

# V&V Reference Report

## L2 ASCDS Version : 10.2.2

Observation 16524 - L2 Version 2  
Chandra X-Ray Center

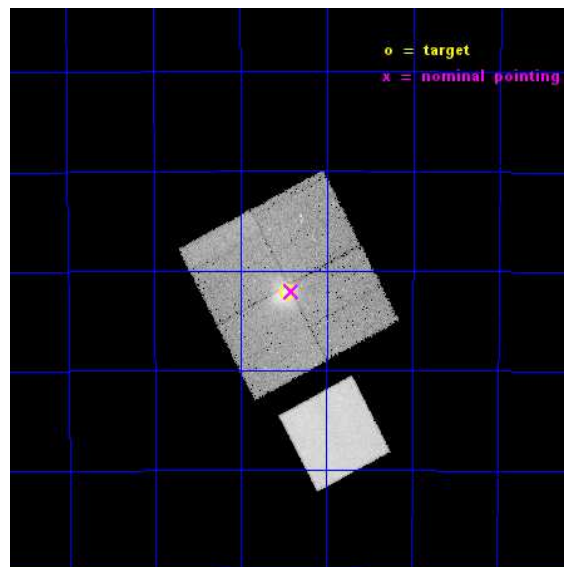
L2 Processing Date : Dec 11 2014

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# 1 Front

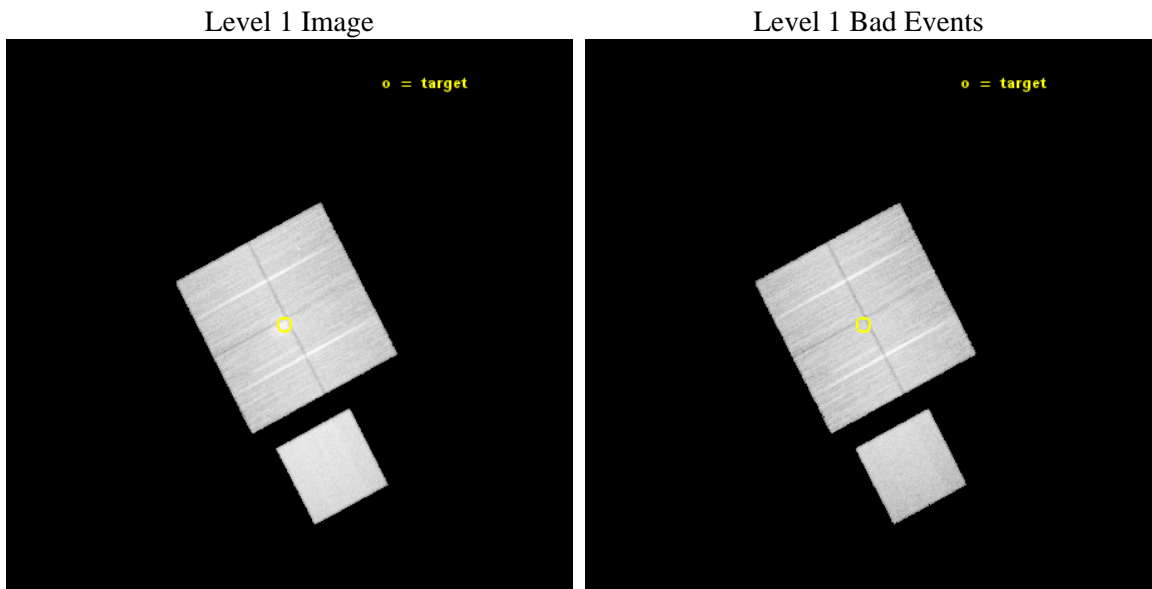
seq_num	801381	Sequence number
obs_id	16524	Observation id
title	SNAPSHOTS IN THE HISTORY OF DISSOCIATIVE MAJOR MERGERS	Proposal ti
observer	Dr Florian Pacaud	Principal investigator
object	Abell S0295	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.365417	Observer's specified target RA [deg]
dec_targ	-53.036111	Observer's specified target Dec [deg]
ra_nom	41.352220711382	Nominal RA [deg]
dec_nom	-53.034640981814	Nominal Dec [deg]
roll_nom	152.19813828837	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45191.677516401	Sum of GTIs [s]
liveltime	44601.21498002	Livetime [s]
ontime0	45197.959387302	Sum of GTIs [s]
ontime1	45201.100347638	Sum of GTIs [s]
ontime2	45194.818397045	Sum of GTIs [s]
ontime3	45191.677516401	Sum of GTIs [s]
ontime7	45201.100347638	Sum of GTIs [s]
l2events	233964	Number of level 2 events



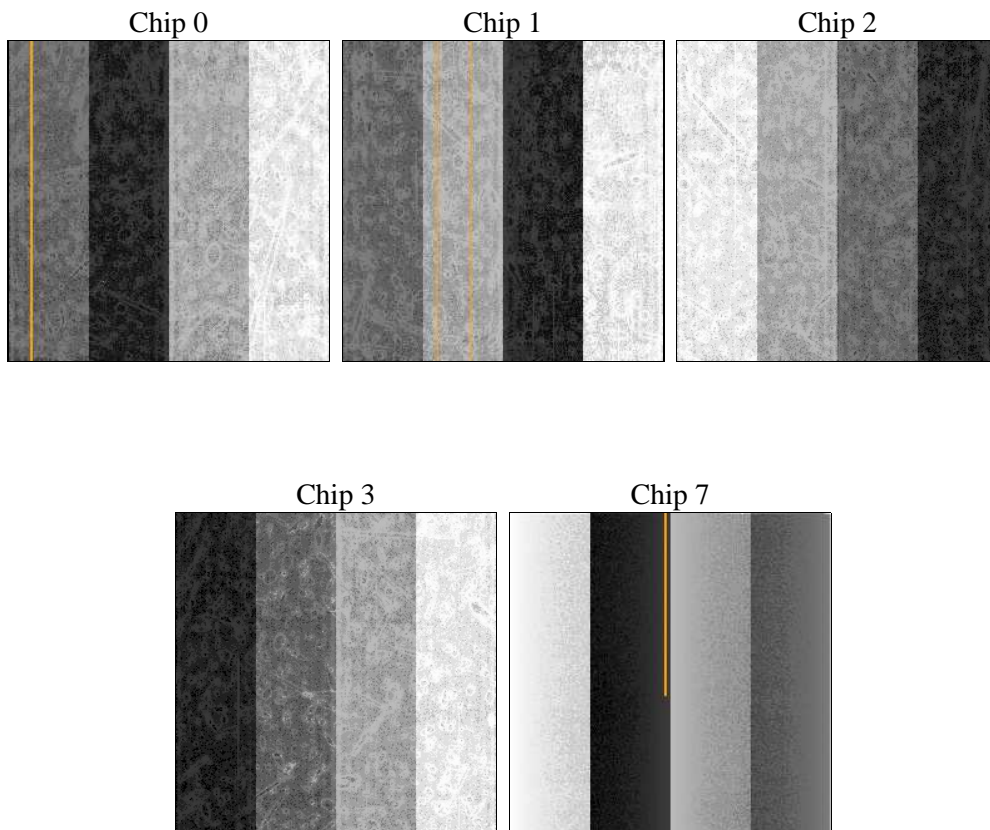
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	45134.040000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	45191.677516401	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	45197.959387302	Sum of GTIs [s]
date	2014-12-11T22:53:50	Date and time of file creation	ontime1	45201.100347638	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	45194.818397045	Sum of GTIs [s]
			ontime3	45191.677516401	Sum of GTIs [s]
			ontime7	45201.100347638	Sum of GTIs [s]
			l1events	1167884	Number of level 1 events

### 2.1.4 Events

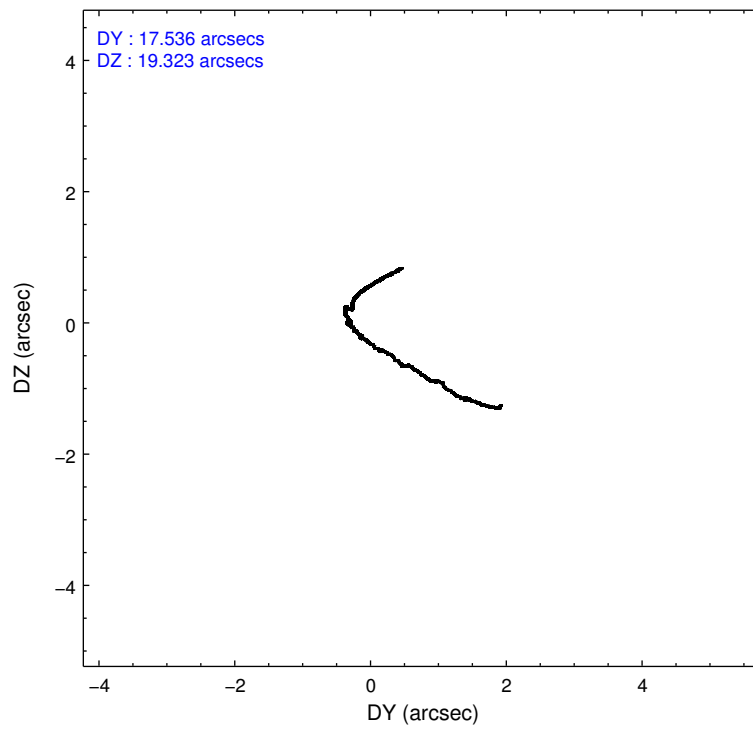
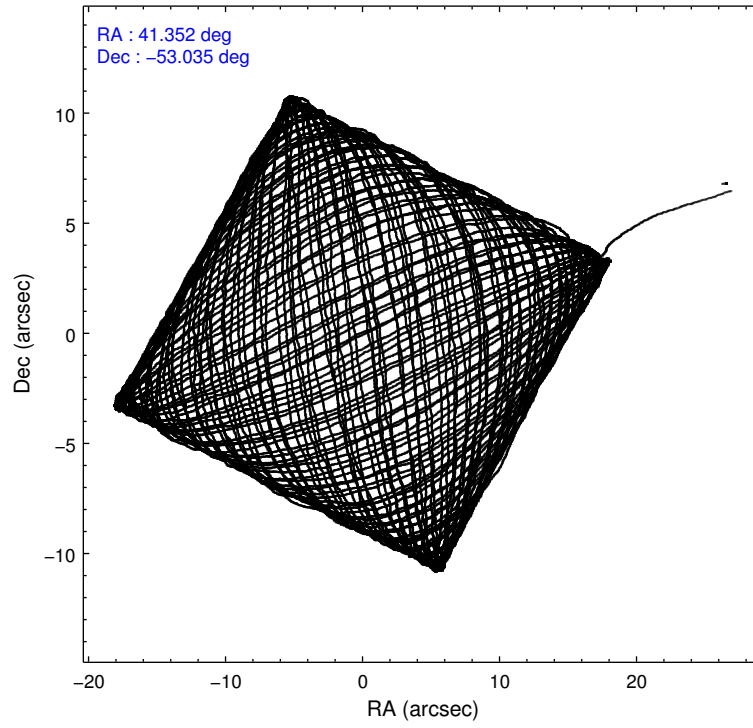
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	201964	210427	219356	230109	306028
rejected events	174757	178541	192194	193470	173746
rejected %	86%	84%	87%	84%	56%

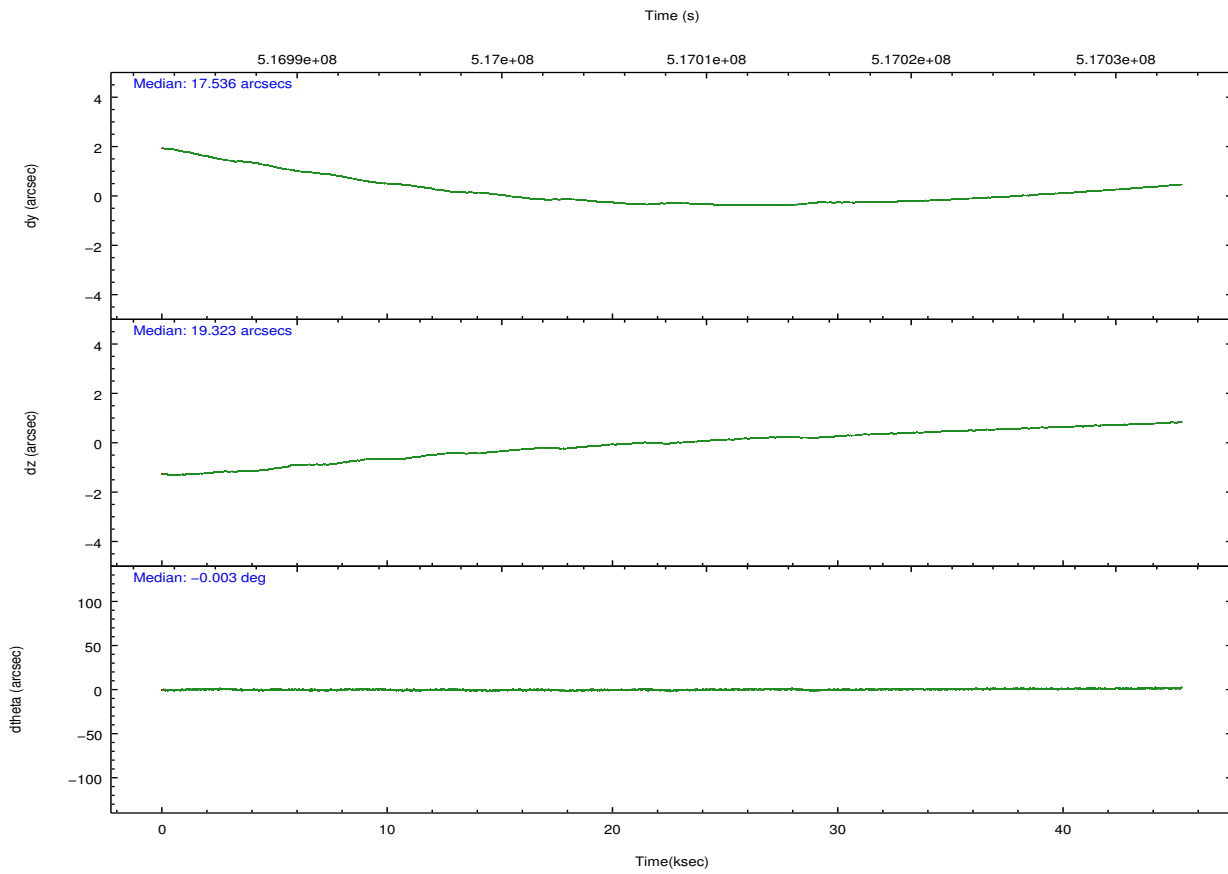
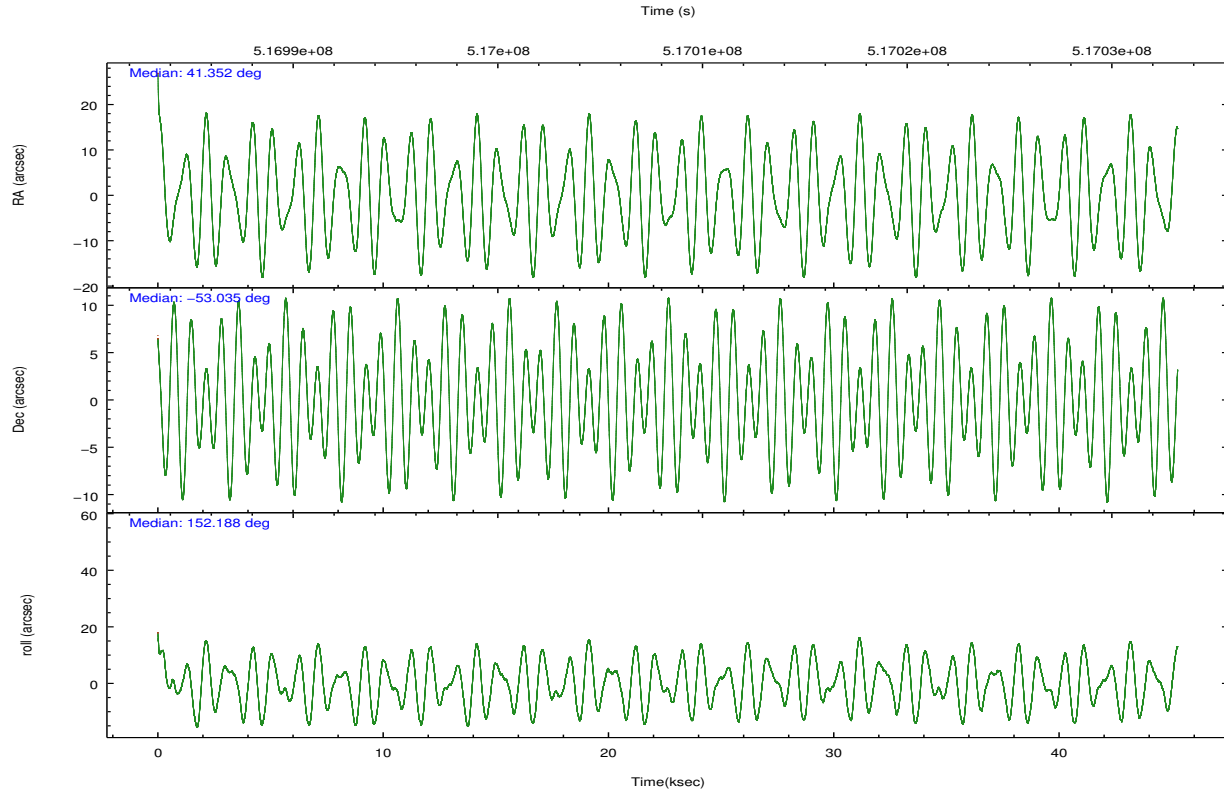
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	9844	12041	10549	18227	11837
	4%	5%	4%	7%	3%
grade 1 events	112	116	142	168	370
	0%	0%	0%	0%	0%
grade 2 events	6654	7435	6383	6691	27167
	3%	3%	2%	2%	8%
grade 3 events	2717	2941	2644	2976	11186
	1%	1%	1%	1%	3%
grade 4 events	2563	3066	2618	2953	10978
	1%	1%	1%	1%	3%
grade 5 events	10244	11059	9562	11656	31056
	5%	5%	4%	5%	10%
grade 6 events	5438	6409	4971	5793	71126
	2%	3%	2%	2%	23%
grade 7 events	164392	167360	182487	181645	142308
	81%	79%	83%	78%	46%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	41.397884	41.35222071138207	Subarray requested	NONE	NONE
[deg] Pointing Dec	-53.033475	-53.03464098181357	Alternating exposures requested	N	N
[deg] Pointing Roll	152.025940	152.1981382883725	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5899487761303			
[mm] SIM translation stage offset	0	-0.002504226799430853			
[s] Observation start time (MET)	516985794.184000	516984558.02106			
Observation start date	2014-05-20T15:08:47	2014-05-20T14:49:18			
[s] Observation end time (MET)	517030928.184000	517031169.38614			
Observation end date	2014-05-21T03:41:01	2014-05-21T03:46:09			
Read mode	TIMED	TIMED			

## 2.3 Aspect





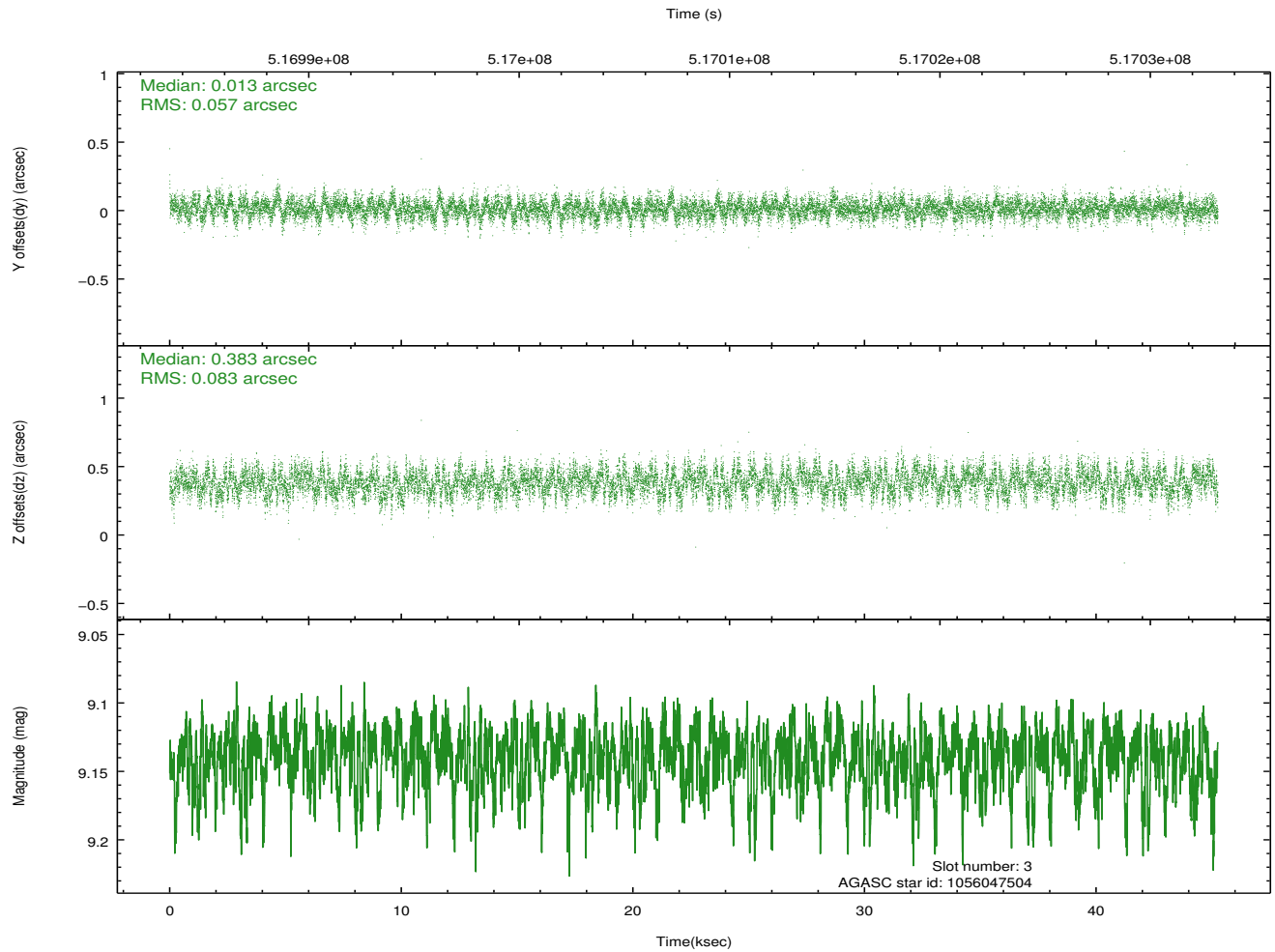
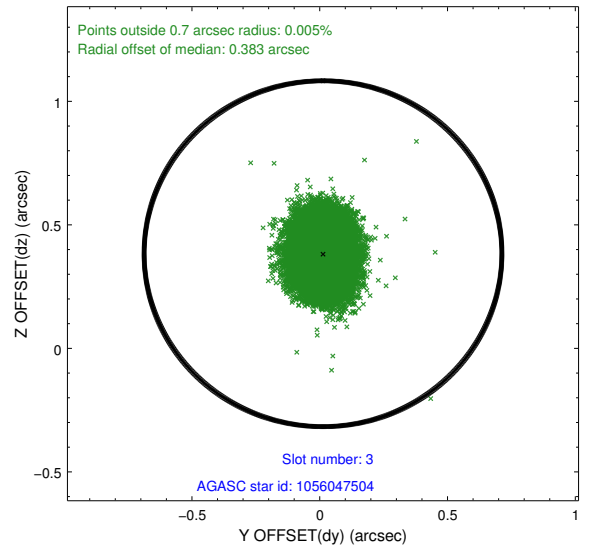
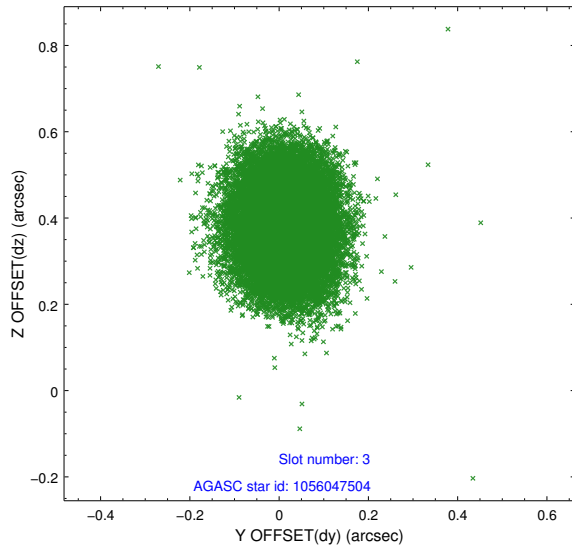
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.07	11040	0.027	0.040	0.017	0.032	0.000000	0.000000	921.68	-842.84
1	FID		ACIS-I-5	7.07	11040	-0.246	0.030	0.016	0.036	0.000000	0.000000	-1826.74	1054.60
2	FID		ACIS-I-6	7.07	11038	0.129	-0.002	0.014	0.029	0.000000	0.000000	387.29	1699.10
3	GUIDE	used	1056047504	9.14	22046	0.013	0.383	0.107	0.173	41.496916	-52.433184	822.08	-2010.31
4	GUIDE	used	1112932480	8.32	22072	0.081	0.242	0.073	0.114	41.121788	-52.787610	946.21	-498.10
5	GUIDE	used	1112937160	7.88	22076	-0.114	-0.244	0.075	0.121	40.691929	-52.972857	1450.31	532.16
6	GUIDE	used	1112936088	7.46	22075	-0.212	-0.350	0.071	0.108	40.359428	-53.320074	1480.54	1972.74
7	GUIDE	used	1112939176	8.79	22066	0.234	-0.036	0.101	0.158	41.725683	-53.516285	-1435.57	1207.20

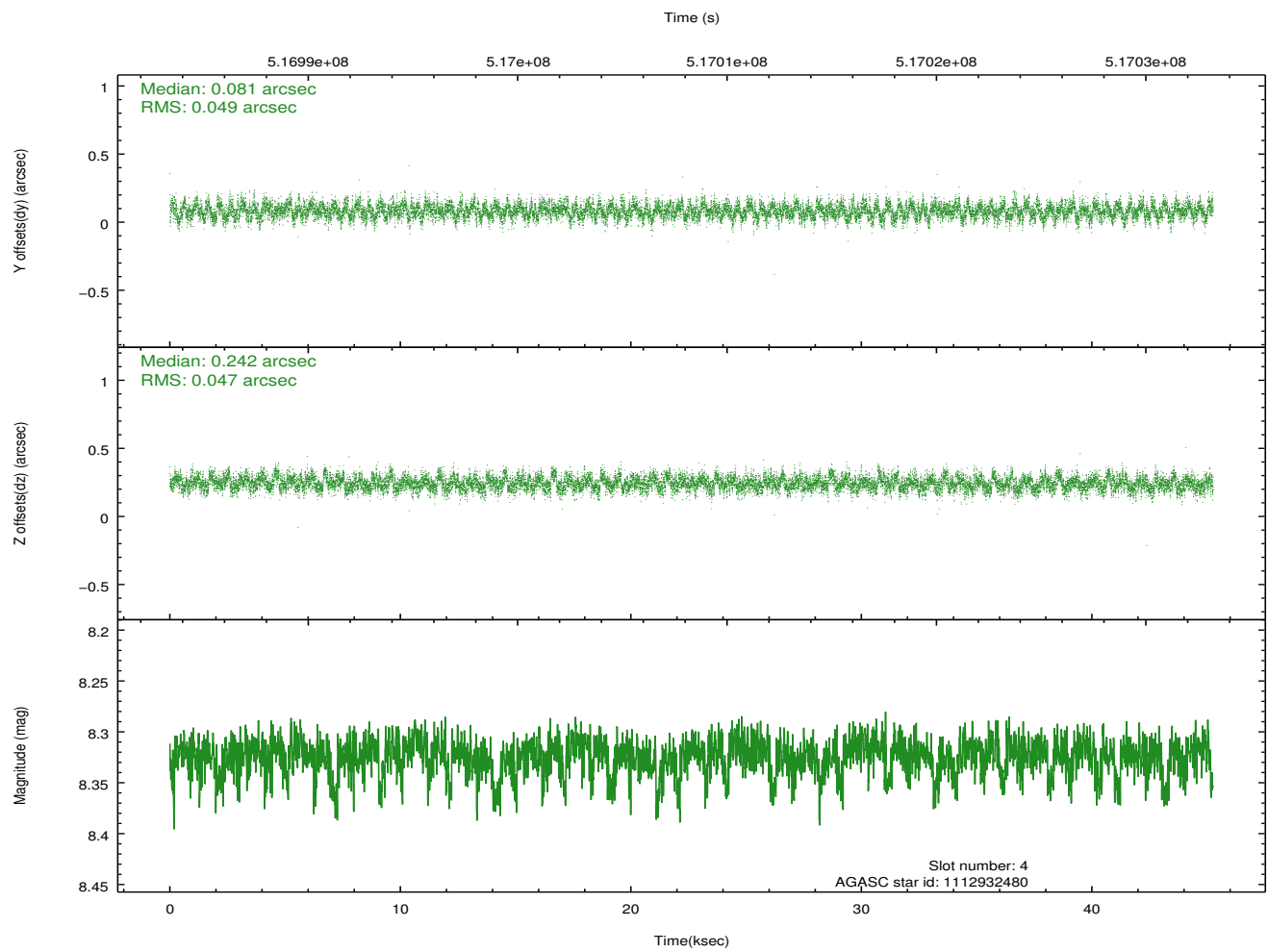
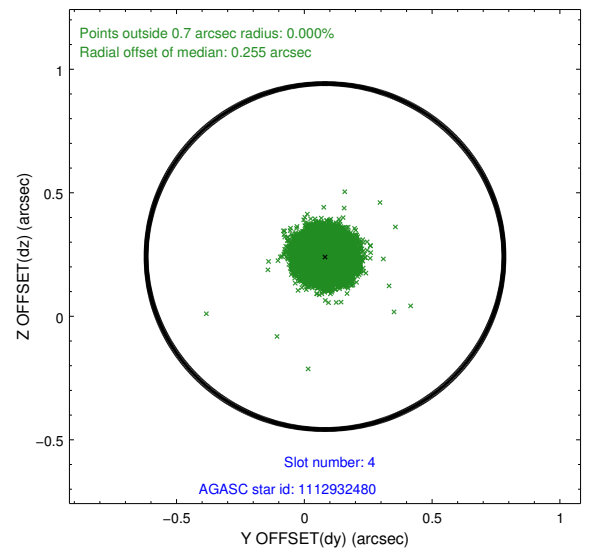
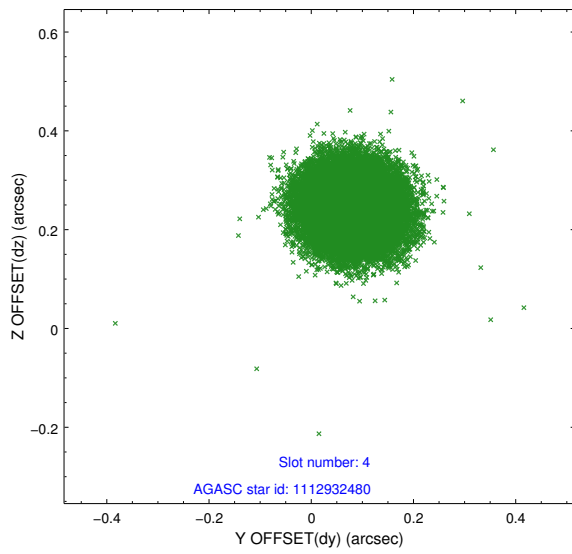
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## 2.4 Star Slots

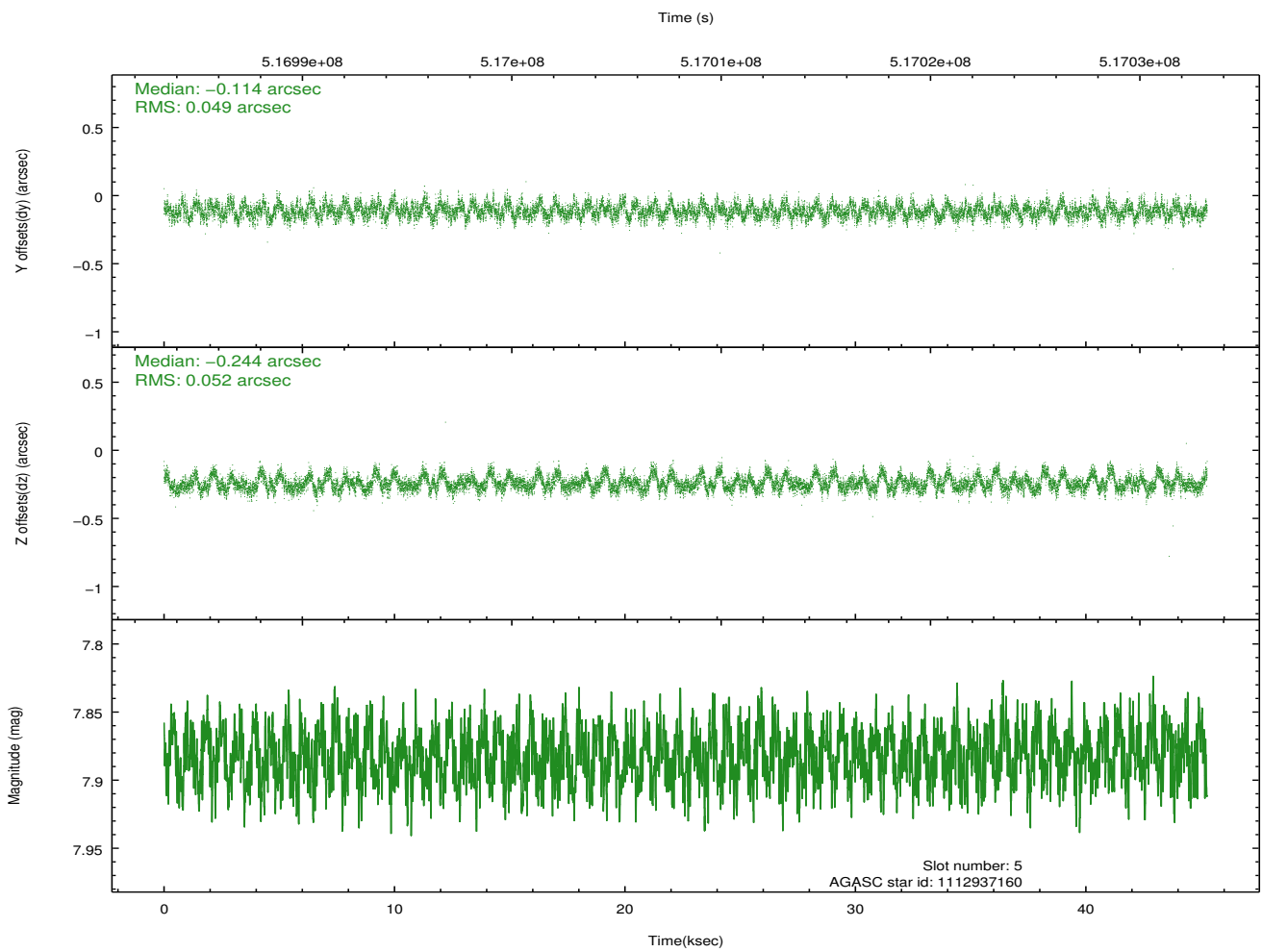
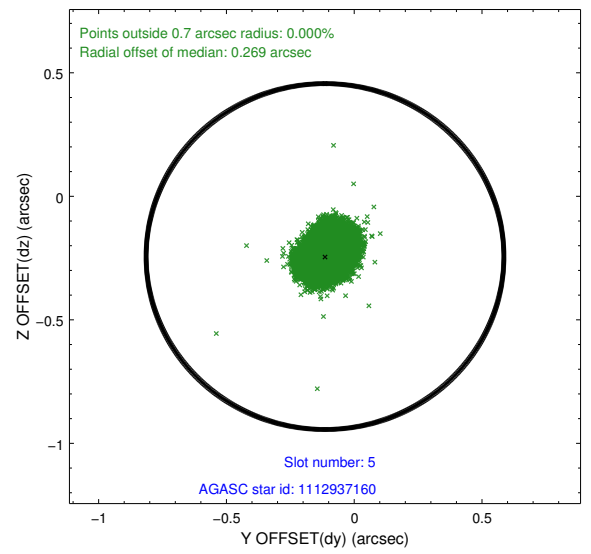
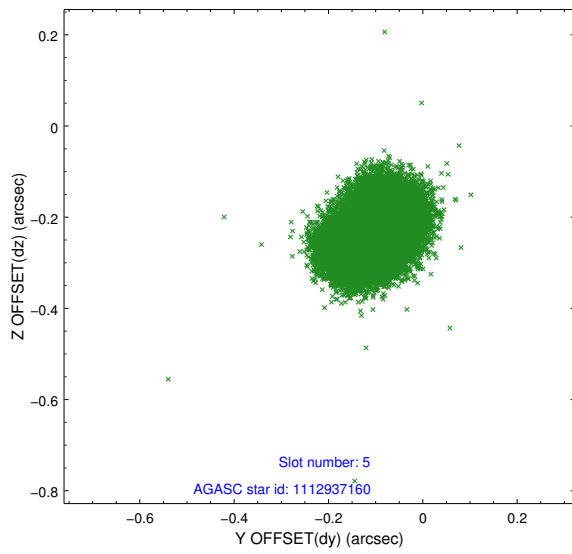
### 2.4.1 Slot 3



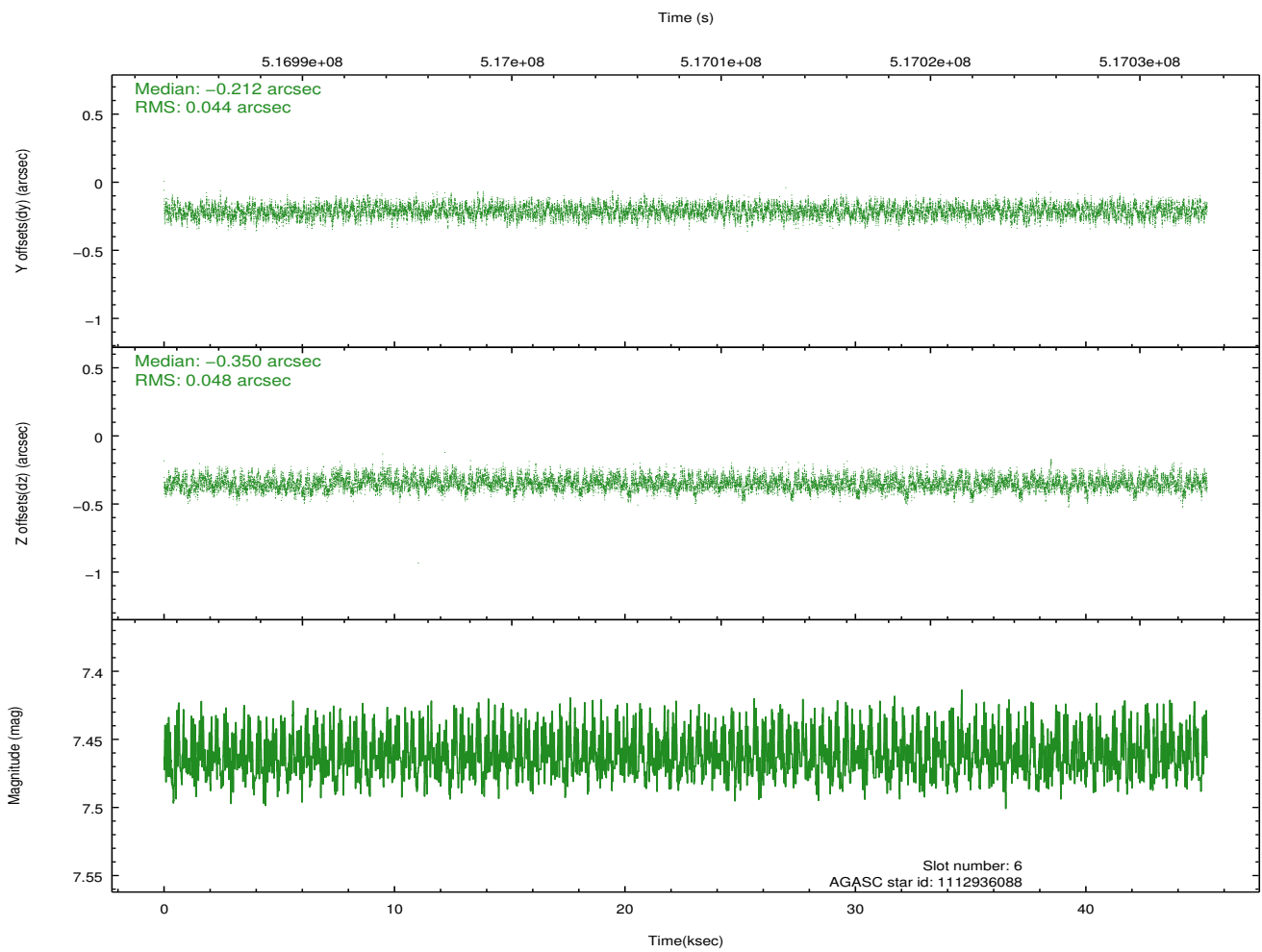
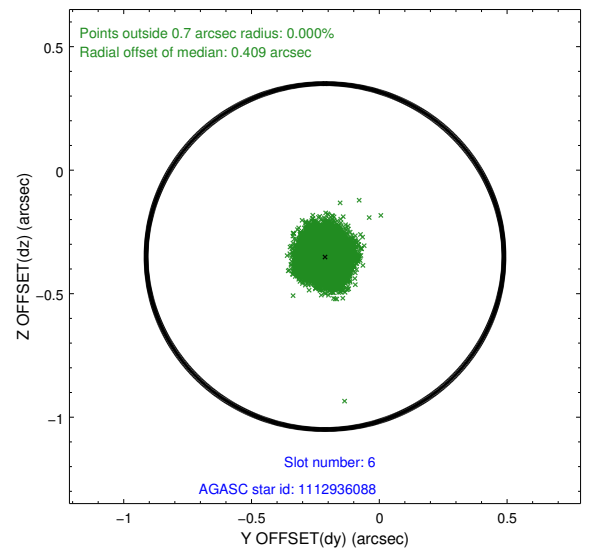
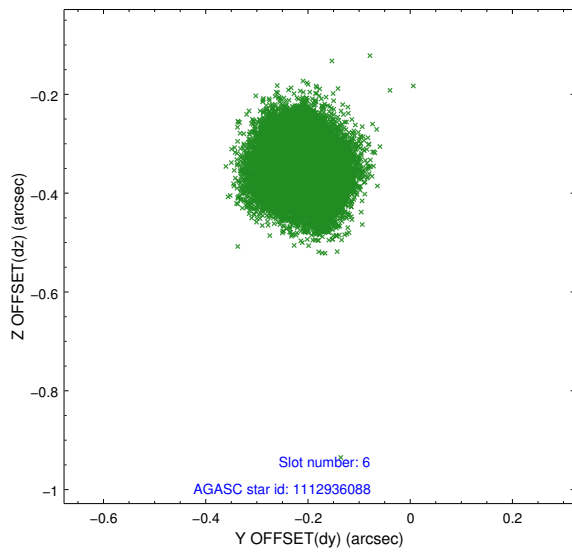
## 2.4.2 Slot 4



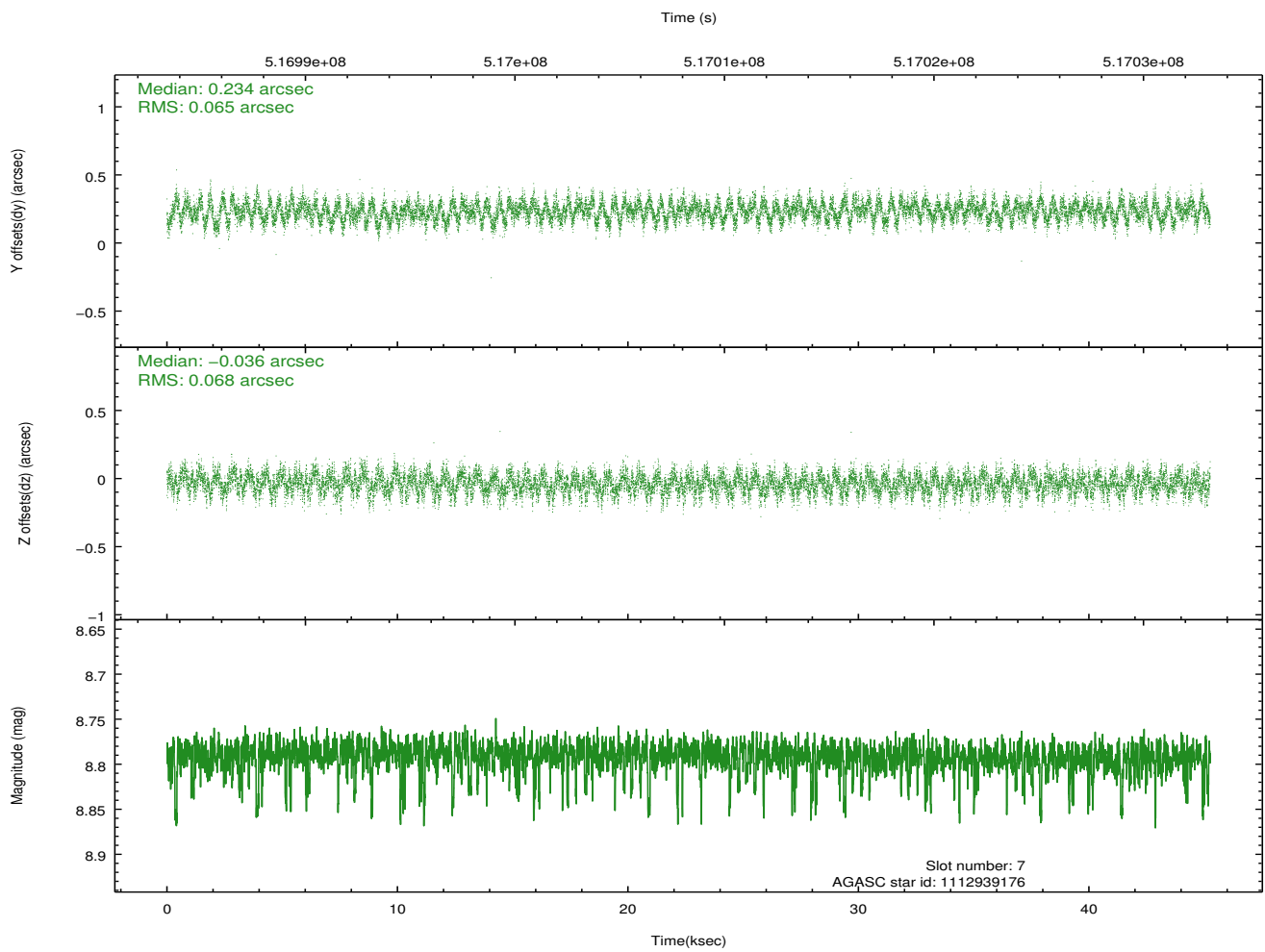
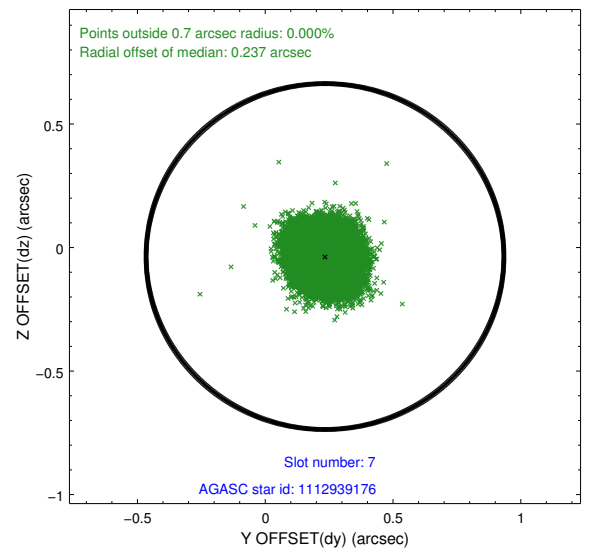
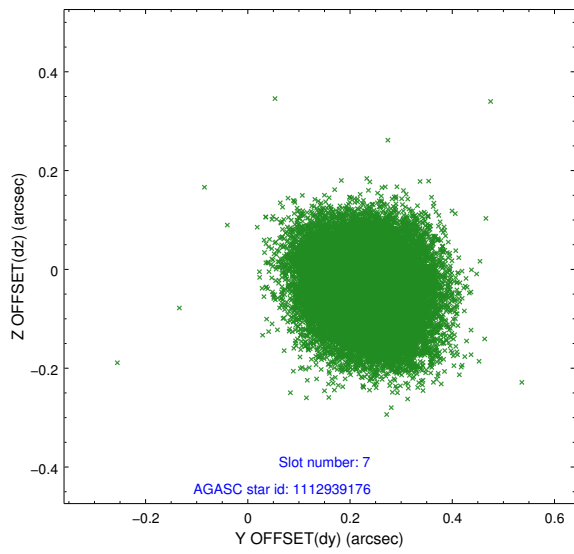
### 2.4.3 Slot 5



## 2.4.4 Slot 6

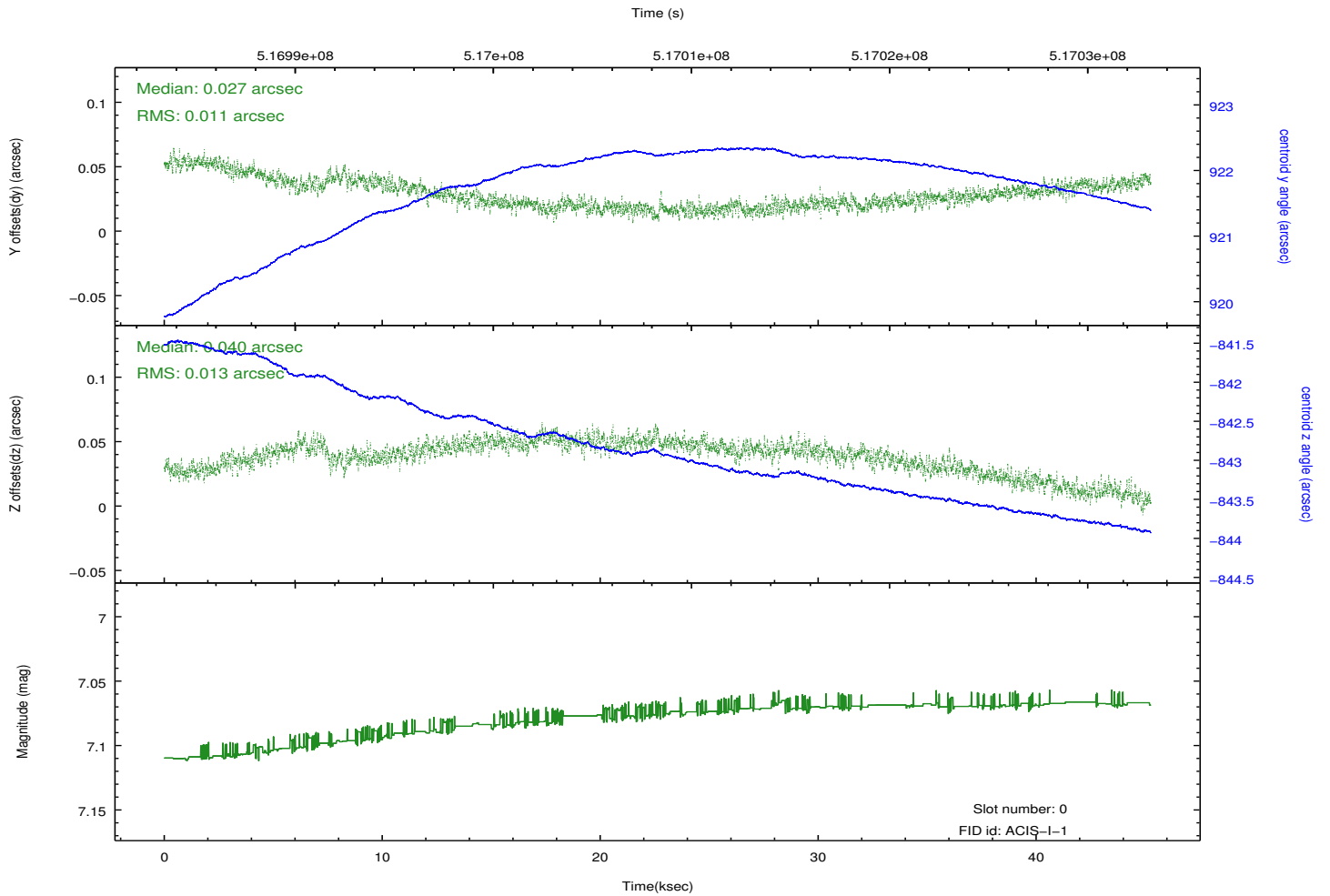
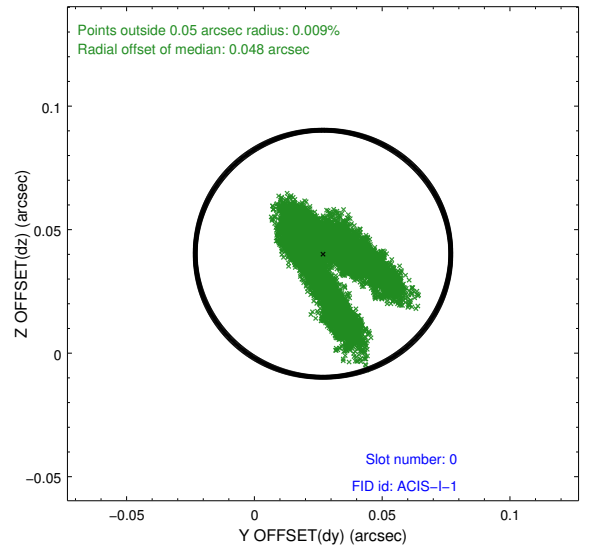
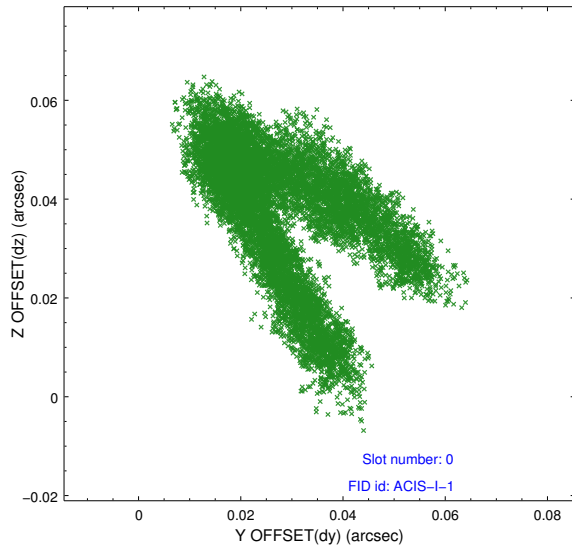


## 2.4.5 Slot 7

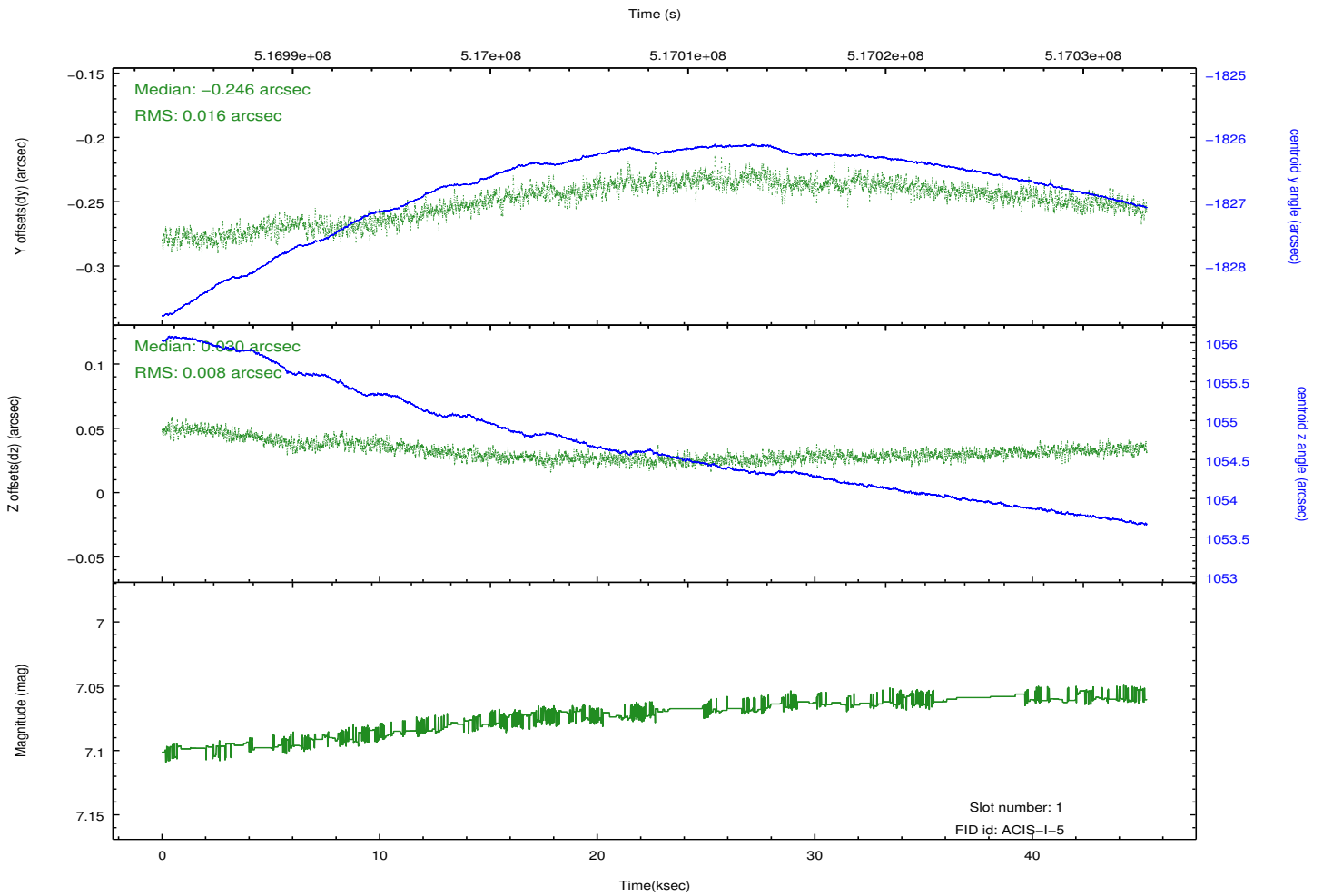
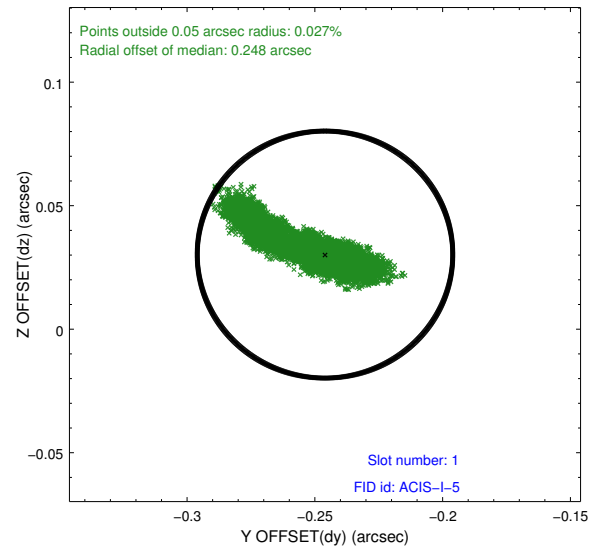
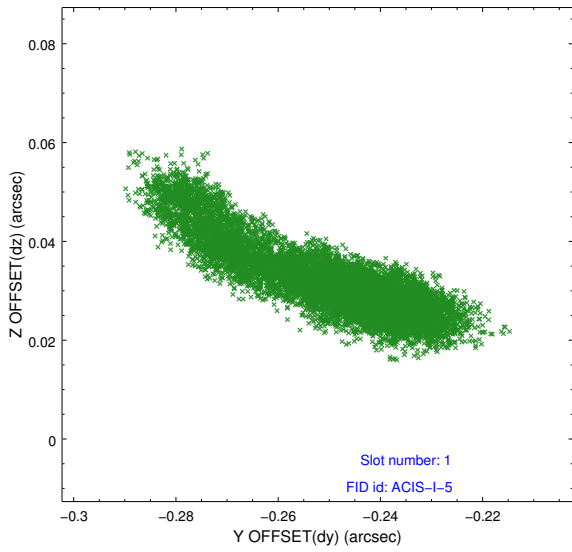


## 2.5 FID Slots

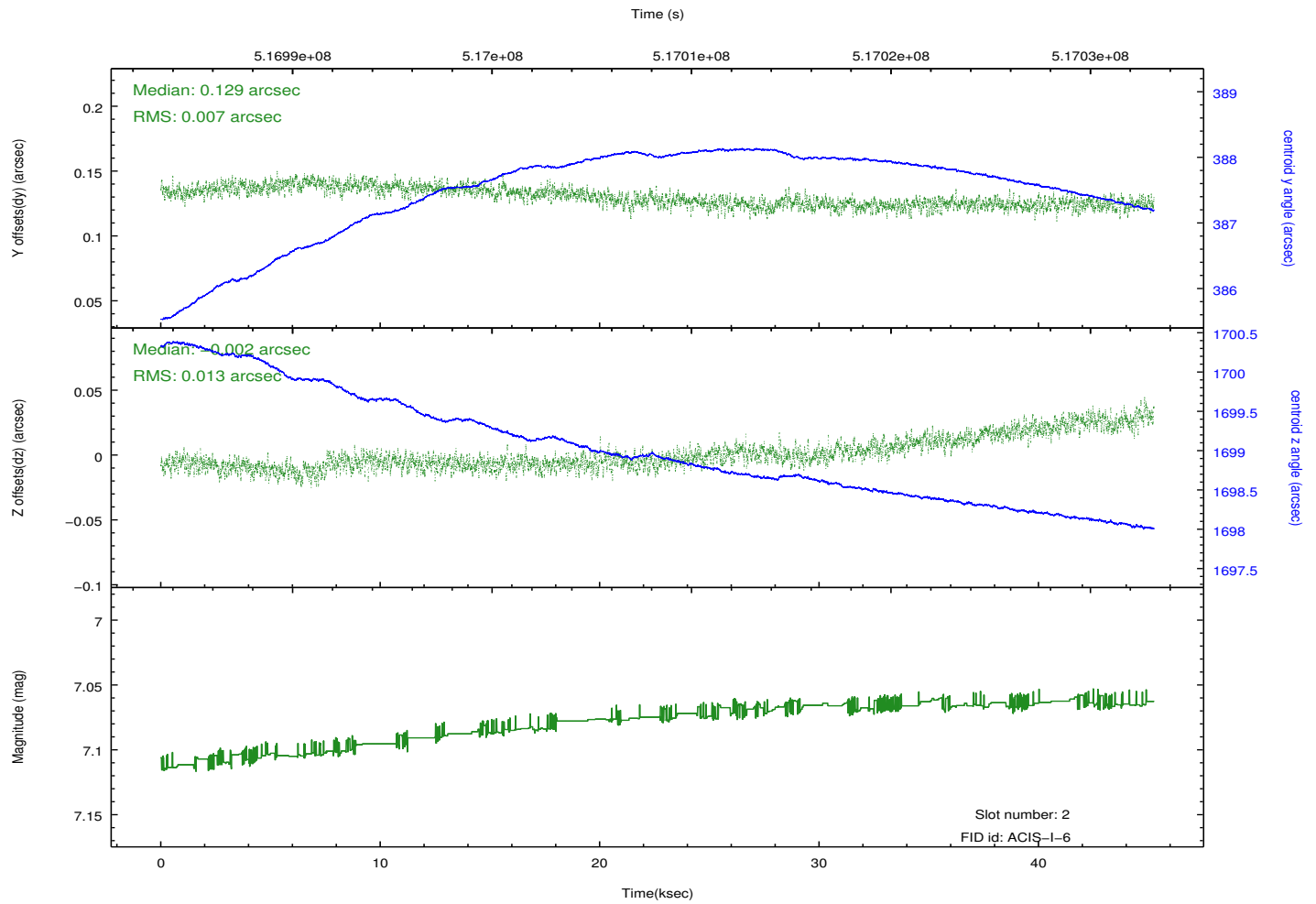
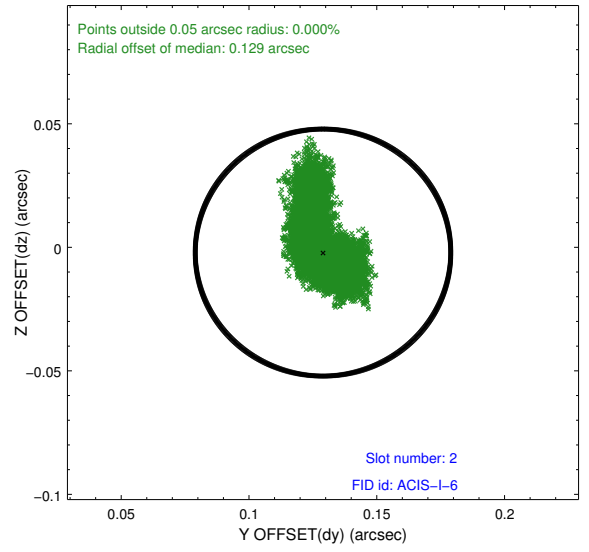
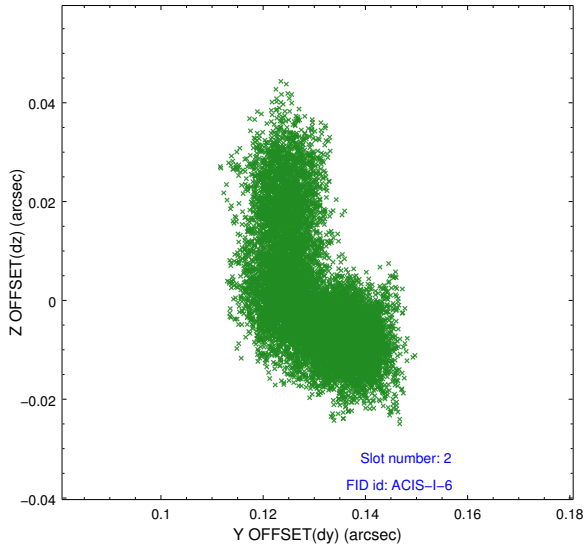
### 2.5.1 Slot 0



## 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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.191677516401

## A.2 Comments

Joint proposal with HST.

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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.