

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5811 - L2 Version 4
Chandra X-Ray Center

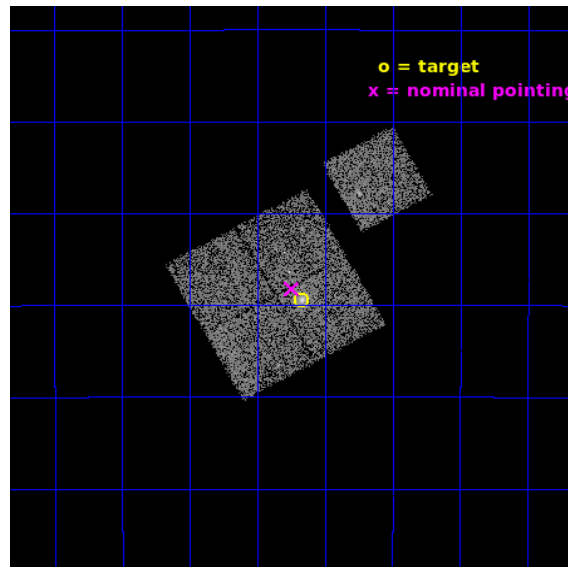
L2 Processing Date : Oct 7 2020

Contents

1	Front	2
2	OBI	3
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
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

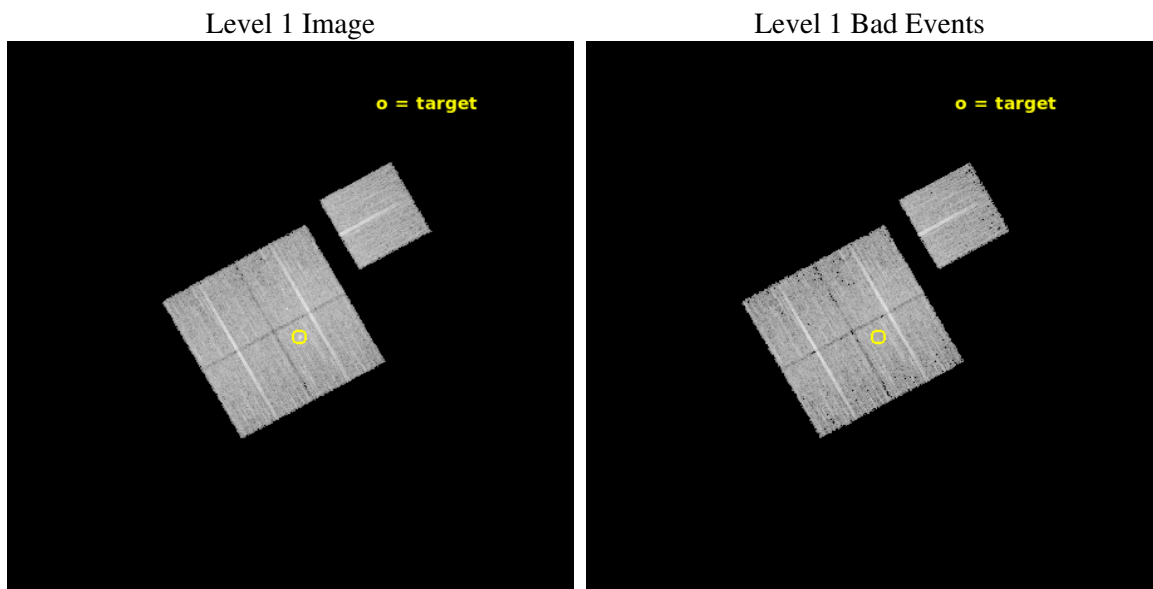
seq_num	800524	Sequence number
obs_id	5811	Observation id
title	MACS: The most massive galaxy clusters at $z>0.3$	Proposal title
observer	Harald Ebeling	Principal investigator
object	MACSJ1359.1-1929	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	209.793458	Observer's specified target RA [deg]
dec_targ	-19.49025	Observer's specified target Dec [deg]
ra_nom	209.81111133271	Nominal RA [deg]
dec_nom	-19.470196915622	Nominal Dec [deg]
roll_nom	60.862432518766	Nominal Roll [deg]
revision	4	Processing version of data
ontime	10050.199980646	Sum of GTIs [s]
livetime	9918.8867190496	Livetime [s]
ontime0	10047.058980465	Sum of GTIs [s]
ontime1	10050.199980646	Sum of GTIs [s]
ontime2	10040.776970088	Sum of GTIs [s]
ontime3	10050.199980646	Sum of GTIs [s]
ontime6	10047.058990389	Sum of GTIs [s]
l2events	27848	Number of level 2 events



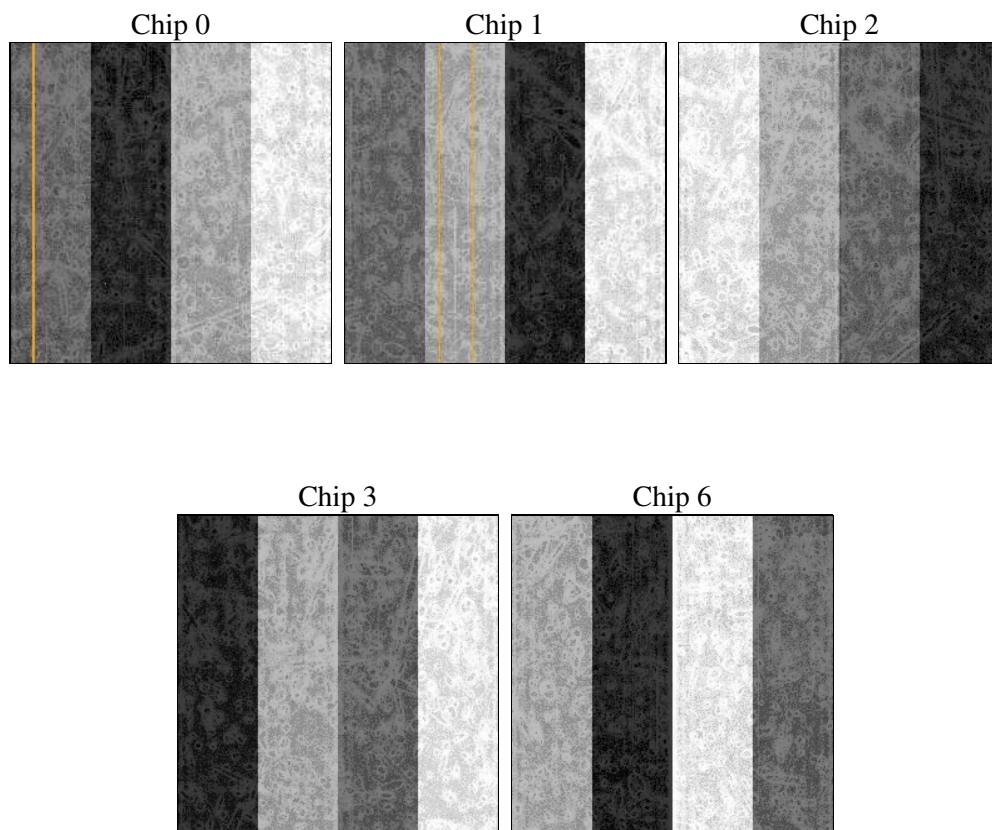
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	10050.199980646	Sum of GTIs [s]
caldsver	4.9.2	 	ontime0	10047.058980465	Sum of GTIs [s]
date	2020-10-07T11:12:14	Date and time of file creation	ontime1	10050.199980646	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	10040.776970088	Sum of GTIs [s]
			ontime3	10050.199980646	Sum of GTIs [s]
			ontime6	10047.058990389	Sum of GTIs [s]
			l1events	309034	Number of level 1 events

2.1.4 Events

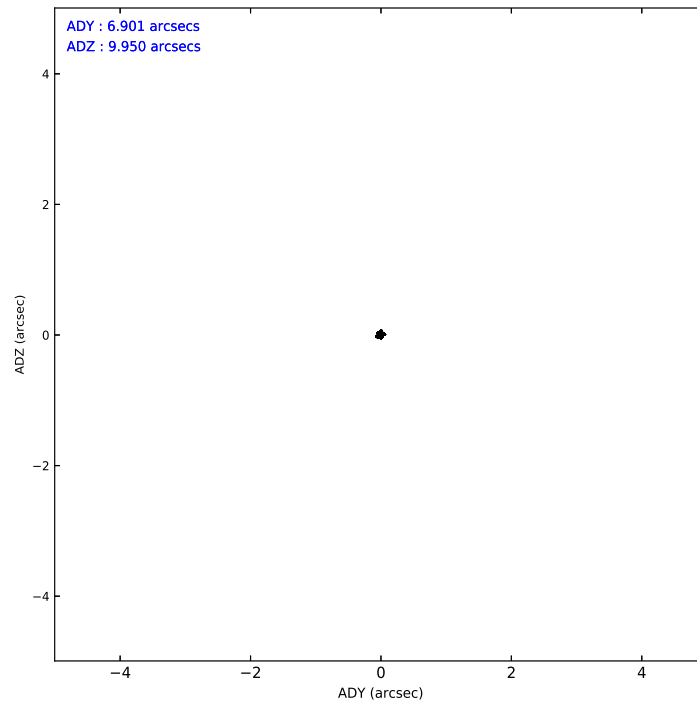
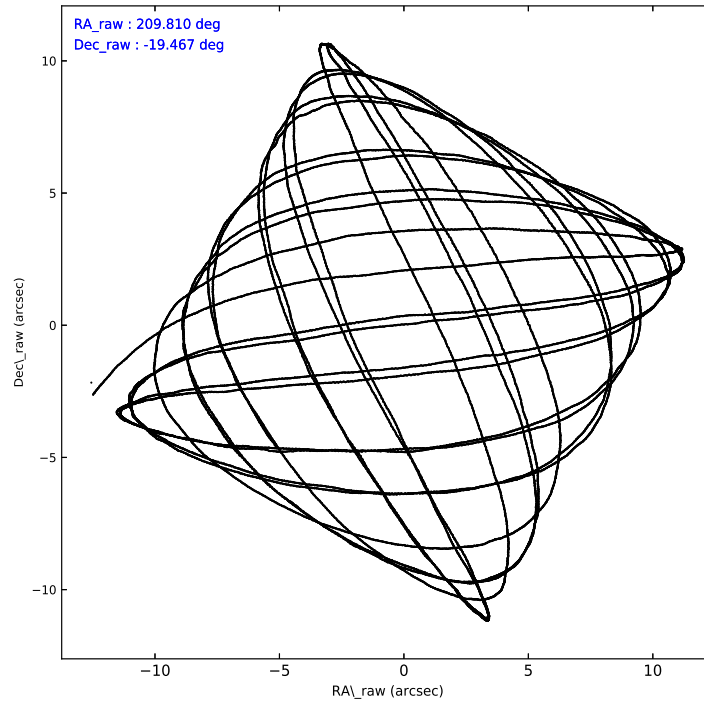
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	60265	58314	65893	61753	62809
rejected events	53870	51175	59337	54825	56183
rejected %	89%	87%	90%	88%	89%

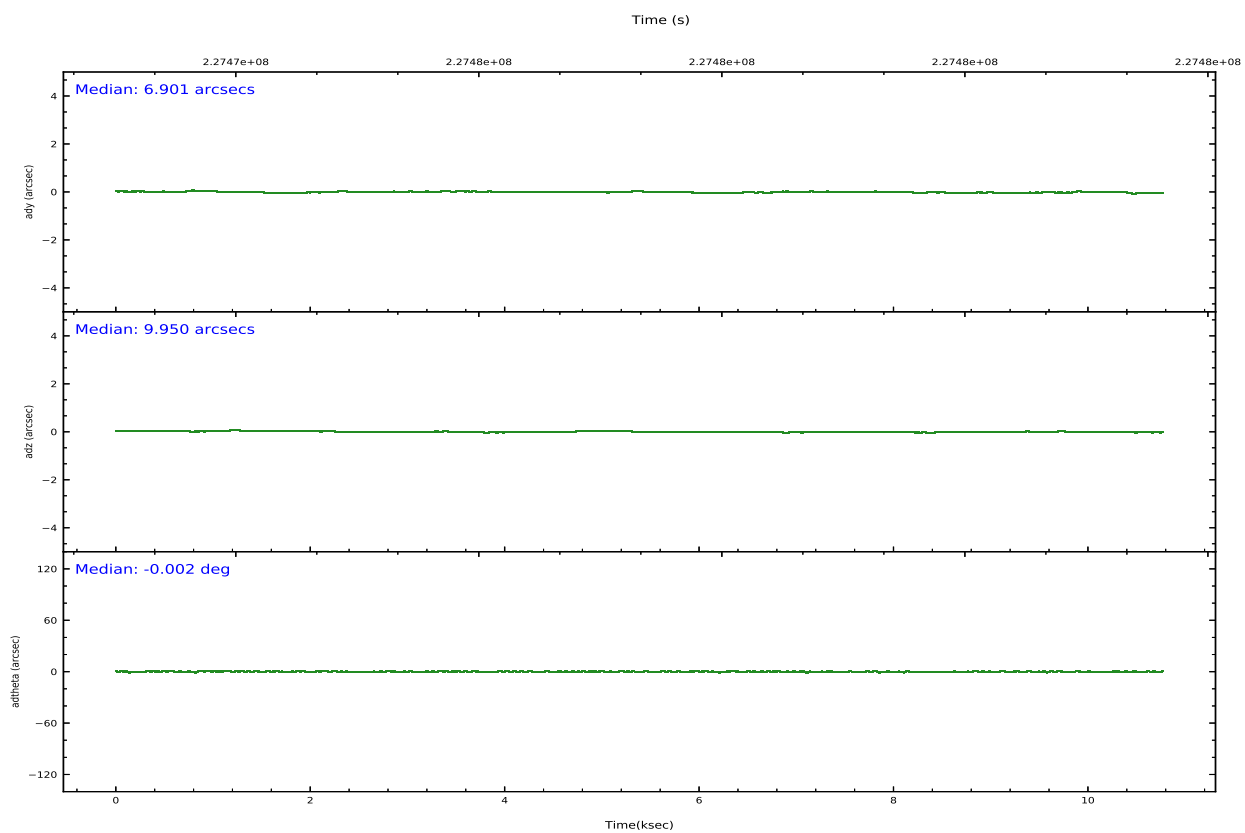
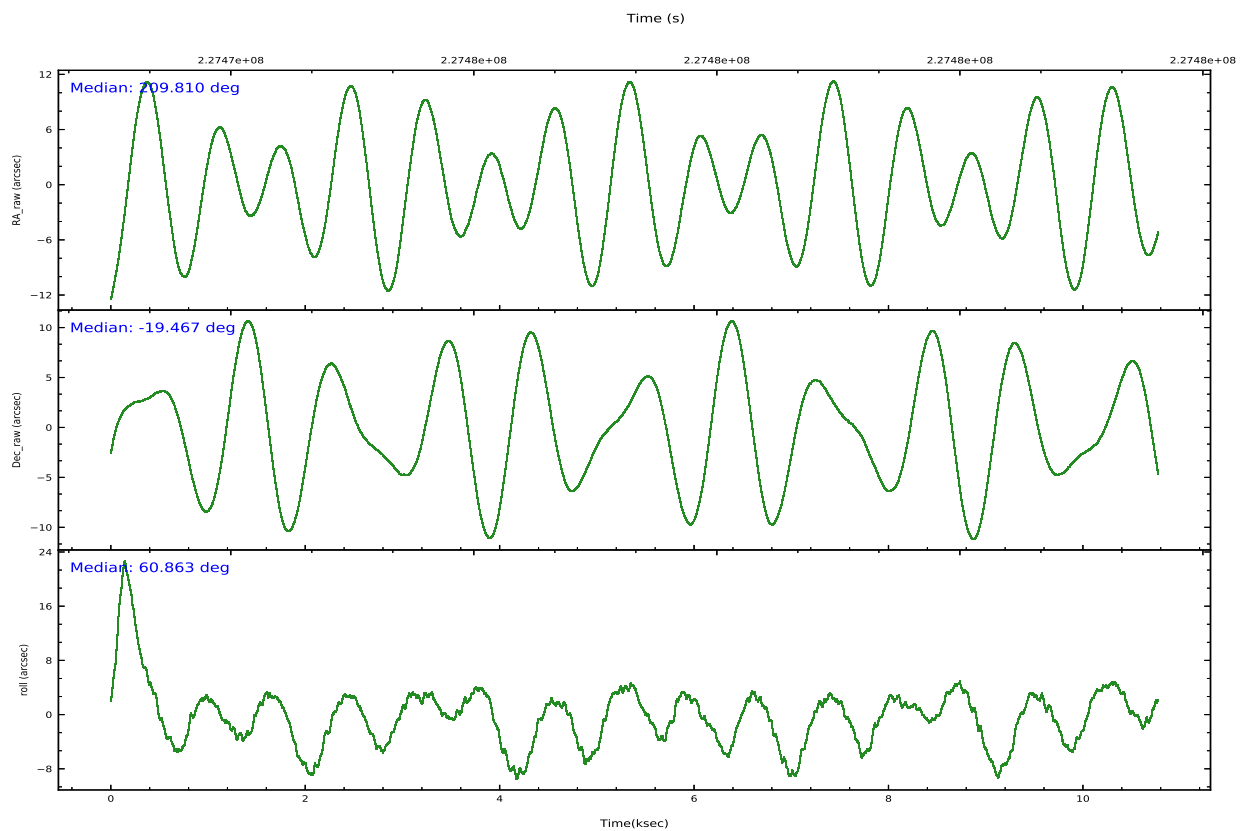
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2333	2588	2610	3005	2414
	3%	4%	3%	4%	3%
grade 1 events	25	31	45	34	23
	0%	0%	0%	0%	0%
grade 2 events	1428	1496	1468	1310	1410
	2%	2%	2%	2%	2%
grade 3 events	767	802	670	716	728
	1%	1%	1%	1%	1%
grade 4 events	636	795	643	712	709
	1%	1%	0%	1%	1%
grade 5 events	2150	2367	2148	2483	2486
	3%	4%	3%	4%	3%
grade 6 events	1234	1459	1168	1187	1368
	2%	2%	1%	1%	2%
grade 7 events	51692	48776	57141	52306	53671
	85%	83%	86%	84%	85%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	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	209.810029	209.81111133271	Subarray requested	NONE	NONE
[deg] Pointing Dec	-19.494435	-19.470196915622	Alternating exposures requested	N	N
[deg] Pointing Roll	60.660184	60.862432518766	[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	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	227472039.184000	227470814.27045			
Observation start date	2005-03-17T18:39:35	2005-03-17T18:20:14			
[s] Observation end time (MET)	227482039.184000	227483145.53351			
Observation end date	2005-03-17T21:26:15	2005-03-17T21:45:45			
Read mode	TIMED	TIMED			

2.3 Aspect



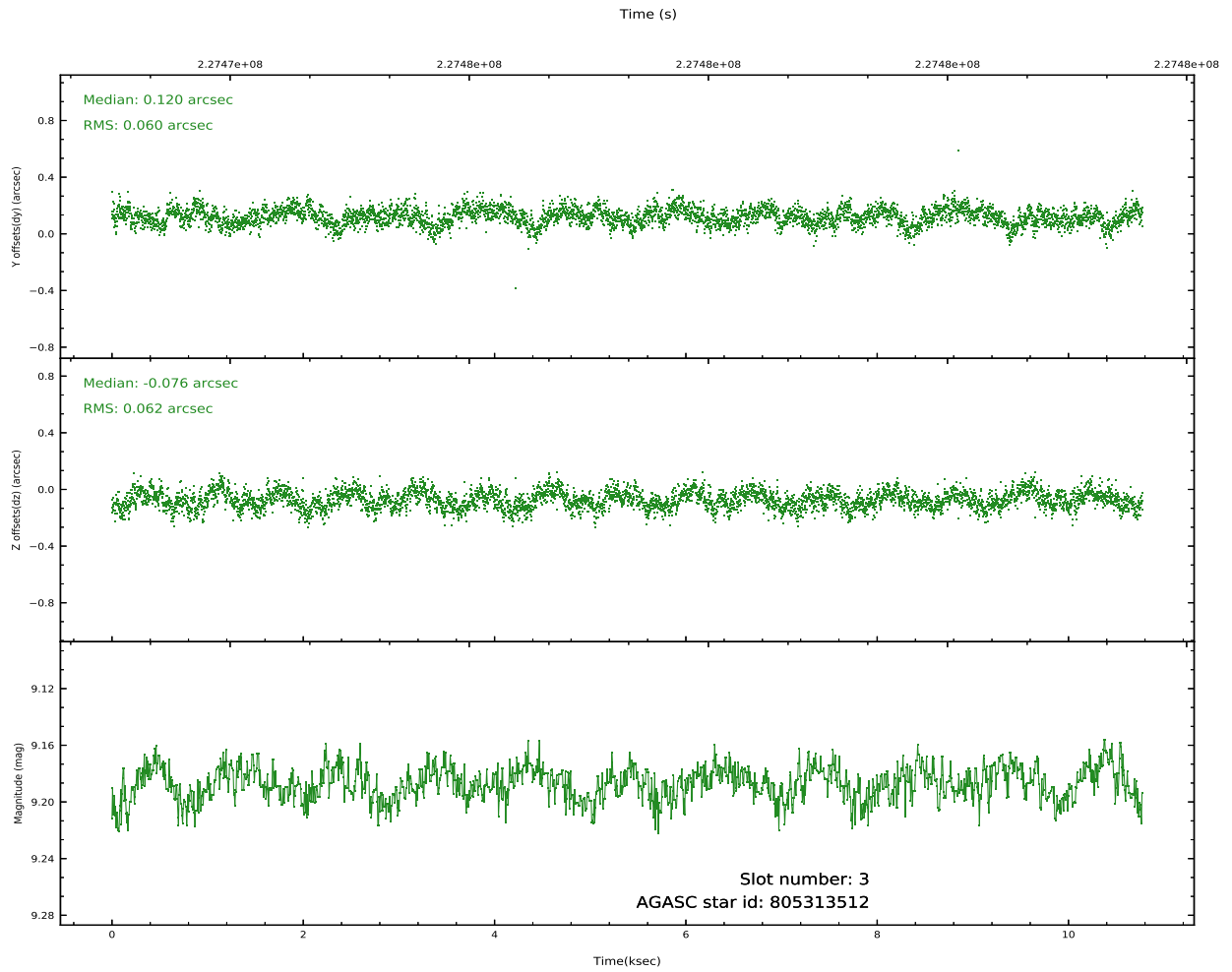
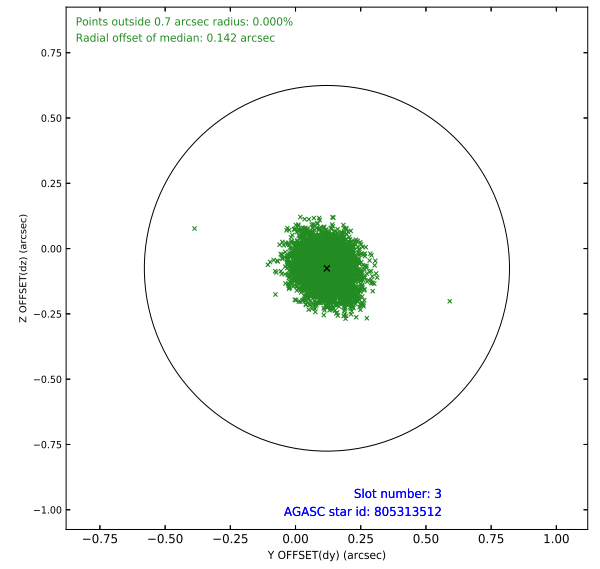
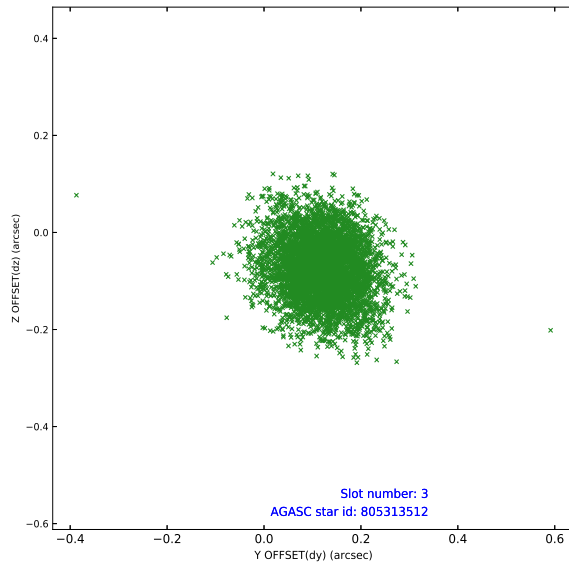


Slot Statistics

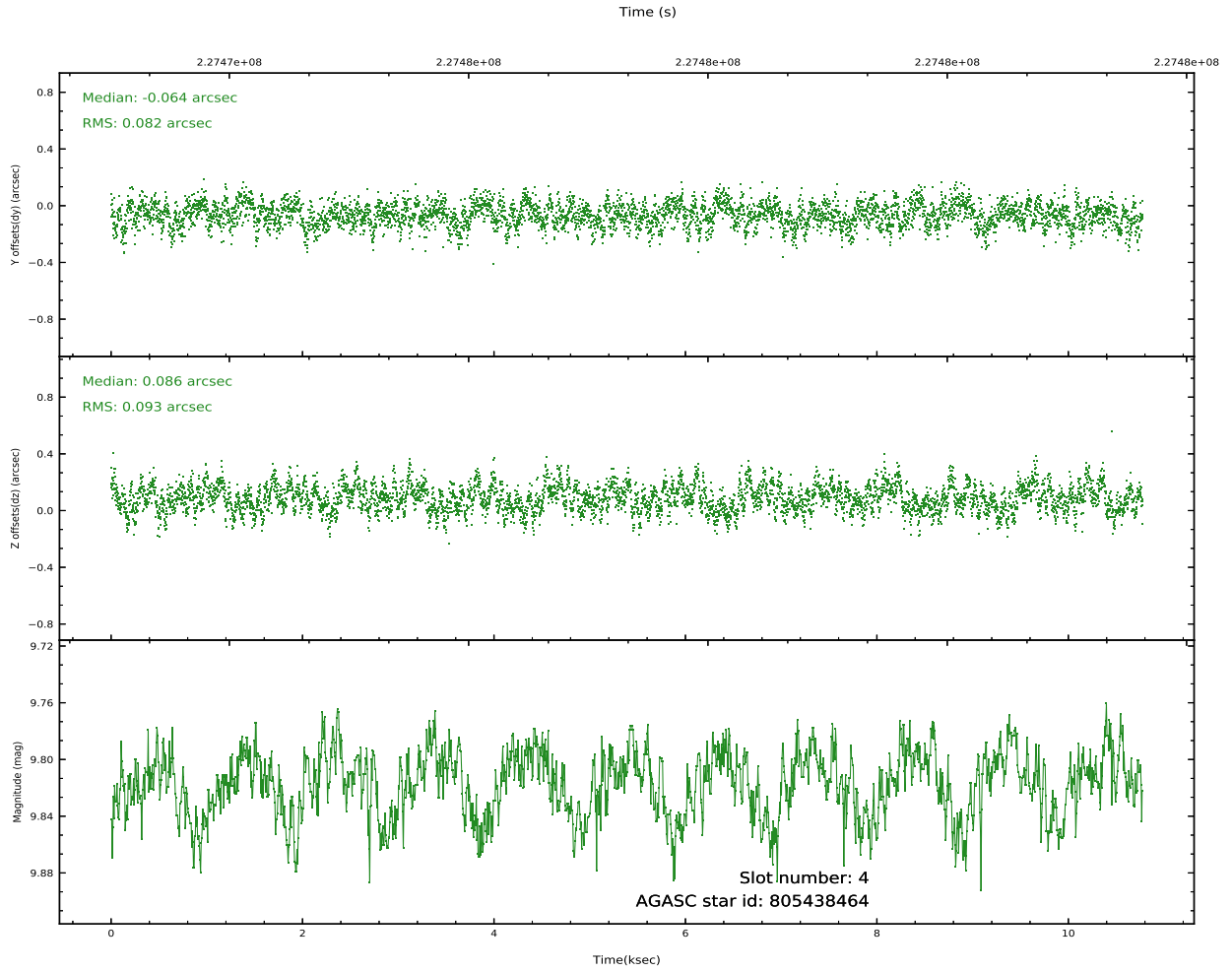
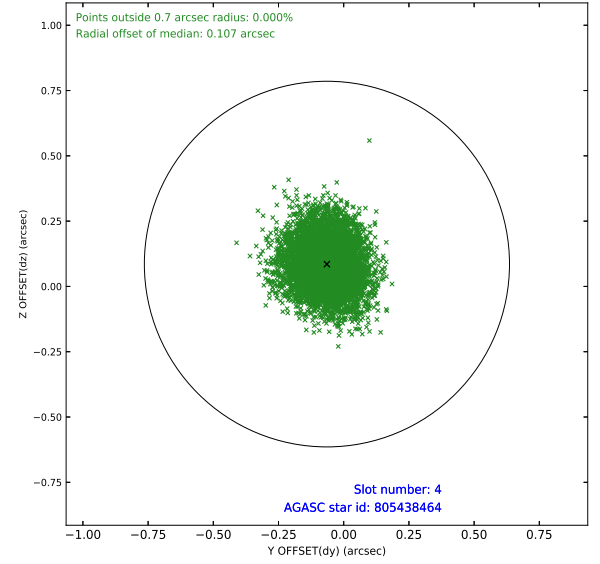
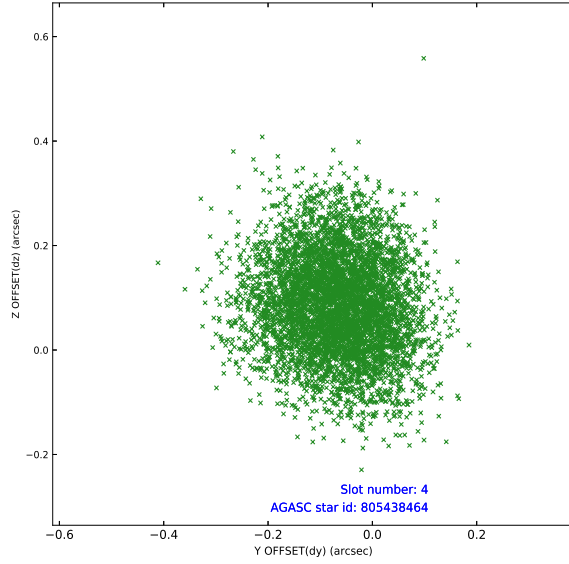
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.25	2628	1.000	0.070	-0.046	0.006	0.010	0.000000	0.000000	932.78	-918
1	FID		ACIS-I-5	7.23	2629	1.000	-0.234	0.063	0.006	0.010	0.000000	0.000000	-1815.36	978
2	FID		ACIS-I-6	7.25	2629	1.000	0.073	0.054	0.007	0.011	0.000000	0.000000	397.81	1623
3	GUIDE	used	805313512	9.19	5254	1.000	0.120	-0.076	0.091	0.150	209.099234	-19.852223	-2306.54	1464
4	GUIDE	used	805438464	9.82	5243	1.000	-0.064	0.086	0.134	0.212	210.452871	-19.096125	2317.77	-1205
5	GUIDE	used	805309312	10.23	5194	1.000	-0.205	-0.093	0.158	0.254	209.746430	-18.889324	1792.92	1256
6	GUIDE	used	805311216	10.44	5252	1.000	0.010	-0.109	0.158	0.253	209.896419	-18.897513	2017.76	797
7	GUIDE	used	805442240	10.37	5251	1.000	0.138	0.178	0.155	0.251	210.070539	-20.008130	-1180.07	-1674

2.4 Star Slots

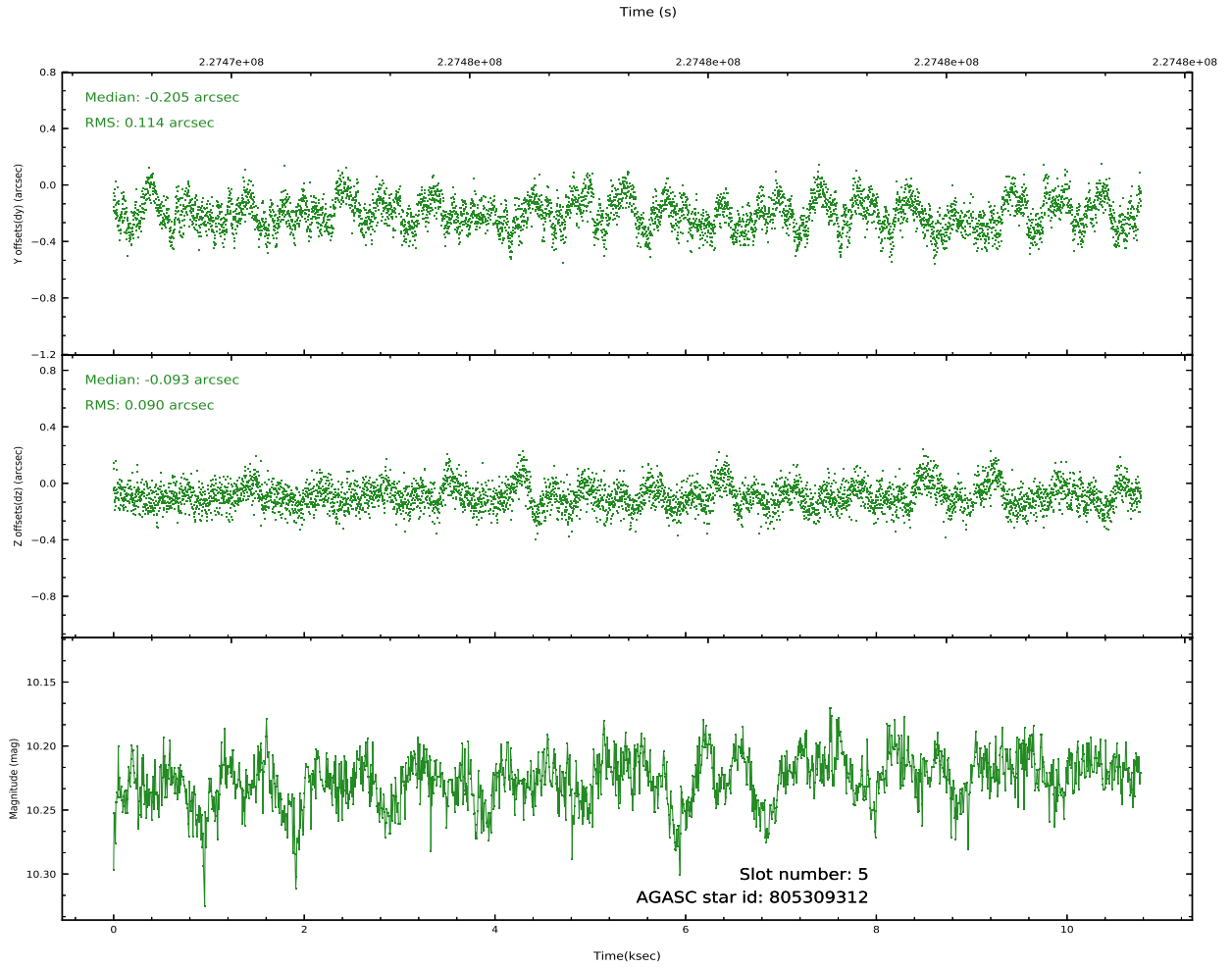
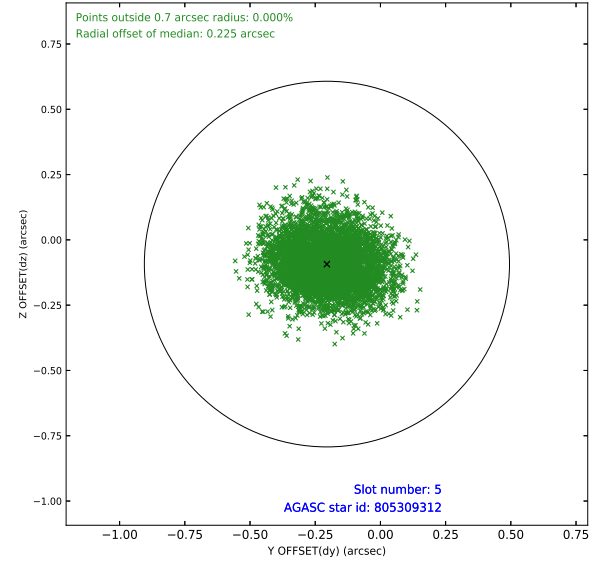
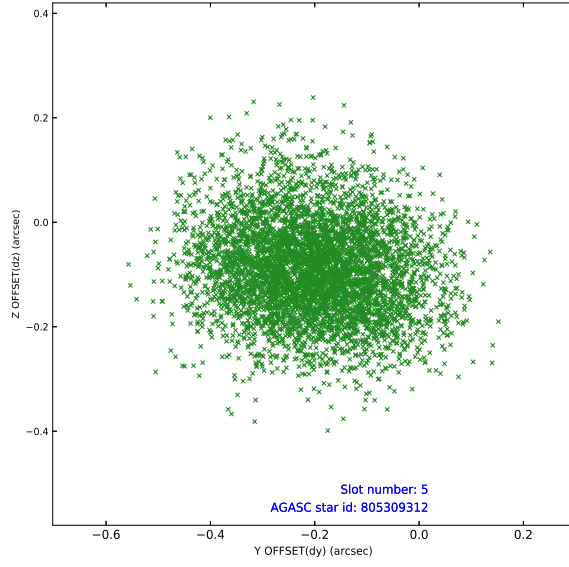
2.4.1 Slot 3



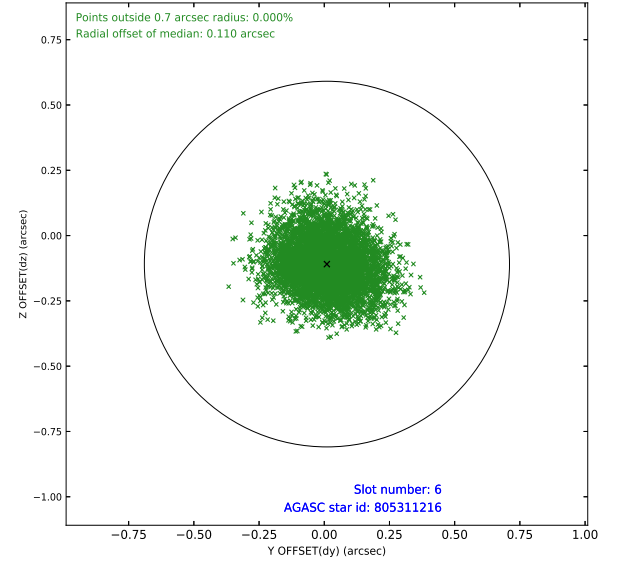
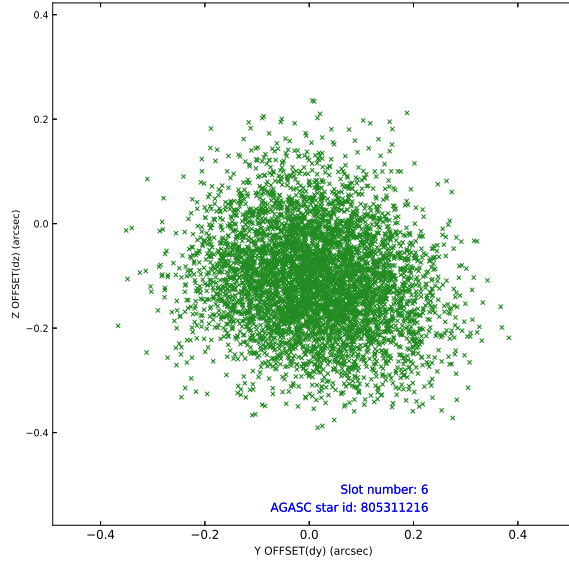
2.4.2 Slot 4



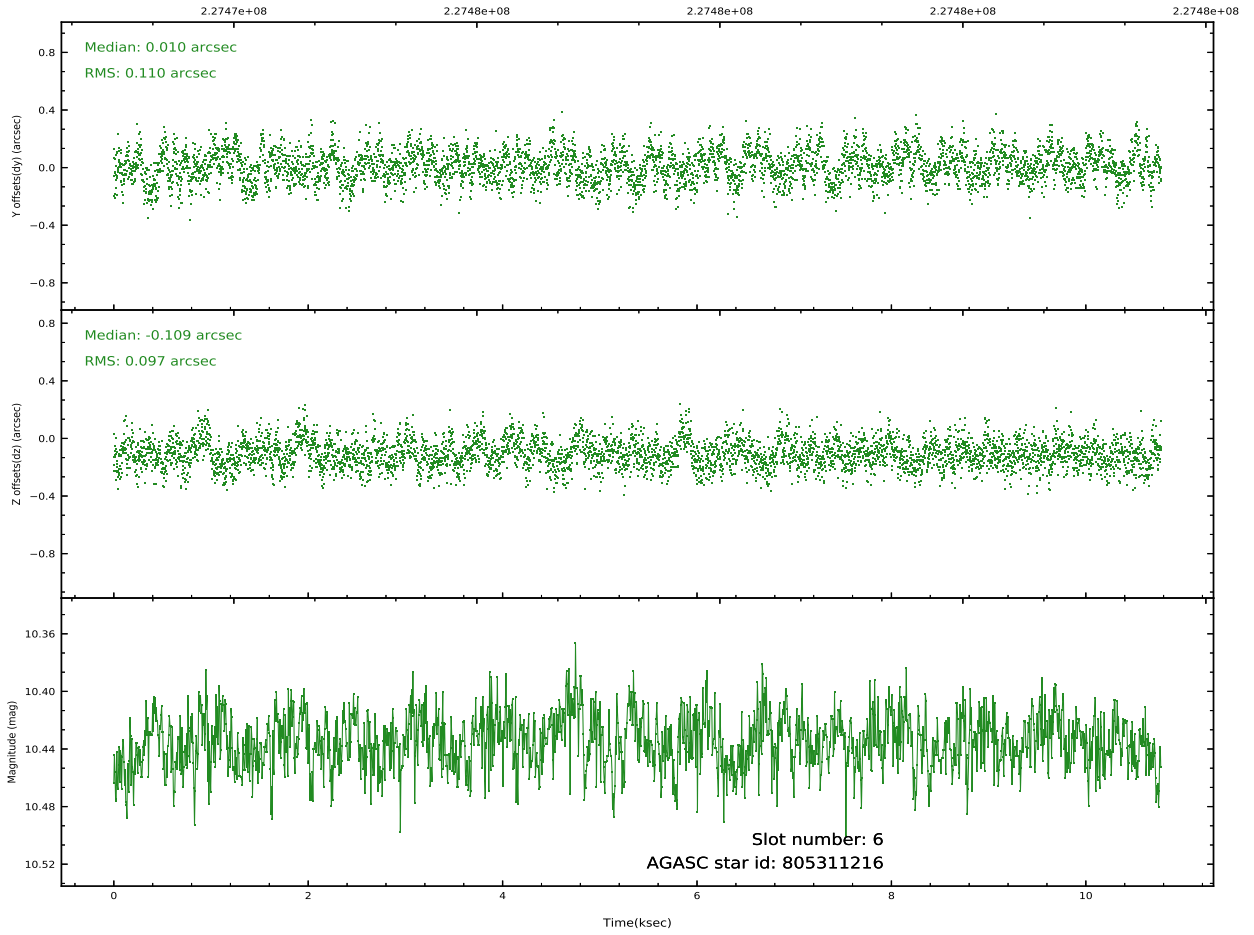
2.4.3 Slot 5



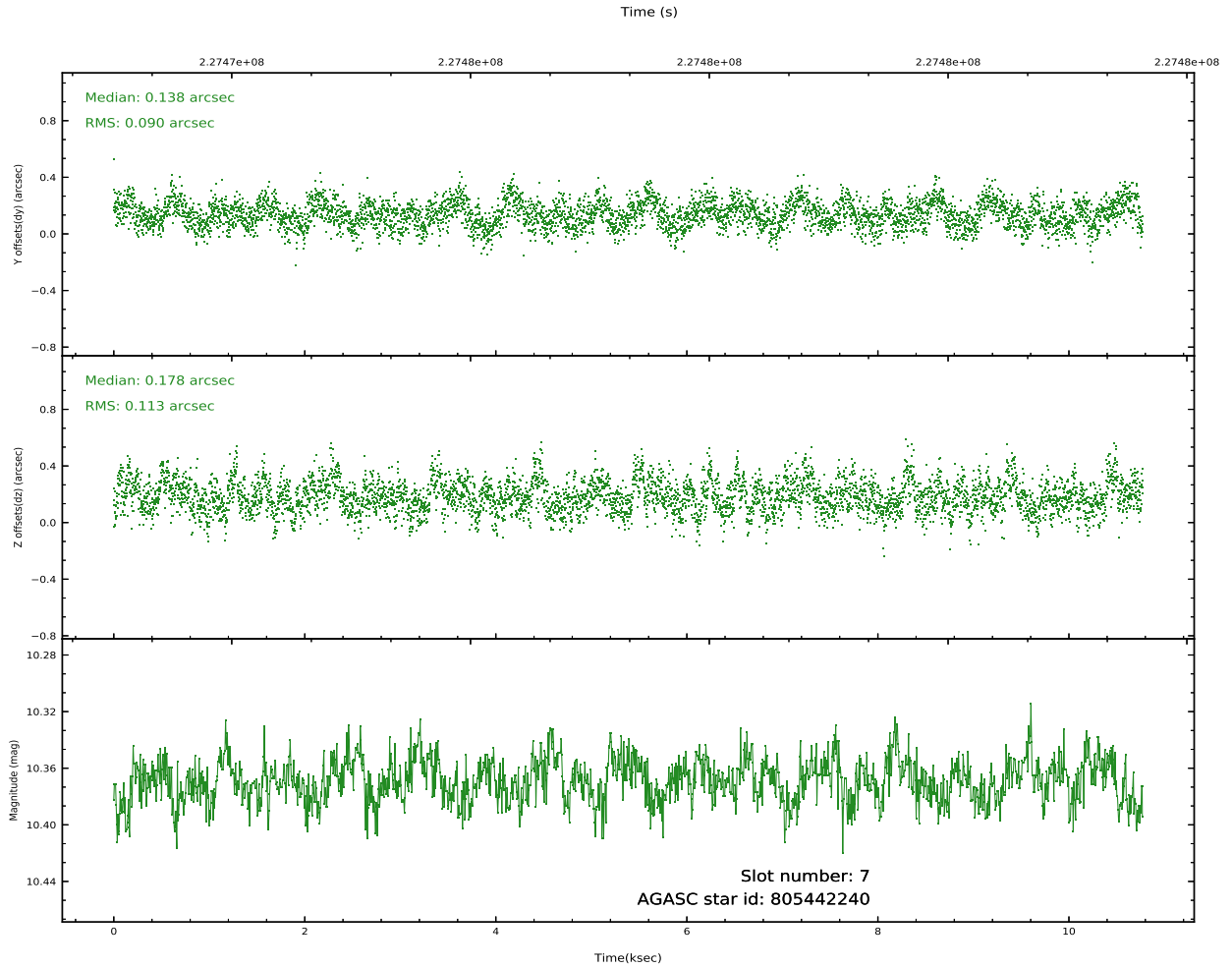
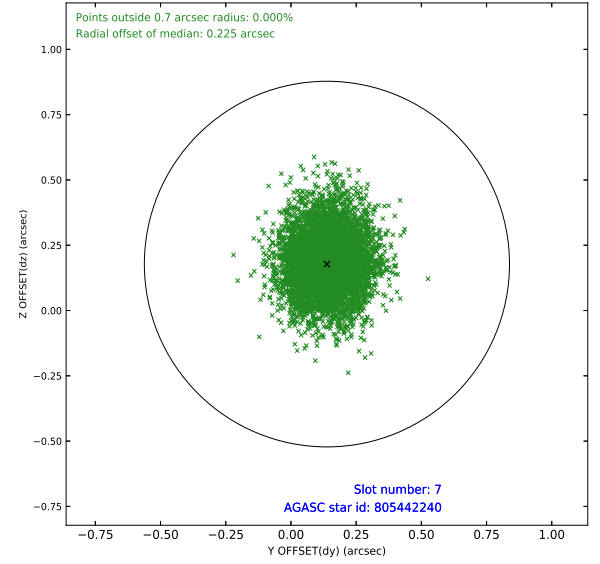
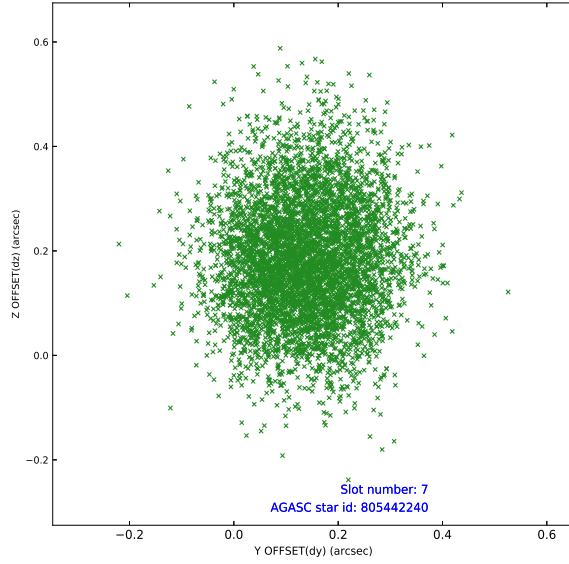
2.4.4 Slot 6



Time (s)

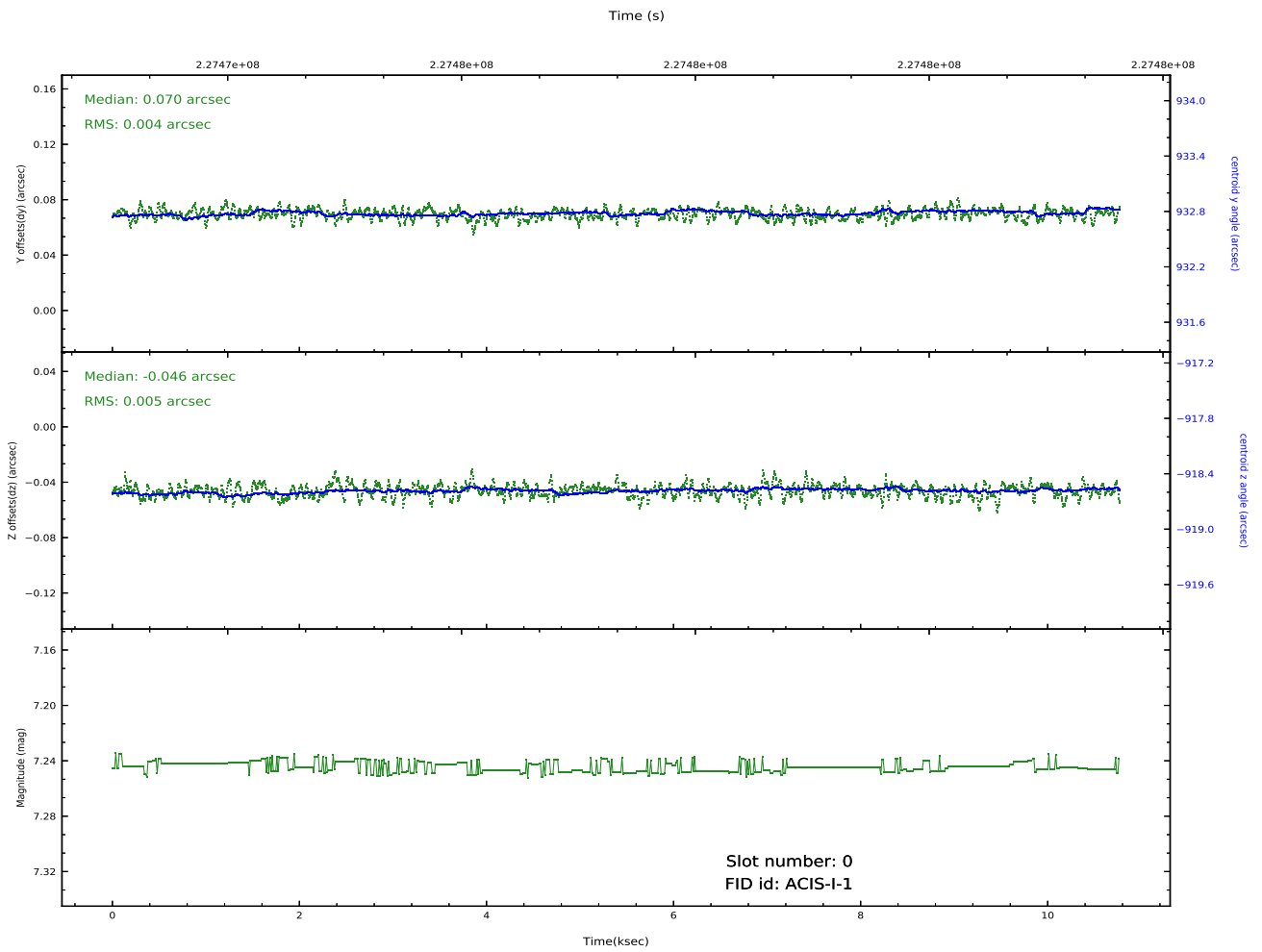
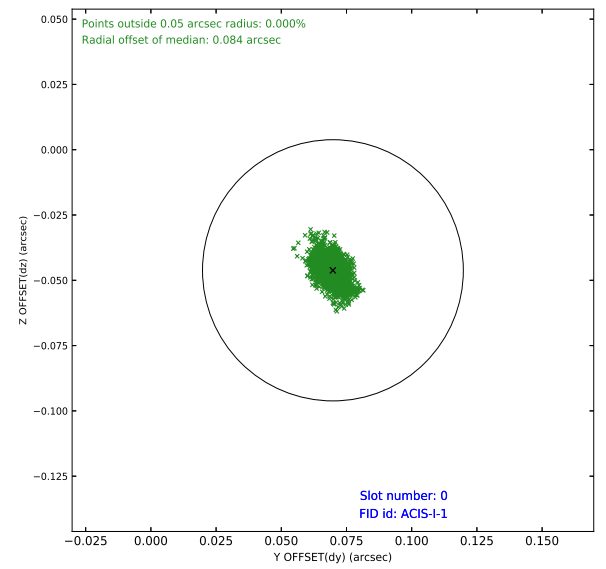
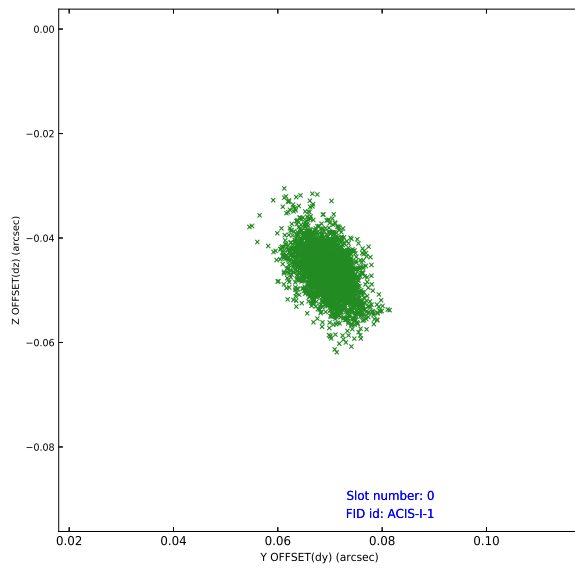


2.4.5 Slot 7

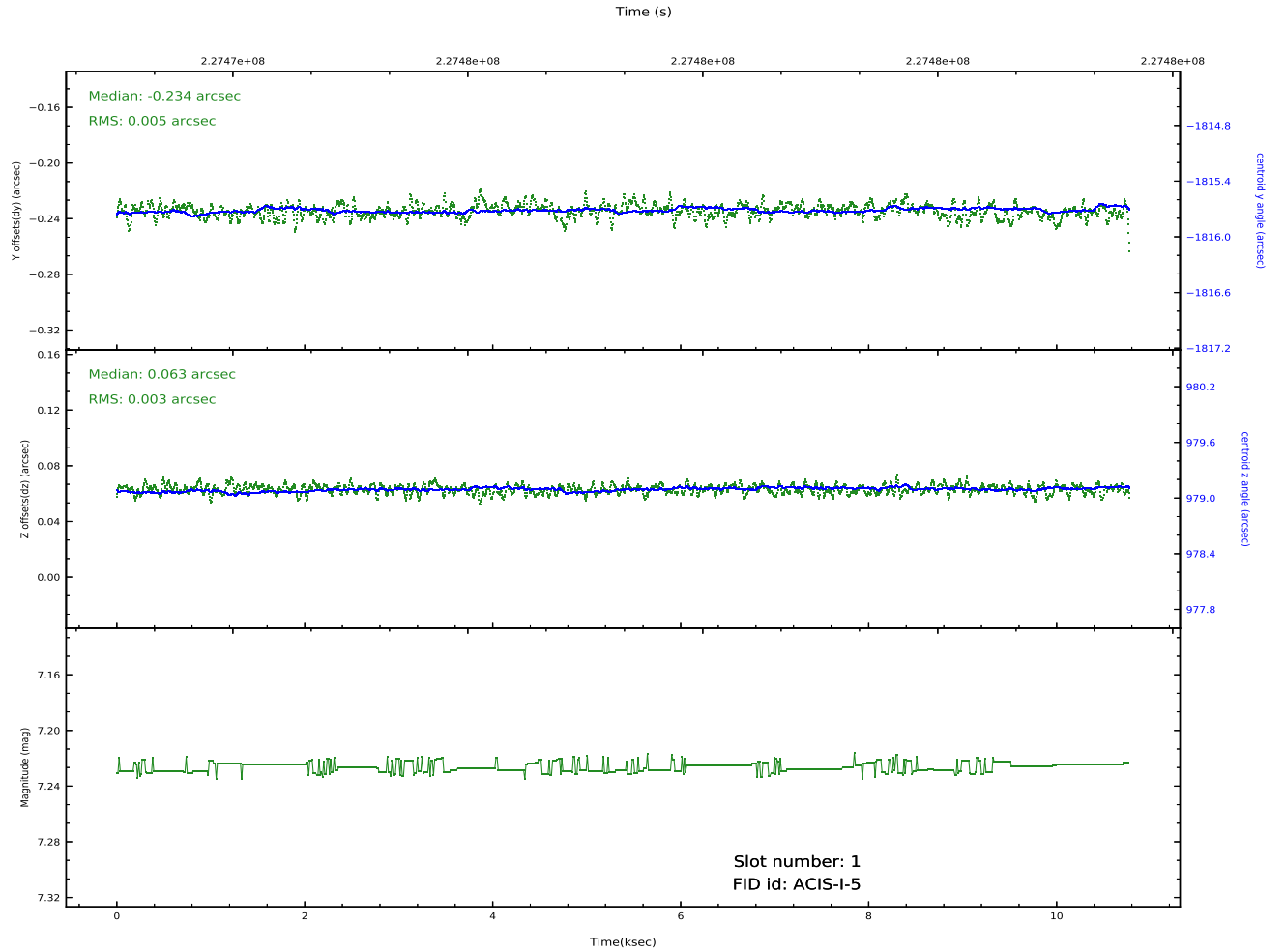
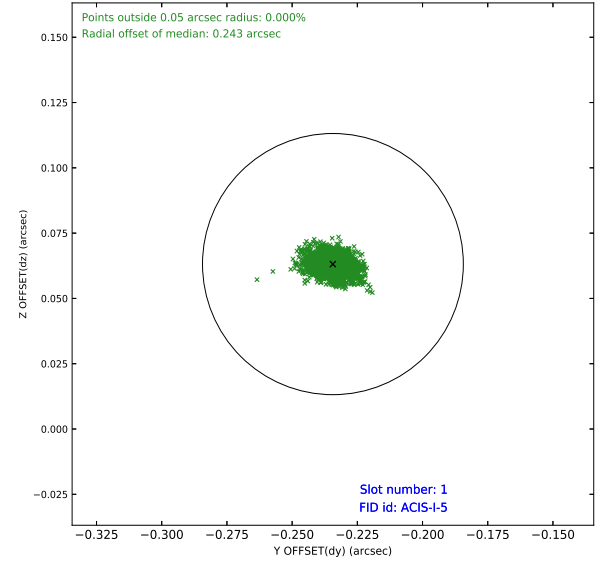
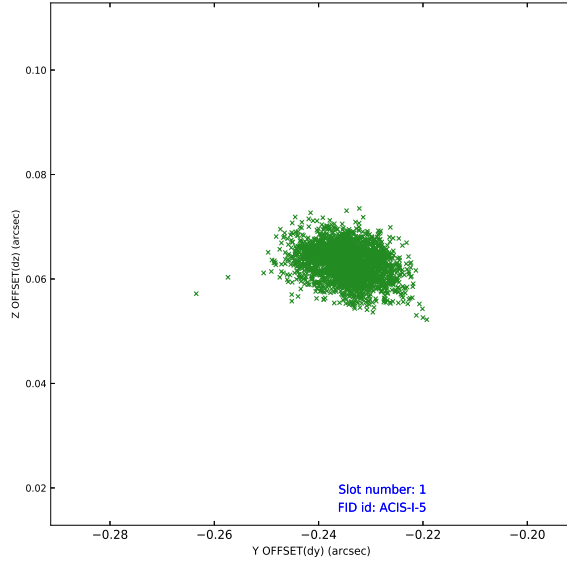


2.5 FID Slots

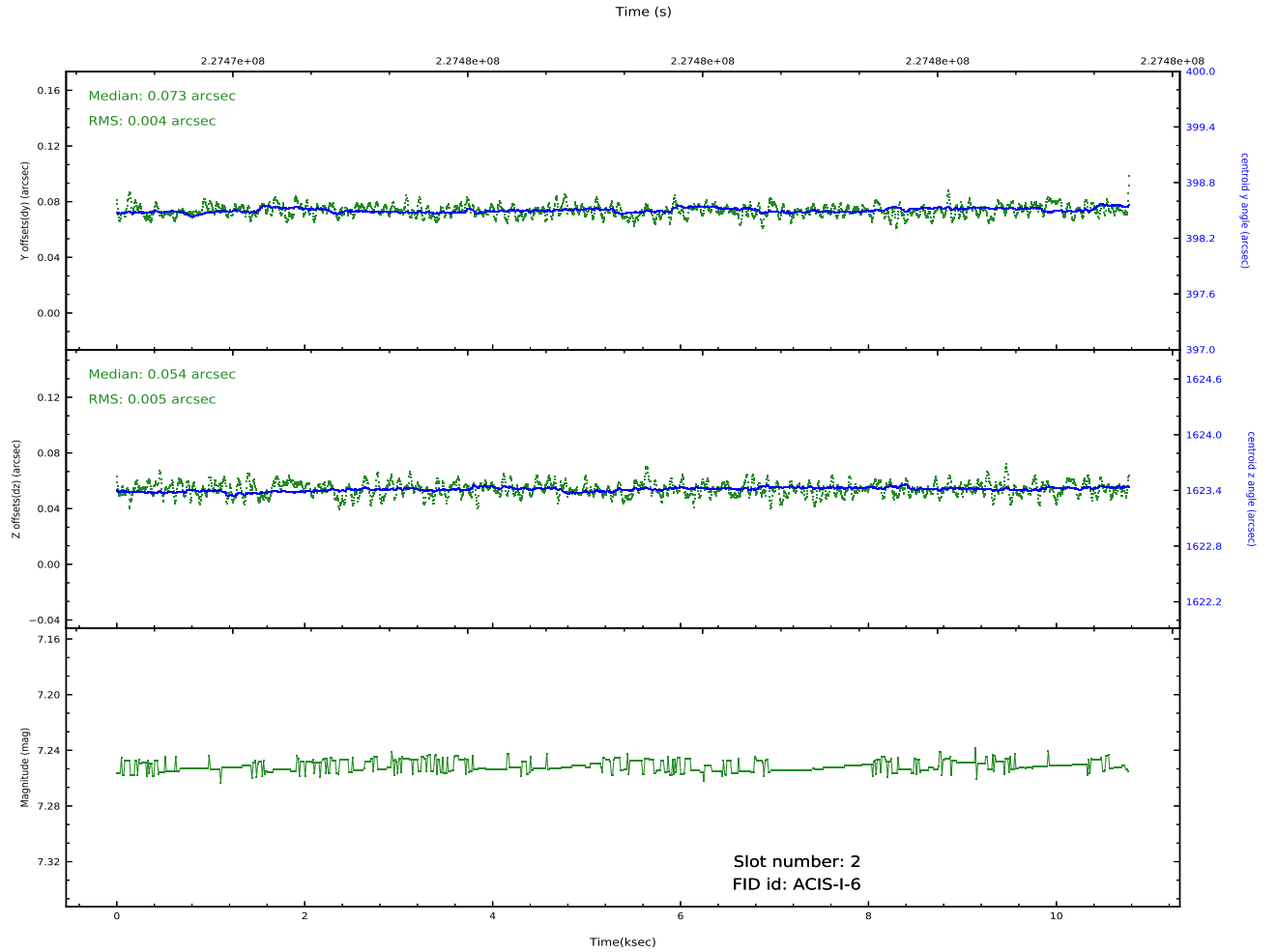
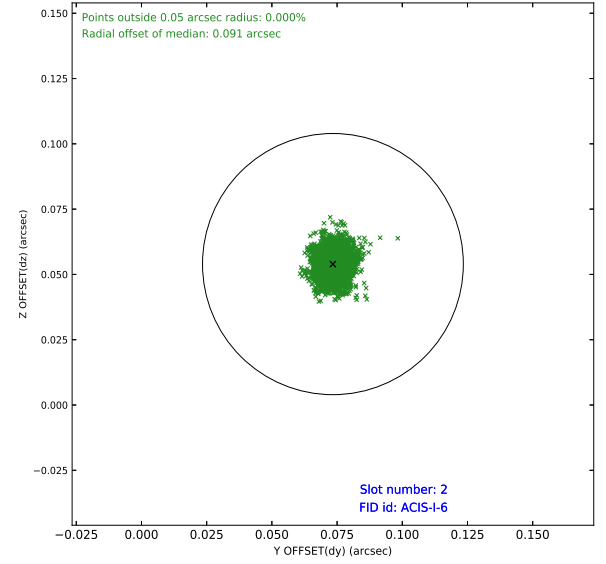
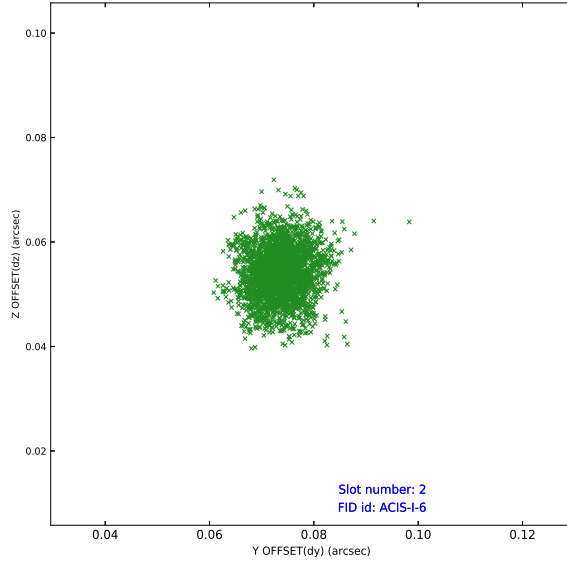
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.05019

A.2 Comments