

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20765 - L2 Version 3  
Chandra X-Ray Center

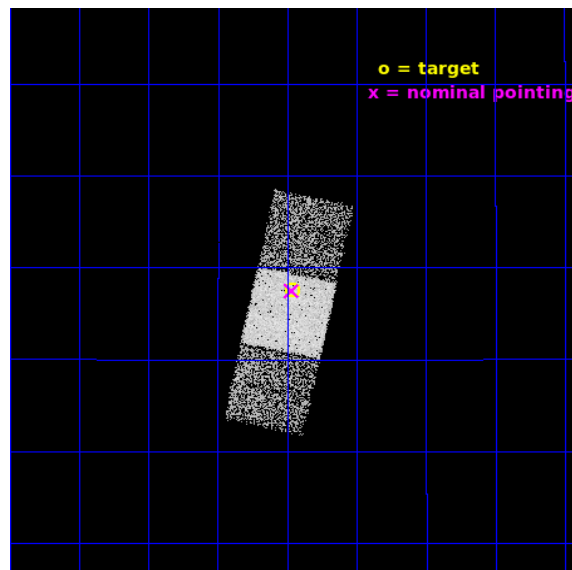
L2 Processing Date : Oct 24 2020

## 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 6 . . . . .	11
2.4.4	Slot 7 . . . . .	12
2.5	FID Slots . . . . .	13
2.5.1	Slot 0 . . . . .	13
2.5.2	Slot 1 . . . . .	14
2.5.3	Slot 2 . . . . .	15
<b>A</b>	<b>Summary</b>	<b>16</b>
A.1	Status . . . . .	16
A.2	Comments . . . . .	16

# 1 Front

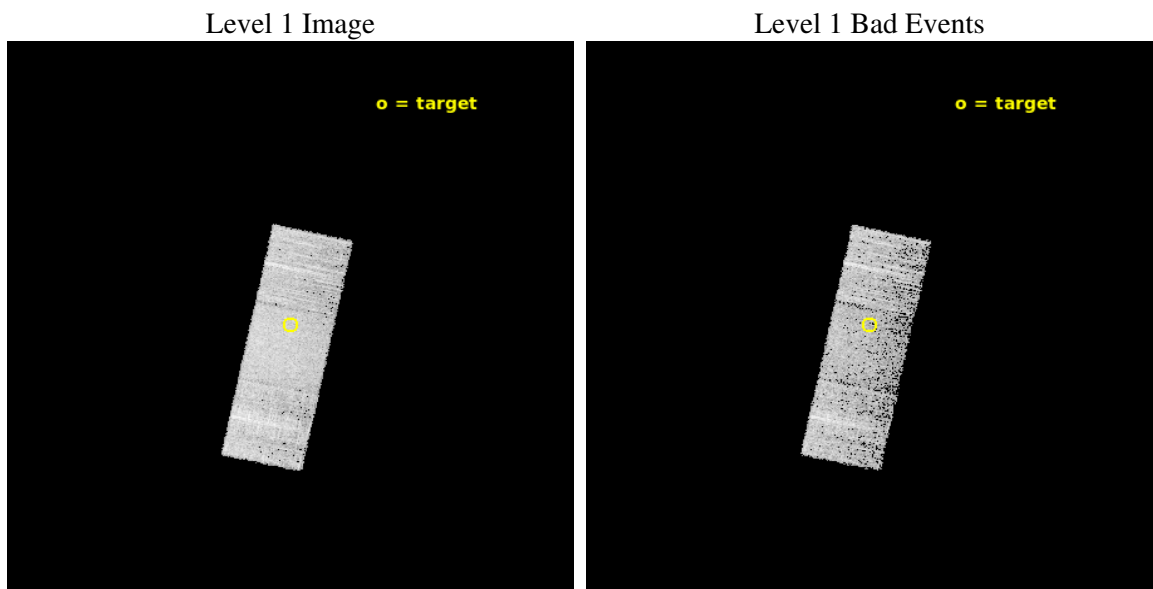
seq_num	703630	Sequence number
obs_id	20765	Observation id
title	A Chandra Snapshot Survey of Extremely Red Quasars from SDSS BOSS and WISE	Proposal title
observer	Gordon Garmire	Principal investigator
object	J1355+1447	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	208.99	Observer's specified target RA [deg]
dec_targ	14.792528	Observer's specified target Dec [deg]
ra_nom	208.99157718162	Nominal RA [deg]
dec_nom	14.79163077135	Nominal Dec [deg]
roll_nom	102.1474984587	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4107.5000317097	Sum of GTIs [s]
livetime	4053.8325198979	Livetime [s]
ontime6	4107.5000317097	Sum of GTIs [s]
ontime7	4107.5000317097	Sum of GTIs [s]
ontime8	4107.5000317097	Sum of GTIs [s]
l2events	21891	Number of level 2 events



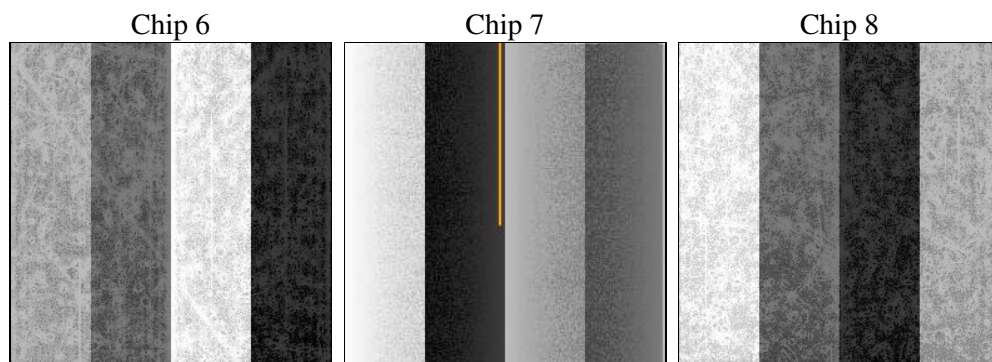
## 2 OBI

### 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	4107.5000317097	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime6	4107.5000317097	Sum of GTIs [s]
date	2020-10-24T19:26:52	Date and time of file creation	ontime7	4107.5000317097	Sum of GTIs [s]
revision	3	Processing version of data	ontime8	4107.5000317097	Sum of GTIs [s]
			l1events	109925	Number of level 1 events

### 2.1.4 Events

	ccd 6	ccd 7	ccd 8
level 1 events	32767	38300	38858
rejected events	29346	22017	29402
rejected %	89%	57%	75%

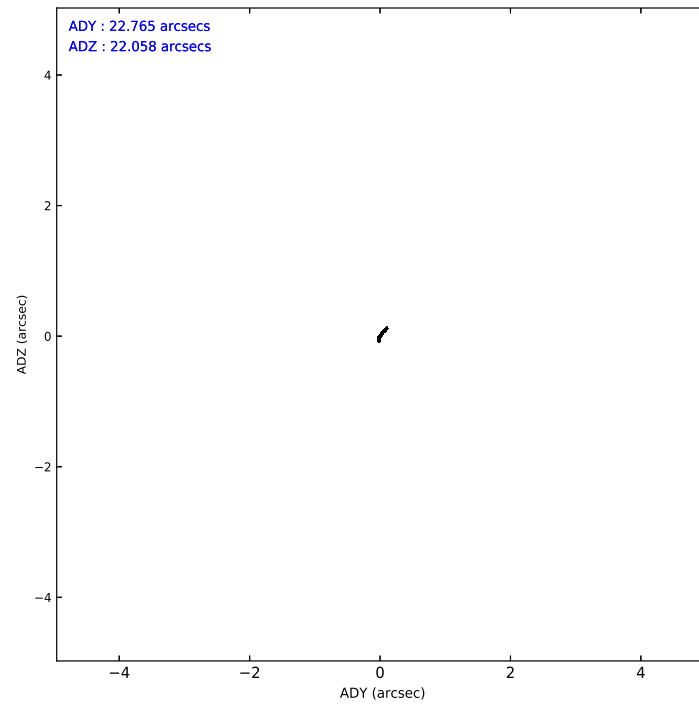
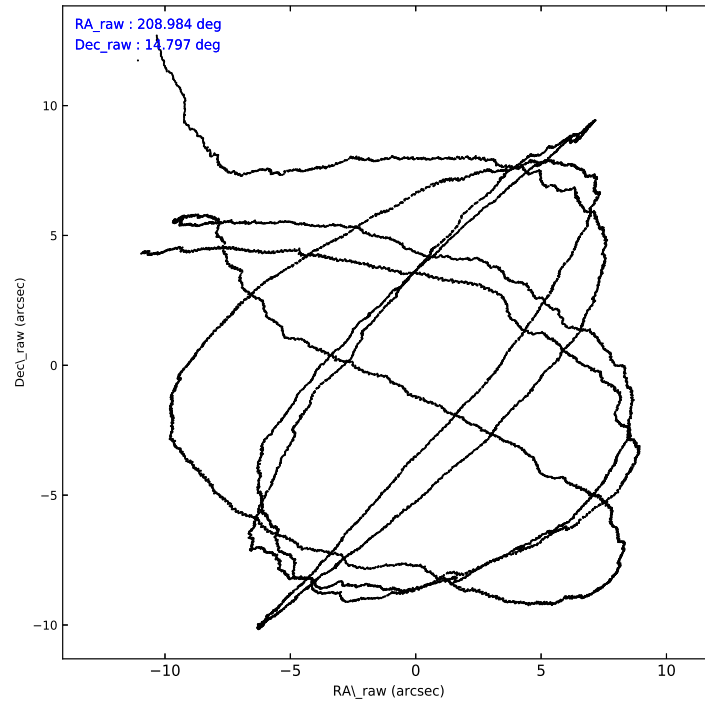
	ccd 6	ccd 7	ccd 8
grade 0 events	1046	1412	2740
	3%	3%	7%
grade 1 events	10	56	25
	0%	0%	0%
grade 2 events	919	3329	2264
	2%	8%	5%
grade 3 events	291	1262	989
	0%	3%	2%
grade 4 events	272	1303	898
	0%	3%	2%
grade 5 events	1271	3721	2023
	3%	9%	5%
grade 6 events	903	8996	2603
	2%	23%	6%
grade 7 events	28055	18221	27316
	85%	47%	70%

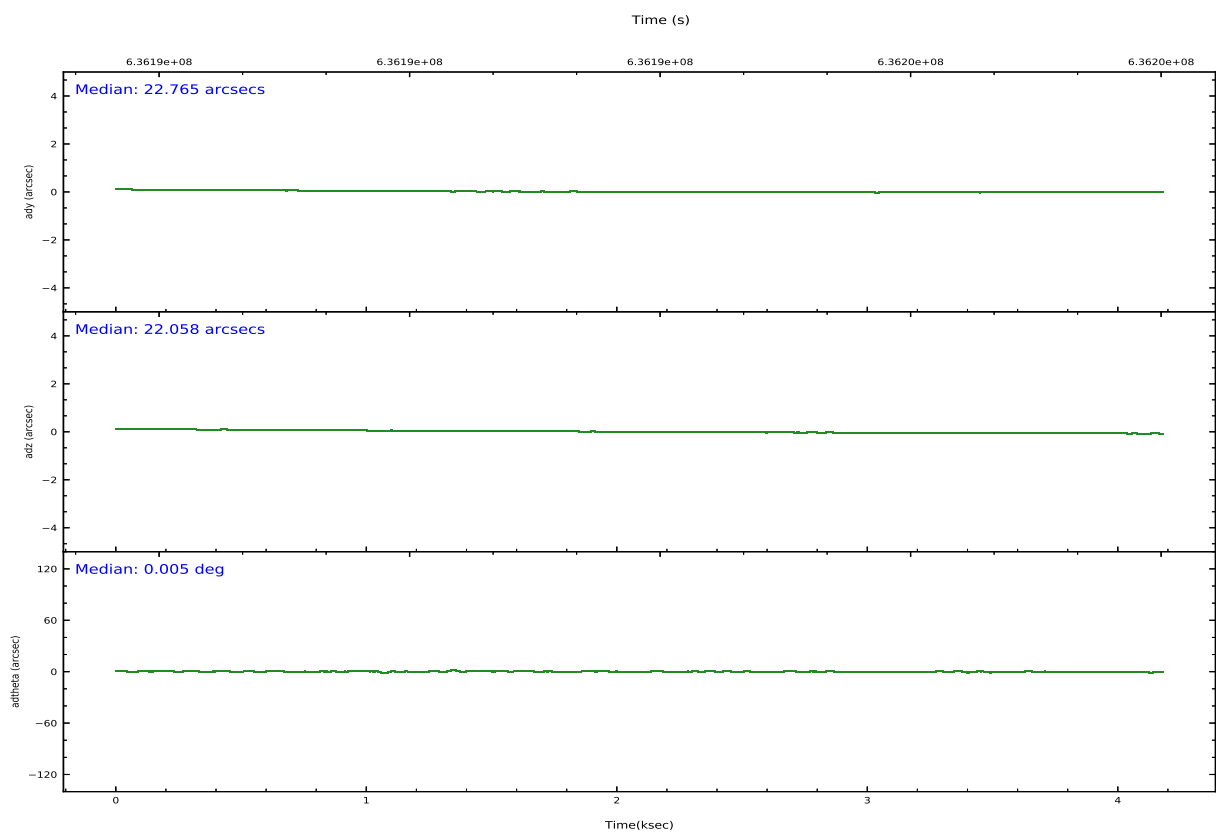
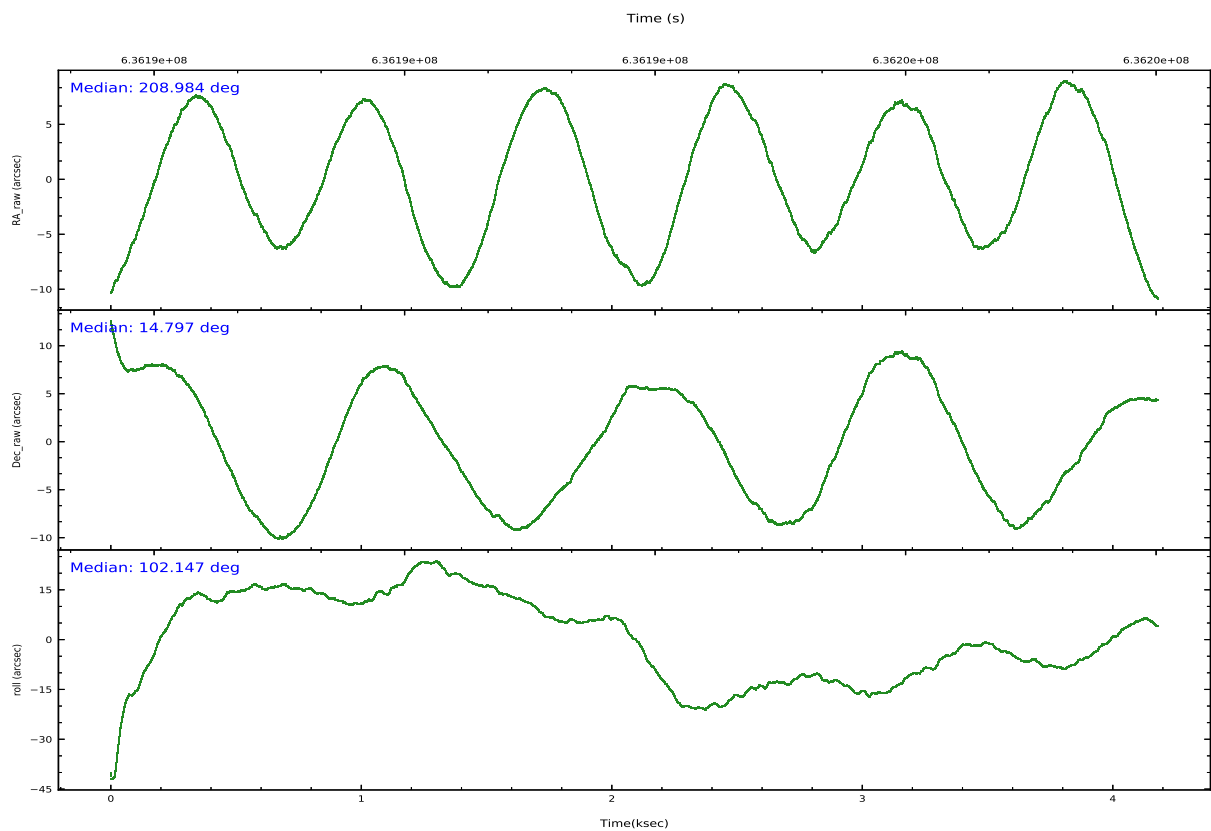


## 2.2 Compared Parameters

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	209.003070	208.99157718162	Subarray requested	NONE	NONE
[deg] Pointing Dec	14.776507	14.79163077135	Alternating exposures requested	N	N
[deg] Pointing Roll	101.996664	102.1474984587	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	636192008.184000	636191113.83622			
Observation start date	2018-02-28T07:58:59	2018-02-28T07:45:13			
[s] Observation end time (MET)	636196008.184000	636196814.88656			
Observation end date	2018-02-28T09:05:39	2018-02-28T09:20:14			
Read mode	TIMED	TIMED			

## 2.3 Aspect



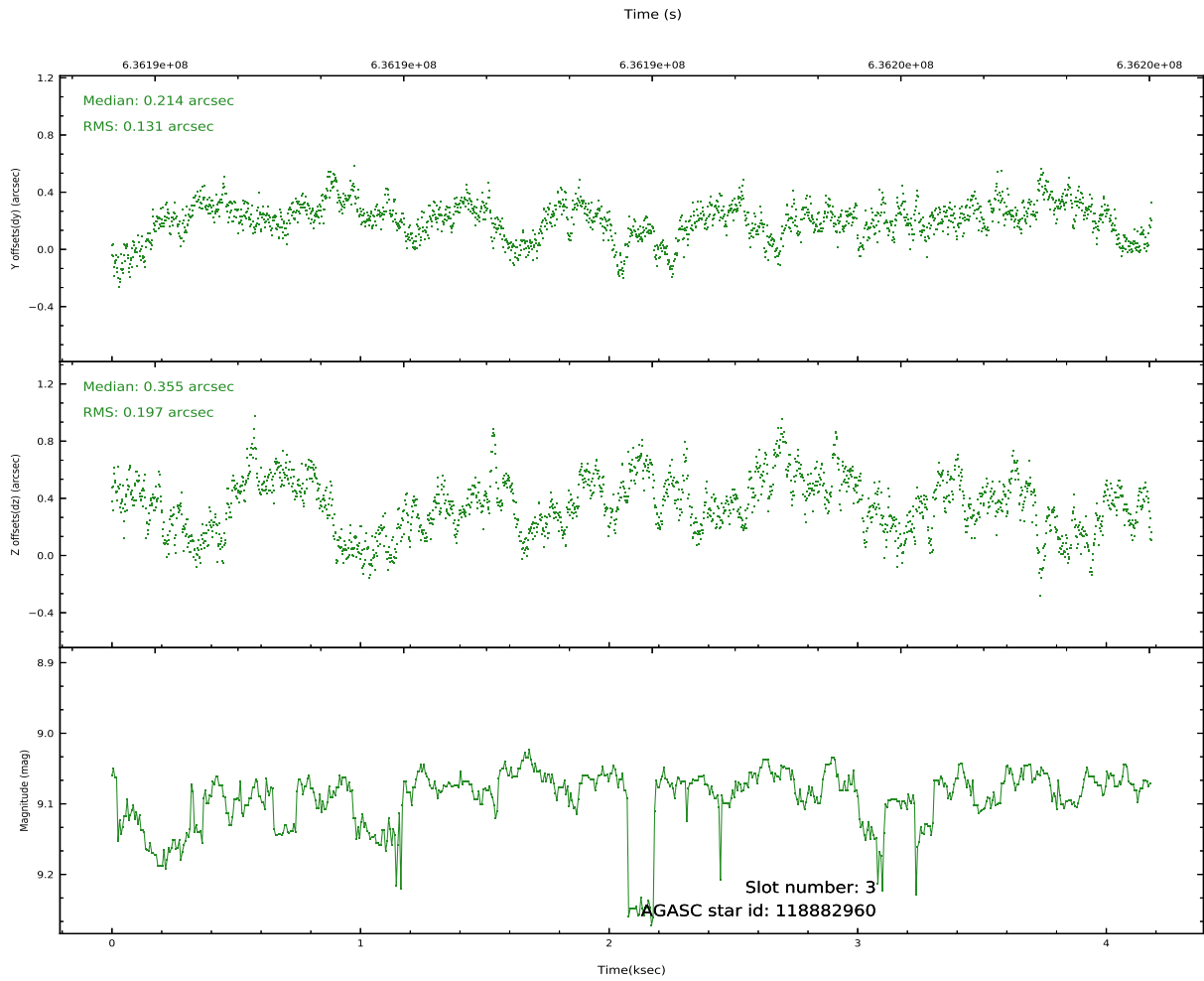
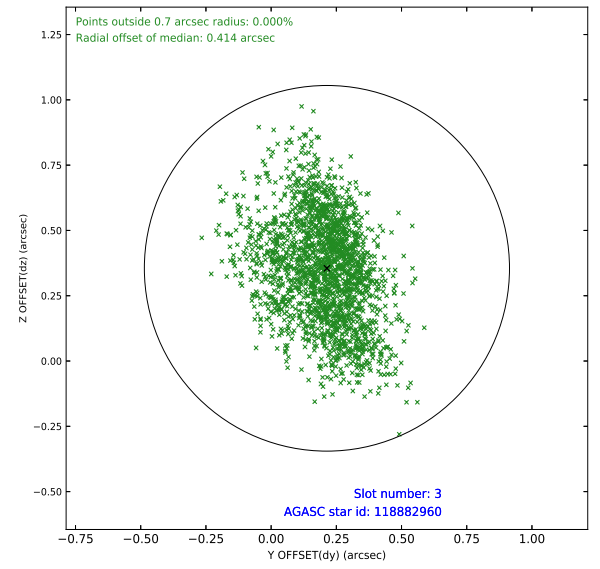
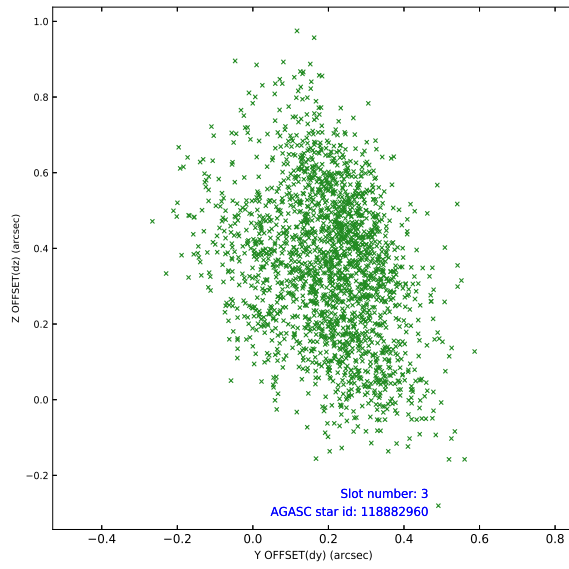


Slot Statistics

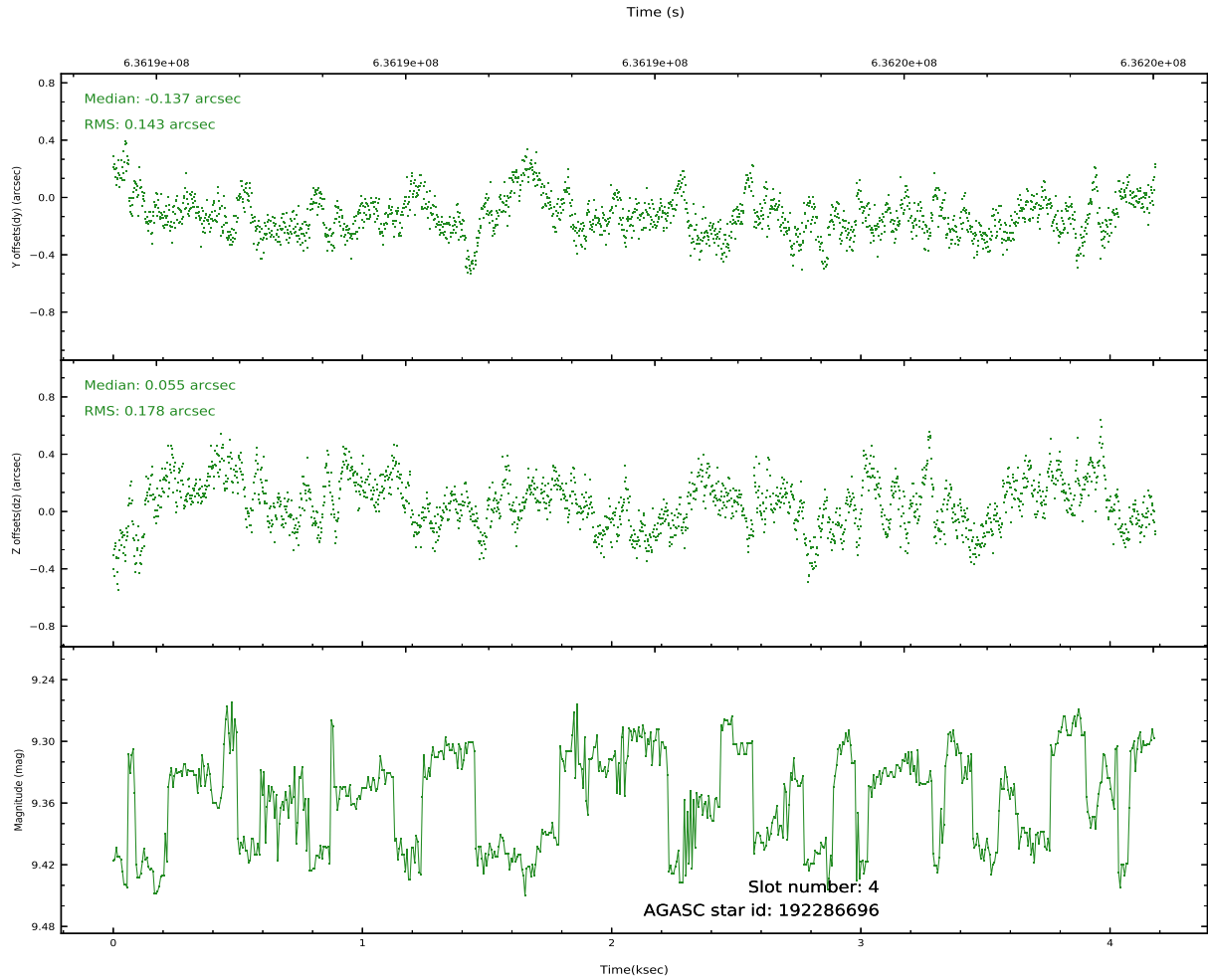
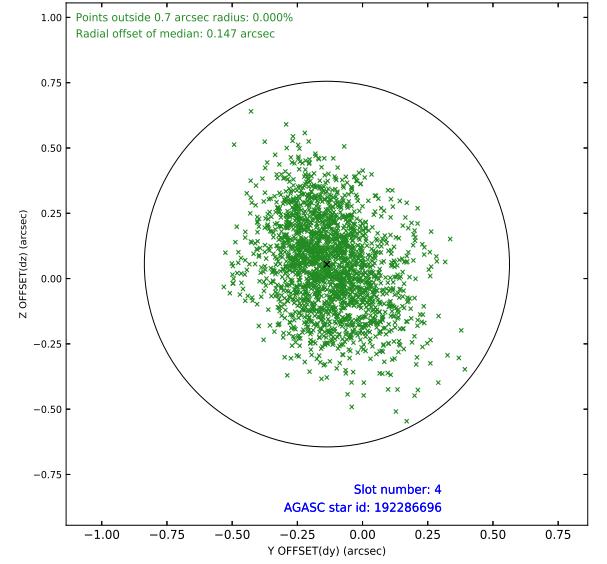
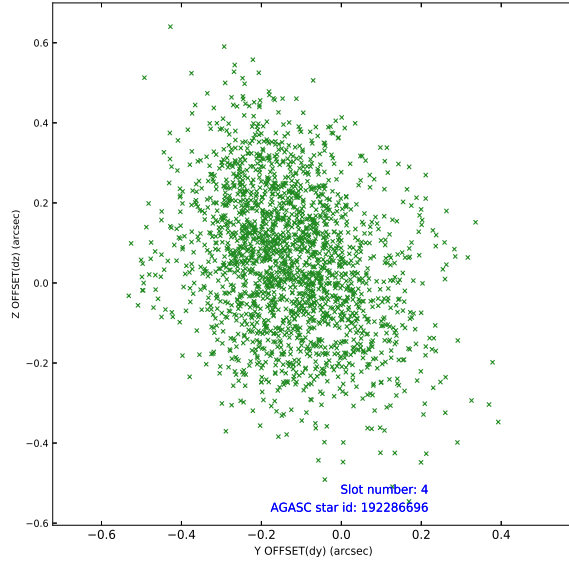
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.12	1020	1.000	0.182	-0.115	0.007	0.011	0.000000	0.000000	-776.07	-1743
1	FID		ACIS-S-4	7.22	1020	1.000	0.064	-0.057	0.005	0.011	0.000000	0.000000	2136.71	162
2	FID		ACIS-S-5	7.23	1021	1.000	-0.276	0.180	0.007	0.012	0.000000	0.000000	-1827.17	159
3	GUIDE	used	118882960	9.08	2041	1.000	0.214	0.355	0.254	0.414	209.773791	14.386519	-1928.17	-2336
4	GUIDE	used	192286696	9.35	2038	1.000	-0.137	0.055	0.247	0.393	209.319131	15.209803	1296.88	-1398
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
6	GUIDE	used	118758568	10.03	2007	1.000	-0.277	-0.275	0.314	0.529	208.465617	14.824750	561.05	1792
7	GUIDE	used	192290072	9.68	2036	1.000	0.216	-0.126	0.265	0.456	209.291856	15.516898	2401.44	-1529

## 2.4 Star Slots

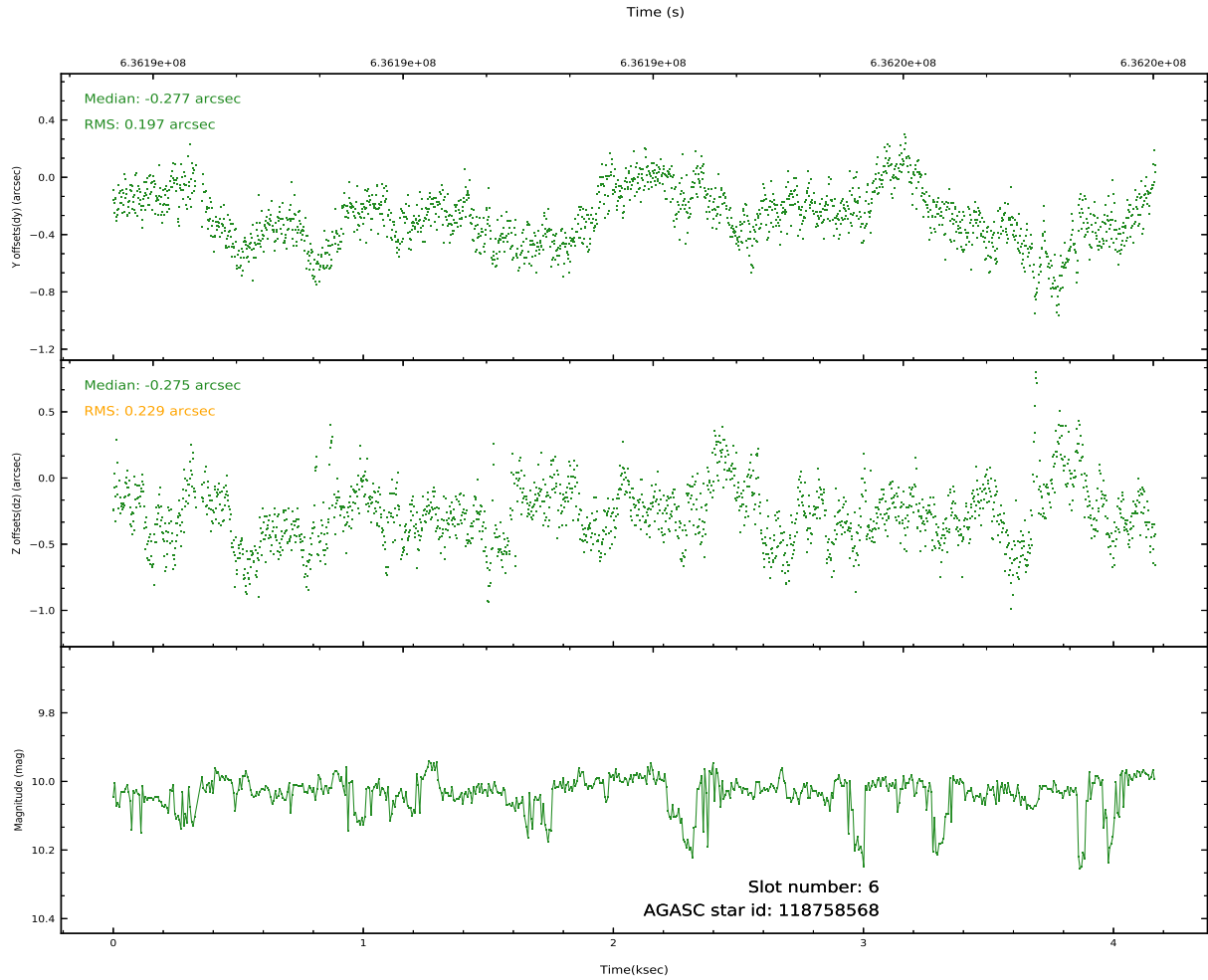
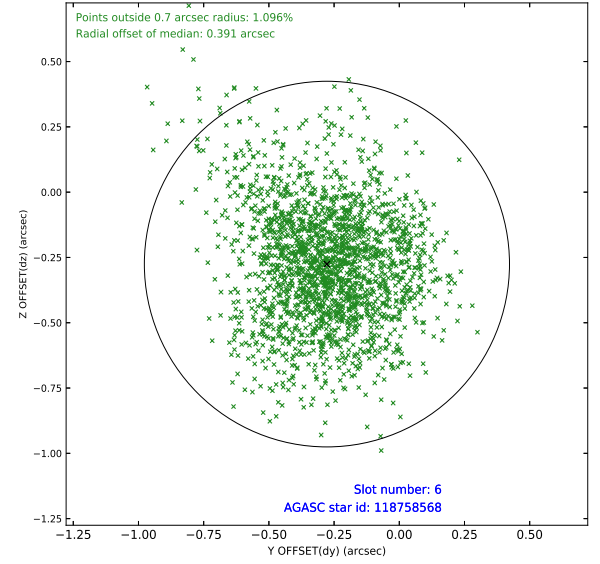
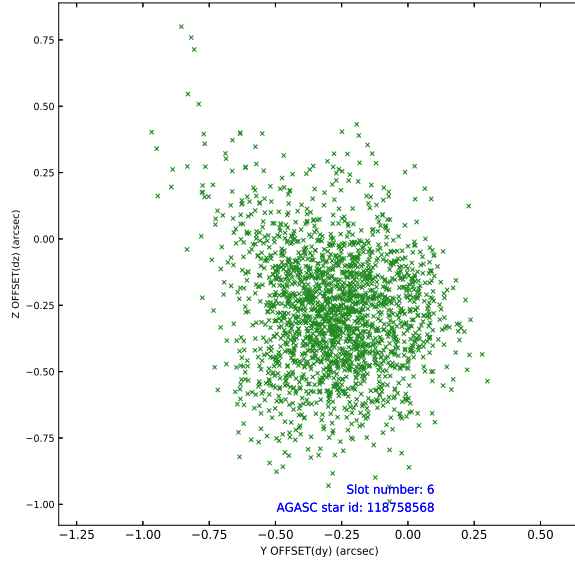
### 2.4.1 Slot 3



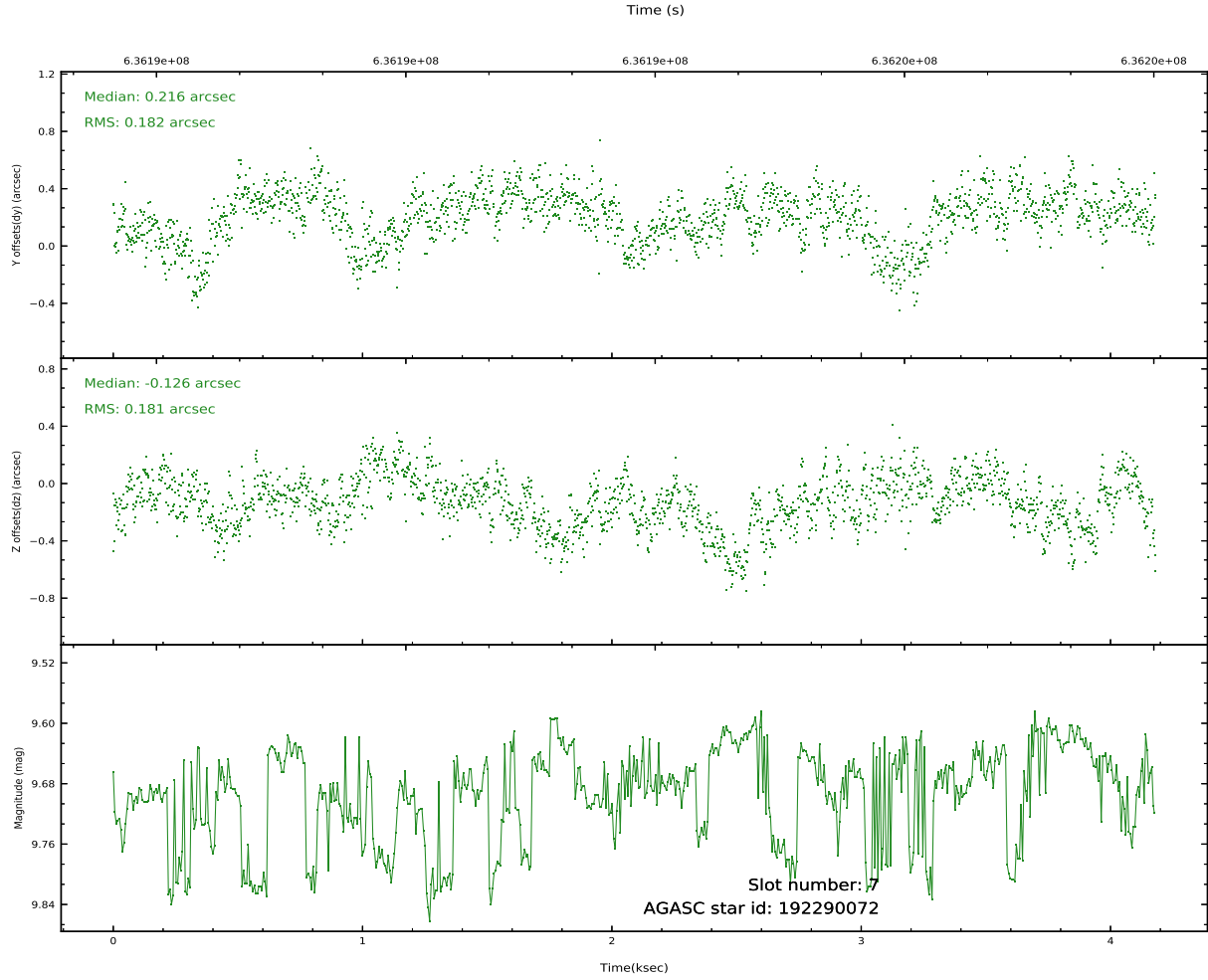
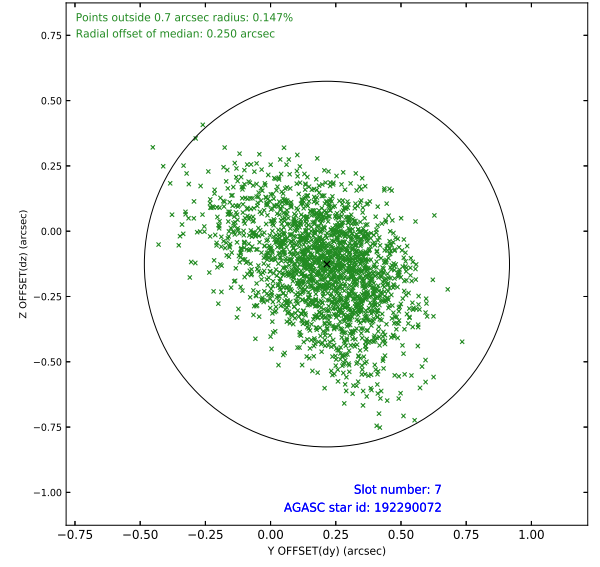
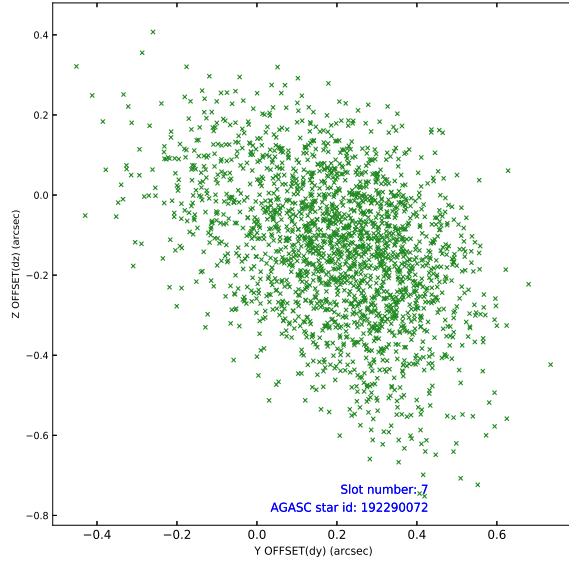
## 2.4.2 Slot 4



### 2.4.3 Slot 6



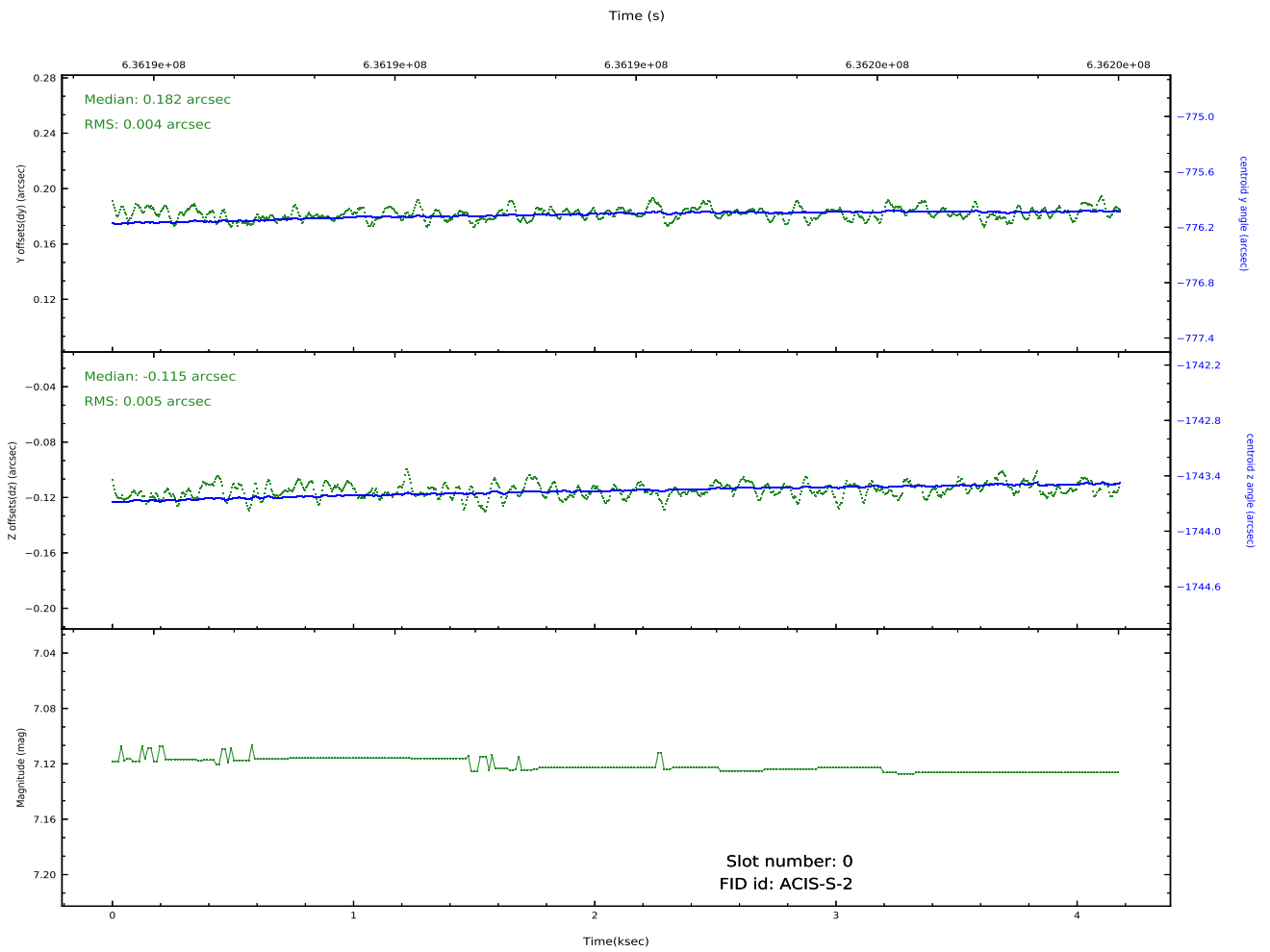
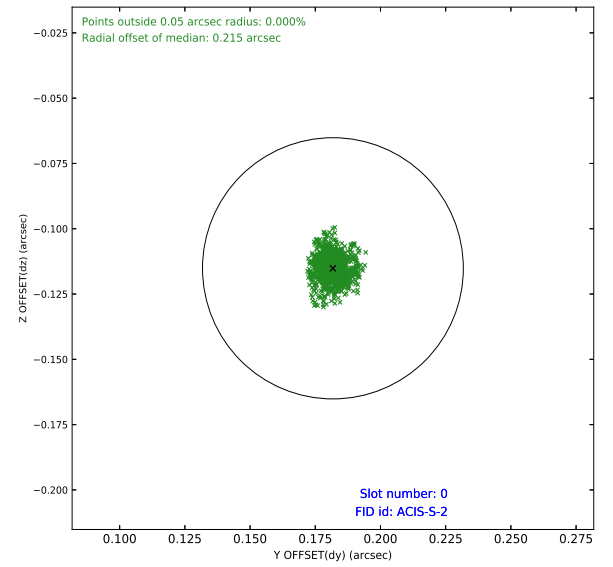
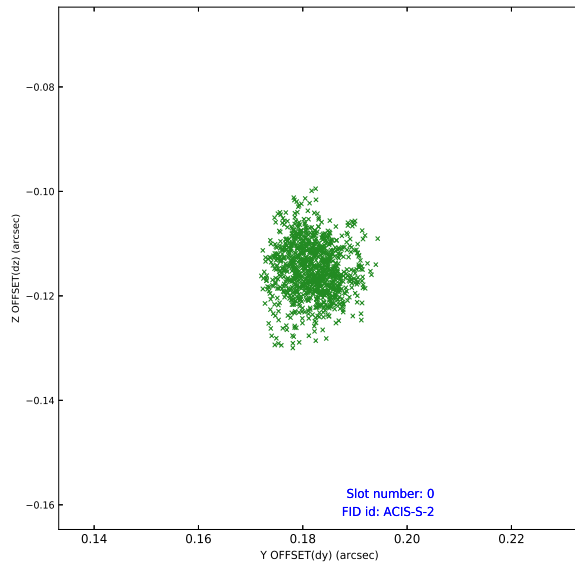
## 2.4.4 Slot 7



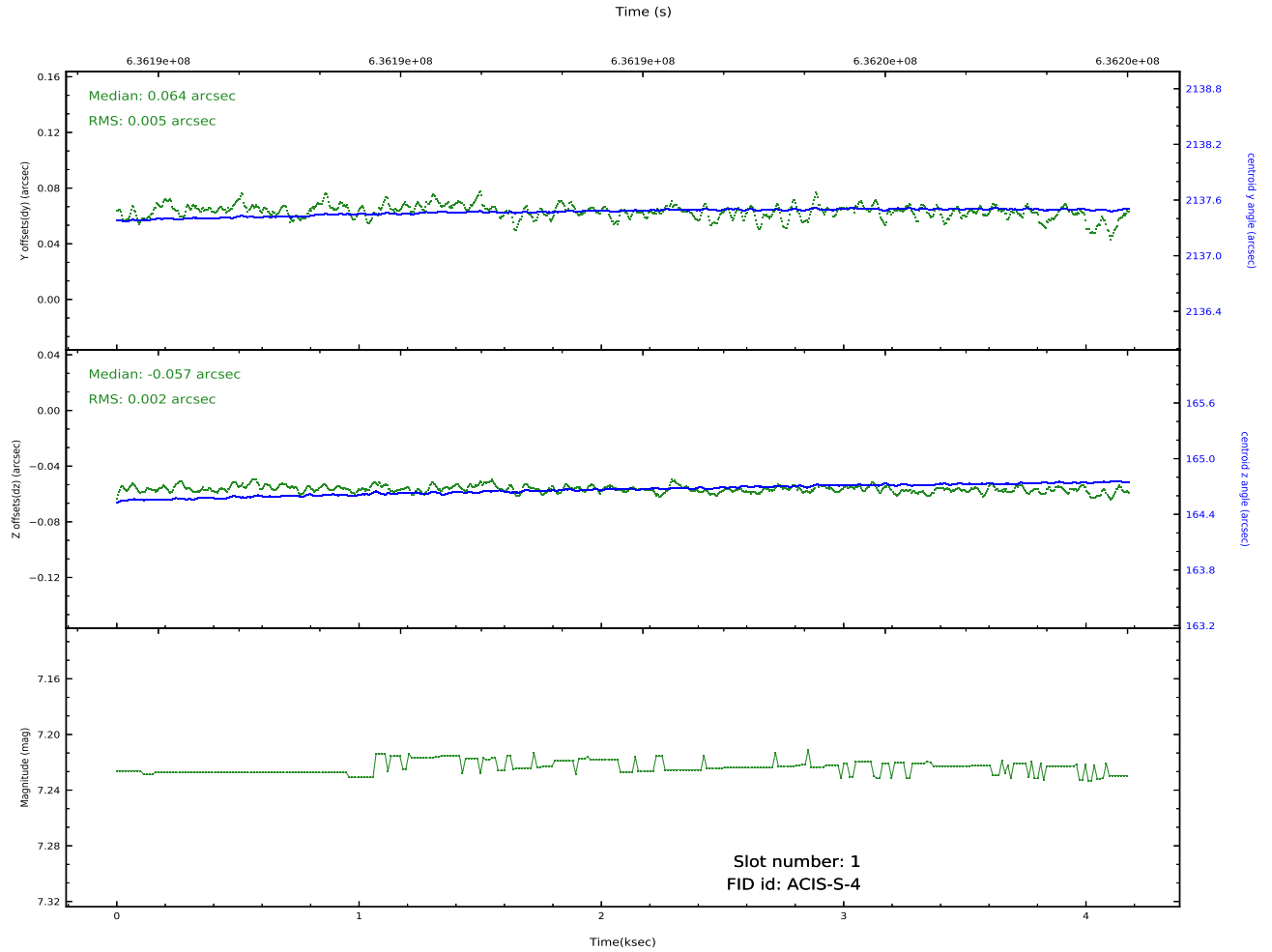
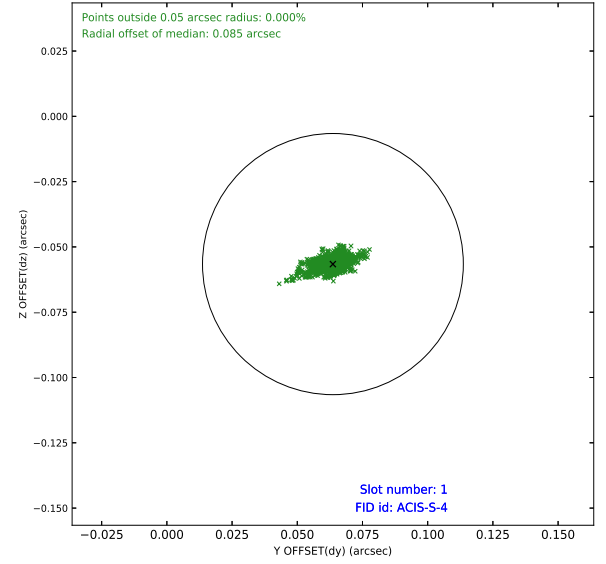
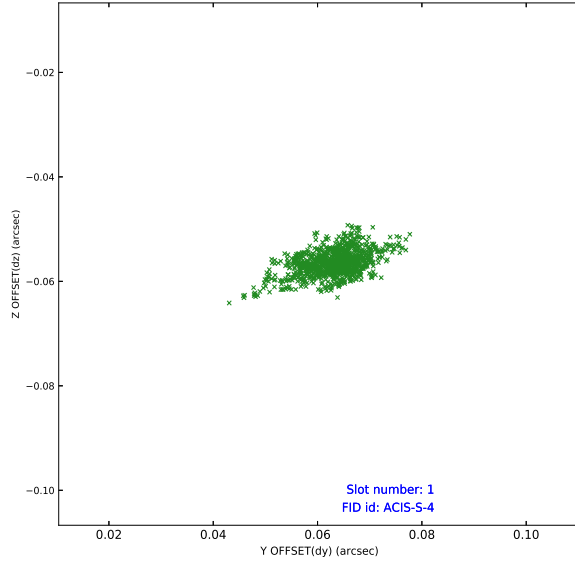


## 2.5 FID Slots

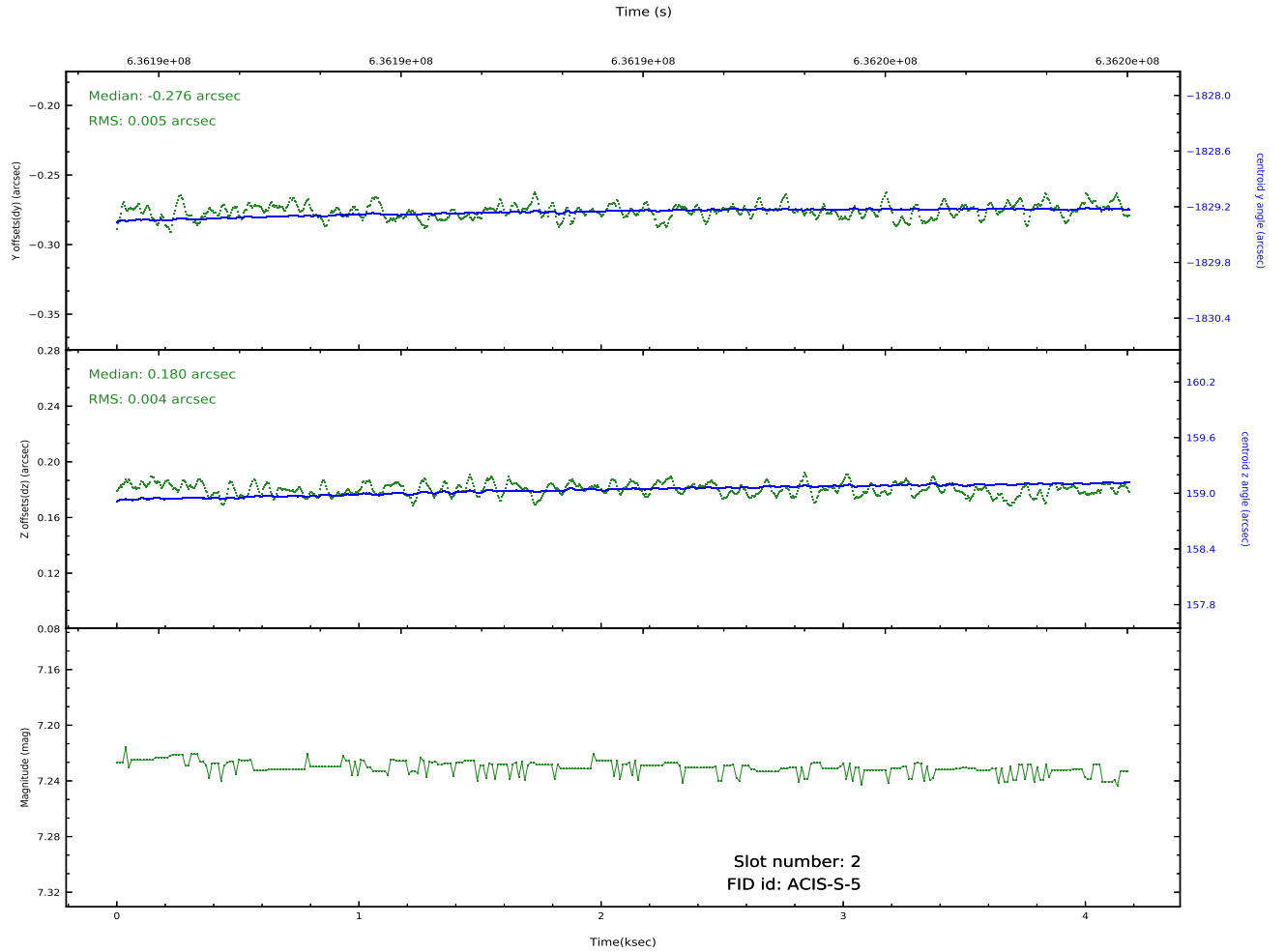
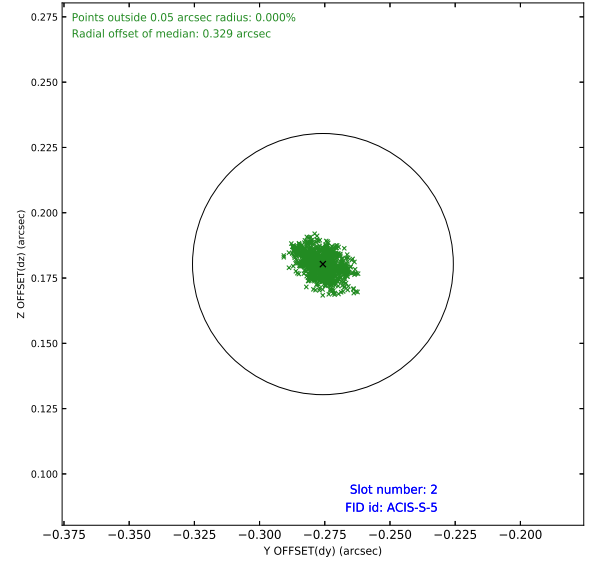
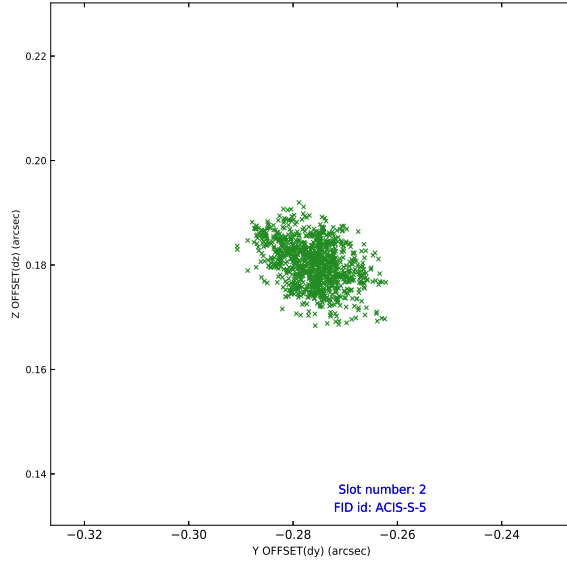
### 2.5.1 Slot 0



## 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)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.1075000317097

## A.2 Comments

The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.