

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6077 - L2 Version 4  
Chandra X-Ray Center

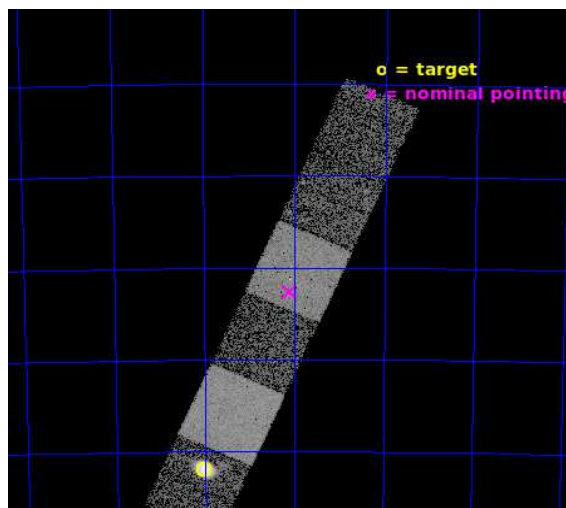
L2 Processing Date : Oct 5 2020

## 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

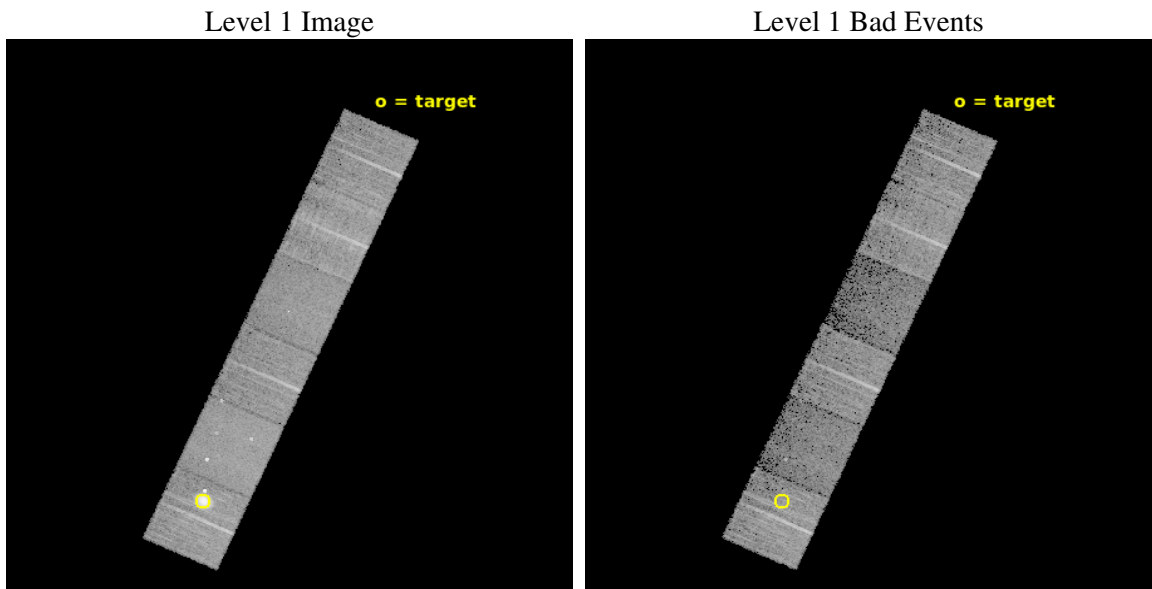
seq_num	590404	Sequence number
obs_id	6077	Observation id
title	AO6A ACIS-S Calibration Observations of E0102-72	Proposal title
observer	CXC Calibration	Principal investigator
object	E0102-72.3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	15.524699968603	Nominal RA [deg]
dec_nom	-71.710161250926	Nominal Dec [deg]
roll_nom	294.26081704333	Nominal Roll [deg]
revision	4	Processing version of data
ontime	7753.5999711156	Sum of GTIs [s]
livetime	7655.4192196239	Livetime [s]
ontime4	7753.5999711156	Sum of GTIs [s]
ontime5	7753.5458036959	Sum of GTIs [s]
ontime6	7753.5047636926	Sum of GTIs [s]
ontime7	7753.5868436992	Sum of GTIs [s]
ontime8	7750.2227534056	Sum of GTIs [s]
ontime9	7753.4226837158	Sum of GTIs [s]
l2events	81668	Number of level 2 events



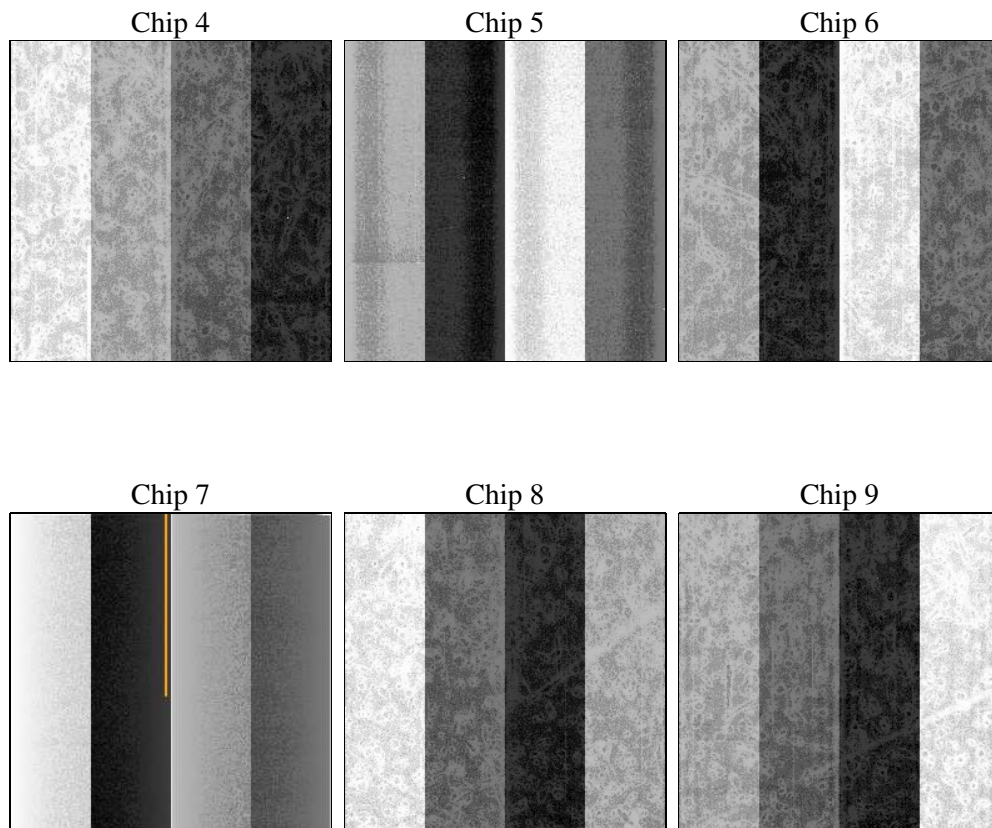
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	7753.5999711156	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime4	7753.5999711156	Sum of GTIs [s]
date	2020-10-05T17:51:25	Date and time of file creation	ontime5	7753.5458036959	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	7753.5047636926	Sum of GTIs [s]
			ontime7	7753.5868436992	Sum of GTIs [s]
			ontime8	7750.2227534056	Sum of GTIs [s]
			ontime9	7753.4226837158	Sum of GTIs [s]
			l1events	334949	Number of level 1 events

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	76166	58491	48099	44872	60481	46840	grade 0 events	19776	3774	1742	2305	3804	1653
rejected events	51638	27304	43299	22619	46855	42198		25%	6%	3%	5%	6%	3%
rejected %	67%	46%	90%	50%	77%	90%	grade 1 events	173	264	28	54	46	22
								0%	0%	0%	0%	0%	0%
							grade 2 events	2297	9295	1075	4749	3007	980
								3%	15%	2%	10%	4%	2%
							grade 3 events	824	1497	481	2104	1658	518
								1%	2%	1%	4%	2%	1%
							grade 4 events	762	1559	539	2111	1481	528
								1%	2%	1%	4%	2%	1%
							grade 5 events	1645	4984	1619	4689	2474	1785
								2%	8%	3%	10%	4%	3%
							grade 6 events	890	15093	970	11000	3679	965
								1%	25%	2%	24%	6%	2%
							grade 7 events	49799	22025	41645	17860	44332	40389
								65%	37%	86%	39%	73%	86%

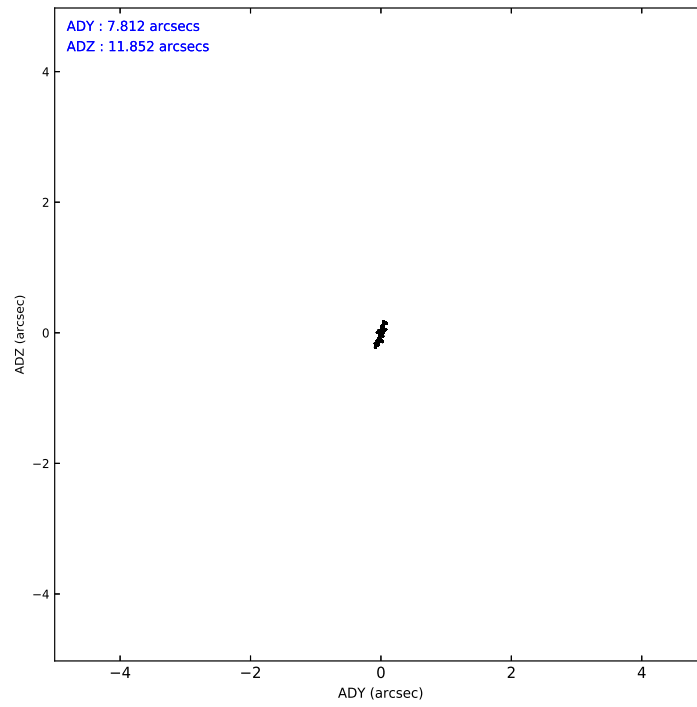
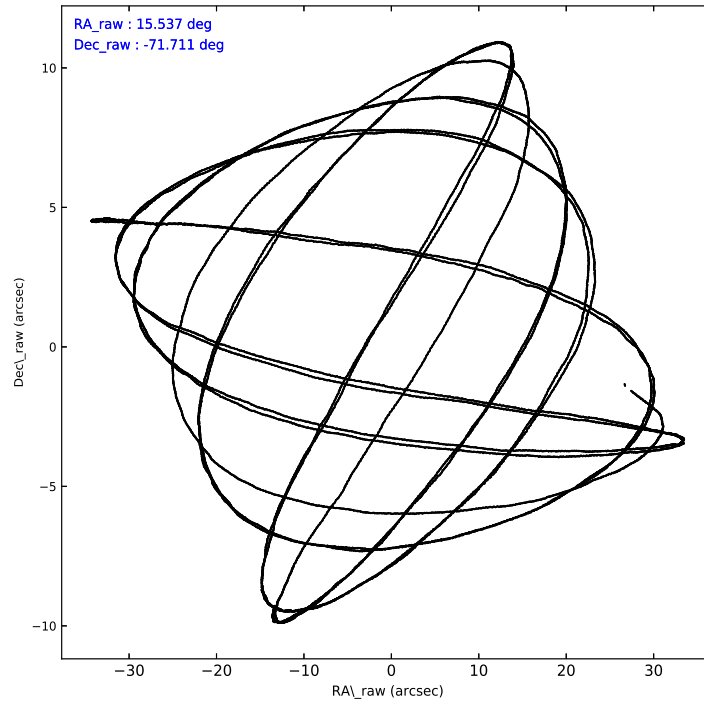


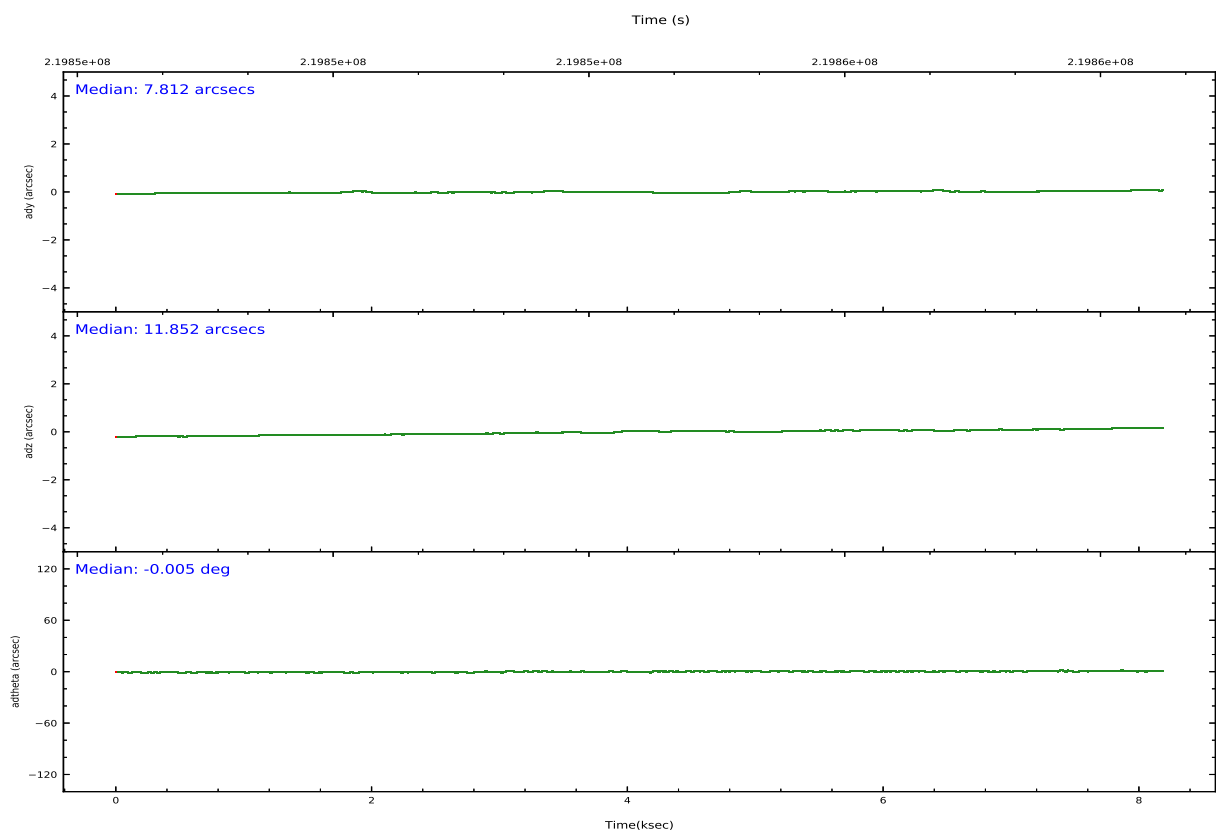
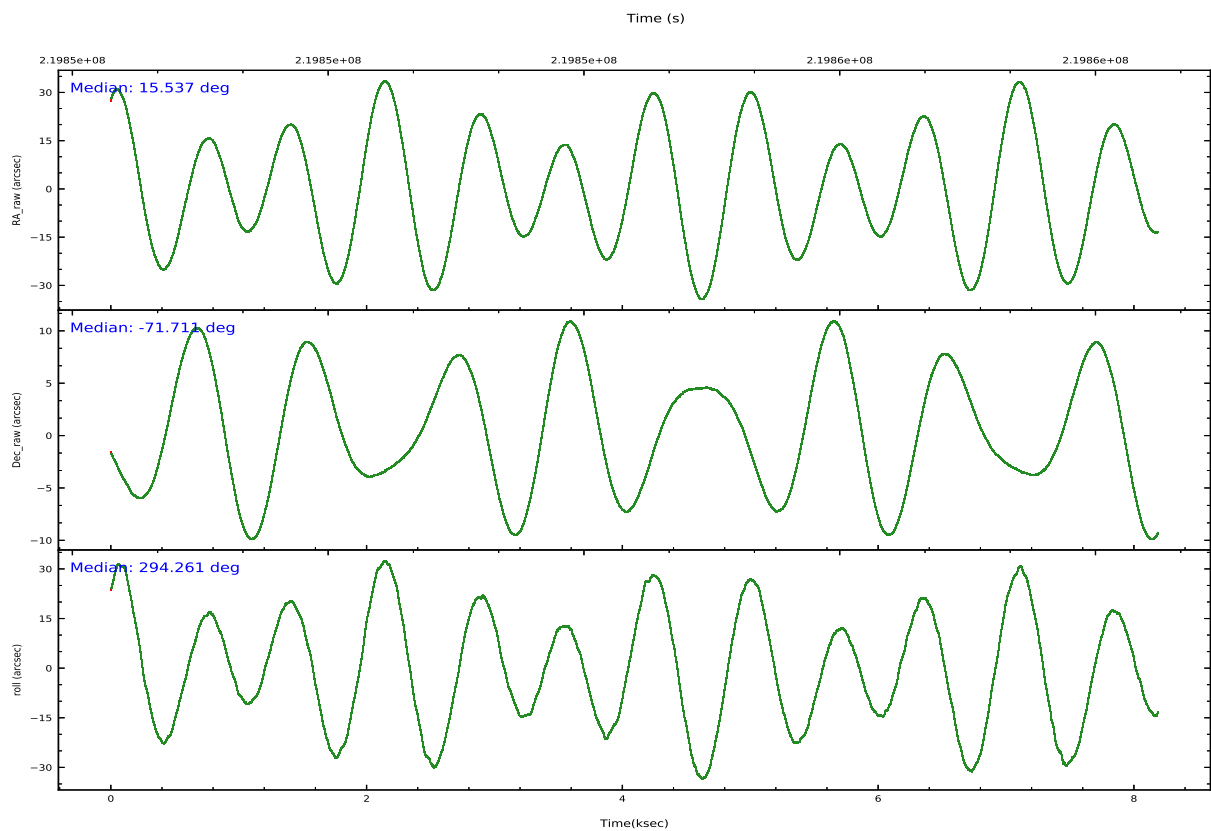
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	15.466325	15.524699968603
[deg] Pointing Dec	-71.695159	-71.71016125092601
[deg] Pointing Roll	294.032547	294.26081704333
[s] Window start time (MET)	215654464.184000	215654464.184000
[s] Window stop time (MET)	220838464.184000	220838464.184000
[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)	219850490.184000	219850114.20109
Observation start date	2004-12-19T13:33:46	2004-12-19T13:28:34
[s] Observation end time (MET)	219858490.184000	219858624.77647
Observation end date	2004-12-19T15:47:06	2004-12-19T15:50:24
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



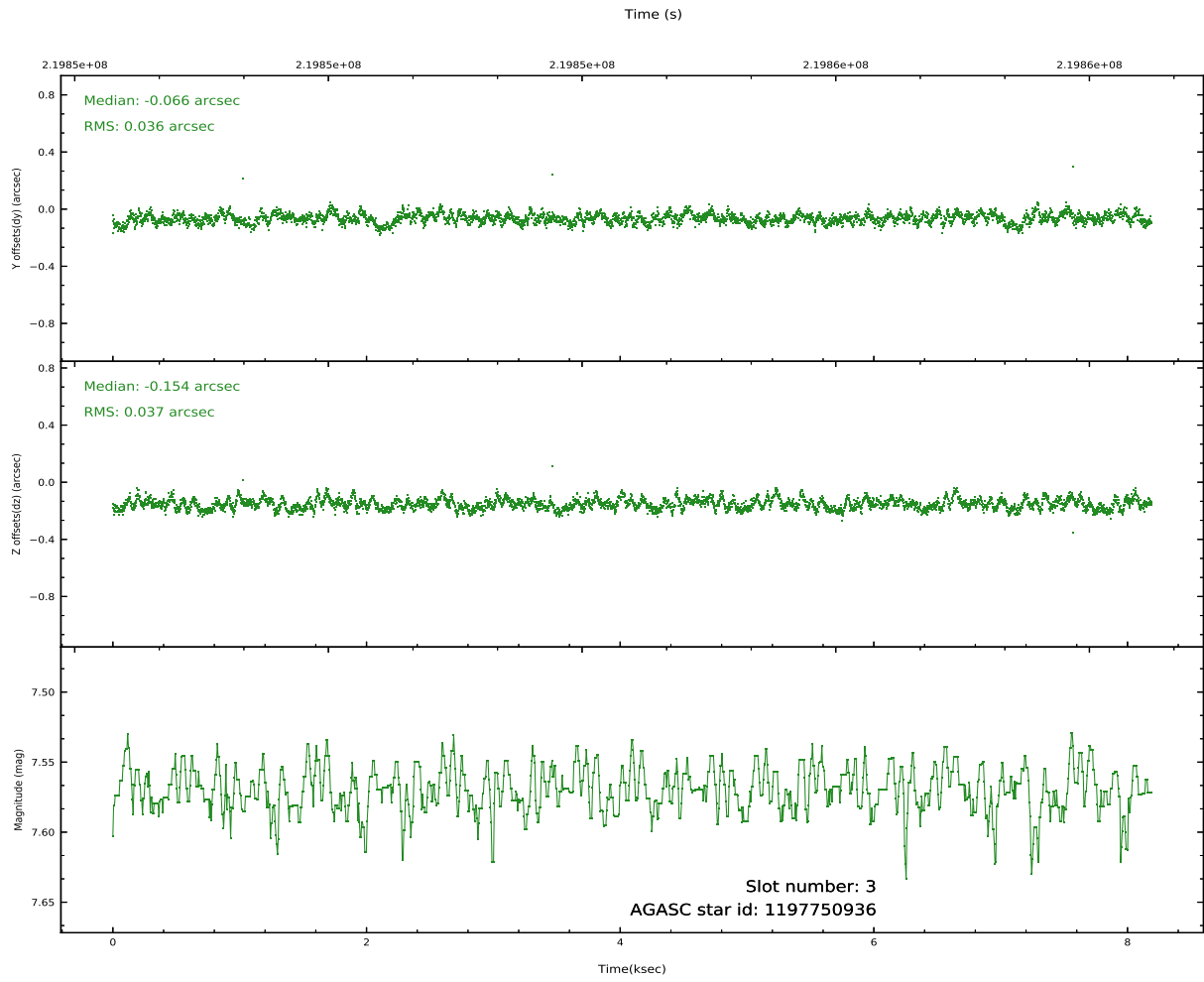
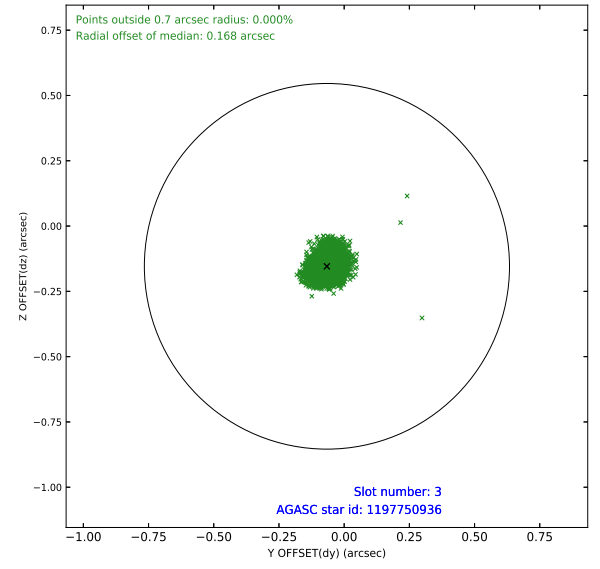
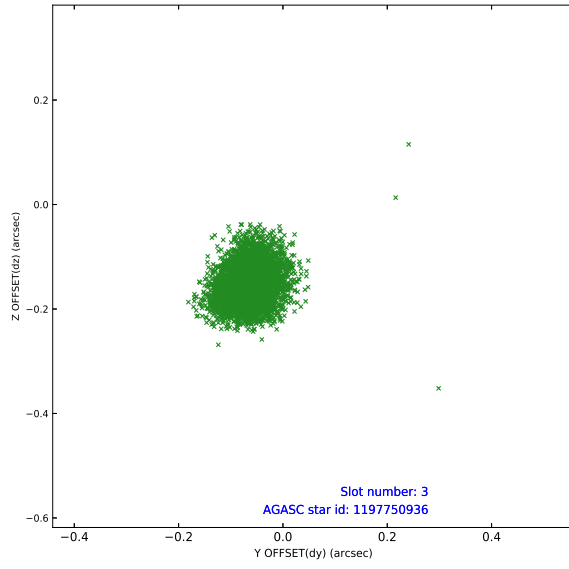


Slot Statistics

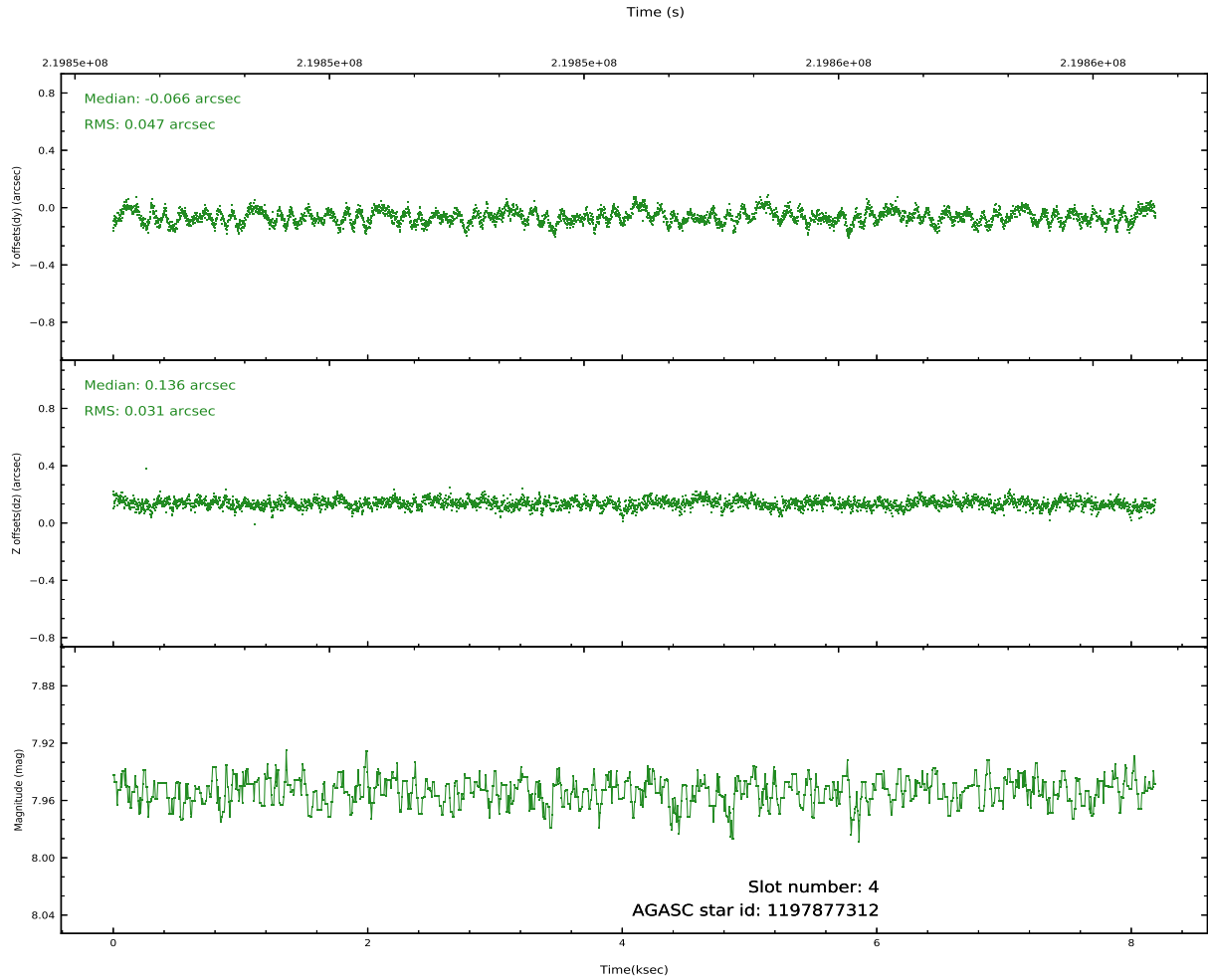
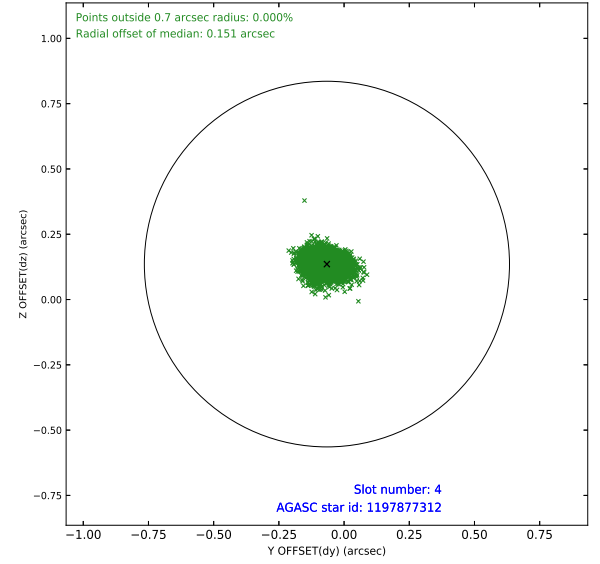
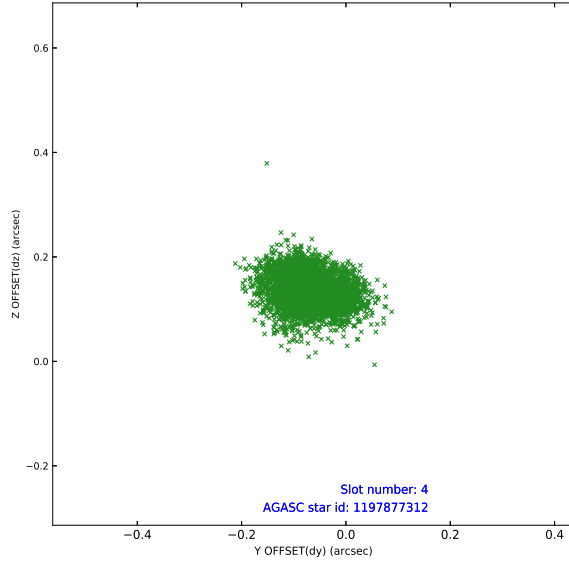
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1998	1.000	-0.045	-0.052	0.007	0.012	0.000000	0.000000	-760.59	-1733
1	FID		ACIS-S-4	7.20	1998	1.000	0.134	0.035	0.005	0.010	0.000000	0.000000	2152.52	174
2	FID		ACIS-S-5	7.23	1998	1.000	-0.120	0.025	0.007	0.012	0.000000	0.000000	-1812.67	169
3	GUIDE	used	1197750936	7.57	3996	1.000	-0.066	-0.154	0.054	0.087	15.387940	-71.549550	-514.98	131
4	GUIDE	used	1197877312	7.95	3995	1.000	-0.066	0.136	0.059	0.098	16.362782	-70.933298	-2068.83	2076
5	GUIDE	used	1197884536	8.49	3994	1.000	0.086	0.039	0.064	0.098	17.160729	-71.835289	1258.93	1520
6	GUIDE	used	1197884712	8.32	3995	1.000	0.040	0.091	0.063	0.104	16.087398	-72.252690	2114.23	-195
7	GUIDE	used	1197885328	7.23	3995	1.000	0.004	-0.114	0.046	0.077	16.283090	-71.733943	509.00	782

## 2.4 Star Slots

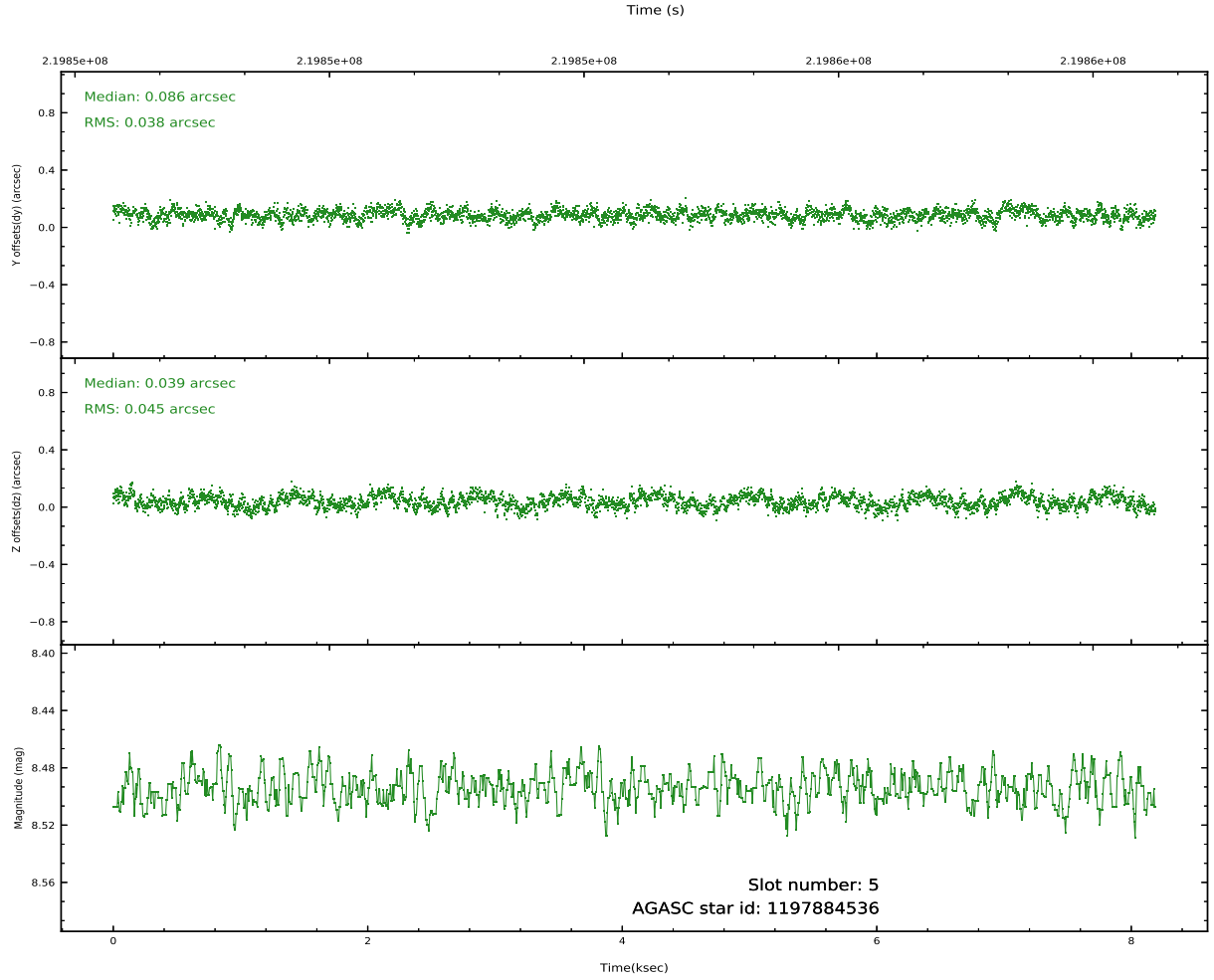
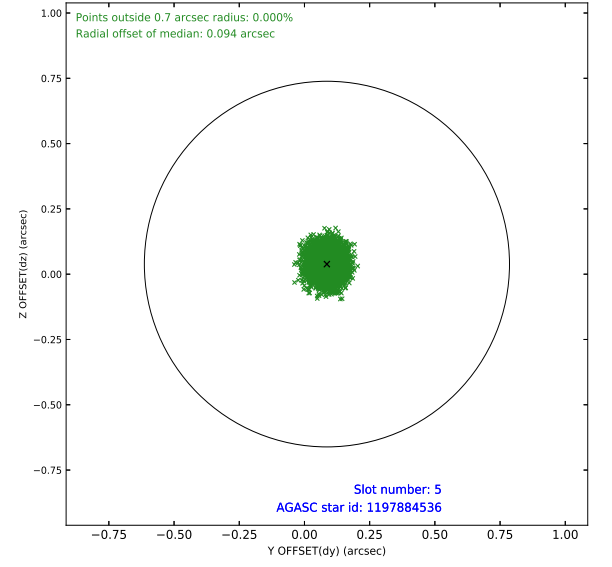
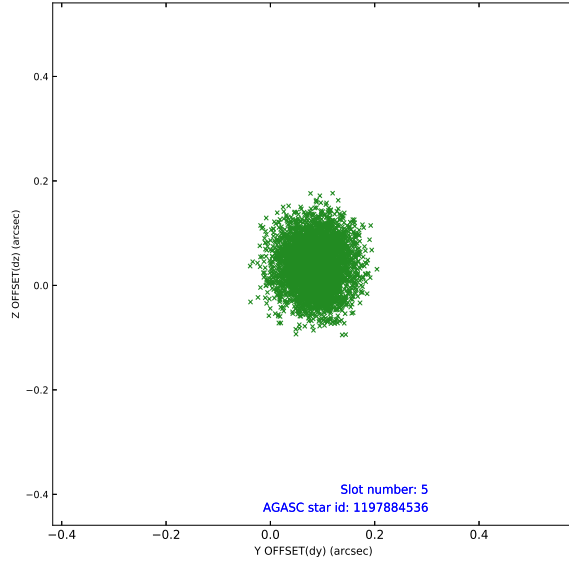
### 2.4.1 Slot 3



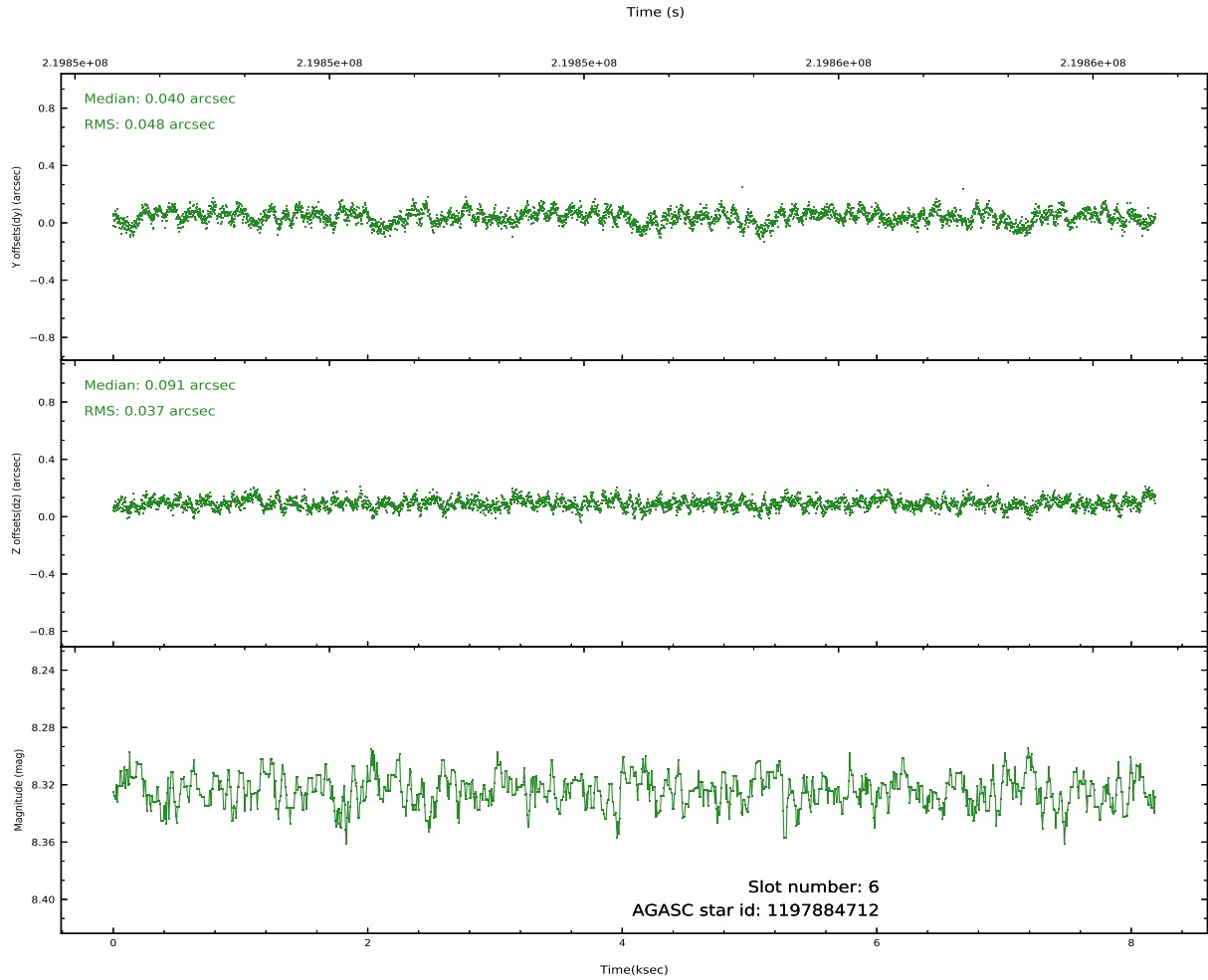
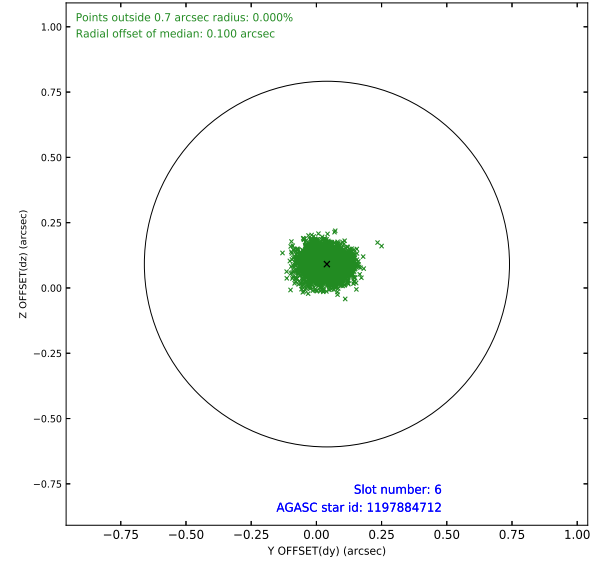
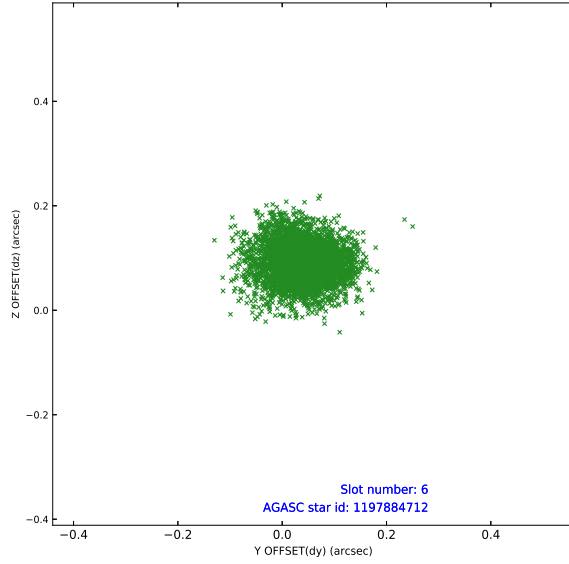
## 2.4.2 Slot 4



### 2.4.3 Slot 5

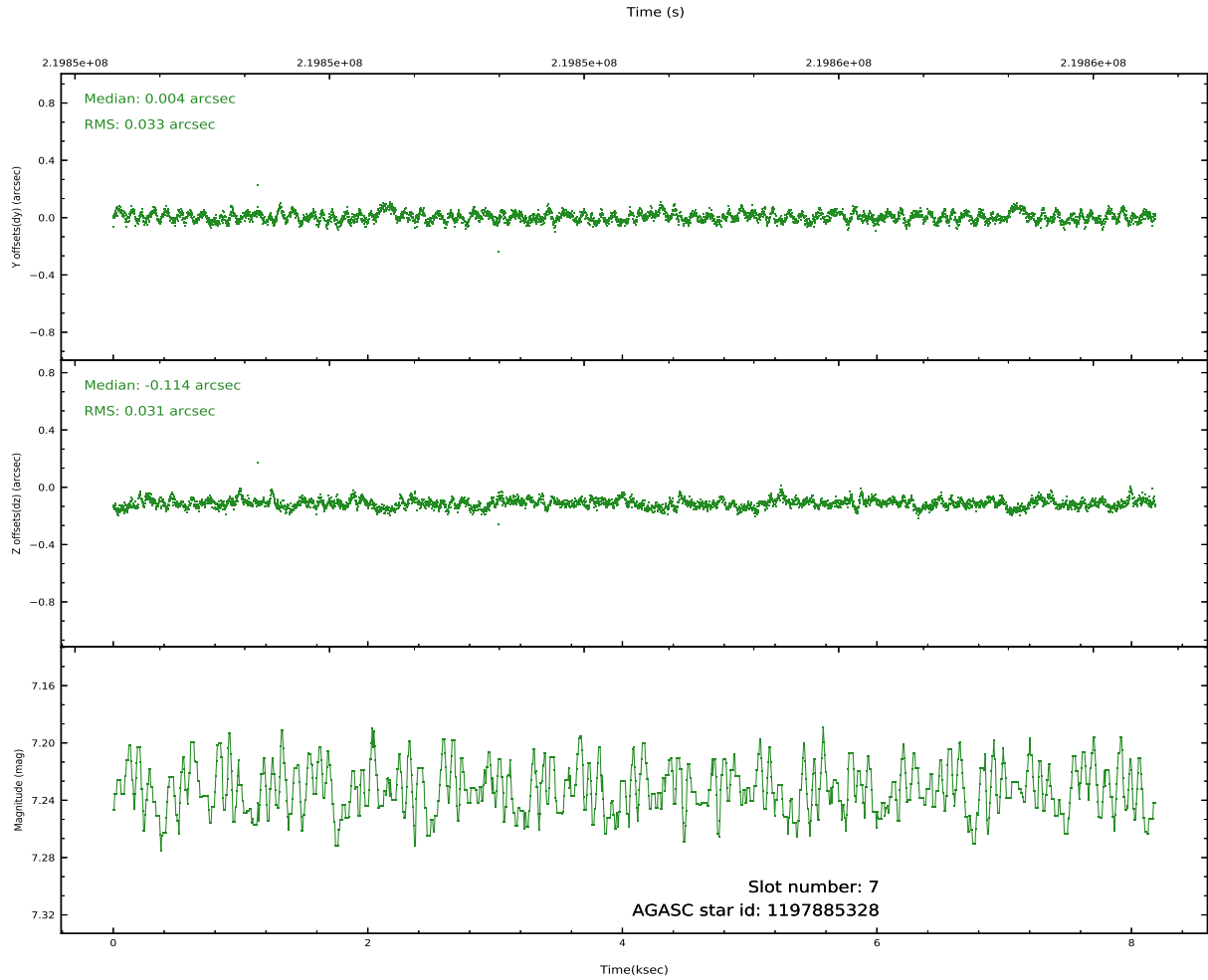
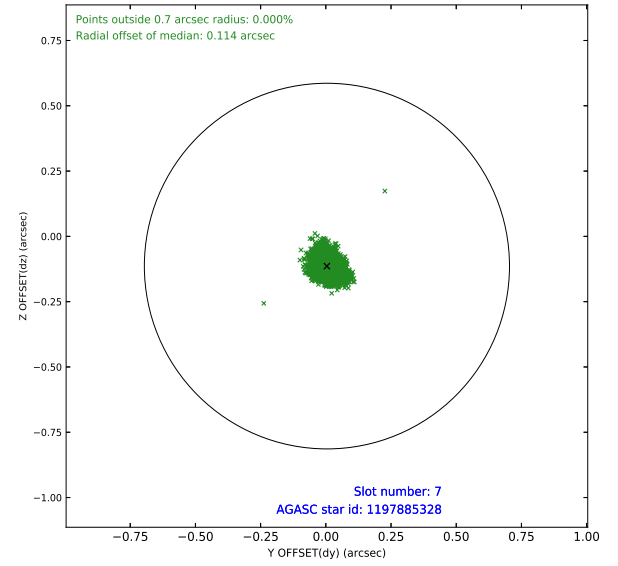
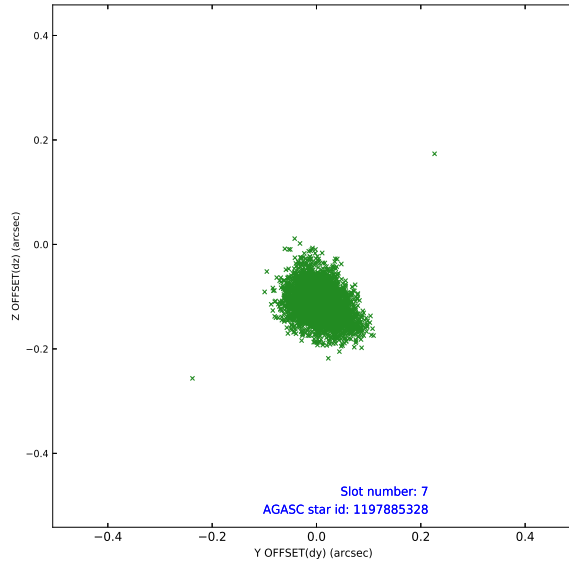


## 2.4.4 Slot 6



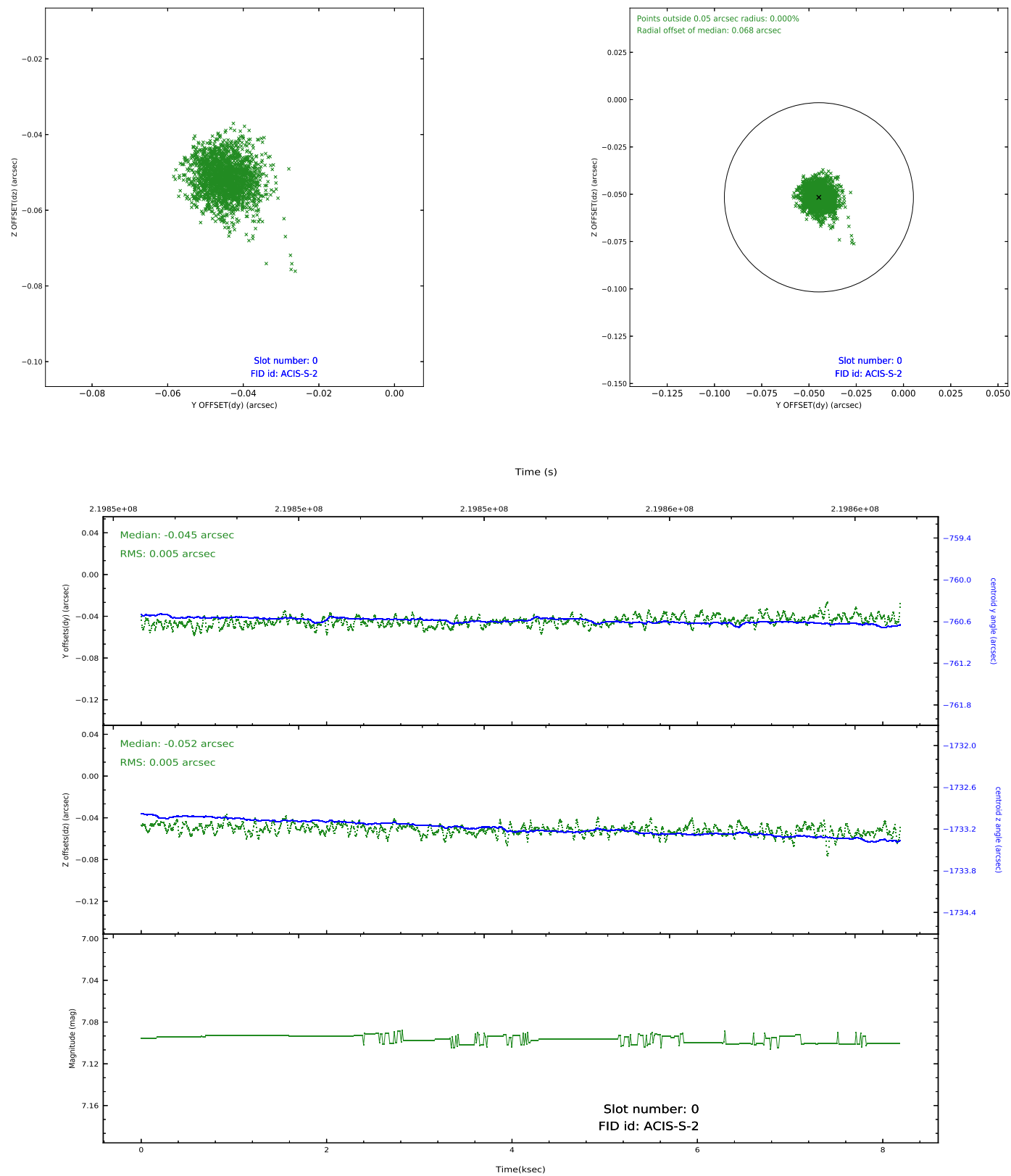


## 2.4.5 Slot 7

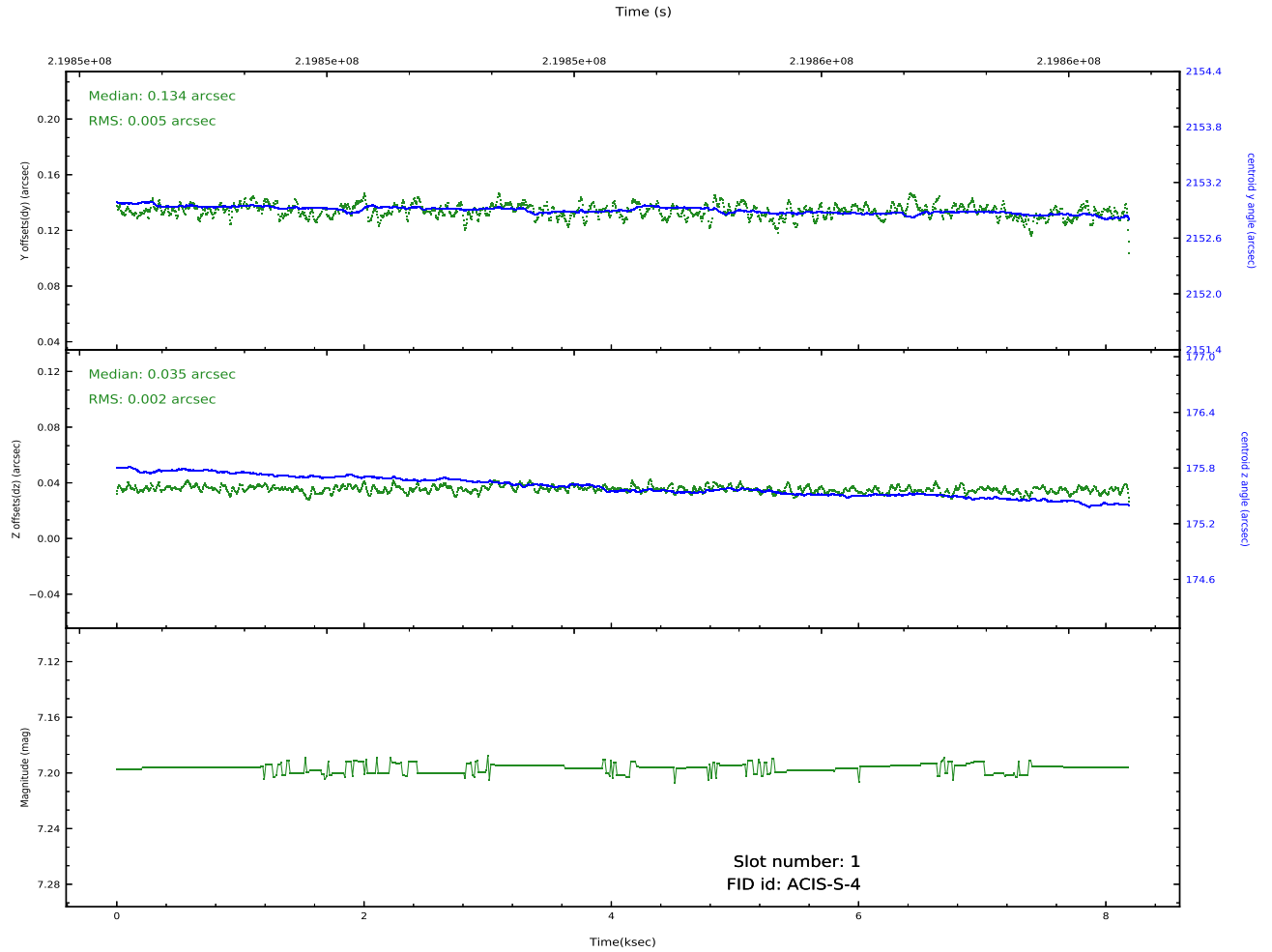
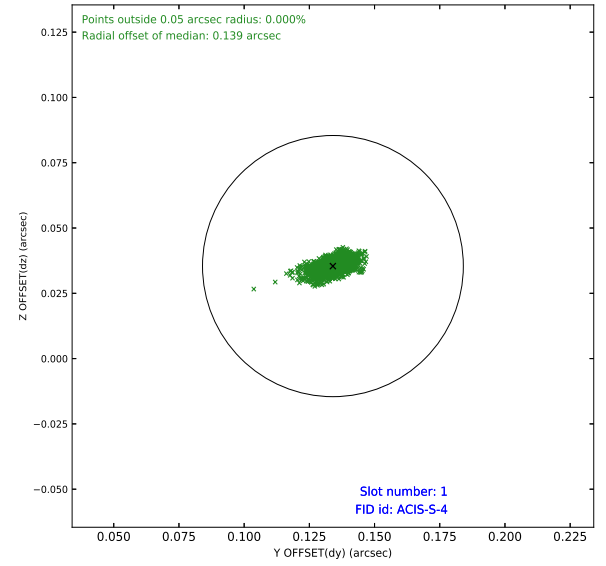
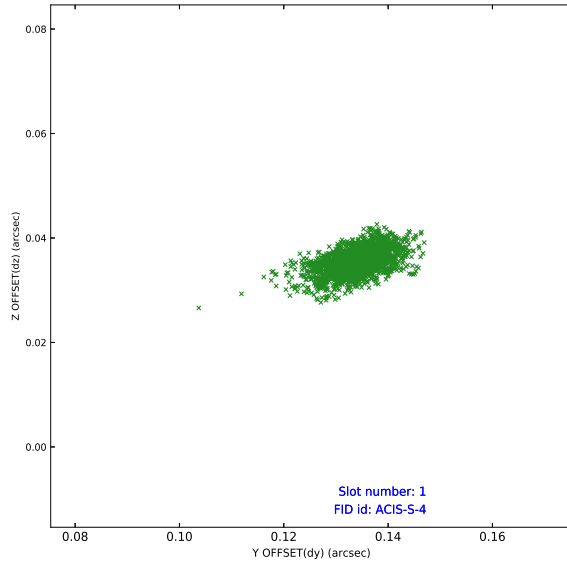


# 2.5 FID Slots

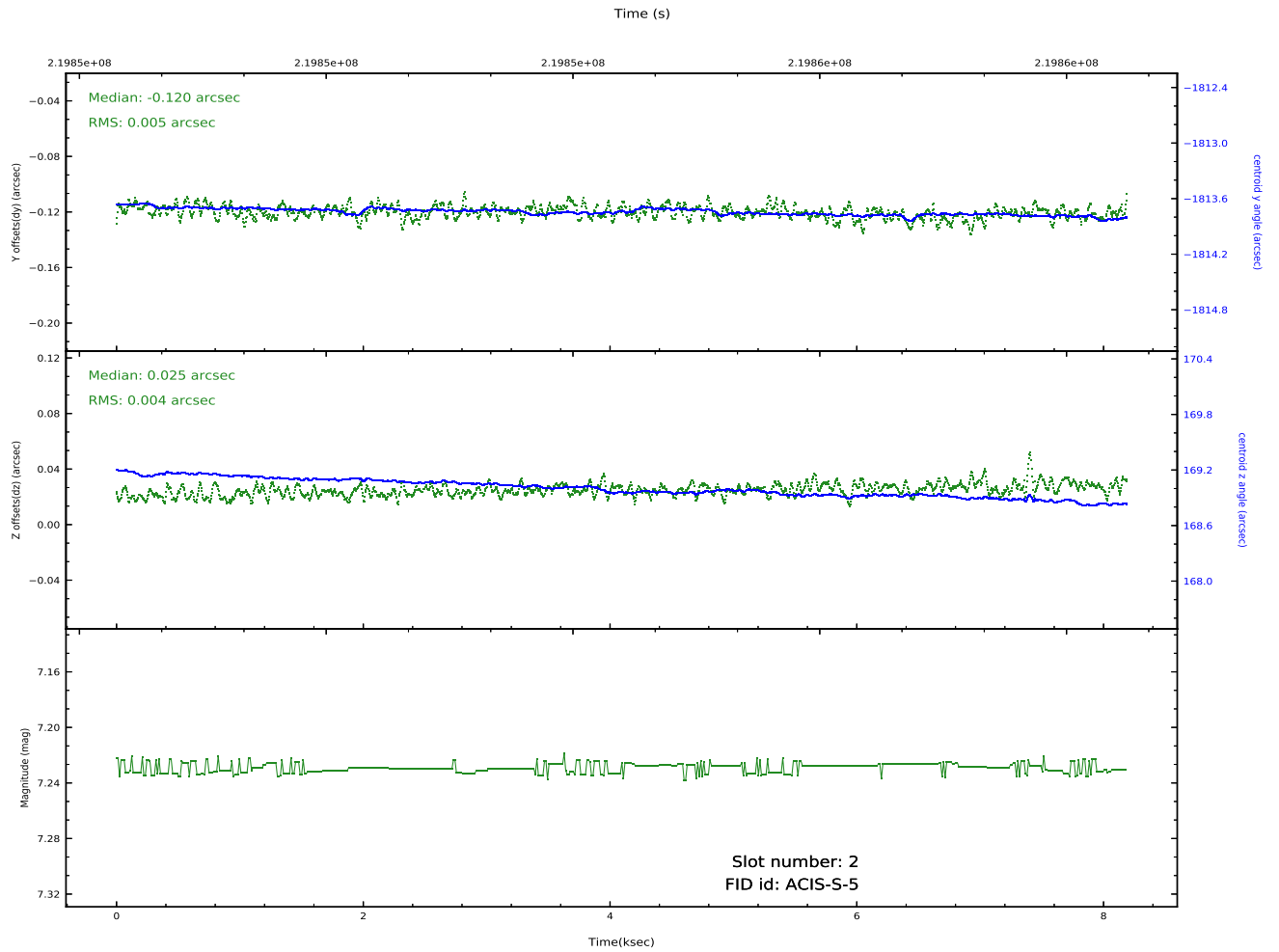
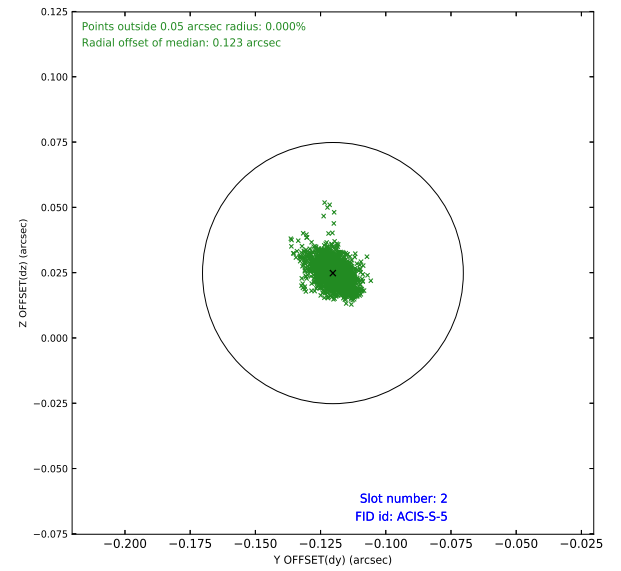
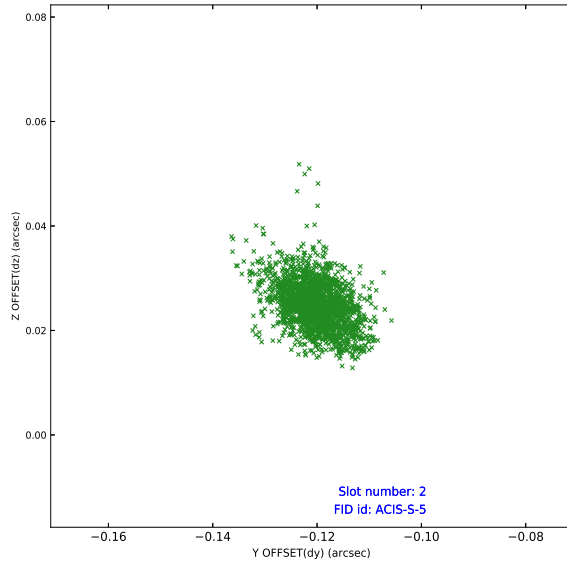
## 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.753599

### A.2 Comments

Window constraint satisfied.