

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14683 - L2 Version 2  
Chandra X-Ray Center

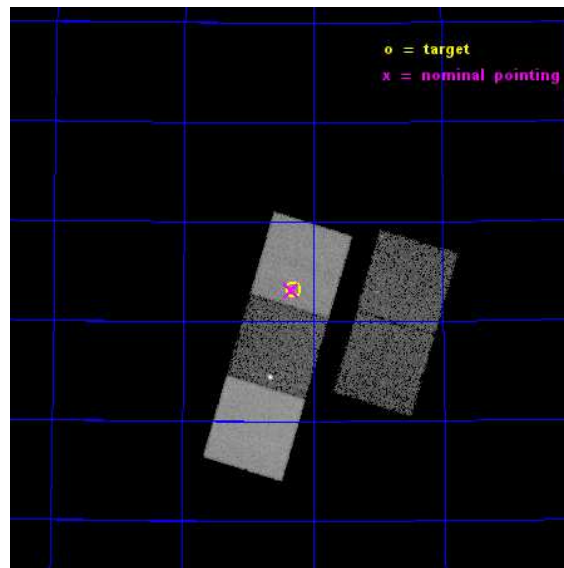
L2 Processing Date : Dec 4 2014

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

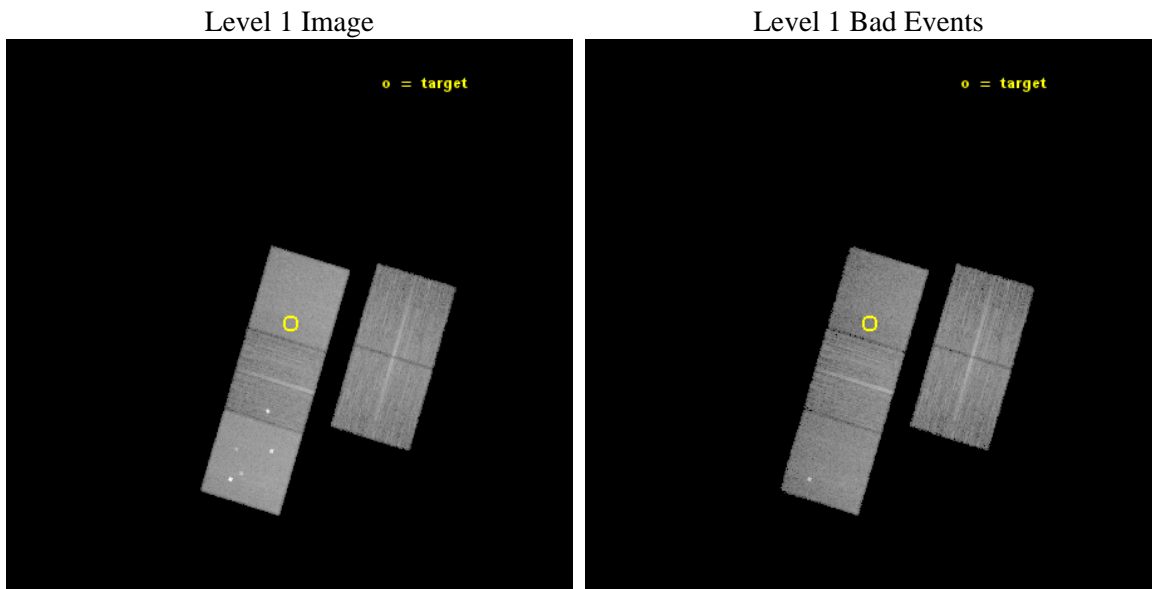
seq_num	501817	Sequence number
obs_id	14683	Observation id
title	Identification of the Host Galaxy of Swift Short GRBs by the Chandra Sub-arcsecond Position	Proposal title
observer	Takanori Sakamoto	Principal investigator
object	Short GRB ToO	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	179.577083	Observer's specified target RA [deg]
dec_targ	63.052944	Observer's specified target Dec [deg]
ra_nom	179.58354586401	Nominal RA [deg]
dec_nom	63.052131619254	Nominal Dec [deg]
roll_nom	286.73085332333	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20069.400154352	Sum of GTIs [s]
livetime	19807.178666458	Livetime [s]
ontime2	20069.239650726	Sum of GTIs [s]
ontime3	20069.28069073	Sum of GTIs [s]
ontime5	20069.362770736	Sum of GTIs [s]
ontime6	20069.321730733	Sum of GTIs [s]
ontime7	20069.400154352	Sum of GTIs [s]
l2events	162698	Number of level 2 events



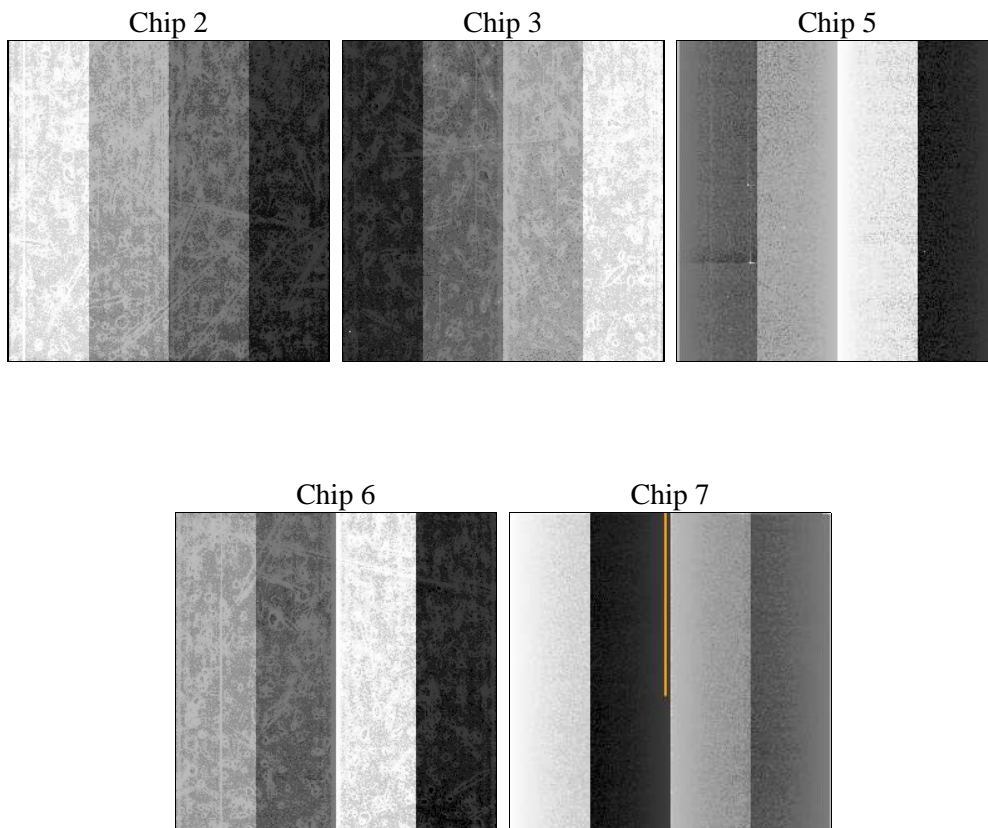
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	20069.400154352	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	20069.239650726	Sum of GTIs [s]
date	2014-12-04T19:39:00	Date and time of file creation	ontime3	20069.28069073	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	20069.362770736	Sum of GTIs [s]
			ontime6	20069.321730733	Sum of GTIs [s]
			ontime7	20069.400154352	Sum of GTIs [s]
			l1events	590729	Number of level 1 events

### 2.1.4 Events

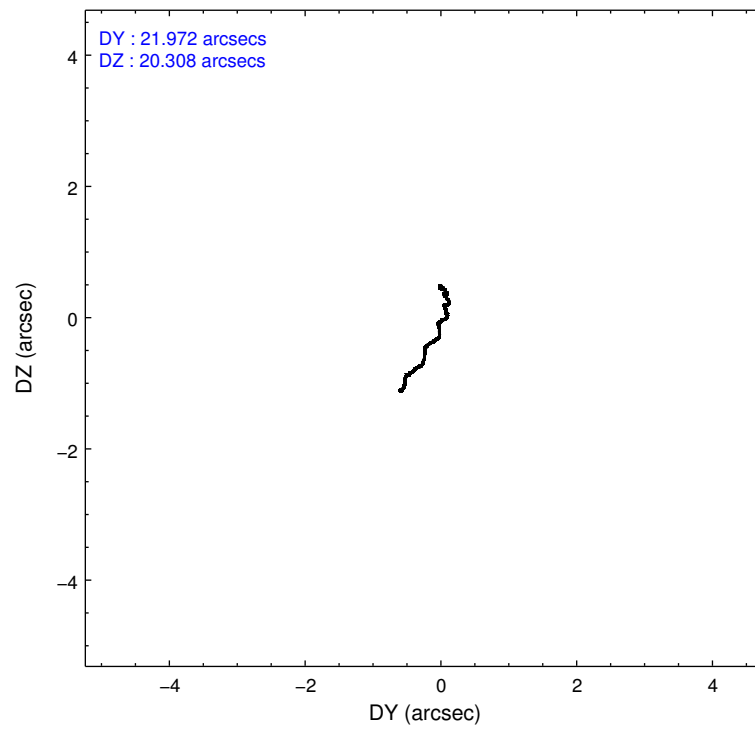
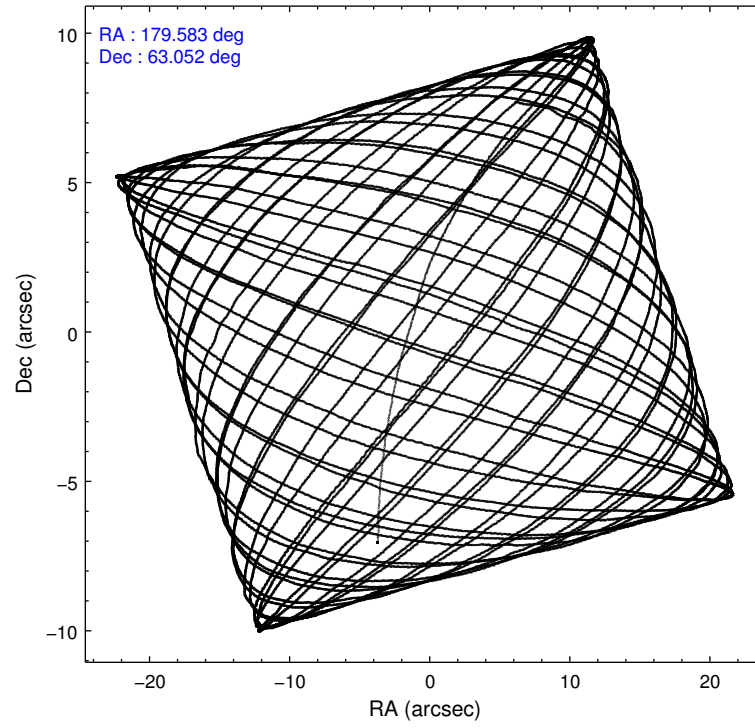
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	94848	89638	171987	101218	133038
rejected events	84061	79115	85035	86034	75185
rejected %	88%	88%	49%	84%	56%

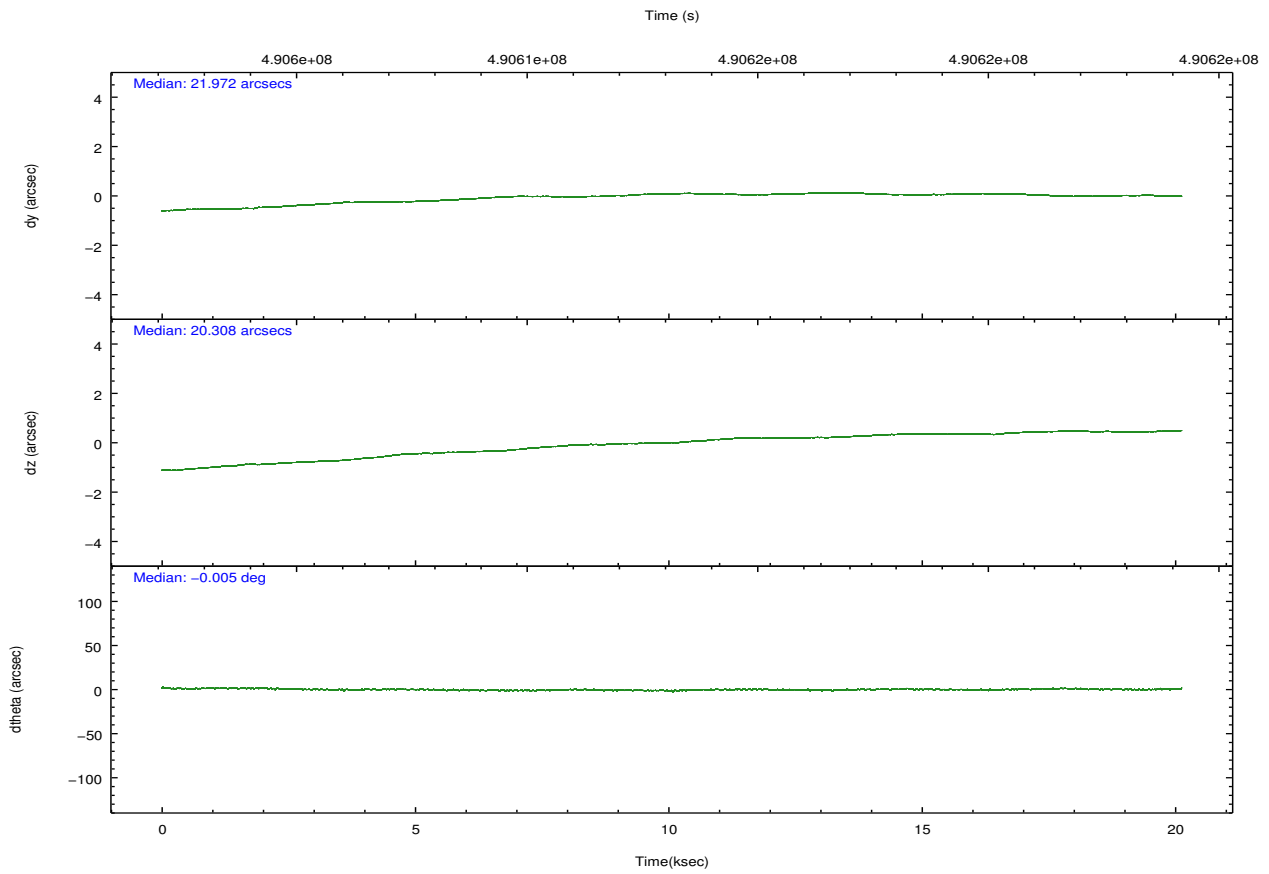
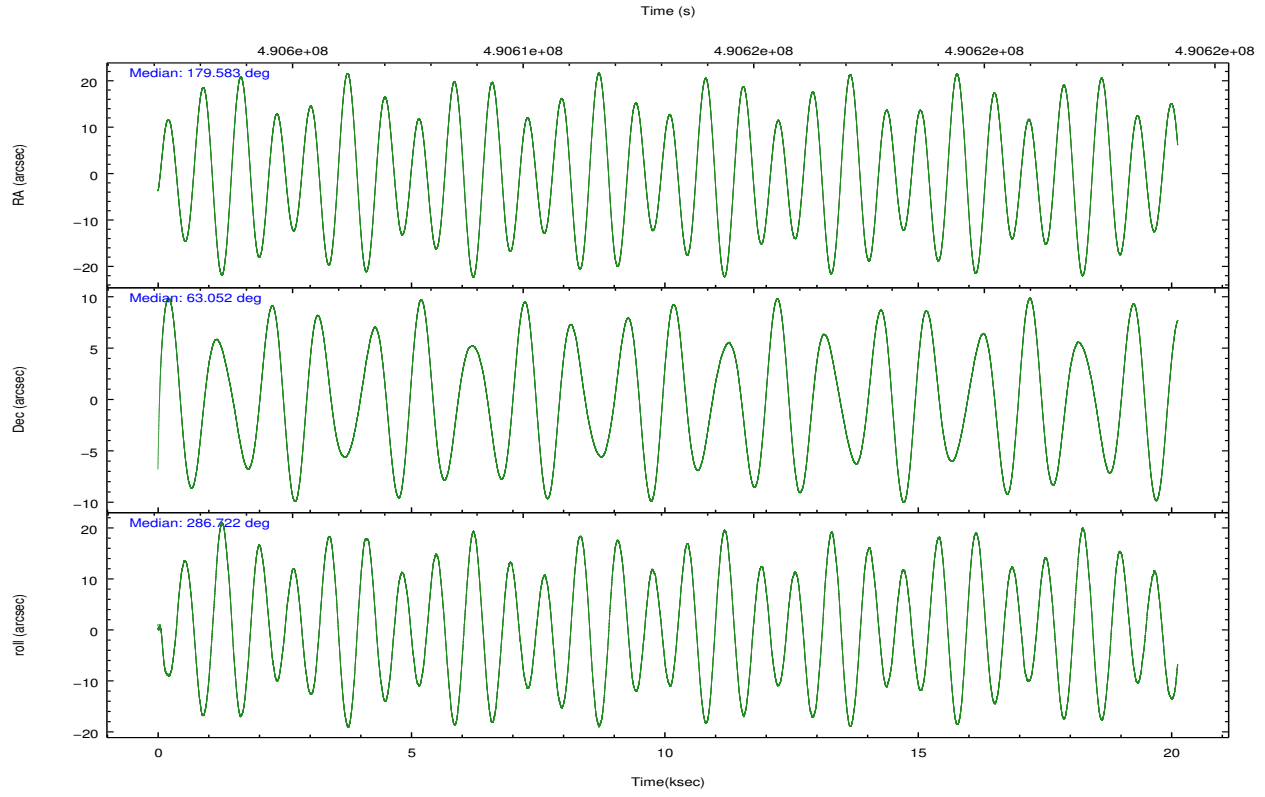
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	3807	3685	12989	6719	4950
	4%	4%	7%	6%	3%
grade 1 events	54	50	1504	64	142
	0%	0%	0%	0%	0%
grade 2 events	2680	2314	25677	3074	11865
	2%	2%	14%	3%	8%
grade 3 events	1074	1139	3191	1270	4909
	1%	1%	1%	1%	3%
grade 4 events	1137	1132	2718	1348	4891
	1%	1%	1%	1%	3%
grade 5 events	4160	5097	12204	5145	13702
	4%	5%	7%	5%	10%
grade 6 events	2097	2257	42407	2775	31264
	2%	2%	24%	2%	23%
grade 7 events	79839	73964	71297	80823	61315
	84%	82%	41%	79%	46%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	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	179.538993	179.5835458640054	Subarray requested	NONE	NONE
[deg] Pointing Dec	63.070584	63.05213161925417	Alternating exposures requested	N	N
[deg] Pointing Roll	286.613942	286.7308533233341	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	490603191.184000	490601734.61096			
Observation start date	2013-07-19T06:38:44	2013-07-19T06:15:34			
[s] Observation end time (MET)	490623191.184000	490623918.68717			
Observation end date	2013-07-19T12:12:04	2013-07-19T12:25:18			
Read mode	TIMED	TIMED			

## 2.3 Aspect





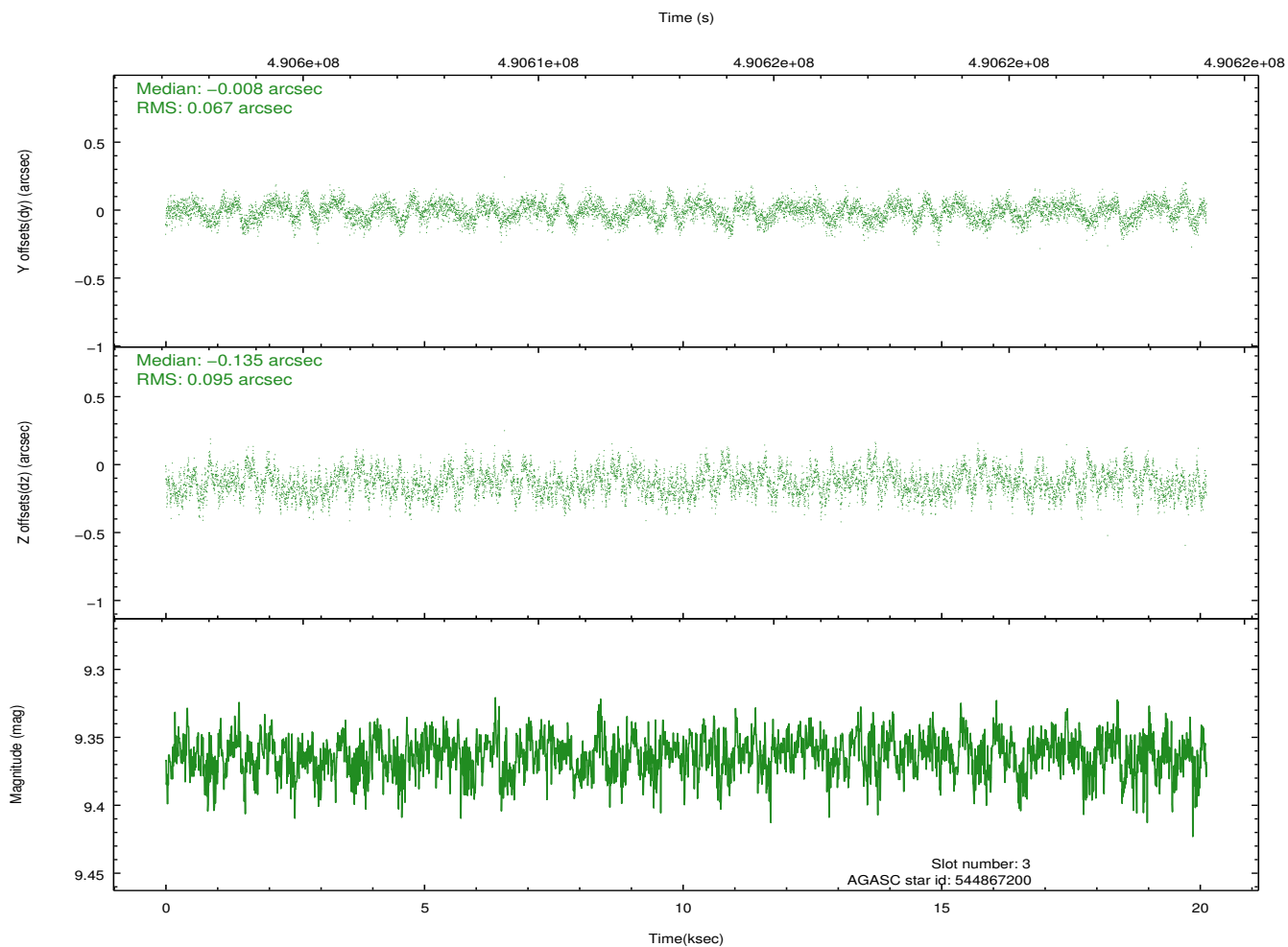
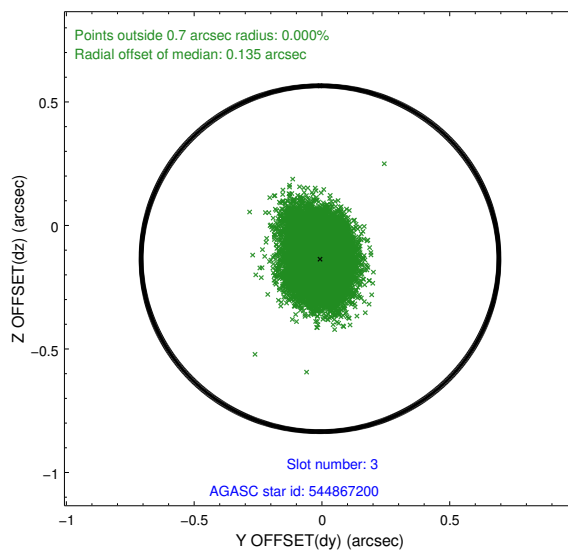
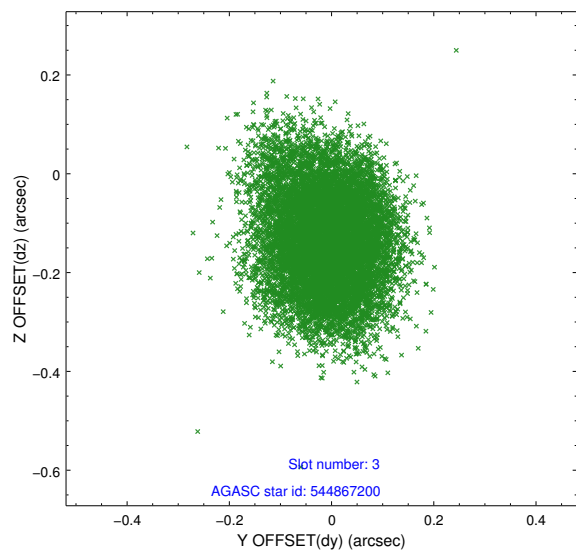
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	4909	-0.113	0.000	0.010	0.018	0.000000	0.000000	-775.14	-1741.74
1	FID		ACIS-S-4	7.02	4908	0.221	0.055	0.008	0.013	0.000000	0.000000	2138.36	166.63
2	FID		ACIS-S-5	7.05	4909	-0.140	-0.046	0.009	0.019	0.000000	0.000000	-1827.79	160.38
3	GUIDE	used	544867200	9.36	9812	-0.008	-0.135	0.124	0.198	180.569765	63.403828	-685.76	1938.62
4	GUIDE	used	544871536	9.16	9755	0.207	-0.038	0.112	0.183	179.981451	63.181811	-180.37	803.82
5	GUIDE	used	544873336	7.99	9818	0.010	0.173	0.083	0.129	178.246315	62.923787	-118.84	-2174.14
6	GUIDE	used	544874928	8.89	9814	-0.160	-0.171	0.086	0.136	180.264899	62.998325	581.39	1063.57
7	GUIDE	used	544866848	8.85	9807	-0.043	0.166	0.096	0.157	178.251764	62.754036	465.95	-2351.94

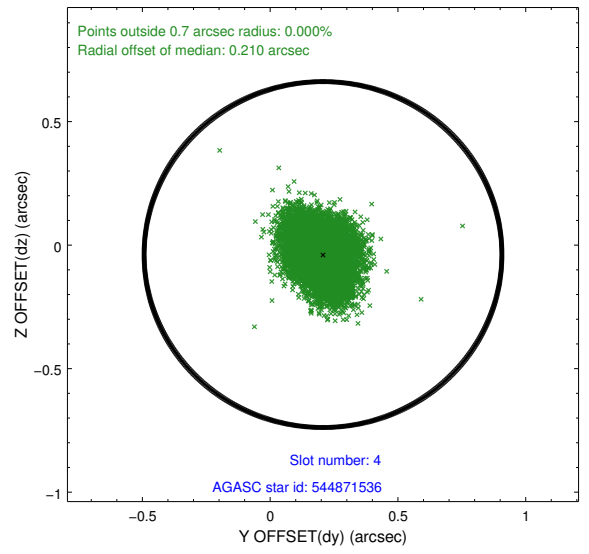
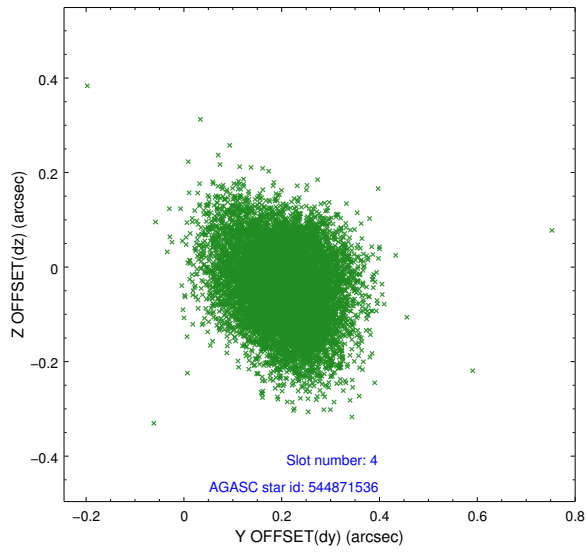
∞

## 2.4 Star Slots

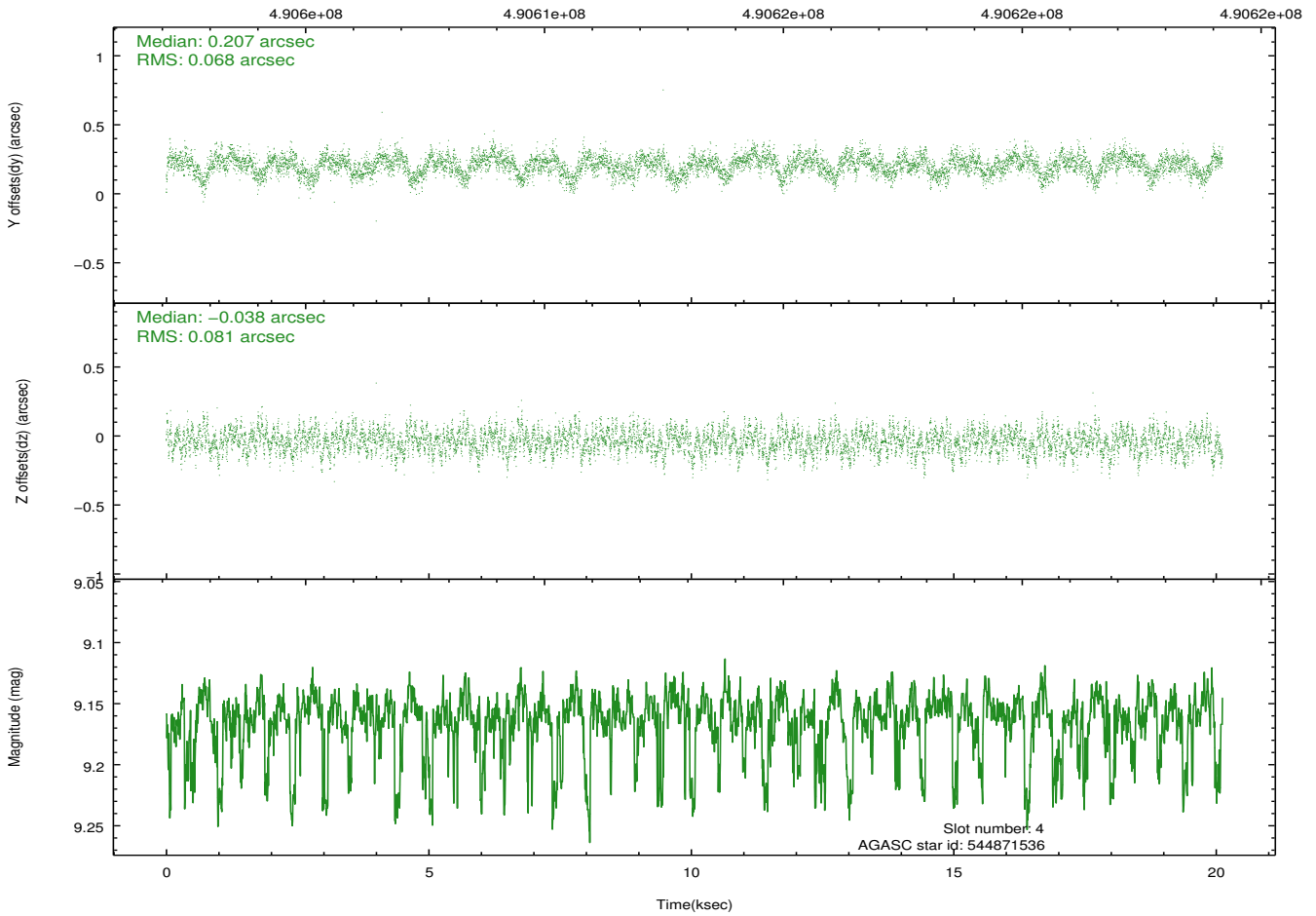
### 2.4.1 Slot 3



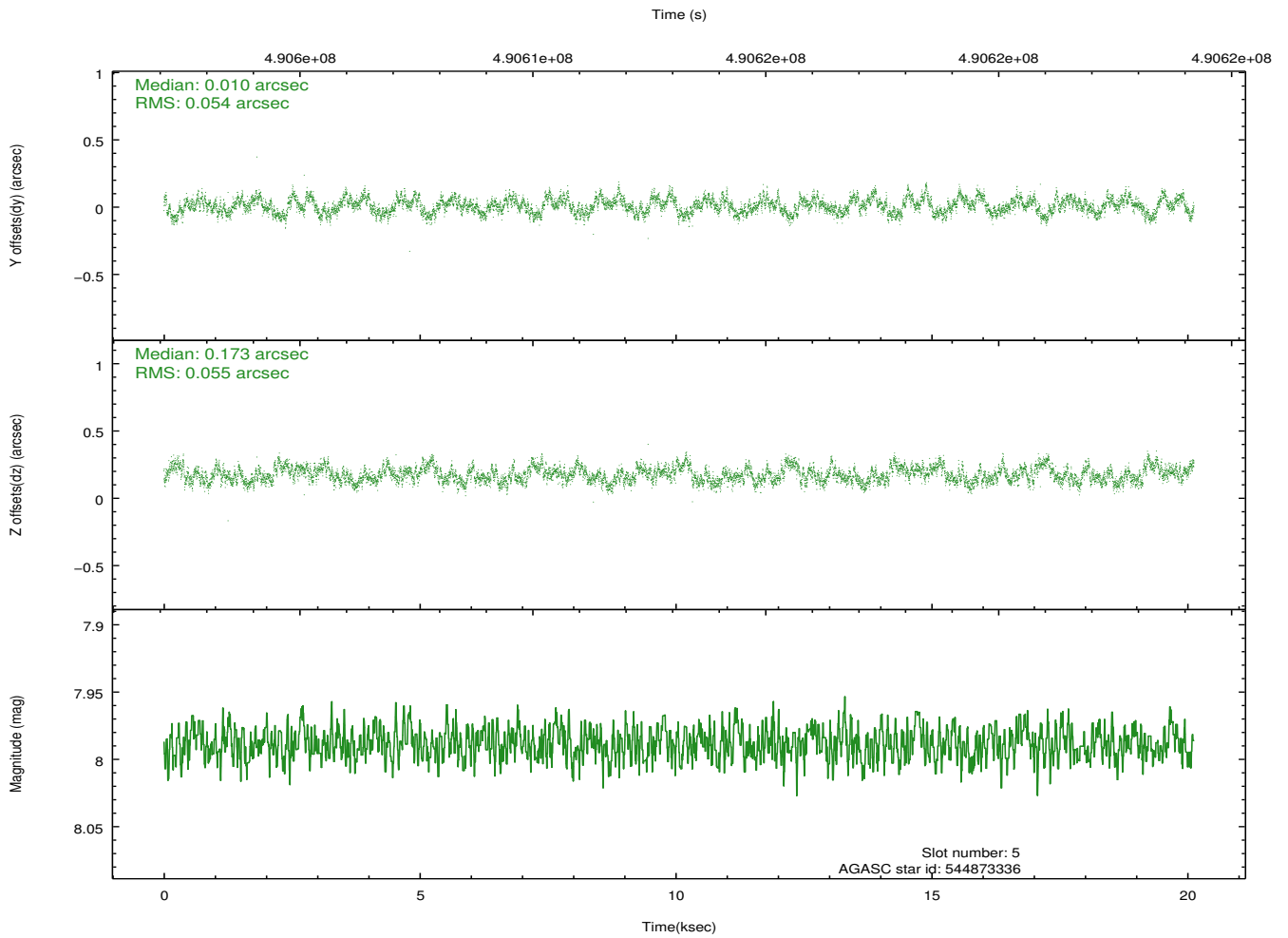
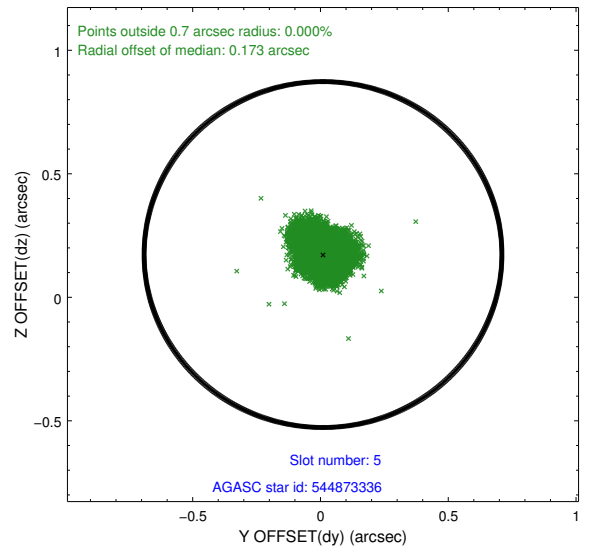
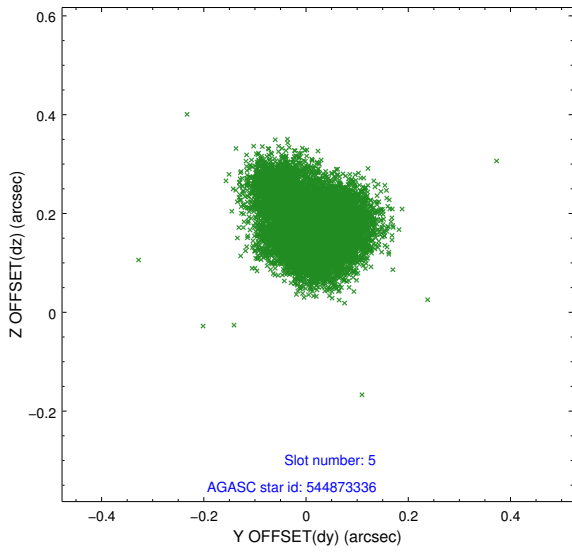
## 2.4.2 Slot 4



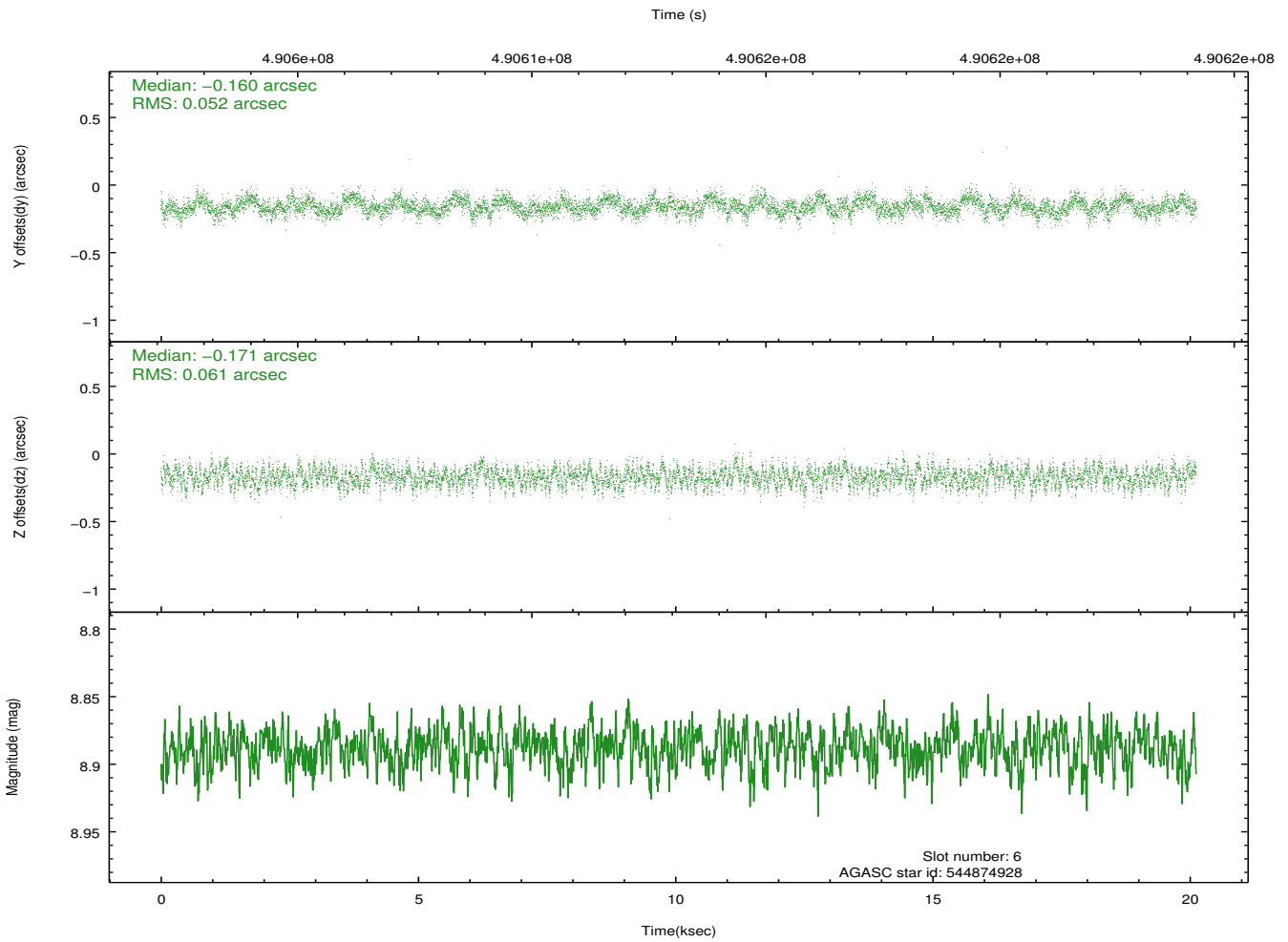
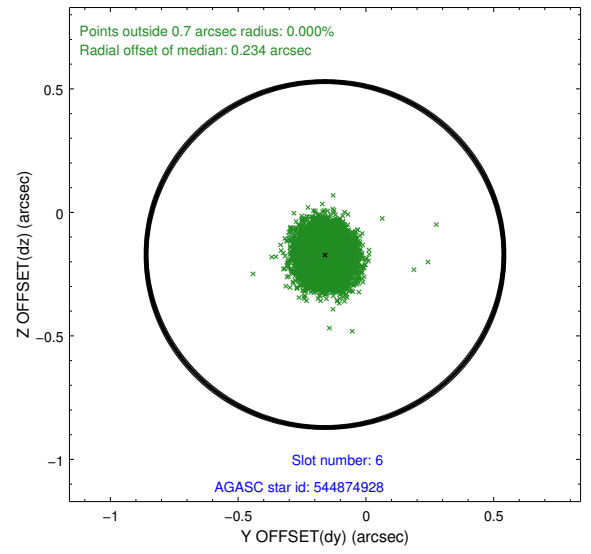
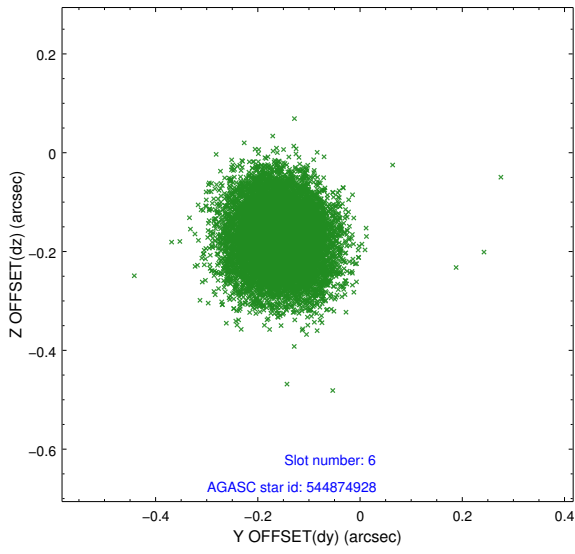
Time (s)



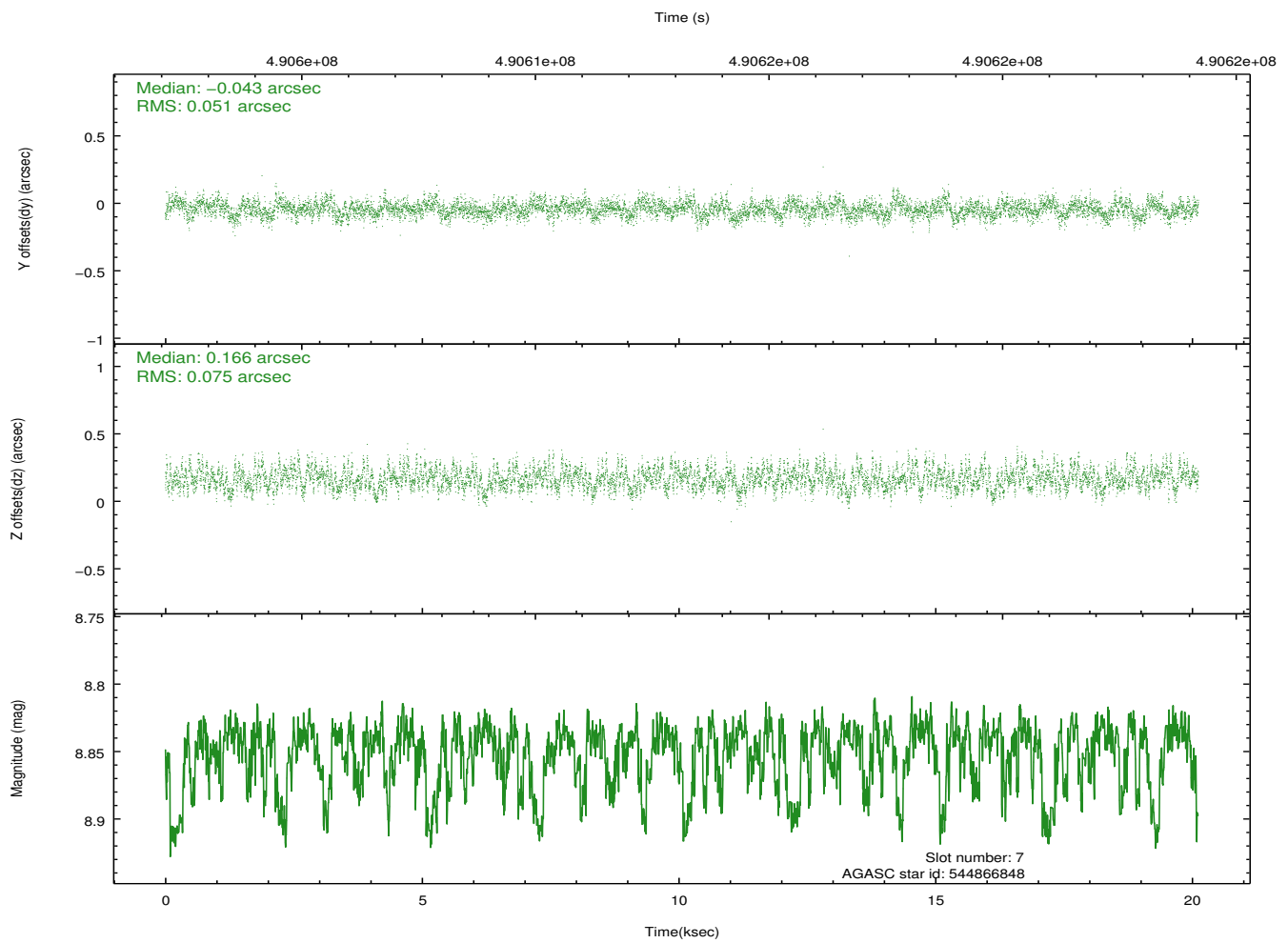
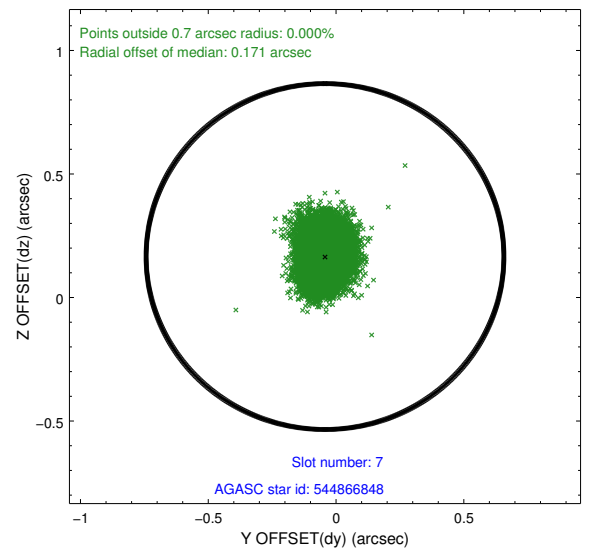
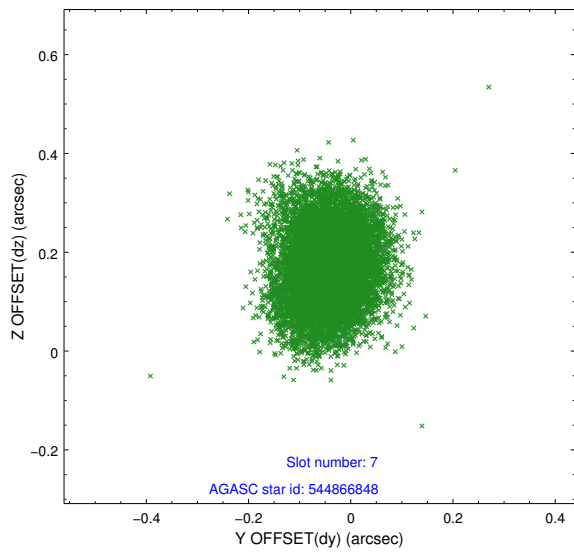
### 2.4.3 Slot 5



## 2.4.4 Slot 6

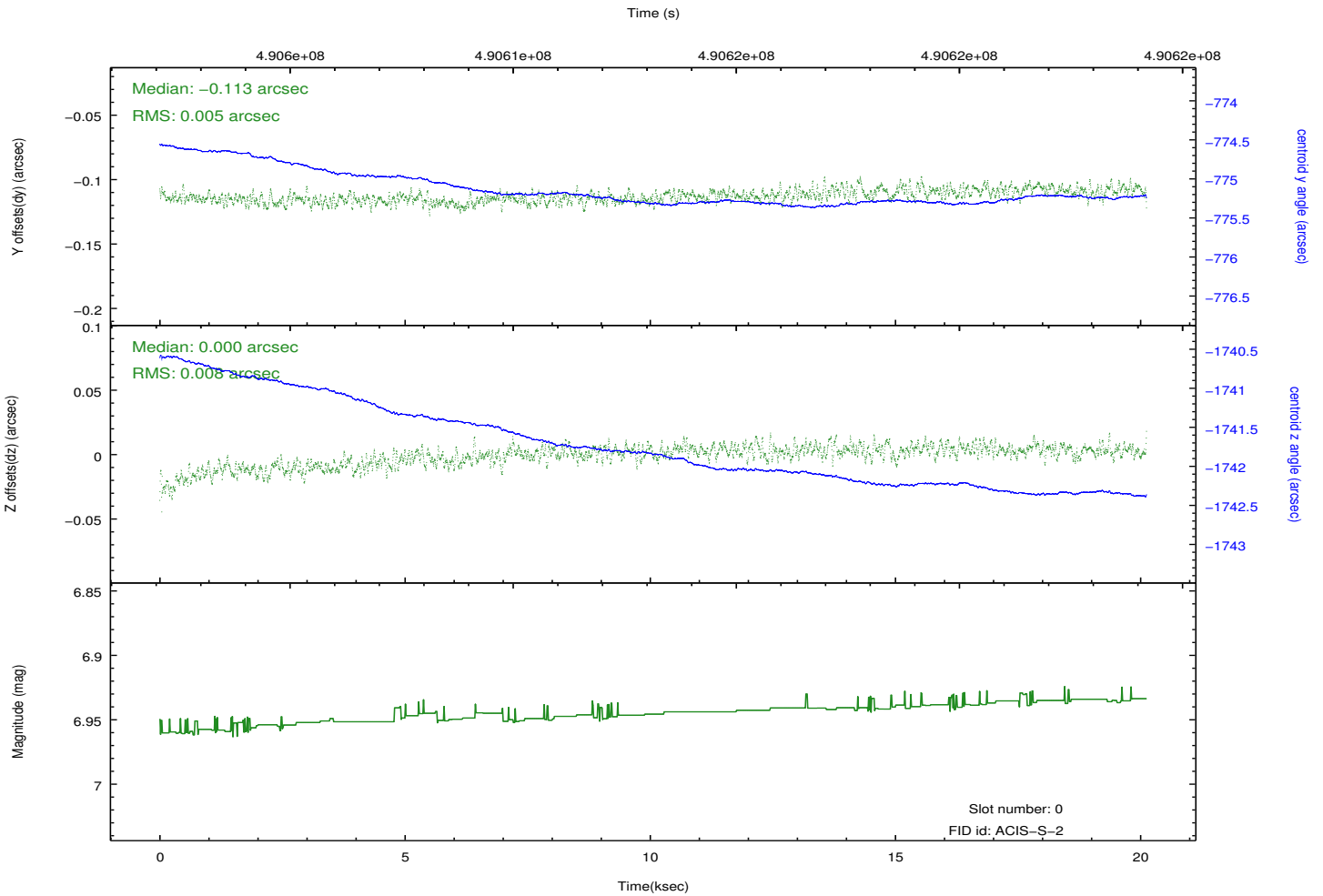
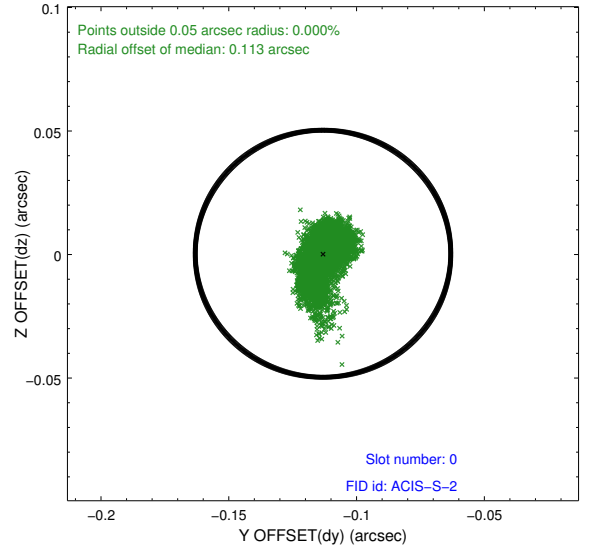
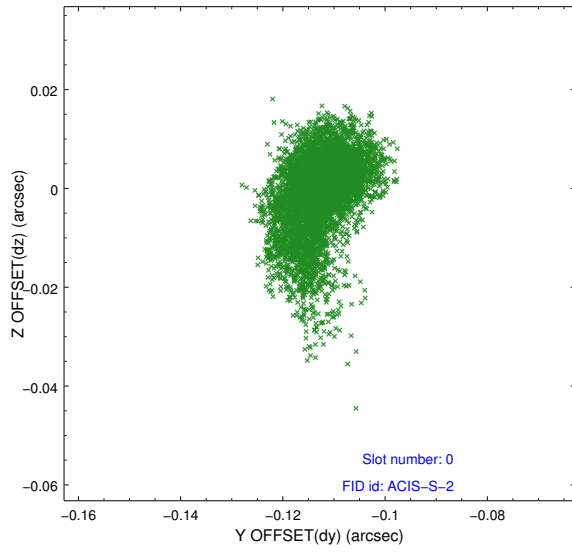


## 2.4.5 Slot 7

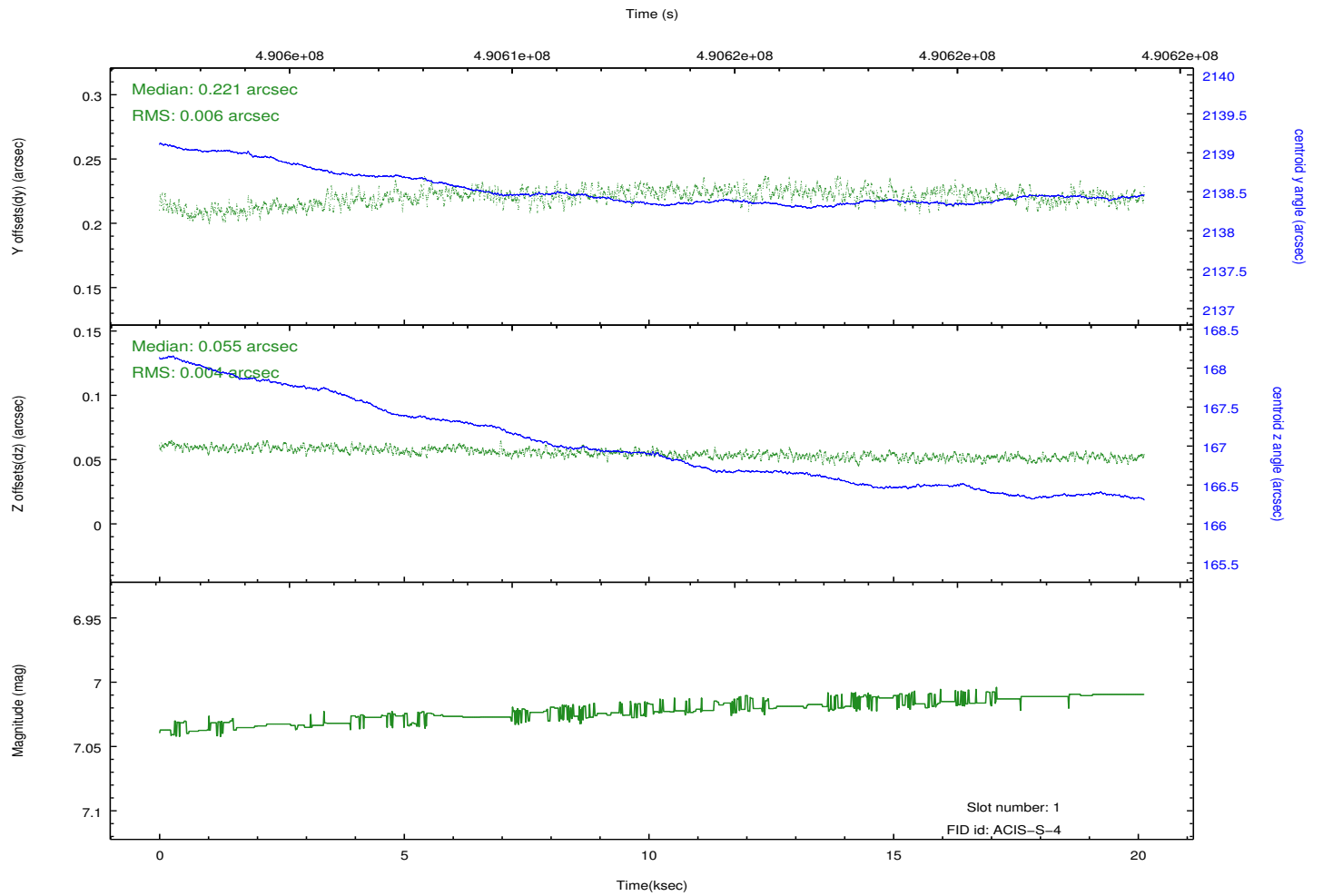
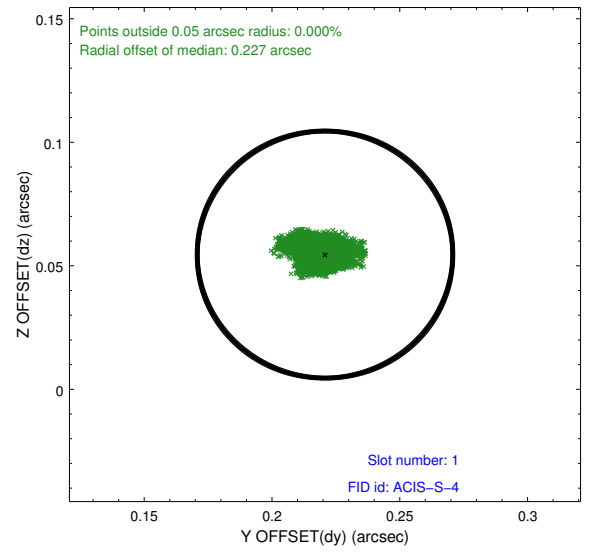
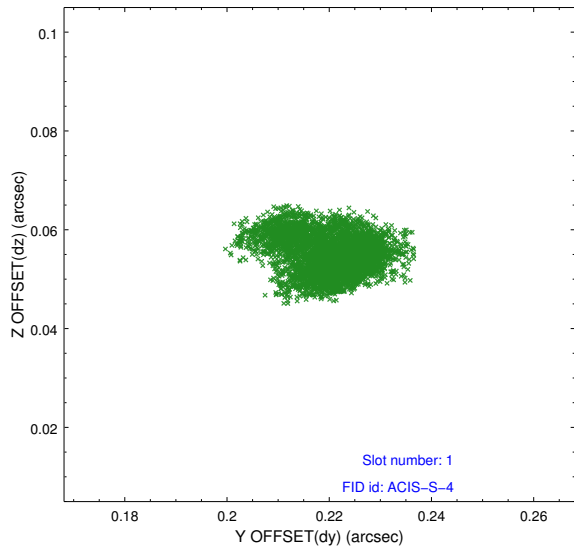


## 2.5 FID Slots

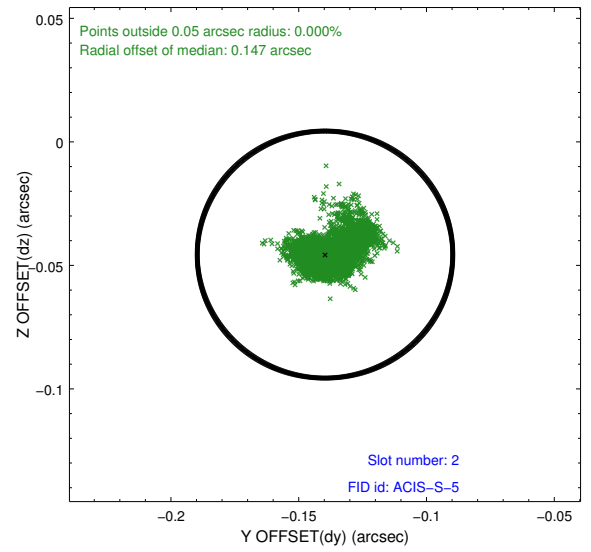
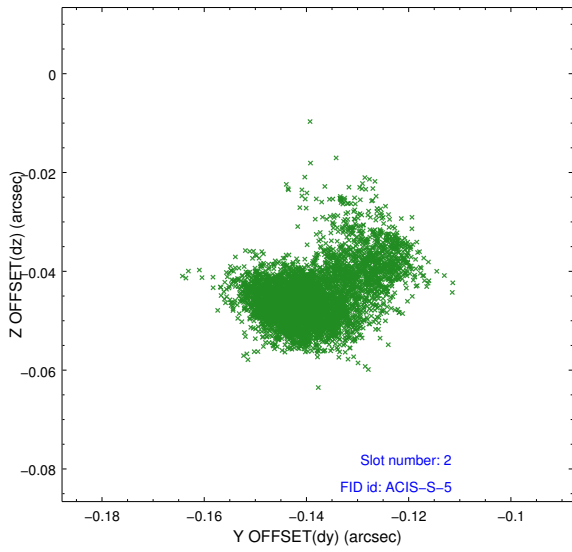
### 2.5.1 Slot 0



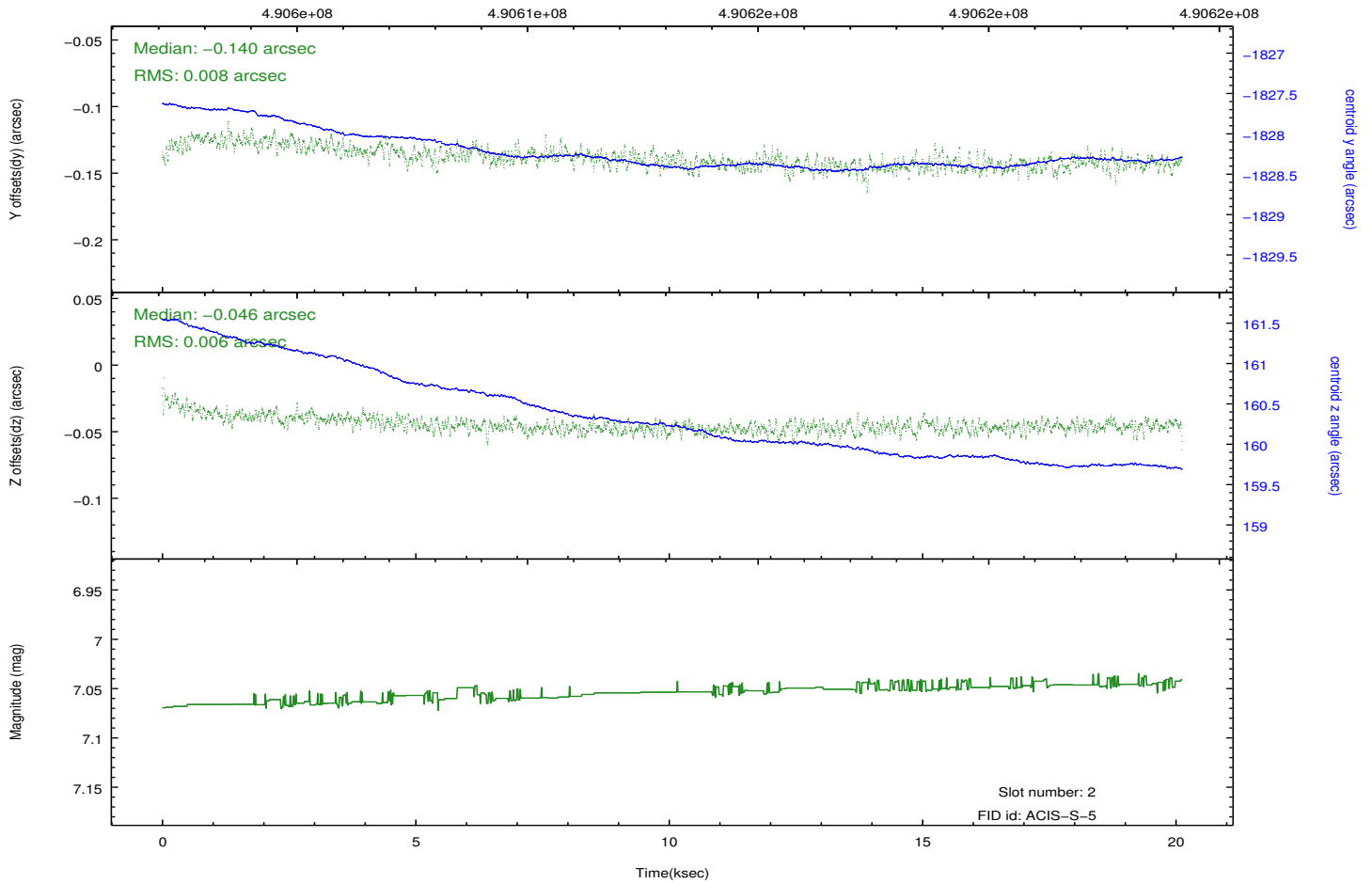
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.069400154352

## 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.