

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4666 - L2 Version 5  
Chandra X-Ray Center

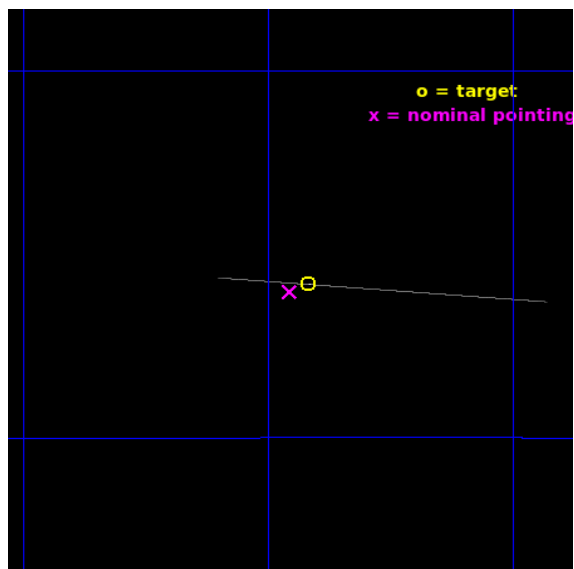
L2 Processing Date : Sep 21 2020

## 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

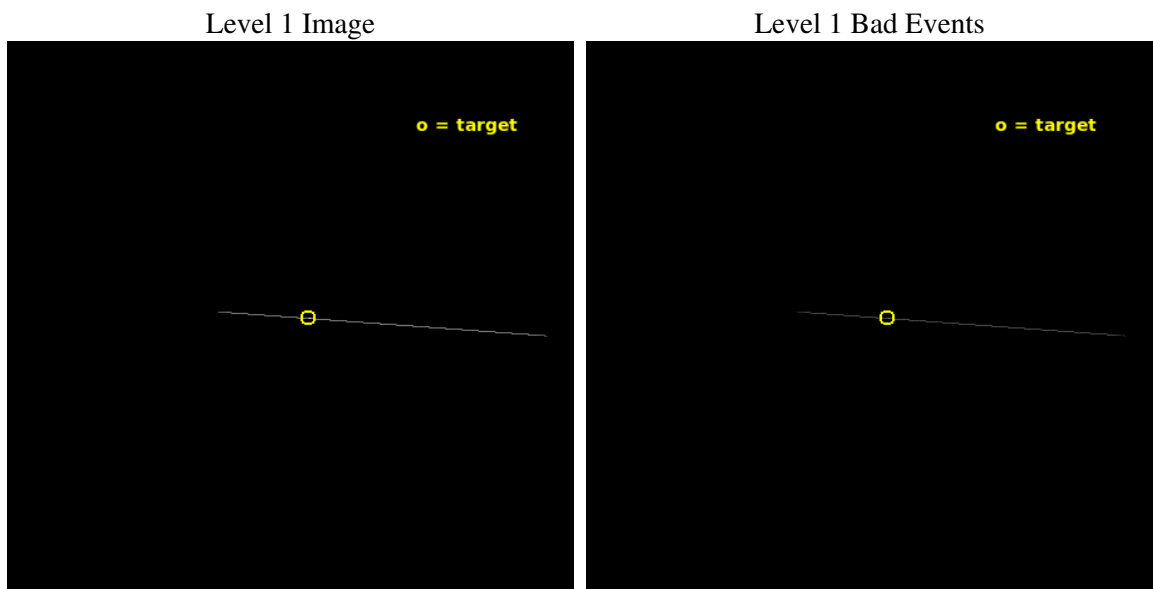
seq_num	500485	Sequence number
obs_id	4666	Observation id
title	Timing the Enigmatic Nearby Neutron Star RX J0720.4-3125	Proposal
observer	Prof. David Kaplan	Principal investigator
object	RX J0720.4-3125	Source name
ra_targ	110.104167	Observer's specified target RA [deg]
dec_targ	-31.430444	Observer's specified target Dec [deg]
ra_nom	110.11381890554	Nominal RA [deg]
dec_nom	-31.433870274703	Nominal Dec [deg]
roll_nom	4.3240121259185	Nominal Roll [deg]
revision	5	Processing version of data
ontime	10121.25	Sum of GTIs [s]
livetime	10081.713867188	Livetime [s]
ontime7	10121.25	Sum of GTIs [s]
l2events	52254	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	9941.337000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	10121.25	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime7	10121.25	Sum of GTIs [s]
date	2020-09-22T00:36:25	Date and time of file creation	l1events	64150	Number of level 1 events
revision	5	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	64150
rejected events	10499
rejected %	16%

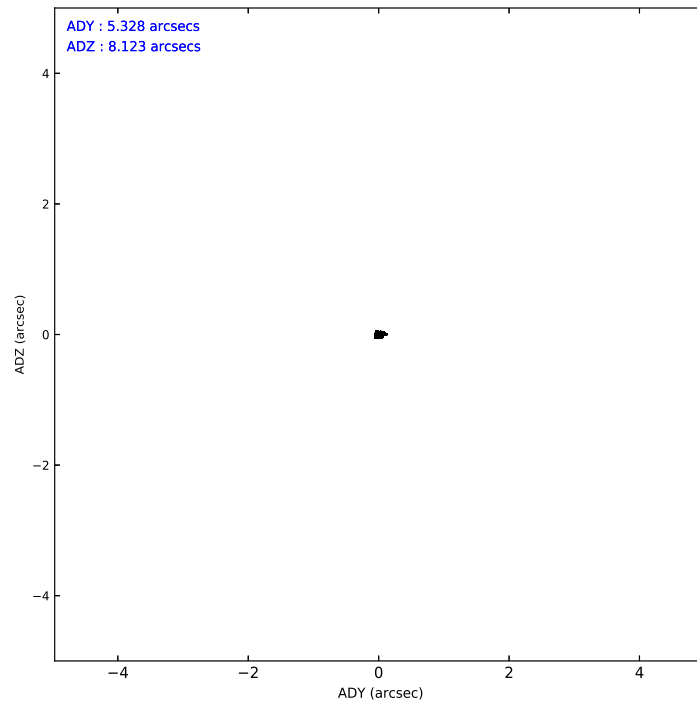
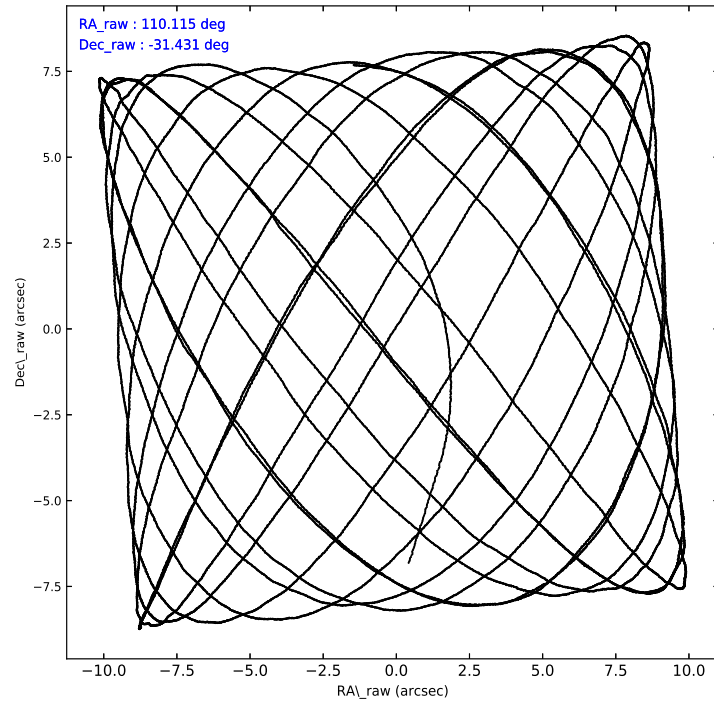
	<b>ccd 7</b>
grade 0 events	14909
	23%
grade 1 events	143
	0%
grade 2 events	13037
	20%
grade 3 events	4238
	6%
grade 4 events	4371
	6%
grade 5 events	7238
	11%
grade 6 events	20214
	31%
grade 7 events	0
	0%

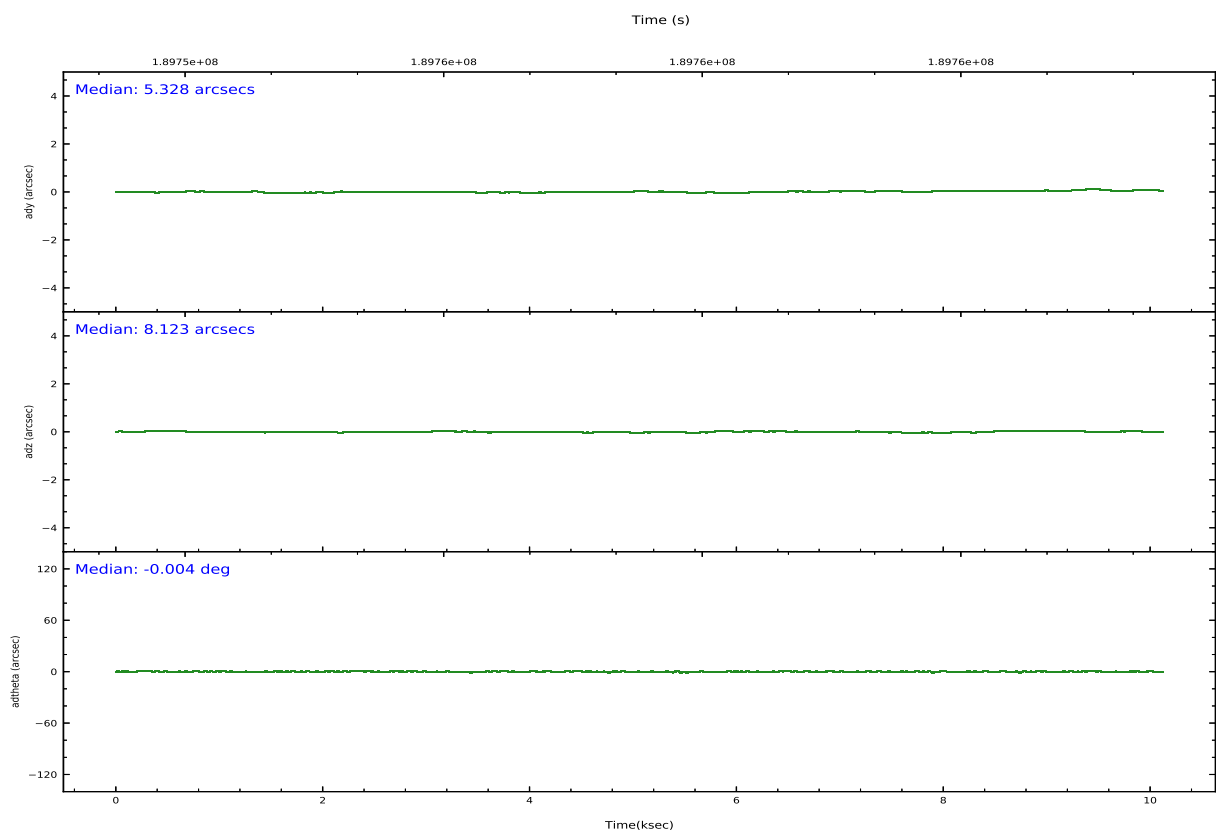
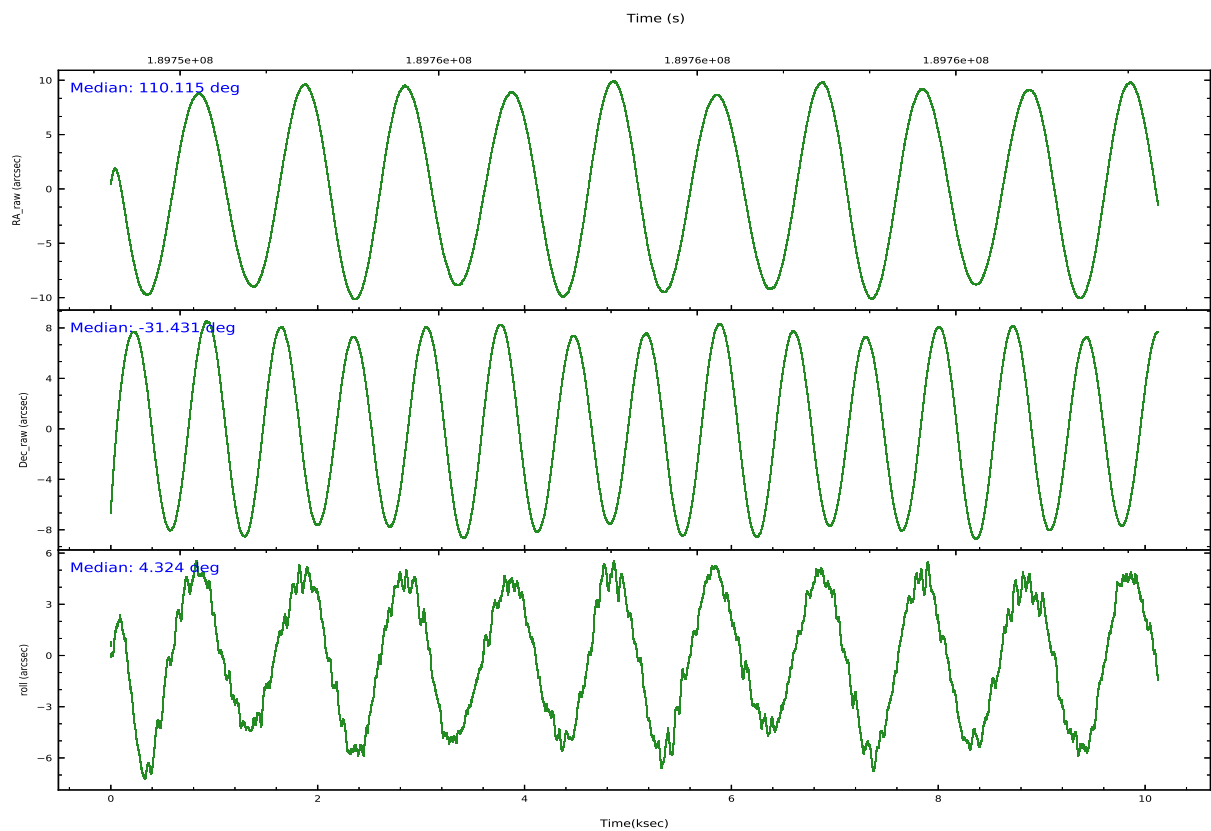


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	110.089327	110.11381890554	Subarray requested	NONE	NONE
[deg] Pointing Dec	-31.447075	-31.433870274703	Alternating exposures requested	N	N
[deg] Pointing Roll	4.157792	4.3240121259185	[s] Primary exposure time	0.000000	0
[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)	189752014.184000	189750927.39246			
Observation start date	2004-01-06T04:52:30	2004-01-06T04:35:27			
[s] Observation end time (MET)	189761955.184000	189763180.243			
Observation end date	2004-01-06T07:38:11	2004-01-06T07:59:40			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



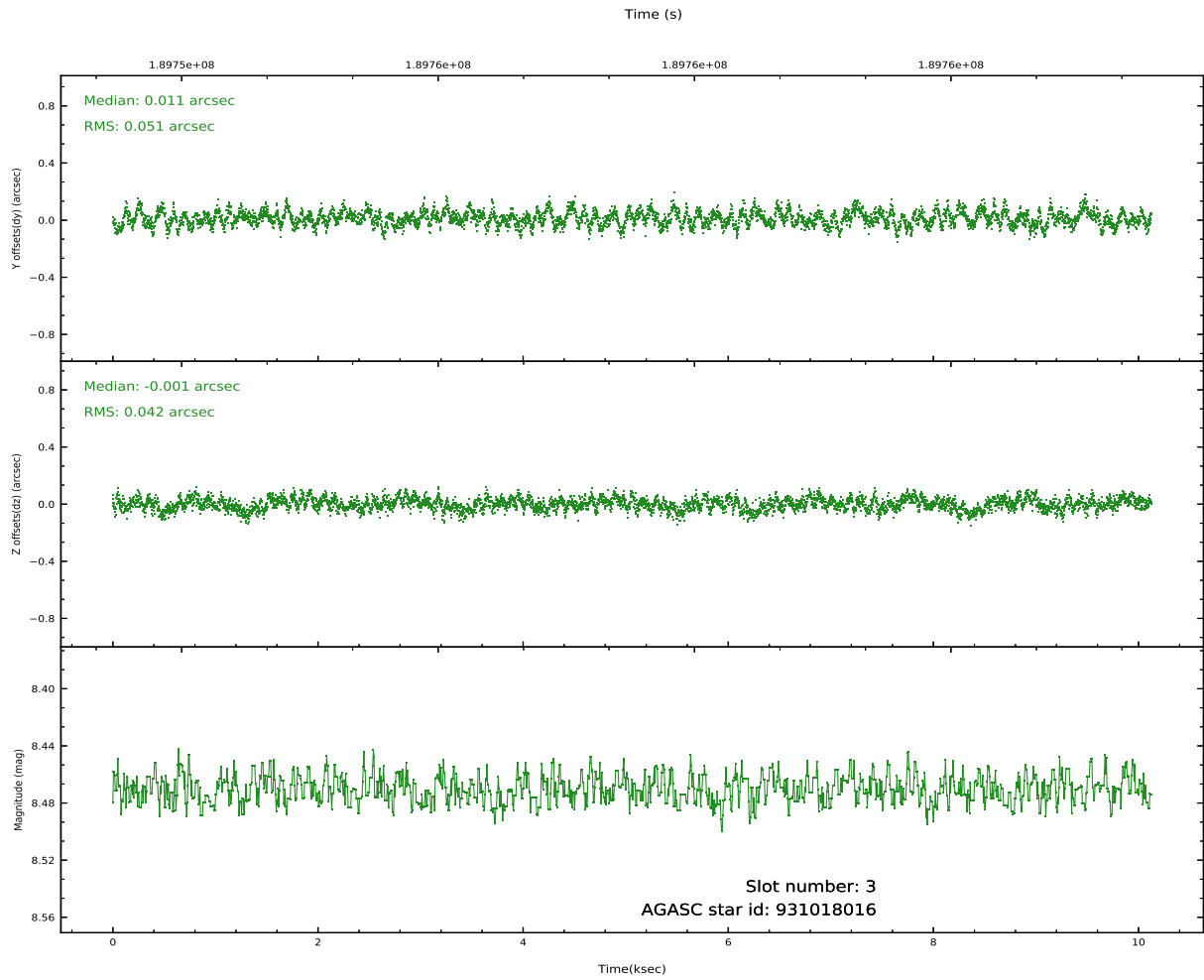
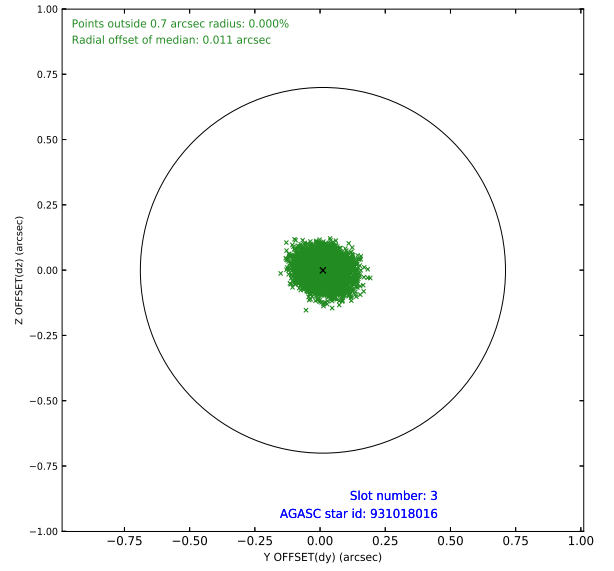
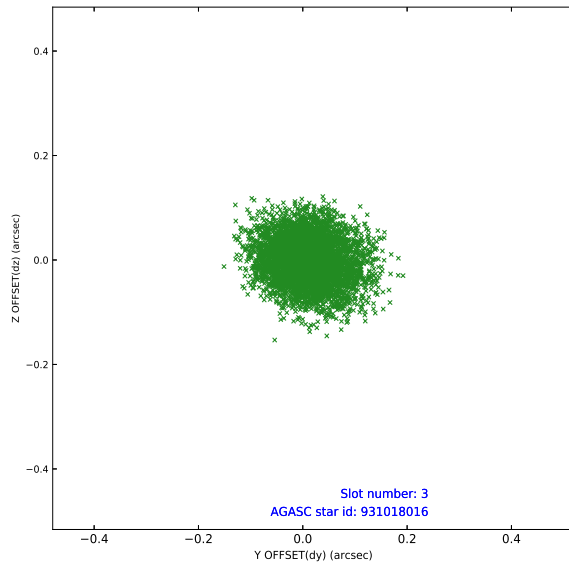


Slot Statistics

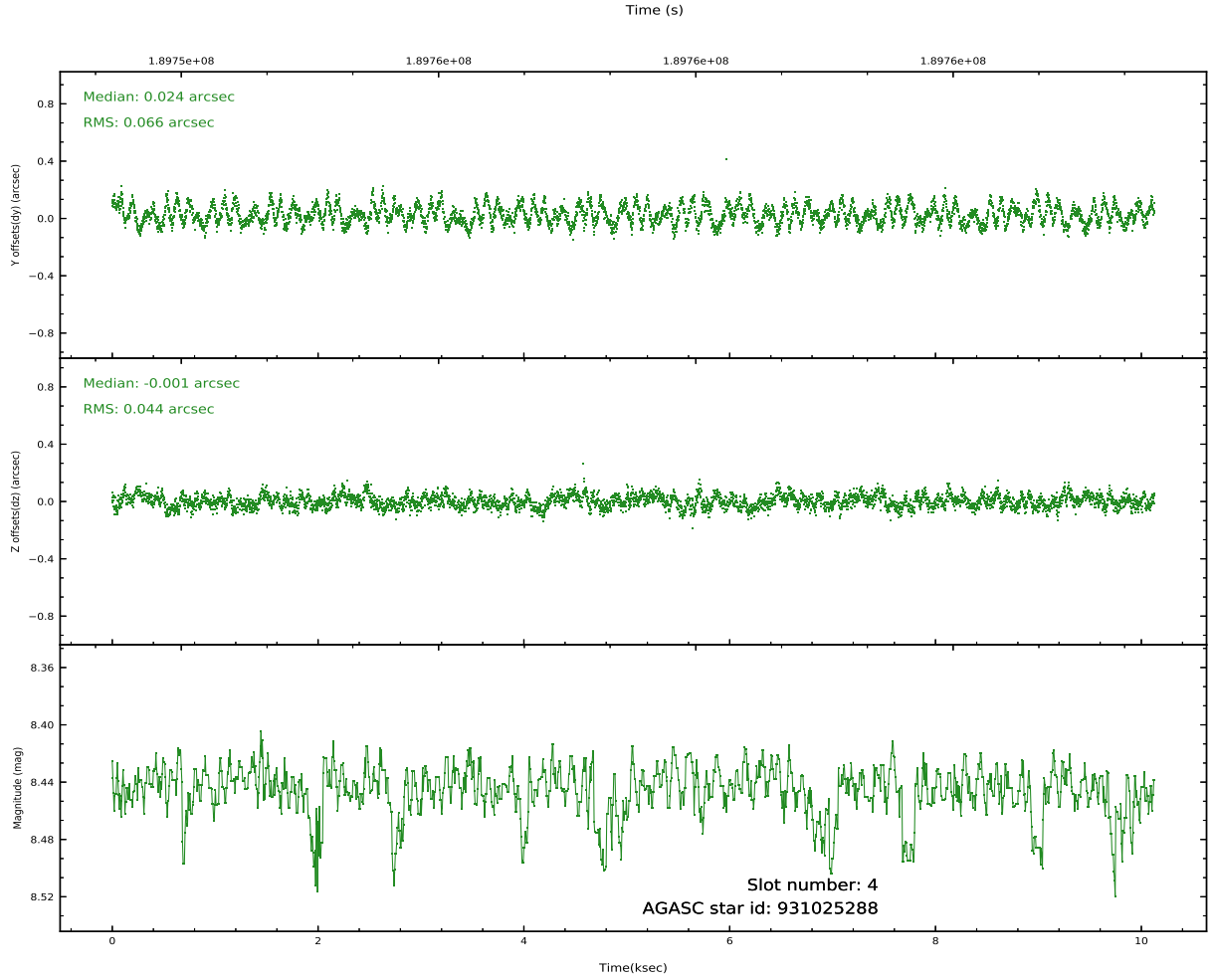
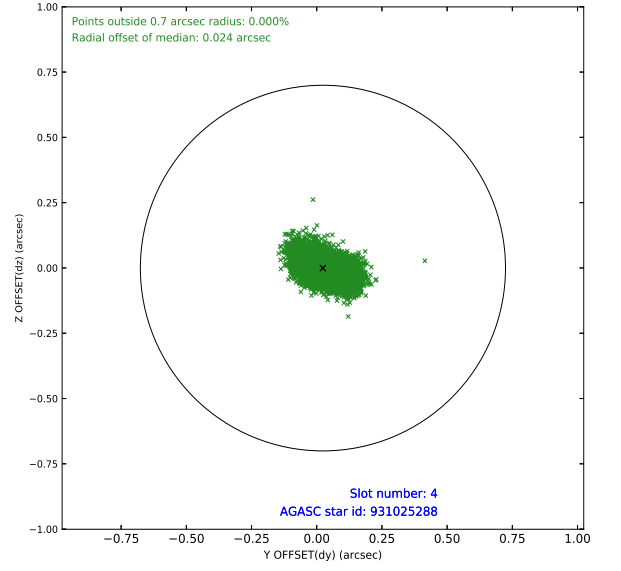
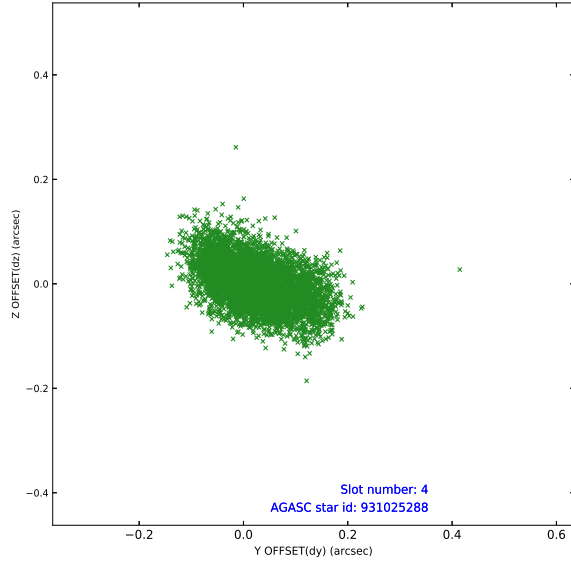
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.11	2470	1.000	-0.059	-0.082	0.007	0.011	0.000000	0.000000	-758.10	-1729
1	FID		ACIS-S-4	7.21	2470	1.000	0.142	0.051	0.006	0.010	0.000000	0.000000	2155.14	178
2	FID		ACIS-S-5	7.23	2469	1.000	-0.114	0.040	0.007	0.011	0.000000	0.000000	-1810.32	172
3	GUIDE	used	931018016	8.47	4941	1.000	0.011	-0.001	0.071	0.113	109.684535	-31.226562	-1185.40	879
4	GUIDE	used	931025288	8.44	4939	1.000	0.024	-0.001	0.085	0.139	109.511084	-30.937793	-1648.55	1953
5	GUIDE	used	931160352	8.62	4938	1.000	-0.076	-0.024	0.092	0.140	110.268138	-30.864891	702.52	2050
6	GUIDE	used	931695048	7.39	4940	1.000	0.024	-0.019	0.099	0.150	110.648539	-32.046020	1545.99	-2277
7	GUIDE	used	931019296	8.66	4938	1.000	0.019	0.042	0.059	0.093	109.471771	-31.694370	-1951.09	-756

## 2.4 Star Slots

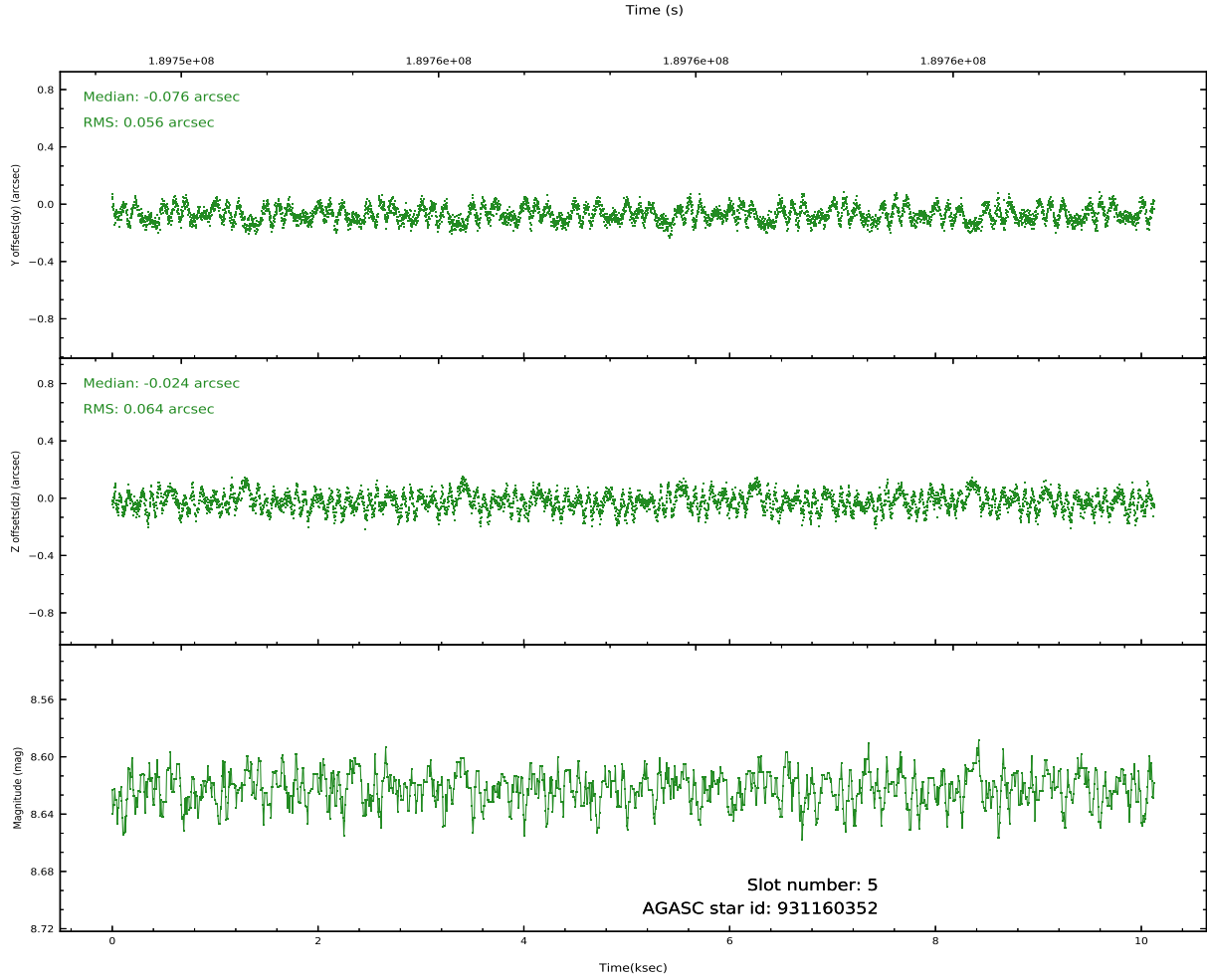
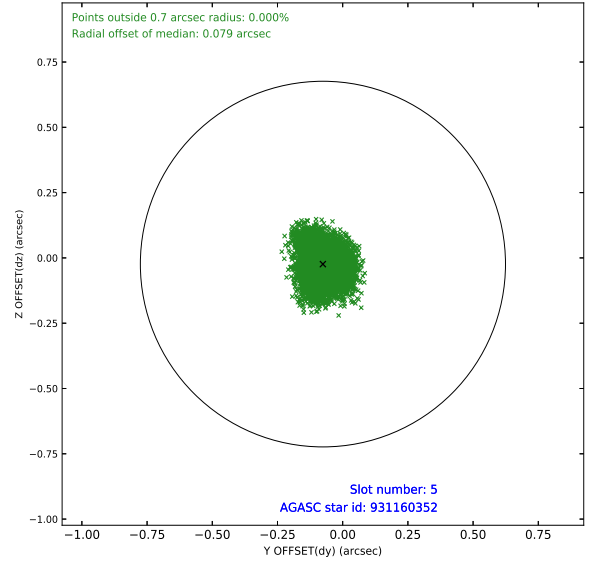
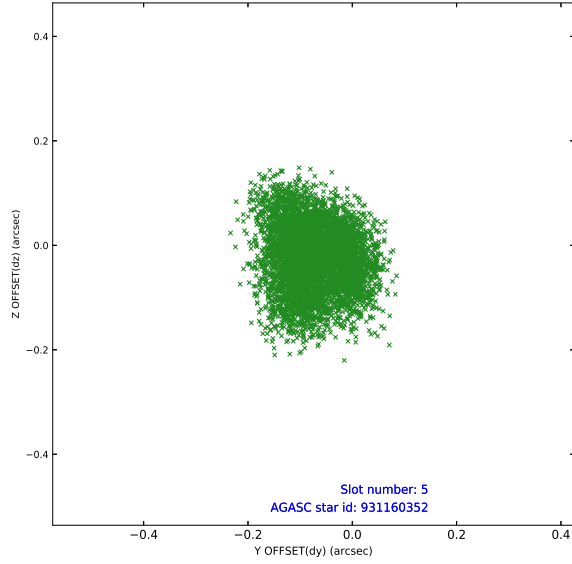
### 2.4.1 Slot 3



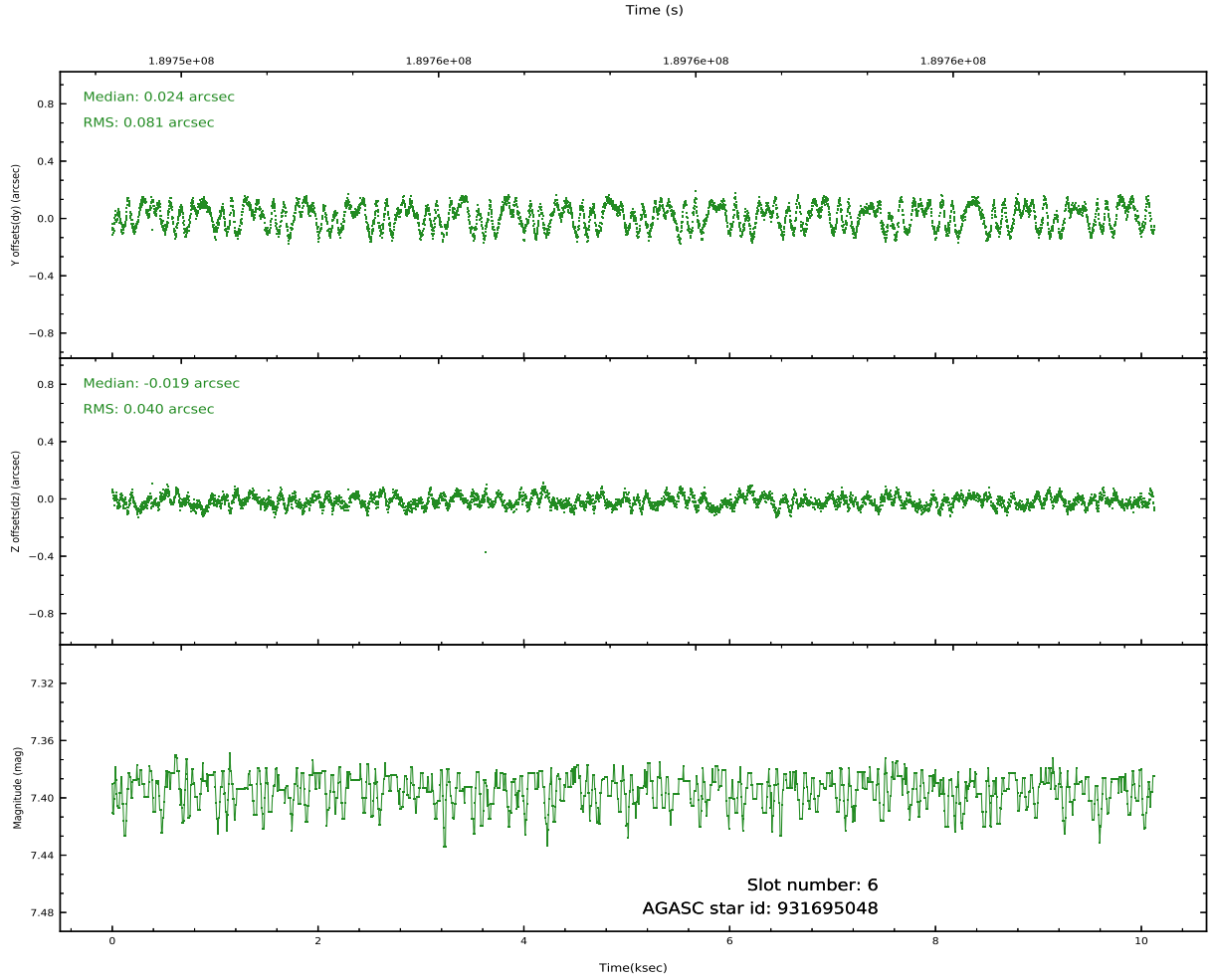
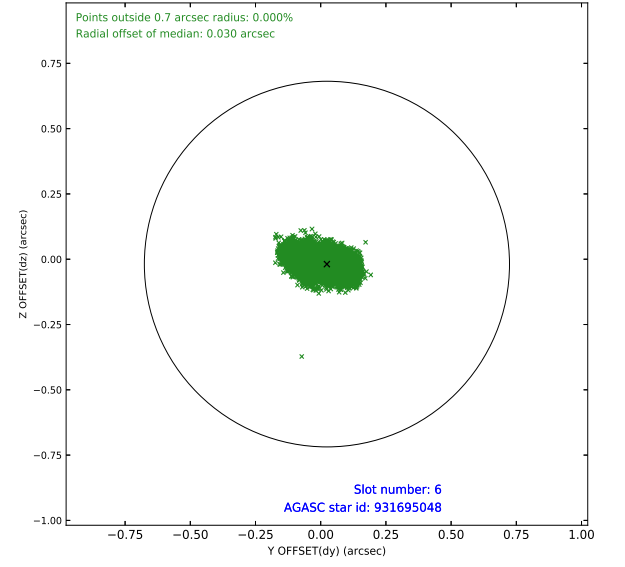
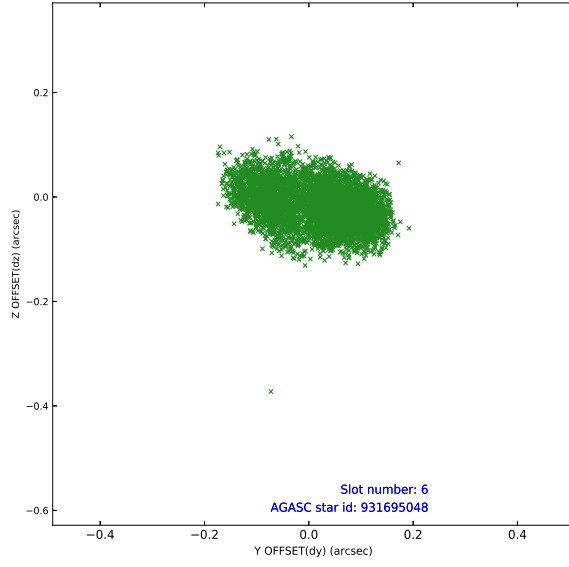
## 2.4.2 Slot 4



### 2.4.3 Slot 5

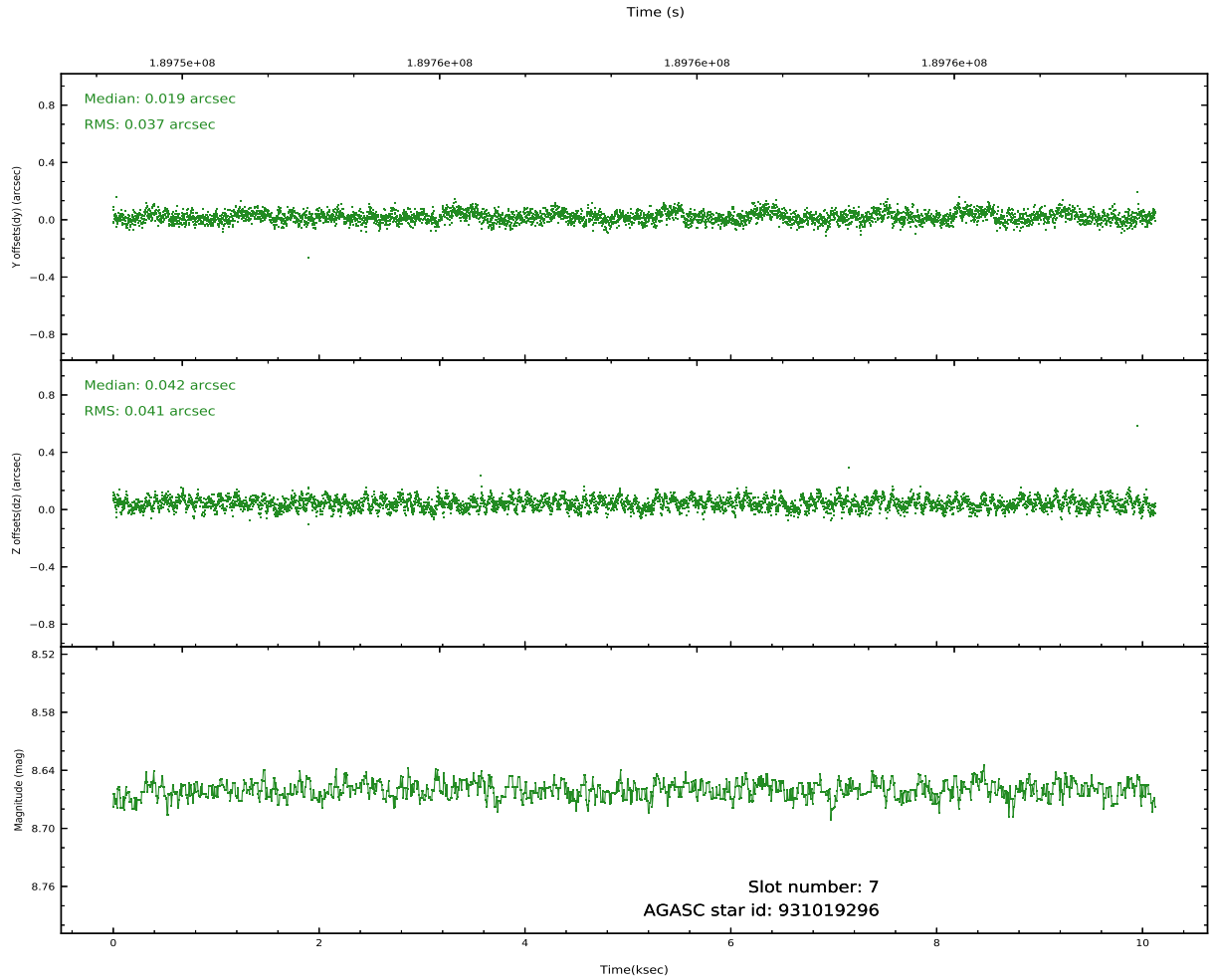
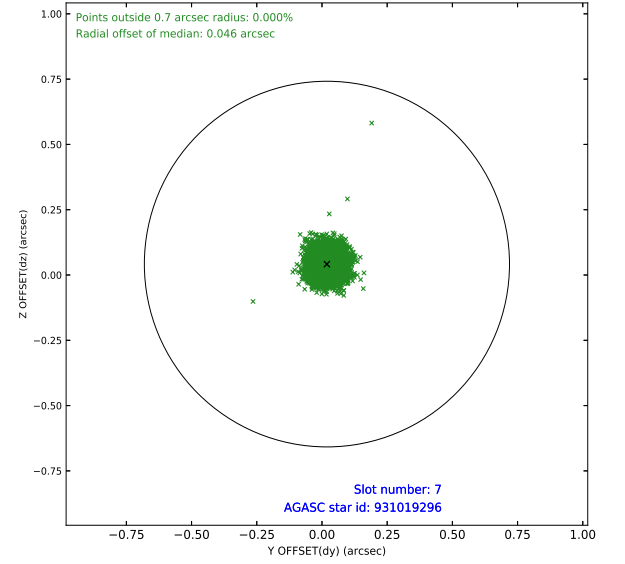
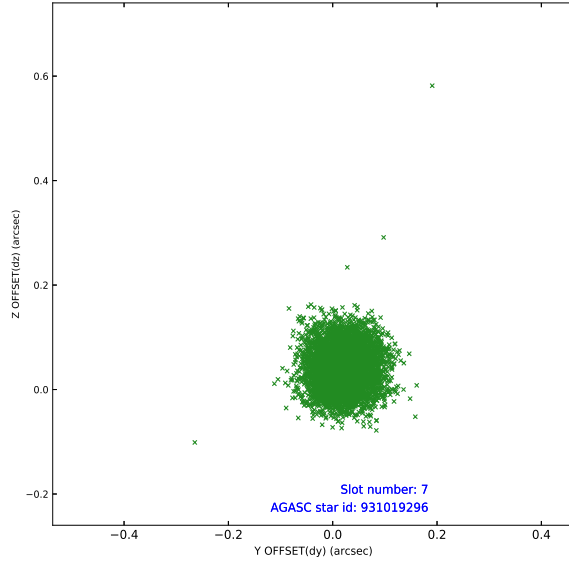


## 2.4.4 Slot 6



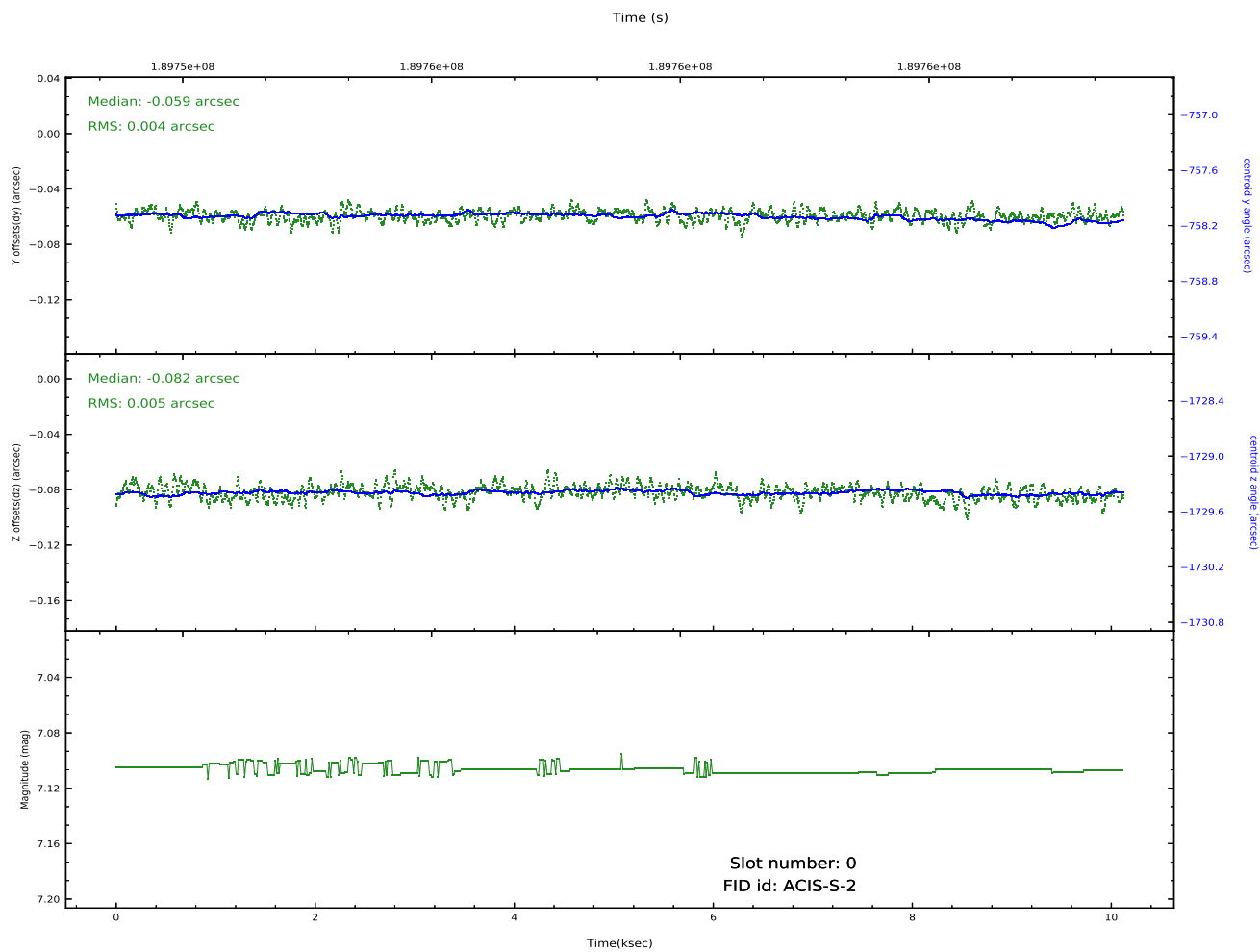
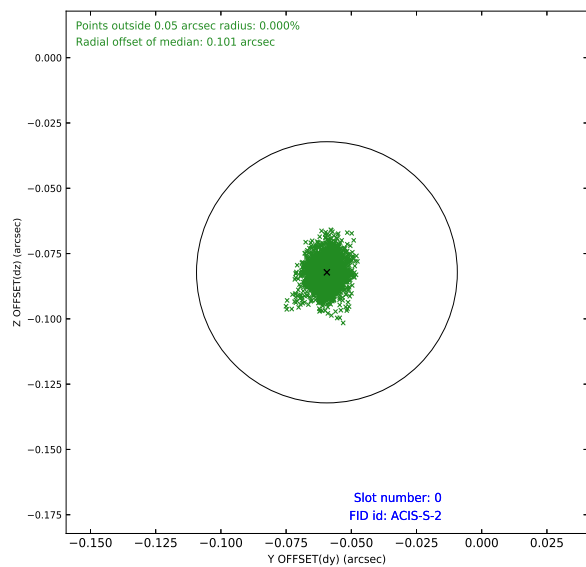
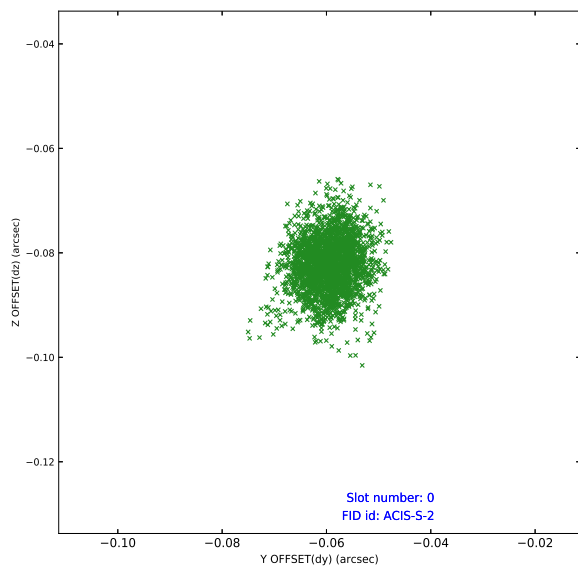


## 2.4.5 Slot 7

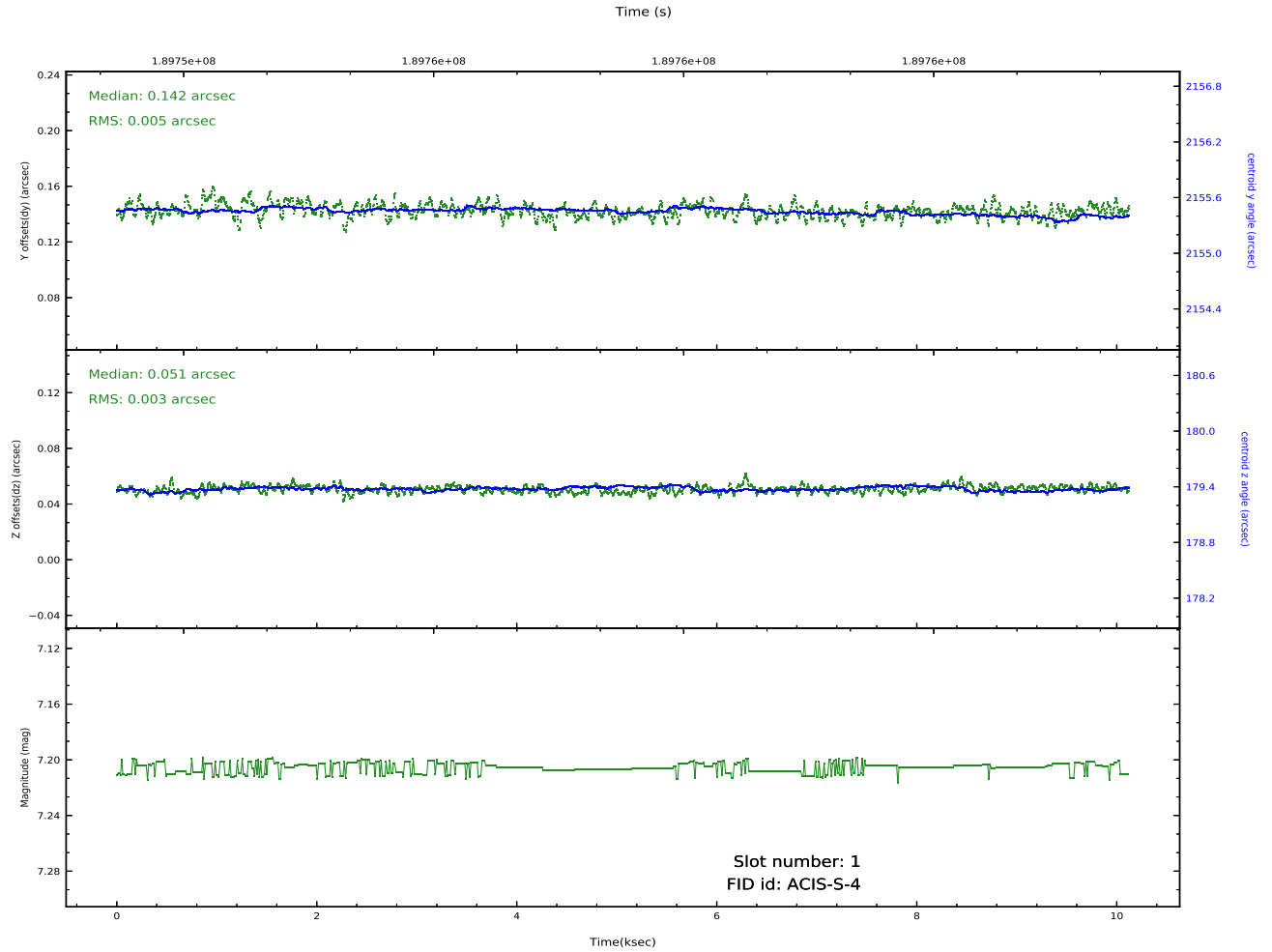
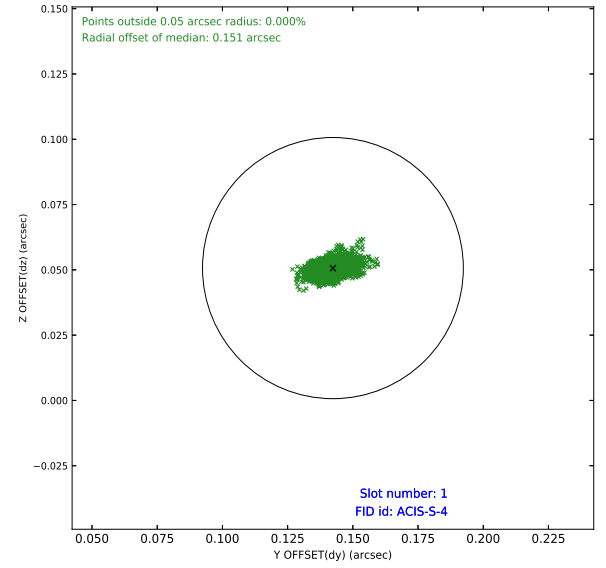
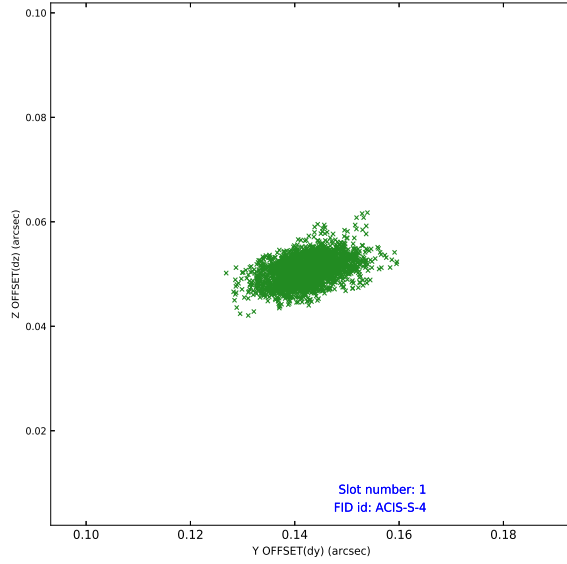


## 2.5 FID Slots

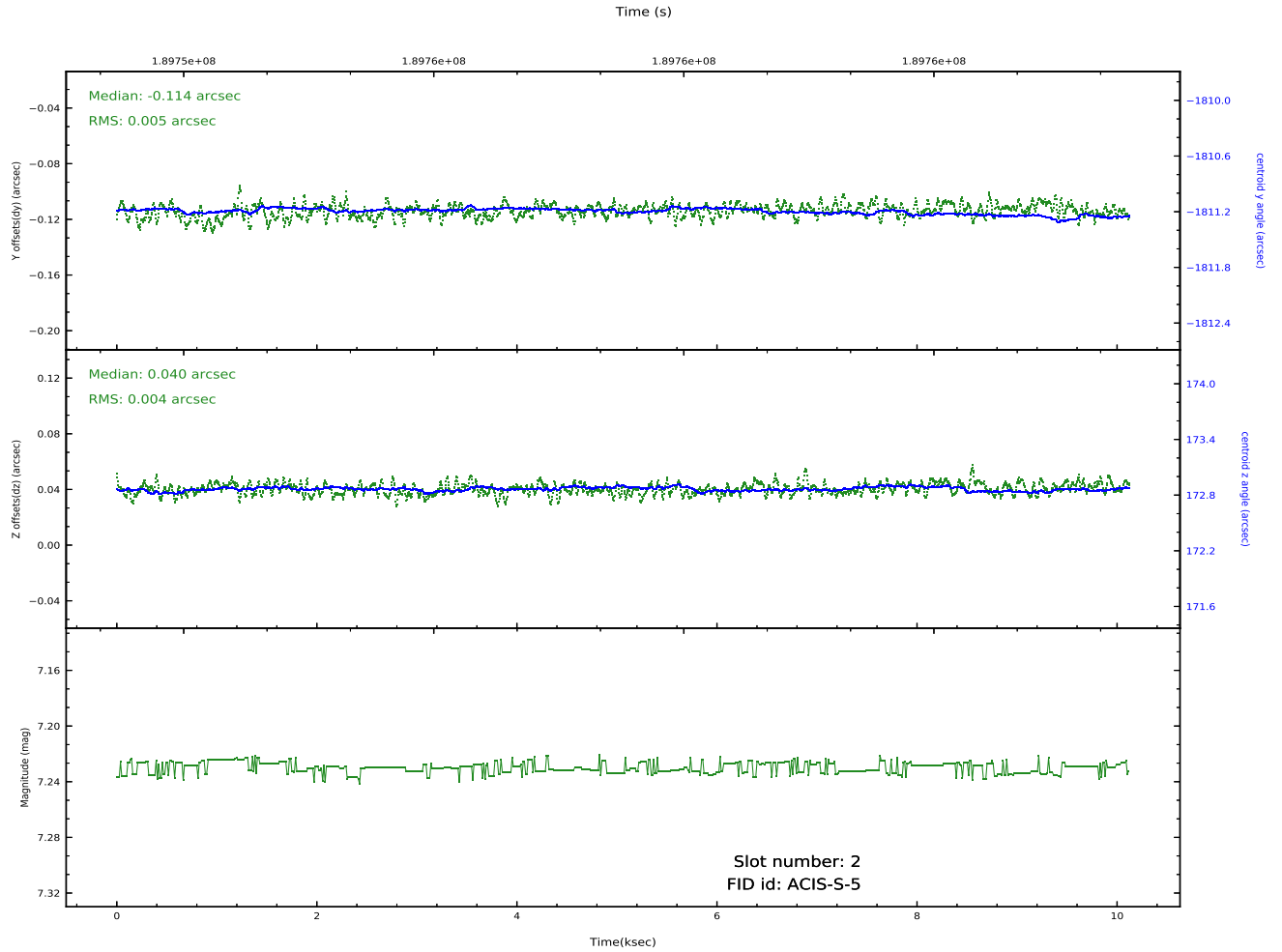
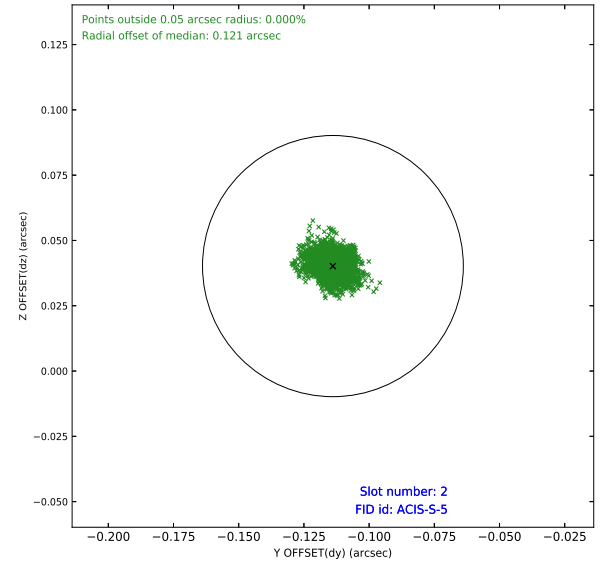
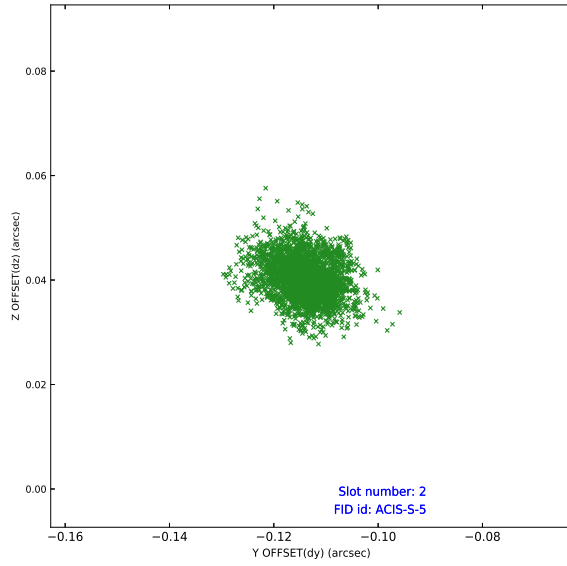
### 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	David Principe
V&V Date (YYYY-MM-DD)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.124

### A.2 Comments