

# V&V Reference Report

## L2 ASCDS Version : 10.0.1

Observation 15279 - L2 Version 2  
Chandra X-Ray Center

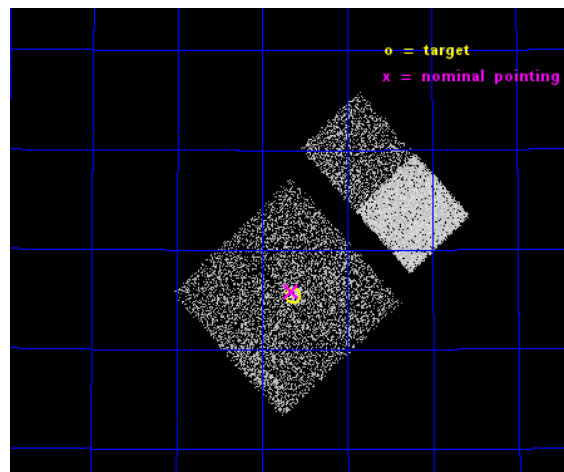
L2 Processing Date : Dec 6 2014

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# 1 Front

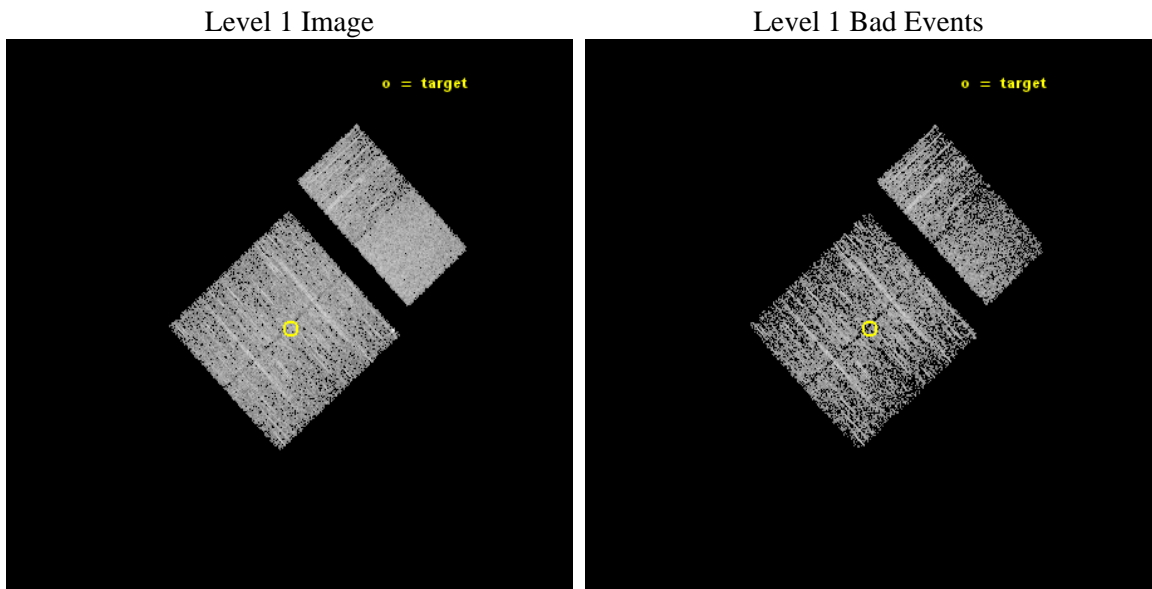
seq_num	801317	Sequence number
obs_id	15279	Observation id
title	Paving the way for eROSITA: with Chandra observations of the CODEX-BOSS clusters	Proposal title
observer	Dr. Peter Predehl	Principal investigator
object	CODEX 12451	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	121.158333	Observer's specified target RA [deg]
dec_targ	53.423417	Observer's specified target Dec [deg]
ra_nom	121.16415663203	Nominal RA [deg]
dec_nom	53.430696450304	Nominal Dec [deg]
roll_nom	47.227626909523	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3973.1059507728	Sum of GTIs [s]
livetime	3922.7960909069	Livetime [s]
ontime0	3972.9828307629	Sum of GTIs [s]
ontime1	3973.0238707662	Sum of GTIs [s]
ontime2	3973.0649107695	Sum of GTIs [s]
ontime3	3973.1059507728	Sum of GTIs [s]
ontime6	3973.1880307794	Sum of GTIs [s]
ontime7	3973.1469907761	Sum of GTIs [s]
l2events	21099	Number of level 2 events



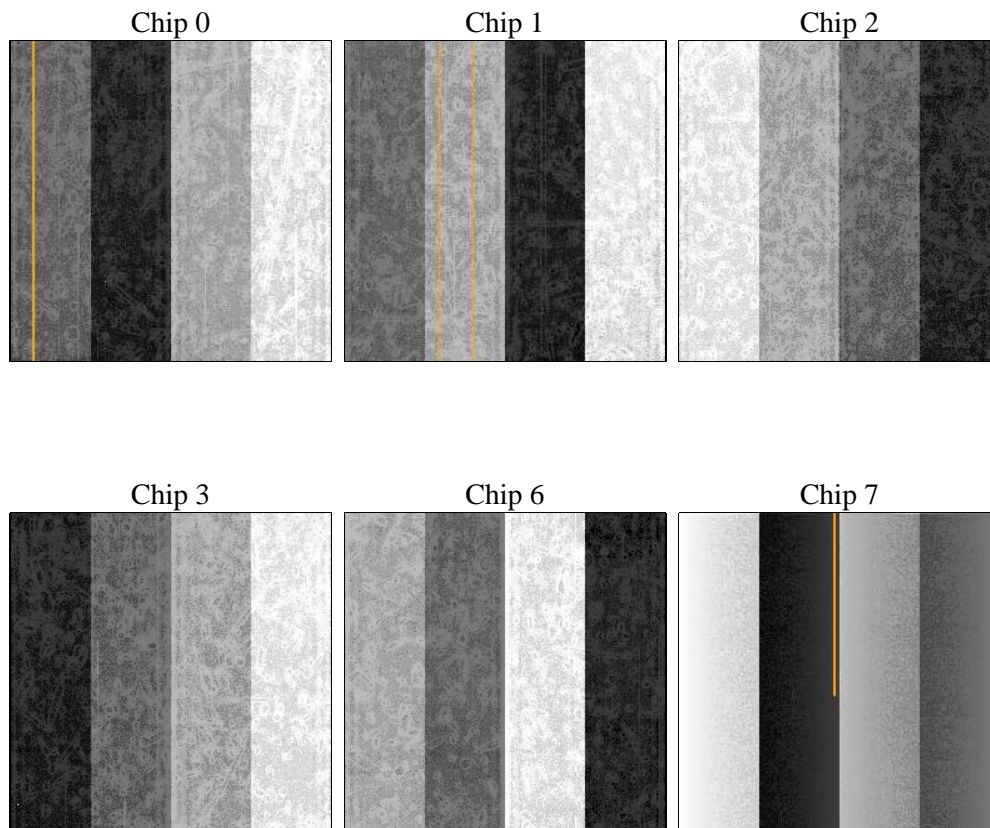
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	3973.1059507728	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	3972.9828307629	Sum of GTIs [s]
date	2014-12-06T08:17:23	Date and time of file creation	ontime1	3973.0238707662	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3973.0649107695	Sum of GTIs [s]
			ontime3	3973.1059507728	Sum of GTIs [s]
			ontime6	3973.1880307794	Sum of GTIs [s]
			ontime7	3973.1469907761	Sum of GTIs [s]
			l1events	117873	Number of level 1 events

### 2.1.4 Events

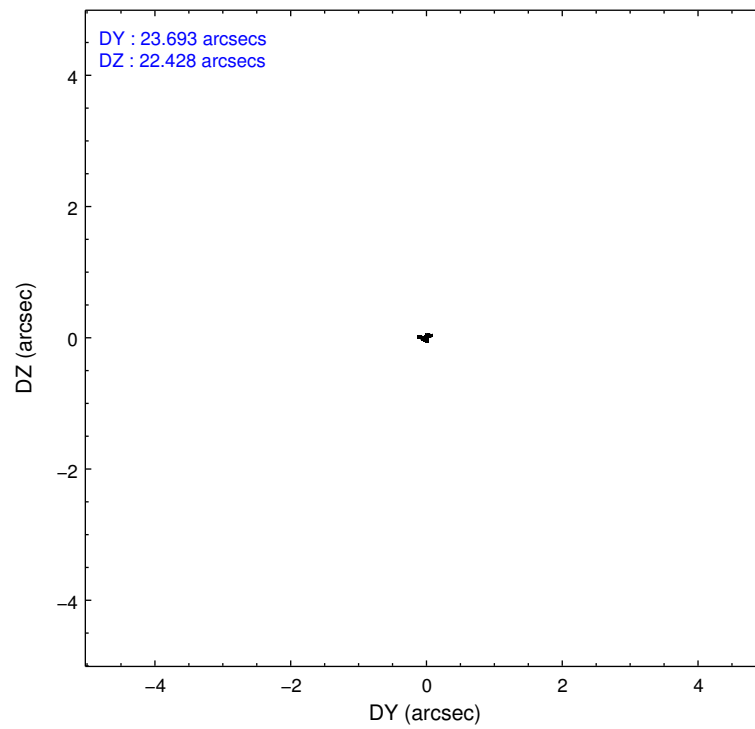
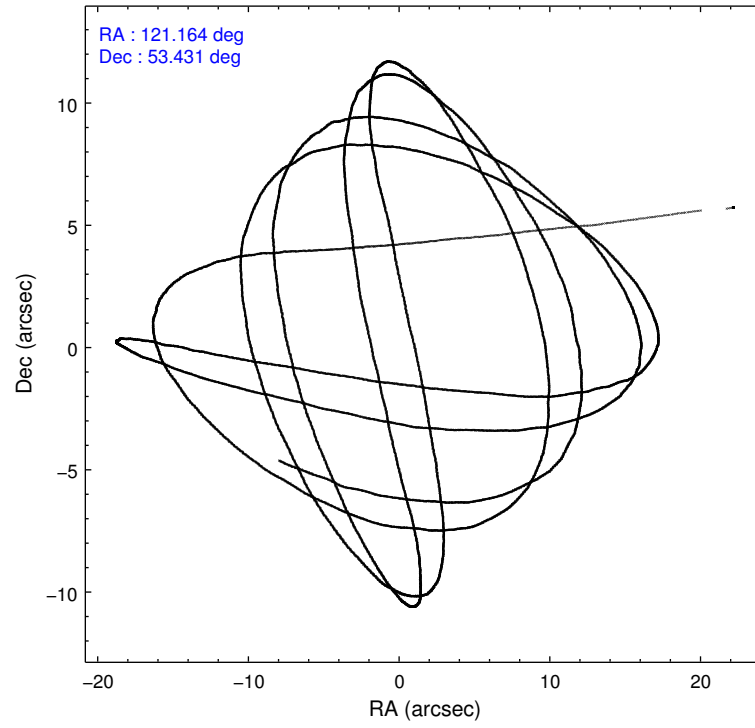
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	17675	16774	18464	18893	20106	25961
rejected events	15428	14269	16207	16261	17818	14476
rejected %	87%	85%	87%	86%	88%	55%

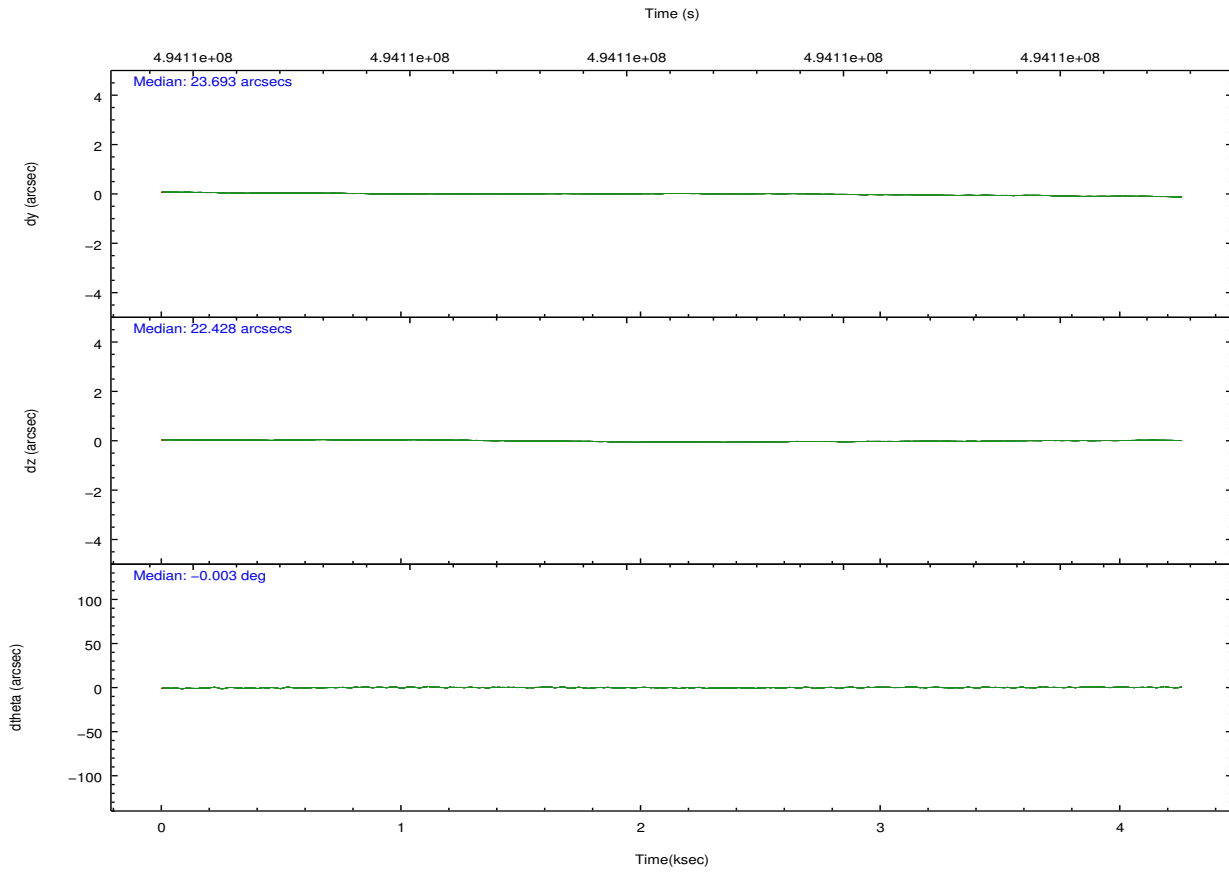
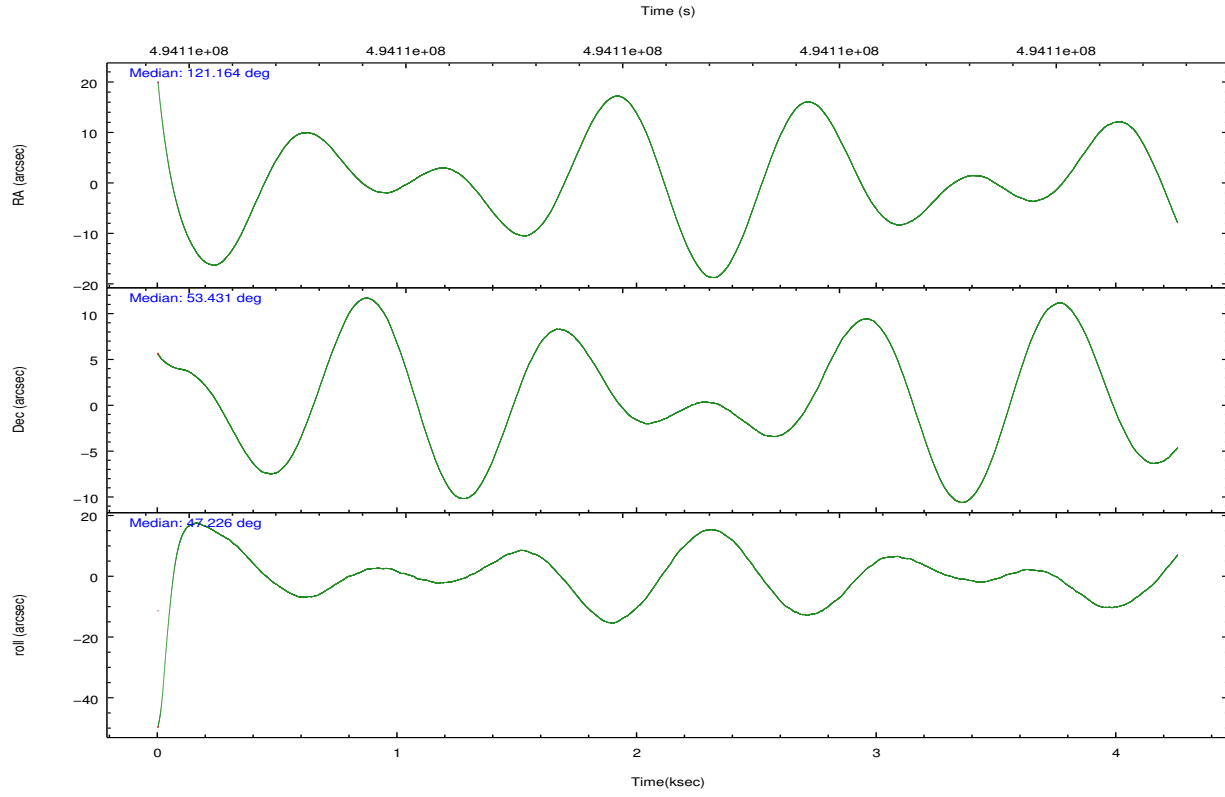
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	754	866	865	1195	735	987
	4%	5%	4%	6%	3%	3%
grade 1 events	9	12	10	14	12	37
	0%	0%	0%	0%	0%	0%
grade 2 events	586	603	552	509	542	2424
	3%	3%	2%	2%	2%	9%
grade 3 events	225	258	225	228	248	958
	1%	1%	1%	1%	1%	3%
grade 4 events	219	233	222	229	226	1021
	1%	1%	1%	1%	1%	3%
grade 5 events	896	895	793	1017	1009	2706
	5%	5%	4%	5%	5%	10%
grade 6 events	466	548	397	475	540	6110
	2%	3%	2%	2%	2%	23%
grade 7 events	14520	13359	15400	15226	16794	11718
	82%	79%	83%	80%	83%	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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	121.154155	121.1641566320285	CCD I2 on	Y	Y
[deg] Pointing Dec	53.403865	53.430696450304	CCD I3 on	Y	Y
[deg] Pointing Roll	47.027123	47.22762690952324	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	494106339.184000	494105330.86436	CCD S5 on	N	N
Observation start date	2013-08-28T19:44:32	2013-08-28T19:28:50	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	494110339.184000	494111447.0397	On-chip summing requested	N	N
Observation end date	2013-08-28T20:51:12	2013-08-28T21:10:47	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



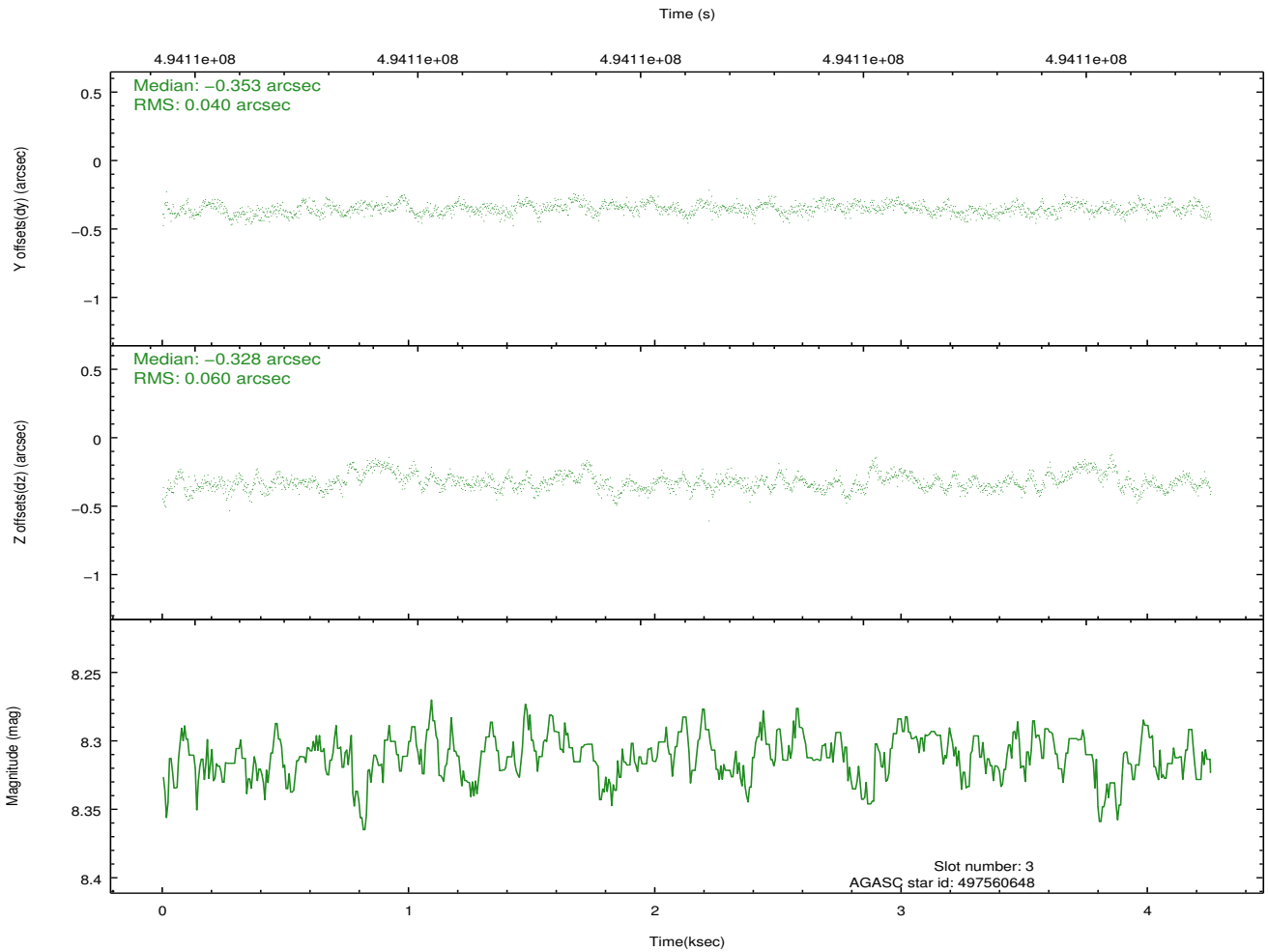
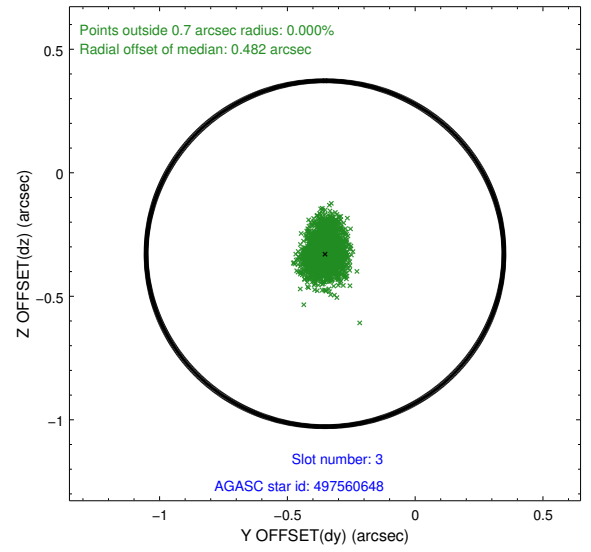
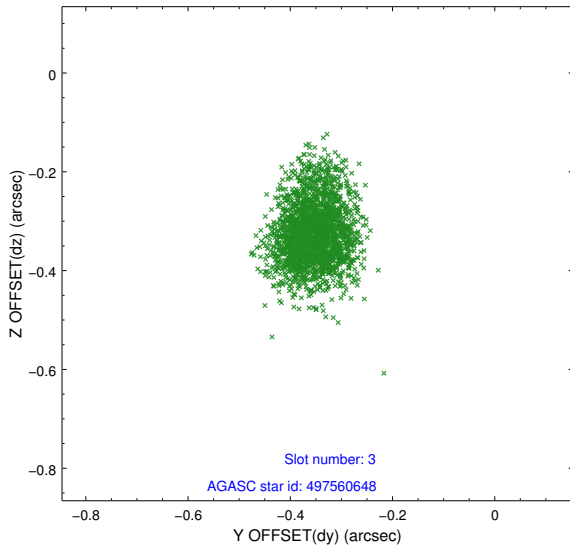


### Slot Statistics

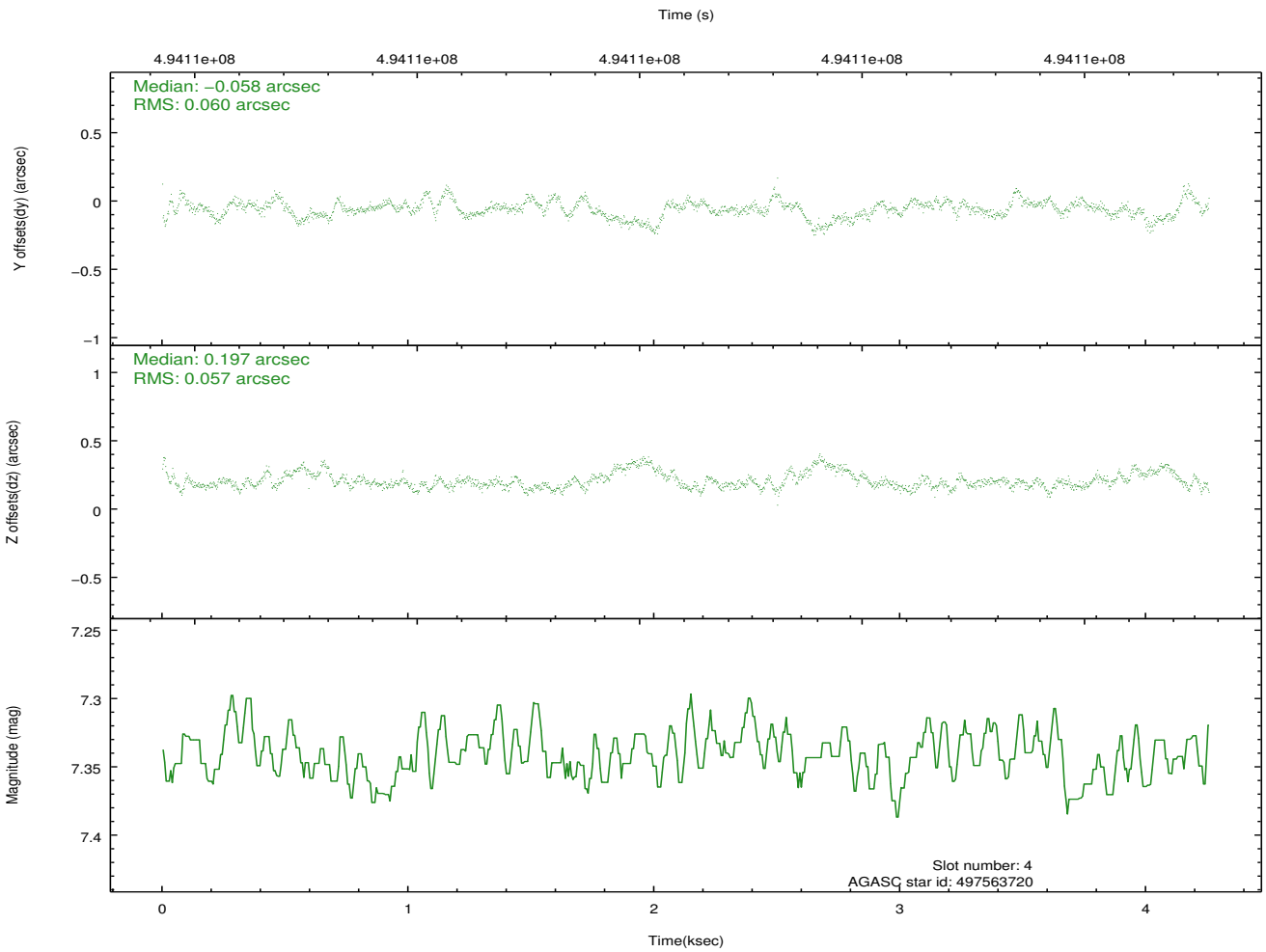
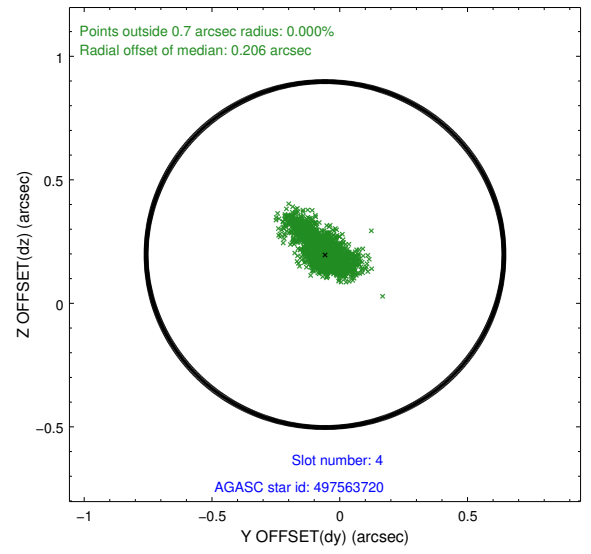
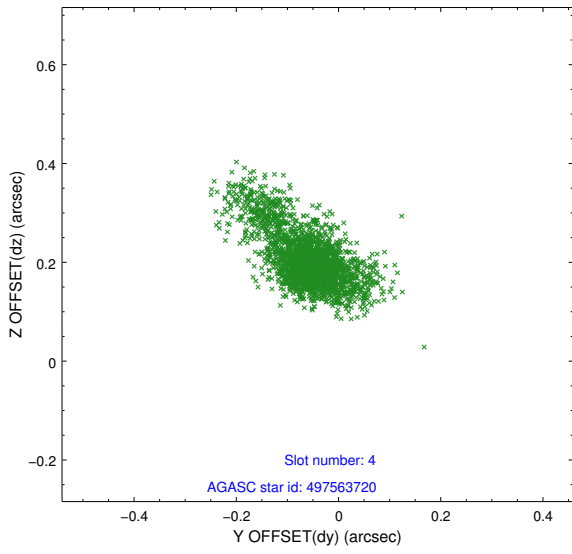
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	1038	0.067	0.009	0.006	0.015	0.000000	0.000000	915.62	-846.19
1	FID		ACIS-I-5	7.04	1039	-0.261	0.066	0.006	0.009	0.000000	0.000000	-1832.05	1050.58
2	FID		ACIS-I-6	7.05	1039	0.103	-0.005	0.007	0.012	0.000000	0.000000	379.57	1696.69
3	GUIDE	used	497560648	8.31	2077	-0.353	-0.328	0.074	0.130	120.884904	54.159790	1604.30	2270.59
4	GUIDE	used	497563720	7.34	2077	-0.058	0.197	0.078	0.164	121.874824	53.556659	1460.00	-746.13
5	GUIDE	used	497563928	7.32	2076	-0.033	-0.110	0.101	0.154	121.149833	53.678523	718.16	680.06
6	GUIDE	used	497568864	7.74	2077	0.328	0.477	0.088	0.137	120.873094	52.757244	-2119.04	-1137.33
7	GUIDE	used	497569104	9.34	2057	0.106	-0.233	0.154	0.313	120.006894	53.466382	-1497.42	1964.96

## 2.4 Star Slots

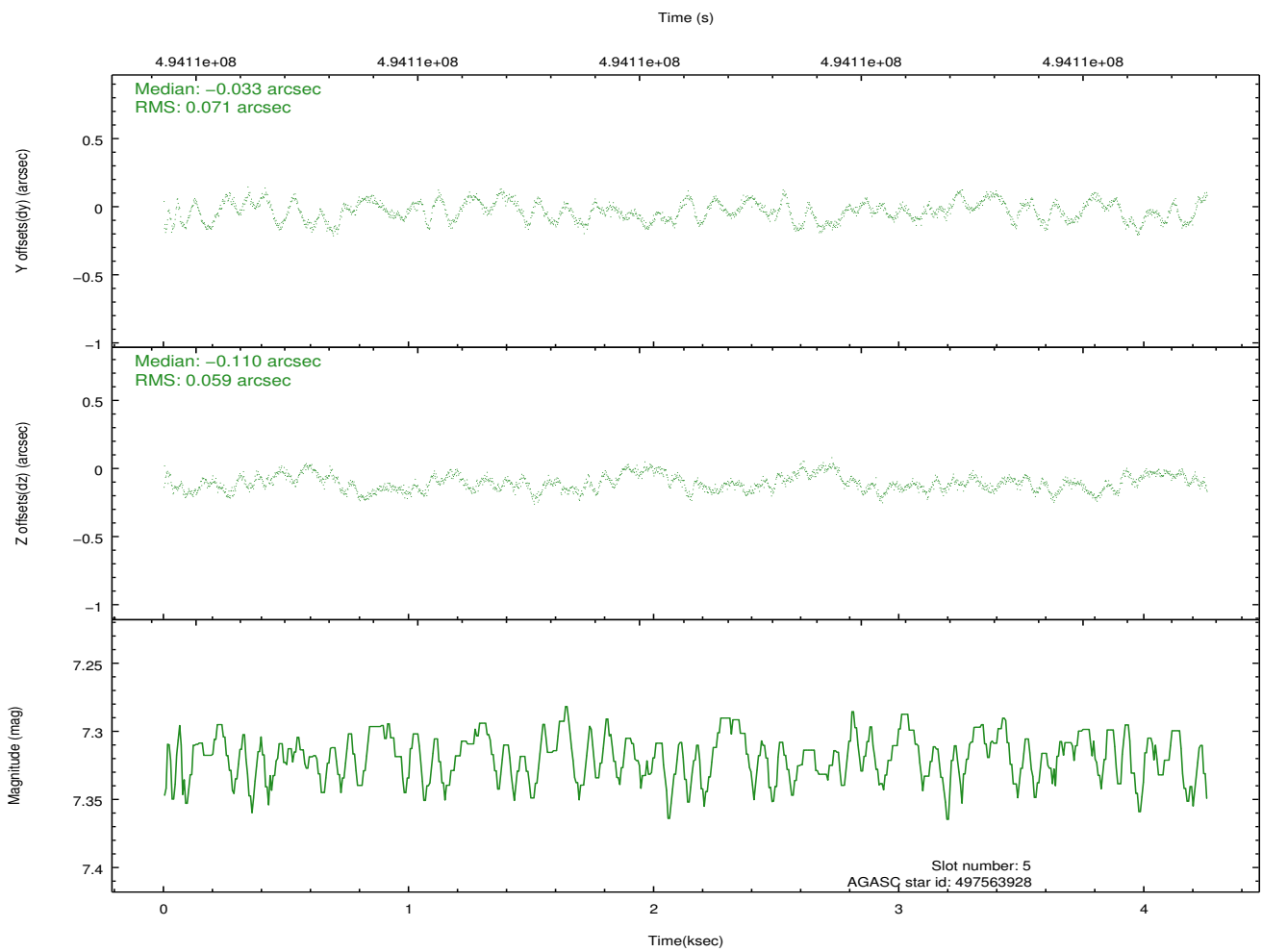
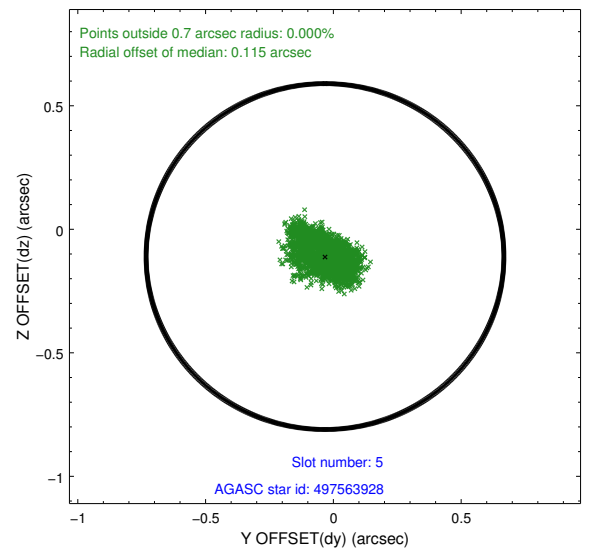
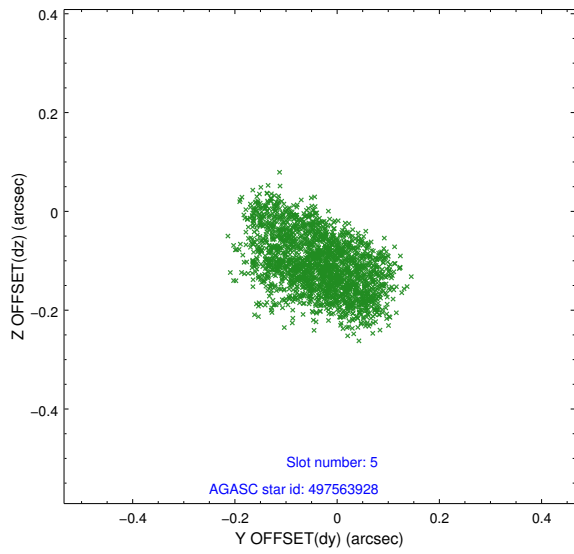
### 2.4.1 Slot 3



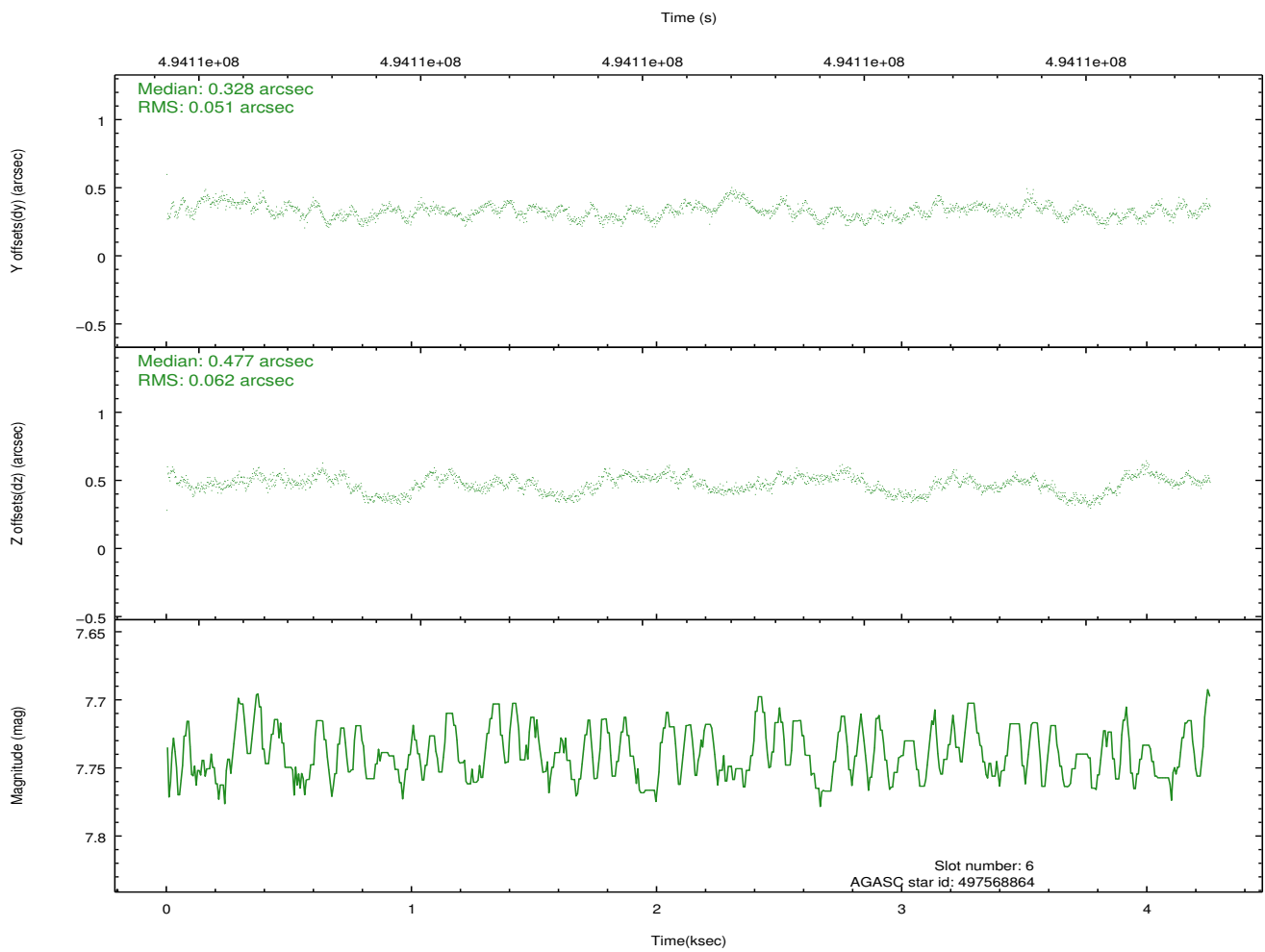
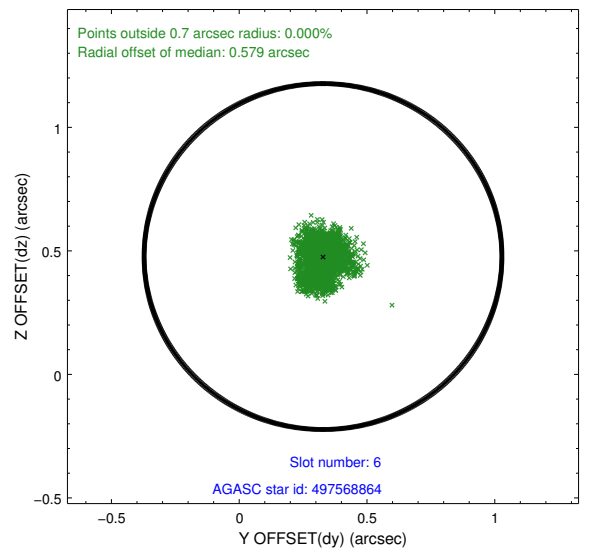
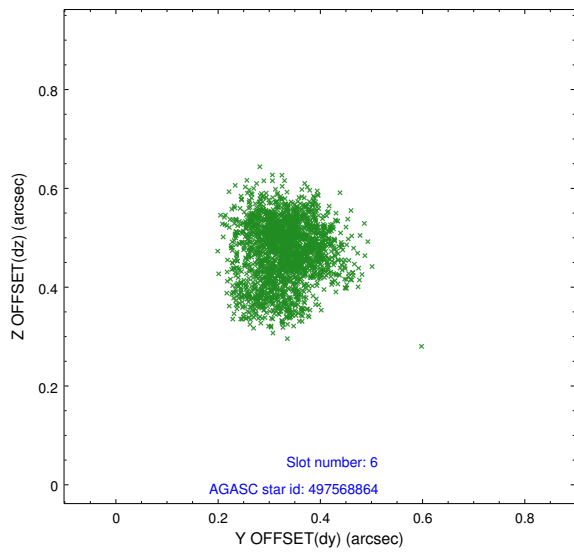
## 2.4.2 Slot 4



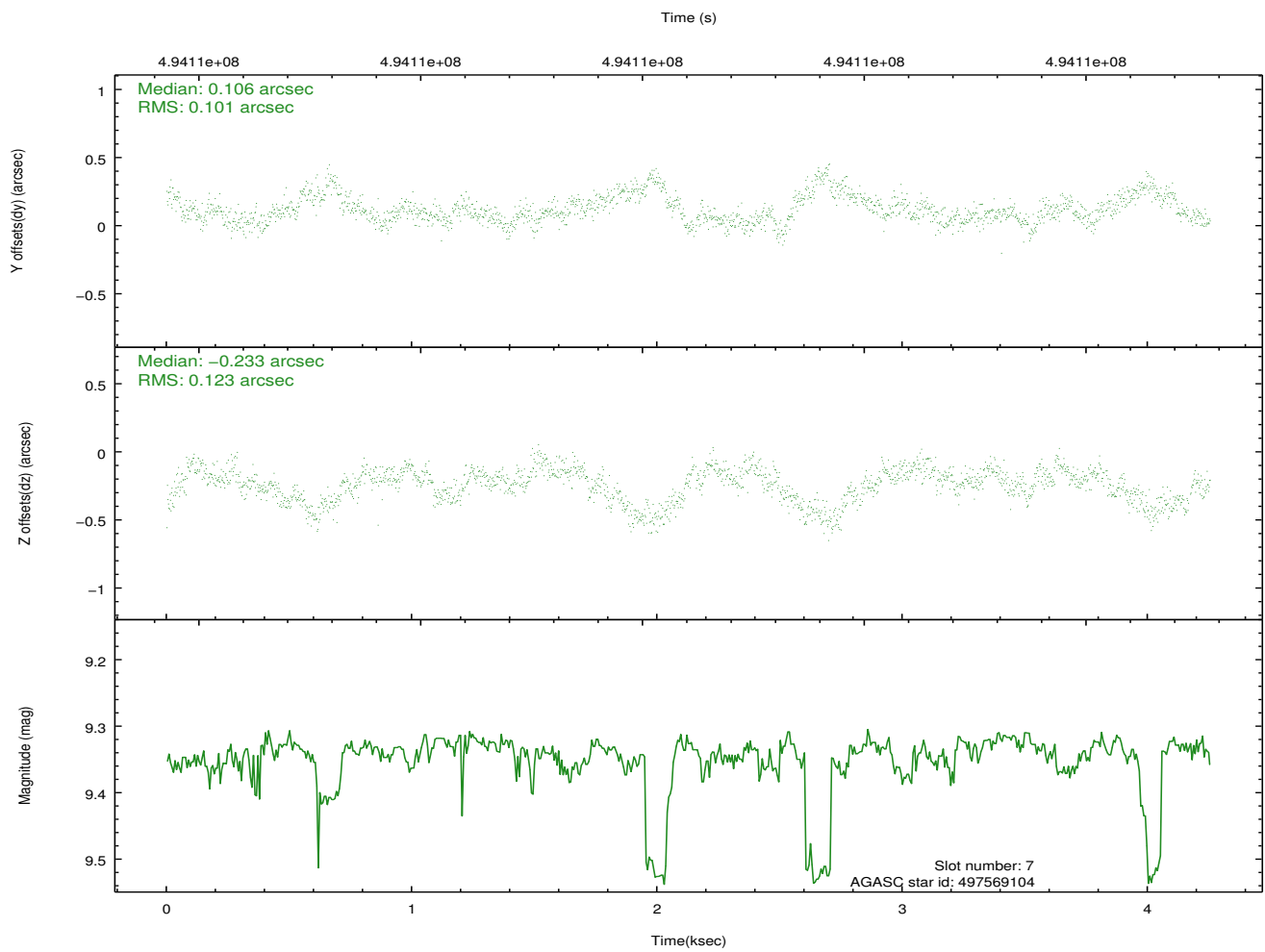
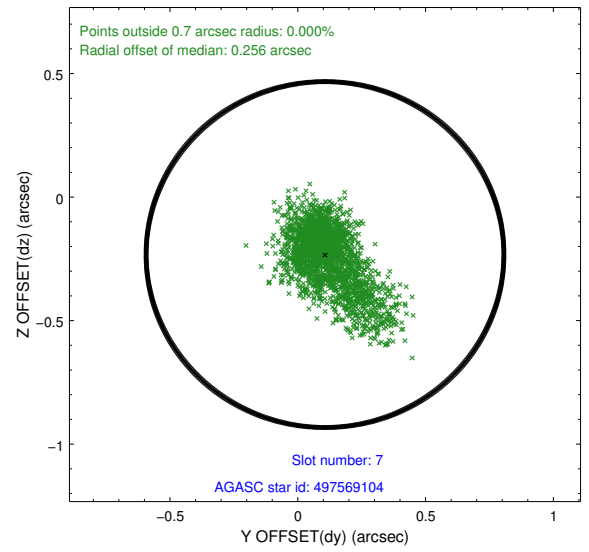
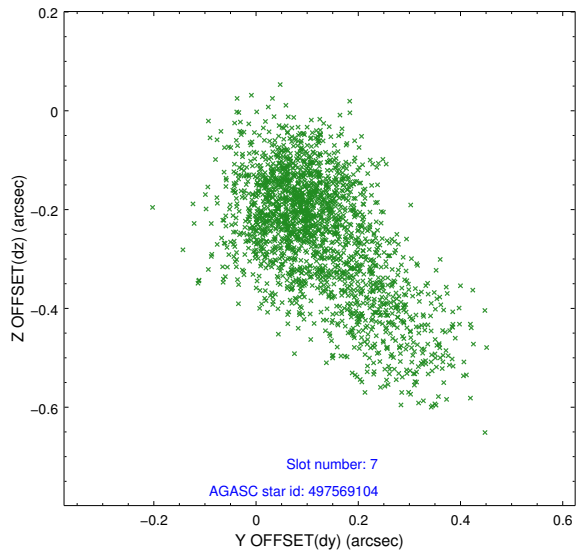
### 2.4.3 Slot 5



### 2.4.4 Slot 6

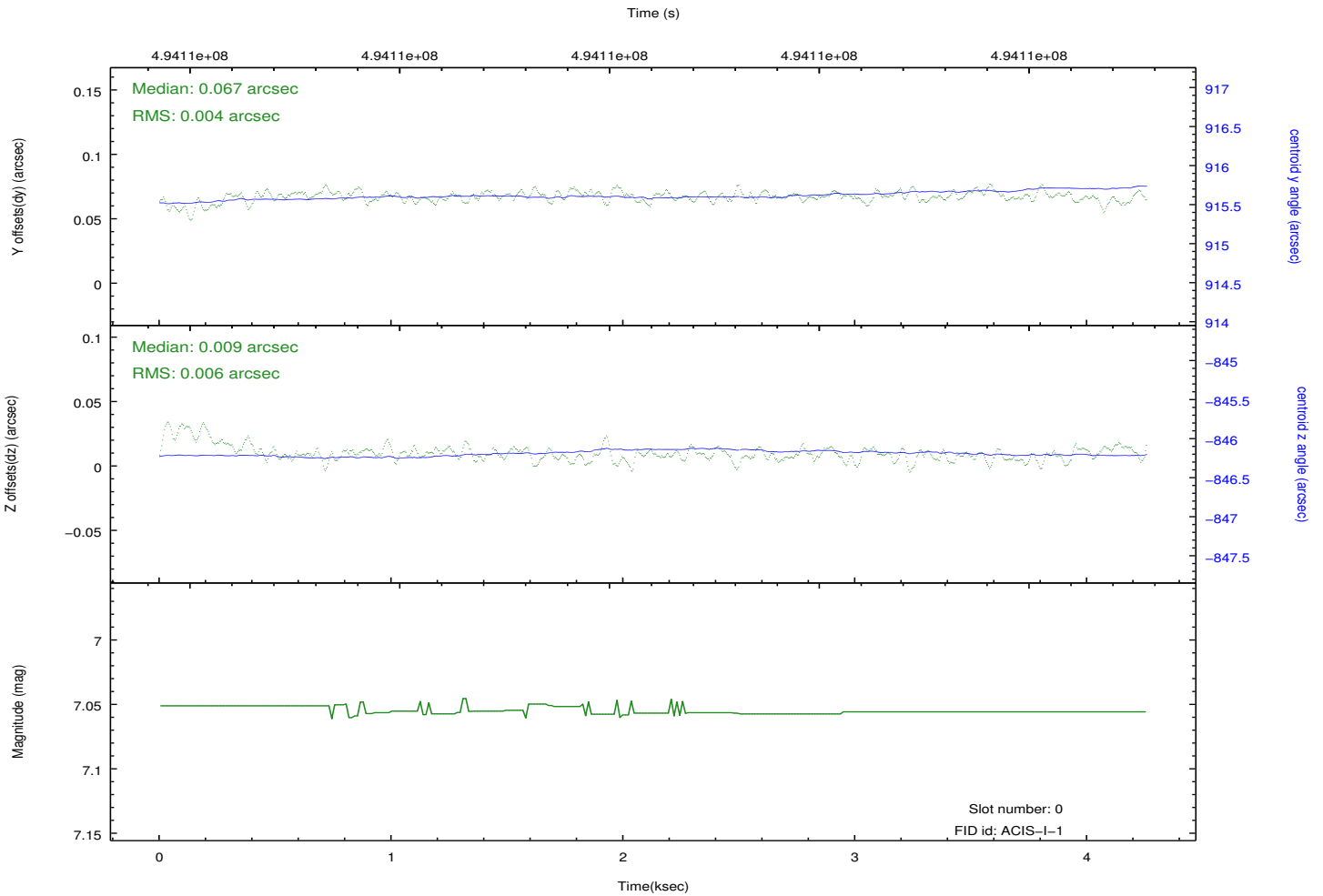
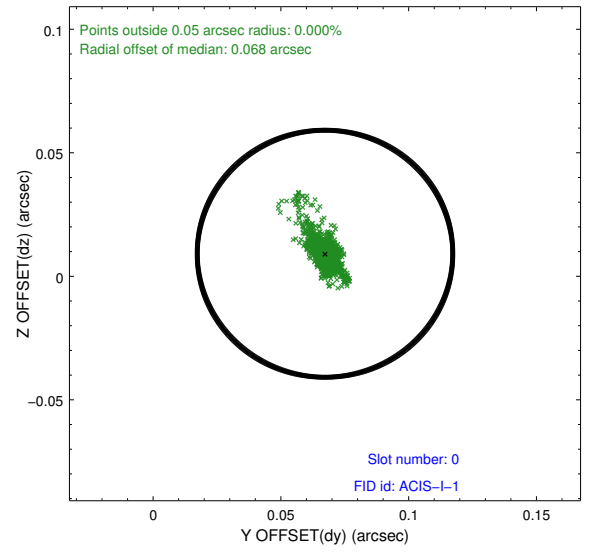
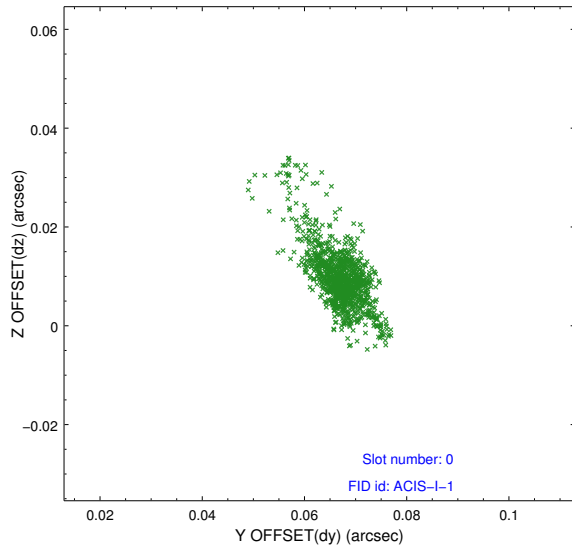


## 2.4.5 Slot 7

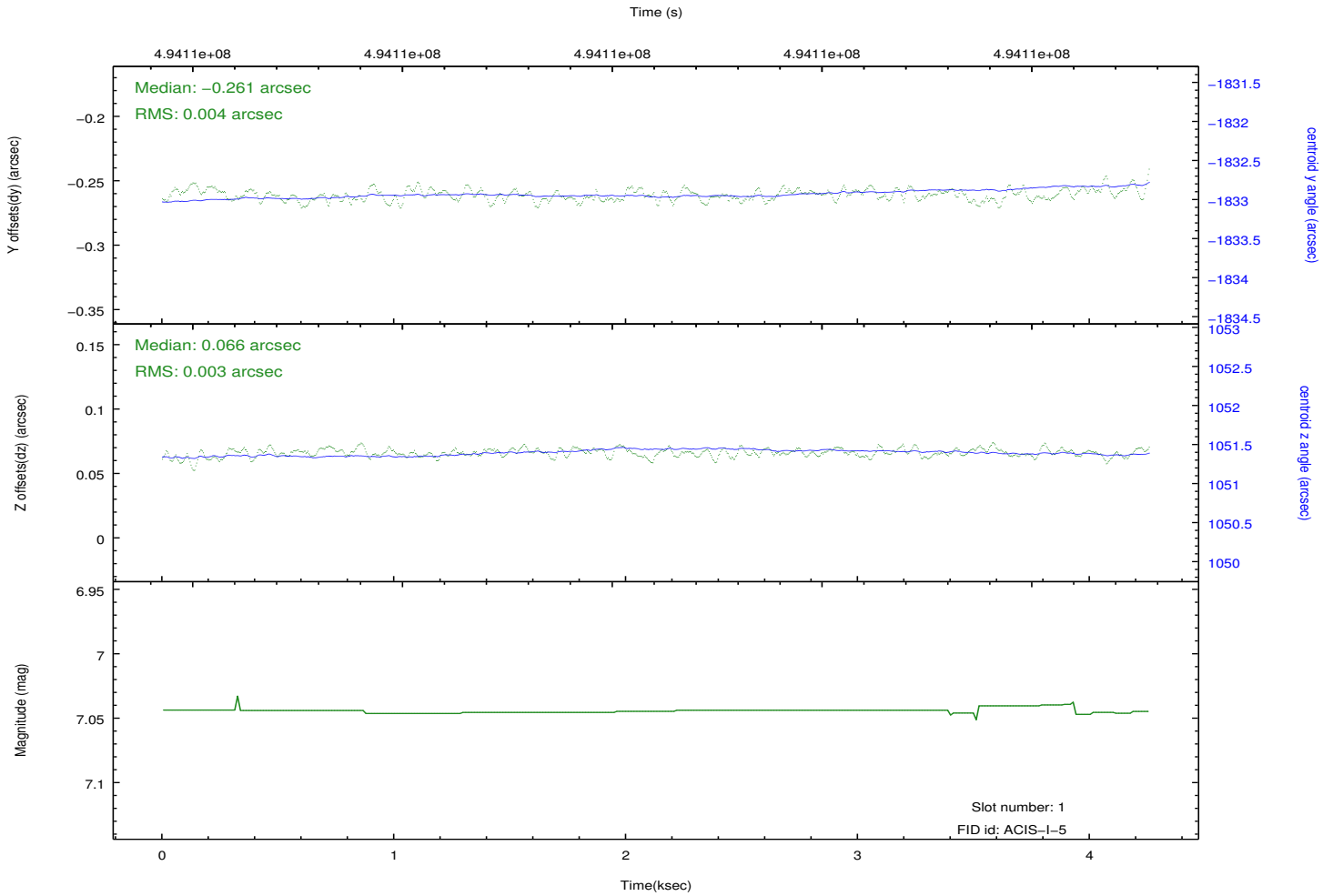
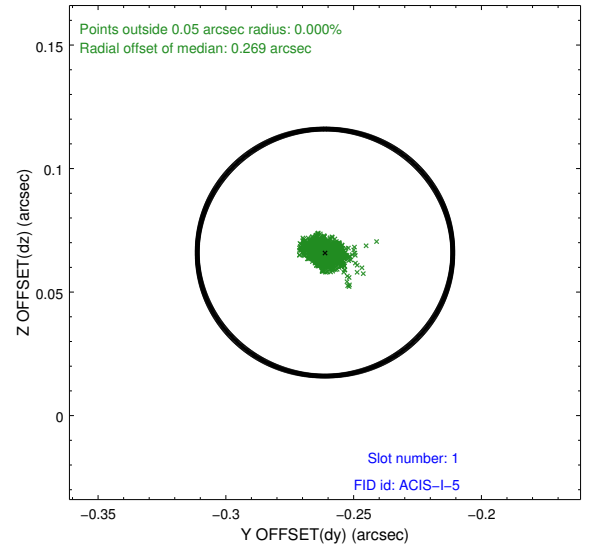
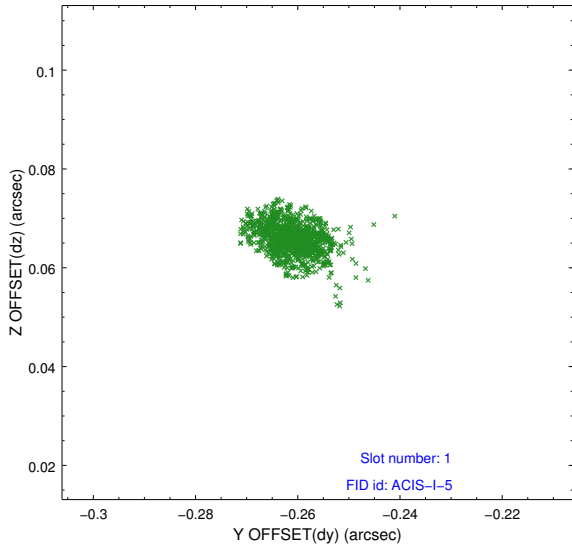


## 2.5 FID Slots

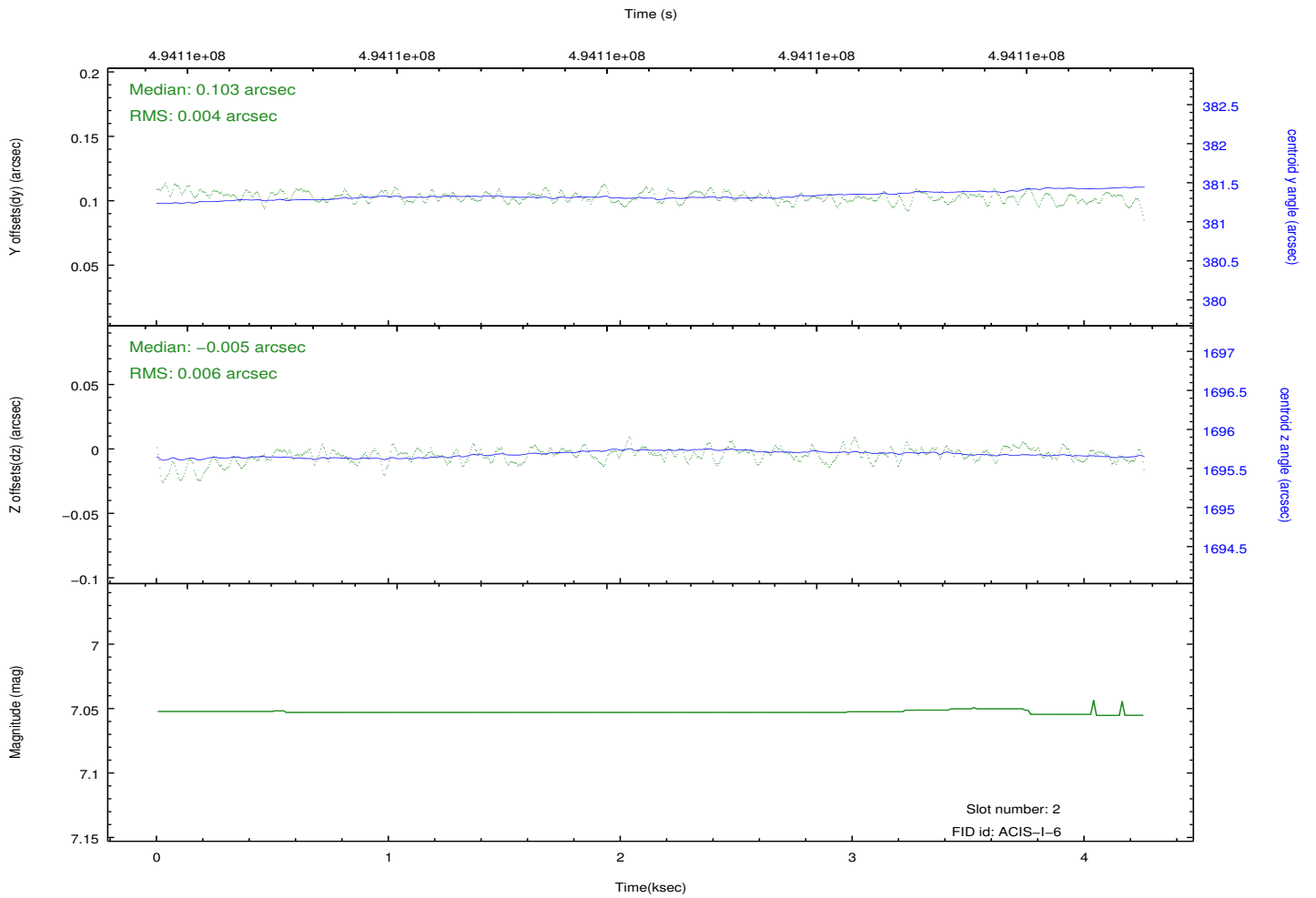
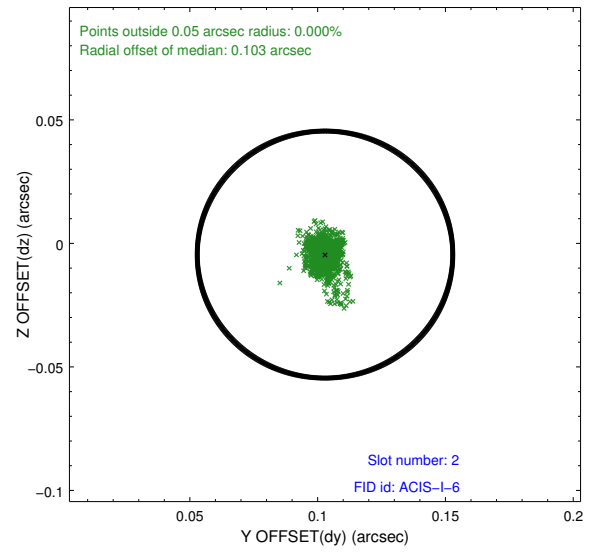
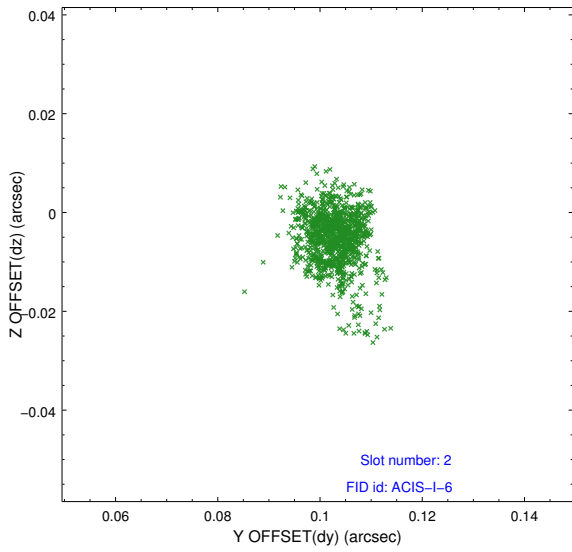
### 2.5.1 Slot 0



## 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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.9731059507728

## 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.