

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6050 - L2 Version 4  
Chandra X-Ray Center

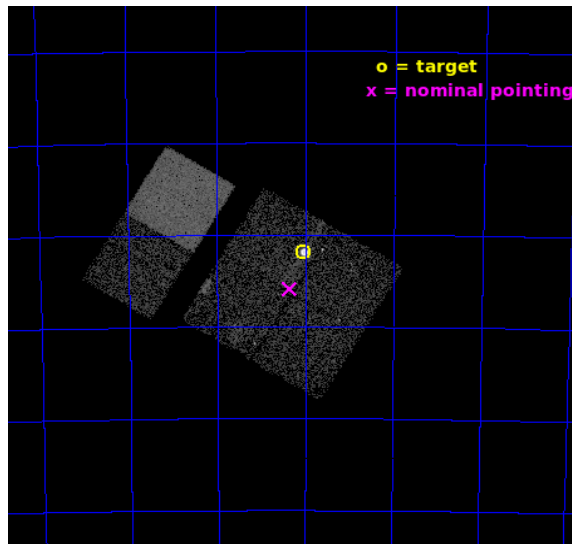
L2 Processing Date : Oct 5 2020

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# 1 Front

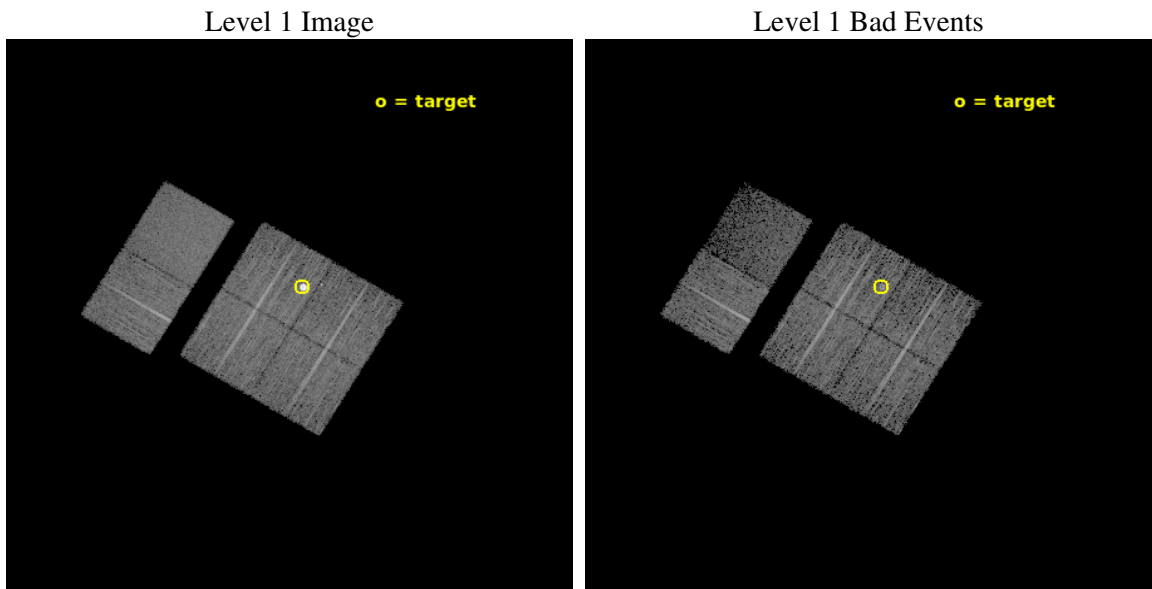
seq_num	590377	Sequence number
obs_id	6050	Observation id
title	AO6A ACIS-I Calibration Observations of E0102-72	Proposal title
observer	CXC Calibration	Principal investigator
object	E0102-72.3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.087306929713	Nominal RA [deg]
dec_nom	-72.097944639386	Nominal Dec [deg]
roll_nom	301.1247619009	Nominal Roll [deg]
revision	4	Processing version of data
ontime	7254.2894803584	Sum of GTIs [s]
livetime	7162.4312989494	Livetime [s]
ontime0	7254.166380316	Sum of GTIs [s]
ontime1	7250.9664101303	Sum of GTIs [s]
ontime2	7251.007509917	Sum of GTIs [s]
ontime3	7254.2894803584	Sum of GTIs [s]
ontime6	7254.3715803027	Sum of GTIs [s]
ontime7	7251.0895500779	Sum of GTIs [s]
l2events	62202	Number of level 2 events



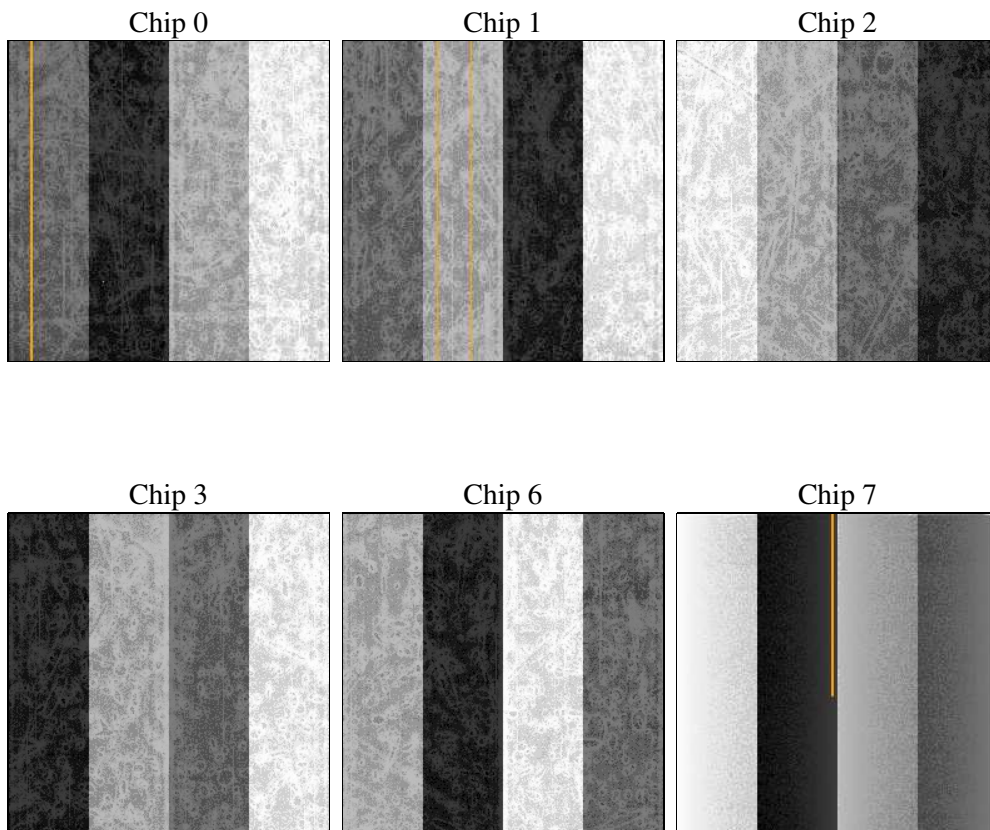
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	7254.2894803584	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime0	7254.166380316	Sum of GTIs [s]
date	2020-10-05T12:52:12	Date and time of file creation	ontime1	7250.9664101303	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	7251.007509917	Sum of GTIs [s]
			ontime3	7254.2894803584	Sum of GTIs [s]
			ontime6	7254.3715803027	Sum of GTIs [s]
			ontime7	7251.0895500779	Sum of GTIs [s]
			l1events	276943	Number of level 1 events

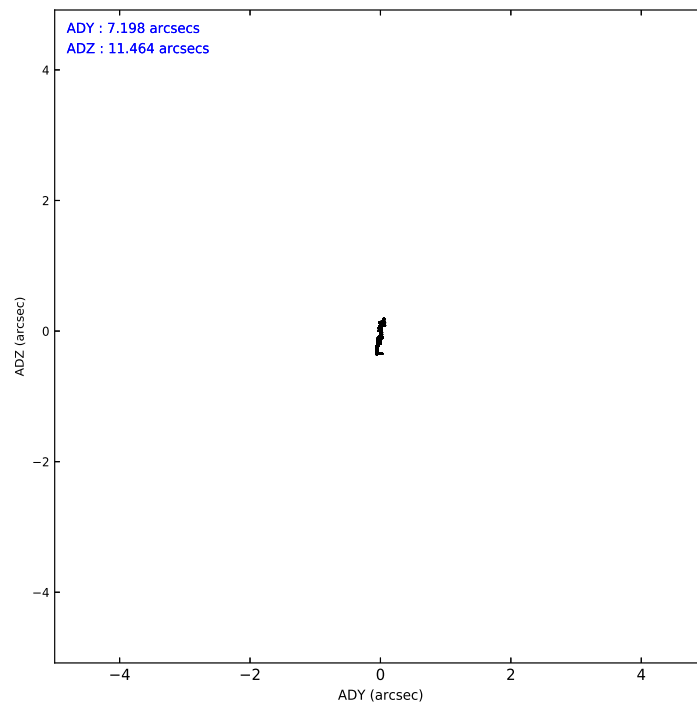
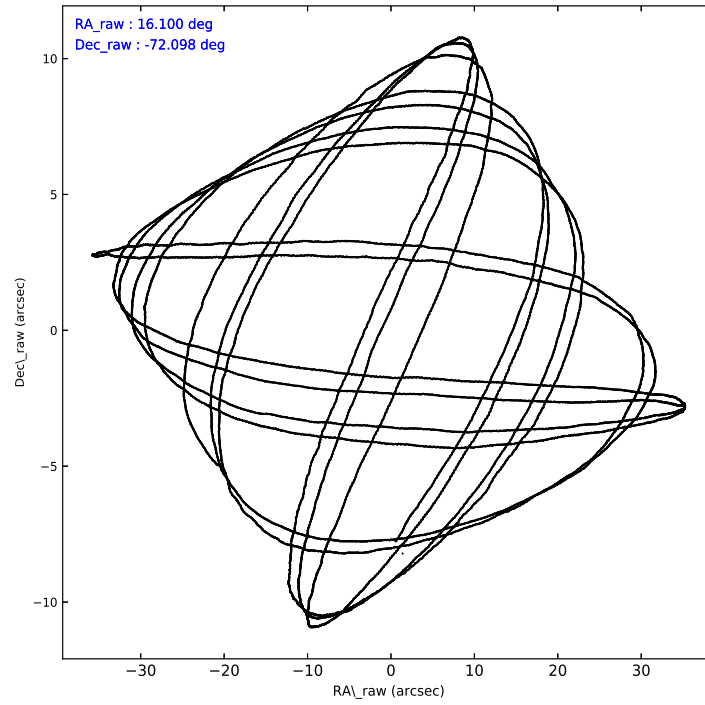
### 2.1.4 Events

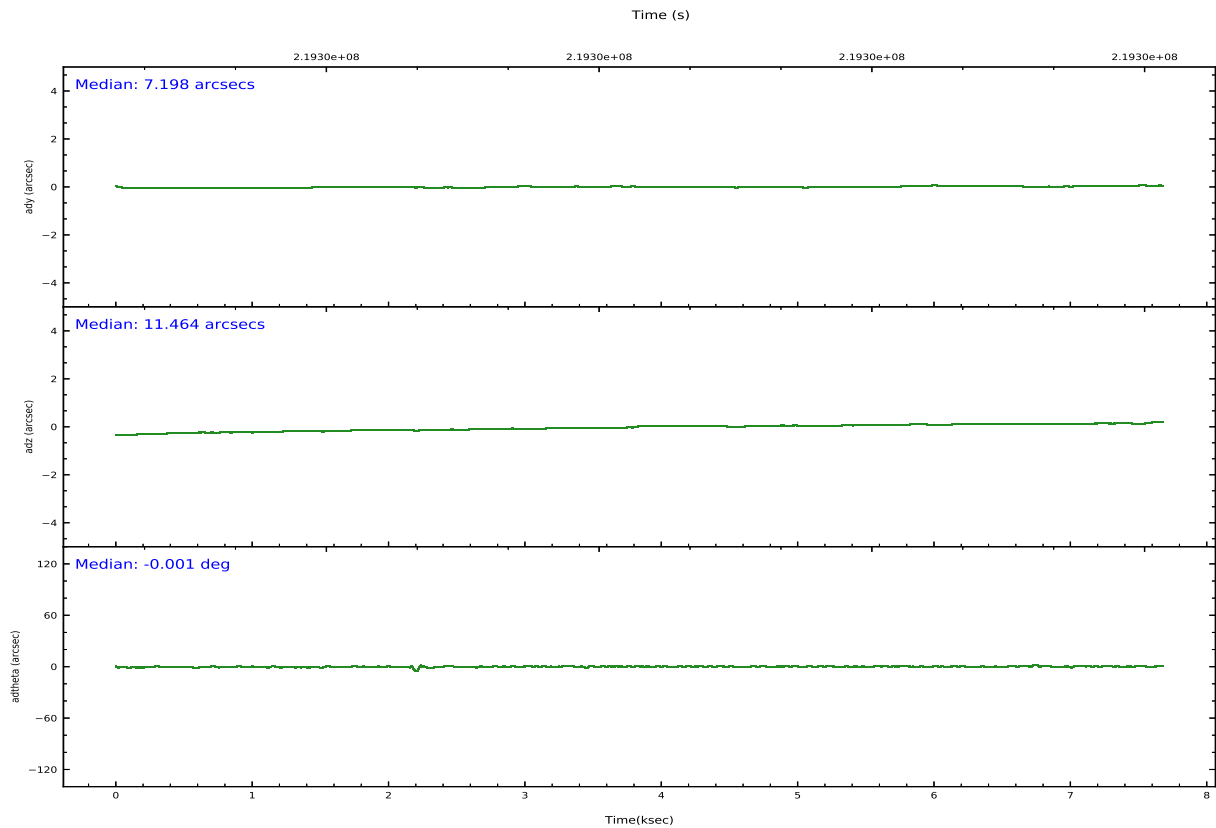
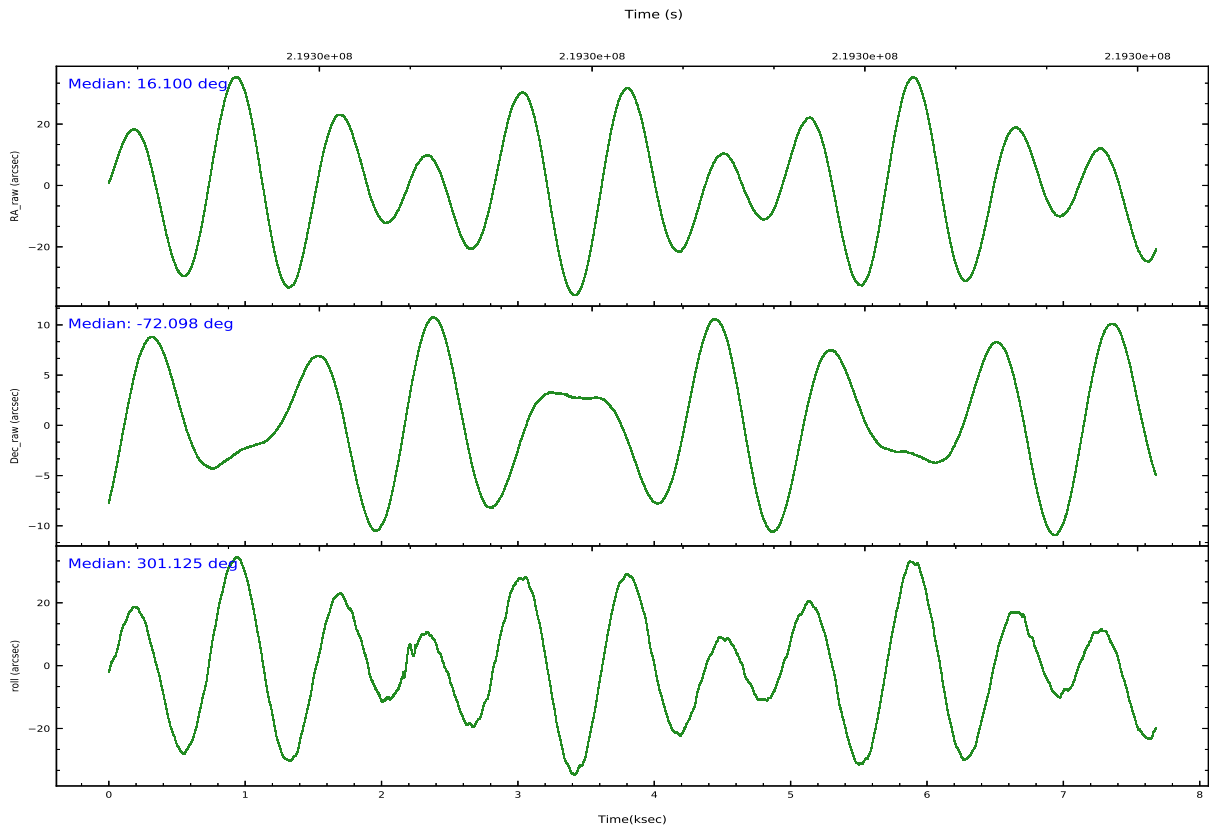
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	40744	40307	44546	65867	43787	41692	grade 0 events	1789	2147	2284	21417	1691	2203
rejected events	36307	35203	39704	39429	39396	20086		4%	5%	5%	32%	3%	5%
rejected %	89%	87%	89%	59%	89%	48%	grade 1 events	20	23	25	237	16	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	982	995	959	2463	877	4374
								2%	2%	2%	3%	2%	10%
							grade 3 events	460	566	444	906	532	2091
								1%	1%	0%	1%	1%	5%
							grade 4 events	462	507	479	804	447	2027
								1%	1%	1%	1%	1%	4%
							grade 5 events	1221	1277	1117	1463	1379	4299
								2%	3%	2%	2%	3%	10%
							grade 6 events	749	892	681	867	851	10930
								1%	2%	1%	1%	1%	26%
							grade 7 events	35061	33900	38557	37710	37994	15729
								86%	84%	86%	57%	86%	37%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	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	16.021896	16.087306929713	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.084970	-72.097944639386	Alternating exposures requested	N	N
[deg] Pointing Roll	300.849070	301.1247619009	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	215654464.184000	215654464.184000			
[s] Window stop time (MET)	220838464.184000	220838464.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	219296636.184000	219296259.52615			
Observation start date	2004-12-13T03:42:52	2004-12-13T03:37:39			
[s] Observation end time (MET)	219304136.184000	219304973.56404			
Observation end date	2004-12-13T05:47:52	2004-12-13T06:02:53			
Read mode	TIMED	TIMED			

## 2.3 Aspect





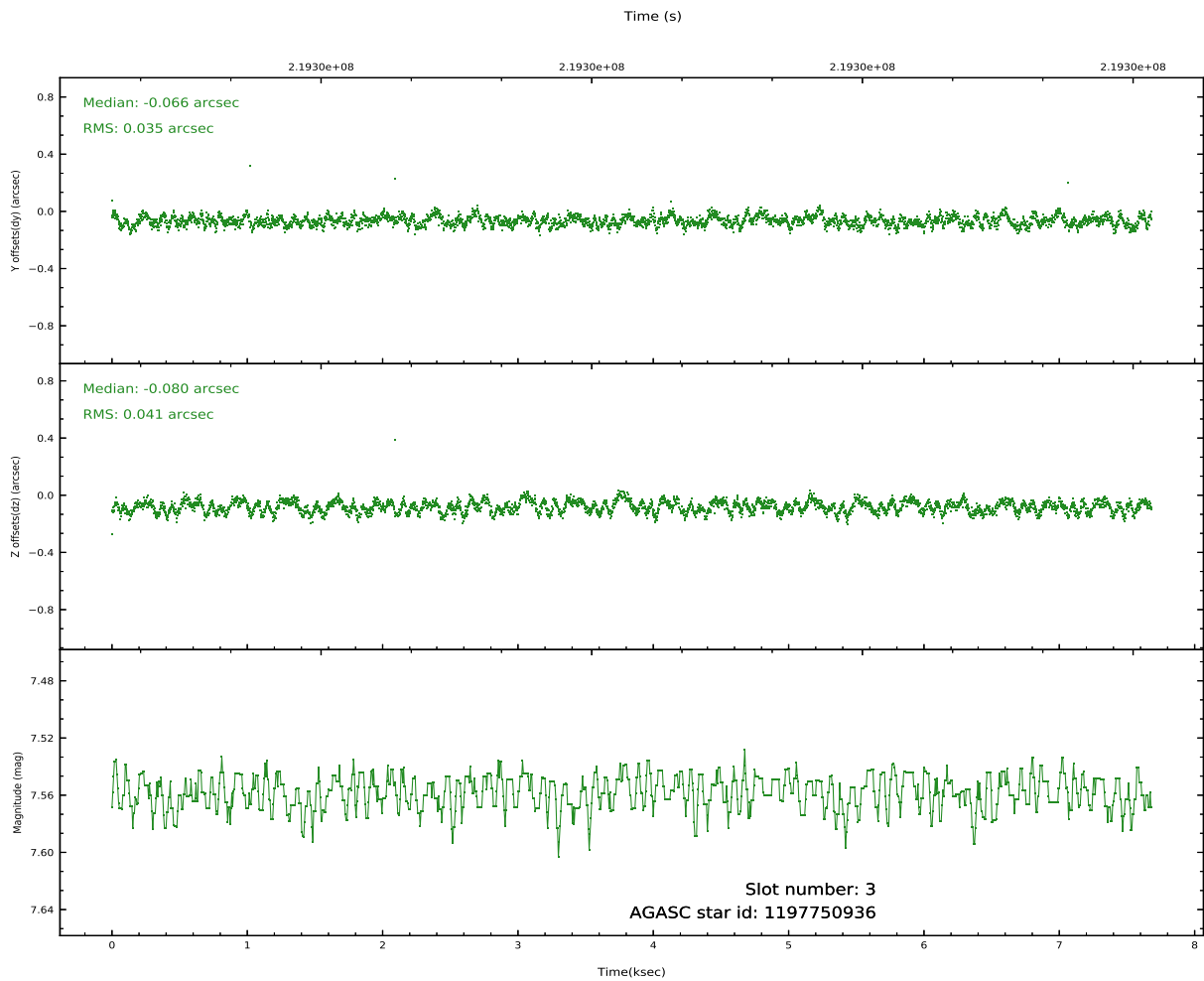
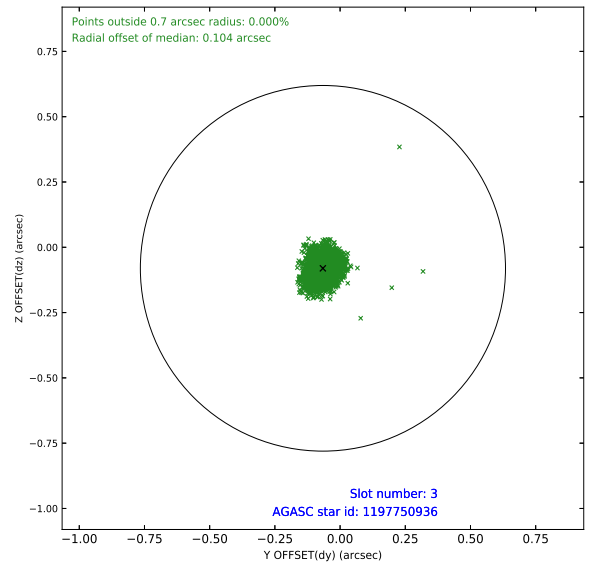
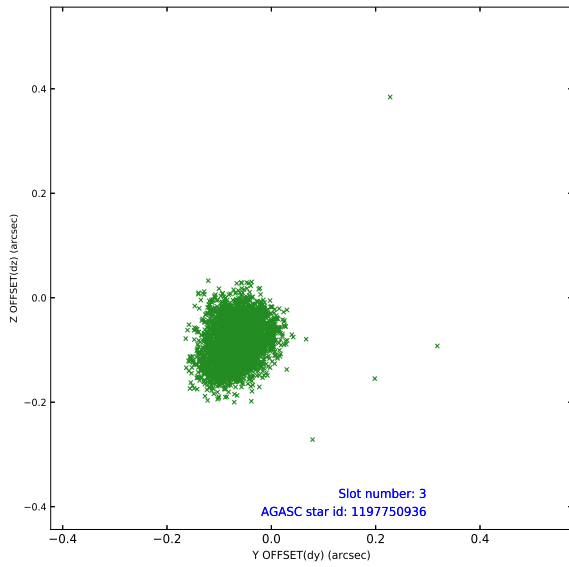
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.24	1873	1.000	0.053	-0.045	0.007	0.011	0.000000	0.000000	932.52	-834
1	FID		ACIS-I-5	7.23	1873	1.000	-0.209	0.052	0.007	0.012	0.000000	0.000000	-1815.41	1062
2	FID		ACIS-I-6	7.25	1873	1.000	0.065	0.063	0.008	0.013	0.000000	0.000000	397.31	1707
3	GUIDE	used	1197750936	7.56	3747	1.000	-0.066	-0.080	0.057	0.088	15.387940	-71.549550	-2021.36	365
4	GUIDE	used	1197884536	8.50	3747	1.000	0.071	0.060	0.067	0.109	17.160729	-71.835289	-106.24	1552
5	GUIDE	used	1197884712	8.30	3746	1.000	0.088	0.063	0.065	0.103	16.087398	-72.252690	555.86	-247
6	GUIDE	used	1197885328	7.23	3746	1.000	-0.012	-0.020	0.052	0.079	16.283090	-71.733943	-932.71	901
7	GUIDE	used	1198189696	7.37	3745	1.000	-0.075	-0.015	0.048	0.079	15.223750	-72.697522	1460.42	-1866

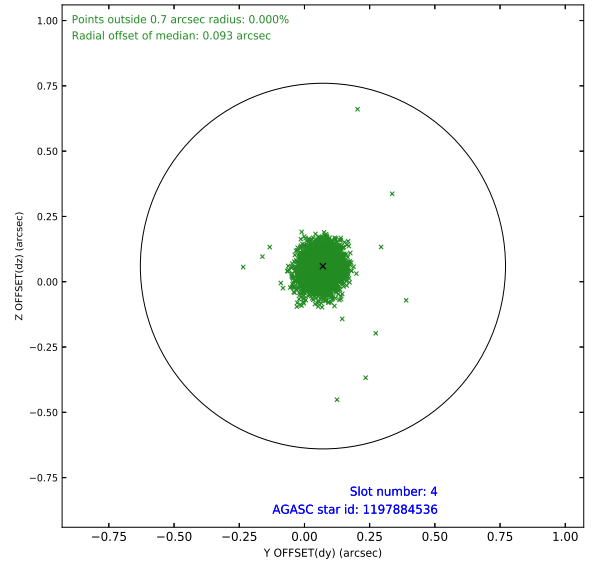
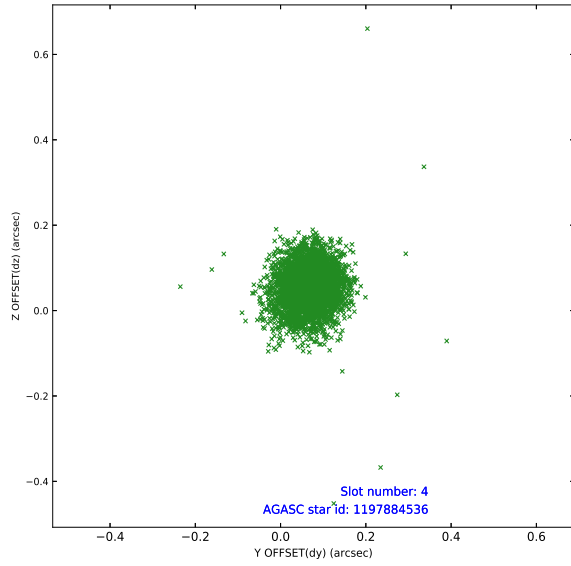
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## 2.4 Star Slots

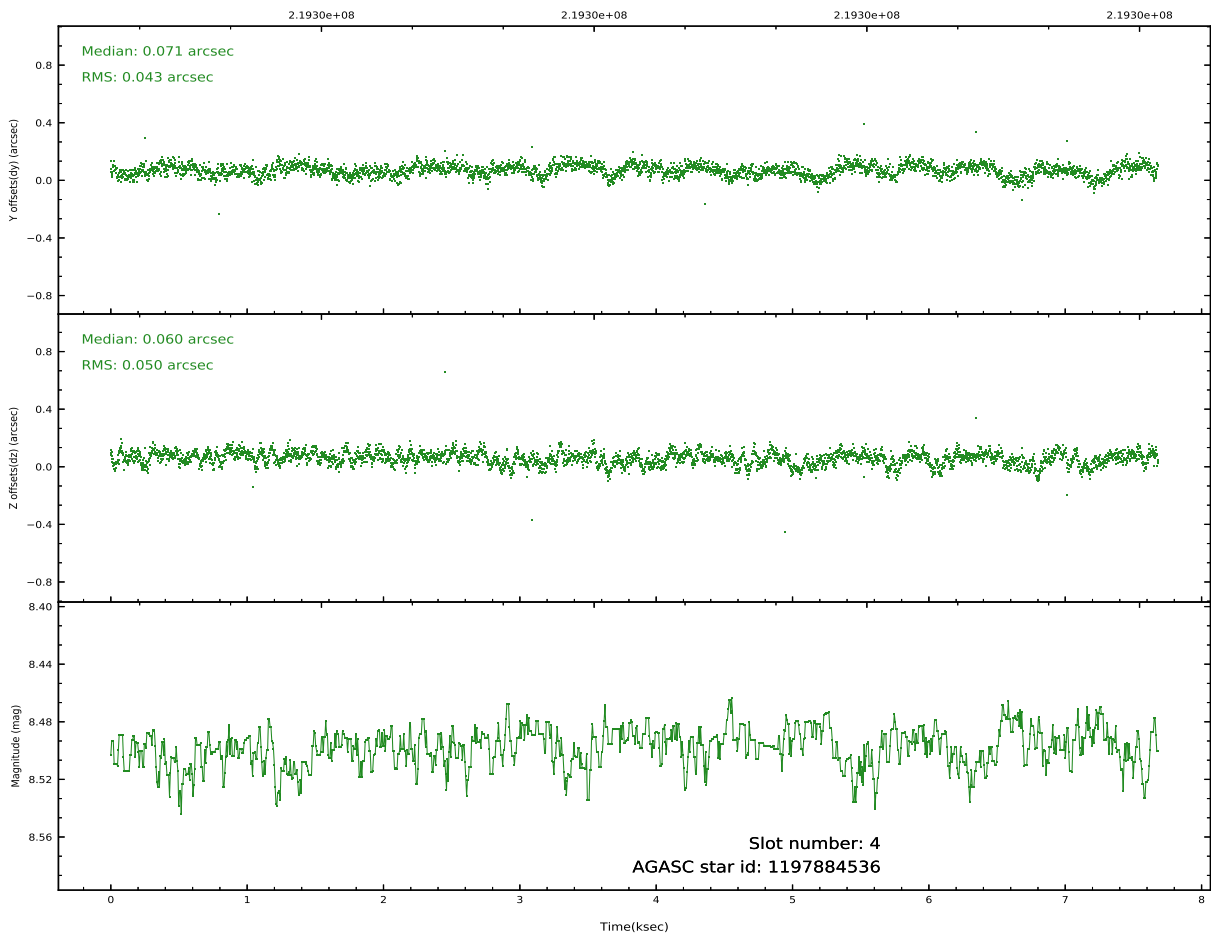
### 2.4.1 Slot 3



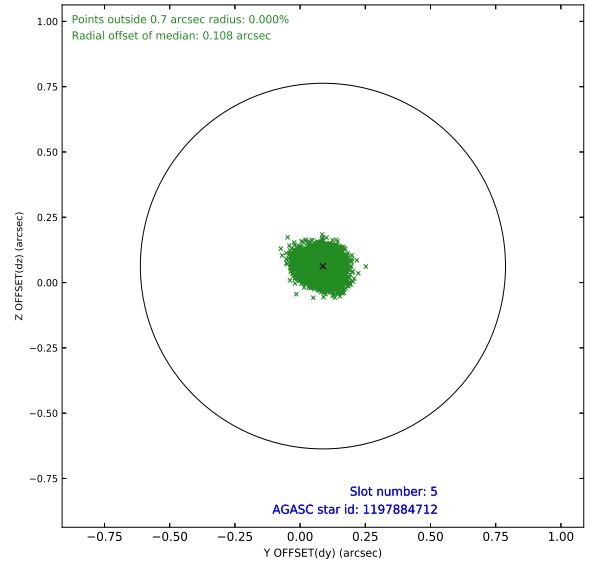
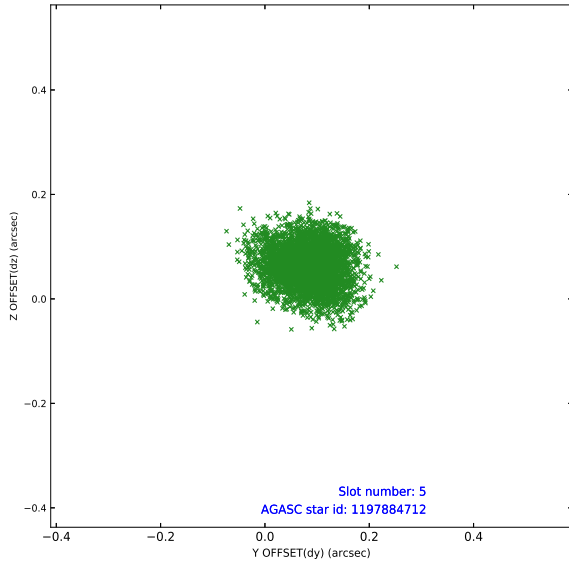
## 2.4.2 Slot 4



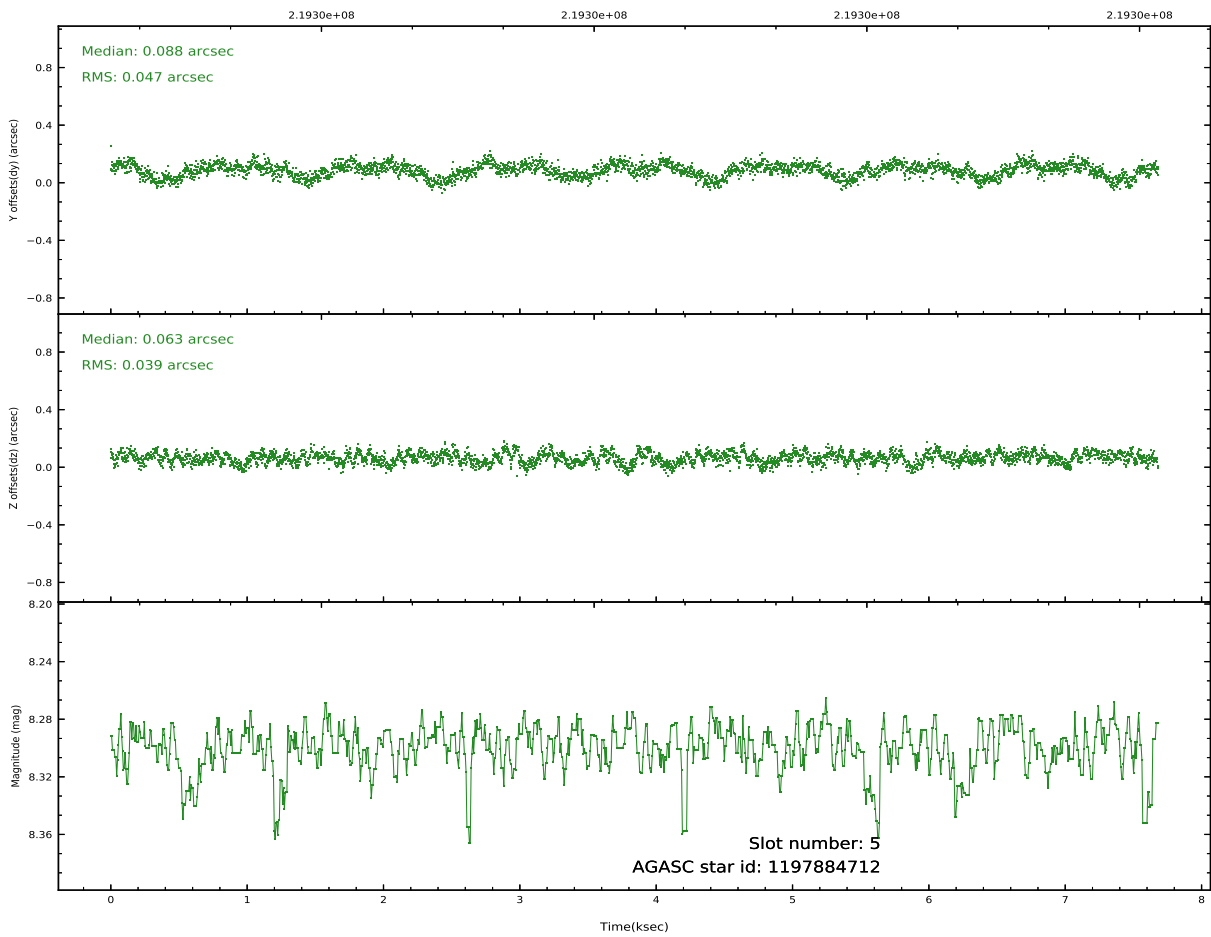
Time (s)



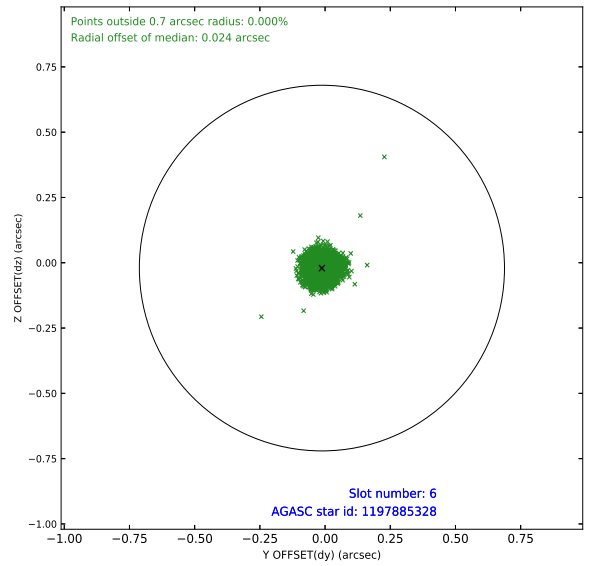
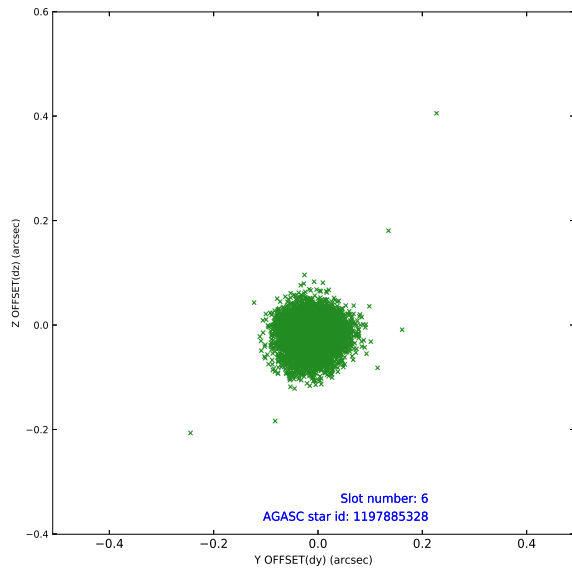
### 2.4.3 Slot 5



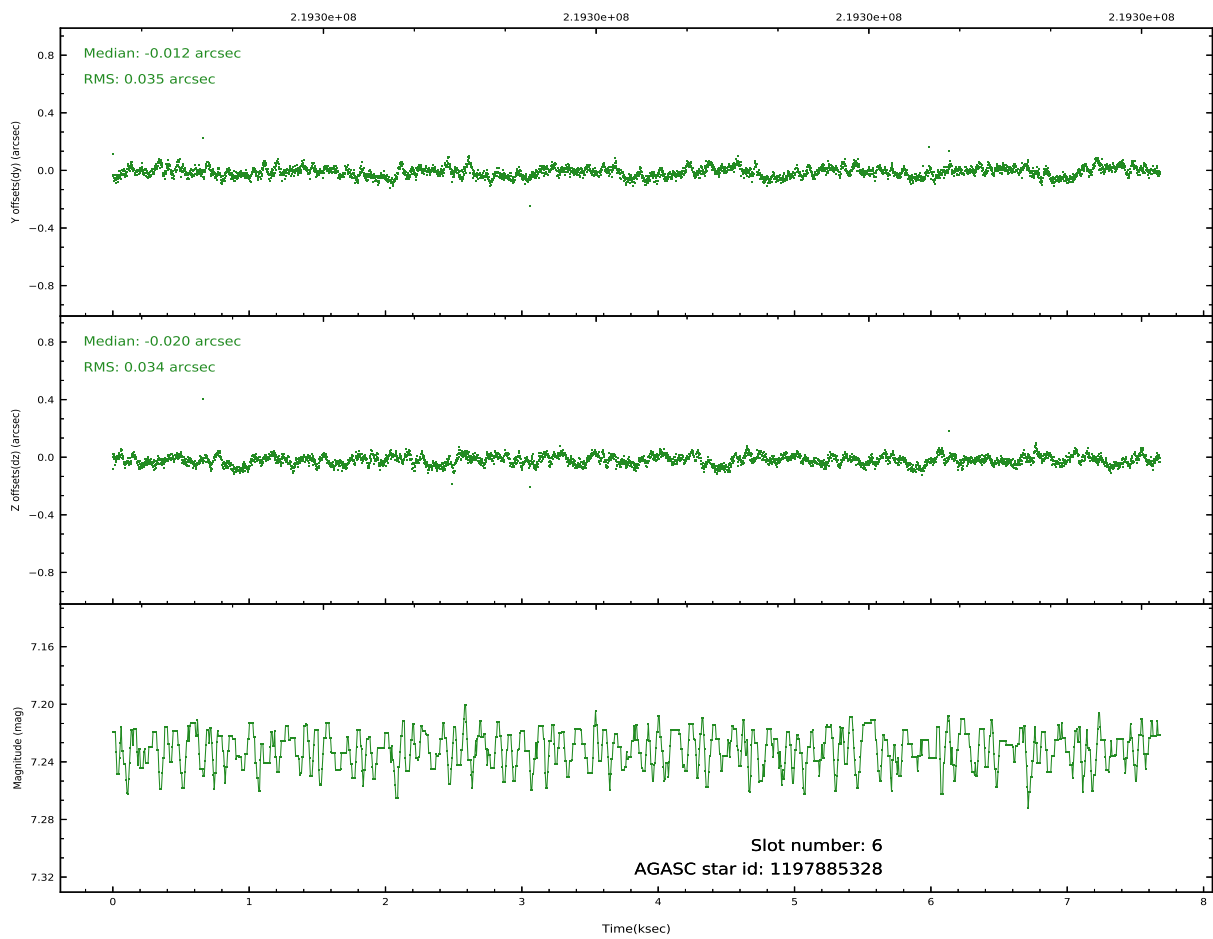
Time (s)



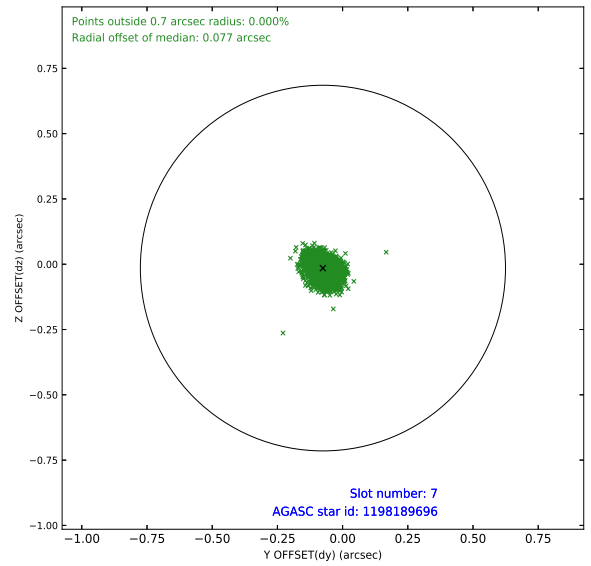
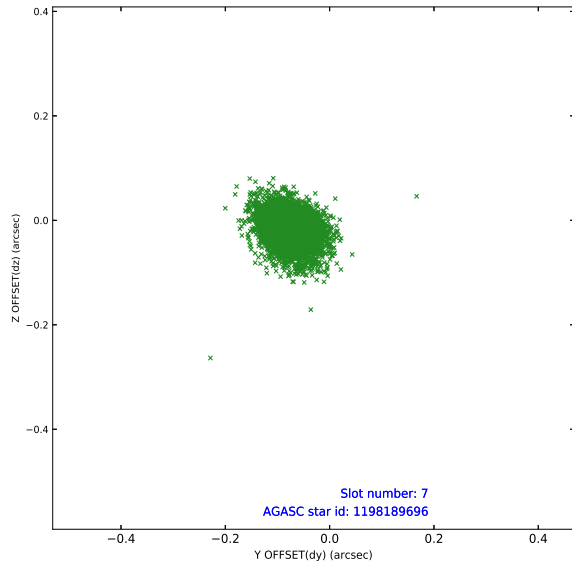
## 2.4.4 Slot 6



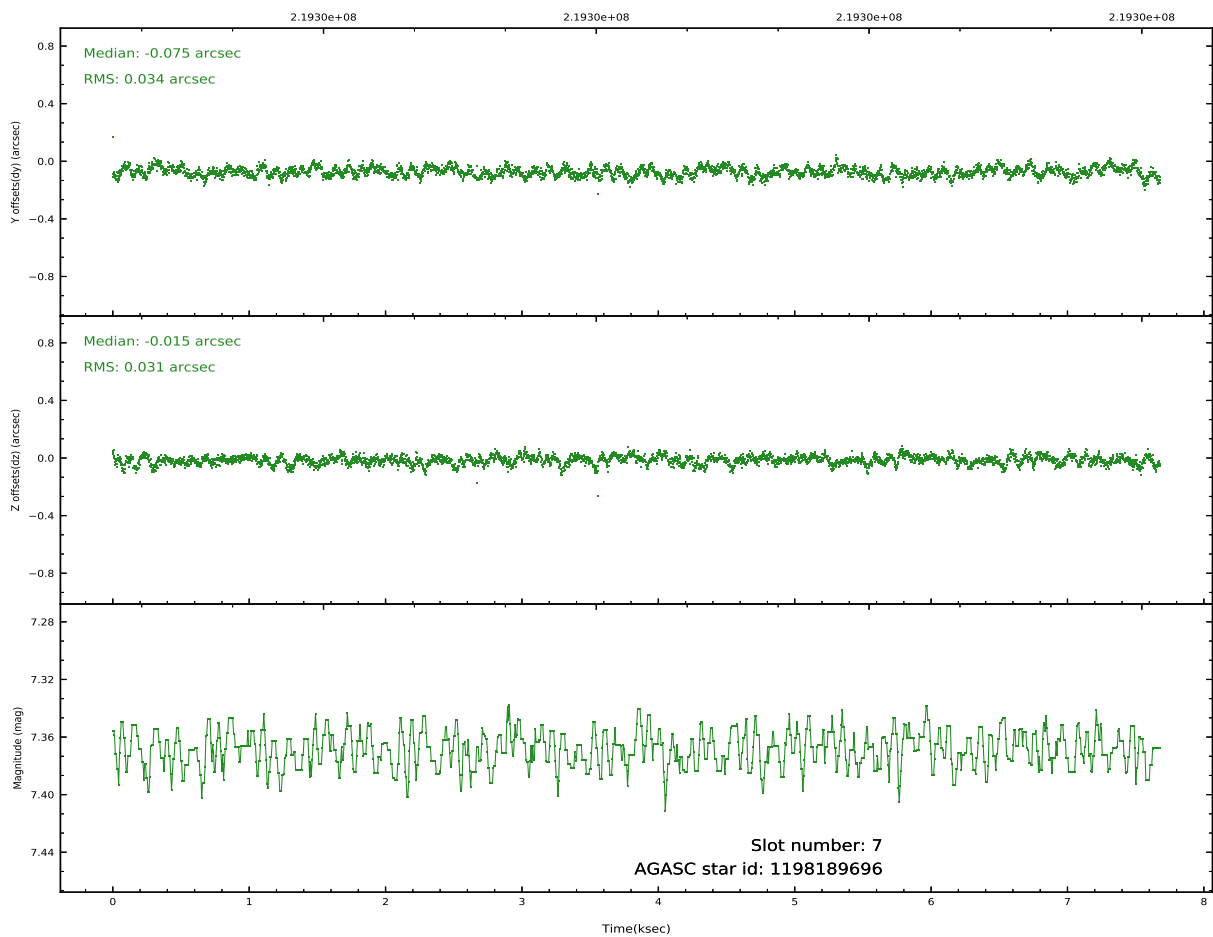
Time (s)



## 2.4.5 Slot 7

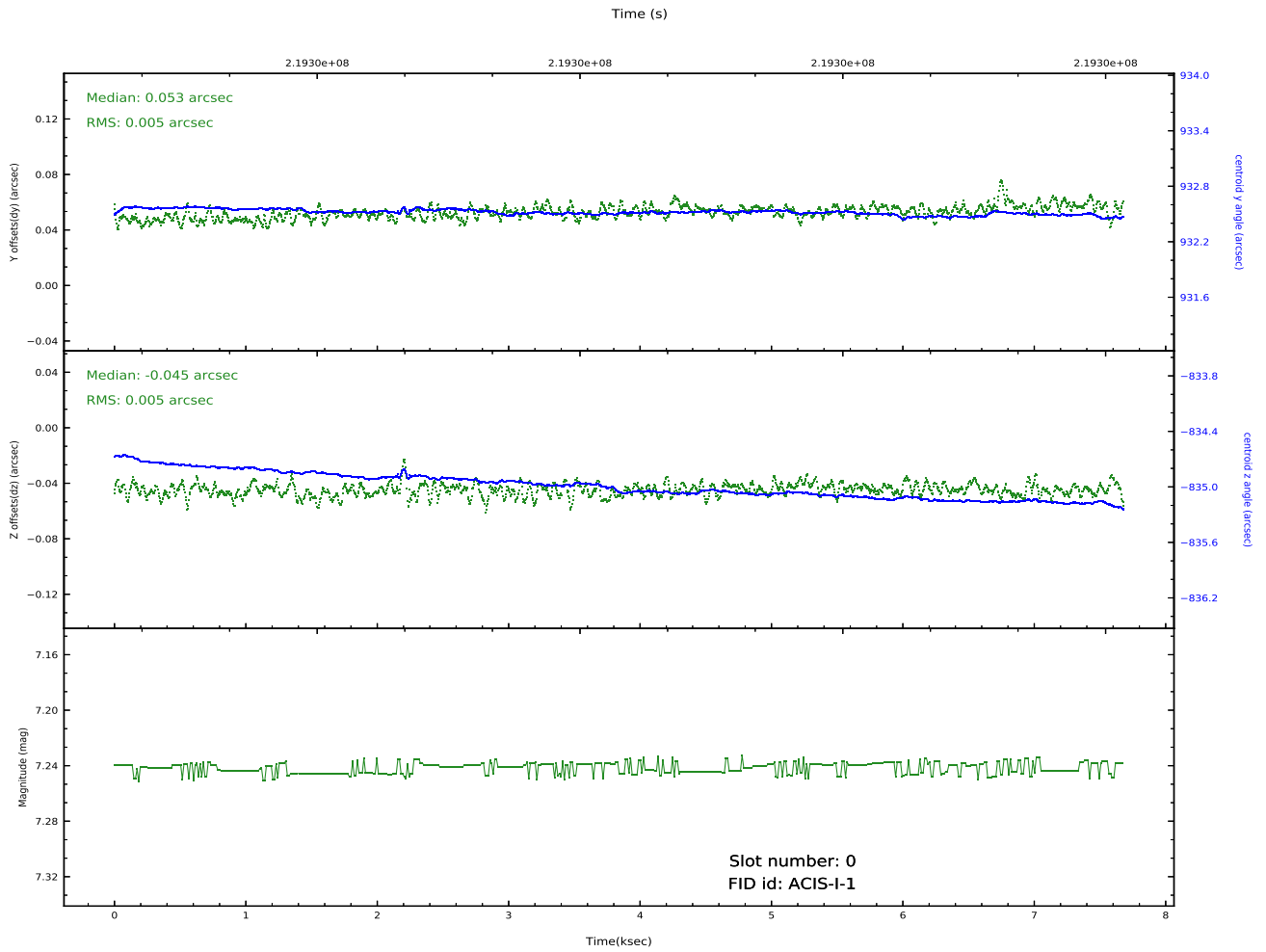
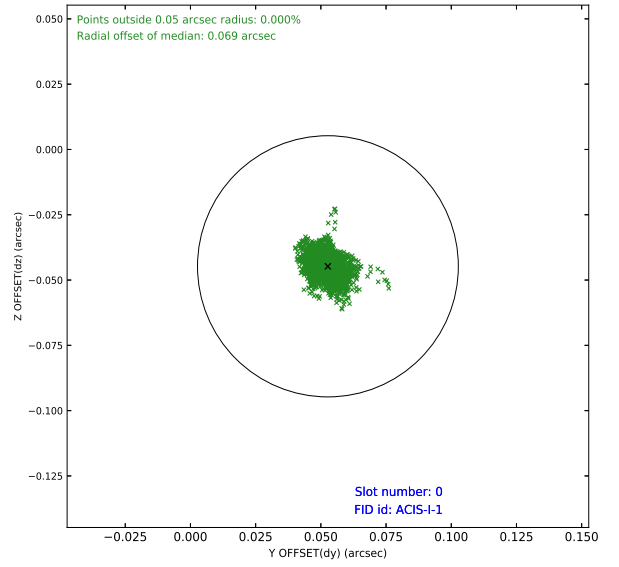
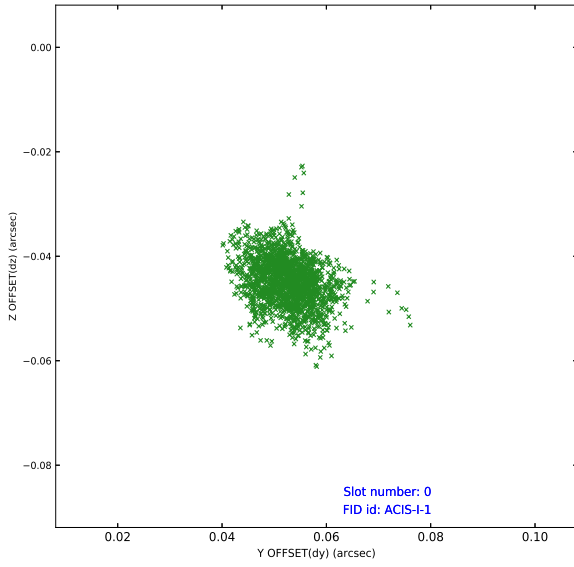


Time (s)

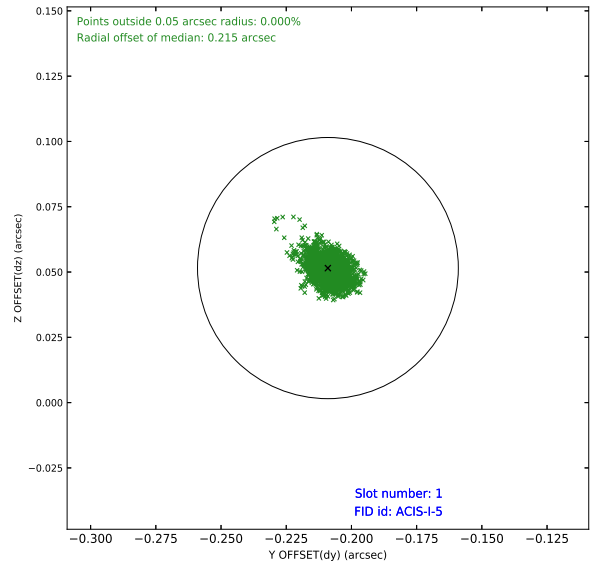
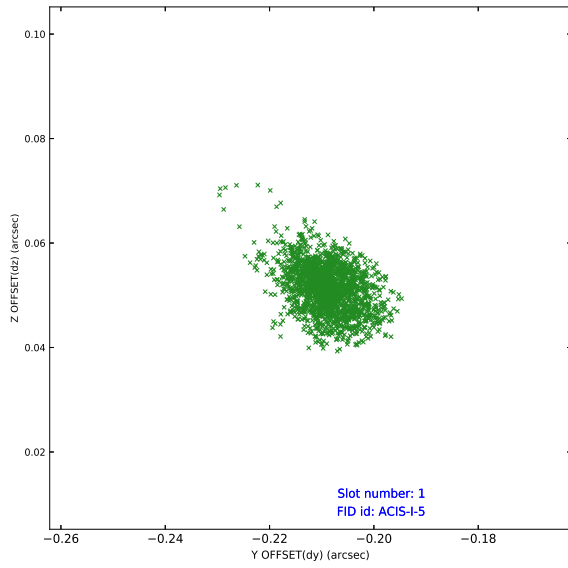


## 2.5 FID Slots

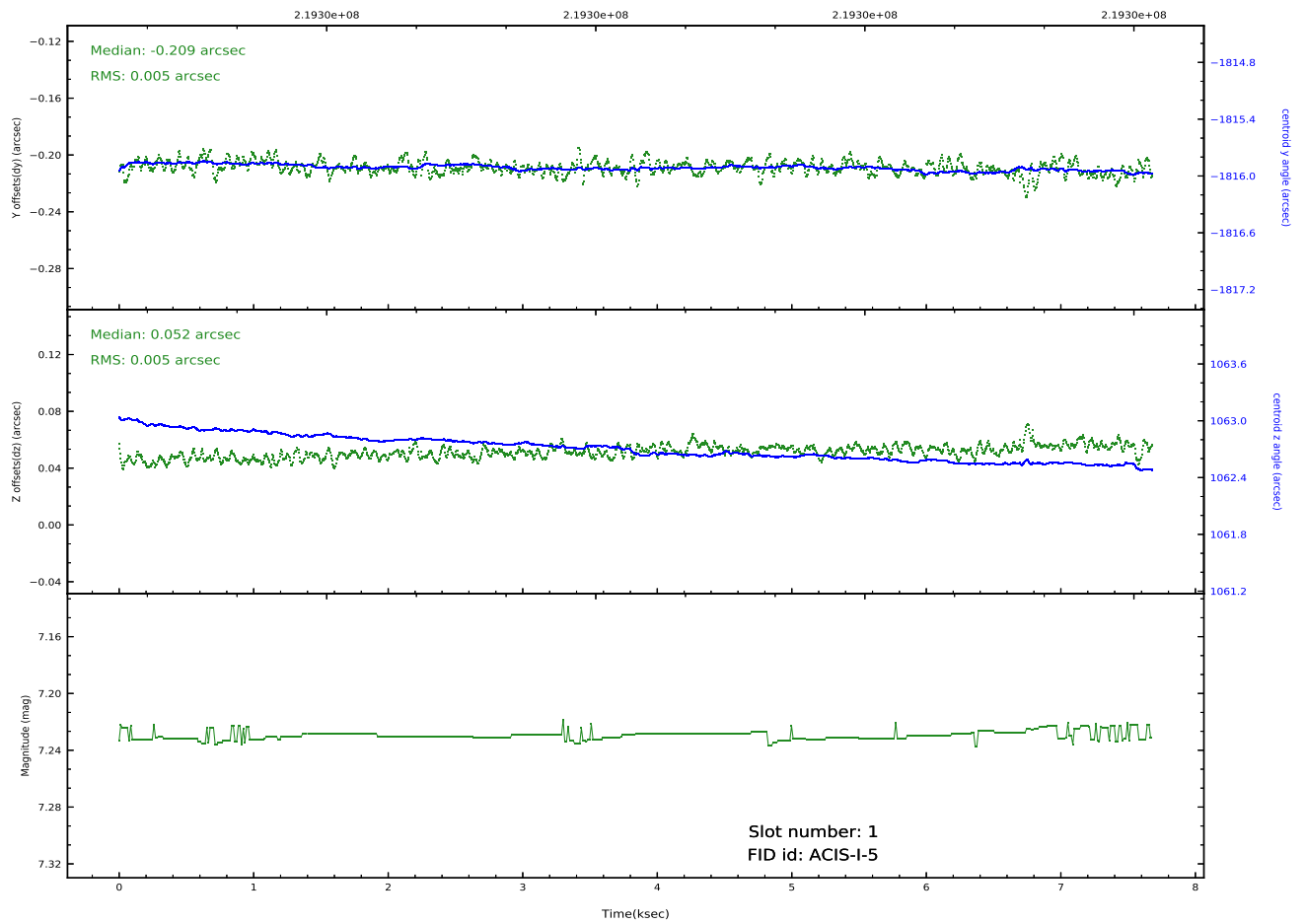
### 2.5.1 Slot 0



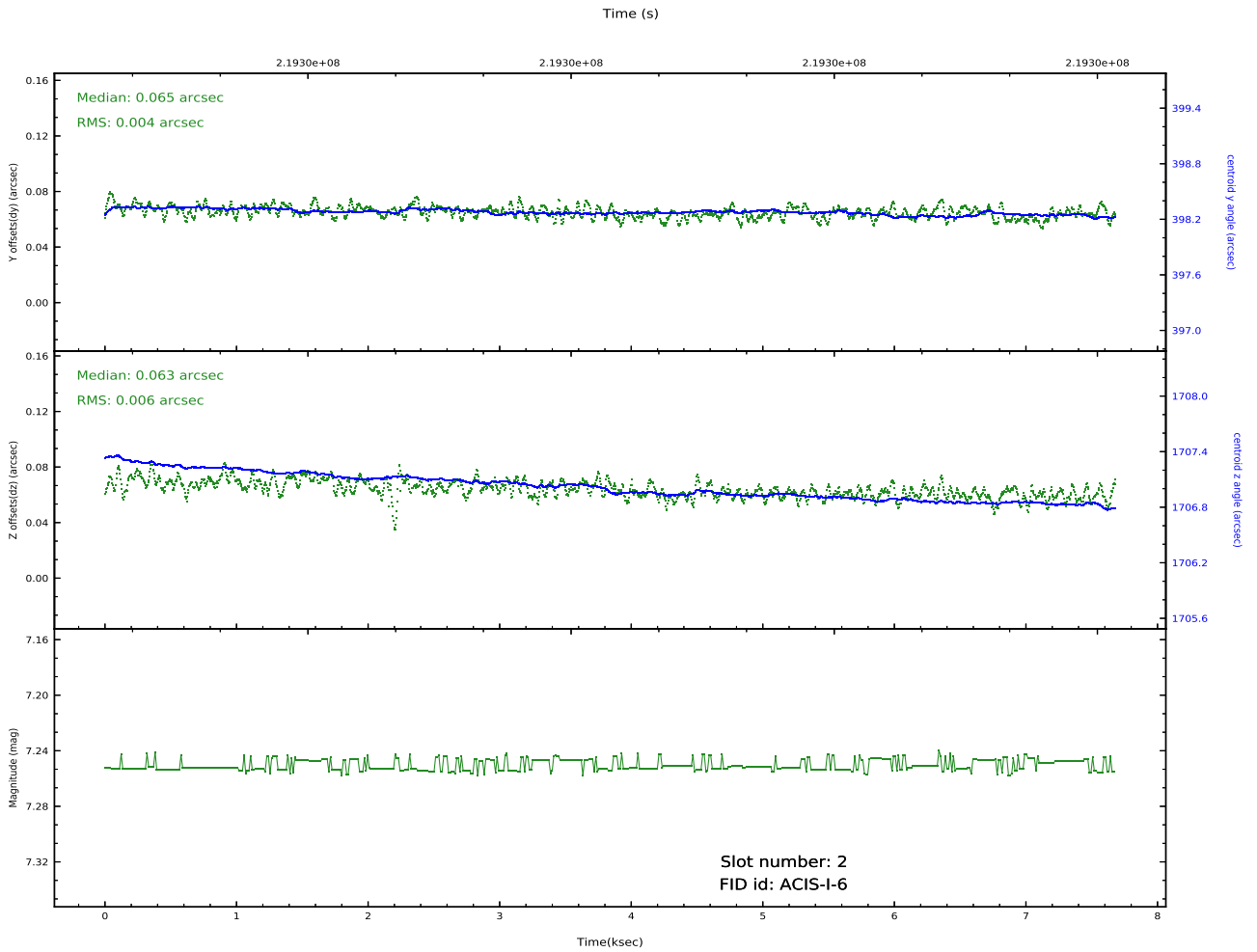
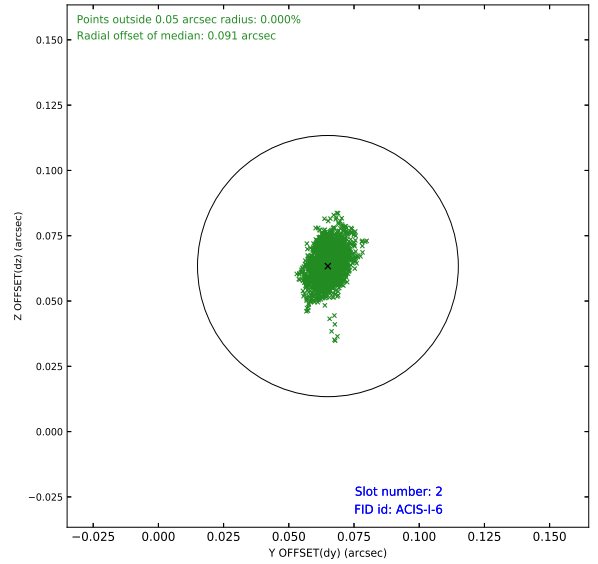
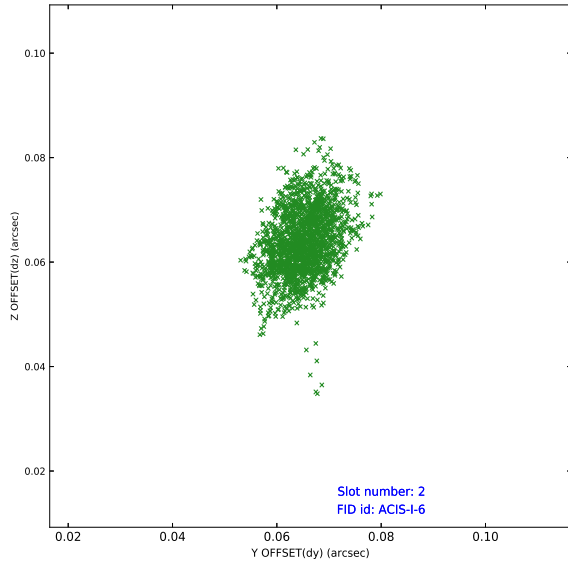
## 2.5.2 Slot 1



Time (s)



### 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	7.254399

## A.2 Comments

Window constraint satisfied.