

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6681 - L2 Version 3  
Chandra X-Ray Center

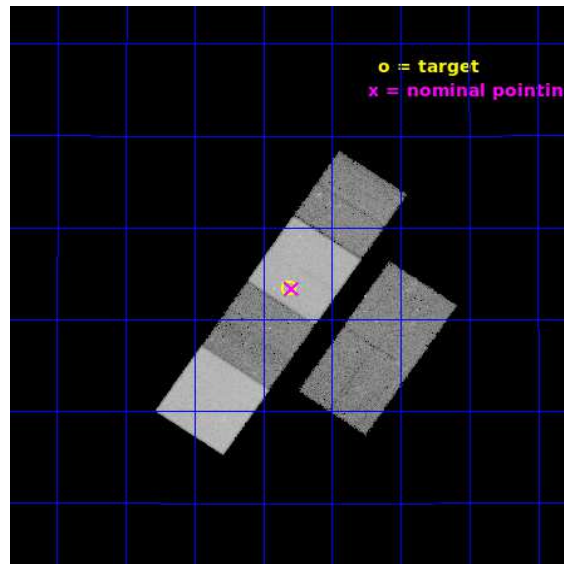
L2 Processing Date : Oct 12 2020

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# 1 Front

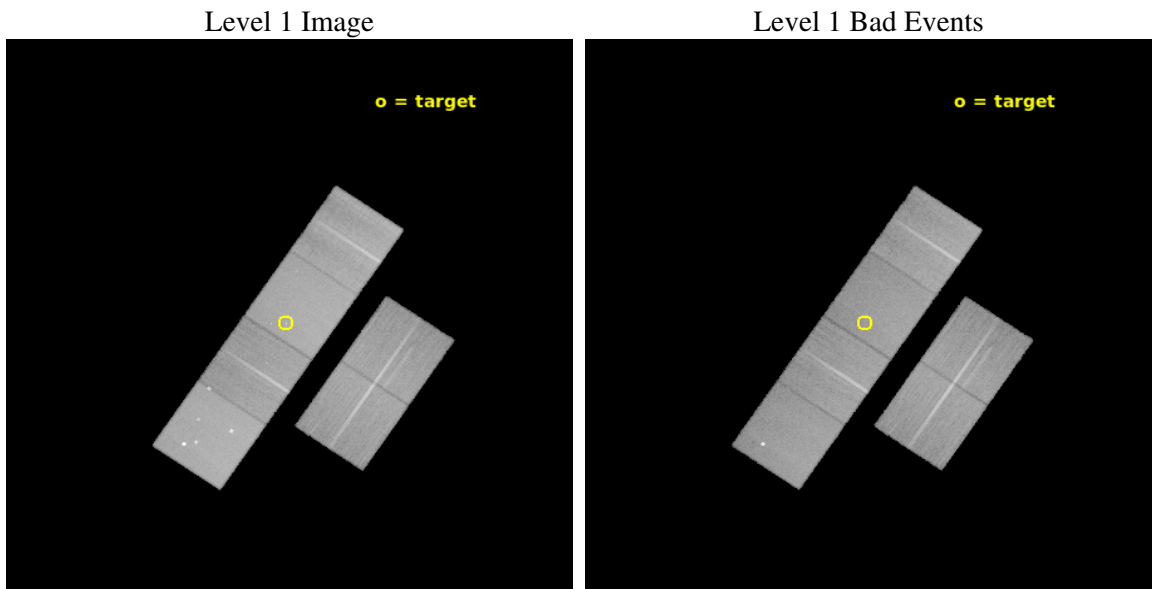
seq_num	500632	Sequence number
obs_id	6681	Observation id
title	A Day in the Life of a Short Gamma-Ray Burst	Proposal title
observer	David Burrows	Principal investigator
object	GRB 051221	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	328.702917	Observer's specified target RA [deg]
dec_targ	16.891167	Observer's specified target Dec [deg]
ra_nom	328.69765265902	Nominal RA [deg]
dec_nom	16.889396623819	Nominal Dec [deg]
roll_nom	304.10626873915	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30175.917927057	Sum of GTIs [s]
livetime	29793.812284508	Livetime [s]
ontime2	30175.917837441	Sum of GTIs [s]
ontime3	30175.917927057	Sum of GTIs [s]
ontime5	30175.917927057	Sum of GTIs [s]
ontime6	30175.917927057	Sum of GTIs [s]
ontime7	30175.917927057	Sum of GTIs [s]
ontime8	30175.917927057	Sum of GTIs [s]
l2events	394241	Number of level 2 events



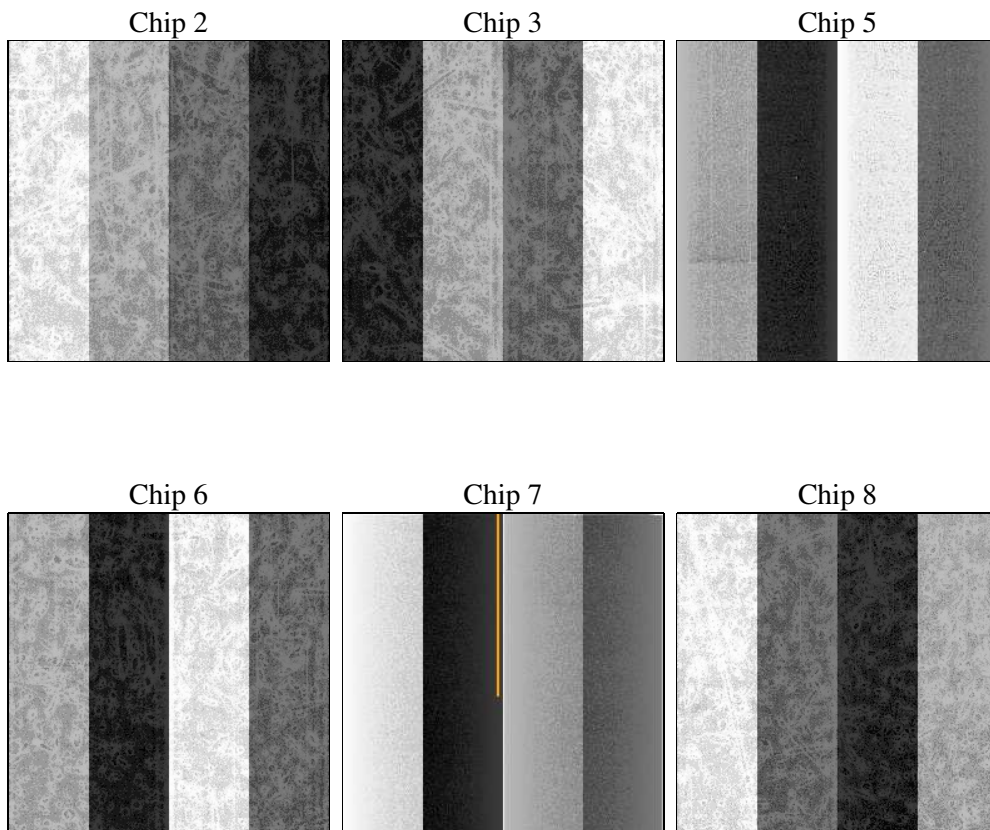
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	30175.917927057	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	30175.917837441	Sum of GTIs [s]
date	2020-10-12T06:29:39	Date and time of file creation	ontime3	30175.917927057	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	30175.917927057	Sum of GTIs [s]
			ontime6	30175.917927057	Sum of GTIs [s]
			ontime7	30175.917927057	Sum of GTIs [s]
			ontime8	30175.917927057	Sum of GTIs [s]
			l1events	1760238	Number of level 1 events

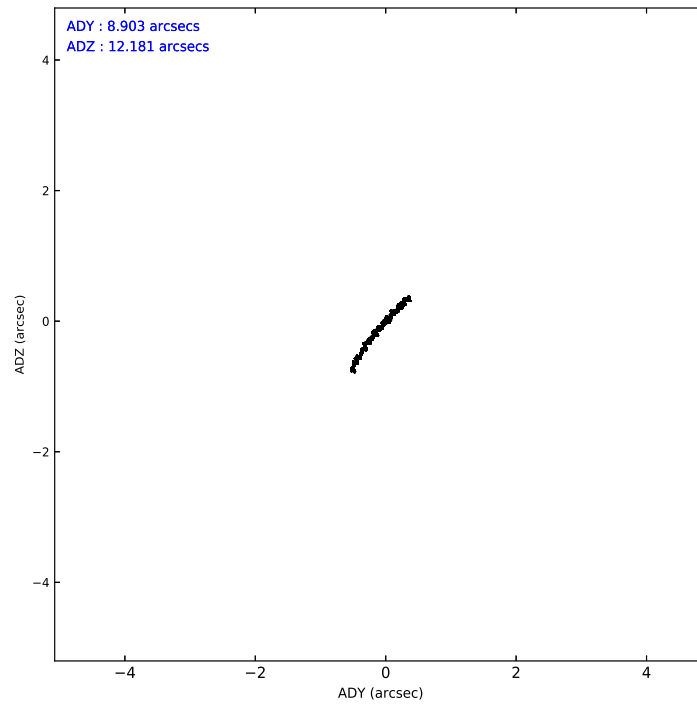
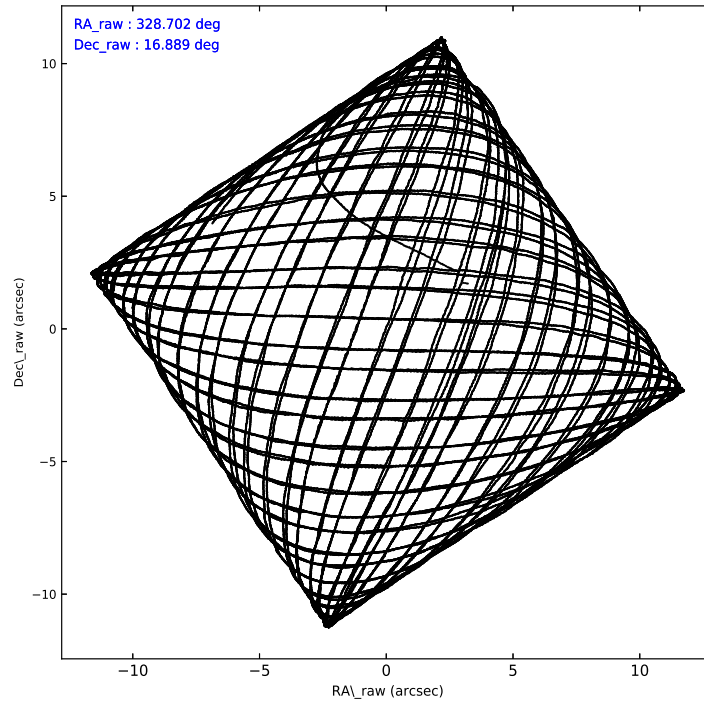
### 2.1.4 Events

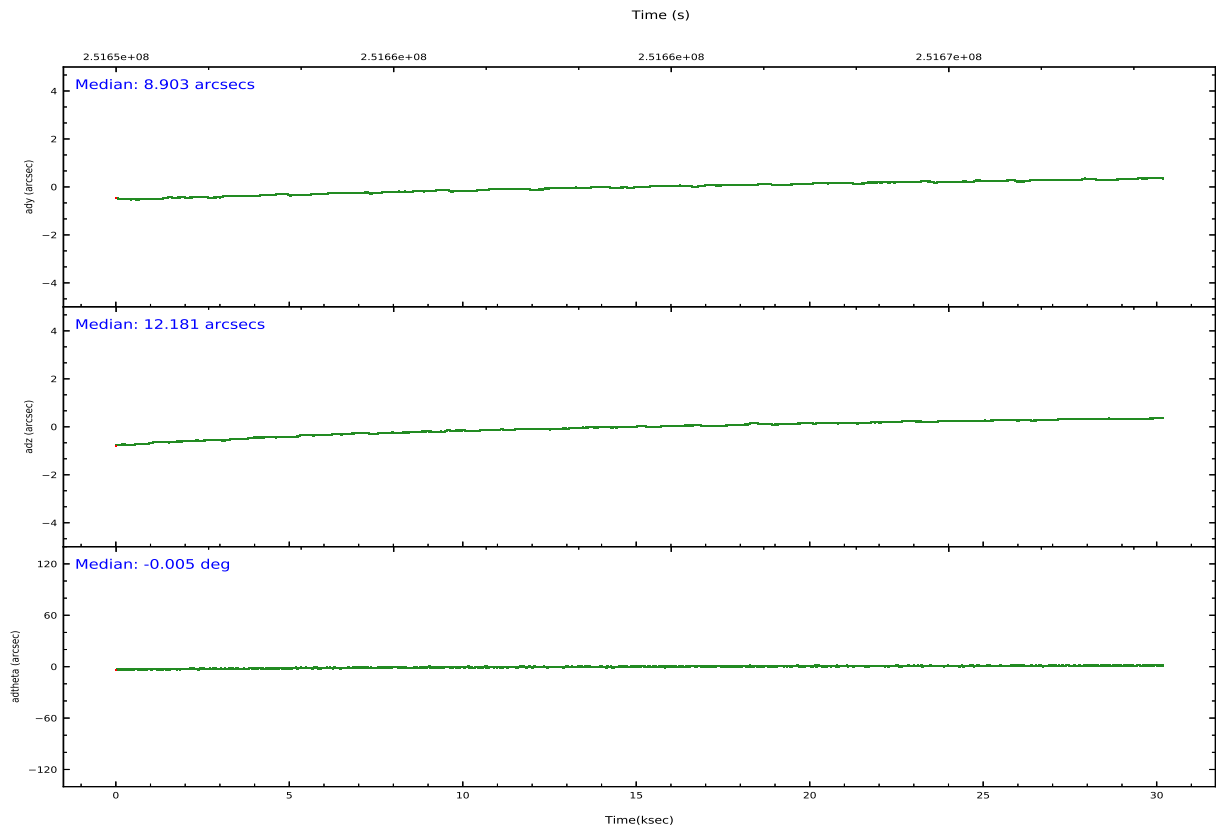
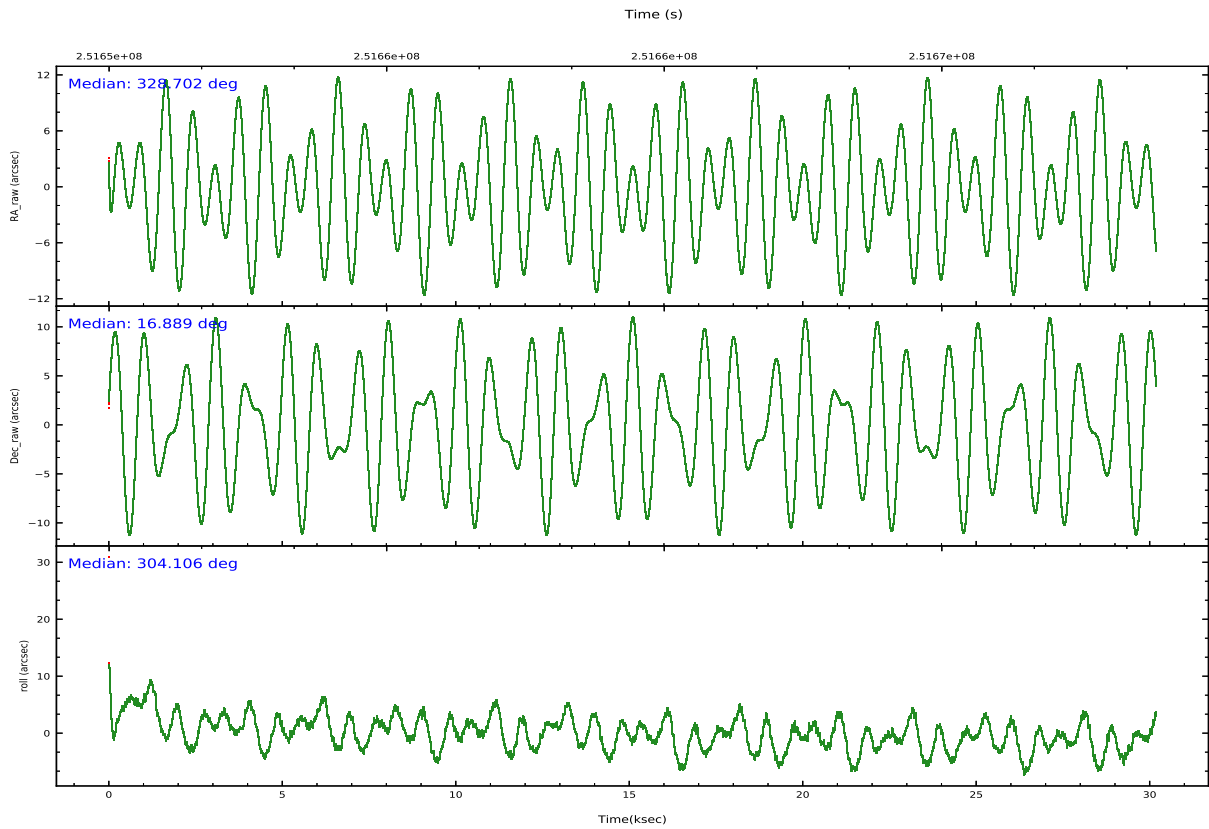
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	257042	235017	378000	245133	334706	310340	grade 0 events	13229	13096	19643	11924	12655	21217
rejected events	228144	206377	205644	215974	196178	244372		5%	5%	5%	4%	3%	6%
rejected %	88%	87%	54%	88%	58%	78%	grade 1 events	172	149	548	116	323	191
								0%	0%	0%	0%	0%	0%
							grade 2 events	6172	5523	52120	6207	28269	14559
								2%	2%	13%	2%	8%	4%
							grade 3 events	2594	2731	7221	2777	12318	7085
								1%	1%	1%	1%	3%	2%
							grade 4 events	2656	2689	6084	2815	12238	6494
								1%	1%	1%	1%	3%	2%
							grade 5 events	9517	10855	29312	11125	31881	15088
								3%	4%	7%	4%	9%	4%
							grade 6 events	4608	4942	89472	5813	74659	17404
								1%	2%	23%	2%	22%	5%
							grade 7 events	218094	195032	173600	204356	162363	228302
								84%	82%	45%	83%	48%	73%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	328.676432	328.69765265902	Subarray requested	NONE	NONE
[deg] Pointing Dec	16.900759	16.889396623819	Alternating exposures requested	N	N
[deg] Pointing Roll	303.959984	304.10626873915	[s] Primary exposure time	0.000000	3.2
[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)	251648178.184000	251646920.47826			
Observation start date	2005-12-22T14:15:14	2005-12-22T13:55:20			
[s] Observation end time (MET)	251678178.184000	251679071.14225			
Observation end date	2005-12-22T22:35:14	2005-12-22T22:51:11			
Read mode	TIMED	TIMED			

## 2.3 Aspect





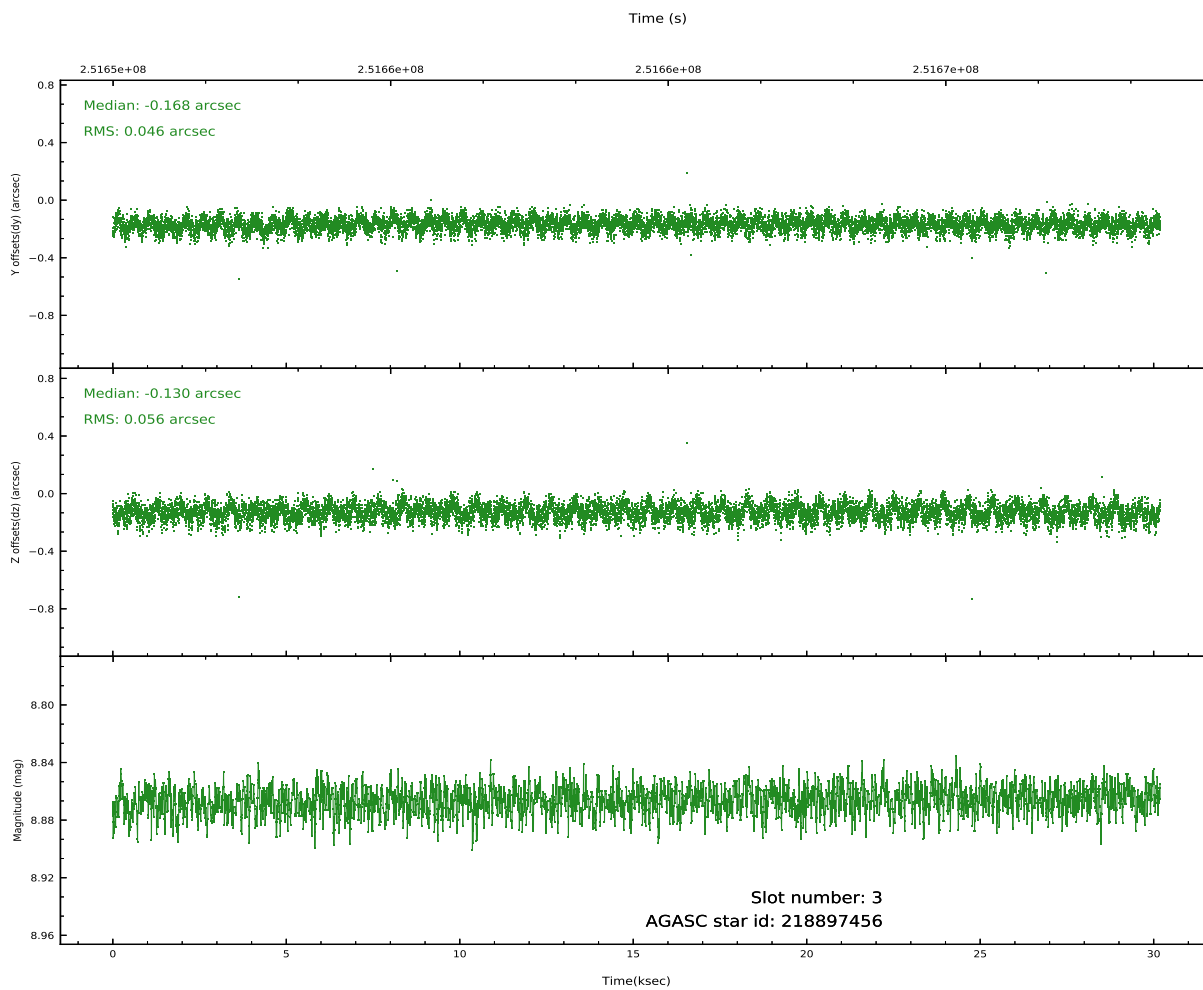
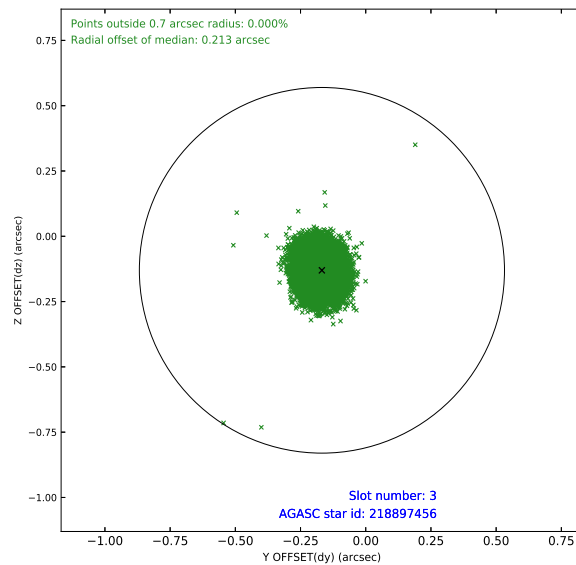
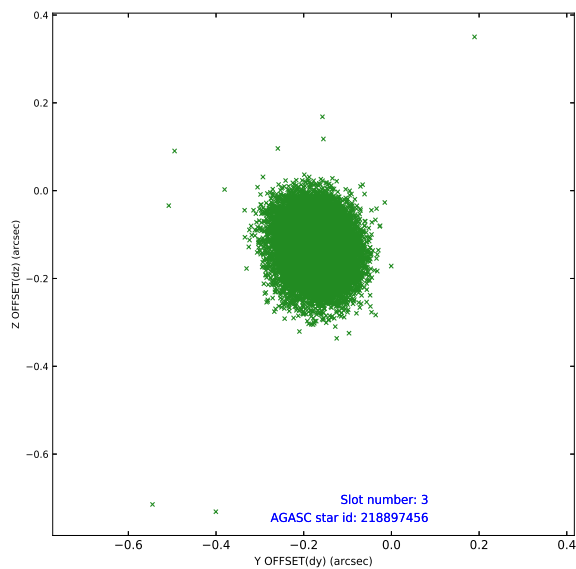
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-1	7.19	7359	1.000	0.044	-0.099	0.013	0.023	0.000000	0.000000	934.38	-1729
1	FID		ACIS-S-4	7.20	7360	1.000	0.139	0.052	0.013	0.020	0.000000	0.000000	2151.93	175
2	FID		ACIS-S-5	7.23	7361	1.000	-0.209	0.060	0.010	0.018	0.000000	0.000000	-1814.64	168
3	GUIDE	used	218897456	8.87	14715	1.000	-0.168	-0.130	0.077	0.122	327.959264	17.146658	-2115.68	-1549
4	GUIDE	used	220074888	8.69	14718	1.000	0.077	-0.099	0.084	0.135	328.463360	16.092578	2001.81	-2236
5	GUIDE	used	220595632	9.31	14712	1.000	0.076	0.172	0.093	0.150	328.930788	17.108977	-132.81	1145
6	GUIDE	used	220597856	9.33	14711	1.000	-0.074	0.048	0.096	0.150	329.110726	17.405179	-674.29	2252
7	GUIDE	used	220071528	8.64	14714	1.000	0.092	0.009	0.069	0.112	328.933551	16.712940	1055.92	358

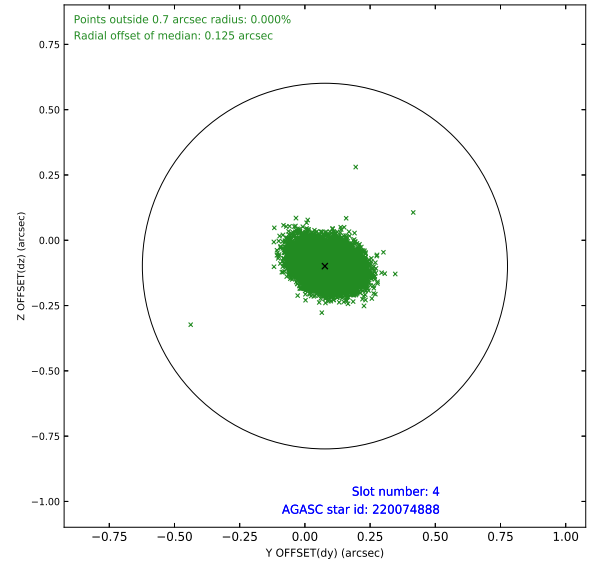
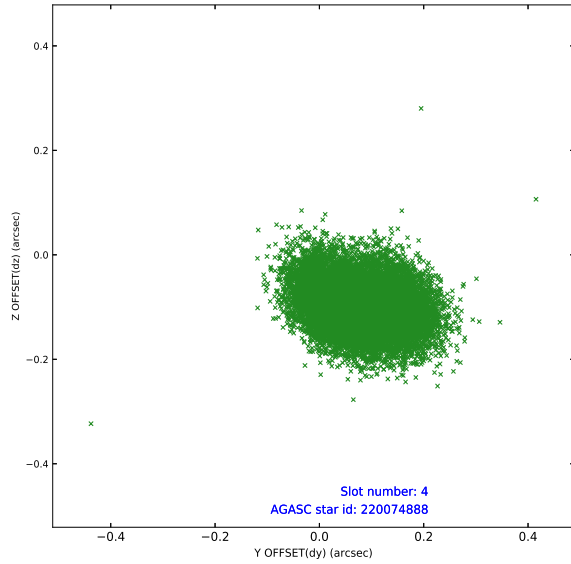
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## 2.4 Star Slots

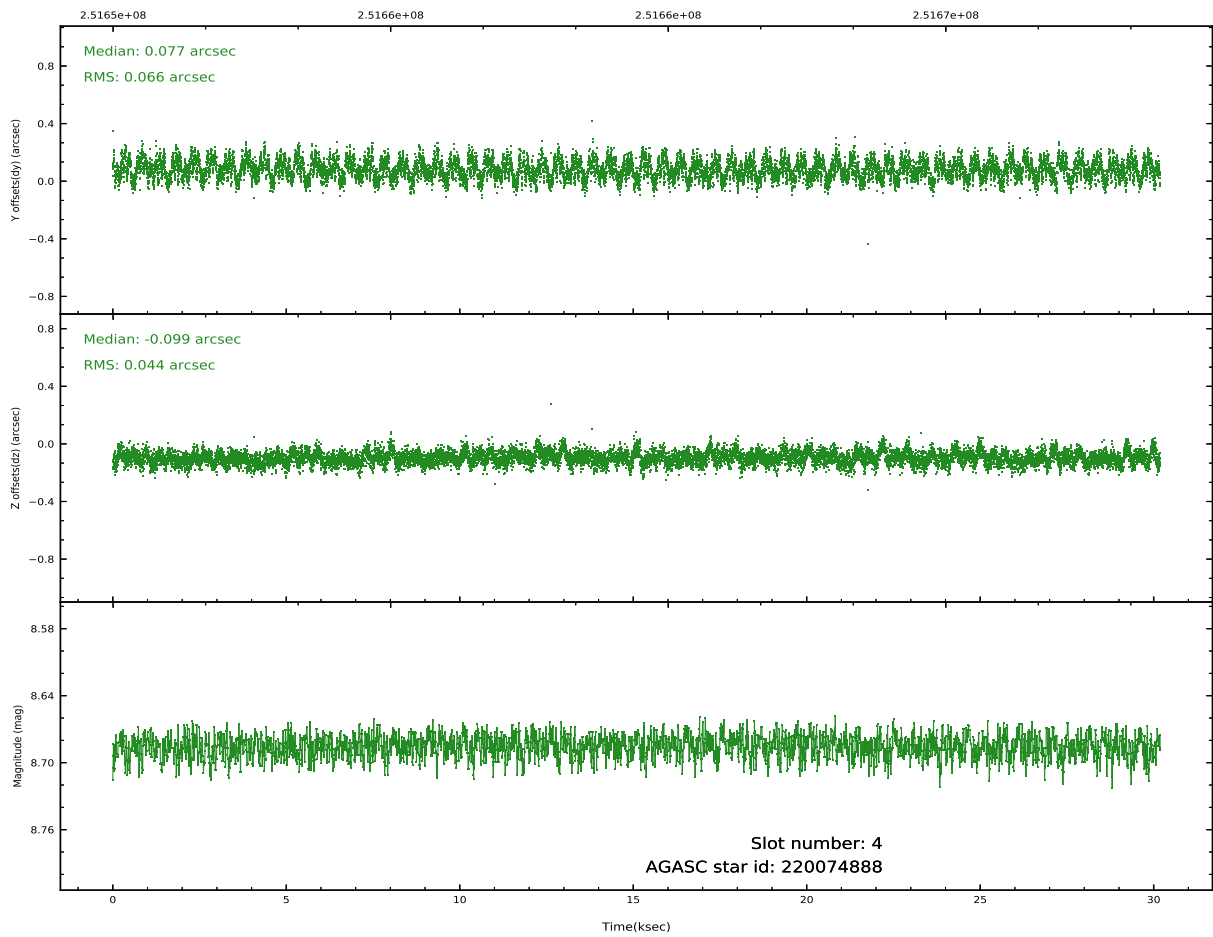
### 2.4.1 Slot 3



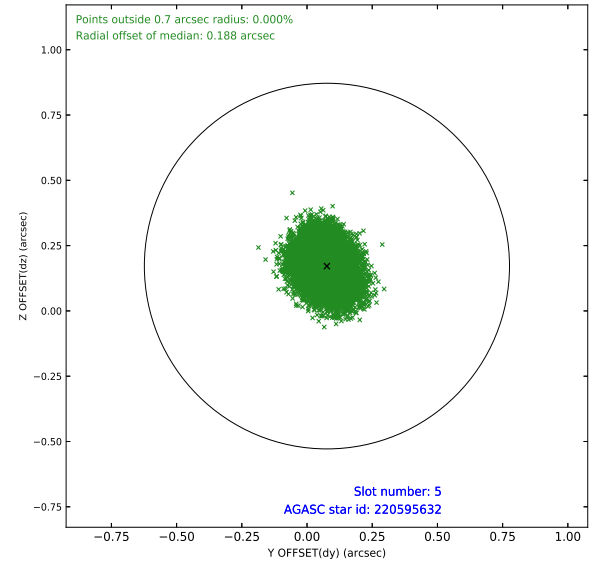
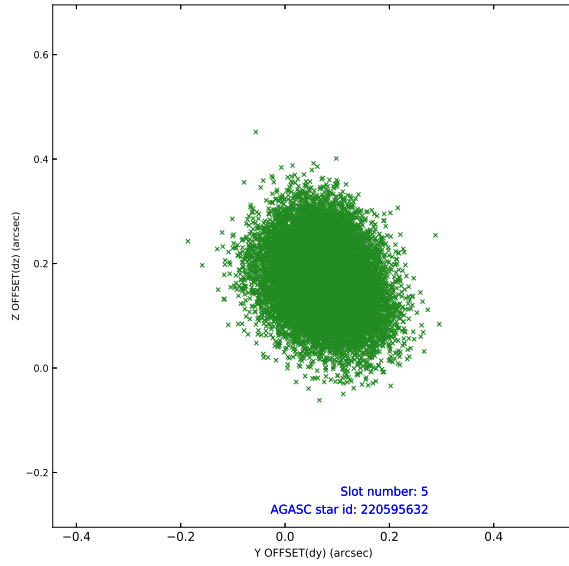
## 2.4.2 Slot 4



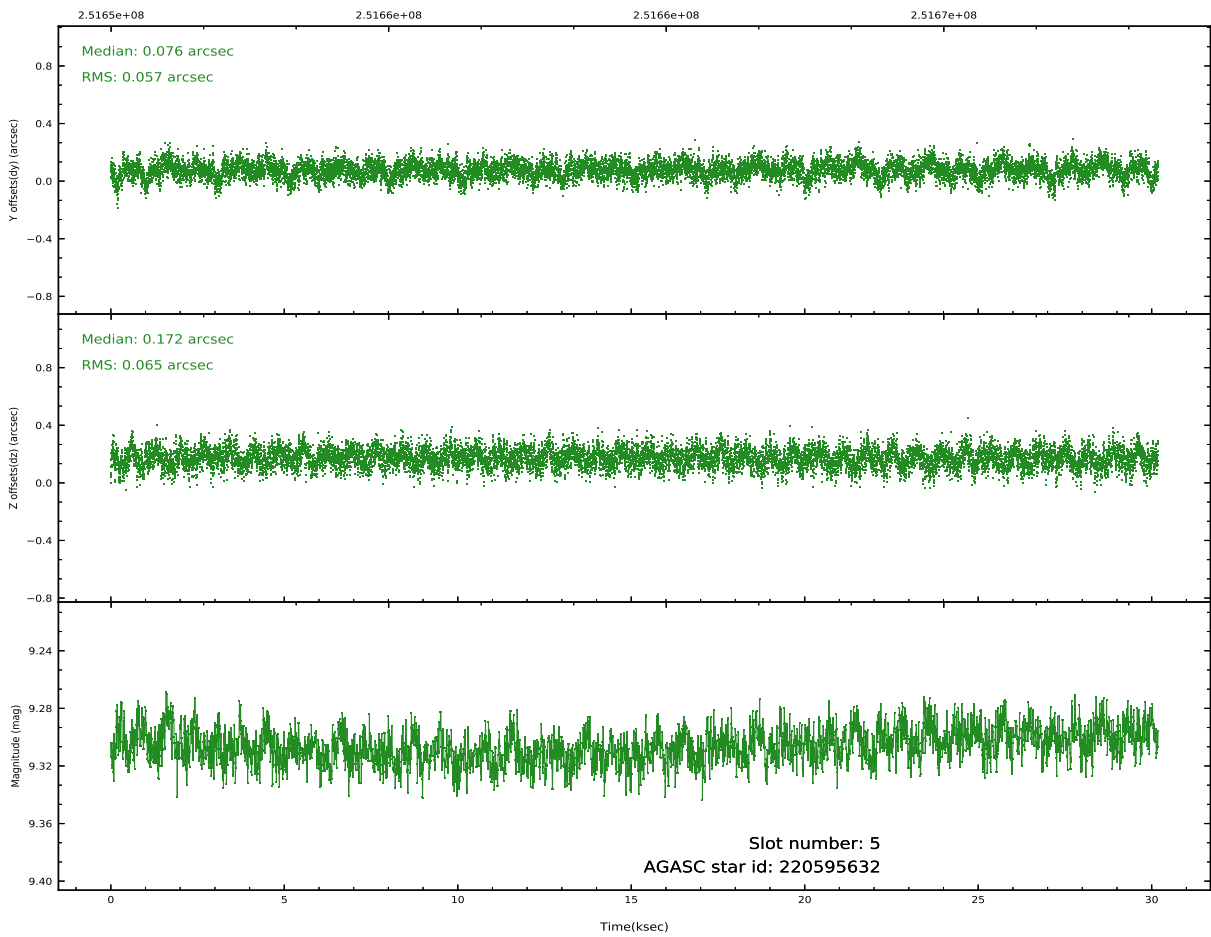
Time (s)



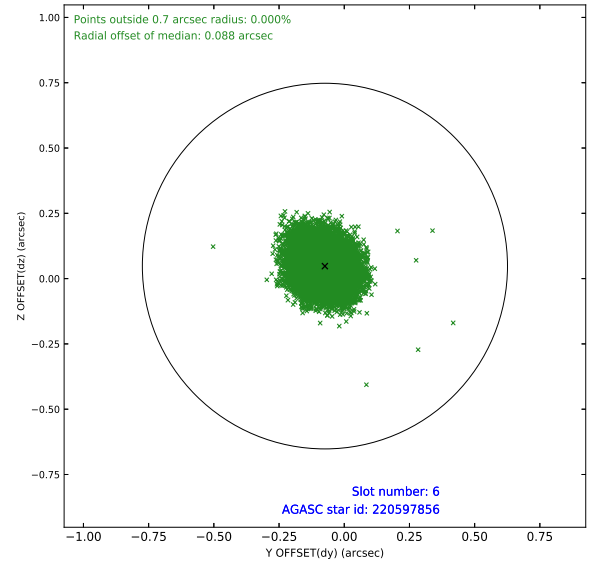
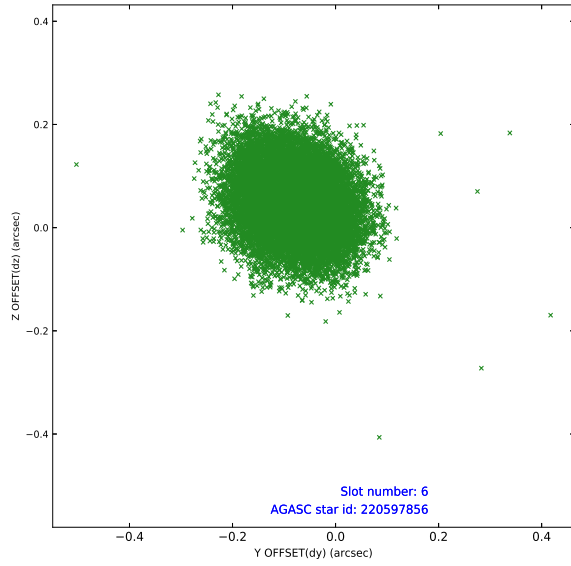
### 2.4.3 Slot 5



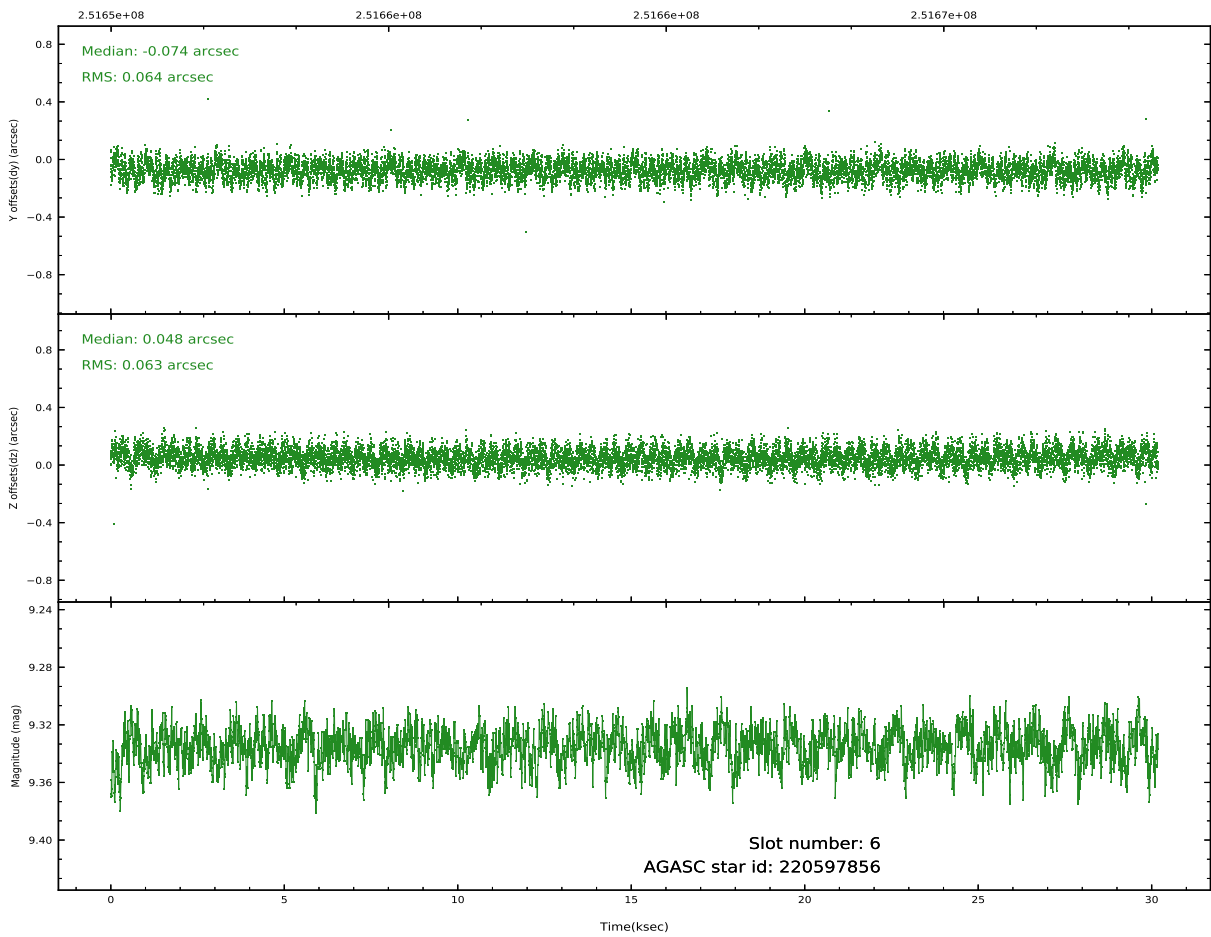
Time (s)



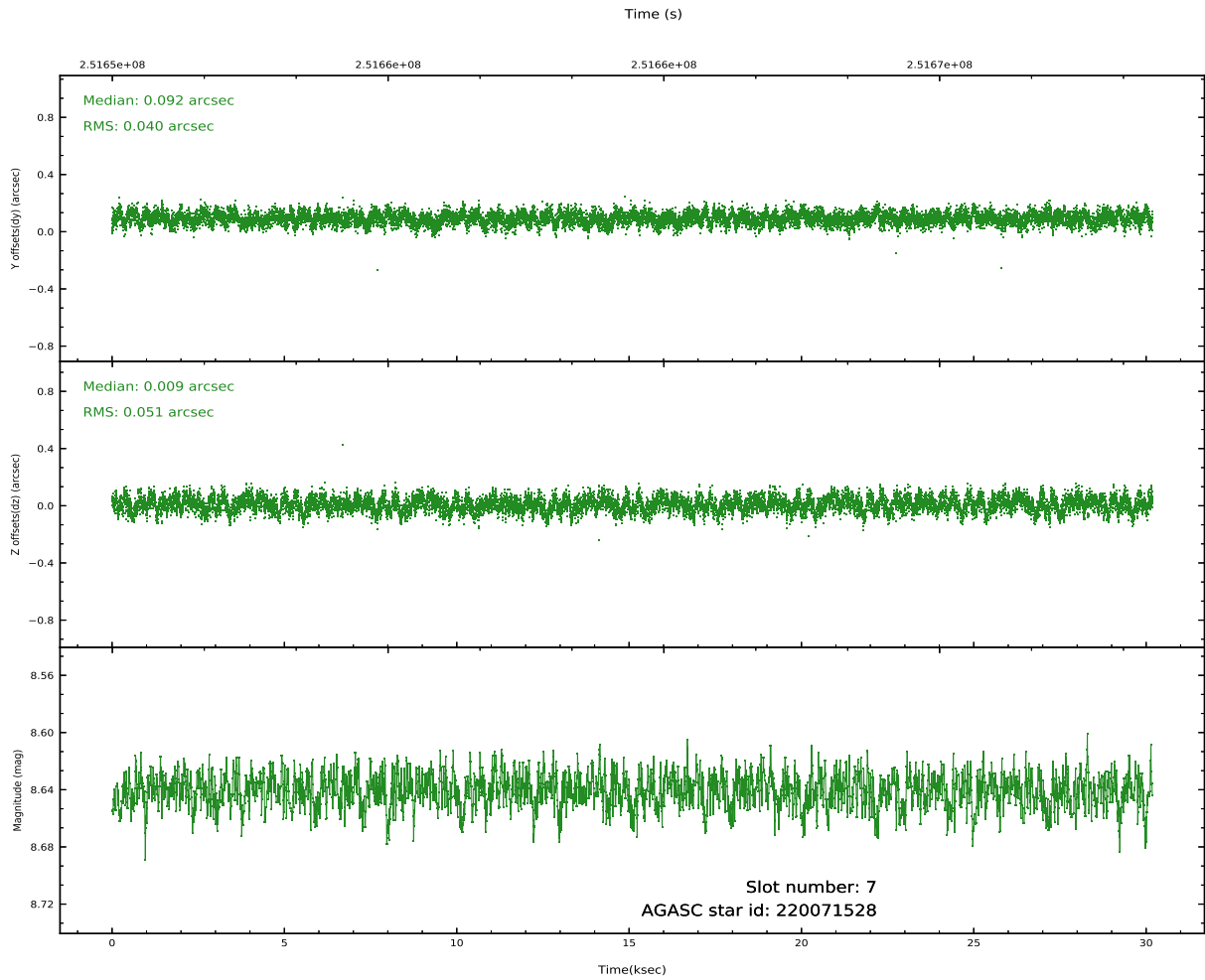
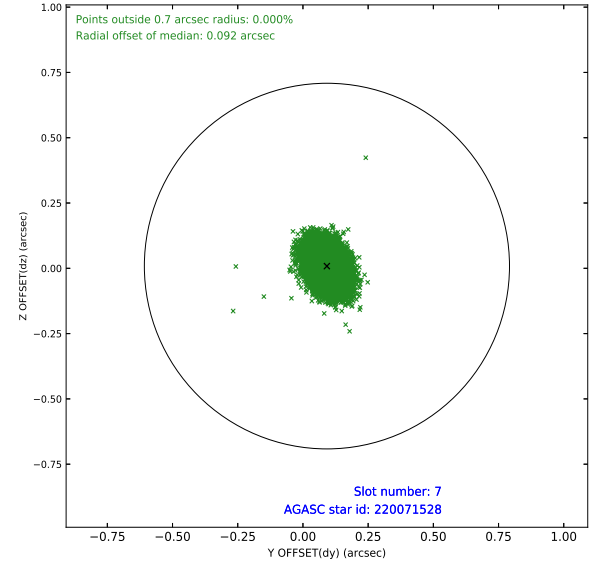
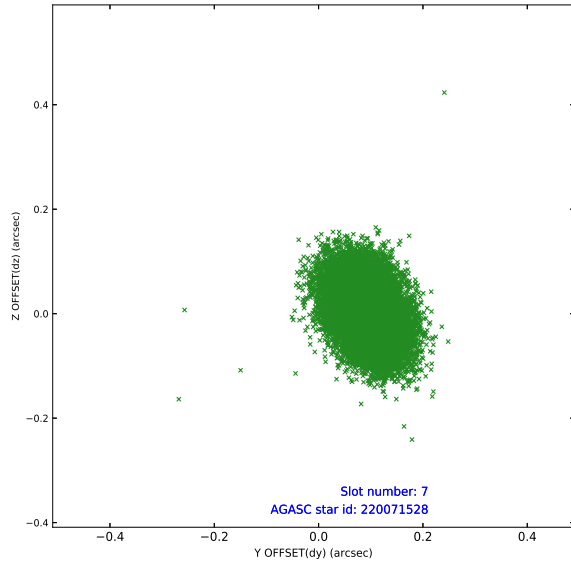
## 2.4.4 Slot 6



Time (s)

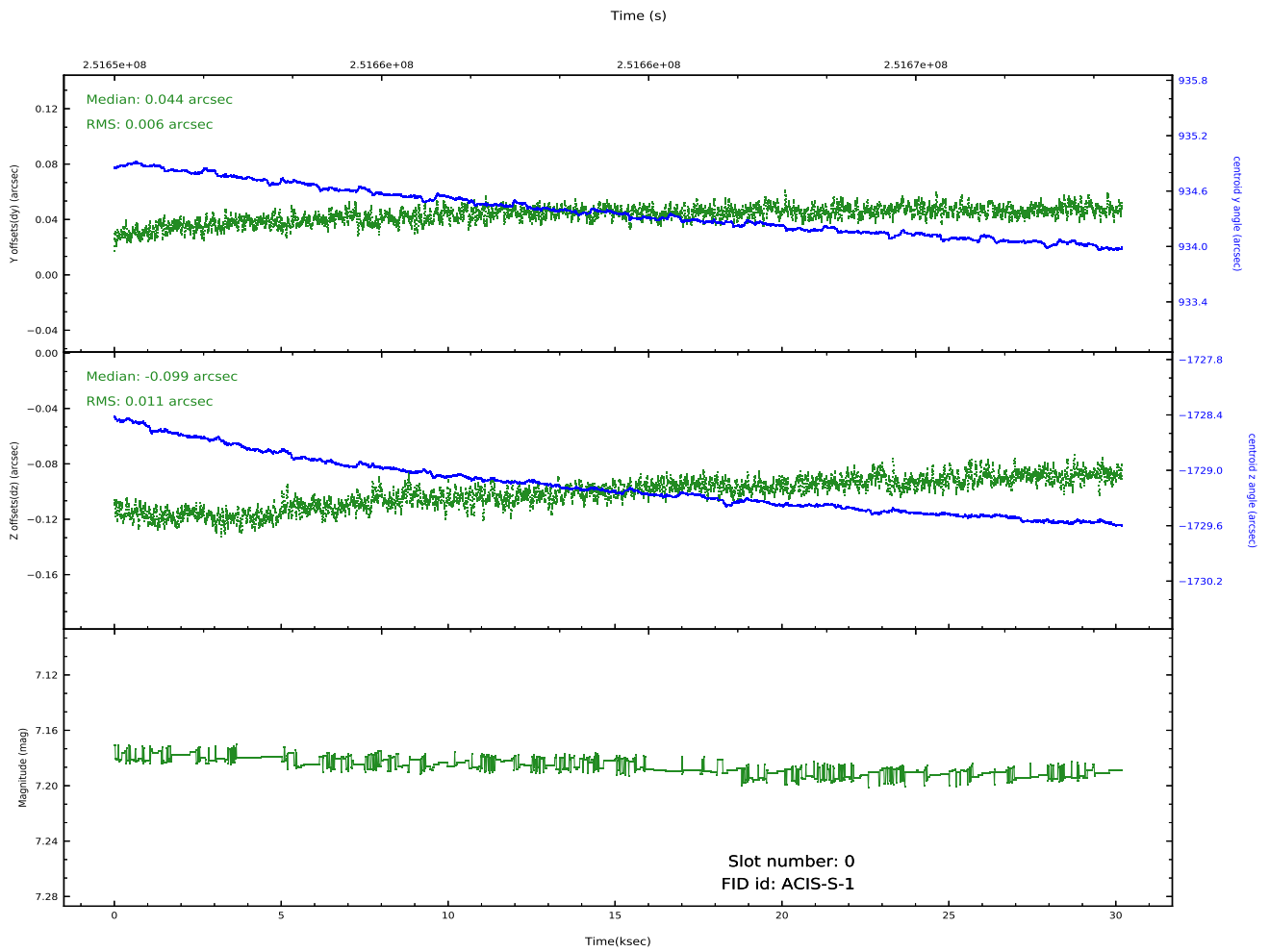
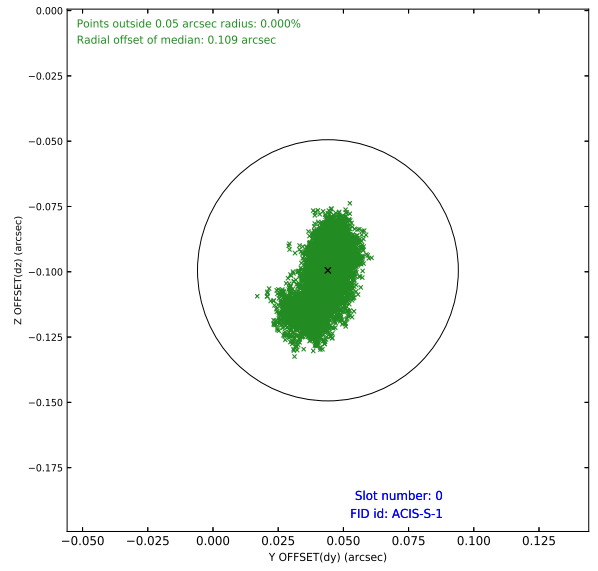
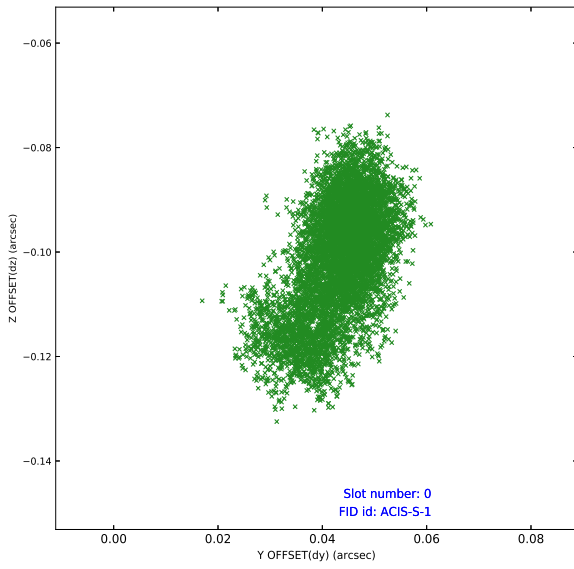


## 2.4.5 Slot 7

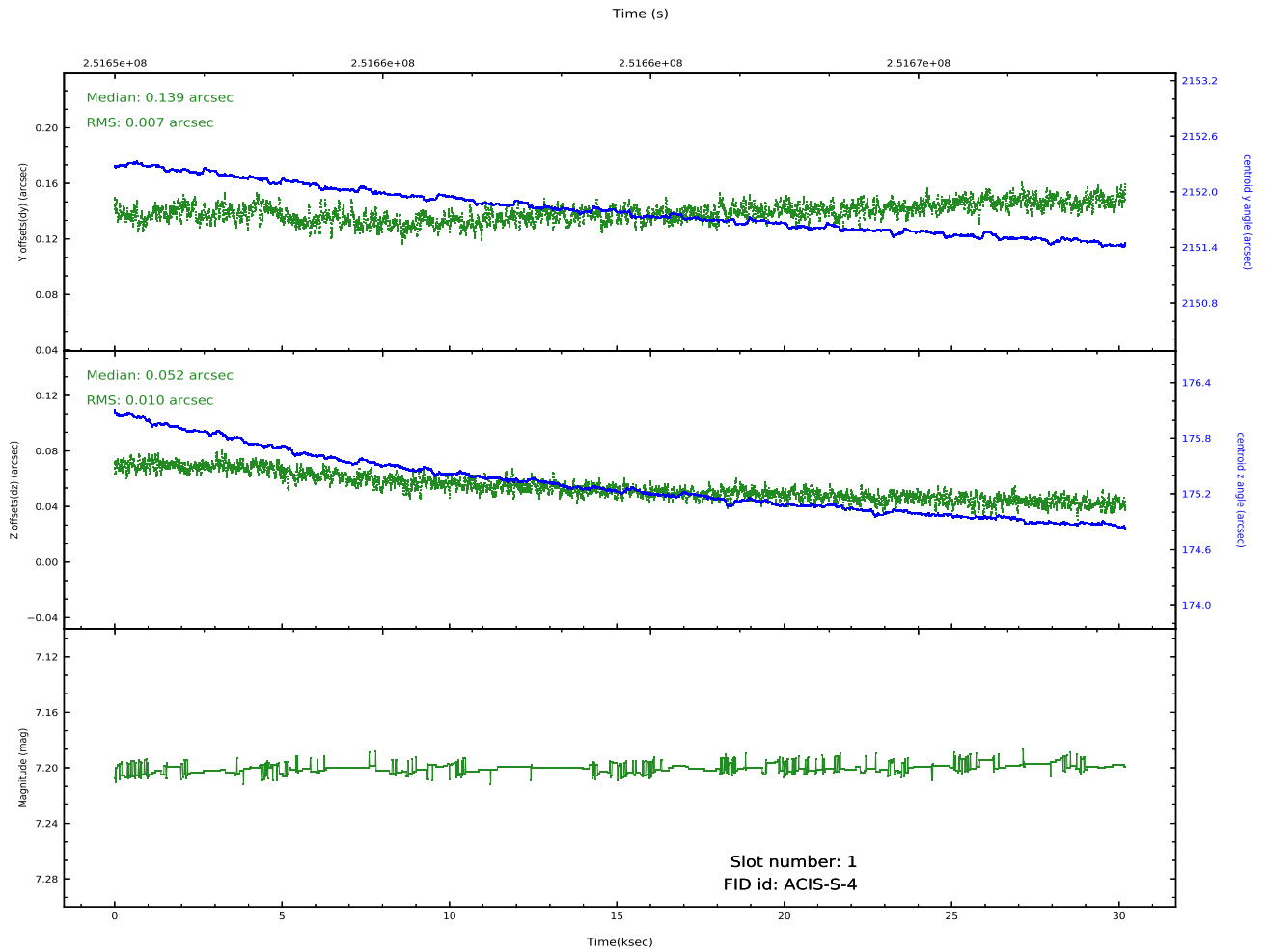
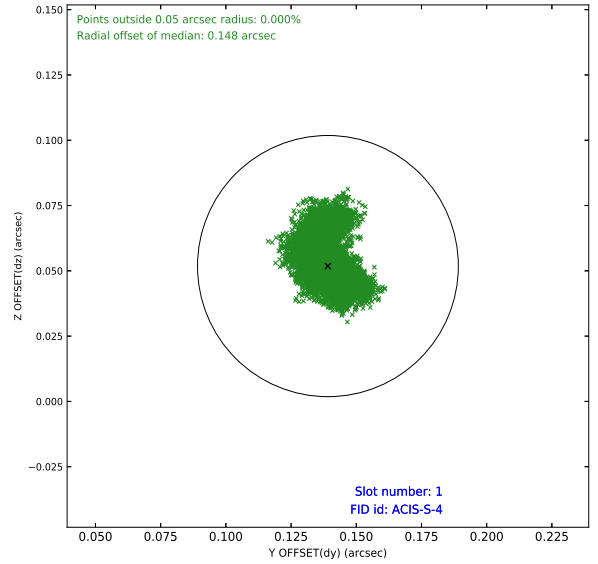
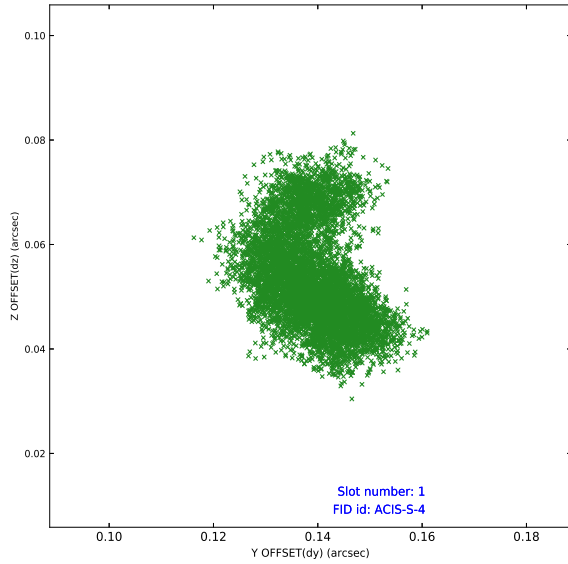


## 2.5 FID Slots

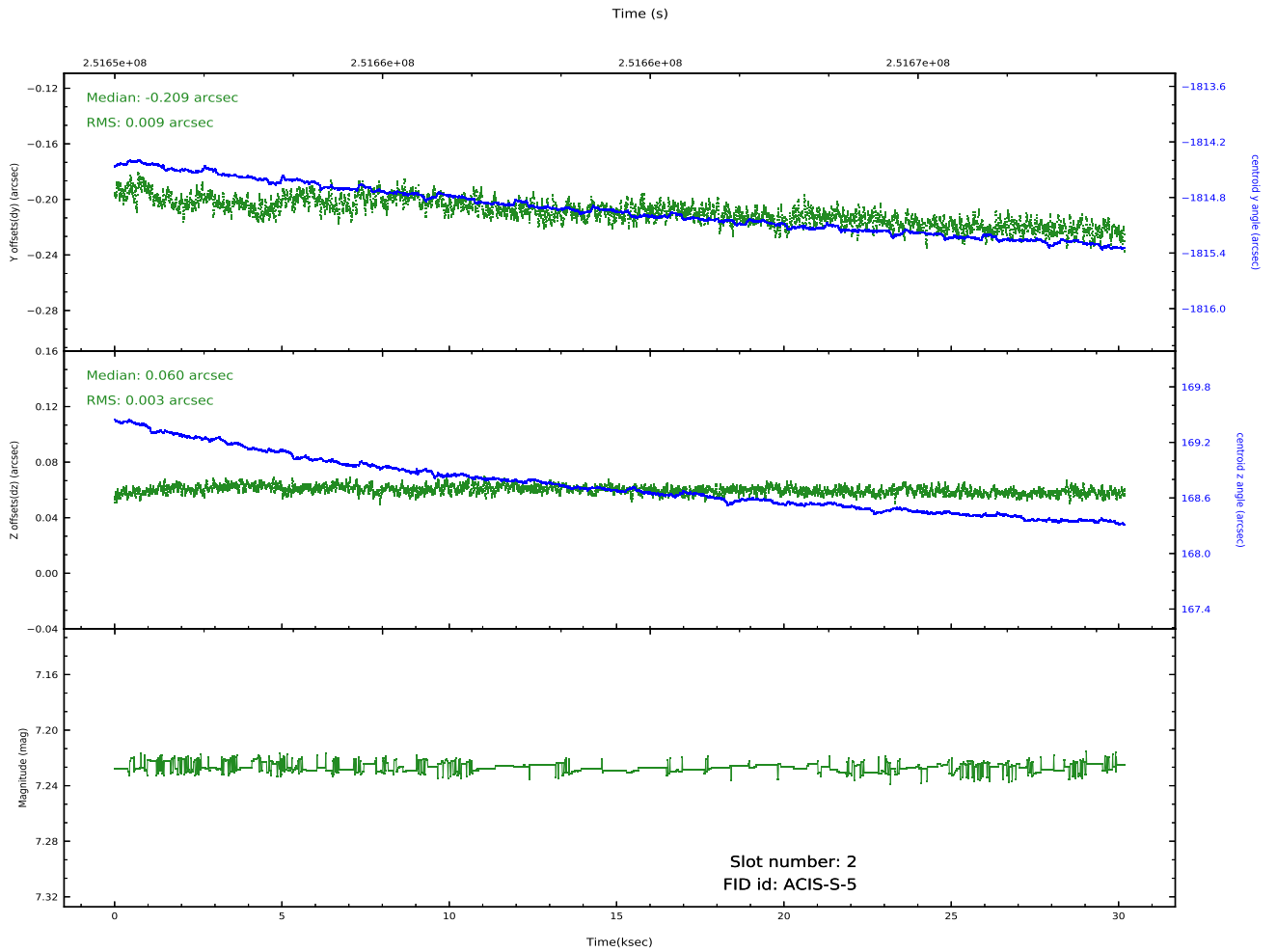
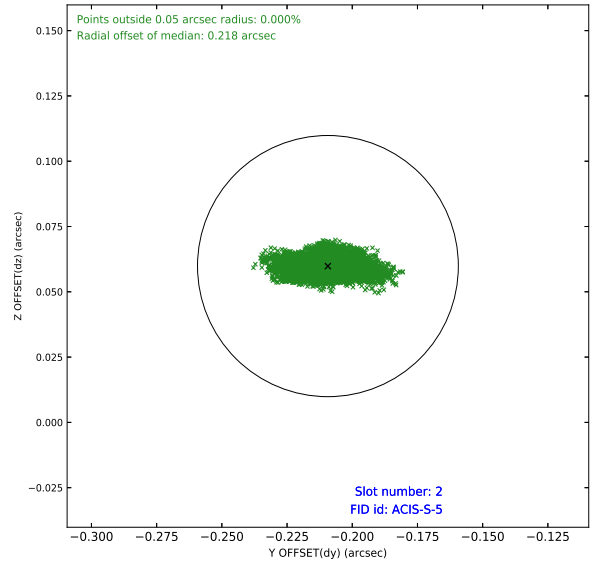
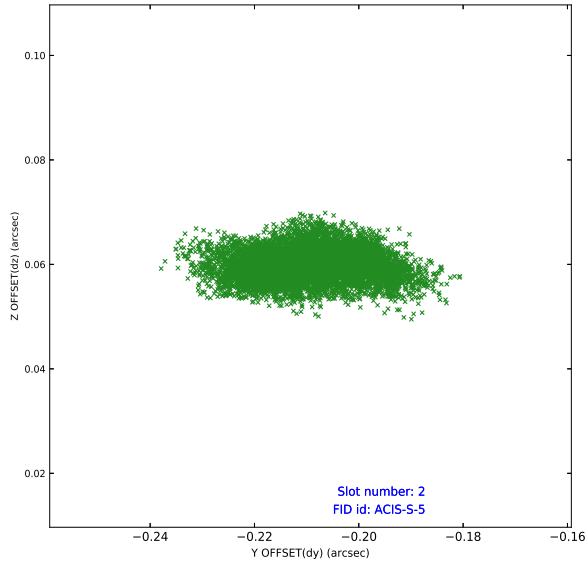
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Francesca Civano
V&V Date (YYYY-MM-DD)	2020.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.17591

## A.2 Comments