

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20286 - L2 Version 2  
Chandra X-Ray Center

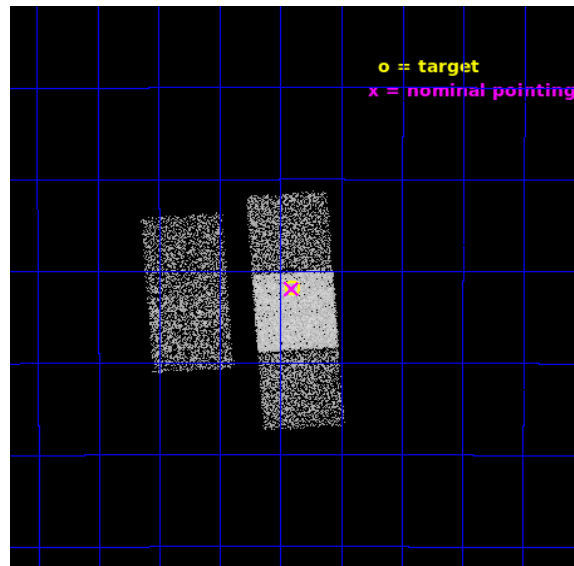
L2 Processing Date : Oct 25 2020

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# 1 Front

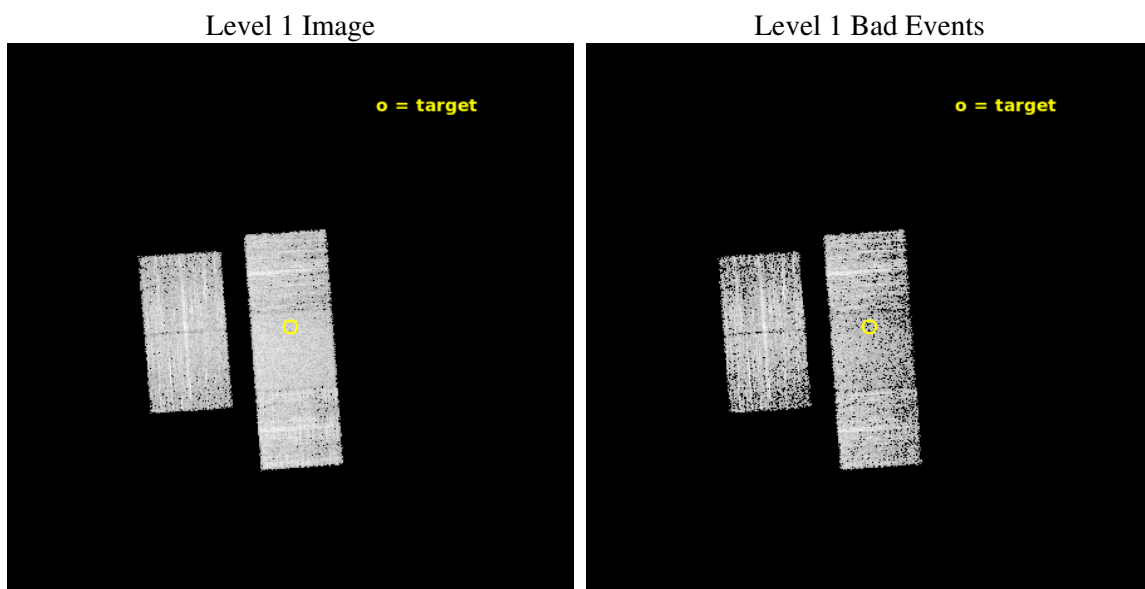
seq_num	502985	Sequence number
obs_id	20286	Observation id
title	Where Have All the Central Compact Objects Gone?	Proposal title
observer	Eric Gotthelf	Principal investigator
object	PSR J1738-3211	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	264.725417	Observer's specified target RA [deg]
dec_targ	-32.198222	Observer's specified target Dec [deg]
ra_nom	264.72655086665	Nominal RA [deg]
dec_nom	-32.199004954272	Nominal Dec [deg]
roll_nom	85.917122276947	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3552.600027442	Sum of GTIs [s]
livetime	3506.1826926974	Livetime [s]
ontime2	3552.600027442	Sum of GTIs [s]
ontime3	3549.4589670897	Sum of GTIs [s]
ontime6	3552.600027442	Sum of GTIs [s]
ontime7	3552.600027442	Sum of GTIs [s]
ontime8	3552.600027442	Sum of GTIs [s]
l2events	25194	Number of level 2 events



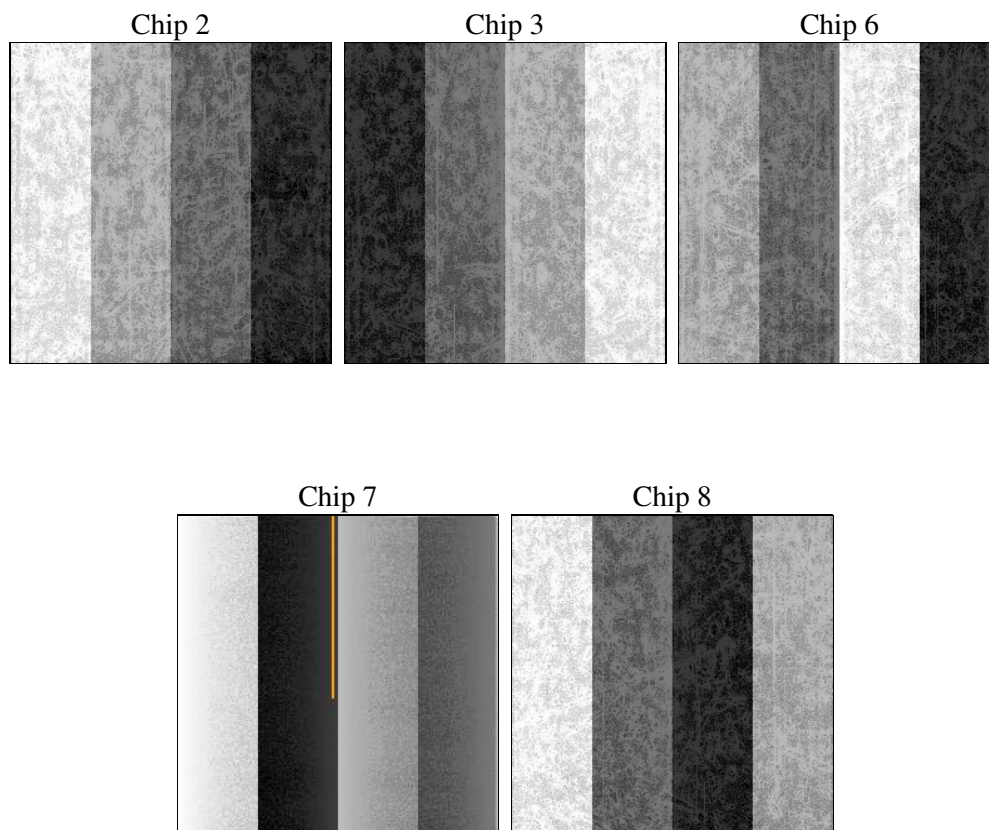
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	3552.600027442	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	3552.600027442	Sum of GTIs [s]
date	2020-10-25T05:12:33	Date and time of file creation	ontime3	3549.4589670897	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	3552.600027442	Sum of GTIs [s]
			ontime7	3552.600027442	Sum of GTIs [s]
			ontime8	3552.600027442	Sum of GTIs [s]
			l1events	150555	Number of level 1 events

### 2.1.4 Events

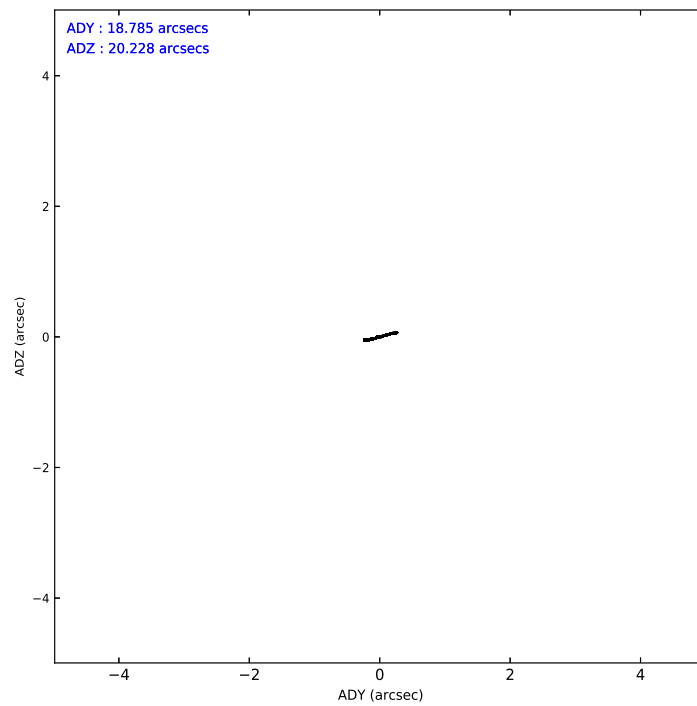
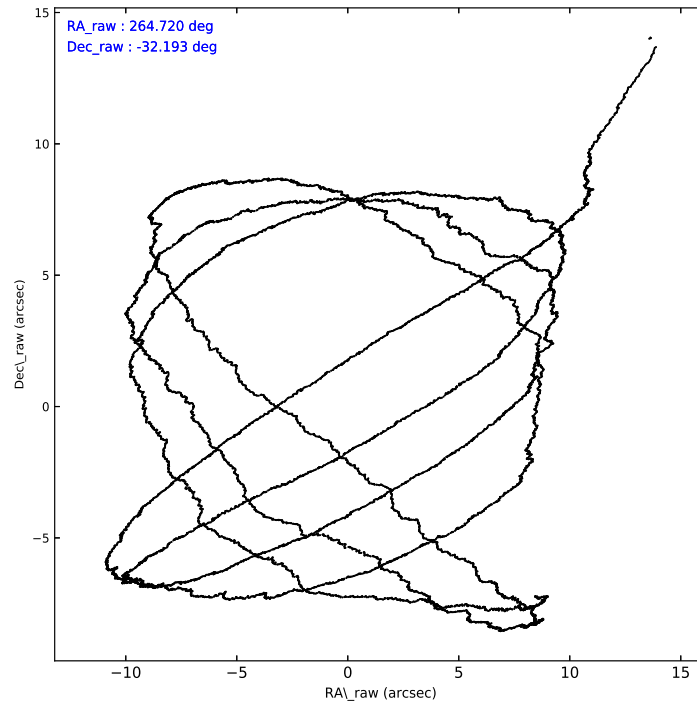
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	26752	26849	28582	34001	34371
rejected events	23875	23757	25321	19211	24953
rejected %	89%	88%	88%	56%	72%

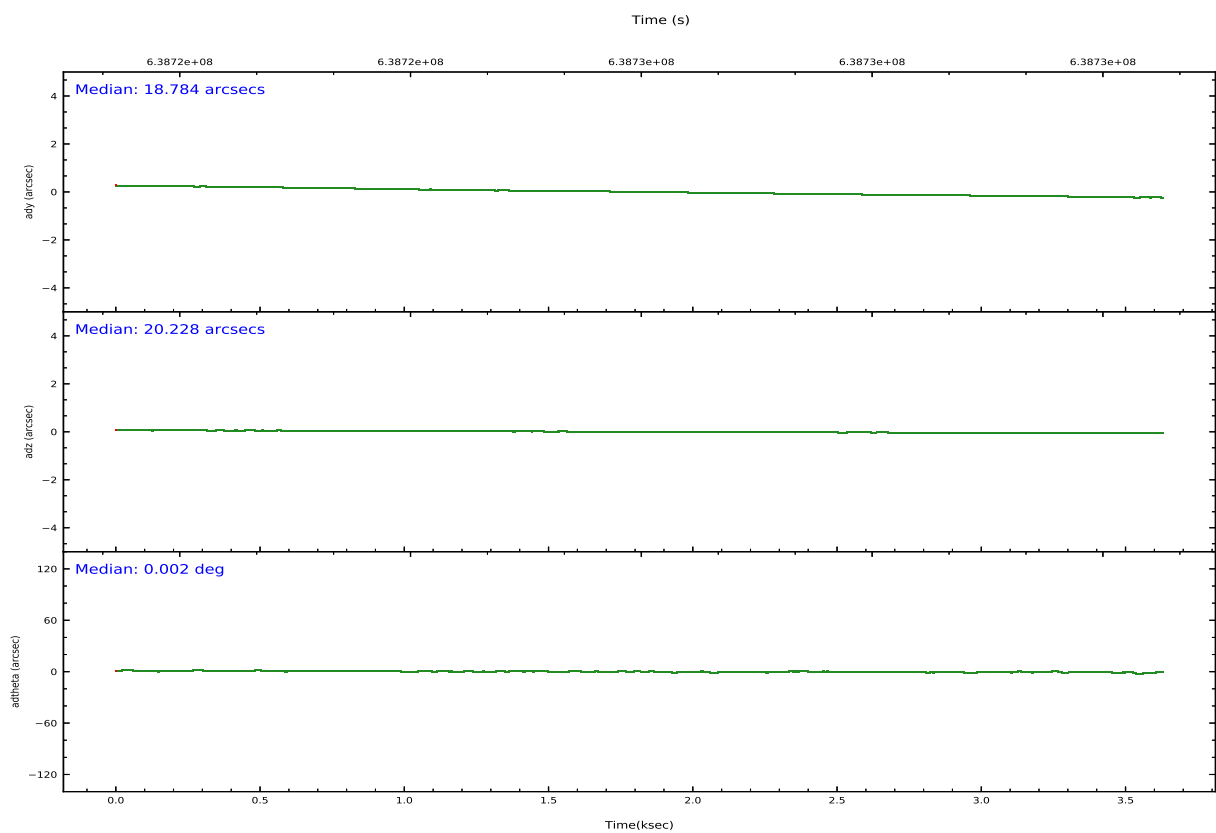
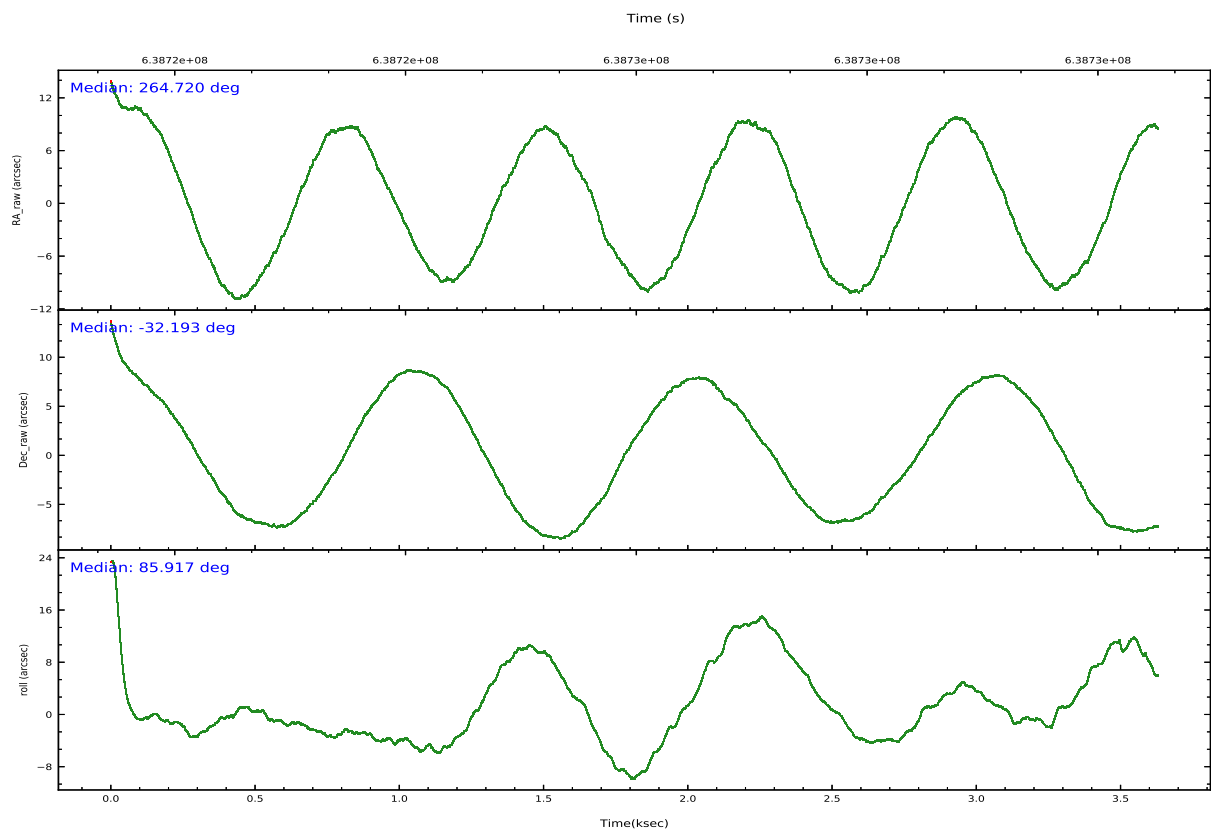
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1142	1222	1106	1262	2557
	4%	4%	3%	3%	7%
grade 1 events	21	16	12	54	25
	0%	0%	0%	0%	0%
grade 2 events	671	634	822	3084	2322
	2%	2%	2%	9%	6%
grade 3 events	252	294	257	1234	1092
	0%	1%	0%	3%	3%
grade 4 events	258	317	280	1123	980
	0%	1%	0%	3%	2%
grade 5 events	1013	1200	1225	3347	1807
	3%	4%	4%	9%	5%
grade 6 events	558	630	800	8115	2473
	2%	2%	2%	23%	7%
grade 7 events	22837	22536	24080	15782	23115
	85%	83%	84%	46%	67%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	264.734714	264.72655086665	CCD I2 on	O1	Y
[deg] Pointing Dec	-32.217651	-32.199004954272	CCD I3 on	O2	Y
[deg] Pointing Roll	85.774437	85.917122276947	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	638723908.184000	638722953.67304	CCD S5 on	N	N
Observation start date	2018-03-29T15:17:19	2018-03-29T15:02:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	638727408.184000	638728275.98585	On-chip summing requested	N	N
Observation end date	2018-03-29T16:15:39	2018-03-29T16:31:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





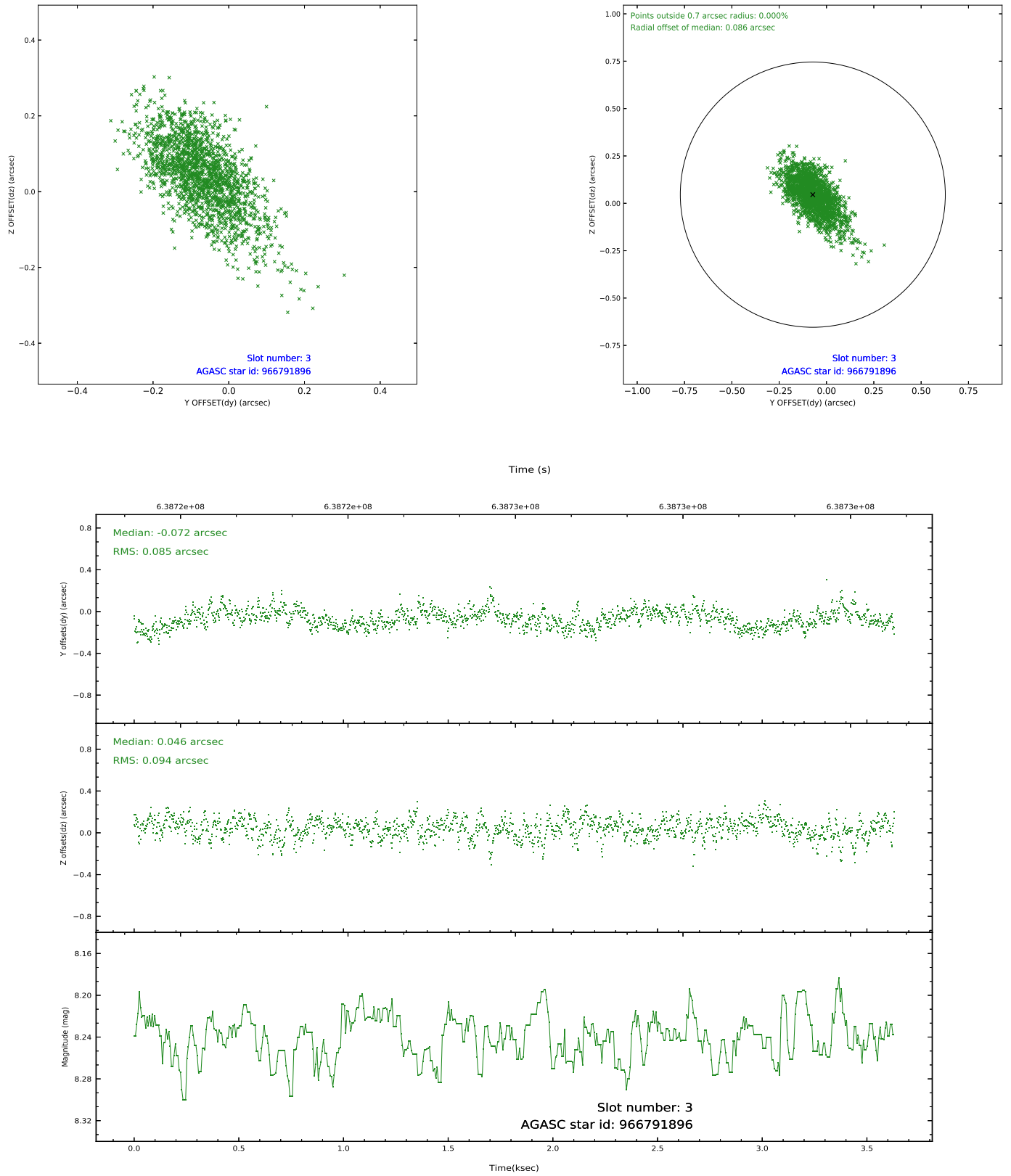
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.20	886	1.000	0.289	-0.152	0.008	0.014	0.000000	0.000000	924.23	-1737
1	FID		ACIS-S-4	7.22	886	1.000	0.059	-0.028	0.007	0.010	0.000000	0.000000	2142.60	164
2	FID		ACIS-S-5	7.21	886	1.000	-0.375	0.193	0.008	0.015	0.000000	0.000000	-1822.85	160
3	GUIDE	used	966791896	8.24	1771	1.000	-0.072	0.046	0.128	0.230	264.813860	-31.726326	1781.89	-111
4	GUIDE	used	967314040	7.45	1772	1.000	-0.247	-0.231	0.124	0.222	264.244314	-32.128610	206.50	1514
5	GUIDE	used	967316472	8.29	1772	1.000	-0.025	0.108	0.132	0.230	265.408096	-32.112173	524.00	-2019
6	GUIDE	used	967317304	9.26	1771	1.000	0.104	-0.227	0.213	0.334	264.286882	-32.215358	-94.49	1359
7	GUIDE	used	967314640	8.71	1771	1.000	0.243	0.323	0.149	0.248	265.239017	-32.832868	-2099.42	-1683

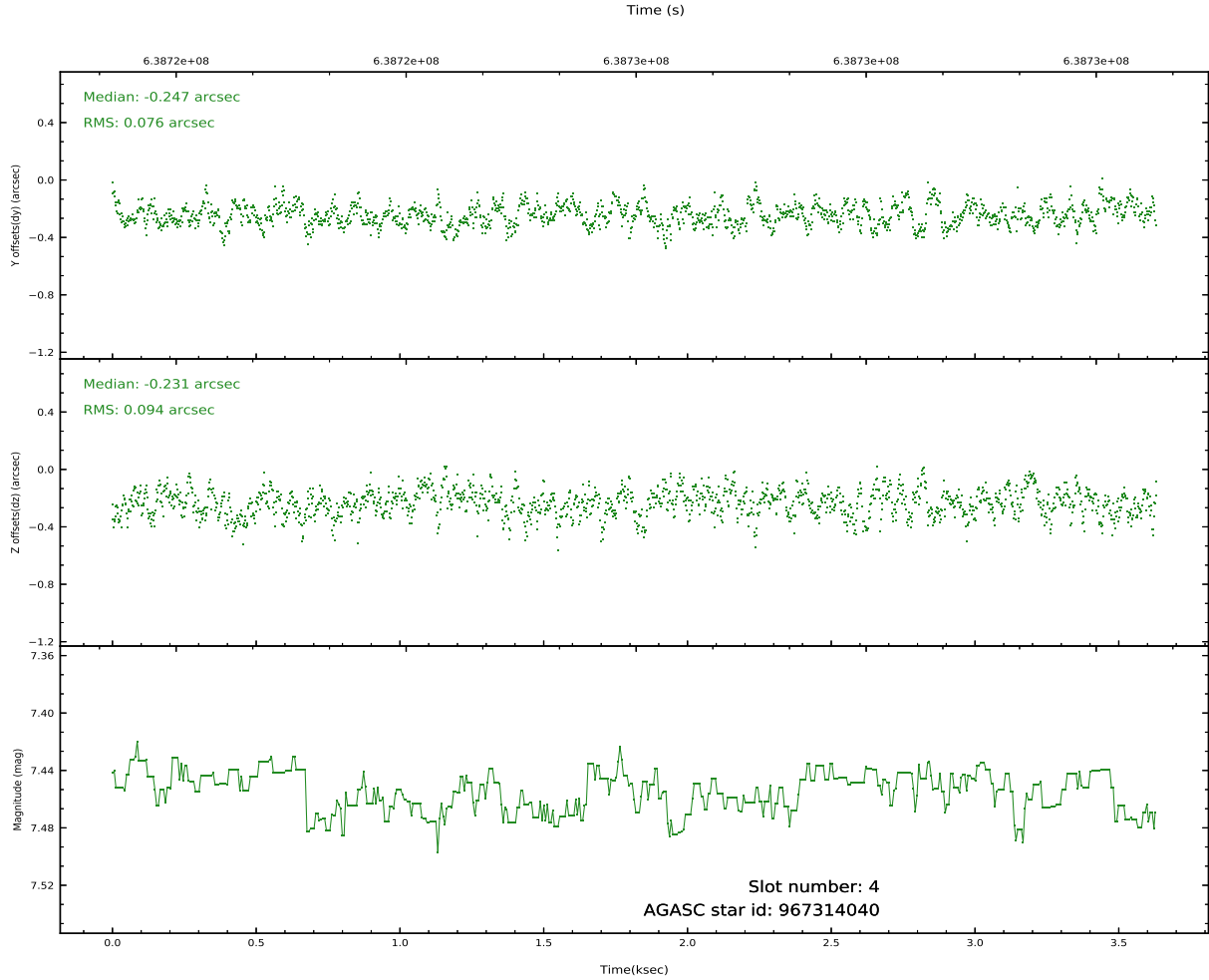
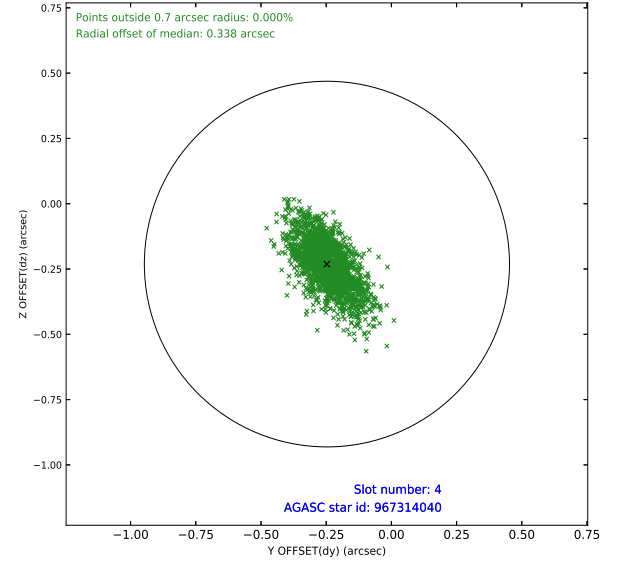
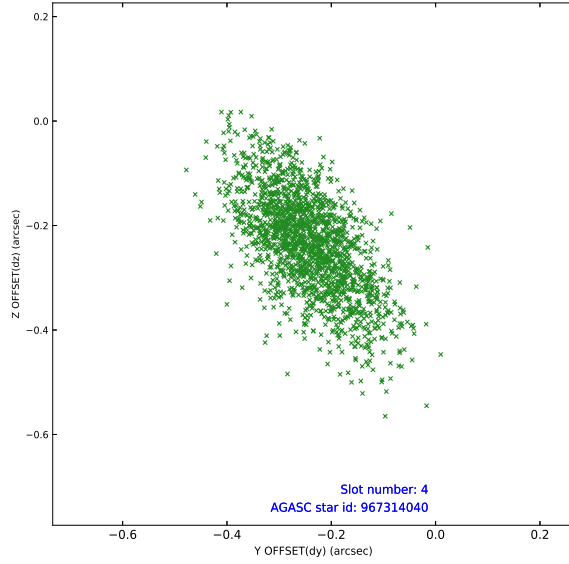


## 2.4 Star Slots

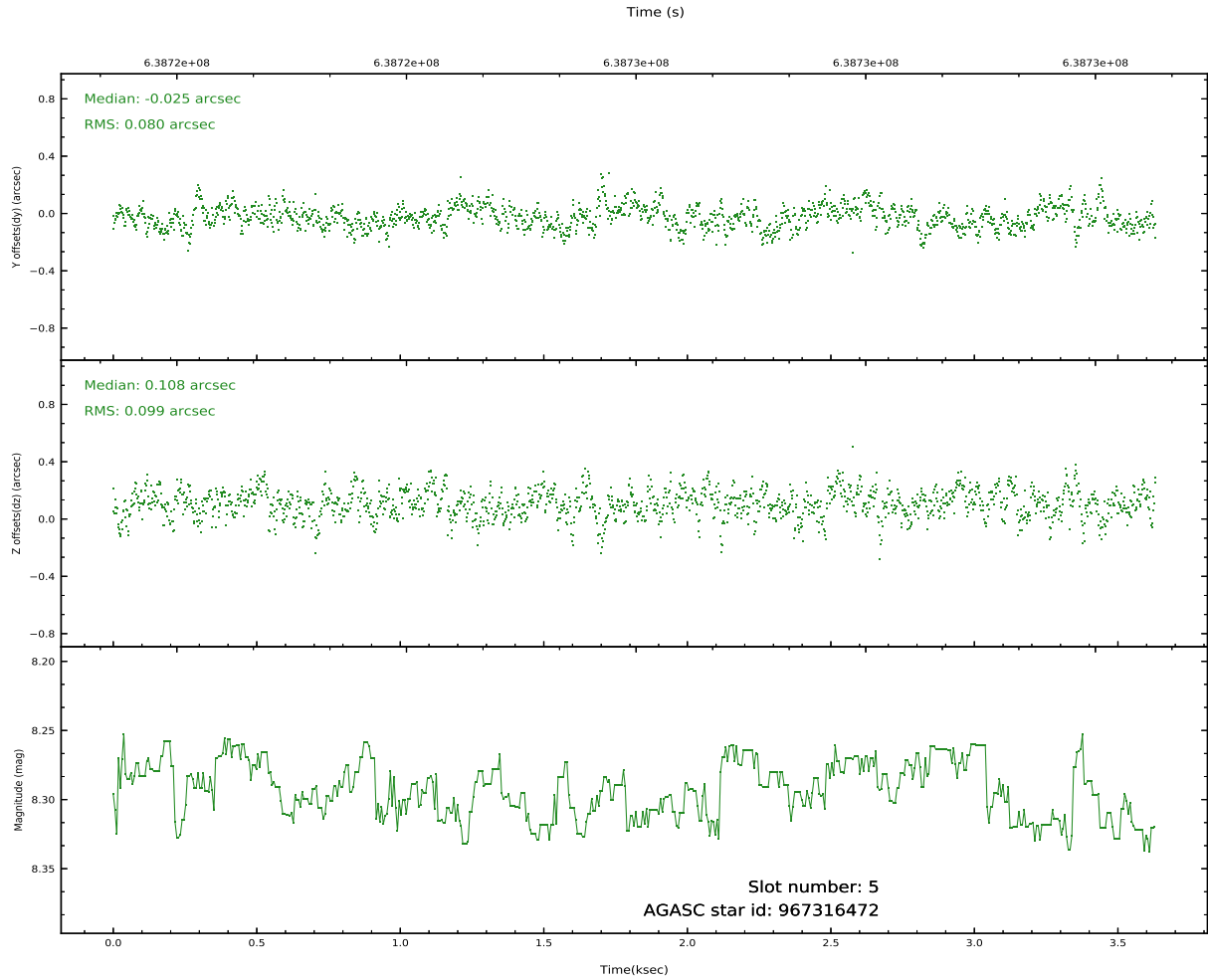
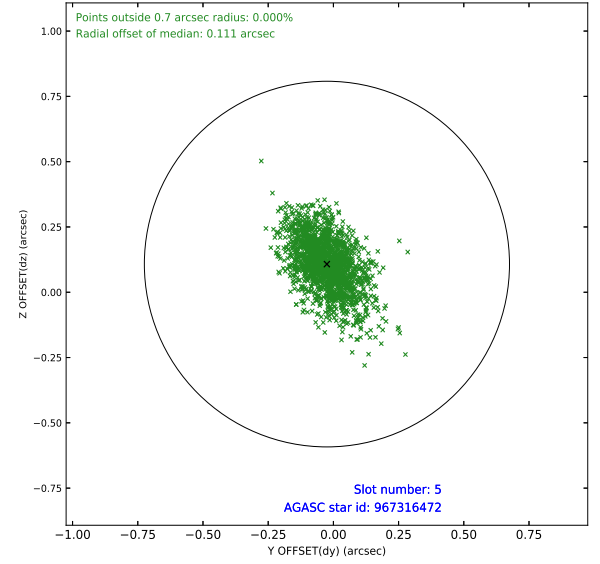
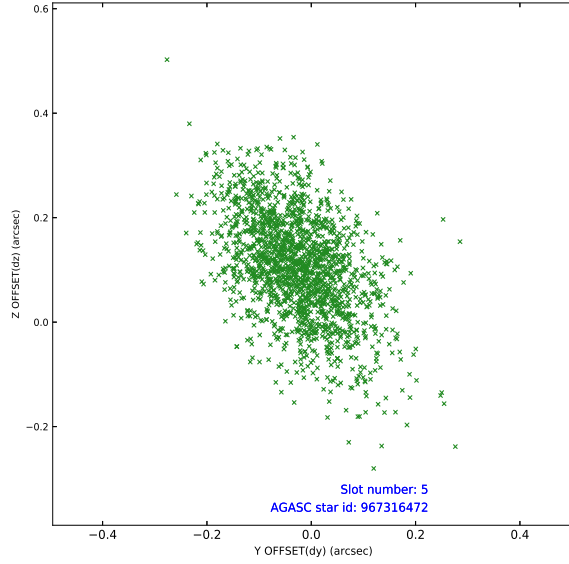
### 2.4.1 Slot 3



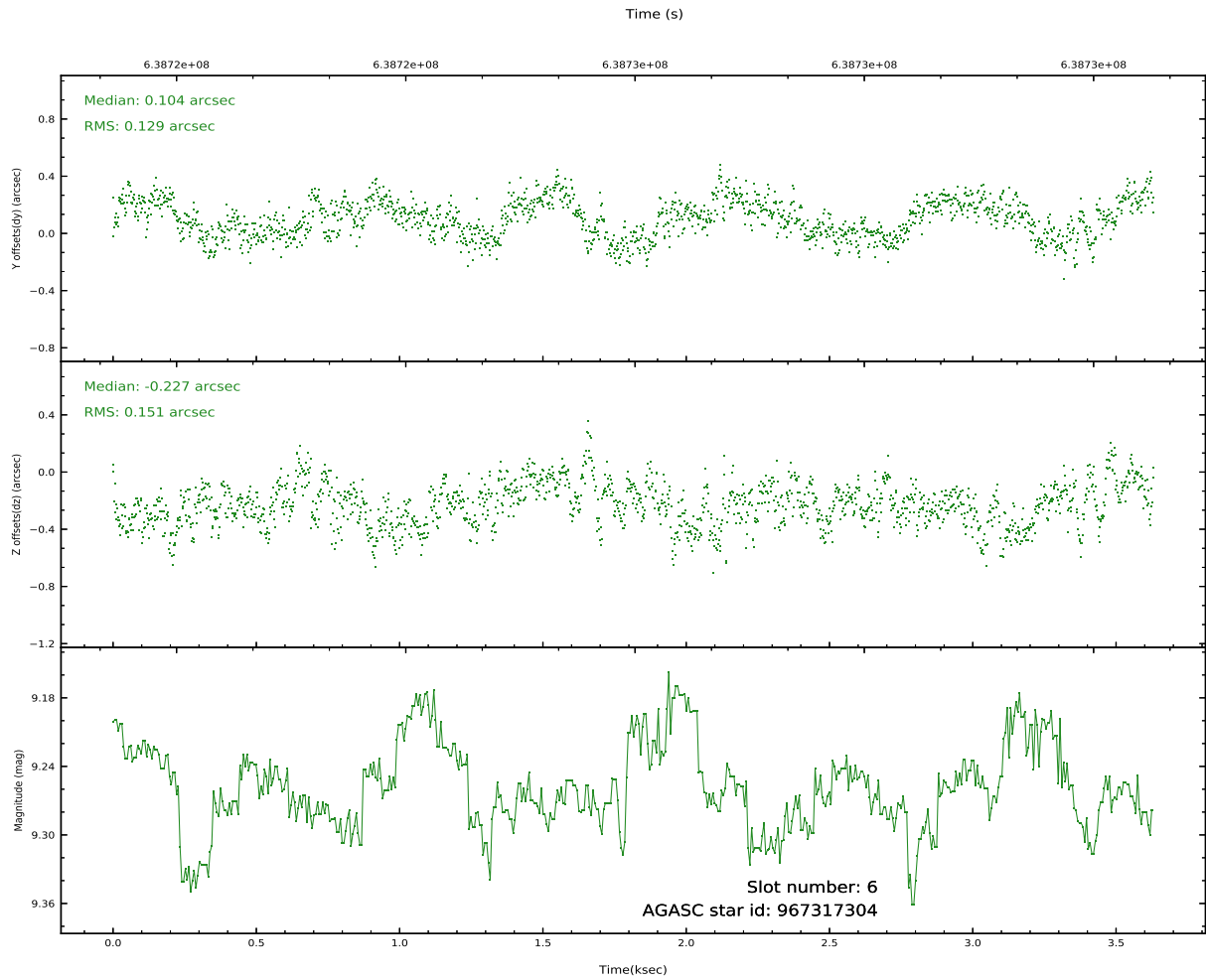
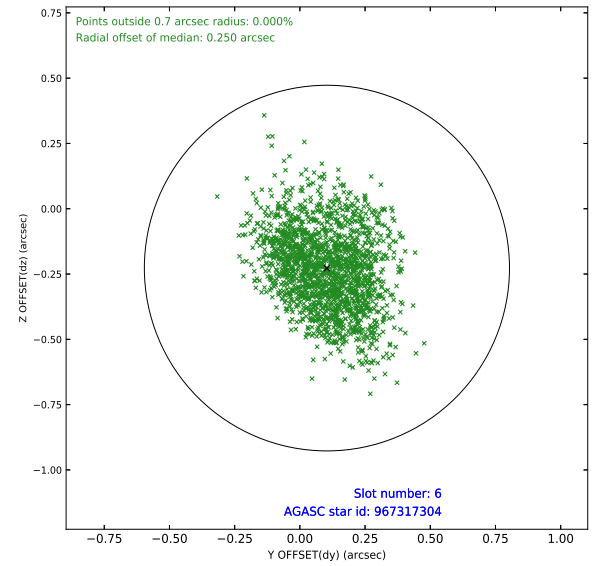
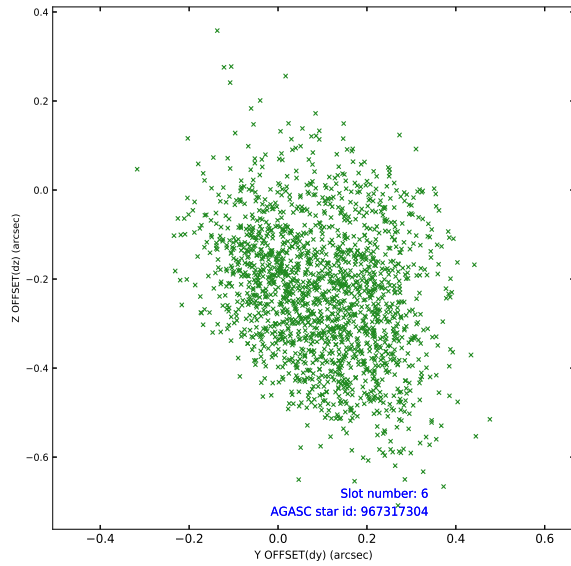
## 2.4.2 Slot 4



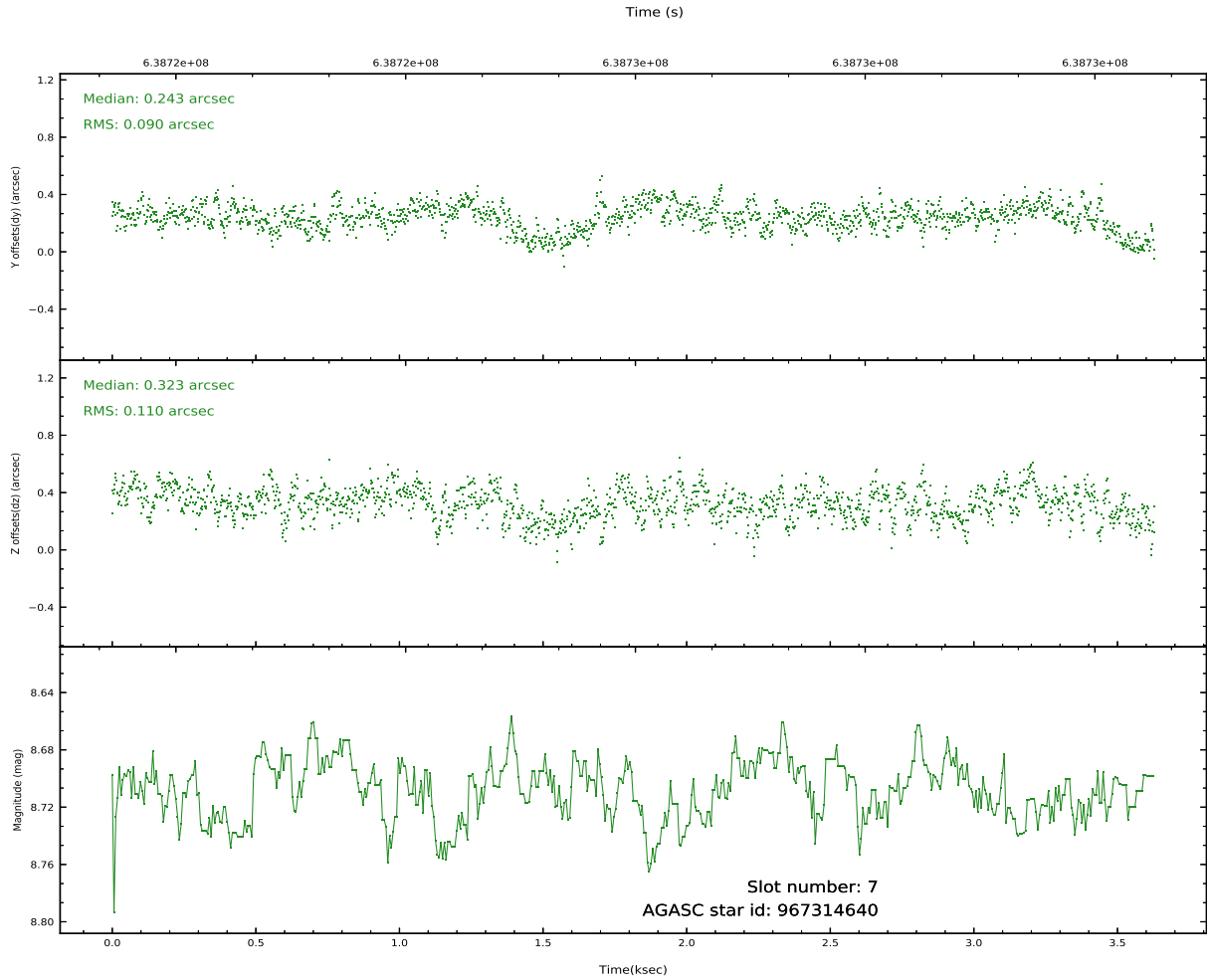
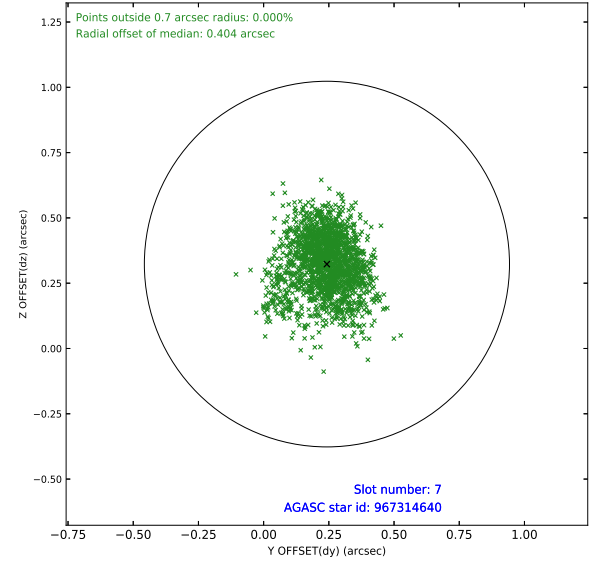
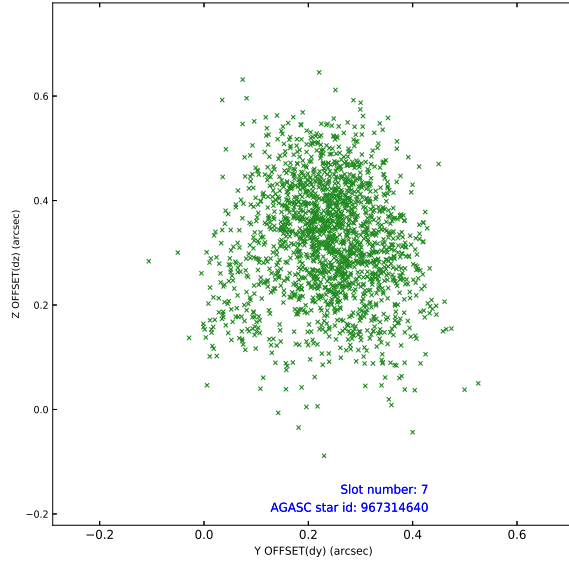
### 2.4.3 Slot 5



## 2.4.4 Slot 6

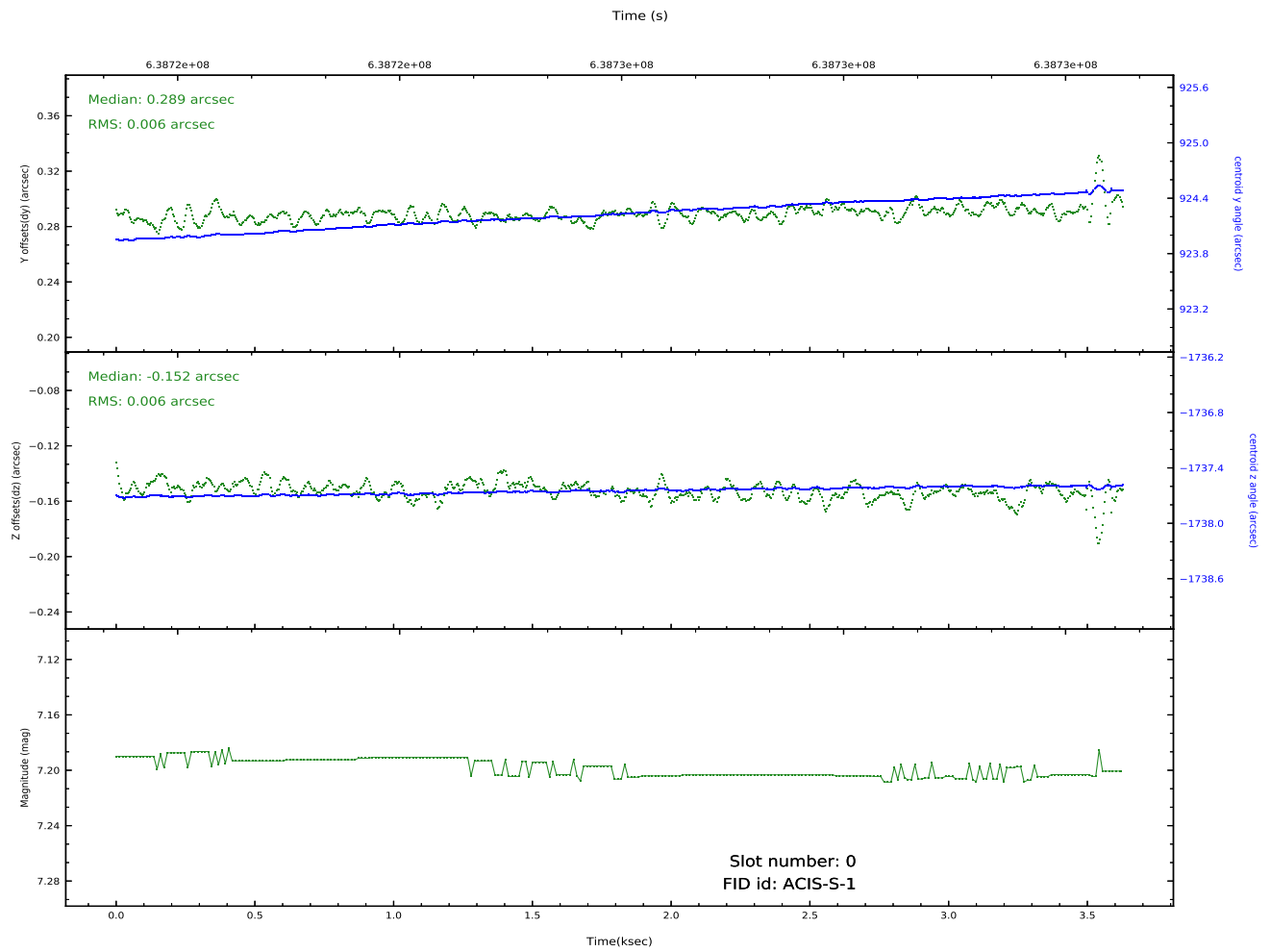
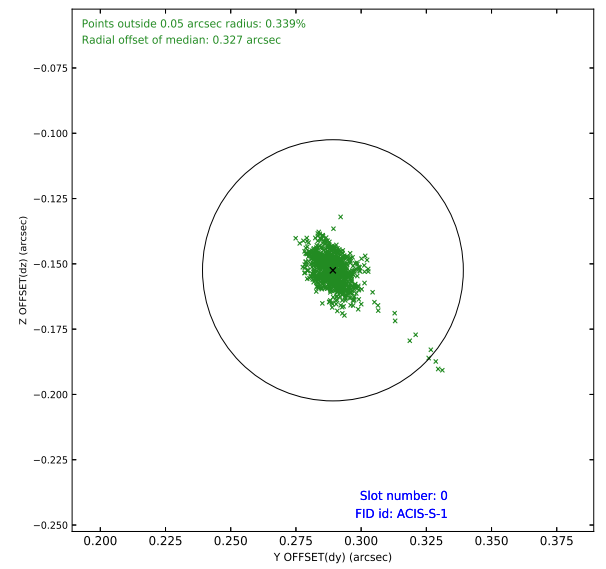
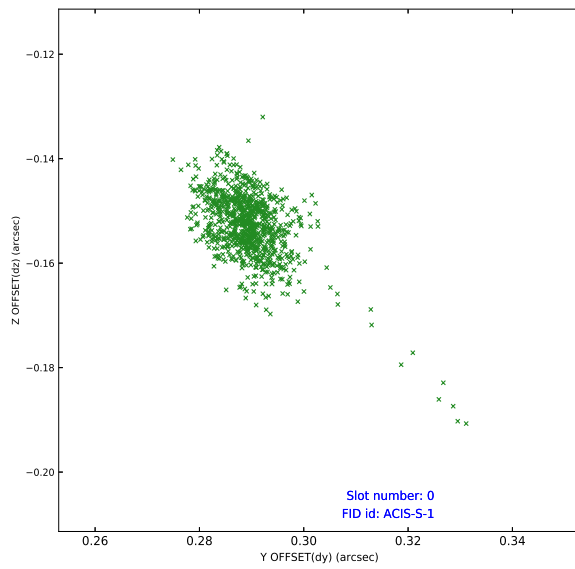


## 2.4.5 Slot 7

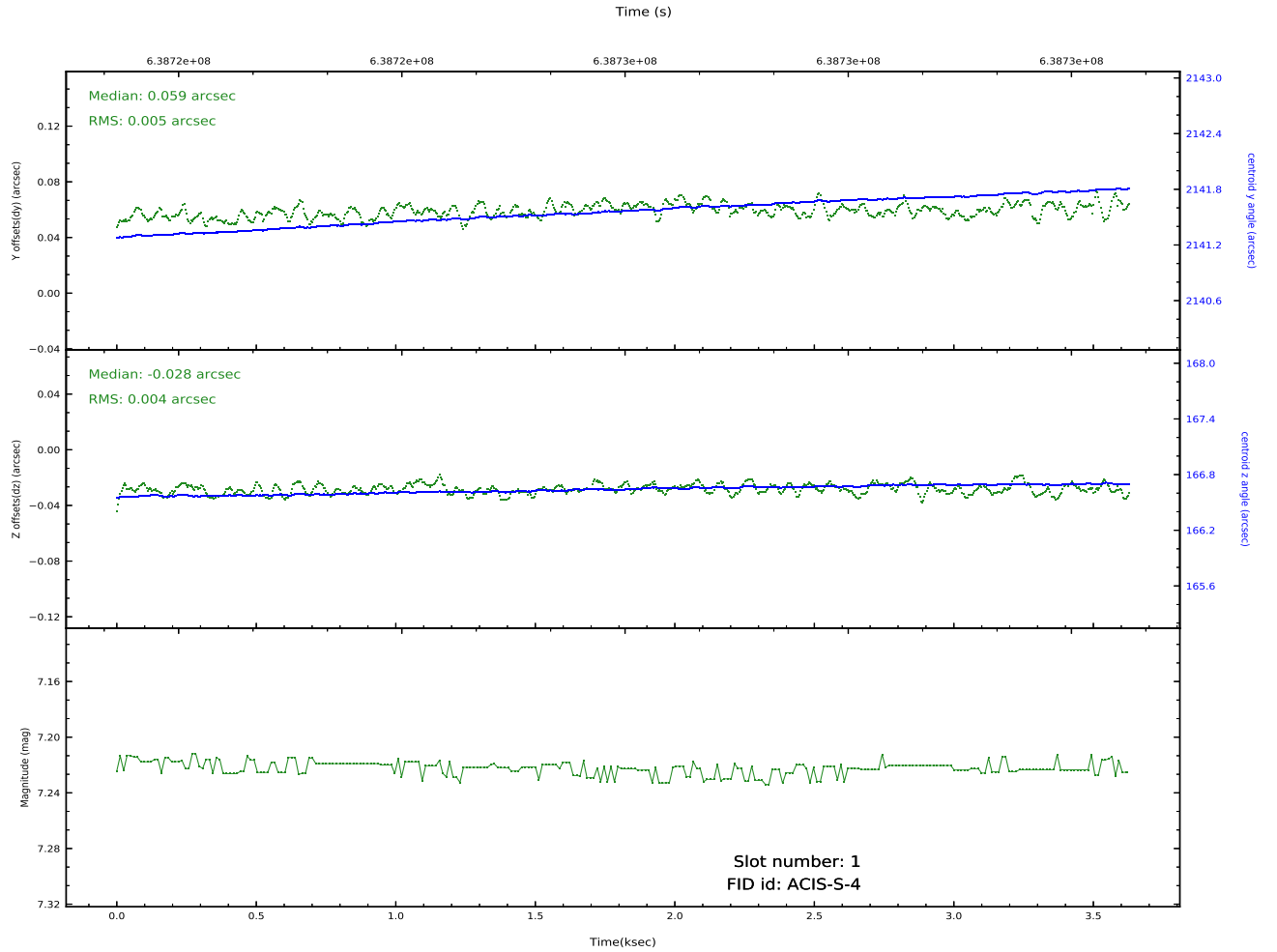
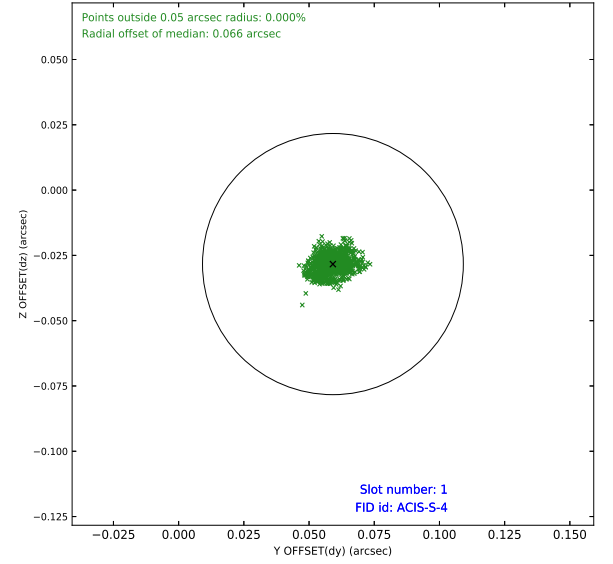
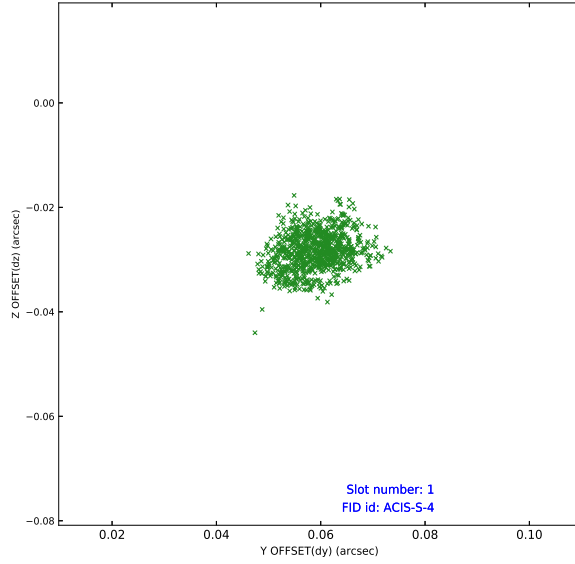


## 2.5 FID Slots

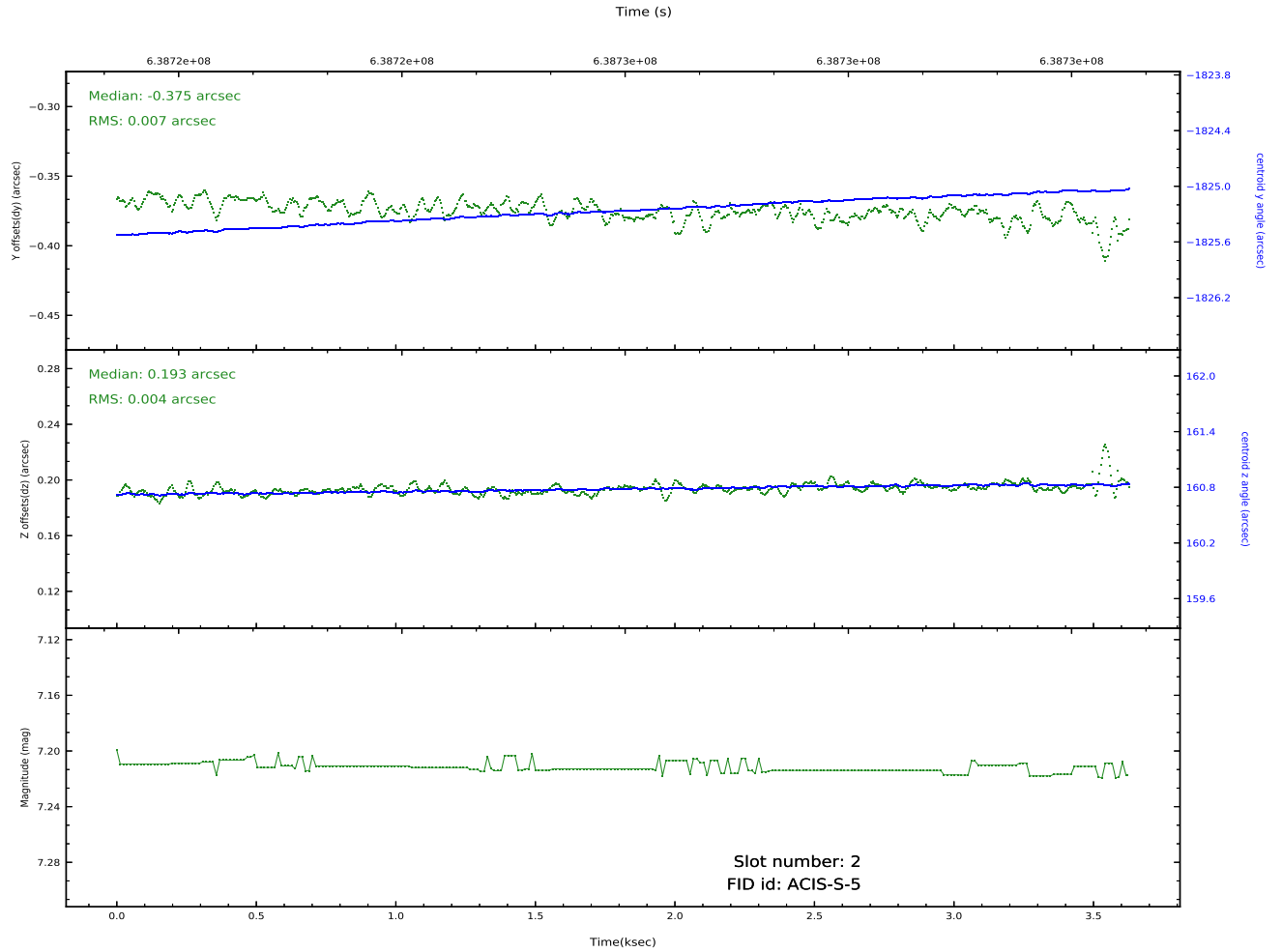
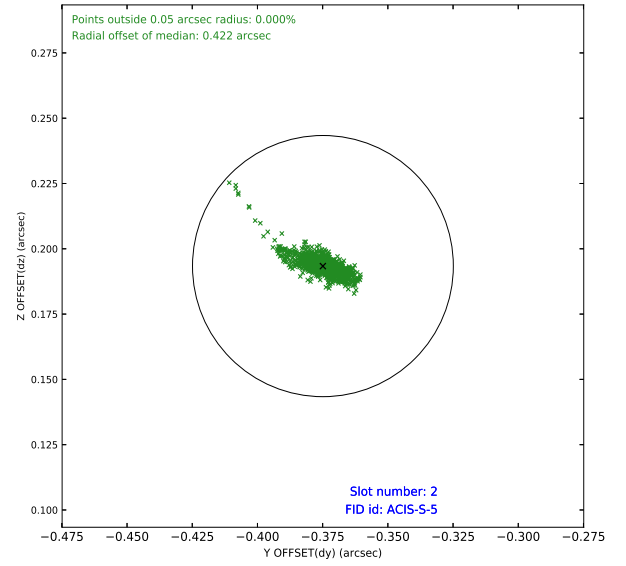
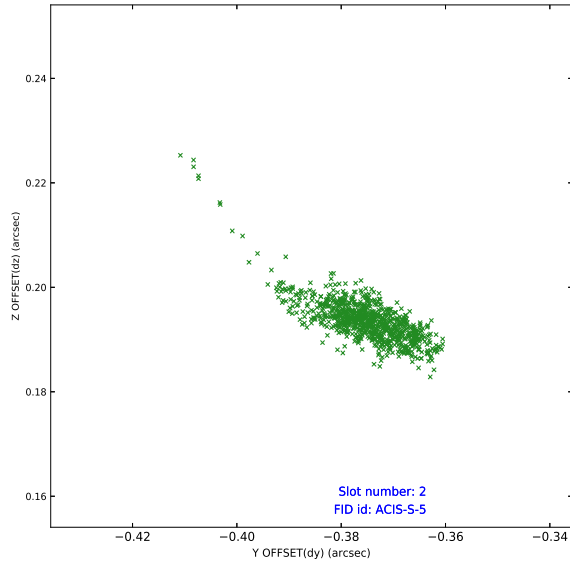
### 2.5.1 Slot 0



## 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)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.552600027442

### A.2 Comments