

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4868 - L2 Version 4  
Chandra X-Ray Center

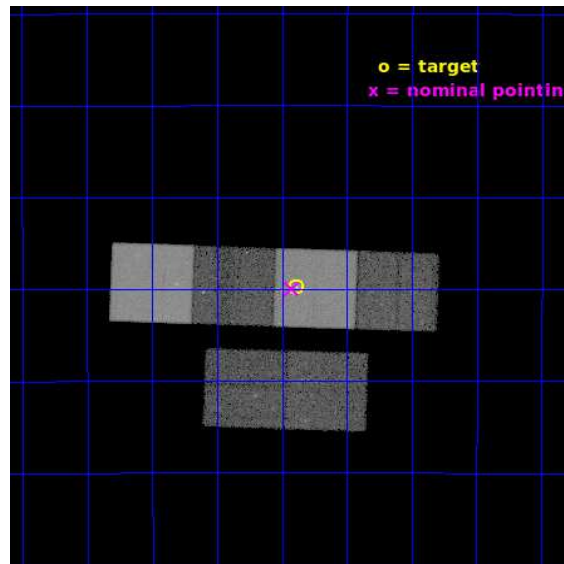
L2 Processing Date : Sep 24 2020

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# 1 Front

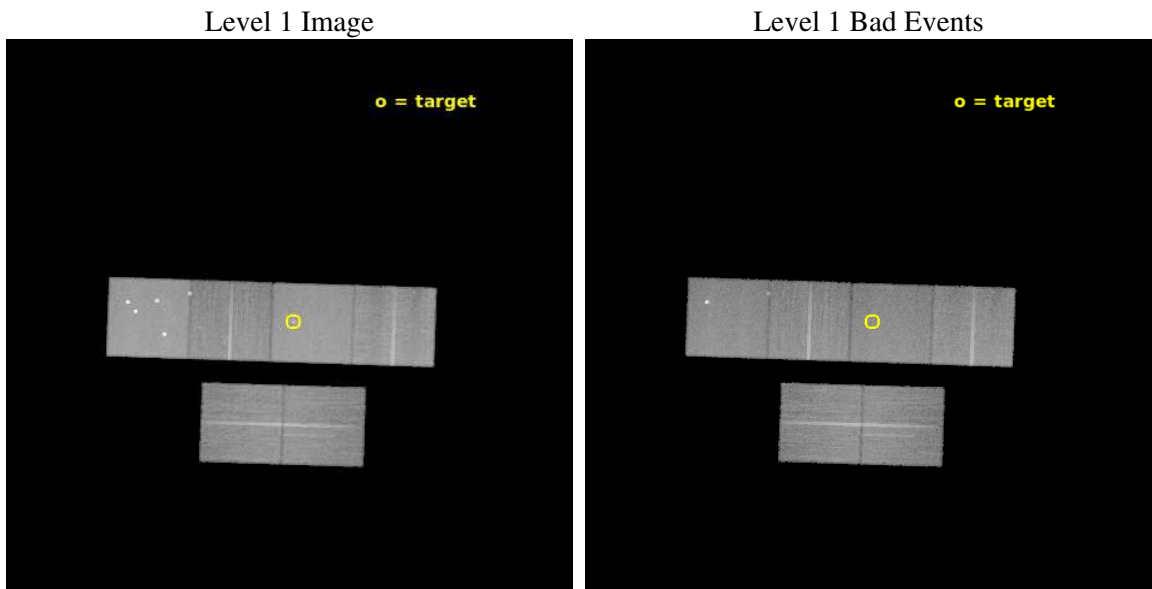
seq_num	700950	Sequence number
obs_id	4868	Observation id
title	Probing Obscured AGN with X-ray Iron Lines	Proposal title
observer	Dr. Nancy Levenson	Principal investigator
object	NGC 3393	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.0975	Observer's specified target RA [deg]
dec_targ	-25.161944	Observer's specified target Dec [deg]
ra_nom	162.105900768	Nominal RA [deg]
dec_nom	-25.165818759081	Nominal Dec [deg]
roll_nom	1.9576710833346	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29708.799889326	Sum of GTIs [s]
livetime	29332.609176636	Livetime [s]
ontime2	29708.799889326	Sum of GTIs [s]
ontime3	29708.799889326	Sum of GTIs [s]
ontime5	29708.799889326	Sum of GTIs [s]
ontime6	29708.799889326	Sum of GTIs [s]
ontime7	29708.799889326	Sum of GTIs [s]
ontime8	29705.558988601	Sum of GTIs [s]
l2events	314815	Number of level 2 events



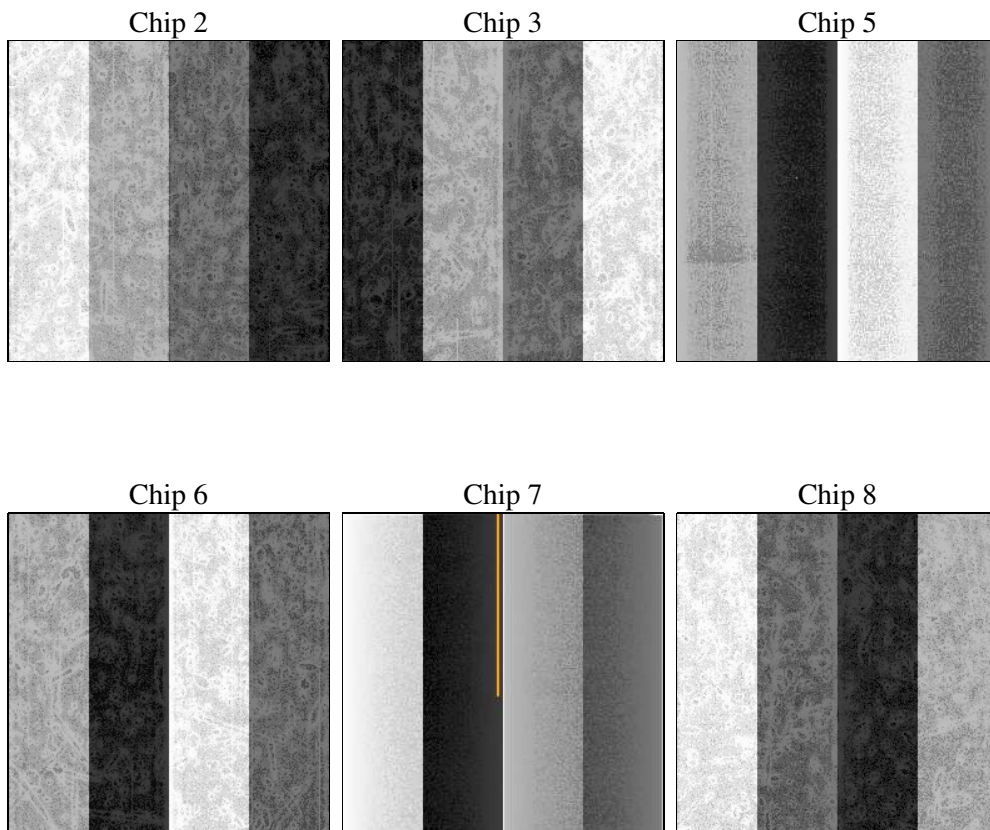
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29957.971000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29708.799889326	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	29708.799889326	Sum of GTIs [s]
date	2020-09-24T02:56:25	Date and time of file creation	ontime3	29708.799889326	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	29708.799889326	Sum of GTIs [s]
			ontime6	29708.799889326	Sum of GTIs [s]
			ontime7	29708.799889326	Sum of GTIs [s]
			ontime8	29705.558988601	Sum of GTIs [s]
			l1events	1409545	Number of level 1 events

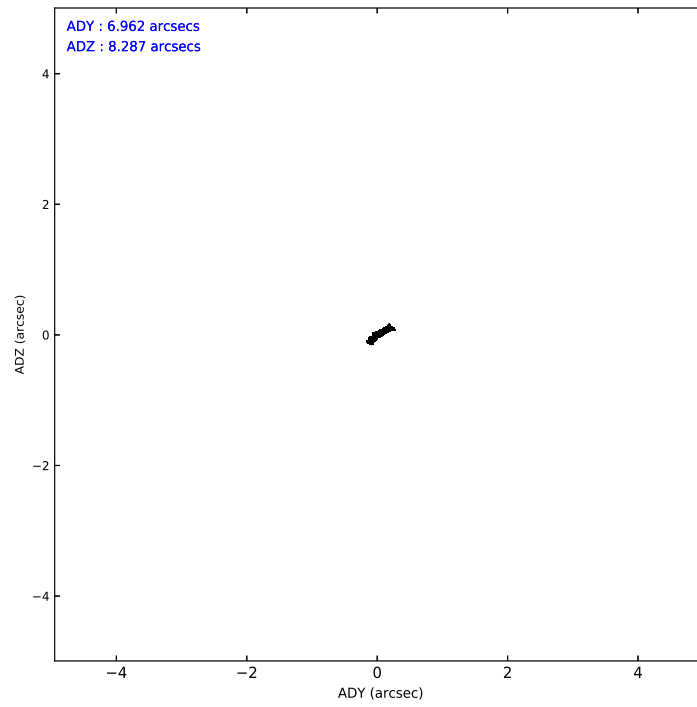
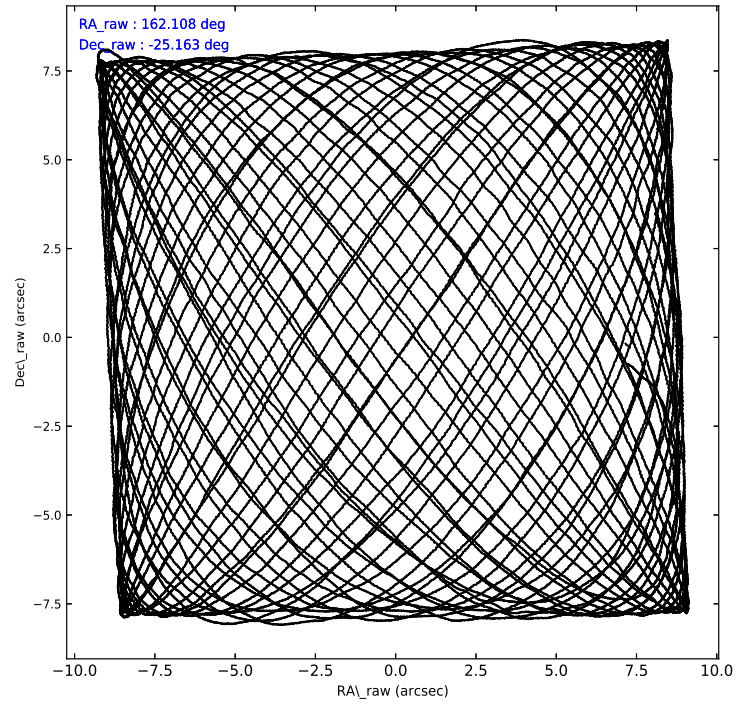
### 2.1.4 Events

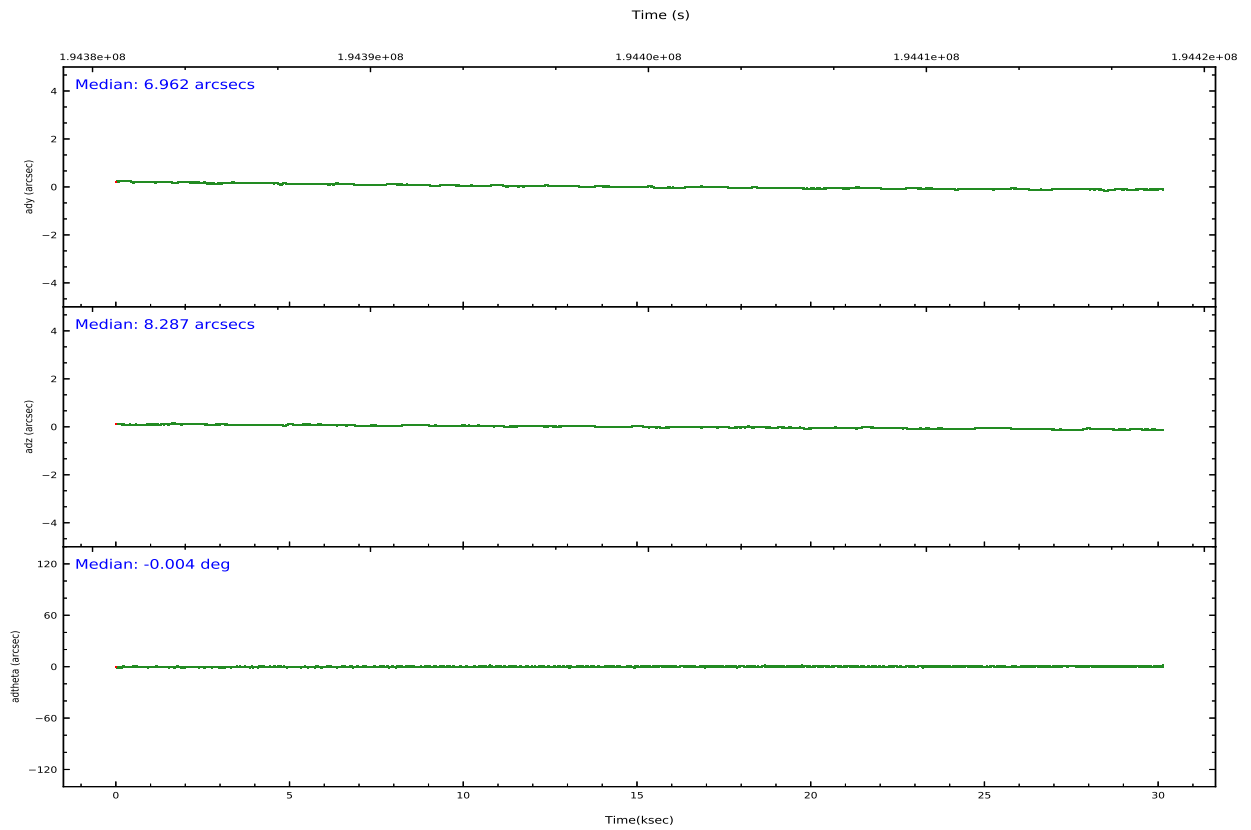
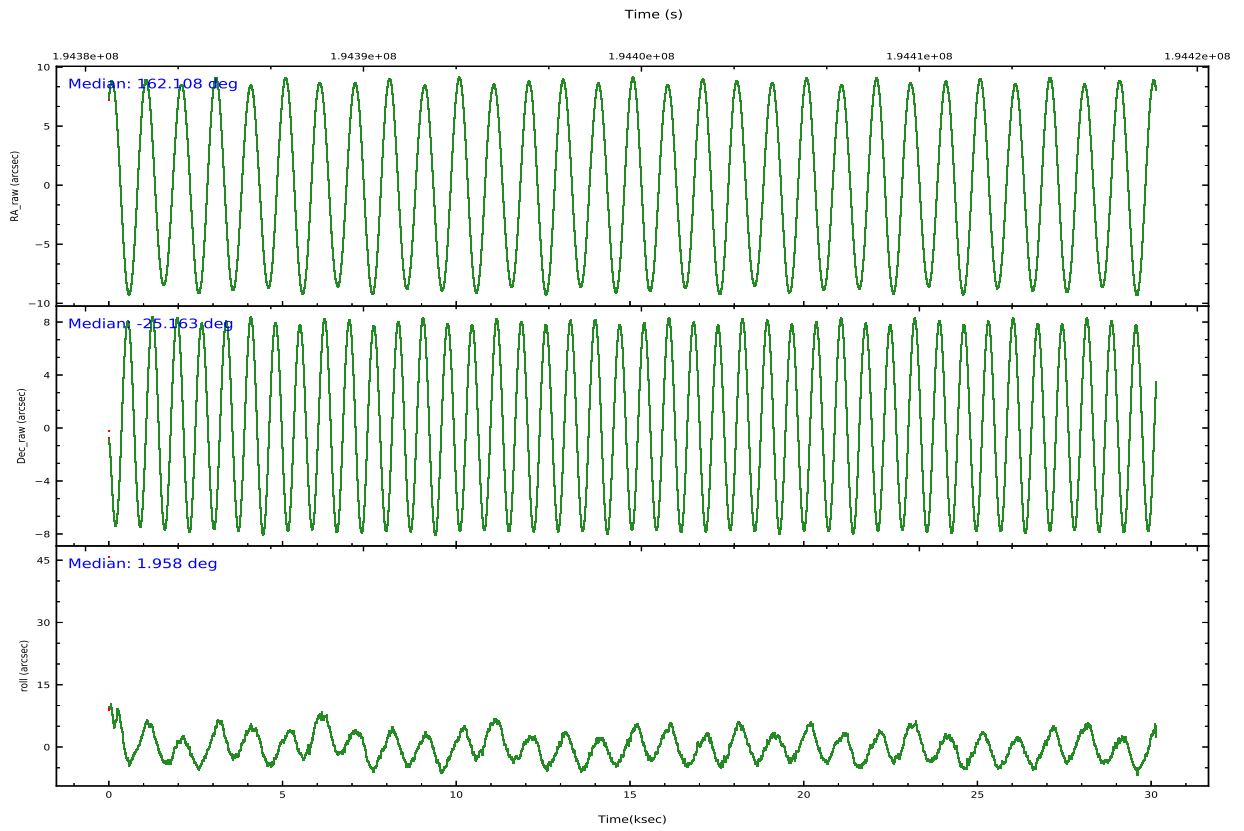
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	194227	186431	323550	193834	267460	244043	grade 0 events	9863	9818	34149	8968	10990	16434
rejected events	171570	164096	167514	171014	154544	192187		5%	5%	10%	4%	4%	6%
rejected %	88%	88%	51%	88%	57%	78%	grade 1 events	101	124	626	96	242	144
								0%	0%	0%	0%	0%	0%
							grade 2 events	4568	4263	40178	4787	22227	11301
								2%	2%	12%	2%	8%	4%
							grade 3 events	2208	2131	5248	2168	10022	5429
								1%	1%	1%	1%	3%	2%
							grade 4 events	2125	2196	4941	2190	9983	5166
								1%	1%	1%	1%	3%	2%
							grade 5 events	7644	8544	24226	8720	24993	11705
								3%	4%	7%	4%	9%	4%
							grade 6 events	3906	3930	71558	4711	59723	13534
								2%	2%	22%	2%	22%	5%
							grade 7 events	163812	155425	142624	162194	129280	180330
								84%	83%	44%	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	162.082768	162.105900768	Subarray requested	NONE	NONE
[deg] Pointing Dec	-25.178042	-25.165818759081	Alternating exposures requested	N	N
[deg] Pointing Roll	1.797708	1.9576710833346	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	194384856.184000	194383534.50732			
Observation start date	2004-02-28T19:46:32	2004-02-28T19:25:34			
[s] Observation end time (MET)	194414814.184000	194415128.5962			
Observation end date	2004-02-29T04:05:50	2004-02-29T04:12:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect





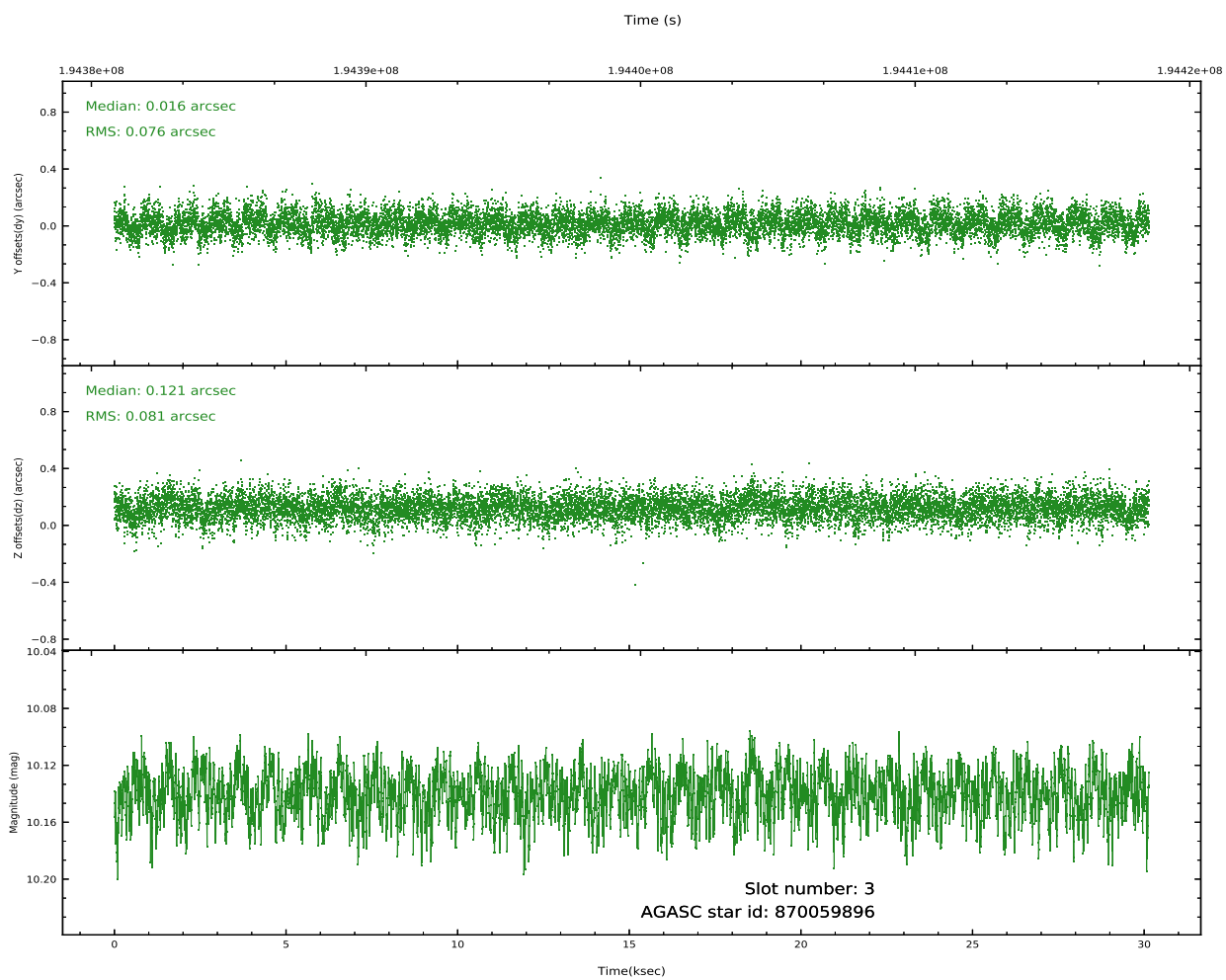
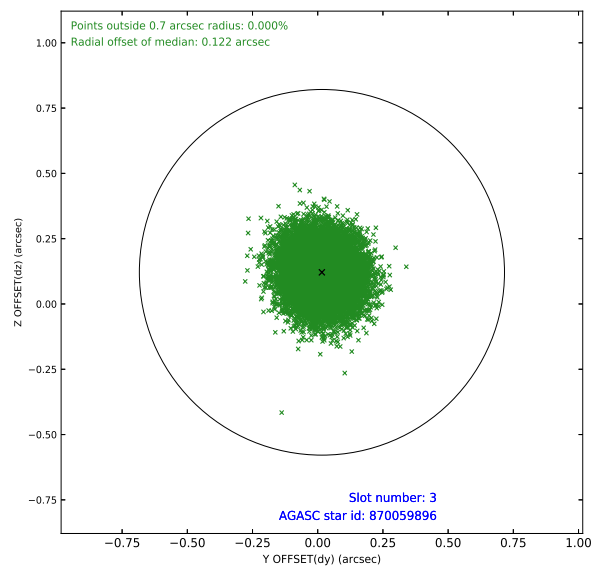
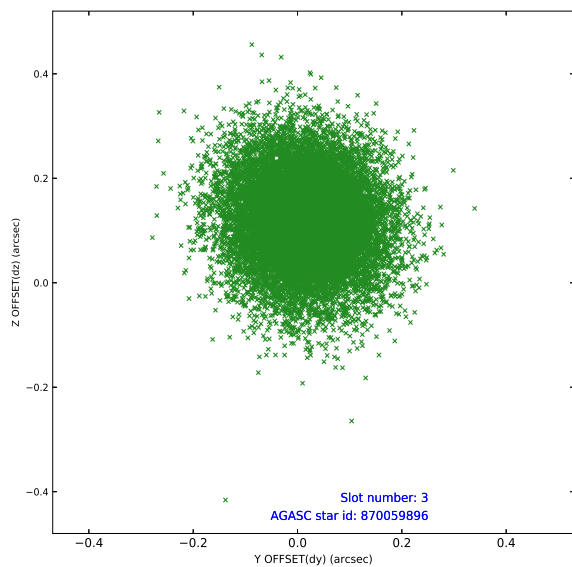
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	7353	1.000	-0.046	-0.073	0.007	0.011	0.000000	0.000000	-759.76	-1729
1	FID		ACIS-S-4	7.20	7353	1.000	0.110	0.042	0.006	0.012	0.000000	0.000000	2153.63	179
2	FID		ACIS-S-5	7.23	7353	1.000	-0.095	0.040	0.007	0.013	0.000000	0.000000	-1812.57	172
3	GUIDE	used	870059896	10.14	14691	1.000	0.016	0.121	0.118	0.193	161.813185	-25.464952	-907.88	-1005
4	GUIDE	used	870060416	9.35	14630	1.000	0.002	-0.141	0.102	0.164	162.151228	-25.161120	225.11	53
5	GUIDE	used	870062672	9.87	14695	1.000	-0.054	0.107	0.109	0.176	162.548898	-25.328477	1499.22	-590
6	GUIDE	used	870063952	8.34	14702	1.000	0.010	-0.089	0.066	0.107	161.785917	-24.549213	-900.89	2292
7	GUIDE	used	870065008	9.02	14700	1.000	0.026	-0.000	0.076	0.123	161.653761	-24.585489	-1337.73	2173

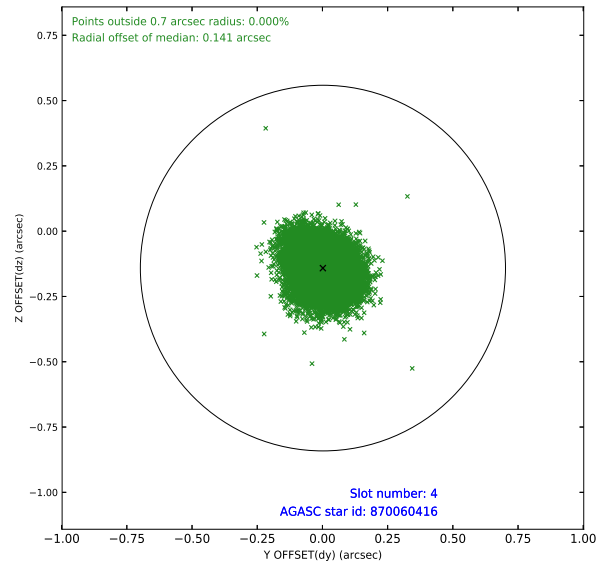
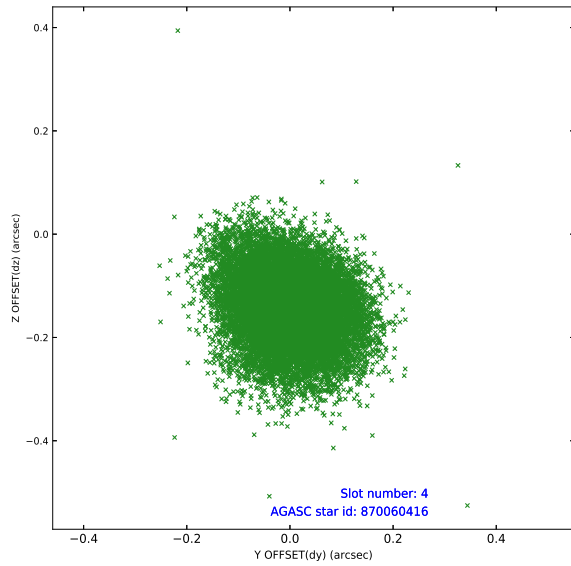
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## 2.4 Star Slots

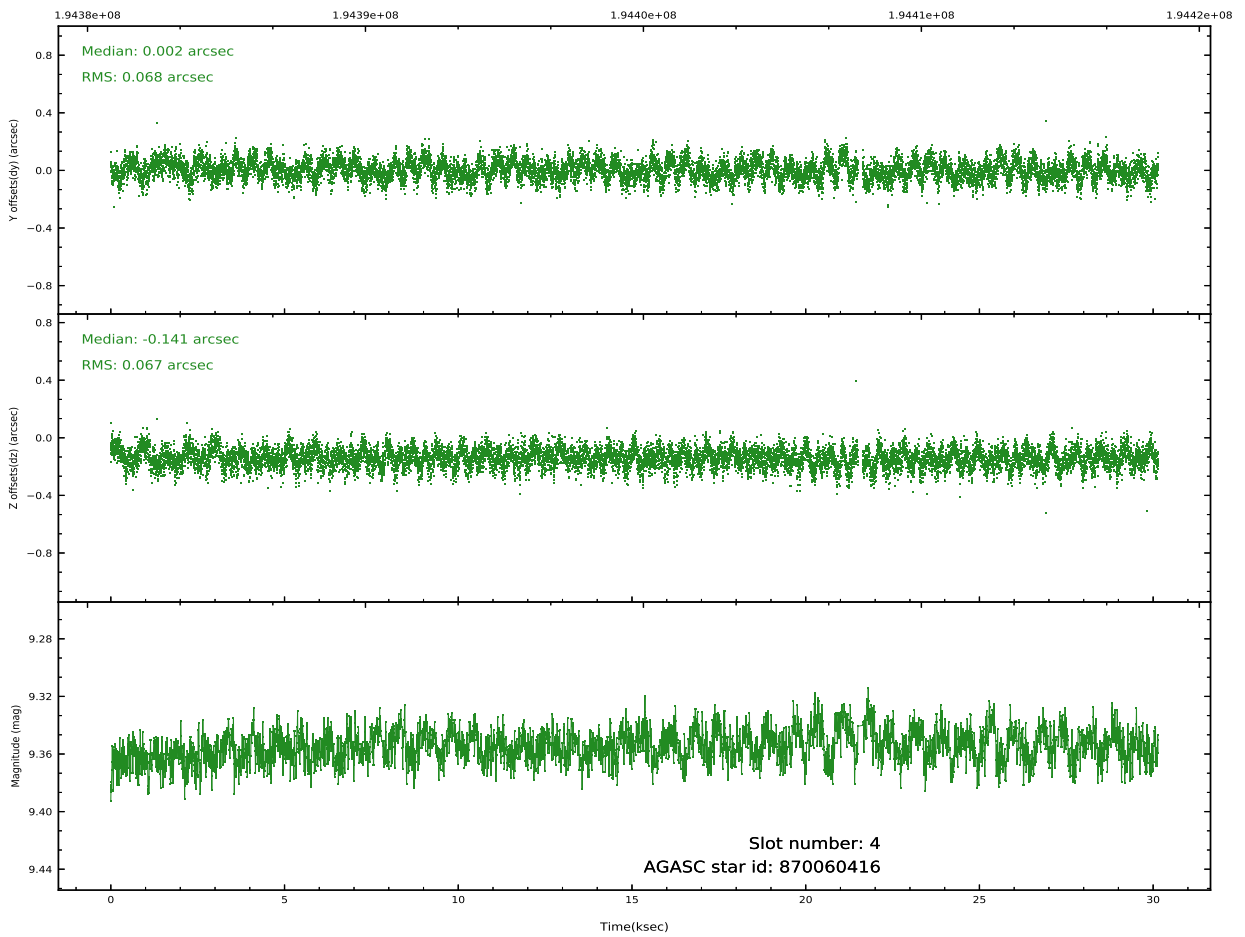
### 2.4.1 Slot 3



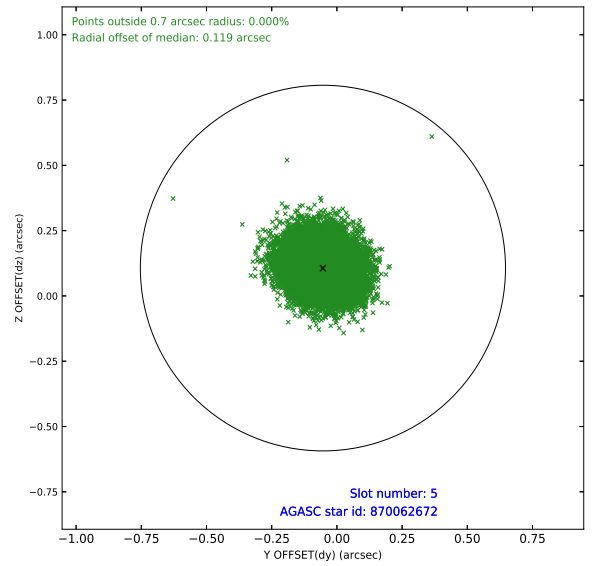
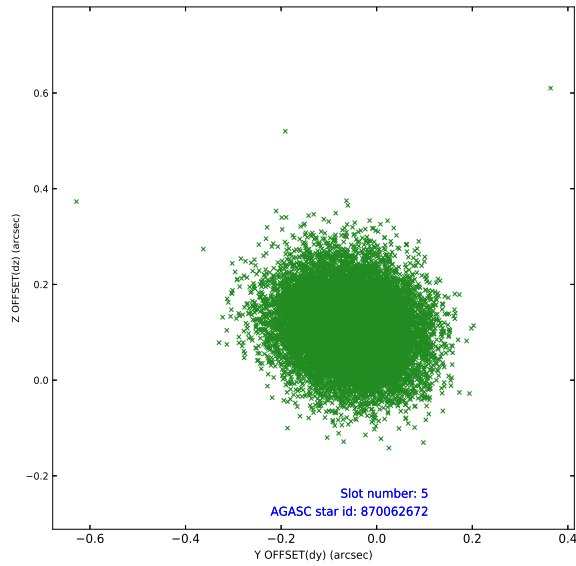
## 2.4.2 Slot 4



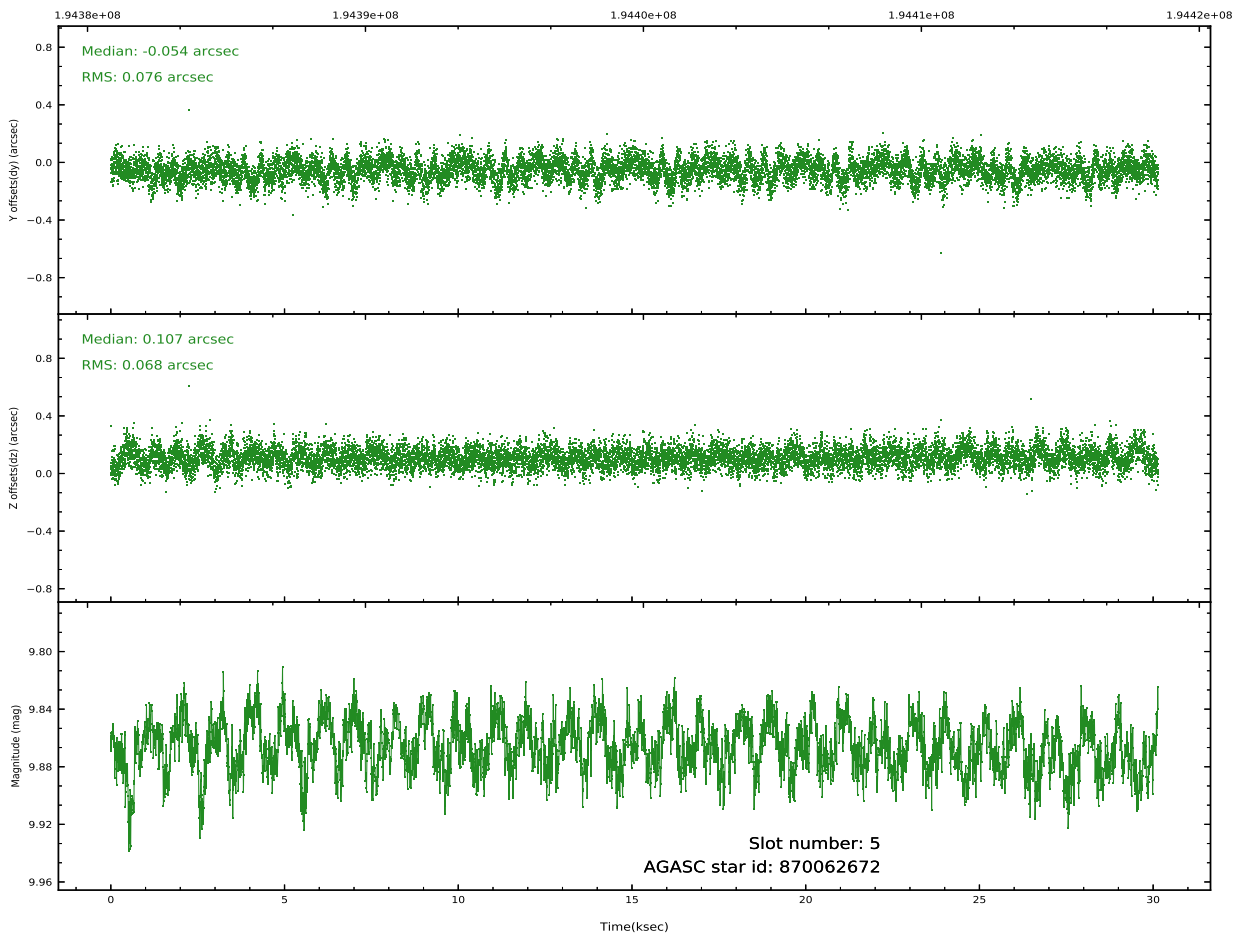
Time (s)



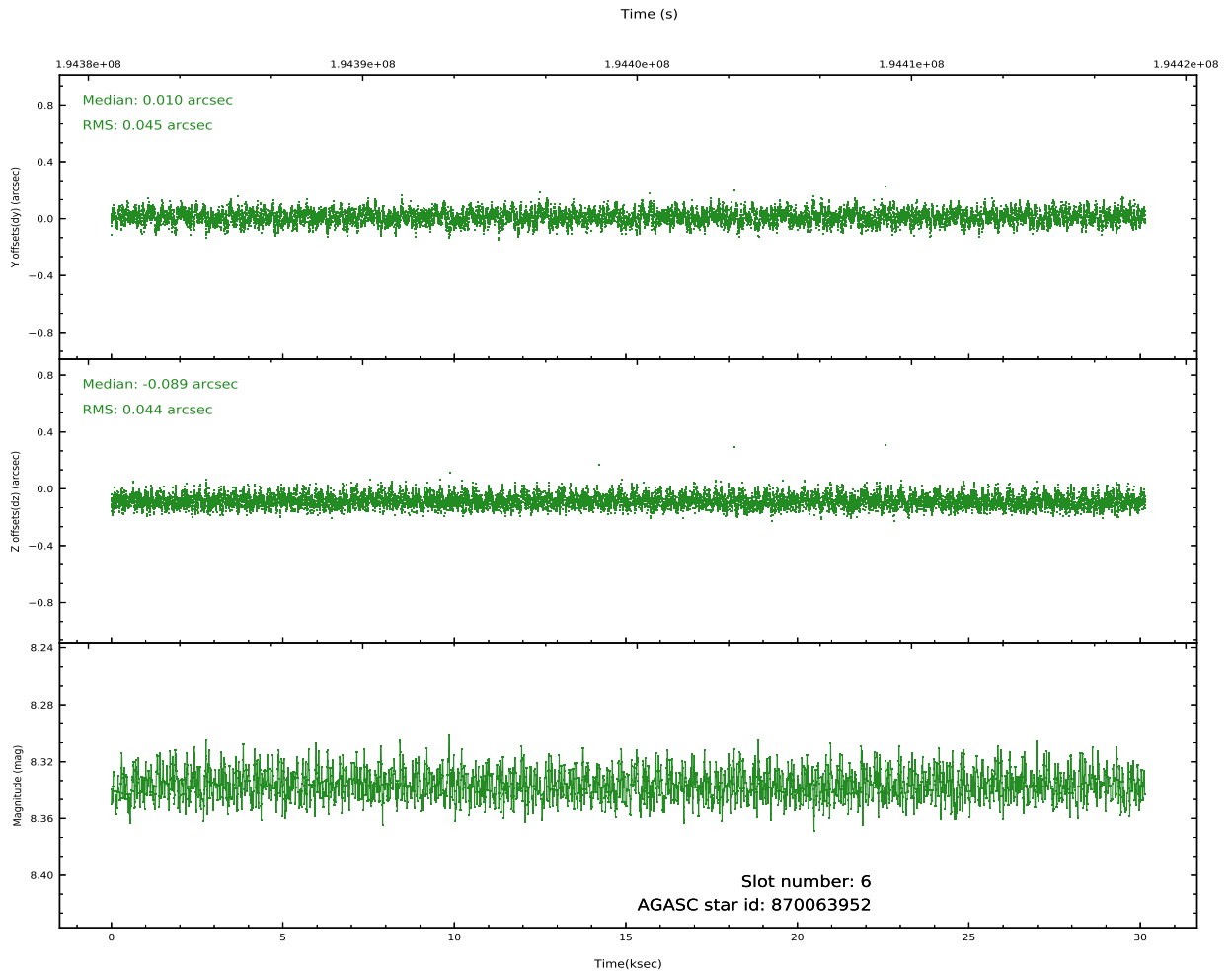
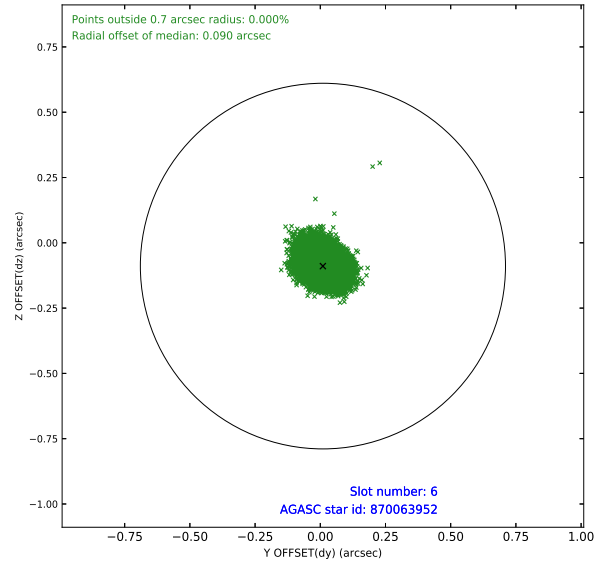
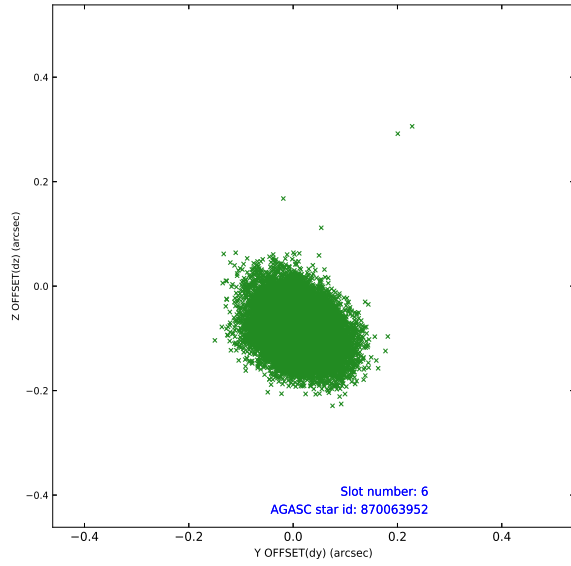
### 2.4.3 Slot 5



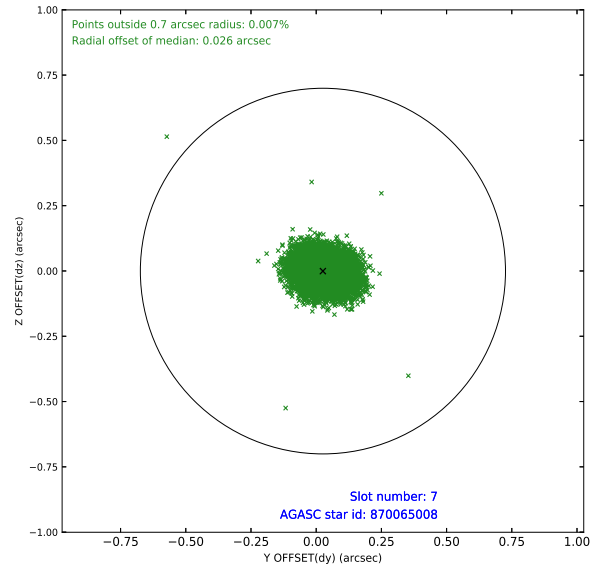
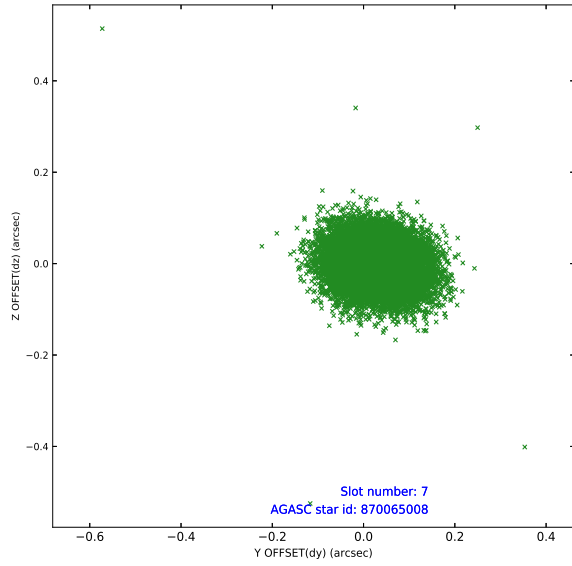
Time (s)



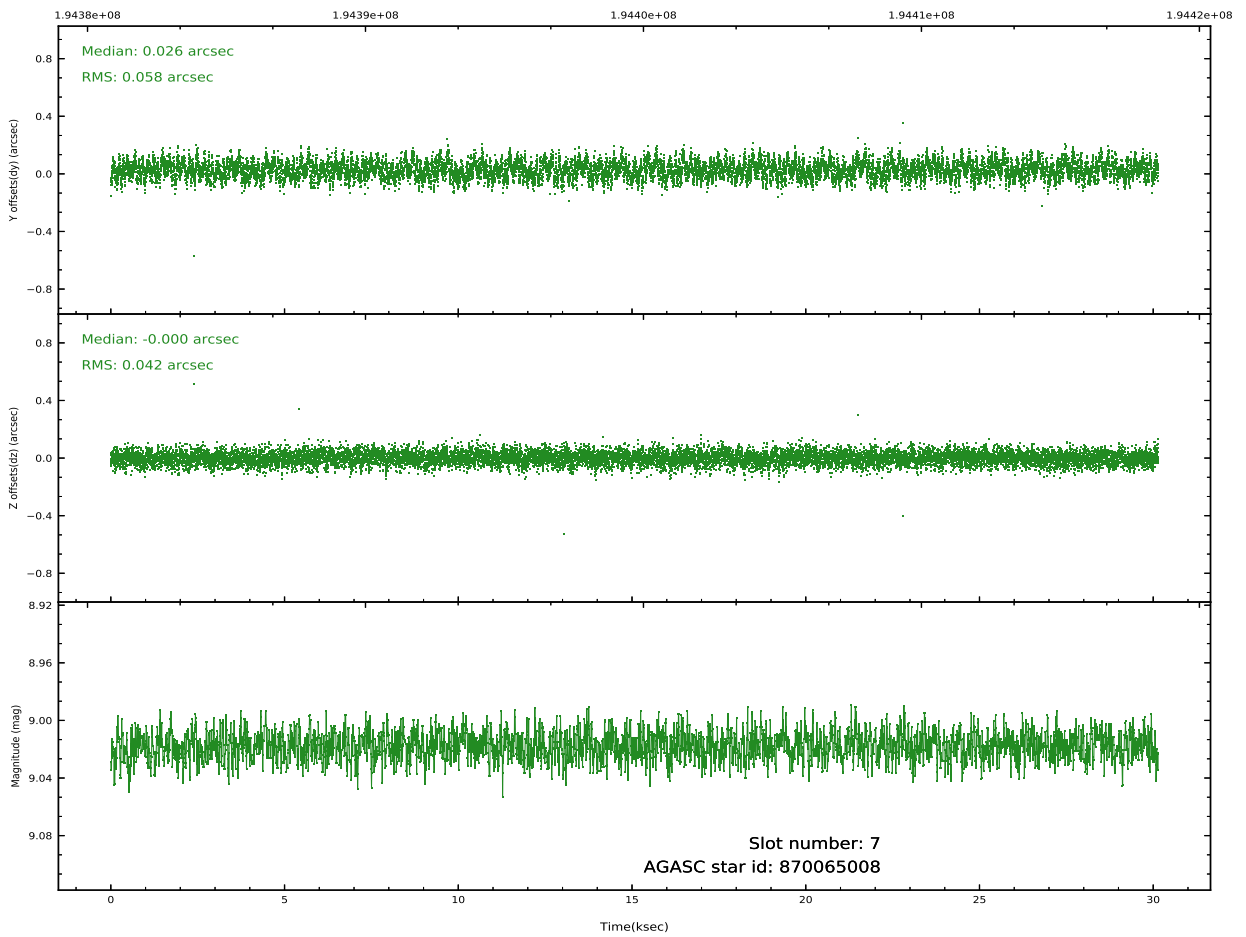
## 2.4.4 Slot 6



## 2.4.5 Slot 7

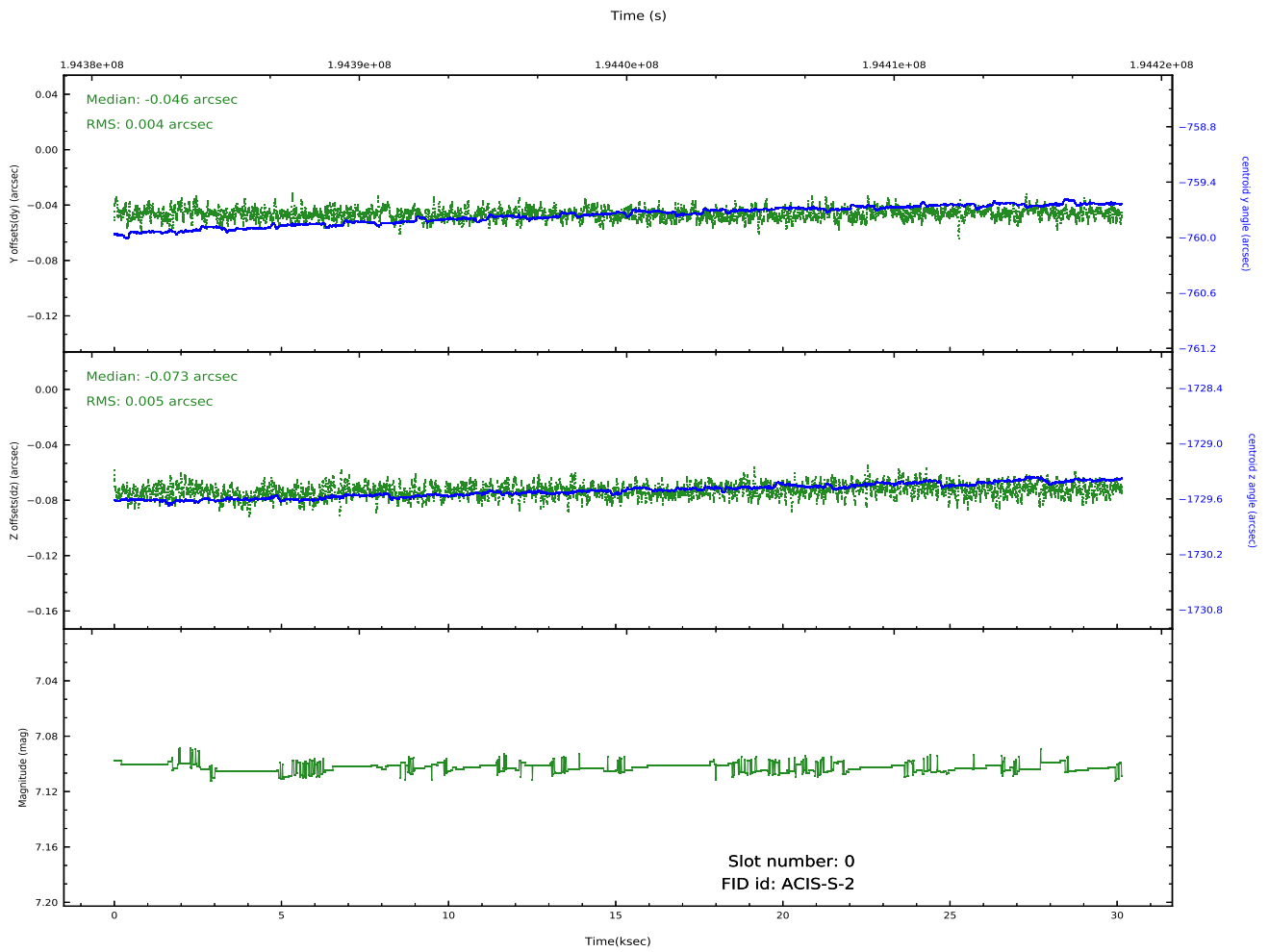
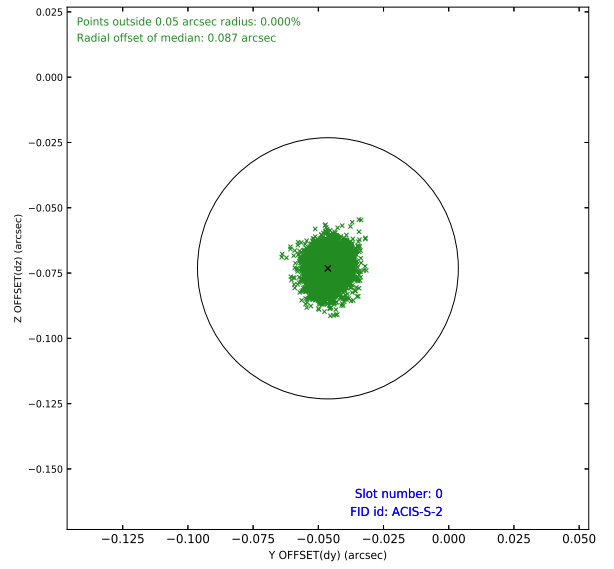
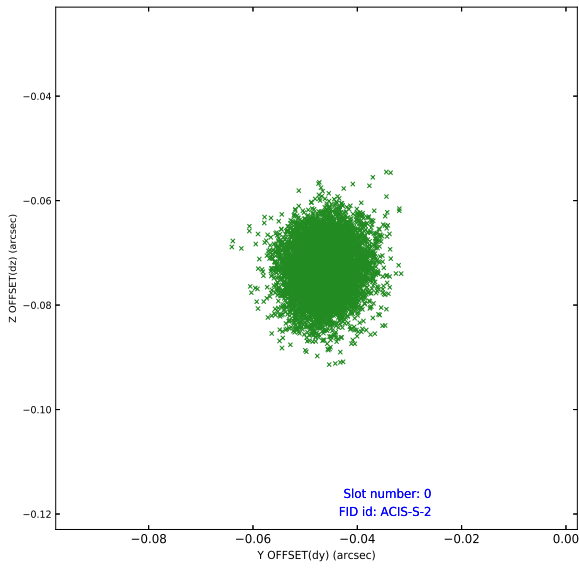


Time (s)

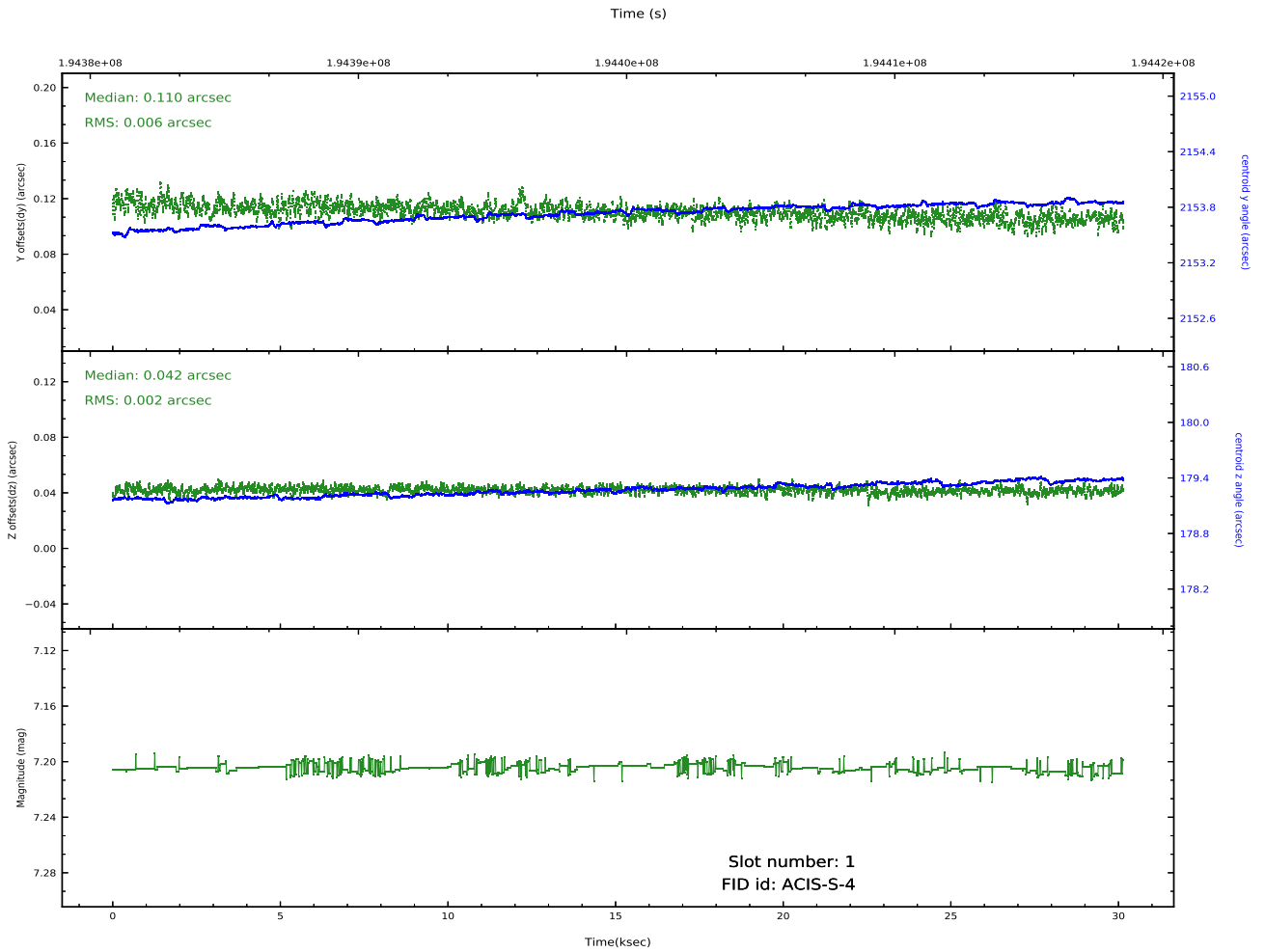
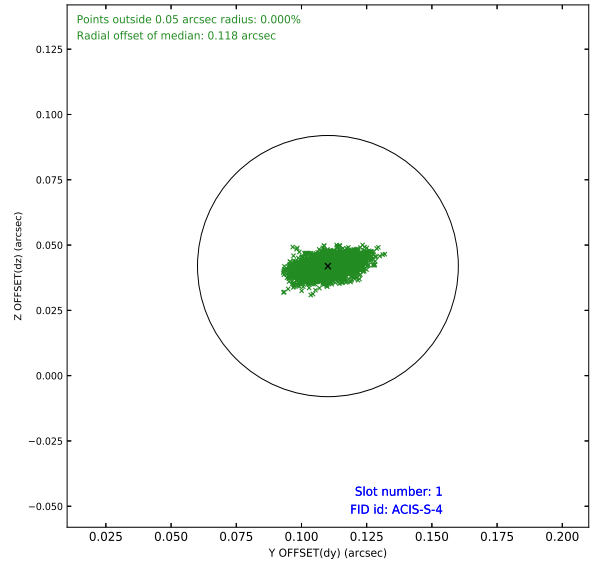
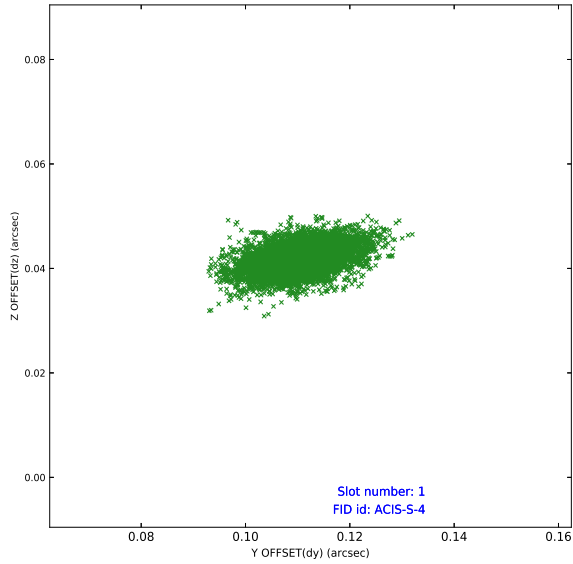


## 2.5 FID Slots

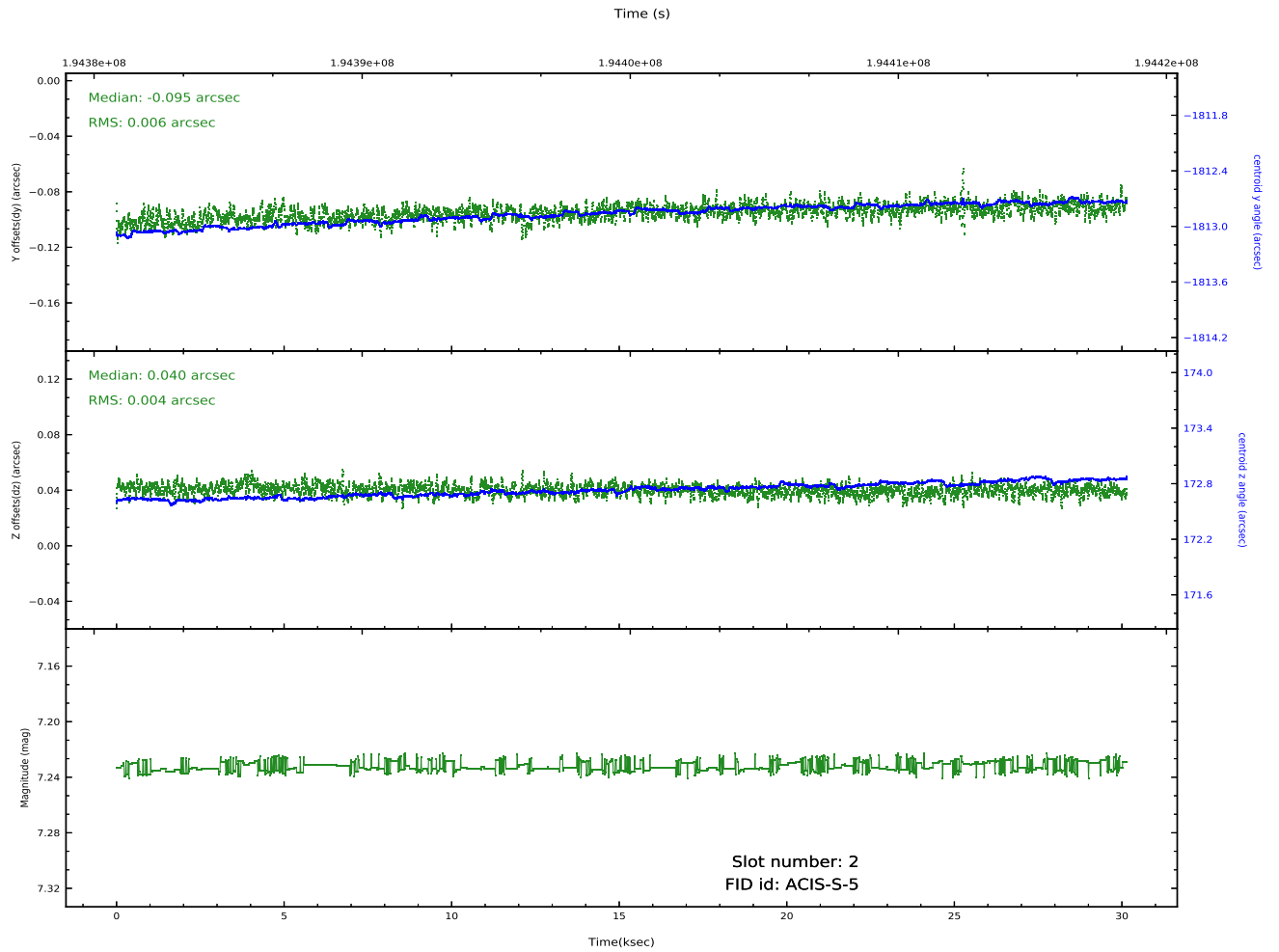
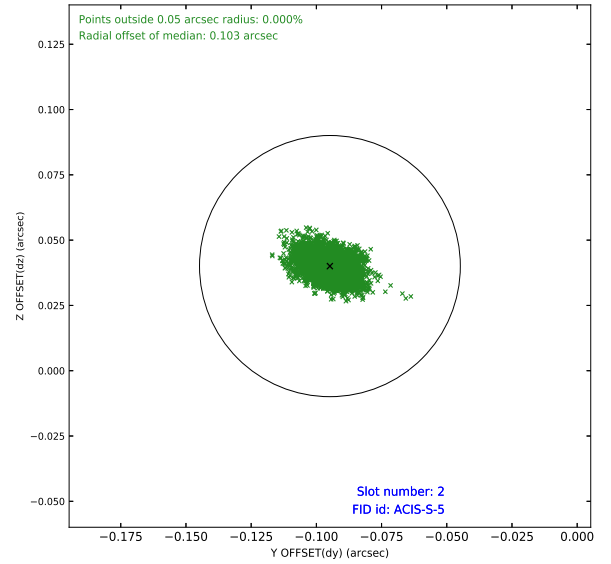
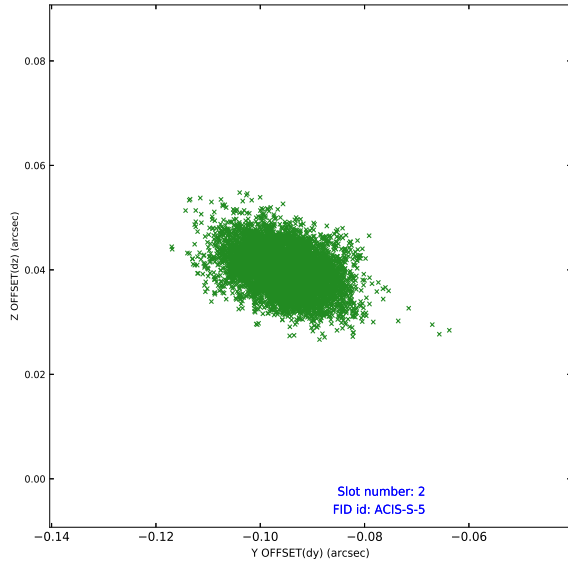
### 2.5.1 Slot 0



## 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)	2020.09.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.711

## A.2 Comments