

# V&V Reference Report

## L2 ASCDS Version : 10.3

Observation 16154 - L2 Version 1  
Chandra X-Ray Center

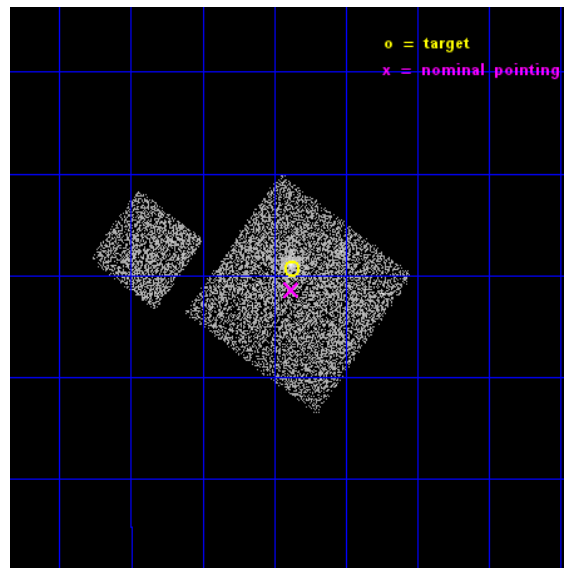
L2 Processing Date : Nov 15 2014

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# 1 Front

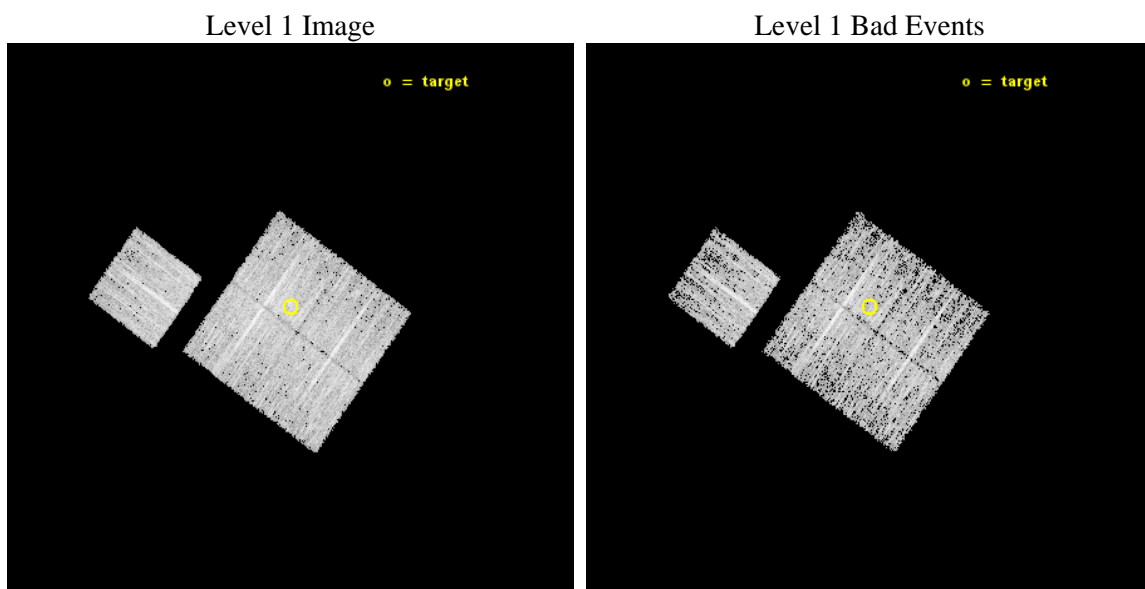
seq_num	801407	Sequence number
obs_id	16154	Observation id
title	Setting the Scale: Supporting precision cluster cosmology with Chandra observations of low-z lensing clusters	Proposal title
observer	Dr Adam Mantz	Principal investigator
object	RXJ0106.8-0229	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.718333	Observer's specified target RA [deg]
dec_targ	-2.49	Observer's specified target Dec [deg]
ra_nom	16.719767328797	Nominal RA [deg]
dec_nom	-2.5233174771805	Nominal Dec [deg]
roll_nom	306.01153405527	Nominal Roll [deg]
revision	1	Processing version of data
ontime	7120.659044385	Sum of GTIs [s]
livetime	7027.6223918171	Livetime [s]
ontime0	7123.8000547886	Sum of GTIs [s]
ontime1	7123.8000547886	Sum of GTIs [s]
ontime2	7123.8000547886	Sum of GTIs [s]
ontime3	7120.659044385	Sum of GTIs [s]
ontime6	7123.8000547886	Sum of GTIs [s]
l2events	15794	Number of level 2 events



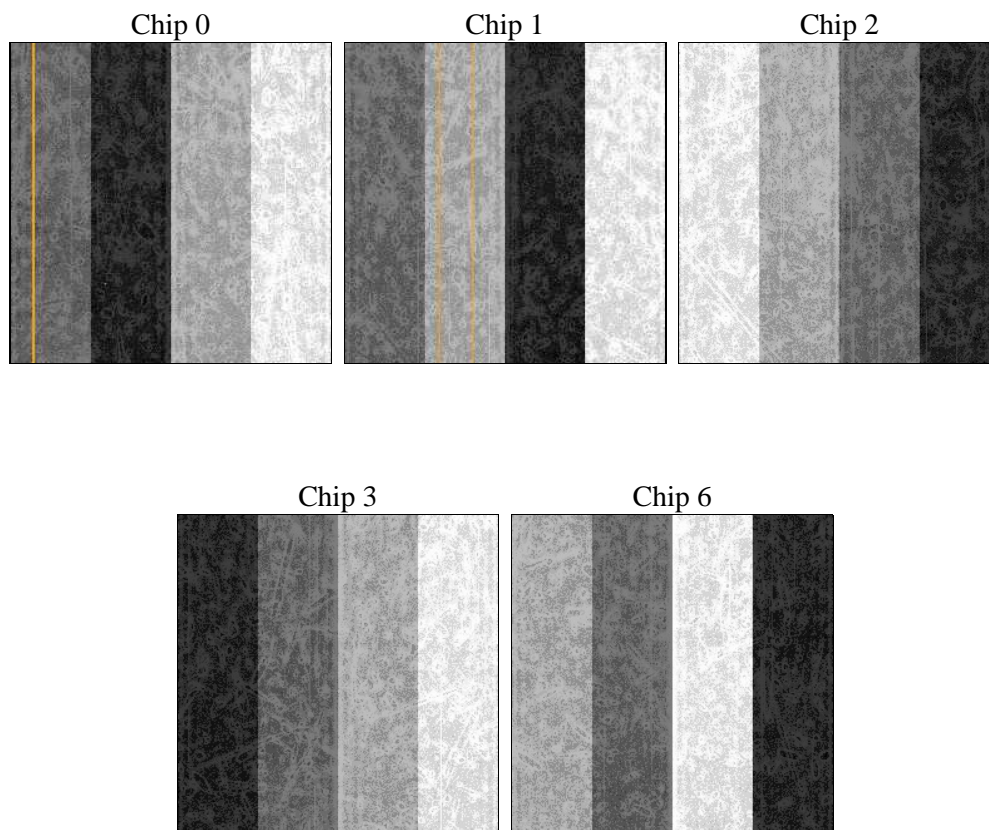
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	7120.659044385	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	7123.8000547886	Sum of GTIs [s]
date	2014-11-15T23:43:08	Date and time of file creation	ontime1	7123.8000547886	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	7123.8000547886	Sum of GTIs [s]
			ontime3	7120.659044385	Sum of GTIs [s]
			ontime6	7123.8000547886	Sum of GTIs [s]
			l1events	148961	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	29320	27906	30811	30210	30714
rejected events	25625	23976	27004	26192	27058
rejected %	87%	85%	87%	86%	88%

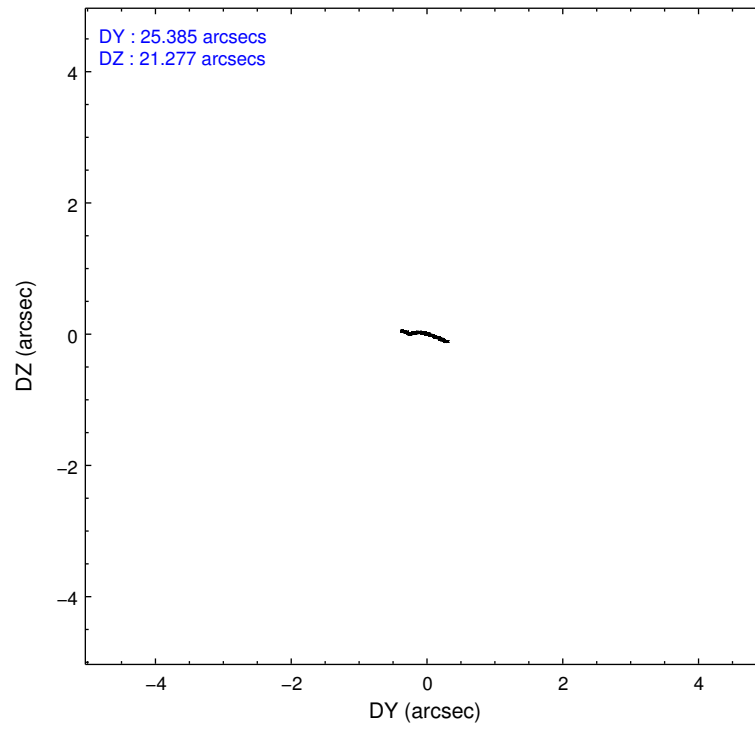
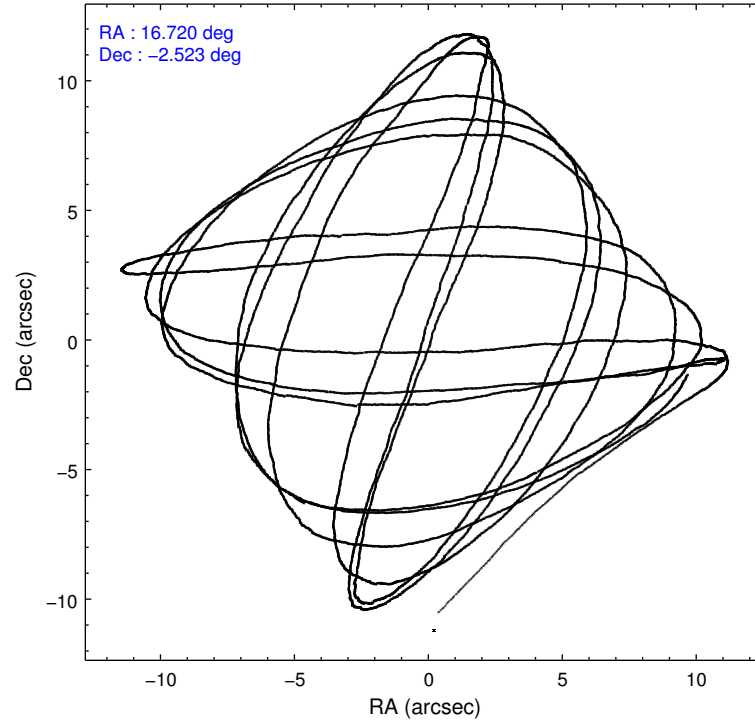
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1343	1579	1449	1899	1357
	4%	5%	4%	6%	4%
grade 1 events	14	21	17	25	18
	0%	0%	0%	0%	0%
grade 2 events	1018	859	997	851	802
	3%	3%	3%	2%	2%
grade 3 events	328	398	383	356	398
	1%	1%	1%	1%	1%
grade 4 events	363	391	397	346	368
	1%	1%	1%	1%	1%
grade 5 events	1076	1098	985	1140	1146
	3%	3%	3%	3%	3%
grade 6 events	647	706	583	571	735
	2%	2%	1%	1%	2%
grade 7 events	24531	22854	26000	25022	25890
	83%	81%	84%	82%	84%

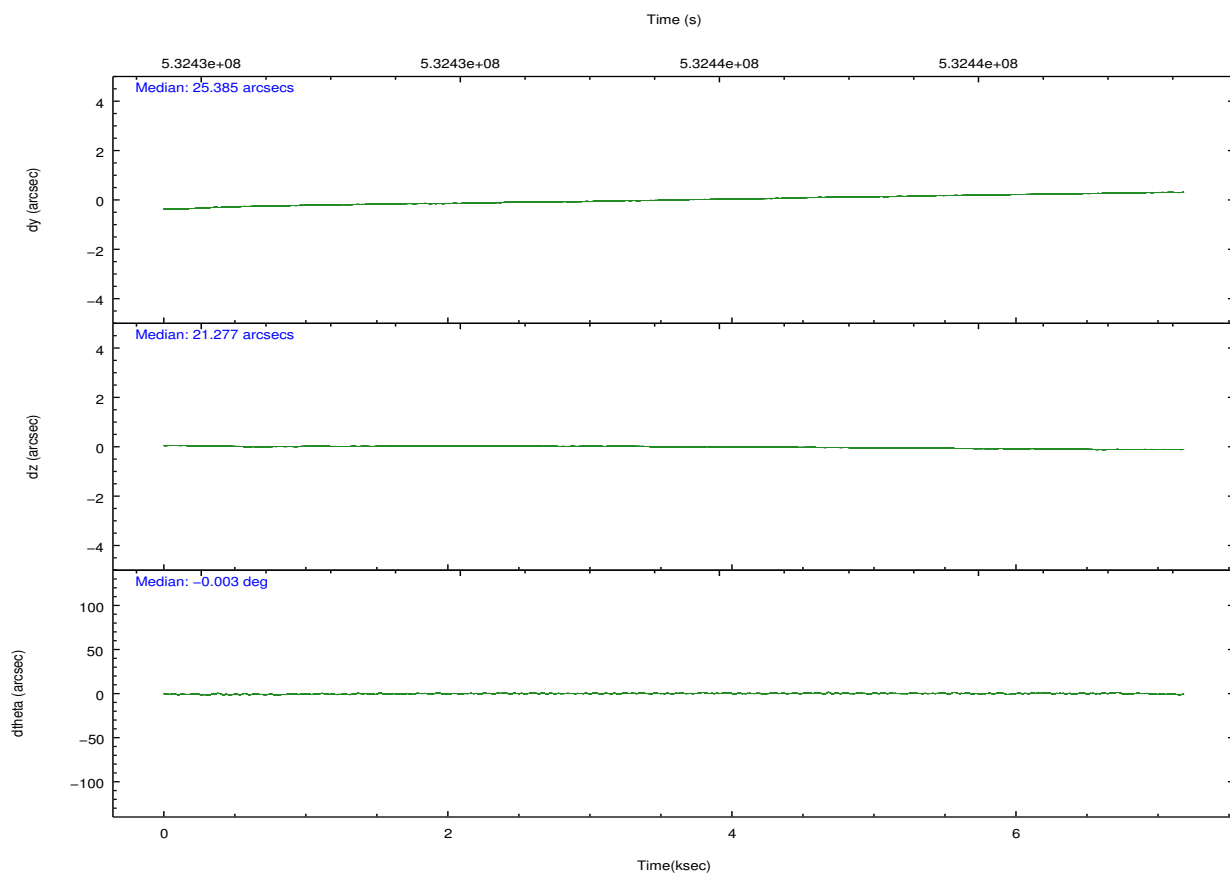
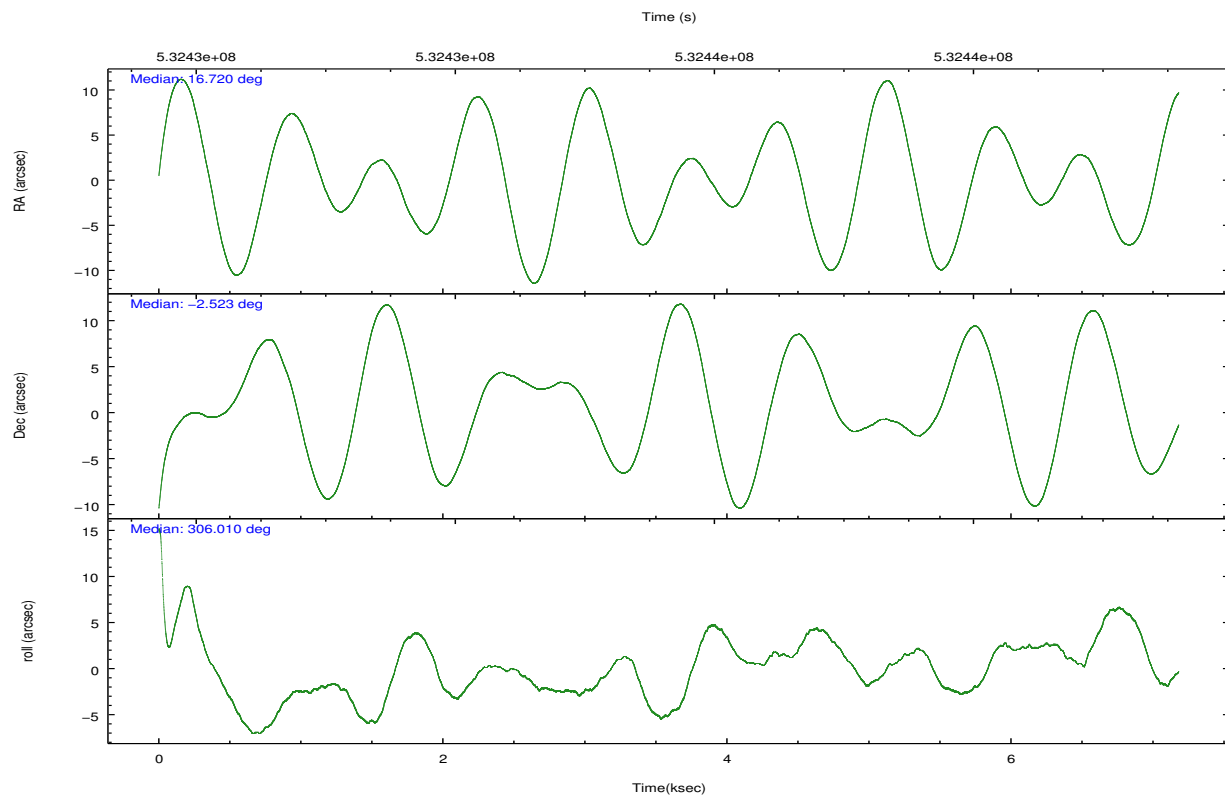


## 2.2 Compared Parameters

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	16.694426	16.71976732879665	CCD I2 on	Y	Y
[deg] Pointing Dec	-2.512160	-2.523317477180536	CCD I3 on	Y	Y
[deg] Pointing Roll	305.801695	306.0115340552703	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)	532432245.184000	532431069.54011	CCD S5 on	N	N
Observation start date	2014-11-15T09:49:38	2014-11-15T09:31:09	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	532439245.184000	532439664.16559	On-chip summing requested	N	N
Observation end date	2014-11-15T11:46:18	2014-11-15T11:54:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



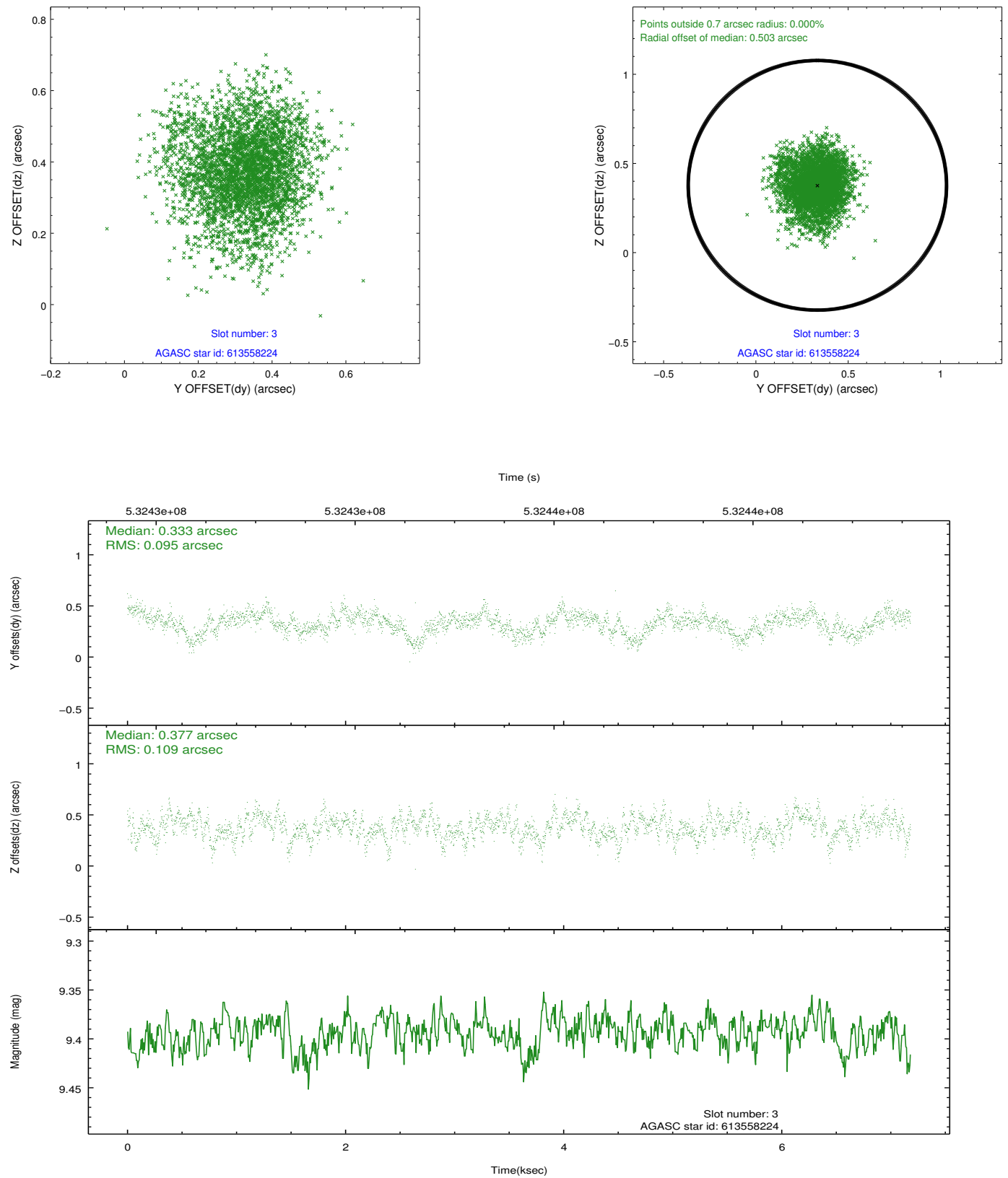


Slot Statistics

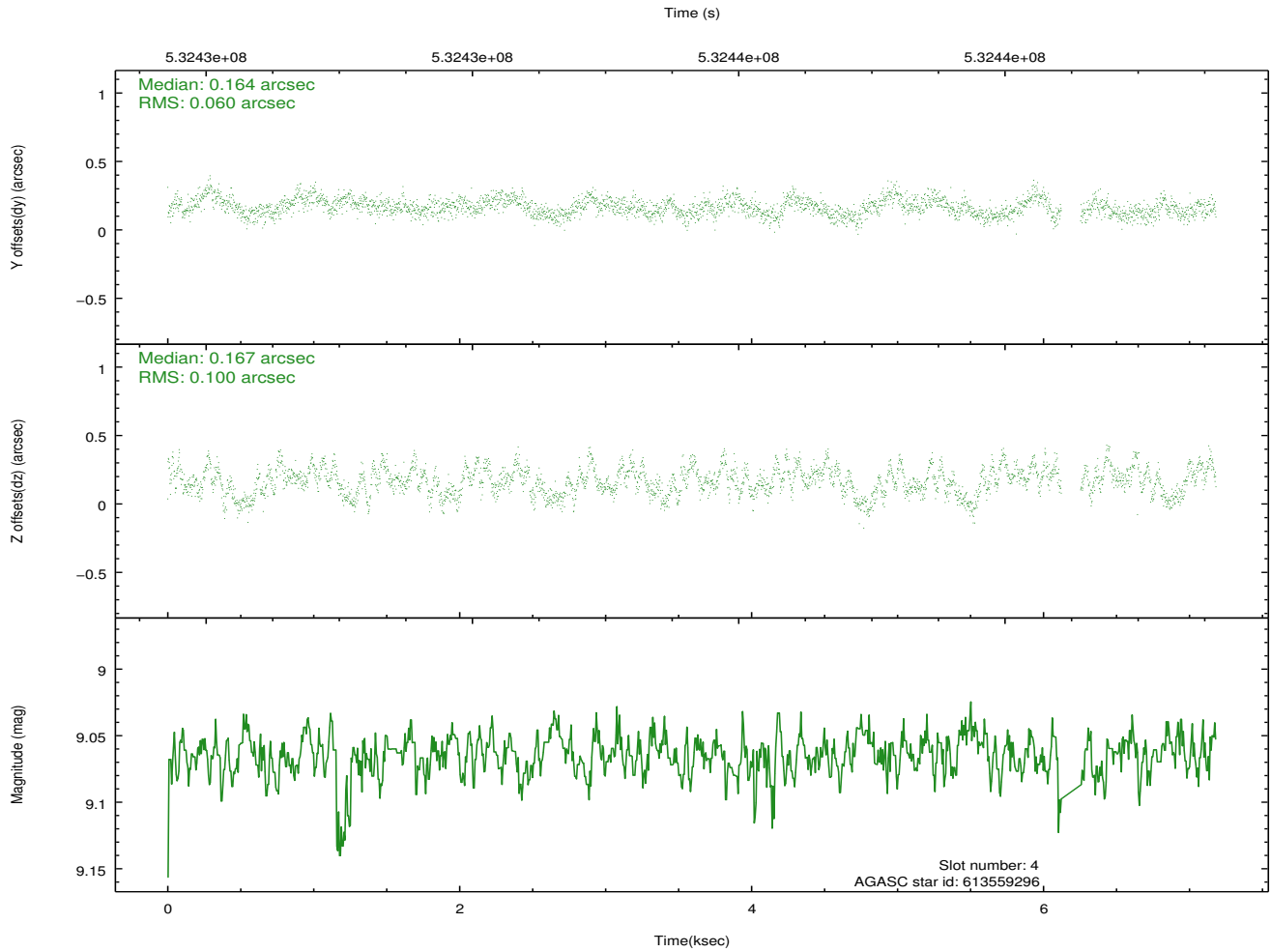
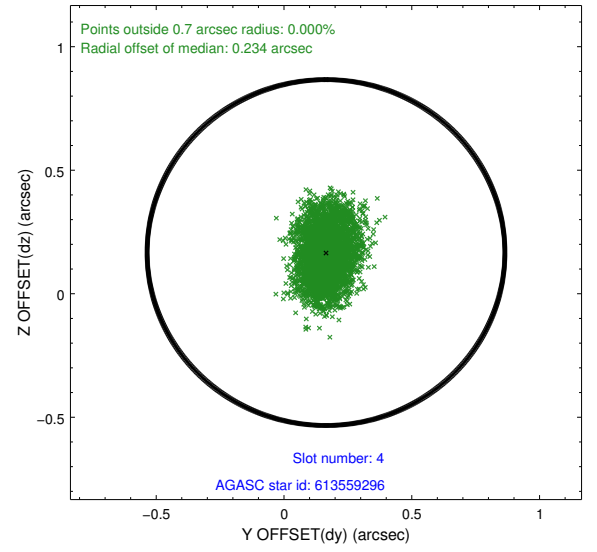
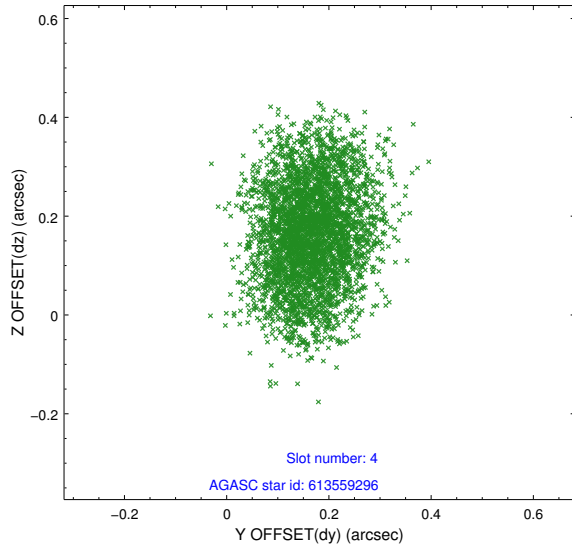
lot	status	used	id	mag	n_pts	med_dy	med_dz	drl	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.07	1752	0.055	-0.019	0.007	0.013	0.000000	0.000000	913.86	-845.07
1	FID		ACIS-I-5	7.06	1752	-0.272	0.042	0.007	0.012	0.000000	0.000000	-1834.18	1052.07
2	FID		ACIS-I-6	7.06	1752	0.126	0.047	0.008	0.012	0.000000	0.000000	378.54	1697.57
3	GUIDE	used	613558224	9.39	3500	0.333	0.377	0.156	0.248	15.897576	-2.505292	-1695.44	-2310.07
4	GUIDE	used	613559296	9.06	3432	0.164	0.167	0.126	0.202	16.110297	-2.366600	-1653.92	-1402.09
5	BAD	used	613560496	10.44	3043	-0.319	0.017	0.281	0.473	16.246585	-2.693599	-411.13	-1688.38
6	GUIDE	used	613561872	8.38	3502	-0.194	-0.446	0.114	0.191	17.133581	-2.059933	-396.24	2232.85
7	GUIDE	used	613563736	9.79	3500	-0.032	-0.110	0.182	0.291	17.060222	-3.008432	2218.56	22.10

## 2.4 Star Slots

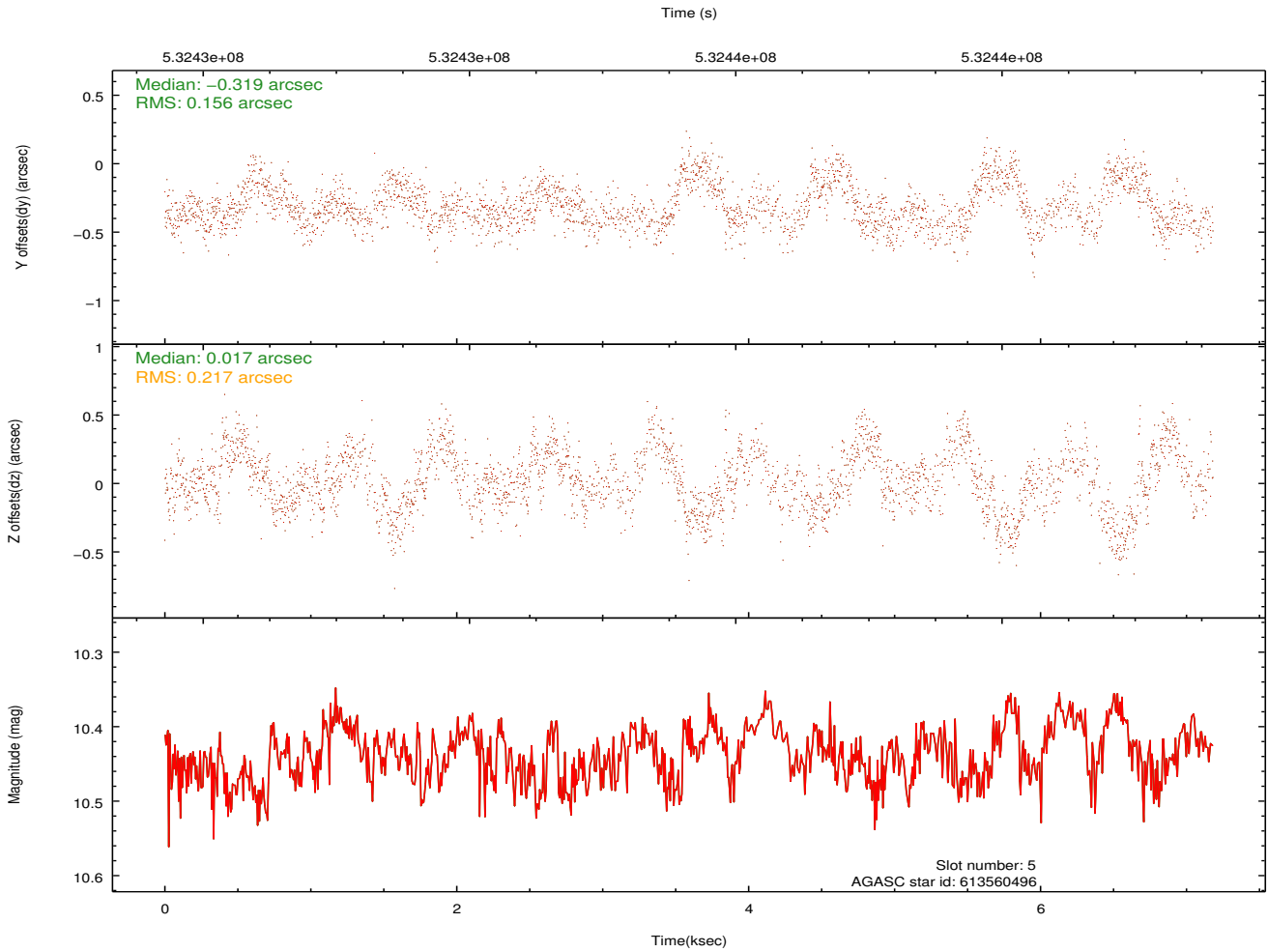
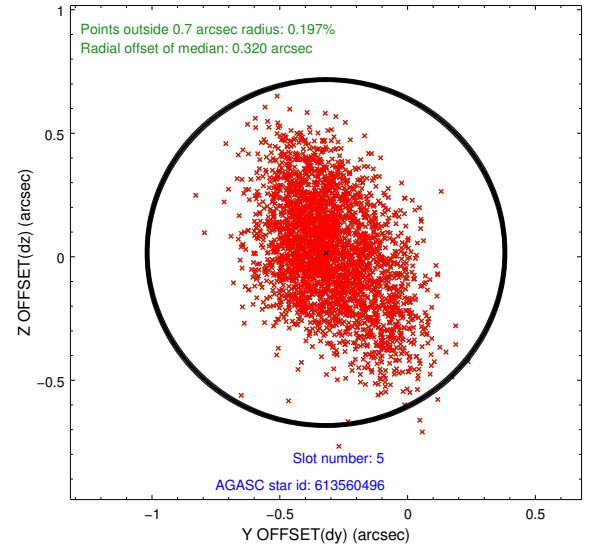
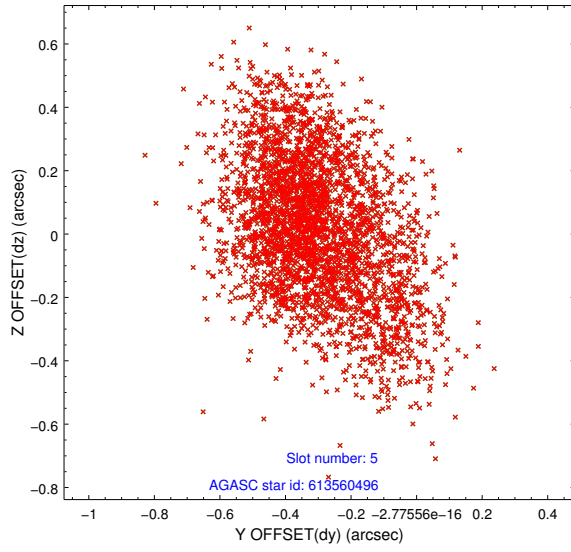
### 2.4.1 Slot 3



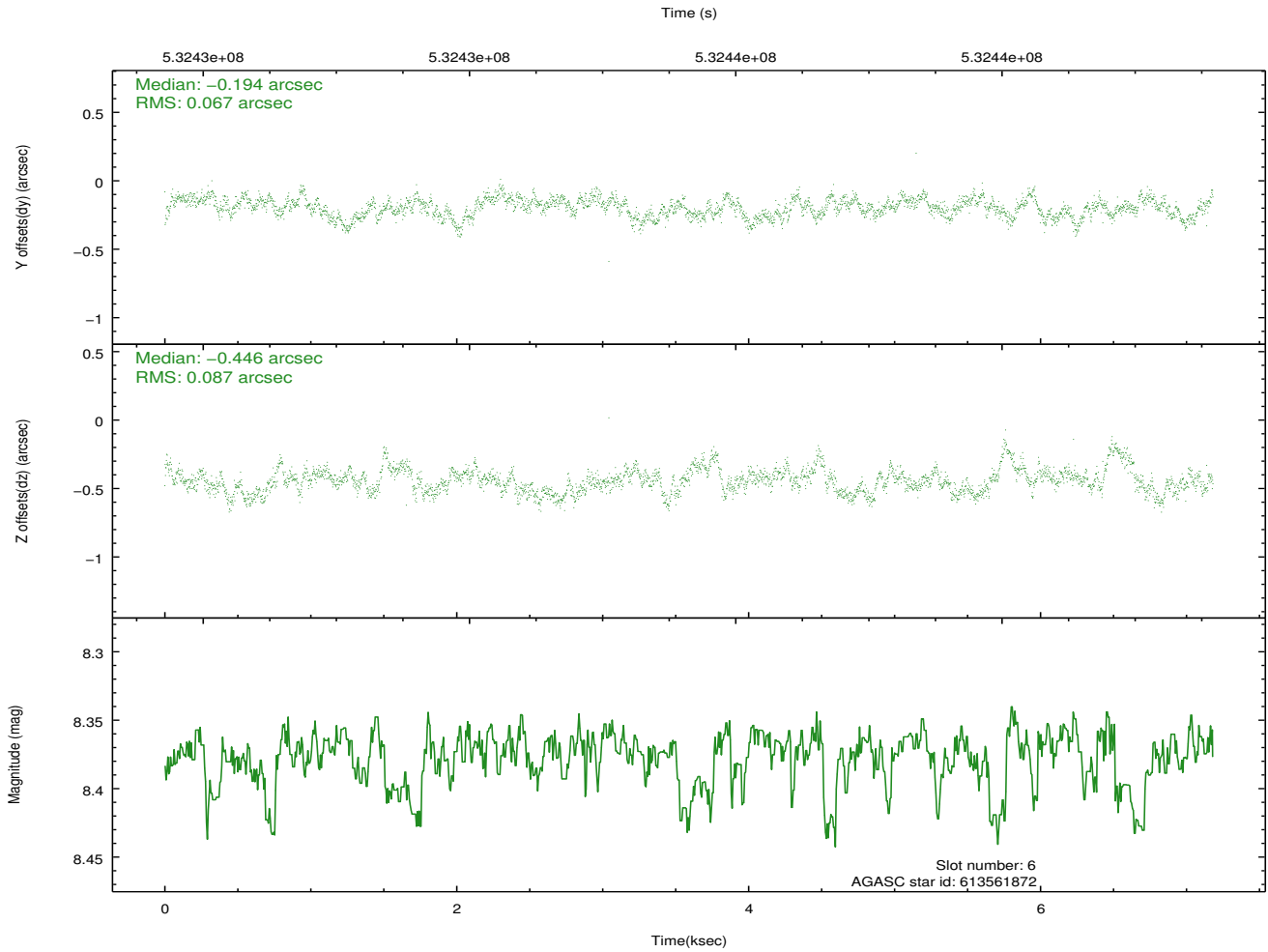
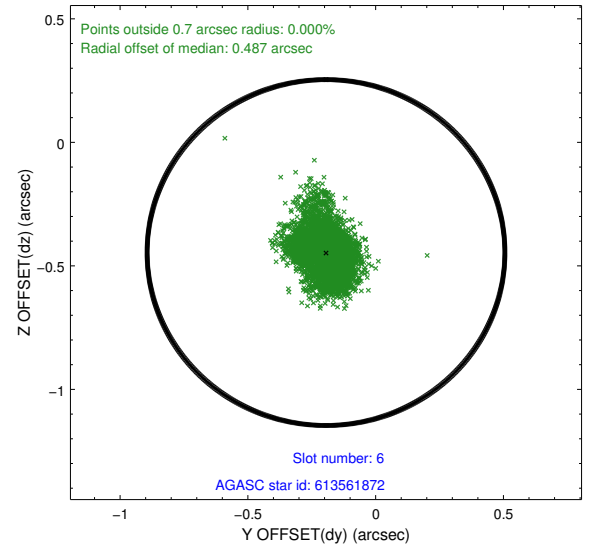
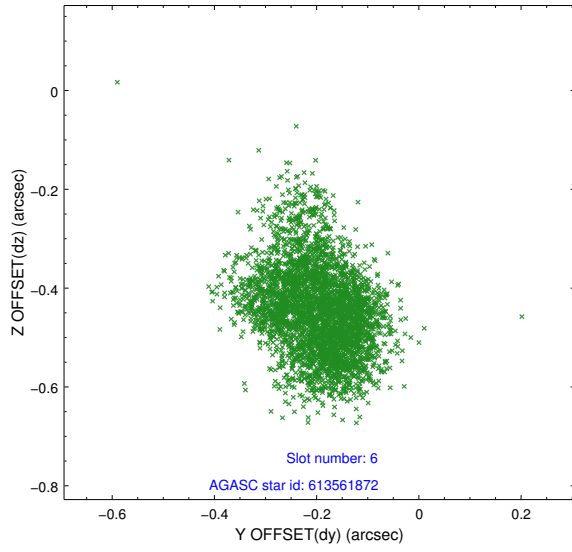
## 2.4.2 Slot 4



### 2.4.3 Slot 5

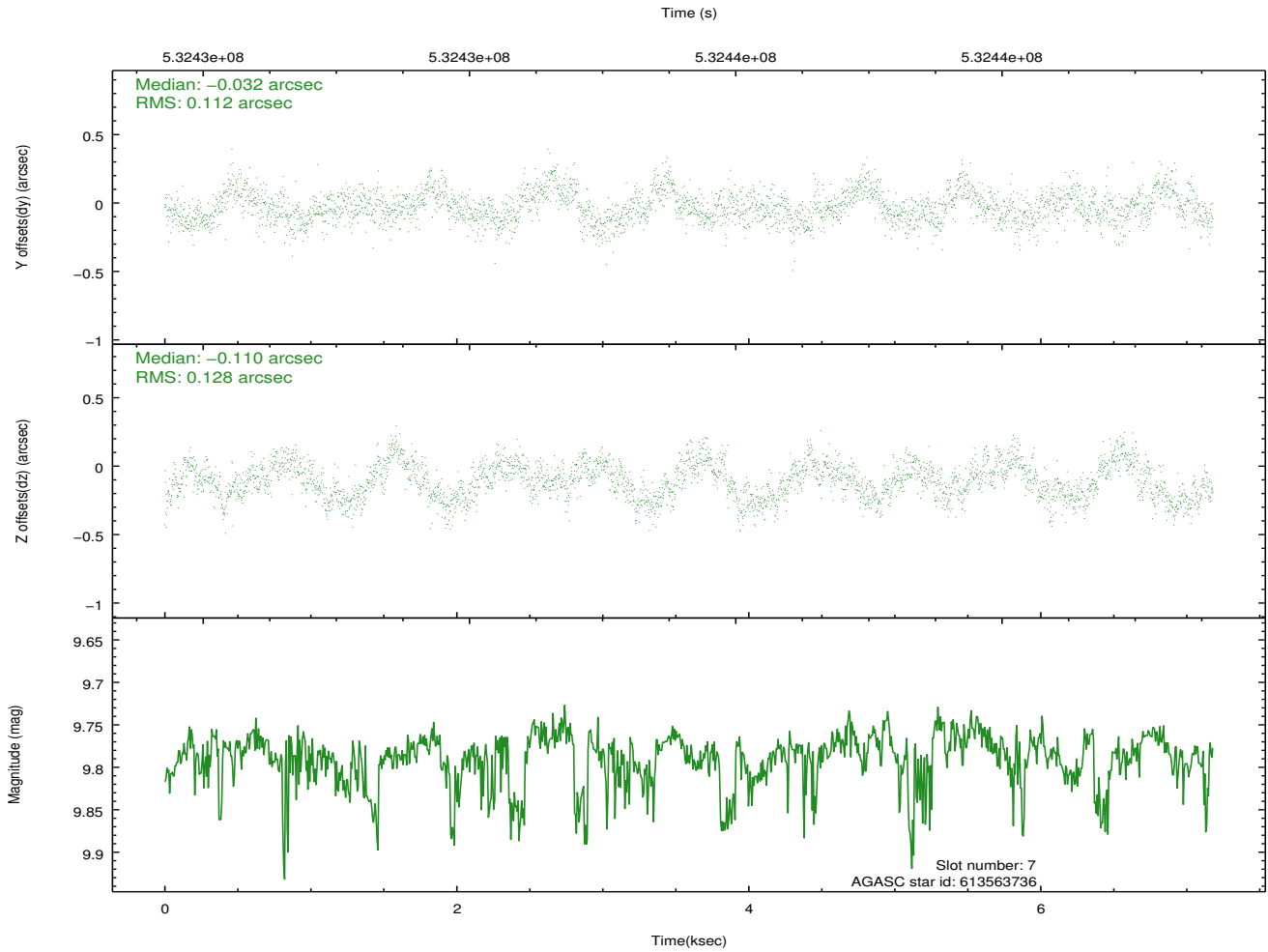
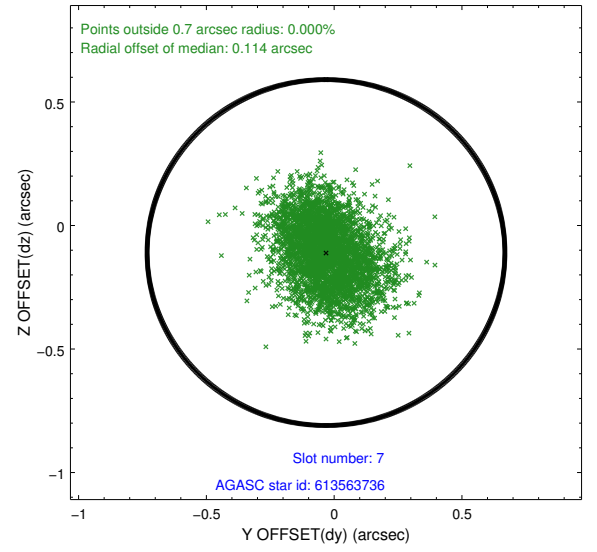
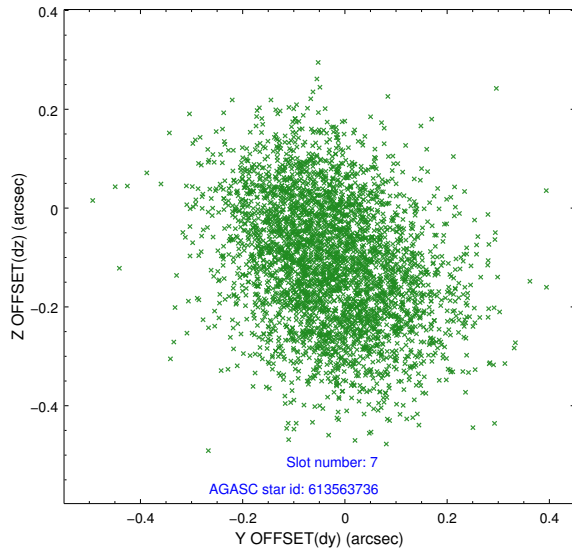


## 2.4.4 Slot 6



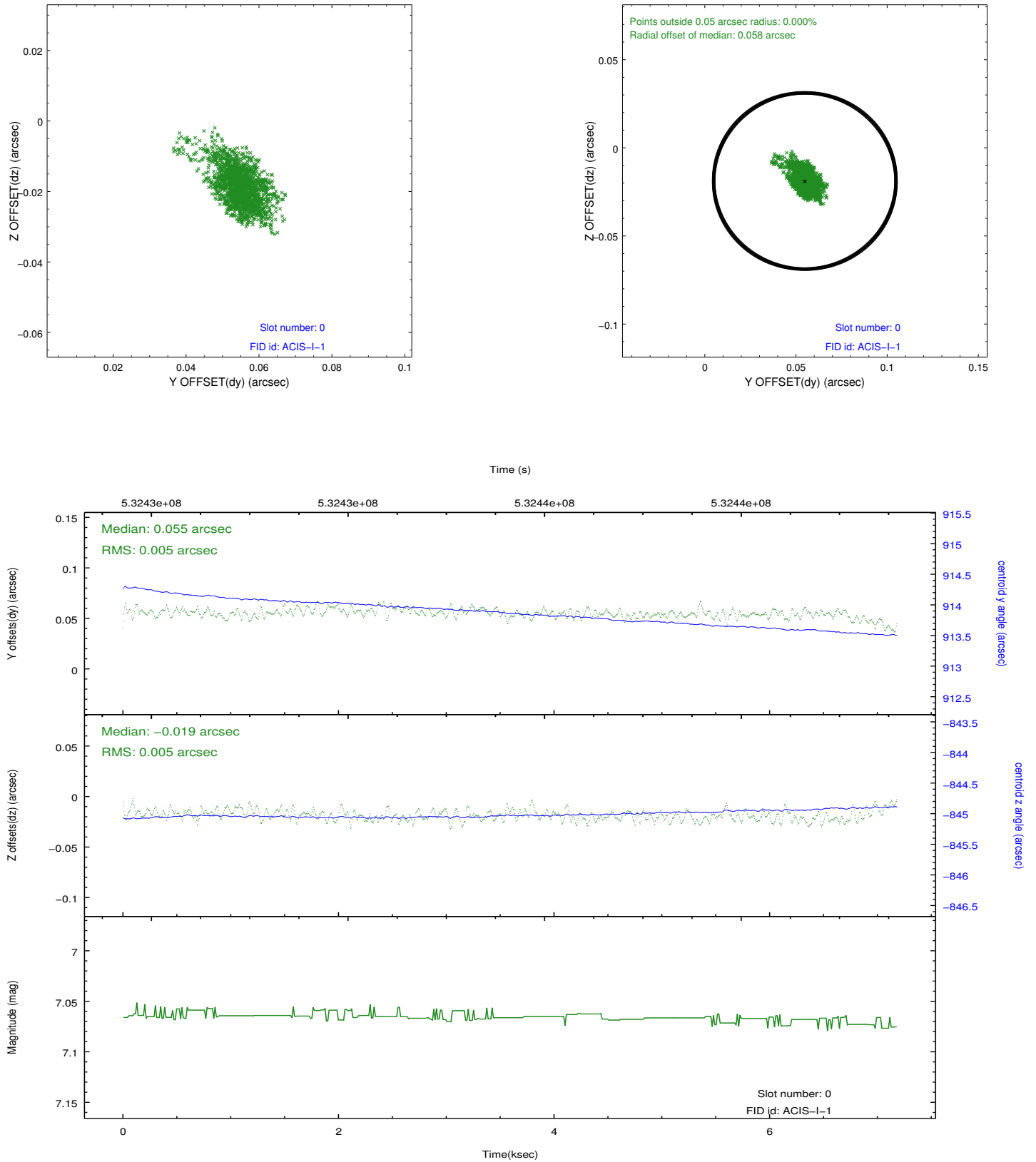


## 2.4.5 Slot 7

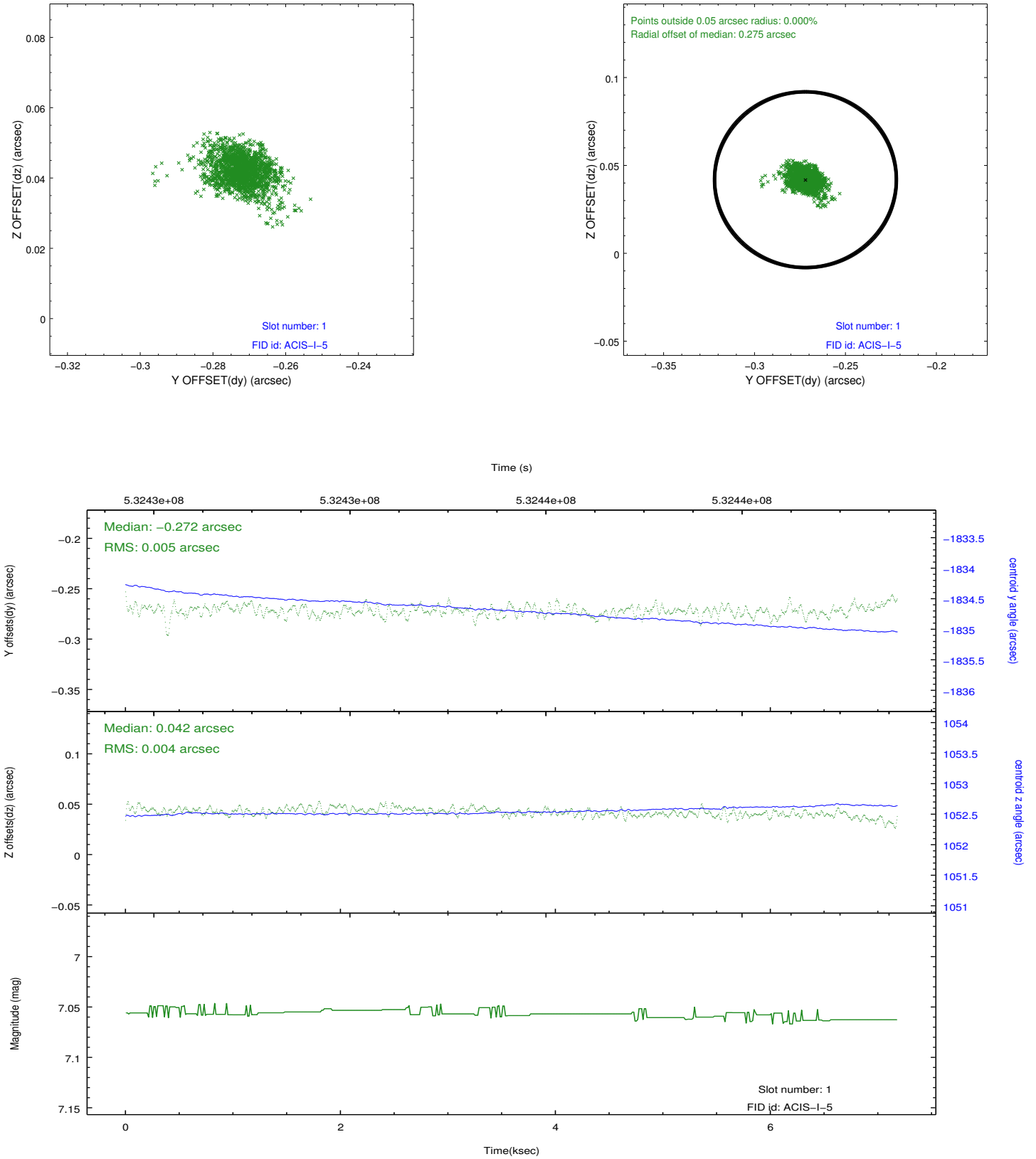


## 2.5 FID Slots

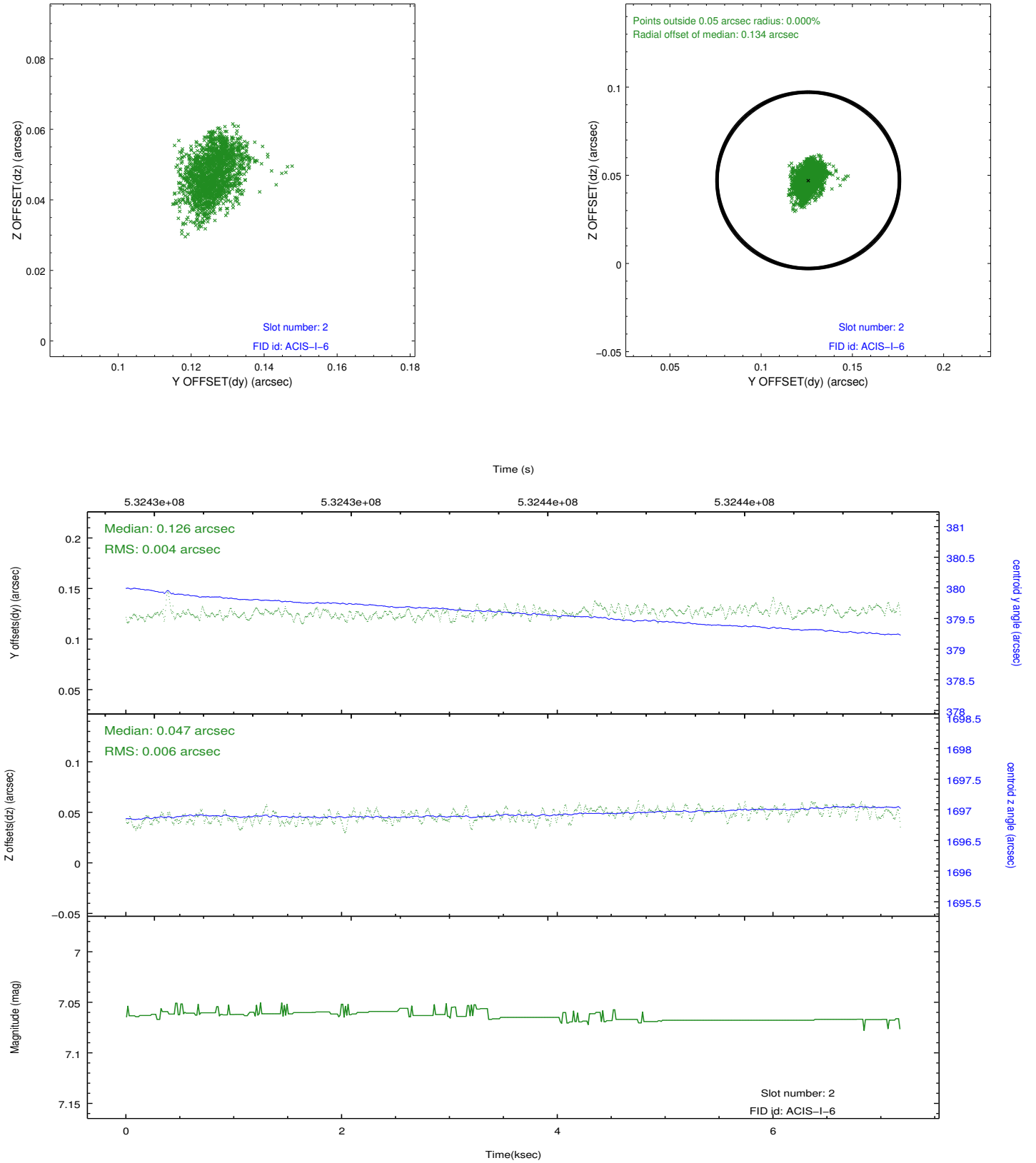
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2014.11.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.120659044385

### A.2 Comments