

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16527 - L2 Version 1  
Chandra X-Ray Center

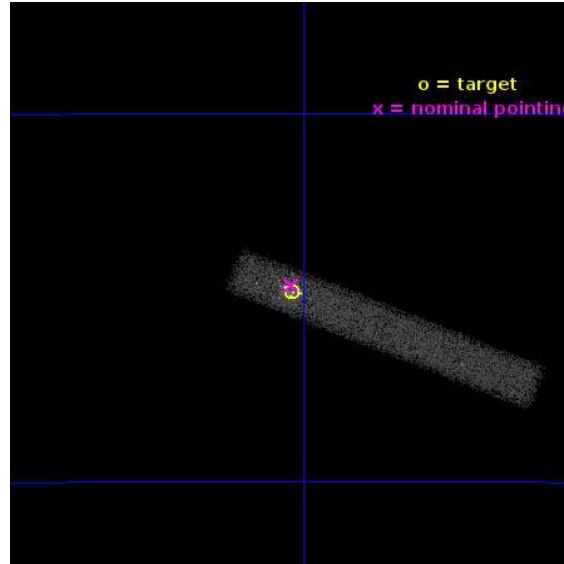
L2 Processing Date : Sep 6 2014

## 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

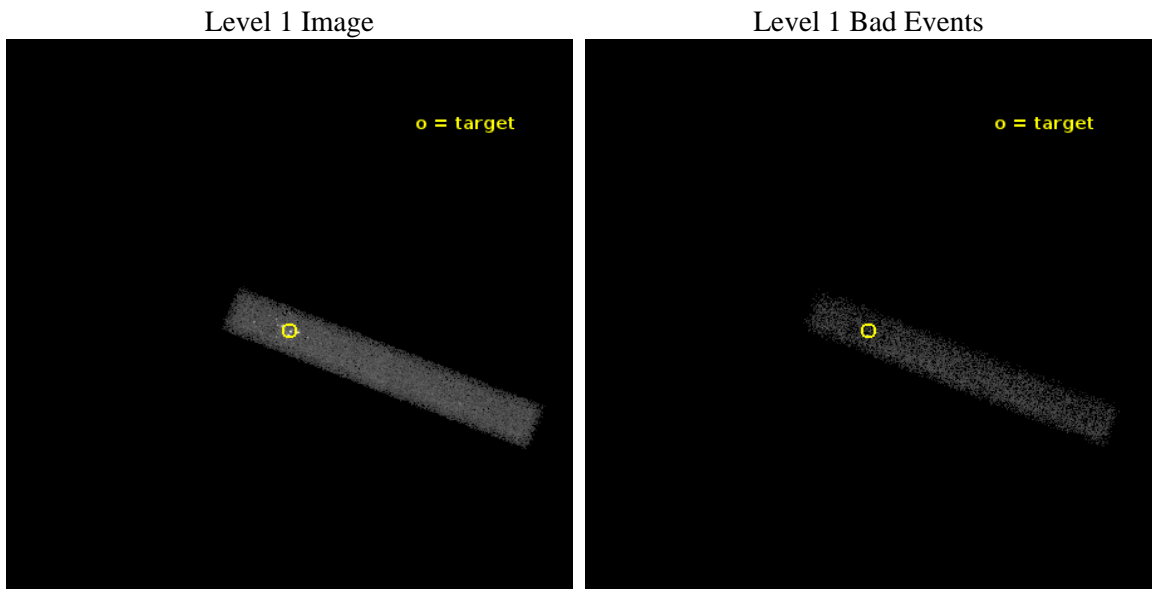
seq_num	401545	Sequence number
obs_id	16527	Observation id
title	A DEEP SUBARRAY EXPOSURE OF X7 IN 47 TUC: TOWARDS CONSTRAINING NEUTRON STAR STRUCTURE	Proposal title
observer	DR. SLAVKO BOGDANOV	Principal investigator
object	47 Tuc	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	6.014558	Observer's specified target RA [deg]
dec_targ	-72.081094	Observer's specified target Dec [deg]
ra_nom	6.0165362095418	Nominal RA [deg]
dec_nom	-72.07804442797	Nominal Dec [deg]
roll_nom	22.158508147351	Nominal Roll [deg]
revision	1	Processing version of data
ontime	45069.569480598	Sum of GTIs [s]
livetime	40875.720551966	Livetime [s]
ontime7	45069.569480598	Sum of GTIs [s]
l2events	37927	Number of level 2 events



## 2 OBI

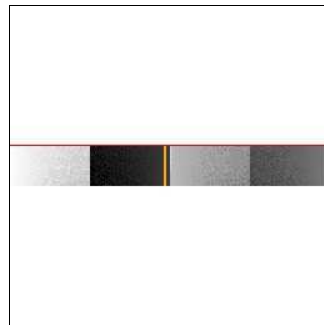
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	45069.569480598	Sum of GTIs [s]
caldbver	4.6.3	&#160	ontime7	45069.569480598	Sum of GTIs [s]
date	2014-09-06T11:57:39	Date and time of file creation	l1events	61573	Number of level 1 events
revision	1	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	61573
rejected events	22606
rejected %	<b>36%</b>

	<b>ccd 7</b>
grade 0 events	7336
	11%
grade 1 events	88
	0%
grade 2 events	8820
	14%
grade 3 events	4951
	8%
grade 4 events	4751
	7%
grade 5 events	4657
	7%
grade 6 events	13109
	21%
grade 7 events	17861
	29%

## 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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	5.962707	6.016536209541812	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-72.099928	-72.07804442796972	Subarray start row	449	449
[deg] Pointing Roll	21.950665	22.15850814735052	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	526280297.184000	526279183.71074			
Observation start date	2014-09-05T04:57:10	2014-09-05T04:39:43			
[s] Observation end time (MET)	526325297.184000	526325949.33834			
Observation end date	2014-09-05T17:27:10	2014-09-05T17:39:09			
Read mode	TIMED	TIMED			

## 2.3 Aspect

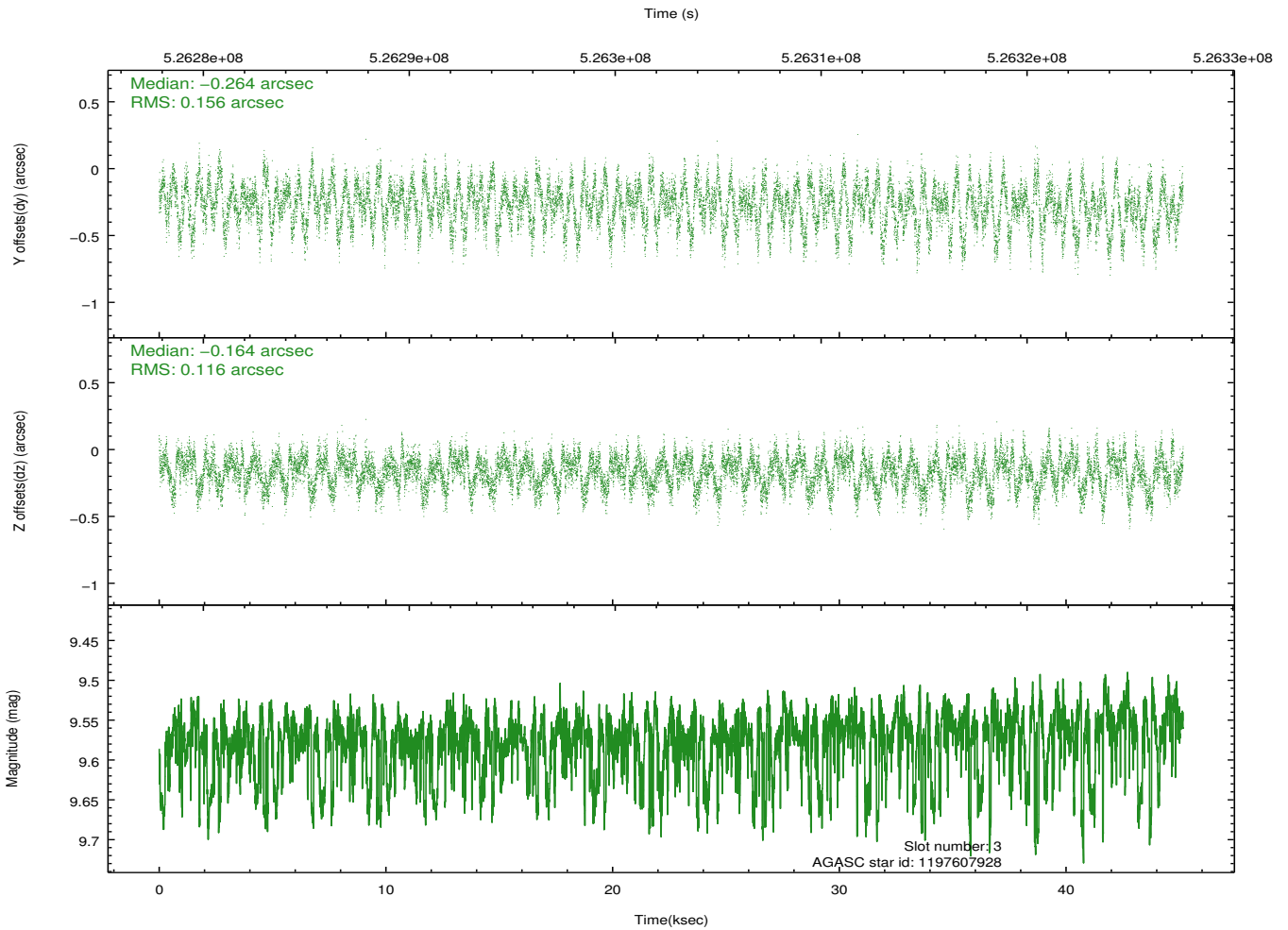
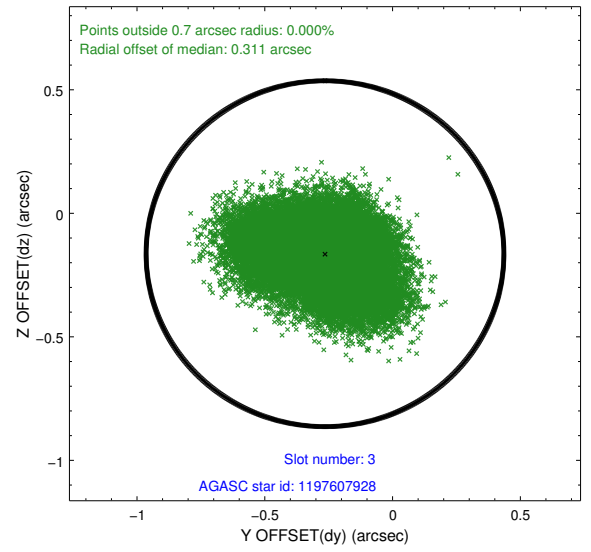
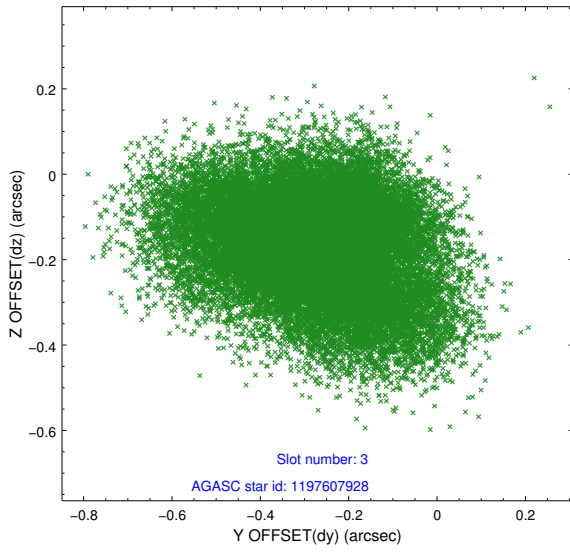


### Slot Statistics

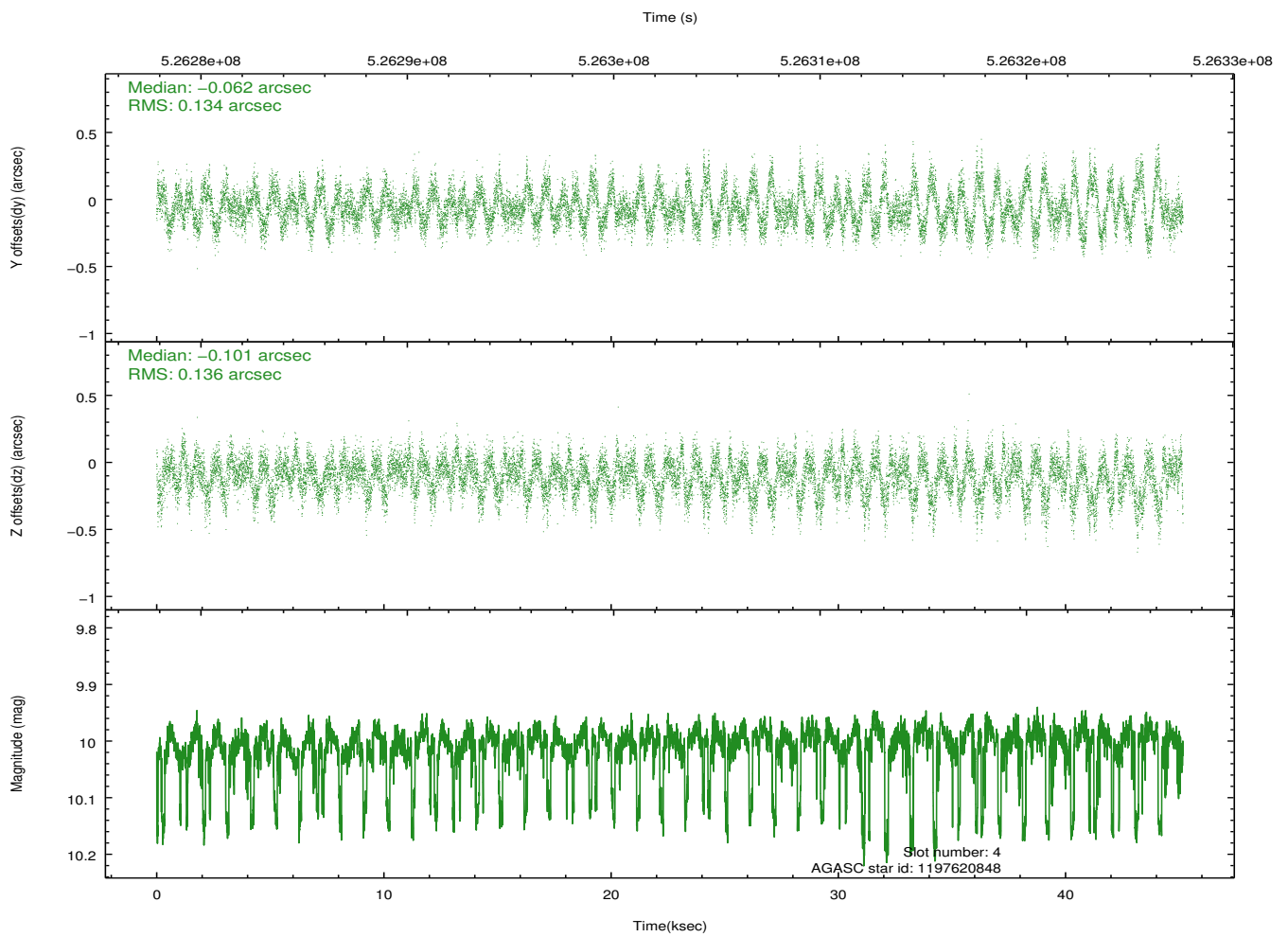
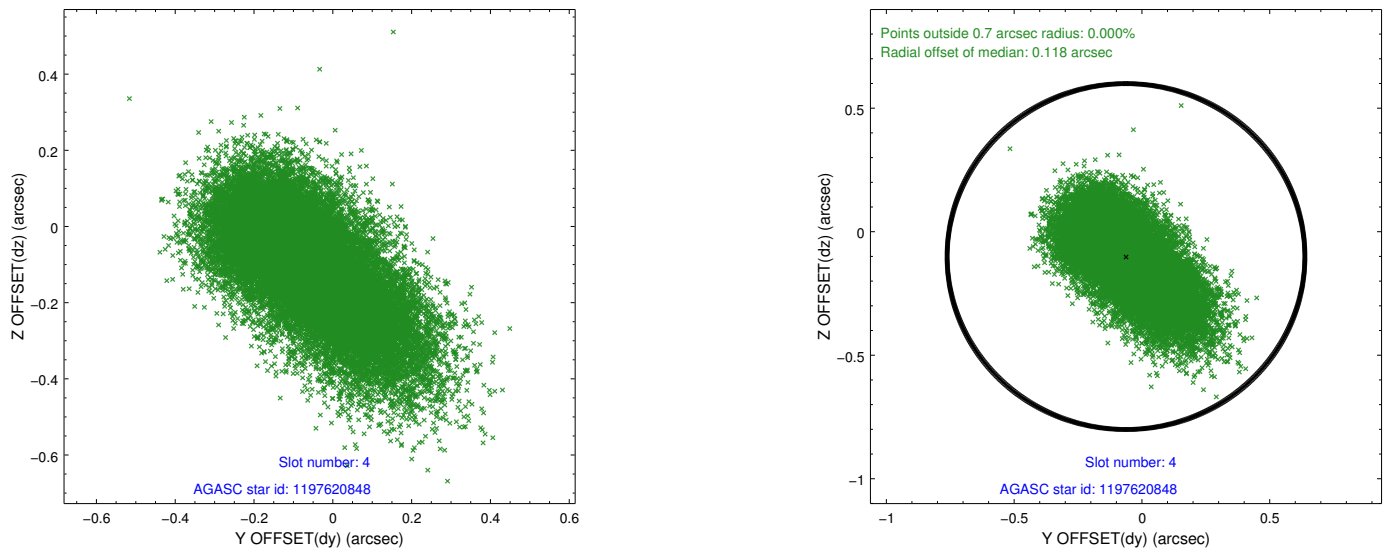
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	11017	-0.124	-0.062	0.021	0.031	0.000000	0.000000	-772.26	-1739.71
1	FID	ACIS-S-4	7.03	11017	0.164	0.068	0.024	0.034	0.000000	0.000000	2141.37	168.80
2	FID	ACIS-S-6	7.16	11017	-0.069	0.002	0.014	0.023	0.000000	0.000000	389.86	806.19
3	GUIDE	1197607928	9.57	22011	-0.264	-0.164	0.207	0.336	7.837743	-72.165759	1816.66	-1021.63
4	GUIDE	1197620848	10.01	21998	-0.062	-0.101	0.199	0.339	3.913465	-71.739620	-1674.12	2031.18
5	GUIDE	1198000776	9.82	22000	0.240	0.111	0.195	0.313	4.972441	-72.805451	-1929.92	-1969.40
6	GUIDE	1197621088	9.88	22006	0.046	-0.024	0.191	0.319	3.823480	-72.180366	-2307.06	572.46
7	GUIDE	1197998392	9.74	22002	0.066	0.212	0.258	0.391	6.367452	-72.761261	-489.93	-2370.21

## 2.4 Star Slots

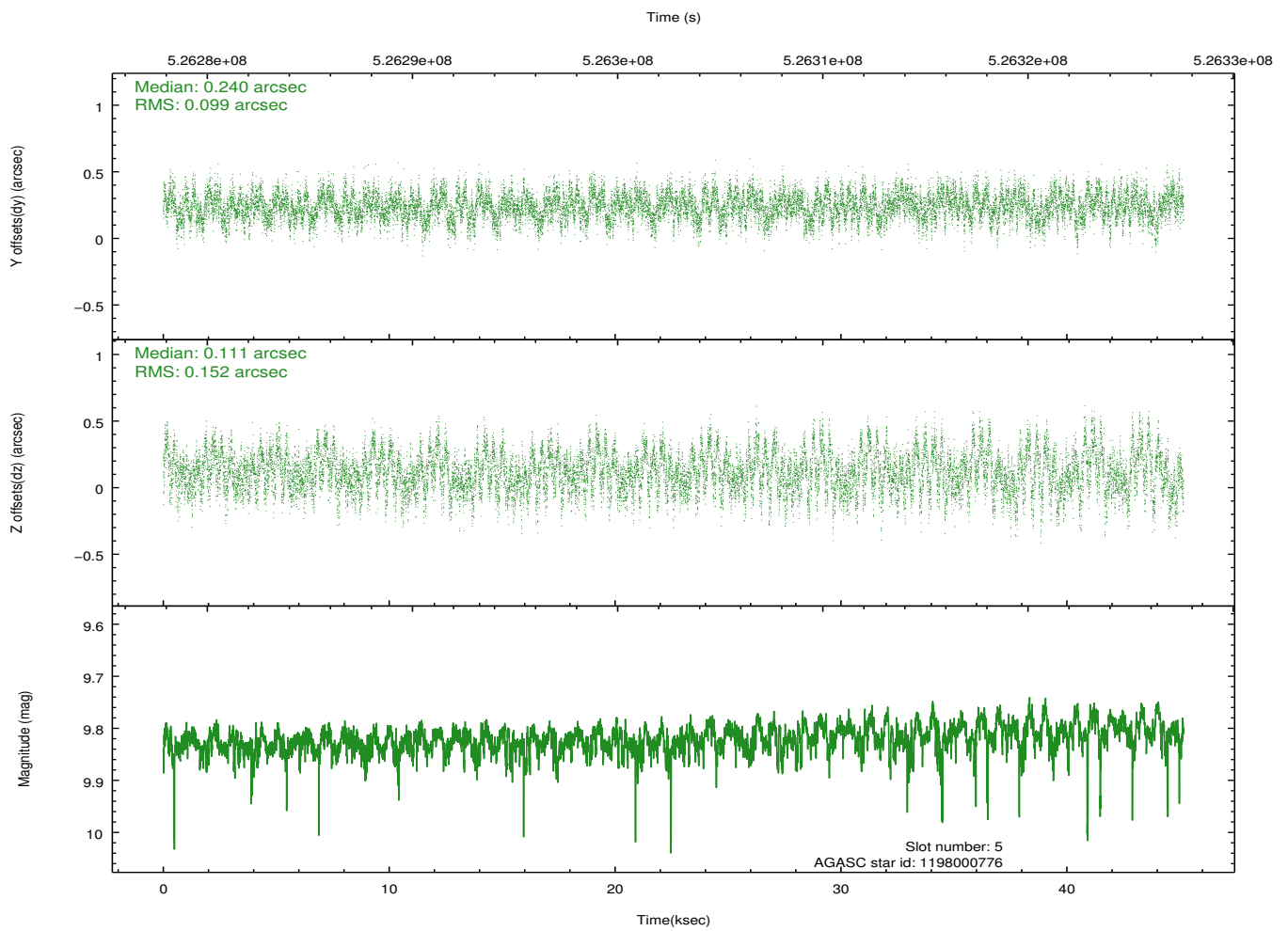
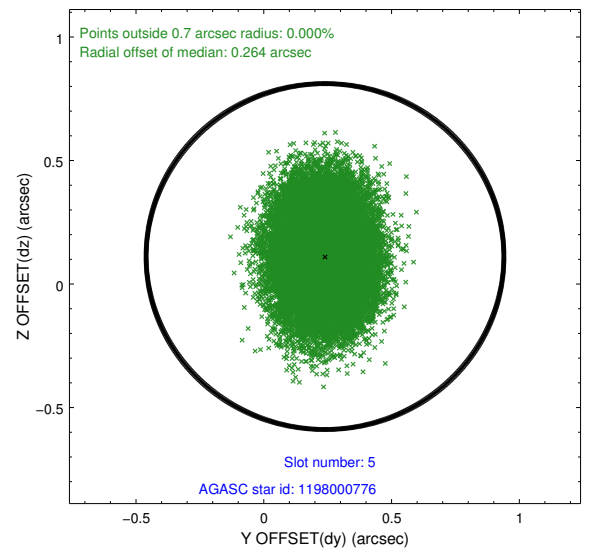
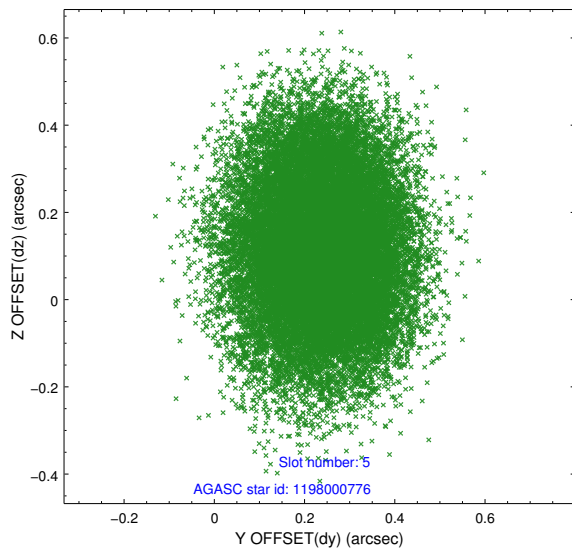
### 2.4.1 Slot 3



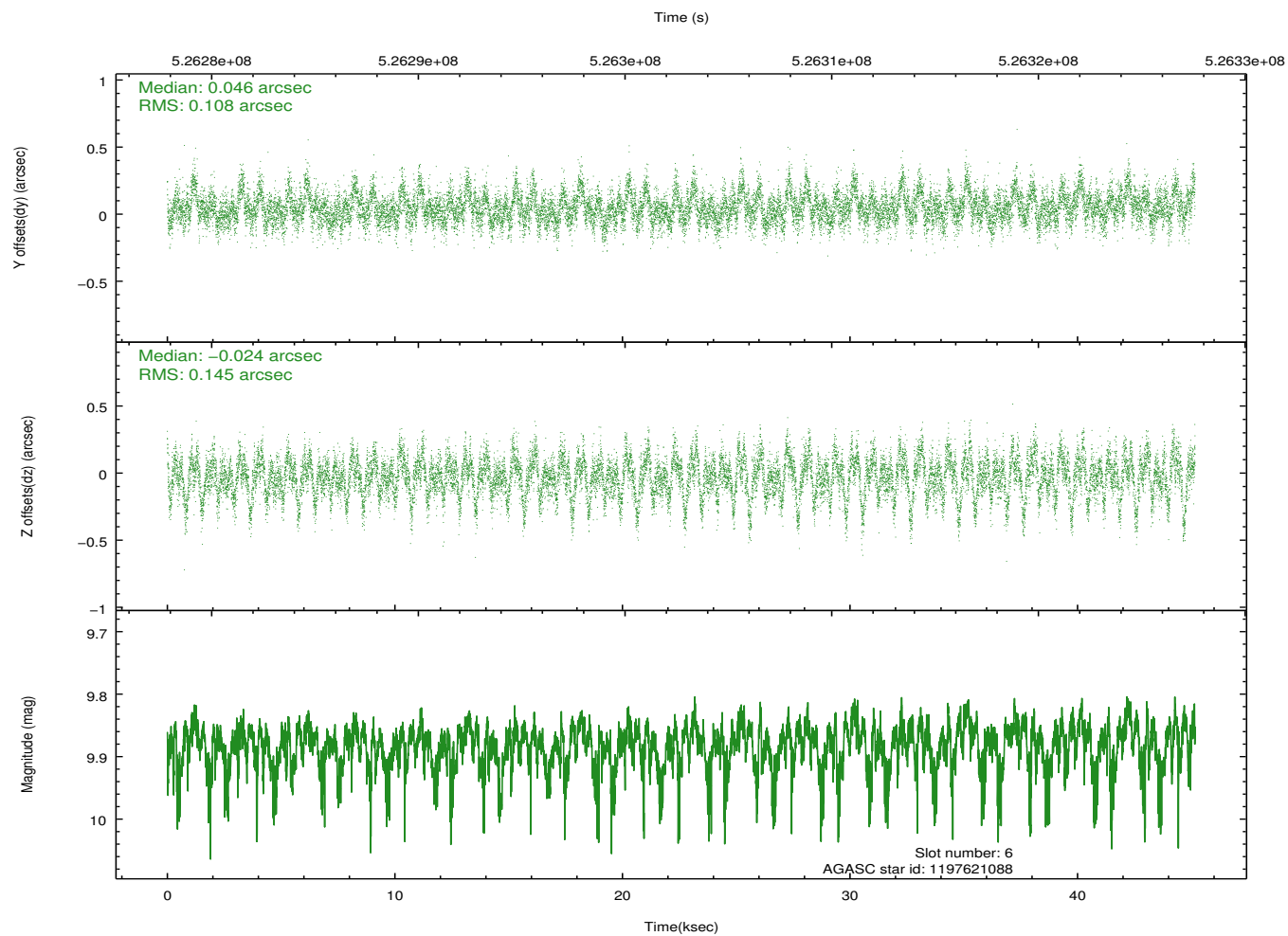
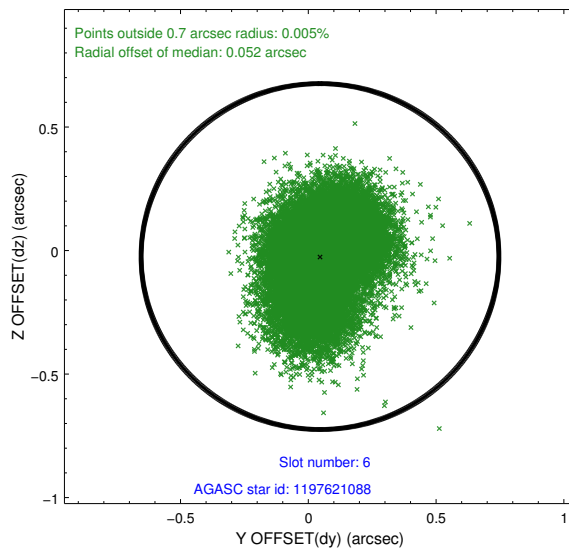
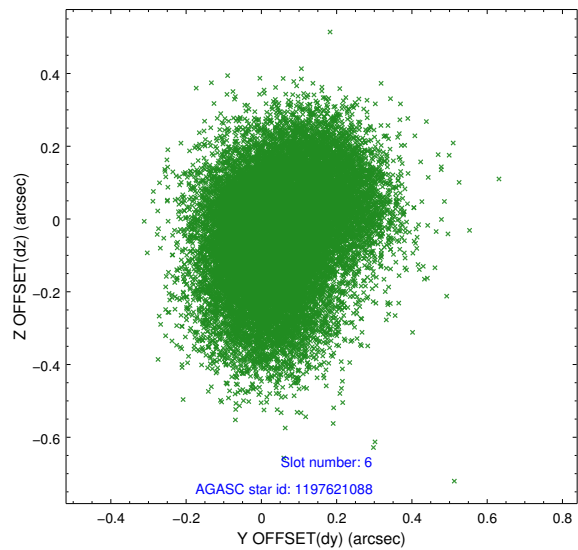
## 2.4.2 Slot 4



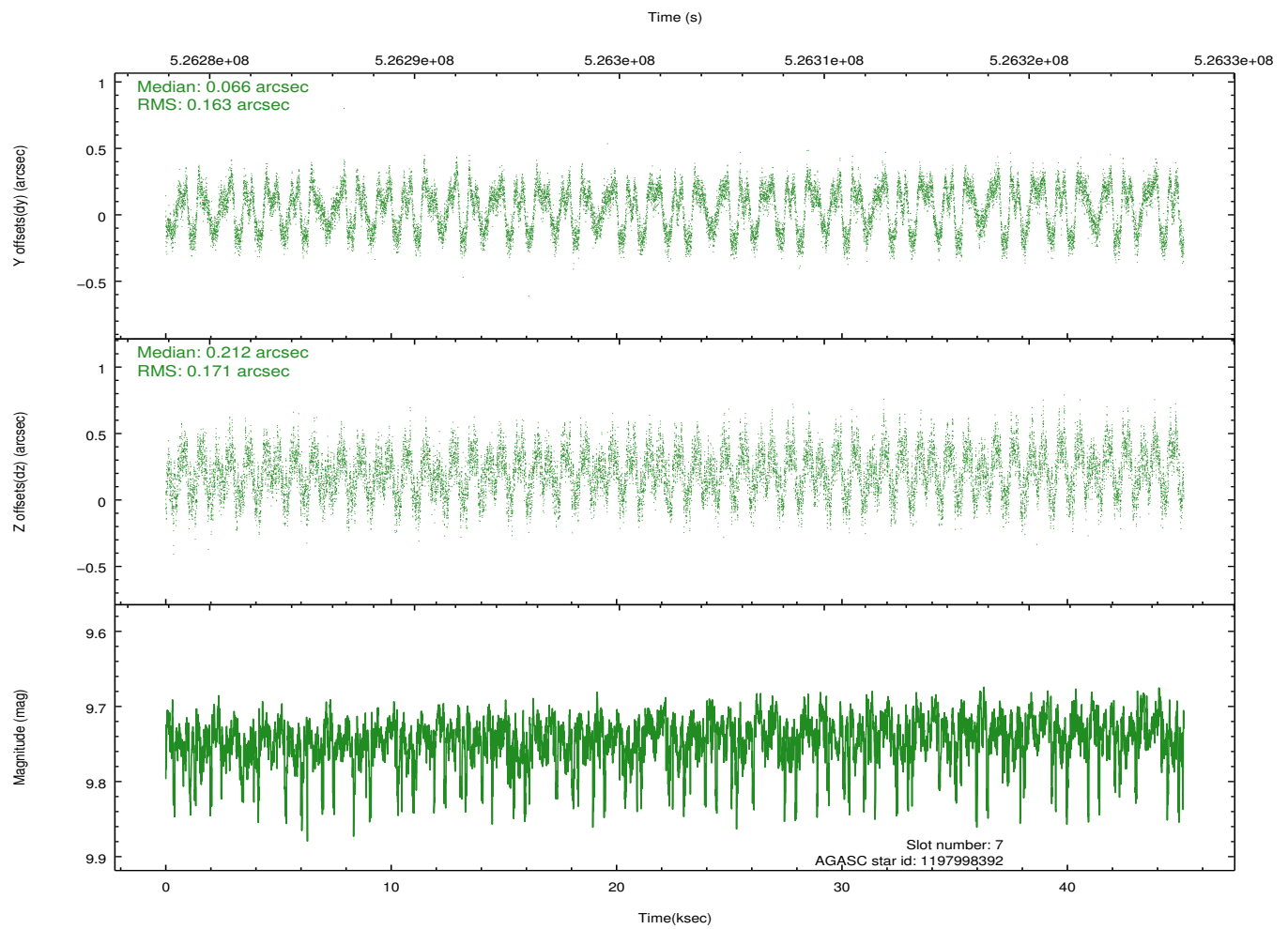
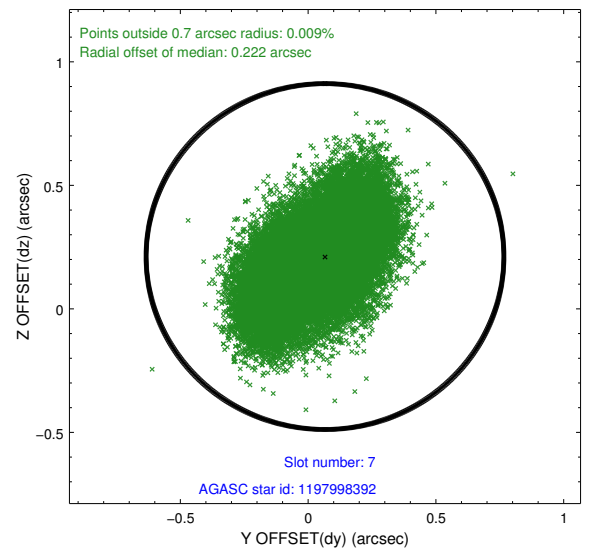
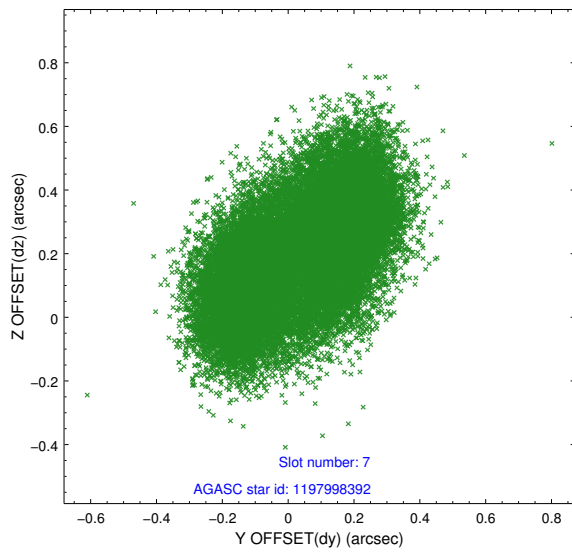
### 2.4.3 Slot 5



## 2.4.4 Slot 6

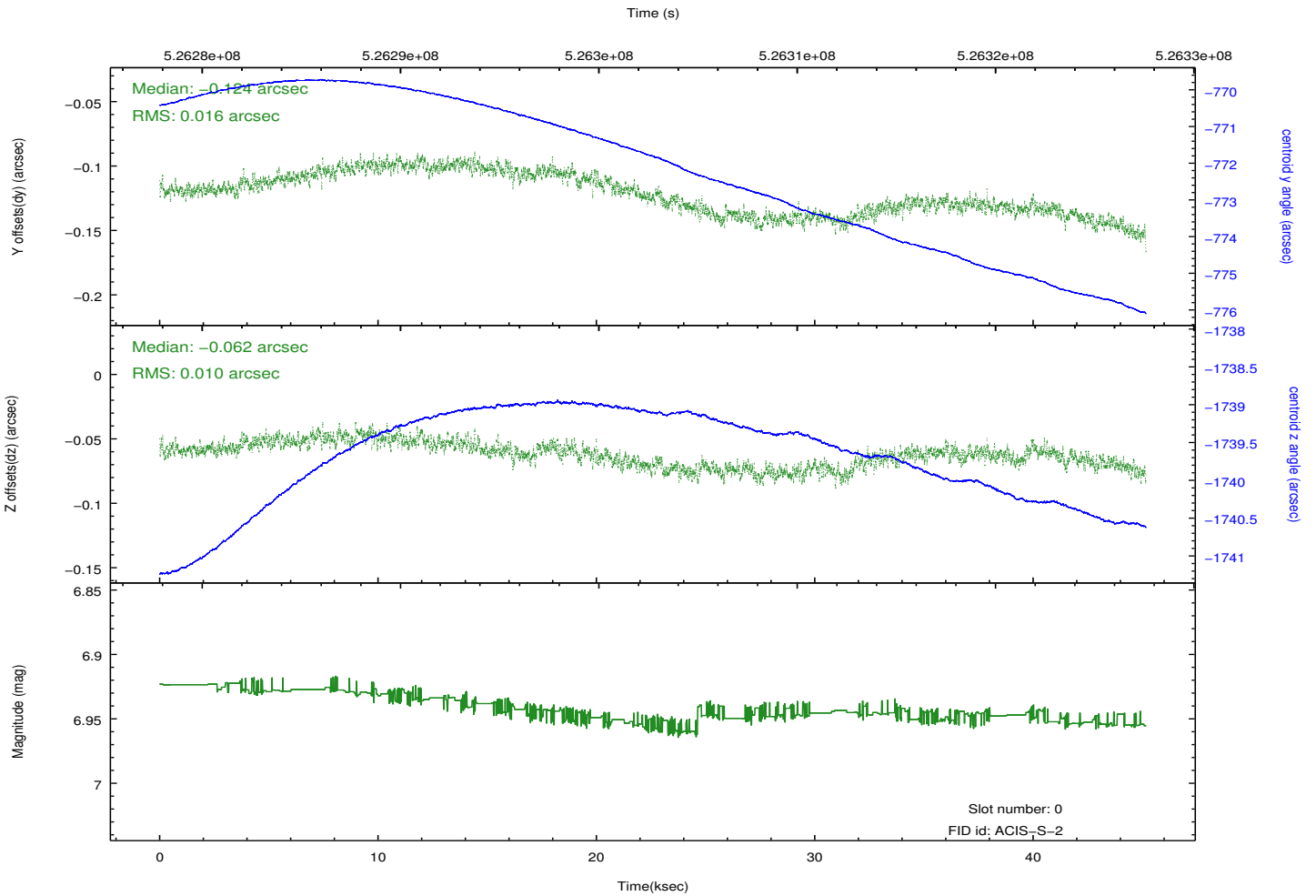
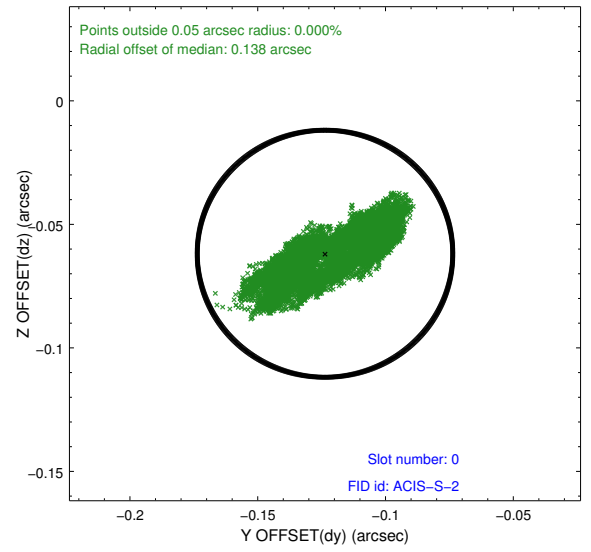
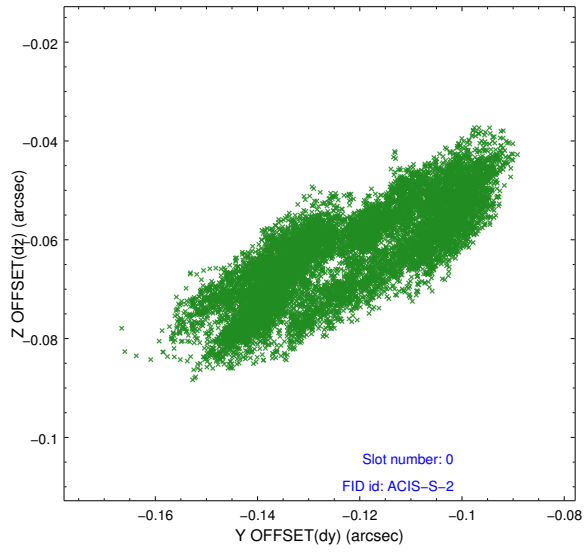


## 2.4.5 Slot 7

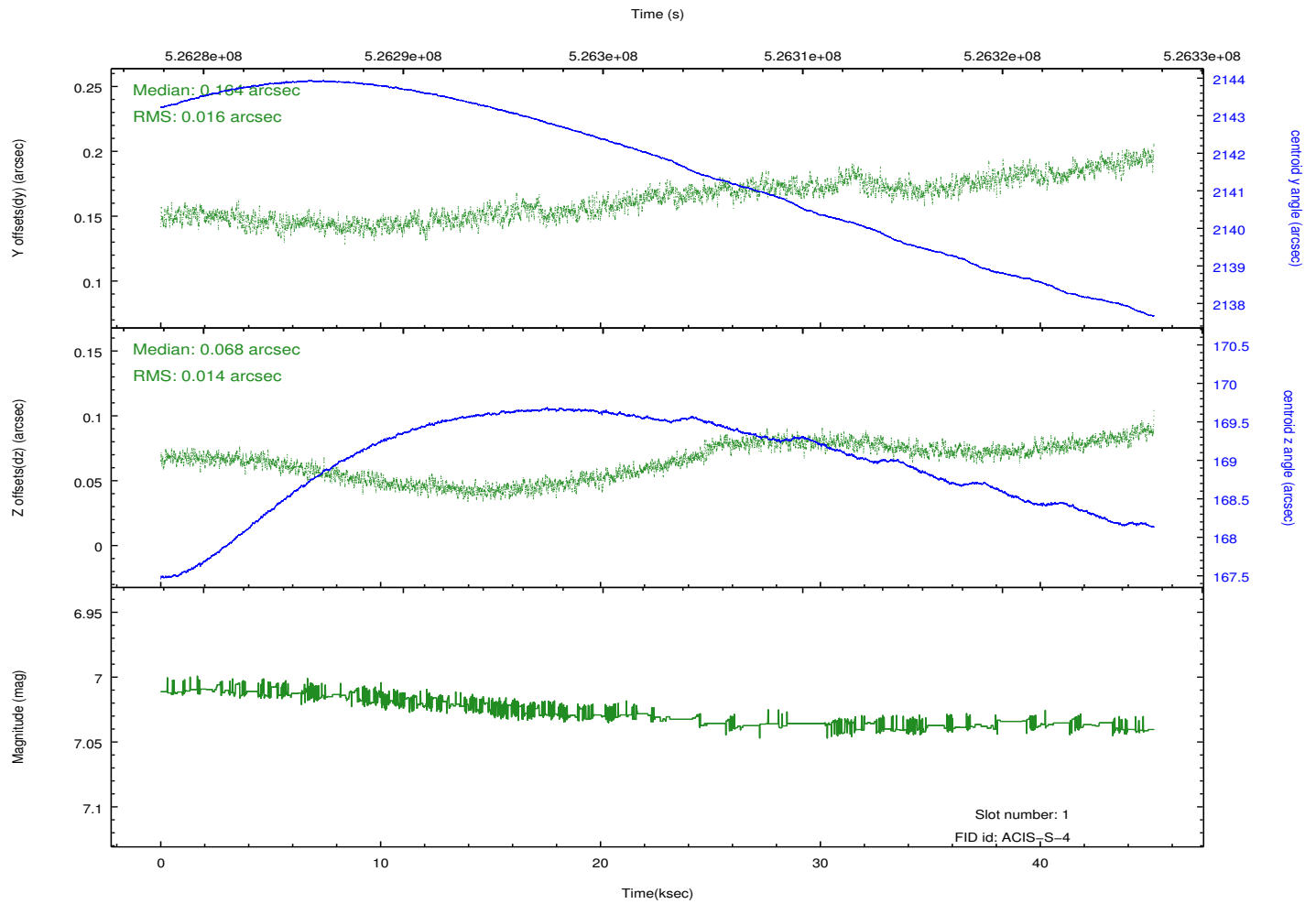
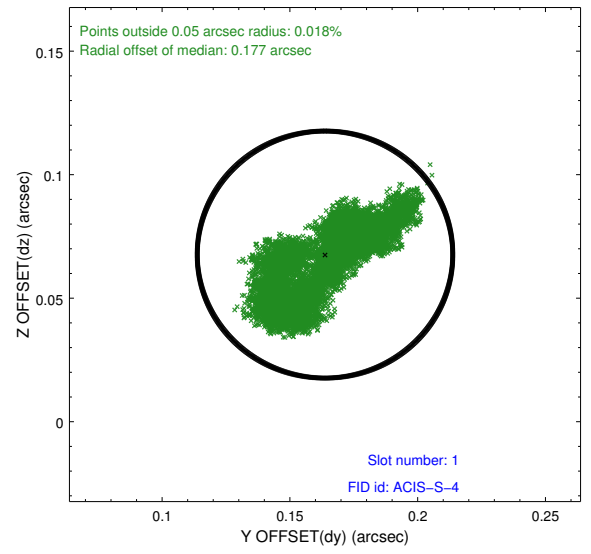
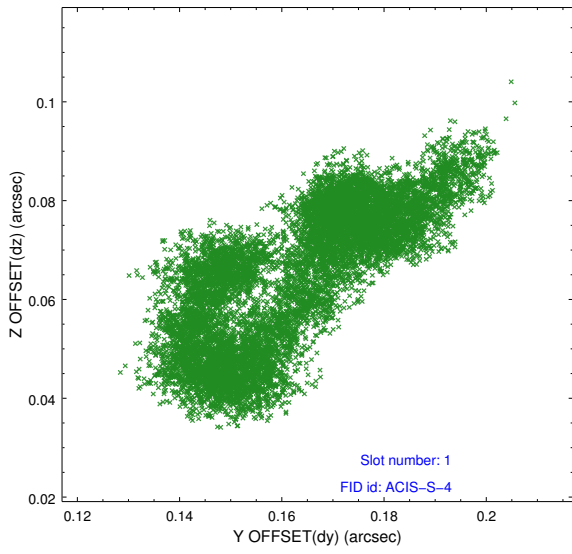


## 2.5 FID Slots

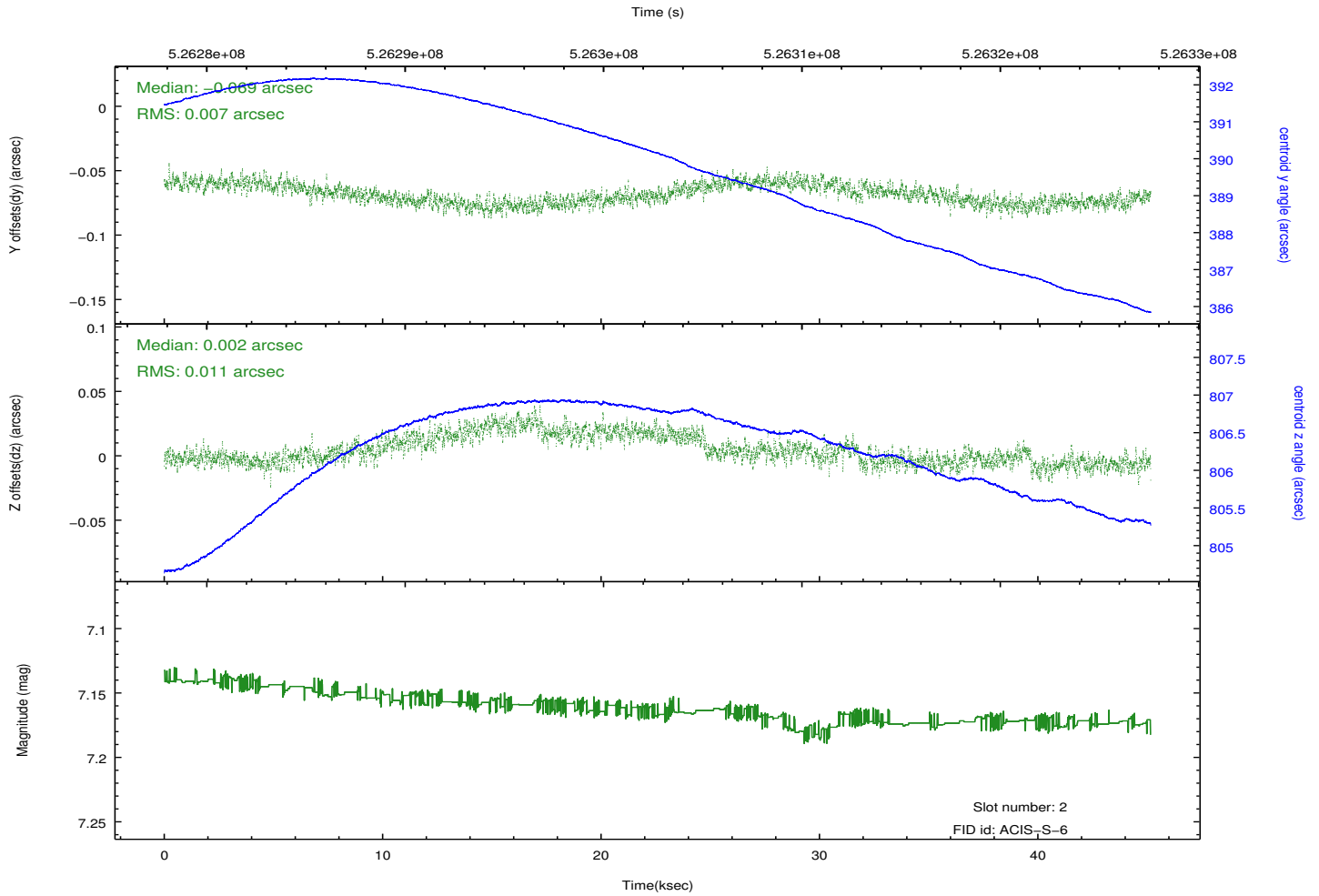
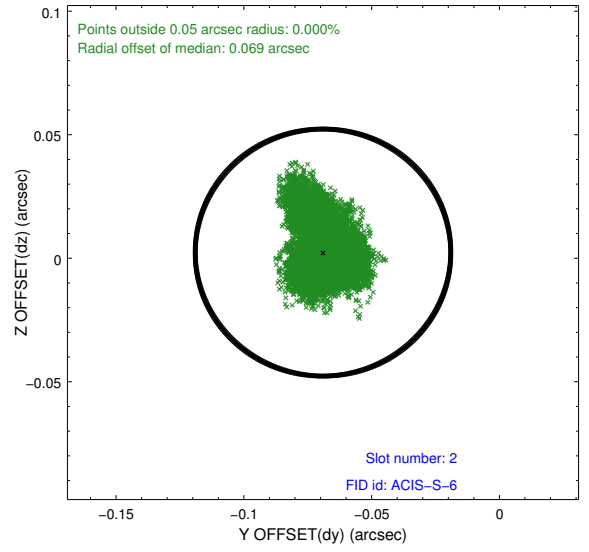
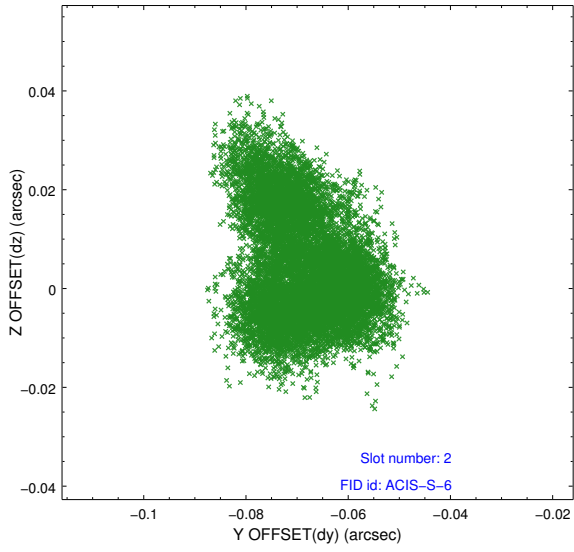
### 2.5.1 Slot 0



## 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)	2014.09.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.069569480598

### A.2 Comments