

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15214 - L2 Version 2  
Chandra X-Ray Center

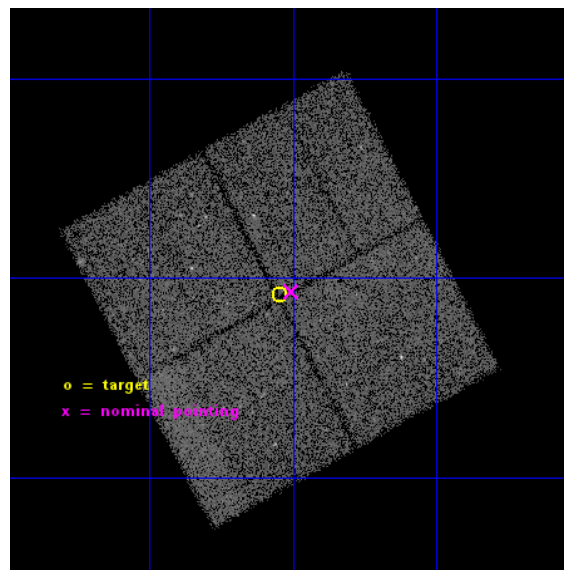
L2 Processing Date : Nov 30 2014

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# 1 Front

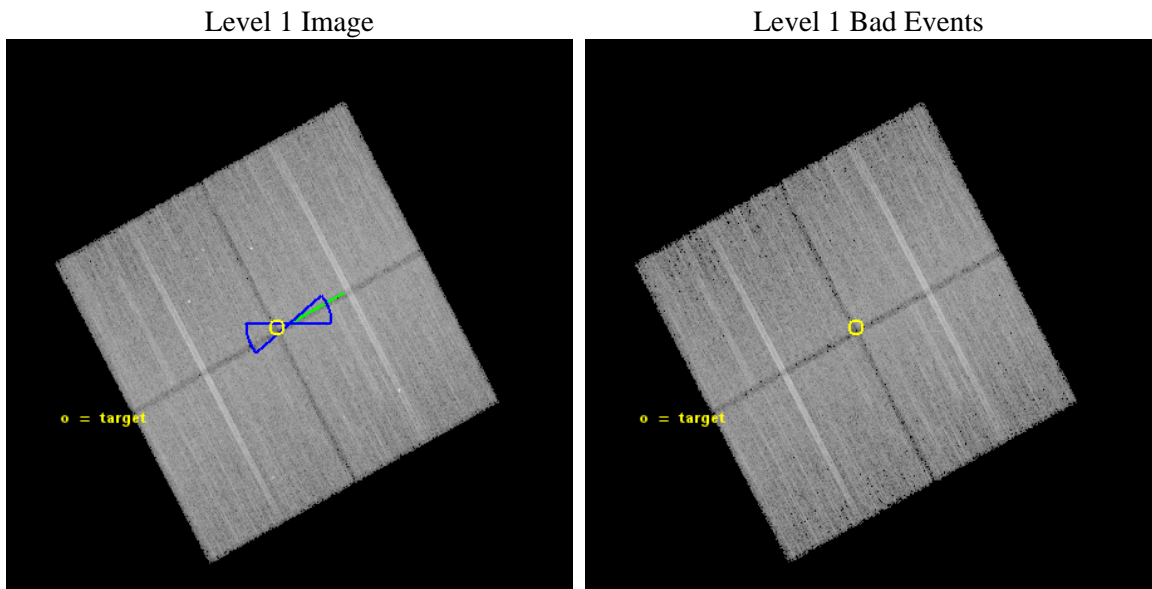
seq_num	901044	Sequence number
obs_id	15214	Observation id
title	The COSMOS Legacy Survey	Proposal title
observer	Dr Francesca Civano	Principal investigator
object	COSMOS Legacy	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	149.76127	Observer's specified target RA [deg]
dec_targ	2.652538	Observer's specified target Dec [deg]
ra_nom	149.75128787189	Nominal RA [deg]
dec_nom	2.6553315610165	Nominal Dec [deg]
roll_nom	61.754243334158	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46592.548405111	Sum of GTIs [s]
livetime	45983.782459263	Livetime [s]
ontime0	46595.648385465	Sum of GTIs [s]
ontime1	46592.548405111	Sum of GTIs [s]
ontime2	46592.589445055	Sum of GTIs [s]
ontime3	46586.348504066	Sum of GTIs [s]
l2events	100568	Number of level 2 events



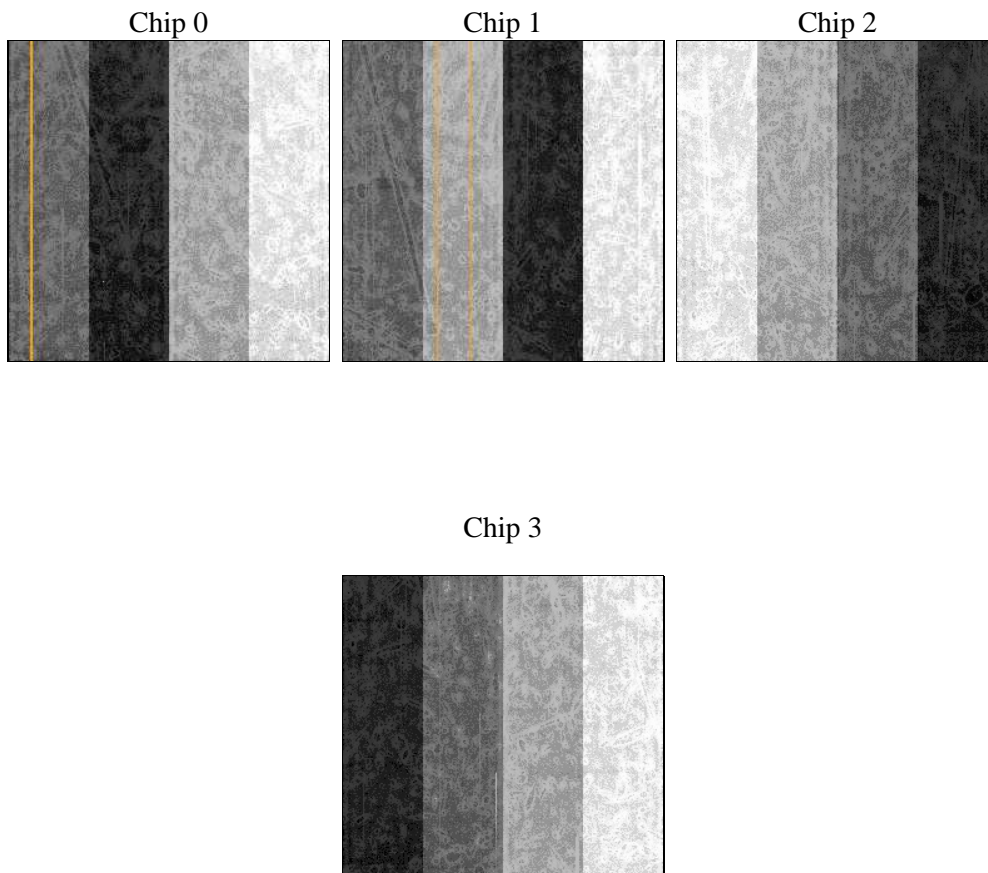
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	46506.316000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	46592.548405111	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	46595.648385465	Sum of GTIs [s]
date	2014-12-01T03:48:57	Date and time of file creation	ontime1	46592.548405111	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	46592.589445055	Sum of GTIs [s]
			ontime3	46586.348504066	Sum of GTIs [s]
			l1events	963626	Number of level 1 events

### 2.1.4 Events

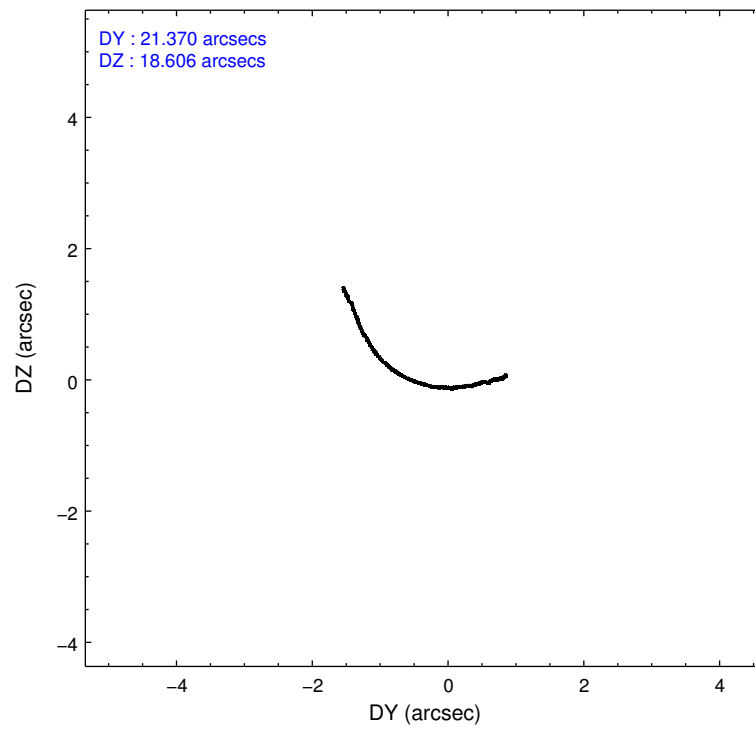
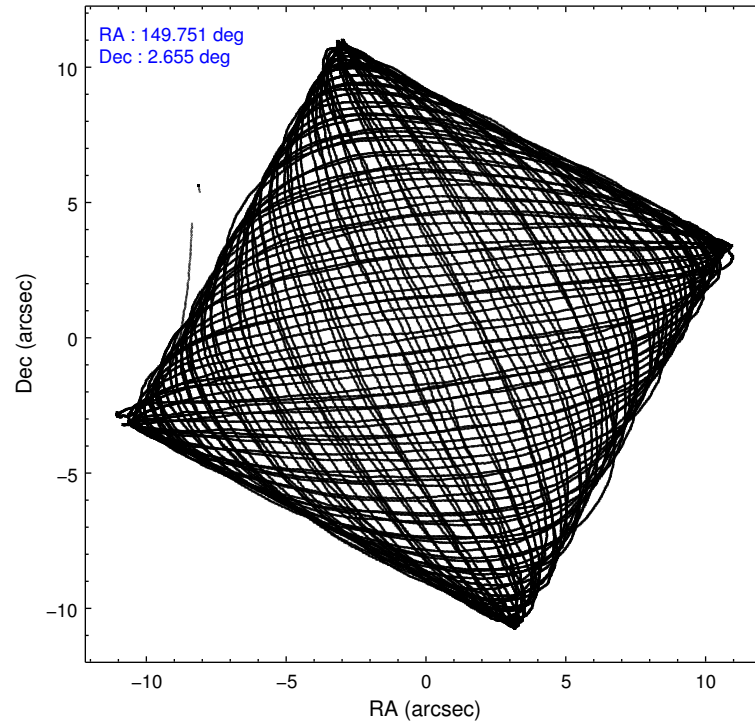
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	227799	233086	251854	250887
rejected events	197840	200446	222635	222903
rejected %	86%	85%	88%	88%

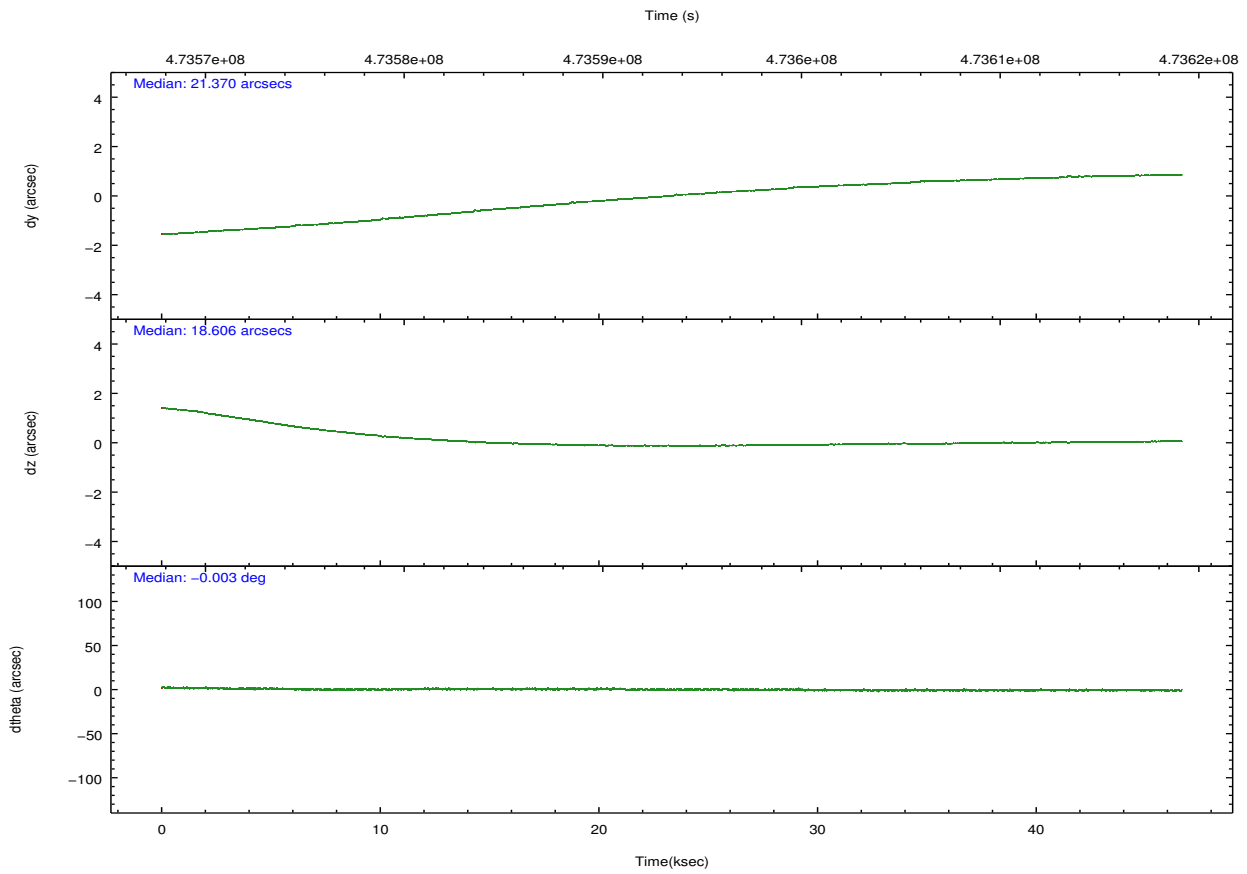
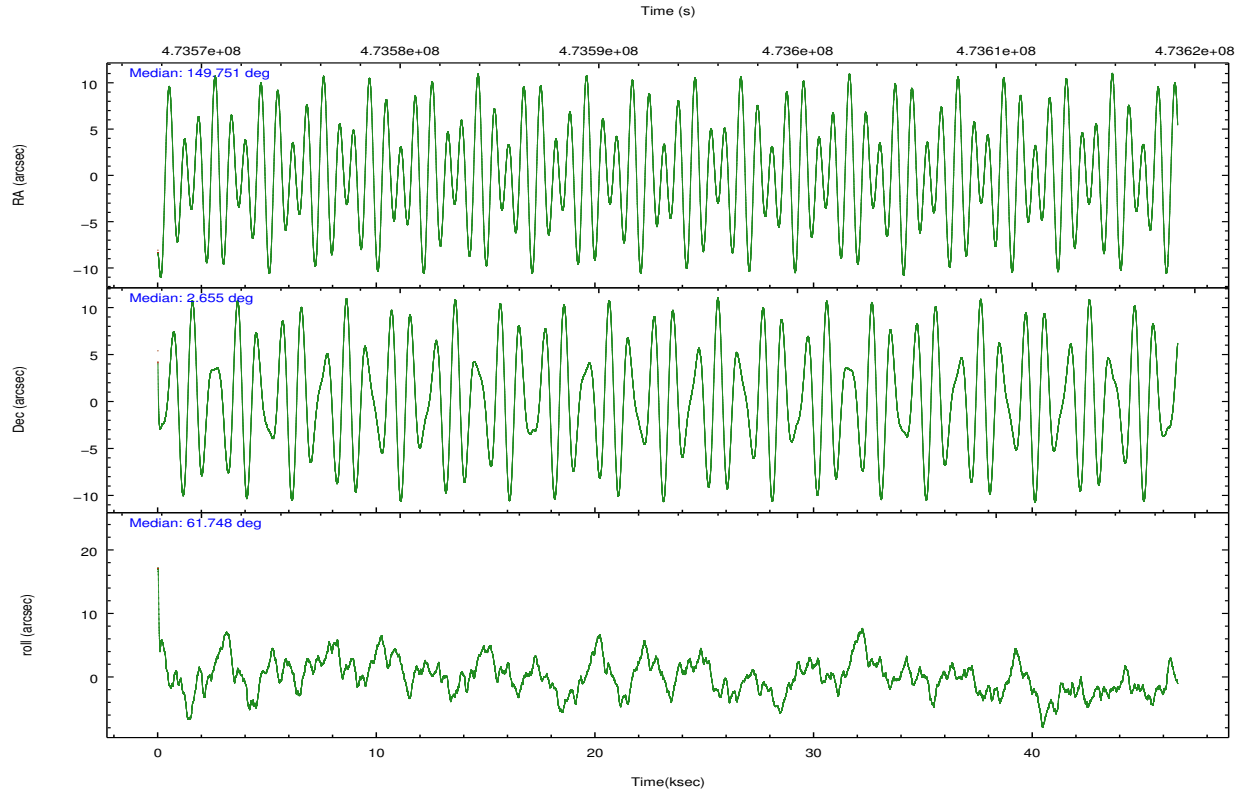
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	10446	11244	10511	9821
	4%	4%	4%	3%
grade 1 events	155	131	130	137
	0%	0%	0%	0%
grade 2 events	7413	7877	7245	6322
	3%	3%	2%	2%
grade 3 events	3093	3229	2926	2930
	1%	1%	1%	1%
grade 4 events	2953	3223	2949	2957
	1%	1%	1%	1%
grade 5 events	11805	12509	10988	13044
	5%	5%	4%	5%
grade 6 events	6056	7069	5591	5957
	2%	3%	2%	2%
grade 7 events	185878	187804	211514	209719
	81%	80%	83%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	149.752245	149.7512878718938	Subarray requested	NONE	NONE
[deg] Pointing Dec	2.627849	2.655331561016477	Alternating exposures requested	N	N
[deg] Pointing Roll	61.545509	61.75424333415828	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	250.000000	250.000000			
[deg] Roll tolerance	20.000000	20.000000			
Roll constraint allows 180D rotation	Y	Y			
[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)	473570291.184000	473568994.52603			
Observation start date	2013-01-03T03:17:04	2013-01-03T02:56:34			
[s] Observation end time (MET)	473616797.184000	473617033.71611			
Observation end date	2013-01-03T16:12:10	2013-01-03T16:17:13			
Read mode	TIMED	TIMED			

## 2.3 Aspect





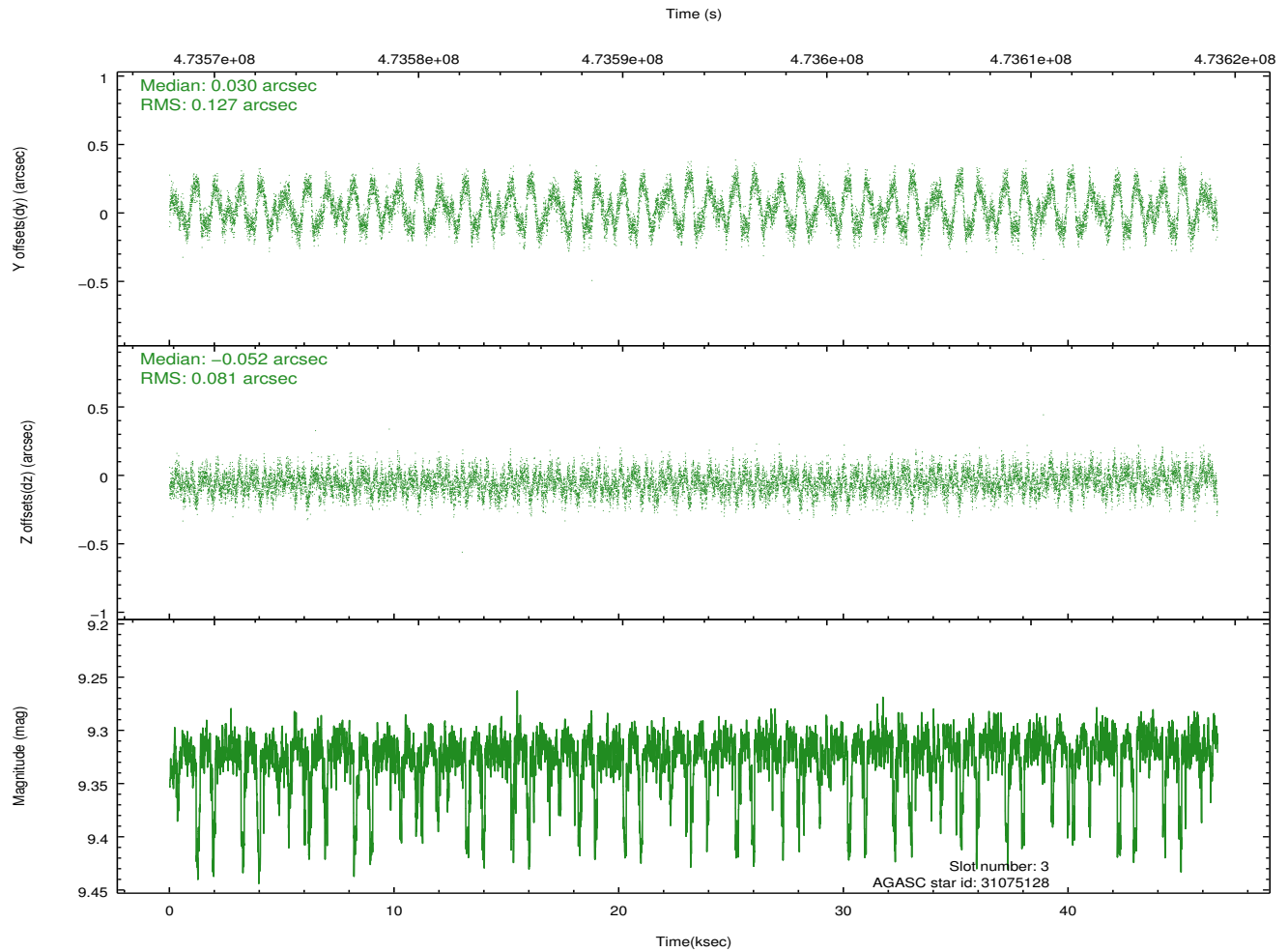
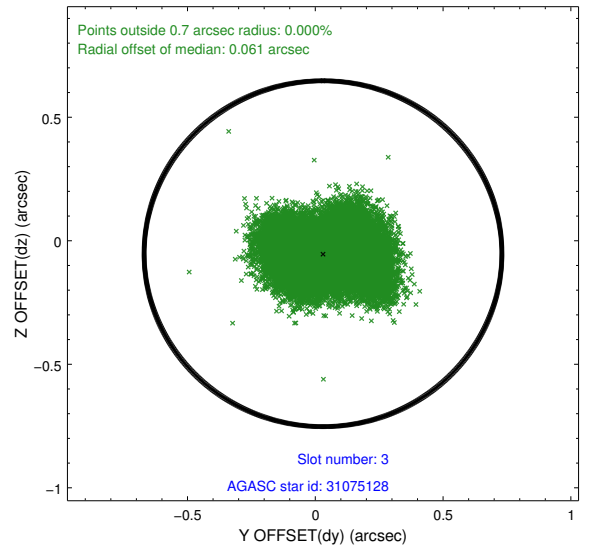
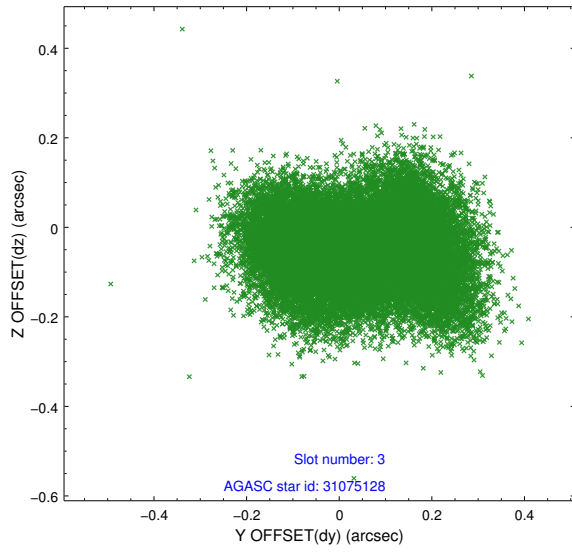
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.10	11374	0.031	0.041	0.013	0.028	0.000000	0.000000	918.11	-842.40
1	FID		ACIS-I-5	7.09	11375	-0.255	0.033	0.010	0.018	0.000000	0.000000	-1830.34	1055.02
2	FID		ACIS-I-6	7.10	11375	0.134	-0.005	0.010	0.033	0.000000	0.000000	383.70	1699.54
3	GUIDE	used	31075128	9.32	22700	0.030	-0.052	0.165	0.249	149.584516	2.364347	-1121.14	78.39
4	GUIDE	used	31076560	9.63	22656	0.245	0.222	0.185	0.269	149.884782	2.009277	-1730.37	-1480.61
5	GUIDE	used	32375384	9.97	22726	-0.152	0.205	0.204	0.377	150.238117	2.622063	814.60	-1545.09
6	GUIDE	used	32387968	9.22	22610	-0.232	0.140	0.152	0.241	150.106347	3.119099	2161.77	-276.01
7	GUIDE	used	31457712	9.53	22620	0.107	-0.521	0.211	0.318	149.196201	2.899228	-93.70	2222.31

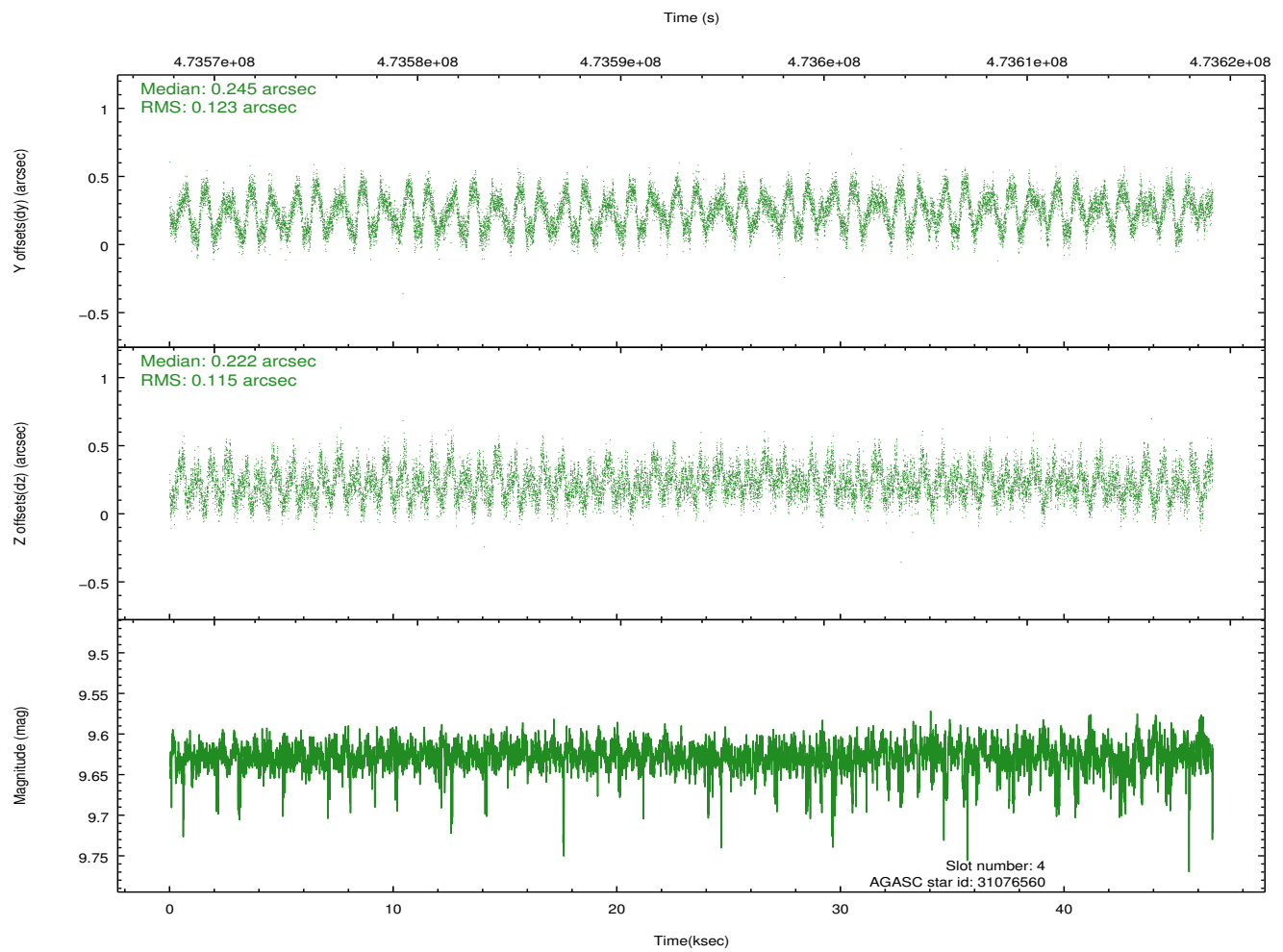
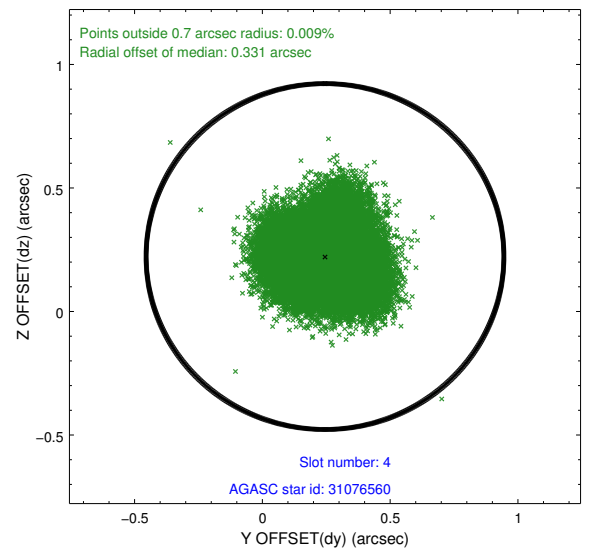
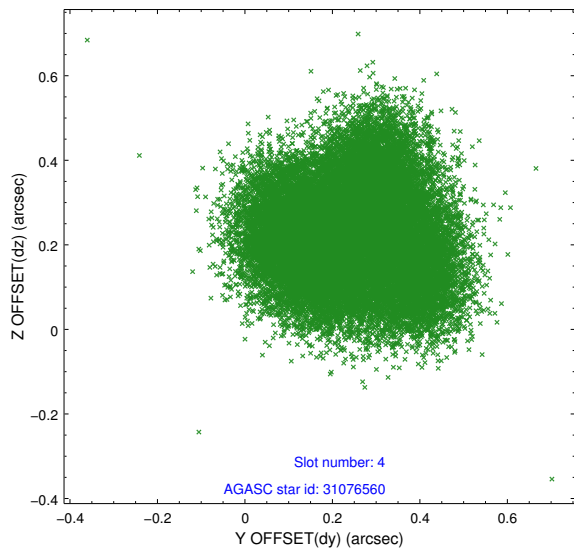
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## 2.4 Star Slots

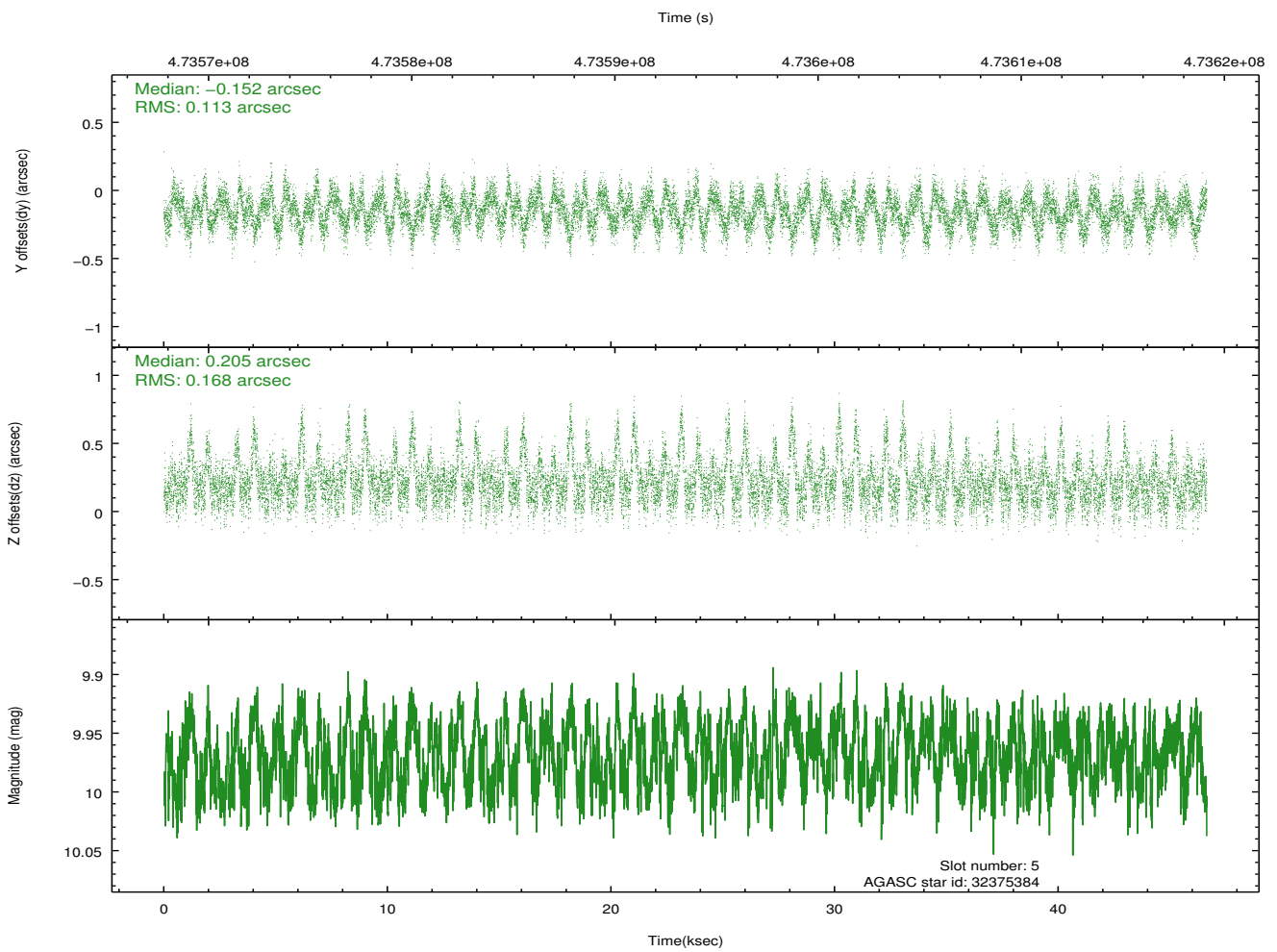
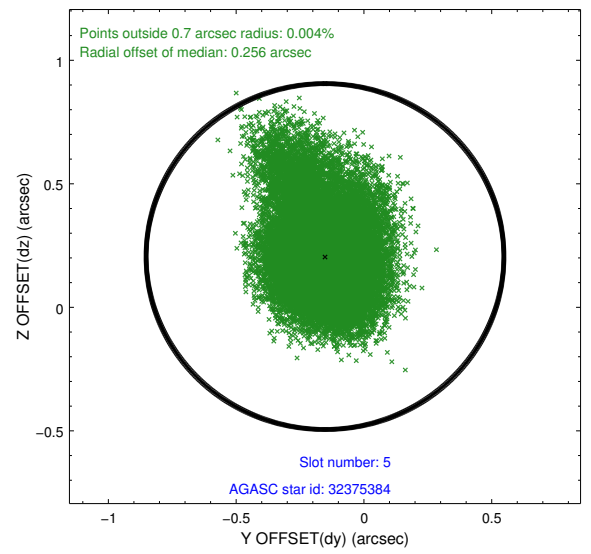
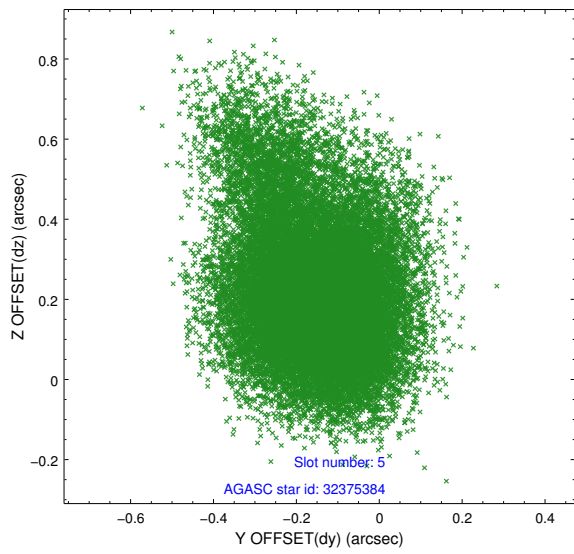
### 2.4.1 Slot 3



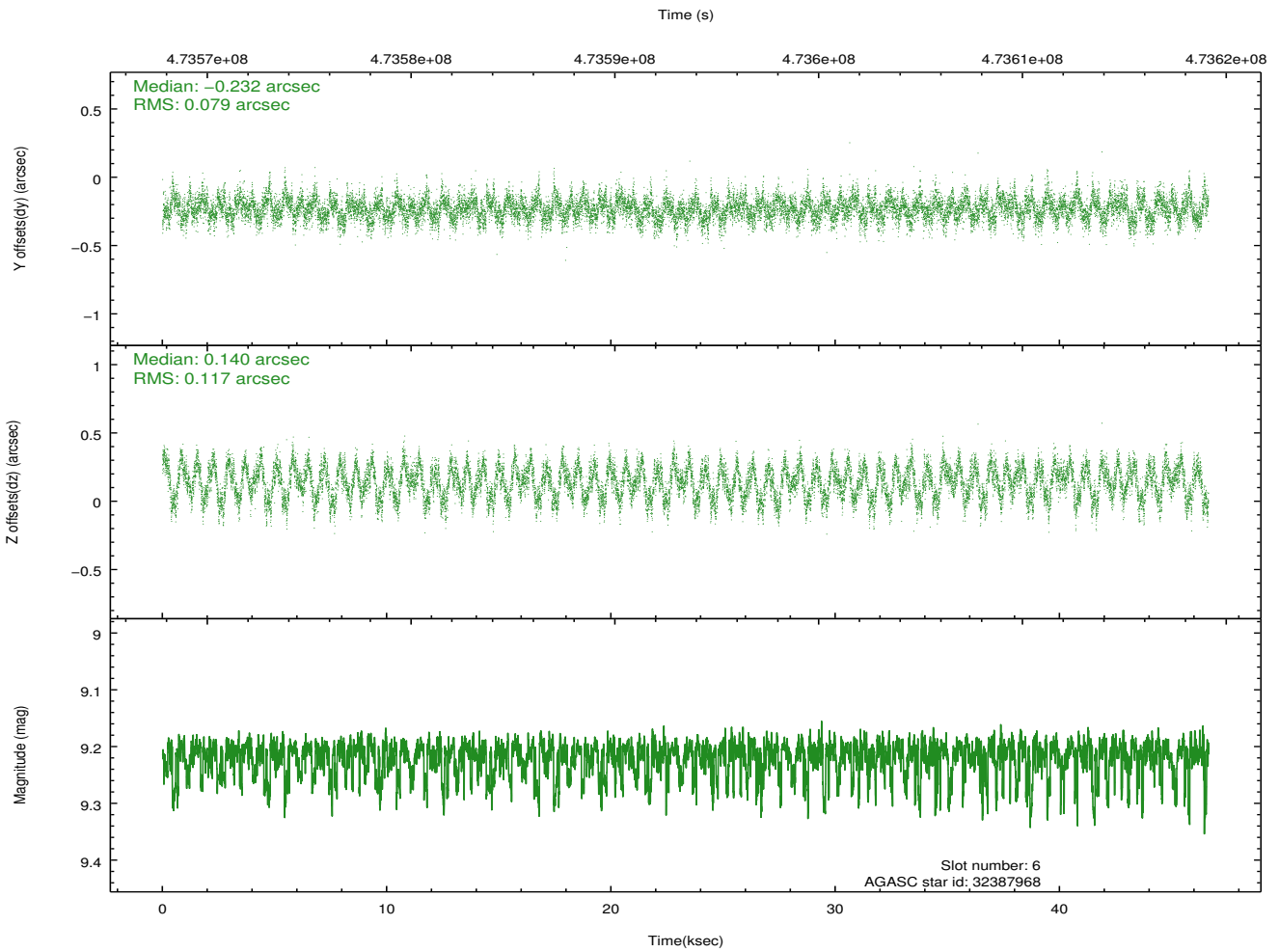
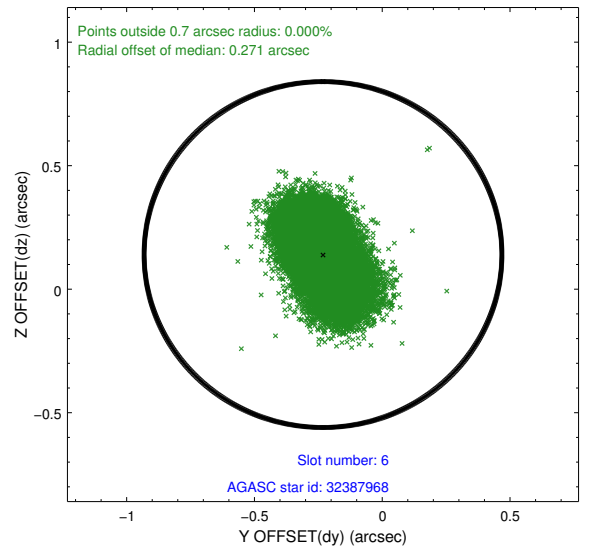
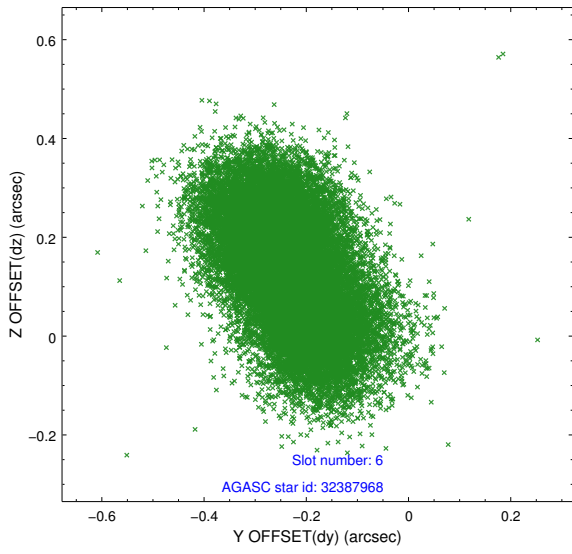
## 2.4.2 Slot 4



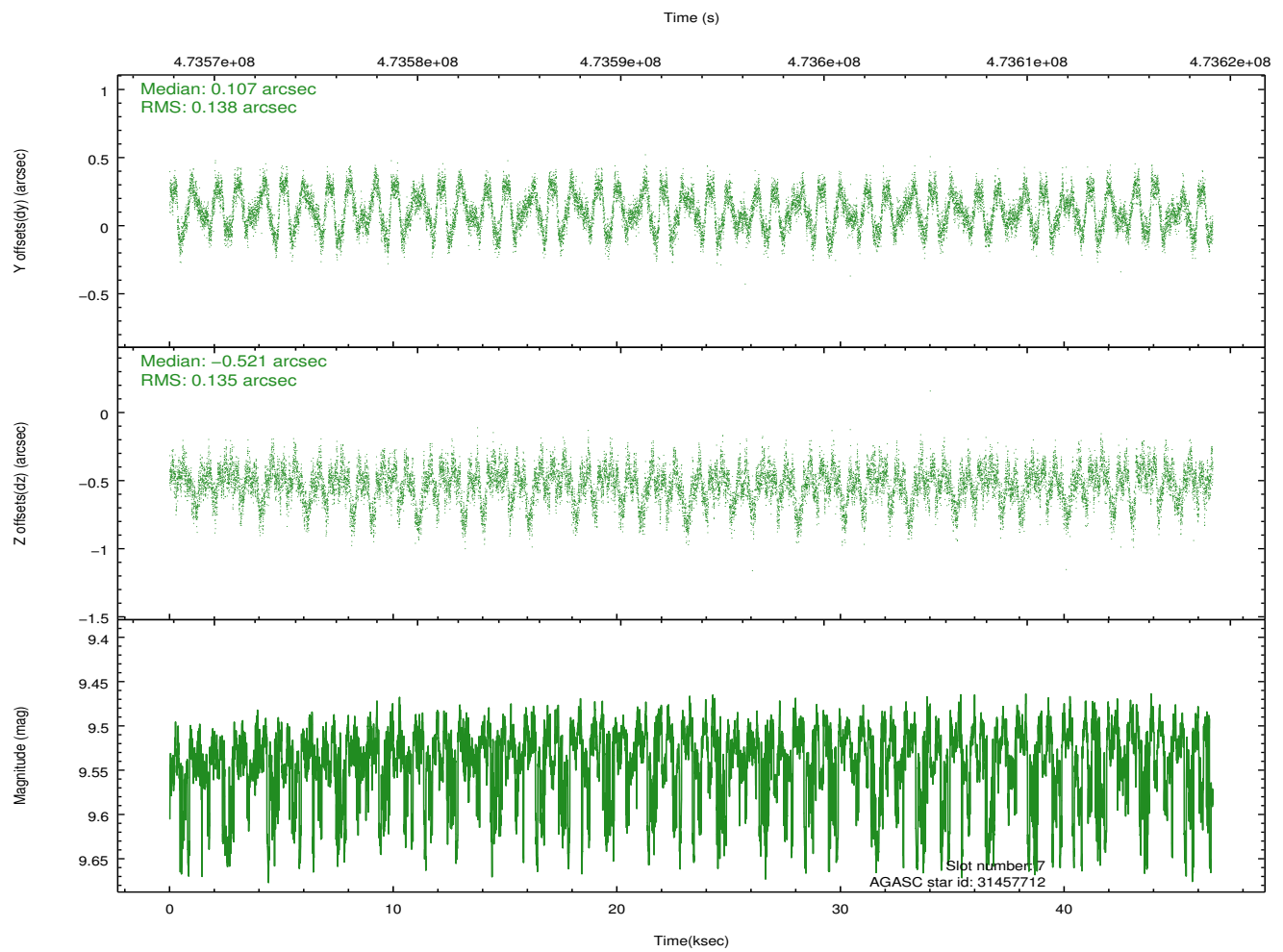
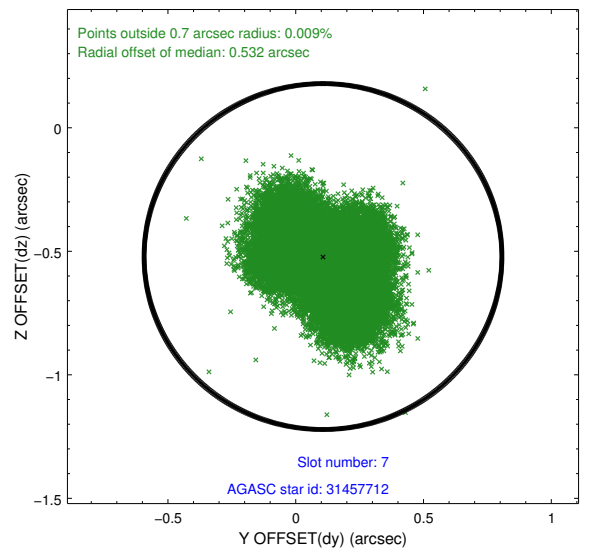
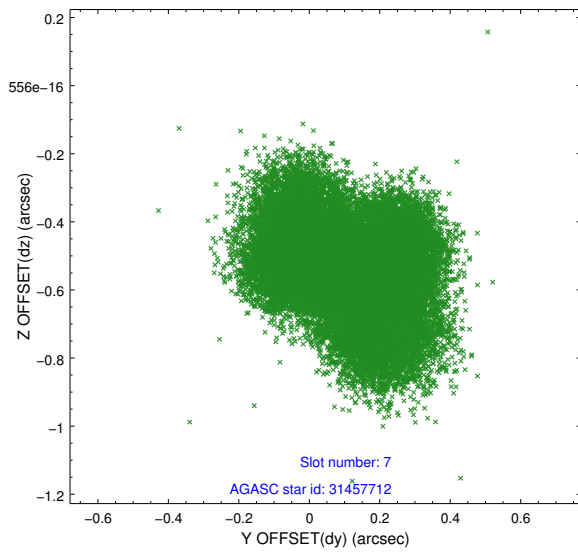
### 2.4.3 Slot 5



### 2.4.4 Slot 6

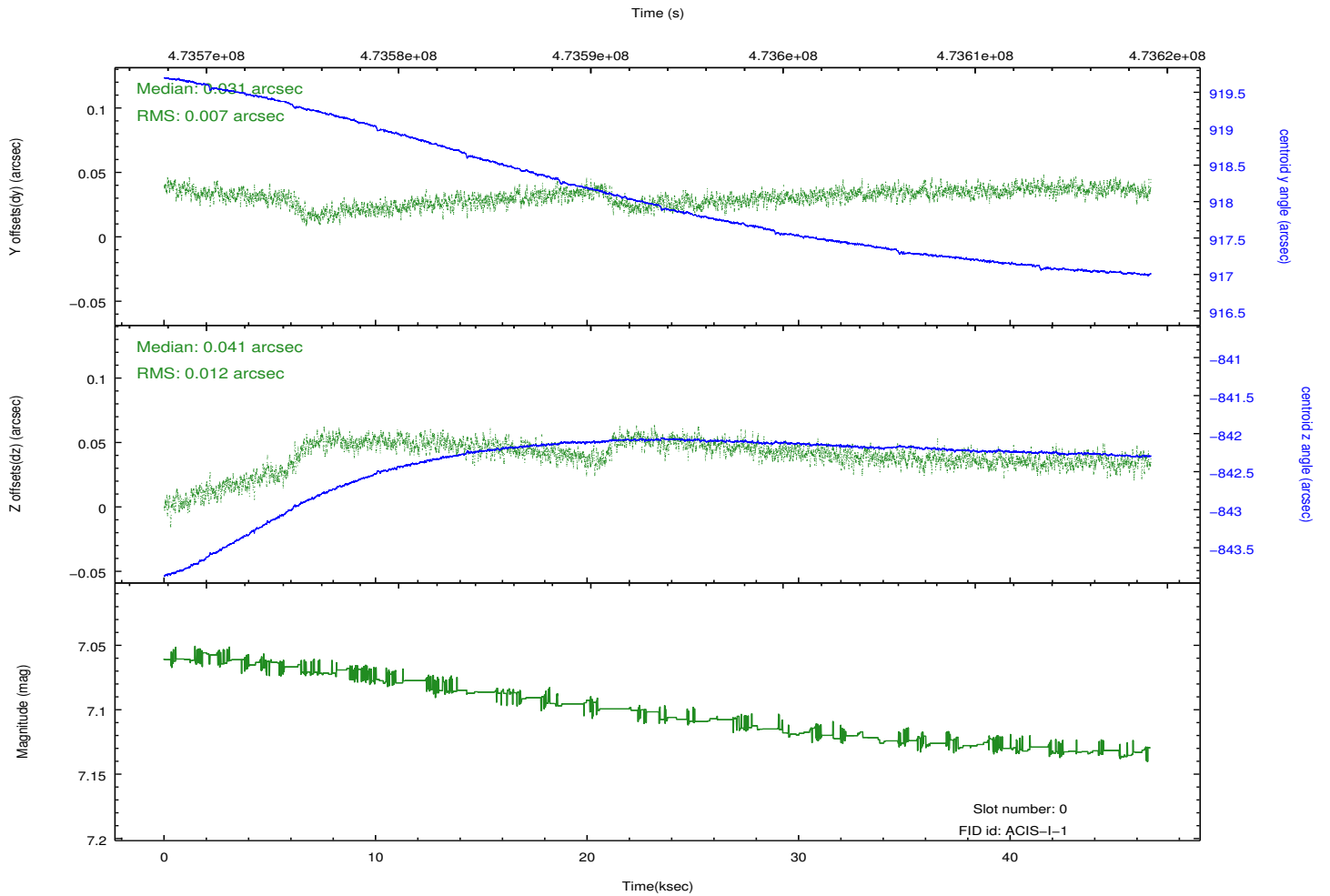
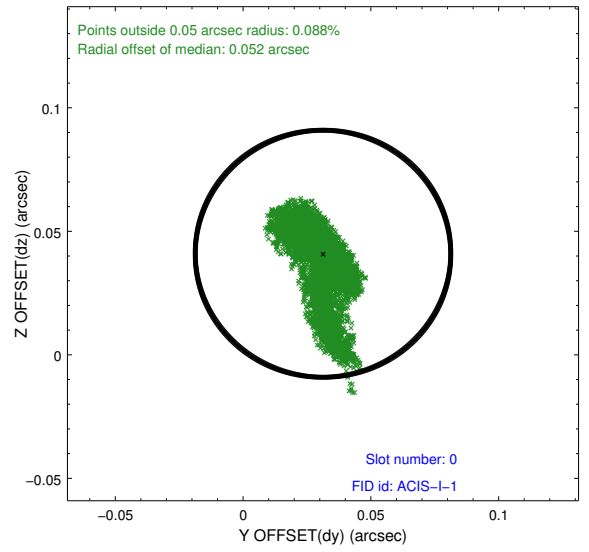
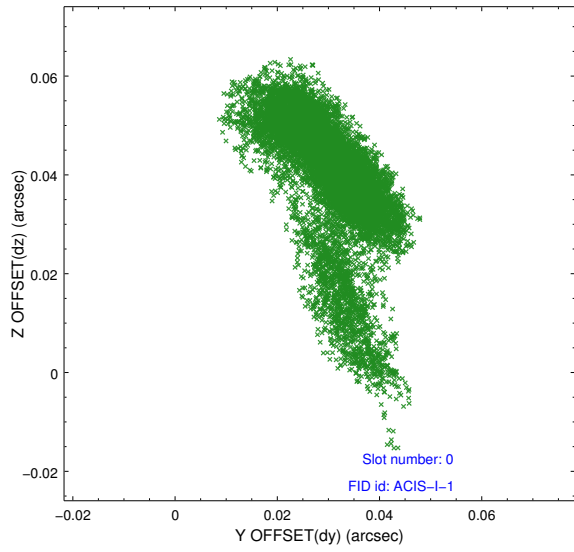


## 2.4.5 Slot 7

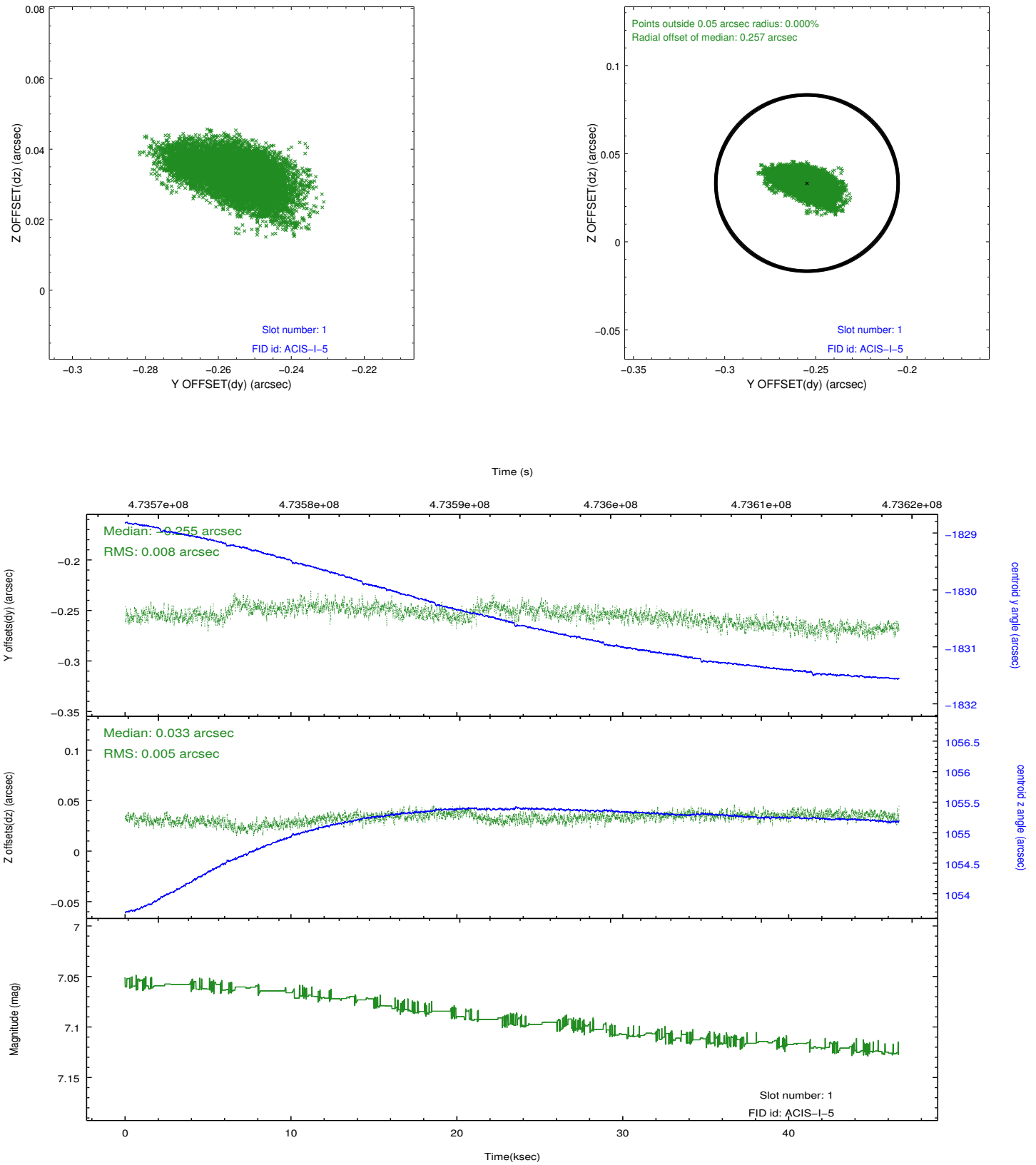


## 2.5 FID Slots

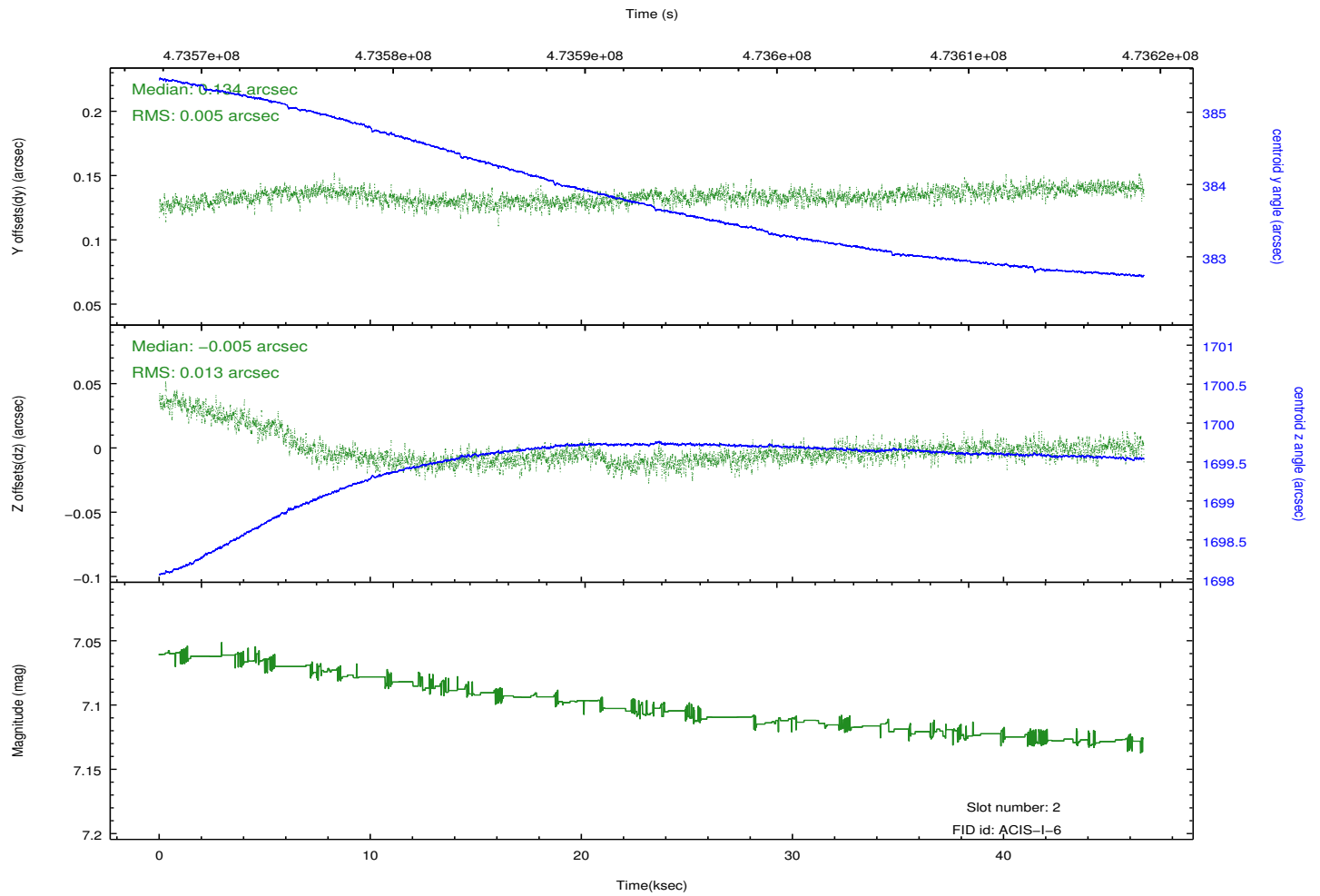
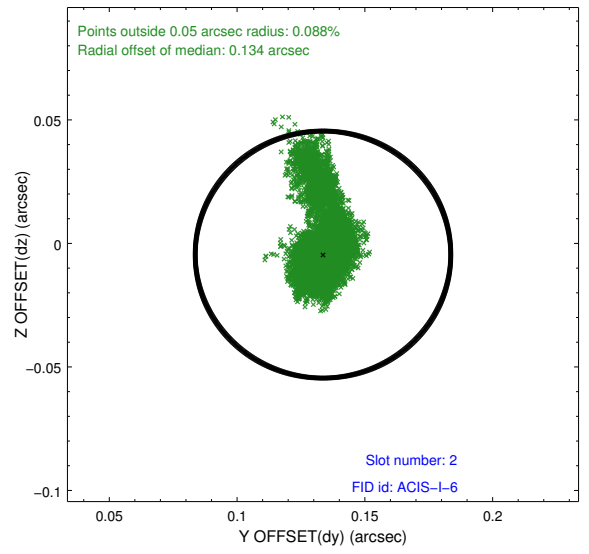
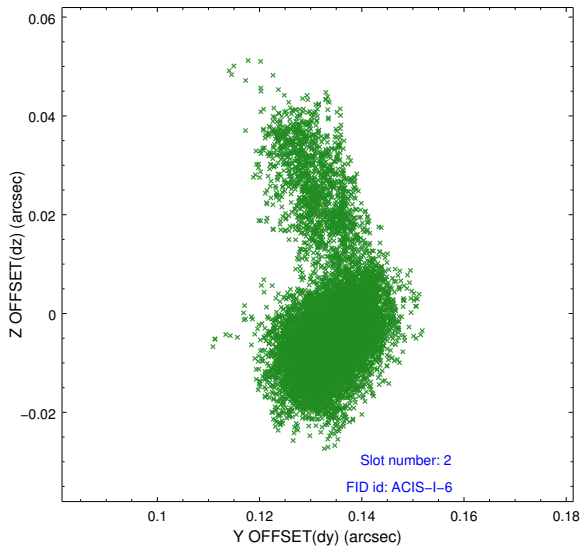
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.592548405111

## A.2 Comments

Roll preference met.

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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.