

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4605 - L2 Version 5
Chandra X-Ray Center

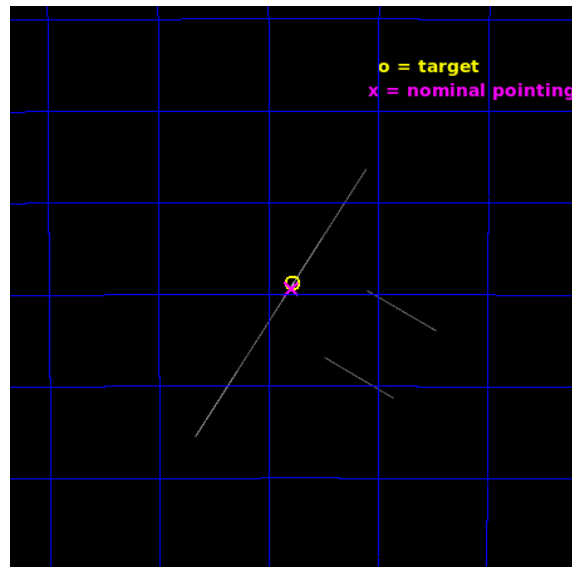
L2 Processing Date : Sep 27 2020

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

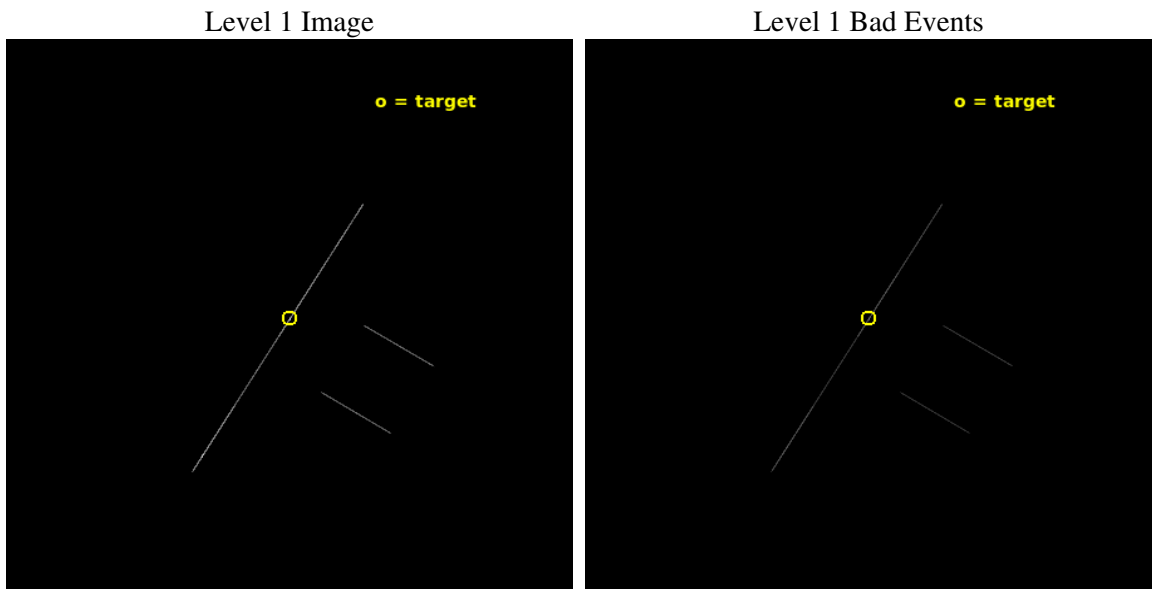
seq_num	500430	Sequence number
obs_id	4605	Observation id
title	Alt: Chandra Observations of the Anomalous X-ray Pulsar RX J1708-4009	Proposal title
observer	Gordon Garmire	Principal investigator
object	PSR J1708-4009	Source name
ra_targ	257.195417	Observer's specified target RA [deg]
dec_targ	-40.147917	Observer's specified target Dec [deg]
ra_nom	257.19600422073	Nominal RA [deg]
dec_nom	-40.156787005136	Nominal Dec [deg]
roll_nom	301.44592709288	Nominal Roll [deg]
revision	5	Processing version of data
ontime	29179.25	Sum of GTIs [s]
livetime	29065.268554688	Livetime [s]
ontime2	29177.79138577	Sum of GTIs [s]
ontime3	29179.25	Sum of GTIs [s]
ontime5	29179.25	Sum of GTIs [s]
ontime6	29179.25	Sum of GTIs [s]
ontime7	29179.25	Sum of GTIs [s]
ontime8	29179.25	Sum of GTIs [s]
l2events	387124	Number of level 2 events



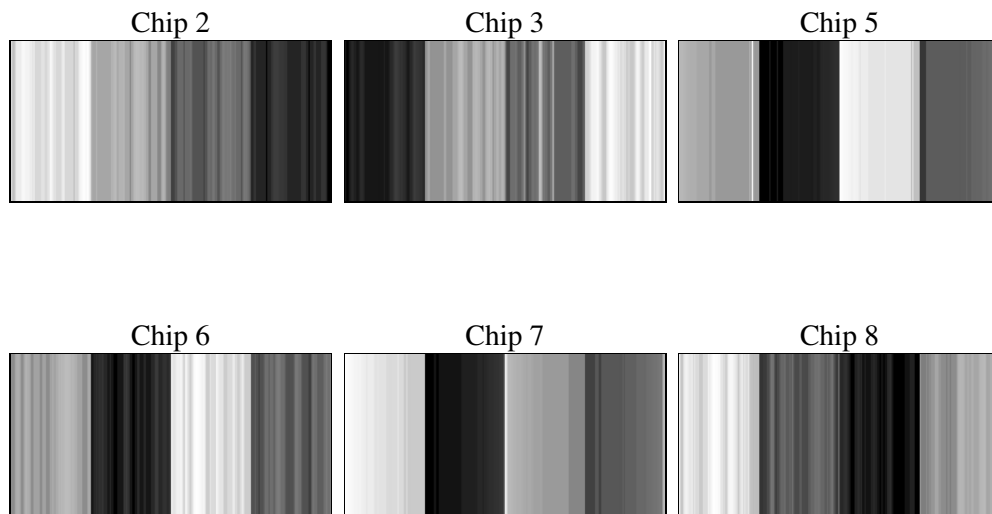
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	29028.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29179.25	Sum of GTIs [s]
caldbver	4.9.2	 	ontime2	29177.79138577	Sum of GTIs [s]
date	2020-09-27T03:32:28	Date and time of file creation	ontime3	29179.25	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	29179.25	Sum of GTIs [s]
			ontime6	29179.25	Sum of GTIs [s]
			ontime7	29179.25	Sum of GTIs [s]
			ontime8	29179.25	Sum of GTIs [s]
			l1events	578205	Number of level 1 events

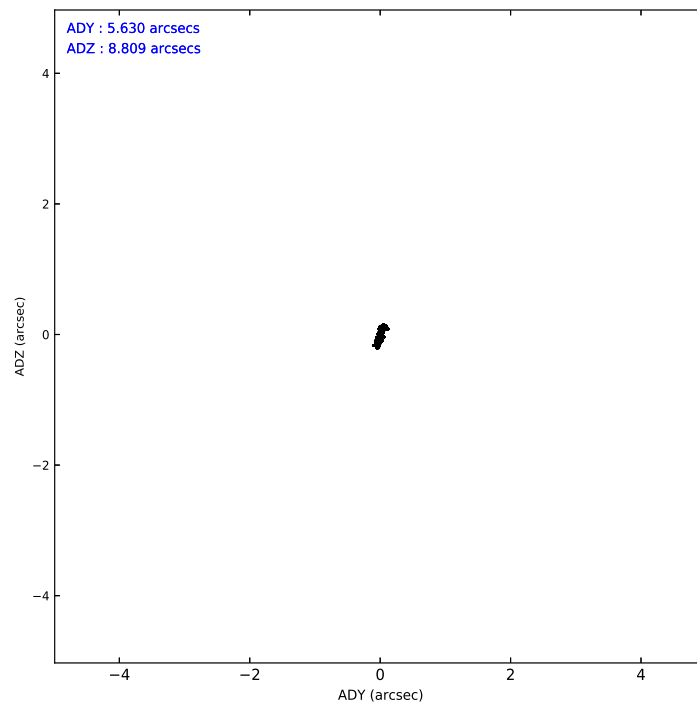
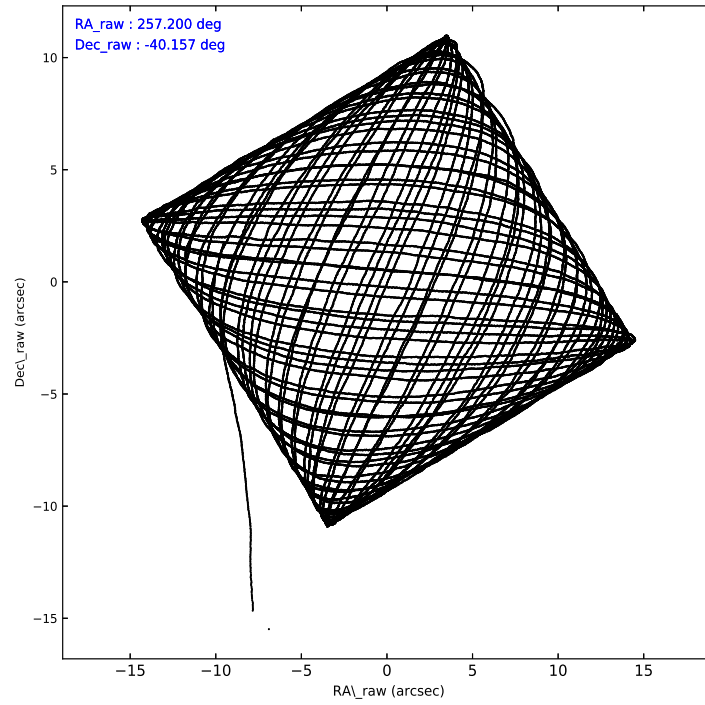
2.1.4 Events

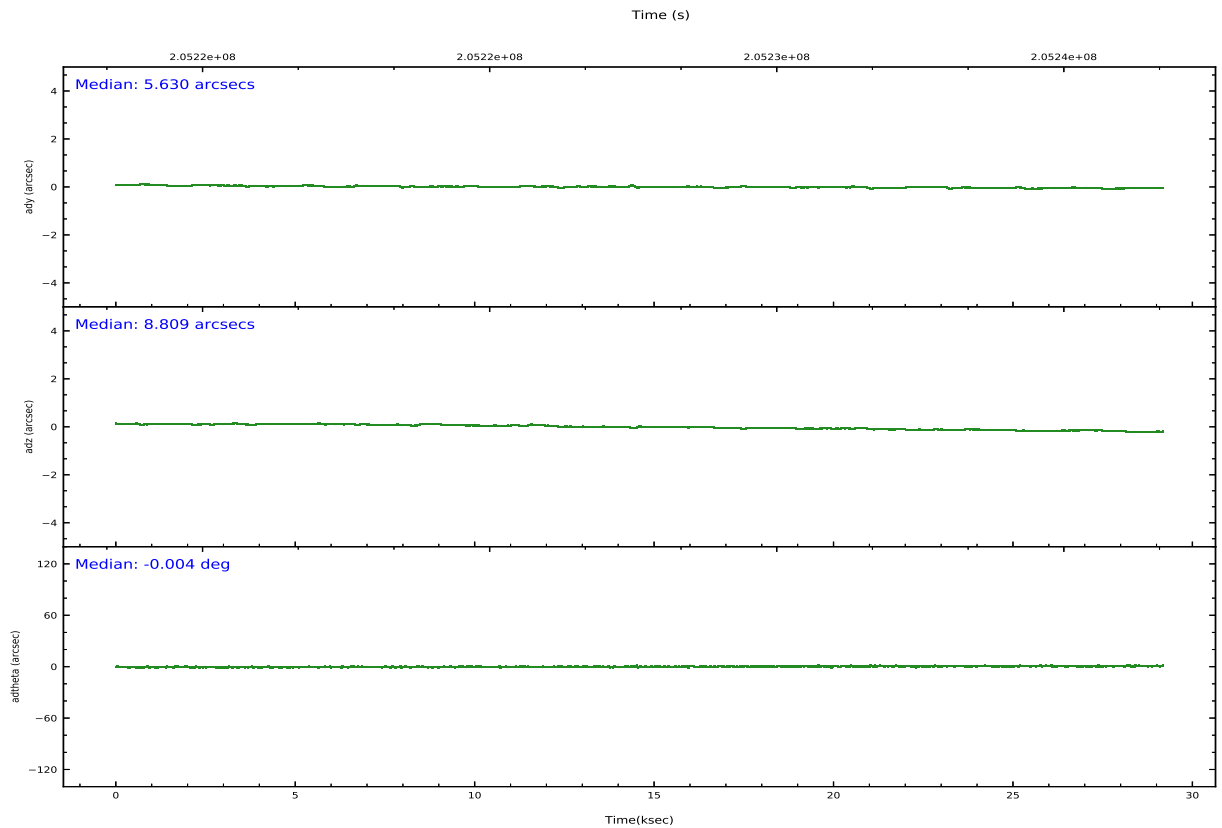
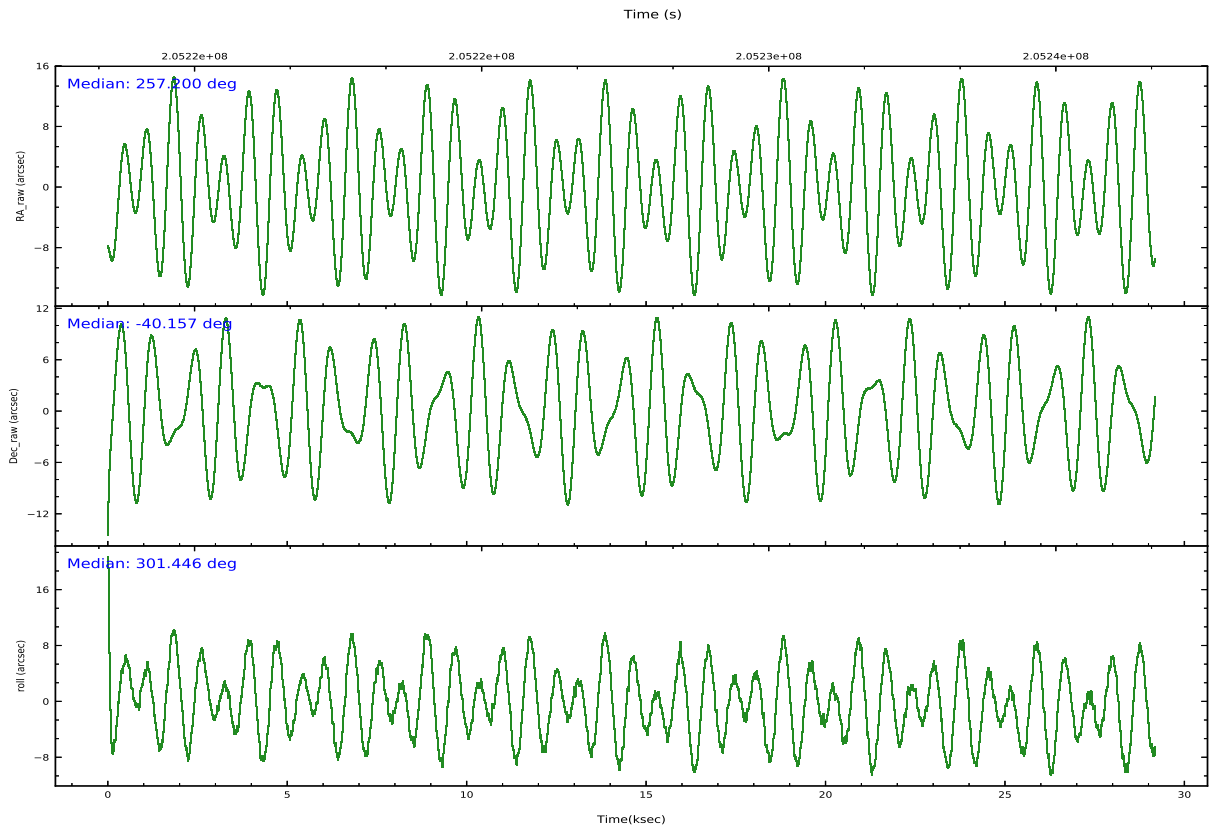
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	29256	30934	180619	34205	228642	74549	grade 0 events	3488	3527	63552	3535	44976	13233
rejected events	5206	5882	18210	6107	19203	10572		11%	11%	35%	10%	19%	17%
rejected %	17%	19%	10%	17%	8%	14%	grade 1 events	117	106	327	141	516	278
								0%	0%	0%	0%	0%	0%
							grade 2 events	8710	8528	43595	11198	57424	18569
								29%	27%	24%	32%	25%	24%
							grade 3 events	4463	5059	4090	4673	23036	9084
								15%	16%	2%	13%	10%	12%
							grade 4 events	4419	4380	3985	4532	22316	8818
								15%	14%	2%	13%	9%	11%
							grade 5 events	4306	5040	13084	5146	15502	8059
								14%	16%	7%	15%	6%	10%
							grade 6 events	3753	4294	51986	4980	64872	16505
								12%	13%	28%	14%	28%	22%
							grade 7 events	0	0	0	0	0	3
								0%	0%	0%	0%	0%	0%

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	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	257.168501	257.19600422073	Subarray requested	NONE	NONE
[deg] Pointing Dec	-40.144224	-40.156787005136	Alternating exposures requested	N	N
[deg] Pointing Roll	301.269635	301.44592709288	[s] Primary exposure time	0.000000	0
[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)	205213739.184000	205212637.94717			
Observation start date	2004-07-03T03:47:55	2004-07-03T03:30:37			
[s] Observation end time (MET)	205242767.184000	205243306.97353			
Observation end date	2004-07-03T11:51:43	2004-07-03T12:01:46			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



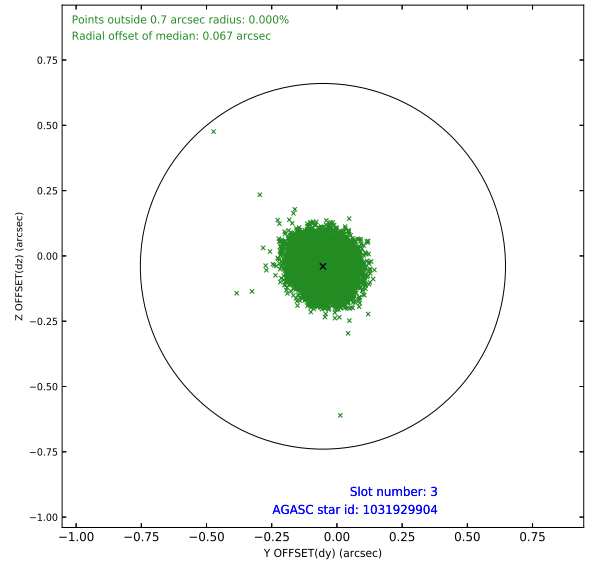
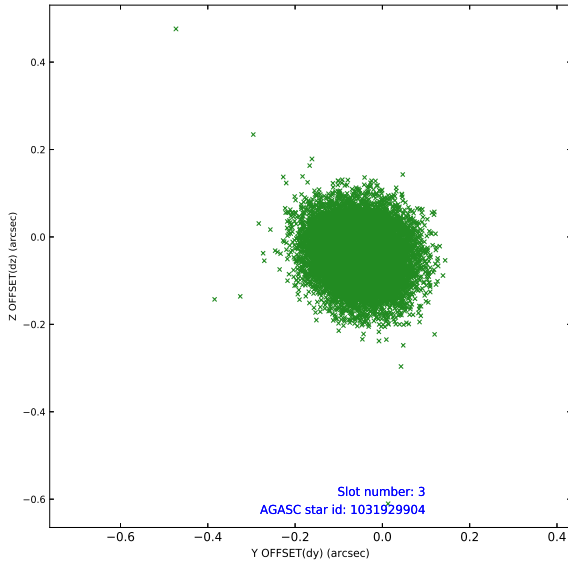


Slot Statistics

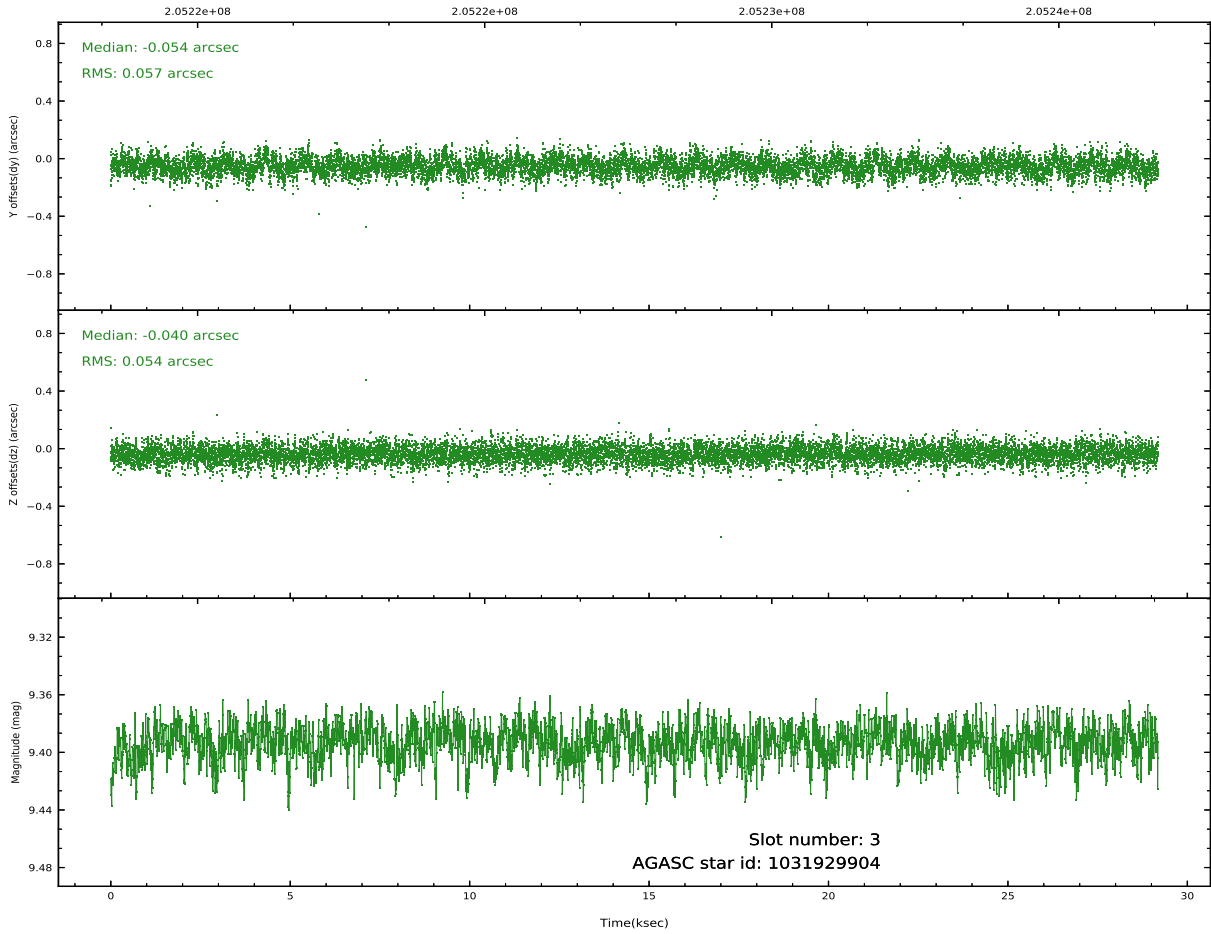
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	7118	1.000	-0.079	-0.083	0.007	0.012	0.000000	0.000000	-758.41	-1730
1	FID		ACIS-S-4	7.21	7118	1.000	0.157	0.060	0.007	0.013	0.000000	0.000000	2155.05	178
2	FID		ACIS-S-5	7.23	7118	1.000	-0.109	0.032	0.007	0.011	0.000000	0.000000	-1811.19	172
3	GUIDE	used	1031929904	9.39	14222	1.000	-0.054	-0.040	0.084	0.136	256.776341	-40.685313	1111.87	-1927
4	GUIDE	used	1031930240	8.21	14233	1.000	0.013	0.142	0.066	0.106	257.160708	-40.849868	2160.98	-1336
5	GUIDE	used	1031932008	8.82	14235	1.000	0.054	-0.092	0.065	0.103	257.163205	-39.994917	-466.39	266
6	GUIDE	used	1031932624	8.31	14234	1.000	0.090	0.014	0.072	0.117	257.431727	-40.221910	616.03	472
7	GUIDE	used	1031938400	8.57	14234	1.000	-0.105	-0.019	0.082	0.126	256.247715	-40.044226	-1613.13	-1989

2.4 Star Slots

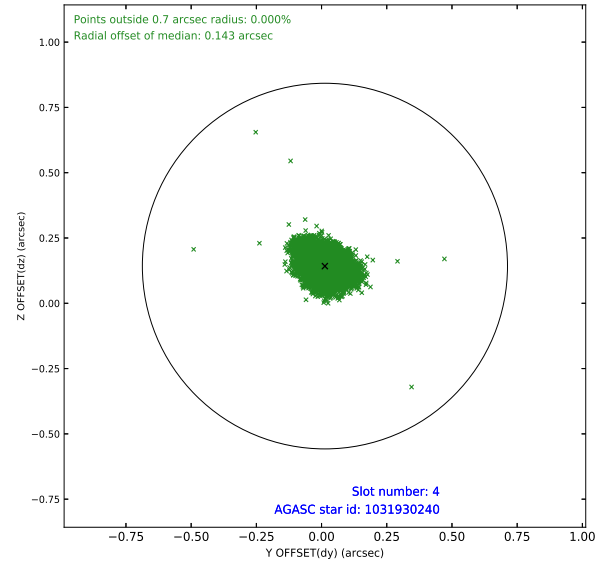
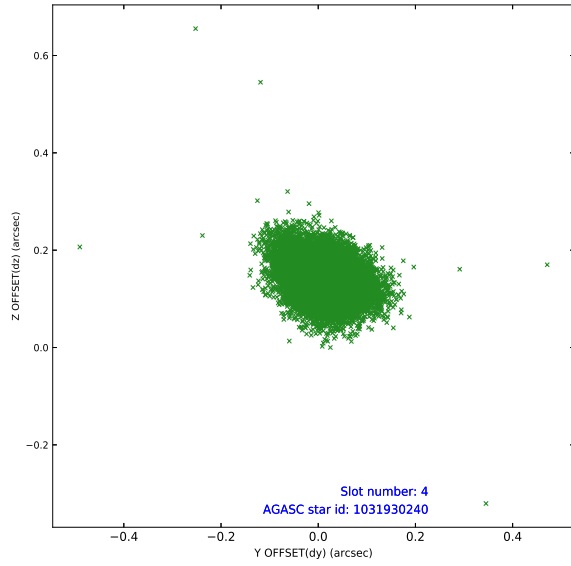
2.4.1 Slot 3



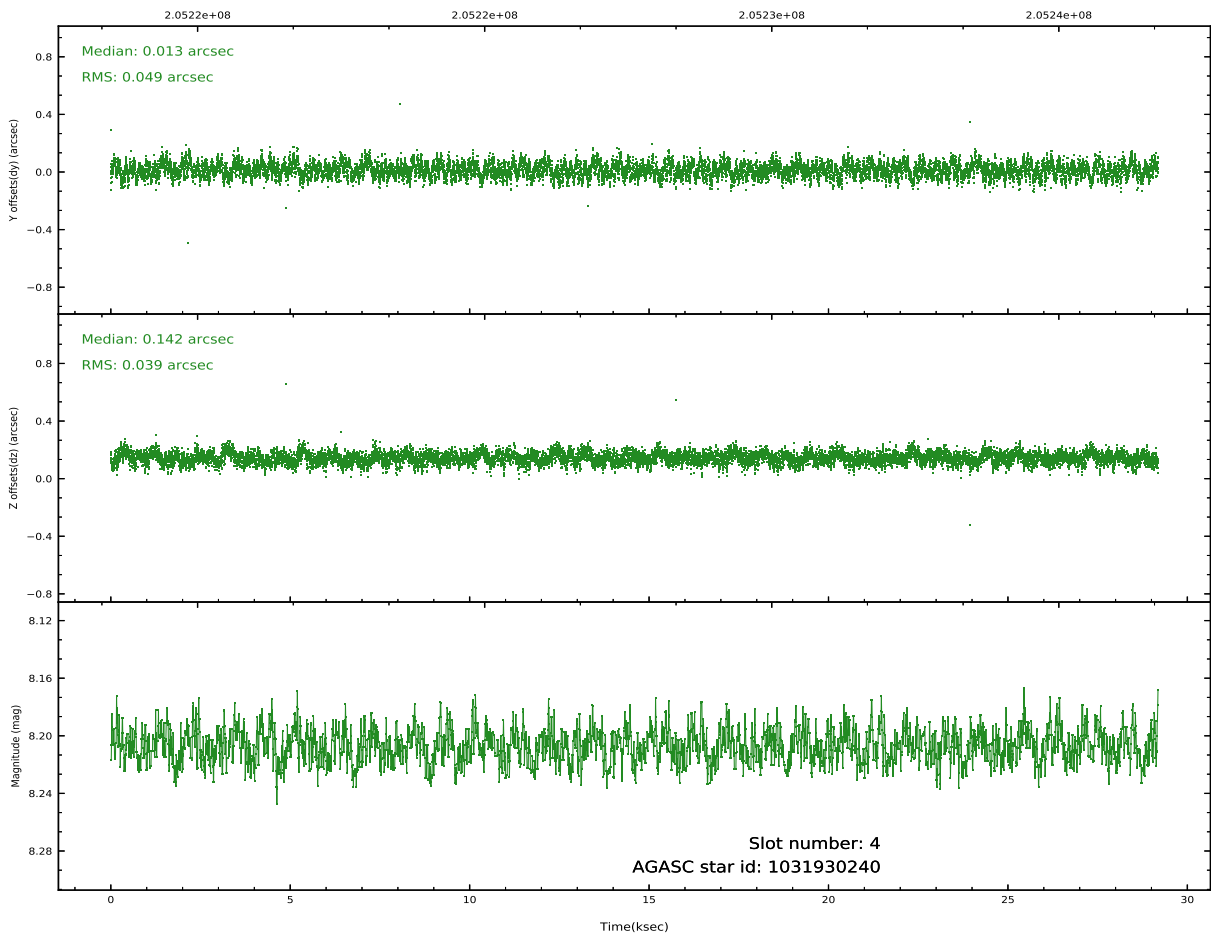
Time (s)



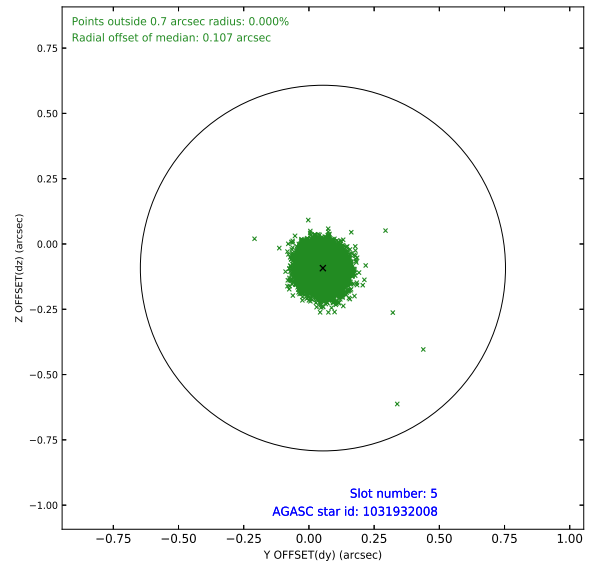
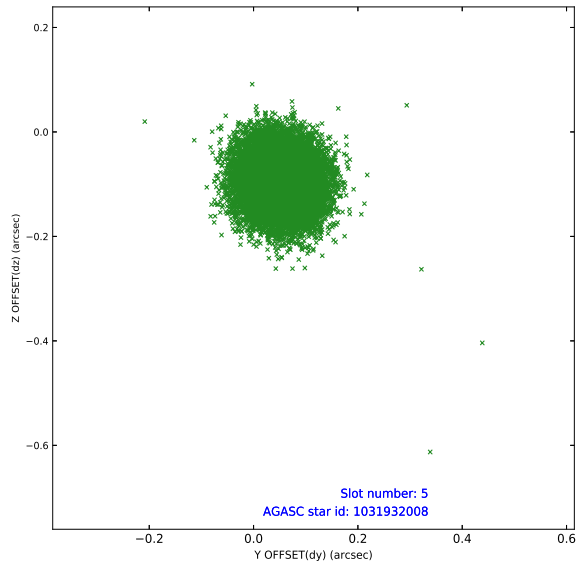
2.4.2 Slot 4



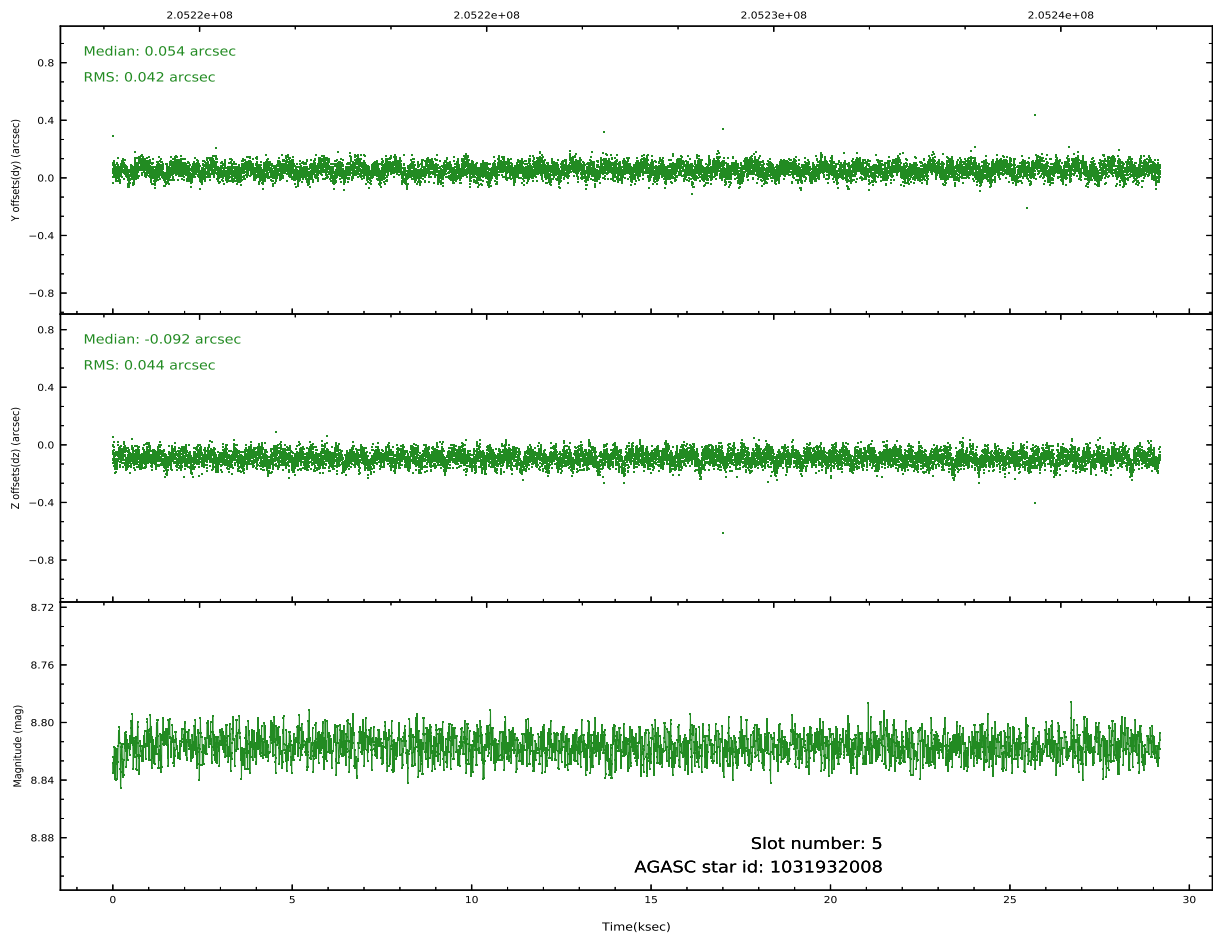
Time (s)



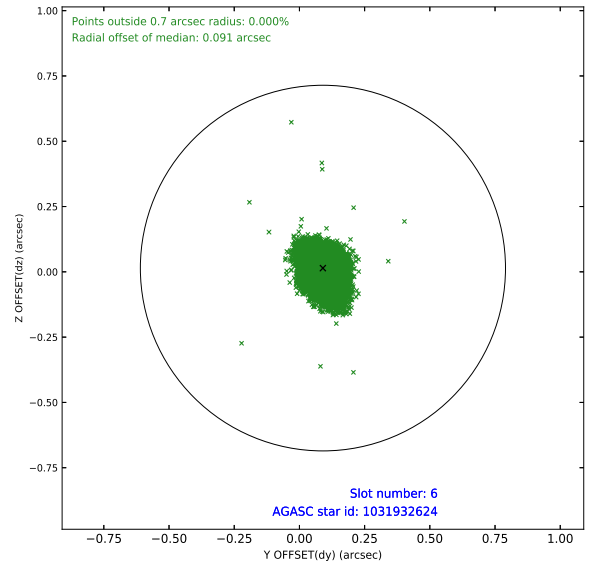
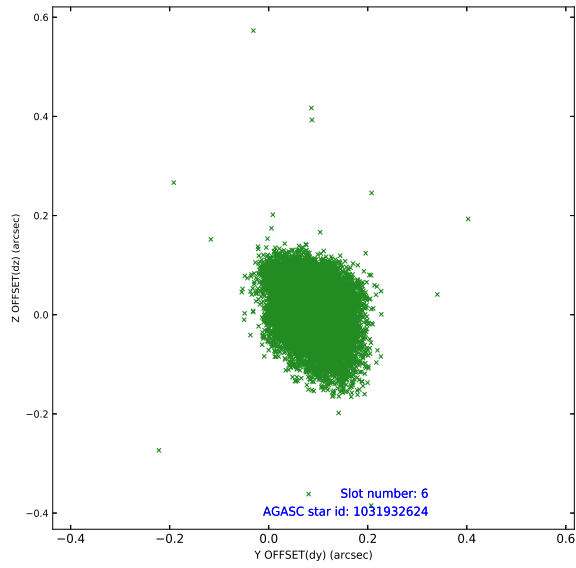
2.4.3 Slot 5



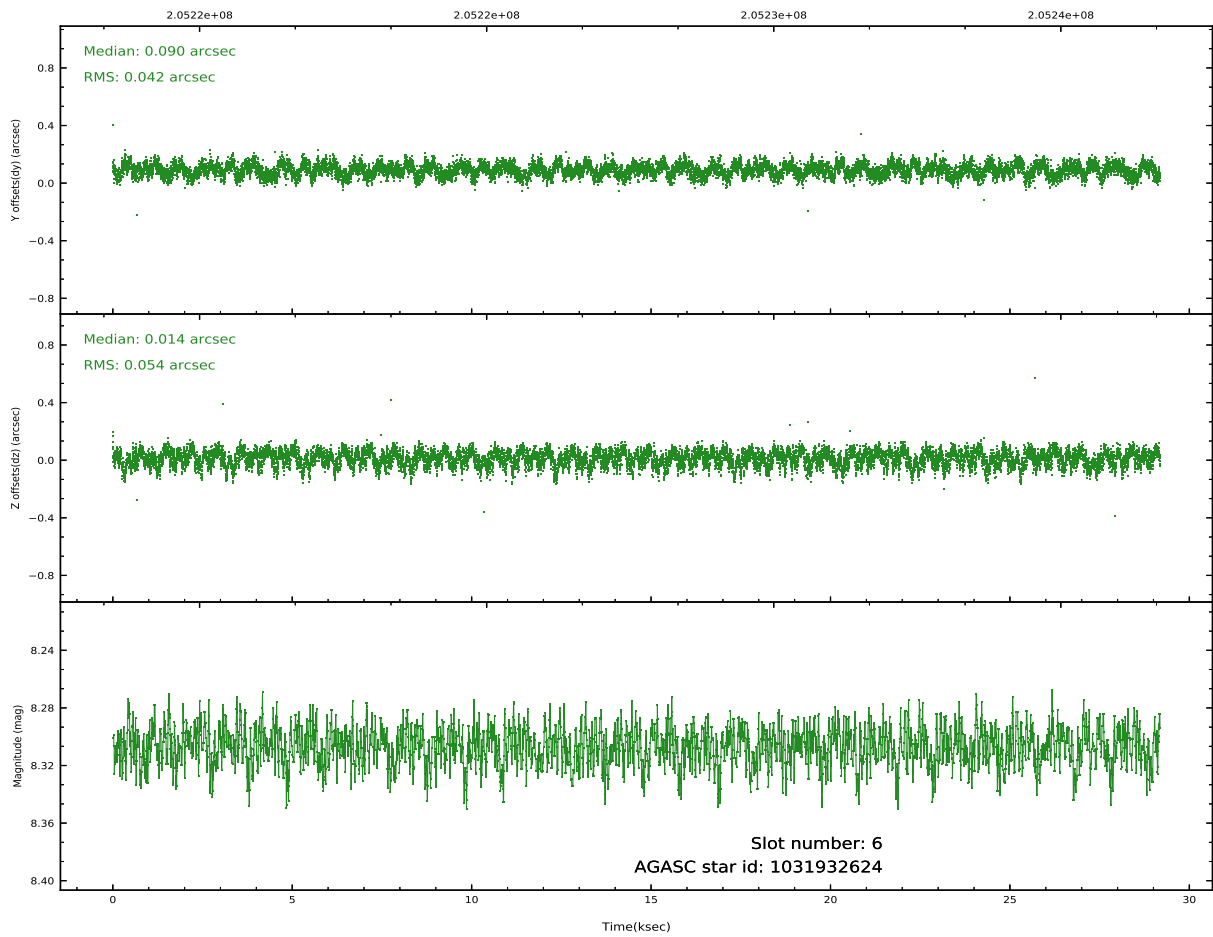
Time (s)



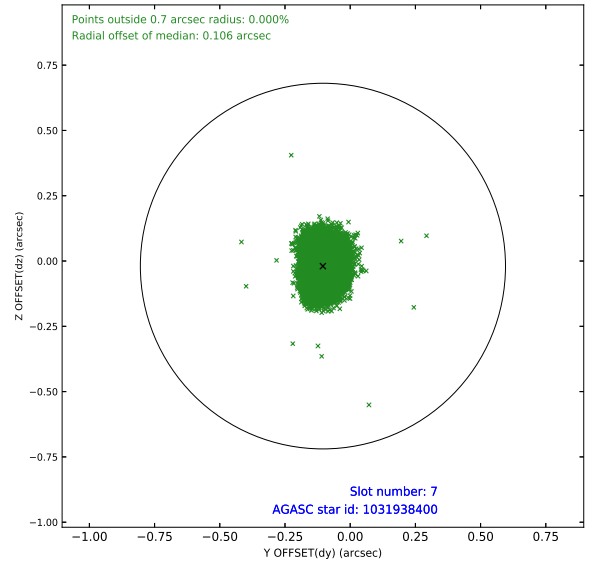
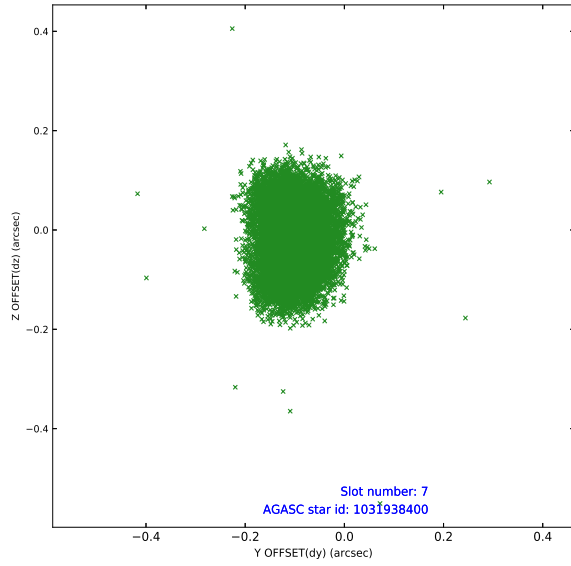
2.4.4 Slot 6



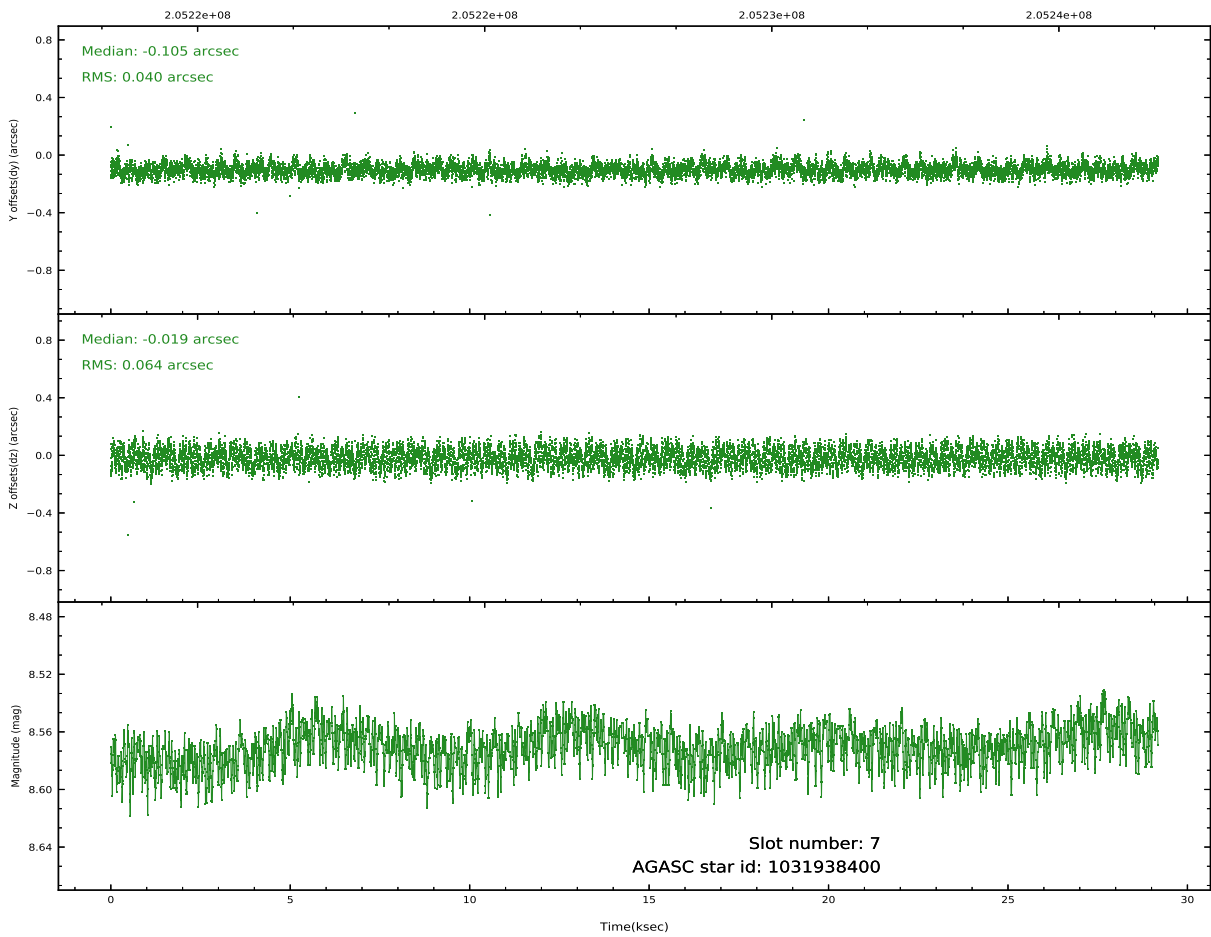
Time (s)



2.4.5 Slot 7

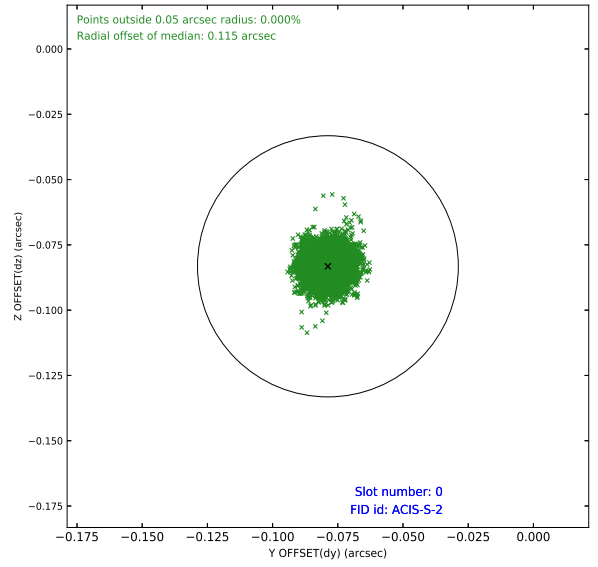
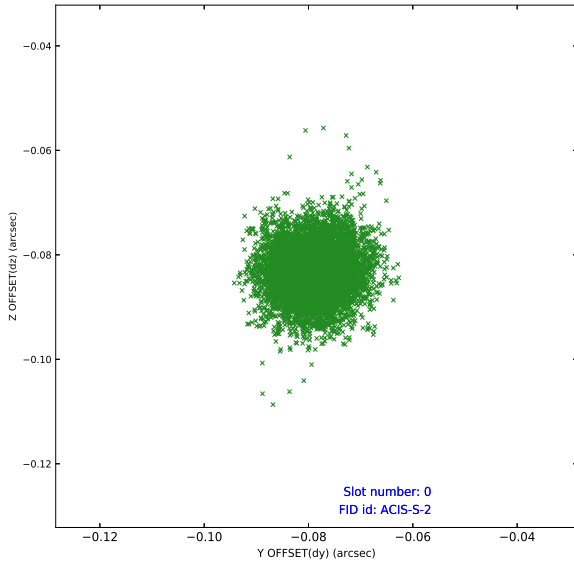


Time (s)

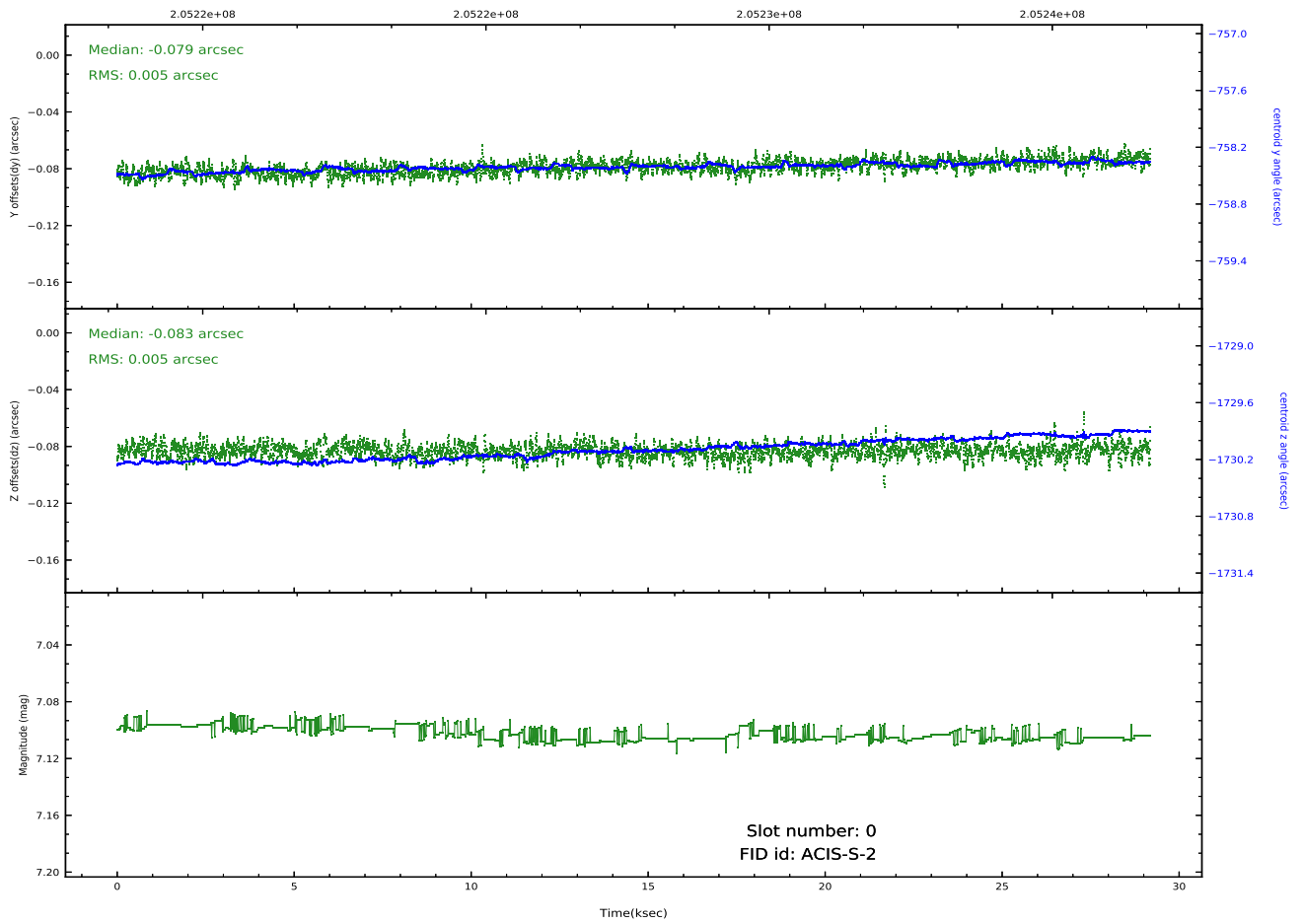


2.5 FID Slots

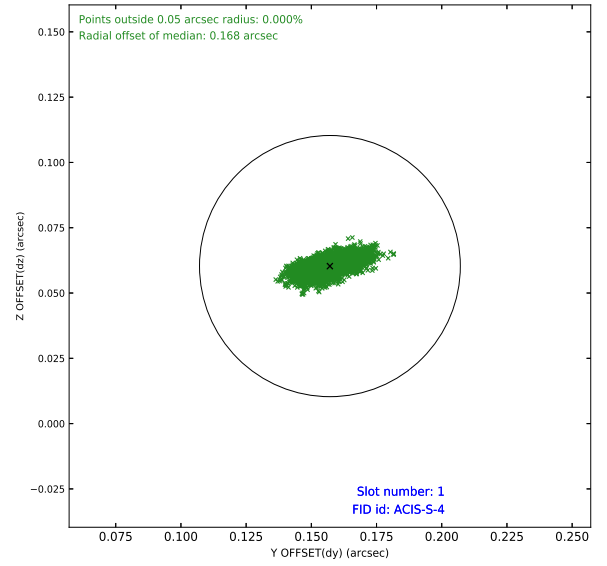
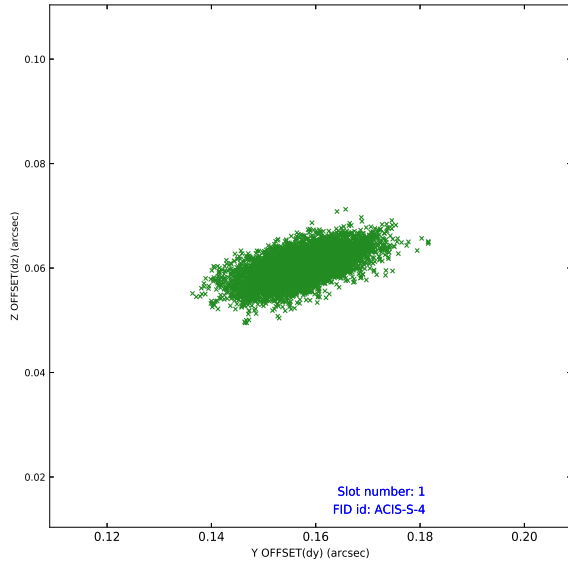
2.5.1 Slot 0



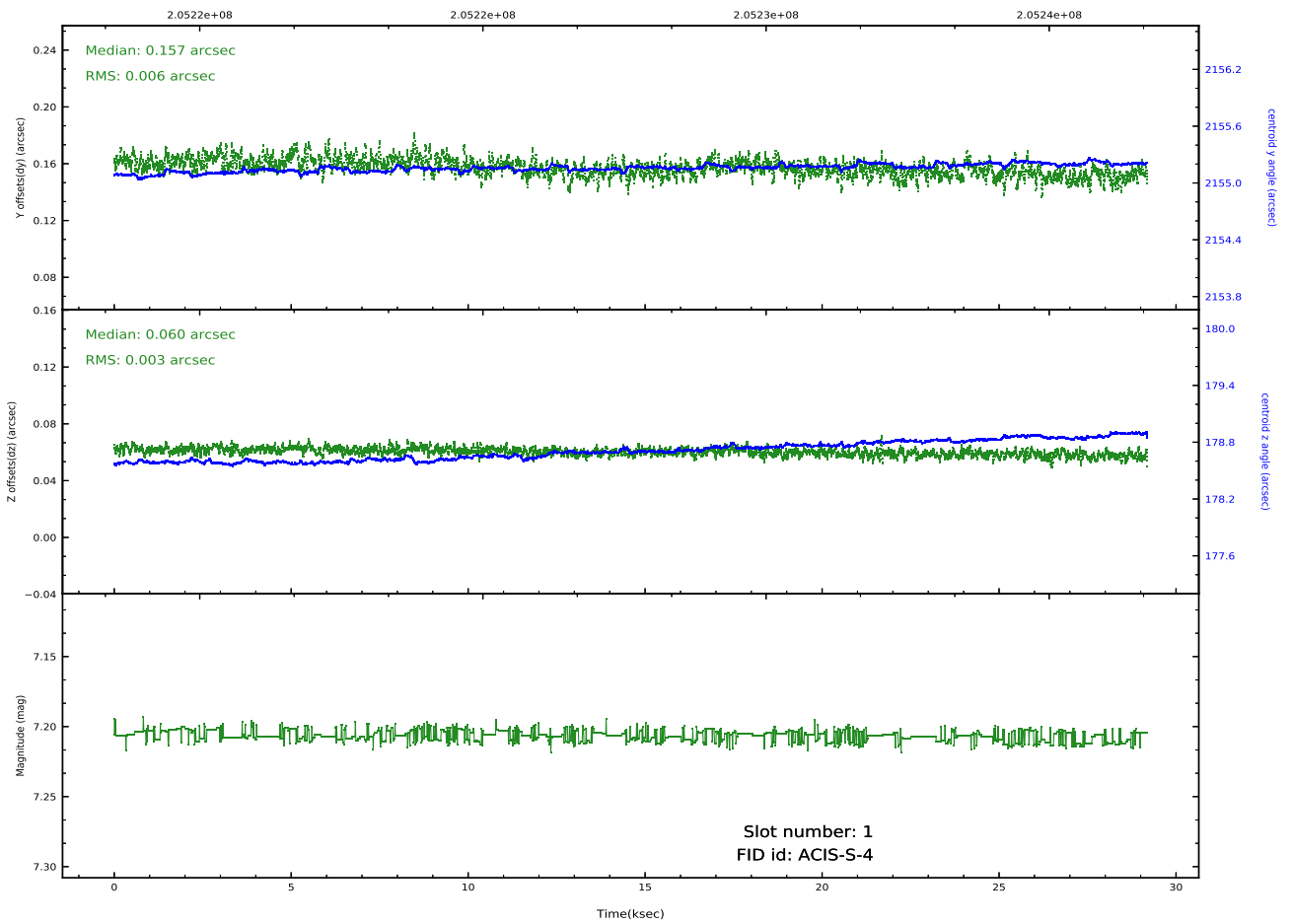
Time (s)



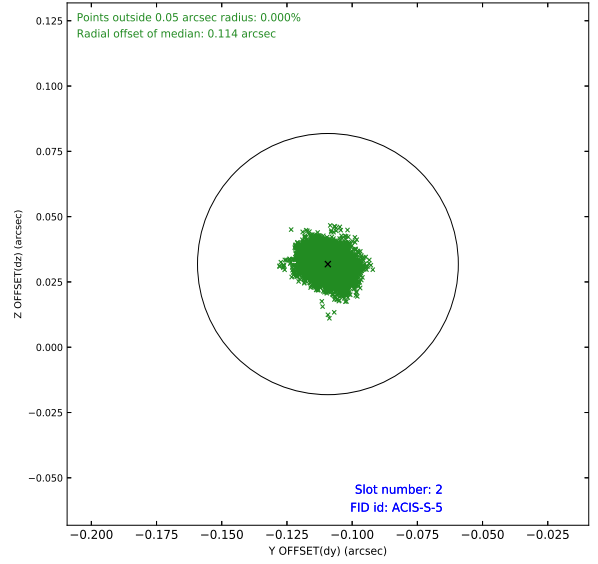
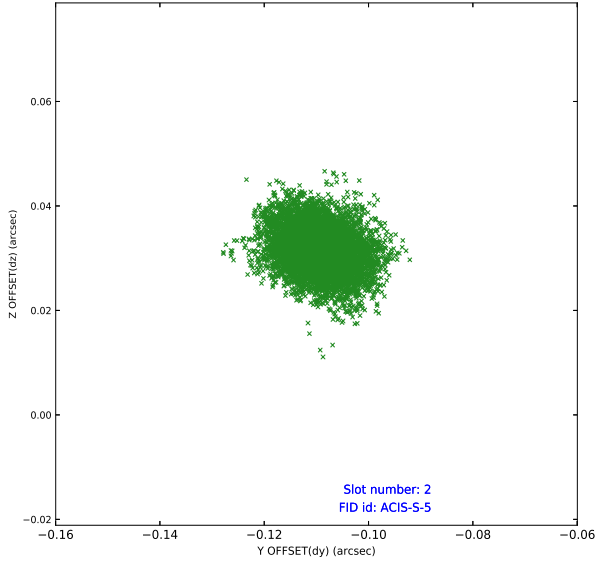
2.5.2 Slot 1



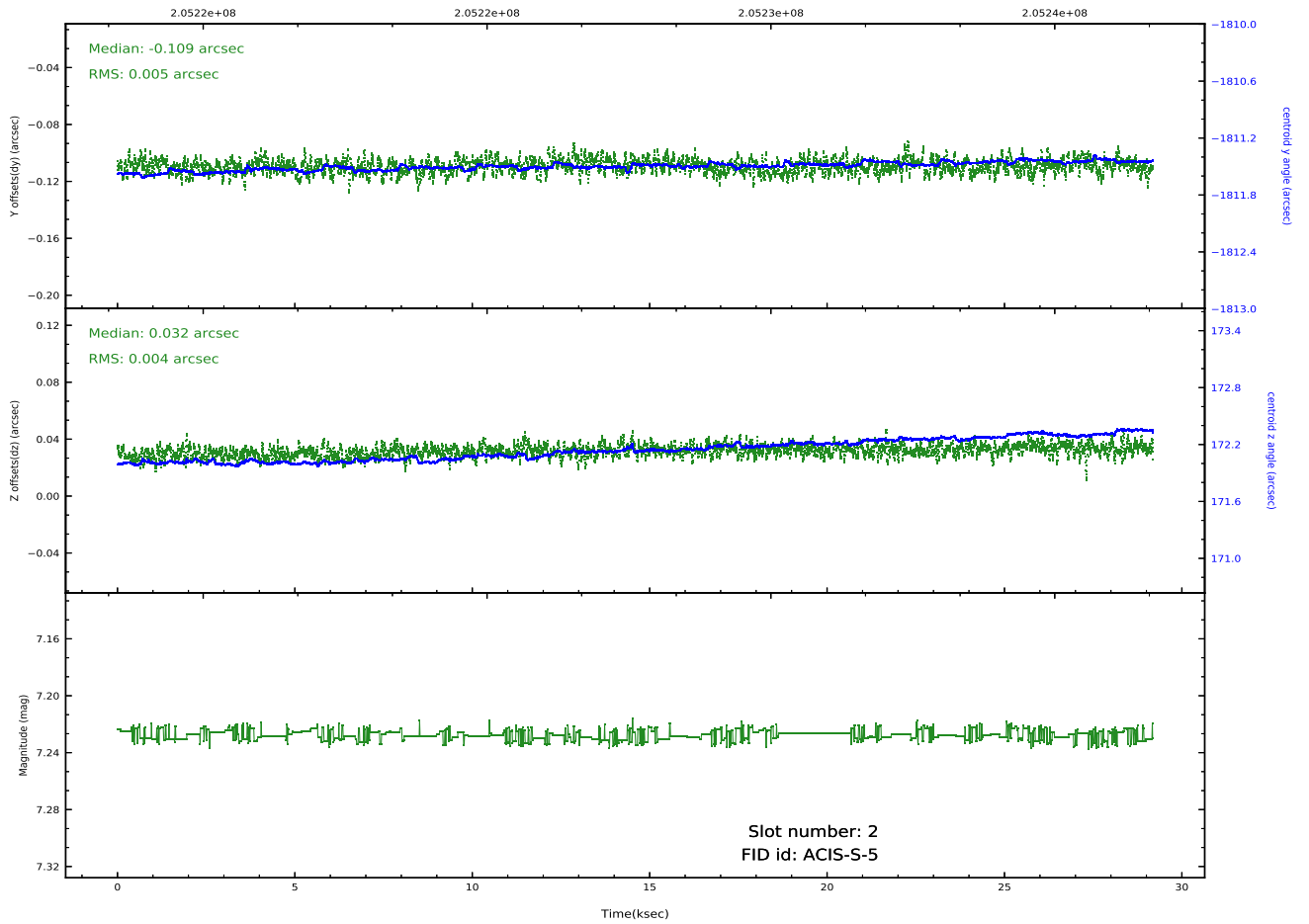
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Melania Nynka
V&V Date (YYYY-MM-DD)	2020.10.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.183

A.2 Comments