

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20757 - L2 Version 2  
Chandra X-Ray Center

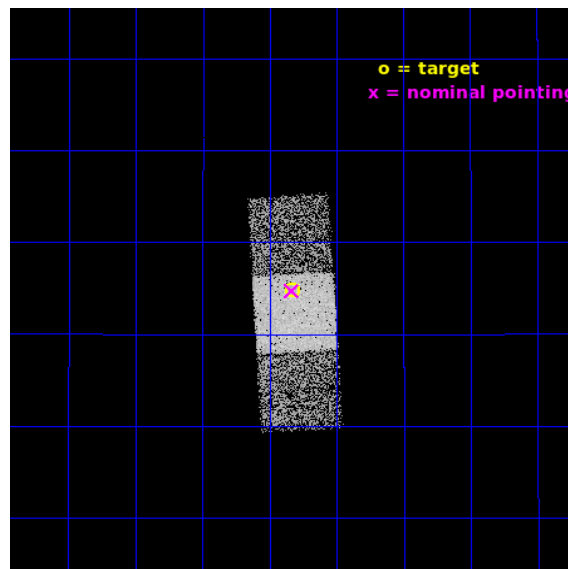
L2 Processing Date : Oct 24 2020

## 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

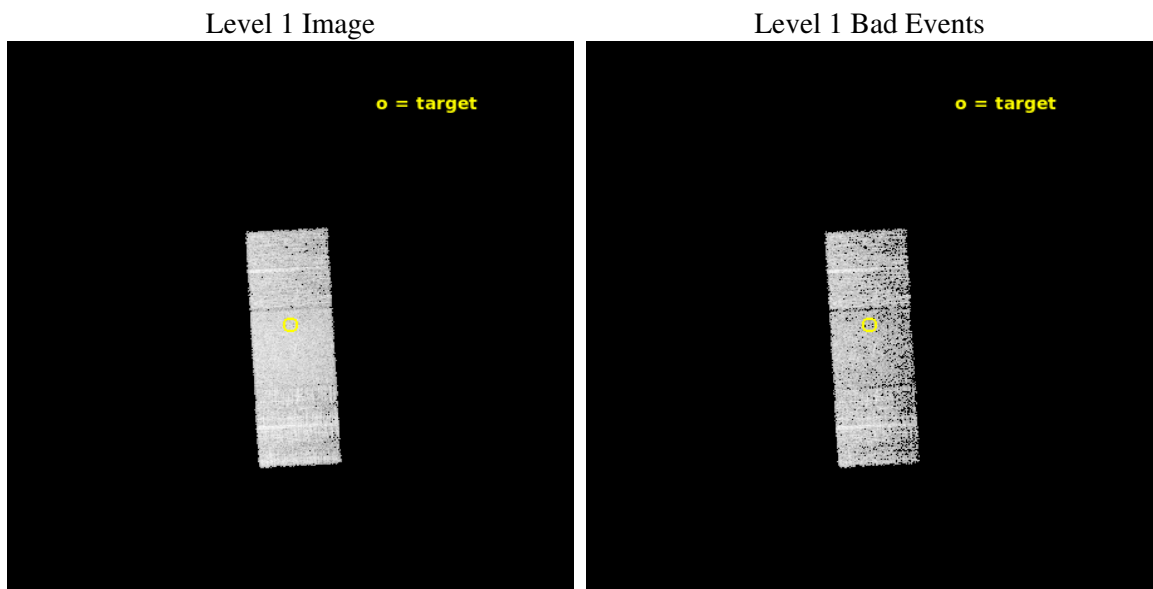
seq_num	703622	Sequence number
obs_id	20757	Observation id
title	A Chandra Snapshot Survey of Extremely Red Quasars from SDSS BOSS and WISE	Proposal title
observer	Gordon Garmire	Principal investigator
object	J1254+2104	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	193.70625	Observer's specified target RA [deg]
dec_targ	21.080111	Observer's specified target Dec [deg]
ra_nom	193.70831616931	Nominal RA [deg]
dec_nom	21.079151187234	Nominal Dec [deg]
roll_nom	86.805214870532	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4113.2873897552	Sum of GTIs [s]
livetime	4059.54426185	Livetime [s]
ontime6	4113.2463498116	Sum of GTIs [s]
ontime7	4113.2873897552	Sum of GTIs [s]
ontime8	4113.2053097486	Sum of GTIs [s]
l2events	22774	Number of level 2 events



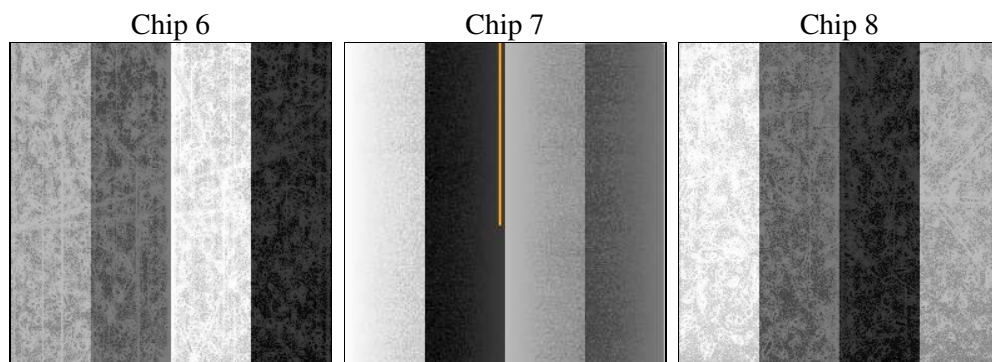
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	4113.2873897552	Sum of GTIs [s]
caldbver	4.9.3	&#160	ontime6	4113.2463498116	Sum of GTIs [s]
date	2020-10-24T14:40:28	Date and time of file creation	ontime7	4113.2873897552	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	4113.2053097486	Sum of GTIs [s]
			l1events	105750	Number of level 1 events

### 2.1.4 Events

	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	29413	38090	38247
rejected events	25894	21287	27620
rejected %	88%	55%	72%

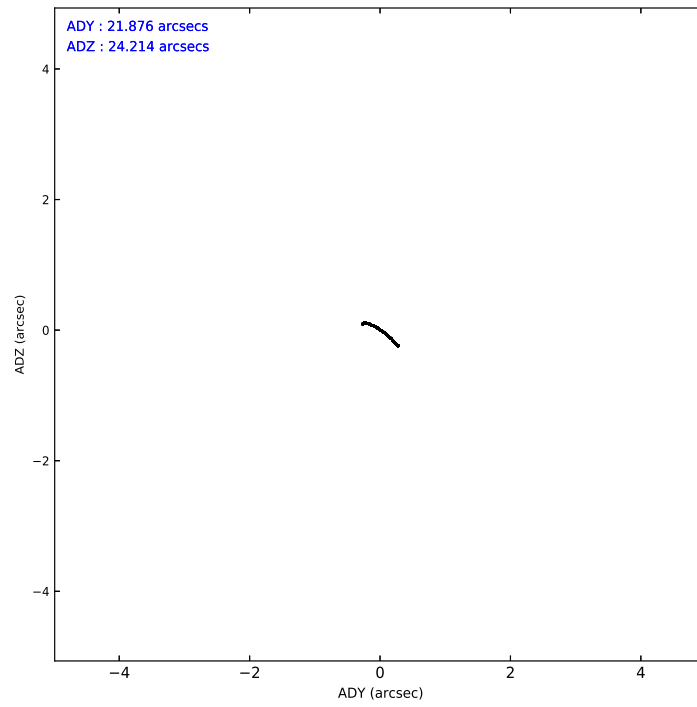
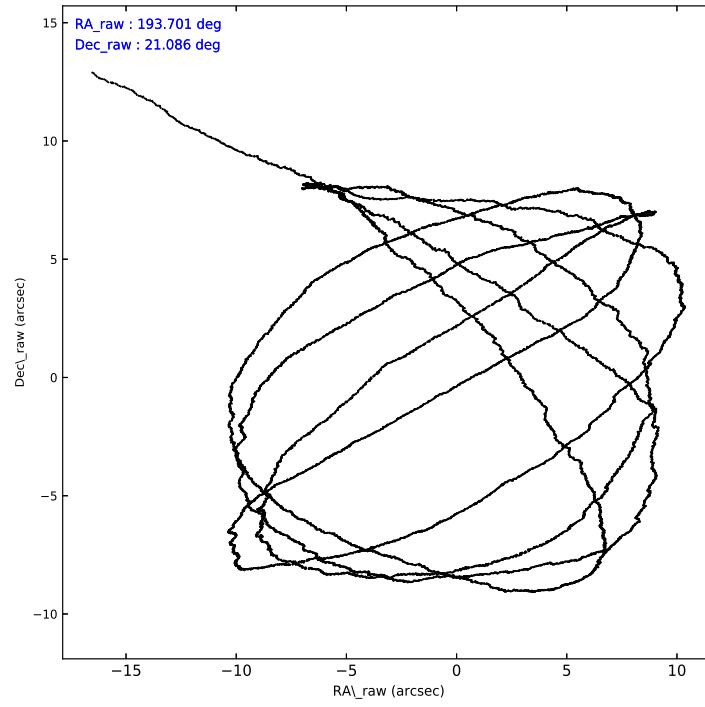
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	1220	1498	3144
	4%	3%	8%
grade 1 events	16	45	26
	0%	0%	0%
grade 2 events	821	3558	2592
	2%	9%	6%
grade 3 events	354	1383	1101
	1%	3%	2%
grade 4 events	345	1322	973
	1%	3%	2%
grade 5 events	1473	3838	2129
	5%	10%	5%
grade 6 events	781	9048	2819
	2%	23%	7%
grade 7 events	24403	17398	25463
	82%	45%	66%

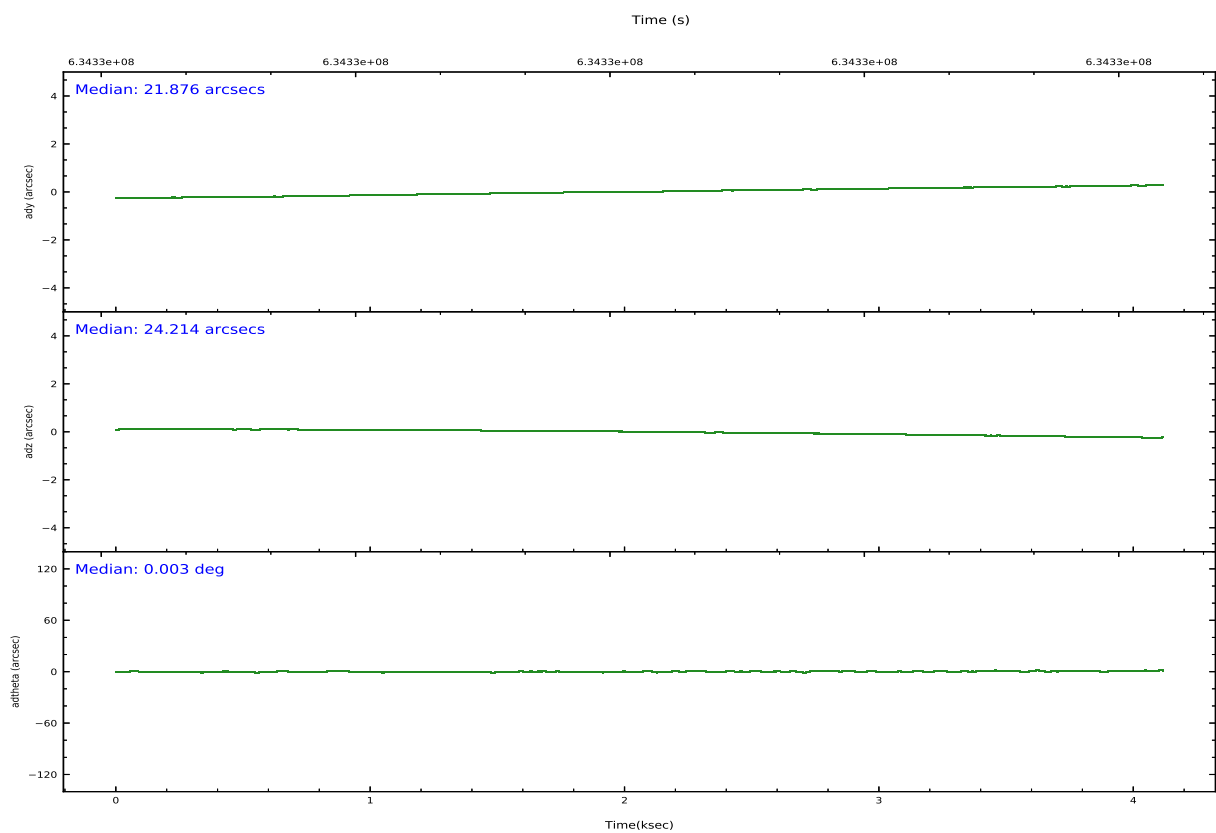
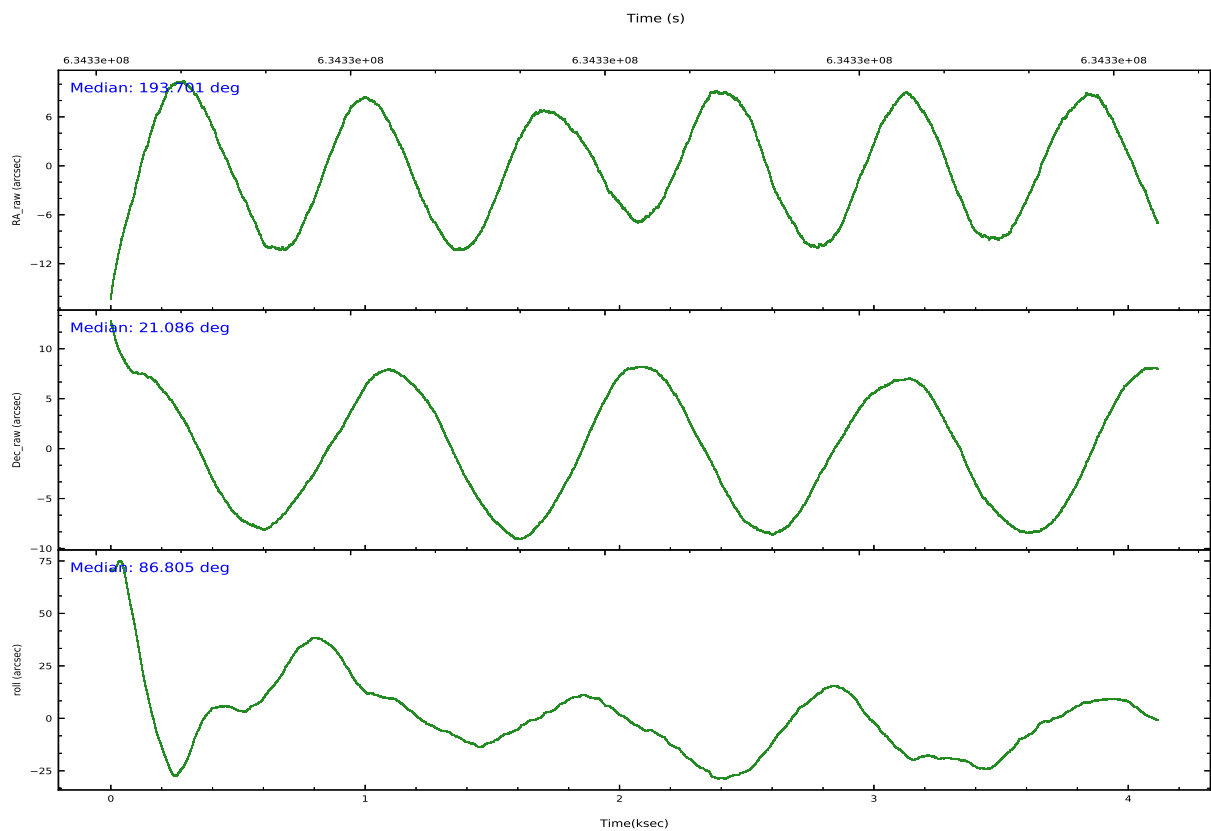


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-678	ACIS-678	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	193.714740	193.70831616931	Subarray requested	NONE	NONE
[deg] Pointing Dec	21.061410	21.079151187234	Alternating exposures requested	N	N
[deg] Pointing Roll	86.666637	86.805214870532	[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)	634328176.184000	634326878.57639			
Observation start date	2018-02-06T18:15:07	2018-02-06T17:54:38			
[s] Observation end time (MET)	634332176.184000	634332643.68923			
Observation end date	2018-02-06T19:21:47	2018-02-06T19:30:43			
Read mode	TIMED	TIMED			

## 2.3 Aspect



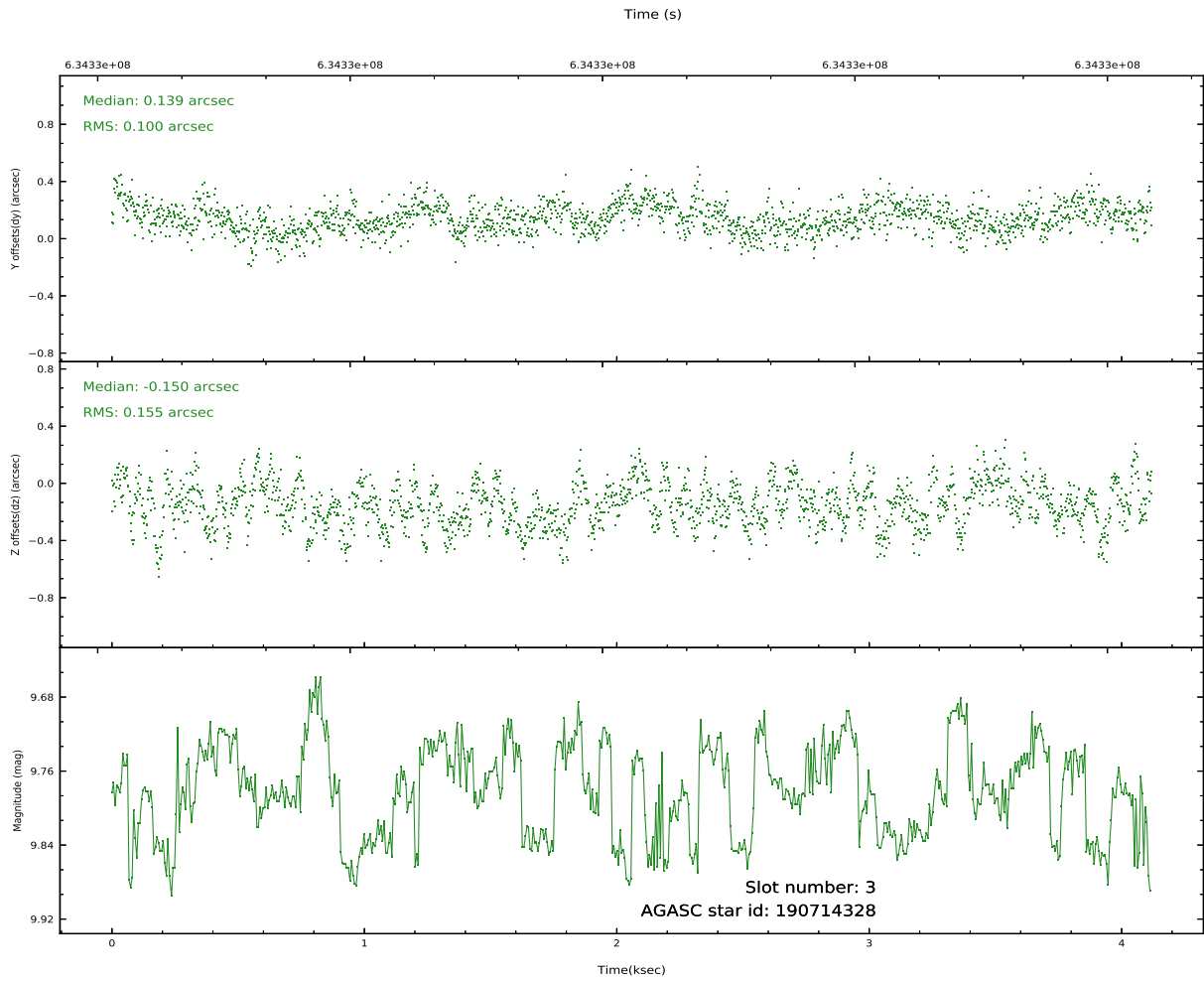
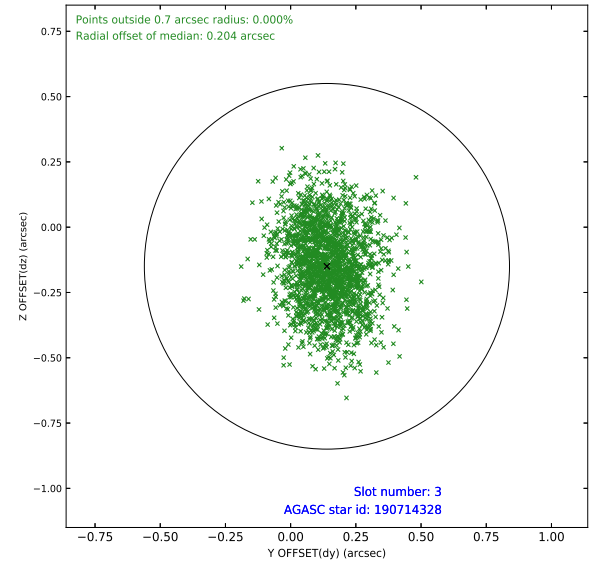
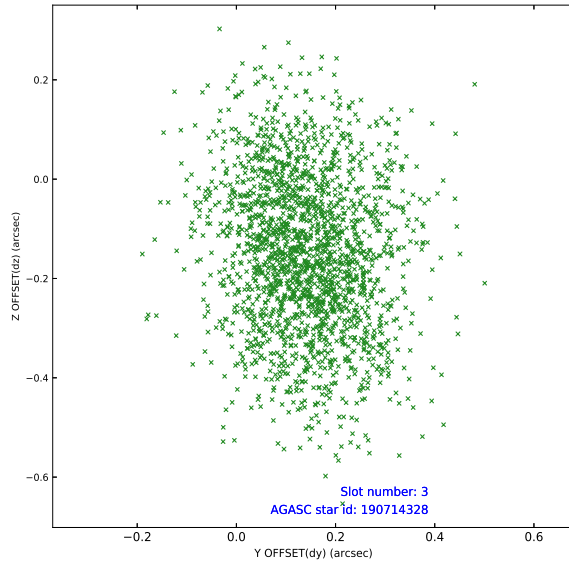


Slot Statistics

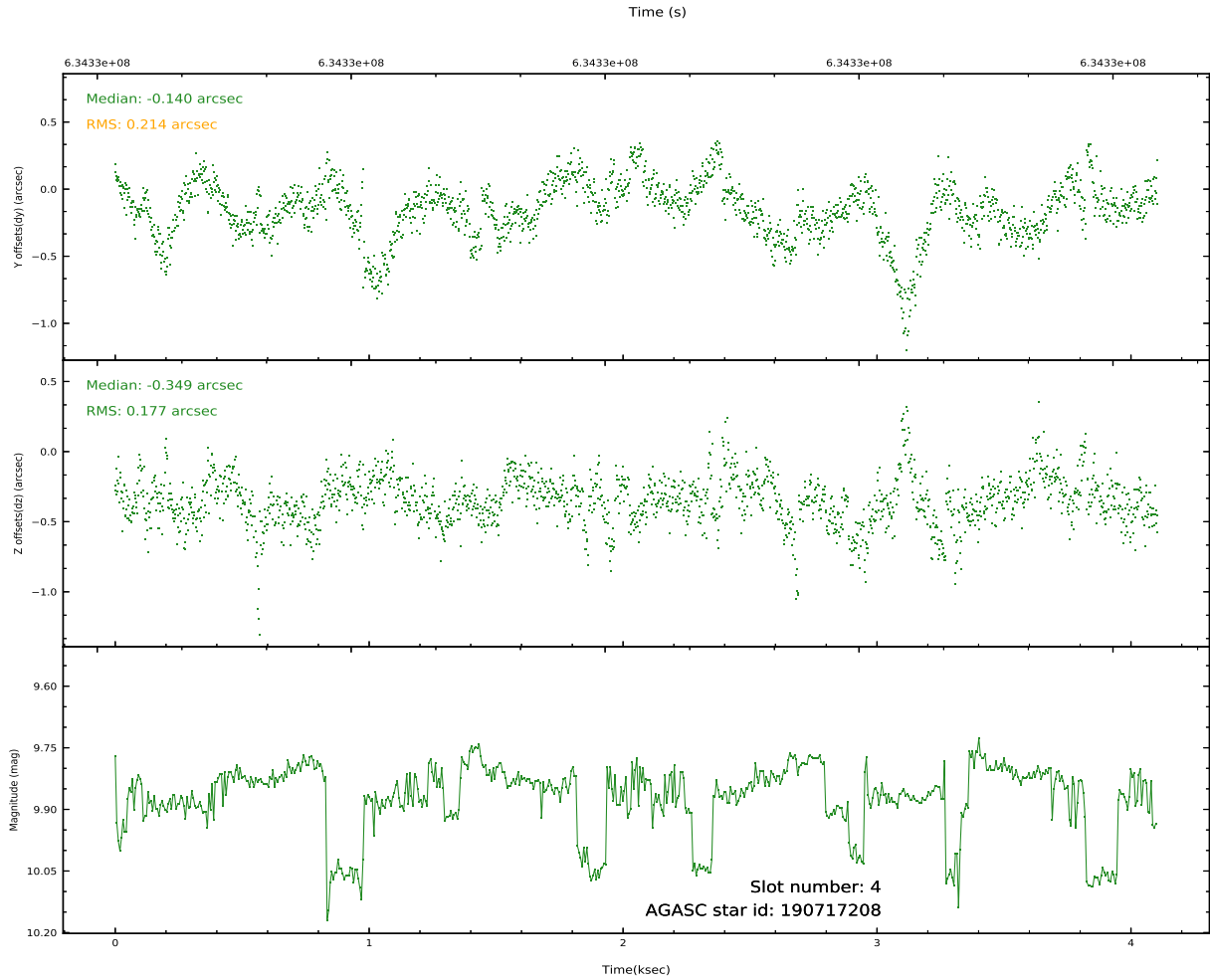
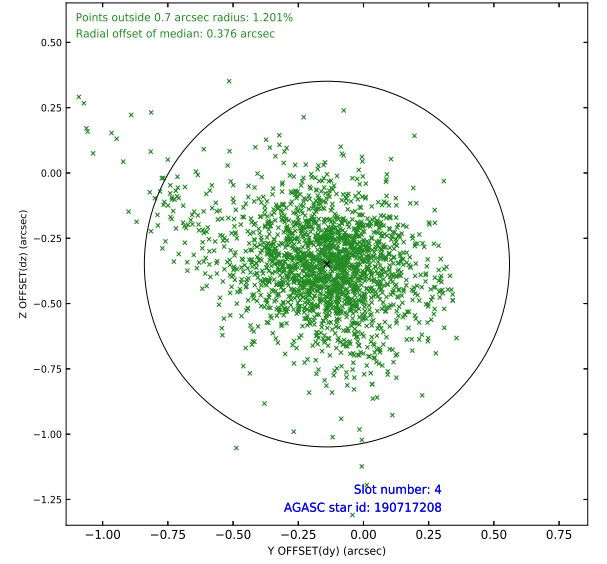
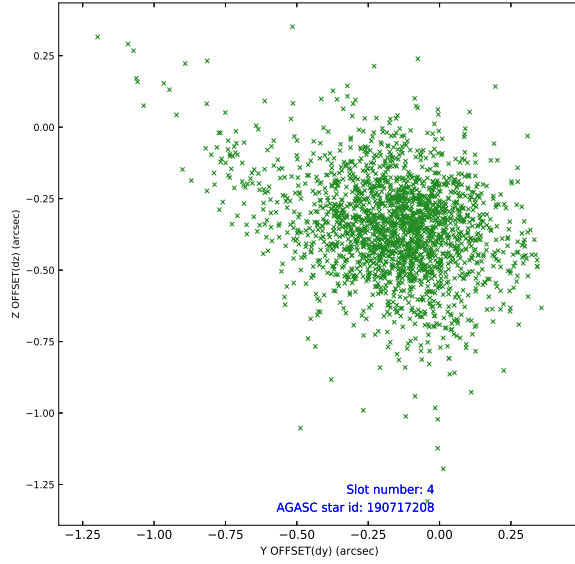
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.01	1005	1.000	0.138	-0.046	0.012	0.017	0.000000	0.000000	-775.12	-1745
1	FID		ACIS-S-4	7.11	1005	1.000	0.065	-0.054	0.006	0.012	0.000000	0.000000	2137.62	160
2	FID		ACIS-S-5	7.13	1005	1.000	-0.234	0.108	0.013	0.020	0.000000	0.000000	-1826.18	156
3	GUIDE	used	190714328	9.78	2005	1.000	0.139	-0.150	0.200	0.325	193.637777	20.922393	-514.81	229
4	GUIDE	used	190717208	9.85	1999	1.000	-0.140	-0.349	0.272	0.502	193.306046	20.726837	-1281.89	1303
5	GUIDE	used	190718688	10.21	1931	1.000	0.152	0.461	0.263	0.458	194.364047	20.434161	-2122.65	-2317
6	GUIDE	used	190719368	10.14	1921	1.000	-0.253	0.083	0.368	0.583	194.200275	21.501761	1678.65	-1531
7	GUIDE	used	190720144	8.97	2008	1.000	0.114	-0.036	0.184	0.305	193.984914	20.745515	-1081.64	-973

## 2.4 Star Slots

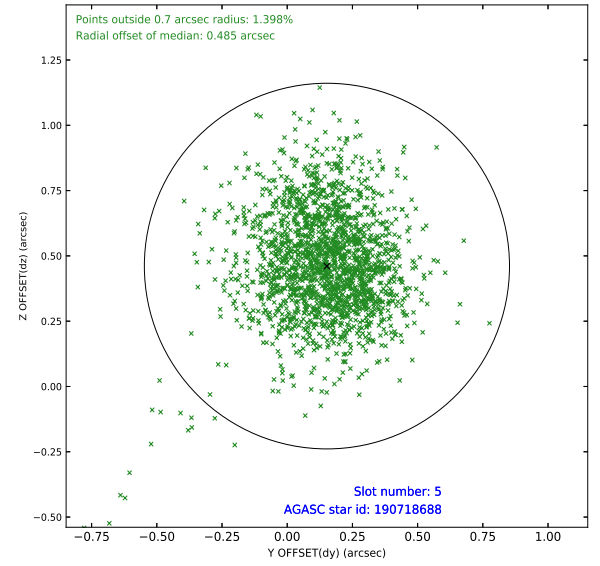
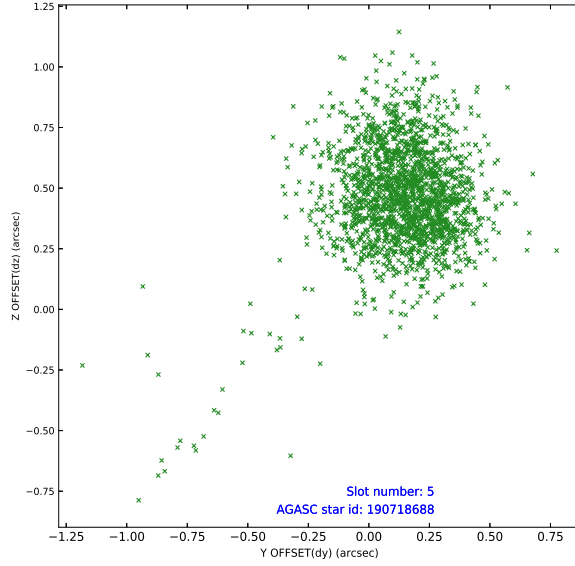
### 2.4.1 Slot 3



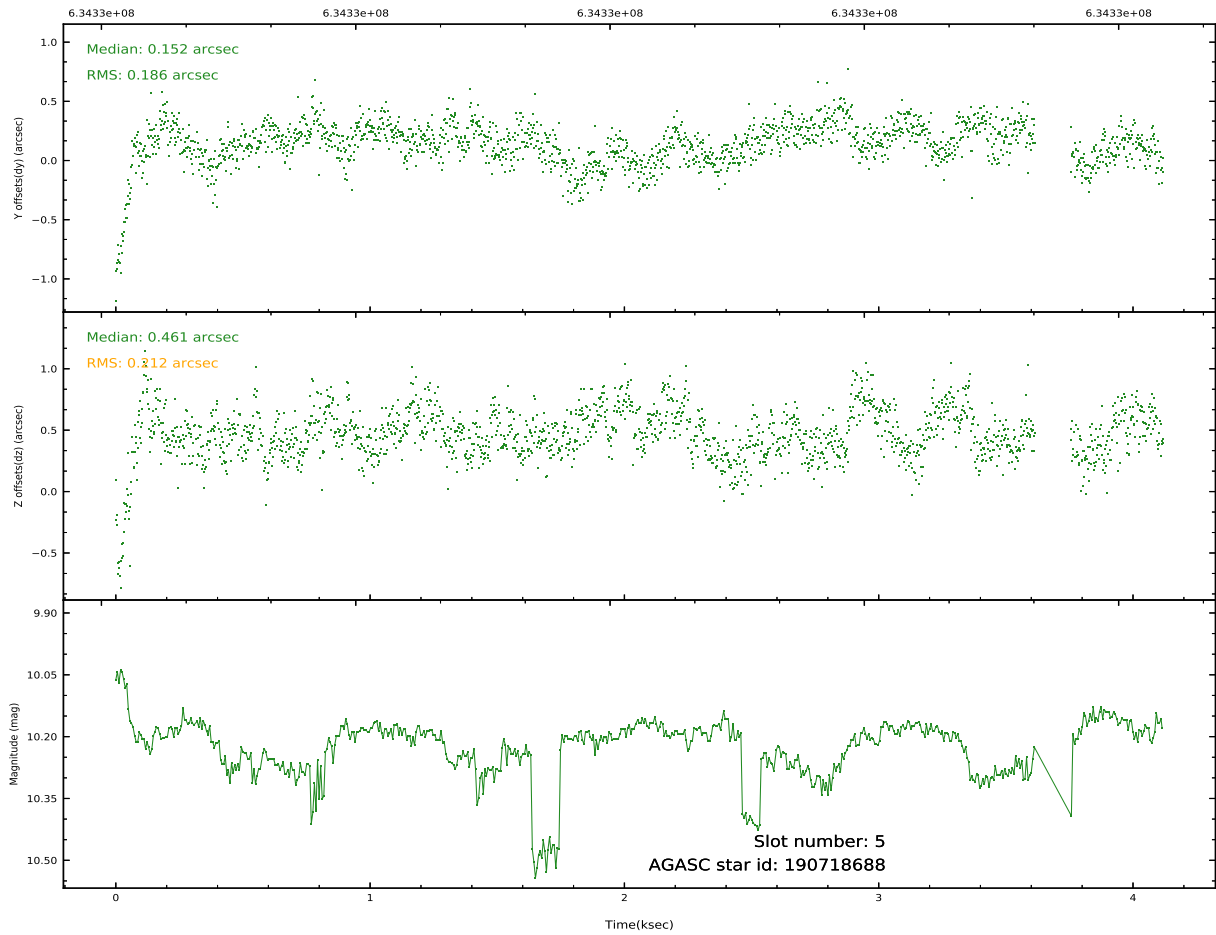
## 2.4.2 Slot 4



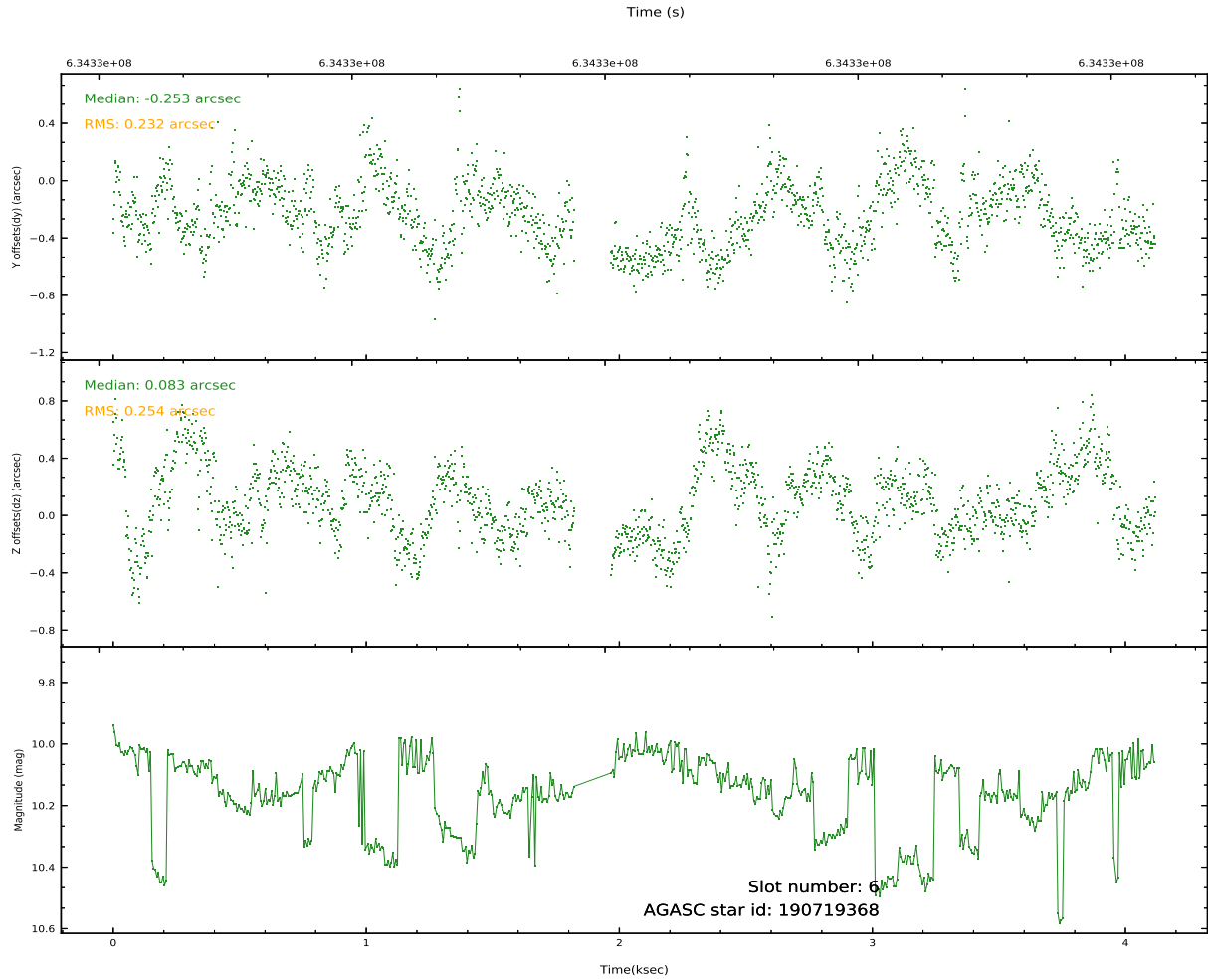
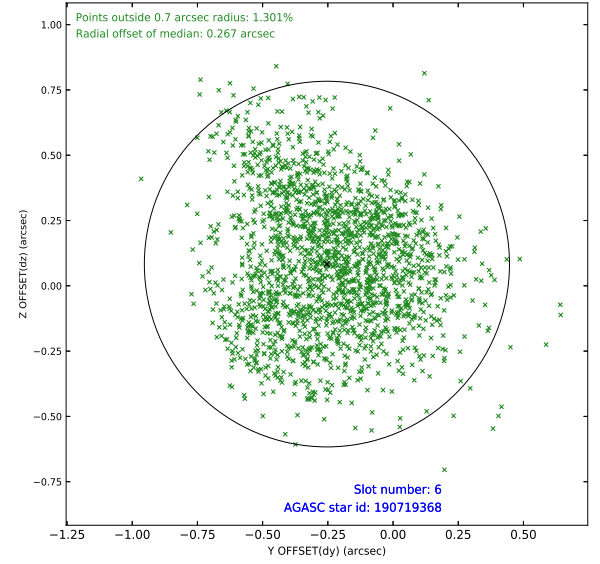
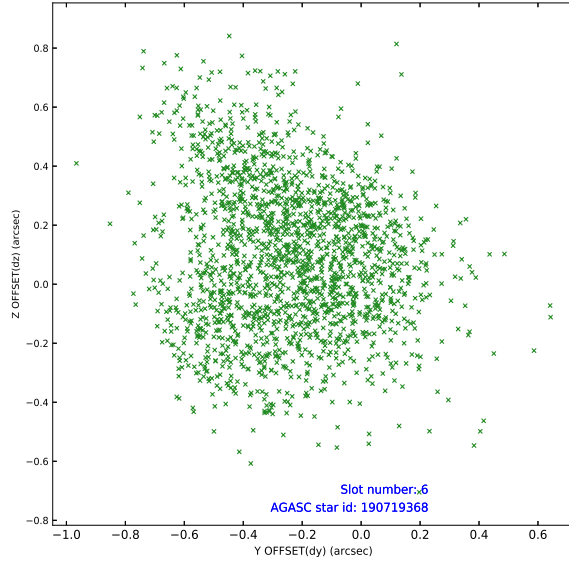
## 2.4.3 Slot 5



Time (s)

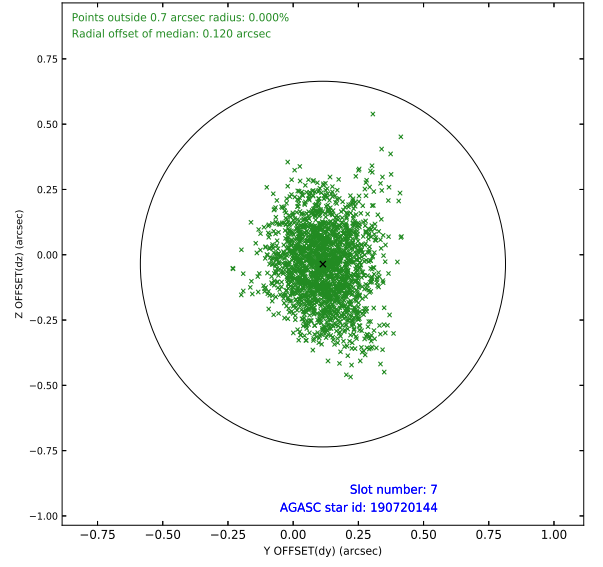
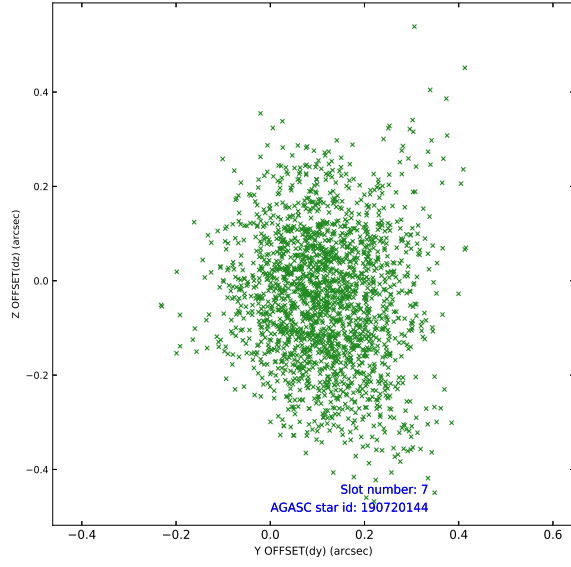


## 2.4.4 Slot 6

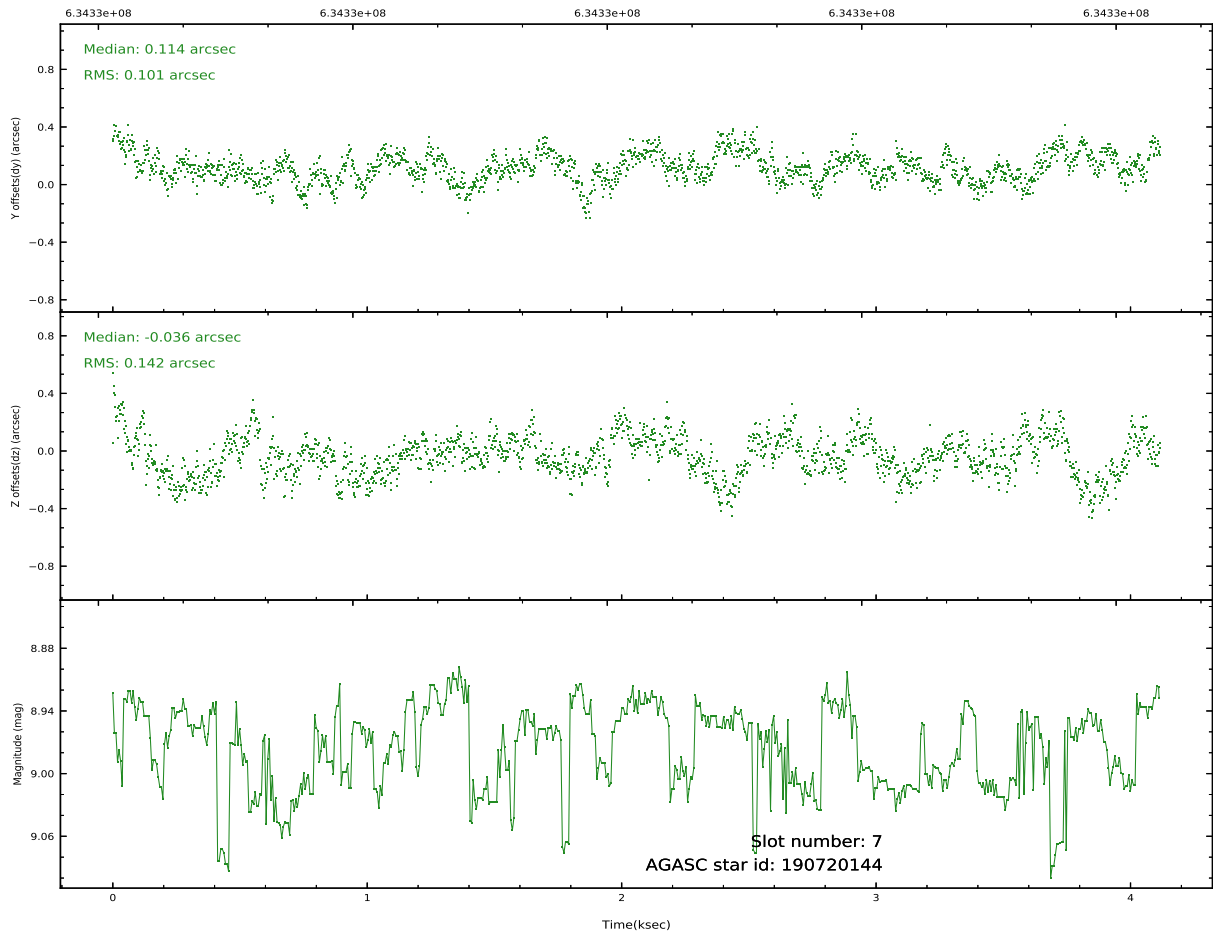




## 2.4.5 Slot 7

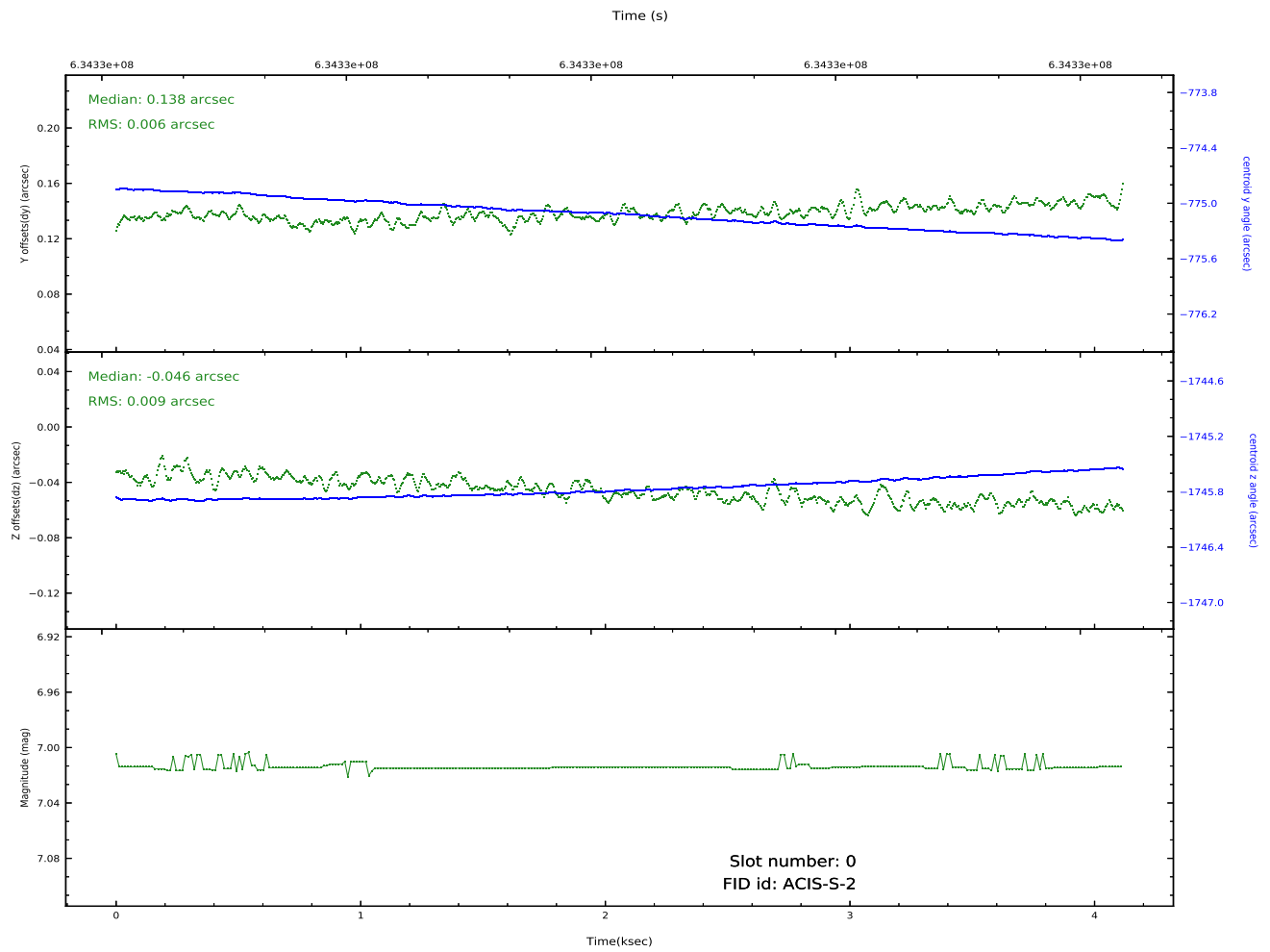
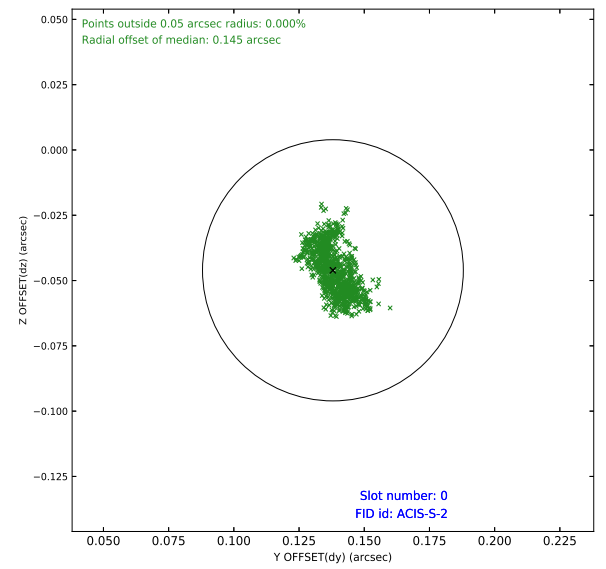
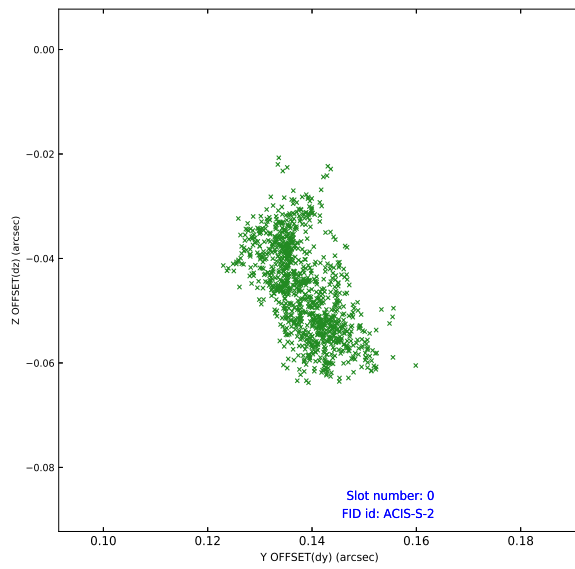


Time (s)

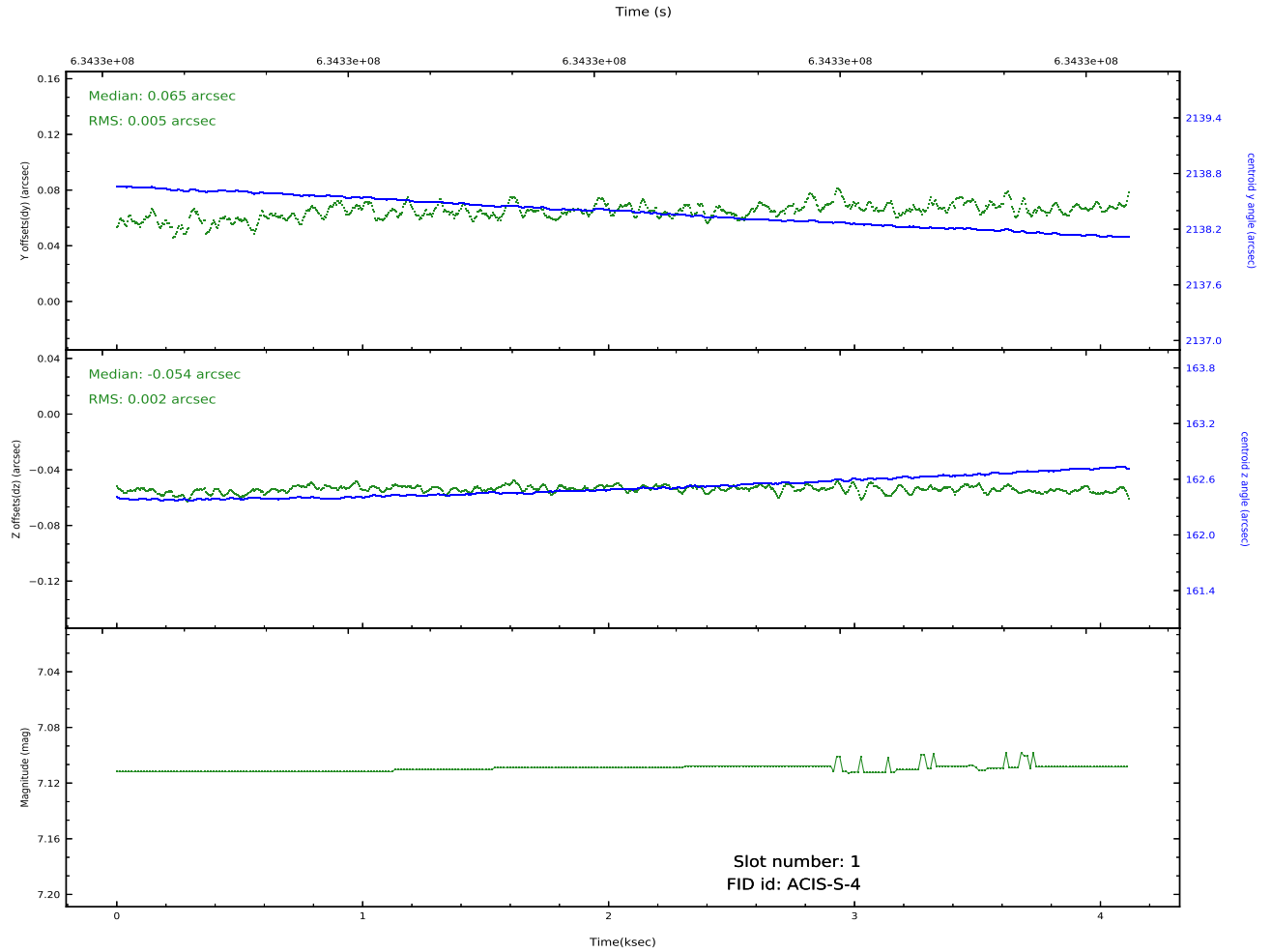
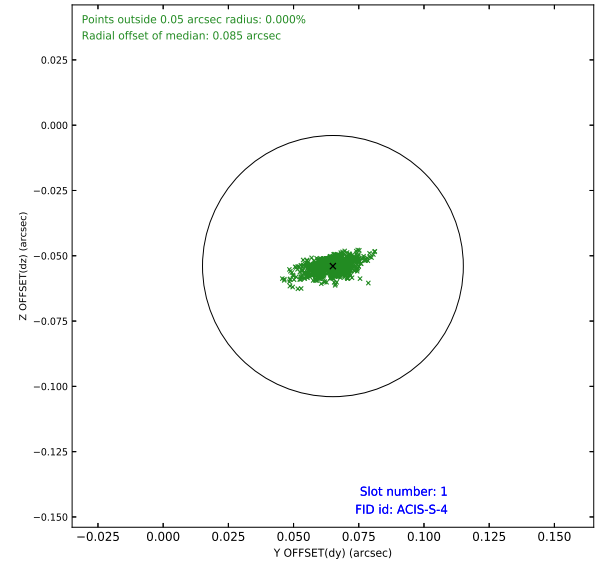
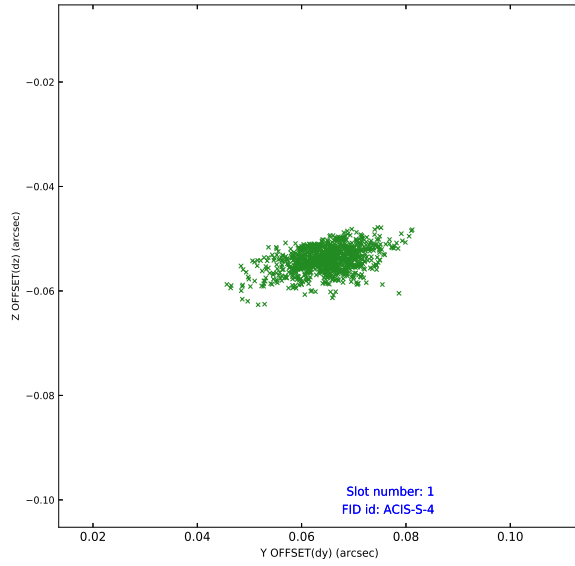


## 2.5 FID Slots

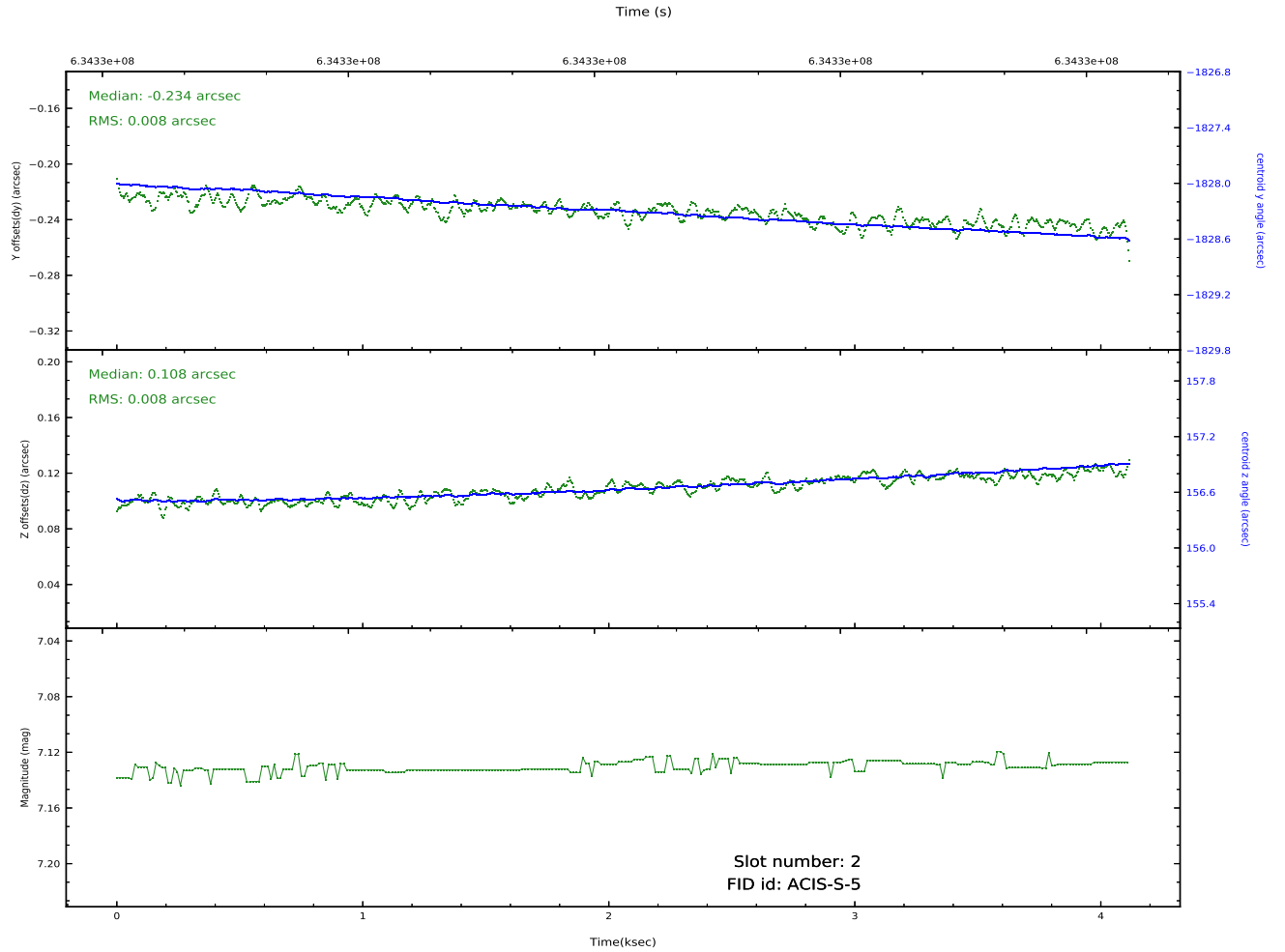
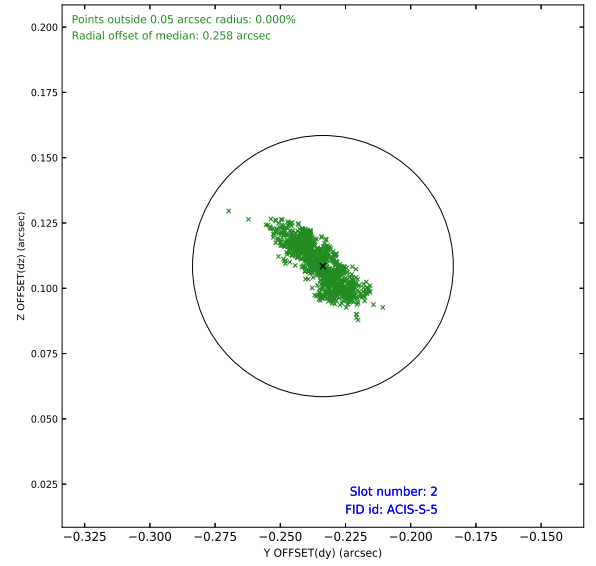
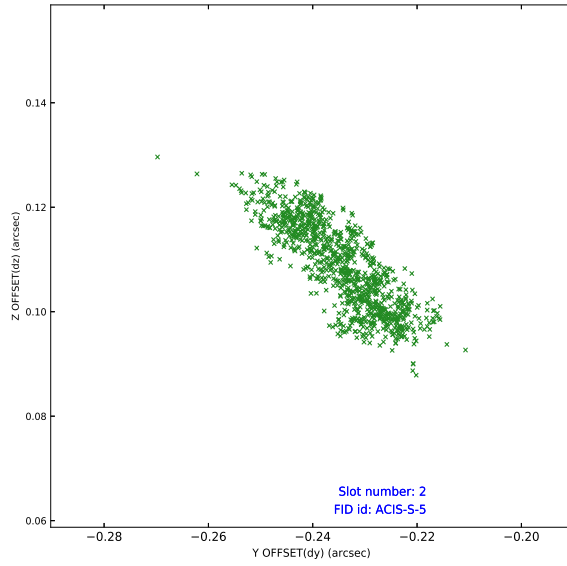
### 2.5.1 Slot 0



## 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)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.1132873892784

### A.2 Comments