

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4867 - L2 Version 5
Chandra X-Ray Center

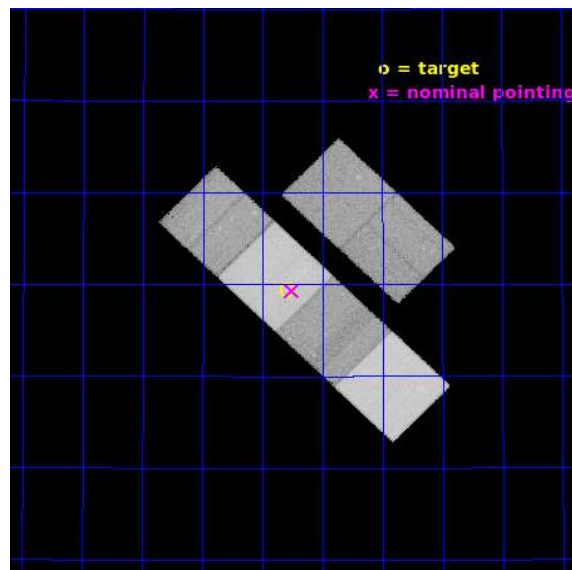
L2 Processing Date : Sep 26 2020

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

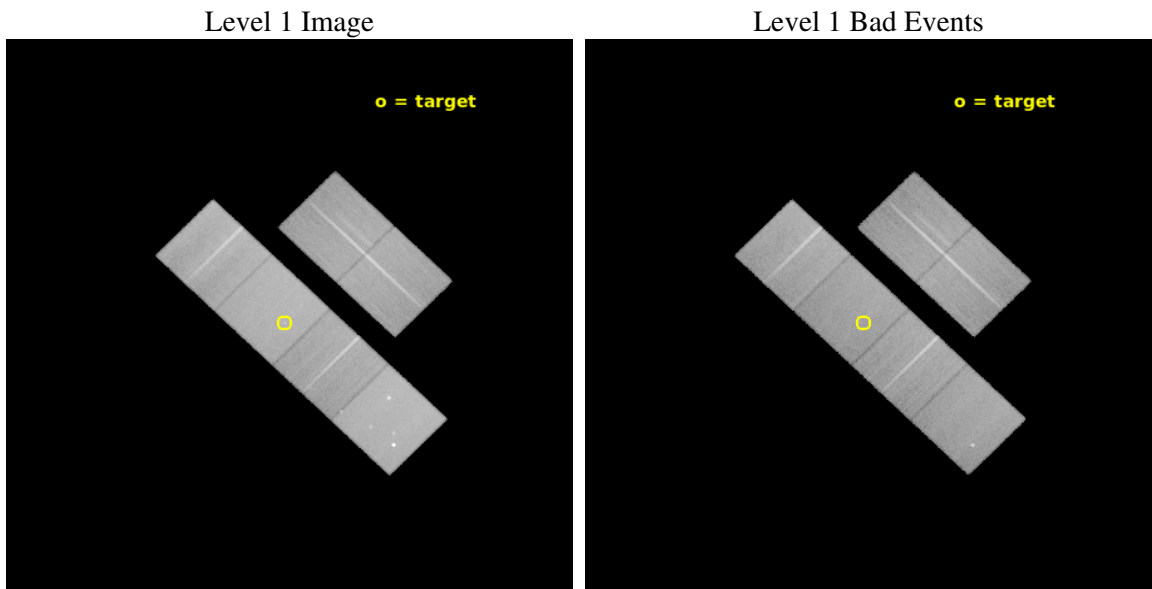
seq_num	700949	Sequence number
obs_id	4867	Observation id
title	Probing Obscured AGN with X-ray Iron Lines	Proposal title
observer	Dr. Nancy Levenson	Principal investigator
object	NGC 5347	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	208.324167	Observer's specified target RA [deg]
dec_targ	33.490833	Observer's specified target Dec [deg]
ra_nom	208.31407935036	Nominal RA [deg]
dec_nom	33.488675361851	Nominal Dec [deg]
roll_nom	224.33738301073	Nominal Roll [deg]
revision	5	Processing version of data
ontime	37406.569292098	Sum of GTIs [s]
livetime	36932.90478819	Livetime [s]
ontime2	37406.610332102	Sum of GTIs [s]
ontime3	37406.446172088	Sum of GTIs [s]
ontime5	37403.287281811	Sum of GTIs [s]
ontime6	37406.487212092	Sum of GTIs [s]
ontime7	37406.569292098	Sum of GTIs [s]
ontime8	37403.164171726	Sum of GTIs [s]
l2events	571201	Number of level 2 events



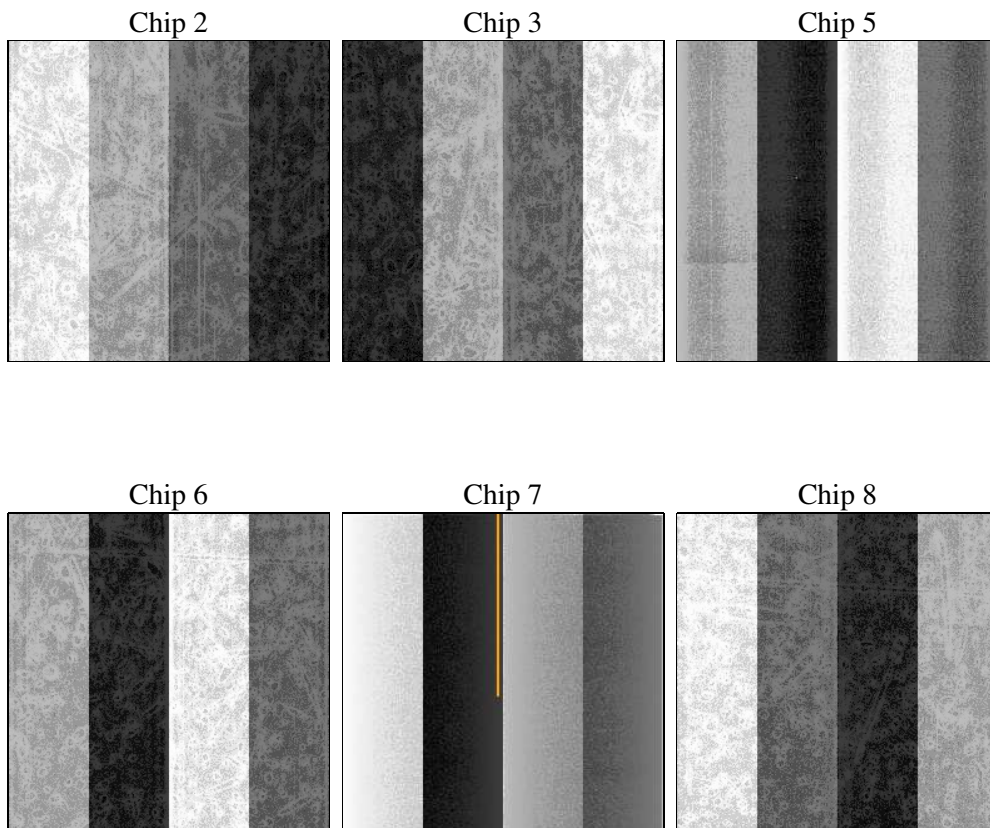
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37650.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	37406.569292098	Sum of GTIs [s]
caldbver	4.9.2	 	ontime2	37406.610332102	Sum of GTIs [s]
date	2020-09-26T10:41:29	Date and time of file creation	ontime3	37406.446172088	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	37403.287281811	Sum of GTIs [s]
			ontime6	37406.487212092	Sum of GTIs [s]
			ontime7	37406.569292098	Sum of GTIs [s]
			ontime8	37403.164171726	Sum of GTIs [s]
			l1events	2115450	Number of level 1 events

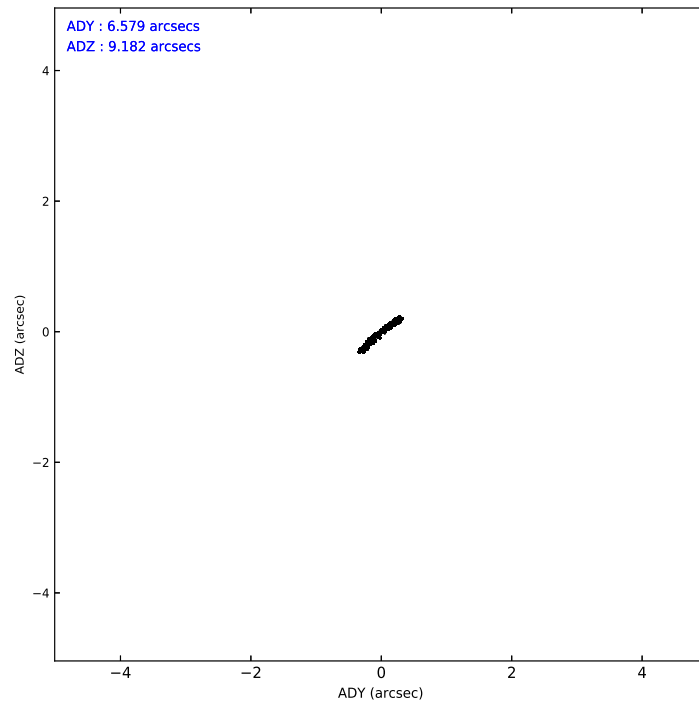
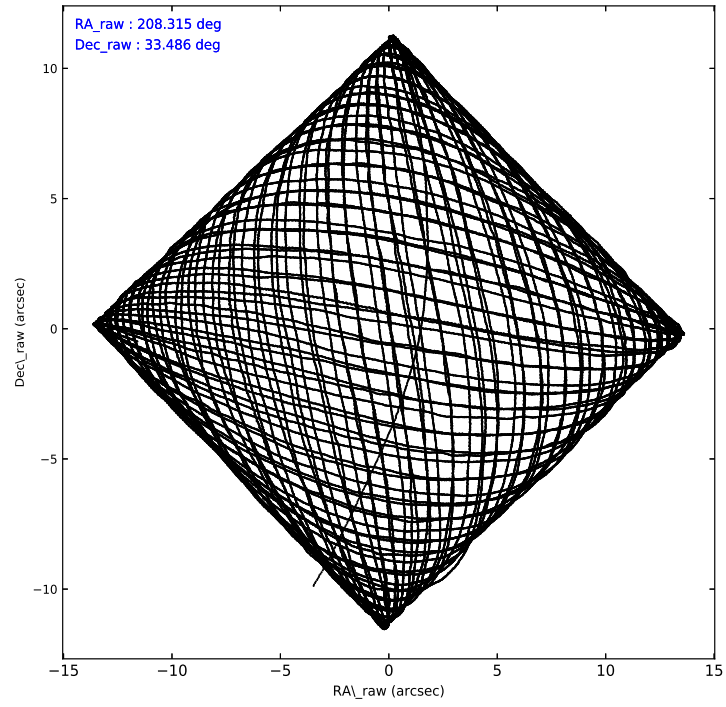
2.1.4 Events

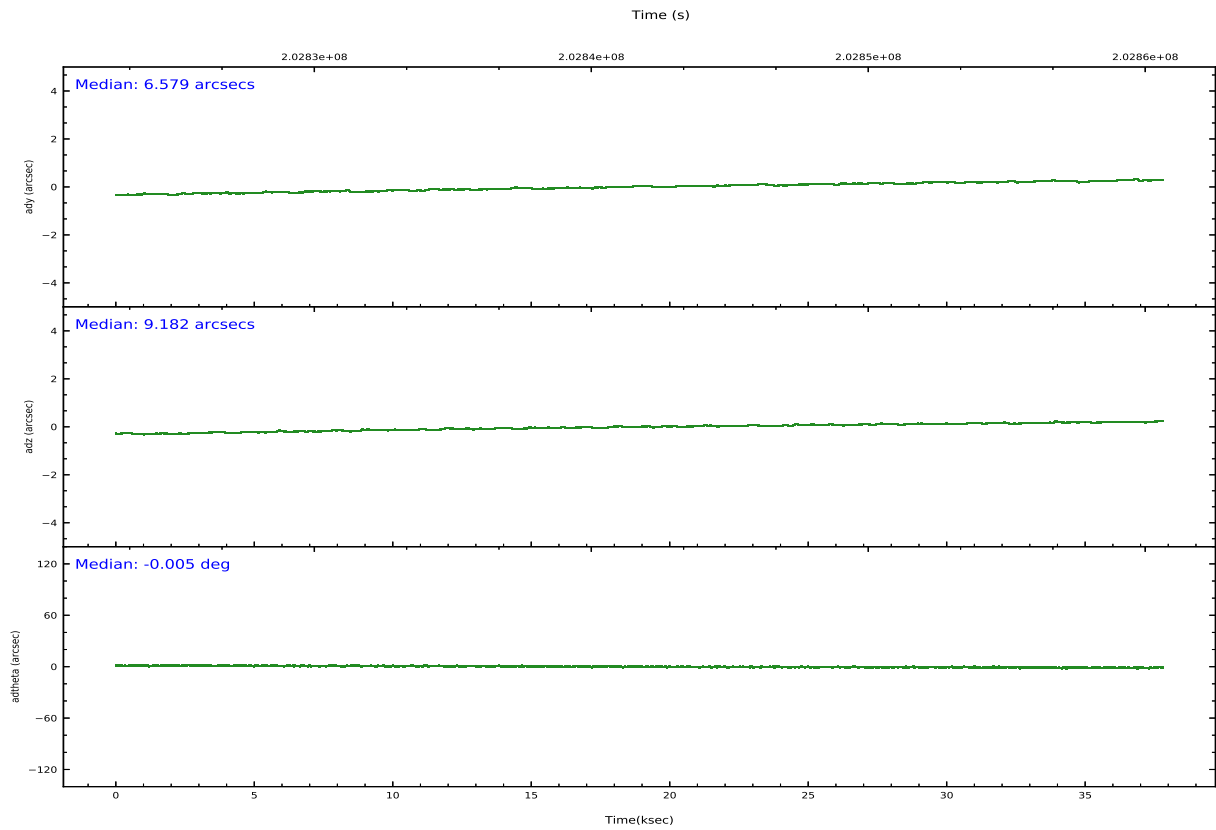
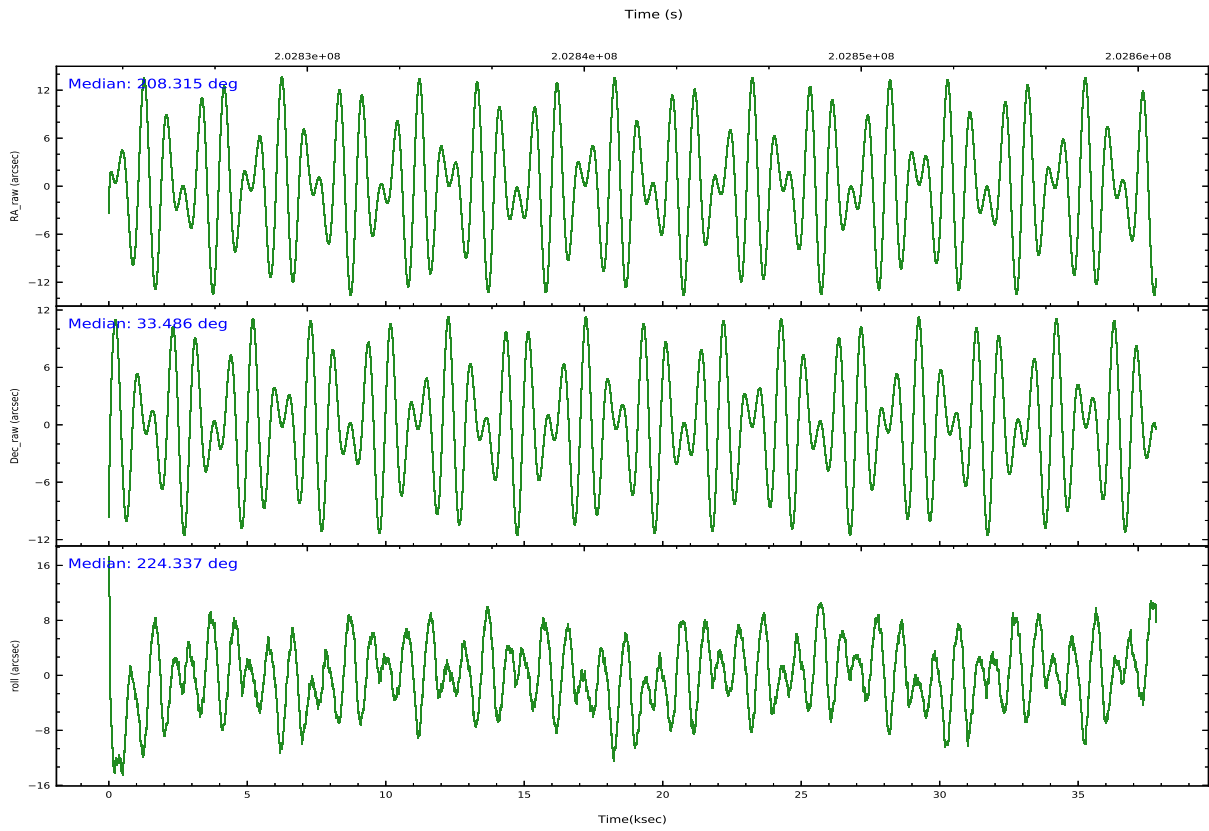
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	302683	288995	444842	301005	401670	376255	grade 0 events	29804	29313	26012	28120	16966	40166
rejected events	250116	237306	228114	247824	219268	280453		9%	10%	5%	9%	4%	10%
rejected %	82%	82%	51%	82%	54%	74%	grade 1 events	265	242	2183	199	369	338
								0%	0%	0%	0%	0%	0%
							grade 2 events	8506	7903	62909	9427	34440	18642
								2%	2%	14%	3%	8%	4%
							grade 3 events	3835	3844	8782	3834	15410	8775
								1%	1%	1%	1%	3%	2%
							grade 4 events	3726	3853	8648	3837	15224	8164
								1%	1%	1%	1%	3%	2%
							grade 5 events	11163	12011	30914	12763	35993	16663
								3%	4%	6%	4%	8%	4%
							grade 6 events	6714	6795	110437	7988	100400	20078
								2%	2%	24%	2%	24%	5%
							grade 7 events	238670	225034	194957	234837	182868	263429
								78%	77%	43%	78%	45%	70%

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	208.322976	208.31407935036	Subarray requested	NONE	NONE
[deg] Pointing Dec	33.511707	33.488675361851	Alternating exposures requested	N	N
[deg] Pointing Roll	224.177108	224.33738301073	[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)	202822996.184000	202821719.76631			
Observation start date	2004-06-05T11:42:12	2004-06-05T11:21:59			
[s] Observation end time (MET)	202860646.184000	202861300.14306			
Observation end date	2004-06-05T22:09:42	2004-06-05T22:21:40			
Read mode	TIMED	TIMED			

2.3 Aspect





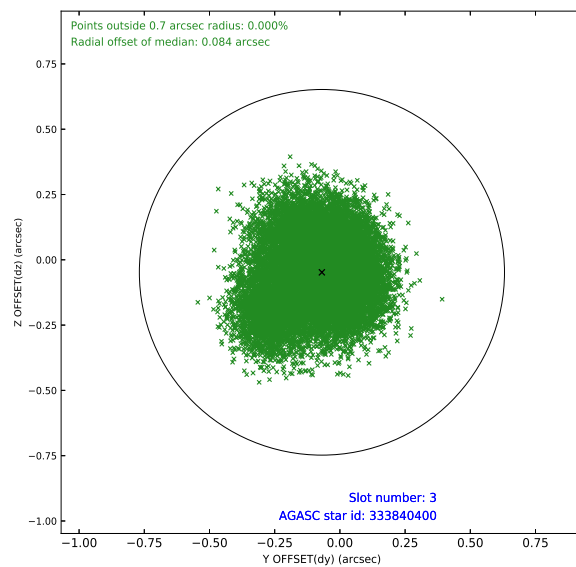
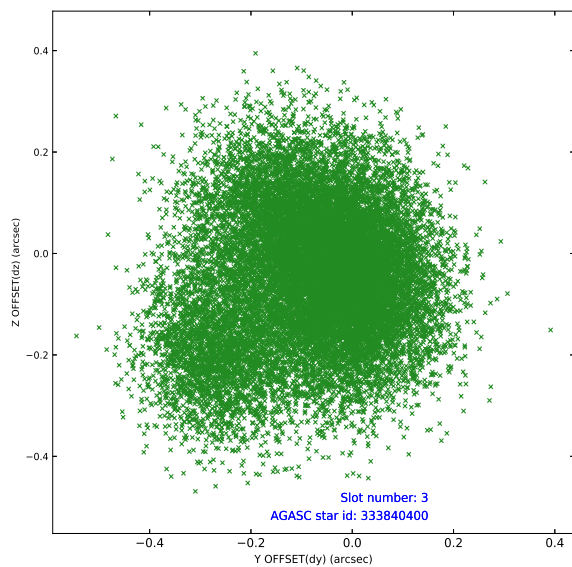
Slot Statistics

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	7.09	9222	1.000	-0.073	-0.070	0.009	0.014	0.000000	0.000000	-759.35	-1730
1	FID		ACIS-S-4	7.20	9221	1.000	0.136	0.054	0.008	0.015	0.000000	0.000000	2154.09	178
2	FID		ACIS-S-5	7.23	9222	1.000	-0.095	0.025	0.008	0.014	0.000000	0.000000	-1812.22	171
3	GUIDE	used	333840400	10.36	18428	1.000	-0.069	-0.048	0.202	0.318	208.287178	34.008982	-1169.92	-1358
4	GUIDE	used	333841536	9.18	18368	1.000	0.083	0.018	0.084	0.134	207.736517	33.263675	1885.47	-593
5	GUIDE	used	333843552	8.97	18436	1.000	0.076	0.051	0.082	0.127	207.943128	33.286944	1382.98	-217
6	GUIDE	used	333843816	9.57	18434	1.000	0.109	0.104	0.119	0.194	208.078015	32.856933	2174.13	1174
7	GUIDE	used	333844520	9.31	18428	1.000	-0.183	-0.119	0.081	0.132	208.057673	33.708550	75.93	-1062

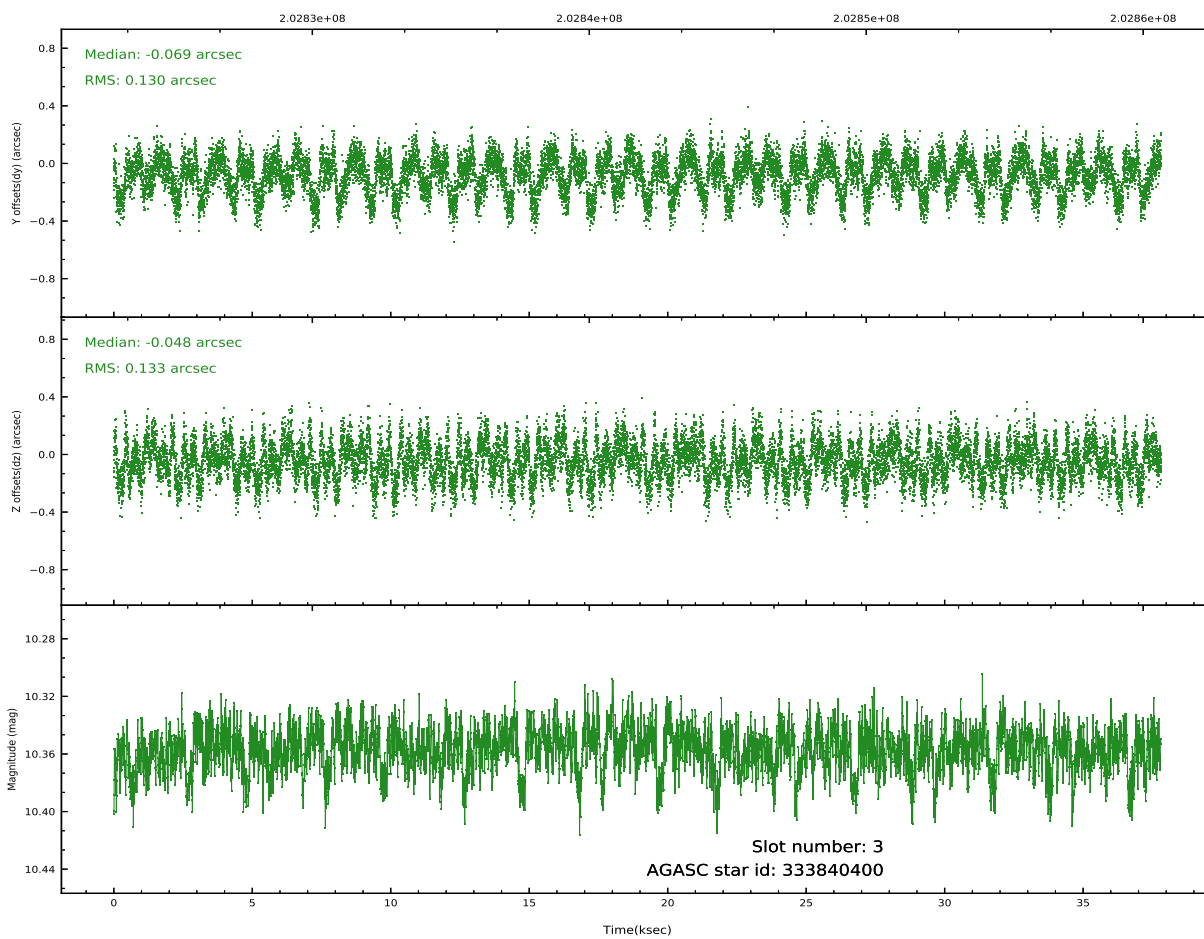
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2.4 Star Slots

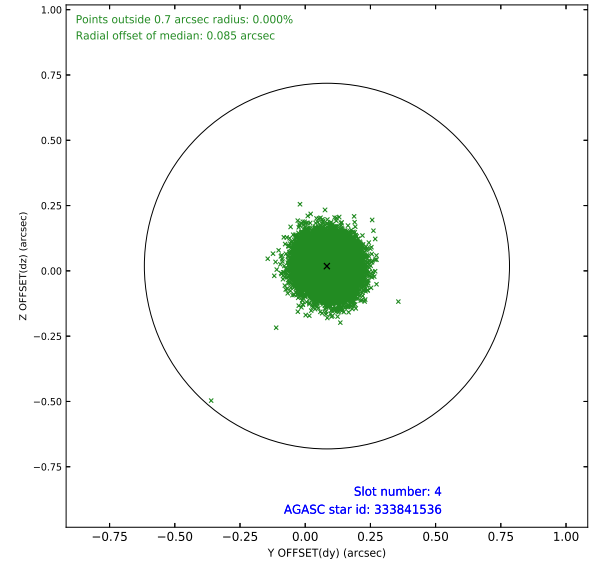
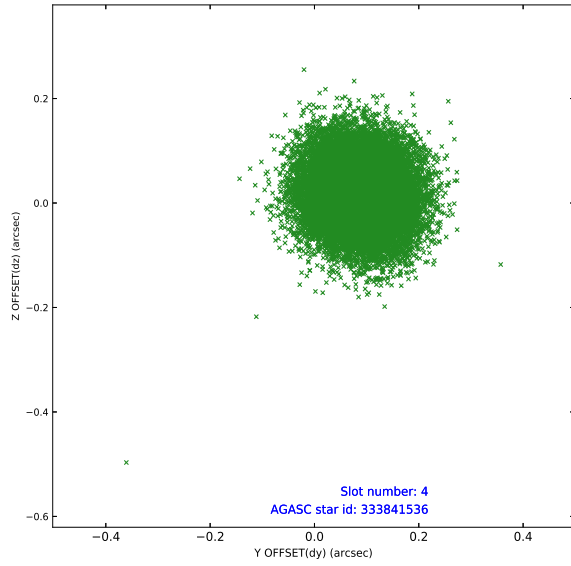
2.4.1 Slot 3



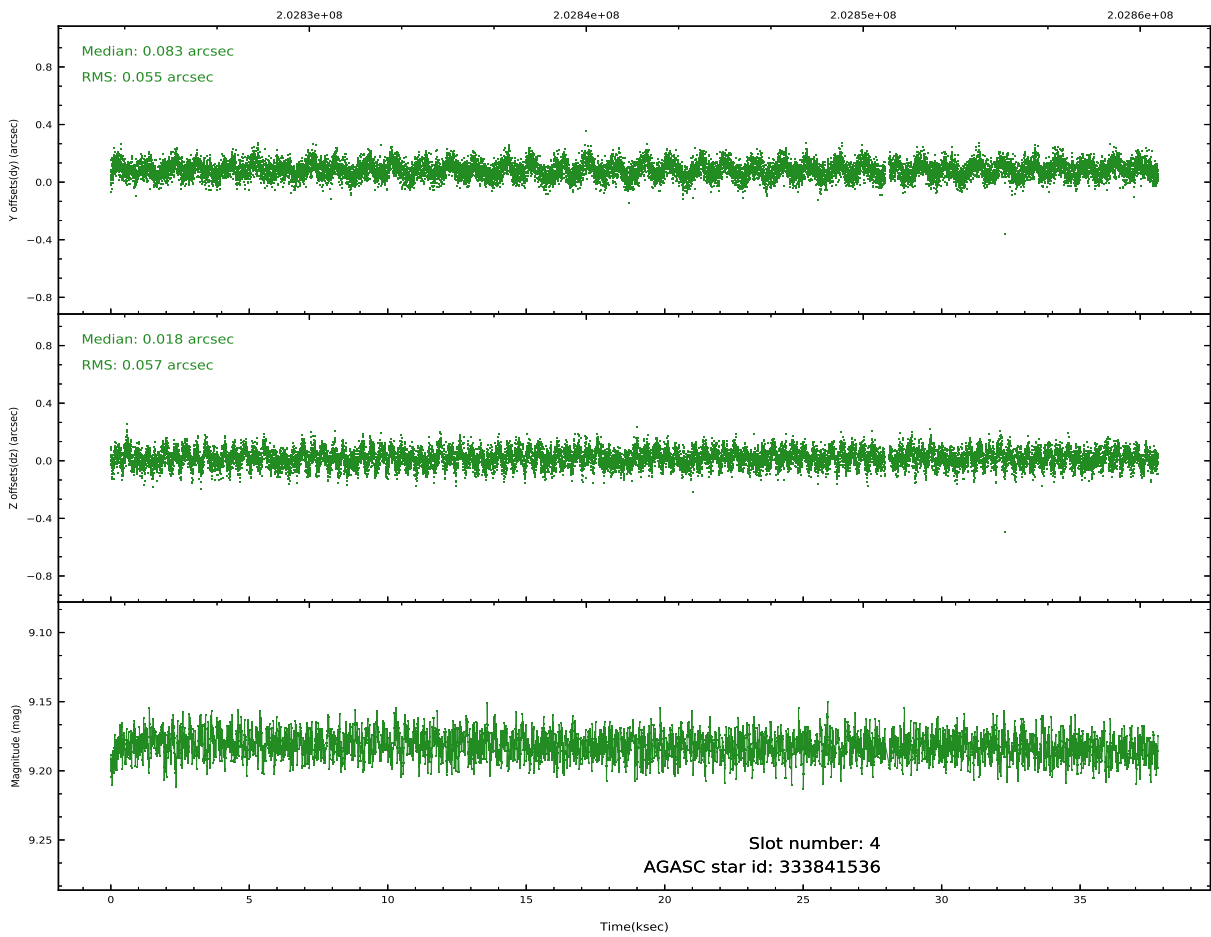
Time (s)



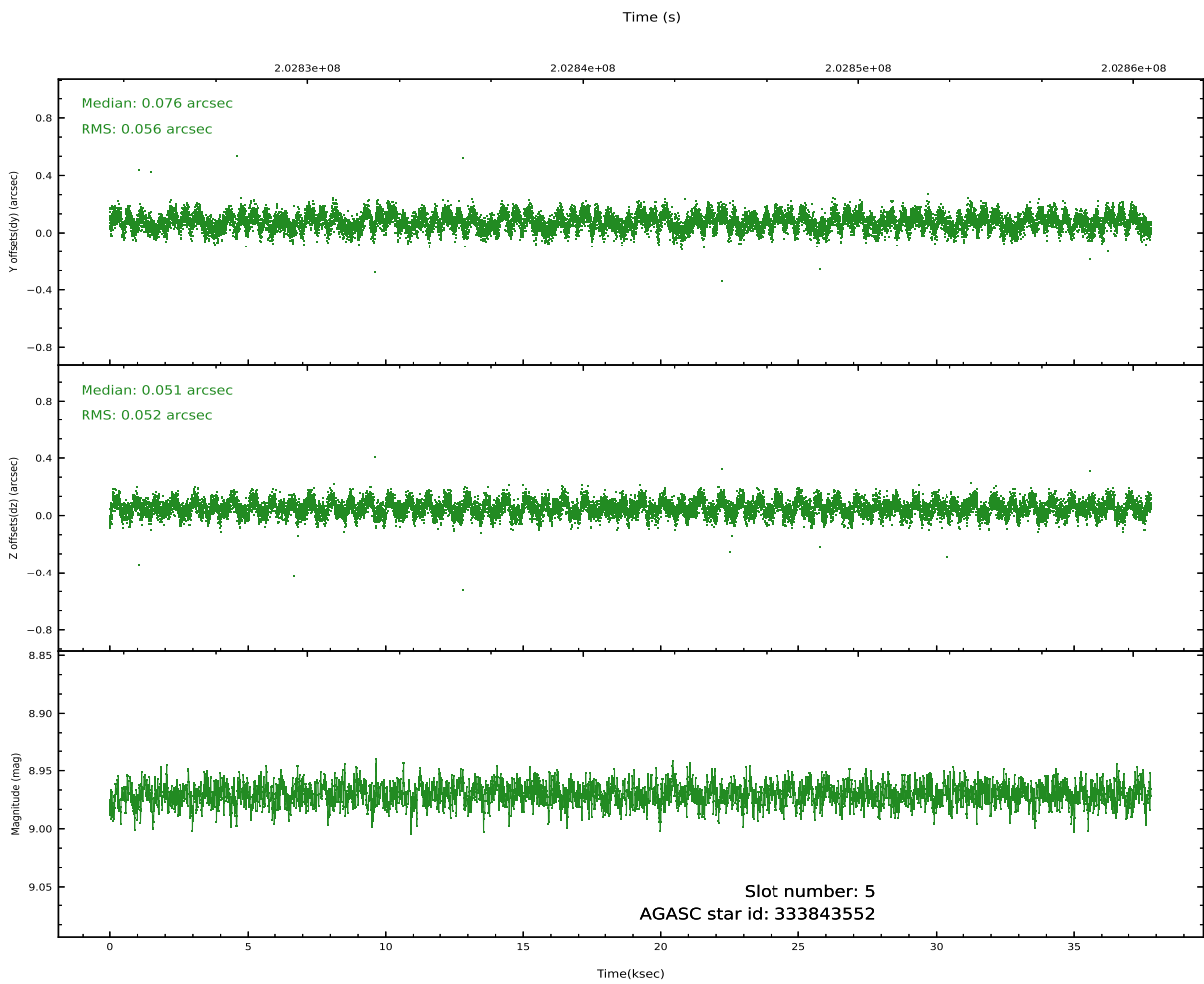
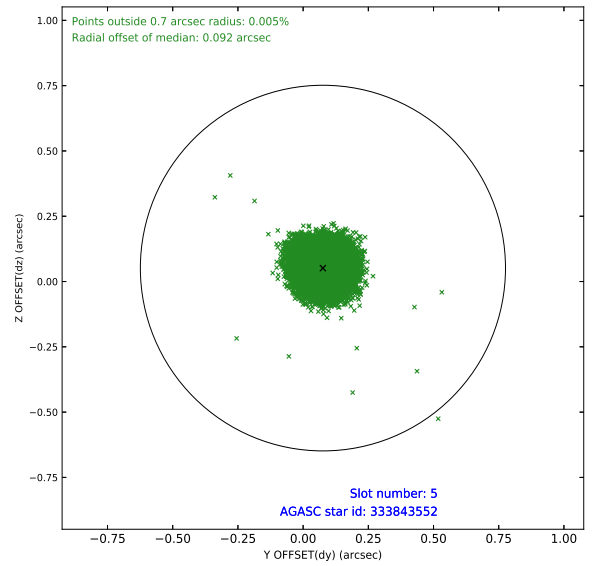
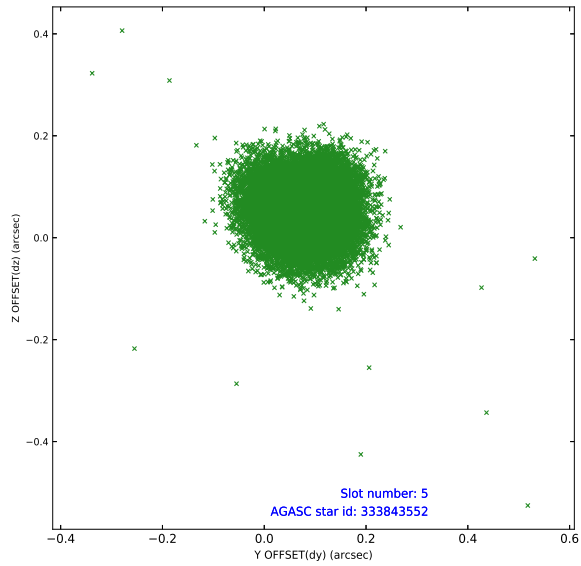
2.4.2 Slot 4



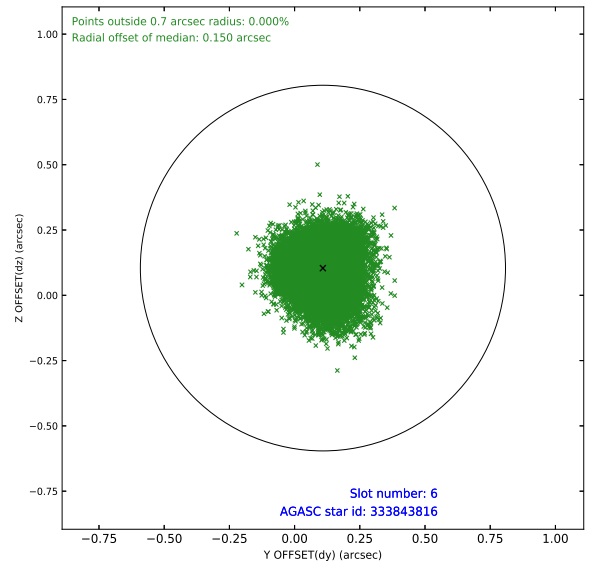
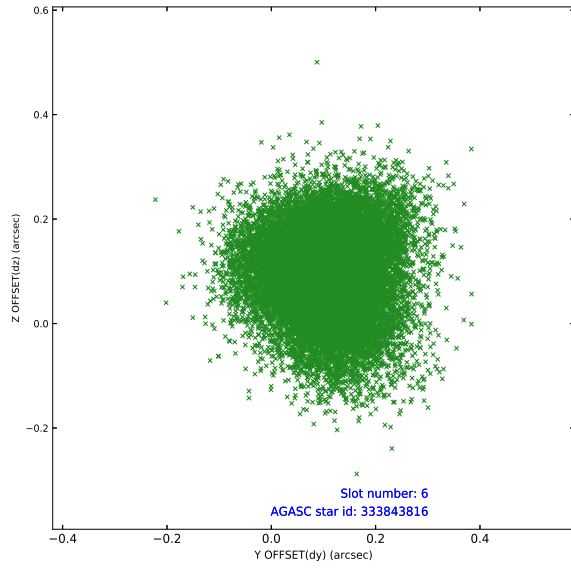
Time (s)



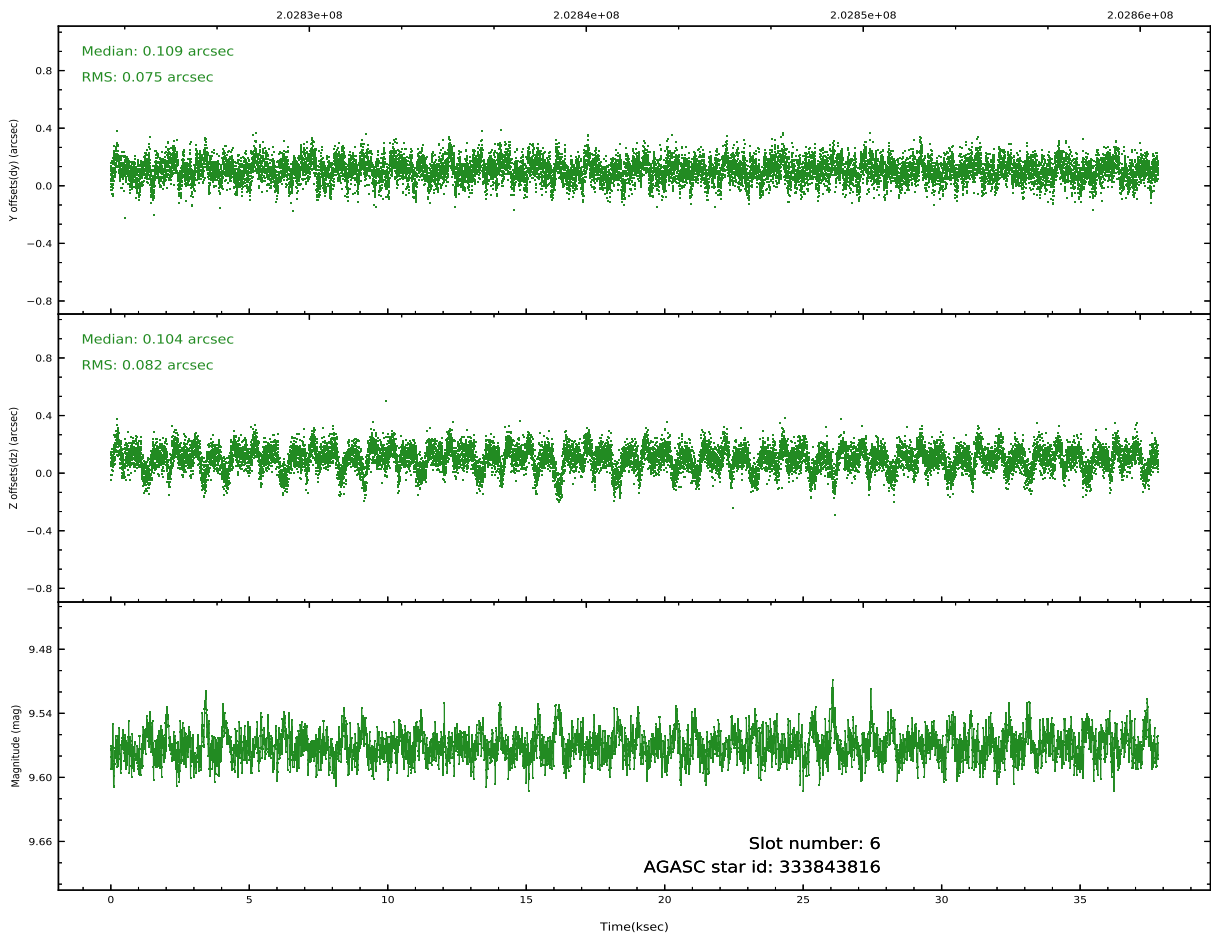
2.4.3 Slot 5



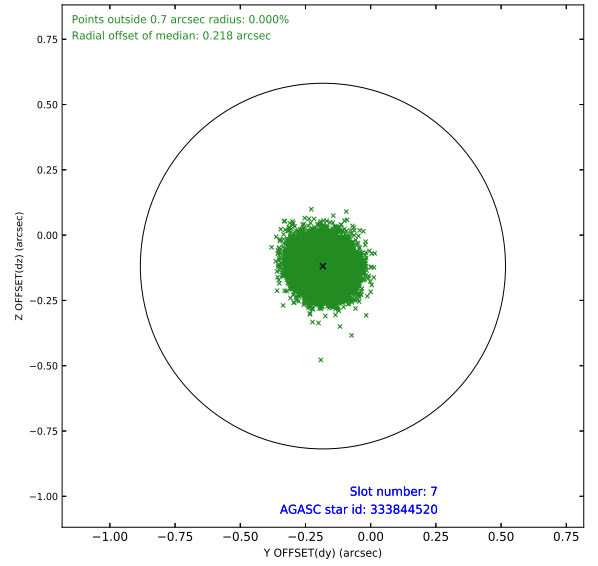
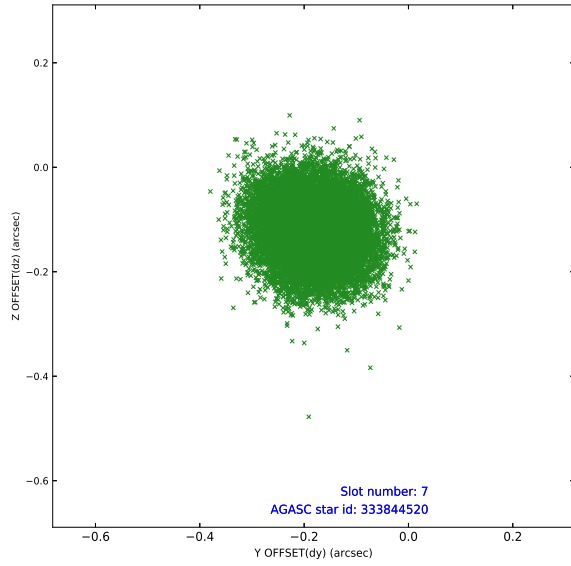
2.4.4 Slot 6



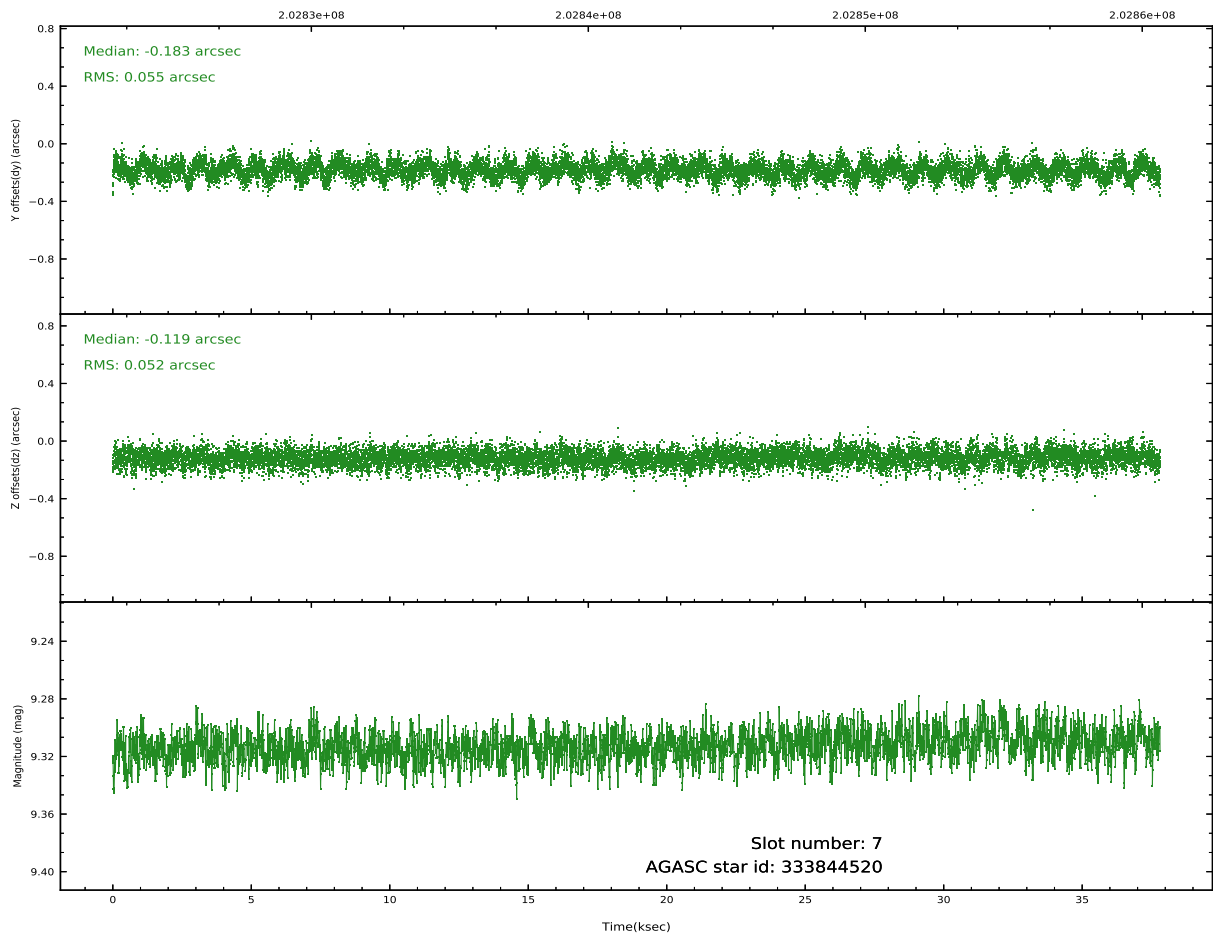
Time (s)



2.4.5 Slot 7

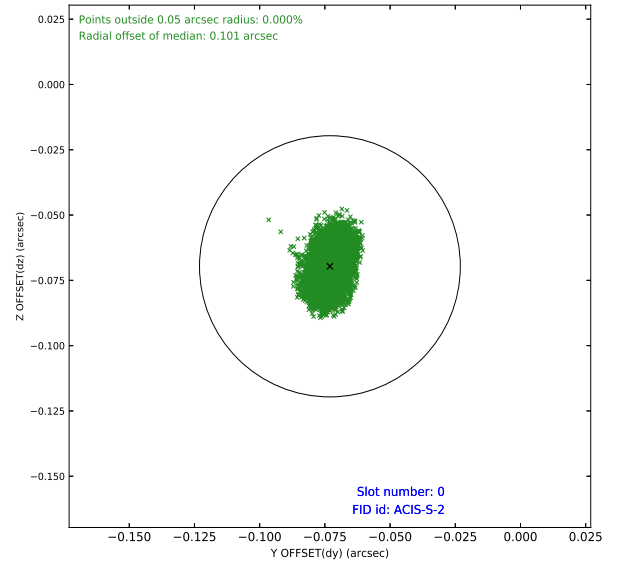
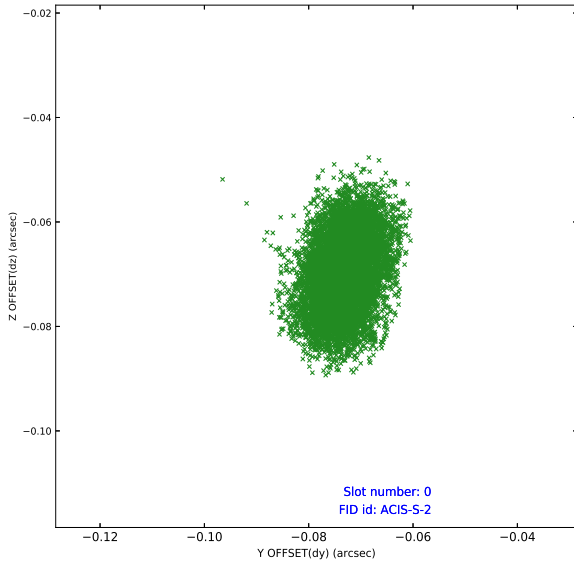


Time (s)

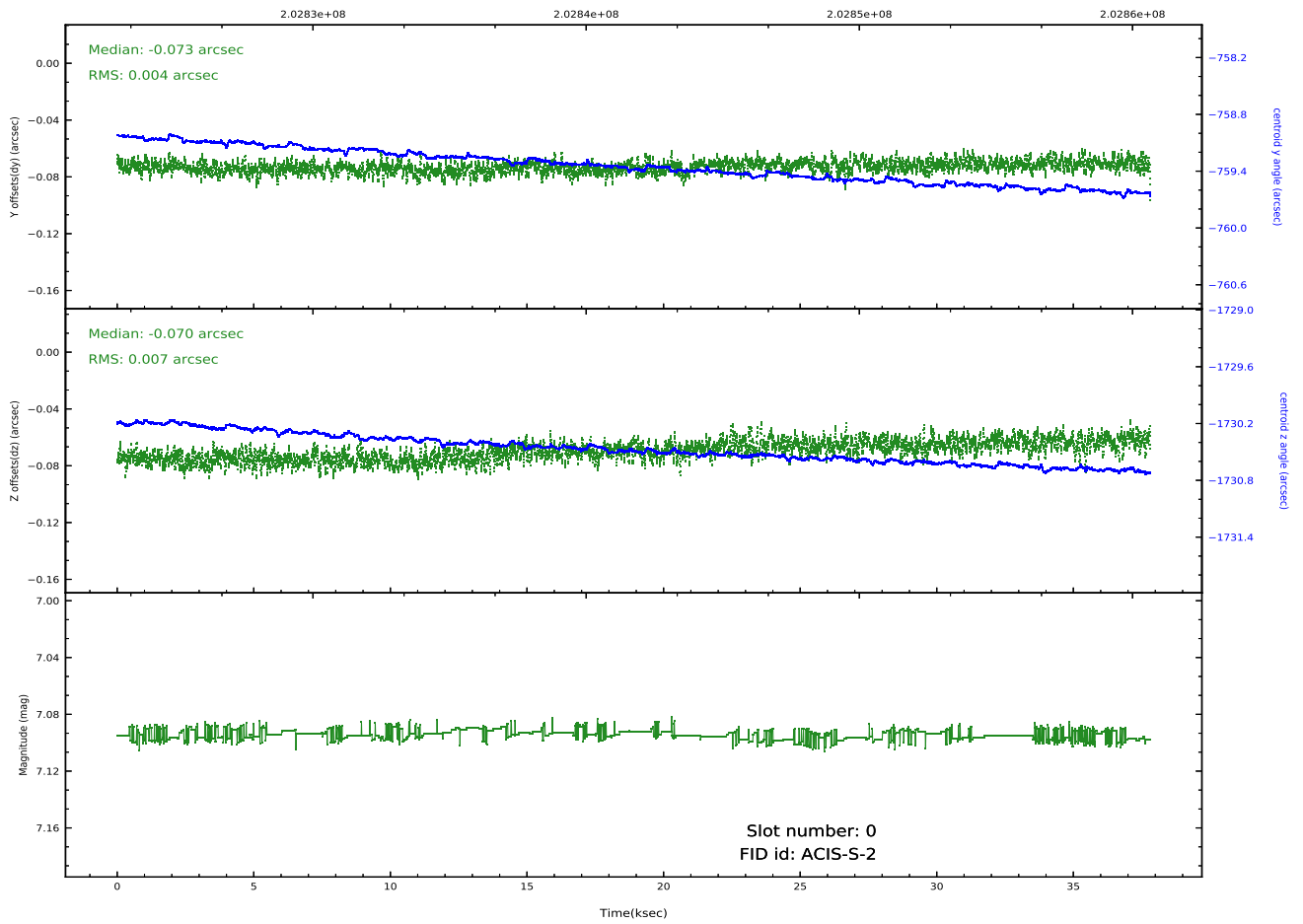


2.5 FID Slots

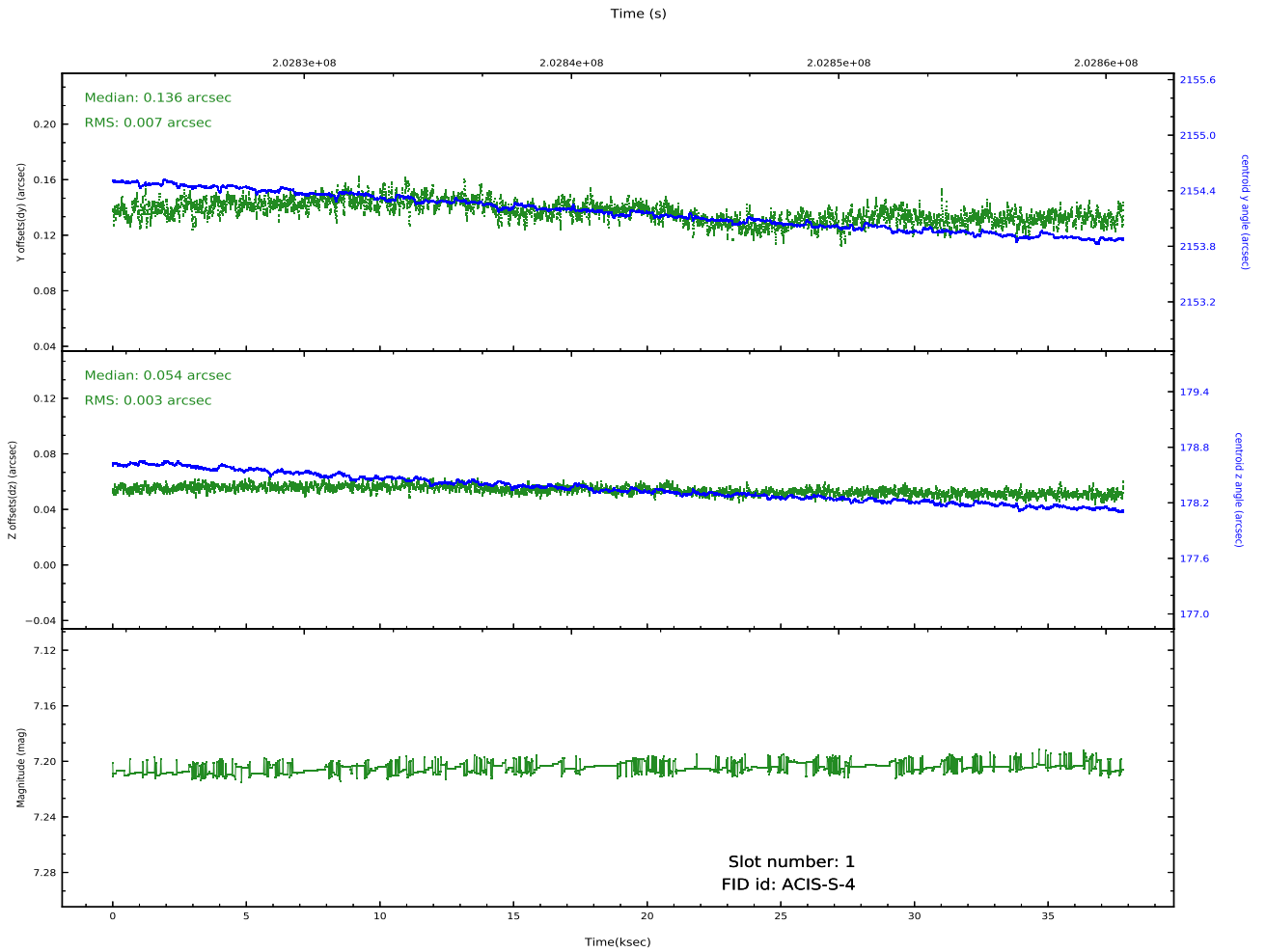
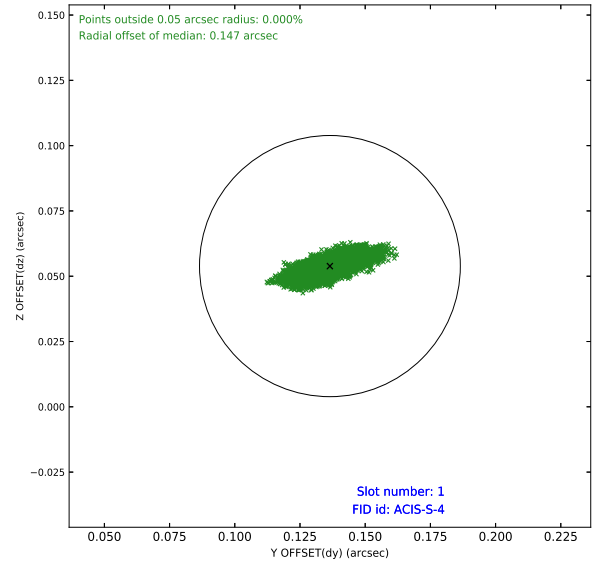
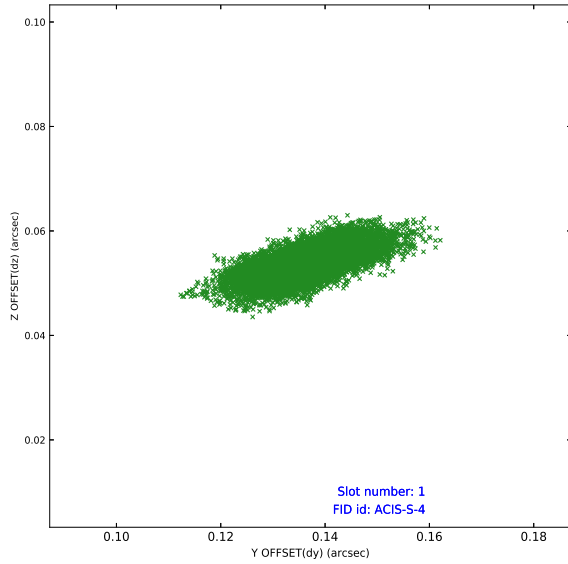
2.5.1 Slot 0



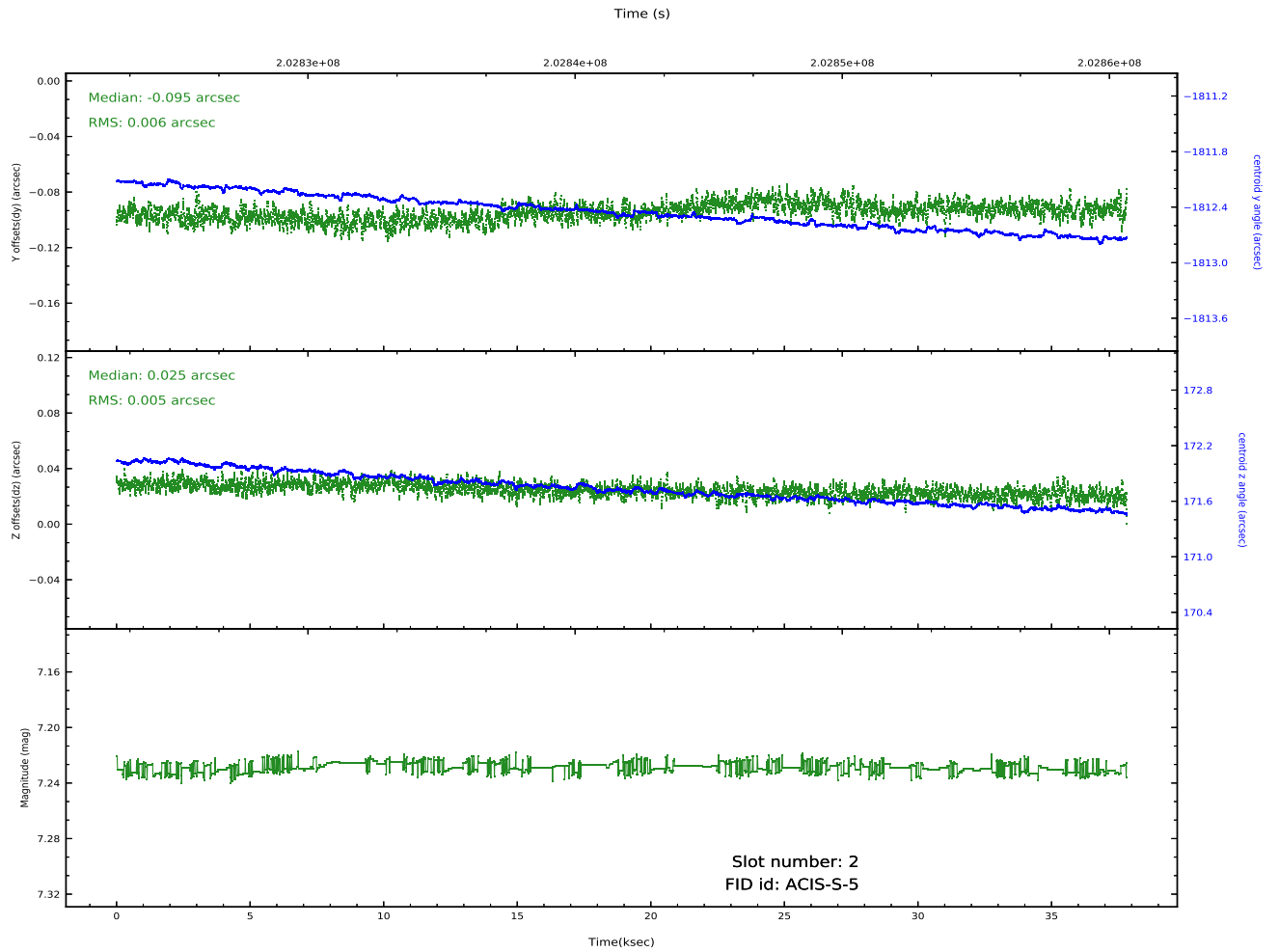
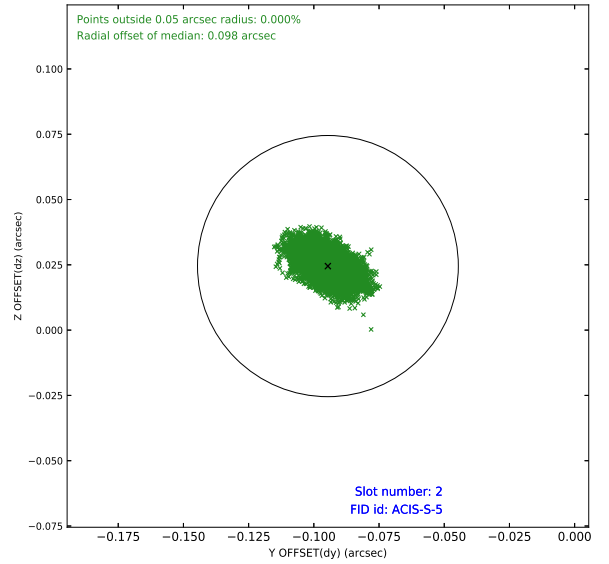
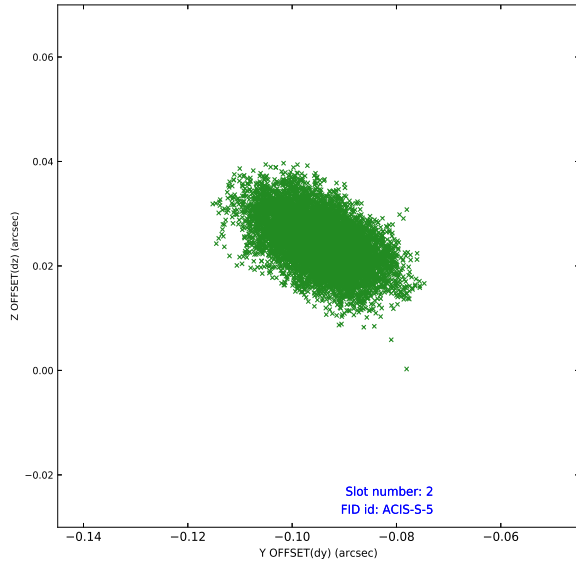
Time (s)



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.407

A.2 Comments

Count rate increases approximately 35 ksec into the observation, reaching twice the count rate of the majority of the observation by the end of the observation. There is also a smaller spike in the count rate at about 30 ksec into the observation. It's possible these 2 changes in the count rate are due to radiation environment of the satellite.