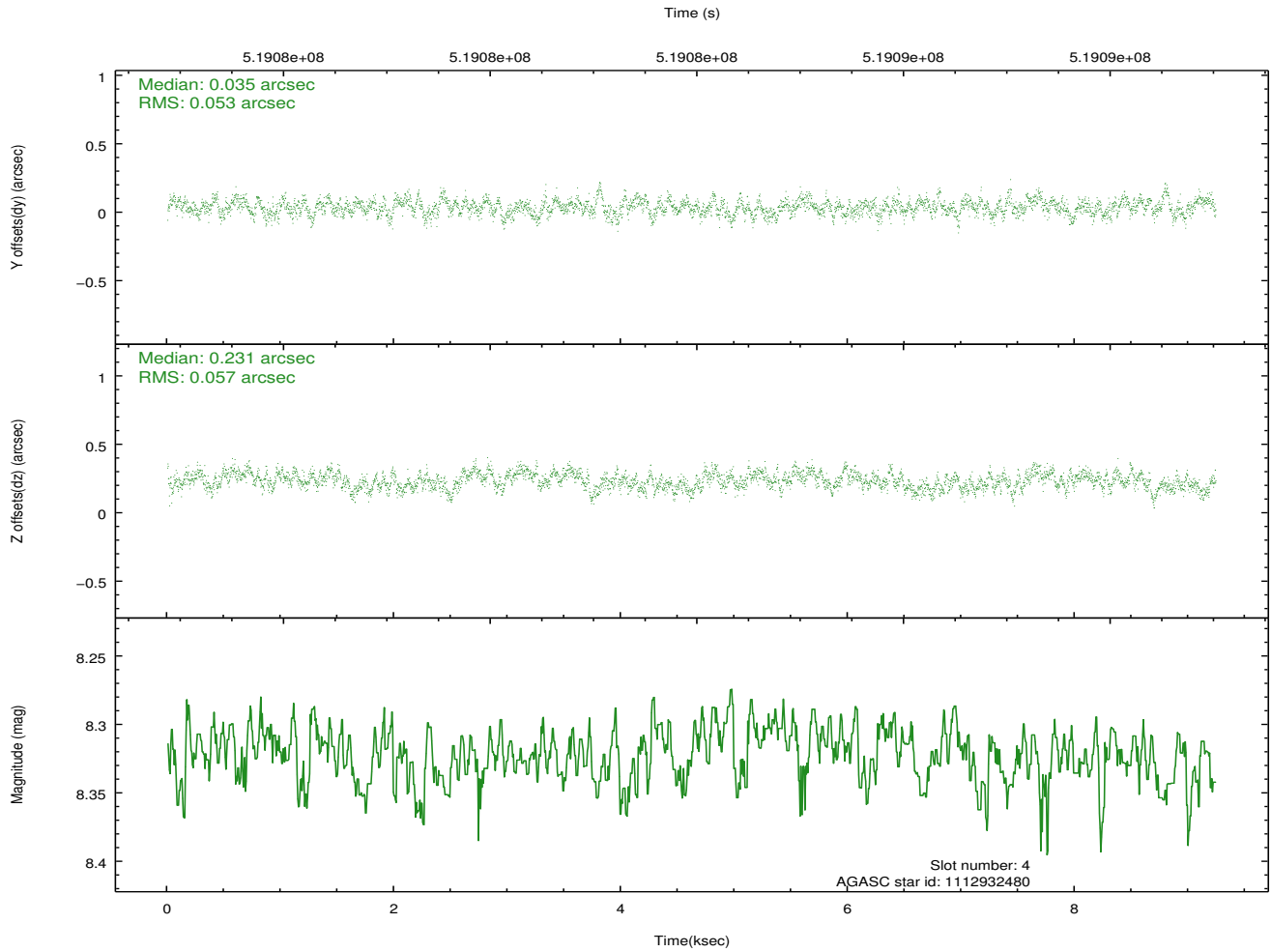
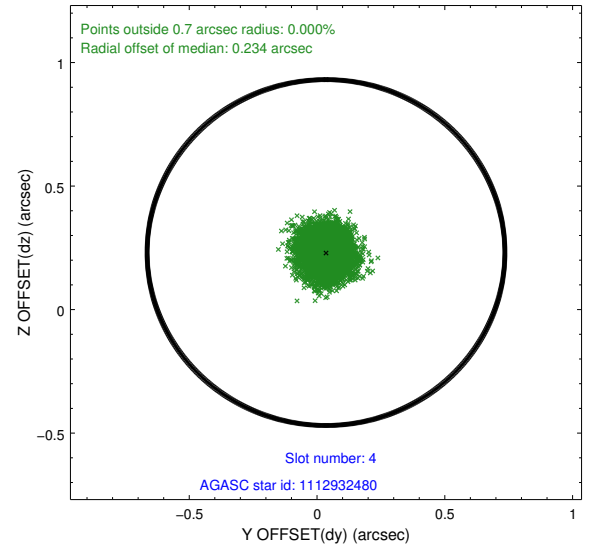
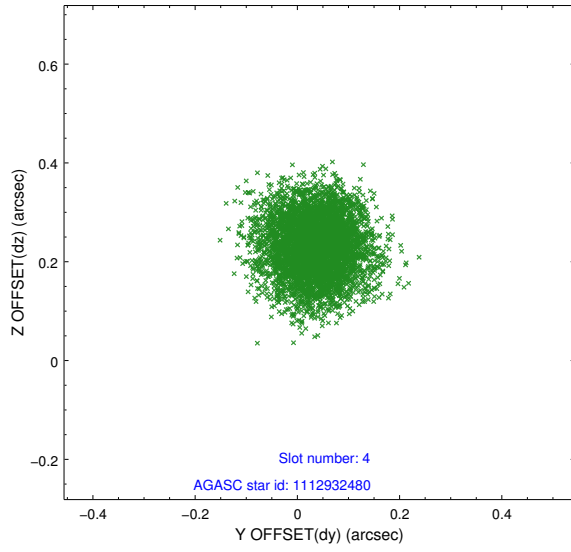
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	2254	0.103	-0.082	0.017	0.025	0.000000	0.000000	915.81	-1005.34
1	FID		ACIS-I-2	7.04	2254	-0.353	-0.059	0.013	0.018	0.000000	0.000000	-778.83	-1011.02
2	FID		ACIS-I-4	7.00	2254	0.152	0.207	0.011	0.018	0.000000	0.000000	2135.10	895.32
3	GUIDE	used	1056047504	9.16	4504	-0.008	0.399	0.107	0.171	41.496916	-52.433184	981.26	-1873.29
4	GUIDE	used	1112932480	8.32	4508	0.035	0.231	0.084	0.133	41.121788	-52.787610	870.60	-360.41
5	GUIDE	used	1112937160	7.88	4508	-0.179	-0.195	0.099	0.147	40.691929	-52.972857	1209.51	735.66
6	GUIDE	used	1112939176	8.79	4508	0.370	0.056	0.105	0.170	41.725683	-53.516285	-1745.67	957.27
7	GUIDE	used	1112936088	7.46	4507	-0.217	-0.484	0.089	0.133	40.359428	-53.320074	1016.46	2163.70

## 2.4 Star Slots

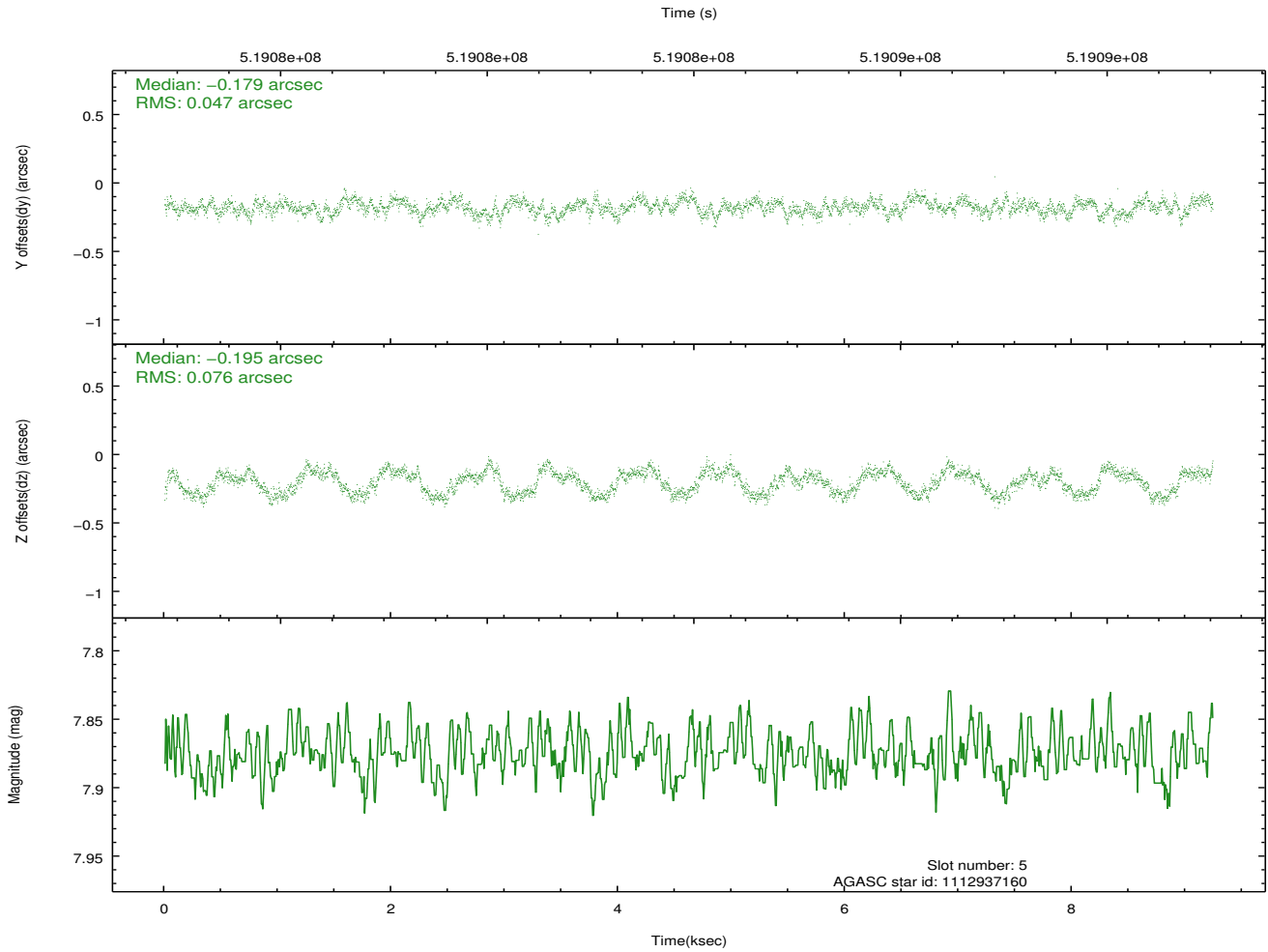
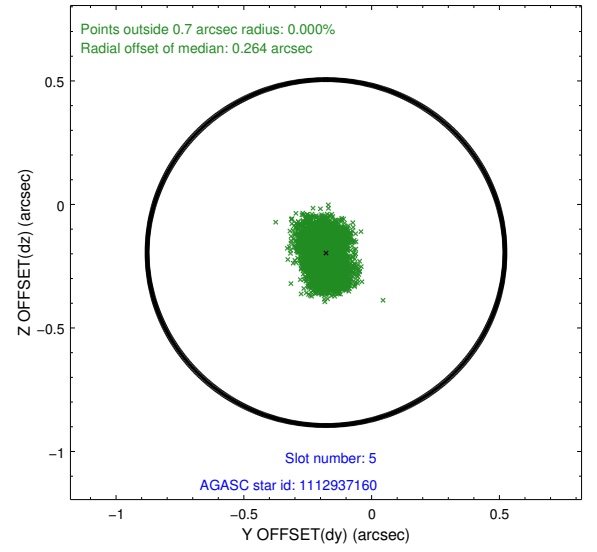
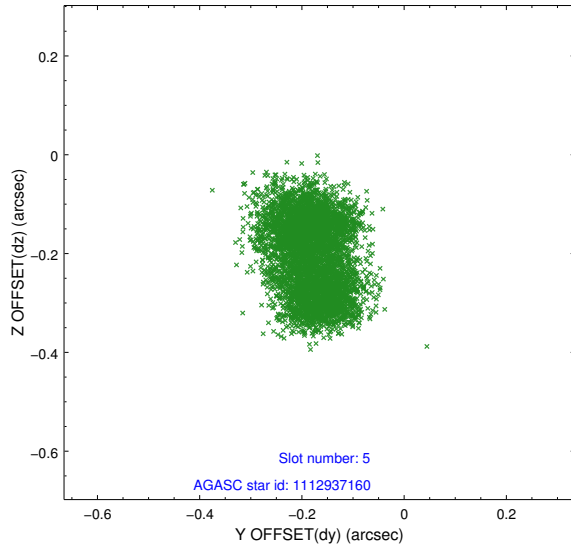
### 2.4.1 Slot 3



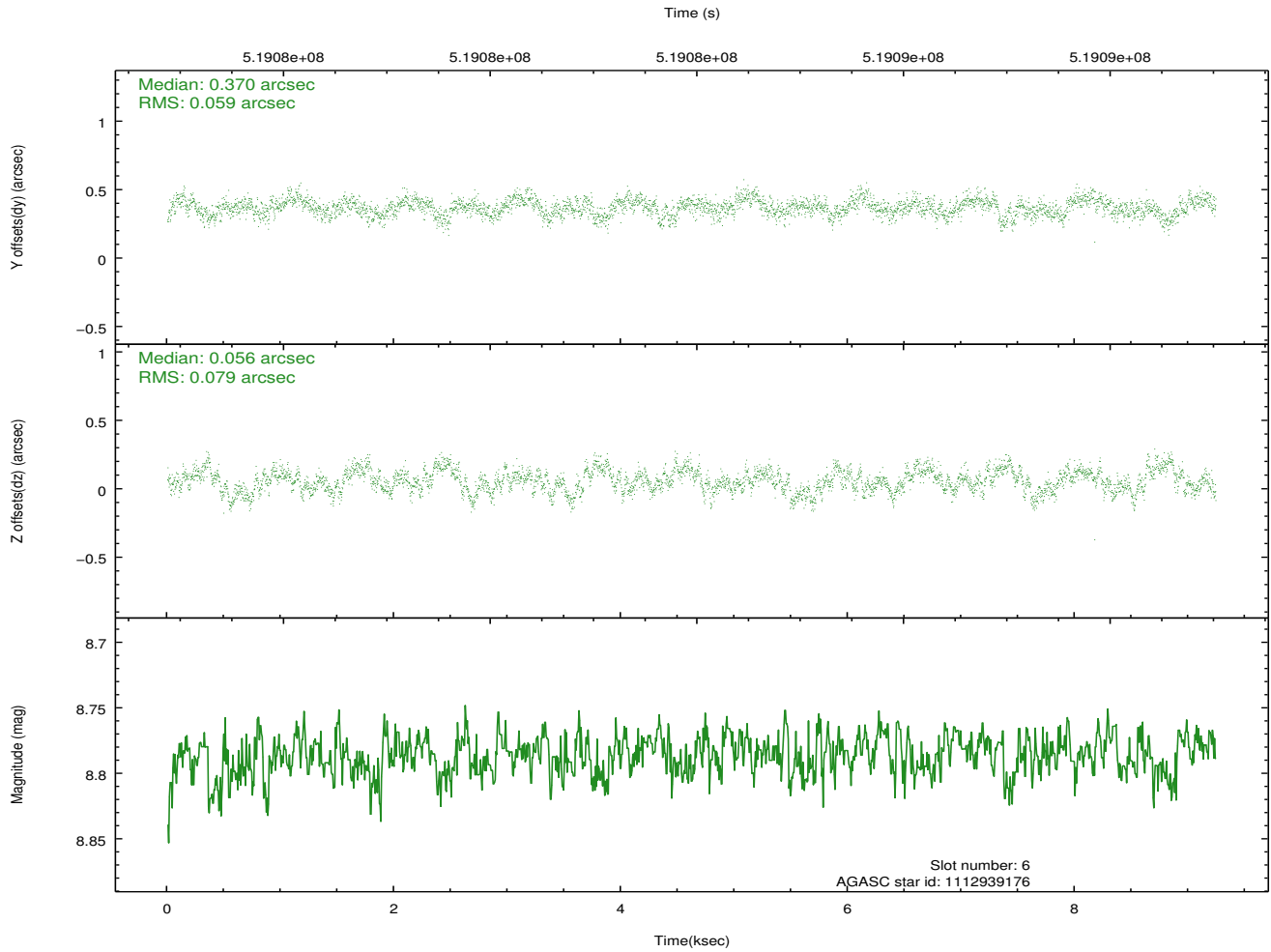
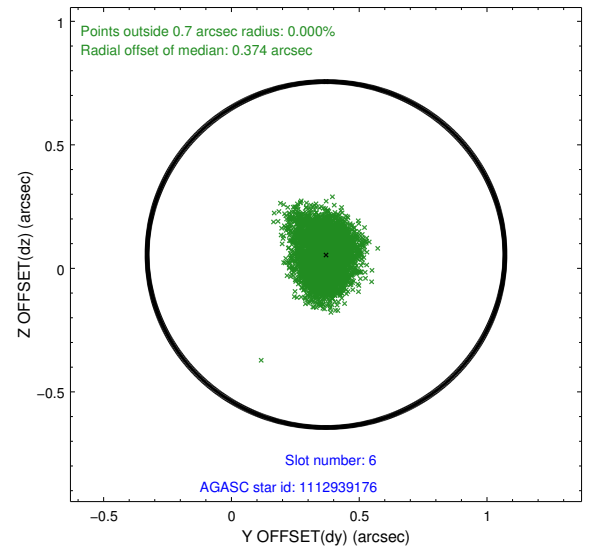
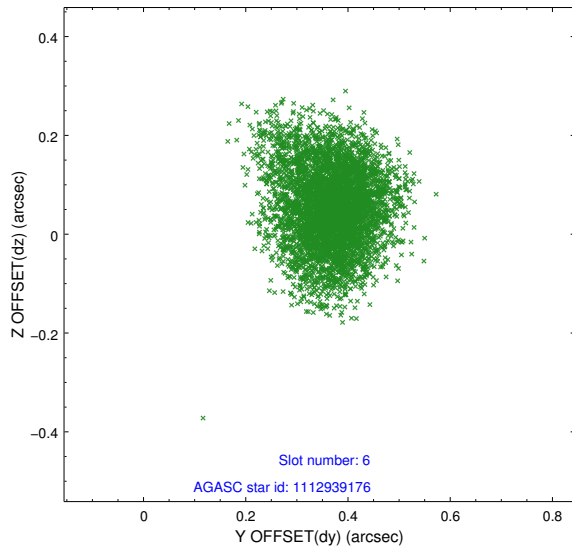
## 2.4.2 Slot 4



### 2.4.3 Slot 5

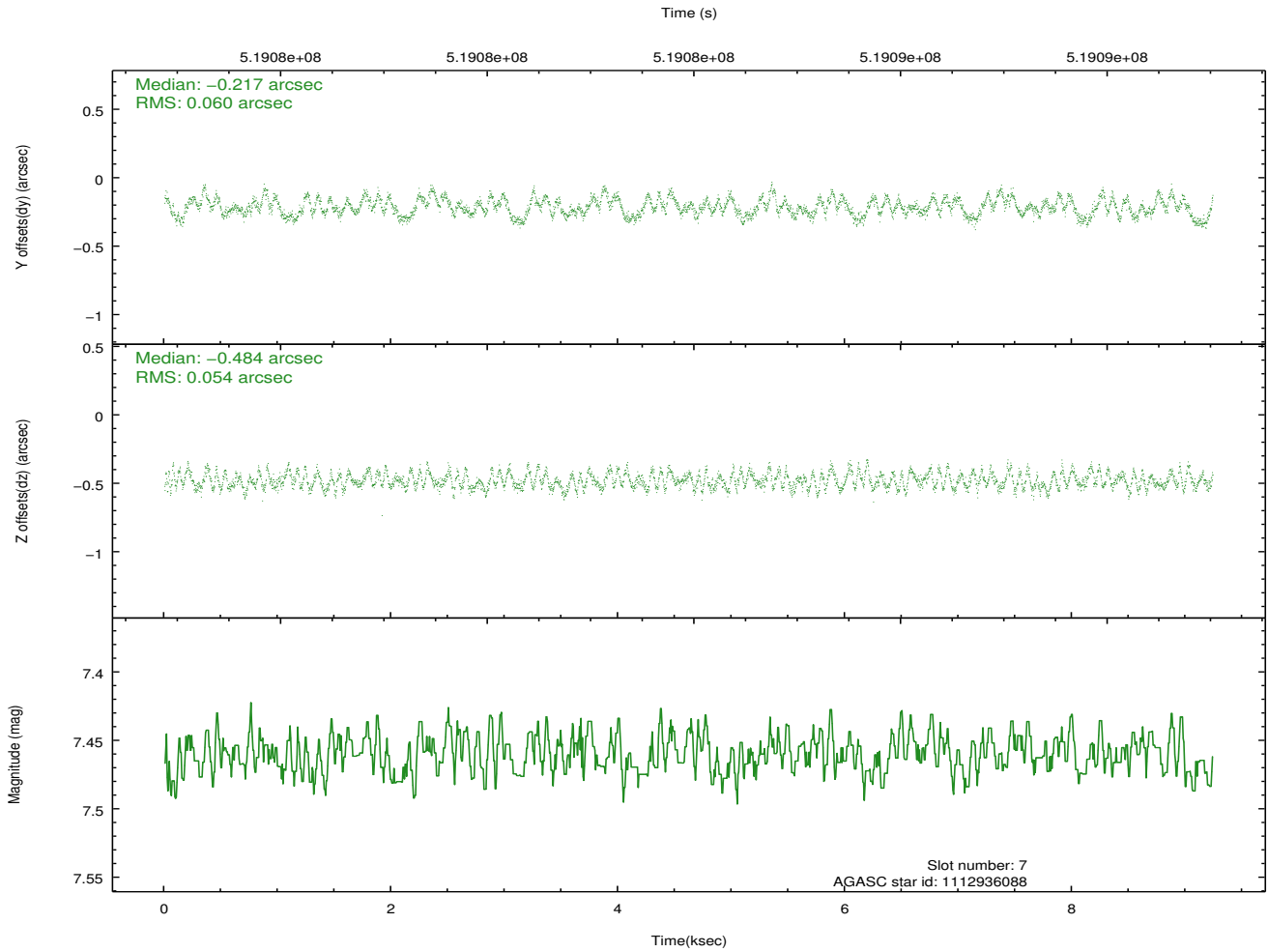
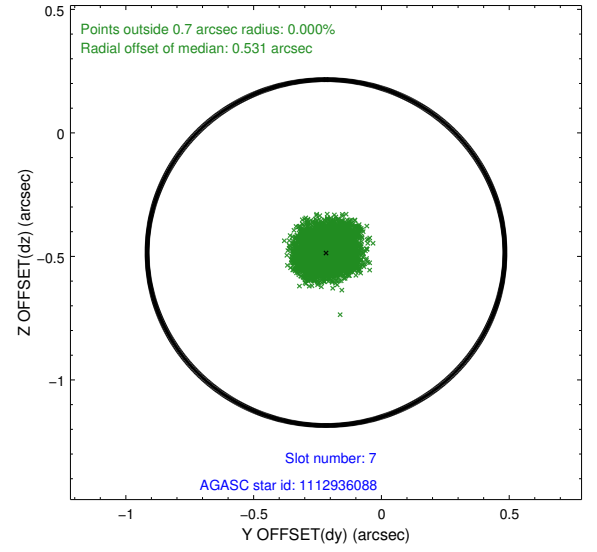
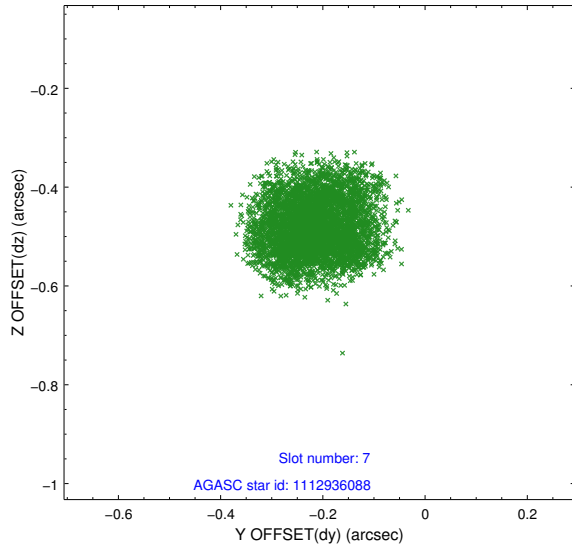


## 2.4.4 Slot 6



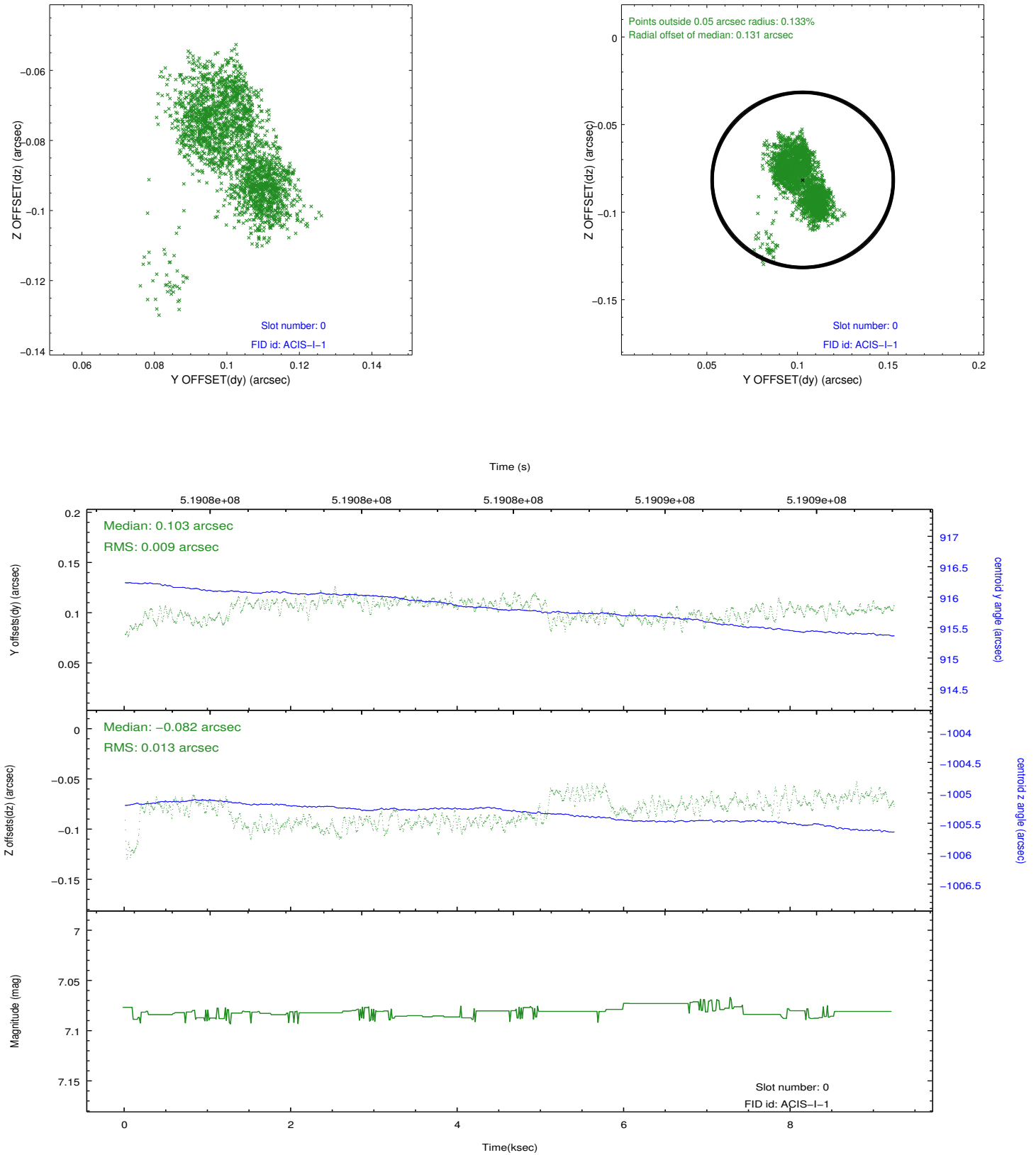


## 2.4.5 Slot 7

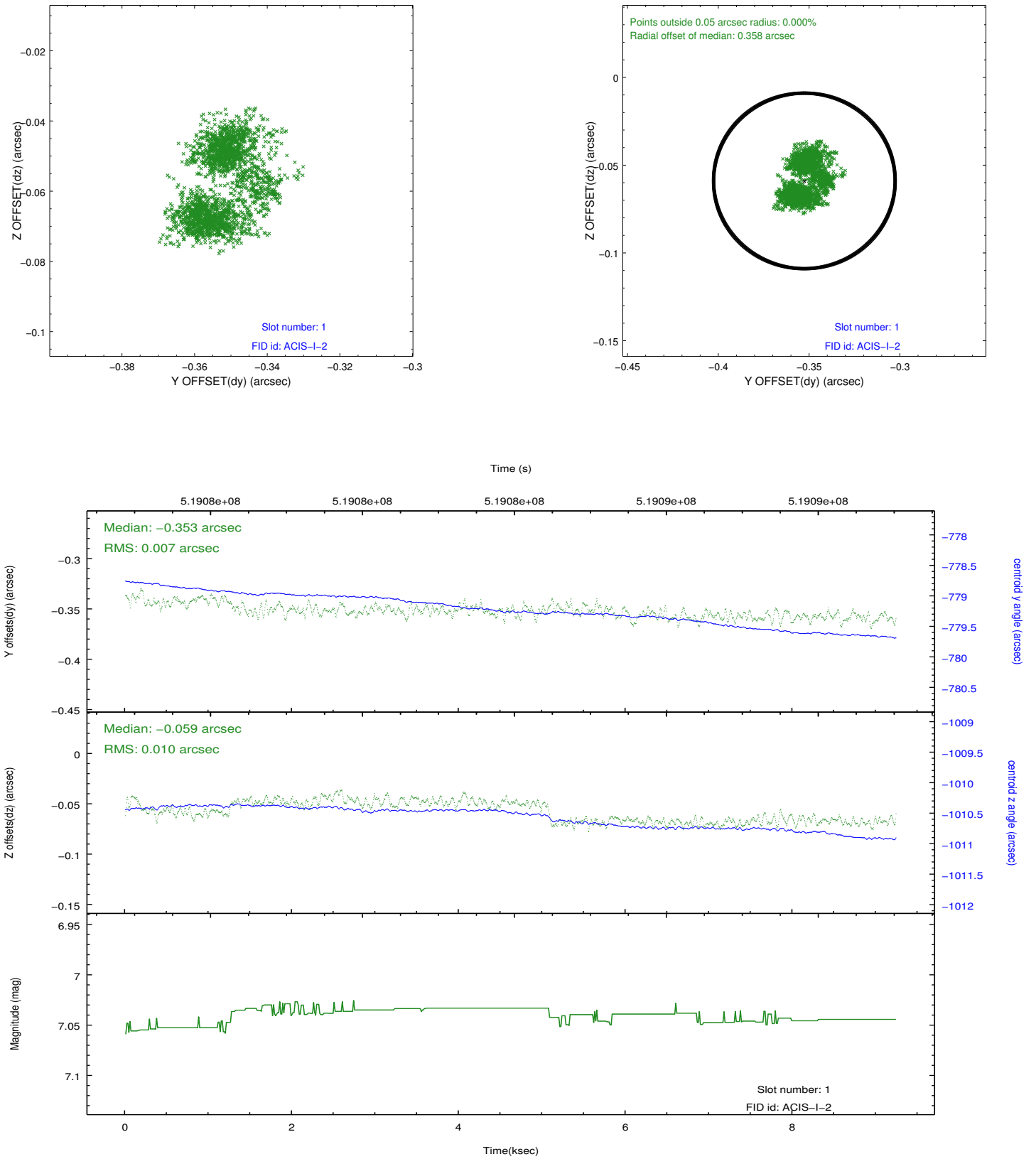


## 2.5 FID Slots

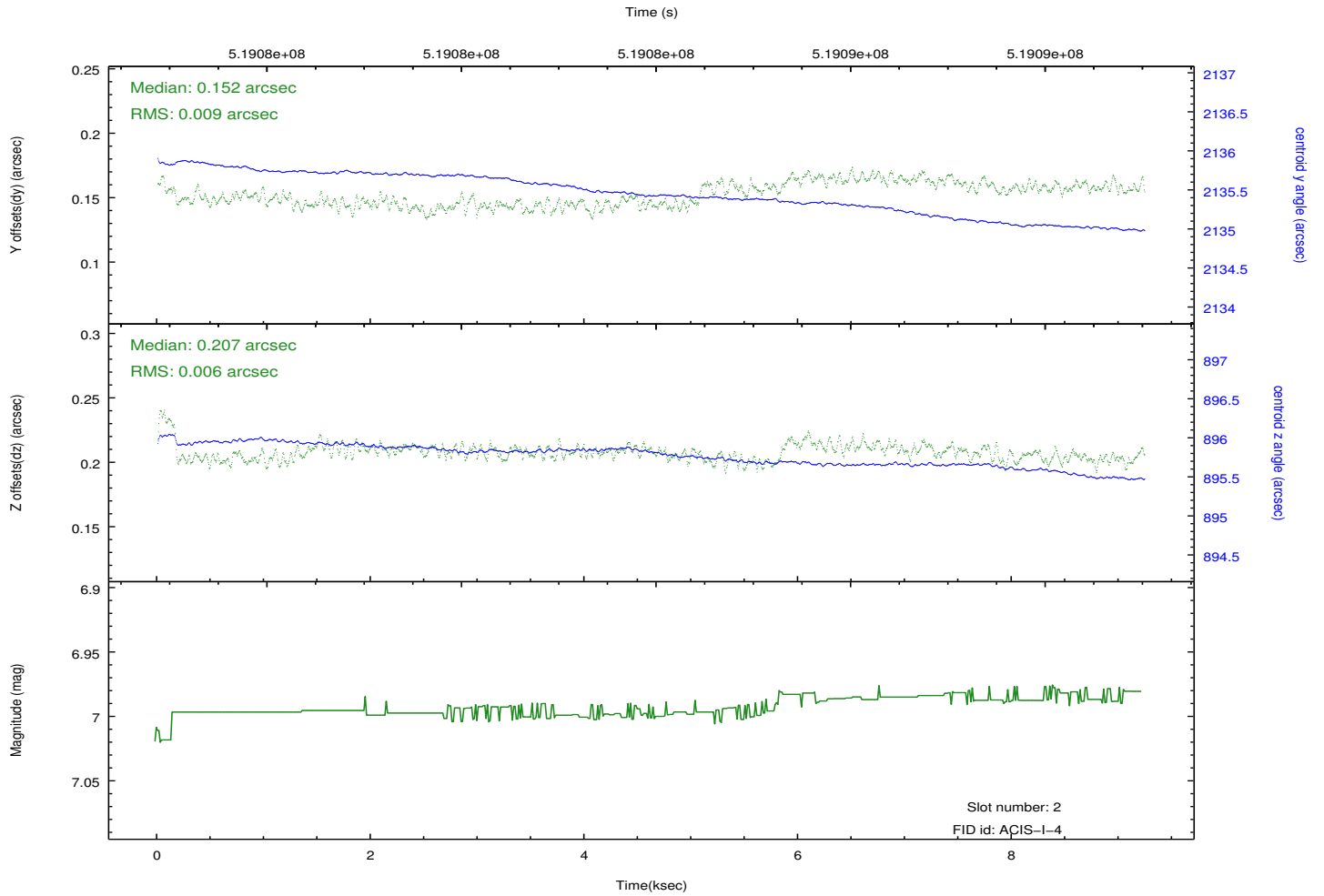
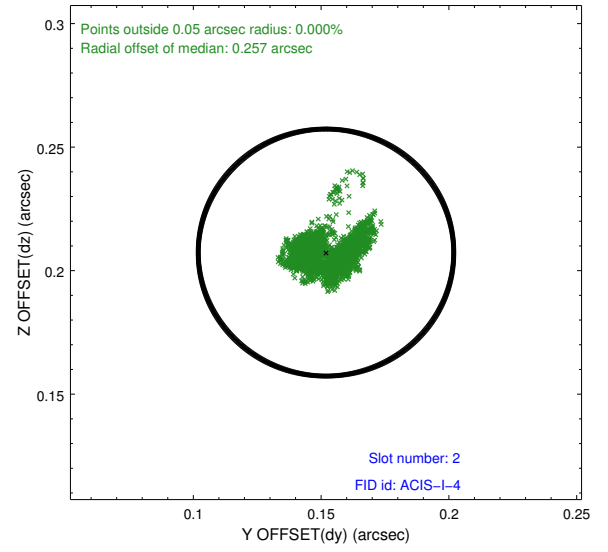
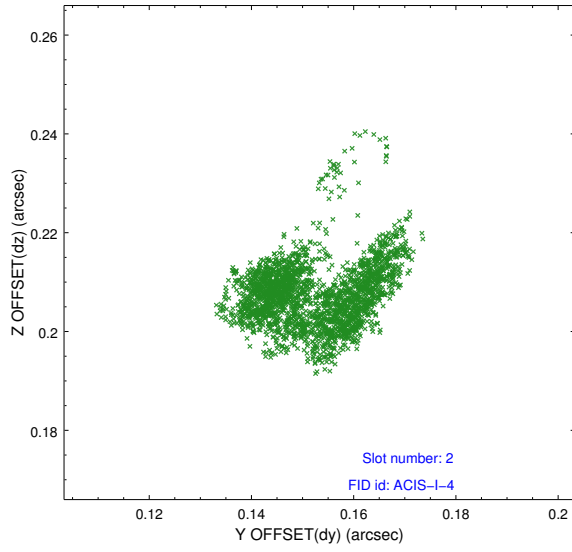
### 2.5.1 Slot 0



## 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)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.1450000703335

## A.2 Comments

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.