

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4661 - L2 Version 4  
Chandra X-Ray Center

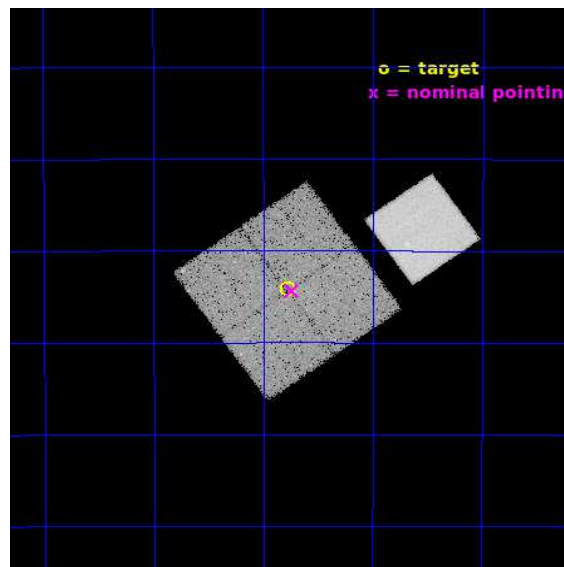
L2 Processing Date : Sep 27 2020

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# 1 Front

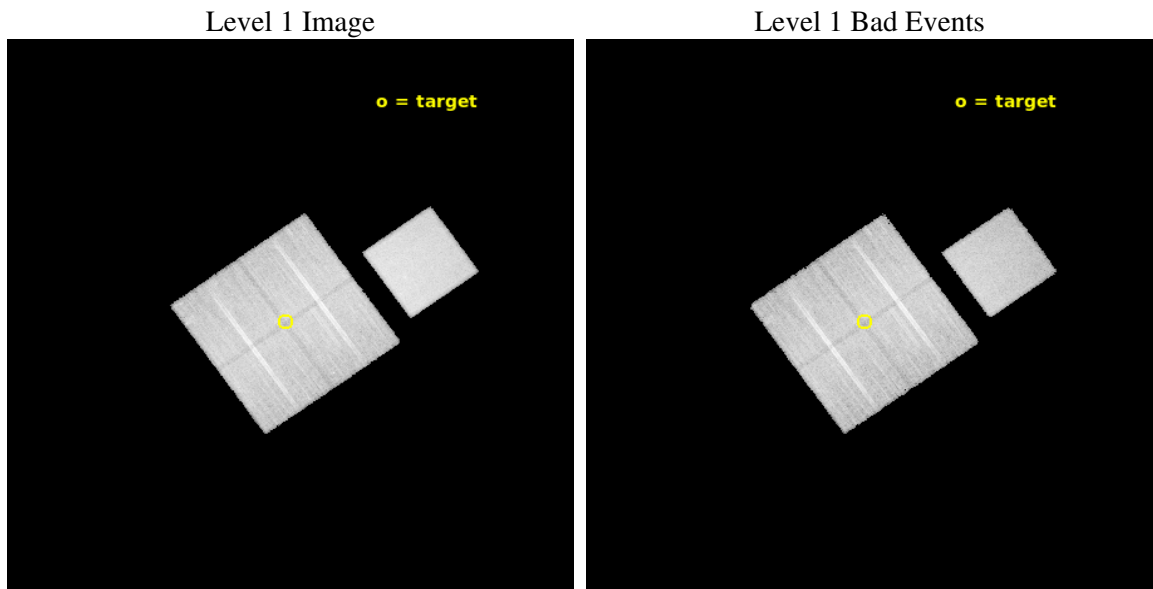
seq_num	500480	Sequence number
obs_id	4661	Observation id
title	The Energetics and Host Galaxies of X-Ray Flashes	Proposal title
observer	Prof. Derek Fox	Principal investigator
object	XRF040701	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	311.942917	Observer's specified target RA [deg]
dec_targ	-40.236944	Observer's specified target Dec [deg]
ra_nom	311.93434125525	Nominal RA [deg]
dec_nom	-40.239389890079	Nominal Dec [deg]
roll_nom	54.557153797559	Nominal Roll [deg]
revision	4	Processing version of data
ontime	20038.399961442	Sum of GTIs [s]
livetime	19776.58351389	Livetime [s]
ontime0	20035.258971184	Sum of GTIs [s]
ontime1	20032.117981046	Sum of GTIs [s]
ontime2	20038.399961442	Sum of GTIs [s]
ontime3	20038.399961442	Sum of GTIs [s]
ontime7	20038.399961442	Sum of GTIs [s]
l2events	145736	Number of level 2 events



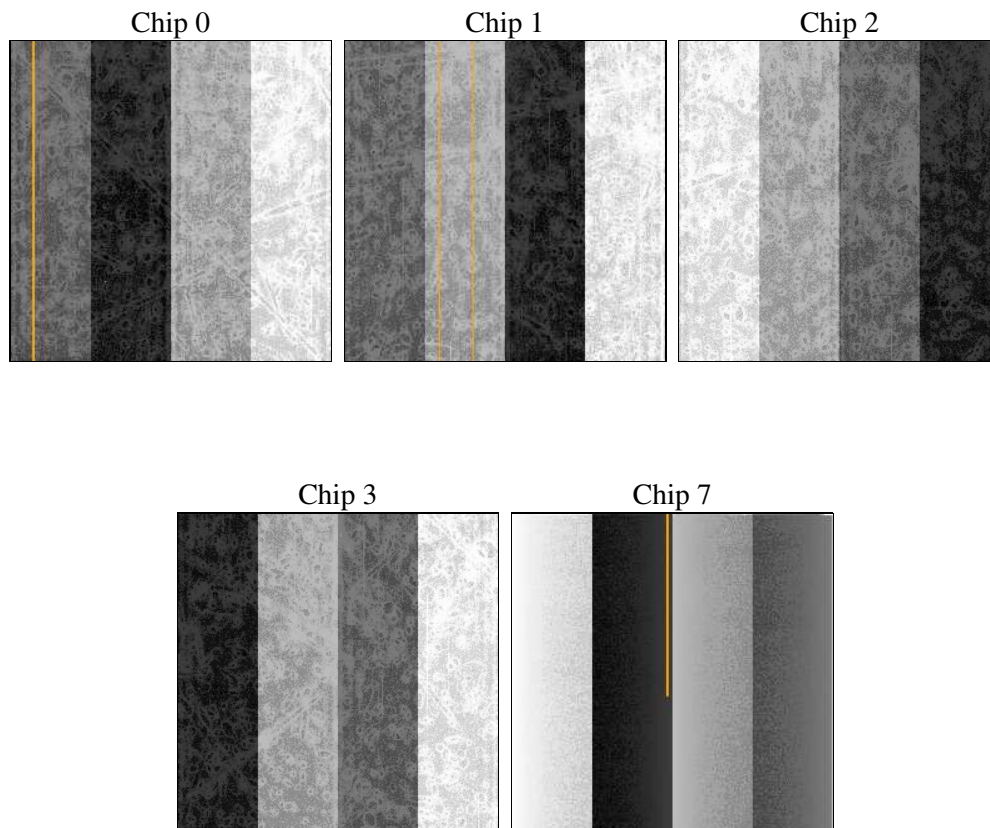
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	20038.399961442	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime0	20035.258971184	Sum of GTIs [s]
date	2020-09-27T03:43:10	Date and time of file creation	ontime1	20032.117981046	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	20038.399961442	Sum of GTIs [s]
			ontime3	20038.399961442	Sum of GTIs [s]
			ontime7	20038.399961442	Sum of GTIs [s]
			l1events	800755	Number of level 1 events

### 2.1.4 Events

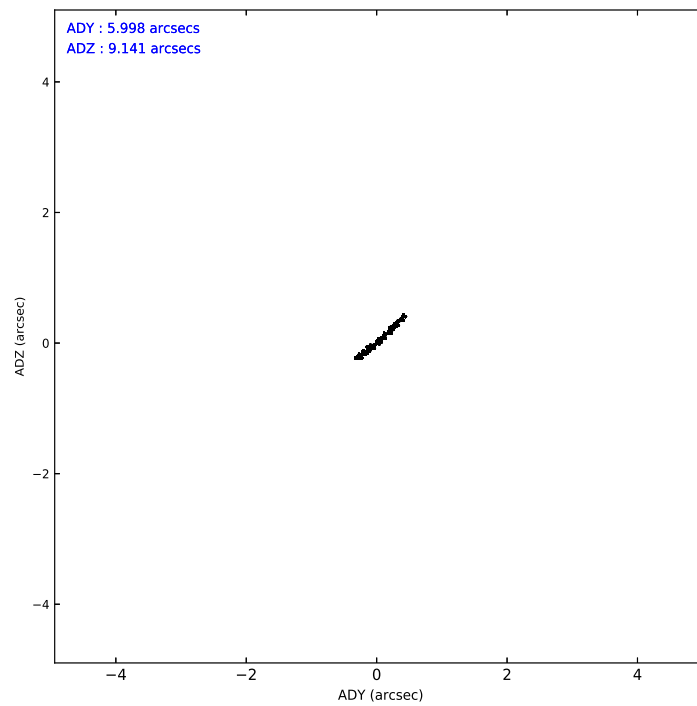
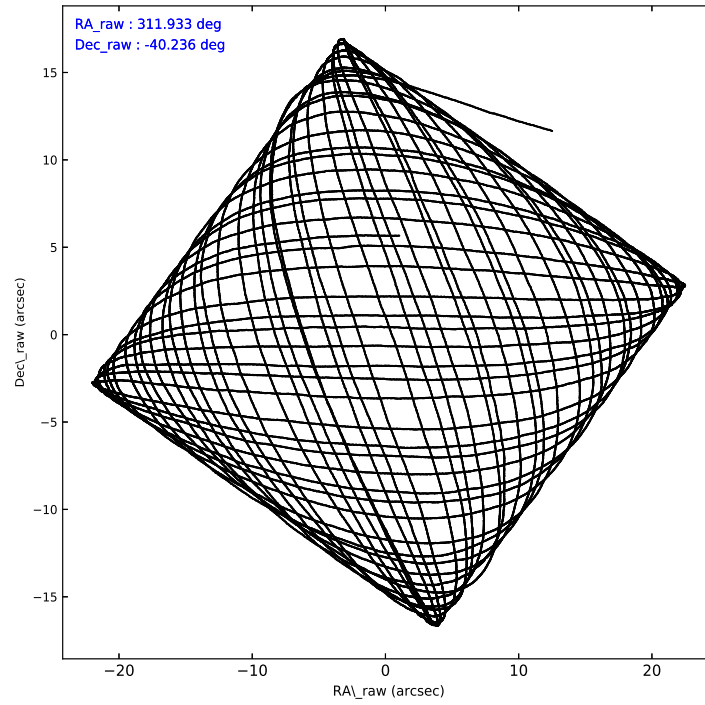
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	143109	144621	152120	153141	207764
rejected events	124327	125079	134064	135192	122894
rejected %	86%	86%	88%	88%	59%

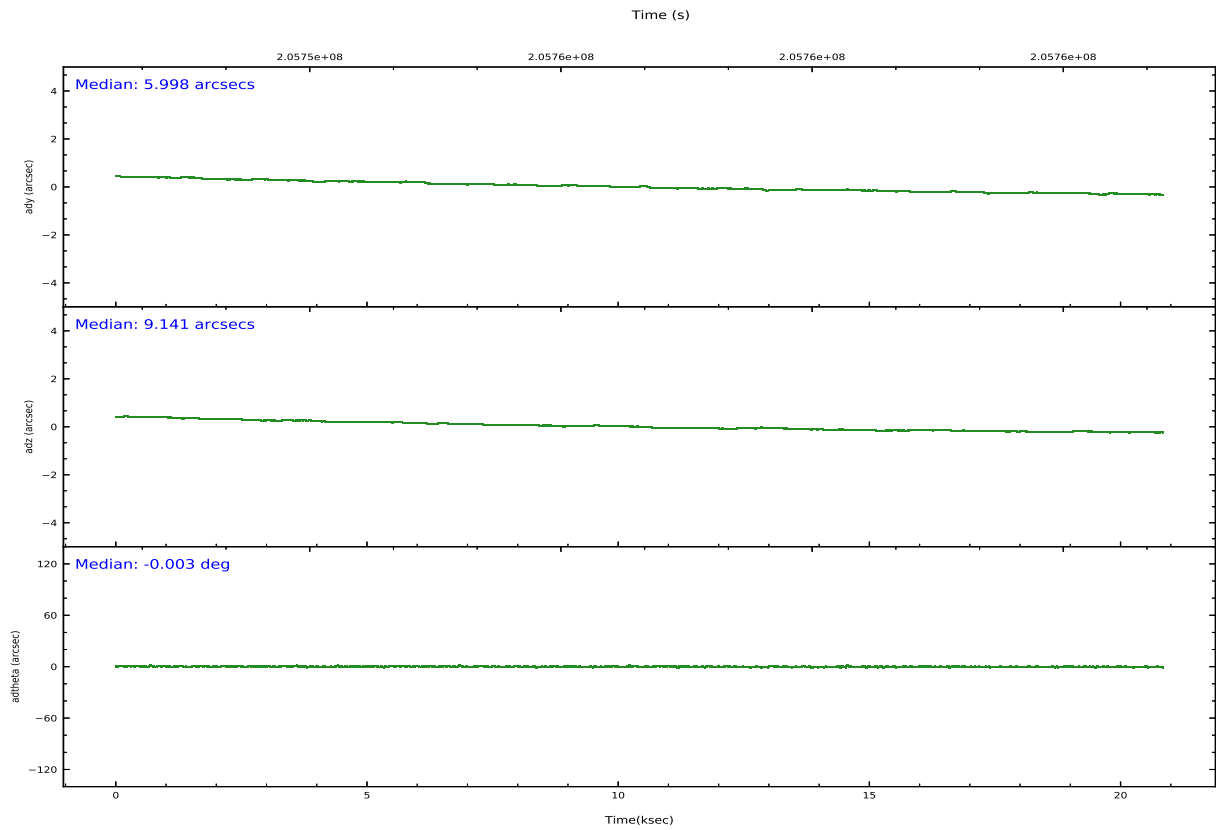
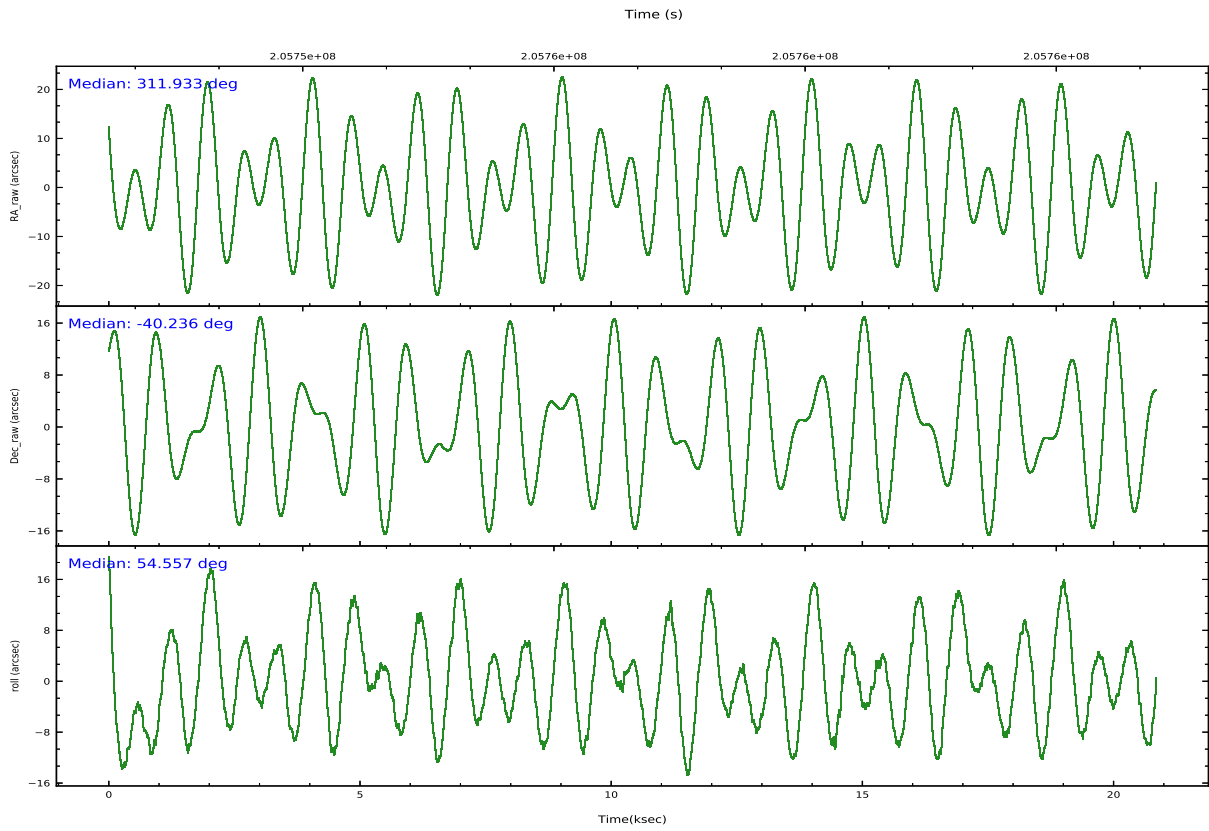
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	8270	7766	7944	7857	7619
	5%	5%	5%	5%	3%
grade 1 events	89	71	80	96	221
	0%	0%	0%	0%	0%
grade 2 events	3811	4154	3738	3478	16925
	2%	2%	2%	2%	8%
grade 3 events	1785	1972	1761	1765	7397
	1%	1%	1%	1%	3%
grade 4 events	1723	1884	1636	1733	7544
	1%	1%	1%	1%	3%
grade 5 events	6374	6530	6029	6796	19852
	4%	4%	3%	4%	9%
grade 6 events	3193	3768	2980	3119	45391
	2%	2%	1%	2%	21%
grade 7 events	117864	118476	127952	128297	102815
	82%	81%	84%	83%	49%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01237	ACIS-01237	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	311.929590	311.93434125525	Subarray requested	NONE	NONE
[deg] Pointing Dec	-40.263699	-40.239389890079	Alternating exposures requested	N	N
[deg] Pointing Roll	54.345333	54.557153797559	[s] Primary exposure time	0.000000	3.1
[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)	205746987.184000	205745727.1458			
Observation start date	2004-07-09T07:55:23	2004-07-09T07:35:27			
[s] Observation end time (MET)	205766987.184000	205767997.83429			
Observation end date	2004-07-09T13:28:43	2004-07-09T13:46:37			
Read mode	TIMED	TIMED			

## 2.3 Aspect





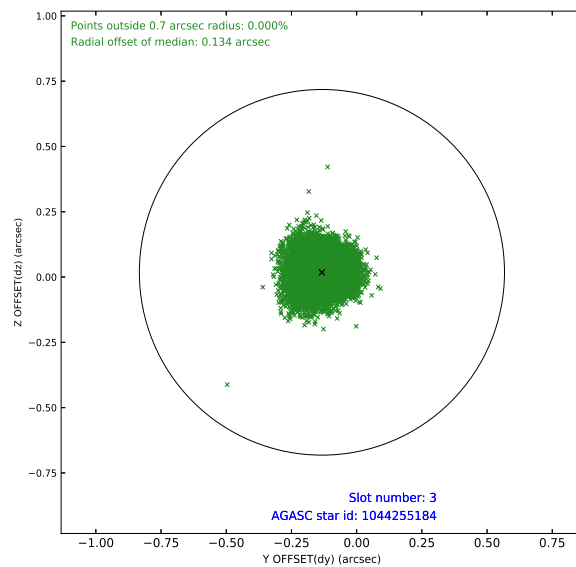
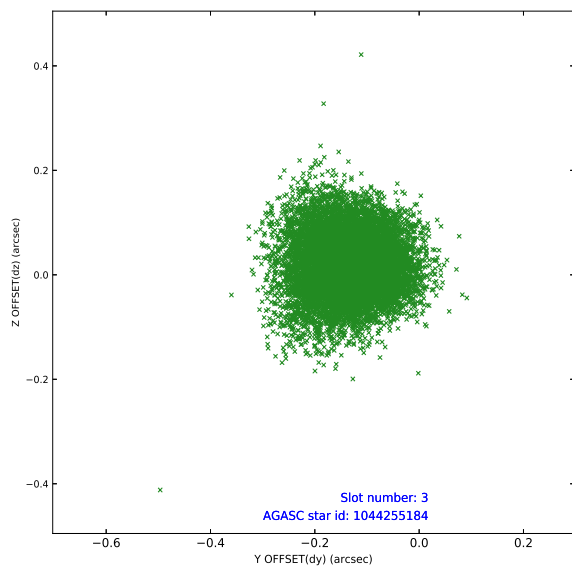
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	5085	1.000	-0.000	0.026	0.009	0.014	0.000000	0.000000	933.71	-832
1	FID		ACIS-I-5	7.23	5084	1.000	-0.175	0.018	0.011	0.017	0.000000	0.000000	-1814.51	1064
2	FID		ACIS-I-6	7.25	5085	1.000	0.084	0.026	0.008	0.013	0.000000	0.000000	399.11	1709
3	GUIDE	used	1044255184	9.06	10167	1.000	-0.133	0.018	0.091	0.145	311.605440	-39.616248	1368.49	2088
4	GUIDE	used	1044255360	9.58	10150	1.000	0.036	-0.110	0.104	0.169	311.423305	-40.509527	-1529.76	608
5	GUIDE	used	1044260200	7.39	10170	1.000	0.008	-0.134	0.059	0.092	312.080069	-40.001195	1009.44	213
6	GUIDE	used	1044260208	9.18	10135	1.000	0.075	0.080	0.086	0.141	311.587523	-40.801920	-2118.86	-372
7	GUIDE	used	1044260432	9.88	10154	1.000	0.013	0.150	0.136	0.217	312.352537	-40.981173	-1430.94	-2441

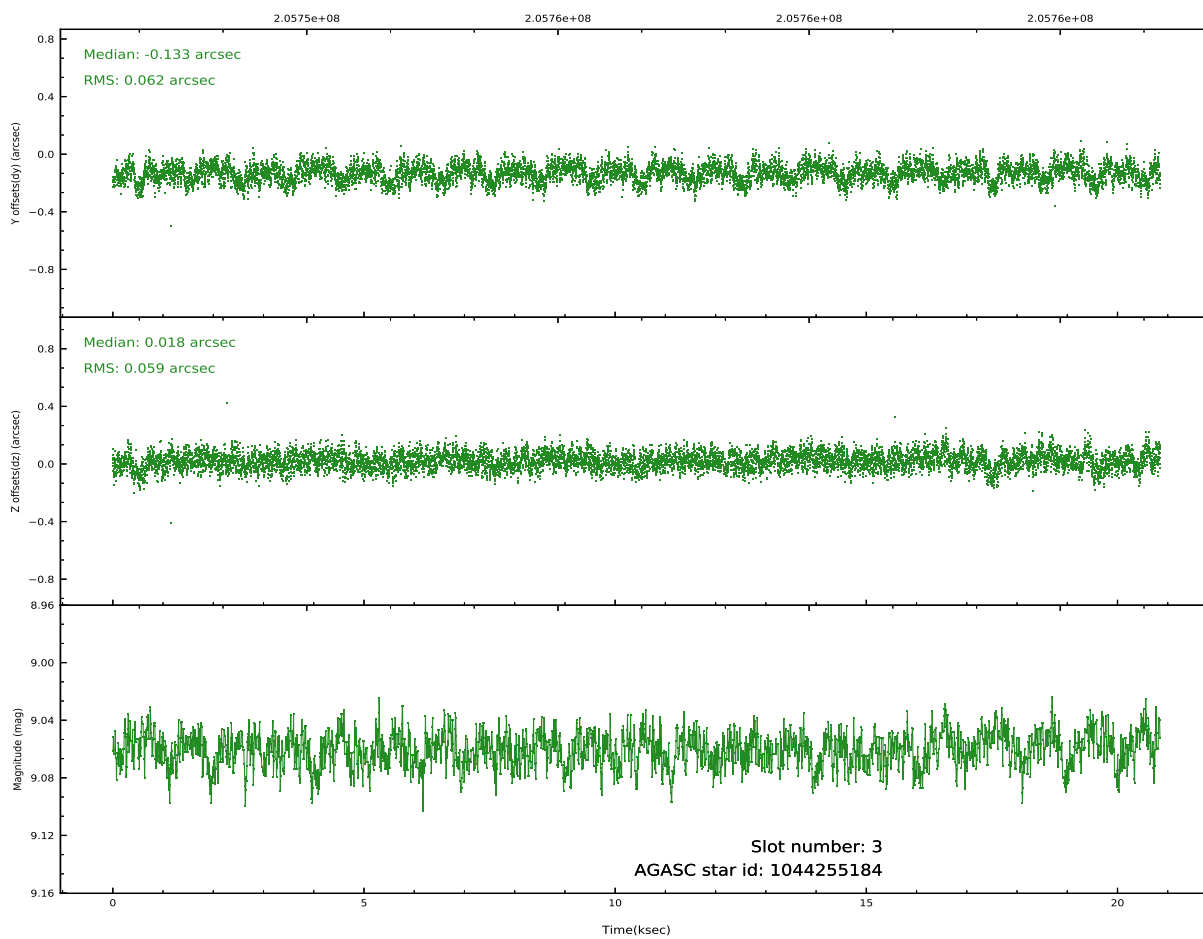
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## 2.4 Star Slots

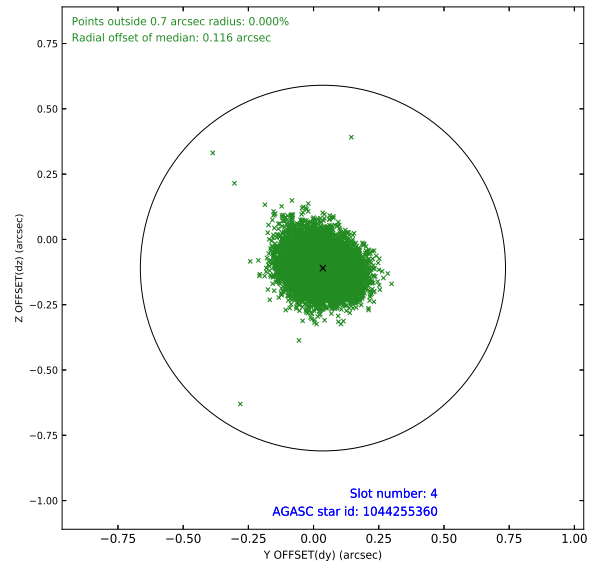
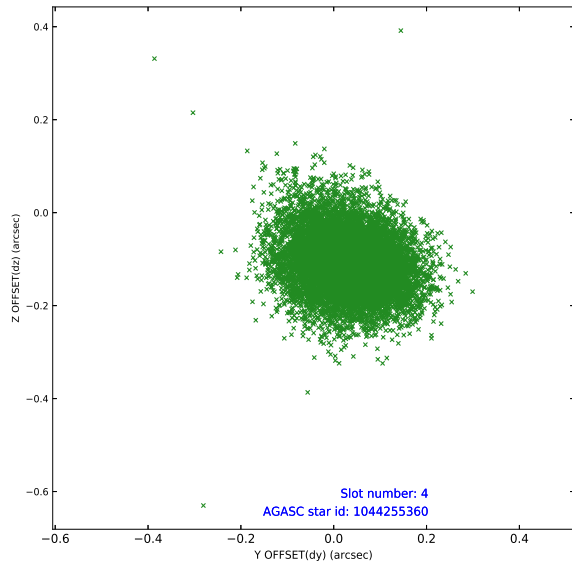
### 2.4.1 Slot 3



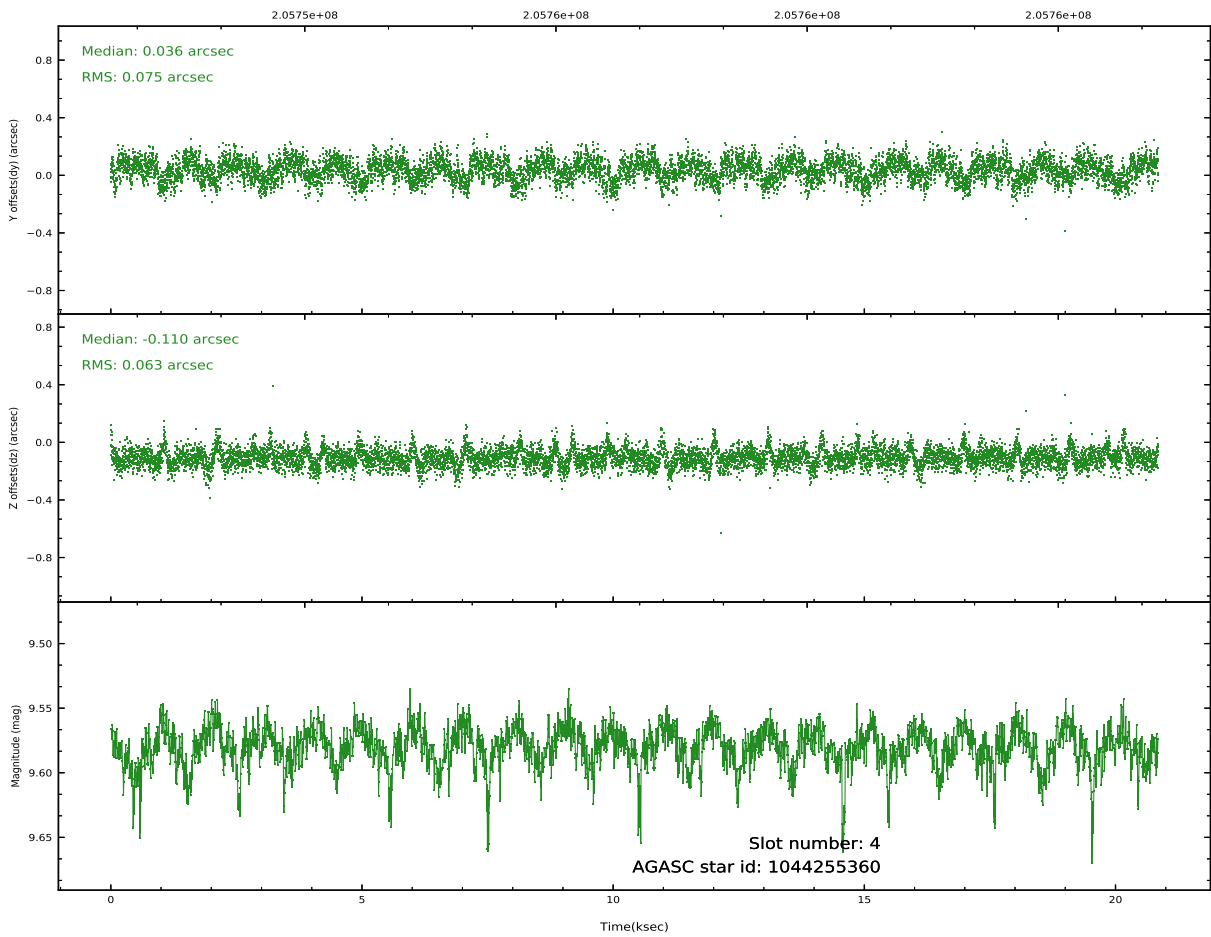
Time (s)



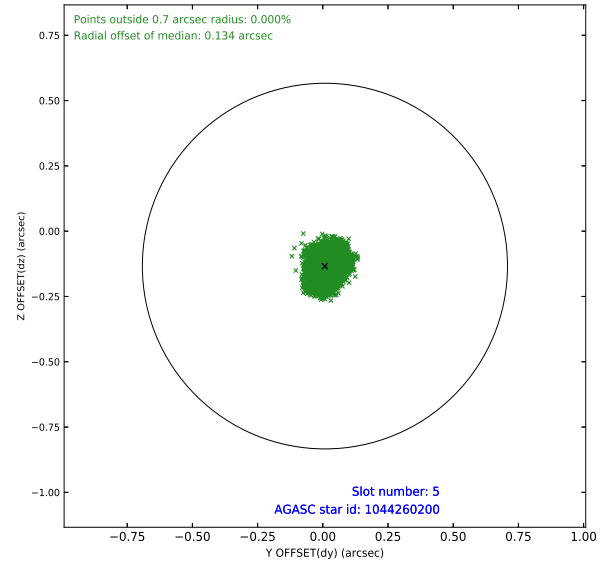
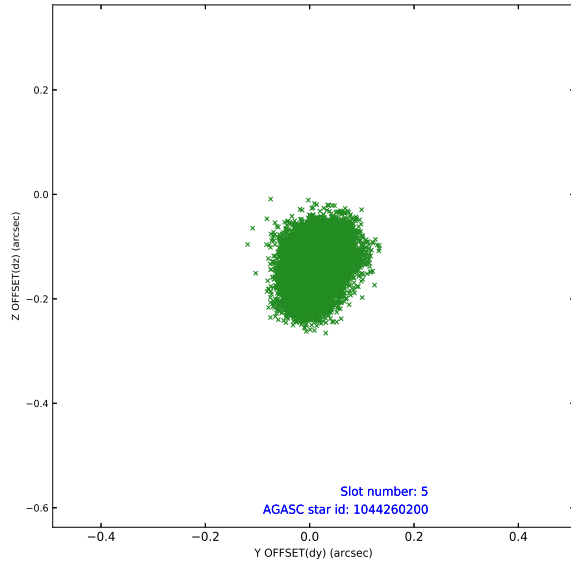
## 2.4.2 Slot 4



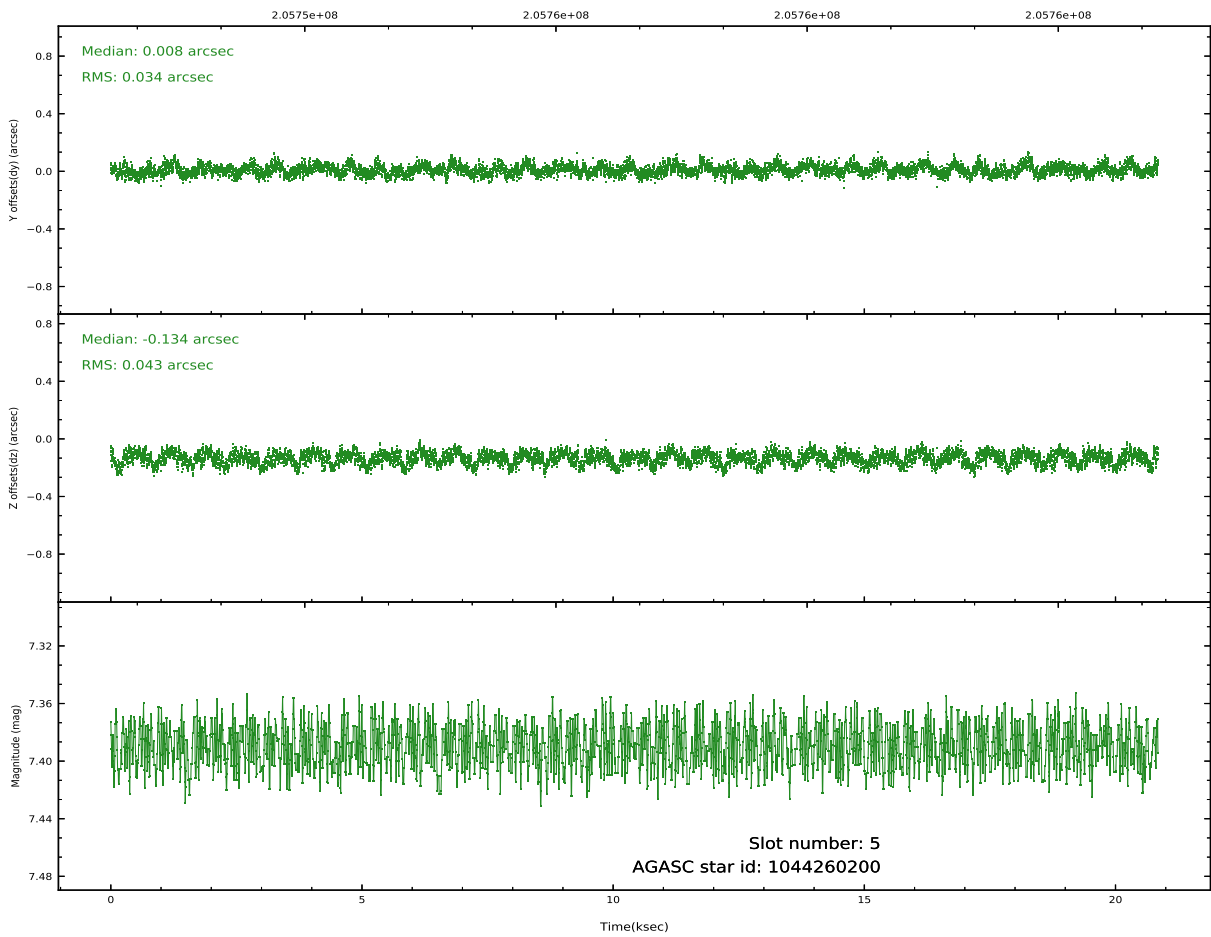
Time (s)



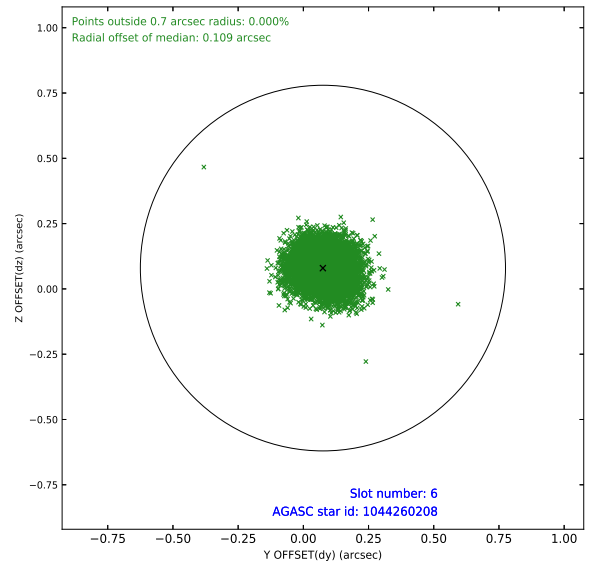
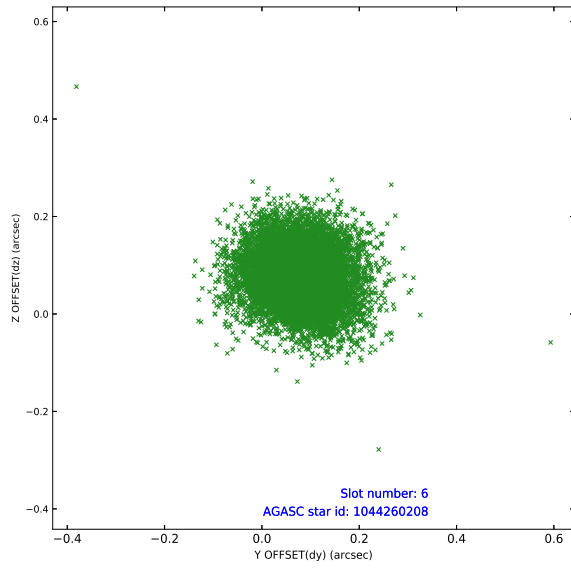
### 2.4.3 Slot 5



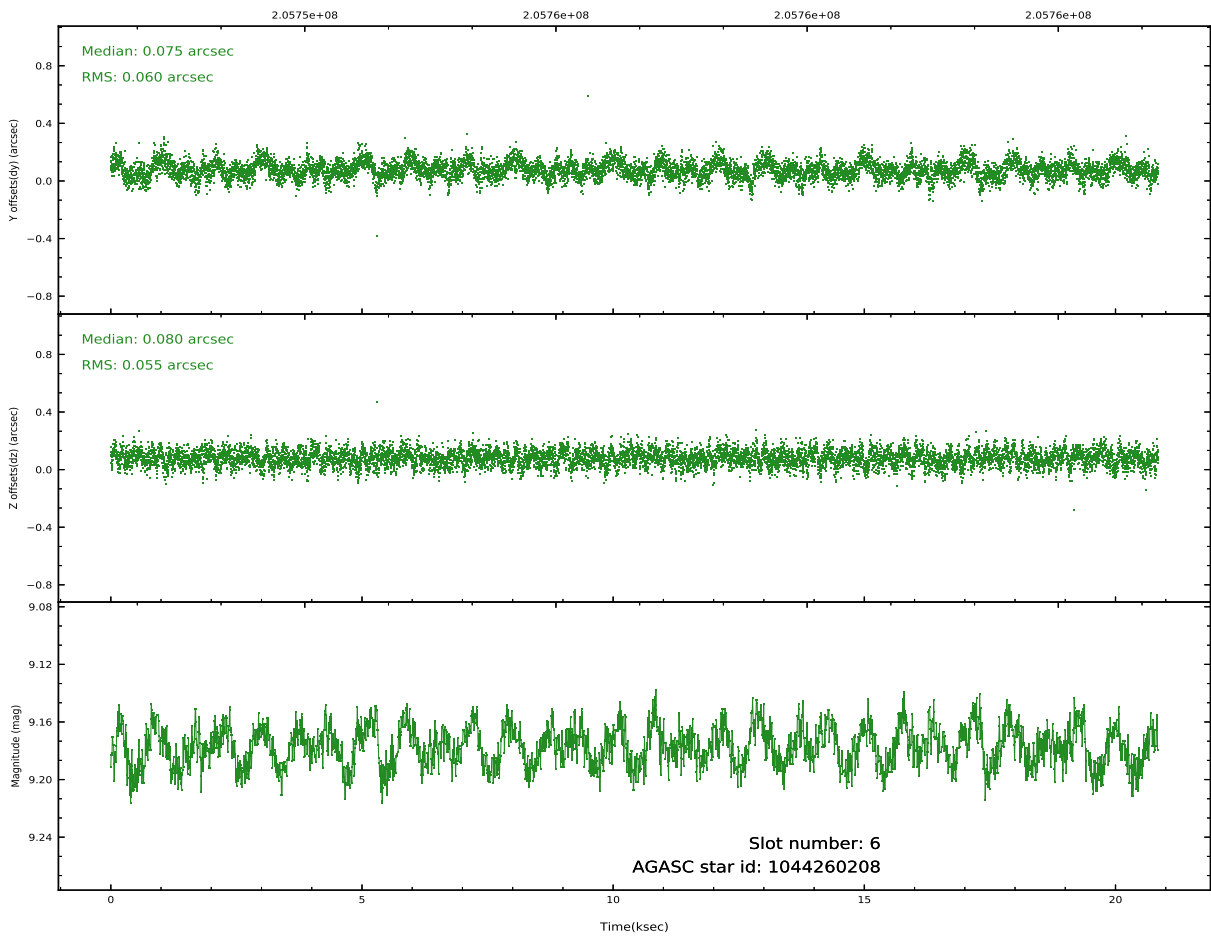
Time (s)



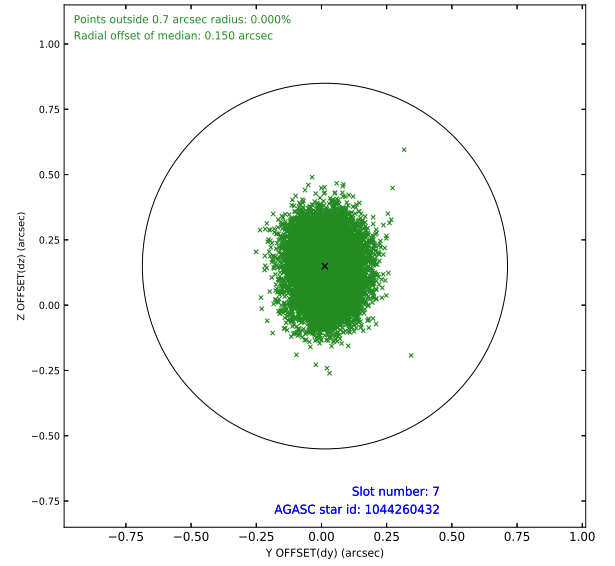
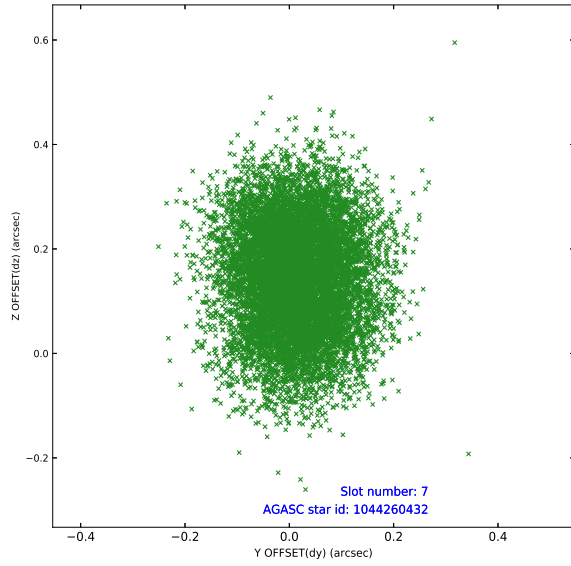
### 2.4.4 Slot 6



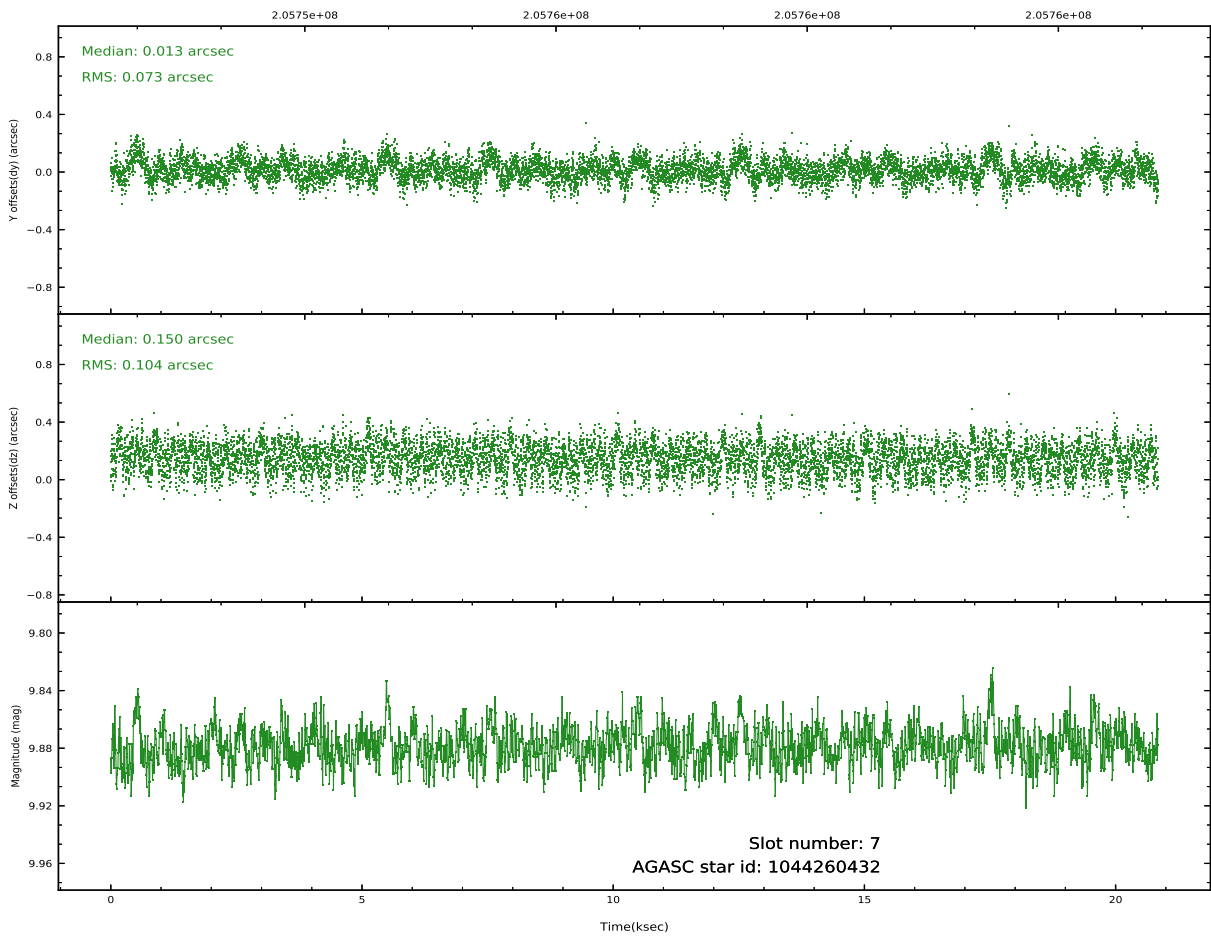
Time (s)



## 2.4.5 Slot 7

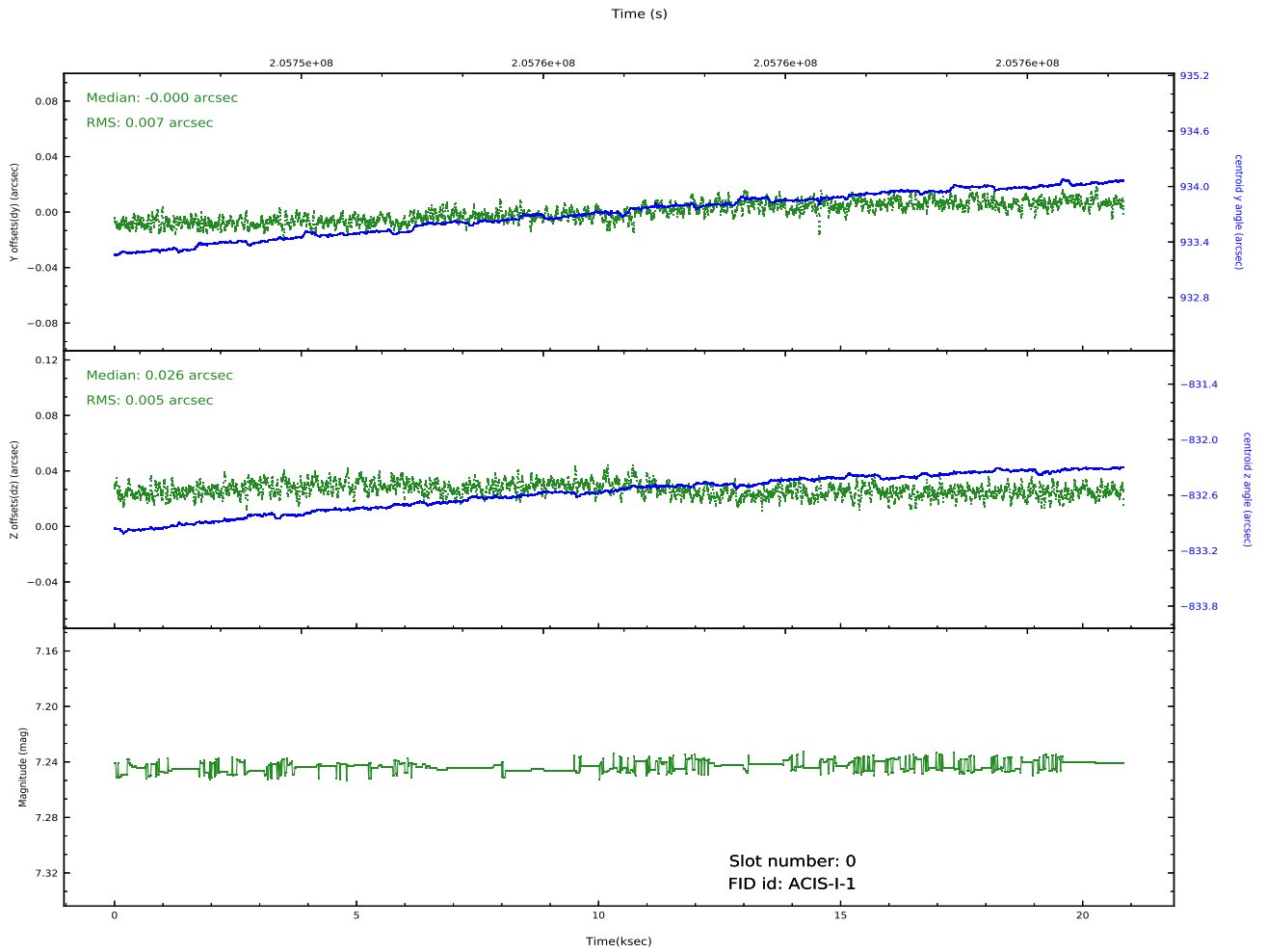
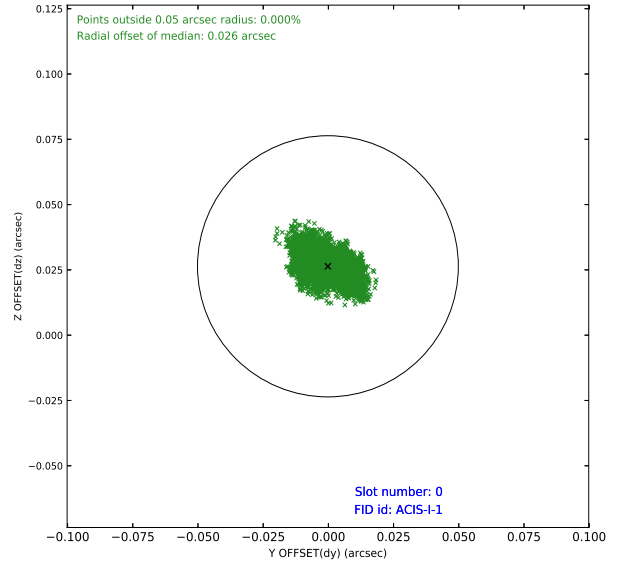
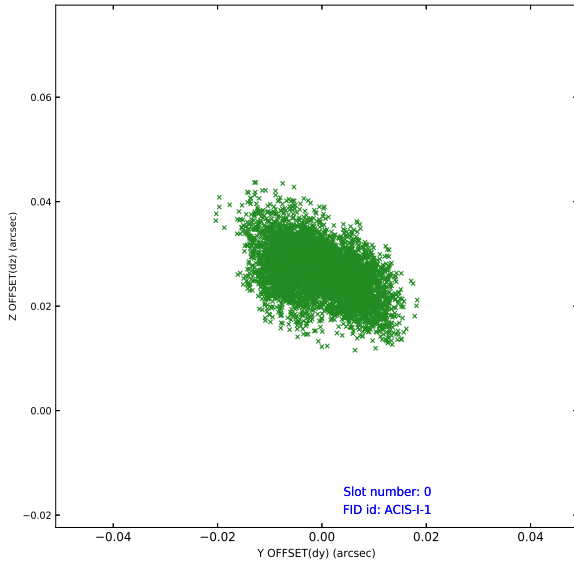


Time (s)

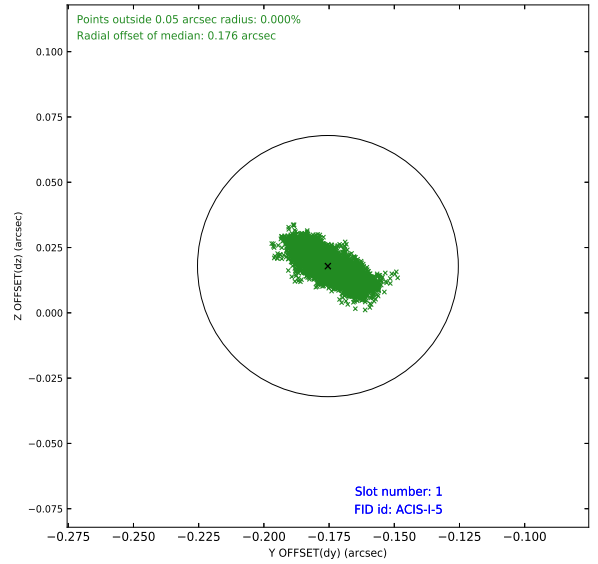
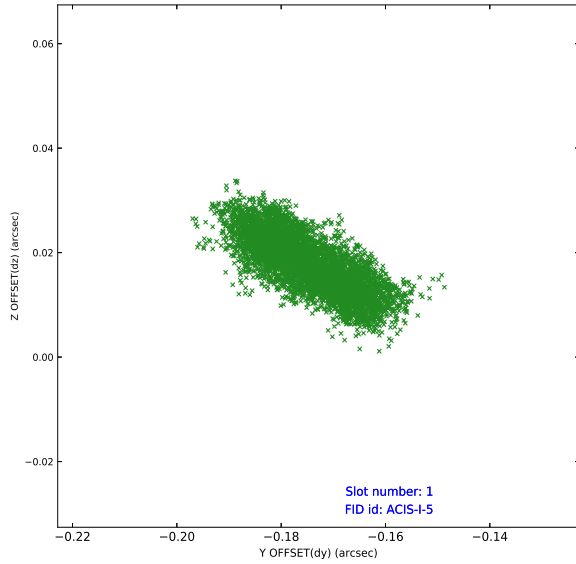


## 2.5 FID Slots

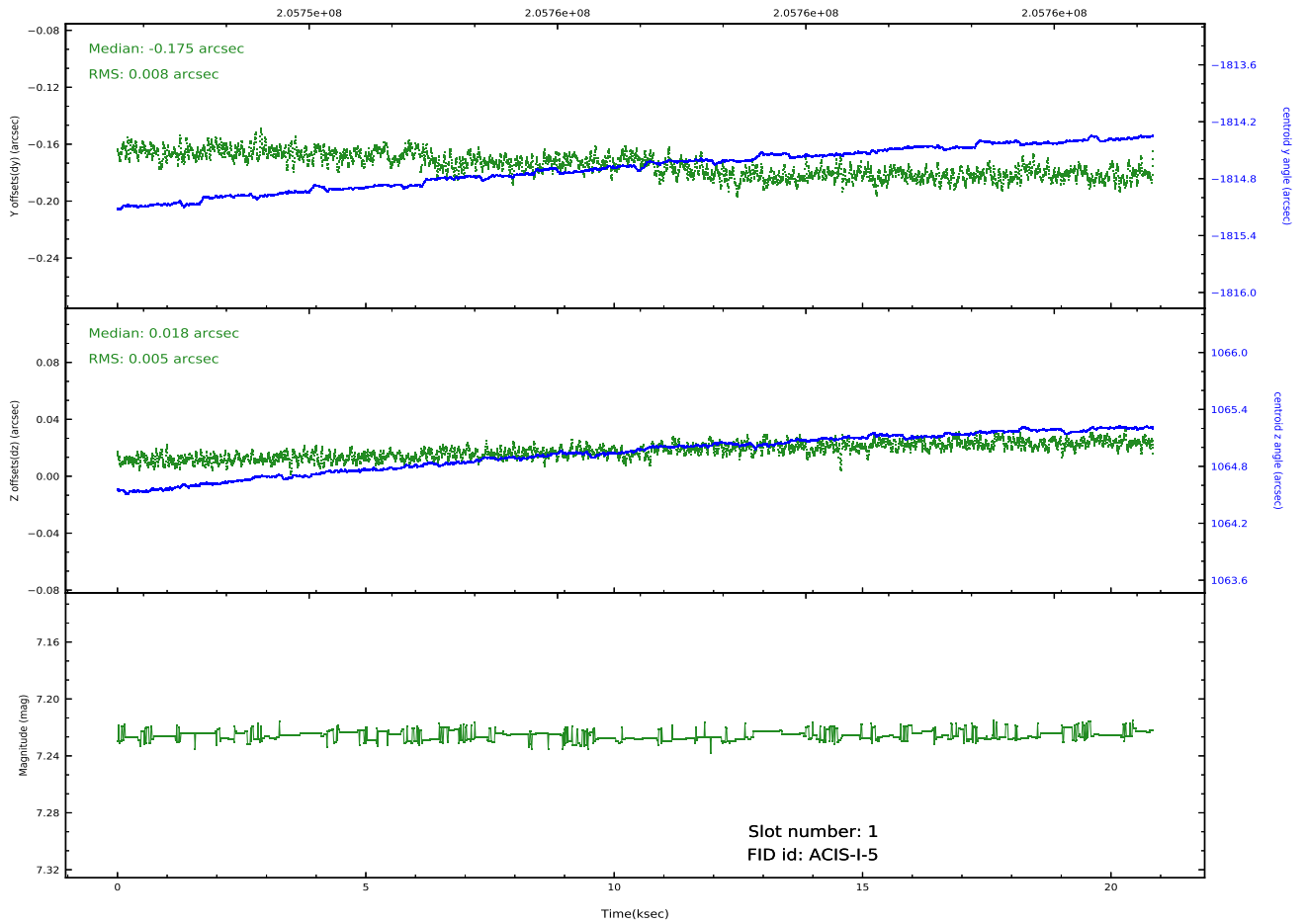
### 2.5.1 Slot 0



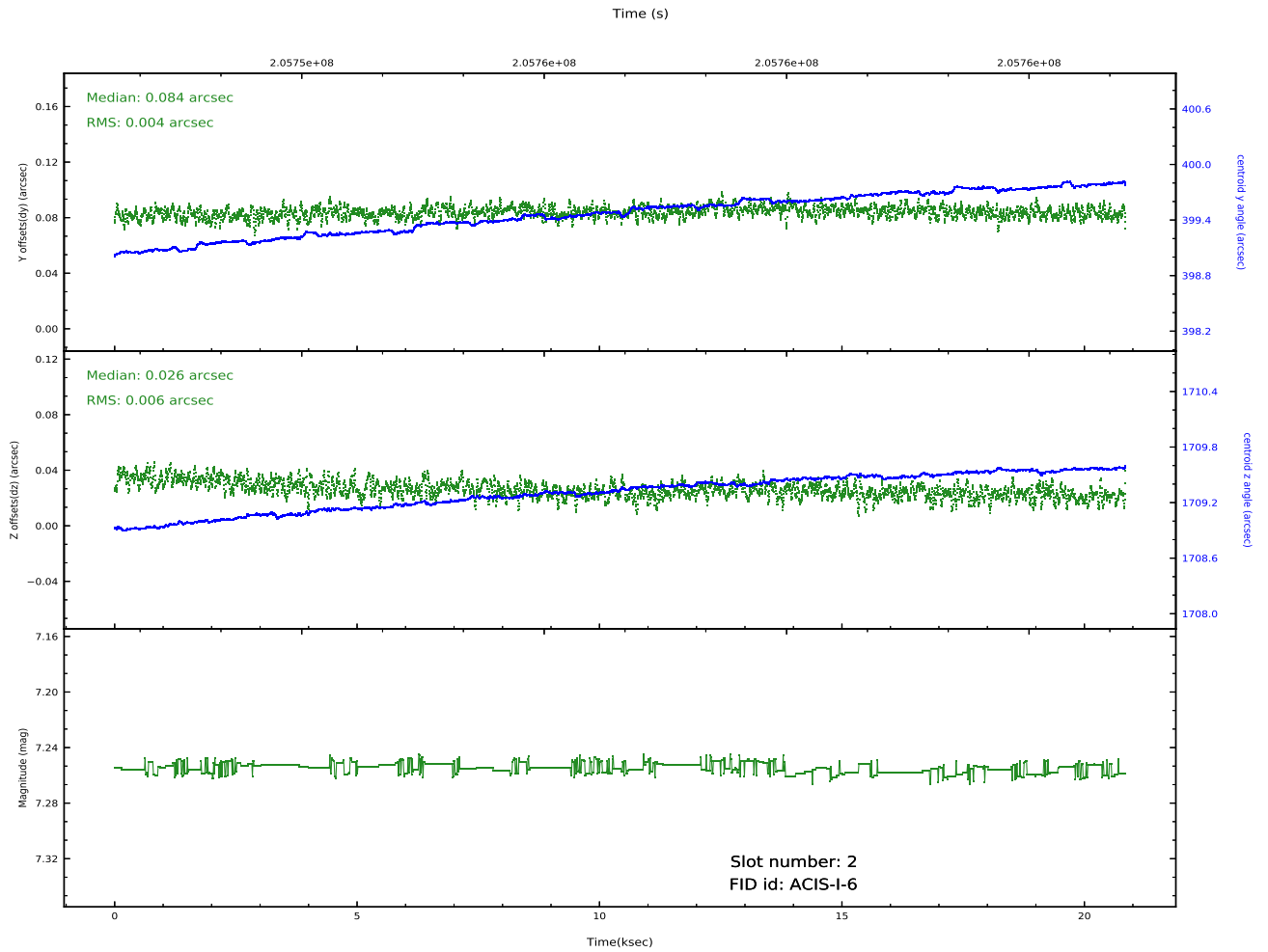
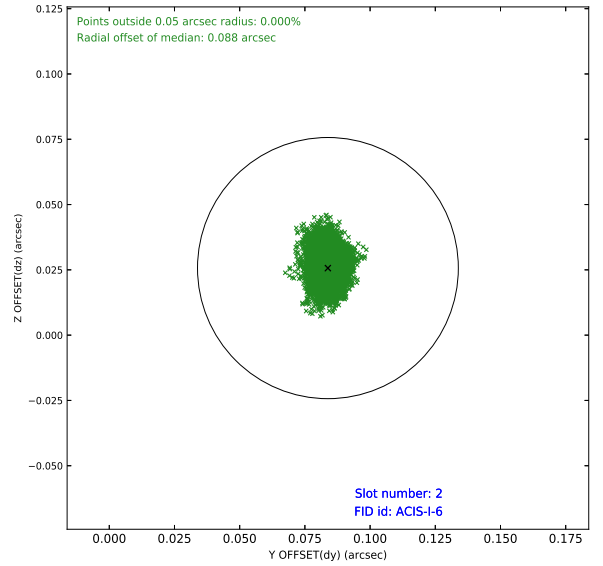
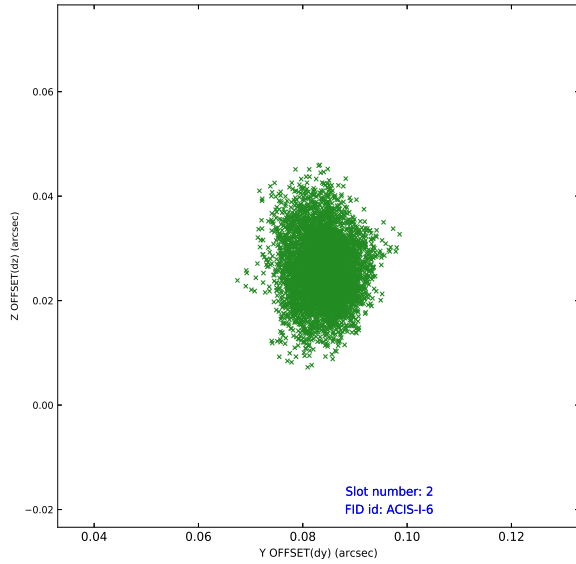
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2020.09.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.038

## A.2 Comments

A custom dither of 11.988 arcsec was used to mitigate the inter-chip gap space, since the coordinates are poorly known. Target falls in chip gap.