

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 15088 - L2 Version 2  
Chandra X-Ray Center

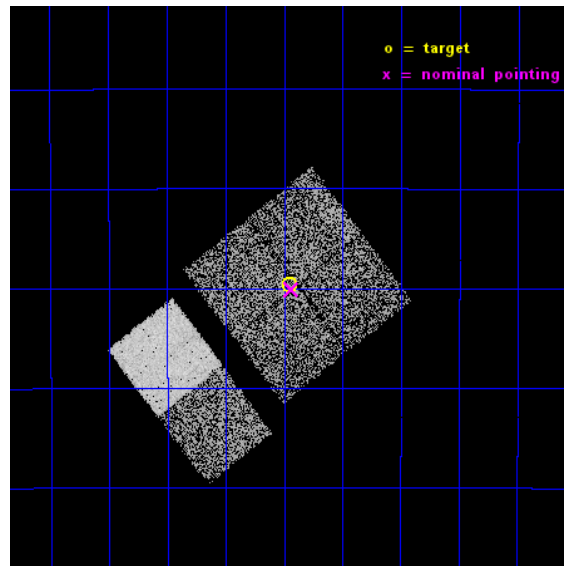
L2 Processing Date : Dec 3 2014

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# 1 Front

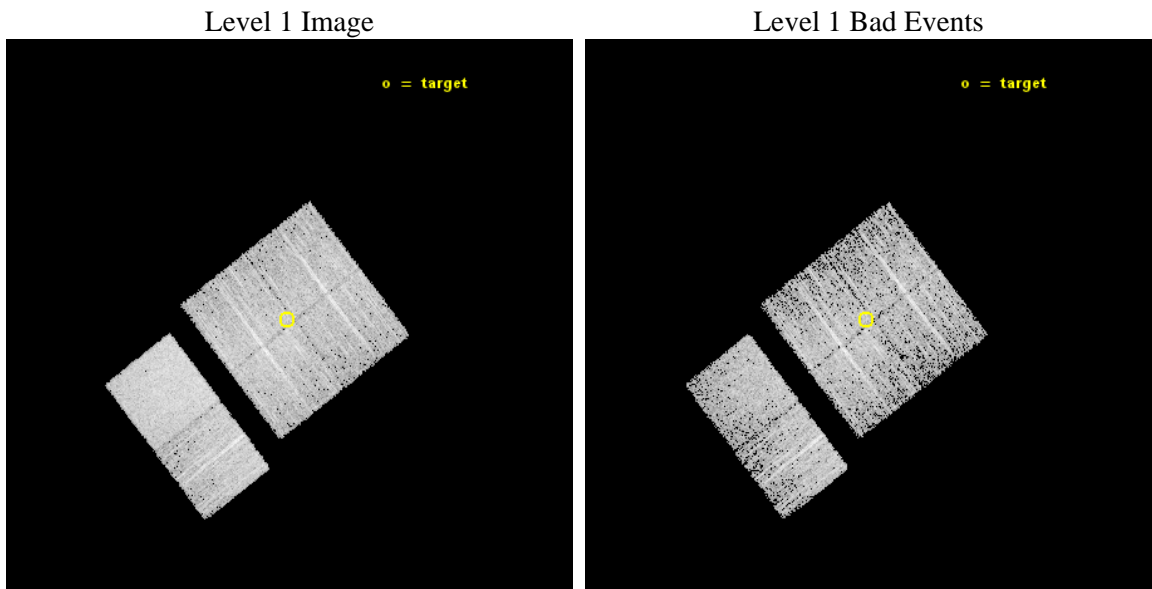
seq_num	801220	Sequence number
obs_id	15088	Observation id
title	Mapping the nearest non-cool core cluster out to R200	Proposal tit
observer	Dr Ka-wah Wong	Principal investigator
object	Antlia E3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	158.6125	Observer's specified target RA [deg]
dec_targ	-35.327694	Observer's specified target Dec [deg]
ra_nom	158.60901559486	Nominal RA [deg]
dec_nom	-35.33528723589	Nominal Dec [deg]
roll_nom	232.25639161042	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6965.2982962132	Sum of GTIs [s]
livetime	6877.0994951874	Livetime [s]
ontime0	6968.4161465764	Sum of GTIs [s]
ontime1	6968.4571865797	Sum of GTIs [s]
ontime2	6968.498226583	Sum of GTIs [s]
ontime3	6965.2982962132	Sum of GTIs [s]
ontime6	6968.6213465929	Sum of GTIs [s]
ontime7	6968.5803065896	Sum of GTIs [s]
l2events	36936	Number of level 2 events



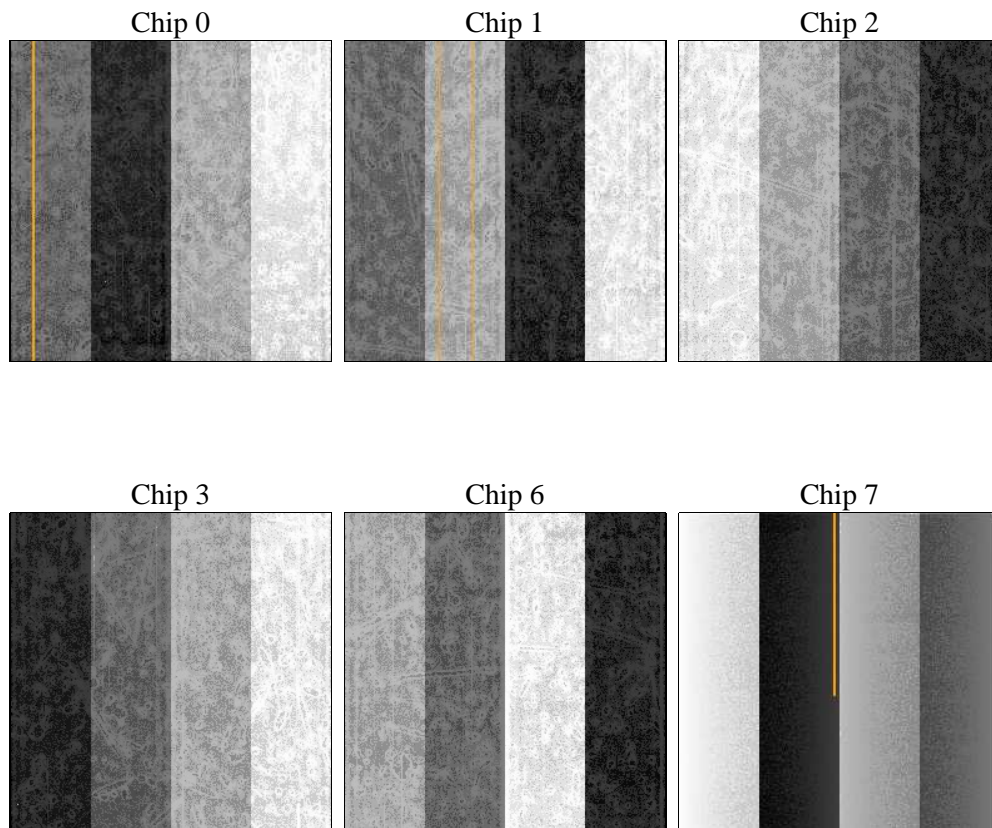
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	6965.2982962132	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	6968.4161465764	Sum of GTIs [s]
date	2014-12-04T00:55:14	Date and time of file creation	ontime1	6968.4571865797	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	6968.498226583	Sum of GTIs [s]
			ontime3	6965.2982962132	Sum of GTIs [s]
			ontime6	6968.6213465929	Sum of GTIs [s]
			ontime7	6968.5803065896	Sum of GTIs [s]
			l1events	203055	Number of level 1 events

### 2.1.4 Events

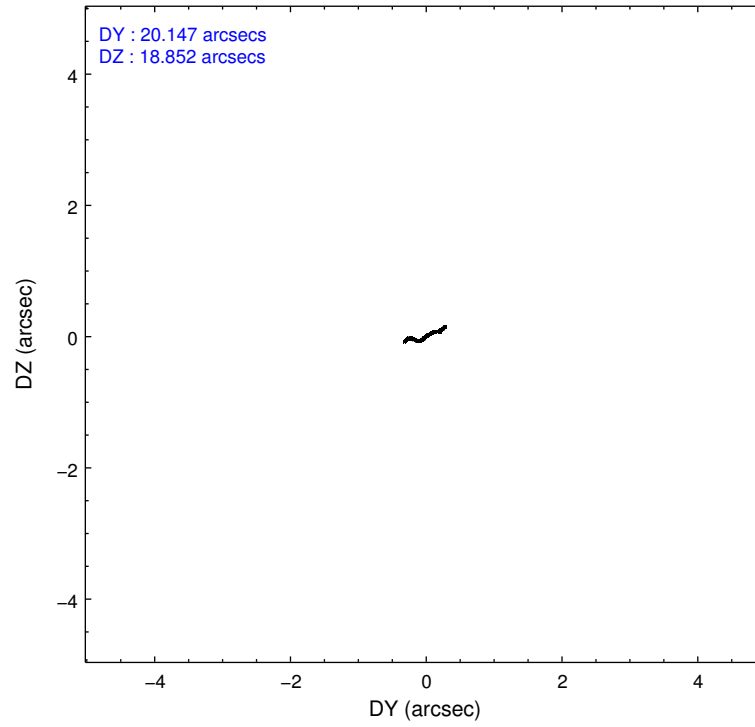
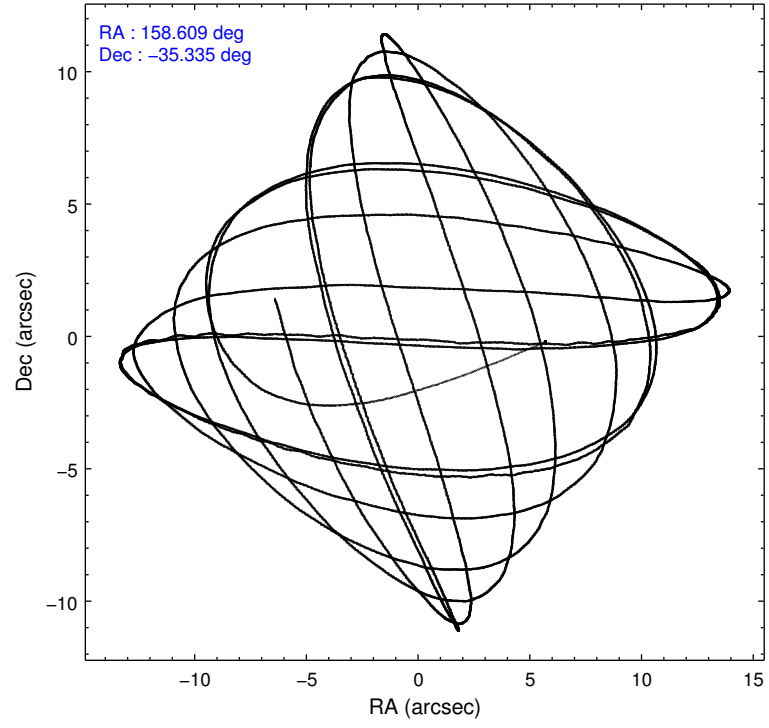
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	28967	29897	31792	32160	34437	45802	grade 0 events	1437	1588	1438	1374	1408	1823
rejected events	25002	25568	27869	28267	30182	25672		4%	5%	4%	4%	4%	3%
rejected %	86%	85%	87%	87%	87%	56%	grade 1 events	19	19	21	18	16	65
								0%	0%	0%	0%	0%	0%
							grade 2 events	979	1022	977	866	952	4147
								3%	3%	3%	2%	2%	9%
							grade 3 events	392	407	401	427	441	1782
								1%	1%	1%	1%	1%	3%
							grade 4 events	399	434	384	442	466	1699
								1%	1%	1%	1%	1%	3%
							grade 5 events	1567	1688	1489	1819	1852	4719
								5%	5%	4%	5%	5%	10%
							grade 6 events	761	879	724	788	988	10698
								2%	2%	2%	2%	2%	23%
							grade 7 events	23413	23860	26358	26426	28314	20869
								80%	79%	82%	82%	82%	45%

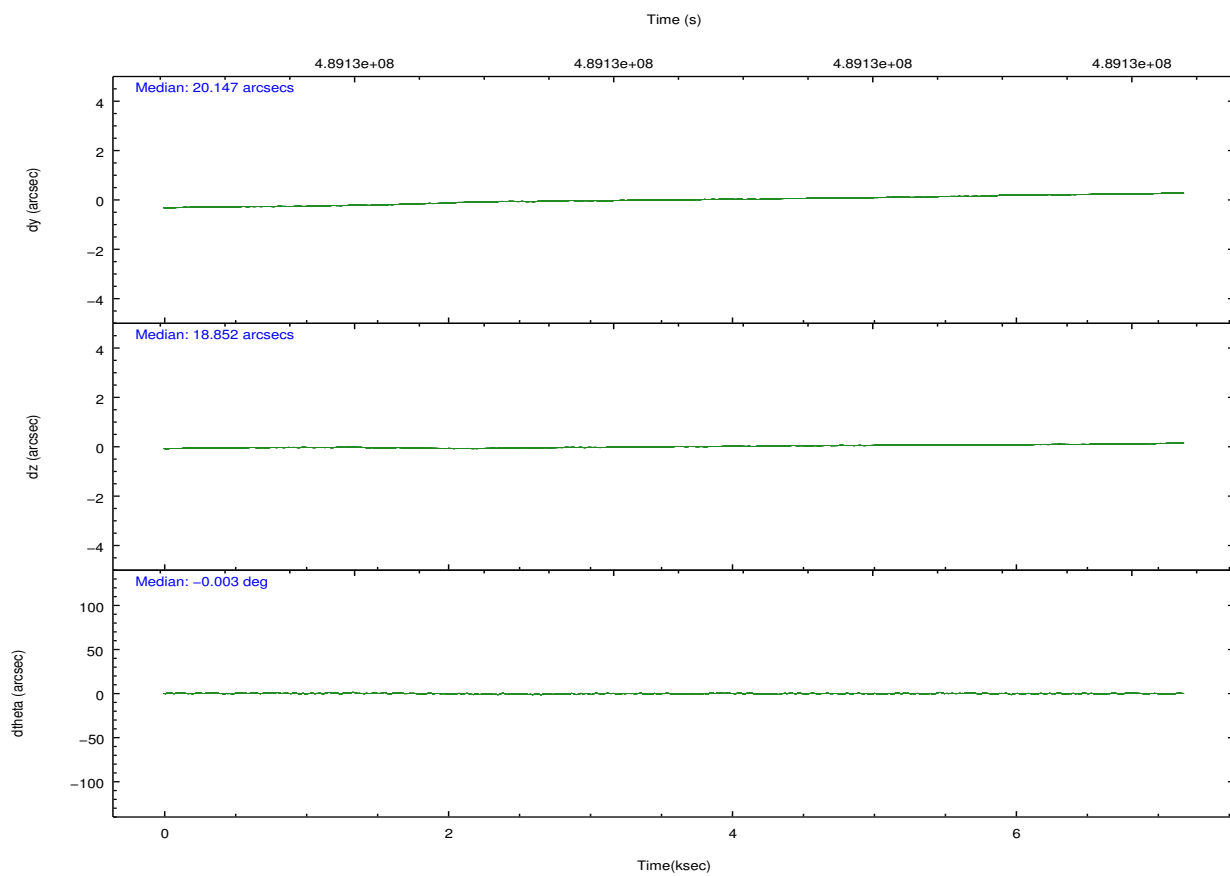
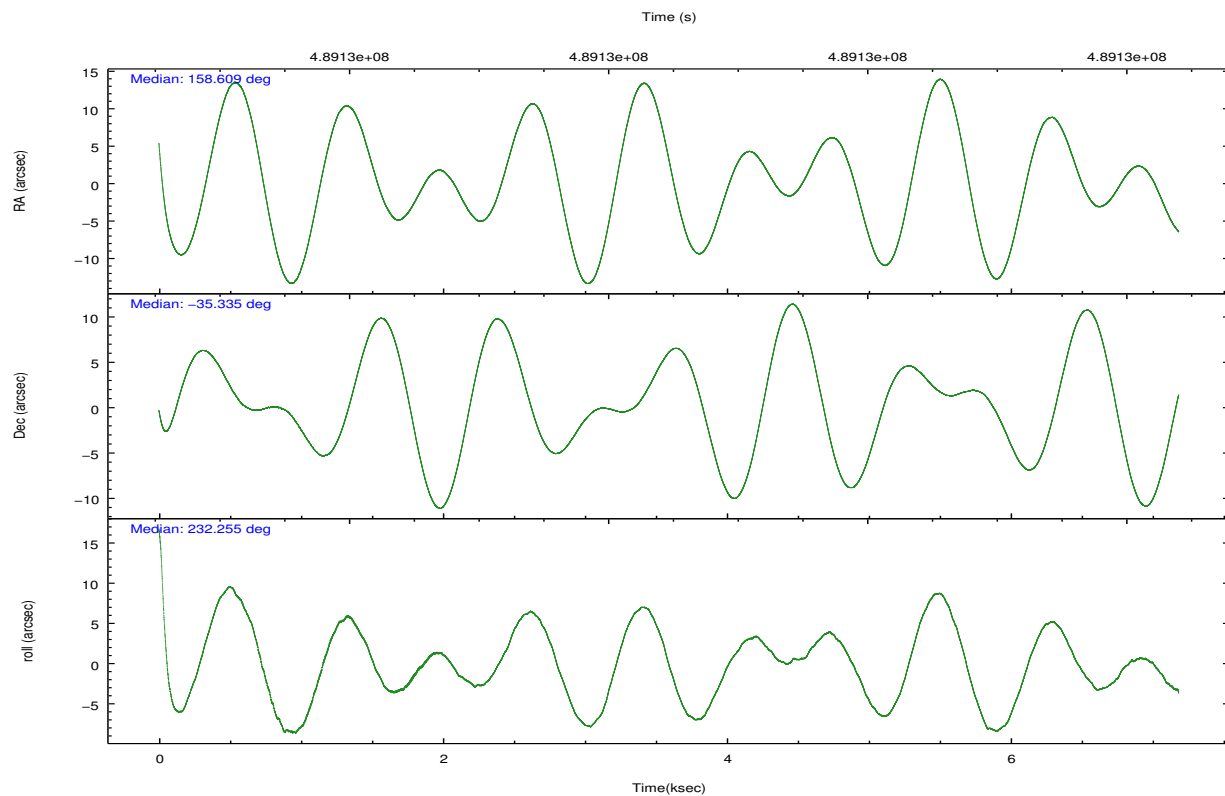


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	158.613449	158.6090155948618	CCD I2 on	Y	Y
[deg] Pointing Dec	-35.308003	-35.33528723589032	CCD I3 on	Y	Y
[deg] Pointing Roll	232.050247	232.2563916104238	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	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	489127059.184000	489125922.10566	CCD S5 on	N	N
Observation start date	2013-07-02T04:36:32	2013-07-02T04:18:42	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	489134059.184000	489134984.64365	On-chip summing requested	N	N
Observation end date	2013-07-02T06:33:12	2013-07-02T06:49:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



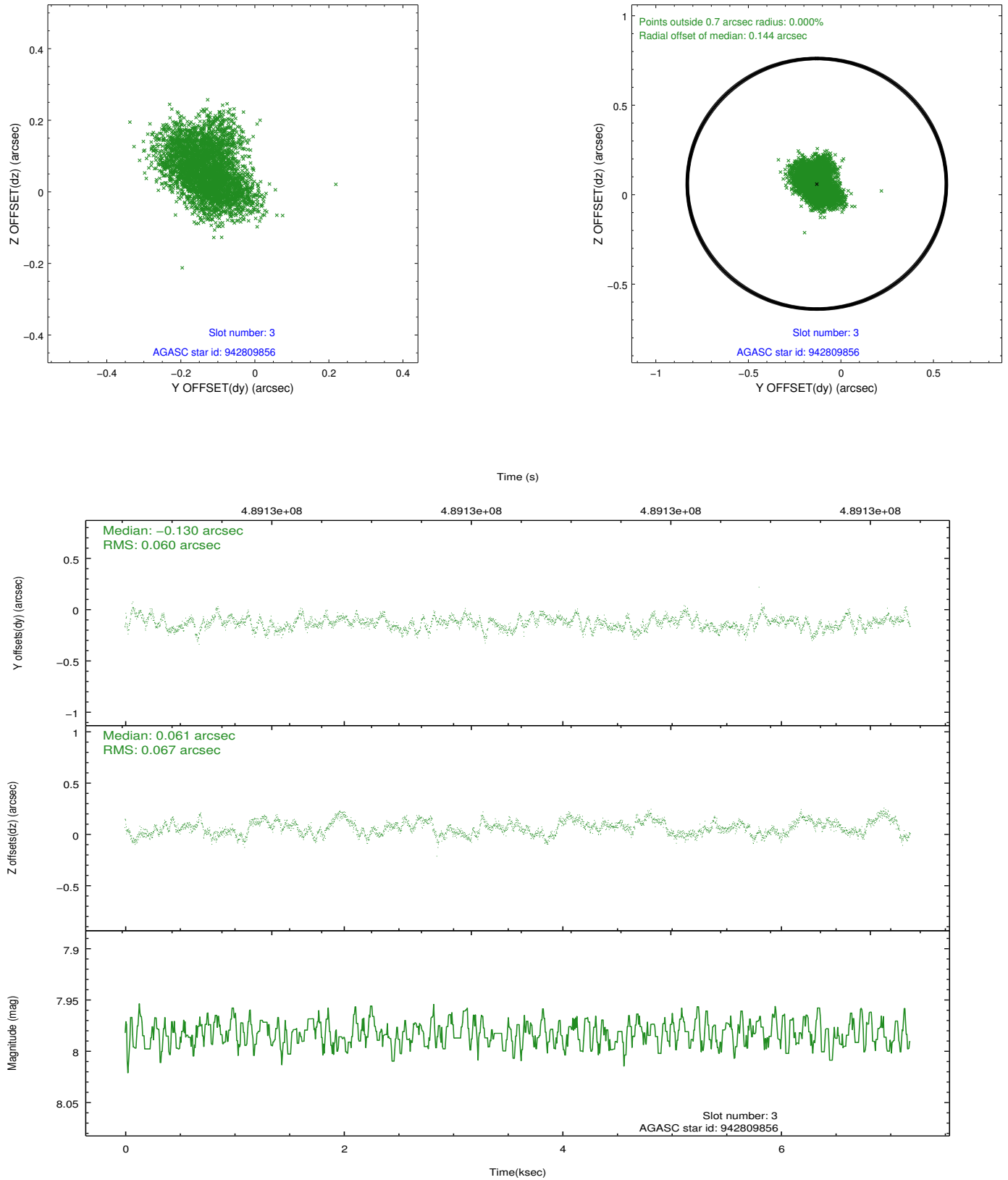


### Slot Statistics

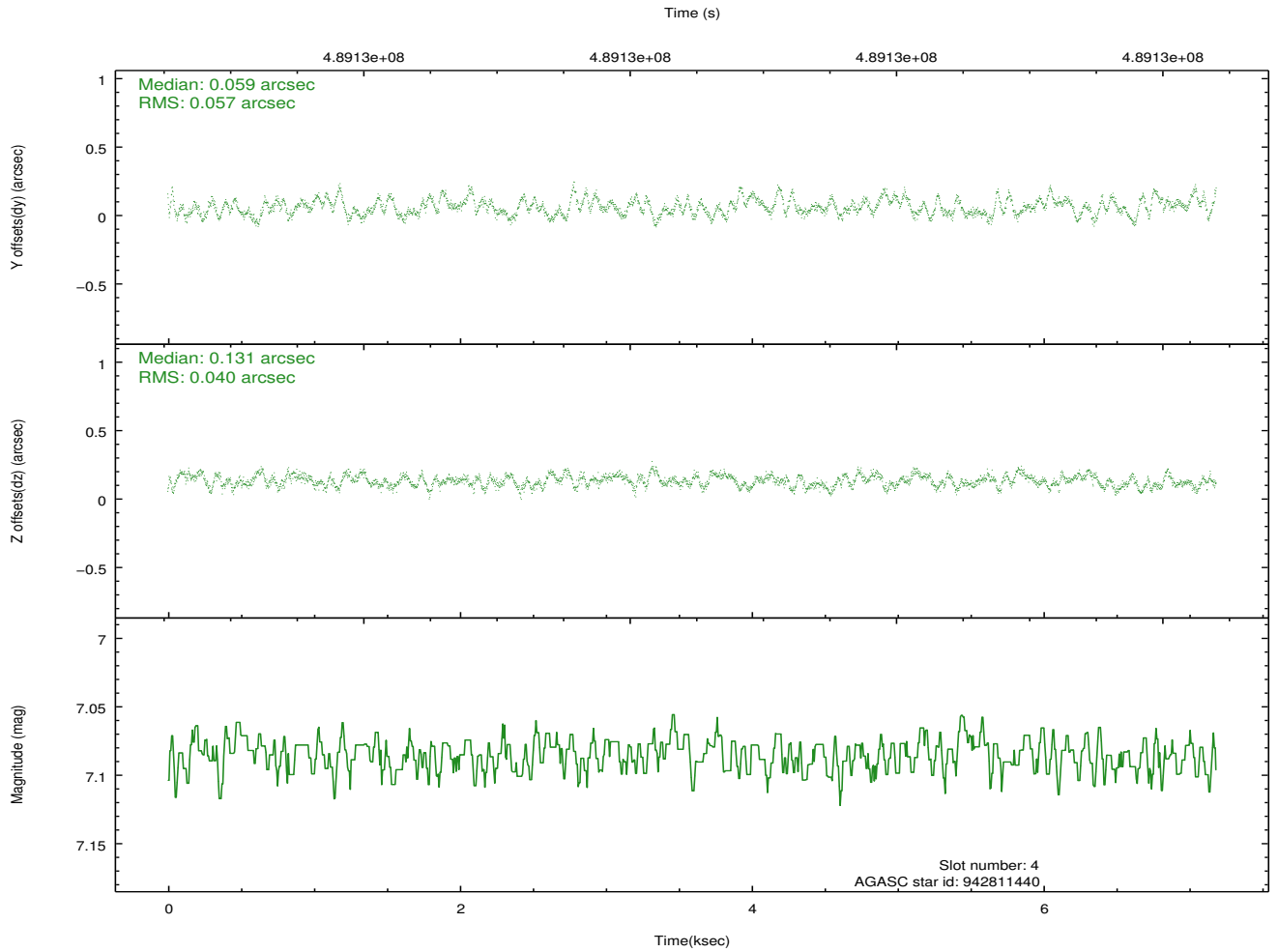
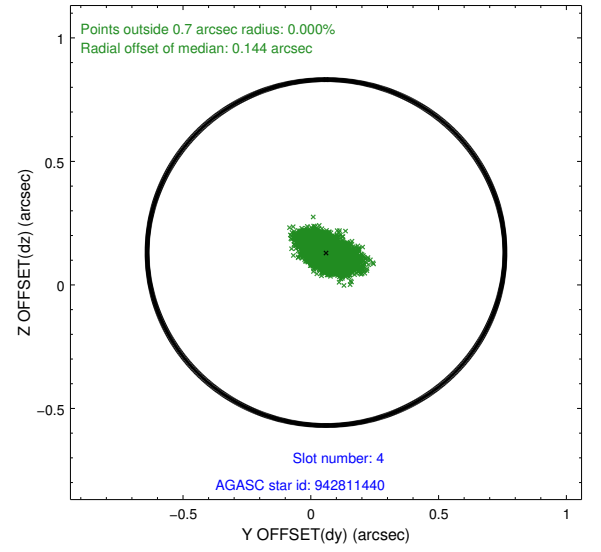
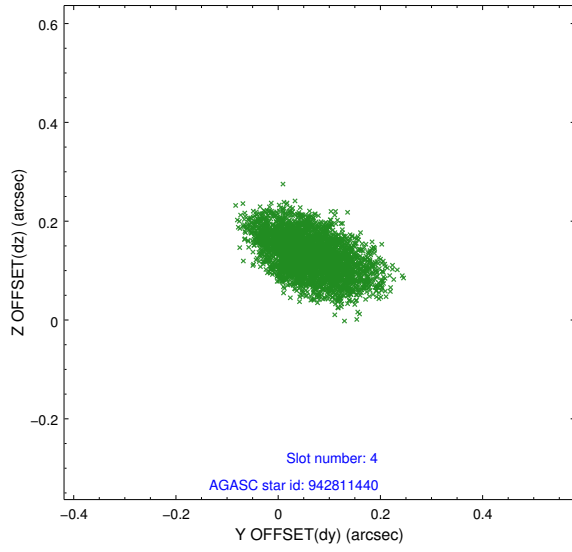
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.04	1753	0.024	0.052	0.006	0.011	0.000000	0.000000	919.23	-842.49
1	FID		ACIS-I-5	7.04	1753	-0.238	0.034	0.006	0.010	0.000000	0.000000	-1828.75	1054.51
2	FID		ACIS-I-6	7.05	1753	0.123	-0.016	0.007	0.013	0.000000	0.000000	383.93	1699.92
3	GUIDE	used	942809856	7.98	3506	-0.130	0.061	0.097	0.152	158.721337	-35.085088	-827.85	-243.19
4	GUIDE	used	942811440	7.09	3506	0.059	0.131	0.074	0.123	157.875674	-35.128343	833.52	-2104.98
5	GUIDE	used	943339192	9.25	3506	0.017	-0.241	0.137	0.214	158.241251	-35.818886	2120.71	275.14
6	GUIDE	used	942802816	8.85	3506	0.118	0.122	0.092	0.146	157.923543	-34.969597	297.72	-2349.15
7	GUIDE	used	942814496	8.96	3502	-0.050	-0.061	0.092	0.154	158.878530	-35.136399	-965.84	235.75

## 2.4 Star Slots

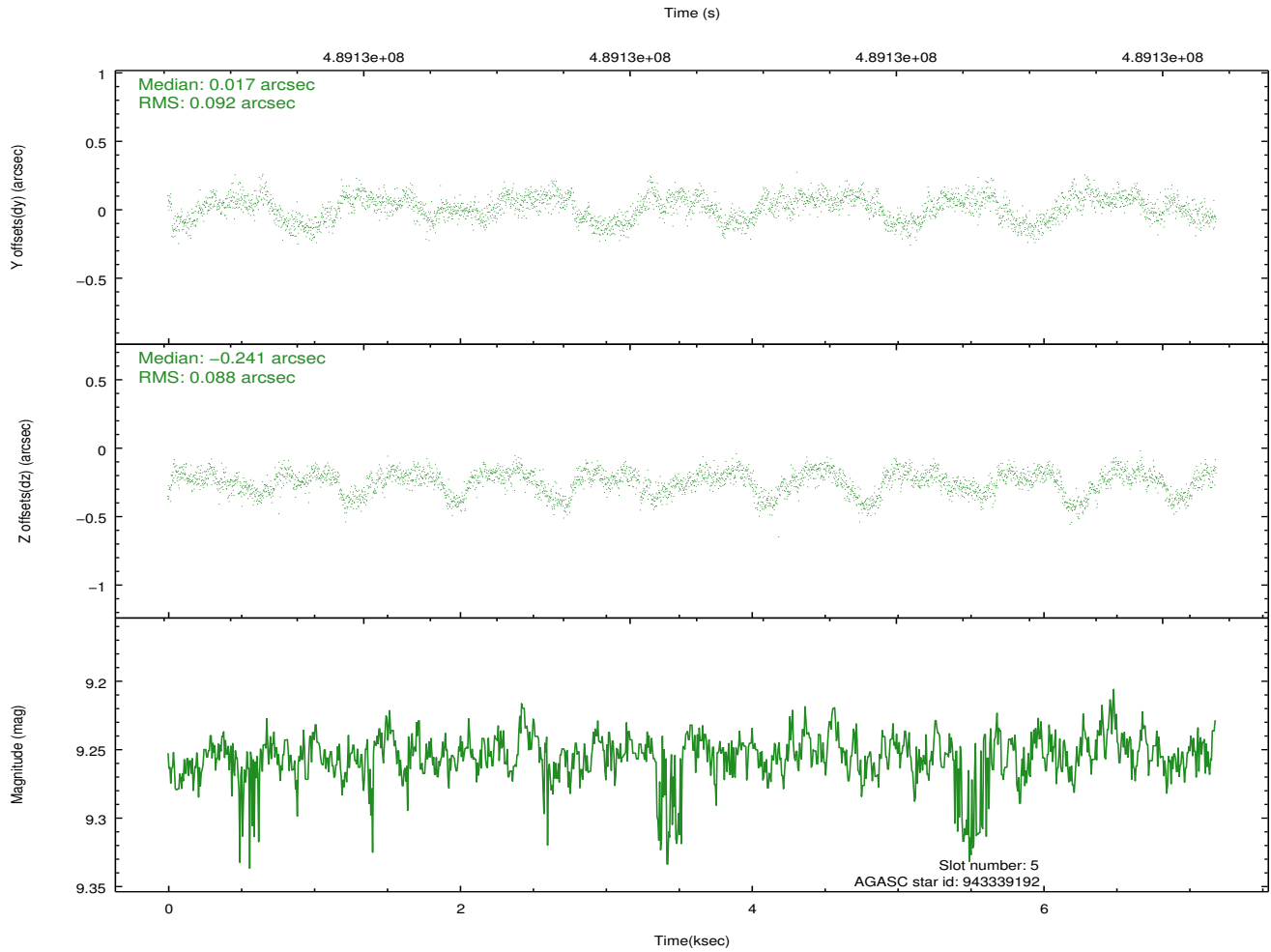
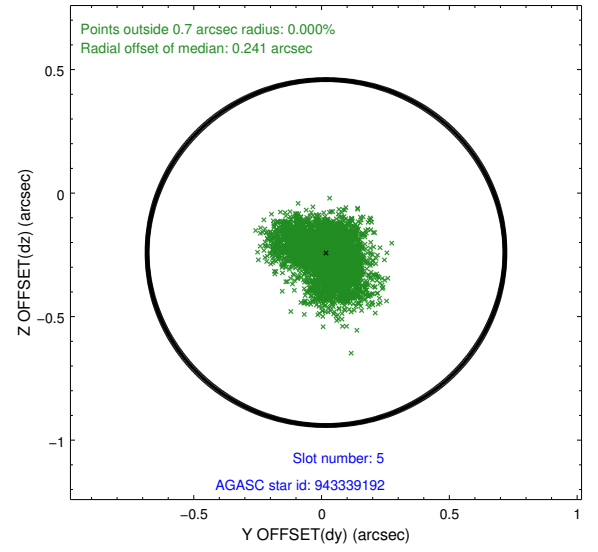
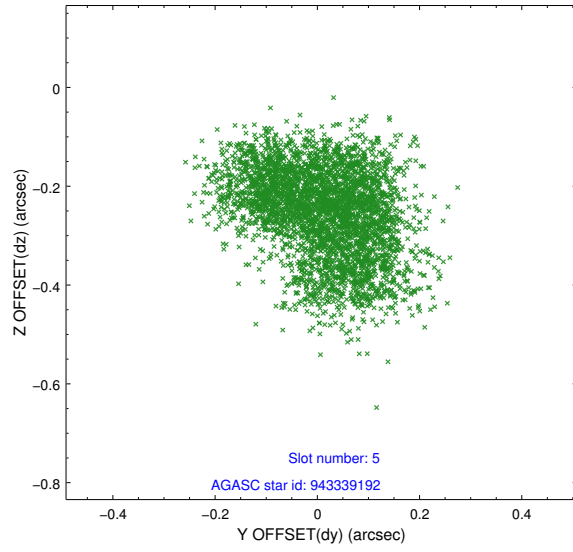
### 2.4.1 Slot 3



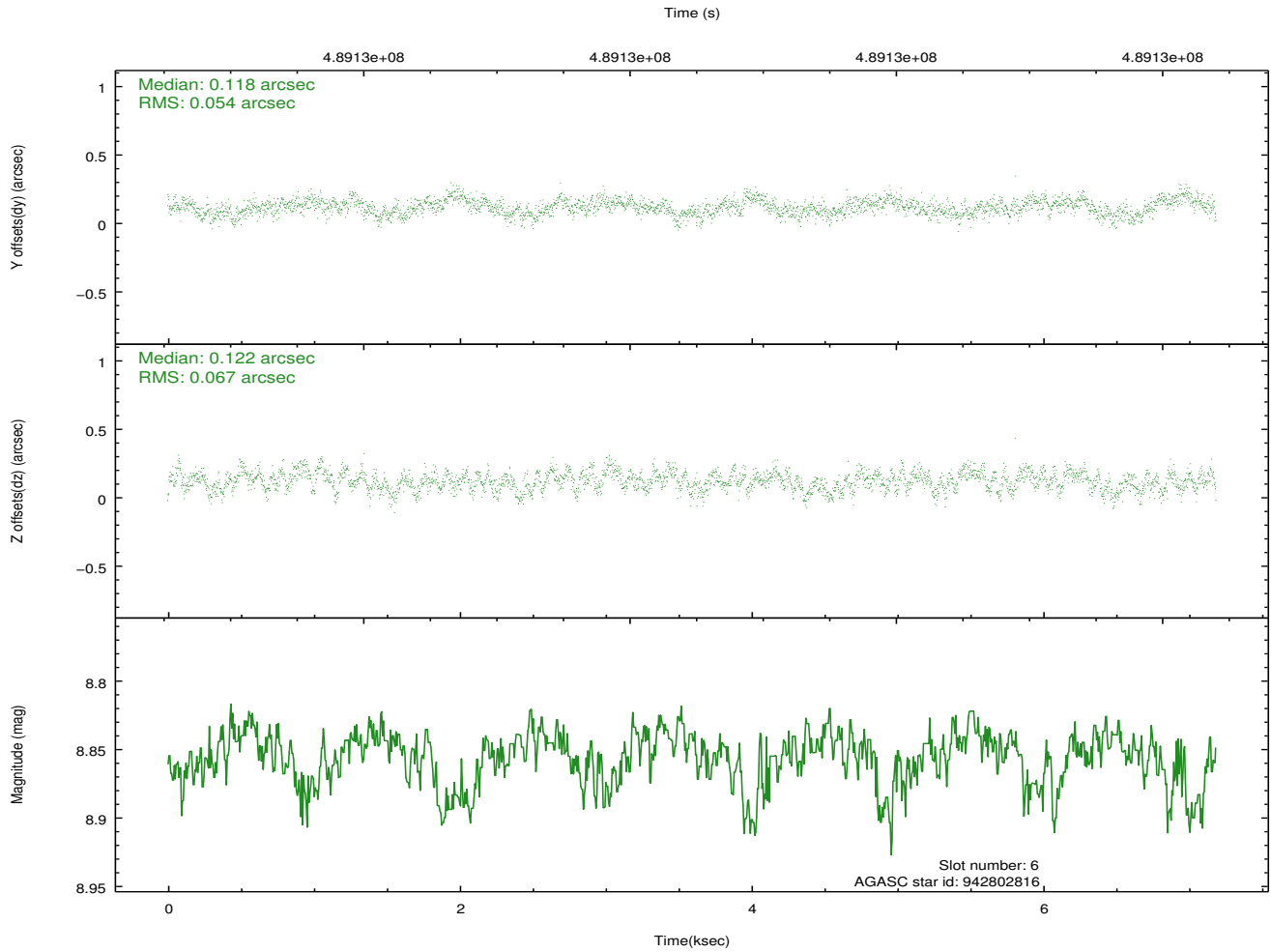
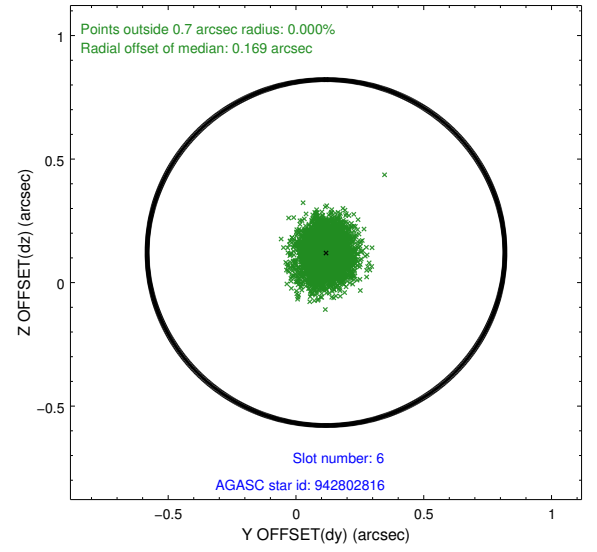
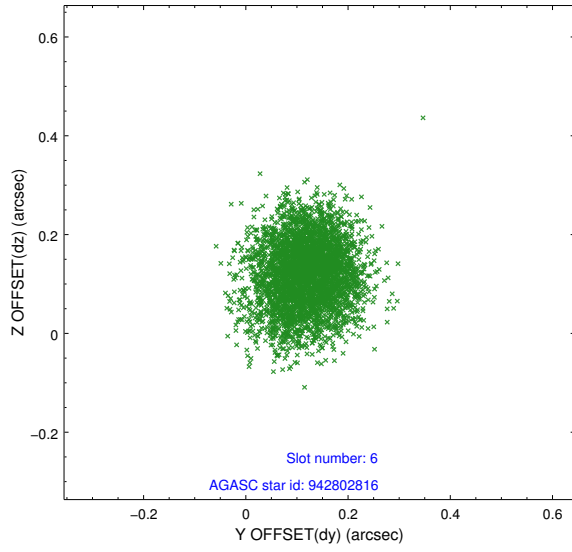
## 2.4.2 Slot 4



### 2.4.3 Slot 5

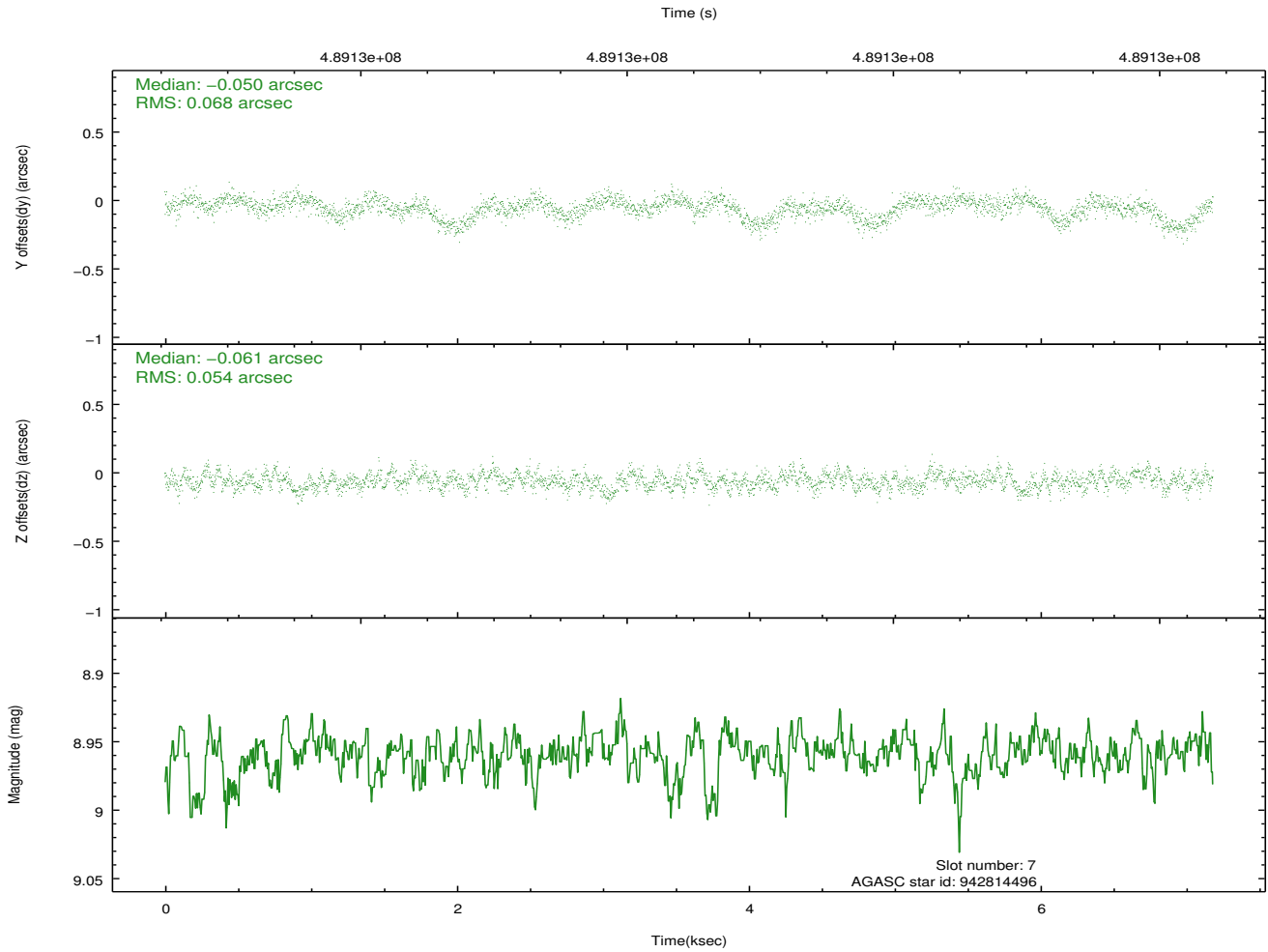
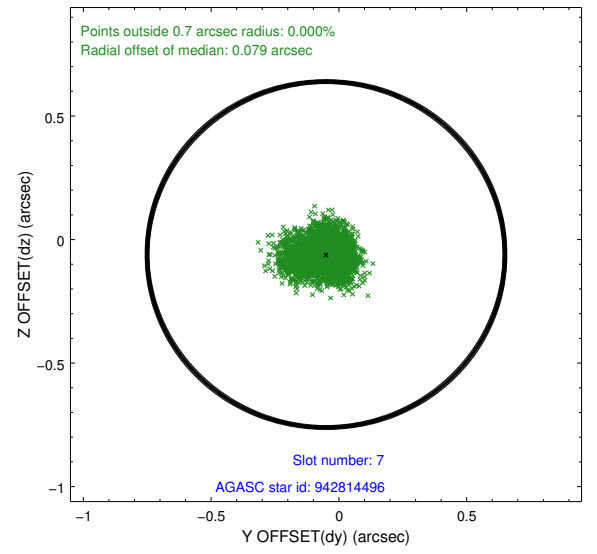
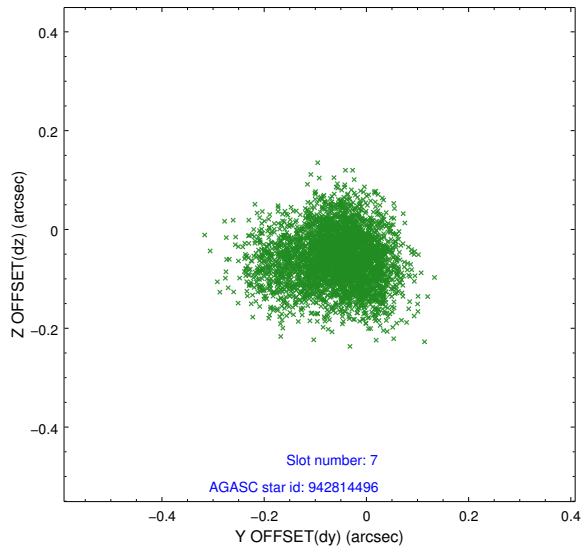


## 2.4.4 Slot 6



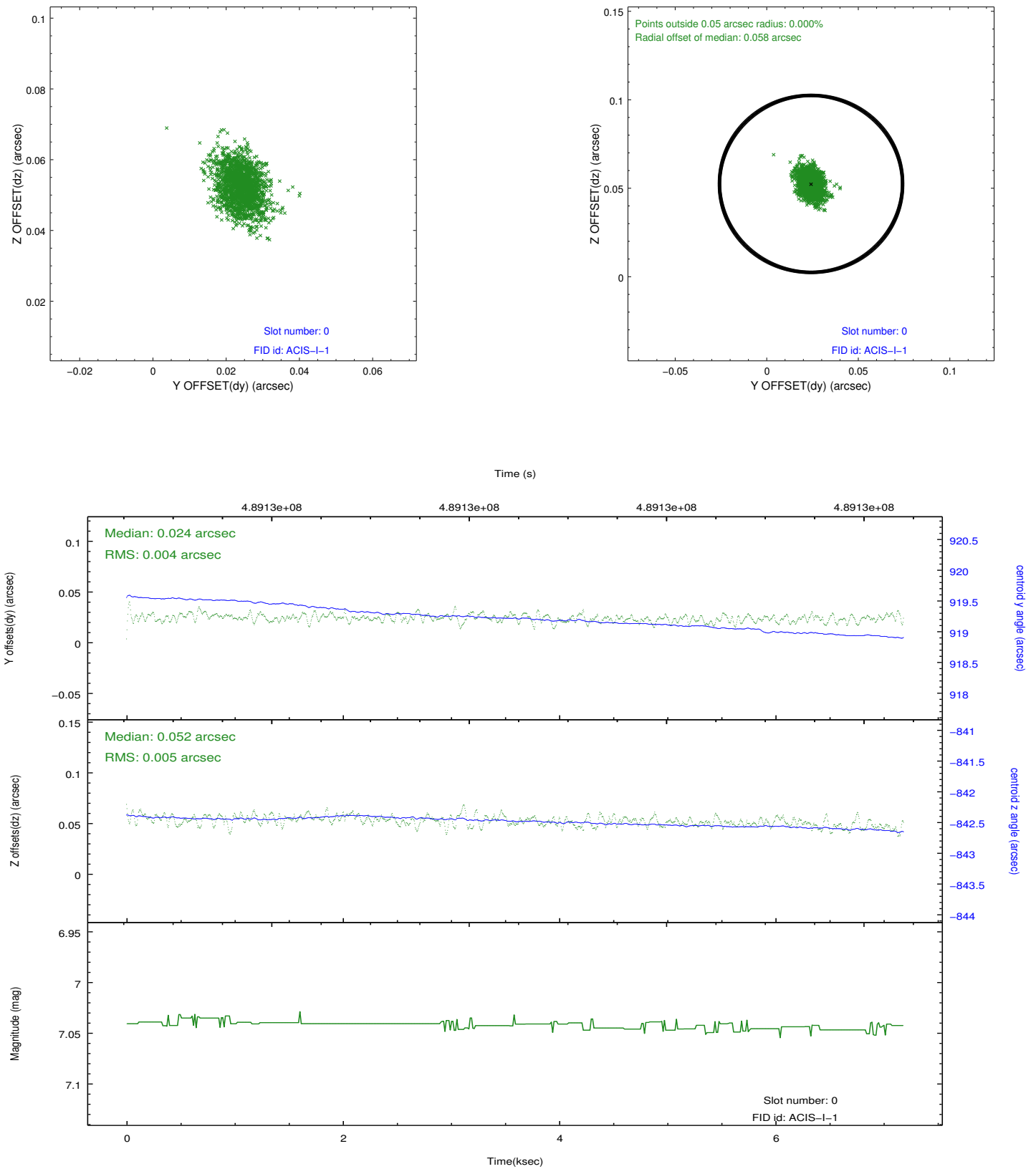


## 2.4.5 Slot 7

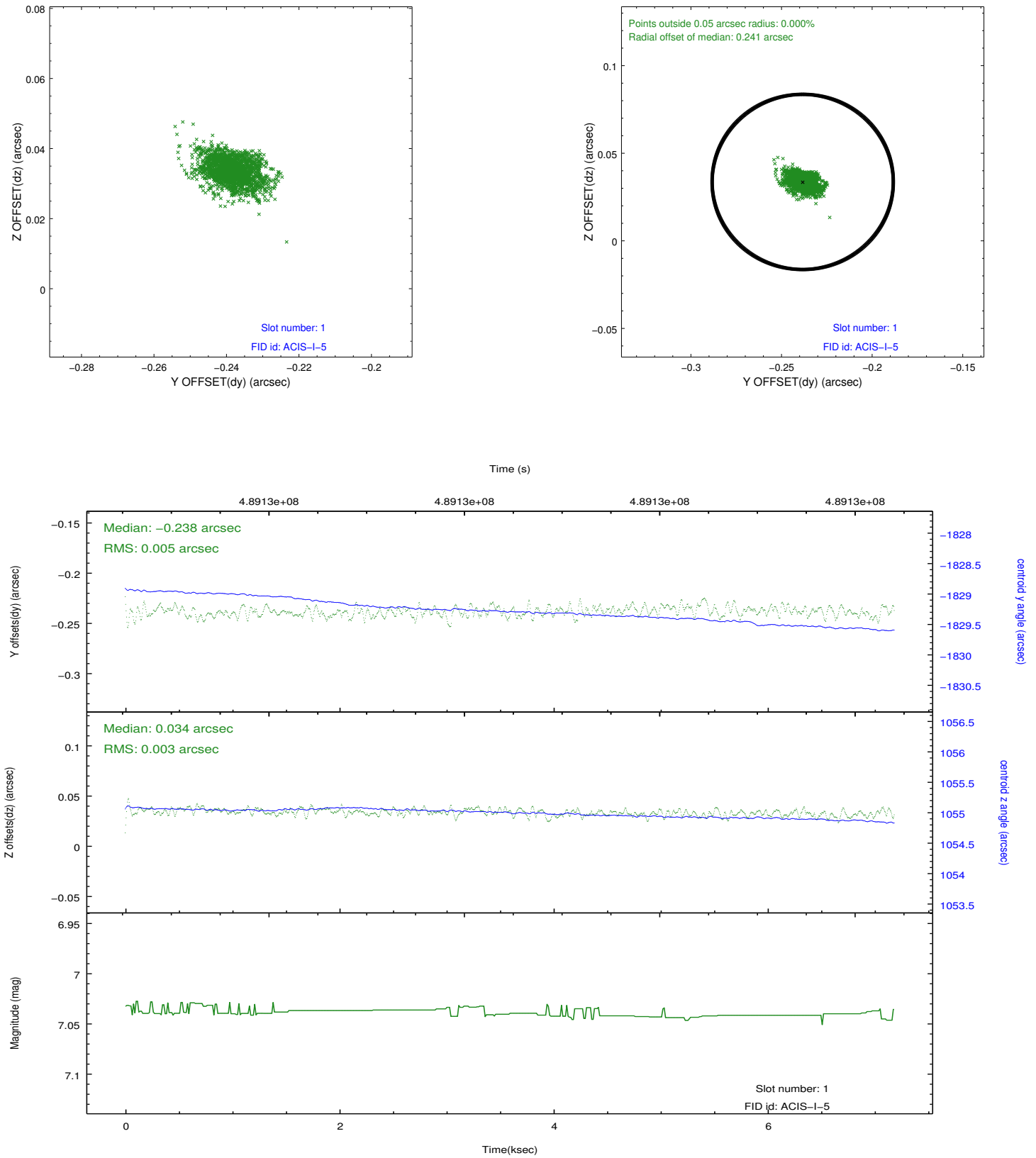


## 2.5 FID Slots

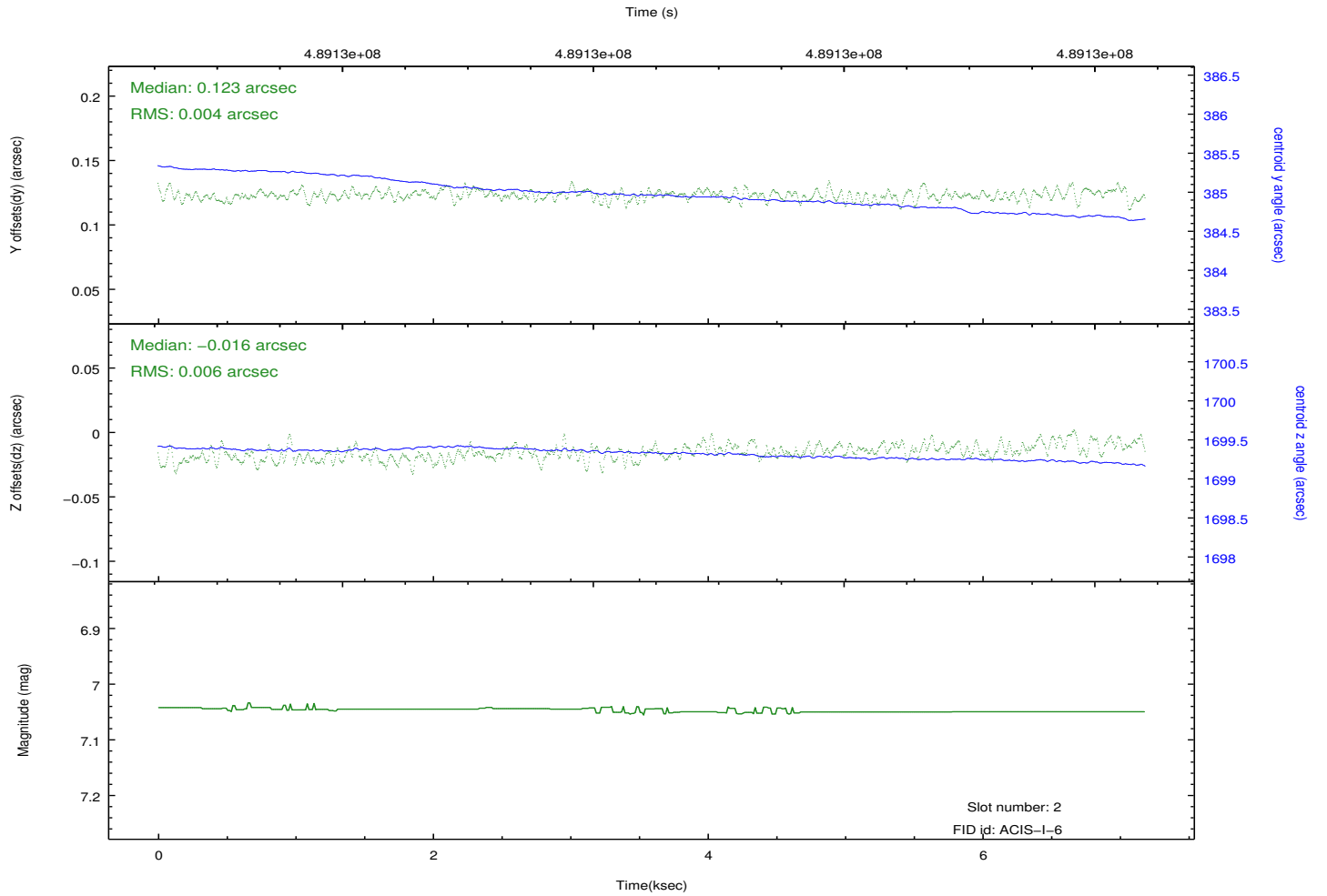
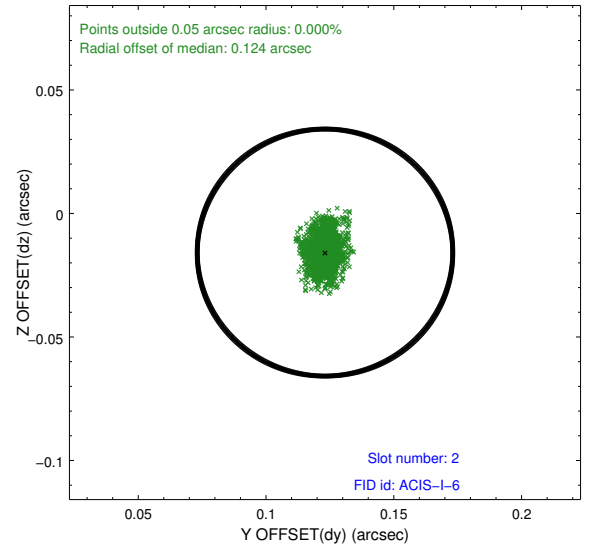
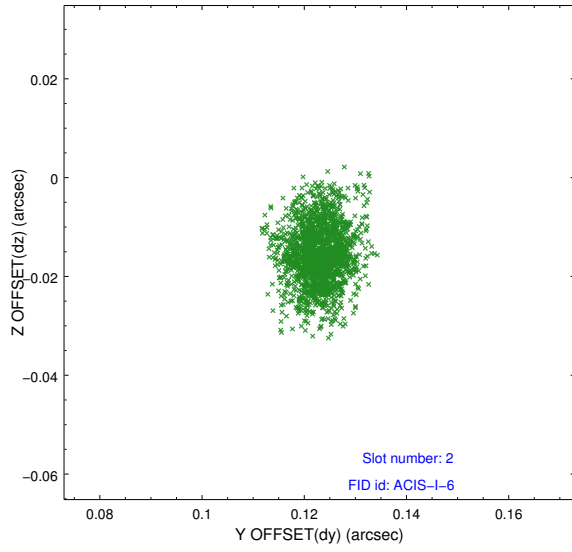
### 2.5.1 Slot 0



## 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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.9652982962132

## 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.