

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16638 - L2 Version 1  
Chandra X-Ray Center

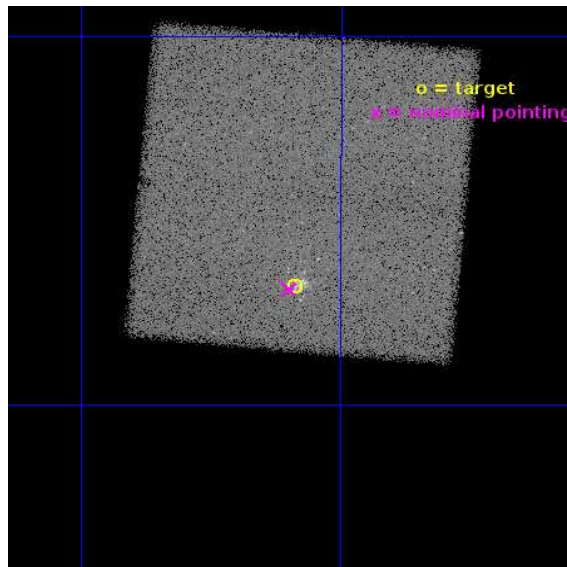
L2 Processing Date : Jul 18 2014

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# 1 Front

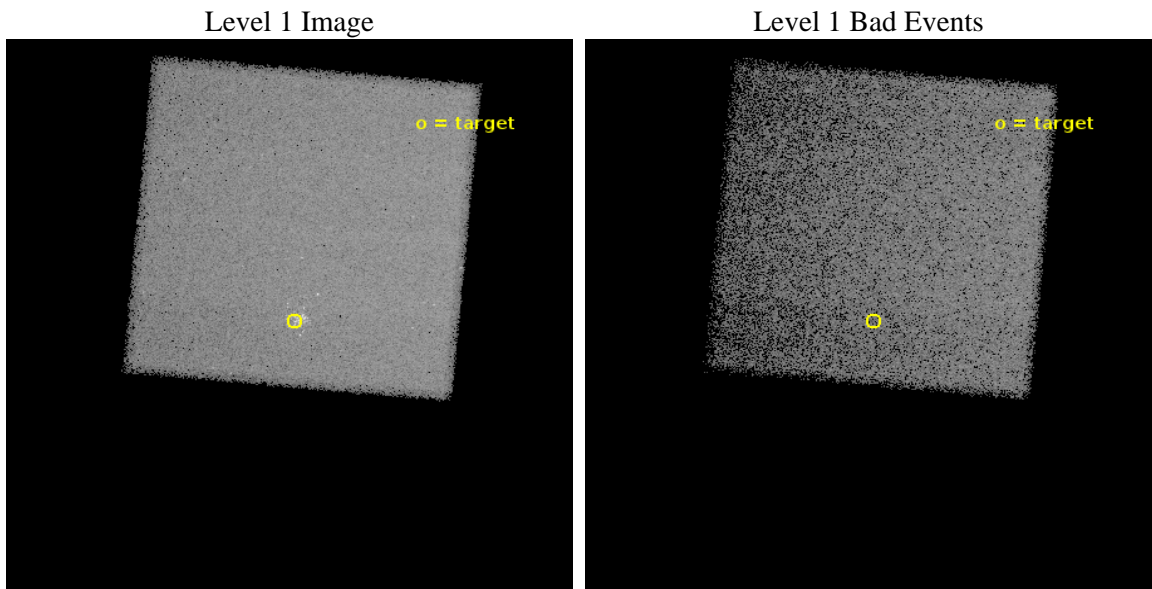
seq_num	401547	Sequence number
obs_id	16638	Observation id
title	Observing a cooling neutron star crust in Terzan 5	Proposal title
observer	Dr Nathalie Degenaar	Principal investigator
object	Terzan 5	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	267.021667	Observer's specified target RA [deg]
dec_targ	-24.779806	Observer's specified target Dec [deg]
ra_nom	267.02468160876	Nominal RA [deg]
dec_nom	-24.78128388015	Nominal Dec [deg]
roll_nom	275.15789601908	Nominal Roll [deg]
revision	1	Processing version of data
ontime	72577.842276752	Sum of GTIs [s]
livetime	71598.376486418	Livetime [s]
ontime7	72577.842276752	Sum of GTIs [s]
l2events	207898	Number of level 2 events



## 2 OBI

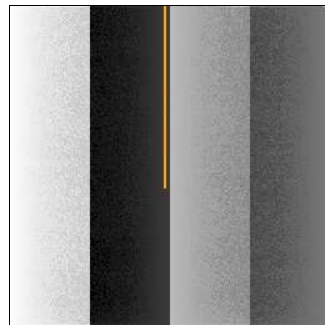
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	72488.125000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	72577.842276752	Sum of GTIs [s]
caldbver	4.6.2	&#160	ontime7	72577.842276752	Sum of GTIs [s]
date	2014-07-18T16:28:25	Date and time of file creation	l1events	470825	Number of level 1 events
revision	1	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	470825
rejected events	257872
rejected %	54%

	<b>ccd 7</b>
grade 0 events	20404
	4%
grade 1 events	492
	0%
grade 2 events	43967
	9%
grade 3 events	18535
	3%
grade 4 events	18446
	3%
grade 5 events	47622
	10%
grade 6 events	111617
	23%
grade 7 events	209742
	44%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	267.006959	267.0246816087599	Subarray requested	NONE	NONE
[deg] Pointing Dec	-24.759052	-24.78128388014973	Alternating exposures requested	N	N
[deg] Pointing Roll	274.993844	275.1578960190791	[s] Primary exposure time	0.000000	3
[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)	521985718.184000	521984978.26018			
Observation start date	2014-07-17T12:00:51	2014-07-17T11:49:38			
[s] Observation end time (MET)	522058206.184000	522058431.81425			
Observation end date	2014-07-18T08:08:59	2014-07-18T08:13:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



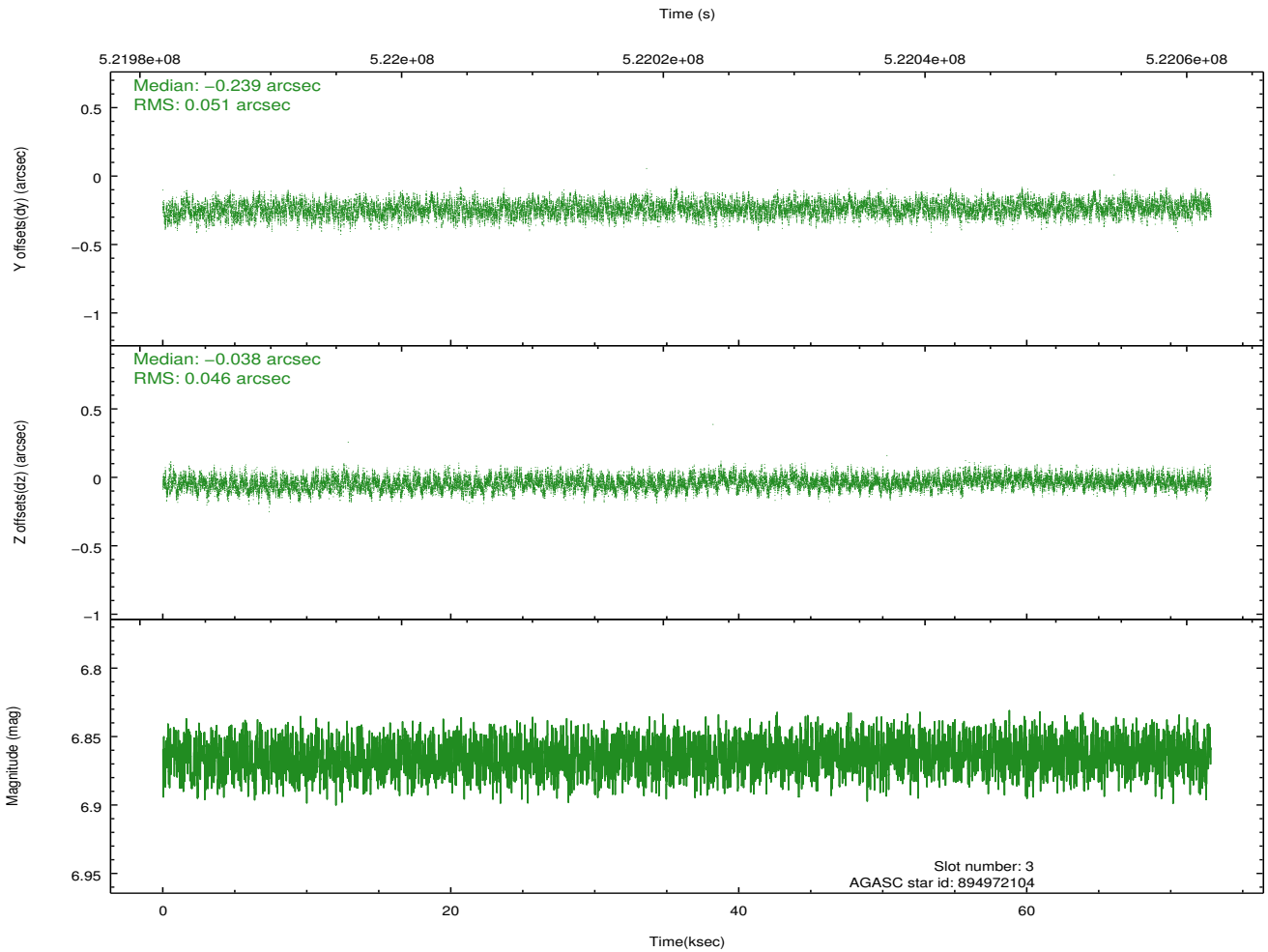
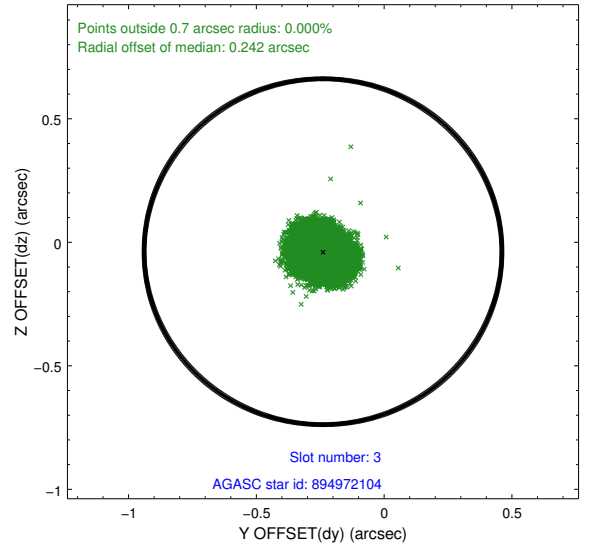
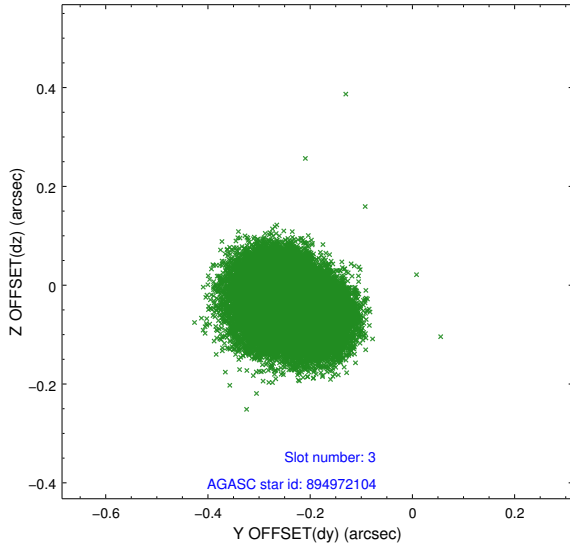
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.98	17752	-0.078	-0.042	0.045	0.057	0.000000	0.000000	-767.21	-1735.64
1	FID	ACIS-S-4	7.07	17751	0.246	0.051	0.052	0.080	0.000000	0.000000	2146.41	172.98
2	FID	ACIS-S-5	7.10	17749	-0.179	0.007	0.040	0.054	0.000000	0.000000	-1820.23	166.55
3	GUIDE	894972104	6.86	35504	-0.239	-0.038	0.074	0.117	267.489380	-24.207054	-1838.73	1749.99
4	GUIDE	894973544	8.05	35502	-0.051	0.210	0.073	0.116	266.605572	-24.141151	-2328.24	-1120.22
5	GUIDE	895485920	8.66	35493	0.140	0.065	0.091	0.146	266.932426	-25.188840	1520.75	-376.08
6	GUIDE	895488888	8.55	35491	0.057	-0.063	0.086	0.136	266.751949	-24.913497	482.73	-877.64
7	GUIDE	895489704	8.80	35482	0.104	-0.169	0.143	0.220	266.328076	-25.361339	1975.17	-2388.88

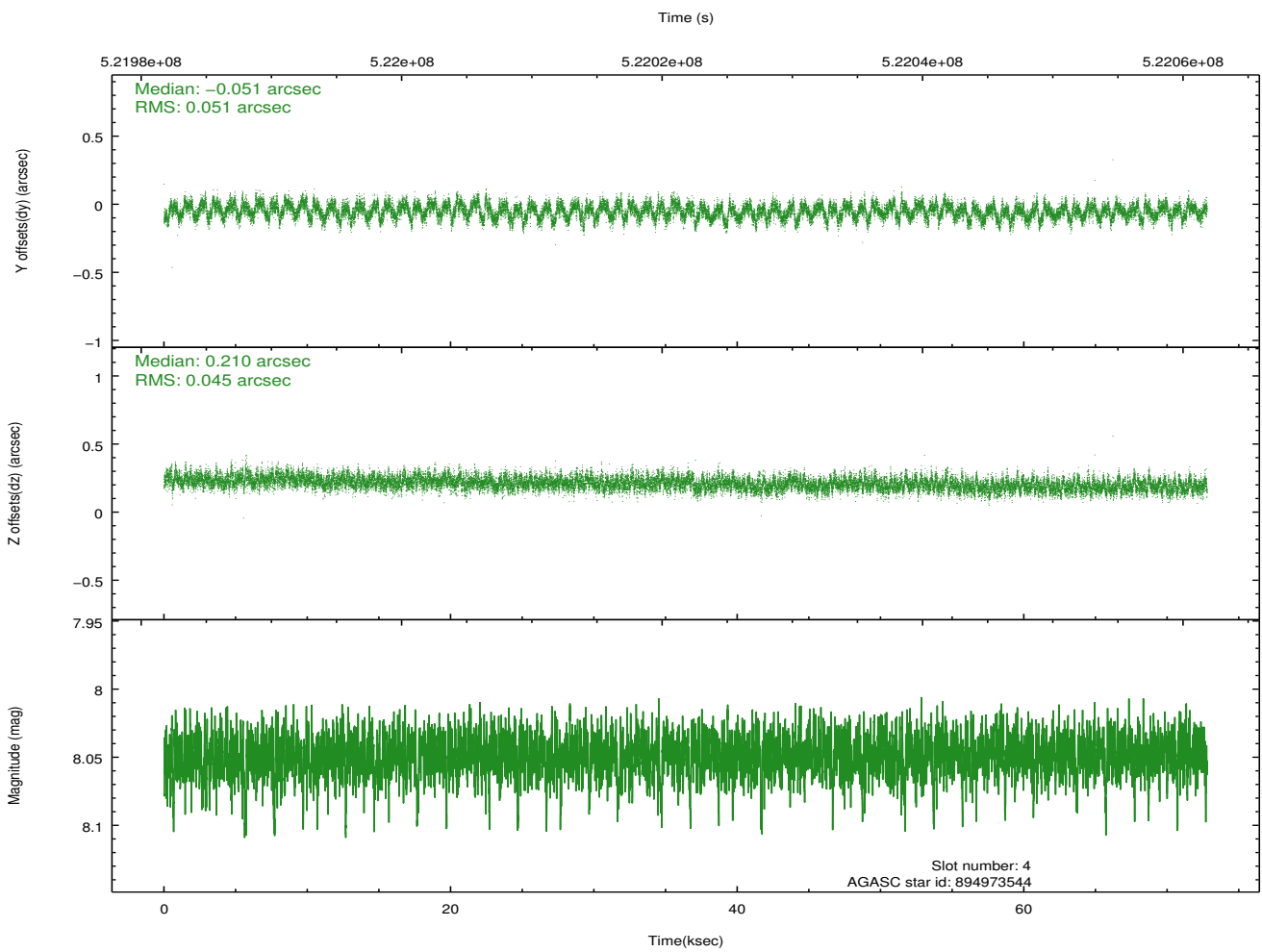
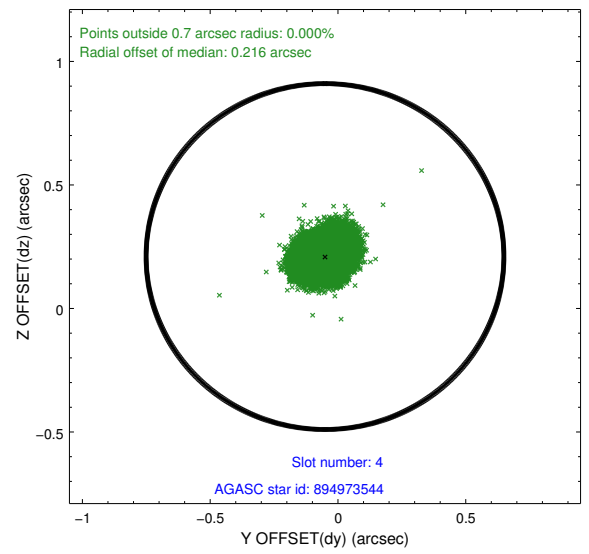
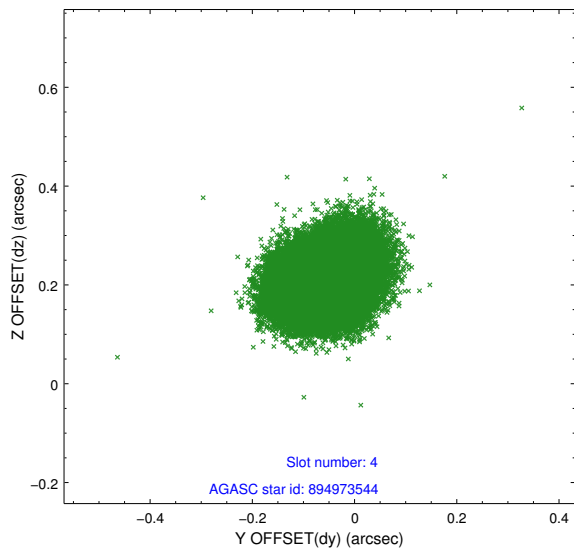
∞

## 2.4 Star Slots

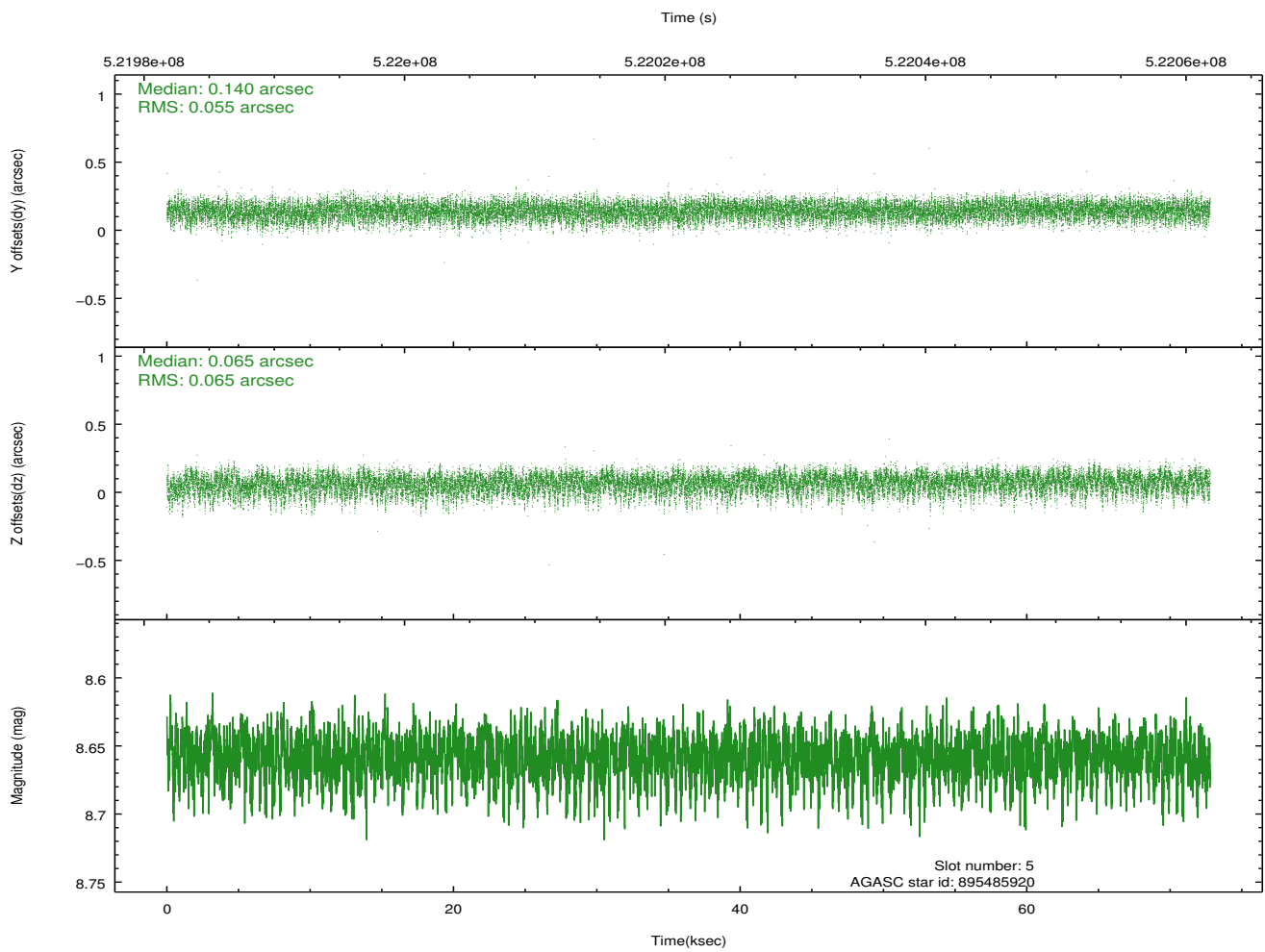
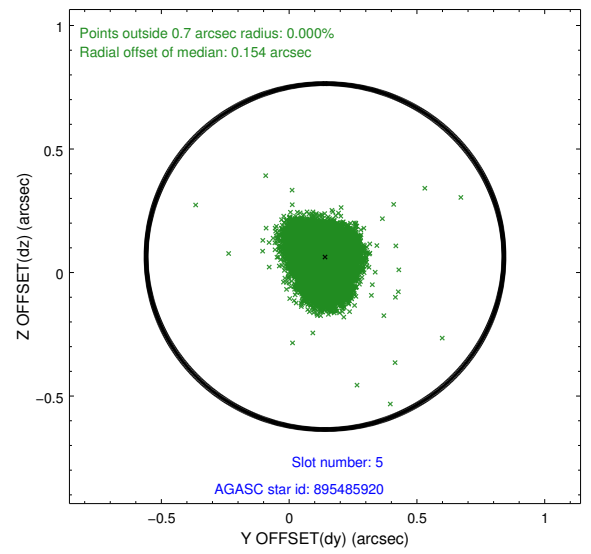
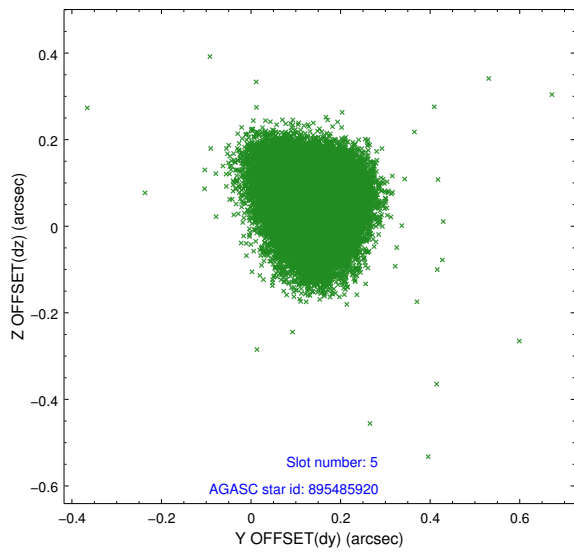
### 2.4.1 Slot 3



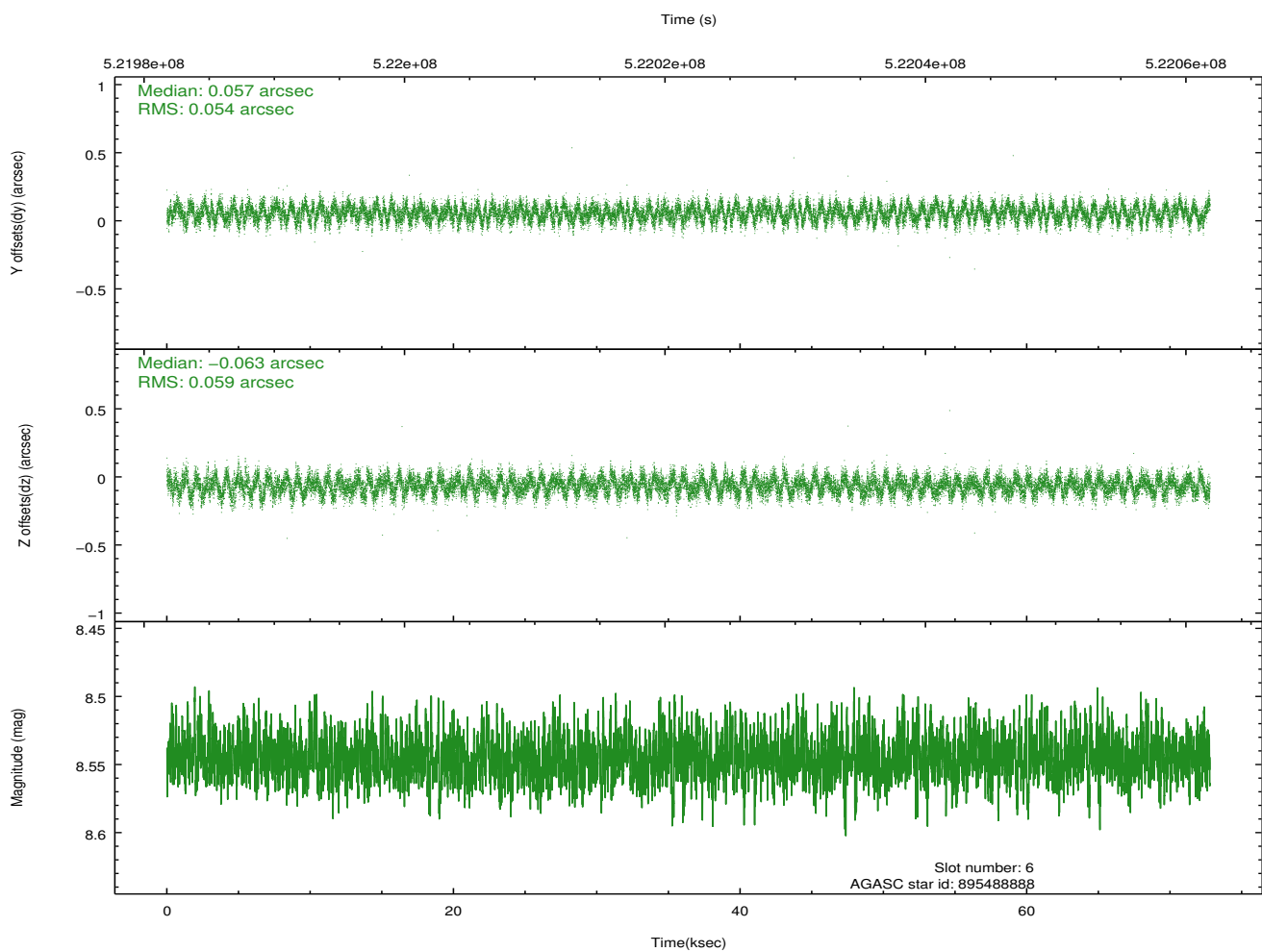
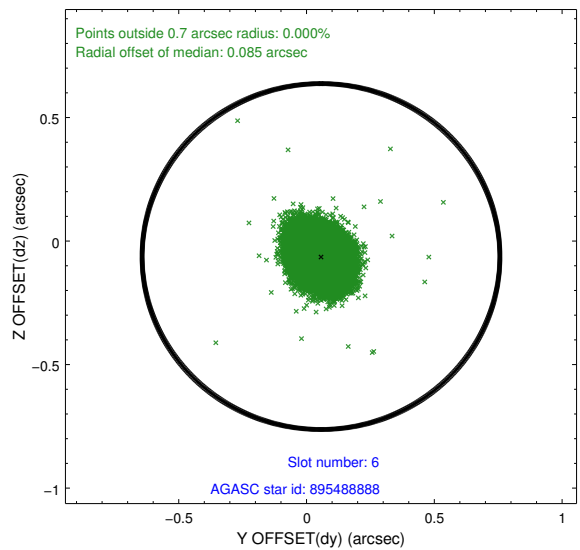
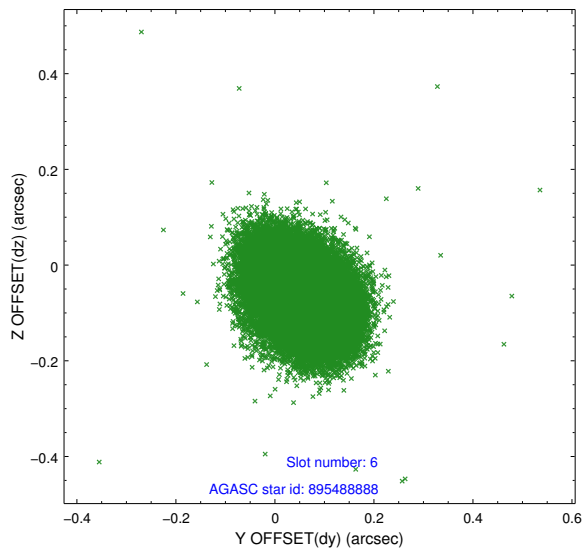
## 2.4.2 Slot 4



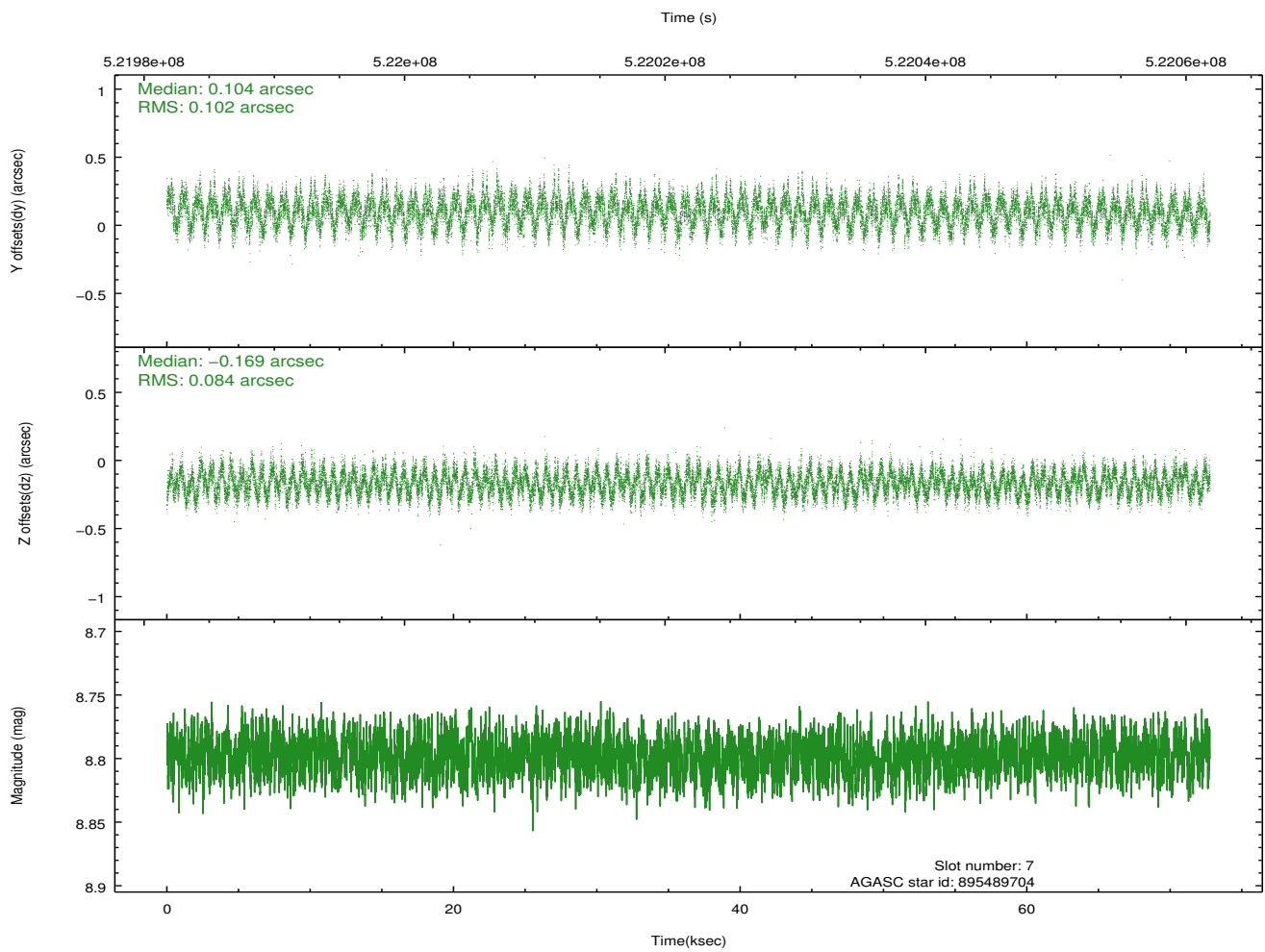
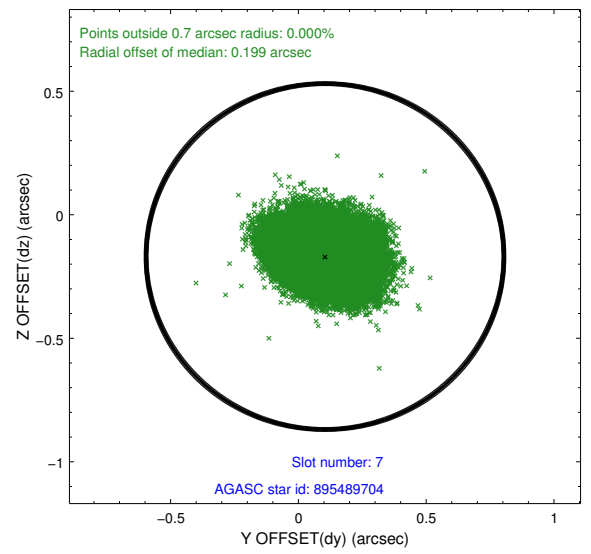
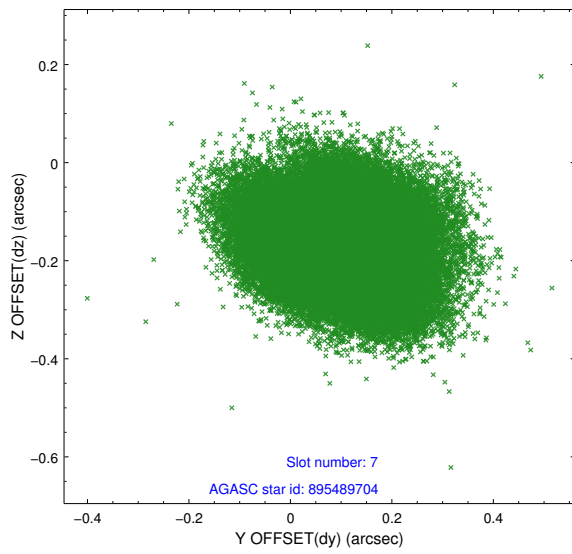
### 2.4.3 Slot 5



## 2.4.4 Slot 6

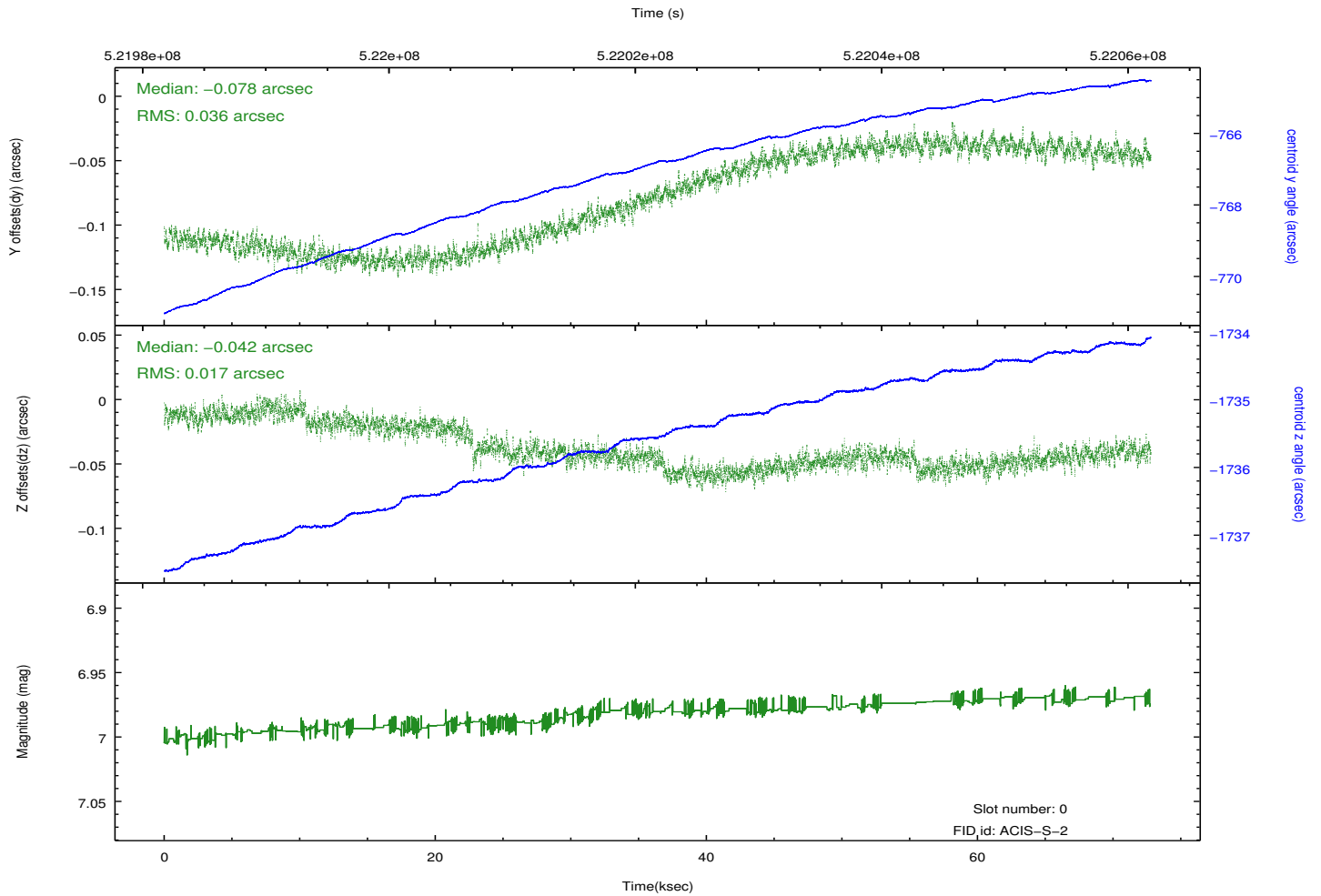
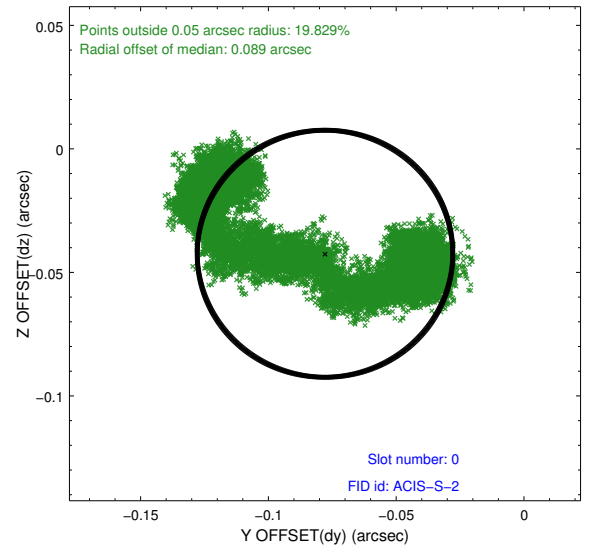
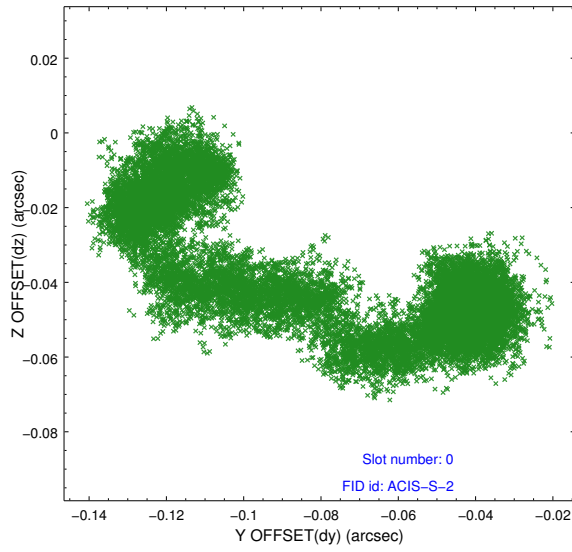


### 2.4.5 Slot 7

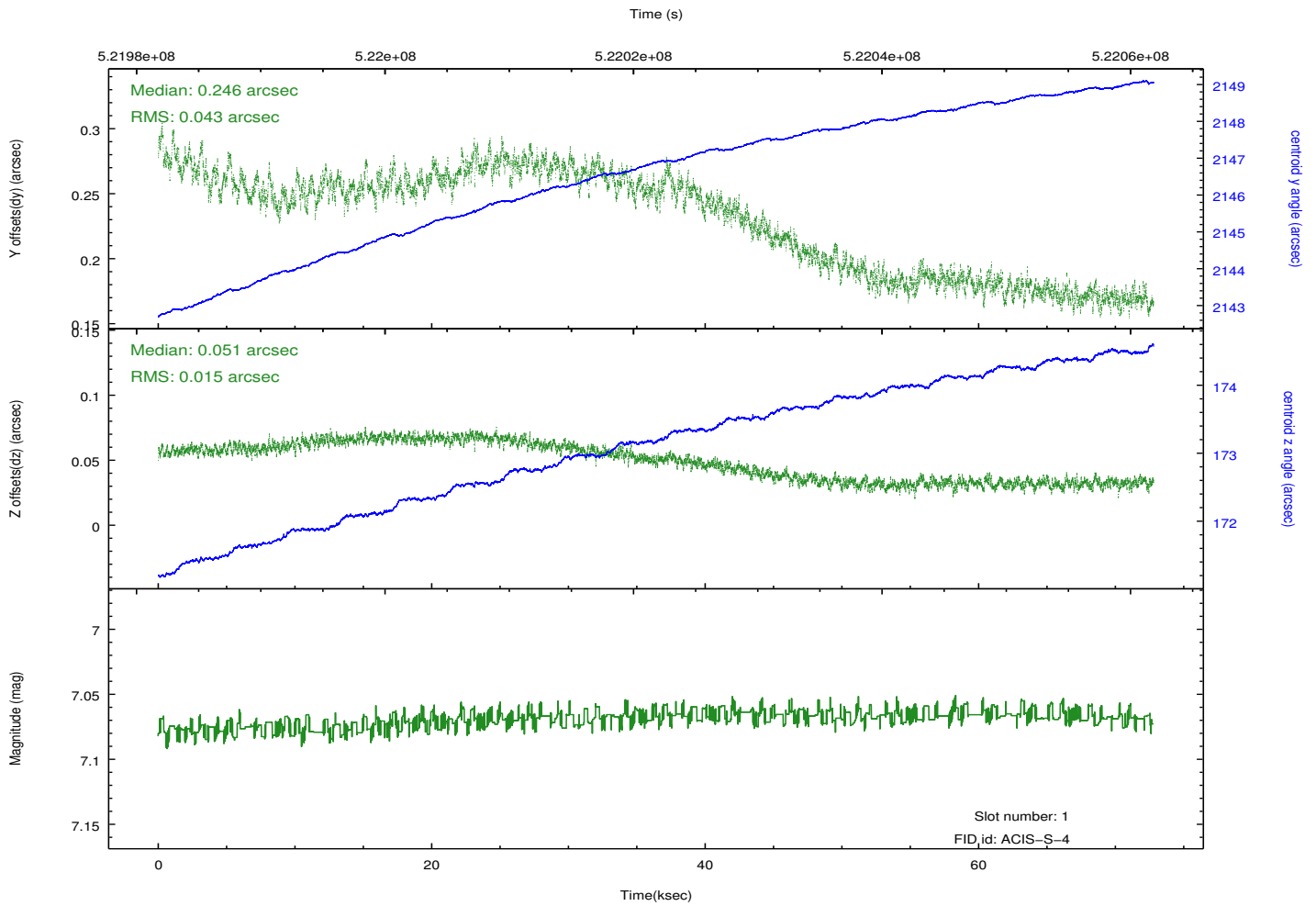
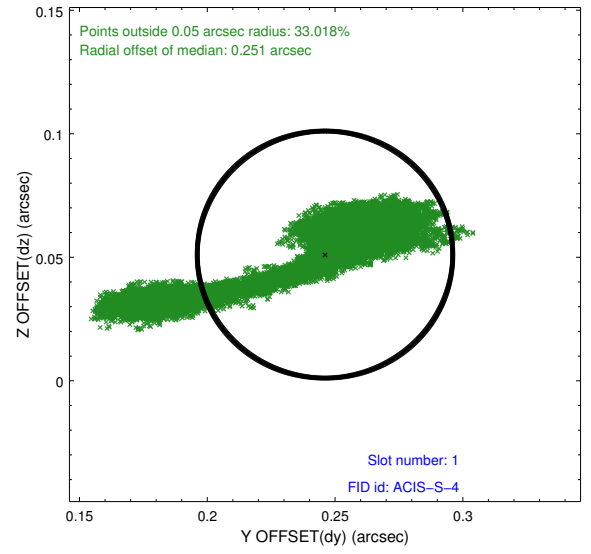
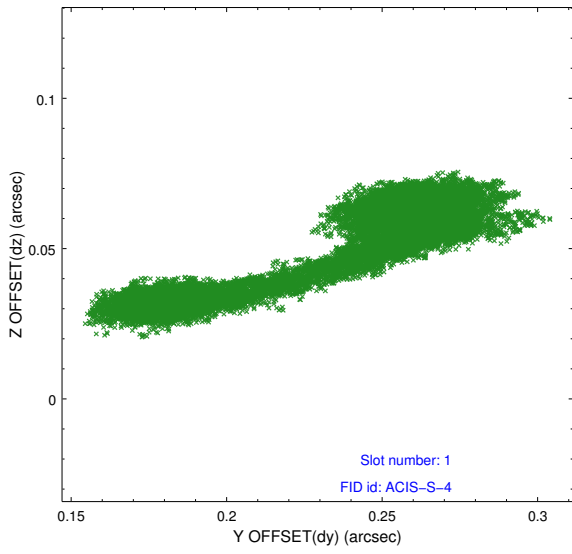


## 2.5 FID Slots

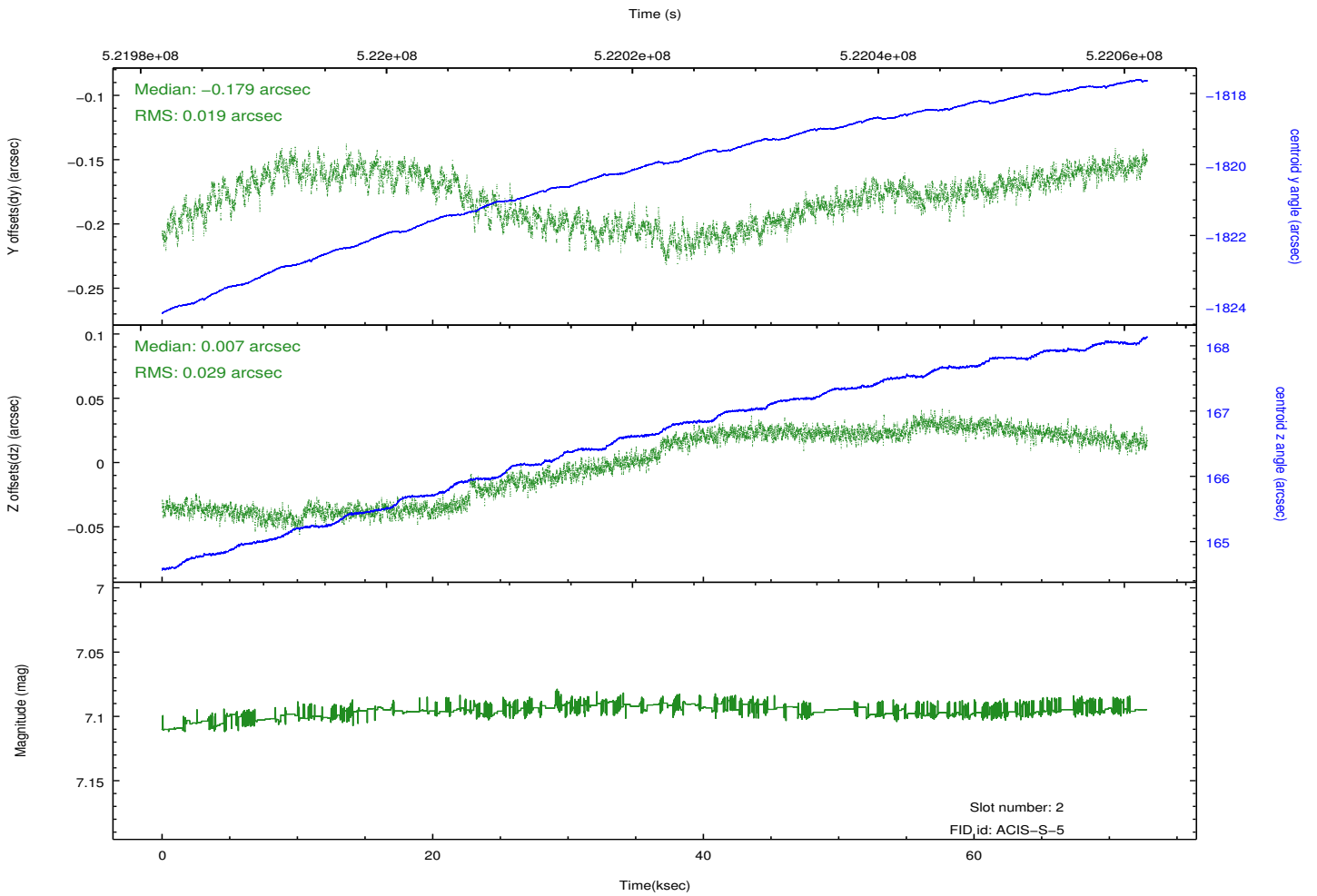
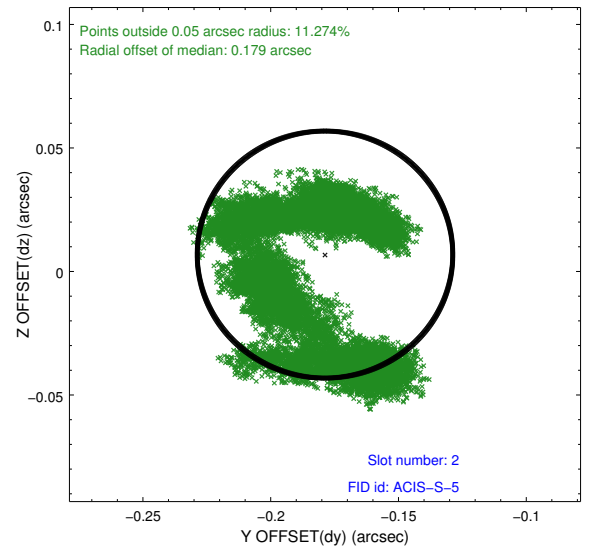
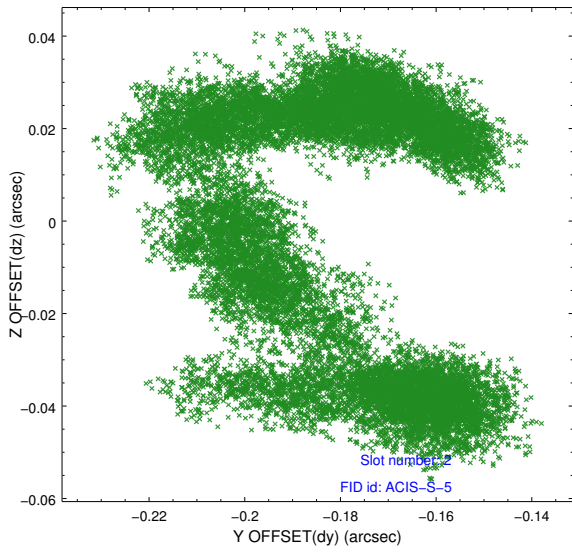
### 2.5.1 Slot 0



## 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)	2014.07.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	72.577842276752

### A.2 Comments